Southwest Metro Sydenham to Bankstown – Construction Heritage Management Plan

SMCSWSSJ-JHL-WEC-EM-PLN-000013

Document and Revision History

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Table of Contents

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
BAC	Bankstown and Additional Corridor Works
BEW	Bankstown Early Works
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
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DPHE	Department of Planning, Housing and Infrastructure (formerly Department of Planning, and Environment – DPE)
EDR	Excavation Directors Report
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
ER	Environmental Representative
Heritage Act	*Heritage Act 1977*
Heritage Council NSW	The Heritage Council is an independent statutory body that includes members of the community, the public sector, the conservation profession, and a nominee of the National Trust of Australia (NSW).
Heritage NSW, DEECCW	Heritage NSW, Department of Premier and Cabinet now part of DCCEEW
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	*National Parks & Wildlife Act 1974*
OEH	Office of Environment and Heritage (now DCCEEW, DEECCW)

Terms	Explanation
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
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 part of S2B works
Stations	Railway Stations within the S2B 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), Punchbowl Railway Station Group (s170 listed), and Bankstown Railway Station Group (s170 listed).
SWM	Southwest Metro (scope approved under CSSI 8256 –known as Sydenham to Bankstown)

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

The Sydenham To Bankstown Project (S2B) 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 S2B (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 S2B. The corridor works package is known as Southwest Metro Corridor (SMC) and is located between Sydenham Station and Bankstown Railway Station.

A Construction Heritage Sub-Plan (CHMP) is required as part of the Construction Environmental Management Plan (CEMP) for the project under Condition of Approval (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. This CHMP (from Revision 17 onwards) has been updated to cover the additional awarded packages that form part of the JHLORJV Environmental Impact Statement (EIS) scope of works, collectively known as Sydenham to Bankstown (S2B).

The CHMP includes the stages of Bankstown Early Works. It is noted that the term "stations" is used collectively to represent all railway stations within the S2B,as well as SMC Additional Works packages SWM 1& 2 (collectively S2B) project area, including;

- Marrickville Railway Station Group State Heritage Register (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),
- Punchbowl Railway Station Group (s170 listed); and
- Bankstown 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: d) Heritage — Heritage Council (or its delegate) and Relevant Council(s)	Section 2.6 Appendix A	This Construction Heritage Management Plan (CHMP) Rev 2 and Rev 10 for BAC has been reviewed by Heritage NSW, Department of Premier and Cabinet (Heritage NSW, DPHI) and City of Canterbury Bankstown and Inner West Council. Details of consultation are provided in Appendix A.
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 was reviewed by Heritage NSW, DEECCW and City of Canterbury Bankstown and Inner West Council. Details of consultation are provided in Appendix A.
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	An archival record has been completed for • Hurlstone Park Railway Underbridge • Canterbury (Cooks River) Underbridge • Canterbury (Cooks River/Charles St) Underbridge – Main Line • Old Sugarmill • Bankstown Station Group • Bankstown Parcels Office. • Marrickville Station • Dulwich Hill Station • Hurlstone Park Station

Condition	Requirement	Reference	How addressed?
			• Canterbury Station • Campsie Station • Belmore Station • Lakemba Station • Wiley Park Station • Punchbowl Station 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 S2B design and would not need to be completed for S2B. An Excavation Directors Report (EDR) would be prepared at the conclusion of the S2B archaeological program. This would include further historical research, results of archaeological excavations, artefact analysis and identification of a final repository for finds.
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 S2B 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, Heritage NSW and DPHI Water DEECCW for information no later than 24 months after the completion of work.
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 or Metron T2M as part of the detailed design.

Condition	Requirement	Reference	How addressed?
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 or Metron T2M as part of detailed design at the following station; Sydney Metro City and Southwest Heritage Interpretation Plan Bankstown Station, February 2021 Sydney Metro City and Southwest Heritage Interpretation Plan Dulwich Hill Station, October 2020; Sydney Metro City and Southwest Heritage Interpretation Plan Campsie Station, October 2020; and Sydney Metro City and Southwest Heritage Interpretation Plan Punchbowl Station, October 2020. Sydney Metro City and Southwest Heritage Interpretation Plan Marrickville Station, April 2020; Sydney Metro City and Southwest Heritage Interpretation Plan Canterbury Station, April 2020; and Sydney Metro City and Southwest Heritage Interpretation Plan Lakemba Station, April 2020. Sydney Metro City and Southwest Heritage Interpretation Plan Hurlstone Park Station, October 2020; Sydney Metro City and Southwest Heritage Interpretation Plan Belmore Station, October 2020; and Sydney Metro City and Southwest Heritage Interpretation Plan Wiley Park Station, October 2020. The Heritage Interpretation Plans will be implemented at the Project's stations to reflect detailed design.
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	The Sydney Metro Unexpected Heritage Finds Procedure would be implemented for the project.

Condition	Requirement	Reference	How addressed?
		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.
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.
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 generally be moderate as a result of S2B (except for Bankstown Parcels Office will be major) the following measures have been put in place to minimise adverse impacts: • Exclusion zones • Implementation of a Heritage Impact Assessment (HIA) with heritage protection measures recommended per package and/or station • 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.	Section 6.2.2	Stations An assessment of cumulative impacts prepared for the SPIR identified that the determined design would result in the following overall visual impact to the heritage significance of each station; Marrickville Station- moderate Dulwich Hill Station- moderate Hurlstone Park Station- moderate

Condition	Requirement	Reference	How addressed?
			Canterbury Station- moderate Campsie Station- moderate Belmore Station- moderate Lakemba Station- moderate Wiley Park Station- moderate Punchbowl Station- moderate Bankstown Station- (Mod-1) moderate (Bankstown Parcels Office would have major impact as it is being removed) The HIAs prepared for each station have the intention to be consistent or further reduce the heritage impacts as identified in the SPIRs. The recommendations of the HIAs would be implemented during construction. Corridors Works in proximity to other heritage items are primarily minor in nature, are generally related to rail corridor works and would not greatly alter vistas. Therefore, the project design would avoid impacts to these heritage items where feasible and adhere to any addition protection measures recommended in the HIA.
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.	Section 6.2.2	The impact of the project design and compliance with this condition was assessed as part of the detailed design HIAs for each station. The project design would be implemented in consultation with an appropriately qualified and experienced conservation architect. Project implementation would avoid impacts to heritage items where feasible and adhere to any addition protection measures recommended in the HIAs.
NAH4	The project design would be developed with guidance from an appropriately qualified and experienced conservation architect.	Section 6.2.2 Section 6.2.3	The project design for Stations has been implemented in consultation with an appropriately qualified and experienced conservation architect.

Condition	Requirement	Reference	How addressed?
			Project design has avoided direct impacts to heritage items where feasible and implementation will adhere to any addition protection measures recommended in the HIA. Particularly in regards to the demolition of the Bankstown Parcel Office and station island platform, an appropriately qualified and experienced conservation specialist will review the demolition management plan or other documentation that may be required as identified by construction planning such as environmental work method statements (EWMS).
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.	Section 6.5	An Adaptive Reuse Strategy was prepared for Bankstown Station as part of the detailed design and would be implemented as part of the project. The Adaptive Reuse Strategy identified that the Parcels Office would be demolished and therefore adaptive reuse of the building was not applicable. The S2B would not directly impact other heritage items that would be appropriate for adaptive reuse.
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 20208). Individual Heritage Interpretation Plans have been prepared for the station precincts by Artefact Heritage or Metron T2M as part of the detailed design. Additional Heritage Interpretation plans are therefore not required for SMC. The Heritage Interpretation Plan for Bankstown Station would be implemented for the project works.
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.	Section 6.2.7	The Sydney Metro City and Southwest – Final Moveable Heritage Strategy for S2B (March 2021) and the Bankstown Station Moveable Heritage Strategy Report (dated January 2021) were prepared as part of the detailed design. Moveable heritage at Bankstown Station would potentially be impacted as part of the demolition of the Parcels Office. Moveable heritage would therefore be managed in accordance with the strategy.

Condition	Requirement	Reference	How addressed?
			The moveable heritage item strategy for the remaining stations are addressed in the previous station contractors CHMP stating that the inventory was completed in the design phase.
NAH8	Where significant buildings are to be re-purposed or refreshed: • 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)	Section 6.2.2 Section 6.2.3 Section 6.2.8 Section 6.2.13	The requirements of this condition were considered as part of the detailed detail stage of the project and were assessed as part of the associated Station HIAs. For Bankstown Station the inherent character of the station buildings would be retained, with the exception of the Parcels Office which would be removed. A register of significant elements was prepared as part of the Heritage Salvage Strategy for Bankstown Station (Artefact Heritage, January 2021). The recommendations of the Bankstown Station Heritage Salvage Strategy would be implemented. The S2B works would directly impact the station buildings and would involve re-purposing or refreshing significant buildings at other stations. The direct impacts to significant fabric would be undertaken in accordance with the recommendations of the associated HIAs.
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.	Section 6.2.2	The requirements of this condition were considered as part of the detailed design stage for Bankstown Station. The Bankstown HIA determined that the new station entrance would be sympathetic to the existing character of the station. The works at Bankstown Station would be undertaken in accordance with the project design. The S2B would include the construction of modular station platform and canopies for BEW and the Bankstown Metro Services Building. The S2B would not involve the construction of new access stairs, concourses, or lift shafts at other stations. This requirement has been addressed during the Design / Pre-construction phase. The DRP were consulted during the development of the Station Design and Precinct Plan.
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.	Section 6.2.2	Stage 3 documentation for the Bankstown Station platforms includes the raising or lowering of thresholds, and creation of access ramps, as necessary to ensure accessibility while retaining entries to the heritage station building intact and in-situ. The Stage 3 design ensures sub-floor ventilation remains open by including a small setback to regraded platform and stainless steel

Condition	Requirement	Reference	How addressed?
			trim.
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 S2B 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 S2B works would be undertaken within the curtilage of several heritage items, 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

Condition	Requirement	Reference	How addressed?
			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 and would not be required for the remainder of S2B works. Archival recording of the Bankstown Station Group and the Parcels Office has been completed as well as at each of the other stations.
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.	Section 2.3.2	The S2B works would generally involve defect rectification and finishing works at the stations as well as some heritage item refresh, the removal and construction of new station platforms, the removal of non-significant redundant ARTC infrastructure and services, and the installation of new overhead wiring structures, GST/GLT and fencing with heritage curtilages. Mitigation measures for minimising impacts associated with these works have been outlined in the HIA prepared for S2B and would be implemented during construction. Environmental Work Method Statements would be included as part of the Demolition Management Plans for the Bankstown Parcel Office, and Bankstown Amenity Block
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 6.2.8 Section 6.2.11 Section 6.2.13 Section 8	S2B 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; • Marrickville Railway Station Group • Dulwich Hill Railway Station Group • Hurlstone Railway Station Group • Canterbury Railway Station Group

Condition	Requirement	Reference	How addressed?
			• Belmore Railway Station Group • Lakemba Railway Station Group • Wiley Park Railway Station Group • Campsie Railway Station Group • Punchbowl Railway Station Group • Bankstown Railway Station Group • Bankstown Parcels Office (to be demolished as part of Bankstown Station Works) • 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 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, demolition activities adjacent to platforms at the following stations: • Marrickville Railway Station Group • Dulwich Hill Railway Station Group • Hurlstone Railway Station Group • Canterbury Railway Station Group • Belmore Railway Station Group • Lakemba Railway Station Group • Campsie Railway Station Group • Punchbowl Railway Station Group • Bankstown Railway Station Group Note Bankstown Parcels Office, Bankstown Amenity Block to be demolished as part of Bankstown Station Works

Condition	Requirement	Reference	How addressed?
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 6.2.8 Section 6.2.13 Appendix D	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. An additional inventory and HIA has been completed for S2B. The HIA and inventory, which outlines potential impacts and protection measures for significant fabric, spaces and vistas, has been prepared for the following items: • 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 • Bankstown Railway Station Group • 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

Condition	Requirement	Reference	How addressed?
			• Bankstown Parcels Office (former) • Shop The HIA includes assessments of impacts to elements and significant fabric and has been provided for review to Sydney Metro. 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', 'Lakemba Water Pumping Station (WP0003)' and shop have been included as these items are located outside of S2B and there are no impacts to the interiors associated with the works.
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
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, and Bankstown Parcels Office, Wiley Park Railway Station Group, Bankstown 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 *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (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 S2B 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

Condition	Requirement	Reference	How addressed?
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 S2B 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 S2B 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 S2B as part of the detailed design have incorporated appropriate Aboriginal heritage interpretation. Therefore, further Aboriginal heritage interpretation is not needed for the scope of S2B The Heritage Interpretation Plan for the Station will be implemented to reflect the detailed design for the station. .
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. During pre-work briefings, employees would be made aware of the unexpected finds procedures and obligations under the *National Parks and Wildlife Act 1974*.	Section 6.1.3	The Sydney Metro Unexpected Heritage Finds Procedure would be implemented for the project
Construction Environmental Management Framework			
10.1(a)	The following heritage management objectives will apply to construction: • 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	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 6.2.10	The detailed design, HIS and Heritage Interpretation Plan, Adaptive Reuse Strategy, Moveable Heritage Strategy and Moveable Heritage Register, and Significant Fabric Register and Salvage Strategy have been prepared for all Station and would be implemented as part of the project works. Heritage Interpretation adaptive reuse and built heritage salvage would not be required for the remaining areas of S2B and would be undertaken during construction. Impacts would be minimised and accidental impacts avoided by: • Exclusion zones

Condition	Requirement	Reference	How addressed?
		Section 6.2.11 Section 6.2.13 Section 6.3.2 Section 6.3.3 Section 6.3.5 Section 6.3.7 Appendix D	• Preparation and implementation of a HIA and heritage inventory with protection measures recommended • Development of work specific methodologies where required (EWMS) • 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 Heritage awareness training would be provided to all site workers. This obligation has been retained by JHLOR
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	Section 2.6 Appendix A Appendix B	RAP consultation not required under the scope of works The key stakeholders related to Heritage who will be consulted in finalisation of this CHMP are • 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	Table 6-1 Table 6-2 Table 6-3	Tables 6-1, 6-2 and 6-3 included detailed measures to manage heritage impacts and enhance heritage values within the scope of the S2B
(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

Condition	Requirement	Reference	How addressed?
(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 S2B 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 S2B The Heritage Interpretation Plan for Bankstown Station would be implemented for S2B.
(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 S2B and outlines appropriate archaeological management in accordance with the AARD. Archaeological management would include: • Archaeological monitoring during excavations in Zone 1 and 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 S2B which outlines appropriate archaeological management including management of artefacts in accordance with the AARD. Moveable heritage at Bankstown Station would be managed in accordance with the Moveable Heritage Register for the station.
(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 Appendix D Appendix F	Although impacts to heritage values would generally be minor as a result of S2B (with the exception of Bankstown Station) the following measures have been put in place to minimise adverse impacts: • 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?
(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 *Severe Environmental Risk (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. All inspections will be stored on the S2B Project Drive.
(ii)	Archival recordings undertaken of any heritage item	Section 6.2.4	Archival record has been completed for; • Hurlstone Park Railway Underbridge • Canterbury (Cooks River) Underbridge • Canterbury (Cooks River/Charles St) Underbridge – Main Line • Old Sugarmill • Bankstown Station Group • Bankstown Parcels Office. • Marrickville Station • Dulwich Hill Station • Hurlstone Park Station

Condition	Requirement	Reference	How addressed?
			• Canterbury Station • Campsie Station • Belmore Station • Lakemba Station • Wiley Park Station • Punchbowl Station 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 S2B.
(iii)	Unexpected finds and stop work orders	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.
(iv)	Records of any impacts avoided or minimised through design or construction methods	Section 8	JHLOR will document and keep records of impact avoidance or minimisation during design and construction through: • Design Reports (Refer to relevant package) • Site Inspections (Environmental Inspection Report) • Meeting minutes (as required) • Memos and emails (as required)
10.3(a) (i)	Examples of heritage mitigation measures include: 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	Although impacts to heritage values would generally be minor as a result of S2B (with the exception of Bankstown Station), the following measures have been put in place to minimise adverse impacts: • Exclusion zones

Condition	Requirement	Reference	How addressed?
		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 Appendix F	• 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
(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 S2B 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	Archival record has been completed for; • Hurlstone Park Railway Underbridge • Canterbury (Cooks River) Underbridge • Canterbury (Cooks River/Charles St) Underbridge – Main Line • Old Sugarmill • Bankstown Station Group • Bankstown Parcels Office. • Marrickville Station • Dulwich Hill Station • Hurlstone Park Station • Canterbury Station • Campsie Station • Belmore Station • Lakemba Station • Wiley Park Station • Punchbowl Station

Condition	Requirement	Reference	How addressed?
			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 S2B. Archival recording of the stations has been completed and would not be required for the remaider of the S2B scope.
(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	The Sydney Metro Unexpected Heritage Finds Procedure would be implemented for the project. 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.
Table 17.4	• 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. • 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 *Heritage Act 1977*, and relevant guidelines. • Potential impacts are managed by the mitigation measures.	Section 3 Table 1-1 Table 6-1 Table 6-2 Table 6-3 Appendix F	Works would be undertaken within station heritage curtilages. The remaining works at the stations consist of construction of Mechanical Gap Fillers (MGF), Platform Screen Doors (PSD), heritage finishing works, defect close out, landscaping, repairs, refurbishment, final platform finishes, painting/re-pointing, bird proofing, equitable canopy coverage, secondary egress provisions, fencing, and fire detection in disused rooms. at Marrickville, Dulwich Hill, Hurlstone Park, Canterbury, Campsie, Belmore, Lakemba, and Punchbowl; and the removal and installation of minor infrastructure such as overhead wiring, segregation and safety fencing, and GST and utilities A detailed design has been developed for Bankstown Station and has been assessed as part of the detailed design HIA. Therefore, the Design Review Panel review is not required for S2B 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) Mitigation measures are outlined in Tables 6-1, 6-2 and 6-3

2. Introduction

2.1 Purpose and Background

This CHMP forms part of the CEMP for S2B (the Project) which includes the Bankstown Early Works (BEW) and Southwest Metro (SWM) Packages 1 & 2.

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 CEMF 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. The CHMP includes the stages of Bankstown Early Works and Bankstown and Additional Corridor 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 Sydenham 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)

S2B will include work activities within the rail corridor for the greater Sydney Metro Sydenham to Bankstown upgrade, and demolition and construction activities at Bankstown Station. The S2B project site is located on the T3 Bankstown line between Sydenham and Bankstown, NSW.

Works will occur predominately within the rail corridor and minor scope within the station. This portion of the S2B scope of works is expected to be finished in late 2024.

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

The works include all permanent new infrastructure and modifications to existing infrastructure, as part of the construction of Sydenham to Bankstown Works. The S2B works and additional awarded packages (SWM1 & 2) 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 and noise walls
- Installation of drainage
- Installation of security and segregation fencing Civil enabling works for traction substations
- Vegetation clearing
- Access road upgrades/establishment
- Utility diversions
- Bridge remedial works, including installation of crash barriers and throw screens
- Modifications to the existing rail track (including crossovers diamond crossings, hi rail ramps, buffer stops, hi-rail access pads and earthworks and removal of kinematic envelope infringements),
- Overhead wire works (including structure and footings installation/removal)
- Demolition of redundant infrastructure; repairs and upgrades to station buildings and structures; painting; secondary egress provisions at selected stations; fencing; wayfinding; landscaping
- Bankstown Service Building installation
- Bankstown Southern (down) and Northern (up) platform construction
- Landscaping, repairs, refurbishment, final platform finishes, painting/re-pointing, bird proofing, equitable canopy coverage, secondary egress provisions, fencing, and fire detection in disused rooms, finishing works, ULX rectification, Station bracket installation and secondary containment, Mechanical Gap Fillers (MGF) installation at the following stations:
    - Marrickville Station
    - Dulwich Hill Station
    - Hurlstone Park Station
    - Canterbury Station
    - Belmore Station
    - Lakemba Station
    - Wiley Park Station
    - Campsie Station
    - Punchbowl Station
- SWMC additional works
    - Demolition of the State Heritage Listed Bankstown Parcel Office (Subject to EWMS & heritage specialist review)
    - Demolition of Bankstown Amenity Block
    - OHW footing removal and relocation with new to facilitate future truncation of the Bankstown Station (Separation of Sydney Metro from Sydney Trains lines)
    - Diversion of existing stormwater track drainage and services
    - Additional Southwest Corridor Works consisting of boundary fencing and associated vegetation management and track monitoring
    - Additional Asset Upgrades
        - Infringement and track rectification
        - Bridge upgrades renewals

        - Civil asset upgrade renewal
    - Utility works
        - Qenos Pipe removal
        - Non ST or SM assets (typically non-contestable works)
    - Local area works including modification, reinstatement of public space, roads and pedestrian way
- Property works comprises permanent adjustments to existing private properties

2.3.2 Temporary Works

- 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;

- 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/compounds required for design and construction of the Works (i.e. Canterbury Bowls Club), including set-up and operation;

- 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; and

- All other temporary works and measures required for the construction of the Works.

- Investigation works including services searching and geotechnical investigations in the vicinity of Bankstown Station for SWM1 & 2, BEW and SWMC Additional works along the full alignment from Sydenham to Bankstown.

2.3.3 Summary of impacts to heritage items

Impacts to the majority of the listed heritage items and potential archaeological resources are expected to be negligible to moderate as a result of the S2B works. Where works would be located within the curtilages of the listed railway stations the works would be moderate in nature and consist of fencing, , Mechanical Gap Fillers (MGFs), , 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.

More substantial works would be undertaken at Bankstown Station. These works would involve the demolition and removal of significant heritage fabric and buildings. This includes the demolition of the Bankstown Parcels Office (former) which would cause a major impact to the LEP heritage item and demolition of the eastern end of the existing Bankstown Station island platform. The project works would result in a moderate cumulative impact to the Bankstown Railway Station Group (s170 listed).

There are no identified Aboriginal sites or areas of Aboriginal archaeological potential within the S2B project area.
The Heritage Impact Assessment in Appendix D provides an assessment of impacts. A summary of expected impacts is listed below. Note that the list of impacts is not extensive and prior to any works occurring within the heritage curtilage of the SHR and S170/ LEP Stations the associated Stage 3 HIAs will be reviewed. The summary of impacts at individual stations based on the Specific Stage 3 HIA are also included 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
- Moderate impacts to the fabric of the locally significant Bankstown Station as a result of the demolition of the Bankstown Parcels Office, partial platform demolition, platform extension, and construction and installation of the new station concourse and canopies
- Major impacts to the Bankstown Parcels Office (former) as a result of the demolition of the building. This would cause the heritage item to be removed from the Bankstown LEP 2015
- Negligible impacts to the fabric of the state significant Canterbury railway station and locally listed Wiley Park and Bankstown 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
- Minor to Moderate cumulative impacts to Marrickville Station, Dulwich Hill Station, Hurlstone Park Station, Campsie Station, Belmore Station, Lakemba Station, Wiley Park and Punchbowl Station as a result of the S2B works, however limited in terms of the JHLOR scope. The accumulation of new and modern structural elements would noticeably alter the overall visual character of each Station.
- Negligible to moderate visual impacts to the nine railway stations along the alignment as a result of S2B, particularly as a result of the installation of new GST within sight of the stations and works at Bankstown Station
- Potential negligible vibration impacts to the fabric of three state significant railway stations (Marrickville, Canterbury and Belmore Stations) and seven locally listed railway stations (Dulwich Hill, Hurlstone Park, Campsie, Lakemba, Wiley Park, Punchbowl, and Bankstown

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.

- Bankstown Station platform demolition would result in a moderate direct (physical) impact to the existing heritage fabric of the platform and associated coping, which are listed as elements of high significance. Impacts to significant platform fabric would only occur on the northern side where masonry is still present. The proposed extension of the western end of both Sydney Trains platforms would require modification of the brick end of the platform retaining wall to develop the new interface (not part of the scope within this CHMP).
- The proposed extension of the western end of the platform would result in a minor direct impact (ot part of the scope within his CHMP)..
- The demolition of the former Parcels Office involves the removal of an original and significant station building from the Bankstown Station Railway Group. The Parcels Office is considered to be an element of exceptional significance within the station group. The removal of this element would result in a moderate direct impact to the overall Bankstown Station Railway Group.
- 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 S2B 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 design of the station brackets was prepared by DesignInc specifically to minimise any impacts upon the significant heritage fabric of the railway station buildings. In the context of the overall works, the brackets will have no physical impact and a negligible visual impact upon the railway station buildings.

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 S2B. The impacts to the listed heritage items resulting from S2B have been assessed in a HIA prepared in accordance with REMM NAH17 (see Section 6.2.9). Prior to any works occurring within the heritage curtilage of the SHR and S170/ LEP Stations the associated Stage 3 HIAs will be reviewed.

The station bracket impact has been assessed in a Memorandum (Appendix F) which provided by Sydney Metro.

The location of the heritage items within and adjacent to S2B are illustrated in Figure 4-1 to Figure 4-14. The location of the areas of archaeological potential within S2B are illustrated in Figure 4-16 to Figure 4-19.

2.3.4 Associated documents

This Plan will provide continuity between a range of documents and specific requirements to ensure that the S2B Project is carried out generally in accordance with:

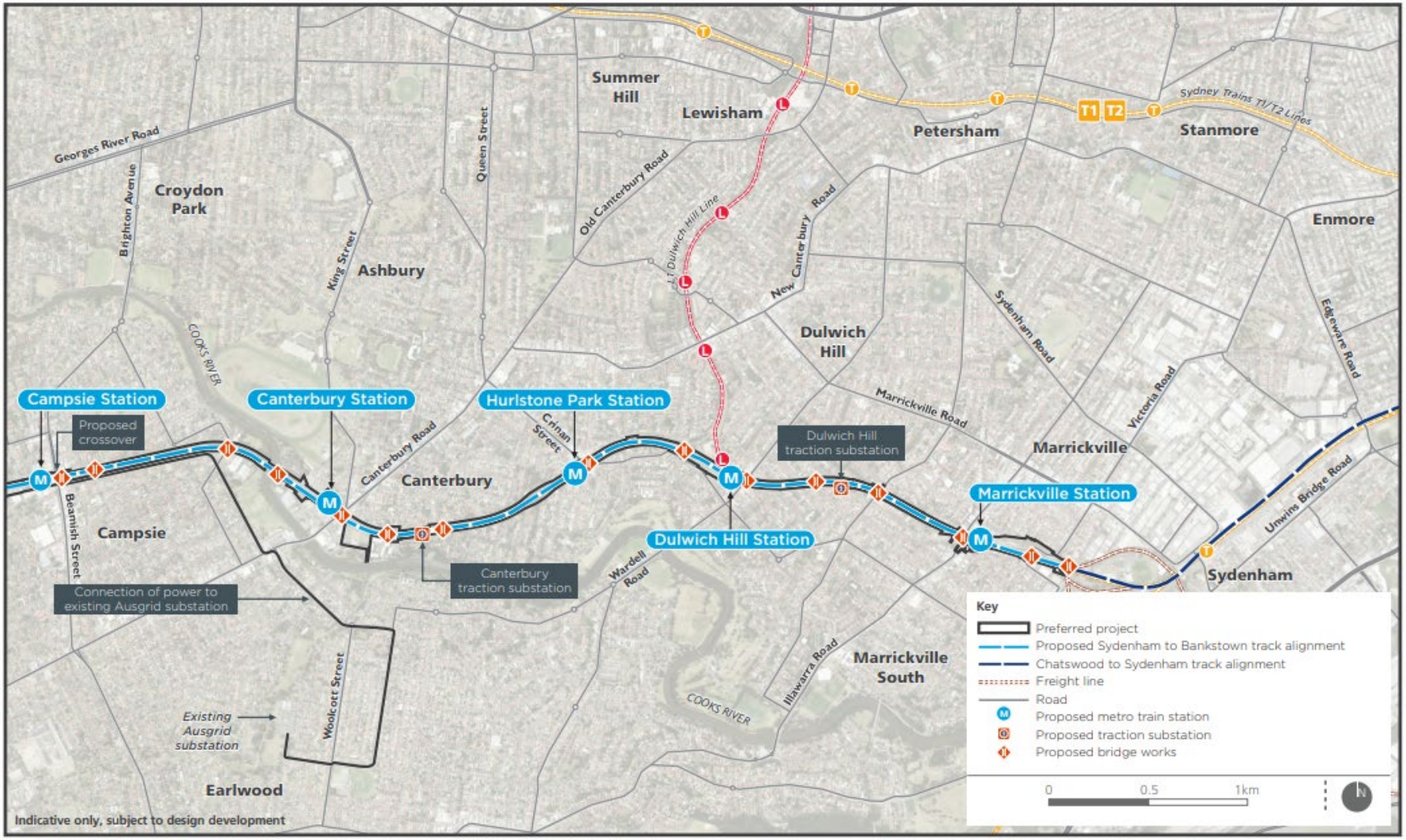
- The Sydney Metro City & Southwest – Sydenham to Bankstown – State Significant Infrastructure Assessment (SSI 8256), dated 12th December 2018
- The Sydney Metro City & Southwest – Sydenham to Bankstown - Environmental Impact Statement, dated 7th September 2017
- The Sydney Metro City & Southwest – Sydenham 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 (V07)
- 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 SSJ Design and Construction Deed, Scope of Works and Technical Criteria – B06 Heritage 2020
- Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design, prepared by Artefact Heritage (2018)
- Sydney Metro City & Southwest: Sydenham to Bankstown Line Heritage Interpretation Strategy, 2020
- Sydney Metro City & Southwest – Bankstown Metro Station Adaptive Reuse Strategy, 2021
- Sydney Metro City & Southwest – Adaptive Reuse Strategy, 2021
- Sydney Metro City & Southwest – Bankstown Station Heritage Salvage Strategy, 2021
- Sydney Metro City & Southwest – Heritage Salvage Strategy, 2021
- Sydney Metro City & Southwest – Bankstown Station Moveable Heritage Strategy, 2021
- Sydney Metro City & Southwest – Moveable Heritage Strategy, 2021
- Sydney Metro City & Southwest – Significant Fabric Registers, 2021
- Sydney Metro City & Southwest – Heritage Interpretation Plans, 2021
- Sydney Metro City & Southwest – Moveable Heritage Registers, 2021
- Sydney Metro City & Southwest – Detailed Design HIAs, 2021
- Department's Guideline for the Preparation of Environmental Management Plans. Appendix A1
- Memorandum - Mounting Provisions for TSOM CCTVs and Speakers - Heritage Issues. Appendix F
- The conditions of all other environmental legislative requirements
- Other relevant heritage documents such as Conservation Management Plans
- All other requirements of The Contract.

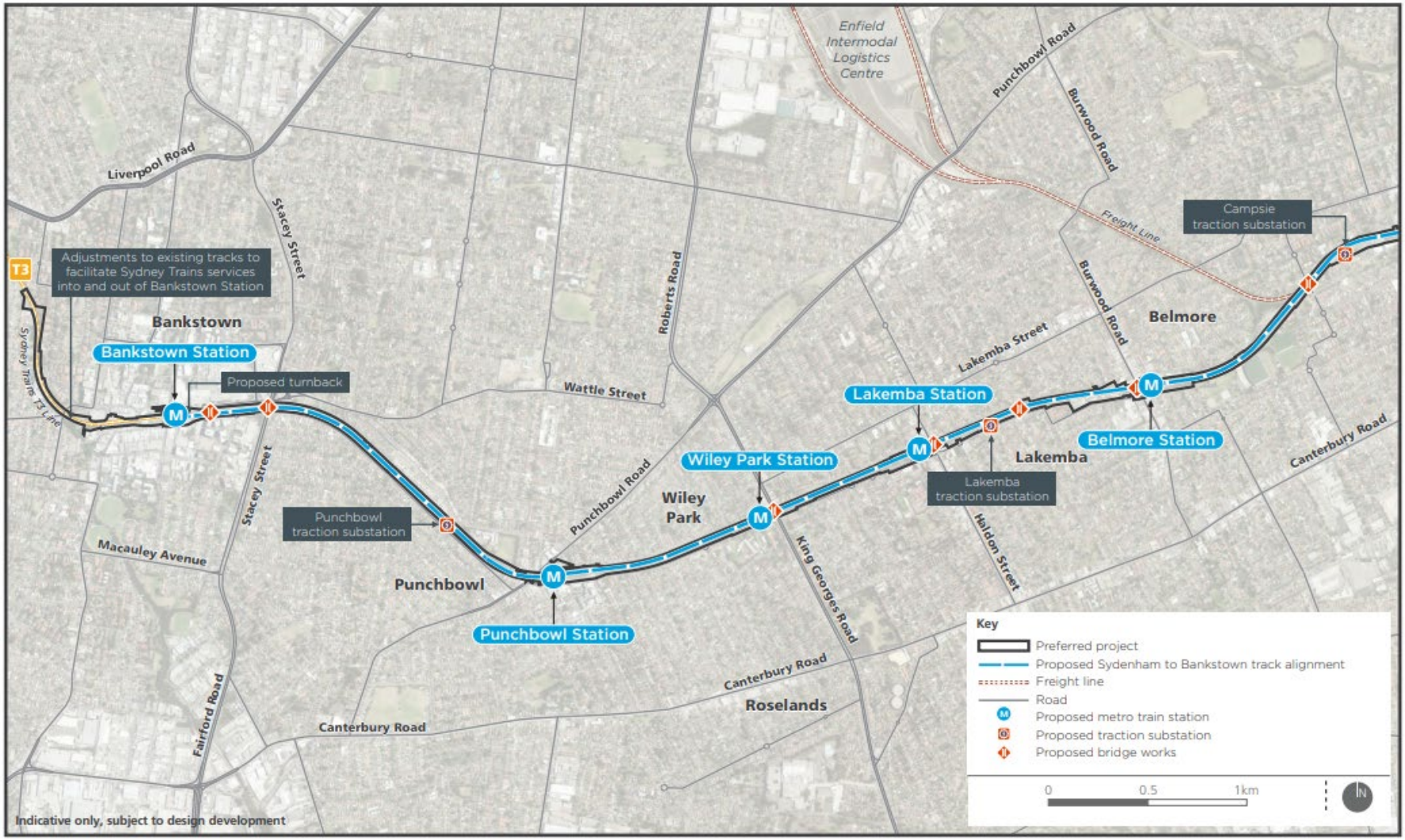
2.4 Mitigation, Objectives and Targets

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 S2B 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)




Enfield Intermodal Logistics Centre
Punchbowl Road
Burwood Road
Liverpool Road
Stacey Street
Freight Line
Campsie traction substation
T3
Adjustments to existing tracks to facilitate Sydney Trains services into and out of Bankstown Station
Bankstown
Roberts Road
Burwood Road
Belmore
Sydney Trains T3 Line
Bankstown Station
Proposed turnback
Wattle Street
Lakemba Street
Lakemba Station
Belmore Station
Canterbury Road
Wiley Park Station
Lakemba
Lakemba traction substation
Punchbowl traction substation
Punchbowl Road
Wiley Park
Stacey Street
Macauley Avenue
Haldon Street
King Georges Road
Punchbowl
Punchbowl Station
Canterbury Road
Roselands
Fairford Road
Canterbury Road
Indicative only, subject to design development
Key
Preferred project
Proposed Sydenham to Bankstown track alignment
Freight line
Road
Proposed metro train station
Proposed traction substation
Proposed bridge works
0
0.5
1km
N

Sydney Metro have prepared a Consistency Assessments Sydenham to Bankstown - Final track configuration works to complete the connection between Marrickville Station and Sydenham Station.

The purpose of the Planning and Consistency Assessment (PACA) is to conduct works outside of the CSSI 8256 Project Area and to present a more detailed understanding of the final track configuration/corridor works between Marrickville Station and Sydenham Station and demonstrate how this scope of works is consistent with the works undertaken under CSSI_8256 Planning Approval.

Both the Chatswood to Sydenham and Sydenham to Bankstown projects include corridor works to connect the two projects at a location near Meeks Road (Figure 2b of this CEMP). Given that the final track configuration/corridor works must be completed in a consistent manner across the C&SW alignment and do not clearly start and stop at the construction boundaries identified in the planning approvals, Sydney Metro is proposing for the S2B contractor to deliver the Corridor works under one planning approval (CSSI_8256) – delivering all the necessary corridor works between Marrickville and Sydenham stations to connect the projects, including works in project areas across both the CSSI_7400 and CSSI_8256.

A HIA has been prepared as part of the PACA to assess the impacts that the proposed S2B works would have on heritage items and potential Aboriginal and non-Aboriginal archaeological resources within the junction area (between Marrickville and Sydenham station to Bedwin bridge) to connect the projects, and to provide archaeological and heritage mitigation measures for the works where necessary.

The HIA identified;

- low Non-Aboriginal Archaeological Potential and
- low Aboriginal Archaeological Potential, however moderate and high Aboriginal Archaeological Potential where natural soils may be exposed. Excavation directs direction would be sought prior to conducting works in moderate to high potential areas.

The HIA generally recommends the works are to be managed under the Sydney Metro Unexpected Heritage Finds Procedure. This approach would align with the recommended mitigation measures as outlined in the Addendum to the Sydney Metro City and Southwest – Chatswood to Sydenham: Historical Archaeological Assessment and Research Design Report and Sydney Metro City and Southwest – Chatswood to Sydenham: Aboriginal Cultural Heritage Assessment Report.

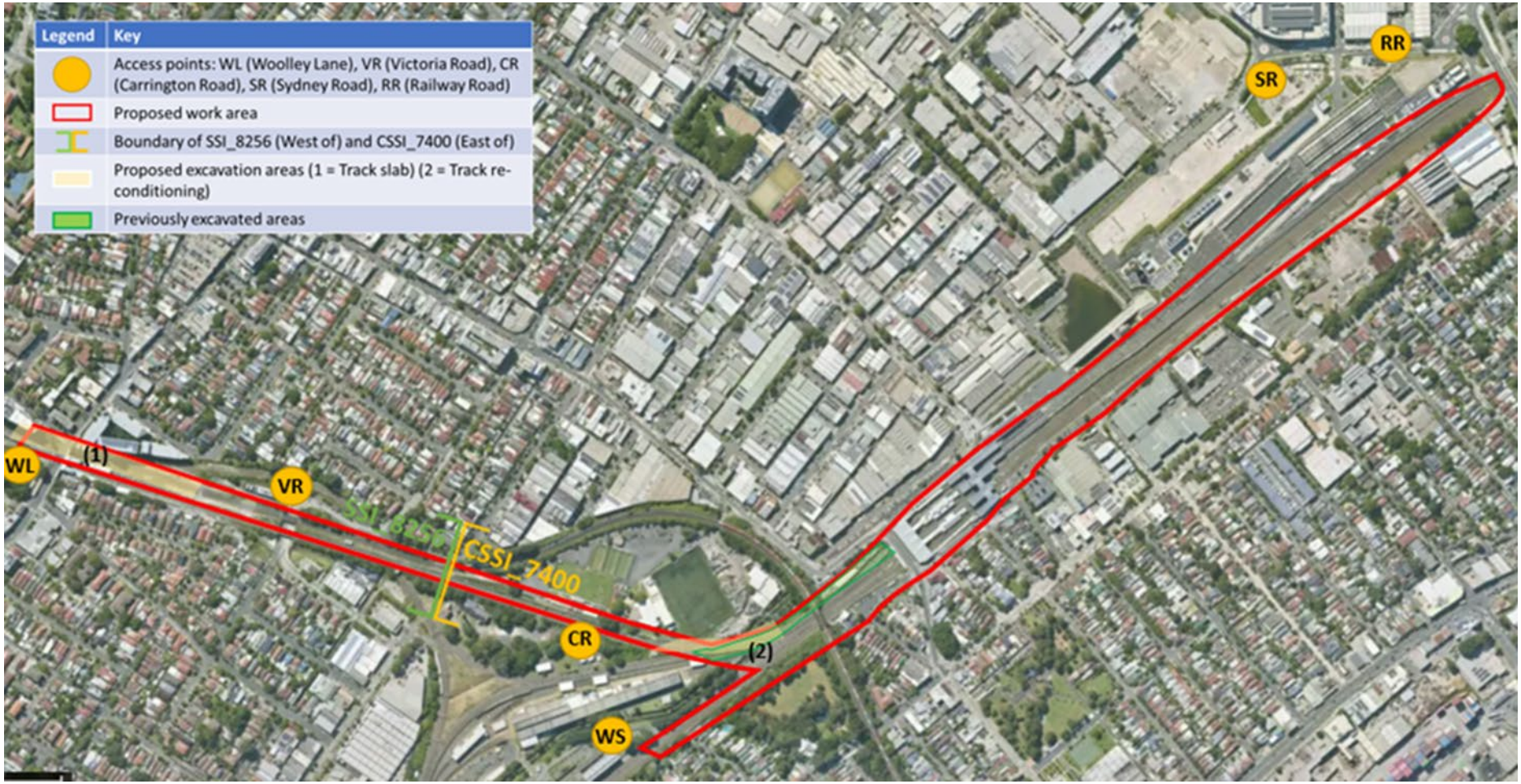


Figure 2-2: Marrickville to Sydenham Site Layout (source: Sydney Metro City & Southwest - Sydenham to Bankstown -Planning Approval Consistency Assessment Form: Final track configuration works to complete the connection between Marrickville Station and Sydenham Station, October 2023.)

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, DEECCW 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 A.

CoA CSSI_8256	Agency Consultation	Requirements and date submitted	Key issues raised	CHMP Section Reference
C6 C3(d)	Heritage Council (Heritage NSW, DEECCW as delegate)	(Formerly SMC) S2B - submitted for consultation 25/11/2020 BEW – minor impacts, consultation not required BAC - comments received 12/08/22	SMC - 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 BAC – response received stated that the plan was acceptable, and that further consultation be undertaken with stakeholders as required	Appendix A
	City of Canterbury Bankstown	SMC Submitted for consultation 30/11/2020	Response received 1/12/2020 with comment regarding the unexpected finds of Aboriginal cultural material	Appendix A
		BEW Presentation given to CBCC on 10/09/2021 regarding BEW scope, traffic, access and pre-construction activity	Clarifications of scope was provided during the presentation	Appendix A
		Presentation given to CBCC on 16/09/2021 regarding BEW scope, the CHMP, CSWMP and CNVMP.	Questions were resolved during meeting.	Appendix A
		CHMP Submitted for consultation 03/09/2021.	Comments received by email 17/09/21 regarding an update to HCAs gazetted in Hurlstone Park	Appendix A
		BAC Revised Plan for BAC submitted 20/07/2022	Comments not received at time of publishing. The response to comments received will be included in	Appendix A

CoA CSSI_8256	Agency Consultation	Requirements and date submitted	Key issues raised	CHMP Section Reference
			this plan and sent to DPHI for information	
	Inner West Council	Submitted for consultation 3/12/2020 BEW – not applicable BAC - Revised Plan for BAC submitted 20/07//2022. Comments received 09/08/2022	Response received 7/12/2020 with comment regarding responsibilities of the Conservation Architect No comments on the BAC update	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 S2B 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 S2B 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.
Environment Protection and Biodiversity Conservation Act 1999 (Cwth)	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. 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 *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) are listed on the Commonwealth Heritage List (CHL) and/or the World Heritage List (WHL) and afforded protection under the EPBC Act.	Not relevant as no NHL, CHL or WHL items
National Parks and Wildlife Act 1974 (NP&W Act)	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.

Legislation	Description	Relevance to this CHMP
Heritage Act 1977 (Heritage Act)	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. It is an offence under this Act to wilfully and knowingly damage or destroy items of heritage value. 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.	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.
Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cwth)	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.
Coroners Act 2009	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
- Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design, prepared by Artefact Heritage (2018)

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* (
- Management Action
- **Table 6-1**)
- *Monitoring and modelling demonstrates enhancements to heritage values* (
- Management Action
- **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).
- Sydney Metro City & Southwest -Sydenham to Bankstown Upgrade Submissions and Preferred Infrastructure Report Appendix F: Non-Aboriginal Heritage Assessment (June 2018)
- Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Bankstown Station Modification Statement of Heritage Impact (May 2020)

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)
- Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design, prepared by Artefact Heritage (2018)
- Sydney Metro City & Southwest - Southwest Metro: Corridor Works Non-Aboriginal Heritage Impact Assessment and Archaeological Method Statement (revised June 2022)

- Sydney Metro City and Southwest - Bankstown Metro Station Heritage Impact Assessment Report Stage 2 (April 2021)
- Sydney Metro City and Southwest – Final Moveable Heritage Strategy for S2B (March 2021)

Sydney Metro City and Southwest - Bankstown Station Movable Heritage Strategy Report (January 2021). 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 S2B 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 S2B 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 Bankstown Station survey unit is located within a highly modified and disturbed area. The survey unit is located over 500 metres away from a major watercourse. The station and rail are located within a cut indicating that any archaeological deposits would have been highly disturbed during the construction of the rail corridor. Therefore, the archaeological potential is considered to be nil to low.

The archaeological potential for the S2B project area is considered to be low with a low Aboriginal archaeological and cultural significance.

4.1 Built Heritage

4.1.1 Heritage listings

The S2B works would be largely undertaken outside the SHR station curtilages, however, 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. The risk of vibration impacts though would be reduced through the implementation of mitigation measures.

More substantial works are planned within the curtilage of the s170 listed Bankstown Railway Station Group. This includes the demolition of the Bankstown Parcels Office, which is part of the station group and also an item of local significance listed on the Bankstown LEP 2015 (I13), partial demolition of existing Sydney Trains Bankstown platform, platform extension works, and the construction and installation of the new station concourse and canopies. These works would impact significant fabric and the setting of the station group, resulting in moderate impacts to Bankstown Railway Station Group and major impacts to the Bankstown Parcels Office. Note only demolition of the Bankstown Parcels Office is proposed as part of this CHMP.

A number of locally listed items would also be visually impacted by the S2B, 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)', 'Post-war bus shelter and public lavatories' and 'Shop' 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 S2B have been included in Appendix A.

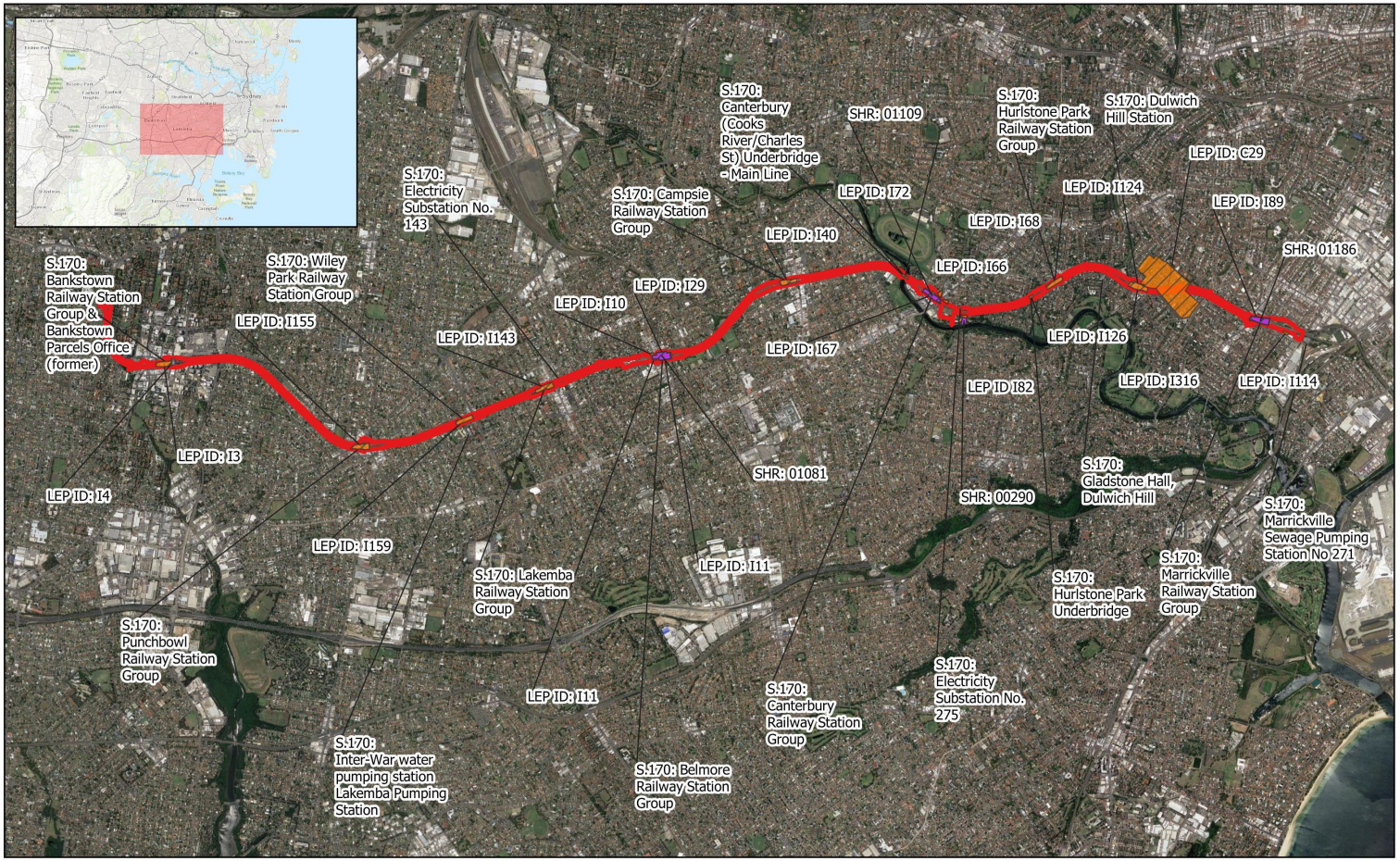
Table 4-1 Heritage listed Items in and near the Project Area

Item	Listings	Significance
Sewage Pumping Station 271	• SHR (01342) • Sydney Water s170 Heritage and Conservation Register (4571727) • Marrickville Local Environment Plan (LEP) 2011 (I67)	State
Stone house, including interiors	• Marrickville LEP 2011 (I114)	Local
Marrickville Railway Station Group	• SHR (01186) • RailCorp s170 Heritage and Conservation Register (4801091) • Marrickville LEP 2011 (I89)	State
South Dulwich Hill Heritage Conservation Area	• Marrickville LEP 2011 (C29)	Local
Dulwich Hill Railway Station Group	• RailCorp S.170 Heritage and Conservation Register (4801909) • Marrickville LEP 2011 (I316)	Local
Hurlstone Park Railway Station Group	• RailCorp s170 Heritage and Conservation Register (4802051) • Canterbury LEP 2012 (I124)	Local
Hurlstone Park Railway Underbridge	• RailCorp s170 Heritage and Conservation Register (4805737) • Canterbury LEP 2012 (I126)	Local
Old Sugarmill	• SHR (00290) • Canterbury LEP 2012 (I82)	State

Item	Listings	Significance
Canterbury Railway Station Group	• SHR (01109) • RailCorp s170 Heritage and Conservation Register (4801100) • Canterbury LEP 2012 (I67)	State
Inter-War Hotel (former Hotel Canterbury)	• Canterbury LEP 2012 (I68)	Local
Federation Post Office Building (former Canterbury Post Office)	• Canterbury LEP 2012 (I66)	Local
Electricity substation no. 275	• Ausgrid S.170 Heritage and Conservation Register (3430425)	Local
Canterbury (Cooks River) Underbridge	• RailCorp s170 Heritage and Conservation Register (4801568) • Canterbury LEP 2012 (I72)	Local
Canterbury (Cooks River/Charles St) Underbridge – Main Line	• RailCorp s170 Heritage and Conservation Register (5062566)	Local
Campsie Railway Station Group	• RailCorp s170 Heritage and Conservation Register (4801101) • Canterbury LEP 2012 (I40)	Local
Belmore Railway Station Group	• SHR (01081) • RailCorp s170 Heritage and Conservation Register (4801084) • Canterbury LEP 2012 (I11)	State
Federation House (former station master's cottage)	• Canterbury LEP 2012 (I10)	Local
Post-war bus shelter and public lavatories	• Canterbury LEP 2012 (I29)	Local
Lakemba Railway Station Group	• RailCorp s170 Heritage and Conservation Register (4801916) • Canterbury LEP 2012 (I143)	Local
Wiley Park Railway Station Group	• RailCorp s170 Heritage and Conservation Register (4801946) • Canterbury LEP 2012 (I159)	Local
Lakemba Water Pumping Station (WP0003)	• Sydney Water s170 Heritage and Conservation Register (4570136) • Canterbury LEP 2012 (I158)	Local
Punchbowl Railway Station Group	• RailCorp s170 Heritage and Conservation Register (4802067) • Canterbury LEP 2012 (I155)	Local

Item	Listings	Significance
Bankstown Railway Station Group	• Bankstown LEP 2011 as "Bankstown Railway Station Group", LEP# I3 • RailCorp s170 Heritage Inventory Register as "Bankstown Railway Station Group", SHI# 4802067.	Local
Bankstown Parcels Office (former)	• Bankstown LEP 2015 as "Bankstown Parcels Office (former)", LEP# I4	Local
Shop	• Bankstown Local Bankstown LEP 2015 (I13)	Local

Figure 4-1 Heritage curtilages overview



artefact

Heritage Items all Registers

19052 Southwest Metro Corridor

LGA: Canterbury-Bankstown & Inner West

Scale: 1:60000
Size: A4
Date: 23-11-2020

0 1000 2000 m

Figure 4-2 Heritage curtilage – stone house including interiors

Figure 4-3 Heritage curtilage – Marrickville Railway Station Group

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

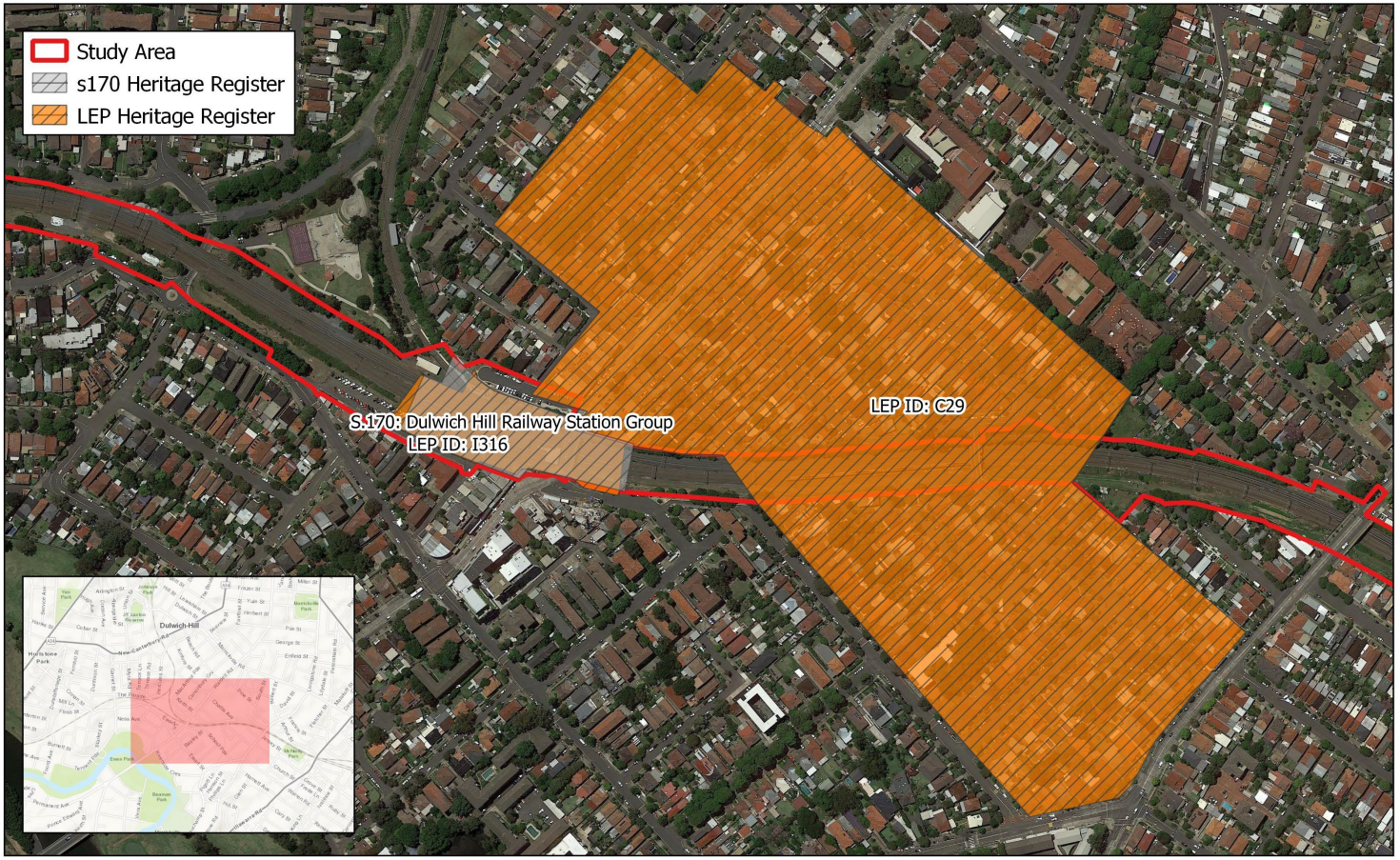


Figure 4-5 Heritage curtilage Hurlstone Park Railway Station Group

Figure 4-6 Heritage curtilage Hurlstone Park Railway Underbridge

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

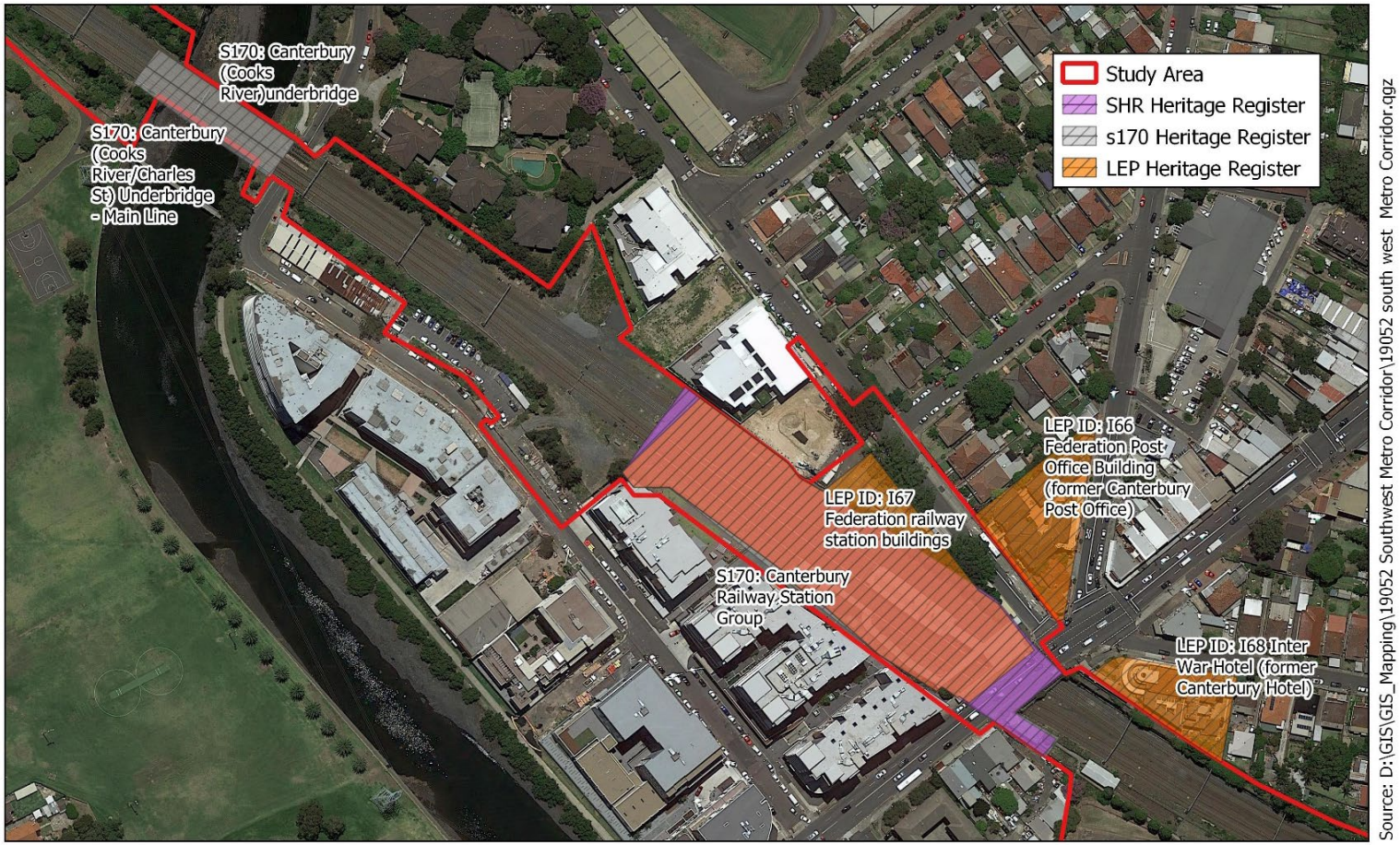


Figure 4-8 Heritage curtilage Canterbury Old Sugar Mill

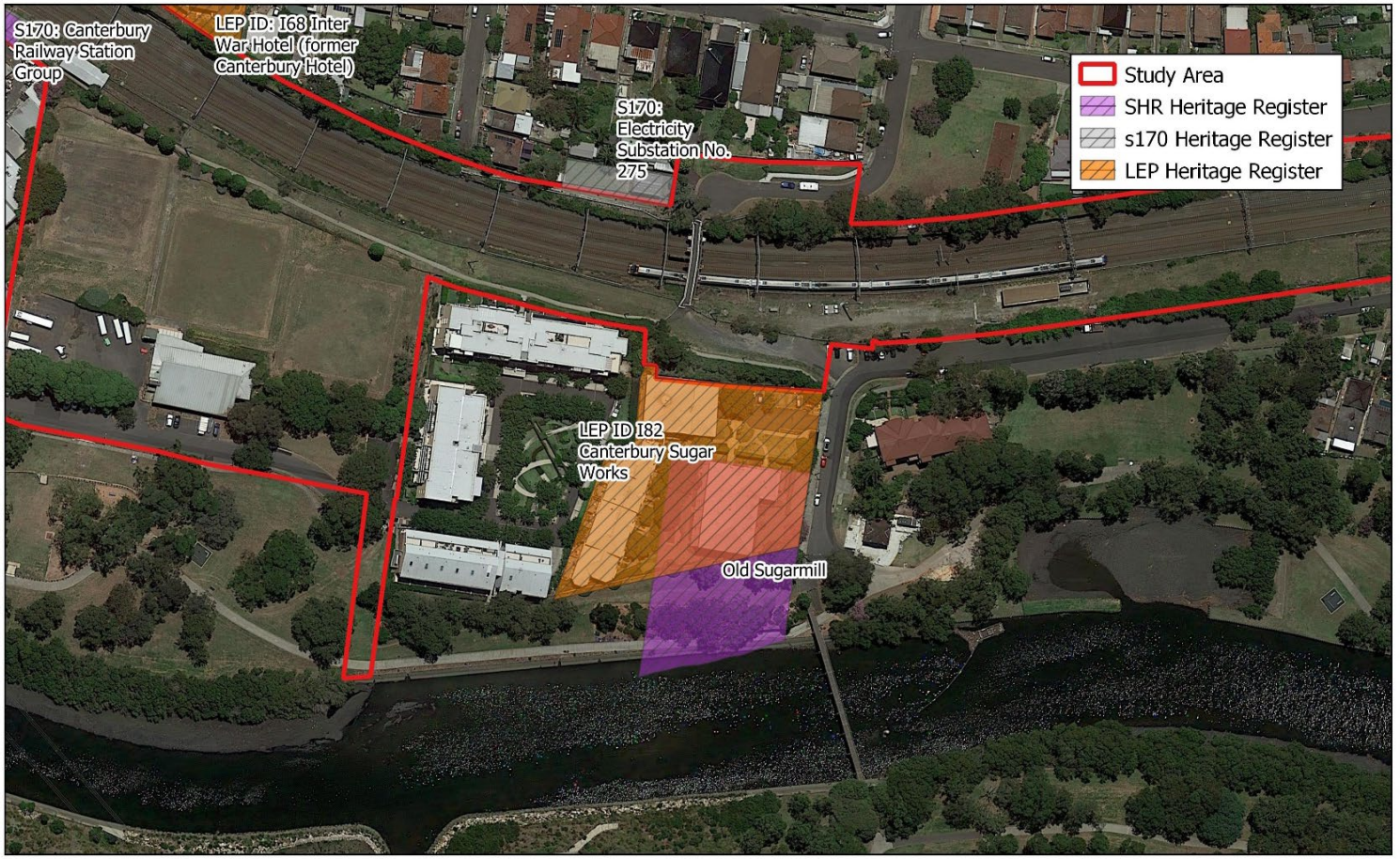


Figure 4-9 Heritage curtilage Canterbury (Cooks River/Charles St) Underbridge – Main Line

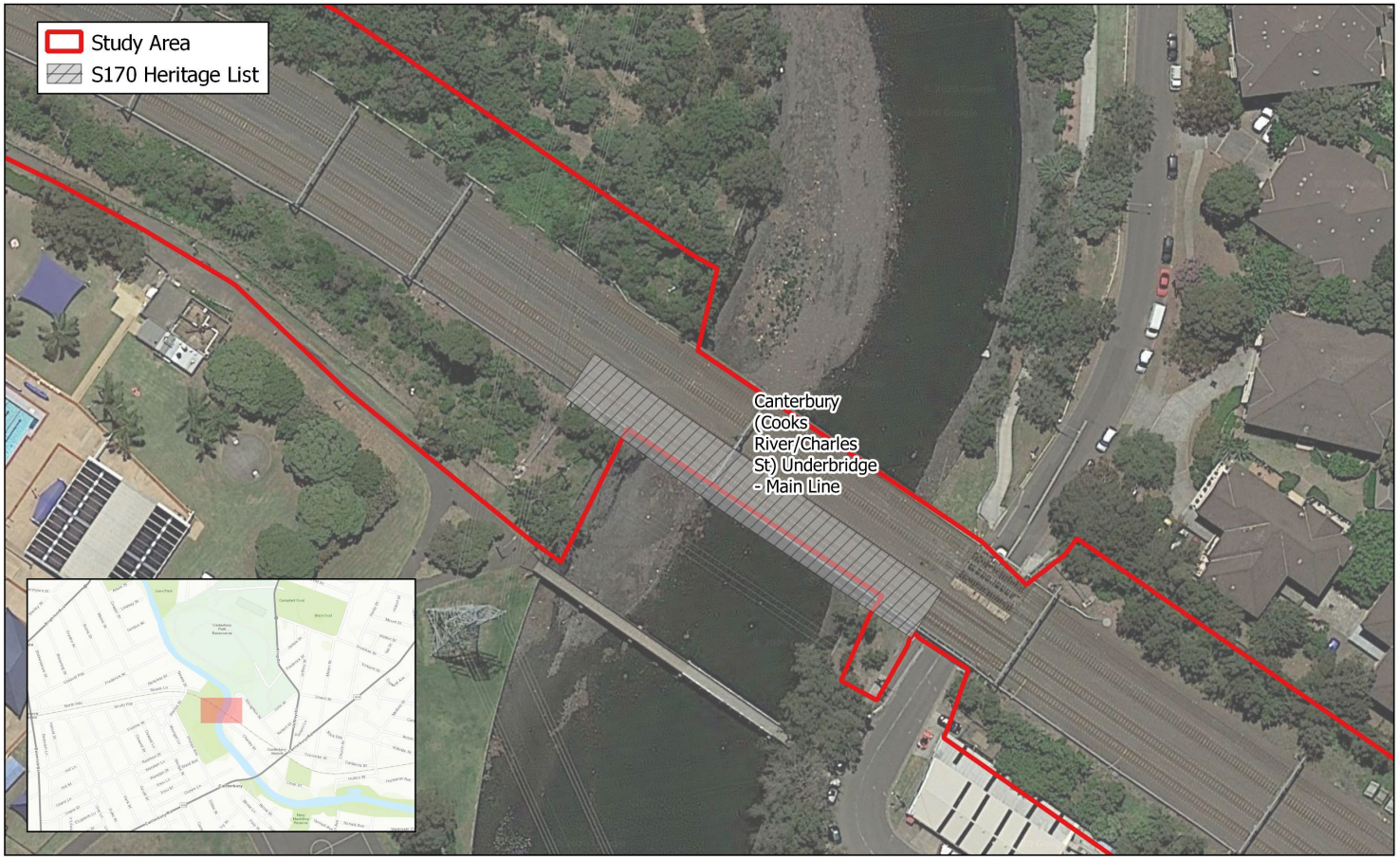


Figure 4-10 Heritage curtilage Campsie Railway Station Group

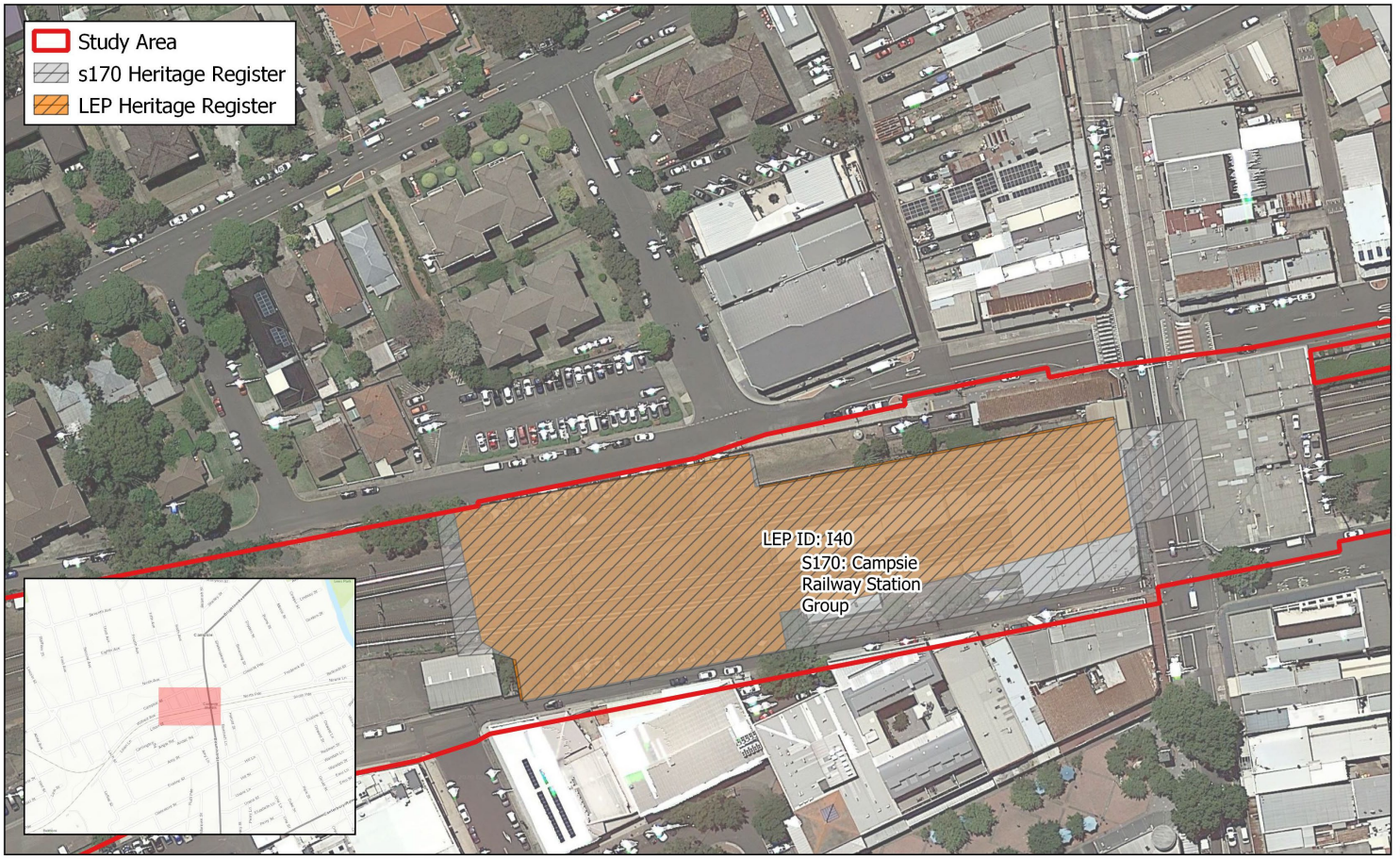


Figure 4-11 Heritage curtilage Belmore Railway Station Group

Figure 4-12 Heritage curtilage Lakemba Railway Station Group

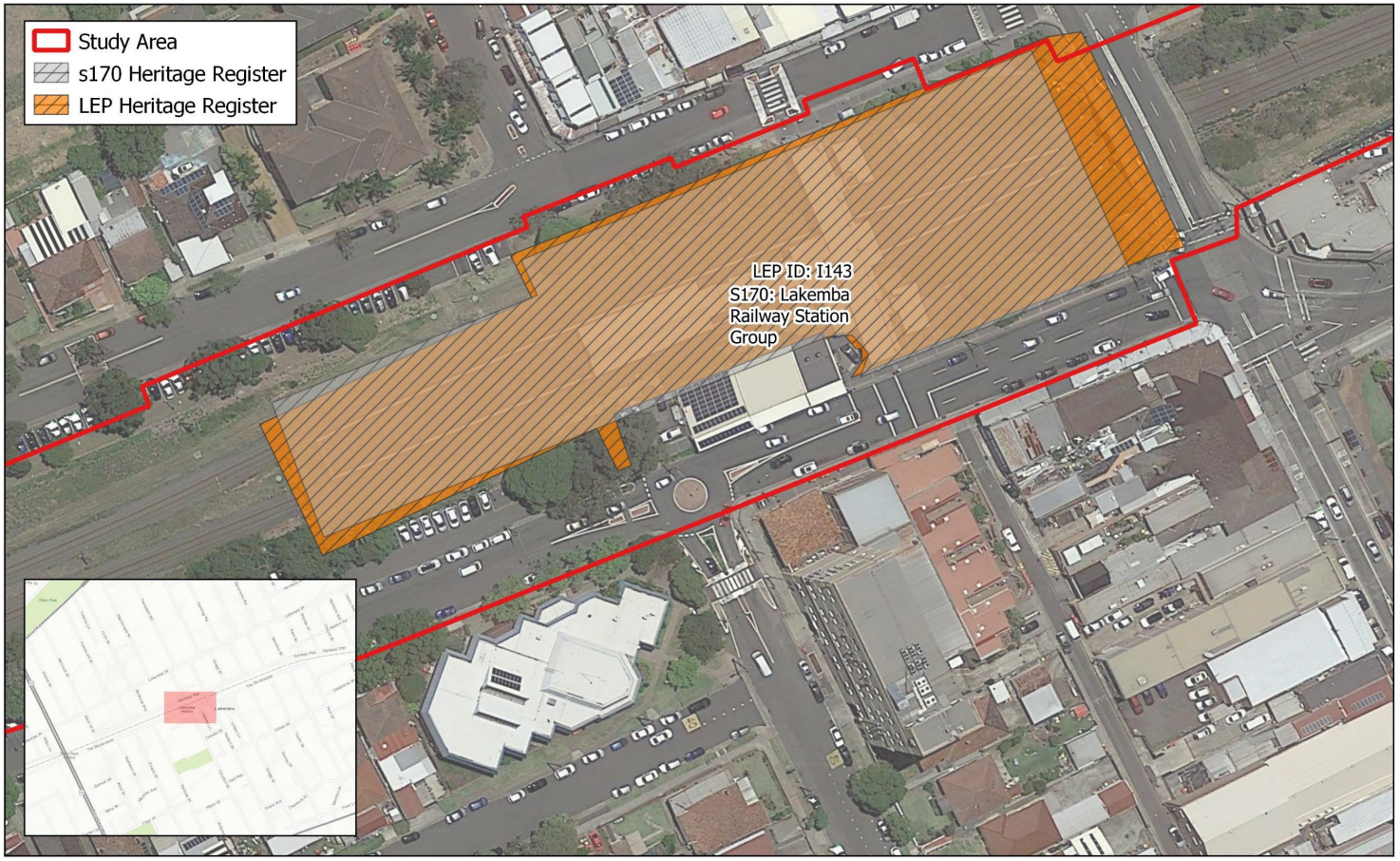
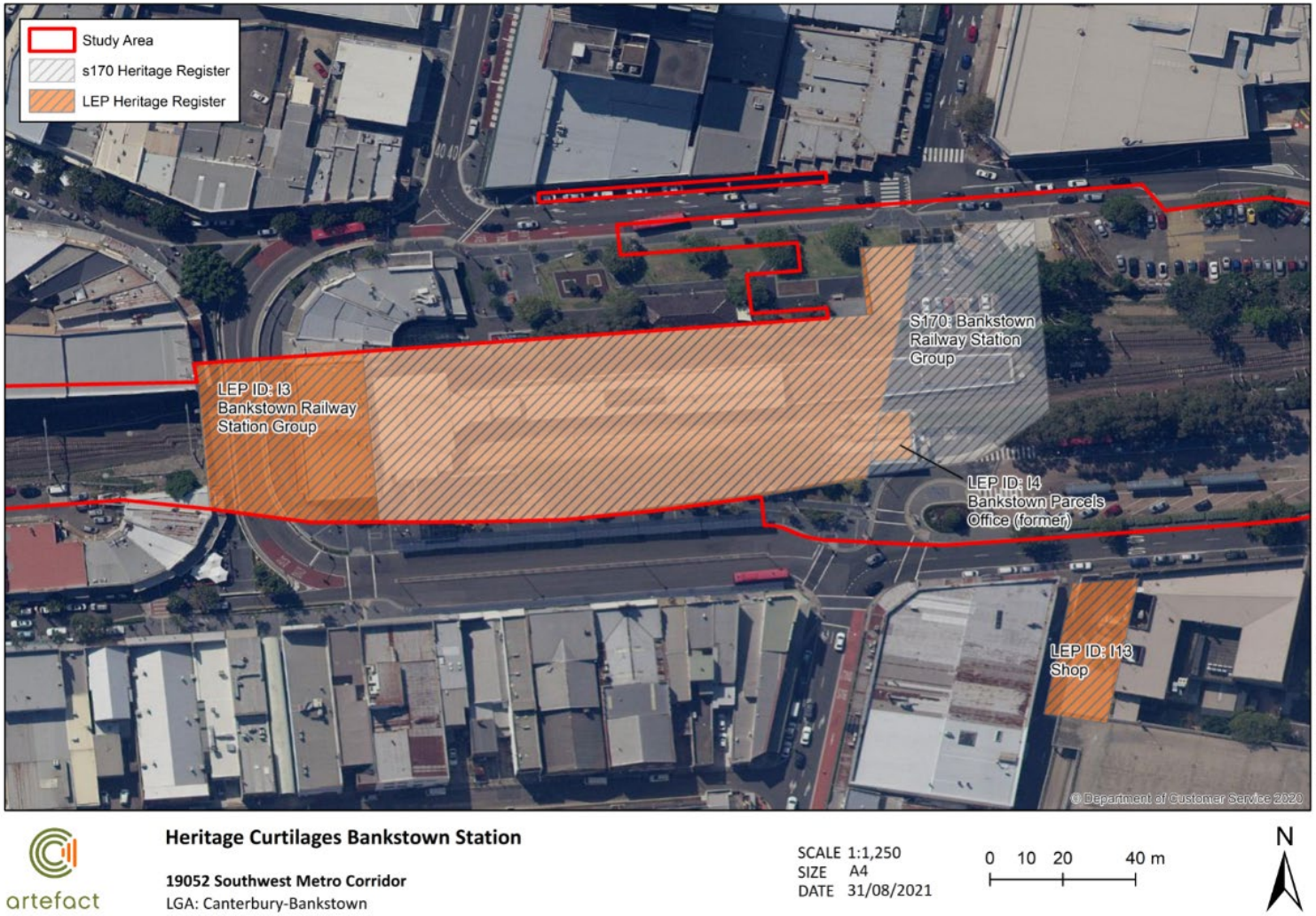


Figure 4-13 Heritage curtilage Wiley Park Railway Station Group

Figure 4-14 Heritage curtilage Punchbowl Railway Station Group

Figure 4-15 Heritage curtilage Bankstown Railway Station Group



4.2 Non-Aboriginal Archaeology

4.2.1 Defined areas of Archaeological Potential within S2B area

S2B 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 S2B 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 S2B 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 S2B 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 S2B 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 S2B 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 S2B 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 S2B 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 rai 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 S2B 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 S2B 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 S2B 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 S2B 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 S2B 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 S2B 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.

4.2.2 Archaeological potential of the remainder of the S2B 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 S2B will be undertaken in these areas.

Figure 4-16: Archaeological potential at Marrickville Station

Figure 4-17: Archaeological potential at Canterbury Station

Figure 4-18: Archaeological potential at Belmore Station

Figure 4-19: 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 0.

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, Bankstown 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 and Bankstown Station	Modifications, removals and minor excavations	Visual impacts, impacts to fabric (Positive visual impacts from the removal of redundant utilities)
Works at Stations include defect close out, H05 Finishes, awning modifications, Final conversion scope including gap fillers, PSD and re-levelling	Installation, modification, compliance with various safety and Metro standards	Visual impacts, impacts to fabric
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, Campsie Station and Bankstown 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, Canterbury Station and Bankstown 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

Activity	Aspect/s	Impact/s
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, Bankstown Railway Station and Bankstown Parcels Office	Installation	Visual impacts to listed items, impacts to fabric
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
Bankstown Station Works City end signalling and communication works and HV diversions to delink the construction from the 'Up' platform Demolition of existing platform (partial) and Parcels Office and non- significant amenities building. Sydney Trains canopy, demolition of eastern portion of station platform, platform extension works, new retail plaza and station entrance, landscaping Relocate and divert Feeder 588	Construction works	Visual impacts, impact to fabric
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 piling for the Bankstown Station southern platform structures and the Metro Service Building at Bankstown, 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 along route	Excavation	Disturbance to and/or destruction of non-Aboriginal archaeological deposits of local significance

Activity	Aspect/s	Impact/s
Removal of redundant GST and utilities along route	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 along route.	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, Bankstown carpark adjacent to North terrace and the footprint of the Metro Services Building, Activities such as bulk earthworks, service installations, tree removals and demolition of the existing Greens Bowling Club building. As part of SWM3 additional laydown areas may be required at Punchbowl, Wiley Park, Lakemba, Belmore, Canterbury, Campsie, Hurlstone Park, Dulwich Hill and Marrickville laydown.	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.
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 S2B 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, DEECCW 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, DEECCW.

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, DEECCW Aboriginal requirements will be undertaken within two years of the completion of S2B 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 S2B would in most cases be minimal (with the exception of moderate visual impacts at Lakemba Station) moderate impacts to Bankstown Station, and major impacts to Bankstown Parcels Office. 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)
- Moderate impacts to the fabric and setting of the locally significant Bankstown Station as a result of the demolition of the Bankstown Parcels Office, partial platform demolition, platform extension, and construction and installation of the new station concourse and canopies
- Major impacts to the Bankstown Parcels Office (former) as a result of the demolition of the building. This would cause the heritage item to be removed from the Bankstown LEP 2015
- Negligible impacts to the fabric of the state significant Canterbury railway station and locally listed Wiley Park and Bankstown 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 ten railway stations along the alignment as a result of S2B, particularly as a result of the installation of new GST within sight of the stations and works at Bankstown Station
- Potential negligible vibration impacts to the fabric of three state significant railway stations (Marrickville, Canterbury, and Belmore Stations) and six locally listed railway stations (Dulwich Hill, Hurlstone Park, Campsie Station, Lakemba, Punchbowl, and Bankstown Stations) as a result of the removal of ARTC redundant infrastructure, the installation of new overhead wiring infrastructure, in proximity to significant elements within the listed heritage curtilages.

- 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 14 listed items that are located within, or in the vicinity of the S2B 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.

Impacts to built heritage as a result of the S2B at Bankstown Station would be moderate to major as follows:

- The works within the curtilage at Bankstown Station would include minor OHW works and the relocation of Sydney Trains cables.
- The demolition of the existing eastern portion of the station platform is required to facilitate the introduction of the cross-corridor retail plaza, service structures, and the new Metro side platforms. The platform demolition would result in a moderate direct (physical) impact to the existing heritage fabric of the platform and associated coping, which are listed as elements of high significance. Impacts to significant platform fabric would only occur on the northern side where masonry is still present. The proposed extension of the western end of both Sydney Trains platforms would require modification of the brick end of the platform retaining wall to develop the new interface. The proposed extension of the western end of the platform would result in a minor direct impact.
- The proposed canopy to the Sydney Trains station entrance adds a new and modern structural element to the Bankstown Station heritage item, which responds to the form and scale of the platform building, an element of exceptional significance. The proposed new canopies would result in a minor direct impact.
- Garden landscaping, as well as existing amenities and toilet facilities located to the north and south of the railway corridor are not assessed as having heritage significance. The proposed removal of the modern landscaping elements and trees in area around the station would result in a neutral direct (physical) impact to Bankstown Station overall. The removal of the small amenities/toilet building and partial demolition of the modern parking lot would not result in an adverse direct (physical) impact to Bankstown Station.
- The proposed new canopy to the Sydney Trains station entrance would result in a minor indirect (visual) impact to the heritage significance of Bankstown Station. The proposed canopy to the Sydney Metro station entrance (on the eastern side of the proposed plaza) would not adversely impact on any significant indirect (visual) view lines.
- The demolition of the former Parcels Office would remove the element of exceptional significance from the station group. This would alter the heritage character and setting of the station group. This would result in a moderate indirect (visual) impact to the heritage significance of the station overall.
- The proposed demolition of a small amenities building would generate new visual relationships towards the station platform building. The removal of the amenities building would result in a neutral positive indirect (visual) impact to the heritage significance of

Bankstown Station. The proposed new garden landscaping and construction of the new services building along the rail corridor boundary would result in a minor indirect (visual) impact to the heritage significance of the station overall.

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 S2B. The impacts to the listed heritage items resulting from S2B have been assessed in a Stage 3 HIA prepared for each station in accordance with REMM NAH17 (see Section 6.2.9).

6.2.2 Design Requirements

Due to the minor nature of the works at most stations, 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 Bankstown Station HIA determined that the detailed design for the station was consistent with these REMMs. The works at Bankstown Station would be implemented in accordance with the detailed design, with input from a conservation architect where required in accordance with NAH4.

The following measures have been put in place to minimise adverse impacts resulting from S2B and are discussed in the following sections of the CHMP. These measures identify the impacts resulting from the S2B 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
- In accordance with the Station HIAs the work should incorporate the following recommendations:
    - Existing penetrations into original fabric should be utilised where introduced fabric is to be located. Any existing penetrations that would not be utilised for new works should be repaired and made good. A suitably qualified heritage tradesperson should be engaged to complete these works
    - If significant fabric is damaged during the course of works, work should be halted, and a suitably qualified heritage architect should be engaged to inspect and assess any damage and to propose appropriate remedial measures
    - New paint colours should match the existing paint scheme, or if a new paint scheme is proposed it should be in accordance with Rail Heritage Conservation Guides: Station Building Painting Conservation Guide and Heritage paint schemes.

In accordance with the HIA Stage 3 (Purcell, 2023), the Bankstown Station platform works should incorporate the following recommendations:

- The extension of the platform to the east should minimise the removal of any existing heritage fabric and all brick platform retaining walls should be conserved
- Works to the extant platform ramp at the western end of the platform (under the Bankstown City Plaza overbridge) should ensure that no brickwork on the country end is impacted, and that the form of the ramps is exposed in the new design

- New platform extensions should be materially sympathetic to existing platform retaining wall structures while also ensuring that they are clearly distinguishable as new work. Design materials for the platform extension could include whole brick (matched in colour, texture and bond to existing platform retaining wall work) with a concrete spacing or separator to distinguish between original and new fabric
- Platform modification works should not impact, cover or remove any existing subfloor ventilation vents. Should platform grading be proposed which would cover over these vents, small spacings should be kept open.

Artefact Heritage are the nominated heritage specialists and will work with JHLOR where required implement the detailed design and 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
- Bankstown Railway Station Group
- Bankstown Station Parcels Office

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).

S2B 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. S2B would also involve demolition and construction works at Bankstown Station, and the installation of fencing and throw screens at the rail/road bridges. Archival recording has been completed for the following:

- Hurlstone Park Railway Underbridge
- Canterbury (Cooks River) Underbridge
- Canterbury (Cooks River/Charles St) Underbridge – Main Line
- Old Sugarmill
- Bankstown Railway Station Group
- Bankstown Parcels Office

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 S2B, 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 S2B 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)
- Shop (Bankstown)

The Heritage Archival Recording Report will be prepared within two years of completion of S2B archival recording in accordance with condition E12 and submitted to the Planning Secretary, the Heritage Council of NSW and Heritage NSW, DEECCW.

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 S2B. Individual Heritage Interpretation Plans have also been prepared for each station precinct by Artefact Heritage as part of the S2B detailed design. Therefore, additional Heritage Interpretation Plans are not required for S2B.

Due to the more substantial body of work planned at Bankstown Station, the Bankstown Station Heritage Interpretation Plan will be implemented to reflect the detailed design for the station in accordance with E14 and NAH6.

6.2.6 Adaptive Reuse

As the S2B works outside of Bankstown Station would generally be limited to minor works within the rail corridor and would not involve the removal of built heritage, adaptive reuse would not be required for other stations.

An Adaptive Reuse Strategy has been prepared for Bankstown Station as part of the Sydney Metro City and Southwest – Sydenham to Bankstown Project and was considered during the project's detailed design. The Adaptive Reuse Strategy for Bankstown Station would be implemented where required.

6.2.7 Moveable Heritage

In accordance with NAH7, a Moveable Heritage Register was prepared for Bankstown Station, including the Bankstown Parcels Office (former), and the other stations along the project alignment. Where a moveable heritage item is required to be removed in order to undertake the proposed works at Bankstown Station, the methods of relocation, storage and reinstatement outlined in the Moveable Heritage Register for the station in accordance with this document.

The Sydenham to Bankstown Moveable Heritage Strategy outlines retention, storage and reinstatement requirements for moveable heritage at the remaining 9 Stations and will be managed in accordance with this document.

6.2.8 Significant Fabric Register

In accordance with NAH8 and NAH17, a Significant Fabric Register was prepared for Bankstown Station and the other stations along the project alignment. Heritage Salvage Strategies were also prepared for the stations based on the identification of significant fabric. As the works at Bankstown Station involve the demolition and removal of significant fabric, a number of elements are required for salvage in accordance with the Bankstown Station Significant Fabric Register and Salvage Strategy. Significant fabric that would be impacted at Bankstown Station would be managed in accordance with these documents.

A significant fabric register has been prepared for the remaining 9 Stations and was considered during detailed design. A salvage register was prepared based on identification of significant fabric and a number of elements have been required for salvage for the Project stations. This requirement has been met at the design phase.

6.2.9 Work Methodologies

HIAs have been prepared as part of the detailed design for each of the stations as part of S2B. The HIAs outline mitigation measures for minimising impacts to built heritage. These recommendations will be implemented during the project.

Where necessary, JHLOR will ensure additional work specific methodologies are developed and implemented during construction where S2B involves the removal of existing built heritage or construction of new structures. In accordance with NAH15, the methodologies for these work activities will be developed 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 the works. The work methodologies will be prepared by the nominated Heritage Consultant and Conservation Architect, and will be provided to JHLOR and Sydney Metro.

6.2.10 Heritage Engineer

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

6.2.11 Exclusion zones

Exclusion zones, including hoarding, screening or mapped no go zones would be provided where S2B 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
- Bankstown Railway Station Group
- Bankstown Parcels Office (to be demolished as part of SMC Additional Works. Demarcation ATF only where works are undertaken adjacent to the structure)
- 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
- Shop (Bankstown)

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)
- Bankstown Railway Station (where works are undertaken adjacent to the platforms)
- Bankstown Parcels office (to be demolished as part of SMC Additional Works. Demarcation ATF only where works are undertaken adjacent to the structure).
- 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 S2B 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).

6.2.12 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).

6.2.13 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 S2B.

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
- Bankstown Railway Station Group
- Bankstown Parcels Office
- Shop (Bankstown)
- 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. HIAs for all stations other than Bankstown Station were developed by Sydney Metro contractor MT2M. These assessments considered the station works being delivered by JHLOR to be minor to moderate and are available on Team Binder.

Additional heritage memos may be prepared during the S2B 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)', Shop (at Bankstown) have been included as these items are located outside of S2B 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 S2B 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 track reconditioning works, non-destructive digging, potholing, clearing and grubbing, installation of CSR and fences and the relocation of Sydney Trains cables, at Marrickville (Zone 1 and 2), 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, Housing & Industry (DPHI) and Heritage NSW, DEECCW.

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 1 and 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, DEECCW 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 S2B archaeological excavations and submitted to the Planning Secretary, the Heritage Council of NSW and Heritage NSW, DEECCW 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)

6.3.10 Management Action

Table 6-1 S2B 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	• 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	• 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	• 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	• 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	• 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, DEECCW. • Upon completion of any unexpected finds reporting and required mitigation measures, post excavation reporting in accordance with the Heritage NSW, DEECCW 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	• 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, DEECCW 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	• 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	• 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 S2B 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	• 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	• Complete daily inspections of the controls during works.
Vibration monitoring	Construction	Environmental Manager	• 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	• 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, DEECCW and DPHI where necessary
Archival recording	Pre-construction	Heritage Specialist where not completed by Metro	• 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, DEECCW within two years of completion of S2B archival recording in accordance with condition E12.
Heritage Interpretation	Pre-construction and ongoing	Environmental Manager Heritage Specialist / Artefact	• A HIS has been prepared for Sydney Metro City & Southwest by Metro (February 2018) (E13, NAH6). A separate strategy therefore is not required for S2B. • Individual Heritage Interpretation Plans have been prepared for the station precincts by Artefact Heritage as part of the detailed design. • The Heritage Interpretation Plan for Bankstown Station will be implemented to reflect the detailed design for the station.
Adaptive Reuse	Pre-construction and Ongoing	Environmental Manager Heritage Specialist / Artefact	• Adaptive Reuse Strategies have been prepared for Bankstown Station and Sydney Metro City & Southwest (NAH5). A separate strategy is therefore not required for S2B. • The Adaptive Reuse Strategy for Bankstown Station will be implemented during the project.

Management Action	Trigger/Timing	Responsibility	Description of Management
Moveable Heritage	Pre-construction and Ongoing	Environmental Manager Heritage Specialist / Artefact	• Moveable Heritage Strategies and Moveable Heritage Registers have been prepared for Sydney Metro City & Southwest and Bankstown Station (NAH7). A separate strategy and moveable heritage registers are therefore not required for S2B. • The Moveable Heritage Strategy and Moveable Heritage Register for Bankstown Station will be implemented during the project.
Significant Fabric	Pre-construction and Ongoing	Environmental Manager Heritage Specialist / Artefact	• Significant Fabric Registers have been prepared for Sydney Metro City & Southwest and Bankstown Station (NAH8, NAH17). A separate fabric register is therefore not required for S2B. • Heritage Salvage Strategies have been prepared for Sydney Metro City & Southwest and Bankstown Station (NAH8). A separate salvage strategy is therefore not required for S2B. • The Significant Fabric Register Salvage Strategy for Bankstown Station will be implemented during the project.
Work Methodologies	Pre-construction and Ongoing	Environmental Manager Heritage Specialist / Artefact	• HIAs have been prepared as part of the detailed designs for the stations and for S2B, which outline mitigation measures for minimising impacts to built heritage. These recommendations will be implemented during the project. • Where necessary, additional work specific methodologies will be developed for S2B where the work activities involve the removal of existing built heritage or construction of new structures at Bankstown Station (NAH15).
Heritage Inductions	Pre-construction and Ongoing	Environmental Manager	• 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. • 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.
Heritage Impact Assessment	Pre-construction and Ongoing	Environmental Manager Heritage Specialist	• 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. An additional inventory and HIA have been completed for S2B. • A HIA and inventory which outlines potential impacts and protection measures for significant fabric, spaces and vistas has been prepared for the following items: - 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

Management Action	Trigger/Timing	Responsibility	Description of Management
			- Lakemba Railway Station Group - Wiley Park Railway Station Group - Punchbowl Railway Station Group - Bankstown Railway Station Group - Bankstown Parcels Office - 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 - Shop (Bankstown) • The HIA includes an assessment of impacts to significant fabric, elements and vistas. The HIA has been provided for review to Sydney Metro. 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)' and 'Shop' will be included as these items are located outside of S2B 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 Conservation architect	• 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.

Management Action	Trigger/Timing	Responsibility	Description of Management
Heritage Engineer	Pre-construction and Ongoing	Environmental Manager	• 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 S2B.
Exclusion Zone	Pre-construction and Ongoing	Environmental Manager	• Exclusion zones, including hoarding, screening or mapped no go zones would be provided where S2B 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: - 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 - Bankstown Railway Station Group - Bankstown Parcels Office (to be demolished as part of BSW. Demarcation ATF only) - Hurlstone Park Railway Underbridge - Canterbury (Cooks River) Underbridge - Canterbury (Cooks River/Charles St) Underbridge – Main Line - 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) - South Dulwich Hill Heritage Conservation Area

Management Action	Trigger/Timing	Responsibility	Description of Management
			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: - 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 - Bankstown Railway Station Group - Bankstown Parcels Office (to be demolished as part of BSW. Demarcation ATF only) - 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 Confirmation regarding which heritage items would require physical barriers during the works have been included in the HIA prepared for the S2B 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).

Table 6-3 S2B 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	• 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	• Complete daily inspections of the controls during works.
Vibration monitoring	Construction	Environmental Manager	• 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	• 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. DPHI and Heritage NSW, DEECCW 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	• A works specific AMS has been prepared for S2B 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	• 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	• 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, DEECCW 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	• 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	• 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	• 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	• 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	• 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, DEECCW 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 S2B HIA
- Information relating to the nature of works and potential impacts via pre-starts at the start of activity
- Information relating to the management and salvage of significant fabric and moveable heritage in accordance with the requirements of the relevant project documents
- 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

ROLES	RESPONSIBILITIES
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.

Environmental Representative	Receive and respond to communications from the Secretary in relation to the environmental performance of the Project
	• 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:
	  • (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

ROLES	RESPONSIBILITIES
	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. Must complete project induction covering LORs' environmental management system.
Primary Excavation Director	The Primary Excavation Director must be suitably qualified and be someone 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 DPHI and Heritage NSW, DEECCW The Excavation Director must be present to oversee excavation and advise on archaeological issues 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 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
Secondary Excavation Director	The secondary excavation director would support the Primary Excavation Director where needed. The nominated Secondary Excavation Director is Jenny Winnett who is able to manage locally significant archaeology under the NSW Heritage Council Excavation Directors Criteria
Heritage Specialist	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. The nominated heritage specialist is Artefact Heritage
Forensic Anthropologist	The Forensic Anthropologist would respond to find of potential human remains in accordance with the Sydney Metro Exhumation Management Plan. The nominated Forensic Anthropologist is Dr Denise Donlon from Sydney University
Conservation Architect	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.

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 3.1 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 of NSW	N/A	S2B Submitted 25/11/2020 Response received 21/12/2020 BEW Not applicable BAC Submitted 22/07/2022 Response received 12/08/2022	**S2B** Dear Mr. Keegan 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. The South West Metro Corridor includes several State Heritage Register (SHR) listed placed located within or near the proposed project area including: • Marrickville Railway Station Group (4801091) • Old Sugarmill (00290) • Canterbury Railway Station Group (01109) • Belmore Railway Station Group (01081) The following s170 items are located within and near the project area: <u>RailCorp:</u> • 12 items <u>Sydney Water:</u> • Interwar water pumping station – Item No. 4570136 <u>Ausgrid:</u> • Electricity Substation no. 275 – Item No. 3430425 There are also several locally listed heritage places within and adjacent to the site listed on the Marrickville LEP 2011 and Canterbury LEP 2012. 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. 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. 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. 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 **BAC** Dear Ms Snelgrove Thank you for your submission of the revised CHMP dated 22 July 2022, inviting comments from the Heritage Council of NSW. It is our understanding that the CHMP (Rev 11) includes management strategies for the Bankstown Additional Corridor Works (SSI 8256 MOD 1), to address condition C3(d) of the SSI consent (SSI 8256). The relevant SSI condition is: *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**: **Consultation required for CEMP Sub-plans*** ***Relevant government agencies to be consulted for CEMP Sub-plans*** *(a) Noise and vibration* — *Relevant council(s)* *(b) Soil and water* — *Relevant council(s), DoI, OEH* *(c) Waste and spoil* — *Relevant council(s)* *(d) Heritage* — *Heritage Council (or its delegate) and relevant council(s)*	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 S2B (Appendix D). Management of potential impacts to the heritage items have been included in this CHMP. 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 Noted. JHLOR will continue to follow the recommendations contained within the archaeology and built heritage specific documents for managing heritage impacts for the S2B and BAC works. JHLOR will continue engagement with relevant local councils, RailCorp, Sydney Water and Ausgrid to ensure that the local heritage values and significance of all heritage items are appropriately considered throughout the process. JHLOR will continue engagement with Registered Aboriginal Parties, relevant Local Aboriginal Land Councils and relevant local councils throughout the process as required. .

Condition of Approval SSI 8256	Agency Consultation	Consultation Workshop	Status	Comments	JHLOR Response
				Reference is made to the following document (as two versions with and without tracked changes) initially provided on 22 July 2022 with a primary focus on revisions for the Bankstown Additional Corridor Modifications (SSI 8256 MOD 1): • *Southwest Metro Corridor & BAC – Construction Heritage Management Plan (Revision 11),* prepared by John Holland Laing O'Rourke Joint Venture for Sydney Metro, dated 11 July 2022. It is our understanding that the works proposed for the BAC Modification 1 are substantial and involve the demolition of some elements of the Bankstown Station platforms, as well as the complete demolition and removal of the Bankstown Parcels Office (former). The proposed works will cause moderate impacts to the LEP listed heritage item and locally significant "Bankstown Railway Station Group", with proposed major adverse impacts to the Bankstown Parcels Office (former) building; considered to be an element of exceptional significance within the station group. *Built Heritage and Archaeological Management* It is noted that there is a significant level of work required to mitigate the built heritage impacts of the project and supports the implementation of design requirements in line with the measures listed in the CHMP (6.2.2) and derived from the Bankstown Station Heritage Impact Assessment (Artefact Heritage, 2021), with input from a conservation architect. The use of Archival Photographic Recording (6.2.4) for all heritage items is supported where direct impacts or visual impacts would be minor or greater than minor. It is also considered appropriate to implement the Heritage Impact Strategy (Artefact Heritage, 2020) prepared for the S2B, for both the S2B and BAC works. Furthermore, the implementation of an Adaptive Reuse strategy (6.2.6) for Bankstown Station is appropriate considering the substantial impacts of the proposed works. Reference to other archaeology and built heritage specific documents for managing heritage impacts for the S2B and BAC works is supported (e.g. AARD, AMS, HIA, Sydney Metro Unexpected Heritage Finds Procedure). The applicant is advised to follow the recommendations contained therein. We are overall satisfied that the CHMP is an adequate guide for managing heritage values during the construction process with reference to appropriate site-specific documents and strategies. As the site contains local heritage items, we recommend continued engagement with relevant local councils, RailCorp, Sydney Water and Ausgrid to ensure that the local heritage values and significance of all heritage items are appropriately considered throughout the process. *Aboriginal Cultural Heritage Management* The strategies outlined for managing Aboriginal cultural heritage in the CHMP are appropriate and reference to the Aboriginal Cultural Heritage Assessment Report (Artefact Heritage 2017) is supported. We recommend continued engagement with Registered Aboriginal Parties, relevant Local Aboriginal Land Councils and relevant local councils throughout the process. If you have any questions regarding the comments and recommendations provided above, please contact Elaine Lin, Senior Assessments Officer, Major Projects at Heritage NSW on 02 4927 3190 or Elaine.Lin@environment.nsw.gov.au.	
	City of Canterbury Bankstown	**S2B** N/A **BEW** Presentation given to CBCC on 10/09/2021 regarding BEW scope, traffic, access, and pre-construction activity Presentation given to CBCC on 16/09/2021 regarding BEW scope the CHMP, CSWMP and CNVMP.	Submitted 30/11/2020 Response received 21/12/2020 Resolved Resolved	Hi all, Not very many comments from us, just a couple of things: **Heritage Management Plan** 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. Clarifications of scope were resolved during the presentation Questions were resolved during meeting. Refer to Minutes of the meeting below	Noted. Recommendation added to the Aboriginal management of unexpected finds (Section 6.1.3). Noted. Noted

Condition of Approval SSI 8256	Agency Consultation	Consultation Workshop	Status	Comments	JHLOR Response
			Submitted 04/09/21. Comments received by email 17/09/21	I have reviewed the Heritage Management Plan. The additional points regarding Bankstown appear to be ok. What I did notice however was that the documentation doesn't show the heritage conservation areas surrounding the Hurlstone Park train station and Underbridge. A number of HCAs were gazetted in Hurlstone Park late last year and so the mapping in the report (pg 40-41) needs to indicate this, with any impacts identified. <u>Hurlstone Park Railway Station</u> Floss Street HCA (C5) is located south of Hurlstone Park station. The study area seems to be located in part of this HCA. Crinan Street shops HCA (C2) is located north of the station. <u>Hurlstone Park Underbridge</u> Railway Street HCA (C6) is south of the underbridge and abutting the study area.	Figures 4.5 and 4.6 have been updated.
		BAC N/A	Revised Plan for BAC submitted 20/07/2022. Comments not received by time of publication	All late comments will be responded to and forwarded to DPHI for information	N/A
	Inner West Council	**S2B** N/A	Submitted 3/12/2020 Response received 21/12/2020	Hi Ken I have reviewed the CHMP, and the following issues have been identified: **Table 6.2 (p. 62):** Amend 'could' to 'shall' **Table 7-1 Role and Responsibilities:** The responsibility for advice regarding built heritage should rest with a conservation architect.	Noted. Responsibility of the conservation architect has been updated.
		BEW N/A	No impact in Council area	N/A	N/A
		BAC N/A	Revised Plan for BAC submitted 20/07//2022. Comments received 09/08/2022	Thanks for the discussion. I have reviewed the updated document (Southwest Metro Corridor – Construction Heritage Management Plan; S2BSWSSJ-JHL-WEC-EM-PLN-000013) and have no additional comments.	N/A

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 Gundangarra 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
Gunyuu 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 quinquernervia) 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 timer 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 brisk 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.

Bankstown Railway Station group

Bankstown Railway Station complex has local significance as a station which dates from the early 20th century expansion of the railways between Belmore and Bankstown undertaken to accommodate suburban development, particularly the war service residential development which took place during the interwar period. The collection of railway structures dating from the 1909 opening of the station and its expansion in the 1940s reflect the real estate boom in the area and the development of Bankstown into a major centre. The 'initial island' platform building, Railway Stripped Functionalist style former parcels office, timber overhead booking office and footbridge collectively characterise the type of construction and architectural style employed in early 20th century railway station buildings and associated structures in the Sydney region.

Platform 1-2 (1909)

The platform (Platform 1/2) comprises a curved brick island type with a face brick platform face and edge, dating to 1909. The surface of the platform is covered with asphalt. The platform is structurally in good condition, although sections of the original brick facing have been replaced with pre-cast concrete, particularly on the eastern side of the station. The eastern end was extended in 1923 and 1926. The Platform 1 coping (southern side) has been replaced with concrete.

Platform building, platform 1/2 (Type 11) (1909, 1923)

Rectilinear building, Federation style eight bays long with English bonded brickwork and a gabled roof. The bays are defined by engaged brick piers that have decorative concrete corbels and standard steel double bowed brackets that support cantilevered awnings. Original features – Exceptional; 1923 alterations – High; Later alterations – Little; Services, signs, security grilles and flyscreens – Intrusive

Overbridge (1909, 1938)

The Bankstown City Plaza overbridge runs north to south over the rail corridor and the western end of Bankstown Railway Station. The overbridge, originally constructed in 1909 and modified in 1998, comprises a 26-metre-long modified steel jack-arch overbridge of filled in arched brickwork between steel web-girders, supported by central brick piers and side brick abutments. The 1998 modifications included the widening of the bridge and a new concrete structure and surfacing, but these works involved the retention of the original brick piers and abutments. The original brick parapets along the sides of the bridge have been removed and replaced with the commercial properties along both the western and eastern sides, with a section of meshed screening in the location of one of the western properties which was demolished in 2007.

Overhead Booking Office (1948)

External: It is a weatherboard structure occupying most of the western side of the footbridge and it includes an office space to the north. The booking office had five ticket windows facing onto the concourse. The attached office space has an original timber double hung window with multi-paned upper and lower sashes and an original timber multi-paned pivot fanlight. Both the windows have been fitted with steel safety grilles to the outside. Adjacent to the booking office is a three-storey brick shopping centre which is not included in the listing.

Internal: The original booking office was larger than it is currently. Part of the southern end of the original booking office was partitioned off and integrated with the tenancy space next to it. All the original windows along the western face of the booking office have been removed. There were initially five ticketing windows and one has been retained. Other original fabric that remains includes the original internal wall between the booking office and office space to its north and all steel structural columns.

Footbridge (1948)

The footbridge runs over the western end of the platforms. The footbridge is constructed from in-situ reinforced concentre slabs resting on a system of steel columns, girders and braces. Stairs lead down to the platforms from the eastern side of the concourse. The footbridge is fully covered by the overhead booking office structure. The 1948 footbridge has been significantly altered in terms of its configuration and in terms of the stairs leading down to the platforms. However the original fabric, namely steel girders and concrete slabs and a superstructure comprising of steel beams, columns and trestles, has been retained and this is typical of such footbridges within the suburban network.

Canopies (modern)

The canopies are modern and have been assessed as intrusive

Bankstown Parcels office (former)

The former Bankstown Parcels Office is a single storey building that demonstrates many of the Inter War Functionalist style characteristics, including asymmetrical massing, geometric volumes, windows expressed as horizontal bands, parallel lines used as a decorative motif, cantilevered canopies, flat roofs concealed by parapets and circular windows.

The building is located on the southern side of the railway line to the east of the station platform building. The principal entrance to the building is situated on the asymmetrically designed western facade of the building. The entrance is further emphasised by a projecting mass that also rises above the line of the building's parapet, brick columns in antis and lettering within the parapet.

Externally, the southern and northern sides of the building feature a band of windows contained within a projecting rendered architrave. The northern side of the building, which is adjacent to the railway lines, includes a platform and another entry door that is sheltered by a cantilevered canopy. A small flight of steps connects the platform to the ground. The platform has been extended and a lightweight verandah with tubular columns and a steel roof deck added to the building. The eastern side of the building has a loading dock, covered by a cantilevered canopy supported on the northern side by a colonnade of brick piers. Circular porthole windows are located in the eastern southern and northern sides of the building. The windows have wired glass of an unusual pattern. Windows are generally steel framed.

The building demonstrates an exemplary use of well-detailed brickwork, including the use of two colours (dichromatic brickwork). Darker toned bricks are used in the eight horizontal courses that link window areas around the building and add decorative relief to plain wall surfaces. They are also used around the circular windows and across the heads of openings associated with doors. Additionally, contrasting heeler bricks are used between windows in the strips of glazing on the northern and southern sides of the building and as accents along the parapet, where they are recessed below the parapet copings. Further design detailing includes moulded bricks to form columns and piers, raked horizontal joints and the use of Flemish bond.

Damage to the building was repaired and the structure was restored in a heritage sympathetic manner by Sydney Trains in 2014 for future commercial use.

Shop

The Shop is located approximately 55m south-east of the eastern end of the station platforms. Views towards the railway corridor and station are currently mostly screened by vegetation and the existing bus interchange along South Terrace. The heritage item but would remain mostly screened by existing development and vegetation.

Movable

NSW Railway heritage listed sites contain significant collections of stored movable railway heritage, including furniture, signs, operational objects, ex-booking office and ticketing objects, paper records, clocks, memorabilia, indicator boards and artwork. Individually, these objects are important components of the history of each site. Together, they form a large and diverse collection of movable objects across the NSW rail network. Sydney Trains maintains a database of movable heritage. For up-to-date information on all movable heritage items at this site, contact the Sydney Trains heritage team.

- Key items at this station include but are not limited to:
- Cast metal lettering on exterior walls of Parcels Office
- Painted lettering on interior walls of Parcels Office
- Cast iron safe in Parcels Office
- Reproduction heritage-style lamp posts on platform
- Red and white “Railway Station” sign in retail arcade between station and North Terrace.

Appendix D

Heritage Impact Assessment

Non-Aboriginal Heritage Impact Assessment and Archaeological Method Statement

Sydney Metro City & Southwest - Southwest Metro: Corridor Works

Report to JHLOR

July 2022

artefact

Artefact Heritage
ABN 73 144 973 526
Suite 56, Jones Bay Wharf
26-32 Pirrama Road
Pyrmont NSW 2009
Australia

+61 2 9518 8411
office@artefact.net.au

CONTENTS

FIGURES

TABLES

1.0 INTRODUCTION

1.1 Project background

The South West Metro Project (SWM) involves upgrading the 10 existing stations west of Sydenham (Marrickville to Bankstown inclusive), and a 13-kilometre-long section of the Sydney Trains T3 Bankstown Line, between west of Sydenham Station and west of Bankstown Station. The project would improve accessibility for customers and meet the standards required for metro operations. The project would enable Sydney Metro to operate beyond Sydenham, to Bankstown.

The John Holland Laing O'Rourke joint venture (JHLOR) (the Proponent) are proposing to undertake a package of works known as Southwest Metro Corridor (SMC), which consists of construction works within the railway corridor and at several stations along the SWM alignment. The works would be undertaken within the curtilage of the state significant Marrickville Railway Station Group, Canterbury Railway Station Group and Belmore Railway Station Group, as well as adjacent to the state significant Old Sugarmill and within and adjacent to 19 other items listed on Section 170 Heritage and Conservation Register and relevant Local Environmental Plans (LEP). The works would also be undertaken within the areas of archaeological potential identified at Marrickville Station, Canterbury Station, Belmore Station and Lakemba Station.

JHLOR intends to undertake these construction phase corridor works ahead of the main construction phase works for the station packages. The corridor works consist of activities including (but not limited to):

- Installation and commissioning of Combined Service Routes (GST, GLT, pit and pipe)
- Relocation of Sydney Trains cables and utilities
- Installation of security and segregation fencing
- Bridge remedial works, including installation of crash barriers and throw screens
- Modifications to the existing rail track
- Installation of new track slabs at stations
- Vegetation removal
- Overhead wiring works and demolition of redundant infrastructure
- Rail embankment stabilisation including retaining walls
- Establishment of the Canterbury Compound
- Construction of new Sydney Trains and Sydney Metro station entrances
- Service Building at Bankstown Station
- Southern (down) platform works at Bankstown Station including installation of canopy (outside of the heritage curtilage)
- Demolition of former Bankstown Parcels Building, and construction of new cross corridor retail plaza
- Partial demolition of Bankstown Platform 1/2 to the east and extension of platform to the west
- Construction of new Bankstown Sydney Metro and Sydney Trans station concourse
- Removal of existing amenities block and new urban landscaping to Bankstown station precinct.

This report provides archaeological impact assessments for the affected areas of archaeological potential to provide archaeological mitigation measures for the works. This report also provides an impact assessment of the remaining items that would be affected by SMC to inform the heritage and mitigation recommendations for the proposed works. This will inform a Construction Heritage Management Plan (CHMP) being prepared as a sub-plan for the SMC Construction Environmental Management Plan (CEMP). An Archaeological Method Statement has been attached as an appendix where it is recommended as part of archaeological mitigation.

1.2 Report limitations

This heritage assessment is based on historical and archaeological research provided in the previously prepared heritage reports for the Sydney Metro City and Southwest Sydenham to Bankstown upgrade. The current assessment provides summaries of the historical and archaeological research prepared in these reports but does not reproduce the historical context for these reports. Reports referenced in this assessment include:

- Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Non-Aboriginal Heritage Impact Assessment (Artefact 2017)
- Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design (Artefact 2018a)
- Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Submissions and Preferred Infrastructure Report, Non-Aboriginal Heritage Assessment (Artefact 2018b).
- Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Bankstown Station Modification Statement of Heritage Impact (May 2020)
- Sydney Metro City and Southwest - Bankstown Station Movable Heritage Strategy Report (January 2021)
- Sydney Metro City and Southwest - Final Moveable heritage strategy (March 2021)
- Sydney Metro City and Southwest - Bankstown Metro Station Heritage Impact Assessment Report Stage 2 (April 2021)

1.3 Authorship

This report was prepared by Gabriela McPherson (Heritage Consultant), Jessica Horton (Heritage Consultant), and Jayden van Beek (Senior Associate). Dr Sandra Wallace (Director), Scott MacArthur (Conservation Architect), and Dr Iain Stuart (Excavation Director) provided management input and review.

2.0 PROPOSED WORKS

2.1 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).

The SMC works will include critical enabling activities for SWM. The SMC works are located on the T3 Bankstown line between Sydenham and Bankstown, NSW.

SMC works will occur predominantly within the rail corridor however they will also involve works within some station catchments such as platform works and construction of the services building at Bankstown Station. SMC is expected to be finished in late 2022.

The works will be undertaken by the John Holland 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.

2.1.1 Temporary works

The SMC temporary 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
- 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 and compounds 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 including services searching and geotechnical investigations along the full alignment from Marrickville to Bankstown
- Establishment of Minor Ancillary Facility at Sydney Trains Laydown in Leichardt.

2.1.2 Permanent works[1]

The works include all permanent new infrastructure and modifications to existing infrastructure, which must be constructed to enable the construction of SMC. The SMEW works are consistent with the scope approved under SSI8256 and MOD 1. 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 and modifications to the existing rail track (including crossovers, diamond crossings, hi rail ramps, buffer stops and earthworks)
- Track tamping & rail grinding from Sydenham to Bankstown
- Installation of new track slabs across eight Sydney Metro stations
- Bridge remedial works, including installation of crash barriers and throw screens
- Modifications to the existing rail track
- Overhead wire works
- Demolition of redundant infrastructure
- Construction of Sydney Trains and Sydney Metro station entrances at Bankstown Station
- Construction of new northern (UP) Sydney Metro platform at Bankstown Station
- Relocation of Sydney Trains cables

[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

- Establishment of the Canterbury Compound 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.
- Service Building Bankstown Station
- Bankstown Station construction works include 70m extension of Sydney Trains existing Bankstown platform, removal of loop road and replacement with diamond crossing, up platform construction, new Metro and Sydney Trains station entrance concourse, new Sydney Metro Up platform, cross corridor plaza from Appian way through to Westwell street, HV diversion and urban landscaping and finishes across the Bankstown precinct
- Bankstown Station construction reworks include the demolition of the following:
    - Existing Sydney Trains Bankstown platform (partial)
    - Existing heritage parcel office building on South Terrace
    - Existing toilet block on North Terrace
- Southern (down) platform (piling, FRP platform decks, installation of canopy) at Bankstown Station

2.2 Overview of excavation works

Sydney Metro are proposing to undertake the excavation works within the Archaeological Investigation Zones (AIZ) at Marrickville, Canterbury, Belmore and Lakemba Stations, as part of the SMC works.

The proposed excavation works consist of the following general activities:

Table 1: Proposed excavation works

Activity	Details	Locations
Supporting activities		
Potholing	A number of services will be potholed to ensure construction is undertaken in a safe manner. Fence and galvanised steel troughing (GST) will be installed within all AIZs – footings for fences and GST will be excavated with a vacuum truck.	Marrickville, Canterbury, Belmore and Lakemba Stations
Geotech and contamination testing	Geotech tests (boreholes, slit trenches) at a number of locations. Soil Resistivity Testing (inserting 3x metal rods, at approximately 15mm diameter, in the ground to a depth of 300mm). Contamination testing – test pits (1.5 x 1.5 x 2m) and boreholes.	Marrickville, Canterbury, Belmore and Lakemba Stations
Clear and grub, and tree removal	Clearing and grubbing – removal of surface vegetation and 200mm of topsoil with an excavator to access work front. Removal of trees, including digging out roots (as required). In particular trees would be removed from within Canterbury and Lakemba Stations.	Marrickville, Canterbury, Belmore and Lakemba Stations

Activity	Details	Locations
Temporary fencing and bollards	Installation of water barriers, temporary fencing, Vortok fencing, flagging with bollards etc. (i.e., items that are placed on the surface within Archaeological Management Zones (AMZ)).	Marrickville, Canterbury, Belmore and Lakemba Stations
Survey	Geographical survey, CCTV investigations, site inspections, conditions survey, scanning and other non-destructive survey.	All AMZs
Sediment control installation	Installing sediment fences as and where required (knocking wooden stakes into the ground at 1.5m intervals to a depth of 300mm).	Marrickville and Canterbury Stations
Laydown of construction materials	Laydown of materials on the surface (troughing, pits, pipes, posts, fencing panels, retaining wall components). Storage of equipment (including within shipping containers).	Marrickville, Canterbury, Belmore and Lakemba Stations
Stockpiling	Stockpiling of spoil and quarry materials within the laydown areas (stockpiles will be removed / worked with an excavator or front-end loader).	Marrickville, Canterbury, Belmore and Lakemba Stations
Canterbury Construction Site	Bulk removal of 300mm of topsoil and replacement with road base and pavement for the compound laydown area Installation of service trenches through the bowling green (sewer, water, power, communications – up to 1000mm deep and 1.5m wide). Installation of drainage pit – up to 1500mm deep Power poles (localised excavations to a depth of 4m) Demolition of existing Canterbury Bowls Club building (including foundations and associated services, depth unknown Excavation of an access ramp to a depth of 1000mm Removal of trees including excavations to depths of about 500mm. It is noted that not all of the trees within the proposed tree removal area may be removed Reinstatement of area (removal of imported material, addition of top soil and turf).	Canterbury Station
Bankstown Metro Corridor Works	Geometric road design, earthworks and pavement design for driveway/access into the corridor from South Terrace. Earthworks and pavement design for access footpath to rail track. Corridor fencing and provision of new UTO fence either side of track. Track formation earthworks for turnout replacement and new turnout installations. CSR design of local cable routes from GST and connections to trackside equipment. Structural design of misc. trackside equipment	Bankstown Metro Corridor

Activity	Details	Locations
Bankstown Construction Works	Backfill CBC Sydney Water culvert to allow for the construction of the new Up platform City end signalling and communication works and HV diversions to delink the construction from the 'Up' platform Demolition of existing platform (partial) and parcel box and non-significant amenities building. Relocate and divert Feeder 588	Bankstown Station
Permanent works		
Overhead wire footings (OHW) and structures	Installation of OHW footings and structures (to a depth of 6m).	Marrickville, Canterbury and Belmore Stations
Fencing	Installation of security fencing and segregation fencing (footings to a depth of 2m with a 600mm diameter). Strip footings (to a depth of 300mm and 300mm wide).	Marrickville, Canterbury and Belmore Stations
Combined service route	Galvanised steel trough (post holes at 2m centres, to a depth of 1.5m, with a 300mm diameter). Ground level tough (trench a ground level, to a depth of 400mm and 400mm wide). Pit and pipe route (trench up to 1.8m deep and 1.5 wide, pits to 2 x 2 x 2m).	Marrickville, Canterbury, Belmore and Lakemba Stations
Removal of redundant ARTC infrastructure	Old OWH portals and footings to be removed (footings hammered out and backfilled with fill material).	Marrickville and Canterbury Stations
Removal of redundant service routes	Removal of old buried route at Canterbury Station. Removal of old GLT at Lakemba Station.	Canterbury and Lakemba Stations
Sydney Trails relocations	Removal and redundant Sydney Trains cables and utilities and installation of new cables at Canterbury and Lakemba Stations.	Canterbury, Belmore and Lakemba Stations
Track slab installation	Installation of track slabs within the rail corridor adjacent to the platforms at eight stations. Ballasted track replacement with track slab with associate transition slab. Formation replacement for the proposed track slab. Associated drainage works including provision of trench drains, stormwater pits and pipes at track level, upgrading existing drainage where additional capacity is required, and connections to existing track drainage systems	Marrickville, Dulwich Hill, Hurlstone Park, Canterbury, Campsie, Belmore, Lakemba, and Punchbowl Stations

	New Comms Building and Associated Infrastructure – a new 3.6 x 6.5m brick comms hut proposed to west of Chapel St bridge. New rail track formation and earthworks has been designed through the proposed rail turnouts and where the track slews form the existing alignment by 300mm or more. New cess drains to be provided adjacent to all formation reconstruction works due to the slews encroaching on existing cess drains or the existing drainage being inadequate. New cross corridor drainage measures to be constructed to service future Sydney Trains platform extensions. Two existing cross corridor drainage lines are to be removed/abandoned.	
Sydney Trains Corridor	CSR enabling works, Sydney Trains CSR and overhead HV relocation. This is proposed to facilitate the extension of Sydney Trains Bankstown platforms towards Sydney by: - relocating signal SM338 - removing the Loop Line - temporary disconnection and re-installation of trackside signalling equipment - country side enabling works to facilitate Sydney Train platform extension work - relocation and replacement of existing main and local signalling cables from South Terrace Bridge on Sydney side to the Bankstown platform A permanent spares stockpile area is proposed to be located west of Bankstown Station. Size and location of storage area is to be confirmed.	Bankstown Station
Bankstown Construction Works	Bankstown existing platform extension involves precast concrete substructure and drainage, precast foundations, and structural slab 160m long new Metro platform involves, piled foundation, base slab, steep substructure and precast platform panels with structural steel canopy over Sydney Metro station entrance involves piled foundations with base slabs, structural steel frame, brick and glazed façade with an open concourse Cross corridor plaza includes a paved walkway with the potential for future busway New urban landscaping to station surround.	Bankstown Station

3.0 ARCHAEOLOGICAL ASSESSMENT

3.1 Introduction

Assessments of archaeological potential and archaeological management strategies have been sourced from the *Sydney Metro City & Southwest – Sydenham to Bankstown Historical Archaeological Assessment & Research Design*.[2]

3.2 Marrickville Station

3.2.1 Potential archaeological remains at Marrickville Station

The *Sydney Metro City & Southwest – Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design* predicted archaeological remains of local significance to be present at Marrickville Station. A summary of the archaeological potential and significance of predicted remains is provided in Table 2 and the location of these archaeological resources is provided in Figure 1.

Table 2: Summary of areas with potential for significant archaeological remains for Marrickville Station[3]

Phase	Archaeological Resource	Potential	Significance
1 (1788-1850s)	• Archaeological features associated with land clearance such as tree boles, evidence of dairy farming and market gardening including fence line postholes, former shed postholes, brick or paved yard surfaces, field drains, isolated artefact scatters	Nil-low	Unlikely to reach the threshold for local significance
2 (1850s – 1890s)	• Archaeological features associated with farming such as fence or shed postholes, field drains and isolated artefacts, drains or culverts associated with the former creek	Nil-low	Unlikely to reach the threshold for local significance
3 (1890s – 1920s)	• Archaeological remains associated with the early phase of railway infrastructure such as culverts, ceramic service pits, utilities such as woodstave sewer or ceramic pipes; brick drainage pits, electrical conduits and pits, stanchion bases, sleepers and rail track. • Identified remains of original stone copings, earlier alignment of platforms, footscrapers, buried services, original lever set, footings of former platform stairs, platform brick dwarf walls, and building footings • Moderate potential for footings of former platform canopies • Low potential for former level crossing at the current Illawarrra Road overbridge • Archaeological remains of the former Earlwood tram line that ran across Illawarra Road overbridge such as tram tracks and associated infrastructure	Moderate-high	Local

[2] Artefact 2018a
[3] Artefact 2018a: Table 3-4.

Phase	Archaeological Resource	Potential	Significance
	• Low potential for footings of former coal loading and storage facilities • Low potential for archaeological remains of the former sleeper bridge such as bridge footings	Low	Unlikely to reach the threshold for local significance
4 (1930s – present)	• Archaeological remains associated with upgrades such as utilities and drainage • Footings associated with the commuter car parking structure and the Illawarra Road footbridge • Footings of signalling huts and boxes	Moderate-high	Unlikely to reach the threshold for local significance
	• Archaeological remains associated with the WWII air raid shelter such as the cut of the pit, sandbags, iron, concrete sandbags, roofing, drainage infrastructure, and associated artefacts	Moderate	Local

3.2.2 Archaeological management strategy for works at Marrickville Station

The *Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design* has assessed potential impacts to archaeological resources at Marrickville Station from the works required as part of the project. The archaeological management policies for these works are outlined in Table 3 and the location of the archaeological management zones are illustrated in Figure 2.

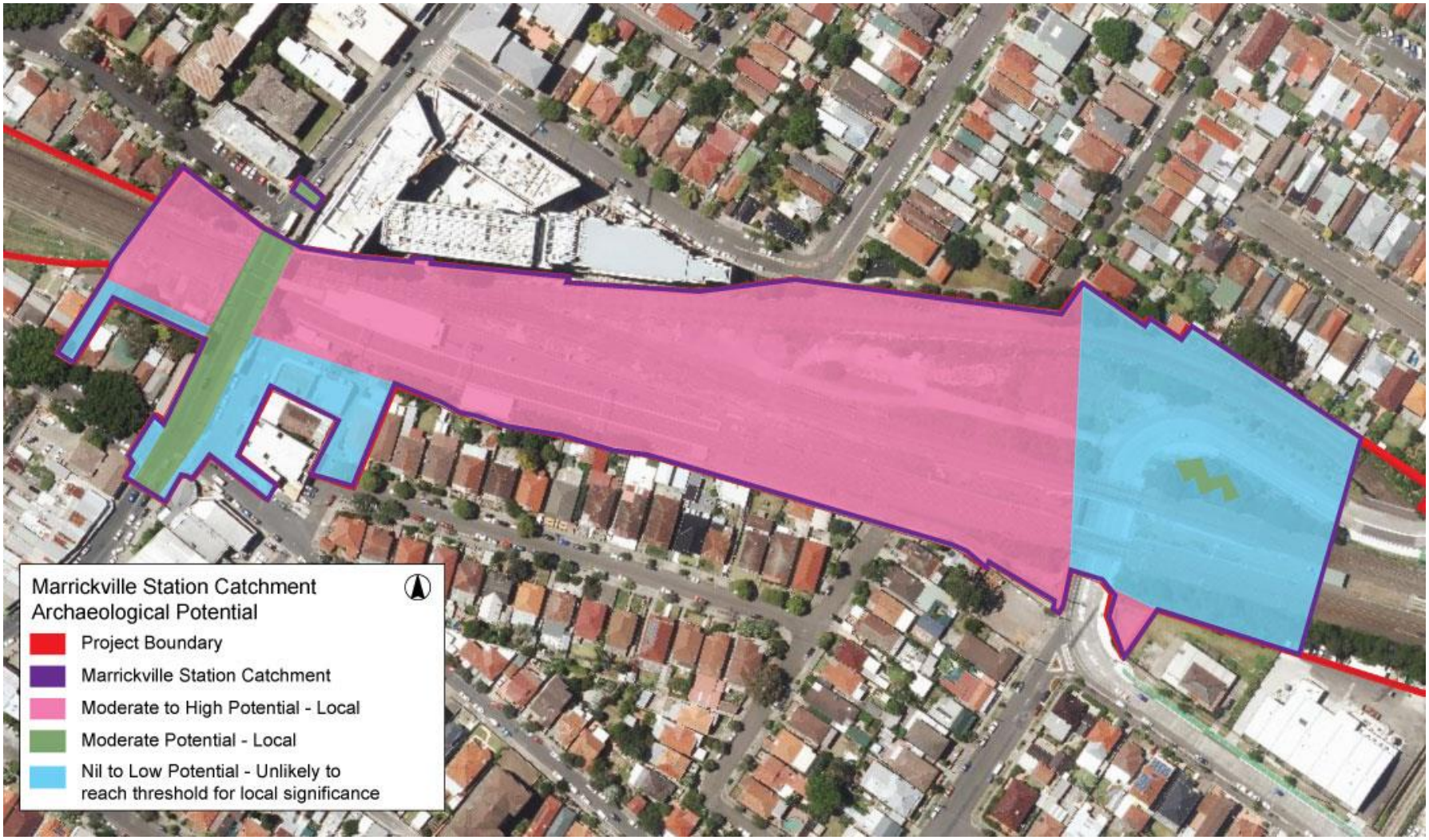
Table 3: Summary of archaeological management requirements at Marrickville Station Catchment[4]

Phase	Potential Archaeology	Management Zone	Mitigation
1 (1788-1850s)	Nil to low potential for archaeological features associated with land clearance such as tree boles, evidence of dairy farming and market gardening including fence line postholes, former shed postholes, brick or paved yard surfaces, field drains, isolated artefact scatters. Unlikely to reach the threshold for local significance.	3	• Unexpected Finds Procedure
2 (1850s – 1890s)	Nil to low potential for archaeological features associated with farming such as fence or shed postholes, field drains and isolated artefacts, drains or culverts associated with the former creek. Unlikely to reach the threshold for local significance.	3	• Unexpected Finds Procedure
3 (1890s – 1920s)	Moderate to high potential for potentially local significant archaeological remains associated with the early phase of railway infrastructure such as culverts, ceramic service pits, brick drainage pits, electrical conduits and pits, stanchion bases, sleepers and rail track. Identified remains of original stone copings, earlier alignment of platforms, footscrapers, buried services,	1	• AMS • Salvage excavations

[4] Artefact 2018a: Table 8-2.

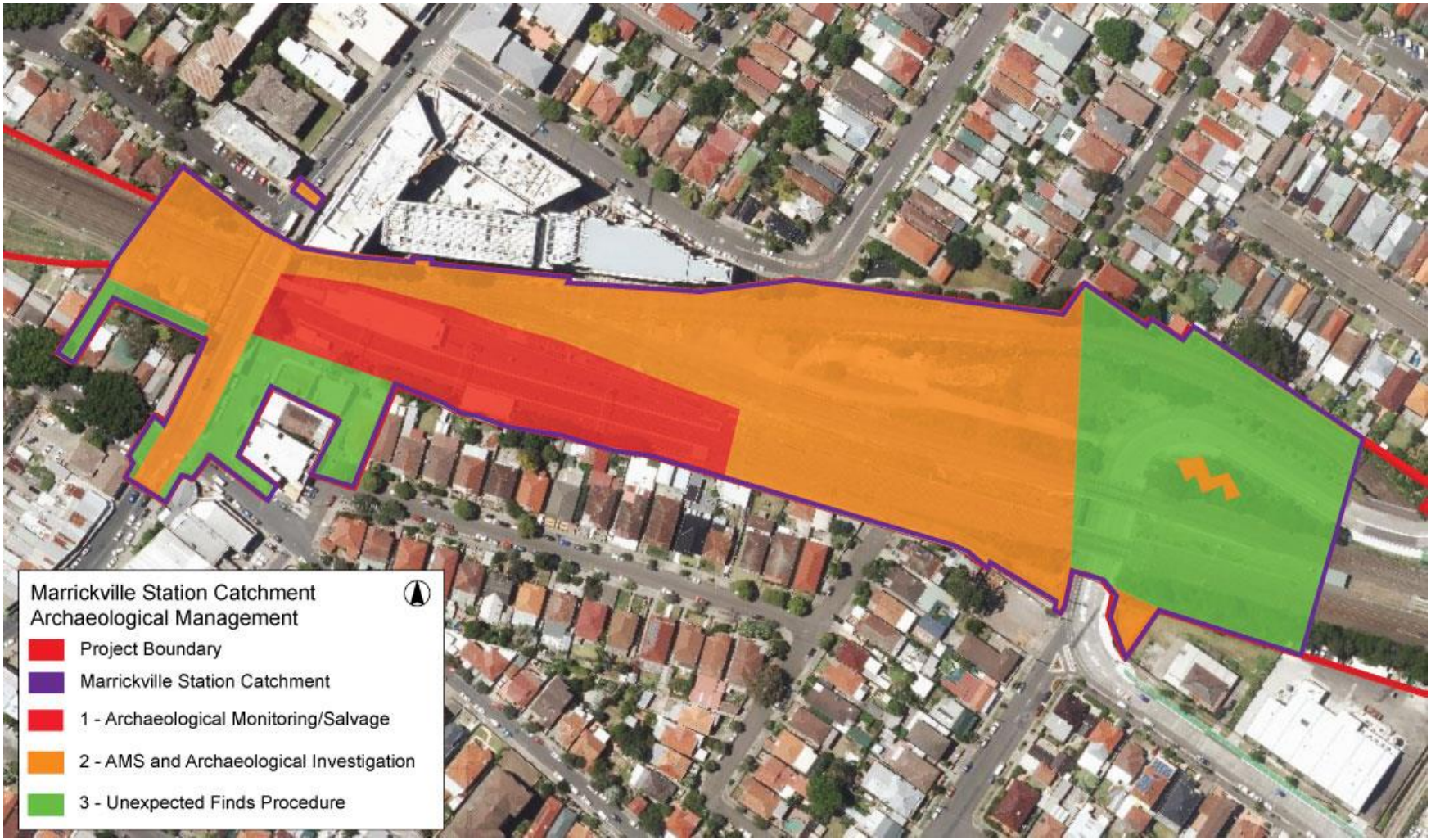
Phase	Potential Archaeology	Management Zone	Mitigation
	original lever set, footings of former platform stairs, platform brick dwarf walls, and building footings. Moderate potential for footings of former platform canopies Low potential for former level crossing at the current Illawarra Road overbridge. Moderate potential for archaeological remains of the former Earlwood tram line that ran across Illawarra Road overbridge such as tram tracks and associated infrastructure		
	Low potential for footings of former coal loading and storage facilities Low potential for archaeological remains of the former sleeper bridge such as bridge footings.	3	• Unexpected Finds Procedure
4 (1930s – present)	Moderate to high potential for archaeological remains associated with upgrades such as utilities and drainage, footings of signalling huts and boxes, and footings associated with the commuter car parking structure and the Illawarra Road footbridge. Unlikely to reach the threshold for local significance.	3	• Unexpected Finds Procedure
	Moderate potential for locally significant archaeological remains associated with the WWII air raid shelter such as the cut of the pit, sandbags, iron, concrete sandbags, roofing, drainage infrastructure, and associated artefacts.	2	• AMS • Test/Salvage Excavations

Figure 1: Archaeological potential for Marrickville Station Catchment[5]



[5] Artefact 2018a: Figure 3-23.

Figure 2: Marrickville Station Catchment archaeological management zones[6]



[6] Artefact 2018a: Figure 8-1.

3.3 Canterbury Station

3.3.1 Potential archaeological remains at Canterbury Station

The *Sydney Metro City & Southwest – Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design* predicted archaeological remains of State and local significance to be present at Canterbury Station (including the Canterbury Construction Site). A summary of the archaeological potential and significance of predicted remains is provided in Table 4, and the location of these archaeological resources is provided in Figure 3 and Figure 4.

Table 4: Summary of areas with potential for significant archaeological remains for Canterbury Station[7]

Phase	Archaeological Resource	Potential	Significance
1 (1788-1841)	• Archaeological features associated with land clearance such as tree boles, evidence of estate farming activities such as fence line postholes, former shed postholes, field drains, isolated artefact scatters.	Nil-low	Unlikely to reach the threshold for local significance
2 (1841 – 1855)	• Archaeological remains of timber slab huts, outbuildings, landscape modifications, fence lines, drains and other structural remains associated with the Australasian Sugar Company works • Archaeological remains of the outbuildings such as footings, timber slabs remnants, stone fireplaces, underfloor deposits, post holes, artefact deposits, cess pits, wells, cisterns, fencelines, and yard surfaces • Evidence of small scale mining activities • Archaeological evidence of farming includes fence line postholes, former shed postholes, brick or paved yard surfaces, field drains, isolated artefact scatters • Archaeological remains of early residential cottages including wells, cisterns and refuse pits	Moderate to High	Potentially State
3 (1855 – 1895)	• Archaeological remains of early residential cottages including wells, cisterns and refuse pits • Archaeological remains of outbuildings, landscape modifications, fence lines, drains and other structural remains associated with the Blackett and Co Canterbury Engineering Works	Moderate to High	Potentially local
4 (1895-1943)	• Archaeological remains and evidence of early railway construction including rails, refuse pits, drains and timber sleepers • Archaeological remains of former platform structures • Archaeological remains of the former race platform and retaining wall • Archaeological remains of the storage sidings for the Canterbury Racecourse special trains and the shunting of the local goods sidings • Archaeological remains of early infrastructure such as culverts, tanks, drains (brick, stone or concrete), electrical conduits and pits, sleepers, signalling equipment and rail track	Moderate	Potentially local

[7] Artefact 2018a: Table 4-3.

Phase	Archaeological Resource	Potential	Significance
	• Archaeological remains associated with the early phase of minor railway buildings (such as toilets) prior to track realignment such as postholes, brick footings, former floor surfaces, and early infrastructure such as ceramic service pipes, brick drainage pits, electrical conduits and pits, stanchion bases, sleepers and rail track • It is unlikely that artefact-bearing deposits associated with the early station accumulated or survived subsequent development and upgrades.		
5 (1943-present)	• Archaeological remains associated with upgrades such as utilities and drainage	Moderate to high	Unlikely to reach the threshold for local significance

3.3.2 Archaeological management strategy for works at Canterbury Station

The *Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design* has assessed potential impacts to archaeological resources at Canterbury Station from the works required as part of the project. The archaeological management policies for these works are outlined in Table 5 and the location of the archaeological management zones are illustrated in Figure 5.

Table 5: Summary of archaeological management requirements at Canterbury Station Catchment[8]

Phase	Potential Archaeology	Management Zone	Mitigation
1 (1788-1841)	Nil to low potential for archaeological features associated with land clearance such as tree boles, evidence of estate farming activities such as fence line postholes, former shed postholes, field drains, isolated artefact scatters. Unlikely to reach the threshold for local significance	3	• Unexpected Finds Procedure
2 (1841 – 1855)	Moderate to high potential for potentially State significant archaeological remains of timber slab huts, outbuildings, landscape modifications, fence lines, drains and other structural remains associated with the Australasian Sugar Company works. Archaeological remains of the outbuildings such as footings, timber slabs remnants, stone fireplaces, underfloor deposits, post holes, artefact deposits, cess pits, wells, cisterns, fence lines, and yard surfaces. Evidence of small scale mining activities, archaeological evidence of farming includes fence line postholes, former shed postholes, brick or paved yard surfaces, field drains, isolated artefact scatters. Archaeological remains of early residential cottages including wells, cisterns and refuse pits.	1	• AMS • Salvage excavations
3 (1855 – 1895)	Moderate to high potential for potentially locally significant archaeological remains of early residential cottages including wells, cisterns and refuse pits.	1	• AMS

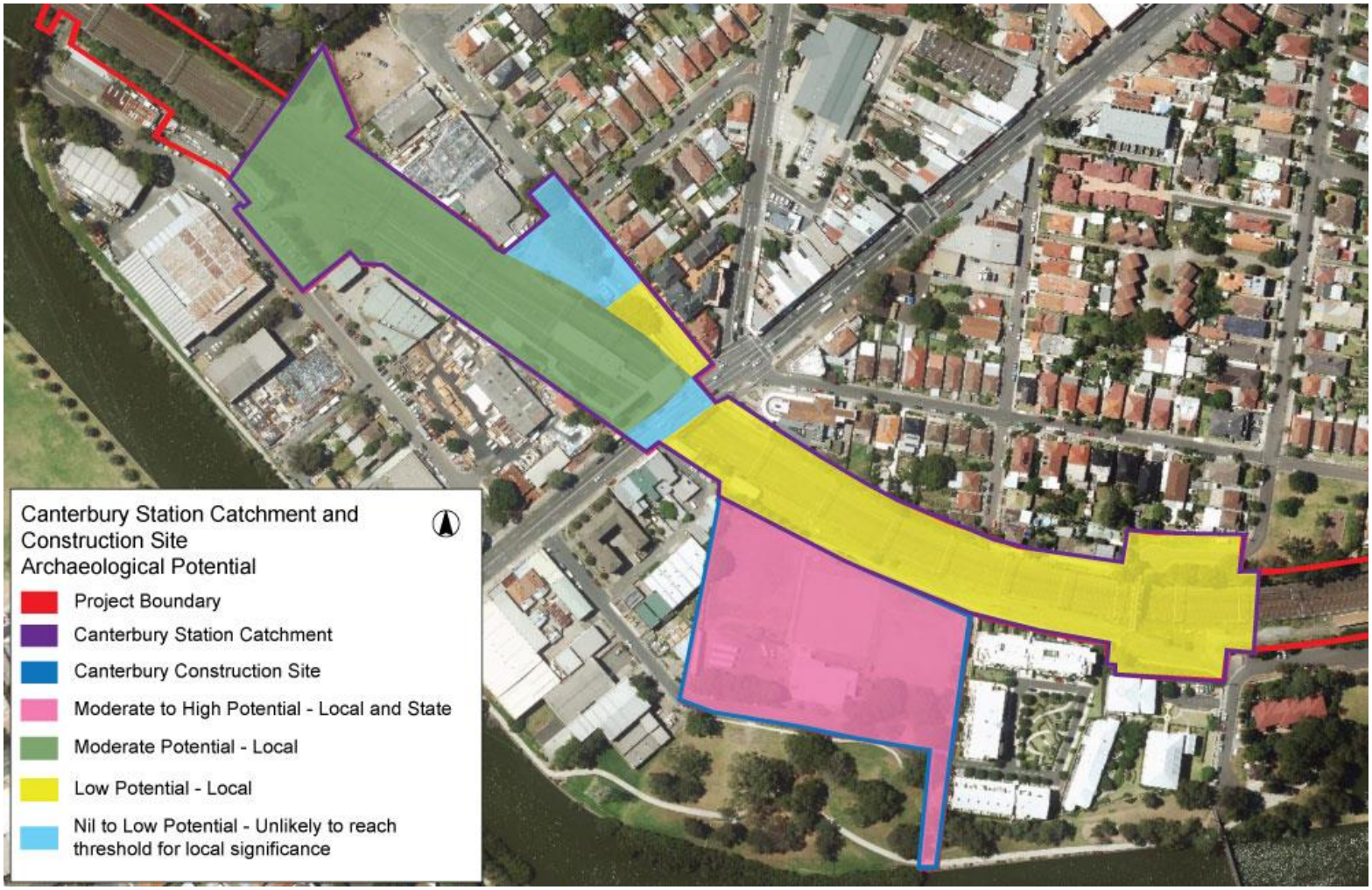
[8] Artefact 2018a: Table 8-3.

Phase	Potential Archaeology	Management Zone	Mitigation
	Archaeological remains of outbuildings, landscape modifications, fence lines, drains and other structural remains associated with the Blackett and Co Canterbury Engineering Works.		• Salvage excavations
4 (1895-1943)	Moderate potential for locally significant archaeological remains and evidence of early railway construction including rails, refuse pits, drains and timber sleepers. Archaeological remains of former platform structures. Archaeological remains of the former race platform and retaining wall. Archaeological remains of the storage sidings for the Canterbury Racecourse special trains and the shunting of the local goods sidings. Archaeological remains of early infrastructure such as culverts, tanks, drains (brick, stone or concrete), electrical conduits and pits, sleepers, signalling equipment and rail track. Archaeological remains associated with the early phase of minor railway buildings (such as toilets) prior to track realignment such as postholes, brick footings, former floor surfaces, and early infrastructure such as ceramic service pipes, brick drainage pits, electrical conduits and pits, stanchion bases, sleepers and rail track. It is unlikely that artefact-bearing deposits associated with the early station accumulated or survived subsequent development and upgrades.	2	• AMS • Test/Salvage Excavations
5 (1943-present)	Moderate to high potential for archaeological remains associated with upgrades such as utilities and drainage. Unlikely to reach the threshold for local significance.	3	• Unexpected Finds Procedure

Figure 3: Location of the former historical structures within the Canterbury Station Catchment, including the Canterbury Construction Site[9]

[9]Artefact 2018a: Figure 4-20.

Figure 4: Archaeological potential for Canterbury Station Catchment[10]



[10]Artefact 2018a: Figure 4-22.

Figure 5: Canterbury Station Catchment archaeological management zones[11]

[11] Artefact 2018a: Figure 8-2.

3.4 Belmore Station

3.4.1 Potential archaeological remains at Belmore Station

The *Sydney Metro City & Southwest – Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design* predicted archaeological remains of local significance to be present at Belmore Station. A summary of the archaeological potential and significance of predicted remains is provided in Table 6 and the location of these archaeological resources is provided in Figure 6.

Table 6: Summary of areas with potential for significant archaeological remains for Belmore Station[12]

Phase	Archaeological Resource	Potential	Significance
1 (1788-1880s)	• Archaeological features associated with low intensity land use such as grazing and farming including tree boles, fence line postholes, field drains and isolated artefact scatters	Nil-low	Unlikely to reach the threshold for local significance
2 (1880s – 1920s)	• Archaeological features associated with continued grazing and farming including fence line and shed postholes, field drains, isolated artefact scatters and drain culverts • Archaeological remains of early infrastructure such as ceramic service pipes, brick drainage pits, electrical conduits and pits, stanchion bases, sleepers and rail track • Archaeological remains associated with the railway station goods shed and goods platform occupying land to near today's Wortley Avenue and a goods platform to the south near Bridge Road, such as rail tracks, timber sleepers, footings of the platform, engine pit and other rail infrastructure • Archaeological remains located on the 1925 plan such as converter room, coal bin, ash pit, lamp shed, auto box, land agent, boot maker, toilets and brick culvert. Archaeological remains could include footings, cuts of the pit, drains, ceramic service pipes and the brick culvert • Archaeological remains of former platform structures • Archaeological remains located within the platform structure such as footings of former footbridge, fences, and footings of the building that was originally located under the stairs • Archaeological remains of tank located to the north of the station	Nil-low	Potentially Local
3 (1930s – present)	• Archaeological remains associated with upgrades such as utilities and drainage	Moderate	Unlikely to reach the threshold for local significance

[12] Artefact 2018a: Table 5-3.

3.4.2 Archaeological management strategy for works at Belmore Station

The *Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design* has assessed potential impacts to archaeological resources at Belmore Station from the works required as part of the project. The archaeological management policies for these works are outlined in Table 7 and the location of the archaeological management zones are illustrated in Figure 7.

Table 7: Summary of archaeological management requirements at Belmore Station Catchment[13]

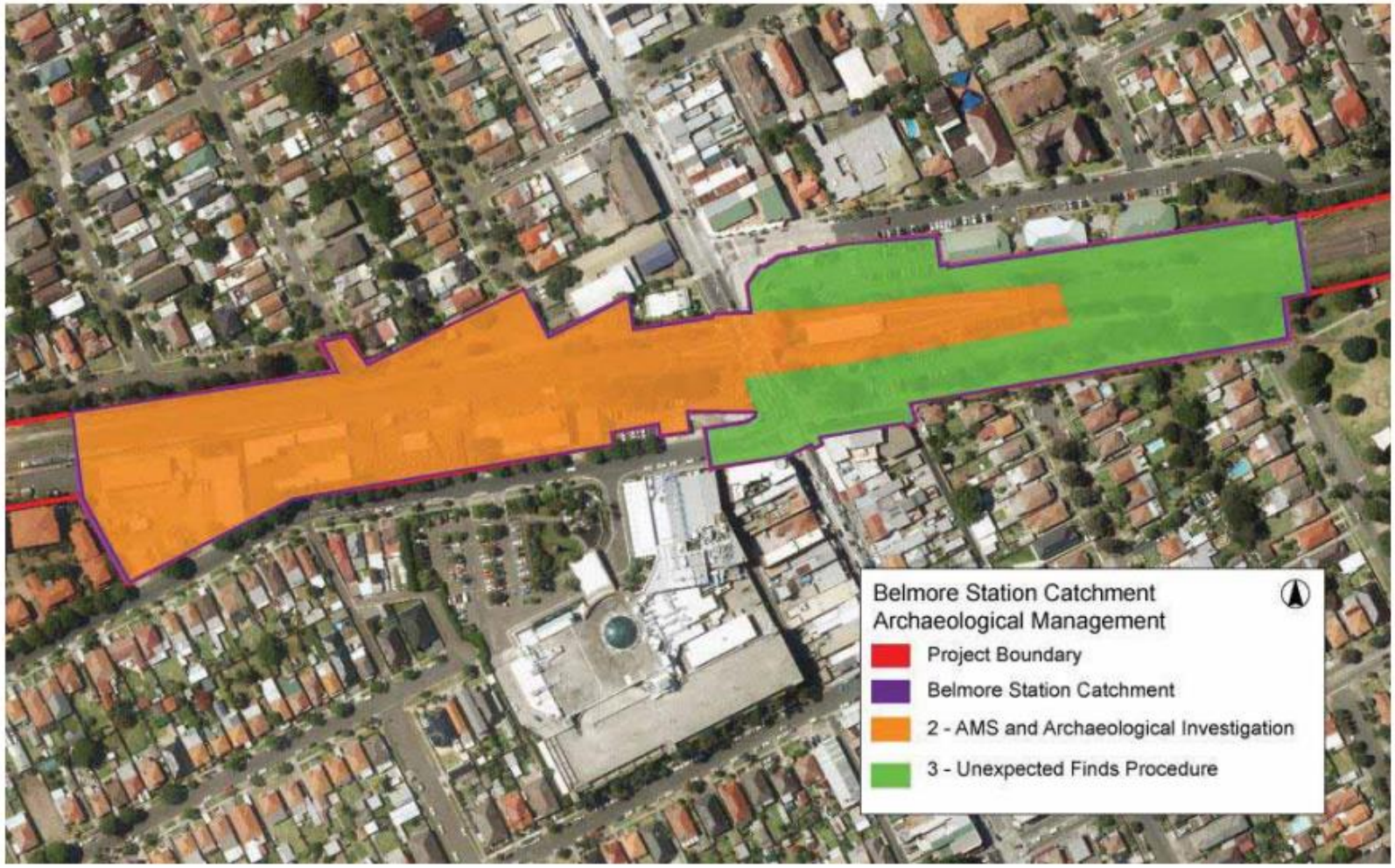
Phase	Potential Archaeology	Management Zone	Mitigation
1 (1788-1880s)	Nil to low potential for archaeological features associated with low intensity land use such as grazing and farming include tree boles, fence line postholes, field drains and isolated artefact scatters. Unlikely to reach the threshold for local significance.	3	• Unexpected Finds Procedure
2 (1880s – 1920s)	Low to moderate potential for Archaeological features associated with continued grazing and farming include fence line and shed postholes, field drains, isolated artefact scatters and drains or culverts. Archaeological remains of early infrastructure such as ceramic service pipes, brick drainage pits, electrical conduits and pits, stanchion bases, sleepers and rail track. Archaeological remains associated with the railway station goods shed and goods platform occupying land to the near today's Wortley Avenue and a goods platform to the south near Bridge Road, such as rail tracks, timber sleepers, footings of the platform, engine pit, and other rail infrastructure. Archaeological remains located on the 1925 plan such as converter room, coal bin, ash pit, lamp shed, auto box, land agent, boot maker, toilets, and brick culvert. Archaeological remains could include footings, cuts of the pit, drains, ceramic service pipes, and the brick culvert. Archaeological remains of former platform structures. Archaeological remains located within the platform structure such as footings of former footbridge, fences, and footings of the building that was originally located under the stairs. Archaeological remains of tank located to the north of the station. Archaeological remains of the early goods shed and siding have the potential to reach local significance.	2	• AMS • Monitoring or test / salvage excavations
3 (1930s – present)	Moderate potential for archaeological remains associated with upgrades such as utilities and drainage. Unlikely to reach the threshold for local significance.	3	• Unexpected Finds Procedure

[13] *Ibid* Table 5-4.

Figure 6: Archaeological potential for Belmore Station Catchment[14]

[14]Artefact 2018a: Figure 5-10.

Figure 7: Belmore Station Catchment archaeological management zones[15]



[15] Artefact 2018a: Figure 8-3.

3.5 Lakemba Station

3.5.1 Potential archaeological remains at Lakemba Station

The *Sydney Metro City & Southwest – Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design* predicted archaeological remains of local significance to be present at Lakemba Station. A summary of the archaeological potential and significance of predicted remains is provided in Table 8 and the location of these archaeological resources is provided in Figure 8.

Table 8: Summary of areas with potential for significant archaeological remains for Lakemba Station[16]

Phase	Archaeological Resource	Potential	Significance
1 (1788-1880s)	• Initial land owners associated with moderately sized land grants used for agricultural and pastoral purposes • Archaeological features associated with low intensity land use such as timber getting, grazing and farming including tree boles, fence line postholes, field drains and isolated artefact scatters	Nil-low	Unlikely to reach the threshold for local significance
2 (1880s – 1909)	• Establishment of the Taylor House (Lakemba). Stables and potential outbuildings • Archaeological features associated with farming activities, domestic and agricultural structures, refuse pits and drains or culverts	Low	Potentially Local
3 (1909 – 1919)	• Archaeological remains associated with the first timber island platform and initial railway infrastructure such as brick drainage pits, electrical conduits and pits, stanchion bases, timber footings and postholes, sleepers and rail track	Low - Moderate	Potentially Local
4 (1919 – present)	• Archaeological remains associated with station and rail corridor upgrades such as utilities and drainage	Moderate	Unlikely to reach the threshold for local significance

3.5.2 Archaeological management strategy for works at Lakemba Station

The *Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design* has assessed potential impacts to archaeological resources at Lakemba Station from the works required as part of the project. The archaeological management policies for these works are outlined in Table 9 and the location of the archaeological management zones are illustrated in Figure 9.

[16] Artefact 2018a: Table 6-3.

Table 9: Summary of archaeological management requirements at Lakemba Station Catchment[17]

Phase	Potential Archaeology	Management Zone	Mitigation
1 (1788-1880s)	Nil to low potential for archaeological remains associated with the initial land owners associated with moderately sized grants used for agricultural and pastoral purposes. Archaeological features associated with low intensity land use such as timber getting, grazing and farming include tree boles, fence line postholes, field drains and isolated artefact scatters. Unlikely to reach the threshold for local significance.	3	• Unexpected Finds Procedure
2 (1880s – 1909)	Low potential for locally significant archaeological remains associated with the establishment of the Taylor House (Lakemba), stables and potential outbuildings. Archaeological features associated with farming activities, domestic and agricultural structures, refuse pits and drains or culverts.	3	• Unexpected Finds Procedure
3 (1909 – 1919)	Low to moderate potential for locally significant archaeological remains associated with the first timber island platform and initial railway infrastructure such as brick drainage pits, electrical conduits and pits, stanchion bases, timber footings and postholes, sleepers and rail track.	2	• AMS • Monitoring or test / salvage excavation
4 (1919 – present)	Moderate potential for archaeological remains associated with station and rail corridor upgrades such as utilities and drainage. Unlikely to reach the threshold for local significance	3	• Unexpected Finds Procedure

[17] *Ibid* Table 5-4.

Figure 8: Archaeological potential for Lakemba Station Catchment[18]

[18]Artefact 2018a: Figure 6-18.

Figure 9: Lakemba Station Catchment archaeological management zones[19]

[19] Artefact 2018a: Figure 8-4.

4.0 HERITAGE IMPACT ASSESSMENT

4.1 Heritage items

The SMC works will primarily be limited to the rail corridor although works will be undertaken in some station catchments such as platform works at construction of the services building at Bankstown Station outside the heritage curtilage. Although these works would be undertaken in the vicinity of a number of heritage items, the majority of these items would not be directly impacted by the proposed works. A list of the heritage items located within or adjacent to the SMC is provided in Table 10 and the location of the heritage curtilages are illustrated in Figure 10 to Figure 23.

Table 10: Heritage listed Items in and near the SMC project area

Item	Listings	Significance
Sewage Pumping Station 271	• State Heritage Register (SHR) (01342) • Sydney Water s170 Heritage and Conservation Register (4571727) • Marrickville Local Environment Plan (LEP) 2011 (I67)	State
Stone house, including interiors	• Marrickville LEP 2011 (I114)	Local
Marrickville Railway Station Group	• SHR (01186) • RailCorp s170 Heritage and Conservation Register (4801091) • Marrickville LEP 2011 (I89)	State
South Dulwich Hill Heritage Conservation Area	• Marrickville LEP 2011 (C29)	Local
Dulwich Hill Railway Station Group	• RailCorp s170 Heritage and Conservation Register (4801909) • Marrickville LEP 2011 (I316)	State
Hurlstone Park Railway Station Group	• RailCorp s170 Heritage and Conservation Register (4802051) • Canterbury LEP 2012 (I124)	Local
Hurlstone Park Railway Underbridge	• RailCorp s170 Heritage and Conservation Register (4805737) • Canterbury LEP 2012 (I126)	Local
Old Sugarmill	• SHR (00290) • Canterbury LEP 2012 (I82)	State
Canterbury Railway Station Group	• SHR (01109) • RailCorp s170 Heritage and Conservation Register (4801100) • Canterbury LEP 2012 (I67)	State

Item	Listings	Significance
Inter-War Hotel (former Hotel Canterbury)	• Canterbury LEP 2012 (I68)	Local
Federation Post Office Building (former Canterbury Post Office)	• Canterbury LEP 2012 (I66)	Local
Electricity substation no. 275	• Ausgrid s170 Heritage and Conservation Register (3430425)	Local
Canterbury (Cooks River) Underbridge	• RailCorp s170 Heritage and Conservation Register (4801568) • Canterbury LEP 2012 (I72)	Local
Canterbury (Cooks River/Charles St) Underbridge – Main Line	• RailCorp s170 Heritage and Conservation Register (5062566)	Local
Campsie Railway Station Group	• RailCorp s170 Heritage and Conservation Register (4801101) • Canterbury LEP 2012 (I40)	Local
Belmore Railway Station Group	• SHR (01081) • RailCorp s170 Heritage and Conservation Register (4801084) • Canterbury LEP 2012 (I11)	State
Federation House (former station master's cottage)	• Canterbury LEP 2012 (I10)	Local
Post-war bus shelter and public lavatories	• Canterbury LEP 2012 (I29)	Local
Lakemba Railway Station Group	• RailCorp s170 Heritage and Conservation Register (4801916) • Canterbury LEP 2012 (I143)	Local
Wiley Park Railway Station Group	• RailCorp s170 Heritage and Conservation Register (4801946) • Canterbury LEP 2012 (I159)	Local
Lakemba Water Pumping Station (WP0003)	• Sydney Water s170 Heritage and Conservation Register (4570136) • Canterbury LEP 2012 (I158)	Local
Punchbowl Railway Station Group	• RailCorp s170 Heritage and Conservation Register (4802067) • Canterbury LEP 2012 (I155)	Local

Item	Listings	Significance
Bankstown Railway Station Group	• RailCorp s170 Heritage Inventory Register (4802067) • Bankstown LEP 2011 (I3).	Local
Bankstown Parcels Office (former)	• Bankstown LEP 2011 (I4)	Local
Shop	• Bankstown LEP 2015 (I13)	Local

Figure 10: Heritage curtilages overview

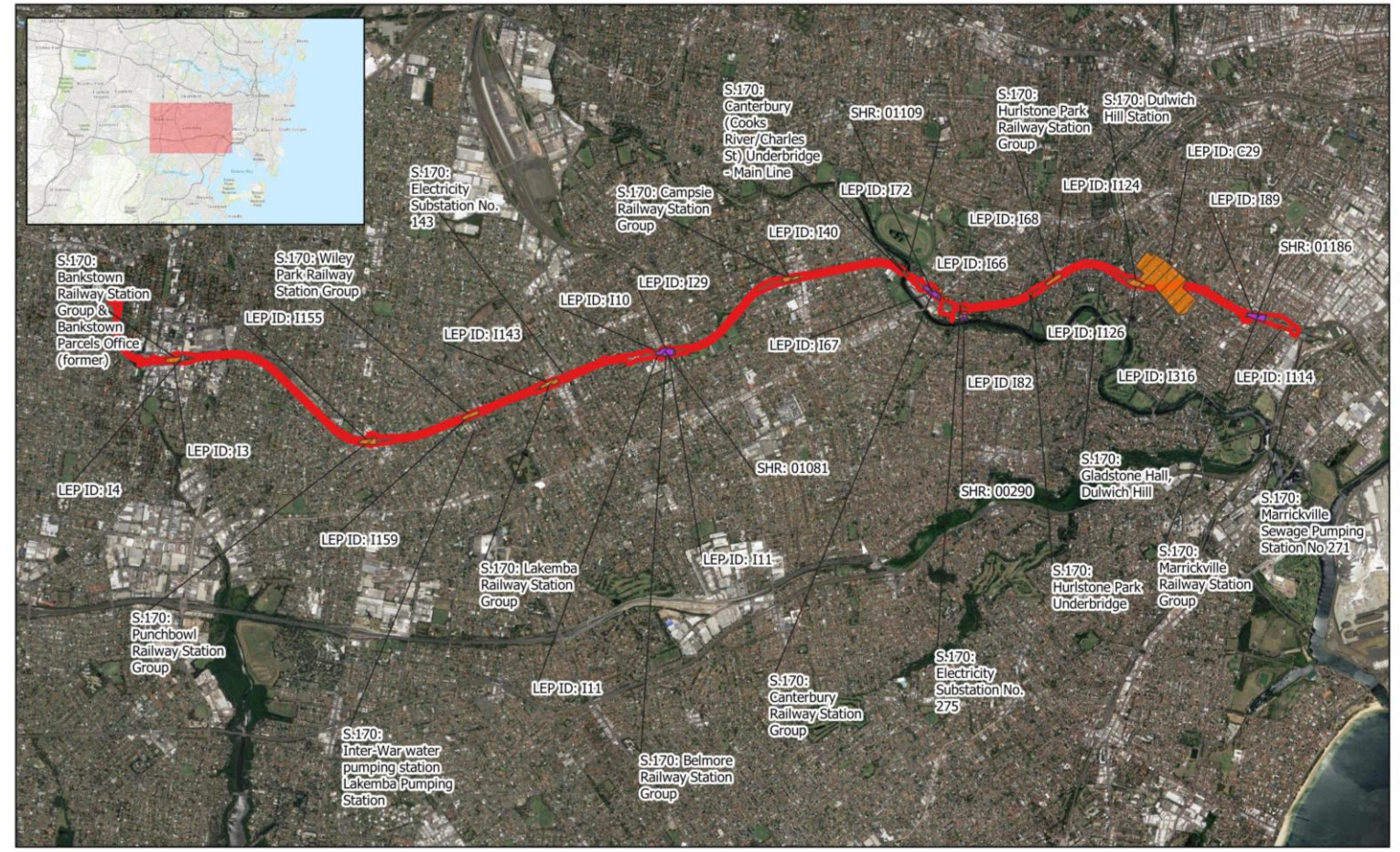


Figure 11: Heritage curtilage – stone house including interiors

Figure 12: Heritage curtilage – Marrickville Railway Station Group

Figure 13: Heritage curtilage Dulwich Hill Railway Station Group and South Dulwich Hill Heritage Conservation Area

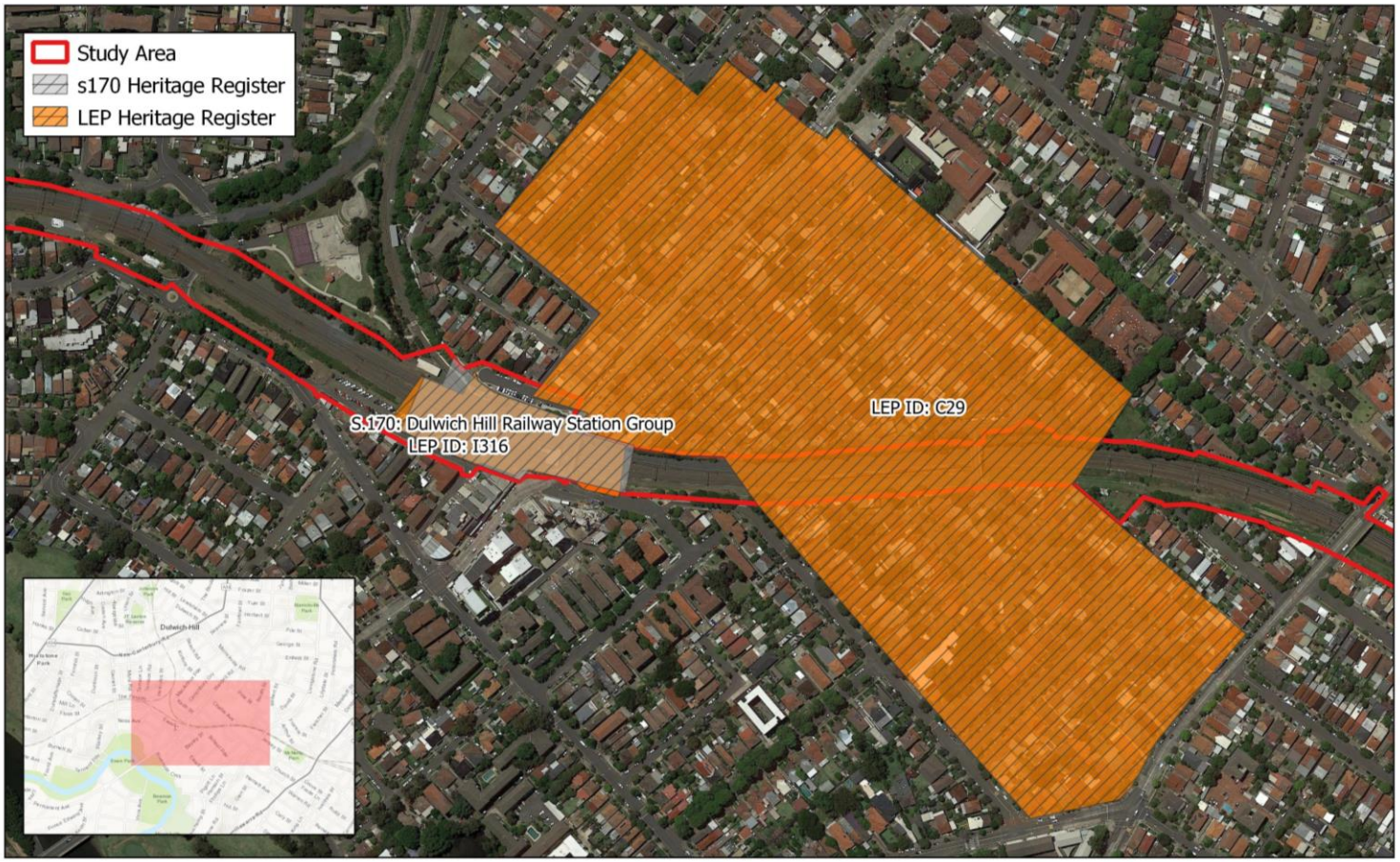


Figure 14: Heritage curtilage Hurlstone Park Railway Station Group

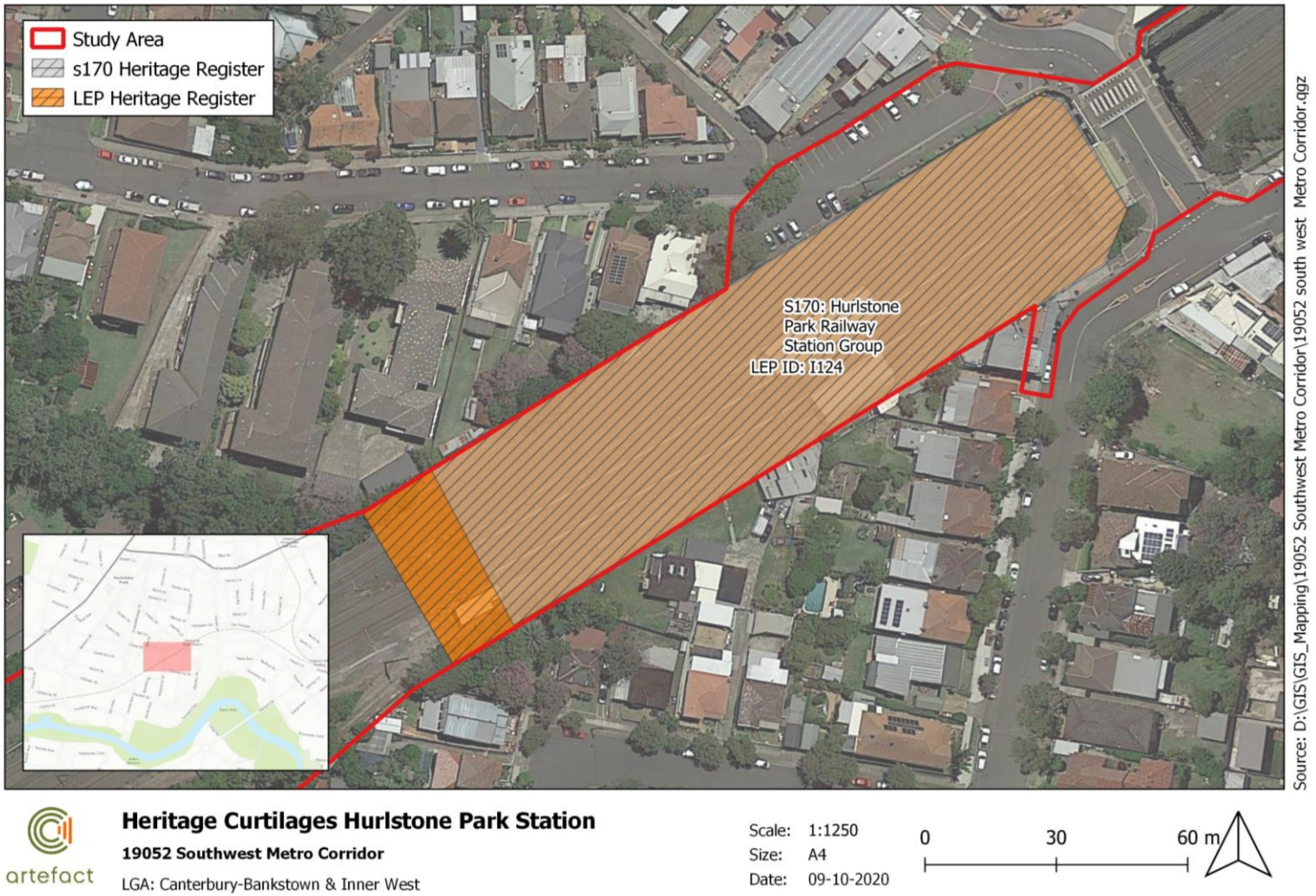


Figure 15: Heritage curtilage Hurlstone Park Railway Underbridge

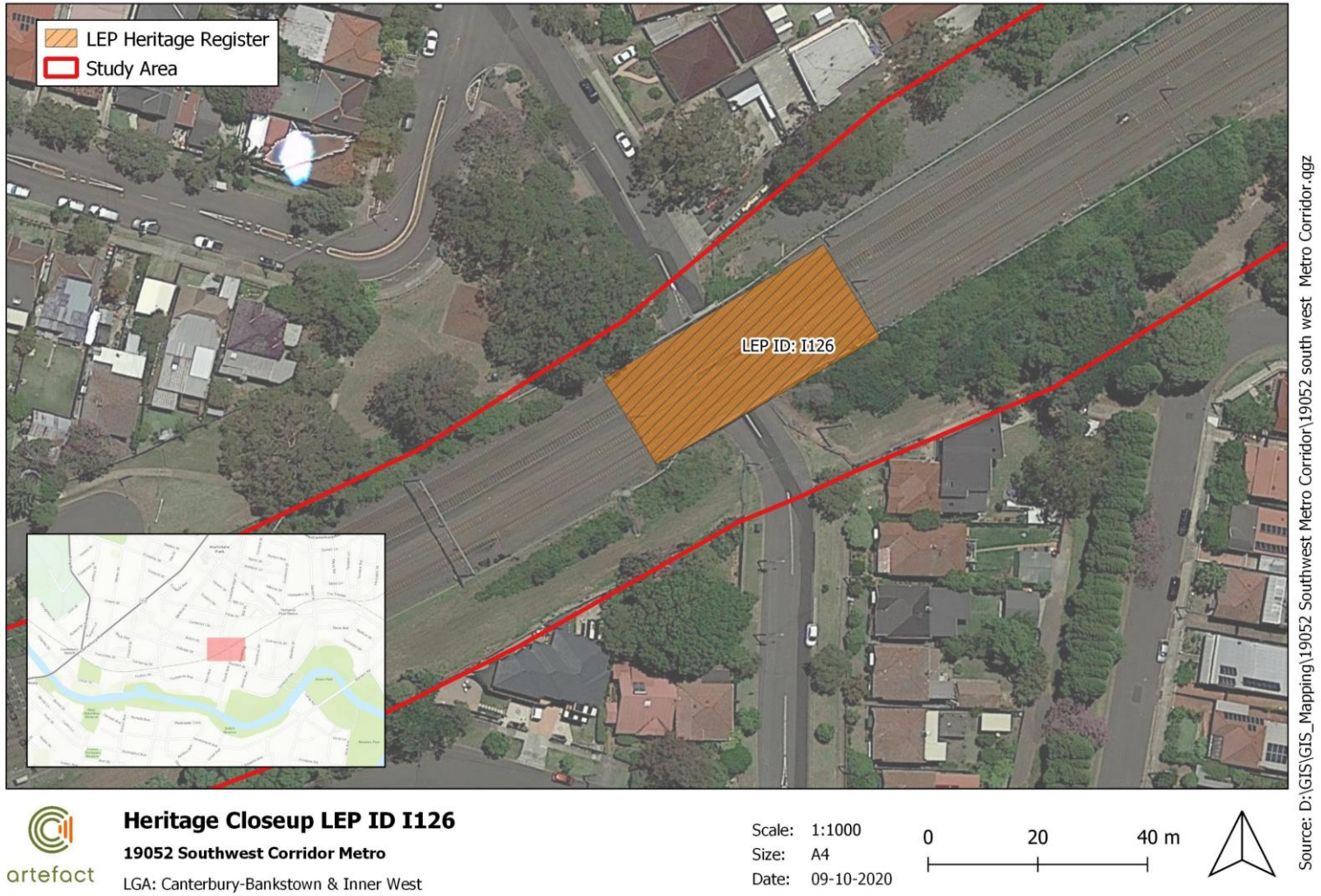


Figure 16: Heritage curtilage Canterbury Railway Station Group and nearby heritage items

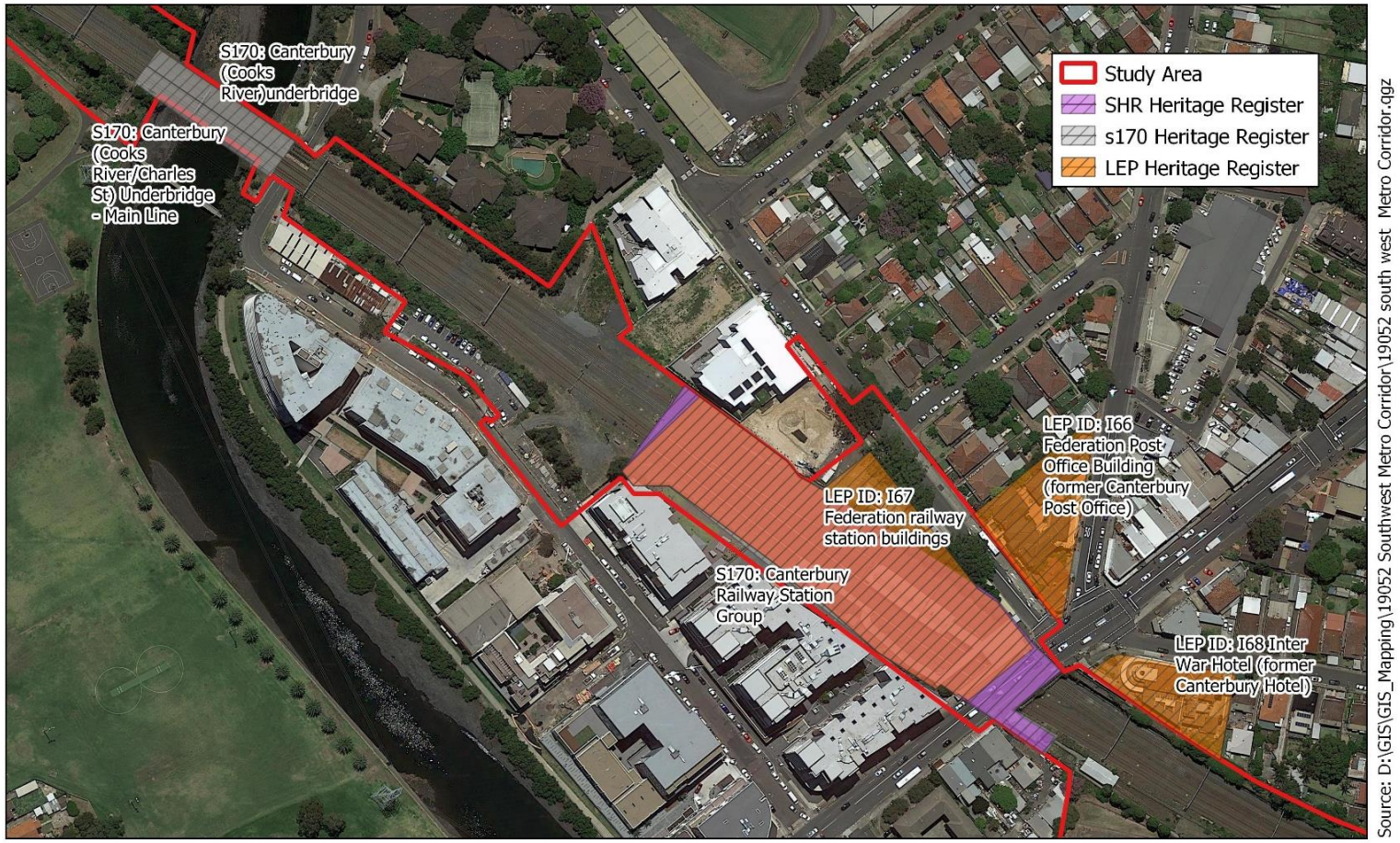


Figure 17: Heritage curtilage Canterbury Old Sugar Mill

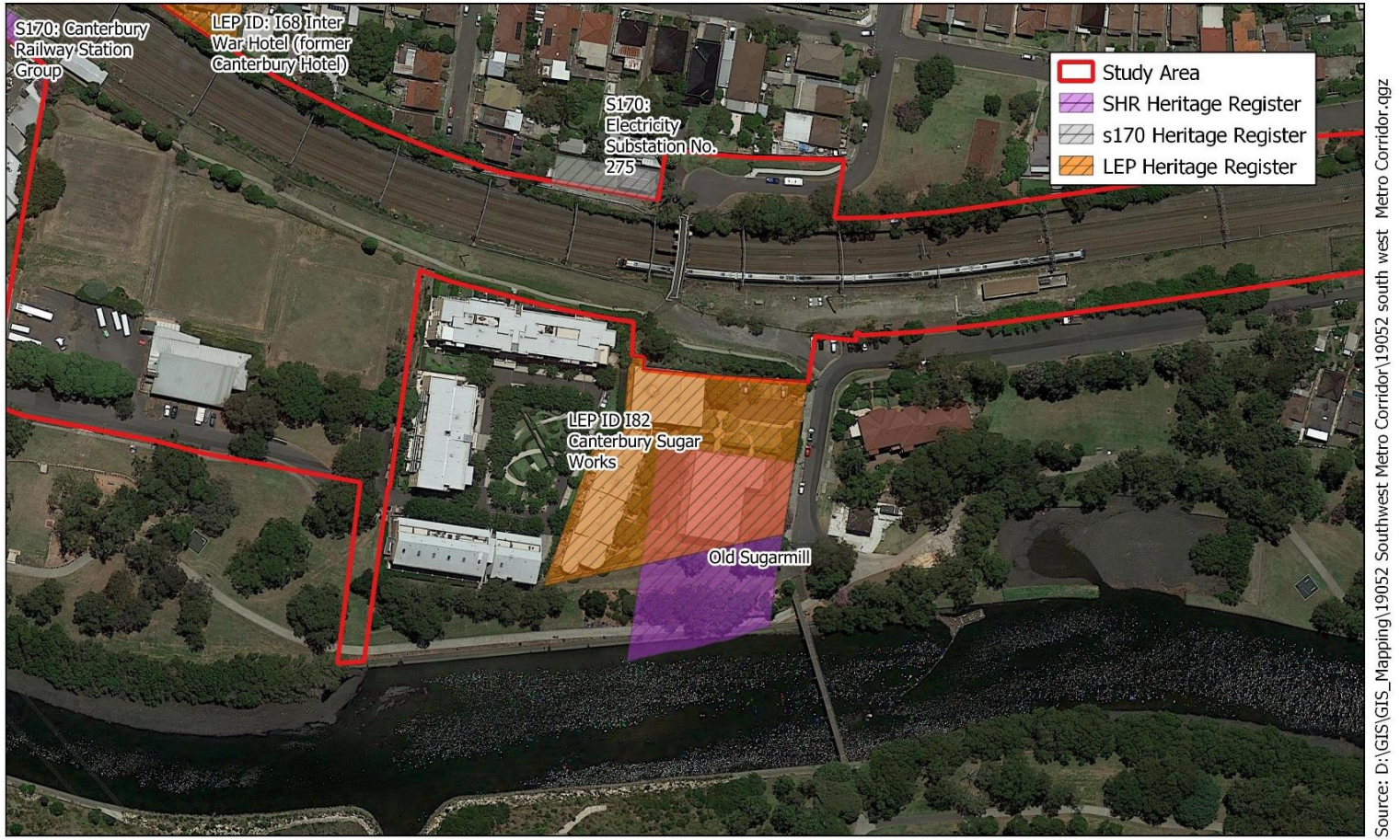


Figure 18: Heritage curtilage Canterbury (Cooks River/Charles St) Underbridge – Main Line

Figure 19: Heritage curtilage Campsie Railway Station Group

Figure 20: Heritage curtilage Belmore Railway Station Group

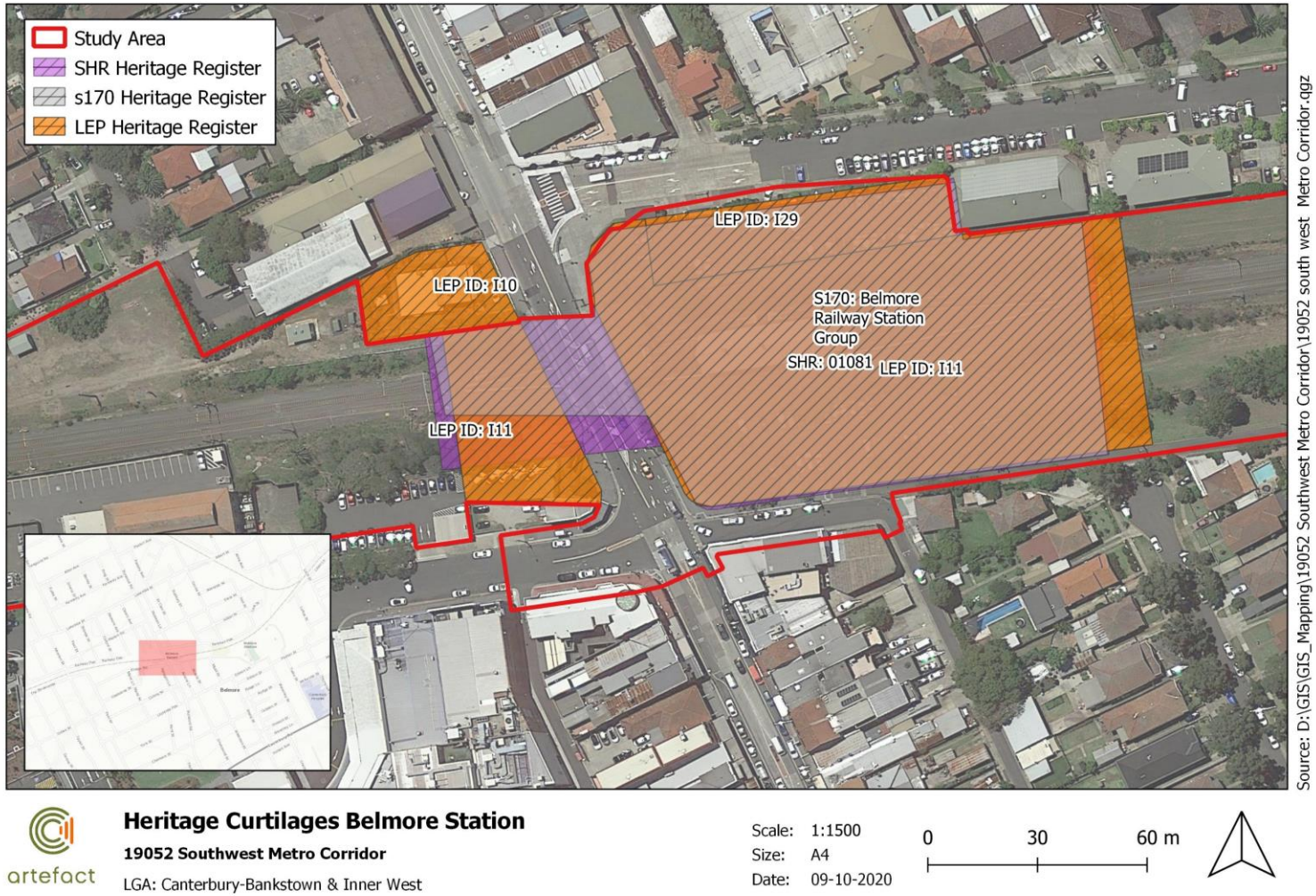


Figure 21: Heritage curtilage Lakemba Railway Station Group

Figure 22: Heritage curtilage Wiley Park Railway Station Group

Figure 23: Heritage curtilage Punchbowl Railway Station Group

Figure 24: Heritage curtilage Bankstown Railway Station Group

artefact

Heritage Curtilages Bankstown Station

19052 Southwest Metro Corridor
LGA: Canterbury-Bankstown

SCALE 1:1,250
SIZE A4
DATE 10/08/2021

0 10 20 40 m

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4.2 Heritage item impact assessment

A discussion and assessment of the direct and indirect (visual) impacts that the proposed works would have on the listed heritage items within and adjacent to the SMC works is provided in Table 11.

Table 11: Heritage impact assessment for listed heritage items

Item	Discussion of impacts	Direct impact	Indirect impact
Marrickville Station	**Direct:** Works within the SHR curtilage of the station would be limited to the removal of redundant ARTC infrastructure within the rail corridor and excavation and compaction works required for the construction and installation of track slabs. This is not considered to be fabric that is significant to the heritage station. There would be no direct modification of heritage significant fabric. The works would be undertaken within close proximity to heritage significant fabric however, and the use of vibration intensive plant may result in vibration impacts to significant fabric. The risk of vibration impacts though would be reduced through the implementation of mitigation measures. **Indirect:** The works undertaken inside of the SHR curtilage of the station would be limited to OHW works, the removal of redundant ARTC infrastructure within the rail corridor, and works associated with the construction and installation of track slabs. These works would not result in long-term visual impacts to the station and there are no new permanent elements or direct modifications to significant fabric proposed within the station, and tracks would be reinstated on top of the track slab when complete. However, new fencing and CSR would be installed adjacent to the station curtilage and although this would be located outside of the curtilage it would still introduce additional visual clutter within sight of the station, which would result in a visual impact. The new elements would be located within the rail corridor though and would be consistent with existing rail corridor infrastructure.	**Neutral** **Negligible (vibration)**	**Negligible**
Dulwich Hill Station	**Direct:** Works within the curtilage of the station would include the removal of redundant ARTC infrastructure within the rail corridor, the relocation of Sydney Trains cables, the construction of two new OHW footings, and excavation and compaction works required for the construction and installation of track slabs. The redundant ARTC infrastructure and impacted fabric is not considered to be fabric that is significant to the heritage station, and the other works would be limited to the rail corridor. There would be no direct modification of heritage significant fabric. The works would be undertaken within close proximity to heritage significant fabric however, and the	**Neutral** **Negligible (vibration)**	**Negligible**

Item	Discussion of impacts	Direct impact	Indirect impact
	use of vibration intensive plant may result in vibration impacts to significant fabric. The risk of vibration impacts though would be reduced through the implementation of mitigation measures. **Indirect:** The proposed works would all be undertaken inside of the curtilage of the station. Although the removal of the redundant ARTC infrastructure and tracks for the installation of track slabs would not result in long-term visual impacts to the station, the construction of new OHW footings and installation of new GST would introduce additional visual clutter within sight of the station, which would result in a visual impact. The visual impact of these would be partially offset however by the removal of existing above-ground Sydney Trains cables and because the new elements would be consistent with existing rail corridor infrastructure.		
Hurlstone Park Station	**Direct:** Works within the curtilage of the station would be limited to the removal of redundant ARTC infrastructure within the rail corridor, and excavation and compaction works required for the construction and installation of track slabs. This is not considered to be fabric that is significant to the heritage station. There would be no direct modification of heritage significant fabric. The works would be undertaken within close proximity to heritage significant fabric however, and the use of vibration intensive plant may result in vibration impacts to significant fabric. The risk of vibration impacts though would be reduced through the implementation of mitigation measures. **Indirect:** The works undertaken inside of the curtilage of the station would be limited to OHW works, the removal of redundant ARTC infrastructure within the rail corridor, and removal of tracks for the installation of track slabs. These works would not result in long-term visual impacts to the station and there are no new permanent elements or direct modifications to significant fabric proposed within the station. However, new fencing would be installed adjacent to the station curtilage and although this would be located outside of the curtilage it would still introduce additional visual clutter within sight of the station, which would result in a visual impact. The new elements would be located within the rail corridor though and would be consistent with existing rail corridor infrastructure.	**Neutral** **Negligible (vibration)**	**Negligible**
Canterbury Station	**Direct:** Works within the SHR curtilage of the station would include the removal of redundant ARTC infrastructure within the rail corridor, the relocation of Sydney Trains cables, the construction of two new OHW footings, excavation and compaction works required for the construction and installation of track slabs, and the removal of two trees near Platform 2. The impacted fabric is not considered to significant to the heritage station and therefore the removal of these elements would	**Negligible** **Negligible (vibration)**	**Minor**

Item	Discussion of impacts	Direct impact	Indirect impact
	not impact significant fabric. However, the new Sydney Trains cable trays/ladders would be directly attached to the pedestrian footbridge (moderate significance), the overbridge (high significance) and the back of Platform 2 (high significance). This would require penetrations into the significant fabric which therefore cause direct impacts to heritage significant fabric at Canterbury Station. However, the impacts would largely be limited to localised areas where the cable routes would be attached, which would be relatively small compared to the overall heritage item. The works would not require the removal of large amounts of fabric such as the brick and concrete platform copings. Although the removal of redundant ARTC infrastructure would not directly impact any significant fabric, the works would be undertaken within close proximity to the station buildings and the use of vibration intensive plant may result in vibration impacts. The risk of vibration impacts though would be reduced through the implementation of mitigation measures. **Indirect:** The proposed works would all be undertaken inside of the SHR curtilage of the station. Although the removal of the redundant ARTC infrastructure, Sydney Trains cables, and removal of tracks for the installation of track slabs would not result in long-term visual impacts to the station, the construction of new OHW footings and installation of new GST would introduce additional visual clutter within sight of the station, which would result in a visual impact. Visual impacts would also occur as a result of the direct impacts caused by the installation of the GST, and although the two trees are not considered to be significant fabric their removal would impact the visual setting of the station. The visual impact of these would be partially offset however by the removal of existing above-ground Sydney Trains cables and because the new elements would be consistent with existing rail corridor infrastructure. It is also noted that the cable route attached to the footbridge, overbridge and platform is only expected to be in place for 3-4 years before it is removed and the wall is made good.		
Campsie Station	**Direct:** Works within the curtilage of the station would be limited to the removal of redundant ARTC infrastructure and excavation and compaction works required for the construction and installation of track slabs within the rail corridor. This is not considered to be fabric that is significant to the heritage station. There would be no direct modification of heritage significant fabric. The works would be undertaken within close proximity to heritage significant fabric however, and the use of vibration intensive plant may result in vibration impacts to significant fabric. The risk of vibration impacts though would be reduced through the implementation of mitigation measures. **Indirect:** The works undertaken inside of the curtilage of the station would be limited to OHW works, the removal of redundant ARTC infrastructure within the rail corridor, and removal of tracks	**Neutral** **Negligible (vibration)**	**Neutral**

Item	Discussion of impacts	Direct impact	Indirect impact
	for the installation of track slabs. These works would not result in long-term visual impacts to the station and there are no new permanent elements or direct modifications to significant fabric proposed within the station. New fencing would be installed outside of the station curtilage; however, the fencing would be located at a sufficient distance from the station, would be obscured by existing structures and vegetation, and would be consistent with existing rail corridor infrastructure. As a result, the new fencing would not result in any visual impacts.		
Belmore Station	**Direct:** Works within the SHR curtilage of the station would be limited to minor OHW works and excavation and compaction works required for the construction and installation of track slabs within the rail corridor. However, this work would not directly impact significant heritage fabric. Although the track slab installation works would not directly impact any significant fabric, the works would be undertaken within close proximity to the station buildings and the use of vibration intensive plant may result in vibration impacts. The risk of vibration impacts though would be reduced through the implementation of mitigation measures. **Indirect:** The works undertaken inside of the curtilage of the station would be limited to minor OHW and the removal of tracks for the installation of track slabs. These works would not result in long-term visual impacts to the station. However, new fencing would be installed adjacent to the station curtilage and although this would be located outside of the curtilage it would still introduce additional visual clutter within sight of the station, which would result in a visual impact. The new elements would be located within the rail corridor though and would be consistent with existing rail corridor infrastructure.	**Neutral** **Negligible (vibration)**	**Negligible**
Lakemba Station	**Direct:** Works within the curtilage of the station would include minor OHW works, the relocation of Sydney Trains cables, excavation and compaction works required for the construction and installation of track slabs within the rail corridor, and the removal of about five trees along the north-west side of the station curtilage. However, these works would not directly impact significant heritage fabric. Although the track slab installation works would not directly impact any significant fabric, the works would be undertaken within close proximity to the station buildings and the use of vibration intensive plant may result in vibration impacts. The risk of vibration impacts though would be reduced through the implementation of mitigation measures. **Indirect:** The proposed works would include the installation of new GST that would introduce additional visual clutter in the area. Although painting the GST posts to reduce reflective glare would	**Neutral** **Negligible (vibration)**	**Moderate**

Item	Discussion of impacts	Direct impact	Indirect impact
	help to mitigate the impact, this structure would be clearly visible as a large, modern, new structure and would obscure key views of the station from Railway Parade. This would therefore result in a moderate localised visual impact to the station precinct. If the cable route is buried rather than located within GST, the visual impact would be reduced. The trees proposed to be removed along the northern boundary of the station precinct are not considered to be significant fabric. However, the removal of the tress would impact the aesthetics of the station precinct, resulting in a negligible visual impact. The removal of tracks for the construction and installation of track slabs would be temporary and would be replaced in the same location when works are completed, resulting in a neutral visual impact.		
Wiley Park Station	**Direct:** Works within the curtilage of the station would include the relocation of Sydney Trains cables The relocation works would involve excavations within Platform 2 to remove the redundant cables and would require cutting through the surface of the platform. Platform 2 is considered to be an element of moderate significance within the station precinct and therefore the works would cause direct impacts to significant fabric. However, the trench would be relatively narrow, and the surface of the platform would be replaced following the completion of the works which would help to reduce the impact to negligible. **Indirect:** The proposed works would result in direct impacts to the fabric of Platform 2 as part of the removal of the redundant Sydney Trains cable route. Although the platform surface would be reinstated following the works, the altered surface would still be visually noticeable. This would result in a negligible visual impact to Platform 2. The proposed works also include the installation of new GST that would introduce additional visual clutter in the area. Although painting the GST posts to reduce reflective glare would help to mitigate the impact, this structure would be clearly visible as a large, modern, new structure located adjacent to and to the west of Platform 2. This would result in a minor visual impact to the heritage significance of Wiley Park Station. A new retaining wall would also be constructed alongside the northern side of the rail corridor to the west of the station which would also result in a negligible visual impact.	**Negligible**	**Minor**
Punchbowl Station	**Direct:** Works within the curtilage of the station would include minor OHW works, the relocation of Sydney Trains cables, and excavation and compaction works required for the construction and installation of track slabs within the rail corridor. However, these works would not directly impact significant heritage fabric. Although the track slab installation works would not directly impact any significant fabric, the works would be undertaken within close proximity to the station buildings and	**Neutral** **Negligible (vibration)**	**Minor**

Item	Discussion of impacts	Direct impact	Indirect impact
	the use of vibration intensive plant may result in vibration impacts. The risk of vibration impacts though would be reduced through the implementation of mitigation measures. **Indirect:** Although the minor OHW works and removal of tracks for the construction of track slabs would not result in any long-term visual impacts, the installation of new GST would introduce additional visual clutter in the area. In particular, the new GST would impact significant views from the station platform to the overhead booking office. Although painting the GST posts to reduce reflective glare would help to mitigate the impact, this structure would be clearly visible as a large, modern, new structure and would result in a minor localised visual impact to the station precinct.		
Sewage Pumping Station 271	**Direct:** The SHR item is located 5m south of the proposed works, however, the works would be limited to minor OHW works within the rail corridor and will not directly impact the heritage item. **Indirect:** Works in the vicinity of the item would be limited to minor OHW works within the rail corridor and the installation of fencing along the rail corridor. However, the OWH works will not result in visual changes and the new fencing along the rail corridor will be obscured by the existing vegetation alongside the rail corridor. As a result, there would be no visual impacts to the SHR item.	**Neutral**	**Neutral**
Stone house, including interiors	**Direct:** The LEP item is located 20m south of the proposed works and will not be directly impacted. **Indirect:** Works in the vicinity of the item would be limited to the installation of fencing and CSR. These works though would be consistent with existing rail corridor infrastructure and would largely be obscured by existing vegetation.	**Neutral**	**Negligible**
South Dulwich Hill Heritage Conservation Area	**Direct:** Works within the heritage item would involve the installation of new segregation fencing, CSR, and bridge remediation works including the installation of throw screens on the Albermarle Street bridge. The works would largely be within and along the railway corridor which is not considered to be significant fabric, and the Albermarle Street bridge also is not considered to be significant fabric. The proposed works may result in impacts to the Great Depression era brick footpath though, which is a core heritage value/element within the conservation area. This would result in direct impacts to the conservation area. However, impacts to the brick footpath would be limited, if bricks need to be removed, they could largely be replaced after the works, and only a	**Negligible**	**Negligible**

Item	Discussion of impacts	Direct impact	Indirect impact
	very small area of the overall conservation area would be impacted. As a result the direct impact to the overall conservation area would be minimal. **Indirect:** The proposed works within the conservation area would introduce new negative visual elements and result in direct impacts to significant fabric. However, the fencing, throw screens and CSR would be consistent with existing rail corridor infrastructure, and only a very small portion of the overall conservation area would be directly impacted.		
Hurlstone Park Railway Underbridge	**Direct:** New segregation fencing would be installed along the top of the bridge. Penetrations would need to be made into the bridge in order to secure the fence to it. This would result in direct impacts to the significant fabric of the bridge. Furthermore, although the redundant ARTC infrastructure that is proposed to be removed is not considered to be significant fabric, the removal of the infrastructure may result in some additional direct impacts where it is attached to the bridge. However, the direct impacts would only affect a fairly limited portion of the bridge and would not require larger sections of the bridge to be removed. As a result, the direct impacts to the bridge would be relatively limited and the overall impact would be minor. **Indirect:** The installation of new fencing on the bridge would result in visual impacts from the introduction of new material along the bridge and as a result of the direct impacts to the fabric of the bridge. However, the impacted fabric would be limited and the fencing would be consistent with existing rail corridor infrastructure.	**Minor**	**Negligible**
Old Sugarmill	**Direct:** The SHR item is located 20m south of the proposed works and will not be directly impacted. In accordance with Policy 6 of the Conservation Management Plan (CMP) for Old Sugarmill the proposed works would not reduce the intactness of any remaining fabric of considerable significance. It is not expected that the proposed works or vehicular traffic alongside the rail corridor will case the northern retaining wall of Old Sugarmill to deteriorate during SMC. However, it is recommended that the wall should be inspected during the works to ensure that there is no visible evidence of deterioration being caused by the works. **Indirect:** Works in the vicinity of the SHR items will include the installation of fencing along the rail corridor and bridge remediation works, including the installation of throw screens, on the Hutton Street rail bridge. Some trees may also be removed from the Canterbury Compound area. However, although the works would not compliment the style and form of the existing buildings of Old Sugarmill (CMP Policy 5), the fencing and bridge works would be consistent with existing rail	**Neutral**	**Negligible**

Item	Discussion of impacts	Direct impact	Indirect impact
	corridor infrastructure to minimise visual changes and would be partially screened by plantings within the SHR curtilage. Because of the lower ground level of the Old Sugarmill compared to the bridge, any visual impacts resulting from the works would generally only be visible from the uppermost floor of the Sugarmill, and the works would not interrupt views towards the Sugarmill. In particular, in accordance with CMP Policy 12 the proposed works would not impact views from the Sugar House across to Cooks River. As a result, the impacts to the visual setting of the Sugarmill would be minimal. The trees within the Canterbury Compound are also outside of the SHR curtilage and do constitute a key component of the visual landscape character of the heritage item.		
Inter-War Hotel (former Hotel Canterbury)	**Direct:** The LEP item is located immediately adjacent to the proposed works but will not be directly impacted. If the recommended physical exclusion zones are used during the works this would mitigate the risk of inadvertent impacts to the heritage item. **Indirect:** Works in proximity to the LEP item will be restricted to the installation of new fencing and the removal of redundant rail infrastructure. However, removing the redundant infrastructure would not result in any visual impacts and the fencing would be consistent with existing rail corridor infrastructure.	**Neutral**	**Negligible**
Federation Post Office Building (former Canterbury Post Office)	**Direct:** The LEP item is located 20m north of the proposed works and will not be directly impacted. **Indirect:** Works in proximity to the LEP item will be restricted to the installation of a new OHW structure and the removal of redundant rail infrastructure. However, removing the redundant infrastructure would not result in any visual impacts and the OHW structure would be consistent with existing rail corridor infrastructure. These works would be obscured by the existing vegetation and as a result would not be visually noticeable.	**Neutral**	**Neutral**
Electricity substation no. 275	**Direct:** The s170 item is located 5m north of the proposed works but will not be directly impacted. If the recommended physical exclusion zones are used during the works this would mitigate the risk of inadvertent impacts to the heritage item. **Indirect:** Works in proximity to the LEP item will be restricted to the installation of new fencing and the removal of redundant rail infrastructure. However, removing the infrastructure would not result in any visual impacts and the fencing would be consistent with existing rail corridor infrastructure.	**Neutral**	**Negligible**

Item	Discussion of impacts	Direct impact	Indirect impact
Canterbury (Cooks River) Underbridge	**Direct:** New segregation fencing would be installed along the top of the bridge. Penetrations would need to be made into the bridge in order to secure the fence to it. This would result in direct impacts to the significant fabric of the bridge. Furthermore, although the redundant ARTC infrastructure that is proposed to be removed is not considered to be significant fabric, the removal of the infrastructure may result in some additional direct impacts where it is attached to the bridge. However, the direct impacts would only affect a fairly limited portion of the bridge and would not require larger sections of the bridge to be removed. As a result, the direct impacts to the bridge would be relatively limited and the overall impact would be minor. **Indirect:** The installation of new fencing on the bridge would result in visual impacts from the introduction of new material along the bridge and as a result of the direct impacts to the fabric of the bridge. However, the impacted fabric would be limited and the fencing would be consistent with existing rail corridor infrastructure.	**Minor**	**Negligible**
Canterbury (Cooks River/Charles St) Underbridge – Main Line	**Direct:** New segregation fencing would be installed along the top of the bridge. Penetrations would need to be made into the bridge in order to secure the fence to it. This would result in direct impacts to the significant fabric of the bridge. Furthermore, although the redundant ARTC infrastructure that is proposed to be removed is not considered to be significant fabric, the removal of the infrastructure may result in some additional direct impacts where it is attached to the bridge. However, the direct impacts would only affect a fairly limited portion of the bridge and would not require larger sections of the bridge to be removed. As a result, the direct impacts to the bridge would be relatively limited and the overall impact would be minor. **Indirect:** The installation of new fencing on the bridge would result in visual impacts from the introduction of new material along the bridge and as a result of the direct impacts to the fabric of the bridge. However, the impacted fabric would be limited and the fencing would be consistent with existing rail corridor infrastructure.	**Minor**	**Negligible**
Federation House (former station master's cottage)	**Direct:** The LEP item is located 20m north of the proposed works and will not be directly impacted. **Indirect:** The closest works to the LEP item would be restricted to minor OHW works. These would be in keeping with the current views and vistas of the heritage item and would not have a visual impact. The installation of a proposed CSR to the west would be sufficiently screened from view and therefore would not result in a visual impact.	**Neutral**	**Neutral**

Item	Discussion of impacts	Direct impact	Indirect impact
Post-war bus shelter and public lavatories	**Direct:** The LEP item is located 30m north of the proposed works and will not be directly impacted. **Indirect:** The closest work to the LEP item would be limited to minor OHW works. These would be in keeping with the current views and vistas of the heritage item and would not have a visual impact.	**Neutral**	**Neutral**
Lakemba Water Pumping Station (WP0003)	**Direct:** The heritage item is located at least 45m south of the proposed works and will not be directly impacted. **Indirect:** The works in the vicinity of the heritage item would all be located on the north side of the rail corridor, which is on the opposite side of Wiley Park Station compared to the heritage item. As a result, the proposed works would be obscured from view and would not visually impact the heritage item.	**Neutral**	**Neutral**
Bankstown Station	**Direct:** The demolition of the existing eastern portion of the station platform is required to facilitate the introduction of the cross corridor retail plaza, service structures, and the new Metro side platforms. The platform demolition would result in a moderate direct (physical) impact to the existing heritage fabric of the platform and associated coping, which are listed as elements of high significance. Impacts to significant platform fabric would only occur on the northern side where masonry is still present. The proposed extension of the western end of both Sydney Trains platforms would require modification of the brick end of the platform retaining wall to develop the new interface. The proposed extension of the western end of the platform would result in a minor direct impact. The demolition of the former Parcels Office involves the of an original and significant station building from the Bankstown Station Railway Group. The Parcels Office is considered to be an element of exceptional significance within the station group. The removal of this element would result in a moderate direct impact to the overall Bankstown Station Railway Group. The proposed canopy to the Sydney Trains station entrance adds a new and modern structural element to the Bankstown Station heritage item, which responds to the form and scale of the platform building, an element of exceptional significance. The proposed new canopies would result in a minor direct impact.	**Moderate**	**Moderate**

Item	Discussion of impacts	Direct impact	Indirect impact

Works would be required in the rail corridor for the excavation and compaction related to the installation and construction of track slabs. This work would not impact fabric of significance.

Garden landscaping, as well as existing amenities and toilet facilities located to the north and south of the railway corridor are not assessed as having heritage significance. The proposed removal of the modern landscaping elements and trees in area around the station would result in a neutral direct (physical) impact to Bankstown Station overall. The removal of the small amenities/toilet building and partial demolition of the modern parking lot would not result in an adverse direct (physical) impact to Bankstown Station.

Indirect: The canopy is visually distanced from the roof of the platform building, and the glazing allows the station building to be clearly seen through the Sydney Trains station entrance rather than being overshadowed or visually obstructed. This in conjunction with the separation of the new canopy from the existing awning minimises visual interruption caused by the interruption of this new element. Thus, existing view lines are not impeded by the new structure, which visually references the original platform building design. As a result, the proposed new canopy to the Sydney Trains station entrance would result in a minor indirect (visual) impact to the heritage significance of Bankstown Station. The proposed canopy to the Sydney Metro station entrance (on the eastern side of the proposed plaza) would not adversely impact on any significant indirect (visual) view lines.

The demolition of the former Parcels Office would remove the element of exceptional significance from the station group. This would alter the heritage character and setting of the station group. This would result in a moderate indirect (visual) impact to the heritage significance of the station overall.

The removal of the tracks for the construction and installation of the track slabs would be temporary and would have a neutral heritage impact.

The proposed demolition of a small amenities building would generate new visual relationships towards the station platform building. The removal of the amenities building would result in a neutral positive indirect (visual) impact to the heritage significance of Bankstown Station. The proposed new garden landscaping and construction of the new services building along the rail corridor boundary would result in a minor indirect (visual) impact to the heritage significance of the station overall.

Item	Discussion of impacts	Direct impact	Indirect impact
	The accumulation of new and modern structural elements (cross corridor plaza, extension of the station platforms, new station entrances) and the partial demolition of the heritage listed platform would noticeably alter the overall visual character of Bankstown Station. The existing station platform would effectively be separated through the introduction of the retail crossing, altering the original use of the platform and the visual relationship between the platform and the station buildings. The isolation of the platform building to the western end of the platform would result in adverse heritage impacts. Overall, the station works would result in a moderate visual impact to the heritage significance of Bankstown Station.		
Bankstown Parcels Office (former) and Cross Corridor Plaza	**Direct:** The demolition of the heritage listed former Bankstown parcels office involves the complete removal of all original and significant fabric. The demolition would result in the delisting of the item from the Bankstown LEP 2015. The proposed demolition of the former Bankstown Parcels Office would result in major direct impact to the "Bankstown Parcels Office (Former)" listed on the Bankstown LEP 2015. **Indirect**: The proposed demolition of the heritage listed former Bankstown Parcels Office would remove all visible evidence of the heritage item and result in a major indirect (visual) impact.	**Major**	**Major**
Shop	**Direct:** The LEP item is located outside the proposed works area and will not be directly impacted. **Indirect:** The removal of the former Parcels Office would alter the visual relationships between the 'Shops' and the station, resulting in a negligible indirect (visual) impact to an item in the vicinity of Bankstown Station. Additionally, the removal of the tree line and introduction of a two storey services building to the south of the rail corridor, coupled with the eastern extension of the station platforms would result in a negligible indirect (visual) impact to the visual relationship between the station and the locally listed item.	**Neutral**	**Negligible**

4.3 Archaeological impact assessment

4.3.1 Marrickville Station

Excavation works within the Marrickville Station Catchment will primarily consist of potholing for the installation of fencing along the east side of the catchment, and excavations for the installation of a CSR and excavations for track slabs. The location of these main excavation works proposed within Marrickville Station are illustrated in Figure 25. It is noted that these may not be the only excavation works undertaken within the AMZ, however, at the time of the preparation of this HIA the exact location of other proposed excavation works is not confirmed.

Archaeological assessment at Marrickville Station has identified that there is moderate to high potential for archaeological features dating to the third phase of development (1890s-1920s) that have the potential to be of local significance. Within the area of the proposed works, potential archaeological remains could include archaeological remains associated with the early phase of railway infrastructure such as culverts, ceramic service pits, brick drainage pits, electrical conduits and pits, stanchion bases, sleepers and rail track. However, the impacts associated with the proposed SMC works would generally be limited to narrow trenches and localised potholes, or would be limited to the rail corridor, and therefore would not have an extensive impact footprint.

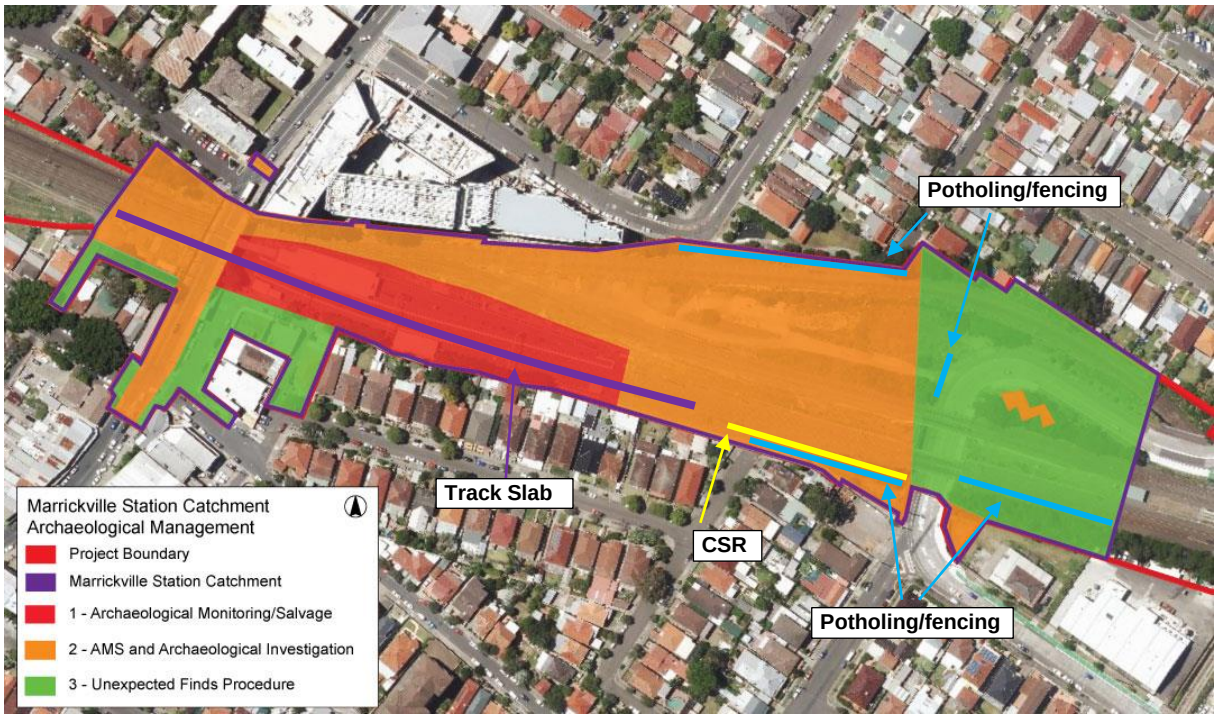
Due to the assessed level of archaeological potential and the minor nature of the proposed excavations, the excavations would be managed under a program of archaeological monitoring. A brief AMS has been prepared to guide the archaeological monitoring, which is attached as an appendix.

Excavations for the installation of fencing at the east end of the station catchment would be undertaken within an area assessed as having nil to low archaeological potential. As a result, excavations within this area would be managed under the Unexpected Finds Procedure. Activities such as the installation of shallow fence stakes for sediment control and surface works such as laydown of construction materials and stockpiling are unlikely to impact significant archaeological remains and therefore would also be managed under the Unexpected Finds Procedure.

This approach would align with the recommended management measure as outlined in the *Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design.* The excavation areas are located within areas designated as AMZ1, AMZ 2, and AMZ 3 for future works at Marrickville Station (see Table 3 and Figure 25). Ground excavation in AMZ 1 and AMZ 2 areas must be archaeologically managed according to the provisions set out in the *Sydney Metro City & Southwest – Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design*, and AMZ 3 areas are to be managed under the Unexpected Finds Procedure. Archaeological management recommendations for the proposed works are provided in Section 5.2 below.

Overall, it is assessed that the proposed works would result in minor impacts to potential archaeological remains within Marrickville Station.

Figure 25: Primary proposed excavation works within Marrickville Station



4.3.2 Canterbury Station

Excavation works within the Canterbury Station Catchment will consist of potholing for the installation of fencing, particularly at the east end of the catchment, excavations for the relocation of Sydney Trains cables on the west side of the station catchment as well as clearing and grubbing associated with the removal of trees to facilitate the relocations, excavations for the installation of two OHW structures, and excavations for the installation of track slabs. Excavations would also be undertaken within the Canterbury Compound, which would include excavations for the installation of power poles and services trenches, excavations for the demolition of the existing Canterbury Bowls Club building, and excavations up to 400mm deep across large parts of the compound for the replacement of topsoil with road base and pavement. The location of these main excavation works proposed within Canterbury Station are illustrated in Figure 26. It is noted that these may not be the only excavation works undertaken within the AMZ, however, at the time of the preparation of this HIA the exact location of other proposed excavation works is not confirmed.

Archaeological assessment at Canterbury Station has identified that there is moderate potential for archaeological features to remain dating to the fourth phase of development (1895-1943) that have the potential to be of local significance. Within the area of the proposed works, potential archaeological remains could include archaeological remains and evidence of early railway construction including rails, refuse pits, drains and timber sleepers. Archaeological remains of early infrastructure such as culverts, tanks, drains (brick, stone or concrete), electrical conduits and pits, sleepers, signalling equipment and rail track. Archaeological remains associated with the early phase of minor railway buildings (such as toilets) prior to track realignment such as postholes, brick footings, former floor surfaces, and early infrastructure such as ceramic service pipes, brick drainage pits, electrical conduits and pits, stanchion bases, sleepers and rail track. However, the impacts associated with the proposed SMC works would generally be limited to narrow trenches and localised potholes, or would be limited to the rail corridor, and therefore would not have an extensive impact footprint.

Archaeological assessment at the Canterbury Compound within the Canterbury Station Catchment has identified that there is also moderate to high potential for archaeological features dating to the second phase of development (1841-1855) that have the potential to be of State significance. Within the area of the proposed works, potential archaeological remains could include archaeological remains and evidence of the Australasian Sugar Company works, including evidence of timber slab huts, outbuildings, landscape modifications, fence lines, drains, artefact deposits, cess pits, wells, cisterns, fencelines, yard surfaces, farming activities, residential cottages, and small-scale mining activities. However, the proposed works within the Canterbury Compound would involve more extensive excavations (Figure 27). Excavations within the compound site would include bulk earthworks across the northern half of the site to a depth of a about 300mm, the excavation to 1000mm on the west side of the site for an access ramp, and the excavation of utility trenches through the construction site to depths of 1000mm for the installation of sewer, water, power and communications services. Localised excavations would be undertaken for the installation of a power pole (4m deep) at the south end of the power and communications trench and a drainage pit (1500m) at the north-east end of the sewer and water trench. Some trees present along the north side of the construction site and in the south-west corner would also need to be removed. This would include excavations to depths of about 500mm to remove the roots of the trees. However, the number of trees to be removed has not been confirmed and therefore some of the tress within the areas marked for removal may be retained. In addition, the establishment of the construction site would necessitate the demolition of the existing Bowling Club building. The building and its foundations would be removed; however, the excavations would not continue into the underlying soil. As a result of these excavations, the establishment of the construction site may result in greater impacts to potential archaeological remains.

Due to the assessed level of archaeological potential and the minor nature of the proposed excavations, the excavations within the west part of the station catchment would be managed under a program of archaeological monitoring. However, excavations within the Canterbury Compound would be managed under a program of archaeological test and salvage excavation due the higher level of archaeological potential and greater risk of impacts associated with the proposed works. A brief AMS has been prepared to guide the archaeological test excavations, salvage excavations and monitoring, which is attached as an appendix. The AMS provides a methodology for the excavation of eight archaeological test trenches within the Canterbury Compound to investigate if significant archaeological remains are present. If significant archaeological remains are identified within the archaeological test trenches and impacts could not be avoided, a program of archaeological salvage excavation would need to be undertaken to investigate and record the archaeological remains.

Excavations for the installation of fencing at the east end of the station catchment would be undertaken within an area assessed as having low archaeological potential. As a result, excavations within this area would be managed under the Unexpected Finds Procedure. Activities such as the installation of shallow fence stakes for sediment control and surface works such as laydown of construction materials and stockpiling are unlikely to impact significant archaeological remains and therefore would also be managed under the Unexpected Finds Procedure.

This approach would align with the recommended management measure as outlined in the *Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design.* The excavation areas are located within areas designated as an AMZ 1, AMZ 2 and AMZ 3 for future works at Canterbury Station (see Table 5 and Figure 26). Ground excavation in AMZ 1 and AMZ 2 must be archaeologically managed according to the provisions set out in the *Sydney Metro City & Southwest – Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design*, and AMZ 3 areas are to be managed under the Unexpected Finds Procedure. Archaeological management recommendations for the proposed works are provided in Section 5.2 below.

Overall, it is assessed that the proposed works would result in minor impacts to potential archaeological remains within Canterbury Station. However, it is assessed that the proposed works would result in moderate impacts to potential archaeological remains within Canterbury Compound.

Figure 26: Primary proposed excavation works within Canterbury Station. Note that works within the Canterbury Compound are not shown but could be anywhere within the compound

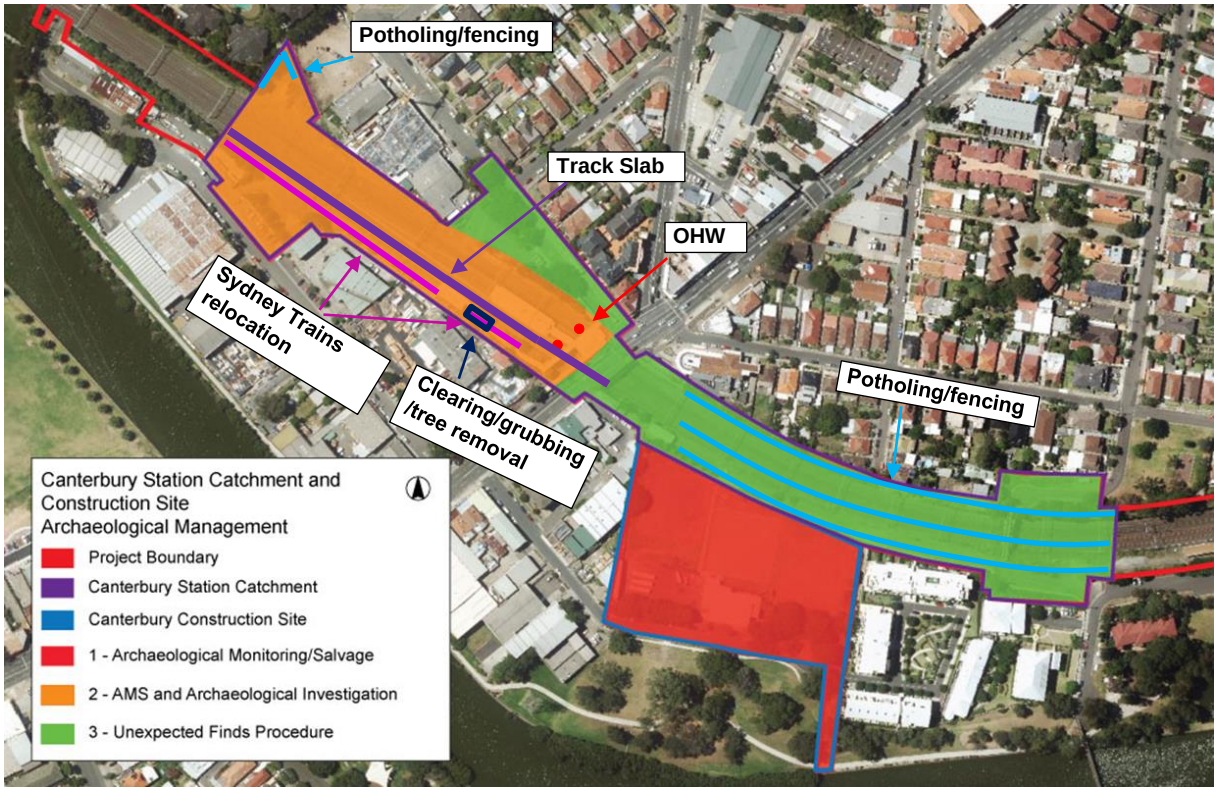
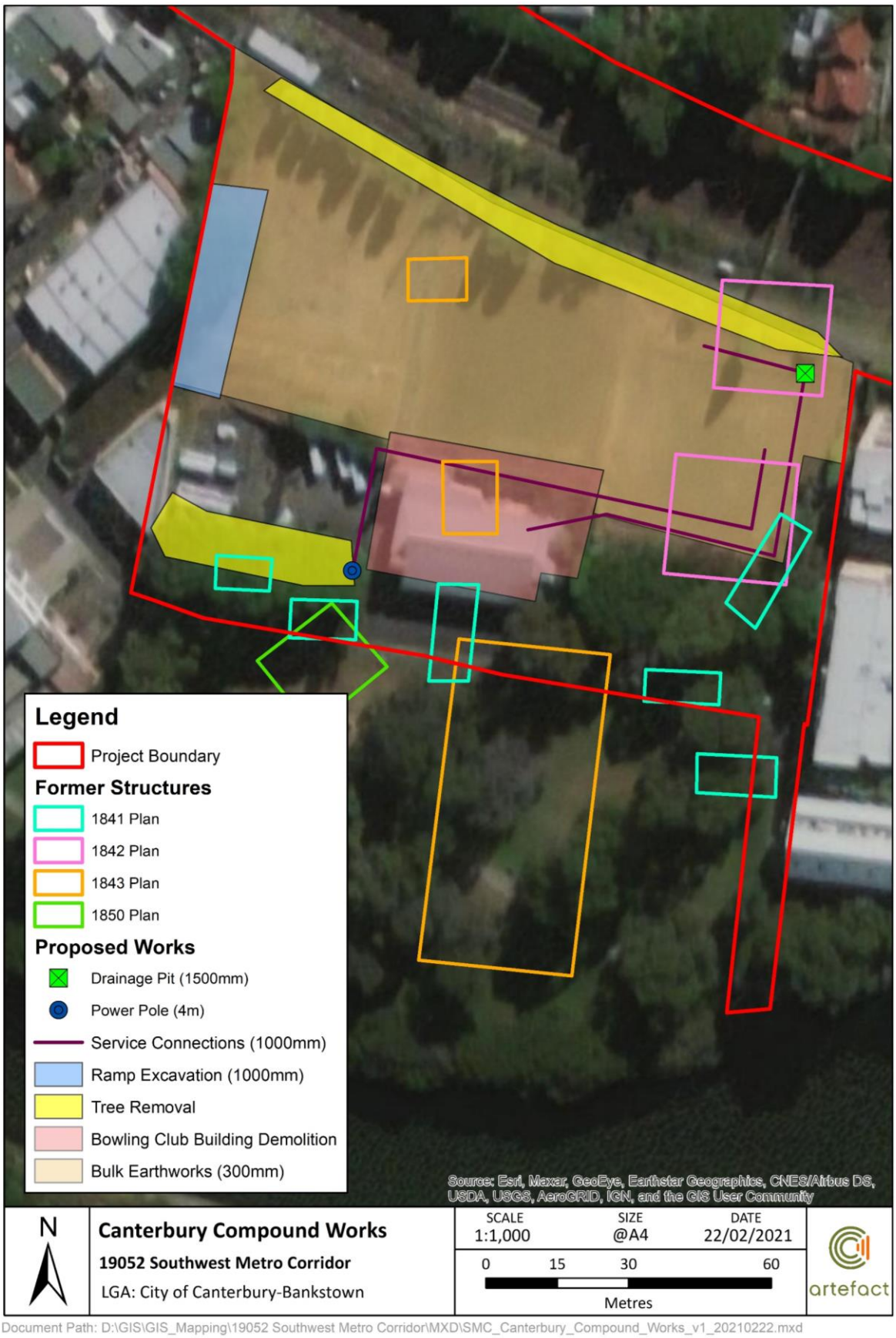


Figure 27: Proposed works within the Canterbury compound



Document Path: D:\GIS\GIS_Mapping\19052 Southwest Metro Corridor\MXD\SMC_Canterbury_Compound_Works_v1_20210222.mxd

4.3.3 Belmore Station

Excavation works within the Belmore Station Catchment will primarily consist of potholing for the installation of fencing, excavations for the installation of CSR along the east and west sides of the catchment, and excavations for the installation of track slabs. The location of these main excavation works proposed within Belmore Station are illustrated in Figure 28. It is noted that these may not be the only excavation works undertaken within the AMZ, however, at the time of the preparation of this HIA the exact location of other proposed excavation works is not confirmed.

Archaeological assessment at Belmore Station has identified that there is low to moderate potential for archaeological features dating to the second phase of development (1880s-1920s) that have the potential to be of local significance. Within the area of the proposed works on the west side of the station catchment, potential archaeological remains could include archaeological remains associated with the early phase of railway infrastructure such as culverts, ceramic service pits, brick drainage pits, electrical conduits and pits, stanchion bases, sleepers, rail track, goods shed and goods platform and other rail infrastructure such as a converter room, coal bin, ash pit, lamp shed, auto box, land agent, boot maker, toilets and tank. However, the impacts associated with the proposed SMC works would generally be limited to narrow trenches and localised potholes, or would be limited to the rail corridor, and therefore would not have an extensive impact footprint.

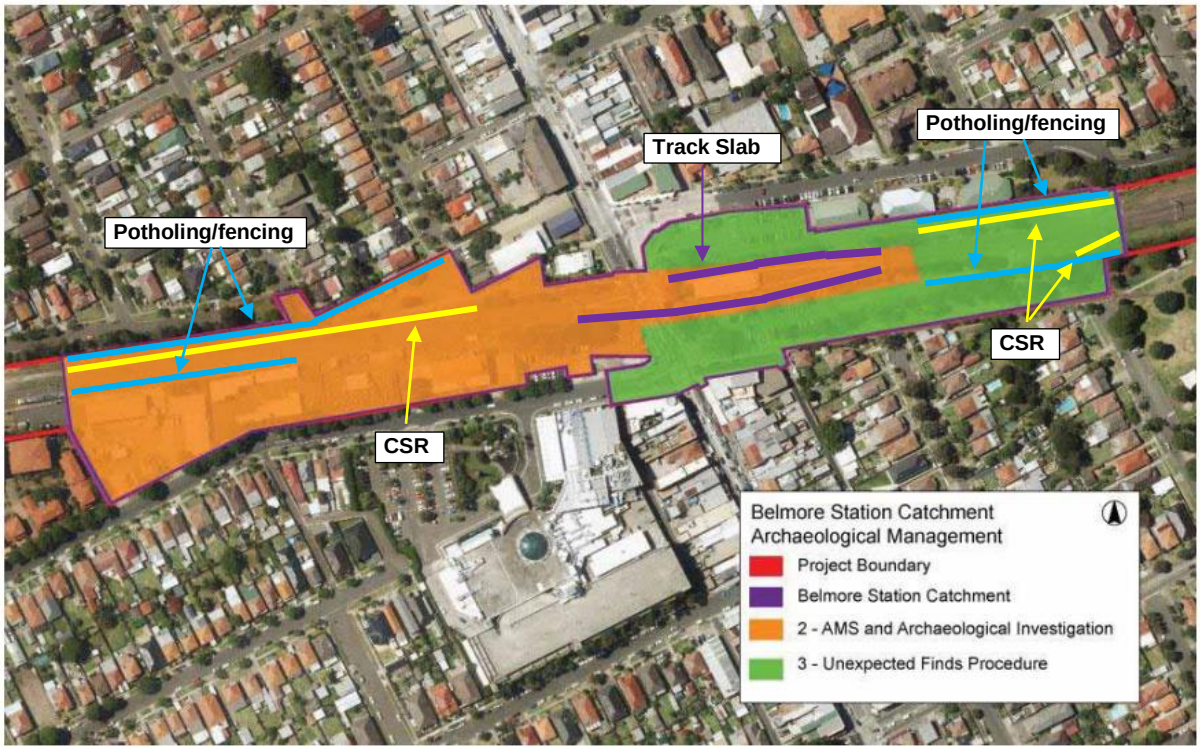
Due to the assessed level of archaeological potential and the minor nature of the proposed excavations on the west side of the station catchment, the excavations would be managed under a program of archaeological monitoring. A brief AMS has been prepared to guide the archaeological monitoring, which is attached as an appendix.

Excavations for the installation of fencing and CSR at the east end of the station catchment would be undertaken within an area assessed as having nil to low archaeological potential. As a result, excavations within this area would be managed under the Unexpected Finds Procedure.

This approach would align with the recommended management measure as outlined in the *Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design.* The excavation areas are located within an area designated as an AMZ 2 and AMZ 3 for future works at Belmore Station (see Table 7 and Figure 28). Ground excavation in AMZ 2 areas must be archaeologically managed according to the provisions set out in the *Sydney Metro City & Southwest – Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design*, and AMZ 3 areas are to be managed under the Unexpected Finds Procedure. Archaeological management recommendations for the proposed works are provided in Section 5.2 below.

Overall, it is assessed that the proposed works would result in minor impacts to potential archaeological remains within Belmore Station.

Figure 28: Primary proposed excavation works within Belmore Station



4.3.4 Lakemba Station

Excavation works within the Lakemba Station Catchment will consist of the removal of existing underground Sydney Trains GLT, clearing and grubbing associated with the removal of trees along the north-west side of the catchment and between the tracks, and excavation works for the installation of track slabs. The location of these main excavation works proposed within Lakemba Station are illustrated in Figure 29. It is noted that these may not be the only excavation works undertaken within the AMZ, however, at the time of the preparation of this HIA the exact location of other proposed excavation works is not confirmed.

Archaeological assessment at Lakemba Station has identified that there is low to moderate potential for archaeological features dating to the third phase of development (1909-1919) that have the potential to be of local significance. Within the area of the proposed works, potential archaeological remains could include archaeological remains and evidence of early railway construction including brick drainage pits, electrical conduits and pits, stanchion bases, timber footings and postholes, sleepers and rail track. Archaeological remains associated with earlier phases could include evidence of farming activities including domestic and agricultural structures, refuse pits and drains or culverts. Notable features in this location include two structures located on the north side of the tracks to the west of the pedestrian footbridge, which are visible in 1943 aerial photographs of the station.

It is unlikely though that artefact-bearing deposits and or remains associated with the first timber island platform would be present within the proposed excavation areas. Furthermore, the impacts associated with the proposed SMC works would generally be limited to narrow trenches and localised potholes, or would be limited to the rail corridor, and therefore would not have an extensive impact footprint.

Due to the assessed level of archaeological potential and the minor nature of the proposed excavations, the excavations would be managed under a program of archaeological monitoring. A

brief AMS has been prepared to guide the archaeological monitoring, which is attached as an appendix.

This approach would also align with the recommended management measure as outlined in the *Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design.* The excavation areas are located within an area designated as an AMZ 2 for future works at Lakemba Station (see Table 9 and Figure 29 above). Ground excavation in this area must be archaeologically managed according to the provisions set out in the *Sydney Metro City & Southwest – Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design*. Archaeological management recommendations for the proposed works are provided in Section 5.2 below.

Overall, it is assessed that the proposed works would result in negligible impacts to potential archaeological remains within Lakemba Station.

Figure 29: Primary proposed excavation works within Lakemba Station

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The proposed works would result in the following impacts:

- The proposed works would result in neutral to minor direct and indirect (visual) impacts to most of the listed heritage items within and immediately adjacent to the SMC works
- The proposed works would result in negligible direct and moderate indirect (visual) impacts to Lakemba Station as a result of the installation of GST
- Demolition of the heritage listed Bankstown Parcels Office at Bankstown Station will result in major direct and indirect (visual) impacts on the significance of the LEP heritage item. This would result in Bankstown Parcels Office (former) being removed from the Bankstown LEP (I4)
- The platform extension, new station concourses, and demolition of the former Parcels Office will result in moderate direct and indirect (visual) impacts to the significance of the Bankstown Station Group
- Excavation works at Marrickville, Lakemba, Canterbury, and Belmore Stations, including non-destructive digging, potholing, installation of track slabs, and the installation of CSR and fences, clearing and grubbing and Sydney Trains relocation works, would result in minor impacts to potential archaeological remains
- More substantial excavation works at the Canterbury Compound, including non-destructive digging, potholing, installation of power poles and service trenches, demolition of the existing Canterbury Bowls Club building and wider landscaping works to a depth of 300mm, would result in moderate impacts to potential archaeological remains.

5.2 Heritage and archaeological management recommendations

- To mitigate the risk of impacts to heritage items and significant fabric it is recommended that physical exclusion zones in the form of protective barriers/blankets are set up during works which are undertaken within 5m of less of a heritage item/significant fabric of a heritage item. This includes the following heritage items:
    - Marrickville 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)
    - Dulwich Hill Railway Station (where works are undertaken adjacent to the platforms)
    - 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
  - Canterbury (Cooks River) Underbridge
  - Canterbury (Cooks River/Charles St) Underbridge – Main Line
  - Bankstown Railway Station (where works are undertaken adjacent to and within the platform)
- Exclusion zones for the remaining heritage items would be limited to identifying the location of the heritage items on the environmental control maps. The requirements for exclusion zones when working in the vicinity of the heritage items would be included in site inductions and toolbox meetings
- Where there is a risk that the proposed works could result in vibration impacts to heritage significant fabric due to the use of vibration intensive plant in close proximity, such as hammering out redundant ARTC infrastructure adjacent to platforms and station buildings within station curtilages, it is recommended that vibration monitoring is undertaken in accordance with the Construction Noise and Vibration Management Sub-plan. This would include works within the following heritage items:
  - Marrickville Railway Station
  - Dulwich Hill Railway Station
  - Hurlstone Railway Station
  - Canterbury Railway Station
  - Campsie Railway Station
  - Bankstown Railway Station
- Although it is not expected to be impacted by the SMC works, the northern retaining wall of Old Sugarmill should be monitored during the works to ensure that vehicular movement adjacent to the railway corridor is not causing the wall to deteriorate
- Archival recordings should be undertaken prior to the works where the works would impact heritage items listed on the SHR or would result in direct and indirect impacts that are minor or greater than minor. This would include the following heritage items:
  - Old Sugarmill
    - As the visual impacts to Old Sugarmill would only be negligible, the archival recording would be limited to exterior views and vistas
  - Hurlstone Park Railway Underbridge
  - Canterbury (Cooks River) Underbridge
  - Canterbury (Cooks River/Charles St) Underbridge – Main Line
  - Bankstown Railway Station Group
  - Bankstown Station Parcels Office
  - It is noted that archival recordings have already been undertaken at some of the heritage stations as part of the detailed design for the project and therefore additional archival recordings are not required as part of SMC

- As the proposed works would result in direct impacts to rail bridges, a Heritage Engineer may need to consulted with if the proposed works would present any structural issues to the following heritage items:
    - Hurlstone Park Railway Underbridge
    - Canterbury (Cooks River) Underbridge
    - Canterbury (Cooks River/Charles St) Underbridge – Main Line
- As the proposed works would result in direct impacts to significant fabric, in accordance with REMM NAH20 it is recommended that the works undertaken at the following heritage items should be conducted by skilled tradespeople in consultation with a Conservation Architect:
    - Canterbury Railway Station
    - Wiley Park Railway Station
    - Bankstown Railway Station
    - Bankston Station Parcels Office
    - South Dulwich Hill Heritage Conservation Area
    - Hurlstone Park Railway Underbridge
    - Canterbury (Cooks River) Underbridge
    - Canterbury (Cooks River/Charles St) Underbridge – Main Line
- If the Depression era brick paving within South Dulwich Hill Heritage Conservation Area is required to be modified, it is recommended that the significant brick pavement be carefully removed and the brick pavement reinstated following the completion of the works. If any bricks are damaged during the proposed works a suitable like-for-like replacement should be selected in discussion with the Conservation Architect
- Any new infrastructure installed within or in the vicinity of heritage items should be consistent with existing rail infrastructure to reduce visual impacts resulting from SMC
- Where feasible new conduit routes should be buried below-ground rather than installed above-ground in GST in order to reduce visual impacts resulting from SMC
- Where GST is installed within the visual catchment of the heritage stations, it should be painted to reduce reflective glare in order to reduce visual impacts resulting from SMC. This would be subject to detailed design
- Where cable trays/ladders are proposed to be attached directly to significant structural fabric at Canterbury Station, such as to the footbridge, overbridge or platform, they should be attached with mechanical (non-chemical) anchors rather than chemical anchors to minimise impacts to fabric resulting from the future removal of the cable trays/ladders. All impact points should be made good when the anchors are removed
- A short Work Stage Specific AMS is attached as an Appendix, which has been prepared according to the methodology outlined in Section 7.3 of the Historical ARD for the project.[20]
- In accordance with the AMS 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, and track slab excavations, at Marrickville, Canterbury,

[20] Artefact 2018a, p128

Belmore and Lakemba Stations within AMZ 1 and 2 areas is required in order to identify, investigate and document any significant archaeological remains to mitigate impacts in accordance with the conditions of approval for the project

- In accordance with the AMS a program of archaeological test excavation is required within the Canterbury Compound, identified as AMZ 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. The location of the archaeological test excavations are to be refined in an addendum AMS once the location of the proposed excavations within the Canterbury Compound is confirmed
- In accordance with the HIA (Artefact, 2021), future advertising should not obscure significant fabric or significant views at Bankstown Station, opportunities should be explored for the interpretation of significant and locally listed parcels office being demolished, and signage and wayfinding should not obstruct view lines towards significant fabric
- In accordance with the HIA (Artefact, 2021), the Bankstown Station work should incorporate the following recommendations:
    - Existing penetrations into original fabric should be utilised where introduced fabric is to be located. Any existing penetrations that would not be utilised for new works should be repaired and made good. A suitably qualified heritage tradesperson should be engaged to complete these works
    - If significant fabric is damaged during the course of works, work should be halted, and a suitably qualified heritage architect should be engaged to inspect and assess any damage and to propose appropriate remedial measures
    - New paint colours should match the existing paint scheme, or if a new paint scheme is proposed it should be in accordance with Rail Heritage Conservation Guides: Station Building Painting Conservation Guide and Heritage paint schemes.
- In accordance with the HIA (Artefact, 2021), the Bankstown Station platform works should incorporate the following recommendations:
    - The extension of the platform to the east should minimise the removal of any existing heritage fabric and all brick platform retaining walls should be conserved
    - Works to the extant platform ramp at the western end of the platform (under the Bankstown City Plaza overbridge) should ensure that no brickwork on the country end is impacted, and that the form of the ramps is exposed in the new design
    - New platform extensions should be materially sympathetic to existing platform retaining wall structures while also ensuring that they are clearly distinguishable as new work. Design materials for the platform extension could include whole brick (matched in colour, texture and bond to existing platform retaining wall work)

with a concrete spacing or separator to distinguish between original and new fabric

  - Platform modification works should not impact, cover or remove any existing subfloor ventilation vents. Should platform grading be proposed which would cover over these vents, small spacings should be kept open

- All relevant personnel and contractors involved in the SMC works will be advised of the mitigation measures and recommendations in this HIA.

6.0 APPENDIX: ARCHAEOLOGICAL METHOD STATEMENT

Project: Sydney Metro – City & Southwest Sydenham to Bankstown- Corridor Works	**Date:** 20 June 2022
Project site: Marrickville, Canterbury, Belmore and Lakemba Stations	**Author:** Jayden van Beek (Senior Heritage Consultant) and Dr Sandra Wallace (Managing Director)
Client: Sydney Metro Authority	**Contact:** Chris McCallum

Background

JHLOR (the Proponent) are proposing to undertake a package of works known as SMC, which include excavations at Marrickville, Canterbury, Belmore and Lakemba Stations (the proposed works). Marrickville Station, Canterbury Station and Belmore Station are listed on the SHR, RailCorp Section 170 Heritage and Conservation Register and relevant LEPs as items of State heritage significance, and Lakemba Station is listed on the RailCorp Section 170 Heritage and Conservation Register and relevant LEP. The four stations, as well as the Canterbury Construction Site, have also been assessed as areas with potential for significant archaeological remains. The proposed works would be undertaken as part of the Construction phase under an approved CEMP.

An assessment was prepared by Artefact Heritage (Artefact Heritage 2021), which has found that the proposed SMC excavation works would result in minor to moderate impacts to significant archaeological remains within the four Archaeological Investigation Zones (AIZ).

This Archaeological Method Statement (AMS) has been prepared in accordance with Revised Environmental Mitigation Measure (REMM) NAH12 and outlines the archaeological methodology to manage the construction works to mitigate impacts to significant archaeological remains for Marrickville, Canterbury, Belmore and Lakemba Stations and Canterbury Construction Site. Heritage items, including archaeological sites, relics and Aboriginal objects, cannot be impacted prior to approval of the CEMP and heritage sub-plan in accordance with the Minister's Conditions of Approval for the Sydney Metro City & Southwest – Sydenham to Bankstown project.

The AMS is consistent with the methodologies outlined in the Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design.[21]

The Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design requires the nomination of an Excavation Director who complies with the Heritage Council of NSW's Criteria for Assessment of Excavation Directors (July 2011). Details on the nominated Excavation Director who meets this requirement, and archaeological team have been provided.

This AMS should be read in conjunction with the assessment to which it is appended (Artefact Heritage 2022). All project information, assessment of archaeological potential and significance and impact assessment are included in the assessment document.

[21] Artefact 2018a

Archaeological methodology

The heritage assessment for the proposed works recommended that archaeological monitoring is undertaken for the below ground disturbing works:

Marrickville Station

- Non-destructive digging for service locations and instalment of fences
- Non-destructive digging for service locations and instalment of CSR
- Excavations for the installation of track slabs

Canterbury Station

- Non-destructive digging for service locations and instalment of fences
- Non-destructive digging for service locations and instalment of CSR
- Excavations for overheard wiring (OHW) structures
- Excavations for the relocation of Sydney Trains cables
- Clearing, grubbing and tree removal
- Excavations for the installation of track slabs

Belmore Station

- Non-destructive digging for service locations and instalment of fences
- Non-destructive digging for service locations and instalment of CSR
- Excavations for the installation of track slabs

Lakemba Station

- Non-destructive digging for service locations and instalment of fences
- Excavations for the relocation of Sydney Trains cables
- Clearing, grubbing and tree removal
- Excavations for the installation of track slabs

Canterbury Construction Site

The heritage assessment for the proposed works recommended that archaeological test and salvage excavation is undertaken for the below ground disturbing works at the Canterbury Compound:

- Excavation to depths of 300mm for the replacement of topsoil with road base and pavement
- Excavations to 1000mm for sewer, water, power and communication service trenches in the construction site
- Excavations to install a drainage pit (1500mm) and a power pole (4m)
- Excavation to 1000mm for an access ramp
- Excavations to 500mm for the removal of trees
- Excavations for the demolition of existing Canterbury Bowls Club building.

Works may proceed under on call provisions if approved to do so by the Excavation Director. If significant archaeological remains are encountered they would need to be investigated and documented prior to impacts occurring.

The proposed installation of fences for sediment control at Marrickville and Canterbury Stations would unlikely impact potential archaeological remains and would have an overall negligible impact, and therefore would occur under the Unexpected Finds Procedure.

It is noted that additional excavations to those outlined above may be required within the AIZs. As the location of any additional archaeological investigations are confirmed, they would be assessed against the methodology outlined in this AMS to identify if further archaeological management may be required. Where necessary this AMS will be updated to address the additional scope.

Contractor

The contractor would set up site and then operate under the direction of the archaeologists during archaeological monitoring, test excavation and salvage excavation, as appropriate. This would involve:

- Set out and secure the work area for the construction and archaeological team
- Provide a site induction to contractors in consultation with the Excavation Director
- Assist with the mechanical removal of non-significant overburden under the direction of the archaeologists, where appropriate.

Historical archaeological monitoring of corridor works

Due to the potential for archaeological resources to be located within the SMC area, the majority of the corridor works involving excavation as outlined above would be archaeologically monitored.

Archaeological monitoring is where an archaeologist is in attendance and supervising construction excavation work with potential to expose or impact archaeological remains. Monitoring is generally undertaken where there is lower potential for significant archaeological remains and/or where minor excavation work is in an area of archaeological sensitivity.

If archaeological remains are identified during archaeological monitoring, they would be recorded, protected, and assessed to determine their heritage significance and if further investigation is required. Localised stoppages in the construction work would be required to facilitate this process. Works would not recommence until the monitoring archaeologist has completed the recording and is satisfied that further investigation is not required. Where feasible options should be considered for redesigning around significant archaeological remains to avoid impacts.

If needed, works would be relocated around any archaeological remains, as appropriate for the design bearing in mind that it is a requirement that impacts to any archaeological remains would not occur during the early works program.

A record of archaeological monitoring would be made in accordance with the methodology outlined in the ARD. This would include digital photography, in RAW format, using photographic scales and photo boards where appropriate. A photographic record of all phases of the work on site would be undertaken. Archaeological recording including the locations, dimensions and characteristics of all archaeological features and deposits will be recorded on a sequentially numbered context register.

Should hazardous materials or contaminants be identified during archaeological monitoring, ground excavation would cease until appropriate controls or remediation is conducted by the contractor.

If significant archaeological remains are encountered during the archaeological monitoring and impacts to the remains are unavoidable, then further investigation would be required prior to construction impacts. This may include a program of archaeological salvage excavation to investigate and document the nature and extent of the remains.

Historical archaeological test excavations

The Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design assessed that the Canterbury Compound has moderate to high potential to contain State significant archaeological remains associated with the Australasian Sugar Company works. Due to the potential for significant archaeological resources to be located within the Canterbury Compound which may be impacted by the proposed SMC works, the assessment prepared for the works (Artefact Heritage 2021) recommended that excavations within the Canterbury Compound should be managed under a program of archaeological test/salvage excavation.

Archaeological test excavation involves excavation of small sample trenches within a potential archaeological site. Testing is usually undertaken prior to construction to clarify the extent of the potential remains, archaeological significance, potential of a construction task to impact significant archaeology and inform requirements for further archaeological investigation, such as salvage excavation or monitoring. Where the test excavations identify significant archaeological remains that cannot be avoided, trenches would be expanded to open areas for salvage excavation as required. The archaeological test excavation program would be conducted under the direction of the Excavation Director who would be supported on site by a suitably qualified Site Director. Areas would only be handed back to the construction team once the Excavation Director has given clearance.

The archaeological test excavation program within the Canterbury Construction Site would target potential archaeological remains of six former structures associated with the Australasian Sugar Company during the second phase of development (1841 – 1855). Eight test trenches are proposed to be excavated within the construction compound (Figure 30). The trenches would generally measure between 15-25m long and would target areas that are more likely to contain evidence of archaeological features such as the walls/footings/post holes and potential stone fireplaces associated with the former timber slab huts (Table 12). Two longer trenches, Trench 3 (45m long) and Trench 7 (75m long), would be excavated to investigate the former yard areas and surfaces between buildings. The test trenches would measure 1.2m wide (one bucket width) with the option to expand the trenches to 2.4m wide (two buckets wide) to investigate potential archaeology. Trench 3 and Trench 7, which are located along the alignment of the proposed service trenches, would be excavated to the depth of impact (1000-1500mm) or until archaeologically sterile soil is reached (whichever is encountered first). The remaining test trenches, which are located within the areas of the shallower bulk earthworks and tree removals, would be excavated to a depth of about 500mm. The Excavation Director may alter the location and size of the test trenches as required to investigate more effectively the potential archaeological remains or where access is restricted due to the presence of tree roots, existing services, and contaminated land.

The archaeological test excavations would be undertaken through a combination of mechanical and hand excavation. Machine excavators would be used under archaeological supervision to remove the topsoil and non-significant overburden. Where archaeologically features or archaeologically sensitive deposits are encountered machine excavation would cease and the archaeological team would continue the excavation with hand tools.

If significant archaeological remains are encountered during the test excavation program, the archaeological remains would be recorded, left in situ and protected. Works that would potentially impact the significant archaeological remains would not be undertaken and options for redesigning the compound works to avoid impacts would be investigated. If impacts to the significant

archaeological remains cannot be avoided, a program of archaeological salvage excavation would be undertaken in accordance with the ARD.

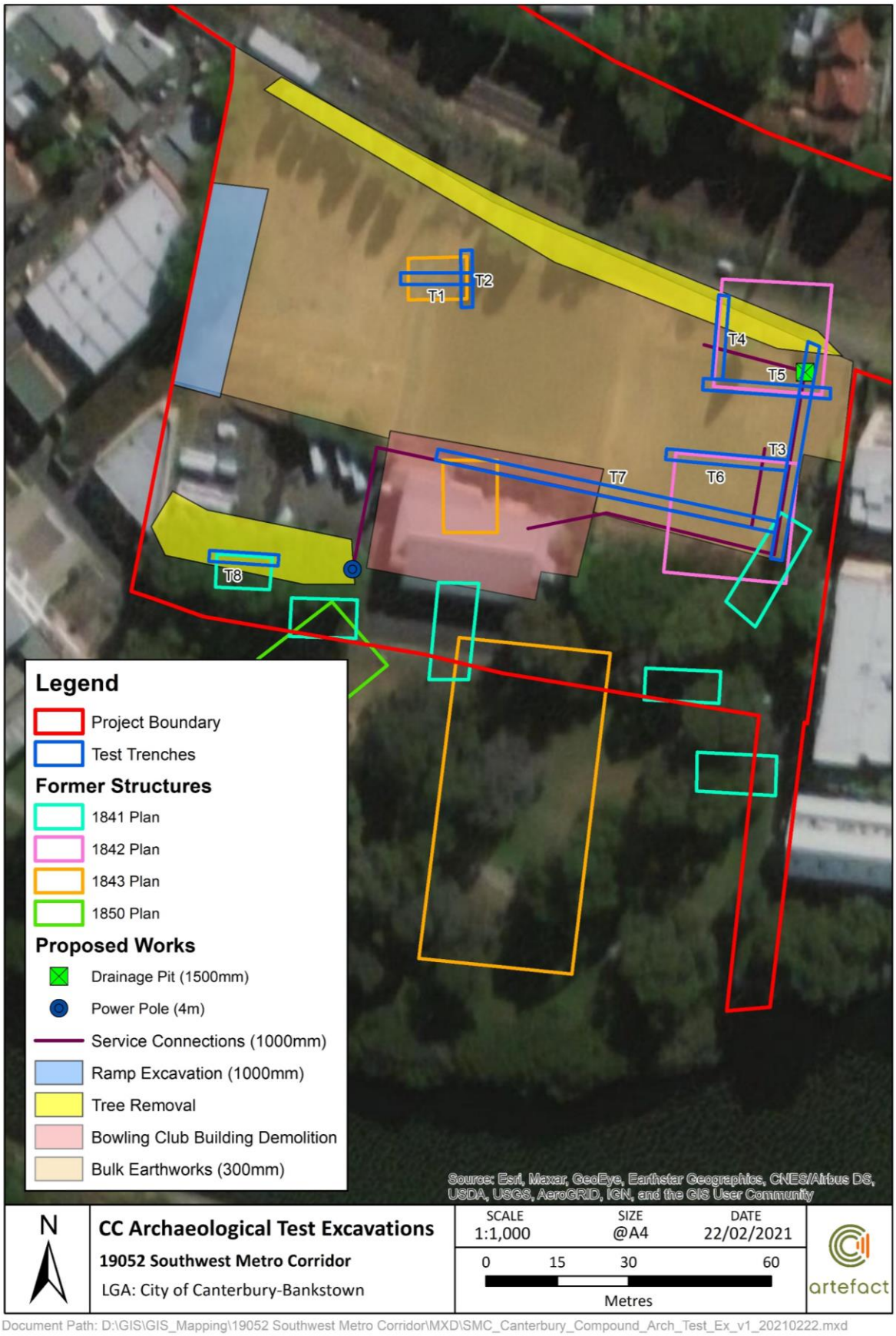
Once the Excavation Director has confirmed the completion of the archaeological test and salvage excavations, excavations would proceed under archaeological supervision in areas where no archaeological remains were identified during testing. Archaeological monitoring would also be undertaken during the removal of the foundations of the Canterbury Bowls Club building to investigate if potential archaeological remains survive underneath the building. If archaeological remains are identified during archaeological monitoring, they would be recorded, protected, and assessed to determine their heritage significance and if further investigation is required. Localised stoppages in the construction work would be required to facilitate this process. Works would not recommence until the monitoring archaeologist has completed the recording and is satisfied that further investigation is not required. Where feasible works would be relocated around any significant archaeological remains to limit impacts. Where impacts cannot be avoided additional programs of archaeological salvage excavation would be undertaken.

Should hazardous materials or contaminants be identified during the archaeological test excavation or monitoring, ground excavation would cease until appropriate controls or remediation is conducted by the contractor.

Table 12: Details of the archaeological test trenches

Test trench	Aim	Dimensions
Trench 1	Investigate interior of c.1843 structure	15 x 1.2 x 0.5m
Trench 2	Investigate perimeter of c.1843 structure	15 x 1.2 x 0.5m
Trench 3	Investigate interior of c.1841 and c.1842 structures and yard area between the buildings	45 x 1.2 x 1.5m
Trench 4	Investigate perimeter of c.1842 structure	20 x 1.2 x 0.5m
Trench 5	Investigate perimeter of c.1842 structure	25 x 1.2 x 0.5m
Trench 6	Investigate perimeter of c.1842 structure	25 x 1.2 x 0.5m
Trench 7	Investigate interior of c.1842 structure, exterior of c.1843 structure and yard area between the buildings	75 x 1.2 x 1.5m
Trench 8	Investigate perimeter of c.1841 structure. Excavation of the trench will depend on access around tree roots	15 x 1.2 x 0.5m

Figure 30: Proposed location of archaeological test trenches within the Canterbury Construction Site



Document Path: D:\GIS\GIS_Mapping\19052 Southwest Metro Corridor\MXD\SMC_Canterbury_Compound_Arch_Test_Ex_v1_20210222.mxd

Archaeological salvage excavations

Archaeological salvage generally refers to open-area archaeological excavation under the control of the Excavation Director. Salvage includes the archaeological excavation of the entire historical archaeological site. It is undertaken following demolition and prior to bulk excavation. Open area salvage excavation is a method of archaeological investigation in which the full horizontal extent of a site is investigated and cleared, whilst preserving the stratigraphic record.

It involves removal of modern fills and disturbance to the top of archaeological layers by machine under archaeological supervision. On the identification of any historical / archaeological fills, salvage excavation would commence. This investigation would be undertaken using hand tools, by a qualified archaeological team. The archaeological remains are then cleaned by hand, investigated (excavated) and recorded in detail by the archaeological team. In urban archaeological sites careful machine excavation may also be employed to assist the detailed archaeological excavation process.

Open-area salvage excavation would be undertaken at Canterbury Construction Site if the archaeological test excavation program or archaeological monitoring identifies substantial and intact significant archaeological remains in areas of construction impact. Salvage excavations would also be undertaken at Marrickville, Canterbury, Belmore and Lakemba Stations if the archaeological monitoring identifies substantial and intact significant archaeological remains in areas of construction impact. Due to the more limited scale and localised nature of the proposed excavation works within the stations, where significant archaeological remains are encountered within areas of construction impact a more localised salvage excavation may be undertaken to investigate and document the archaeological remains.

The extent of the archaeological salvage area would be determined by the Excavation Director based on the nature and extent of the archaeological remains and the construction impacts. Construction works would not proceed until the salvage excavation is completed and the Excavation Director has provided clearance.

Archaeological recording

The archaeological archival recording would be undertaken in accordance with best practice and Heritage NSW, Department of Premier and Cabinet guidelines. The level of recording detail would be in accordance with the significance of the archaeological remains. State significant remains would require more detailed recording, in particular photographic, survey and photogrammetry.

The recording methodology includes the following:

- A site datum would be established
- A standard context recording system would be employed. The locations, dimensions in plan and characteristics of all archaeological features and deposits would be recorded on a sequentially numbered register
- Significant archaeological structural remains, deposits and features would be recorded on context sheets
- Photographic recording of all phases of the work on site would be undertaken
- Digital photography, in RAW format, using photographic scales and photo boards where appropriate. A photographic record of all phases of the work on site would be undertaken.
- Detailed survey and/or measured drawings would be prepared and include location of remains within the overall site

- Significant artefacts would be collected by context for later analysis
- Building material, soil and pollen samples would be collected for further analysis (as appropriate)
- Registers of contexts, photos, samples and drawings would be kept.

Underfloor and cesspit / well deposits

Underfloor deposits

Underfloor deposits may be present within the footprints of the former structures in the Canterbury Construction Site. Underfloor deposits may provide particularly useful archaeological information in the context of domestic or industrial / manufacturing spaces.

Intact underfloor deposits would be excavated in a grid system, either 50 centimetre or 1 metre depending on extent of deposit. Excavation would be by context if stratigraphic layers are identifiable. If the deposit is homogenised excavation would proceed in 5 or 10 centimetre spits. Excavated material would be wet sieved, or dry sieved if possible.

Cesspit / well deposits

Accumulated material at the base of cesspits, wells and even drains can also contain archaeological material of high research value. Stratified well and cesspit backfills or deposits would be excavated by context. Homogenised deposits and fills would be excavated in spits (10 or 20 centimetre spits for example). The material would be sample sieved or 100% sieved depending on the significance of the deposit. Excavated material would be wet sieved, or dry sieved if possible. It is noted that the excavation of wells may pose safety risks due to the depths required. Normal archaeological excavation techniques may need to be altered to include staged mechanical excavation and benching.

Sieving strategy

The range and percentage of archaeological material collected from sieving would be in accordance with a sieving strategy developed by the Excavation Director and artefact specialist. The strategy would consider research agendas and potential interpretation outcomes.

Artefacts

Artefacts are likely to be uncovered during excavations and are an integral part of archaeological investigations and datasets. The archaeological team would include an artefact specialist to advise the excavation team on artefact retention strategies.

Artefacts from significant and *in situ* contexts would be collected and recorded (by context). Retrieval of artefacts should focus on those whose analysis would contribute to research agendas, or would be representative of the site, which warrant archiving or consideration for interpretative displays or similar heritage interpretation.

Retention of all artefacts from archaeological investigations in urban contexts is neither possible nor expected in current historical archaeological practice. Large amounts of fill and disturbed material is common on urban sites. Whilst these layers can provide important archaeological information regarding site formation and phasing, the material often contains artefacts of unknown provenance and limited research value. Potentially significant deposits such as occupation-related material within former structures could contain numerous artefacts of varying levels of significance or value.

Should diagnostic or significant artefacts be present within the fill layers (out-of-context), a sample would be retained to inform the research agenda, consideration in interpretation and as part of the archaeological record.

Retained artefacts would be cleaned, processed, catalogued, and analysed by an archaeologist experienced in historical artefact assemblages. Artefact analysis would include production of a database in accordance with best practice archaeological data recording. The resulting information would be included in the final excavation report.

Artefacts recovered from the archaeological investigations would be the property of Transport for NSW and would be securely stored by them following completion of post-excavation analysis.

Preliminary results reporting

A preliminary archaeological findings reports would be prepared following completion of archaeological investigation stages outlined in this AMS in accordance with the ARD.[22] This report would outline the main archaeological findings, post excavation and analysis requirements, and would also include any further archaeological investigation requirements for a particular site or future construction task. The preliminary results report would also identify if the findings should be considered for public interpretation. If archaeological remains are not located during the archaeological monitoring program, the preliminary findings report may be in the form of email advice.

If State significant archaeological remains are identified Heritage NSW, DPC would be notified under s146 of the NSW Heritage Act.

Post-excavation analysis and final report

Following the completion of on-site archaeological works, post-excavation analysis of the findings would be undertaken. This would include artefact analysis, environmental and building material sample analysis, stratigraphic reporting and production of Harris Matrices, production of detailed site survey plans, illustrations and interpretative drawings, generation of catalogues, data records and site registers.

A final excavation report detailing the archaeological program and results would be prepared. The report would be prepared in accordance with the standard conditions of archaeological permits issued under the Heritage Act. It would include the results of the archaeological excavation and analysis, additional historical information if needed, photographs, illustrations and plans, catalogue and analysis of artefacts, and also respond to the research questions. The report would also include a reassessment of archaeological significance based on the investigation results. Opportunities for archaeological interpretation would also be included in the final report.

Team and timing

Archaeological team

The archaeological team would comprise:

- Excavation Director – Dr Iain Stuart (Artefact Heritage)
- Site Directors –Jayden van Beek (Senior Associate, Artefact Heritage)

[22] Artefact 2018a

- Archaeologists –HollyMae Steane Price (Heritage Consultant, Artefact Heritage), Gareth Holes (Heritage Consultant, Artefact Heritage) and other subconsultants as needed.
- Archaeological Surveyor - Guy Hazell (ArcSurv).

Excavation timing

The excavation works would be monitored by an archaeologist as required under the direction of the Excavation Director.

The Excavation Director would be on call during the excavation works to oversee responses to unexpected finds as required.

Where a program of archaeological test excavation is required, this would be undertaken as a separate investigative program by an archaeological team prior to construction works. It is anticipated that the archaeological test excavation program would take up to two (2) weeks to complete depending on the presence and extent of archaeological remains. The test excavation program would be conducted under the direction of the Excavation Director and a Site Director.

If programs of archaeological salvage excavation are required, the program time would be dependent on the scale and complexity of the salvage excavation. The salvage excavation would be undertaken by a team of archaeologists and directed by the Excavation Director as required.

References

Artefact 2018a Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design.

Artefact 2019 Non-Aboriginal Heritage Impact Assessment and Archaeological Method Statement.

artefact

Artefact Heritage

ABN 73 144 973 526
Suite 56, Jones Bay Wharf
26-32 Pirrama Road
Pyrmont NSW 2009 Australia

+61 2 9518 8411
office@artefact.net.au
www.artefact.net.au

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
Document Owner:	Author/Document owner
System Owner:	IMS element owner (generally a member of the Executive)
Status:	Draft/Final
Version:	2.0
Date of issue:	19 March 2019
Review date:	22 March 2020

Table of contents

Figures

Tables

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 CCSI 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 *Heritage Act 1977*
NPW Act	NSW *National Parks and Wildlife Act 1974*
OEH	Office of Environment and Heritage
SM	Sydney Metro
Relic (non-Aboriginal heritage)	A relic means any deposit, artefact, object or material evidence that: a) relates to the settlement of the area that comprises NSW, not being Aboriginal settlement, and b) is of State or local significance. A relic may include items such as bottles, utensils, remnants of clothing, crockery, personal effects, tools, machinery and domestic or industrial refuse.
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 disturb[2] 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 OEH Also, when a person becomes aware of an Aboriginal object they must notify the Director-General of OEH about its location[4]. 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 Council[6]. Also, when a person discovers a relic they must notify the NSW Heritage Council of its location[7].

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!

<u>All</u> 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
Environmental Planning and Assessment Act 1979 (EP&A Act)	Section 115ZB Giving of approval by Minister to carry out a project.
Environmental Planning and Assessment Act 1979 (EP&A Act)	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.
Heritage Act 1977 **(Heritage Act)**	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: *'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.'* 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)**	The NPW Act provides the basis for the care, protection and management of Aboriginal objects and places in NSW. An Aboriginal object is defined as: *'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'*. 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). 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. A person must notify OEH if a person is aware of the location of an Aboriginal object. 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).

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 Metros 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	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. Note that : 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 an Aboriginal object may include a shell midden, stone tools, bones, rock art or a scarred tree a "work", building or standing structure may include tram or train tracks, kerbing, historic road pavement, fences, sheds or building foundations.	Archaeologist/ Aboriginal heritage consultant/ Contractors Project Manager, Excavation Director	Proceed to Step 8 Refer to **Appendix 1** (Identifying heritage items)

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 *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*.
Sydney Metro Environment Manager	Notify the Sydney Metro Principal Manager, Environmental Management of 'find' and manage Incident Reporting once completed by Environmental Manager.
Contractors Project Manager	Ensures all aspects of this procedure are implemented. Advise Contractor / Supervisor to recommence work if all applicable requirements have been satisfied and the Excavation Director /Project Archaeologist has approved recommend of work.

8. Seeking Advice

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

9. Related documents and references

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

10. List of appendices

The following appendices are included to support this procedure:

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

11. Document history

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

Appendix 1: Examples of finds encountered during construction works

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

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

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

Photo 4 Sandstone pavers uncovered at Balmain East, 2016

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

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

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

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

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

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

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

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

Appendix 2 - Unexpected heritage item recording form

Example of unexpected heritage item recording form:

This form is to be completed Excavation Director on the discovery of an archaeological heritage item during construction or maintenance works			
Date:		**Recorded by:** (include name and position)	
Project name:			
Description of works being undertaken:			
Description of exact location of item			
Description of item found *(What type of item is it likely to be? Tick the relevant boxes).*			
A. A relic	☐	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'	☐	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	☐	An 'Aboriginal object' may include stone tools, stone flakes, shell middens, rock art, scarred trees and human bones	
D. Bone	☐	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	☐		
Provide a short description of the item *(E.g. metal rail tracks running parallel to the rail corridor. Good condition. Tracks set in concrete, approximately 10 cm below the current ground surface).*			

Sketch *(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)*			
Action taken (Tick either A *or* B)			
A. Unexpected item **would not** be further impacts on by the works	☐	**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	☐	**Describe how works would impact on the item**. *(E.g. milling is required to be continued to a depth of 200 mm depth to ensure the pavement requirements are met. Rail tracks would need to be removed.)*	
Excavation Director		Signature	
		Signature	

Important

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

Approvals may also be required to impact on certain works.

Appendix 3 - Photographing unexpected heritage items

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

Context and detailed photographs

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

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

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

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

Photographing distinguishing features

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

Figure 3: Ceramic bottle artefact with stamp.

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

Photographing bones

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

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

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

Figure 5: Bone concealed by foliage.

Figure 6: Bone covered in sediment

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

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

Figure 7: Photograph showing complete bone.

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

Appendix 4 - Uncovering bones

This appendix provides advice regarding:

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

1. First uncovering bones

Refer to the Sydney Metro Exhumation Management Plan

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

On the very rare occasion where it is immediately obvious from the remains that they are human, the Project Manager (or a delegate) should **inform the police by telephone** prior to seeking specialist advice. It will be obvious that it is human skeletal remains where there is no doubt, as demonstrated by the example in Figure 1[9]. 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.

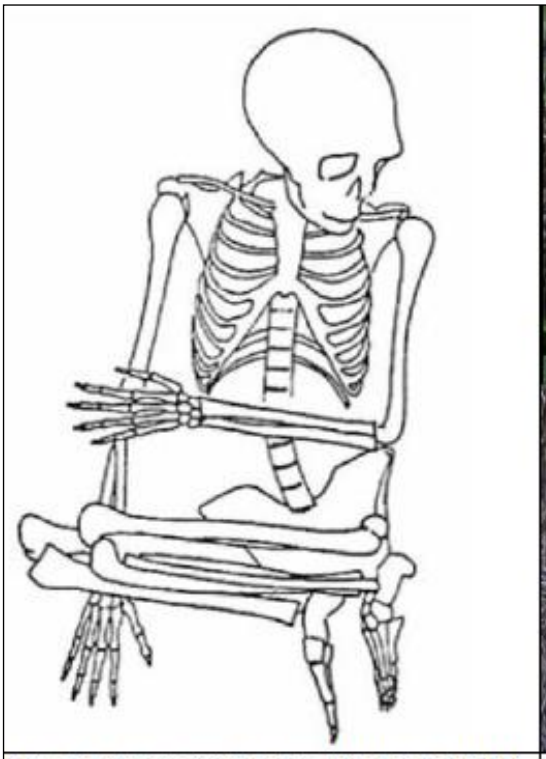


Figure 1: Schematic of a complete skeleton that is 'obviously' human [12].

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

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

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

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

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

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

2. Range of human skeletal notification pathways

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

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

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

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

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

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

Action
The OEH (Heritage Division) must be notified immediately

Figure 3 summarises the notification pathways on finding bones.

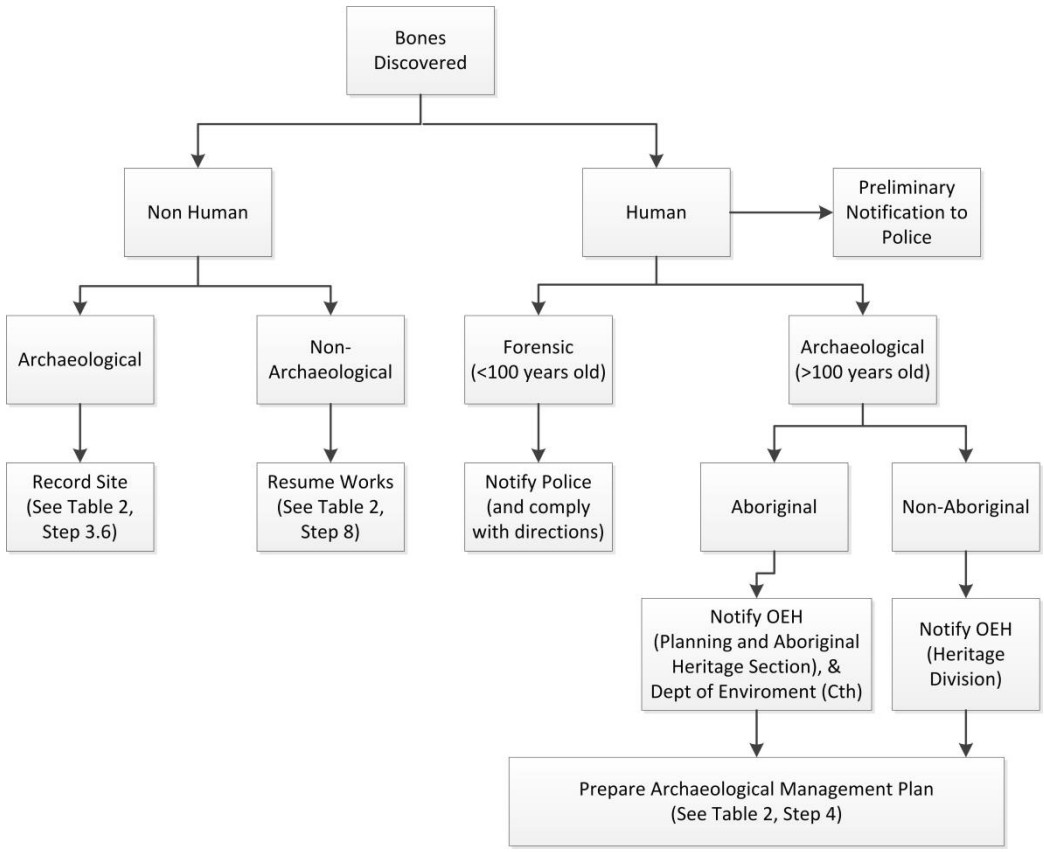


Figure 3 Overview of steps to be undertaken on the discovery of bones

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

3. Additional considerations and requirements

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

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

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

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

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

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

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

Appendix 5 - Archaeological/heritage advice checklist

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

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

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

Appendix 6 - Template notification letter

Insert on TfNSW letterhead
Select and type date]
[Select and type reference number]

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

[Select and type salutation and name],

Re: Unexpected heritage item discovered during Sydney Metro activities.

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

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

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

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

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

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

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

Yours sincerely

[Sender name]

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

Appendix F

Memorandum - Mounting Provisions for TSOM CCTVs and Speakers

MOTT MACDONALD

Memorandum

Subject	**Mounting Provisions for TSOM CCTVs and Speakers - Heritage Issues**
To	Kylie Christian - Technical Director, Heritage Phillip Dixon - Project Manager Arcadis Brian Novanto - Associate DesignInc
From	Tony Brassil - Principal Heritage Advisor - MottMac
Reference	SMCSWSWM-SMD-DRFI-000242
Date	16 June, 2023
Subject	Mounting Provisions for TSOM CCTVs and Speakers

Background

JHLOR will be responsible for the supply and installation of the brackets for mounting TSOM CCTVs and Speakers to the existing awning brackets (hereafter referred to as the "awning trusses") on various stations along the Bankstown Line. JHLOR made the following enquiries regarding heritage impact of the brackets to be mounted on existing buildings:

- *Has the design been considered from a heritage impact perspective? Please demonstrate how 'The potential for heritage impacts was considered throughout the design development process, to minimise the overall impacts to heritage, and ensure that the design would architecturally complement rather than obstruct or overshadow heritage items, where practicable'.*
- *Is the visual impact of the proposed works consistent with the potential impact as described in the EIS -CSSI 8256?*
- *Is there a design report that accompanies the AFC drawings for station fixings?*
- *Are there any additional Conditions of Approval (CoA) and Revised Environmental Mitigation Measures (REMMs) that need to be considered by JHLOR that are currently not part of the responsibility matrix?*
- *Do the management plans need to be updated to capture these works?*

Response

Point 1: *Has the design been considered from a heritage impact perspective? Please demonstrate how 'The potential for heritage impacts was considered throughout the design development process, to minimise the overall impacts to heritage, and ensure that the design would architecturally complement rather than obstruct or overshadow heritage items, where practicable'.*

The design of the brackets was prepared by DesignInc specifically to minimise any impacts upon the significant heritage fabric of the railway station buildings. The brackets incorporate clamps which will fix to the horizontal component of the T-section wrought-iron (or steel) awning trusses without requiring penetration of the awning truss. If required, the brackets will be able to be removed without leaving any permanent effect.

These brackets (and the Speakers / CCTV Cameras) will sit within a sub-roof area amongst new silver-painted aluminium lighting battens and cable conduits running the length of the awning below the roofing and will be coloured similarly to these, to distinguish them visually from the existing heritage fabric. The colour difference

will ensure there is no confusion between new and old elements and will visually highlight the original building fabric. In the context of the existing views (which include existing speakers and CCTV cameras and other visual clutter) and intended appearance of the underside of the awnings, there will be no additional adverse visual impact arising from these brackets. The bracket design is shown in Figure 1 below:

In the context of the overall works, the brackets will have no physical impact and a negligible visual impact upon the railway station buildings.

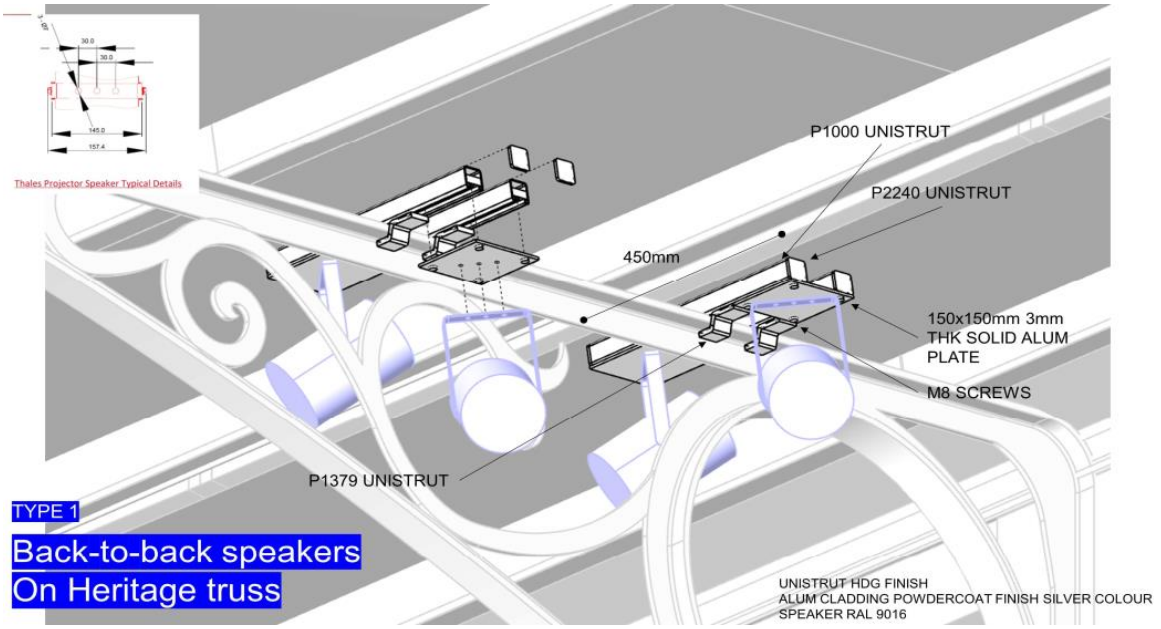


Figure 1: Extract from: Southwest Metro Stations Materials, Fixtures Fittings Schedule Revision 00.12.

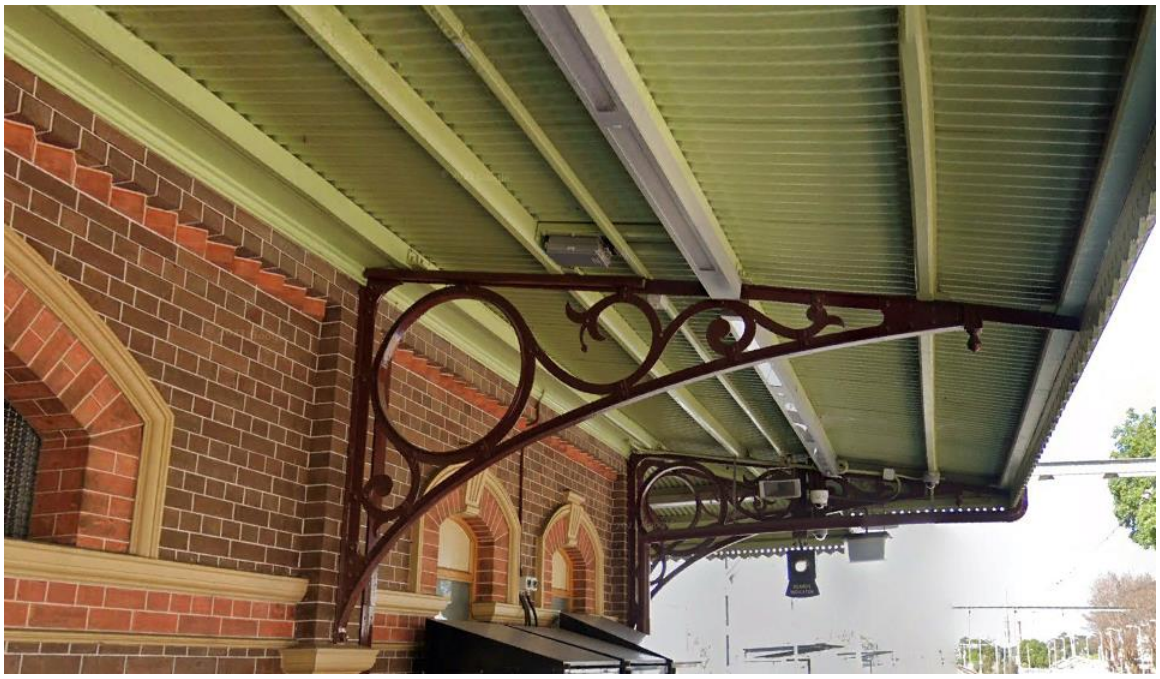


Figure 2: Marrickville Station, Platform 1, showing the awning truss and underside of the awning roof prior to the current program of works. Note the existing speakers and CCTV cameras on the far awning truss.

Point 2: *Is the visual impact of the proposed works consistent with the potential impact as described in the EIS -CSSI 8256?*

The Heritage Impact Assessment report (Artefact Heritage; *Sydney Metro City & Southwest Sydenham to Bankstown Environmental Impact Statement – Technical Paper 3; Non-Aboriginal Heritage Impact Assessment; Report to Transport for NSW; August 2017*) assessed the visual impact of the proposed works upon the stations on the Bankstown Line. The overall visual impacts for each station, as assessed in that report, are summarised below:

Station	Visual Impact Assessment	Listing Level: State / Local
Marrickville Station	When considering cumulative impacts overall, the assessment concluded that the project would result in a **major** visual impact on Marrickville Railway Station Group.	State
Dulwich Hill Station	When considering cumulative impacts overall, the assessment concluded that the project would result in a **major** visual impact on the Dulwich Hill Railway Station Group.	Local
Hurlstone Park Station	When considering cumulative impacts overall, the assessment concluded that the project would result in a **major** visual impact on the Hurlstone Park Railway Station Group.	Local
Canterbury Station	When considering cumulative impacts overall, balancing the positive impacts in relation to removal of intrusive elements and the high quality design of the new elements, the assessment concluded that the project would result in a **moderate** visual impact on the Canterbury Railway Station Group	State
Campsie Station	When considering cumulative impacts overall, the assessment concluded that the project would result in a **moderate** visual impact on the Campsie Railway Station Group.	Local
Belmore Station	When considering cumulative impacts overall, the assessment concluded that the project would result in a **moderate** visual impact on the Belmore Railway Station Group	State
Lakemba Station	When considering cumulative impacts overall, the assessment concluded that the project would result in a **moderate** visual impact on the Lakemba Railway Station Group.	Local
Wiley Park Station	When considering cumulative impacts overall, the assessment concluded that the project would result in a **major** visual impact on Wiley Park Railway Station Group	Local
Punchbowl Station	When considering cumulative impacts overall, the assessment concluded that the project would result in a **major** visual impact on Punchbowl Railway Station Group.	Local
Bankstown Station	When considering cumulative impacts overall, the assessment concluded that the project would result in a **moderate** visual impact on the Bankstown Railway Station Group.	Local

In this context, where approved visual impacts were generally assessed to be either Major or Moderate at each of the Stations, the additional visual impacts to these stations that would result from the installation of these brackets for mounting TSOM CCTVs and Speakers would be negligible. Consequently, it is considered that the visual impact of the proposed works is consistent with the impacts that are described in EIS -CSSI 8256.

Point 3: *Is there a design report that accompanies the AFC drawings for station fixings?*

The following response has been supplied by DesignInc:

AFC design for CCTV and Speaker bracket were incorporated in the SOUTHWEST METRO STATIONS MATERIALS, FIXTURES FITTINGS SCHEDULE which is an Appendix E.1 of Architectural Design Report. Refer to below document number for Architectural Design Reports:

SMCSWSWM-MTM-WCR-AT-REP-000047	*Canterbury*
SMCSWSWM-MTM-WDH-AT-REP-000044	*Dulwich Hill*
SMCSWSWM-MTM-WHP-AT-REP-000045	*Hurlstone Park*
SMCSWSWM-MTM-WLS-AT-REP-221000	*Lakemba*
SMCSWSWM-MTM-WMS-AT-REP-000043	*Marrickville*
SMCSWSWM-MTM-WPS-AT-REP-241000	*Punchbowl*
SMCSWSWM-MTM-WWP-AT-REP-231000	*Wiley Park*
SMCSWSWM-MTM-WCS-AT-REP-151000	*Campsie*
MCSWSWM-MTM-WBS-AT-REP-211000	*Belmore*

Point 4: *Are there any additional Conditions of Approval (CoA) and Revised Environmental Mitigation Measures (REMMs) that need to be considered by JHLOR that are currently not part of the responsibility matrix?*

Without reference to the "responsibility matrix*",* the relevance and conformance with the CoAs and REMMs is addressed in the Table below:

GENERAL	**CoA**	**Response**
A1	The CSSI may only be carried out in accordance with the terms of this approval and generally in accordance with the description of the CSSI in the: (a) *Sydney Metro City & Southwest Sydenham to Bankstown Environmental Impact Statement – Volumes 1A-C and 2–6* (the EIS); (b) as modified by the *Sydney Metro City & Southwest Sydenham to Bankstown Submissions and Preferred Infrastructure Report – Volumes 1, 2A-F and 3 G-J* (the SPIR); and (c) the *Sydney Metro City & Southwest Sydenham to Bankstown Submissions Report* (the SR).	The process and outcomes for the design of the brackets for mounting TSOM CCTVs and Speakers are consistent with this CoA.
A2	The CSSI must be carried out in accordance with all procedures, commitments, preventative actions, performance criteria and mitigation measures set out in the documents listed in **Condition A1** unless otherwise specified in, or required under, this approval.	The process and outcomes for the design of the brackets for mounting TSOM CCTVs and Speakers are consistent with this CoA.
HERITAGE		
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 OEH.	N/A
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 OEH.	N/A

E12	The **Heritage Report** and **Excavation Directors Report** must be submitted to the Planning Secretary, the Heritage Council of NSW and OEH for information no later than 24 months after the completion of Work referred to in **Condition E10**.	N/A
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.	N/A
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*.	N/A
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 OEH.	N/A
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.	N/A
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.*	N/A

REMMS (Non-Aboriginal Heritage)

DOCUMENTS:

Artefact Heritage; *Sydney Metro City & Southwest - Sydenham to Bankstown – Environmental Impact Statement Technical Paper 3 - Non-Aboriginal Heritage Impact Assessment*; Report to Transport for NSW; August 2017.

Artefact Heritage; *Sydney Metro City and Southwest Sydenham to Bankstown Upgrade – Submissions and Preferred Infrastructure Report, Non-Aboriginal Heritage Assessment;* Report prepared for Transport for NSW; June 2018.

Artefact Heritage Pty Ltd: *Sydney Metro City and Southwest - Final Movable Heritage Strategy - Report to Metron T2M* - March 2021

REMM	**RESPONSE**
DESIGN / PRE-CONSTRUCTION	

NAH1	*Minimising impacts during design* *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*	The design of the brackets for mounting TSOM CCTVs and Speakers has been specifically formulated to minimise impacts upon fabric and vistas at the individual railway stations.
NAH2	*Minimising impacts during design* *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.*	The design of the brackets for mounting TSOM CCTVs and Speakers has been specifically formulated to maximise the retention and legibility of the original awning fabric at the individual railway stations.
NAH3	*Minimising impacts during design* *The project design would complement retained heritage buildings, elements, fabric, spaces and vistas to avoid outcomes that compromise the significance of these heritage items.*	The design of the brackets for mounting TSOM CCTVs and Speakers has been specifically formulated to avoid outcomes that compromise the significance of the individual railway stations.
NAH4	*Minimising impacts during design* *The project design would be developed with guidance from an appropriately qualified and experienced conservation architect.*	The design of the brackets for mounting TSOM CCTVs and Speakers has been developed in the context of the heritage advice provided from the Heritage team at T2M - Mott Macdonald.
NAH5	*Reuse of retained items* *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
NAH6	*Interpretation* *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.*	N/A
NAH7	*Management of moveable heritage and heritage fabric* *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 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
NAH8	*Station Building repurposing and refreshing* *Where significant buildings are to be re-purposed or refreshed:* • *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*	The design of the brackets for mounting TSOM CCTVs and Speakers has been specifically formulated, in its form, palette and materiality, to be sympathetic to the heritage values at the individual railway stations.

	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).*	The design of the brackets is consistent with the advice provided by the heritage architect. N/A N/A N/A
NAH9	*Design of new access stairs, concourses, canopies and lift shafts* *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
NAH10	*Design of platform re-levelling* *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
NAH11	*Impacts to the Old Sugarmill* *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.*	N/A
NAH12	*Impacts to archaeology* *The archaeological research design, including any mitigation measures identified in the Archaeological Assessment and Research Design report, would be implemented.*	N/A
NAH13	*Archival recording* *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).*	N/A
NAH14	*Unexpected finds* *An unexpected finds procedure would be developed and included in the construction heritage management plan.*	N/A
CONSTRUCTION		
NAH15	*Minimising impacts during construction* *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
NAH16	*Minimising impacts during construction*	N/A

	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.	
NAH17	*Minimising impacts during construction* *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.*	N/A
NAH18	*Unexpected finds* *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.*	N/A
NAH19	*Human skeleton material* *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.*	N/A
NAH20	*Works to heritage fabric* *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.*	The proposed installation of the brackets for mounting TSOM CCTVs and Speakers will be undertaken by skilled tradespeople. A heritage architect is available for consultation at all times.
OPERATION		
NAH21	*Conservation management* *A conservation management plan would be prepared for all State Heritage Register listed stations, in accordance with NSW Heritage Council guidelines. The plan would address any changes to the item, including updated assessment of significance of elements and recommendations on curtilage changes. It would also provide suggested site -specific exemptions and management policies.*	N/A
NAH22	*Conservation management* *A conservation management strategy would be prepared for nominated Section 170 register listed stations not listed on the State Heritage Register, in accordance with NSW Heritage Council guidelines.*	N/A

Point 5: *Do the management plans need to be updated to capture these works?*

The brackets for mounting TSOM CCTVs and Speakers are minor elements which will have negligible physical and visual impacts upon the significant heritage fabric of the Bankstown Line stations. It is understood that the Management Plans will not need specific modification or additions in this respect. However, Sydney Metro have been contacted for advice on this question.

Conclusion

There are no adverse heritage impacts arising from the proposed use of the brackets for mounting TSOM CCTVs and Speakers, as designed, to the awning truss elements of the railway station buildings.

The design process and outcomes are consistent with the Conditions of Approval (Heritage) for *Sydney Metro Sydenham to Bankstown Upgrade - SSI 8256 – issued 12 December 2018*. In particular, they satisfy REMMs: NAH1, NAH2, NAH3, NAH4, NAH8 and NAH20.