

Pre-Construction Minor Works Approval Form

Minor Works are defined as any low impact activities that are undertaken prior to the commencement of 'construction' as defined in the project's applicable planning approval. However if Minor Works affect or potentially affect heritage items, threatened species, populations or endangered ecological communities, these works are defined as 'construction' unless otherwise determined by the applicable planning authority.

Minor Works approvals do not remove any obligation to comply with the project's applicable planning approval conditions (including requirements prior to 'any works' commencing) or obtain any other applicable permits, licenses or approvals as necessary.

This application and all supporting information must be submitted to TfNSW/the Environmental Representative as one (1) PDF file at least 10 business days prior to the commencement of the proposed Minor Works.

Part 1: Application	
Contractor:	RPS or other consultants (on behalf of Sydney Metro)
Project:	Southwest metro early works
Application Title: (e.g. Smith St trenching works)	T3 Bankstown Line survey between Sydenham and Bankstown Stations (including surrounds)
Application Number:	SSC-PCMW-005
Application Date:	Rev01 – 12 February 2018
Planning Approval:	Sydney Metro City and Southwest – Sydenham to Bankstown – Environmental Impact Statement (EIS) Sydney Metro City and Southwest – Sydenham to Bankstown – Submissions and Preferred Infrastructure Report (SPIR) Sydney Metro City and Southwest Infrastructure Approval SSI-8256
Minor Works Categories: <ul style="list-style-type: none"> Highlight as applicable. If Items 4, 8 or 11 are applicable, this form must be endorsed by an Environmental Representative. 	<ol style="list-style-type: none"> Survey, survey facilitation and investigations works (including road and building dilapidation survey works, drilling and excavation). Treatment of contaminated sites. Establishment of ancillary facilities (excluding demolition), including construction of ancillary facility access roads and providing facility utilities. Operation of ancillary facilities that have minimal impact on the environment and community. Minor clearing and relocation of vegetation (including native). Installation of mitigation measures, including erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments. Property acquisition adjustment works, including installation of property fencing and utility relocation and adjustments to properties. Utility relocation and connections. Maintenance of existing buildings and structures. Archaeological testing under the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010) or archaeological monitoring undertaken in association with other Minor Works to ensure there is no impact on heritage items. Any other activities that have minimal environmental impact, including construction of minor access roads, temporary relocation of pedestrian and cycle paths and the provision of property access.
Planning Authority Determination: Will the proposed works affect or have the potential to affect heritage items, threatened species, populations or endangered	<p><i>If 'Yes', this completed form must be endorsed by an Environmental Representative, approved by TfNSW and submitted to the applicable planning authority to determine that the works are not defined as 'construction'.</i></p> <p>No – it is anticipated that there will be no impacts associated with the works that will affect heritage items on the State Heritage register, areas of known or expected archaeological potential, threatened species or threatened ecological communities. In</p>

ecological communities?	addition, the consultants will implement the <i>Sydney Metro Unexpected Finds Procedure</i> V1.4 throughout the investigation works.
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Part 2: Details

<p>Describe the proposed Minor Works:</p> <p>Including work methodologies, site location(s) and site description(s) (e.g. landscape type, waterways, etc.).</p>	<p><u>Site Description Overview</u></p> <p>This overview is based on information from the Environmental Impact Statement (EIS) and Submissions and Preferred Infrastructure Report (SPIR).</p> <p>Survey works are to occur within and surrounding the T3 Bankstown Line. The T3 Bankstown Line is comprised of stations, overbridges, overhead wiring structures, track, services and ballast, extending from Sydenham Station to Bankstown Station. Within the area, non-invasive survey works are proposed between Sydenham and Bankstown Stations (excluding works which may disturb the archaeological investigation/archaeological monitoring areas at Marrickville and Canterbury Stations as shown within the Sydenham to Bankstown Submissions and Preferred Infrastructure Report – Appendix I – Archaeological Assessment and Research Design Report).</p> <p><u>T3 Line Sydenham Station to Bankstown Station</u></p> <p>The T3 line runs adjacent to a number of land zoning types between Sydenham Station and Bankstown Station including industrial, business and community, infrastructure, residential and recreational.</p> <p>Roads cross the T3 line in a number of places, both by overbridges and underpasses. A number of footbridges also cross the T3 line along the length of its alignment. The T3 Line crosses the Cooks River in one location between Sydenham and Bankstown. Other local waterways such as channels, culverts and stormwater systems are present along the alignment.</p> <p>The majority of vegetation in the survey area comprises exotic or planted native species on highly modified landforms. Discrete patches of <i>Sydney Turpentine – Ironbark Forest</i> and <i>Shale Gravel Transition Forest</i> that meet the definition of an Endangered Ecological Community (EEC) under the Threatened Species Conservation Act 1995 (enforced at the time of assessment under the EIS) exist within the corridor. Additionally, populations of <i>Acacia pubescens</i> (vulnerable under the TSC Act) also exist within the corridor between Punchbowl and Bankstown.</p> <p><u>Description of Works</u></p> <p>Survey works are critical to the design development phase and are required early on to inform the design. Without this information, detailed design cannot proceed effectively. The proposed survey works are outlined below. Survey will happen along the length of the T3 Bankstown Line corridor.</p> <p><u>Non-invasive survey</u></p> <p>Survey activities will be undertaken within the T3 Bankstown Line rail corridor (including on station platforms and associated infrastructure), between Sydenham Station and Bankstown Station.</p> <p>Survey will also be undertaken in the project area outside of the T3 Bankstown line rail corridor. These activities are not anticipated to have an environmental impact.</p> <p>A site ute will be used to travel to site. Surveyors will proceed on foot with survey equipment.</p> <p>Survey works will avoid areas of EEC within the project area. Areas of EEC are identified in Appendix 2 and include:</p> <ul style="list-style-type: none"> • One area of Sydney Turpentine Ironbark Forest EEC is located on the country side of the Garnet Street overbridge, near Hurlstone Park Station. • One area of Sydney Turpentine Ironbark Forest EEC is located on the country side of the Moreton Street overbridge, between Belmore and Lakemba Stations • Four areas of Shale/gravel Transition Forest EEC are located within the rail corridor between Punchbowl and Bankstown Stations. <p>Survey works will avoid patches of threatened <i>Acacia pubescens</i> between Punchbowl and Bankstown Stations. These areas are identified in Appendix 2.</p>
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	<p>The installation of survey markers/pins will not be undertaken within the State Heritage Register curtilages of the following heritage items:</p> <ul style="list-style-type: none"> • Sewage Pumping Station 271 (# 01342) • Marrickville Railway Station Group (# 01186) • Old Sugarmill (# 00290) • Canterbury Railway Station Group (# 01109) • Belmore Railway Station Group (# 01081) <p>Refer to Appendix 3 for these locations.</p> <p>The installation of survey markers/pins will not be undertaken within areas of known or expected archaeological potential, including:</p> <ul style="list-style-type: none"> • S2B PAD01 north of Belmore Station • S2B PAD02 north of Punchbowl Station • Areas requiring <i>Archaeological Monitoring/Salvage</i> and <i>AMS and Archaeological Investigation</i> (depicted in orange and red in Appendix 4 figures) within the: <ul style="list-style-type: none"> ○ Marrickville Station Catchment archaeological management zones ○ Canterbury Station Catchment and construction site archaeological management zones ○ Belmore Station Catchment archaeological management zones ○ Lakemba Station Catchment archaeological management zones. <p>These locations are depicted in Appendix 4.</p> <p><u>Plant List</u></p> <p>Plant and equipment anticipated to be used during the investigative works include:</p> <ul style="list-style-type: none"> • Survey equipment • Site ute <p><u>Working Hours</u></p> <p>Survey works will be undertaken predominately during standard construction hours. Some works will occur outside of standard construction hours during rail possessions. This would be managed under an Out of Hours Works Application, in accordance with the Sydney Metro City & Southwest Out of Hours Work Protocol.</p> <p><u>General Notes</u></p> <p>Site utes would access site via existing Sydney Trains access gates.</p> <p>Note that these activities are subject to change based as activities progress. The above list does not include activities approved under any other Pre-Construction Minor Works Approval form.</p> <p>Activities that affect heritage items on the State heritage register, areas of known or expected archaeological potential, or threatened species or threatened ecological communities (within the meaning of the <i>Biodiversity Conservation Act 2016</i>) are <u>not</u> permitted under this Pre-Construction Minor Works Approval.</p>
<p>Planned Commencement Date:</p>	<p>The survey works are targeted to commence from Monday 18 February 2019 (target date approval of this Pre-construction Minor Works Approval). Works will continue for the duration of the pre-construction phase.</p>
<p>Local Sensitivities: Describe the presence (if any) of local sensitive environmental areas and community receptors</p>	<p><u>T3 Line between Sydenham Station and Bankstown Station</u></p> <ul style="list-style-type: none"> • There are a number of residential properties located within close proximity to the corridor. Noise impacts from survey works are expected to be negligible. • Preliminary environmental site assessment identified the potential risk of contamination within the investigation area, with potential contamination sources being historical rail activities, and commercial and residential land use in surrounding areas. Potential contaminants identified in low to medium risk areas included: <ul style="list-style-type: none"> ○ Asbestos ○ Hydrocarbons ○ Heavy metals ○ Herbicides. <p>Works are non-invasive and therefore risks associated with the disturbance of contamination are negligible. Any unexpected finds will be managed in accordance</p>

	<p>with the consultant's unexpected finds procedure for contamination.</p> <ul style="list-style-type: none"> • One medium to high risk area of contamination was identified between Sydenham and Marrickville Stations, originating from a property adjacent to the rail corridor at 361 Victoria Road, Marrickville. Potential contaminants include; <ul style="list-style-type: none"> ○ Asbestos ○ Petroleum aromatic hydrocarbons in groundwater <p>Works are non-invasive and therefore risks associated with the disturbance of contamination are negligible.</p> • Areas of Endangered Ecological Community (EEC) under the TSC Act have been identified within the vicinity of the works. Survey works will avoid these areas. Refer to Appendix 2 for these locations. • Populations of <i>Acacia pubescens</i> (vulnerable under the TSC Act) have been identified between Punchbowl and Bankstown Stations. Survey works will avoid these areas. Refer to Appendix 2 for these locations. • All trees, as defined by Planning Approval SSI 8256, that may be affected as part of the project works will be included within a Tree Report in accordance with Condition of Approval E5. The Tree Report will be submitted to the Department of Planning and Environment (DPE) prior to pruning or removal of trees. No pruning or removal of trees will be undertaken as part of these works. • Survey works will occur in the vicinity of local stormwater systems and the Cooks River. There is no erosion and sedimentation risk associated with the survey work. • No roadways or footpaths will be blocked as part of the works.
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Part 3: Environmental Risk Assessment and Management

Prepare an Environmental Risk Assessment (in accordance with the *Sydney Metro Risk Management Standard*) and an Environmental Control Map for the proposed Minor Works and attach as Appendix 1.

If an Environmental Risk Assessment and/or an Environmental Control Map for the proposed Minor Works is/are already contained in existing documentation, attach the relevant section(s) as Appendix 1.

<p>Documentation:</p> <p>List any existing documents (including those referenced above) that the proposed Minor Works will be undertaken in accordance with and attach as Appendix 2 (e.g. plans, procedures, etc.).</p>	<p>An Environmental Risk Assessment for the proposed works is included in Appendix 1.</p> <p>Mapping depicting sensitive ecological areas taken from the Biodiversity Assessment Report prepared as part of the EIS is included in Appendix 2.</p> <p>Mapping depicting State Heritage Register listed Non-Aboriginal heritage items is included in Appendix 3.</p> <p>Mapping depicting areas of archaeological potential is included in Appendix 4.</p> <p>Sydney Metro's Unexpected Heritage Finds Procedure is included in Appendix 6.</p>
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Part 4: Workforce Notification

<p>How will the environmental and community risks and associated mitigation measures of the proposed Minor Works be communicated to the contractor's workforce?</p>	<p>An environmental briefing will be provided to personnel working on the project site. The briefing will include relevant environmental constraints and risks associated with the works.</p>
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Part 5: Community Consultation

<p>What community consultation has been undertaken already?</p>	<p>Consultation was undertaken between Sydenham and Campsie via the February 2019 Monthly Notification that was distributed on 11 February 2019. The final notification is attached in Appendix 5.</p>
<p>What community consultation is planned to be undertaken?</p>	<p>Consultation is to occur between Campsie and Bankstown prior to works commencing. The draft notification is attached in Appendix 5.</p>

If drafted already, attach applicable Community Notification as Appendix 5.


Part 6: Contact Details

Nominate contractor's project manager, environmental and communications contact(s).

Name:	Chris Brown	Position:	Senior Project Manager	Phone:	0427 010 034
	Simon Fisher		Environmental Manager		0402 103 704
	Tim Garrard		Stakeholder and Community Relations Manager		0447 146 864

Part 7: Signature

This signature acknowledges that the proposed Minor Works will be undertaken in accordance with this application, have minimal environmental impact and are not defined as 'construction' in accordance with the applicable planning approval.


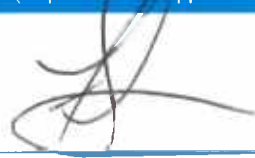
Name:	Simon Fisher		
Signature:		Date:	12/02/2019

Determination Page

(TfNSW/Environmental Representative Use Only)

12. Endorsement/Approval

These signatures represent formal endorsement/approval for the proposed Minor Works to commence in accordance with this application and the applicable planning approval requirements (subject to any determination from the applicable planning authority as may be required by the planning approval conditions).

	TfNSW Principal Manager, Communication & Engagement – Endorsement (required for all applications)	TfNSW Principal Manager, Sustainability, Environment & Planning – Approval (required for all applications)	Environmental Representative – Endorsement (required as necessary in accordance with the applicable planning approval, optional for all other circumstances)
Signature:			
Name:	Tim Garrard.	FIL CERONE	
Date:	13/02/2019.	13/2/19	
Comments:			Supporting letter attached as Appendix 7 if necessary.
Conditions:			Supporting letter attached as Appendix 7 if necessary.
<input checked="" type="checkbox"/> Approved (by TfNSW)			
<input type="checkbox"/> Endorsed (by Environmental Representative)			
<input type="checkbox"/> Rejected			

Appendix 1: Cover Page

Environmental Risk Assessment.

Environmental Risk Assessment

The Risk Assessment has been undertaken in accordance with the requirements of the *Sydney Metro Risk Management Standard*.

Note: **C** = Consequence & **L** = Likelihood as per *Sydney Metro Risk Management System – Appendix A Sydney Metro Risk Matrix*

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating		
		C x	L =	Risk		C x	L =	Risk
Survey								
Survey works being undertaken within the curtilage of heritage items on the State Heritage Register or in areas of known or expected archaeological potential	Damage to State Heritage Register listed heritage items Damage to archaeological items	C3	L4	Med	<ul style="list-style-type: none"> Environmental briefing to include heritage management requirements. No low-impact activities (such as installation of survey markers) that affect heritage items on the State Heritage Register or areas of known or expected archaeological potential will be undertaken (for locations refer to Appendix 3 and 4) 	C3	L6	Low
Items of heritage significance uncovered during works	Damage to heritage items or archaeological deposits.	C3	L5	Med	<ul style="list-style-type: none"> Environmental briefing to include heritage management requirements. No low-impact activities (such as installation of survey markers) that affect heritage items on the State Heritage Register, areas of known or expected archaeological potential will be undertaken (for locations refer to Appendix 3 and 4) Works are not anticipated to be invasive; however the Sydney Metro Unexpected Finds Procedure V1.4 will be implemented. 	C3	L6	Low
Noise from plant and people	Noise from plant impacting on sensitive receivers. Noise impacts outside standard construction hours.	C5	L4	Low	<ul style="list-style-type: none"> Environmental briefing to include noise mitigation and “good neighbour” approach. Site utes to be turned off upon arrival at work front Follow the appropriate approvals process and submit OOHV applications for comms/AA/ER endorsement prior to approval Mitigation measures to be implemented in accordance with the TfNSW Construction Noise and Vibration Strategy, including appropriate notification where required. 	C5	L6	Low

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating		
		C x	L =	Risk		C x	L =	Risk
Vegetation	Removal or pruning of vegetation without a Tree Report approved by DPE Damage to vegetation within EEC area Damage to threatened species	C4	L4	Med	<ul style="list-style-type: none"> Environmental briefing to include biodiversity management requirements No removal or pruning of any plants unless a Tree Report has been submitted and approved by DPE prior to impacting trees, in accordance with SSI-8256 CoA – E5 Avoid areas of Endangered Ecological Communities (EEC) (Sydney Turpentine Ironbark Forest and Shale/gravel Transition Forest) (for locations refer to Appendix 2) Avoid patches of <i>Acacia pubescens</i> (for locations refer to Appendix 2) 	C4	L5	Low
Traffic and access	Traffic flow impacts Parking Impacts Impacts to pedestrians	C6	L4	Low	<ul style="list-style-type: none"> Environmental briefing to include traffic and access management requirements A minimal number of site uses are to be used Workers are to park within the rail corridor where possible. Workers are to park legally and are to observe any time restrictions. Workers are to park in uncrowded areas where possible Workers are to prioritise parking to community members where possible. Pedestrian access will be maintained to stations 	C6	L4	Low

Sydney Metro Risk Matrix

A1 Consequence Table

Consequence Table						
Rating	C6	C5	C4	C3	C2	C1
Descriptor/ Impact Area	Insignificant	Minor	Moderate	Major	Severe	Catastrophic
Health and Safety (Injury and Disease)	Illness, first aid or injury not requiring medical treatment.	Illness or minor injuries requiring medical treatment.	Single recoverable lost time injury or illness, alternate/restricted duties injury, or short-term occupational illness.	1-10 major injuries requiring hospitalisation and numerous days lost, or medium-term occupational illness.	Single fatality and/or 10-20 major injuries/permanent disabilities/chronic diseases.	Multiple fatalities and/or >20 major injuries/permanent disabilities/chronic diseases.
Environment	No appreciable changes to environment and/or highly localised event.	Change from normal conditions within environmental regulatory limits and environmental effects are within site boundaries.	Short-term and/or well-contained environmental effects. Minor remedial actions probably required.	Impacts external ecosystem and considerable remediation is required.	Long-term environmental impairment in neighbouring or valued eco . Extensive remediation required.	Irreversible large-scale environmental impact with loss of valued eco .
Customer Experience/ Operational Reliability	Short duration disruptions affecting part of one transport mode.	Minor disruptions affecting several parts of one transport mode.	Serious disruptions affecting operation of one complete transport mode.	Major disruptions affecting operations of one transport mode with network-wide effects on one or more other modes of transport.	Short duration shutdowns or substantial disruptions affecting multiple transport modes with sector-wide cascading effects.	Extensive shutdowns or extended disruptions with economy-wide effects.
Government/ Stakeholder / Public Trust/ Confidence	Negative article in local media. No discernible reaction/apprehension. Goodwill, confidence and trust retained.	Unease – Series of negative articles in local/state media. Confidence remains with some minor loss of goodwill or trust. Recoverable with little effort or cost. Some continuing scrutiny/attention.	Disappointment – Extended negative local/state media coverage. Confidence and trust dented but are quickly recoverable at modest cost within existing budget and resources.	Concern – Short-term negative state/national media coverage. Confidence and trust are diminished but are recoverable with time, staff effort and additional funding.	Displeasure – Extended negative state/national media coverage. Confidence and trust are damaged but recoverable at considerable cost, time and staff effort.	Outrage – Material change in the public perception of the organisation. Confidence and trust are severely damaged, possibly irreparably, and full recovery both questionable and costly.
Regulatory or Legal Breach	Low-level non-compliance with legal and/or regulatory requirement or duty by individuals or TNSW.	Minor non-compliance with legal and/or regulatory requirement or duty. Investigation and/or report to authority.	Moderate non-compliance. Subject to comment and monitoring from applicable regulator. Small fine and no disruption to services.	Major breach resulting in enforcement action and/or prohibition notices. Substantial fine and no disruption to services.	Substantial breach resulting in prosecution, fines and/or litigation. Licence or accreditation restricted or conditional affecting ability to operate.	Prosecution leading to imprisonment of TNSW executive. Loss of operating licence.
Management Effort/ Organisational Fatigue	An event, the impact of which can be absorbed as part of normal activity.	An event, the impact of which can be absorbed but some additional management effort is required.	An event, the impact of which can be absorbed but much broader management effort is required.	Major event which can be absorbed, but substantial management effort is required.	Severe event which requires extensive management effort but can be survived.	Catastrophic event with the clear potential to lead to the collapse of the organisation.
Benefit Realisation of Initiative, Program or Project	No time delay with initiative or project but it will incur a slight decrease in the benefits realised.	Minor delay with the initiative and/or a minor decrease in the benefits realised; or minor delay on the project or another project, with no public implications.	Several delays with the initiative and/or moderate decrease in benefits realised; or completion date missed for non-critical path project.	Major delays with the initiative and/or major decrease in benefits realised; or publicly announced portion/milestone missed or final completion date missed with demonstrable mitigating external circumstances.	Severe delays with initiative, which impacts across divisions and/or significant decrease in benefits realised; or publicly announced portion/milestone missed or final completion date missed on critical path project.	Failure to realise benefits of the initiative which adversely affects the enterprise-wide operations of TNSW; or publicly announced portion/ milestone significantly missed or final completion date significantly missed on critical path project.
Budget, Costs or Revenue	< \$100k	\$100k – \$1m	\$1m – \$10m	\$10m – \$50m	\$50m – \$100m	> \$100m

A2 Likelihood Criteria

Likelihood						
Rating	L6	L5	L4	L3	L2	L1
Descriptor/ Definition	Almost Unprecedented	Very Unlikely	Unlikely	Likely	Very Likely	Almost Certain
Qualitative Expectation	Not expected to ever occur during time of activity or project	Not expected to occur during the time of activity or project	More likely not to occur than occur during time of activity or project	More likely to occur than not occur during time of activity or project	Expected to occur occasionally during time of activity or project	Expected to occur frequently during time of activity or project
Sydney Metro Probability Analysis	<10%	10-25%	25-50%	50-75%	75-90%	>90%
Quantitative Frequency	Less than once every 100 years	Once every 10 to 100 years	Once every 1 to 10 years	Once each year	1-10 times every year	10 times or more every year

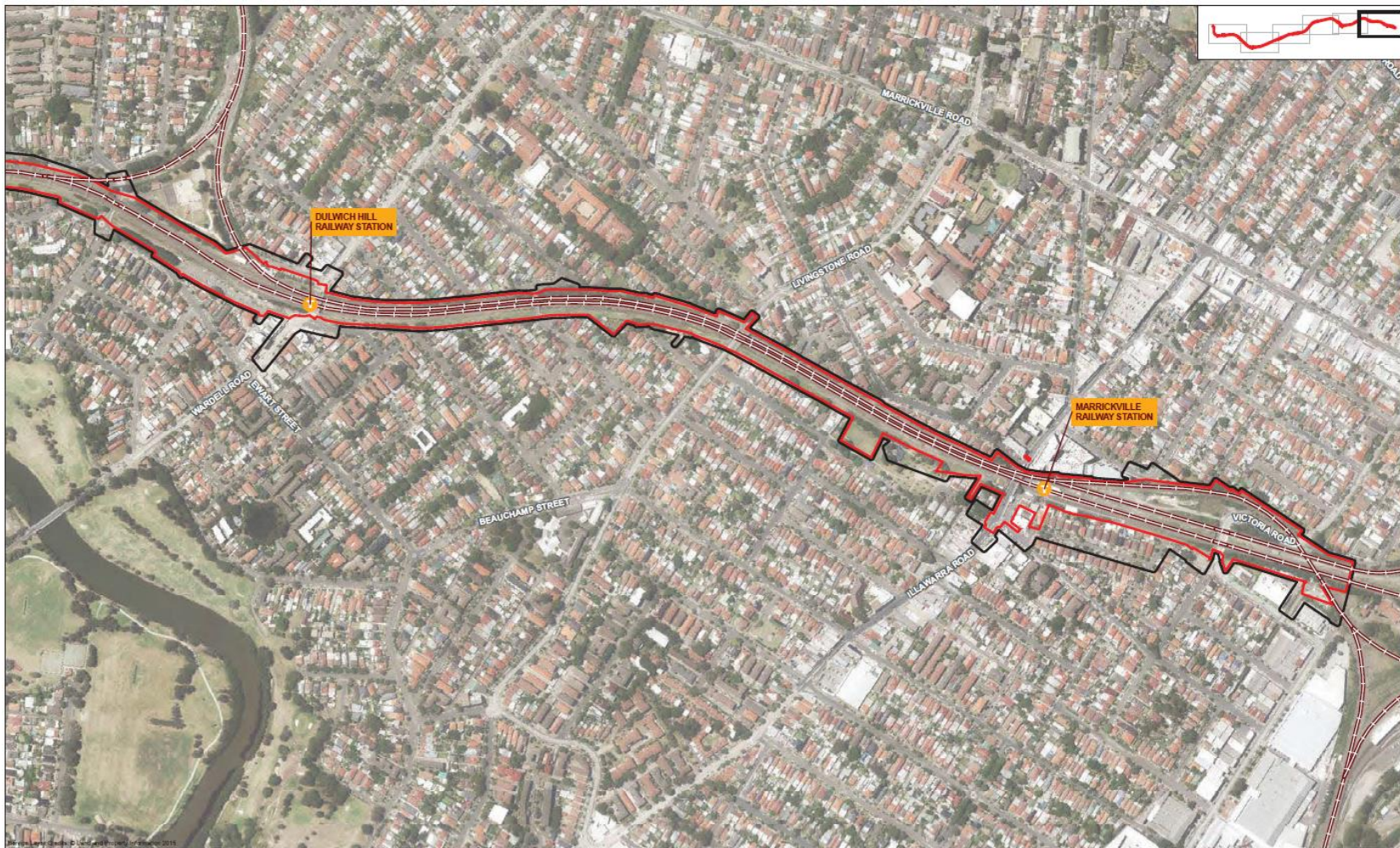
A3 Risk Matrix

Risk Rating: Very High – A – 31-36 High – B – 22-30 Medium – C – 11-21 Low – D – 1-10			CONSEQUENCE					
			Insignificant C6	Minor C5	Moderate C4	Major C3	Severe C2	Catastrophic C1
LIKELIHOOD	Almost Certain	L1	20	22	29	32	34	36
	Very Likely	L2	14	18	23	28	31	35
	Likely	L3	9	12	16	24	27	33
	Unlikely	L4	6	7	11	17	25	30
	Very Unlikely	L5	3	4	8	13	19	26
	Almost Unprecedented	L6	1	2	5	10	15	21

Appendix 2: Cover Page

Environmental Management Documentation:

- Threatened biota and habitat resources



Paper Size A3
0 40 80 160
Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56



LEGEND

- Study area
- Project area
- Train station
- Railway

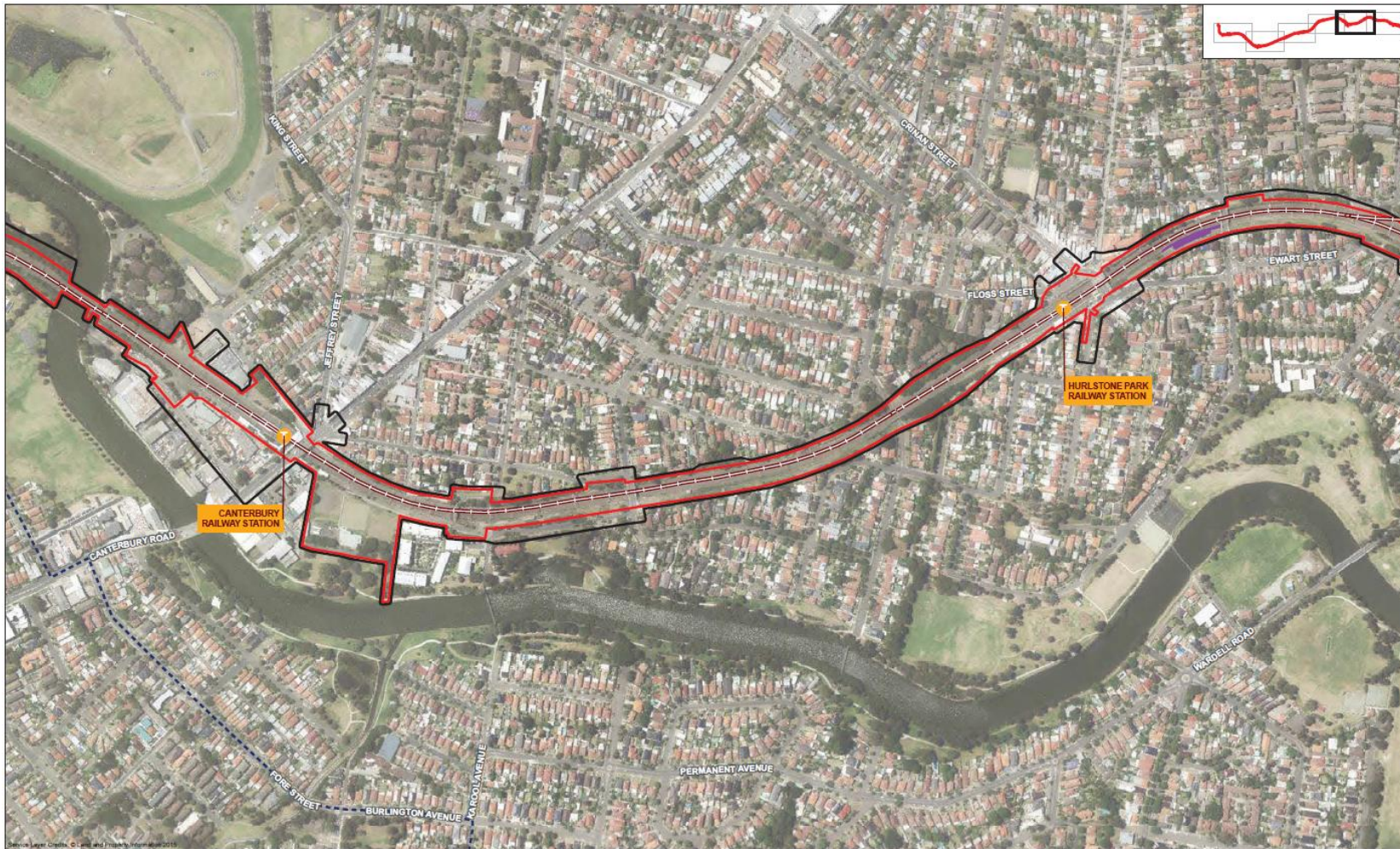
Note: Point labels indicate approximate number of stems



Transport for NSW
Sydney Metro
Sydenham to Bankstown upgrade
Biodiversity Assessment
Threatened biota
and habitat resources

Job Number 21-25273
Revision A
Date 05 Jul 2017

Figure 3.2a



Paper Size A3
 0 40 80 160
 Metres
 Map Projection: Transverse Mercator
 Horizontal Datum: GDA 1994
 Grid: GDA 1994 MGA Zone 56



LEGEND
 Study area
 Project area
 Train station
 Railway
 Canterbury feeder
 Sydney Turpentine-Ironbark Forest (EEC under the TSC Act)

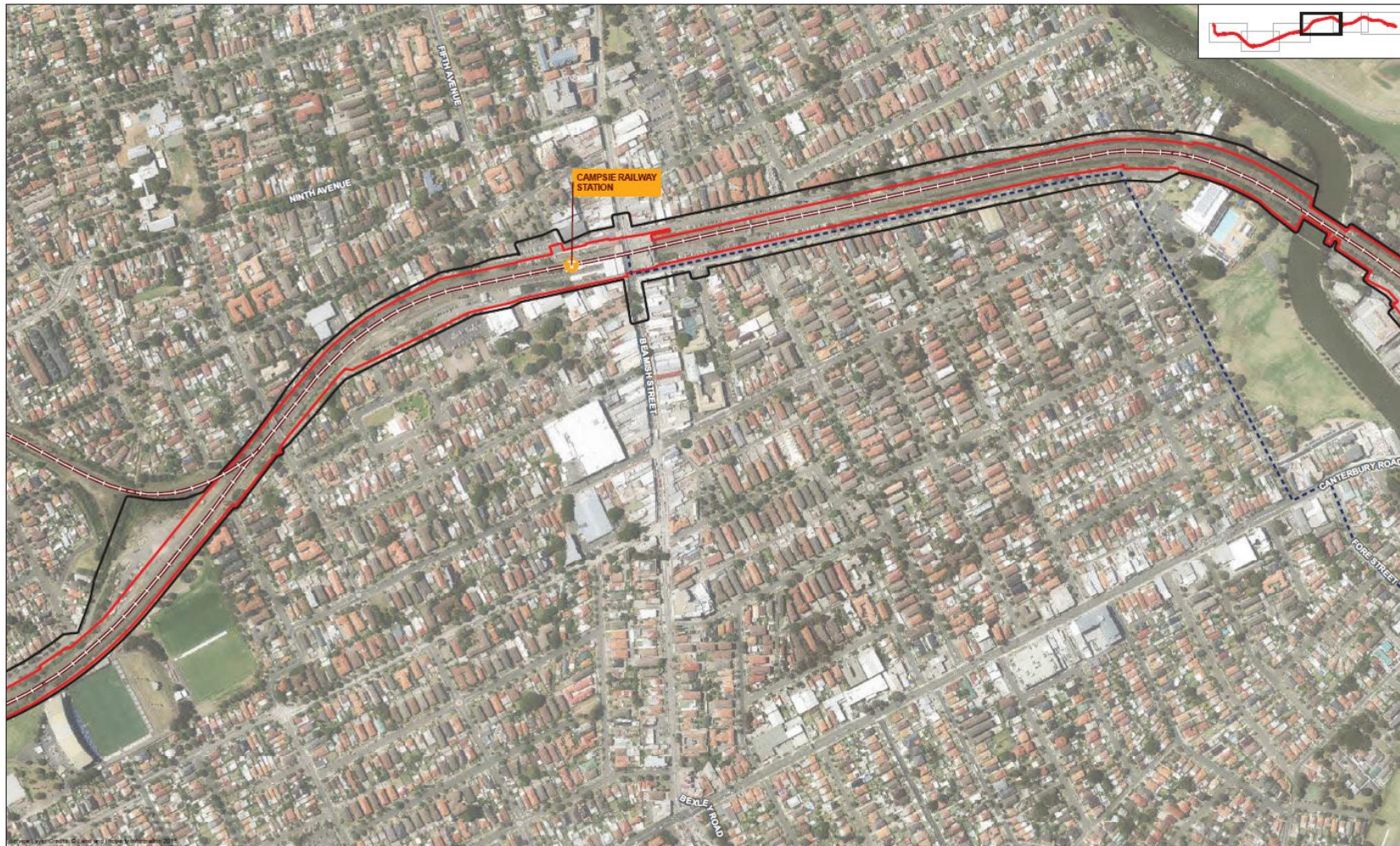
Note: Point labels indicate approximate number of stems



Transport for NSW
 Sydney Metro
 Sydenham to Bankstown upgrade
 Biodiversity Assessment
**Threatened biota
 and habitat resources**

Job Number	21-25273
Revision	A
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Figure 3.2b



Paper Size A3
0 40 80 160
Metres
Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56



- LEGEND**
- Study area
 - Project area
 - Train station
 - Railway
 - Canterbury feeder

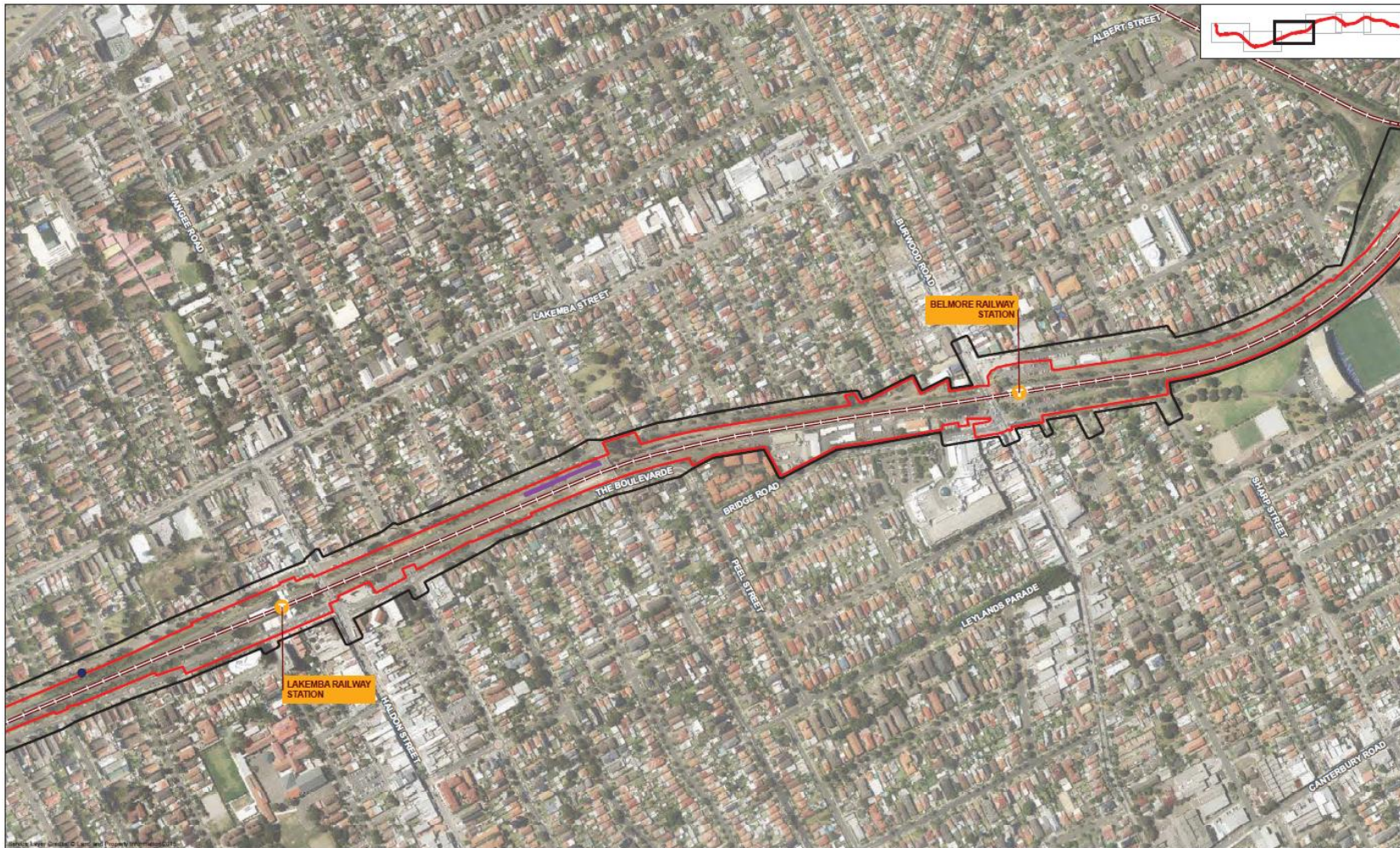
Note: Point labels indicate approximate number of stems



Transport for NSW
Sydney Metro
Sydenham to Bankstown upgrade
Biodiversity Assessment
**Threatened biota
and habitat resources**

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Figure 3.2c



Paper Size A3
 0 40 80 160
 Metres
 Map Projection: Transverse Mercator
 Horizontal Datum: GDA 1994
 Grid: GDA 1994 MGA Zone 56



- LEGEND**
- Study area
 - Project area
 - Train station
 - Railway
 - Australian White Ibis roost colony
 - Sydney Turpentine-ironbark Forest (EEC under the TSC Act)

Note: Point labels indicate approximate number of stems



Transport for NSW
 Sydney Metro
 Sydenham to Bankstown upgrade
 Biodiversity Assessment
 Threatened biota
 and habitat resources

Job Number 21-25273
 Revision A
 Date 05 Jul 2017

Figure 3.2d



Paper Size A3
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 Metres
 Map Projection: Transverse Mercator
 Horizontal Datum: GDA 1994
 Grid: GDA 1994 MGA Zone 56



LEGEND

- Study area
- Project area
- Train station
- Railway
- Australian White Ibis roost colony
- Acacia pubescens* (vulnerable species under the TSC Act and EPBC Act)
- Shale/gravel Transition Forest (EEC under the TSC Act)
- Acacia pubescens* patch

Note: Point labels indicate approximate number of stems



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 Biodiversity Assessment
**Threatened biota
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 Date 05 Jul 2017

Figure 3.2e



Paper Size A3
 0 40 80 160
 Metres
 Map Projection: Transverse Mercator
 Horizontal Datum: GDA 1994
 Grid: GDA 1994 MGA Zone 56



- LEGEND**
- Study area
 - Project area
 - Train station
 - Railway
 - Acacia pubescens* (vulnerable species under the TSC Act and EPBC Act)
 - Grey-headed Flying-fox (vulnerable species under the TSC Act and EPBC Act)
 - Hollow-bearing tree
 - Shale/gravel Transition Forest (EEC under the TSC Act)
 - Acacia pubescens* patch

Note: Point labels indicate approximate number of stems



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Figure 3.2f

Photos of *Acacia pubescens* (Downy Wattle)



Appendix 3: Cover Page

Environmental Management Documentation:

- State Heritage Register listed Non-Aboriginal heritage items

Heritage Council of New South Wales



State Heritage Register - SHR 01342, Plan 2031
 Sewage Pumping Station 271
 Carrington road, Marrickville
 Gazettal Date: 18 November 1999
 0 10 20 30 40 Metres
 Scale: 1:850 @A4
 Datum/Projection: GCS GDA 1994



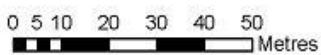
- Legend**
- SHR Curtilage
 - Land Parcels
 - Railways
 - Roads
 - LGAs
 - Suburbs

Heritage Council of New South Wales



State Heritage Register

Gazettal Date: 02 April 1999



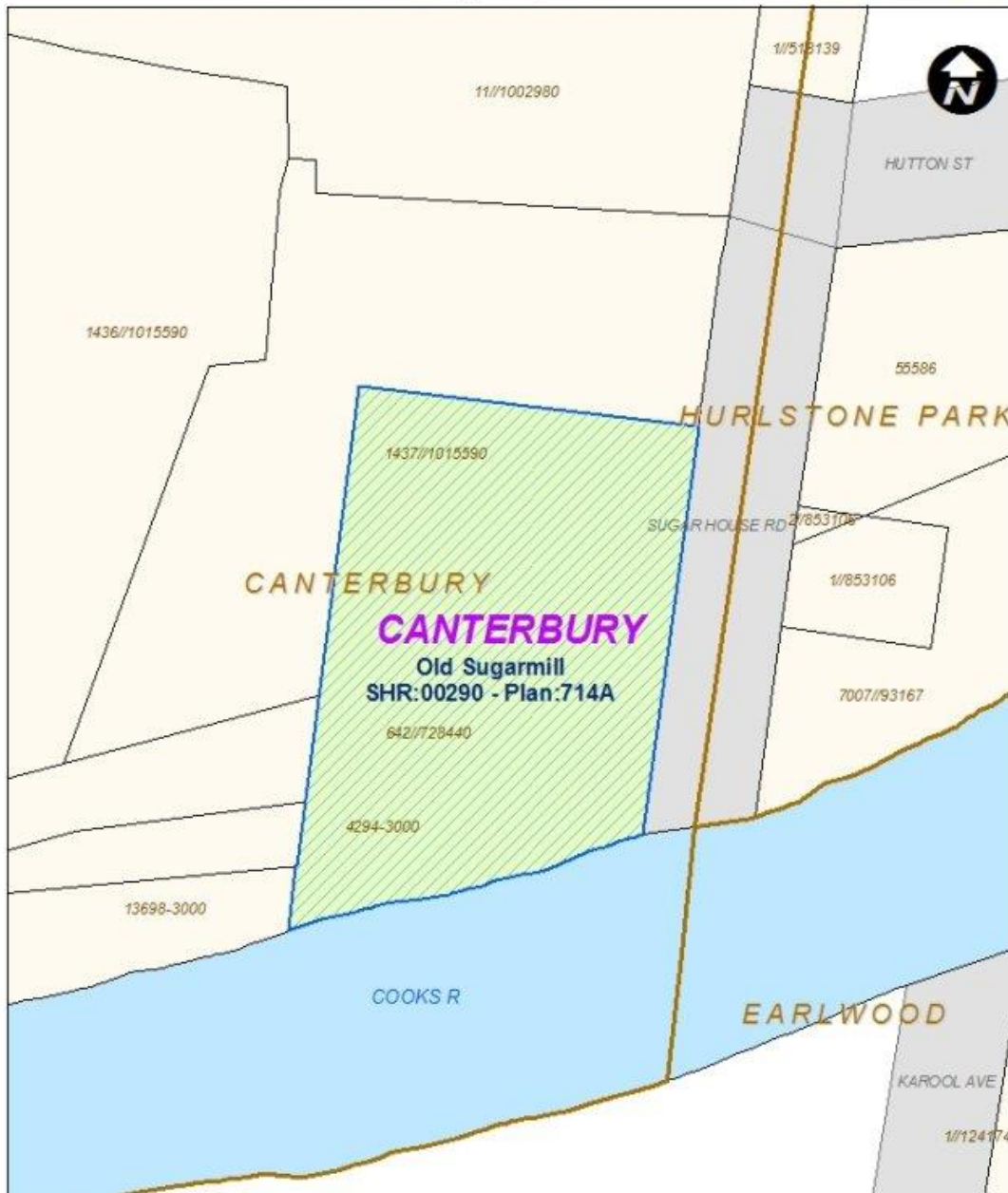
Scale: 1:1,200

Produced by: Michelle Galea

Legend

- SHR Curtilage
- Land Parcels
- LGAs
- Suburbs

Heritage Council of New South Wales
Plan under the Heritage Act, 1977



State Heritage Register

Gazettal Date: 18 October 1985



Scale: 1:750

Produced by: Stewart Watters

Legend

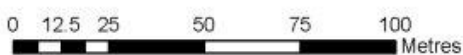
- SHR Curtilage
- LGAs
- Suburbs
- Land Parcels
- Water
- Roads

Heritage Council of New South Wales



State Heritage Register

Gazettal Date: 02 April 1999



Scale: 1:1,500

Produced by: Michelle Galea

Legend

- SHR Curtilage
- Land Parcels
- LGAs
- Suburbs

Heritage Council of New South Wales



State Heritage Register

Gazettal Date: 2 April 1999



Scale: 1:2,000

Produced by: Michelle Galea

Legend

- SHR Curtilage
- Land Parcels
- LGAs
- Suburbs

Appendix 4: Cover Page

Environmental Management Documentation:

- Areas of archaeological potential

Figure 12: Belmore Station survey unit and S2B PAD01

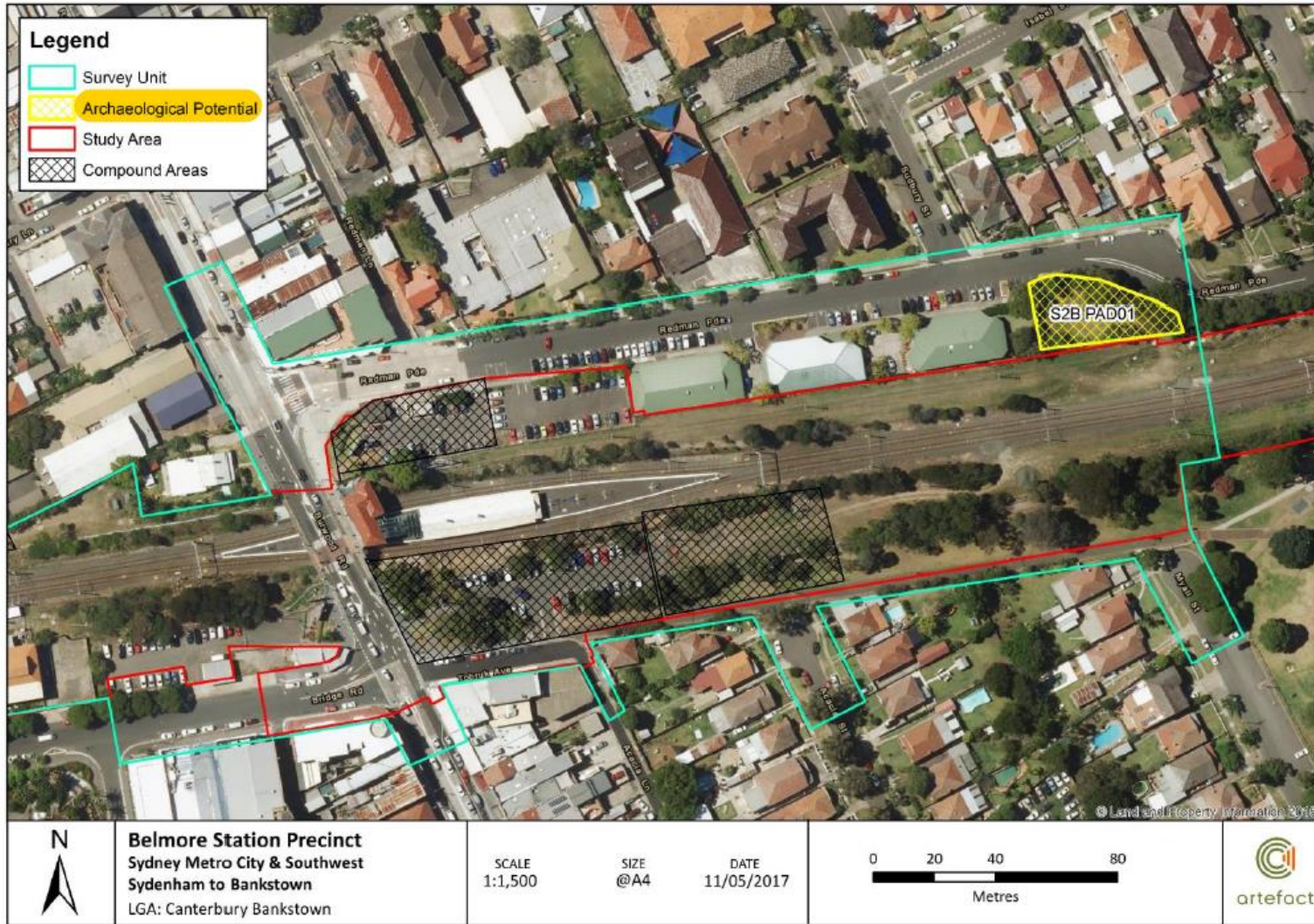


Figure 15: Punchbowl Station survey unit and S2B PAD02

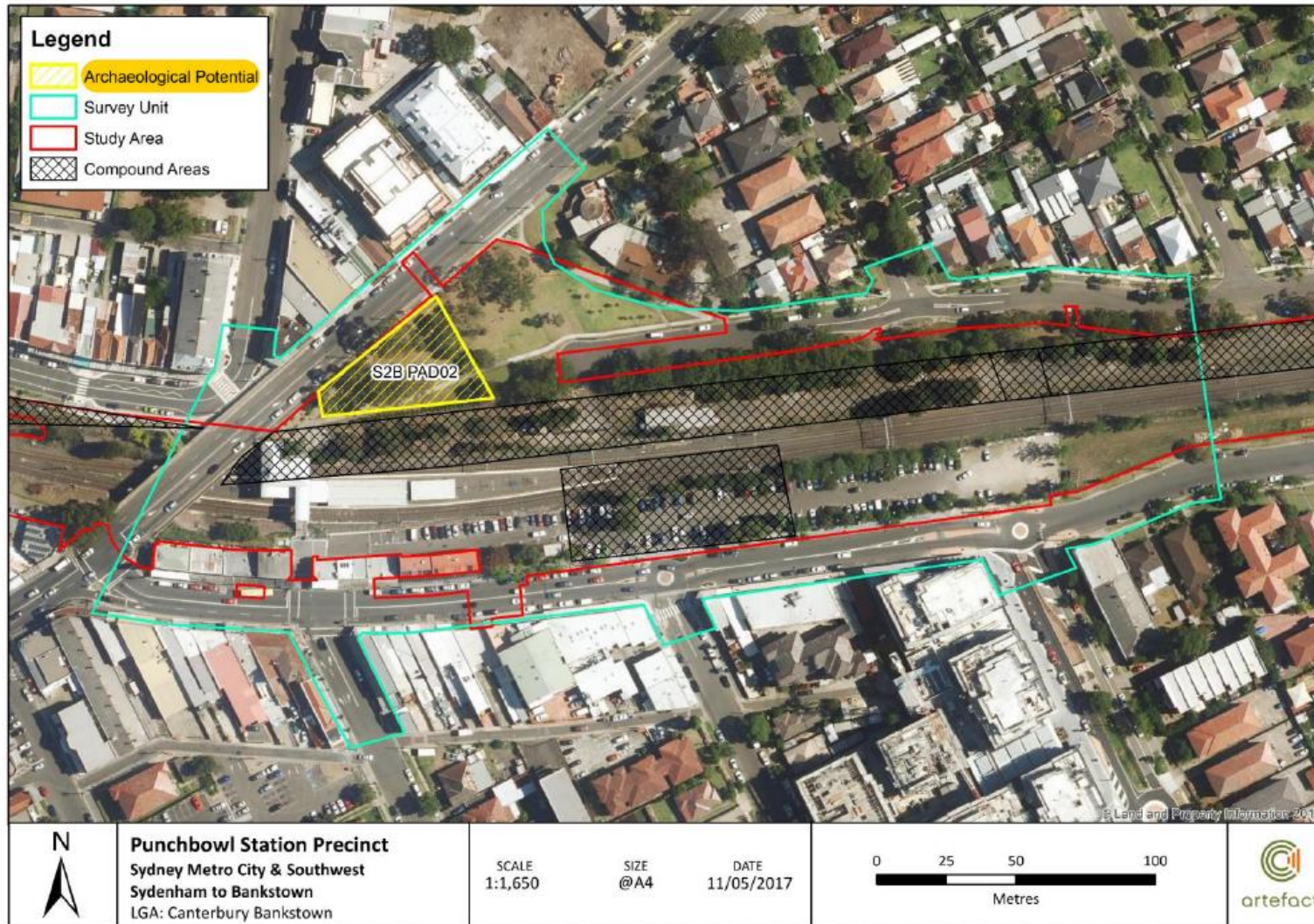


Figure 8-1: Marrickville Station Catchment archaeological management zones



Figure 8-2: Canterbury Station Catchment and construction site archaeological management zones



Figure 8-3 Belmore Station Catchment archaeological management zones



Figure 8-4: Lakemba Station Catchment archaeological management zones



Appendix 5: Cover Page

Community Notifications

Sydney Metro is Australia’s biggest public transport project.

Services start in 2019 in the city’s North West with a train every four minutes in the peak. Metro rail will be extended into the CBD and beyond to Bankstown in 2024. There will be new CBD metro railway stations underground at Martin Place, Pitt Street and Barangaroo and new metro platforms under Central.

In 2024, Sydney will have 31 metro railway stations and a 66 km standalone metro railway system – the biggest urban rail project in Australian history. There will be ultimate capacity for a metro train every two minutes in each direction under the Sydney city centre.

The upgrade of the T3 Bankstown Line to metro standards received planning approval on 19 December 2018.

Southwest metro early work is being delivered by John Holland Pty Ltd and Laing O’Rourke Australia Construction Pty Ltd, including station and bridge investigations and installation of electrical cabling within the rail corridor.

Southwest metro early work

Over the next month early investigation work will continue along the Bankstown line between Sydenham and Campsie stations (weather and site conditions permitting).

Day work	
Project standard working hours are Monday to Friday 7am - 6pm and Saturday 8am - 6pm.	
Location	Activities
Whole corridor (Marrickville – Campsie)	<ul style="list-style-type: none"> • Site establishment work within the rail corridor, including site preparation, installation of haul roads and fencing • Survey work in the rail corridor and surrounding areas including visual inspections of the stations, platforms, pit inspections and property boundary surveys • Locating and confirming underground services using hand held equipment. This work will involve non-destructive digging on station platforms and inside the rail corridor • Delivery and removal of material and equipment using rail access gates <ul style="list-style-type: none"> ○ Marrickville: along Riverdale Avenue, side lane off Warburton Street, Kays Avenue East ○ Dulwich Hill: Ewart Lane ○ Hurlstone Park: Railway Street ○ Canterbury: side lane off Charles Street, side lane off Broughton Street and Lilian Street. • Equipment used for the above work will include vacuum suction trucks, dump trucks, excavators, elevated work platform, power and hand tools and a small drilling rig.
Dulwich Hill (Bedford Crescent)	<ul style="list-style-type: none"> • Geotechnical investigations along Bedford Crescent to confirm ground conditions • This work includes the temporary removal of three parking spaces for a maximum of three days in late-February • Access to Dulwich Hill light rail station will remain open throughout this work and

	accessible parking in the area will not be impacted.	
Canterbury	<ul style="list-style-type: none"> Structural inspection of the Cooks River Bridge. This inspection will be undertaken from a small boat. 	
Out-of-hours work Due to the nature of some activities and for the safety of workers, some work will occur outside standard construction hours when trains are not running. Some equipment will also be delivered outside standard construction hours in line with RMS requirements for transporting oversized vehicles. Out-of-hours work activities include:		
Date/Time	Location/s	Activities
Monday 18 to Friday 22 February 2019 between 1am and 4am	<ul style="list-style-type: none"> Marrickville Station Dulwich Hill Station Hurlstone Park Station Canterbury Station 	Track inspection activities in the rail corridor
Monday 18 to Friday 22 February between 9.30pm and 4.30am (subject to approval)	<ul style="list-style-type: none"> Victoria Road bridge (between Charlotte Avenue and Meeks Road, Marrickville) Foord Avenue Bridge (between Dunstaffenage Street and Burnett Street, Hurlstone Park) Charles Street Bridge (between Broughton Street and Cooks River Path, Canterbury) Wiaroa Street Bridge (between East Parade and South Parade, Canterbury) 	<p>Overnight visual and structural inspections of rail track and bridges (a detailed notification will be distributed to local areas following confirmation of this work).</p> <p>Lane closures will be required adjacent to bridge inspection locations to ensure the safety of workers and the public. Traffic control and directional signage will be in place for the safety of workers and the community.</p> <p>Lighting towers will be used during these works. Lights will be directed away from residential properties when in use.</p>

Access to buildings and driveways will be maintained at all times. Some of this work may be noisy, however we will take every possible step to minimise noise by switching off equipment when not in use, installing non-tonal reversing beepers.

Thank you for your cooperation while we complete this essential work.

If you have any questions please contact **Melanie** on **1800 171 386** (24 hour community information line) or SydenhamMetro@transport.nsw.gov.au



Sydney Metro is Australia's biggest public transport project.

Services start in 2019 in the city's North West with a train every four minutes in the peak. Metro rail will be extended into the CBD and beyond to Bankstown in 2024. There will be new CBD metro railway stations underground at Martin Place, Pitt Street and Barangaroo and new metro platforms under Central.

In 2024, Sydney will have 31 metro railway stations and a 66 km standalone metro railway system – the biggest urban rail project in Australian history. There will be ultimate capacity for a metro train every two minutes in each direction under the Sydney city centre.

Southwest metro, the upgrade of the T3 Bankstown Line to metro standards, received planning approval on 19 December 2018. Early works have begun, including investigations at stations and in the rail corridor.

Early work investigations – Southwest metro

Early investigation work will commence along the Bankstown line **between Campsie and Bankstown stations**, weather and site conditions permitting. Work will include:

- Surveying of the rail corridor boundary from nearby public areas and inside the rail corridor (commencing **xx** February and ongoing until March 2019).

Standard working hours

This work will be carried out during project standard construction hours, which are **Monday to Friday, 7am–6pm and Saturday, 8am–6pm**.

What to expect

- Equipment will include hand held surveying equipment and light vehicles.
- Access to the rail corridor will be via existing rail corridor gates located between Campsie and Bankstown stations.

Access to buildings and driveways will be maintained at all times.

Thank you for your cooperation while we complete this essential work.

If you have any questions please contact **Melanie** on **1800 171 386** (24 hour community information line) or SydenhamMetro@transport.nsw.gov.au

Sydneymetro.info
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If you require the services of an interpreter, please contact the **Translating and Interpreting Service on 131 450** and ask them to call **Sydney Metro on 1800 171 386**. The interpreter will then assist you with translation.

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Appendix 6: Cover Page

Sydney Metro Unexpected Finds Procedure V1.4.

Sydney Metro Unexpected Heritage Finds Procedure

Supporting Document – Applicable to:

Status:

Division:

Version: 1.4

Date of issue: 19/04/2018

Effective date:

Review date: 22/03/2019

Document owner:

Security classification:

Document History

Version	Date of approval	Doc. Control no.	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

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1. Purpose

This procedure is applicable only to the Sydney Metro Critical State Significant Infrastructure Planning Approval (CSSI 15_7400) including the following planning approval modifications:

Modification 1- Victoria Cross Substation and Artarmon Substation which involves relocation of the Victoria Cross northern services building from 194-196A Miller Street to 50 McLaren Street together with inclusion of a new station entrance at this location referred to as Victoria Cross North. 52 McLaren Street would also be used to support construction of these works. The modification also involves the relocation of the substation at Artarmon from Butchers Lane to 98 – 104 Reserve Road. This modification application was approved on 18 October 2017;

- Modification 2- Central Walk which involves additional works at Central Railway Station including construction of a new eastern concourse, a new eastern entry, and upgrades to suburban platforms. This modification application was approved on 21 December 2017;

- Modification 3- Martin Place Metro Station which involves changes to the Sydney Metro Martin Place Station to align with the Unsolicited Proposal by Macquarie Group Limited (Macquarie) for the development of the station precinct. The proposed modification involves a larger reconfigured station layout, provision of a new unpaid concourse link and retention of the existing MLC pedestrian link and works to connect into the Sydney Metro Martin Place Station. It is noted that if the Macquarie proposal does not proceed, the modification (if approved) would be surrendered. This modification application was approved on 22 March 2018; and

- Modification 4- Sydenham Station and Metro Train Facility which incorporated Sydenham Station and precinct works, the Sydney Metro Trains Facility South, works to Sydney Water's Sydenham Pit and Drainage Pumping Station and ancillary infrastructure and track and signalling works into the approved project. This modification application was approved on 13 December 2017

This procedure has been developed in response to Condition of Approval (CoA) E19, that requires Sydney Metro City & Southwest Program to provide a method for managing unexpected heritage items (both Aboriginal and non-Aboriginal) that are discovered during construction.

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, TfNSW and its contractors. This procedure includes TfNSW's heritage notification obligations under the Heritage Act, NPW

Act and the Coroner's Act 2009 and the specific requirements of the conditions of approval (CoA) issued by NSW Department of Planning and Environment for CSSI 15-7400.

Note that a Contractor may create their own Unexpected Finds Procedure or modify this document, however its use will be subject to compliance with the following:-

- CSSI CoA E17 requires consultation with the Heritage Council of NSW (or its delegate)
- CSSI CoA E19
- Prior approval from the nominated Excavation Director, as required under CSSI CoA E18
- Prior approval from the Environmental Representative, CSSI CoA A24

- Prior approval from Sydney Metro.

It should be noted that this procedure must be read in conjunction with the relevant CSSI conditionals of approval, the contract documents and other plans and procedures developed by the contractor during the delivery of the works.

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 prohibit 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 3, followed by the technical procedure in Sections 6 and 7. Associated guidance referred to in the procedure can be found in Appendices A-H.

2. Scope

Despite appropriate and adequate investigation, unexpected heritage items may still be discovered during maintenance and construction 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 construction activities for the Sydney Metro Program as approved under Section 115ZB of the Environmental Planning and Assessment Act 1979 for Critical State Significant Infrastructure, Application No. SSI 15-7400.

This procedure **applies to**:

- the discovery of any unexpected heritage item, relic or object, where the find is not anticipated in the Archaeological Assessment Design Report (AARD) or Archaeological Method Statements (AMS) that are prepared prior to commencement of excavation.

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 with the exception S139 of the NSW Heritage Act 1977

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 an 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; All new Construction Environment Management Plans (CEMPs) must make reference to and/or include this procedure (included as a heritage sub-plan, refer to CSSI CoA C6(g)).

Note that this procedure does not supersede the requirements of CSSI CoA CSSI CoA E10 and E26:

- E10 The Proponent must not destroy, modify or otherwise physically affect any Heritage item not identified in documents referred to in CoA A 1.
- E26 This approval does not allow the Proponent to harm, modify, or otherwise impact human remains uncovered during the construction and operation of the CSSI, except in accordance with the Exhumation Management Plan (CoA E27).

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.

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:

Term	Meaning
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
CSSI	Critical State Significant Infrastructure
EP&A Act	NSW <i>Environmental Planning and Assessment Act 1979</i>
Heritage Act	NSW <i>Heritage Act 1977</i>
NPW Act	NSW <i>National Parks and Wildlife Act 1974</i>
OEH	Office of Environment and Heritage
Relic (non-Aboriginal heritage)	<p>A relic means any deposit, artefact, object or material evidence that:</p> <ul style="list-style-type: none"> a) relates to the settlement of the area that comprises NSW, not being Aboriginal settlement, and b) is of State significance. <p>A relic may include items such as bottles, utensils, remnants of clothing, crockery, personal effects, tools, machinery and domestic or industrial refuse.</p> <p>Note that Modification 2 amends the previous definition of a relic, being the same as described in the NSW <i>Heritage Act 1977</i>, by deleting all reference to local heritage significance. For the purpose managing relics under the CSSI 15_7400 Planning Approval CoA E20 applies to relics of State significance only.</p>
TfNSW	Transport for New South Wales

Term	Meaning
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 subject to specific assessment by the Excavation Director

4. Accountabilities

5. 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 A** illustrates the wide range of heritage discoveries found on transport infrastructure projects and provides a useful photographic guide. Subsequent to confirmation of a heritage discovery it must then be identified and assessed by Excavation Director as required under CSSI CoA E20. An 'unexpected heritage item' means any unanticipated discovery of an actual or potential heritage item, for which Sydney Metro (refer to CSSI CoA E10 and E26) does not have approval to disturb² and/or have an existing management process in place.

These discoveries are categorised as either:

- (a) Aboriginal objects
- (b) historic (non-Aboriginal) heritage items
- (c) human skeletal remains.

The relevant legislation that applies to each of these categories is described below and is also addressed in the Sydney Metro Exhumation Management Plan (refer to CSSI CoA E26 and E27).

5.1. Aboriginal objects

The NPW Act protects Aboriginal objects which are 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,

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).

being habitation before or concurrent with (or both) the occupation of that area by persons of non Aboriginal extraction, and includes Aboriginal remains³.

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 OEH⁴. Also, when a person becomes aware of an Aboriginal object they must notify the Director-General of OEH about its location⁵. Assistance on how to do this is provided in Section 7 (Step 5).

CSSI CoA E23, E24 and E25 for management of Aboriginal Heritage Applies to the Sydney Metro Chatswood to Sydenham Project

5.2. Historic heritage items

Historic (non-Aboriginal) heritage items may include:

- archaeological 'relics'
- other historic items (i.e. works, structures, buildings or movable objects).

5.2.1. 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"⁶.

Changes to CoA E20 included within Planning Modification 1 (Oct 2017) deleted reference *local heritage significance*, so that E20 applies to relics of State significance only.

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.

³ Section 5(1) NPW Act.

⁴ Refer to CSSI CoA E23 & E25.

⁵ This is required under section 89(A) of the NPW Act and applies to all TfNSW projects.

⁶ Section 4(1) Heritage Act.

Construction in the vicinity of a relic, of State significance, must not recommence until the requirements of the ARMP have been implemented, in consultation with the Excavation Director. The Sydney Metro must notify the Secretary of the Department of Environment & Planning in writing of the outcome of consultation with the Heritage Council of NSW, refer to CSSI CoA E20.

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 Council⁷. Also, when a person discovers a relic they must notify the NSW Heritage Council of its location⁸. Advice on how to do this for works under CSSI 15_7400 is provided in Section 7 (Step 5).

5.2.2. 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.

As a general rule, an archaeological relic requires discovery or examination through the act of excavation. An archaeological excavation permit under section 140 of the Heritage Act is 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).

Despite this difference, it should be remembered that relics can often be associated with 'other heritage items', such as archaeological deposits within cisterns and underfloor deposits beneath buildings.

5.3. Human skeletal remains

Refer to Sydney Metro Project Exhumation Management Plan

⁷Refer to CSSI CoA E20,

⁸ This is required under section 146 of the Heritage Act and applies to all TfNSW projects however also refer to foot note 8.

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

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

IMPORTANT!

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

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

However, where it is suspected that less than 100 years has elapsed since death, the human skeletal remains come under the jurisdiction of the State Coroner and the *Coroners Act 2009* (NSW). Such a case would be considered a 'reportable death' and under legal notification obligations set out in section 35(2); a person must report the death to a police officer, a coroner or an assistant coroner as soon as possible. This applies to all human remains less than 100 years old⁹ 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 E**.

6. 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 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

⁹ 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.

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.

CSSI CoA E10 applies to unexpected finds, so that all relevant legislation will apply to heritage items not identified in documents referred to CoA A1.

Table 1 Legislation and guidelines for management of unexpected heritage finds

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

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

7. Unexpected heritage finds protocol

7.1. 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.

7.2. 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 A (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.	Excavation Director	Appendix B (Unexpected Heritage Item Recording Form) Appendix C (Photographing Unexpected Heritage items)
1.4	Is the item likely to be bone? If yes , follow the steps in Appendix D – '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. If no , proceed to next step.	Excavation Director	Appendix D (Uncovering Bones)

Step	Task	Responsibility	Guidance and tools
1.5	<p>Inform the Excavation Director of the item and provide as much information as possible, including photos and completed form (Appendix B).</p> <p>Where the project has an Environmental Representative (ER), the ER should be involved in the tasks/process as appropriate.</p>	Contractors Project Manager	
1.6	<p>Can the works avoid further disturbance to the item? Project Manager to confirm with TfNSW Environment and Planning Manager.</p> <p>Complete the remaining tasks in Step 1.</p>	Contractors Project Manager	
1.7	<p>Excavation Director to advise the Project Manager whether TfNSW has approval to impact on the 'item'.</p> <p>Does Metro have an approval or permit to impact on the item?</p> <p>If yes, work may recommence in accordance with that approval or permit. There is no further requirement to follow this procedure.</p> <p>If no, continue to next step.</p>	Contractors Project Manager	
1.8	<p>Has the 'find' been damaged or harmed?</p> <p>If yes, record the incident in the Incident Management System Implement any additional reporting requirements related to the planning approval and CEMP, where relevant. Contact Sydney Metro Manager, Environment Safety, Environment and Business Systems</p>	Contractors Project Manager, Excavation Director	
2	Contact and engage an archaeologist and/or an Aboriginal heritage consultant		

Step	Task	Responsibility	Guidance and tools
2.1	<p>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.</p> <p>Where there is no project archaeologist engaged for the works engage a suitably qualified consultant to assess the find:</p> <p>if the find is a non-Aboriginal deposit, engage a suitably qualified and experienced archaeological consultant</p> <p>if the find is likely to be an Aboriginal object, engage an Aboriginal heritage consultant to assess the find.</p>	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 C (Photographing Unexpected Heritage items)
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. <i>the item is not a 'relic', a 'heritage item' or an 'Aboriginal object'</i>). 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 TfNSW Project Manager.	Archaeologist/ Aboriginal heritage consultant/ Contractors Project Manager, Excavation Director	Proceed to Step 8

Step	Task	Responsibility	Guidance and tools
3.2	Arrange site access for the archaeologist/Aboriginal heritage consultant to inspect the item as soon as practicable. In the majority of cases a site inspection is required to conduct a preliminary assessment.	Contractors Project Manager, Excavation Director	
3.3	Subject to the archaeologist/Aboriginal heritage consultant's assessment, work may recommence at a set distance from the item. This is to protect any other archaeological material that may exist in the vicinity, which may have not yet been uncovered. Existing protective fencing established in Step 1.2 may need to be adjusted to reflect the extent of the newly assessed protective area. No works are to take place within this area once established.	Archaeologist/ Aboriginal heritage consultant Contractors Project Manager, Excavation Director	
3.4	<p>The archaeologist/Aboriginal heritage consultant may provide advice after the site inspection and preliminary assessment that no heritage constraint exists for the project (e.g. the item is not a '<i>relic</i>' or a '<i>heritage item</i>' or an '<i>aboriginal item</i>'. Any such advice should be provided in writing (e.g. via email or letter with the consultant's name and company details clearly identifiable) to the Metro Project Manager.</p> <p>Note that :</p> <ul style="list-style-type: none"> 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 A (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.	Contractors Project Manager, Excavation Director	
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 Principal Manager Sustainability Environment and Planning (Program). 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		

Step	Task	Responsibility	Guidance and tools
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 OEHL and the Secretary? If no , proceed directly to Step 6 If yes , proceed to next step.	Contractors Project 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.	Contractors Project Manager, Excavation Director	Appendix F (Template Notification Letter)
5.3	Forward the signed notification letter to OEHL and the Secretary. Informal notification (via a phone call or email) to OEHL prior to sending the letter is appropriate. The archaeological or heritage management plan and the completed site recording form (Appendix B) 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.	Contractors Project Manager, Excavation Director	
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		

Step	Task	Responsibility	Guidance and tools
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 Environment and Planning 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.	Contractors Project Manager, Excavation Director	
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	

Step	Task	Responsibility	Guidance and tools
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		
8	Resume work		
8.1	Seek written clearance to resume project work from the Environment and Planning Manager and the 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	

8. Responsibilities

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 advises that work can recommence.
Contractor or Environment Manager	<p>Manage the process of identifying, protecting and mitigating impacts on the 'find'.</p> <p>Liaise with Sydney Metro Project Manager and Environment and Planning Manager and assist the archaeologist/Aboriginal heritage consultant with mitigation and regulatory requirements.</p> <p>Complete Incident Report and review CEMP for any changes required. Propose amendments to the CEMP if any changes are required.</p>
Contractor's or Project Heritage Advisor or Consultant	Provide expert advice to the Sydney Metro Environment and Planning Manager on 'find' identification, significance, mitigation, legislative procedures and regulatory requirements.
Environmental Representative	<p>Independent environmental advisor engaged by Sydney Metro</p> <p>Review and provides advice on heritage management plan and changes to the CEMP. Ensures compliance with relevant approvals (new and existing).</p>
Heritage Division of OEH	<p>Regulate the care, protection and management of relics (non-Aboriginal heritage).</p> <p>Delegated authority for Heritage Council</p> <p>Issue excavation permits.</p>
Registered Aboriginal Parties (RAPs)	Aboriginal people who have registered with Sydney Metro to be consulted about a proposed project or activity in accordance with the OEH <i>Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010</i> .
Sydney Metro Environment and Planning Manager	Notify the TfNSW 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 when all applicable requirements have been satisfied.

9. Seeking advice

Advice on this procedure should be sought from the Sydney Metro Environment and Planning 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.

10. Related documents and references

Related Documents

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*.

11. List of appendices

The following appendices are included to support this procedure:

- Appendix A: Examples of finds encountered during construction works
- Appendix B: Unexpected Heritage Item Recording Form
- Appendix C: Photographing Unexpected Heritage Items
- Appendix D: Uncovering Bones
- Appendix E: Archaeological Advice Checklist
- Appendix F: Template Notification Letter

Appendix A - 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 B- Unexpected heritage item recording form

Example of **unexpected heritage item recording form**

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

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

		telephone if you are certain that the bone(s) are human remains.	
E. Other	<input type="checkbox"/>		
Provide a short description of the item <i>(eg metal rail tracks running parallel to the rail corridor. Good condition. Tracks set in concrete, approximately 10 cm below the current ground surface).</i>			
Sketch <i>(provide a sketch of the item's general location in relation to other road features so its approximate location can be mapped without having to re-excavate it. In addition, please include details of the location and direction of any photographs of the item taken)</i>			
Action taken (Tick either A or B)			
A. Unexpected item would not be further impacts on by the works	<input type="checkbox"/>	Describe how works would avoid impact on the item. <i>(eg the rail tracks would be left in situ and recovered with paving).</i>	

<p>B. Unexpected item would be further impacted by the works</p>	<input type="checkbox"/>	<p>Describe how works would impact on the item. (eg 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.)</p>	
<p>Excavation Director</p>		<p>Signature</p>	
		<p>Signature</p>	

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 C- 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.

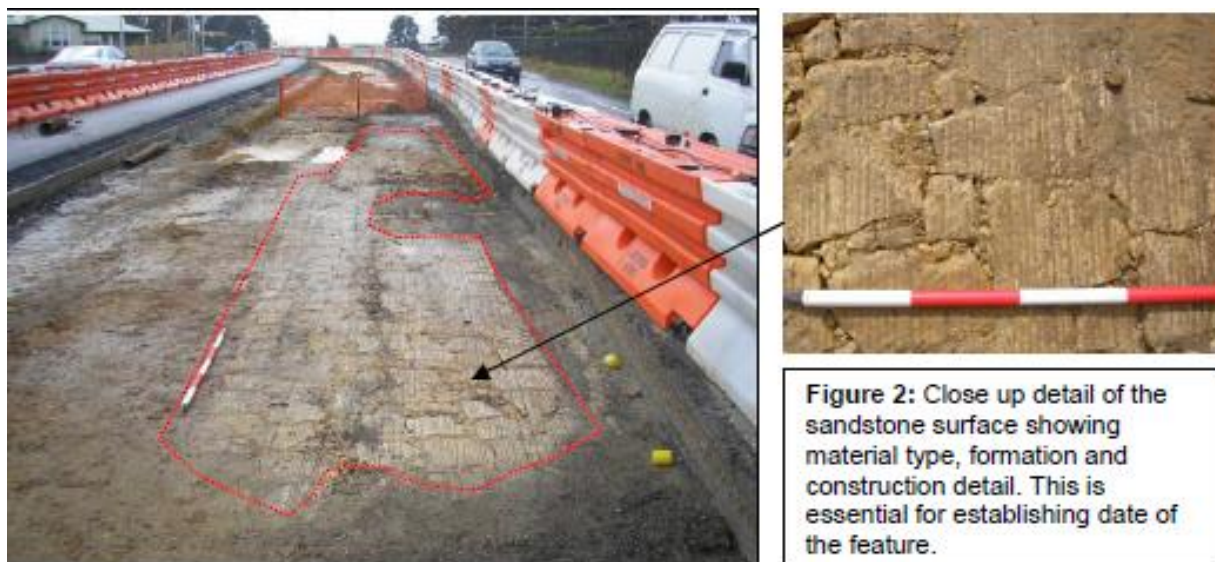


Figure 2: Close up detail of the sandstone surface showing material type, formation and construction detail. This is essential for establishing date of the feature.

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 F 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 D - 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 1¹⁰. 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.

¹⁰ After Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal Remains: 17*

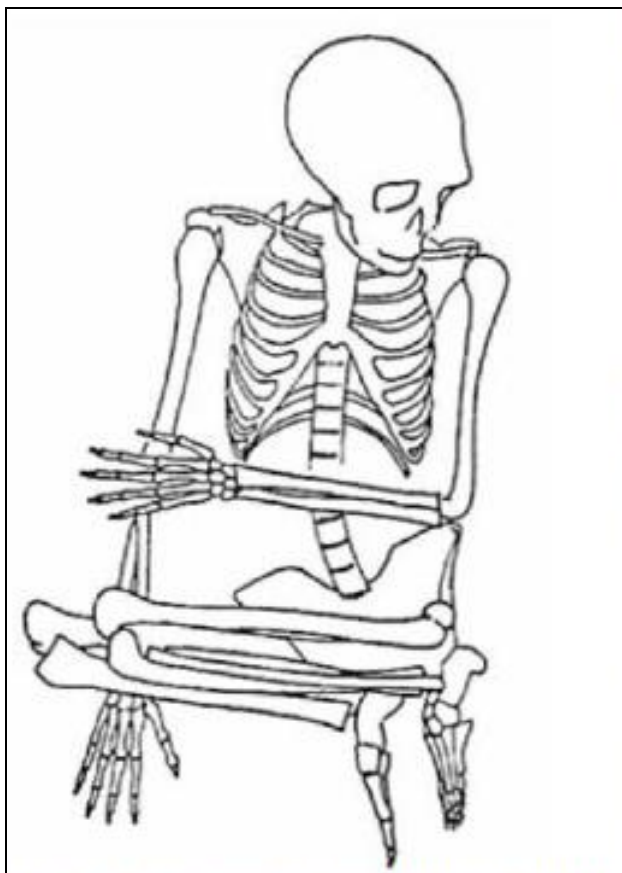


Figure 1: Schematic of a complete skeleton that is 'obviously' human¹².



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

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 C. 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) appropriate. This

must be followed up later by a formal letter notification to the relevant regulator (as per Appendix G) 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.

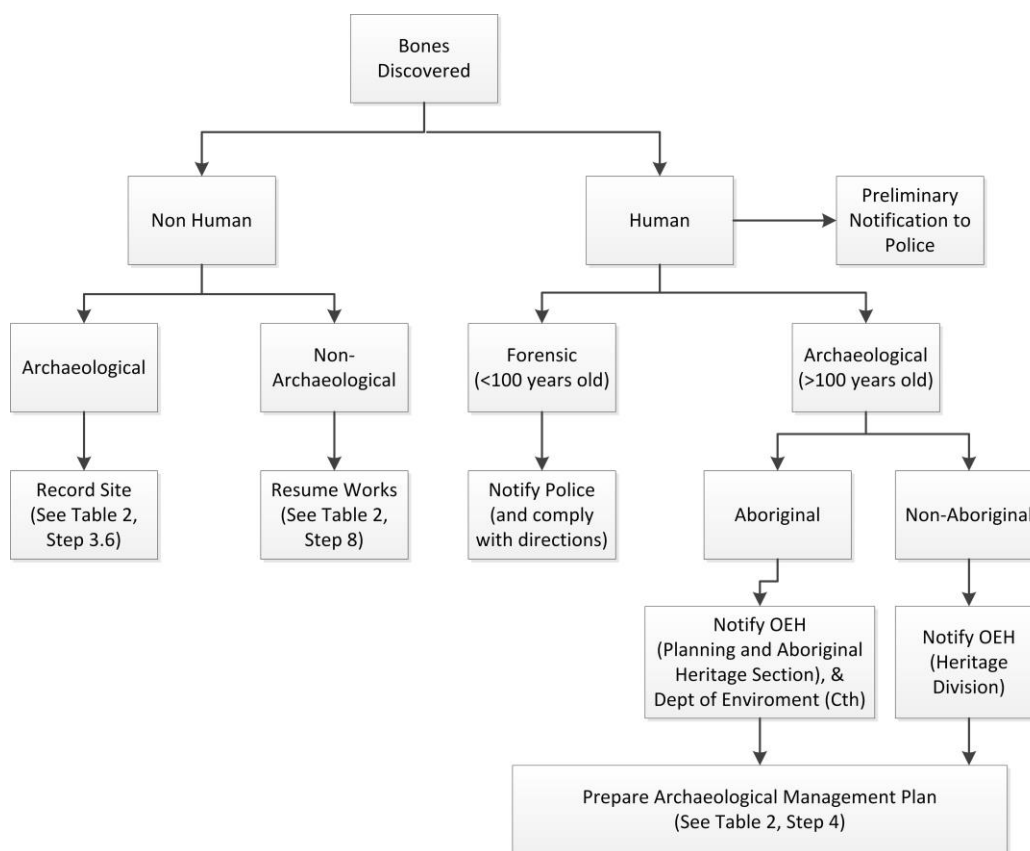


Figure 3 Overview of steps to be undertaken on the discovery of bones

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, TfNSW is 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)¹¹.

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.

¹¹ This requirement is in addition to heritage approvals under the *Heritage Act 1977*.

Appendix E - 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 F- 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 Transport for NSW –Sydney Metro activities.

I write to inform you of an unexpected [select: relic, heritage item or Aboriginal object] found during TfNSW 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 7: Cover Page

Environmental Representative Supporting Letter.

[NOT REQUIRED FOR THIS PRE-CONSTRUCTION MINOR WORKS APPROVAL]