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:	John Holland & Laing O'Rourke Joint Venture (JHLOR)
Project:	Southwest Metro Corridor (SMC) Bankstown Early Works
Application Title: (e.g. Smith St trenching works)	Pre-construction Minor Works – Enabling Works
Application Number:	SMC-PCMW-003 Document number: SMCSWSSJ-JHL-WBK-EM-REC-000001
Application Date:	RevA - 22/09/21 RevB – 29/09/2021
Planning Approval:	The Sydney Metro City & Southwest – Sydenham to Bankstown - Environmental Impact Statement , dated 7th September 2017; The Sydney Metro City & Southwest – Sydenham to Bankstown – Submissions and Preferred Infrastructure Report June 2018; The Sydney Metro City & Southwest – Sydenham to Bankstown – Instrument of Approval, dated 12th December 2018, superseded by CSSI 8256 MOD 1 determined 22nd October 2020
Minor Works Categories: • Highlight as applicable. • If Items 4, 8 or 11 are applicable, this form must be endorsed by an Environmental Representative.	1. Survey, survey facilitation and investigations works (including road and building dilapidation survey works, drilling and excavation). 2. Treatment of contaminated sites. 3. Establishment of ancillary facilities (excluding demolition), including construction of ancillary facility access roads and providing facility utilities. 4. Operation of ancillary facilities that have minimal impact on the environment and community. 5. Minor clearing and relocation of vegetation (including native). 6. Installation of mitigation measures, including erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments. 7. Property acquisition adjustment works, including installation of property fencing and utility relocation and adjustments to properties. 8. Utility relocation and connections. 9. Maintenance of existing buildings and structures. 10. 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. 11. 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 ecological communities?	*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'.* No – it is anticipated that there will be no impacts associated with the works that will affect State Heritage listed items, areas of known or expected archaeological potential, threatened species, populations or endangered ecological communities. In addition, JHLOR will implement the Sydney Metro Unexpected Heritage Finds Procedure V2.0 throughout the investigation works.
Part 2: Details	
Describe the proposed Minor Works: Including work methodologies, site location(s) and site description(s) (e.g. landscape type, waterways, etc.).	**Description of Works** Site establishment works are required to prepare the Project site for Construction works. A number of activities will be undertaken as part of these works. Works are itemised as per the Minor Works Categories in Part 1 of this document. **Item 3/Item 4 & Item 8** Compound Establishment and Operation (including utility connections and fencing) JHLOR will establish a compound within the North Terrace Carpark area to support the works. It is noted that the area is an approved Compound location as identified in the EIS and is therefore not an "Ancillary Facility" as defined within the Planning Approval. In regards to items 3 and 4 within Part 1 of this document, it is JHLOR's understanding that the Sydney Metro Pre-Construction Minor Works Approval Template (in which this application is made) uses the term "ancillary facility" interchangeably with the term "compound" and not in strict alignment with the definition within the SSI_8256 Planning Approval. As such, this document assesses the installation and use of the compound in the context of low impact activities only, there is no need to make any further assessment under CoA-A16-A19. JHLOR will install a number of buildings, including but not limited to office, crib, ablution and storage facilities. A schematic of the indicative layout in included in Appendix 1. These facilities will be used by construction staff and workers for Sydney Metro Bankstown area works. The buildings will be connected to a number of local utilities including sewer, water, electricity and communications. A small amount of excavation will be required to install these utilities. The location and extent of utility connections will be confirmed on-site. JHLOR will also secure the site by installing fencing around the permitter of the site. An indicative location of fencing is included in Appendix 1 Of particular note are two environmental risks for the area; 1. The *Salt Pan Creek Catchments Floodplain Risk Management Study and Plan* (Brewsher, 2011) identifies flooding levels of up to 100mm within the carpark area. JHLOR will place buildings and chemical storage containers on stilts greater than 100mm to remain outside the flood zone. Detailed mitigation measures are included within the Environmental Risk Assessment within Appendix 1. 2. The EIS identifies the North Terrace Carpark as an area with a medium-high risk of contamination. An additional test was undertaken within the carpark as part of the *Sydenham to Bankstown Targeted Contamination Assessment Report* (GHD, 2017). The Assessment found that the material tested was General Solid Waste. JHLOR expect to undertake minor excavations within the area only – all material will be stockpiled separately. JHLOR will have established an unexpected finds procedure and will implement is as required. The compound area will be used on an ongoing basis, including outside of standard construction hours as required. The compound area will also be used for laydown of construction materials. **Item 5** Vegetation Removal and Trimming Minor vegetation trimming and removal will occur as minor works. The extent of trimming and removal is shown in Appendix 1. Trimming and removal works will commence in these areas in line with the SMC Tree Impact Assessment Report. Works will not occur unless the SMC Tree Impact Assessment Report has been updated to include these areas. Tree trimming works will occur in the vicinity of the North Terrace compound to facilitate the installation of the compound. Up to 12 trees will be trimmed (tree ID as per Tree Impact Assessment Report 1676-1678, 1680-1686 and 1690-1691). The

trunks of trees 1680-1684 are located outside the Project Boundary, however the branches to be trimmed overhang into the Project area,

Tree removal works will occur at the down platform and Metro Service Building (MSB) site to facilitate construction associated with these works. Up to 38 trees will be removed (tree ID as per Tree Impact Assessment Report: 1532-1569).

A total of 50 trees will be impacted as part of the works. This is considered a low impact as this number makes up a very small number of trees assessed for impact under the EIS/SPIR and the SMC/BEW package alone. Removing the trees as part of pre-Construction works will reduce the overall length of construction, reducing impacts on the community.

Noise impacts are also expected to be low overall with only minor trimming works occurring during weekdays and the majority of tree removal occurring within a single weekend. Due to the proximity of the tree removal works to the rail line, some tree removal works will occur outside of standard construction hours. Any out of hours work will be subject to an OOHW Permit under the JHLOR EPL 21147. Noise modelling undertaken by RWDI, and included within the SMC CNVIS, indicates that the noise levels will at the nearest residential receiver would be 70dBA during tree removal works. The highly noise affected management level of $L_{Aeq15min}$ = 75dBA will not be exceeded. The medical imaging centre at 258 South Terrace Bankstown will be subject to noise levels of 75dBA under full tree removal scope. For tree removal works planned for the WE16 Possession (16-17th October 2021) JHLOR will take an approach where a reduced amount of plant and equipment will be utilised to limit noise to 65dBA externally at the facility during its operating hours (open 8:30am-12:30pm on Saturday only during weekends). Noise monitoring will be undertaken at the medical imaging facility to confirm noise levels associated with JHLOR works comply. JHLOR will also undertake consultation with the imaging centre in regards to the upcoming works.

It is also noted that JHLOR will conduct tree mulching during standard construction hours where possible.

Item 11

Access Track establishment/repair (site wide)

Access track work is expected to be minor and will consist of formalising the access to the MSB area and fixing any soft areas within existing access tracks throughout the alignment as required. Access tracks will be installed or upgraded by importing fill material such as road base or ballast and compacting the material to make it trafficable.

Compaction of any imported access track material will occur either by tracking over the material with plant (i.e. an excavator) or a small 4 tonne roller. In accordance with the TfNSW Construction Noise and Vibration Strategy safe working distance for vibratory activities, for a 4 tonne roller the minimum distance for cosmetic damage is 6m. Minimum distance for human comfort criteria is 20m. All access tracks will be greater than 20m for the nearest receiver, as such risk from vibration will be low.

Piling Pad Establishment

JHLOR will establish a piling pad to facilitate MSB works. This activity is similar to the establishment of access tracks and will have the same impact and environmental risks associated with it. Material will be imported to the MSB area and will be compacted to create a stable working platform for the piling rig that will construct the piles for the MSB.

A vibratory roller, up to 12tonne in size, will be used to compact the piling pad material. In accordance with the TfNSW Construction Noise and Vibration Strategy safe working distances for vibratory activities, for a 12 tonne roller the minimum distance for cosmetic damage is 15m. Minimum distance for human comfort criteria is 100m. The nearest receiver from the MSB site is approximately 30m. As such, the cosmetic damage criteria is unlikely to be exceeded. Human comfort criteria will be exceeded at 3 buildings; 2 & 4 West Terrace and 242 South Terrace, Bankstown. JHLOR would notify residents of any vibratory works and would undertake vibration monitoring. JHLOR would also only undertake these works during standard hours.

It is noted that a medical imaging centre is located in the vicinity of the Metro Service Building (approximately 30m away). JHLOR will undertake consultation with the facility and undertake vibration monitoring at the facility for vibratory works in accordance with the SMC CNVIS

Compaction works are expected to take less than 5 days and will be intermittent. As such, overall impacts are expected to be low.

	Plant List Plant and equipment anticipated to be used during the investigative works include: - 4 tonne vibratory roller - 12 tonne vibratory roller - Bogie - Excavators - Tippers - Light vehicles - Light towers - Elevated work platform - Crane - Hiab - Chainsaws - Tree Mulcher - Backhoe - Powered hand tools - Vacuum truck - Whacker packer General Note: Materials and plant will be delivered for the above works under Traffic Control Plans as required. Deliveries will also include site sheds and containers. Deliveries are included within the Noise Modelling within Appendix 7
Planned Commencement Date:	5th October 2021 Minor trimming and fence install within the North Terrace Carpark will occur from the 5th October. Delivery and install of site sheds will occur during the Sydney Trains 33kv high voltage outage over the WE16 Possession (16-17th October) Tree removal at will predominately occur over the WE16 possession (16-17th October) with contingency for the following WE17 possession (23-24th October). Some works, such as mulching will predominately occur midweek. Access road stabilisation will occur from the 5th October onwards as required, during standard construction hours. Construction is expected to commence 1st November 2021. The activities listed under this Pre-Construction Minor Works could occur up until the end of Southwest Metro Corridor Works in November 2022.
Local Sensitivities: Describe the presence (if any) of local sensitive environmental areas and community receptors	Bankstown Station is surrounded by the Bankstown City Plaza to the east and south, North Terrace to the north, and South Terrace further to the south-east. The station is located within the Bankstown town centre, which is a regional centre providing administrative, retail, business, and service functions for the Canterbury-Bankstown local government area. The Bankstown town centre includes a varied mix of land uses, and a number of community facilities, including Canterbury-Bankstown Council, Bankstown Library, and the Bankstown Arts Centre. Bankstown Central, a large shopping mall with about 300 stores and a floor area of about 85,800 square metres, is located about 160 metres to the north-east of the station. Bankstown Girls High School and Bankstown Public School are located to the south of the town centre, about 200 metres to the south of the station. Saint Euphemia College is located about 500 metres to the south-east of the station. Apartment blocks are located approximately 200m to the southeast of Bankstown Station on South Terrace with a medical centre located on the corner of South and West Terraces approximately 130m to the southeast of Bankstown Station.

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.

Documentation: 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, procedures, etc.).	• An ECM for the proposed works is included in Appendix 1. • An Environmental Risk Assessment Appendix 1 • JHLOR's unexpected finds procedure for contamination and acid sulphate soil is included in Appendix 2. • Community Notifications in Appendix 3. • Sydney Metro Unexpected Heritage Finds Procedure V2.0 is included in Appendix 5 • Traffic Control Plans in Appendix 6 • Noise modelling for the Minor Works in Appendix 7 • Ecologist pre-clearance survey in Appendix 8

Part 4: Workforce Notification

How will the environmental and community risks and associated mitigation measures of the proposed Minor Works be communicated to the contractor's workforce?	A site induction will be provided to all personnel working on the project site. The induction will include relevant environmental aspects and risks associated with works on the project site. Works will be undertaken in accordance with a SWMS or JSEA (depending on whether work meets the definition of High Risk Construction Works in accordance with Clause 291 WHS Regulation). SWMS and/or JSEAs will include the identification and assessment of environmental risks as related to the specific scope of works. SWMS will be reviewed by the JHLOR Environmental Manager or a competent person.

Part 5: Community Consultation

What community consultation has been undertaken already?	A notification has been sent to local businesses as of the 22/09/2021 detailing the closure of North Terrace Carpark for compound establishment.
What community consultation is planned to be undertaken?	The works will be included within subsequent monthly notifications and additional targeted notification as required. Any works to occur outside of standard construction hours will be notified in accordance with the Additional Mitigation Measure requirements specified in the Sydney Metro Construction Noise and Vibration Strategy. No works will occur unless it is included within a notification. The community and stakeholders will be advised of new activities or impacts no later than 7 days prior to commencement as per the Overarching Community Communications Strategy. Any notification will be prepared and approved by Sydney Metro based on information from JHLOR. Consultation for potential visual amenity impacts will be targeted to those affected receivers. JHLOR will consult with sensitive receivers regarding OOHW in accordance with CoA-E23. Sensitive receivers as identified within the EIS, will be consulted prior to works, including out of hours works.
If drafted already, attach applicable Community Notification as Appendix 3.	

Part 6: Contact Details

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

Name:	Paul Field	**Position:**	Project Leader	**Phone:**	0438 792 797
	Dan Keegan		Environmental Manager		0435 859 160
	Andie Pitsiatari		Community Place Manager		0429 378 336

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:	Daniel Keegan

Signature:		**Date:**	29/09/2021

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:	Neil Dix	FIL CERONE	Jo Heltborg
Date:	30/09/2021	30/9/21	30/09/2021
Comments:			*Supporting letter attached as Appendix 4 if necessary.*
Conditions:			*Supporting letter attached as Appendix 4 if necessary.*

☒	Approved (by TfNSW)
☒	Endorsed (by Environmental Representative)
☐	Rejected

Appendix 1: Cover Page

Environmental Risk Assessment and Environmental Control Map.

Environmental Risk Assessment

All environmental issues have been assessed in accordance with the table below:

Risk Assessment Rankings: >17 = Extreme 10 - 16 = High 5 - 9 = Medium 1 - 4 = Low

Environmental issues which have an initial risk ranking of Medium or High will require the development and implementation of Environmental Risk Action Plans. Issues which have an initial Extreme risk will require the development and implementation of an issue specific Sub-plan. The risks must be reassessed following the consideration of control measures. An owner for the implementation of the management measures must be nominated. Issues or activities that represent an Extreme risk after the application of control measures are not to be undertaken.

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating			Management of Residual Risk
		P X	C =	Risk		P X	C =	Risk	
Approvals and Licensing									
Not identifying appropriate approvals, licenses or permits required and proceeding without them.	Works delayed, infringements, prosecution, poor community relations and reputational loss.	2	4	8	▪ Review the project EIS, modification and statutory documentation for requirements relevant to the SMC works. Identify and implement approval requirements within the CEMP, Sub-plans and ERAPs. ▪ Check contract documentation. Identify and implement requirements from the Contract. ▪ Establish a register of approvals, licenses, permits. ▪ Pre-construction Compliance Report	1	4	4	Maintain Compliance Risk Matrix Undertake environmental audits as per Section 14 of this plan

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating			Management of Residual Risk
		P X	C =	Risk		P X	C =	Risk	
Noise									
Noise from general construction activities resulting in impact to residents.	Disturbance to residents or neighbouring businesses. Potential for complaints.	4	2	8	• Control measures as per SMC CNVMP and CNVIS are to be implemented. • Respond to community enquiries and complaints in accordance with Sydney Metro requirements and Community & Stakeholder Manager (Sydney Metro), control measures as per Community Consultation Strategy (CCS) are to be implemented. Consult with the community in relation to upcoming activities that may result in concern. • Monitor noise for compliance as the works progress at receiver locations. • Provide periods of respite for high noise generating activities. • Apply noise mitigation measures during entire project. • Noise efficient equipment to be used on site. • Maintain external noise level of 65dBA at medical imaging centre adjacent to work site during the facility's operating hours • Undertake works during standard construction hours where possible	3	2	6	Noise performance will be continually monitored as per the requirements of the Construction Noise and Vibration Management Plan. Where high impact noise is required, it will be restricted to the conditions of EPL 21147 with respite periods implemented.

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating			Management of Residual Risk
		P X	C =	Risk		P X	C =	Risk	
Vibration									
Vibration intensive activities undertaken on the site such as impact piling, vibratory rolling, etc.	Disruption, annoyance and nuisance to residents. Potential damage to adjacent residential and commercial residences and structures. Disruption to businesses as a result of vibration nuisance Impacts to vibration sensitive equipment	3	2	6	• Control Measures as per the CNVMP and CNVIS are to be implemented. • Determine vibration limits and structure/receiver offset distances. • Consult with potentially affected parties prior to commencement of works on their upcoming activities that may be impacted by construction vibration. • Ongoing vibration monitoring during vibration intensive works.	2	2	4	Standard and specific mitigation measures for sensitive receptors around the SMC works will be applied as per the Construction Nosie and Vibration Management Plan and the Construction Noise and Vibration Impact Statement.
Water Quality, Erosion & Sedimentation									
Sediment laden runoff from construction works leaving site.	Degradation of local watercourses. Increased turbidity in local water ways resulting in impact on aquatic life. Fines for sediment escaping site.	2	3	6	• Control Measures as per Soil and Water Management Plan and any Erosion and Sediment Control Plan to be implemented. • Install stormwater drainage protection within the project area. • Ensure measures are inspected and maintained as the works progress and also prior to and post rainfall events. • Provide training and awareness on the need to prevent pollution. • Relevant people to undertake Erosion and Sediment Control training.	1	3	3	Undertake regular inspections (including pre-rainfall inspections) of work areas pre, during and after works to ensure controls are in good condition.

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating			Management of Residual Risk
		P X	C =	Risk		P X	C =	Risk	
Stockpiling of vegetation and topsoil.	Wind and water erosion causing weed/seed dispersion offsite. Location of stockpiling next to waterways causing weeds/seeds to disperse from construction site.	2	3	6	• Develop Environmental Control Maps to show stockpile areas. • Manage Stockpiles in accordance with SWMP and ESCP • Utilise appropriate locations for stockpiling (away from waterways, watercourses, drains where feasible and reasonable). • Designated vegetation stockpiling areas. • Minimise stockpiling / Use temporary stockpiling • Cover stockpiles if left for extended periods. • No stockpiling of spoil within flood zones within the North Terrace compound at Bankstown within 3 days of potential storms	1	3	3	Implement stockpile controls prior to the work commencing. Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.
Non-compliant water from construction works discharged from site	Non-compliant water entering stormwater system waterways (i.e. polluting - not compliant with discharge criteria).	2	3	6	• Environmental Manager (or delegate) to approve all water discharges from site. • Induction and toolbox talks • Toolbox training on site procedures for water discharge and the Sydney Metro dewatering procedure • Educate site staff on licence conditions and consequences of prosecution	1	3	3	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating			Management of Residual Risk
		P X	C =	Risk		P X	C =	Risk	
Waste									
Waste disposal during construction.	Incorrect disposal of waste, further costs incurred for classifications and disposal, fines may be issued.	3	2	6	• Implement the controls within the Waste and Spoil ERAP. • Identify opportunities to incorporate recovered materials into the permanent works. • Provide facilities on site for source separation and recycling. • Ensure accurate waste records are retained. • Removal of wastes from the site would only be undertaken by a licensed contractor as required by the POEO Act and with appropriate approvals, if required, for contaminated materials, etc. • All material that requires off-site disposal to be appropriately tested and classified against the Waste Classification Guidelines (NSW EPA, 2014) including Resource Recovery Exemptions.	2	2	4	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition. Monitor and ensure reporting of all movements of waste from the worksite are recorded in the Waste and Spoil Register. Maintain copies of all disposal dockets and consignment authorisations

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating			Management of Residual Risk
		P X	C =	Risk		P X	C =	Risk	
Earthworks spoil disposal.	Incorrect classification of waste (spoil) resulting in incorrect / illegal disposal/re-use. Contamination of soil/water Failure to beneficially re-use waste materials	3	2	6	• Inductions, toolbox talks and training on recycling facilities and waste segregation practices. • Separation of waste on site. • Spoil excavated from North Terrace carpark area is to stockpiled separately and tested. • Tracking of disposal processes. • All contamination hotspots would be clearly marked in the field (where possible). Hot spots will be shown within contamination mapping and will be included in the Permit to Disturb process. • All material to be recovered off-site to be appropriately tested and classified and sent to a facility that can legally accept the waste classification.	2	2	4	Regular inspections of work areas Monitor and ensure reporting of all movements of waste form the worksite
Washout of concrete in undesignated areas.	Sediment laden/alkaline water polluting surrounding stormwater system / watercourses.	3	2	6	• Concrete washout areas clearly marked on Environmental Control Maps and delineated. • Inductions on designated concrete washout areas. • Subcontractor's agreements to include project compliant waste management principles.	1	2	2	Regular inspections of concrete washout areas and controls Regular removal of material from concrete washout areas prior to rain events

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating			Management of Residual Risk
		P X	C =	Risk		P X	C =	Risk	
Contamination									
Management of contaminated or untreated materials	Non-compliant material and contaminated water entering surrounding waterways. Decrease in health of nearby ecosystems. North Terrace carpark at Bankstown Station is a known petrol station site and has potential for contamination.	3	3	9	• Implement contamination management procedures and protocols from within CSWMP. • Identify any contamination hotspots and incorporate procedures for these locations into construction documentation. • Implement unexpected finds procedures. • Induct personnel on unexpected finds procedure. • Minimise excavation in the North Terrace carpark. Stockpile separately for testing and disposal to a licenced landfill.	2	3	6	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition. Monitor and ensure reporting of all movements of waste form the worksite

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating			Management of Residual Risk
		P X	C =	Risk		P X	C =	Risk	
Potential for discovery of unexpected contaminated material during construction / piling.	Health effects resulting from airborne contamination, e.g. asbestos. Complaints received from odours released during excavations. Classification of spoil is changed and disposal options altered, costs incurred associated with disposal of higher classification of waste.	2	3	6	• If contaminated soil is encountered, all works are to stop in the vicinity of the find and investigations commence. • Induct personnel on location, type, nature, concentration of contaminants on site if found. • Monitor piling spoil for unexpected contamination in accordance with the Unexpected Finds Procedure and separate as required.	1	3	3	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition. Complete regular toolbox talks on how to manage unexpected finds.
Encountering asbestos / contaminated material on site.	Inappropriate storage, transfer or disposal of materials causing further contamination.	3	3	9	• Inspections of excavated and filled surfaces would be made during construction to determine the presence of visible asbestos. • Conduct further site investigations to determine the presence and extent of contamination prior to construction works commencing • Contaminated soils would not be stockpiled on the structural fill layer or formation layers to avoid cross contamination. • Implementation of the Unexpected Finds Procedure • Monitor piling spoil for unexpected contamination in accordance with the Unexpected Finds Procedure and separate as required.	2	3	6	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition. Complete regular toolbox talks on how to manage unexpected finds.

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating			Management of Residual Risk
		P X	C =	Risk		P X	C =	Risk	
Hazardous Chemicals and Dangerous Goods (Hazardous Substances)									
Inappropriate storage of hazardous substances, leaking plant and equipment and spillage from refuelling.	Localised ground contamination / pollution of stormwater and requiring clean-up and/or receiving fines. Risk of igniting volatile substances. Unauthorised access to site / potential vandalism/damage leading to pollution.	3	3	9	• Induction, toolbox talks and training on appropriate handling and storage of liquids. • All storm water drains should be identified prior to works and protection installed. • Storage areas to be away from identified sensitive areas and appropriately bunded. • SDS approved prior to bringing hazardous substances on site including risk assessment. • Plans showing storage locations and associated controls e.g. spill kits, etc. (Environmental Control Maps). • Training in use of spill kits. • Contingency plans would be developed to deal with any spills which might occur during construction. • Clearly label containers. • Regular auditing and inspection of storage areas and materials. • Make storage areas restricted access areas. • Reduce/eliminate need for hazardous substances. • Ensure all work sites are secure before leaving the site.	1	3	3	Regular inspections of storage areas.

					• All liquids i.e. paint etc. are to be securely locked away at the end of each day.				

Fuel contaminated runoff from construction works leaving site	Fuel contaminated runoff entering stormwater or waterways (i.e. polluting - not compliant with discharge criteria).	3	3	9	• All storm water drains should be identified prior to works and controls implemented. • Appropriate bunding/storage of substances. • Toolbox on site procedures for sediment controls and chemical storage. • Educate site staff on project conditions and consequences of prosecution.	1	3	3	Regular inspections of works site to ensure all controls are in good health and working.
Biodiversity									
Vegetation trimming / clearing required outside approved work area.	Unauthorised works / removal of vegetation outside defined work area, possibility of removing threatened species, fines incurred.	2	3	6	• Implement the controls within ERAP 1 - Biodiversity • Induction and toolbox training on clearance zones and required protection measures • If vegetation, other than grass and weeds, needs to be trimmed or removed, further assessment would be undertaken, and approval sought from Sydney Metro prior to trimming or removal. • Inspections during clearing activities. • Fencing in place/ clear marking of trees to be retained and cleared / demarcation areas / plans showing clearing areas. • Preclearing checklist to be completed before any clearing of vegetation.	1	3	3	Implement Vegetation Removal Permit System. Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.

Clearing and grubbing of vegetation within work site.	Erosion of soils, uncontrolled runoff, sediment deposited into surrounding vegetated areas and water courses, and invasion of weeds. Wrong vegetation removed. Potential for injury to native fauna.	3	2	6	• Tree Report to be prepared and submitted in accordance with the MCoA. • Inductions and toolbox training on erosion and sediment controls. • Where possible works to be staged so environmental controls can be implemented after clearance works. • If vegetation, other than grass and weeds, needs to be trimmed or removed, further assessment would be undertaken, and approval sought from Sydney Metro prior to trimming or removal. A Tree Report is to be prepared for each tree to be removed or pruned. The Tree Report is to be submitted to DPIE before the removal or trimming of trees. • Consider impacts to visual amenity relating to vegetation removal. • Approved ESCPs in place prior to starting works.	2	2	4	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.
Loss, damage or injury to endangered or threatened species.	Removal, death, damage or injury to endangered or threatened species by plant and equipment	2	4	8	• Implement the controls within ERAP 1 – Biodiversity. • All personnel attending site will be advised of controls and management during the onsite induction. • A Toolbox talk will be carried out prior to ground disturbance /site clearing works to ensure onsite personnel are made aware of potential loss of endangered species	1	4	4	Implement Vegetation Removal Permit System. Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.

					• If vegetation, other than grass and weeds, needs to be trimmed or removed, further assessment would be undertaken in accordance with the Vegetation Removal Permit System. • If threatened flora or fauna species are identified on site, work in the vicinity of these species would stop immediately. spotter/catcher/botanist would be engaged to survey the site and advise on species management. • Follow recommendations within the Ecologist pre-clearance report regarding management of Australian Ibis (where possible) • Where applicable, mature trees and other native vegetation to be retained would be clearly delineated (and protected with fencing or other methods approved by and Arborist), with all construction activities excluded from these areas. • Preclearing checklist to be completed before any clearing of vegetation.				

Weeds	Weeds are not contained or are spread on or off-site	3	3	9	• Regular inspections of worksite for weeds • Segregate and weed impacted waste material and dispose of to a licenced facility • Inspect plant and machinery before entering and leaving worksite to ensure no dirt remains as it may cause weeds to spread. • Educate work force on common weeds within Bankstown rail corridor.	1	3	3	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.

Excavation near protected trees/vegetation	Damage to roots/root structures	3	3	9	• Site inspections to include review of protected tree/vegetation species during excavation works • Toolbox talks/training to include details of nearby protected species • Prior to commencing, trenching or excavation to be investigated if in the vicinity of protected species. Where possible excavation works will be modified to avoid damage to routes	2	2	4	Undertake regular inspections during excavation or trenching works.

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating			Management of Residual Risk
		P X	C =	Risk		P X	C =	Risk	
Air Quality									
General construction works; site establishment, excavations, piling	Dust activity near residential and commercial premises, complaints received.	3	2	6	• Implement the controls within the Air Quality ERAP (#4) • Toolbox training on Dust and Air Quality Management. • Provide dust mitigation measures through water sprays/misting as required. • Cover stockpiles that are not to be worked on for a period of greater than 10 days. • ESCPs approved before works commence. Controls are then reviewed for maintenance.	2	2	4	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.
Exhaust from plant and equipment.	Emissions resulting in air pollution.	3	2	6	• Inductions and toolbox training on Dust and Air Quality Management. • Well maintained plant/ equipment and pre-start checks and servicing. • Non-complaint vehicles removed from site / repaired.	2	2	4	Review plant check list prior to operating on site. Undertake verification checks a required.

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating			Management of Residual Risk
		P X	C =	Risk		P X	C =	Risk	
Heritage									
Unexpected heritage items encountered.	Work delays, additional studies, approvals required, damage to heritage item.	3	3	9	• Implement the controls within the CHMP • General inductions toolbox training on heritage management protocols. • Label any known heritage items on Environmental Control Maps. • If suspected heritage item encountered. Works to stop immediately and Environment Manager contacted. • Clearly highlight no-go zones on the ECM and communicate requirements to construction personnel during pre-start briefs, inductions and toolbox talks.	2	3	6	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition. Provide frequent toolbox talks on Unexpected Finds Procedure
Impact to Heritage Structures	Damage to station fabric and other heritage items by works and construction traffic. Visual impacts.	3	3	9	• General inductions toolbox training on heritage management protocols. • Label any known heritage items on Environmental Control Maps. • Work within the safe working distances nominated in the CNVMP and CNVIS. • Undertake vibration compliance monitoring as per the CNVMP.	2	3	6	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition. Provide frequent toolbox talks on managing change

					• Clearly highlight no-go zones on the ECM and communicate requirements to construction personnel during pre-start briefs, inductions and toolbox talks. • Demarcation of worksites and communicate it clearly with all construction personnel. • The method for the demolition of existing buildings and / or structures at the Project Site would be developed to minimise direct and indirect impacts to adjacent and / or adjoining heritage items.				
Acid Sulphate Soils									
Disturbance of Potential Acid Sulphate soils and Actual Acid Sulphate Soils during excavations.	Mobilisation of metals within runoff to levels toxic to natural systems. Release of acidic runoff.	2	2	4	• Assess risk for acid sulphate soils, and if the risk is determined to be high then implement the Acid Sulphate Soils Procedure. • Awareness training in the identification and management of ASS. • Provide containment and treatment facility on site. • Ensure ASS material is left under the water table, disposed off-site or appropriately treated in a bunded area with sump.	1	2	2	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating			Management of Residual Risk
		P X	C =	Risk		P X	C =	Risk	
Salinity									
	Mobilisation of saline groundwater and soils during construction to sensitive ecosystems	2	2	4	• Management measures in accordance with the *Site Investigations for Urban Salinity* (DLWC, 2002) will be incorporated into the works • Minimise water infiltration • Landscaping using native plants • Retention (where practicable) of deep-rooted vegetation • Minimising soil disturbance such as compaction, cut and fill • Inclusion of saline and sodic soils within ERSED Plans	1	2	2	▪ SMC works within saline areas considered to have limited impacts on soil with bulk earthworks around retaining wall 21 considered to be outside of the saline areas. ▪ Pile spoil to be stockpiled and disposed to a licenced waste facility
Traffic									
Loss of on-streetcar parking in adjacent residential streets and commercial areas during construction.	Loss of parking availability to adjacent residential and commercial properties could result in community complaints.	3	2	6	• Community notifications in accordance with Sydney Metro Community Consultation Strategy. • Site vehicles shall be parked within the rail corridor and not affect public parking area where possible • Develop Traffic Management Plan including Traffic control procedures.	2	2	4	Complete regular toolbox talks on how to minimise impacts in relation to traffic. Undertake regular inspections of worksite and adjacent streets. Supervisor and traffic controller to enforce traffic management requirements
General construction traffic disturbing public access between local roads.	Disturbance to local residents resulting in complaints being made, limited access, potential for delays at local road access	3	2	6	• Deliveries of plant and materials shall be undertaken outside of peak periods where possible • Site vehicles shall be parked within the rail corridor and not affect public parking areas	2	2	4	Complete regular toolbox talks on how to minimise impacts in relation to traffic. Undertake regular inspections of worksite and adjacent streets.

	points resulting in complaints.				• Scheduled road movements shall be minimised where possible • Oversized deliveries would be undertaken in accordance with the requirements of NSW Police or Roads and Maritime Services. • Approved Traffic Management Plans in consultation with relevant authorities. Detour routes to be advertised/ notified. • Approved access routes, detailed Traffic Control Plans. • Clear notifications / signage.				
Management of heavy vehicles / access routes.	Complaints from sensitive receivers due to increased level and frequency of noise.	3	2	6	• Deliveries of plant and materials shall be undertaken outside of peak periods where possible • Site vehicles shall be parked within the rail corridor and not affect public parking areas • Scheduled road movements shall be minimised where possible • Oversized deliveries would be undertaken in accordance with the requirements of NSW Police or Roads and Maritime Services. • Designated access routes. • Approved Traffic Management Plans. • Community Notifications. • Pedestrian management with traffic controller in place where required.	2	2	4	Complete regular toolbox talks on how to minimise impacts in relation to traffic. Permits from local council and/or RMS

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating			Management of Residual Risk
		P X	C =	Risk		P X	C =	Risk	
Truck deliveries out of normal working hours	Un-approved deliveries resulting in non-conformance with project requirements. Noise impact to community / potential complaints.	3	2	6	• Personnel training of noise awareness to community included in induction and toolboxes. • Induction on Construction Hours for deliveries. • Communication of delivery times to suppliers. • Community Notifications on project activities occurring locally. • Code of conduct / selection criteria in place for subcontractors. • Out of hours works approval where required • Approved traffic/access routes. • Planning and staging of works in approved hours as much as practical.	2	2	4	Delivery drivers provided with haulage routes prior to travelling to site and delivery times. Complete regular toolbox talks on how to minimise impacts in relation to traffic.
Pedestrian/Cyclist access	Loss or disruption of pedestrian and/or cyclist access around the project site	3	2	6	• Construction Traffic Management Plan to be in place • Traffic Control Plans to be in place • Clear signage • Appropriate barriers, fencing or other to direct pedestrians and cyclists	2	2	4	Regular inspections of work fronts

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating			Management of Residual Risk
		P X	C =	Risk		P X	C =	Risk	
Visual Amenity									
Building Materials Civil works Stockpiles Temporary construction sheds and storage containers Plant and equipment movement Lighting Trees and vegetation Temporary site compound buildings, including double stack	Surrounding aesthetic temporary (or permanently) altered during construction Lighting towers used during out of hours works may spill on nearby residents Impacts to residents in properties adjacent to compound areas	2	3	6	• The work area shall be maintained in an orderly manner • Lighting required during night works shall be directed towards the work area and are from adjacent sensitive receivers • Refer to Visual Amenity Management Plan • Shade cloth • Screening on double stack buildings where possible and in consultation with impacted residents.	1	3	3	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating			Management of Residual Risk
		P X	C =	Risk		P X	C =	Risk	
Utilities									
Utility management	Service strike leading to environmental degradation	3	3	9	• Develop and implement the Utilities Management Strategy in accordance with the Utilities Management Framework • Engage a Utilities Coordination Manager (UCM) to oversee the coordination of utility works across the project and with third part service providers. The UCM will collaborate with the Community and Stakeholder Manager, the Place Manager and, where required, the Community Complaint Mediator to mitigate impacts to the local community during utility works and to resolve any community complaints relating to utility works. • Implement a Permit to Disturb • Induction and toolbox talks • Detailed Site Survey to be managed by an appropriately qualified surveyor.	1	4	4	Permit to Disturb Service searching Detailed Site Survey management

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating			Management of Residual Risk
		P X	C =	Risk		P X	C =	Risk	
Bankstown Compounds - at North Terrace and the Metro Services Building site									
Community sensitive issues	Noise from compound Light pollution from the compound Impacts to trees Privacy/Visual amenity Archaeology	3	4	12	• Tree protection and signage • Shade cloth *It is noted that community consultation is ongoing and some control measures may change in response to this or as the project progresses	1	4	4	Toolbox talks to workers and staff on being sensitive to neighbours. Toolbox talks/pre-starts on archaeological management requirements
Flooding	Potential impacts from flooding	3	3	9	• Any site offices or ancillary facilities would be located on piers or stilts above the known 1% AEP flood level • Any laydown of materials or equipment will be temporary or raised out of potential flood levels. • Monitoring of extreme weather events • Removal of equipment and materials out of potential flood areas	1	2	2	

Environmental Risk Assessment Rankings

This table may be used as a guide in determining the level of risk for each environmental issue. For each identified issue, consider the 'maximum credible' (not absolute worst case) risk that could result with **minimal or no controls** other than existing and using normal construction practices.

Note: Any one of the listed consequences must result in the use of the applicable consequence grading.

Probability:	**Consequence:**
5 = Certain 4 = Likely 3 = Possible 2 = Unlikely 1 = Rare	5 = Severe 4 = Major 3 = Moderate 2 = Minor 1= Incidental
1- 4 Acceptable 5 - 9 Acceptable with control measures 10 - 16 Requires the implementation of best practice 17 and Above = UNACCEPTABLE	

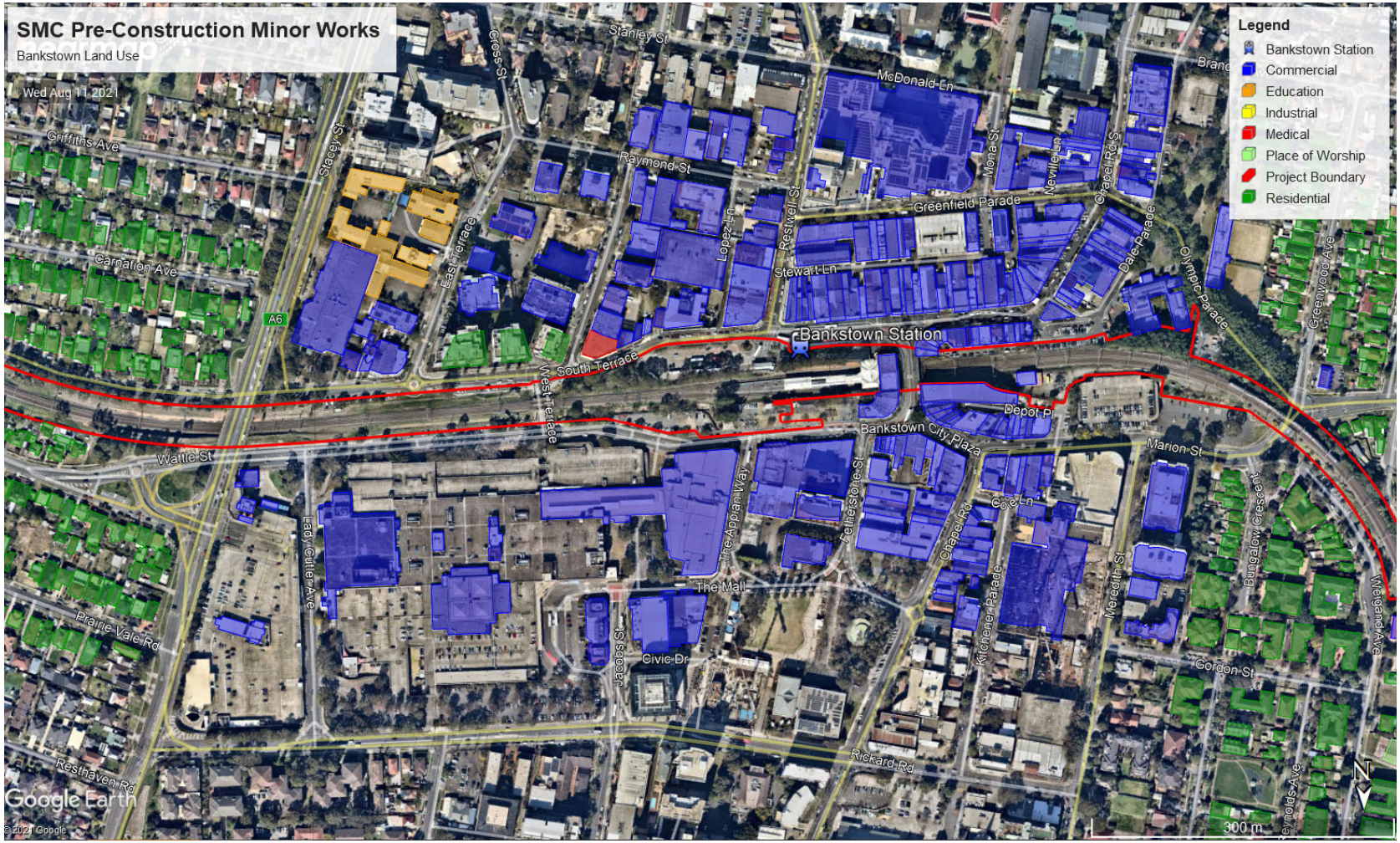
Likelihood (Probability and Frequency of Occurrence)			**Consequence (Outcome or Severity of Occurrence)**		
5	Certain	Common or repeating occurrence Consequence can reasonably be expected to occur in life of Project.	5	Severe	• Major pollution incident causing significant and widespread damage or potential to health or the environment • Persistent reduction in ecosystem function and value. • Ongoing disruption and loss of protected species. • Major prosecution likely, outcome in excess of $500,000
4	Likely	Known to have occurred / "has happened" Conditions may allow the consequence to occur on the Project during its lifetime The event has occurred within the Business Unit within the previous 5 years.	4	Major	• Significant widespread and persistent changes to habitat, species or environmental media • Significant pollution incident causing damage or potential damage to health or the environment external to the site. • Potential for prosecution. Potential outcome between $50,000 - $500,000 • Numerous substantial complaints • Actual material environmental harm
3	Possible	Could occur / "heard of it happening" Exceptional conditions may allow consequences to occur on the Project, or has occurred nationally within the Australian Business.	3	Moderate	• Localised irreversible habitat loss or effects on habitat, species or environmental media • Reportable incident to the relevant environmental regulator or other authority. • Demonstrated breach of legislative, licence or guideline requirements. • Likely infringement notice or fine, potential for prosecution up to $50,000. • Will cause complaints.
2	Unlikely	Not likely to occur	2	Minor	• Localised degradation of habitat or short term impacts to habitat, species or environmental media.

		Reasonable to expect that the consequence will not occur on the Project. Has occurred in industry but not in Business Unit.			• Pollution incident that marginally exceeds licence conditions or guidelines for acceptable pollution. • Fine unlikely. • Potential for complaints.
1	Rare	Practically impossible Not known to have occurred in industry or unheard of.	1	Incidental	• Localised or short term effects on habitat, species or environmental media. • Fully contained on site and can be fully remediated. Little potential for fine or complaints. • Insignificant or trivial incident

Probability ► ▼Consequence	CERTAIN 5	LIKELY 4	POSSIBLE 3	UNLIKELY 2	RARE 1
5 – Severe	25	20	15	10	5
4 – Major	20	16	12	8	4
3 – Moderate	15	12	9	6	3
2 – Minor	10	8	6	4	2
1 – Incidental	5	4	3	2	1

ECM of Bankstown activities

Land use


SMC Pre-Construction Minor Works
Bankstown Land Use
Wed Aug 11 2021
Legend
Bankstown Station
Commercial
Education
Industrial
Medical
Place of Worship
Project Boundary
Residential
Bankstown Station
South Terrace
West Terrace
Bankstown City Plaza
Depot Pl
Marion St
Wattle St
Griffiths Ave
Carnation Ave
Stacey St
Cross St
Stanley St
Raymond St
McDonald Ln
Greenfield Parade
Stewart Ln
Olympic Parade
Lady Cutler Ave
Prairie Vale Rd
Resthaven Rd
The Mall
Civic Dr
Rickard Rd
Gordon St
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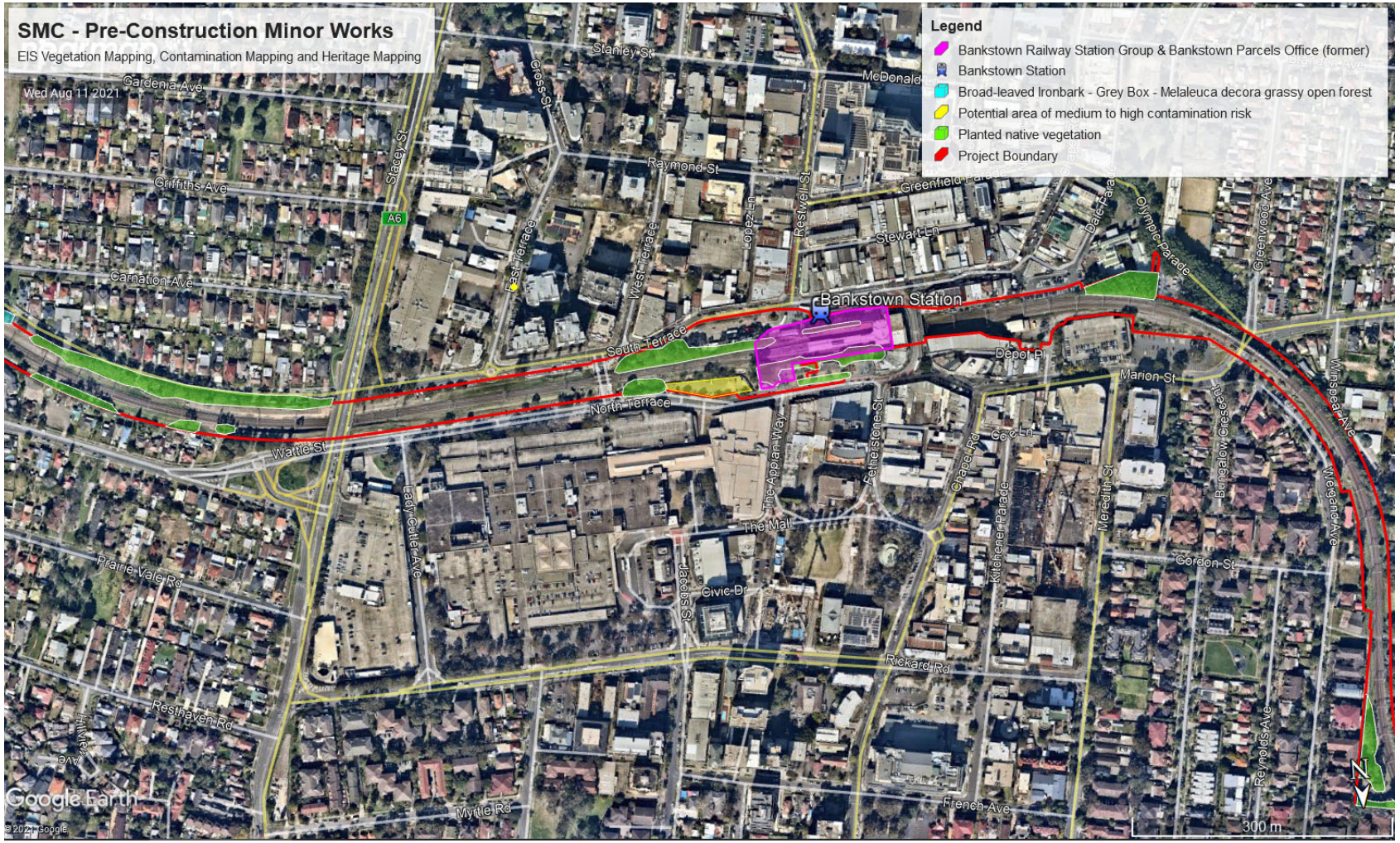
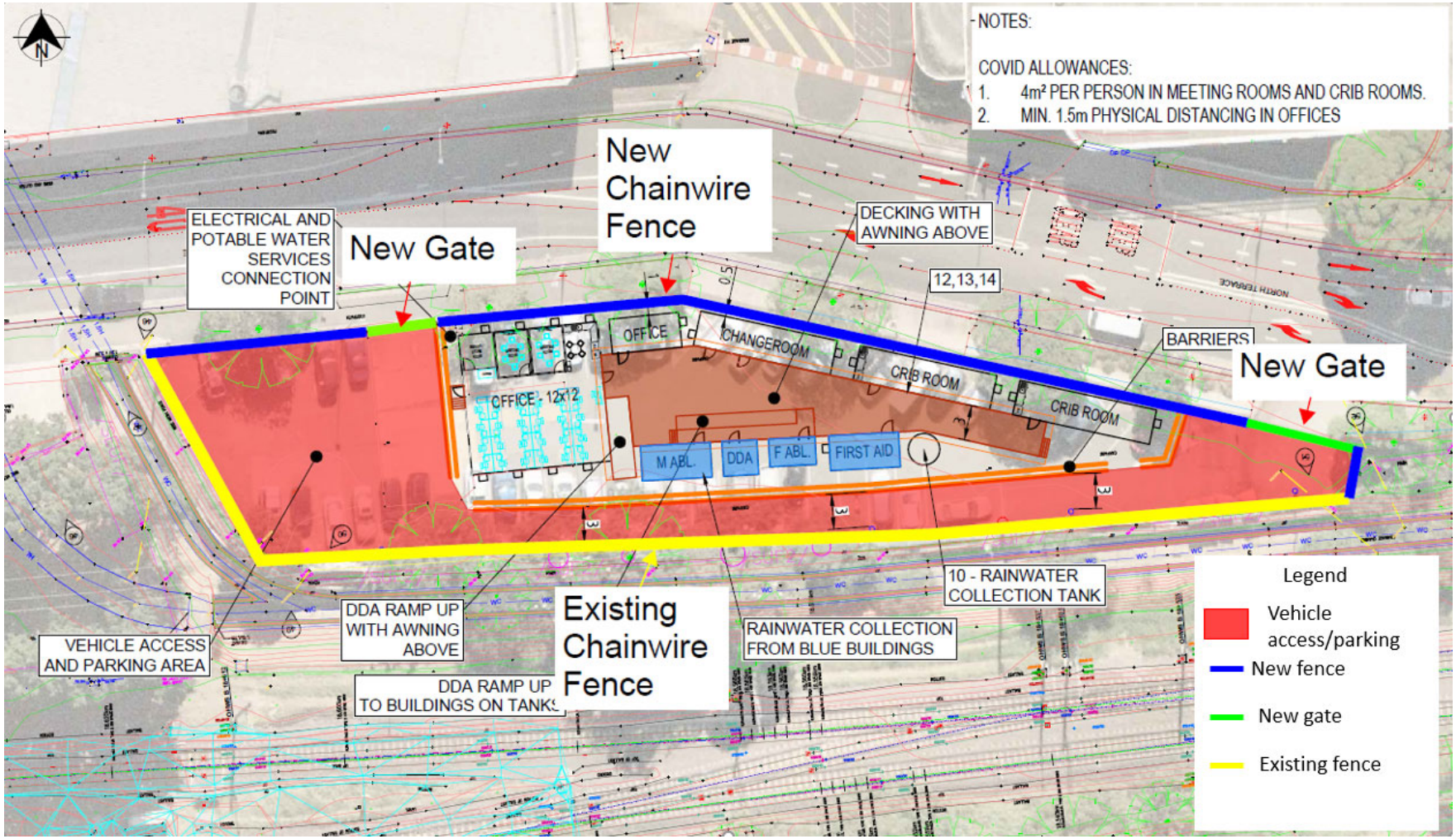
Mapping from EIS



Australian Ibis Habitat

Proposed compound layout – North Terrace Carpark



Appendix 2: Cover Page

Environmental Management Documentation.

Unexpected Contaminated Land Procedure and Asbestos Finds Procedure

INDUCTION/ TOOLBOX TALKS

All personnel are to receive Site Inductions and on-going training via Toolbox Talks

OBSERVATION OF SOIL DURING EXCAVATION WORKS

Observe soil during excavations to check for evidence of contamination.
Refer to second page of this procedure for examples of materials that could indicate presence of contamination.

Has evidence of contamination been observed?

YES

STOP WORKS

Notify the Site Supervisor and Environment Team and cordon off area
Do not touch or disturb the item/ material
Delineate the site of the find
Cover the contaminated material (may be stockpiled or in-situ)
The following detail should be provided to the Environment Team
– The location of the potential contamination
– Visual appearance
– Odour (if any)
– Depth
– Surround material and mode of discovering the material

NO

ADDITIONAL ASSESSMENT

If required, the Construction Manager is to obtain assistance from a suitably qualified environmental consultant in identifying the potential hazard to human health or the environment in accordance with legislative requirements. This may include sampling and laboratory analysis.

MANAGEMENT STRATEGY

- Develop a plan for managing and/ or remediating the suspect material. This may be a waste classification or remediation action plan
- Obtain any necessary futher approval(s)

STRATEGY IMPLEMENTATION

- Implement the approved management and/ or remediation. If the material is to be removed, refer to Waste Management Procedure (SMEW-EP-Waste Management Procedure) for classification and disposal.
- If required, The Environmental Consultant having input to the Management Strategy, will perform or oversee any monitoring required for the works (e.g. air quality monitoring, odours). Validation of the remediated area will also be undertaken as appropriate. The Environmental Consultant will also ensure that any contaminated material that has been removed or left in-situ is managed appropriately.
- Document compliance with the approved management and remediation and provide documentation to the owner or the owner's nominated representative, and the regulator (if required).

CONTINUE EARTHWORKS

Once the contamination find has been addressed the Construction Manager is to approve recommencement of works.

RESPONSIBILITY

- INDUCTION/ TOOLBOX TALKS: ENVIRONMENT TEAM, CONSTRUCTION TEAM
- OBSERVATION OF SOIL DURING EXCAVATION WORKS: CONSTRUCTION TEAM
- Has evidence of contamination been observed?: CONSTRUCTION TEAM, ENVIRONMENT TEAM, SITE SUPERVISOR
- ADDITIONAL ASSESSMENT: CONSTRUCTION MANAGER, ENVIRONMENTAL CONSULTANT
- MANAGEMENT STRATEGY: ENVIRONMENT TEAM, ENVIRONMENTAL CONSULTANT
- STRATEGY IMPLEMENTATION: ENVIRONMENT TEAM, CONSTRUCTION TEAM, ENVIRONMENTAL CONSULTANT
- CONTINUE EARTHWORKS: CONSTRUCTION MANAGER

EVIDENCE OF CONTAMINATION

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Acid Sulfate Soils (ASS)
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Management and Disposal of Contaminated Material
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Appendix 3: Cover Page

Community Notification.

NSW GOVERNMENT | sydney METRO

City & Southwest

Keeping you informed

Sydney Metro has a program of works in and around the Bankstown area. Early work will commence in October 2021 with site establishment and installation of site sheds in North Terrace commuter car park along North Terrace between The Appian Way and West Terrace, Bankstown. The car park will be temporarily closed to the public while works are on-going.

I am a representative of the Southwest Metro Community Team. If you'd like more information or want to receive regular email updates regarding the project please contact me and you will be included to the distribution list.

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

My contact information

Name Andie Pitsiatari

Email Andie.Pitsiatari@jhlorjv.com.au

Phone 0429 378 336

Date 22-Sep-2021

Translating and Interpreting Service

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.

Se avete bisogno dell'ausilio di un interprete, vi preghiamo di contattare il **Servizio di Traduzione ed Interpretariato** al numero **131 450** e chiedere di chiamare **Sydney Metro** al numero **1800 612 173**. L'interprete vi assisterà nella traduzione.

আপনার, একজন দোভাষীর (ইন্টারপ্রেটার) সেবা-সাহায্য আবশ্যক হলে, অনুগ্রহ করে **131 450** নং এ **ট্রান্সলেটিং এন্ড ইন্টারপ্রেটিং সার্ভিস** এর সাথে যোগাযোগ করুন, এবং **1800 171 386** নং এ **সিডনী মেট্রো** কে কল করতে **তাদের বলুন**। তখন **অনুবাদ**/ভাষান্তরে, দোভাষী আপনাকে সাহায্য করবে।

如果您需要翻译服务，请致电131 450 翻译和口译服务，让他们打 1800 171 386给 悉尼地铁， 翻译员然后将帮助您进行翻译。

إذا كنتم بحاجة إلى خدمات مترجم، يرجى **الاتصال بخدمة الترجمة الكتابية والشفهية** على الرقم **131 450** واطلبوا منهم الاتصال **بمترو سيدني على الرقم 1800 171 386**. وبعد ذلك سيقوم المترجم بمساعدتكم في الترجمة.

Εάν χρειάζεστε τις υπηρεσίες διερμηνέα, παρακαλείστε να επικοινωνήσετε με την **Υπηρεσία Μεταφραστών και Διερμηνέων** στο **131 450** και ζητήστε τους να καλέσουν το **Sydney Metro** στο **1800 171 386**. Ο διερμηνέας θα σας βοηθήσει στη μετάφραση.

통역서비스가 필요하시면, 번역 및 통역 서비스 **(Translating and Interpreting Service)** 전화 **131 450** 에 연락하시어 **Sydney Metro** 전화 **1800 171 386** 에 연결해달라고 요청하십시오. 통역관이 통역을 도와 드릴 것입니다.

Nếu quý vị cần dịch vụ thông dịch viên, xin liên lạc **Dịch vụ Thông Phiên Dịch (Translating and Interpreting)** ở số **131 450** và yêu cầu gọi **Sydney Metro** ở số **1800 171 386**. Sẽ có thông dịch viên giúp cho quý vị việc thông dịch.

यदि आपको दुभाषिए की सेवाओं की ज़रूरत है, तो कृपया अनुवाद एवं दुभाषिया सेवा **(Translating and Interpreting Service)** से **131 450** पर संपर्क करें और उन्हें सिडनी मेट्रो **1800 171 386** पर को फोन करने का निवेदन करें। फिर दुभाषिया अनुवाद में आपकी मदद करेगा।

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如果您需要口譯員的服務，請致電131 450聯絡翻譯和口譯服務，要求他們致電1800 171 386給悉尼地鐵 (Sydney Metro)。然後口譯員將會協助您翻譯。

Appendix 4: Cover Page

Environmental Representative Supporting Letter.

Appendix 5: Unexpected Heritage Finds Procedure

Sydney Metro Unexpected Heritage Finds Procedure

[SM-18-00105232]

Sydney Metro Integrated Management System (IMS)

Applicable to:	Sydney Metro
Document Owner:	Author/Document owner
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1. Purpose

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

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

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

In NSW, there are strict laws to protect and manage heritage objects and relics. As a result, appropriate heritage management measures need to be implemented to minimise impacts on heritage values; ensure compliance with relevant heritage notification and other obligations; and to minimise the risk of penalties to individuals, Sydney Metro and its contractors. This procedure includes Sydney Metro's heritage notification obligations under the Heritage Act, NPW Act and the Coroner's Act 2009 and the requirements of the conditions of approval(CoA) issued by NSW Department of Planning and Environment.
Note that a Contractor must not amend the Sydney Metro Unexpected Finds Procedure without the prior approval of Sydney Metro.

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

1.1. Legislation that does not apply

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

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

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

2. Scope

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

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

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

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

3. Definitions

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

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

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

Director	Excavation Directors (July 2011) to oversee and advise on matters associated with historic archaeology. Note this applies to a specific project/program and requires consultation and/or approval by OEH.
Heritage Act	NSW *Heritage Act 1977*
NPW Act	NSW *National Parks and Wildlife Act 1974*
OEH	Office of Environment and Heritage
SM	Sydney Metro
Relic (non-Aboriginal heritage)	A relic means any deposit, artefact, object or material evidence that: a) relates to the settlement of the area that comprises NSW, not being Aboriginal settlement, and b) is of State or local significance. A relic may include items such as bottles, utensils, remnants of clothing, crockery, personal effects, tools, machinery and domestic or industrial refuse.
TfNSW	Transport for New South Wales
Work (non-Aboriginal heritage)	Archaeological features such as historic utilities or buried infrastructure that provide evidence of prior occupations such as former rail or tram tracks, timber sleepers, kerbing, historic road pavement, fences, culverts, historic pavement, buried retaining walls, cisterns, conduits, sheds or building foundations, but are also subject to assessment by the Excavation Director to determine its classification

4. Types of unexpected heritage items and corresponding statutory protections

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

Appendix 1 illustrates the wide range of heritage discoveries found on Sydney Metro projects and provides a useful photographic guide. Subsequent to confirmation of a heritage discovery it must then be identified and assessed by Excavation Director. An 'unexpected heritage item' means any unanticipated discovery of an actual or potential heritage item, for which Sydney Metro does not have approval to disturb[2] and/or have an existing management process in place.

These discoveries are categorised as either:

(a) Aboriginal objects

(b) Historic (non-Aboriginal) heritage items

(c) Human skeletal remains.

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

4.1. Aboriginal objects

The NPW Act protects Aboriginal objects which are defined as:

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

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

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

IMPORTANT!

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

If any impact is expected to an Aboriginal object, an AHIP is usually required from OEH Also, when a person becomes aware of an Aboriginal object they must notify the Director-General of OEH about its location[4]. Assistance on how to do this is provided in Section 7 (Step 5).

4.2. Historic heritage items

Historic (non-Aboriginal) heritage items may include:

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

4.2.1. Archaeological relics

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

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

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

IMPORTANT!

All relics are subject to statutory controls and protections.

If a relic is likely to be disturbed, a heritage approval is usually required from the NSW Heritage Council[6]. Also, when a person discovers a relic they must notify the NSW Heritage Council of its location[7].

4.2.2. Other historic items

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

[3] Section 5(1) NPW Act.
[4] This is required under section 89(A) of the NPW Act and applies to all Sydney Metro projects.
[5] Section 4(1) Heritage Act.

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

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

4.3. Human skeletal remains

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

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

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

IMPORTANT!

<u>All</u> human skeletal remains are subject to statutory controls and protections.

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

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

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

5. Legislative Requirements

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

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

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

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

Table 1 Legislation and guidelines for management of unexpected heritage finds

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

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

6. Unexpected heritage finds protocol

6.1. What is an unexpected heritage find?

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

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

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

6.2. Managing unexpected heritage finds

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

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

IMPORTANT!

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

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

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

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

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

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

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

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

7. Responsibilities

Table 3 Roles and Responsibilities

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

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

8. Seeking Advice

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

9. Related documents and references

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

10. List of appendices

The following appendices are included to support this procedure:

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

11. Document history

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

Appendix 1: Examples of finds encountered during construction works

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

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

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

Photo 4 Sandstone pavers uncovered at Balmain East, 2016

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

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

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

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

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

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

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

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

Appendix 2 - Unexpected heritage item recording form

Example of unexpected heritage item recording form:

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

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

Important
It is a statutory offence to disturb Aboriginal objects and historic relics (including human remains) without an approval. All works affecting objects and relics must cease until an approval is sought. **Approvals may also be required to impact on certain works.**

Appendix 3 - Photographing unexpected heritage items

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

Context and detailed photographs

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

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

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

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

Photographing distinguishing features

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

Figure 3: Ceramic bottle artefact with stamp.

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

Photographing bones

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

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

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

Figure 5: Bone concealed by foliage.

Figure 6: Bone covered in sediment

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

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

Figure 7: Photograph showing complete bone.

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

Appendix 4 - Uncovering bones

This appendix provides advice regarding:

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

1. First uncovering bones

Refer to the Sydney Metro Exhumation Management Plan

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

On the very rare occasion where it is immediately obvious from the remains that they are human, the Project Manager (or a delegate) should **inform the police by telephone** prior to seeking specialist advice. It will be obvious that it is human skeletal remains where there is no doubt, as demonstrated by the example in Figure 1[9]. Often skeletal elements in isolation (such as a skull) can also clearly be identified as human. Note it may also be obvious that human remains have been uncovered when soft tissue and/or clothing are present.

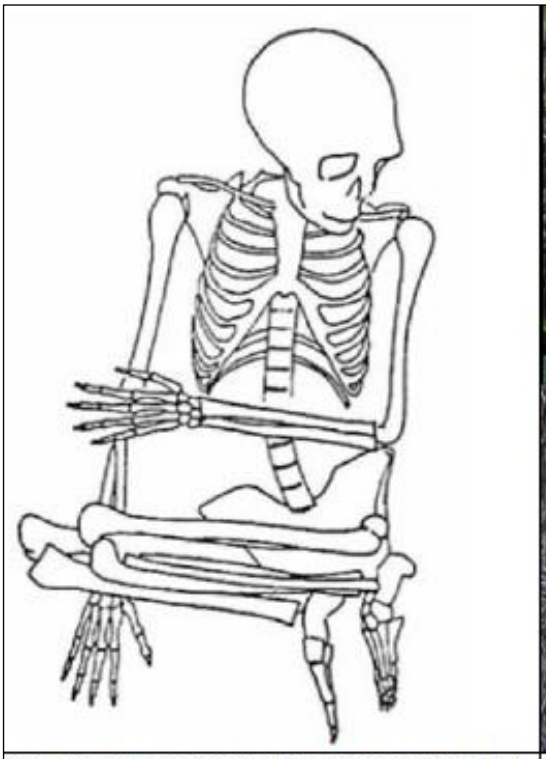


Figure 1: Schematic of a complete skeleton that is 'obviously' human [12].

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

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

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

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

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

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

2. Range of human skeletal notification pathways

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

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

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

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

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

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

Action
The OEH (Heritage Division) must be notified immediately

Figure 3 summarises the notification pathways on finding bones.

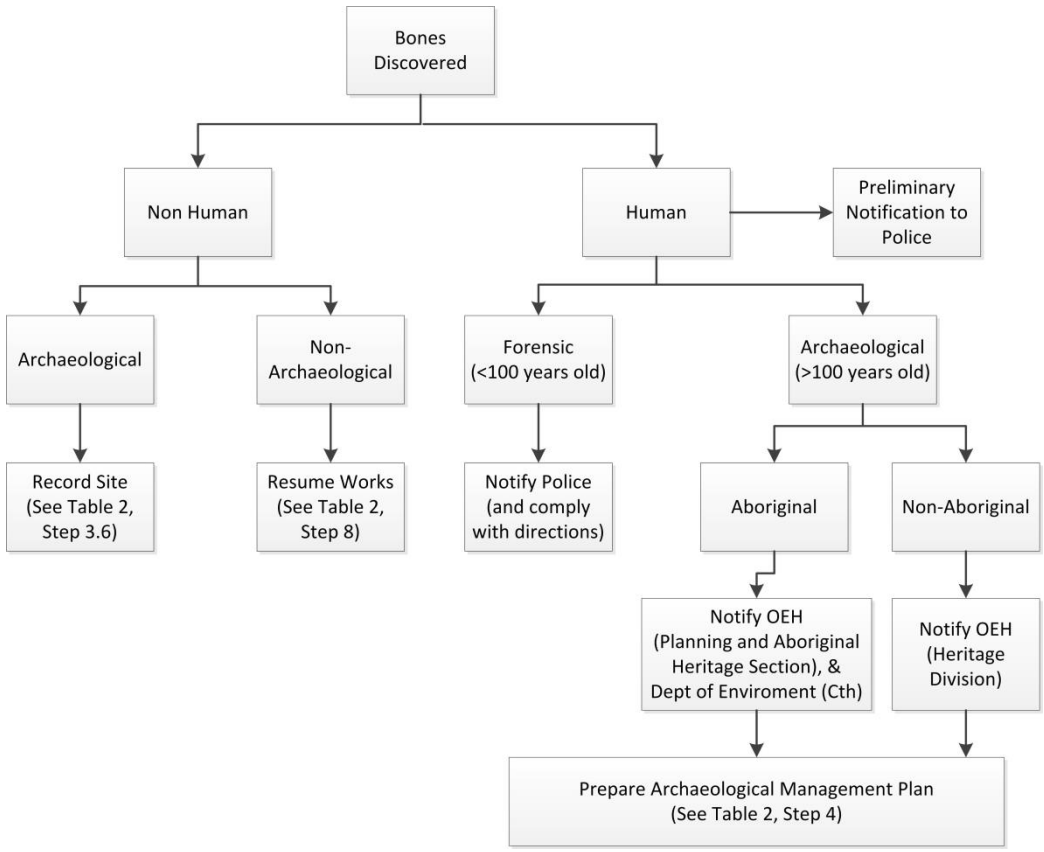


Figure 3 Overview of steps to be undertaken on the discovery of bones

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

3. Additional considerations and requirements

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

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

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

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

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

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

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

Appendix 5 - Archaeological/heritage advice checklist

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

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

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

Appendix 6 - Template notification letter

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

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

[Select and type salutation and name],

Re: Unexpected heritage item discovered during Sydney Metro activities.

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

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

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

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

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

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

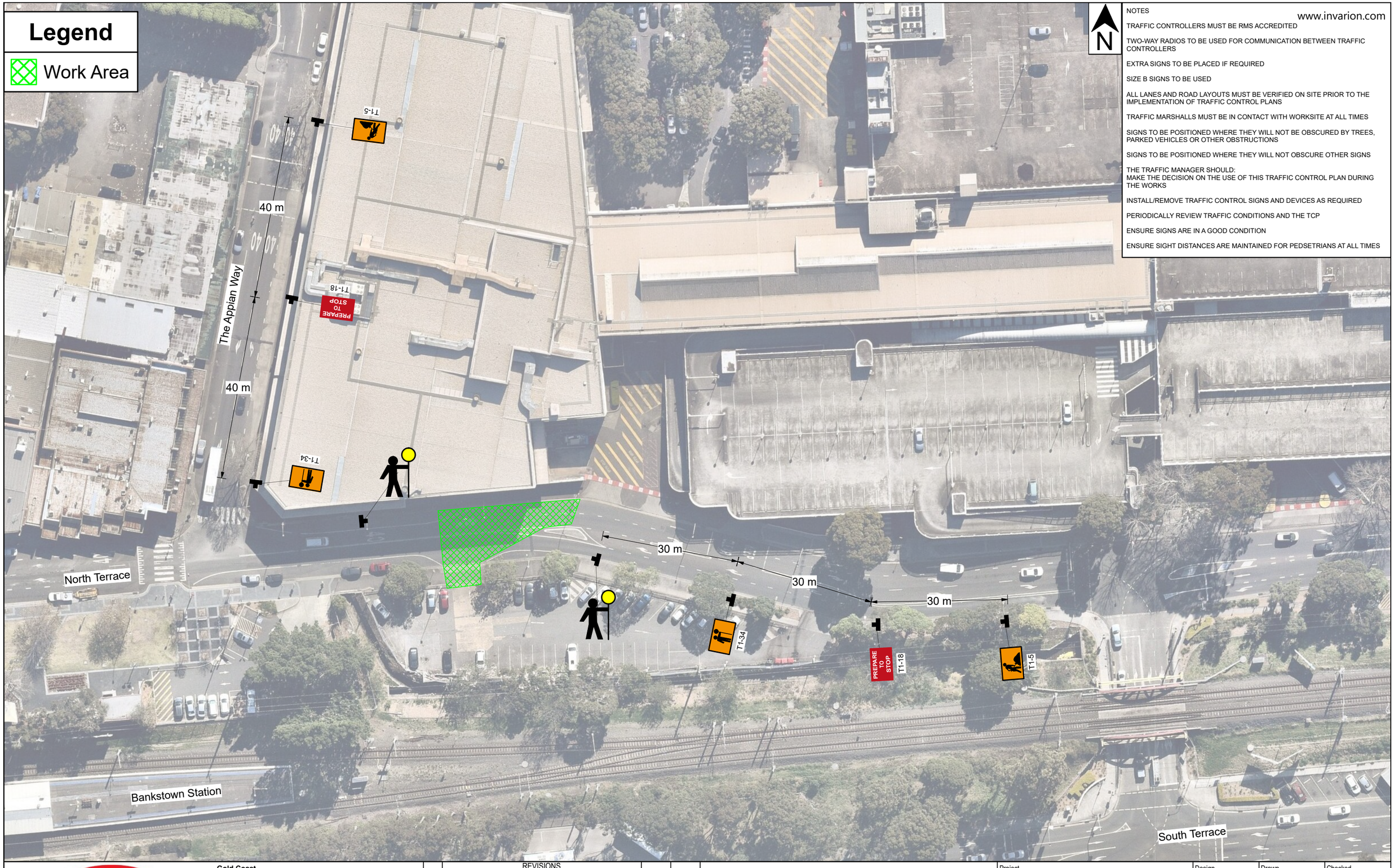
Should you have any feedback on the proposed approach, or if you require any further information, please do not hesitate to contact [Environment and Planning Project Manager] on (02) XXXX XXXX.

Yours sincerely

[Sender name]

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

Appendix 6: Traffic Control Plans



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P: (02) 9557 6202

REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL TCP	M.H	17/09/21

APPROVED

ALEX GREY
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

Alex Grey

Project: BANKSTOWN STATION CTMP		
Title: MAIN COMPOUND AV ACCESS		
Design: M.H	Drawn: M.H	Checked: A.G
FOR CONSTRUCTION		Date: 17/09/2021
Project Number: P3519	Sheet Number: 1	Issue: 001

www.invarion.com

N

Legend

Cone

North Terrace

Bankstown

Bankstown City Plaza

Bankstown City Plaza

South Terrace

South Terrace

West Terrace

Restwell Street

BUS ONLY

40

40

T8-2 (R)

T8-3

USE OTHER FOOTPATH

PEDESTRIANS

ROADWORK AHEAD

T1-1

T2-6-1

T8-2 (L)

T8-3

USE OTHER FOOTPATH

PEDESTRIANS

END ROADWORK

T2-16

END ROADWORK

T2-16

PEDESTRIAN DETOUR

PEDESTRIAN DETOUR

NOTES

TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED

TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS

EXTRA SIGNS TO BE PLACED IF REQUIRED

SIZE B SIGNS TO BE USED

ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS

TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES

SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS

SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS

THE TRAFFIC MANAGER SHOULD:
MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS

INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED

PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP

ENSURE SIGNS ARE IN A GOOD CONDITION

ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDSETRIANS AT ALL TIMES

BITZIOS consulting

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E: admin@bitziosconsulting.com.au
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Studio 203, 3 Gladstone Street, Newtown NSW 2042
P: (02) 9557 6202

Issue	REVISIONS Revisions/Descriptions	Drawn	Date
001	INITIAL TCP	M.H	17/09/21

APPROVED

ALEX GREY
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

Alex Grey

Project: BANKSTOWN STATION CTMP	Design: M.H	Drawn: M.H / Checked: A.G
	FOR CONSTRUCTION	Date: 17/09/2021
Title: WE16 LANE CLOSURE AND PEDESTRIAN DETOUR	Project Number: P3519	Sheet Number: 2 / Issue: 001

NOTES

TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED

TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS

EXTRA SIGNS TO BE PLACED IF REQUIRED

SIZE B SIGNS TO BE USED

ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS

TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES

SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS

SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS

THE TRAFFIC MANAGER SHOULD:
MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS

INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED

PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP

ENSURE SIGNS ARE IN A GOOD CONDITION

ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDSETRIANS AT ALL TIMES

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Issue	REVISIONS Revisions/Descriptions	Drawn	Date
001	INITIAL TCP	M.H	17/09/21

APPROVED

ALEX GREY
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

Alex Grey

Project: BANKSTOWN STATION CTMP

Title: PEDESTRIAN DETOUR

Design	Drawn	Checked
M.H	M.H	A.G

FOR CONSTRUCTION

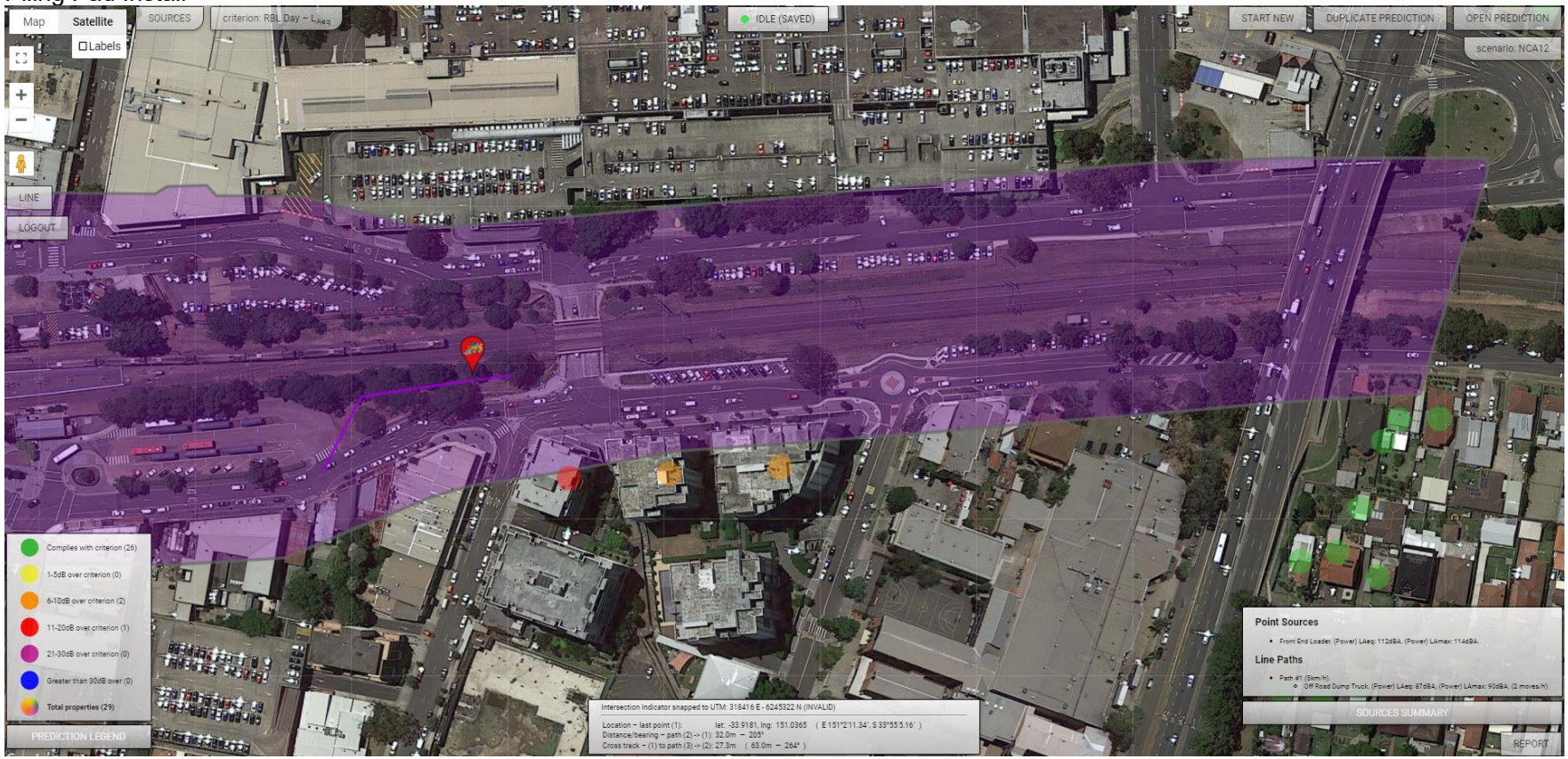
Date: 17/09/2021

Project Number	Sheet Number	Issue
P3519	3	001

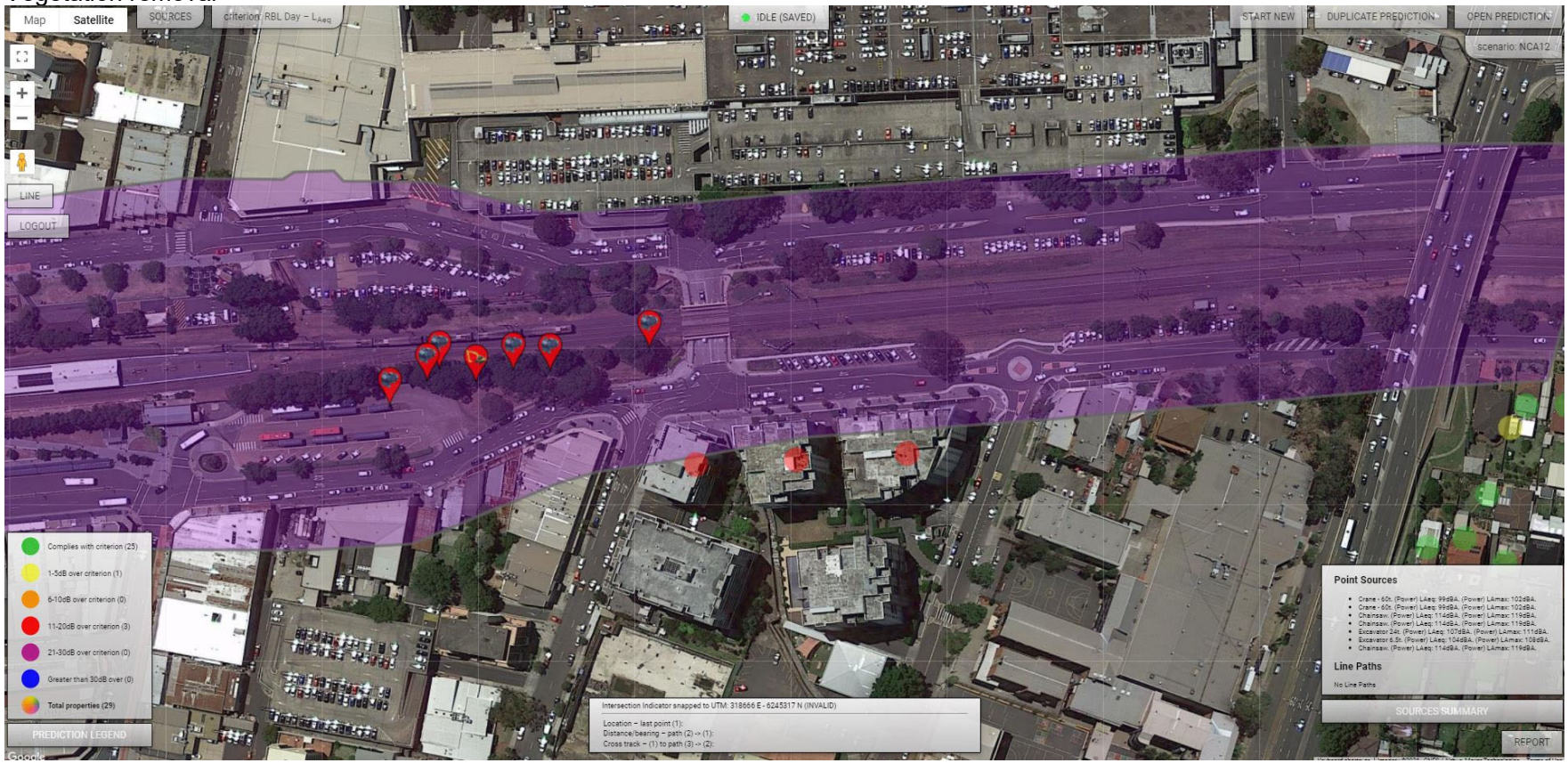
Appendix 7: Noise Modelling

Compound Set up North Terrace Carpark

Piling Pad Install



Vegetation removal



Appendix 8: Ecologist Pre-Clearance

28 September 2021

Daniel Keegan
Environment Manager
John Holland Laing O'Rourke Joint Venture
100a Marrickville Road
Marrickville NSW 1475

Cumberland Ecology
PO Box 2474
Carlingford Court 2118
NSW Australia
Telephone (02) 9868 1933
ABN 14 106 144 647
Web: www.cumberlandecology.com.au

Pre-clearance Assessment: Bankstown Station

Dear Daniel,

Cumberland Ecology was commissioned by John Holland and Laing O'Rourke Joint Venture on behalf of Sydney Metro to undertake a pre-clearance assessment to facilitate services for of the Sydney Metro – City and Southwest – Sydenham to Bankstown Project (the 'project').

The pre-clearance assessment was undertaken on 23 September 2021. The pre-clearance assessment involved the inspection of vegetation that is to be pruned/removed as part of the project for potential habitat. Potential habitat includes decorticating bark, man-made structures, hollows, nests, as well as the presence of native threatened species, populations and/or ecological communities listed under the NSW *Biodiversity Conservation Act 2016* and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

The results of the pre-clearance assessment are provided in **Appendix A** and supporting figures are located at the end of this letter. Should you have any queries, please do not hesitate to contact me in our office on 02 9868 1933.

Yours sincerely,

Mikael Peck
Senior Project Manager/ Ecologist
Mikael.peck@cumberlandecology.com.au

APPENDIX A :

Pre-clearance Assessment

A.1. Introduction

Cumberland Ecology was commissioned by John Holland and Laing O'Rourke Joint Venture on behalf of Sydney Metro to undertake a pre-clearance assessment to facilitate services for the Sydney Metro – City and Southwest – Sydenham to Bankstown Project (the 'project).

The pre-clearance assessment was undertaken within two separate sections. One section is located between Bankstown Station and West Terrace (see **Figure 1**) and the second section is located to the northwest of Bankstown Station within Brancourt Reserve East (see **Figure 2**). The section within Brancourt Reserve East is proposed to be utilised as a laydown area for the project. Both sections are referred to collectively as the 'subject site' and occur within, and adjacent to the south-west rail corridor.

A.2. Purpose

The purpose of the pre-clearance assessment was to meet project approval REMM B2 which states the following:

Pre-clearing surveys and inspections for endangered and threatened flora and fauna species would be undertaken by qualified ecologist prior to any clearing occurring. The survey sand inspections, and any subsequent relocation species, would be undertaken in accordance with the measures provide in the biodiversity assessment report.

In order to satisfy project approval REMM B2, a pre-clearance assessment of the subject site was undertaken to search for the occurrences of:

- Habitat features suitable for native fauna that will require supervision during clearance/removal works; and
- Presence of threatened ecological communities (TECs) threatened flora and fauna listed under the NSW *Biodiversity Conservation Act 2016* (BC Act) and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

A.3. Methodology

A site inspection was undertaken by an ecologist on 23 September 2021. The inspection involved traversing the subject site on foot and visually inspecting the areas where vegetation disturbance is proposed. A .kmz file was provided to the attending ecologist in advance of the site inspection in order to assist with the identification of locations to be disturbed by the project.

Field notes regarding the general condition and composition of the vegetation within the subject site were made. This included documenting the location of all vegetation to be disturbed with particular attention to native shrubs and trees, threatened species, and any habitat features that could be utilised by native fauna. Photographs were taken at various locations of proposed disturbance to document the general condition and composition of the vegetation within the subject site.

A discussion was undertaken with John Holland Laing O'Rourke staff as required to ascertain the level of clearing (overstorey, understorey, groundcover), the nature of clearing (trimming, removal, etc.) and the extent of clearing within the subject site where disturbance works are to be located.

A.4. Key Findings

A.4.1. Vegetation Communities

All vegetation within the subject site exists as isolated narrow linear patches of vegetation that are exposed to a high degree of edge effects being bound by the rail corridor and/or developed areas. Most of the subject site has been previously cleared and contains areas with planted native and exotic vegetation. None of the vegetation to be impacted was previously mapped as part of the Native Vegetation of the Sydney Metropolitan Area project (OEH 2013).

The subject site consists of a canopy of planted native (but mostly non-endemic) species including *Corymbia maculata* (Spotted Gum), *Lophostemon confertus* (Brush Box), *Grevillea robusta* (Silky Oak), *Melaleuca quinquenervia* (Broad-leaved Paperbark) and *Eucalyptus microcorys* (Tallowood). Exotic canopy species present include *Cinnamomum camphora* (Camphor Laurel), *Schinus molle* (Pepper Tree), *Lagerstroemia indica* (Crepe Myrtle) and *Platanus* x *hispanica* (London Plane).

The midstorey is comprised primarily of exotic species including *Ligustrum lucidum* (Large-leaved Privet) and *Lantana camara* (Lantana). The ground layer has previously been cleared and is dominated by either mown grass or exotic groundcovers including *Asparagus aethiopicus* (Ground Asparagus) in areas.

Cinnamomum camphora (Camphor Laurel) and *Ligustrum lucidum* (Broad-leaved Privet) are listed as 'other weeds of regional concern' under the *Biosecurity Act 2015* as identified in the *Greater Sydney Regional Strategic Weed Management Plan 2017-2022* (LLS: Greater Sydney 2019) and *Lantana camara* (Lantana) and *Asparagus aethiopicus* (Ground Asparagus) are all listed as 'state priority weeds' under the Biosecurity Act.

A.4.2. Fauna Habitat

Within the subject site, fauna habitat recorded included numerous 'active' Australian White Ibis (*Threskiornis moucca*) nests within six separate areas located from Bankstown Station to West Terrace (see **Figure 1**). The Australian White Ibis is not listed under the BC Act or EPBC Act. Nests observed included both juvenile and adult birds (see **Photographs 1** and **2**). The locations of the Australian White Ibis nest recorded are identified in **Figure 1** as well as **Table 1**.

With the exception of the six separate areas of Australian White Ibis nests, the remainder of the subject site comprises only foraging habitat for common, mobile, urban adapted species in the form of flowering plants. An artificial drainage line is also present within the subject site around Bankstown Station, but it is not considered to provide fauna habitat as it entirely concrete and only has water after periods of heavy rain.

Photograph 1 Australian White Ibis nests circled in red (see H6 in Figure 1)

Photograph 2 Australian White Ibis nests – circled in red (see H4 in Figure 1)

A.4.3. Impacts on Vegetation

The project will result in the removal of 49 native trees and 28 exotic trees, as well as the pruning of eight native trees and two exotic trees. It is noted that additional trees may need to be removed/pruned for the proposed laydown area within Brancourt Reserve East (see **Figure 2**); however, an arborist report has not been completed for this area to date. None of the vegetation within the subject site is listed as a threatened species or TEC under the BC Act or EPBC Act. The details of the vegetation assessed are provided in **Table 1** as well as the project's Arboricultural Impact Assessment Report (Urban Arbor 2021).

Table 1 Details of vegetation assessed

Tree ID	Species	Native/Exotic	Proposed Impact	Fauna Habitat
1532	*Eucalyptus microcorys*	Native	Remove	
1533	*Eucalyptus microcorys*	Native	Remove	
1534	*Eucalyptus microcorys*	Native	Remove	
1535	*Eucalyptus microcorys*	Native	Remove	
1536	*Melaleuca styphelioides*	Native	Remove	
1555	*Melaleuca styphelioides*	Native	Remove	Australian White Ibis nests (see H1 in **Figure 1**)
1537	*Melaleuca styphelioides*	Native	Remove	
1538	*Eucalyptus microcorys*	Native	Remove	
1539	*Melaleuca styphelioides*	Native	Remove	
1540	*Eucalyptus microcorys*	Native	Remove	
1541	*Angophora costata*	Native	Remove	
1542	*Eucalyptus saligna*	Native	Remove	
1543	*Corymbia maculata*	Native	Remove	
1544	*Eucalyptus microcorys*	Native	Remove	
1545	*Eucalyptus microcorys*	Native	Remove	
1546	*Eucalyptus microcorys*	Native	Remove	
1547	*Corymbia maculata*	Native	Remove	
1548	*Melia azedarach*	Native	Remove	
1549	*Eucalyptus microcorys*	Native	Remove	
1550	*Melaleuca styphelioides*	Native	Remove	
1551	*Melaleuca styphelioides*	Native	Remove	
1552	*Corymbia maculata*	Native	Remove	
1553	*Eucalyptus microcorys*	Native	Remove	
1554	*Eucalyptus microcorys*	Native	Remove	
1556	*Corymbia maculata*	Native	Remove	
1557	*Corymbia maculata*	Native	Remove	

Tree ID	Species	Native/Exotic	Proposed Impact	Fauna Habitat
1558	*Corymbia maculata*	Native	Remove	
1559	*Corymbia maculata*	Native	Remove	
1560	*Corymbia maculata*	Native	Remove	
1561	*Corymbia maculata*	Native	Remove	
1562	*Corymbia maculata*	Native	Remove	
1563	*Corymbia maculata*	Native	Remove	
1564	*Corymbia maculata*	Native	Remove	
1565	*Corymbia maculata*	Native	Remove	
1566	*Corymbia maculata*	Native	Remove	
1567	*Corymbia maculata*	Native	Remove	
1568	*Corymbia maculata*	Native	Remove	
1569	*Lophostemon confertus*	Native	Remove	
1570	*Platanus x hispanica*	Exotic	Retain	
1571	*Platanus x hispanica*	Exotic	Retain	
1572	*Platanus x hispanica*	Exotic	Retain	
1573	*Platanus x hispanica*	Exotic	Retain	
1574	*Magnolia grandiflora*	Exotic	Remove	
1575	*Ulmus glabra*	Exotic	Remove	
1576	*Ulmus glabra*	Exotic	Remove	
1577	*Ulmus glabra*	Exotic	Remove	
1578	*Lagerstroemia indica*	Exotic	Remove	
1579	*Lagerstroemia indica*	Exotic	Remove	
1580	*Lagerstroemia indica*	Exotic	Remove	
1581	*Lagerstroemia indica*	Exotic	Retain	
1582	*Lagerstroemia indica*	Exotic	Retain	
1583	*Lagerstroemia indica*	Exotic	Retain	
1584	*Magnolia grandiflora*	Exotic	Retain	
1585	*Magnolia grandiflora*	Exotic	Retain	
1586	*Magnolia grandiflora*	Exotic	Retain	
1587	*Magnolia grandiflora*	Exotic	Retain	
1588	*Magnolia grandiflora*	Exotic	Retain	
1589	*Corymbia maculata*	Native	Remove	
1590	*Corymbia maculata*	Native	Remove	
1591	*Corymbia maculata*	Native	Remove	
1592	*Corymbia maculata*	Native	Retain	

Tree ID	Species	Native/Exotic	Proposed Impact	Fauna Habitat
1593	*Corymbia maculata*	Native	Retain	
1594	*Corymbia maculata*	Native	Retain	
1595	*Corymbia maculata*	Native	Retain	
1596	*Corymbia maculata*	Native	Retain	
1597	*Corymbia maculata*	Native	Retain	
1598	*Corymbia maculata*	Native	Retain	
1599	*Corymbia maculata*	Native	Retain	
1600	*Corymbia maculata*	Native	Retain	
1601	*Corymbia maculata*	Native	Retain	
1602	*Corymbia maculata*	Native	Retain	
1603	*Corymbia maculata*	Native	Retain	
1604	*Corymbia maculata*	Native	Retain	
1605	*Corymbia maculata*	Native	Retain	
1606	*Corymbia maculata*	Native	Retain	
1607	*Corymbia maculata*	Native	Retain	
1608	*Corymbia maculata*	Native	Retain	
1609	*Corymbia maculata*	Native	Retain	
1610	*Corymbia maculata*	Native	Retain	
1611	*Corymbia maculata*	Native	Retain	
1612	*Corymbia maculata*	Native	Retain	
1613	*Corymbia maculata*	Native	Retain	
1614	*Corymbia maculata*	Native	Retain	
1615	*Ulmus glabra*	Exotic	Retain	
1616	*Ulmus glabra*	Exotic	Retain	
1617	*Lagerstroemia indica*	Exotic	Retain	
1618	*Lagerstroemia indica*	Exotic	Retain	
1619	*Eriobotrya japonica*	Exotic	Retain	
1620	*Pyrus ussuriensis*	Exotic	Retain	
1621	*Pyrus ussuriensis*	Exotic	Retain	
1622	*Pyrus ussuriensis*	Exotic	Retain	
1623	*Pyrus ussuriensis*	Exotic	Retain	
1624	*Pyrus ussuriensis*	Exotic	Retain	
1625	*Pyrus ussuriensis*	Exotic	Retain	
1626	*Platanus x hispanica*	Exotic	Retain	
1627	*Strelitzia nicolai*	Exotic	Retain	

Tree ID	Species	Native/Exotic	Proposed Impact	Fauna Habitat
1628	*Melaleuca quinquenervia*	Native	Retain	
1629	*Melaleuca quinquenervia*	Native	Retain	
1630	*Melaleuca quinquenervia*	Native	Retain	
1631	*Melaleuca quinquenervia*	Native	Retain	
1632	*Melaleuca quinquenervia*	Native	Retain	
1633	*Melaleuca quinquenervia*	Native	Retain	
1634	*Melaleuca quinquenervia*	Native	Retain	
1635	*Melaleuca quinquenervia*	Native	Retain	
1636	*Melaleuca quinquenervia*	Native	Retain	
1637	*Melaleuca quinquenervia*	Native	Retain	
1638	*Pittosporum undulatum*	Native	Remove	
1639	*Pyrus ussuriensis*	Exotic	Retain	
1640	*Lagerstroemia indica*	Exotic	Retain	
1641	*Lagerstroemia indica*	Exotic	Retain	
1642	*Pyrus ussuriensis*	Exotic	Retain	
1643	*Platanus x hispanica*	Exotic	Retain	Australian White Ibis Nests (see H2 in **Figure 1**)
1644	*Platanus x hispanica*	Exotic	Retain	
1645	*Pyrus ussuriensis*	Exotic	Retain	
1646	*Pyrus ussuriensis*	Exotic	Retain	
1647	*Platanus x hispanica*	Exotic	Retain	
1648	*Pyrus ussuriensis*	Exotic	Retain	
1649	*Platanus x hispanica*	Exotic	Retain	
1650	*Melaleuca quinquenervia*	Native	Remove	
1651	*Melaleuca quinquenervia*	Native	Remove	
1652	*Melaleuca quinquenervia*	Native	Remove	
1653	*Melaleuca quinquenervia*	Native	Remove	
1654	*Melaleuca quinquenervia*	Native	Remove	
1655	*Melaleuca quinquenervia*	Native	Remove	Australian White Ibis Nests (see H3 in **Figure 1**)
1656	*Pyrus ussuriensis*	Exotic	Retain	
1657	*Pyrus ussuriensis*	Exotic	Retain	
1658	*Platanus x hispanica*	Exotic	Retain	
1659	*Celtis sinensis*	Exotic	Remove	
1660	*Cinnamomum camphora*	Exotic	Remove	

Tree ID	Species	Native/Exotic	Proposed Impact	Fauna Habitat
1661	*Cinnamomum camphora*	Exotic	Remove	
1662	*Lagerstroemia indica*	Exotic	Remove	
1663	*Lagerstroemia indica*	Exotic	Remove	
1664	*Lagerstroemia indica*	Exotic	Remove	
1665	*Lagerstroemia indica*	Exotic	Remove	
1666	*Lagerstroemia indica*	Exotic	Remove	
1667	*Lagerstroemia indica*	Exotic	Remove	
1668	*Lagerstroemia indica*	Exotic	Remove	
1669	*Lagerstroemia indica*	Exotic	Remove	
1670	*Pyrus ussuriensis*	Exotic	Remove	
1671	*Platanus x hispanica*	Exotic	Remove	
1672	*Ficus macrocarpa* var. *hillii*	Exotic	Retain	
1673	*Ficus macrocarpa* var. *hillii*	Exotic	Remove	
1674	*Cinnamomum camphora*	Exotic	Retain	
1675	*Cinnamomum camphora*	Exotic	Retain	
1676	*Lophostemon confertus*	Native	Prune	
1677	*Grevillea robusta*	Native	Prune	
1678	*Celtis sinensis*	Exotic	Prune	
1679	*Celtis sinensis*	Exotic	Remove	
1680	*Lophostemon confertus*	Native	Prune	
1681	*Lophostemon confertus*	Native	Prune	
1682	*Lophostemon confertus*	Native	Prune	
1683	*Lophostemon confertus*	Native	Prune	
1684	*Lophostemon confertus*	Native	Prune	Australian White Ibis Nests (see H4 in **Figure 1**)
1685	*Cinnamomum camphora*	Exotic	Prune	
1686	*Grevillea robusta*	Native	Prune	
1687	*Celtis sinensis*	Exotic	Remove	
1688	*Celtis sinensis*	Exotic	Remove	
1689	*Melaleuca quinquenervia*	Native	Remove	
1690	*Cinnamomum camphora*	Exotic	Retain	
1691	*Celtis sinensis*	Exotic	Retain	
1692	*Celtis sinensis*	Exotic	Remove	
1693	*Celtis sinensis*	Exotic	Remove	

Tree ID	Species	Native/Exotic	Proposed Impact	Fauna Habitat
1694	*Pyrus* sp.	Exotic	Retain	
1695	*Lophostemon confertus*	Native	Retain	
1696	*Corymbia maculata*	Native	Retain	
1697	Unknown sp.	Exotic	Retain	
1698	*Pittosporum undulatum*	Native	Retain	
1699	*Lophostemon confertus*	Native	Retain	
1700	*Schinus molle*	Exotic	Retain	Australian White Ibis Nest (see H5 in **Figure 1**)
1701	*Lophostemon confertus*	Native	Retain	
1702	*Cinnamomum camphora*	Exotic	Remove	
1703	*Phoenix canariensis*	Exotic	Remove	Australian White Ibis Nest (see H6 in **Figure 1**)
1704	*Ligustrum lucidum*	Exotic	Retain	
1705	*Lophostemon confertus*	Native	Retain	

A.4.4. Impacts on Fauna Habitat

The project will result in the removal Australian White Ibis nests at four locations (see H1, H3, H4 and H6 in **Table 1** and **Figure 1**). An additional two locations containing Australian White Ibis nests will be retained, but are in close proximity to clearing works proposed.

In addition to the removal of Australian White Ibis nests, the project will remove foraging habitat for commonly occurring, mobile urban adapted species. None of the habitat to be removed is considered to be important for the long-term survival of any threatened species known to occur in the locality (5 km radius of the subject site).

A.5. Recommendations

Recommendations based on the findings of the pre-clearance assessment are outlined below. It is expected that any clearance works undertaken within the subject site are done in accordance with any relevant approvals and protocols.

A.5.1. Threatened Flora

There are no recommendations for threatened flora as no individuals are proposed to be impacted by the project.

A.5.2. Fauna Habitat

It is recommended that an ecologist be present to supervise the removal of any vegetation in close proximity to the six areas identified as having active Australian White Ibis nests (refer to **Figure 1**). Areas of vegetation proposed to be removed that contain Australian White Ibis nests (refer to H1, H3, H4 and H6 in **Table 1** and **Figure 1**), should implement the following clearing protocols.

1. If possible, prior to clearing works, it is recommended to install bright halogen lighting (or something similar) above nests proposed to be removed in an attempt to have individuals vacate the nests to be removed and move into nearby nests to be retained. Lights should be installed at a minimum of two nights prior to clearing and be left on throughout the evening hours.
2. Prior to clearing works, a WIRES carer should be contacted to determine if they have staff available to be on-site during the clearing works in order to care for any injured and/or young individuals displaced by the works;
3. An elevated work platform should be utilised to aerially inspect all nests proposed to be removed. During the inspection, any young birds/eggs (unable to fly) will be captured and transferred; either to the attending WIRES carer, or into an adjacent unoccupied nest proposed to be retained.
4. Following the transfer of young birds/eggs as identified in step two above, the vegetation containing the nests can be removed under the supervision of the attending ecologist.

It is further recommended to barricade/fence off all areas surrounding the vegetation clearing works so that any birds that inadvertently fall from the nests can be easily captured and not run onto adjacent roads

A.5.3. Weeds

Due to the presence of weeds (including species listed under the Biosecurity Act), it is recommended that all exotic vegetation removed not be reused within or adjacent to the subject site as mulch. All cleared exotic vegetation and topsoil within these areas are to be disposed of at an approved green waste facility and in accordance with guidelines identified in the *Greater Sydney Regional Strategic Weed Management Plan 2017-2022* (LLS: Greater Sydney 2019).

A.6. Conclusion

The project requires the removal of 49 native and 28 exotic trees, as well as the pruning of an additional eight native trees and two exotic trees. None of the vegetation to be impacted is listed as a TEC under the BC Act or EPBC Act. Within the vegetation to be impacted exists four separate areas that contain active Australian White Ibis nests. All other areas to be impacted offer little ecological value other than potential foraging habitat for urban tolerant, native fauna species.

No threatened flora species were observed during the site inspection and none are likely to occur due to the degraded nature of the subject site.

No threatened fauna are likely to be dependent on the vegetated habitat within the subject site to be impacted. Therefore, the proposed vegetation clearance works are unlikely to impact on any threatened fauna species that may utilise the subject site periodically as part of a much broader foraging range.

If all mitigation measures recommended in ***Section A.5*** are implemented, the project is unlikely to have a significant impact on any of the biodiversity values of the subject site or surrounding areas.

A.7. References

Urban Arbor. 2021. Arboricultural Impact Assessment Report. Site Location: South West Metro, Bankstown Station, Bankstown NSW. Revision C.

LLS: Greater Sydney. 2019. Greater Sydney Regional Strategic Weed Management Plan 2017 - 2022 - Revised September 2019. Local Land Services NSW.

OEH (2013). The Native Vegetation of the Sydney Metropolitan Area. Sydney, Office of Environment and Heritage.

FIGURES

Legend

- Subject Site
- Location of Australian White Ibis Nests

Image Source:
Image © Nearmap (2021)
Dated: 26/01/2021

Coordinate System: MGA Zone 56 (GDA 94)

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0 50 m

I:\...\18093\Figures\Letter 31\20210927\Figure 1. The subject site

Figure 1. The subject site (Bankstown Station to West Terrace)

Legend

Subject Site

Image Source:
Image © Nearmap (2021)
Dated: 26/01/2021

Coordinate System: MGA Zone 56 (GDA 94)

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0 20 m

I:\...\18093\Figures\Letter 31\20210927\Figure 2. The subject site_Brancourt

Figure 2. The subject site (Brancourt Reserve East)