

## 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  |   |
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| <b>Contractor:</b>   | John Holland & Laing O'Rourke joint venture (JHLOR)   |
| <b>Project:</b>  | Sydenham Station and Junction   |
| <b>Application Title:</b><br>(e.g. Smith St trenching works)   | Design Investigation works – site wide  |
| <b>Application Number:</b>   | SSJ-PCMW-001  |
| <b>Application Date:</b>   | 17/11/2017  |
| <b>Planning Approval:</b>  | The Sydney Metro City and Southwest – Chatswood to Sydenham - Environmental Impact Statement<br>The Sydney Metro City and Southwest - Environmental Impact Statement – Sydenham Station and Sydney Metro Trains Facility South Modification Report<br>The Sydney Metro City and Southwest - Environmental Impact Statement – Sydenham Station and Sydney Metro Trains Facility South Modification Submissions Report  |
| <b>Minor Works Categories:</b><br><ul style="list-style-type: none"> <li>Highlight as applicable.</li> <li>If Items 4, 8 or 11 are applicable, this form must be endorsed by an Environmental Representative.</li> </ul> | <ol style="list-style-type: none"> <li>Survey, survey facilitation and investigations works (including road and building dilapidation survey works, drilling and excavation).</li> <li>Treatment of contaminated sites.</li> <li>Establishment of ancillary facilities (excluding demolition), including construction of ancillary facility access roads and providing facility utilities.</li> <li>Operation of ancillary facilities that have minimal impact on the environment and community.</li> <li>Minor clearing and relocation of vegetation (including native).</li> <li>Installation of mitigation measures, including erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments.</li> <li>Property acquisition adjustment works, including installation of property fencing and utility relocation and adjustments to properties.</li> <li>Utility relocation and connections.</li> <li>Maintenance of existing buildings and structures.</li> <li>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.</li> <li>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.</li> </ol> |
| <b>Planning Authority Determination:</b><br>Will the proposed works affect or have the potential to affect heritage items, threatened species,   | <p><i>If 'Yes', this completed form must be endorsed by an Environmental Representative, approved by TfNSW and submitted to the applicable planning authority to determine that the works are not defined as 'construction'.</i></p> <p>No – in accordance with the information presented within the EIS and Modification Report there will be no impacts associated with the works that will affect heritage</p>   |

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| populations or endangered ecological communities? | items, threatened species, populations or endangered ecological communities. |
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**Part 2: Details**

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| <p><b>Describe the proposed Minor Works:</b></p> <p>Including work methodologies, site location(s) and site description(s) (e.g. landscape type, waterways, etc.).</p> | <p><b><u>Site Description Overview</u></b></p> <p>As the proposed minor works described below may be undertaken across the entire site, a general description of the site is provided within this overview. This overview is based on information from the EIS, Modification Report and Modification Submissions Report.</p> <p>The site is a typical rail site with track, rail and ballast extending from Bedwins Road Bridge at the city end and branching out past Sydenham Station towards Tempe Station on the T4 line, Marrickville Station on the T3 line and the XPT Maintenance Facility.</p> <p>There are a number of buildings and structures on the site including the State Heritage listed Sydenham Station and the Sydenham Pit and Pump Station. Other buildings and structures include the XPT Maintenance Facility, the Geotechnical Site Office and the Sydenham Signal Control Centre.</p> <p>Vegetation on the site includes grasses, shrubs, weeds and planted street trees.</p> <p>The site includes the Sydenham Pit, which receives water from the local Marrickville catchment. A concrete channel, known as the “Eastern Channel”, runs through the site from north to south and discharges stormwater from the wider catchment and the Sydenham Pit to the Cooks River. There is a number of drainage pits located throughout the site, including a number of pits located within the track.</p> <p>The area is surrounded by a mixture of industrial/commercial properties and residential properties. There are no major arterial roads in the vicinity of the project.</p> <p><b><u>Survey works</u></b></p> <p>Hand held survey equipment will be used to undertake survey of the project site to inform design. Survey will be undertaken across the site.</p> <p>The survey team will be instructed to not remove any vegetation or break any tree branches.</p> <p>Traffic control and Road Occupancies Licences will be put in place as required.</p> <p><b><u>CCTV Pipe Inspections</u></b></p> <p>CCTV inspections will be undertaken on a number of pipes and culverts throughout the project site and within the immediate surrounds. The works will involve a remote controlled camera that will traverse pipes and culverts, relaying images to a van.</p> <p>Traffic control and Road Occupancies Licences will be put in place as required.</p> <p><b><u>Service Searching</u></b></p> <p>Non Destructive Digging by hand digging and vacuum trucks will occur for the purpose of locating existing services. Service searching must occur to inform design and for identifying risks associated with geotechnical testing excavations. Service searching may be undertaken site wide (apart from within the heritage curtilage for Sydenham Station and the Sydenham Pit) and within the immediate surrounds.</p> <p>No trees are to be removed or pruned as part of this work. The area is to be stabilised following any works. Any water used during the works will be controlled and will not leave the project site or enter any stormwater pit or channel.</p> <p>Plant will be positioned away from sensitive receivers where possible. Workers will assess their works on an ongoing basis in view of minimising noise.</p> <p>Traffic control and Road Occupancies Licences will be put in place as required.</p> <p><b><u>Geotechnical Investigations</u></b></p> <p>This includes hand digging and the use of drill rigs, augurs and small excavators to undertake geotechnical investigations. For the purpose of this application geotechnical investigations includes contamination investigations. Geotechnical investigations may be undertaken site wide (apart from within the heritage curtilage for Sydenham Station and the Sydenham Pit) and within the immediate surrounds.</p> <p>No trees are to be removed or pruned as part of this work. The area is to be stabilised following any works. Any water used during the works will be controlled and will not leave the project site or enter any stormwater pit or channel.</p> <p>Plant will be positioned away from sensitive receivers where possible. Workers will minimise noise.</p> <p>Traffic control and Road Occupancies Licences will be put in place as required.</p> |
| <p><b>Planned Commencement Date:</b></p>   | <p>2/12/2017 – Note: It is the intention of JHLOR to continue works under the SSJ-TDCP Exempt Development Checklist Approval Form (approved by Sydney Metro on 4/10/2017) until the Modification is approved by the Planning Minister and until this PCMW form is approved by Sydney Metro.</p>   |

(Uncontrolled when printed)

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| <p><b>Local Sensitivities:</b><br/>Describe the presence (if any) of local sensitive environmental areas and community receptors</p>   | <ul style="list-style-type: none"> <li>There are a number of residential properties located in the vicinity of the project area. These properties may be sensitive to excessive noise. The works are not expected to be noisy – refer to the Environmental Risk Assessment in Appendix 1</li> <li>Heritage – there are a number of heritage structures within the project footprint including Sydenham Station and the Sydenham Pit and Pump Station. Intrusive works will occur outside of the curtilage areas of these structures. Survey works may occur within the curtilage of these heritage structures.</li> </ul> |
| <p><b>Part 3: Environmental Risk Assessment and Management</b></p>   |   |
| <p>Prepare an Environmental Risk Assessment (in accordance with the <i>Sydney Metro Risk Management Standard</i>) and an Environmental Control Map for the proposed Minor Works and attach as Appendix 1.<br/>If an Environmental Risk Assessment and/or an Environmental Control Map for the proposed Minor Works is/are already contained in existing documentation, attach the relevant section(s) as Appendix 1.</p> |   |
| <p><b>Documentation:</b><br/>List any existing documents (including those referenced above) that the proposed Minor Works will be undertaken in accordance with and attach as Appendix 2 (e.g. plans, procedures, etc.).</p>   | <p>An Environmental Risk Assessment and an ECM for the Works is included within Appendix 1.<br/>Unexpected finds procedures for contamination and items or deposits with heritage significance are included in Appendix 2.</p>  |

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| <p><b>Part 4: Workforce Notification</b></p>   |  |
| <p><b>How will the environmental and community risks and associated mitigation measures of the proposed Minor Works be communicated to the contractor's workforce?</b></p> | <p>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.<br/>Works will be undertaken in accordance with a SWMS or JSEA (depending on whether the works meets the definition of High Risk Construction Works in accordance with Clause 291 WHS Regulation). SWMS will be reviewed by the JHLOR Environmental Manager.</p> |

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| <p><b>Part 5: Community Consultation</b></p>                                       |  |
| <p><b>What community consultation has been undertaken already?</b></p>             | <p>An Investigations Notification was distributed to properties within a 500m radius of Sydenham Station on the 25th of October. The notification identified survey, non-destructive digging as an activity to occur during the period from 30th October to early December. An updated notification will be required to cover all works as stated within this application.</p> |
| <p><b>What community consultation is planned to be undertaken?</b></p>             | <p>JHLOR have prepared a notification that includes the additional works. The notification is to be distributed on 24 Nov 2017 pending Sydney Metro approval. A copy of the draft notification is attached within Appendix 3 for reference.</p>  |
| <p>If drafted already, attach applicable Community Notification as Appendix 3.</p> |  |

|  |                        |                         |                               |                      |                     |
|--|------------------------|-------------------------|-------------------------------|----------------------|---------------------|
| <p><b>Part 6: Contact Details</b></p>  |                        |                         |                               |                      |                     |
| <p>Nominate contractor's project manager, environmental and communications contact(s).</p> |                        |                         |                               |                      |                     |
| <p><b>Name:</b></p>  | <p>Neil Ivison</p>     | <p><b>Position:</b></p> | <p>Project Director</p>       | <p><b>Phone:</b></p> | <p>0458 288 625</p> |
|  | <p>Cameron Newling</p> |                         | <p>Environmental Manager</p>  |                      | <p>0419 727 445</p> |
|  | <p>Laura Stewart</p>   |                         | <p>Communications Manager</p> |                      | <p>0455 092 638</p> |

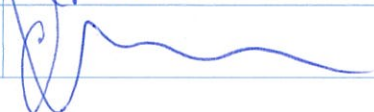
**Part 7: Signature**

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:

CAMERON HEWLING

Signature:



Date:

22/11/17

## 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,<br>Communication & Engagement<br>– Endorsement<br>(required for all applications)  | TfNSW Principal Manager,<br>Sustainability, Environment & Planning<br>– Approval<br>(required for all applications)          | Environmental Representative<br>– Endorsement<br>(required as necessary in accordance with the applicable planning approval, optional for all other circumstances) |
| Signature:  |   |  |  |
| Name:   | Fiona Morrisby  | CAROLYN RILEY (ACTING DIRECTOR)  | Annabelle Tungol Reyes   |
| Date:   | 27/11/17  | 6/12/17  | 26/11/17   |
| Comments:   |   | - Subject to receipt of Sydenham Station & Stabling MODI.  | Supporting letter attached as Appendix 4 if necessary.   |
| Conditions:   | - If notification expires & work is not complete, a new notification must be issued.<br>- If any night works are required, another notification must be issued. | - Subject to intrusive works in rail corridor only, except within heritage SHR curtilage. All non-intrusive works permitted. | Supporting letter attached as Appendix 4 if necessary.   |
| <input checked="" type="checkbox"/> Approved (by TfNSW)   |   |  |  |
| <input type="checkbox"/> Endorsed (by Environmental Representative)   |   |  |  |
| <input type="checkbox"/> Rejected   |   |  |  |

## Appendix 1: Cover Page

Environmental Risk Assessment and Environmental Control Map.

## Risk Assessment

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

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

| Aspect   | Potential Environmental Impact                                   | Initial Risk Rating |           |            | Control Measures  | Residual Risk Rating |           |            |
|--|--|---------------------|-----------|------------|---|----------------------|-----------|------------|
|  |  | C X                 | L =       | Risk       |   | C X                  | L =       | Risk       |
| <b>Survey</b>  |  |                     |           |            |   |                      |           |            |
| Surveyors breaking tree branches to clear a line of site for their works | Damage to trees.<br>Breach to planning approval.                 | <b>C5</b>           | <b>L5</b> | <b>Low</b> | Induction to include vegetation management requirements.  | <b>C5</b>            | <b>L6</b> | <b>Low</b> |
| Surveyors installing control points or marking on heritage structures    | Damage to heritage items.<br>Breach to planning approval.        | <b>C4</b>           | <b>L5</b> | <b>Low</b> | Induction to include heritage management requirements.<br>ECM to display heritage curtilage   | <b>C4</b>            | <b>L6</b> | <b>Low</b> |
| <b>CCTV Pipe Inspections</b>   |  |                     |           |            |   |                      |           |            |
| Works on public roads  | Disruption to local traffic and pedestrians                      | <b>C5</b>           | <b>L5</b> | <b>Low</b> | Engage traffic control where appropriate<br>Obtain Road Occupancy Licences as appropriate   | <b>C5</b>            | <b>L6</b> | <b>Low</b> |
| <b>Service Searching</b>   |  |                     |           |            |   |                      |           |            |
| Contamination uncovered during service searching works                   | Mixing of contaminated materials with non-contaminated materials | <b>C4</b>           | <b>L4</b> | <b>Med</b> | Induction to include contamination management requirements.<br>Implement unexpected finds procedure   | <b>C4</b>            | <b>L5</b> | <b>Low</b> |
| Items of heritage significance uncovered during service searching works  | Damage to heritage items or archaeological deposits              | <b>C3</b>           | <b>L5</b> | <b>Med</b> | Induction to include heritage management requirements.<br>No works to occur within the heritage curtilage of Sydenham Station and Sydenham Pit.<br>Implement unexpected finds procedure | <b>C3</b>            | <b>L6</b> | <b>Low</b> |

| Aspect   | Potential Environmental Impact  | Initial Risk Rating |    |     | Control Measures  | Residual Risk Rating |    |     |
|--|---|---------------------|----|-----|---|----------------------|----|-----|
| Works on public roads  | Disruption to local traffic and pedestrians   | C5                  | L5 | Low | Engage traffic control where appropriate<br>Obtain Road Occupancy Licences as appropriate   | C5                   | L6 | Low |
| Runoff from service searching process                        | Service searching water entering local stormwater and impacting on water quality  | C5                  | L5 | Low | Set up erosion and sediment controls as appropriate (i.e. sandbags) if service searching water is likely to generate runoff.  | C5                   | L6 | Low |
| Service Searching Waste                                      | Incorrect handling or disposal of service searching waste leading to environmental degradation<br>Exposure of Potential Acid Sulphate soils | C4                  | L4 | Med | Service searching waste is deemed to be liquid waste. The waste must be lawfully transported and disposed of to a licenced facility.<br>Exposed Potential Acid Sulphate Soil within the excavations will be kept wet during the works. The excavations will be backfilled immediately to prevent any Potential Acid Sulphate Soils from oxidising.  | C4                   | L5 | Low |
| Noise from vacuum truck                                      | Noise from vacuum truck impacting on sensitive receivers<br>Noise impacts outside standard construction hours                               | C5                  | L4 | Low | Works to occur in during standard construction hours where possible<br>Vacuum truck to be positioned so that the noisier part of the truck points away from sensitive receivers, where possible<br>Follow the appropriate approvals process and submit Out of Hours Work applications for Acoustic Advisor endorsement and Environmental Representative approval. Mitigation measures to be implemented in accordance with the Construction Noise Strategy. | C5                   | L6 | Low |
| <b>Geotechnical works</b>                                    |   |                     |    |     |   |                      |    |     |
| Contamination uncovered during geotechnical works            | Mixing of contaminated materials with non-contaminated materials  | C4                  | L4 | Med | Induction to include contamination management requirements.<br>Implement unexpected finds procedure   | C4                   | L5 | Low |
| Items of heritage significance uncovered during geotechnical | Damage to heritage items or archaeological deposits   | C3                  | L5 | Med | Induction to include heritage management requirements.  | C3                   | L6 | Low |



| Aspect                       | Potential Environmental Impact   | Initial Risk Rating |           |            | Control Measures   | Residual Risk Rating |           |            |
|------------------------------|--|---------------------|-----------|------------|--|----------------------|-----------|------------|
| works                        |  |                     |           |            | No works to occur within the heritage curtilage of Sydenham Station and Sydenham Pit.<br>Implement unexpected finds procedure  |                      |           |            |
| Works on public roads        | Disruption to local traffic and pedestrians  | <b>C5</b>           | <b>L5</b> | <b>Low</b> | Engage traffic control where appropriate<br>Obtain Road Occupancy Licences as appropriate  | <b>C5</b>            | <b>L6</b> | <b>Low</b> |
| Runoff from drilling process | Drilling process water entering local stormwater and impacting on water quality                                | <b>C5</b>           | <b>L5</b> | <b>Low</b> | Set up erosion and sediment controls as appropriate (i.e. sandbags) if drilling process water is likely to generate runoff.  | <b>C5</b>            | <b>L6</b> | <b>Low</b> |
| Waste drilling mud           | Waste materials  | <b>C5</b>           | <b>L5</b> | <b>Low</b> | All drilling muds are to be removed from the project site and disposed of lawfully to a licenced facility. No drums will be left on site.<br><br>Drilling mud containers must be stored appropriately and at least 20m away from drainage lines.   | <b>C5</b>            | <b>L6</b> | <b>Low</b> |
| Noise from drill rig         | Noise from drill rig impacting on sensitive receivers<br><br>Noise impacts outside standard construction hours | <b>C5</b>           | <b>L4</b> | <b>Low</b> | Works to occur in during standard construction hours where possible<br><br>Drill rig to be positioned so that the noisier part of the rig points away from sensitive receivers, where possible<br><br>Follow the appropriate approvals process and submit Out of Hours Work applications for Acoustic Advisor endorsement and Environmental Representative approval. Mitigation measures to be implemented in accordance with the Construction Noise Strategy. | <b>C5</b>            | <b>L6</b> | <b>Low</b> |

# Appendix A: Sydney Metro Risk Matrix

## A1 Consequence Table

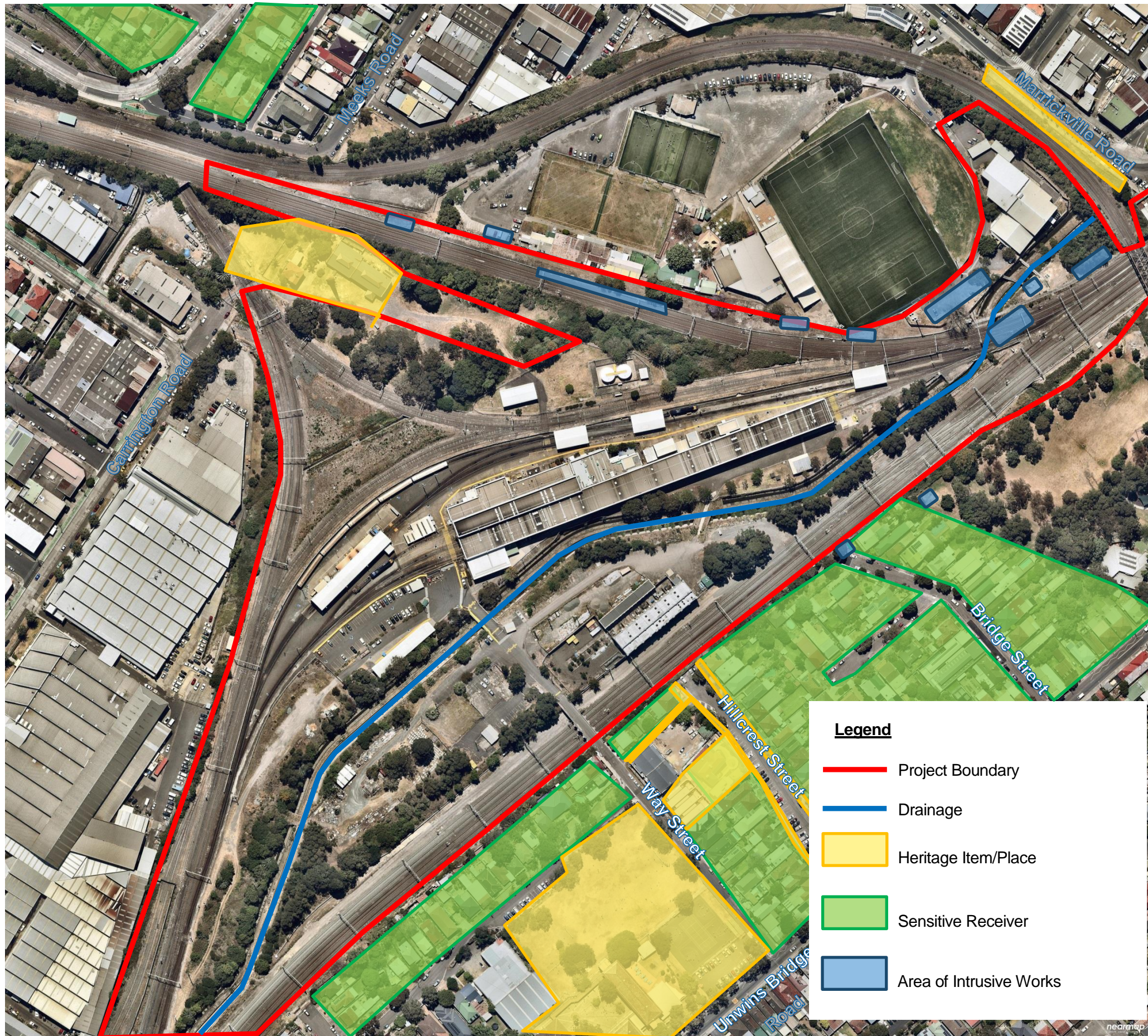
| Consequence Table   |   |  |   |  |  |   |
|---|---|--|---|--|--|---|
| Rating  | C6  | C5   | C4  | C3   | C2   | C1  |
| Descriptor/<br>Impact Area  | Insignificant   | Minor  | Moderate  | Major  | Severe   | Catastrophic  |
| <b>Health and Safety<br/>(Injury and Disease)</b>                   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

## A2 Likelihood Criteria

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

## A3 Risk Matrix

| Risk Rating<br>A – Very High<br>B – High<br>C – Medium<br>D – Low |                      |    | Consequence   |       |          |       |        |              |
|---|----------------------|----|---------------|-------|----------|-------|--------|--------------|
|   |                      |    | Insignificant | Minor | Moderate | Major | Severe | Catastrophic |
|   |                      |    | C6            | C5    | C4       | C3    | C2     | C1           |
| Likelihood  | Almost certain       | L1 | C             | B     | B        | A     | A      | A            |
|   | Likely               | L2 | C             | C     | B        | B     | A      | A            |
|   | Possible             | L3 | D             | C     | C        | B     | B      | A            |
|   | Unlikely             | L4 | D             | D     | C        | C     | B      | B            |
|   | Rare                 | L5 | D             | D     | D        | C     | C      | B            |
|   | Almost unprecedented | L6 | D             | D     | D        | D     | C      | C            |



**Legend**

- Project Boundary
- Drainage
- Heritage Item/Place
- Sensitive Receiver
- Area of Intrusive Works

**Key Environmental Risks & Controls**

No works are permitted outside the red project boundary or within protected areas

Report all incidents and any complaints

Notify Environment Manager any unusual finds (odours, discoloured soil, asbestos, remains, suspected artefacts)

SOIL AND WATER:

Hazardous substances must be stored correctly to prevent spills

ERSED controls to be installed as per this SEP and the Erosion and Sediment control plans (ESCP) and report damaged controls

No mud/ sediment to be tracked outside the site area

FLORA AND FAUNA

No vegetation to be impacted

WASTE:

Place rubbish in appropriate bins, do not litter  
Waste must only be disposed off site at licenced waste facilities, meaning they must hold an Environment Protection Licence to receive waste

IMPORTING MATERIALS:

Obtain reports/ certificate for all imported material prior to delivery to site. The paperwork must be checked by the Environment Team to ensure it meets EPA requirements

AIR QUALITY:

Dust suppression measures must be used to prevent impacting nearby residents and all loads must be covered

NOISE AND VIBRATION:

Standard construction hours are 7am to 6pm M-F; 8am—1pm Sat – all Out of Hours Works are subject to approval in accordance with the Conditions of Approval and EPL

No works Sundays or Public Holidays

No idling or parking outside residential properties

High noise impact works only permitted 8am to 5pm M-F; 8am to 1pm

Sat and in continuous blocks not exceeding 3 hours each with a minimum respite of 1 hour between each block

TRAFFIC:

Parking only within designated areas and use only approved haul routes

No queuing in residential streets before or after hours

HERITAGE:

Cadastral survey only permitted in Heritage Areas

| Key Contacts    |   |              |
|-----------------|---|--------------|
| Cameron Newling | Environmental Manager                       | 0419 727 445 |
| Ian Butler      | Utilities Manager                           | 0409 412 394 |
| Jamie Jack      | Construction Manager Station                | 02 4913 7612 |
| Paul Field      | Construction Manager Sydney Water           | 02 9867 4211 |
| Laura Stewart   | Stakeholder and Community Relations Manager | 0455 092 638 |



**Legend**

- Project Boundary
- Drainage
- Heritage Item/Place
- Sensitive Receiver
- Area of Intrusive Works

**Key Environmental Risks & Controls**

No works are permitted outside the red project boundary or within protected areas

Report all incidents and any complaints

Notify Environment Manager any unusual finds (odours, discoloured soil, asbestos, remains, suspected artefacts)

SOIL AND WATER:

Hazardous substances must be stored correctly to prevent spills

ERSED controls to be installed as per this SEP and the Erosion and Sedimentation control plans (ESCP) and report damaged controls

No mud/ sediment to be tracked outside the site area

FLORA AND FAUNA

No vegetation to be impacted

WASTE:

Place rubbish in appropriate bins, do not litter  
Waste must only be disposed off site at licenced waste facilities, meaning they must hold an Environment Protection Licence to receive waste

IMPORTING MATERIALS:

Obtain reports/ certificate for all imported material prior to delivery to site. The paperwork must be checked by the Environment Team to ensure it meets EPA requirements

AIR QUALITY:

Dust suppression measures must be used to prevent impacting nearby residents and all loads must be covered

NOISE AND VIBRATION:

Standard construction hours are 7am to 6pm M-F; 8am—1pm Sat – all Out of Hours Works are subject to approval in accordance with the Conditions of Approval and EPL

No works Sundays or Public Holidays

No idling or parking outside residential properties

High noise impact works only permitted 8am to 5pm M-F; 8am to 1pm

Sat and in continuous blocks not exceeding 3 hours each with a minimum respite of 1 hour between each block

TRAFFIC:

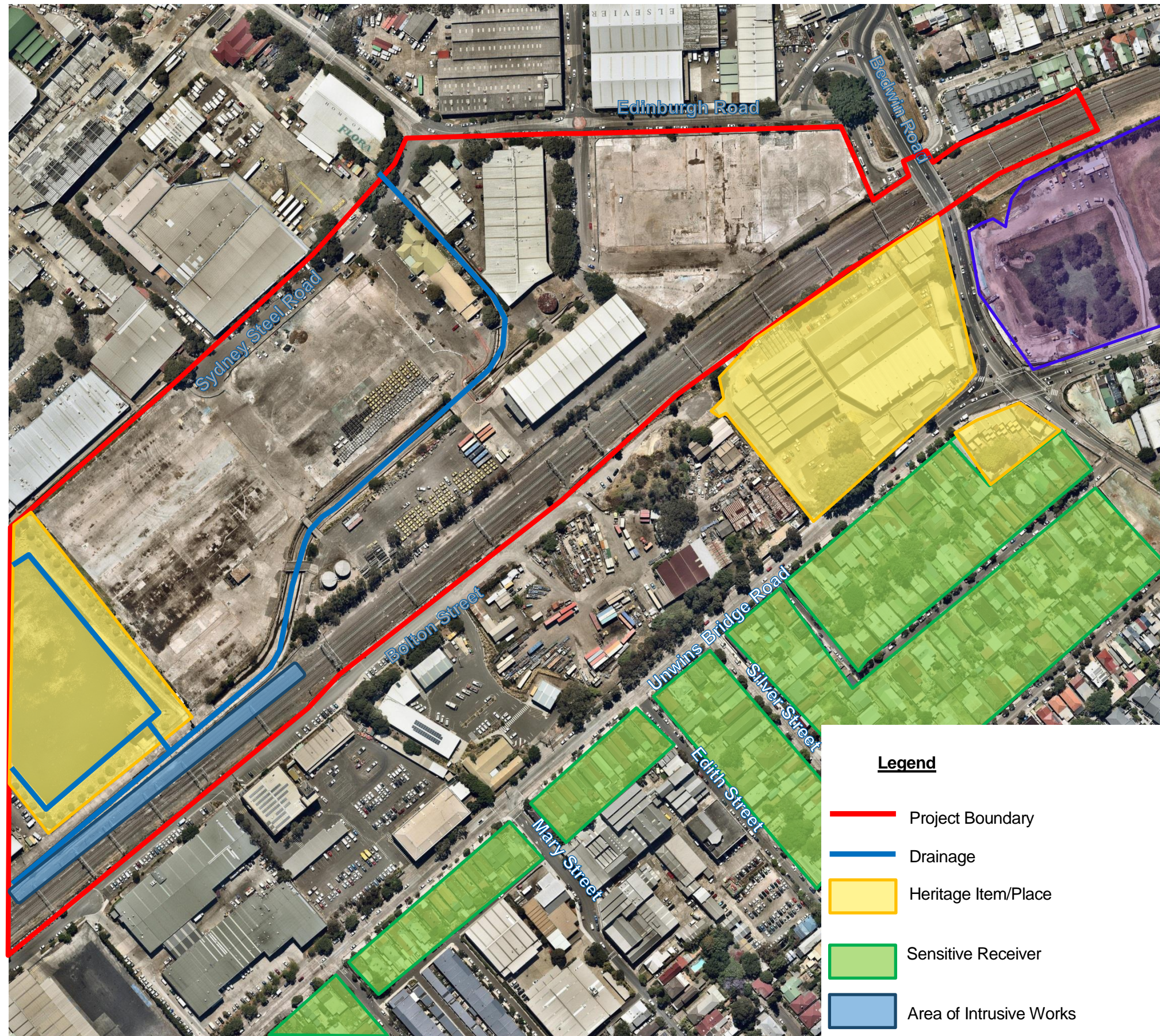
Parking only within designated areas and use only approved haul routes

No queuing in residential streets before or after hours

HERITAGE:

Cadastral survey only permitted in Heritage Areas

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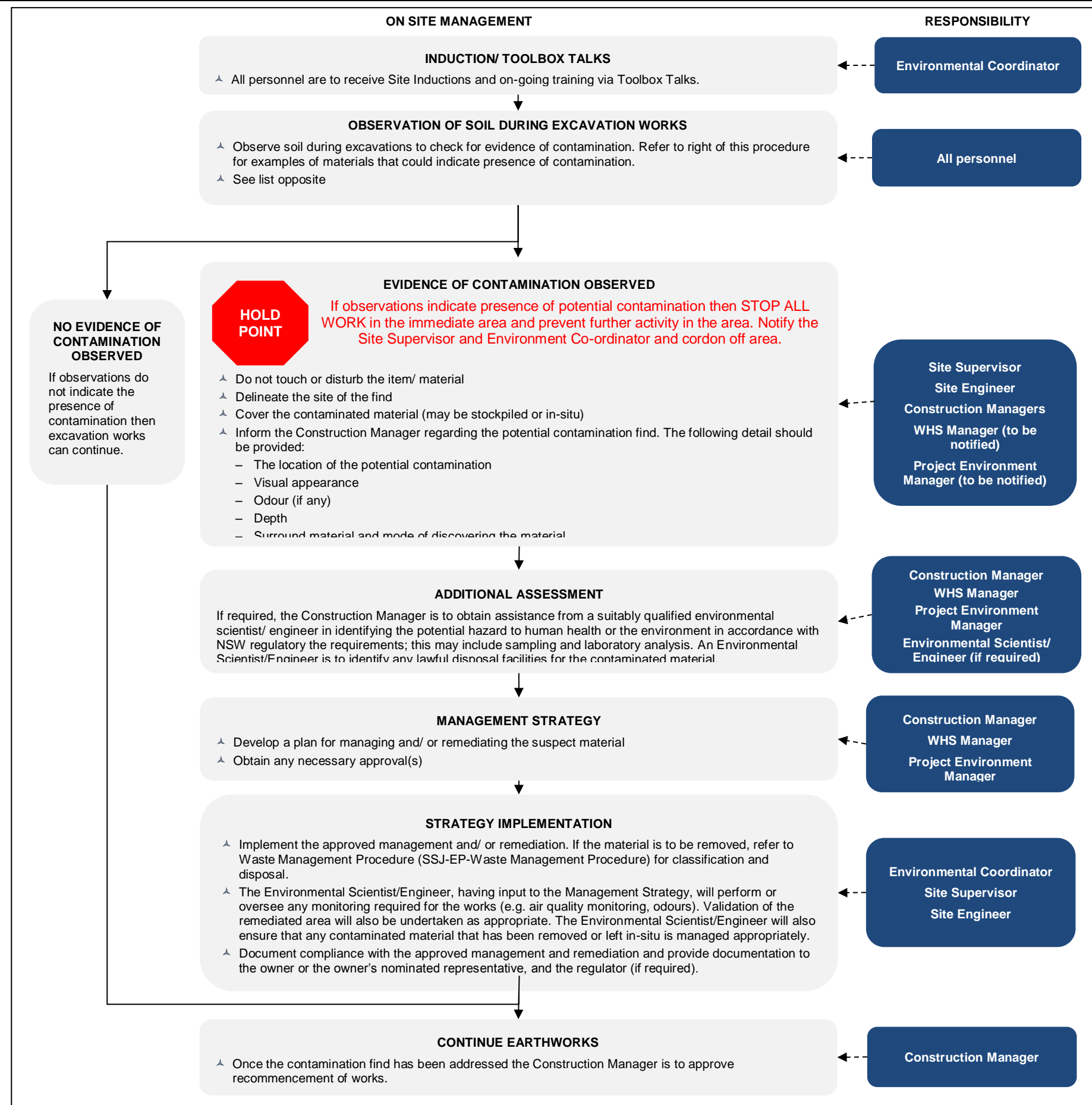
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## Appendix 2: Cover Page

Environmental Management Documentation.

## CONTAMINATION AND CONTINGENCY ACID SULFATE SOILS MANAGEMENT PROCEDURE



### Indicators of Contamination

Examples of materials that could indicate the presence of contamination include (but are not necessarily limited to):

- ▲ Asbestos cement fragments or other potentially asbestos containing materials
- ▲ Odorous or stained soil;
- ▲ Buried chemical drums or containers
- ▲ High proportion of waste materials or building debris
- ▲ Tarry or ashy material
- ▲ Brightly or unusually coloured material
- ▲ A yellow and/or red mottling in the soil profile indicates there may be Acid Sulfate Soils (ASS)

### Asbestos

Asbestos finds are to be managed in accordance with the Project WHS Management Plan

### Acid Sulfate Soils (ASS)

ASS are naturally occurring soils, sediments or organic substrates that are formed under waterlogged conditions in coastal areas. When exposed to air after being disturbed, soils containing iron sulfides produce sulfuric acid and often release toxic quantities of iron, aluminium and heavy metals.

If ASS is encountered, possible management strategies include:

- ▲ Modifying the works to avoid the area of ASS
- ▲ Delineation and removal to a suitably licenced facility
- ▲ Onsite treatment to neutralise the ASS, which could include the application of lime.

Note: The management of any ASS needs to include appropriate erosion and sedimentation controls to minimise the potential for pollution to waters.

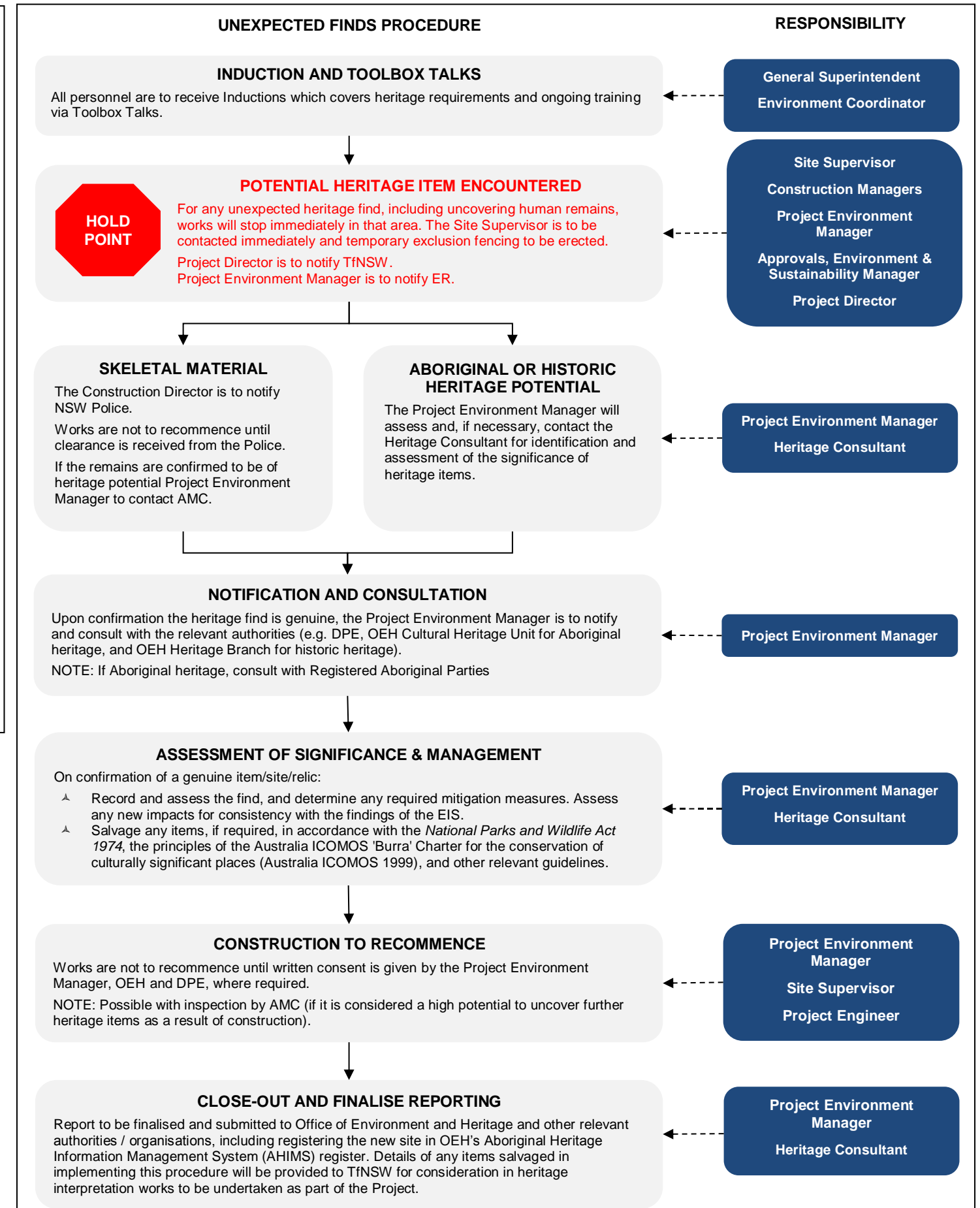
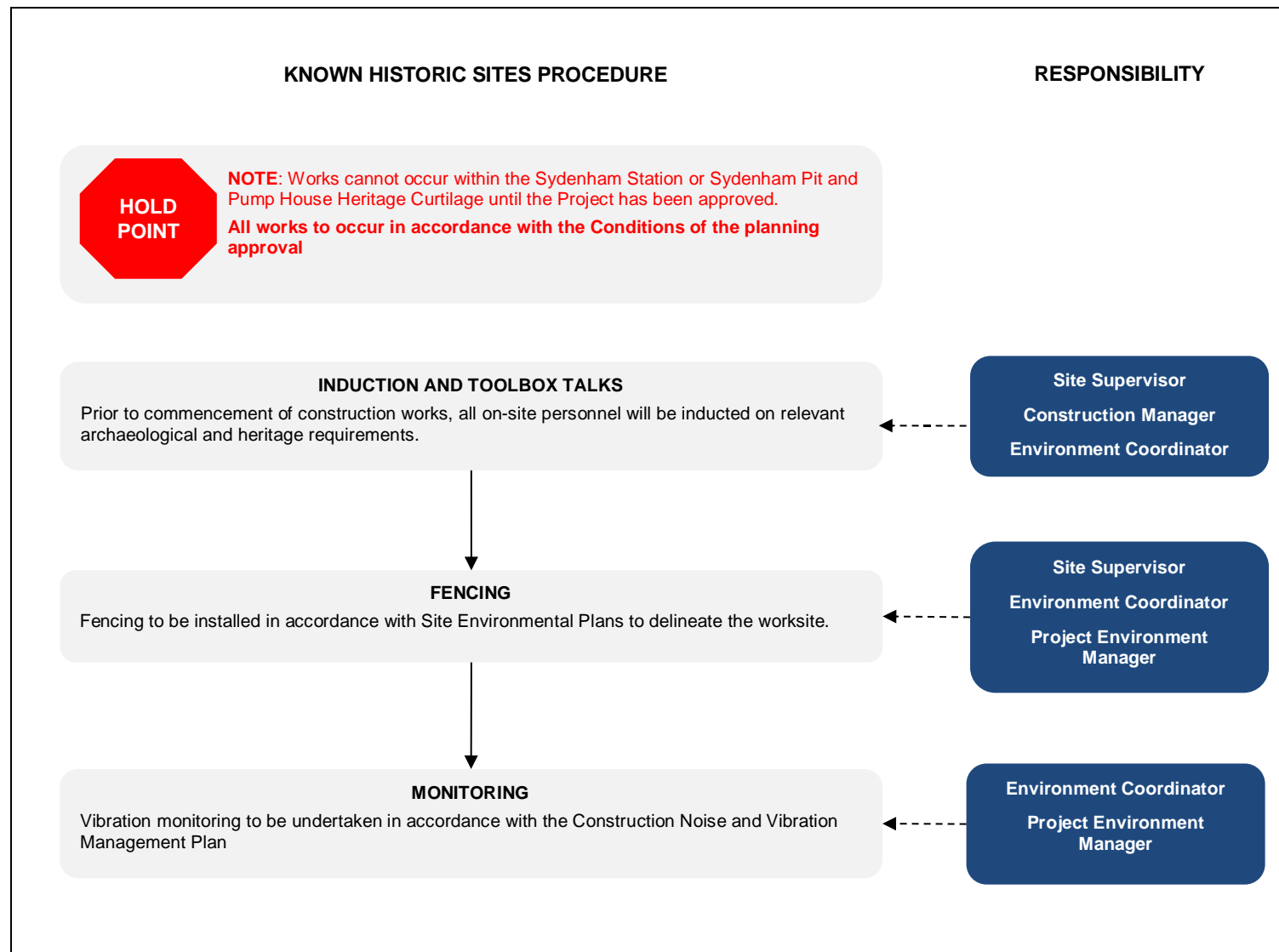
### Management and Disposal of Contaminated Material

Specific approval may be required to implement management strategies and a Safe Work Methods Statement (SWMS) must be prepared prior to undertaking any remediation work, except in emergency situations.

Contaminated material will be disposed of in accordance with the Waste Management Procedure.



## NON-ABORIGINAL AND ABORIGINAL HERITAGE PROCEDURE



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## Appendix 3: Cover Page

Community Notification.

Sydney Metro is Australia's biggest public transport project. It will transform Sydney, delivering more trains and faster services for customers across the network.

Sydney Metro City & Southwest extends the new metro network from the end of the Sydney Metro Northwest at Chatswood, under Sydney Harbour, through new railway stations in the CBD and west to Bankstown – a total of 66 kilometres of metro rail.

When services start in 2024, there will be a train at least every four minutes in the peak – customers won't need a timetable, they'll just turn up and go.

## Out-of-hours works near Sydenham Station

As part of the early investigation works taking place for Sydenham Station Upgrade, work is required outside of standards construction hours. This is required while trains are not running to ensure the safety of personnel and enable investigations on the railway tracks.

### Works will involve:

- Visual inspections along the rail corridor and under Bedwin Road Bridge using an elevated work platform.
- Locating and confirming underground services using hand held equipment and non-destructive digging equipment along the rail corridor between Sydenham Station and Bedwin Road.
- In-ground investigations using hand held equipment, drilling rig and small excavator equipment between Sydenham Station and Bedwin Road.

### Work hours

The investigations within the rail corridor will be required outside of standard hours. This is expected to occur on the following dates:

- Saturday 2 December to Sunday 3 December, 8am to 6pm
- Saturday 9 December to Sunday 10 December, 8am to 6pm

### What to expect

- Some vehicle movements around the local area between 7am and 6pm on the dates above
- These works are not expected to be noisy.

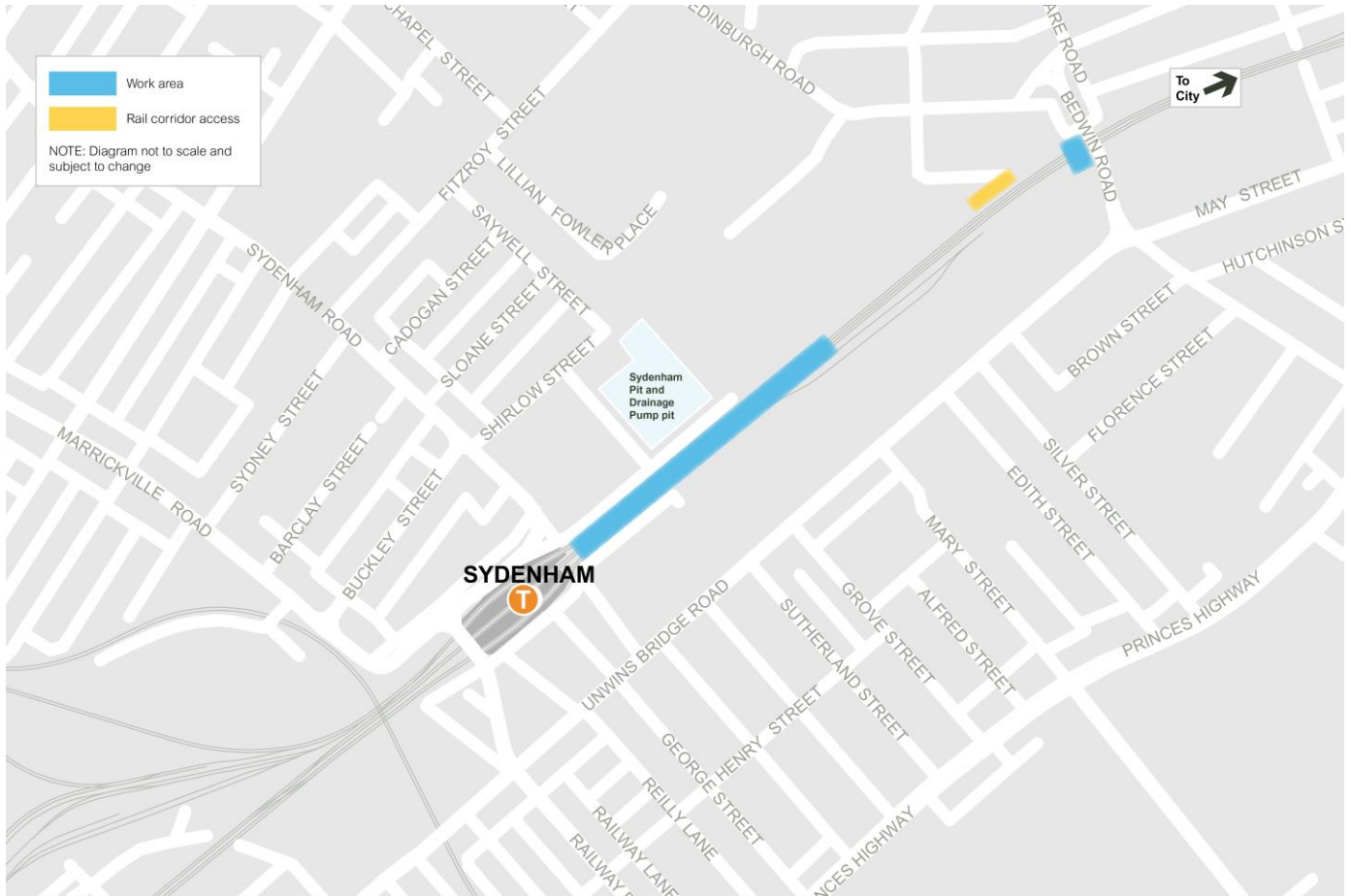
## Investigation work near Sydenham Station

In addition to the out of hour work, investigations will continue during normal construction hours 7am to 6pm Monday to Friday until 23 December.

This will include locating and confirming underground services and investigate ground conditions using hand held equipment, non-destructive digging equipment and drilling equipment around Sydenham Station, along Railway Parade and near to the Sydenham Pit and Drainage Pump Pit (Garden Street)


Thank you for your cooperation while we complete these essential works.


## Out-of-hours works – Sydenham Station




### Contact us

For more information, enquiries or complaints please contact us at:

 **1800 171 386** 24-hour community information line

 [sydneymetro@transport.nsw.gov.au](mailto:sydneymetro@transport.nsw.gov.au)

 [sydneymetro.info](http://sydneymetro.info)

 [facebook.com/SydneyMetro](https://facebook.com/SydneyMetro)

 **Sydney Metro**, PO Box K659, Haymarket, NSW 1240

 If you need an interpreter, call TIS National on **131 450** and ask them to call **1800 171 386**

## Appendix 4: Cover Page

Environmental Representative Supporting Letter.