INTAKE SUBSTATION DEVELOPMENT PLAN
CONSULTATION SUMMARY
TAS-CYP-ARD-AIS-REP-XLP-AEN-X0925
REV D MINOR AMENDMENT - MINISTERIAL SUBMISSION

Friday, 29 July 2022
ACKNOWLEDGMENT TO COUNTRY

We acknowledge the land on which the Metro Tunnel Project is being delivered, is the traditional land for the People of the Kulin Nation. We respect their spiritual beliefs and acknowledge their ongoing connection with their Country.

We would also like to pay our respect to Elders past, present and future.
DOCUMENT CONTROL AND AMENDMENT

The current reviewed and approved version of this Plan is available on IMS for all project personnel to access. Downloaded Plans are deemed uncontrolled and it is the responsibility of the user to ensure they are using the latest revision. The responsibility for maintenance, review, update and approval of this Plan is as per the Delegation of Authority Matrix. All changes to this document are noted.

**Document Number**

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**REVISION RECORD**

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<td>Kate Walshe</td>
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<td>C</td>
<td>05/07/21</td>
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<td>Kate Walshe</td>
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<td>Mat Peel</td>
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<tr>
<td>Caitlin Jackson</td>
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# DEFINITIONS

## STANDARD TERMS AND DEFINITIONS

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<tr>
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</tr>
<tr>
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</tr>
<tr>
<td>Client</td>
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<td>Contractors for the Early Works, TAS PPP, RSA and RIA work Packages in the Metro Tunnel Project</td>
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<tr>
<td>TAS Package</td>
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## ABBREVIATIONS

<table>
<thead>
<tr>
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<tr>
<td>AS</td>
<td>Australian Standard</td>
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<tr>
<td>CYP</td>
<td>Cross Yarra Partnership</td>
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<td>MTM</td>
<td>Metro Trains Melbourne</td>
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<td>PS&amp;TR</td>
<td>Project Scope and Technical Requirements</td>
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<td>PTV</td>
<td>Public Transport Victoria</td>
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<td>Rail Projects Victoria</td>
</tr>
<tr>
<td>The Project</td>
<td>The Metro Tunnel, or The Metro Tunnel Project</td>
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PROJECT AND SCOPE

The Metro Tunnel Project is one of the largest transport infrastructure projects ever undertaken in Australia. It will deliver twin nine-kilometre rail tunnels from Kensington to South Yarra as part of a new end-to-end Sunshine to Dandenong line. In addition to the tunnel, new underground stations will be established at the Arden, Parkville, and Domain precincts and two new stations in the CBD precinct.
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Figure 1: Development Plan consultation process (blue refers to Early Engagement, orange refers to Public Display Period, and green refers to Stakeholder Engagement during detailed design)

Figure 2: Intake Substation feedback breakdown of key themes

TABLES

Table 1: Principles and goals
EXECUTIVE SUMMARY

The Intake Substation Development Plan Consultation Summary Report summarises the CYP Design & Construction Joint Venture (CYP) communications and stakeholder engagement during the preparation of the Intake Substation Development Plan in accordance with the Metro Tunnel Project (the Project) Incorporated Document.

This report documents the consultation undertaken by CYP across three distinct periods:
- An Early Engagement Period from Wednesday 18 September to Sunday 17 November 2019
- A Public Display Period from Monday 18 November 2019 until Friday 6 December 2019
- A key stakeholder engagement period during detailed design from March 2020 to present.

EARLY ENGAGEMENT PERIOD

The Early Engagement Period sought to gain targeted feedback from key stakeholders to help inform initial drafts of the Development Plan, whilst the Public Display Period sought to obtain further feedback from the broader community.

CYP undertook the following communications and stakeholder engagement initiatives as part of the draft Development Plan process during the Public Display Period:
- A copy of the draft Development Plan was made publicly available for inspection and comment on the Project website for a period of 15 business days with an online feedback form
- An advertisement was placed in The Age and Herald Sun newspapers
- Personalised emails were sent to key stakeholders including City of Melbourne, Melbourne Water, Victorian Planning Authority, Bicycle Network Victoria and Friends of Moonee Ponds Creek
- Emails were sent to Kensington and North Melbourne Community Reference Groups
- Presentations were delivered at Kensington and North Melbourne Community Reference Group meetings
- The draft Intake Substation Development Plan was promoted through the Project’s social media channels including Facebook and Twitter.

These communication and engagement initiatives advised key stakeholders and the community of the draft Intake Substation Development Plan and how to provide feedback.

PUBLIC DISPLAY PERIOD

Overall, five public submissions were received on the previous version of the Intake Substation Development Plan. The key issues raised and CYP’s response were:
- Environmental Management Framework – submissions provided comment around the environmental amenity of the Moonee Ponds Creek, including potential habitat loss. All CYP works will be undertaken in accordance with the Environmental Management Framework. As part of detailed design, CYP has minimised its footprint on the western side of Moonee Ponds Creek through realignment of the cable routes
- Architectural response – submissions queried viewlines and impact on implementation of the Moonee Ponds Creek Strategic Opportunities Plan. CYP note that tree planting and recreational opportunities proposed in the draft Moonee Ponds Creek Strategic Opportunities Plan are not possible due to the existing railway utility infrastructure in the area. As part of detailed design, CYP propose a feature fence to further minimise impacts to the potential users of the Moonee Ponds Creek Trail. The amended design also proposes to screen the mechanical plant on the roof of the Intake Substation building to make the plant less visibly obtrusive.
• Tree removal and reinstatement – submissions requested more trees be retained and reinstated. CYP addressed this in detailed design, as the revised cable route alignment reduces the number of trees for removal
• Materials and finishes – submissions included suggestions for brick, paintwork and art for the Intake Substation building. CYP has considered these options during detailed design, noting materiality will be dictated by security and technical constraints
• Cable route – submissions provided comment on the cable route alignment, covered by the amended Early Works Plan. The cable route has been aligned to be located under the future Queensberry Street extension to avoid impacts to future development and minimise impacts to the tidal area of Moonee Ponds Creek. In detailed design, CYP has shifted the cable route alignment further south to avoid tree removal on the western bank of Moonee Ponds Creek.

Following the public display of the Intake Substation Development Plan, a number of changes were made in response to stakeholder and community comment, which included:

• Community consultation (Section 1.3) – updated to reflect process undertaken
• Arboriculture (Section 4.4.2) – amended to clarify that CYP will seek to reduce tree impacts where possible during detailed design and will select species for reinstatement in consultation with relevant land managers.

Post public display, as part of reporting back to stakeholders and the community, CYP undertook the following activities:

• Minister’s listed stakeholders (as defined by the Incorporated Document) – CYP provided all comments / CYP responses to the Development Plan Review Committee (DPRC)
• Key stakeholders were briefed and provided with CYP responses to their comments
• Community members and organisations who provided a response were provided with a response letter from CYP addressing key concerns.

STAKEHOLDER ENGAGEMENT DURING DETAILED DESIGN

The Minister for Planning approved the Intake Substation Development Plan on Thursday 26 March 2020. Since approval, the design for the Intake Substation has progressed through detailed design in consultation with key stakeholders including RPV, OVGA, City of Melbourne, Melbourne Water, Friends of Moonee Ponds Creek, Kensington Association and Bicycle Network Victoria. In accordance with Clause 4.7.8 of the Incorporated Document, the Intake Substation Development Plan is now being amended to reflect design changes made during this process.

Stakeholder engagement during detailed design sought to refine outstanding design issues; specifically, the previously approved Intake Substation Development Plan submission highlighted that the design would seek to reduce the number of trees for removal. As part of detailed design, CYP has shifted the cable route alignment further south to minimise tree removal on the western bank of Moonee Ponds Creek.

Changes to the cable route alignment and Intake Substation screening were developed in consultation with key stakeholders including OVGA and Friends of Moonee Ponds Creek. CYP has collaborated with City of Melbourne and RPV through meetings as well as the project design review process to review the design packages. The final design is based on comments received from these key stakeholders.

Following stakeholder engagement during detailed design, a number of changes have been made to the Intake Substation Development Plan, which include:

• Stakeholder engagement during detailed design (Section 1.3.2) – a new section added to outline stakeholder engagement post-Ministerial Approval and during detailed design of the Intake Substation
• Figure 1 – updated to include the additional consultation process post-Ministerial Approval of the Intake Substation Development Plan
• Figure 2 – updated to reflect the amended Associated Works Area
• Scope of works (Section 3) - updated to reflect the changes to the associated works area following the revised cable routes alignment, as well as the removal of 21 trees in the amended design
• Design Development (Section 4.1) – updated to reflect additional detail describing the design development process post-Ministerial Approval
• Architectural response (Section 4.3.1) - updated to outline screening of the mechanical plant on the roof of the Intake Substation building
• Landscape response (Section 4.3.2) – updated to reflect the changes to tree removal, retention and planting figures. The amended design removes 21 trees, and this is 20 less trees than the previously approved Development Plan submission
• Public realm response (Section 4.3.3) – updated to reflect the changes to the associated works area following the revised cable routes alignment
• User experience and surrounding environment (Section 4.3.4) – updated to outline the proposed feature fence adjacent to the Moonee Ponds Creek Trail
• Ancillary features (Section 4.3.7) – updated to outline screening of the mechanical plant on the roof of the Intake Substation building
• Arboriculture (Section 4.4.2) – updated to reflect the changes to the tree removal, retention and planting figures. The amended design removes 21 trees, and this is 20 less trees than the previously approved Development Plan submission
• Social and community (Section 4.4.6) – updated to outline the proposed feature fence adjacent to the Moonee Ponds Creek Trail
• Appendices A, B and C have been updated to include new drawings showing the updated design of the Intake Substation
• Appendices D and E have been updated to provide further detail on the Intake Substation design response to the Urban Design Strategy and Environmental Performance Requirements.
1. PURPOSE

This Consultation Summary Report is to be read in conjunction with the Cross Yarra Partnership (CYP) Intake Substation Development Plan and has been prepared to capture feedback received in response to the previous version of this CYP Development Plan which was made available for Public Display (from Monday 18 November 2019 until Friday 6 December 2019), and to provide a summary of consultation and response to issues raised during consultation including from key stakeholders during the detailed design phase of the Intake Substation (in accordance with the Melbourne Metro Rail Project Incorporated Document May 2018).

In addressing these requirements, the Consultation Summary Report provides details on:

- How the draft Intake Substation Development Plan was made available to key stakeholders for consultation during the Early Engagement Period
- How the draft Intake Substation Development Plan was made publicly available for inspection and comment (from Monday 18 November 2019 until Friday 6 December 2019 in accordance with the requirements stipulated under Clause 4.7 of the Incorporated Document)
- How consultation was undertaken with key stakeholders during the detailed design phase of the Intake Substation (in accordance with requirements stipulated under Clause 4.7.8 of the Incorporated Document, for an amendment to a Development Plan). Note that the proposed amendment approach was agreed in consultation with the Department of the Environment, Land, Water and Planning (DELWP).

The Intake Substation Development Plan is required to demonstrate how the applicable works are to be carried out in accordance with the approved Environmental Performance Requirements (EPRs) and the approved Urban Design Strategy (UDS).

The EPRs are performance requirements as detailed within the approved Environmental Management Framework. The Development Plan addresses these requirements by outlining how they are being addressed, through specific actions documented in a range of management plans or subsequent secondary approvals. The Development Plan is a statement of commitment to be approved by the Minister for Planning and which CYP must comply with to meet approval conditions and its contractual obligations with Rail Projects Victoria (RPV).

A full copy of all comments received in response to draft versions of the Intake Substation Development Plan is provided within the appendices of this report.
2. BACKGROUND

CYP has been contracted by RPV to design, build and maintain the stations and tunnels for the Metro Tunnel Project (the Project). The Project includes two nine-kilometre train tunnels, two tunnel portals, one intake substation and five new underground train stations, linking the north west Sunbury rail corridor and the south east Cranbourne/Pakenham rail corridor, unlocking additional capacity in the existing City Loop. The five new underground stations are located at Arden, Parkville, State Library, Town Hall and Anzac. The two tunnel portals (entrances) are located at Eastern (South Yarra) and Western (Kensington). The Intake Substation is located adjacent to the Arden Precinct.

The Intake Substation (referred to publicly as the North Melbourne electrical substation) is located within the rail corridor in the Macaulay depot area, directly adjacent to the Arden Precinct. The Environment Effects Statement (EES) identified a concept design on Langford Street, however the Macaulay depot area has been chosen to allow for future land use opportunities at Langford Street and to mitigate impacts on the Langford Street Pumping Station. This location was also selected based on its immediate proximity to the North Melbourne Traction Substation, the West Melbourne Terminal Station, and the availability of land. The Intake Substation will be positioned adjacent to the Craigieburn and Sunbury line active rail corridors, the CityLink toll road bridge and the Moonee Ponds Creek Trail. The Intake Substation is an essential piece of infrastructure which will provide power for the operation of the tunnels and stations.

The Intake Substation Development Plan presents the scope and extent of CYP’s works for the Intake Substation. The Development Plan is a requirement of Clause 4.7 of the Melbourne Metro Rail Project Incorporated Document May 2018 (Incorporated Document) (introduced via Planning Scheme Amendment GC82), which requires Development Plans be prepared for each of the five stations, two portals and any other above ground works or structures that are part of the Project. The Development Plan must be submitted to and approved by the Minister for Planning.

The Project has already undergone an extensive and robust planning assessment process. As part of this, RPV published an EES and draft Planning Scheme Amendment that included an integrated assessment of the potential environmental, social, economic and planning impacts of the Project, and the approach to managing these impacts.

In developing the EES, RPV undertook a comprehensive engagement program to seek input from stakeholders and the community. This included stakeholders and the community having the opportunity to provide formal submissions during a public exhibition period, which were then presented to an Inquiry and Advisory Committee. This committee then considered the EES submissions and prepared a report for the Minister for Planning.

In December 2016, the Minister for Planning released his Assessment of the environmental effects of the project. The Minister subsequently approved a Planning Scheme Amendment GC82 for the Project, which inserted the Incorporated Document into the Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes.
3. SUMMARY OF THE CYP APPROACH TO STAKEHOLDER ENGAGEMENT

The Metro Tunnel is a city-shaping project, and as such it is vital to draw on the ideas, expertise and aspirations of the community and stakeholders to inform the planning, construction and future operation of the project.

3.1. PRINCIPLES AND GOALS

In recognition that project progress and decisions can be enhanced through dialogue with the community and relevant stakeholders, RPV has developed core principles and goals for the planning and construction of the Project. CYP shares these principles and goals.

Table 1: Principles and goals

<table>
<thead>
<tr>
<th>Principle</th>
<th>Goal</th>
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<tr>
<td>Effective</td>
<td>Engagement is open, consistent, inclusive, accessible and transparent throughout planning and delivery of the Project</td>
</tr>
<tr>
<td>Timely</td>
<td>Engagement spans all stages of the Project, ensuring information is provided to stakeholders as the Project develop and feedback is responded to and incorporated in the Project's development</td>
</tr>
<tr>
<td>Meaningful</td>
<td>Engagement is clear on the elements of this Project that can be influenced by the community and stakeholders, how the feedback will be used and is explicitly on which elements of the Project are fixed and the reason for this</td>
</tr>
<tr>
<td>No surprises</td>
<td>Engage early to gain understanding of interests, concerns, requirements and preferred outcomes. Close the loop to determine how feedback has been considered</td>
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3.2. IAP2

In line with community engagement best practice, CYP applies the International Association for Public Participation (IAP2) engagement spectrum. As defined by IAP2 Spectrum, the CYP goal for public participation is to collaborate - partnering with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.

As part of the Development Plan Process CYP engaged with key stakeholders and the community to work together to formulate solutions and incorporate advice into the decisions to the maximum extent possible.

3.3. ISCA

The Infrastructure Sustainability (IS) Rating Program provides a framework for advancing sustainability in Australian infrastructure and measures environmental, social, economic, and governance aspect of projects and assets.

CYP is committed to delivering a legacy of measurable social, economic and sustainability benefits for Victoria as part of the Metro Tunnel Project. CYP communications and stakeholder engagement during the planning and development of the draft Development Plan sought to achieve the highest standards, consistent with CYP’s overall engagement approach.
3.4. OBJECTIVES

In the context of the CYP draft Development Plan, consultation objectives included the following:

- Outline consultation with key stakeholders about the Development Plan
- Communicate that the purpose of Development Plan is to demonstrate how the new infrastructure will be delivered in accordance with the approved Urban Design Guidelines and Environmental Performance Requirements
- Communicate the online public display of the Development Plan and how people will be able to provide feedback within the prescribed 15 business-day time frame
- Support the online public display of the Development Plan with information and presentations provided to the local Community Reference Groups
- Outline how comments received during the public display period will be recorded and responded to, including a consultation summary
- Outline consultation with key stakeholders through detailed design to inform the amended Intake Substation Development Plan.
4. CONSULTATION APPROACH

4.1. EARLY ENGAGEMENT PERIOD

In preparing draft versions of the Development Plan, CYP undertook early engagement with key stakeholders.

The overarching intent of the Early Engagement Period was to provide key stakeholders with the opportunity to:

- Understand from the outset the nature and extent of works which are to be delivered as part of the Tunnels and Stations package of works
- Provide early input into the content and structure of the CYP draft Development Plan
- Allow ample time for any high-level issues/concerns to be identified and addressed (wherever practical).

4.1.1. NATURE AND EXTENT OF EARLY ENGAGEMENT

The following provides further details in relation to consultation undertaken during the Early Engagement Period (refer to Figure 1):

- 18 September to 17 November 2019 - preliminary engagement in meetings to help prepare/inform the first draft of the draft Development Plan
- 21 October 2019 - distribution of the CYP draft Development Plan to key stakeholders (including DELWP) for review/feedback
- 1 November 2019 - presentation of the Development Plan to the Arden & Parkville Community Reference Group
- Revision of the draft Plan in response to:
  - Written feedback from key stakeholders received during the Early Engagement consultation period
  - Issues raised in key stakeholder consultation meetings.

Prescribed stakeholders who CYP sought to engage with during the Early Engagement Period included:

- Office of the Victorian Government Architect (OVGA)
- City of Melbourne
- Heritage Victoria
- Department of Transport
- VicRoads
- Public Transport Victoria
- Melbourne Water
- Victorian Planning Authority.

CYP engaged with these stakeholders in scheduled meetings in parallel with the detailed design work and preparation of the draft Development Plan.

This approach ensured the views of the key stakeholders were well understood and feedback incorporated as appropriate before the public display period.

CYP engaged with key stakeholders (including those who are impacted by or have a high level of interest in the designs, or who have an interface with the new stations and/or tunnel entrances) in parallel with the detailed design work and preparation of the draft Development Plan.

RPV has established the Kensington and Arden and Parkville Community Reference Groups (CRG). These groups provide a forum for CYP to present design development, and the draft Development Plan, as well as hearing directly from key stakeholders and answering their questions. The first draft of the Intake Substation Development Plan was presented to the North and West Melbourne Association and Kensington CRG on Tuesday 19 November and Tuesday 3 December 2019.
respectively, during the public display period. An outline of the design and the process for submitting feedback during the public consultation period was provided. This approach ensured the views of key stakeholders were well understood and feedback could be incorporated as appropriate in subsequent revisions of the draft Development Plan.

Figure 1: Development Plan consultation process (blue refers to Early Engagement, orange refers to Public Display Period, and green refers to Stakeholder Engagement during detailed design)
4.1.2. METHODOLOGY FOR CAPTURING AND CONSIDERING FEEDBACK

CYP circulated copies of the draft Intake Substation Development Plan to key stakeholders with the opportunity to provide written comments.

During the Early Engagement Period key stakeholders were encouraged to provide feedback in the form of written comments, to assist in demonstrating how feedback was captured and responded to.

Additional meetings and workshops to clarify the content and intent of the draft Development Plan were also offered to key stakeholders.

CYP has maintained a register of feedback received and the response to issues raised.
4.2. PUBLIC DISPLAY PERIOD

The Public Display period captured consultation obligations to be fulfilled as detailed under Clause 4.7.4 (c) of the Incorporated Document. Clause 4.7.4 (c) outlines that, prior to submission of a Development Plan to the Minister for Planning for approval a Development Plan must be:

   c) Made available for public inspection and comment on a clearly identifiable project website for 15 business days. The website must set out details about the entity and contact details to which written comments can be directed during that time and specify the time and manner for the making of written comments.

4.2.1. NATURE AND EXTENT OF PUBLIC DISPLAY

CYP undertook the following communications and stakeholder engagement initiatives as part of the draft Development Plan process during the Public Display Period:

- A copy of the draft Development Plan was made publicly available for inspection and comment on the Project website for a period of 15 business days with an online feedback form.
- An advertisement was placed in The Age and Herald Sun newspapers.
- Personalised emails were sent to key stakeholders including City of Melbourne, Melbourne Water, Victorian Planning Authority, Bicycle Network Victoria and Friends of Moonee Ponds Creek.
- Presentation was delivered to the Arden Communications Coordination Working group on 29 November 2019 (members from City of Melbourne, Victorian Planning Authority, DJPR, Melbourne Water etc.)
- Emails were sent to members of the Kensington and Arden & Parkville Community Reference Groups.
- Presentations were delivered at Kensington and Arden & Parkville Community Reference Group meetings.
- Presentation was delivered at the North West Melbourne Association.
- The draft Intake Substation Development Plan was promoted through the Project’s social media channels including Facebook and Twitter.

4.2.2. METHODOLOGY FOR CAPTURING AND CONSIDERING FEEDBACK

4.2.2.1. ONLINE FEEDBACK

Online feedback received during the public inspection and comment period was captured using the ‘Survey Gizmo’ platform which held an online feedback form for this purpose on the Metro Tunnel Project website.

The use of the Metro Tunnel Project website enabled members of the community to find the form on a website that is well established and frequented by key stakeholders and community members with an interest in the Project.

The use of the ‘Survey Gizmo’ platform which has been used for other project consultation processes enabled key stakeholders and community members with an interest in the Project to provide feedback through a form that were more likely to be familiar with.

Online comments were collected and each comment was given its unique comment identifier ID. The ID captured the stakeholder, specific comment, and CYP response. The ‘Survey Gizmo’ platform also gave the participant the option to upload a document in addition to written comments.

The process for considering and collating online feedback was as follows:

- Only complete responses were included.
- Blank submissions were omitted.
• The online feedback form was made publicly available from Monday 18 November 2019 until Friday 6 December 2019.

4.2.2.2. EMAILED FEEDBACK
Some key stakeholders chose to submit their feedback via email, which was incorporated into the comment response register.\n\n4.3. STAKEHOLDER ENGAGEMENT DURING DETAILED DESIGN
The Minister for Planning approved the Intake Substation Development Plan on Thursday 26 March 2020. Since approval, the design for the Intake Substation has progressed through detailed design. The previously approved Intake Substation Development Plan submission highlighted that the design would seek to reduce the number of trees for removal. As part of detailed design, CYP has shifted the cable route alignment further south to minimise tree removal on the western bank of Moonee Ponds Creek.

In accordance with Clause 4.7.8 of the Incorporated Document, the Intake Substation Development Plan can be amended provided that:

a) The proposed amendment
i. Does not result in a material detriment to any person; or
ii. A person who may suffer a material detriment as a result of the Minister’s approval of the amendment has already been sufficiently consulted in respect of the amendment.

The proposed design amendments to the Intake Substation do not affect access, visual intrusion, unreasonable noise or overshadowing. As such, the Intake Substation Development Plan has been amended in accordance with Clause 4.7.8 of the Project’s Incorporated Document.

4.3.1. NATURE AND EXTENT OF STAKEHOLDER ENGAGEMENT DURING DETAILED DESIGN
In preparing an amendment to the Intake Substation Development Plan, CYP undertook engagement with key stakeholders. This has included:

• Rail Projects Victoria
• Office of the Victorian Government Architect
• City of Melbourne
• Melbourne Water
• Friends of Moonee Ponds Creek
• Kensington Association
• Bicycle Network Victoria.

The overarching intent of the stakeholder engagement period during detailed design was to provide key stakeholders with the opportunity to discuss the proposed tree removal and impacts on the Moonee Ponds Creek Trail. In addition, stakeholders had the opportunity to provide comment on the design of the Intake Substation.

Changes to the cable route alignment and Intake Substation screening were developed in consultation with key stakeholders including OVGA and Friends of Moonee Ponds Creek. CYP has collaborated with City of Melbourne and RPV through meetings as well as the project design review.
process to review the design packages. The final design is based on comments received from these key stakeholders.

4.3.2. METHODOLOGY FOR CAPTURING AND CONSIDERING FEEDBACK

4.3.2.1. DESIGN REVIEWS

Throughout detailed design of the Intake Substation, key stakeholders received the staged design packages for review and comment. This included both Interim and Certified design.

- **Interim design stage**
  - Issued to City of Melbourne, RPV (including OVGA) and Metro Trains Melbourne (MTM); Architectural on 28 February 2020 and Civil on 28 April 2020, for review and comment

- **Certified design stage**
  - Issued to City of Melbourne, RPV (including OVGA) and MTM; Architectural on 30 July 2020 and Civil on 7 September 2020, for review and comment
  - Update issued to City of Melbourne, RPV (including OVGA), and MTM; Architectural on 30 April 2021 and Civil on 12 May 2021, for information and comment closure.

Following each design issue, the consulted stakeholders provided comments within the Stakeholder Comments Response Register, with a response provided by CYP (refer to APPENDIX B: Detailed design comment response register).

Table 2 provides a summary of specific consultation undertaken in relation to the materials and finishes of the feature fence along Moonee Ponds Creek.

<table>
<thead>
<tr>
<th>Key issue</th>
<th>Key stakeholder</th>
<th>CYP response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature fence</td>
<td>City of Melbourne</td>
<td>Amended the colour of the feature fence in consultation with stakeholders including City of Melbourne</td>
</tr>
</tbody>
</table>

4.3.2.2. FACE-TO-FACE PRESENTATIONS AND MEETINGS

The key stakeholders were engaged and consulted with through regular face-to-face design presentations and meetings. Throughout detailed design, City of Melbourne, RPV, Melbourne Water and MTM attended fortnightly design meetings (early 2020 – present), and meetings with other key stakeholders were held approximately every six months, or as required.
5. CONSULTATION RESULTS

5.1. EARLY ENGAGEMENT AND PUBLIC DISPLAY

5.1.1. KEY ISSUES AND CYP RESPONSE

Overall, five public submissions were received on the Intake Substation Development Plan. The key issues raised on the draft Development Plan were:

- Environmental Management Framework – five submissions provided comment around the environmental amenity of Moonee Ponds Creek, including potential habitat loss
- Architectural response – 67% of submissions agreed the architectural design response for the Intake Substation is adequate for the existing surrounds. Comments queried viewlines and impact on implementation of the Moonee Ponds Creek Strategic Opportunities Plan
- Public realm and landscape response – four submissions provided comment on tree removal numbers and proposed reinstatement, with a focus on the western bank of Moonee Ponds Creek
- Materials and finishes – four submissions provided comment on visibility of the building and provided suggestions (including brick, paintwork, art) in response to CYP seeking views on external materials and finishes
- Other feedback – a significant number of comments from key stakeholders (i.e. Melbourne Water, Victorian Planning Authority, Friends of Moonee Ponds Creek) were around the cable route alignment, which is covered under the amended Early Works Plan. However, comments have still been included and responded to in the Intake Substation Development Plan comment / response register (refer to Appendix A).

Figure 2 highlights the spread of feedback received. CYP’s responses to the key themes raised in the five online submissions are detailed below.
5.1.1.1. ENVIRONMENTAL MANAGEMENT FRAMEWORK

CYP manages all works, including those covered by the Intake Substation Development Plan, in accordance with the Environmental Management Framework. CYP has continued to consult with key stakeholders throughout the Development Plan process to provide acceptable environmental outcomes and maintain the amenity of Moonee Ponds Creek.

As part of detailed design and in response to stakeholder comments, CYP has minimised its footprint on the western side of Moonee Ponds Creek through realignment of the cable routes.

5.1.1.2. ARCHITECTURAL RESPONSE

CYP note that tree planting and recreational opportunities proposed by the draft Moonee Ponds Creek Strategic Opportunities Plan (2019) are not possible due to the existing railway utility infrastructure in the area, hence why CYP are proposing that this location is suitable for the Intake Substation.

Viewlines have been established as detailed design of the Intake Substation building progresses, noting viewlines in this area are already impacted by the existing Substation and CityLink toll road bridge in the surrounding area. As part of detailed design, CYP propose a feature fence to minimise impacts to the potential users of the Moonee Ponds Creek Trail. The amended design also proposes to screen the mechanical plant on the roof of the Intake Substation building to make the plant less visibly obtrusive.

5.1.1.3. TREE REMOVAL AND REINSTATEMENT

The tree removals outlined in the previously approved Intake Substation Development Plan showed a worst-case scenario.
As part of the detailed design and in response to stakeholder comments, CYP investigated opportunities to minimise the removal of vegetation and potential habitat loss along Moonee Ponds Creek. As such, the design has been amended to remove 21 trees, and this is 20 less trees than the previously approved Development Plan submission.

As part of CYP's landscape and public realm response, trees will be reinstated where impacted by construction along Moonee Ponds Creek and Trail to contribute to providing landscaped areas within the public realm in accordance with the draft *Moonee Ponds Creek Strategic Opportunities Plan* (2019). In addition to the reinstatement of 64 trees, CYP propose to reinstate low level growth and Water Sensitive Urban Design plantings to deliver positive visual and ecological benefits to the area.

5.1.1.4. MATERIALS AND FINISHES
The external materials and finishes presented in the Intake Substation Development Plan are indicative, noting materiality will be dictated by security and technical constraints. CYP will consider suggested options and seek to further develop the architectural design of the Intake Substation building during the detailed design phase of the Project.

5.1.1.5. CABLE ROUTE
The cable route is covered by the amended Early Works Plan and has been aligned to be located under the future Queensberry Street extension to avoid impacts to future development.

CYP has selected a route which minimises impacts to the tidal area of Moonee Ponds Creek, locating the cable route as close as possible to the existing AusNet site and the existing access track. In detailed design, CYP has shifted the cable route alignment further south to minimise tree removal on the western bank of Moonee Ponds Creek.

5.1.2. POST DISPLAY PERIOD
Following the compilation of all comments received through the Public Display Period, CYP created a comment and response register for the Intake Substation which provided a response to all comments received (refer APPENDIX A: Early engagement and public display period comment response register, as presented in the initial submission of the Intake Substation Development Plan in 2020).

CYP provided a response to the issues raised and updated progress to key stakeholders, CRGs, and the broader community.

Post public display, as part of reporting back to stakeholders and the community, CYP undertook the following activities:
- Minister’s listed stakeholders (as defined by the Incorporated Document) – CYP provided responses to the Development Plan Review Committee (DPRC)
- Key stakeholders – were responded to formally in writing, and in stakeholder meetings
- Community members and organisations were provided with a letter.

Following the public display of the Intake Substation Development Plan, a number of changes were made following stakeholder review and comment, which included:
- Community consultation (Section 1.3) – updated to reflect process undertaken
- Arboriculture (Section 4.4.2) – amended to clarify that CYP would seek to reduce tree impacts where possible during detailed design and would select species for reinstatement in consultation with relevant land managers.
5.2. STAKEHOLDER ENGAGEMENT DURING DETAILED DESIGN

5.2.1. KEY ISSUES AND CYP RESPONSE

The previously approved Intake Substation Development Plan submission highlighted that CYP would seek to reduce tree impacts were possible during detailed design. In response to stakeholder comments, CYP has shifted the cable route alignment further south to reduce impact on the western bank of Moonee Ponds Creek, as discussed below.

5.2.1.1. CABLE ROUTE ALIGNMENT

Throughout the detailed design process, feedback from key stakeholders has identified the extent of proposed tree removal as a concern. CYP sought stakeholder input to review the design and following an iterative consultation period, the CYP design team have realigned the cable routes to minimise the removal of trees along the western bank of Moonee Ponds Creek, where possible. As such, the design has been amended to remove 21 trees, and this is 20 less trees than the previously approved Development Plan submission.

5.2.1.2. MOONEE PONDS CREEK TRAIL

Moonee Ponds Creek Trail is located adjacent to the Intake Substation and offers an important cycling link for commuters. Throughout the detailed design process, feedback from key stakeholders has identified concerns regarding impacts to the Trail and its users.

As part of the detailed design, CYP investigated options to further minimise impacts to the potential users of the Moonee Ponds Creek Trail. The amended design proposes a high feature fence adjacent to the trail. The fence is proposed in an irregular form with a pink/purple and white chevron finish. The proposed fence will promote permeability and provide clear sightlines to the Intake Substation.

The amended design also proposes to screen the mechanical plant on the roof of the Intake Substation building to make the plant less visibly obtrusive.

5.2.2. POST STAKEHOLDER ENGAGEMENT DURING DETAILED DESIGN

Following stakeholder engagement during detailed design, a number of changes have been made to the Intake Substation Development Plan, which include:

- Stakeholder engagement during detailed design (Section 1.3.2) – a new section added to outline stakeholder engagement post-Ministerial Approval and during detailed design of the Intake Substation
- Figure 1 – updated to include the additional consultation process post-Ministerial Approval of the Intake Substation Development Plan
- Figure 2 – updated to reflect the amended Associated Works Area
- Scope of works (Section 3) - updated to reflect the changes to the associated works area following the revised cable routes alignment, as well as the removal of 21 trees in the amended design
- Design Development (Section 4.1) – updated to reflect additional detail describing the design development process post-Ministerial Approval
- Architectural response (Section 4.3.1) - updated to outline screening of the mechanical plant on the roof of the Intake Substation building
• Landscape response (Section 4.3.2) – updated to reflect the changes to the tree removal, retention and planting figures. The amended design removes 21 trees, and this is 20 less trees than the previously approved Development Plan submission.
• Public realm response (Section 4.3.3) – updated to reflect the changes to the associated works area following the revised cable routes alignment
• User experience and surrounding environment (Section 4.3.4) – updated to outline the proposed feature fence adjacent to the Moonee Ponds Creek Trail
• Ancillary features (Section 4.3.7) – updated to outline screening of the mechanical plant on the roof of the Intake Substation building
• Arboriculture (Section 4.4.2) – updated to reflect the changes to the tree removal, retention and planting figures. The amended design removes 21 trees, and this is 20 less trees than the previously approved Development Plan submission.
• Social and community (Section 4.4.6) – updated to outline the proposed feature fence adjacent to the Moonee Ponds Creek Trail
• Appendices A, B and C have been updated to include new drawings showing the updated design of the Intake Substation
• Appendices D and E have been updated to provide further detail on the Intake Substation design response to the Urban Design Strategy and Environmental Performance Requirements.
Thank you for your comment. As discussed in Section 4.3.1 of the Intake Substation Development Plan, siting of renders are not required for approval of the Intake Substation Development Plan. Siting compromises the sightlines when heading south along the shared user path with the main bulk of the ISS terminating a vista. View-lines to the substation from key public areas including the shared user path should inform the siting and design. Currently the location of the fire booster should be part of the structure, not as a separate item within the proposed landscaping. Location of the fire booster should be part of the structure not as a separate item within the proposed landscaping.

We will continue to work with City of Melbourne and the VPA on detailed design to limit any impacts on the Capital City Trail. We will work with relevant land managers on detailed design for tree replacement. We will continue to work with relevant land managers on detailed design for tree replacement.

Due to the existing railway utility infrastructure in the area, hence why CYP are proposing that this location is suitable for the Intake Substation building progresses, noting viewlines in this area are already impacted by the existing Substation and CityLink toll road bridge in the surrounding area.

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Due to the existing railway utility infrastructure in the area, hence why CYP are proposing that this location is suitable for the Intake Substation building progresses, noting viewlines in this area are already impacted by the existing Substation and CityLink toll road bridge in the surrounding area.
Thank you for your comment. The external materials and finishes presented in the Intake Substation Development Plan are indicative, noting materiality will be dictated by security and technical constraints. CYP is committed to working closely with the Arden St Station Management Plan to ensure the delivery of sustainable and responsible development.

Thank you for your comment. The Water Sensitive Urban Design scheme for the Intake Substation area will be further developed with due consideration given to the existing stormwater drainage system.

Thank you for your comment. Australian Standard AS 2419.1:2005, Cl. 7.3 (f), requires a fire booster to be "in a position to be normally available where required, such as within 50 metres of any water storage or well." CYP is committed to working closely with the Arden St Station Management Plan to ensure the delivery of sustainable and responsible development.

Thank you for your comment. The Intake Substation Development Plan discusses the Moonee Ponds Creek Strategic Opportunities Plan (MPC SOP) and states that objectives for the area of Moonee Ponds Creek are not possible due to existing rail assets and clearance requirements to the existing North East Link Toll Road. CYP is committed to working closely with the Arden St Station Management Plan to ensure the delivery of sustainable and responsible development.

Thank you for your comment. The tree removals outlined in the Development Plan are a worst-case scenario. As per the Incorporated Document, renders are not required for approval within certain areas. CYP is committed to working closely with the Arden St Station Management Plan to ensure the delivery of sustainable and responsible development.

Thank you for your comment. The selection of trees and vegetation for reinstatement will be undertaken in consultation with relevant land managers. CYP is committed to working closely with the Arden St Station Management Plan to ensure the delivery of sustainable and responsible development.

Thank you for your comment. The Intake Substation Development Plan must be improved to include: trail and Moonee Ponds Creek. CYP will reinstate trees and planting where possible to deliver positive visual and ecological benefits for habitat and riparian values.

Thank you for your comment. On 16/12/19, Melbourne Water emailed CYP and requested comments on their current application for a water supply licence under the Water Act 1959 (Vic). CYP raised a number of concerns which are outlined below. CYP will provide additional comments in response to the application and the consideration of these comments will be an important factor in the outcome of the application.

Thank you for your comment. The cable route has been aligned to be located under the future Queensberry Street extension to avoid impacts to vegetation and potential habitat. This has been made possible by further from Moonee Ponds Creek as suggested, which would have not been possible to accommodate the strategic goals and aims of the SDRP. The cable route meets the requirements of the SDRP (V.2). CYP is committed to working closely with the Arden St Station Management Plan to ensure the delivery of sustainable and responsible development.

Thank you for your comment. As per the Incorporated Document, renders are not required for approval within certain areas. CYP is committed to working closely with the Arden St Station Management Plan to ensure the delivery of sustainable and responsible development.

Thank you for your comment. As per the Incorporated Document, renders are not required for approval within certain areas. CYP is committed to working closely with the Arden St Station Management Plan to ensure the delivery of sustainable and responsible development.

There has been recent tree clearing on site, noticeably the large trees that existed close to the existing staff building. Any further tree removals must be agreed to by the approved Environmental Management Plan, developed in consultation with the Department of Environment, Land, Water and Planning, and after consultation with relevant land managers.

Further details are required on any proposed WSUD elements and how these will be managed.

The cable route is parallel to Moonee Ponds Creek. CYP will ensure the cable route is adequately set back from Moonee Ponds Creek to avoid impacts to vegetation and potential habitat. CYP will consult with the Department of Environment, Land, Water and Planning on the cable route as part of the environmental management plan. Any changes to the cable route will be made after consultation with relevant land managers.

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Thank you for your comment. There are some existing HV cables located beneath Moonee Ponds Creek. The CYP note VPA support for the proposed cable route on the north side of the Creek, currently, there are no remaining or future infrastructure located on the north side of the Creek. There is no reason why these existing cross-Creek connections should not be used for the Melbourne Metro Tunnel HV supply for its substation underground connection.

Upon review of the available information, the VPA has concern with the utility service relocations and tree removal as they relate to the proposed cable route, which is parallel to the existing HV cables. CYP is currently working to minimise its footprint on the Western side of the Creek and will be proposing cross-Creek underground HV cables.

Thank you for your comment. CYP is not aware of any future infrastructure works and requests that VPA provides relevant design information, pertaining to the cable routes to be undertaken, to ensure that CYP can construct the cable routes in an environmentally responsible manner.

The proposed cable route alignment under the Creek is parallel to the existing HV cables.

Thank you for your comment. The Intake Substation is located within the Macaulay depot area rail corridor, directly adjacent to the Arden precinct. The Environment Effects Statement identified a concept design on Langford Street, however the Macaulay depot area has been chosen to allow for future land use opportunities and to optimise its footprint, minimising impacts to existing substation assets. Please note that upgrade of existing rail corridors is not possible due to the existing railway utility infrastructure in the area, hence any CYP upgrades will not be possible within the same layout.

Thank you for your comment. The Development Plan locates the new intake substation/traction substation close to existing substations (VicTrack, CitiPower) on the east side of the Creek, north of Dysons Bridge.

The early works plans show the potential site area under the MPC and below the rail line for cable routing and directional drilling. The Arden-Macauley masterplan is to be completed by the Arden Macclesfield Joint Venture, in accordance with the Environmental Management Framework. CYP will continue to work with us and City of Melbourne (COM) to ensure that the works do not adversely affect our planning for these areas.

The early works plans also show significant site area along the Moonee Ponds Creek Corridor. Further information is required to enable CYP to provide comment on the utility and service relocation without the additional information to be provided by CYP as mentioned above.

Further, the early works plans also show the potential site area under the Creek (north of Dysons Bridge) and below the rail line for cable routing and directional drilling. These provide ample opportunities for cross-Creek underground HV cables and the proposal to bring the substation to Langford Street, however the Macaulay depot area has been chosen to allow for future land use opportunities and to optimise its footprint, minimising impacts to existing substation assets.

Reinstatement will include trees, low level planting and Water Sensitive Urban Design planting in consultation with the Victorian Government. The stand of Allocasuarina trees along the southern side of Arden Street, just west of the Arden Street Bridge. The second area is the environmental values of the Moonee Ponds Creek corridor. These include the above mentioned City of Melbourne Strategic Opportunities Plan are not possible due to the existing railway utility infrastructure in the area, hence any CYP upgrades will not be possible within the same layout.

Much of the above land on the eastern side of the Creek is disused VicTrack land. Under forward looking strategies, it has been identified as part of the City of Melbourne Strategic Opportunities Plan, in accordance with the Environmental Management Framework. CYP will continue to work with us and City of Melbourne (COM) to ensure that the works do not adversely affect our planning for these areas.

The Development Plan notes the need for Strategic Environmental and Urban Design advice that will not impact existing Arden-Macauley masterplan and consultation on urban design and future land uses. CYP has contained the majority of the Intake Substation plant within a two-storey building to optimise its footprint, minimising impacts to existing substation assets. Please note that upgrade of existing rail corridors is not possible due to the existing railway utility infrastructure in the area, hence any CYP upgrades will not be possible within the same layout.

Thank you for your comment. CYP is not aware of any future infrastructure works and requests that VPA provides relevant design information, pertaining to the cable routes to be undertaken, to ensure that CYP can construct the cable routes in an environmentally responsible manner.

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Thank you for your comment. The proposed underground cable to be laid along the western Creek embankment area alongside the AusNet West Melbourne transmission line. The follow-up HV cable would appear any way it has would detrimentally impact on the visibility and amenity of the significant area of shared river bank reserve ("The Moonee River Bank Reserve") on the north side of the Creek (south of the Creek). The folldup HV cable would appear any way it has would detrimentally impact on the visibility and amenity of the significant area of shared river bank reserve ("The Moonee River Bank Reserve") on the north side of the Creek (south of the Creek).

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Further, the early works plans also show significant site area along the Moonee Ponds Creek Corridor. Further information is required to enable CYP to provide comment on the utility and service relocation without the additional information to be provided by CYP as mentioned above.

Thank you for your comment. There is no reason why these existing cross-Creek connections should not be used for the Melbourne Metro Tunnel HV supply for its substation underground connection.

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Further, the early works plans also show significant site area along the Moonee Ponds Creek Corridor. Further information is required to enable CYP to provide comment on the utility and service relocation without the additional information to be provided by CYP as mentioned above.

Thank you for your comment. CYP is not aware of any future infrastructure works and requests that VPA provides relevant design information, pertaining to the cable routes to be undertaken, to ensure that CYP can construct the cable routes in an environmentally responsible manner.
Thank you for your comment. CYP welcome any details of future flood mitigation works being planned by Melbourne Water's preference is for consideration of alternative routes for the cabling which features on alternative sides of the Moonee Ponds Creek.

To enable the 're-visioning' of Moonee Ponds Creek, 15 organisations (including four councils and Melbourne Water) have jointly reviewed whether the cable route could be located on the eastern side of the Creek, crossing to the nominated AusNet site and the existing access track. Unfortunately due to these restrictions, avoidance of the existing AusNet site and the existing access track is not possible.

Our concerns are that these proposed works contradict the PO2 performance objective through the removal of native and indigenous reaches.

Our concerns are in requesting consideration of alternative routes for the cabling which features on alternative sides of the Moonee Ponds Creek.

Melbourne Water's Healthy Waterways Strategy outlines a number of key value targets for the Moonee Ponds Creek Sub-catchment.

Our concerns are in the removal of vegetation and the significant alteration of the creek corridor conflicts with this plan.

Melbourne Water's preference is for consideration of alternative routes for the cabling which features on alternative sides of the Moonee Ponds Creek.

Our concerns are that the installation of an underground power cable right next to the creek will have a direct adverse non-reversible and non-linear effect on the crocodile. The executive committee at stage 2 has set a very high standard and will also affect MRC's ability to attain targets under our Stage 2 of work for the river.

4. Melbourne Water's Healthy Waterways Strategy identifies a number of key value targets for the Moonee Ponds Creek Sub-catchment.

Our concerns are that the installation of an underground power cable right next to the creek will have a direct adverse non-reversible and non-linear effect on the creek. The executive committee at stage 2 has set a very high standard and will also affect MRC's ability to attain targets under our Stage 2 of work for the river.

To enable the 're-visioning' of Moonee Ponds Creek, 15 organisations (including four councils and Melbourne Water) have jointly reviewed whether the cable route could be located on the eastern side of the Creek, crossing to the nominated AusNet site and the existing access track. Unfortunately due to these restrictions, avoidance of the existing AusNet site and the existing access track is not possible.

Our concerns are in the removal of vegetation and the significant alteration of the creek corridor conflicts with this plan.

Melbourne Water's Healthy Waterways Strategy outlines a number of key value targets for the Moonee Ponds Creek Sub-catchment.

Our concerns are in the removal of vegetation and the significant alteration of the creek corridor conflicts with this plan.

Melbourne Water's Healthy Waterways Strategy outlines a number of key value targets for the Moonee Ponds Creek Sub-catchment.

Our concerns are that these proposed works contradict the PO2 performance objective through the removal of native and indigenous reaches.
Thank you for your comment. CYP note that the Victorian Planning Authority, Department of Jobs, Precincts and Urban Housing (UDAAP) and Melbourne Water have been informed of the design of the building and are currently working with CYP to ensure the building is designed in line with the objectives set-out in the UDS section 4.3.d)," and is in accordance with the objectives set-out in the UDS section 4.3.d), opposed to using the Langford Street/Arden Street location previously nominated by the State. This was done to respect the existing Trail and the architectural response will be developed through design.

The Intake Substation with the existing adjacent North Melbourne Traction Substation and replaced a derelict building, as part of the City of Melbourne’s ‘Opportunities Plan’ for this site as it currently contains a significant number of existing electrical rail assets.

The Intake Substation is located in a rail corridor in response to the EPR Requirement LU1 c) and e). For instance, CYP has co-located the Intake Substation and Cross Package Integrated Landscape Response (CPLR) associated with the location.

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Thank you for your comment. The level of detail is consistent with what has been previously provided for the Draft Development Plans. Comments have been addressed.

Thank you for your comment. The Intake Substation is an essential piece of infrastructure which will provide power for the operation of the tunnels and rail corridor. Materials and finishes should acknowledge that the substation will be experienced as part of the Moonee Ponds Creek corridor. CYP design will include the reinstatement of trees and planting scheme intended to create a visual and ecological quality to the adjacent Moonee Ponds Creek corridor.

Thank you for your comment. The Intake Substation has been located specifically within the existing rail corridor in response to the EPR LU1 c) “requirements for a cost effective and efficient solution that is consistent with the need for visual and ecological quality to the adjacent Moonee Ponds Creek corridor. CYP propose low level growth planting along the Moonee Ponds Creek trail to maximise visibility in line with CPTED principles. As detailed design progresses CYP will review the design of the building and all aspects of the design of the substation, its interfaces, Urban and Landscape.

Thank you for your comment. CYP will consult with OVGA throughout design development. CYP will further review this through the detailed design process. The Consultation Summary Report will be further detailed during Design Development. CYP complies with the relevant EPB and the appearance set out in the UDS.

Thank you for your comment. CYP will consult with OVGA throughout design development. CYP has not been provided to date.

Thank you for your comment. CYP will review this through Design Development.

Thank you for your comment. CYP will query the opportunity set out in the 'Moonee Ponds Creek Strategic Development Plan' for this site as it currently contains a significant number of existing electrical rail assets.

Thank you for your comment. CYP propose the consultation with Melbourne Water, City of Melbourne, the VPA (and others), during the detailed design phase to ensure that various plans for the surrounding area are considered.
APPENDIX B: DETAILED DESIGN COMMENT RESPONSE REGISTER
Metro Tunnel - Intake Substation Detailed Design Comment Response Register

1. City of Melbourne

The design has not altered with respect to the suggested review of the siting of the substation further to the southeast of the site to provide greater opportunities for improving the landscape adjacent to the Moonee Ponds Creek. The design can be modified to address this requirement.

Advice Comment: Providing advice, suggested change or prompting further discussion.

Design team

CYP

17/04/2020

Design team

CYP

17/04/2020

Thank you for your comment. It is the aesthetic impact of the building in the context of the surrounding areas.

CYP Update: We have addressed this concern by modifying the design to include additional landscaping and visual softening. The design is now consistent with the requirements of the UDS.

2. City of Melbourne

While we acknowledge the Citylink structures within the context, the building is also located within a creek and landscape environment, capital city bicycle trail and the existing brick buildings. Your reference of the vegetation response to the environmental aspects of the design and its relation to the creek environment is valid. Any opportunities for additional landscape and other screening options will be severely limited given these constraints.

Advice Comment: Providing advice, suggested change or prompting further discussion.

Design team

CYP

12/04/2021

The existing vegetation is minimal and it is unclear if part of it will be required to be removed for construction. Any opportunities for additional landscape and other screening options will be severely limited given these constraints.

CYP Update: We have proposed additional landscaping and visual softening to address this concern. The design is now consistent with the requirements of the UDS.

3. City of Melbourne

The design has been optimised to minimise the building visual mass and footprint. With respect to the suggested review of the siting of the substation further to the southeast of the site to provide greater opportunities for improving the landscape adjacent to the Moonee Ponds Creek.

Advice Comment: Providing advice, suggested change or prompting further discussion.

Design team

CYP

17/04/2020

The design has not altered with respect to the suggested review of the siting of the substation further to the southeast of the site to provide greater opportunities for improving the landscape adjacent to the Moonee Ponds Creek.

CYP Update: We have addressed this concern by modifying the design to include additional landscaping and visual softening. The design is now consistent with the requirements of the UDS.

4. City of Melbourne

The design has been optimised to minimise the building visual mass and footprint. With respect to the suggested review of the siting of the substation further to the southeast of the site to provide greater opportunities for improving the landscape adjacent to the Moonee Ponds Creek.

Advice Comment: Providing advice, suggested change or prompting further discussion.

Design team

CYP

17/04/2020

The design has not altered with respect to the suggested review of the siting of the substation further to the southeast of the site to provide greater opportunities for improving the landscape adjacent to the Moonee Ponds Creek.

CYP Update: We have addressed this concern by modifying the design to include additional landscaping and visual softening. The design is now consistent with the requirements of the UDS.

5. City of Melbourne

The design team acknowledges that the proposed intakes substation building is larger than the existing building and has been modified to reduce its impact on surrounding areas. Any opportunities for additional landscape and other screening options will be severely limited given these constraints.

Advice Comment: Providing advice, suggested change or prompting further discussion.

Design team

CYP

17/04/2020

The design team acknowledges that the proposed intakes substation building is larger than the existing building and has been modified to reduce its impact on surrounding areas. Any opportunities for additional landscape and other screening options will be severely limited given these constraints.

CYP Update: We have addressed this concern by modifying the design to include additional landscaping and visual softening. The design is now consistent with the requirements of the UDS.

6. City of Melbourne

The design team acknowledges that the proposed intakes substation building is larger than the existing building and has been modified to reduce its impact on surrounding areas. Any opportunities for additional landscape and other screening options will be severely limited given these constraints.

Advice Comment: Providing advice, suggested change or prompting further discussion.

Design team

CYP

17/04/2020

The design team acknowledges that the proposed intakes substation building is larger than the existing building and has been modified to reduce its impact on surrounding areas. Any opportunities for additional landscape and other screening options will be severely limited given these constraints.

CYP Update: We have addressed this concern by modifying the design to include additional landscaping and visual softening. The design is now consistent with the requirements of the UDS.

7. City of Melbourne

The design does not impair the view of the creek due to the use of brick as the dominant material. The design can be modified to address this concern.

Advice Comment: Providing advice, suggested change or prompting further discussion.

Design team

CYP

17/04/2020

The design does not impair the view of the creek due to the use of brick as the dominant material. The design can be modified to address this concern.

CYP Update: We have addressed this concern by modifying the design to include additional landscaping and visual softening. The design is now consistent with the requirements of the UDS.

8. City of Melbourne

The design does not impair the view of the creek due to the use of brick as the dominant material. The design can be modified to address this concern.

Advice Comment: Providing advice, suggested change or prompting further discussion.

Design team

CYP

17/04/2020

The design does not impair the view of the creek due to the use of brick as the dominant material. The design can be modified to address this concern.

CYP Update: We have addressed this concern by modifying the design to include additional landscaping and visual softening. The design is now consistent with the requirements of the UDS.

9. City of Melbourne

The design team acknowledges that the proposed intakes substation building is larger than the existing building and has been modified to reduce its impact on surrounding areas. Any opportunities for additional landscape and other screening options will be severely limited given these constraints.

Advice Comment: Providing advice, suggested change or prompting further discussion.

Design team

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The design team acknowledges that the proposed intakes substation building is larger than the existing building and has been modified to reduce its impact on surrounding areas. Any opportunities for additional landscape and other screening options will be severely limited given these constraints.

CYP Update: We have addressed this concern by modifying the design to include additional landscaping and visual softening. The design is now consistent with the requirements of the UDS.

10. City of Melbourne

The design team acknowledges that the proposed intakes substation building is larger than the existing building and has been modified to reduce its impact on surrounding areas. Any opportunities for additional landscape and other screening options will be severely limited given these constraints.

Advice Comment: Providing advice, suggested change or prompting further discussion.

Design team

CYP

17/04/2020

The design team acknowledges that the proposed intakes substation building is larger than the existing building and has been modified to reduce its impact on surrounding areas. Any opportunities for additional landscape and other screening options will be severely limited given these constraints.

CYP Update: We have addressed this concern by modifying the design to include additional landscaping and visual softening. The design is now consistent with the requirements of the UDS.
Thank you for your comment. The feature fence has been reviewed and updated to provide screening of the Intake Substation building for users of the Moonee Ponds Creek Trail. As part of this review the fence has been updated to provide a more continuous fencing line, removing the large gap previously in the middle of the fence. Additional detail on the materials of the feature fence have been included in the Intake Substation Development Plan - Refer to drawings TAS-CYP-ARD-AIS-SKT-CRD-ARC-C4211 and an updated material schedule TAS-CYP-ARD-AIS-SKT-CRD-ARC-C4212 have been added to Appendix B.

Thank you for your comment. The fence height has been informed by CPTED principles in this location to allow individuals to see very clearly behind the fence and to allow the fence to be passed over in emergencies. Further, the height of the fence in this location is restricted by the utilities and services which precede the proposed fence alignment. These services prohibit the fencing from accessing in sun. The design has been and will continue to be coordinated with CYP.

Thank you for your comment. The feature fence has been reviewed and updated to provide screening of the Intake Substation building for users of the Moonee Ponds Creek Trail. As part of this review the fence has been updated to provide a more continuous fencing line, removing the large gap previously in the middle of the fence. Additional detail on the materials of the feature fence have been included in the Intake Substation Development Plan - Refer to drawings TAS-CYP-ARD-AIS-SKT-CRD-ARC-C4211 and an updated material schedule TAS-CYP-ARD-AIS-SKT-CRD-ARC-C4212 have been added to Appendix B.

During discussions to address outstanding comments regarding the design and prominence of the ISS building, it was suggested that the visual impact of the building could be softened through the use of landscaping. The plan included in Figure 4 of the draft DP shows landscaping on the western side of the Creek (see Path). This was presented by CYP design team as an opportunity for additional tree planting that would reduce the visual impact of the building. It was noted that the proposed design for the western landscaped area has been subject to discussions between CYP, RPV and OVGA. The design has been and will continue to be coordinated with OVGA.

Thank you for your comment. New landscape plans have been updated to show additional screening to the right of the Intake Substation building. The schedule has also been updated to include the fence for the Intake Substation.

CoM acknowledges the inclusion of screening to the rooftop plant and generally supports this. Further details of the screening are requested including materials, colours and the detail of the vertical fins.

Thank you for your comment. The Development Plan has been updated to show standard concrete as the finish for the ISS building that will be highly visible from the Creek corridor and will soften views of the ISS building when approached travelling south along the Shared User Path. There was a question about whether tree planting in this area is feasible. It’s noted that the Landscape Plan in Appendix C is designed to minimise impacts on existing trees and landscape.

In this element, this matter requires further resolution to close out outstanding comments.

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Appendix B – Intake Substation Development Plan
INTAKE SUBSTATION DEVELOPMENT PLAN
REV F MINOR AMENDMENT - MINISTERIAL SUBMISSION
TAS-CYP-ARD-AIS-PLA-XLP-AEN-X0864

Friday, 29 July 2022
ACKNOWLEDGMENT TO COUNTRY

We acknowledge the land on which the Metro Tunnel Project is being delivered, is the traditional land for the People of the Kulin Nation. We respect their spiritual beliefs and acknowledge their ongoing connection with their Country.

We would also like to pay our respect to Elders past, present and future.
DOCUMENT CONTROL AND AMENDMENT

The current reviewed and approved version of this Plan is available on IMS for all project personnel to access. Downloaded Plans are deemed uncontrolled and it is the responsibility of the user to ensure they are using the latest revision. The responsibility for maintenance, review, update and approval of this Plan is as per the Delegation of Authority Matrix. All changes to this document are noted.

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<th>Document Title</th>
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REVISION RECORD

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APPROVALS

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<td>Mat Peel</td>
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<td>Caitlin Jackson</td>
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## DEFINITIONS

### STANDARD TERMS AND DEFINITIONS

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### ABBREVIATIONS

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<td>PSA</td>
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<td>PTV</td>
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<td>RPV</td>
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<td>Urban Design Strategy</td>
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<td>WSUD</td>
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PROJECT AND SCOPE

The Metro Tunnel Project is one of the largest transport infrastructure projects ever undertaken in Australia. It will deliver twin nine-kilometre rail tunnels from Kensington to South Yarra as part of a new end-to-end Sunshine to Dandenong line. In addition to the tunnel, new underground stations will be established at the Arden, Parkville, and Domain precincts and two new stations in the CBD precinct.
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EXECUTIVE SUMMARY

Cross Yarra Partnership (CYP) has been contracted by Rail Projects Victoria (a division of the Major Transport Infrastructure Authority, an administrative office in relation to the Department of Transport) (RPV) to design, build and maintain the stations and tunnels for the Metro Tunnel Project (the Project). The Project includes:

- Two nine-kilometre rail tunnels from the west of the city to the south-east as part of a new Sunbury to Cranbourne/Pakenham line
- Five new underground stations: Arden Station, Parkville Station (under Grattan Street), State Library Station (at the northern end of Swanston Street), Town Hall Station (at the southern extent of Swanston Street) and Anzac Station (under Domain Interchange on St Kilda Road)
- A new Intake Substation at Arden and two tunnel portals at South Yarra (Eastern Portal) and South Kensington (Western Portal).

The Intake Substation is located within the rail corridor in the Macaulay depot area, directly adjacent to the Arden Station precinct. The Environment Effects Statement (EES) identified a concept design on Langford Street, however the Macaulay depot area has been chosen to allow for future land use opportunities at Langford Street and to mitigate impacts on the Langford Street Pumping Station. This location was also selected based on its immediate proximity to the North Melbourne Traction Substation, the West Melbourne Terminal Substation, and the availability of land. The Intake Substation will be positioned adjacent to the Craigieburn and Sunbury line active rail corridors, the CityLink toll road bridge and the Moonee Ponds Creek Trail. The Intake Substation is an essential piece of infrastructure which will provide power for the operation of the tunnels and stations.

This Intake Substation Development Plan presents the scope and extent of CYP’s works for the Intake Substation. This Development Plan is a requirement of Clause 4.7 of the Melbourne Metro Rail Project Incorporated Document May 2018 (Incorporated Document) (introduced via Planning Scheme Amendment GC82), which requires Development Plans be prepared for each of the five stations, two portals and any other above ground works or structures that are part of the Project. This Development Plan must be submitted to and approved by the Minister for Planning.

The Project has already undergone an extensive and robust planning assessment process. As part of this, RPV published an EES and draft Planning Scheme Amendment that included an integrated assessment of the potential environmental, social, economic and planning impacts of the Project, and the approach to managing these impacts.

In developing the EES, RPV undertook a comprehensive engagement program to seek input from stakeholders and the community. This included stakeholders and the community having the opportunity to provide formal submissions during a public exhibition period, which were then presented to an Inquiry and Advisory Committee. This committee then considered the EES and submissions, and prepared a report for the Minister for Planning.

In December 2016, the Minister for Planning released his Assessment of the environmental effects of the Project. The Minister subsequently approved a Planning Scheme Amendment GC82 (Amendment GC82) for the Project, which inserted the Incorporated Document into the Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes. Amendment GC82 amended the Project Land to which the Melbourne Metro Rail Project Incorporated Document May 2018 applies.

In accordance with Clause 4.7 of the Incorporated Document, this plan includes:

- Site layout plan (refer to Appendix A)
- Architectural plans and elevations (refer to Appendix B)
- Landscape and public realm plans (refer to Appendix C)
- An explanation demonstrating how this Development Plan is in accordance with the approved Urban Design Strategy (refer to Section 4.3 and Appendix D)
• An explanation demonstrating how this Development Plan is in accordance with the approved Environmental Management Framework particularly the Environmental Performance Requirements (refer to Section 4.4 and Appendix E).

The CYP design for the Intake Substation has incorporated feedback from a range of stakeholders including those identified in the Incorporated Document; namely the Office of the Victorian Government Architect, City of Melbourne, Heritage Victoria, the Department of Transport (formerly Transport for Victoria, VicRoads and Public Transport Victoria) and Melbourne Water.

As part of preparing the previous version of this Intake Substation Development Plan, consultation occurred with the community and stakeholders including a 15 business day public inspection period from Monday 18 November 2019 until Friday 6 December 2019. During this time the Development Plan was available on the Metro Tunnel website providing an opportunity for written comments.

The previous version of this Intake Substation Development Plan was approved by the Minister for Planning on Thursday 26 March 2020. Under the Project’s Incorporated Document, and in accordance with Clause 4.7.8, CYP is seeking a minor amendment to this Development Plan.

The amendments to this Development Plan have been made to improve the architectural and landscape design of the Intake Substation. Those amendments relate to the cable route alignment shifting further south to avoid tree removal on the western bank of Moonee Ponds Creek, screening of the mechanical plant on the Intake Substation roof, erection of a feature fence alongside the existing Moonee Ponds Creek Trail, and an amended refined associated works area as a result of the revised cable routes alignment. The decision-making in relation to these elements has involved an iterative stakeholder consultation process as part of detailed design.

This Development Plan presents the scope and extent of the built form of CYP’s Intake Substation, with associated construction works to occur within the Project Land boundary and construction impacts to be managed in accordance with the approved RPV Environmental Management Framework. This includes separately prepared Environmental Management System, Construction Environmental Management Plan, Site Environmental Implementation Plans and aspect-specific management plans (as specified in the Environmental Performance Requirements).
CHANGE REGISTER

In accordance with Clause 4.7.8 of the Incorporated Document, a minor amendment has been made to the Intake Substation Development Plan. This report has been updated to reflect changes to the cable route alignment to avoid tree removal on the western bank of Moonee Ponds Creek screening of the mechanical plant on the Intake Substation roof, erection of a feature fence alongside the existing Moonee Ponds Creek Trail, and an amended associated works area as a result of the revised cable routes alignment.

Table 1: Amendments to the Intake Substation Development Plan, since Ministerial Approval Thursday 26 March 2020

<table>
<thead>
<tr>
<th>Section</th>
<th>Amendment</th>
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<tbody>
<tr>
<td>Executive Summary</td>
<td>Detail added to outline that this ‘Intake Substation Development Plan’ was approved by the Minister for Planning on Thursday 26 March 2020 and that CYP are now seeking a minor amendment related to the cable route alignment shifting further south to avoid tree removal on the western bank of Moonee Ponds Creek, screening of the mechanical plant on the Intake Substation roof, erection of a feature fence alongside the existing Moonee Ponds Creek Trail, and an amended associated works area as a result of the revised cable routes alignment</td>
</tr>
<tr>
<td>1. Introduction</td>
<td>Detail added to outline that the Intake Substation Development Plan was previously approved by the Minister for Planning on Thursday 26 March 2020. CYP are now seeking a minor amendment to this Development Plan</td>
</tr>
<tr>
<td>1.2 Incorporated Document conditions</td>
<td>Table 2 Clauses 4.7.5, 4.7.6, 4.7.7 and 4.7.8 responses amended to reflect the Intake Substation Development Plan approval process to date and the minor amendment going forward</td>
</tr>
<tr>
<td>1.3.2 Stakeholder engagement during detailed design</td>
<td>New section added to outline stakeholder engagement post-Ministerial Approval of the Intake Substation Development Plan, and during detailed design</td>
</tr>
<tr>
<td>Figure 1</td>
<td>Updated to include the additional consultation process post-Ministerial Approval of the Intake Substation Development Plan</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Updated to reflect the amended associated works area</td>
</tr>
<tr>
<td>3. Scope of works</td>
<td>Updated to reflect the removal of 21 trees in the amended design and this is 20 less trees than the previously approved Development Plan submission.</td>
</tr>
<tr>
<td>4.1 Design development</td>
<td>Additional detail added to explain the design development process post-Ministerial Approval</td>
</tr>
<tr>
<td>4.3.1 Architectural response</td>
<td>Updated to outline screening of the mechanical plant on the roof of the Intake Substation building</td>
</tr>
<tr>
<td>4.3.2 Landscape response</td>
<td>Updated to reflect the changes to the tree removal, retention and planting figures.</td>
</tr>
<tr>
<td>4.3.4 User experience and surrounding environment</td>
<td>Updated to outline the proposed feature fence adjacent to the Moonee Ponds Creek Trail</td>
</tr>
<tr>
<td>4.3.7 Ancillary features</td>
<td>Updated to outline screening of the mechanical plant on the roof of the Intake Substation building</td>
</tr>
</tbody>
</table>
4.4.2 Arboriculture
Table 5 updated to reflect the changes to the tree removal, retention and planting figures

4.4.6 Social and community
Updated to outline the proposed feature fence adjacent to the Moonee Ponds Creek Trail

5 Conclusion
Updated to reflect changes throughout the Intake Substation Development Plan

Appendix A
Drawings updated to reflect revised design

Appendix B
Drawings updated to reflect revised design

Appendix C
Drawings updated to reflect revised design

Appendix D
Responses to the Urban Design Strategy updated to reflect the revised design

Appendix E
Responses to the Environmental Performance Requirements updated to reflect the revised design
1. INTRODUCTION

CYP has been contracted by RPV to design, build and maintain the tunnels and stations for the Metro Tunnel Project. The Project includes:

- Two nine-kilometre rail tunnels from the west of the city to the south-east as part of a new Sunbury to Cranbourne/Pakenham line
- Five new underground stations: Arden Station, Parkville Station (under Grattan Street), State Library Station (at the northern end of Swanston Street), Town Hall Station (at the southern extent of Swanston Street) and Anzac Station (under Domain Interchange on St Kilda Road)
- A new Intake Substation at Arden and two tunnel portals at South Yarra (Eastern Portal) and South Kensington (Western Portal).

The Project has already undergone an extensive and robust planning assessment process. As part of this, RPV published:

- An Environment Effects Statement (EES) that included an integrated assessment of the potential environmental, social, economic and planning impacts of the Project, and the approach to managing these impacts
- A Draft Planning Scheme Amendment (PSA) that detailed changes to the Planning Scheme that were recommended to protect the tunnels, stations and associated infrastructure and guide future development in their vicinity.

In developing these, RPV undertook a comprehensive engagement program to seek input from stakeholders and the community. This included stakeholders and the community having the opportunity to provide formal submissions during a public exhibition period, which were then presented to an Inquiry and Advisory Committee. This committee then considered the EES and submissions, and prepared a report for the Minister for Planning.

In December 2016, the Minister for Planning released his Assessment of the environmental effects of the Project. The Minister subsequently approved a Planning Scheme Amendment GC82 for the Project, which inserted the Melbourne Metro Rail Project Incorporated Document into the Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes. Amendment GC82 amended the Project Land to which the [Melbourne Metro Rail Project Incorporated Document May 2018](#) applies.

As a condition of the Incorporated Document, a Development Plan must be approved by the Minister for Planning for each of the five stations, two portals, rail turnback at West Footscray Station and any other above ground works or structures that are part of the Project.

This Intake Substation Development Plan was approved by the Minister for Planning on Thursday 26 March 2020. Under the Project’s Incorporated Document, and in accordance with Clause 4.7.8, CYP are seeking an amendment to this Intake Substation Development Plan.

1.1. PURPOSE OF THIS DEVELOPMENT PLAN

This Development Plan presents the scope and extent of the built form of CYP’s proposed Intake Substation at North Melbourne. In accordance with Clause 4.7.3 of the Incorporated Document, this plan includes:

- Site layout plans
- Architectural, landscape and public realm plans and elevations
- An explanation demonstrating how this Development Plan is in accordance with the relevant sections of the approved Urban Design Strategy and Environmental Management Framework particularly the Environmental Performance Requirements.
1.2. INCORPORATED DOCUMENT CONDITIONS

The use and development permitted by the Incorporated Document must be undertaken in accordance with the stated conditions, including Clause 4.7 that requires Development Plans be prepared prior to construction. Table 2 provides a response against each requirement of Clause 4.7 for this Development Plan, noting that CYP are seeking an amendment to this Intake Substation Development Plan in accordance with Clause 4.7.8, and approval will be sought from the Minister for Planning.

Table 2: Response to conditions of the Incorporated Document

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<thead>
<tr>
<th>Clause</th>
<th>Condition</th>
<th>Response</th>
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<tr>
<td>4.7.1</td>
<td>Subject to Clause 4.13, a Development Plan must be approved by the Minister for Planning for development that relates to each of the following: a) Western tunnel portal b) Eastern tunnel portal c) Arden Station d) Parkville Station e) CBD North Station f) CBD South Station g) Domain Station h) Rail turnback at West Footscray Station i) Any other above ground works or structures that are part of the Project. *Clause 4.13 relates to Project preparatory works and are subject to separate approval requirement.</td>
<td>This Development Plan presents the scope and built form of CYP’s proposed Intake Substation at North Melbourne, as per the requirements of Clause 4.7.1.i). of the Project Incorporated Document.</td>
</tr>
<tr>
<td>4.7.2</td>
<td>A Development Plan must address surface works that are associated with each of the items listed in Clause 4.7.1. A Development Plan for a station must address underground areas from the station entrance to the ticket gate.</td>
<td>Surface works associated with the Intake Substation are described in Section 3 and shown on drawings in Appendix A – C.</td>
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<tr>
<td>4.7.3</td>
<td>A Development Plan must include:</td>
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<tr>
<td></td>
<td>a) A site layout plan/s</td>
<td>Site layout plans in Appendix A.</td>
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<td></td>
<td>b) Architectural, landscape and public realm plans and elevations including lighting, signage, pedestrian access, bicycle access and other ancillary facilities</td>
<td>Architectural plans and elevations in Appendix B. Landscape and public realm plans in Appendix C.</td>
</tr>
<tr>
<td></td>
<td>c) An explanation demonstrating how the Development Plan (including materials and external finishes) is in accordance with the approved Environmental Performance Requirements included within the Environmental Management Framework.</td>
<td>Consistency with Urban Design Strategy in Section 4.3 and Appendix D. Consistency with the Environmental Management Framework in Section 4.4 and Appendix E.</td>
</tr>
<tr>
<td>4.7.4</td>
<td>Prior to submission of a Development Plan to the Minister for Planning for approval under Clause 4.7.1, a Development Plan must be:</td>
<td>Stakeholder and community consultation is outlined in Section 1.3.</td>
</tr>
<tr>
<td>Clause</td>
<td>Condition</td>
<td>Response</td>
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<tr>
<td>a)</td>
<td>Provided to the Office of the Victorian Government Architect and relevant council/s for consultation</td>
<td></td>
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<tr>
<td>b)</td>
<td>Where relevant, provided to the Roads Corporation, Public Transport Development Authority, Melbourne Water and Heritage Victoria for consultation</td>
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<tr>
<td>c)</td>
<td>Made available for public inspection and comment on a clearly identifiable Project website for 15 business days. The website must set out details about the entity and contact details to which written comments can be directed during that time and specify the time and manner for the making of written comments.</td>
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For the avoidance of doubt, consultation in accordance with (a) and (b) can occur prior to or after the public inspection and comment period in (c).

Before, or on the same day as a Development Plan is made available in accordance with Clause 4.7.4(c), a notice must be published in a newspaper generally circulating in the area to which a Development Plan applies informing the community of the matters set out in Clause 4.7.4(c).

4.7.5 A Development Plan submitted to the Minister for Planning for approval under Clause 4.7.1 must be accompanied by all written comments received under Clause 4.7.4 and a summary of consultation and response to issues raised during the consultation.

CYP provided the Minister for Planning with a comment/response register containing all written comments made by stakeholders and the community in relation to this Intake Substation Development Plan.

As part of the amendment to the Intake Substation Development Plan, CYP will provide the Minister for Planning with additional written comments made by stakeholders.

4.7.6 Before deciding whether to approve a Development Plan under Clause 4.7.1, the Minister for Planning must consider all written comments received under Clause 4.7.4 and the consultation and response summary provided under Clause 4.7.5.

4.7.7 A Development Plan must be approved by the Minister for Planning prior to the commencement of any development relating to an item in Clause 4.7.1, except for Early Works that are carried out in accordance with Clause 4.10.

The Intake Substation Development Plan was approved by the Minister for Planning on Thursday 26 March 2020. Following approval of this Development Plan, CYP commenced works on the Intake Substation.

Early Works was undertaken in accordance with Clause 4.10 and Preparatory Works was undertaken in
1.3. COMMUNITY AND STAKEHOLDER ENGAGEMENT

The Metro Tunnel is a city-shaping project, and as such it is vital to draw on the ideas, expertise and aspirations of the community and stakeholders to inform the planning, construction and future operation of the project. There have been two distinct periods of community and stakeholder engagement:

- The Early Engagement Period sought to gain targeted feedback from key stakeholders to help inform drafts of the Development Plan, whilst the Public Display Period sought to obtain further feedback from the broader community.
- Following approval of the Intake Development Plan on Thursday 26 March 2020, further stakeholder engagement during detailed design has been undertaken. This sought to refine any outstanding design issues with key stakeholders.

1.3.1. EARLY ENGAGEMENT AND PUBLIC DISPLAY PERIOD

The consultation requirements of the Incorporated Document are shown in . In addressing these it is important to note that RPV has undertaken a comprehensive engagement program to seek input from stakeholders and the community. As part of preparing the EES, stakeholders and the community had the opportunity to provide formal submissions during a public exhibition period, and these were then presented to an Inquiry and Advisory Committee. This committee then considered the EES and submissions, and prepared a report for the Minister for Planning.

This Intake Substation Development Plan builds on that previous consultation, with CYP having already consulted with each of the relevant stakeholders identified in the Incorporated Document, being:
Office of Victorian Government Architect (OVGA)
City of Melbourne
Heritage Victoria
Department of Transport (formerly Transport for Victoria, VicRoads, Public Transport Victoria)
Melbourne Water.

In accordance with the Incorporated Document requirements, the previous version of this Intake Substation Development Plan was made available for public inspection for 15 business days from Monday 18 November 2019 until Friday 6 December 2019. During this time it was available on the Metro Tunnel website along with an opportunity to provide written comments. As part of this process a notice was published in The Age and Herald Sun newspapers to inform the community on Monday 18 November 2019.

In addition to the requirements of the Incorporated Document, CYP also consulted with other key stakeholders to understand their key issues and concerns, including:

- Arden Communications Coordination Working group
  - City of Melbourne
  - Victorian Planning Authority
  - Development Victoria
  - Department of Jobs, Precincts and Regions
  - VicTrack
  - Melbourne Water
- Bicycle Network Victoria
- Friends of Moonee Ponds Creek
- Kensington Association
- North and West Melbourne Association
- Metro Trains Melbourne (MTM)
- Kensington and Arden & Parkville Community Reference Groups.

Overall, five public submissions were received on this Intake Substation Development Plan.

As part of the submission to the Minister for Planning, CYP provided all written comments received during stakeholder and community consultation, and a summary of consultation and responses to the issues and queries raised.

1.3.2. STAKEHOLDER ENGAGEMENT DURING DETAILED DESIGN

The Minister for Planning approved the Intake Substation Development Plan on Thursday 26 March 2020. Since approval, the design for the Intake Substation has progressed through detailed design in consultation with key stakeholders. In accordance with Clause 4.7.8 of the Incorporated Document, the Intake Substation Development Plan is now being amended to reflect design changes made during this process.

Stakeholder engagement during detailed design sought to refine outstanding design. The previously approved Intake Substation Development Plan submission highlighted that CYP would seek to reduce tree impacts were possible during detailed design.
In response to comments from the OVGA, CYP has shifted the cable route alignment further south to reduce impact on the western bank of Moonee Ponds Creek. CYP has also collaborated with the City of Melbourne, Melbourne Water, Friends of Moonee Ponds Creek, Bicycle Network Victoria and RPV through meetings as well as the project design review process.

CYP has amended the design including changes to the cable route alignment to avoid tree removal on the western bank of Moonee Ponds Creek, screening of the mechanical plant on the Intake Substation roof, and erection of a feature fence alongside the existing Moonee Ponds Creek Trail, and an amended associated works area as a result of the revised cable routes alignment. The final design is based on comments received from these key stakeholders. Further detail is provided in Sections 4.3.1, 4.3.2, 4.3.3, 4.3.4 and 4.3.7.
Figure 1: Development Plan consultation process (blue refers to Early Engagement, orange refers to Public Display Period, and green refers to Stakeholder Engagement during detailed design)
2. SITE CONTEXT

This section describes how the strategic, physical and natural context of the Intake Substation has been considered in the design development process. The Intake Substation is an essential piece of project infrastructure, located in proximity to the North Melbourne Traction Substation and West Melbourne Terminal Substation (refer to Figure 2), and will provide operational power to the Project’s tunnels and stations. The site of the Intake Substation is owned by VicTrack and leased by MTM.

Figure 2: Intake Substation location map
2.1. BROADER CONTEXT AND STRATEGIC POSITIONING

City of Melbourne and the Victorian Planning Authority recently developed the Moonee Ponds Creek Strategic Opportunities Plan which was subject to public consultation during March and April 2019. The proposed Intake Substation site is marked as an area of 'Expanded Creek Environs', with an aim to 'merge existing open spaces with the waterway, create a new pedestrian connection along the western edge of the creek and expanding the creek environs to facilitate recreation opportunities and extensive tree planting'.

Tree planting and recreational opportunities proposed by the Moonee Ponds Creek Strategic Opportunities Plan are not possible due to the existing railway utility infrastructure in the area, hence why CYP consider this location to be suitable for the Intake Substation.

The EES concept design proposed the Intake Substation be located on Langford Street, north of Arden Street. The EES also proposed three alternative locations, including the proposed site subject to this Development Plan. This alternative site was chosen due to its existing rail corridor use, its proximity to existing substation infrastructure and the suitability of land within the Craigieburn and Sunbury rail corridors.

Planting will be reinstated by CYP where impacted by construction to contribute to improvement of the area and help achieve RPV’s project goal of doubling tree canopy coverage. Ongoing consultation has occurred with the City of Melbourne and Victorian Planning Authority regarding this, as part of the Development Plan process.

The Intake Substation will otherwise not impact on the implementation of the Moonee Ponds Creek Strategic Opportunities Plan.

2.2. HISTORICAL AND NATURAL CONTEXT

An understanding of the natural features in the vicinity of the Intake Substation, as referenced in the EES, has informed the design response.

The Intake Substation site is highly disturbed and modified, due to the current site conditions. Vegetation removal for the Intake Substation is addressed in the amended Early Works Plan, as such, there will be no expected impact on native flora and fauna associated with the above ground development of the Intake Substation.

In addition to the land being exposed to direct rainfall, the Intake Substation site area is covered by a Land Subject to Inundation Overlay (LSIO), associated with the Moonee Ponds Creek floodplain.

No Aboriginal Places have been recorded, although the Intake Substation is within an area of cultural heritage sensitivity associated with the Moonee Ponds Creek. Despite the moderate-high Aboriginal archaeological sensitivity of the site, the archaeological potential has been assessed as low, due to the area being subject to significant ground disturbing activities associated with extensive rail infrastructure.

If archaeological excavations occur within this area, contingency plans within Cultural Heritage Management Plan 13967 would be followed for the discovery of Aboriginal cultural heritage material.

CYP’s planning approach has sought to limit effects on heritage values. This has included selecting an alternative location for the design of the Intake Substation, negating any impact on the Langford Street Pumping Station and associated heritage values.

2.3. EXISTING SITE CONDITIONS

The Intake Substation is located within the rail corridor in the Macaulay depot area, directly adjacent to the Arden precinct. This location was chosen to allow for future land use opportunities of the
proposed EES concept design on Langford Street and to mitigate impacts on the Langford Street Pumping Station. The Intake Substation location is also based on its immediate proximity to the North Melbourne Traction Substation, the West Melbourne Terminal Substation and the availability of land. The Intake Substation will be located between the Craigieburn and Sunbury rail corridors (where they deviate), beneath CityLink toll road and adjacent the Moonee Ponds Creek and shared use path.

The site is owned by VicTrack and leased by MTM. The existing rail corridor is highly disturbed and degraded, as such any permanent works associated with the Intake Substation will have a limited impact on surrounding land use and built form.
3. SCOPE OF WORKS

This Intake Substation Development Plan presents the scope and extent of the built form of CYP’s works for the Intake Substation, which include:

- An Intake Substation providing power for the operation of the tunnels and stations associated with the Project. There will be maintenance access and emergency egress provided from the Intake Substation, however it will not be accessible by the public and local community.

- A total of 41 trees were identified for removal on the plans presented in the approved Intake Substation Development Plan. The amended design presented in this Development Plan proposes to remove 21 trees, and this is 20 less trees than the previously approved Development Plan submission.

- Reinstatement of the public realm, including 64 trees associated with the Intake Substation built form and associated cable routes (installed as part of Early Works), located along the Moonee Ponds Creek and Trail. CYP also propose to reinstate low level growth planting and Water Sensitive Urban Design (WSUD) planting.

The Intake Substation associated works area generally includes a pocket of VicTrack land adjacent to Moonee Ponds Creek, North Melbourne Traction Substation and the existing rail corridor, south of Arden Street. The associated works area also includes land extending across the rail line to the Arden precinct and across and alongside Moonee Ponds Creek to allow for reinstatement of the public realm following the completion of the Project. This area will be used for access purposes during construction.

Associated construction works and impacts to occur within the Project Land boundary (refer to plans in Appendix A) will be managed in accordance with the approved Environmental Management Framework (refer to Section 4.4 and Appendix E). The associated works area is shown on the plan included in Appendix A.

As considered in the EES, the nature of works within the Intake Substation associated works area will change over time and will be characterised by the following CYP activities:

- Site establishment: Site establishment at the Intake Substation includes set-up of site offices, laydown areas, and plant and equipment required for managing construction

- Civil / Structural: Construction of the Intake Substation building and installation of security fencing

- Fit out: This phase of the Project includes the fit out of Intake Substation infrastructure, including emergency egress and equipment rooms

- Testing and commissioning: These works ensure that all new Intake Substation infrastructure meets the requirements of Victorian Rail Safety legislation and is fit for purpose

- Operation: The operational phase of the Project will include activities associated with the day-to-day operation of the Intake Substation.

To manage potential impacts, CYP has implemented an Environmental Management System including a Construction Environmental Management Plan and will prepare an Operations Environmental Management Plan prior to the operations phases of the Project. The aspect-specific control measures are identified in a series of specific management plans with precinct specific controls identified in a Site Environmental Implementation Plan. This is approved by RPV and the Project's Independent Reviewer. This is subject to separate stakeholder consultation requirements and reviewed by the Independent Environmental Auditor, including quarterly audits of performance throughout construction.

Early works activities including demolition of existing infrastructure, site preparation and clearing, installation of hoarding / temporary fencing, utilities service connection, ground excavation, piling and footprint preparation have been covered under the amended Early Works Plan.
4. DESIGN RESPONSE

4.1. DESIGN DEVELOPMENT

The Project’s design has developed through an iterative process informed by phases of specialist technical assessment integrated with stakeholder and community engagement.

In 2016, RPV publicly exhibited the Project concept design in the EES and as a draft Planning Scheme Amendment.

CYP’s design development has been informed by the approved Planning Scheme Amendment, in particular the Incorporated Document conditions that led to the Minister for Planning approving:

- RPV’s Urban Design Strategy – the Project must be designed in accordance with the approved Urban Design Strategy. Developed by RPV with input from the Office of Victorian Government Architect (OVGA), local councils and key stakeholders, the Urban Design Strategy sets out the design vision, key directions, objectives and design guidelines across the Project and for each precinct.

- RPV’s Environmental Management Framework – the Project must be designed in accordance with the approved Environmental Management Framework, which provides a transparent and integrated governance framework to manage the environmental aspects of the Project. This framework includes Environmental Performance Requirements (EPRs), which are performance-based management requirements, and provides clear accountabilities for the delivery and monitoring of the EPRs so that the environmental effects of the Project are appropriately managed.

This is reflected in the design presented in this Intake Substation Development Plan with the following sections explaining how this design is in accordance with the design guidelines from the Urban Design Strategy and Environmental Performance Requirements from the Environmental Management Framework.

The previous version of this Intake Substation Development Plan was approved by the Minister for Planning on Thursday 26 March 2020. Following an iterative consultation period during detailed design, there have been amendments that relate to changes to the cable route alignment to avoid tree removal on the western bank of Moonee Ponds Creek, screening of the mechanical plant on the Intake Substation roof, erection of a feature fence alongside the existing Moonee Ponds Creek Trail, and an amended associated works area as a result of the revised cable routes alignment. In accordance with Clause 4.7.8 of the Incorporated Document, CYP is now seeking approval for this revised Intake Substation Development Plan which incorporates these minor amendments.

4.2. DESIGN PRINCIPLES FOR METRO TUNNEL PROJECT

4.2.1. VISION AND KEY DIRECTIONS

The Urban Design Strategy establishes an Urban Design Vision that is:

“A legacy of outstanding rail stations and associated public spaces that put people first, contribute to Melbourne’s reputation for design excellence, and deliver an overall substantial benefit in terms of urban quality for Melbourne, for the transport network, and for local areas influenced by the Project.”

Under this it identifies six key design themes or project-wide directions, being:

- Make new and improved connections
• Make great public places
• Balance line-wide consistency with site responsiveness
• Support integrated site redevelopment
• Design to help manage construction impacts
• Design for the future.

Each of these key directions has objectives with associated design guidelines to inform the design response.

4.2.2. PRECINCT-SPECIFIC DESIGN ISSUES FOR THE INTAKE SUBSTATION

The Urban Design Strategy identifies precinct-specific design issues for the Intake Substation. This Intake Substation Development Plan has addressed and met the objectives of associated design guidelines to inform the design response.

Spatial provision has been allocated at the Intake Substation site as required under Project Scope and Technical Requirements (PS&TR) Clause 10.2.2 (r). The allocated land for the future expansion allows for cable routing that will not cross or interfere with the 66 or 22 kV Cables installed for the Normal Bulk Supply. The space provided also allows for adequate space to install transformers and prefabricated switch rooms with a similar installation methodology as the Metro Tunnel Bulk Supply.

4.3. CONSISTENCY WITH THE URBAN DESIGN STRATEGY

This Development Plan presents the scope and extent of the built form of CYP’s Intake Substation works, which include an Intake Substation building with emergency access and egress, and reinstatement of public realm along Moonee Ponds Creek.

The design drawings of CYP’s resultant built form for the Intake Substation are attached as follows:

• Site layout plan (Appendix A)
• Architectural plans and elevations (Appendix B)
• Landscape and public realm plans (Appendix C).

Additionally, Appendix D has an assessment of the design guidelines in the Urban Design Strategy that includes cross references to where each relevant design guideline is addressed in this Development Plan.

4.3.1. ARCHITECTURAL RESPONSE

The functional requirements of the Intake Substation and its non-public nature and isolation largely dictate the form and scale of the building and demand a robust and enduring materiality. The building footprint is approximately 35.4 metres long, 18.8 metres wide and 11.0 metres high. The amended design proposes to screen the mechanical plant on the roof of the Intake Substation building. This placement makes the plant less visibly obtrusive, and reduces the potential to impede on sightlines.

The Intake Substation is an essential piece of infrastructure required to provide power for the operation of the tunnels and stations. The Intake Substation will provide a simple functional design with appropriate landscaping. The orientation of the Intake Substation building in its current alternative location is defined by the following constraints:
- Access required for construction and future maintenance / replacement activities
- Clearance requirements to the existing North Melbourne Traction Substation and existing railway and associated infrastructure
- Desire to avoid impacts to the existing Moonee Ponds Creek Trail
- Technical constraints of underground infrastructure that will be installed to/from the Intake Substation, which has electrical segregation and separation clearance requirements.

As part of the overall project works, a flood immunity risk assessment has been undertaken for the design of the Intake Substation, as part of the Arden precinct where it is located.

In response to the susceptibility of flooding, the Intake Substation has been designed to provide flood immunity through elevating all rooms above ground level to protect the Intake Substation in a 1 in 100-year Average Recurrence Interval (ARI) flood event level, in accordance with the Melbourne Water Guidelines. Selected equipment located outdoors will be positioned such as to ensure their components sensitive to flooding are clear of flood height.

The Intake Substation materials and finishes are detailed in Section 4.3.8.

Further detailed flood modelling has been undertaken in consultation with Melbourne Water to confirm appropriate flood storage is maintained.

Relevant architectural drawings showing the proposed Intake Substation from north and south and east and west elevations are shown in Appendix B:

- TAS-HWW-ARD-AIS-DRG-ARC-AEN-A4300

4.3.2. LANDSCAPE RESPONSE

The Intake Substation is a suitable use of the existing land, due to its generally pre-disturbed nature and predominantly rail corridor surrounds. The approved Intake Substation Development Plan identified 41 trees for removal which were approved for removal as part of CYP’s amended Early Works Plan. In total, 21 trees are proposed for removal in the amended design. This is 20 less trees than the previously approved Development Plan submission.

CYP removal of trees has been avoided where possible, with particular emphasis given to the retention of native biodiversity values in close proximity to Moonee Ponds Creek.

All tree removal is subject to EPR AR1, under the provisions of the Project EMF. Trees will be reinstated where impacted by construction along Moonee Ponds Creek and Trail to contribute to RPV’s project goal of doubling tree canopy coverage and providing landscaped areas within the public realm. Tree reinstatement will also help facilitate implementation of the City of Melbourne and the Victorian Planning Authority Moonee Ponds Creek Strategic Opportunities Plan.

In addition to the reinstatement of 64 trees, CYP propose to reinstate low level growth and WSUD plantings to deliver positive visual benefits to the area. Details regarding plant species are subject to ongoing investigation and will be decided prior to project completion.

The relevant landscape drawings are shown in Appendix C:

- TAS-CYP-AR-AIS-00-DRG-AUD-AEN-000002-DP
- TAS-HWW-ARD-AIS-VAR-AGE-AEN-A3300
- TAS-HWW-ARD-AIS-VAR-AGE-AEN-A3301
- TAS-CYP-AR-AIS-00-DRG-AUD-AEN-002203-DP
- TAS-CYP-AR-AIS-00-DRG-AUD-AEN-002204-DP.
4.3.3. PUBLIC REALM RESPONSE

The Intake Substation public realm design response will provide an Intake Substation building, an essential piece of infrastructure required to provide power for the operation of the Project tunnels and stations. The Intake Substation will not be accessible by the public and will discourage trespassing by individuals. CYP design will seek to maintain or improve the security of the existing site.

The Intake Substation is located within a rail corridor in immediate proximity to the North Melbourne Traction Substation, West Melbourne Terminal Substation, Craigieburn and Sunbury line rail corridors, CityLink toll road bridge and the Moonee Ponds Creek and Trail.

Due to the proximity of the proposed Intake Substation and the Moonee Ponds Creek and Trail, CYP design seeks to reduce impacts on surrounding land uses. The architectural design seeks to minimise both the visual and any social impact of the building in the public realm, providing a consolidated structure to house all the required equipment. The majority of permanent works associated with the Intake Substation will be undertaken within the existing rail corridor, with relatively limited impact on land outside the corridor. Works beyond the existing rail corridor will involve reinstatement of the public realm by CYP. The site itself is removed from existing trafficways, and therefore there will be no impact to existing traffic lanes or vehicular parking.

CYP design will include the reinstatement of trees and planting where impacted by construction along Moonee Ponds Creek and Trail. CYP propose low level growth planting along the Moonee Ponds Creek trail to maximise visibility in line with Crime Prevention through Environmental Design (CPTED) principles.

The relevant public realm plans are shown in Appendix C:
- TAS-CYP-AR-AIS-00-DRG-AUD-AEN-000002-DP
- TAS-HWW-ARD-AIS-VAR-AGE-AEN-A3300
- TAS-HWW-ARD-AIS-VAR-AGE-AEN-A3301
- TAS-CYP-AR-AIS-00-DRG-AUD-AEN-002203-DP
- TAS-CYP-AR-AIS-00-DRG-AUD-AEN-002204-DP.

4.3.4. USER EXPERIENCE AND SURROUNDING ENVIRONMENT

The Intake Substation will not be accessible by the public and local community during operation. The building is fully enclosed by walls to the north, east and west, and by a security fence to the south. Hoarding will be installed as part of the amended Early Works Plan during the construction phase of the Project. Therefore, the user experience is limited to the functional requirements of the Intake Substation and emergency access and egress. Two exits via stairs will provide emergency egress and maintenance access from the eastern and western sides of the Intake Substation building. Access to the substation will only be for maintenance and workers associated with the functioning of the rail network.

The surrounding environment is primarily a rail corridor and not accessed by the public, with the exception of the Moonee Ponds Creek Trail. Moonee Ponds Creek Trail is located adjacent to the Intake Substation and offers an important cycling link for commuters. Cyclists may temporarily be diverted along Moonee Ponds Creek Trail during the construction phase, however CYP will seek to minimise any impacts to the existing Trail and will reinstate access at the completion of works. The Moonee Ponds Creek Trail will continue to be used as an active transport link during the Intake Substation operation.

As part of the detailed design, CYP investigated options to further minimise impacts to the potential users of the Moonee Ponds Creek Trail. The amended design proposes a high feature fence adjacent to the trail. The fence is proposed in an irregular form with a pink/purple colour and white chevron finish. The proposed fence will promote permeability and provide clear sightlines to the
Intake Substation. The location of the proposed feature fence is shown in red on Figure 3. Further fence details are shown in Appendix C:

- TAS-HWW-ARD-AIS-DRG-AUD-AEN-A3800

CYP will also reinstate trees and planting along Moonee Ponds Creek where impacted by construction.

![Intake Substation Development Plan](image)

Figure 3: Location of the proposed feature fence

4.3.5. LIGHTING

Lighting will be for the sole purpose of operating the Intake Substation. Operational lighting will be designed in accordance with relevant standards as per EPR LV3.

4.3.6. SIGNAGE

Any signage required for the Intake Substation will be in accordance with Department of Transport, City of Melbourne standards and guidelines.
4.3.7. ANCILLARY FEATURES

An integrated formal approach has been pursued in order to conceal extraneous functional elements within a single unified Intake Substation. CYP design has strategically consolidated plant within the two-storey Intake Substation building, with the exception of an oil separator located externally, south of the building. Further, the amended design proposes to screen the mechanical plant on the roof of the Intake Substation building. This placement makes the plant less visibly obtrusive, and reduces the potential to impede on sightlines.

4.3.8. MATERIALS AND FINISHES

A schedule of indicative materials and finishes has been prepared to highlight the intended colour tones and textures of the Intake Substation to fit into the existing surrounds of the rail corridor. The indicative materials and finishes have been significantly dictated by security and technical constraints.

Figure 4 provides indicative materials and finishes for the Intake Substation. A copy of the materials schedule is provided in Appendix B, refer to schedule:


4.3.9. CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

Natural access control and passive surveillance, in addition to territorial reinforcement, make up the three basic strategies of CPTED.

The design concept of access control is directed primarily at decreasing criminal accessibility. Natural access control restricts criminal intrusion, in particular into areas where they are not easily observed. This is achieved by limiting access and increasing natural surveillance. Design initiatives integrated into the Intake Substation which aim to accomplish this include the use of walls, footpaths and lighting to:

- Restrict public access to, or from, the Intake Substation (except in the case of maintenance works or emergency access / egress)
- Enable intruders to be more easily recognised.

Natural, or passive, surveillance is a design concept that aims to keep potential offenders and intruders under observation through the creation of environments where there is sufficient opportunity for people engaged in their normal behaviour to observe the space around them. Design features of the Intake Substation which have been employed to increase natural and passive surveillance include low level growth planting to maximise visibility.
Territorial reinforcement, the third basis of CPTED, focuses on the delineation of private space from semi-public and public spaces, creating a sense of ownership. This in turn identifies intruders, making them less likely to offend.

Simple design measures have been employed to reduce the potential for anti-social behaviour including the installation of a security fence to the south. The building is also fully enclosed by walls to the north, east and west. The A/C condenser units facing north will be enclosed in secure mesh.
4.4. CONSISTENCY WITH THE ENVIRONMENTAL MANAGEMENT FRAMEWORK

The Environmental Management Framework provides a transparent and integrated governance framework to manage the environmental aspects of the entire Project. A summary of the framework is provided in Table 3.

Table 3: Summary of RPV Environmental Management Framework

<table>
<thead>
<tr>
<th>Topic</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract structure</td>
<td>Outlines the RPV procurement strategy that includes different delivery packages including an Early Works Managing Contractor, Rail Infrastructure Alliance, Rail Systems Alliance and Tunnels &amp; Stations Public Private Partnership (CYP).</td>
</tr>
<tr>
<td>Roles and responsibilities</td>
<td>Defines roles and responsibilities for the Minister for Planning, regulators and agencies, RPV, PTV, project contractors (for the delivery packages above), Independent Reviewer and Independent Environmental Auditor.</td>
</tr>
<tr>
<td>documentation</td>
<td></td>
</tr>
<tr>
<td>Evaluating environmental performance</td>
<td>Provides requirements for project contractors in relation to monitoring, reporting and auditing environmental performance.</td>
</tr>
<tr>
<td>Environmental Performance Requirements</td>
<td>EPRs are performance-based requirements that define the project-wide environmental outcomes that must be achieved during design, construction and operation of the Project. This performance-based approach allows for a delivery model with sufficient flexibility to encourage innovation by the Project contractors to determine how any approved EPR would be achieved.</td>
</tr>
<tr>
<td>(EPRs)</td>
<td></td>
</tr>
<tr>
<td>Residential Impact Management Guidelines</td>
<td>Appended to the framework, the guidelines provide direction to the Project contractors on how to address residual impacts on residential amenity so far as is reasonably practicable and appropriate.</td>
</tr>
<tr>
<td>Business Support Guidelines for Construction</td>
<td>Appended to the framework, the guidelines provide a framework for project contractors to address residual impacts on businesses so far as reasonably practicable and appropriate.</td>
</tr>
</tbody>
</table>

The Environmental Management Framework rightly extends well beyond just the application to this Development Plan, which presents the scope and extent of the built form of CYP’s Intake Substation works. This includes:

- Construction impacts – will be addressed by CYP’s Environmental Management System, Construction Environmental Management Plan, Site Environment Implementation Plans, Early Works Management Plan and aspect-specific management plans (as specified in the Incorporated Document and EPRs). This is subject to separate stakeholder consultation requirements and review by the Independent Environmental Auditor, including quarterly audits of performance throughout construction.

- Operational impacts – will be addressed by CYP’s Environmental Management System and Operations Environmental Management Plan. This is subject to separate stakeholder consultation requirements and review by the Independent Environmental Auditor.
• Geographically-specific – location specific requirements that are not in the Intake Substation will be addressed in the relevant precinct Development Plan

• Specific to another project contractor – compliance by other project contractors (e.g. Early Works Managing Contractor) will be addressed in the relevant environmental management documentation of that project contractor.

An assessment of each EPR is provided in Appendix E. This assessment identified key EPRs relevant to this Development Plan and these are presented below.

4.4.1. AQUATIC ECOLOGY AND RIVER HEALTH

Table 4 provides the CYP design response to the relevant aquatic ecology and river health EPRs.

Table 4: Design response to relevant aquatic and river health EPRs

<table>
<thead>
<tr>
<th>EPR</th>
<th>Design response</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPR AE1:</td>
<td>The design of the Intake Substation has been developed in consultation with Melbourne Water, City of Melbourne and the Victorian Planning Authority.</td>
</tr>
<tr>
<td>Stormwater</td>
<td>The Intake Substation is in close proximity to Moonee Ponds Creek, therefore stormwater runoff has the potential to impact on water quality in Moonee Ponds Creek. The Moonee Ponds Creek floodplain has been considered during design, with appropriate pollutant control measures integrated into stormwater design. WSUD principles have also been utilised, whereby WSUD planting will capture stormwater, provide passive irrigation to plants, and ensure that stormwater entering bodies of water complies with State Environment Protection Policy (Waters).</td>
</tr>
<tr>
<td>treatment</td>
<td></td>
</tr>
<tr>
<td>EPR AE7:</td>
<td>The design of the Intake Substation has been developed in consultation with Melbourne Water, City of Melbourne and the Victorian Planning Authority.</td>
</tr>
<tr>
<td>Stormwater</td>
<td>The Intake Substation is in close proximity to Moonee Ponds Creek, therefore stormwater runoff has the potential to impact on water quality in Moonee Ponds Creek. The Moonee Ponds Creek floodplain has been considered during design, with appropriate pollutant control measures integrated into stormwater design. WSUD principles have also been utilised, whereby WSUD planting will capture stormwater, provide passive irrigation to plants, and ensure that stormwater entering bodies of water complies with State Environment Protection Policy (Waters).</td>
</tr>
<tr>
<td>treatment</td>
<td></td>
</tr>
<tr>
<td>EPR AE5:</td>
<td>The design of the Intake Substation has been developed in consultation with Melbourne Water, City of Melbourne and the Victorian Planning Authority.</td>
</tr>
<tr>
<td>Floodwaters</td>
<td>The Intake Substation is located within the Moonee Ponds Creek floodplain. There is potential for impacts on the aquatic health of the Moonee Ponds Creek if flooding or equipment failure results in a leak of toxic substances from the Intake Substation. Flood prevention measures will help to reduce the risk to aquatic ecosystem values arising from flooding events. As part of the overall project works, a flood immunity risk assessment has been undertaken for the Arden precinct where it is located. Further detailed flood modelling has been undertaken in consultation with Melbourne Water to confirm that appropriate flood storage is maintained. In response to the susceptibility of flooding, the Intake Substation design provides flood immunity through elevating all rooms above ground level above the 1 in 100-year ARI flood event level, in accordance with Melbourne Water Guidelines. Selected equipment located outdoors will be positioned such as to ensure their components sensitive to flooding are clear of flood height.</td>
</tr>
</tbody>
</table>

4.4.2. ARBORICULTURE

Table 5 provides the CYP design response to the relevant arboriculture EPRs.

Table 5: Design response to relevant arboriculture EPRs

<table>
<thead>
<tr>
<th>EPR</th>
<th>Design response</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPR AR1:</td>
<td>The design of the Intake Substation has been developed in consultation with City of Melbourne. The removal of trees has been avoided where possible, with particular emphasis given to the retention of native biodiversity values along Moonee Ponds Creek.</td>
</tr>
<tr>
<td>Maximise tree retention</td>
<td></td>
</tr>
</tbody>
</table>
Trees are required to be removed for the construction of the Intake Substation. The approved Intake Substation Development Plan identified 41 trees for removal which were approved for removal as part of CYP’s amended Early Works Plan. In total, 21 trees are proposed for removal in the amended design. This is 20 less trees than the previously approved Development Plan submission. Overall, CYP propose to reinstate approximately 64 new trees, as well as low level growth planting and WSUD planting.

The retained and removed trees are shown on the landscape plans in Appendix C.

**EPR AR2: Tree soil and water supply**

CYP propose to reinstate low level growth and WSUD planting along Moonee Ponds Creek to improve the stormwater discharge quality from the Intake Substation site and to support the healthy and resilient establishment and growth of trees and vegetation. Details regarding plant species are subject to ongoing investigation and consultation with relevant land managers, and will be decided prior to project completion.

CYP have worked with a specialist soil scientist to develop a high-performance soil specification and profile that balances the optimal soil requirements for storm water drainage, as well as for long term tree growth.

WSUD is shown on the landscape and public realm plans in Appendix C.

**EPR AR3: Tree replacement**

The design of the Intake Substation has been developed in consultation with City of Melbourne.

The design for the Intake Substation includes reinstating trees impacted by construction along Moonee Ponds Creek and Trail. Overall, CYP propose to reinstate approximately 64 new trees, as well as low level growth planting.

This will help achieve RPV’s project goal of doubling tree canopy coverage and providing landscaped areas within the public realm. Tree reinstatement will also help facilitate implementation of the City of Melbourne and the Victorian Planning Authority Moonee Ponds Creek Strategic Opportunities Plan.

A tree replacement program has been developed in further consultation with City of Melbourne to ensure tree replacement is carried out in alignment with council strategies.

The reinstated trees are shown on the landscape plans in Appendix C.

### 4.4.3. HISTORICAL CULTURAL HERITAGE

Table 6 provides the CYP design response to the relevant historical cultural heritage EPRs.

<table>
<thead>
<tr>
<th>EPR</th>
<th>Design response</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPR CH1: Minimise heritage impact</td>
<td>The design of the Intake Substation has been developed in consultation with the City of Melbourne. There is no known heritage fabric in the vicinity of the Intake Substation, and as such, there will be no impact on heritage places. Heritage impacts on the Langford Street Pumping Station have been avoided through the selection of an alternative location to the concept design option, as outlined in the EES.</td>
</tr>
<tr>
<td>EPR CH10: Response to heritage places</td>
<td></td>
</tr>
<tr>
<td>EPR CH23: Heritage street fabric</td>
<td></td>
</tr>
<tr>
<td>EPR CH12: Langford Street Pumping Station</td>
<td>The Langford Street Pumping Station forms part of the Moonee Ponds Creek and Infrastructure Precinct. The Intake Substation is located at an alternative location to the concept design option proposed in the EES and will therefore have no heritage impact on the Langford Street Pumping Station.</td>
</tr>
</tbody>
</table>
4.4.4. LAND USE AND PLANNING

Table 7 provides the CYP design response to the relevant land use and planning EPRs.

Table 7: Design response to relevant land use and planning EPRs

<table>
<thead>
<tr>
<th>EPR</th>
<th>Design response</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPR LU1: Minimise impact on existing land use</td>
<td>The design of the Intake Substation has been developed in consultation with the City of Melbourne. The location for the Intake Substation adjacent to the Arden precinct is due to its proximity to the North Melbourne Traction Substation, West Melbourne Terminal Substation and availability of land. The existing land use is primarily rail oriented, and the proposed location is adjacent to the CityLink toll road bridge, existing rail corridor and Moonee Ponds Creek Trail. Impacts on existing land use are therefore minimised.</td>
</tr>
<tr>
<td>EPR LU2: Master plans</td>
<td>City of Melbourne and the Victorian Planning Authority recently developed a Moonee Ponds Creek Strategic Opportunities Plan (2019). The proposed Intake Substation site is marked as an area of ‘Expanded Creek Environments’, with an aim to ‘merge existing open spaces with the waterway, create a new pedestrian connection along the western edge of the creek and expanding the creek environs to facilitate recreation opportunities and extensive tree planting’. Tree planting and recreational opportunities proposed by the Moonee Ponds Creek Strategic Opportunities Plan are not possible due to the existing railway utility infrastructure in the area, hence why CYP are proposing that this location is suitable for the Intake Substation. The Intake Substation has been strategically positioned at an alternative location to the concept design proposed in the EES. This strategic positioning is due to the existing North Melbourne Traction Substation and West Melbourne Terminal Substation, and the suitability of placing a rail asset within the Craigieburn and Sunbury line existing rail corridors. Planting will be reinstated by CYP where impacted by construction. City of Melbourne and Victorian Planning Authority will be consulted as part of the Development Plan process. The Metro Tunnel will otherwise not impact on the implementation of the Moonee Ponds Creek Strategic Opportunities Plan.</td>
</tr>
<tr>
<td>EPR LU4: Urban Design Strategy</td>
<td>The design of the Intake Substation has been developed in consultation with Urban Design and Architectural Advice Panel (UDAAP). A detailed assessment of consistency with the Urban Design Strategy is provided in Appendix D and Section 4.3.</td>
</tr>
</tbody>
</table>

4.4.5. LANDSCAPE AND VISUAL

Table 8 provides the CYP design response to the relevant landscape and visual EPRs.

Table 8: Design response to relevant landscape and visual EPRs

<table>
<thead>
<tr>
<th>EPR</th>
<th>Design response</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPR LV1: Reduce visual impact</td>
<td>The design of the Intake Substation has been developed in consultation with the Office of the Victorian Government Architect and City of Melbourne. The Intake Substation location was selected as it is within an existing rail corridor, away from residences, and will therefore have a minimal visual impact on surrounding amenities. Existing habitat corridors will be maintained as public realm along Moonee Ponds Creek. Any construction impacts to the existing habitat corridor will be reinstated by CYP, where possible.</td>
</tr>
<tr>
<td>EPR LV2: Re-establishment of public open space</td>
<td>The design of the Intake Substation has been developed in consultation with the City of Melbourne. The location for the Intake Substation adjacent to the Arden precinct is due to its proximity to the North Melbourne Traction Substation, West Melbourne Terminal Substation and availability of land. The existing land use is primarily rail oriented, and the proposed location is adjacent to the CityLink toll road bridge, existing rail corridor and Moonee Ponds Creek Trail. Impacts on existing land use are therefore minimised.</td>
</tr>
</tbody>
</table>
Diversions along the Moonee Ponds Creek Trail may occur for a limited duration during the construction period, however CYP will re-establish this public open space on completion of the works.

4.4.6. SOCIAL AND COMMUNITY

Table 9 provides the CYP design response to the relevant social and community EPR.

Table 9: Design response to relevant social and community EPR

<table>
<thead>
<tr>
<th>EPR</th>
<th>Design response</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPR SC8: Re-establish public open space</td>
<td>The design of the Intake Substation has been developed in consultation with City of Melbourne and the Victorian Planning Authority. The Intake Substation has been located in an existing rail corridor away from residences and amenities in order to avoid social and community impacts. Where there will likely be construction impacts to Moonee Ponds Creek and Trail, CYP propose to reinstate low level growth and WSUD planting to deliver positive visual benefits to the area. As part of the detailed design, CYP investigated options to further minimise impacts to the potential users of the Moonee Ponds Creek Trail. The amended design proposes a high feature fence adjacent to the trail. The fence is proposed in an irregular form with a pink/purple colour and white chevron finish. The proposed fence will promote permeability and provide clear sightlines to the Intake Substation. The landscape and public realm drawings are shown in Appendix C.</td>
</tr>
</tbody>
</table>

4.4.7. SURFACE WATER

Table 10 provides the CYP design response to the relevant surface water EPRs.

Table 10: Design response to relevant surface water EPRs

<table>
<thead>
<tr>
<th>EPR</th>
<th>Design response</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPR SW1: Flood design</td>
<td>The design of the Intake Substation has been developed in consultation with Melbourne Water, City of Melbourne and the Victorian Planning Authority. In response to the susceptibility of flooding, the Intake Substation has been designed to provide flood immunity through elevating all rooms above ground level to protect the Intake Substation from being flooded from the 1 in 100-year ARI flood event level, in accordance with the Melbourne Water Guidelines. Selected equipment located outdoors will be positioned to ensure their components sensitive to flooding are clear of flood height. The adoption of a WSUD will also help to manage local stormwater and allow for stormwater infiltration. A detailed assessment of consistency with the Urban Design Strategy is provided in Appendix D and Section 4.3.</td>
</tr>
</tbody>
</table>
4.4.8. TRANSPORT

Table 11 provides the CYP design response to the relevant transport EPRs.

Table 11: Design response to relevant transport EPRs

<table>
<thead>
<tr>
<th>EPR</th>
<th>Design response</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPR T9: Operational active transport</td>
<td>The design of the Intake Substation was developed in consultation with City of Melbourne. Construction activity may require cyclists to be temporarily diverted during construction, while works are undertaken along Moonee Ponds Creek Trail. CYP will work with City of Melbourne to ensure appropriate alternative access is arranged during this time. CYP will work with City of Melbourne following construction, to ensure reinstatement of the cycle path following the completion of works.</td>
</tr>
</tbody>
</table>
5. CONCLUSION

This Intake Substation Development Plan presents the scope and extent of the built form of CYP’s Intake Substation works. In accordance with Clause 4.7 of the Incorporated Document, this plan includes:

- Site layout plan (refer to Appendix A)
- Architectural plans and elevations (refer to Appendix B)
- Landscape and public realm plans (refer to Appendix C)
- An explanation demonstrating how this Development Plan is in accordance with the relevant sections of the approved Urban Design Strategy (refer to Section 4.3 and Appendix D)
- An explanation demonstrating how this Development Plan is in accordance with the relevant sections of the approved Environmental Management Framework particularly the Environmental Performance Requirements (refer to Section 4.4 and Appendix E).

RPV’s Urban Design Strategy established the following Urban Design Vision for the Project:

“A legacy of outstanding rail stations and associated public spaces that put people first, contribute to Melbourne’s reputation for design excellence, and deliver an overall substantial benefit in terms of urban quality for Melbourne, for the transport network, and for local areas influenced by the Project.”

The Intake Substation is located within the rail corridor in the Macaulay depot area, directly adjacent to the Arden precinct. The EES identified a concept design on Langford Street, however the Macaulay depot area was chosen to allow for future land use opportunities at Langford Street and to mitigate impacts on the Langford Street Pumping Station. This location was also determined based on its immediate proximity to the North Melbourne Traction Substation, the West Melbourne Terminal Substation, and the availability of land. The Intake Substation will be positioned adjacent to the Craigieburn and Sunbury line active rail corridors, the CityLink toll road bridge and the Moonee Ponds Creek Trail. The Intake Substation is an essential piece of infrastructure which will provide power for the operation of the tunnels and stations.

The CYP design for the Intake Substation has incorporated feedback from a range of stakeholders including those identified in the Incorporated Document; namely the Office of the Victorian Government Architect, City of Melbourne, Heritage Victoria, Department of Transport and Melbourne Water.

As part of preparing the previous version of this Intake Substation Development Plan, consultation occurred with the community and stakeholders including a 15 business day public inspection period from Monday 18 November 2019 until Friday 6 December 2019. During this time it was available on the Metro Tunnel website along with an opportunity to provide written comments.

The previous version of this Intake Substation Development Plan was approved by the Minister for Planning on Thursday 26 March 2020. Under the Project’s Incorporated Document, and in accordance with Clause 4.7.8, CYP is seeking a minor amendment to this Development Plan.

The amendments to this Development Plan have been made to improve the architectural and landscape design of the Intake Substation. Those amendments relate to changes to the cable route alignment to avoid tree removal on the western bank of Moonee Ponds Creek, screening of the mechanical plant on the Intake Substation roof, erection of a feature fence alongside the existing Moonee Ponds Creek Trail, and an amended associated works area as a result of the revised cable routes alignment. The decision-making in relation to these elements has involved an iterative stakeholder consultation process as part of detailed design.

This Development Plan presents the scope and extent of the built form of CYP’s Intake Substation works with associated construction works to occur within the Project Land boundary and construction impacts to be managed in accordance with the approved Environmental Management Framework. This includes separately prepared Environmental Management System, Construction Environmental
Management Plan, Site Environmental Implementation Plans and aspect-specific management plans (as specified in the Environmental Performance Requirements).
### APPENDIX A: INTAKE SUBSTATION SITE LAYOUT PLAN

<table>
<thead>
<tr>
<th>Legend</th>
<th>TAS-CYP-ARD-AIS-00-DRG-AUD-AEN-000001-DP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precinct Plan</td>
<td>TAS-CYP-AR-AIS-00-DRG-AUD-AEN-000002-DP</td>
</tr>
<tr>
<td>Associated Works Area</td>
<td>TAS-CYP-ARD-AIS-SKT-CRD-AEN-C4203</td>
</tr>
</tbody>
</table>
MOONEE PONDS CREEK
CITYLINK FREEWAY
EXISTING SUBSTATION
MACAULAY LIGHT RAIL REPAIR CENTRE
RAILWAY LINE
ARDEN STREET
WEST MELBOURNE TERMINAL STATION
ISS CABLING ROUTE
ELECTRICAL SERVICE
REFER TO CIVIL INTAKE SUBSTATION PACKAGE:
TAS - CRD - 2339 - 0485

AREA OF REINSTATEMENT (SHOWN AS GREEN HATCH)

LEGEND
PROJECT LAND BOUNDARY
EXTENT OF PUBLIC REALM/ DESIGN RESPONSE
NOT FOR CONSTRUCTION
DEVELOPMENT PLAN SUBMISSION

Up Location
East.
North.
ID#

Down Location
East.
North.
ID#

Datum
A1

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Revised By
In Serv Rev. Date
Description
Designed
Checked
Ind. Rev.
Approv.

25/05/2022 9:13:21 PM
As indicated

P.YAO
C.GUTHRIE
E.SHAW

ARCHITECTURAL

This drawing is issued for the

26/05/2022
CG

PRECINCT PLAN
LANDSCAPE REINSTATEMENT
INTAKE SUPPLY SUBSTATION

ES ES CG
APPENDIX B: INTAKE SUBSTATION ARCHITECTURAL PLANS AND ELEVATIONS

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precinct Plan</td>
<td>TAS-CYP-AR-AIS-00-DRG-AUD-AEN-000002-DP</td>
</tr>
<tr>
<td>Sections</td>
<td>TAS-CYP-ARD-AIS-SKT-CRD-ARC-C4208</td>
</tr>
<tr>
<td>Materials Schedule</td>
<td>TAS-CYP-ARD-AIS-SKT-CRD-ARC-C4211</td>
</tr>
</tbody>
</table>
APPENDIX C: INTAKE SUBSTATION LANDSCAPE AND PUBLIC REALM PLANS

Legend

Planting Schedule

Precinct Plan

Landscape Plan – Sheet 01

Landscape Plan – Sheet 02

Landscape Plan – Sheet 03

Landscape Plan – Sheet 04

TAS-CYP-ARD-AIS-00-DRG-AUD-AEN-000001-DP

TAS-CYP-ARD-AIS-00-DRG-AUD-AEN-000011-DP

TAS-CYP-AR-AIS-00-DRG-AUD-AEN-000002-DP

TAS-CYP-ARD-AIS-00-DRG-AUD-AEN-002203-DP

TAS-CYP-ARD-AIS-00-DRG-AUD-AEN-002204-DP

TAS-CYP-ARD-AIS-00-DRG-AUD-AEN-002205-DP

TAS-CYP-ARD-AIS-00-DRG-AUD-AEN-002206-DP
**TREE SCHEDULE**

<table>
<thead>
<tr>
<th>Botanic Name</th>
<th>Common Name</th>
<th>Planting Density</th>
<th>Pot Size</th>
<th>Chloris truncata</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acacia acinacea 'Pot O Gold'</td>
<td>Gold dust Wattle</td>
<td>0.5x1.5m 7 / m²</td>
<td>5.0% 200mm</td>
<td>197</td>
</tr>
<tr>
<td>Spear Grass</td>
<td>1.0x1.0m 7 / m²</td>
<td>25.0% 200mm</td>
<td>393</td>
<td></td>
</tr>
<tr>
<td>Common Wallaby-grass</td>
<td>0.9x0.5m 7 / m²</td>
<td>25.0% Cell</td>
<td>966</td>
<td></td>
</tr>
<tr>
<td>Spear Grass</td>
<td>1.0x1.0m 7 / m²</td>
<td>10.0% 200mm</td>
<td>393</td>
<td></td>
</tr>
<tr>
<td>Rytidosperma caespitosum</td>
<td></td>
<td></td>
<td>562</td>
<td></td>
</tr>
<tr>
<td>Golden Wattle</td>
<td>0.5x1.5m 7 / m²</td>
<td>15.0% 200mm</td>
<td>590</td>
<td></td>
</tr>
<tr>
<td>Common Wallaby-grass</td>
<td>0.9x0.5m 7 / m²</td>
<td>10.0% Tube</td>
<td>751</td>
<td></td>
</tr>
</tbody>
</table>

**PLT-443 Revegetation - Track Planting Mix**

<table>
<thead>
<tr>
<th>Botanic Name</th>
<th>Common Name</th>
<th>Planting Density</th>
<th>Pot Size</th>
<th>Chloris truncata</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chrysocephalum apiculatum</td>
<td>Goodenia ovata</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leucochrysum albicans var tricolour</td>
<td>Hoary Sunray</td>
<td>0.3x0.2m 7 / m²</td>
<td>5.0% 200mm</td>
<td>197</td>
</tr>
<tr>
<td>Spiny headed Mat Rush</td>
<td>1x1m 7 / m²</td>
<td>10.0% 200mm</td>
<td>393</td>
<td></td>
</tr>
<tr>
<td>Pimelea humilis</td>
<td></td>
<td></td>
<td>511</td>
<td></td>
</tr>
<tr>
<td>Rytidosperma caespitosum</td>
<td></td>
<td></td>
<td>562</td>
<td></td>
</tr>
<tr>
<td>Climbing Salt Bush</td>
<td>1x1.5m 7 / m²</td>
<td>10.0% Tube</td>
<td>151</td>
<td></td>
</tr>
<tr>
<td>Einadia nutans subsp. nutans</td>
<td>Ruby Salt bush</td>
<td>1x1m 7 / m²</td>
<td>10.0% Tube</td>
<td>151</td>
</tr>
</tbody>
</table>

**PLT-242 Garden Bed - Screening Mix (>1m Height)**

<table>
<thead>
<tr>
<th>Botanic Name</th>
<th>Common Name</th>
<th>Planting Density</th>
<th>Pot Size</th>
<th>Chloris truncata</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silky blue-grass</td>
<td>0.4x0.4m 7 / m²</td>
<td>10.0% Tube</td>
<td>151</td>
<td></td>
</tr>
<tr>
<td>Rytidosperma caespitosum</td>
<td>Common Wallaby-grass</td>
<td>0.9x0.5m 7 / m²</td>
<td>10.0% Tube</td>
<td>751</td>
</tr>
<tr>
<td>Austrostipa scabra ssp. falcata</td>
<td></td>
<td></td>
<td>562</td>
<td></td>
</tr>
<tr>
<td>Kangaroo grass</td>
<td>1.5x1m 7 / m²</td>
<td>5.0% Tube</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Gold dust Wattle</td>
<td>2x1.5m 5.33 / m²</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kangaroo grass</td>
<td>1.5x1m 7 / m²</td>
<td>5.0% Tube</td>
<td>75</td>
<td></td>
</tr>
</tbody>
</table>

**PLT-243 Garden Bed - Embankment Mix**

<table>
<thead>
<tr>
<th>Botanic Name</th>
<th>Common Name</th>
<th>Planting Density</th>
<th>Pot Size</th>
<th>Chloris truncata</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chrysocephalum apiculatum</td>
<td>Knobby Club-rush</td>
<td>1x1m 6 / m²</td>
<td>20.0% Tube</td>
<td>34</td>
</tr>
<tr>
<td>Rytidosperma caespitosum</td>
<td>Lomandra longifolia</td>
<td>Hop Goodenia</td>
<td>0.3x.1m 6 / m²</td>
<td>30.0% Tube</td>
</tr>
<tr>
<td>Hop Goodenia</td>
<td>0.3x.1m 6 / m²</td>
<td>30.0% Tube</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Sticky hop bush</td>
<td>1.5x2m 5.33 / m²</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PLT-442 Revegetation - Infill Planting Mix**

<table>
<thead>
<tr>
<th>Botanic Name</th>
<th>Common Name</th>
<th>Planting Density</th>
<th>Pot Size</th>
<th>Chloris truncata</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spear Grass</td>
<td>1x0.5m 7 / m²</td>
<td>8.0% Tube</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>Common Everlasting</td>
<td>0.6x1m 7 / m²</td>
<td>8.0% Tube</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>Common rice-flower</td>
<td>0.5x0.5m 7 / m²</td>
<td>4.0% Tube</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Common Wallaby-grass</td>
<td>0.9x0.5m 7 / m²</td>
<td>4.0% Tube</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Rytidosperma caespitosum</td>
<td>Kangaroo grass</td>
<td>1.5x1m 7 / m²</td>
<td>5.0% Tube</td>
<td>26</td>
</tr>
<tr>
<td>Acacia paradoxa</td>
<td>Dianella revoluta</td>
<td>2x3m 7 / m²</td>
<td>15.0% Tube</td>
<td>226</td>
</tr>
<tr>
<td>Leptospermum lanigerum</td>
<td>Sticky hop bush</td>
<td>1.5x2m 5.33 / m²</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austrostipa scabra ssp. Falcata</td>
<td></td>
<td></td>
<td>562</td>
<td></td>
</tr>
</tbody>
</table>

**PLT-441 Revegetation - Track Planter 300 Series**

<table>
<thead>
<tr>
<th>Botanic Name</th>
<th>Common Name</th>
<th>Planting Density</th>
<th>Pot Size</th>
<th>Chloris truncata</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acacia pycnantha</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>River Red Gum</td>
<td>30x20m 1 / m²</td>
<td>3.0% Tube</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Swamp paperbark</td>
<td>8x2m 1 / m²</td>
<td>4.0% Tube</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

**PLT-441 Revegetation - Track Planter 300 Series**

<table>
<thead>
<tr>
<th>Botanic Name</th>
<th>Common Name</th>
<th>Planting Density</th>
<th>Pot Size</th>
<th>Chloris truncata</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acacia pycnantha</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>River Red Gum</td>
<td>30x20m 1 / m²</td>
<td>3.0% Tube</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Swamp paperbark</td>
<td>8x2m 1 / m²</td>
<td>4.0% Tube</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>
PROTECTION OF EXISTING VEGETATION OUTSIDE OF PROJECT WORKS BOUNDARY (BY OTHERS)

MOONEE PONDS CREEK

CITY LINK ELEVATED HIGHWAY

WEST MELBOURNE ELECTRICITY TERMINAL STATION

RAILWAY LINE

SHARED USE PATH MOONEE PONDS CREEK TRAIL

NOTE:
ANYTHING SHOWN BEYOND MATCHLINE SHOULD NOT BE USED AS PART OF THIS DRAWING.
FOR CONTINUATION REFER TO DWG No. 002203-DP

NOTE:
ANYTHING SHOWN BEYOND MATCHLINE SHOULD NOT BE USED AS PART OF THIS DRAWING.
FOR CONTINUATION REFER TO DWG No. 002205-DP

GD A.2 26/05/2022 CGA.1 06/07/2021

A.2TAS-CYP-ARD-AIS-00-DRG-AUD-AEN-002204-DP

P.YAO C.GUTHRIE

E.SHAW

ARCHITECTURAL
ARDEN INTAKE SUPPLY SUBSTATION LANDSCAPE RENEWAL PLANTING PLAN - SHEET 02

DEVELOPMENT PLAN SUBMISSION
For Continuation Refer to DWG No. 002240

NOTE: ANYTHING SHOWN BEYOND MATCHLINE SHOULD NOT BE USED AS PART OF THIS DRAWING.

FOR CONTINUATION REFER TO DWG NO. 002205-002206-002207-002208-002209-002210-002211-002212

NOTE: ANYTHING SHOWN BEYOND MATCHLINE SHOULD NOT BE USED AS PART OF THIS DRAWING.

FOR CONTINUATION REFER TO DWG NO. 002204-002206-002208-002210-002212
# Intake Substation Development Plan - Urban Design Strategy guidelines assessment

<table>
<thead>
<tr>
<th>Section</th>
<th>Clause</th>
<th>Design Guideline</th>
<th>Design Response</th>
</tr>
</thead>
</table>
| 3.1     | 3.1.c.1| Station precinct environments must support safe and predictable movements that are prioritised along the following transport hierarchy:  
- active transport - pedestrian and cycling, including people entering the station as well as passing the station entrances  
- sustainable transport - train, tram, bus and coach  
- emergency and short term vehicles - emergency vehicles, service vehicles, commercial / private transport, taxi ranks, kiss-and-ride  
- private transport - disabled-access car parking, staff and maintenance car parking, park and ride car parking.                                                                 | This Intake Substation Development Plan addresses the Intake Substation and does not address the station precincts. Consistency with this guideline is addressed in the Arden, Parkville, CBD North, CBD South and Domain Precinct Development Plans.                                                                                                           |
| 3.1     | 3.1.c.2| Provide for integration of all transport modes in line with the modal hierarchy above:  
- locate, orient and design station entries to connect via public routes into the wider pedestrian network.  
- ensure clear visual and physical connections to nearby bus, tram and taxi stops and kiss-and-ride facilities.  
- maximise bicycle parking facilities associated with stations where it will expand access to Metro services by connecting to major cycling routes and key catchments, in particular at Arden, Parkville and Domain stations.  | The Intake Substation does not have defined transport modal hierarchy compared with the station precincts and therefore assessment against this UDS clause is not included as part of the Intake Substation Development Plan. Consistency with this guideline is addressed in the Arden, Parkville, CBD North, CBD South and Domain Precinct Development Plans. |
| 3.1     | 3.1.c.3| Minimise conflicts between transport modes and intersecting routes of travel:  
- design station entries with adequate space for people to transition from stairs, escalators and lifts to travel routes along the ground surface so that congestion in surrounding thoroughfares is minimised and appropriately managed.  
- define pathways and promote awareness of crossing transport modes, e.g. using changes in surface treatments and other visual cues.  
- ensure that aboveground station infrastructure does not create unnecessary barriers or obstructions to pedestrian or cycle flows in the streets.  
- integrate balustrades and other required barriers and safety devices into the overall precinct design.  | Pedestrian / cyclist access surrounding the Intake Substation is addressed in Section 4.3.4 of this Development Plan.                                                                                                                                                                                                                   |
| 3.1     | 3.1.c.4| Support ease of wayfinding  
- create well-structured paths and clear sightlines so that wayfinding is intuitive and reliance on directional signage is minimised.  
- design stations to capitalise on view lines to existing local landmarks and spaces that will assist with orientation.  
- create new visual markers and treatments that will assist with orientation and recognition of specific locations.  
- provide clear, consistent and easy-to-follow directional signage, responding to the particular local requirements and nearby destinations.  
- establish appropriate links between directional signage provided as part of Melbourne Metro and directional signage used in surrounding precincts.  | Wayfinding signage is not required for the Intake Substation as it is not a station precinct. Consistency with this guideline is addressed in the Arden, Parkville, CBD North, CBD South and Domain Precinct Development Plans.                                                                 |
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| 3.1.c.5 | Create and improve strategic walking and cycling routes that connect the stations into surrounding areas.  
- create opportunities for public pedestrian links through non-ticketed areas of station buildings to provide safe crossings of major streets.  
- create convenient and safe alignments of footpaths and walking routes that facilitate access to the stations and to the other destinations in the precinct.  
- consider the needs of future growth, long-term development patterns, and changes to demand.  
- provide generous path widths, safe and accessible slopes and cross-falls, and the placement of features to maintain clear circulation space, with priority generally given to circulation areas along the building line.  
- design of crossings and Shared Zones (where pedestrians, cyclists and motorised traffic share the same road space) to ensure safety and prioritisation according to the modal hierarchy.  
- provide bike paths, shared paths and on-street bike lanes, with widths and treatments that maximise safety and allow for future growth in demand. |
| 3.1.c.6 | Provide universal access throughout public spaces and stations, with intuitive paths of travel for people with visual impairments, accessible grades along paths, and appropriate use of ramps, kerb ramps, and tactile paving. |
| 3.1.c.7 | Provide for vehicular traffic lanes as appropriate, with consideration of lane widths, kerb radials at corners and intersections to suit swept paths, and appropriate levels, slopes and cross-falls. |
| 3.1.c.8 | Provide for vehicle parking, as appropriate, with consideration of locations and arrangements, management systems (ticket machines etc.) and motorcycle parking. |
| 3.2 | Make great public places |
| 3.2.c.1 | Ensure that all aspects of the design are of a high quality in concept, resolution and execution. Designs must be:  
- fit for purpose  
- responsive to all users’ needs  
- responsive to the site and associated cultural values  
- sustainable. |
| 3.2.c.2 | Design spaces to be activated by public use:  
- provide seating and other infrastructure to encourage people to inhabit the space.  
- support the programming of spaces for a range of event scales and type.  
- accommodate opportunities for street trading activities as consistent with local authority policies and guidelines.  
- locate, design and manage activities in underground stations, including business opportunities, to contribute to activation of the wider precinct.  
- support appropriate uses of public streets and spaces to support social and recreational needs of the precinct. |
| 3.2.c.3 | Provide safe environments that promote safe behaviour and the feeling of safety:  
- design spaces with consideration of Crime Prevention Through Environmental Design principles.  
- support complementary mixes of activities, activation and passive surveillance that contribute to other users’ interest and safety.  
- maximise visual connectivity between spaces to enable passive surveillance, and arrange uses to maximise passive surveillance.  
- design and manage entries to underground stations and pedestrian subways to ensure safe conditions in surrounding spaces and approach routes, including when the stations are closed. |

This Intake Substation Development Plan addresses the Intake Substation and does not address the station precincts. Consistency with this guideline is addressed in the Arden, Parkville, CBD North, CBD South and Domain Precinct Development Plans.
### 3.2.c.4. Respect heritage and respond to local cultural and indigenous heritage issues:
- retain and protect significant heritage elements including spaces, views, vegetation, natural and designed landforms and built fabric.
- design new works to complement heritage elements.
- integrative interpretive elements into designs to reflect local cultural and indigenous heritage where appropriate.

The Intake Substation response to the local culture and heritage is presented in Section 4.4.3 of the Development Plan.

### 3.2.c.5. Make provision for stormwater drainage and management:
- incorporate pollution control measures to protect water quality.
- integrate the provision of pits, covers and grates and discharges into drains with other aspects of the design.
- incorporate stormwater capture and reuse as appropriate.
- respond to existing and future local flood levels and overland flow paths.

Stormwater drainage and management for the Intake Substation is presented in Section 4.4.7 of the Development Plan.

### 3.2.c.6. Select and design paving and surface finishes to be fit for purpose, durable and sustainable and easy to maintain, and to enhance the character and use of the space.

Materials and finishes for the Intake Substation are presented in Section 4.3.8 of the Development Plan.

### 3.2.c.7. Integrate street and park furniture into the overall design of public spaces as appropriate to support their use and to provide for the comfort, convenience and safety of patrons and users.

Street and park furniture are outside the scope of CYP’s works for the Intake Substation.

Consistency with this guideline is addressed in the Arden, Parkville, CBD North, CBD South and Domain Precinct Development Plans.

### 3.2.c.8. Provide lighting for amenity, wayfinding, visual comfort, road safety and personal security:
- provide a high quality of illumination with respect to supporting people’s perception at night, including minimisation of flare and the use of white light to improve colour rendition and people’s ability to recognise detail.
- contribute positively to and integrate with the character of the area.
- incorporate feature lighting as appropriate to express the hierarchy and functionality of spaces.
- minimise light spill to adjacent sensitive land uses.
- use responsible management systems, efficient technology and other forms of best practice energy conservation.
- reinstate existing CCTV infrastructure where affected by the project.

A lighting strategy for the Intake Substation is presented in Section 4.3.5 of the Development Plan. The Intake Substation will not provide access to the public and therefore further consistency with this guideline is addressed in the Arden, Parkville, CBD North, CBD South and Domain Precinct Development Plans.

### 3.2.c.9. Provide access to public amenities including public toilets

Public toilets are not proposed as part of the scope and extent of CYP’s works for the Intake Substation as it is not a station precinct. Consistency with this guideline is addressed in the Arden, Parkville, CBD North, CBD South and Domain Precinct Development Plans.

### 3.2.c.10. Provide access to public transport facilities including passenger shelters, other forms of weather protection, ticket sales and validation machines etc.

Public transport facilities are not proposed as part of the scope and extent of CYP’s works for the Intake Substation as it is not a station precinct. Consistency with this guideline is addressed in the Arden, Parkville, CBD North, CBD South and Domain Precinct Development Plans.

### 3.2.c.11. Incorporate public art in appropriate places
- integrate site responsive art into the project design where appropriate.
- design the settings of existing artworks, memorials and monuments to be retained to respect the works’ cultural values and formal design qualities.
- integrate site responsive art into the project design (e.g. facilitating playful interaction and seating opportunities) and located to optimise the legibility of the surrounding area.

Public art is not proposed as part of the scope and extent of CYP’s works for the Intake Substation as it is not a station precinct. Consistency with this guideline is addressed in the Arden, Parkville, CBD North, CBD South and Domain Precinct Development Plans.
### 3.2.c.12. Provide signage in accordance with PTV, VicRoads, land manager and authority standards and guidelines, including:
- traffic and parking management signs
- street signs, place / building name signage, and address numbers.
- pedestrian direction signs and tourist information.
- interpretive signage and commemorative plaques.
- temporary or events signage.

Signage, where required, will be in accordance with the Department of Transport (formerly Transport for Victoria, VicRoads, Public Transport Victoria), the land manager and authority standards and guidelines. CYP’s works at the Intake Substation does not propose signage installation, as it is not a station precinct. Consistency with this guideline is addressed in the Arden, Parkville, CBD North, CBD South and Domain Precinct Development Plans.

### 3.2.c.13. Integrate any advertising with public infrastructure and energy that they complement the character, functionality and amenity of the precinct:
- advertising must not detract from directional or wayfinding signs.
- advertising must not dominate the public realm or detract from the architectural design intent of the stations.
- advertising must be minimised within heritage areas.
- advertising should be minimised at locations that are prominent in views from significant heritage sites and public parks.
- advertising must not conflict with existing contractual relationships relating to the sites or elements on them e.g. for the supply and maintenance of tram passenger shelters with advertising panels.

Advertising is not considered relevant for the submission of this Development Plan. Within the Incorporated Document, under Clause 4.7.3, a Development Plan must include references to signage, however advertising is not specified. Signage is outlined in UDS guideline response 3.2.c.12.

### 3.2.c.14. Incorporate planting as an integral part of site designs:
- provide shade and shelter, screening, ornament and define of a sense of a place that relates to each site and its landscape context.
- create superior soil conditions for new planting, including consideration of the use of permeable paving materials within trees' drip zones, extensive soil preparation, and high quality structural soils beneath pavements.
- avoid containerised planting conditions and provide contiguous root zones where possible.
- contribute to increased biodiversity and resilience of plant communities in accordance with the Urban Forest and Nature in the City strategies.
- offset any vegetation loss.
- ensure that plantings are designed to complement and protect the functionality of other infrastructure including public lighting, CCTV surveillance systems and underground utilities.

Planting is included within the landscape plans and presented in Section 4.3.2 of the Intake Substation Development Plan. Soil conditions and new planting is presented in Section 4.4.2.

### 3.2.c.15. Address irrigation including passive irrigation and opportunities for rain water infiltration into the soil, options for non-potable water supplies, irrigation zones and system types, control systems and equipment.

Irrigation for the Intake Substation is presented in Section 4.4.7 of the Development Plan.

### 3.3 Balance line-wide consistency with site responsiveness

#### 3.3.c.1. Operational elements of the public transport system, involving the public and staff, must be consistent with the transport system as a whole in terms of their functionality and style of presentation. This includes the adoption of detailed design standards and use of those details in a manner consistent with their intent and function throughout the wider system, including but not limited to:
- ticket systems and barriers
- timetable displays, directional signs and other information used to access platforms and services
- ticket sales and other assistance
- safety systems.

This Intake Substation Development Plan addresses the Intake Substation and does not address the station precincts. Consistency with this guideline is addressed in the Arden, Parkville, CBD North, CBD South and Domain Precinct Development Plans.
## 3.3.c.2. The character of individual stations may vary between sites, and should be responsive to their physical, social and functional context:
- the architecture of the stations should be of a contemporary high quality that clearly expresses function and important civic role.
- station entries should be of an appropriate scale, form and design to support wayfinding and accessibility while responding to the local urban environment.

This Intake Substation Development Plan addresses the Intake Substation and does not address the station precincts. Consistency with this guideline is addressed in the Arden, Parkville, CBD North, CBD South and Domain Precinct Development Plans.

## 3.3.c.3. Locate and design infrastructure to integrate sensitively with its surroundings and to ensure the amenity and functionality of spaces it occupies:
- permanent infrastructure should be located outside public spaces, utilising or expanding future over site development to accommodate above ground services such as vents and emergency accesses where possible.
- respond to the setting and complement the design of adjoining buildings and open space.
- give each element of Melbourne Metro infrastructure in the public realm a design character appropriate to its public function, ranging from striking visual qualities for entries and other elements that people use and interact with, or that function as landmarks for wayfinding, through to recessive treatments for service facilities.
- minimise detrimental impacts on uses, e.g. as may result from fragmentation of spaces by physical structures, cluttering footpaths, conflicting traffic patterns (including pedestrian traffic), and noise.
- where fragmentation is unavoidable, design structures and spaces to support the activation and use of surrounding spaces.
- avoid obstructing views to building frontages or important pedestrian pathways.
- minimise visual conflicts with significant buildings, monuments, specimen trees, open spaces and landscape vistas, especially those with a formal character that is highly sensitive to intrusions.
- where possible, locate aboveground utilitarian structures near to larger nearby structures and plantings (other than sensitive ones noted above) to make the new structures seem relatively insignificant by comparison.

The public realm design of the Intake Substation and how it integrates with its surrounds is presented in Section 4.3.3 of the Development Plan.

## 3.3.c.4. Design streetscapes and open spaces to integrate with their context:
- use furniture and material palettes that are consistent with standards and guidelines of the Cities of Melbourne, Stonnington and Port Phillip, and the University of Melbourne.
- use furniture and material palettes that respond to the changed context created by Melbourne Metro, including increases in pedestrian activity and heightened prominence in certain locations.
- designs for streetscape works should be consistent with the remainder of the affected street, including the street layout, tree planting, paving materials and detailing (unless otherwise specified for particular sites).
- tree species, tree densities and their locations in the road reserve (e.g. in footpaths or medians) should be consistent with relevant local plans and strategies.

The public realm design of the Intake Substation is presented in Section 4.3.3 of the Development Plan. Material palettes are presented in Section 4.3.8 of the Development Plan.

### 3.4 Support integrated site redevelopment
## 3.4.c.1.
Avoid limiting future redevelopment potential of residual properties acquired for the project at the Western Portal and Eastern Portal.

This Intake Substation Development Plan addresses the Intake Substation and does not address the tunnel portals. Refer to the Western Portal and Eastern Portal Development Plans.

## 3.4.c.2.
Consider future precinct-wide redevelopment at Arden, as well as over-site development of the station.

This Intake Substation Development Plan addresses the Intake Substation and does not address the station precincts. Refer to the Arden Station Precinct Development Plan.

## 3.4.c.3.
Permit adjoining and potential over-site development at station entries within the University of Melbourne, either in parallel with the project or at a future date.

This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.

## 3.4.c.4.
Permanent infrastructure should be located outside public spaces, utilising or expanding future over-site development to accommodate above ground services such as vents and emergency accesses wherever possible.

The public realm at the Intake Substation is presented in Section 4.3.3 of the Development Plan.

## 3.4.c.5.
Development plans for station infrastructure should consider, and integrate with, over-site development to provide for coordinated design outcomes.

This Intake Substation Development Plan addresses the Intake Substation and does not address the station precincts. Consistency with this guideline is addressed in the Arden, Parkville, CBD North, CBD South and Domain Precinct Development Plans.

## 3.4.c.6.
Consolidate infrastructure within over-site developments so as to minimise impacts on the public realm, including:
- minimise above ground infrastructure on the public realm.
- minimise constraints on surface features and uses in the public realm due to underground infrastructure.

The public realm at the Intake Substation is presented in Section 4.3.3 of the Development Plan.

## 3.4.c.7.
Integrate redevelopment for complementary uses with the station entries in the CBD, including:
- over-site development of properties acquired at the La Trobe - Little La Trobe Sub-Precinct and Cocker Alley Sub-Precinct
- redevelopment of the City Square underground car park
- reconstruction of the eastern and western shards in Federation Square.

This is not relevant to the Intake Substation. Refer to CBD North and CBD South Precinct Development Plans.

## 3.4.c.8.
Not preclude possible future across, decking over or development above rail cuttings at South Yarra.

This is relevant to the Intake Substation. Refer to the Eastern Portal Development Plan.
### Design to help manage construction impacts

#### 3.5.1.
- Maintain circulation and transport operations during the construction process:
  - Redirect pedestrian and cyclist movements as necessary to ensure safe access around construction work sites, businesses and properties immediately adjacent to construction work sites.
  - Provide for universal access, amenity and safety.
  - Provide for emergency and maintenance access, deliveries, access for construction projects on nearby sites, and public events.
  - Provide temporary bus and tram stops, including shelters, where appropriate.
  - Provide awnings for weather protection, where appropriate.
  - Provide directional signage and temporary signs for businesses and properties obscured by construction activities.

Cross Yarra Partnership has prepared an Environmental Management System and Construction Environmental Management Plan. The aspect-specific control measures are identified in the Transport Management Plan (including relevant sub-plans, such as the Precinct Transport Management Plan and Transport Management Implementation Plan), which have been reviewed by the project’s Independent Reviewer. This has been subject to separate stakeholder consultation requirements and reviewed by the Independent Environmental Auditor, including quarterly audits of performance throughout construction.

#### 3.5.2.
- Protect the viability of, and amenity for, activities at and near construction work sites:
  - Apply principles of Crime Prevention Through Environmental Design to arrangements of access routes, hoardings and other features during the construction period.
  - Ensure that the location of temporary works sites and temporary infrastructure requirements align with future land use renewal, public realm activation and uplift opportunities.

Cross Yarra Partnership has prepared an Environmental Management System and Construction Environmental Management Plan. The aspect-specific control measures are identified in the Health and Safety Management Plan and Land Use Management Plan, which will be reviewed by the project’s Independent Reviewer. This has been subject to separate stakeholder consultation requirements and reviewed by the Independent Environmental Auditor, including quarterly audits of performance throughout construction.

#### 3.5.3.
- Protect features from damage:
  - Where existing trees are to be retained, avoid damage to their canopies and minimise soil compaction and excavation within root zones. Where damage to existing roots is likely, provide appropriate arboriculture care in preparation for and during construction including advanced root pruning and irrigation.
  - Protect, relocate, reinstate or upgrade underground and overhead services as appropriate.
  - Protect and /or temporarily remove, restore and reinstall monuments and artworks.
  - Conserve, salvage and reuse materials where possible and appropriate including bluestone kerbs and cobblestones, street furniture etc.

Cross Yarra Partnership has prepared an Environmental Management System and Construction Environmental Management Plan. The aspect-specific control measures are identified in the Ecological Management Plan with site specific controls detailed in the Site Environmental Implementation Plans. These plans have been reviewed by the project’s Independent Reviewer. This is subject to separate stakeholder consultation requirements and reviewed by the Independent Environmental Auditor, including quarterly audits of performance throughout construction.

#### 3.5.4.
- Maintain an attractive presentation to surrounding areas:
  - Provide enclosures, hoardings and screens that are designed to respond to the predominant viewing distance and types of activity they are exposed to (e.g. addressed to nearby pedestrians or to motorists at a distance).
  - Design all enclosures, hoardings, screens and other temporary features to create a positive visual presentation to prominent sites, busy pedestrian areas and key tourism precincts.
  - Design enclosure, hoardings, screens and other temporary features with increasing quality in proportion to the time they will present.
  - Design all temporary elements to respect the character of their setting, to ensure a neat appearance throughout the construction process, to assist in minimisation of graffiti, bill-posting and other unauthorised advertising, and to include consistent project branding.
  - Provide opportunities to convey information about the Melbourne Metro to the community including explanation of the project objectives, scope of works, construction impacts, innovations and progress.
  - Design to allow for temporary uses, programs of events, and pop-up public spaces to offset the impact of construction activities, including temporary parks, outdoor dining areas, pop-up markets and community arts / music festivals.
  - Recognise the potential of acoustic sheds, in particular those at CBD North, CBD South and Domain to be designed to contribute to the image and identity of the city.

Cross Yarra Partnership has prepared an Environmental Management System and Construction Environmental Management Plan. The aspect-specific control measures are identified in the Urban Design Management Plan, which will be reviewed by the project’s Independent Reviewer. This has been subject to separate stakeholder consultation requirements and reviewed by the Independent Environmental Auditor, including quarterly audits of performance throughout construction.
### 3.6 Design for the future

#### 3.6.c.1. Anticipate growth of Melbourne’s population and future changes in activity patterns and development in response to the new Metro Tunnel services:
- Reinstate or redesign open spaces and infrastructure to a high standard that responds to heavier pedestrian traffic, heightened public profile and other changes that will be generated by Melbourne Metro, e.g. through the use of higher standards of materials and finishes, more robust surfaces, widened footpaths etc.
- Design to maximise long term flexibility in the management of, and options for improvement, of nearby spaces and infrastructure.

The future growth of Melbourne’s population and response to the new Metro system is presented in Section 4.3.1 of the Intake Substation Development Plan.

#### 3.6.c.2. Although RPV will take possession of various areas to enable construction of Melbourne Metro, many of these will revert to other owners or managers after construction is completed. Management requirements after this handover must be supported by the design:
- Streets, spaces and assets that will be managed and maintained by a particular agency must be designed to the satisfaction of that agency.
- Boundaries between areas and assets included in the project area and scope of works, but which are ultimately to be managed by other agencies, must be delineated and the implications of that long-term management responsibility must be reflected in the design.
- Facilities that are managed through separate contractual processes (e.g. the City of Melbourne’s self-cleaning public toilets) should, where possible, be maintained as discrete elements enabling clear demarcation of responsibilities.

The Development Plan process requires key transport agencies such as the Department of Transport (formerly Transport for Victoria, VicRoads, Public Transport Victoria) and Councils, to take possession of areas that are beyond the current project scope. These areas are not included within the Development Plan, but are clearly marked as ‘development by others’. Where considered relevant it is noted within the Intake Substation Development Plan appendices.

#### 3.6.c.3. Allow for long-term flexibility in the uses of public spaces and in the provision of facilities and services:
- Notwithstanding the requirement for an integrated design approach, take a cautious approach in the creation of any multifunction structures e.g. co-locating public toilets and emergency access shafts, or recreational structures and vents - in situations where demands in relation to one function are likely to vary over time but adaptive redesign may be constrained by requirements of the other function.
- Design underground structures at any location in road reserves, parkland and other public spaces to withstand vehicular loadings as appropriate to a trafficable roadway, regardless of current carriageway layouts.

Public space is presented in Section 4.3.3 of the Intake Substation Development Plan.

#### 3.6.c.4. Support the healthy growth of canopy trees throughout parks, streets and other open spaces and allow for the potential to plant and replant over the long-term with minimal constraints:
- Locate underground structures at sufficient depth below the finished ground level to support healthy root systems of large canopy trees over the long-term, including provision of reserves of soil moisture to sustain trees in periods of drought and extreme heat.
- Where underground structures must be at relatively shallow depths below the existing surface, give consideration to wholesale elevation of the finished surface to help achieve satisfactory depth of cover (within constraints relating to issues such as provision for accessibility and drainage, and protection of landscape character and heritage fabric).
- Areas over structures where soil volumes are unavoidably too shallow to ensure long-term tree health should be designed to be successful without trees, making other provisions for shade, shelter and greening.
- Any new or relocated underground services should, if possible, be clustered into compact corridors and away from likely areas of planting.
- Overhead power or telecommunication lines should be placed underground where possible to avoid interference with tree canopies.

The provision of a suitable environment for the growth of plants and trees, ensuring underground structures are positioned at sufficient depth, is presented in Section 4.3.2 of the Intake Substation Development Plan.
### 3.6.c.5. Create robust and durable landscapes:
- select plants with consideration of climate, microclimate and likely climate change
- design to ensure resistance to wear due to intensive use of urban spaces and potential vandalism
- minimise requirements for irrigation while ensuring appropriate landscape qualities and amenity of public spaces
- design to suit relatively low-level maintenance regimes without reliance on a high level of horticultural skill.

| Landscape plans for the Intake Substation are presented in Section 4.3.2, and relevant materials and finishes are presented in Section 4.3.8 of the Development Plan. | |
3.6.c.6. Respond to changing climate and microclimate conditions to improve thermal comfort and create enjoyable places for use throughout the year:
- incorporate climate change adaptation measures
- use trees and awnings to provide shade and shelter and to mitigate the urban heat island effect
- minimise tree loss as a result of construction
- replace trees removed as a result of the project to improve existing landscape character and biodiversity and contribute to increased tree canopy coverage and species diversity.

Landscape plans for the Intake Substation are presented in Section 4.3.2, and relevant materials and finishes are presented in Section 4.3.8 of the Development Plan.

3.6.c.7. Integrate water-sensitive urban design initiatives:
- incorporate rainwater collection, treatment, storage and re-use systems
- maximise the proportion of stormwater from within the project area that is treated, evaporated or retained within the project footprint
- use permeable surfaces where possible to allow rainwater infiltration and passive irrigation.

Water-sensitive urban design initiatives are presented in Section 4.3.2 of the Intake Substation Development Plan.

3.6.c.8. Practice sustainable use of materials and resources

Materials and finishes for the Intake Substation are presented in Section 4.3.8 of the Development Plan.

4.1 Precinct 1: Tunnels

4.1.1 Domain Parklands Emergency Access Shaft and Tunnel Works

4.1.1.e.1 If the emergency access shaft is located near the King Edward VII Memorial: Create an integrated design using landform, plantings and built elements of the emergency access shaft to form a recessive backdrop for the Edward VII Memorial and that complements the memorial’s wider landscape setting.

This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan.

4.1.1.e.2 If the emergency access shaft is located near the King Edward VII Memorial: Minimise the height and bulk of aboveground structures, in particular any elements higher than ground level adjacent to the Edward VII Memorial.

This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan.

4.1.1.e.3 If the emergency access shaft is located near the King Edward VII Memorial: Keep clear of the shared path on the north side of Linlithgow Avenue

This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan.

4.1.1.e.4 If the emergency access shaft is located near the King Edward VII Memorial: After construction, reconstruct Linlithgow Avenue to allow for City of Melbourne plans for access improvements (generally as illustrated in ‘Proposed Road Closure, Linlithgow Avenue, Domain Parklands,’ City of Melbourne City Design Division, project no. 901894, drawing no. L01, September 2011.)

This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan.

4.1.1.e.5 If the emergency access shaft is located in Tom’s Block: Respect the character of, cultural significance of, and views to existing memorials.

This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan.

4.1.1.e.6 If the emergency access shaft is located in Tom’s Block: Create a form that presents well when viewed in the round.

This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan.

4.1.1.e.7 If the emergency access shaft is located in Tom’s Block: Use recessive finishes and colours to avoid distracting from nearby monuments.

This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan.

4.1.1.e.8 If any surface works for tunnel construction occur in Tom’s Block: Reinstate the existing character of gently sloping lawns with specimen trees.

This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan.
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<tr>
<th>Section</th>
<th>Description</th>
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<tr>
<td>4.1.1.e.9</td>
<td>If any surface works for tunnel construction occur in Tom’s Block: Avoid preventing the future installation of a new path extending the King George V avenue to St Kilda Road, as proposed in the 2007 Domain Parklands Master Plan (generally as illustrated in ‘King George V Avenue Extension, Kings Domain,’ City of Melbourne City Projects Division, Project No. 903197, Drawing no. SD01, 2012.) This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan.</td>
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<tr>
<td>4.2</td>
<td>Precinct 2: Western Portal</td>
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<tr>
<td>4.2.1</td>
<td>Hobsons Road Mixed Use Precinct</td>
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<tr>
<td>4.2.1.e.1</td>
<td>Leave the site in a condition with no added constraints to its future redevelopment, beyond those existing at present. This is not relevant to the Intake Substation. Refer to the Western Portal Development Plan.</td>
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<td>4.2.2</td>
<td>JJ Holland Park Interface</td>
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<tr>
<td>4.2.2.e.1</td>
<td>Generally maintain the northern kerb of Childers Street at its existing alignment. This is not relevant to the Intake Substation. Refer to the Western Portal Development Plan.</td>
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<tr>
<td>4.2.2.e.2</td>
<td>Minimise physical encroachment of new rail infrastructure into Childers Street: - Use vertical retaining walls to support Metro Tunnel tracks, both where on a raised embankment and in a cutting. - Design walls and screens to prioritise preservation of space for greening and travel along Childers Street over decorative effects that increase the structure’s bulk This is not relevant to the Intake Substation. Refer to the Western Portal Development Plan.</td>
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<tr>
<td>4.2.2.e.3</td>
<td>Design walls, fencing and acoustic screens facing JJ Holland Park to be visually recessive, to present a high quality finish, and to deter graffiti. This is not relevant to the Intake Substation. Refer to the Western Portal Development Plan.</td>
</tr>
<tr>
<td>4.2.2.e.4</td>
<td>Provide planted screening of railway infrastructure south of Childers Street This is not relevant to the Intake Substation. Refer to the Western Portal Development Plan.</td>
</tr>
<tr>
<td>4.2.2.e.5</td>
<td>Minimise excavation within the root zone of existing trees along the north side of Childers Street and protect the trees from damage during construction. This is not relevant to the Intake Substation. Refer to the Western Portal Development Plan.</td>
</tr>
<tr>
<td>4.2.2.e.6</td>
<td>Provide a continuous and east-west bicycle route connecting Kensington Road and Ormond Street, designed to minimise conflicts with park uses, to minimise conflicts between cyclists and vehicles, and to minimise potential safety issues resulting from limited sightlines and cross traffic near the Bill Vanina sports pavilion. This is not relevant to the Intake Substation. Refer to the Western Portal Development Plan.</td>
</tr>
<tr>
<td>4.2.2.e.7</td>
<td>Design the overpass of Kensington Road to present a high quality finish, to present well in both distant and nearby views, to ensure a high standard of visibility and lighting to paths below it, and to deter graffiti. This is not relevant to the Intake Substation. Refer to the Western Portal Development Plan.</td>
</tr>
<tr>
<td>4.2.3</td>
<td>South Kensington Station Entry (Ormond Street to Tennyson Street)</td>
</tr>
<tr>
<td>4.2.3.e.1</td>
<td>Architecturally integrate Metro Tunnel structures in the area with the entry to South Kensington station. This is not relevant to the Intake Substation. Refer to the Western Portal Development Plan.</td>
</tr>
<tr>
<td>4.2.3.e.2</td>
<td>Contribute to visibility of the station entry, without dominating views from JJ Holland Park or visually overwhelming the scale of nearby houses. This is not relevant to the Intake Substation. Refer to the Western Portal Development Plan.</td>
</tr>
<tr>
<td>4.2.3.e.3</td>
<td>Provide a forecourt to the station entry incorporating seating, lighting, bicycle parking, and car parking for JJ Holland Park users. This is not relevant to the Intake Substation. Refer to the Western Portal Development Plan.</td>
</tr>
</tbody>
</table>
### Intake Substation Development Plan - Urban Design Strategy guidelines assessment

<table>
<thead>
<tr>
<th>Section</th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2.3.e.4</td>
<td>Provide canopy tree planting along the frontage to the rail corridor east of the station entry, to provide shade and visual screening.</td>
<td>This is not relevant to the Intake Substation. Refer to the Western Portal Development Plan.</td>
</tr>
<tr>
<td>4.2.3.e.5</td>
<td>Any re-alignment or widening of Childers Street at the station forecourt must resolve relationships between the new street and forecourt levels and sloping levels of intersecting streets, lanes, footpaths, and adjoining properties, to ensure accessibility and safety.</td>
<td>This is not relevant to the Intake Substation. Refer to the Western Portal Development Plan.</td>
</tr>
<tr>
<td>4.2.3.e.6</td>
<td>Maintain safe bicycle access through the area, arranged to minimise conflicts with pedestrians and car parking manoeuvres.</td>
<td>This is not relevant to the Intake Substation. Refer to the Western Portal Development Plan.</td>
</tr>
<tr>
<td>4.2.3.e.7</td>
<td>Investigate opportunities to provide additional green space at the southern end of Ormond Street, while allowing vehicular access to all adjacent properties.</td>
<td>This is not relevant to the Intake Substation. Refer to the Western Portal Development Plan.</td>
</tr>
<tr>
<td>4.2.3.e.8</td>
<td>Avoid creating encumbrances upon future medium density residential infill development of remnants of the acquired properties at the northwest of the Childers Street / Tennyson Street intersection.</td>
<td>This is not relevant to the Intake Substation. Refer to the Western Portal Development Plan.</td>
</tr>
</tbody>
</table>

#### 4.3 Precinct 3: Arden Station

<table>
<thead>
<tr>
<th>Section</th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.3.e.1</td>
<td>The design of Metro Tunnel must create inviting, safe and comfortable conditions that support use of the station before and during any wider redevelopment of the site.</td>
<td>This is not relevant to the Intake Substation. Refer to the Arden Precinct Development Plan.</td>
</tr>
<tr>
<td>4.3.e.2</td>
<td>The new station and future redevelopment of the publicly owned (VicTrack) land must be integrated with surrounding areas, ensuring high levels of accessibility between the station and nearby land uses.</td>
<td>This is not relevant to the Intake Substation. Refer to the Arden Precinct Development Plan.</td>
</tr>
<tr>
<td>4.3.e.3</td>
<td>Works near Moonee Ponds Creek should:</td>
<td>CYP removal of trees has been avoided where possible, with particular emphasis given to the retention of native biodiversity values in close proximity to Moonee Ponds Creek. Trees will be reinstated where impacted by construction along Moonee Ponds Creek and Trail to provide landscaped areas within the public realm and help facilitate implementation of the City of Melbourne and the Victorian Planning Authority draft Moonee Ponds Creek Strategic Opportunities Plan. CYP also propose to reinstate low level growth and Water Sensitive Urban Design (WSUD) plantings to deliver positive visual benefits to the area as described in Section 4.3.2 of the Development Plan.</td>
</tr>
</tbody>
</table>

#### 4.4 Precinct 4: Parkville Station

<table>
<thead>
<tr>
<th>Section</th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.4.1</td>
<td>Royal Parade</td>
<td></td>
</tr>
</tbody>
</table>

**Intake Substation Development Plan - Urban Design Strategy guidelines assessment**

**Cross Yarra Partnership**

**Author:** Elif Aygun  
**Checker:** Sabrina Chapman  
**Approver:** Mat Peel  
**Date:** 28/07/2022
### 4.4.1.e.1.
Retain and protect existing trees along Royal Parade.

This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.

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### 4.4.1.e.2.
Where tree removal is unavoidable, plant new trees in the same locations, creating favourable growing conditions with soil preparation throughout the anticipated root zone.

This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.

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### 4.4.1.e.3.
Design any aboveground Metro Tunnel structures located within Royal Parade to minimise their visual bulk or solidity, especially for elements at or above eye level.

This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.

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### 4.4.1.e.4.
Integrate with the proposed tram super stop in Royal Parade.

This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.

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### 4.4.2.
Grattan Street

#### 4.4.2.e.1.
Consider stakeholder requirements for Grattan Street between Flemington Road and Swanston Street, and ensure the potential for integration of works in the project area with future improvements by others beyond the project area.

This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.

---

#### 4.4.2.e.2.
Minimise the carriageway width while providing for local vehicular traffic and appropriate kerbside space for bus stops, loading, taxis, and emergency vehicles including ambulances (especially but not only in the block west of Royal Parade).

This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.

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#### 4.4.2.e.3.
Provide dedicated bike lanes in each direction, either on street or with separation from motor vehicles and pedestrians.

This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.

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#### 4.4.2.e.4.
Relate footpath width to station entries and pedestrian flows.

This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.

---

#### 4.4.2.e.5.
Provide clear pedestrian circulation space along the building frontages on both sides of the street, preferably wider than is currently provided.

This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.

---

#### 4.4.2.e.6.
Provide passenger waiting areas and shelters at bus stops.

This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.

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#### 4.4.2.e.7.
Include new plantings of large canopy trees.

This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.

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#### 4.4.2.e.8.
Widen signalised pedestrian crossings, potentially with carriageway pavement levels flush with footpath levels to improve accessibility near University Square.

This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.

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#### 4.4.2.e.9.
Maintain access and sightlines to all building entries.

This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.

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### 4.4.3.
University of Melbourne Interface with Grattan Street

#### 4.4.3.e.1.
Design station entries that orientate towards the wider precinct and its pedestrian movements, including but not limited to the University of Melbourne, and provide a high quality arrival experience and meeting places, adequate footpath areas, and direct legible connections to the north south spine that extends across Grattan Street and which links east and west to other uses and tram connections.

This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.
<table>
<thead>
<tr>
<th>4.4.3.e.2</th>
<th>Provide a design response that is respectful of the historic Gatekeeper’s Cottage and Vice Chancellor’s House, including their landscape settings.</th>
<th>This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.4.3.e.3</td>
<td>Retain the remnant of the university’s historic perimeter fence near Royal Parade.</td>
<td>This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.</td>
</tr>
<tr>
<td>4.4.3.e.4</td>
<td>Allow for future redevelopment of the university’s Royal Parade Biosciences Zone to the northeast of the Royal Parade / Grattan Street intersection and between the two proposed station entries.</td>
<td>This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.</td>
</tr>
<tr>
<td>4.4.3.e.5</td>
<td>Ensure that paving and street furniture within the university campus adhere to the university’s design standards while those within the Grattan Street road reserve adhere to City of Melbourne standards, and resolve an appropriate interface between these two sets of standards without compromising either one.</td>
<td>This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.</td>
</tr>
<tr>
<td>4.4.3.e.6</td>
<td>Relate footpath widening to station entrances and pedestrian flows.</td>
<td>This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.</td>
</tr>
<tr>
<td>4.4.4</td>
<td>University Square, Barry Street and Leicester Street</td>
<td></td>
</tr>
<tr>
<td>4.4.4.e.1</td>
<td>Integrate aboveground Metro Tunnel infrastructure with the proposed design for University Square, Barry Street and Leicester Street, including: - coordinate the location of ventilation shafts with existing ventilation and access structures for the underground car park and with the layout of proposed features in Barry, Leicester and Grattan Streets - integrate aboveground elements of the chiller plant with the proposed design for the area.</td>
<td>This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.</td>
</tr>
<tr>
<td>4.4.4.e.2</td>
<td>Implement the proposed design for University Square, Barry Street and Leicester Street within the project area, and allow for its future complete implementation by others beyond the project area.</td>
<td>This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan.</td>
</tr>
<tr>
<td>4.5</td>
<td>Precinct 5: CBD North Station</td>
<td></td>
</tr>
<tr>
<td>4.5.1</td>
<td>La Trobe-Little La Trobe Street Sub Precinct</td>
<td></td>
</tr>
<tr>
<td>4.5.1.e.1</td>
<td>Contribute to an integrated network of safe, high quality pedestrian routes: - Locate and design station access stairs, escalators and lifts to distribute pedestrian traffic safely in relation to the capacity of surrounding routes. - Locate and design entry points for over site development to respect pedestrian desire lines and to avoid major congestion points. - Create frontage activation along streets and laneways. - Provide appropriate weather protection to Swanston Street and La Trobe Street footpaths.</td>
<td>This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan.</td>
</tr>
<tr>
<td>4.5.1.e.2</td>
<td>Allow for servicing, deliveries, and waste removal from the station and over site development, so as not to compromise frontage activation objectives.</td>
<td>This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan.</td>
</tr>
<tr>
<td>4.5.1.e.3</td>
<td>Address issues of servicing neighbouring properties.</td>
<td>This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan.</td>
</tr>
<tr>
<td>4.5.1.e.4</td>
<td>Ensure that over-site development is fully integrated into station design to ensure an overall cohesive, safe and functional station precinct.</td>
<td>This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan.</td>
</tr>
<tr>
<td>4.5.1.e.5</td>
<td>Create clear delineation between private-sector building and station infrastructure for ease of maintenance and operation.</td>
<td>This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan.</td>
</tr>
<tr>
<td>4.5.2</td>
<td>Franklin Street</td>
<td></td>
</tr>
</tbody>
</table>
4.5.2.e.1 Consider stakeholder requirements for the length of Franklin Street between Victoria and Queen Streets, and ensure the potential for integration of works in the project area with future improvements beyond the project area. This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan.

4.5.2.e.2 Maintain clear pedestrian circulation space along the building frontages on both sides of the street, no less than and preferably wider than at present. This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan.

4.5.2.e.3 Provide expanded pedestrian space for seating and other uses with enhanced amenity including plantings of new canopy trees, upgraded street lighting, etc. This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan.

4.5.2.e.4 Minimise carriageway widths while accommodating appropriate vehicular access including services access to the City Baths and RMIT. This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan.

4.5.2.e.5 Create a safe bicycle route along Franklin Street. This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan.

4.5.2.e.6 Minimise conflicts between turning vehicular traffic and Swanston Street trams. This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan.

4.5.3 Local Access Network

4.5.3.e.1 Manage local traffic to maintain access to properties, to minimise conflicts with pedestrians, bicyclists and trams, and to safely return traffic to the wider road network. This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan.

4.5.3.e.2 Manage and design Swanston Street between Latrobe and Little Latrobe Streets consistently with areas of Swanston Street south of Latrobe Street, with widened footpaths, improved tree planting, footpath paving, street furniture and lighting. This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan.

4.5.3.e.3 Provide clear pedestrian circulation space along building frontages in all streets and laneways, maintaining existing capacity and increasing capacity where possible. This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan.

4.5.3.e.4 Maintain on-street kerbside loading and delivery facilities to provide for servicing of adjacent properties. This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan.

4.5.3.e.5 Above ground elements of the maintenance access and vent structure should be located and designed to ensure optimal flexibility in use of the public open space and to minimise visual impacts:
- Minimise aboveground structures’ width, breadth and visual bulk, especially with respect to any element higher than 1m above surrounding paving levels.
- Use sustainable cladding materials and a high standard of architectural detailing to ensure the structures present well to nearby pedestrians, and are durable and easy to maintain in good condition.
- Consider potential integration with other streetscape elements, such as lighting and signage, in order to minimise clutter in the street space. This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan.

4.6 Precinct 6: CBD South Station

4.6.1 Cocker Alley Sub Precinct
### Intake Substation Development Plan - Urban Design Strategy guidelines assessment

**4.6.1.e.1** Contribute to an integrated network of safe, high quality pedestrian routes:
- Locate and design station access stairs, escalators and lifts to distribute pedestrian traffic safely in relation to the capacity of surrounding routes.
- Improve pedestrian accessibility, safety and amenity in laneways connecting to the station entry.
- Ensure safe conditions in nearby laneways when the station entry is closed.
- Create active frontages along streets and laneways connecting to the station entry.
- Provide appropriate weather protection along Swanston Street and Flinders Street footpaths.
- Provide for safe crossings of Flinders Lane.

This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.

**4.6.1.e.2** Allow for servicing, deliveries, and waste removal from the station and over site development, so as not to compromise frontage activation objectives.

This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.

**4.6.1.e.3** Address issues of servicing neighbouring properties.

This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.

**4.6.1.e.4** Integrate over site development with the station and associated infrastructure.

This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.

**4.6.1.e.5** Create clear delineation between private-sector building and station infrastructure for ease of maintenance and operation.

This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.

**4.6.2 Federation Square: St Paul’s Court**

**4.6.2.e.1** Maintain Federation Square’s inter-relationships with Flinders Street, Swanston Street and St Paul’s Cathedral:
- Protect the framed vista from Federation Square to St Paul’s Cathedral from intrusive or disruptive structures.
- Ensure permeability, visual links and pedestrian accessibility between the Flinders Street footpath and Federation Square.
- Create an architectural element that holds the corner at the intersection of Swanston and Flinders streets.

This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.

**4.6.2.e.2** Maintain usable and activated open spaces:
- Maintain or provide new seating ledges.
- Maintain or provide new level areas of a size and character suitable for a range of events and activities.

This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.

**4.6.2.e.3** Maintain and enhance the civic character and identity of Federation Square:
- Achieve design integration with Federation Square as a whole.
- Respond positively to the context established by the design of Federation Square.
- Consider rebuilding the western shard in keeping with the original design intent, increasing its height in order to reinstate its tall vertical proportions.

This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.

**4.6.2.e.4** New or modified structures to accommodate above ground infrastructure may be sited within or adjacent to Federation Square provided the additional shadows cast do not unreasonably affect the usage and enjoyment of the broader open space.

This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.

**4.6.3 City Square**

**4.6.3.e.1** Maintain a respectful relationship with nearby civic buildings:
- Minimise the size and visual prominence of the station entry, so that it does not appear to be disproportionately grand in relation to other civic stairs on Swanston Street.
- Maintain uncluttered views to St Paul’s Cathedral from the square, in particular to the facade and altar window facing Flinders Lane. Mirror the offset of the Westin Hotel facade from the Cathedral’s central axis to define a view corridor along the axis, and avoid locating aboveground infrastructure within this corridor if possible.
- Maintain views of the CBD South clock tower from the square.

This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.
### 4.6.3.e.2 Minimise net loss or fragmentation of public open space:
- Locate the entry and other aboveground infrastructure near to Collins Street to minimise impacts on usable public open space.
- Where possible, locate lifts and other aboveground infrastructure within the Westin Hotel built form.
- Where possible, co-locate aboveground infrastructure that must be in the square with the station entry or with other aboveground structures.
- Provide pedestrian access, egress and dispersal from the station via the street, not through the body of the square.
- Maintain generous soil depths to allow for tree planting.

This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.

### 4.6.3.e.3 Create a high quality civic open space that accommodates passive recreational use and staged events, and achieves a balance of qualities as a place of respite and a prominent and actively used civic space:
- Maintain or increase space for casual use including public seating.
- Maintain accessibility for events including a large open level space equivalent to that provided in the square today, with vehicular loading capacities and surface treatment suitable for staging events without damage and/or without costly reinstatement requirements.
- Provide vehicle access for events bump in/bump out.
- Design so that, the square has a mix of large and more intimate spaces that can be used separately during public events.

This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.

### 4.6.3.e.4 Maintain and enhance active frontages onto and overlooking the square:
- Maximise activation of the square by tenancies within the ground floor of the Westin Hotel.
- Maintain a level paved frontage along the Westin Hotel, providing access to adjoining tenancies and associated outdoor dining/cafe spaces.
- Maintain physical demarcation of outdoor spaces leased or licenced to adjoining hospitality businesses, to assist in their ongoing management (e.g. as with the existing water feature).
- Consider options for replacement of the existing cafe tenancy to minimise space occupied within the square.
- Maintain views between the Swanston Street footpath and tram stops and the open space within the square.

This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.

### 4.6.3.e.5 Maintain a generous shaded pedestrian promenade along Swanston Street:
- Maintain circulation space with no less capacity than exists at present.
- Maintain accessible tram stop facilities.
- Maintain a double row of Plane trees.

This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.

### 4.6.3.e.6 Locate and design the station entry and the square as a whole to integrate with surrounding footpath levels:
- Orient the station entry towards Swanston Street.
- Locate and design required aboveground infrastructure to help resolve level transitions between the square and surrounding footpaths.

This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.
### 4.6.3.e.7 Protect, relocate and / or restore existing artworks and monuments as appropriate:

- Retain the Burke and Wills Monument in its existing location if possible. If not, re-install the monument in its original form at a new site to be approved by the City of Melbourne. Undertake adaptive site works as required to integrate the monument with the new site.
- Work with City of Melbourne to maintain or appropriately relocate or reimagine the Mockridge Fountain.
- Consult with the City of Melbourne to determine their intent to retain other existing artworks in the City’s collection (and reinstall in the City Square or relocate as appropriate) or to de-accession. Incorporate works to be retained at the site into the new design.

*This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.*

### 4.6.3.e.8 Adapt the remaining space after the provision of the station entry below the City Square for a civic facility:

- Minimise the extent of the existing space occupied by station infrastructure, where possible using the lower levels for service functions and allowing for active uses near ground surface level.
- Consult with the City of Melbourne to resolve the functional brief for the facility.
- Create a more direct and positive relationship between the open space and the new civic facilities in the basement than currently exists between the car park and the square.
- Continue to accommodate public amenities and site services as appropriate.

*This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.*

### 4.6.3.e.9 New or modified structures to accommodate above ground infrastructure may be sited within or adjacent to City Square provided the additional shadows cast do not unreasonably affect the usage and enjoyment of the broader open space.

*This is not relevant to the Intake Substation. Refer to the CBD South Precinct Development Plan.*

### 4.7 Precinct 7: Domain Station

#### 4.7.1 St Kilda Road

##### 4.7.1.e.1 Consider stakeholder requirements for St Kilda Road from Toorak Road to Dorcas Street, and ensure the potential for integration of works in the project area with future implementation of streetscape improvements by others beyond the project area.

*This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan.*

##### 4.7.1.e.2 Provide convenient pedestrian access:

- Support pedestrian crossings of St Kilda Road via the proposed station subway and by improving the safety and amenity of street level crossings.
- Enhance pedestrian links from St Kilda Road to the Park Street (South Melbourne) tram route.

*This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan.*

##### 4.7.1.e.3 Provide protected bicycle lanes, connecting safely and conveniently to bike lanes north and south of the project area.

*This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan.*

##### 4.7.1.e.4 Complement St Kilda Road’s formal boulevard character:

- Maintain or recreate a generally symmetrically balanced layout, with regular kerb alignments typically set parallel to the road’s centrelane, and large canopy trees.
- Design the island tram stop/interchange as a high quality public space with a formal design character that complements the boulevard setting.
- Coordinate or integrate passenger shelters at the tram stop with weather protection for the Metro Tunnel station entry.
- Arrange tram overheads to minimise visual clutter and to allow for tree planting.
- Minimise commercial advertising except as allowed under current PTV contracts with providers of tram shelters.
- Ensure that the design of the Park Street (South Melbourne) tram stop near Wells Street preserves views to the Shrine.

*This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan.*

##### 4.7.1.e.5 Reconstruct the area of the existing tram interchange, north of the new one, to a design complementing and transitioning back into the typical boulevard layout of St Kilda Road with side service roads separated from the central carriageway by treed medians.

*This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan.*
4.7.1.e.6 Locate and design vent shafts, the chiller plant and substations to minimise their visual impacts:
- Minimise impacts on important views, in particular the Shrine of Remembrance vista.
- Ensure safe sightlines at intersections and pedestrian crossings.
- Integrate with the design of passenger shelters and weather protection for the Metro Tunnel entries, where possible.
- Allow for integration with necessary signage.
- Complement the formal design character of St Kilda Road.

This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan.
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### 4.7.2 Shrine Reserve and Kings Domain Construction Work Areas

| 4.7.2.e.1 | Minimise encroachment into the Shrine of Remembrance Reserve. | This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan. |
| 4.7.2.e.2 | Maintain the vista to the Shrine from St Kilda Road between Domain Road and Park Street as clear of structures as possible, and minimise any new structures that may detract from or compete with views or the experience of existing monuments including the MacPherson Robertson Fountain and Cobbers Memorial: | This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan. |
| - Locate aboveground structures along Domain Road if possible rather than along the St Kilda Road frontage of the Shrine Reserve. | |
| - Locate the entry as low on the slope as possible, i.e. within or adjoining and parallel to the street. | |
| - Minimise any structure above balustrade height. | |
| 4.7.2.e.3 | Minimise impacts on views from within the Shrine Reserve, especially from the forecourts and steps, rooftop viewing terrace, and the ‘ring road’ at the base of the Shrine: | This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan. |
| - Minimise visibility of Metro Tunnel structures within the Shrine Reserve. | |
| - Minimise advertising visible from the Shrine or within key vistas to the Shrine. | |
| 4.7.2.e.4 | Minimise impacts on culturally significant features and fabric: | This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan. |
| - Sensitively reinstate or relocate existing memorials if required. | |
| - Retain or replace significant trees | |
| - Minimise proximity impacts of the entrance’s use on observances at the Battle of the Fromelles memorial. | |
| 4.7.2.e.5 | Orient and design the entry to direct users towards an accessible route of travel to the main entries of the Shrine of Remembrance and the Royal Botanic Gardens. | This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan. |
| 4.7.2.e.6 | After construction, reestablish the construction work site(s) to existing or improved conditions, including works generally as illustrated in ‘Edmund Herring Oval — Kings Domain Parklands,’ City of Melbourne City Projects Division, Project No. 903411, Drawing no. LA01, November 2015. | This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan. |
| 4.7.3.1  | Consider stakeholder requirements for Albert Road and ensure the potential for integration of works in the project area with future implementation of streetscape improvements by others beyond the project area. | This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan. |
| 4.7.3.2  | Minimise impacts on culturally significant features and fabric:  
- Minimise the size and prominence of the station entry and ensure that it provides an appropriate setting for the South African Soldiers Memorial.  
- Maintain the South African Soldiers Memorial's visual links to St Kilda Road and where possible, improves its prominence as the focal point of the reserve.  
- Retain as many trees as possible, in particular the elms to the north of the South African Soldiers Memorial.  
- Retain the Windsor Oak in situ, conserve it off site during construction, or propagate replacements from the original tree.  
- Return the Cockbill Fountain and Windsor Oak (or its replacement) to the site after construction.  
- Sensitivey reinstate or relocate other existing plaques and memorials as required. | This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan. |
| 4.7.3.3  | Enhance pedestrian and cyclist access to the new station:  
- Widen and repave footpaths.  
- Connect bike paths through the area and provide bicycle parking. | This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan. |
| 4.7.3.4  | Create a high quality open space and facilities to support cultural, social, and passive recreational activities:  
- Provide spaces for seating and casual social interaction.  
- Avoiding fragmenting useable open spaces with busy pedestrian routes.  
- Rationalise and reduce trafficable road space and car parking areas and convert to pedestrian use where possible.  
- Provide a modest congregation area near the South African Soldiers Memorial that provides access for ceremonies | This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan. |
| 4.7.3.5  | Provide for vehicular access to properties, car parks and for servicing. | This is not relevant to the Intake Substation. Refer to the Domain Precinct Development Plan. |
## Intake Substation Development Plan - Urban Design Strategy guidelines assessment

### 4.8 Precinct 8: Eastern Portal (South Yarra)

<table>
<thead>
<tr>
<th>4.8.e.1</th>
<th>Provide and improve shared use paths along the rail corridors with generous path widths to support local recreational and commuter use:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Widen Lovers Walk, as appropriate and where possible, to support its role as a major shared path.</td>
<td></td>
</tr>
<tr>
<td>- Create a shared use path to the south of the rail corridor between Chapel Street, South Yarra Siding Reserve and Osborne Street.</td>
<td></td>
</tr>
<tr>
<td>- Maintain the eastern Osborne Street footpath.</td>
<td>This is not relevant to the Intake Substation. Refer to the Eastern Portal Development Plan.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.8.e.2</th>
<th>Improve walking and cycling access across the rail lines:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Widen Lovers Walk, as appropriate and where possible, to support its role as a major shared path.</td>
<td></td>
</tr>
<tr>
<td>- Create a shared use path to the south of the rail corridor between Chapel Street, South Yarra Siding Reserve and Osborne Street.</td>
<td></td>
</tr>
<tr>
<td>- Maintain the eastern Osborne Street footpath.</td>
<td>This is not relevant to the Intake Substation. Refer to the Eastern Portal Development Plan.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.8.e.3</th>
<th>Maximise permanent usable public open space in the precinct, including:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Construct any required vertical retaining walls to support backfilling to levels that increase the level of useable open space.</td>
<td></td>
</tr>
<tr>
<td>- Design retaining walls and backfill to provide generous soil depths to support the growth of trees, and to maximise opportunities for future bridging, decking or development above the rail corridors.</td>
<td></td>
</tr>
<tr>
<td>- Consider future structural demands in the design of retaining walls and any other project infrastructure to support future decking across the railways for a future public plaza adjoining Toorak Road.</td>
<td>This is not relevant to the Intake Substation. Refer to the Eastern Portal Development Plan.</td>
</tr>
</tbody>
</table>

| 4.8.e.4 | Provide a direct link through a new pedestrian bridge from the South Yarra Siding Reserve to Osborne Street to connect to Toorak Road. | This is not relevant to the Intake Substation. Refer to the Eastern Portal Development Plan. |

<table>
<thead>
<tr>
<th>4.8.e.5</th>
<th>Provide high quality contemporary public open spaces that are accessible, safe and responsive to the needs of current and future local communities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Provide a balance of hardscaped and green spaces that facilitate a range of passive and active recreation, and are adaptable to varied uses over time.</td>
<td></td>
</tr>
<tr>
<td>- Maximise the area of green, landscaped open space including canopy trees.</td>
<td>This is not relevant to the Intake Substation. Refer to the Eastern Portal Development Plan.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.8.e.6</th>
<th>Design all structures required for and in association with the project as part of an integrated site design:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Consider the cumulative impact of all structures including emergency access and ventilation structures, retaining walls, bridges, balustrades, vehicular crash barriers, acoustic screens, security fences and privacy screens, and integrate all into a coordinated high quality site design.</td>
<td></td>
</tr>
<tr>
<td>- Provide a high quality design response to all sensitive interfaces.</td>
<td></td>
</tr>
<tr>
<td>- Consider the forms, locations, materials and detailing of noise abatement screens, fences and other structures to maximise views into, through and between pedestrian routes and open spaces, and to minimise graffiti and vandalism.</td>
<td></td>
</tr>
<tr>
<td>- Provide transparency in acoustic screens and fencing above one metre (nominal) height at interfaces with walking routes or actively used public spaces, to improve passive surveillance and personal security.</td>
<td>This is not relevant to the Intake Substation. Refer to the Eastern Portal Development Plan.</td>
</tr>
</tbody>
</table>
APPENDIX E: INTAKE SUBSTATION ENVIRONMENTAL PERFORMANCE REQUIREMENTS ASSESSMENT
### Intake Substation Development Plan - Environmental Performance Requirement assessment

**Discipline** | **EPR Ref** | **Environmental Protection Requirements** | **Development Plan Response**
--- | --- | --- | ---
**Aquatic ecology and river health** | AE1 | 1. Fully integrate the stormwater treatment system into the design of Melbourne Metro (all precincts) for construction to ensure that stormwater entering a receiving water body complies with SEPP (Waters of Victoria). See table in EPR for performance objectives. Note: (1) Best practice performance objectives are based on the Best Practice Environmental Management Guidelines for Urban Stormwater – CSIRO. | The Intake Substation response to stormwater treatment is presented in Section 4.4.1 and 4.4.7 of the Development Plan. 
Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Surface Water Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor. 
The Intake Substation is in close proximity to Moonee Ponds Creek. Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. Compliance with this Environmental Management System will be in accordance with MPV’s approved Environmental Management Framework, including all Cultural Heritage Management Plans. 

**Aquatic ecology and river health** | AE2 | 1. Best practice sedimentation and pollution control measures must be applied to protect waterways in accordance with Best Practice Environmental Management: Environmental Guidelines for Major Construction Sites – EPA publication 480 (1996) and in accordance with an approved CEMP. | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Surface Water Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor. 

**Aquatic ecology and river health** | AE3 | 1. During construction, discharge all tunnel, station box and portal construction water to sewer. | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Surface Water Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor. 

**Aquatic ecology and river health** | AE3 | 2. Where groundwater interception during construction is predicted to occur, dewatering is to be managed so that groundwater is not released to stormwater or sensitive surface water bodies. | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Surface Water Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor. 

**Aquatic ecology and river health** | AE4 | 1. Where ground treatment works are required in waterways, design and implement methods that prevent discharge of sediments into the water column. | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Surface Water Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor. 

**Aquatic ecology and river health** | AE5 | 1. Design the Arden electrical substation so that it is appropriately protected against floodwaters during operation (see EPR 1611), to prevent the release of contaminants to Moonee Ponds Creek. | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Surface Water Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor. 

**Aquatic ecology and river health** | AE6 | 1. During operation, discharge tunnel drainage water to sewer, unless otherwise agreed by EPA and Melbourne Water and in compliance with SEPP (Waters of Victoria). | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Surface Water Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor. 

**Aquatic ecology and river health** | AE7 | 1. Fully integrate the stormwater treatment system into the design of all precincts and portals to ensure that any stormwater entering a receiving water body complies with SEPP (Waters of Victoria). See table in EPR for performance objectives. Note: (1) Best practice performance objectives are based on the Best Practice Environmental Management Guidelines for Urban Stormwater – CSIRO. | The Intake Substation response to stormwater treatment is presented in Section 4.4.1 and 4.4.7 of the Development Plan. 

**Aboriginal Cultural Heritage** | AK1 | 1. Comply with a Cultural Heritage Management Plan approved under the Aboriginal Heritage Act 2006 and prepared in accordance with the Aboriginal Heritage Regulations 2007. | The Intake Substation design is within the activity area defined in the Cultural Heritage Management Plans. Compliance with this Environmental Performance Requirement will be in accordance with MPV’s approved Environmental Management Framework, including all Cultural Heritage Management Plans. 

**Note:** Information in the Development Plan Response column is not part of the table.
Intake Substation Development Plan - Environmental Performance Requirement assessment

Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Air Quality Management Plan with site-specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Auditor and audited by the Independent Environmental Auditor.

### Air Quality

#### AQ1
1. Prior to commencement of Project works, develop and implement plan(s) for dust management and monitoring, to minimise and monitor the impact of construction dust. Develop the plan(s) in consultation with EPA and the owners of key sensitive equipment or locations, and advise the community of the plan, in accordance with the contractors Community and Stakeholder Engagement Plan (see EPR SCA).
2. The plan(s) must:
   a) Set out air quality criteria and outline the justification for those criteria for above ground construction works.
   b) Be informed by air modelling of construction activities, which should identify the main dust sources and the location of sensitive land uses. Air modelling for particulate dispersion must include construction ventilation discharges, and assess for both dust particulates and respirable crystalline silica.
   c) Be informed by a human health risk assessment, conducted by a suitably qualified professional. For high risk construction activities which may generate possible airborne contaminants of potential concern, including: dust, respirable crystalline silica, asbestos, Aspergillus spores (Precinct 4 only) and any other common industrial contaminants within dust (such as metals and polycyclic aromatic hydrocarbons).
   d) Describe the proposed dust management and monitoring system including (but not necessarily limited to):
      i) Routinely reviewing weather model predictions.
      ii) Continuous monitoring and real-time alert systems in the event of measured exceedances.
      iii) Protocols for record-keeping.
      iv) Protocols to ensure that site personnel advise the site manager if excessive dust emissions are observed.
      v) Describe the mitigation measures that will be implemented to ensure compliance with air quality criteria.
      vi) Address monitoring requirements for key sensitive receptors, including (but not limited to):
          i) Residential and commercial properties, including ACM.
          ii) Hospitals and research facilities within the Parkville precinct.
          iii) Heritage listed places sensitive to dust including St Pauls Cathedral and the Melbourne City Baths.
          iv) Universities, including The University of Melbourne and RMIT.
          v) Schools, including Melbourne Grammar School (South Yarra Campus) and Christ Church Grammar School.
          vi) The Arts Centre Melbourne and National Gallery of Victoria.
          vii) Public parks and outdoor public recreational areas including the Shrine of Remembrance Reserve and Lytton Reserve.
   e) Describe the mitigation measures that will be implemented to ensure compliance with air quality criteria.
   f) Address monitoring requirements for key sensitive receptors, including (but not limited to):
      i) Routinely reviewing weather model predictions.
      ii) Continuous monitoring and real-time alert systems in the event of measured exceedances.
      iii) Protocols for record-keeping.
      iv) Protocols to ensure that site personnel advise the site manager if excessive dust emissions are observed.
      v) Describe the mitigation measures that will be implemented to ensure compliance with air quality criteria.
      vi) Address monitoring requirements for key sensitive receptors, including (but not limited to):
          i) Residential and commercial properties, including ACM.
          ii) Hospitals and research facilities within the Parkville precinct.
          iii) Heritage listed places sensitive to dust including St Pauls Cathedral and the Melbourne City Baths.
          iv) Universities, including The University of Melbourne and RMIT.
          v) Schools, including Melbourne Grammar School (South Yarra Campus) and Christ Church Grammar School.
          vi) The Arts Centre Melbourne and National Gallery of Victoria.
          vii) Public parks and outdoor public recreational areas including the Shrine of Remembrance Reserve and Lytton Reserve.

#### AQ2
1. Manage construction activities to minimise dust and other emissions in accordance with EPA Publication 468, Environmental Guidelines for Major Construction Sites (EPA 1998).

#### AQ3
1. Control the emission of smoke, dust, fumes and other pollution into the atmosphere during construction and operation in accordance with the SIPs for Air Quality Management and Ambient Air Quality.

### Arboriculture

#### AR1
1. During detailed design, review any potential tree impacts and achieve the maximum possible tree retention on both public and private land, including retaining all valuable habitat linkages or corridors where practicable.
2. Trees to be removed during early works must only be those associated with early works.
3. Comply with any requirements of Heritage Victoria if the trees are on the VHR.
4. Prior to commencement of Project Works, develop and implement a plan in consultation with the relevant local council that identifies all trees in the Project Area which covers:
   a) Trees to be removed or retained.
   b) Trees for which public notice of removal or retention has been made.
   c) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   d) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   e) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   f) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   g) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   h) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   i) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   j) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   k) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   l) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   m) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   n) Trees removed in accordance with any applicable requirements of Heritage Victoria.
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   p) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   q) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   r) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   s) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   t) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   u) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   v) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   w) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   x) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   y) Trees removed in accordance with any applicable requirements of Heritage Victoria.
   z) Trees removed in accordance with any applicable requirements of Heritage Victoria.

#### AR2
1. Reinstate quality soils to sufficient volumes to support long-term viable growth of replacement trees. Ensure ongoing supply of water to tree root zones, especially during their establishment stage. Employ water-sensitive urban design principles (WISUD) where possible.
### Intake Substation Development Plan - Environmental Performance Requirement assessment

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Environmental Protection Requirements</th>
<th>Development Plan Response</th>
</tr>
</thead>
</table>
| Arboriculture | 1. Develop a tree replacement program to re-establish lost canopy cover and achieve canopy size equal to (or greater than) healthy, mature examples of the removed species in Melbourne.  
2. Establish protocols to govern the use of advanced and super-advanced trees, where such use is appropriate to re-establish canopy and valued landscape character in a way that balances long-term stability of the tree with immediate impact.  
3. Consult with the City of Melbourne, City of Port Phillip, the City of Stonnington, the Shrine of Remembrance and Shrine Trustees, University of Melbourne and Heritage Victoria as applicable.  
4. When re-establishing trees, regard should be had to the following documents where relevant:  
   - The City of Port Phillip’s Community Amenity Local Law No. 1 and Growing Port Phillip – An Urban Forest Approach.  
   - The City of Stonnington’s General Local Law 2008 (No.1) and City of Stonnington Street Tree Strategy.  
5. Any associated planting plans.  
7. The preferred future character of the University of Melbourne, for trees in the grounds of the University of Melbourne.  
8. The re-establishment of trees must also consider the contribution that the replacement trees can make to the creation of habitat corridors and linkages where this is possible. (See EPRs CH13 and CH18 as appropriate).  
9. Protecting the Shrine of Remembrance: if a tree is retained, it should be relocated to a position that is not visible from the Shrine of Remembrance. (See EPRs CH19 and CH20 as appropriate). | The public realm response in regards to tree replacement for the Intake Substation is presented in Section 4.2.1 of the Development Plan. |
| Arboriculture | 1. Prior to commencement of construction of any projects that affect trees, prepare and implement Tree Protection Plans for each precinct in accordance with AA950-2009 Protection of Trees on Development Sites. The plans must respond to the detailed design and construction methodology of the Project and ensure that trees proposed to be retained are adequately protected from the impact of construction-related activities.  
2. Where a Tree Protection Plan is required for a heritage place, the plan must be developed in consultation with Heritage Victoria or the relevant council (as applicable). | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Ecology Management Plan (including a Tree Protection Plan) with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor. |
| Business | 1. For City of Melbourne trees that are to be retained and protected, a bond guarantee or bond of the trees’ value will be held against the approved Tree Protection Plan for the duration of the works in accordance with the City of Melbourne Tree Retention and Removal Policy. | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Ecology Management Plan (including a Tree Protection Plan) with site specific controls in the Site Environmental Implementation Plan. This has been reviewed by the project’s Independent Reviewer. A Bank guarantee or bond for the trees’ value has been provided to the City of Melbourne for City of Melbourne trees that are to be retained and protected in accordance with the City of Melbourne Tree Retention and Removal Policy. |
| Business | 1. Reduce the disruption to businesses from direct acquisition or temporary occupation of land, and work with business and land owners to endeavour to reach an agreement on the terms for possession of the land.  
2. Provide businesses with adequate notice (as required under the relevant legislation) of any need for relocation, as a result of the Project including the termination of leases of public or private land where the displacement is a direct consequence of the Project. | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Communications and Stakeholder Engagement Management Plan, which will include a Business Engagement and Continuity Management Plan (Business Disruption Mitigation Plan). These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor. |

Ministerial Submission Rev F
TAS-CYP-ARD-AIS-XLP-XLP-AEN-X0864

Approver: Elif Aygun
Chequer: Sabrina Chapman
Author: Elif Aygun
Date: 28/07/2022
Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Communications and Stakeholder Engagement Management Plan as well as in the Air Quality Management Plan and Noise and Vibration Management Plan. Site specific controls for air quality and noise and vibration will be detailed in the Site Environmental Implementation Plan. These plans have been reviewed by the project's Independent Reviewer and audited by the project's Independent Environmental Auditor.

<table>
<thead>
<tr>
<th>Discipline</th>
<th>EPR Ref</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>B1</td>
<td>1. Following consultation with potentially affected businesses and prior to commencement of relevant works, prepare management plans and during construction implement those plans to minimise dust, noise and vibration impacts during construction, as per EPRs AQ1, NV5 and NV21.</td>
<td>Cross Yarra Partnership has implemented a Construction Environmental Management Plan. The project has a dust management plan that complies with EPR AQ1. The noise and vibration management plan complies with EPR NV5 and NV21. These plans have been reviewed by the project's Independent Reviewer and audited by the project's Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Business</td>
<td>B4</td>
<td>1. Maintain vehicular and pedestrian access to hospital emergency departments at all times during construction and to other key health and medical facilities, where practicable.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The project has a Business Engagement and Continuity Management Plan that complies with EPR T12 and T13. These plans have been reviewed by the project's Independent Reviewer and audited by the project's Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Contaminated Land and Spoil Management</td>
<td>B5</td>
<td>1. In consultation and agreement with the owners of the Westin Residential Apartments and the owners' corporations in Plan of Subdivision PS498955SM, prepare a legacy design for the private car parking, storage units and services below the Westin building to a similar standard as prior to the commencement of the Project (taking into account station infrastructure requirements) or as otherwise agreed with the owners. The design is to be implemented at the earliest opportunity.</td>
<td>This is not relevant to the Intake Substation. Refer to the Emergency Response and Incident Management Plan - Parkville.</td>
</tr>
<tr>
<td>Contaminated Land and Spoil Management</td>
<td>B6</td>
<td>1. Prior to commencement of shaft construction and prior to commencement of main works, prepare and implement a Spoil Management Plan (SMP) for each Works Package. The SMP must be in accordance with EPR's Spoil Management Strategy and any relevant regulations, standards or best practice guidelines. The SMP will be developed in consultation with the EPA. The SMP will include but is not limited to the following: a) Applicable regulatory requirements; b) Sampling, testing and treatment of spoil (clean fill and contaminated spoil); c) Roles and responsibilities; d) Identification of management measures for handling and transport of spoil for the protection of health and the environment (consistent with the transport management plans as required by EPRs T2 and T3); e) Identification, design and development of specific environmental management plans for temporary stockpile areas; f) Identifying potential sites for re-use, management or disposal of any spoil; g) Monitoring and reporting requirements; h) Identifying suitable sites for disposal of any FAW; i) The SMP must include sub-plans as appropriate, including but not limited to an Acid Sulfate Soils and Rock (ASS/ARS) Management Sub-Plan (see EPR C3).</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The project has a Construction Management Plan Sub-plan that includes specific control measures for the Management of ASS/ARS Soils. These plans have been reviewed by the project's Independent Reviewer and audited by the project's Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Contaminated Land and Spoil Management</td>
<td>C3</td>
<td>1. Prior to commencement of shaft construction and prior to commencement of main works, prepare and implement an Acid Sulfate Soil and Rock (ASS/ARS) Management Sub-Plan as a sub-plan of the overarching SMP for each Works Package. The Sub-Plan must be developed in accordance with the Industrial Waste Management Policy (Acid Sulfate Soils) 1998, EPA Publication E55.1 Acid Sulfate Soil and Rock (ASS/ARS) Management Sub-Plan (see EPR C3).</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The project has a Construction Management Plan Sub-plan that includes specific control measures for the Management of ASS/ARS Soils. These plans have been reviewed by the project's Independent Reviewer and audited by the project's Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Contaminated Land and Spoil Management</td>
<td>C4</td>
<td>1. Prior to commencement of relevant works, prepare and implement a health, safety and environment plan for the management of hazardous substances. The plan must include but not limited to: a) Consideration of the risks associated with exposure to hazardous substances for employees, visitors and the public. b) Identification of methods to control such exposure in accordance with relevant regulations, standards and best practice guidance.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The project has a Health and Safety Management Plan that complies with EPR AQ1 and NV5. These plans have been reviewed by the project's Independent Reviewer and audited by the project's Independent Environmental Auditor.</td>
</tr>
</tbody>
</table>

MINISTERIAL SUBMISSION REV F
TAS-CYP-ARD-AIS-PLA-XLP-AEN-X0864  
Author: Elif Aygun  
Checker: Sabrina Chapman  
Approver: Matt Peel  
Date: 28/07/2022
## Intake Substation Development Plan - Environmental Performance Requirement assessment

<table>
<thead>
<tr>
<th>Discipline</th>
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<th>Environmental Protection Requirements</th>
<th>Development Plan Response</th>
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</thead>
</table>
| Historical Culture  | CH2     | 1. Design permanent and temporary works to avoid or minimise impacts on the cultural heritage values of heritage places. Consult, as required, with Heritage Victoria and/or the relevant local council (as applicable).  
   Note:  
   (i) The Project must meet the requirements of the Heritage Act 2017.  
   (ii) The HMP must identify the heritage values of the place, the degree of significance of component parts, how proposed works will affect the heritage values, the mitigation measures to be adopted to avoid or minimise impacts on heritage values and any possible heritage benefits. | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Heritage Management Plan with site specific controls in the Site Environmental Implementation Plan. This is subject to stakeholder consultation requirements with Heritage Victoria, reviewed by the project’s Independent reviewer and audited by the Independent Environmental Auditor. |
| Historical Culture  | CH3     | 1. To avoid or minimise impacts on the cultural heritage values of heritage places, prior to commencement of relevant works, prepare and implement a Heritage Management Plan (HMP) in consultation with Heritage Victoria or the relevant local council (as applicable).  
   2. The HMP must identify the heritage values of the place, the degree of significance of component parts, how proposed works will affect the heritage values, the mitigation measures to be adopted to avoid or minimise impacts on heritage values and any possible heritage benefits. | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Heritage Management Plan with site specific controls in the Site Environmental Implementation Plan. This is subject to stakeholder consultation requirements with Heritage Victoria, reviewed by the project’s Independent reviewer and audited by the Independent Environmental Auditor. |
| Historical Culture  | CH4     | 1. Prior to commencement of relevant works, undertake archival photographic recording in accordance with Heritage Victoria’s specification for the archival photographic recording of heritage places where heritage places are to be demolished or modified or their setting is to be impacted by works. The archival recording is to be provided to Heritage Victoria for places in the VHR and the relevant local council for places included in the Heritage Overlay and approved in writing. Once approved, a copy of the recording is to be lodged with the La Trobe Picture Collection, CBD North of Victoria. | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Heritage Management Plan with site specific controls in the Site Environmental Implementation Plan. This is subject to stakeholder consultation requirements with Heritage Victoria, reviewed by the project’s Independent reviewer and audited by the Independent Environmental Auditor. |
| Historical Culture  | CH5     | 1. Prior to the construction of works that affect heritage structures or places, where it is proposed to dismantle, store or reconstruct historical fabric, develop detailed methodologies in accordance with the Australia ICOMOS Burra Charter 2013 and in consultation with Heritage Victoria or the land owner or relevant local council (as applicable). Work is to be documented and overseen by a appropriately qualified heritage practitioner.  
   2. Prior to dismantling the following heritage places, develop interpretative material for display while the heritage fabric is not visible:  
   a) Burke and Wills Movement  
   b) University of Melbourne Main Entrance Gate (Gate G) Pilars and Fence (VHR-H518). | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Heritage Management Plan with site specific controls in the Site Environmental Implementation Plan. This is subject to stakeholder consultation requirements with Heritage Victoria, reviewed by the project’s Independent reviewer and audited by the Independent Environmental Auditor. |
| Historical Culture  | CH6     | 1. Prior to commencement of relevant works which may directly or indirectly affect heritage places, develop and implement appropriate protection measures for heritage places and their settings. This is to be done in consultation with the land owner, Heritage Victoria or relevant council (as applicable). | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Heritage Management Plan with site specific controls in the Site Environmental Implementation Plan. This is subject to stakeholder consultation requirements with Heritage Victoria, reviewed by the project’s Independent reviewer and audited by the Independent Environmental Auditor. |
| Historical Culture  | CH7     | 1. In consultation with Heritage Victoria and as required by the Heritage Act 2017:  
   a) Develop an archaeological management plans to manage disturbance of archaeological sites and values affected by the project.  
   b) Undertake investigation in accordance with the Guidelines for Investigating Historical Archaeological Artifacts and Sites, Heritage Victoria 2014 (as amended or updated).  
   2. Develop and implement a protocol for managing previously unidentified historical archaeological sites discovered during Project works. | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Heritage Management Plan with site specific controls in the Site Environmental Implementation Plan. This is subject to stakeholder consultation requirements with Heritage Victoria, reviewed by the project’s Independent reviewer and audited by the Independent Environmental Auditor. |
| Historical Culture  | CH8     | 1. In consultation with Heritage Victoria, the relevant local council and/or Aboriginal Victoria (as applicable), develop and implement, a heritage interpretation strategy for places in the VHR and VHI which explores historical and Aboriginal cultural heritage themes.  
   2. This must also include the railway workshop buildings in the proposed Railway Reserve Precinct (proposed HO1093) located at 173-199 Laurens Street, North Melbourne in the Arden precinct.  
   3. The heritage interpretation strategy should consider the RVP Creative Strategy. | In consultation with Heritage Victoria, the City of Melbourne and other relevant councils, a heritage interpretation strategy has been developed for the Project which includes the publicly accessible stations. This strategy takes into consideration the RVP Creative Strategy. Refer to the Station Development Plans for further information on the heritage interpretation strategy for public-facing areas. |
| Historical Culture  | CH9     | 1. Undertake all underground service works beneath or within heritage places or tree protection zones (TPZs) for trees as part of heritage places to avoid, minimise and mitigate impacts to the heritage fabric. | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Heritage Management Plan with site specific controls in the Site Environmental Implementation Plan. This is subject to stakeholder consultation requirements with Heritage Victoria, the management plans are reviewed by the project’s Independent reviewer and audited by the Independent Environmental Auditor. |
| Historical Culture  | CH10    | 1. Ensure new development is responsive to heritage places in terms of height, massing, form, facade articulation, materials and impacts on their settings and key views. | Historical cultural heritage at the Intake Substation is presented in Section 4.4.3 of the Development Plan. |
| Historical Culture  | CH11    | 1. Ensure no direct impact on heritage buildings on the former Glueworks site in Kensington. | Historical cultural heritage at the Intake Substation is presented in Section 4.4.3 of the Development Plan. |
| Historical Culture  | CH12    | 1. Retain and protect Langford Street pumping station as part of the design for the new substation. | An alternative design location has been selected for the Intake Substation which does not impact on the Langford Street Pumping Station. |
### Intake Substation Development Plan - Environmental Performance Requirement assessment

**Development Plan Response**

<table>
<thead>
<tr>
<th>Discipline</th>
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<th>Environmental Protection Requirements</th>
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<tbody>
<tr>
<td>Historical Cultural Heritage</td>
<td>O133</td>
<td>1. In consultation with VicRoads, Heritage Victoria and/or the relevant local council, replace removed Elm trees in Royal Parade as part of Project delivery using appropriate species and re-establish the boulevard formation and heritage values. (See EPR A01).</td>
</tr>
<tr>
<td>Historical Cultural Heritage</td>
<td>O134</td>
<td>1. During detailed design ensure the eastern Parkville station entry is set no less than 8-10 metres from the original Sutcliffe’s Cottage and an appropriate boundary treatment is retained or re-established for the heritage building.</td>
</tr>
<tr>
<td>Historical Cultural Heritage</td>
<td>O135</td>
<td>1. During detailed design for the CBD South station, consult with City of Melbourne regarding the incorporation of the Charles Bush sculpture into the design for the new building on the Port Phillip Arcade site, preferably in a prominent position on the Flinders Street facade.</td>
</tr>
<tr>
<td>Historical Cultural Heritage</td>
<td>O136</td>
<td>1. To the event that temporary or permanent relocation of the Burke and Wills Monument from its current site is required, reserve the final location of the monument in consultation with the City of Melbourne prior to the commencement of relevant works. (See EPR Ch1).</td>
</tr>
<tr>
<td>Historical Cultural Heritage</td>
<td>O137</td>
<td>1. Integrate the bluestone pillar and cast iron fencing at the corner of Greville Street and Royal Parade into the design for the station entry and surrounds in consultation with the University of Melbourne.</td>
</tr>
</tbody>
</table>
| Historical Cultural Heritage | O138 | 1. Replace removed trees as part of Project delivery in accordance with relevant policy documents and to re-establish heritage values in consultation with the City of Melbourne, the City of Port Phillip, Heritage Victoria, the Shrine of Remembrance and Shrine Trustees (as applicable). Policy documents are as follows.
| Historical Cultural Heritage | O139 | 1. In consultation with Heritage Victories, the City of Melbourne, the Shrine of Remembrance and Shrine Trustees (as applicable), review the siting and design of the eastern Domain station entry during detailed design to ensure it is as recessive as possible in this location and has only a limited presence on the edge of the Shrine of Remembrance Precinct. |
| Historical Cultural Heritage | O140 | 1. Prior to dismantling the South African Soldiers Memorial, in consultation with City of Port Phillip and Heritage Victoria develop interpretive material to display in the precinct until the monument is restored.
2. For detailed design, in consultation with City of Port Phillip and Heritage Victoria review the siting and design of the western Domain station entry to ensure the South African Soldiers Memorial and other components of the Albert Road Reserve retain their heritage values including an appropriate setting. If no appropriate setting can be established, consider options for relocation of the memorial to an alternative site. |
| Historical Cultural Heritage | O141 | 1. In consultation with VicRoads, Heritage Victoria and relevant local council, replace any trees in St Kilda Road that must be removed in a manner which will re-establish the boulevard formation and reinstate heritage values. |
| Historical Cultural Heritage | O142 | 1. Retain and protect the Cross Street Electrical Substation in situ within or abutting proposed construction site. |
| Historical Cultural Heritage | O143 | 1. Ensure that, where impacted by Project works, street fabric and infrastructure is conserved and/or accurately reconstructed in consultation with Heritage Victoria and the relevant local council. |
| Historical Cultural Heritage | O144 | 1. Prior to commencement of main works, consider the construction noise and vibration pre-construction surveys and review the ground movement plan required by EPR GM2. On this basis, identify heritage places that may be vulnerable to damage from construction and identify appropriate mitigation measures to prevent damage to heritage places. |
| Historical Cultural Heritage | O145 | 1. Prior to the commencement of main works:
   - Conduct pre-construction condition surveys of heritage places identified as potentially being vulnerable to damage to record structural condition and structural integrity. |
| Historical Cultural Heritage | O146 | 1. Conduct vibration monitoring at the heritage places that may be vulnerable to damage to assess the actual impacts from construction works. |
| Historical Cultural Heritage | O147 | 1. If the vibration monitoring demonstrates that a heritage place has been, or may be, damaged as a result of vibration, ground vibration must be reduced until the risk of vibration related damage is assessed as acceptable. |
| Historical Cultural Heritage | O148 | 1. Construction techniques must also seek to limit, as far as practicable, ground movement to avoid causing damage to heritage places, (see also EPRs GM3, GM4, GM5, GM6, NV4, NV5 and NV7). |

The Intake Substation will not have any impact to culturally significant street fabric or infrastructure, therefore this EPR is not relevant for the Intake Substation Development Plan.
Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan.

### Intake Substation Development Plan - Environmental Performance Requirement assessment

#### Development Plan Response

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<tr>
<th>Discipline</th>
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<th>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. Site-specific controls are detailed in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</th>
</tr>
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<tr>
<td>EMF</td>
<td>EMF1</td>
<td>1. Prior to commencement of Project works, prepare and implement an Environmental Management System (EMS) that is certified to ISO 14001:2015 Environmental Management Systems – requirements with guidance for use for construction and operation.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. Site-specific controls are detailed in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>EMF</td>
<td>EMF2</td>
<td>1. Prepare a Construction Environmental Management Plan (CEMP), Site Environment Implementation Plans (SEIP), Operations Environment Management Plan (OEMP) and other plans as required by the Environmental Protection Requirements (EPRs) and as relevant to any stage of the Project. 2. Develop a program to set out the process and timing for development of an EMS, CEMP, SEIP, OEMP and other plans as required by the EPRs and as relevant to any stage of the Project. 3. The process for development of and implementation of the CEMP, the SEIP and OEMP must include consultation with Councils, Heritage Victoria, the Roads Corporation, Melbourne Water, Public Transport Victoria (PTV)/DSTA (Transport), the Environment Protection Authority (EPA) and other stakeholders as relevant. These consultation processes must be described in the program. Plans are to be reviewed in accordance with the EPR. 4. The CEMP should be prepared in accordance with EPA Publication 480, Environmental Guidelines for Major Construction Sites (EPA 1996).</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. Site-specific controls are detailed in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>EMF</td>
<td>EMF3</td>
<td>1. Prior to commencement of Project works, appoint an Independent Environmental Auditor to audit proposed plans, as required in the Incorporation Document, so as to ensure the plans comply with the EPRs and to undertake environmental audits of compliance with the approved CEMP, SEIP, OEMP (the OEMP is for Public Private Partnership (PPP) only), EPRs and approval conditions.</td>
<td>An Independent Environmental Auditor has been appointed and will ensure the relevant plans comply with the EPRs and undertake environmental audits to satisfy the EPR.</td>
</tr>
<tr>
<td>EMF</td>
<td>EMF4</td>
<td>1. Prior to commencement of Project works, develop and implement a process for the recording, management and resolution of complaints from affected stakeholders consistent with Australian Standard AS/NZS 4000: 2000 Guidelines for Complaint Management in Organisations. 2. The complaints management approach will be documented in the Community and Stakeholder Engagement Management Framework required under EPR SC3 and be integrated with the Proponent and Contractors’ own EMS. The complaints management system will address requirements of the Business Support Guidelines for Construction (BSSG). 3. Prior to commencement of relevant works, prepare and implement an Electro Magnetic Compatibility (EMC) Management Plan that includes the following (but is not necessarily limited to): a) Undertake a Project wide Electro Magnetic Interference (EMI) assessment for existing infrastructure, considering: i) Baseline conditions. ii) Stakeholder requirements. iii) Manufacturer specifications of sensitive equipment. iv) Any electromagnetic emissions where the magnetic fields are altered by moving metallic objects and which may alter the operation of any electrical or electronic equipment to be used during construction and operation of the Project. b) Undertake baseline monitoring of sensitive equipment in accordance with any relevant manufacturer environmental test requirements, where available. c) Determine operational EMI limits in consultation with sensitive equipment owners having regard to equipment manufacturer environmental specifications where available and background EMI levels. d) If EMI limits are expected to be exceeded, as a result of either the construction and/or operation of the Project, design mitigation measures, in consultation with equipment owners, so as to minimise impact on sensitive equipment in accordance with ‘best practice’ industry standards. 2. The findings of the assessment undertaken in EPR EMI1 should be summarised and addressed in the Management Plan prepared in response to EPR EMI2.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Design Management Plan (Electro-Magnetic Compatibility Management Plan). These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Electro Magnetic Interference</td>
<td>EMR1</td>
<td>1. During detailed design activities for main works: a) Undertake a Project wide Electro Magnetic Interference (EMI) assessment for existing infrastructure, considering: i) Baseline conditions. ii) Stakeholder requirements. iii) Manufacturer specifications of sensitive equipment. iv) Any electromagnetic emissions where the magnetic fields are altered by moving metallic objects and which may alter the operation of any electrical or electronic equipment to be used during construction and operation of the Project. b) Undertake baseline monitoring of sensitive equipment in accordance with any relevant manufacturer environmental test requirements, where available. c) Determine operational EMI limits in consultation with sensitive equipment owners having regard to equipment manufacturer environmental specifications where available and background EMI levels. d) If EMI limits are expected to be exceeded, as a result of either the construction and/or operation of the Project, design mitigation measures, in consultation with equipment owners, so as to minimise impact on sensitive equipment in accordance with ‘best practice’ industry standards. 2. The findings of the assessment undertaken in EPR EMI1 should be summarised and addressed in the Management Plan prepared in response to EPR EMI2.</td>
<td>Cross Yarra Partnership has prepared an Environmental Management System and Construction Environmental Management Plan. The aspect-specific control measures are identified in the Design Management Plan (Electro-Magnetic Compatibility Management Plan). These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Electro Magnetic Interference</td>
<td>EMR2</td>
<td>1. Prior to commencement of relevant works, prepare and implement an Electro Magnetic Compatibility (EMC) Management Plan that includes the following (but is not necessarily limited to): a) An assessment of the likely electromagnetic emissions generated by the main works and the operation of the Project. b) Identification of sensitive equipment that might be affected by those electromagnetic emissions and the proposed management measures. c) A testing strategy in accordance with equipment specifications to monitor performance of appropriate management measures. d) Identification of possible works to sensitive equipment to avoid adverse impacts. e) A program for regular auditing of electronic and electrical systems during the construction, testing and commissioning. f) Remedial action to be undertaken if EMI limits are not met during the construction, testing, commissioning and operation of the Project.</td>
<td>Cross Yarra Partnership has prepared an Environmental Management System and Construction Environmental Management Plan. The aspect-specific control measures are identified in the Design Management Plan (Electro-Magnetic Compatibility Management Plan). These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Terrestrial flora and fauna</td>
<td>FF1</td>
<td>1. Where the removal of native vegetation is ‘unavoidable’ (as defined under relevant policies) meet the requirements of the Permitted Clearing of Native Vegetation – Biodiversity Assessment Guidelines.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Ecology Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Terrestrial flora and fauna</td>
<td>FF2</td>
<td>1. Develop and implement measures to avoid the spread or introduction of weeds and pathogens during construction, including vehicle and equipment hygiene.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Ecology Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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**Intake Substation Development Plan - Environmental Performance Requirement assessment**

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<tr>
<td>Terrestrial flora and fauna</td>
<td>FF3</td>
<td>1. Trees identified for removal under EPR FF3, which may be used for breeding by native wildlife, should be removed outside the spring breeding season (August-December inclusive) where practicable. Immediately prior to site clearance for construction, large old trees with habitat hollows must be inspected by a suitably experienced and qualified arborist, to check for fauna occupancy, and native fauna removed and released at a nearby location immediately outside the impact zones.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Ecology Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Greenhouse Gas</td>
<td>G1</td>
<td>1. Prior to commencement of main works, develop and implement a Sustainability Management Plan to meet, as a minimum, the Melbourne Metro sustainability targets, including achieving the specified ratings under the Infrastructure Sustainability Council of Australia’s Infrastructure Sustainability Rating Tool and the Green Star Design and As Built Melbourne Metro Rail Tool.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Sustainability Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Greenhouse Gas</td>
<td>G2</td>
<td>1. Monitor and report on how each of the best practice GHG abatement measures and sustainability initiatives identified in the Concept Design is implemented in the detailed design of the Project and whether any additional measures not included in the Concept Design are feasible.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The Construction Management Plan Sub-plan include aspect-specific control measures detailed in the Spill Management Plan and the Design Management Plans include a Groundwater Management Plan and Ground Movement Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Ground Movement and Land Stability</td>
<td>GMS</td>
<td>1. Prior to commencement of shaft construction and prior to commencement of main works, develop and implement a Ground Movement Plan(s) for each Works Package which:</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Ground Movement Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Ground Movement and Land Stability</td>
<td>GM2</td>
<td>a) Use monitored ground movement and ground water levels prior to construction to identify pre-existing movement. b) Inform tunnel design and the construction techniques to be applied for the various geological and groundwater conditions. c) Assess potential drawdown and identify trigger levels for implementing additional mitigation measures to minimize potential primary consolidation settlement. d) Assess potential ground movement effects from excavation and identify trigger levels for implementing additional mitigation measures to minimize potential ground movement effects.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Ground Movement Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<tr>
<td>Ground Movement and Land Stability</td>
<td>GM3</td>
<td>1. Design and construct the permanent structures and temporary works to limit ground movements to within appropriate acceptability criteria (to be determined in consultation with relevant stakeholders, local councils and land managers and which build upon the assumptions for criteria presented in the EES) for vertical, horizontal, and angular deformation as appropriate for Project activities during the construction and operational phase. In the design of the works and the planning of construction and mitigations, incorporate the findings of investigations reported in the EES and subsequent relevant investigations.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Ground Movement Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<tr>
<td>Ground Movement and Land Stability</td>
<td>GMS</td>
<td>b) Inform tunnel design and the construction techniques to be applied for the various geological and groundwater conditions. c) Identify ground movement control measures to limit settlement of buildings and protecting buildings from damage. d) Establish ground movement reporting requirements for the area surrounding proposed Melbourne Metro works and at the location of various structures/assets to measure consistency with the predicted model. e) Conform with land and assets owners that could be potentially affected and whereby mitigation measures would be required.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Ground Movement Management Plan and Communications and Stakeholder Engagement Management Plan, which have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Ground Movement and Land Stability</td>
<td>GMS</td>
<td>1. Prior to commencement of main works, develop and implement a Ground Movement Plan(s) for each Works Package for construction and operational phases of the Project that: a) Addresses the location of structures/assets which may be susceptible to damage by ground movement resulting from Melbourne Metro works, having particular regard to heritage places and EPR GM2. b) Identifies appropriate ground movement impact acceptability criteria for buildings, utilities, trains, tracks and pavement after consultation with the various stakeholders. c) Identifies mitigation measures to ensure acceptability criteria can be met. d) Identifies techniques for limiting settlement of buildings and protecting buildings from damage. Where these may apply to heritage places, they should be developed in consultation with Heritage Victoria and the relevant local council (as applicable). e) Addresses additional measures to be adopted if acceptability criteria are not met such as reinstatement of any property damage. For heritage places, refer to EPR CH2 and CH24. f) Establishes ground movement monitoring requirements for the area surrounding proposed Melbourne Metro works and at the location of various structures/assets to measure consistency with the predicted model. g) Conform with land and assets owners that could be potentially affected and whereby mitigation measures would be required.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Ground Movement Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<tr>
<td>Ground Movement and Land Stability</td>
<td>GMS</td>
<td>1. Conduct pre-construction condition surveys for the assets predicted to be affected by ground movement, including where a property owner reasonably expects to be potentially affected and has requested a pre-construction condition survey. a) Identification of structures/assets which may be susceptible to damage resulting from ground movement resulting from Melbourne Metro works. b) Results of condition survey of structures, pavements, significant utilities and parks/bands to establish baseline conditions and potential vulnerabilities. c) Records of consultation with landowners in relation to the condition survey. d) Post-construction condition surveys conducted, where required, to ascertain if any damage has been caused as a result of Melbourne Metro. e) Post-construction condition surveys conducted, where required, to ascertain if any damage has been caused as a result of Melbourne Metro. f) Share pre- and post-condition assessments and records of consultation with the property owner proactively. g) Ensure all stakeholder engagement activities are undertaken in accordance with the contractors Community and Stakeholder Engagement Management Plan.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Ground Movement Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Ground Movement and Land Stability</td>
<td>GMS</td>
<td>1. Adopt construction techniques for Melbourne Metro to limit ground movement to within appropriate acceptability criteria (to be determined in consultation with relevant stakeholders).</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Ground Movement Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Ground Movement and Land Stability</td>
<td>GMS</td>
<td>1. For properties and assets affected by ground movement, undertake any required repair works or other actions as agreed with the landowner. For places on the VHR, consultation with Heritage Victoria and the relevant local council must occur (as applicable).</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Ground Movement Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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</table>
**Cross Yarra Partnership** has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Groundwater Management Plan and Ground Movement Management Plan, which have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.

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<td>Groundwater</td>
<td>GW1</td>
<td>1. Design the tunnel and underground structures so that they minimise changes to groundwater levels during construction and operation to minimise impacts on groundwater dependent values, ground movement and contamination plume migration.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Groundwater Management Plan and Ground Movement Management Plan, which have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Groundwater</td>
<td>GW2</td>
<td>1. Develop a groundwater model through a process that involves engaging referral to the Independent Environmental Auditor consistent with the Australian Groundwater Modelling Guidelines (Barnett et al. 2012). Apply the model for the detailed design phase to predict impacts associated with any changes to construction techniques or operational design features proposed during detailed design, and re-assess that the EPAs and mitigation measures are sufficient to mitigate impacts from changes in groundwater levels, flow and quality. 2. The groundwater model should be updated to address comprehensively transient calibration, aquifer specific storage parameter values and their justification, prediction of cumulative impacts during construction and uncertainty assessments.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Groundwater Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<td>Groundwater</td>
<td>GW3</td>
<td>1. Prior to commencement of shaft construction and prior to commencement of main works, develop and implement a Groundwater Management Plan (GWMP) for each Works Package detailing groundwater management approaches to address the predicted impacts to groundwater dependent values during construction and to ensure protection of groundwater dependent values. 2. The GWMP must be based on the detailed design phase groundwater model, and should include the following details: a) Approach to collection, treatment and disposal of groundwater collected during construction in accordance with the EPA/ Groundwater Disposal Strategy. b) Identifying and if necessary, specifying mitigation measures to protect groundwater dependent vegetation during periods of drawdown. c) An approach identified in consultation with the EPA so that contaminant migration causes no significant impacts on beneficial uses or vapour intrusion into underground structures, and establishes appropriate monitoring networks to measure the effectiveness of the approach. d) Methods for minimizing drawdown in areas of known PAS and establishing appropriate monitoring networks to confirm effectiveness of approach. e) Methods for minimizing drawdown at any existing recharge bore, and establishing appropriate monitoring networks to measure the effectiveness of mitigation. f) Groundwater drawdown trigger levels for groundwater dependent values at which additional mitigation measures must be adopted. g) Design, operation and management of groundwater injection bore fields. h) Contingency measures for impacts occur at existing active groundwater bores and surface water bodies. i) Contingency measures should unexpected groundwater conditions be encountered. j) The GWMP must be developed in consultation with EPA and relevant water authorities. k) The GWMP should also address EPA’s sustainability requirements where appropriate.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Groundwater Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Groundwater</td>
<td>GW4</td>
<td>1. Use the Groundwater Disposal Strategy and GWMP to obtain a Trade Waste Agreement with the relevant Water Retailers for groundwater disposal.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Groundwater Management Plan with site specific controls in the Site Environmental Implementation Plan. A Trade Waste Agreement has been obtained at the relevant time. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Groundwater</td>
<td>GW5</td>
<td>1. Prior to commencement of shaft construction and prior to commencement of main works, develop and implement a groundwater monitoring plan as part of the GWMP for each Works Package that details sufficient monitoring of groundwater levels to verify that no significant impacts occur from potential contamination migration on the beneficial uses of groundwater at third party properties caused by drawdown or vapour intrusion into underground structures a) Activation of PAS and groundwater acidification b) Reduction in access to water for bore owners in the area around the Project c) Infiltration in access to groundwater for trees – particularly in the Tunnels precinct between CBD South and Docklands stations, and the CBD South station and eastern portal precincts d) Change in injection rates in any existing recharge bores that may be present in the area around the Project.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Groundwater Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Land Use and Planning</td>
<td>LU1</td>
<td>1. Prior to commencement of relevant works, develop and implement a plan for construction and operation of the Project that has as its purpose minimising impacts on existing land uses during both early works and main works, including by: a) Limiting the extent of any permanent change of use within existing public open space. b) Minimising the footprints of construction sites and any permanent infrastructure which is to be located on public land. c) Locating and designing all Project works to avoid, to the extent practicable, any temporary and permanent loss of public open space to maximise the re-instatement potential of that land d) Minimising impacts to existing public open spaces and recreational facilities and the users of these facilities, including (but not limited to): i) Holland Park, University Square, the Melbourne City Baths, City Square, Federation Square, the Shrine of Remembrance and the Shrine Reserve, Claisebrook Parklands, Elwood Pier (Memorial Oval) and the Albert Road Reserve. e) Minimising the impacts to existing residential areas by locating new above-ground infrastructure, such as electrical substations in appropriate locations considering adjoining properties and exploiting the co-location of rail infrastructure facilities where practicable. ii) Ensuring residents are notified in advance of works in accordance with EPAs SC4 and SC10. iii) Such measures must be developed in consultation with affected land managers for public land, local councils and key stakeholders, as applicable. Note: 1) The approach to defining key stakeholders is to be outlined in the Community and Stakeholder Engagement Management Framework (see EPR SC3).</td>
<td>Land use and planning, in particular the impact on existing land-use, is presumed in Section 4.4.4 of the Intake Substation Development Plan.</td>
</tr>
</tbody>
</table>
## Intake Substation Development Plan: Environmental Performance Requirement Assessment

### Environment Protection Requirements

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Land Use and Planning</th>
<th>Landscape and Visual</th>
<th>Noise and Vibration</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPR Ref</td>
<td>LU2</td>
<td>LV1</td>
<td>NV1</td>
</tr>
<tr>
<td>Environmental Implementation Plan</td>
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<tr>
<td>1. Development of the Project must be generally in accordance with the relevant Open Space Master Plans (including but not limited to, the Domain Parklands, and University Square Master Plans and Chapel Revision Structure Plan), and be consistent with the Melbourne Metro Urban Design Strategy and EPR SC8 in designing and constructing above ground infrastructure for the tunnels. Consultation must occur with land managers and/or agencies responsible for the implementation of the relevant Open Space Master Plans. The outputs must be consistent with EPR SC8.</td>
<td>The design of the Intake Substation has been considered in accordance with relevant Master Plans, as presented in Section 4.4.4 of the Development Plan.</td>
<td>The design of the Intake Substation is being developed in consultation with the Urban Design and Architectural Advice Panel, this is presented in Section 4.4.4 of the Development Plan.</td>
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</tr>
</tbody>
</table>

# Cross Yarra Partnership

**Ministerial Submission Rev F**

**TAS-CYP-ARD-AIS-PLA-XLP-AEN-X0864**

**Author:** Elif Aygun

**Cheker:** Sabrina Chapman

**Approver:** Matt Peal

**Date:** 28/07/2022

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**Environmental Auditor.**

**Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan.**

**The aspect-specific control measures are identified in the Urban Design and Architectural Advice Panel, this is presented in Section 4.4.4 of the Development Plan.**

**Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan.**

**The aspect-specific control measures are identified in the Urban Design Management Plan, which have been reviewed by the project's Independent Reviewer and audited by the Independent Environmental Auditor.**

**Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan.**

**The aspect-specific control measures are identified in the Urban Design Management Plan, which have been reviewed by the project's Independent Reviewer and audited by the Independent Environmental Auditor.**

**Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan.**

**The aspect-specific control measures are identified in the Noise and Vibration Management Plan with site-specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project's Independent Reviewer and audited by the Independent Environmental Auditor.**
Intake Substation Development Plan - Environmental Performance Requirement assessment

Noise and Vibration

NV2

1. For construction works conducted between CBD South station and Domain station, comply with the requirements of the Notification of Referral Decision for the Melbourne Metro Rail Project (EPRC 2015/3459, dated 22 September 2015) under the EPBC Act for vibration monitoring and measurement, as follows:
   a) Conduct pre-construction vibration surveys of the nearest Commonwealth Heritage listed structures to the construction activity, including the Former Guardhouse (B Block), to record structural and condition and structural integrity prior to commencement of tunneling.
   b) Conduct vibration monitoring at the commencement of tunneling to longitudinal conditions that are similar to those at Victoria Barracks in order to quantify the actual tunnel boring machine vibration characteristics (peak and frequency) for comparison to the values derived from the literature and the German DIN (EN 4156) targets.
   c) Conduct continuous vibration monitoring at the nearest Victoria Barracks heritage structures to the construction activity, including the Former Guardhouse (B Block), to assess the actual tunneling vibration for acceptability, taking into account both the vibration frequency and condition of structure, until monitoring of vibration at the Former Guardhouse (B Block) shows measurements equivalent to preconstruction vibration readings at the Former Guardhouse (B Block).

NV3

1. Prior to commencement of shaft construction and prior to commencement of main works, each Works Package contractor must appoint a suitably qualified acoustic and vibration consultant to predict construction noise and vibration (through modelling) and update the modelling to reflect current construction methodology, site conditions and specific equipment noise and vibration levels (this will require noise and vibration measurements). The model is to be used to determine appropriate mitigation to achieve the EPR.
2. The acoustic and vibration consultant must document the modelling and mitigation investigation in a Construction Noise and Vibration Assessment Report for review by the Independent Environmental Auditor. This report must provide the basis for the development of the construction noise and vibration management plan required under EPR NV2/1.
3. The model must consider airborne noise to residential and non-residential receptors, ground-borne noise at residences, blasting vibration and ground-borne vibration.

NV4

1. Prior to commencement of shaft construction and prior to commencement of main works, each Works Package contractor must appoint a suitably qualified acoustic and vibration consultant to undertake noise and vibration monitoring.
2. The acoustic and vibration consultant must undertake noise and vibration monitoring to assess levels with respect to any Guideline Targets specified in the EPRs. Where monitoring indicates exceedences of Guideline Targets, appropriate management actions must be implemented as soon as possible.
3. The model developed during the Design Stage should be updated/calibrated using the results of the noise and vibration monitoring to provide more accurate predictions of the noise and vibration levels associated with ongoing and future construction works. It may be appropriate to adjust management measures as a result of the more accurate predictions.

NV5

1. Prior to commencement of project works, each Works Package contractor must prepare and implement a communications plan to liaise with potentially affected community stakeholders and land owners reporting potential noise and vibration impacts. The plan must include procedures for complaint management as per SC3. In developing the plan, consult with relevant local councils, EPA Victoria, the Parkville Precinct Reference Group and RMIT University and other precinct reference groups, as appropriate. (See EPRs SC4 and SC11).

Airborne Construction Noise Guidelines Targets [External]

NV6

1. Implementation manages actions if construction noise is predicted to or does exceed the Guideline Noise Levels at residential locations as specified in EPA Publication 1254. See table in EPRs.
2. During Normal Working Hours, the CNL/W must address noise levels that exceed the Management Levels specified in Table EPR NV2/1A.

Airborne Construction Noise Guidelines Targets [Internal]

NV7

1. Implementation manages actions if construction noise:
   a) is predicted to or does exceed the internal noise levels below for Sensitive Areas (based on ANZS 2107:2008); and
   b) Adversely impacts a noise sensitive receptor within the Sensitive Area. (See EPR 2.1.1.1.1.2).
   a) Consult the owner or operator of the noise sensitive receptor
   b) Consider any specific acoustic requirements of specialist space to determine whether a noise sensitive receptor within a Sensitive Area is adversely impacted and, if so, whether further management actions are required. (See EPR NV2/1, subclause 8).
### Intake Substation Development Plan - Environmental Performance Requirement assessment

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<thead>
<tr>
<th>Discipline</th>
<th>EPR Ref</th>
<th>Environmental Protection Requirements</th>
<th>Development Plan Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Noise and Vibration</strong></td>
<td>NV8</td>
<td>Vibration Guideline Targets for Structures</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Implement management actions if, due to construction activity, the following DIN 4150 Guideline Targets for structural damage to buildings (for short-term vibration or long-term vibration) are not achieved. See EPR NV8-1: Short-term vibration on structures.</td>
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<td>Notes: (1) It may be appropriate to modify the guideline targets for particular structures following the completion of pre-construction condition surveys. (2) At frequencies below 100 Hz, the values given in this column may be used as minimum values. (3) Vibration levels marginally exceeding the DIN 4150 guideline targets in the table above would not necessarily result in damage to buildings and structures, but warrant further investigation to determine if higher vibration levels can be accommodated without risk of damage. (4) For civil engineering structures (e.g. with reinforced concrete construction or tunnel linings) the DIN 4150 guideline targets for Type 1 buildings in the table above may be increased by a factor of 2. (5) Short-term vibration is defined as vibration which does not occur often enough to cause structural fatigue and which does not produce resonance in the structure being evaluated. (6) Where land owners agree, pre-construction condition surveys must be performed at all properties located within designated Project Area where it is predicted that DIN 4150 guideline targets will be exceeded. See EPR NV8-2 Long-term vibration on structures.</td>
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<td></td>
<td>NV9</td>
<td>Vibration Guideline Targets for Above-ground Utility Assets and Infrastructure</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<tr>
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<td>1. Prior to commencement of relevant works, undertake condition assessments of above-ground utility assets and infrastructure, including (but not limited to) the Arden Street Bridge and Fitzroy Bridge, to establish construction vibration limits in consultation with asset owners. 2. Monitor vibration during construction to demonstrate compliance with the relevant vibration guideline targets under NV9 or those agreed with the asset owners. Take remedial actions if limits are not met. (See EPRs CH3 and CH6).</td>
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<td></td>
<td>NV10</td>
<td>Vibration Guideline Targets for Below-ground Infrastructure</td>
<td>Cross Yarra Partnership has prepared an Environmental Management System and Construction Environmental Management Plan. The aspect-specific control measures are identified in the Noise and Vibration Management Plan with site-specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<td>1. Prior to commencement of relevant works, undertake condition assessments of below-ground infrastructure, including (but not limited to) Sawaun Street Brick Drain and Flinders Street Drain, to establish construction vibration limits with the asset owner. 2. Implement management actions if agreed construction vibration targets (or if no specific targets have been established) are not achieved. See EPR table NV10.</td>
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<td>Notes: (1) The DIN 4150 Guideline Targets may be reduced by 50% when evaluating the effects of long-term vibration on buried pipework. (2) The DIN 4150 Guideline Targets are based on the assumption that pipes have been manufactured and laid using current technology (however it is noted that this is not the case for the majority of buried pipework potentially affected by Melbourne Metro). (3) Compliance with asset owner’s Utility Standards is to be achieved.</td>
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<tr>
<td><strong>Noise and Vibration</strong></td>
<td>NV11</td>
<td>Vibration Dose Value (VDV)(Human Comfort)</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<td>1. Implement management actions if the following Guideline Targets (VDV) (based on Table 1 in BS 6472-1:2008) for continuous (as for TBMs and road headers), intermittent, or impulsive vibration are not achieved. See EPR table NV11.</td>
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<td>Notes: (1) The Guideline Targets are non-mandatory; they are goals that should be sought to be achieved through the application of feasible and reasonable mitigation measures. If exceeded then management actions would be required. (2) The VDVs may be converted to PPVs within a future noise and vibration construction management plan under EPR NV21.</td>
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<tr>
<td>Discipline</td>
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<td>Environmental Protection Requirements</td>
<td>Development Plan Response</td>
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<tr>
<td><strong>Noise and Vibration</strong></td>
<td>NV12</td>
<td>Sensitive Equipment Guideline Targets</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Noise and Vibration Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project's Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<td>1. For Construction: Implement management actions (which may include source mitigation) if equipment manufacturer specifications, measured background levels or other agreed levels (after consultation with the affected organization) whichever are higher, are expected to be or are exceeded for construction/equipment at the Parkville and CBD North precincts.</td>
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<td>2. For Operation: If the manufacturer’s specification or measured background levels (whichever are higher) or other agreed levels (after consultation and agreement from the affected organization) are predicted to be exceeded, apply practicable mitigation to reduce the vibration levels to the relevant target.</td>
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<td>3. Where equipment manufacturer specifications are not available for vibration, adopt the applicable ASHRAE Equipment Vibration Guideline Targets:</td>
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<td>See EPR Table Notes</td>
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<td>(1) Background vibration and noise must be measured in accordance with equipment environmental test requirements.</td>
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<td>(2) Monitoring must be undertaken in accordance with equipment specifications to demonstrate compliance, and monitoring locations determined in consultation with operators of sensitive equipment. (See EPR NV21).</td>
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<td>(3) The proponent may undertake consultation with the users and agree alternative Guideline Targets for Construction and/or Operation phases.</td>
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<td>(4) Subject to being given the asset owner’s consent, during the construction phase, a continuous monitoring program must be adopted (to the asset owner’s agreement), with asset owner access to monitoring data using an alert with respect to a ‘limit’ approach.</td>
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<td>NV13</td>
<td>Ground-borne (intended) Noise Guideline Targets for Amenity</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Noise and Vibration Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project's Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<td>1. Implement management actions as agreed with potentially affected land owners to protect amenity at residences, sleeping areas in hospital wards, student accommodation and hotel rooms where the following ground-borne noise Guideline Targets are exceeded during construction (See Table below based on NSW Interim Construction Noise Guidelines 2006).</td>
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<td>Implement management actions, as determined in consultation with potentially affected land owners, where ground-borne noise levels are unreasonably limited in education institutions such as lecture theatres. See Table in EPRs for targets.</td>
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<td>(1) Levels are only applicable when ground-borne noise levels are higher than airborne noise levels.</td>
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<td>(2) The noise levels are assessed at the centre of the most affected habitable room.</td>
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<td>(3) Management actions include extensive community consultation to determine acceptable level of disruption and provision of replace accommodation in some circumstances.</td>
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<td>(4) The levels of the Night and Daytime periods are shown to protect amenity and sleep. Alternative and day time targets may be determined in consultation with potentially affected non-residential users where ground-borne noise levels may reasonably limit the usage of the spaces (e.g. lecture theatres).</td>
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<td></td>
<td>NV14</td>
<td>Blasting</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Noise and Vibration Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project's Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<td>2. For intensive care wards, hospital wards, operating theatres, surgeries and Bio-resources and areas with vibration sensitive equipment which are not covered in AS2187.2-2006, agree a plan with facilities owners that:</td>
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<td>a) Avoids damage to vibration sensitive equipment.</td>
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<td>b) Minimises adverse impact on Sensitive Areas and limits adverse impacts on Bio-resources.</td>
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<td>3. Where equipment manufacturer specifications are not available for vibration, adopt the applicable ASHRAE Equipment Vibration Guideline Targets:</td>
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<td>See EPR Table Notes</td>
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<td></td>
<td>NV15</td>
<td>Bio-Resources and Sensitive Research</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Noise and Vibration Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project's Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<td>1. Implement management actions where the following guideline targets [based on Code of Practice for the Housing and Care of Laboratory, Mice and Rats – Department of Primary Industries, Victoria, 2004] are expected to be or are exceeded for areas housing bio-resources.</td>
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<td>2. Background noise should be below 50 dBL (internal) and should be free of distinct tones.</td>
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<td>3. Short exposure should be less than 85 dBL (internal).</td>
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<td>4. Any alternative noise level agreed with the owner of the bio-resources.</td>
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<td>Notes</td>
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<td>(1) The nominated levels are guideline targets for both construction and operation.</td>
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<td>(2) The levels above should take into consideration the limited frequency range associated with hearing for the bio-resource under consideration.</td>
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<td>(3) Higher levels may be accepted if it can be shown that the bio-resource under consideration is exposed to higher levels and is not adversely impacted by them.</td>
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<td>(4) Noise includes airborne and ground-borne noise at the sensitive receptors.</td>
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<td>(5) Consider the existing ambient noise levels when assaying predicted exceedances.</td>
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<td>(6) During the construction phase, a continuous monitoring program must be implemented in accordance with EPR NV21.</td>
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<td>(7) Consideration should be given to adopting a vibration limit in agreement with the RFP and stakeholders.</td>
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<td></td>
<td>NV16</td>
<td>Noise and Vibration Modelling</td>
<td>Cross Yarra Partnership has prepared an Environmental Management System, Construction Environmental Management Plan and Operational Environmental Management Plan. The aspect-specific control measures are identified in the Noise and Vibration Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<td>1. Design Phase</td>
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<td></td>
<td>a) Appoint a suitably qualified acoustic and vibration consultant to predict and assess operational noise and vibration and determine practicable mitigation measures necessary to achieve the EPRs.</td>
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<td>b) The acoustic and vibration consultant must prepare an Operation Noise and Vibration Report for review by the Independent Environmental Auditor, which documents the predictions and mitigation measures.</td>
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<td>2. Commissioning / Operation</td>
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<td>a) Appoint a suitably qualified acoustic and vibration consultant to undertake commissioning noise and vibration measurements to assess levels with respect to the EPRs.</td>
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<tr>
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<tr>
<td>Noise and Vibration</td>
<td>NV17</td>
<td>- Avoid, minimise or mitigate noise where the following PRIMP (April 2013) Investigation Thresholds are exceeded during operation: See table in EPR for targets.</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. All aspect-specific control measures are identified in the Noise and Vibration Management Plan with site-specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<td>- Notes:</td>
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<td>(1) If an investigation shows that the investigation Thresholds are not exceeded, then no further action is considered under the PRIMP.</td>
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<td>(2) The barrier thresholds of the PRIMP are to be used as the design targets for the barrier heights and configuration.</td>
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<td>(3) If the investigation Thresholds cannot be achieved with the installation of barriers or other on-reservation treatment then off-reservation treatment such as upgrades to residential building façades must be considered. Such treatments should be designed to meet the following internal noise levels where practicable to do so and subject to landowner consent:</td>
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<td></td>
<td>- NV18</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan and Operational Environmental Management Plan to manage construction and operational impacts. All aspect-specific control measures are identified in the Noise and Vibration Management Plan with site-specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<td>- Noise from Fixed Plant:</td>
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<td>- For operation, noise from fixed plant associated with Melbourne Metro must:</td>
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<td>(a) Comply with State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1 (SEPP N-1);</td>
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<td>(b) Where SEPP N-1 does not apply, comply with the internal Satisfactory Recommended Design Sound Levels as defined in AS/NZS 2107 for the following sensitive areas:</td>
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<td>- Teaching spaces</td>
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<td>- Laboratories</td>
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<td>- Conference rooms</td>
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<td>- Libraries</td>
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<td>- Music studies</td>
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<td>- Operating Theatres / Studios</td>
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<td>- Wards / Recliners</td>
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<td>- Performance spaces / Galleries</td>
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<td>- Places of worship</td>
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<td>(1) If the existing internal background noise level within any of the above areas exceeds the Maximum Recommended Design Sound Level in AS/NZS 2107, then noise from the fixed plant associated with the Melbourne Metro Project must not exceed the existing background levels within these spaces at the commencement of operation:</td>
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<td>(2) This does not apply to noise generated by trains and/or trams.</td>
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<td>(3) The values for performing arts spaces may need to be reassessed to address the specific requirements of a venue.</td>
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<td>(4) For schools, educational institutions, places of worship the lower value of the range is most applicable where low internal noise levels is expected.</td>
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<td>(5) <em>IAmax</em> is defined as maximum A-weighted sound pressure level and is the 95 percentile of the A-weighted sound pressure level reached within the day or night period.</td>
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<td>(6) <em>IEq</em> is defined as maximum A-weighted sound pressure level and is the 95 percentile of the A-weighted sound pressure level reached within the day or night period.</td>
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<td>(7) If the Investigation Thresholds cannot be achieved with the installation of barriers or other on-reservation treatment then off-reservation treatment such as upgrades to residential building façades must be considered. Such treatments should be designed to meet the following internal noise levels where practicable to do so and subject to landowner consent:</td>
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<td>- Maximum noise level of trains should not exceed 70 dB <em>IEq</em> in bedrooms.</td>
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<td>- Maximum noise level of trains should not exceed 60 dB <em>IAmax</em> in living areas.</td>
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<td>- NV19</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan and Operational Environmental Management Plan to manage construction and operational impacts. All aspect-specific control measures are identified in the Noise and Vibration Management Plan with site-specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<td>- Ground-borne Noise Guideline Targets for Operation:</td>
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<td>- Where operational ground-borne noise Guideline Target levels, as shown in the table below (based on NSW EPA Rail Infrastructure Noise Guideline, May 2013), are exceeded for a sensitive land use, assess and implement practicable mitigation to reduce the noise level so that it either meets or achieves noise levels as close as practicable to the Guideline Target. See table in EPR for trigger levels.</td>
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<td>(1) NV19</td>
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<td>(2) Ground-borne Noise Guideline Targets for Operation:</td>
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<td>(3) NV20</td>
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<td>(4) NV21</td>
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</table>

Notes for Table: See table in EPR for targets.
### Intake Substation Development Plan - Environmental Performance Requirement assessment

**Discipline** | **EPR Ref** | **Environmental Protection Requirements** | **Development Plan Response**
--- | --- | --- | ---
Noise and Vibration | NV21 | Construction Noise and Vibration Management Plan | Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan and Operational Environmental Management Plan. The aspect-specific control measures are identified in the Noise and Vibration Management Plan with site specific controls in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.

1. Prior to commencement of project works, each Works Package contractor must develop and implement a Construction Noise and Vibration Management Plan (CNVMP) in consultation with EPA Victoria and the relevant councils. The CNVMP must comply with and address Noise and Vibration EPAs, be informed by the modelling undertaken by the acoustic and vibration consultant in accordance with EPR NV13 and must include (but not be limited to):
   - Identification of sensitive receivers along Melbourne Metro’s alignment.
   - Details of construction activities and an indicative schedule for construction works, including the identification of key noise and/or vibration generating construction activities (based on representative construction scenarios, including at ancillary facilities) that have the potential to generate noise and/or vibration impacts on surrounding sensitive receivers.
   - The CNVMP must include the following:
     - Airborne Noise Management Levels during Normal Working Hours
     - The CNVMP must adopt daytime Management Levels for airborne noise at residences during Normal Working Hours (as defined in EPR NV6) in accordance with Table NV21-A. The Management Level in Table NV21-A is not a noise limit or target, but represents noise levels above which community reaction may be adverse and which should trigger management actions to minimize the noise impact.
     - See EPR for table NV21-A Airborne Noise Management Levels during Normal Working Hours.
   - Outside of Normal Working Hours, the Guideline Noise Levels in NV6 (which are adopted from EPA Publication 1254) apply.
   - Noise levels based on the NSW Interim Construction Noise Guidelines 2009.
   - In addition to the Management Levels shown in Table NV21-A, the Guideline Targets shown in EPRs NV6 and NV7 are to be adopted and addressed in the CNVMP.

2. Any management actions to be implemented if predicted noise levels exceed, for an extended period of time, the guideline targets specified in EPRs NV6 or NV7 or the Management Levels in Table NV21-A.

3. Measures to be implemented in accordance with the RPI Residential Impact Mitigation Guidelines including (but not limited to) mitigation measures for out of hours works (including unavoidable works) where predicted noise levels exceed the noise levels specified in the Residential Impact Mitigation Guidelines.

4. Vibration and Ground-borne Noise: Sensitive Equipment and Bio-resources
   - Identification of any alternative vibration guideline targets to those specified in EPRs NV8, NV9 or NV10 deemed necessary and/or appropriate to protect the structural integrity of structures based on pre-construction condition surveys, undertaken in accordance with CH24, GM4 and NV9 (or as otherwise required to assess the impact of vibration on structures along the alignment).
   - Identification of practicable measures to be implemented to manage construction vibration impacts in accordance with the:
     - Vibration guideline targets for structures specified in, or otherwise determined in accordance with, EPR NV8.
     - Construction vibration limits for above ground utility assets determined in accordance with EPR NV9.
     - Vibration guideline targets for below ground infrastructure specified in, or as otherwise determined in accordance with NV10.
   - Any management actions to be implemented if predicted vibration levels exceed the guideline targets specified in EPRs NV8, NV9, or NV10.

5. Specific heritage measures where relevant in accordance with EPRs CH2 and CH24.

6. Blasting
   - Identification of any alternative vibration guideline targets to those specified in EPRs NV8, NV9 or NV10 deemed necessary and/or appropriate to protect the structural integrity of structures based on pre-construction condition surveys, undertaken in accordance with CH24, GM4 and NV9 (or as otherwise required to assess the impact of vibration on structures along the alignment).

   - Identification of reasonable and practicable measures to be implemented to manage construction vibration and ground-borne noise impacts in accordance with the:
     - Vibration dose values for human comfort specified in EPR NV11 (which may be expressed as peak particle velocity rates for the purposes of the CNVMP).
     - Ground-borne (internal) noise guideline targets for amenity specified in EPR NV13.
   - Any management actions to be implemented if predicted vibration or ground-borne noise levels exceed, for an extended period of time, the guideline targets identified in EPRs NV11 or NV13.

8. Any measures to be implemented in accordance with the Residential Impact Mitigation Guidelines including (but not limited to) mitigation measures for out of hours works (including unavoidable works) where predicted ground-borne noise levels are predicted to exceed the ground-borne noise construction targets specified in the Residential Impact Mitigation Guidelines.

9. Vibration and Ground-borne Noise: Sensitive Equipment and Bio-resources
   - Identification of reasonable and practicable measures, to be determined following consultation with the Parkville Precinct Reference Group and RMIT University, to be implemented to manage construction vibration and ground-borne noise impacts in accordance with the:
     - Vibration sensitive equipment guidelines specified in, or as otherwise determined in accordance with EPR NV6.
     - Bio-resource guideline targets specified in, or as otherwise determined in accordance with EPR NV6.
   - Any management actions to be implemented if predicted vibration or ground-borne noise levels exceed the guideline targets identified in EPRs NV11 or NV13.

10. Blasting
    - Following is proposed, an assessment of the potential noise and vibration impacts associated with blasting activities, and the identification of measures to ensure compliance with Australian Standard AS1872.7-2006 as specified in EPR NV14.

11. Any measures to be implemented in accordance with the Residential Impact Mitigation Guidelines.
### Intake Substation Development Plan - Environmental Performance Requirement assessment

<table>
<thead>
<tr>
<th>Discipline</th>
<th>EPR Ref</th>
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<th>Development Plan Response</th>
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</thead>
<tbody>
<tr>
<td><strong>Noise and Vibration</strong></td>
<td>NV21</td>
<td>G. Community Consultation</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan and Operational Environmental Management Plan. The aspect-specific control measures are identified in the Noise and Vibration Management Plan and Construction Noise and Vibration Communications Management Plan. Site specific controls are detailed in the Site Environmental Implementation Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td><strong>Social and Community</strong></td>
<td>SC3</td>
<td>1. Reduce as far as is practicable the disruption to residents from direct acquisition or temporary occupation through measures such as:</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan and Operational Environmental Management Plan. The aspect-specific control measures are identified in the Communications and Stakeholder Engagement Management Plan including the Respite and Relocation Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td><strong>Social and Community</strong></td>
<td>SC3</td>
<td>1. Prior to commencement of relevant works in areas affected, develop a relocation management framework that ensures that the Residential Impact Mitigation Guidelines are followed and that appropriate arrangements are made:</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan and Operational Environmental Management Plan. The aspect-specific control measures are identified in the Communications and Stakeholder Engagement Management Plan including the Respite and Relocation Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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### Intake Substation Development Plan - Environmental Performance Requirement Assessment

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</thead>
<tbody>
<tr>
<td>Social and Community</td>
<td>SC3</td>
<td>Community and Stakeholder Engagement Management Framework (CSEMF)</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan (CSEMF). The Community and Stakeholder Engagement Management Framework has been prepared by RPV and will be implemented where required, during construction works. The Community and Stakeholder Engagement Management Framework will inform the Communications and Stakeholder Management Framework. The CSEMF must be approved by the Minister for Planning prior to the commencement of early works.</td>
</tr>
<tr>
<td>Social and Community</td>
<td>SC4</td>
<td>Community and Stakeholder Engagement Management Plan (CSEMP)</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Communications and Stakeholder Engagement Management Plan, which include sub-plans, such as Business Engagement and Continuity Management Plan, Respite and Relocation Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Social and Community</td>
<td>SC5</td>
<td>Community and Stakeholder Engagement Management Framework (CSEMF)</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Communications and Stakeholder Engagement Management Plan, which include sub-plans, such as Business Engagement and Continuity Management Plan, Respite and Relocation Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
</tr>
<tr>
<td>Social and Community</td>
<td>SC6</td>
<td>Community and Stakeholder Engagement Management Framework (CSEMF)</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Communications and Stakeholder Engagement Management Plan, which include sub-plans, such as Business Engagement and Continuity Management Plan, Respite and Relocation Management Plan. These plans have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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#### Notes
- **SC3**: RPV must develop a Community and Stakeholder Engagement Framework to outline the principles and approach to advising key stakeholders and other potentially affected stakeholders as the Project of the construction activities.
- **SC4**: RPV must develop a Communication and Stakeholder Engagement Plan (CSEMP) in accordance with the CSEMF, to engage potentially affected stakeholders individually or through groups such as the Precinct Reference Groups. The CSEMP should advise potentially affected stakeholders of the planned construction activities, Project progress, mitigation measures and intended reinstatement measures where applicable.
- **SC5**: Prior to the commencement of Project works, each works package contractor must develop and implement a Community and Stakeholder Engagement Management Plan (CSEMP) in accordance with the CSEMF, to engage potentially affected stakeholders individually or through groups such as the Precinct Reference Groups. The CSEMP should advise potentially affected stakeholders of the planned construction activities, Project progress, mitigation measures and intended reinstatement measures where applicable.
- **SC6**: Prior to the commencement of Project works, each works package contractor must develop and implement a Community and Stakeholder Engagement Management Plan (CSEMP) in accordance with the CSEMF, to engage potentially affected stakeholders individually or through groups such as the Precinct Reference Groups. The CSEMP should advise potentially affected stakeholders of the planned construction activities, Project progress, mitigation measures and intended reinstatement measures where applicable.
- **SC7**: Prior to the commencement of Project works, each works package contractor must develop and implement a Community and Stakeholder Engagement Management Plan (CSEMP) in accordance with the CSEMF, to engage potentially affected stakeholders individually or through groups such as the Precinct Reference Groups. The CSEMF must be approved by the Minister for Planning prior to the commencement of early works.
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<tr>
<th>Discipline</th>
<th>EPR Ref</th>
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</table>
| Social and Community | SC8     | 1. In consultation with relevant local Councils and key stakeholders, and in accordance with the Melbourne Metro Urban Design Strategy, relevant statutory approvals and other relevant requirements:  
   a) Improve community access to open or recreational space within the CBD by identifying potential opportunities to return as much land as possible used for construction to permanent public open space at City Square and Federation Square  
   b) Re-establish sites impacted by construction works, to be generally in accordance with adopted open space master plans, and conservation management plans (where appropriate), including (but not limited to):  
      i) Childrens Street, Kensington  
      ii) Flemington Road  
      iii) Royal Parade and Grattan Street, Parkville  
      iv) City Square  
      v) Federation Square  
   c) The south-western entrance of the proposed CBD South station  
   d) The Tunnels  
   e) Edmond Herring Memorial Oval  
   f) Osborne Street Reserve  
   g) South Yarra Sidings Reserve  
   h) Town Hall  
   i) A'Beckett Street open space  
   j) The South Australian Soldiers Memorial  
   (See EPRs LV1, LV2 and LU2). | Public open space at the Intake Substation is presented in Section 4.4.7 of the Development Plan. This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan. |
| Social and Community | SC9     | 1. Prior to commencement of relevant works, provide written notice to adjoining landholders of any works to be carried out in a precinct. Such notice must advise of the works to be undertaken, the duration of those works, what local impacts might occur and contact details for further information. | This is not relevant to the Intake Substation. Refer to the CBD North Precinct Development Plan. |
| Social and Community | SC10    | 1. Prior to commencement of relevant works, establish a Parkville Reference Group comprising an independent chair, relevant government agencies including RPV, PTV/DEEWR (Transport), VicRoads, the Victorian Department of Health and Human Services, Ambulance Victoria, Yarra Trams, and key institutions in the Parkville Precinct as detailed in RPV Technical Note 004 Parkville Precinct Reference Group (19 August 2016) document number 21 and tabled 22 August 2016. | The Arden Communications Coordination Working Group is being consulted on the design development and the Development Plan process. |
| Social and Community | SC11    | 1. In addition to EPR SC11, RPV to establish Precinct Reference Groups as required for all other Project precincts, which collectively provide for representation of interested and relevant stakeholders.  
   2. These groups should be configured in a way that broadly satisfies the recommendation in the Minister’s Assessment and which also allow each Group to function coherently and effectively. Each Precinct Reference Group should have an independent chair. | This is not relevant to the Intake Substation. Refer to the Parkville Precinct Development Plan. |
| Surface Water      | SW1     | 1. Prior to commencement of relevant works, for all Precincts (with the exception of the western turnaround) design permanent and temporary works and, if necessary, develop and implement emergency flood management measures for the tunnels, tunnel portals, access shafts, station entrances and Arden electrical substation to provide appropriate protection against floodwaters and overland stormwater flows.  
   2. The design of these works must be informed by a flood immunity risk assessment that considers a range of events, and to the requirements and satisfaction of Melbourne Water and/or the relevant council.  
   3. The flood immunity risk assessment referred to above must address all portal areas (or other flood entry points) for the existing Melbourne Underground Rail Loop, or similar secondary infrastructure items that may allow for flood entry into the Project. | Flood design and water sensitive urban design for the Intake Substation is presented in Section 4.4.7 of the Development Plan. |
| Surface Water      | SW2     | 1. For all precincts, to the satisfaction of the responsible waterway management authority:  
   a) Undertake modelling of the design of permanent and temporary works to demonstrate the resultant flood levels and risk profile  
   b) Maintain existing floodplain storage capacity potentially impacted by the Project  
   c) Ensure that permanent and associated temporary construction works do not increase flood levels to result in additional flood risk  
   d) Ensure permanent and associated temporary works do not increase flow velocities that would potentially affect the stability of property, structures or assets, and/or result in erosion during operation or construction  
   e) Undertake stormwater modelling of the design of permanent and temporary works to demonstrate the resultant stormwater quantity and quality response to the Project  
   f) For all Precincts adopt WSUD and integrated water management principles in the stormwater design, as required through the Melbourne Metro Urban Design Strategy, and to the requirements of the relevant local council. | Flood design and water sensitive urban design for the Intake Substation is presented in Section 4.4.7 of the Development Plan. |
## Intake Substation Development Plan - Environmental Performance Requirement assessment

### Transport

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<tbody>
<tr>
<td>Transport</td>
<td>T1</td>
<td>- Traffic and Transport Working Group</td>
<td>A Traffic and Transport Working Group (TTWG) has been established by RPV and includes the listed stakeholders. The TTWG is operating in accordance with the terms of reference determined by RPV and as per EPR T1.</td>
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<td>1. RPV must establish and maintain a Traffic and Transport Working Group (TTWG), working under a terms of reference determined by RPV, and comprising relevant representatives from RPV, PTV, DEEWR (Transport), road management authorities, relevant councils, relevant public transport providers and other relevant agencies as required. 2. The TTWG will be responsible for reviewing and providing feedback on: a) Transport management plans; b) Relevant design and methodologies for monitoring implementation of transport management plans; c) Transport modeling and proposed transport network upgrades to mitigate the transport effects of constructing the Project. 3. The TTWG must also: a) invite other key affected stakeholders to present or attend where matters specific to those stakeholders in the relevant precincts are being discussed or addressed, carried out consistent with the Community and Stakeholder Engagement Management Plan(s) under EPR SC2; b) provide feedback to the key affected stakeholders on how their comments or matters of interest or concern are addressed in transport management plans; and c) Advise those key affected stakeholders of potential impacts and proposed traffic and transport mitigations, and consider stakeholder responses on these matters in providing feedback on the transport management plans required under EPR T2 and T3.</td>
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<td></td>
<td>T2</td>
<td>- Transport Management Plans</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect specific control measures are identified in the Transport Management Plan and Communications and Stakeholder Engagement Management Plan, which have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<td>1. Prior to commencement of relevant works, each Works Package contractor must develop a transport management plan(s) in consultation with the Traffic and Transport Working Group and implement the plan(s) to minimise disruption to affected local land uses, traffic, car parking, on-road public transport, pedestrian and bicycle movements and existing public facilities during all stages of construction. 2. The transport management plan(s) must be prepared for each precinct, and also be coordinated across the whole Project to provide an overall transport management plan for the Project. 3. The transport management plan(s) must be informed and supported by an appropriate level of transport modelling, as agreed by the TTWG, and must include, but not be limited to: a) Management of any temporary or permanent full or partial closure of traffic lanes including (but not limited to): i) Childrens Street, Tennyson Street and Lloyd Street, Kensington. ii) Arden Street, Lonsdale Street and Laurens Street, North Melbourne. iii) Royal Parade, Grattan Street, Barry Street and Leicester Street, Parkville. iv) Franklin Street, A’Becket Street and Little La Trobe Street, at CBD North. v) Flinders Street, Flinders Lane and Swanton Street, at CBD South. vi) Lygon Street, St Kilda Road, Domain Road, Albert Road, Bowen Crescent and Bowen Lane, at Domain. vii) Toorak Road West at Frames Park (and the surrounding road network) during construction of the route II tram diversion along Toorak Road West between St Kilda Road and Park Street, South Yarra. viii) Osborne Street and William Street, South Yarra. b) A monitoring methodology and a program for monitoring results of the implementation of transport management plans to be reported to the TTWG. If unanticipated adverse effects are further identified, practicable mitigation measures must be developed and implemented. c) Monitoring of traffic, public transport, pedestrian and bicycle movements throughout the construction period. d) The transport management plan(s) must be developed recognising other Projects operating concurrently and transport network upgrades to mitigate the transport effects of constructing the Project.</td>
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<td>T3</td>
<td>- Road Transport (Construction Phase)</td>
<td>Cross Yarra Partnership has prepared an Environmental Management System and Construction Environmental Management Plan. The aspect specific control measures are identified in the Transport Management Plan (including relevant sub-plans, such as the Precinct Transport Management Plan and Transport Management Implementation Plan), which have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.</td>
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<td>1. Road Network Management: As appropriate, transport management plan(s) must include/address the following issues: a) In consultation with emergency services, develop suitable measures to ensure emergency service access is not inhibited as a result of Melbourne Metro construction work. b) Provision for two-way traffic on St Kilda Road through the construction period within the Domain station precinct. c) Domain Road should be kept open from the east up to the existing entrance of Edvard Herring Memorial Oval, with provision for a local turnaround. d) Develop and implement Network Enhancement Projects (NEPs) in consultation with the TTWG for locations including, but not limited to: i) Childers Street, Tennyson Street and Lloyd Street, Kensington. ii) Arden Street, Lonsdale Street and Laurens Street, North Melbourne. iii) Royal Parade, Grattan Street, Barry Street and Leicester Street, Parkville. iv) Franklin Street, A’Becket Street and Little La Trobe Street, at CBD North. v) Flinders Street, Flinders Lane and Swanton Street, at CBD South. vi) Lygon Street, St Kilda Road, Domain Road, Albert Road, Bowen Crescent and Bowen Lane, at Domain. vii) Toorak Road West at Frames Park (and the surrounding road network) during construction of the route II tram diversion along Toorak Road West between St Kilda Road and Park Street, South Yarra. viii) Osborne Street and William Street, South Yarra. b) Relevant designs and methodologies for monitoring implementation of transport management plans. c) Transport modelling and proposed transport network upgrades to mitigate the transport effects of constructing the Project. d) The TTWG must also: a) invite other key affected stakeholders to present or attend where matters specific to those stakeholders in the relevant precincts are being discussed or addressed, carried out consistent with the Community and Stakeholder Engagement Management Plan(s) under EPR SC2; b) provide feedback to the key affected stakeholders on how their comments or matters of interest or concern are addressed in transport management plans; and c) Advise those key affected stakeholders of potential impacts and proposed traffic and transport mitigations, and consider stakeholder responses on these matters in providing feedback on the transport management plans required under EPR T2 and T3.</td>
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### Notes

- Typically called a traffic management plan, for Melbourne Metro, it is referred to as a transport management plan to ensure all modes of active and passive transport are considered.

### References

- Note - Typically called a traffic management plan, for Melbourne Metro, it is referred to as a transport management plan to ensure all modes of active and passive transport are considered.
Discipline: EPR Ref: Environmental Protection Requirements: Development Plan Response

Transport

T3

1. Maintain appropriate pedestrian access to public car parks and adjoining properties adjacent to or within construction areas including the car park beneath University Square.
2. If surface works are required at Linlithgow Avenue or nearby for temporary construction access shafts, provide for movement along the Tan Track in the Botanical Gardens near the Street Bridge and Lovers Walk pedestrian path during the JJ Holland Park and South Kensington station.
3. In consultation with the City of Melbourne, provide a suitable route for pedestrians to maintain connectivity and connection between Domain Road and the diverted number 8 tram on Parklands, Albert Road, Toorak Road, Fawkner Park, Osborne Street, William Street and Chapel Street.
4. Implement active control and wayfinding information at construction work site access points to maintain safety by avoiding potential conflicts between trucks, pedestrians and cyclists.
5. Provision of alternative parking and associated facilities lost or inaccessible during construction for any significant time, in consultation with the relevant stakeholders. The private parking is to be replaced or reinstated at the earliest opportunity.
6. A parking management plan prepared in consultation with and approved by the relevant road authorities to manage parking in and around the construction zones. The plan must:
   - Include parking controls to support other relevant EPR requirements.
   - Maintain Felix Drive parking bays in Swanton Street and Fiddlers Lane to the satisfaction of Victoria Police.
   - Minimise impacts on existing users, particularly those with special needs.
   - Provide a suitable level of accessibility to loading zones.
   - Provision of car parking for construction workers where practicable and in this regard:
     - Use of off-street car parks for construction workers must be by prior agreement with the relevant management body; and
     - Measures must be implemented to prevent, to the extent practicable, construction workers parking in on-street spaces, unless it can be demonstrated by car-parking surveys that there is adequate on-street supply.
   - A green travel strategy to encourage construction workers to travel to/from worksites by means other than private vehicle and/or outside peak times. This should include provision for on-site tool storage where practicable and consideration given to the use of shuttle buses for ferry workers to and from off-site car parks.

Public Transport (Construction Phase)

T4

1. Prior to commencement of relevant works, develop and implement a plan for occupying railway/land and tracks at the western portal, eastern portal and western turnback that minimises the disruption to railway services during construction. The plan must be developed to the satisfaction of VicTrack, PTV, DEDETR (transport) and MTM, as relevant.
2. In consultation with the TTWG, provide suitable routes for pedestrians to maintain connectivity where access is altered by the contractor, including DDA access where practicable, for users of South Kensington Station, Melbourne Central Station, Flinders Street Station, new tram and bus stops relocated or constructed during the construction period, and around all construction sites generally.
3. In consultation with the TTWG, investigate and implement intersection modifications where practicable, including public transport priority measures for affected bus and tram routes.
4. Develop and implement measures to minimise disruption to the tram and bus networks resulting from the construction of Melbourne Metro in consultation with the relevant road management authorities, and to the satisfaction of PTV / DEDETR (Transport), including (but not limited to):
   - Options to divert the 401, 402, 403, 505 and 546 bus services.
   - Options to divert the 401, 402, 403, 505 and 546 bus services.
   - Tram routes on La Trobe Street and Swanston Street.
   - Tram routes on Flinders Street and Swanston Street.
   - Tram operations on Toorak Road West and the diversion of the No. 8 tram route.
   - Periodic closures of Royal Parade tram route.
   - Tram routes on St Kilda Road.
   - Disruption to other tram routes through Domain tram stop.
   - Bus replacement services for disruptive rail passengers.

Active Transport (Construction Phase)

T5

1. Develop and implement transport management measures in consultation with the TTWG and relevant road management authorities for cyclists and pedestrians to maintain connectivity and reasonable performance levels throughout construction for road and shared path users including (but not limited to):
   - Options to divert the 401, 402, 403, 505 and 546 bus services.
   - Options to divert the 401, 402, 403, 505 and 546 bus services.
   - Tram routes on La Trobe Street and Swanston Street.
   - Tram routes on Flinders Street and Swanston Street.
   - Tram operations on Toorak Road West and the diversion of the No. 8 tram route.
   - Periodic closures of Royal Parade tram route.
   - Tram routes on St Kilda Road.
   - Disruption to other tram routes through Domain tram stop.
   - Bus replacement services for disruptive rail passengers.

Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan. The aspect-specific control measures are identified in the Transport Management Plan (including relevant sub-plans, such as the Precinct Transport Management Plan and Transport Management Implementation Plan), which have been reviewed by the project’s Independent Reviewer and audited by the Independent Environmental Auditor.
### Intake Substation Development Plan - Environmental Performance Requirement assessment

**Discipline**
- Transport
- Road Transport (Operational Phase)
- Public Transport (Operational Phase)

#### Transport

<table>
<thead>
<tr>
<th>EPR Ref</th>
<th>Environmental Protection Requirements</th>
<th>Development Plan Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>T6</td>
<td>Travel Demand Management Strategy</td>
<td>Cross Yarra Partnership has implemented an Environmental Management System and prepared a Construction Environmental Management Plan (including relevant sub-plans, such as the Precinct Transport Management Plan and Transport Management Implementation Plan), which which have been reviewed by the project’s Independent Reviewer. The Transport Management Plan has been subject to separate stakeholder consultation requirements with councils, road management authorities, Transport for Victoria, Public Transport Victoria and relevant public transport providers, educational facilities, research institutions, businesses, impacted community groups and other affected key stakeholders in each precinct.</td>
</tr>
</tbody>
</table>

1. Prior to commencement of construction works, RPV is to develop and implement a Travel Demand Management Strategy and appropriate tools to promote specific transport behaviours in response to road, bicycle and pedestrian paths closures/modifications and to reduce traffic congestion around construction sites, particularly in the vicinity of the Parkville and Domain precincts where road closures and restrictions are proposed. The strategy must be consistent with the RPV Community and Stakeholder Engagement Management Framework (under EPR SC1) and, where practicable, include a mechanism for collecting and disseminating real-time travel-time information to the public. Existing traffic and public transport information channels should be used wherever possible.

2. Engage with key stakeholders in the development, implementation and monitoring of the Travel Demand Management Strategy including, but not limited to, councils, road management authorities, PTV and relevant public transport providers, educational facilities, research institutions, businesses, impacted community groups and other affected key stakeholders in each precinct.

<table>
<thead>
<tr>
<th>T7</th>
<th>Road Transport (Operational Phase)</th>
<th>No operational road transport will be impacted as part of the construction of the Intake Substation, and therefore this EPR is not relevant to the Intake Substation Development Plan.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Design all roadworks and shared path works to relevant design standards to maintain safety of movement in consultation with the relevant road management authorities and TMWG, as required. Designs should be developed by appropriate transport modelling and have an objective to facilitate public transport and minimise carpark loss to the extent practicable.</td>
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<td></td>
<td>Develop and implement a plan to reinstate car parking on Childrens Street, Kensington and Laurens Street, North Melbourne in consultation with the relevant road management authorities that:</td>
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<td></td>
<td>a) Minimise the permanent loss of parking where possible.</td>
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<td>b) Ensure re-instated car parking does not encroach on J-J Holland Park.</td>
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<td>c) Considers opportunities for replacement of any net loss of parking at nearby locations.</td>
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<td>d) Reduces the risk of overflow parking in local streets from South Kensington station and activities at J-J Holland Park.</td>
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<td>e) Replaces lost zones to service the needs of the existing businesses in the precinct where disrupted during construction.</td>
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<td>f) Develop and implement a plan for the Arden Precinct in consultation with the relevant road management authorities to manage parking generated by the new Arden Station.</td>
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<td></td>
<td>g) Develop and implement a plan for the reinstatement of Grattan Street, Parkville in consultation with the relevant road management authorities that includes:</td>
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<td></td>
<td>a) Optimal replacement of car parking spaces along Grattan Street to service the needs of the hospitals and the University of Melbourne, including the retention or replacement of specific short-term and DDA compliant parking.</td>
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<td></td>
<td>b) Optimal design of the road network around Grattan Street associated with the changed demands and network changes on Grattan Street and Royal Parade / Elizabeth Street.</td>
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<td></td>
<td>c) Determining the optimal parking provision in the area and replace any lost parking where possible.</td>
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<td>d) Where vehicle and pedestrian access are altered during construction, ensure that vehicle and pedestrian access is reinstated appropriately, in accordance with relevant road design standards, so adjacent land is not compromised.</td>
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<table>
<thead>
<tr>
<th>T8</th>
<th>Public Transport (Operational Phase)</th>
<th>No operational public transport will be impacted as part of the construction of the Intake Substation, and therefore this EPR is not relevant to the Intake Substation Development Plan.</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Review, with PTV / DEEITR (Transport), the bus services in the areas around Arden, Parkville, CBD North, CBD South and Domain stations, including a review of the route 401 bus frequency that is expected to have reduced demand following implementation of Melbourne Metro.</td>
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<td></td>
<td>In consultation with PTV / DEEITR (Transport), optimise the design of Melbourne Metro stations to ensure integration with existing and planned future uses and so that they will provide connections:</td>
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<td></td>
<td>a) Between the Parkville station and the new tram stop on Royal Parade.</td>
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<td>b) For interchange between the CBD North station and the existing tram and bus services along La Trobe Street and Swanston Street.</td>
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<td></td>
<td>c) For interchange between the CBD South station and the existing tram services along Flanders Street, Swanston Street and Collins Street.</td>
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<td>d) Between the Domain station and the new island platform tram stop in the centre of St Kilda Road and connections to the tram network.</td>
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<td>e) In consultation with the relevant road management authorities, implement measures to address pedestrian-congestion at and around station entrances where they interface with the precincts, to the extent practicable.</td>
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<td>f) Provide adequate wayfinding to facilitate passenger transfers (see EPR LU4).</td>
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<td></td>
<td>Review, with PTV / DEEITR (Transport) and Yarra Trams, the bus and tram services in the area to optimise the functionality of the CBD North and CBD South stations and to reduce the reliance on the Swanston Street tram corridor.</td>
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</tbody>
</table>
Intake Substation Development Plan - Environmental Performance Requirement assessment

<table>
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<tr>
<td>Transport</td>
<td>T9</td>
<td>Operational active transport is presented in Section 4.4.8 of the Intake Substation Development Plan.</td>
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<td></td>
<td></td>
<td>Active Transport (Operational phase)</td>
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<tr>
<td></td>
<td></td>
<td>1. Develop and implement a permanent pedestrian footpath and on-road bicycle design for Children Street, Kensington with the relevant road management authority, relevant local council, and the land manager prior to the removal of the shared use path on the southern side of the street.</td>
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<td>2. In cooperation with the relevant road management authority and local council, and wherever practicable to do so, re-instate on-road bicycle lanes and bicycle parking provisions removed during construction.</td>
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<td>3. In consultation with PTV / DEDJTR (Transport) and relevant local councils undertake a study of bicycle parking demands for the new stations.</td>
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<td>4. Provide appropriate bicycle parking at each station adopting a flexible design that would allow for future expansion of capacity in consultation with relevant local councils and user groups, if required.</td>
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<td>5. Review the reinstatement and provision of safe and effective bicycle lanes and pedestrian access in and around the Melbourne Metro station sites in cooperation with the relevant road management authorities and the relevant local council.</td>
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<td>6. Provide wayfinding information to enhance connectivity for pedestrians and public transport users, in consultation with relevant local councils and user groups, including (but not limited to) the following locations:</td>
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<td></td>
<td></td>
<td>a) Between Melbourne Central Station and CBD North Station.</td>
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<td>b) The underground connection between Flinders Street Station and CBD South Station.</td>
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<td>c) At modal interchanges between new Melbourne Metro stations and other transport modes.</td>
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<td>7. Consult with the TTWG on active transport, where required.</td>
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<td>8. In consultation with the Parkville Reference Group, established under EPR SC11, review future pedestrian movement and conditions at the Parkville Precinct in order to optimise the number and location of station entries and the surrounding footpath environment.</td>
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</tr>
<tr>
<td>Transport</td>
<td>T10</td>
<td>Waste collection is not relevant to the Intake Substation, and therefore this EPR is not addressed in the Intake Substation Development Plan.</td>
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<td></td>
<td>Waste collection</td>
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<td>1. Prior to commencement of relevant works, develop and implement a plan or plans, in consultation with local councils and private waste collection services, to manage changes to waste collection and waste storage in the areas affected by construction activity. The plan(s) should include, but not be limited to:</td>
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<td></td>
<td>a) Providing for minimal change in waste collection times where the change might affect the capacity of residents to sleep.</td>
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<td>b) Providing for access for existing waste collection services from existing properties considering the extent of the construction area and road network changes.</td>
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<td>c) Providing access to alternative waste collection locations for properties during Project construction and operation where existing waste disposal locations are removed or obstructed.</td>
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<td>d) Design for re-investment of appropriate access for existing waste services during Project operation.</td>
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<td>e) Consultation with affected businesses, land owners and residents to be undertaken jointly with local councils to encourage alternative waste management options to be adopted.</td>
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</tbody>
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