



# PARKVILLE PRECINCT DEVELOPMENT PLAN

TAS-CYP-PKV-ZWD-PLA-XLP-PKV-X0001

REV J MINOR AMENDMENT – MINISTERIAL SUBMISSION

Friday, 27 October 2023



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## 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

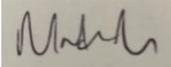
The current reviewed and approved version of this Plan is available on IMS for all project personnel to access. Downloaded Plans are deemed uncontrolled and it is the responsibility of the user to ensure they are using the latest revision. The responsibility for maintenance, review, update and approval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

Document Number	
<b>Document Title</b>	Parkville Precinct Development Plan
<b>Document Path</b>	Cross Yarra Partnership
<b>Document Template</b>	Management Plan Template

## REVISION RECORD

Revision	Date	Reason for Issue	Prepared by
<b>A</b>	25/10/2017	Stakeholder Consultation	Jordan Green
<b>B</b>	27/11/2017	Public Display	Jordan Green
<b>C</b>	25/01/2018	Submission for Victorian Government review	Jordan Green
<b>D</b>	23/02/2018	Submission to the Minister for Planning, including amendments following a review from DELWP	Jordan Green
<b>E</b>	12/08/2021	Amendment – Stakeholder Consultation Draft	Sabrina Chapman
<b>F</b>	22/09/2021	Amendment – Draft for Public Display	Sabrina Chapman
<b>G</b>	11/11/2021	Amendment – Review by Victorian Government Development Plan Review Committee	Sabrina Chapman
<b>H</b>	03/12/2021	Amendment – Ministerial Submission	Sabrina Chapman
<b>I</b>	26/07/2022	Minor Amendment: Ministerial Submission	Elif Aygun
<b>J</b>	27/10/2023	Minor Amendment: Ministerial Submission	Camila Eviston

## APPROVALS

Name	Signature	Date
Camila Eviston		27/10/2023
Mat Peel		27/10/2023
Caitlin Jackson		27/10/2023

# DEFINITIONS

## STANDARD TERMS AND DEFINITIONS

Term	Definition
<b>Project</b>	The Metro Tunnel Project (MTP)
<b>Company</b>	Cross Yarra Partnership (CYP)
<b>Client</b>	Rail Projects Victoria (RPV)
<b>Package Contractors</b>	Contractors for the Early Works, TAS PPP, RSA and RIA work Packages in the Metro Tunnel Project
<b>TAS Package</b>	The Tunnel and Stations PPP Package (CYP's project)

## ABBREVIATIONS

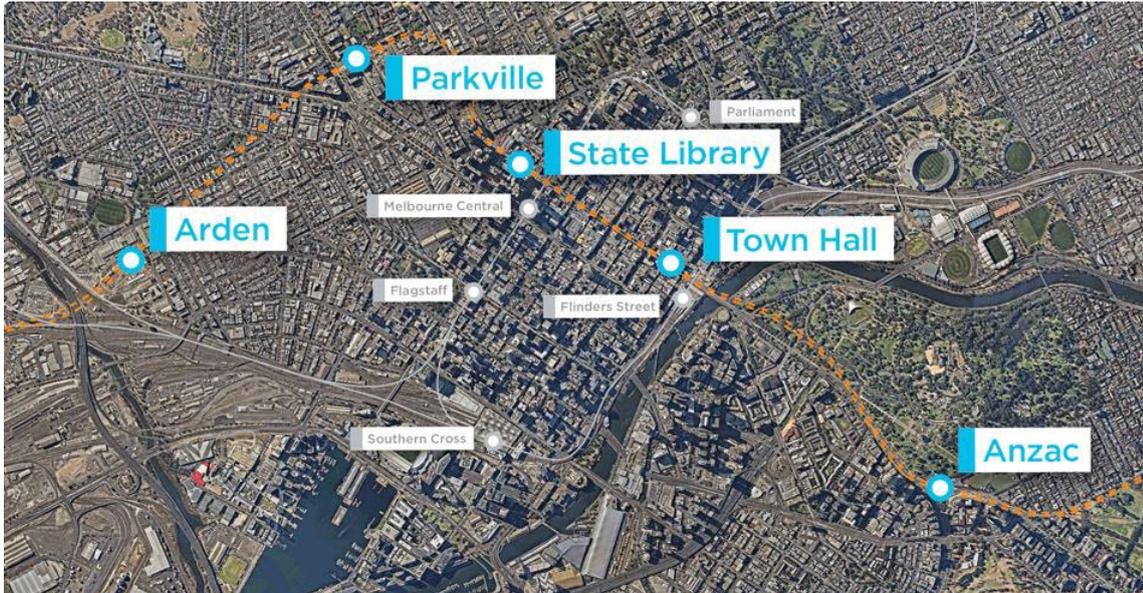
Term	Definition
<b>CoM</b>	City of Melbourne
<b>CPTED</b>	Crime Prevention Through Environmental Design
<b>CYP</b>	Cross Yarra Partnership
<b>DoT</b>	Department of Transport
<b>EES</b>	Environment Effects Statement
<b>EMF</b>	Environmental Management Framework
<b>EPA</b>	Environment Protection Authority Victoria
<b>EPR</b>	Environmental Performance Requirements
<b>HV</b>	Heritage Victoria
<b>OVGA</b>	Office of Victorian Government Architect
<b>PS&amp;TR</b>	Project Scope and Technical Requirements
<b>PSA</b>	Planning Scheme Amendment
<b>PTV</b>	Public Transport Victoria
<b>RPV</b>	Rail Projects Victoria
<b>RIA</b>	Rail Infrastructure Alliance
<b>RPV</b>	Rail Projects Victoria
<b>TBM</b>	Tunnel Boring Machine
<b>TfV</b>	Transport for Victoria
<b>The Project</b>	The Metro Tunnel, or The Metro Tunnel Project
<b>UDAAP</b>	Urban Design Architectural Advice Panel
<b>UDS</b>	Urban Design Strategy

**WSUD**

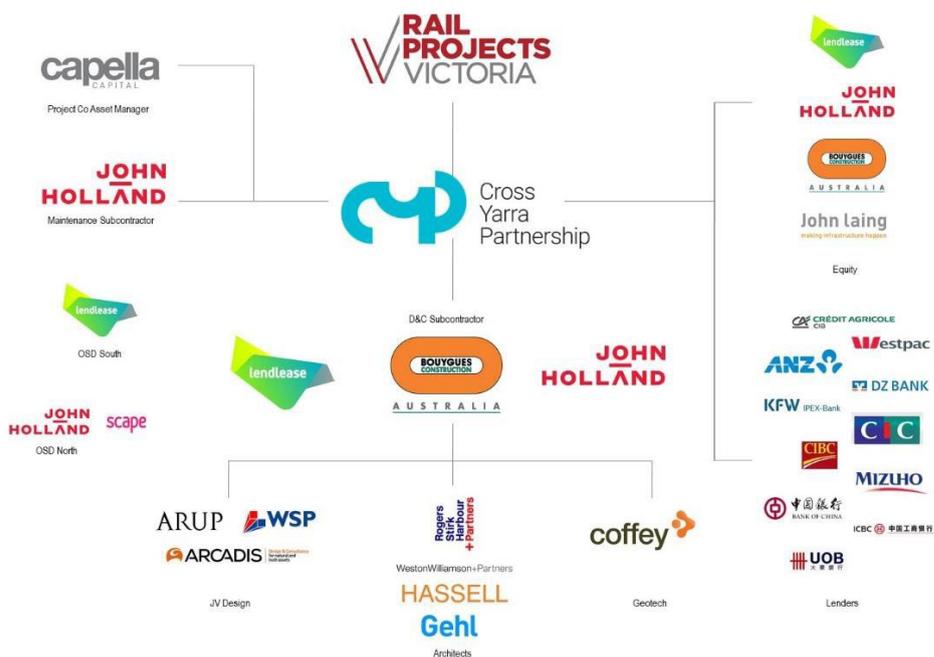
Water Sensitive Urban Design

## 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.



## CONSORTIUM STRUCTURE



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## EXECUTIVE SUMMARY

Cross Yarra Partnership (CYP) has been contracted by Rail Projects Victoria (RPV) to design, build and maintain the stations and tunnels for the Metro Tunnel Project (the Project). The Project includes:

- Twin 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 (under Grattan Street) Station, 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 the two tunnel portals at South Yarra (Eastern Portal) and South Kensington (Western Portal).

The Parkville precinct features prominent education and health institutions of national significance and is undergoing continuous growth and renewal. Municipal plans will see the area's residential and employment populations intensify.

In response, CYP has designed the Parkville precinct to align with the vision of transforming Grattan Street into a 'Grand Promenade' and biodiversity corridor amongst prominent institutions. This has been achieved through intuitive architectural design drawing on the area's identity and high concentration of pedestrian movement.

Parkville Station will be located directly below Grattan Street, connecting to a new tram stop on Royal Parade and bus services. Passengers can enter and exit the station via four entry points; one along Grattan Street west amongst the health institutions, two either side of Royal Parade and the station's main entry on Grattan Street with a new public realm garden area connecting to the University as well as a pedestrianized Barry Street and reconfigured University Square.

The new Grattan Street promenade will be landscaped with dense canopy trees and low level plantings providing a green link between Royal Parade and wider network of existing green spaces.

This Parkville Precinct Development Plan presents the scope and extent of the built form of CYP's works for the Parkville precinct, including the new Parkville Station up to the ticket gate. This Development Plan is a requirement of Clause 4.7 of the *Melbourne Metro Rail Project Incorporated Document* (the Incorporated Document), 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 Environment Effects Statement (EES) and draft Planning Scheme Amendment (PSA) 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 for the Project, which inserted the Incorporated Document into the Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes.

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

- Site layout plans (refer to Appendix A: Parkville Precinct Site Layout Plan)
- Architectural plans and elevations (refer to Appendix A: Parkville Precinct Site Layout Plan)
- Landscape plans and elevations (refer to Appendix C: Parkville Precinct Landscape Plans and Elevations)

- Public realm plans (refer to Appendix D: Parkville Precinct Public Realm Plans)
- An explanation demonstrating how this Development Plan is in accordance with the approved Urban Design Strategy (refer to Section 4.3 and Appendix E: Parkville Precinct Urban Design Strategy guidelines assessment)
- 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 F: Parkville Precinct Environmental Performance Requirements assessment).

The CYP design for the Parkville precinct has incorporated feedback from a range of stakeholders identified in the Incorporated Document. These stakeholders included the Office of the Victorian Government Architect, City of Melbourne, Department of Transport (previously VicRoads, Public Transport Victoria and Transport for Victoria), Melbourne Water and Heritage Victoria.

The previous version of this Parkville Precinct Development Plan was approved by the Minister for Planning on Thursday 22 March 2018. Under the Project's Incorporated Document, and in accordance with Clause 4.7.8, CYP is seeking an amendment to this Development Plan.

In accordance with the Incorporated Document requirements, the amended version of this Parkville Precinct Development Plan was made available for public inspection for 15 business days from Wednesday 22 September 2021 until Wednesday 13 October 2021, allowing for the Grand Final public holiday. During this time, it was available on the Engage Victoria website along with an opportunity to provide written comments.

The amendments to this Development Plan improve the design in line with the design principles for the Metro Tunnel Project and include changes to the architectural layout, landscape design and public realm components of the Project. These amendments have been made to reduce the above ground footprint, further promote the historical cultural heritage values of the Parkville precinct, and retain more greenery, with 19 less trees removed than identified during the EES and 50 less than the previously approved Development Plan.

Consultation with key stakeholders has been ongoing during the preparation of these amendments. This includes Heritage Victoria, City of Melbourne, University of Melbourne, Royal Melbourne Hospital, Peter Doherty Institute for Infection and Immunity, Peter MacCallum Cancer Centre, Department of Transport (previously VicRoads, Public Transport Victoria and Transport for Victoria) and RPV.

Following approval of the amended Parkville Precinct Development Plan by the Minister for Planning on Sunday 13 February 2022, the detailed design process has progressed and led to minor amendments to materials and finishes and public realm. As part of this process, consultation has taken place with key stakeholders on the amended materials and finishes and public realm including City of Melbourne, RPV, OVGA and Heritage Victoria.

This Development Plan presents the scope and extent of the built form of CYP's works in the Parkville precinct 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 Systems, Construction Environmental Management Plans, Site Environmental Implementation Plans and aspect-specific management plans (as specified in the approved Environmental Performance Requirements).

# CHANGE REGISTER

In accordance with Clause 4.7.8 of the Incorporated Document, an amendment is sought to this Parkville Precinct Development Plan.

The Project’s design has developed through an iterative process informed by phases of specialist technical assessment integrated with stakeholder and community engagement. This has included public exhibition of the concept design as part of the EES and public display of the detailed design as part of the development plan.

Design development has continued, with CYP preparing approximately 450 Design Packages that relate to specialist technical disciplines and geographic areas. In accordance with the project contract, Design Packages have been reviewed by RPV and the Independent Reviewer, and subject to specified consultation with relevant stakeholders such as the Office of the Victorian Government Architect, City of Melbourne, Department of Transport, Melbourne Water and Heritage Victoria.

Design development has led to changes to the architectural layout, landscape and public realm design of the proposed Parkville precinct, including to reduce the above ground footprint, further promote the historical cultural heritage values of the Parkville precinct, and retain more greenery, with 19 less trees removed than identified during the EES and 50 less than the previously approved Development Plan.

Table 1 and Table 2 provides an overview of these changes and where these are documented within this Parkville Precinct Development Plan.

Table 1: Minor amendments to Parkville Precinct Development Plan since Ministerial Approval (13/02/2022)

Section	Amendment
<b>1.3.2 Stakeholder and community engagement during detailed design</b>	An explanation demonstrating that as detailed design has progressed, ongoing consultation has taken place with key stakeholders.
<b>Figure 11</b>	Figure 11 has been updated including the relocation of the rail replacement bus bay from Grattan Street (east) to Bouverie Street.
<b>4.3.8 Materials and finishes</b>	An explanation demonstrating that as detailed design has progressed, and led to minor amendments to materials and finishes including the addition of the colour blue as a station wide colour update and stainless steel finish to the ancillary vent.
<b>Figure 12</b>	Figure 12 has been updated reflecting changes to materials and finishes including the addition of the colour blue as a station wide colour update and stainless steel finish to the ancillary vent.
<b>Appendix A</b>	As detailed design has progressed, drawing updated to reflect changes.
<b>Appendix B</b>	<p>As detailed design has progressed, the following changes have been made to materials and finishes:</p> <ul style="list-style-type: none"> <li>• Station wide colour update to portal entry including the addition of the colour blue</li> <li>• Stainless steel finish to the ancillary vent</li> <li>• Materiality change of the ramp edging leading to the lift structures from bluestone to steel materiality</li> <li>• Changes to Royal Parade southern median areas, including the northern median to remain turfed and southern median to be granite sand/asphalt.</li> </ul> <p>Drawings have been updated to include an additional elevation (refer to TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A724029-DP)</p>

<b>Appendix D</b>	<p>As detailed design has progressed, the following changes have been made to materials and finishes and public realm:</p> <ul style="list-style-type: none"> <li>• Connection to Country concept location at Gate Keepers Cottage area in front of University of Melbourne has been removed due to stakeholder request</li> <li>• General update to bike hoop numbers and location</li> <li>• Update to number and locations of bollards</li> <li>• Rail replacement bus bay has relocated further east from Grattan Street (east) to Bouverie Street</li> <li>• Pavement update to path next to Gate Keepers Cottage and emergency building</li> <li>• General pavement changes as per request by OVGA.</li> </ul>
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Table 2 - Amendments to this Parkville Precinct Development Plan since Ministerial Approval (22/03/2018)

Section	Amendment
<b>Executive Summary</b>	Details added to outline that this Parkville Precinct Development Plan was previously approved by the Minister for Planning on Thursday 22 March 2018 and that CYP are now seeking amendment to the architectural layout, landscape design and public realm design of this Development Plan
<b>1. Introduction</b>	Details added to outline that this Parkville Precinct Development Plan was previously approved by the Minister for Planning on Thursday 22 March 2018 and that CYP are now seeking an amendment to this Development Plan
<b>1.2 Incorporated Document conditions</b>	Table 2 Clauses 4.7.5, 4.7.6, 4.7.7 and 4.7.8 responses amended to reflect the revised Incorporated Document (May 2018), Parkville Precinct Development Plan approval process to date and the amendment going forward
<b>1.3.2 Stakeholder engagement during detailed design</b>	New section added to outline stakeholder engagement post-Ministerial Approval of this Parkville Precinct Development Plan, and during detailed design
<b>Figure 1</b>	Updated to include the additional consultation process post-Ministerial Approval of this Parkville Precinct Development Plan
<b>Figure 3</b>	Figure updated to reflect the revised design
<b>4.1 Design development</b>	<p>Updated to reflect that some amendments have been made to the design since the approval of this Parkville Precinct Development Plan by the Minister for Planning</p> <p>Details have been added regarding the amendments including a list of changes to the architectural layout, landscape design and public realm components of the Project</p> <p>Changes can be found in Appendix B: Architectural Plans, Appendix C: Landscape Plans and Elevations and Appendix D: Public Realm Plans.</p>
<b>Figure 4</b>	Figure updated to reflect the revised design
<b>4.3.1 Architectural response</b>	<p>Updated to reflect the changes to the architectural design including updates to the design of the Royal Parade east entry, ancillary buildings and associated goods lift as well as the chiller plant structures including changing the integrated University Square café to a retail space to allow flexibility for future use.</p> <p>Changes can be found in Appendix B: Architectural Plans, including Ground Floor Level Plan (West) TAS-HWW-PKV-ZWD-DRG-ARC-PKV-</p>

	A722001-DP and Ground Floor Level Plan (East) TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A722002-DP.
<b>Figure 5</b>	Figure updated to reflect the revised design
<b>4.3.2 Landscape response</b>	<p>Updated to reflect changes to the tree retention, removal and planting as part of the design development as well as the revised landscape design as a result of changes to the design of the Royal Parade east ancillary building and entry</p> <p>Details added around tree planting and species selection in consultation with the City of Melbourne and the University of Melbourne</p> <p>Changes can be found in Appendix C: Landscape Plans and Elevations.</p>
<b>4.3.3 Public realm response</b>	<p>Updated to outline the changes to the public realm including increased public realm extent at Gate 10 and the Faculty of Medicine, revised design of Grattan Street in response to the fragmentation of public realm around the proposed skylights and updated design of Gatekeepers Cottage area to maintain the views through to the Gatekeepers Cottage and Vice Chancellor’s House from Grattan Street</p> <p>Updated to reflect the amendments to the public realm design to mitigate flood level impacts on Grattan Street West as well as around the Royal Parade East lifts on Grattan Street East</p> <p>Changes can be found in Appendix D: Public Realm Plans, including Hardscape Plan – Sheet 2 of 7 TAS-CYP-PV-00-DRG-AUD-PKV-722102-DP and Hardscape Plan – Sheet 3 of 7 TAS-CYP-PV-00-DRG-AUD-PKV-722103-DP.</p>
<b>4.3.4.1 Universal access</b>	<p>Updated to reflect the inclusion of the <i>Disability Discrimination Act 2002</i> (DDA) parking bays in the design, including on Grattan Street near the main entrance, Berkley Street west of the Alan Gilbert Building, and Royal Parade</p> <p>Changes can be found in Appendix D: Public Realm Plans.</p>
<b>4.3.4.3 Bicycle access</b>	<p>Updated to reflect the incorporation of separated bike lanes on Grattan Street and Royal Parade, and changes to the bike parking locations and bike hoop layout, including the provision of 504 bicycle parking spaces in the Parkville precinct.</p> <p>Changes can be found in Appendix D: Public Realm Plans.</p>
<b>4.3.4.4 Transport integration</b>	<p>Revised location of the tram stop on Royal Parade providing interchange between trains and trams, with the Royal Parade northbound tram platform shifted south of Grattan Street intersection to Elizabeth Street.</p> <p>Changes can be found in Appendix D: Public Realm Plans, including Hardscape Plan – Sheet 2 of 7 TAS-CYP-PV-00-DRG-AUD-PKV-722102-DP.</p>
<b>Figure 8</b>	Figure updated to reflect the revised design
<b>Figure 9</b>	Figure updated to reflect the revised design
<b>Figure 10</b>	Figure updated to reflect the revised design
<b>Figure 11</b>	Figure updated to reflect the revised design
<b>4.3.7 Ancillary Features</b>	<p>Updated to reflect the amended design of the ancillary buildings which has led to a reduced footprint</p> <p>Changes can be found in Appendix B: Architectural Plans, Ground Floor Level Plan (East) TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A722002-DP.</p>
<b>4.3.8 Materials and Finishes</b>	<p>Updated to outline the relevant design components have been refined to tie into the materials and finishes of the City of Melbourne University Square Masterplan</p>

	Changes can be found in Appendix B: Architectural Plans, Materials Schedule TAS-CYP-PV-00-SCH-ARC-PKV-000002-DP.
<b>4.3.9 Crime prevention through environmental design (CPTED)</b>	Updated to outline the CPTED issues and relevant response strategies that have been developed as part of the CPTED review of the Parkville precinct
<b>4.4.1 Aquatic ecology and river health</b>	Updated to reflect that the design complies with the relevant Environmental Performance Requirements (EPR AE1 and AE7) that deal with the stormwater treatment  Details added around the updates to the design to mitigate flood level impacts
<b>4.4.2 Arboriculture</b>	Updated to reflect the changes to the tree removal, retention and planting as follows: <ul style="list-style-type: none"> <li>• A maximum of 148 trees are proposed for removal for the Project (198 trees were proposed for removal in the previous submission of this Development Plan), noting measures taken to avoid tree removals during detailed design and ongoing in construction</li> <li>• A minimum of 147 new trees are proposed for planting (approximately 212 trees were proposed for planting in the previous submission of this Development Plan), noting planting is informed by tree removals with measures to avoid tree removals ongoing in construction.</li> </ul>
<b>5 Conclusion</b>	Updated to reflect changes throughout this Parkville Precinct Development Plan
<b>Appendix A</b>	Drawings updated to reflect the revised design
<b>Appendix B</b>	Drawings updated to reflect the revised design
<b>Appendix C</b>	Drawings updated to reflect the revised design
<b>Appendix D</b>	Drawings updated to reflect the revised design
<b>Appendix E</b>	Responses to the Urban Design Strategy updated to reflect the revised design
<b>Appendix F</b>	Responses to the Environmental Performance Requirements updated to reflect the revised design

# 1. INTRODUCTION

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

- Twin 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 (under Grattan Street) Station, State Library Station (at the northern extent 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 the 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 for the Project, which inserted the *Melbourne Metro Rail Project Incorporated Document* (the Incorporated Document) into the Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes.

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.

The Parkville Precinct Development Plan was approved by the Minister for Planning on Thursday 22 March 2018. Under the Project's Incorporated Document, and in accordance with Clause 4.7.8, CYP is seeking an amendment to this Parkville Precinct Development Plan.

## 1.1. PURPOSE OF THIS DEVELOPMENT PLAN

This Parkville Precinct Development Plan presents the scope and extent of the built form of CYP's works for the Parkville precinct, including the new Parkville Station, from the entrances to the ticket gate. In accordance with Clause 4.7.3 of the Incorporated Document, this plan includes:

- Site layout plan/s
- Architectural, landscape and public realm plans and elevations, including lighting, signage, pedestrian access, bicycle access and other ancillary facilities
- 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 4.6 that requires Development Plans be prepared prior to the commencement of any relevant development. Table 3 provides a response against each requirement of Clause 4.7 for this Development Plan.

Table 3 – Response to conditions of the Incorporated Document

Clause	Conditions	Response
4.7.1	<p>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:</p> <ul style="list-style-type: none"> <li>a) Western tunnel portal</li> <li>b) Eastern tunnel portal</li> <li>c) Arden (North Melbourne) Station</li> <li>d) Parkville Station</li> <li>e) CBD North (State Library) Station</li> <li>f) CBD South (Town Hall) Station</li> <li>g) Domain (Anzac) Station</li> <li>h) Rail turnback at West Footscray Station</li> <li>i) Any other above ground works or structures that are part of the Project.</li> </ul> <p>*Clause 4.13 relates to Project preparatory works and are subject to separate approval requirement.</p>	<p>This Parkville Precinct Development Plan presents the built form of CYP's works in the Parkville precinct, including the station from the entrances to the ticket gate.</p>
4.7.2	<p>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.</p>	<p>CYP's works to the ticket gate are described in Section 3 and the drawings in Appendix A: Parkville Precinct Site Layout Plan, Appendix B: Parkville Precinct Architectural Plans and Elevations, Appendix C: Parkville Precinct Landscape Plans and Elevations and Appendix D: Parkville Precinct Public Realm Plans.</p>
4.7.3	<p>A Development Plan must include:</p> <ul style="list-style-type: none"> <li>a) A site layout plan/s</li> <li>b) Architectural, landscape and public realm plans and elevations including lighting, signage, pedestrian access, bicycle access and other ancillary facilities</li> <li>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.</li> </ul>	
4.7.4	<p>Prior to submission of a Development Plan to the Minister for Planning for approval under Clause 4.7.1, a Development Plan must be:</p> <ul style="list-style-type: none"> <li>a) Provided to the Office of the Victorian Government Architect and relevant council/s for consultation</li> </ul>	<p>Site layout plan in Appendix A: Parkville Precinct Site Layout Plan.</p>

Clause	Conditions	Response
	<p>b) Where relevant, provided to the Roads Corporation, Public Transport Development Authority, Melbourne Water and Heritage Victoria for consultation</p> <p>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.</p> <p>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).</p> <p>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).</p>	
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.	<p>Architectural plans and elevations in Appendix B: Parkville Precinct Architectural Plans and Elevations.</p> <p>Landscape plans and elevations in Appendix C: Parkville Precinct Landscape Plans and Elevations.</p>
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.	<p>Public realm plans in Appendix D: Parkville Precinct Public Realm Plans.</p> <p>Consistency with Urban Design Strategy in Section 4.3 and Appendix E: Parkville Precinct Urban Design Strategy guidelines assessment.</p> <p>Consistency with Environmental Management Framework in Section 4.4 and Appendix F: Parkville Precinct Environmental Performance Requirements assessment.</p>
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.	<p>The Parkville Precinct Development Plan was approved by the Minister for Planning on Thursday 22 March 2018. Following the approval of the Development Plan, CYP commenced works on the Parkville Station.</p> <p>Early Works was undertaken in accordance with Clause 4.10 and preparatory works was</p>

Clause	Conditions	Response
		undertaken in accordance with Clause 4.13.
4.7.8	<p>A Development Plan may be prepared and approved in stages or parts, and may be amended from time to time with the approval of the Minister for Planning. The Minister must require an application for approval of an amendment to a Development Plan to comply with the requirements of Clauses 4.7.3, 4.7.4, 4.7.5 and 4.7.6 unless, in the opinion of the Minister:</p> <p>a) the proposed amendment:</p> <p>i. does not result in a material detriment to any person; or</p> <p>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; and</p> <p>b) any amendment does not involve any change to an approved Environmental Performance Requirement.</p>	<p>This Development Plan presents the built form of CYP's works in the Parkville precinct, including the station from the entrances to the ticket gate.</p> <p>CYP is seeking an amendment to this Parkville Precinct Development Plan, in accordance with Clause 4.7.8, and approval will be sought from the Minister for Planning.</p>
4.7.9	For land to which a Development Plan applies, development must be carried out in accordance with an approved Development Plan.	CYP will develop the Parkville precinct in accordance with this Development Plan.

### 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 Parkville Precinct Development Plan on Thursday 22 March 2018, further stakeholder engagement and another Public Display Period has been undertaken during detailed design. This sought to refine any outstanding design issues with key stakeholders and feedback sought from the broader community.

#### 1.3.1. EARLY ENGAGEMENT AND PUBLIC DISPLAY PERIOD

The consultation requirements of the Incorporated Document are shown in Figure 1. In addressing these it is important to note that RPV has already 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 Parkville Precinct 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 the Victorian Government Architect
- City of Melbourne
- Department of Transport (previously VicRoads, Public Transport Victoria and Transport for Victoria)
- Melbourne Water
- Heritage Victoria.

In accordance with the Incorporated Document, the previous version of this Parkville Precinct Development Plan was made available for public inspection for 15 business days from Monday 27 November 2017 until Friday 15 December 2017 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 27 November 2017.

In addition to the requirements of the Incorporated Document, CYP consulted with other key stakeholders during design development including:

- Bio21 Molecular Science & Biotechnology Institute
- Gene Technology Access Centre
- Melbourne Business School
- Royal Melbourne Hospital
- Melbourne Private Hospital
- Peter Doherty Institute for Infection and Immunity
- Peter MacCallum Cancer Centre
- Royal Children's Hospital
- Royal Women's Hospital (Cushman & Wakefield)
- The Florey Institute of Neuroscience and Mental Health
- The Graduate Union of the University of Melbourne (Graduate House)
- University High School
- University of Melbourne
- Victorian Comprehensive Cancer Centre
- Walter and Eliza Hall Institute of Medical Research
- Yarra Trams.

During the public inspection period CYP held nine community information sessions which were located along the Project alignment. The sessions were as follows:

- Thursday 30 November 2017 – 11am – 2pm at Seasons Botanic Gardens
- Thursday 30 November 2017 – 5.30pm – 8.30pm at Seasons Botanic Gardens
- Monday 4 December 2017 – 5.30pm – 8.30pm at Meat Market
- Tuesday 5 December 2017 – 11am – 2pm at Melbourne Town Hall
- Tuesday 5 December 2017 – 5.30pm – 8.30pm Melbourne Town Hall
- Wednesday 6 December 2017 – 8am – 11am at Royal Melbourne Hospital (Melbourne Health)
- Saturday 9 December 2017 – 11am – 2pm at North Melbourne Football Club

- Monday 11 December 2017 – 11am – 2pm at the Victorian Comprehensive Cancer Centre (VCCC)
- Tuesday 12 December 2017 – 5.30pm – 8.30pm – Melbourne Town Hall.

At the community information sessions attendees were invited to ask questions about the five station precinct development plans and specialist technical staff were available to answer any queries. Attendees were also provided with instructions on how to access the online submission portal and paper submission copies were provided.

Three of the community information sessions were held at locations near the proposed Parkville Station. These sessions were held at the Meat Market in North Melbourne on Monday 4 December 2017, Royal Melbourne Hospital (Melbourne Health) on Wednesday 6 December 2017 and the Victorian Comprehensive Cancer Centre on Monday 11 December 2017. Metro Tunnel social media accounts also posted links to this Parkville Precinct Development Plan and online submission portal, and featured information on the time and locations of the community sessions.

During the public display period 150 key stakeholders were emailed directly, as well as e-newsletters sent out to subscribers of the Metro Tunnel Project updates, which provided links to the five station precinct development plans on the RPV website. In addition to the community sessions and emails a further 32,500 letter drops occurred to addresses adjacent to the Project.

Overall, 1,507 public submissions were received across all five station precincts and 200 of these submissions elected to provide comments on this Parkville Precinct Development Plan.

As part of the previous submission to the Minister for Planning, CYP provided all written comments received during the early engagement and public period and a summary of consultation and responses to the issues and queries raised.

### 1.3.2. STAKEHOLDER AND COMMUNITY ENGAGEMENT DURING DETAILED DESIGN

The Minister for Planning approved the Parkville Precinct Development Plan on Thursday 22 March 2018. Since approval, the design for Parkville Station has progressed through to detailed design. In accordance with the Incorporated Document, ongoing consultation has taken place with key stakeholders throughout this period through design presentations, meetings, workshops and formal design package reviews. The key stakeholders included:

- Office of the Victorian Government Architect (OVGA)
- Heritage Victoria
- City of Melbourne
- University of Melbourne
- Royal Melbourne Hospital
- Peter Doherty Institute for Infection and Immunity
- Peter MacCallum Cancer Centre
- Department of Transport (previously VicRoads, Public Transport Victoria and Transport for Victoria)
- RPV.

In close collaboration with the above stakeholders, a number of changes have been made to the Project to improve the design. As a result, there have been amendments to the architectural layout, landscape design and public realm components of the Project. These amendments have been made to reduce the above ground footprint, further promote the historical cultural heritage values of the Parkville precinct and retain more greenery. Consultation with key stakeholders has been ongoing during the preparation of these amendments. Section 4.1 includes a full list of those changes. Where

relevant, the proposed changes have been incorporated into the Project's response to the Urban Design Strategy under the relevant sub-headings in Section 4.3.

In accordance with the Incorporated Document requirements, the amended version of this Parkville Precinct Development Plan was made available for public inspection for 15 business days from Wednesday 22 September 2021 until Wednesday 13 October 2021, allowing for the Grand Final public holiday. During this time, it was available on the Engage Victoria 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 Wednesday 22 September 2021.

Additionally, RPV posted advice on Facebook and LinkedIn five times between 22 September and 13 October 2021 advising the public display period was open and noting where the Development Plan could be viewed.

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

- City of Melbourne – CYP held meeting on Friday 27 August 2021 and Wednesday 15 September 2021
- University of Melbourne – CYP held meeting on Monday 30 August 2021
- Melbourne Health and Peter Mac – CYP held meeting on Monday 23 August 2021
- Parkville Reference Group – CYP held meeting on Tuesday 7 September 2021
- Bicycle Network Victoria – CYP held meeting on Monday 13 September 2021.

During the public inspection period, CYP held one online community information session on Tuesday 5 October 2021 – 6:00pm-7:00pm via Zoom meeting (due to COVID-19).

At the online information session, attendees were able to ask questions about the Parkville Precinct Development Plan and technical specialists were available to answer any queries. An invitation to the online session was distributed to 3,350 stakeholders within the Project's identified Parkville Precinct notification catchment. 1,311 copies were also distributed via the Rail Projects Victoria Parkville Precinct e-distribution list. At the session, instructions on how to access the online submission portal were provided.

26 targeted emails were sent to stakeholders advising of the upcoming release of the amended Development Plan for public consultation. Additionally, a session that presented this Development Plan was held with the Arden and Parkville Community Reference Group on Friday 9 July 2021.

Overall, 11 submissions were received on this Parkville Precinct Development Plan.

As part of the submission to the Minister for Planning, CYP will provide all written comments received during the detailed design public display period, and a summary of consultation and responses to the issues and queries raised.

Following approval of the amended Parkville Precinct Development Plan by the Minister for Planning on Sunday 13 February 2022 a minor amendment was approved on Thursday 1 September 2022 and subsequent review of drawings. The detailed design process has progressed and lead to minor amendments to materials and finishes in the public realm. As part of this process, consultation has taken place with key stakeholders on the amended materials and finishes and public realm including City of Melbourne, University of Melbourne, RPV and OVGA.

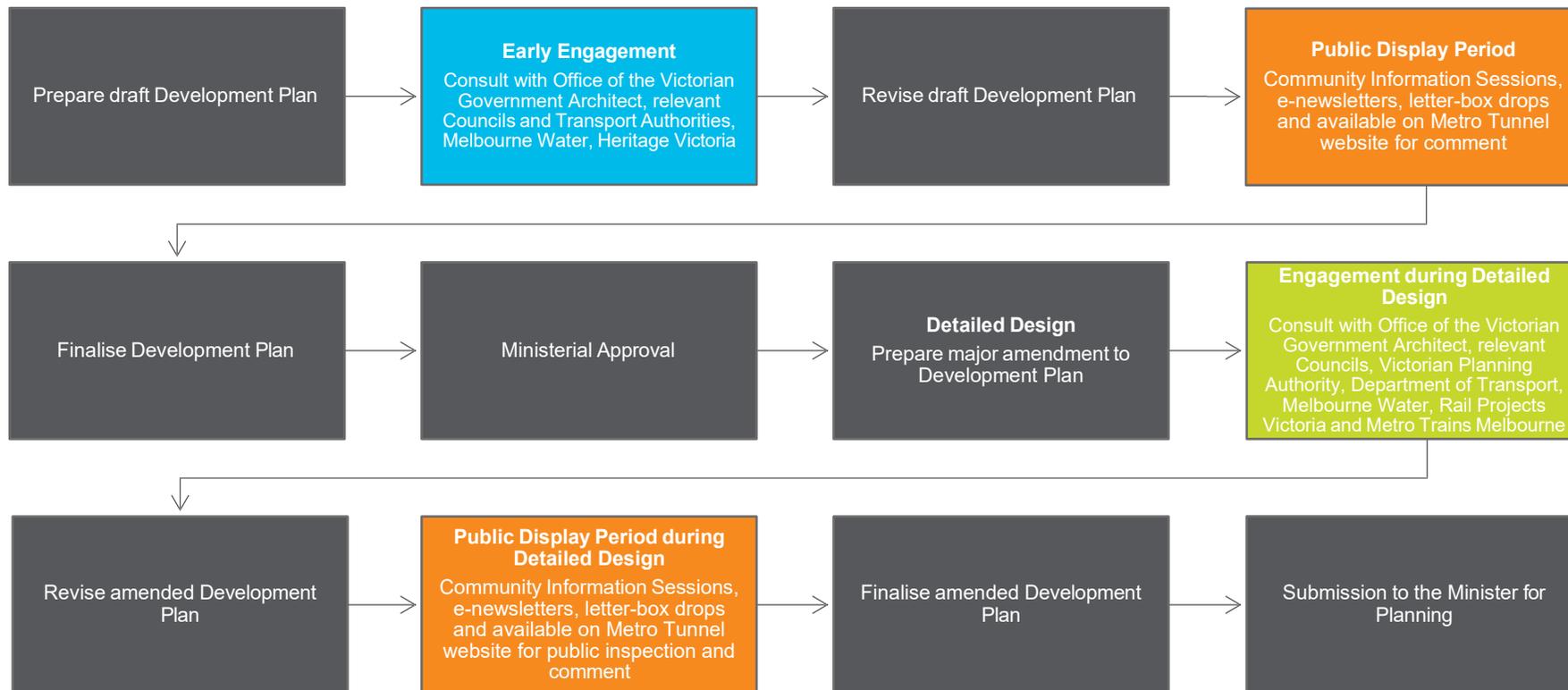


Figure 1: Development Plan consultation process (blue refers to Early Engagement, orange refers to Public Display Period, and green refers to Stakeholder Engagement during detailed design)

## 2. SITE CONTEXT

This section describes how the strategic, physical and natural context of the Parkville precinct has been considered in the design development process.

As an example of this context setting, Figure 2 provides a snapshot of the five minute walkable catchment from Parkville Station. The number of high profile public institutions within this five minute walkable catchment includes Royal Melbourne Hospital (RMH), Royal Women's Hospital, Victorian Comprehensive Cancer Centre (VCCC), University of Melbourne and Peter Doherty Institute.



Figure 2: Parkville precinct five-minute walking catchment

### 2.1. BROADER CONTEXT AND STRATEGIC POSITIONING

Parkville is within the City of Melbourne municipality. In 2012, City of Melbourne released its City North Structure Plan that articulated the framework for the growth and development of this renewal area. This plan will intensify the area's residential and employment populations.

The University Square Master Plan has been prepared by the City of Melbourne and was adopted in December, 2016. This interfaces with the Project on Grattan Street, Barry Street and Leicester Street, and will incorporate the edge conditions (surrounding environment) of this master plan.

The metro and public realm has a direct interface with the evolving master plan of University of Melbourne, which is redeveloping some of its buildings and precincts along Grattan Street and Royal Parade as well as developing more intensively to the south of Grattan Street. The metro station will provide a major new entry point for the campus on Grattan Street and change its movement, circulation patterns and orientation more north south. The metro entries have been positioned to respond to future north-south linkages within the campus. The public realm has provided a major

entry point to the campus on Grattan Street near Gate 10 as well as catering for the increasing pedestrian movements across the street towards the south.

The planning approach ensures Parkville Station's presence will minimise impact on the University's plans through design strategies which locate station infrastructure outside University land where practicably possible. Station structure encroachment into University land has been reduced, compared to the reference design. Integrating the station entrance within the existing public realm, such as the Grattan Street road reserve, so passengers will not intrude significantly on University land.

The precinct also falls within the Elizabeth Street stormwater catchment area. In 2015 the City of Melbourne produced an integrated water cycle management plan for the sustainable water management of this catchment. The public realm of the precinct will play a large role supporting the objectives of this plan, through water sensitive urban design.

The City of Melbourne's Parkville Urban Forest Strategy, 2015-2025 identifies Grattan Street as a future biodiversity corridor, and proposes a tree species change.

These strategic initiatives and policies have influenced the design approach.

## 2.2. HISTORICAL AND NATURAL CONTEXT

Prior to the arrival of European settlers in 1835, the Parkville precinct area and its surrounds were occupied by the Boon Wurrung people and the Woi Wurrung people. The Parkville precinct is located within a landscape originally featuring grassy woodland species. While no Aboriginal Places are recorded in the Parkville precinct, it is assessed as being of high archaeological sensitivity, with archaeological potential.

Since the early European settlement, the area has been highly utilised. The presence of heritage listed Royal Parade, the former entry to the City of Melbourne from the north, demonstrates this. Additionally, Royal Parade is a heritage registered boulevard featuring a number of heritage listed trees within the precinct, and separates the University and health institutions.

The precinct has for a long time been strongly associated with education and health, highlighted by the number of historical heritage places nearby associated with the University of Melbourne, including the Vice Chancellor's House, Gatekeeper's Cottage and front fence and gate.

An appreciation of the site's natural features and history has been identified as a starting point to develop the design themes to create a public realm identity that is of its place.

## 2.3. EXISTING SITE CONDITIONS

Grattan Street is currently a four lane road and bus route that is a restriction to north south pedestrian movement. The street is lined with mature elm trees, many of which will require removal for the station construction. This offers an opportunity to consider a street restructure and species change along this spine.

Royal Parade is a heritage boulevard with a dense canopy of mature elm trees and a strong landscape character that forms a significant gateway to the central city. This character is important to protect.

The land uses are primarily health related to the west of Royal Parade, and education to the east.

### 3. SCOPE OF WORKS IN PARKVILLE PRECINCT

This Parkville Precinct Development Plan presents the scope and extent of the built form of CYP's works in the Parkville precinct, including the new Parkville Station from the entrances to the ticket gate for Day 1 operation. Figure 3 shows these works within the Parkville precinct which includes:

- New underground train station beneath Grattan Street with pedestrian underpass beneath Royal Parade
- Four station entries, two on either side of Royal Parade, one on Grattan Street west and one on Grattan Street east, connecting to the new underground station
- New tram stop on Royal Parade providing interchange between trains and trams, with the Royal Parade northbound tram platform shifted south of Grattan Street intersection to Elizabeth Street
- A reinstated and reconfigured Grattan Street with one traffic lane in either direction, between Flemington Road and Leicester Street, to allow for wider pedestrian footpaths and dedicated bicycle lanes, with provision for bus services and hospital access
- A reconfigured and landscaped Elizabeth Street/Royal Parade from north of the Haymarket Roundabout to Story Street, that allows for the relocated/upgraded tram stop, including realigned traffic lanes, bicycle lanes, footpaths and pedestrian crossings
- A partially reinstated Barry Street redesigned in conjunction with City of Melbourne and University of Melbourne, closed to traffic
- Provision of a reconfigured University Square, housing ancillary station infrastructure, in conjunction with City of Melbourne and University of Melbourne.

This Development Plan presents the scope and extent of the built form of CYP's works for the Parkville precinct with associated construction works to occur within the Project Land boundary (refer to Appendix A) and construction impacts to be managed in accordance with the approved Environmental Management Framework (refer to Section 4.4 and Appendix F).

The Parkville precinct associated works area generally includes the former City Ford site on the corner of Elizabeth Street and Pelham Street, the north western portion of University Square and land within the University of Melbourne including land in proximity to the Medical Faculty (tri-radiate) building, Vice-Chancellor's House, Gate Keepers Cottage, Howard Florey Laboratories and the Centre for Spatial Data Infrastructures and Land Administration (Block C). In addition, it also includes the following road reserves:

- Grattan Street between Flemington Road and Bouverie Street
- Royal Parade from University High School to (and including) Haymarket roundabout
- Berkeley Street between Grattan Street and Pelham Streets
- A portion of Barry Street between Grattan Street and Pelham Streets.

This area is shown on the associated works area plan included in Appendix A.

As considered in the EES, the nature of works in the Parkville precinct associated works area will change over time and is characterised by the following key activities:

- Site establishment: Site establishment at Parkville includes closure and hoarding of Grattan Street between Royal Parade and Leicester Street, Barry Street down to Pelham Street, and some of the northern portion of University Square. Site facilities will also be established at the former City Ford site on the corner of Pelham Street and Elizabeth Street. Site facilities such as sit offices and amenities will be established within Barry Street and the former City Ford site, which will also be used as a truck holding area

- **Civil / Structural:** Piling (bored piles) and excavation of the station box at Parkville along Grattan Street will be undertaken using a top-down, cut and cover construction method. The station box will be excavated sufficiently to allow the construction of a permanent roof with openings for construction access, and the surface restored. Excavation will continue under the roof, with the base slab being the last part of construction completed. Construction of the pedestrian access under Royal Parade will be mined using a road header. Acoustic treatment at the Parkville Station box may involve an acoustic cover or acoustic shed in addition to perimeter hoarding. The final phase of this stage includes associated road works, including tram works and bike and pedestrian infrastructure
- **Fit out:** This phase of the Project includes the fit out of station infrastructure, surface and subsurface levels, including ticket halls, station platforms, passenger access, emergency egress, ventilation and smoke controls, staff rooms and equipment rooms. This stage of the Project also includes the landscaping of the station precinct
- **Mechanical, Electrical and Process:** This phase of the Project includes the installation of power and electrical infrastructure to the station and platforms
- **Testing and commissioning:** These works ensure that all new station infrastructure, from ticket gates and vertical transport to signalling and rolling stock (by others) meet the requirements of Victorian Rail Safety legislation and is fit for purpose on Day 1
- **Operation:** The operational phase of the Project will include activities associated with the day to day operation of the train station, including but not limited to, train services (by others). CYP will undertake maintenance of station assets to ensure reliability and availability of station infrastructure. CYP will hand back assets to the relevant land manager.

To manage potential impacts, CYP has prepared an Environmental Management System, Construction Environmental Management Plan and Operations Environmental Management Plan. 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 has been approved by RPV and the Project's Independent Reviewer and was subject to separate stakeholder consultation requirements and reviewed by the Independent Environmental Auditor, including quarterly audits of performance throughout construction.

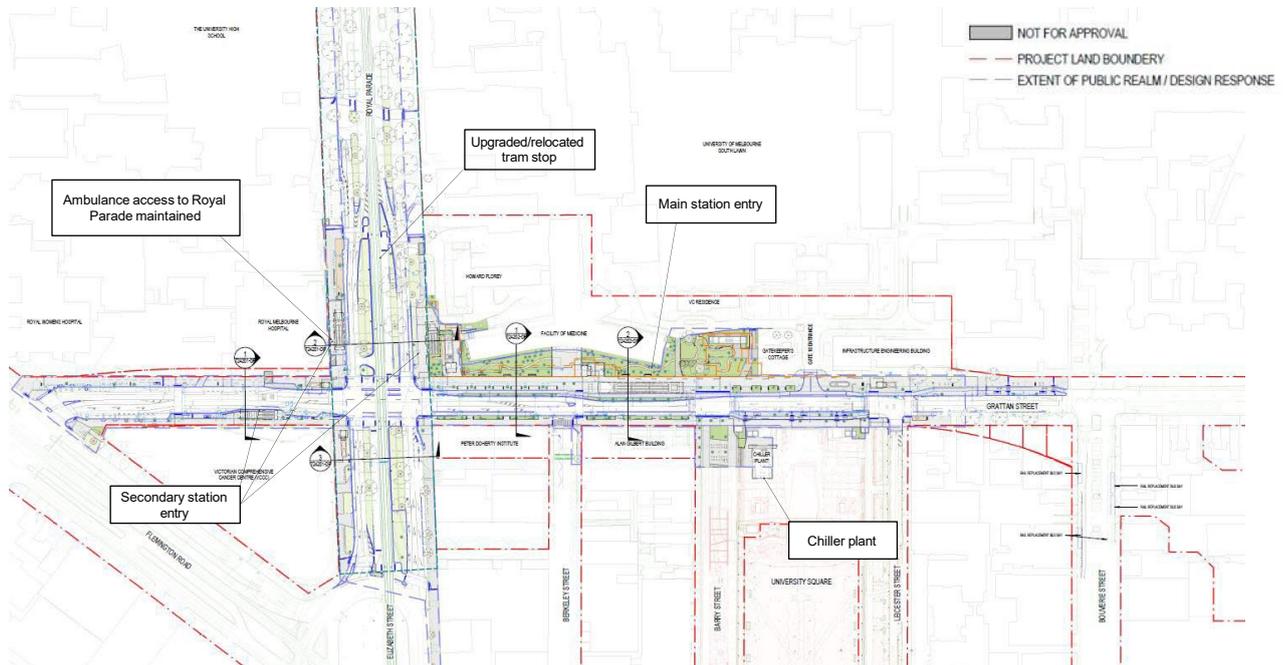


Figure 3: Parkville precinct works

## 4. DESIGN RESPONSE

### 4.1. DESIGN DEVELOPMENT

The Project's design has been 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 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 also 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 Parkville Precinct 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 Parkville Precinct Development Plan was approved by the Minister for Planning on Thursday 22 March 2018. Following an iterative consultation period during detailed design, amendments to the architectural layout, landscape design and public realm components of the Project included:

#### **Architectural layout and design:**

- Re-massing of the Royal Parade east entry and ancillary buildings as part of the design development (refer to Section 4.3.1)
- Rearranged ancillary buildings and associated goods lift in consultation with the University of Melbourne and the City of Melbourne leading to a reduced footprint (refer to Section 4.3.1)
- Refined size of the chiller plant structures and integrated University Square retail space in response to space proofing requirements for Integrated Mechanical Electrical and Plumbing leading to minimised footprint (refer to Section 4.3.1)
- Updated location and route of the Tunnel Ventilation System at University Square following survey information of the existing carpark and structural feedback (refer to Section 4.3.1)
- Removal of a skylight on the north-east corner of the Grattan Street and Royal Parade intersection (refer to Section 4.3.1)

#### **Landscape design and public realm components:**

- Grattan Street
  - Revised streetscape design to address issues of fragmented public realm around skylights and increase permeability in response to comments from the City of Melbourne and the University of Melbourne (refer to Section 4.3.3)

- Increased public realm at Gate 10 due to the relocation of emergency/loading bays and bus bays further east in response to revised road design in consultation with the City of Melbourne and the University of Melbourne (refer to Section 4.3.3)
- Updated design of the public realm further east of Gate 10 to incorporate the relocated goods lift and ancillary structure (see Sections 4.3.3 and 4.3.7)
- Incorporated separated bike lanes in response to the comments from City of Melbourne leading to adjustments to surface materials, furniture and tree placement, planting and coordination with civil (see Sections 4.3.3 and 4.3.4.3)
- Relocated bike parking in response to revised road design as part of the design development (refer to Section 4.3.4.3)
- Updated tree planting, paving and furniture in response to amended road design as part of the design development (refer to Sections 4.3.2 and 4.3.3)
- Refined tree spacing as a result of interdisciplinary coordination to remove clashes with sightlines, signal poles, utilities and streetscape furniture (see Section 4.3.2)
- Integrated streetscape with revised flood levels on Grattan Street West, as a result of stormwater flood modelling (see Section 4.3.3)
- Refinement of Royal Parade East lifts design on Grattan Street East to mitigate flood level impacts on public realm (see Section 4.3.3)
- Provision of *Disability Discrimination Act 2002* (DDA) compliant car parking bays on Grattan Street West (see Section 4.3.4.1)
- Royal Parade and Elizabeth Street
  - Royal Parade northbound tram platform shifted south of Grattan Street intersection to Elizabeth Street
  - Updated landscape design in response to revised Royal Parade east ancillary building and entry arrangement (see Sections 4.3.2 and 4.3.3)
  - Revised proposed tree locations in coordination with utilities, civil drainage, road, furniture and cabinet locations (see Section 4.3.2)
  - Revised bike parking locations and introduced future bike parking locations (see Section 4.3.4.3)
  - Rotated bike hoops on Royal Parade east to parallel to kerb to achieve compliance with the *Australian Standard AS2890* (see Section 4.3.4.3)
  - Revised bike share locations to achieve compliance with *Australian Standard AS2890* (see Section 4.3.4.3)
  - Updated tree locations in response to the revised road design (see Section 4.3.3)
  - Provision of DDA car parking bay on Royal Parade (see Section 4.3.4.1)
- Barry Street and University Square
  - Relocated bike parking to the south to allow planting edge along Grattan Street footpath as well as updated bike parking locations to coordinate with the City of Melbourne University Square Masterplan (see Section 4.3.4.3)
  - Updated tree locations in line with the City of Melbourne University Square Masterplan (see Section 4.3.2)
  - Refined design to tie into the materials and finishes of the City of Melbourne University Square Masterplan (see Section 4.3.8)
- University of Melbourne

- Redesigned the entry public realm of the Faculty of Medicine in consultation with the University of Melbourne (see Section 4.3.3)
- Redesigned the public realm of the University of Melbourne, west of the Gatekeeper’s Cottage, in consultation with the City of Melbourne, University of Melbourne and Heritage Victoria
- Updated Gatekeeper’s Cottage public realm design (see Section 4.3.3)
- Updated tree locations in coordination with utilities, civil drainage, road, furniture, and cabinet locations (see Section 4.3.2).

## 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.

In order to address these project wide key directions when designing the Parkville precinct, CYP developed six public realm principles to guide the design of the public realm and support the delivery of the Urban Design Vision. Table 4 summarises how each of these public realm principles is integrated into design and specifically addressed in the Parkville precinct.

Table 4 – CYP public realm principles integrated into the Parkville precinct

Principle	Principle integrated into design	Design response for Parkville precinct
Performance for people	Our public realm design provides for seamless, simple and intuitive experiences for people in each of the station precincts.	Grattan Street will be redesigned as a major connecting promenade centred on the metro station and linking together the medical and University institutions between Flemington Road and Leicester Street. East-west and north-south movement along Grattan Street will become more seamless and intuitive, and include an unpaid pedestrian underpass under Royal Parade.
More Melbourne	There will be more and better-quality public spaces proposed as a result of the Metro. New cultural and creative	The Project provides 3,500sqm of new public realm area that was previously road surface. The public domain is positioned to promote a

Principle	Principle integrated into design	Design response for Parkville precinct
	programs generated and tested in the lead up to Day 1 operation will inform the design of each public realm space.	wide range of experiences including retail, meetings and encounters for students, academic staff, medical workers, and patients. It will be a landscape that celebrates themes of ecological biodiversity, science and medicine.
Context and nature	The public realm has been designed to promote views, way finding and help draw daylight and fresh air into and through each station. This helps to amplify the local character of each station's neighbourhood and authentically reflect the nature and character of each place. This approach is supported through planting, the careful use of materials and finishes as well as the design and placement of civic furniture.	The public realm concept will respond to Parkville's unique character, particularly the site's history of medicine and learning, and will harness these themes in its visual expression. Grattan Street will also be a biodiversity corridor bringing nature into the city, and providing a connection to country through the use of native and indigenous species. Landscape rooms along the corridor will showcase species diversity, medicinal planting, natural systems and scientific and medical achievement. This theme will be strengthened through embedded public art and visible applied learning projects where possible. The pedestrian underpass and unpaid areas of the station are enhanced through the inclusion of light wells, allowing light to penetrate from the surface to concourse below.
Sustainable and resilient	The public realm designs associated with each station are focused on being ecologically conscious and designed to be resilient and adaptable to climate change. Resources required to maintain the landscape are reduced because of the quality and detailing proposed. Urban forestry, water use and biodiversity strategies have been employed that reference RPV's Urban Design Strategy, Environmental Performance Requirements and the Living Infrastructure Plan.	The public realm design is responsive to the evolving master plan of the University of Melbourne, and the University Square redevelopment. The public realm design will work towards an urban restructure that facilitates more engaging built form along Grattan Street, stronger pedestrian north south movement and new entry points for the University. The sustainability features include promotion of walking and cycling and water sensitive urban design.
Functional, efficient and safe	Legible, accessible and clearly defined public realm spaces provide for a highly functional and efficient environment for people to use. Increased passenger space in each station is supported by safe, inviting and generous public realm areas. This provides a seamless transition for passengers from the moment they leave the train through to the public realm.	The Parkville Promenade provides an efficient, safe and open arrangement of facilities and amenities for passengers and the community. Bicycle parking, drop off, bus stops, and taxi areas are all conveniently located in clear sightline from the station entrances. Access routes to the station entries and within the public realm will be legible and safe for pedestrians of all abilities. Station ancillary infrastructure has been located outside the centre of Barry Street and integrated with the elements of University Square, to make them more recessive.
A quality legacy	The quality of each public realm space proposed supports the move towards a "turn up and go" Metro system. The investment in the quality of the public realm spaces proposed for today can help provide the confidence for others to invest time, capital and energy into further precinct development.	Grattan Street Promenade will become the major civic legacy of this station, at the heart of the knowledge and medical precinct. This 600 metre-long promenade will be an inspiring district of inquiry and learning. The public realm concept will harness this curious spirit, to create a precinct that's sophisticated, enriching, open and connected.

## 4.2.2. PRECINCT-SPECIFIC DESIGN ISSUES FOR PARKVILLE PRECINCT

The Urban Design Strategy identifies precinct-specific design issues for Parkville. As with the project wide key directions, each of these issues has objectives with associated design guidelines to inform the design response. Table 5 identifies the design objectives by sub-precinct.

Table 5 – Urban Design Strategy design objectives by sub-precinct for Parkville

Sub-precinct	Design objective
Royal Parade	<p>Create an integrated transport interchange between Metro Tunnel and tram services in Royal Parade.</p> <p>Protect heritage and civic qualities of Royal Parade.</p>
Grattan Street	<p>Use the new station to catalyse a new civic heart for the City North, University and biomedical precinct.</p> <p>Enhance Grattan Street as a public transport, pedestrian and cycling corridor, including facilities for interchanges between Metro Tunnel and bus services.</p> <p>Enhance the amenity of Grattan Street with new canopy trees and upgraded lighting, paving and furniture.</p>
University of Melbourne interface with Grattan Street	<p>Preserve and support options for future redevelopments within University of Melbourne land holdings to integrate with Metro Tunnel infrastructure.</p> <p>Protect heritage qualities of buildings and spaces within the University campus.</p> <p>Protect and reinforce formal spatial relationships between Gate 10 and spaces inside and beyond the traditional campus area.</p> <p>Avoid confusion resulting from the location of station entries within the University campus, including issues relating to the distinct corporate identities of the University and Metro Tunnel, and public expectations of access and appropriate behaviour in public and University spaces.</p>
University Square, Barry Street and Leicester Street	<p>Preserve and support options to improve University Square as per the City of Melbourne's current plans.</p>

## 4.3. CONSISTENCY WITH URBAN DESIGN STRATEGY

The CYP design vision for the Parkville precinct is for a 'Grand Promenade' among prominent institutions, a walk of enlightenment, a place of ideas and curious engagement.

The Parkville Station design features the underground train station immediately beneath Grattan Street. Entry to the station is provided via one of four entries:

- The southern side of Grattan Street outside the Victorian Comprehensive Cancer Centre
- The eastern side of Royal Parade outside Royal Melbourne Hospital
- The western side of Royal Parade adjacent the University of Melbourne Faculty of Medicine building
- The northern side of Grattan Street outside the University of Melbourne Faculty of Medicine building (opposite the Alan Gilbert building).

These entrances in relation to the area's components are shown on Figure 4.

A garden area on the north side of Grattan Street provides an expanded public realm, connected to the expanded Grattan Street promenade. Grattan Street will bring nature into the city.

The public realm components of the precinct each serve a different urban purpose and are enriched by a variety of precincts which are incorporated into the design:

- Grattan Street (Parkville Promenade): New civic spine
- Royal Parade: Existing historic boulevard with relocated and upgraded Tram Super Stop, Metro station entries and unpaid pedestrian underpass under Royal Parade
- University Interface: New entry on the northern side of Grattan Street that enhances Gate 10 and street crossing supporting campus expansion and pedestrian movement across Grattan Street. Also an entry at the corner of Grattan Street and Royal Parade
- Barry Street: New pedestrian street that supports the University Square upgrade as well as the north south movement mentioned above.

These components of the Parkville precinct public realm are shown on Figure 4.

The design drawings of the resultant built form for the Parkville precinct are attached as follows:

- Site layout plan (Appendix A: Parkville Precinct Site Layout Plan)
- Architectural plans and elevations (Appendix B: Parkville Precinct Architectural Plans and Elevations)
- Landscape plans and elevations (Appendix C: Parkville Precinct Landscape Plans and Elevations)
- Public realm plans (Appendix D: Parkville Precinct Public Realm Plans).

Additionally, Appendix E: Parkville Precinct Urban Design Strategy guidelines assessment 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.

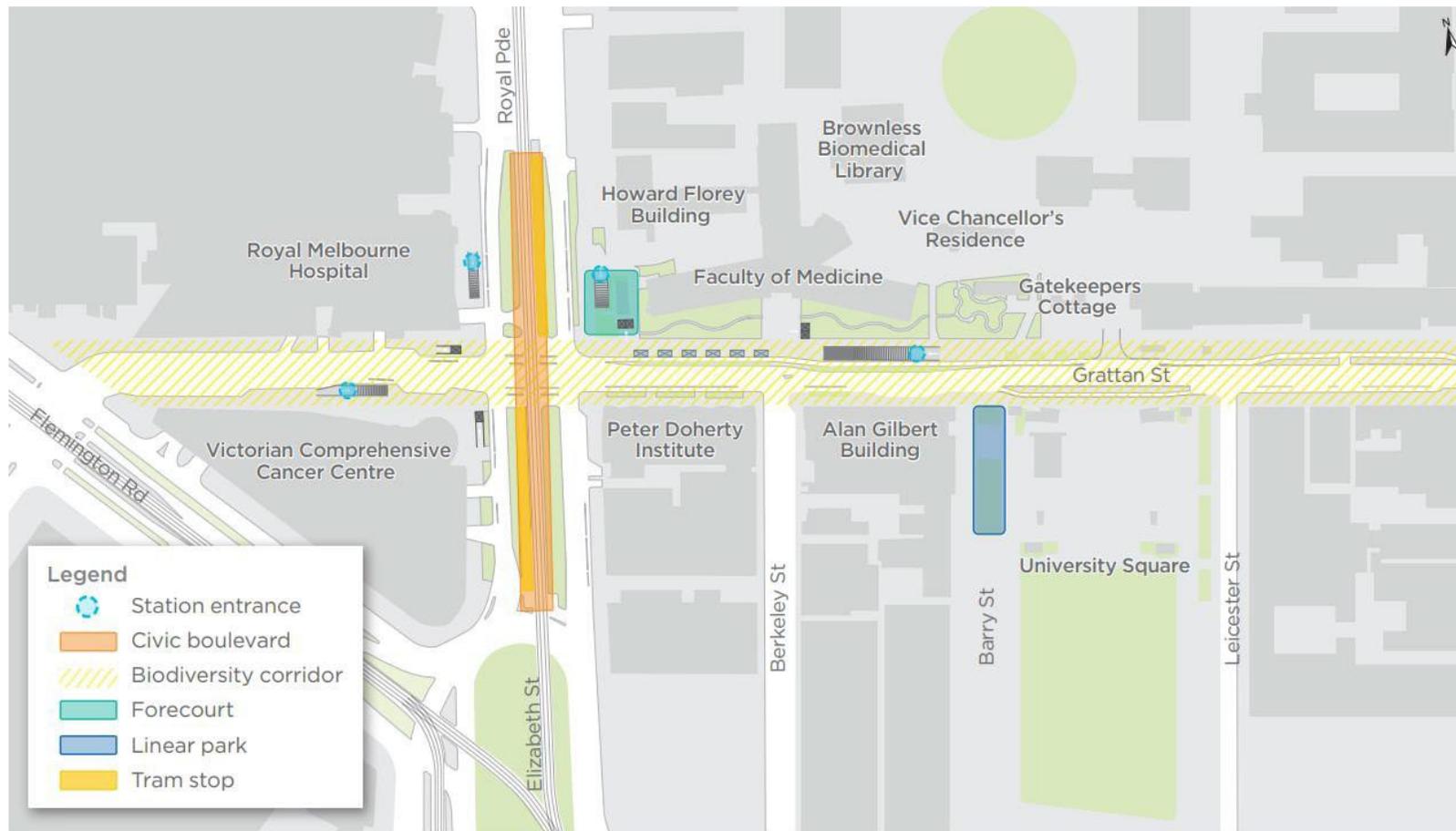


Figure 4: Parkville precinct components and station entries

### 4.3.1. ARCHITECTURAL RESPONSE

The architectural design of Parkville precinct has been developed to align with the vision of transforming Grattan Street into a 'Grand Promenade' amongst prominent institutions. This has been achieved through intuitive architectural design drawing on the area's identity and high concentration of pedestrian movement.

Station entries have purposely been designed to not detract from their surrounds, while being easily identifiable for passengers. The main station entry, on the northern side of Grattan Street outside the University of Melbourne Faculty of Medicine building features a 50 metre long glass canopy supported by steel and concrete foundations. At four metres high, the station canopy has been designed to sit within the matured tree canopy, as part of the natural environment. The station canopy slopes to the west, following the natural fall of topography as passengers descend to the station concourse below. Steps have been taken to remove as much station infrastructure from University land as possible, reducing the impact of the station on future redevelopment opportunities of the University of Melbourne Medical Faculty Building site. This entrance and its surrounds are shown on Figure 5.

Secondary station entries reflect the design of the main entry using similar design elements and materials, albeit on a smaller scale. This also reflects Parkville Station's architectural line wide identity. The design ensures common treatments and elements in the built form, such as the use of steel and glass, subtly link the project stations to one another, while responding to local context driven design. These secondary station entries low profile glass canopies also sit either within or below the tree canopy, reducing visual bulk and impact on the prominent surrounds. The architectural design of the secondary entrance on Royal Parade east as well as ancillary buildings were reviewed as part of the design development. This has led to refining the design layout at that location and removal of a skylight on the north-east corner of the Grattan Street and Royal Parade intersection which was proposed in the approved Development Plan. The removal of that skylight has reduced the footprint leading to additional space for public realm. The location of these secondary entries is shown on Figure 6.

These station entries connect to the concourse level below ground, with entries to the west of Royal Parade/Elizabeth Street connected to the station via an unpaid pedestrian underpass. This provides an opportunity for passengers to cross the Grattan Street and Royal Parade/Elizabeth Street intersection without having to cross busy traffic lanes. A cross section of this underpass is shown on Figure 7.

The user experience of the station concourse is enhanced through the incorporation of as much natural light as possible. This is achieved through the inclusion of light wells, allowing light to penetrate from the surface to concourse below. At the surface the light wells will range between two and three metres in height above the concourse, sitting within the landscaped tree canopy, helping frame the Grattan Street promenade. The station concourse level also features retail tenancy spaces.

Being located predominantly within the Grattan Street road reserve, there are limited over-site development opportunities for Parkville Station. However despite this, the station has been designed in a manner to limit surface impacts and maximise potential for redevelopment of the urban realm above. This is evidenced by Barry Street and University Square, two projects being undertaken by City of Melbourne which have direct interface with Metro Tunnel works. The Barry Street works are being partially delivered by CYP in conjunction with City of Melbourne (and were intended to be undertaken regardless of the Metro Tunnel Project). In addition to not restricting development of the public realm above, the station footprint has been designed to reduce potential impact on the surrounding environment, with particular attention to minimise land required within the University of Melbourne or public open space such as at University Square.

Minimisation of the above ground footprint has been a consideration throughout the design development. As such, the Gatekeeper's Cottage ancillary building has been redesigned to allow for a reduced footprint with less impacts on the adjacent heritage structures including the Gatekeepers Cottage and Vice Chancellor's House on Kernot Road. The historic significance of the Gatekeepers Cottage precinct is respected and maintained as required within the Project Scope & Technical Requirements (PS&TR) and in response to commentary from respective stakeholders in previous

design stages. Further, the goods lift at the Gatekeepers Cottage has been relocated further east which provides better access to delivery bays without the cross over with pedestrians at the main entry. The design has been revised in consultation with Heritage Victoria, City of Melbourne and University of Melbourne.

In addition to the changes to the Gatekeepers Cottage design, the size of the chiller plant (above the future retail space/place of assembly) east of Barry Street has been further progressed during design development. The design has been amended at this location to minimise the footprint and at the same time maintain Mechanical Electrical and Plumbing space proofing requirements and with the integration of the water metre cupboard and gas meter cupboard.

Throughout design development, the location and route of the Tunnel Ventilation System shafts has been further developed following updated survey information of the existing carpark and structural feedback. This change has been implemented to avoid clashes and reduce risk on the reconstruction of the existing carpark.

In addition to these station architectural design outcomes, the operational elements of the project stations will also be consistent with the broader public transport system in metropolitan Melbourne. Steps have been taken to ensure architectural design allows for consistency of the new stations with the existing network, particularly in relation to station elements such as ticketing machines, ticket barriers and customer service facilities through adherence to requirements such as Metro Trains Melbourne (MTM) standards and the Project's contractual Project Scope & Technical Requirements (PS&TR). Parkville Station's architectural response also addresses the need for amenities, such as public toilets, locating them in paid zones, beyond ticket gates, similar to other stations across the network. Design development processes have been undertaken to ensure the design of the station and these operational elements work together and result in a space which is highly useable and provides seamless orientation.

The design of Parkville Station anticipates growth in Melbourne's population and any subsequent changes in activity patterns resulting from the Metro Tunnel. As such Parkville Station has been designed to meet expected 2046 patronage figures, with an additional 25% demand capacity to take into account any sharp spikes in transit use or rapid population growth. Additionally Parkville Station has been designed to not preclude the future development of the Clifton Hill to Newport line (Melbourne Metro 2) with design taking the need for this future interchange into account (the design allows for the tying in of the Clifton Hill to Newport line via the Royal Parade pedestrian underpass). While pedestrian modelling has driven the internal design of the Parkville Station and its location of entries, it has been designed in a manner to negate the need for additional entrances once the Clifton Hill to Newport line is introduced (there is however provision for a future station entry from Barry Street, directly to the Clifton Hill to Newport line platform level, should the need arise).

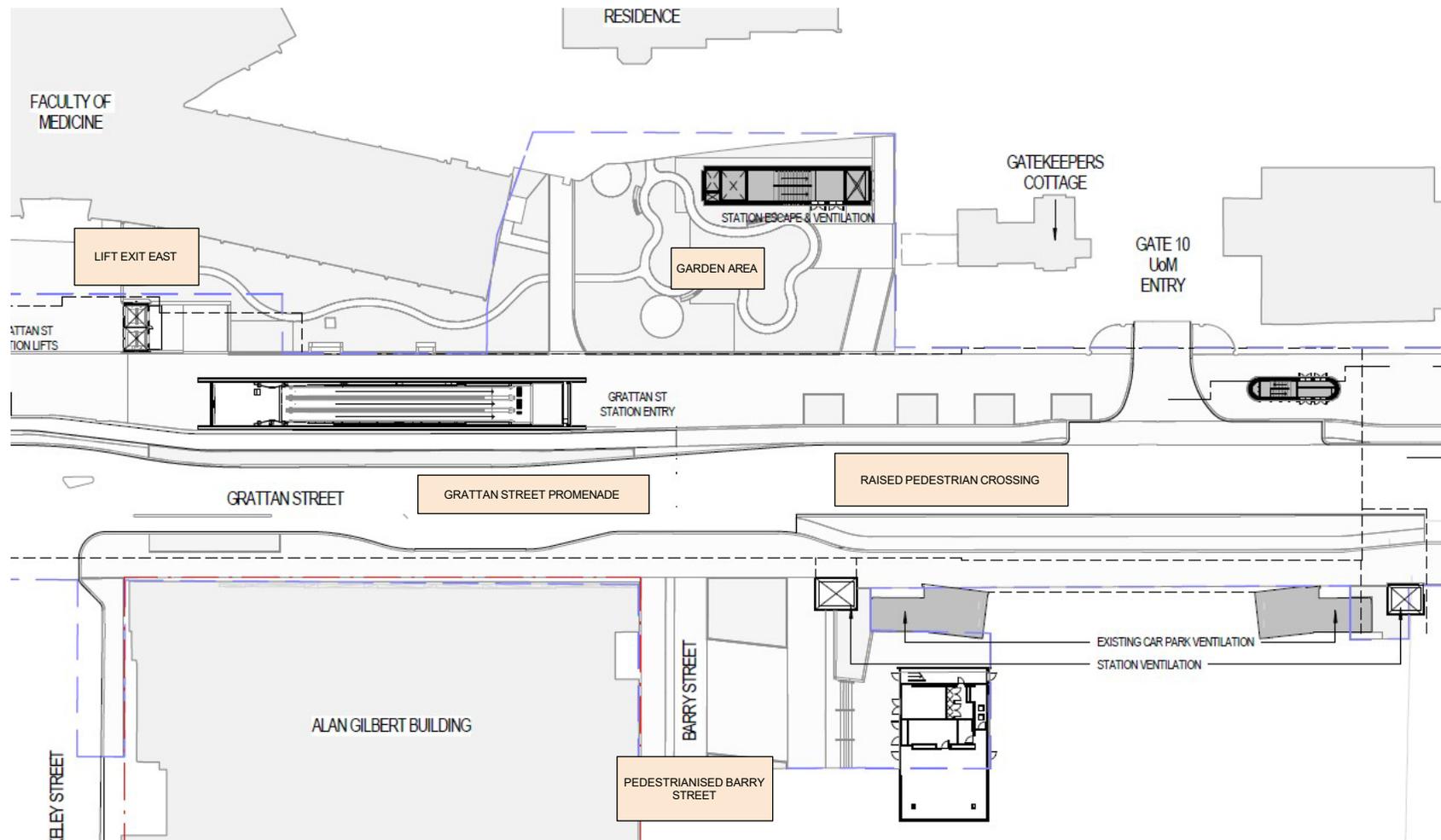


Figure 5: Parkville Station main entry

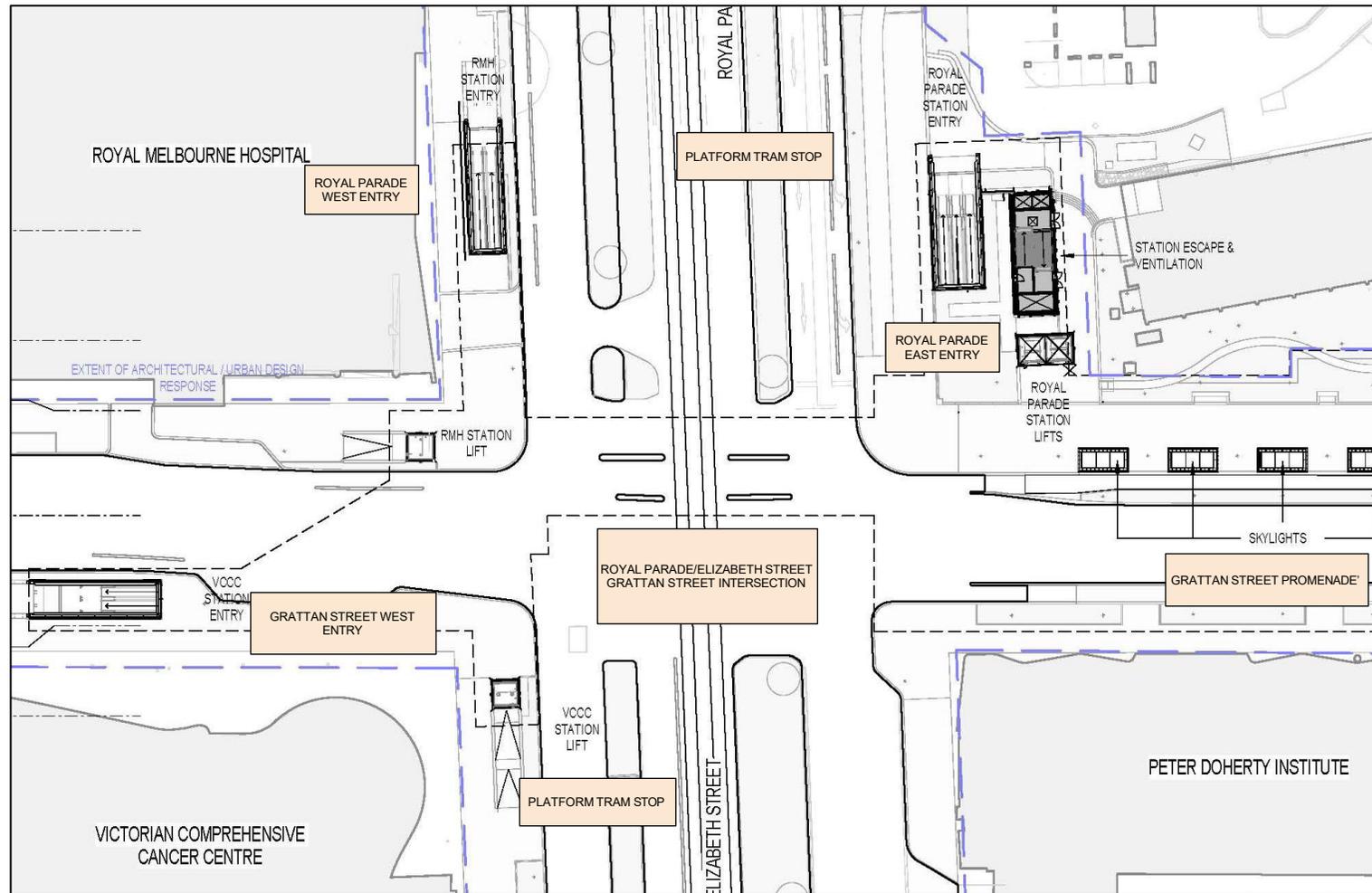


Figure 6: Parkville Station secondary entries

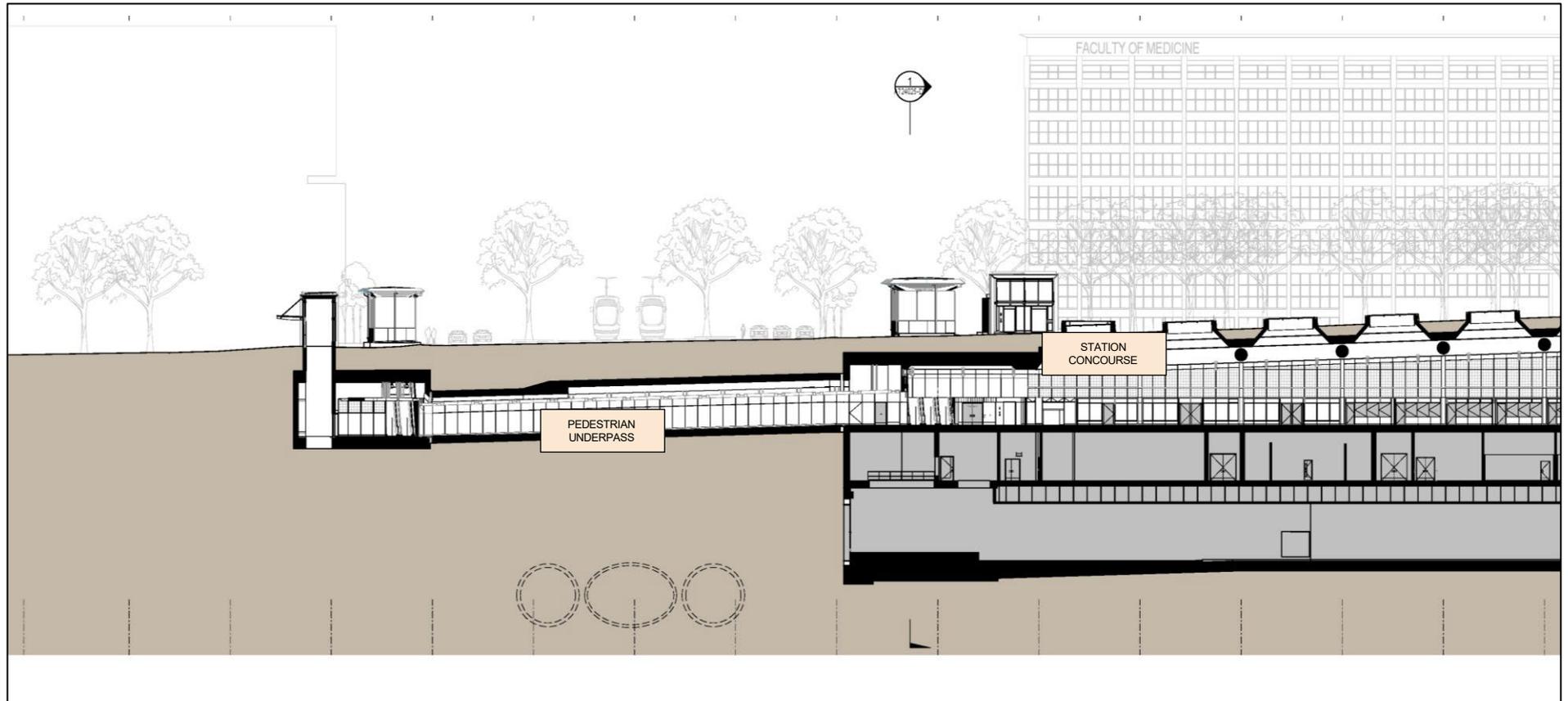


Figure 7: Parkville Station pedestrian underpass cross section looking north down Royal Parade

The relevant architectural drawings showing works at ground level are attached in Appendix B: Parkville Precinct Architectural Plans and Elevations:

- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A721000-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A721001-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A722001-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A722002-DP.

The relevant architectural drawings showing works below ground level are attached in Appendix B: Parkville Precinct Architectural Plans and Elevations:

- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A721010-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A721020-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A722011-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A722021-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A722022-DP.

The relevant architectural elevation drawings showing works at ground level and underground are attached in Appendix B: Parkville Precinct Architectural Plans and Elevations:

- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A724000-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A724001-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A724002-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A724011-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A724012-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A724024-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A724025-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A724026-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A724027-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A724028-DP
- TAS-HWW-PKV-ZWD-DRG-ARC-PKV-A724029-DP.

#### 4.3.2. LANDSCAPE RESPONSE

The landscape design response for Parkville Station addresses the Project's vision for a 'Grand Promenade' that brings nature into the city. This is addressed through integrating the new station entrances and transport interchanges with the heritage listed tree boulevard of Royal Parade, a reconfigured and reinstated Grattan Street, a partially redesigned Barry Street closed to vehicle traffic and a reconfigured University Square as per the City of Melbourne University Square Masterplan. The landscape response to the Parkville precinct will connect it with the broader network of parks in the area, including Lincoln Square, Argyle Place and Carlton Gardens.

New public realm works along Royal Parade will involve new bluestone pavements, median planting, street furniture and new tree plantings, with central vegetation plantings along Royal Parade separating tram lines from through traffic. Royal Parade will be connected to the broader network of green space, including a reinstated Barry Street and University Square, through the incorporation of trees and low lying vegetation along Grattan Street.

The design response for Grattan Street endeavours to create a comfortable micro climate for passengers, and the local community, through dense canopy tree planting, providing shade and protection from wind. This canopy of trees will be accompanied by low level plantings showcasing a range of plants used for medicinal purposes by both indigenous and western culture. The Parkville Station precinct landscape features plant species selected for their resilience to climate change.

Proposed plant species are predominantly Australian native species with low water demand characteristics. All planting areas have been designed and detailed to be supported through passive irrigation. Diversity has been achieved in plant species and planting types in accordance with the City of Melbourne Urban Forest Strategy (2012-2032) and in consultation with the City of Melbourne and the University of Melbourne.

The design of Parkville precinct includes the pedestrianisation of Barry Street and reconfiguration of University Square. This is a direct design response to the precinct vision creating spaces for innovation and engagement amongst the community. These works, undertaken in conjunction with the City of Melbourne align with the University Square Master Plan creating a new area of public open space and serving as an extension of the University Square and providing a north-south pedestrian movement from the University. At Barry Street, dense tree and shrub planting will create a comfortable micro climate.

In response to stakeholder and community concerns, removal of existing trees along Royal Parade and Grattan Street has been minimised where possible.

In the Parkville precinct there are 148 trees that require removal for the Project. In total, this is 19 less trees than identified during the EES and 50 less than was presented in the previously approved Development Plan. The proposed tree removal and retention throughout the precinct is in accordance with the Project's Ecological Management Plan. The proposed tree planting:

- Retains the heritage boulevard tree spacing, species and alignment at Royal Parade and Elizabeth Street where possible, strengthening and enhancing the existing mature Elm tree avenue
- Provides an east-west biodiversity corridor along Grattan Street through provision of tree canopy, adopting a species change during the design development and in consultation with the City of Melbourne
- Provides tree planting in accordance with the City of Melbourne Masterplan on Barry Street within the Project's scope of works
- Establishes a new botanical campus character along the University of Melbourne address to Grattan Street, with specimen tree planting proposed as part of the Rainforest Garden, the Conifer Garden and Gatekeepers Cottage Medicinal Garden.

The CYP design will reinstate trees to contribute to the Project goal of increasing overall tree canopy coverage. Additionally, water-sensitive urban design is an important aspect of the design for the Parkville precinct. Water sensitive urban design measures, such as drainage swales, grates and natural surface falls will capture and treat stormwater, providing passive irrigation and natural filtration. This is articulated on the attached drawings which show passive irrigation.

The landscape design of the precinct has been subject to some changes due to the amendments during the detailed design. This includes revising the landscape design in response to the revised architectural design of the Royal Parade east ancillary building and entry as discussed in Section 4.3.1. Further, the proposed trees and associated spacing have been refined in coordination with the utilities, civil drainage, road, furniture and cabinet locations.

The relevant landscape drawings are attached in Appendix C: Parkville Precinct Landscape Plans and Elevations:

- TAS-CYP-PV-00-DRG-AUD-PKV-720001-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722201-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722202-DP

- TAS-CYP-PV-00-DRG-AUD-PKV-722203-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722204-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722205-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722206-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722207-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722208-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722209-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722210-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722211-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722212-DP

The relevant landscape elevation drawings are attached in Appendix C: Parkville Precinct Landscape Plans and Elevations:

- TAS-CYP-PV-00-DRG-AUD-PKV-724201-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-724202-DP.

### 4.3.3. PUBLIC REALM RESPONSE

The public realm design response for Parkville Station has responded to both the project wide and precinct specific design principles to create unique and engaging public spaces. At Parkville Station, the dominant public realm areas are Grattan Street, Royal Parade and Barry Street.

Project works will require significant alteration to Grattan Street, between Leicester Street and Flemington Road, shifting the focus from motor vehicle to pedestrian movement. The design will reinstate a greener movement corridor as a legacy (a potential prototype that could be extended by the City of Melbourne further along Grattan Street to Swanston Street in the future). The design features safer bicycle lanes, one lane of traffic in each direction and bus stops. Trees will also be reinstated, and planting will capture and treat stormwater.

Grattan Street has been reduced to a single lane carriageway in each direction, to allow for wider pedestrian footpaths, bicycle lanes and public realm. This ties into the overall project vision to provide a 'Grand Promenade' amongst prominent institutions. In addition, this allows for an on-road bike lane in each direction. Space for seating, social interaction, street furniture and embedded art will become a focus of the street. Grattan Street will contain a series of garden 'rooms' for social gatherings and planted gardens, providing an activation of the public realm to be enjoyed by the local community.

Throughout the detailed design, the design of the public realm on Grattan Street has seen a number of changes in consultation with the relevant key stakeholders. The fragmentation of public realm around the proposed skylights to the west of the main entry was raised as a concern by the City of Melbourne and the University of Melbourne. The streetscape design has been updated to address the issue of fragmentation and increase permeability in the public realm. Further, the amended design has looked for opportunities to increase the public realm as much as practicable. As such, the public realm extent has increased at Gate 10 following the relocation of emergency / loading bays and bus bays further east. Additionally, the public realm design has been updated to the east of Gate 10 in response to the revised ancillary fire stairs and goods lift. The incorporation of separated bike lanes on Grattan Street has also led to adjustments to surface materials, furniture and tree placement, planting and coordination with civil.

In accordance with the University Square Master Plan, Barry Street will be pedestrianised as part of the road reconfiguration, with the new public open space providing a conduit for social gatherings and interactions. The street arrangement will include pavements for movement on either side, including a

bicycle path on the western edge. Service vehicles will still be able to use this route to access buildings along Barry Street.

Ancillary structures related to the Metro Tunnel, to include the chiller plant and ventilation shafts, will be integrated into a new retail space/place of assembly on University Square and adjoin the existing car park entry structures. This ensures that the elements are not visually prominent, and are disguised by additional public realm features. As mentioned in Section 4.3.1, the design footprint has further been reduced at this location leading to an increased public realm. The interface of Barry Street with the University Square, and the integration of ancillary structures, will be coordinated with the City of Melbourne, to ensure the design is well integrated and provides an inviting future streetscape.

An open space plaza is provided north of Barry Street, adjacent to the Gatekeeper's Cottage. This public space provides a north south link between the pedestrianised Barry Street and the proposed enhanced Professors Walk pedestrian corridor. The north-south pedestrian movement is facilitated by the new raised pedestrian crossing over Grattan Street. The design of the public realm around the Gatekeepers Cottage has been revised throughout the detailed design and in consultation with the City of Melbourne. The aim has been to maintain the views through to the Gatekeepers Cottage and Vice Chancellor's House from Grattan Street. An Australian Medicinal Garden is proposed at the Gatekeepers Cottage which references the heritage and materials around the Gatekeepers Cottage.

The design of the public realm at the Faculty of Medicine entry has been revised in the amended design and in response to issues that were raised by the University of Melbourne. The updated design presents a generous plaza entry space which includes proposed tree planting and furniture, and provides for University signage to be located. The City of Melbourne and the University of Melbourne have been consulted regarding the revised design.

Further to the above, the amended design includes a number of amendments to the public realm design to mitigate the potential flood level impacts. Specifically, on Grattan Street West, the streetscape has been integrated with the revised flood levels as a result of stormwater flood modelling. The design of Royal Parade East lifts on Grattan Street East has further been refined to mitigate flood level impacts on public realm. Several design options were investigated to ensure the impacts are mitigated as much as possible. The selected option allows at grade access to be achieved to the lift without handrails.

To help activate the public realm, the Chiller Plant retail space/place of assembly is provided in the precinct at University Square. The station concourse level will be lined with retail tenancies, helping activate the underground space as well as provide passive surveillance. This is particularly relevant at the western entries which are beyond direct line of sight from the ticket gate, station operations and customer service staff. Retail will also play a part in activating the public realm above ground.

The relevant public realm drawings listed below are attached in Appendix D:

- TAS-CYP-PV-00-DRG-AUD-PKV-720001-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722101-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722102-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722103-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722104-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722105-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722106-DP
- TAS-CYP-PV-00-DRG-AUD-PKV-722107-DP.

#### 4.3.4. COMMUNITY EXPERIENCE

The Parkville precinct has been designed to allow seamless movement through both the station and public realm, with particular emphasis given to the prominent institutions located within the precinct.

Works within the Parkville precinct present an opportunity to transform Grattan Street into a 'Grand Promenade', strengthening the pedestrian movement focus of the area. The precinct is located at the intersection between Grattan Street and Royal Parade, a space that has a high concentration of pedestrian and cyclist movement. Existing conditions at the site focus on public transport connections between the tram and bus network, and access to the existing medical and education institutions. There is also a high proportion of emergency and private vehicle access to services and businesses within the precinct.

The CYP design for Parkville precinct will transform this space to prioritise pedestrians and cyclists and their access to the station, whilst also taking into account access requirements for the various institutions located within the precinct.

Upon project completion, on Day 1, the Parkville precinct will:

- Be integrated into the broader pedestrian network via existing pedestrian paths along Grattan Street, Royal Parade and Elizabeth Street, including an unpaid pedestrian underpass under Royal Parade
- Have cyclist access through the precinct. New on-road cycle paths will be provided in both directions along Grattan Street and Royal Parade, improving the existing cycling safety conditions. These paths will tie into the existing cycle paths beyond the precinct boundary. The provision of cycle paths enhances the existing connections to surrounding bike routes, such as the Capital City Trail. Bicycle parking spaces are provided in several locations within the precinct, providing cyclists the opportunity to easily access transport services. Bike Share facilities will also be provided within the precinct
- Integrate with the existing public transport provided within the precinct, providing connections to further destinations within Melbourne. The precinct area is currently serviced by 11 tram and six bus routes. Direct interchange is provided from the station entries to the existing tram and bus stops
- Allow users to access the new station at Parkville from multiple locations, via escalators or lifts. Four sets of escalators are provided throughout the precinct. A set of escalators is provided on either side of Royal Parade, just north of the intersection with Grattan Street. A further set of escalators is provided on Grattan Street West and Grattan Street East. Lifts are provided in five locations across the precinct. One lift is located on Grattan Street West, and three are located on Grattan Street East. A further lift is located on Elizabeth Street and another on Royal Parade. Mobility impaired users will be able to get from the station entrance to the platform, step free
- Station concourse and train platforms located underground that feature natural light from the skylights positioned along Grattan Street. As mentioned in Section 4.3.1, the most western skylight on the north-east corner of Grattan Street and Royal Parade has been removed in the amended design which provides for additional public realm. The unpaid concourse area will feature station facilities such as ticket machines and retail tenancies. The station has been designed to reduce the need for signage, encouraging intuitive wayfinding through the station
- Provide integration with the proposed City of Melbourne University Square masterplan, by pedestrianising the north end of Barry Street and providing a smooth tie-in of pedestrian connections to University Square.

Figure 8 provides a visual illustration of the user experience design.

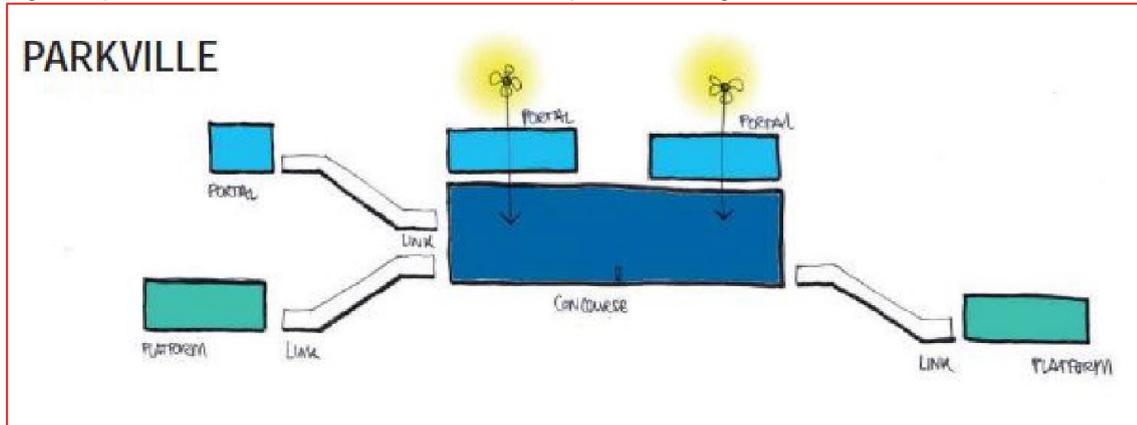


Figure 8: Parkville station user experience design

#### 4.3.4.1. UNIVERSAL ACCESS

Universal access vehicle bays for disabled parking have been incorporated into the amended design of the Parkville precinct (refer to Figure 11). They have been provided on Grattan Street near the main entrance, on Berkley Street west of the Alan Gilbert Building, and on Royal Parade. Kiss-and-ride bays are also located on Grattan Street West. There is step-free access to the station platform, via the various lifts located throughout the precinct. These features ensure that all precinct users can access the station regardless of physical ability on opening and into the future.

#### 4.3.4.2. PEDESTRIAN ACCESS

The Parkville precinct has been designed with a focus on pedestrian movement. This is reflected in design where pedestrian movement has been prioritised through the provision of an unpaid pedestrian underpass beneath Royal Parade, the pedestrian promenade along Grattan Street and the creation of a new public realm garden area adjacent the Vice Chancellor's House and Gatekeeper's Cottage. Additionally the closure of Barry Street to motor vehicles, undertaken in conjunction with the City of Melbourne, further highlights the pedestrian prominence in the design process for the Parkville precinct.

These elements of the design, in addition to entry location, have been designed to orientate passengers towards specific destinations, such as Royal Melbourne Hospital, facilitating pedestrian movement away from the busy intersection of Grattan Street and Royal Parade. This design aspect, in addition to the underpass, will greatly improve pedestrian movement and safety in the Parkville precinct.

Station entries have been designed to provide convenient and easy access for passengers of all abilities, with each entry featuring both an escalator and lift. This ensures an adequate level of service provision for mobility impaired passengers who will not have to cross traffic lanes or travel unnecessary distance to reach the station concourse.

The design of the precinct has taken into consideration the potential restructuring and development of north-south pedestrian movement corridors into and through the University campus. This is demonstrated through the design of the precinct which incorporates a new public realm garden area adjacent the station entry and the closure of Barry Street (undertaken in conjunction with the City of Melbourne). This is enhanced by the raised pedestrian crossing which links the station entry and public realm garden area with Barry Street and University Square, reinforcing the pedestrian prominence in the precinct design.

The design anticipates an increase in the number of pedestrian movements through the precinct, due to the station's presence. This has been taken into account, with widened pedestrian areas provided

on both sides of Grattan Street. Additionally the design of station entries has been informed by pedestrian modelling informing the location and number of escalators.

The four on-grade pedestrian crossings at the intersection of Grattan Street and Royal Parade have all been increased from three to six metres wide. In addition, north-south pedestrian crossings along Grattan Street at Berkeley, Barry and Leicester Streets have all been signalled to promote pedestrian connectivity and improve pedestrian safety.

The pedestrian movement network through the Parkville precinct is shown in Figure 9.

#### 4.3.4.3. BICYCLE ACCESS

Improving the cycling network and encouraging active transport intermodal connection with the Metro Tunnel is an important objective. The existing shared path along the north side of Grattan Street creates conflict between pedestrians and cyclists, and is not appropriate to achieve comfortable pedestrian conditions in an active station precinct. The Parkville precinct amended design provides dedicated bicycle lanes on Grattan Street comprising a combination of on-road separated and raised bicycle lanes, the physical separation barrier kerbs are only able to be provided in short lengths due to access requirements for DDA parking, drop-off bays and ambulance access. In addition, dedicated separated bicycle lanes will be maintained along Royal Parade and Elizabeth Street.

The Parkville precinct design will provide 504 bicycle parking spaces. A space for Bike Share parking and access will be provided at the corner of Royal Parade and Grattan Street.

Amendments to the road design of Grattan Street has led to the relocation of bicycle parking spaces. The amended design has also led to changes to the bicycle parking locations on Royal Parade and Elizabeth Street. This includes the rotated bicycle hoops on Royal Parade east to parallel to kerb as well as revised bicycle share locations. Those changes have been made to achieve compliance with *Australian Standard AS2890*. 200 future bicycle parking spaces have also been introduced.

The bicycle parking on Barry Street has been relocated to the south to allow a planting edge along Grattan Street footpath. This change ties into the City of Melbourne University Square Masterplan.

The improved bicycle infrastructure will make cycling in the precinct, and to the station safer and more convenient. The bicycle movement network through the Parkville precinct is shown in Figure 10.

#### 4.3.4.4. TRANSPORT INTEGRATION

The Parkville precinct has been designed with a transport modal hierarchy focusing generally on pedestrians, followed by cyclists, public transport, service vehicles and finally the private automobile.

This modal hierarchy is reflected in the design of the public realm, where pedestrian movement has been prioritised. Examples of this include the provision of an underpass beneath Royal Parade, the closure of Barry Street to motor vehicles and its raised pedestrian crossing linking it to the new public realm garden area adjacent the Vice Chancellor's House and Gatekeeper's Cottage. Aspects of the precinct design highlighting the pedestrian focus are discussed in Section 4.3.4.2.

Integration of the cycling network with the station is demonstrated through the presence of new bicycle lanes, bicycle parking and bike share facilities, in direct vicinity of station entries. Providing for cycling, and the integration of facilities in the station public realm will encourage University students, and local residents alike, to ride to the station rather than use other transport means. Aspects of the precinct design highlighting the consideration for cycling in design is discussed in Section 4.3.4.3.

The Parkville precinct wider area is currently serviced by 11 tram and six bus routes. The design of the station has taken this into account, with a station entry located on the northeast side of Royal Parade providing direct interchange with the upgraded southbound tram stop on Royal Parade. The northbound tram stop is accessible via interchange from the station using the underpass below Royal Parade, providing weather protection for interchange passengers and avoiding delay surface level pedestrian crossings. Providing intermodal interchange with this stop, which is to be upgraded to a platform stop offering higher levels of passenger amenity including shelter, service information, and universal access, directly meets the Urban Design Strategy objectives. The development of the

Royal Parade tram stop into a upgraded platform tram stop will permit ambulance access from Royal Parade southbound tram tracks into the Royal Melbourne Hospital ambulance entrance, with the Royal Parade northbound tram platform shifted south of Grattan Street intersection to Elizabeth Street.

Bus services will enjoy a high degree of integration with the new station. Shelters for passengers awaiting bus services have been integrated into the design of Grattan Street, providing passengers with respite from weather and clear identification of service location.

Service vehicles have been accounted for in the design of the precinct with on-street loading bays provided on Grattan Street. Emergency and maintenance vehicles will still be able to access Barry Street despite its closure to general traffic.

The private vehicle has been facilitated for with the provision of kiss-and-ride and taxi bays integrated into the public realm. Importantly, prioritisation has been given to zones in the street for emergency access and egress to the Royal Melbourne Hospital.

Transport provision in the Parkville precinct is shown on Figure 11.

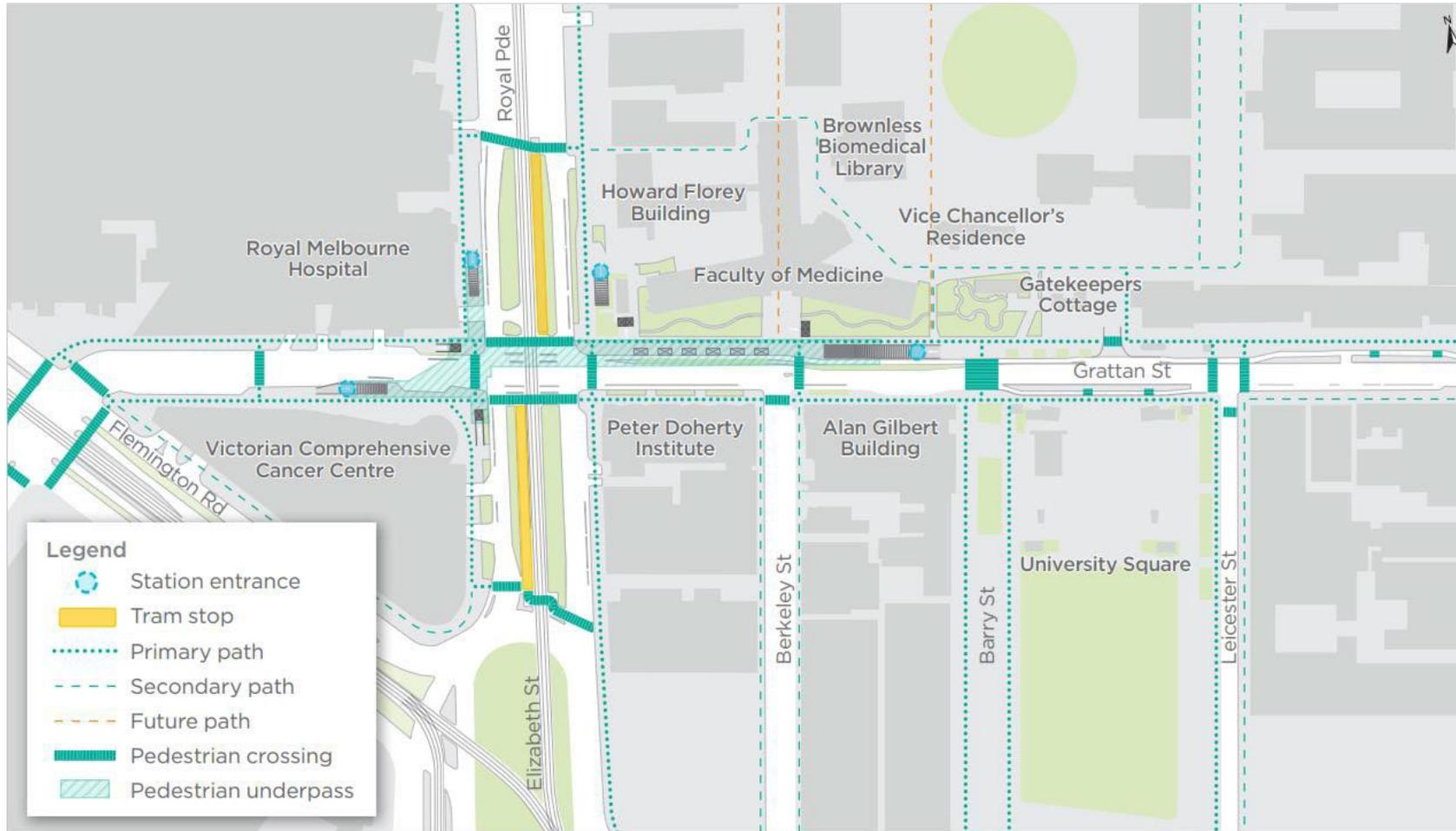


Figure 9: Pedestrian network at Parkville precinct

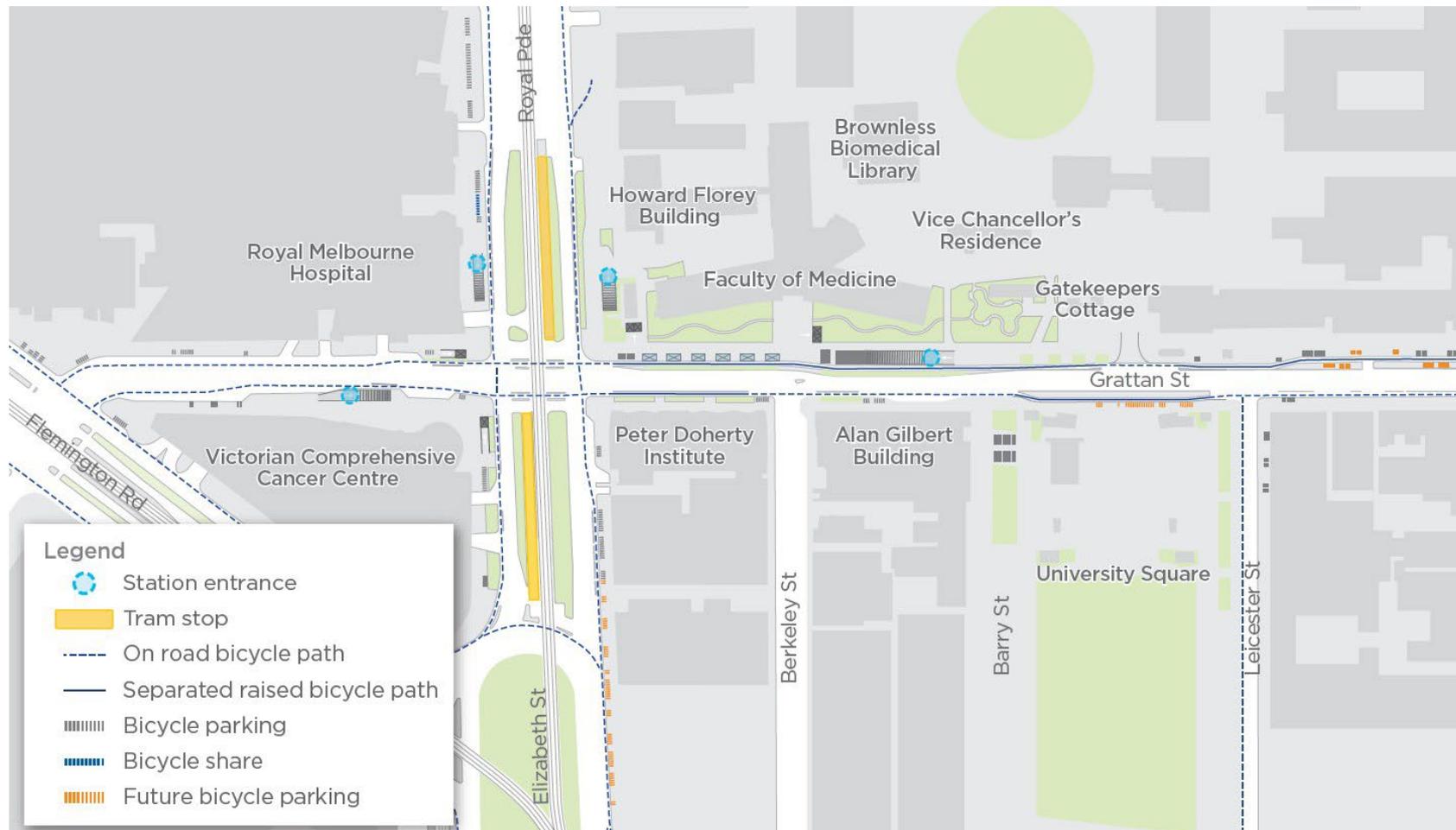


Figure 10: Bicycle facilities at Parkville precinct

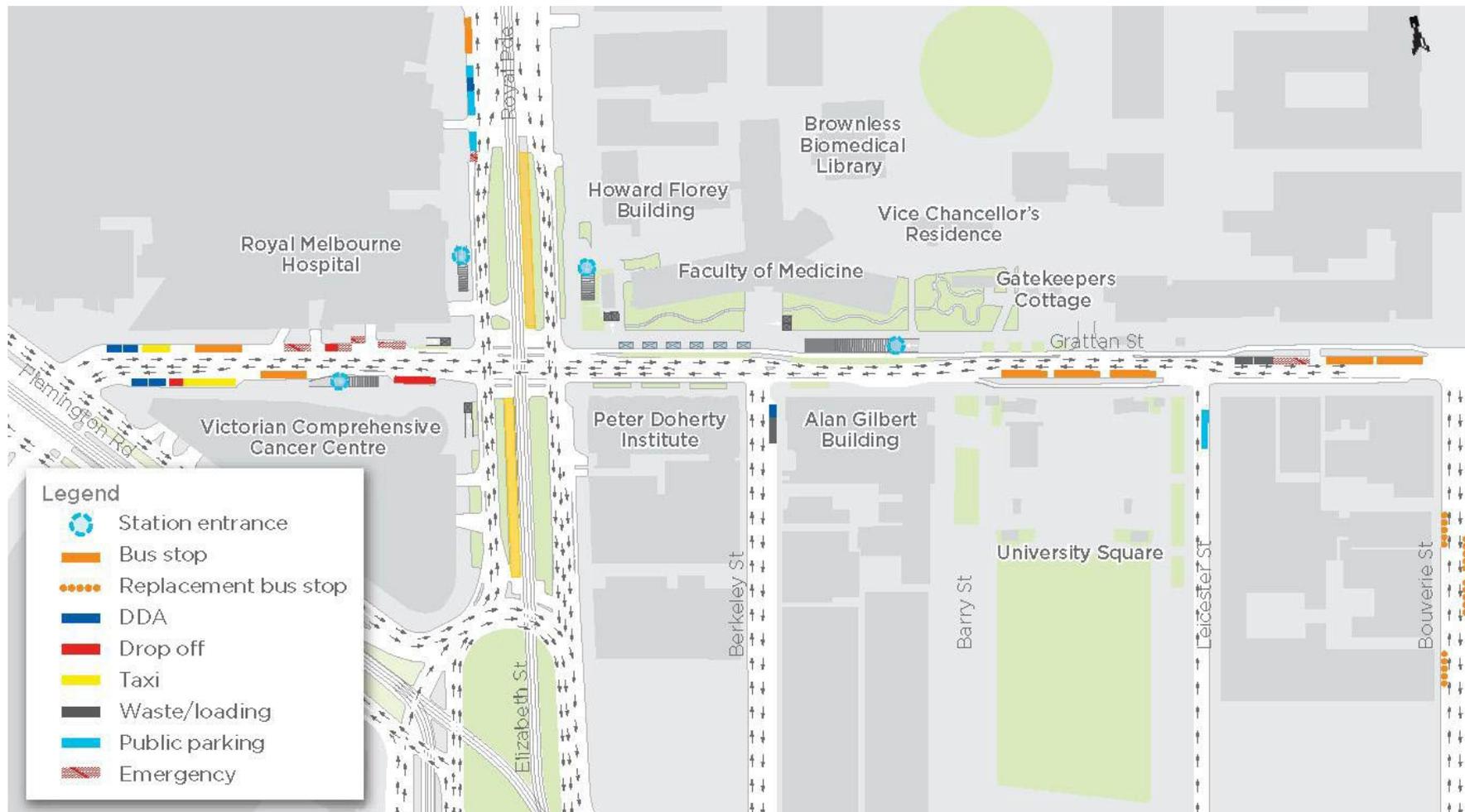


Figure 11: Transport integration at Parkville precinct

### 4.3.5. LIGHTING

The public realm lighting is designed with deliberate consideration of the experience of those visiting the station and its surrounds, recognising that the precinct is a key part of the passenger's journey, and presents the public face of the station. The lighting will intuitively guide passengers in their journey from the streets, into the station environs and entrances.

Street and pathway lighting will be provided by pole-mounted lighting, at a scale and form to suit the purpose and local context. Street furniture and light wells will have localised, low level lighting, inviting passengers to spend a moment interacting with the precinct and the local community.

The Station entrances will act as beacons in the streetscape, clearly guiding customers into and out of the stations.

During detailed design, additional details have been provided regarding lighting specifications. The location of the proposed lights are shown in the amended public realm plans in Appendix D: Parkville Precinct Public Realm Plans.

### 4.3.6. SIGNAGE

Careful effort has been taken in planning and designing the stations to reduce the amount of signage required. Internal and external spaces have been designed to support intuitive movement where reliance on signage is kept to a minimum. Signage is presented in a logical sequence based on providing the right information, at the right time and in the right place.

A family of sign types will be developed and applied consistently across all stations and their precincts. Signs are categorised into four main functional groups including: identification signs, directional signs, information signs and statutory signs.

The signage system will be designed using the PTV signage guidelines as a basis. This ensures a system that is consistent, predictable and recognisable to users. A combination of static and digital signage has been used to provide an element of permanence and consistency, while allowing the flexibility to change and adapt where necessary.

For the departing passenger, stations will be identifiable from a distance by a 5 metre high illuminated station marker sign located at street level. Entrances to the stations will be identified with a legible city totem and station name sign above all station entry points. At the concourse level, directional signs will highlight the location of station facilities, and direct passengers down to departing platforms. Once on the platform, information for departing passengers will be contained within and above the platform screen doors.

For a passenger arriving on the train, station names located trackside and along the platform will confirm arrival at the station. After alighting, 'way out' signage will direct passengers to the nearest escalators/stairs and lifts. Signage content on the platform is kept to a minimum to promote easy decision making and ensure passengers exit safely and efficiently from the platform. At the concourse level, directional signage clearly indicates where each of the exit points are located, and which street (and institution where relevant) each of the escalators/stairs and lifts lead to. Exit guides (in the form of a map) provide further information for passengers requiring more detail. At street level, a legible city totem is located close to all exit points to help passengers locate key destinations and nearby tram and bus stops.

Drawing TAS-CYP-PV-00-DRG-AGE-PKV-721101-DP in Appendix B provides an illustration of where signage will be located.

### 4.3.7. ANCILLARY FEATURES

The following ancillary station infrastructure has been incorporated into the public realm:

- Emergency egress – Located on Grattan Street east of the Gate 10 University entry and adjacent the station entry on the eastern corner of Royal Parade and Grattan Street
- Station vent structure – Incorporated into the public realm on Grattan Street east of the Gate 10 University entry, in the new garden area adjacent the Gatekeeper’s Cottage, adjacent the station entry on the eastern corner of Royal Parade and Grattan Street and within University Square at the corner of Grattan and Barry Streets
- Station chiller plant – Located within University Square incorporating a retail space/place of assembly.

The design of ancillary features has been undertaken to reduce their potential impact on sightlines and vistas to significant landmarks. As discussed in Sections 4.3.1 and 4.3.3, the design of the ancillary features has further been revised during the detailed design to minimise their footprint as much as practicable. The location of these ancillary features separates these structures from the Grattan Street promenade, ensuring its prominence in the public realm.

#### 4.3.8. MATERIALS AND FINISHES

A palette of indicative materials and finishes has been prepared to highlight the intended colour tones and textures of the Parkville precinct. Materials such as bluestone and granite have been carefully selected as part of the station’s design to reflect the surrounding cultural historical heritage. Other finishes, such as concrete, glass and steel are reflective of other project stations and strengthen the line wide identity.

As part of the detailed design and within Barry Street and University Square, the Parkville landscape design responds to the University Square Masterplan materials and details. The proposed materials include asphalt paving and bluestone channel detail on Barry Street, and concrete paving within University Square as per the University Square Masterplan.

Figure 12 provides indicative materials and finishes for the Parkville precinct. In the amended design, further details have been provided for materials and finishes as shown in Appendix D: Parkville Precinct Public Realm Plans. The detailed design process has progressed and led to minor amendments to materials and finishes, including a station wide colour update with an addition of the colour blue to the portal entry and stainless steel finish to the ancillary vent.

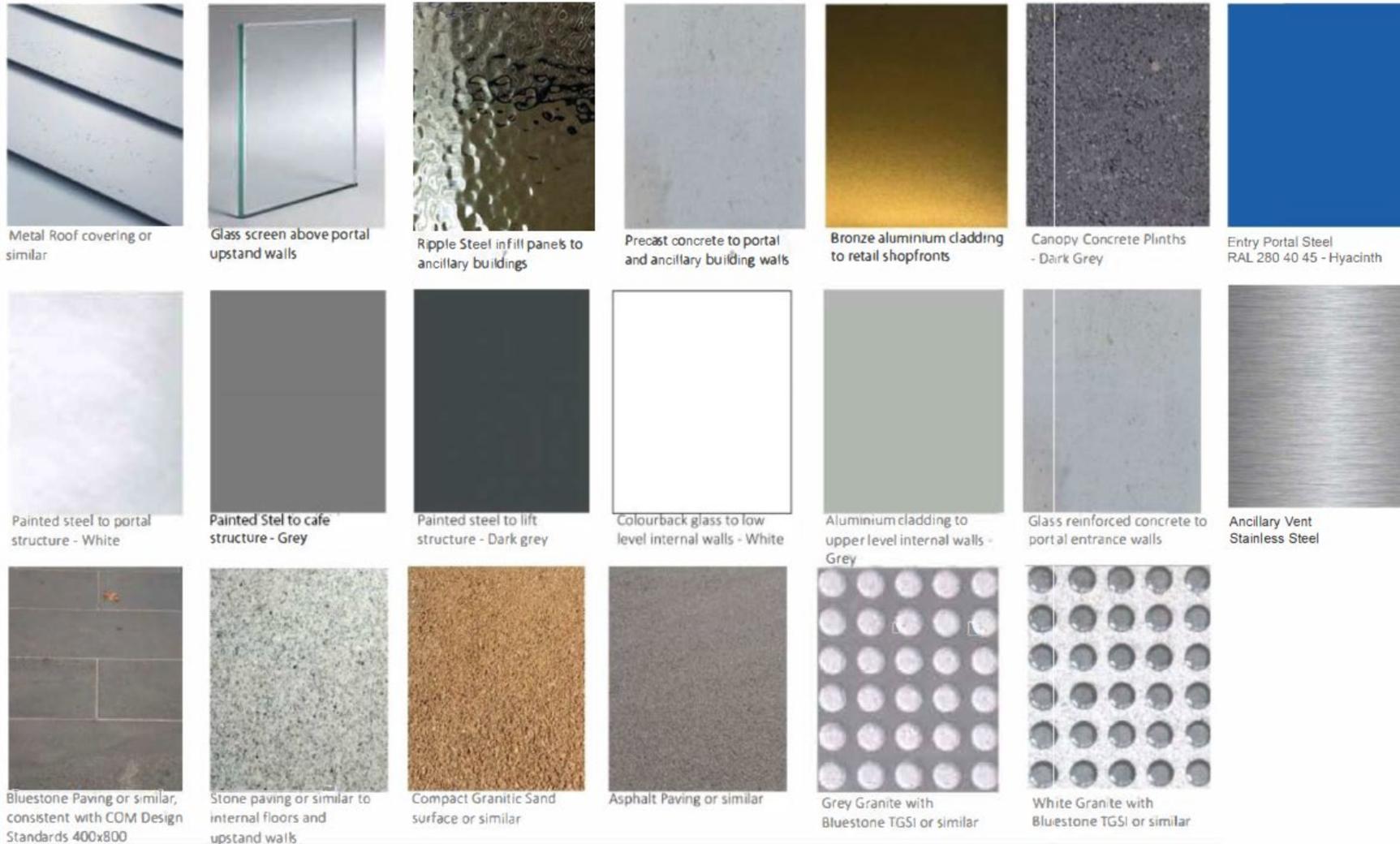


Figure 12: Indicative material and finishes palette for Parkville Station

#### 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 Crime Prevention through Environmental Design (CPTED). During the design development, CPTED assessments and workshops have been undertaken with CPTED specialists to ensure that a safe and defensible environment is provided for the public using the Parkville Station and its environ.

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. To achieve this, design initiatives integrated into the Parkville precinct include the use of walls, footpaths, landscaping and lighting to:

- Clearly guide the public to and from specific entrances and exits
- Prevent or discourage public access to or from dark or unmonitored areas
- 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. This is sometimes also referred to as “eyes on the street”. Design features of the Parkville precinct which have been employed to increase natural and passive surveillance include:

- Design and placement of physical features to maximise visibility
- Plantings to be selected to maximise visibility via high-canopy trees, and low growing shrubs and ground covers (less than 500 millimetre high)
- Placement of persons or activities to maximize surveillance possibilities, such as commercial retail units which encourage persons to linger in the vicinity, helping underpin perceptions of safety.
- 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. While not necessarily required for the Parkville precinct given its status as a public building, simple design measures have been employed to reduce the potential for anti-social behaviour including:
- Reinforcing existing natural surveillance and natural access control strategies with additional symbolic or social ones to enhance a feeling of legitimate ownership
- Designing a space to accommodate long-term and continued use and to fit its intended purpose
- Using pavement treatments, landscaping, art, signage, screening and fences to define and outline ownership of space.

These principles of CPTED have been adopted in the Parkville precinct to ensure the space not only feels safe but is safe. The physical qualities of the precinct are important to establish the invitation for people to use the public spaces. The invitation to enjoy and spend time in the public spaces associated with Parkville Station helps to underpin perceptions of safety. People watching people and passive surveillance ensure an underlying feeling of safety and inclusiveness. Each station’s relationship to its surrounding precinct differs, with Parkville Station configured to allow natural pedestrian flows from both the existing hospitals, residential and university areas and future redevelopment within the precinct. This helps to guide and manage pedestrian access while providing natural or passive surveillance qualities to Parkville precinct. The Day One invitation to spend more time in the space assists with a key CPTED principle of encouraging passive surveillance into and within the space.

The following considerations have been made in the design:

- The Parkville station entry points have been sited and deigned to provide clear sightlines from Grattan Street, Royal Parade and Barry Street
- University Square and Grattan Street public realm garden area will be a highly active space which will provide good passive surveillance
- Quality and uniform lighting throughout public spaces, including the pedestrian underpass which has been designed to create passive surveillance at station entry and exit points and facilities
- Planting will be selected to maximise through visibility via high-canopy trees, and low-growing shrubs and ground covers (under 500mm high).

The Day One invitation to spend more time in the space assists with a key CPTED principle of encouraging passive surveillance into and within the space.

Furthermore, the indicative location of protective bollards is shown in the hardscape plans detailed in Appendix D: Parkville Precinct Public Realm Plans. The design and location of the bollards will be confirmed in consultation with the City of Melbourne. Both removable and permanent bollards are proposed to provide protection of pedestrians in the public realm whilst allowing flexibility for access requirements, events and other uses.

A CPTED review of Parkville precinct has been undertaken since the Parkville Precinct Development Plan was approved by the Minister for Planning on Thursday 22 March 2018. The outcome of this review indicated a number of CPTED issues in relation to the design. Those issues and associated response strategies are discussed below.

Table 6 – CPTED issues and relevant response strategies

Issue	Response strategy
Safe Zones at Platform ends	Implement additional safe zones at the platform ends (located furthest from central pedestrian routes) for mobility impaired and lone travellers to act as a deterrent to criminal behaviour in the identified key risk areas
Platform Lighting	Lighting plan to design (in uniform lighting along the platform) to allow for recognition of a person’s face at a minimum distance of 15m
Bins in Station	<ul style="list-style-type: none"> <li>• Bins in Station: Transparent bins and liners</li> <li>• Locate bins away from key structural elements</li> </ul>

## 4.4. CONSISTENCY WITH 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 7.

Table 7 – Summary of RPV’s Environmental Management Framework

Topic	Summary
Contract structure	Outlines the RPV procurement strategy which includes different delivery packages including an Early Works Managing Contractor, Tunnels & Stations Public Private Partnership (CYP), Rail Infrastructure Alliance and Rail Systems Alliance
Roles and responsibilities	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.
Environmental management plans and documentation	Provides the requirements for project contractors to have an Environmental Management System, Development Plans, Early Works Plan/s, Construction Environmental Management Plan, Operations Environmental Management Plan, Transport Management Plan/s, Business Disruption Plan, Construction Noise &

Topic	Summary
	Vibration Management Plan, Site Environmental Implementation Plans, Work Method Statements and records and checklists.
Evaluating environmental performance	Provides the requirements for project contractors in relation to monitoring, reporting and auditing environmental performance.
Environmental Performance Requirements (EPRs)	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.
Residential Impact Management Guidelines	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.
Business Support Guidelines for Construction	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.

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 works in the Parkville precinct. 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 Incorporated Document and EPRs). This has been 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 has been subject to separate stakeholder consultation requirements and review by the Independent Environmental Auditor
- Geographically-specific – location specific requirements that are not in the Parkville precinct have been addressed in the relevant precinct Development Plan
- Specific to another project contractor – compliance by other project contractors (e.g. Early Works Managing Contractor) has been addressed in the relevant environmental management documentation of that project contractor.

An assessment of each EPR is provided in Appendix F: Parkville Precinct Environmental Performance Requirements assessment. This identified key EPRs relevant to this Development Plan and these are presented below.

#### 4.4.1. AQUATIC ECOLOGY AND RIVER HEALTH

Table 8 provides the CYP design response to the relevant aquatic ecology and river health EPRs.

Table 8 – Design response to relevant aquatic ecology and river health EPRs

EPR	Design Response
EPR AE1: Stormwater treatment	The design of the Parkville precinct was developed in consultation with Melbourne Water and the City of Melbourne.
EPR AE7: Stormwater treatment	Water sensitive urban design (WUSD) principles have been integrated into the Parkville precinct design ensuring stormwater entering water bodies complies with the relevant Environmental Performance Requirements (EPR AE1 and AE7). In meeting these requirements, the project design has implemented objectives of the 2015 City of Melbourne Integrated Water Cycle Management (IWCM) plan, which identifies the Parkville precinct as part of the Elizabeth Street stormwater catchment area. Design measures in accordance with this plan seek to:

EPR	Design Response
	<ul style="list-style-type: none"> <li>• Reduce flood risk in lower elevated areas of Elizabeth Street</li> <li>• Increase soil moisture</li> <li>• Mimic the natural water cycle by retaining more rainwater in the upper section of the catchment (i.e.the Parkville area) and reduce stormwater runoff</li> <li>• Provide passive irrigation to plants reducing potable water demand.</li> </ul> <p>In order to meet these objectives and satisfy the relevant Environmental Performance Requirements (EPR AE1 and AE7), the following design measures have been implemented in the Parkville precinct design:</p> <ul style="list-style-type: none"> <li>• Bio-retention landscaped areas which detain stormwater and help flood management in times of heavy rainfall have been provided in areas which receive a high stormwater runoff</li> <li>• Increasing the amount of vegetated surface area across the precinct by approximately 880 square metres (44%) allowing for greater natural rainfall infiltration</li> <li>• Provision of tree pits containing large soil volumes providing passive irrigation.</li> </ul> <p>Further, the amended design includes a number of amendments to the public realm design to mitigate the potential flood level impacts. Specifically, on Grattan Street west, the streetscape has been integrated with the revised flood levels as a result of stormwater flood modelling. The design of Royal Parade east lifts on Grattan Street east has been further refined to mitigate flood level impacts on public realm.</p> <p>Drawings TAS-CYP-PV-00-DRG-AUD-PKV-722201-DP through to TAS-CYP-PV-00-DRG-AUD-PKV-722207-DP show the location of these planted and vegetated areas across the Parkville precinct.</p> <p>The design of water sensitive urban design is shown on the landscape plans in Appendix C: Parkville Precinct Landscape Plans and Elevations.</p>

#### 4.4.2. ARBORICULTURE

Table 9 provides the CYP design response to the relevant arboriculture EPRs.

Table 9 – Design response to relevant arboriculture EPRs

EPR	Design Response
EPR AR1: Maximise tree retention	<p>The design of the Parkville precinct has been developed in consultation with Heritage Victoria, University of Melbourne and City of Melbourne.</p> <p>In the Parkville precinct there are a maximum of 148 trees that require removal for the Project. In total, this is 19 less trees than identified during the EES and 50 less than was presented in the previously approved Development Plan. This reduction in tree removal has arisen from changes to the station design including a new station entrance on Royal Parade, the nature and location of services within the university grounds, and clarifying the Project’s tree removal requirements within university land and on University Square.</p> <p>Where tree removal can be avoided, this has been achieved through the modification of the station box below Grattan Street and the placement of ancillary structures and street furniture in areas clear of existing vegetation. However there are trees that the removal of is unavoidable. These include:</p> <ul style="list-style-type: none"> <li>• Grattan Street – elm trees require removal along this street, for the construction of the station box. The CYP design has retained as many of the existing elms as possible, through modification of the station box</li> <li>• Royal Parade – Elm trees along Royal Parade / Elizabeth Street require removal for the development of an upgraded platform tram stop.</li> </ul> <p>The proposed tree removal and retention throughout the precinct is in accordance with the Project’s Ecological Management Plan. The proposed tree planting:</p> <ul style="list-style-type: none"> <li>• Retains the heritage boulevard tree spacing, species and alignment at Royal Parade and Elizabeth Street where possible, strengthening and enhancing the existing mature Elm tree avenue</li> </ul>

EPR	Design Response
	<ul style="list-style-type: none"> <li>• Provides an east-west biodiversity corridor along Grattan Street through provision of tree canopy, adopting a species change during the design development and in consultation with the City of Melbourne</li> <li>• Provides tree planting in accordance with the City of Melbourne Masterplan on Barry Street within the Project's scope of works</li> <li>• Establishes a new botanical campus character along the University of Melbourne address to Grattan Street, with specimen tree planting proposed as part of the Rainforest Garden, the Conifer Garden and Gatekeepers Cottage Medicinal Garden.</li> </ul> <p>The retained, removed and reinstated trees are shown on the landscape plans in Appendix C: Parkville Precinct Landscape Plans and Elevations.</p>
EPR AR2: Tree soil and water supply	<p>The design of the Parkville precinct identifies soil zones for tree planting. At Parkville, trees will be planted in several different conditions:</p> <ul style="list-style-type: none"> <li>• Directly in garden bed or lawn areas where there will be natural large soil volumes</li> <li>• In paved areas – where tree pits with structural soil systems allowing soil volume to be created below the pavements. These will typically also allow stormwater to enter the tree pit providing passive irrigation and water treatment</li> <li>• Above station structure. These trees will have approximately 1.5 metre soil depth, with subsoil drainage, irrigation and structural soil pits where the surface is paved.</li> </ul> <p>Tree pits in paved areas will have an indicative size of 3 metres wide by 6 metres long by 1.2 metre depth, with structural soil cell system, which allows uncompacted soil to be placed under ridged surface pavements. The actual size and configuration will be subject to underground utilities.</p> <p>CYP has worked with a specialist soil scientist and the City of Melbourne 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.</p> <p>Water sensitive urban design is a key part of the landscape concept here and all trees and garden beds will be passively irrigated and used to detain and clean stormwater.</p> <p>The soil zone for tree planting and water sensitive urban design is shown on the public realm plans in Appendix D and landscape plans and elevations in Appendix C.</p>
EPR AR3: Tree replacement	<p>The design of Parkville precinct has been developed in consultation with Heritage Victoria, University of Melbourne and City of Melbourne.</p> <p>The design for the Parkville precinct includes reinstating a minimum of approximately 147 trees across the Parkville precinct, namely in Royal Parade, Grattan Street and a partially redesigned Barry Street closed to traffic. This will contribute to RPV's overall objective of doubling tree canopy across the Metro Tunnel Project. As part of this, a tree replacement program has been developed in further consultation with the City of Melbourne and Heritage Victoria.</p> <p>The reinstatement of trees will involve:</p> <ul style="list-style-type: none"> <li>• Royal Parade – Boulevard tree plantings will be reinstated in consultation with Heritage Victoria</li> <li>• Elizabeth Street – Royal Parade – Boulevard tree plantings will be reinstated in consultation with Heritage Victoria</li> <li>• Grattan Street – Dense canopy tree planting will be undertaken along the street in order to create a comfortable micro climate for passengers and the community. Native and introduced species will be planted, consistent with the draft Parkville precinct Urban Forest Plan</li> <li>• Barry Street – Similar to Grattan Street, dense canopy tree plantings will transform the area into a park featuring native and exotic tree plantings. Transforming this area from roadway to a park will increase the number of trees within the area by the nature of its existing use. Tree plantings in Barry Street will be consistent with the University Square Masterplan</li> <li>• University of Melbourne campus – Tree replacement within the University of Melbourne campus is focused on the perimeter of the new plaza. These plantings will be consistent with the University of Melbourne Masterplan.</li> </ul>

EPR	Design Response
	<p>The redesigned Grattan Street (in conjunction with Barry Street) will link Royal Parade to nearby green spaces including Lincolns Square, Argyle Square and the Carlton Gardens beyond.</p> <p>Through increasing the area of green permeable surface area and hence the area for tree plantings in addition to widening the public realm along Grattan Street, more opportunities have been created for tree plantings. More trees will be instated than currently exists in the Parkville precinct. This will contribute to the Project's goal of increasing overall tree canopy coverage.</p> <p>The reinstatement of trees in the heritage registered Royal Parade is subject to separate approval by Heritage Victoria, including public consultation, in accordance with the <i>Heritage Act 2017</i>.</p> <p>The reinstated trees are shown on the landscape plans in Appendix C: Parkville Precinct Landscape Plans and Elevations.</p>

### 4.4.3. HISTORICAL CULTURAL HERITAGE

Table 10 provides the CYP design response to the relevant historical cultural heritage EPRs.

Table 10 – Design response to relevant historical cultural heritage EPRs

EPR	Design Response
<p>EPR CH1: Minimise heritage impact</p> <p>EPR CH8: Heritage Interpretation Strategy</p> <p>EPR CH10: Response to heritage places</p>	<p>The design of the Parkville precinct was developed in consultation with Heritage Victoria, City of Melbourne, the Parkville Reference Group and Melbourne Water, in accordance with the Project's Heritage Interpretation Strategy. The design has sought to avoid and minimise impacts on cultural heritage values and be responsive to heritage places. This has resulted in the integration of cultural heritage values into the design response for Parkville Station, including:</p> <ul style="list-style-type: none"> <li>• Reinstatement of the realigned Royal Parade will return the roadway to its formal European style boulevard</li> <li>• The location of station entries has been restricted to the streetscape public realm, reducing the amount of University land required, hence reducing visual or physical impacts on heritage places within University grounds, such as the Gatekeeper's Cottage or Vice Chancellor's Residence</li> <li>• Visual impacts on heritage places and vistas (such as Royal Parade) have been reduced through ensuring key design elements, such as station entrance canopies, are within the height of the mature tree canopy</li> <li>• Placement of station ventilation structures and the chiller plant within University Square creates physical and visual separation between these structures and heritage values within the University grounds.</li> </ul> <p>Disturbing and reinstating heritage registered places (such as Royal Parade, Gatekeeper's Cottage or the front fence and gate) is subject to the heritage permits including public consultation under the <i>Heritage Act 2017</i>.</p>
<p>EPR CH13: Replace removed Elm Trees</p> <p>EPR CH18: Replace removed trees</p>	<p>The design of the Parkville precinct, including the reinstatement of Royal Parade, has been undertaken in consultation with the Department of Transport, Heritage Victoria and the City of Melbourne. In accordance with AR3, a tree replacement program has been prepared for the Project. This includes the choice of an appropriate tree species for the reinstated boulevard. This decision will be undertaken in consultation with Heritage Victoria. The replacement tree planting intent is to re-establish the boulevard formation and continuity of tree lined streetscape.</p> <p>The roadway itself will be reinstated to its formal European style boulevard, however will incorporate the new upgraded tram stop.</p> <p>The reinstated Royal Parade and indicative tree layout is shown on the landscape plans in Appendix C.</p>
<p>EPR CH14: proximity to Gatekeeper's Cottage</p>	<p>The design of the Parkville precinct, including the eastern station entry has been undertaken in consultation with Heritage Victoria and the University of Melbourne.</p> <p>The location of the station entry and the Gatekeeper's Cottage was a key consideration during detailed design, with design conscious to not impede on the</p>

EPR	Design Response
	<p>heritage values of the site. The design of the station entry differs from the design exhibited in the EES, being relocated from University land to the Grattan Street road reserve. As a result the entry is located approximately 40 metres from the Gatekeeper's Cottage (exceeding the minimum requirement of 10 metres), hence satisfying this EPR requirement.</p> <p>The design of the public realm (including ancillary features) around the Gatekeepers Cottage has been revised throughout the detailed design to maintain the views through to the Gatekeepers Cottage and Vice Chancellor's House from Grattan Street. In addition, to help reduce the visual impact of these facilities on the heritage structure, design measures such as landscaping the new public realm garden area (where the ancillary features border the Gatekeeper's Cottage) have been employed. Additionally the locating of these facilities still allow for unimpeded pedestrian flow throughout the precinct. The location of these facilities has been designed in consultation with the University of Melbourne, Heritage Victoria and City of Melbourne. This consultation continued during detailed design.</p> <p>The design of the Parkville station eastern entry is shown on drawing TAS-CYP-PV-00-DRG-AUD-PKV-722102-DP in Appendix D: Parkville Precinct Public Realm Plans.</p>
EPR CH17: Bluestone pillar and cast iron fencing	<p>The design of the Parkville precinct, including the interface of the bluestone pillar and cast iron fencing at the corner of Grattan Street and Royal Parade, has been undertaken in consultation with Heritage Victoria, City of Melbourne and the University of Melbourne.</p> <p>The bluestone pillar and fence has been integrated into design of the back of house facilities and emergency stairs, adjacent the University of Melbourne Medical Faculty Building. The fence has been used to frame the boundary of public and private (University) land, allowing emergency egress and ancillary structures to be recessed into the current public realm and not impact on the nearby heritage vistas.</p> <p>The location of the bluestone pillar and fence design of the station entry highlights the fence and provides opportunity for passengers to engage with it.</p> <p>The design of the Parkville station and its interface with the bluestone pillar and cast iron fencing at the corner of Grattan Street and Royal Parade is shown on drawing TAS-CYP-PV-00-DRG-AUD-PKV-722102-DP in Appendix D: Parkville Precinct Public Realm Plans.</p>
EPR CH23: Heritage street fabric	<p>The design of the Parkville precinct has been undertaken in consultation with Heritage Victoria and the City of Melbourne.</p> <p>Where heritage street fabric and infrastructure in Royal Parade or Grattan Street is impacted by the works, it will be conserved and/or reconstructed in accordance with statutory controls as detailed in heritage approvals. Conservation and reconstruction requirements have been agreed in consultation with Heritage Victoria and/or the City of Melbourne.</p> <p>The design ensures that infrastructure and landscaping on Royal Parade maintain a simple and uncluttered eye-level appearance to give visual dominance to the tree canopy.</p> <p>Any temporary impacts to heritage street fabric and infrastructure will be managed in accordance with <i>Heritage Act 2017</i> including conditions of approval to ensure it is accurately reconstructed.</p> <p>The design of the Parkville station and its impact on heritage fabric is shown on the public realm plans in Appendix D: Parkville Precinct Public Realm Plans.</p>

#### 4.4.4. LAND USE AND PLANNING

Table 11 provides the CYP design response to the relevant land use and planning EPRs.

Table 11 – Design response to relevant land use and planning EPRs

EPR	Design Response
EPR LU1: Minimise impact on existing land use	<p>The design of the Parkville precinct was developed in consultation with the City of Melbourne and key stakeholders of the Parkville Reference Group. The Project has minimised impacts on existing land uses in the following ways:</p>

EPR	Design Response
	<ul style="list-style-type: none"> <li>• The precinct has been designed to negate any permanent change of use or impacts to public open space. Public open space impacted by the Project during construction is limited to namely University Square, which will be reinstated in accordance with the City of Melbourne University Square Master Plan upon project completion following its use as a temporary construction site</li> <li>• Consideration of nearby medical facilities has been taken into design consideration as part of the design response. The station entry and exit points have been located within the precinct to allow drop off, pick-up and emergency vehicle access to Royal Melbourne Hospital and other institutions is retained as part of project design</li> <li>• The footprint of permanent infrastructure on public land has been reduced through the design process</li> <li>• While ancillary features, such as the station chiller plants, will be located within University Square, the Project will not result in a net loss of public open space. This is due to the creation of new public open space, with the closure and landscaping of Barry Street. These ancillary features at University Square have been integrated into a retail space/place of assembly which will in turn encourage greater activation of the public open space around it</li> <li>• Upon completion of the Project, users of public open space within the Parkville precinct will be positively impacted by the Project with the generation of new space (Barry Street) and rejuvenation of existing (and underutilised) space at the northern end of University Square.</li> </ul> <p>The public realm shown on the public realm drawings is included in Appendix D: Parkville Precinct Public Realm Plans.</p>
EPR LU2: Master plans	<p>The design of the Parkville precinct was developed in consultation with City of Melbourne, OVGA, Parkville Reference Group, Heritage Victoria, Melbourne Water, Department of Transport and the City of Melbourne. The design of the Parkville precinct is consistent with the City of Melbourne University Square Master Plan and does not preclude the future development of land for public open space across the broader Parkville area.</p> <p>The closure of Barry Street to vehicle traffic will create new public open space within the Parkville precinct and create a space for engagement with cafes, tree plantings and more green open space.</p>
EPR LU4: Urban Design Strategy	<p>The design of the Parkville precinct has been developed in ongoing consultation with members of the Urban Design and Architectural Advice Panel (UDAAP) who provide advice, advocacy and collaborative services to the Victorian community. A detailed assessment of consistency with the Urban Design Strategy is provided in Appendix E: Parkville Precinct Urban Design Strategy guidelines assessment and Section 4.3.</p>

#### 4.4.5. LANDSCAPE AND VISUAL

Table 12 provides the CYP design response to the relevant landscape and visual EPRs.

Table 12 – Design response to relevant landscape and visual EPRs

EPR	Design Response
EPR LV1: Reduce visual impact	<p>The design of the Parkville precinct was developed in consultation with the Office of the Victorian Government Architect, City of Melbourne, Parkville Reference Group, University of Melbourne and Melbourne Water.</p> <p>The Parkville precinct is within the established medical, research and education precinct, the design of the Parkville precinct is consistent with the objectives of the University Square Master Plan and City North Structure Plan. The removal of through traffic on Barry Street will contribute to an increased public realm connection between the University of Melbourne buildings within the precinct.</p> <p>The heritage boulevard of Royal Parade will be protected given its landscape character importance. Grattan Street provides an important corridor showcasing a variety of native and local indigenous plant species and bringing nature into the city.</p>

EPR	Design Response
	<p>Visual impacts will be reduced through integrating the ventilation shafts into a new retail space on University Square and the car park structures which will make the elements less prominent.</p> <p>University of Melbourne have been consulted with regarding the location of station entries on University land. The design response has resulted in a better outcome for the University, particularly in comparison to the Reference Design, with station entry infrastructure relocated within the Grattan Street road reserve. While some station infrastructure is located on University land, steps have been taken to reduce the visual impact associated with these elements reducing their provenance on the public realm and the University.</p> <p>The design of the ancillary buildings has been revised during design development. This has resulted in minimising their associated footprint as much as practicable, and consequently reducing the visual impacts.</p> <p>The public open space is shown on the landscape plans in Appendix C.</p>
EPR LV2: Re-establishment of public open space	<p>The design of the Parkville precinct was developed in consultation with the Office of the Victorian Government Architect, City of Melbourne, Parkville Reference Group, University of Melbourne and Melbourne Water.</p> <p>Along Grattan Street, space for seating, social interaction, street furniture, embedded art, dense canopy tree planting, and garden beds will become the focus of the street. For Royal Parade, wider median spaces shall be planted with extended boulevard tree planting and water sensitive urban design plant species. And along Barry Street, the centre of the street will be a series of garden 'rooms' for social gathering, planted gardens, stormwater bio-filtration and dense canopy tree planting and bicycle parking and repair facilities. The shrub and ground cover planting will be primarily native and indigenous native species with some special plants selected for the medicinal planting theme (where feasible).</p> <p>The public open space is shown on the landscape plans in Appendix C: Parkville Precinct Landscape Plans and Elevations.</p>

#### 4.4.6. SOCIAL AND COMMUNITY

Table 13 provides the CYP design response to the relevant social and community EPRs.

Table 13 – Design response to relevant social and community EPRs

EPR	Design Response
EPR SC8: Re-establish public open space	<p>The design of Parkville precinct was developed in consultation with the City of Melbourne.</p> <p>Parkville Promenade will provide a new public space for the students, workers, patients and the wider community. The public realm will generate positive social outcomes to strengthen the economic, social and environmental wellbeing of the community.</p> <p>The University Square Master Plan for Barry Street will include creation of parkland with closure of the road to traffic. This will create a social hub within the garden 'rooms'. The chiller plant and ventilation shafts will not be located in Barry Street. Instead, the chiller plant will be integrated into a new retail space/place of assembly on University Square, and the vent shafts will be integrated with the carpark entry structures. This will make these elements less prominent. The size of the chiller plant / retail space/ place of assembly has been reduced during the detailed design to provide additional space.</p> <p>The public open space is shown on the landscape plans in Appendix C.</p>
EPR SC11 and SC12: Establish Parkville Reference Group	<p>The Parkville Reference Group has been established comprising key government stakeholders, such as the Department of Transport, RPV, DEDJTR (Transport), Victorian Department of Health and Human Services and Ambulance Victoria. These parties have been consulted with throughout the design development process and the preparation of this precinct Development Plan.</p> <p>In addition to these government stakeholders, the following members of the Parkville education and health community were consulted as part of the design development and development plan process:</p> <ul style="list-style-type: none"> <li>• Bio21 Molecular Science &amp; Biotechnology Institute</li> </ul>

EPR	Design Response
	<ul style="list-style-type: none"> <li>• Gene Technology Access Centre</li> <li>• Melbourne Business School</li> <li>• Royal Melbourne Hospital</li> <li>• Melbourne Private Hospital</li> <li>• Peter Doherty Institute for Infection and Immunity</li> <li>• Peter MacCallum Cancer Centre</li> <li>• Royal Children’s Hospital</li> <li>• Royal Women’s Hospital (Cushman &amp; Wakefield)</li> <li>• The Florey Institute of Neuroscience and Mental Health</li> <li>• The Graduate Union of the University of Melbourne (Graduate House)</li> <li>• University High School</li> <li>• University of Melbourne</li> <li>• Victorian Comprehensive Cancer Centre</li> <li>• Walter and Eliza Hall Institute of Medical Research</li> <li>• Yarra Trams.</li> </ul>

#### 4.4.7. SURFACE WATER

Table 14 provides the CYP design response to the relevant surface water EPRs.

Table 14 – Design response to relevant surface water EPRs

EPR	Design Response
EPR SW2: Water sensitive urban design	<p>The design of the Parkville precinct was developed in consultation with the City of Melbourne and Melbourne Water. Surface water movement has been addressed in the Parkville precinct in the following manner:</p> <ul style="list-style-type: none"> <li>• Water sensitive urban design principles have been applied to project design providing an important sustainability and visual aspect of the Parkville precinct. Stormwater run-off will be slowed, mitigated and collected for reuse via rain-gardens and street planters while the permeable surface of the Parkville precinct has been increased by approximately 880 square metres</li> <li>• Water sensitive urban design is a key part of the landscape concept - trees and garden beds will be passively irrigated, and used to detain and clean stormwater. An underground water storage tank will be provided at Parkville Station.</li> </ul> <p>The design of water sensitive urban design intent is shown on the landscape plans in Appendix C: Parkville Precinct Landscape Plans and Elevations, and a detailed assessment of consistency with the Urban Design Strategy is provided in Appendix E: Parkville Precinct Urban Design Strategy guidelines assessment and Section 4.3.</p>

#### 4.4.8. TRANSPORT

Table 15 provides the CYP design response to the relevant transport EPRs.

Table 15 – Design response to relevant transport EPRs

EPR	Design Response
EPR T7: Operational road transport	<p>The design of the Parkville precinct was developed in consultation with the Department of Transport and City of Melbourne. Key changes to the road transport network arising from the Project include:</p> <ul style="list-style-type: none"> <li>• The redesign and reinstatement of Royal Parade to allow for the development of the upgraded tram stop (while maintaining emergency vehicle access from Royal Parade southbound into the hospital, as shown on TAS-CYP-PV-00-DRG-AUD-PKV-722102-DP)</li> </ul>

EPR	Design Response
	<ul style="list-style-type: none"> <li>• Closure of a portion of Barry Street to vehicle traffic to create an extension to University Square, providing greater recreational and amenity space</li> <li>• Narrowing of Grattan Street to one lane in either direction, reducing traffic speeds, introducing bicycle lanes and widening the existing footpaths to improve circulation and amenity for pedestrians.</li> </ul> <p>While the Parkville precinct design will remove 152 car parking bays, the needs of service and emergency vehicles and DDA requirements have been taken into consideration in the following manner:</p> <ul style="list-style-type: none"> <li>• Loading bays have been provided at strategic locations to service existing land uses and station back of house</li> <li>• Emergency vehicle access to medical institutions remains unhindered with much of the Grattan Street functional road layout retained (albeit modified).</li> </ul> <p>The road design for Parkville precinct is shown in Appendix D. Specific drawings showing the Grattan Street corridor and changes to car parking is shown on drawings TAS-CYP-PV-00-DRG-AUD-PKV-722101-DP and TAS-CYP-PV-00-DRG-AUD-PKV-722103-DP in Appendix D: Parkville Precinct Public Realm Plans.</p>
EPR T8: Operational public transport	<p>The design of the Parkville precinct was developed in consultation with the Department of Transport and City of Melbourne.</p> <p>The design of the Parkville precinct has been influenced by the requirement to facilitate modal interchange with the tram stop on Royal Parade. This has resulted in the location of the eastern and western station entrances to Royal Parade providing convenient connectivity for inbound and outbound tram services.</p> <p>Station entries have been designed in a manner to reduce pedestrian reliance on the busy Grattan Street and Royal Parade intersection, and minimising pedestrian and vehicle conflict.</p> <p>A wayfinding strategy has been prepared to reduce the amount of signage required across the precinct. Internal and external spaces have been designed to support intuitive movement where reliance on signage is kept to a minimum. Signage is presented in a logical sequence based on providing the right information, at the right time and in the right place.</p> <p>A family of sign types will be developed and applied consistently across all stations and their precincts. Signs are categorised into four main functional groups including: identification signs, directional signs, information signs and statutory signs. The intuitive movement concept within the wayfinding strategy will also assist mobility and vision impaired persons.</p> <p>Public transport interface is shown on the Public Realm drawings in Appendix D: Parkville Precinct Public Realm Plans. The specific integration of the station with the super tram stop on Royal Parade is shown on TAS-CYP-PV-00-DRG-AUD-PKV-722102-DP.</p>
EPR T9: Operational active transport	<p>The design of the Parkville precinct was developed in consultation with the Department of Transport and City of Melbourne. The following active transport design measures have been integrated into the station design, including:</p> <ul style="list-style-type: none"> <li>• Dedicated bicycle lanes comprising a combination of on-road separated and raised bike lanes along Grattan Street and Royal Parade will provide improved connectivity throughout the precinct. The addition of bicycle hoops at several locations near the intersection of Royal Parade and Grattan Street and at Barry Street will contribute to 504 bike-parking spaces across the precinct</li> <li>• The design of the precinct does not preclude the development of additional bicycle parking across the precinct in the future, namely the reconfiguration of University Square or the public realm garden area for such uses</li> <li>• High volumes of pedestrian movement already exist along Grattan Street, which will increase with the introduction of the Metro Tunnel station. The increased pedestrian volumes will be accommodated through improved pedestrian facilities on both sides of Grattan Street. A number of controlled north-south crossings will also be provided to facilitate movement, including the provision of a wide raised crossing in the vicinity of Barry Street</li> <li>• The four on-grade pedestrian crossings at the intersection of Grattan Street and Royal Parade have all been increased from three metres to six metres wide. In addition, an unpaid pedestrian underpass is provided across Royal Parade providing another east-west movement option that is separated from traffic. A new</li> </ul>

EPR	Design Response
	<p>entry plaza has been provided in University land on the major Grattan Street entry to facilitate movement into the campus.</p> <p>Infrastructure associated with active transport is shown on the Public Realm drawings in Appendix D: Parkville Precinct Public Realm Plans.</p> <p>Figure 5 and Figure 6 show the pedestrian movement network and locations of bicycle facilities within the precinct.</p>
ERP T10: Waste collection	<p>The design of the Parkville road network has been undertaken in consultation with the Department of Transport and City of Melbourne. A waste collection bay has been provided immediately west of Gate 10 on the north side of Grattan Street. Figure 8 shows the location of these waste collection bays.</p> <p>These waste (and loading) bays have been strategically located in areas to minimise traffic and pedestrian obstruction. Loading bays are provided dedicated road space to ensure they do not conflict with areas of heavy pedestrian movement.</p>

## 5. CONCLUSION

This Parkville Precinct Development Plan addresses the scope and extent of the built form of CYP's works for the Parkville precinct, including the new Parkville Station from the entrances to the ticket gate. In accordance with Clause 4.7 of the Incorporated Document, this plan includes:

- Site layout plans (refer to Appendix A)
- Architectural plans and elevations (refer to Appendix B: Parkville Precinct Architectural Plans and Elevations)
- Landscape plans and elevations (refer to Appendix C: Parkville Precinct Landscape Plans and Elevations)
- Public realm plans (refer to Appendix D: Parkville Precinct Public Realm Plans)
- 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 E: Parkville Precinct Urban Design Strategy guidelines assessment)
- 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 F: Parkville Precinct Environmental Performance Requirements assessment).

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."*

In response, CYP has designed the Parkville precinct to reflect a 'Grand Promenade' among prominent institutions, a walk of enlightenment, a place of ideas and curious engagement.

The precinct is located at the intersection between Grattan Street and Royal Parade, a space that has a high concentration of pedestrian and cyclist movement. Existing conditions at the site focus on public transport connections between the tram and bus network, and access to the existing medical and education institutions. There is also a high proportion of emergency and private vehicle access to services and businesses within the precinct.

Parkville Station will be located directly below Grattan Street, connecting to a new tram stop on Royal Parade and bus services. Passengers can enter and exit the station via four entry points; one along Grattan Street west amongst the health institutions, two either side of Royal Parade and the station's main entry on Grattan Street with a new public realm garden area connecting to the University as well as a pedestrianized Barry Street and reconfigured University Square.

The new Grattan Street promenade will be landscaped with dense canopy streets and low level plantings providing a green link between Royal Parade, new green spaces as well as the areas existing network of green spaces.

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

In accordance with the Incorporated Document requirements, the amended version of this Parkville Precinct Development Plan was made available for public inspection for 15 business days from Wednesday 22 September 2021 until Wednesday 13 October 2021, allowing for the Grand Final public holiday. During this time, it was available on the Engage Victoria website along with an opportunity to provide written comments.

The amendments to this Development Plan improve the design in line with the design principles for the Metro Tunnel Project and include changes to the architectural layout, landscape design and public realm components of the Project. These amendments have been made to reduce the above ground

footprint, further promote the historical cultural heritage values of the Parkville precinct, and retain more greenery, with 19 less trees removed than identified during the EES and 50 less than the previously approved Development Plan.

Consultation with key stakeholders has been ongoing during the preparation of these amendments. This includes Heritage Victoria, City of Melbourne, University of Melbourne, Royal Melbourne Hospital, Peter Doherty Institute for Infection and Immunity, Peter MacCallum Cancer Centre, Department of Transport (previously VicRoads, Public Transport Victoria and Transport for Victoria) and RPV.

Following approval of the amended Parkville Precinct Development Plan by the Minister for Planning on Sunday 13 February 2022, the detailed design process has progressed and led to minor amendments to materials and finishes and public realm. As part of this process, consultation has taken place with key stakeholders on the amended materials and finishes and public realm including City of Melbourne, RPV, OVGA and Heritage Victoria.

This Development Plan presents the scope and extent of the built form of CYP's works in the Parkville precinct 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).