



Moreland City Council

## COUNCIL AGENDA

### SPECIAL

THURSDAY 22 AUGUST 2019

COMMENCING 6 PM

**COUNCIL CHAMBER, MORELAND CIVIC CENTRE,  
90 BELL STREET, COBURG**

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1. WELCOME
2. APOLOGIES
3. DECLARATION OF INTERESTS AND/OR CONFLICT OF INTERESTS
4. COUNCIL REPORT

DEP8/19      LEVEL CROSSING REMOVALS - HERITAGE  
VICTORIA APPLICATION TO DEMOLISH MUNRO  
STREET SIGNAL BOX (D19/326784)

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**DEP8/19    LEVEL CROSSING REMOVALS - HERITAGE VICTORIA  
APPLICATION TO DEMOLISH MUNRO STREET SIGNAL BOX  
(D19/326784)**

**Director Engagement and Partnerships**

**Places and Major Partnerships Projects**

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**Executive Summary**

The North West Program Alliance has applied to Heritage Victoria for a permit to demolish the signal box at Munro Street, Coburg as part of the Bell to Moreland Level Crossing Removal Project. The signal box is of local heritage significance and is included within a local heritage overlay. A permit application would normally be considered under the Moreland Planning Scheme pursuant to the *Planning & Environment Act* 1987, however a nomination for the signal box to be considered for state significance is under consideration by Heritage Victoria, pursuant to the *Heritage Act* 2017 and an interim protection order has been placed on the asset. This has the effect of automatically conferring state significance to the asset for the purposes of seeking permission to demolish the structure and a permit is required.

The Heritage Impact Statement submitted with the application to Heritage Victoria dismisses the existing established local significance of the signal box and fails to consider or assess the heritage impact of the signal box having state significance, should the current nomination be successful. The application indicates a number of alternative solutions are possible, including a scenario which would allow for the signal box to be retained.

The application also fails to demonstrate how the proposal responds to the Level Crossing Removal project's own Urban Design Framework which explicitly seeks to preserve local heritage and history.

Council officers recommend Council requests Heritage Victoria to seek further assessment of the signal box and delay a decision on its demolition until the outcome of the nomination process is known. The application for demolition should not be supported and it is recommended Council advocates for the 'avoidance' option to be pursued, which would see the rail structure increased in height to avoid the need for the demolition of the signal box.

## Officer Recommendation

That Council:

1. Notes the Heritage Victoria application P31530 for a permit to demolish the Munro Street signal box in VHR reference H0952 - Upfield Railway Line Precinct, Wilson Avenue and Victoria Street Brunswick and Cameron Street and Victoria Street Coburg.
2. Writes to Heritage Victoria and makes a submission to Heritage Victoria application P31530 containing the following key points:
  - a) Moreland City Council does not support the application to demolish the Munro Street signal box and remove the associated tree (ID 626);
  - b) Heritage Victoria is requested to delay a recommendation on the permit application until the outcome of the nomination process is complete;
  - c) The Level Crossing Removal Project Heritage Impact Statement, prepared by GJM Heritage, fails to appreciate the possible inclusion of the asset within an amended statement of significance and registration of the asset on the Victorian Heritage Register;
  - d) Heritage Victoria is requested to seek further information and a revised application and Heritage Impact Statement from the Level Crossing Removal Project and North West Program Alliance. The revised application should have regard to the possible inclusion of the asset on the Victorian Heritage Register and the subsequent elevation of its heritage status to state significant.
3. Writes to the Level Crossing Removal Project and the State Government seeking the allocation of appropriate additional funding to ensure that the “avoidance” approach can reasonably be taken for the Munro Street signal box.
4. Writes to the Level Crossing Removal Project seeking clarification and assurance around the extent of tree removal and longer-term protection of trees included in Heritage Victoria application P31530.



## **1. Policy Context**

### **Council Action Plan**

This item relates to the Council Action Plan (CAP) 2017-2021, under Connected Community, specifically:

- CAP 41: Key Priority: P2. Facilitate a demonstrable shift to more sustainable modes of transport that also targets a long-term reduction in car use.
- Deliverable: P2d) Continue to advocate for level crossing removal in Moreland - Work with the Level Crossing Removal Authority (LXRA) to maximise community benefit from crossing removals in Moreland.

The Level Crossing Removal Authority (LXRA) was renamed the Level Crossing Removal Project (LXRP) following the November 2018 State Government election.

### **Planning & Environment Act 1987**

Section 4(1)(a) of the *Planning & Environment Act 1987* (the Act) states the following objective which is relevant to this application:

“to conserve and enhance those buildings, areas or other places which are of scientific, aesthetic, architectural or historical interest, or otherwise of special cultural value;”

The Moreland Planning at Clause 15.03-1S contains the following objective:

“To ensure the conservation of places of heritage significance”.

The following strategies are also identified:

- Provide for the protection of natural heritage sites and man-made resources;
- Provide for the conservation and enhancement of those places that are of aesthetic, archaeological, architectural, cultural, scientific or social significance;
- Encourage appropriate development that respects places with identified heritage values;
- Retain those elements that contribute to the importance of the heritage place;
- Encourage the conservation and restoration of contributory elements of a heritage place;
- Ensure an appropriate setting and context for heritage places is maintained or enhanced;
- Support adaptive reuse of heritage buildings where their use has become redundant.

### **Heritage Act 2017**

Part 1(a) of the *Heritage Act 2017* states that the purpose of the act is:

“to provide for the protection and conservation of the cultural heritage of the State”

### **Council’s adopted advocacy position for the Bell to Moreland Level Crossing Removal**

In April 2018 Council (DED16/18) resolved to endorse an advocacy position for level crossing removals which sought to maximise the community benefits irrespective of whether a rail over road (elevated sky rail) or rail under road (trench) option was selected by the state government and the level crossing removal authority. Upon the confirmation that the project would proceed as an elevated solution, Council reconfirmed its advocacy position at the July 2019 Council Meeting (DEP7/19). The adopted advocacy position includes the following relevant statements:

- Ensuring adequate funding, thought and focus is given to the newly created 'left under' spaces (for example, trees and landscaping, active and passive public spaces, management and maintenance);
- High quality rail channel viaducts, higher off ground (up to 7 metres high), allowing greater light penetration below and mitigating overlooking concerns;
- Appropriate responses to heritage features (e.g. stations, gates, signal boxes)

### **Level Crossing Removal Authority Urban Design Framework May 2018**

The LXRP's Urban Design Framework outlines principles, objectives, measures and qualitative benchmarks to ensure that the various level crossing removals meet specific design outcomes. A copy of the Urban Design Framework can be found at **Attachment 1** to this report.

The following relate directly to heritage design outcomes within the projects:

- Principle 1 Identity  
Objective 1.3 Heritage:  
Respect and respond to indigenous and non-indigenous cultural heritage and local history.
- 5.1 General Measures  
M1.3 Structural, functional and service elements are resolved and integrated with the landscape, cultural heritage, land use, and character of the precincts along the alignment. A sense of journey is created and all elements deliver overall coherence and identity.
- 5.6 Public Realm and Built Environment Measures  
M6.7 The design acknowledges, responds to and preserves indigenous and non-indigenous heritage and local history.

## **2. Background**

The Munro Street signal box is located north of Munro Street, Coburg on the western side of the Upfield railway line. It is located within a Public Use Zone Schedule 4 Transport and is covered by Heritage Overlay Schedule 180. It is also included in the extent of registration for the Upfield Railway Line Precinct on the Victorian Heritage Register. However, it is not identified specifically on the Victorian Heritage Register.

The State Government, through its agency the LXRP, has commenced planning work on the removal of four level crossings in Moreland as part of its level crossing removal program. The four crossings at Bell Street, Coburg, Reynard Street, Coburg, Munro Street, Coburg and Moreland Road, Brunswick, on the Upfield rail line form the Bell to Moreland Level Crossing Removal project. The project will also result in the construction of two new stations at Coburg and Moreland as part of an elevated rail line solution.

On 22 July 2019, Council received a letter from the Executive Director Heritage Victoria confirming that two nominations had been received and accepted to amend the registration in the Victorian Heritage Register as it relates to the Upfield Railway Line Precinct (VHR Reference H0952).

The letter outlines the following process for consideration of the two nominations:

- Assessment of the applications by a Heritage Victoria officer;
- A recommendation by the Executive Director on whether the Heritage Council should make the proposed amendment(s) to the registration;
- A public notice of the Executive Directors recommendation. Sixty days are provided for public submissions to be made on the recommendation to the Heritage Council. Owners and interested parties will be advised by letter of my recommendation;
- A hearing by the Heritage Council, if requested;
- A decision by the Heritage Council to make the proposed amendment(s) to the Victorian Heritage Register.

Subsequent to the nominations Heritage Victoria advised Council on 6 August 2019 that an Interim Protection Order (IPO) had been put in place which means that until the assessment of the nominations has taken place, the assets in the Upfield Railway Line Precinct (which are subject to the nominations) are treated as if they were on the Heritage Register and have conferred State significance.

On Wednesday 14 August 2019 Heritage Victoria on its website advertised application P31530 for a permit seeking to demolish the Munro Street signal box under VHR reference H0952 - Upfield Railway Line Precinct, Wilson Avenue and Victoria Street Brunswick and Cameron Street and Victoria Street Coburg. Submissions for this application close on Wednesday 28 August 2019.

The proposed works, which form part of the Bell and Moreland Level Crossing Removal Project, are described as:

- The removal and off-site storage of the signal lever mechanism within the Munro Street signal box prior to donation to an appropriate collecting institution or for use as an interpretative device within the station complex;
- The demolition of the Munro Street signal box;
- The removal of one *Eucalyptus sideroxylon* (Tree 626) adjacent to the Munro Street Signal Box and pruning of other adjacent trees (as required) in accordance with AS4373-2007;
- Associated site works including the erection of temporary fencing, disconnection of services, establishment of hard stand, and establishment of tree protection zones for surrounding trees.

### **3. Issues**

#### **Heritage Assessment**

The Munro Street Signal Box is covered by local heritage overlay schedule HO180.

The statement of significance for the site includes specific reference to signal boxes as being part of the heritage place and significant fabric within the precinct. The statement of significance also highlights the importance the Upfield Railway Line Precinct as a rare and remarkably intact section of Melbourne's metropolitan railway system from the late 19th and early 20th century. It represents an important period of city development and city life at the time and afterwards.

The Munro Street Signal Box is a substantial double storey Inter-War building, constructed in 1928 which still features intact signalling equipment internally. It is also a highly visible landmark. The statement of significance states, 'the inter-relationship of [the] structures results in an entity - the Upfield line as a whole - which is of greater significance than its individual parts', therefore the question of whether the Signal Box is regarded as architecturally remarkable or not is not of critical importance. The building contributes to the interrelationship of the structures within Upfield Railway Line Precinct.

On this basis, the demolition of the signal box will adversely affect the significance of the HO180 precinct. The application should not be supported while there are other options which can reasonably be pursued and while the significance of the signal box has not been established or confirmed through the Heritage Victoria nomination process. It would be pre-emptive to support the demolition of the building while there is an on-going process to determine its level of significance.

#### **Officer recommendation:**

The application for demolition of the Munro Street Signal box should not be supported.

## **Heritage Impact Statement**

The LXP Heritage Impact Statement, prepared by GJM Heritage, assumes that the Munro Street Signal Box is non-contributory fabric, and assesses the impacts of the works as such. The analysis fails to appreciate the possible inclusion of the asset within an amended statement of significance and registration of the asset on the Victorian Heritage Register.

The statement concludes that the signal box is not State significant and therefore its demolition is acceptable. However, the outcome of the nomination may well see the status of the Signal Box raised to contributory to the State significance of the heritage precinct. There is no analysis provided on the impacts of the proposed works should the extent of state registration be changed to include the Munro Street Signal Box, this is presumptive and disrespectful of the nomination process.

Given the outcomes of the nomination process are yet to be decided, any decision on the application must be delayed until the outcome is known. Council officers further suggest that Heritage Victoria seeks further information from the LXP and North West Program Alliance (NWPAA) which includes a revised application and Heritage Impact Statement. The revised application should have regard to the possible inclusion of the asset on the Victorian Heritage Register and the subsequent elevation of its heritage status to state significant.

### Officer recommendation:

Heritage Victoria should delay a decision on the application until the outcome of the nomination process is known and should seek further information and an updated heritage impact statement which provides an assessment of the Munro Street Signal Box assuming it does have state significance.

## **Response to heritage for the entire level crossing removal project**

The application provides no context for how the Bell to Moreland Level Crossing Removal Project will respond to heritage across the precinct. This makes it very difficult for Council officers and the community to make an informed decision about one heritage asset in isolation. There may be scenarios where the demolition of the structure could be supported subject to the other retention outcomes and heritage interpretation responses for the project, however without any kind of understanding of how the design of the project will respond to heritage more broadly this is not possible.

### Officer recommendation:

Heritage Victoria should request further information from the LXP which demonstrates the overall approach to heritage and how the design will impact on all heritage assets within the Upfield Rail Precinct, including responses to how specific assets will be treated, retained, restored, repurposed etc.

## **Opportunities for re use**

The Munro Street Signal Box is significant in that it is a rare and intact two storey structure with no comparable railway structures in the northern suburbs. It offers a unique opportunity for adaptive reuse and subject to its retention could result in the realisation of a number of opportunities including:

- As a heritage museum for the Upfield Railway Line;
- As an education space and tool to illustrate the history of the Upfield Railway Line;
- As a social enterprise space e.g. for a café or retail opportunity;
- As a drawcard for tourism and railway enthusiasts;
- As a place making opportunity centred around the open space at Coburg Station Reserve and the railway heritage of the precinct.

The demolition of this structure would result in not only the loss of a significant local, and possibly State significant heritage asset but also a lost opportunity for a unique placemaking and educational outcome.

Officer recommendation:

Council officers should work with the LXP to explore opportunities for re-use of the building as part of its retention and on-going use within the rail corridor.

**LXP Design principles**

The Urban Design Framework May 2018 for the state-wide Level Crossing Removal Project includes specific objectives and measures which relate to heritage. No documentation has been submitted which demonstrates how the demolition of this building will meet the stated objective to “Respect and respond to indigenous and non-indigenous cultural heritage and local history (Objective 1.3 Heritage)”. How the demolition of this structure will respond to the measure “Structural, functional and service elements are resolved and integrated with the landscape, cultural heritage, land use, and character of the precincts along the alignment. A sense of journey is created, and all elements deliver overall coherence and identity (Measure M1.3 in 5.1 General Measures)”. Or how the project will meet the specific Public Realm and Built Environment Measure to “The design acknowledges, responds to and preserves indigenous and non-indigenous heritage and local history” (Measure M6.7).

Officer conclusion:

The application to demolish the Munro Street Signal Box fails to demonstrate how the LXP’s responds to its own Urban Design Framework and the application should not be supported.

**Removal of tree and tree protection**

The application in addition to the demolition of the signal box proposes to remove a nearby tree and include tree protection measures for a number of other larger trees in the immediate vicinity to ensure they are protected during the demolition of the signal box.

Council officers have reviewed the arborists report which accompanies the application and concluded that the report makes a reasonable assessment of the condition of the trees at the subject site. However, Council officers are reluctant to support the removal of the tree unless absolutely necessary.

More concerning is that the application gives no assurances of the long-term retention of trees, including those which are proposed to be protected during the demolition works. The loss of one tree may be an acceptable outcome if it results in the retention or protection of other trees, however no information is provided regarding the overall approach to tree removal and protection across the corridor and consideration of a single tree in isolation is not a strategic or reasonable deliberation.

Officer recommendation:

The application for the removal of tree (Tree ID 626) as part of the application to demolish the Munro Street signal box should not be supported. Further information should be sought regarding the long-term approach to tree removal and protection across the project so that an informed decision can be made.

**Human Rights Consideration**

The implications of this report have been assessed in accordance with the requirements of the Charter of Human Rights and Responsibilities.

**4. Consultation**

Council has sought a review from Council’s Heritage Advisor on the LXP application to Heritage Victoria to inform its response, a copy of the advice received can be found at **Attachment 2** to this report.

Council's Community Advocacy Reference Group (CARG) met on Tuesday 20 August 2019 and discussed the issue and some Councillors were in attendance. The discussion and outcomes of that group have informed the preparation of and are included in this report.

## **5. Officer Declaration of Conflict of Interest**

Council officers involved in the preparation of this report have no conflict of interest in this matter.

## **6. Financial and Resources Implications**

The level crossing removal projects are State Government investments and the capital cost is borne by State Government.

At the 24 June 2019 Council meeting, Council resolved to allocate \$162,500 for the 2019/2020 financial year to facilitate the creation of a dedicated coordination role and assistance with associated communications and community engagement activities. In addition to this, Council has requested a further \$140,000 from the LXR to supplement this expenditure.

It is normal for infrastructure projects of this size and scale to include appropriate budget to support Councils which are impacted.

There is no direct cost to make the recommended submission to the Heritage Victoria permit application process other than officer time to draft and write the submission. This can be accommodated within the existing budget allocated to this project within Council. The heritage services have been procured through Council's current heritage advisory role.

## **7. Implementation**

Subject to Council's decision a submission will be made to Heritage Victoria.

Letters will also be prepared and sent to the Minister for Transport Infrastructure, Jacinta Allan, the LXR and NWPA regarding the allocation of funding for the project and seeking clarification regarding the long-term impacts on the trees included in the Heritage Victoria permit application.

## **Attachment/s**

<a href="#"><u>1</u></a>	LXR - Urban-Design-Framework May 2018	D19/331181
<a href="#"><u>2</u></a>	LXR - Heritage Advisor Referral Response - Demolition of Munro Street Signal Box	D19/327776



**LEVEL  
CROSSING  
REMOVAL**  
PROJECT

# LEVEL CROSSING REMOVAL AUTHORITY

## URBAN DESIGN FRAMEWORK:

PRINCIPLES & OBJECTIVES, MEASURES & QUALITATIVE  
BENCHMARKS

Version 4

MAY 2018



## Document Status

## PMF Classification

TRIM Reference	DOC/17/386489	Version	4
Issue date	May 2018	Status	Final
Owner	Lisa Dunlop	Approver	Kevin Devlin

## Version Control

Version	Date	Author	Title	Description of change
1	August 2015	JV	Urban Design Framework	Initial issue
2	March 2016	JV	Urban Design Framework	General update with new chapter for Integrated Development Opportunities
3	August 2016	JV	Urban Design Framework	General update with inclusion of Implementation section
4	May 2018	LD/TN	Urban Design Framework	General update and amended/new measures and benchmarks

## Approval

Version	Issue date	Approved by	Title
4	May 2018	Kevin Devlin	CEO



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# LIST OF ACRONYMS

A list of acronyms included within this document is outlined below.

Term	Definition
ASBEC	Australian Sustainable Built Environment Council
COAG	Council of Australian Governments
CSG	Creative Strategy Guideline
DEDJTR	Department of Economic Development, Jobs, Transport and Resources
DELWP	Department of Environment, Land, Water and Planning
ESD	Environmentally Sustainable Design
GBCA	Green Building Council of Australia
ISCA	Infrastructure Sustainability Council of Australia
LXRP	Level Crossing Removal Project
LXRA	Level Crossing Removal Authority
MREP	Mernda Rail Extension Project
MMRA	Melbourne Metro Rail Authority
OGVA	Office of the Victorian Government Architect
TIA	Transport Integration Act (2010)
UDAP	Urban Design Advisory Panel
UDF	Urban Design Framework
UDG	Urban Design Guidelines
VDRP	Victorian design Review Panel

# FOREWORD

## A UNIQUE OPPORTUNITY

The Major Transport Infrastructure Program (MTIP) is one of the most significant investments in transport infrastructure in Victoria's history.

The program, which includes projects being undertaken by the Level Crossing Removal Authority (LXRA), is more than just road or rail projects, they are city shaping projects that will create a lasting legacy for Melbourne. Incorporating the principles and practices of great urban design and place making is therefore a priority if this investment is to deliver a full range of benefits for current and future Victorians.

The Victorian State Government, through the LXRA, is removing 50 dangerous and congested level crossings across Melbourne, as well as undertaking other infrastructure projects, to improve safety for rail and road users, pedestrians and cyclists.

Achieving high quality urban design is a long-term complex process that is intent on creating integrated, useful, attractive, safe, environmentally sustainable, economically successful and socially equitable places. By maintaining a focus on urban design from the outset, we will build more cohesive and inclusive community places, more environmentally sensitive infrastructure and new urban spaces that are safe and engaging for people, and contribute to civic pride and local economies.

This Urban Design Framework (UDF) sets the expectations of the LXRA for high quality, context sensitive urban design outcomes and sets out principles, measures and qualitative benchmarks so that we can measure and be sure design outcomes meet those expectations.

Thanks to all the people who have contributed to this document and who are working hard to achieve great urban design outcomes for the level crossing removal program. Together we are shaping the future landscape of Melbourne, its transport network and its role in building and sustaining healthy and prosperous communities.



KEVIN DEVLIN

Chief Executive Officer

Level Crossing Removal Authority

# 1. INTRODUCTION

## 1.1 WHY IS URBAN DESIGN IMPORTANT?

Urban design is the practice of designing and making great places and spaces that work well and are enjoyable for people to be in. It ensures that every move considers and capitalises on opportunities to maximise the safety and amenity of users, provide integrated transport solutions and create a better environment for people.

Urban design shapes the built environment to improve the quality and overall liveability of cities and towns. While urban design is often tailored for a specific project, the dynamic and evolving nature of urban environments means that urban design is a long-term process.

Good urban design employs a multi-disciplinary approach, derived from a variety of disciplines, such as planning, architecture, engineering and landscape architecture. It draws on these disciplines to create a vision for an area and then deploys the resources and skills needed to bring that vision to life.

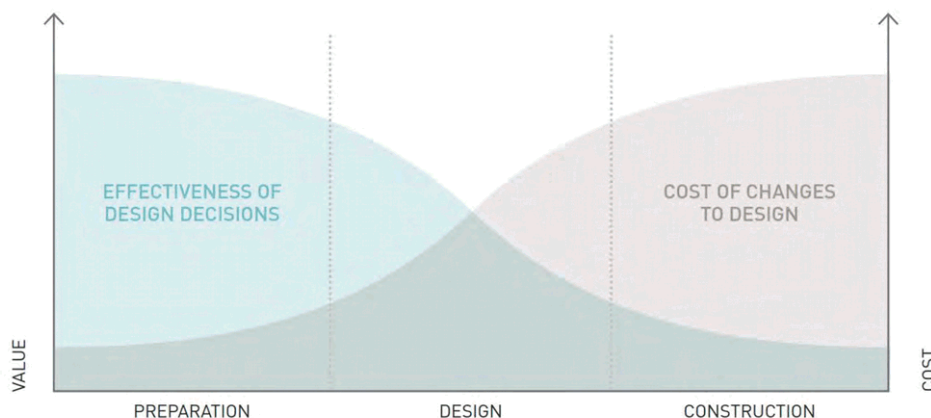
Good urban design operates at a variety of scales; from the macro scale of urban structures, such as city-wide transport networks, to micro scale elements such as lighting. Urban design is also involved throughout the project lifecycle, from the project definition, through to option studies, concept and detailed design, construction and evaluation.

Urban design is not limited to special projects and should underpin all government projects. It is achievable and important in even the smallest urban interventions. Good urban design processes and outcomes are important because they improve:

- The functionality, character and spirit of public places for individuals and communities;
- The levels of comfort, accessibility, safety and inclusiveness of places;
- The expression of social and cultural values associated with places;
- The socio-economic composition, diversity and economic vibrancy of urban areas;
- The sustainability and resilience of urban environments; and
- Community connectedness, health and wellbeing, and pride of place.

When urban design objectives are considered alongside technical considerations from the outset of a project and throughout the project delivery, it results in better, more integrated and efficient urban outcomes which can often be achieved at minimal additional cost. Altering the urban environment can be challenging and costly and attempts to implement urban design objectives at later stages of projects proves difficult and expensive. Figure 1 shows that when key design initiatives are put in place at the early stages of a project, there is greater opportunity for good design to be realised.

Figure 1 Design Quality and Delivery Stages (Source: OVGA Government as Smart Client)



**Embedding Design Quality**

*LXRA works with the Office of the Victorian Government Architect (OVGA) to implement a design approach, applicable across the MTIP, consisting of the following pillars:*

- *Common vision: create a lasting legacy for Melbourne through great urban design and place making in our major transport infrastructure projects.*
- *Accountability: prepare urban design documents to guide the planning, design and evaluation of major transport projects.*
- *Transparency: undertake a program of stakeholder and community engagement to inform the design of major transport infrastructure projects, including identifying key local considerations and opportunities to involve the community, including young people, in the projects*
- *Governance: seek expert design advice through the whole of project life-cycle, retaining consistent design expertise from the OVGA, industry and stakeholders at all stages of the project including development, procurement and delivery; and*
- *Independent design review: use the Victorian Design Review Panel at key milestones throughout the project lifecycle, as appropriate.*

*This UDF is based on this approach and demonstrates accountability.*

High quality, well-integrated design is critical to the success of a major infrastructure project.

Establishing a vision and key design initiatives that consider the long-term possibilities for a place and community during early stages and at a broader scale than just that of the initial transport project investment may act as a catalyst and unlock transformative urban integration and urban renewal opportunities.

It is essential that any integrated development opportunities contribute to improved urban amenity through incorporation of good urban design approaches, to ensure site responsive, locally relevant higher density development. This project has the potential to set strong benchmarks for design quality in urban renewal and to serve as a catalyst for positive urban renewal that reinvigorates and reconnects communities.

Factors that can have a significant impact on design outcomes include:

- Developing a vision statement;
- Quality of the brief;
- Adequacy of the budget;
- Adequacy of the program;
- Good design review processes;
- Good management and governance of urban design process;
- Skill of the design team; and
- Ability to integrate multiple design disciplines.

The LXRA is committed to ensuring high quality urban design is achieved through all of its projects.

## 1.2 PURPOSE AND ROLE OF THE UDF

The UDF will guide the integrated planning and design of level crossing removal projects, and other projects as allocated, to deliver high quality, context sensitive urban design outcomes which enhance urban amenity and minimise adverse impacts. The UDF will be used to:

- Inform and influence the project design and options;
- Inform site specific urban design guidelines;
- Evaluate design proposals;
- Evaluate detailed design; and
- Assess built form outcomes.

Design must address both the rail and road infrastructure, as well as identify broader place making opportunities for communities and places through which the project passes.

The UDF encourages private sector expertise and innovation in creating outstanding urban design outcomes, through a collaborative design approach to developing technical proposals.

It is essential each project demonstrates integrated urban design thinking as a catalyst for urban renewal, improving the quality of the public domain, being context responsive and helping to enhance existing urban character and amenity.

Rather than providing prescriptive urban design solutions, the UDF sets out what is to be achieved in terms of urban design quality and performance.

The principles, objectives, measures and qualitative benchmarks set out in this UDF will:

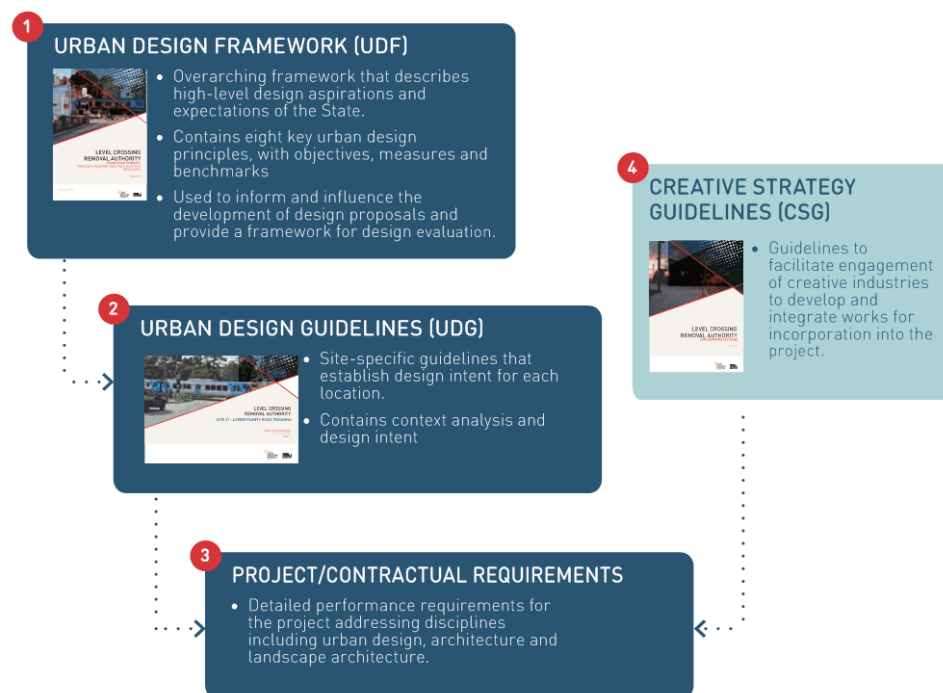
- Ensure proposals develop with good urban design considerations, treated as being integral to project solutions;
- Provide the basis for the Urban Design Advisory Panel (UDAP) to provide advice and feedback;
- Guide the evaluation of design proposals; and
- Establish the minimum quality expected by the State in terms of performance outcomes and benchmarks for quality.

The UDF is a living document that will be updated as the LXRP progresses.

While the UDF provides program wide guidance, LXRA also produces Urban Design Guidelines and detailed project requirements for each level crossing removal site. These are informed by the UDF and complemented by the Integrated Art Guidelines. Figure 2 shows the relationship between these four documents.

Figure 2 Purpose and the Role of contract documents including UDF, UDG and CSG

## URBAN DESIGN DOCUMENTATION



### 1.3 POLICY CONTEXT AND RELEVANT DOCUMENTS

The UDF is informed by and seeks to give effect to a range of policies and strategies at both the federal and state government level. The key policy documents are outlined below.

- The eight principles of the UDF are derived from the Australian National Urban Design Protocol 'Creating Places for People'. These principles outline the expected urban design outcomes for LXRA projects, and are supported by objectives, measures and qualitative benchmarks.
- The Transport Integration Act 2010 (TIA) is Victoria's principal transport statute and sets out an integrated decision-making framework. The TIA includes six transport system objectives that are relevant to the UDF:
  - Social and economic inclusion;
  - Economic prosperity;
  - Environmental sustainability;
  - Integration in transport and land use;
  - Efficiency, coordination and reliability; and
  - Safety, health and wellbeing.
- The UDF has been informed by the PTV Network Technical Standard for Public Transport Precincts (2017), as well as Transport for Victoria's Transport User Needs document. Precinct environments will be designed to provide safe and predictable movements prioritised according to Public Transport Victoria's (PTV) transport mode hierarchy – prioritising pedestrians and bicycle access over private vehicle access.

- The Metropolitan Planning Strategy 'Plan Melbourne 2017-2050' includes the following action, which the UDF will assist in delivering:

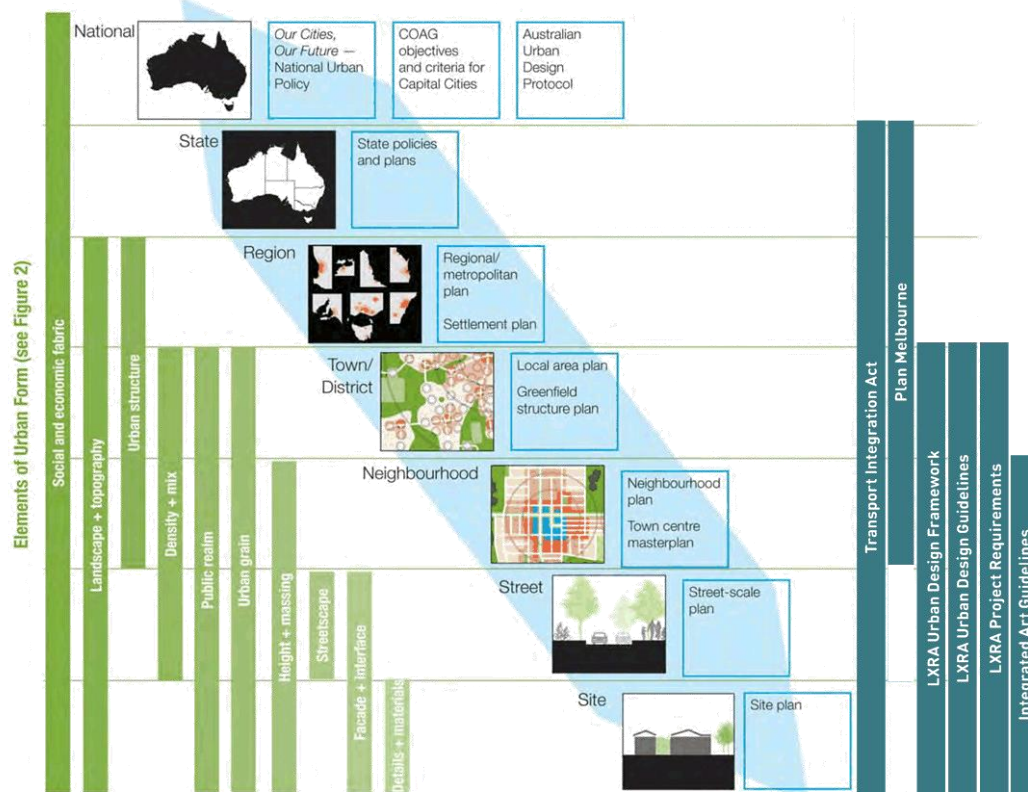
*Implement measures to ensure new transformative and city-shaping infrastructure projects, such as the Metro Tunnel and level crossing removals, deliver exemplary design outcomes and opportunities for new public spaces and connections that will add to Melbourne's vitality.*

Figure 3 provides some context between the different elements of urban form, and the relationship and scale of planning and LXRA documentation in which they are addressed.

Links to a number of these documents and other useful documents that have informed the UDF and are relevant to urban design are located at Appendix C.



Figure 3 Line of sight from national to site level (Adapted from Creating Places For People)



Thinking about urban design, strategic and statutory planning at different scales helps put them in context. The elements of urban design are illustrated next to the scale of planning at which they are commonly addressed. Concept adopted from *Next Generation Planning*, published by the Council of Mayors (SEQ), 2011

## 1.4 LOCAL CONSIDERATIONS

Each individual project site should be viewed as a specific and distinctive opportunity to improve a local place, the rail corridor and the associated journey. Effective enhancement of local places requires an understanding of existing character, including the physical conditions, strategies, plans and local community values.

Each site, whether it be a level crossing removal, new station or associated development site, has its own unique character and 'sense of place'. There are distinctive issues and opportunities inherent in each place in terms of its urban design quality. The design for each site, and each area affected by the project, should take into account the unique characteristics, issues and opportunities in its location and community. Consideration should also be given to the dynamism of communities and to the needs of those who may live in and use these areas in the future.

Key local considerations for each site will be informed by discussion with Council and the community as part of consultation for the projects.

While the UDF provides program-wide guidance, local considerations are identified in Urban Design Guidelines (UDGs) prepared for each project site.

UDGs define a specific site vision, identify key opportunities and constraints and unique character qualities. They also integrate relevant local government and key agency stakeholders.

Project teams should undertake careful analysis of existing contexts through site investigation and research to understand local issues and opportunities to enhance and contribute to better local outcomes. This should include analysis of each existing site, associated precincts and the corridor as a whole to establish a sound basis for a responsive design solution to LXRA projects and any integrated development opportunities.

## 2. FRAMEWORK STRUCTURE

The Urban Design Framework has five components in three sections.

The five components will be used to evaluate and assess a design proposal at each stage through to delivery.

High quality urban design will be achieved through the holistic application of the Principles, Objectives, Measures and Benchmarks contained within the UDF.

### VISION AND ASPIRATIONS

The vision and aspirations describe the goal to achieve high quality urban design outcomes for the whole program.

### PRINCIPLES AND OBJECTIVES

The eight principles of the UDF are derived from the Australian National Urban Design Protocol 'Creating Places for People'. These principles outline the expected results for achieving good urban design outcomes.

The objectives clarify aspects of the principles, and describe specific outcomes to be achieved, to give effect to each principle.

The principles and objectives provide overarching expectations for high quality design considerations across the whole program, and are used to inform selection of preferred options, development of solutions and evaluation of proposals and final built outcomes

### MEASURES

The measures provide performance requirements, based on a range of elements, that demonstrate the Principles and Objectives have been achieved.

The measures communicate the outcomes required to achieve the Principles and Objectives, as the basis for which proposals will be informed, evaluated and delivered.

### QUALITATIVE BENCHMARKS

The qualitative benchmarks provide a series of images that illustrate the minimum standard of design quality expected for project elements, drawn from relevant precedent projects.

The qualitative benchmarks provide a reference to illustrate the level of quality in meeting the measures in terms of conceptual and detailed design integration, innovation and detailed resolution.

### 3. URBAN DESIGN VISION AND ASPIRATIONS

The vision and aspirations describe the goal to achieve high quality urban design outcomes for the whole program.

#### 3.1 VISION

A collaborative, interdisciplinary approach integrates technical and urban design aspects in project solutions, and enables architectural, landscape and urban outcomes that focus on creating great places for people.

#### 3.2 ASPIRATIONS

Five aspirations support the vision:

- Urban design excellence will be achieved to benefit all of the transport network, its users and the communities and places through which the project passes;
- The positive impacts of the project will be maximised, and negative impacts will be minimised;
- High quality urban design will be closely integrated with best practice technical solutions;
- Opportunities to provide added community benefits will be pursued, including health and wellbeing through urban amenity and quality;
- Collaborative, multi-disciplinary integrated design thinking will be achieved through an urban design led process.



## 4. PRINCIPLES AND OBJECTIVES



The eight principles of the UDF are derived from the Australian National Urban Design Protocol 'Creating Places for People'. These principles outline the expected results for achieving good urban design outcomes.

The objectives clarify aspects of the principles, and describe specific outcomes to be achieved, to give effect to each principle.

The principles and objectives provide overarching expectations for high quality design considerations across the whole program, and are used to inform selection of preferred options, development of solutions and evaluation of proposals and final built outcomes Urban design outcome.

Urban design outcome ENHANCING	Urban design outcome DIVERSE
<p>Principle 1 <b>IDENTITY</b></p>  <p>A well-defined identity and sense of place is key to creating strong and vibrant communities.</p>	<p>Principle 2 <b>URBAN INTEGRATION</b></p>  <p>A well-integrated environment is a sound framework for the successful development of a great place.</p>
<p><b>Objective 1.1 Sense of Place</b></p> <p>Recognise, maintain and enrich the identity of the local neighbourhood. Develop a design that embodies the qualities, character and aspirations of the local community.</p>	<p><b>Objective 2.1 Integration</b></p> <p>Provide an integrated design aligned with analysis findings, local government and community vision and relevant broader government policies.</p>
<p><b>Objective 1.2 Responsive</b></p> <p>Design and integrate infrastructure to respond and contribute to the unique and valued social, cultural and physical aspects of the local area. Demonstrate sensitivity to interfaces with neighbours.</p>	<p><b>Objective 2.2 Reconnect</b></p> <p>Reconnect communities if previously severed by infrastructure intervention, and foster community cohesion.</p>
<p><b>Objective 1.3 Heritage</b></p> <p>Respect and respond to indigenous and non-indigenous cultural heritage and local history.</p>	<p><b>Objective 2.3 Urban renewal</b></p> <p>Identify and optimise IDOs at an early stage. Demonstrate how the new works will integrate with and catalyse future urban renewal.</p>
<p><b>Objective 1.4 Journey</b></p> <p>Enrich the civic identity of the rail corridor, to enhance the journey and to create engaging and memorable experiences for commuters.</p>	<p><b>Objective 2.4 Future-proofing</b></p> <p>Respond to strategic transport and land use planning for the broader precinct.</p>
<p><b>Objective 1.5 Consultation</b></p> <p>Enhance the quality of project outcomes by working closely with affected stakeholders and communities to identify and prioritise key local issues &amp; opportunities.</p>	

Urban design outcome <b>CONNECTED</b>	Urban design outcome <b>WALKABLE</b>
<p>Principle 3 <b>CONNECTIVITY &amp; WAYFINDING</b></p>  <p>A well connected and legible environment contributes significantly to a strong economy and an integrated community.</p>	<p>Principle 4 <b>ACCESSIBILITY</b></p>  <p>A highly accessible and inclusive environment provides a positive user experience and contributes to health, wellbeing and the perception of care in a community.</p>
<p><b>Objective 3.1 Connectivity</b></p> <p>Improve connectivity and enable ease of movement between spaces for all users by providing direct connections and clear sightlines in the station precinct, the broader region and across the rail corridor.</p>	<p><b>Objective 4.1 Universally inclusive</b></p> <p>Design for universal accessibility, promote equity, and minimise perceived and physical barriers in public spaces within and beyond the precinct. Improve building accessibility for all users.</p>
<p><b>Objective 3.2 Legibility</b></p> <p>Design for legibility and intuitive wayfinding by providing a clear hierarchy of pathways and spaces that reduces reliance on signs.</p>	<p><b>Objective 4.2 Walkable</b></p> <p>Prioritise walkability by coordinating land use patterns, providing high quality footpaths and pedestrian friendly traffic and road conditions.</p>
<p><b>Objective 3.4 Multi-modal transport</b></p> <p>Provide a range of well provisioned transport options. Make inter-modal connections effective for all users, reflecting PTV's Station Access Mode Hierarchy*. Prioritise pedestrians and cyclists.</p>	<p><b>Objective 4.3 Active transport</b></p> <p>Plan and design to enable and encourage walking, cycling and using public transport within and beyond the precinct.</p>
<p>* Station Access Mode Hierarchy from Public Transport Precincts Design Requirements and Guidance</p>	

Urban design outcome SAFE	Urban design outcome COMFORTABLE
<p>Principle 5 <b>SAFETY</b></p>  <p>A safe environment is essential for a strong, connected and happy community.</p>	<p>Principle 6 <b>AMENITY</b></p>  <p>High quality urban amenity associated with access to services and the experience of a great public place contributes to a successful, equitable and prosperous community.</p>
<p><b>Objective 5.1 Personal safety</b></p> <p>Apply Crime Prevention Through Environmental Design (CPTED) principles to design places that are and feel safe, that engender positive use of and care for the environment and are not conducive to vandalism.</p>	<p><b>Objective 6.1 Improved amenity</b></p> <p>Improve urban amenity with a design that facilitates a range of activities and mix of uses.</p>
<p><b>Objective 5.2 Natural surveillance</b></p> <p>Maximise passive surveillance opportunities in public spaces. Eliminate hidden corners and spaces that allow entrapment.</p>	<p><b>Objective 6.2 Comfort</b></p> <p>Design for the physical comfort and psychological wellbeing of users of all physical capabilities.</p>
<p><b>Objective 5.3 Natural access control</b></p> <p>Design clear, accommodating and easily visible entries and exits to differentiate between public space and private space. Ensure users do not encounter dead-ends.</p>	<p><b>Objective 6.3 High quality</b></p> <p>Provide a high-quality design outcome that makes a positive contribution to the local area, through a well-considered concept, design resolution, construction detail and finished product.</p>
<p><b>Objective 5.3 Territorial reinforcement</b></p> <p>Design buildings, fences, pavements, signs, lighting and landscape to express ownership and define spaces.</p>	<p><b>Objective 6.4 Impact mitigation</b></p> <p>Minimise the negative impacts of noise, spilled light, overshadowing and visual pollution.</p>



Urban design outcome <b>VIBRANT</b>	Urban design outcome <b>ENDURING</b>
<p>Principle 7 <b>VIBRANCY</b></p>  <p>Animation and diversity in the experience of urban places supports a prosperous and healthy community.</p>	<p>Principle 8 <b>RESILIENCE &amp; ENVIRONMENTAL SUSTAINABILITY</b></p>  <p>Places must be sustainable, enduring and resilient to support and nurture current and future generations.</p>
<p><b>Objective 7.1 Put people first</b></p> <p>Design an integrated, welcoming and inclusive public realm that facilitates social interaction and positive engagement between people, spaces and activities.</p>	<p><b>Objective 8.1 Environmental sustainability</b></p> <p>Design, construct and operate environmentally sustainable places, considering the whole of life and precinct wide impacts and opportunities of the place.</p>
<p><b>Objective 7.2 Vibrant public realm</b></p> <p>Create memorable, engaging, authentic and inspiring spaces and places.</p>	<p><b>Objective 8.2 Climate resilience</b></p> <p>Design for climate resilience by considering the projected effects of climate change, such as heat island effect and extreme weather conditions.</p>
<p><b>Objective 7.3 Range of experiences</b></p> <p>Provide opportunities for a range of experiences that are accessible at different times of the day and the year.</p>	<p><b>Objective 8.3 Enduring &amp; durable</b></p> <p>Ensure a positive built legacy with design solutions that are enduring in quality and function, readily maintainable and that will age gracefully. Promote effective governance arrangements to optimise the on-going management of each place.</p>

## 5. MEASURES AND QUALITATIVE BENCHMARKS

### INTRODUCTION

The measures provide performance requirements, based on a range of elements, that demonstrate the Principles and Objectives have been achieved.

The measures communicate the outcomes required to achieve the Principles and Objectives, as the basis for which proposals will be informed, evaluated and delivered.

The qualitative benchmarks provide a series of images that illustrate the minimum standard of design quality expected for project elements, drawn from relevant precedent projects (refer to QB1 to QB55).

The qualitative benchmarks provide a reference to illustrate the level of quality in meeting the measures in terms of conceptual and detailed design integration, innovation and detailed resolution.

The measures and qualitative benchmarks together identify and illustrate the level of quality expected, and requirements against which proposals will be evaluated. A successful design must adequately meet the relevant measures to achieve a high-quality outcome for the project.

In developing the UDF, LXRA have built on initiatives by other agencies, which underpin many of the measures and benchmarks in this section.

Three spatial contexts have been identified (outlined below and at Figure 4), that describe the different environments for level crossing removal projects.

1. The station interchange and its immediate environment;
2. The transition between the interchange and the surrounding area; and
3. The corridor and the wider precinct - enhancing the wider context.

The UDF principles, objectives, measures and

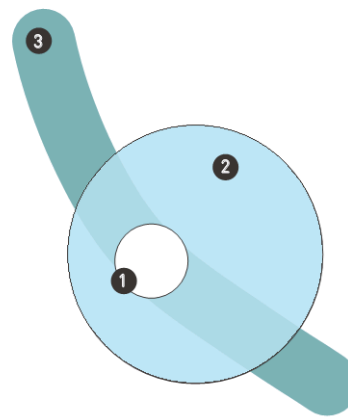


Figure 4 Urban Design Spatial Contexts

benchmarks apply to all three contexts, and LXRA expects that the measures and qualitative benchmarks will be applied, as relevant, to these areas:

## 5.1 GENERAL MEASURES

- M1.1** The design delivers a high quality, well-resolved, innovative outcome that is enduring in expression and timeless in nature, for all transport users, the adjacent community and Melbourne as a whole.
- M1.2** The design is responsive, engaging, functional, adaptable for future infrastructure needs and finely executed in detail across the whole project.
- M1.3** Structural, functional and service elements are resolved and integrated with the landscape, cultural heritage, land use, and character of the precincts along the alignment. A sense of journey is created and all elements deliver overall coherence and identity.
- M1.4** The design is sensitive to the context of the local area by considering amenity impacts on nearby residents and adjacent land uses, including public open space and future development sites, and providing safe and convenient access.
- M1.5** Where land acquisition and demolition occur and a new interface is created, negative impacts are minimised.
- M1.6** Best practice environmentally sustainable development is achieved from design through to operation as:
- *New infrastructure is aligned with the LXRA Sustainability Policy, LXRA Sustainability Management Plan and LXRA Sustainability Strategy.*
  - *Environmentally Sustainable Development (ESD) initiatives are demonstrated at the planning stage.*
  - *An Infrastructure Sustainability Council of Australia (ISCA) rating for the project and a Green Building Council of Australia (GBCA) rating for station buildings is achieved.*



**QB1 Olympic Sculpture Park, Seattle, USA**  
Innovative urban design response for the city as a whole



**QB2 Craigieburn Bypass, Melbourne**  
High quality design outcome enhancing Melbourne's cultural identity and reputation for design innovation and excellence



**QB3 Newtown Interchange, Sydney**  
Responsiveness of contemporary design to heritage precinct

- The sustainability of any building is addressed by effective and innovative design and technology solutions.
- The design is resource efficient by minimising energy usage, using materials efficiently, reducing and recycling waste and minimising materials wastage.
- Greenhouse gas emissions and embodied energy are minimised.
- Water usage is minimised, including by the use of integrated water capture, rainwater tanks and reuse into adjacent open space areas where feasible.
- Natural elements are used in the design where possible and biodiversity is promoted in the whole-of-life and precinct wide context.
- The long-term impacts of a changing climate on the design and surrounding communities is considered through a climate resilient approach.

**M1.7** Principles for form, finishes and siting for all rail, road and street furniture, lighting, signage housings and other miscellaneous items are established at the concept stage of the design. The principles minimise visual clutter and align with the urban design concept or local palettes as appropriate.

**M1.8** Substations and ancillary structures (such as signal buildings or communication equipment buildings) are located with consideration of amenity impacts on nearby residents and adjacent land uses, and minimise the need for vegetation removal.



**QB4** MAX Orange Line, Portland, USA  
Vegetated trackway for stormwater benefits



**QB5** Skyttlebron Railway Bridge, Lund , Sweden  
Environmentally sustainable design - maximising natural sunlight



**QB6** Santa Fe Railyard Park, New Mexico, US  
Rainwater tank as the focal point of the plaza including the restoration of a historic acequia



- M1.9** Substations are designed using a combination of the following treatments in sensitive locations relevant to the context, including:
- *Architectural cladding of the building.*
  - *Architectural security fencing separate to the building, which also functions as a visual screen.*
  - *Landscape screening through planting and land form integrated with the security fence.*
- M1.10** The maintenance responsibilities of the ultimate asset owners are identified at an early stage of planning and design. There is compatibility between the proposed design, materials, landscaping and the ongoing maintenance regime. Asset classification and maintenance requirements are balanced.
- M1.11** The design applies CPTED principles to deter criminal behaviour, and create an environment which is accessible, inclusive, welcoming, supports safe behaviour and is perceived as safe, including consideration of good visual connectivity, passive surveillance and orientation that minimises visual obstruction.



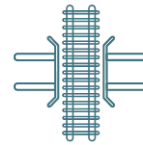
**QB7 Clifton Hill Railway Duplication, Melbourne**  
Integrated elements to create a sense of journey



**QB8 MAX Orange Line, Portland, USA**  
Coordinated furniture palette



**QB9 North Melbourne Station, North Melbourne**  
Well proportioned platform canopy providing adequate weather protection and integrated lighting



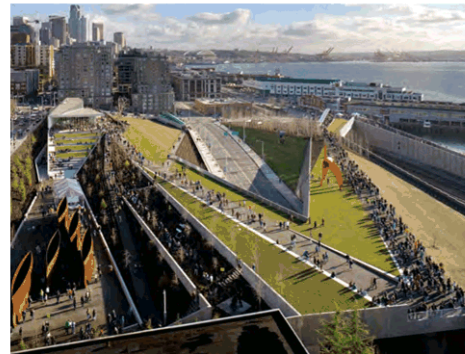
## 5.2 ALIGNMENT MEASURES

**M2.1** Subject to site constraints, the horizontal and vertical alignment, including alignment geometry, responds positively to the local context including:

- *Local access requirements and the need for and potential impacts of any required service roads.*
- *Pedestrian and cyclist accessibility and permeability*
- *Intuitive wayfinding*
- *Adjacent activity centres and public realm.*
- *Any identified visual amenity issues.*
- *Any potential overshadowing issues.*
- *The existing and proposed landscaping.*

**M2.2** Opportunities associated with alignment considerations are optimised including:

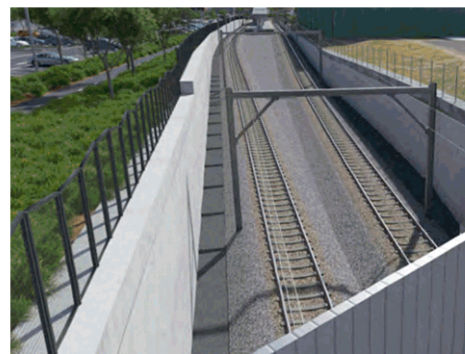
- *Multi-modal access and transit networks at stations to encourage and enable growth in sustainable transport modes.*
- *Cross-corridor connectivity and permeability at key locations along the rail corridor.*
- *The potential for integrated development opportunities.*
- *Enhancing access and egress outcomes for stations, particularly pedestrian and cyclist access.*



**QB10 Olympic Sculpture Park, Seattle, USA**  
Create high quality public realm through grade separation of transport



**QB11 Hague RandstadRail, Netherlands**  
Maximise the opportunity for cross-corridor connectivity



**QB12 Scorsby Bridge, Bayswater, Melbourne (Illustration)**  
High quality visual amenity in a cutting



### 5.3 STATIONS PRECINCT MEASURES

- M3.1** Key user needs Including safety, reliability, speed, ease, comfort and experience are demonstrated in the design.
- M3.2** The design ensures the station precinct functions well at both peak and off-peak times.
- M3.3** The design recognises the dual role of a station as a service point for public transport infrastructure and as a high quality public realm by:
- *Responding to and enhancing the local context*
  - *Being fit for purpose, sustainable and offering good amenity for commuters and others*
  - *Being enduring in design concept and execution*
  - *Improving community connections and public spaces to encourage social interaction.*
- M3.4** Subject to site constraints, the location of a new station:
- *Optimises high quality outcomes for accessibility, particularly by walking and cycling*
  - *Maximises the opportunity to activate adjacent activity centres*
  - *Minimises negative impacts on the amenity of surrounding areas.*
- M3.5** Station facilities provide comfortable, efficient and adequate services and settings for commuters and users of the station.
- M3.6** Station entrances are legible, universally accessible, welcoming, located to maximise inclusiveness and accessibility and have generous spaces that are sited and designed to enhance local context and connectivity.



**QB13 Bayswater Station, Melbourne**  
Built form responds to local topography



**QB14 North Melbourne Station, Melbourne**  
Comfortable, efficient and adequate services and settings



**QB15 South Morang Station, Melbourne**  
Legible, inclusive and accessible station entrance

- M3.7** The design promotes direct, efficient, comfortable, safe and legible intermodal connections by:
- *Adequately accommodating all relevant modes*
  - *Ensuring walking and cycling paths cater for desire lines and key flows*
  - *Ensuring intuitive way finding through visual and physical connectivity*
  - *Designing waiting areas for good visual permeability and ease of use for multi-modal transport*
  - *Providing bicycle parking facilities as an integral part of the station entry and civic space design.*
  - *Ensuring cycling facilities are safe, robust and elegant aspects of the urban design proposal in terms of spatial and detail resolution.*
- M3.8** The edges of the station precinct are well considered and avoid severance of access due to rail and road infrastructure.



**QB16 Longueuil-Saint-Hubert station , Quebec, Canada**  
Intermodal platform - direct connection between bus and train



## 5.4 BRIDGE AND ELEVATED STRUCTURE MEASURES

- M4.1** Elevated structures contribute to urban amenity.
- M4.2** The design of any new or modified bridge, viaduct, elevated structure or ramp is sensitive and respectful of its context.
- M4.3** All the elements of a bridge or elevated structure are integrated to ensure a well-proportioned structure.
- M4.4** Pedestrian and cycling overpasses are provided at strategic points relative to pedestrian movement patterns and the existing and proposed street and cycle networks; where applicable.
- M4.5** The siting, visual connections, relationship to pathways, open space and access to natural light below elevated structures is designed to enhance safety, inclusiveness and amenity; where applicable.
- M4.6** The visual and spatial impact of all services associated with elevated structures, including conduits, drainage and fixtures is minimised through design integration.
- M4.7** Lighting is integrated and contributes to identity, vibrancy and visual and spatial amenity.
- M4.8** Superstructure, piers, beams and barriers are designed as integrated elements that minimise visual clutter and align with the urban design concept for the corridor.
- M4.9** Visual permeability is maximised where possible.



**QB17 McCormick Tribune Campus Centre, Chicago, USA**  
Noise-absorbing steel tube wrapped around metro to protect The McCormick Tribune Campus building



**QB18 Seoullo 7017 Skygarden, Seoul, South Korea**  
Lighting to contribute to identity and visual amenity



**QB19 Seafarers Pedestrian Bridge, Yarra River, Melbourne**  
Integrate barriers as part of the urban design solution

- M4.10** Barriers and screens are integrated in the technical and urban design through use of use high quality, enduring and sustainable materials.
- M4.11** Pedestrian bridges are located and designed to contribute to identity and legibility.



**QB20 Monash Freeway Rock Climbing Wall, Burnley**  
Maximise the safety and amenity of accessible areas below elevated structures through creative activation

## 5.5 OPEN CUTTING MEASURES

- M5.1** Where shotcrete is located in sensitive urban environments or within a station environment consideration is given to urban amenity and high quality finishes or cladding.
- M5.2** Access to community spaces and movement networks is facilitated, and connection of communities is maximised, by providing integrated linkages across cuttings.
- M5.3** The design of open cuttings contributes to the visual quality and amenity of affected areas through high quality hard and soft landscaping. Landscaping, fencing and barriers are well integrated.
- M5.4** Retaining walls use a consistent form, design and materials palette with high quality finishes and are integrated elements in the urban design concept, landscape design and local context.
- M5.5** The cutting width and load bearing capacity of retaining walls takes into account opportunities for potential development over the railway line in the future.



**QB21 Eastlink, Melbourne**

Design open cuttings to have high visual quality



**QB22 Freeway Park on the I-5, Seattle, USA**

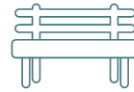
High quality pedestrian environment across a transport corridor



**QB23 Burke Road Station, Melbourne**

Good visual connectivity between concourse and platforms

## 5.6 PUBLIC REALM AND BUILT ENVIRONMENT MEASURES



- M6.1** Opportunities to create, enhance and connect to existing and future pedestrian precincts, community and recreation facilities, public open spaces, identified future developments and activity centres are maximised.
- M6.2** Accessibility and general amenity for the community is improved through a coherent, legible, inclusive and continuous public realm.
- M6.3** Interfaces with, and connections to, identified future development in surrounding areas are well managed.
- M6.4** Access to activity centre precincts is improved. Precincts that were previously disconnected by transport infrastructure are reconnected.
- M6.5** Community connectivity is enhanced by improving permeability, legibility and accessibility across the corridor, and at station precincts.
- M6.6** The design promotes positive use of open space.
- M6.7** The design acknowledges, responds to and preserves indigenous and non-indigenous heritage and local history.
- M6.8** Open spaces are comfortable and inclusive with good access to sunlight and shade.
- M6.9** The design minimises wind impacts within the transport environment and the broader precinct.
- M6.10** Spaces are provided that support a diversity of active and passive uses. Spaces such as civic plazas for community activities and cultural events are integrated with parkland and passive recreation spaces where appropriate.



**QB24 Nicholson Street Mall, Footscray**  
Create and enhance connection to existing activity centres



**QB25 Lonsdale Street, Dandenong**  
Create safe, comfortable, inclusive and welcoming spaces



**QB26 MAX Orange Line, Portland, USA**  
High quality open space





## 5.7 LANDSCAPE AND NATURAL ENVIRONMENT MEASURES

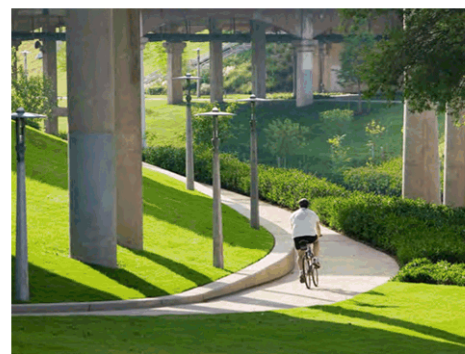
- M7.1** The extent and quality of existing and surrounding landscapes is enhanced through a coherent landscape design concept for the corridor.
- M7.2** Habitat value and the biodiversity of flora and fauna communities along the corridor is enhanced and increased.
- M7.3** The design of new infrastructure and the siting of elements minimises loss of mature trees, remnant vegetation, significant landscapes and parkland.
- M7.4** Canopy trees are planted wherever possible to contribute to the immediate and surrounding landscape.
- M7.5** Plant selection, design and layout presents a coordinated colour, form and texture palette integrated to the urban design concept and contributes to the landscape character. Each selected species is appropriate to the micro-climate and will give a low maintenance, thriving and enduring outcome.
- M7.6** Plant selection, design and layout create a visual and noise buffer between the new infrastructure and surrounding areas where required.
- M7.7** Native or indigenous species are used where possible, particularly in environmentally sensitive zones and in response to the local context.
- M7.8** The design has regard to future maintenance requirements.



**QB27 Footscray Railway Reserve, Melbourne**  
Select viable species appropriate to micro-climate



**QB28 Shared User Path, Ormond Station, Melbourne**  
Landscape buffer between a residential zone and the rail corridor



**QB29 Buffalo Bayou Promenade, Houston, USA**  
Well coordinated landscape response to large scale infrastructure

## 5.8 PEDESTRIAN AND BICYCLE CONNECTION MEASURES



- M8.1** The design of station precincts reflects the PTV's Transport Mode Hierarchy and prioritises permeability and connectivity of active transport modes.
- M8.2** The existing pedestrian and cycling network along the rail corridor and to the station precinct is maintained and enhanced, particularly strategically important cycling corridors (SICCs), priority bicycle routes, the principal pedestrian network (PPN) and pedestrian priority areas.
- M8.3** Identified issues and barriers for cycling and pedestrian connection are addressed by improving conditions for pedestrians and cyclist equally with continuous, more direct, safe and high-quality routes. Space is allocated at an early stage and the need to re-allocate space for motorised vehicles to achieve a sustainable outcome is actively considered.
- M8.4** Opportunities are investigated for new pedestrian and bicycle paths that maintain and extend local connectivity for all users, including linking to existing or new community facilities, open spaces, urban renewal areas or National Employment Innovation Clusters. Connectivity is achieved through an integrated and dense network that links people with destinations and with other modes.
- M8.5** Opportunities for grade-separated pedestrian and bicycle connections across the rail corridor and any cuttings are considered.
- M8.6** Transitions between pedestrian and cycling paths are safe, continuous and seamless. Routes are direct and consistent design elements assist legibility.



**QB30 Bowen Place, Canberra**  
High quality underpass amenity



**QB31 Ringwood Station Footbridge, Melbourne**  
High quality pedestrian connections



**QB32 MAX Orange Line, Portland, USA**  
Prioritising active and public transport infrastructure

- M8.7** The design applies universal design principles that cater for all abilities and ages. Surfaces are designed to avoid unnecessary level changes.
- M8.8** Wayfinding and legibility around the area is improved and new infrastructure and improvements to existing pathways and linkages are provided where possible. Wayfinding is intuitive, clear and consistent.



**QB33 Ormond Station Bike Cage, Melbourne**

Encourage diverse transport modes by providing appropriate facilities



**QB34 MAX Orange Line, Portland, USA**

Improve crossings for pedestrians and cyclists



**QB35 PARK[E]ING, Venice, Italy**

Clear and integrated wayfinding signage



## 5.9 CAR PARKING MEASURES

- M9.1** Car parking is integrated as part of the urban design response. Car parking areas are safe and comfortable spaces with good visual connectivity and integrated landscape design.
- M9.2** Opportunities to maximise car parking efficiency have been included where feasible, including opportunities to integrate commuter car parking into any integrated development outcome through a shared arrangement or through off-peak use of car park spaces.
- M9.3** Commuter car parking facilities are located near station entrances but do not compromise pedestrian or bicycle access.
- M9.4** Car parking is designed to be adaptable for alternative uses in the future if the need for commuter car parking reduces.
- M9.5** The design provides intuitive wayfinding and legible signage for easy navigation.
- M9.6** Accessible, safe and comfortable locations are provided for kiss and ride areas.



**QB36 Ginifer Station Carpark, Melbourne**  
Car park with integrated landscaping

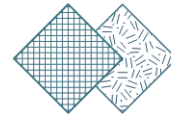


**QB37 Macadamia Castle, NSW**  
Incorporate sustainable technologies where appropriate



**QB38 Solar lights at RACQ Car park, Queensland**  
Incorporate lighting to improve security





## 5.10 MATERIALS & FINISHES MEASURES

**M10.1** A palette of materials, treatments and finishes is developed for the whole corridor as part of the urban design concept, and for key precincts, as appropriate to the design, including for:

- Roads, bridges and elevated structures;
- Noise barriers, retaining walls, abutments, fencing and barriers;
- Pedestrian and cycle paths and infrastructure;
- Land forming, planting and open space elements, including open cuttings;
- Associated elements including signage, lighting and any furniture.

**M10.2** The palette adopted is sensitive to the local environment, assists the broader wayfinding strategy for the corridor and its precinct and contributes to enhancing local identity.

**M10.3** The materials and finishes used in the project are high quality, durable, robust, easy to maintain and will age well over time.

**M10.4** New materials and finishes are not overly reflective and do not create light pollution in the surrounding areas.

**M10.5** The selection and application of materials and finishes minimises the potential for vandalism and graffiti.

**M10.6** The palette of hard and soft landscaping elements is coordinated with any local government strategy or palette where relevant.



**QB39 Bowen Place Crossing Development, Canberra**  
Articulated surface minimises the potential of graffiti



**QB40 Birrarung Marr pedestrian bridge, Melbourne**  
High quality, durable and robust material



**QB41 Southern Cross Station Main Concourse, Melbourne**  
Design for ease of maintenance

## 5.11 NOISE ATTENUATION MEASURES



- M11.1** Noise attenuation elements are integrated with structures. Consider existing noise attenuation elements, landforms, urban interfaces and the urban design concept for the precinct and the project.
- M11.2** Transparent panels are used where noise walls substantially interfere with residents' views or access to daylight.
- M11.3** Noise barriers are designed to positively address and enhance both the rail side and community side of the barrier and show careful consideration of form, texture and colour on both sides of the wall equally.
- M11.4** Overshadowing of residential properties, open space, waterways and valuable habitat by noise barriers or other noise attenuation structures is minimised.
- M11.5** The potential for vandalism to noise attenuation treatments is minimised through materials selection, detail and positioning.



**QB42 Craigieburn Bypass, Melbourne**  
High quality integrated noise and retaining walls with articulated surfaces



**QB43 Eastlink, Melbourne**  
High quality transparent materials to minimise overshadowing and provide good visual connectivity



**QB44 A2 Highway, Netherlands [Illustration]**  
Luminescent solar concentrators (LSC) and soft landscaping as noise barrier



## 5.12 LIGHTING MEASURES

- M12.1** Functional lighting for the project is integrated with and appropriate to the surrounding land uses.
- M12.2** Functional lighting is used to enhance personal safety and access around infrastructure.
- M12.3** Energy efficient, vandal proof and easily maintained light fixtures are used.
- M12.4** Feature lighting is used to enhance navigation and the user experience.
- M12.5** Feature lighting is coordinated with other design elements to create a cohesive identity for the project.
- M12.6** All lighting is designed sensitively to the surrounding environment and oriented to minimise light pollution. Highly directional lighting is used where possible to avoid light spill into surrounding areas.



**QB45 Jim Stynes Bridge, Melbourne**  
Integrated feature lighting to celebrate structural form



**QB46 Webb Bridge, Melbourne**  
Lighting fixtures are integrated design elements



**QB47 University of Sydney Darling Campus, Sydney**  
Lighting to enhance user experience

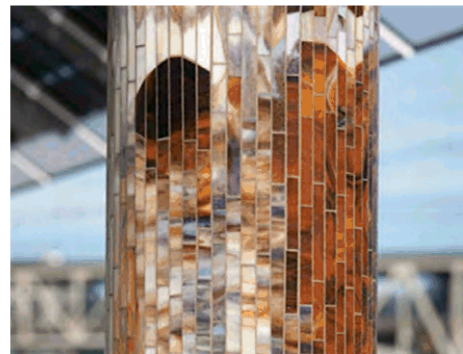


### 5.13 INTEGRATED ART WORK MEASURES

**M13.1** Where appropriate, art works are integrated into the design and construction of transport precincts and infrastructure at key locations, in accordance with the LXRA Integrated Art Guidelines, such as:

- Within activity centres to provide an opportunity to activate local areas.
- Infrastructure elements such as retaining walls, bridges, bridge piers and underpasses.
- Built form components such as bike parking facilities, walls, screens and fences.
- Public realm spaces and contributory elements such as lighting, sound, soft and hard landscape and seating.

**M13.2** A creative approach to transport infrastructure design improves the function of the transport environment.



**QB48 MAX Orange Line, Portland, USA**  
Integrate creative works into infrastructure elements



**QB49 MAX Orange Line, Portland, USA**  
Integrate creative works into public realm spaces



**QB50 Gardiner Station Forecourt public art, Melbourne**  
Employ a process for selection, commissioning, implementation and on-going maintenance for public art works



## 5.14 INTEGRATED DEVELOPMENT OPPORTUNITY MEASURES

- M14.1** The Integrated Development Opportunity demonstrates consideration of all relevant measures contained within the UDF.
- M14.2** The Integrated Development Opportunity is integrated with train station functions and creates physical connectivity, maintains protection of visual and noise amenity and gives precedence to station requirements (such as access and other operational requirements).
- M14.3** The design of the Integrated Development Opportunity facilitates a positive contribution to the local area and acts as a catalyst for urban renewal.
- M14.4** The proposed built form and land uses of the Integrated Development Opportunity have regard to the policy context of the site and location, including relevant Plan Melbourne policy objectives that encourage higher density development in and around activity centres and at transport hubs.
- M14.5** The Integrated Development Opportunity considers a mix of land uses that contribute positively to the area and the local economy, including the potential to accommodate commercial uses and community and social uses to meet other government outcomes.
- M14.6** The Integrated Development Opportunity continues any existing active frontages and retail functions in commercial areas where appropriate.
- M14.7** The Integrated Development Opportunity provides a diversity in housing options where feasible, including a mix of dwelling types and social and affordable housing.



**QB51 Rouse Hill, NSW**  
IDOs act as a catalyst for urban renewal



**QB52 Breslauer Platz, Cologne, Germany**  
Active frontage and integrated functions for connectivity



**QB53 Mitcham Station, Melbourne**  
Integrate development with train station functions

**M14.8** The Integrated Development Opportunity incorporates environmentally sustainable design measures for energy and water efficiency, greenhouse gas emissions, passive solar design, natural ventilation, stormwater reduction and management, solar access, orientation and layout of development, building materials and waste minimisation.

**M14.9** Any temporary vacant site has been investigated in consultation with Victrack, to determine whether an appropriate interim land use is feasible. Any proposed interim land use makes a positive contribution to the local area over the entire project life cycle.



**QB54 A'Beckett Urban Square, Melbourne**

Temporary treatment can achieve broader community objectives

## 6. DESIGN QUALITY INITIATIVES

To support high quality and integrated urban design outcomes the LXRA has design initiatives and processes in place to ensure design quality throughout the project's lifecycle.

### 6.1 URBAN DESIGN ADVISORY PANEL

The Urban Design Advisory Panel (UDAP) includes members working within government who have expertise in architecture, urban design, strategic planning, transport planning and landscape architecture. A representative from the OVGA is the Chair of the UDAP and drives high quality outcomes and integrated design for the projects.

The UDAP guides and advises on:

- a. Integrated design for projects delivered by the LXRA, including vision statements, urban context/design reports and reference designs/ project proposals to inform project scope and budget decisions;
- b. Development of project briefs and urban design performance requirements;
- c. Development of bidders' concept designs;
- d. Concept design development during a competitive tender process
- e. Evaluation of bidders' design proposals;
- f. Design and integration of development opportunities.

The UDAP facilitates workshops and design advisory processes throughout the project lifecycle, before major decisions are made. This design-led approach is positive and iterative, promoting site responsive designs that are consistent with the aspirations of each of the activity centres and adjacent neighbourhoods, and adds value to the outcomes of the program.

### 6.2 VICTORIAN DESIGN REVIEW PANEL

The Victorian Design Review Panel (VDRP), managed by the OVGA, provides independent and authoritative advice to government and statutory decision makers across Victoria about the design of significant development proposals.

The VDRP consists of experienced built environment professionals, who provide expert design review of significant projects at key stages of the design and development process. Architects, urban designers, landscape architects and planners, as well as specialists in sustainability, accessibility, health, place-making and masterplanning contribute to the VDRP.

The VDRP reviews projects that are significant because of their site, context or complexity, or because they will be establishing a precedent for new development in a place. The VDRP can review all scales of development from masterplans, major infrastructure, buildings, streets and public spaces.

For LXRA, the VDRP can be made available to review project designs at key milestones, as an independent peer review.

## APPENDIX A - FIGURE AND QUALITATIVE BENCHMARK SOURCES

Figure	Title	Page	Source
1	Design Quality and Delivery Stages	4	Office of the Victorian Government Architect
2	Purpose and the Role of contract documents including UDF, UDG and CSG	7	Level Crossing Removal Authority
3	Line of sight from national to site level	9	Level Crossing Removal Authority
4	Urban Design Spatial Contexts	18	VicRoads (Urban Design)

Qualitative Benchmark	Title	Page	Source
1	Olympic Sculpture Park, Seattle, USA	19	<a href="http://www.shank13.wordpress.com/2012/08/20/landscapetraditions-olympic-sculpture-park-final-paper">www.shank13.wordpress.com/2012/08/20/landscapetraditions-olympic-sculpture-park-final-paper</a>
2	Craigieburn Bypass, Melbourne	19	<a href="http://www.yasammekan.com1000">www.yasammekan.com1000</a>
3	Newtown Interchange, Sydney	19	<a href="http://www.wp.architecture.com.au/nswawards/2013-winners-listjury-citations/2013-urban-design-entries">www.wp.architecture.com.au/nswawards/2013-winners-listjury-citations/2013-urban-design-entries</a>
4	MAX Orange Line, Portland, USA	20	<a href="https://nacto.org/publication/transit-street-design-guide/transit-lanes-transitways/lane-elements/green-transitway/">https://nacto.org/publication/transit-street-design-guide/transit-lanes-transitways/lane-elements/green-transitway/</a>
5	Skyttlebron Railway Bridge, Lund, Sweden	20	<a href="https://www.dezeen.com/2014/06/13/skyttlebron-railway-bridge-lund-sweden-metro-arkitekter-zig-zags-onto-the-platforms/">https://www.dezeen.com/2014/06/13/skyttlebron-railway-bridge-lund-sweden-metro-arkitekter-zig-zags-onto-the-platforms/</a>
6	Santa Fe Railyard Park, New Mexico, US	20	<a href="http://www.spur.org/news/2013-08-08/8-shades-green-infrastructure">http://www.spur.org/news/2013-08-08/8-shades-green-infrastructure</a>
7	Clifton Hill Railway Duplication, Melbourne	21	<a href="http://www.architectureau.com/articles/clifton-hill-railway-project/">www.architectureau.com/articles/clifton-hill-railway-project/</a>
8	MAX Orange Line, Portland, USA	21	<a href="http://www.mayerreed.com/portfolio/trimet-max-orange-line-signage-station-furnishings/">http://www.mayerreed.com/portfolio/trimet-max-orange-line-signage-station-furnishings/</a>
9	North Melbourne Station, North Melbourne	21	<a href="http://www.steel.com.au/showcase/projects/north-melbourne-station">http://www.steel.com.au/showcase/projects/north-melbourne-station</a>
10	Olympic Sculpture Park, Seattle, USA	22	<a href="http://www.weissmanfredi.com/project/seattle-art-museum-olympic-sculpture-park">http://www.weissmanfredi.com/project/seattle-art-museum-olympic-sculpture-park</a>
11	Hague RandstadRail, Netherlands	22	VicRoads Urban Design
12	(Illustration) Scorsby Bridge, Bayswater, Melbourne	22	<a href="http://www.laingorourke.com/our-projects/all-projects/bayswater-level-crossing-removal-project.aspx">http://www.laingorourke.com/our-projects/all-projects/bayswater-level-crossing-removal-project.aspx</a>



Qualitative Benchmark	Title	Page	Source
13	Bayswater Station, Melbourne	23	LXRA
14	North Melbourne Station, Melbourne	23	<a href="http://www.coxarchitecture.com.au/project/north-melbourne-rail-station/#">http://www.coxarchitecture.com.au/project/north-melbourne-rail-station/#</a>
15	South Morang Station, Melbourne	23	<a href="http://www.coxarchitecture.com.au/project/south-morang-rail-extension/">http://www.coxarchitecture.com.au/project/south-morang-rail-extension/</a>
16	Longueuil-Saint-Hubert station , Quebec, Canada	24	<a href="http://www.cat-bus.com/2010/09/apt-announces-rebuilding-of-intermodal-station-on-the-south-shore-leaves-open-which-modes-these-are/">http://www.cat-bus.com/2010/09/apt-announces-rebuilding-of-intermodal-station-on-the-south-shore-leaves-open-which-modes-these-are/</a>
17	McCormick Tribune Campus Centre, Chicago , USA	25	<a href="http://oma.eu/projects/iit-mccormick-tribune-campus-center">http://oma.eu/projects/iit-mccormick-tribune-campus-center</a>
18	Seoullo 7017 Skygarden, Seoul, South Korea	25	<a href="https://dirt.asla.org/2017/06/07/seoul-turns-aging-overpass-into-botanical-promenade/">https://dirt.asla.org/2017/06/07/seoul-turns-aging-overpass-into-botanical-promenade/</a>
19	Seafarers Pedestrian Bridge, Yarra River, Melbourne	25	VicRoads Urban Design
20	Monash Freeway Rock Climbing Wall, Burnley, Melbourne	26	<a href="http://www.thenorthsider.com.au">www. thenorthsider.com.au</a>
21	Eastlink, Melbourne	27	VicRoads Urban Design
22	Freeway Park on the I-5, Seattle, USA	27	<a href="http://www.greatbuildings.com/buildings/Freeway_Park.html">www.greatbuildings.com/buildings/Freeway_Park.html</a>
23	Burke Road Station, Melbourne	27	VicRoads Urban Design
24	Nicholson Street Mall, Footscray, Melbourne	28	<a href="http://www.v1.german-architects.com/en/projects/6099_nicholson_street_mall/all/indexAZ">www.v1.german-architects.com/en/projects/6099_nicholson_street_mall/all/indexAZ</a>
25	Lonsdale Street, Dandenong, Melbourne	28	<a href="http://www.archdaily.com">www.archdaily.com</a>
26	MAX Orange Line, Portland, USA	28	<a href="http://s260.photobucket.com/user/zilfondel/slideshow/Portland/Orange%20Line">http://s260.photobucket.com/user/zilfondel/slideshow/Portland/Orange%20Line</a>
27	Footscray Railway Reserve, Melbourne	29	VicRoads Urban Design
28	Shared User Path, Ormond Station, Melbourne	29	VicRoads Urban Design
29	Buffalo Bayou Promenade, Houston, USA	29	<a href="http://www.batonrougelakes.org/planner">www.batonrougelakes.org/planner</a>
30	Bowen Place, Canberra	30	<a href="http://lahznimmo.com/project/bowen-place-crossing-development/">http://lahznimmo.com/project/bowen-place-crossing-development/</a>

Qualitative Benchmark	Title	Page	Source
31	Ringwood Station Footbridge, Melbourne	30	<a href="http://www.heraldsun.com.au/leader/outer-east/footbridge-connecting-eastland-to-ringwood-railway-station-still-possible/news-story/bbb836a755554ee9f7c25815e7b60e53citylink">http://www.heraldsun.com.au/leader/outer-east/footbridge-connecting-eastland-to-ringwood-railway-station-still-possible/news-story/bbb836a755554ee9f7c25815e7b60e53citylink</a>
32	MAX Orange Line, Portland, USA	30	<a href="http://s260.photobucket.com/user/zilfondel/slideshow/Portland/Orange%20Line">http://s260.photobucket.com/user/zilfondel/slideshow/Portland/Orange%20Line</a>
33	Ormond Station Bike Cage, Melbourne	31	<a href="https://www.developmentready.com.au/properties/9-station-avenue-mckinnon-vic-3204">https://www.developmentready.com.au/properties/9-station-avenue-mckinnon-vic-3204</a>
34	MAX Orange Line, Portland, USA	31	<a href="http://s260.photobucket.com/user/zilfondel/slideshow/Portland/Orange%20Line">http://s260.photobucket.com/user/zilfondel/slideshow/Portland/Orange%20Line</a>
35	PARK[E]ING, Venice, Italy	31	<a href="http://www.landezine.com/index.php/2013/02/parkeing-bystradivarie-associated-architects">www.landezine.com/index.php/2013/02/parkeing-bystradivarie-associated-architects</a>
36	Ginifer Station Carpark, Melbourne	32	VicRoads Urban Design
37	Macadamia Castle, NSW	32	<a href="http://www.powerpark.com.au/gallery/">http://www.powerpark.com.au/gallery/</a>
38	Solar lights at RACQ Car park, Queensland	32	<a href="http://orcasolarlighting.com.au/carpark.html">http://orcasolarlighting.com.au/carpark.html</a>
39	Bowen Place Crossing Development, Canberra	33	<a href="http://lahznimmo.com/project/bowen-place-crossing-development/">http://lahznimmo.com/project/bowen-place-crossing-development/</a>
40	Birrarung Marr pedestrian bridge, Melbourne	33	VicRoads Urban Design
41	Southern Cross Station Main Concourse, Melbourne	33	<a href="https://sk.wikipedia.org/wiki/Southern_Cross_Station">https://sk.wikipedia.org/wiki/Southern_Cross_Station</a>
42	Craigieburn Bypass, Melbourne	34	<a href="http://www.tcl.net.au/projects/infrastructure/craigieburn-bypass">www.tcl.net.au/projects/infrastructure/craigieburn-bypass</a>
43	Eastlink, Melbourne	34	VicRoads
44	[Illustration] A2 Highway, Netherlands	34	<a href="https://www.ecowatch.com/solar-powered-noise-barriers-quiet-traffic-while-generating-electricity-1882082739.html">https://www.ecowatch.com/solar-powered-noise-barriers-quiet-traffic-while-generating-electricity-1882082739.html</a>
45	Jim Stynes Bridge, Melbourne	35	<a href="http://www.coolon.com.au/architectural-led-product/electro">www.coolon.com.au/architectural-led-product/electro</a>
46	Webb Bridge, Melbourne	35	<a href="http://www.tcsworldtravel.com/expedition/australia-and-newzealand/2016/march/gallery">www.tcsworldtravel.com/expedition/australia-and-newzealand/2016/march/gallery</a>
47	University of Sydney Darling Campus, Sydney	35	<a href="http://www.tcl.net.au/projects/education/university-of-sydney">www.tcl.net.au/projects/education/university-of-sydney</a>
48	MAX Orange Line, Portland, USA	36	<a href="https://trimet.org/publicart/orangeline.htm">https://trimet.org/publicart/orangeline.htm</a>

Qualitative Benchmark	Title	Page	Source
49	MAX Orange Line, Portland, USA	36	<a href="https://trimet.org/publicart/orangeline.htm">https://trimet.org/publicart/orangeline.htm</a>
50	Gardiner Station Forecourt public art, Melbourne	36	LXRA
51	Rouse Hill, NSW	37	<a href="http://mosmanplanning.net">mosmanplanning.net</a>
52	Breslauer Platz, Cologne, Germany	37	<a href="http://www.illumni.co">www.illumni.co</a>
53	Mitcham Station, Melbourne	37	<a href="http://modscape.com.au/projects/mitcham-railway-station/">http://modscape.com.au/projects/mitcham-railway-station/</a>
54	A'Beckett Urban Square, Melbourne	38	<a href="http://www.medianet.com.au/releases/release-details/?id=808348">http://www.medianet.com.au/releases/release-details/?id=808348</a>

## APPENDIX B - LXRA SITE MAP

**ALTONA LOOP**

- 30 Kororoit Creek Road, Williamstown North

**BELGRAVE**

- 38 Mountain Highway, Bayswater  
42 Scoresby Road, Bayswater

**CRAIGIEBURN**

- 7 Buckley Street, Essendon  
22 Glenroy Road, Glenroy

**CRANBOURNE**

- 1 Abbots Road, Dandenong South  
48 Thompsons Road, Lyndhurst

**FRANKSTON**

- 40 North Road, Ormond  
3 Balcombe Road, Mentone  
10 Centre Road, Bentleigh  
13 Charman Road, Cheltenham  
18 Edithvale Road, Edithvale  
19 Eel Race Road, Carrum  
35 McKinnon Road, McKinnon  
43 Seaford Road, Seaford  
44 Skye Road, Frankston  
46 Station Street, Bonbeach

**GLEN WAVERLEY**

- 8 Burke Road, Glen Iris  
49 Toorak Road, Kooyong

**HURSTBRIDGE**

- 23 Grange Road, Alphington  
31 Lower Plenty Road, Rosanna

**LILYDALE**

- 6 Blackburn Road, Blackburn  
26 Heatherdale Road, Ringwood  
33 Manchester Road, Mooroolbark  
34 Maroondah Highway, Lilydale

**PAKENHAM**

- 11 Centre Road, Clayton  
15 Clayton Road, Clayton  
29 Koornang Road, Carnegie  
39 Murrumbeena Road, Murrumbeena  
12 Chandler Road, Noble Park  
17 Corrigan Road, Noble Park  
24 Grange Road, Carnegie  
27 Heatherton Road, Noble Park  
41 Poath Road, Hughesdale  
16 Clyde Road, Berwick  
25 Hallam Road South, Hallam

**SOUTH MORANG**

- 5 Bell Street, Preston  
28 High Street, Reservoir

**SUNBURY**

- 32 Main Road, St Albans  
21 Furlong Road, St Albans  
36 Melton Highway, Sydenham

**UPFIELD**

- 4 Bell Street, Coburg  
9 Camp Road, Campbellfield  
37 Moreland Road, Brunswick

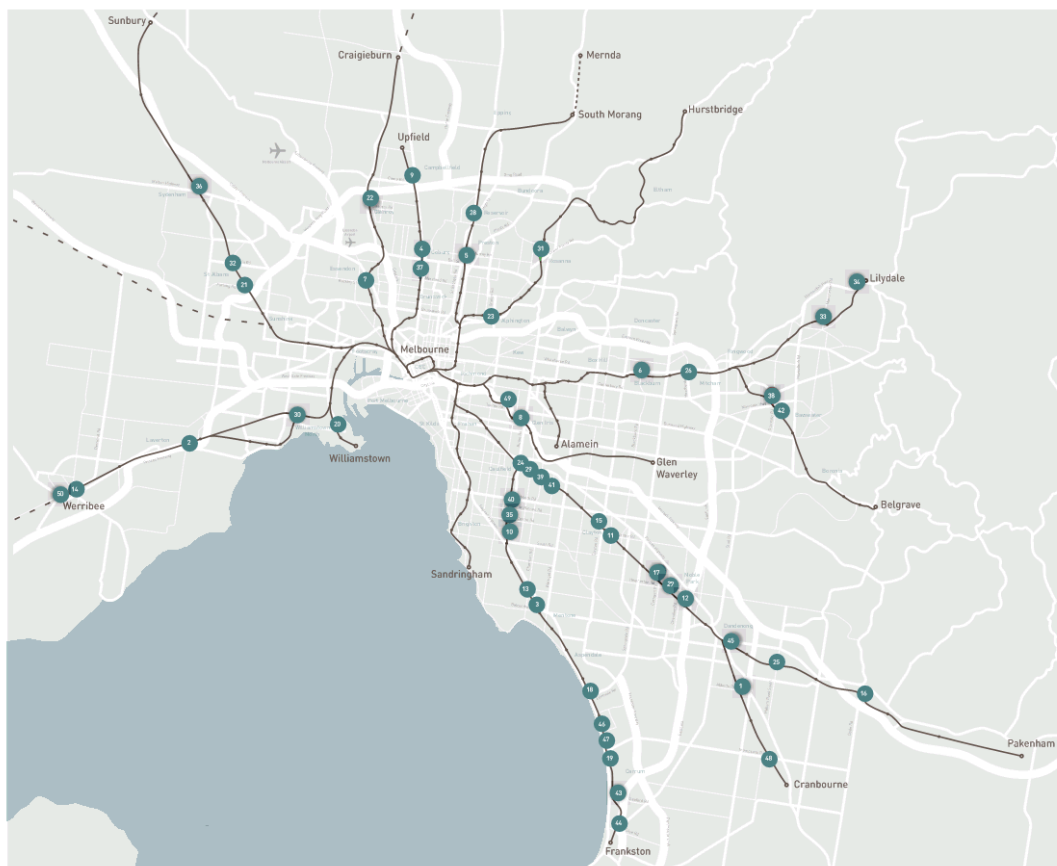
**WERRIBEE**

- 2 Aviation Road, Laverton  
14 Cherry Street, Werribee  
50 Werribee Street, Werribee

**WILLIAMSTOWN**

- 20 Ferguson Street, Williamstown

\*Not in priority order



## APPENDIX C - USEFUL DOCUMENT LINKS

Document	Source
Transport Integration Act 2010 (Victoria)	<a href="http://www.legislation.vic.gov.au/domino/Web_Notes/LDMS/LTObject_Store/ltobjst9.nsf/DDE300B846EED9C7CA257616000A3571/21642442655C247ECA257E9200145AB9/\$FILE/10-6aa042%20authorised.pdf">http://www.legislation.vic.gov.au/domino/Web_Notes/LDMS/LTObject_Store/ltobjst9.nsf/DDE300B846EED9C7CA257616000A3571/21642442655C247ECA257E9200145AB9/\$FILE/10-6aa042%20authorised.pdf</a>
Creating Places for People: An Urban Design Protocol for Australian Cities, Australian Sustainable Built Environment Council (ASBEC)	<a href="https://www.urbandesign.org.au/content/uploads/2015/08/INFRA1219_MCU_R_SQUARE_URBAN_PROTOCOLS_1111_WEB_FA2.pdf">https://www.urbandesign.org.au/content/uploads/2015/08/INFRA1219_MCU_R_SQUARE_URBAN_PROTOCOLS_1111_WEB_FA2.pdf</a>
Urban Design Charter, State Government of Victoria, 2009	<a href="https://www.planning.vic.gov.au/policy-and-strategy/urban-design/urban-design-charter">https://www.planning.vic.gov.au/policy-and-strategy/urban-design/urban-design-charter</a>
Plan Melbourne 2017-2050, Metropolitan Planning Strategy, Department of Environment, Land, Water & Planning (DELWP), 2017	<a href="http://www.planmelbourne.vic.gov.au/__data/assets/pdf_file/0007/377206/Plan_Melbourne_2017-2050_Strategy_.pdf">http://www.planmelbourne.vic.gov.au/__data/assets/pdf_file/0007/377206/Plan_Melbourne_2017-2050_Strategy_.pdf</a>
Good Design + Transport, Issue 05, Office of the Victorian Government Architect, 2012	<a href="http://www.ovga.vic.gov.au/images/Good_Design___Transport-_August_2015.pdf">http://www.ovga.vic.gov.au/images/Good_Design___Transport-_August_2015.pdf</a>
Government as Smart Client, OVGA	<a href="http://www.ovga.vic.gov.au/images/Government_as_Smart_Client.pdf">http://www.ovga.vic.gov.au/images/Government_as_Smart_Client.pdf</a>
Network Development Plan - Metropolitan Rail, Public Transport Victoria, 2012	<a href="https://static.ptv.vic.gov.au/siteassets/PTV/PTV%20docs/Metro-rail-network-development-plan/PTV_Network-Development-Plan_Metropolitan-Rail_2016update.pdf">https://static.ptv.vic.gov.au/siteassets/PTV/PTV%20docs/Metro-rail-network-development-plan/PTV_Network-Development-Plan_Metropolitan-Rail_2016update.pdf</a>
Urban Design Guidelines for Victoria, Department of Environment, Land, Water & Planning (DELWP), 2017	<a href="http://www.urban-design-guidelines.planning.vic.gov.au/?_ga=2.53334312.1038833460.1519344021-382521833.1518736304">http://www.urban-design-guidelines.planning.vic.gov.au/?_ga=2.53334312.1038833460.1519344021-382521833.1518736304</a>
Public Transport Guidelines for Land Use Development, Department of Economic Development, Jobs, Transport and Resources, 2008	<a href="http://economicdevelopment.vic.gov.au/__data/assets/pdf_file/0005/1090895/Public-Transport-Guidelines-for-Land-Use-Development.pdf">http://economicdevelopment.vic.gov.au/__data/assets/pdf_file/0005/1090895/Public-Transport-Guidelines-for-Land-Use-Development.pdf</a>
Creative Industries Strategy 'Creative State', Creative Victoria, 2016	<a href="https://creative.vic.gov.au/__data/assets/pdf_file/0005/110948/creativestate-4.pdf">https://creative.vic.gov.au/__data/assets/pdf_file/0005/110948/creativestate-4.pdf</a>
Victorian Cycling Strategy 2018-2028, Transport for Victoria, 2018	<a href="https://transport.vic.gov.au/content/docs/Victorian%20Cycling%20Strategy%202018-28.PDF">https://transport.vic.gov.au/content/docs/Victorian%20Cycling%20Strategy%202018-28.PDF</a>

## **MORELAND CITY COUNCIL**

### **REFERRAL TO HERITAGE ADVISER**

<b>To:</b>	Ruth Redden (Heritage Advisor)
<b>Date Referred:</b>	15-August-2019
<b>From:</b>	Richard Tolliday (Project Manager Major Projects)
<b>Application No:</b>	P31530 for a permit to demolish the Munro Street Signal Box (Heritage Victoria)
<b>Description:</b>	It is proposed demolish the existing building. The proposed works are part of the Bell Moreland Level Crossing Removal Project
<b>Heritage Status: HO Number.</b>	The site is located within the following heritage overlay: <ul style="list-style-type: none"><li>• HO180 (Precinct - Upfield Railway Line Precinct)</li><li>• The site is included on the Victorian Heritage Register under the Heritage Act 2017 (Ref No H0952)</li></ul>

### **REFERRAL REQUEST**

Council Officers request your review of the application by the Level Crossing Removal Project (LXRP) to Heritage Victoria seeking the demolition of the Munro Street Signal Box on the Upfield trainline.

Officers are seeking an independent review of the heritage merits of the application to assist in the formation of its advocacy position. The review should inform whether the recommendations of the application are reasonable and should be accepted and supported by Council or whether they are unreasonable, and Council should advocate to support the retention of the structure and ultimately not support the application.

### **INFORMATION**

Relevant information including the application can be found at <https://www.heritage.vic.gov.au/permits/currently-advertised-permits>

Relevant documents for your review include:

- Heritage Impact Statement
- Signal Box Demolition and Associated Works Scope Document
- Appendix- Level Crossing Removal Program Business Case
- Appendix 1- Temporary Works Location Mapping
- Appendix 2- Permanent Works Location Mapping
- Appendix 3- Arborist Assessment
- Reasonable and Economic Use Statement

### **OFFICER'S COMMENTS**

The following questions are proposed to guide your review and are key to Council's considerations:

1. Are the conclusions of the application reasonable from a heritage perspective?
2. Specifically, is the Munro Street Signal Box of state or local significance

- having regard to the Statement of Significance for Heritage Overlay 180?
3. Is the extent of demolition proposed acceptable?
  4. Is there sufficient information provided in the application to form a position. If not, what specific information is missing and should be requested?
  5. Should the application for demolition of the Munro Street Signal Box be supported?

Your confirmation and/or further comments are requested.

If you have any queries in regard to this referral, please contact me on 9240 1167 or via email.

TIMING:

☒ Urgent      Within ☐ business days

RICHARD TOLLIDAY  
**Project Manager Major Projects**



**MORELAND CITY COUNCIL**

**RESPONSE TO REFERRAL**

<b>To:</b>	Richard Tolliday (Project Manager Major Projects)
<b>Date of response:</b>	15-August-2019
<b>From:</b>	Ruth Redden (Heritage Advisor)
<b>Application No:</b>	P31530 for a permit to demolish the Munro Street Signal Box (Heritage Victoria)
<b>Description:</b>	It is proposed demolish the existing building. The proposed works are part of the Bell Moreland Level Crossing Removal Project
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**Relevant documents reviewed:**

- Heritage Impact Statement
- Signal Box Demolition and Associated Works Scope Document
- Appendix- Level Crossing Removal Program Business Case
- Appendix 1- Temporary Works Location Mapping
- Appendix 2- Permanent Works Location Mapping
- Appendix 3- Arborist Assessment
- Reasonable and Economic Use Statement

**Expert's ability to comment on this referral:**

(a) Full name:

- Ruth Redden

(b)

Qualifications

- Bachelor of Design, Deakin University, 2008
- Master of Architecture, Melbourne University, 2010
- Registered Architect (18147), 2011
- Conservation of Traditional Buildings (short course), Canberra University, 2013
- International Specilised Skills Institute Fellow (conservation of post-war buildings), 2014
- PhD Candidate, Melbourne University, current
- Australian ICOMOS National Scientific Committee on Energy and Sustainability, member
- National Trust (Victoria) Building and Estates Committee, member

Experience:

2017 – current: RR Conservation Design, Director  
2015 – current: Yarra City Council, Heritage Advisor  
2012 – current: Maribyrnong City Council, Heritage Advisor  
2011 – 2016: Heritage Alliance, Project Architect  
2010 – 2011: Yarra City Council, Assistant Heritage Advisor  
2005 – 2011: Woodhead Pty Ltd, student and graduate architect

Areas of expertise:

- Restoration of historic buildings (especially Victorian, Edwardian and Inter-War structures)
- Construction of new builds to historic sites
- The environmental performance of historic buildings
- Heritage advice to private and public organisations
- Heritage Impact Statements, Conservation Management Plans, typological studies and feasibility studies

#### RESPONSE TO OFFICER'S QUESTIONS

1. Are the conclusions of the application reasonable from a heritage perspective?

No, not from a local heritage perspective.

The Munro Street Signal Box is covered by local heritage overlay HO180. The statement of significance for the site states (pertinent sections bolded for emphasis):

*What is significant?*

*The Upfield Railway Line Precinct comprises the Jewell, Brunswick, Moreland and **Coburg Railway Stations**, and other buildings, structures, gates and **signals** between Park Street, Brunswick and **Coburg Railway Station, Coburg**.*

*The heritage place includes:*

*The four stations from Park Street to Coburg Station, the gatekeepers' cabins and gates, **signal boxes**, footbridges and other railway structures. These are mapped by the Heritage Council of Victoria as part of the State Heritage listing of the precinct.*

*How is it significant?*

*The Railway Precinct is of state historical, technological, architectural and social significance. The group of railway structures-which includes stations, gatekeepers' cabins and gates, **signalling equipment** and a footbridge-provides **remarkably intact** evidence of the technology and architecture of a late 19th and early 20th century railway system, and retains elements now rare or unique within the metropolitan area. **The inter-relationship of these structures results in an entity-the Upfield line as a whole-which is of greater significance than its individual parts.** The Precinct remains a lively, vital linear element in the fabric of the City of Moreland.*

*Why is it significant?*

*The Upfield Railway Line Precinct is of state historical significance as a rare and remarkably intact section of Melbourne's metropolitan railway system from the late **19th and early 20th century**, which was an important component of city development and city life during that period and afterward.*

*The Upfield Railway Line Precinct is of state technical and architectural significance because while most suburban lines have been modified and updated, the Upfield line retains a unique collection of hand and wheel operated railway gates, and their associated buildings and installations, reflecting a safe working procedure more typical of the nineteenth rather than the twentieth century. These include the biggest group of hand operated gates and gate-keepers cabins in Victoria. The original stations on the line - Jewell (originally South Brunswick), Brunswick, Moreland and Coburg - are built of brick in a late Victorian Gothic style to a similar, standard plan. Although other examples of the plan exist (eg Maldon) this grouping of four in such close proximity is unique adding a cohesion to the precinct.*

*The Upfield Railway Line Precinct is of state social significance as a lively, vital linear element in the fabric of the City of Moreland.*

Having been built in 1928 (the early 20<sup>th</sup> century), the signal box is an important contributory element to the HO precinct. Full demolition of the building would degrade the integrity of the HO precinct as a 19<sup>th</sup> and early 20<sup>th</sup> century area, particularly as the Inter-War era of the building speaks to the longevity of the infrastructure boom associated with the Upfield Line in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries (prior to its temporary demise not long after).

The Munro Street Signal Box is a substantial double storey Inter-War building with intact equipment internally. It is also a highly visible landmark. Whether the Signal Box is regarded as architecturally remarkable or not, the statement of significance states, *'the inter-relationship of [the] structures results in an entity -the Upfield line as a whole- which is of greater significance than its individual parts'*. Thus in addition to its significance as an Inter-War structure in its own right, the building contributes to the Upfield Line, and its associated infrastructure, as a whole.

**Full demolition of the signal box will adversely affect the significance of the HO180 precinct.**

In regard to the building's status at a State level: the application assumes that the building is not significant. However, the interim protection order (IPO) has been applied precisely to re-assess the significance and extent of the precinct, including the status of early 20<sup>th</sup> fabric. Accordingly, the Heritage Impact Statement should have discussed implications of the proposal in case the heritage status of the signal box be elevated to contributory at a State level.

**2. Specifically, is the Munro Street Signal Box of state or local significance having regard to the Statement of Significance for Heritage Overlay 180?**

The Munro Street Signal Box is clearly of local significance (see discussion above). Acknowledging the significance of the Munro Street Signal box, and the contribution that it makes to the broader Upfield Railways corridor, it is strongly recommended that Moreland City Council support inclusion of the Signal box in the HV extent of registration.

**3. Is the extent of demolition proposed acceptable?**

No. Full demolition of the signal box will adversely affect the significance of the HO180 precinct by removing the only Inter-War signal box within the precinct. Whilst the majority of infrastructure is from the Victorian and Edwardian periods, early 20<sup>th</sup> century fabric is also important for demonstrating the role of the railway corridor prior to its demise in the mid-20<sup>th</sup> century and prior to its resurgence in the late 20<sup>th</sup> century.

**4. Is there sufficient information provided in the application to form a position. If not, what specific information is missing and should be requested?**

No. The submission assumes that the Munro Street Signal Box is non-contributory fabric, thus the impacts of the works assessed as such. However, outcomes of the IPO may see the status of the Signal Box raised to contributory.

There is no analysis provided on the impacts of the proposed works should the extent of registration be changed to include the Munro Street Signal Box.

**5. Should the application for demolition of the Munro Street Signal Box be supported?**

No. It is strongly recommended that Moreland City council objects to the application

for demolition of the Munro Street Signal Box on the basis that:

- Demolition would degrade the significance of the site at a local level by removing an important contributory element. The HO180 precinct is significant for its 19<sup>th</sup> and early 20<sup>th</sup> century infrastructure, including four signal boxes. Of the four boxes, the Munro Street Signal Box is the only Inter-War building and it retains original equipment internally.
- Demolition would degrade the significance of the site at a State level, should the extent of registration be revised to include the early 20<sup>th</sup> century infrastructure as contributory elements.

It is strongly recommended that Moreland City Council advocate for the "Avoidance Option" outlined in the *Reasonable and Economic Use Statement* provided by the applicant. This option would result in retention of the Munro Street Signal Box in its original location, and enable the proposed works to proceed. The 'Avoidance Option' would respect both the historic significance and contemporary needs of the area.

Note: The "Relocation via Reconstruction Option" outlined in the *Reasonable and Economic Use Statement* provided by the applicant should only be explored if the building can remain in close proximity to its current location. Based on documents provided this does not seem possible.

Please do not hesitate to contact me if you require any further comments or clarification on the above.

Regards,



Ruth Redden  
Heritage Advisor  
**Date: 15/8/19**