MORDIALLOC BYPASS EES AMENDMENT GC107

Urban Design and Planning Evidence

Prepared by
Message Consultants

On behalf of
City of Kingston

February 2019
ACKNOWLEDGEMENTS

This document has been prepared on behalf of the City of Kingston by Message Consultants Australia Pty Ltd.
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This report should be read in conjunction with the Graphic Folio and the Photo Folio separately circulated with this report.
1 Introduction

1.0 Instructions

I have been requested by Russell Kennedy Lawyers, on behalf of Kingston City Council (Council), to review the Environment Effects Statement (EES) and draft Planning Scheme Amendment GC107 for the Mordialloc Freeway project.

I have been requested to consider the appropriateness of the project from a town planning and urban design perspective and in doing so, address Council’s submission to the Inquiry and Advisory Committee (Committee) concerning these matters. Council’s submission, as it relates to my area of enquiry is supported by a landscape and visual assessment report prepared by Spiire, dated December 2018 (Spiire Report).

1.2 Witness details

I have practiced as a town planner for over 40 years and have provided strategic and land use planning advice on a wide range of town planning and urban design matters. Details of my qualifications and experience, and my response to Planning Panels Victoria’s ‘Guide to Expert Evidence’, is provided in Appendix A.

1.3 Appreciation of the Committees task

In the Committee’s Terms of Reference (Terms of Reference),1 dated 13 September 2017, the Minister for Planning determined that an EES was required for the project because of the potential for significant environmental effects in relation to a range of matters, including relevantly, “amenity values of adjacent land, especially residential land and parkland.”

The Major Roads Project Authority (MRPA), being the proponent for this project, subsequently prepared the EES and draft Planning Scheme Amendment GC107 to the Kingston and Greater Dandenong Planning Schemes (PSA). The PSA proposed to insert the incorporated document ‘Mordialloc Bypass (Freeway) Incorporated Document, October 2018’ (Incorporated Document) into the planning scheme. The Incorporated Document:

- exempts the project from planning scheme requirements; and
- requires the project to be completed in accordance with an Environmental Management Framework (EMF) approved by the Minister.

The EMF must include Environmental Performance Requirements (EPRs) addressing various areas including, relevantly, landscape and visual, social and traffic and transport matters.

According to the Terms of Reference, the role of the Committee is to:

- review the EES and report on potential significant effects;
- recommend appropriate mitigation measures to “balance project objectives” (i.e. transport related objectives) "with environmental, economic and social outcomes”;
- assess the adequacy of the proposed EPRs;
- review the proposed PSA;
- consider public submissions concerning the PSA; and

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1 SIGNED BY THE MINISTER FOR PLANNING ON 18 OCTOBER 2018.
2 TERMS OF REFERENCE, PARA. 9(b).
• assess whether the planning controls proposed in the PSA are appropriate.

1.4 Material relied on and scope of investigation

In preparing this evidence I have relied upon the documentation in the exhibited EES and PSA, in particular, the work of Aspect Studios. I have also reviewed and had regard to the work of Spiire contained in its report prepared on behalf of Kingston, dated December 2018.

I have been assisted by staff at Message Consultants, namely:

• Sean McArdle, Town Planner
• Gokhan Karpal, Senior Urban Designer; and
• Soo Ching, Landscape Architect.

I have inspected the site and surrounds along the course of the freeway reservation.

1.5 The proposed Environmental Management Framework and project delivery model

The exhibited EMF is chapter 23 of the EES (Draft EMF). The Draft EMF states that the final EMF “is to be consistent with the EMF presented in this chapter, except where otherwise agreed to by the Minister, including to give effect to the outcomes of the environmental effects statement (EES) assessment process.”

The Draft EMF states that compliance with the EMF will be mandated by the Incorporated Document and “will also be mandated and enforced by the Major Road Projects Authority (MRPA) through the contractual arrangements for delivery of the project following project approval.”

The project will be delivered through a Design and Construct contract between the Victorian Government (represented by MRPA) and a contractor. MRPA will prepare a preliminary design and contract specification incorporating the requirements of the EMF and EPRs. The contractor will carry ultimate responsibility for the final design and construction of the project and complying with the EPRs.

I have assumed that the preliminary design and contract specification developed by the MRPA will be generally consistent with the reference design attached to the EES, that is, the plans at Attachment III to the EES, but modified in accordance with the outcomes of the Inquiry. Accordingly, I have assumed that the final ‘reference design’ will have some practical bearing on the likely outcomes for the project, even though those plans are not intended to be referenced in the statutory controls for the project.

The Draft EPRs are performance based. They include a number of ‘typical’ drafting techniques for such controls, including:

• ‘to the satisfaction of’ requirements - requiring certain plans to be prepared to the satisfaction of an authority;
• consultation requirements - requiring certain matters to be determined in consultation with a third party (such as a council or authority);
• specific outcomes - requiring specific outcomes to be achieved, such as, e.g., EPR-B1 which requires a minimum of 3 fauna crossings (culverts) between Braeside Park wetlands and Woodlands Industrial Estate wetlands;
• compliance with referenced standards and guidelines – such as, e.g., EPR-B3 which requires native
vegetation removal to be in accordance with the Guidelines for the removal, destruction or lopping of native vegetation 2017;

- **minimisation to the extent practicable** – such as, e.g., EPR-LV1 which requires landscape design plans to incorporate “where practicable, mitigation measures to minimise the landscape and visual impact associated with the project”.

- **objective / aspirational type requirements** – such as, e.g., EPR-LV1 which requires the approved landscape design plans to “make use of appropriate ecologically sensitive planting”, “consider existing landscape character and sensitivities” and “enhance key gateway streetscapes”.

The draft EPRs illustrate the range of techniques that can be used, as appropriate, to guide project outcomes and provide the appropriate balance between prescription and flexibility within a ‘performance based’ framework.

### 1.6 Key questions

Having regard to the purpose of the Committee’s inquiry, my scope of expertise and my appreciation of the key issues in this matter, I have framed my assessment around the following questions:

- What urban design outcomes are likely to result if development proceeds according to the currently proposed reference design and EPRs?

- Based on the relevant strategic, policy, physical and land use context, what are the key policy objectives influencing the project?

- Should the project reference design and EPRs be modified to better respond to the urban design objectives identified at question 2?

### 1.7 Structure of investigation and analysis

In addressing the above 3 questions, I have distilled my investigative process into a series of plans and illustrations that should be read in conjunction with this report, namely:

- **Graphics Folio** - which contains plans derived from the EES and our own analyses; and

- **Photo Folio** - which shows a series of photos illustrating views from key investigation points identified in the Graphic Folio, character areas and example noise wall, trail and landscaping palettes that provide a point of reference for this project.

The investigation contained in my supporting Graphic Folio steps through the following phases:

- **Context**: A description of the freeway link in its metropolitan and local context.

- **Site analysis**: A distillation of the EES documentation with additional information prepared by Message Consultants designed to assist the Committee in assessing the urban design merits of the variety of issues raised by the proposal.

- **Visual Impact and Visual Opportunities**: A series of plans in chapters interpreting the site analysis and explaining the consequence of the freeway in terms of its impacts – visually on abutting land use and then the experience for the driver. This chapter also illustrates the effect of the freeway on pedestrian and bicycle routes as well as open space.

The Graphic Folio of Plans includes a summary of the source of the content used to derive each plan and, where

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5 ATTACHMENT III TO THE EES.
appropriate, summary comments on the nature of the conclusions or observations made about the information shown in each plan.

I have identified the following four key areas of urban design investigation as relevant to my investigation.

<table>
<thead>
<tr>
<th>Investigation Area</th>
<th>Contributing design elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact on surrounding land</td>
<td>Visual, noise including matters of architectural language and spacing between freeway and abutting land.</td>
</tr>
<tr>
<td>Experience of the road user</td>
<td>Architectural language of the road corridor:</td>
</tr>
<tr>
<td></td>
<td>▪ Colours, materials and detailing of structures – noise walls, bridges, art</td>
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<td></td>
<td>▪ Landscaping</td>
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<td></td>
<td>Dimensions</td>
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<tr>
<td></td>
<td>▪ Setbacks from noise walls and other enclosing features (trees, embankments) – spaciousness or enclosure</td>
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<td></td>
<td>▪ Size and length of structures and character areas (experienced at 100km/hr)</td>
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<td></td>
<td>Views into surrounding land</td>
</tr>
<tr>
<td>Pedestrian cyclist connectivity</td>
<td>The number, location and design of connections across existing roads (bridge underpasses), into surrounding areas (shared user path connections) and across the freeway</td>
</tr>
<tr>
<td>New open space, pedestrian and cyclist corridors</td>
<td>The amenity, safety and usability of proposed new open space and shared user path corridors</td>
</tr>
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</table>

Where possible, I have presented my analysis under these four themes.
1.8 Summary of Conclusions

Impact on surrounding land
The project, as proposed, will have a low visual impact on industrial areas (Redwood Gardens and Woodlands Industrial Estate) and the Green Wedge North character area. The roadway is largely flat through the Green Wedge North area. The ‘rural fringe’ character of this area will subsist with the visual imposition of the freeway. The freeway is also at a low grade along much of the industrial interfaces. Although these industrial areas have a pleasant garden amenity (in particular, Redwood Gardens), the setbacks of the carriageway from these areas are sufficient having regard to the reasonable amenity expectations of these industrial areas. No changes are recommended to the reference design and EPRs in relation to these areas.

There are greater anticipated impacts to Braeside Park, Dingley Village and the Waterways Residential Estate. My recommendations for these areas are as follows:

- **Dingley Village** – ameliorate the visual impact of noise walls from the rear of dwellings by providing articulation to the back of noise walls, potentially with tall tree planting breaking up the length of the walls.
- **Braeside Park** – my assessment is that there will not be a significant visual impact on the park in terms of visual bulk, however movement of cars is anticipated to be visible and impact the sense of calm experienced from within the park environs. I recommend screening be applied to remove the view of cars moving on the freeway at speed.
- **Waterways Residential** – the elevated sections of the freeway (at Governor Road) and the bridge over Mordialloc Creek are anticipated to sit within the top of the existing long flat vegetation canopy in the wetlands. The wetlands are a valued landscape in planning policy terms and recognisably a high amenity landscape. Dwellings within the Waterways Residential Area are oriented towards the wetlands taking advantage of view opportunities. Careful design attention needs to be paid to the bridge crossing to ensure it provides both contrast with the vegetation canopy it will sit within, whilst also achieving sympathy for the natural aesthetic of this environment. The possible design response for this bridge structure are explored further in the body of my report.

Experience of the road user
Driving the freeway, there will be sufficient potential for visual contact and interpretation of the landscape through which vehicles are travelling. There is an opportunity to also make artful interpretive statements along the course of the freeway. The attenuation of views with noise walls facing Braeside Park do not unreasonably dilute the capacity to interpret the landscape of Kingston.

Pedestrian and cyclist connectivity
Aspect and Spire have made a number of detailed recommendations concerning the design of pedestrian and cyclist connections. I agree with the majority of their detailed comments, although I expect many of those matters to be picked up at the detailed design phase.

My key recommendations involving substantial change to the current proposal before the committee relate to:

- **Creating a second freeway crossing (underpass) between Chadwick Reserve and Redwood Gardens Industrial Estate.** My assessment is that there is a strong urban design and planning imperative for this connection. Redwood Gardens is a local community and business node and a complimentary use to Dingley Village. Chadwick Reserve is the only cross connection opportunity from Dingley Village, which has no other openings along its eastern interface for 1.6km between arterial roads.

- **Connecting the shared user path to Aspendale Gardens directly over Mordialloc Creek via a boardwalk.** My assessment is that this would provide a clear urban design benefit by providing a more direct shared user path connection and also a high amenity environment for that path as it crosses over the scenic wetlands environs.
I have also considered Spiire’s recommendation for a landmark overpass at Dingley Bypass. Whilst I do not see this as being a high priority solely in connectivity terms, this could be incorporated with provision of a landmark at this location providing a dual benefit for the project.

New open space, pedestrian and cyclist corridors

The project provides sufficient space and proposed landscaping to achieve a quality linear landscape corridor. I do not recommend any changes to the reference design or EPRs in this regard, except to note that the EPR dealing with approval of landscape plans should be expanded to include incorporation of urban design input.

2 Assessment

2.0 What are the key policy objectives influencing the project?

2.1 Introductory observations - the role of planning policy in setting the project objectives

The urban design, landscape and planning objectives for this project, despite it being a major project being delivered by the government, and under a bespoke planning control (the Specific Controls Overlay), are fundamentally set by the State and Local planning policies in the Kingston Planning Scheme.

This is made clear by the operational provisions of the Planning Scheme, relevantly:

- Clause 01 (Purposes of this Planning Scheme), which states that the purposes of the Scheme include: “To express state, regional, local and community expectations for areas and land uses.”
- Clause 71.02-1 (Purpose of the Planning Policy Framework) which states: “The Planning Policy Framework seeks to ensure that the objectives of planning in Victoria (as set out in section 4 of the Act) are fostered through appropriate land use and development planning policies and practices that integrate relevant environmental, social and economic factors in the interests of net community benefit and sustainable development.”
- Clause 71.02-2 (Operation), which states: “A planning authority must take into account the Planning Policy Framework when it prepares an amendment to this planning scheme.”

These operational provisions explain the role of the Planning Policy Framework in setting the relevant land use and development objectives for Victoria, and the applicability of that framework to the Minister for Planning’s task acting in his capacity as the planning authority for proposed Amendment GC107.

The Planning Policy Framework provides a comprehensive ‘frame of reference’ for answering the key ‘values’ and ‘objectives’ based questions that are before the Committee, such as:

- Should the freeway be attractive? Is the achievement of such an objective a legitimate use of public funds? Or should the freeway be seen as a utilitarian piece of infrastructure, designed simply to transport people from A to B, safely and efficiently?
- Is the relevant enquiry limited to ‘minimisation’ of impacts or should the project also aim to take up land use and development ‘opportunities’ such as the creation of new open space trails and corridors, providing improved connections, and making a contribution to local character and identity through design?
- If it is accepted that the freeway should be attractive and enjoyable, what vision should the architectural and landscape design aspire to? What should the architectural and landscape vision be?

The answer to these questions is provided in existing planning policy, the meaning of which takes form when that
policy context is considered in light of the relevant physical and land use context for the project area.

2.2 State and Local Policy Context

Relevant State and Local planning policies are extracted in Appendix C. Mapped to my four ‘investigation areas’, the key policy directions for the project are as follows.

2.2.1 Impacts on surrounding land

Policy overview

The project traverses landscapes which are valued at State and Local level including green wedge, regional open space, wetlands and waterways. As well, it borders existing residential development and industrial estates where it has an impact. Policy provides strong directions to apply urban design techniques to reduce impacts to these valued environments.

Clearly, the project will have significant impacts on surrounding environments, particularly visual and noise impacts. I assume also that the project will have significant transport benefits – locally and regionally. Consistent with the principle of integrated decision making (stated at clause 71.02-3 of the Planning Scheme) these competing interests must be balanced “in favour of net community benefit and sustainable development for the benefit of present and future generations.”

The way in which the Committee’s Terms of Reference are framed, I do not believe it is of assistance for me to attempt to interrogate whether the project should proceed. That is a much bigger question than my remit and one which is, ultimately broader than my area of expertise. I have assumed the transport merits of the project are sound and framed my enquiry around consideration of how the project outcomes can be improved, as necessary, in order to respond to planning objectives.

Relevant policy directions in the planning scheme include the following:

<table>
<thead>
<tr>
<th>Clause</th>
<th>Policy Content</th>
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</thead>
<tbody>
<tr>
<td><strong>Clause 12</strong> (Environmental and Landscape Values)</td>
<td>Clause 12.03-1S (River corridors, waterways, lakes and wetlands):</td>
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<tr>
<td></td>
<td>▪ “Ensure development responds to and respects the significant environmental, conservation, cultural, aesthetic, open space, recreation and tourism assets of water bodies and wetlands.”</td>
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<td></td>
<td>▪ “Ensure development is sensitively designed and sited to maintain and enhance environmental assets, significant views and landscapes along river corridors and waterways and adjacent to lakes and wetlands.”</td>
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<td></td>
<td>Clause 12.05-2S (Landscapes):</td>
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<td></td>
<td>▪ “Improve the landscape qualities, open space linkages and environmental performance in significant landscapes and open spaces, including green wedges, conservation areas and non-urban areas.”</td>
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</table>
In considering the noise and visual impacts of the proposal, it is important to consider both existing environments and likely future environments based on strategic planning directions. Relevant strategic directions include the rehabilitation of the northern green wedge areas and improvement of landscape qualities and strengthening of the Mordialloc Creek and attached wetlands environments, intended to provide habitat, water treatment and recreation opportunities. The enhanced future for these environments should be responded to in the design of the project.

**Policy implications**

The policy directions concerning the management of noise and visual amenity impacts associated with this project are clear. In sum, policy directs that:

- development interfacing the green wedge, wetlands and open space areas should respect those environments which are valued for their environmental, aesthetic and recreational benefits;
- amenity impacts and land use conflict should be minimised through available design techniques; and
- design must respond to local character and identity.

On the assumption that the general road alignment, heights and structural requirements for the freeway are fixed, design measures for achieving these policy directions include screening (noise walls, landscaping) and attention to the colours, materiality and detailing of visible structures (bridges, noise walls, barriers etc.). These matters are explored further in this report.

### 2.2.2 Experience of the road user

**Policy overview**

State policy directs that roads be more than ‘engineered conduits’. As part of the built environment, policy directs that roads be “enjoyable, engaging and comfortable”, “contribute positively to local character and sense of place”, “distinctive” and “memorable”.

Although such policies apply to development generally, State policy makes it clear that these design objectives are also applicable to roads, especially freeways.

Relevant polices include:

- 15.01-1S (Urban design) - “Promote good urban design along and abutting transport corridors”
- 15.01-1R (Urban design - Metropolitan Melbourne) - “Objective: To create a distinctive and liveable city with quality environment and heritage”.

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6 **Clause 15 (Built Environment and Heritage).**
design and amenity. Strategies: … Integrate place making practices into road space management.*

**Policy implications**

The techniques available for achieving the policy objectives to make the experience of the roadway enjoyable, engaging and offer an experience of ‘place’ include:

- using visual cues in the architectural language of built elements, both –
  - ‘overt’, such as the place names that are cast into noise walls along the southern extents of Eastlink; or
  - ‘interpretative’, such as the design of the Mullum Mullum tunnel which references aboriginal themes;
- the use of art, colours, textures and landscaping to convey a message or theme to the road user and provide visual interest; and
- providing views of scenic and valued landscapes.

The current project provides significant opportunities for showcasing unique and valued landscapes – green wedge areas, regional open space, wetlands and open space corridors - within an established middle suburb. Planning Policy directs that these opportunities be realised.

**2.2.3 Pedestrian and cyclist connectivity**

**Policy overview**

Policy supports the provision of convenient (direct, frequent and accessible), safe and enjoyable pedestrian and cyclist paths:

- as part of comprehensive transport system⁷ (noting that cycling and walking is not just a leisure activity, but also a form of transport, and one which is particularly important for people who don’t drive, e.g., young people); and
- to encourage more cycling and walking as a mode of transport for sustainability, health and traffic and parking reduction reasons.⁸

Relevant policy directions include:

<table>
<thead>
<tr>
<th>Clause</th>
<th>Policy Content</th>
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</thead>
</table>
| Clause 18.01-2S (Transport system) | “Objective
- To coordinate development of all transport modes to provide a comprehensive transport system.

**Strategies**
- Incorporate the provision of public transport, cycling and walking infrastructure in all major new state and local government road projects.

Locate transport routes to achieve the greatest overall benefit to the community to making the best use of existing social, cultural and economic infrastructure, minimising impacts on the environment and optimising accessibility, safety, emergency access, service and amenity.” |

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⁷ See 18.01-2S (Transport system).
⁸ See 18.02-15 (Sustainable personal transport).
### Clause 18.02-1S (Sustainable personal transport)

<table>
<thead>
<tr>
<th>“Objective”</th>
<th>To promote the use of sustainable personal transport.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies</td>
<td></td>
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<tr>
<td>■ Encourage the use of walking and cycling by creating environments that are safe and attractive.</td>
<td></td>
</tr>
<tr>
<td>■ Develop high quality pedestrian environments that are accessible to footpath-bound vehicles such as wheelchairs, prams and scooters.</td>
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</tr>
<tr>
<td>■ Ensure cycling routes and infrastructure are constructed early in new developments.</td>
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</tr>
<tr>
<td>■ Provide direct and connected pedestrian and bicycle infrastructure to and between key destinations including activity centres, public transport interchanges, employment areas, urban renewal precincts and major attractions.</td>
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<tr>
<td>■ Ensure cycling infrastructure (on-road bicycle lanes and off-road bicycle paths) is planned to provide the most direct route practical and to separate cyclists from other road users, particularly motor vehicles.”</td>
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</table>

### Policy implications

The freeway will insert a permanent barrier between places that people will logically want to move between – employment and local services areas (Redwood Gardens Industrial Estate), residential areas (Aspendale Gardens and Dingley Village), open spaces (Braeside Park, wetlands, Mordialloc Creek and the future ‘chain of parks’). Policy directs that such ‘destinations’ should be connected, where practical, in a direct and convenient manner.

In sum, policy directs that this project:

- include logical connections in terms of underpasses and overpasses across the freeway; and
- appropriate design of these connections in terms of usability, amenity and safety.

In making these comments, I am mindful that the existing reservation presents a barrier between areas and that those surrounding areas have developed around this condition. However, in my view, the freeway will present a more significant barrier to cross connection than the existing reservation, physically, and in terms of perception (legibility). The existing reservation is visually permeable, and permeable to informal connections, as evidenced by the existing paths between Redwood Gardens and Chadwick Reserve in Dingley Village, Parkway Drive in Woodlands Industrial Estate and Braeside Park and the path extending along the top of Melbourne Water’s levy beside Mordialloc Creek.

I also note that Council is keen to support the creation of an easement to facilitate the installation of a ‘purple pipe’ that could transport recycled storage water to storage and distribution plants within the municipality. This is a simple request with a potentially strong community benefit.

### 2.2.4 New open space, pedestrian and cyclist corridors

#### Policy overview

The project provides an unprecedented opportunity to realise strategic directions to deliver open space, pedestrian and cyclist corridors linking and enhancing open space areas within Kingston.

A key strategy within the Kingston Planning Scheme is to create a network of linked open space, pedestrian and
cyclist trails to provide wildlife links and recreation opportunities.

The key reference documents supporting these strategies are:

- **Sandbelt Open Space Strategy** (Melbourne Parks and Waterways, May 1994); and
- **Kingston Green Wedge Plan** (Planisphere, April 2012).

Relevant policy directions in the planning scheme include the following:

<table>
<thead>
<tr>
<th>Clause</th>
<th>Policy Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clause 21.10-2 (Green Wedge - Key issues)</td>
<td>“Objective 10 To provide for open space links and opportunities for recreation.”</td>
</tr>
<tr>
<td>Clause 21.11-3 (Open Space - Objectives, strategies and implementation)</td>
<td>“Promote the development of open space linkages including bicycle/pedestrian trails to connect residential, commercial and industrial areas to existing open space, recreational facilities and local and regional trail networks”</td>
</tr>
</tbody>
</table>
| Clause 22.03-3 (Sandbelt Open Space Project Policy – Policy) | “It is policy that:
- Development be guided by the Sandbelt Open Space Development Plan attached to this clause. This plan is updated from the Development Plan prepared in 1994 by Melbourne Parks and Waterways for the implementation of the Sandbelt Open Space Project.
- A network of shared pedestrian and cycling, and where appropriate, separate equestrian trails, be provided.
- Trail networks be integrated with existing recreational networks and provide linkages with nearby open space and adjoining urban areas.
- Indigenous vegetation be planted along networks to create a wildlife corridor through the Sandbelt Open Space area.” |
| Clause 22.04 (South East Non Urban Area Policy – Objectives) | “To provide for open space links and opportunities for recreation.” |

**Policy implications**

In summary, for this project, policy encourages:

- integration of the proposed shared user path and open space with the ‘core parkland area’ at the Dingley Bypass intersection;
- provision of enhanced and/or expanded open spaces where the shared user path intersects with wetlands, local
open spaces (Chadwick Reserve in Dingley Village and those in Aspendale Gardens), Mordialloc Creek and the Melbourne Water ‘triangle site’; and

- consideration of how the project can support a future shared user path along the west of the freeway.

3 Assessment and recommendations

3.1 Investigation area 1 – visual impact on surrounding land

3.1.1 Methodology

Visual Amenity

‘Visual amenity’ is a subset of ‘amenity’. Amenity is an elusive concept. It includes the ‘pleasantness’ and ‘agreeableness’ of an environment, but goes further than this to embrace all the features, benefits and advantages inherent in an environment in question — sensory, contextual and functional. Visual amenity is about sensory experience, namely sight. Images have both meaning and intrinsic properties. As relevant to this project, one can contrast an open landscape view with a row of factories or a freeway. The natural landscape view is a pleasant image in its own right (for example, in terms of the play of light through vegetation, colours and textures) and also for its meaning and associations (calming and natural).

A view to a freeway or factories is not intrinsically ‘bad’. Such views can have positive visual elements — perhaps giving a sense of progress and providing visual interest through landscaping and design. However, the planning scheme directs that, as a general proposition, views of natural landscapes are more highly valued than views of utilitarian infrastructure such as freeways and factories.

Visual impact

Visual ‘impact’ is not equivalent to visual ‘change’. The magnitude of impact is a function of a range of factors including how valued the existing visual environment is (informed by the planning scheme) and expectations of viewer (primarily informed by land use — e.g., open space, residential, commercial and industrial).

Landscape character and visual amenity

Landscape character is a possible contributor to visual amenity. At locations where views of landscape are dominant aspects of the view shed, that landscape character will act as a key contributor to visual amenity. However, many locations provide limited views of landscape, for example, views from backyards across closed fences. In such cases other visual factors dominate, such as the sense of openness, light, trees above the fence line, views of taller buildings etc.

Methodology

Assisted by my staff, I have assessed visual amenity using the following method. Firstly, I reviewed the key visual influences and potentially impacted areas based on a review of the reference design material and inspection of the project area broadly. From this work, I identified potentially highly impacted areas, for example, where the roadway is elevated, has tall noise walls, is close to sensitive land uses (residential and open space) or crosses valued landscapes (the wetlands environs). Secondly, I undertook a more detailed review of these potentially impacted areas by viewing an elevated flag (at heights up to 10.4m) positioned at the leading edge of the freeway from representative viewpoints and preparing cross sections to gain a sense of the massing, setbacks and screening opportunities.

associated with proposed structure.

The results of this investigation are set out in the Graphic Folio of Plans, Section 3, Visual Assessment. The content of this series of plans is set out on the plan sheets and is a compilation of information provided in the EES documentation and our own interpretation of visual impact influences such as; height of carriageway above natural ground level, height of noise walls, proximity of particular land use types to the freeway and potential for new planting to mask and visually absorb the carriageway and its attendant noise wall influences.

There are 7 points at which the visual impact on abutting land users have been analysed in detail as representative of the experience of the visual impact.

3.1.2 Assessment and recommendations by character area

Green Wedge North (Low Impact – no changes to design or EPRs necessary)

The project will have a low visual impact on the Green Wedge North character area. The current reference design and EPRs are likely to bring about an acceptable visual condition for this area.

Figure 1 Green Wedge North character area (green shading)

The roadway travels through the northern end of this area at a low level, without noise walls, limiting the visibility of the freeway from the wider area.
This area has an agricultural, ‘working rural’ or ‘rural fringe’ character, with long range views of open land routinely interrupted by earth mounds, land cuts and agricultural and commercial buildings and industrial machinery (refer Figure 3 – view south from Dingley Bypass).

**Figure 2 View of project area from Dingley Bypass, looking south (Graphic Folio, Impact View 1)**

The aesthetic of the Green Wedge North is in transition (in accordance with planning policy and Green Wedge zoning introduced via Amendment C143 in 2015). The area is anticipated to achieve an enhanced rural fringe aesthetic in the longer term. Projects and initiatives currently underway, such as the Hawthorn Football Club proposal, ‘chain of parks’ north of the project area and Kingston’s Public Space, Wetlands and Water Management facility plans at the northern end of the freeway (refer Figure 1) are evidence of this. Even when accounting for this transition, in my opinion the project reference design, which provides for feature native feature tree planting (River Red Gums) to mark the entry to the freeway from the Dingley Bypass, and landscaped open space and trail corridors along the freeway (which range from 20-70m in width), provide an acceptable response to the visual amenity expectations for this area.

The visual impact of the proposal is greater where the road rises over Old Dandenong Road at a height of 9.4m above NGL (chain 24000) (refer Graphics Folio, Section 2.3, Carriageway Height Over NGL).

Existing landscape character in the vicinity of dwellings to the west of this elevated overpass (338 Old Dandenong Road) and east of the overpass (367 Old Dandenong Road) will be modified (refer Graphics Folio, Impact Views 2 and 14). The area will lose long range views along Old Dandenong Road, and existing partially open views across green wedge land. Whist these existing view sheds certainly contribute to the existing landscape character of the area, the area can absorb the proposed level of change without the dominant character features being fundamentally altered. The existing character has an agricultural and gently undulating ‘working rural fringe’ aesthetic that will continue to dominate even with the presence of an elevated road and embankment, noting, relevantly, the landscaping (ground cover, shrubs and medium height native trees) that are proposed along noise walls and embankments.
**Dingley Village (Moderate Impact – requires additional EPRs)**

My assessment is that the project, as designed, will have a moderate impact on residential visual amenity for residents in Dingley Village. The key visual impact associated with this interface is the visual bulk of noise walls to the rear interface of residences. At their tallest and closest to this interface, noise walls of 6m at a setback of 17m from rear fences are proposed (refer Graphic Folio, Cross Section 2).

My key concern is the potential for noise walls, which will be visible over rear fences, to present as long, monotonous, unarticulated structures. In this regard, it is important that trees of suitable height and types be planted to provide verticality to the tops of noise walls, to provide articulation and softening of structure visible from residences. My reasons are as follows:

Dingley Village has an intimate, secluded character owing to its preponderance of private no through roads, small parcel sizes, cul-de-sacs and dwellings with modest boundary setbacks. It is largely developed to turn away from the freeway reservation.

Rear yard fences line the eastern interface to the freeway reserve. This eastern interface is approximately 1.6km in length between Centre Dandenong Road (south) and Lower Dandenong Road (north). There are no through connections between the freeway reserve and Dingley Village along its 1.6km eastern edge other than at Chadwick Reserve.

Figure 3 Dingley Village character area, blue shading (north to the right of page)

Figure 4 Typical rear fence interface – Dingley Village

The proposed roadway cross Centre Dandenong Road at a height of 8.3m above NGL (chain 24400) and then travels for the most part at less than 2m above NGL until it rises again to pass Lower Dandenong Road at a height of 9.4m (chain 25900) (refer Figure 5).

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10 Refer Photo Folio, Character View 1 for a representative example.
Noise walls are proposed along the entire length of this residential interface at heights varying from 2 to 6m (refer Figure 6).

My office prepared cross sections and sight lines to investigate the interface condition between the rear of residences and proposed freeway for representative ‘worst case’ conditions.

An extract from Graphic Folio, Cross Section 1 is provided in Figure 7. This cross section is taken at the nearest dwelling to the Centre Dandenong Road on ramp. At this location there is a 4m high noise wall along the on ramp which is 32m from the rear fence.¹¹

¹¹ Note that a representative backyard scenario, being a 5m deep rear yard and 1.7m height viewer located 4m from the rear fence is used for this cross section and sight line analysis. This is intended to investigate ‘representative conditions’ along this interface, rather than specific dwellings.
Figure 7 Cross section – Centre Dandenong Road ‘on ramp’ interface (Graphics Folio, Cross Section 1)

The cross section shows that the on ramp noise wall will sit at around 8m above NGL\(^{12}\) (equivalent to a three storey building). Given the 32m setback and primary orientation of dwellings away from the reserve, this is an acceptable visual condition.

However, the existing view of open sky and trees from rear yards over fences will be reduced and felt as an appreciable impact in a ‘before and after’ sense. Further, the continuous noise walls have the potential to present as long, monotonous, unarticulated structures. Accordingly, it is important that trees of suitable heights be applied to provide verticality to the tops of noise walls that will be visible from rear yards. A number of examples of trees providing articulation along the length of noise walls are in the Photo Folio, Noise Wall Palette. Figure 8 shows an example in a new residential subdivision in Officer. Eucalyptus trees extending above the 7m tall noise wall punctuate the horizontal monotony of the structure.

\(^{12}\) Note that the on ramp road height above NGL is an estimate only as the road height of on ramps was not included in the EES material or provided pursuant to information requests. Available road height information is limited to the height of the main freeway carriageway.
Figure 8 Example – verticality; young planting in new residential estate, Officer (7m high noise wall, photo taken from 40m distance)

Figure 9 demonstrates schematically how this articulation may be perceived across a rear fence, or from rear windows of dwellings.

Figure 9 Example – indicative view of top of noise wall across rear fence, articulation via planting (not to scale)

Another design technique is to apply transparency to the upper sections of the noise wall. Figure 10 shows an example of this, contrasting transparent and solid timber sections of noise wall. The transparent upper section provides filtered views of sky and vegetation behind.
Various solutions could achieve the outcome of reducing the visual impact of noise walls to Dingley Village. In my view, an EPR which included the objective to articulate and filter views of noise walls through tree planting and materiality is appropriate.

**Braeside Park (Moderate Impact)**

In terms of its interface to the freeway area, Braeside Park has two distinct interface types, approximately bisected by the Parks Victoria office.

**Braeside south**

The southern section of Braeside Park comprises a wetlands environment with an understory of low swampy
grasses, providing some opportunities for open range views across to the project area. An example of this is shown in Figure 12, which is a photo taken from the Wetlands Trail Lookout (refer Graphics Folio, Impact View 13 for location). Governor Road passes in the horizon of the photo with the project area sitting to the right and factories in Woodlands Industrial Estate in the distance. Based on my field tests using an elevated flag (10.4m) my assessment is that the roadway will be visible in the vista as it rises to pass Governor Rd, sitting slightly below the sagging power lines (refer Figure 13).

Figure 12 Braeside Park – Wetlands Trail Lookout (Graphics Folio, Impact View 13).

Figure 13 Zoomed photo (Impact View 13) showing power pole and power lines – reference height).

Given the considerable setbacks from paths and lookouts in this ‘wetlands’ region of the park (for example, the Wetlands Trail Lookout is over 180m from the freeway alignment), the freeway will not appear as a large object in the view shed. The key impact on this environment will be the perception of cars moving at speed, impacting the existing sense of sense of ‘calm’ within the park. My recommendation is to reduce the visual impact on the park by screening the view of moving cars. This ‘screening’ criterion should be assessed along paths, where long range view opportunities exist and lookout points, relevantly, Wetlands Trail Lookout and the Bird hide Lookout (refer Graphics Folio, Impact View 12).

Braeside north

The vegetation character in the northern segment of Braeside Park differs from the southern segment described above.
The vegetation is generally of a denser, bushier type. Paths nearest the freeway, namely Howard Road Trail, are aligned north-south providing opportunities for views out of the park. The key path running adjacent to the freeway reserve in this part of the park is Howard Trail. This part of the park is largely ‘introverted’ in the sense that it does not rely on outward views as part of its amenity.

However despite this condition, the freeway will be visible, obliquely, along Howard Road Trail and at orthogonal path connections to that trail (e.g. the connections from Federation Trail to the Howard Road Trail). This is illustrated by comparing Figure 14 and Figure 15 overleaf.

Figure 14 shows an existing view along the trail. Figure 15 shows the indicative location in the field of view of the proposed freeway, which is at approximately 4.2m above existing ground level at this location and setback approximately 60m from this viewing point (refer to the cross section in Graphic Folio, Detailed Impact View 2 for dimensions).

Figure 14 View from Howard Road Trail, looking north-west (project area to the left) (refer Graphics Folio, Detailed Impact View 2 with cross section)
My assessment is that the freeway will be visible through the trees at this point and that this condition is indicative of the view that will be provided at several locations along Howard Road Trail. Visibility does not depend on road height, but rather on vegetation screening. Because of the screening provided by the eastern edge of the park, and because the roadway is not high along the park interface, the freeway will not have a significant visual intrusion in terms of visual bulk. However, as noted in relation to the southern ‘wetlands’ segment of the park, the view of cars passing, in this case at 100km/hr with only a 60m setback from the trail, will have a significant impact. My recommendation is to ameliorate the view of moving cars, with an earth mound or wall. I would expect such a barrier to also provide a noise benefit to the park. Cumulatively, the noise and visual benefit provided by screening the effect of movement by cars from the park will provide a benefit by preserving the sense of calm within the park environment.

In relation to Investigation Area 2 – the experience of the road user – I have noted the benefit to road users of being able to see Braeside Park on their journey along the freeway. In this location, trees are generally close enough to the roadway and tall enough (at heights which I estimate to be in the order of 15m), for their crowns to be seen from the freeway, even if a barrier is installed, especially given that for most of its length the freeway along this interface is less than 2m above NGL. Whilst a barrier would diminish the sense of visual connection to the park from the freeway to a ‘Filtered View’ (refer Graphics Folio, View Opportunity Analysis), a reasonable view opportunity from the freeway to the park would still be provided with a barrier. In balancing competing objectives in relation to this issue, I place greater weight on preserving the existing calm and serenity of the park for park users.
Industrial areas (Low Impact – no recommended changes to EPRs or design)

I consider the visual impact of the freeway seen from both Redwood Gardens and Woodlands industrial estate to be of low impact primarily because the Freeway sits effectively at NGL except where it lifts to pass over Lower Dandenong Road.

There are no noise walls along the interface to these estates except for relatively short walls where the carriageway rises to the overpass.

The freeway is setback from Redwood Gardens and Woodlands Industrial Estate buildings at distances ranging between 30 to 60m. This is a sufficient distance to make the carriageway relatively visually submissive especially as planting along this edge matures.

The assessment by Aspect does not identify these interfaces as being in a location of ‘High Risk of Visual impact’.

While Redwood Gardens has a pleasant landscaped amenity (refer Figure 17, Figure 18 and Figure 19) and in many respects complements the indigenous planting in the area it is, nevertheless, an industrial estate adjacent to a longstanding roadway reservation. Given the nature of the abutting industrial land uses along this interface I consider the design response foreshadowed in the EES to be satisfactory.
Figure 17 Redwood Gardens community and employment cluster (comprising restaurant, business centre and Salvation Army Church) (Graphics Folio, Character View 3)

Figure 18 Redwood Gardens community and business node, view of Salvation Army playground (Graphics Folio, Other View (node) 2)
The Waterways Wetlands environs will be highly impacted by the proposed freeway which is elevated 10m above NGL at Governor Road (chain 28500) with noise walls adding to this by 1.5m. It dips for a short length and then rises again to 9.3m above NGL (chain 29200) on a bridge structure commencing at Bowen Parkway to pass over Mordialloc Creek.

Near to Governor Road, the bridge structure is estimated to sit slightly above top of the existing vegetation horizon (refer Figure 20).

Figure 19 View north in front of 20 Garden Ave, Redwood Gardens (Graphics Folio, Character View 4)

Waterways Residential and wetlands (High Impact)

Figure 20 view from rear of 9 Barmah Place, Waterways Residential Estate - indicative height and placement
of embankment (blue); noise wall (pink) (Graphics Folio, Detailed Impact View 4)

Dwellings in the Waterways Residential Estate generally have open front and rear fences to take advantage of views into the wetlands environs (refer Figure 21).

Figure 21 Example of open rear fences (9 Barmah Place (left photo)); 11 Barmah Place (right photo)

The on ramp to the freeway is over 170m from the residential development near Governor Road (Barmah Place) (refer Error! Reference source not found.), while the elevated carriageway crossing over Governor road is over 00m from dwellings (refer Graphic Folio, Detailed Impact View 4).

The existing and proposed intervening vegetation in the foreground will mask parts of the view as the cross sections reveal in the Graphic Folio, but it will need the planting foreshadowed in the landscape proposals to be successful and tall enough to substantially remove the visual presence of the freeway seen from this location. My recommended landscape design objective in relation to this interface is annotated on the plans in section 2.6 of the Graphics Folio (refer extract in Figure 22).

Figure 22 Recommended Landscape Objective between Governor Road and Bowen Parkway (Graphics Folio,
Section 2.6 Proposed Landscape Plan

The proposed bridges over Mordialloc Creek present a different interface condition. The leading edge of the bridge nearest Waterways dwellings is in the order of 170m from dwellings.

The bridges are approximately 9.3m above NGL (chain 29200) at Bowen Parkway. Similarly with the interface near to Governor Road, the bridge structures are estimated to sit slightly above the top of the existing vegetation horizon (refer Figure 23).

Assume vertical dimension of:
- Bridge structure = 1m (in blue)
- Bridge barrier = 1m (in blue)
- Noise barrier = 0.5m (in pink)

Figure 23 View from Spoonbill Place, Waterways Residential Estate, indicative height and placement of bridge and barrier structure (blue); noise wall on top of structure (pink) (refer Graphics Folio, Detailed Impact View 5)

In relation to the bridges over Mordialloc Creek, it is imperative that the design of the bridge structures and noise walls achieve an aesthetic that provides both contrast with the existing vistas (which comprise undulating medium height green and golden vegetation and dark water tones), to provide visual separation between landscape and structure, whilst also achieving sympathy with the existing landscape character. A textured, uniform and linear treatment, with a raw structural material palette (concrete or rusted steel) would sit more comfortably in this low lying wetland environment than, for example, the brighter and bolder tinted Perspex noise walls and bridge overpass designs seen along the EastLink and the Peninsula Link freeways.
Figure 24 Compare - blue Perspex noise wall over wetland environment, Pakenham Bypass, Officer (Photo Folio, Noise Wall Palette)

Figure 25 Compare – blue rhythmic folded bridge face with brown painted undercroft (Photo Folio, Bridge Palette)
The rhythmic, folded bridge face, with brown painted undercroft shown in Figure 25 could be successful over Mordialloc Creek, but with a raw structural material applied such as rusted steel (refer Figure 27 and Figure 28).

Given the sensitivity of this environment, which is recognized in both the Aspect and Spiire work, it is highly desirable...
that a Design Reference Committee Group, comprising key stakeholders (including Kingston and VicRoads) be established to have input to the design of this part of the freeway.

**Aspendale Gardens (Moderate Impact)**

Aspendale Gardens residential estate is largely designed and developed to turn away from the freeway reservation. It sits at approximately 60m distance from the freeway at its nearest point and for most of its interfacing abuttal there is a noise wall 4m high above the carriageway that sits at a similar NGL to the residential land in the central parts of the route rising to an elevation above NGL of 10m at Mordialloc Creek and Springvale Road.

Planting proposed outside the noise wall at the interface to the residential estate is to be encouraged as is the careful consideration of the architecture of the noise wall. My recommended landscape design objective in relation to this interface is annotated on the plans in section 2.6 of the Graphics Folio (refer extract in Figure 29).

**Recommended Landscape Objective**

Long low grassland environment should be reflected in design response. Eg., apply grassed batters within well spaced canopy trees.

![Recommended Landscape Objective](image)

**Figure 29 Recommended landscape objective between Governor Road and Bowen Parkway (Graphic Folio, Section 2.6 Proposed Landscape Plan)**

Current views to the wetlands from residential areas are masked by the linear planting on the levy bank along Mordialloc Creek as can be seen in the photo from the Jackie Court open space provided in Figure 30 and the view along the Mordialloc Creek path in Figure 31.
Figure 30 View from Jackie Court – the wetlands are beyond the row of vegetation to the left of the photo, screened by the vegetation on the levy bank (Graphic Folio, Impact View 10)

The key visual impacts in this area are eastward views along paths (Mordialloc Creek path) and out from local open space (Jackie Court and Bangalow Place open space).

Open vistas to the wetlands to the north east across the embankment and also the green wedge to the south will be removed as the indicative renders partly illustrate.

Figure 31 Existing view along Mordialloc Creek path towards freeway (Graphics Folio, Detailed Impact View 7)
Figure 32 View along Mordialloc Creek path towards freeway (Graphics Folio, Detailed Impact View 7)

Figure 33 Cross section – view along Mordialloc Creek path towards freeway (Graphics Folio, Detailed Impact View 7)
Figure 34 Existing view from Bangalow Place Open Space – the freeway will pass through the green wedge land visible in the background of this photo beyond the play equipment (Graphics Folio, Impact View 11).

Whilst I acknowledge there will be an impact to these paths and open spaces, with the implementation of a well-considered landscape design response to integrate the freeway into its surrounds, I anticipate the likely visual outcomes to be acceptable.

3.2 Investigation Area 2 – the experience of the road user

3.2.1 It’s not just the destination, it’s the journey

State and local planning policy is clear that the experience of driving the freeway is an important consideration in their planning and construction. Appendix C sets out at Clauses 15, 18 and 19 as well as in the Local policy framework the need for freeways to be more than just an engineered transit corridor for vehicles.

The evolution of thinking about the design of freeways flowed from a variety of sources largely concerned with the initial engineering solutions proffered particularly in the USA.

When the concept of a freeway was translated to reality in the USA, it was offered as a safe, quick and easy way of accessing a destination. The first models of a freeway were utilitarian in form and function. A means of getting from A to B and avoiding the congestion and disruption of travelling a city grid and the sometimes torturous path of the highway. The freeway was derived from the American Parkway, the Parkway being a response to the desire for travellers to a destination to experience a scenic journey. In other words, it was as much about the journey as it was the destination.

In 1965 Lyndon Baines Johnson, President of the USA, issued a call for a White House conference on Natural Beauty to draw attention to the need for the Freeway journey to be scenic and pleasant. In his call the President said:

I hope that, at all levels of government, our planners and builders will remember that highway beautification is more than a matter of planting trees and setting aside scenic areas. The roads
themselves must reflect, in location and design, increased respect for the natural and social integrity and unity of the landscape and communities through which they pass’

It was through influences of this kind and particularly public response to the early freeway designs that the idea of a freeway being more than a safe, easily trafficable transit corridor became part of the design brief for freeways in Australia.

As a driving experience we now expect our freeways to be enjoyable, not simply because they are safe and well-engineered but also because they are ‘connected’ to the landscape through which they are travelling. They should not be boring to drive but have enough complexity to maintain driver interest, mark the sequences of a journey and keep the driver and their passengers oriented.

We enjoy the calm that is instilled by the spaciousness provided by generous central and side medians, by being able to read the landscape beyond the visually enclosing effects of sound barriers and most importantly, through the presence of trees and vegetation that soften the edges of the carriageway and the oversized architecture of road engineering that is the design imperative of travelling in a vehicle at 100km/hr.

The journey has become as important as the destination.

For travellers moving the entire length of this route on a series of connected freeway links to arterial roads, the journey, starting in the north, leaves the southern bayside suburbs of Brighton, Hampton and Sandringham and moves through Moorabbin into Dingley and Braeside. The nature of land use and attendant landscape clearly changes from mainly established residential suburbs to light industry, mineral extraction and then emerging green wedge with established housing estates mainly from the post WW2 era.

As the carriageway turns to the south the landscape becomes more open, a consequence of Braeside Park and the influence of various iterations of Green Wedge policies.

This open, relatively flat former wet lands and swampy ground surrounds the freeway carriageway as it passes Patterson Lakes until, approaching Frankston, it rises to meet the Mt Eliza Escarpment, then descends onto the Moorooduc Plain and past Mt Eliza and Mt Martha, around Arthurs Seat and along the base of the upland slopes of the central ridge of the Mornington Peninsula.

Finally, arterials along the Port Phillip coast give access to Portsea and the southern seaside settlements.

In short, it is a journey that engages with a variety of topographic and landscape conditions. It is a journey of segments. The Mordialloc By Pass represents about a 6 minute segment of a journey that could take nearly 2 hours to the southern most points of the Peninsula. What is to be observed about this journey is that the proposed bypass is the point at which the established suburbs of middle ring Melbourne are left behind, or entered if one is moving in the other direction, and where the green wedge and low lying wet land country is encountered. This point of transition is blurred, but as green wedge and complementary policy takes greater effect it is at this point that the architecture of the Freeway should signal that this is not the Dingley By Pass, it’s different and it’s going to be a different landscape experience from here.

3.2.2 What does the planning policy seek for the journey on a freeway?

The primary matters that policy encourages in experiences driving the freeway are:

- Visual connection with the landscape one is travelling through. This assists in understanding the segments of the journey, and also assists in comprehending orientation, and by experiencing varying degrees of visual complexity in turn addresses boredom and driver fatigue on the longer journey;
- New landscape abutting the carriageway to help interpret the landscape of the area one is passing through;
- Design of sound barriers that are visually and aesthetically engaging and where appropriate have a transparency that assists connection with the landscape beyond; and
- Artful interpretation of the journey to mark and establish a sense of place and orientation and build a positive memory of the driving experience.

In addressing these objectives the plans in the Graphic Folio set out the nature of the visual experience driving the Bypass.

Figure 35 Metropolitan context of Mordialloc By-pass
3.2.3 How do we experience the freeway as a traveller?

At most times the experience of travelling on a freeway is taken at 100 +km/hr particularly where the carriageway is away from the intensity of the central city. It’s a different experience for the driver than it is for a passenger and a different experience from driving a crowded arterial through the metropolis.

The driver is focussed on the responsibilities of being the driver, on the road ahead, the signage advising of distances to destinations, interchange points, changes in speed requirements and the presence of vehicles in adjacent lanes. The focus of the driver’s attention is quite narrowly defined either side of perpendicular to the steering wheel. Peripheral vision is used primarily to gauge the presence of other vehicles. For the driver, reading the landscape and the geography of the freeway is seen obliquely, ahead and often over long distances, especially where the carriageway is straight (refer Figure 36 and Figure 37).

![Figure 36 Driver field of view](image1)

![Figure 37 Field of view from vehicle](image2)
A front seat passenger does not have the same constrictions as a driver and can view the passing landscape more intently and widely. In the front passenger seat it’s at least a 180 degree view shed. For those who are rear seat passengers the view is only to the side.

Each of these ‘experience opportunities’ is important to the traveller in enjoying the journey and each of these ‘opportunities’ present different design requirements on the form of the freeway.

If we are a truck driver, we are elevated above the majority of vehicles, but concentrating on staying in the lane and accommodating more agile vehicles intruding on our pathway. Connection to landscape and an ability to orient our place in the pathway remains important in minimising fatigue and boredom. The way we experience the freeway is particularly influenced by the nature of the place we are travelling through. Critical to this is the fact that most of the time we are travelling at speed. At 100+ Km/hr, the By-Pass is approximately a 6 minute journey.

Key design objectives identified in the Mordialloc By-Pass EES and by the City of Kingston responding to that document include:

- Visual connection to the landscape beyond;
- Interpretation of the place one is travelling through especially where visual / noise barriers block views to the landscape beyond the freeway;
- Reinforcement of the indigenous vegetation associations in the plantations along the edge of the freeway; and
- Spaciousness between carriageway and enclosing walls.

3.2.4 What is the nature of the route of the Mordialloc bypass

The By-pass travels through an essentially flat to mildly undulating topographic condition, a result of being the ‘mature age’ segment of the geography of Metropolitan Melbourne and its place in the catchment of the Dandenong Valley Catchment (refer Figure 38).

Known as the ‘sand belt’ because of the depositional nature of its geology, this is an area characterised by swamp and wetland a result in part of being at the ‘bottom’ of the catchment of the Dandenong Valley.
As the mineral resources of the northern areas of the by-pass are slowly converted to regenerated parklands, the green wedge, coupled with the regional Braeside Park and Waterways residential development, combine to create a revitalised landscape that more effectively celebrates the original habitat and botanical values of its heritage.

As observed earlier, it is a transition point between established middle ring Melbourne and the more open green wedge influenced land uses to the south.

### 3.2.5 The topography and its role in facilitating visual connection with the landscape

Whether one is a passenger or the driver, a flat generally straight road through a flat landscape means that the principal view shed from a car is a low horizon and a large sky.

With no hills or mountains in the backdrop or tall buildings near or far, it is the presence of tall trees and adjacent built form that principally define our experience of this landscape. The closer they are to the carriageway the more they
influence the driving experience.

Where the freeway rises to an overpass to an existing road, the elevated nature of the carriageway gives views across the surrounding landscape. It becomes a viewing platform provided the views are not blocked by sound barriers. Transparent components on the sound barriers allow passengers to see the surrounding country side, but the driver primarily relies on long forward oblique views over the barriers. Unless the transparent walls are extensive in length they are of little benefit to a driver travelling at 110km/hr. For a view that is 10 seconds long, the transparent sound wall needs to be 180m long. Even for the passenger, the length of the transparent wall in a very flat landscape needs to be more than a glimpse to read the nature of the environment one is travelling through. It is in these circumstances that the clear presence of indigenous vegetation is important in reading a flat landscape largely to low lying ground.

**Is there a reasonable level of visual connection with the local landscape?**

In the view opportunity plans in section 3 of the Graphic Folio, the nature and extent of the visual connection with the local landscape is analysed.

In the 6 minute journey from the Dingley By-Pass connection to the start of the Mornington Peninsula Freeway, the carriageway descends from 25 AHD to approximately 3 AHD.

The ability to see beyond the carriage way is influenced by the presence of noise walls and other barriers and the height of the carriageway above the surrounding topographic condition.

The barrier heights identified in the EES have been distilled to 3 categories according to their propensity to block views:

- **Low** - 0-1.5m which a passenger in a car could see over ("open view")
- **Medium** - 1.6-3.0m where a passenger could see a tall tree or structure in close proximity ("Filtered view").
- **High** - over 3m where most views would be blocked unless they where very tall and close to the freeway ("Closed View").

The nature of the view opportunity and type of barrier is notated on the Graphic Folio plans.

In plan 3.2.1 the type of view is interpreted along the course of the carriageway. Whether the view is open on both sides, **open** on one side only, **filtered** (between 1.6 and 3m) or **closed**.

Plan 3.2.2 and 3.2.3 interpret the view sheds from the freeway travelling south and then travelling north again as either;

- **Open**
- **Filtered or**
- **Closed**

The extent of the view shed is also inferred in these plans.

This Plan includes information on the height of the carriageway over the existing topographic condition.

What is revealed in this plan is that there is a strong sense of connection between the traveller on a freeway and the abutting landscape.

This is a function of the architecture of the carriageway in relation to the existing topographic condition, the relatively long 'slow' radii of the carriageway and the height and length of the barriers. Some changes to this condition will occur
if new barriers are installed as requested by Kingston Council, but this should not unduly fetter the conclusion that the visual connection is extensive

Through the need for overpasses over 5 existing arterials the freeway rises to provide potential views above the prevailing topographic condition by up to 9m. These 5 overpasses provide an opportunity for an “elevated view” over the wider landscape. In places the long oblique view is blocked by noise walls, however my assessment is the carriageway alignment provides a reasonably long oblique view for the driver and front seat passengers effectively every minute of the journey. Because it is a Freeway with gently curving radii to its carriageway, those views can be 2 kilometres ahead over the similarly gentle rise and fall of the carriageway.

Plans 3.2.2 and 3.2.3 illustrate this condition and the primary opportunities for long wide views on the elevated overpasses.

3.2.6 Do sound barriers, built form & new landscape curtail view sheds from rear passenger seats unacceptably?
For passengers in the rear seat, the long oblique views are difficult to obtain for obvious reasons. However, side views, though different, still allow a clear appreciation of the landscape one is travelling through given the use of transparent screens proposed in the EES itself and in the recommendations of Spire and Aspect Design.

3.2.7 Does the design offer a reasonable sense of navigation, orientation and memory?
Kevin Lynch in his seminal text ‘The image of the city’ defined five types of elements that contributed to people’s perception of a city: paths, edges, districts, nodes and landmarks. He acknowledged that ‘paths’ (including freeways) are the predominant element in reading perception of a city. The ability to navigate, orient and build memory is critical to this process. After the act of actually seeing the landscape one is travelling through, the use of art and artful design in the architecture of the freeway is highly beneficial in the desire to navigate, orient and establish memory of the journey that is linked to the place one is travelling through. My assessment is that the EES, Spire and Aspect Studios have generally answered this requirement.

Kingston Council are especially wanting to encourage interpretations of their municipality in the architecture of the freeway.

Design is a contentious and highly debated aspect of our cultural life. There are clearly examples of freeway architecture and art that are exemplary, some of which are illustrated in the accompanying Photo Folio.

Interpreting sense of place can be done very poorly or it can be a wonderful contribution to a journey.

The current propensity for road authorities to line our highways with Armguard and wire rope in the name of road safety is often done at the expense of more artful means of maintaining our interest in the journey and engagement with the road.

While it may be seen as elitist in the opinion of some, my own experience is that the very best of design comes from people who know about and can ‘do’ design. This country has any number of well-regarded architects, artists and sculptors who could make a meaningful contribution to the experience of the journey along this bypass. Careful selection of their skills should be an imperative as opposed to the purchase of ‘plop-art’. Their remit should be to create a narrative around the landscape through which the bypass is traversing. In my assessment it is an evolving point of transition from one landscape experience to another that could be celebrated.
3.4 Investigation Area 3 – pedestrian and cyclist connections

Comments regarding the technical design of connections from the proposed shared user path to the existing path network have been provided by Aspect and Spiire. There is broad agreement between those firms regarding appropriate design aspirations for the proposed shared user path. The principles of good urban design practice for pedestrian and cyclist paths are documented in relevant literature including the Urban Design Guidelines for Victoria and Austroads Guide to Road Design Part 6A, Paths for Walking and Cycling (June 2017), which is a reference document at clause 18.02-1S (Sustainable personal transport) of the Planning Scheme. I have noted the path design recommendations by Aspect and Spiire with which I agree in Appendix B. Relevantly, I agree that the shared user path should:

- have a minimum width of 3m;
- provide rest stops, seating, signalised road crossings, wayfinding and lighting at appropriate locations (e.g. nodes);
- be designed to provide visual interest through noise wall design, landscaping and utilisation of view opportunities; and
- design for safety; and
- provide access to and from the trail as frequently as can be accommodated, but noting that there are areas where frequent connections are simply not possible without acquisition of and demolition of dwellings – such as along the Dingley Village interface where there is a continuous rear fence of dwellings for 1km.

The EPRs should incorporate these design aspirations, for example, by requiring design to be in accordance with Urban Design Guidelines for Victoria and Austroads Guide to Road Design Part 6A, Paths for Walking and Cycling (June 2017).

The more salient issues raised by Aspect and Spiire are the following:

- **Should there be a second underpass (or overpass) between the Redwood Gardens community and business node and Chadwick Reserve?** My conclusion is that this is desirable.

- **Should the proposed underpass at Park Way to Braeside Park be widened to 6m and meet ‘best practice’ for underpass design (in terms of colours and lighting)?** Again, I conclude this is desirable.

- **Should there be a ‘landmark overpass’ at Dingley Bypass, connecting to the existing path at Dingley Bypass and the future path connection into the ‘chain of parks’ north of the project area?** This is explored later in my evidence.

- **Should the shared used path follow a direct boardwalk connection across the wetlands and Mordialloc Creek rather than detour onto Bowen Parkway?** I conclude that this is desirable.

3.4.1 Connection between the Redwood Gardens and Chadwick Reserve

There is a compelling case in planning and urban design terms for provision of a second cross freeway connection from Chadwick Reserve. As noted previously, Dingley Village only has one eastern connection opportunity for a length of approximately 1.6km. Chadwick Reserve is by far the most logical and appropriate place to provide a cross freeway pedestrian and cyclist connection. This is evidenced by the existing network of informal paths that commence at Chadwick Reserve and branch north, to run parallel with the edge of Dingley Village, and east, connecting to the Redwood Gardens community and business node at two points (refer Figure 39).

Redwood Gardens provides a range of community and local uses including the Dingley International Hotel, Restaurants, Salvation Army Community Church and reasonably diverse commercial and business mix. As such, Redwood Gardens contains complimentary land uses for a residential area. Accordingly, providing a pedestrian and
cycling connection is strongly supported by sustainable transport policies in the planning scheme. I recommend that an EPR require provision of a pedestrian and cyclist connection between Chadwick Reserve and Redwood Gardens.

Figure 39 Aerial image showing existing informal trails through the freeway reserve (image source: NearMap)
3.4.2 Connection at Park Way to Braeside Park

The proposed underpass will be approximately 35m in length. I agree with Aspect and Spire that the underpass between Park Way and Braeside Park should be improved from a 'standard' box culvert design. I agree with Aspect’s statement that: “A standard box culvert design of 2.6m high x 4m wide can make an underpass feel unsafe and unwelcoming to pedestrians and cyclists, negatively impacting use and safety.” I support the proposed underpass implementing ‘best practice’ design as outlined in Aspect’s work.

The connection at Park Way is the only cross freeway connection for the entire length of Braeside Park from Lower Dandenong Road to Governor Road, which is in the order of 2.6km in length. Park Way contains an existing concrete off road shared path that terminates to gravel / grassed path across the freeway reserve to Braeside Park. This path connects to a network of shared off road paths through the Woodlands Industrial Estate. Examples of the standard of this path network at Park Way are shown in Figure 41.

Figure 41 Photos showing existing path network connecting to Park Way

A similarly dimensioned culvert to that proposed is located under Springvale Road on the EastLink trail (refer Figure 42). Whilst it cannot be said that this culvert is not functional or in use, I consider that the context of the proposed connection between Woodlands Industrial Estate and Braeside warrants a superior underpass to this example.

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13 Aspect Report, p. 123.
The connection at Park Way is not simply a connection to an industrial area. It also provides an opportunity for onward journeys into the Woodlands Wetlands which contain a network of highly scenic trails (refer Figure 43 and Figure 44).

Figure 42 Example – culvert underpass, Springvale Road, EastLink Trail (approximate dimensions, 3.6m width, 40m length)

Figure 43 Woodlands Wetlands trail (Graphics Folio, Other View – Path 7)
I consider that an EPR should be drafted to require ‘best practice’ design of the proposed underpass as detailed in Aspect’s Report.

3.4.3 Should there be a ‘landmark overpass’ at Dingley Bypass?
My assessment is that there is not a sufficiently strong connectivity basis to justify imposing a mandatory requirement for an overpass connecting the proposed shared user path to the Dingley Bypass shared path. Such an overpass would provide an urban design benefit to this part of the path network, but I do not see an overwhelming need for this (in contrast to my opinions in relation to the connection at Chadwick Reserve). A signalised pedestrian crossing is currently proposed.

However, I am of the view that the freeway could benefit from creation of a landmark at the entry to the freeway and an overpass could assist in achieving this purpose.

3.4.4 Should the shared used path follow a direct boardwalk connection across the wetlands and Mordialloc Creek?
There are existing boardwalks in the trails through the wetlands that provide an interesting and pleasant walking environment. If such a boardwalk could be incorporated in the project it would provide urban design benefits in terms of having a direct connection and a high amenity environment.
3.5 Investigation Area 4 – open space trails

The project provides ample space for providing open space trails of a quality that can be experienced along other transport routes in Melbourne, such as the trails along the Eastern Freeway and Eastlink. Examples of successful trail environments are provided in the Photos Folio. A successful trail environment provides variety and interest. In my opinion, there is not a ‘one size fits all’ approach that needs to be employed in this project and competent designers ought to be able to achieve acceptable results for this project.

However, as currently drafted the EPRs only reference ‘landscape’ design. I recommend that an EPR be added requiring approval of a landscape and urban design strategy plan for the project.

4 Conclusion

In addition to the recommendations I have outlined through my evidence, I recommend that EPR Item LV1 be refined in the following manner:

- The title “Landscape and Visual” be changed to “Landscape, Visual and Urban Design”.
- The heading “Landscape Design” be changed to “Landscape and Urban Design”.
- Whilst “landscape design” can include urban design, the nature of noise walls and art installations involves other professions which should be recognised in LV1.
- Similarly, the generic reference to ‘stakeholders’ should be expanded. The relevant key stakeholders that are known with certainty and whom can provide meaningful input into character responsive design matters (such as, for example, the bridge crossing over the Waterways Wetlands), should be named specifically in LV1. City of Kingston should be named as a relevant stakeholder to be consulted.
Appendix A: Witness Details

Tim Biles
Message Consultants Australia Pty Ltd
2/398 Smith Street, Collingwood 3066

Qualifications
- Bachelor of Arts, Flinders University 1969
- Diploma of Town Planning and Regional Planning, Melbourne University 1975
- Fellow, Planning Institute of Australia

Areas of expertise
I have practised in the field of town planning since 1970 and qualified in 1975. My experience includes working in strategic and statutory planning for local government authorities and private consulting dealing with a variety of residential, commercial, industrial and conservation issues.

I give planning and urban design advice to a wide range of commercial and local government clients involved in the preparation of a range of commercial and residential projects.

I have also led a series of townscape plan studies as well as landscape and urban design programs across country Victoria and Melbourne.

Expertise to prepare this report
As a qualified town planner with over 40 years in practice I have had to assess and provide strategic and land use planning advice on a wide range of town planning and urban design issues.

Summary of opinions
My conclusions are summarised sections 1.8 and 4 of this report.

Declaration
I declare that I have made all the inquiries that I believe are desirable and appropriate and that no matters of significance which I regard as relevant have to my knowledge been withheld from the Tribunal.


T W Biles
Appendix B: Review of Spire Work

**Spiire’s work**
Council’s submission requests changes to the EPRs in accordance with the recommended Priority Outcomes and Design Criteria provided in the landscape and visual assessment report by Spiire, dated December 2018 (Spiire Report).14

Spiire’s identified ‘Themes’ and ‘Priority Outcomes’ are extracted in column 1 and 2 of Table 1. Spiire’s recommended design criteria for the project are summarised (in truncated form) in column 3 of Table 1.

<table>
<thead>
<tr>
<th>Themes</th>
<th>Priority Outcomes</th>
<th>Spiire / Council’s requested design criteria / outcomes</th>
<th>Message Comments:</th>
</tr>
</thead>
</table>
| Identity and environment        | 1. The development tells a clear story about place; a region invested in an environmentally progressive future | ■ Transparent noise walls to assets – Braeside Park and wetlands
■ Habitat corridor of indigenous trees along the freeway
■ Consistent architectural theme
■ Interpretative art               | CV                                                                                     | A                                                              |
|                                 | 2. Links and journeys are well used: integrated, direct, accessible, legible, attractive and safe
3. Important community connections are maintained and future strategic connections are allowed for | ■ Design of the shared user path – good usability via width (3m minimum), theming, rest stops and seating, signalised road crossings, wayfinding, views into assets, safety design and permeability (access onto the trail at minimum 1km intervals)
■ Landmark overpass at Dingley Bypass
■ Design of the planned underpass (Woodlands Industrial Estate to Braeside Park) – minimum 6m width, allow natural light, architectural theming, safety.
■ Directed boardwalk connection over the wetlands (rather than the path detouring via Bowen Parkway).
■ Connection to the shared use path at Aspendale gardens
■ Provide space for a western shared user | A                                                                                     | CV                                                            |

14 Contained in Attachment 3 to Kingston’s submission.
Amenity

4. Effective short and long term visual screening
5. High quality, visually recessive bridge structures
6. The sensitive interfaces of Braeside Park, Dingley Village, Aspendale Gardens and waterways communities are well managed in the design response

- Design of noise walls and bridge structures (including undercroft areas in sensitive locations – such as Waterways wetlands) to be responsive to their environments and reflect the overarching architectural theme
- Noise wall at Braeside Park to reduce noise to the park
- Consideration of the presentation of noise walls to the shared user path
- Consideration of transparent noise walls located proximate to residential areas and the shared user path

Aspects Work

Aspect Studios undertook a landscape and visual amenity impact assessment of the project based on an assessment of character areas, landscape values and sensitivity (Aspect Report). They developed an urban design strategy for the project and series of ‘non standard mitigation measures’ to reduce what they considered to be areas of high to moderate landscape and visual amenity impacts.

Aspect’s key recommendations are summarised below:

- **Bridges and structural elements:**
  - “Ensure bridge design minimises visual and landscape impacts and enhances amenity” – mitigation measures include providing separated bridge decks (to provide light to the underpass) and ‘non-standard’ architectural design in terms of detailing, materials, colours and so on.
  - “Provide LCA appropriate planting in front of noise walls or as a part of noise wall design where practicable to minimise visual impacts”
  - Incorporate architectural detail into noise wall design and patterns to improve amenity of noise walls and blend in with or compliment surrounding landscape character
  - Utilise colours and materials for structural elements which blend in with or compliment surrounding landscape character.”

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15 PREPARED ON BEHALF OF THE MAJOR ROAD PROJECTS AUTHORITY, DATED 18 SEPTEMBER 2018.
16 BEING DEPARTURES FROM VicROADS’ ‘STANDARD MITIGATION MEASURES’ DESCRIBED IN VicROADS CONTRACT SHELL DC1: DESIGN AND CONSTRUCT, APRIL 2012.
17 ASPECT REPORT, SECTION 11.2.
• **Pedestrian underpasses (bridge and culvert):**
  
  – Provide ‘best practice’ design of pedestrian underpasses (bridge and culvert) in terms of amenity and safety (having regard to matters such as lighting, spaciousness, sightlines, wayfinding and activation).

• **Pedestrian and cyclist paths:**
  
  – “Connect the proposed shared user path with existing local path networks within a 100m radius of the project site and regional strategic links within a 250m radius of the project.
  
  – New path connections should be as direct to existing paths as possible.
  
  – Shared user path alignment and associated landscape design should aim to enhance sight lines to the extents practicable and appropriate.
  
  – Provide park infrastructure, including seating, bike maintenance stations, recreational infrastructure and wayfinding at regular intervals, key intersections and underpasses.
  
  – Enhance amenity and user experience by providing appropriate colour, graphics and art where appropriate and practicable.
  
  – At key intersections with other paths, roads and nodes provide lighting for increased safety at night.”

• **Open space**
  
  – “Work with key stakeholders to identify strategic open space partnership opportunities” at Chadwick Reserve, Green Wedge North LCA, Bangalow Way Open Space and Jackie Court Open Space.

Aspects recommended areas for application of ‘non-standard’ mitigation measures are summarised in Table 2.

<table>
<thead>
<tr>
<th>Element</th>
<th>Non-standard mitigation measure</th>
<th>Priority sites</th>
<th>CV = Could vary, see main report A= Agree</th>
</tr>
</thead>
</table>
| Bridge design (includes noise walls, abutments and embankments) | • “Separate bridge decks or incorporate light wells to increase natural light filtration to associated underpasses  
• Incorporate recessive vertical abutments  
• …  
• Colour and materials to blend in with existing character of the area  
• Enhance usability in bridge underpasses for recreation and leisure, to encourage | • Waterways wetlands overpass,  
• Governor Road overpass  
• Lower Dandenong Road overpass | A  
A  
A |
<table>
<thead>
<tr>
<th>Design of structural elements (noise walls, abutments, embankments and piers)</th>
<th>“Seek opportunities for new structural elements (e.g. noise walls, abutments, embankments and piers) and design to provide multiple functions”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• “Provide LCA appropriate planting in front of noise walls or as a part of noise wall design where practicable to minimise visual impacts</td>
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<tr>
<td></td>
<td>• Incorporate architectural detail into noise wall design and patterns to improve amenity of noise walls and blend in with or compliment surrounding landscape character</td>
</tr>
<tr>
<td></td>
<td>• Utilise colours and materials for structural elements which blend in with or compliment surrounding landscape character</td>
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<tr>
<td></td>
<td>• Plant out embankments with LCA appropriate planting.</td>
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<td>…</td>
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<tr>
<td></td>
<td>• For key gateway locations, seek improved visual amenity, wayfinding and design, and enhanced open space opportunity and use for increased passive surveillance and safety.”</td>
</tr>
<tr>
<td>Pedestrian underpass</td>
<td>“All underpasses proposed within the project should apply best practice design</td>
</tr>
<tr>
<td></td>
<td>“All bridge and culvert underpasses which provide pedestrian and cyclist</td>
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<td>A</td>
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<td></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>“Park Way trail to Braeside Park underpass is a key gateway and path connection into Woodlands Industrial Estate and Braeside Park.”</td>
</tr>
<tr>
<td></td>
<td>“Lower Dandenong Road underpass is a key gateway into Woodlands Industrial Estate and Braeside Park.”</td>
</tr>
<tr>
<td>Design measures, maximizing pedestrian safety and performing multiple functions.</td>
<td></td>
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<tr>
<td>A standard box culvert design of 2.6m high x 4m wide can make an underpass feel unsafe and unwelcoming to pedestrians and cyclists, negatively impacting use and safety.</td>
<td></td>
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<tr>
<td>Chadwick Reserve to Redwood Gardens Industrial Estate pedestrian underpass is a non-standard mitigation measure of high priority.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Provide increased public open space</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Work with key stakeholders to identify strategic open space partnership opportunities.”</td>
</tr>
<tr>
<td>Chadwick Reserve</td>
</tr>
<tr>
<td>Green Wedge North LCA</td>
</tr>
<tr>
<td>Bangalow Way Open Space</td>
</tr>
<tr>
<td>Jackie Court Open Space</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Increase pedestrian and cyclist connection opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Connect the proposed shared user path with existing local path networks within a 100m radius of the project site and regional strategic links within a 250m radius of the project.</td>
</tr>
<tr>
<td>New path connections should be as direct to existing paths as possible.</td>
</tr>
<tr>
<td>Shared user path alignment and associated landscape design should aim to enhance sight lines to the extents practicable and appropriate.</td>
</tr>
<tr>
<td>Provide park infrastructure, including seating, bike maintenance stations, recreational infrastructure and wayfinding at regular intervals, key intersections and underpasses.</td>
</tr>
<tr>
<td>Enhance amenity and user experience by providing appropriate colour,</td>
</tr>
<tr>
<td>“Braeside Park to Park Way trail proposed underpass</td>
</tr>
<tr>
<td>Path connection opportunity from Chadwick Reserve to Redwood Gardens Industrial Estate via Underpass</td>
</tr>
<tr>
<td>Path connection opportunity from Torquay Close in Dingley Village to proposed shared user path adjacent to Chadwick Reserve.</td>
</tr>
<tr>
<td>Path connection opportunity from Chelsea Heights Hotel to Soden Road connection along east side of Springvale Road.”</td>
</tr>
</tbody>
</table>
comments the spiire and aspect work

it is noteworthy that there is a confluence of recommendations between spiire and aspect in relation to some key urban design features of the project, relevantly that:

- structural elements should serve multiple functions – that is, structures should:
  - reflect local character, through architectural language and theming;
  - provide visual interest (supporting amenity and sense of place) – again this is achieved via architectural language and theming, especially for elevated and highly visible structures
  - ameliorate visual impact through sensitive design;
- pedestrian and cyclist connectivity should be maximised by providing a second freeway underpass between chadwick reserve and redwood gardens industrial estate, as well as frequent connections from the planned shared user path to surrounding areas
- the amenity and safety of pedestrian and cyclist paths should be maximised, including under new bridges over existing roads and planned culvert underpasses.
Appendix C: State and Local Planning Policy

The following tables extract relevant State and Local planning policies from the Kingston Planning Scheme, identifies which ‘project theme’ the extracted policy is relevant to (e.g., ‘Green Wedge Land’, ‘Wetlands’, ‘Braeside Park’) and which ‘investigation area’ the policy is relevant to. The ‘investigation areas’ are as follows:

<table>
<thead>
<tr>
<th>Investigation area</th>
<th>Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience of the road user</td>
<td>Character, identity</td>
</tr>
<tr>
<td>Pedestrian and cyclist connectivity</td>
<td>Connecting places</td>
</tr>
<tr>
<td>New open space, pedestrian and cyclist corridors</td>
<td>Amenity, landscape, urban design, safety</td>
</tr>
<tr>
<td>Impacts on surrounding land</td>
<td>Noise, visual</td>
</tr>
</tbody>
</table>

State Planning Policy Framework

<table>
<thead>
<tr>
<th>Clause</th>
<th>Policy</th>
<th>Theme</th>
<th>Relevant investigation areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 (Environmental and Landscape Values)</td>
<td>“Planning should protect, restore and enhance sites and features of nature conservation, biodiversity, geological or landscape value.”</td>
<td>Wetlands, Braeside Park, Green Wedge</td>
<td>Impacts on surrounding land</td>
</tr>
<tr>
<td>12.03-1S (River corridors, waterways, lakes and wetlands)</td>
<td>“Objective”&lt;br&gt; • To protect and enhance river corridors, waterways, lakes and wetlands.&lt;br&gt;&lt;br&gt;“Strategies”&lt;br&gt; • Protect the environmental, cultural and landscape values of all water bodies and wetlands.&lt;br&gt; • Ensure development responds to and respects the significant environmental, conservation, cultural, aesthetic, open space, recreation and tourism assets of water bodies and wetlands.&lt;br&gt; • Ensure development is sensitively designed and sited to maintain and enhance environmental assets, significant views and landscapes along river corridors and waterways and adjacent to lakes and wetlands.”</td>
<td>Wetlands</td>
<td>Impacts on surrounding land</td>
</tr>
<tr>
<td>Clause 13 (Environmental Risks and Amenity)</td>
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<tr>
<td>13.05-1S (Noise abatement)</td>
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<tr>
<td><strong>Objective</strong></td>
<td><strong>Noise — open space, residential</strong></td>
<td></td>
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<tr>
<td>To assist the control of noise effects on sensitive land uses.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Strategy</strong></td>
<td><strong>Impacts on surrounding land</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ensure that development is not prejudiced and community amenity is not reduced by noise emissions, using a range of building design, urban design and land use separation techniques as appropriate to the land use functions and character of the area.”</td>
<td></td>
<td></td>
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<tr>
<td>13.07-1S (Land use compatibility)</td>
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<td></td>
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<tr>
<td><strong>Objective</strong></td>
<td><strong>Noise and visual amenity generally</strong></td>
<td></td>
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</tr>
<tr>
<td>To safeguard community amenity while facilitating appropriate commercial, industrial or other uses with potential off-site effects.</td>
<td></td>
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</tr>
<tr>
<td><strong>Strategies</strong></td>
<td><strong>Impacts on surrounding land</strong></td>
<td></td>
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<tr>
<td>Ensure the compatibility of a use or</td>
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</tbody>
</table>
development as appropriate to the land use functions and character of the area by:

- Using a range of building design, urban design, operational and land use separation measures.

### Clause 15 (Built Environment and Heritage)

<table>
<thead>
<tr>
<th><strong>Clause 15 (Built Environment and Heritage)</strong></th>
<th><strong>Freeway design – structures (bridges, noise walls, urban art etc.); landscaping</strong></th>
<th><strong>Experience of the road user (character, identity)</strong></th>
<th><strong>Pedestrian and cyclist connectivity (amenity, landscape, urban design, safety)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Planning is to recognise the role of urban design, building design, heritage and energy and resource efficiency in delivering liveable and sustainable cities, towns and neighbourhoods.</td>
<td>▪ Shared user path design</td>
<td>▪ Pedestrian and cyclist connectivity (connecting places)</td>
<td></td>
</tr>
<tr>
<td>▪ Planning should ensure all land use and development appropriately responds to its surrounding landscape and character, valued built form and cultural context.</td>
<td>▪ Underpasses/overpasses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Planning should promote excellence in the built environment and create places that:</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>- Are enjoyable, engaging and comfortable to be in.</td>
<td>▪ Freeway design – structures (bridges, noise walls, urban art etc.); landscaping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Accommodate people of all abilities, ages and cultures.</td>
<td>▪ Shared user path design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Contribute positively to local character and sense of place.</td>
<td>▪ Underpasses/overpasses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Reflect the particular characteristics and cultural identity of the community.</td>
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<td></td>
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<tr>
<td>- Enhance the function, amenity and safety of the public realm.”</td>
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</tr>
</tbody>
</table>

### 15.01-1S (Urban design)

<table>
<thead>
<tr>
<th><strong>“Objective</strong></th>
<th><strong>Freeway design – structures (bridges, noise walls, urban art etc.); landscaping</strong></th>
<th><strong>Experience of the road user (character, identity)</strong></th>
<th><strong>Pedestrian and cyclist connectivity (connecting places)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ To create urban environments that are safe, healthy, functional and enjoyable and that contribute to a sense of place and cultural identity.</td>
<td>▪ Shared user path design</td>
<td>▪ Pedestrian and cyclist connectivity (connecting places)</td>
<td></td>
</tr>
<tr>
<td><strong>Strategies</strong></td>
<td>▪ Require development to respond to its context in terms of character, cultural</td>
<td>▪ Freeway design – structures (bridges, noise walls, urban art etc.); landscaping</td>
<td></td>
</tr>
<tr>
<td>▪ Freeway design – structures (bridges, noise walls, urban art etc.); landscaping</td>
<td>▪ Shared user path design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Shared user path design</td>
<td>▪ Underpasses/overpasses</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
identity, natural features, surrounding landscape and climate.

- Ensure development contributes to community and cultural life by improving the quality of living and working environments, facilitating accessibility and providing for inclusiveness.
- Ensure the interface between the private and public realm protects and enhances personal safety.
- Ensure development supports public realm amenity and safe access to walking and cycling environments and public transport.

... 

- Ensure that development provides landscaping that supports the amenity, attractiveness and safety of the public realm.
- Ensure that development, including signs, minimises detrimental impacts on amenity, on the natural and built environment and on the safety and efficiency of roads.
- Promote good urban design along and abutting transport corridors

15.01-1R (Urban design - Metropolitan Melbourne)

“Objective
To create a distinctive and liveable city with quality design and amenity.

Strategies
Support the creation of well-designed places that are memorable, distinctive and liveable.

Integrate place making practices into road space management.”

Freeway design – structures (bridges, noise walls, urban art etc.); landscaping
Underpasses / overpasses

Experience of the road user (character, identity)

Clause 18 (Transport)

18.01-1S (Land use and transport planning)

“Objective
To create a safe and sustainable transport system by integrating land use

- Shard user paths
- Underpasses / overpasses

- Pedestrian and cyclist connectivity (connecting

- New open space, pedestrian and cyclist corridors (amenity, landscape, urban design, safety)
and transport.

**Strategies**

- Develop integrated and accessible transport networks to connect people to jobs and services and goods to market.
- Plan urban development to make jobs and services more accessible by:
  - Ensuring equitable access is provided to developments in accordance with forecast demand, taking advantage of all available modes of transport and to minimise adverse impacts on existing transport networks and the amenity of surrounding areas.
  - Coordinating improvements to public transport, walking and cycling networks with the ongoing development and redevelopment of urban areas."

<table>
<thead>
<tr>
<th>18.01-2S</th>
<th><strong>Objective</strong></th>
<th>18.02-1S</th>
<th><strong>Objective</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Transport system)</td>
<td></td>
<td>(Sustainable)</td>
<td></td>
</tr>
<tr>
<td>“Objective”</td>
<td></td>
<td>“Objective”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>To coordinate development of all transport modes to provide a comprehensive transport system.</td>
<td></td>
<td>To promote the use of sustainable</td>
</tr>
<tr>
<td>Strategies</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Reserve land for strategic transport infrastructure.</td>
<td></td>
<td>Shard user paths</td>
</tr>
<tr>
<td></td>
<td>...</td>
<td></td>
<td>Underpasses / overpasses</td>
</tr>
<tr>
<td></td>
<td>Incorporate the provision of public transport, cycling and walking infrastructure in all major new state and local government road projects.</td>
<td></td>
<td>Pedestrian and cyclist connectivity (connecting places)</td>
</tr>
<tr>
<td></td>
<td>Locate transport routes to achieve the greatest overall benefit to the community to making the best use of existing social, cultural and economic infrastructure, minimising impacts on the environment and optimising accessibility, safety, emergency access, service and amenity.”</td>
<td></td>
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</tr>
</tbody>
</table>
**Strategies**

- Encourage the use of walking and cycling by creating environments that are safe and attractive.
- Develop high quality pedestrian environments that are accessible to footpath-bound vehicles such as wheelchairs, prams and scooters.
- Ensure cycling routes and infrastructure are constructed early in new developments.
- Provide direct and connected pedestrian and bicycle infrastructure to and between key destinations including activity centres, public transport interchanges, employment areas, urban renewal precincts and major attractions.
- Ensure cycling infrastructure (on-road bicycle lanes and off-road bicycle paths) is planned to provide the most direct route practical and to separate cyclists from other road users, particularly motor vehicles.”

**Clause 19 (Infrastructure)**

**19.02-6S (Open space)**

**“Objective**

- To establish, manage and improve a diverse and integrated network of public open space that meets the needs of the community.

**Strategies**

- Plan for regional and local open space networks for both recreation and conservation of natural and cultural environments.
- Ensure that open space networks:
  - Are linked, including through the provision of walking and cycling trails.
  - Are integrated with open space from overpasses (connecting places)

- New open space, pedestrian and cyclist corridors (amenity, landscape, urban design)
- Pedestrian and cyclist connectivity (connecting places)
- New open space, pedestrian and cyclist corridors (amenity, landscape, urban design)
- Impacts on surrounding land
<table>
<thead>
<tr>
<th>Objective</th>
<th>‘Chain of parks’</th>
<th>Pedestrian and cyclist connectivity (connecting places)</th>
</tr>
</thead>
<tbody>
<tr>
<td>“To strengthen the integrated metropolitan open space network.”</td>
<td>‘Chain of parks’</td>
<td>New open space, pedestrian and cyclist corridors (amenity, landscape, urban design)</td>
</tr>
<tr>
<td>Strategies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop a network of local open spaces that are accessible and of high-quality and include opportunities for new local open spaces through planning for urban redevelopment projects.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ensure major open space corridors are protected and enhanced.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Develop open space networks in growth areas and in the surrounding region of Metropolitan Melbourne, where existing open space is limited and demand is growing, including:
  ...
  - Chain of Parks - Sandbelt."
### Local Planning Policy Framework

<table>
<thead>
<tr>
<th>Clause</th>
<th>Policy</th>
<th>Theme</th>
<th>Relevant investigation areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.02-2</td>
<td>(Municipal Profile)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.02-2 (Regional context)</td>
<td></td>
<td>Context</td>
<td>Experience of the road user (character, identity)</td>
</tr>
<tr>
<td>21.02-3 (Municipal overview)</td>
<td></td>
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</tr>
</tbody>
</table>

- “Kingston is one of the largest and most physically diverse municipalities in metropolitan Melbourne, comprising an area of approximately 91 square kilometres. It combines substantial residential areas with vibrant activity centres, agricultural and non urban areas, as well as an industrial sector which forms one of the largest and most concentrated manufacturing regions in metropolitan Melbourne.

- Its diverse natural environments incorporate significant parklands, wetlands, open space and waterways, as well as the largest stretch of coast in a single municipality in metropolitan Melbourne. The City’s regional prominence is also heightened by the presence of the Moorabbin Airport, which is recognised as one of the busiest airports in Australia.”

- **Industry/employment**
  - Kingston has the highest concentration of manufacturing employment in metropolitan Melbourne, and is therefore a major provider of jobs to the south-east metropolitan region.”

- Redwood Gardens Industrial Estate
- Woodlands

- Pedestrian and cyclist connectivity (connecting places)
**Overview**

**Industry**
- Kingston is one of the largest and most concentrated manufacturing bases in metropolitan Melbourne. The municipality has over 4,000 manufacturing businesses which provide employment for over 25,000 people, representing around 10% of Melbourne’s manufacturing jobs. Locations for industry range from older established areas in Moorabbin, Cheltenham and Braeside, which accommodate small to medium sized industries, to newer estates at Redwood Gardens, Parkview and Woodlands, which are generally within a garden setting and provide for medium to large scale firms.

**Open space**
- Kingston’s natural open space areas are one of our most highly valued resources. Open space areas in Kingston include major parklands, golf courses, foreshore reserves, wetlands and potential regional open space networks to be provided for through the Chain of Parks project.

**Non urban land**
- Kingston’s non urban areas extend across the northern and eastern parts of the municipality, including Heatherton/Clayton South and Braeside/Keysborough. These areas form part of a south eastern regional wedge of non urban land which traverses the Cities of Kingston, Greater Dandenong, Frankston and Casey to Westernport Bay.
- Kingston’s non urban land fulfils a range of rural and ‘urban related’ roles, including agricultural production, sand extraction, land filling, regional open space, protection of Moorabbin Airport’s flight paths, nature conservation, and a location for urban related uses including churches, sporting facilities, institutional uses, etc.
- The non urban areas comprise a largely rural landscape character, and although some areas have developed a semi-urban appearance the re-creation of pre-settlement landscapes remains an important objective in Kingston’s non urban areas. The area
also plays an important role in providing recreational opportunities for the south east metropolitan area. The future transformation of the non urban area into a carefully managed network of parks will bestow community benefits of the highest order, following years of blight brought about by the negative impacts of sand extraction and land filling."

### 21.02-3 (Municipal Overview)

<table>
<thead>
<tr>
<th>&quot;Environment and heritage&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>The environmental landscape of the City of Kingston is recognised for its diversity and significance in both a local and regional context. It includes the Port Phillip Bay and foreshore reserve, other natural and man-made waterways, wetland systems, floodplains, heathlands and significant flora and fauna habitats.</td>
</tr>
<tr>
<td>Other environmentally significant areas within Kingston include Braeside Park, the Grange Reserve, Bradshaw Park, Karkarook Park, the Patterson River, Mordialloc Creek, and the Edithvale/Seaford Wetlands, which are presently under consideration by RAMSAR for inclusion as an internationally significant wetland.</td>
</tr>
</tbody>
</table>

| Braeside park |
| Wetlands |
| Experience of the road user (character, identity) |
| Impacts on surrounding land |

### 21.03 (Land use challenges for the new millennium)

#### 21.03 (Land use challenges for the new millennium)

<table>
<thead>
<tr>
<th>&quot;Agriculture&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>The long-term role of the agricultural industry within Kingston’s Green Wedge is unclear. The future of intensive agriculture particularly in the Heatherton region will be strongly influenced by external factors such as international markets, changes in technology, etc.</td>
</tr>
</tbody>
</table>

| Green Wedge |
| Experience of the road user (character, identity) |

<table>
<thead>
<tr>
<th>&quot;Extractive industry&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extractive industries were a feature of Kingston’s Green Wedge and these have predominantly now been filled with waste of varying types and over many years. Whilst many of the landfill operations are now coming to a close, there remain a number of working facilities. At the current rate of tipping, it is expected that landfills will be operational in this area for at least another 5 years. These operations will be phased out, whilst the filling of extraction pits needs to be coordinated under the Metropolitan Waste and Resource Recovery Strategic Plan to ensure that rehabilitation after completion is well planned. The after use of these sites will need to be</td>
</tr>
</tbody>
</table>

| Green Wedge |
| Experience of the road user (character, identity) |
managed where alternative uses that have the potential to detrimentally impact on the amenity of the locality will be actively discouraged.”

| 21.03 (Land use challenges for the new millennium) | “Sandbelt open space strategy”
- Rehabilitation of landfill sites should be properly co-ordinated to provide for the timely development of regional open space networks through the Sandbelt Open Space Strategy.” | ‘Chain of parks’ | Pedestrian and cyclist connectivity (connecting places) |

|  | 21.07 (Industrial Land Use) | “Overview”
The importance of the manufacturing industry in Kingston extends well beyond the municipal boundaries - output from Kingston’s industries is of both state and national significance. In recent years the manufacturing sector (at both the national and international level) has suffered as a consequence of global economic restructuring. However, industries in Kingston are better placed than other areas to respond to such restructuring due to the area’s diverse manufacturing base, high concentrations of industrial activity, central location to markets and a skilled labour force, and good access to transport and infrastructure.

In contrast, the City’s older industrial areas are in need of significant revitalisation in order to remain viable locations for modern manufacturing businesses. The smaller, isolated pockets of industrial land are no longer appropriate or viable locations for industry. However, larger areas such as Moorabbin and Mordialloc/Braeside form the traditional backbone of smaller scale manufacturing in the south-east region of Melbourne. Despite their age and physical constraints, these areas will continue to play an important role in generating jobs and wealth for many years to come.” | Redwood Gardens Industrial Estate | Woodlands Industrial Estate |

|  | 21.09-3 (Environment, Wetlands and Waterways) | “Key issues
- Rehabilitation of the Mordialloc Creek floodplain and creation of Chain of Wetlands” | Wetlands | New open space, pedestrian and cyclist corridors (amenity, landscape, urban design) |
| 21.09-3 (Environment, Wetlands and Waterways) | **Objective 1**  
- To integrate the water quality treatment functions, habitat and recreation importance of waterways and floodplains.  
**Strategies**  
- Strategies to achieve this objective include:  
  - Support the creation of a chain of wetlands within the Mordialloc Creek, environs as a strategy for combining water storage with opportunities for enhancing water quality, creation of wildlife habitat, and extension of strategic open space links.  
  - *Improve the aesthetic, cultural and conservation value of the Mordialloc Creek and its surrounding natural landscape to add value to its primary drainage and flood management function.*  
  ...  
  - Ensure that all development within and adjacent to existing floodplains is consistent with floodplain management objectives and maximises the potential for creation of public open space, wetlands and recreational and cultural activities.” | **Impact on surrounding land**  
- Wetlands environments  
- New open space, pedestrian and cyclist corridors (amenity, landscape, urban design)  
- Impact on surrounding land |
21.09-3
(Environment, Wetlands and Waterways)

Morialloc Creek / Wetlands

- New open space, pedestrian and cyclist corridors (amenity, landscape, urban design)
- Impact on surrounding land

21.10 - Green Wedge

21.10-1
(Overview)

“Overview
Kingston’s Green Wedge (land outside the Urban Growth Boundary) fulfils a multiplicity of roles, ranging from traditional agricultural production, land filling of former extraction sites, regional open space networks, active passive and recreation facilities, protection of Moorabbin Airport’s flight paths, nature conservation and a location for a range of urban related uses (including institutional, religious, recreation and sporting facilities, etc.).”

- Green Wedge
- Experience of the road user (character, identity)
- Pedestrian and cyclist connectivity (connecting places)

21.10-2
(Key issues)

“Objective 4
- To support the transition of landfill, recycling or transfer stations on appropriate land to new uses that

- Green Wedge (transitioning)
- Experience of the road user (character, identity)
- Pedestrian and cyclist
are consistent with long term strategies for the Green Wedge.

**Strategies**

Strategies to achieve this objective include:

- Manage existing extractive industries and land filling operations in an environmentally sound and coordinated manner until they are completed.
- Require the coordinated phasing of extraction, filling and rehabilitation cycles on existing operational sites, to ensure that the development of open space and other productive after-use occur in a logical sequence.
- Discourage development which might prejudice the achievement of long terms strategies for these sites.
- Promote the re-use of extraction and land fill sites for open space and recreational facilities which are physically well integrated with the Chain of Parks.
- Strongly discourage the expansion of existing extractive industries, land filling operations, materials recycling facilities or transfer stations on land north of Kingston and Heatherton Roads.
- Strongly discourage an alternative use on existing landfill, materials recycling or transfer station land that has the potential to detrimentally impact on the amenity of the locality.
- Strongly discourage the use of land for earth and energy resources industries with the exception of appropriate renewable energy facilities.”

<table>
<thead>
<tr>
<th>21.10-2 (Key issues)</th>
<th><strong>Objective 5</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To protect and enhance environmental values including wetlands, flora and fauna habitats, and drainage functions.</td>
</tr>
</tbody>
</table>

**Strategies**

Strategies to achieve this objective include:

- Ensure that all development provides for the protection and enhancement of local and regional assets of cultural, ecological and Koori significance, including pre-settlement wetland morphologies, drainage and flooding, flora and fauna corridors and wildlife habitats.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wetlands</strong></td>
<td><strong>Experience of the road user</strong> (character, identity)</td>
</tr>
<tr>
<td><strong>Green Wedge Character</strong></td>
<td><strong>New open space, pedestrian and cyclist corridors</strong> (amenity, landscape, urban design)</td>
</tr>
<tr>
<td>21.10-2 (Key issues)</td>
<td>Objective 9</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Strategies</td>
<td>To protect and further develop the scenic and landscape values of the Green Wedge.</td>
</tr>
<tr>
<td>Strategies to achieve this objective include:</td>
<td></td>
</tr>
<tr>
<td>Ensure that all major developments within Kingston’s Green Wedge (particularly in the Braeside area) contributes to the enhancement and re-creation of pre-settlement landscapes including wetlands and open woodlands.</td>
<td></td>
</tr>
<tr>
<td>Ensure all major development address the significant rural role and function of Kingston’s Green Wedge through their site layout, building design and landscape elements, particularly in the Heatherton area.</td>
<td></td>
</tr>
</tbody>
</table>

| Landscape values |
| Experience of the road user (character, identity) |
| New open space, pedestrian and cyclist corridors (amenity, landscape, urban design) |

<table>
<thead>
<tr>
<th>21.10-2 (Key issues)</th>
<th>Objective 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies</td>
<td>To provide for open space links and opportunities for recreation.</td>
</tr>
<tr>
<td>Strategies to achieve this objective include:</td>
<td></td>
</tr>
<tr>
<td>Support the implementation of the ‘Sandbelt Open Space Strategy’.</td>
<td></td>
</tr>
<tr>
<td>Ensure that development within the non urban areas contributes to:</td>
<td></td>
</tr>
<tr>
<td>The creation of north-south and east-west open space links, as identified in the Green Wedge Framework Plan.</td>
<td></td>
</tr>
<tr>
<td>The implementation and enhancement of the ‘Sandbelt Open Space Strategy’.</td>
<td></td>
</tr>
<tr>
<td>Provision of regional recreational facilities for the enjoyment of the Kingston and broader community in line with the Kingston Open Space Strategy (2012).</td>
<td></td>
</tr>
</tbody>
</table>

| Open space links |
| Recreation |
| Pedestrian and cyclist connectivity (connecting places) |
| New open space, pedestrian and cyclist corridors (amenity, landscape, urban design) |

21.11 – Open Space

<table>
<thead>
<tr>
<th>21.11-1</th>
<th>Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td></td>
</tr>
<tr>
<td>Pedestrian and cyclist connectivity (connecting places)</td>
<td></td>
</tr>
</tbody>
</table>
Kingston is host to a great diversity of open space areas, which perform a range of recreational, tourism, environmental, ecological and educational functions.

Significant natural open space areas include Braeside Park, the Edithvale Seaford wetlands, and the Grange Reserve, which are managed and protected for their remnant woodlands, flora and fauna habitats, indigenous vegetation, and wetland areas. Whilst the tourism and educational experiences derived from these environments do contribute to community enjoyment of open spaces within Kingston, the protection of their intrinsic natural attributes should take precedence over the competing demands of recreational users.

**Objective 1**

To provide fair and equitable access to a range of high quality open space areas located within Kingston’s urban and non urban environments which aim to optimise community enjoyment of open space.

**Strategies**

Strategies to achieve this objective include:

- Promote the development of open space linkages including bicycle/pedestrian trails to connect residential, commercial and industrial areas to existing open space, recreational facilities and local and regional trail networks.

- Ensure that the design and siting of open space maximises community safety and accessibility and provides opportunities for surveillance.

**Objective 3**

To protect significant natural landscapes and open space areas with an identified environmental significance from degradation as a result of community recreational demands.

**Strategies**

Ensure that future use and development of all open space areas seeks to:

- Achieve high quality urban design outcomes compatible with the scale of the surrounding

---

<table>
<thead>
<tr>
<th>(Overview)</th>
<th>Braeside Park places)</th>
<th>New open space, pedestrian and cyclist corridors (amenity, landscape, urban design)</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Kingston is host to a great diversity of open space areas, which perform a range of recreational, tourism, environmental, ecological and educational functions.</td>
<td>■ Braeside Park</td>
<td>■ New open space, pedestrian and cyclist corridors (amenity, landscape, urban design)</td>
</tr>
<tr>
<td>■ Significant natural open space areas include Braeside Park, the Edithvale Seaford wetlands, and the Grange Reserve, which are managed and protected for their remnant woodlands, flora and fauna habitats, indigenous vegetation, and wetland areas. Whilst the tourism and educational experiences derived from these environments do contribute to community enjoyment of open spaces within Kingston, the protection of their intrinsic natural attributes should take precedence over the competing demands of recreational users.”</td>
<td>■ Wetlands</td>
<td></td>
</tr>
</tbody>
</table>
21.11-3  (Objectives, strategies and implementation)

<table>
<thead>
<tr>
<th>Landscape.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Minimise the impact on natural eco-systems.</td>
</tr>
<tr>
<td>• Maximise community enjoyment of the open space.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Objective 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>• To promote the creation of a major regional north-south spine of open space within a predominantly non urban context. Strategies</td>
</tr>
</tbody>
</table>

Strategies to achieve this objective include:

• Support regional initiatives to implement the Sandbelt Open Space Strategy through the acquisition of land by Parks Victoria.
• Support opportunities for the progressive remediation and redevelopment of disused landfill sites and other disturbed land in the non urban area for open space. Priority will be given to rehabilitation of those sites which form part of the designated core parkland areas on the Sandbelt Open Space Development Plan.

... 

• Preserve open space landscapes and vistas between urban and non urban areas.” |

<table>
<thead>
<tr>
<th>Green Wedge</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Chain of parks</th>
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</table>

<table>
<thead>
<tr>
<th>Experience of the road user (character, identity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrian and cyclist connectivity (connecting places)</td>
</tr>
<tr>
<td>New open space, pedestrian and cyclist corridors (amenity, landscape, urban design)</td>
</tr>
</tbody>
</table>
21.11 (Open Space)

City of Kingston Open Space Framework Plan

- Strategic directions
- Pedestrian and cyclist connectivity (connecting places)
- New open space, pedestrian and cyclist corridors (amenity, landscape, urban design)

21.12 – Transport, movement and access

21.12-1 (Overview)

“Overview
A balanced transport network based on public transport, road, pedestrian and cycle systems is also important in providing access for Kingston residents to commercial and activity centres, community facilities, education and recreation areas. Increasing the range of transport choices available to Kingston’s residents will be necessary however if the changing transport needs of our ageing population are to be met.”

- Pedestrian and cyclist paths / connections
- Pedestrian and cyclist connectivity (connecting places)

21.12-3 (Objectives, strategies)

“Objective 2
- To integrate public transport, road, pedestrian and cycle systems with activity centres, schools and other community and social infrastructure, as a means of

- Pedestrian and cyclist paths / connections
- Pedestrian and cyclist connectivity (connecting places)
and implementation) providing equitable and safe vehicular, pedestrian and cyclist movement and access for the community.

Strategies
Strategies to achieve this objective include:

- Promote the development of bicycle and pedestrian linkages between residential, commercial, industrial and open space areas recognising the important role east/west alignments play by intersecting the key arterial roads and the rail corridor.
- Encourage opportunities for non car based travel by maximising access to public transport, pedestrian and cycling routes.”

<table>
<thead>
<tr>
<th>22.03 – Sandbelt Open Space Project Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>22.03-1 (Policy basis)</strong></td>
</tr>
<tr>
<td>“<strong>Policy basis</strong>”</td>
</tr>
<tr>
<td>▪ The Sandbelt Open Space Project provides a regional strategy for the development of a series of linked parks extending across the Heatherton and Dingley areas. The concept is based on the conversion of land which has been used for sand extraction and landfill into open space, to provide for a wide range of regional and local recreation opportunities.</td>
</tr>
<tr>
<td>…</td>
</tr>
<tr>
<td>▪ The policy is based on the principles of the Sandbelt Open Space Project Development Plan (May 1994), prepared by Melbourne Parks and Waterways.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>22.03-3 (Policy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>“<strong>Policy</strong>”</td>
</tr>
<tr>
<td>It is policy that:</td>
</tr>
<tr>
<td>▪ Development be guided by the Sandbelt Open Space Development Plan attached to this clause. This plan is updated from the Development Plan prepared in 1994 by Melbourne Parks and Waterways for the implementation of the Sandbelt Open Space Project.</td>
</tr>
<tr>
<td>▪ A network of shared pedestrian and cycling, and where appropriate, separate equestrian trails, be provided.</td>
</tr>
<tr>
<td>▪ Trail networks be integrated with existing recreational networks and provide linkages with nearby open</td>
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<tr>
<td><strong>space and adjoining urban areas.</strong></td>
</tr>
<tr>
<td><strong>Indigenous vegetation be planted along networks to create a wildlife corridor through the Sandbelt Open Space area.</strong></td>
</tr>
<tr>
<td><strong>High quality public and private open space areas be provided which cater for a range of active and passive recreational pursuits, including golf, outdoor adventure/education activities, playing fields, recreational trails, equestrian activities, environmental and cultural experiences.</strong></td>
</tr>
<tr>
<td><strong>The use and development of private land adjacent to the core parkland areas be compatible with, and contributes to, the Sandbelt Open Space Project.</strong></td>
</tr>
<tr>
<td><strong>A vegetation pattern and character be promoted which restores positive elements of the locality’s former ecology and landscape and results in the improvement of landscape character through the non urban area.</strong></td>
</tr>
<tr>
<td><strong>Areas of local and regional environmental significance be protected and restored, including habitats of flora and fauna, wetlands, wild life corridors and areas of heritage significance.</strong></td>
</tr>
<tr>
<td><strong>Equitable public access be provided to parkland and recreation areas.</strong></td>
</tr>
<tr>
<td><strong>Development contributions be levied on new developments to further the implementation of the Sandbelt Open Space project.</strong></td>
</tr>
</tbody>
</table>
### 22.04 – South East Non Urban Area Policy

#### 22.04-2 (Objectives)

**Objectives**

- To protect and enhance environmental values including wetlands, flora and fauna habitats and hydraulic functions.
- To protect and further develop the scenic and landscape values of the non urban area.
- To provide for open space links and opportunities for recreation.

- Green Wedge land

- Experience of the road user (character, identity)
- Pedestrian and cyclist connectivity (connecting places)
- Impacts on surrounding land

#### 22.04-3 (Policy)

**Policy**  
*It is policy that:*

- Green Wedge land

- Experience of the road user (character, identity)
- Pedestrian and cyclist connectivity (connecting places)
All proposals and planning outcomes:
- Protect and create a high quality rural landscape.
- Protect and create flora and fauna habitats and networks.
- Create public open spaces and open space linkages.
- Result in clear and sustainable urban boundaries.
- Result in an urban form which is of a high design standard and low visual impact.

Preferred uses
- Non urban land be protected for non urban purposes and used for activities which are consistent with the function and character of the non urban area. The following uses are supported within the non urban area:
  - Agriculture and horticulture.
  - Creation and enhancement of environmental features, including wetland systems.
  - Public open space facilities including parks, sports fields, bicycle networks, etc.
  - Public utilities and major infrastructure facilities such as retarding basins and effluent treatment works.
  - Low density institutional uses eg: schools, clubs, churches.

connectivity (connecting places)
- Impacts on surrounding land