COUNCIL’S PRIORITY OUTCOMES

08.

MOVEMENT AND CONNECTIONS

Bowen Place - Canberra
Connectivity throughout the region is a core objective of the Green Wedge Plan and is supported by current State and Federal policies relating to public health. Council’s vision for the creation of a ‘Chain of Parks’ is underpinned by a comprehensive cycling, walking and equestrian trail network.

Council is pleased to see the incorporation of a continuous shared use path (SUP) along the length of the freeway and provision for linkages to the existing footpath network. A number of treatments are also proposed in the reference design to create an attractive environment for users and mitigate the impacts of noise and freeway infrastructure, however Council believes further enhancements could be made to ensure that the connections are well used and that the key connections identified in the Green Wedge Plan are achieved.
OUTCOME 2

LINKS AND JOURNEYS ARE WELL USED: INTEGRATED, DIRECT, ACCESSIBLE, LEGIBLE, ATTRACTIVE AND SAFE

The road environment can be a significant barrier to walking, cycling and other users, for example; equestrian. Inhospitable conditions and poor amenity created by radiant heat from vast road surfaces and noise from speeding traffic should be mitigated.

Other factors that can pose a barrier to users include;

▶ Indirect routes and inadequate path widths
▶ Surface materials that are difficult to traverse
▶ Heat exposure/ lack of shade
▶ Lack of rest points
▶ Unsafe spaces; such as narrow, linear spaces with limited visibility, natural surveillance or escape points
▶ Lack of way finding treatments

The proposed SUP located on the eastern side of freeway is a critical strategic walking and cycling link for the broader region. It is more than a local connection as it forms a key route within the broader network, linking to employment and education centres. It is imperative that every effort is made to improve its usability. Likewise all connections and pathways implemented as part of the project should use architectural interventions, landscape treatments and wayfinding elements that encourage use.

The current arrangement of noise walls creates an excessive sense of enclosure for both the motorist and pedestrian environments in some sections of the corridor. In particular, trail users will be directed through a 500 metre long, narrow section between 3-6 metre high noise walls and residential back fences adjacent to Dingley Village, varying in width from approximately 30 metres down to 7 metres. This arrangement will require treatments that ensure public surveillance is maximised and a sense of safety and comfort are achieved for users.

The currently proposed shared use path in the southern section, diverts users onto Bowen Parkway and around the western edge of the wetlands before reconnecting with the planned SUP to Springvale Road. As such, it does not provide an attractive and direct connection in this location.
COUNCIL’S DESIGN CRITERIA TO ENHANCE THE PERFORMANCE AND USABILITY OF PLANNED CONNECTIONS:

1. Ensure that the minimum width for all shared paths is 3.0 metres to accommodate all users, in accordance with Austroads table 7.4 - Commuter Path.

2. Nodal points to be highlighted with selected material choices that are reflective of the overarching theme through patterning/finishes that assist with way finding.

3. Provide rest stops and seating at a minimum of 500 metre intervals.

4. Ensure all road intersections other than the Dingley Bypass provide signalised pedestrian crossings where they intersect with the SUP.

5. Provide footpath connections to both sides of all connecting arterials and connect to existing hard surface paths in all instances to provide a continuous journey.

6. Highlight major crossing points and destinations for both pedestrians and cyclists with directional signage.

7. Incorporate slowing treatments for cyclists such as surface texture changes or path narrowing at approaches to major crossings; specifically Dingley Bypass, Old Dandenong Road, Centre Dandenong Road, Bowen Parkway and Springvale Road.

8. Where the shared path aligns with the future Hawthorn Football Club development, Braeside Park, Chadwick Reserve and Waterways estate, ensure open views for SUP users. Planting should frame views and the path connection should provide easy access to adjacent spaces. Mid-storey shrubs and thick planting masses should be avoided.

9. All newly planted trees along the shared path alignment are to be planted a minimum distance of 3 metres off the edge of the path and all vegetation within 6 metres of the shared path to be lower than 0.5m in height to encourage clear views and a sense of safety, especially along narrow sections less than 30 metres from boundary to boundary.

10. Where possible, create additional connections where the length of the SUP is longer than 1km between access points to increase use, access and perceptions of safety.

11. Ensure the Dingley Bypass overpass provides an iconic design that highlights the intersection as a gateway, is a minimum of four metres in width, strongly communicates the theme, and enhances views to the surrounding area for users.

12. Ensure the design of the noise walls considers the interface to the pedestrian environment, particularly adjacent to the SUP in close proximity to residences and adjacent to open space. Refer Outcome 4.
OUTCOME 2 CONTINUED

LINKS AND JOURNEYS ARE WELL USED: INTEGRATED, DIRECT, ACCESSIBLE, LEGIBLE, ATTRACTIVE AND SAFE

COUNCIL REQUESTS THAT THE FOLLOWING IMPROVEMENTS ARE MADE TO PROPOSED CONNECTIONS AS PART OF THE MORDIALLOC BYPASS PROJECT;

1. A PEDESTRIAN OVERPASS AT DINGLEY BYPASS
   ▶ Provide an overpass at the Dingley Bypass intersection instead of a signalised intersection to create an attractive, safe and direct connection to the existing shared use trail north of the Bypass and future ‘Chain of Parks’ network.

2. WIDEN THE PROPOSED UNDERPASS
   ▶ Ensure the underpass connection is a minimum of 6 metres wide. Currently the performance requirements state the minimum width requirement is 3.4 metres with a preferred nominal width of 6 metres. Anything less than 6 metres wide will create an unwelcoming space. Further design treatments should be incorporated into any underpass design. Refer design criteria on following page.

3. CREATE A MORE DIRECT OFF ROAD CONNECTION AT BOWEN PARKWAY/ WATERWAYS ESTATE
   ▶ Achieve the most direct route possible for cyclists from Bowen Parkway to the south side of the Mordialloc Creek. Consider a suspended path system over the sensitive Waterways wetland.

4. CONNECTIONS AT ASPENDALE GARDENS
   ▶ Ensure that the proposed SUP adjacent to Aspendale Gardens provides connections that link with the current reserve and footpath network, for example at Ferntree Grove and Bungalow Way.

PRECEDEINTS

Craigieburn Bypass- Pedestrian overpass

Bowen place - Canberra - Widened underpass

Western Distributor - Melbourne - Proposed suspended cycle way
**OUTCOME 2 CONTINUED**

**LINKS AND JOURNEYS ARE WELL USED: INTEGRATED, DIRECT, ACCESSIBLE, LEGIBLE, ATTRACTIVE AND SAFE**

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**UNDERPASS DESIGN**

Although the current design performance requirements request ‘adequate lighting’, splayed wing walls and a ‘sense of openness’ at entries to the underpass, performance requirements need to be strengthened to ensure the best possible outcome.

Considering that the connection is 25 to 30 metres in length, Council would also like to see higher standards for lighting, including penetration of daylight, and high quality wall treatments to ensure a safe, attractive and well-used crossing environment is provided.

The design should seek to reduce the extent of wing walls wherever possible and incorporate treatments that improve their appearance and deter graffiti.

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COUNCIL’S UNDERPASS DESIGN CRITERIA:

In addition to current design guidance;

1. Ensure that dimensions of no less than 6 metres wide are adopted to ensure generous visibility from one end of the tunnel to the other.

2. Wherever possible, allow natural light to penetrate the connection between the carriageways.

3. Reduce the extent and apply a cladding, artwork or an integral pattern to underpass head and wing walls that is reflective of the theme and assists in reducing graffiti.

4. In addition to the application of CPTED (Crime Prevention Through Environmental Design) principles ensure a Safety In Design analysis is undertaken.

5. Wing walls to be splayed at a maximum angle to ensure the tunnel is not elongated.

6. Materials used should be consistent with the overarching theme, such as natural tonal colours that reflect surrounding open space (also refer Outcome 4).

7. Incorporate planting treatments at the underpass entries that soften and integrate wing walls.

8. Create generous and welcoming spaces at the entries to the underpass with multi-directional surveillance and clear lines of sight maximised within 30 metres of the entry.

PRECEDENTS

Bowen Place - Canberra. Natural light to central underpass

Drysdale Bypass splayed wing walls with integration of planting and cladding to create an attractive and welcoming environment.

Jim Stynes Bridge. Clear view lines through underpass.
OUTCOME 3

IMPORTANT COMMUNITY CONNECTIONS ARE MAINTAINED AND STRATEGIC FUTURE CONNECTIONS ARE ALLOWED FOR

The current design proposes pedestrian crossing points at road intersections and at one other location along the length of the 9.7km bypass. This is considered inadequate to maintain current connections that are well used by the community or have potential to be. The Green Wedge Plan calls for “frequent habitat links and pedestrian/cycle crossing points (along the Bypass) that meet safety standards and guidelines.”

EXISTING CONNECTIONS

The Kingston Health and Wellbeing Plan (2013-2017) outlines the value in maintaining and improving existing connections to local employment precincts, open space and homes as a way of encouraging active transport and associated health benefits.

Whilst pedestrian counts have been undertaken to inform the inclusion of a priority underpass connection at Braeside Park to Woodlands Industrial Estate, investigations have not considered the opportunities to improve connectivity.

Although informal, a critical link exists at Chadwick Reserve through to Garden Boulevard, connecting the residents of Dingley Village with a range of services, employment destinations and a community garden within the Woodlands Estate.

STRATEGIC FUTURE CONNECTIONS

The Kingston Green Wedge Plan identifies the future pedestrian and cycling network that supports the ‘Chain of Parks’ vision. This future network includes an important SUP link along the western edge of the freeway. This path will enable residential communities and workers east of the freeway to connect to community destinations such as Karkarook Park, Patterson Lakes Recreation Reserve and link to planned walking trails. The current plan has precluded the development of this link in future in some locations; such as immediately north of Centre Dandenong Road.

Another connection identified is a walking path along the Mordialloc Creek in the north. The current design includes provision for movement of water under the freeway and habitat connections at this location, however pedestrians will not be able to connect to the western side of the freeway to the future walking path.

A future path connection is identified through the triangular Melbourne Water site at the southern end of the project area to the East Link Trail. Adequate space must be allowed for beneath bridge infrastructure to ensure this connection can be established in future.
COUNCIL’S PRIORITY OUTCOMES
The Mordialloc Bypass is a substantial piece of infrastructure that bisects and runs within close proximity to regionally significant conservation areas, open space, residential areas and employment precincts. Without careful mitigation strategies, the development will have significant noise and negative visual amenity impacts on the surrounding area.

The Mordialloc Bypass project is required, as a minimum, to deliver visual and noise mitigation treatments in accordance with the recommendations of acoustic and visual impact assessments. This response is typically achieved with tree planting, noise walls and mounding. The EES process has included an assessment of the degree to which these technical parameters have been met and Council is currently undertaking a review of these findings.

Council is committed to ensuring that the development exceeds bare minimum standards. The following outcomes are based on a high level review of potential noise and visual impacts, including design quality of the built form and landscape response, in the reference design material supplied to Council by the MRPA and VicRoads.
EFFECTIVE SHORT AND LONG TERM VISUAL SCREENING - NOISEWALLS AND VEGETATION

Sensitive views to the roadway from SUP’s and residential interfaces require adequate screening in the short term (from high quality structures) and long term from vegetation. Likewise unattractive interfaces to the road environment such as industrial buildings require screening treatments.

Council is pleased to see that extensive tree planting is proposed at industrial interfaces, at intersections and in available areas adjacent to the road corridor. However there are a number of locations where there is no space available for tree planting along the roadway. For long sections (sometimes over a kilometre) the motorist will have an immediate interface with noisewalls varying in height from 0.5 to 6 metres.

Effective short-term screening relies largely on the careful placement of noise walls and the quality of their design. The design outcome for the noisewalls must address both the motorist experience and pedestrian/residential interfaces. Given the long term realisation of intended screening using vegetation, the noisewalls must stand alone as a quality interface before the adjacent vegetation matures.

The interfaces and transition of noise walls should be well considered. The current design shows a ‘stop-start’ approach to the placement of noisewalls. The use of tapering at key locations will help integrate the walls and allow for a better Urban Design outcome.
COUNCIL’S DESIGN CRITERIA FOR THE NOISEWALL AND SCREENING VEGETATION TREATMENTS:

1. Ensure that the Governor Road overpass incorporates a high quality noise wall finish that assists in reducing visual bulk and enhances the presentation of the bridge when viewed from the Waterways Estate.

2. Where panels are required to change in height ensure transition or tapering is carefully considered.

3. Where possible mounding should be used to minimise the heights of the noise walls with the addition of planting to help soften the wall’s verticality.

4. Noise wall materials must compliment the natural setting, be recessive and use a muted colour palette. Bright iridescent colours should not be used.

5. Perforated patterns within the plexi panels sections should reflect the broader theme - Refer outcome 1.

6. Support structures shall be integrated and or contained within the panels so that they are hidden on both sides of the wall.

7. Offset of noise wall from the shared path to be a minimum distance of 6 metres to allow for screening vegetation without interrupting view lines.

8. All trees planted adjacent to noisewalls or within the road reserve at wetlands, residential and industrial interfaces to be installed as advanced stock (minimum 15L).

PRECEDENT

1. Peninsula Link - Well selected shrubs and small trees soften the edge of the noisewalls and compliment the architecture.

2. Deer Park Bypass - The ends of the noisewalls taper to provide a more considered architectural outcome.

3. East Link - Walls should be a consistent height wherever possible, as pictured above.
AMENITY

OUTCOME 5

HIGH QUALITY, VISUALLY RECESSIVE BRIDGE STRUCTURES

Clause 22.04-3 of the Kingston planning scheme sets out Council policy that all planning outcomes in the Green Wedge must result in an urban form which is of a high design standard and low visual impact.

The overpass structures along the corridor vary from ‘Cut Throughs’ without Blade Pier (Old Dandenong Road and Centre Dandenong Road), ‘Cut Throughs’ with Blade Pier and Barrier (Lower Dandenong Road) and ‘Spill Through’ with Blade Support and Barriers (Governor Road and Springvale Road). The design intent for these structures is yet to be resolved through the detailed design process, however Council recognises their importance as thresholds for motorists and pedestrians crossing the Bypass corridor. Achieving a quality outcome at an appropriate scale that communicates a clear identity and design consistency is imperative.

The most significant structure proposed is the bridge over the Waterways wetlands. The current design is driven by reducing impacts to sensitive ecological values and flow-paths (minimising piers) and achieving the required height over the Bowen Parkway and flood levels of the wetlands. This height requirement will result in a visually prominent structure, particularly when viewed from the Waterways Estate. Similarly it will allow for expansive views across the region.

Adjacent batters to all bridges should be planted to help soften the bridge abutments and integrate them with the surrounding landform.

Where cut through’s occur, wall interfaces should be integrated with parapets and gantries to avoid harsh structural outcomes. Patterning and form that relates to the theme of the road corridor should be incorporated to increase amenity and consistency from a range of vantage points.

Indicative bridge design shows bulky heastock and piers (source: https://roadprojects.vic.gov.au/projects/mordialloc-freeway/view-the-ees). Piers and headstock should be minimal in scale and slender of form to ensure low visual impact. All batters should be planted rather than grassed to help soften the bridge structure and for ease of maintenance.

View to proposed bridge abutment (source: https://roadprojects.vic.gov.au/projects/mordialloc-freeway/view-the-ees) Abutment walls should be designed with the interface of the bridge parapets and balustrades in mind. Pattern and colour should also be considered to strengthen the design theme, minimise graffiti, assist in wayfinding and create an attractive roadside environment.
COUNCIL'S DESIGN CRITERIA FOR BRIDGE STRUCTURES;

1. Cladding or patterning should be applied to the blade supports and barriers that reflects the theme of the corridor. Refer Outcome 1.

2. Design treatments should be applied to both abutments and the undercroft of the Waterways Wetlands bridge, to minimise the visual impact at the pedestrian scale and to reflect the landscape character of the wetlands. The treatment should be based on the overarching corridor theme for consistency. Refer Outcome 1.

3. Integration between plexi-glass panels and fixing to road barrier treatments and, if applicable, weathered steel noise walls should be galvanised and hidden for a seamless application.

4. Plexi-glass panels should not be stepped and are to be visually consistent with the weathered steel noise walls.

5. The abutment for the bridge to the Bowen Parkway is to incorporate raked retaining walls or sloped rock beaching to ensure a recessive look is achieved that allows minimal impact on view lines for cyclists and pedestrians.

PRECEDENTS

East Link - Use of rounded edges to the headstock and narrowed blade piers softens the form of the overall structure.

East Link - Plexi-glass panel noise walls are consistent in height rather than stepped.

Deer Park Bypass - integration of the abutment wall and bridge provides a seamless and clean design outcome.
AMENITY

OUTCOME 6

THE SENSITIVE INTERFACES OF BRAESIDE PARK, DINGLEY VILLAGE, ASPENDALE GARDENS AND WATERWAYS COMMUNITIES ARE WELL MANAGED IN THE DESIGN RESPONSE

The current design for the noisewalls has been developed in response to recommendations of an acoustic impacts study. Walls are located where noise impacts will exceed acceptable levels adjacent to residential areas. There is currently no legislative requirement to address noise impacts adjacent to open space or industrial areas. As such, there are no proposed noise mitigation treatments adjacent to Braeside Park, Woodlands Industrial Estate or undeveloped sections of the Green Wedge near the Dingley Bypass and Springvale Road.

The protection of recreational amenity and conservation values of Braeside Park is considered to be of particular importance. Noise impacts need to be mitigated to the same level as residential areas to protect the quiet parkland environment for recreational users and fauna, particularly birdlife.

Whilst the proposed noisewalls aim to address the noise impacts to residential areas, the height in some locations comes within 6 metres of residential fences. These instances require careful design consideration to mitigate visual impacts from sensitive viewpoints and ensure optimum solar access.

The most prominent visual impact of the development will be from the Waterways Estate, where the Bypass infrastructure will be highly visible across the open wetlands.

Disturbance to sensitive areas, particularly residential interfaces, wetland habitat and the habits of birdlife and other fauna, from construction activities must be well considered, with rigorous requirements incorporated in the Construction Management Plan.

Where the SUP runs adjacent to noise walls, they should not appear to be the ‘back side’ as shown above. An attractive, pedestrian scale outcome should be achieved.

Close proximity of noisewalls to pathways can create a negative sense of enclosure and an exaggerated perception of the scale of the walls. Transparent noise walls should be proposed where they are located within 40 metres of shared user paths.
IN ADDITION TO THE CRITERIA OUTLINED IN OUTCOME 4, COUNCIL REQUESTS THE ADOPTION OF THE FOLLOWING SENSITIVE INTERFACE DESIGN CRITERIA;

1. A transparent noisewall must be installed at the interface of Braeside Park to protect this significant conservation and recreation asset from noise impacts.

2. Noisewalls that interface with the SUP must not appear to be the ‘back side’ and incorporate treatments that are of pedestrian scale.

3. Noisewalls that come within 40 metres of residential areas and the SUP must be transparent.

4. Advanced tree planting must be undertaken close to Waterways residences to interrupt views to the bridge.

5. The Waterways overpass must be a high quality bridge design that is visually recessive - refer Outcome 5.

6. Construction impacts on the waterways should be addressed and management plans submitted to Council for review and approval.

7. Exclusion zones that apply to all open space and existing vegetation, must be developed with input from Council and adhered to throughout the construction phase.

Peninsula Link - Advanced tree planting is used adjacent to bridges to soften the visual impact.

East Link - Transparent noise walls to be used adjacent to open space.

Waterways Wetland - Protection of all open space especially the waterways wetland must be priority throughout the construction phase.