

## DESIGN REVIEW PANEL (DRP)

### RECOMMENDATION ON PLANNING PROPOSAL

**Application type:** JDAP application

**Proposed development:** Causeway Pedestrian and Cyclist Bridge

**Address:**

#### 1. What are the strengths of the design?

- The overall bridge design, with a curved form and slenderness of the structure, is elegant and has a delicate presence spanning across the river.
- The angled geometry helps to visually slim down the structure but is not carried through in all parts of the bridge.
- The proposed truth telling and local histories integrated into the bridge and components provide a multi-layered project, though there is room for further improvement.
- The McCallum Park landscaping is significantly improved, though this should be more responsive to the desired local development character, eg proposed Activity Centre.
- Good lighting opportunity, yet to be fully resolved.  
(CLA Response) – A Lighting Strategy was included in the DA submission (Refer to Appendix J). The Lighting Strategy will continue to be refined as part of ongoing detailed design
- The headroom under the bridge, but larger boats are still constrained by the Causeway Bridge.

#### 2. What are the weaknesses of the design?

##### General bridge design

- More of an engineering outcome than a design outcome.  
(CLA Response) – The project seeks to achieve an integrated outcome that appropriately balances design vision and engineering considerations.
- The process and rationale for the chosen bridge route being the preferred route, is not clear, and whether this included comparative environmental impact assessments.  
(CLA Response) – Refer to Section 2.2 of the submitted DA report for an overview of the alignment options analysis. The chosen alignment was selected from a series of options and in consultation with the MEG, for its ability to deliver improved pedestrian/cyclist amenity, maintain directness, and minimise environmental impacts on the Swan River and surrounding flora and fauna.

- A variation in the width of the bridge, inter span sections of path, and/or other design treatments, could have given the bridge a less monotonous and engineered look.  
(CLA Response) – the bridge width presents widening at the pause point to cater for resting and interpretative signage opportunities. The bridge dynamic was reflected through the horizontal geometry and curvatures rather than the bridge width.
- The design falls short of the precedents because for much of the length it fails to ‘get airborne’ – better on piles rather than heaps of sand.  
(CLA Response) – the form of the bridge and associated abutments has been subject to extensive consultation with the Town and has been endorsed by key stakeholders.
- The clear span that drives the structural solution is arguably irrelevant given the limited marine traffic.  
(CLA Response) – Whilst marine traffic is currently limited, the proposal seeks to future proof the bridge design for potential future increases in marine traffic. The clear span also assists in minimizing hydraulic and riverbed impacts, which has been a key driver identified through engagement with Traditional Owners and environmental authorities.
- The pylon base is an opportunity to be part of the overall design language of the bridge. Inserting some creativity to these elements would enhance the scheme.  
(CLA Response) – The pylon base design is an essential structural element of the bridge and is unsuitable for heritage interpretation. The shape and form of the pylon bases has been subject to further enhancement and will continue to be refined as part of ongoing detailed design but remains a fundamentally function driven component of the bridge design.
- Similar to the pylons, some form of art or relief should be considered for the concrete abutments to reflect the overall design.  
(CLA Response) – The bridge abutments have been identified as a key public art and heritage opportunity, as noted in Section 5.6.2 of the submitted DA report. The public art plan and heritage interpretation plan will continue to be development in consultation with key stakeholders, including the Matagarup Elders Group.
- The bridge connection to McCallum Park is a critical component and experience that requires further detailing and consideration.  
(CLA Response) – These matters relating to McCallum Park have been and will continue to be refined in consultation with the Town as part of detailed design. This forms part of the CLA’s regular fortnightly meetings with the Town.



- Lack of consideration to comfort of pedestrians over the length of the bridge, e.g. shade, wind protection, drinking water, re-radiated heat from structure and surface treatments, glare, multiple pause moments for photos and appreciating the views. Does not accommodate young families very well.

(CLA Response) – The architectural design intent of the bridge is primarily a commuter space, with dwell locations focused on the grounded portions of the bridge and are subject to ongoing detailed design in consultation with the Town and other stakeholders.

- Design would benefit significantly from inclusion of some weather protected rest places to sit/pause.

(CLA Response) – As noted above, dwell locations are focused on the grounded portions of the bridge, and are subject to ongoing detailed design. This ongoing design work is prioritising natural shade protection through tree canopy cover, so as not to detract from the architectural vision for a clean bridge aesthetic, or compromise its structural integrity due to wind loading.

- Question whether the boomerang and more so the digging stick elements effectively convey Aboriginal culture.

(CLA Response) – Extensive consultation has been undertaken with the Matagarup Elders Group to refine the design of the digging stick element, and this has been endorsed by the Matagarup Elders Group as a culturally appropriate representation.

#### Bridge design detail

- Underside of the bridge needs to be well detailed (lacks the sophistication of the Adelaide example). Bridges are viewed from all elevations, including soffit and ground plane so the fine grain detailing needs to run throughout the bridge.

(CLA Response) – The underside of the bridge has been complemented by the State Design Review Panel, as an element that contributes positively to the aesthetic rhythm of the design.

- Corten Steel has a great appearance but runs the risk of being graffitied and not able to be repaired. Corten is very hot in full sun so heat and safety need to be well considered throughout a full season and climatic conditions.

(CLA Response) – The Corten Steel material has been set as part of a State Government materiality direction. Suitable applied surface finishes are being considered to mitigate potential adverse impacts, with this being an ongoing matter for consideration as part of detailed design, in consultation with key stakeholders.

- Staircases look like a basic ‘patterned design’ and not tailored to the unique qualities or intent of the project. All components of the bridge and landing areas each side should have rigor and reflect the masterplan vision and principles.

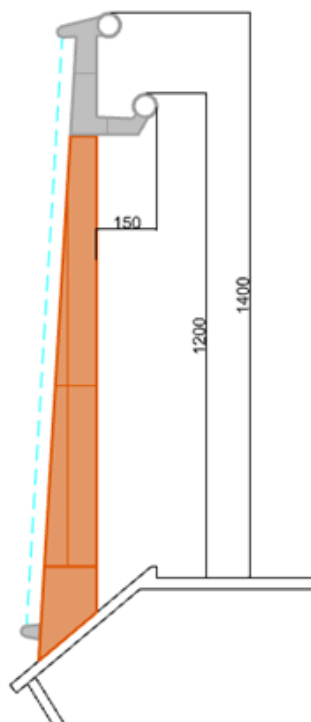
(CLA Response) – Stair designs have previously been adjusted (widened from 3m to 6m) to better incorporate future McCallum Park user needs, in response to feedback from the Town.

- Surface treatment not clear from the drawings. The surface treatment is a crucial element for safety, visual interest, robustness, storytelling, wayfinding and sensory effects.

(CLA Response) – As noted above, surface treatments are under review in consultation with the Office of the Government Architect, the Department of Transport, and the affected local governments, as part of ongoing detailed design. It is acknowledged that this is an important component of the project to ensure the surfacing solution:

- Provides a seamless experience from Point Fraser to McCallum Park with an integrated treatment, which flows across both the bridge and embankment portions.
  - Underpins as safe an environment as possible for bridge users.
  - Encourages legibility and clear wayfinding, contributing to a strong sense of place.
  - Is durable and reasonably maintainable over time.
- Insufficient detail about the balustrades to the bridge which will be a critical element of the design – an upright handrail arrangement will make the paving width less efficient especially for cyclists.

(CLA Response) – Balustrade design has been progressed through further engagement with Main Roads WA, Department of Transport, Westcycle, City of Perth and Town of Victoria Park, as per the image provided below. This will continue to be refined as part of ongoing detailed design.



- Management of stormwater runoff not clear.  
(CLA Response) – The proposed stormwater management system has been developed in consultation with the DBCA, City of Perth and Town of Victoria Park, and will continue to be refined as part of ongoing detailed design. Consistent with consultation undertaken to-date, a pit and pipe outlet drainage system is proposed, with infiltration basins.

### Movement

- Pedestrian and Cycling network is difficult to understand from the plans provided. A more detailed modal movement diagram/plan would be useful to show where people are going to and from, how they interface with other users, and to highlight potential cross over and conflict points. No consideration appears to have been given to emergency vehicle access in terms of accommodating path widths.  
(CLA Response) – Safety in Design (SID) workshops for the project have been undertaken, and emergency vehicle access arrangements have been agreed with each relevant asset owner and emergency services authority.
- It appears that there are multiple speeds intersection which pose safety issues for slow-paced users (e.g. pedestrians) meeting fast-paced users (e.g. cyclists, skateboarders and e-scooter riders), particularly at the five-way intersection. These are all potential major conflict points. One of which goes through what is meant to be a “Meeting Place”.  
(CLA Response) – This has been, and will continue to be, refined in consultation with the Town and other stakeholders as part of ongoing detailed design, with changes envisaged to deal with identified conflict points. Discussions in relation to this are ongoing as part of the CLA’s regular fortnightly meetings with the Town.
- A lot of paths either duplicate themselves or are redundant - could be rationalised to make the landscape more useable.  
(CLA Response) – as above. Paths and intersections have been subject to refinement. Rationalisation is a matter that can be discussed with the Town as part of ongoing detailed design.

### Landscaping

- A lot of trees are being sacrificed for the chosen bridge alignment.  
(CLA Response) – The chosen bridge alignment minimises tree removal as far as is practical, and the landscape design accounts for a 1/3 tree replacement ratio across the project. On the McCallum Park side only one tree is being removed (Palm tree), and this will be offset by the planting of a considerable number of new trees as shown in the submitted landscape plans (Refer to Appendix I in DA Submission).

- Landscape feels like an afterthought rather than an integral part of the concept.
- Little if any consideration appears to have been given to the placement of trees alongside paths to provide maximum shade benefits.  
(CLA Response) – Trees have been located alongside pathways for large portions of the grounded elements of the new bridge structure and associated path network. This will continue to be refined as part of ongoing detailed design, in consultation with the Town.
- Insufficient details provided regarding levels, abutments, earthworks, public art, interpretive signage, or detailed landscape finishes including planting.  
(CLA Response) – Detailed engineering drawings are contained with the Engineering Design Reports submitted with the DA. Public art, heritage interpretation and final landscaping details will continue to be refined as part of ongoing detailed design.
- Need to consider the interface with the Town’s proposed activity zone.  
(CLA Response) – This has been a focus of the ongoing fortnightly meetings between the Town and the CLA, and refinement of the detailed design for proposed landscaping of McCallum Park.

#### Maintenance

- Overall maintenance of the bridge needs to be considered and resolved prior to commencement of construction and the relationship between the major stakeholders.  
(CLA Response) – This is subject to the Asset Management Plan being prepared in consultation with the Town and other key stakeholders. Whole of life costs are an important consideration in this ongoing process.

#### **3. Any other comments?**

- Ensure that the design team of the McCallum recreation park have a strong dialogue with the bridge design team to have a cohesive and seamless integration of elements.  
(CLA Response) – This is a focus of the ongoing fortnightly meetings between the Town and the CLA.
- Consideration of the name of the bridge having an Aboriginal name or meaning such that it forms part of way finding. For example the current reference for Victoria Park entry is the McCallum Park end. Perhaps there is an opportunity for an Aboriginal name that provides an identify or reference point.  
(CLA Response) – Noted. This is a separate matter to be determined by others through Traditional Owner engagement.

- There are a number of questions including:
  - Will pedestrian movement be retained on the Causeway Bridge? It's arguably not required and an awful environment to walk in. Perhaps the edges could be planted out instead to green the arrival into the Town/City?

(CLA Response) – This is outside of the current project scope.

- Could the bridge include events along it? E.g. the Goodwill bridge in Brisbane has a coffee cart station on the bridge.

(CLA Response) – The design intent of the bridge itself is primarily commuter driven. A coffee cart station along the bridge would therefore not be appropriate but could be considered by the Town as part of broader McCallum Park master planning, in a suitable location.

- Access and loading capacity for emergency vehicles?

(CLA Response) – See above response in relation to SID workshop and stakeholder agreement in relation to emergency vehicles.

- Is there underlighting of the bridge?

(CLA Response) – Underlighting does not form part of the current Lighting Strategy, as a result of environmental considerations raised by the DBCA.