



Swan River Crossings

Frequently Asked Questions

Project overall

Why is Main Roads replacing the Fremantle Traffic Bridge?

The bridge was built in 1939 and was expected to last for 40 years. The structure has been deteriorating over several years and, despite extensive strengthening and maintenance work, it needs to be replaced. The bridge does not meet current design standards for road lanes and footpath widths. The navigational clearances under the bridge are the lowest and narrowest of all Swan River bridges up to the Causeway in East Perth. The biggest risk to the bridge in its current state is vessel impact and the piers between the road and rail bridge do not align, which increases the difficulty of skippering vessels between the structures.

How is the project being delivered?

The Fremantle Bridges Alliance (FBA) has been formed to continue project development activities to complete the design and build the new traffic and rail bridge

infrastructure. The Alliance is made up of Main Roads, Laing O'Rourke Australia Construction, Arup Australia and WSP Australia. This type of contract is common for large public infrastructure projects and ensures that the best team of WA Government and industry specialists is in place.

What stage is the project at now (December 2021)?

With a confirmed alignment, we are now developing the design.

Our recent public consultation consisted of a series of face to face and online community design forums to create awareness of the project and to seek ideas and feedback into design aspects for the project. This included bridge aesthetics, heritage interpretation, connectivity for pedestrian and cycling paths and ideas for the south and north bank. This engagement also coincided with the release of a Design Inspiration Document and an online design survey, both developed to inspire conservations and ideas

Over 100 people participated in the design forums and almost 300 surveys were completed.

Why can't you maintain the current traffic bridge?

Approximately \$23.5 million has been spent over the last five years to repair the bridge, including costly repairs in 2016. The repair works focused on minimising the risks of vessels hitting the bridge. The bridge continues to be maintained however the bridge's piers, deck and other structures continue to deteriorate and the bridge needs to be replaced.

Ongoing maintenance will not extend the life of the deteriorating timber. Restoring the timber like-for-like will not meet current bridge design standards and durability requirements.

Why does the bridge need to go?

The recent inspection of the Fremantle Traffic Bridge has confirmed the timber and steel elements of the bridge have continued to deteriorate.

- The steel elements are corroded, and the timber elements are rotting.
- Since the bridge was opened in 1939 Main Roads has undertaken extensive

maintenance and repairs, however it has come to a point where the repairs require significant replacement of key structures.

- The existing bridge is not completely authentic, nor in its original state with many of the superstructure and substructure elements repaired or replaced with steel.
- The biggest risk to the traffic bridge is if it is hit by a vessel and can't sustain the force of the impact.
- Given the level of corrosion and rot in the structure, plus the risk of impact by a vessel, Main Roads will not be retaining the current bridge.

Did Main Roads ever investigate retaining the existing Fremantle Traffic Bridge and converting it into a bridge for pedestrians and cyclists?

Consideration was given to repurposing the existing bridge as a pedestrian and cyclist path. One of the key issues with the bridge is its height above the water, which significantly restricts the navigation of boats passing underneath. Solving this problem would require the insertion of a significant steel structure in the middle of the bridge, to provide the necessary navigation span and height for larger vessels. While this is possible, it is not considered financially feasible. To achieve the desired future design life of 100 years, the modification would require ongoing inspections and maintenance of retained elements, both above and below water.

These works are extremely costly due to their complexity and dangerous nature.

Retaining a pedestrian only bridge would complicate river navigation with four bridge crossings at the location. Engagement with Whadjuk Nyoongar Elders has also identified a desire to limit the number of structures being built into the river and impacting river flows.

Main Roads has had a strong commitment to maintaining and repairing the traffic bridge, particularly since the early 1970s. The serious deterioration of the bridge plus excessive costs means this is no longer viable.

The key safety risk Main Roads has tried to manage since 2012/ 2014 is the bridge being hit by a vessel. Retaining the traffic bridge for any purpose does not remove the risk of collision between vessels and the bridge.

Heritage

Is the Fremantle Traffic Bridge Heritage listed?

The Fremantle Traffic Bridge is heritage listed.

The Fremantle Bridges Alliance is continuing to engage with the community and the Heritage Council of WA (HCWA) to ensure that heritage values are celebrated and respectfully integrated within the Project's urban design.

How is the project considering Aboriginal culture?

Aboriginal culture is a critical consideration in the Swan River Crossings Project, and we are

working closely with Whadjuk Nyoongar Elders. The Derbarl Yerrigan (Swan River) has great significance to Nyoongar people, with song lines and spirits flowing through the river. The Project's Whadjuk Elders' Advisory Group has told us how piers in the water disrupt this sacred flow. While the existing Fremantle Traffic Bridge has 26 piers in the water, the new bridge is anticipated to have only three in the river. Removal of the old bridge and replacement with a less intrusive design acknowledges and respects the wishes of Nyoongar Elders.

How will the heritage value of the bridge be considered in the new bridge?

Main Roads has considered the heritage values that relate specifically to the location of the Swan River Crossings, the various iterations of crossings there, the current heritage-listed bridge, and the local history of crossings. It is a major consideration, which has involved key stakeholders since 2019 and the community since August 2020.

This will be the fifth bridge built at this location, which highlights the significance of the crossing point itself.

The new traffic and rail bridges

Will it be easier to navigate under the new bridges?

In late 2020, Main Roads sought feedback from the community and stakeholders about the Swan River Crossings Project. A key issue raised during consultation was the safety for river users navigating

through the narrow channel under the bridge and the overhead bridge clearance.

The project is designed to offer improved river user safety with higher and wider spans for yachts and recreational boats, emergency services (such as Water Police vessels) and it will have the capacity to accommodate new, larger vessels and future tourism growth.

What about cycling and walking paths?

We plan to build a new bridge which will provide significantly better amenity for people walking and cycling with a planned promenade on the east and another four-metre path for riders and walkers on the west.

Why do we need a new rail bridge?

Currently, freight and passenger services share one rail bridge. The project will build a new rail bridge exclusively for passenger trains, which means the existing one can be dedicated to freight, significantly improving current capacity. Having different train systems share a section of track not only requires complex management but is impacting the volume of freight that can be shifted by rail. Rail freight currently takes more than 105,000 trucks off our roads each year, but this is nearing capacity. Unless we improve the current situation to maximise the use of rail, more freight will have to be shifted by trucks on our roads.

Why are you building a new rail bridge if the port is moving to Kwinana?

The current rail bridge is shared between freight and passenger trains. Building a new passenger rail bridge will separate this rail traffic and allow for a greater proportion of freight to be transported by rail while Westport is progressed, taking more trucks off suburban roads. Building a new passenger rail bridge provides a long-term solution for rail passengers well beyond the life of the current bridge.

The alignment

How was the alignment for the new road and rail bridges chosen?

When the WA Government awarded the contract to design and build the bridges, the first task given to the Fremantle Bridges Alliance was to undertake an Alignment Options Assessment. The team undertook high level technical studies to determine the feasibility and constructability of four alignment options. In addition to the technical studies, the team completed a comprehensive program of consultation and engagement with community and stakeholders.

Through a public consultation program, the majority of participants expressed a preference for Option One – placing the new bridges between the existing road and rail bridges. This alignment was confirmed for development in August 2021.

The alignment is further away from North Fremantle residents than the previous alignment, released in

2020. It places all transport infrastructure closer together and provides more open space for future development, particularly on the south bank.

What was considered in the alignment options assessment?

Four alignments were considered, with the Alliance assessing the technical requirements for each. This assessment of alignment options considered the following key areas:

- design – road and rail design compliance
- constructability – programming, staging and space considerations
- design quality – placemaking, urban design and architectural elements
- environmental and heritage – statutory requirements
- road (including pedestrians and cyclists), river and rail operations – impacts on stakeholders during construction and at completion of works
- value for money.

Main Roads previously said there was not enough room to build between the existing bridges, what has changed?

There is limited space available between the existing road and rail bridges, with 'pinch points' on the northern abutment. Focussed efforts challenged previously accepted technical requirements and assumptions to determine

what can be built in the available space.

With construction staging, design innovations and recently available technical data (such as geophysical results) the Alliance technical specialists have identified an optimised cross-section that can be built; however, this solution increases the duration of the construction program.

Can the preferred alignment allow for better access on Queen Victoria Street/Canning Highway to the Naval Stores?

Main Roads has committed to reviewing opportunities for improving access to the Naval Stores. This is an important focus of the design for the Queen Victoria Street / Canning Highway intersection.

Community engagement

What forms of community engagement are being undertaken for the design of the proposed bridges?

The Fremantle Bridges Alliance recently completed public consultation on the design aesthetics for the Project. The program included four community design forums and an online survey, with over 100 people participating in the forums and almost 300 survey responses received

How will my feedback be considered as part of the design process?

All the ideas and feedback received have been shared directly with our

design teams and will influence the functions and aesthetic outcomes for the project. Our team consists of architects, engineers, and Fremantle-based placemaking and urban landscape specialists who are now busy incorporating the feedback into the design of the bridge.

Construction impacts

When will the construction begin?

There will be construction impacts for nearby residents, businesses and road users. Early works are expected to commence, in early 2022.

Will there be traffic and rail disruption during construction?

Yes, there will be some disruptions throughout the project, and we will keep the community up to date – that includes train and bus travellers, drivers, pedestrians, and cyclists as well as boaties and ferry operators.

Will I hear noise and feel vibrations during construction?

Some work, such as piling, is likely to be noisy and could result in vibrations. As part of the process of construction management, we will provide advanced notification of this type of work so residents and businesses can be aware of the work program. An environmental management plan will be in place during construction, which will include requirements to monitor and manage noise and vibration impacts.

Will construction impact my travel times?

There will be some impacts to the traffic network and, at a minimum, will include single lane closures on the Fremantle Traffic Bridge. We are working to minimise the full extent of traffic impacts. Nonetheless, motorists should expect there will be delays during construction given the complexity and size of this project.

Some rail closures will be required during construction. The project team will work with PTA to minimise impacts to passengers and provide advanced notification ahead of any closures.

Pedestrians and cyclists will be impacted by changes to the path network during construction.

All traffic management will be subject to approvals and we will be providing residents and businesses with advanced notice of anticipated delays. We suggest people sign up for project updates [here](#).

Environment

Won't the demolition and construction be detrimental to the local environment and the Swan River?

Main Roads is working through a range of processes and undertaking planning to ensure impacts during the demolition and construction are minimised.