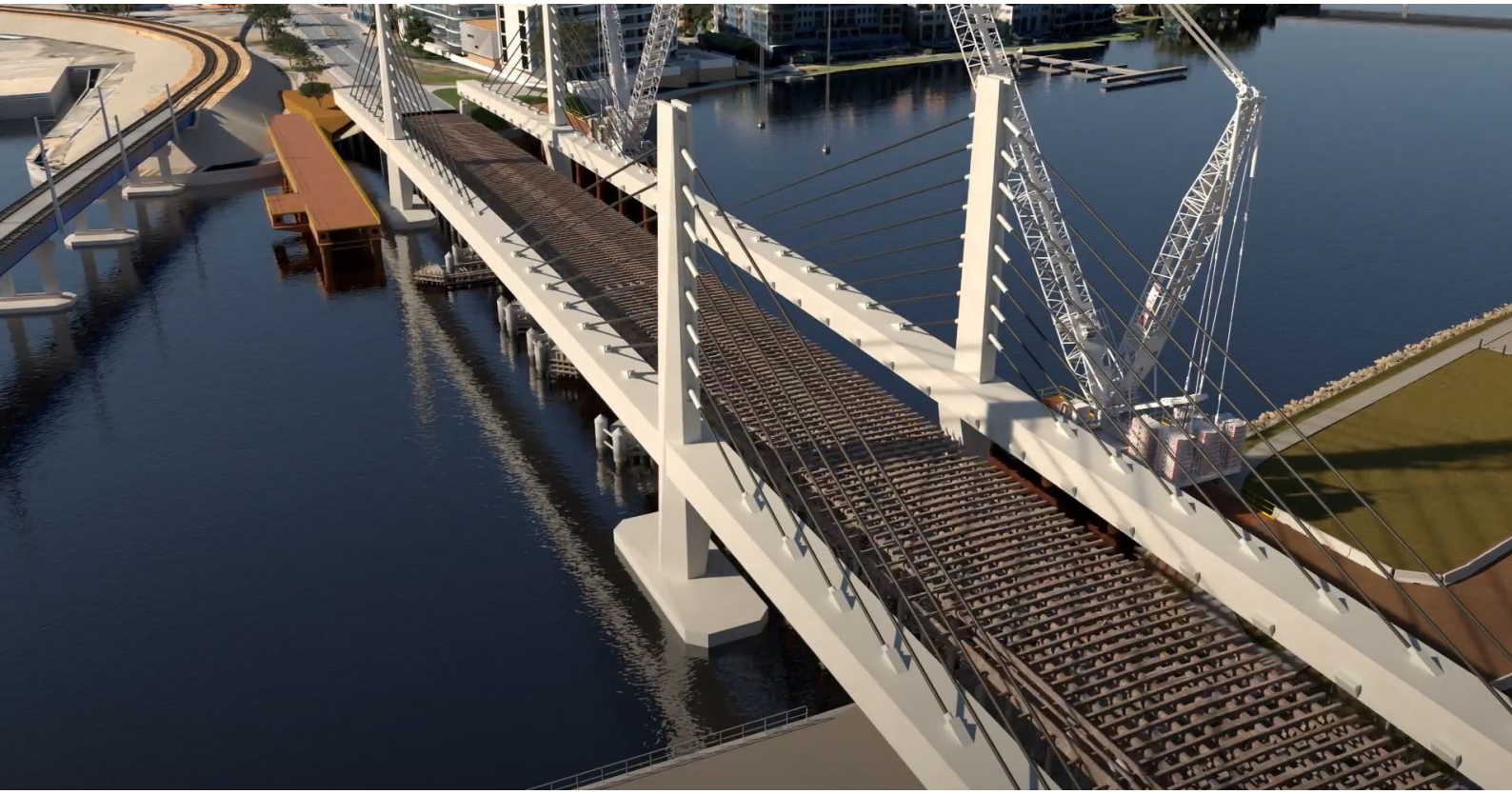
Australian Government
BUILDING AUSTRALIA

mainroads WESTERN AUSTRALIA

FACT SHEET
FEBRUARY 2026

# Swan River Crossings
# Fremantle Traffic Bridge



## Fremantle Traffic Bridge Removal Process

The Swan River Crossings Project will replace the existing Fremantle Traffic Bridge with a safer, modern structure, creating an iconic gateway into Fremantle (Walyalup).

From 1 February 2026, the bridge will be closed to complete the following major works:

- Removal of the existing bridge.
- Installation of the new bridge deck.
- Construction of the new road.

The four crawler cranes (positioned on each temporary jetty), and plant equipment on in-water barges will be used for bridge removal.

This document explains how the existing traffic bridge will be carefully dismantled and removed.

## 1. Removal of the concrete deck and asphalt

- The bridge deck (including the path) is approximately 17 metres wide and has a concrete slab over the timber decking, topped with asphalt.
- The asphalt-topped concrete deck is removed first, one bay at a time, to maintain structural stability and to meet crane lifting limits.
- Approximately 90 per cent of the asphalt and concrete deck will be wet cut (to reduce dust production) using a road saw. The remaining 10 per cent will be removed by an excavator fitted with a flat bucket to avoid damaging the timber decking.

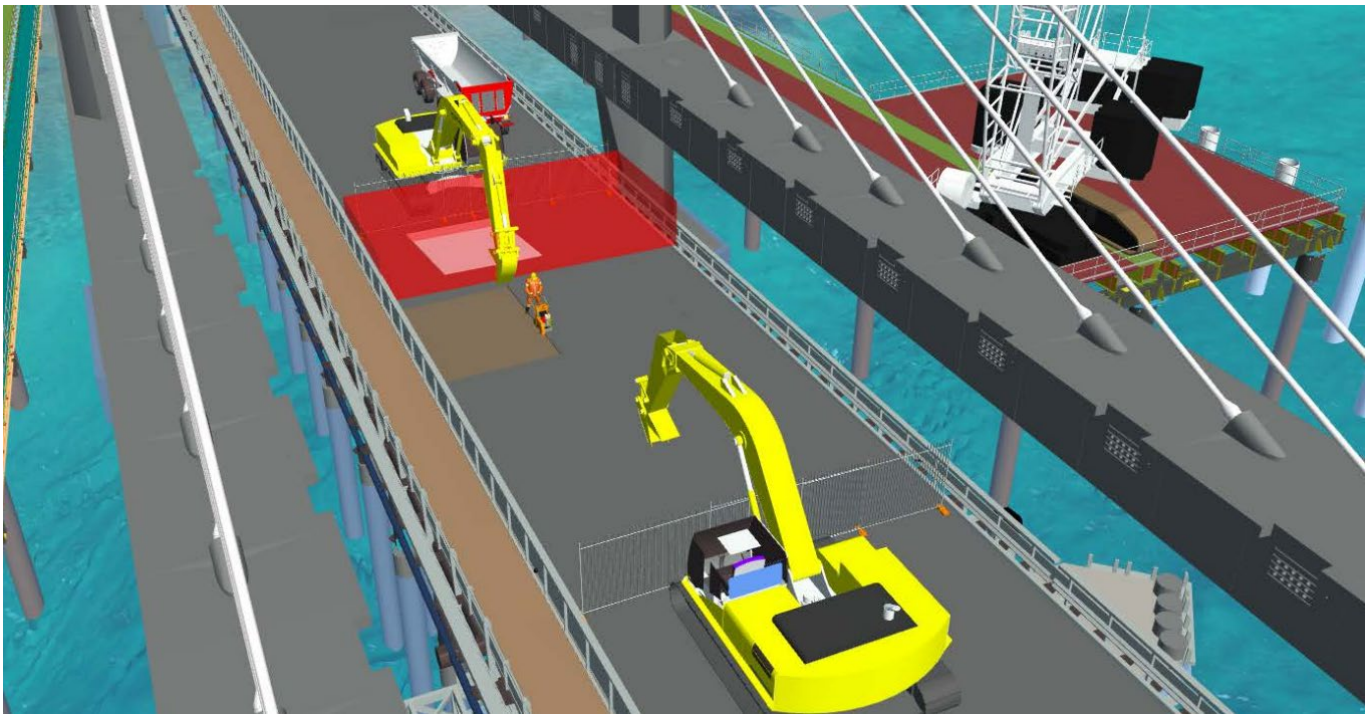


*Figure 1: First section of concrete deck removal.*

*Figure 2: Example image of concrete deck removal.*

## 2. Timber deck removal

- The timber deck spans will be carefully cut into sections using a chainsaw to maintain the stability of the remaining structure.
- After a section is cut free, remaining bolts, chains, or fixings will be removed. Rigging equipment will also be installed to enable safe lifting by the crane.
- Once rigged, the crane will lift and move each section to the laydown area for further removal.

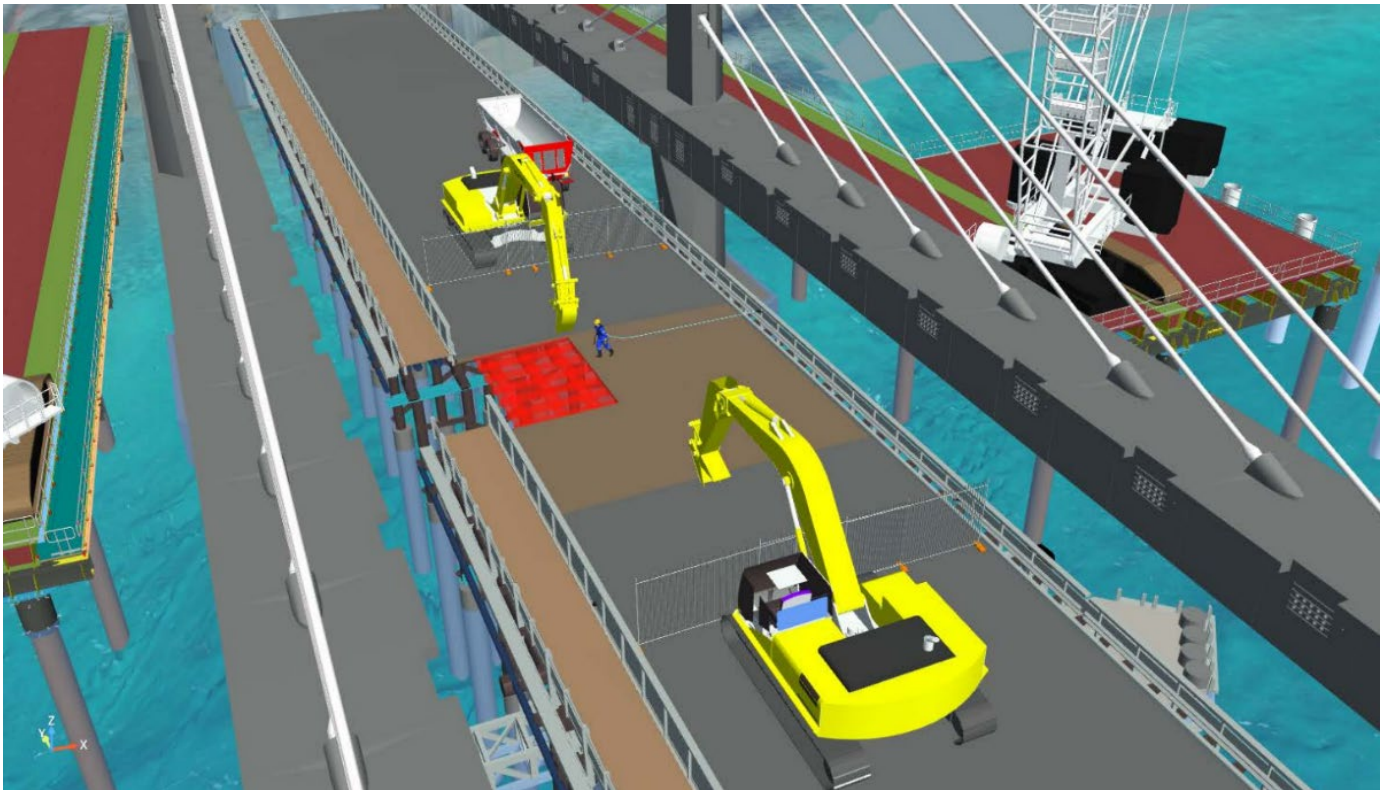


*Figure 3: Timber deck removal.*

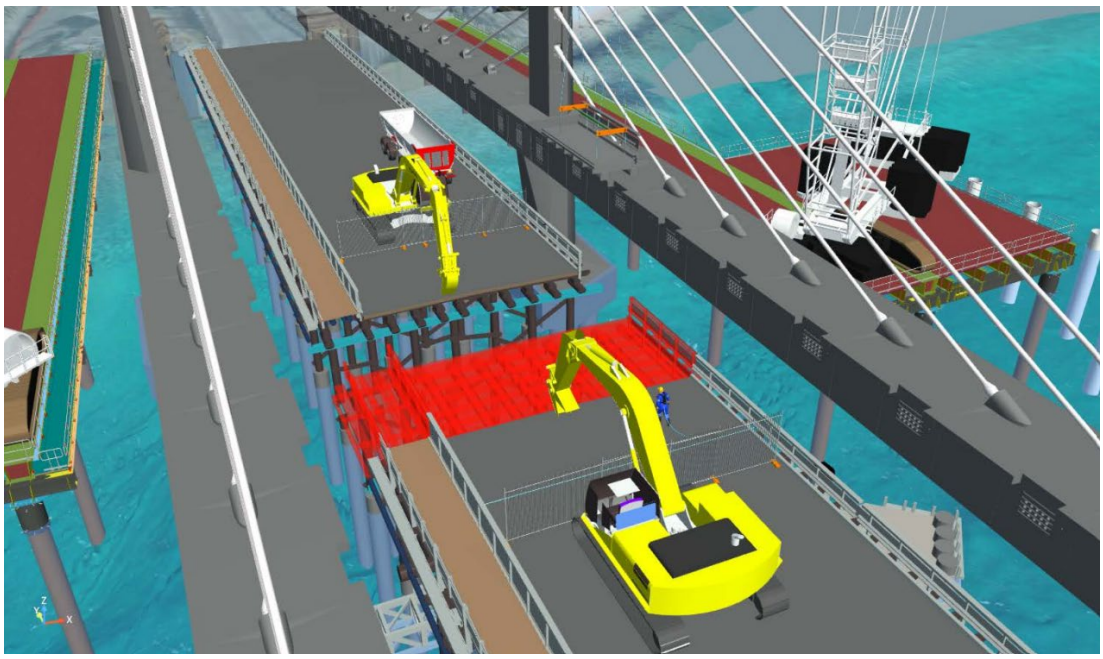


*Figure 4: Larger section of timber deck removal.*

## 3. Removal of piles above water

- Once the concrete and timber decks are removed, the piles located above the water will be exposed.
- These piles will be cut into sections above the waterline using an excavator equipped with shear attachments.
- Once cut, each section will be lifted by a crane and moved to the laydown area for further processing. The piles will then be transported away from the project area.

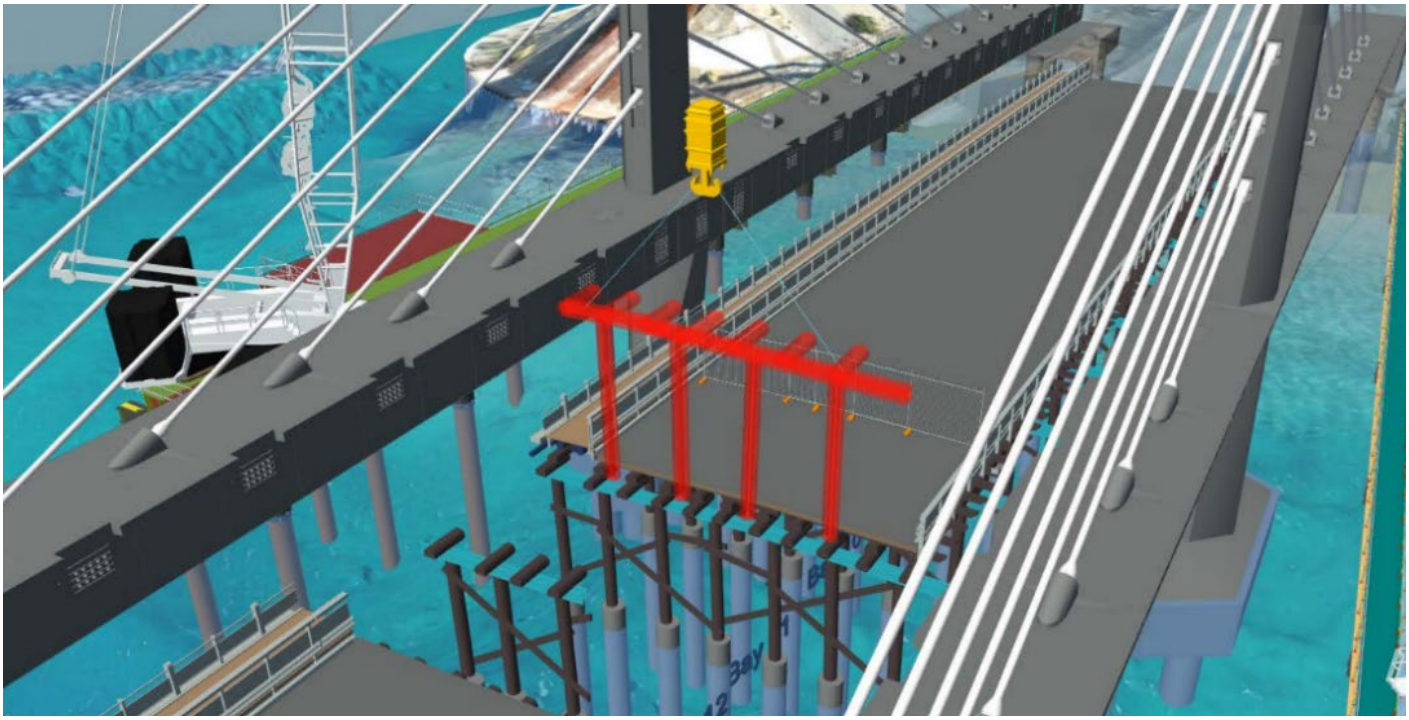


*Figure 5: Above water pile removal.*

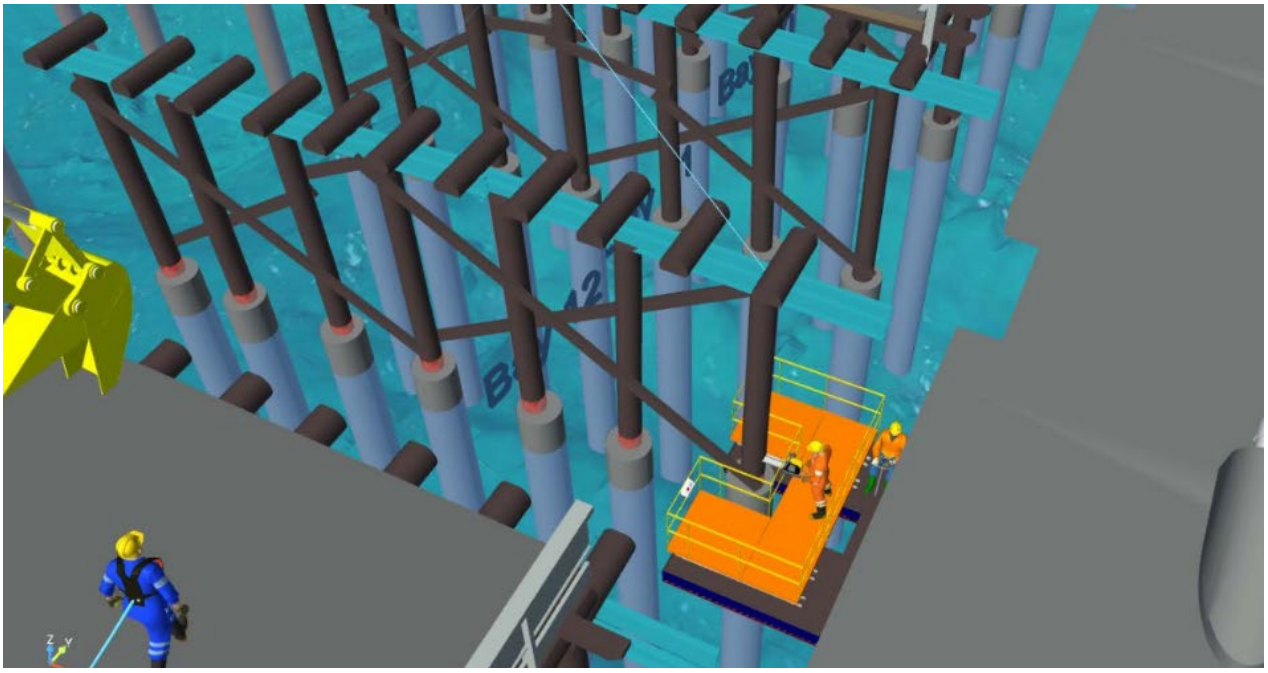


*Figure 6: Crew using shear cutting equipment on piles.*

## 4. Removal of steel girders

- The steel girder spans that supported the bridge deck will be removed in sections to maintain stability of the adjacent bridge segments.
- Each girder will be cut into sections, and rigging equipment will be attached for the crane to safely lift each section.
- Once the crane is ready to take the load, the final cuts will be made, and the section will be lifted out.

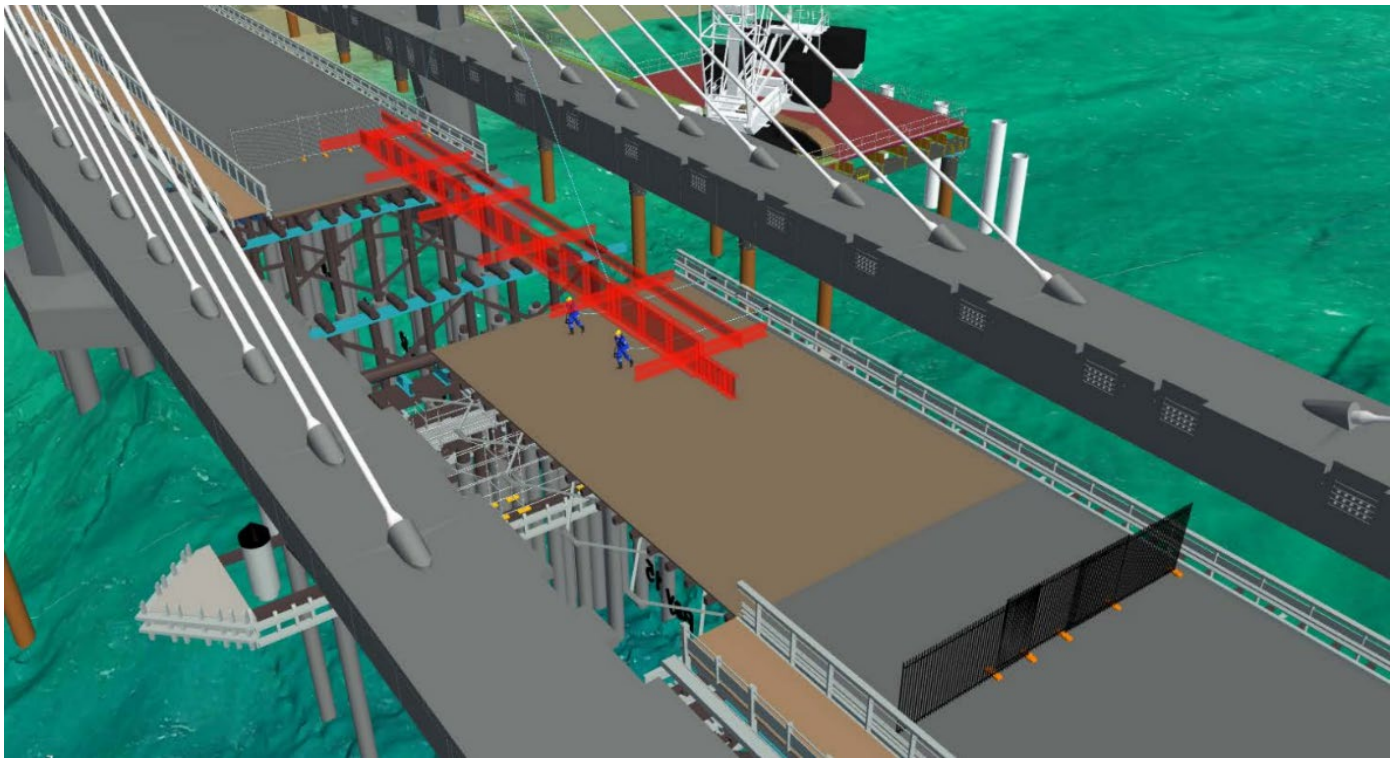


*Figure 7: Steel girder removal.*

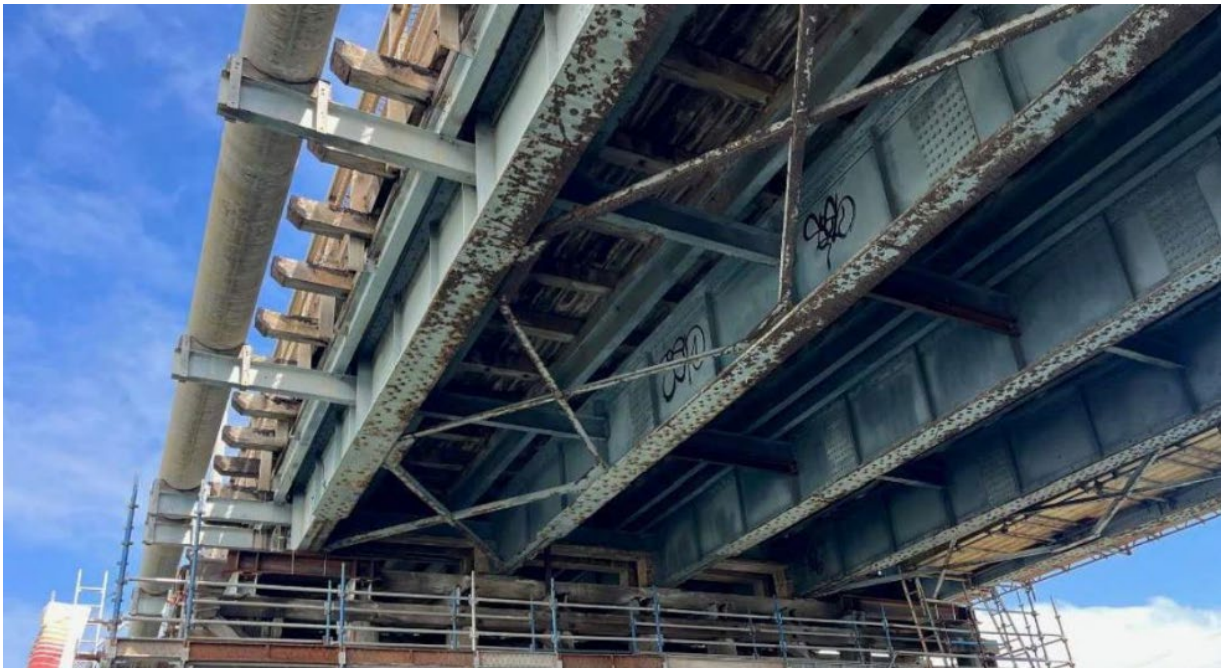


*Figure 8: Image of steel girders under navigational channel.*

## 5. Removal of bridge fenders

- The bridge fenders were installed as protective structures around the bridge piers to absorb or redirect the impact of vessels, preventing damage to the bridge.
- Before removal, flotation equipment will be installed on the underside of the fender system.
- The steel fender system will then be cut from the bridge.
- The detached fender frame will be floated into a position where the crane can access it.
- Riggers will attach the rigging equipment to the cut fender, allowing the crane to lift it safely.

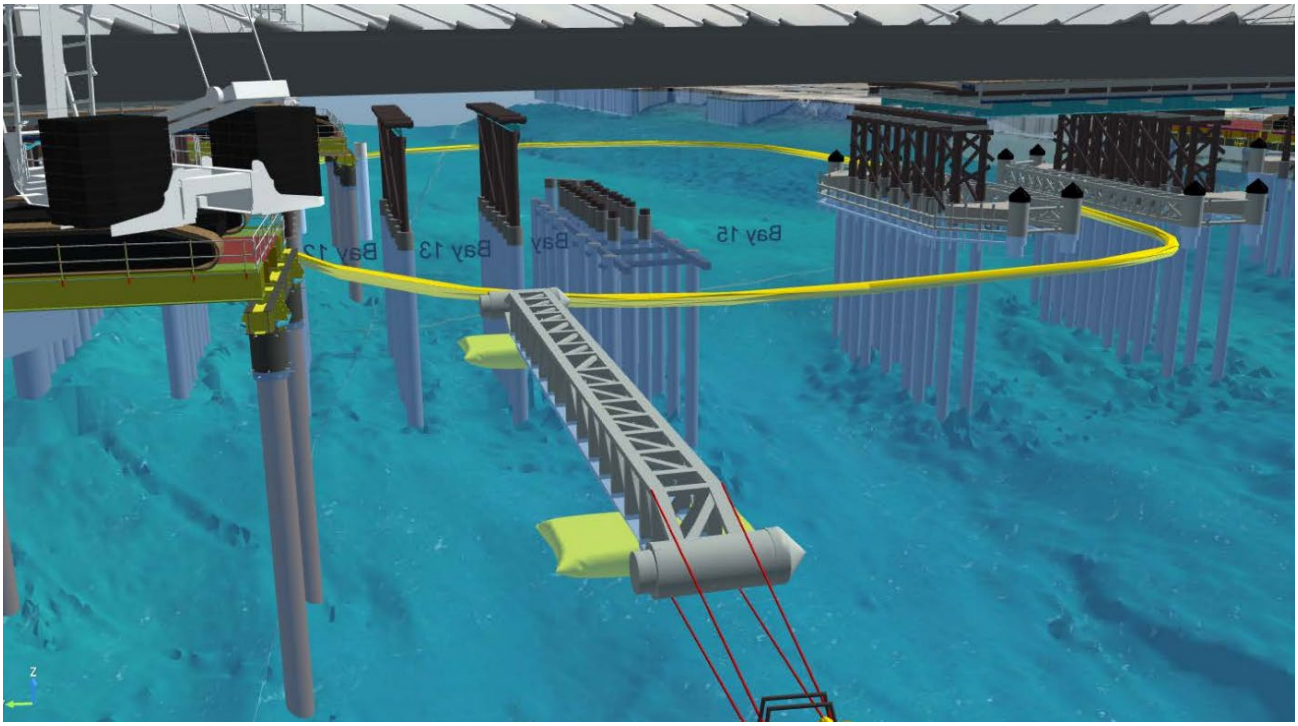


*Figure 9: Removed bridge fender floating.*

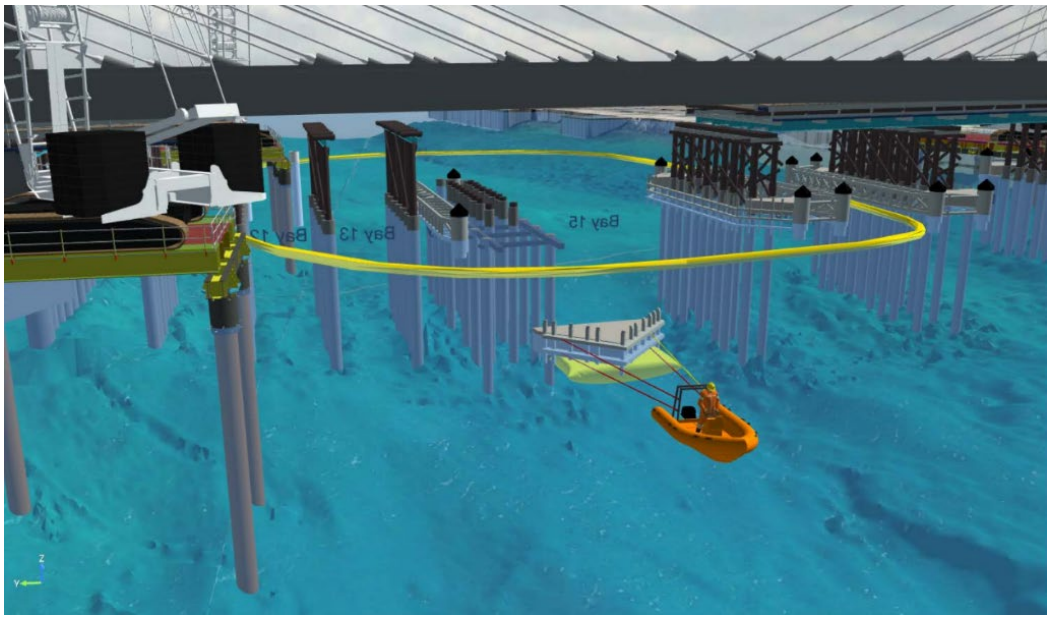


*Figure 10: Bridge material towed away by vessel.*

## 6. Removal of underwater piles

- The underwater piles will be removed by an excavator that sits on an in-water barge.
- This barge will have a small crane fitted with hydraulic shears. The shears will cut through the piles and the concrete encasement at riverbed level.
- As each pile is cut, a second excavator on the barge will secure and support each pile's weight.
- Once cut, each pile will be lifted onto the barge deck by the small crane.
- The big crane on the temporary jetty will lift and transfer the piles from the barge to the laydown area, where they will be downsized before being transported away from the project area.

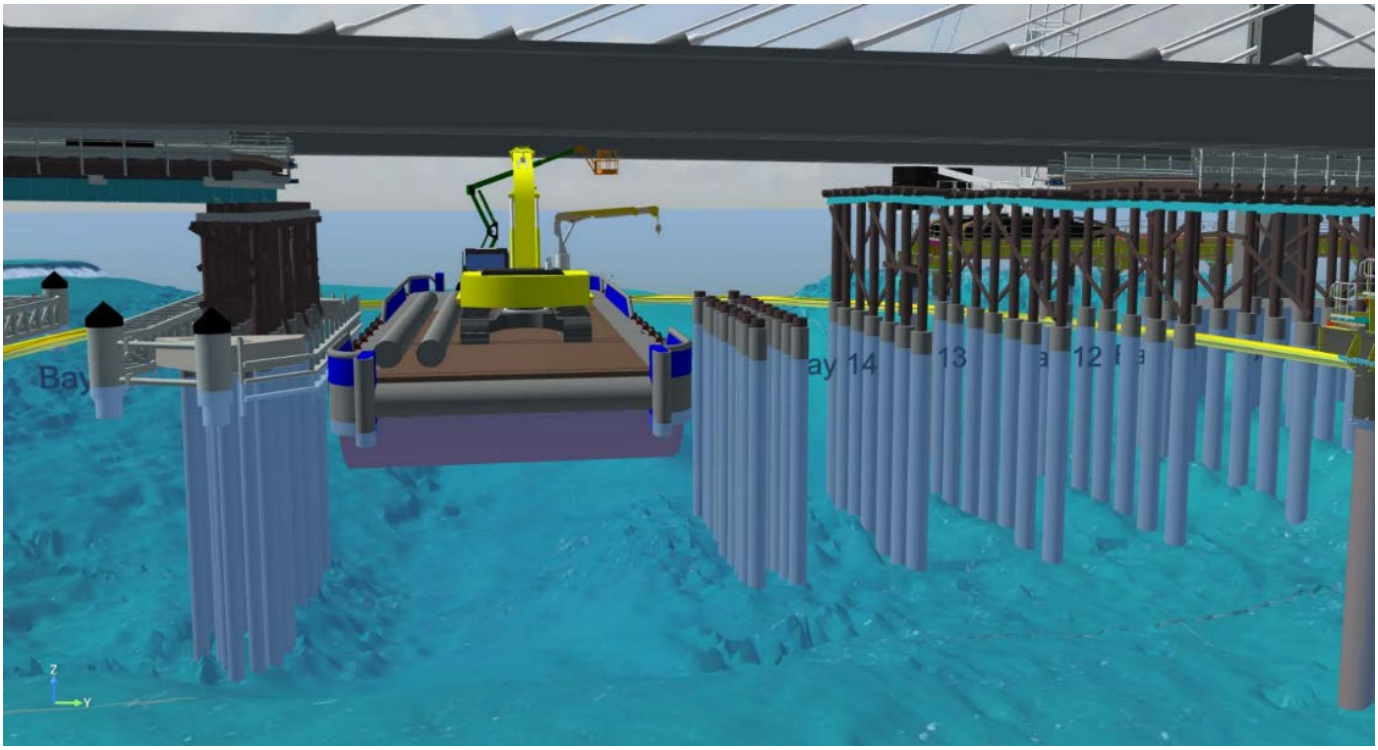



*Figure 11: Removal of underwater piles.*

*Figure 12: Shear cutting equipment example image.*

## 7. Frequently Asked Questions

### What is being done with the old timber?

Chemicals have been used to preserve the bridge timbers. Where possible, timbers in good condition will be re-purposed, potentially to maintain other timber bridges in Western Australia. See our Bridge Condition Fact Sheet for more details.

### Will the concrete deck of the old Fremantle Traffic Bridge be recycled?

Yes. The asphalt and concrete decks will be separated, removed, and distributed to relevant recycling plants. The material can then be processed and re-used on other WA road projects.

### How will you ensure no debris will fall into the river?

Exclusion zones will be established below the work area to capture any falling material, and to protect workers and the public. A floating containment zone will prevent debris from drifting outside the site, and a spotter vessel will be used to recover any materials.

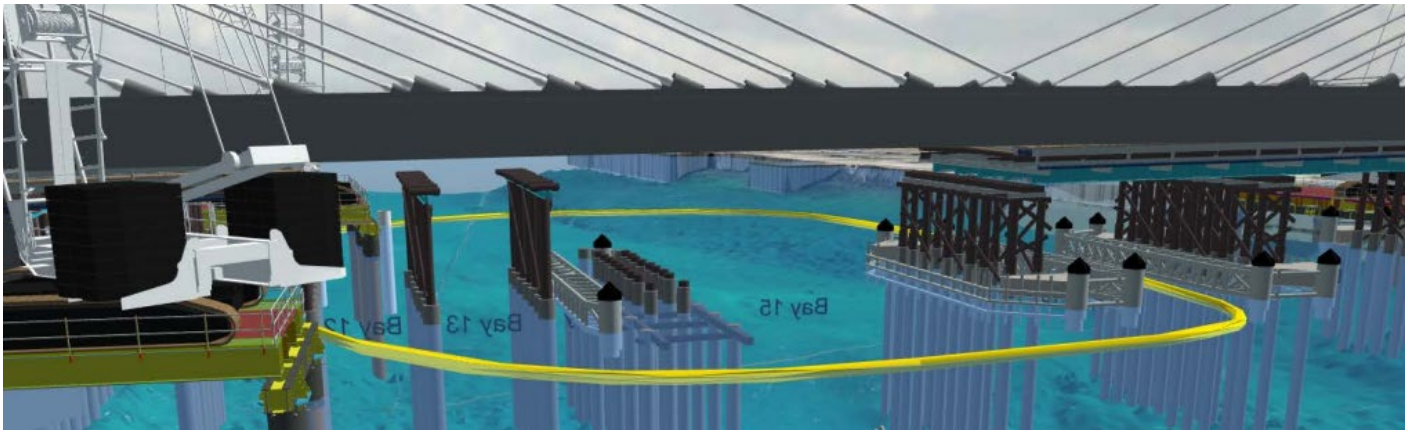


*Figure 13: Debris exclusion zone.*

### What does the next stage of construction look like?

At the same time as bridge removal, the new bridge deck can be constructed. This includes lifting pre-cast T-Roff beams (similar to the picture below). Once T-Roff beams are laid, the new bridge deck concrete and asphalt will be installed and connected into the existing Queen Victoria Street Road.

*Figure 14: New bridge deck T-Roff beams.*

### Will the removal affect access to the navigational channel?

No. One navigational channel will always be accessible.

## Will the work be noisy?

Yes, works will generate noise. A noise management plan will be implemented, and high-noise activities will be limited to specific times of the day where possible.

## Further Information

- For more information regarding the construction process, please view the Construction Staging Fact Sheet here.
- For more information regarding the removal of existing service lines, please view the Service Relocation Works Fact Sheet here.
- Click here to learn more about the Project or scan the QR code.
- To sign up for Project Updates, click here.
- For enquiries, please phone 138 138 or email enquiries@mainroads.wa.gov.au.