

Swan River Crossings - Fremantle Traffic Bridge



Locations of the temporary jetties

The Swan River Crossings Project will replace the existing Fremantle Traffic Bridge, creating a striking gateway to Fremantle (Walyalup). The new bridge will:

- be built on the existing traffic bridge alignment
- maintain two traffic lanes in each direction
- improve navigational safety for boats, kayaks and other river users
- have new, wider and safer pedestrian and cycling paths (up to four metres wide) on both sides to connect into the existing path network.

The first stage of the works involves piling on land and in the river to construct four temporary jetties. These jetties will be built at both ends of the bridge and on each side, offering a safe and stable base for the four large crawler cranes - two with a 320 tonne lift capacity and two with a 480 tonne lift capacity. For more information on how we are building the new Fremantle Traffic Bridge, see our latest Construction Staging Factsheet [here](#).

Arrival of the first crawler crane

In the next few weeks, the community will see the arrival of one of the four crawler cranes, which will be delivered to the north-east temporary jetty foundation. The crane will be delivered in various segments and assembled on-site by the project's marine infrastructure experts. Initially, the cranes will assist in constructing the temporary jetties over the river. Once all temporary jetties are complete, the cranes will move onto the jetties from which they will construct the bridge.

Piling works for construction

Land piling started to the north-east of the traffic bridge in mid-July to build the foundations of the first temporary jetty. These piling works will move clockwise (south-east, then south-west) before finishing on the north-west side of the bridge. All on-land piling for the temporary jetties will be completed by non-impact pile methods which include Continuous Flight Auger (CFA) piling and Screw Piling.

In-river piling works are planned to commence in late-August / early September and are expected to last up to 12 months, weather permitting.

Due to the unique site geology, the temporary jetty construction and main bridge pier piling works can only be delivered by driving piles via hydraulic impact hammers. These works will involve using vibratory and hammering piling methods to drive steel casings into the ground, with approximately 80 piles expected to be driven into the riverbed. There will be two stages of piling activities:

Stage 1 - Temporary Jetty Works

- Each of the temporary jetties comprises four, 12m long spans supported by two steel piles per span. Each span will be constructed every seven to eight working days. The piles will be 1m in diameter, with lengths ranging from 30 to 44m.

Stage 2 - Permanent Bridge Works

- Once the temporary jetties are in place, bridge foundations are constructed by driving 1.5m diameter, 60m length steel permanent piles into the riverbed. Stage 2 piling is expected to start in three to four months' time, once temporary jetty works are complete.

The forthcoming piling program will generate some loud and consistent noise. Nearby residents may also experience increased levels of vibration when the piling rigs are in operation. These works will be intermittent and are not expected daily. The project team will minimise noise and vibration through careful planning of the works and implementation of controls including:

- Working day shift.
- Scheduled respite periods of piling works to manage and limit noise impact.
- Using the quietest equipment available.
- Undertaking noise and vibration monitoring.



Figure 1: Example of hydraulic impact hammer



Figure 2: Piling crane in operation

Traffic management during temporary piling works

Piling works will mostly occur during standard working hours, from **Monday to Saturday 7am to 7pm**. Due to noise associated with these works and to ensure members of the public are not exposed to high noise levels, the following changes may take place:

- The shared path on the Fremantle Traffic Bridge will temporarily close during piling works with pedestrians and cyclists detoured via Stirling Traffic Bridge. The path will re-open outside of work hours (morning and evening) to ensure connectivity for path users during peak hour. More information around timings and dates will be sent out via our Roadworks Update. Please click [here](#) to subscribe for future roadworks updates.
- Due to heightened levels of underwater noise, exclusion zones will apply to swimmers and some other river users, including kayakers and stand-up paddle boarders. These will be monitored by spotters ensuring the zones are free of swimmers and marine mammals.

Extension of the Beach Street Closure

Bridge replacement works require the current closure of Beach Street (East Street to under Queen Victoria Street) to be extended from August 2024 until project completion (estimated late 2026). The extended closure of Beach Street is required to provide a safe environment for workers and the wider community, allow construction of the temporary jetties to support the crawler cranes, and facilitate bridge construction activities.

Vehicles and pedestrians heading to and from Fremantle on Beach Street will continue to be detoured via East Street and Canning Highway as shown in the map below. Importantly, access to the businesses and carpark on Beach Street east of the bridge will be maintained.

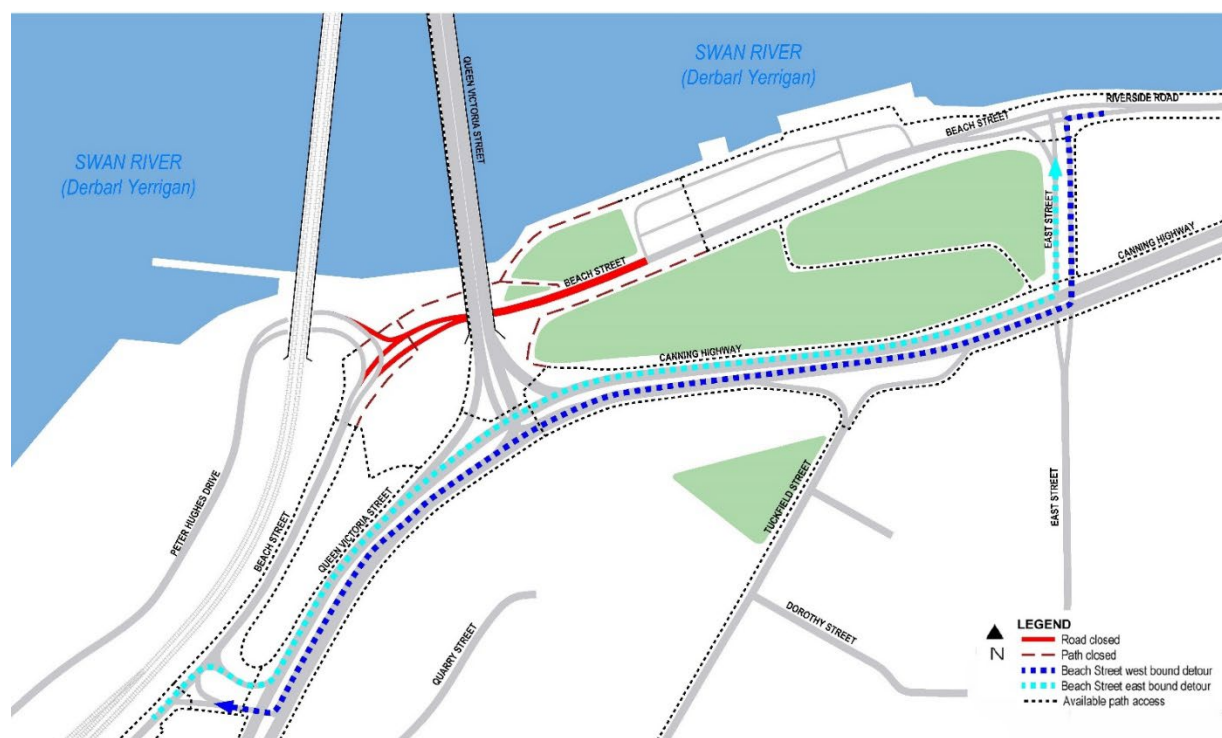


Figure 3: Vehicle, Pedestrian and Cyclist Detour Map

Services Works

A new, larger drill rig has arrived on site at Beach Street to relocate water services. The first pilot hole was drilled in early August, to a depth of approximately 50m. Once the hole has been reamed to the correct size, the 630mm water pipe segments will be welded together to form a 400m long pipe and will be pressure tested to ensure reliability. This pipe will run along the car park on Podger Lane (near the Swan Hotel), the shared path adjacent to the rail line and onto Tyndem Road (westbound), where traffic management has currently been implemented. This will need to be done twice, as two water lines are being relocated under the river.



Figure 4: Water Drill rig on Beach Street

Vegetation Removal

Removal of vegetation has commenced in the area to the north-east of the traffic bridge to allow construction of the temporary jetty ramps. Further vegetation removal will be required in the coming weeks on the north-west side to allow space for the jetty ramp and to fit a 320 or 480 tonne crane, as there is limited space between the rail bridge and the existing traffic bridge. Qualified arborists and ecologists have been engaged to assess vegetation.

The project is complying with all applicable environmental laws, approvals, policies, and other legal requirements as part of the project's effective management of the environment. The team have also closely liaised with the City of Fremantle and Department of Biodiversity, Conservation and Attractions (DBCA) to discuss vegetation removal. Importantly, the project has a unique opportunity to restore the area using local, native species at project completion. This includes replanting trees at a 3 to 1 ratio (meaning that every tree we remove, we plant 3), which has been positively received by stakeholders.



Figure 5: Vegetation removal location (northwest of FTB)

How can you stay informed about piling and other associated project works?

The project informs the community about piling or noisy activities in a number of ways. These include:

- project updates and notification letters
- emails to registered stakeholders
- project website
- one-on-one contact.

Further Information

Further information For enquiries, please phone 138 138, email enquiries@mainroads.wa.gov.au or click [here](#) to learn more about the project.

