

Leach Highway and Welshpool Road Interchange

What's happening

Concrete has been poured for the decks of the Leach Highway bridges over the Armadale rail line and Welshpool Road. Other ongoing works on the bridges include road surfacing, barrier and median installation. These works will continue into July.

Road works are underway north and south of the Leach Highway and Welshpool Road intersection in the lead-up to traffic switching onto the bridges in the coming months. This traffic switch will considerably reduce congestion at the intersection and assist with commencing the detailed work on the Welshpool Road roundabout under the bridge.

Project achievements

Beams for the duplicate **Leach Highway bridge over the railway line** were successfully lifted and placed during two weekends in March. The operation to install 24 beams within a live power, road and rail traffic environment was carefully planned and executed, using large cranes positioned on Sevenoaks Street and Railway Parade.

The eight beams for the middle span are each 26.7 metres long and weigh 67 tonnes. The 16 beams for the north and south spans are each 35m long and weigh 114 tonnes.



Bridge over the railway line: One of the beams being lifted for the duplicate bridge.



Bridge over Welshpool Road: A beam being lifted for the new Leach Highway bridge over Welshpool Road.

A major milestone was also achieved in the first weekend in April culminating in the installation of the 16 beams required for the **Leach Highway bridge over Welshpool Road**.

A 650 tonne capacity crawler crane was used to lift the 45 metre long beams, each weighing 165 tonnes. During the weekend more than 1,000 square metres of crane pad material covering Welshpool Road was imported and removed before reopening to traffic.

Research collaboration aims for far-reaching sustainability improvements

The Leach Welshpool Alliance is contributing to research aimed at extending the lifespan of Western Australian roads.

The Alliance has supplied large blocks of pavement material cut from sections of Welshpool Road that had to be removed to make way for the new configuration.

Students at the University of WA will take samples from the blocks and carry out tests to assess road rehabilitation treatments.

Before the project began, the City of Canning trialed various innovative rehabilitation methods on Welshpool Road, including the use of foam bitumen stabilisation and crushed recycled concrete. The foam bitumen was originally placed in 1999, and the research is an opportunity to test the material halfway through its design life.

Advantages of these methods include reducing the frequency of disruptive roadworks, lowering costs, and minimising environmental impacts.

The use of recycled crushed concrete generated from demolition projects would otherwise go to landfill and also reduces the carbon footprint of road projects.

This early trial section along Welshpool Road installed by the City was a forerunner for further use of these materials. Notably, recycled concrete is also being used on new sections of roads within the Leach Highway and Welshpool Road Interchange project.



Off to the laboratory: Blocks of material cut from Welshpool Road will be tested at UWA.

Leach Welshpool Alliance Principal Engineer Dale Screech, with the careful efforts of the construction team, arranged for large sample sections to be taken following a request from former City of Canning Engineer Colin Leek, now a UWA civil engineering lecturer.

Dale said the trial sections had been monitored by the City of Canning and Main Roads since they had been used to repair Welshpool Road, and the current research would provide valuable information on rehabilitation treatments for future projects in Western Australia.

More information

If you have any questions or concerns, please email enquiries@mainroads.wa.gov.au or call 138 138. For more information, see www.mainroads.wa.gov.au/Leach-hwy-welshpool-rd