



Armadale Line Upgrade

Project Description:

The Armadale Line Upgrade will deliver Perth's first major elevated rail: approximately 4 km of viaduct with five new elevated stations (Carlisle, Oats Street, Queens Park, Cannington and Beckenham) and the removal of six level crossings at Mint/Archer Street, Oats Street, Welshpool Road, Hamilton Street, Wharf Street and William Street. Around six hectares of new public space will be created beneath and around the rail, improving safety, reducing congestion and reconnecting communities along the corridor.

The elevated solution uses a precast twin L-beam "U-trough" viaduct with integrated detrainment walkways and architectural screening. Pier placement, clearances and drainage have been designed to keep sightlines open and support ground-level public realm, including new east-west connections and shared-path links. Station precincts will be rebuilt as modern interchanges, with bus facilities at Oats Street and Cannington to support seamless transfers.

Delivery is staged through an extended shutdown to enable rapid construction, supported by temporary facilities and replacement services. Early works include services relocation and tree management within the corridor, with noise and vibration mitigations (including targeted noise walls) incorporated to meet operational criteria. The design emphasises constructability and sustainability via standardised precast elements to minimise materials and waste, and landscape outcomes that increase shade and canopy within the new public spaces.

Our Role:

Construction Sciences is providing concrete testing services to support delivery of the elevated rail, stations and associated civil works. Our team verifies the quality and compliance of construction materials throughout the build in line with project specifications and relevant standards.

*Image courtesy of ACCIONA.

Client/s: Holcim

Location: Perth, Western Australia

Services: Concrete Testing

Construction Sciences Units:
Perth Laboratory