

SIX LEVEL CROSSINGS REMOVED IN PERTH'S FIRST MAJOR ELEVATED RAIL PROJECT

L Beams, Tee Beams, headstocks and columns are among the precast elements being supplied by Master Precaster Australian Precast Solutions (APS) for Perth's first major elevated rail project.

Come November 2023, the nearly four kilometres of overhead rail that is being delivered as part of the METRONET Victoria Park-Canning Level Crossing Removal Project, will reduce traffic congestion, deliver improved public transport safety and create new and versatile public space for the community.

The project entails the removal of six level crossings along the Armadale Line by raising the rail over the road at Mint Street, Oats Street, Welshpool Road, Hamilton Street, Wharf Street and William Street.

While Welshpool Station will close at Carlisle, new modern elevated stations will be built at Oats Street, Queens Park, Cannington and Beckenham stations. Additionally, extensively landscaped public space will surround the stations for community enjoyment.

Expected to support around 8500 jobs, the project is funded by both State and Federal government and is being delivered by the Armadale Line Upgrade Alliance, comprising Acciona Construction, BMD Constructions, WSP and AECOM.

Australian Precast Solutions is bringing a wealth of knowledge and expertise to the project, with 260 prestressed 'L Beams' being manufactured for the main viaduct, which are similar in design to Melbourne's Level Crossing Removal Project. The 31 metre long beams weigh 130 tonne and the design is a first for Western Australia.

The Master Precaster is also manufacturing 40 prestressed 29.9 metre Tee Beams for station platforms, 480 reinforced headstocks and supporting column segments for



Works on the METRONET Victoria Park-Canning Level Crossing Removal Project.

PROJECT: METRONET Victoria Park-Canning Level Crossing Removal Project
CLIENT: Main Roads Western Australia
BUILDER: Armadale Line Upgrade Alliance (Acciona Construction, BMD Constructions, WSP and AECOM)
MASTER PRECASTER: Australian Precast Solutions

below the viaduct. These elements weigh between six and 120 tonne.

According to Stuart Young from APS, precast was specified for the project for its recognised durability and because it allowed efficient onsite installation works to meet the tight construction programme.

Young says the main challenges involved temperature control of the elements as they cured.

This was managed through extensive thermal modelling and the design and application of thermal controls which included internal and external cooling of the elements and their moulds, monitoring concrete supply temperatures, concrete mix trials and dispensation from specified limits.

The project is not only fuelling local employment, but also engaging

local businesses that will contribute to the fabrication and production of these structures.

Western Australian Premier Mark McGowan says projects such as this one will provide a variety of benefits for the local community.

"Already we are seeing real benefits for our State, with local industry playing a key role in manufacturing components of the overhead rail structure – with thousands more local jobs to be created across the life of the project," he says.

Meanwhile the Transport Minister Rita Saffioti believes manufacturing of this scale in Western Australia will be of benefit local businesses and draw on local knowledge.

The new elevated rail line will also generate new opportunities for development and public open space as land previously occupied by the rail line becomes available. ■