Project Profile

Adelaide Operation Control Centre Relocation Project Civil Works

Client	Lendlease
Location	Adelaide, South Australia
Duration	June 2018 to December 2018
Contract	Lump Sum Construct Only
Cost	$1.8 million

Project Overview

The Operations Control Centre relocation project sought to relocate the existing Control Centre located along North Terrace in Adelaide, to a new Operations Control Centre at the existing Department of Planning, Transport and Infrastructure's Dry Creek Railcar Depot, located in Adelaide's northern suburbs. The Operations Control Centre is responsible for managing Australian Metro rail operations throughout the greater Adelaide metropolitan region.

A key package of works was the construction of a Power Supply Building in the Adelaide Yard located near the Adelaide Railway Station. The new building would supply power to Adelaide Yard signalling equipment, as well as to house two local communication/ signalling nodes, which would replace the operations that were undertaken in the existing North Terrace Operations Control Centre.

Lendlease, the principal contractors for the project, engaged McMahon Services to undertake the civil components of the Adelaide Operations Control Centre relocation project.

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Scope of Work

Initial works involved the preparation of the new Operations Control Centre building slab within the Adelaide Yard, including footing excavation, material stockpile, supply and installation of basecourse materials and the trenching and installation of service conduits.

Works included the provision of under track crossing for signal cabling, McMahon Services achieved this through directional boring underneath the rail corridor, with the three conduits requiring three directional bores.

Pre-existing under rail services were identified prior to the commencement of works. Due to the frequency of train movements during the day, directional boring works were undertaken at night.

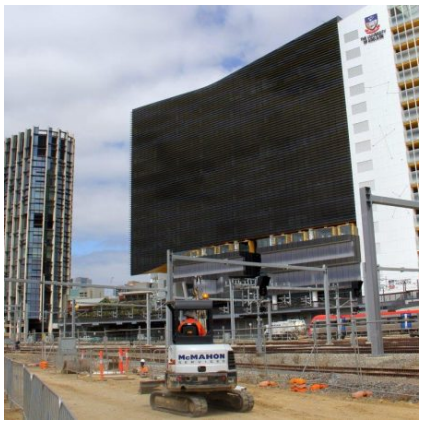
The first step was the construction of entry and exit pits for each bore. During the boring works, surveyors monitored the track in 30-minute intervals to ensure there was no movement in track levels.

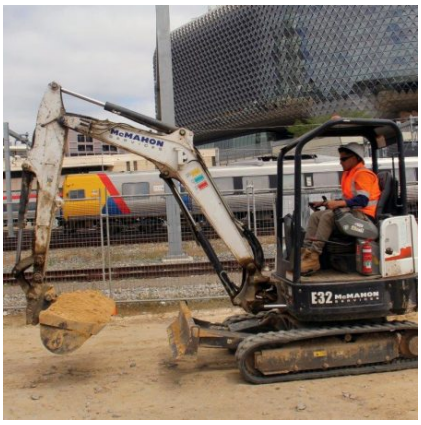
Boring in the first crossing was impeded when work crews encountered a footing believed to have been part of the earlier Adelaide Train Station infrastructure. The bore was redesigned and shifted towards the location of the second bore, and was completed without further incident. Once boring works were finalised, service conduits were installed.

McMahon Services undertook environmental testing on the soils stockpiled on site. Identified as Intermediate Waste Soil as classified by the Environmental Protection Agency (EPA), McMahon Services then disposed of the stockpiles at licenced receiving stations.

Materials used in construction included 2,000t of quarry material, 900t of sand for trench backfills, 90m³ of 50MPa concrete and 69.3m³ of 15MPa concrete, 1,600m of trenching, 50m of kerbing, 284m of sewer lines, approx. 400m of directional boring and 180m of fencing. Waste materials removed from site included 1200t of Intermediate Waste Soil and 200t of clean and unclean concrete.

The workforce peaked at ten and completed 12,500 work hours.





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