



CASE STUDY >

D&C OF THE LOW POINT SUMPS ON THE WESTCONNEX M4-M5 LINK TUNNELS PROJECT

PROJECT OVERVIEW

WestConnex, the largest road infrastructure project in Australia, is a 33-kilometer motorway network that will be delivered in 4 stages. The New M4, opened in July 2019, the M8, opened in July 2020, the M4-M5 Link Tunnels, due to open in 2023 and the Rozelle interchange, also due to open in 2023.

RSGx are performing scope on the third stage of the project, the M4-M5 Link Tunnels. The M4-M5 Link Tunnels will consist of 7.5km of tunnels, linking the New M4 at Haberfield with the M8 at St Peters, with connections to the Anzac and Iron Cove bridges via the Rozelle Interchange.

SCOPE OF WORK

RSGx's scope consists of the detailed design, supply, installation and commissioning of the tunnel's common gravity drainage system, the Low Point Sump (LPS). Each LPS is separated into two compartments, the Minor Flows (MF) sump and the High Flows (HF) sump connected by an under/over weir. The Northern LPS pumps will pump to the tunnel high point and water will flow by gravity to the Southern LPS; Southern MF pumps will pump directly to the WTP inlet buffer tank; Southern HF pumps will pump to the surface holding tank.

RSGx are responsible for the design, manufacture, supply, installation, testing and commissioning of all mechanical and electrical equipment to be installed in each low point sump pumping station, including but not limited to:

- ♦ Hydraulic installation: submersible pumps, pipework and instrumentation;
- ♦ Ventilation installation: supply and exhaust air network;
- ♦ Fire Suppression installation: hydrocarbon detection and foam suppression;
- ♦ Electrical installation: control panel, cabling, lighting;
- ♦ Control and Monitoring installation: PLC, I/O schedule;

SOLUTION

RSGx worked with the project design team to deliver the design component of the project. This was done professionally, with a number of iterations to the original design. Once the design was completed and the IFC drawings were issued, RSGx moved into the procured phase and made significant efforts to acquire materials for the project site. This included two bespoke pumps, which needed to be fabricated and delivered from Germany. The logistics around this component, at a time when the Suez Canal was blocked and coronavirus significantly hampered international shipping was difficult, but the RSGx worked tirelessly to find solutions and ensured they met all dates agreed with the project and that the project was not affected by any delays.

RSGx personnel then worked with the project, during a very difficult time for the Australian construction industry to construct and commission the project

ACHIEVEMENTS TO DATE

RSGx has delivered all design, construction and commissioning activities on the project to date on time and on budget without an LTI, in the face of adversity.

CLIENT

ASBJV (ACCIONA SAMSUNG BOUYGUES JOINT VENTURE)

SERVICES PROVIDED

ME&I DESIGN, INSTALLATION AND COMMISSIONING

SCOPE

DESIGN
PROCUREMENT
CONSTRUCTION
PRECOMMISSIONING
COMPLETIONS
COMMISSIONING

INDUSTRY

INFRASTRUCTURE

LOCATION

SYDNEY, NEW SOUTH WALES

