



## CASE STUDY

# INSTALLATION OF RESILIENT FASTENERS ON FLOATING-TRACK SLAB

## MARTIN PLACE

THE CLIENT BRIEF WAS TO INSTALL ADDITIONAL CONTROL TARGETS IN THE MARTIN PLACE METRO STATION TUNNEL, SET OUT CORE HOLES FOR NEW POLYMER BLOCKS (SLEEPERS), AND CONCRETE TRACK SLAB ADJUSTMENTS FOLLOWING AN AS-CONSTRUCTED TROLLEY BASED SURVEY.

Although Land Surveys' key commitment ran over only two weeks across a six-month period, these exacting works were executed during strictly controlled possession times during which the track was closed (generally at night, over weekends and public holidays).

The solution to meeting the client requirements was to utilise survey trolleys for slab track adjustments, given the overriding need to be able to precisely survey the track slab and allied data collection and analysis.

The whole section of works was across a 300-metre long curve, including a 150-metre length for which the existing sleepers were replaced with

new polymer blocks. Each block housed four holes for fixing screws, the holes needing to be set out precisely to ensure that the horizontal alignment was securely maintained. There was no margin for error, and no time to redo the set out during possession works.

The process required Rhomberg to remove the existing timber sleepers and replace them with polymer block sleepers to be laid in the existing concrete slab settings. Pre-works and post-construction surveys were undertaken by Land Surveys to ensure that all tolerance and standards were met.

The construction process entailed challenging works in the tunnel due

to the limited space, multiple working groups and machinery, high safety risk and high noise and dust levels. Nonetheless, the technology employed by Land Surveys enabled it to assist Rhomberg in meeting the stipulated construction timelines and to fulfil its expectations.

### CLIENT

Rhomberg Rail Australia Pty Ltd /  
Sydney Trains

### PROJECT DURATION

June to November 2021

### LOCATION

Sydney, NSW