



CASE STUDY

NARRABRI-TO-NORTH STAR INLAND RAIL

RAIL SURVEYING

THE SCOPE OF THIS TROLLEY BASED SURVEY WAS TO PROVIDE SUPPORT FOR VITAL RESURFACING WORKS FOR 26KM OF UPGRADED BALLASTED TRACK FOR THE NARRABRI-TO-NORTH STAR SECTION OF THE INLAND RAIL PROJECT.

THIS WAS AN ONGOING CONSTRUCTION SUPPORT OPERATION BEING UNDERTAKEN DURING CRITICAL CONSTRUCTION PHASES OF THE 1727KM BRISBANE TO MELBOURNE RAILWAY LINE PROJECT.

Rhomberg Rail Australia's commitment to Trans4m Rail (a John Holland and SEE Civil joint venture) was to complete construction of 2km of finished track on a pre-existing route within each dedicated shift.

For Land Surveys, the requirement was to utilise its leading edge survey trolleys to undertake and complete the detailed pre- and post-construction works. The optimal solution it adopted was to deploy two survey crews, each using a track-mounted survey trolley.

Land Surveys ran its surveys before Rhomberg executed the tamping, its machine lifting and moving the whole

track left or right according to the mandated design.

Our team undertook their measurement and analysis of the track distances with a single trolley and a total station, intricately surveying the track geometry at designated intervals and with repeatable accuracy. In an integrated process, the survey and data collection was constantly relayed to a rail-mounted tamper. In turn, the tamper's on-board computer processed the data to program the fixed settings needed for the tamper operators to execute track rectifications. The track was then re-

surveyed to ensure the right results had been achieved.

With Land Surveys' involvement and its sophisticated surveying and data collection, Rhomberg's construction was completed on time. Land Surveys covered 6km, including the pre-survey, for each 2km of finished track built and, despite the time required for ballast to be set in place, on occasion exceeded client expectations by surveying up to 7km of track across one shift.

CLIENT

Rhomberg Rail Australia Pty Ltd /
Trans4m Rail

PROJECT DURATION

September to October 2021

LOCATION

North-eastern New South Wales