

CHISLET LANDSLIP PREVENTION

Canterbury

Van Elle was appointed to carry out landslip prevention works at Chislet, situated on the railway line between Canterbury West and Minster. This was necessary as the railway cutting was unlikely to withstand another wet winter.

PROJECT BACKGROUND

- The project forms part of the Southern Renewals Enterprise (SRE).
- Our scope involved installing 160 metres of sheet piling along the slope and backfilling to prevent the risk of any slope movement.

CHALLENGE

The working area presented significant challenges due to varying ground levels, requiring the team to continuously adapt the pile driving technique as installation progressed. This ensured precise placement and structural stability throughout the length of the sheet pile wall.

Logistics also proved difficult, as all plant and materials needed to be transported approximately one mile from the storage area to the on-track location at the level crossing. To address this, the team utilised flatbed and HIAB transport wagons to ensure the safe and efficient movement of equipment and materials across the site.

Plant and materials had to be stored along the roadside within a road closure, ensuring no damage to the road surface and allowing space for other deliveries. All equipment was stored on plywood or timber to protect the road surface and prevent damage.

As there wasn't enough room for all plant and materials to be delivered before work commenced, careful planning was required to prioritise the most essential items first.

SOLUTIONS

The solution involved the installation of a 160-metre sheet pile wall to stabilise the embankment and cuttings, mitigating the risk of slope movement and ensuring the long-term safety of the railway line.

A total of 244No. sheet piles were installed using specialist on-track plant, including the Colmar T10000FS, Colmar T12000FS, Movax SG60/65, and the BSP impact hammer.

This approach was chosen to meet specific design criteria while addressing challenges posed by restricted site access.

To comply with noise restrictions, we maximised the use of the hammer during permitted hours, ensuring no hammering occurred at night.

To facilitate plant delivery, we coordinated with the traffic management team to reverse low loaders into the road closure and offload machinery in 30 minute intervals.

AT A GLANCE

Sector: Infrastructure (Rail)

Solutions: Retaining Structure

Techniques: Sheet Piling

Client: Southern Renewals Enterprise (SRE)

EQUIPMENT

- Colmar T10000FS
- Colmar T12000FS
- Movax SG60/65
- BSP Impact Hammer
- Burning / Welding Equipment

