

Frant Road Cutting

Client: BAM Nuttall for Network Rail (Southern)

Value: Circa £385,000

Duration: 9 Day Rail Blockade

Issue

A kingpost retaining wall was required at the toe of a railway cutting to provide long-term ground retention and stability. The works needed to be delivered during an Easter week nine-day rail blockade, where access to the railway was limited and any delays could have significant programme and cost implications.

The primary challenge was ensuring the works could be completed safely and efficiently within the blockade period. With a tight possession window, any equipment failure or unforeseen issues had the potential to delay the completion of works and impact the wider rail programme, causing major disruption on what was expected to be a very busy period on the railway.

Another challenge we encountered was to create a cost-effective approach that would minimise expensive out-of-hours working whilst also giving the client confidence that our proposed rotary bored piling methodology would be an effective before the works commenced.

Solution

To address the concern over completing the piling works within the railway possession, we mitigated the risk of delay by deploying two rotary bored piling rigs to site. Doubling resources in this way provided a contingency against any unforeseen potential equipment breakdowns and ensured there would be uninterrupted progress throughout the possession. The result was a reliable delivery that exceeded programme expectations for our element of the delivery by two full days, leading to an overall completion well ahead of schedule.

To ensure our clients confidence in our rotary bored piling, we undertook a trial bore in an off-track location prior to the blockade. This proactive approach provided valuable information on ground conditions and confirmed the suitability of the proposed installation technique. By reducing uncertainty before the blockade commenced, we provided the client with greater confidence and significantly reduced project risk.

The use of rotary bored piling allowed the casings to be installed and left in place, enabling all concrete works to be undertaken separately and more efficiently within normal working

hours. This maintained programme productivity whilst avoiding costly out of hours concrete plant opening charges. We maintained productivity and delivered the works ahead of schedule, also controlling costs effectively.

Outcome

The kingpost retaining wall was successfully installed ahead of schedule during the Easter railway blockade. Through proactive planning, innovative trial works and robust resource management, we delivered a reliable, productive and cost-effective solution that reduced risk for the client and demonstrated our commitment to simplifying complex projects.

Photographs:

