

Case Study: Maidenhead Retaining Wall

Client:

Balfour Beatty Rail on behalf of Crossrail WOTI project

Sector:

Rail

Services Provided:

Sheet Piled Retaining Wall
Minor Civils Works

Consulting Engineer:

Van Elle supported by AMEY

Location:

Maidenhead, Berkshire

Value:

£1.6 million

Year:

2015 / 2016



Maidenhead Retaining Wall

As part of the upgrade works to Maidenhead Station the rail corridor had to be widened to allow trains to pass platform 5 at high speed.

To allow the widening a new sheet piled retaining wall was to be installed including anchor piles and tie bars. The upgrade to Maidenhead station was part of the Crossrail Western Outer Track Infrastructure project.

Van Elle secured the works having demonstrated a track record of delivering large scale complex on-track rail projects on time and to budget. Preparatory earthworks works were commenced by Van Elle in November with the on-track piling undertaken during the Christmas blockade. Works were delivered employing a combination of day and night shifts during these periods.

Works were completed utilising a range of Van Elle's specialist in house rail fleet - these included 4No. Colmar T10,000's RRV, 2No. Colmar T10,000 FSC and Komatsu PW150 RRV. The piling was completed using Movax side grip and BSP impact hammer attachments and the extended reach provided by the Rhino horn extensions. L603 sheet piles up to 10m in length were installed and anchored by 6m long 305 'H' sections.

In addition to the piling works Van Elle undertook all setting out for the works and undertook a range of excavation, compaction and grading activities to form the trackbed ahead of new bottom ballast installation. Final works were completed in March 2016.

This project is an ideal demonstration of Van Elle's capability of delivering civil engineering works to support challenging on track piling and ground engineering. This project was 1 of 3 major upgrades on the rail network carried out by Van Elle during this blockade period and was completed on time and on budget. The project has received positive feedback from the Principal Contractor and the Client for its seamless delivery.

