



RAIL



VAN ELLE
TOTAL FOUNDATION SOLUTIONS

Experts in delivering geotechnical and ground engineering solutions to the rail sector

- **Full end to end capabilities, as a trackside POS and Principal Contractor;**
from ground investigation, design and temporary works through to all types of ground engineering and geotechnical solutions
- **UK's largest fleet of 120 specialist rigs;**
a range of engineering techniques to suit project requirements, including 20 RRV's that are optimised for on track works
- **A track record of 450+ completed Network Rail projects;**
Including over 170 stations, major electrification schemes, re-signalling projects, track bed stabilisation, slope retention, sheet piling and ground investigation.
- **Directly employed, experienced workforce and transport fleet;**
Our FORS accredited in house transport fleet can deliver throughout the UK

Ground Investigation	Track Bed Stabilisation	Stations and platform upgrades
Slope and embankment stabilisation	Retaining walls & emergency works	Gantries & structures (Overhead Line Equipment - OLE)



Kirkconnel track bed stabilisation project Glasgow and South Western Railway (GSW) Line.



Luton Airport Parkway - new bridge foundations installed for AmcoGiffen

Recent case studies

Track upgrades

- **Maidenhead**
Client: Balfour Beatty Rail
10m long sheet piles and return anchors for slope retention to facilitate track widening over Christmas and Easter blockades
- **BRIND Phase II**
Client: Network Rail
Track Bed Stabilisation (TBS) installation utilising Van Elle SMART piles

Station & platform upgrades

- **Reading Station Upgrade**
Client: Costain/Hochtief JV
Over 900 Sectional Flight Auger (SFA) mini piles, within the station and on all live platforms for expansion and upgrade
- **Coventry Station Upgrade**
Client: Buckingham Group Contracting
Using our super-versatile specialist piling rigs, we have installed bored piles and a contiguous wall for lift pits on the station platforms, new lighting columns and station canopy.
- **Luton Airport Parkway**
Client: AmcoGiffen
Installing the foundations for the new pedestrian bridge at Luton Airport Parkway station.

450+
projects for Network Rail

16
Colmars
2
Colmar Cranes

PCL & POS
Network Rail Principal Contractor Licence and Plant Operating Scheme holder

190
directly employed, PTS accredited staff

Station & platform upgrades

Farringdon Station

Client: Network Rail, Laing O'Rourke/Costain JV
Installed over 300 mini piles with four rigs for contiguous and retaining walls for station regeneration

Bridges and Minor structures

Stockley Junction

Client: Carillion
To supply and install over 1600 sheet piles for the Up Airport Route to allow existing track retention. All piles were pre augered using four number Klemm rigs

ELECTRIFICATION

Gantries and Overhead Line Equipment (OLE)

Midland Mainline Electrification

Client: SPL
Van Elle installed over 2500 CHS piles for SPL between Bedford and Kettering as part of the electrification of the midland mainline. The team also undertook structures installation, bored piles, sheet piling and King Post walls as part of the upgrade to the route.

Great Western Electrification (GWRM)

Client: Amey, Balfour Beatty, ABC
Installed over 3000 OLE foundations, platform piles, bored piles, bridges and infrastructure over a five year period



Highlands Enhancement Project (Don Viaduct) - Installation of CFA piles and CHS piles for Bam Nuttall



Old Oak Common - Lorclon/Taylor Woodrow Any Line Open (ALO) sheet pile installation for Crossrail carriage wash



Maidenhead retaining wall Crossrail Western Outer Track Infrastructure on behalf of Balfour Beatty



Van Elle install last pile for Midland Mainline Electrification on behalf of SPL

On and off track solutions:

Capabilities

- Design
- Ground investigation
- Platform works
- Overhead Line Equipment (OLE)
- Structure supply and installation
- Civils packages
- Plant hire

Techniques

- Steel tubular piles - Circular Hollow Section (CHS)
- Bored concrete piles
- Sheet piles
- Anchors and soil nails
- Precast concrete
- King post piles/UC Sections
- Drilled piles (Elemex/Superjaws)
- Track Bed Stabilisation (TBS)
- SFA (Sectional Flight Auger)
- CFA (Continuous Flight Auger)
- Screw piles



Regularly deployed rigs:

Colmar T12000FS Wheeled



Weight	37 tonnes
Length	10.5m (Rail Configuration - Extended) 9.2m (Road Transport Configuration)
Width	2.7m
Mast	(height) 3.5m
Lifting capacity	12 tonnes

The UK's only Colmar T12000s. Gross vehicle weight of 37 tonnes with a 9 tonne extendable counterweight allowing excellent stability and lifting capacities. Also has an 80 tonne train weight and lift and carry capacity

Colmar T10000FSCG tracked cranes



Weight	42 tonnes
Length	10.5m (Rail Configuration - Extended) 9.2m (Road Transport Configuration)
Width	2.7m
Mast	(height) 3.5m
Reach	15.2m
Lifting capacity	Minimum working radius of 4m Maximum of 12.1t

The UK's only tracked Colmar cranes with reverse knuckle lifting for in and around OLE. With an impressive 15.2m reach and 12.1 tonne lift capacity in rail mode. Rubber track pads for road mode lifting. Also has an 80 tonne train weight and lift and carry capacity

Colmar T10000FSC tracked



Weight	42 tonnes
Length	8.0m
Width	3.8m (2.53m when retracted)
Mast	(height) 3.5m
Lifting capacity	11.3 tonnes

Gross vehicle weight of 42 tonnes with a 9 tonne extendable counterweight allowing excellent stability and lifting capacities. Having rubber track pads can also be utilised in and around station infrastructure, both on and off track. Also has an 80 tonne train weight and lift and carry capacity.

RA310 HD LSR JCB Tracked Excavator



Weight	31 tonnes
Length	4,565mm
Width	2,761mm

The RA310 is a versatile RRV ideally suited to excavation works, civils, geotechnical works and is fitted with an ALO compliant high integrity RCI system and suitable for a vast array of attachments. The RA310 is equipped with a BMAIR filter pressurisation system and in cab climate control for maximum operator comfort.



Maidenhead retaining wall for Balfour Beatty Rail utilising sheet piles, OLE, anchors and on-track civils

Capabilities and innovations

Drilling and CFA Auger attachment



The Van Elle Specialist Piling Attachment (VESPA) is a hybrid purpose-built mast configured for working on or near the line and easily fitted to both Road Rail Plant and Civils machines. Capable of installing rotary percussion drilled, bored and

CFA/SFA (Continuous and Sectional Flight Auger) piles through any ground conditions. Piles up to 762mm diameter can be installed even through solid rock.

The VESPA has received Network Rail Product Acceptance.

Modular Pre-cast Bases



Precast concrete gravity pads can be utilised where ground conditions or access constraints do not suit a piled foundation. Manufactured in-house and installed by our experienced team, they offer a big advantage over traditional reinforced concrete foundations.

Smartpile Track Bed Stabilisation System



TBS (Track Bed Stabilisation) is a system unique to Van Elle and is used to stabilise the track bed without the need for removing the track or ballast. An innovation successfully deployed across several Network Rail sites.



Rail ground investigation

STRATA Geotechnics, part of the Van Elle group, has the expertise and specialist equipment to perform on and off track ground investigation (GI) projects for the rail network.

Our rail specialists all have PTS as well as their role specific certificates, we are RISQS Certified (094868) and many of our employees have worked on some of the largest and most complex projects across the UK and on Network Rail, Transport for London and other networks.

- Comprehensive range of in-house rigs
- Directly employed drilling and testing teams
- Innovative specialist plant, especially for restricted access requirements

DRILLING & SAMPLING

- Cable percussion
- Rotary open hole/coring
- Window sampling

REPORTING & MONITORING

- Gas monitoring
- Noise and vibration monitoring
- Laboratory testing
- Factual and interpretative reporting

PILE TESTING

- Integrity testing
- Dynamic testing
- Static load testing



ScrewFast Foundations

ScrewFast is the UK's leading helical pile and steel modular foundations specialists, delivering:

- Design
- Fabrication
- Installation
- Helical Piles
- Steel Modular Foundations



Van Elle's RRV Land Rover pictured, here in Wokingham, incorporating the dynamic sampling mast to its load bed. Capable of carrying out self sufficient ground investigation within the four foot of the track.

Dedicated Transport Fleet

Rigs are delivered and collected via our dedicated plant and logistic fleet based at our main facility in Kirkby in Ashfield. Specially designed beavertail rigid wagons mean we can access the most restricted piling areas.



For more information please contact our specialist rail team;

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