

TRAC Vegetation Management

GEOTECHNICAL SERVICES



SERVICES

TRAC are a nationwide provider of geotechnical installation and maintenance services, delivering geotechnical solutions for all manner of clientele since 1999. Working for our clients in infrastructure, these services often follow on from vegetation clearance to provide stability to cuttings and embankments previously retained by the vegetation.

Our capabilities in this field are bolstered by our investment in mechanical access and working methods, allowing us to provide uniquely safer and faster methods of installation. In putting our people first, we commit to investing and continually researching alternative solutions which prevent the need for hand-held drilling methods.



OUR CAPABILITIES INCLUDE:

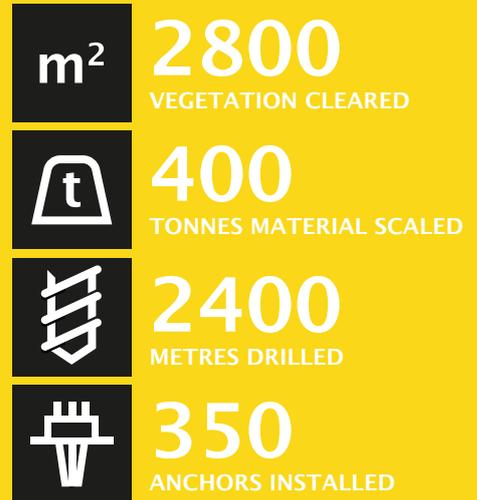
- Earthwork Inspection & Examination
- Rock Scaling
- Rock Anchor Installation
- Soil Nail Installation
- Rockfall Prevention & Catch Fence Installation
- Rock Fall and Land Slip Remediation
- Passive & Active Netting System Installation
- Netting and Catch Fence Inspection & Maintenance
- Rockface Reprofilng
- Soil Slope Reprofile & Regrading
- Embankment Drainage
- Embankment, Soil and Rock Cutting Stabilisation

We can manage the process of inspection, feasibility, design, installation, maintenance, operation and renewal of any permanent or temporary geotechnical system. As the Principal or Partner Contractor, we can also provide and manage the following ancillary services: -

- Bespoke Geotechnical Design Services
- Network Rail Principal Contractor Licence (PCL)
- Network Rail Plant Operator Scheme Licence (POS)
- Network Rail Any Line Open Planning & Management (ALO)
- Rail Possession & Isolation Management
- Rail Safety Critical Management and Resource
- Highway Traffic Management Solutions
- Infrastructure Reinstatement (Road or Rail)
- Access Installations and Solutions
- Mass Material Relocation or Disposal

CASE STUDY

STOMEFERRY ROCK WORKS



The works remit was to remove inoperative netting and install a new active netting system to the rock face adjacent to the A890 Strome ferry By-Pass. The A890 and the directly adjacent Kyle railway line are continuously threatened by rock fall from the mile long cutting.

With no suitable topography in proximity to re-route the road or the rail line the rock face receives annual maintenance to ensure the route is not permanently severed by a major slope failure. The 2018 phase of the works required substantial vegetation clearance and high-volume scaling to be undertaken on one of the narrowest sections of the road, where bi-directional traffic relies on passing places during normal road operation. Re-direction of traffic away from the A890 would require a 3.5 hour diversion, therefore it was a priority of THC that the works must not prevent the passing of road traffic during daylight hours.

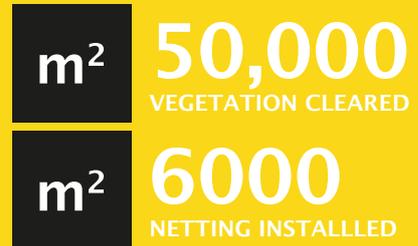
TRAC installed a temporary road surface over the adjacent railway allowing road vehicles to pass the site of work when the railway was blocked to rail traffic. This process was managed continuously throughout the project, in cooperation with Network Rail to maximise the time spans for road traffic to pass while ensuring the railway was fit for train passage prior to each reopening.

Utilising a combination of specialist geotechnical knowledge, rope access techniques, plant and equipment, more than 2800m² of vegetation was cleared, 400 tonnes of material scaled from the face, and over 2400 metres drilled for the 350 anchors installed.



CASE STUDY

WESTERN ROUTE CUTTINGS STABILISATION FRAMEWORK



TRAC were contracted in the delivery of 40 cutting stabilisation sites located in the Cornwall region. Each site was cleared of all vegetation and de-scaled to remove all loose material, exposing the rock face or soil cutting to enable a Geotechnical Risk Assessment (GRA). The GRA would determine the requirement for remedial actions that ensured the continuing safe passage of rail traffic. Remedial actions undertaken included heavy scaling, re-profiling, rock dowelling, passive netting and active netting installations.

TRAC employed IRATA trained Rope Access Technicians to clear all vegetation from the rock face, excluding trees and larger rooted vegetation in the initial works until it could be established that the cutting of trees and weakening of the stumps root network would not adversely affect the vegetation stability of the rock cutting. The vegetation on the majority of sites had been neglected resulting in excessive volumes of vegetation which had to be removed from the cutting. TRAC's specialist Road Rail Vehicles with dedicated chip storage allowed for on-site chipping in remote locations or cuttings with limited adjacent track clearance.

Working closely with the design team, any remedial requirements were identified and planned for simultaneously during the vegetation clearance works so that the installation could commence either in tandem or immediately after. This ultimately ensured the continued safety of the railway and prevented any need to remobilise, commercially and economically benefitting of the client.

Over 50,000m² of vegetation was cleared and more than 6000m² of netting installed during the project lifecycle, utilising a combination of laboured and mechanical methods to deliver this scope of works in some of the most inaccessible locations of the UK rail infrastructure.



CASE STUDY

MILLERHILL SLOPE RETENTION (EGIP)



TRAC were appointed to plan, manage, supply and install a slope retention system, which involved excavating and re-profiling the embankment to provide toe level clearance, and the installation of 180 soil nails. The nature of the ground dictated that the embankment must be secured against potential failure at all times by a netting system.

Surveys had discovered a historic mineshaft in the centre of the crest space which caused substantial delays to the works before they began. During this delay the already de-vegetated embankment by another contractor had become subject to the growth of Giant Hogweed, an injurious (hazardous to health) weed which had infested most of the surrounding area.

TRAC provided a specialist team to remove the Giant Hogweed, ensuring that no cross contamination occurred with the multiple contractors working on site, and disposing of the resulting waste as is appropriate for such species. Excavated material was transported to a designated bund where the potential contaminant would be controlled by localised herbicide treatment in the subsequent years. Physical Barriers were implemented along the crest to implement safe working limits for the long-reach excavator, allowing for works to be undertaken with the adjacent railway open to traffic and preventing the excavator from affecting the mine shaft. All soil nails were installed with an excavator mounted Drill Rig during daylight, thereby removing all operatives from an otherwise dark and loud environment with likely high vibration exposure if delivered by any other method.

Despite the delays and changes caused by the mineshaft which pushed the work package into the critical path of the overall project, TRAC delivered the project as per the revised design and without impact on date of operation.



CONTACT US

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