



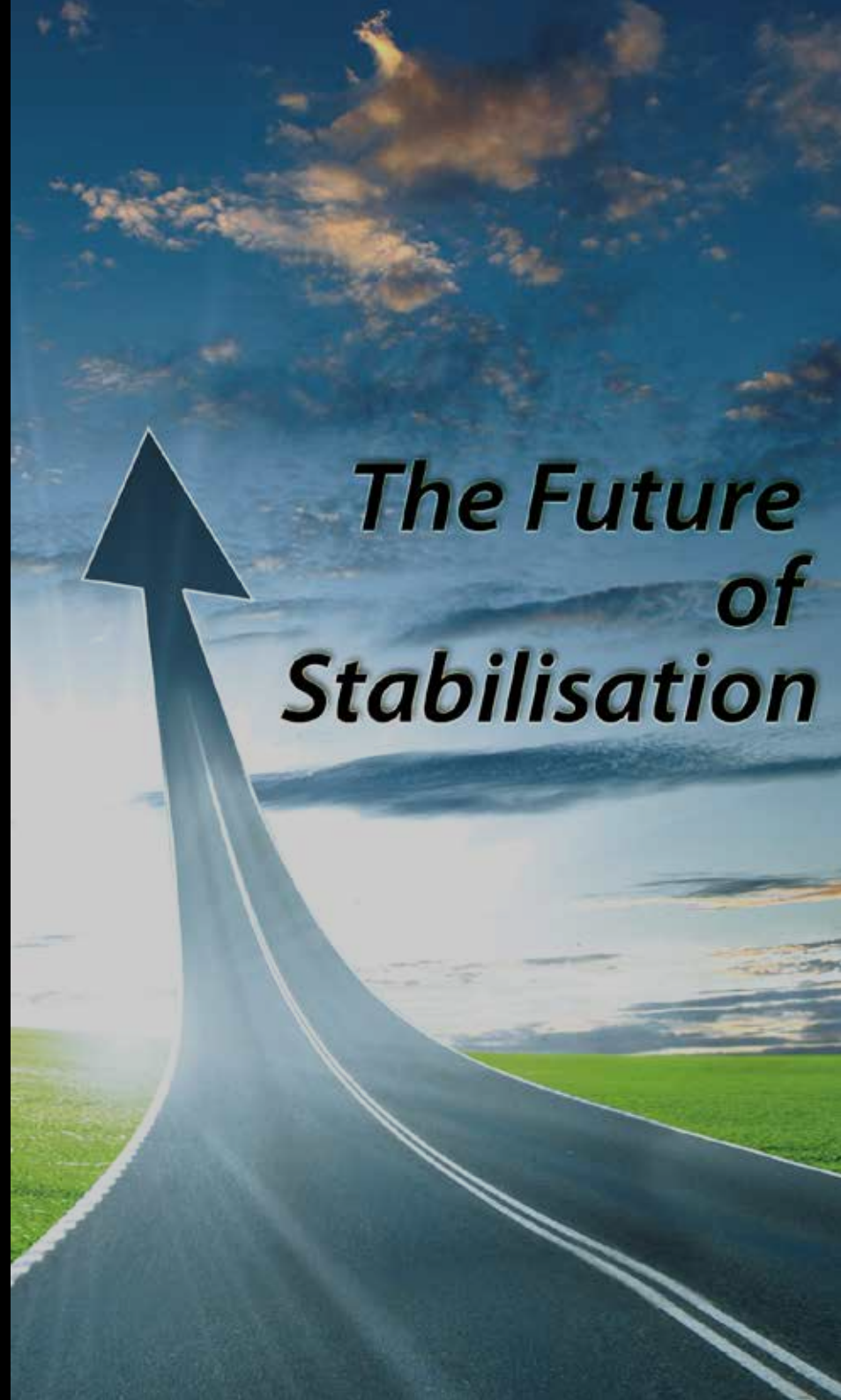
# Geotech Soil Stabilisation

Creating Advantages in Cost, Sustainability,  
Time and Performance

A one pass, single layer stabilisation system  
that can cure within 24 hours and replaces  
capping and sub-base... in half the time.



Geobind is...



*The Future  
of  
Stabilisation*

# About Geotech

Geotech Soil Stabilisation is pioneering a new outlook on soil stabilisation with a sophisticated, innovative and unique binder; Geobind.

Geotech are set to change the way the construction industry thinks about Soil Stabilisation.

Geobind is a cost-effective, time saving, sustainable alternative to traditional foundation construction and is able to deal with contamination problems. The Geobind System reduces programme time compared to other stabilisation systems by using a single layer of stabilised material. This replaces capping and sub base, with no type 1 requirement; surfacing or slab can then be laid directly on top of the stabilised material. The applications are limitless.

## Applications

- Car Parks
- Haul Roads
- Retail Stores
- Distribution Centres
- Residential developments
- Flood defences
- Wind farms
- Contaminated sites
- Adoptable Roads
- Pilling mats
- Haul road and compound
- Solar farms
- Crane tracks



# Traditional Methodology



1. Material excavated from site

2. Material transported off-site by wagon



3. Material sent to landfill



4. Wagon sent to quarry



5. Quarried aggregate purchased



6. Wagon sent back to job site



7. Quarried aggregate used on job site

# Geotech Methodology



**Stage 1.**  
Work site prior to stabilising commencing. Effective stabilisation was achieved despite adverse conditions.



**Stage 2.**  
Specialist plant used to inject Geobind up to depths of 350mm



**Stage 3.**  
The area is then trimmed and rolled

**Stage 4.**  
Surfacing can be laid and trafficking can commence in 24hrs in the summer months and 48hrs in the winter months.

# What is soil stabilisation?

Soil Stabilisation is technically the physical and chemical alteration of soils to enhance their properties; essentially making a soil material stronger, or more “stable”.

This is often applied in the re-use of site won material, through the addition of chemical agents, in order to create a durable and robust surface on which roads and buildings can be directly built on.

# What does it replace?

The traditional alternative to soil stabilisation is the excavation and export of site won material and the import of stone aggregate in two layers to create a foundation, this involves;

- 1. Excavation and disposal of soils.
- 2. Import of expensive quarried aggregate to replace excavated area.
- 3. Traditional stone construction spread and compact method, usually in two layers.
- 4. Metal track / matt systems.
- 5. Numerous lorry movements.

	Traditional Method	Geotech Method
Area (m2)	20,547	20,547
Layer Thickness (mm)	500	320
Lorry Movements	2,055	133
Aggregate disposed of	20,547	0
Aggregate Imported (tonnes)	20,547	4,109
Programme Time	40	10
Cost	£358,205	£251,495



# Geotech Customer Testimonials



"Many thanks to you and your team, on the speedy and very well managed haul road you put in for us at Red Lane last week. We had a few challenges with the weather, but we were all very impressed how both Bam and your lads pulled together to work so well as a team.

It was a pleasure and we look forward to working with you guys again shortly."

Chris Headon  
BAM Nuttall 2015

## MORGAN SINDALL

"Geotech Soil Stabilisation were on site early April on the Edinburgh Glasgow Improvement Project (EGIP) for Morgan Sindall to Soil Stabilise an area over 2600m<sup>2</sup> which included a haul road and a compound area. They completed their works on time which was 6 days less than what we allowed in our tender using traditional methods, enabling us to start our project earlier. The product they left us has withstood all our site traffic movements including numerous tracked excavators tracking and turning on the surface. They are due back early August to reinstate the area back to its original state.

From the service we have experienced so far, we would have no issues using Geotech on future projects and would strongly recommend that other projects within our business do consider them for their works."

Paul Harrington  
Site Agent  
EGIP Alliance 2015



"I would like to thank Geotech for all the work they did on the project at Crewkerne Embankment Slip earlier this year. The Geobind product they used was excellent and was environmentally friendly to use. The work force they used and the works undertaken were achieved in an excellent manner and I would gladly recommend them again to any other company. Once again many thanks."

Paul Fagan  
Site manager  
Rail Division  
OSBORNE 2015



"Regarding the recent works undertaken at Coventry on the Crosspoint scheme, it was a pleasure to work with you and your company Geotech Soil Stabilisation.

Being that this was the first time we had used Geotech Soil Stabilisation Ltd as a business there is always some trepidation but we found you to exceed all our expectations.

You displayed a first class attitude and a professional approach throughout the project.

I would highly recommend using Geotech to anyone."

Tony Walters  
Site Manager  
A&H Construction & Development Plc 2015



Breathing life into infrastructure

"Regarding the installation of the Geotech Haul Road and compound area at our site in Beeston; I would like to say the company installed a first class job, carried out professionally with no fuss and all completed in one day. The haul road and compound areas have been heavily trafficked since installation and are still in perfect working order. I would happily use the Geotech Soil Stabilisation system again on our other projects."

Bo Rodwell  
Senior Site Manager for  
J Murphy & Sons Ltd 2015



"From my experience with Geotech I feel it would be very beneficial to have a lunch & learn presentation so other members of staff can understand exactly what they can offer. My project has financially benefitted from using Geotech (instead of traditional stone haul roads) and I really believe other projects should be using their product.

The company have also been nothing but professional since arriving on site and with a positive working attitude have delivered everything they promised."

Lewis Disbury  
Section Engineer  
BAM Nuttall 2015

# Geotech Customer Testimonials



"Many thanks for your time at Moultsford on Friday, 05 Sept 14. It was fascinating to finally see your product "in the flesh".

As discussed, we (NR) are very interested in seeing see how the road performs between now and Christmas as we are likely to experience all four of the British weather seasons in this period.

After Christmas, I believe it would be hugely beneficial to all, if you were to do a presentation to NR where you can produce a performance record from Moultsford.

If the Moultsford trial is as successful as you anticipate (and from what I saw, I have no reason to expect otherwise), the gains to NR of a material that costs considerably less to install than a conventional haul road, and does not need to be carted away to tip at the conclusion of the works, and is ecologically friendly and fast.

I can see that you are likely to be very busy on Network Rail schemes after Moultsford!"

Regards,

Mike Walsh  
Scheme Project Manager  
Infrastructure Projects  
Western 2015



"We chose to try the Geobind system to form a temporary satellite compound on the Shinfield Eastern Relief Road project. This has now been in daily use for around 4 months with no apparent problems."

Regards,  
Phil Wharton  
Project Manager  
Hochtief 2015



"Geotech Soil Stabilisation have recently completed 2 soil stabilisation projects for the RG Group, a new build store in Sudbury circa 200,000sq ft. site and a side extension to a store in Godalming. Both projects were completed to a high standard and in line with all agreements set out at pre-construction stage. The level of service given by the management team during design stage and through the construction period led to both projects being delivered ahead of time, allowing other trades to follow on.

The overall process and end product led to hugely significant programme and commercial benefits. We also considerably reduced the number of vehicle movements in and out of site, which was a huge plus due to the sites being located close to residential areas. The process further benefited by allowing follow on trades to be able to complete their works with greater efficiency. The overall end handover of both projects were to a high standard and the works Geotech Soil Stabilisation undertook assisted in making this possible to our client.

I would not hesitate in working with Geotech Soil Stabilisation in the future and would definitely engage them at the earliest opportunity so that their expert team are involved to assist in providing the best design solution possible."

Regards

Jamie Moore  
RG Group  
Sainsburys Account 2015



"I would like to take the opportunity of thanking you and your team at Geotech for a very professional and problem free installation of our Haul roads and Compound at the Thorndell Viaduct scheme in early February 2015. With the extreme weather conditions Geotech were under, it was certainly a good test to trial your product and it certainly delivered. We have now been on site for seven months and are really impressed with how your system has performed.

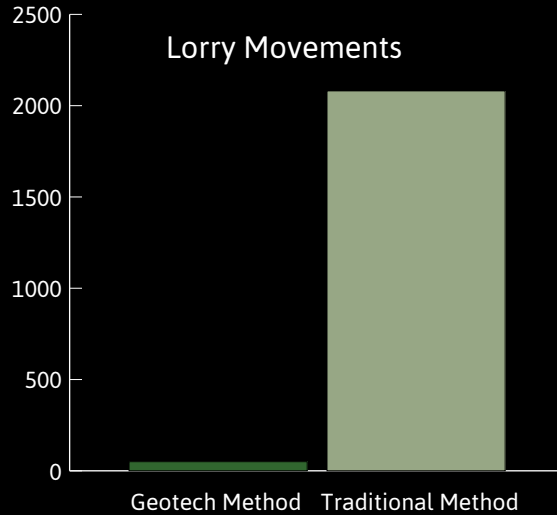
I certainly would recommend Geotech Soil Stabilisation Ltd to all of my colleagues within Bam Nuttall and Network Rail."

Chris Hayes

# Geotech and Geobind can add value

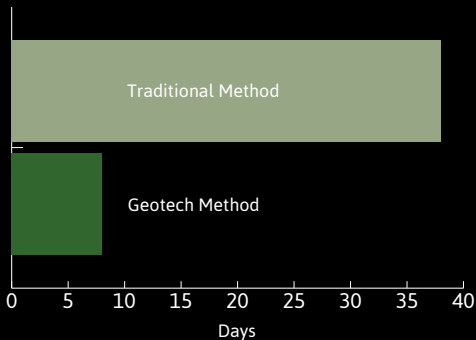
## Cost

Reductions are achieved by using site-won material. This creates a single capping and sub-base foundation layer without the requirement for any aggregate importation. Subsequently, surfacing or slab is laid directly onto the stabilised material.



## Programme Time

No excavation, export of waste material to landfill or import of stone aggregates are required; this reduces programme time typically by 80% whilst reducing vehicle movements almost entirely. A shorter programme time is offered due to our efficient curing time of 24hrs in the summer months and 48hrs in the winter months with approx. half a km or 3000m<sup>2</sup> of haul road completed per day.



## Performance

Geobind works with all site-won materials (including wet clay or chalk) with the exception of topsoil and can create a stabilised material strength of anywhere between 15 and 150% CBR, depending on binder addition rates and processes. A hydraulic reaction occurs when Geobind is mixed with controlled optimum moisture and soil, which in turn creates a solid, extremely strong and durable mass which within 48 hours is ready for traffic/overlaying.

## Sustainability

A significantly reduced carbon footprint via an in-situ stabilisation process that utilises existing land, negating the need for mass excavation and large aggregate import.

Land owner comfort is enhanced by reduced dust, noise pollution and vehicle movements with optimum soil fertility achieved upon decommissioning offering a fully sustainable approach.





## Haul Roads, Tracks and Compounds

Geotech Soil Stabilisation now provides a highly sustainable haul road solution giving the client a cost effective, programme time saving, sustainable alternative to traditional haul road construction. Geobind is a unique, high end, sophisticated binder which uses site won material to create a robust haul road surface which is maintenance free.



## The Process

Material testing is undertaken prior to works commencing in order to analyse soil properties and create a ground design relative to soil make ups to ensure required end strengths are obtained.



Topsoil strip



Stabilised



Decommissioning



Growth



Re-Growth

## Soil Regeneration Programme on Decommissioning of Haul Roads/Compounds

As part of our service, Geotech provides post-completion of works, the regeneration and restoration of land back to its original properties and optimum fertility.

Geotech understand the importance of soil fertility to land owners, it is often their livelihood: as such Geotech will test pH levels as well as various nutrient levels such as nitrate and potassium pre-start and will return them to the same levels on decommissioning.

Geotech will undertake individual, site specific, bench scale tests in order to correctly ascertain what is required in order to return the pulverised stabilised material back to its optimum fertility and conditions. Returning the pH back to original levels is a simple process, Geotech will use specific re-agents such as Sodium Bicarbonate in order to optimise nutrient levels and bring pH levels back to approximately 8.5%.

Geotech remove any concerns or responsibility from the land owner to return the land back to its original condition – Geotech ensure that farmers and land owners are left with soil that is both fertile and aesthetically pleasing once works have been decommissioned.

The photographs below show a live case study of a soil regeneration area at a recent scheme undertaken for Network Rail.

The area was stabilised, allowed to cure then pulverised, treated and seeded. Growth shown is after just two weeks in October.

## Contaminated Land

Geobind has unique properties compared to other binders on the market. One of its true innovations is its ability to lock in contaminants onsite.

Contaminated land is, and always will be, a costly and disruptive problem to encounter on any site. Whether it is unexpectedly detected while onsite or is detailed at tender stage, Geotech are able to offer financially attractive alternatives to disposal - keeping the tender within budget, or perhaps adding that tender winning edge.

Through our specialist partner laboratory we provide independent treatability trials, to fully demonstrate the suitability of stabilisation technology on a site and contaminant specific basis. This approach provides both our clients and the regulators with the confidence they need to deliver the higher risk, higher profit and more complex contaminated land schemes.

Geotech have recently undertaken a contamination exercise on behalf of a major Superstore in the South East.

2400 tonnes of contaminated material was successfully treated using Geobind and placed on site saving the material being exported to a contaminated landfill site.

The savings were significant and advantages are listed in the table below.

### Case Study

Factor/Benefit	Geotech Method	Traditional Method
Material Sent to Landfill	0	2400 tonnes
Vehicle Movements	3	120
Costs	£170,000	£420,000







## Contact us

Geotech Soil Stabilisation Limited  
Suite 1B, Market House,  
Market Place,  
Wokingham,  
Berks RG40 1AP

Visit: [www.geotechsoilstabilisation.com](http://www.geotechsoilstabilisation.com)  
Email: [info@geotechsoilstabilisation.com](mailto:info@geotechsoilstabilisation.com)  
Tel: 01189 796897