

## So Glad(stone) We Won!

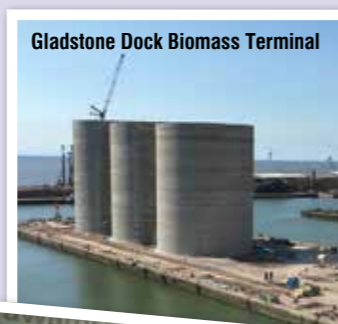
**HBPW and Graham Construction have been popping champagne corks since winning the 'Large Project' category of the Institution of Civil Engineers' North West Awards in Blackpool.**

Liverpool's Gladstone Docks Biomass Project was put forward for recognition in the prestigious awards.

HBPW worked alongside Graham's to complete the civil engineering design on the £100m biomass facility which features three huge silos capable of handling up to three million

tonnes of wood pellets a year and supporting Drax Power Station's decarbonisation programme in North Yorkshire.

Managing Partner, Paul Withers, said: "We are absolutely delighted to have received this recognition because Peel Ports is, undoubtedly, one of the key civil engineering projects delivered anywhere in the UK last year. Being shortlisted is great in itself but to win on the night is the ultimate accolade. This is very much a team award for everyone at HBPW and Graham Construction."



## Future Proofing UK Power

Client: HB Projects  
Contractor: ENER-G Power

**As Britain faces the increasing possibility of electricity 'outages', HBPW is playing its part in government attempts to ensure that the lights never go off.**

Short-Term Operating Reserve (STOR) is National Grid's most important source of reserve energy and is delivered by reducing demand or increasing generation with around ten minutes' notice.

But, in order for this strategy to work, electricity generating sites must

first be in place up and down the country, with the capability to operate for at least two hours, in the event of short term need by the National Grid.

"To date we have provided the civil and structural engineering design for five such operating units on behalf of our sister company HB Projects, which has been developing them for a third-party client in Portsmouth, Cardiff, Selby, Wolverhampton and on the Wirral," said Partner, Emyr Parry.

"Some are housed in existing buildings, others in new structures but, in the case of the Wirral, the 6-8 power turbines are simply put into the equivalent of shipping containers and dropped to location.

"We concluded that the land in question was once the site of rail workings, with old railway tracks, found during excavation of the foundations, confirming our initial thoughts," added Emyr.

"These sites are largely unmanned, fully automated and operate on technology similar to that used in an Anaerobic Digestion Plant only in the case of those STOR facilities we have worked on, mains gas is used instead of methane gas."

Considerable ground investigations had to be carried out by HBPW Geotechnics, particularly in Wolverhampton.

"It transpired that there were historic mineworkings in the area and, despite the fact that certain sections of land were deemed unsuitable for a STOR facility, HBPW was able to prove that the area eventually identified by the client team as suitable, was totally free of mineworkings, thanks to ground investigations.

Meanwhile enjoy the read!

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As the projects we become involved in get bigger so too does the requirement for specialist skills, making the timing perfect for our geotechnics 'department' to now become a stand-alone entity, offering the broadest possible service.

Many of you will have received one of Geotechnics' new brochures with this edition. If you have, it's because we think it is relevant to you. Kindly read it, for it will give you a complete overview of what we do, including those services that you may need but didn't even know we delivered!

Thanks for indulging my blatant promotion, it's just that I have nothing left to say about Brexit!

The quarterly newsletter always seeks to focus on the engineering elements of our work so that you come to an understanding of our practical approach to problem solving and constant focus on value engineering. It's what's helped us and Graham Construction win another gong courtesy of Liverpool's Gladstone Docks!

We continue to work on some great projects so please keep an eye on the HBPW blog to see what we've been up to ([www.hbpw.co.uk](http://www.hbpw.co.uk)).

Meanwhile enjoy the read!

**PAUL WITHERS**  
MANAGING PARTNER  
HBPW LLP

## Welcome



It seems just months since I was contemplating the prospect of HBPW breaking £1m turnover and bemoaning how we would cope becoming a six-figure operation.

Now that we are well beyond that figure and still forging ahead, my contemplation continues, albeit to a new script!

Standing still, as most of you will appreciate, is not an option, and it is well known that any attempt to maintain the status quo – commercially speaking – often proves fruitless, resulting in a backward slide.

So, here we are again, marching on, this time with the launch of our new stand-alone operation, HBPW Geotechnics. Our volume, and type, of work has grown rapidly in recent years, and rarely does a month pass without a new face seemingly joining us or looking for a desk at which to sit!

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## Geotech Goes It Alone



**As HBPW continues to forge ahead, smashing new turnover records, this summer sees the exciting launch of HBPW Geotechnics, a stand-alone company specialising in geotechnical & geoenvironmental consulting.**

Parent company HBPW Civil & Structural Engineering Services, part of the wider HB Group, has always offered a geotechnics service.

However, increasing demand for more and more specialisms has prompted senior partners at the civil engineering operation, to hive off geotechnical as a free-standing entity.



It will be fronted by geoenvironmental engineers, Elin Griffiths and Edward Needham with support from partners.

Managing Partner, Paul Withers, said: "Our civil and structural engineering arm has been growing at a healthy rate of between 10 and 20% a year for the last three years, which is testimony to the fact that more and more world-class companies are using us.

"However, as we forge ahead, such growth brings its own challenges, least of all increased pressure on areas of strategic management like Human Resources, Marketing, Logistics and Finance.

"Part of management's job is to recognise when a 'department' is doing well enough to go it alone and that is exactly what has happened with geotechnics thanks to Edward and Elin's hard work and focus.



"More and more clients are increasingly realising the true value of what they do, so the time is right to let this area of the business flower in its own right, by giving it the independence to grow separate to the main business."

Every aspect of geotechnics from Contaminated Land Assessment through to Ground Investigation Techniques, Brownfield Site Investigation and Geotechnical

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consultancy will be embraced by the new operation.

Elin Griffiths added: "This is a wonderful opportunity. We are already working for the likes of Asda, B&Q, Network Rail and the European chemical distribution company, Brenntag, to name just a few, but this strategic decision will give us the autonomy to fully explore the true potential of Geotechnics."

"A lot of what we do is managed in-house, however, we have a whole range of third party associates working in areas like Rotary Drilling, Cable Percussion, Dynamic Sampling and Pile Probing and it is these relationships we will be seeking to optimise now that we have a free hand to expand and grow."

The new company will still operate from HBPW's Retford headquarters in Nottinghamshire at 43 Bridgegate. Need more details? Edward and Elin can be emailed on [e.needham@hbpwconsulting.co.uk](mailto:e.needham@hbpwconsulting.co.uk) and [e.griffiths@hbpwconsulting.co.uk](mailto:e.griffiths@hbpwconsulting.co.uk), or called on 01777 869 896.



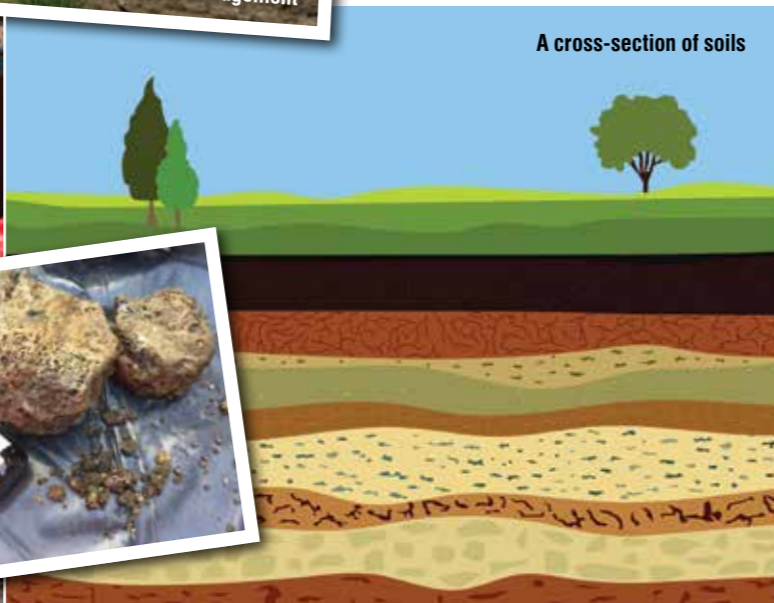
Waste management



Rotary drilling



Checking for land contamination



A cross-section of soils



## Rail Good Result!

HBPW has achieved the highest possible 5\* rating in its most recent audit under the Railway Industry Supplier Qualification Scheme (RISQS).

RISQS is the supplier pre-qualification service used by buyers of all products and services throughout the British rail industry.

And, as part of the scheme, companies like HBPW must undergo a rigorous annual inspection lasting up to three days, to ensure that their delivery processes and systems are up to scratch.

Associate Paul Jacklin, who has responsibility for quality standards within HBPW, said: "Aspects of the audit are incredibly gruelling and RISQS is not something to be taken lightly."

This accreditation not only allows our team to work trackside for the likes of Network Rail, but also enables us to complete all aspects of engineering design within the rail sector.

"This 5\* pass is excellent and is, once again, testimony to the team that has to implement the Scheme's rules and regulations. RISQS is, without doubt, a collective effort which not only maintains and raises professional standards, but also compels people to think at a more detailed level in the name of safety, quality and first class engineering."

RISQS helps suppliers sell in to the British rail industry by providing an open, fair and transparent way for them to be formally recognised as capable providers of products and services.

It supports Network Rail, Transport for London, passenger and freight operating companies, rolling stock organisations, main infrastructure contractors and many other buying organisations, in the management of supply chain risk.

The scheme embraces rail's qualification arrangements previously known as Link-up. RISQS is industry-owned and sponsored by a board of representatives from across the rail industry.



# History Meets Heritage in Derbyshire Scheme

**A stunning £3.1m bridge replacement scheme which will not only improve pedestrian safety and driver visibility in part of Derbyshire, it will also create better access to one of Britain's most important industrial heritage sites.**

Network Rail took the decision to replace the Victorian overbridge at Awsworth Road near Ilkeston after the original 1901 structure came to the end of its natural life.

Utilisation of the existing embankments, Network Rail's electrification requirements and the challenging ground conditions were just some of the constraints that had to be dealt with during the design process.

HBPW Engineer and Design Project Manager, Damianos Bouklas, said: "The original bridge, costing just £1,216 and weighing in at 425 tons, had seen little in the way of structural improvement other than being raised by approximately three feet in 1951 following mining subsidence."

After months of planning three huge 'SPMT' vehicles, each capable of lifting hundreds of tonnes, moved into place and removed the old three span bridge, which crosses the main Derby to Chesterfield railway line, replacing it with a new, impressive single span structure.

### MULTIPLE BENEFITS

"It is not only wider, enabling us to include a pedestrian footpath, but also approximately two feet higher to facilitate future electrification, hence the curved bridge deck design. The single span configuration will also further benefit the project by allowing future optimisation of the track alignment, which is heavily skewed due to the existing pier arrangement."

However, beyond the engineering ramifications, improved pedestrian access also means that people will now be able to cross the bridge safely to reach the much visited Grade II listed Bennerley



Old bridge being lifted using three SPMTs

Viaduct, built in 1878 and one of only two such structures of its type in the UK.

The area also had the dubious honour of being bombed by the German Navy during the Great Midlands Zeppelin Raid of 1916 when nine Zeppelin airships of the German Airship Naval Division conducted a bombing raid over the British Midlands, hence its interest to local historians.

### INVESTIGATIONS NEEDED

Damianos added: "It has been a challenging project, requiring comprehensive temporary works so that the SPMTs could gain access to do their job. The temporary works were further complicated by the presence of former opencast mineworkings. HBPW Geotechnics carried out crucial investigations to ensure that the SPMTs did not create subsidence because of their sheer size and the presence of historic 'bell' pits below ground."

"However, despite all the challenges, we have achieved an amazing result which came to fruition following a 29-hour possession."

As part of the bridge foundations, 600mm diameter bored piles, with integral bankseats, were used and, to provide for future demolition of the existing masonry abutments, that currently act as retaining walls, a combination of long and short infill bored piles was also utilised.



Out with the old!



Old Bridge Being Removed Using SPMTs



In with the new!

Client: Network Rail  
Contractor: AMCO Rail