HBPW LLP
Civil & Structural Engineering Services

HBPW LLP, 43 Bridgegate, Retford, Nottinghamshire, DN22 7UX
Tel: 01777 869 896 Fax: 01777 862 491
Email: mail@hbpwconsulting.co.uk
www.hbpw.co.uk

ISSUE THIRTY THREE

HBPW NEWS

Jaguar Gives Emyr Secret Preview!

Jaguar, fiercely proud of its brand

Emyr Parry

HBPW Partner, Emyr Parry, was given a 'sneak preview' by one of the biggest names in car manufacture when he was asked to complete the civil and structural engineering drawings for a new vehicle showroom.

Clugston Construction won the contract to build the car showroom on behalf of Martin Duckworth Ltd, the Jaguar Land Rover dealership in Boston, Lincolnshire.

Emyr takes up the story. "What I didn't appreciate at the outset is that Jaguar, with some of the most stringent brand guidelines in the world, has a fully mocked up showroom, complete with cars, in a warehouse.

"It is at a secret location but, from my point of view, was a dream; I got to see finished what I was about to design!" Emyr was a given a VIP tour of the facility and was able to get a bird's eye view of what Jaguar expected his drawings to deliver.

The £6m scheme will see construction and fit-out of a 4,345m2 facility which will provide a showroom, sales and service desks, offices, meeting rooms, workshops, parts, valet and customer handover areas for Duckworth's as well as a large car display area.

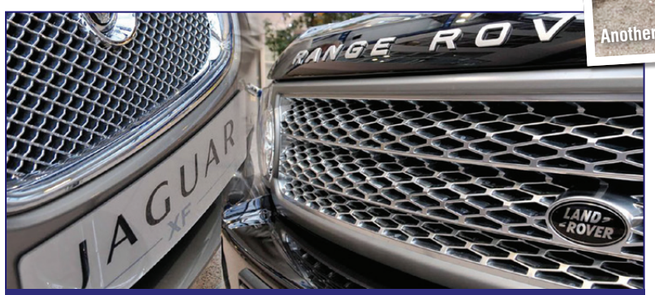
Emyr added: "This was a first for me, however, it only serves to make you realise why these brands are so successful. They police and protect their corporate identity at all costs knowing that its dilution could cost them market share in a ruthlessly competitive sector."

Some of the more unusual materials featured in the showroom include high performance rainscreen cladding fixed to a composite cladding backing wall; a planar curtain walling system with specialist extra-clear glazing; glazed sectional overhead doors; extensive use of high performance frameless glazing demountable partitions and recessed feature lighting throughout.

Work will complete early next year.

Client: Martin Duckworth Ltd/ Jaguar
Contractor: Clugston Construction


Another sale for Jaguar!



Civil and structural engineering drawings were needed for the new showroom

JAGUAR

LAND ROVER

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more effective ways to redress the male / female balance? Even the Institution of Civil Engineers (ICE) is playing its part with its Civils Comeback scheme, a bid for practising engineers and construction professionals to help former colleagues make their way back into the profession.

The ironies are tangible!

At HBPW we like to think we are making our own contribution to meeting these concerns. In this edition we devote a page to the work of one of our senior engineers Damianos Bouklas, who is playing his part in a joint initiative by STEMNET and ICE to create greater awareness of 'engineering' among younger generations.

Later this year we will also be telling you a little more about our unique graduate training programme, another initiative aimed at hand holding newly qualified graduates through the next stage of their careers as they move towards Chartered status.

Meanwhile 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**).

Enjoy the read!

PAUL WITHERS
MANAGING PARTNER
HBPW LLP

Welcome


Paul Withers - Managing Partner

It is hard to ignore all the publicity surrounding the UK's pending lack of engineers over the coming years.

Is it not ironic, therefore, that we also hear about ageism within the profession and that senior engineers are often written off because they are perceived not to have the same value as younger 'models'?

Maybe it is time for the profession to step back and pause for breath, if only to realise that if drawings are not completed using the latest piece of software, it does not necessarily mean they have any less value providing, of course, they meet all relevant engineering criteria.

Equally, there's the on-going debate as to how more women can be brought into the profession. Should 'quotas' be introduced or might there be

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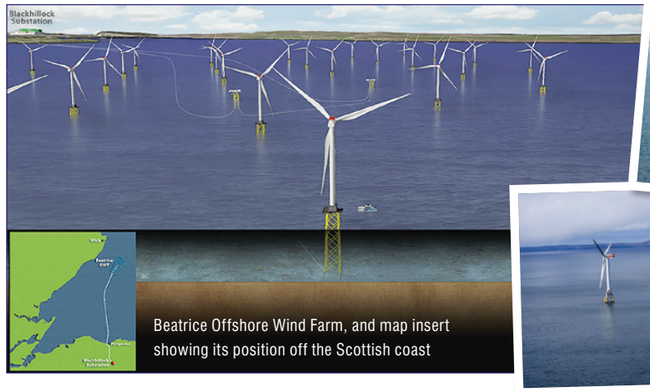
Huge Eco Project Gets HBPW 'Green Light'!

Client: Wynns Ltd



Beatrice Offshore Wind Farm, and map insert showing its position off the Scottish coast

HBPW has been playing a key role in the £2.6bn Beatrice Offshore Windfarm project, said to be one of the largest private investments ever made in Scottish infrastructure.

The mammoth scheme, only given the green light in May, is being jointly led by Scottish energy company SSE, Copenhagen Infrastructure Partners and Repsol Nuevas Energias (UK), collectively known as Beatrice Offshore Wind Ltd (BOWL).

But, before work could begin in earnest, geoenvironmental engineer, Jay Fox, was called in by specialist marine heavy load delivery consultancy, Wynns Ltd, to give his critical opinion on the state of the ground at Buckie Harbour in the 'whisky county' of Moray.

Jay said: "Buckie Harbour, sometimes referred to as Cluny Harbour, was the first mass concrete facility of its type, in the UK, built in the late 1800's.

"It is also the place where sea going coasters will deliver very heavy transformers and reactors, for use in the project, weighing in excess of 200 tonnes each. This required assessments as to whether Pier No. 1 was capable of taking the weight of a quayside heavy lift crane, as well as heavy engineering deliveries."

A sonic drilling rig was used to pierce half a metre of concrete and create three 10m deep bore holes, enabling engineers to determine that the harbour was in good condition and up to the lifting task.

Due to the lack of information on ground conditions and the construction of the 19th century pier and adjacent in-filled basin, further ground investigation was required in order to provide stakeholders with the confidence that heavy lifts could take place safely.

"The initial challenge was researching historical records and engineering drawings, some of which went back to the late 1800's, but, combined with ground investigation, we were able to give the wider project an HBPW green light, at least when it comes to landing heavy engineering parts at Buckie Harbour!" said Jay.

The 588MW, 84-turbine, wind farm will be situated in the Outer Moray Firth and is expected to power approximately 450,000 homes; around three times the number of homes in the Moray and Highland regions.

Construction at the new £10m operations and maintenance facility in Wick and the transmission works in Moray, commence this year. Offshore construction will begin in 2017 and the wind farm is expected to become fully operational two years later.

Beatrice is also expected to bring a range of socio-economic benefits to the local, regional, Scottish and UK economies during both the construction and operational phases. Expected opportunities include job creation, skills training, investment in Scottish ports and harbours, supply chain opportunities and community benefit funding.

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Damianos Dispels Engineering 'Brolly' Myth!

ICE President Sir John Armitt with Damianos Bouklas and fellow professionals

Engineers don't just build bridges in the rain but play a major part in 'designing' some of the world's leading infrastructure projects!

That was one of the myths that had to be dispelled when HBPW Senior Engineer Damianos Bouklas and a group of other construction and engineering professionals, took part in a major East Midlands schools initiative.

The Science Technology Engineering & Mathematics Network (STEMNET) in conjunction with the Institution of Civil Engineers (ICE), has been seeking to create greater awareness, amongst young people, of the engineering profession over the past 12 months.

Damianos, a STEM Ambassador, who has been involved with the programme for around 16 weeks, said: "The culmination of the year-long project was the 'Bridge of the Future' event which took place at Loughborough University with around 20 youngsters from two local schools, Limehurst Academy and Woodbrook Vale High.

"Both participate in the project-based CREST awards scheme for the STEM subjects, and this event supported and enhanced the bronze level which most of the children were involved with and which is recognised by the university organisation UCAS."

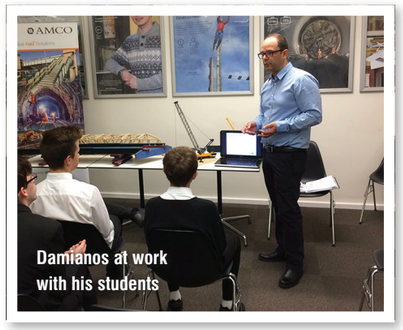
ICE's President, Sir John Armitt, along with former Education Secretary and Loughborough MP Nicky Morgan, were in attendance as youngsters designed and built their own bridge using engineering principles taught across the day.

"It was a great event and very enlightening for those professionals in attendance. We were all surprised to learn that so many people, parents and children alike, appeared to be deterred from joining the profession because of a misconception that engineers spent most of their life under a brolly 'in bad weather' building things!

"We sought to dispel this myth by explaining that there was also a major 'design' requirement, and that whilst we often had to go to site, there was also a lot that had to be done behind the computer screen first before that could happen!" added Damianos.

The initiative also sought to encourage more girls into the profession whilst giving teachers an opportunity to learn more about the engineering sector.

"They are key influencers," said Damianos "so it is paramount that they have a clear understanding as to what the profession is about. The Bridge of the Future event was both fun and informative. We, as professionals, learnt about attitudes towards the profession, the kids had a fun, educational experience, and teachers went back to school to learn about us for a day! A win, win, win scenario you might say!



Damianos at work with his students

"However, none of it could have happened from my perspective, without the support of HBPW, which has been fantastic, giving me so much planning and implementation time. By their actions Partners have made a major contribution to the profession which is excellent.


Kids are encouraged to meet the engineering challenge

Re-Design Slashes Building Costs – Newark Bridge

Client: Joint Funders
Contractor: Buckingham Group


Value engineering at its best


The new Newark Footbridge being lowered into place

A fresh pair of engineering eyes has delivered a new bridge for Newark that has been praised both for its slick look and cost-effective design.

Buckingham Group Contracting has been working on Phase One of the £47m Newark Southern Relief road, which will see the A1 linked to the A46.

And as part of the Buckingham element, HBPW was asked to produce new engineering designs for a footbridge which is now in place across the spine road.

Partner, Jon Livesey, said: "During Buckingham's tender they gave us the opportunity to review the original bridge designs to see if we could deliver something a little more innovative.

"We changed the bridge from a 42m square span plate girder deck on reinforced concrete abutments to a 58° skew, 30m span half through Pratt truss bridge supported on reinforced soil abutments, enabling us to take considerable cost out of the bridge's construction.

"In addition the overall height of the structure was reduced, not only making for a more slender structure – generally considered more attractive – but also meaning less steel was required. A classic example of 'value engineering'." The bridge was due to open at the time of going to press.

Work on the Southern relief road - a four-mile stretch which will link the A46 at Farndon to the A1 at Fernwood – will take just over four years to complete with Phase Two scheduled to start later this year.

It is designed to ease traffic congestion and improve journey times along the Newark bypass, by providing an alternative A46 to A1 route and a new River Devon crossing point.

The new road will also open up 278 hectares of land, adjacent to the southern edge of Newark's built-up area, for housing and employment use.

It is being funded by the Homes and Communities Agency, a public body sponsored by the Department for Communities and Local Government, developer Urban & Civic, Newark and Sherwood District Council, and the D2N2 Local Enterprise Partnership.

Top 100 Accolade for HBPW

HBPW has been named as one of the leading civil engineering practices in the UK.

The New Civil Engineer's Top 100 Companies of the Year Awards celebrate firms said to be the best in their field. HBPW has been ranked at number 72.

But the NCE has been keen to point out that its resulting 'list' of organisations is not based on money earned, but on the cultures, competencies and skillsets demonstrated by each.

These include firms showing technical excellence, a propensity to push technology and diversity, organisations that are 'great and safe places to work', that develop future-fit skills and which play their part in tackling global issues.

"These are the companies that we believe you will want to work for and work with," were the words of NCE Editor, Mark Hansford.

"Selecting our 100 has been a painstaking process that included an in-depth company survey, employee satisfaction survey and finally ratification by a dozen leading clients among a 30-strong judging panel.

"The company survey was tough and not all were willing to fill it in (and the) employee survey asked some challenging questions."

Managing Partner, Paul Withers said: "This is recognition for every person in the firm. WE know we are working on some great projects and WE know that we are called on to meet technical challenges every day of our working lives.

"However, it is nice to be recognised by the industry's leading magazine, its panel of experts and colleagues within the wider sector. As much as I am delighted for HBPW in my capacity as Managing Partner, I am equally proud of every team member without whom this accolade could not have been possible."