



## A Triple Rail Success For HBPW

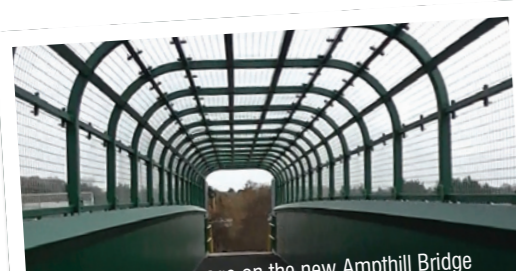
**HBPW has now delivered two of three Network Rail bridge schemes, one of which will eventually assure Uttoxeter racegoers of a 'safer' future.**

Network Rail launched its East Midlands Package 1 Level Crossing Replacement Scheme – as part of a wider nationwide initiative – to substitute numerous level crossings with new, safer footbridges.

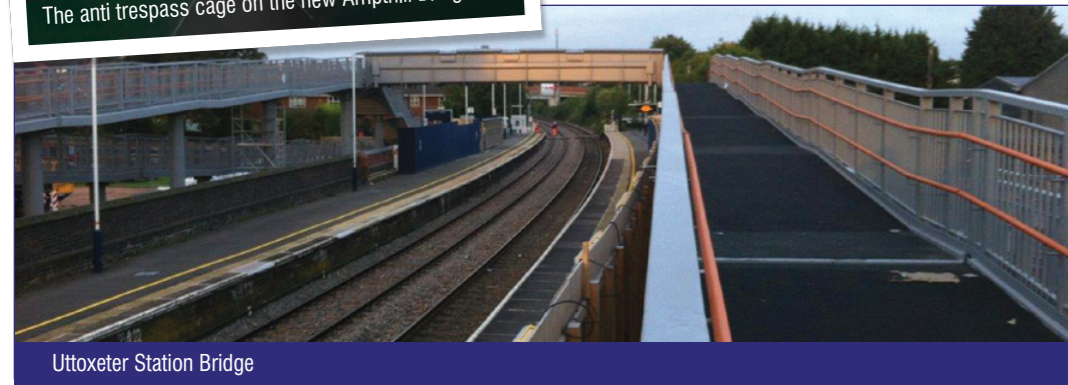
And as part of the project, HBPW was asked to design a trio of schemes including one at Allsopp's Lane, Loughborough, another near Station Road at Amphill, Bedfordshire and the third at Uttoxeter railway station, which acts as a gateway for Staffordshire racegoers.

HBPW design engineer, James Cable, who is leading the HBPW element of NR's wider programme, said: "The footbridge at Amphill is now complete and features anti trespass screening on the staircases, because of the nearby high voltage overhead lines, as well as an anti-trespass cage on the main span.

"As well as improving pedestrian safety, the footbridges also enable train speeds on the various lines to be increased."



The anti trespass cage on the new Amphill Bridge



Uttoxeter Station Bridge

**Client:** Network Rail  
**Contractor:** Buckingham Group Contracting Ltd



Uttoxeter Station Bridge in its final stages

Network Rail specifically asked that the new completed structure at Uttoxeter Station provide access for both disabled and able bodied users, so it now features ramps and stairs.

"The bridge will be particularly busy on race days, both before and at the end of meets, however, we needed to understand the level of activity and where the people surges would be, so a pedestrian flow analysis was carried out to help us with our design work."

The footbridge, which effectively provides access to the nearby racecourse, will replace two existing level crossings, one for pedestrians and the other for both vehicles and pedestrians.

The footbridge at Allsopp's Lane – which started late last year - crosses a rural line, but will only be used by horse riders, cyclists and pedestrians.

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prestigious projects including the Immingham Renewable Fuels Terminal which is featured in the centre spread of this latest edition of the newsletter.

It is one of the largest contracts we have ever won and will be key in supporting the work of Drax Power Station near Selby.

We have also been playing our part in helping modernise Britain's rail network as part of Network Rail's systematic re-gauging of lines across the country, several of which have presented their own challenges. Read all about the part we played in our Mind The Gap editorial.

You can also read about how we have been helping racegoers in Uttoxeter, not with top tips, but by creating for them a better experience as they walk from the nearby railway station to the racecourse via, of course, one of HBPW's bridges!

Overall the economy is said to be on the up so 2014 promises to be more upbeat than the last couple of years. Meanwhile take a look at the company blog to see what we've been up to ([www.hbpw.co.uk](http://www.hbpw.co.uk)).

Enjoy the read and Happy New Year!

**PAUL WITHERS**  
MANAGING PARTNER  
HBPW CONSULTING

## Welcome Mind The Gap !



Paul Withers - Managing Partner

It is hard to believe that another year has already passed, almost as quickly as the moments in which we all made those 2013 New Year resolutions! However, it has been an interesting 12 months which have seen all sorts of changes both at HBPW and in the economy.

Geoenvironmental engineer Jay Fox joined us just over 12 months ago, and is now an established member of the team, whilst Moody's Investor Services stripped the UK of its AAA credit rating in February.

In and amongst there was some snow and the 'Indian Summer' gave the tabloids lots of nice headlines until the weather was superseded by Gareth Bale's record £85.3m transfer from Tottenham to Real Madrid in September.

However, on a more practical note, here at HBPW we have had our heads firmly down working on a range of



The new platform at Walkden Station



Before the platform extension was built

**The systematic re-gauging of railway lines across Britain presented HBPW with a series of platform challenges in the North West.**

The Buckingham Group asked HBPW to design temporary platforms at Swinton and Walkden railway stations in Greater Manchester, as part of Network Rail's on going programme of vertically and horizontally re-aligning hundreds of miles of track up and down the country, in order to bring them up to modern standards.

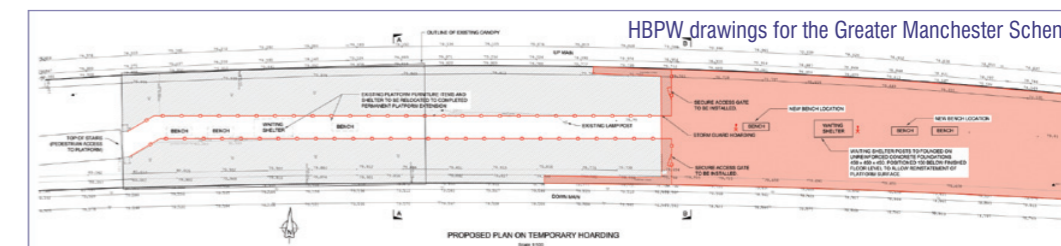
programme of re-gauging," said HBPW Partner, Paul Monaghan. The project has raised platform heights at the two Greater Manchester stations.

Swinton and Walkden's existing platforms had to be repaired then temporarily extended so that original sections, closer to respective station buildings, could be worked on without compromising the overall length of either platform.

HBPW designed the temporary

extremely well together to produce a good result," added Paul.

A spokesman for Network Rail added: "All platforms were handed back to the train operating company ahead of programme and, by utilising the temporary platforms, production was enhanced on the work shifts as there was no need to put temporary works in place for the following mornings' trains. It is foreseen that Network Rail will take this methodology forward as best



"Many trains now come into stations and the gap between their passenger 'step' and the platform below has, over time, increased to the point that many elderly or disabled people are now disadvantaged.

"It is a phenomena of modern rolling stock but is worse in certain parts of the country, hence why Network Rail is committed to improving the passenger experience with its

platforms as well as the hoardings, which keep members of the public safe during the development phase by preventing people from getting onto the construction site.

"The scheme at Walkden and Swinton has been very successful with the Buckingham Group doing a first class construction job.

"It was a technical challenge, however, all parties worked

practice, now that we are fully into the 24/7 railway."

**Client:** Network Rail  
**Contractor:** Buckingham Group Contracting Ltd

**HBPW**  
LLP  
Civil & Structural Engineering Services

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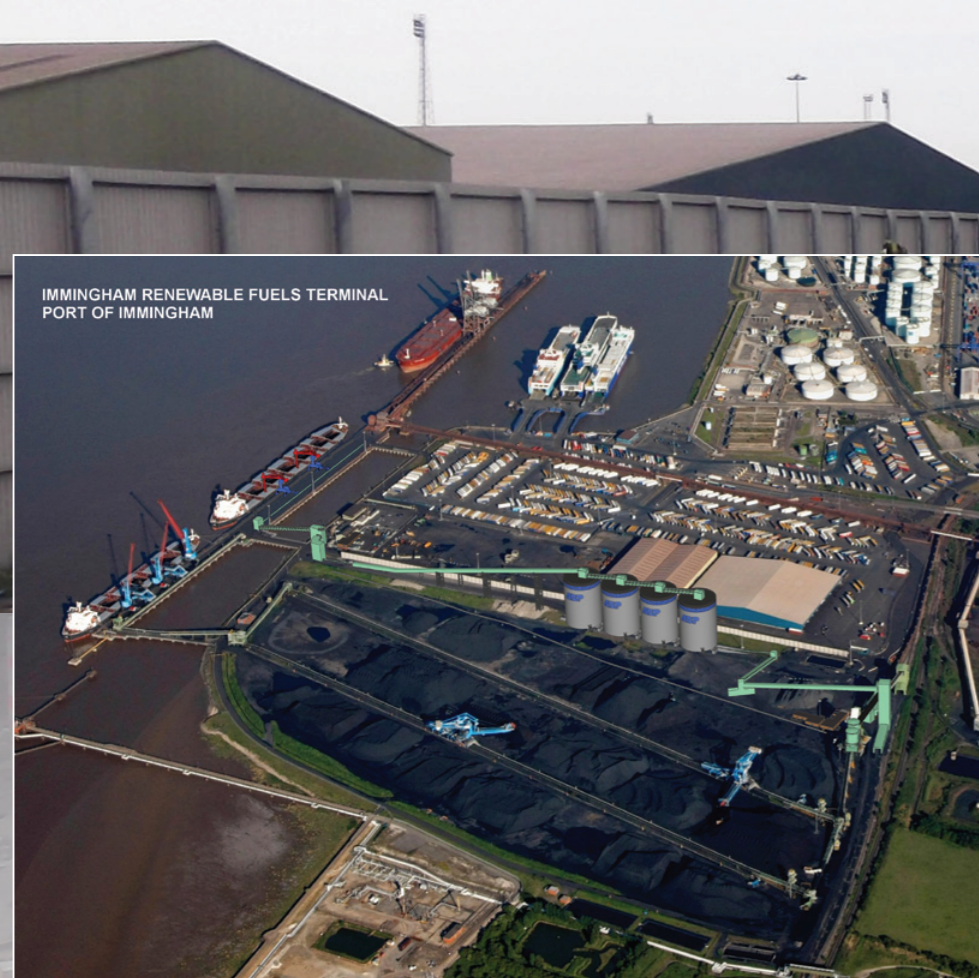
# The Future's Green, The Future's HBPW

“HBPW is justifiably proud to be involved with such an amazing feat of construction and civil engineering.”

**Client:** Associated British Ports  
**Contractor:** Graham Construction Ltd  
**Mechanical Handling:** Whitwick Engineering  
**Electrical and Instrumentation:** Lectec



Inside silo 4 during slipforming



IMMINGHAM RENEWABLE FUELS TERMINAL  
PORT OF IMMINGHAM

Early stage 3d Modelling in place

HBPW has landed one of its largest ever contracts - to undertake the civil engineering design of Associated British Ports' (ABP) Immingham Renewable Fuels Terminal (IRFT).

The aim of the multi-million pound development is to create a storage facility for wood pellets, imported from around the world, ahead of their onward transmission to UK power stations via rail.

HBPW Managing Partner, Paul Withers, said: “Drax Power Station near Selby in North Yorkshire will be the principal beneficiary.

“Using the existing Humber International Terminal (HIT 1 Jetty), wood pellets will be offloaded from vessels, utilising two new rail-mounted Continuous Ship Unloaders (CSUs).



“The purpose-built CSUs will discharge biomass pellets at a combined rate of 2400 tonnes per hour, using augers to lift them from ship holds.”

Sited on existing quay rails, the Continuous Ship Unloaders will traverse up and down the length of the quay discharging pellets onto a conveyor to their rear.

“It is absolutely critical the pellets remain dry, which is why the first discharge conveyor will incorporate an intricate opening and closing top cover to prevent rainwater from damaging them,” added Paul.

From the quay, pellets will travel by conveyor at a speed of approximately three metres per second, initially over a 65m single-span, enclosed conveyor bridge, to a transfer and sampling station, and then up to the top of four 25,000 tonne silos via enclosed conveyors.

“The silos will be constructed in slip-formed reinforced concrete.”

Wood pellets will then be taken from the four storage silos, via reclaim conveyors, to a further concrete silo over the railway measuring 12.5 metres

in diameter and 45 metres in height. At this point they will be discharged into specially built railway wagons for onward transmission to power stations.

“HBPW is justifiably proud to be involved with such an amazing feat of construction and civil engineering. We have had many years' experience developing facilities for the handling and storage of biomass at major power stations and ports around the UK, and this contract is testimony to the confidence, placed in HBPW, by key players within the engineering sector,” added Paul.

The burning of wood pellets reduces the net emission of carbon dioxide and other greenhouse gases, compared to burning coal and other fossil fuels.

HBPW worked with members of the wider design team to ensure that construction of the facility will enable wood pellets to be transferred from conveyor to conveyor in a sufficiently smooth manner in order to reduce degradation.



Slipforming in progress



Work in progress at the IRFT