

Autumn 2016

Newsletter

MMC IN FOCUS

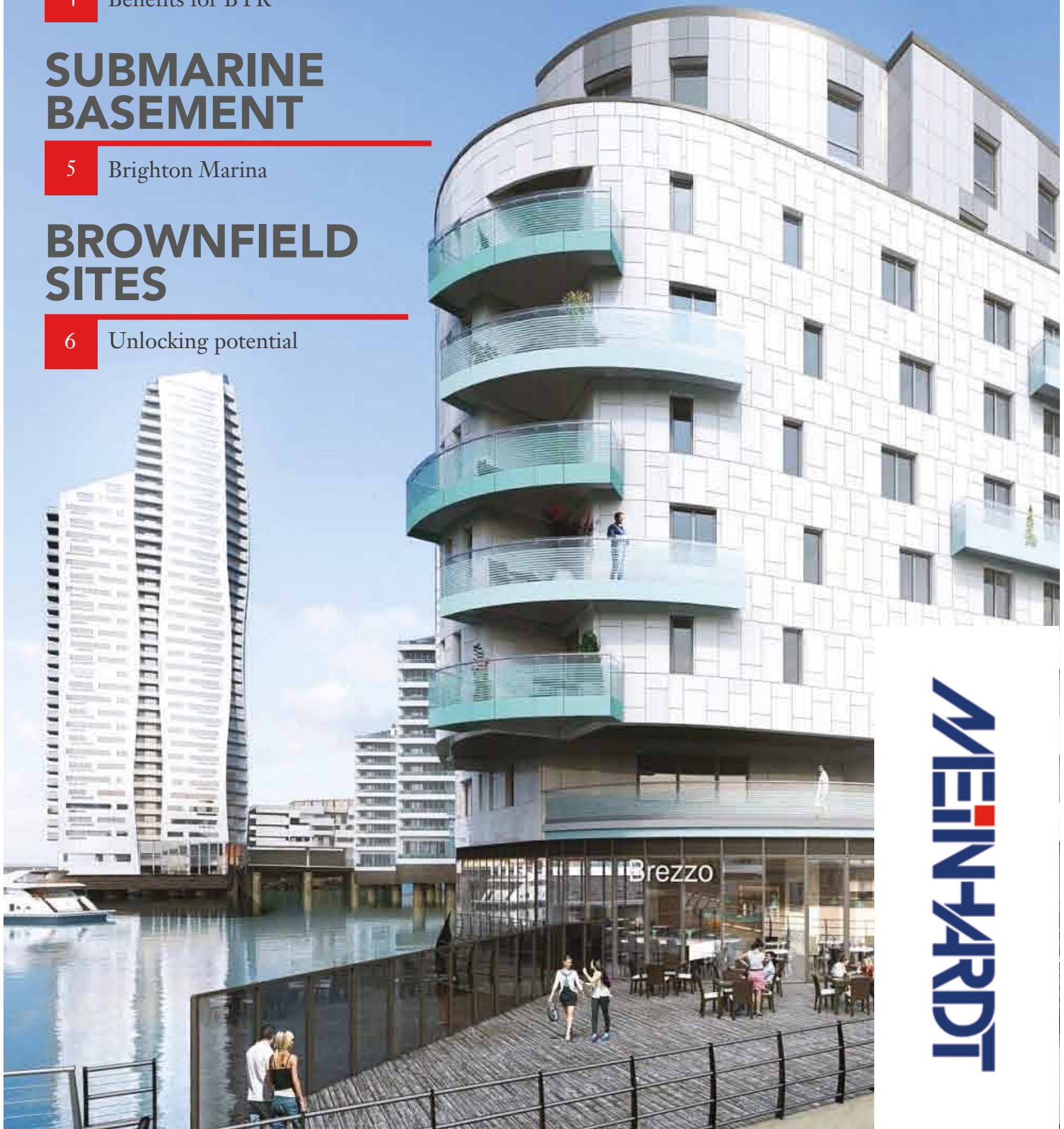
4 Benefits for BTR

SUBMARINE BASEMENT

5 Brighton Marina

BROWNFIELD SITES

6 Unlocking potential



MEINHARDT

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Welcome. In this first issue of our newsletter, we feature two hot topics in the UK property sector, the growth of BTR and Modern Methods of Construction. There is news of our work on complex brownfield sites, and we see how BTR and MMC are connected.

Best wishes

David Sharp

Managing Director



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ZERO CARBON

Higher costs for housing developers

“Look at options to mitigate the effect.”

Developers now have to ensure all new homes built in London meet zero carbon regulations, which will add cost.

From October 1, residential developments in the capital have to achieve a minimum reduction of 35% in carbon dioxide emissions beyond 2013 building regulations. Developers will have to offset any remaining carbon emissions with a payment to the local authority who will use the funds to achieve carbon dioxide savings elsewhere.

Richard Wilkes, Building Services Associate Director at Meinhardt UK, said: “Nationally, the government has stepped back from plans for zero carbon housing but the Mayor has retained the policy for the capital in the London Plan. Developers need to be aware of the potential for increased costs and look at options to mitigate the effect.”

Read more about zero carbon regulations on our website

<http://www.meinhardt.co.uk/news/developers-warned-to-take-steps-to-mitigate-london-carbon-levy/>



3

- New regulations from Oct 1
- London only (for now)
- Min. 35% CO2 reduction
- Adopt reduction strategies
- Or pay to offset

CEO/CHAIR VISIT



Following a recent visit to the UK, the CEO of Meinhardt Group, Omar Shahzad, remains upbeat about the prospects for Meinhardt's activities in the UK. Shahzad explains, 'From the

perspective of our Singapore Head Office base we are seeing many of our institutional clients in Asia showing keen interest in investing in the UK. The devaluation of sterling offers good value, and business and legal frameworks here still make the UK a sound business proposition. This can only be good for our UK operation

Martin Taylor, a director of the UK business, adds 'We are working with IE Singapore, a UK-based entity operating like a chamber of commerce for the Singapore government, to identify synergies between our clients and partners who may be seeking investment partners or funding to take their projects forward. Anyone who has stalled projects, particularly mid-value residential and hotels are welcome to get in touch'.

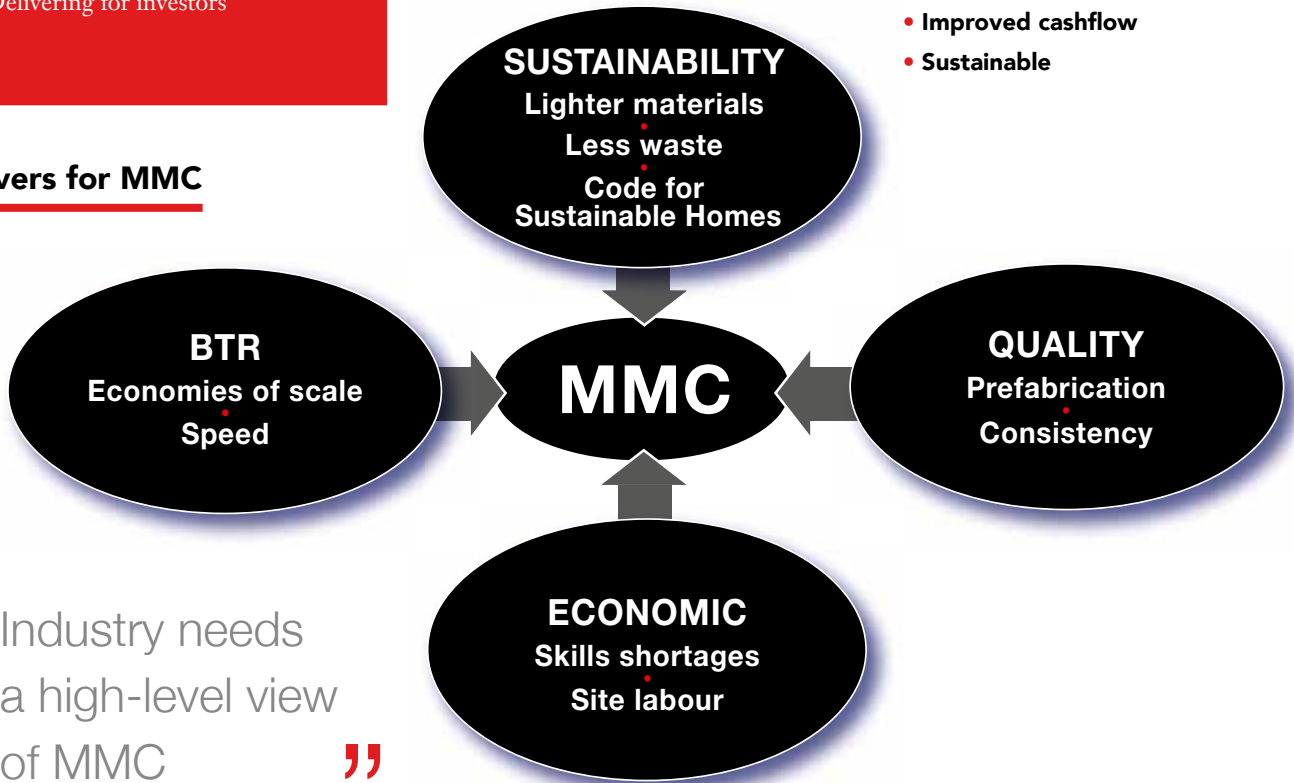
“From the perspective of our Singapore Head Office base we are seeing many of our institutional clients in Asia showing keen interest in investing in the UK”

MMC FOCUS

Delivering for investors

- Numerous systems available
- Each with pros and cons
- Shorter build time
- Improved cashflow
- Sustainable

Drivers for MMC



“ Industry needs a high-level view of MMC ”



Modern Methods of Construction will help to solve the UK housing shortage and deliver benefits for investors and the country as a whole, but designers and developers should take a holistic approach. Patrick Hayes, a Director of Meinhardt UK, explains why.

The UK has lagged behind other countries in using Modern Methods of Construction (MMC) but it wasn't always so. Prefabs (prefabricated houses) were envisaged during the Second World War by Prime Minister Winston Churchill to tackle the predicted post-war housing shortage, and more than 150,000 were built. Scheduled to last ten years, a number still survive seven decades later, evidence of durable design and construction methods.

Thanks to a confluence of factors, MMC is once again set to make a contribution to addressing the UK housing shortage, but to fully exploit its potential, the industry needs to take a high-level view.

There are numerous systems available, and at Meinhardt, we invest a great deal of time and effort into ensuring we understand the pros and cons of each

“ As consultants with specialist expertise, we look at MMC holistically ”

approach and in what situations to apply them. It isn't just about designing and building then trying to fit MMC to a structure. We like to think of MMC as a philosophy so you have to ensure the entire building design and procurement revolves around MMC. It's about design and procurement for manufacture as opposed to designing and building and then seeing if you can apply a system before procuring through a traditional route.

As consultants with specialist expertise, we look at MMC holistically. The main difference is that in traditional construction, the majority of the building is site built. With MMC, you manufacture most components off site and have a much smaller workforce assembling on site. It is faster, and the result can be a higher quality building. What's more, you are less reliant on hard-to-get skilled site labour. MMC puts production of buildings into the places where most other things are produced - factories.

However, there needs to be a throughput to justify having a factory. After the war, because the government was involved and there was a constancy of demand,

it was possible to justify production on a sufficient scale to enjoy the economies.

“ A huge stimulant is the rise of the Build to Rent sector ”

Today, once again, events have conspired to make MMC a viable option even if at first glance it might not seem so. MMC can be slightly more expensive than conventional building on site. The trade-off traditionally cited against this has always been that it is quicker. But faster completion is not

a great attraction to private housebuilders at a time when interest rates are at rock bottom and sales values rising.

Nevertheless, MMC has other ample benefits. The UK property and construction industry faces serious skill shortages, and there is a desperate need for new housing, both of which can be addressed by MMC. Another huge stimulant for the resurgence of modular, off-site construction in the UK is the rise of the Build to Rent sector (BTR). Why?

Read more on our website

<http://www.meinhardt.co.uk/news/build-to-rent-and-mmc-will-deliver-for-investors/>



BRIGHTON MARINA

The car park under the sea

Building a three-storey car park under the sea was the standout engineering challenge on a spectacular new development in Brighton Marina.

Extraordinary though it was, this was far from the only engineering test on the newly completed project, which comprises two buildings providing 195 apartments, commercial spaces and a new RNLI facility.

The underwater basement with space for 350 vehicles, which has two new buildings atop, it has attracted attention from the international engineering community.

- **Clients: Brunswick Developments Group and Midgard**
- **Architects: Acanthus LW**
- **£40 million construction project**

Read the full case study and see the time lapse video on our website

<http://www.meinhardt.co.uk/news/the-car-park-under-the-sea/>



HOW 3D SPED UP THE PROJECT

We had a good deal of information on the existing quay and the site, including from a bathymetric survey, which we drew in 3D. That fed into the steel sheet piling design, influencing lengths and position etc. Without 3D, it would have been much later when we flagged up issues so it enabled the contractor to carry out work more quickly with reduced risk.

More on 3D and BIM in the next issue



CHELSEA ISLAND

Complex brownfield site

Our specialist expertise in brownfield development is helping to unlock one of the most complex sites in London for a new £50 million residential and retail development.

Chelsea Island, located close to Chelsea Harbour Pier in SW6, is a mixed-use development comprising six, eight and 12-storey buildings, designed by AFK Architects.

The scheme accommodates over 1000m² of retail showrooms, restaurant and café uses at ground floor level. The upper floors, around 11,300m² in total, are residential providing 89 one, two and

three bed apartments. The basement will provide parking for 59 cars and 129 bicycles. The scheme also includes a new public plaza adjacent to Chelsea Creek and linked with the Thameside Path, incorporating a children's play area and cycle parking for 20 bicycles.

“ We had to
unpick a nest
of underground
obstacles ”

Before the project could get off the ground, Meinhardt's engineers working with the project team, had to unpick a nest of potential obstacles underground and around the site.

So unappetising were these that several developers looked at the site and decided it was too difficult to take on.

Then Chelsea Island Developments / Hadley Property Group decided to pursue the opportunity and approached Meinhardt for advice based on the consultancy's track record of dealing with complex brownfield sites.

The triangular site is bordered by water in the form of the Chelsea Creek quay, a major Network Rail freight route, and Harbour Drive, a busy private road linking the design centre and other locations in the neighbourhood.

Read more on our website

<http://www.meinhardt.co.uk/news/dealing-with-a-highly-complex-brownfield-site/>



REGENERATION

New life for shopping centres

“A way to resuscitate these ageing behemoths”

Britain's high streets are at a low ebb. Undermined by Internet shopping and out-of-town retail parks, big household names have gone the way of small independents finished off by the 2008 recession. Reflecting on vacant shop windows, politicians and interest groups debate about how to revive the nation's high streets.

Far less interest has been shown in the worn-out shopping centres occupying

shabby corners of UK towns and cities. Their owners compete unsuccessfully for a dwindling number of retail tenants against high street landlords, shiny new in-town shopping destinations and out-of-town retail complexes. Seemingly, terminal decline and demolition are inevitable. But could there be a way to resuscitate these ageing behemoths?

In Durham, England, investor Clearbell, alongside its project team – architecture practice ESA and asset manager The Other Retail Group – may have found an answer.

Read more on our website

<http://www.meinhardt.co.uk/news/a-new-way-to-revitalise-aging-shopping-centres/>

- **Transformational project**
- **Retail and leisure complex**
- **250-plus student rooms**
- **£30 million development**
- **1.3 ha site**

MEET MEINHARDT

In the UK and worldwide

Meinhardt (UK) is a leading international engineering design consultancy. The London office provides multi-disciplinary engineering services in the areas of civil, structural, building services, façade and other related engineering disciplines.

Meinhardt Group has more than 40 offices worldwide and more than 4000 consulting engineers, planners and managers, providing engineering capabilities across all sectors of the built environment.



“With a ‘one-stop-shop’ approach and a ‘can do’ attitude, we have an impressive track record of designing some of the world's most notable buildings.”

Meinhardt was formed in Australia in 1955, and our London office opened in 2000. Meinhardt UK offers an integrated approach empowered to improve the building process.

We provide proactive advice and services to our clients, combining appropriate innovation with practical engineering.

- **Multi-disciplinary engineering consultancy**
- **40-plus offices worldwide**
- **More than 4000 people**
- **Established 1955**
- **London office opened 2000**
- **Proactive, can do attitude**



NEW DIRECTOR

Paul Titley joins UK board

With more than 25 years' experience working in multidisciplinary engineering practices in the UK, Paul's track record includes managing major UK and international projects in various sectors including aviation, financial institutions, high-end residential, commercial offices and mixed-use developments. As a Director in our London office, his role will include adding further diversity to the business and evolving the working methodologies within the firm to ensure we continue to provide excellent design solutions to our Clients.

"Although my background is in mechanical building services engineering, I made a point early in my career of getting involved with all the other disciplines and enjoy leading multidiscipline teams," says Paul, a chartered engineer and member of CIBSE and BCO. "I particularly enjoy working collaboratively with architectural and structural teams to ensure designs are well integrated".

Married with two sons, aged 15 and 12, Paul enjoys fishing, golf and cycling. He has just completed the London to Brighton charity off-road ride for the British Heart Foundation and plans to cycle commute from his home in Essex to our offices in the City.



NEXT GENERATION

Supporting young engineers

We're proud to be backing the next generation of civil engineers by sponsoring the new civil engineering classroom at West Herts College.

Part of the new Innovation Lab, a technology-hub for all things engineering, it was officially opened on the college's Women in Engineering Day, and Meinhardt representatives

helped to give 60 female students from a nearby school experience in an engineering workshop.

Martin Taylor, Building Services Director at Meinhardt UK, comments:
"The future of the industry depends on supporting the next generation. We are sure the new classroom will inspire more young people to consider a career in civil and structural engineering, building services and related disciplines."

HOMELESS RUGBY

Tackling homelessness

It's thought more than 8,000 people are sleeping rough in London alone.

We're proud to support Homeless Rugby, a charity that aims to tackle the problem of homelessness through sport.

This autumn, Meinhardt UK held their inaugural charity touch rugby tournament to raise funds for the charity.

Eight different teams entered the tournament, made up of seven London-based firms within the construction industry including Meinhardt, and one team representing the charity itself.



The tournament raised over £3000 for Homeless Rugby CIC. Darran Martin, charity founder, was delighted. 'Thank you to everyone who helped make this amazing day a reality!'

Find out more on our website:
<http://www.meinhardt.co.uk/news/meinhardts-charity-rugby-event-raises-3000-to-tackle-homelessness/>