BRIEFING

DIAMOND JUBILEE ISSUE

CONSTRUCTION, ECONOMIC AND PROCUREMENT UPDATE – SUMMER 2011

FEATURES

- NORTH SOUTH DIVIDE?
- TENDER PRICE FORECAST
- GUEST ARTICLE: ARE YOU READY FOR BIM?
- COMMODITY PRICE INCREASE
- CASE STUDY: DERWENTHORPE, YORK
- SUSTAINABILITY AND GREEN DEVELOPMENT
- A LOOK BACK WITH PRIDE

MIKE JEWELL

mjewell@mdaconsulting.co.uk

THE SUSTAINABILITY CONUNDRUM: THE MOOT POINTS AND OTHERS

I note from my opening comments about a year ago that 2010 endured a wet spring and this year it has been very dry, so some people will say "what comes around, goes around". Others will say that global warming is causing extreme weather conditions and looking at some recent weather events, who can argue?

Energy Secretary Chris Huhne has recently confirmed the UK's ambition to cut energy consumption by 50% by the year 2027. There are fears that this might stifle our economic recovery (particularly when prominent others are doing very little!), but this should be grabbed as an opportunity for us to do new things. At least we have woken up and are beginning to manufacture wind farm paraphernalia ourselves because it seems crazy that we have been importing such things. We are being encouraged to use electric cars, but the power to drive them still needs to be generated from fossil fuels, so where exactly will that take us? The fact that we will plug in our cars at home using relatively cheap electricity, whilst petrol for cars is currently a major revenue earner seems to have been ignored. Following recent events in Japan, the Greenpeace folks are demanding a pause, before we get on with the next batch of nuclear power plants in the UK. Laws have been passed to make our buildings more efficient in energy use, but this will increase development costs at a time when we need to be producing cheap buildings to cope with demand for "affordable" houses. Finally, general insurrection around the world means that energy costs have risen sharply in recent months and everybody is feeling the effects. Some people say that the "Arab Spring" revolutions will bring opportunities in the MENA Region and there will have to be substantial reconstruction in Libya.

In reality current energy costs are quite low, because governments are able to use car fuel purchase as a voracious tax gathering mechanism. As a result we must accept that energy costs will continue to rise and we will have to live with the consequences.

A hundred years ago (no, I wasn't around then), the earth's population was about 1.7bn and it is now just a little bit under 7bn and it increased by 75m in the last year. Clearly, population is growing exponentially and this is the moot point I referred to earlier. Meanwhile, we are all concerning ourselves with getting another 3 or 4 MPG out of the old Ford Fiesta and that's fiddling while Rome burns. I'm not saying I've got the answer but mankind will not solve its population conundrum until we recognise its existence and talk seriously about a co-ordinated solution.

If we consider that the world economy only works properly with 2%-3% year-on-year growth (look what happened in the UK when it shrank or stopped for a couple of years) it cannot be long before the ceiling is hit. Perpetual growth is unsustainable, so what happens then? Again, I don't have the answer, but I do recognise the question.

Article continues on Page 2

STEVE JONES

sjones@mdaconsulting.co.uk

NORTH SOUTH DIVIDE?

High above the English Channel on a return journey from the Slovak capital Bratislava via Vienna reflecting on past and present.

But first, I would like to say a word on Slovakia, which is just as I had expected. Beautiful scenery, excellent food, wine, poetry, music and revelry . . . . unfortunately, other than these delights, it is much the same as the UK with a depressed economic outlook – looking for inspiration.

The overall position in our Eastern European markets is similar. Whilst our prospects centered on our Prague office are holding up reasonably well, we have been appointed on two large distressed resort projects in the region (more of this in later editions) hence the reason for my visit, generally the outlook is gloomy.

As we look back on the last 60 years at MDA I suspect prospects now are much as they were in 1951 when the firm was first set up in those austere post-war times – at least we have not got rationing yet!

The overall outlook for the UK economy continues to be bleak and flat for the next 12-18 months.

The regional economies are endeavoring to battle back from the carnage of the last few years. There is little private sector activity and an ever dwindling public sector as the cuts continue to bite deeply.

The outlook, however, in London and the South East is brighter and continues to show signs of increasing activity, particularly in the luxury residential and hotel sectors.

This view was supported by browsing the BA in-flight magazine which listed some ten new upmarket hotel openings in London this year, two of which I am pleased to say we were involved with.

The new 137 bed Waldorf Astoria in London's Syon Park, where my wife tells me the spa is excellent and highly commended, in addition to both the new 15 bed boutique and signature St John Hotel and Restaurant in London's Leicester Square, come highly recommended. I have personally sampled the restaurant at the St John Hotel first-hand and would heartily recommend the "snails and bacon" main course followed by custard tart for dessert!

We have recently completed the prestigious Heath Hall residential project for Ability Developments in Hampstead. At 27,000ft^2 it is one of the largest private residences in London and, if recent press speculation is to be believed, on the market for £100 million. The mind boggles and maybe we shouldn't all be too downcast when we hear things such as this!

I strongly believe this trend will continue and result in an ever widening gulf between London and the rest of the country. The economic gains (and increased prosperity) made by many in the regional centres over the last 10–15 years, notably Manchester, Leeds, Liverpool and Birmingham, could be eroded by a lack of activity compared with the continued foreign investment and development in London. Maybe not back to what it was in 1951 but possibly to the early 1990's before this latest boom.

I am proud of MDA's 60 year heritage and remain upbeat on our prospects for the next few years and indeed the next 60.

Onwards and upwards.

Continued from Front Page . . . The Sustainable Conundrum . . .

Construction must do its bit towards sustaining man's existence and one way of doing this is to give longevity to the hearts of many of our buildings. For instance, it seems unwise to system-build our "affordable" homes with timber frames or panel systems as one-off (sometimes experimental) exercises. From a study of recent history, schemes of this kind have obsolescence in their DNA and invariably they come down after 50 or 60 years to be replaced with more new buildings on new foundations. In short; a 100% replacement.

It would not take too much effort to design and build reinforced concrete frames or tunnel-formed structures that could be stripped back at the end of their economic lives and re-fitted, thus saving about 30% of construction costs. Once the buildings have been stripped back for renewal, the re-fits could be carried out using pre-fabricated modules where appropriate and the external envelope replaced with state of the art energy efficient elements. Over the years, I have become convinced that reinforced concrete frames are right for most multi-story applications, as they have a natural longevity if they are built right. Europe seems to have gone in that direction.

Another aspect that will bring economies to the built environment is more standardisation. In some quarters it may be argued that standardisation stifles creativity and "innovation". Every time we start a new project, the designers seem to begin with a blank sheet of paper and struggle to provide comprehensive information to produce a price, particularly on elements like doors. Many years ago, I worked with an Architect who had standard door and ironmongery details for a major repeat client and his schedules for individual projects were succinct and very easy to follow and quantify. All UK schools, hospitals and other generic building types should have standard details and dimensions and be defined on a generic basis.

We do need variety in our buildings, so different manufacturers of door sets and ironmongery of various grade levels could then price the generic details and it would only need the hook-up of a simple computer program for cost information to be produced automatically for any permutation. The economies this would bring to projects would be huge and the principle could be used for other trades.

There is a lot that we can do in construction to promote economy of effort and in the use of valuable resources and we should encourage the designers to take the lead.

I commented in two earlier editions about the summary justice and punitive penalties being dished out to contractors by the Office of Fair Trading (OFT). It's nice to get something right now and again and I was pleased to see that generally the fines levied for cover pricing (which were proved not to affect the lowest prices submitted) were reduced to about 10% of their original levels. After being proved to be extremely unfair, I wonder where this leaves their principal duty of imposing fairness in UK commerce. It will take a little while for them to regain their credibility.

KEVIN HEATON

kheaton@mdaconsulting.co.uk

TENDER PRICE FORECAST

The outlook for the UK economic recovery in general, and the construction industry in particular, remains very mixed. Whilst the UK economy grew by 0.50% in the first quarter of 2011 construction fell by 4.7% as the public sector cuts announced in last autumn's Comprehensive Spending Review begin to take effect. The recovery in the economy remains very fragile and the threat of a 'double-dip' recession has not been lifted entirely.

Forecasting for the longer term has become increasingly difficult with much volatility in the market and within current trading conditions. Workload is weakening but input costs have risen considerably, due in particular to increases in the commodity prices of iron ore, copper and oil driven by demand from the BRIC economies (Brazil, Russia, India and China) outstripping supply.

It is apparent that the London market is recovering at a far stronger rate than the rest of the country and a very marked disparity is emerging between London and the regions. In London we are forecasting tender price inflation of between 1.5% and 2% for 2011 and increases of between 2.5% and 3.5% in 2012 and 3.5% and 4.5% in 2013. Outside of London and the South East the recovery in tender prices for the regions will be slower and less marked. We are projecting tender price inflation of between 0% and 1% in 2011 and increases thereafter of between 1% and 2% in 2012 and 2.5% and 3% in 2013

NICK ALLEN

nick.allen@metz.uk.com

GUEST ARTICLE: ARE YOU READY FOR BIM?

With the pressure government will be exerting on publicly funded projects to use Building Information Modeling ('BIM').

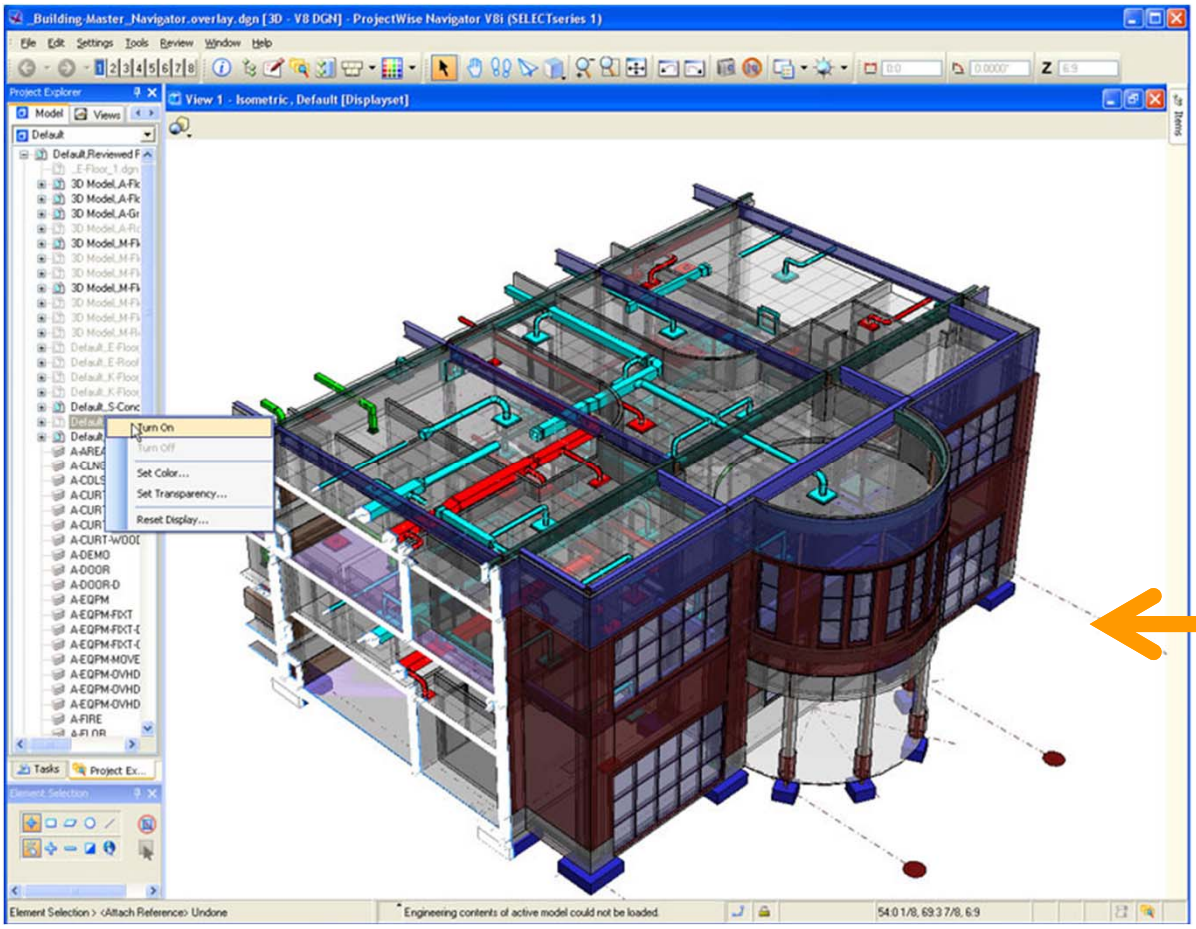
As Quantity Surveyor's and Project Managers we are always looking for ways to reduce risk and improve efficiency and coordination of the design and build process and the Government believes BIM has this at its core.

Whether 'old dogs can be taught new tricks' remains to be seen and the costs of re-training for consultants who are already under severe downward pressure on their fees will need to addressed –ignoring BIM however, is not an option.

'Briefing' spoke to Nick Allen of Metz Architects to review the basics and provide a rough guide on its application.

What is Building Information Modeling (BIM)?

BIM is a centrally administered, digital repository of all information gathered in connection with a building which can be accessed by all interested parties involved in a construction project.



SCREEN SHOT: COURTESY OF BENTLEY SYSTEMS

GUEST ARTICLE: ARE YOU READY FOR BIM?

DUDLEY COLLEGE – Extract from the BIM Model

Rather than 2D static information, a Building Information Model is an intelligent 3D virtual representation of a building. Its more than just a graphic representation (a fancy model for architects to produce 3D visuals as commonly perceived), at its heart the model contains detailed parametric data which can be interrogated and used across the complete spectrum of parties within a project team, from initial concept by the designers, through to end user and facilities manager.

During the tender stage of a project, contractors and sub-contractors can interrogate the model to draw off quantities for pricing and make comparisons for specification changes.

Post contract BIM assists with project scheduling, value engineering and can provide comprehensive maintenance and management information to the end user; even assist with refurbishment and eventual recycling through demolition.

At an event at the RIBA in May, Paul Morrell, the Government's chief construction advisor, announced that BIM would be at the heart of the Government's 5 year plan for procurement due to be published this June. BIM will kick in at a lower limit than the £50 million benchmark originally envisaged, looking at somewhere "south of £5 million". The implementation of BIM across the industry will be a five year plan to enable the industry to tool up for the changes.

It's a collaborative process. It's a whole new way of working based around the transfer of structured data between parties and consequently there are issues with BIM. Most common is the matter of interoperability (or lack of) between the various different vendors' software products, potentially used by different team members (Autodesk, Bentley, Nemetschek, Graphisoft and the like). Allied is the adoption of common standards and working practices across the industry, although these are being addressed by upcoming British and AEC Standards and a common data structure by IFC (BuildingSmart) to enable better and smarter working.

Undoubtedly BIM is now here to stay, and whilst it has its issues, BIM is poised to become a bigger revolution in the transfer of construction information between in industry parties than the advent of 2D CAD superseding the drawing board in the 1980's and 90's.

Nick Allen is a Director of MetzArchitects & MetzBIM.

In the design stage, BIM is a concept where all Consultants collaborate in the same virtual environment (the 3D model) to develop the quality of the design and production information, reduce risk and minimize construction problems when the buildings are on site. BIM can be used to schedule quantative data and monitor early cost information, and structure and monitor environmental performance and compliance with industry standards.

KESTER MEIN

kmein@mdaconsulting.co.uk

COMMODITY PRICE INCREASE in the UK CONSTRUCTION INDUSTRY

The increased demand on iron ore, copper and oil around the world, in particular the Far East and India, is impacting the UK construction industry and these commodity costs have increased every month since February 2010.

Construction inflation is running much higher than consumer inflation. However, the higher price of building materials is yet to find its way through to the wider economy to drive inflation – as a result of the coalition government's public spending cuts, the UK construction industry is feeling very brittle and despite rising costs most contractors are unwilling to raise their tender prices for fear of becoming uncompetitive. Instead, they are either cutting their profit margins or squeezing their suppliers and subcontractors.

STEEL and COPPER PRICES

Steel prices in recent years have increased significantly due to the very high demand in China. The recent data received on iron ore will only heap more misery on Contractors who are trying to be competitive. Recent reports have indicated that since April 2010 iron ore prices have been negotiated on a quarterly basis, as opposed to an annual cycle in the past. The new quarterly prices are generally based on the previous quarter's average spot iron ore price. This has led to a greater volatility in the market price as other circumstances, such as natural disasters, are taken into price setting more frequently.

The contract iron ore price has increased from a low of £64+ per tonne to around £85 per tonne in Q1 2011. However, current spot iron ore prices are in the region of £114 per tonne. This increase in the spot price will almost certainly be reflected in Q2 2011 contract iron ore prices. To put this in perspective of steel pricing, each tonne of steel uses 1.6 tonnes of iron ore.

The recent floods in Queensland have also added to the problems with the cost of coking coal rising from $225 per tonne to $350 per tonne which is a major increase in a short space of time.

Traditionally, steel frame buildings are a clean and quick method of construction, but with material prices increasing greatly, is it time Clients and Architects considered going back to more traditional methods of construction? i.e. concrete frames, which use far less steel. In addition to steel price increases, another key cost driver in construction is copper, which is used extensively in power and construction projects, was predicted to climb above $12,000 a tonne by the end of June 2011 as a shortage of supply in the metal could push up prices from the average of $7,543 registered last year.

Recently completed projects . . .

WALDORF SYON PARK

HEATH HALL

Image courtesy of The Ability Group

ROB KENNEDY

rkennedy@mdaconsulting.co.uk

DERWENTHORPE, YORK

MDA Consulting are delighted to be appointed as Joseph Rowntree Housing Trust's Project Manager for their 'Derwenthorpe' Development in York

Infrastructure works which are currently being undertaken by Mansell includes new site access roads, drainage, landscaping, new services and a Biomass energy centre and district heating system which will serve the housing development.

David Wilson Homes are The Trust's Housing Developer partner and will build 64 Family Houses in the first phase which will comprise 25 mixed tenure social houses. The houses will be built to rigorous Eco standards with a number of properties achieving 'Code 5' levels.

The project has been developed over many years and has overcome many technical issues and will be seen as a flagship for sustainability and low carbon design. The project commenced earlier this year and with phase 1 due for completion in 2012.

KEITH BOWLER

kbowler@mdaconsulting.co.uk

SUSTAINABILITY and GREEN DEVELOPMENT

What is Sustainability? A major problem when talking about Sustainable Development and Green Development is - what does it really mean? Essentially it is a process that is environmentally responsible and resource-efficient throughout a building's life-cycle.

Sustainability has been defined as: "*Meeting the needs of the present generation without compromising the ability of future generations to meet their needs.*" *Brutland Report for the World Commission of Environment and Development (1992).*

Sustainable development is based on the idea that the quality of people's lives and the state of our communities is affected by a combination of economic, social and environmental factors. Therefore these three factors and the links between them should be taken into account in the decisions we make and the actions we take.

As 'Securing the Future: UK Government Sustainable Strategy' states, sustainable communities embody the principles of sustainable development.

They:

- Balance and integrate the social, economic and environmental components of their community
- Meet the needs of existing and future generations
- Respect the needs of other communities in the wider region or internationally also to make their communities sustainable.

Sustainable Development = Green Development

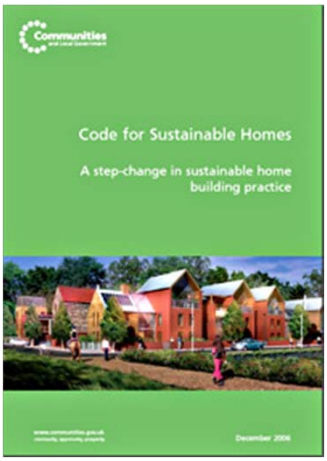
Green Development can be defined as: *"a process that is environmentally responsible and resource-efficient throughout a building's life-cycle"*

The aspect of sustainability that impacts on development in the UK is Environmental Sustainability. It is regulated by Legislation, Regulations and Policies, most of which emanates from the EU. There is a hierarchy of Legislation, Regulation and Policies that filters down from global to local.

Courtesy of: Cartwright Pickard Architects

SUSTAINABILITY and GREEN DEVELOPMENT

Some Headline Targets For The UK Set Back In the Climate Change Act 2008:



- A 15% energy reduction in construction
- Zero carbon new homes from 2016
- An 80% cut in carbon dioxide from households by 2050
- Ambition for zero carbon non-domestic buildings by 2019
- 50% reduction in construction and demolition waste by 2012
- 25% of construction products responsibly sourced by 2012

As far as the building construction process is concerned the key areas for consideration are:

- The waste generated during construction
- The pollution of river courses by silt
- The carbon emissions as a result of energy used in the manufacture and transport of products and in construction activities

However the construction industry can contribute to better sustainability through:

- Low carbon buildings – buildings account for 50% of all emissions
- By reducing, reusing, recovering and recycling waste generated in the construction process
- By designing buildings to encourage people to be more environmentally friendly
- The opportunity for construction clients, developers and contractors to have a part to play in social and economic sustainability
- Adapting to foreseen climate change – for example preparing for greater flood risk, storms, droughts and rises in sea levels

REGULATION OF SUSTAINABILITY IN DEVELOPMENT

There is a plethora of legislation and regulations that relate to building construction in the UK. As housing in particular accounts for 25% of the UK's carbon emissions it is understandable that sustainability is carefully regulated. As regards commercial and residential development, regulation is generally achieved through compliance with the Building Regulations and more specifically through the non-mandatory BREEAM 'best practice' assessment process in the case of commercial development and through the non-mandatory Code for Sustainable Homes assessment process in the case of residential development.

The **BREEAM** assessment process covers the following criteria:

- Management
- Health and Wellbeing
- Energy
- Transport
- Water
- Materials and Waste
- Land Use and Ecology
- Pollution

breeam

Each of the criteria is assessed and scored and the overall score determines the rating of pass, good, very good and excellent .

SUSTAINABILITY and GREEN DEVELOPMENT

The CODE FOR SUSTAINABLE HOMES assessment process covers the following criteria:

- ENERGY/CO_2 – Operational Energy and resulting CO_2 emissions with an emphasis on energy usage reduction rather than an emphasis on renewable energy technology
- WATER – Consumption of potable water
- MATERIALS – Environmental impacts of main construction materials
- SURFACE WATER RUNOFF – Controlling surface water runoff
- WASTE – Construction waste control and recycling of domestic waste
- POLLUTION – Pollution resulting from the operation of the dwelling
- HEALTH AND WELLBEING – Effect of design and indoor environment
- MANAGEMENT – Management of environmental impacts in construction and operation
- ECOLOGY – The impact of the dwelling on local eco-system, biodiversity and land use

The recent changes to the Code are bringing it ever closer to the PASSIVHAUS STANDARD

The redefined Energy/CO_2 section now rewards reductions in predicted energy demand for space heating and cooling in terms of kWh/m^2/year. This emphasises the Government's priority to reduce energy use with long-term, durable measures, rather than installing more and more energy producing technology.

The PassivHaus standard also measures kWh/m^2/year, specifying tough energy efficiency standards and a maximum calculated energy demand. PassivHaus energy efficiency standards remain much tougher than the Code so homes built to PassivHaus standards should automatically exceed Code Level 4 requirements in this area.

At MDA we try to be at the forefront of innovation in all aspects of our consultancy work particularly in the area of sustainability. We are fortunate as a result to be able to assist our clients with some innovative and ground breaking projects.

Regulation of sustainability is at its most demanding in house building. Public sector affordable housing sustainability standards are becoming ever demanding and the private sector developers and house builders are shortly to come under the same regulatory demands.

A project that we are particularly proud to be involved with is Octavia Housing's Sulgrave Gardens development which promotes high levels of environmental sustainability.

The project is a mixed tenure development of four individual blocks containing 30 dwellings to be built in a densely populated area in Shepherds Bush on land that has been disused for many years.

The client's objective is to develop the site with affordable housing designed and specified to achieve a modern contemporary, sustainable development both in terms of its environmental impact and its energy efficiency, with minimal running costs for the residents.

A particular aspiration was to design and certify a large part of the development to the PassivHaus standard and to an overall Code for Sustainable Homes Level 4 or greater. This is a challenge that the project team has risen to, the ultimate goal being to develop the first large scale PassivHaus certified affordable housing development in Central London and potentially the United Kingdom as a whole.

Designing to achieve PassivHaus certification has led to a whole new methodology towards design and the careful selection of products to meet the required standard of construction in relation to the thermal performance and air tightness. This has not only involved clever and innovative design ideas but also the consideration of new materials and forms of constructions that are modern and innovative.

The project is due to commence construction later in the summer and we are looking forward to being involved in what is proving to be a very exciting scheme.

A LOOK BACK WITH PRIDE

PROJECT:
RASIN BUILDING, PRAGUE

PROJECT:
VERANDA, TURKS AND CAICOS

PROJECT:
LLOYDS BUILDING, LONDON

PROJECT:
RETRACTABLE ROOF, WIMBLEDON

PROJECT:
BERLAYMONT BUILDING, BRUSSELS

PROJECT:
LANTAU FIXED CROSSING, HONG KONG (TSING MA BRIDGE)

FOOTNOTE:
DID YOU KNOW THAT IN 1951 WHEN MONK DUNSTONE ASSOCIATES WAS BORN THAT:

- The population was 49 million (now circa 60 million)
- Average House Price was £2,100.00
- Yearly inflation 9.5%
- Interest Rate 2%
- Festival of Briton Year
- Ford 8hp saloon £309 19s 5d on the road

FIRST DIVISION CHAMPIONSHIP 50/51 SEASON

- 1st Tottenham Hotspur
- 2nd Manchester United
- 3rd Blackpool

Leading Goal Scorer Sam Mortenson (Blackpool – 30)

FA CUP

- Newcastle 2 v Blackpool 0
  Milburn 2

CRICKET

- South Africa toured England. Of the 5 matches England won 3, South Africa won 1 and 1 was drawn.

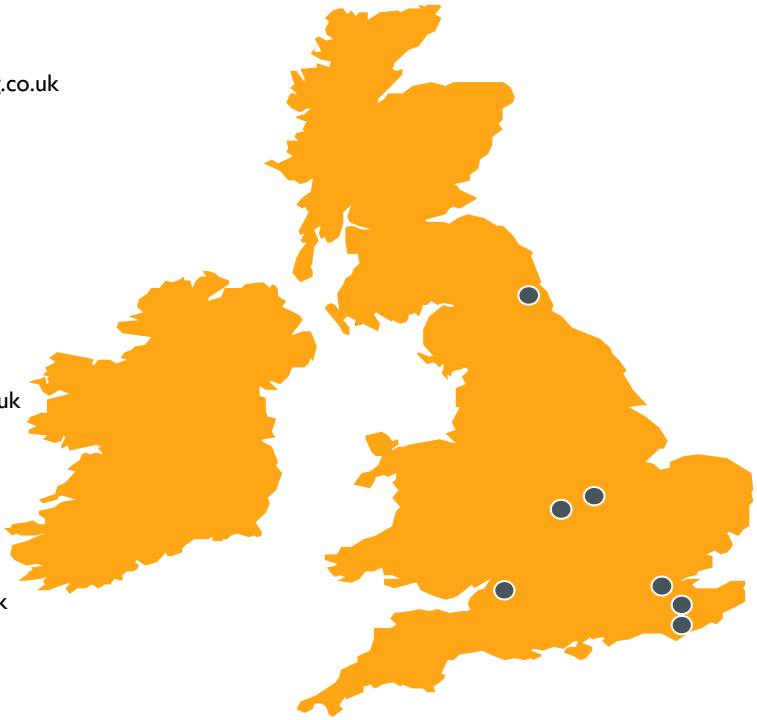
OFFICE LOCATIONS - UK

Birmingham
12 St Paul's Square
Birmingham B3 1RB
T: 0121 233 3839
F: 0121 233 3841
E: birmingham@mdaconsulting.co.uk
Contact: Rob Kennedy

Brighton
7 Hove Manor Parade
Hove Street
Hove
East Sussex
BN3 2DF
M: 07921 058 196
F: 020 8681 8275
E: mtaylor@mdaconsulting.co.uk
Contact: Martin Taylor

Bristol
11-12 Queen Square
Bristol BS1 4NT
T: 0117 929 2641
E: bristol@mdaconsulting.co.uk
Contact: Kevin Heaton

Croydon
Philip House
6 Lansdowne Road
Croydon CR0 2BX
T: 020 8686 5566
E: croydon@mdaconsulting.co.uk
Contact: Keith Bowler



Leicester
No 1 Museum Square
Leicester LE1 6UF
T: 0116 254 8951
E: leicester@mdaconsulting.co.uk
Contact: Rob McGuinn

London
17 Grosvenor Hill
Mayfair, London
W1K 3QB
T: 020 7399 0888
E: london@mdaconsulting.co.uk
Contact: Steve Jones

Newcastle upon Tyne
5-13 The Side
The Quayside
Newcastle upon Tyne NE1 3JE
T: 0191 232 0888
E: newcastle@mdaconsulting.co.uk
Contact: Maurice Low

OFFICE LOCATIONS INTERNATIONAL

MDA Oman
Monk Dunstone Associates (Muscat) LLC
Building 6829
Way 1595
Medinat al Ilam
Muscat
Sultanate of Oman
GSM: +968 9737 6915
E: mjewell@mdaconsulting.co.uk
Contact: Mike Jewell

MDA Praha s.r.o
Vinohradská 22
120 00 Praha 2
Czech Republic
T: +420 2 4248 6780
E: jhrubes@mdapraha.cz
Contact: Jan Hrubes

MDA Consulting (TCI) Ltd
Richmond House
Leeward Highway
PO Box 127
Providenciales
Turks & Caicos Islands
British West Indies
M: +44 (0)7803 288 055
E: jcollinge@mdaconsulting.co.uk
Contact: John Collinge