

A PORTRAIT OF ACHIEVEMENT



Sir Robert
M^CALPINE



Introduction

When in 1869, at the age of 22, Robert M^cAlpine first went into business as a building contractor, two factors played a key role in his early success: a dedication to service and a commitment to quality.

Following his first commission, the repair of a mine chimney for £2.9s, more work quickly followed as he established a reputation as an able and hard-working builder.

To the virtues of application and professionalism Robert quickly added the dual attributes of enterprise and ambition as he took on a range of challenges from housing estates and factories to ports and railway lines, pioneering construction techniques that pushed the boundaries of engineering convention.

The qualities he displayed in those early days have remained integral to the company's approach for more than a century as we have worked to deliver a diverse catalogue of projects the length and breadth of the UK, many of which have gone on to become landmarks in our shared architectural, commercial, social and cultural history.

It is an enviable record of achievement which reflects the pioneering path of the industrial and post-industrial age and marks out the great advances that have defined the past 140 years.

Ours is a story which provides a direct link from the railways and dockyards of the early 20th century to the airports and motorways of today; from the huge

factories of the Victorian era to the manufacturing plants, commercial developments and entertainment venues of the modern age.

It is a narrative which lives in the coal ports and the reservoirs built by men for whom the nuclear power plants and offshore oil platforms that form another part of our proud legacy would have been impossible to conceive.

It lies in the tunnels of tube lines constructed more than 100 years apart, in the wards of hospitals, in the bustling walkways of shopping centres and in the corridors and classrooms of our schools.

It is a story which incorporates projects that have gone on to assume a symbolism of their own; buildings which define an era, that embody the triumph of ingenuity and ambition over conventional wisdom and expectation: the original Wembley Stadium, the Eden Project, the Millennium Dome and the Olympic Stadium.

Our story, in short, is one that traces a voyage from a world of coal and steam, through two world wars, the dawning of the nuclear age and our passage into the bright new technology of today.

The world may have changed beyond compare since 1869, but we feel sure there is much in today's Sir Robert M^cAlpine Limited that our founder would recognise. It is these enduring qualities which will ensure our continued success long into the future.



1869 | Lanarkshire

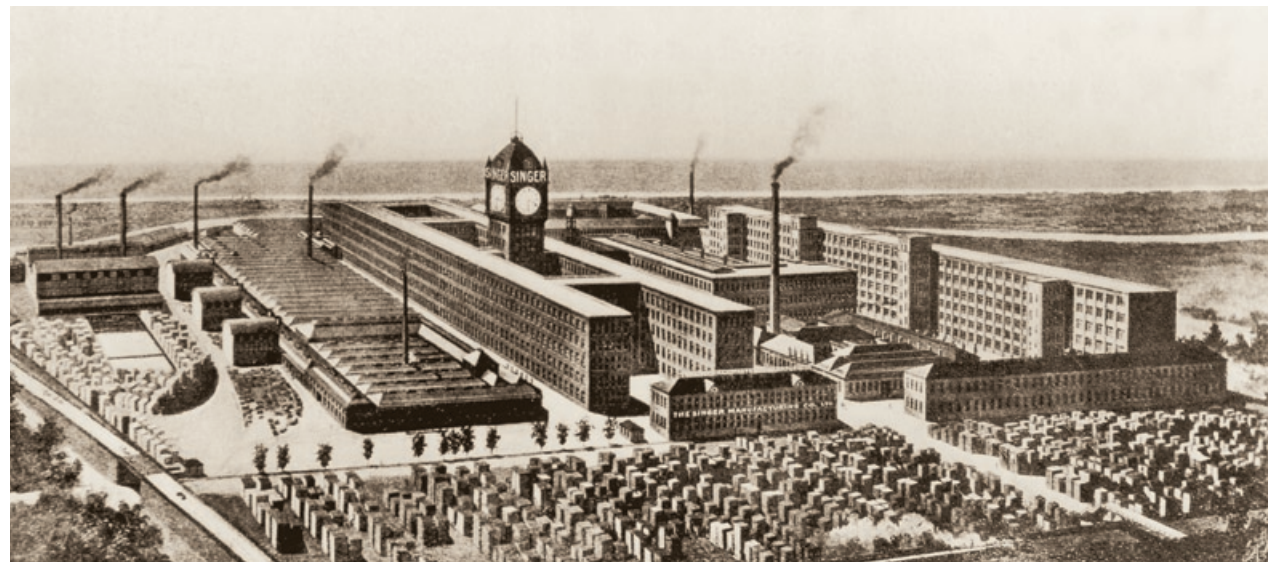
MINE CHIMNEY

The first commission undertaken by Robert M^cAlpine following the founding of the company in 1869 was the repair of a mine chimney of the type pictured here. Assisted by a single labourer, he was paid the sum of £2.9s.

1882–1885 | Glasgow

SINGER MANUFACTURING COMPANY

Constructed in just over two years, this Glasgow factory was the first major building project undertaken by the company. The plant was considerably extended in 1904, with further rebuilding work carried out in 1906 following a fire.



1883 | Glasgow

GLASGOW HOUSING

Housing represented an important part of Robert M^cAlpine's early construction work and by 1883 the company had already built dwellings at Burnbank, Hamilton and Larkhall. Many of the houses were constructed of concrete, a technology pioneered by Robert to the extent that he became affectionately known as 'Concrete Bob'. He was also renowned for providing individual houses with gardens and this led to the creation of the first Garden City at Clydebank in 1905.

1885–1890 | Ayrshire

LANARKSHIRE AND AYRSHIRE RAILWAY

Construction of the Lanarkshire and Ayrshire Railway included 82 bridges and viaducts. Robert M^cAlpine is pictured (fifth from right) with some of his staff and engineers of the Caledonian Railway Company during construction of a viaduct on the Barrmill to Kilwinning section of the line.



1894 | Glasgow

GLASGOW DISTRICT SUBWAY

Forming part of what is one of the earliest examples of a tube railway in the world, a section of tunnel was constructed starting from just north of the station in Buchanan Street to St George's Cross. The company's first tunnelling project, works also included construction of the stations at St George's Cross and Cowcaddens.





1897–1901 | West Highlands

GLENFINNAN VIADUCT, WEST HIGHLAND RAILWAY

Standing more than 30 metres high, this magnificent 21-arch viaduct is part of the 64km Fort William to Mallaig extension of the West Highland Railway.

One of a number of structures constructed along this section of line, it stands above the Glenfinnan Valley at the head of Loch Shiel, close to where Bonnie Prince Charlie raised his standard of rebellion in 1745.

The numerous railway bridges and viaducts that punctuate the line were built in concrete; the first

time the material had been used on this scale for such purposes. So innovative was this approach that it caught the attention of *The American Engineering News* which in 1899 featured the line's 40m clear span Borrodale Bridge as the longest concrete span bridge built to date.

Carving a route through the rugged terrain of the remote West Highlands with its many bogs and ravines was very challenging and involved the

construction of numerous cuttings and tunnels in mile after mile of unforgiving rock. The works also included the construction of Mallaig Harbour which still provides a haven for fishermen and a link with the Isle of Skye.

The railway remains to this day testimony to the spirit, skill and determination of all involved.

1909–1911 | East Molesey

ISLAND BARN RESERVOIR

The reservoir covers an area of more than 48 hectares and can hold in excess of 4½ billion litres of water. Most of the 764,000 cubic metres of earth removed to create the reservoir was excavated by steam navvies of the type pictured here.



1908–1913 | Fife

METHIL DOCK

Construction of Methil Dock was a huge engineering undertaking carried out in the most extreme conditions imaginable. Operating on a site at the mercy of the ferocious gales that swept up the Firth of Forth, the project involved the creation of 1.6km of sea wall, a dock with a water area of seven hectares, 1,800m of quay, a 550m long entrance channel and the complete reconstruction of sidings and marshalling yards comprising 40km of railway.



1911–1917 | North Wales

ALWEN RESERVOIR

Standing 27 metres high and 140 metres long, the Alwen Dam creates a 4km long reservoir capable of holding 14 billion litres of water. Alwen is just one of many dams and reservoirs constructed by the company.

1912–1915 | Hertfordshire

CUFFLEY TO HERTFORD LINE EXTENSION

This section of the Great Northern Railway is a further example of the company's involvement in the expansion of the UK's early rail network. In addition to the 21-arch Hertford Viaduct, major structures along the route included the 2.5km Great Ponsbourne Tunnel, construction of which required 30 million bricks. A purpose-built brickworks used clay excavated during the project to make many of the bricks required.



1914–1918

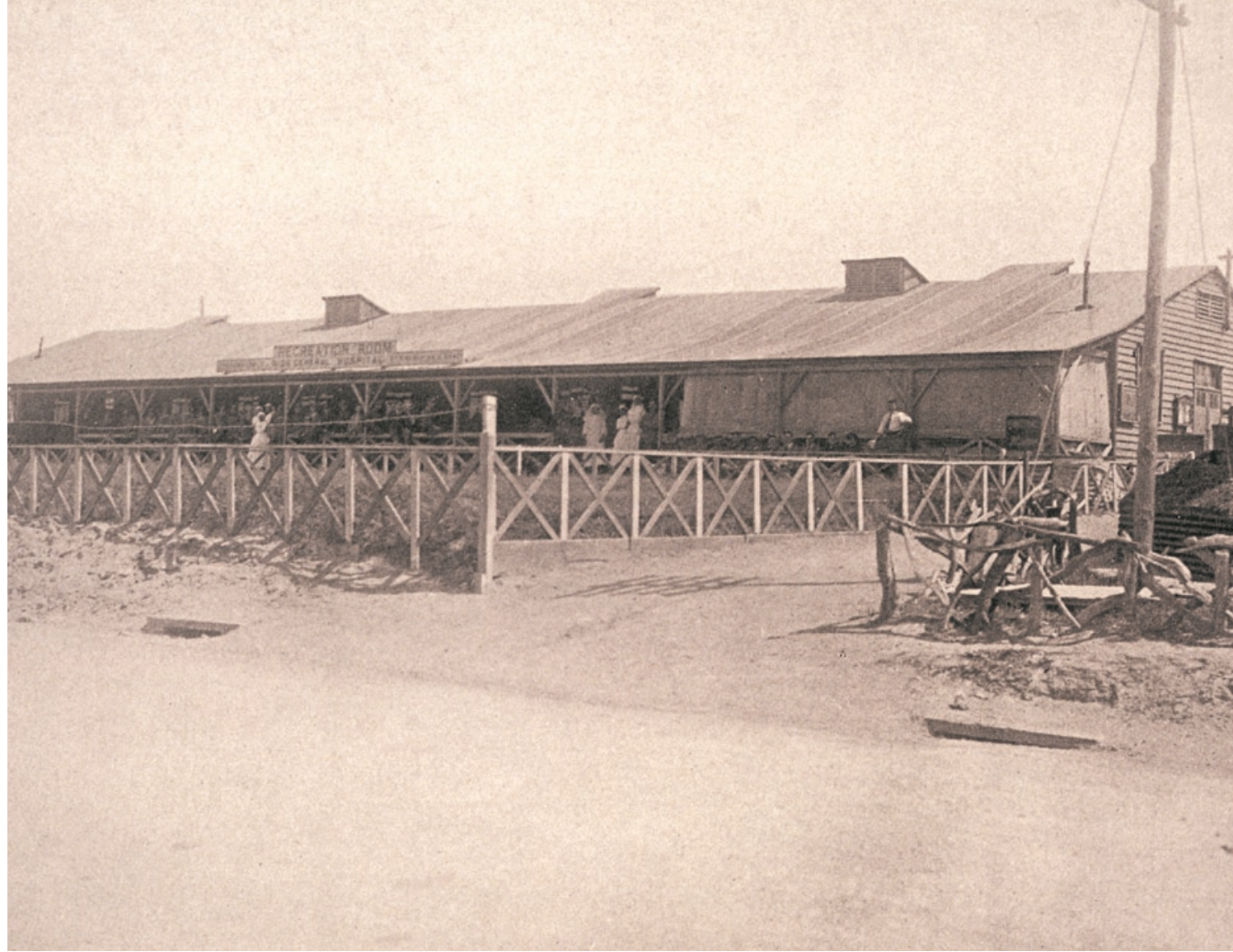
THE GREAT WAR

The company made an enormous contribution to the support of 'Kitchener's Army' during the Great War. Frequently operating close to the front lines, we were involved in the construction of hutted camps and support buildings throughout France such as this hospital at Etaples. Similar camps were also built throughout Britain.

On the Home Front our support for the war effort also included construction of munitions factories to help alleviate the ordnance shortage on the Western Front. As well as plants including Georgetown in Renfrewshire and Perivale in London, the company constructed The British Dyes factory at Huddersfield, which was initially used to produce ingredients for explosives. Some 2,000 men were employed on the project, erecting 130 buildings across a 670-acre site.

The company was also responsible for constructing many aerodromes and associated facilities including the Western Aircraft Repair Depot at Yate and the Loch Doon School of Aerial Gunnery.

The British Cellulose and Chemical Manufacturing Company in Derby was typical of many of the contracts undertaken in this period. The factory, pictured below, covered an area of eight hectares and was built for the treatment of aircraft fabric.



Hospital, Etaples

The British Cellulose and Chemical Manufacturing Company, Derby





1922 | Argyll and Bute

GARELOCH AND LOCH LONG ROAD

One of many roads that would be built by the company in the decades to come, this photograph shows rock being crushed to form the stone that would be used during construction. As the livery on the side of the lorry indicates, the company had by now become established in London, having moved its head office from Clydebank to Westminster in 1916.



1923 | London

BELLINGHAM HOUSING ESTATE

Following the Great War, the company built some 7,000 houses across the country as part of the response to the acute national housing shortage.

Construction of Bellingham Housing Estate was the largest of a number of such contracts. The scheme comprised more than 2,000 houses, a school, community buildings and ancillary roads and sewers. In all 35 million bricks, 6,000 tonnes of cement and 14,000m³ of timber were used.

Some 1,000 homes and associated roads and sewers were also built at Wilbraham in Manchester, as well as housing estates at Bolton in Lancashire, Shotts in Lanarkshire, Longbenton in Newcastle upon Tyne, Hayes in Middlesex and Batley in Yorkshire.

1922–1924 | London

WEMBLEY STADIUM AND THE BRITISH EMPIRE EXHIBITION

The acknowledged home of football for more than three quarters of a century, Wembley Stadium was constructed in just 12 months.

Capable of accommodating 125,000 spectators, the venue was completed in time for the famous ‘White Horse’ FA Cup Final of 1923.

The stadium was built entirely in concrete, its outer wall stretching half a mile and including 37 massive arches as well as the venue’s famous twin towers. In its extraordinary lifetime the stadium

hosted events including the 1948 Olympic Games, the 1966 World Cup Final and Live Aid in 1985.

The stadium formed part of a wider contract which also included the buildings for the British Empire Exhibition of 1924.

A vast undertaking, at its peak 12,000 men worked on this unique project which involved the daily delivery of 280 railway truck loads and 300 lorry loads of building materials.



1926–1929 | London

TILBURY DOCK

Capable of handling the largest ships afloat, a 230m dry dock and a 305m entrance channel were constructed at Tilbury in London along with a passenger landing stage.

The project was one of a host of contracts undertaken at ports around the UK and across the world, the company going on to build many of the major docks and wharfage facilities along the Thames, the Clyde, the Tyne, the Tees and the Wear.

One such project involved a major extension to Southampton Docks where more than 10,000 tonnes of kentledge was required to sink into position the 78 monoliths that make up the 1km long quay wall. More than eight hectares of land were reclaimed as a result of the work, ground on which we constructed the Solent Mills for J Rank Ltd.

The company's engineering expertise was also called upon at Takoradi on the Gold Coast of West Africa where the construction of 4km of breakwaters created 220 acres of the first safe anchorage on a coast dominated by heavy surf.



Tilbury

Southampton



1926 | Kent

RAMSGATE TO BROADSTAIRS RAILWAY

One of a number of rail contracts carried out between the wars, this scheme for the Southern Railway Company required the formation of large cuttings and embankments, as well as the construction of bridges and stations. Cut mainly through the chalk beds of the Kent coastline, the line ran for 3km.

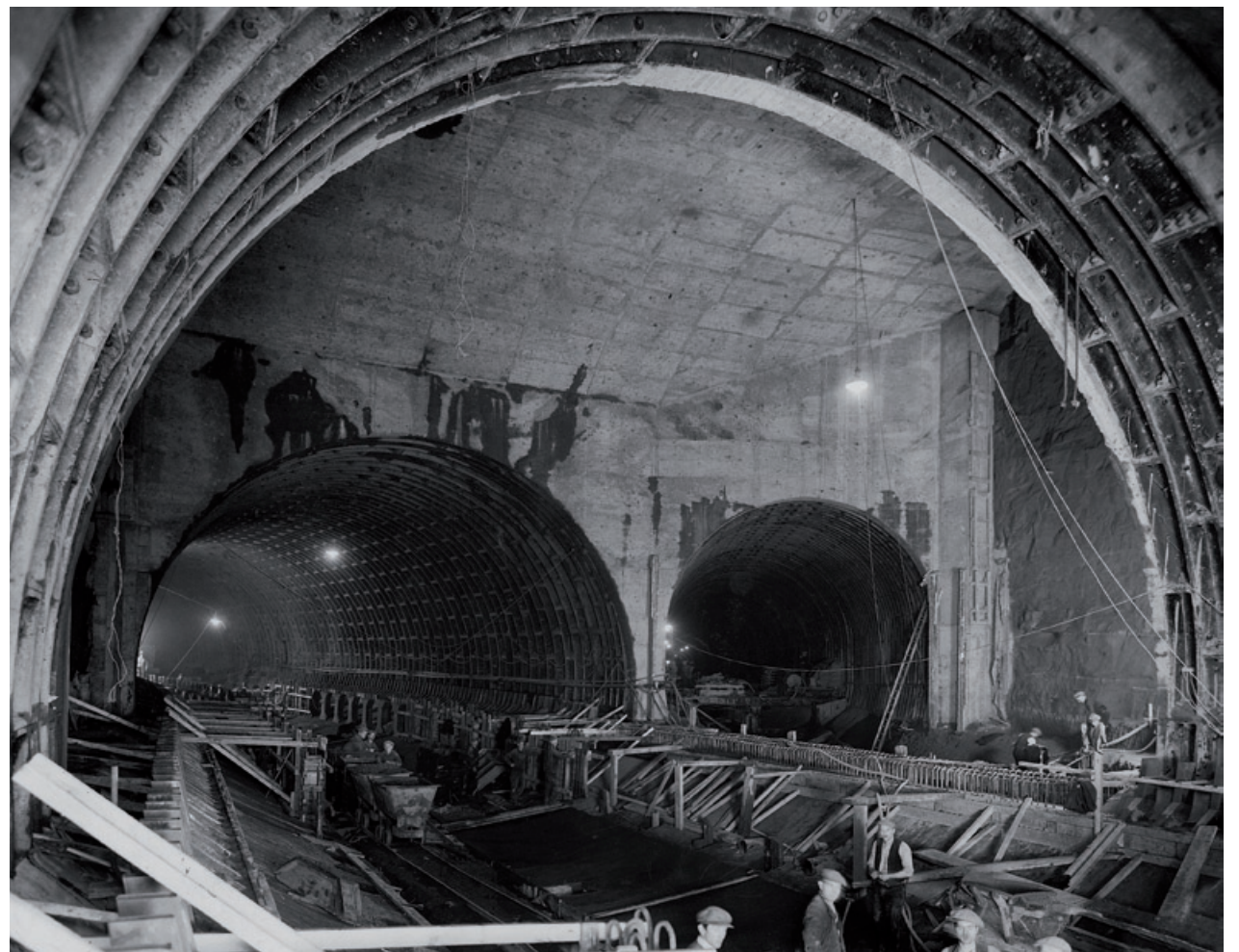


1929–1934 | Birkenhead

MERSEY TUNNEL

The Birkenhead section of the Mersey Tunnel consisted of a 13m wide tunnel with an 880m long open approach.

The company went on to develop and build tunnel boring machines and carried out prototype trials in chalk in anticipation of the Channel Tunnel. Half the machines used to construct the tunnels for the Victoria Line in London were built by the company.





1929–1931 | London

THE DORCHESTER HOTEL

When it opened on April 18th 1931, the Dorchester Hotel on Park Lane was the most luxurious establishment of its kind London had ever seen. With its exquisitely styled interior and sumptuous rooms, the Dorchester quickly established a reputation under the direction of the McAlpine family as the epitome of hotel excellence.

A landmark in innovative building techniques, construction involved what is believed to be the first use of a tower crane in Europe. The “Monotower” provided valuable service to the company into the 1970s.

The company returned to the Dorchester in the early 1990s to complete a major restoration and refurbishment programme.



1933–1937 | Somerset

CHEDDAR RESERVOIR

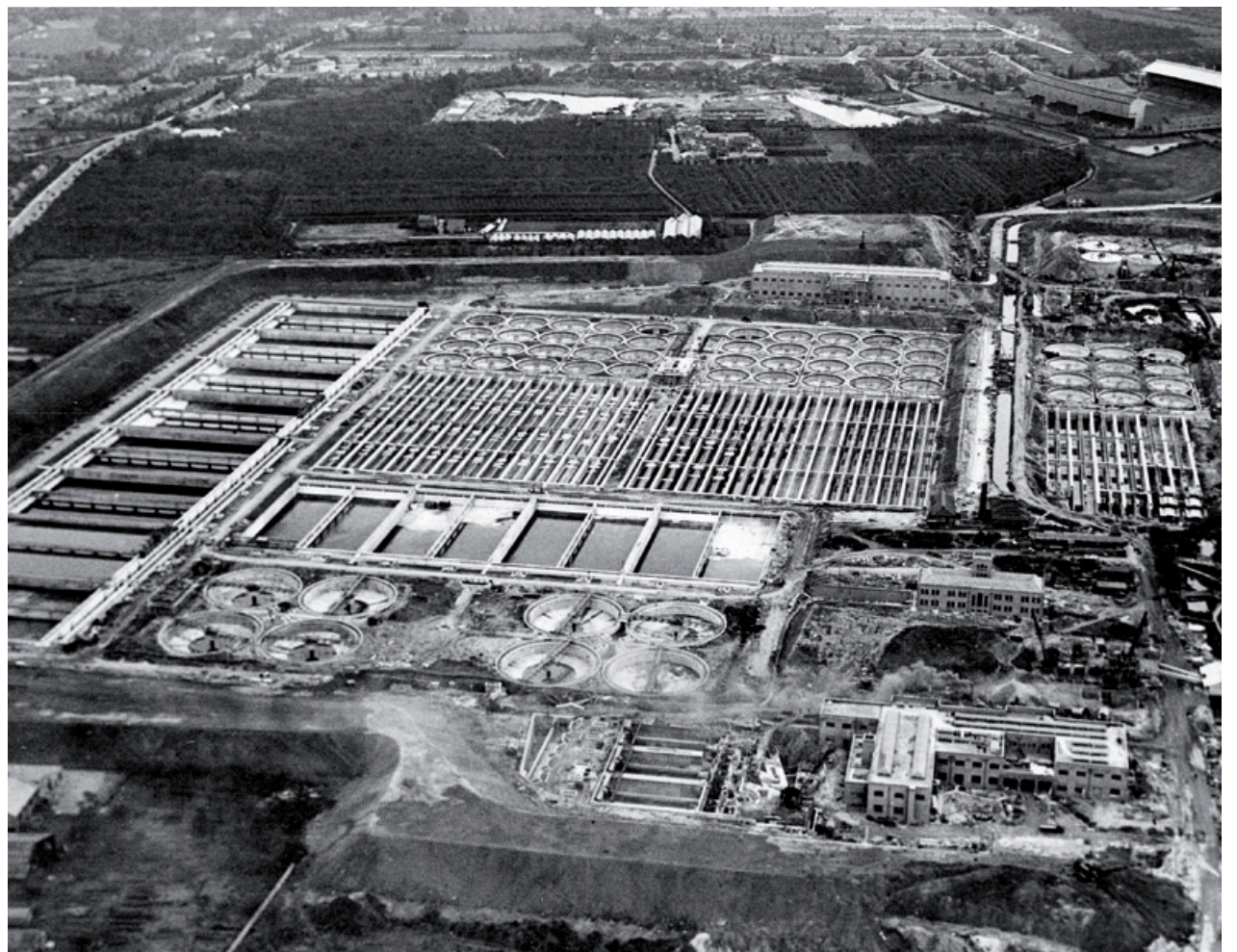
Constructed on a flat moor below the Mendip Hills, this reservoir in Somerset covers 250 acres and is capable of holding six billion litres of water. Around 250 men worked on the project which included construction of a 4km long cut-off trench designed to limit loss of water from the reservoir. A huge feat of engineering, the trench, which was 2m wide and up to 20m deep, was excavated mainly by hand using pneumatic drills and spades.



1936 | London

MOGDEN SEWERAGE SCHEME

When completed, this 70-acre sewage disposal works was one of the largest of its kind in the world. Some 48km of tunnels were also built, 38km of which were constructed using the M^cAlpine patented system of precast reinforced tunnel lining.





1937 | London

ODEON LEICESTER SQUARE

The 2,116-seat Odeon Cinema with its landmark 37m tall tower stands on the site of the former Alhambra Theatre. The cinema opened for business on November 2nd 1937 with the feature *The Prisoner of Zenda* starring Ronald Colman.



1939 | London

GREAT ORMOND STREET HOSPITAL

A 'modern' hospital block and additional floors of nurses' accommodation were constructed at this world-renowned children's hospital. Major hospital projects completed since include the redevelopment of St Thomas' London, extension of The Royal Gwent in Newport, the children's ward of the Royal Victoria Infirmary in Newcastle upon Tyne and Wishaw District General in Lanarkshire.

1935 | Hertfordshire

AMALGAMATED STUDIOS

Designed to rival their Hollywood counterparts, the four self-contained units which made up Amalgamated Studios in Borehamwood played a major role in British cinema history.

The complex was reconstructed and extended by the company for Metro-Goldwyn-Mayer after the Second World War.

MGM studios was among the biggest of its kind in the UK and went on to establish a reputation as one of the best in the industry. Films shot at the studios include classics such as *Ivanhoe* and *2001: A Space Odyssey*.





1939–1945

WORLD WAR II

During a conflict in which the battle for air supremacy was crucial, the company constructed a large number of the RAF airfields which would play a vital role in the Second World War.

More than 20 airfields were built or upgraded including Lasham, Mildenhall, Fairford, Boscombe Down, Prestwick and Northolt, sites that would provide bases for fighter defences and bomber command as well as support during the allied invasion of Europe.

In 1948 we returned to Boscombe Down to further develop the airfield for the RAF, constructing what at the time was one of the largest strategic runways in the UK.

The company was also responsible for a number of explosives factories built during the Second World War including the Royal Navy Propellant Factory, Caerwent.

1944

MULBERRY HARBOURS

Perhaps the company's single most important contribution to the war effort was the significant role we played in the construction of the temporary harbours which supported the allied forces following the D-Day Landings in Normandy.

A complicated military engineering project of unprecedented size and complexity, the Mulberry Harbours included breakwaters formed from a series of concrete caissons. Constructed in docks and harbours along the south coast, the caissons were towed across the Channel and sunk in position to provide secure deep water port facilities where none existed.

Of the 80 largest caissons, codenamed 'Phoenix', 10 were constructed by the company, eight in the East India Dock and two on the banks of the Thames at Erith. Almost 100,000 tonnes of reinforced concrete was used in their construction.

Sir Malcolm M'Alpine was the Chairman of the Contractors' Committee responsible for the design and supply of the breakwaters.





Rhigos 'C'

1943–1956

OPENCAST COAL PRODUCTION

The additional tonnage the opencast method of mining produced was vital to a post-war economy faced with the added burden of an international coal shortage.

In total the company was responsible for the production of 15 million tonnes of opencast coal from sites including Blaenavon, Waunavon, Oakthorpe, Packington House, Ffyndaff, Coton Park, Jubilee, Rhigos 'C', Ripley, Blowers Brook, Fox Covert and Talywain.

The massive excavators which were needed to produce the quantities of coal required were imported from America. One of the excavators is pictured right, working at the Jubilee site in Leicestershire.

Jubilee





Spencer steelworks, Llanwern

1936–1974

IRON AND STEELWORKS

From the interwar years on into the 1970s, the company constructed many of the major iron and steelworks which formed the backbone of the UK's industrial might. Early contracts included plants at Ebbw Vale, Port Talbot, Rotherham and Livingston.

The company was also responsible for the Spencer steelworks at Llanwern which, when awarded, was the largest civil engineering contract ever let in Britain.

As the 1970s dawned, work began on the vast Anchor steelworks at Scunthorpe. The project involved the excavation of 7½ million cubic metres of earth and nearly two million tonnes of steel slag.

1945 | Birmingham

HAMS HALL 'B' POWER STATION

Station 'B' is one of three power plants built at this location and is typical of a generation of coal-fired stations constructed between 1939 and 1955.

During this period the company built 29 coal and oil-fired plants, including Stella North and Stella South in Newcastle upon Tyne, Drakelow in Derbyshire and Acton Lane 'B' in London.



1948-1952 | London

BANKSIDE POWER STATION

Bankside power station in Southwark was the first in the UK to be designed specifically for oil-fired boilers. More familiar today as the home of the Tate Modern, 700,000 bricks and 29km of scaffold tube were used in the construction of the building's 91m high central chimney. The project also involved the excavation of a cable tunnel as shown in the photograph below.



1950-1956 | Kent

BP OIL REFINERY

On a site covering 810 hectares, extensive civil engineering works were required for this major refinery on the Isle of Grain. These included foundations for the refinery units, deep underground chambers, roads, railways, bridges and jetties designed to accommodate the world's largest tankers. More than 5,000 people were employed on the contract at its peak.



1954 | London

CUTTY SARK DRY DOCK

First launched in 1869, the world's most famous tea clipper stands today within an 81m long, 18m wide dry dock at Greenwich. The veteran ship was floated into its final resting place along a channel cut from the dock to the Thames.

The company returned to Greenwich in 1968 to construct a dry dock for the Gypsy Moth IV, the yacht on which Sir Francis Chichester completed his record breaking solo voyage round the world.



1957–1962 | London

SHELL CENTRE

Hailed by *The Times* as a ‘colossus on the London skyline’, when it was completed in 1962, the Shell Centre on the South Bank was the largest office development in the UK.

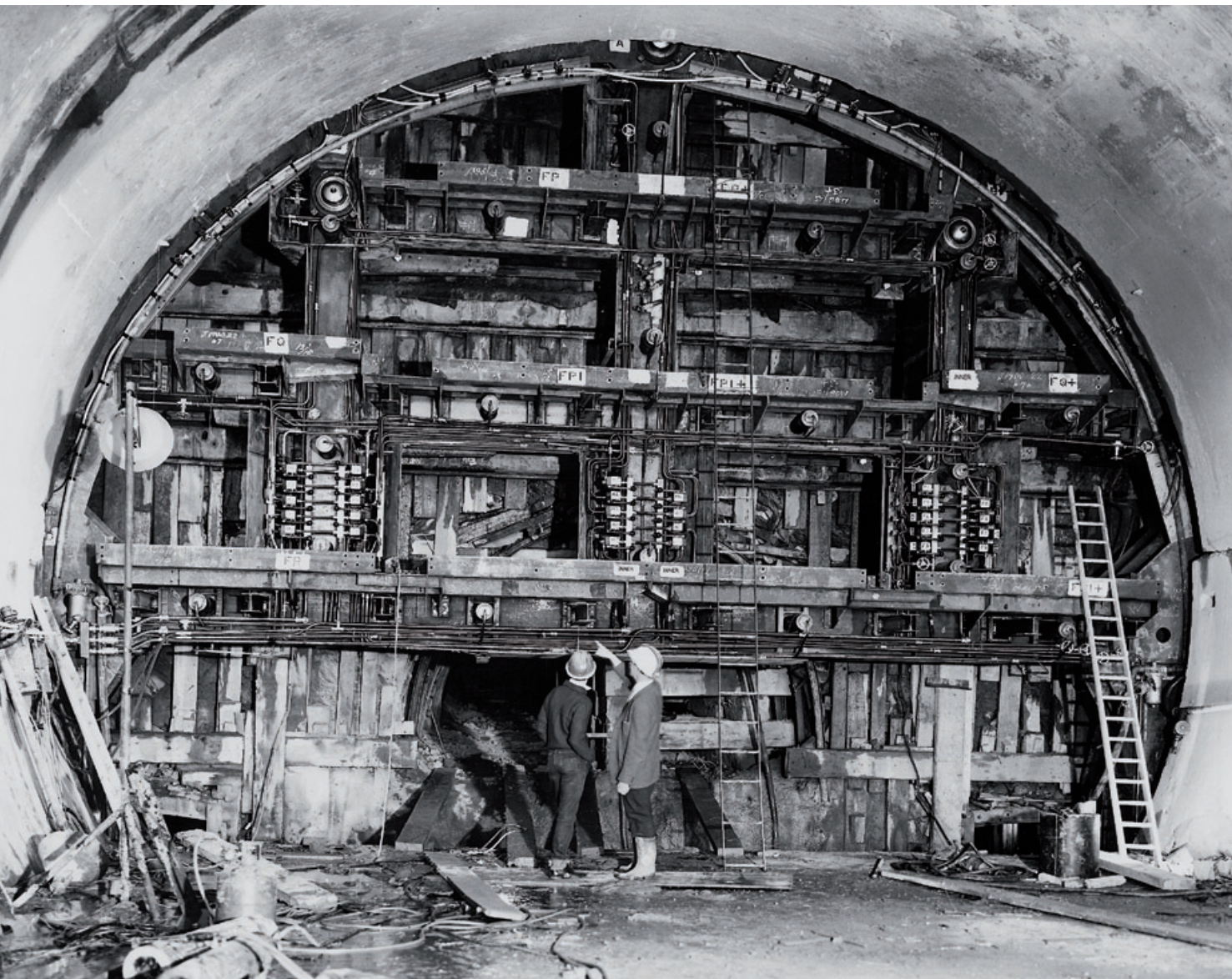
The building provided 186,000m² of floor space in two complexes divided by the Hungerford railway bridge but linked by a series of passenger and service subways.

Capable of housing 5,000 staff, half the volume of the building is below ground, while a main 27-storey tower rises more than 100m above pavement level.

1960–1963 | London

STAG DEVELOPMENT

Featuring one of the first skyscrapers to grace the London skyline, this huge development was constructed on a five-acre site close to Victoria station. Comprising four blocks built around a central piazza, the development took its name from the Watney's Stag Brewery which previously stood on the site.



1962–1967 | Newport

BRYNGLAS TUNNELS

Carrying the M4 through the saddle-backed Brynglas Hill, these two 335m long tunnels were among the first in the British motorway network. Such poor ground was encountered during their construction that special tunnelling shields had to be developed.

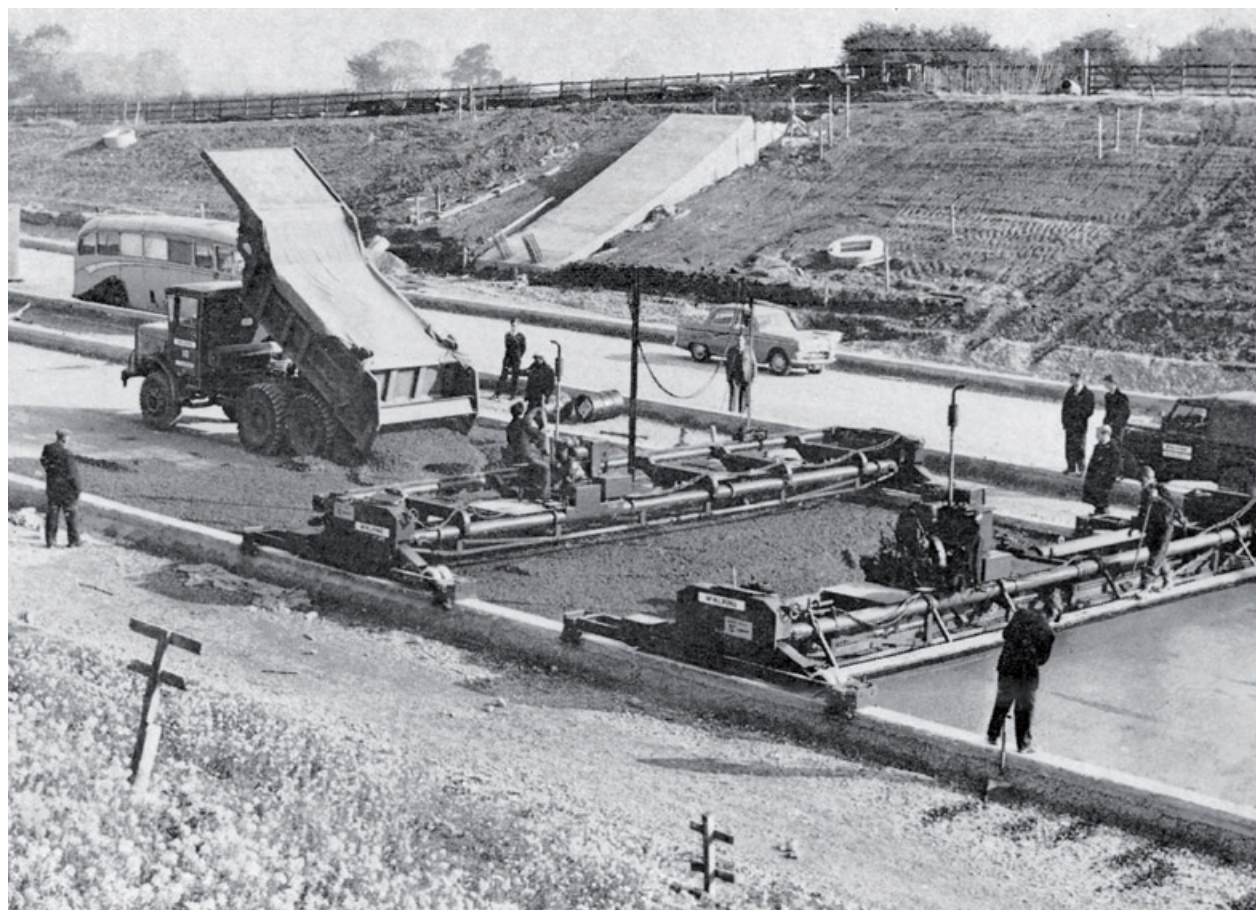
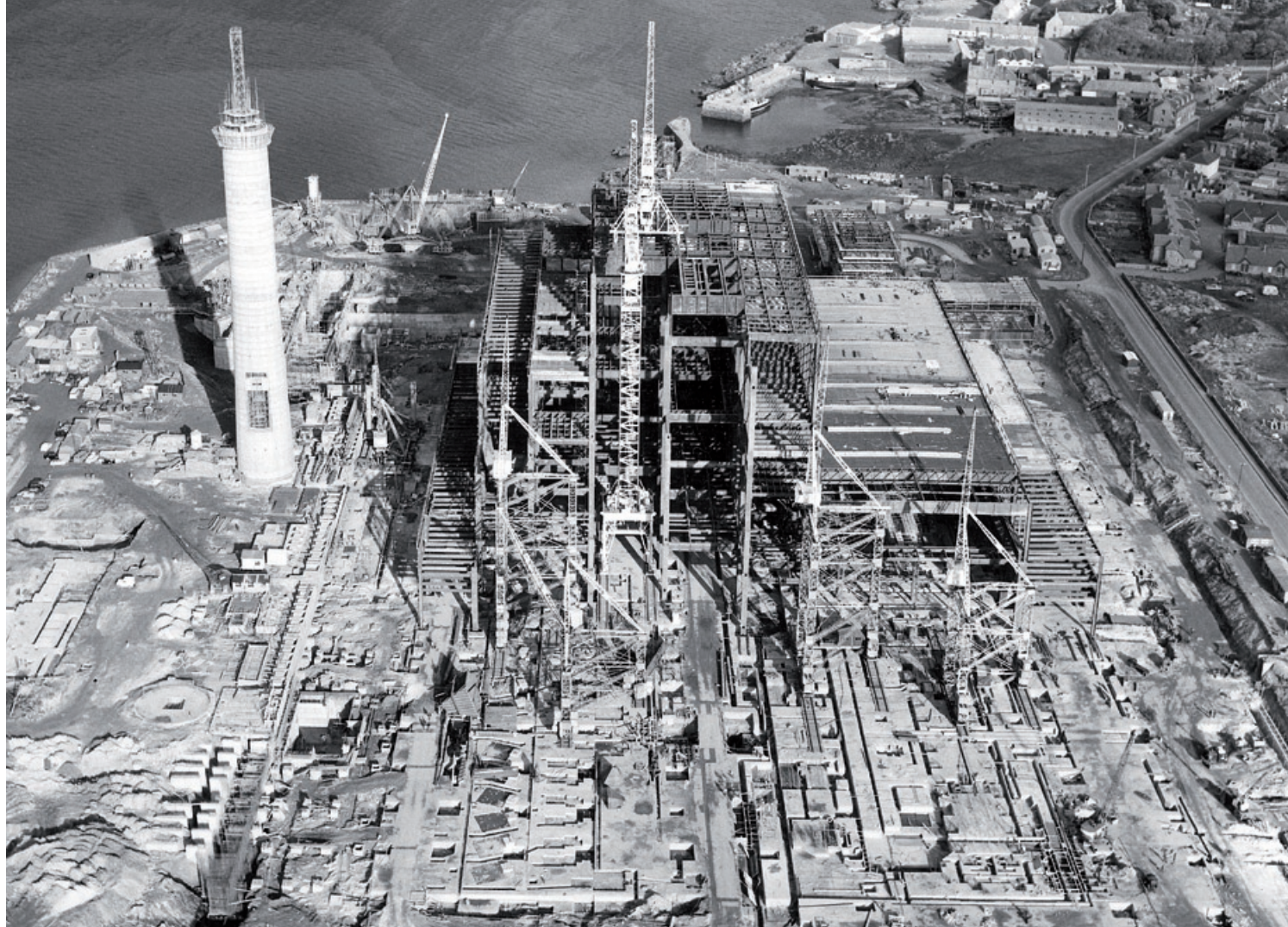
1963–1967 | East Lothian

COCKENZIE POWER STATION

The company was involved in the delivery of a number of the major electricity generating plants constructed in the second half of the 20th century.

Foundation works at Cockenzie power station on the Firth of Forth included the placement of 153,000m³ of concrete.

Further along the estuary near Kincardine, some 38,000m³ of bedrock was blasted and removed as part of a 115,000m³ excavation undertaken during construction of Longannet power station.



1963–1967 | Leicestershire

M1 MOTORWAY, MARKFIELD – SAWLEY

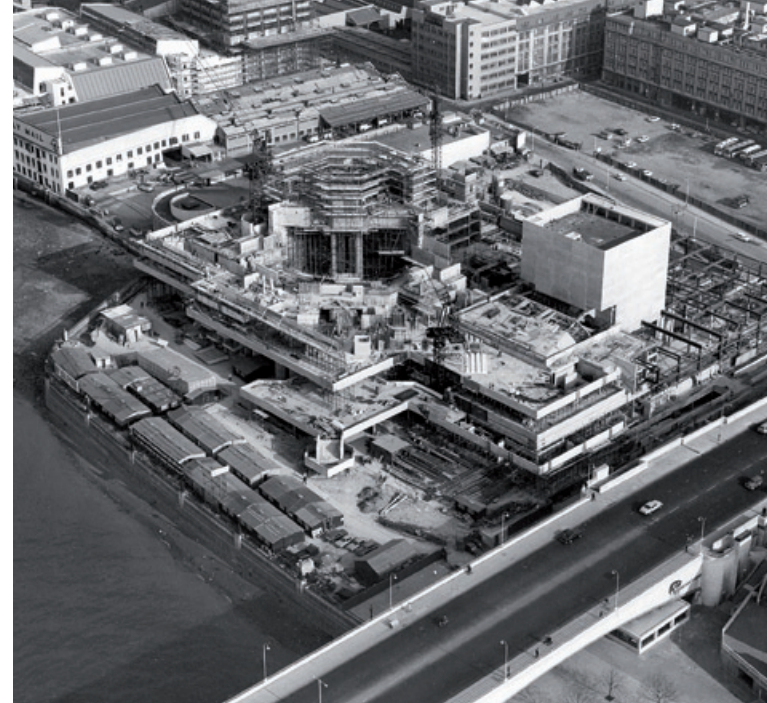
As the UK roads network expanded and improved through the 1960s, major highways projects undertaken included delivery of a 12½ mile section of the M1 between Markfield and Sawley in Leicestershire. The project involved construction of dual three-lane carriageways, two-way junctions at Shepshed and Kegworth, and 21 road bridges.

Other notable road projects delivered during this period include the three-level Gabalfa Interchange in Cardiff, and the 4km Shoreham Bypass, which involved construction of a 576m viaduct across the River Adur.



1964–1968 | Newcastle upon Tyne
NEWCASTLE CIVIC CENTRE

Newcastle's Civic Centre is typical of the many fine public buildings with which the company has been involved. The centre provides 28,000m² of administrative accommodation, council chambers, a banqueting hall and underground parking.



1969–1975 | London
NATIONAL THEATRE

A byword for all that is best in classical and contemporary drama, the National Theatre was constructed on a 4½ acre site on the South Bank. The theatre was officially opened by Her Majesty The Queen on October 25th 1976. Now Grade II listed, the quality of the concrete work saw the building receive The Concrete Society Award for 1977.

1967–1970 | London

HYDE PARK CAVALRY BARRACKS

This complex on the southern edge of Hyde Park comprises eight separate buildings with linking courtyards and includes stabling for 270 horses of the Household Cavalry, a riding school, mess blocks, married quarters and a 31-storey tower block.

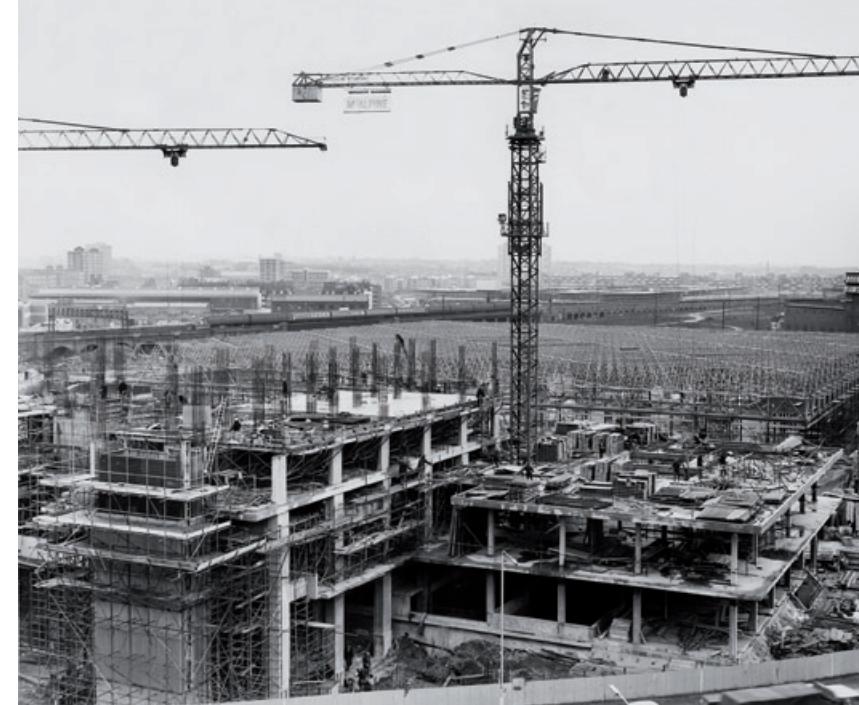




1972–1974 | London

THE INTERCONTINENTAL HOTEL

Recognised at the time as one of the most luxuriously appointed hotels in the world, the Intercontinental on Park Lane is one of many premier London hotels constructed by the company. Overlooking Hyde Park, the 10-storey hotel contains 540 bedrooms and features large function and conference areas.



1971–1974 | London

NEW COVENT GARDEN MARKET

New Covent Garden Market is one of the largest fruit, flower and vegetable markets in the world, providing 38,000m² of covered space. The company's involvement in London's great public markets also includes improvements to Old Spitalfields Market and the reconstruction of Smithfield Poultry Market.

1973–1975 | London

BRENT CROSS

Constructed on a 32-hectare site close to the M1, Brent Cross helped usher in the modern retail age. The UK's first large enclosed shopping centre, the project required 9,300 tonnes of steel reinforcement and more than three million bricks.



1957–1989

THE NUCLEAR AGE

With the arrival of the nuclear era, the company played a central role in delivering the power stations that would revolutionise the UK energy industry.

Our track record includes the entire civil, structural and architectural design of 13, and the complete construction of six, of the country's original fleet of nuclear power stations.

Commissioned in 1961, the 300 megawatt electricity generating station at Bradwell was the first to be built by the company. Construction of Dungeness, Oldbury, Hinkley Point 'B' and Hunterston followed.

The vast Torness plant was the last Advanced Gas Cooled Reactor station to be commissioned in the

country. Constructed on an 80-hectare site on the east coast of Scotland, the plant has a generating capacity of 1,250 megawatts.

A huge civil engineering operation, the project included excavation of 2,500,000m³ of spoil and installation of more than 2km of coastal defences using 500,000 tonnes of locally quarried rock.

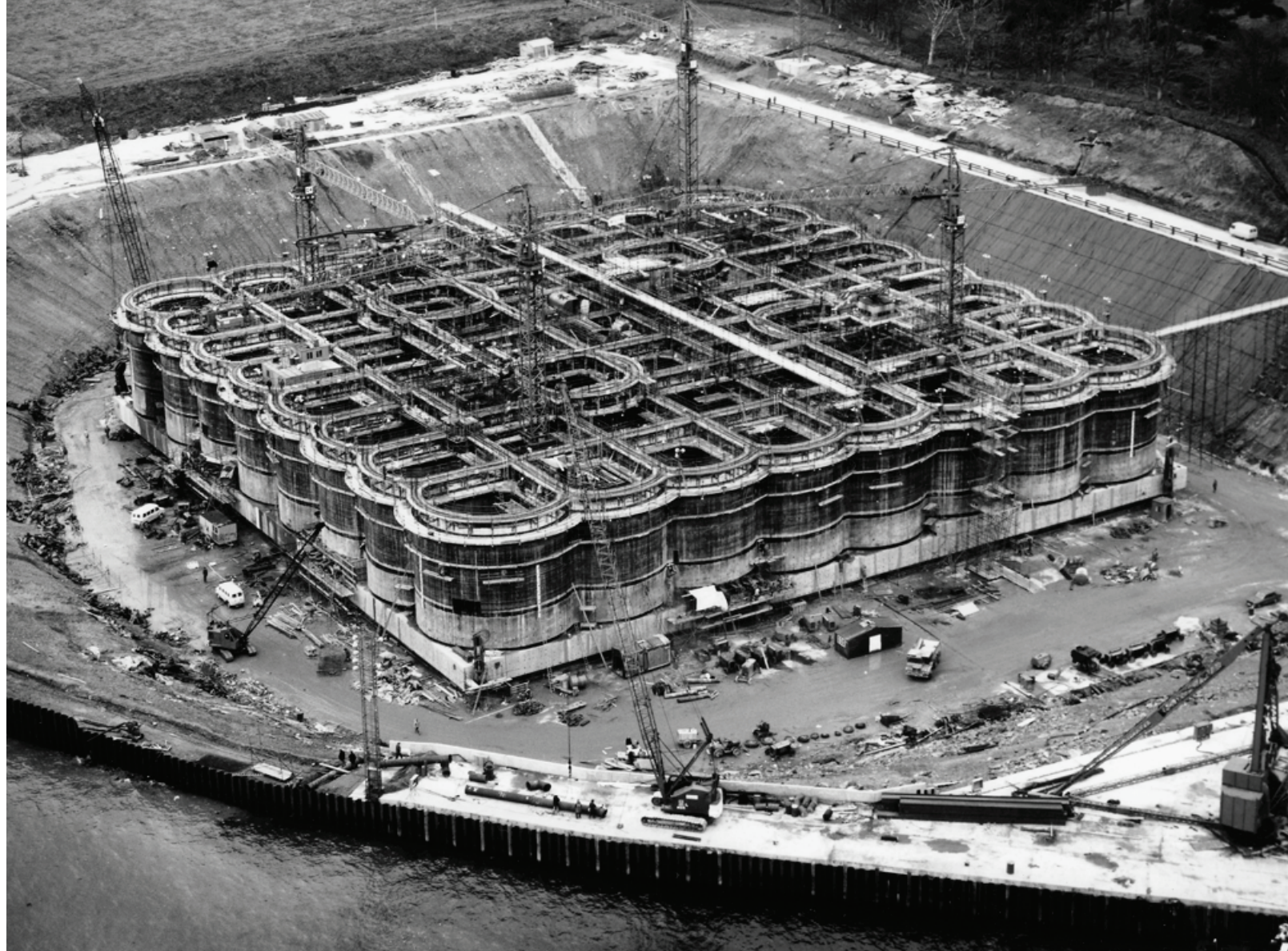
Today our experience in the sector also includes more than 25 years' continuous presence at Sellafield and provision of civil design services for a new generation of power plants including Flamanville 3 in France and the Taishan 1 and 2 European Pressurised Reactors in China.



Bradwell



Torness



1974–1978 | Argyll

NORTH SEA OIL PLATFORMS

Three concrete gravity platforms were constructed for the North Sea oil industry at Ardyne Point on the west coast of Scotland. Initial construction took place in a dry basin which was then flooded to allow the platforms to be floated offshore for completion. Access to the structures was provided by pontoons. Once complete, the platforms were towed to their final destinations by ocean-going tugs.

The first platform constructed was for Elf Aquitaine and was installed in the Frigg Field. Brent 'C' and Cormorant 'A' were built for Shell/Esso.



1983–Present | Cumbria

SELLAFIELD NUCLEAR REPROCESSING FACILITY

With a continuous presence of more than 25 years at Sellafield, the company has been responsible for the building and civil engineering of many of the plant's fuel reprocessing and waste management facilities.

Contracts include the THORP Receipt and Storage Ponds, the Medium Active Solid Waste Encapsulation Plants Numbers 1 and 2, the Mixed Oxide Fuel Plant, the Drypac Plant, the Combined Heat and Power Plant and refurbishment of the Sealine Pipe Bridge.

1984–Present | Sunderland

NISSAN CAR MANUFACTURING PLANT

The company has completed more than 75 projects at the Japanese car giant's 230-hectare Sunderland site since work began on the first phase of the plant in 1984.





1985–1989 | Glasgow

ST ENOCH CENTRE

Contained within one of the largest glass-covered enclosed areas in Europe, this major Glasgow shopping centre included a department store and 50 shops arranged around an ice rink.

1988–1991 | London

123 BUCKINGHAM PALACE ROAD

This substantial office and retail development spans the southern part of Victoria railway station. Comprising two office blocks separated by a central plaza, a double layer of tinted glass set within white aluminium frames provides the development with its distinctive external appearance.





1988 | London

RICHMOND RIVERSIDE

Incorporating retained façades, colonnades and arcades, this mixed-use development on the Thames waterfront at Richmond provides office accommodation, shops, restaurants and apartments.



1988–1990 | Bath

FORTE BATH SPA HOTEL

The five star Forte Bath Spa Hotel provided an elegant addition to Forte's already impressive list of high-class hotels, a number of which were built by the company.

Refurbishment of the Grade II listed building included restoration of many of its commanding features including a replica of the Parthenon frieze.

The company was also responsible for the redevelopment of the prestigious Swallow Royal Hotel in Bristol.



1988–1990 | London

SAINSBURY WING, NATIONAL GALLERY

Clad in Portland stone to match the existing building, the Sainsbury Wing provides a stylish addition to what is one of the country's finest art galleries. The main floor of the extension houses the gallery's collection of Renaissance paintings, skylights flooding the spaces with natural light.

1988–1992 | London

CANARY WHARF AND WESTFERRY CIRCUS

Canary Wharf Tower was one of the defining buildings of the 1990s. Rising 250 metres above London's Docklands, the 50-storey building has 32 passenger lifts and three basement levels. The company was responsible for the tower's foundations, substructure and concrete works. We also built the 22-storey No.1 Cabot Square on the left of the picture and were involved in the construction of Westferry Circus in the foreground.



1988–1992 | London

HOLBORN BARS

Redevelopment of the Prudential Corporation's headquarters included restoration of its listed façade, shell and core refurbishment of other retained buildings and the demolition and remodelling of the remainder of the site. The company has been involved in the construction of several major insurance company buildings for clients including Pearl Assurance, General Accident, Sun Alliance and Standard Life.

Standard Life Headquarters, Edinburgh



1992 | Cornwall

CARLAND CROSS WIND FARM

The first of a series of wind farms delivered across the country, Carland Cross has an installed capacity of 6MW and provides electricity for around 4,500 households.

Renewable Energy Systems, part of the Sir Robert M^cAlpine group of companies, has been at the forefront of wind farm design and development for more than 25 years, constructing 4.5GW of wind energy capacity worldwide.



1994–1997 | London

BRITISH LIBRARY

Standing alongside London's famous St Pancras Station, the British Library is one of the world's largest research facilities.

The national library of the UK, the building houses 14 million books along with substantial additional collections of manuscripts and historical items.

The company was responsible for the completion phase of the library which provided an additional three reading rooms, offices, book storage areas, service facilities and lifts.

One of the project's most outstanding features is the King's Library which houses a priceless collection of books and manuscripts collected by King George III.



Siemens



Fujitsu

1996–1998 | Newcastle upon Tyne

SIEMENS WAFER FABRICATION PLANT

The Siemens wafer fabrication plant in Newcastle was one of the largest facilities of its kind ever constructed in Europe. The plant was ready for equipment installation just one year and six days after work commenced.

The facility is one of a number of large-scale, high-tech manufacturing plants constructed during the 1990s for many of the leading names in the microprocessor industry.

Contracts included expansion of the NEC wafer fabrication facility at Livingston which was completed in 13 months. The project was more than twice the size of any equivalent development previously delivered in the UK.

The company also built the Fujitsu Microelectronics Facility in County Durham and completed the third phase of Shin-Etsu Handotai Europe's Livingston silicon wafer plant.

In addition, we have undertaken many contracts for Motorola at its plants in South Queensferry and East Kilbride as well as projects for companies including Atmel, Lexmark and Filtronics.

NEC



Shin-Etsu Handotai





M74 / A74(M) Millbank to Carlisle

1996–1999 | Scotland

M74 / A74(M) MILLBANK TO CARLISLE

The company operates and maintains 90km of the M74 / A74(M) from Millbank to Carlisle under a 30-year Design, Build, Finance and Operate concession that included the creation of a 28km dual three-lane motorway.

The concession is one of a number of Private Finance Initiative (PFI) projects undertaken by the company, which also include the operation and maintenance of a 120km stretch of the A19 in the North East.

Our PFI healthcare projects range from Dawlish Community Hospital in Devon to the 633-bed Wishaw District General Hospital in Lanarkshire, and Russells Hall Hospital in Dudley. Education sector schemes include multi-school projects in Fife and Gateshead.

The company was also part of the consortium responsible for the Croydon Tramlink, the first tram system constructed in London since the Second World War.

Russells Hall Hospital, Dudley



Beath High School, Fife





Harlow Green Primary School, Gateshead



Croydon Tramlink

A19 Dishforth to Tyne Tunnel





1994–1998 | London

JUBILEE LINE EXTENSION CONTRACTS 107 AND 110

As part of the Jubilee Line extension the company constructed North Greenwich Station and drove 4,900m of tunnel between Canada Water and Canning Town.

Totally immersed in saturated ground on a former gasworks site, North Greenwich Station is 20m wide, 20m deep and 358m long. One of the largest stations on the Jubilee Line, today it is used by the hundreds of thousands of music and sports fans who flock to the O2 Arena.

1997–1999 | Glasgow

HAMPDEN PARK

This redevelopment project at Scotland's national stadium continued our involvement in the ongoing development of modern sporting stadia.

Provision of new South and West stands at Hampden Park completed the reinstatement of the home of Scottish football, the North and East stands having been rebuilt by the company under a previous contract. The South Stand was the largest of its type at any sports ground in the UK, containing a wide range of facilities including a museum of football.





1997–1999 | Glasgow

BT HEADQUARTERS

British Telecom's Glasgow headquarters is one of three landmark developments constructed by the company at Atlantic Quay, overlooking the River Clyde.

Named Alexander Bain House, after the father of the fax machine, the BT building stands alongside the Scottish Enterprise headquarters and its neighbour, 200 Broomielaw, which forms part of the city's International Financial Services District.

1997–1999 | London

LLOYD'S REGISTER OF SHIPPING HEADQUARTERS

One of many prestigious corporate headquarters and large-scale office developments delivered by the company throughout the 1990s, the redevelopment of Lloyd's Register of Shipping's offices provided a striking new home for this City of London institution.

Other projects in this period include the Younger Building for Royal Bank of Scotland in Edinburgh and redevelopment of the former MI5 headquarters site at One Curzon Street in London. Similar developments in the capital include Milton and Shire House, 63 Queen Victoria Street and Eagle House.





1997–1999 | London

MILLENNIUM DOME

Instantly recognisable, the Millennium Dome was designed and built to an immovable deadline. The company worked as construction manager on the venue which provided the focal point of the country's Millennium celebrations.

The largest structure of its type in the world, the Dome covers 20 acres and stands as high as Nelson's Column. The main roof structure is formed from a vast net made up of 72km of steel cables suspended from a dozen 100m high masts.





1998–2006 | Cornwall

EDEN PROJECT

One of the most ambitious gardens ever conceived, the visionary Eden Project is a showcase for global biodiversity and man's relationship with plants.

Built in a disused china clay pit near St Austell, Cornwall, this project pushed construction technology to new limits.

Two huge biomes covering more than 2.2 hectares create a living theatre of plants and people. Three climatic zones house more than a million plants representing 5,000 species.

Construction of the biomes, the largest of which is 240m long, 55m high and 110m wide with no internal supports, required the biggest birdcage scaffolding in the world. With 230 miles of scaffold poles weighing 1,300 tonnes, it was one of the project's major construction challenges.

Additional contracts have included The Core, The Eden Institute and numerous upgrades to both staff and visitor facilities.





2000–2002 | Manchester

IMPERIAL WAR MUSEUM (NORTH)

A building defined by the complexity of its geometry, this landmark museum on the banks of the Manchester Ship Canal houses exhibits including a T34 Russian tank and a Harrier jump-jet. One of the most striking elements of the museum is the floor of the main exhibition hall which is designed to replicate part of a larger sphere and is curved in all directions.

1999–2010 | London

EXCEL LONDON

ExCeL London is the capital's largest exhibition and conference venue and hosts some of the biggest trade and consumer events in the UK.

Following the successful completion of the original 65,000m² venue in 2001, contracts have included

provision of a dedicated energy centre, enhancement of conference facilities and modifications to enable the venue to host the Boat Show.

We have since returned to the Docklands venue to deliver a major 40,000m² extension.





2000–2003 | Birmingham

BULLRING

Redevelopment of the Bullring shopping centre changed the face of Birmingham city centre. Covering 26 acres and featuring iconic architecture, it is one of the biggest retail developments built in Europe for over a decade, providing 100,000m² of retail space in 150 stores.

Other large-scale retail projects delivered in this period include a two-storey mall extension at the Metrocentre in Gateshead. Completion of the 34,500m² scheme, which houses a department store and 28 new outlets, made the centre Europe's largest shopping and leisure complex.

The company was also responsible for the refurbishment and extension of the Frenchgate Centre in Doncaster and delivery of the five-storey Kingsgate Centre in Huddersfield.

Metrocentre, Gateshead



1997–2000 | Southampton

WEST QUAY

One of the largest city centre redevelopments of its kind in the country, West Quay provides 74,500m² of retail space over three storeys.



2000–2008 | Northumberland

THE ALNWICK GARDEN

Among the most exciting contemporary gardens created in Europe in the last 100 years, this 12-acre attraction features one of the biggest treehouses in the world at 18 metres tall. The garden is also home to The Grand Cascade, the largest water feature of its kind in the UK. Additional contracts completed over the last decade include The Garden Pavilion and Visitor Centre, The Serpent Garden, The Poison Garden and The Bamboo Labyrinth.



2002–2004 | Cardiff

WALES MILLENNIUM CENTRE

Constructed on reclaimed land overlooking Cardiff Bay, Wales Millennium Centre is host to an international showcase of musicals, opera, dance and ballet. A 1,850-seat main auditorium establishes the centre as a world-class venue. The building's main elevation is dominated by the Gwyneth Lewis inscription: Creu Gwir Fel Gwydr O Ffwrnais Awen / In These Stones Horizons Sing.



2002–2004 | Manchester

1 SPINNINGFIELDS

With its striking curved glass façade, 1 Spinningfields is the gateway to the Spinningfields commercial and legal district, one of Europe's largest urban regeneration areas. Along with 1 Hardman Boulevard, the building forms the 50,000m² regional headquarters of The Royal Bank of Scotland.

The company also constructed 2 Hardman Street, another of the district's landmark properties.



2003–2005 | Perth

PERTH CONCERT HALL

Capable of being reconfigured into eight different seating formats, Perth Concert Hall is one of the most versatile venues in Europe.

Seating 1,200 on two levels, the concert hall provides excellent sightlines and acoustics for orchestral performances.

2004 | Windsor

DORNEY LAKE BRIDGES

The construction of three bridges in the style of a traditional rowing boat is one of a number of contracts undertaken at Eton College's world-class rowing facility. A variety of infrastructure projects were undertaken across the site over a period of nearly 10 years.





2003–2005 | London

ONE BISHOPS SQUARE

One of a new breed of contemporary office blocks, this City of London development provides more than 105,000m² of office space in three interlinked buildings. A series of refurbished former cold stores provide retail and residential units. The building incorporates a 580m² rooftop photovoltaic cell installation.

2003–2005 | London

CARDINAL PLACE

Rising in a dramatic 10-storey arc of glass and steel, Cardinal Place in Victoria comprises two office buildings with a total floor area of 94,500m². As on a number of London city centre projects, the contract involved demolition and construction works over and around underground rail lines.





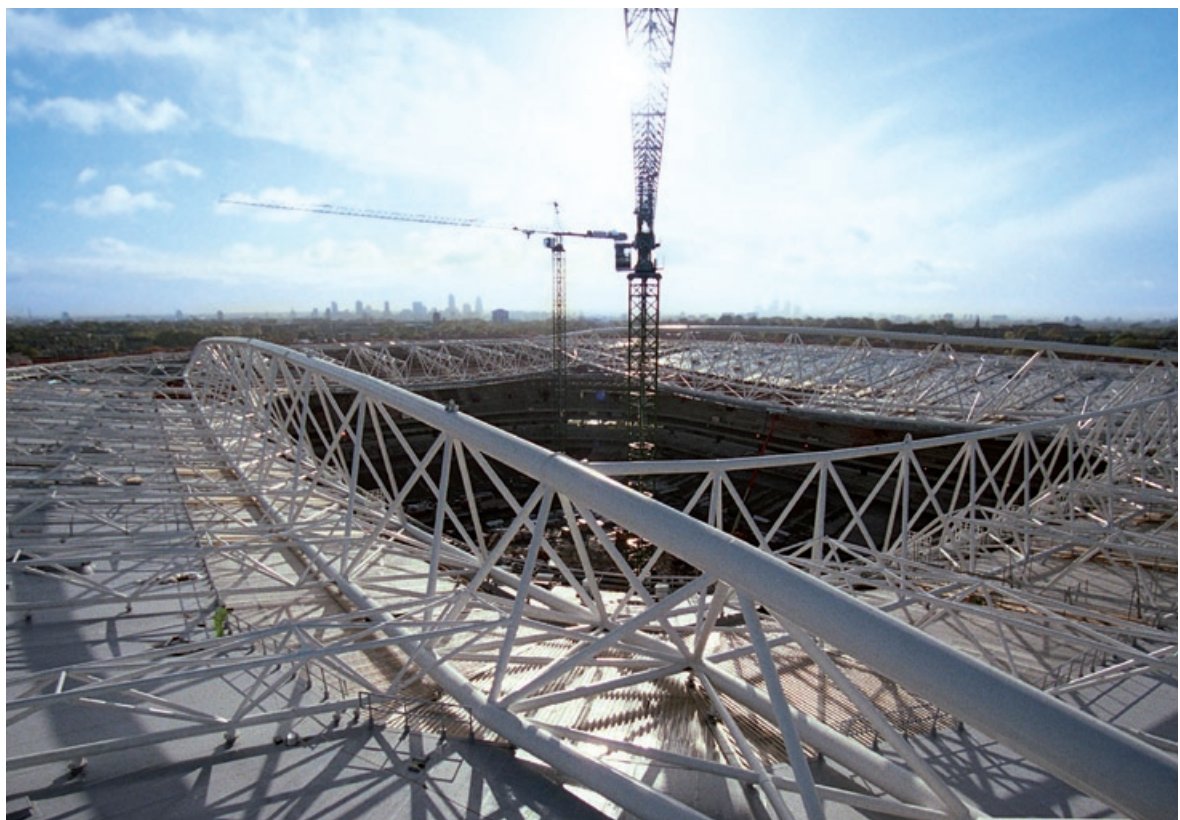


2003–2006 | London

EMIRATES STADIUM

A unique development which set a new benchmark for modern European football stadia, the relocation of Arsenal Football Club involved the delivery of the club's Emirates Stadium and the transformation of its former Highbury home into a 724-apartment luxury residential development.

Built on a 17-acre site in Islington, the 60,000-seat stadium formed the centrepiece of a wider regeneration project which also involved the construction of two new bridges across railway lines, a waste transfer station, a headquarters building and a 12-storey residential development.





2004–2006 | Edinburgh

HBOS HEADQUARTERS

Adding to a catalogue of projects delivered across the Scottish capital, refurbishment of the HBOS headquarters on The Mound restored to its former glory a landmark building which has dominated the city's southern skyline for 200 years.

2004–2008 | Colchester

COLCHESTER GARRISON

A prime example of the company's ability to deliver large-scale projects, the redevelopment of Colchester Garrison is one of the largest defence accommodation Private Finance Initiative schemes undertaken. Completed five months ahead of schedule, the project included the design and construction of more than 110 buildings across a 185-hectare site.



2005–2007 | London

O2 ARENA

Constructed entirely within the structure of the former Millennium Dome, the O2 Arena on London's Greenwich Peninsula is one of the world's premier venues. The 23,000-seat arena can accommodate a wide range of events from sporting and entertainment spectacles to exhibitions and shows. With conventional lifting methods ruled out because of its location within an existing structure, the arena's 4,500 tonne roof was built at ground level and then raised into position using computer-controlled strand jacks.



2005–2007 | London

NEW STREET SQUARE

This major City of London development provides 92,000m² of office and retail space across five buildings ranging in height up to 19 storeys. The scheme is reached via narrow medieval-style footpaths that merge seamlessly with the surrounding streetscape and lead into a landscaped public square.

2006–2007 | Newcastle upon Tyne

CITY CAMPUS EAST

Featuring a host of measures designed to reduce its environmental impact, this city centre campus for Northumbria University demonstrates the central role sustainability can play in urban renewal. One of many higher education facilities constructed at universities and colleges across the country, its two buildings house the schools of Business, Law and Design.



2007 | Manchester

CHILL FACTOR[®]

Chill Factor[®] is one of three real snow indoor skiing and snowboarding venues built by the company. Its construction followed delivery of Xscape in Milton Keynes, the first integrated sports, leisure and retail complex of its kind in Europe. In 2009 the company also completed the Snow Centre in Hemel Hempstead.



Cabot Circus

Highcross



2006–2008 | Bristol and Leicester

CABOT CIRCUS AND HIGHCROSS

Opened within three weeks of each other, Cabot Circus and Highcross further extend the company's involvement in the evolution of the modern shopping centre.

Featuring a spectacular signature glass roof over its central area, Cabot Circus forms a new gateway to Bristol from the M32. The 36-acre scheme creates three new streets and provides 130 shops, more than 25 restaurants, a 13-screen cinema and 250 homes.

Highcross is the biggest regeneration scheme Leicester has ever seen, providing more than 120 stores in 110,000m² of shopping space along with restaurants, 120 apartments and a multi-screen cinema.

The two schemes were among a number of major retail-led redevelopment projects completed by the company in this period. These included Southgate Bath, Princesshay in Exeter and the renovation of the market buildings in the heart of St Peter Port, Guernsey.



2005–2008 | London

KINGS PLACE

Flanked on two sides by the Regent's Canal and home to the first new concert hall built in London for 25 years, Kings Place provides a mix of commercial offices, cultural facilities and waterfront restaurant spaces. Creating the building's underground auditorium required what at the time was the deepest single prop excavation undertaken in the UK.

2005–2010 | Newcastle upon Tyne

ELDON SQUARE

Completed under a five-year programme, the redevelopment of Eldon Square has significantly improved Newcastle's shopping and transport facilities. The scheme updates and extends the centre, a major part of which was constructed by the company in the 1970s.

The project continues our involvement in the region's retail sector which has also seen the delivery of a series of projects across the River Tyne at Gateshead's Metrocentre.





2006–2007 | Newcastle upon Tyne

NEWCASTLE INTERNATIONAL AIRPORT CONTROL TOWER

Standing twice as tall as the Angel of the North, this control tower is one of a number of projects delivered as part of the airport's ongoing redevelopment, contracts which include the extension of the main terminal building and provision of fuelling facilities.



2006–2009 | Edinburgh

QUARTERMILE

One of Scotland's largest regeneration projects, the company has played a central role in the delivery of this 19-acre development which blends the restored Victorian architecture of Edinburgh's former Royal Infirmary with a series of stylish contemporary buildings. In addition to the scheme's flagship 1 Quatermile Square, we have delivered a number of commercial and residential buildings across the site.

2006–2008 | London

SAATCHI GALLERY

The Duke of York's Headquarters in Chelsea was refurbished and extended to create a new art gallery for London. In its new incarnation the building showcases works from one of the world's largest private collections of contemporary art.





2007–2009 | London

WATERMARK PLACE

Watermark Place provides 50,000m² of high quality office space in a key riverside location in the City of London. A commitment to sustainable development underpinned the design and construction of the scheme which retains a third of the building it replaced.

Located on an adjacent site, the 10-storey Riverbank House extends our involvement in the transformation of this stretch of the Thames.

2007–2009 | St Austell

WHITE RIVER PLACE

Creating a natural extension to St Austell town centre, this stylish retail and leisure development provides a further example of the company's sustainable approach to construction. All the 120,000 bricks used came from South Devon and the scheme's 370,000 blocks were made with secondary aggregate from nearby china clay pits.



2007–2009 | Edinburgh

MISSONI HOTEL

The Missoni is a fine example of the high standard of hotels constructed by the company. Occupying a prime location on the corner of George IV Bridge and the Royal Mile, the 136-room hotel incorporates a retained 16th century Category A listed building.



2007–2009 | Manchester

1 NEW YORK STREET

A signature building in Manchester's business district, 1 New York Street is designed as a series of two-storey glass and metal boxes which give the illusion of sliding in and out of the building's façade.



2007–2009 | Gloucestershire

REDNOCK SCHOOL

Delivered as part of the Government's Building Schools for the Future programme, this vibrant and innovative school provides a highly flexible series of learning spaces and improved sports facilities.

Rednock School adds to a catalogue of educational facilities constructed by the company in recent years which includes Hazelwood School in Glasgow and Donaldson's in Linlithgow.

2007–2011 | Glasgow

M74 COMPLETION

Perhaps one of the most significant recent highways projects undertaken by the company, construction of the 'missing' section of the M74 completes a vital part of Scotland's roads network.

The eight kilometre stretch of the M74 extends the motorway from the Fullarton Road junction near Carmyle to the M8 near Glasgow city centre.

Further south, widening of the M1 between junctions 25 and 28 in the East Midlands added a fourth lane to the three-lane carriageway in each direction.



2008–2009 | Redcar

PRIMARY CARE HOSPITAL

Delivered under the Private Finance Initiative, this community hospital provides an expanded range of high quality healthcare services. Facilities include an inpatient ward, GP practices, an outpatients unit and a day theatre.

The hospital is one of a number of healthcare facilities delivered the length and breadth of the country. These include The Marie Curie Hospice in Glasgow, a large extension to Derriford Hospital in Plymouth and two major research centres at Ninewells Hospital in Dundee. Further healthcare projects delivered under a national framework include the Wandsworth Acute Unit and the Phoenix Unit for South West London & St George's Mental Health NHS Trust.

2007–2012 | Newcastle upon Tyne

NEWCASTLE SCHOOLS

The redevelopment of 18 schools across Newcastle formed part of a wider Government drive to improve the country's school estate.

Sixteen of the schools were refurbished or rebuilt under the Building Schools for the Future programme, and as part of the Local Education Partnership the company will be involved in the ongoing operation of these schools for 25 years.



2009–2011 | Bristol

HORIZON HOUSE

Home to the Environment Agency's new Bristol corporate office, Horizon House was designed and constructed to the highest standards of sustainability. The building forms part of the wider Cabot House mixed-use development.

2008–2012 | London

QUADRANT 3

Conversion of the Grade II listed former Regent Palace Hotel forms part of a major redevelopment scheme for southern Regent Street. Elements of the existing façade were retained and significant sections of the interiors meticulously removed and restored, including the hotel's famous Titanic Restaurant and Atlantic Bar and Grill.





2008–2011 | London

OLYMPIC STADIUM

We are playing our part in delivering a new chapter in sporting history with construction of the London 2012 Olympic Stadium. Built on a 40-acre island site at the Olympic Park in Stratford, the 80,000-seat stadium will be the centrepiece of the London 2012 Games, hosting the athletics events as well as the opening and closing ceremonies.

Around 800,000 tonnes of soil was excavated to create the stadium bowl which contains the field of play and the 25,000-seat lower tier of terracing. An upper tier of demountable terracing provides a further 55,000 seats.

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