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ENGINEERING

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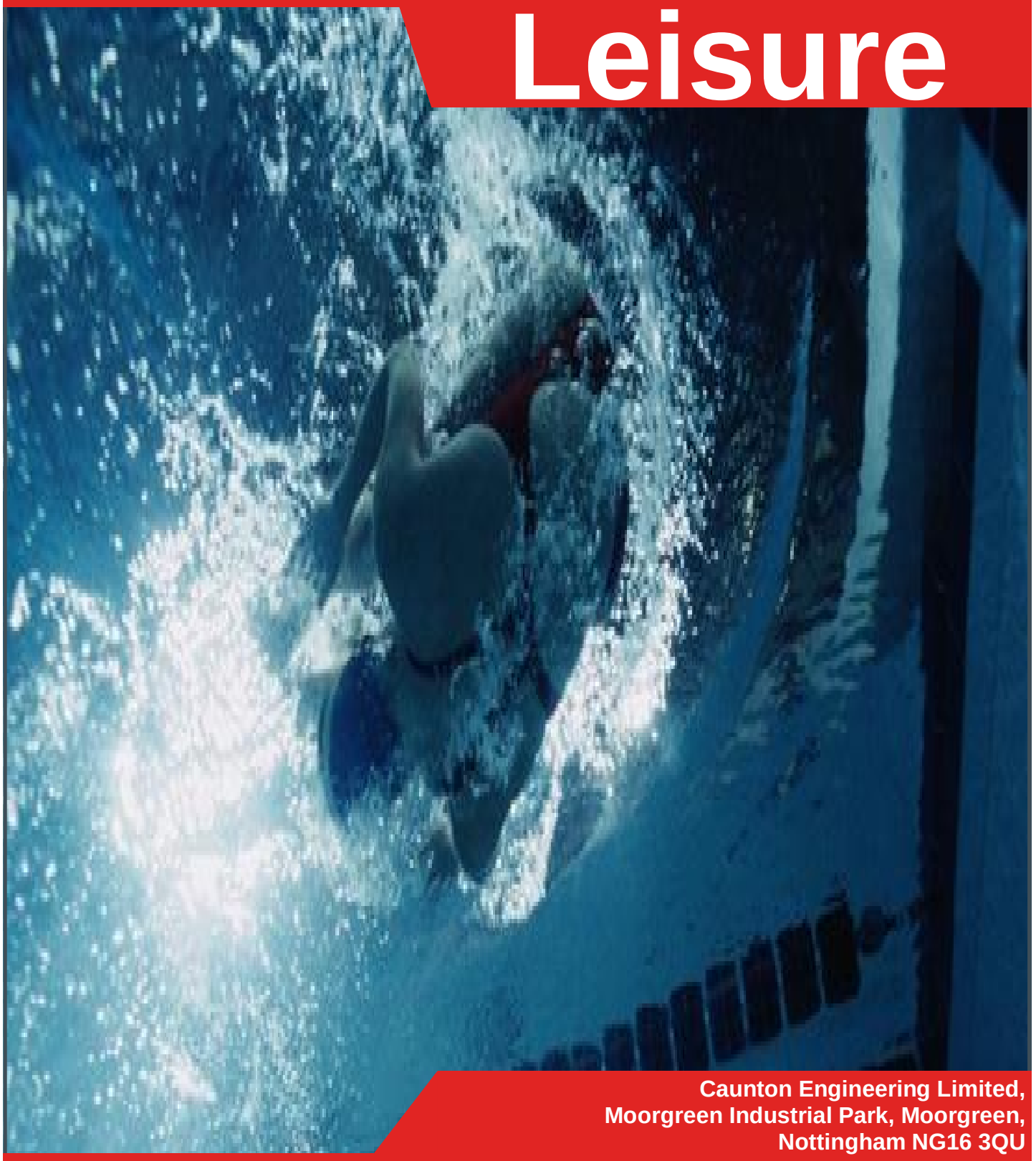
Steelwork for

Leisure



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Caunton is one of the UK's leading steelwork contractors, offering a one stop construction solution. Specialising in the design, fabrication and erection of structural steelwork Caunton Engineering can give a first class service every step of the way.

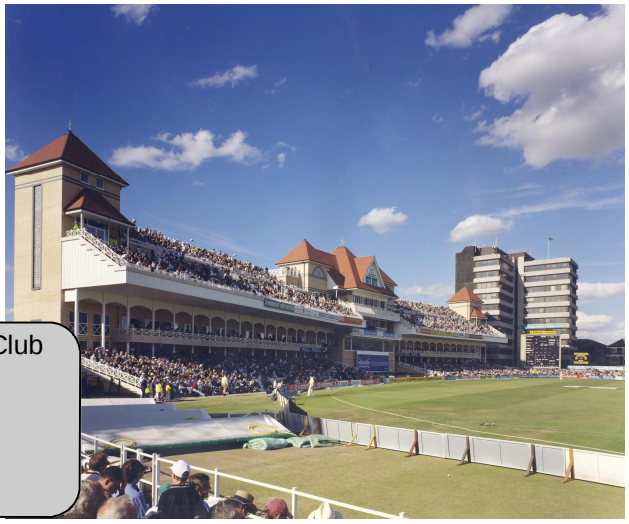
We are a family owned company, established in 1969 and we have since proven to be a progressive pioneer of fully automated manufacture, information technology and innovation.

Our Nottingham based production facility employs some of the most up to date computer numerically controlled machinery within our 110,000 sq foot plant on a 42 acre site.

Radcliffe Road Stand, Trent Bridge Cricket Ground

The first three-tiered cricket stand to be built in the UK

Caunton carried out the detail engineering, fabrication and erection of the steelwork package to produce this new three tier stand capable of 4,500 spectators.



This is the first three-tier cricket stand in the UK and was specially designed to incorporate a tier of executive hospitality boxes.

One of the main features of this structure is the steel supporting columns. These are hollow sections filled with concrete to ensure fire resistance but also maintaining the circular profile of columns. It is features such as this that have contributed to the overall success of this project.

Caunton completed the steel erection two weeks ahead of schedule enabling the stand to be open for the test match against South Africa in the summer of 1998.

Client: Nottinghamshire County Cricket Club
Main Contractor: Sol Construction
Engineer: Jackson & Peplow
Architect: Maber Associates
Quantity Surveyor: Gleeds
Tonnage: 700 tonnes

New Museum of Liverpool

The Fourth Grace built to celebrate the European Capital of Culture

Caunton played an integral part in providing Liverpool with its long desired "fourth grace" to stand alongside the world renowned "three graces" – the Liver and Cunard Buildings and the old Mersey Docks and Harbour Board offices. The "fourth grace" – the New Museum of Liverpool is an iconic steel-framed building housing what will be one of the leading city history museums in the world.

The £65m project is a most striking design, a partially closed X on plan, symetrical about the diagonal axis, with sweeping "wing roofs" and large glass picture windows at each end.

Client: New Museums of Liverpool
Main Contractor: Pihl-Galliford Try JV
Engineer: Buro Happold
Architect: AEW Architects & Designers
Quantity Surveyor: MGB Quantity Surveyors Ltd
Tonnage: 2000 tonnes

The choice of using steel for the structural frame resulted in many benefits during construction. The value engineering exercise carried out by Caunton cut down the original design for four large plate girders to two,creating a lighter roof structure.

A total of 2,100 tonnes of steel was provided by Caunton for the buildings main structure, the load was taken into the ground via a 4m deep reinforced concrete raft. The benefits of the clear spans are felt most on the second floor where there are two 40m long column-free main galleries – one at either end – with the beams above spanning 28m across the width of structure.

Academy for Derbyshire County Cricket Club

Three storey structure incorporating cricket hall, community zone and terrace block

Caunton Engineering completed the structural steelwork for the Derbyshire Cricket Academy.

The building is at maximum three storey's high and comprises three distinct zones; the cricket hall, the community zone and the terrace block.

The main cricket hall, the focal point of the Academy of course, is 24 m wide and 43 m long. It is a double height column free space generated by 24m- long N-type steel trusses at 7.2 m centres. It houses five cricket training lanes and can be utilised for both training and indoor match -play. It is clad in polycarbonate strips which are translucent, affording views of the silhouette of the steelwork within. This utilises the feature of steel's relative slenderness through its high strength to weight ratio.

With this in mind, engineer Buro Happold and architect Fluid came up with a most unusual form of bracing, which they christened "Christmas tree bracing", and this is repeated along the length of the facade. This provided a combined solution to the need for stability against wind loads and the desire to make a strong aesthetic statement.

Main Contractor: Bowmer & Kirkland Ltd
Engineer: Buro Happold
Architect: Fluid
Tonnage: 270 tonnes

Apollo Cinema at Altrincham

Six-screen cinema built in a most confined site location

Caunton completed a highly successful leisure project comprising a Multi-screen Cinema, an Underground Car Park, together with restaurant areas. This new six-screen Apollo Cinema Complex in Altrincham has been developed as a partnership between the developer CTP and Altrincham Town Council.

Caunton have supplied over 400 tonnes of Structural Steelwork to frame this uniquely shaped structure, which was built within “a tight site”, bounded by a railway line to the rear, plus a railway bridge and a trunk road to a residential development.

Considerable time was spent at the pre contract phase developing a suitable structural grid to satisfy the differing requirements of the auditoria, the car park, the restaurants and the site boundary. Caunton’s erection team was as a result presented with a number of logistical challenges during the erection, not only of the Structural Steelwork, but also the placing of the metal decking and installation of the pre-cast concrete stair flights. Caunton’s contract with main contractor John Sisk & Son Ltd. was on a design and build basis. Caunton were in a position to liaise closely and at an early stage with John Sisk to deliver a complex steelwork frame within a budget and a programme that had to satisfy strict technical criteria. As a result, both vibration and acoustic technologies were employed in order to satisfy the requirements demanded of the client, generated by the close proximity of the railway line.

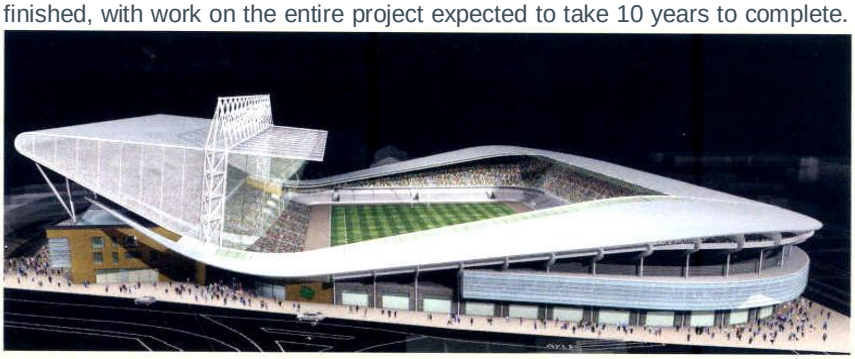
Client: CTP and Altrincham Town Council
Main Contractor: John Sisk & Son Ltd
Engineer: SKM Anthony Hunts
Architect: Ellis Williams
Tonnage: 400 tonnes

North Stand, Leicester Tigers Stadium

New stand for Rugby Union’s best supported club

Caunton have just landed the order for the steelwork for the spectacular 10,000 seat North Stand for Leicester Tigers Rugby Club from Galliford Try, see below photograph. Main Contractor Galliford Try have secured the first part of a £60 million contract to redevelop the ground of rugby union’s best supported club side, and this includes the North stand.

The club started work on the North Stand as soon as the 07/08 season finished, with work on the entire project expected to take 10 years to complete.



Designs drawn up by AFL Architects also include a three star hotel, a 450-space-multi-storey car park and educational building for people with multiple learning disabilities on behalf of the adjacent Leicester College. The club’s proposal for the transformation of its Welford Road ground will increase capacity from 17,500 to 30,000, making it the largest dedicated club rugby union stadium in the UK.

Construction on the Stadium will be phased. The first stage is expected to be finished by September 2009. The steelwork comprises over 1000te of sophisticated fabrication, which includes 110m span x 10m deep tubular triangular shaped truss weighing 135 tonnes.

Main Contractor: Galliford Try
Engineer: URS Corporation
Architect: AFL Architects
Tonnage: 1000+ tonnes

“The Hospital” Media Centre, Covent Garden

Large Clear spans for a media centre inspired by Dave Stewart of Eurythmics fame

Caunton carried out the connection design, supplied and erected the 410 tonnes of structural steelwork for a new media facility right at the heart of Covent Garden for client The Hospital Group Ltd. The concept is the brainchild in part of Dave Stewart, of Eurythmics; he has also acted as consultant for this project.

The site originally housed the old St Paul’s Hospital, which has been unoccupied for nearly ten years. Only the two existing facades, those to Endell Street and the Shorts Garden elevations, have been retained. The remainder of the building was totally demolished to basement level.

When the structure provides 5000m sq of floor space. A substantial part of the ground floor, first floor and second floor area is suspended from two major trusses located between the third and fourth floor levels. This clever feature therefore creates clear spans for both ground floor and first floor areas, and the basement studio area is completely free of columns.

In addition to supplying the steel frame, Caunton also managed the supply and installation of the structural metal floor decking and precast concrete stairs. The off site intumescent fire protection was also part of Caunton’s responsibilities.

Client: The Hospital Group
Main Contractor: Norwest Holst
Engineer: Price & Myers
Architect: Allies and Morrison
Quantity Surveyor: Davis Langdon & Everest
Tonnage: 410 tonnes

Renaissance Chancery Court Hotel

The former Pearl Assurance building on Holborn was transformed into a five star hotel.

Client: Renaissance Chancery Court Hotel
Main Contractor: John Laing Construction
Engineer: Waterman Partnership
Architect: T P Bennett Partnership
Quantity Surveyor: Gardiner & Theobald
Tonnage: 850 tonnes

Hidden within the impressive façade of the former Pearl Assurance headquarters lays 850 tonnes of new structural steelwork supplied and erected by Caunton Engineering Limited.

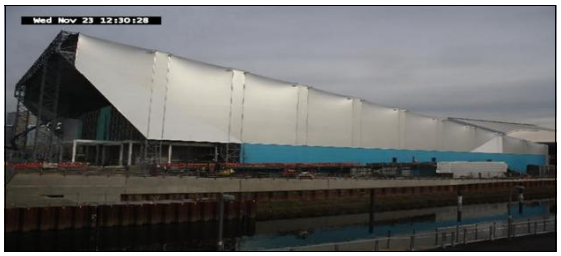
With the exception of the front part of this listed building and an inner courtyard façade, which were both retained, the remainder of the building was demolished down to the existing third floor and in some cases down to the basement.

Following exposure of all the remaining existing steelwork, Caunton set about the strengthening works and new connections needed to carry the new floors above.
The existing steel was spliced and a further four new floors and two plant rooms added.
In addition to the steelwork, Caunton also undertook the management for the supply and installation of the metal floor decking erected from the basement upwards.

Olympic Water Polo Structure

Steelwork frame for the Olympics Water Polo Arena

Caunton were proud to supply the steelwork frame for the Olympics Water Polo Arena. Working for ES Global, renowned experts in the provision of bespoke, temporary structures, the company supplied over 500te of fabricated and painted steelwork for ES Global then to erect on the Olympic site. The temporary venue, will contain a 37m-long competition pool and a slightly smaller warm-up pool, and will stage both the Men’s and Women’s Water Polo. The Arena, with its distinctive silver wrap and inflatable ribbed roof made from recyclable plastic is well underway – the picture was taken in November 2011.



Client: Olympics
Main Contractor: ES Global Ltd
Engineer: Momentum Engineering Ltd
Tonnage: 445 tonnes

It will be located at the entrance to the Olympic Park, next to the Aquatics Centre, with which a number of back-of-house facilities will be shared to make the best use of available space. After the Games, the venue will be taken down, with elements reused elsewhere in the UK, promoting reuse and reduction of materials. Caunton are delighted to be involved with such a sustainable scheme.

INVESTORS IN PEOPLE

Sustainability in Steel Construction

BCSA

SCCS UKAS ENVIRONMENTAL MANAGEMENT 021

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