



# Infrastructure








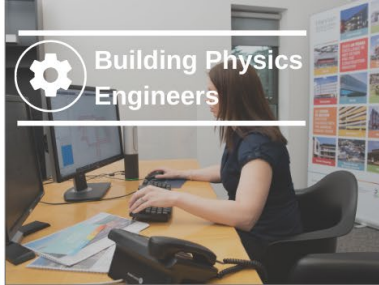











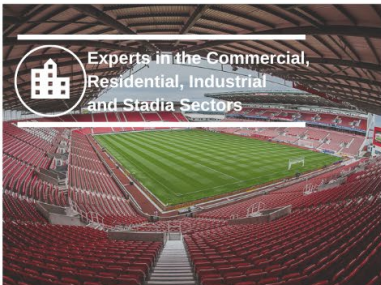




Hannan  
Associates  
MEP Design Solutions

# Introductions.....

Hannan Associates is an engineering consultancy formed in 1983 to provide MEP Design Solutions to the Construction Industry.

We pride ourselves on delivering our service with a higher level of personal attention than larger competitors but providing a comparable strength of management, process discipline, expertise and creativity.

We focus on building services and deliver projects valued in excess of £500m with national and international design teams. We work in a range of sectors with projects of varying sizes, providing us with good market resilience and an exceptional breadth of track record and design competence.

 <b>MEP Engineering Consultants</b> 	 <b>Sustainability Consultants</b> 	 <b>BREEAM Assessors &amp; Accredited Professionals</b> 	 <b>Building Physics Engineers</b> 
 <b>CIBSE Low Carbon Consultants &amp; Energy Assessors</b> 	 <b>Founded in 1983 - 40 years old</b> <b>Hannan Associates</b> MEP Design Solutions 	 <b>Head office in Denton, Manchester</b> 	 <b>80% of our turnover is achieved through repeat business</b> 
 <b>Platinum Award level</b> independent client satisfaction survey <small>This is to certify that the above organisation has commissioned an independent customer satisfaction survey conducted in compliance with ISO/TS 10004:2012: Quality Management System Guidelines</small> <small>The customer satisfaction level achieved: 90%</small> <b>Platinum Award</b> 	 <b>Experts in the Commercial, Residential, Industrial and Stadia Sectors</b> 	 <b>ISO 9991 Quality Assurance Certified</b> <b>ISO 9001 REGISTERED</b> <small>This document certifies that the quality management systems of</small> <b>WILLIAM E. HANNAN &amp; ASSOCIATES LIMITED</b> Beta House, Alphagate Drive, Manchester Road, Denton M34 3SH 	 <b>Working throughout the UK &amp; internationally</b> 

# Our Team.....

The Hannan team is led by long standing directors Ian Joyce, Jamie Hall and John Walker.

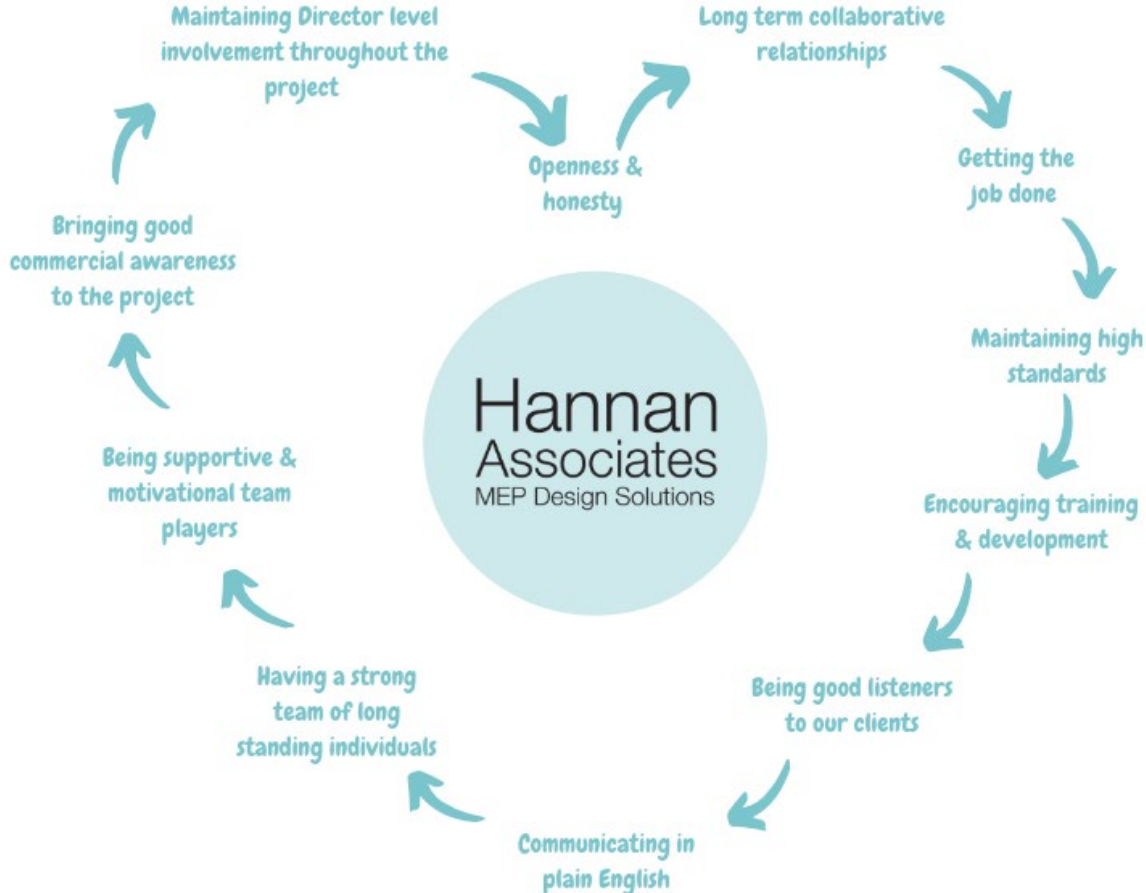
The development of the company has been aided by a strong, long serving work force through which we have developed lasting relationships with our clients, ensuring that 80% of our turnover is achieved through repeat business.

We recognise that we cannot do this without the support and enthusiasm of all our team members and we therefore endeavour to maintain the highest levels of team work and co-operation and develop staff that possess well founded self-belief who will act with diligence and integrity on behalf of our clients.

Many of our engineers have worked together over a long period of time, some for over 25 years, completing many successful projects together. Treating each project as unique we handpick each team to collectively possess the skills and range of experience needed to succeed, whilst creating a dynamic environment that encourages creativity.



# We love ....



# What we do.....

In essence we provide MEP Design Solutions to the construction industry. We have been doing this since 1983 so we're pretty good at it. Here are some of the ways we can help you...

## A

Acoustics  
AV Systems

## B

Building Health Checks  
BREEAM Assessment  
BREEAM Accredited Professional  
Building Physics

## C

Condition Surveys  
Construction Inspection and Supervision

## D

Design for Performance Modelling  
DEC Certification

## E

Electrical Building Services Design  
Energy Audits  
EPC Certification

## F

Feasibility Studies  
Fire Engineering

## I

Infrastructure Planning and Design  
Internal Environment Modelling  
IT Systems Design

## L

LEED Assessment  
Low & Zero Carbon Strategy & Design

## M

Mechanical Building Services Design

## O

Operational Energy Modelling

## P

Planned Maintenance  
Planning Reports  
Public Health Building Services Design

## R

Renewable Energy Technology Feasibility

## S

SBEM Calculations  
Services Engineering Appraisal  
Sustainability Strategy

## T

Thermal Modelling

## V

Vertical Transportation Design

## W

Water Conservation & Compliance Audits  
WELL Building Consultancy

# Sustainability.....

Energy reduction, the core of sustainable design, was inherent in our building design process long before it reached the political agenda. Our sustainable credentials are therefore built upon years of experience at the forefront of low energy, low carbon solutions.

We are now at the forefront of change in relation to the way buildings are modelled to meet the demands of evolving building regulations and guidance from UKGBC and LETI, which are driving carbon targets for construction towards the 2050 net zero government commitments.

Our involvement includes pilot schemes for modelling energy and carbon in use for new buildings, such as Design for Performance (DfP) and NABERS UK and this experience enables a valuable contribution to development masterplan and individual building sustainability.

Hannans can provide sustainability advice across a wide range using in-house engineers and consultants and specialist partners where needed to define ways of achieving sustainability objectives. This includes.....

- ✓ Energy modelling and Carbon assessment of energy for building services
- ✓ Energy and carbon performance evaluation
- ✓ BREEAM assessment and BREEAM AP
- ✓ Carbon in construction
- ✓ Well Building Assessment



## Net Zero Carbon Buildings: A Framework Definition

APRIL 2019

Advancing Net Zero Programme Partners

Lead Partner:



Programme Partners:



# Our clients say.....

“

*Hannan Associates are one of our best consultants. We have an excellent relationship with Hannan Associates who are very good team members. Their input and output are both first class. We would definitely use them again.*

”

“

*I've really enjoyed working with you and your team over the last 10 years. The fact that during all of my time here we have continued to work with Hannans on an increasing basis is testament to the relationship and trust that has been built. I'm sure you will continue to go from strength to strength.*

”

“

*Knowledgeable, commercial and capable M&E consultant. They get the job done in line with the demands of the project and are good to work with.*

”

“

*Very professional & client focused.*

”

“

*I think Hannan Associates are a brilliant company to work with. They have never let me down.*

”

“

*They have a no nonsense approach. Always happy to help.*

”

“

*I recommend them all the time. I have been using them for a some time now and never been let down.*

”

“

*Hannan Associates play an important role within the team, integrating well and always listening to their design team colleagues to ensure the desired client outcome is achieved.*

”

# Our experience .....

Hannan Associates have over 25 years' experience of infrastructure appraisal, strategy, design and procurement ranging from single buildings to large complex developments and City wide infrastructure appraisals.

Our detailed knowledge and understanding of building operation and dynamics allows an accurate prediction of utility requirements and enables an approach which closely links the building design parameters with the utility strategy. This is supported by an up to date awareness of the current utilities market and the procurement opportunities and processes that exist.

We adopt a risk aware approach to programming and delivery by the utility companies in advice provided at each stage of

Our involvement includes site surveys, design and procurement of new infrastructure, upgrading existing infrastructure services and relocation of services.





# LIVERPOOL WATERS

**Client:** Peel L&P

**Contract Duration:** September 2018 – ongoing



Hannan Associates are very pleased to be part of the team delivering Peel Land and Property's Liverpool Waters Development.

Our team is currently providing strategic, procurement and cost advice for the infrastructure required to support and enable the whole of the development. Our work includes the identification of the utility requirements, appraisal of the fulfilment options and procurement.

This is a key role in the master planning team and involves liaison and negotiation with the local utility companies and commercial operators in the ever changing utilities market. We are also providing site wide advice on sustainability to assist with the development of a class leading location and assistance with planning submissions for individual plots.

Liverpool Waters involves the transformation of the city's central and northern docks, regenerating a 60-hectare site to create a world-class, mixed use development on Liverpool's waterfront. When complete the development will provide the city with much needed job opportunities and will strengthen the connection between the waterfront and the city centre.

Other members of the team include Project Manager & Quantity Surveyor Walker Sime and Masterplanners Planit IE .



# OMEGA BUSINESS PARK, WARRINGTON

**Client:** Miller Developments  
**Architect:** Chetwood Architects  
**Project Value:** £1 BN  
**Contract Duration:** May 2012 - ongoing



Omega (M62 J8 Warrington) being delivered by Omega Warrington Ltd, is currently the largest mixed-use development site in the North West. With around 2.5m sq ft of logistics space Omega is home to Brakes, Hermes Parcelnet, Travis Perkins, Asda, the Hut Group, Plastic Omnium, Amazon, Dominoes, Royal Mail and the Delivery Group.

The 226 ha site straddling the M62 (J8) near Warrington comprises a large part of the former RAF/ USAF Burtonwood Airbase.

Hannan Associate's duties on this scheme have included site wide utilities strategy information and MEP contribution to the master planning proposals, utilities infrastructure appraisal, design and procurement for the whole of the Omega North and Omega South sites.

We have provided MEP Consultancy Services for performance design, tender & installation duties for all Cat A works across the scheme to date, together with Cat B works in the majority of the units for the integral offices and associated support accommodation. Other duties included planning submission support, BREEAM assessment, utilities provisions for the tenant developed plots and pre and post exchange tenant liaison for the utilities.

We have also provided technical support on site stage progress and quality monitoring, through to completion/handover stage, for all of the OWL developed buildings on the North and South sites

The Hannan industrial team is very proud to have contributed toward the outstanding success of Omega Warrington over the last ten years and look forward to any future development on the site.

Omega is being delivered by Omega Warrington Ltd (OWL) in partnership with landowner the Homes and Communities Agency and supported by Warrington Borough Council and the Cheshire and Warrington LEP.



# LIVERPOOL VISION INFRASTRUCTURE REVIEW

Client: Liverpool City Council  
Contract Duration: 2001 - 2002



The project involved an appraisal of the potential impact of Liverpool's ambitious masterplan for the development of the city upon the electrical supply infrastructure.

The initial stage of the review was conducted with Liverpool Vision and assessed the masterplan proposals to establish the additional demand on the network, in each of the new development areas within the city.

During the second stage we worked in conjunction with SP Manweb, the local electricity District Network Operator, to examine the relationship between the existing network capacity and the anticipated increase in demand.

The report examined the local network capability and development impact and also examined the requirements at a city wide level.

We provided technical liaison between SP Manweb and Liverpool Vision and acted as advisors to Liverpool Vision during discussions and negotiations with SP Manweb. Hannan Associates prepared a technical report with contributions from Liverpool Vision and SP Manweb which identified the works required to support the masterplan development at both a local area and city wide level. The report informed the basis of the subsequent political discussions and negotiations which were conducted to establish how the development could move forward.



# MUFC OLD TRAFFORD QUADRANTS EXTENSION

**Client:** Manchester United Football Club  
**Architect:** Miller Partnership  
**Project Value:** £42 M  
**Contract Duration:** 2004 - 2008



Hannans have been involved in various projects for Manchester United Football Club for 30 years. Ongoing Duties have included, Detailed Design, Infrastructure Services, Major Services Diversions, Monitoring, Surveys, Maintenance, Energy Performance Certificates and Condition Reports.

The Quadrants Development involved the infill of the North East and North West Quadrants, for which we provided Detailed Design Services. This development provided additional spectator terracing of 7,000 extra seats and 2,300 extra places for corporate dining. The design was complicated by the myriad of existing buried services which needed to be diverted to accommodate the piling required for the structure.

An enabling diversion and investigation works contract was carried out in the closed season before the main contract was awarded. This required very careful and close coordination with the design team and structural engineer to integrate the design of the structure with the services to develop the design of the building and the services together enabling as many services as possible to remain in place around the structure.

To facilitate this Hannans managed the location and excavation trial pits and ground imaging surveys directly with on site staff in a site based design and coordination role.

Hannans managed the specialist sub contract engineers and the infrastructure companies, who carried out the investigation works and succeeded in completing the diversions and design.

The main contract required close scrutiny of the costs on a regular basis with monthly reporting regime ensuring that budgets and timescales were adhered to during this demanding in fill to an existing building. The scheme was value engineered to meet demanding budget targets set by the club.

The build team were finalists in the major project section of the CIOB awards. Old Trafford has subsequently received a Green accreditation for sustainable achievements.



# LIVERPOOL FC ANFIELD STADIUM

**Client:** Liverpool Football Club  
**Architect:** HKS Architects  
**Project Value:** £400M  
**Project Duration:** 2007-2009



Hannan's were appointed to work on the first scheme for the design of Liverpool Football Club's new stadium during 2007 with AFL Architects. Following the sale of Liverpool Football club to the new American owners we were appointed to design the building services for their new unique stadium design up to BSRIA Stage E. We worked closely with Architects HKS and the wider design team.

Our duties included the infrastructure design works comprising major gas water electricity and telecommunications requirements for a new 73,000 seat stadium.

The services load requirement involved making network connections up to 3 km from the stadium site. We carried out load assessments and calculations to establish the services requirements which were sense checked, tested and compared to known data from other stadia schemes completed. The established loads included 5.5 Mva of electrical load, 90 Litres per second of water, 1600 M3 per hour of natural gas and telecoms and Fibre optics requirements to the stadium.

The ICT requirements for the stadium operation included a review of all opportunities & requirements including wireless network access. The infrastructure to the stadium was designed to accommodate the requirements including diverse network routing and entry points for security of supply.

Offsite infrastructure issues included coordination with traffic and matchday access requirements, an unexploded bomb from WWII and liaison with the infrastructure companies to manage the works to achieve completion in the closed season. The electrical supply required the establishment of a new twin 10 Mva primary substation.

The onsite coordination included close integration between each incoming service with integration of existing and proposed ground levels, together with consideration of temporary hall roads phasing and diversions. European funding sources were used to support the scheme. The enabling contract was let on a design and build basis and the team were novated to the main contractor to complete the commissions.

All off site mains incoming services were completed on time and to budget as an enabling package for the then planned stadium.



# TRINITY WALK, WAKEFIELD

**Client:** Simons Developments  
**Architect:** DLA Architecture  
**Project Value:** £200M  
**Contract Duration:** August 2005 – May 2011



Trinity Walk was an exciting and ambitious project which brought new life to Wakefield city centre with a total project investment value of £200M.

The development provided the centre of Wakefield with 600,000 sq ft of exciting new retail space, Completion in May 2011 saw the opening of new retail units for Sainsbury's, Debenhams, Next and New Look, alongside some 50 other retail units together with offices, new market hall, a new public square, and 910 car parking spaces.

Hannan provided concept design and performance specifications for the Retail and Market Hall together with designing the external lighting, major utility services to the site and multi million pound diversions associated with the road realignment and removal of the high pressure gas storage bullets on the site.



# NEWBURY RACECOURSE

**Client:** Newbury Racecourse  
**Architect:** KKA Architects  
**Project Value:** £20M  
**Project Duration:** August 2010 – ongoing



Hannan Associates have been retained MEP Consultants for Newbury Racecourse since 2010. We have provided stage 3 Developed Design, monitoring duties and utilities infrastructure for each phase of the work during the redevelopment of the racecourse.

The £20 M redevelopment includes a new 4\* 120-bed hotel by 'Bespoke' Hotels, the creation of a more impressive entrance providing a real 'sense of arrival', new ticket offices, new weighing room, new parade areas, refurbishment of the stable block, new accommodation for the 'stable lads', a new building for the children's nursery at the racecourse', improved access to the racecourse via a new bridge, upgrade external lighting, landscaping and car parking.

Improvements and additions to the current racing and golfing facilities at the racecourse are also being made. The site will also have up to 1500 new homes of which up to 450 will be affordable, shared equity housing or available to rent. The site won the excellence in planning to deliver housing category at the 2015 Royal Town Planning Institute Awards.

The redevelopment of the Heartspace area is now complete and available for use by racegoers. The Heartspace scheme focused on the redevelopment of the heart of the racecourse, undertaken in phases to ensure racing has been able to continue unaffected.

Phases one and two were completed in Summer 2017 and included the construction of a new Owners Club to provide hospitality space and office accommodation, re-location of the Pre-Parade Ring and Saddling Stalls and a new East Entrance building.

The final phase of works included a new South Entrance building, 2nr. Totes, landscaping and re-modelling of the Parade Ring and Winners Enclosure.



# BRUNEL UNIVERSITY FRAMEWORK, LONDON

**Client:** Brunel University  
**Architect:** Various  
**Project Value:** £100M+  
**Project Duration:** December 2002 – January 2009



This £100m framework master plan included the appraisal, upgrading and enhancement of the campus utilities, security and IT infrastructure, to improve reliability and enable the new development on the site, as well as the formation of a statement gateway to access the site. The project included the evaluation of a range of sustainability measures; including biomass fuelled heating, micro CHP and Solar heating, and the replacement of the campus central heating system which provides heat to all buildings on the campus.

A new indoor 130m running track with support conditioning/science facilities and a new netball hall was created. Hannans designed the M&E Services so that both buildings were naturally ventilated. We also created building models to maximise the use of natural daylight in the buildings. Alongside the new indoor athletics centre development, the existing sports centre was refurbished and upgraded for student and community use.

Existing laboratory and workshops were converted to IT workshops and support areas, together with the alteration and refurbishment of the Engineering Complex to provide a range of facilities for departments being relocated from another campus. These included laboratory facilities, engineering workshops, display spaces, IT workshop and storage facilities.

Other works included the installation of an 80kw combined heat and power unit for experimental purposes, scenic passenger lifts, audio visual facilities, interactive study space, and the refurbishment of the front of house areas incorporating internet café at the central lecture hall.





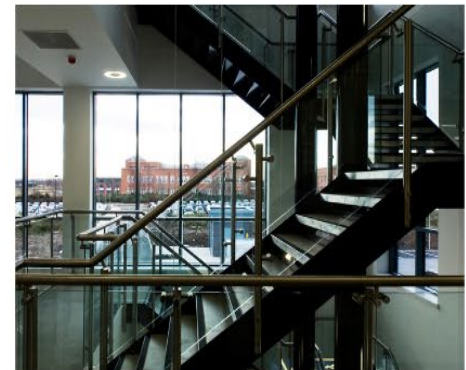
# LINGLEY MERE BUSINESS PARK, WARRINGTON

**Client:** Muse Developments  
**Architect:** Leach Rhodes Walker  
**Project Value:** £200M  
**Project Duration:** 2003 – 2009

Lingley Mere is an established business park in the North West, which is home to over 3,000 office workers and is to be taken forward under a masterplanned development programme to provide 1.25m sq ft of business space and related amenity facilities within an outstanding landscaped environment.

We have so far provided the following services:

- Site wide infrastructure duties
- Performance duties for 4 no. office buildings comprising of 50,000 sq ft of office accommodation.
- Detailed design duties for the design of the new ODPM Fire Control Centre
- Performance duties for the design of a 46,607 sq foot three storey Contact Centre
- Feasibility studies for the development of a Hotel scheme, Amenity Building and another small office building



# WALKER PARK, BLACKBURN

Client: Bilsdale Properties  
Project Value: Unknown  
Contract Duration: June 1990 – July 2007

A 2.0m sq ft multi building industrial, warehousing and office project with new and upgraded infrastructure and diversions.

Our duties included full Mechanical and Electrical Design Duties and Site Infrastructure works.



# DARESBURY BUSINESS PARK, CHESHIRE

**Client:** De Vere Group / Maple Grove Developments

**Architect:** Leach Rhodes Walker

**Project Value:** £150 M

**Contract Duration:** February 1996 - January 2007

The Daresbury Park Development is situated on junction 11 of the M56, one of the northwest regions main arteries, linking Chester in the west with Manchester and its airport in the east.

We were responsible for the building services design of 1.6m sq ft multi building, commercial office project including new infrastructure roads and major infrastructure diversions for individual buildings for Aegon UK, Eutech, Vistorm and BNFL.

The offices each benefit from an energy efficient cooling system.



# BUCKSHAW VILLAGE, CHORLEY

**Client:** The Redrow Group  
**Architect:** Ratcliffe Groves Partnership  
**Project Value:** £400M  
**Project Duration:** January 2000 – September 2003



A major 10 year residential and commercial development site incorporating 2000 houses and a 50 acre commercial development with heavy infrastructure strengthening.

Our tasks included undertaking development utility load appraisals, utilities procurement, diversions identification and procurement and site planning.

This project was completed on programme and within budget to client satisfaction.



# Contact Us

## Head Office - Manchester

Beta House  
Alphagate Drive  
Manchester Road  
Denton  
Manchester  
M34 3SH

Tel: +44(0)161 337 2200  
Web: [www.hannan-uk.com](http://www.hannan-uk.com)  
Twitter: @HannanAssociate



**John Walker**  
Company Director

**Tel:** +44(0)161 337 2200  
+44(0)7801 317 919

**E-mail:** [john.walker@hannan-uk.com](mailto:john.walker@hannan-uk.com)



**Vicky Priestley**  
Business Development  
& Marketing Manager

**Tel:** +44(0)161 337 2200  
+44(0)7887 563 970

**E-mail:** [vicky.priestley@hannan-uk.com](mailto:vicky.priestley@hannan-uk.com)

# Hannan Associates

MEP Design Solutions

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