

Infrastructure Services



Introductions

Hannan Associates was established in 1983 by Bill Hannan as an engineering consultancy to provide Building Services Design solutions to the construction industry.

We focus on providing **Building Services Engineering, Sustainability and Utilities Infrastructure Consultancy**, tailored around the unique requirements of each of our clients.



What do we stand for?

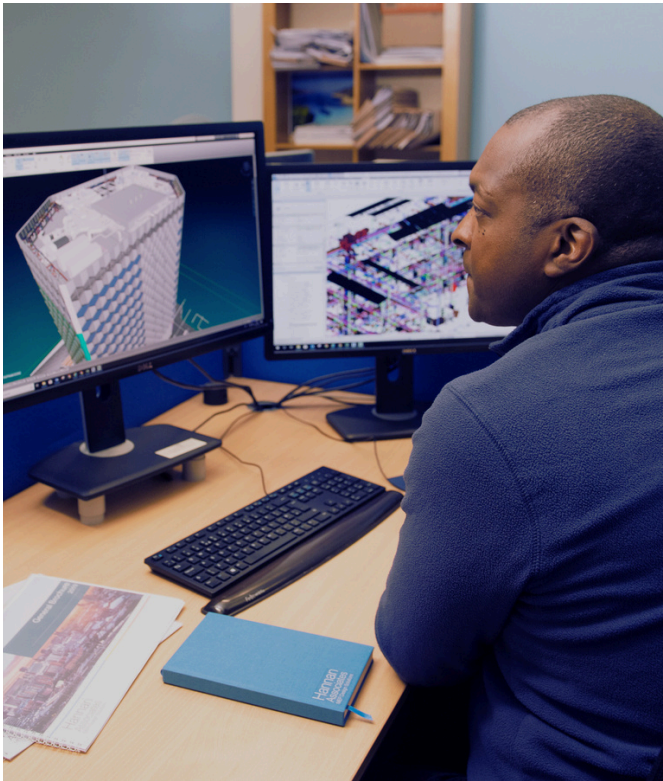


Our Mission is To develop building services engineering solutions that help create happy, healthy, safe places to live, work and play that don't 'cost the earth!'

Our vision is to be known as the go to, independent MEP consultancy for innovative and dependable advice regarding high performance, low energy building services systems.

Our Expertise

Hannan
Associates
MEP Design Solutions



The services we provide are constantly evolving to meet new legislation and changing market needs.

We continue to focus on Building Services Engineering though today most projects have a Sustainability strategy and consider their path towards Net Zero Carbon. We provide a wide range of sustainability related advice to our clients and we are at the forefront of change in relation to the way buildings are modelled to meet the demands of evolving building regulations and guidance.

Infrastructure

- Masterplanning Support
- Infrastructure planning & design
- Construction Inspection & Supervision
- Value Engineering Reviews

Building Services

- Electrical Building Services Design
- Mechanical Building Services Design
- Part L Compliance
- Acoustics
- AV Systems
- EPC Certification
- Fire Engineering
- Internal Environment Modelling
- IT Systems Design
- Planning Reports
- Public Health Building Services Design
- Dynamic Simulation Modelling
- Vertical Transportation Design
- Water Conservation & Compliance Audits
- Value Engineering Reviews

Sustainability & Building Performance

- BREEAM
- NABERS
- LEED
- WELL - Early stage advice
- CRREM Assessment - (Carbon Risk Real Estate Monitor)
- MEES Consultancy - (Minimum Energy Efficiency Standards)
- EPC - (Energy Performance Certificates)
- Planning - Energy & Sustainability Reports
- Sustainability Strategy (Building and/or portfolio level)
- Net Zero Carbon Pathway and Strategy development
- Operational Energy Modelling
- Passive Design Analysis
- Dynamic Simulation Modelling
- Embodied Carbon Assessments
- Building Health Checks
- Acoustics

Surveys, Reports & Monitoring

- Condition Surveys
- Energy Audits
- Feasibility Studies
- Construction Inspection & Supervision

Infrastructure Approach

Existing Utilities



Identify existing networks

- Within the development area
- Around the development boundary

Review the masterplan

- Identify diversions
- Team liaison to minimise diversions
- Schedule diversion requirements
- Time and cost discussion with the utilities

Report to the team

New Utilities



Network Connection

- Review existing networks for possible POC's

Utility capacity assessment

- Build a time based load profile
- Speculative loads based on BSRIA
- Enhanced loads based on past data and current design knowledge
- Include EV charging and sustainability impacts
- Evaluate the use of evolving smart network technologies

Utility applications

- Establish reinforcement requirements
- Discuss reinforcement trigger points
- Obtain time and cost information

Investment & Procurement



Investment

- Establish a just in time utilities strategy
- Include flexibility
- Monitor the actual network loads
- Maximise the use of installed assets
- Adjust the forward strategy using load feedback

Procurement

- Review the procurement options
- Identify the investment time profiles
- Consider risk delivery certainty

PROJECT: Liverpool Waters



> Client: Peel Land and Property

> Project Duration: 2017 – ongoing



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

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.

Plans include the creation of essential infrastructure which will support the delivery of around 2,350 new homes, offices, retail and leisure space and a 4.7 acre park within the Central Docks district over the next ten years, in line with the Liverpool Waters Central Docks Neighbourhood Masterplan.

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 a site wide sustainability strategy to assist with the development of a class leading location. The sustainability strategy compiles masterplan and plot specific information and targets for a range of sustainability drivers, including Net Zero Carbon, Ecology, Wellbeing, and sustainability certifications.

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

PROJECT: Omega Warrington



- > **Client:** Omega Warrington Ltd
- > **Architect:** Chetwood Architects

- > **Project Value:** £1BN
- > **Project Duration:** 2012 – 2022



Over a ten year period we provided site wide utilities strategy information and MEP contribution for the master planning proposals, utilities infrastructure appraisal, design and procurement for this 775 acre mixed use development, which when complete will include around 1,400 new homes, a mixed use retail & leisure park, 5m sq ft of developed manufacturing and logistics space and a 40 acre park.

We also provided MEP Consultancy Services for performance design, tender & installation for the majority of Cat A and Cat B works across the logistics schemes as well as planning submission support, BREEAM assessment, utilities provisions for the tenant developed plots and pre and post exchange tenant liaison for the utilities. We also provided technical support on site stage progress and quality monitoring, through to completion/handover stage, for most of the buildings on the North and South sites.

Omega was 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.

The new infrastructure requirements included....

- o EHV 33KV, HV 11KV and LV 400V, as necessary to provide electricity utility supplies to all development plots and areas of the Omega North and Omega South Development sites.
- o Two new Dual Transformer Primary Substations have been needed, with a 3rd Primary Substation about to commence on Omega West (subject to Planning).
- o Dual HV N+N Resilient Supplies, HV Supplies and LV Supplies to individual Development Plots to suit the Building Occupiers specific needs.
- o Electricity supplies to individual Units ranging from 100KVA LV to 6MVA HV
- o Openreach and alternative cable comms Primary and Diverse Infrastructure throughout the site.
- o Openreach Fibre Network Connections to create a Diverse Fibre Ready Site.

PROJECT: 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.

PROJECT: 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.

PROJECT: MUFC Old Trafford Quadrants Extension



> Client: Manchester United Football Club

> Project Value: £42M

> Architect: Miller Partnership

> Project 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.

PROJECT: Trinity Walk, Wakefield



> **Client:** Simons Developments

> **Architect:** DLA Architecture

> **Project Value:** £200M

> **Project Duration:** 2005 – 2011



Trinity Walk was an exciting and ambitious project which has 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.

PROJECT: Newbury Racecourse Redevelopment



> **Client:** Newbury Racecourse

> **Project Value:** £20M

> **Architect:** KKA Architects

> **Project Duration:** 2010 – 2022



Hannan Associates were retained MEP Consultants for Newbury Racecourse over a 12 year period.

We provided Building Services Engineering and Utilities Infrastructure services for each phase of the work during the redevelopment of the racecourse.

The £20 M redevelopment included:

- New East & South Entrance buildings
- New pre-parade ring and saddling stalls
- Refurbished parade ring and new winners enclosure
- New 36-bedroom hotel, The Lodge
- New Owners Club including hospitality space and office space for the Racecourse
- Refurbishment of The Pall Mall and Royal Box
- Refurbishment of the stable block
- New accommodation for the 'stable lads'
- New Rocking Horse Nursery
- Improved access to the racecourse via a new bridge
- Upgraded external lighting, landscaping and car parking.

The Heartspace scheme focused on the redevelopment of the heart of the racecourse, undertaken in phases to ensure racing has been able to continue throughout the works.

The enabling works phase involved refurbishment works to the stables and 'stables' lads accommodation paving the way for construction of The Lodge and Rocking Horse Nursery.

The main Heartspace works were then split across 3 phases, working around the racing calendar. Phase A involved construction of the Owners Club, pre parade ring and saddling stalls. Phase B involved construction of the East Entrance and Phase C completed the refurbishment of the parade ring, construction of a new winners enclosure and South Entrance building.

PROJECT: Brunel University Framework, London



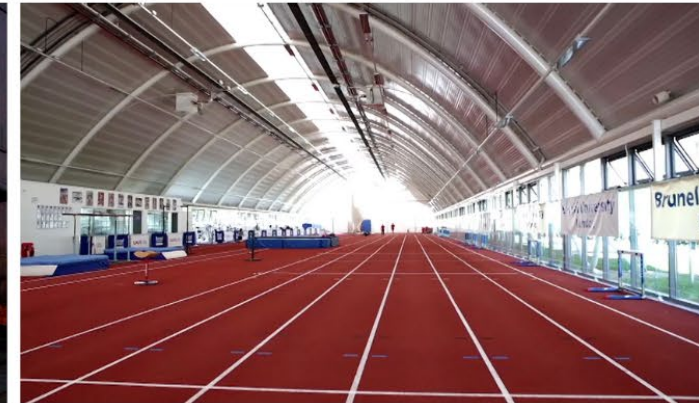
Brunel
University
London

> **Client:** Brunel University

> **Architect:** Various

> **Project Value:** £100M+

> **Project Duration:** 2002 – 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.

PROJECT:
Walker Park, Blackburn

> **Client:** Bilsdale Properties

> **Project Duration:** 1990 – 2007



A 2.0m sq ft multi building industrial, warehousing and office project with new and upgraded infrastructure and diversions. 1.5m sq ft let and operating and still under development.

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

PROJECT:
Buckshaw Village,
Chorley



- > **Client:** The Redrow Group
- > **Architect:** Ratcliffe Groves Partnership

- > **Project Value:** £400 M
- > **Project Duration:** 2000 – 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.

PROJECT: Stockport Exchange



> **Client:** Muse Places

> **Architect:** RHWL Architects,
Ryder Architecture & Sheppard Robson

> **Project Value:** £145M approximately

> **Project Duration:** 2011 – ongoing



Stockport Exchange is an award winning, high-quality office quarter, with attractive public realm; car parking; a hotel and retail units next to Stockport Train Station. We have been part of Muse's team for the development for the last 13 years.

Our duties for each phase have included:

- Building Services Engineering
- BREEAM assessment
- Utilities Infrastructure for the site
- Passive Design Analysis
- Energy and Sustainability Support
- Part L2A Compliance Report

Phase 1 - 1,000 space multi-storey car park

Phase 2 - No.1 Stockport Exchange - a 50,000 sq ft office block; a 115 bedroom Holiday Inn Express Hotel, a new pedestrianized public space outside the train station and a new reconfigured road layout to improve station access.

Phase 3 - No.2 Stockport Exchange - a 60,000 sq ft, Grade A office. Design features include photovoltaic panels, LED lighting and ultra-low water consuming fittings. The use of natural daylight and enhanced fabric minimises the building's carbon emissions. Our analysis of the scheme included the consideration of connecting the development to Stockport's proposed heat network.

Phase 4 – No. 3 Stockport Exchange - a 64,000 sq ft Grade A office and 399-space multi-storey car park. The office building has been designed to achieve BREEAM 'Excellent' and an EPC A rating. Low energy features include LED lighting, high efficiency VRF heating & cooling and heat recovery ventilation. Tenant facilities include cycle racks, showers, lockers and a communal roof terrace.

Phase 5 – No. 4 Stockport Exchange – a 60,000 sq ft Grade A office with ground floor space for shops, cafes, bars or restaurants as well as a fully accessible landscaped approach to the train station which is currently at design stage.

Future phases will include an additional 185,000 sq ft of office space and up to 100 residential apartments.

All the buildings have been designed to achieve a **BREEAM Excellent** rating.

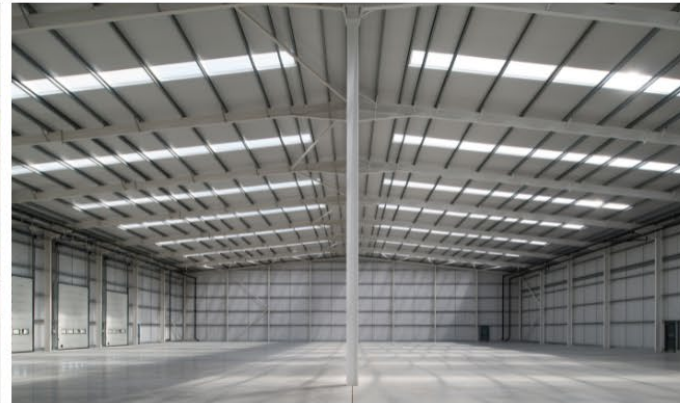
Muse are Stockport Council's development partner for Stockport Exchange, which forms part of the council's wider £1bn town centre regeneration plan for Stockport.

Other members of the project team have included: RHWL Architects, Ryder Architecture, Sheppard Robson, RPS Group, Gillespies, Buro Four, Curtins Consulting.

PROJECT: Logic Leeds Business Park

- > Client: Muse Places
- > Architect: Fletcher Rae Architects

> Contract Duration: 2014 – 2022



We were involved with the development of Logic Leeds Business Park for Muse over a period of eight years, delivering Infrastructure Masterplanning and Building Services Engineering for the entire scheme as well as providing Tenant Liaison duties where required.

Logic Leeds Business Park consists of a 100 acre manufacturing & distribution park located within the Aire Valley Enterprise Zone. The business park provides high quality industrial & warehouse units, in a fully landscaped environment, with immediate connectivity to the M1 motorway.

Current tenants include: [John Lewis](#); [Amazon](#) and [Premier Farnell](#).

Other project team members we worked with included: Fletcher Rae Architects, 3E Consulting and Rex Procter & Partners.



PROJECT: Wirral Regeneration



- > **Client:** Wirral Growth Company
- > **Architect:** AHR Architects

- > **Project Value:** 1BN
- > **Project Duration:** 2017 – ongoing



An innovative and ambitious masterplan for Birkenhead town centre being delivered by Wirral Growth Company – a joint venture between Muse Developments and Wirral Council.

Our role on the project has included providing Infrastructure, MEP and BREEAM consultancy.

The first phase of work included the development of new public realm and two new grade A offices, totalling 150,000 sq ft, which handed over in October 2023.

During this phase, the project included the demolition of 27 retail units, for which we organised multiple complex infrastructure diversions of HV, LV, BT, Virgin, Drainage, Gas and Water services. We established the locations of existing services via searches, sub scan surveys and trial pits and engaged a specialist sub-contractor and the infrastructure companies to carry out disconnections and diversions.

The next phase of work in Birkenhead includes the construction of a new market hall, which will be home to independent retail, food and beverage stalls and accessible public realm.

This phase also includes the demolition of the House of Frazer department store and Hannan's role has included organizing the survey and location of all existing services and the disconnection of the existing substation, gas, water and communications.

The design team includes AHR Architects, Curtin's, Abacus, Gillespie's and Vectos.

PROJECT: LOC8 Business Park, Maidstone

> **Client:** Clearbell Capital LLP

> **Architect:** PRC Architects

> **Project Duration:** 2020 – ongoing



Hannan Associates are working for Clearbell Capital on the development of this new mixed-use business park, known as LOC8. This new employment area, which has the potential to create up to 1,200 new jobs will deliver a range of modern and sustainable buildings.

As a part of our role we are providing Building Services Engineering, Utilities Infrastructure and Sustainability Consultancy including advice regarding BREEAM, WELL and Net Zero Carbon.

Phase 1 was completed in May 2023 and comprises of 11 units of 5,000 sq ft to 60,000 sq ft, which have achieved a BREEAM “Very Good” rating. Phase 2 of the development, which will add another 200, 000 sq ft to the business park is currently underway with a target completion date of summer 2024.

We are working alongside Belshaw, PRC Architects, EPCA, Lloyd Bore, Savills, Goodrich Consulting, Patrick Parsons and main contractor Readie Construction on Clearbell Capital’s design team.

PROJECT: Chatterley Valley

- > **Client:** Harworth Group
- > **Architect:** AEW Architects
- > **Project Duration:** 2022 – ongoing



Our client, Harworth Group, have secured outline planning consent to deliver 1.2 million sq ft of industrial and logistics space at their Chatterley Valley site in Staffordshire.

Hannan Associates are providing:

- Building services
- Utilities infrastructure
- BREEAM assessor duties
- Sustainability consultancy services support for the proposed scheme

We are pleased to be working alongside AEW Architects, WSP, BE Design, RPS, JPW Consulting and FCPR.

Chatterley Valley is located in the heart of the Ceramic Valley Enterprise Zone and will meet growing industrial and logistics occupier demand in Staffordshire, support around 1,700 new jobs and investment in the area.

PROJECT: Wingates

- > **Client:** Harworth Group
- > **Project Duration:** 2021 – ongoing



Our client, Harworth Group, has secured planning for the development of up to 1.1 million sq ft logistics and manufacturing space at their Wingates site in Bolton, which could potentially create 1,500 new jobs.

Hannan Associates are providing:

- Building services
- Utilities infrastructure
- Sustainability consultancy services for the proposed scheme

We are pleased to be working alongside Johnson Mowat, Fisher German, Mosodi, RSK, Hydrock, RPS Group, TEP, Walker Sime, JPW Consulting and BE Design.

Alongside the commercial space, the proposed Wingates development will deliver significant upgrades to highway, drainage and utilities infrastructure, including a new access road. It will also provide boundary landscaping and an ecological enhancement area, as part of Harworth's ongoing commitment to promoting green spaces and protecting local biodiversity.

PROJECT: Trinity Walk, Wakefield



> **Client:** Simons Developments

> **Architect:** DLA Architecture

> **Project Value:** £200M

> **Project Duration:** 2005 – 2011



Trinity Walk was an exciting and ambitious project which has 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.

PROJECT: Lingley Mere Business Park, Warrington

> **Client:** Muse Places

> **Project Value:** £200M+

> **Architect:** Leach Rhodes Walker

> **Project Duration:** 2003 – 2009



Lingley Mere is an established business park in the North West, which is currently 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 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

PROJECT: Daresbury Business Park, Cheshire

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

> **Project Value:** £150 M

> **Architect:** Leach Rhodes Walker

> **Project Duration:** 1996 – 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 diversions for individual buildings for Aegon UK, Eutech, Vistorm and BNFL. The offices benefit from an environmentally friendly energy efficient cooling system.

Contact us



Head Office - Manchester

**Beta House
Alphagate Drive
Manchester Road
Denton
M34 3SH**

Tel: +44(0)161 337 2200

Web: www.hannan-uk.com

LinkedIn: [Hannan Associates MEP Design Solutions](#)



John Walker

Director

Tel: +44(0)161 337 2200

Email: john.walker@hannan-uk.com



Vicky Priestley

Marketing Director

Tel: +44(0)161 337 2200

Email: vicky.priestley@hannan-uk.com

Hannan Associates

MEP Design Solutions

Building Services | Sustainability | Building Performance | Utilities Infrastructure

