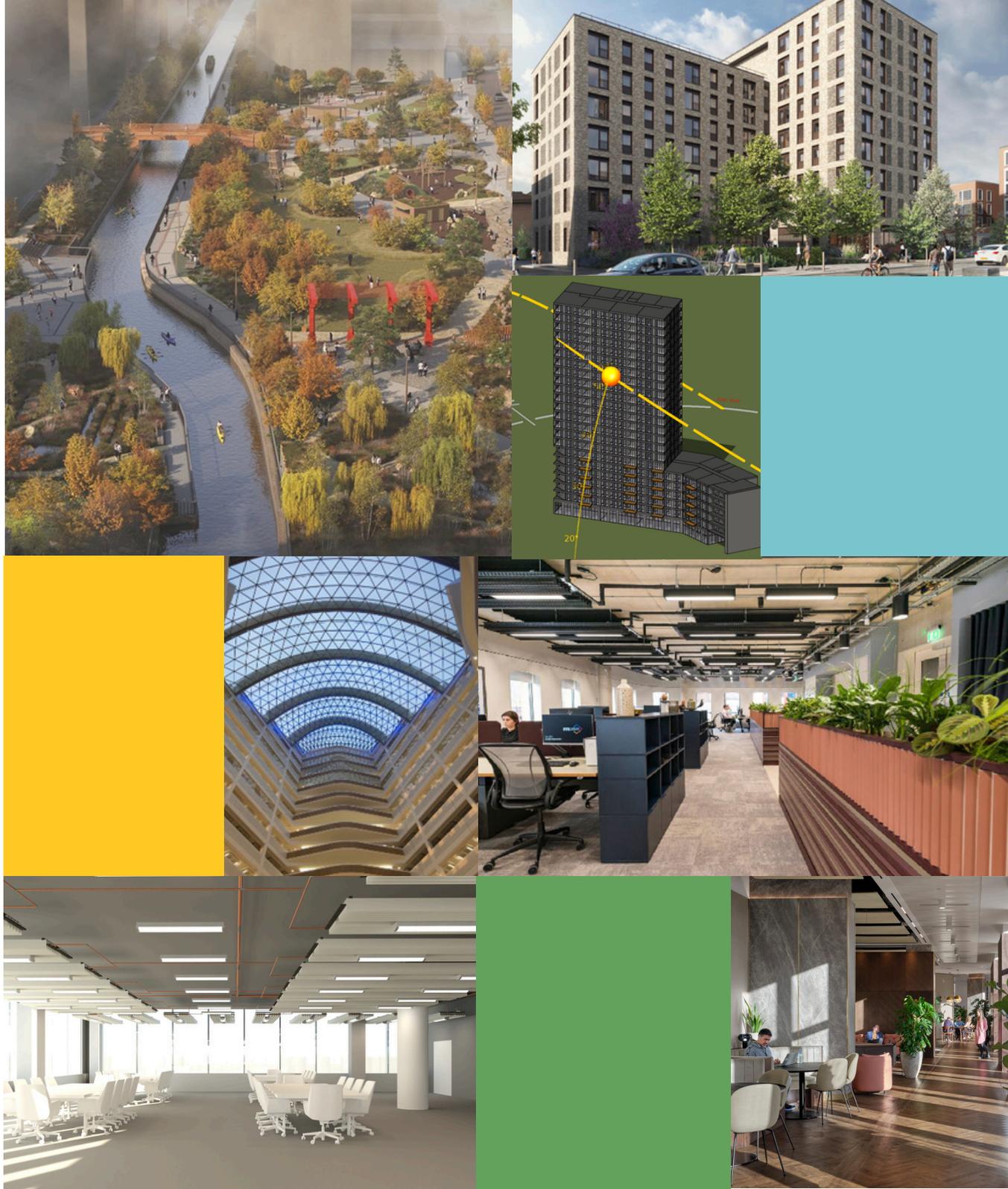


Sustainability Services



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.

Sustainability & the Built Environment



Awareness of the negative ways in which the built environment can impact the climate, natural environment and its occupants has increased significantly in recent years.

There is a need for more sustainable developments and it is vital that the construction industry reduces its impact on the environment whilst limiting global temperature increases. Hannan Associates is well placed to support property developers, investors and landlords manage this reduction, and help deliver highly sustainable developments.

All new developments should have a defined sustainability strategy in place to highlight and drive the green agenda. An increasing number of clients are seeking direction regarding the best ways to develop this strategy and meet their legislative and organisational targets, as they face increasing pressure from investors and occupiers.

At Hannan Associates we believe green building design is more effective when approached in a holistic way incorporating all the individual elements and should be driven by extensive collaboration between the client, their vision and project team members, at the earliest stage possible in the project lifecycle.

How can we help you?



As Building Services Engineering Consultants, sustainability has always featured at the heart of our design process and we have a big part to play in helping our clients & the built environment meet their green objectives.

Hannan Associates have 40 years experience in the design of highly efficient, sustainable MEP systems. Importantly, we have a team of dedicated sustainability specialists with over 20 years' experience delivering sustainable strategy and advice across all sectors. This combined knowledge makes us well positioned to help our clients.

We provide a wide range of sustainability focused advice using in-house engineers and specialist partners to define ways of achieving sustainability targets related to Site wide Sustainability, Net Zero Carbon, NABERS UK & performance modelling, Building certification and Wellness.

We help our clients develop targets and strategy bespoke to their own individual requirements. These targets can be used on single developments and portfolio wide but also as a basis for future projects.

Sustainability services

Strategy



Sustainability Strategy (Building and/or portfolio level)
Net Zero Carbon Pathways
Bespoke Sustainability
Framework & KPI development
Planning - Energy & Sustainability Reports
ESG and Sustainability Policy development

Certification & Assessment



BREEAM
BREEAM Communities
CEEQUAL / BREEAM Infrastructure
NABERS
LEED
WELL - Early stage advice
GRESB Consultancy
EPC

Decarbonisation



Operational Energy Modelling
Passive Design Analysis
Low Zero Carbon - Renewables Feasibility Studies
Embodied Carbon Assessments

Additional Services



Indoor Air Quality Plans
SBTI Consultancy Services
Life Cycle Costing Assessments

PROJECT: Prestwich Village

> **Client:** Muse Places & Bury Council

> **Project Value:** £100M+

> **Architect:** Jon Matthews Architects

> **Project Duration:** 2023 – ongoing



Hannan Associates are currently working to deliver a £100million regeneration scheme within Prestwich Town Centre. The scheme is being brought forward via a joint venture partnership formed between Muse Places & Bury Council.

Proposed works for the first phase of Prestwich Village include:

- A Community hub building with a library and community space
- Retail and leisure spaces
- New market hall
- Village square.
- Multi-storey mobility hub including 20% EVC provision

Our role includes the following:

- Assessing the anticipated building performance using operational energy modelling techniques.
- Undertaking the BREEAM assessments for the relevant plots.
- Assessing works associated with existing utilities networks to accommodate the new development proposals.
- Consultation regarding new utility supply requirements.
- Providing MEP design duties for each plot and the associated public realm.

Each of the plots have been designed to **reduce operational energy and carbon emissions**, employing a fossil fuel free all-electric strategy.

Passive measures have been prioritised to reduce energy demand, including enhanced fabric performance and air permeability, along with optimised glazing design.

Active measures have been taken to optimise the energy efficiency of fixed base build systems, i.e. Mechanical ventilation incorporating heat recovery, low flow sanitaryware, energy efficient LED lighting and controls systems.

Low & Zero Carbon Technologies have been incorporated where applicable in the form of high efficiency heat pumps to generate space heating, and allocation of dedicated zones at roof level for installation of a PV array.

Each of the schemes have been designed to achieve a minimum of **BREEAM 'Excellent'** rating.

Proposed works for the second phase of the scheme includes 200 new homes, a mix of apartments and townhouses.

We are working alongside Jon Mathews Architects; Chroma Consulting; Civic Engineers; MAC Construction Consultants; Hoare Lea; Design Fire Consultants, & Asteer Planning on the design team.

PROJECT: Plot C2 New Bailey, Salford Central



NEW BAILEY

> **Client:** The English Cities Fund > **Project Duration:** 2021 – ongoing

> **Architect:** Hawkins Brown Architects



Plot C2 New Bailey will be a 23-storey residential tower providing 196 apartments for private sale, within the wider New Bailey development.

The building is currently under construction by Morgan Sindall and is the second phase of the Zone C development, sitting adjacent to Plot C1 Novella, which will be connected by the existing six-storey podium.

The Hannan residential team are providing MEP Performance and monitoring duties, comprising of:

- Limiting Overheating Analysis
- Building Regulations Part L Design Stage Compliance Assessments
- Early-stage technical review and development of plant space options & requirements
- Utilities coordination based on proposal to connect to existing infrastructure installed under the Phase 1 (C1 Novella) works.
- Ongoing site inspections & reporting during the construction period

Other members of the team include: Hawkins Brown Architects, Buro Four, Walker Sime, Renaissance, Design Fire Consultants, Project Four and HED Landscape Architects.

The New Bailey development sits on the River Irwell in Salford, and forms part of the English Cities Fund's £1bn regeneration of Salford Central.

The English Cities Fund is a joint venture between Muse Places, Legal & General and Homes England, in conjunction with Salford City Council.

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:

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

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:

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

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: Greenhaus, Salford

> **Client:** The English Cities Fund

> **Project Duration:** 2020 – 2024

> **Architect:** Buttress Architects



Greenhaus is the latest chapter in the regeneration of the Chapel Street area of Salford Central, led by The English Cities Fund. This scheme has been developed alongside Salix Homes who will be the housing association partner for the scheme.

The Hannan residential team were the MEP design consultants for Greenhaus, which will provide 96 eco-friendly, affordable apartments designed and built to Passivhaus standards, making it the largest scheme of Passivhaus accredited, affordable homes in the UK.

Our duties on the project included:

- Technical review and development of MEP strategy options and plant space requirements to achieve Passivhaus Certification
- Provide MEP design input into the PHPP assessment
- Building Regulations Part L Design Stage Compliance Assessments
- Limiting Overheating Analysis
- Ongoing site inspections & reporting during the construction period

The Passivhaus accreditation was achieved by employing an all electric strategy including residential ventilation via high efficiency MVHR units, heat pump technology, in addition to passive measures such as enhanced building fabric performance including triple glazing, and significantly improved air tightness.

Other members of the team included: Buttress Architects; Appleyard & Trew; Alan Johnston Partnership; Max Fordham; Design Fire Consultants; Planit IE; main contractor Eric Wright Construction and MEP Contractor Ameen Building Services.

Greenhaus is part of ECF's wider £1bn regeneration scheme transforming the area of Salford Central. The masterplan contains commercial, retail and residential buildings creating a new and vibrant destination for people to live, work and relax.

The English Cities Fund is a joint venture between Muse Places, Legal & General and Homes England, in conjunction with Salford City Council.

PROJECT: DWP Hub, Talbot Gateway Blackpool

> **Client:** Muse Places

> **Project Duration:** 2020 – ongoing

> **Architect:** Make Architects



Plans for this new 215,000 sq ft, £100m office development will form part of the third phase of the Talbot Gateway regeneration scheme in Blackpool, led by Muse Places.

When complete the seven storey office building will become home to over 3000 staff from the Department of Work and Pensions.

Hannan Associate's duties have included:

- **Energy & Sustainability Statement**
- **Net Zero Carbon in Operation Assessment incl. Operational Energy Modelling**
- **BREEAM Assessor duties**
- **Building Services Engineering Consultancy**

The building has been designed to be ultra-low energy. Low-carbon heating and cooling to the office will be provided via air source heat pumps. Demand-driven ventilation will also be provided, helping improve indoor air quality while saving energy during periods of reduced occupancy.

The building has been designed to achieve a **BREEAM 'Excellent'** rating. We are working alongside Make Architects, RPS, Chroma, Arup on Muse's design team.

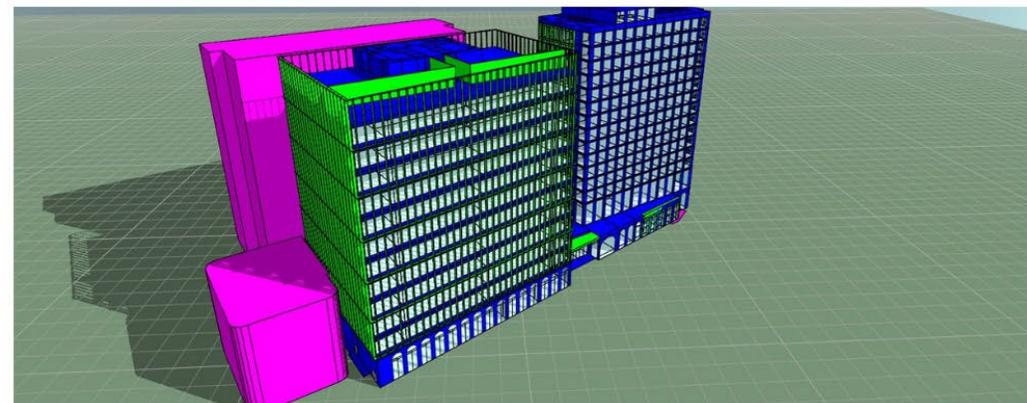
The Talbot Gateway regeneration is transforming Blackpool town centre and will comprise of a new business district and civic quarter, grade A offices, retail space, event space and a new public transport interchange.

PROJECT: Ralli Quays, Salford



- > **Client:** Legal & General
- > **Architect:** EPR Architects

> **Project Duration:** 2018 – Ongoing



Hannan Associates are part of Legal & General Investment Management's team for the design of the Ralli Quays office and hotel scheme on the River Irwell in Salford.

The client is targeting net zero carbon via a combination of the UKGBC 2030 targets and carbon offset for both construction and operation, including a high **NABERS Star Energy Rating**. The building is also targeting **BREEAM excellent** and **EPC A**.

Our role on the project includes:

- **Sustainability Services**
- **BREEAM**
- **MEP Design**

Ralli Quays is one of only fourteen developments in the UK pioneering the Better Buildings Partnership Design for Performance initiative. The key objective of the Pilot Programme was to provide a strong evidence base for proceeding to a fully-fledged DfP Scheme.

As part of our package we are utilising complex thermal modelling software to accurately simulate HVAC plant and control networks for each building in order to ascertain the predicted in use operational energy consumptions for a variety of on-axis and off-axis scenarios. This is vital in providing a building-integrated approach where the HVAC systems and building are assessed as a whole all gains/losses, heat transfer and thermal mass in the building to be accounted for alongside system performance.

This allows us to address the performance gap that has been created by the out of date methodology to design buildings for compliance, as we can accurately assess the results of simulations and check against the latest Energy Performance Targets based on the Australian NABERS approach.

We are very pleased to join EPR Architects, DPP One, Turner & Townsend, Walker Sime, Clancy Consulting, Colliers on the project design team.

PROJECT: 3 Stockport Exchange



> **Client:** Muse Places
> **Architect:** Ryder Architecture

> **Project Duration:** 2021 – 2024



Phase four works at Stockport Exchange included the design and construction of '3 Stockport Exchange', 64,000 sq ft Grade A office space across six floors. The building has been designed to achieve a **BREEAM 'Excellent'** rating and an EPC A rating. The building incorporates low energy features such as LED lighting, high efficiency VRF heating & cooling and heat recovery ventilation. Tenant facilities include cycle racks, showers, lockers and a communal roof terrace.

Hannan Associates duties on the project included:

- **Building Services Engineering**
- **BREEAM assessor**
- **Site Utilities Infrastructure**
- **Passive Design Analysis**
- **Energy and Sustainability Report**
- **Part L2A Compliance Report**
- **Operational Energy Modelling**

This phase of development also included the construction of a 399-space multi-storey car park with a green wall façade and EV charging points.

We are proud to have been a part of Muse's team for this development over the last 13 years and to have witnessed firsthand the transformation of the former Grand Central present to a high-quality commercial quarter with attractive public realm, hotel, retail, improved car parking and better connectivity between the station and the town centre.

Muse Places 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 include Ryder Architecture, RPS Group, Gillespies, Buro Four, Curtins Consulting and main contractor Galliford Try.

PROJECT: 1 Angel Square, Manchester



> **Client:** The Co-operative Group

> **Architect:** 3D Reid

> **Project Value:** £100M

> **Project Duration:** 2010 – 2012



The Hannan team designed the MEP Services for the 320,000 sq ft Co-operative Group Headquarters building, as part of the Spectrum MEP Consortium team.

Opened by the Queen on 14th November 2013, this innovative office building at One Angel Square, Manchester was at the time officially the world's greenest office building with a **BREEAM score of 95.16% - 'Outstanding.'**

The design of the building was driven by the Co-operative Group's desire to create a Carbon Negative building. The sixteen storey office building was designed to achieve a BREEAM Outstanding rating, as well as an **EPC 'A' rated near zero carbon building**, with cutting edge integrated design.

Hannan Associates led the team to develop and design in detail, the cutting edge building services on this landmark award winning **low carbon** office scheme, with Buro Happold providing structural design.

The services design included 3D modelling, together with building modelling and dynamic simulation to calculate and assess the buildings energy consumption and potential EPC and DEC ratings.

The full glazed scheme was designed to include a number of low energy and low carbon features resulting in a near zero carbon predicted operation with an **A+ rated EPC** of – (minus) 58.

The building incorporates **passive** chilled beams which were designed to maximize the effect of the low carbon technologies including pure plant oil CHP, active façade, earth ducts, absorption chiller, cooling towers and air to water and water to air heat recovery. The unusual building design comprising an exposed structure and precast units required a high degree of coordination with the services to integrate the exposed combined services chilled beam rafts with the curved pre cast units.

The high level of coordination and teamwork involved integration of fixings into the pre cast units to support the services. In addition, all services on each floor were required to pass through the pre cast units and structural steel. Close coordination was achieved by sharing 3D models to develop the integrated solution. Early information required to coordinate holes in the three slip formed riser cores was achieved by intensive coordination workshops where a close working relationship succeeded in maintaining the required design programme.

The project won numerous honours including both Design & Innovation, and Overall Project of the Year at the 2013 RICS Awards, BCO 2013 Corporate workplace of the year, Property Week 2012 Sustainability Achievement Award, and a 2013 BREEAM Award.



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