XRidings[®]

Capability Document

The next level



Company Information

Ridings Consulting Engineers Ltd has developed a wide base of experience in all aspects of building services engineering.

Our multidisciplinary teams of experienced engineers provide a wide range of services to support our clients and fellow professionals in the property and construction industry across the following disciplines:

- Mechanical Engineering
- Electrical Engineering
- Energy & Sustainable Design
- Public Health Engineering
- Lighting Design

Details of our key skill sets and some of our projects are provided within this document.





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BIM

Ridings are certified to BIM Level 2 & ISO 19650, currently the highest BIM level.

All our working procedures are geared towards BIM Level 2 including our checking, numbering and data sharing policies.

We are able to provide the client with fully populated building models which are created on Revit 3D modelling software. Within the model we provide all information required for the construction phase of the phase along with that needed during for lifecycle of the building.

Revit models also ensure all services are co-ordinated in the building prior to any works being carried out on site, ensuring a more effcient project.

For any project when required, we are able to provide the client with a Common Data Environments (CDE) which comply with BIM requirements.

We believe BIM, and the many advantages it can bring to a project and more importantly, the end user, is the future of our industry and we are excited to be at the forefront of this development.





Carbon & Energy

Buildings are currently responsible for 39% of carbon emissions around the world. Ridings have delivered projects that are Net-Zero Carbon in Operation utilising a combination of heat-pumps and local electricity generation.

Our company performs Building Regulations L2 (Conservation of Heat and Power) calculations to the building regulations. To perform these calculations, we use software called Hevacomp and IES.

Our software utilises the SBEM calculation and dynamic simulation engine and is accredited for interfacing with the SBEM as part of the methodology of calculation of the energy performance of buildings approved by the Secretary of State for the purposes of Part L of the Building Regulations.

Ridings have employees accredited through Elmhurst Energy to produce both L2 calculations and Energy Performance Certificates . We can also perform Dynamic Simulation Modelling which allows early consideration to Energy and Carbon

Performance of concept and design Architectural Proposals as well as reviewing natural ventilation rates to CIBSE TM52, TM59 and BB101.







Industrial



A&B Mill Whitley Bridge – Cereal Processing Mill

Construction of a new 1000tonne/day flour mill on an existing milling site in Yorkshire. The project included major infrastructure upgrades to support the additional gas and electrical loads.

Value: \pounds 45M Role: Mechanical and electrical design (BIM Level 2) and supervision.



Advanced Manufacturing Research Centre Mk3

Construction of a materials production & research facility for materials for the aviation industry.

BREEAM: Very Good Value: \pounds 80M Role: Mechanical and electrical design (BIM Level 2) and supervision.



Maize Mill - Worksop

Installation of a new Maize Mill process into an existing structure along with refurbishment of the Technical Centre, Maintenance Workshops & Main OFfice

Value: \pounds 25M Role: Mechanical and electrical design (BIM Level 2) and supervision.



Project Homer

The new centre will be one of the most well-equipped Medical Device R&D centres in Europe. Its world-class facilities include Surface Analysis and Bio-Mechanics laboratories specialising in Toxicology, Chemistry and Microbiology among other specialist fields.

Value: £8M

Role: Mechanical and electrical design including supervision



Education



Broadacre Primary School

New 3FE primary school with 10 place Autistic Spectrum facility and 52 place nursery.

Value: £8.2M Role: Mechanical and electrical design (BIM Level 2) and supervision.



Spring School

A new autism-specific school will teach up to 90 pupils aged 4-19 in a new purpose-built school in Chessington, Kingston.

Value: £10M Role: Mechanical and electrical design (BIM Level 2) and supervision.



Essex School Extensions

Three block extension projects for Essex County Council to provide low carbon school accommodation. The blocks are designed using heat pumps and electricity generation to achieve **Net Zero** Carbon in Operation.

Value: £8M

Role: Mechanical and electrical design (BIM Level 2) and supervision.



Tufnell Park Primary School New 3FE primary school building situated on the outskirts of London. Full mechanical and electrical design to **BIM level 2**

Value: £10M Role: Mechanical and electrical design (BIM Level 2) and supervision.

Commercial







GGP Consult

New purpose built offce block on a brown field site to allow the relocation of GGP Consult Ltd who provide Architectural and Civil consultancy design services. The building is designed to provide staff carparking at ground level and two floors of design studio space.

Value: £1.3M

Dry Docks – Offce Blocks

New purpose built offce block on docklands as part of the Fruit market redevelopment in Hull. The new offce contained high effciency LED lighting, air conditioning, ventilation and power layout to suit specific user requirements.

Value: £2M Role: Electrical design and supervision

On The Go, South Cave

New build project to create a new larger petrol station and convenience store for the people of South Cave. The project involved the demolishment of the existing smaller station as well as relocating the existing infrastructure on site. Building was designed to **BIM level 2** in conjunction with Architect and Structural engineers.

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Geneva Court

Modernisation of an existing offce building for one of Hulls largest main contractors and development companies. As part of the works the full ground and first floor offces were adapted to create specific new user spaces. New feature elements were also added including video wall and architectural lighting features. As part of the works the main server room was relocated to this site with new in-row cooling system.

Value: £1M



Health



Hull & East Riding Fertility Clinic

A new building to replace the former Hull IVF facility. The new facility allowed increased patient numbers, increasing to 1000 per year. The design included clean-room labs in addition to clinical space.

Role: Mechanical and electrical design and supervision.



Oldham Diagnostic Clinic

A new modular construction diagnostic centre to provide 30,000 patients per year with the following facilities; Lung Function, X-Ray, Ultrasound, PET-CT & CT, MRI

Value: £10M

Role: Mechanical and electrical design (BIM Level 2) and supervision.



Humber NHS Foundation Trust

Ridings Consulting Engineers have carried out various refurbishment projects for the Humber NHS Trust, projects have included the following; Seclusion suites, General refurbishments, Boiler replacements, Lighting upgrades, AHU replacements, Generator replacements, Switchgear replacements



Glebe House Surgery

Extension and refurbishment of an existing doctors surgery to create a 'Integrated Healthcare Hub' for the residents of Bedale and the surrounding area.

BREEAM: Very Good Value: £2.7M Role: Mechanical and electrical design (BIM Level 2) and supervision.



Public Sector



Beverley Road Baths

Refurbishment of Grade 2 Listed leisure centre to modernise the facility and provide enhanced gym facilities within a former pool hall.

Value: £2.9M Role: Mechanical and electrical design (BIM Level 2) and supervision.



Albert Avenue Baths

Refurbishment and extension of the existing leisure centre to provide new facilities including new Gym, heated Lido in addition to modernised changing facilities.

Value: £10.5M

Role: Mechanical and electrical design (BIM Level 2) and supervision.



Humber Bridge Works

We have been recently involved with the ongoing developments and improvements to the Humber Bridge. Works thus far have including new toll booths and the refurbishment of the control building.

Value: Various Role: Mechanical and Electrical design



Search and Rescue Hangar

New construction hanger with control room, offces and accommodation block for the privately operated Search and Rescue Helicopters at Lydd Airport. The building had a **BIM Level 2**

BREEAM: Very Good Role: Mechanical and electrical design (BIM Level 2) and supervision.



Retail Sector

Tesco



Refurbishment and refresh programme across the UK stores. Advising and design on the decarbonisation strategy across the Tesco portfolio.

Value: Various Role: Mechanical and electrical design (BIM Level 2) and supervision.



Marks & Spencer

Refurbishment and refresh programme across the UK stores. Undertaking design for any required reactive maintenance works.

Value: Various Role: Mechanical and electrical design (BIM Level 2) and supervision.



Sports Direct

Assisting Contractor on the lighting design across various stores in the UK.

Value: Various Role: Electrical design

Renewables



Southern Water

Installation of solar PV gener-ation at two sites to provide a total of 3.4 Megawatt peak (MWp) of electricity.

Role: Specialist earthing design



Bonby AD Plant

This anaerobic digestion plant will convert 75,000t of food waste into seven million cubic meters of biomethane every year. Green gas produced at the new biogas plant will be distributed through the national gas grid.

Role: Mechanical and electrical infrastructure design

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