



Technology & Data Centres

Sector expertise & highlights.



Technology & Data Centres

We provide building services and main contractor solutions for your project.



Warren Bradshaw
Operations Director

Warren is responsible for our projects with the Technology & Data Centre sector.

He has over 30 years' industry experience working in both M&E contracting and consultancy roles focusing on design, CDM and commissioning services within new build and upgrade projects for Data Centres.

Warren has a practical approach to design solutions and a passion for pre-fabrication, Safety by Design and commissioning. Throughout his career, he has worked in a variety of sectors including Pharmaceutical, Retail, IT, Commercial, Industrial, Residential and Energy sector schemes.

Supporting the delivery of world class solutions.



We are focused on innovation and low energy design solutions.

We work with our clients to create environmentally resilient and sustainable built environments.



We offer specialist engineering services for data centres & critical schemes.

We provide technical project management and Principal Contractor services.



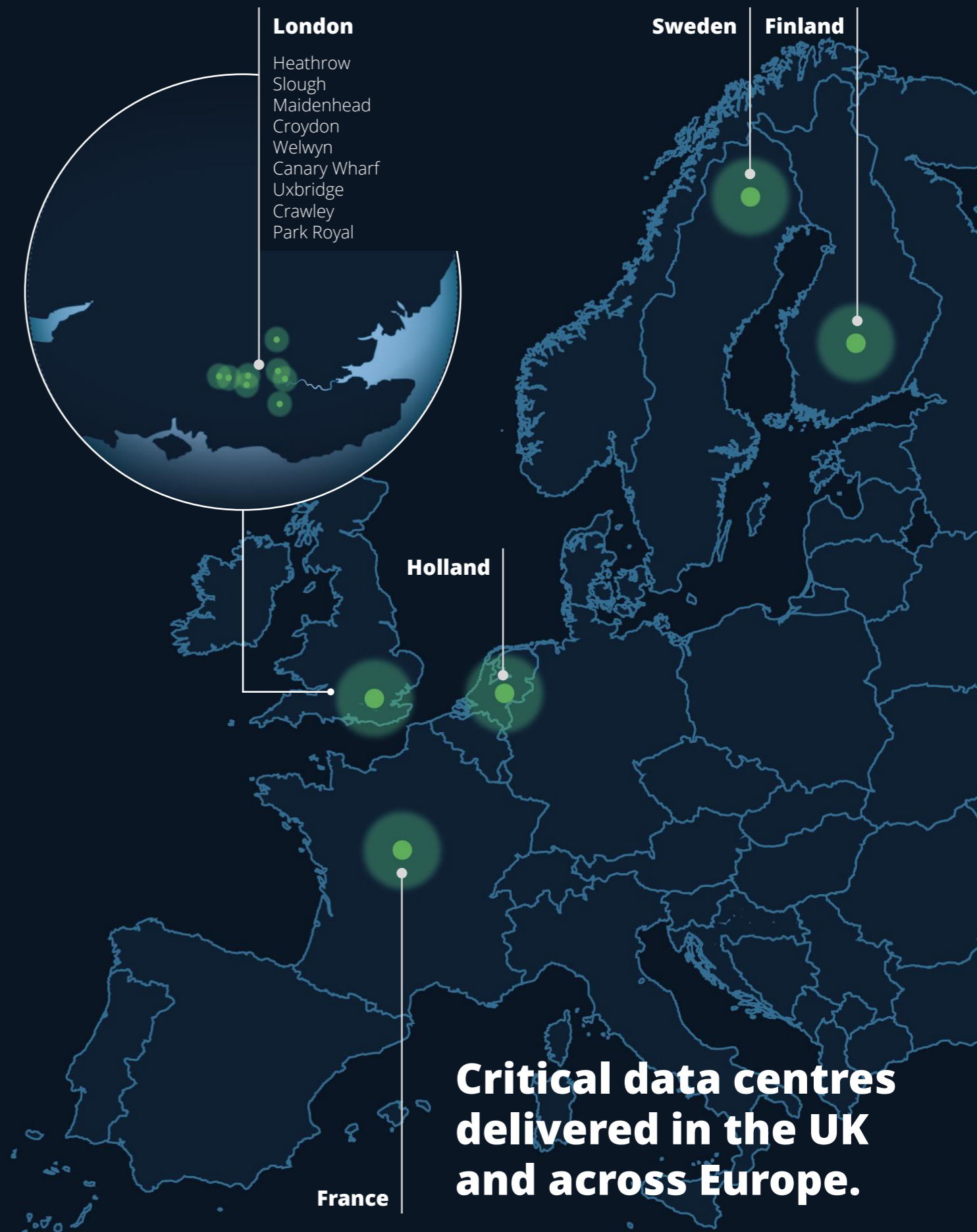
We set new standards for digital and virtual engineering.

We have in-house developers, technologies and digital tools that offer a sustainable pathway for data driven project delivery.

- Supporting Zero Carbon initiatives
- Energy compliance
- WELL / LEED / BREEAM
- Offsite Assembly
- Sustainability Management

- Building structure & fabric
- MEP services installation
- Commissioning Management
- Aftercare

- Digital Engineering
- Point Cloud
- BIM
- Application development
- Visualisation & VR



Project insights

Colt Technology | Data Facility



£80 million facility delivered as the main contractor.

12,500 sq. m of data centre space.

Each pair of halls delivered in just 7 months.

Each 500 sq. m hall has 1600 watts per sq. m.

Overview

As part of our work within the growing technology solutions sector and for one of the industry's leading clients, Colt Data Centre at Welwyn Garden Centre demonstrates our capability for delivering large-scale infrastructure projects. As main contractor, ESG completed eight pairs of hall space, measuring approximately 500 sq. m each.

Delivering 1600 watts per square metre, each hall includes the introduction of two hundred and forty tons of steel and benefits heavily from our experienced technology sector team. Ensuring construction milestones were achieved, we engaged with the client team and FM provider throughout for comprehensive client training and project handover.



Project insights

Various



Data Centre, London

A mission critical, live environment upgrade including site infrastructure, UPS systems, switchgear, cooling units and UPS rooms, for a large banking organisation.

The project required swapping out of old busbar system for new in live data halls. As a result, all works were done during out of hours operations and all data halls energised and operational by the beginning of each morning shift.

The key risk in daily energisation, was potential unforeseen errors and our project team had to ensure stand by plans we made for every eventuality. Even if this meant returning the service back to its original state to ensure operation for the Client by the start of the day shift.

Data Centre, London

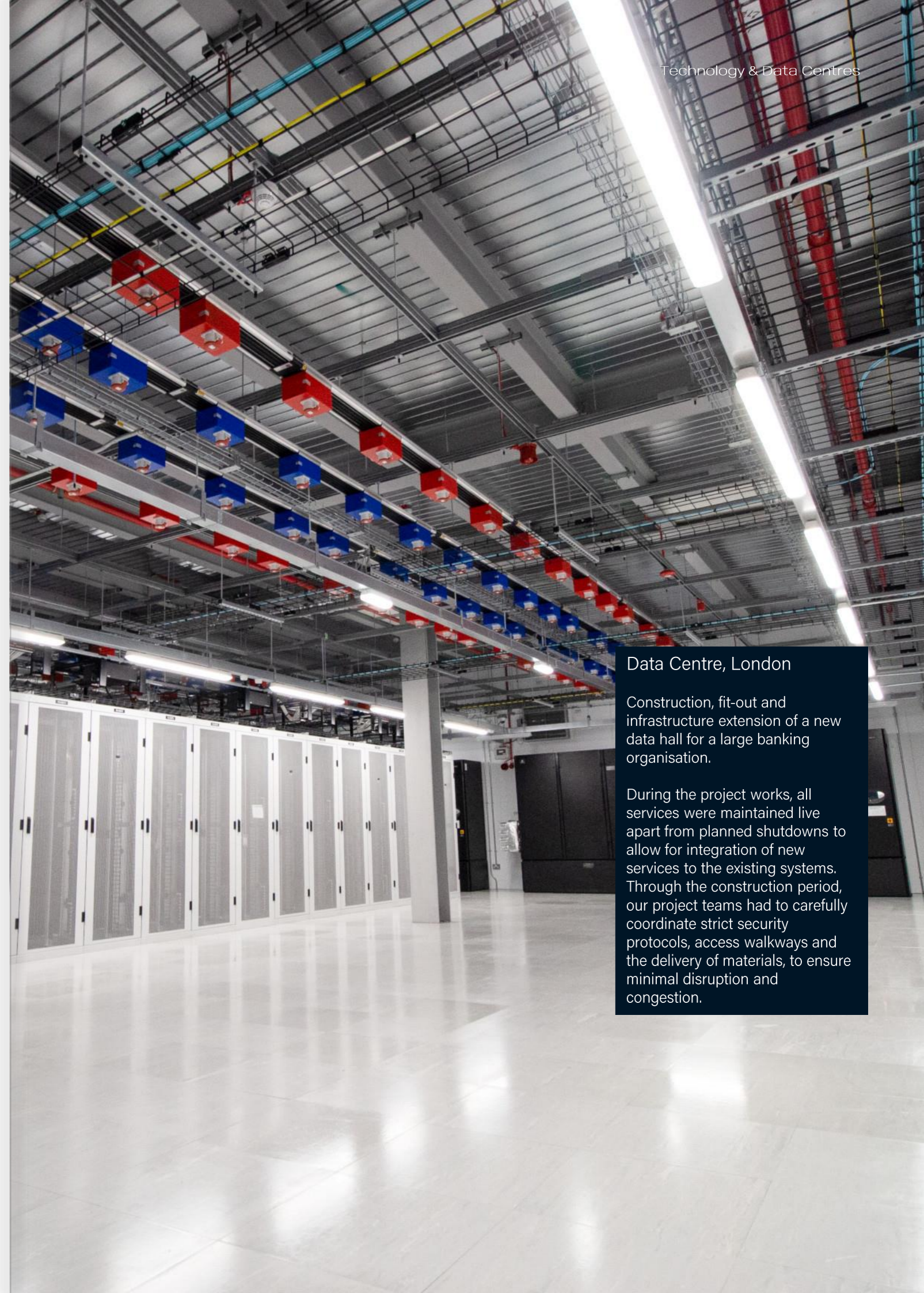
ESG were proud to be associated with a valued client and delivered the second phase of their six and seven Harbour Exchange sites within London's Canary Wharf estate.

Work included the complete electrical services fit-out of levels 3 and 4 supplying sensitive areas such as the data hall floors. In addition to new plant and equipment within the adjacent energy centre the project included electrical infrastructure installation to new floors, power distribution units and floor fit-out, all in-line with the client's requirements.

Data Centre, Europe

Electrical services package delivered by ESG in one of the worlds most digitally connected economies including HV, MV, LV cabling, MV, LV switching, generator, UPS and battery interfacing.

Full mechanical services delivery including chilled water installation, boosted and treated water, ventilation and air conditioning. All coordination and design elements were achieved through the creation and management of our 3D model, issued as part of our operations procedures.



Data Centre, London

Construction, fit-out and infrastructure extension of a new data hall for a large banking organisation.

During the project works, all services were maintained live apart from planned shutdowns to allow for integration of new services to the existing systems. Through the construction period, our project teams had to carefully coordinate strict security protocols, access walkways and the delivery of materials, to ensure minimal disruption and congestion.

Our BIM capabilities

Delivering different levels of BIM maturity for almost two decades.

Background

During the steady increase of project deliverables, the group has evolved with new technology, embracing advancements made in the BIM process for end-user benefit and for achieving a successful outcome.

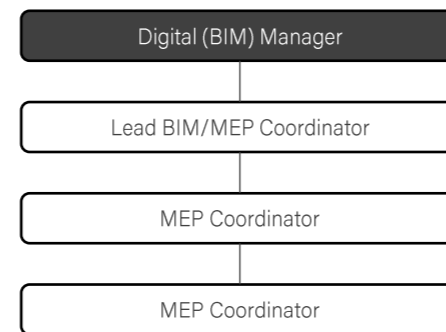
Each project delivery team, trained to a minimum digital standard is equipped with the necessary resources to work within the BIM process, typically making use of Revit MEP, AutoCAD and Navisworks as a minimum with almost every project undertaken now including some element of BIM. We have varied experience with 4D, 5D & 6D delivery and can work with each where applicable, subject to project requirements.

We believe the process needs clear communication, well thought out planning and committed execution. A clearly defined responsibility matrix works alongside the project Execution Plan, ensuring we provide only what is beneficial to the project and end-user.

The group has experience of delivering BIM to Level 2 standard across a diverse range of industry sectors where projects have required high levels of modelled data and attributed information provided in Excel and COBie formats.

BIM delivery has been successful because of the following key elements;

- We have skilled engineering coordinators, capable of delivering BIM to level 2 standards and continually monitor progress to target areas for improvement.
- We embrace the key elements of BIM by working in an open and collaborative manner, working together to achieve the correct result.
- We can deliver expectations, in line with the projects BIM Execution Plan, providing modelled data in compatible open-source formats.
- We work within shared data environments, assigning the required asset data to our model files and associated documentation, providing the very latest information to our site teams.
- We continually pursue the use of BIM where it offers true benefit, not simply because we can.



- Visiting (typical)
- Site-based



We can use Point Cloud data to establish exact dimensions.

We have experience of using Point Cloud data to verify the existing architecture and installation.

