



Silcock Dawson  
& Partners

BUILDING SERVICES CONSULTING ENGINEERS

Delivering Solutions for Data  
& Telecommunication Centres

# The Design Specialists for Data & Telecom Centres

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Welcome to Silcock Dawson & Partners. As design specialists, we create the mechanical and electrical environments for major data and telecom centres, delivering exceptional, cost-effective solutions.

We combine a wide range of design skills to fulfil the demands of every project. You will find us helpful, professional and fully committed to meeting your design needs.





## UTILITY INFRASTRUCTURE

Preparation of a building load assessment.

Determining the proximity of adequate supply capacity, negotiating with the utility companies, challenging and reducing the non-contestable costs. Introducing competition to contestable work, advising on alternative asset ownership strategies.

## ANCILLARY STRUCTURAL DESIGNS

Prepare ancillary structural steelwork designs associated with the services installation (e.g. for generators, switchgear, chillers, UPS equipment etc.).

## MEP AND IT INFRASTRUCTURE DESIGNS

Design the full range of Mechanical, Electrical and Public Health Services including high voltage distribution, generators, UPS systems, rack cooling, room cooling, fire prevention and SCADA. Our involvement includes major risk assessments for power failure and power quality, fire, electro-magnetic and electro-static control, radio frequency interference, room and equipment airflow and earth integrity.

Assist in the planning of an IT Infrastructure including horizontal and backbone cabling pathway systems, backbone distribution systems, cabling systems and equipment rooms.

## BUILDING AND ENERGY MODELLING

Create dynamic models to evaluate the future performance of the building. The dynamic models enable us to:-

- predict room conditions
- estimate energy consumption and evaluate energy measures
- allow innovative designs to be tested prior to construction
- assess the environmental impact of the design
- compare the impact of alternative construction material
- assess the use of renewable energy sources





## CONSTRUCTION MANAGEMENT

Ensure that the services are installed correctly. We promote a close working relationship with the Services Contractor, Equipment Suppliers and Commissioning Engineers to ensure that all communicate together and understand each others' responsibilities. We encourage "toolbox" talks with the operatives to discuss installation methods and standards to promote high quality installation standards.

Carry out full on-line failure testing and witness the operation of the services systems to ensure that they meet the design criteria.

## BUILDING SCIENTIST

Clinical Clean and Zinc Whisker removal from machine rooms and floor voids. This involves pre-measurement (such as particle counts), a clinical clean to remove the potentially damaging contaminants and followed by a post-clean measurement.

## COST ANALYSIS

Assist the PQS in developing accurate cost appraisals for the building including site cost control, valuation of variations, valuation of interim payments and agreement of final accounts.

## HANDOVER MANAGEMENT

Provide a thorough handover to the Client's team by ensuring that they have the information/understanding needed to operate the building. The handover includes full on-line testing of all plant and equipment and is followed by providing a building log book which includes all as-fitted documents, test information and certification.

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## CABLE & WIRELESS PROJECT BRABAZON

Silcock Dawson & Partners were the Lead Consultant employed to upgrade 10 Data sites and provide 4 new Data sites, as part of an International Internet Connection scheme.

These multi-site projects were undertaken under a 'fast track' environment and involved full risk assessments of business security during the construction works.

**Value: £25 Million**

*"This is a great result to a very complex piece of work, delivered under challenging timescales and cost pressures. All of you in the Team should feel proud of this achievement which has provided Cable & Wireless with a more robust network to support our major International routes, as well as contributing directly to our financial results this year."*

*My personal thanks to you all for the hard work and creativity that went into this success."*

**Andy MacLeod** – Global EVP Operations Manager, Cable & Wireless



## GLOBAL SWITCH INTERNET HOTEL SPAIN

Silcock Dawson & Partners were responsible for the Full Design of the Mechanical and Electrical Services, together with full Site Involvement, of this 150,000 sq.ft. Internet Hotel in Spain. Total Electrical Load 16 MVA.

**Value: £35 Million**



*"I would like to take this opportunity to thank Silcock Dawson & Partners for delivering the works on time and to an excellent standard."*

**Jeff Peppitt** – Construction Director, Global Switch

## WORLD BEATING DATA CENTRE NORTH YORKSHIRE

The project comprises of a Data Centre and 2,000 sq. metre Office building. The Data Centre is a "mission critical" Centre, designed to provide 'Six Nines' (99.9999%) reliability by installing a power distribution system capable of 4N redundancy - without deploying static changeover switches within the distribution network itself.

The Building Management System deployed is one of the most advanced systems available and all equipment, right down to the individual circuit breakers, are Web enabled, allowing American based Engineers to investigate problems alongside their UK based colleagues.

**Value: £11 Million**



*"I would like to sincerely thank all of you for supporting me so well through the design and construction of this world class facility. Today is a major milestone in the history of TSYS and all of you have contributed towards this outstanding achievement. I am personally very proud of what has been created in Knaresborough and this excellent facility stands testament to your skill, professionalism and hard work. Thank You."*

**Lester Pulsford** – IT Director, TSYS

# Silcock Dawson & Partners

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