



Healthcare **Heritage** Retail Industrial Mixed use Office Residential Hotel & Resort Leisure

Company profile

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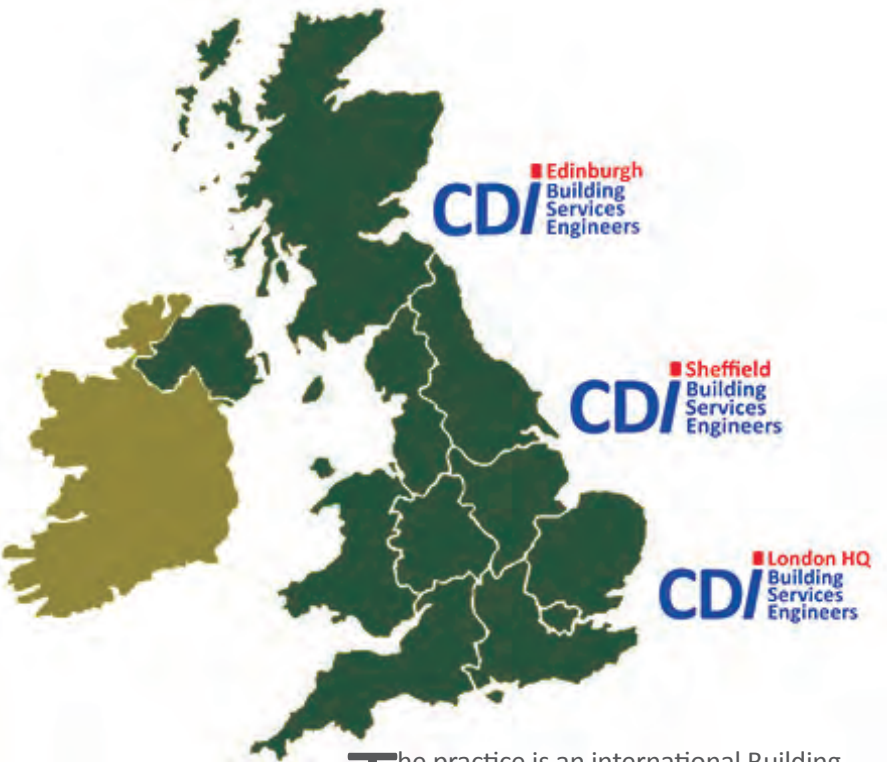
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About CD International /



The practice is an international Building Services Consulting Engineers having completed award winning projects throughout Europe with construction values up to £300 million.

Location

The company has offices in London, Edinburgh and Sheffield with associate partners throughout Central and Eastern Europe, Central Asia and the U.S.

Sectors

Market strategy has been committed to developing consultancy appointments throughout all areas of the commercial sector including:

- Mixed-use & Retail
- Leisure and entertainment
- Office & tech hubs
- Hotel & Resorts
- Residential
- Listed & Heritage

The business strategy is also focused on a European and worldwide operation with a number of major projects successfully completed in continental Europe, Africa and the Middle East.

Working with lead architects and local partners on international schemes, we developed unique experience and ability to combine knowledge from various practices and implement it into the real project.

Services

The company offers a full range of professional services which can be individually tailored to meet specific client needs as follows:

- Mechanical Design
- Electrical Design
- Public Health Design
- Fire Protection and Life Safety
- Vertical Transportation
- Infrastructure
- Low energy design
- IT communication
- Low Carbon Energy assessment
- BREEAM assessments
- Thermal Modelling
- Energy audits and energy appraisals

Heritage /



- Admiralty Arch, London
- Aquascutum, London
- Whiteley's, London



- Russell Hotel, London
- Waldorf Hotel, London
- Yacht Britannia, Scotland
-



- Grays Court Hotel, York
- Roydon Hall, Tonbridge
- Fishing Lodge, Warwickshire
- Royal Lodge, Windsor

Experience / Listed buildings

We have highlighted in this brochure our experience in projects in Heritage & Listed Buildings and examples of energy works at leisure & entertainment centres in the UK. We also included several case studies of the projects abroad including refurbishments and extensions, fit-out, renovations and new built.

Our engineers have extensive experience on a projects across London and Edinburgh, dealing with boroughs' planning committees, Greater London Authority during project development stages and construction supervision phases.

Listed Buildings

These types of buildings require a sensitivity in understanding how buildings can be adapted to meet the needs of the 21st Century whilst retaining the important cultural and heritage of an historic building.

Systems design is obviously important in minimising the impact on the building envelope.





Client: St Benet's Church

Heritage / UK

Kentish Town / St Benets Church

The church parish is in the Edmonton Episcopal Area of the Diocese of London and this report outlines the condition and issues with the existing heating system and the various options that can be taken to improve and enhance the heating environment for the church operatives, parishioners, and protection of the building fabric itself.

Project overview

One of the most important challenges facing churches today is providing sufficient comfort for the many different users of the building, from worshippers to staff to visitors.

A church's heating system affects its fabric, its contents and its congregation. There is no universal solution to making a church comfortable and the key to arriving at a solution that provides reasonable comfort at a reasonable cost is to understand the particular needs of St Benet's church.

Church buildings have increasingly become a burden for congregations as escalating maintenance and energy costs threaten to consume any budgets.

Church was also in the process of looking to convert an area at the side of the church to a winter chapel type space. This area to be refurbished separately from the main building and have its own independent heating and hot water system. This would make sense and provide better control of the areas being used and also reduce heating costs as the entire church space would not be heated.

The space would provide a small place of worship for the local community as well as office and storage space for the priest. The main church could be heated from a separate system when there are larger type congregations and functions.

CD International has proposed two options for the space heating, including specifications and cost estimation of the equipment: condensing boilers, radiators, under floor heating.



Client: Cabinet Office, UK

Heritage. Office . Listed Building / UK

London / Admiralty Arch



Admiralty Arch is a large office building in London which incorporates an archway providing road and pedestrian access between The Mall and Trafalgar Square to the North-East.

Project Outline

Our engineers were responsible for the complete refurbishment and fit out of these Grade I listed buildings Admiralty Arch, Ripley Building & Kirkland House, which date back to 1786.

The combined footprint of the interconnecting buildings is some 380,000 ft².

The single end user was the Cabinet and their support staff and the aim of the project is to create a modern and efficient environment within the confines of these fine historical buildings.

Considerable coordination and discussion is taking place with all interested parties to ensure these buildings function and operate as a total unit.

Admiralty plan 1794 by Draughtsman Thomas Chawner from wikipedia



Heritage sites & Listed
Building / UK

MEP: CD International

London / Aquascutum

Regent Street is one of the major shopping streets in London's West End, well known to tourists and Londoners alike, and famous for its Christmas illuminations. It is named after the Prince Regent and is commonly associated with the architect John Nash.

Project overview

Reclaiming the top four floors of Aquascutum store/office. This resulted in maintaining plant to serve Aquascutum ground, first and second floor. A new entrance lobby was formed to serve approximately 35,000 sq ft of refurbished office with a CAT A fit out.

- New dedicated fresh air plant to serve the office areas.
- New 500kW chiller
- New 4 pipe fan coil to offices
- Upgrading incoming electrical supply and modifying transformer chamber
- New life safety systems to offices
- Maintain Aquascutum HVAC plant operational and down rate main AHU



Client: Standard Life, UK
 Architect: Various
 Services Design: CD International BSE, UK

Heritage. Listed Building / UK

London / Whiteley's

Whiteley's of Bayswater was once a luxury department store but was transformed into a shopping centre in 1989.

The current building was built in 1911 and included both a theatre and a golf-course on the roof.

Project Outline

We undertook a refurbishment of the 3rd floor at Whiteley's shopping centre, reviewing the MEP services to provide a new TV production studio and various fashion outlets.

Due to architectural heritage of the 4th floor, we designed a low level displacement system to control the internal temperature. This ensure that the existing Listed ceilings and mouldings were not affected.



Whiteleys mall interior by Oxfordian Kissuth from wikipedia;
 Whitley's old image from archive of John Arthur Whiteley from www.paulwhiteley.co.uk



Client: Levi's

Heritage. Listed Building. Retail / UK

London/ Carnaby Street

This street takes its name from Karnaby House, a large building on the east side of the street, erected in 1683 by Richard Tyler, the bricklayer responsible for the development of the eastern moiety of Six Acre Close, and by Pym, one of his associates.

Project Outline

We have produced performance documentation for the internal fit out of a Levi store on Carnaby Street.

We then monitored the Contractors proposals and installation culminating with input in finalising Practical Completion



Archive image of Carnaby street from wikipedia.



Heritage sites & Listed
Building / UK

Architects: Llewelyn Davies

QS: AYH (now EC Harris)

MEP: CD International

London / Russell Hotel

Built at the end of the last century, the Hotel Russell is one of London's most impressive Victorian buildings with many outstanding architectural features. Hotel has undergone a million pound refurbishment programme and boasts 357 en-suite bedrooms, including 160 air conditioned guest rooms, 15 Conference and Banqueting rooms.

Project overview

Our engineers were responsible for the full design of the Mechanical, electrical, Public Health and Lift services.

- To include 4 floors to be refurbished to Art and Tech
- Refurbishment of lifts with sequencing to maintain the operation of the Hotel
- Refurbishment of meeting rooms to Art & Tech.
- Relocation of existing plant to suit planning and English Heritage requirements
- Inverter driven VRF providing simultaneous heating and cooling
- Low energy lighting design
- Installation in a live hotel

Heritage sites & Listed
Building / UK

*Architects: Llewelyn Davies
QS: AYH (now EC Harris)
MEP: CD International*

London / Waldorf Hotel

Built at the end of the last century, the Hotel Russell is one of London's most impressive Victorian buildings with many outstanding architectural features. Hotel has undergone a million pound refurbishment programme and boasts 357 en-suite bedrooms, including 160 air conditioned guest rooms, 15 Conference and Banqueting rooms.

Project overview

Our engineers undertook the project for refurbishment of guestrooms and reconfiguration of public spaces to improve circulation.

This involved space planning, new air conditioning systems and integrating new distribution systems within the interior design.

This required close liaison with English Heritage on the integration of new services within listed areas. This included taking the Palm Court back to its original design based on historic photographs. The guestrooms have been refurbished to the Art & Tech style with plasma screens and power jet showers.



Heritage. Listed Building /
UK

Client: Forth Ports

Services Design: CD International BSE, UK

Leith / Yacht Britannia

Design and supervision of the MEP installation to FRY Britannia and an associated Visitors Centre.

Project Outline

The fit out of the FRY Britannia required imaginative design solutions to integrate the environmental systems within the existing structure of the ship. In particular this required careful coordination to limit the disturbance to the existing frame.

The project also included the design of the MEP installations to the Visitors Centre which acts as an exhibition space before visitors board the ship.



Heritage sites & Listed
Building / UK

*Architects: John Edwards Architects
MEP: CD International*

York / Grays Court Hotel

Gray's Court is one of the most historic buildings in England. This ancient house was the residence of the Treasurers of York Minster from the 11th century until the latter was despoiled by Henry V111 in 1547.

Project overview

The present owners have commenced an extensive programme of renovations to Gray's Court.

Now completed, the house offers luxurious boutique accommodation in twelve en-suite rooms and guests are able to relax in the drawing rooms and Jacobean Long Gallery that have seen so much history.

Directors of CD International were appointed to provide building services to accord the requirements of English Heritage.





Client: Burrowby Properties Ltd
Architects: Upchurch Associates
MEP: CD International

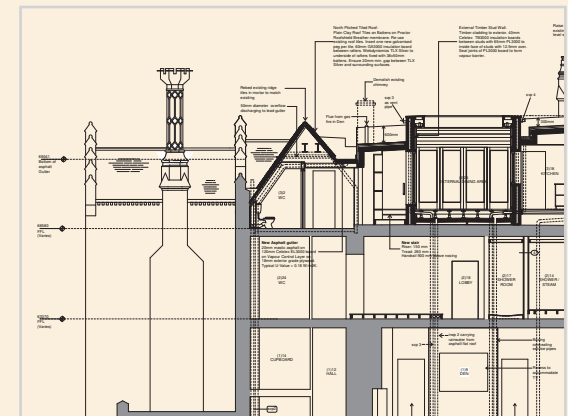
Heritage sites & Listed Building / UK

Tonbridge / Roydon Hall

The Second oldest residence in the UK is to be refurbished to provide 4,000 sqm of accommodation.

Project outline

Due to historic sensitivity of the building and surrounding we are using ground sourced bores to provide the heating and cooling to the main property. A new great hall is to be constructed with a basement swimming pool. The main ventilation plant is having to be carefully coordinated to minimise plant





*Client: Harris Family
MEP: CD International*

Heritage sites & Listed Building / UK

Wester Park / Fishing Lodge

The project involved the £1.5M refurbishment of a country house to form a hunting and fishing lodge for the Harris family. The house was built in the turn of the century and has ornate ceilings, oak panelling and stained glass windows.

Technical Overview

The refurbishment included an overhaul of the existing heating and domestic hot water systems to cater for the new 5 bedroom (complete with en suite) house.

Heating is provided via a 60kW high efficiency condensing boiler serving a wet radiator system throughout. The heating system is controlled via a central user interface which offers zoned time and temperature control.

The system controls allow heating of the staff wing whilst the rest of the property is unoccupied.

The vastly increased domestic hot water demand is met via a 32kW high efficiency condensing water heater which is assisted by a 200 litre storage cylinder.

The electrical installation included an overhaul of the power, lighting and fire alarm systems.



*Client: Royal Household
MEP: CD International*

Heritage sites & Listed Building / UK

Windsor / Royal Lodge

Directors of CD International were appointed by The Royal Household to undertake the design and supervision of the MEP services for a refurbishment of the Royal Lodge, the house for the member of the Royal Family.

Project overview

This comprised the complete refurbishment of the electrical and heating systems. We incorporated on new IT network and lighting controls

The electrical installation included an overhaul of the power, lighting and fire alarm systems.

