

# HEALTHCARE

For all your mechanical and  
electrical consultancy needs



The Christie Acute Assessment Unit



# Contact

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# Introduction

S I Sealy was founded in 1949 and has since grown into one of the foremost building services engineering consultancies in the North of England. We now have one of the largest single resources of MEP design engineers, modellers & digital engineers in the Region with over 30 specialist staff. All of our engineers pride themselves on providing a quality service which comes in on time and on budget.

Our clients value this and our general approach, demonstrated by the fact that over 90% of our work comes through repeat business from an extensive client list.

We have significant knowledge and experience across all market sectors, with particular strength within the healthcare sector. The strength of our experience is demonstrated by being one of the few M&E consultants on the NHS Shared Business Services Framework.

Our flexible consultative approach allows us to exceed our clients' expectations. Our clients trust us to bring creativity and skill to delivering projects on time and to budget with the lowest achievable operating carbon emission.

Dedicated teams, dependable planning and close monitoring of costs, excellent quality control and outstanding project management are all part of the S I Sealy approach. At the heart of all of this is the fact that we recognise the importance of good communication.

Ultimately we are passionate about building services and we are an approachable, friendly group of people who look to develop long-term relationships with clients.



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## Our clients include:

Ashford & St. Peter's Hospitals  
NHS Foundation Trust 

Barnsley Hospital  
NHS Foundation Trust 

Bolton  
NHS Foundation Trust 

Bury  
Clinical Commissioning Group 

Countess of Chester Hospital  
NHS Foundation Trust 

East Cheshire  
NHS Trust 

East Kent Hospitals University  
NHS Foundation Trust 

East Lancashire Hospitals  
NHS Trust 

Greater Manchester Mental Health  
NHS Foundation Trust 

Hampshire Hospitals  
NHS Foundation Trust 

Kent & Medway  
NHS and Social Care Partnership Trust 

Kingston Hospital  
NHS Foundation Trust 

Liverpool University Hospitals  
NHS Foundation Trust 

Manchester  
Clinical Commissioning Group 

Manchester University  
NHS Foundation Trust 

Mersey Care  
NHS Foundation Trust 

Mid Cheshire Hospitals  
NHS Foundation Trust 

Midlands Partnership  
NHS Foundation Trust  
A Keele University Teaching Trust 

North Staffordshire  
Combined Healthcare  
NHS Trust 

North West Ambulance Service  
NHS Trust 

Northern Care Alliance  
NHS Group 

Northern Lincolnshire and Goole  
NHS Foundation Trust 

Royal Liverpool and  
Broadgreen University Hospitals  
NHS Trust 

Salford Royal  
NHS Foundation Trust 

Southport and Ormskirk Hospital  
NHS Trust 

St George's University Hospitals  
NHS Foundation Trust 

Stockport  
NHS Foundation Trust 

Tameside and Glossop  
Integrated Care  
NHS Foundation Trust 

The Christie  
NHS Foundation Trust 

The Royal Wolverhampton  
NHS Trust 

University Hospitals Bristol  
NHS Foundation Trust 

University Hospitals of  
Morecambe Bay  
NHS Foundation Trust 

University Hospitals of  
North Midlands  
NHS Trust 

Wrightington, Wigan  
and Leigh  
NHS Foundation Trust 

SI Sealy has a wide range of experience in all sectors and types of buildings.  
This document provides a sample of our UK Healthcare work.



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# The Royal Oldham Hospital Expansion Project



**Sector:** Healthcare  
**Client:** Northern Care Alliance & IHP (JV between SRM & VINCI)  
**Architect:** Day Architectural  
**Budget:** £23m

- BREEAM 'Excellent'
- Daylight sensors
- CHP plant
- Plate exchangers
- 12.8% CO2 Reduction

For this development S I Sealy provided detailed RIBA stage 4 MEP designs in Revit for the new four-storey building, comprising 7400 m2 including a rooftop plant, connecting the main hospital building at all levels and an open central courtyard. The building consists of two new 24-bed ward accommodations on two floors with the top floor accommodating a shell and core area with riser and ceiling void space provision for future services for the floor.

Our team produced enabling works packages to allow the site to be made safe to allow for future works to commence. Along with surveying the existing infrastructure and establishing the works that were needed to demolish existing buildings and accommodate the new facility.

The building is to be constructed to BREEAM 2014 'Excellent' with the design stage BRUKL calculations undertaken to indicate the building design to achieve at least 5 BREEAM 2014 credits, along with Thermal Modelling being in line with HTM03-01 and CIBSE guide. All external lighting is to be controlled via daylight sensors and all the lighting is in line with SLL and CIBSE LG 2 and CIBSE LG 7 for computer working areas.

The project will receive 100% of heating and domestic water energy use of the building from on-site renewable technology. This is to be provided by utilising a Combined Heat and Power plant installed in the main hospital boiler room with an emergency steam back up system. The CHP will also serve other plate exchangers in the hospital in addition to providing 100% of the heating.

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# Cobbett House MFT Trust HQ, Manchester

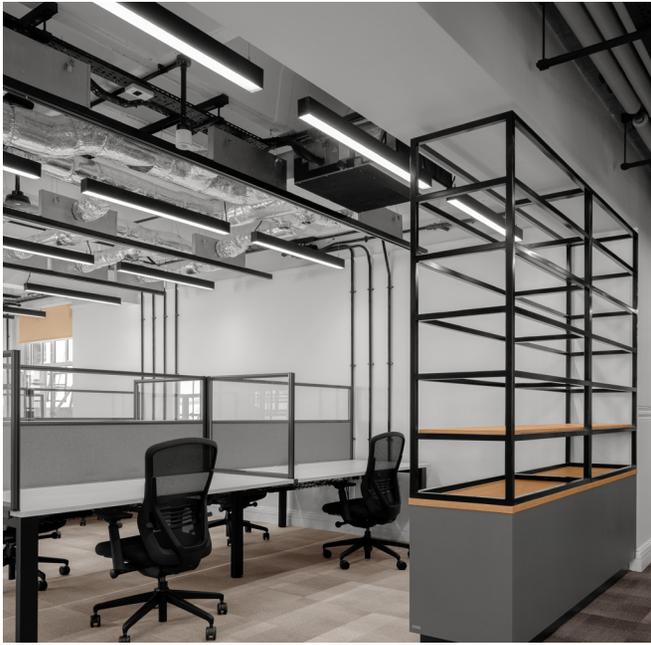


**Sector:** Healthcare/ Commercial  
**Client:** Manchester NHS Foundation Trust  
**Architect:** Day Architectural  
**Budget:** £1.6m

- Grade II English Heritage Listed Building
- Bespoke lighting
- Smart energy-efficient daylight dimming
- Low Carbon heating and cooling

We are providing detailed MEP engineering design and construction phase monitoring for the refurbishment of Manchester NHS Foundation Trust’s Headquarters building, Cobbett House. This current phase involves the total refurbishment of the third floor within the four-storey Grade II English Heritage listed building. Works also included the refurbishment of the lifts together with the ground floor toilets and teleconference facilities on the upper floors of the building. The MEP designs utilised bespoke lighting and smart energy-efficient daylight dimming along with air source heat pumps to provide low carbon heating and cooling. Due to the Grade II Listing and age of the building, we had to work closely with the architects and structural architects to ensure adequate ventilation, heating and cooling were provided without any external plant being visible.

We created a “Mock-up” room at an early stage of the design to ensure all services were coordinated and met the client’s needs, whilst verifying the quality of the installation. The works formed part of essential Covid clinical planning to relocate admin staff from areas within the MRI that are now delivering clinical services. The project was the second phase of an overall masterplan to refurbish the whole building. Phase 1 was the refurbishment of the first floor of the building to accommodate the Trust’s payroll / HR operations and the department remained fully operational during the subsequent refurbishment of third floor office space. We have developed detailed MEP strategies for the overall refurbishment of the building following 3D surveys of the entire building and basements, which include designing new heating plant and distribution pipework together with forming new MEP risers to serve future phases.



# The Christie Main Entrance, Manchester



**Sector:** Healthcare  
**Client:** The Christie NHS Foundation Trust  
**Architect:** IBI Group  
**Budget:** £2.5m

- Consulting Suites
- Treatment and Utility Accommodation
- Security Hub

In the ever increasing search for the cure for Cancer, The Christie are improving and expanding the clinical trials department and expanding the Trials unit to increase its testing on patients. It is considered that in providing increased results this will increase the speed at which assessments can be developed and researched. The Centre consists of 26 Patients Clinical Trial Seating Bays, 6 consulting suites with Treatment and Utility Accommodation. The Centre now forms Part of the Oak road Centre.

Due to the large improvements to The Christie site, it was considered appropriate to open up the Main Entrance to the Hospital with a New Information Centre – Cancer Information Facilities, catering and a more welcoming waiting area. The area consists of a new reception centre, charity shop and additional retail shops together with a security hub, interview and relaxation areas, in addition to the open plan seating spaces.

Due to the introduction of the Proton Beam Facility, the Outpatients Department was relocated and expanded to cater for the increase in demand on the hospital. The existing Outpatients Department has also received a complete overall, so support the demand for more examination rooms together with Venepuncture, X-ray and Utility Facilities.



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# The Christie Acute Assessment Unit, Manchester



**Sector:** Healthcare  
**Client:** The Christie NHS Foundation Trust & IHP (JV between SRM & VINCI)  
**Architect:** Gilling Dod Architects  
**Budget:** £4m

- HTM Compliant
- 7 month programme completed in 16 weeks due to Covid-19

The Christie NHS Foundation Trust is a specialist cancer care, research, and education facility in Manchester. The Christie were reviewing the option of converting a blank floor space in the four-storey Proton Beam Facility located on the Christie site, into a new 26-bed Acute Assessment Unit.

S I Sealy were first asked to create a stage 2 report to identify and assess feasibility options and budget costs for the MEP services associated with the proposed development and identify any key risk areas regarding MEP services.

S I Sealy were then approached to join forces with their P22 Contractor IHP (Vinci & Sir Robert McAlpine) to carry out the full design and installation of the project in 16 weeks. This project involved fitting out an existing shelled fourth-floor space within the proton beam building to form a new acute assessment unit (AAU). The new development is a 1850m<sup>2</sup> area and consists of the ward and bedded areas as well as staff facilities and office space. The new AAU utilises existing mechanical and electrical infrastructure to provide HTM compliant services to the new areas with additions as required.



# Basingstoke & North Hampshire Hospital, Candover Clinic



**Sector:** Healthcare  
**Client:** ESS Modular  
**Architect:** Paul Murphy Architects  
**Budget:** £2m

- Heat Recovery Units
- VRF Air-to-Air Heat Pump System
- AHU Ventilation System

We were appointed to provide the detailed MEP design and construction phase duties for the new consultants' facility at the Basingstoke & North Hampshire Hospital. The project delivered a stylish new private patients' facility, incorporating 12 Consulting rooms, each with a Secretary's office. The facility has an X-Ray department, treatment rooms and support staff offices.

The specification was enhanced to provide a comfortable & calming ambience, which included a coffee bar and a large atrium style waiting area. The rooms were provided with a mixture of natural ventilation and mechanical ventilation via local ducted heat recovery units located in the ceiling void. Heating and cooling was provided via an electric VRF air-to-air heat pump system, which significantly reduced the carbon emissions. The X-Ray facility was provided with a separate supply and extract AHU ventilation system mounted on the roof.

As part of the Consultants' Facility, an enabling works package had to be delivered to ensure the building had sufficient power, gas and water. A full feasibility study was undertaken, and RIBA Stage 3 & 4 reports were produced with complete budget costs to establish how the hospital could provide this service.



# Basingstoke & North Hampshire Hospital, Radiotherapy Clinic



**Sector:** Healthcare  
**Client:** ESS Modular  
**Architect:** Paul Murphy Architects  
**Budget:** £4.5m

### Awards

- 2014 Considerate Constructors Scheme
- National Site Award - Bronze Award (Winner)
- 2014 LABC Building Excellence Award - Best Public Service Building (Shortlisted)
- 2015 Building Better Healthcare Award - Best Acute Hospital Development (Winner)

We were appointed to provide the detailed MEP design and construction phase duties for the new Radiotherapy Clinic with state-of-the-art cancer diagnostic & treatment equipment. The facility consists of a CT room, X-ray room, MRI room, ancillary rooms and a new LINAC laser machine. The LINAC laser machine was installed within a purpose-built concrete bunker which offers protection from the radiation emitted from the machine.

We attended several user group meetings and technical meetings with the manufacturer of the equipment and bunkers to deliver a co-ordinated and suitable MEP solution to heat, cool, power and ventilate and light the facility.

As part of the Radiotherapy Clinic for Basingstoke & North Hampshire hospital, an enabling works package had to be delivered to ensure the building had sufficient power, gas and water. A full feasibility study was undertaken, and RIBA Stage 3 & 4 reports were produced with detailed MEP budget costs to assist in the project planning & financing.



# Ashford & St Peter's Hospital, Chertsey



**Sector:** Healthcare/ Off-site  
Construction/ Public Sector  
**Client:** ESS Modular  
**Architect:** Paul Murphy Architects  
**Budget:** £2.5m

- BREEAM 'Very Good'

The requirement from Ashford & St Peter's Trust was to provide a two-storey temporary office block at the hospital, with a BREEAM 'Very Good' Rating, whilst ensuring services within the complex were unaffected.

We worked with Extraspace Solutions on the resulting 2339 m<sup>2</sup>, a two-storey modular office building with a third-floor plant room. Each floor consists of a core area with toilet, staff changing area, staff kitchen and lift.

The office accommodation is arranged in a mix of open plan and cellular spaces, with half-glazed office partitions. The meeting rooms are located at ground floor level with a movable partition system subdividing the two smaller rooms.



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# Barnsley District General Hospital, Maternity Building



**Sector:** Healthcare/ Public Sector  
**Client:** Barnsley District General Hospital  
**Architect:** The Manser Practice  
**Budget:** £8m

- HTM/HBN Compliant

The total refurbishment of the Maternity Building took place over several phases over a four year period, with a total budget of £8million. We were appointed to undertake the detailed feasibility study and detailed design and site supervision (ACE Full Duties) for Phases 1 and 2.

Phase 1 was the refurbishment of the Birthing Suite, which had a budget of £1.4million and Phase 2 was the refurbishment of the Neo-Natal Theatre, which had a budget of £1million. Further phases included the total replacement of the engineering services; as well as the total refurbishment of the remaining wards and administrative accommodation.





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