

abengineering

Mechanical, Plumbing and Electrical Services



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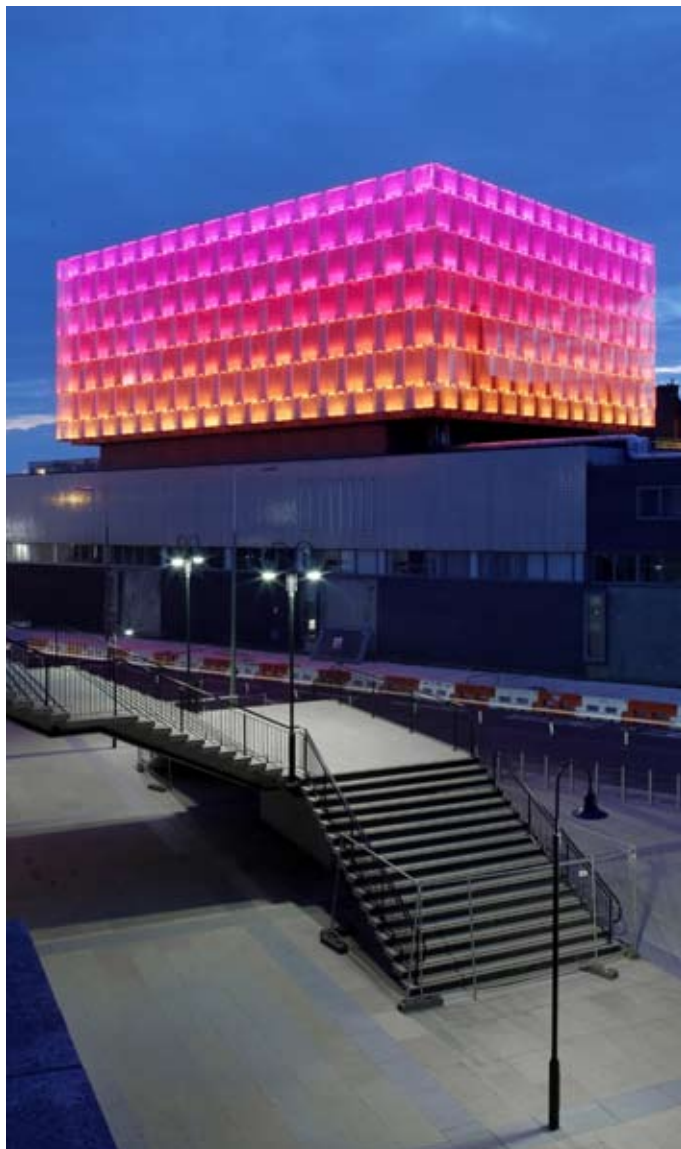
Company Profile

Introduction

A&B Engineering was formed in the 1950's and has now been providing mechanical, Electrical and Plumbing services throughout the North West and nationally for over 50 years.

We provide a complete multi discipline package, including design, for all services as detailed below, and to a range of various projects including Schools, Hospitals, Residential High Rise, Hotels, Leisure, Office Developments and Retail.

As a company, we employ 300 directly employed fitters, plumbers and electricians, and for our financial year end 2010, we have a turnover in excess of £25 million.



Specialist lighting to outer facade of University of Liverpool - Active Learning Lab

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We are very proud of our company, the majority of all the Directors, staff and employees have been with the company for many years.

We have always had a big emphasis on training and we do maintain considerable numbers of apprentices in both craft and technical fields.

Health and Safety is paramount to us and our safety record is testimony to our commitments.

We always endeavor to be competitive and strive to provide energy efficient options. We are a Low Carbon Registered Consultant and we offer environmentally friendly systems utilising: Air and Ground Source Energy, Solar Energy, Biomass, Rainwater Harvesting, CHP Systems and Wind Energy solutions.

Health & Safety

At A&B Engineering Health Safety and the protection of the Environment is of paramount importance to our company. Our Health & Safety record in the Engineering and Construction industry over the past 30 years indicates our commitment to this statement.

Continual enhancement can be further demonstrated by our developed audit, review procedures, safety management system and commitment at all levels to company policies.

The A&B Engineering Safety, Health & Environmental Management team are all Nebosh (Construction) certified, our SH&E Manager is a registered member of the Association of Project Safety (RMAPS), a member of the Institute of Occupational Health and Safety (MIOHS) and a member of the Institute of International Risk and Safety Management (MIIRSM).

All Our Contracts Managers and Senior Site Management have been successfully trained to IOSH management standards (Managing Safely in Construction).

An association with Health & Safety Consultants Rawlings Consultancy Services Ltd, (commencing in 2006), has ensured that our company has been compliant to date with Health & Safety legislation, including an extensive programme of training and the successful implementation of our Health & Safety management system issues.

A&B Engineering are aware of their duties required under CDM 2007, all appointed site management documentation and procedures are implemented, maintained and monitored to be compliant to CDM 2007 regulations.

Our site operatives training matrix is regularly reviewed and updated by our internal Safety, Health and Environment management department. Operatives are extensively trained to current statutory and mandatory requirements.

All A&B Engineering operatives are JIB/HVCA graded confirming competence in their field of work. We also currently employ 35 apprentices via the JTL/BEST training programme. A&B Engineering operatives are required to hold current CSCS cards as a pre-requisite to commencing their employment.

We are pleased to state that our company has managed to increase its workforce over the past 18 months by over 50%, and that during the same period we have been able to reduce the actual accident incident percentage rate, with zero reportable accidents in the last financial year 2010.

We are also pleased to state that our company has not been subject to the issue of any Improvement or prohibition notice from HSE or other regulatory authority to date.

In line with our company mind-set of continual improvement, we are currently in the process of installing an Environmental management system (EMS) in line with ISO 14001.

Should you require any further Safety, Health & Environmental information contact:
Les Malcolm. Health & Safety Manager. lmalcolm@abeng.co.uk



Gas fired boiler plant serving 326 apartments at One Park West

Mechanical & Electrical Services

| | | |
|-------------------------------------|--------------------------------------|---------------------------|
| Air conditioning | Sprinkler installations | Security |
| Building management control systems | Smoke & ventilation controls | Packaged sub stations |
| Chilled water installations | Steam & condensate systems | UPS |
| Commercial ventilation | Underfloor heating | Testing and commissioning |
| Rainwater harvesting | Underground pipeline systems | Power distribution |
| Domestic ventilation | Ground source heat pumps | Telecom and data |
| Drainage installation | CHP systems | CCTV & door access |
| Gas installation pipework | Biomass boilers | Control wiring |
| Kitchen ventilation | Solar energy | Standby generators |
| Sanitary installations | Internal & external lighting schemes | Satellite TV & radio |
| Industrial process pipework | HV installations | Wind turbines |
| Medical gas installation | Fire alarm systems | |

Education & Schools

Liverpool John Moores University - Sports Science Building



In December 2009, we completed the installation to the new Sports Science Building in Byrom Street, Liverpool.

Services installed included:

- Heating
- Ventilation
- Fume extract
- Plumbing
- Chilled water
- Gas
- External services
- BMS
- Rainwater
- External lighting
- HV switchgear
- Mains distribution
- Lighting
- Emergency lighting
- Small power
- Telecom & data
- Access control
- Security
- Fire detection/alarm
- CCTV

Main Contractor - Laing O'Rourke

M&E Value - £4.2 Million

BSF - Knowsley

Huyton Community Learning Centre and Kirkby Community Learning Centre

Installation of pipework, gas, heating, hot and cold water and sanitary, together with external services and electrical services installation.



Knowsley Schools Joint Venture

M&E Value - £1 Million

Design & Environmental

A&B Engineering can offer an 'in house' service to compliment our multi-disciplinary Mechanical and Electrical contracting divisions. We have at our disposal a number of highly qualified and experienced engineers ranging from chartered engineers and technicians to AutoCAD operators. To facilitate our design capabilities we use the latest design software to compliment our engineering staff and support our work in the following fields of expertise.

Our engineering staff can undertake all elements of MEP design requirements for a project from initial assessment, feasibility studies, site surveys and development of project brief through to production of design and working drawings.

Membership details:

- Low Carbon Consultant Register
- Membership of CIBSE
- Membership of IET
- Membership of CMI

Current software used within the Design Departments:

- AutoCAD MEP 2010
- Hevacomp DDB
- Amtech
- Relux
- Dailux

Environmental Policy

A&B Engineering have the facility to provide our clients with a service that encompasses the latest requirements of the Green Economy, renewable resources and compliance with the latest building regulations. Through our engineering staff we are able to incorporate, compliment and enhance sustainable environmental solutions to suit the built environment and deliver a low carbon solution to the building service requirements of the project.

To facilitate our design service we use the latest design software to compliment our engineering staff and support our work in the following fields of expertise:

- Air and ground source energy
- Solar energy
- Biomass
- CHP systems
- Rainwater harvesting
- Wind energy



Miscellaneous



Unity Residential Block Liverpool City Centre

In 2007 we completed the installation of the distribution pipework and the public health installation to this twin towered, 27 storey building with 161 apartments.

The Building has a distinctive duplex penthouse.

Main Contractor - Laing O'Rourke

Mech Value - £1.1 Million

Liverpool School of Tropical Medicine

In recent years we have supplied and installed mechanical and electrical services to various departments of the school:

- Venom labs
- Building 66
- Ansom House
- Maegraith wing



Main Contractor - John Turner & Sons

M&E Value - £800k

University of Liverpool - Engineering Restructuring



In December 2008, we completed the complete refurbishment of all the Mechanical and Electrical services required in these buildings. In all, the project was over a 2 year period.

- | | | |
|-------------------------------|----------------------|-------------------------|
| • Process Ventilation | • Heating | • CCTV |
| • Compressed air installation | • Hot and cold water | • Security |
| • Fume cupboard extract | • Lighting | • Access controls |
| • VRV cooling | • Small power | • Fire alarms |
| • Oil pipework | • Sanitary fittings | • Lightening protection |
| • Steam and condensate | • Fire fighting | • Metering |

Main Contractor - BAM

M&E Value - £5 Million

Current BSF Projects

BSF - Rochdale Siddal Moor School

Main Contractor - Carillion

M&E Value - £2.5 Million



BSF - Warrington Culcheth High School

Main Contractor - BAM Construction

M&E Value - £4 Million

BSF - Tameside St. Damians RC College

Main Contractor - Carillion

M&E Value - £2.7 Million

Health Care

Roy Castle Cancer Research Centre Liverpool



The International Roy Castle Lung Cancer Research Centre was opened in 1998.

Roy Castle at the time was diagnosed with Lung Cancer and he agreed to give his name to a special appeal to help fund the £12 million costs to build, equip and run the centre.

We carried out the initial mechanical and electrical services together with a recent fit out of fan coil units to the re-configured laboratories.

Main Contractor - Kier / Braithwaite M&E Value - £1 Million

HMP Altcourse



In 2006 we completed the installation of services to ancillary blocks of education, classrooms, training facilities, gym and workshop.

Working within the constraints of an operational prison and ensuring everything installed is anti-ligature.

Main Contractor - Carillion plc Mech Value - £780k

JD Weatherspoons

Over recent years we have installed ventilation, air conditioning and public health to the following pubs:

- Liverpool
- Birmingham NEC
- Liverpool Airport
- West Haughton
- Doncaster Airport



Main Contractor - Tavern Developments / Wilkinsons Mech Value - £850k

Alder Hey Childrens Hospital Liverpool

Over the years, we have been involved with various schemes at this world famous hospital, including:

- New mortuary
- Ronald McDonald House
- Main boiler renewal
- Burns unit refurbishment
- MRI unit refurbishment



Main Contractor - Naylor & Walkden / Whitfield & Brown M&E Value - £1.8 Million

NSPCC Headquarters - Liverpool



The new NSPCC headquarters is a two storey office accommodation in Liverpool.

We installed all the heating, air conditioning, control systems, wind catchers, sanitary, voice / IT networks, fire alarm, door access, lighting, power, CCTV and a fully interactive IT / TV network.

Main Contractor - Morgan Ashurst M&E Value - £700k

Miscellaneous

Manchester Airport Terminal 2



Design and build of mechanical and electrical services to the new outward bound control area.

Works involved maintaining and diversion of existing services within a busy working airport.

Heating, air conditioning, fire fighting, public health, power, lighting, fire alarm, security, PVA and access equipment.

Main Contractor - Laing O'Rourke **M&E Value - £2.2 Million**

Clatterbridge Centre for Oncology



Clatterbridge Centre for Oncology is a new £17 million radiotherapy facility being built on land at University Hospital Aintree.

Funding for the project is being supported by the Marina Dalglish Appeal.

The centre will be Liverpool's first radiotherapy centre.

We are currently on site installing all mechanical, plumbing and electrical services.

Main Contractor - Laing O'Rourke **M&E Value - £2 Million**

Breeze Close - Liverpool

Neighborhood PCT

In 2008, we completed a £1 million M&E scheme which included:

- Heating & ventilation
- Air conditioning
- Public health services
- Power and lighting
- Fire detection
- CCTV / access control
- Emergency lighting
- TV and radio



Main Contractor - Gallifordtry **M&E Value - £1 Million**

Liverpool John Lennon Airport

Installation of mechanical and electrical to serve the two storey business lounge and the search comb area and new carousel.

The works were programmed to work within a busy operating airport and conforming to security requirements.



Main Contractor - Irwin Construction **M&E Value - £575k**

Some of the hospitals we have worked in over recent years:

- | | | |
|---------------------------------|--------------------------------|-------------------------------|
| • Alder Hey Children's Hospital | • BUPA Murrayfield Hospital | • Rainhill Hospital |
| • Aintree University Hospital | • Countess of Chester | • Rosemount - Macclesfield |
| • Ashworth Hospital | • Clatterbridge Hospital | • St. Helens Hospital |
| • Arrowse Park Hospital | • Liverpool Womens Hospital | • Southport & Formby Hospital |
| • Alexandra Hospital - Cheadle | • Mill Lane Hospital | • Walton Hospital |
| • Broadgreen Hospital | • Ormskirk & District Hospital | • Whiston Hospital |
| • Blackpool Victoria Hospital | • Rathbone Hospital | • Wrexham Maelor Hospital |
| • Burnley Hospital | • Royal Liverpool Hospital | • Wythenshawe Hospital |

Hotels

Radisson Hotel - Liverpool City Centre



In 2006, we completed the works to this nine storey hotel including:

- 194 bedrooms
- Restaurant
- Bars
- Leisure club
- Swimming pool
- Business centre

Main Contractor - Carillion plc

M&E Value - £3 Million

Hope Street Hotel

Hope Street is a 48 bedroom boutique hotel in contemporary style.

We installed all mechanical, plumbing and electrics to:

- 48 bedrooms
- Restaurant
- Bar
- Meeting rooms
- External lighting



Main Contractor - A. J. Buckingham

M&E Value - £1 Million



Mechanical and Electrical Installations

Liverpool Football Club

Centenary Stand - M&E installation
 Anfield Road Stand - Complete services
 Main Stand - Replacement Plant
 Kop - Visitor Centre and Museum
 Melwood - Renewal water heaters
 New Academy - Complete services
 Maintenance contracts to all stands

Everton Football Club

Finch Farm Training Centre - Electrical services
 Toffee Megastore - Complete services
 Training Centre - Pitch lighting

Manchester United F.C.

Lounge refurbishments - Various
 Kitchen plant replacement
 Carrington Training Centre - Plant renewal

Bolton Wanderers F.C.

Reebok Stadium - De Vere Whites Hotel
 Reebok Stadium - Office / Retail areas
 Euxton Training Centre - Numerous works

Blackburn Rovers F.C.

Soccer Academy - Complete M&E install

Football Stadia



Marriott Hotel Liverpool



In 1998, we installed the complete electrical installation services to this 4 star, 146 bedroom hotel in Liverpool city centre.

Lighting, power, fire alarm, door access, lightning conductor, security and data wiring.

We also installed the external lighting and signage.

Main Contractor - Amey Elec Value - £1.8 Million

Bolton Whites De Vere Hotel

In 2001, we completed the installation of services to this 125 bedroom hotel which wraps around one end of Bolton Wanderers Football Club's stadium.

- Heating
- Ventilation
- Comfort cooling
- Sanitary & public health systems



Main Contractor - William Hargreaves Mech Value - £1.5 Million

Rossetti Hotel - Manchester



We were involved in the refurbishment of this former Edwardian department store, installing heating, hot and cold water and bespoke sanitary and brassware, lighting, sound systems to Nite Club, LV distribution and external lighting.

In 2008, we were involved in the retro fit of air conditioning to all bedrooms.

M&E Value - £1.5 Million

Residential



Beetham Tower and West Tower Building in Liverpool

Two developments, one being a 28 storey residential building with 134 apartments and the other a 40 storey residential building with offices at lower levels. A restaurant and bar are at the top levels together with the penthouses.

We installed the complete mechanical, plumbing, air conditioning, smoke ventilation and electrical services to both of these buildings. One of them is at present the tallest building in Liverpool.

Client - Beetham Organisation Contractor - Carillion plc M&E Value - £7 Million

101 Old Hall Street - Liverpool City Centre



Installation of services to the nine storey office block includes fan coil unit conditioned ventilation served from central roof top plant, 2nr 1 MVA cast resin transformers and all electrical services throughout.

- Four pipe fan coil system
- Ventilation
- Sanitary & drainage
- Lighting & power
- external signage
- Data wiring
- Fire protection
- CCTV - BMS

Main Contractor - Carillion plc M&E Value - £3.5 Million

The Observatory - Liverpool

A four storey office accommodation in the heart of Liverpool.

We installed complete services, ventilation, heating, comfort cooling, power, security, lighting, fire alarm, door access, lightning protection and external lighting.



Main Contractor - Neptune Developments M&E Value - £420k

Buddleia Project - Liverpool



Otherwise known as 'The Novas Contemporary Urban Centre', a disused warehouse from the 1800's.

Heating, ventilation, comfort cooling, public health, BMS, power, lighting, CCTV, fire alarms, PA and security.

Main Contractor - Mansells M&E Value - £2.4 Million

Office Developments

Swiss Life - Edwards Pavillion - Albert Dock Liverpool



In 2003 we were appointed on a design and build package to deliver a fully air conditioned office space, with co-ordinated mechanical and electrical within the constraints of a Grade 1 listed building.

- Ventilation, air conditioning
- Heating
- Lighting & power
- Voice / data
- Fire protection

Main Contractor - Carillion plc **M&E Value - £2 Million**

Liverpool Digital Edge Lane

The former Plessy's building in Edge Lane has been re-developed into a modern office accommodation.

Replacement of existing:

- Heating
- Hot and cold water
- Drainage
- Lighting
- Small power
- Data wiring
- Access control
- Fire alarm
- External lighting
- Building management



Main Contractor - Mansells **M&E Value - £3.2 Million**

One Park West - Liverpool



One Park West is the centre piece of the Liverpool Paradise Street development.

Three tower blocks ranging from ten to eighteen storeys, totalling 326 apartments, with commercial premises at low level, restaurants, bars and shops and a below ground car park.

- District heating
- Ventilation
- Air conditioning
- Sanitary
- BMS
- Lighting & power
- Data
- Access control
- External lighting
- Fire alarm
- Metering

Client - Grosvenor **Main Contractor - Laing O'Rourke** **M&E Value - £9 Million**

No 5 Piccadilly Place

A ten storey city centre apartment block containing 167 apartments.

- Heating and ventilation
- Comfort cooling
- Hot & cold water and public health
- Building management
- Lighting & power
- Security, fire alarm
- External lighting



Client - Argent **Main Contractor - Carillion plc**
M&E Value - £2.3 Million

City Lofts Princess Dock Liverpool

A twin tower water front building containing 162 apartments.

- Lighting & power
- Fire detection
- CCTV / access control
- Lightning protection
- Intruder alarm
- Heating, ventilation
- Public health



Client - Peel Holdings **Main Contractor - Carillion plc**
M&E Value - £2.8 Million

Sport & Leisure



Sefton Water Sports Centre

In 2009 we completed the mechanical and electrical installation in the brand new £9 million Water Sports Centre for Sefton Council.

This building will play an important part for the UK Paralympic infrastructure in the North West.

Working together with Sefton Council, Faber Maunsell and Mansell plc, we installed all services to cafe, conference facility, gym, changing rooms, residential area, boat storage and workshop.

The building achieved a BREEAM very good rating. Innovations included a biomass boiler, high thermal performance and rainwater harvesting.



Woodchip pellet boiler with storage and automatic fuel transport system

Main Contractor - Mansell plc

M&E Value - £1.8 Million

Primark formerly Littlewoods Stores North West



We have over a number of years been involved in various schemes on a range of stores from small refurbishment to full store fit out.

- General and emergency lighting
- Small power
- Integrated telecoms & data networks
- Fire alarms
- Lightning protection
- External lighting

Main Contractor - Simpsons of York

Elec Value - £400k

Animal Store - Liverpool & Manchester

We installed the complete services to two stores, one in Manchester and one in Liverpool.

Air conditioning was installed utilising the shopping arcades condense water loop system.



Main Contractor - Braithwaite

Mech Value - £150k



Roof mounted air handling plant at a city centre shopping arcade.

Retail

The Met Quarter - Liverpool



In 2007 we completed the mechanical and electrical to Liverpool's newest shopping centre, which has 46 units including brands such as Armani, Timberland, Flannels and Hugo Boss.

- Sprinklers & smoke ventilation
- Heating & ventilation
- Lighting & power
- Fire alarm
- CCTV
- Lightning protection
- Building management system

Main Contractor - Carillion plc

M&E Value - £3.5 Million

Fossil Stores

We installed comfort cooling, extract ventilation, controls, hot & cold water and sanitary to four stores.

- Liverpool
- Manchester
- Birmingham
- London.



Main Contractor - Formwerk Limited

Mech Value - £200k



JJB Leisure Centre - Nottingham and Bromborough

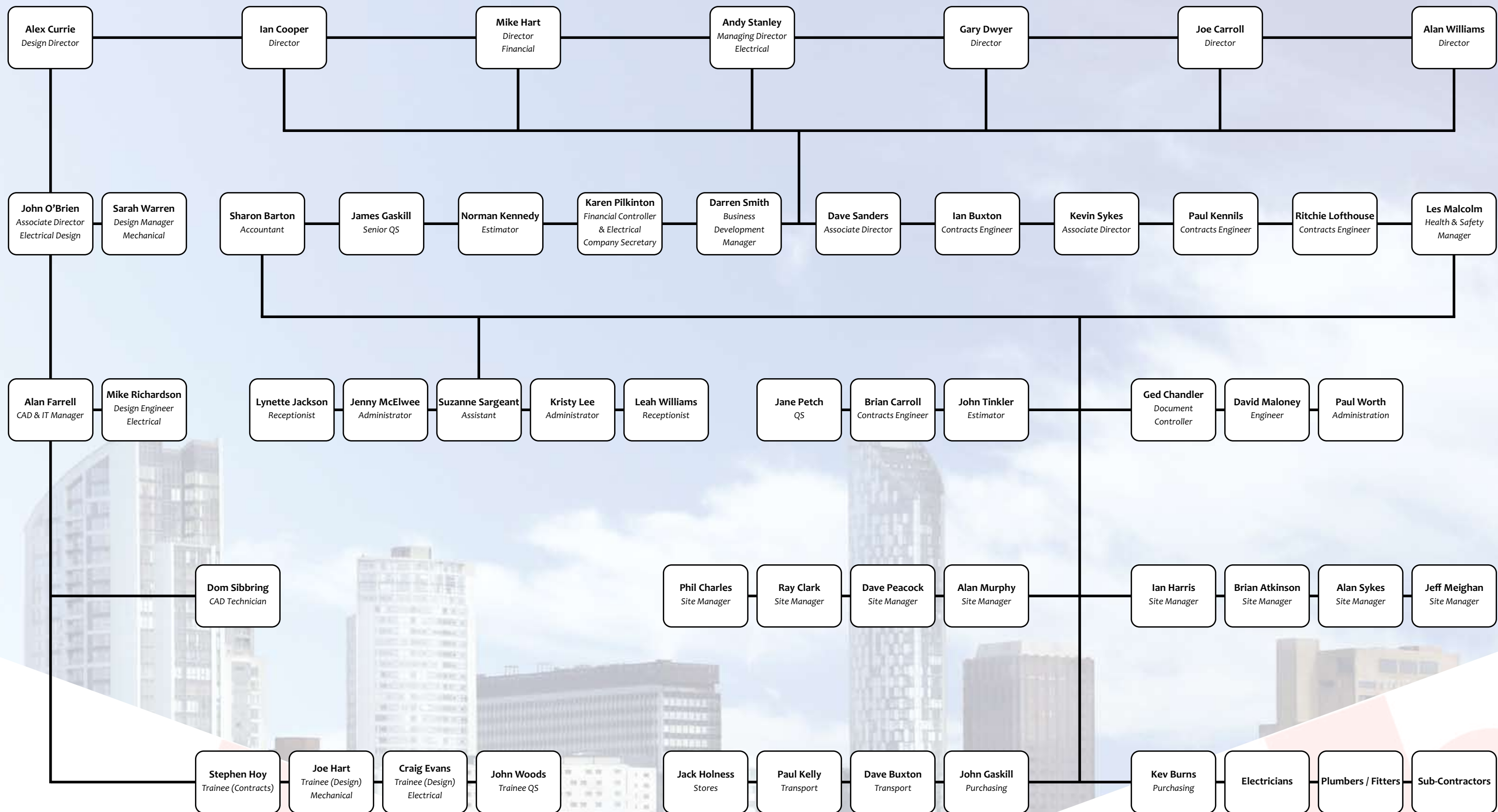
In 2007, we completed the mechanical, electrical and plumbing to two JJB leisure clubs, one in Nottingham and one in Bromborough.

We included all services including specialist swimming pool ventilation and treatment



Main Contractor - Styles and Wood plc

M&E Value - £1.6 Million



abengineering Organisation Chart