# David C Sales FCIPHE MIET MASHRAE

Consulting Engineer, Expert Witness, Author & Academic

Email: consult@davidcsales.com Phone: 07970 744214 Date of birth: 03-05-1955 Nationality: British



#### OBJECTIVE

I am an embryo engineer (mechanically biased) having entered the building services industry in 1972 at the young age of 17 years. Since that time I have worked for a useful mix of employers including equipment distributors, private contractors, central government, consultants, Estates/FM managers, property developers, retail stores and even went self-employed as an experience not to be condoned. Since 1997 I have also relentlessly developed an in-depth specialist knowledge of all aspects of underfloor radiant heating. An insatiable thirst for learning, obsession to assimilate, passion for application (trying the untried) and the willingness to impart knowledge are the rock solid "cornerstones" of my career. During the journey thus far I have written/published papers/articles, sat on various institute committees and ascended to elected fellowship level of the CIPHE as well as their expert panel. It is now my aim and objective to specialise in expert witness and forensic engineering work which I have a great passion for. The only thing left finally is to elevate my professional standing even further in becoming Chartered and perhaps write a book. Over time I've accumulated a wealth of contacts and clients which could be put to good use to the benefit of any prospective Client or Employer.

#### EXPERIENCE

Hastings, East Sussex 2016 - Present

Dartford, Kent 2016 - 2016

Tonbridge, Kent 2015 - 2016

## Consulting Engineer & Expert Witness David C Sales FCIPHE MIET MASHRAE

Full state-of-the-art Engineering Consultancy services to the private and public sectors covering, mechanical, electrical, public health and sustainable design. Specialisms in addition, are underfloor heating, air conditioning, expert witness and the complexities of facilities and maintenance management. Uponor Approved Engineer. Regular provision of contractual project management in construction to BSB Ltd. on various building projects. Recently appointed to the CIPHE Expert Panel. Acted as a Single Expert Witness on behalf of a Claimant in the Brighton County Court relating to a Plumbing & Heating dispute as instructed by LAWSTOP Solicitors of Brighton, East Sussex.

## **Senior Engineer**

#### **GDM Sustainable Design**

Working in project teams, assigned to the detailed design and co-ordination of speculative office blocks in London entailing 4-pipe change-over fan coil unit systems, central risers, specification writing and scheduling of all equipment and main plant etc.

- · Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

# Senior Project Engineer (Contract)

### **Banyard Consultants**

Detailed design, co-ordination, tender preparation of mechanical services for a mixture of Clients including Kent County Council, London Borough of

Barking & Dagenham, Wates, Morgan Sindall, Osborne, Baxhall, and numerous private clients. Projects have ranged from primary/secondary schools to offices,

flats and luxury high profile residences.

- · Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- · Answered calls, responded to emails, and spoke with clients face-to-face.

# Senior Mechanical Engineer (Contract) Hoare Lea & Partners

Mechanical services engineer working on a three month temporary contract in a team of 5 engineers designing, detailing and tendering of HVAC systems for various projects including high rise residential buildings in London. Topics covered were regular design team meetings calculations, specifications, schedules, schematics and drawings/sketches for CAD purposes.

- · Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- · Answered calls, responded to emails, and spoke with clients face-to-face.

## Senior Mechanical & Public Health Engineer Ian White Associates

Assigned to the design and co-ordinate mechanical and public health engineering services including option studies, feasibility reports, outline concept design schemes, pre-tender budgets, detailed design, tender specifications, utility applications and predicted energy usage/CO2 reduction savings, detailed design, client/architect changes, client facing site meetings, project management, snagging and monitoring of contractors. Projects were mostly in the public sector.

- · Proactively participated in meetings and helped create new practices.
- · Answered calls, responded to emails, and spoke with clients face-to-face.

# Senior Mechanical Engineer (Contract)

#### **Atelier Ten**

3 month contract working in a team of Environmental engineers designing mechanical services systems for a large construction project in Doha, Qatar. Comprising of three superblocks totalling 16 no. new buildings covering private residential, offices and retail. Responsible to Principal Mechanical Engineer and Director in undertaking air conditioning, ventilation, chilled water and plant room access/maintenance design layouts plus fully coordinated MEP corridor sections up to working/tender drawing stage.

- · Proactively participated in meetings and helped create new practices.
- · Answered calls, responded to emails, and spoke with clients face-to-face.

#### Director

#### Shimmerheat Ltd

Undertaking projects for a variety of Clients/sites on all aspects of design, installation, testing and commissioning, fault-finding and troubleshooting, maintenance, consultancy, 0 & M record documentation etc. on mainly underfloor heating and renewable energy systems as part and parcel of mechanical, electrical and plumbing installations.

- Consistently met my short and long-term targets.
- Handled customer complaints with empathy and composure.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.
- Processed a range of documentation and entered information into databases.

Bournemouth, Dorset 2015 - 2015

Eastbourne, East Sussex

London 2012 - 2012

St. Leonards-on-Sea, East Sussex 1997 - 2012

Walton-on-Thames, Surrey 1995 - 1995

Great Bookham, Surrey 1994 - 1995

Esher, Surrey 1994 - 1994

Sutton, Surrey 1993 - 1994

# Facilities Manager Pulse Services Ltd

In overall charge of FM Department and management of 65 no. D.I.Y. retail stores across the South of England as part of a large maintenance contract with Homebase Ltd. The day-to-day front line maintenance management was primarily reactive in nature mixed with quoted works and special projects. Also, manning of out-of-hours help desk.

- Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.
- Processed a range of documentation and entered information into databases.

# Senior Engineer (Contract)

### **Doy Webster Partnership**

Engaged on the survey, design, drawing and tender preparation of mechanical/plumbing projects on mainly health care buildings including a complete community hospital redevelopment in Farnham, Surrey.

- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

# Senior Engineer (Contract)

## The Bennett Williams Partnership

Working as an integral member of an M, E & P team on the survey, design, drawing and tender preparation of mechanical/plumbing services to mainly health care buildings although some other interesting commercial sites were encountered such as the upgrade/refurbishment of Dorking Halls, Surrey.

- Consistently met my short and long-term targets.
- · Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

# Senior Engineer (Contract)

### **Martin Clowes Associates**

Assigned to preliminary design/feasibility of upgrade alterations to large district heating schemes in connection with community housing projects in readiness for demolition and subsequent redevelopment. Surveys also undertaken for a major retail store chain as a prelude to millennium upgrade/improvements.

- · Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

# **Senior Engineer**

#### **J Stinton Jones & Partners**

Engaged on the survey, design, drawing and co-ordination of mechanical/plumbing services for tender invitations for a variety of projects including the partial refurbishment of the Sultan of Brunei private residence in Park Lane. London and Midland Bank Centre, Pepys St., London. Also spent some time on site in the role of Resident Supervising Engineer.

- Consistently met my short and long-term targets.
- · Proactively participated in meetings and helped create new practices.
- · Answered calls, responded to emails, and spoke with clients face-to-face.

# Senior Engineer (Contract) ESL Ltd

Involved in the survey, design, drawing and tender preparation of a large air conditioning project (offices) for Unipart plc H.O., Cowley, Oxfordshire. Undertook final account negotiations in connection with a car factory project in Lisbon, Portugal together with a detailed condition survey report on an office complex in Frankfurt, Germany.

- · Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

# Project Manager (Contract) MJNLtd

Based on site at the European Bank H.Q. in Broadgate, London EC2 floor managing nominated sections of a multi-million pound mechanical and plumbing services contract. Final project was a similar operation for Willis Coroon Insurance H.Q., Tower Hill, London.

- · Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- · Answered calls, responded to emails, and spoke with clients face-to-face.

# Site Manager (Contract)

#### Ellis Smith & Jones Ltd

Responsible for day-to-day management of a large design and build multiservices contract valued at £750k for a new golf clubhouse for Shimizu (UK) in conjunction with Panasonic Plc as the Client. Duties were quite varied and demanding with numerous subcontractors to organise.

- · Consistently met my short and long-term targets.
- · Proactively participated in meetings and helped create new practices.
- · Answered calls, responded to emails, and spoke with clients face-to-face.

# **Facilities Engineer (Contract)**

#### **Broadgate Estates PLC**

Responsible for own management projects consisting of new build multistorey speculative office blocks as part of the Broadgate and Ludgate developments. Duties entailed Management and overseeing of all building facilities systems from pre-practical completion/handover stage right up to implementation of maintenance contracts, tenant operation and full operational status of the building as a whole.

- Consistently met my short and long-term targets.
- · Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

# **Senior Engineer (Contract)**

#### **Austen Associates**

Assigned to the design and co-ordination of mechanical/plumbing services for the National Heart & Chest Centre, London and other various health care projects.

- · Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

# **Contracts Manager**

#### Air Conditioning (London) Ltd

Reporting to the group Managing Director, duties entailed full operational management of the company at all levels from project inception to handover/final account stage. Sites were varied in the commercial and

London 1991 - 1992

Camberley, Surrey 1990 - 1990

London 1988 - 1990

Croydon, Surrey 1984 - 1986

Thornton Heath, Surrey 1986 - 1988 industrial sectors. Managed to increase the company turnover three-fold in the first year.

- · Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- · Answered calls, responded to emails, and spoke with clients face-to-face.

# **Consulting Engineer**

#### **David Sales Associates**

Starting in private practice enabled by my wealth of experience and contacts over the years, I was commissioned by a number of mutual Clients to carry out, feasibility studies, budget schemes, preliminary/detailed design, tender preparation, site visits, condition surveys, investigations, advisory reports and expert witness services. Projects included Upper Terrace Lodge, London for a boiler room refurbishment, new ventilation at OBAS (Orthopaedic Bedding Advisory Service), EW in both the Wandsworth and Guildford County Courts.

- Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.
- Processed a range of documentation and entered information into databases.

# **Senior Engineer**

#### Longstaff & Shaw Ltd

Working for a design/install contractors designing mechanical services for a variety of projects. The process involved tender preparation, estimating, site surveys and client facing meetings together with workshops. One notable contract was a new office building for Shellabear Price Design in Dorking, Surrey.

- · Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

# **Senior Engineer**

### **Michael Auckett Associates**

Assigned to the design and co-ordination of environmental engineering services for tender invitation stage relating to mainly speculative/prestigious office buildings characterised by many interesting architectural features such as atria and scenic lifts.

- · Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

# Senior Engineer

### **Buro Happold**

Actively involved on an extremely interesting spectrum of energy conscious and advanced building projects under the direction of Professor Ted Happold and Dr. Derek Croome both of the School of Architecture & Building Engineering, University of Bath. A project of particular acclaim for the practice was a feasibility study for the Canadian Government involving a complete township under cover by way of an air-supported structure environmentally independent from the outside world and extremes of local climate. Some interaction with undergraduates at the University. Environmental studies at the Royal United Hospital, Bath and Inland Revenue, Taunton undertaken as well as mechanical tender preparation for an Office Block, Medina (Saudi Arabia) and acoustic Study for the Al Mazook Islamic Medical Centre, Kuwait City.

Consistently met my short and long-term targets.

Croydon, Surrey *1985 - 1986* 

Croydon, Surrey 1982 - 1983

Chelsea, London 1982 - 1983

Bath, Somerset 1980 - 1982 Croydon, Surrey 1977 - 1980

London 1976 - 1976

London 1975 - 1977

Croydon, Surrey 1972 - 1975

Croydon, Surrey 1971 - 1972

- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

# Established Professional & Technology Officer Grade III (Leading)

#### Property Services Agency (DoE)

Sworn into the the Official Secrets Act 1911, worked on the survey, design, drawing and co-ordination mechanical/plumbing services in respect of tender invitations for mainly MoD and RAF Stations both at home and overseas.

- Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- · Answered calls, responded to emails, and spoke with clients face-to-face.

## Draughstman Engineer

### **Denco Miller Ltd**

Spent working at the drawing board designing and laying out precision control air conditioning equipment for Computer Suites and Clean Rooms. Two of the many projects were the Gold Weighing Room at the Bank of England and GPO/BT at Martlesham Heath, Ipswich.

- Proactively participated in meetings and helped create new practices.
- · Answered calls, responded to emails, and spoke with clients face-to-face.

# Trainee Engineer

Embarked on a two year traineeship with Humphreys & Glasgow-Sofregaz Ltd. (HGS) which started as a joint venture to convert the UK from town gas to natural gas. It was a calculated move into the petrochemical side of the industry working on offshore oil production platforms in the North Sea for Chevron Petroleum and Shell BP. Also designing ventilations systems for deep sea Caissons and a Fertiliser complex in Russia.

- · Consistently met my short and long-term targets.
- · Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

## **Junior Engineer**

#### Ductwork (Engineering) Systems Ltd

Embarked on a three year traineeship in all Company departments i.e. contract administration, applications, design engineering and servicing involving Carlyle (Carrier) air conditioning and refrigeration equipment. The projects were quite varied. Lots of time spent designing fan drives and transmission gear.

- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

# **Office Junior**

#### Volkswagen UK

Positioned as an Office Junior in the Purchasing Department where I assisted in the running of the Stationery Store and requisitioning of stock. Also the printing of circulars and memos in the Print Room. Went to Germany by ferry with the Company to visit the VW factory in Wolfsburg via Hamburg.

Proactively participated in meetings and helped create new practices.

#### EDUCATION

Croyodn 1977 - 1979

Croydon, Surrey 1977 - 1978

Croydon, Surrey 1972 - 1974

Croydon, Surrey 1974 - 1976

# Higher National Certicate (HNC) in Building

**Croydon College of Design & Technology** 

# **HNC Supplementary Study in Economics of** Industry **Croydon College of Design & Technology**

City & Guilds No. 632 HVAC Technicians Certificate Part 1 (Passed With Credit) **Croydon College of Design & Technology** 

City & Guilds No. 632 HVAC Technicians **Certificate Part 2 (Passed With Credit) Croydon College of Design & Technology** 

#### SKILLS

#### REFERENCES

 Design, technical writing, applied air Emeritus Professor Derek Clements-Croome BSc MSc PhD EurEng CEng CPhys FICE FCIBSE FRSA FASHRAE FInstP - Research Director @ University of Reading

- Teamwork
- · Problem-Solving
- · Customer service

conditioning, microwave space

heating, underfloor heating

Sales

Patrick Bellew BSc (Hons) RDI FRENG HON FRIBA FRSA CENG FEI FCIBSE MASHRAE - Principal @ Atelier Ten (A10)

Mike Mapston MSc PDip FCIOB FRSPH FASI MRICS MAPM CEng

Principal @ Mike Mapston Consulting (MMC)

PROJECTS

Air supported covered Township in Ontario, Canada for the government. The size of 17 full-size football pitches it had houses, roadways internal lighting, factory, hospital, shops, school, roadways and landscaping. Following the feasibility study of numerous volumes the project failed because of snow loading and thermofrost.

Ventilation to a Pugmill Building at Atomic Weapons Research Establishment (AWRE), Foulness Island where explosive pugs were manufactured.

National Heart & Chest Centre, London, a new facility for advanced cardiac and thoracic surgery.

Cormorant A and B offshore oil production platforms in the North Sea including helicopter pads.

Gold Weighing Room at the Bank of England fitted with precision air conditioning as manufactured by Denco Miller Ltd.

Extract ventilation to a top secret Photographic Laboratory facilitated at the Procurement Executive Rocket Motor Establishment (PERME), Westcott.

Extract ventilation to a top secret Photographic Laboratory facilitated at the Procurement Executive Rocket Motor Establishment (PERME), Westcott.

Mustering the courage and determination in starting my own Consultancy Practice.

CERTIFICATES & COURSES	
	GCE 0 Level English Language 1970
	GCE O Level Mathematics 1971
	GCE O Level Physics 1975
	CSE Technical Drawing 1971
	CSE Engineering Studies 1971
	CSE Mathematics 1971
	CSE Physics 1971
	Carlyle (Carrier) Technical Development Program 1972
	Trend BMS Operator/Systems Engineering Course1991
	Landis & Gyr BMS Operator/Systems Engineering Couse 1992
HONOURS & AWARDS	Burmah Castrol Award 1986 (3rd Place) for submission to the IET of a technical ground-breaking paper entitled, " Microwave Radiant Energy as a Source of Heating for Human Comfort".
	IHVE Graduates Diploma 1977
	CIBSE Councillor 1977/78
	Technical Author of three technical subject papers published in 1977 and 1983.
	Guest Speaker at the IDHE Annual Conference 1984 on the subject of Microwave Radiant Energy.
	Committee Member CIBSE London & Southeast Region 1984 -1987
PUBLICATIONS	Technical Paper entitled, "Microwave Radiant Energy as a Source of Heating for Human Comfort" as published in the Building Services Engineering Research & Technology (BSER & T) Journal 1983
	Technical Article entitled, "Environmental Appraisal of Atria" as published in the Institute of Engineers & Technicians (IET) Journal 1983
	Technical Paper entitled, "A Thermal Conspectus of Heat Reclamation Methods Applied in Heating, Ventilating & Refrigeration Systems" as published in the Institution of Heating & Ventilating Engineers (IHVE) Journal 1977

DRIVING LICENCE	Clean Driving Licence with impeccable experience since 1972
INTERESTS	Technical reading and writing, antiques /collectables
HOBBIES	Films, TV, music, innovation, health, fitness and the Chinese Martial
	Arts (1st Degree Black Sash - Elephant Fist)