



**DAVID K SMITH**

**CURRICULUM VITAE**

**DIRECTOR**

### **PERSONAL DETAILS**

PROFESSIONAL MEMBERSHIP: **BSc (Hons) CEng FIMechE FCIBSE Tech IOSH**  
AND QUALIFICATIONS

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DATE OF BIRTH: 2 January 1957

NATIONALITY: British

MARITAL STATUS: Married with two children

### **PARTICULAR EXPERIENCE**

Graduated with an upper 2<sup>nd</sup> honours degree in Environmental Engineering in 1979 and has spent 26 years within the Building Services, Building Energy, and Property H&S fields.

A practical engineer experienced in all aspects of mechanical services designs, installations, management, refurbishment & construction. Comprehensive knowledge of Design, Facilities Management, Environmental Issues, Property Health & Safety, Energy Conservation, Commissioning, fault finding & legislative compliance.

After graduation, David spent 4 years with a multi-disciplinary Practice followed by two years overseas specialising in catering centres. Nine years as an Associate for a leading commercial Consulting Practice, on the West side of London, followed by three years as Technical Director for one of the top three FM Companies, has given David an unusually wide breadth of knowledge and experience within the mechanical building services field, together with related energy & H&S issues.

Versed in all aspects of computerised systems including spreadsheets, CAD, databases, Cymap, CADlink, PSP, Adobe, Word, presentation packages, etc all of which play an important role in TSA work. Particular interests in environmental issues, technology, optimum design solutions, low energy applications, mechanical engineering, maintenance and plant testing / building services performance.

Projects include Catering Centres, Banks, Offices, Industrial Buildings, Head Quarter Buildings, Laboratories, Clean Rooms, Prisons, Litigation, Data Centres, CHP schemes appraisals, Building Societies, Cargo Handling Centres, Shopping Centres, Civic Buildings, Universities, Institutions, Health Care Homes, Airports, Maintenance, Standards, Guidance, Legislation, Compliance etc.

H&S experience includes acting as Authorising Engineer since 1996 for large property portfolios, and Confined Space training and entry for building related issues.

David has extensive knowledge of the design and use of heat recovery applications including thermal wheels, recuperators, run-around-coils, heat pumps, de-superheaters, refrigeration heat recovery, evaporative cooling, together with the controls systems, condensing boilers, testing and commissioning processes which play an integral role of their successful application. These schemes play an important role in all David's design work both now and in his past.

## **EMPLOYMENT HISTORY**

**July 1997**

### **Technical Support Associates**

**Position: Director**

**Duties:** Founding member of TSA together with Eur Ing John O'Neill BEng (Hons) CEng FIEE FCIBSE MSL in 1997. Responsible for all mechanical project design work and Electronic Record Information produced within the practice.

Project work has included commercial VAV projects, Micro-CHP installation, gas turbine CHP with absorption chillers, displacement "sock" ventilation, FCUs, boiler replacements, ventilation, warehouses, offices, energy surveys, audits, risk assessments, plant fault diagnostics, controls witnessing, boiler replacements, compilation of SOPs, Electronic Record Information etc.

Approved Energy Assessor for BRE work (now managed by the Carbon Trust)

Certified Authorising Engineer Mechanical (HTHW, Steam, Refrigeration & Mechanical high risk systems) since 1996

Certified for Confined Space entry since October 2000

Health & Safety work includes surveys of commercial properties, risk assessments and SOPs for Client operations. Compiling Safety Files for Pulse Electronic Record Information systems. Planning Supervision duties for TSA project work.

**1995 - 1997**

### **FBA - British Airways Technical Support Group**

**Position: Technical Director**

**Duties:** Responsible for all technical issues related to the management of the British Airways property portfolio, comprising over 400 UK buildings exceeding 1 million square metres. Working within the British Airways Property group developing ideas and procedures to streamline Property's operations

**Projects:** Specific work included:

- Compiling Standards & Guidance for all property issues
- Specifying and managing surveys of the Building Services installations for all principal buildings including:-
  - Barcoding all assets and retrieving electronic data via PSION computers
  - Compiling descriptions of all the services installed suitable for O&M Manuals
  - Compiling BREEAM equivalent assessments via PSION computers
  - Providing condition reports and budget estimates for remedial works
  - Commenting on benchmark energy figures
- Project reviews/audits of major capital investments including £250m new HQ, £200m Cargo Depot, £60m Data Centre, etc.

- Energy analysis, appraisals, surveys, and benchmarking.
- Expert Witness reports / investigations for properties in Belgrave Square, Pinner, & Stanmore including court adjudication.
- Feasibility Studies including financial LCC/IRR appraisals for:
  - Maintenance Base Heating - 14 MW gas-fired boiler installation, saving £1.2m /year fuel costs
  - CHP options via contract energy management
  - Data Centre air conditioning replacement
  - Chiller replacements
  - Reverse Osmosis water treatment plant
- Planned Preventative Maintenance - developed costing methodology for all major FM Contracts, via:
  - Scheduling PPM Task Sheets to each asset
  - Agreeing time (and cost) required for each Task Sheet
  - Developing computer analysis software to assess overall cost requirements
  - Obtaining feedback/input from Building Facilities Managers
- Health & Safety - developed revised Permit to Work procedures and compiled Safe Systems of work for all mechanical & electrical high-risk areas. Compiled property procedures for all Health & Safety issues in conjunction with BAP's Safety Department. AE Mechanical & CS for BA portfolio. Authorising Engineer duties.
- Environmental - heavily involved in all environmental aspects of British Airways' Property organisation. Compiled systems & guidance on all environmental issues. Helped instigate the removal/replacement of all existing CFC centrifugal chillers.

**1985 - 1995**

**Watkins Payne Partnership**

**Position: Associate**

**Duties:** Fully responsible for project conception, design, supervision and Client liaison. Scheme designs, calculations and supervision of design package. Project management including formalisation of client brief, scheme feasibility/design, tender negotiations, co-ordination, programming site management, contract negotiations, co-ordination, programming site management, contract negotiations, cost and budget control, contractual disputes, final accounts, interim payments and client satisfaction. Multi-disciplinary, although mechanically biased technically. Compiled numerous Surveys, Feasibility Studies and Reports. Communications, correspondence and meetings with Clients, Contractors and design team members. Computer use of spreadsheets, databases, commercial building services software (Cymap/Amazon) and CAD (Fastcad/Turbocad). Management of 15-20 Engineers within a multi-disciplinary design group, including group resourcing, staff management, administration and partnership business development. Fee negotiation and control via Partners. Report to Partner where necessary.

**Projects:** Range between speculative office designs, computer installations, specialist fitout works, retail, research buildings, prisons, litigation works, health care homes, shopping centres, refurbishments and banks.

**1983 - 1985**

**Per B. Schleiter A/S, Copenhagen, Denmark**

**Position: Senior Engineer**

**Duties:** Full design of all mechanical services installations for a 30,000 m<sup>2</sup> Flight Kitchen in Bangkok, Thailand. Services included full air-conditioning to the Kitchen preparing 22,000 meals per day, large cold holding and freezer room installations including R502 and brine systems, hot and cold services, central plant design and 22 no. air handling

systems including heat recovery serving hot kitchens, cold kitchens, food preparation area, stores, confectionery and bakeries, plus an administration block.

Design co-ordination with architects, structural engineers and equipment designers. Site supervision in Thailand of an upgrading contract using local labour and plant of the existing 13,000 m<sup>2</sup> Flight Kitchen, including client liaison, contractor organisation, co-ordination of design, supervision of installation, testing and commissioning, selection and utilisation of locally made plant, supervision of kitchen equipment installation. Co-ordination with Copenhagen office/staff. Running Thai office, along with a Structural Engineer and local staff.

Projects: Flight Kitchen, Bangkok, Thailand (New Catering Centre + refurbishment of existing facility)

**1979 - 1983**

**Robert, Matthew, Johnson-Marshall & Partners**

**Position: Mechanical Engineer**

Duties: Manual/computer calculations; building performance/energy predictions; Building Services design; site supervision; commissioning and testing; fault finding/diagnosis, drawing; project running; cost control/interim payments; writing computer programs; site surveying; design co-ordination; low-energy designs; sprinkler designs.

Projects: Government Training Centre, Malaysia (7-month posting), Banks, NFU HQ, Municipal Buildings, Offices, Institute of Physics, Financial Training Air Conditioning

**1978 - 1979**

**Adams Green & Partners**

**Position: Junior Engineer**

Duties: Preparation of drawings; manual calculations; equipment selections; plant sizing; site surveying

Projects: Southampton University refectory, Housing, snagging

**1976 - 1977**

**BCM Heating Company Limited**

**Position: Junior Engineer**

Duties: Tendering; preparing BOQ's and SOR's; draughting; material ordering; working drawing co-ordination; site inspections and three months' pipe fitting on site.

**CPD, TRAINING AND QUALIFICATIONS**

Year	Course	Qualification / Description
June 1973	O Levels	Mathematics, English, Physics, Geography, French, Technical Drawing, music
June 1975	A Levels	Mathematics, Physics, Art
1975-79	Degree	B.Sc (Hons) degree in Environmental Engineering (Grade 2.1) South Bank University
1986	MCIBSE	Awarded Corporate Membership by CIBSE
1986	CEng	Awarded Chartered Engineer status
1987	MI Mech E	Awarded Corporate Membership by I Mech. E
1996	Authorising Engineer course	WTI AE Course 5 day
1999	Authorising Engineer course	WTI refresher training
2000	Confined Space Entry	Todo Mundy 3 day CS entry course
General	Various courses	CDM, Business Finance, Capital Planning and Business Case
2001/2	AutoCAD 14 City & Guilds	Guildford Technical College - 1 year evening class
2002	Authorising Engineer	WTI refresher training 3 day refresher course
2003	Steam Utilisation	3 day course
2004	AutoCAD 2002 3D City & Guilds	Guildford Technical College - 1 year evening class
2004	Confined Space Entry	Todo Mundy 1 day CS entry refresher course
2005	NEBOSH	Construction Certificate – distance learning
	FCIBSE	Awarded Fellow Membership by CIBSE
2006	FIMechE	Awarded Fellow Membership by Institute of Mechanical Engineers
2006	Tech IOSH	Awarded Technician Membership of the Institution of Occupational Safety & Health

**Professional Membership and Qualifications:**

BSc (HONS) C Eng FIMechE FCIBSE Tech IOSH