

Sir Frederick Snow & Partners Ltd

Services / What we do



The Sir Frederick Snow organisation is formed of interrelated and associated operating companies offering a professional multi-discipline consulting engineering service, outlined below.

Building Services Engineering

- mechanical & electrical engineering;
- power generation, distribution & lighting;
- heating ventilation & air conditioning;
- hot & cold water;
- lifts & conveyance systems;
- plumbing & drainage;
- fire detection & alarm;
- medical gases & specialist systems;
- gas & compressed air;
- communications, telephone & CCTV systems;
- fire protection systems;
- technical audits, appraisals & upgrading of existing systems.
- building management systems;

Structural Engineering

- multi-storey building structures;
- specialised engineering structures;
- pre & post tensioning systems;
- concrete & steelwork;
- composite construction
- structural appraisals;
- ground engineering & special foundations;
- refurbishment & remedial works.

Construction Supervision and Project Management

- programme management;
- systems integration;
- scheduling & budgeting;
- prequalification, tender & award procedures;
- construction management;
- on-site supervision & technical back-up;
- cost & schedule control;
- inspection & testing;
- construction co-ordination;
- measurement, valuation & certification;
- final inspection & commissioning.

Highways and Infrastructure

- traffic engineering;
- urban & rural highways;
- road systems for new towns
- intersections, interchanges, bridges, & other developments;
- flyovers & tunnels;
- car parks;
- infrastructure planning & development.

Environmental Engineering

- water supply, treatment & distribution;
- sewerage, sewage treatment, sea outfalls;
- stormwater drainage & disposal;
- environmental impact assessments;
- environmental appraisals;
- solid waste & waste disposal;
- marine, riverworks & sea defences;
- landfill cells;
- land reclamation & retrieval of quarry sites;
- contaminated land.

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Services / What we do



Airport Planning and Design

Complete airport development including:

- siting;
- design;
- technical & economic studies;
- construction supervision.
- planning;

All aspects of airport facilities such as:

- runways & aprons;
- terminal buildings;
- hangars;
- air cargo terminals;
- maintenance bases;
- ancillary airport buildings;
- specialist services;
- information systems;
- aviation guidance, AGL;
- traffic control & other facilities.

Quantity Surveying and Cost Planning

- initial & final estimates;
- cost analysis, planning & control;
- tender & contractual procedures;
- preparation of tender documents & bills of quantities;
- measurements, valuations & final accounts;
- insurance valuations;
- settlement of claims;
- advice on contractual matters;
- acting as an expert witness;
- assistance in arbitration & litigation proceedings.

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Selected Projects: Airports



Seven Regional Airports, Tanzania for Tanzania Airports Authority. Carry out a feasibility study and detailed engineering design for the rehabilitation and upgrading of seven regional airports at Arusha, Bukoba, Kigoma, Tabora, Mafia Island, Shinyanga and Sumbawanga. The scope of works at each airport involves the upgrading of runways and associated pavements and drainage, terminal buildings, Air Traffic Control Towers, navigation aids, and AGL systems, all to ICAO standards. In addition the economic, environmental and social impacts of the improvements have been addressed. Topographical and geotechnical investigations were made and a Master Plan based upon the Inception Report was prepared. Detailed design and tender documentation is nearing completion.

Zanzibar Airport Rehabilitation and Expansion of Runway for the Ministry of Communications and Transport (World Bank Funded). Study, design and supervision of construction of the reconstruction, strengthening and overlay 2500m long runway. Investigations included Heavy Falling Weight Deflectometer and radar ground surveys to establish existing runway condition.

Male' International Airport Phase IV, Republic of Maldives for Maldives Airports Company Ltd. Kuwait funded project to expand and upgrade the existing Malé Airport which currently handles 2 million passengers per annum to cater for growth to 5 million passengers per annum. Project value \$30m. Project has included the following:

- Expansion of international terminal and new domestic terminal
- 33m high air traffic control tower in a new complex including Air Traffic Services building
- 9mw Energy Centre to provide power to the airport and adjacent airport hotel
- Complete upgraded radar and VHF system
- Institutional strengthening and training.

Master Plan for Hail Airport, for General Authority of Civil Aviation (GACA), Kingdom of Saudi Arabia. Preparation of master plan for the development of Hail Airport including new terminal building, refurbishment of existing terminal, provision of new aprons, car parks, accesses etc. Services provided included data collection, preparation and issue of master plan report and drawings for development options.

Ambouli International Airport, Djibouti for Dubai Ports Authority. Independent review and general assessment of existing airport facilities, assessment of present needs and future requirements of the airport, initial feasibility study into improvements of terminal and other airport facilities, cost estimates and development timeframe.



Male' International Airport

Upgrade of Airport Apron, Cheddi Jagan International Airport, Guyana for the Government of Guyana (financed by I-ADB). Appointed to undertake a detailed investigation of airport traffic and existing soil and pavement conditions together with the design and supervision of the extension and upgrade of the existing apron.

New Runway at Songwe Airport for Tanzania Aviation Authority. Appointed to undertake design of a new runway at the proposed Songwe Airport. Activities included topographical survey, full runway and pavement design. Current project.

Planning Study, Dublin Airport for Michael McNamara & Company. Planning study for development of terminal for Dublin International Airport.

Banjarmasin Airport, Indonesia for MyTravel Airways Ltd. Runway Survey at Banjarmasin Airport, Borneo, Indonesia.

London Luton Airport for DETR. The Department of the Environment, Transport and the Regions (DETR) has commissioned a study (SERAS) to determine capacity and development options for all the major airports in the south east of England to meet air traffic forecasts for the next 30 years. Snows were appointed to develop a number of options for Luton airport, based on passenger forecasts provided by the Department.

Fiji Domestic Airports Development Project Government of Fiji (financed by ED).

Strategic Development Plan, Bonriki Airport, Tarawa, Gilbert Islands. Government of Kiribati (financed by EU).

Dar es Salaam Airport Runway Overlay for Tanzania Airports Authority. Design of overlay to main and cross runway, and taxiway areas, refurbishment of AGL and drainage systems.

Al-Qleat and Rayak Airports . Investment Development Authority of Lebanon. Assessment, feasibility study, master planning and preparation of DBOT contract documents. £50m each airport.

Review of the Master Plan, Chiang Kai Shek International Airport.

London Luton Airport, UK London Luton Airport Ltd Advice on terminal sizing related to projected hourly passenger flows. Design parameters for staged development of terminal area complex.

Kilimanjaro Airport Rehabilitation Civil Aviation Authority, Tanzania Rehabilitation of the existing airport and expansion of airside facilities. £4m.

Obstacle Study - Taiwan Airforce.

Milos Airport, Greece. Ministry of Transport and Communication. Study and design of a new 21 00m runway, pavements, access, drainage, power supply and distribution and, aeronautical ground lighting (AGL) system.

RAF Airbases - England & Scotland Defence Works Services, MOD Inspections and surveys of eight existing facilities.

Irish Airports Studies Irish Aviation Authority Air navigation services planning review.

London Luton Airport Master Plan London Luton Airport Ltd Master Plan for the expansion of the airport to handle up to 20 million passengers per annum.

RAF Leuchars, UK Defence Works Services, MOD Project management, design and site supervision of main runway and AGL rehabilitation. £5m.

Development Plan & Strategy Study UK Airport Development Sub-Group "RUCATSE" & London Luton Airport.

Dar es Salaam and Kilimanjaro airports. (funded by World Bank) Comprehensive investigation and report on rehabilitation.

Aircraft Maintenance Hangar, Dublin Aer Lingus Comprehensive design advice for hi-tech aircraft hangar. £22.5m.

Zanzibar Airport, Tanzania Planning, design and supervision of runway extension, airfield upgrading £5.25m.

Civil Aviation Master Plan, Tanzania.

Kerry Airport, Ireland Kerry Airport Co. Ltd Planning and design of runway, terminal building and apron extension. £15m.

London City Airport, Docklands, London, UK John Mowlem and Company plc Design and environmental services, also airport operational facilities advice. £20m.

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Selected Projects: Banks



Citibank Tower, Lewisham for Citibank N.A (right). 19 storey office tower originally constructed as part of a large town centre development which included a retail centre and leisure facilities. The tower has been extensively upgraded over the last decade. Consultancy services included structural engineering design for new mezzanine, new external generator house, new roof plant plantrooms, floor strengthening and builderswork. Project value £42m for original town centre development; £11m for alterations to the tower over the last eight years. Ongoing.

Riverdale Data Centre, Lewisham. Advise re floor loading from new computer equipment.

120 Cheapside. Structural engineering design in connection with refurbishment of existing office building. Advise re floor loading and use for external crane over basement.

Riverdale House, Lewisham. Advise re support of roof plant and use of external crane.

Citibank Tooley Street. Advise re floor loading from computer equipment.

CSC Mayfield Court, Hemel Hempstead. HSBC Bank plc. Site inspection and advice regarding installation of heavy paper storage system.

Deacon House, Sheffield – Provision of M&E specifications for rehabilitation of building services including comfort cooling, lighting and fire alarm.

Pennine Centre, Sheffield – Survey and recommendation of modifications to potable water supplies into drinking fountains and vending machines.

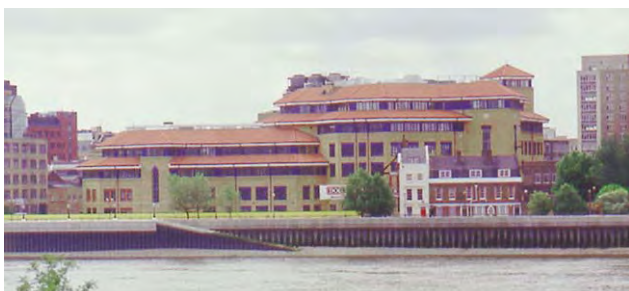
Whitefield – Survey and recommendation of modifications to warehouse ventilation and loading bay air curtains at Manchester Stationery Operations Warehouse, Whitefield.

Midland Bank New Concept Banking for Midland Bank Plc. New concept banking scheme which includes upgrading of services to over seventy branches of Midland Bank within Greater London and North West England. The services include data and telecom systems and associated M&E services. Project value £1.2m.

Head Office, Poultry - Structural engineering for the refurbishment of external and roofing element to listed building in the centre of London. Project value £2m.

Cumberland House, Southampton - Mechanical and electrical engineering surveys, design, contract documentation and construction supervision of refurbishment of office building services. Project value £450,000.

CSC Mayfield Court - Roof load study.



Ipswich - Structural surveys of existing building.

District Services Centres at Romford, Salford, Bristol and Bradford - Design of mechanical and electrical building services for four district service centres. Project value £6m.

M.E.N. Building, Park Street, London for Midland Equity Newhouse. Structural engineering design for new development to provide 220,000 sq.ft of office space. Project value £40m.

Stow and Selkirk for the Royal Bank of Scotland. Structural advice on defects to buildings and recommendations for remedial measures.

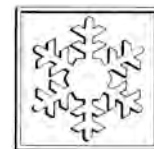
Sudbury and Newmarket Branches for NatWest Bank. Mechanical, electrical and structural engineering for branch refurbishment.

Cockspur Street (Listed Building) for Barclays Bank Plc. Major refurbishment of existing period premises including structural and mechanical & electrical engineering. Project value £2m.

Gracechurch Street London - Mechanical and electrical engineering for new building and completed development of existing buildings. Project value £10m.

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Selected Projects: CDM Co-ordinator/ Planning Supervisor



Bo'ness Foreshore Flood Prevention for Falkirk Council. CDM Co-ordinator for the construction of reinforced concrete walls, the installation of gabion baskets, reno mattresses, rock armour and rip-rap.

Southwark Park Borehole for Southwark Council. CDM Co-ordinator services for 90m borehole to replenish park pond and refill bowers for street cleaning etc.

Tabard Gardens, Southwark for Southwark Council. CDM Co-ordinator services for provision of a resurfaced synthetic turf pitch & new fencing.

Entry Call Systems at Anderson Road and Gravenal Gardens for Wandsworth Council. Design, contract administration and CDM Co-ordinator services for new door entry system between all dwellings and main entrance.

Keevil Drive, Nimrod Road and Allbrook House CCTV for Wandsworth Council. Design, contract administration and CDM Co-ordinator services for installation of 9 CCTV cameras and microwave link over 6 locations.

Southampton Oncology Centre: Phase 2B Cancer Care PFI for Southampton University Hospitals NHS Trust. Structural and civil engineering technical advice and CDM Co-ordination for new build £61 million (MIPS 563) oncology and radiology facilities on existing hospital site.

New CCTV Systems, Ryde Vale, Aldington North and Streatham Park for Wandsworth Council. Design, contract administration and planning supervision for new CCTV systems for three estates in the borough. Project value £165,300.

Eardley Primary School for Wandsworth Council. Multi disciplinary design, contract administration and planning supervisor services in connection with provision of new toilets, library and secure reception entrance.

Barbican Centre AHU's for the Barbican Centre. Replacement of 33 air handling units in a short timescale, and cleaning of all related ducts. This is an especially demanding task given that the units mainly serve public areas including the Cinema One, the Library, the Theatre and associated backstage and auditorium areas. Disruption must therefore be kept to an absolute minimum, a task demanding careful planning. Services provided include detail design, tender documents, construction, contract administration and planning supervision. Project value £1.8m.

John Radcliffe Relocation of Clinical and Embedded Departments for Oxford Radcliffe Hospitals NHS Trust. Technical advice for £120m PFI scheme involving transfer of clinical facilities from the Radcliffe Infirmary to the John Radcliffe Hospital site and provision of space for embedded Oxford University facilities within the existing John Radcliffe Hospital building. For the same client:

Demolition of Ritchie Russell House. Demolition of existing single storey building and link on the Churchill Hospital site in Oxford, including making good to adjoining building façade. Project value £120k.

Churchill Hospital PFI, Oxford. Civil and structural engineering technical advice for substantially new build £100m (MIPS 325) PFI development to include geratology, radiology, oncology and haematology.

2004/5 Principal Road Planning Supervision for the London Borough of Southwark. Planning supervision of three road maintenance projects.

2004/5 Non-Principal Road Repair Contract for the London Borough of Southwark. Planning supervision of eight road maintenance contracts.

Southwark Bridge Road Improvements. Highway improvements to approximately 1km of main road in Southwark, London. Project Involved new signal controlled junction, incorporating pedestrian facility, carriageway resurfacing and alignment works, reconstruction of footways and replacement of highway lighting. Project value £0.3m.

Southwark Roads Lighting Contract. Replacement of highway lighting on 14 local roads in Southwark, London. Project value £163k.

Royal Marsden Hospital for Genesis Medical Specialist Services Ltd Planning Supervision of the Remodelling of the X-Ray Dept at Royal Marsden Hospital. The work involves the removal and replacement of the existing X-ray equipment with new Fluoroscopy Equipment including altering and upgrading the existing rooms inclusive of all associated services, finishings and fittings.

Theatre Power Flying Project. Upgrade of hoist system carrying stage scenery in fly tower of theatre. Introduction of additional control software.

Friars School for London Borough of Southwark. Planning supervision for landscape contract. For the same client:

Lordship Lane Structural Improvements. Highway improvements to 1.8 km of major road in south London, including resurfacing of both carriageway and footways. Project value £0.7m

BRE Fill Testing Pit for the Building Research Establishment. Project management, civil, structural design, quantity surveying and construction supervision of reinforced concrete cavity for testing collapse consolidation of soil.

A406 North Circular Road for the Department of Transport/Highways Agency. Planning Supervisor for the construction of Improvement of 4km of major urban ring road to grade separated dual carriageway standards, involving two multi span flyovers and an underpass. In excess of 100 structures, including 310m dual 2-lane tunnel to carry trunk road beneath two highway junctions and rail embankment, 835m dual 2 lane steel/concrete composite viaduct to carry trunk road over major junction, a railway and new highway, 670m dual lane steel/concrete composite viaduct to carry traffic over new roundabout and three water courses. Project value £120m.

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Selected Projects: Commercial / Offices



Photos:

Above Left: Thames Innovation Centre

Above Right: Citibank Lewisham, London

Sycamore House for London Borough of Waltham Forest. Client Agent services, including architecture, civil, structural mechanical and electrical engineering, quantity surveying, planning supervision, procurement advice and contract administration for design and build contract for £3m extension and refurbishment of council offices.

Thames Innovation Centre for Bexley Council. Client Agent services, including Architecture, civil, structural mechanical and electrical engineering, quantity surveying, Planning Supervision, procurement advice and contract administration, for design and build contract for new Innovation Centre to provide business premises and support for technology based businesses. Project value £7m.

Citibank Tower, Lewisham for Citibank N.A. 19 storey office tower originally constructed as part of a large town centre development which included a retail centre and leisure facilities. The tower has been extensively upgraded over the last decade. Consultancy services included structural engineering design for new mezzanine, new external generator house, new roof plant plantrooms, floor strengthening and builderswork. Project value £42m for original town centre development; £11m for alterations to the tower over the last eight years. Ongoing.

Heron House, Strand - Heron International. Structural design of redevelopment of office building site in the strand to create new office and retail facilities. £7m.

Victoria House, Southampton Row - Liverpool Victoria Friendly Society. Refurbishment of listed building involving close liaison with English Heritage. Structural and building services engineering. £7m.

35 Millharbour Road, London - Advanced Survey and design of conversion of existing office space into a mix of workshops, warehouse and office space for separate residency. Structural engineering and planning supervisor for the works. Subsequent additional repairs due to Dockland Bombing Textile Products Ltd.

Midland Bank Poultry - Midland Bank Plc. Structural engineering for the refurbishment of externals and roofing element to Midland Bank's Head office listed building in the centre of London. £2m.

Cumberland House, Southampton - Midland Bank Plc. M&E engineering surveys, design, contract documentation and construction supervision of refurbishment of office building services.

54 Baker Street - IMRY Merchant Developers. Refurbishment of 3500m² six storey office building. Mechanical, electrical and lift services. £1.8m.

Offices and Deed Store, Newcastle Upon Tyne - Northern Rock Estates Ltd. Three storey concrete and steel framed building to provide Ground Floor Deed Store with associated offices, and first and second storey offices. Total floor area being 61,000ft². Civil and structural engineering design. £3.5m.

Saddlers Livery Company - Saddlers Investment Company Ltd. Replacement of complete mechanical and electrical services installation and provision of air conditioning in the function rooms, livery hall and associated spaces on the first floor.

No 1 Liverpool Street - MEPC Developments. Structural engineering for new office development. Project value £5.5m.

Meridian Court, Slough - M&E and structural engineering for 56,000 sq.ft multi-storey office development with car park. Project value £7.3m.

Falcon House, Hounslow - Percy Bilton Multi-storey building providing 30,000 sq.ft of office space with associated car parking. Mechanical, electrical, structural and public health engineering. £5.2m.

Rose Court, London - PosTel Property Services/ Investment Management Ltd. High rise speculative office development to provide 220,000 sq.ft of high classification office space. Mechanical and electrical engineering. £35m.

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Selected Projects: Education



New Special School and Accommodation, Maidenhead for Royal Borough of Windsor & Maidenhead. Structural engineering services for the provision of a new special school and residential accommodation to replace the existing facilities. Project value £21m.

St Matthew's RC First School, Prudhoe, Northumberland for Darbyshire Architects. Provision of a new classroom and kitchen together with an extension to double the size of the existing multi purpose hall.

Norwood School for London Borough of Lambeth. Survey, preparation of tender documentation and site management of replacement of heating mains including asbestos removal.

Professional Centre, Tooting for Wandsworth Council Design and CDM Co-ordinator services for the renewal and upgrading of electrical services including emergency lighting and small power. Project value £100,000.

Open University for Opus International Consultants (UK) Ltd. Electrical services engineering to bring electrical services and lifts in line with DDA Regulations. Also includes mechanical services engineering input. Project value £3m.

Waverley School for London Borough of Southwark. Structural engineering design for installation of new lift.

St Bedes R C School, Lanchester, Co Durham - St Bedes R C School Governing Body. Structural design for new sixth form block, administration area and staff facilities together with modifications and re-ordering of existing buildings. Project value £5m.

Eardley Primary School - Wandsworth Borough Council. Multi disciplinary design, contract administration and planning supervisor services in connection with provision of new toilets, library and secure reception entrance. Project value £450k.

Gloucester School Refurbishment - London Borough of Southwark. Structural engineering for £450k refurbishment of primary school to extend school hall for music, dance, performing arts and sport, and provide a computer suite and multi-use games area.

Gloucester School – London Borough of Southwark. Structural engineering advice for alterations to primary school including roofing over of courtyards.

Geoffrey Chaucer Technology College Dining Block - London Borough of Southwark. Structural engineering for £450k refurbishment of two storey youth club to create secondary school dining facility, with associated WC's, kitchen and storage.



Riverside School for London Borough of Southwark. Inspection and report on suspected subsidence cracking at the school.

Brunswick Park School Sports Hall - London Borough of Southwark. Structural engineering for £850k new multi-use sports hall and associated WC's and changing rooms.

New CDT Block, St Aidans RC School, City of Sunderland - St Aidans R C School Governing Body. Structural design of a new three storey CDT block with associated administration, drama hall, swimming pool, extension to existing administration area and internal alterations to dining areas. Project value £6m.

Four Sites for Westminster College Condition survey and report on existing mechanical and electrical engineering, with assessment of heating system performance. Subsequent project management, design of mechanical and electrical installations to occupied grade II listed buildings at four site locations.

St Aidans RC School Extension - St Aidans R C School Governing Body. Structural design of a three storey extension to this existing 1200 pupil secondary school. The structural frame is a combination of steel columns and beams and load bearing blockwork walls constructed on pad and strip foundations, with wide slab PC units making up the floors. A curved metal deck roof gives a 19m clear span over the third floor library. Other accommodation includes 11 science labs, prep areas, chemical storage, and teaching areas. This project also involves the refurbishment and conversion of an existing library and labs into new teaching space and the re planning of the dining area and its associate spaces. Services include site investigations, structural design together with site inspection. Project value £2.5m.

St Michael's R C Primary School, Houghton le Spring for the School Governing Body. Replacement primary school for 210 pupils consisting of 7 classrooms an IT classroom, hall/dining room, library, admin, staff room and changing facilities. The hall and classrooms are separated by the admin area and the library. The library acts as the focal point of the school with its two storey circular shape topped by a 6m high glazed cone. Services included site investigation, structural design and site inspection. Project value £1.3m.

Witherwack Primary School, Sunderland for Burgess Dent Partnership. Structural engineering services together with site inspections were provided for the addition of a single storey steel framed extension to accommodate a library and storage. In addition internal remodelling was carried out to the hall and adjoining teaching areas. Project value £250,000.

Top Left: Norwood School
Top Right: Riverside School

Sir Frederick Snow & Partners Ltd

Selected Projects: Highways & Bridges



Photos: Philip Lane Photography

A40/A406 Rail Bridges for Transport for London. Replacement of 4 No. road over rail bridges on the A40 and A406 in Ealing, West London. Project value £30m.

Southwark Street 'C' Contract for London Borough of Southwark. Environmental improvements to the length of Southwark Street including reconstruction of footway and carriageway, provision of new parking, bus and loading bays, and new drainage, signing and lighting system. In association with Muf Architects.

New Albion, Swadlincote for Onyx. New public access and site roads for re-development of extraction/landfill site.

Cator Estate Roads for Blackheath Cator Estates Residents Ltd. Professional services in connection with the inspection and report on the condition of roads within the estate. Provision of advice for ongoing maintenance.

A406 North Circular Road – Highways Agency. Improvement of 4km of major urban ring road to grade separated dual carriageway standards, includes Angel Road North Bridge, Angel Road South Bridge, Lea Valley Viaduct, Hall Lane Link Road Bridge, Harbet Road River Lea Bridge, Angel Road Viaduct and Fore Street Tunnel. Production of feasibility studies for various options, traffic modelling and forecasting. Assessment of scheme economics and environmental effects. Liaising with all interested parties. Preparation for public exhibitions and inquiry. Detailed design and preparation of tender documents and construction supervision. £120m.

A40 West London Approach DBFO - Highways Agency. Project management, design, cost estimation, contract documentation for DBFO project involving 25km of the A40 in West London including the Gypsy Corner and Western Circus Junctions. Includes contract documentation, tender assistance and site supervision for demolition works. £100m.

Longwater Industrial Park - RMC Properties Ltd. Highway and drainage design for an industrial park in Norwich.

Lutterworth Bypass - Associated Asphalt. Upgrading of single lane highway to dual carriageway. Civil and structural engineering design for approx 4km of highway, major bridge structure to carry dual carriageway over river, along with additional highway and drainage structures. To provide access to/from the M1 motorway bypassing the town of Lutterworth. £8m.

A970 Ward Hill and Levenwick – Shetland Islands Council. Major highway improvements over 8km of difficult terrain in Shetland Islands. £3m.

A4 Bridge Design, Leipzig - DEGAS, Berlin. Design for six new bridges on the A4 Autobahn Glauchau-Chemnitz.

Middle East Regional Transportation Study - European Commission. Study and recommendations for the integration of transportation modes (airports, highways, rail and ports) between Middle Eastern countries including Jordan, Israel, Egypt and the West Bank.

Kanalbrücke at Pastim Schwerin Strassenbauamt, Germany. Engineering design of major bridge structure over canal.

A40 Western Avenue - Department of Transport. A major urban highway improvement project involving bridges, flyovers, underpasses, pedestrian facilities and retaining structures. Includes production of feasibility studies for various options, traffic modelling and forecasting. Assessment of scheme economics and environmental effects. Liaising with all interested parties. Civil and structural engineering design, preparation for public exhibitions and inquiry, soil mechanics and foundation engineering, preparation of contract documents. £45m.

Hestingt, Virkie & B9122 Rerwick to Bigton - Shetland Islands Council. Design of road improvement with associated services. £4.5m.

The Berliner Ring, Germany – Autobahnamt Land Brandenburg. Traffic investigations and forecasting for the eastern, south eastern and north eastern sectors of the Berliner Ring including the main arteries and feeder road systems serving the traffic requirements of the City. Design of improvements including a major new interchange. £30m.

A66 Bowes to County Boundary Department of Transport Improvements to 9.4km of high altitude trunk road passing through sites of historic and environmental importance to dual carriageway standards. Production of feasibility studies for various options, traffic modelling and forecasting. Assessment of scheme economics and environmental effects. Liaising with all interested parties, attendance at public exhibitions and inquiry. Production of order plans and detailed design and tender documents. Co-ordination of works of other specialists and construction supervision. £15m.

A69 Kingsway Roundabout Flyover, Gateshead - Department of Transport. A new interchange at junction between Kingsway and Gateshead Western Bypass. Project value £2.5m.

Azraq Al-Jafr Highway, Jordan - Ministry of Public Works, Jordan. Design review, redesign and construction supervision of 180km, concrete paved highway. £65m.

M4 Junction 12 Department of Transport Improvements and widening of motorway junction. £2m.

B9073 Black Gaet, Shetland, Shetland Islands Council Improvements to Category B roads. £1m.

**Top Left: A406 North Circular Road
Top Right: Lea Valley Viaduct**

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Selected Projects: Health Care



New National Hospital, Saint Lucia, for Government of Saint Lucia – Ministry of Health represented by the Office of National Authorising Officer/EDF Planning, implementation, design, production of working drawings and tender documentation, and supervision of construction for a new 153 -bed National Hospital of approximately 14,000m² total area. The services provided under the consultancy agreement include health and hospital planning, quantity surveying, architectural, civil, structural, services, medical equipment and environmental engineering. Approximate Contract Value £31.5m.

Independent Validation and Commissioning Engineer for the Ambulatory Cancer Centre for University College London Hospitals NHS Foundation Trust. Validation/verification of commissioning of mechanical and electrical services for the construction phase of the Ambulatory Cancer Centre project at UCLH. Project value £57m.

New Ward Block - Sunderland Royal Hospital for City Hospitals Sunderland NHS Trust. Structural and civil engineering for new 5 storey extension of 8,000sqm consisting of plant room and estates department on the ground floor with 3 wards and an ICCU on the upper floors. Value approx £18.5m.

Specialist Estates Advisory Service for the Care Quality Commission (formerly the Healthcare Commission). Provision of specialist estates advisor services under a framework agreement. Includes advice regarding legislative changes, assessment of commissioning documents, site visits and telephone advice.

Structural and Civil Engineering Framework for Southend University Hospital NHS Foundation Trust Framework agreement for the provision of structural and civil engineering services. Projects undertaken include:

Ward Block - Civil/structural engineering design for new ward block, including a critical care unit. Project value £25m approx.

Outpatients and Oncology Day Care Centre - Structural design for new £5.6m oncology day care unit.

Structural Engineering Services Framework for Frimley Park Hospital NHS Foundation Trust. Framework Agreement for the provision of structural engineering services. Projects undertaken include:

New Car Park and Helipad – Feasibility study and subsequent design for new multi-storey car park, helipad and site entrances. Project value £6m.

A&E and Pharmacy Scheme - Structural engineering for refurbishment of existing A&E and Pharmacy spaces and extending the A&E department into an existing courtyard, all within an operational hospital. Project value £2.3m



Above: Churchill Hospital, Oxford

Churchill Hospital PFI, Oxford for Oxford Radcliffe Hospitals NHS Trust for Civil and structural engineering technical advice for substantially new build £109m PFI development to include geratology, radiology, oncology and haematology.

Regional Eye Centre for Sightsavers International, Banjul, for the Ministry of Health, Republic of the Gambia. Study, design and supervision of construction of 3500m² regional eye centre including both out and in patient wards and operating facilities. Consultancy services included for all disciplines of project management architecture, engineering, quantity surveying and cost control. Project value US\$2m.

New Ward Block, Hull Royal Infirmary for Hull and East Yorkshire Hospitals NHS Trust. £9m, four storey ward block incorporating a 37 bay renal dialysis unit, 2 gastro operating theatres, gastro ward, 2 DME wards and support facilities. A link bridge will connect the building to the main hospital tower block.

Loughborough Hospital Phase II for Leicestershire and Rutland NHS Trust. Engineering design and construction monitoring of £6m A&E and outpatients two storey block including facilities for major surgery, day care and administration.

Victoria Hospital for Kirkcaldy Acute Hospital NHS Trust. Term commission for structural inspection and preparation of details for structural surveys, alterations and extensions. Recent works include refurbishment of laboratories, Ward 9/ITU, catering unit and X-ray department.

North Tyneside General Hospital, Rake Lane for Northumbria Healthcare NHS Trust. Structural engineering for new build Clinical Decision Unit, Diabetes Unit and two storey ward block together with internal alterations. £5m.

Sunderland Royal Hospital for City Hospitals Sunderland NHS Trust. Three storey car park conversion into 6 storeys of wards, theatres, admin and ancillary departments together with major new plant room on top of existing 7 storey building. Project value £7.1m.

District General Hospital Scheme III. Structural design of three storey extension to existing hospital. Approx 9800m² plus associated communication areas. Project value £17.5m.

Block 3A King George Hospital, Goodmayes, Essex for Redbridge Healthcare NHS Trust. New build two storey building approximately 850m² in area housing out-patients departments (cardiology and pulmonary function) and office accommodation, with a two storey link to an existing hospital. Services provided: mechanical, electrical and structural engineering. Project value £2m.

Soma Hospital, The Gambia for the Ministry of Health & Social Welfare, The Gambia. Design of new rural hospital. Services include architecture, structural, mechanical and electrical design. Project value £1m.

SHAPE Medical Facility, Mons Belgium for Supreme Headquarters Allied Powers Europe. Rehabilitation and extension of existing facility. Services include architecture, structural, mechanical and electrical engineering design and construction supervision. Project value £11m.

Queen Elizabeth Hospital - Adult Acute Mental Illness Unit for Northern Regional Health Authority. Provision of structural engineering for a 60 bed acute mental illness unit for adults within a two storey building, with 20 intensive care beds, associated clinic, out patients, admin and ancillary facilities. Project value £3.4m.

Sir Frederick Snow & Partners Ltd

Selected Projects: Hotels



Citistars Development, Cairo, Egypt for the Golden Pyramids Plaza Co. Hotel Five Star to be operated by Holiday Inn Crown Plaza, with total built up area of approximately 87,650m², consisting of 4 basement levels and 16 floors to include 610 rooms, 10 villas, 70 bungalows around swimming pool, banquet hall, business centres, health club, boutiques and 11 restaurants and cafeterias. Also includes hotel apartment block, residential and commercial apartment block and commercial centre. Consultancy Services provided by the firm include: Construction Management and Supervision of Construction. Project value \$700m.

Britannia Hotel Extension, Grosvenor Square, London for Intercontinental Hotels. Major extensions including new ballrooms and conference centres. Structural engineering design. Project value £2.5m. For the same client:

Britannia Hotel - Structural and building services engineering for new 460-bed hotel. Project value £3m.

Hotel Nelson, Norwich for Property Partnership. Structural design of extension to existing hotel including bedrooms, office and associated facilities. £1m. For the same client:

Major extension to hotel - structural engineering for bedrooms, conference rooms and banqueting facilities. Project value £1.4m.

State Rooms - Structural engineering design for 33 bed and state rooms extension. project value £1m.

18 Bed Extension - Structural engineering design to provide an 18 bed extension to the Hotel Nelson.

Annakheel Village Development, Saudi Arabia for Saudi Hotels & Resort Areas. Planning and design of development comprising a 34 room and 7 suite hotel, 119 luxurious villas, a 54 yacht marina, health club, squash courts, swimming pools, staff residence and shops, sewage and water treatment facilities, total built up area 40,000m². Project value \$37m.

Holiday Inn Inc. Various hotel commissions including surveys, reports, extensions, new facilities and refurbishment. Including:

West Drayton, Heathrow - Structural engineering design for additional extension to hotel. Project value £9.5m.

West Drayton, Heathrow - Mechanical and electrical building services refurbishment to hotel. Project value £800,000.

West Drayton, Heathrow - Structural engineering design for 120 bed extension to existing hotel. Project value £1.5m.

Sheraton Skyline, London for Sheraton Skyline Hotel. Survey and report of mechanical and electrical services. For the same client:

Above: Citistars Development, Cairo
Right: Britannia Hotel, London

Deluge Fire Protection Services - Structural advice on siting of proposed sprinkler feed tank.

Sheraton, Belgravia, London for the Belgravia Sheraton Hotel. Survey and report on mechanical and electrical services.

Swan Hotel, Stafford for Berni Inns Limited. Structural evaluations and advice on major alterations for full refurbishment.

Newcastle Airport Hotel for Reo Stakis Organisation. Structural, mechanical and electrical engineering services for 104-bed hotel.

Park Tower Hotel, Knightsbridge, London for Skyline Hotels Limited. Comprehensive building services engineering for 300-bed hotel in Central London. Project value £2.5m.

Hallam Tower Hotel, Sheffield for Trust House Forte Limited. Mechanical and electrical building services engineering for 136-bed hotel. Project value £1m.

Wessex Hotel, Winchester for Trust House Forte Limited. Structural engineering for this 93-bed hotel.

Beau Vallon Bay Hotel, Seychelles for Jasmine Hotels Limited. Planning, Architectural, structural, mechanical and electrical engineering design for a new 368-bed hotel in the Seychelles. Project value \$2.5m.



Sir Frederick Snow & Partners Ltd

Selected Projects: Independent Tester Role



Above and Right: Nottingham NHS Treatment Centre

Nottingham NHS Treatment Centre Independent Tester for Nations Healthcare Nottingham Ltd. Independent inspection of construction, reporting on progress and quality issues and independent certification of contractual compliance for £46m ISTC.

North East London ISTC Independent Tester for Secretary of State for Health/PHG. Independent Tester Services for ISTC. Project value £11m.

Newham Hospital PFI for Newham University Hospital NHS Trust & Healthcare Support (Newham) Ltd. Independent Tester Services for £35 million PFI project including ACAD and additional clinical facilities.

Maidstone Independent Tester for Secretary of State for Health and PHG (Maidstone) Ltd. Independent tester services for ISTC. Project value £6m.

Burton ISTC Independent Tester for Nations Healthcare (Burton Ltd) / Secretary of State for Health. Independent tester services for ISTC. Project value £11m.

Independent Sector Treatment Centres – General Chain 8. for Secretary of State for Health and Mercury DTC (1) Ltd. Independent tester services for treatment centres at Portsmouth, Haywards Heath, Medway and High Wycombe. Project value £22m.

Shepton Mallet Community Hospital for Mendip Primary Care Trust and Shepton Mallet Treatment Centres Ltd. Independent tester services for ISTC. Project value £10.2m.



Southampton NHS Treatment Centre for PHG, Department of Health and Southampton City PCT. Independent construction monitoring, witnessing of commissioning and certification of compliance for £3m refurbishment to provide endoscopy suite, new theatres, TSSU, X-ray, consulting rooms and in-patient beds.

Renal Electives Independent Tester for Department of Health and Fresenius. Independent inspection of construction, reporting on progress and quality issues and independent certification of contractual compliance for 9 renal units, which are a mixture of new build and refurbishment projects. Schemes range in value from £700k to £2m.

Stead Primary Care Hospital and Redcar Health Centre for Redcar and Cleveland PCT and RSRM (Redcar and Cleveland) Ltd. Independent Tester services for primary care centre and health centre.

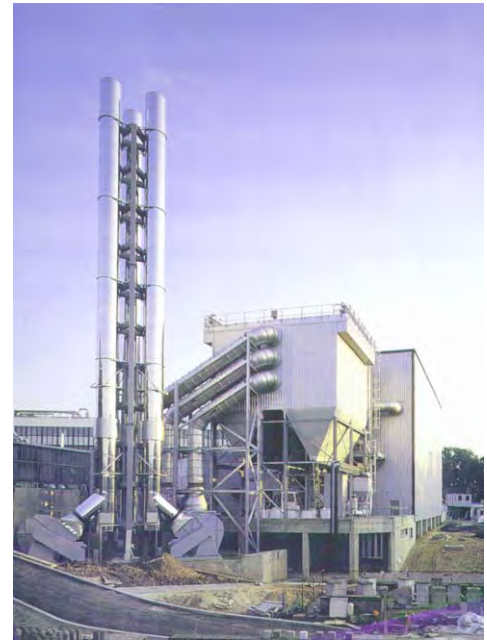
Avon, Wiltshire and Gloucestershire Independent Tester for Department of Health and UK Specialist Hospitals. Independent Tester Services for 3 No. ISTCs.

Pendered Site PFI, Northampton for Northamptonshire Healthcare NHS Trust and IIC Northampton Ltd. Independent inspection of construction, reporting on progress and quality issues and independent certification of contractual compliance for a new mental health PFI scheme. Project value £36m.

Cumbria and Lancashire Independent Tester for Department of Health and Ramsay Health Care. Independent Tester services for treatment centre. Project value £2.75m.

Sir Frederick Snow & Partners Ltd

Selected Projects: Industrial



Dencora Way, Luton for Opus International Consultants (UK) Ltd. Building services engineering for 14 unit industrial estate including a landmark office for the developers. Project value £5.3m.

Longwater Industrial Estate – Longwater Consortium. Design of new industrial and retail park. £2.7m.

Scott & Fyfe, Tayport - Mowlem Scotland Ltd. Design for a new production warehouse as part of a design and construct project. £1 m.

Statesman Business Park – Kennedy Developments. QS services including contract documentation for construction of industrial and commercial business park. £8m.

World Cargo Centre Alterations - BAA. Structural alterations and associated demolitions to Heathrow Airport World Cargo Centre. £1m

BGS Core Store Rear Extension – British Geological Survey - Design for steel framed extension to existing store.

North Weald Hangars - Epping Forest DC - Reconstruction of several T2-type hangars at North Weald, converted to sports complex, offices and light industrial units. £5m.

DTI Core Store, Gilmerton - Department of Trade & Industry. Extension to core store. £1m.

Project Scotland - Mercury Communications Ltd. Microwave communications network from Leeds to Aberdeen, Edinburgh to Glasgow to Manchester. £15m.

Burn Hall - Building Research Establishment New burns research facility. £4m.

Business Park Development, Birmingham Arlington Securities Ltd Modern business park in landscaped surroundings. 2.4m sq ft on 148 acres site. Planning, traffic modelling and forecasting, design of roads, drainage including pumping stations, five office buildings and support buildings. £100m.

Frimley Business Park - Arlington Securities Ltd. Constructed upon land re-claimed from flood plane. Includes new main road and highway bridge, building structures and flood alleviation scheme. £17m.

International Fire Training Rig, Teesside Airport - Civil Aviation Authority Multi-level rig structure and aircraft mock-up. Multi-discipline design and project management services. £4m.

Aircraft Maintenance Facility, Dublin – Aer Lingus Maintenance hangar, offices and workshops, to house 2 Boeing 747 plus 4 Boeing 737 aircraft. Design and provision of tender and construction information. £25m.

Macclesfield Works, Site Services – Zeneca Pharmaceuticals. Surveys and technical advice . Ongoing. Other projects include Pures and Associated Facilities - £1m.

Eastfield Phase II - Glenrothes Development Corporation. Structural design of steelwork and foundations for 3 advance factory units.

Spider Systems Ltd - Scottish Development Agency Three phase high tech building development for computer/electronics assembly. £3m.

New Printing Works, Edinburgh - Scottish Widows Fund and Life Assurance Co. £1.6m.

Wavin Plastics Industrial Development for Wavin Plastics Ltd. Erection and extension of a factory for the manufacture of plastic components for the construction industry including all associated external paved storage areas. Preparation of Bills of Quantities, contract documents, tender analysis, post contract measurement, supervision and financial evaluation. Project value £3.5m. For the same client:

Extensions to Factory, Chippenham - Quantity surveying for extension to factory. Project value £500,000.

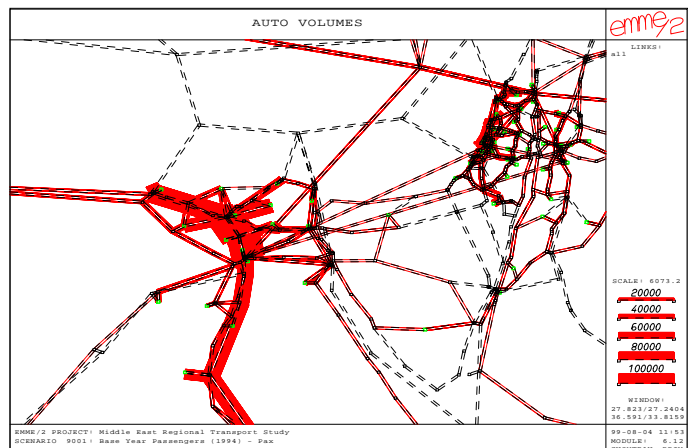
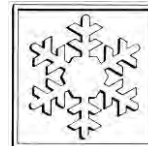
New Factory, Chippenham - Structural engineering and quantity surveying for new factory facility. Project value £1m.

Project Scotland for Mercury Communications Ltd. Establishment of a microwave communications network from Leeds to Aberdeen, Edinburgh to Glasgow to Manchester. 35 remote locations with towers and unmanned equipment buildings. Includes site appraisal, site survey, soils investigation, cost estimating, structural and civil engineering design, supervision of construction. Value £6.5m.

Top Left: Birmingham Business Park
Top Right: Building Research Establishment, Burn Hall

Sir Frederick Snow & Partners Ltd

Selected Projects: Infrastructure Planning & Traffic Management



R705 - Pedestrian Footbridges, Dubai, UAE for Dubai Municipality. Comprehensive survey work to evaluate both the requirement for and the optimal locations of pedestrian footbridges along seven pre-defined stretches of road within the Municipality of Dubai.

ABC Achrafieh - Transport Impact Study, Beirut for ABC Achrafieh. Prepared TIA to advise on the likely traffic impact of locating a new shopping mall within the Achrafieh area of Beirut. Activities included data collection, trip generation, forecasting and modelling (EMME/2).

Arriyadah Traffic Impact Assessment. Small TIA to evaluate the potential impact of a new residential development on the outskirts of Riyadh, Saudi Arabia. Proposal and evaluation of future road systems.

Simaisma Traffic Study, Qatar, Traffic Impact statement to establish future traffic requirements at Simaisma Town in Qatar. Activities included traffic surveys, modelling and junction capacity assessments.

Mar Elias and Bourg Abou Haidar Junction Assessments. Junction capacity assessments to determine the feasibility of two signalised junctions as opposed to a proposed underpass. Following a detailed traffic survey, OSCADY was used to determine the junction capacities with and without the underpass. A comparison was thus made in terms of delay rates.

Manama Suq Enhancement Study, Bahrain. Transport Planning advice to facilitate proposed improvements to the Manama Suq Area. Traffic related improvements included Pedestrianisation, Traffic Calming, Parking Provision and Network Planning. Other considerations included a satellite bus service and Park & Ride.

Budgens Supermarket, Sheringham for Budgens Stores Ltd. Traffic advice associated with the development of a major new supermarket in Sheringham, Norfolk.

Lambs Yard, Chiswick for E M Tool Company Ltd. Traffic advice associated with the conversion of a commercial development to residential use.

Longwater Business Park, Norwich for RMC Ltd. Study advice and preparation of impact assessments in support of ongoing developments at Longwater Business Park.

Keserwan Traffic Study. Traffic study to determine the most feasible capacity enhancing option of the Coastal Highway 10km north of Beirut. Comprehensive traffic study, data collection and analysis. Modelling study (EMME/2), development master plan of Caza of Keserwan and economic evaluation.

Top: Middle East Regional Transportation Study

Al Warsan Traffic Impact Assessment - Jebel Ali Properties, Dubai. Traffic Impact Assessment to assess the traffic impact of mixed land use developments in a self contained site. Attention was focused on both the internal movement and the interface with the external infrastructure. Modelling study involved the development of a capacity constrained traffic model (EMME/2) and subsequent capacity assessments.

Middle East Regional Transportation Study (European Commission funded). Study and recommendations for the integration of transportation modes (airports, highways, rail and ports) between Middle Eastern countries including Jordan, Israel, Egypt and the West Bank. Strategic Highways Advice. London Luton Airport. Continuing advice on traffic and highway matters for expansion.

Drake Circus, Plymouth for P & O Shopping Centres. Infrastructure planning for proposed new shopping and retail centre.

The Aldergate Hotel, City of London for Farnsworth Holdings. International. Traffic advice associated with proposed major hotel development.

Hindu Temple, London for the Board of Trustees of the Swaminarayan Hindu Mission. Highway and traffic advice.

Bracknell Retail Park for J. Sainsbury Developments Ltd. Traffic engineering advice for new mixed development. £10m.

Motorway Service Areas for Hillier Parker. Technical assistance and advice on traffic matters.

Poringland for Kemp. Advice on infrastructure and planning aspects of proposed residential development, park and ride scheme.

Colney Science Park for Colney Developments Ltd. Advice on infrastructure and planning leading to planning consent for a 9ha science park.

Arndale Bus Station, Manchester for P & O Shopping Centres. Assessment of the traffic implications of the closure of the bus station.

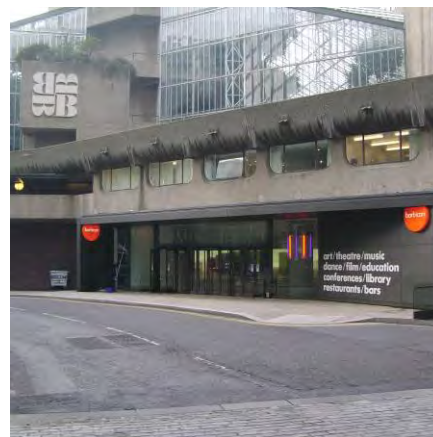
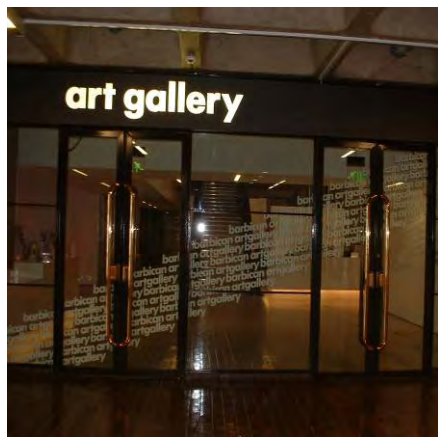
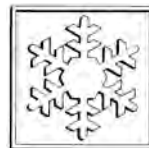
M25 MSA for Chantry Property Development Consultants Traffic impact statement in support of a proposed motorway service area, includes giving evidence at the Public Inquiry.

Traffic and Highway Advice at Various Locations for Carter Commercial Developments Ltd Advice on traffic and access for the possible development of retail and commercial sites and investigations for alternative development sites at Pangbourne, Cockfosters and Stanford Le Hope. Traffic and highway advice at Sunningdale for a possible retail development in Sunningdale. Technical advice concerning access for a possible food store



Sir Frederick Snow & Partners Ltd

Selected Projects: Listed Buildings



Above Left & Middle: Barbican Centre Art Gallery
Right: Barbican Centre

Barbican Centre Foyer for the Barbican Centre. Building services engineering for major refurbishment of entrance foyer of arts centre, phased over several years and carried out while the centre remains open. Undertaken as the first main project as a prelude to a term commission. Project value £8m. For the same client:

Barbican Centre Art Gallery - Building services engineering for services upgrade to an art gallery, requiring close control of environmental conditions.

Catering Ventilation - Refurbishment of catering ventilation systems.

Balcony Bistro Refurbishment - Wiring to lighting and emergency lighting.

Replacement of AHU's Phase 2. This project involves the replacement or refurbishment of over 200 air handling units together with the replacement of associated controls and local pipe and ductwork connections. All ductwork systems associated with the air handling units to be replaced or refurbished will be cleaned. The project involves careful programming to ensure that ventilation can be maintained to suit the centre's arts performances and area usage. Services provided include detail design, tender documents, construction, contract administration. Project value £2m.

Barbican Centre AHU's - Replacement of 33 air handling units in a short timescale, and cleaning of all related ducts. This is an especially demanding task given that the units mainly serve public areas including the Cinema One, the Library, the Theatre and associated backstage and auditorium areas. Disruption must therefore be kept to an absolute minimum, a task demanding careful planning. Services provided include detail design, tender documents, construction, contract administration and planning supervision. Project value £1.8m.

Central Criminal Courts, Old Bailey for the Corporation of London. Refurbishment and improvement of the Central Criminal Courts within the City of London. Phase I of ten year refurbishment of Grade II Listed Building including Law Courts, public areas and offices. Multi-discipline appointment including project management, planning supervisor services, mechanical/ electrical building services, civil, architecture, and structural engineering and quantity surveying. Project value £4.5m (Phase I).

Four Sites for Westminster College, London. Project management, mechanical and electrical surveys and design for refurbishment of existing buildings at four sites, including Battersea Park Road (a listed building) and Vincent Square which may soon be listed. Project value £3m.

Vale Royal Abbey for DHC (Bradford) Ltd. Project management, structural, mechanical and electrical engineering, quantity surveying and cost estimation for the refurbishment and alteration to the dilapidated Vale Royal Abbey to provide private apartments, conference and banqueting and golf club facilities. Includes preparation of budgets, cash flows and design of estate roads. Project value £5m.

Peoples Palace for Queen Mary & Westfield College, University of London. Mechanical and electrical refurbishment of People Palace, a former cinema/concert hall, to provide additional lecture, examination and function facilities and drama school in basement.

Victoria House for Liverpool Victoria Friendly Society. Refurbishment of listed building involving close liaison with English Heritage. Structural elements and all building services engineering including new and significant works to light wells and eight new lifts, also including refurbishment of heating system, boiler house, ring mains and emergency lighting. Value £7.1m.

Bunns Bakery for South Norfolk District Council. Structural engineering advice regarding the making safe of Grade I listed property.

Laws Building (Listed Building) for Queen Mary & Westfield College, University of London. Mechanical and electrical engineering design and cost estimation for the refurbishment of law faculty university building on campus to provide lecture and examination facilities.

Sadlers Hall for Sadlers Hall Livery Company. Report and refurbishment of the Sadlers Hall complex including office facilities, lecture hall, work shop areas etc. Building services engineering. Project value £1m.

Ealing Town Hall for London Borough of Ealing. Refurbishment and modernisation of existing period building and provision of new matching five-storey office building. Feasibility studies, building services and structural engineering. Project value £5m.

Clothworkers Livery Hall for Clothworkers Company. Building services refurbishment of hall and all associated fine rooms. Included all new mechanical and electrical works, air conditioning and lifts. Project value £2m.

Drapers Hall for Drapers Livery Company. Refurbishment and alterations to listed building including office, dining areas, workshops, halls etc. Building services engineering.

Midland Bank Head Office, Poultry and Princes Street for Midland Bank plc. Project management and design services to a comprehensive refurbishment of the 380,000ft² period building. This included environmental services air conditioning and associated works. Additional services provided include building services and structural engineering, architecture and quantity surveying. Value £23m.

Bush House for Post Office Staff Superannuation Fund. Building Services engineering for refurbishment of 350,000ft² period office space. Includes renewal of central heating system, with main boiler incorporating emergency management centres.

Royal College of Art Building, London for the Victoria and Albert Museum. Refurbishment of period museum buildings.

Gracechurch Street for Barclays Bank International. Major refurbishment of period buildings, included all mechanical and electrical engineering services and lifts.

Sir Frederick Snow & Partners Ltd

Selected Projects: Military & Related



RAF Mildenhall Technical Inspections for Defence Estates, United States Forces. Technical inspections, including structural, mechanical and electrical engineering of 130 buildings and facilities at RAF Mildenhall, over a 3 month period, and production of database information.

RAF Airports Throughout England and Scotland for Defence Works Services, Ministry of Defence, UK. The firm has been appointed by the Ministry of Defence to carry out a 5 year cycle of structural condition surveys and reports for buildings and structures at six Royal Air Force bases. The project covers aircraft hangars, air traffic control towers, administration buildings, auxiliary buildings and residential accommodation. Familiarity with DWS procedures with dealing with asbestos.

RAF Leuchars for Defence Works Services. Project management and design of main runway resurfacing, rehabilitation of runway drainage and outfalls and rehabilitation of AGL. Civil, mechanical and electrical engineering and quantity surveying. Value £5m.

SHAPE Medical Facility, Mons Belgium for Supreme Headquarters Allied Powers Europe. Rehabilitation and extension the existing hospital at SHAPE headquarters in Belgium. Multi-discipline appointment including mechanical/electrical building services, medical planning, architecture, civil, structural engineering and quantity surveying. Building services including heating, ventilation, air conditioning, power, lighting, public health, medical gases and other hospital-specific systems. Project value £11m.

Motorisation of Hangar Doors RAF Mildenhall for Defence Works Services. Structural, mechanical and electrical refurbishment and motorisation of door for RAF aircraft hangar. Project value £120,000. For the same client:

Storage Facility Building RAF Lakenheath. Structural, mechanical and electrical works for storage facility building 1003. Project value £30,000.

Floodlighting RAF Lakenheath. Design and cost estimations for new floodlighting facilities at RAF Lakenheath. Project value £50,000.

RAF Lakenheath. Design, cost estimations and contract documentation for installation of fire alarm system W.S.A. Project value £100,000.

Command Facility, RAF Lakenheath. Structural, mechanical and electrical engineering services for a new command facility. Project value £70,000.

Building Link, RAF Mildenhall. Structural, mechanical and electrical design and cost estimation for new link between buildings. Project value £20,000.

Mobile Process Centre, RAF Lakenheath. Structural, mechanical and electrical design and contract documentation for new mobile process centre. Project value £110,000.

Rosyth Royal Dockyards. Consultancy testing facility study and report on plant, equipment and building forming the test facility to the mechanical workshops.

CSB Faslane. Officers sleeping quarters, three storey accommodation building. Civil and structural engineering. Project value £2.5m.

Al Hasa Hospital for the Saudi Arabian National Guard. New hospital and health care facilities for the Saudi Arabian National Guard including all infrastructure and ancillary buildings. Full range of all consulting services, provided in joint venture, on an international basis. Project value £93m.

Below: SHAPE Medical Facility, Belgium



Sir Frederick Snow & Partners Ltd

Selected Projects: PFI/PPP Schemes



Southampton Oncology Centre: Phase 2B Cancer Care PFI for Southampton University Hospitals NHS Trust. Structural and civil engineering technical advice for new build £61m (MIPS 563) oncology and radiology facilities on existing hospital site.

Churchill Hospital PFI - Civil and structural engineering technical advice for substantially new build £109m PFI development to include geratology, radiology, oncology and haematology.

John Radcliffe Relocation of Clinical and Embedded Departments for Oxford Radcliffe Hospitals NHS Trust. Technical advice for £120m PFI scheme involving transfer of clinical facilities from the Radcliffe Infirmary to the John Radcliffe Hospital site and provision of space for embedded Oxford University facilities within the existing John Radcliffe Hospital building.

Queen's Centre for Oncology and Haematology for Hull and East Yorkshire Hospitals NHS Trust. Civil and structural engineering technical advice for new build £65m PFI development to include 6 linear accelerators, haematology and oncology wards, and support facilities.

Stobhill & Victoria Hospitals PFI for Dunwoodie Architects. Structural and civil engineering due diligence services for the funding authority of a £150m PFI project.

Kelowna and Vernon Hospitals PFI, British Columbia, Canada for Dunwoodie Architecture and Design. This £149m project includes a new approximately 217,000-square-foot patient care tower, six storeys, at Kelowna General Hospital (KGH). The KGH emergency department will quadruple in size and will be completely renovated and modernized. The Vernon Jubilee Hospital (VJH) will see the construction of a new approximately 135,000-square-foot diagnostic and treatment building, six storeys. In addition to the ACC at KGH there is also a 8 level Parkade and a teaching block thus turning KGH into a clinical academic campus for the University of BC Medical School. Services provided: Due diligence services.

Amersham General Hospital. Technical advice, design review and operational economics for the construction and equipping of 112 bed elderly ward, 20 place elderly day unit, 56 bed rheumatology ward, outpatients, x-ray, medical teaching facilities, support services, chapel, etc. Total project value £28m.

Wycombe General Hospital. Technical advice, design review and operational economics for the construction and equipping of 4 storey medical wing including renal unit, elderly day hospital, medical teaching, 56 bed trauma ward and orthopaedic wards with 4 operating theatres, day surgery, children's day ward and private patient unit. Total project value £32m.

Oxford Cancer Centre for Oxford Radcliffe Hospitals NHS Trust. Civil, structural and highways engineering preliminary design and advice for OBC and PSC scheme for a major Cancer Centre to be procured under a PFI scheme. The centre is to include haematology, radiology, gastro-intestinal surgery and, potentially, thoracic, endocrine, gynaecology, oral head and neck surgery. Estimated project value £60m.



Wycombe General Hospital



Oxford City LIFT Project for Oxford City Primary Care Trust. Technical advice on civil and structural engineering aspects of three schemes to deliver Primary Healthcare facilities under a Public Private Partnership. The total estimated capital value of the projects is £17m. Role includes organisation of surveys provision of Output Specifications, evaluation of bidders' pre-qualification submissions, drafting of sections of Invitation to Negotiate documents, liaison with bidders during ITN phase, and evaluation of bidders' proposals.

Southampton NHS Treatment Centre for PHG, Department of Health and Southampton City PCT. Independent construction monitoring, witnessing of commissioning and certification of compliance for £3m refurbishment to provide endoscopy suite, new theatres, TSSU, X-ray, consulting rooms and in-patient beds.

Renal Electives Independent Tester for Department of Health and Fresenius. Independent inspection of construction, reporting on progress and quality issues and independent certification of contractual compliance for 9 renal units, which are a mixture of new build and refurbishment projects. Schemes range in value from £700k to £2m.

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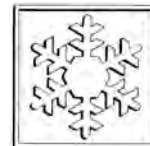
Newham Hospital PFI for Newham University Hospital NHS Trust & Healthcare Support (Newham) Ltd. Independent Tester Services for £35 million PFI project including ACAD and additional clinical facilities.

Burton ISTC Independent Tester for Nations Healthcare (Burton Ltd) / Secretary of State for Health. Independent tester services for ISTC. Project value £11m.

Independent Sector Treatment Centres – General Chain 8. for Secretary of State for Health and Mercury DTC (1) Ltd. Independent tester services for treatment centres at Portsmouth, Haywards Heath, Medway and High Wycombe. Project value £22m.

Sir Frederick Snow & Partners Ltd

Selected Projects: Project Management/ Contract Administration



New National Hospital, Saint Lucia for the Government of Saint Lucia – Ministry of Health represented By the Office of National Authorising Officer/EDF. Planning, implementation, design, production of working drawings and tender documentation, and supervision of construction for a new 153 - bed National Hospital of approximately 14,000 square metres total area, including Accident & Emergency; Radiology; Medical Cardiology and Respiratory Medicine; Physiotherapy; Critical Care; Operating Suites; Children, Surgical and Medical Wards; Gynaecology and Obstetrics; Acute Mental Health Ward, Dialysis Unit together with all associated infrastructure, support, administration, and accommodation facilities. Contract Value £20m.

Thames Innovation Centre for Bexley Council. Client Agent services, including Architecture, civil, structural mechanical and electrical engineering, quantity surveying, Planning Supervision, procurement advice and contract administration, for design and build contract for new Innovation Centre to provide business premises and support for technology based businesses. Project value £7m.

New CCTV Systems for Wandsworth Council. Design, contract administration and planning supervision for new CCTV systems for three estates in the borough - Ryde Vale, Aldrington North and Streatham Park. £165,300.

Sycamore House for London Borough of Waltham Forest. Client Agent services, including Architecture, civil, structural mechanical and electrical engineering, quantity surveying, planning supervision, procurement advice and contract administration for design and build contract for £3m extension and refurbishment of council offices.

Eardley Primary School for Wandsworth Borough Council. Multi disciplinary design, contract administration and planning supervisor services in connection with provision of new toilets, library and secure reception entrance.

Zanzibar Airport Rehabilitation and Expansion of Runway for the Ministry of Communications and Transport (World Bank Funded). Study, design and supervision of construction of the reconstruction, strengthening and overlay 2500m long runway including:

- Rearrangement and improvement of the existing drainage system to the airside pavements
- Refurbishment of existing AGL
- Extension of runway including AGL and related works

Investigations included Heavy Falling Weight Deflectometer and radar ground surveys to establish existing runway condition.

Male' International Airport Phase IV, Republic of Maldives for the Maldives Airports Company Ltd (part financed by Kuwait Fund). Expansion and upgrade of the existing Malé Airport which currently handles 2 million passengers per annum to cater for growth to 5 million passengers per annum. Project value \$30m.

A406 North Circular Road for the Department of Transport (now Transport for London). Improvement of 4km of major urban ring road to grade separated dual carriageway standards, involving two multi span flyovers and an underpass. In excess of 100 structures, including 310m dual 2-lane tunnel to carry trunk road beneath two highway junctions and rail embankment, 835m dual 2 lane steel/concrete composite viaduct to carry trunk road over major junction, a railway and new highway, 670m dual lane steel/concrete composite viaduct to carry traffic over new roundabout and three water courses. Production of feasibility studies for various options for improvements, traffic modelling and forecasting. Assessment of scheme economics and environmental effects. Liaising with all interested parties. Preparation for public exhibitions and inquiry. Detailed design and preparation of tender documents and construction supervision. Project value £120m.

Catering Ventilation for the Barbican Centre. Refurbishment of ventilation systems.

Regional Eye Centre for Sightsavers International, Banjul, Gambia Ministry of Health, Republic of the Gambia. Study, design and supervision of construction of 3500m² regional eye centre including both out and in patient wards and operating facilities. The centre includes: Laboratory with eye bank and production of eye medication; Hostel and apartments for staff; Training facilities including conference room, reading and electronic media room, lecture theatre and seminar rooms; Administrative offices and ancillary facilities. Consultancy services included for all disciplines of project management, architecture, engineering, quantity surveying and cost control. Project value US\$2m.

Ritchie Russell House, Churchill Hospital for Oxford Radcliffe Hospitals NHS Trust. Engineering design for enabling works and Contract administration and Planning Supervision for demolition of "Oxford Method" building on hospital site.

Four Sites for Westminster College. Condition survey and report on existing mechanical and electrical engineering, with assessment of heating system performance. Subsequent project management, design of mechanical and electrical installations to occupied grade II listed buildings at four site locations.

Consort Estate for the London Borough of Southwark. Replacement of primary heating mains on local authority housing estate in South London. Project value £2.6m.

Lettsom Estate for London Borough of Southwark. Replacement of hot water services throughout local authority housing estate in South London. Project value £2.2m.

Vale Royal Abbey for DHC (Bradford) Ltd. Project management, structural engineering, quantity surveying and cost estimation for the refurbishment and alteration to Vale Royal Abbey to provide private apartments, conference and banqueting and golf club facilities. Includes preparation of budgets and cash flows. Project value £4m.

Victoria Centre Law Courts, Seychelles for the Ministry of Administration and Manpower. Includes civil, structural and M&E design, quantity surveying for new court building and refurbishment of existing property also includes project management.

Hangar No 3, North Weald for Epping Forest District Council. Multi disciplinary design and quantity surveying for replacement of hangar and offices lost by fire.



Left: Thames Innovation Centre

Sir Frederick Snow & Partners Ltd

Selected Projects: Public Authority Buildings



Sycamore House for the London Borough of Waltham Forest. £3m extension and refurbishment of council offices.



Above Left and Right: Thames Innovation Centre

Thames Innovation Centre for Bexley Council. Client Agent services, including Architecture, civil, structural mechanical and electrical engineering, quantity surveying, Planning Supervision, procurement advice and contract administration, for design and build contract for new Innovation Centre to provide business premises and support for technology based businesses. Project value £7m

H.M. Prison Wakefield "A" Wing for H.M. Prison Service, Home Office. Refurbishment of "A" wing of Cat. A prison. All civil and structural works associated with the security upgrade of the entire wing, new centre roof and security upgrade to Centre Control Office. Includes all temporary fencing/security measures for the occupied prison during both construction and final situations. Project value £9m.

Palace of Westminster for the Parliamentary Works Services Directorate. M&E services for multiple projects under a term commission.

H.M. Prison Preston for H.M. Prison Service, Home Office. Refurbishment of "A" and "B" wings of Cat. B prison, including all services and security installations and replacement of roofs, doors and windows. Project value £4.4m.

Loughborough Hospital Phase II for Leicestershire and Rutland NHS Trust. Engineering design and construction monitoring of £6m A&E and outpatients two storey block including facilities for major surgery, day care and administration.

Four Sites for Westminster College. Condition survey and report on existing mechanical and electrical engineering, with assessment of heating system performance. Subsequent mechanical and electrical design for refurbishment of the two sites. £4m.

H.M. Prison Leeds for H.M. Prison Service, Home Office. Extensive refurbishment and extensions including new entry complex, educational and workshop facilities and upgrading of existing A, C and D wings. Complete building services including mechanical, electrical, public health, heating, ventilation and comfort cooling, fire alarm, fire fighting, power, lighting, telephone, security, CCTV, lifts, BMS etc. £50m.

Central Criminal Courts, Old Bailey, London for the Corporation of London. Surveys, architecture, mechanical, electrical and structural engineering design and supervision for repair, refurbishment and improvement of the Central Criminal Courts within the City of London. Phase I of ten year refurbishment of Grade II Listed Building including Law Courts, public areas and offices. Phase I. £4m.

Newington Causeway for the London Borough of Southwark. Mechanical and electrical condition surveys and subsequent refurbishment of Council office building. £4m.

RAF Stations in England & Scotland for Defence Works Services. Specialist five year term commission for professional structural appraisals of buildings and facilities at various RAF stations in England and Scotland.

Fire Research Facility, Garston for the Building Research Establishment. Structural, mechanical and electrical engineering, architecture and quantity surveying for new burns research facility. £4m.

New supreme Court, Judiciary and Legal Affairs Building for the Government of the Republic of Seychelles. Design of a new courts complex comprising a courts building of 3 supreme courts and all support functions, a judiciary and legal affairs building and an appeal court building. Structural, mechanical and electrical engineering, project co-ordination, quantity surveying and architecture. Design stage II.

H.M. Prison Manchester – New Gatehouse Complex for H.M. Prison Service, Home Office. Approximately 70,000ft² Entry/Administration building serving 960 in-mate prison. Mechanical and electrical engineering includes: heating, mechanical ventilation, together with comfort cooling, hot and cold water and fire fighting installation, smoke ventilation system, electrical services, BMS and lift services. Project value £36m.

Sir Frederick Snow & Partners Ltd

Selected Projects: Quantity Surveying and Contract Administration



RouPELL Park CHP for London Borough of Lambeth. Provision of costing and contractual advice for the supply and installation of a new combined heat and power system.

Relocation of Totem Pole, Maidstone for Maidstone Borough Council. Tender documents and contract administrator for relocation of Totem Pole.

Golden Pyramids Plaza (Citystars) Project, Cairo Egypt for Golden Pyramids Plaza. The project comprised three International Hotels, large Commercial/Retail Centre, nine Multi-storey Apartment/Office Buildings and associated Infrastructure Works. Individual tender packages comprise structural works, architectural works and finishes, MEP installations, elevators and escalators, kitchens, laundries, decorative light fittings, audio-visual equipment, multi-media installations necessary for the complete operation of the development. For each tender package specific duties included the preparation of tender documents, administration of the tendering process, tender analysis and reporting, award of contract and post contract administration including dealing with advance payment guarantees, performance bonds, letters of credit, payment recommendations, contract amendments, customs duties, change notices, contract variations, star rates, contractual issues and resolution of disputes. Project Value US\$ 700 million.

A406 North Circular Road – Highways Agency. Improvement of 4km of major urban ring road to grade separated dual carriageway standards, includes Angel Road North Bridge, Angel Road South Bridge Lea Valley Viaduct, Hall Lane Link Road Bridge Harbet Road River Lea Bridge Angel Road Viaduct and Fore Street Tunnel. Production of feasibility studies for various options, traffic modelling and forecasting. Assessment of scheme economics and environmental effects. Liaising with all interested parties. Preparation for public exhibitions and inquiry. Detailed design and preparation of tender documents and construction supervision. £120m.

Male' International Airport Phase IV, Republic of Maldives for Maldives Airports Company Ltd. Kuwait funded project to expand and upgrade the existing Malé Airport which currently handles 2 million passengers per annum to cater for growth to 5 million passengers per annum. Project value \$30m. Project has included the following:

- Expansion of international terminal and new domestic terminal
- 33m high air traffic control tower in a new complex including Air Traffic Services building
- 9mw Energy Centre to provide power to the airport and adjacent airport hotel
- Complete upgraded radar and VHF system
- Institutional strengthening and training.

Zanzibar Airport Rehabilitation and Expansion of Runway for the Ministry of Communications and Transport (World Bank Funded). Study, design and supervision of construction of the reconstruction, strengthening and overlay 2500m long runway. Investigations included Heavy Falling Weight Deflectometer and radar ground surveys to establish existing runway condition.

Southwark Street 'C' Contract for London Borough of Southwark
Environmental improvements to the length of Southwark Street including reconstruction of footway and carriageway, provision of new parking, bus and loading bays, and new drainage, signing and lighting system. Preparation of Bills of Quantities and Tender Documentation.

Kilimanjaro Airport Rehabilitation for Civil Aviation Authority, Tanzania.
Rehabilitation of Kilimanjaro Airport 2500m runway. This included: • Complete replacement and upgrade of AGL to Category 1 • Upgraded drainage system • Strengthening and overlay of existing runway. Consultancy services provided include the preparation of tender documentation, tender evaluation and appointment of contractor, estimating, quantity surveying and cost control. Project value \$8m.

Central Criminal Courts, Old Bailey, London for the Corporation of London. Refurbishment and improvement of the Central Criminal Courts within the City of London. Phase I of ten year refurbishment of Grade II Listed Building including Law Courts, public areas and offices. Multi-discipline appointment including planning supervisor, mechanical/electrical building services, civil, architecture, and structural engineering and quantity surveying. Project value £4.5m (Phase I).

Fiji Domestic Airports Development Project for the Government of Fiji.
European Union funded project for the construction of airside pavement works to airports on four islands in Fiji. Services included topographical and geotechnical survey, runway orientation, studies, design and preparation of Bills of Quantities and Tender Documentation. The project included 2000m long runway and apron in each location. Also in two locations a small terminal building was included.

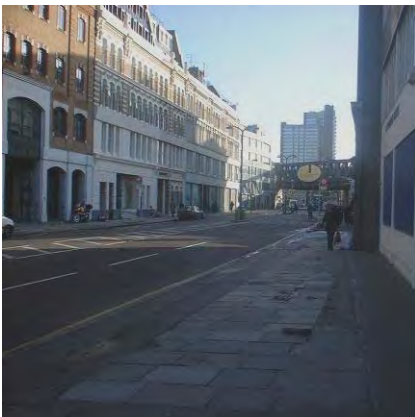
Marston Gate Development for Kingspark Developments. Junction improvements to Junction 13 M1 together with improvements at A421(T) and C76 junction and new access roundabout to industrial area including road widening, introduction of traffic signals, diversion of services and revised and new street lighting and traffic signage. Services provided include the preparation of Bills of Quantities and Tender Documentation. Project value £3m.

Statesman Business Park for Kennedy Developments. Quantity surveying services including contract documentation for construction of industrial and commercial business park. Project value £8m.

Regional Eye Centre for Sightsavers International, Banjul, for the Ministry of Health, Republic of the Gambia. Study, design and supervision of construction of 3500m² regional eye centre including both out and in patient wards and operating facilities. The centre includes: Laboratory with eye bank and production of eye medication; Hostel and apartments for staff; Training facilities including conference room, reading and electronic media room, lecture theatre and seminar rooms; Administrative offices and ancillary facilities. Consultancy services included for all disciplines of project management, architecture, engineering, quantity surveying and cost control. Project value US\$2m.

Lutterworth Bypass for Associated Asphalt. Highway improvement project involving the upgrading of single lane highway to dual carriageway. Civil and structural engineering design for approx 4km of highway, major bridge structure to carry dual carriageway over river, along with additional highway and drainage structures. To provide access to/from the M1 motorway bypassing the town of Lutterworth. Services provided include the preparation of Bills of Quantities and Tender Documentation. Project value £8m.

Below left and right: Southwark Street



Sir Frederick Snow & Partners Ltd

Selected Projects: Residential



Boroughwide Renewal of Distribution Boards for Wandsworth Council. Provision of new and upgrade of existing distribution boards and sub mains. Also for Wandsworth Council:

Winterfold Close, Ranelagh Estate and Southmead Estate. Provision of new and upgrade of existing distribution boards block and street lighting.

Entry Call Systems at Anderson Road and Gravenal Gardens for Wandsworth Council. Design, contract administration and CDM Co-ordinator services for new door entry system between all dwellings and main entrance.

CCTV at Keevil Drive, Nimrod Road and Allbrook House for Wandsworth Council. Design, contract administration and CDM Co-ordinator services for installation of 9 CCTV cameras and microwave link over 6 locations.

New CCTV Systems, Ryde Vale, Aldrington North and Streatham Park for Wandsworth Council. Design, contract administration and planning supervision for new CCTV systems for three estates in the borough.

Randall Close Day Centre, Battersea for Wandsworth Council. Provision of new electrical installation including fire alarms and emergency lighting throughout.

12-18 Athenlay Road for London Borough of Southwark. New build bungalows to lifetime home standards. Project value £850k. Other projects for London Borough of Southwark include:

Lordship Lane Estate - Survey of concrete elements and identification and costing of remedial measures.

7-10 Honiton Gardens – Investigation of cracking and development of remedial scheme.

3a and 3b Bellwood Road – Investigation of cracking and development of remedial scheme.

Consort Estate - Replacement of primary heating mains on local authority housing estate in South London. Project value £2.6m.

Lettsom Estate – Replacement of hot water services throughout local authority housing estate in South London. Project value C£2.2m.

346 Uplands Road and 41/42 Grove Park SE5 - Structural engineering advice regarding cracking and underpinning. Project value £150k.

Kingswood Estate – Refurbishment of large residential estate. Project value £24m.

Aylesbury Estate - Structural appraisal of 46 residential blocks including feasibility study for addition of extensions and penthouses. Project value C£30m.

75-81 Caroline Gardens - Advice regarding works already carried out to arrest cracking together with further advice regarding required future action - all for Grade II listed 1830's almshouses.

Havant Way, Peckham - Structural engineering design for 12 new houses. Project value £1m.

North Peckham Estate Phase III - Structural renovation of 10 existing 1960s multi-storey tower blocks. Approx 1100 dwellings. Demolition of pedways and design of security stairs and lift towers. Project value £20m.

Arca House for Southwark Technical Services, Housing Department Re-arrangement of existing heating configuration to incorporate a CHP plant.

The Sands, Durham for Charles Church Ltd. Design and supervision of a multi storey residential apartment block. £5.3m.

Term Commission for Maidstone Borough Council/Maidstone Housing Trust. Housing projects carried out under the term commission include:

- 84 Eythorne Street – Structural survey and report.
- Gate Lodge – Structural survey and report.
- 6 & 12 Wellington House – Structural survey and advice re subsidence.
- Churchill House, Eastfield House and Kensington House - Structural survey of cracking and advice re need for repair.
- 5 and 6 Fir Tree Close, Staplehurst – Works in connection with subsidence.
- 37 Captains Close, Sutton Valence – Structural survey.

39/41 South Bridge, Edinburgh for Link Housing Association. Refurbishment of city centre residential block including new roof structure and frontage to associated shops.

Main Street/Mungle Street, West Calder for Castle Rock Housing Association. Part new build with two blocks of flats part conversion/alteration of existing building into flatted accommodation. Project value £1.1m.

Fieldgate Mansions, Whitechapel for Faithorn Farrell Timms. Replacement of Central Heating in 101 Flats. Project value £40,000.

Chalfont House for Duke of Saxony Enterprises Ltd. Extensive refurbishment of areas of two floors of a high quality residential block. Refurbishment includes extensive demolition work and addition of new balconies. Service provided: Structural engineering. Project value £1.5m.

William Bonney Estate, Clapham for London Borough of Lambeth in conjunction with Currie & Brown Widnell. Boiler room upgrade. Design and contract supervision.

New Halls of Residence for Queen Mary & Westfield College, London. Mechanical & electrical engineering design for new 127 bed student halls of residence, split in to 2, 3 and 4 bedroom units. Project value £2m.

Nazareth House for Poor Sisters of Nazareth. New residential home for elderly persons, comprising special foundation works. Civil, structural, and mechanical/electrical building services engineering design and site supervision for new building and refurbishment of adjacent existing building. Project value £4m.

Trafalgar Lane for Port of Leith Housing Association. Planning supervisor services for demolition of garage/workshop and construction of 20 flats. Project value £1.1m.

Below: Southmead Estate



Sir Frederick Snow & Partners Ltd

Selected Projects: Retail



Budgens Stores Ltd – Structural and environmental works to numerous stores in the UK. Including: Birmingham, Bishops Waltham, Cambridge, Chessington, Devizes, Guildford, Harlesden, Hassocks, Hunstanton, Islington, Luton, Marlow, Newbury, Northampton, Rye, Sheringham, Shoreditch, Soham and Streatham.

The Observatory, Slough - GUD Pension Trustee Ltd/Savills Commercial Ltd. Structural engineering design and public health engineering services for alterations to existing complex to create new fitness club and additional large retail unit. £2m.

Octagon Centre, Burton on Trent - Scottish Amicable. Studies, cost estimation and mechanical and electrical engineering design for refurbishment of the shopping centre. £4m.

Strand Development - Heron International. Structural design for redevelopment of site in the strand to create new retail, restaurant and office facilities. £7m.

Ellesmere Centre & Walkden - Muir Associates Civil and structural engineering for design and build of new retail park. £4m.

Victoria House - Liverpool Victoria Friendly Society Refurbishment of listed building containing office and retail facilities, involving close liaison with English Heritage. Structural and M&E engineering. £7m.

Midland Bank New Concept Banking Scheme - Midland Bank Plc. Upgrading of services to over seventy branches within Greater London and North West England. M&E engineering including data, telecom systems and associated systems. £1.2m.

St Annes Shopping Centre Unit, Harrow - W H Smith. Technical advice and structural design of alterations to retail unit. £1m.

River Island & C&A, Harrow - P&O Shopping Centres. Structural checks on proposals for retail centre units.

Carlisle Portfolio Survey - Pepper Angliss and Yarwood Pre-purchase surveys for a group of sixteen industrial, retail and office properties.

The Galleria, A1, Hertfordshire - Carroll Group Mixed development of shopping and leisure. Design and provision of construction information for main structure, foundations, approach roundabout, estate roads and car parking. Monitoring of loads applied to existing tunnel. Advice regarding traffic flows and density, and expert witness at planning inquiry. Construction supervision. £90m.

Royal Victoria Place, Tunbridge Wells - MEPC Developments. Major town centre shopping development, leisure and social facilities, car parking. M&E services. Traffic engineering including the design of the service yards, adjacent highways, together with expert witness at the CPO inquiry. £100m.

The Observatory Retail Centre - Crownco Developments Large town centre development project including several large retail units plus 40 smaller ones. Car parking for 600 cars integrated with local bus service. Preparation of all tender and construction detail, drawings and site supervision. £26m.

Leisure and Shopping Development, Edinburgh - City of Edinburgh District Council. Structural and traffic engineering for leisure and shopping development. £7m.

High Street, Slough - Crown Gap Developments Ltd and Co-op Structural engineering for mixed development including superstore, offices and multi-storey car park. £7.3m.

Oldham Town Square, Oldham - Scottish Amicable. Structural refurbishment, new entrance and roof lights to mall. Project value £2.8m.



Top to Bottom:
Gallerias Retail Centre, Hertfordshire
Oldham Town Centre, Oldham
Royal Victoria Place, Tunbridge Wells

Sir Frederick Snow & Partners Ltd

Selected Projects: Sports & Leisure



Left: Barbican Centre Art Gallery
Below: HMS Cochrane Sports Pavilion

Barbican Centre Foyer, for the Barbican Centre. Building services engineering for major refurbishment of entrance foyer of arts centre, phased over several years and carried out while the centre remains open. Undertaken as the first main project as a prelude to a term commission. Project value £8m. Other projects include:

Art Gallery - Building services engineering for services upgrade to an art gallery, requiring close control of environmental conditions.

Catering Ventilation – Refurbishment of catering ventilation systems.

Balcony Bistro Refurbishment - Wiring to lighting and emergency lighting.

Barbican Centre AHU's - Replacement of 33 air handling units in a short timescale, and cleaning of all related ducts. This is an especially demanding task given that the units mainly serve public areas including the Cinema One, the Library, the Theatre and associated backstage and auditorium areas. Disruption must therefore be kept to an absolute minimum, a task demanding careful planning. Services provided include detail design, tender documents, construction, contract administration and planning supervision. Project value £1.8m.

Brunswick Park School Sports Hall for the London Borough of Southwark. Structural engineering for £850k new multi-use sports hall and associated WC's and changing rooms.

Score Board, Handrails and River End Walls for Norwich City Football Club. Investigations and advice on remedial action for various projects including provision of new electronic score board and handrail fixings at the football stadium. For the same client:

Training Ground - Advice on provision of foul and stormwater drainage, plus facility for stormwater collection and pitch irrigation.

River End Grandstand, Norwich - A major scheme included grandstand to accommodate 8,000 spectators, restaurant and club facilities.

The Galleria, A1, Hertfordshire - Carroll Group Mixed development of shopping and leisure. Design and provision of construction information for main structure, foundations, approach roundabout, estate roads and car parking. Monitoring of loads applied to existing tunnel. Advice regarding traffic flows and density, and expert witness at planning inquiry. Construction supervision. £90m.

Royal Victoria Place, Tunbridge Wells - MEPC Developments. Major town centre shopping development, leisure and social facilities, car parking. M& E services. Traffic engineering including the design of the service yards, adjacent highways, together with expert witness at the CPO inquiry. £100m.

UCI Multiplex Cinema, Sutton for UCI (UK) Ltd. A new six-screen high-tech cinema with associated facilities and extensive car parking. Mechanical & electrical engineering. Project value £5m. For the same client:

UCI Multiplex Cinema, Port Solent - A new nine-screen high-tech cinema with associated facilities and underground car parking. Mechanical & electrical engineering. Project value £3m.

UCI Multiplex Cinema, Hatfield - A new nine-screen high-tech cinema auditoria with associated facilities, for 3,000 people. Mechanical and electrical engineering.

UCI Multiplex Cinema, Hull - A new eight-screen high-tech cinema auditoria with associated facilities, for 2,000 people. Mechanical and electrical engineering.

HMS Cochrane Sports Pavilion for Property Services Agency. Civil and structural engineering design for sports pavilion and associated facilities. Project value £0.4m.

Wisley Golf Course for Marlin Estates Ltd. A new championship-standard golf course conceived by one of the world's leading golf course specialists. Services included advice, assistance with securing planning permission, design of access from major trunk road, drainage, pumping and irrigation systems and associated works.

The Purley Centre, Purley for J Sainsbury Limited. Major supermarket complex incorporating two swimming pool facilities. The pools were among the first in the country to use filtration and sterilisation by ozone rather than chlorine.

Surrey Docks Sport Facilities for London Borough of Southwark. Sports pavilion and grandstand complex. For the same client:

Rotherhithe Baths, London - Baths including a main swimming pool, a pool for paraplegics, laundry and slipper bath facilities and assembly hall for dances and social activities.

Lewisham Sports and Social Complex for the London Borough of Lewisham. A major complex incorporating facilities for badminton, judo, weight lifting, rifle range, bowls, gymnastics and other indoor and outdoor sports.



Sir Frederick Snow & Partners Ltd

Selected Projects: Stormwater Drainage



Left: Southwark Street, London

Below: Lutterworth Southern Bypass, Leicestershire

Stormwater drainage design at Male International Airport, Republic of the Maldives for Maldives Airports Company Ltd. Part of \$30m expansion and upgrading of the existing airport.

Refurbishment of drainage systems at Dar es Salaam International Airport, Tanzania, for the Tanzania Airports Authority.

Stormwater drainage design at Songwe Airport, Tanzania for the Tanzania Airports Authority.

Re-arrangement and improvement of the existing drainage system to the airside pavements at Zanzibar Airport for the Ministry of Communications and Transport

Budgens Soham for Budgens Stores Ltd. Design of drainage collection and soakaway system for surface water runoff for retail store and associated car parking areas.

Crane Fruehauf. Design of sewerage and stormwater drainage systems including pumping stations for 10,000 sq m trailer parking area in Norfolk.

Southwark Street 'C' Contract for the London Borough of Southwark. Environmental improvements to the length of Southwark Street including reconstruction of footway and carriageway, provision of new parking, bus and loading bays, and new drainage, signing and lighting system. In association with Muf Architects.

Club Carrefour, Longwater, Norwich for Carter Design Group. Professional services for provision of design and details of Surface Water and Foul Water drainage systems.

Lutterworth Southern Bypass for Associated Holdings for Leicestershire County Council. Stormwater drainage design for new, 4km dual carriageway highway project at Lutterworth, Leicestershire. Project included design of balancing ponds and outfalls for 6 separate catchment areas.

Marston Gate for Birse Construction Ltd. For Kingspark Developments. Stormwater and foulwater drainage design for a new industrial park alongside the M1 in Bedfordshire. Project included the design of two balancing ponds and discharge controls for the a total area of 34.5ha.

A406 North Circular Road for the Highways Agency. Stormwater drainage design for highway improvement works to 4km of trunk road in North London. Project included the design of pumping stations for a road tunnel and two pedestrian subways, together with the diversion of a main river through the works. For the same client:

A66 Bowes to County Boundary. Stormwater drainage design for highway improvement works to 9km of trunk road across the Pennines in Co Durham.

Longwater Employment Park for RG Carter Ltd. Stormwater and foulwater drainage design for an industrial park of 39ha at Costessey, near Norwich, Norfolk.

Shrewsbury Retail Park for Arlington Property Services Ltd. Design of stormwater and foulwater drainage systems for new retail park in Shrewsbury, Shropshire. For the same client:

Frimley Business Park. Design of stormwater and foulwater drainage system to serve new high-tech business park constructed upon re-claimed land. Total project value £17m.

Birmingham Business Park. Modern business park in landscaped surroundings. Design of stormwater and foulwater drainage systems and extensive system of ornamental ponds and lakes for the 62ha development. Total project value £100m.

Theale Business Park. Design of stormwater and foulwater drainage systems for new, high-tech business park near Reading, Berkshire.

Pymmes Brook Study for Thames Water. Investigation and study, incorporating computer analysis, of storm flows in Pymmes Brook, resulting from the number of highway improvement projects along the North Circular Road in north London. For the same client:

London Outfall Sewers. Investigation and study, incorporating computer analysis, of storm flows in the major outfall sewers of north London.

Old Moselle Southern. Investigation and recommendations for improvements to the Old Moselle in north London to overcome flooding.

River Nene Flood Alleviation Study for Anglian Water. Investigation and recommendations for improvements to the River Nene to overcome flooding.

Victoria Road, Hackney, London for Guinness Trust. Design of stormwater and foulwater drainage systems for 200 residential units in east London.

Petersham Road, Richmond for London Borough of Richmond-upon-Thames. Reconstruction of stormwater and foulwater drainage following failure of existing sewers due to collapse, together with additional remedial works incorporating lining of existing sewers.

Surrey Docks for the London Borough of Southwark. Design of stormwater and foulwater drainage systems for redevelopment of 144 hectares in Surrey Docks for residential and industrial development. Project Value £1.5m.

University of Warwick. Design of stormwater and foulwater drainage systems for entire university campus, including pumping station.



Sir Frederick Snow & Partners Ltd

Selected Projects: Term Commissions, Framework Agreements and Long Term Partnering Relationships



University College London Hospitals NHS Foundation Trust
Framework agreement for the provision of structural and civil engineering services.

Kent County Council

Property Services Consultancy Framework for the provision of civil, structural, mechanical and electrical engineering, quantity surveying and CDM Co-ordinator services.

Care Quality Commission (formerly the Healthcare Commission)

Provision of specialist estates advisor services under a framework agreement. Includes advice regarding legislative changes, assessment of commissioning documents, site visits and telephone advice.

Southend University Hospital NHS Foundation Trust

Framework agreement for the provision of structural and civil engineering services.

Frimley Park Hospital NHS Foundation Trust

Framework Agreement for the provision of structural engineering services.

University Hospitals Coventry and Warwickshire NHS Trust and 6 other NHS Trusts

Framework Agreement for provision of structural engineering services

Department of Health

Framework Agreement for the provision of Independent Tester services for new health facilities.

London Borough of Southwark

Framework agreement for the provision of structural engineering services

London Borough of Lambeth

Framework agreement for the provision of structural engineering services

Eastern Shires Purchasing Authority

Framework Agreement for construction, design and engineering consultancy

Maidstone Borough Council

Term commission for the provision of multi-disciplinary engineering services in connection with buildings.



London Borough of Lewisham

Framework agreement for the provision of civil and structural engineering services.

London Borough of Southwark

CDM Co-ordinator/Planning Supervisor services for Highways Term Contract 2005 – 2010.

City of Edinburgh Council

Advice on structural matters.

Falkirk Council

4 year term commission providing advice on SUDS and flooding related matters.

Corporation of London – Barbican Centre

Term Commission for the provision of mechanical and electrical engineering services at the Barbican Centre.

Parliamentary Works

3 year term commission for mechanical and electrical engineering at the Palace of Westminster.

Home Office – Prison Works

5 year term commission for civil and structural engineering (extended twice).

Kirkcaldy Acute Hospital NHS Trust. Term commission for structural inspection and preparation of details for structural surveys, alterations and extensions at Victoria Hospital. Recent works include refurbishment of laboratories, Ward 9/ITU, catering unit and X-ray department.

Home Office – Prison Works

3 year term commission for mechanical and electrical engineering.

Defence Works Services

5 year term commission for structural engineering surveys and advice at six RAF stations.

Budgens Stores Ltd

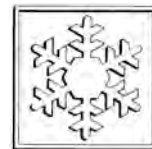
Long term partnering arrangement for provision of structural engineering for a roll out programme of new and refurbished stores.

Citibank NA, Lewisham

Long term partnering type arrangement to provide structural

Sir Frederick Snow & Partners Ltd

Selected Projects: Waste Water Treatment & Disposal



Design of sewage treatment works and disposal at Male' International Airport, Republic of the Maldives. Part of \$30m expansion and upgrading of the airport.

Designs for waste water treatment and disposal at Dar es Salaam International Airport, Tanzania.

Design of sewage treatment works and disposal at the New National Hospital, St Lucia.

Public Conveniences, Maidstone, UK. Advice on location of conveniences.

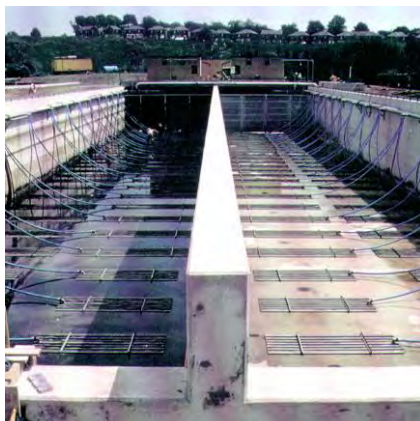


Preliminary design and environmental assessment for water and wastewater facilities serving four towns in southern Jordan near Petra - Water Authority of Jordan.

U.S. Agency for International Development, Secondary Cities Project, Egypt* Full design and construction management for provision of water and wastewater facilities in seven secondary cities in Egypt. \$215m.

Taipei, Taiwan * - Process design for 86,400m³/day sewage treatment works serving the 500,000-population Taoyuan area of Taipei.

Technical advice and design for new sewage treatments works at King's Lynn, UK - Anglian Water Ltd, UK. £5m.



Strategic Sewage Disposal Scheme, Hong Kong * - Specialist program management and process subconsultant for detailed design of a 1,550,000m³/day chemically-enhanced primary wastewater treatment plant and conveyance system. \$64m.

Master plan, preliminary and detailed design, and services during construction of 20,000m³/day (ultimately 40,000m³/day) three-stage water reclamation plant - Salalah, Oman.

Detailed design engineer for turnkey implementation of 90,000m³/day wastewater treatment plant including modifications to an existing pumping station - Morrison Knudsen, Ismailia, Egypt. * \$60m.

Design and construction services for fast-track design/building implementation of 180,000m³/day aerated lagoon wastewater treatment facilities and sludge drying lagoons, solid waste/ composting, associated pumping stations, force mains and outfall - Morrison Knudsen, Ismailia, Egypt.* \$116m.

Organisation for the Execution of the Greater Cairo Wastewater Project, Cairo, Egypt* Engineering studies and process design including full secondary treatment for new 400,000m³/day coupled process (biofilters/activated-sludge) wastewater treatment plant, lagoon digestion and drying of sludge for agricultural use. \$140m.

Designs, tender documents, construction supervision and contract management for the upgrading of Beirut Northern Suburb Infrastructure - Beirut Northern Suburb Infrastructure - Conseil for Development and Reconstruction, Lebanon. \$100m.

Improvements to Waste Water Schemes in Lebanon - Conseil for Development and Reconstruction, Lebanon. \$25m.

South Beirut Sea Outfall Rehabilitation - Conseil for Development and Reconstruction, Lebanon. \$10m.

North Beirut Sea Outfall Rehabilitation - Ministry of Environment, Lebanon. \$60m.

Main Coastal Collectors - Ministry of Environment West Beirut. Masterplan, detailed designs and tender documentation for main coastal collectors including lift and pumping stations. \$20m.

Kuwait sewerage cleaning and CCTV survey, renovation works for Phase IV - Ministry of Public Works. \$55m.

Emergency evaluation of facility designed for 68,000m³/day flow with current average daily capacity of 100,000m³/day including preliminary design, environmental assessment and detailed design services to existing preliminary treatment facilities - Water Authority, Amman, Jordan. \$10.6m.

Rochdale Waste Water Treatment Works - North West Water Ltd, UK. Planning, design and management of upgrade and re-development of waste water treatment works to European Community Directives. £5m.

Tubli Water Control Centre Expansion - Ministry of Power and Water, Bahrain. Master plan and design for the expansion of Tubli Water Control Centre. \$30m

Tubli Water Pollution Control Centre, supervision of operation and maintenance of the whole sewage treatment facilities. \$25m.

Rosedale Wastewater Treatment Works -North West Water Ltd, UK. Investigations of drainage system with respect to potential river pollution with proposals for alterations.

Ministry of Interior, Algeria* - Local Government Environmental Development Project for Wilayas of Blida and Tiemcen. \$250m.

Development of sludge handling strategy for North West Water, UK and production of preliminary designs and costs.

Mildenhall Sewage Treatment Works, UK - Anglian Water Ltd. Upgrading of an existing sewage treatment works to replace surface aeration and oxygen dosing with fine bubble aeration. 2.3m.

Water and Sewage Authority, Amman, Jordan - Zarqa and Rusiefa Sewerage Networks. \$15m.

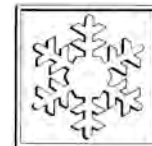


Top: Rochdale Waste Water Treatment Works
Above Left: Malé International Airport, Maldives
Left: Tubli Water Pollution Control Centre

* Undertaken in conjunction with US associates Camp Dresser McKee International.

Sir Frederick Snow & Partners Ltd

Selected Projects: Water Treatment and Supply



New Supply Main within Male' International Airport, Republic of the Maldives. Part of \$30m expansion and upgrading of the existing airport.

Hail Water Treatment Project Stage III - Arabian Group for Engineering Consultancy, Saudi Arabia. Drilling of 15 wells, civil work for the treatment plant consisting of raw water tank, 16 rapid gravity filters, reverse osmosis building, chemical storage and 50,000m³ reservoir. Design and construction supervision in association with AGECE. \$120m.

Regional Secondary Disinfection Scheme Phase I & II for North West Water Ltd, UK. Design and project management for disinfection of drinking water. Includes chemical disinfection and sampling of 100 reservoirs, aqueducts and boreholes, automatic control systems, telemetry, distribution mains pipework, provision of flowmeters and measurement instruments, building and chambers. Liaison with engineers, planners, operators and maintenance. Services include system development, engineering design, site surveys, planning applications, preparation of contract documents, supervision of construction, management of total project, commissioning of systems and provision of controls software. Project value £10m.

Sheringham Water Treatment Works for Anglian Water Ltd. The replacement of existing water treatment facilities at existing borehole extraction works with spray aeration, sand filtration and new chemical dosing facilities. Structures included aeration tower and contact tank, filter house and pumping chamber, washwater tanks and control and chemical buildings. Throughflow 721/s maximum. Project value £2m. For the same client:

Barton Reservoir - Deepdale Water Main To strengthen the water distribution network in Lincolnshire inter modal connections were required. This pipe catered for entire flows to back of the reticulation system and utilized the volumes in two reservoirs to balance the flows. Feasibility study, topographic survey, analysis of existing system, design of new works, drawing specifications, tender adjudication and supervision of construction. Prolonged construction period due to client's operational requirements.

Wing Water Treatment Works, Micro-strainer Plant. Design of large bore pipework and a structure to house six 3.3 diameter variable speed primary micro-strainers and two 1.8 diameter wash water micro-strainers and their associated pumps, pipework, valves and control equipment. The plant is designed for a pump inlet and gravity outlet flow of 275 Ml/d and the measured plankton removal rate is better than 97%. Project value £2m.

Lockwood and Scaling Water Supply for Northumbrian Water Ltd, UK. The works include two major potable storage reservoirs, three pumping stations, upgrading three existing pumping stations, 11 km of pumping main and the decommissioning and abandonment of two water treatment works. £5.1m.

Sydney, Australia * - 3,180,000m³/day (4,770,000m³/day ultimate capacity) water treatment plant.

Irrigation scheme for Bahrain Metropolitan Area - Central Municipal Council. Utilising treated sewage effluent. \$30m.

Planning and fast-track design/ build implementation of deep water wells and conveyance systems serving Palestinian cities and towns including Hebron-Bethlehem - U.S. Agency for International Development Water Resources Project, West Bank. * \$45m.

Process consultant for 150,000-m³/day (ultimately 300,000-m³/day) Siu Ho Wan water treatment works treating water supply for the international airport and new town at North Lantau - Water Supplies Department, Hong Kong*. \$91m.

Design and technical support during construction for Al-Fiedan Dam and irrigation canals - Jordan Valley Authority. \$15m.

Tamilnadu Water Supply and Drainage Board, India* - Engineering review to accelerate commissioning of 35 of 91 urban service reservoirs, 365 of 523 rural service reservoirs, and associated transmission mains.

Design and project management for disinfection of drinking water. Includes chemical disinfection and sampling of 100 reservoirs, aqueducts and boreholes, automatic control systems, telemetry and distribution mains pipework. £10m.

Gt Yarmouth Pumping Station - Anglian Water Ltd, UK. Design and detailing of pumping station and load specification for pump shaft.

Rehabilitation and extension of several water supply and irrigation schemes, part of the Reconstruction Projects for Conseil for Development and Reconstruction, Lebanon including:

Rehabilitation of existing water treatment plant in Dbayeh, capacity 230,000m³/day; extension of existing water treatment plant in Dbayeh from 230,000m³/day to 500,000m³/day; Chouf water supply; Ehdn potable water supply and distribution; the water supply of Greater Beirut, Upstream from Jeita to Dbayeh Water Treatment Plant. Downstream from Dbayeh Water Treatment Plant to Beirut City; Qasmieh Irrigation Project; Irrigation project in Barouk, Akkar, Adonis and Yammouneh. \$30m.

* Undertaken in conjunction with US associates Camp Dresser McKee International.



Above: Malé International Airport, Maldives

New 227,000-m³/day water treatment plant designed for very tight site at Ma On Shan - Water Supplies department, Hong Kong*. \$110m.

Rehabilitation and extension of greater Ankara Water Distribution Network - Greater Ankara Municipality, Turkey. Renovation and expansion of the primary and secondary water distribution network including pumping and storage facilities, flow and pressure metering and telemetry installations, leakage detection and unaccounted-for-water studies. \$52m.

Design and construction supervision of Zarqa Water & Rusiefa Networks including all secondary lines with provisions for house connections - Water & Sewerage Authority, Jordan. \$8m.

Broken Scar Water Treatment Works for Northumbrian Water Ltd, UK. £5m.

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