

# Colin A Marshall BSc(Hons) DipArb CEng FICE FIHT FCI Arb

Arbitrator, Adjudicator and Chartered Civil Engineer

[www.marshallarbitrationservices.com](http://www.marshallarbitrationservices.com)

---



## CURRICULUM VITAE

### Personal Details:

<b>Name</b>	Colin Arthur Marshall
<b>Date of Birth</b>	26 August 1947
<b>Nationality</b>	British

### Qualifications

- BSc Honours Degree in Civil Engineering, University of Southampton, UK (1968)
- Postgraduate Diploma in Arbitration, College of Estate Management (2000)
- Fellow of UK Chartered Institution of Highways & Transportation (1990-2021)
- Fellow of UK Chartered Institution of Civil Engineers (1992-2021)
- Fellow of UK Chartered Institute of Arbitrators (2000 to date)

### Post-Graduation Courses

- Structural Analysis (Portsmouth Polytechnic)
- Foundation Engineering (Twickenham College of Technology)
- Finite Element Design (London Computer Bureau)
- Advanced Structural Design in Steel (London Polytechnic)
- Buildings Subsidence (BRE)
- Roads in Tropical Countries (TRL)
- Highways Design/ Project Management (University of New South Wales)
- Diploma in Arbitration: Law of Contract, Tort and Evidence; Law and Practice of Arbitration (1 Year Course, College of Estate Management)
- Alternative Dispute Resolution (Chartered Institute of Arbitrators)
- Advanced Arbitration Practice (Chartered Institute of Arbitrators)
- FIDIC Assessment Workshop for Adjudicators (2003)

### Synopsis

British Chartered Civil Engineer, Arbitrator and Adjudicator.

Past Member of FIDIC President's List of Adjudicators (2004-2021)

Over 50 years of professional experience in the public and private sectors, having specialised in the procurement, administration and supervision of construction projects around the world. Based overseas for over 30 years on a variety of major infrastructure works (particularly IFI-supported projects) in developing countries in Africa, the Middle and Far East, the Caribbean, South America, Central Asia, South and South-East Asia, and Eastern Europe. Substantial experience and skills in dispute resolution, institutional training and development, project management and contract procurement/administration - particularly the preparation, use and interpretation of contract documentation for consultancy services and construction works. In-depth knowledge of FIDIC and other international and domestic forms of contract, working variously as the Employer, the Engineer, and as Advisor to governments, contractors, consultants, legal representatives and international funding agencies on contract administration, claims and dispute resolution.

Served as Arbitrator, Dispute Board Chairman, DB Member, sole Dispute Review Expert/ Adjudicator and Mediator on 40+ international construction and consultancy contracts.

Lay Preacher, Seventh-day Adventist Church.

## Contacts -

159 The Close  
Salisbury SP1 2EY  
United Kingdom

Tel: +44 (0)7868 574416  
colinamarshall@btinternet.com

## Experience:

### 2005 to date

#### **Marshall Arbitration Services Ltd (formerly Caribbean Arbitration Services)**

Engaged in international construction Arbitrations, Adjudication/Dispute Boards and Contracts Training/Administration/Claims Advice, including:

- Major Projects Consultant, MOWU, Bahamas (2005). Draft defence for Attorney General to \$4 million court action on international Design/Build dock/roads contract (FIDIC Design/Build 1995).
- Mediation, Bahamas (2005). Settlement of \$20M dispute, Nassau International Airport Runway contract (\$60M, FIDIC 1999).
- Dispute Adjudication Board, Dominican Republic (2005). FIDIC-appointed board member for Adjudication of \$10 million dispute on FIDIC 1995 Design/Build contract for \$35M suspension bridge.
- Contracts and Claims Specialist, ADB TA, Sri Lanka Road Development Authority, 2005 to 2008:
  - ❖ 5 months training of RDA HQ and Provincial Personnel in Contract Management, Claims and Dispute Resolution (Adjudication Boards and Arbitration) for road projects constructed under FIDIC 1999 and MDB Harmonised Conditions of Contract 2005/6.
  - ❖ Disputes Advisor to Employer and the Engineer 2006-2008 for major claims and DAB referrals totalling over \$160M on three Southern Highway Project contracts (330km, \$500M, FIDIC 4, ADB/JBIC funded). Determined over 600 claims on one contract and took over as The Engineer for that contract for 5 months at Employer's request.
- Contract Management Training, WB TA, Mongolia (2006). Two weeks FIDIC-based course for consultants, contractors and Government engineers. Published 175pp 2-Volume Manual on Contract Administration and Claims/Dispute Resolution.
- Seminar, Construction Training Institute, Sri Lanka – Adjudication of Construction Disputes (2007).
- Chairman, Dispute Review Board, Sondu/Miriu Hydropower Project, Kenya 2007 (2x30 MW, \$33M, FIDIC).
- Dispute Review Expert/ Sole Dispute Board Member, Ethiopia, 2007 to date for 18 FIDIC highway projects: Azezo-Metema Contracts 1 & 2 (185km, \$60M); Ambo-Gedo (57km, \$20M); Gob Gob-Gashena (86km, \$24M), Harar-Jijiga (106km, \$28), Dodola-Goba (133km, \$30M), Blue Nile-Guba (66km, \$25M), Sherkole-Blue Nile (70km, \$23M), Mekane Selam-Gundewein (139km, \$95M), Irebti-Afdera (118km, \$75M), Mekenajo-Ayra (60km, \$32M), Chanka-Dembidolo (65km, \$32M), Arekit-Hosaina (65km, \$36M), Addis Ababa-Adama Toll Motorway (FIDIC Design/Build, 90km, \$725M) and the Motorway Phase II (Addis Outer Ring Road, \$220 M), Werei Ridge-Adwa (62 km, \$20M), Arebeketi-Gelemso (FIDIC4, 57 km, \$28M, ongoing), Modjo-Meki (FIDIC Design/Build, 56 km, \$112 M, ongoing).
- Sole Adjudicator, Georgia, 2008-2012 on eight Millennium Challenge Corporation funded FIDIC road projects: Partskhisi-Satkhe (120km, \$63M), Sartke-Ninotsmina/ Akhalkalaki-Soulda (36km, \$33M), Khertvisi-Vardzia (11km, \$13M), Sulda-Turkish Border (16km, \$8M), Teleti-Asureti (18km, \$15M), Nardevani-Satkhe (48km, \$35M), Tsalka –Nardevani (15km, \$7M) and Partskhisi-Tsalka Road (53km, \$31M).

- Arbitrator, Barbados (2008). Appointed by President of UK Institute of Arbitrators as sole arbitrator for building / development dispute.
- Technical Auditor, Millennium Challenge Corporation, Armenia, for 30 No. Roadworks Contracts 2008-2009.
- Contracts Specialist, Medias Bypass, Romania, 2008-2009 (FIDIC Design/Build 1999, 8km, \$35M, WB).
- Advice on termination and retendering of ICB road contract in Sri Lanka, 2009 (MDB).
- Sole Adjudicator, Mali, 2009-2012 for Millennium Challenge Corporation funded Niono-Goma Coura Road (FIDIC 1999, 81km, \$35M).
- DAB Member 2009-2010, Marmaray Project, Istanbul, Turkey. Commuter Rail Upgrading: Civil, Electrical & Mechanical Systems Contract CR1 (FIDIC EPC 1999, \$1.0 Billion).
- Sole Adjudicator, Romania, 2011-2012 for Alba-Mures Roads Contract (FIDIC 1999, Euro 9.6 M).
- Sole Adjudicator, Armenia, 2012, for Millennium Challenge Corporation funded Pumping Stations Project (FIDIC Design-Build Yellow Book).
- Claims Expert, Arad-Oradea Road, Romania, 2012-2014 (3 No. FIDIC Design/Build 1999 contracts, 103km, \$100M, EIB).
- Contract Management and Claims Expert, Armenia, 2014 for M1/M2 N-S Road Contract (MDB 2010, 91 km, \$250M, ADB).
- Sole Dispute Board Member, 2015-2017 for E-60 Highway Section II: Agara-Zemo Osiauri, Georgia (MDB 2010, \$105M, WB).
- FIDIC Contract Management Workshops, ADB TA, Pakistan 2015. Presented two 3-day training workshops for Executing Agencies (Roads, Water and Power) covering procurement, supervision, claims and dispute resolution.
- Sole Dispute Board Member, 2015-2019 for Kanoni-Ssembabule-Villa Maria Road, Uganda (MDB 2010, 110 km, \$80M)
- Co-Arbitrator, ICC Arbitration, 2015-2018, \$1.8 billion project, Oman.
- ADB-appointed Mediator, Beijing 2016, for settlement of multi-national Government/Consultant dispute (\$2.6 M) on multi-modal transit facility on Mongolia/China border.
- Disputes Advisor, Mauritius 2016-2019 on Landfill Project (\$38 M, FIDIC Design/Build), International Airport Access Road (\$17 M, FIDIC 1999), Highlands Infrastructure Project (FIDIC 1999), National Housing Development Project (FIDIC 1999), and Grade Separated Junctions/A1-M1 Link Road Extra-Dosed Bridge (\$110 M, FIDIC 1999).
- ADB-appointed FIDIC Contract Administration Specialist, Manila 2017, to prepare non-binding recommendations to resolve issues on Angat Water Transmission Improvement Project (8 km tunnel, \$60 M, FIDIC 1999 Design-Build).
- Sole Dispute Board Member, 2017-2018 for MCA-funded Power Distribution Project, Package 3 – Lot 2, Malawi (\$10 M, FIDIC 1999 D&B).
- ADB-appointed FIDIC Design-Build Contract Specialist, 2018, for review and drafting of Colombo Port Access Elevated Highway tender documents (Southern Highways Investment Programme) for Road Development Authority, Sri Lanka.

- ADB-appointed FIDIC-based Contracts/Transport Model Development Expert, 2018, for Southern Highways Investment Programme, to assess issues affecting Sri Lankan construction industry and propose remedial measures.
- Appointed by FIDIC President as Sole DAB member 2018-2021 for 18 km section of Brasov–Targu Mures–Cluj–Oradea Highway, Romania (\$100 M FIDIC 1999 Design-Build).
- Appointed 2019 by ICC as Dispute Review Expert for 4 Output and Performance-based Road Contracts, financed by Government of Albania and WB (1,350 km, \$95 M). Concluded October 2022.
- Sole Dispute Board Member, 2019 to date, for ADB-funded E-60 Highway Khevi-Ubisa (F2) Section, Georgia (FIDIC MDB 2010, \$250M, 12km with 11 No. tunnels). Ongoing.
- ADB-appointed FIDIC Contract Management Specialist, 2020, to advise Sri Lanka Road Development Authority on various contractual matters and minimizing disputes arising out of COVID-19, particularly on Colombo Port Access Elevated Highway (\$150 M, FIDIC 1999 Design-Build).
- Member of 3-person Dispute Board, 2020-2021, for Construction of Sewerage Systems in Poti, Georgia (\$35 M, FIDIC MDB 2010).
- Member of 3-person Dispute Board, 2020-2021, for Construction of Water Supply Infrastructure in Anaklia, Kutaisi and Poti, Georgia (\$16 M, FIDIC MDB 2010).
- Sole Dispute Board Member, 2021 to date, for WB/EIB-funded E-60 Highway, Chumateleti-Khevi Section, Georgia (FIDIC MDB 2010, \$100M, 11km with 3 tunnels). Ongoing.
- ADB-appointed International FIDIC Contract Expert, 2021, to advise Sri Lanka Road Development Authority and ADB on various contractual matters arising under construction and consultancy contracts, particularly on Colombo Port Access Elevated Highway (\$150 M, FIDIC 1999 Design-Build), the iRoad Programme, and Moragolla Hydropower Project (\$81 M, FIDIC MDB 2010), and provide general assistance in the contract management process, including on-the-job training.
- Member of 3-person Dispute Board, 2021, for Construction of Water Supply System in Kutaisi (Phase 2), Georgia (\$25 M, FIDIC MDB 2010).
- Sole Dispute Board Member, 2021 to date, for ADB-funded Kvesheti-Kobi Road (Road Section), Georgia (FIDIC MDB 2010, \$113M, 12.7km with 4 tunnels). Ongoing.
- ADB-appointed International FIDIC Contract Expert, 2022, to advise Sri Lanka Road Development Authority, the Ceylon Electricity Board, and the ADB on various contractual matters arising under construction and consultancy contracts, and provide general assistance in the contract management process, including on-the-job training.

## 2003 – 2005

### **Ministry of Works and Utilities, Bahamas Director of Public Works**

Management of the capital and maintenance programmes for Government buildings, airports, roads and docks throughout The Bahamas. Resolved disputes/ issued The Engineer's Decision on all contracts. Major projects included Nassau International Airport Runway (FIDIC 1999, \$60M), IDB-funded hurricane restoration programmes (\$42M, \$22M, \$20M), and EU-funded Family Islands Infrastructure Improvements (\$12M).

Advisor to Government/Private Forum on establishment of International Dispute Resolution Centre in the Bahamas and prepared first draft of new Arbitration Act.

**2002**

**Ministry of Works and Utilities, Bahamas  
Deputy Director of Public Works**

Project management of two international Design/Build contracts (FIDIC Design/Build Orange Book, 1995):

- New Providence Road Improvement Project (40km of new roads and rehabilitation of existing; IDB-funded; \$52M).
- Marsh Harbour Dock Extension (dredging, reclamation, new administration and customs buildings, with new By-Pass road; \$11M).

**2002**

**Kampsax International, Suriname  
Road Design and Construction Expert, EC Mission**

Member of two-man team on six weeks mission for Environmental Impact Assessment of the Reconstruction of the Road to the Suriname-Guyana Ferry project (30km, \$10M). Funded by EU.

**2000 – 2001**

**Lea International, India  
Team Leader**

Project Coordinating Consultancy on World Bank funded State Highway Project (1700km, \$533M, FIDIC4) for Government of Gujarat, giving overall guidance to the PCC team and providing coordination between client, WB, contractors and international supervision consultants. Services included:

- Institutional development of Roads and Buildings Department (1300 technical staff). This included preparation of Terms of Reference for the umbrella institutional consultancy contract and sub-consultancies for the establishment of a Road Management System, computerisation, and accident data collection/analysis, followed by evaluation of proposals.
- Planning and implementing the training of some 500 selected R&BD personnel, including the newly-formed Environmental Unit charged with monitoring, to World Bank guidelines, the implementation of the detailed Environmental Management Plan for the project.
- Completion of detailed design, contractor prequalification and tender documentation/evaluation for 14 No. roadworks contract packages (implemented in three phases).
- Preparation of Requests for Proposals for the works supervision consultancies, and subsequent evaluation/recommendations (Phase IIA).
- Monitoring and advising the Employer on the performance and practices of the works contractors and supervision consultants (5 No. 1<sup>st</sup> phase ICB contracts in progress under administration of M/s Louis Berger, the first of 3 No. international consultants). This was coupled with the development of standard manuals and procedures for contract administration and construction supervision, including a computerised Project Financial Management System for administering and monitoring the budgeting, expenditure and physical progress of this and future GoG projects.
- Advice on claims and the settlement of contractual disputes (including vetting and approval of parties' nominees for Dispute Review Boards).

Brief subsequently expanded to encompass the emergency assessment, design and supervision of state roads and bridges damaged or destroyed in the catastrophic Gujarat Earthquake of January 2001.

**2000**

**Expert Witness**

ICC arbitration re international dispute on Mille – Assab Road contract, Ethiopia. Assistance with preparation of defence for Ethiopian Government in arbitration with French claimant and giving of evidence at hearing in Tunisia.

1999 – 2000

**Gauff Ingenieure**  
**Head of Transportation, East Africa**

Based in Nairobi regional office, overseeing branch offices in Ethiopia, Tanzania and Zambia. Responsible for management of all highways and other transportation projects in East Africa. Projects included:

Kenya

- Amala River – Narok Road: supervision and claims resolution (55km; \$30M, FIDIC 4). Kreditanstalt für Wiederaufbau (KfW) funded.
- Reinstatement of Garsen – Lamu Road: design, tender documentation and supervision (114km; \$9M, FIDIC 4). KfW funded.
- El Nino Emergency Project: design, tendering and supervision (790km; \$15M). World Bank Small Works Conditions of Contract and funding.
- Nairobi – Mombasa Road (Sultan Hamud to Mtito Andei): prepared successful proposal for supervision services (80km; \$50M). EU funded.

Ethiopia

- Addis Ababa – Ginchi – Ambo Road: design, tender documentation and evaluation (114km; \$50M, FIDIC 4). KfW funded. Prepared successful proposal for supervision services.
- Awash – Harar – Dengego – Dire Dawa Road: design review (302km; \$67M). WB funded.
- Chida – Sodo Road: ICC arbitration/settlement advice (160km; \$50M/\$28M claims, FIDIC 4). ADF funded.

Namibia

- Ondangwa – Oshikango Road Rehabilitation: feasibility study (60km; \$12M). KfW funded.

Tanzania

- Rufiji River Bridge and Flood Plain Crossing: contract administration and dispute resolution (800m bridge, 14km roads; \$27M, FIDIC 4). Kuwaiti/Saudi (KFAED/SDF) funded.
- Backlog Maintenance of Kigoma – Nyakanazi Road: design, tendering and supervision (335km; \$6M). EU Conditions of Contract and funding.
- Moshi, Mwanza, Arusha and Mtwara Airports: Falling Weight Deflectometer testing and analysis for determination of Pavement Classification Number of runways, taxiways and aprons.

Uganda

- El Nino Emergency Bridges Repair Project: design, tendering and supervision (86 structures; \$6M). WB Small Works CoC and funding.
- Malaba - Jinja Road: design, tendering and supervision (80km; \$36M, FIDIC 4). KfW funded.
- Jinja – Bugiri Road (80km; \$36M): EU tender documentation and evaluation.

Zambia

- Chingola – Kasumbalesa Road Rehabilitation: feasibility study, design and tender documentation (45km; \$10M, FIDIC 4). WB funded.
- Livingstone – Shesheke Road (205km) and Katima Mulilo Bridge (885m): design, tendering and supervision (\$20M; FIDIC 4). KfW funded.

1997 – 1999

**Roughton International**  
**Associate Director**

Initially based in UK Office as Head of Contracts to supervise tender and contract documentation and procedures; oversee, monitor and advise site staff on supervision contracts; to perform the duties of 'The Engineer'; and to act/advise in dispute resolution. Also Regional Manager for India and Pakistan, responsible for all projects and business development in those countries (principally World Bank/ADB funded highway projects).

From mid-1998 based in Kathmandu Office to continue regional administration of sub-continent operations, while providing frequent short-term for capacity building inputs on UK Government (DFID) TA project for Nepal Government. As Cyclic Maintenance Advisor/Contracts Specialist, provided training of consultants, contractors and DOR personnel in contract procurement/administration, construction management/supervision, and

claims/disputes settlement procedures, particularly in regard to 14 No. cyclic maintenance (surface dressing) contracts (350 km, FIDIC 4).

As the Engineer under FIDIC 3, carried out final inspections and settled claims and final accounts for three ICB and three LCB contracts on ADB funded Second Road Improvement Project in Nepal (650 km, \$95M).

**1995 – 1997**

**Roughton International, Ethiopia  
Project Manager/Chief Resident Engineer**

Responsible for administration and supervision of four World Bank funded gravel road rehabilitation contracts being constructed by international contractors for the Ethiopian Roads Authority (770 km, \$17M, FIDIC 4). Subsequently the Engineer, advising and assisting the Employer and its legal advisors to reach amicable settlement of \$0.3M during ICC arbitration proceedings for disputes with German Contractor exceeding \$10M.

**1992 - 1994**

**Kampsax International, Pakistan  
Chief Resident Engineer/ Team Leader**

Construction supervision and contract re-negotiation (after total redesign) of World Bank funded N-25 Highway project in Balochistan province (160 km, \$52M, FIDIC 4). Works executed by international contractors included reconstruction/repair of 270 out of 800 existing bridges/culverts.

Subsequently, for three months, Advisor to National Highway Authority in Quetta for all road projects in Balochistan. Then Team Leader in Islamabad, as The Engineer for 65 no. WB-assisted rehabilitation and maintenance contracts (Fourth Highway Programme, \$120M, FIDIC 4) on highways and bridges throughout Pakistan, constructed by international and local contractors. Also prepared standard contractor prequalification documents, forms of contract and specifications for routine and periodic performance-based maintenance works by domestic contractors.

**1990 - 1992**

**Marshall Consultants, Bahamas  
Principal**

Consultant specialising in project and construction management, for developers and contractors, of private and government contracts for highways, sub-divisions, airports and buildings throughout the Bahamas. Projects included infrastructure and airport planning for Cape Eleuthera Resort (with Greiner, USA - \$24M); construction of Harold – Carmichael Dual Carriageway (\$1.3M) and San Salvador Airport Bypass (\$0.60M); design and construct proposal for new San Salvador Airport (\$11M); new Customs Warehouse (\$1.4M); new private FBO terminal at Nassau International Airport, with associated taxiways and apron (\$5M). Contractual services for contractors included tender preparation and programming, through to claims formulation and negotiation.

**1985 - 1990**

**Ministry of Works and Utilities, Bahamas  
Senior then Chief Engineer**

Responsible for maintenance of and improvements to Government roads, bridges, docks, airstrips and buildings. In 1988/9, headed design and construction division, managing and supervising new public works projects such as CDB funded Exuma International Airport (\$10M, FIDIC 3) plus numerous highway schemes. Also prepared new Government conditions of contract and specifications for road maintenance and rehabilitation contracts.

**1984 - 1985**

**C H Dobbie and Partners, UK  
Principal Engineer**

Responsible for all feasibility reports, design, contract documentation (ICE CoC) and administration of infrastructure, building and coastal defence projects in South-West regional office – e.g. Reconstruction of Dartmouth Embankment and Ferry Bridge.

- 1983**                                 **Dar Al Handasah, Saudi Arabia**  
**Resident Engineer**
- Supervised construction of Section 2, Riyadh Outer Ring Road. Works comprised 22 km of 6- and 8-lane expressway, with 5 grade-separated interchanges (\$80M, FIDIC 3). Constructed to AASHTO specifications.
- 1981 - 1982**                             **Bolton Hennessy Pte Ltd., Brunei**  
**Senior Executive Engineer**
- Managed all international FIDIC-based contracts, including Tutong to Jerudong Trunk Road (32 km, \$32M), Kianggeh River Canalisation and Redevelopment (\$5M), and various bridges and buildings. Prepared contract disputes for ICC arbitration on behalf of Brunei Government.
- 1979 - 1981**                             **Watson Hawksley Ltd., Hong Kong**  
**Resident Engineer (Measurement)**
- Seconded to HK Government. Responsible for contractual matters, including evaluation/negotiation of \$18M claim on civil and M&E contract at Sha Tin Sewage Treatment Works (\$60M). Sited on inadequately reclaimed land, so all structures had to be founded on Franki and steel H-piles after 18 months suspension of Works for redesign.
- 1976 - 1979**                             **Halcrow Middle East Ltd, UAE**  
**Contracts Engineer**
- Contract preparation, negotiation and administration of a variety of major projects constructed by international contractors, including Port Rashid Extension (22 deep water berths, \$200M + \$8M for container cranes); Sharjah Main Drainage Scheme (\$7M); Dubai Police Marine Base (\$4M); Dubai Airport Taxiways and Lighting (\$4M). Assessment of all claims on these FIDIC-based contracts.
- 1975 - 1976**                             **Tony Gee and Partners, UK**  
**Senior Engineer**
- Head of structural department. Design projects included novel all-steel North Sea oil gravity platform; finite element and conventional stress analyses on steel structures and launching barges for assembly/load out of steel jackets into North Sea; alternative tender design for Kessock Bridge (segmental balanced cantilever construction, 150m main span, 1500m overall, \$38M); post-tensioned flat slab multi-storey car parks; bridge temporary works.
- 1973 - 1975**                             **Robert Matthew, Johnson-Marshall & Partners, UAE/UK**  
**Resident Engineer/ Engineer**
- UAE: Site investigations, surveys, preliminary design and FIDIC tender documentation for Khor Fakkan - Dibba coast road (36 km), Masafi - Dibba mountain road (25 km), and 3 town road schemes (32 km). Then RE for two of the town roads contracts.
- UK: Structural Engineer in multi-disciplinary architectural team. Responsible for construction supervision of Paisley College of Technology Extension (\$6M, RIBA CoC); design of sections of Edinburgh Airport Terminal (\$10M); space frame roof design for Sharjah Sports Centre (\$8M).
- 1970 - 1973**                             **Devon Road Construction Unit, UK**  
**Assistant Engineer**
- Site investigation and preliminary design for Barnstaple Bypass (15 km).
- Survey, design and then supervision of Ivybridge Bypass (8 km; \$8M) as Section Engineer responsible for 4 km of dual carriageway and associated bridges, plus earthworks for the whole contract.



**1968 - 1970**

**Hampshire County Council/Road Construction Unit, UK  
Graduate Trainee**

Highway and bridge design for M27 motorway, followed by construction supervision on M3. Also received training in traffic engineering and road maintenance.