

TECHNICAL REPORT

IN PARTIAL FULFILMENT OF REQUIREMENTS FOR REGISTERED
MEMBERSHIP

SUBMITTED BY:

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OPATOKI**

Professional Experience:	26 Years (2000 – Present)
Location:	Nigeria (Multi-State)
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DECLARATION

I, Oluseye Oladosu Nathaniel Opatoki, do hereby solemnly declare that this Technical Report of Professional Experience has been prepared by me and that the information contained herein is a true, faithful and accurate account of my professional activities and experiences over the course of my career spanning twenty-six (26) years in the built environment industry in Nigeria.

I further declare that all the projects described in this report were ones in which I personally participated and that the roles, responsibilities and contributions attributed to me are correct to the best of my knowledge and belief.

I understand that any false or misleading information contained in this report may result in disqualification from membership of the Nigerian Institute of Quantity Surveyors and may constitute professional misconduct.

MR. OLUSEYE OLADOSU NATHANIEL OPATOKI

Date:

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CHAPTER 1: INTRODUCTION

1.1 Background of the Report

This Technical Report of Professional Experience has been prepared in accordance with the requirements and guidelines set out by the Nigerian Institute of Quantity Surveyors (NIQS) for candidates seeking membership of the Institute. The report documents the professional experiences, project involvements, and technical competencies acquired by me over a distinguished career spanning twenty-six (26) years in the Nigerian construction industry.

The Nigerian Institute of Quantity Surveyors, established under the Quantity Surveyors (Registration, etc.) Act Cap 399 LFN 1990, is the premier professional body regulating the practice of quantity surveying in Nigeria. Membership of the Institute is a testament to professional competence, ethical conduct, and commitment to the advancement of the built environment profession.

1.2 Objectives of the Report

The primary objectives of this technical report are as follows:

- To provide a comprehensive account of the professional experiences and project involvements of over 26 years of practice.
- To demonstrate the technical competencies and professional skills acquired across diverse project types in multiple states of the Federal Republic of Nigeria.
- To highlight the roles and responsibilities performed as a Quantity Surveyor on each project, in accordance with established professional standards.
- To satisfy the requirements of the Nigerian Institute of Quantity Surveyors for the award of corporate membership.
- To provide evidence of continuing professional development and commitment to the advancement of quantity surveying practice in Nigeria.

1.3 Scope of the Report

This report covers professional activities carried out under two principal employers, namely FOLUDY FOUR NIG. LIMITED (2010 to present) and JAPPAUL OIL & GAS LIMITED (2000-2003). The projects span diverse sectors including educational infrastructure, religious facilities, oil and gas ancillary construction, community development, and residential construction across multiple states including Ogun, Rivers, Anambra, and Bayelsa States.

1.4 Professional Profile

Full Name	Oluseye Oladosu Nathaniel Opatoki
Years of Experience	26 Years (2000 till Present)
Current Employer	FOLUDY FOUR NIG. LIMITED
Previous Employer	JAPPAUL OIL & GAS LIMITED (2000 – 2003)
Areas of Specialisation	Construction Cost Management, Bills of Quantities, Contract Administration, Oil & Gas Infrastructure, Educational Buildings, Religious Buildings, Community Development Projects
Geographical Coverage	Ogun State, Rivers State, Anambra State, Bayelsa State

1.5 The Quantity Surveying Profession in Nigeria

The Quantity Surveyor (QS) occupies a pivotal role in the Nigerian construction industry. As the financial manager of construction projects, the QS is responsible for cost planning and management from the earliest stages of a project through to its completion and final account settlement. The profession is anchored on principles of measurement, cost analysis, procurement, and contract management.

In Nigeria, quantity surveying practice is regulated by the Quantity Surveyors Registration Board of Nigeria (QSRBN) and guided professionally by the Nigerian Institute of Quantity Surveyors (NIQS). The QS serves as a bridge between the client's financial expectations and the technical realities of construction, ensuring that projects are delivered within budget, on time, and to the required quality standards.

Throughout my career, I have demonstrated the full breadth of QS competencies across both private and community-oriented projects, contributing to the nation's built environment through diligent professional service.

CHAPTER 2: THE ROLE OF THE QUANTITY SURVEYOR IN CONSTRUCTION

2.1 Overview of Quantity Surveying Functions

The Quantity Surveyor performs a wide range of functions throughout the life cycle of a construction project. These functions are broadly categorized into pre-contract and post-contract services, although the modern QS increasingly provides integrated services across all project stages.

2.2 Organizational Position of the Quantity Surveyor

The diagram below illustrates the typical organizational structure of a construction project team and the position of the Quantity Surveyor within it:

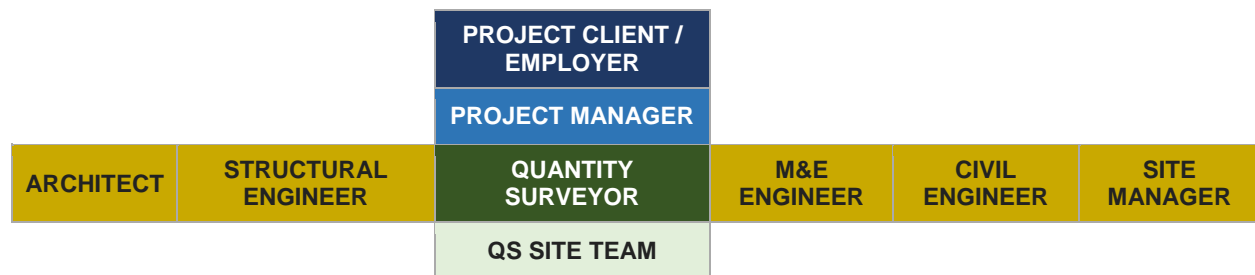


Figure 1: Typical Construction Project Organizational Structure Showing Position of QS

2.3 The QS Workflow Across Project Phases

The following table summarizes the key phases of a construction project and the corresponding Quantity Surveying activities:

QS PHASE	KEY ACTIVITIES
Phase 1: Inception & Feasibility	Cost advice, feasibility study, budget estimate, project viability assessment
Phase 2: Design Development	Preparation of preliminary cost plan, cost checking against design drawings
Phase 3: Pre-Contract / Tender	Bills of Quantities preparation, tender document compilation, tender analysis

QS PHASE	KEY ACTIVITIES
Phase 4: Contract Award	Contract documentation, contract sum negotiation, letter of award preparation
Phase 5: Construction Phase	Interim valuations, variation orders, day works, site measurement
Phase 6: Post-Contract	Final account preparation, dispute resolution, project close-out report

Table 1: QS Activities Across Project Phases

2.4 Bills of Quantities (BOQ)

The Bills of Quantities is one of the most fundamental outputs of a Quantity Surveyor. It is a comprehensive document that itemizes all the work required in a construction project, providing a uniform basis for competitive tendering. In Nigeria, Bills of Quantities are typically prepared in accordance with the Standard Method of Measurement for Building Works (BESMM4 R), published by the NIQS.

The preparation of a BOQ involves: careful examination of architectural and engineering drawings; measurement of all items of work; description of items in accordance with BESMM4 R; and compilation of a priced document for tender purposes. I have prepared Bills of Quantities across all the projects described in this report.

2.5 Cost Planning and Cost Control

Cost planning is an essential pre-contract service that enables the client and design team to understand the likely cost of a proposed project at each stage of design development. It involves the preparation of cost plans that are progressively refined as the design develops, from an initial order of cost estimate to a detailed pre-tender cost plan.

Cost control during construction involves monitoring expenditure against the approved budget and taking corrective action where necessary. The QS achieves this through regular cost reports, the assessment and control of variations, and proactive management of the contract sum.

2.6 Procurement and Tendering

The QS advises on the most appropriate procurement route for each project, taking into account the client's requirements for cost certainty, time, quality, and risk allocation. Common procurement routes in Nigeria include traditional (design-bid-build), design and build, management contracting, and construction management. The tendering process involves the invitation, receipt, and analysis of tenders from contractors and subcontractors.

2.7 Contract Administration

Post-contract, the QS performs contract administration functions that include: assessment and certification of interim payments; valuation and agreement of variation orders; resolution of contractual disputes and claims; preparation of the final account; and close-out of the contract. These functions require a thorough knowledge of contract law, standard forms of contract, and construction technology.

CHAPTER 3: FOLUDY FOUR NIG. LIMITED — PROJECTS & QS FUNCTIONS

3.1 Company Overview: FOLUDY FOUR NIG. LIMITED

Company Name	FOLUDY FOUR NIG. LIMITED
Type of Organisation	Construction & Project Management Firm
Period of Engagement	Year 2010 till Present
Years with Company	26+ Years (Ongoing)
Sectors Covered	Education, Religious Buildings, Community Infrastructure
Operating States	Ogun State, Rivers State, Anambra State

FOLUDY FOUR NIG. LIMITED is a reputable indigenous construction firm operating in Nigeria with a strong track record in the delivery of educational, ecclesiastical, and community infrastructure projects. I have been engaged with this firm since the year 2010 and has contributed my professional expertise across a wide range of significant projects. The firm's portfolio demonstrates a commitment to quality construction and timely delivery of complex building works across multiple geopolitical zones of Nigeria.

Under FOLUDY FOUR NIG. LIMITED, I served in various Quantity Surveying capacities, as a senior professional responsible for cost management on multi-billion naira projects. My roles have spanned cost planning, bills of quantities preparation, tender management, contract administration, and final account settlement.

PROJECT 1: Construction of Senate Building — Covenant University

Location: Ota, Ogun State | Period: 2000 – Present (Various Phases) | Est. Value: Multi-Million Naira

3.2 Project 1: Construction of Senate Building for Covenant University, Ota, Ogun State

3.2.1 Project Description

Covenant University, located in Ota, Ogun State, is a private Christian faith-based university established in 2002 under the auspices of the Living Faith Church Worldwide (Winners' Chapel

International). The Senate Building is one of the most prestigious and architecturally significant structures on the university campus, serving as the administrative hub for the institution's highest governing body — the University Senate.

The construction of the Senate Building constituted a major undertaking involving multi-storey structural and civil works, including substructure, reinforced concrete frame, masonry, and external works such as site clearance, drainage, and paved approaches. FOLUDY FOUR Limited served as the main contractor responsible for the structural shell and civil engineering works, while specialist subcontractors handled the interior finishing, mechanical, and electrical installations. The building was designed to project academic prestige and functional efficiency, incorporating modern conference facilities, executive offices, and committee rooms.

The project required close coordination between FOLUDY FOUR Limited's site team, the client's consultant QS, the structural engineers, and the architect, particularly in managing the interface between the structural works and the packages handled by other specialist contractors. Works were executed in phases to maintain programme and accommodate the phased handover requirements of the institution.

3.2.2 The QS Function

- Preparation and pricing of Bills of Quantities for the structural and civil works package, covering substructure, reinforced concrete superstructure, masonry walls, external works, drainage, and site infrastructure.
- Review and analysis of contract documents, drawings, and specifications to identify scope of works, obligations, and risk items prior to commencement.
- Preparation of monthly interim payment applications to the client's consultant QS, including measurement and valuation of work executed on site in accordance with the contract.
- Identification, measurement, and pricing of variation orders and architect's instructions affecting the structural works scope, and submission of variation claims to the consultant QS for agreement.
- Preparation and management of subcontract procurement for labour-only and specialist structural subcontractors, including obtaining quotations, evaluating submissions, and administering subcontract payments.
- Monitoring and reporting on project costs against the contract sum, including preparation of cost-to-complete forecasts and internal cost reports for management review.
- Preparation and submission of claims for loss and expense arising from employer-caused delays, site access constraints, and variations with time and cost implications.
- Coordination with the client's consultant QS on the valuation of the structural works interface with the finishing and M&E packages handled by other contractors, to avoid overlap or gaps in measured works.

- Agreement and settlement of the final account for the structural and civil works upon practical completion, including reconciliation of all variations, prime cost sums, and provisional quantities.

3.2.3 Key Outputs

QS Document/Activity	Description	Purpose
Bills of Quantities	Detailed measurement document covering all trades	Competitive tendering basis
Tender Report	Analysis and comparison of received tenders	Client decision support
Contract Sum Analysis	Breakdown of agreed contract price	Payment and valuation reference
Monthly Valuations	Progress payment certificates	Contractor payment
Variation Orders Schedule	Record of all approved changes	Contract sum management
Cost Reports	Periodic financial status of project	Client management reporting
Final Account	Agreed final contract sum	Contract close-out

3.2.4 Professional Lessons Learned

The Senate Building project provided me with invaluable experience in managing a high-profile, multi-phase institutional project with a demanding client. Key lessons included the importance of rigorous cost planning at inception, the need for proactive variation order management, and the value of clear contractual documentation to minimise disputes. The project also reinforced the QS's role as a trusted financial advisor to the client throughout the project lifecycle.

PROJECT 2: Repair of Engineering and SLT Buildings — Covenant University

Location: Ota, Ogun State | Period: During Engagement Period | Est. Value: Contract Value as Assessed

3.3 Project 2: Repair of Engineering and SLT Buildings — Covenant University, Ota

3.3.1 Project Description

This project involved the comprehensive repair, refurbishment, and rehabilitation of the Engineering Faculty Building and the Science Laboratory Technology (SLT) Building at Covenant University, Ota. These buildings accommodate critical academic and research activities, including laboratories for chemistry, physics, biology, and engineering disciplines. The condition survey of the buildings revealed structural defects, water infiltration, failing M&E systems, and deteriorating finishes that required urgent remediation.

The scope of repair works included concrete crack repair and structural strengthening, roof membrane replacement and drainage rectification, internal wall plastering, screed and floor tiling replacement, replacement of defective electrical wiring and fittings, overhaul of plumbing and drainage systems, repainting of internal and external surfaces, and installation of new laboratory furniture and fittings. The works had to be carried out sensitively to minimize disruption to academic activities and laboratory operations.

3.3.2 My Function

- Conducting and reporting on a detailed condition survey to establish the scope of repair works required.
- Preparation of Schedule of Dilapidations itemizing all identified defects and the recommended remediation measures.
- Preparation of detailed Bills of Quantities for all repair and rehabilitation works.
- Obtaining and analyzing quotations from specialist repair contractors and subcontractors.
- Preparing a pre-repair cost estimate and budget report for the university management.
- Administering the construction contract during the repair works, including assessment of interim payments.
- Valuing and agreeing all variations arising from unforeseen conditions encountered during repairs.
- Monitoring expenditure against the repair budget and reporting regularly to the client.
- Preparation and agreement of the final account upon completion of all repair works.

3.3.3 Complexity of Repair/Refurbishment QS Work

Repair and refurbishment projects present unique challenges for the Quantity Surveyor that differ significantly from new construction projects. These include the difficulty of accurately measuring existing conditions, the risk of unforeseen work arising when structures are opened up, the need to manage specialist subcontractors for different repair techniques, and the requirement to keep the facility partially operational during works. I developed specialist skills in refurbishment measurement and cost management through this project.

PROJECT 3: Construction of Covenant University Day Secondary School

Location: Ota, Ogun State | Period: During Engagement Period | Est. Value: Multi-Million Naira

3.4 Project 3: Construction of Covenant University Day Secondary School, Ota

3.4.1 Project Description

This project involved the design and construction of a purpose-built secondary school facility within the Covenant University campus at Ota, Ogun State. The school was conceived as a model institution to provide high-quality education to children of staff and the wider Ota community, operating within the faith-based ethos of Covenant University. The development comprised classrooms, science laboratories, a library, administrative block, multi-purpose hall, sports facilities, staff rooms, and associated ancillary buildings.

The construction programme required careful phasing to ensure that each component of the school was available to receive students at the commencement of the academic session. The project involved reinforced concrete structural frame construction, masonry infill walling, aluminium window systems, ceramic floor and wall tiling, and comprehensive mechanical and electrical installations including a dedicated power supply system.

The project also included significant site development works comprising earthworks, road construction, car park construction, sports ground preparation, perimeter fencing, gatehouse, and extensive soft and hard landscaping.

3.4.2 My Function

- Preparation of an Order of Cost Estimate at inception to assist the client in establishing a viable project budget.
- Cost planning throughout the design stages to maintain expenditure within the approved budget.
- Preparation of Bills of Quantities covering all building and civil engineering works.
- Management of the tendering process including preparation of tender documents, pre-qualification of contractors, and tender evaluation.
- Contract documentation and award, including preparation of the contract sum analysis.
- Contract administration including monthly interim valuations, variation order management, and contractor payment certifications.
- Preparation and submission of regular cost reports to the client's management team.
- Measurement and valuation of all external and site development works.
- Preparation and settlement of the final account.

3.4.3 Educational Buildings — Special QS Considerations

Educational building projects in Nigeria require the QS to be conversant with the National Building Code provisions, fire safety requirements, disability access standards, and the Ministry of Education's guidelines for school buildings. Cost planning for educational facilities must also account for furniture and equipment, information technology infrastructure, and specialist laboratory fittings — all of which are significant cost items that must be planned for early in the project.

PROJECT 4: Construction of a 1,000-Seater Church

Location: Mgbuoba, Port Harcourt, Rivers State | Period: During Engagement Period | Est. Value: High-Value Contract

3.5 Project 4: Construction of a 1,000-Seater Church at Mgbuoba, Port Harcourt, Rivers State

3.5.1 Project Description

This project involved the construction of a large-capacity worship centre designed to seat a minimum of 1,000 worshippers in the Mgbuoba area of Port Harcourt, Rivers State. The church building was designed as an architecturally prominent landmark, incorporating a large sanctuary with a clear-span roof structure, balcony seating, raised chancel and platform, pastoral offices, counselling rooms, children's church annex, bookshop, café, and extensive car parking facilities.

The structural design featured a steel roof truss system spanning the full width of the sanctuary without intermediate columns, thereby providing unobstructed sightlines for all worshippers. The M&E installations included a sophisticated audio-visual system, central air conditioning, emergency power generation, fire detection and alarm system, security and surveillance systems, and a dedicated water supply and storage system.

Port Harcourt, as the oil capital of Nigeria, presents a unique construction environment with higher material and labour costs, logistical challenges associated with material procurement, and the need to comply with Rivers State government construction regulations. The QS team had to develop robust cost benchmarks specific to the Port Harcourt construction market.

3.5.2 My Function

- Feasibility cost study to establish the viability of the proposed church building and to advise on the church's budget requirements.
- Preparation of detailed elemental cost plan to guide the design team in the development of the design within budget.
- Procurement of specialist subcontractors for the steel roof fabrication and erection works.
- Preparation of full Bills of Quantities for all building and engineering works.
- Management of the competitive tendering process and preparation of a detailed tender report.
- Contract award and documentation.
- Administration of the main contract and specialist subcontracts, including monthly valuations and payment certifications.

- Valuation and certification of variations, with particular attention to the complex variations arising from the specialized M&E and AV installations.
- Preparation of cost reports for presentation to the church board and finance committee.
- Negotiation and settlement of the final account with the contractor and all specialist subcontractors.

3.5.3 Ecclesiastical Buildings — QS Specialization

Ecclesiastical (church/worship) buildings present a number of unique quantity surveying challenges. The congregation often has high aesthetic aspirations with limited financial resources, requiring the QS to provide creative value engineering solutions. Long-span roof structures require specialist structural engineering input, and their cost must be carefully managed. Acoustics, audio-visual systems, and lighting design all represent significant cost items that must be planned for rigorously. I developed considerable expertise in the cost management of ecclesiastical buildings through this project.

PROJECT 5: Construction of Kingdom Heritage Model School

Location: By 7-Up Bus Stop, Onitsha, Anambra State | Period: During Engagement Period | Est.
Value: Multi-Million Naira

3.6 Project 5: Construction of Kingdom Heritage Model School, Onitsha, Anambra State

3.6.1 Project Description

This project involved the construction of a new model secondary school for Kingdom Heritage Schools located along the 7-Up Bus Stop axis in Onitsha, Anambra State. Onitsha, one of Nigeria's most commercially active cities and a major commercial hub of the South-East geopolitical zone, presented its own unique construction market dynamics with considerations for land costs, security logistics, and the procurement of materials in the competitive Anambra State construction market.

The school development comprised a two-storey classroom block, a science and ICT laboratory block, a multi-purpose assembly hall and gymnasium, administrative offices, a school clinic, a dining hall and kitchen, teachers' quarters, a security post, and comprehensive external works including car park, play areas, sports court, perimeter walls and gate. The design emphasized modern pedagogical principles, incorporating flexible learning spaces, natural daylighting strategies, and natural ventilation to reduce energy costs.

The project was notable for its tight construction programme, requiring concurrent working across multiple fronts to achieve the stipulated handover date aligned with the school's academic calendar. This demanded rigorous QS management of the construction programme's cost implications and careful monitoring of material procurement to prevent delays.

3.6.2 My Function

- Preparation of preliminary cost estimate at project inception to guide the school proprietor's investment decision.
- Preparation of detailed Bills of Quantities for all building, civil, and external works.
- Advising on procurement strategy and preparation of tender documents.
- Managing the tendering process including advertising, pre-qualification, tender receipt, and analysis.
- Preparation of tender report and recommendations to client.
- Contract award and documentation.
- Monthly interim valuations and payment certifications.
- Management of variation orders arising from programme acceleration requirements.

- Preparation and submission of periodic cost reports.
- Settlement of the final account.

CHAPTER 4: JAPPAUL OIL & GAS LIMITED — PROJECTS & QS FUNCTIONS

4.1 Company Overview: JAPPAUL OIL & GAS LIMITED

Company Name	JAPPAUL OIL & GAS LIMITED
Type of Organisation	Oil & Gas Services and Construction Company
Period of Engagement	2000 – 2003
Sectors Covered	Oil & Gas Infrastructure, Community Development, Residential
Key Clients	NLNG (Nigeria Liquefied Natural Gas), Shell Petroleum Development Company, AGG Gas Line Project
Operating States	Rivers State, Bayelsa State
Location of Projects	Bonny Island, Port Harcourt, Nembe LGA, Bayelsa State

JAPPAUL OIL & GAS LIMITED is a major Nigerian oil and gas services company with diversified operations spanning marine services, oil field services, property development, and construction. During the period 2000 to 2003, I worked with the construction arm of JAPPAUL, gaining invaluable experience in the specialist field of oil and gas infrastructure construction — a sector characterized by high safety standards, stringent quality requirements, international contract administration practices, and logistically complex project delivery environments.

Work with JAPPAUL exposed me to the standards and expectations of international oil companies (IOCs) such as NLNG and Shell, whose project management and contract administration regimes are among the most rigorous in the global construction industry. This experience significantly elevated my professional competence and broadened my understanding of quantity surveying in the context of the oil and gas sector.

PROJECT 6: Relocation of Old Production Buildings — NLNG Bonny Island

Location: Bonny Island, Rivers State | Period: 2000 – 2003 | Est. Value: High-Value Oil & Gas Contract

4.2 Project 6: Relocation of Old Production Buildings at NLNG, Bonny Island, Rivers State

4.2.1 Project Description

The Nigeria Liquefied Natural Gas (NLNG) project on Bonny Island, Rivers State, is one of the most strategically important industrial complexes in sub-Saharan Africa. NLNG is a joint venture between the Nigerian National Petroleum Corporation (NNPC), Shell, Total, and ENI, and its facilities are responsible for the liquefaction and export of Nigeria's natural gas to global markets.

This project involved the relocation of several old production-related buildings within the NLNG facility to facilitate the expansion and reconfiguration of the plant. The works included the careful demolition and deconstruction of existing structures, salvage of reusable materials, site preparation, and construction of replacement structures at new locations within the facility. Given the operational nature of the facility, all works had to be carried out under strict HSE (Health, Safety, and Environment) protocols and with minimal disruption to ongoing plant operations.

The project required specialist knowledge of hazardous area classification, materials compatibility with the LNG environment, fire and explosion protection, and the application of international standards such as NFPA, IEC, and ISO in the design and construction of facilities within an LNG plant environment.

4.2.2 My Function

- Preparation of cost estimates and budget for the building relocation works in accordance with NLNG's project management framework.
- Measurement and valuation of demolition and salvage works, including assessment of salvageable material values.
- Preparation of Bills of Quantities and schedules of rates for the new construction works in compliance with NLNG's procurement requirements.
- Participation in the tender process, including evaluation of bids from NLNG-approved vendors.
- Contract administration including interim valuations, variation management, and final account settlement.
- Preparation of cost reports in compliance with NLNG's reporting formats and cost control requirements.

- Close coordination with NLNG's project controls team to ensure alignment between QS cost reporting and NLNG's project management information systems.
- Ensuring all QS activities complied with NLNG's HSE requirements and permit-to-work system.

4.2.3 Oil & Gas QS — International Standards and Special Requirements

Working at NLNG Bonny Island exposed me to international construction and procurement standards that are substantially more demanding than typical domestic construction practice. These include: CRINE (Cost Reduction Initiative for the New Era) principles for cost management; ICMS (International Construction Measurement Standards) for cost reporting; rigorous document control requirements; multi-party contract management; and the application of Fédération Internationale des Ingénieurs-Conseils (International Federation of Consulting Engineers) conditions of contract.

PROJECT 7: Production and Assembly of Cable Slabs — NLNG Bonny Island

Location: Bonny Island, Rivers State | Period: 2000 – 2003 | Est. Value: Specialist Contract Value

4.3 Project 7: Production and Assembly of Cable Slabs for NLNG, Bonny Island, Rivers State

4.3.1 Project Description

Cable slabs (also referred to as cable protection slabs or cable trench covers) are reinforced precast concrete elements used extensively in industrial and power facilities to protect underground cable routes from physical damage, traffic loading, and environmental exposure. At the NLNG facility on Bonny Island, the cable infrastructure forms a critical component of the electrical and instrumentation systems that control the liquefaction process.

This project involved the production of large quantities of precast reinforced concrete cable slabs to specified dimensions and load-bearing requirements, followed by their transportation to site and precise assembly over the cable trenches throughout the NLNG facility. The production facility was established on Bonny Island to minimize transportation logistics, requiring the procurement and installation of formwork systems, concrete batching equipment, curing facilities, and material handling equipment.

Quality control was of paramount importance, with all cable slabs required to pass rigorous testing for dimensional accuracy, concrete compressive strength, and reinforcement cover. The QS team was required to develop specialist unit rates for precast concrete production that accounted for the unique cost parameters of industrial production in the remote island environment of Bonny.

4.3.2 My Functions

- Development of a detailed cost model for the precast concrete production operation, including plant, equipment, materials, labour, and overhead costs.
- Preparation of Bills of Quantities and schedules of rates for the cable slab production and assembly works.
- Analysis of materials procurement costs including costing of materials supply to Bonny Island via marine transport.
- Monitoring and reporting of production costs against the approved budget.
- Assessment and valuation of variations arising from changes in slab specification or production volume.
- Preparation of interim payment applications based on measured production output.
- Cost analysis of quality control test failures and associated rectification works.
- Final account preparation upon completion of the production programme.

PROJECT 8: Construction of Primary School, Town Hall, Clinic & Walkway — Basambiri Community

Location: Nembe LGA, Bayelsa State | Period: 2000 – 2003 | Est. Value: AGG Gas Line Community Development

4.4 Project 8: Community Infrastructure for Basambiri Community, Nembe LGA, Bayelsa State (AGG Gas Line Project)**4.4.1 Background — AGG Gas Line Project Community Development Programme**

The Associated Gas Gathering (AGG) Gas Line Project was a major pipeline and gas processing infrastructure project in the Niger Delta region of Nigeria. In line with Nigeria's community development obligations and the Environmental Impact Assessment requirements for major oil and gas projects, the project sponsors were required to provide community development infrastructure to affected communities along the pipeline corridor.

Basambiri and Oglomabiri communities in the Nembe Local Government Area of Bayelsa State were among the communities identified for community development support. JAPPAUL OIL & GAS LIMITED was contracted to design and construct the required community infrastructure in both communities.

4.4.2 Project Description — Basambiri Community

The Basambiri Community development package comprised four distinct facilities: a primary school, a town hall, a primary health care clinic, and a community walkway. These facilities were designed to meet the immediate social infrastructure needs of the community and to enhance the quality of life of its residents. The project had to be executed in a challenging environment characterised by difficult terrain, limited access by land, reliance on water transportation for materials delivery, and the need for community engagement and participation throughout.

4.4.3 Primary School — Description and My Function

The primary school comprised six (6) classrooms, a headmaster's office, teachers' room, toilets and conveniences, and a rainwater harvesting system. Construction was in block walls on reinforced concrete pad foundations, with aluminium roofing on steel trusses.

- Preparation of cost estimate and BOQ for the primary school, adapted for remote river-access construction conditions.
- Costing of materials delivery by boat/barge to the community, representing a significant logistical cost element.
- Valuation of all construction works and administration of payments to the contractor.

4.4.4 Town Hall — Description and My role

The town hall was designed as a multi-purpose community gathering space with a capacity for approximately 300 persons. It featured an open-plan assembly hall, raised platform/stage, separate entry lobbies, and storage rooms.

- Bills of Quantities preparation for the town hall, with attention to the long-span roof and special acoustic requirements.
- Monitoring of expenditure against the approved budget for the town hall component.
- Valuation of community labour contributions where these were incorporated into the construction programme.

4.4.5 Clinic — Description and My Role

The primary health care clinic comprised a reception, waiting area, consulting rooms, a minor treatment room, a dispensary, staff duty room, and toilet facilities. The clinic was designed to the Federal Ministry of Health's standards for primary health care facilities.

- Preparation of Bills of Quantities for the clinic, including specialist medical room fittings and installations.
- Procurement and costing of specialised medical equipment and furniture.
- Administration of the clinic construction contract component.

4.4.6 Walkway — Description and My Role

The community walkway was designed to provide an all-weather elevated pedestrian route through the community, addressing the flooding and waterlogging that characterizes much of the Niger Delta coastal environment. The walkway comprised precast concrete decking on reinforced concrete piled supports.

- Preparation of Bills of Quantities for the walkway, incorporating specialist piling works appropriate to the riverine soil conditions.
- Costing of the precast elements and logistics of delivering and assembling them on site.
- Final measurement and account settlement for the walkway works.

PROJECT 9: Construction of Primary School, Town Hall, Clinic & Walkway — Oglomabiri Community

Location: Nembe LGA, Bayelsa State | Period: 2000 – 2003 | Est. Value: AGG Gas Line Community Development

4.5 Project 9: Community Infrastructure for Oglomabiri Community, Nembe LGA, Bayelsa State (AGG Gas Line Project)

4.5.1 Project Description

The Oglomabiri Community project was identical in scope and programme to the Basambiri project described above, and was executed concurrently to enable JAPPAUL to take advantage of economies of scale in materials procurement, design, and supervision. Oglomabiri is a riverine community located in the same Nembe Local Government Area of Bayelsa State, accessible only by water transport from Yenagoa or Port Harcourt.

The project comprised the same four facility types: a primary school, town hall, primary health care clinic, and community walkway. However, site conditions in Oglomabiri differed from Basambiri in certain respects, including ground conditions, available land area, community layout, and the specific flood history of the area, all of which required site-specific QS assessment and cost planning.

4.5.2 QS Functions Performed

- Preparation of separate Bills of Quantities for the Oglomabiri project, adapted to the specific site conditions and community layout.
- Cost comparison and analysis between the Basambiri and Oglomabiri projects to identify and achieve economies of scale in procurement.
- Negotiation of bulk material supply contracts covering both communities simultaneously, achieving significant cost savings for the client.
- Separate contract administration for the Oglomabiri project, with individual payment certifications and cost reports.
- Monitoring and management of site logistics costs (waterway transportation) for the Oglomabiri project.
- Preparation of the final account for the Oglomabiri community development package.
- Preparation of a comparative cost study between the Basambiri and Oglomabiri projects for client reporting purposes.

4.5.3 Community Development Projects — Reflections

The community development projects in Basambiri and Oglomabiri provided Mr. Opatoki with unique experience in the cost management of small-scale community infrastructure in remote riverine environments. The projects reinforced the importance of adapting standard QS practice to local conditions, including the costing of logistical challenges, the valuation of community contributions, and sensitivity to community priorities and expectations. These skills are of increasing relevance as more Nigerian construction projects incorporate community benefit requirements.

PROJECT 10: Renovation of Residential Building — Shell Residential Area

Location: Port Harcourt, Rivers State | Period: 2000 – 2003 | Est. Value: Shell RA Project

4.6 Project 10: Renovation of Residential Building at Shell Residential Area (Shell R.A.), Port Harcourt, Rivers State

4.6.1 Project Description

Shell Residential Area (Shell R.A.) in Port Harcourt is a premium residential estate that houses Shell Petroleum Development Company (SPDC) staff and their families. The estate is maintained to international residential standards and features high-specification buildings with modern amenities. The renovation project involved the comprehensive refurbishment of one or more residential buildings within the Shell R.A. to restore them to Shell's residential accommodation standards following deterioration over time.

The renovation works encompassed structural repairs, waterproofing, complete electrical rewiring to IEE standards, plumbing overhaul, HVAC system servicing and upgrades, tiling replacement, kitchen and bathroom refurbishment, repainting, external works, and landscaping restoration. Shell's project management team imposed rigorous quality standards, HSE requirements, permit-to-work controls, and documentation requirements on all contractors working within the residential area.

4.6.2 My Function

- Preparation of Schedule of Condition prior to commencement of works to establish existing condition as the baseline for measuring completion.
- Preparation of Schedule of Works detailing all renovation items and their specifications.
- Preparation of Bills of Quantities and pricing schedule for the renovation works.
- Obtaining and evaluating quotations from Shell-approved contractors and specialist subcontractors.
- Administration of the renovation contract including payment certifications and variation management.
- Compliance with Shell's documentation and cost reporting requirements.
- Final account preparation and close-out in accordance with Shell's project completion procedures.

CHAPTER 5: ANALYSIS OF PROFESSIONAL COMPETENCIES

5.1 Summary of Projects

The following table summarises all ten projects in which I have participated over the 26-year career:

No.	Project Name	Location	Employer	Period
1	Senate Building — Covenant University	Ota, Ogun State	FOLUDY FOUR	2010–Date
2	Repair — Engineering & SLT Bldgs, CU	Ota, Ogun State	FOLUDY FOUR	During Engagement
3	CU Day Secondary School	Ota, Ogun State	FOLUDY FOUR	During Engagement
4	1,000-Seater Church	Mgbuoba, Port Harcourt	FOLUDY FOUR	During Engagement
5	Kingdom Heritage Model School	Onitsha, Anambra	FOLUDY FOUR	During Engagement
6	NLNG Production Bldg Relocation	Bonny Island, Rivers	JAPPAUL	2000–2003
7	NLNG Cable Slabs Production	Bonny Island, Rivers	JAPPAUL	2000–2003
8	Basambiri Community Infrastructure	Nembe LGA, Bayelsa	JAPPAUL	2000–2003
9	Oglomabiri Community Infrastructure	Nembe LGA, Bayelsa	JAPPAUL	2000–2003
10	Shell R.A. Residential Renovation	Port Harcourt, Rivers	JAPPAUL	2000–2003

Table 2: Summary of Projects Participated In Over 26-Year Career

5.2 Distribution of Projects by Sector

The following table shows the distribution of my project experience across different construction sectors:

Construction Sector	Number of Projects	Percentage of Portfolio
Educational Buildings (University)	3	30%
Educational Buildings (Secondary School)	2	20%
Religious/Ecclesiastical Buildings	1	10%

Construction Sector	Number of Projects	Percentage of Portfolio
Oil & Gas Industrial Construction	2	20%
Community Development Infrastructure	2	20%

Table 3: Distribution of Experience by Construction Sector

5.3 Geographical Coverage

Over the course of his career, I have gained professional experience across four (4) geopolitical zones of Nigeria, working in the following states:

State	Region	Projects
Ogun State	South-West	Senate Bldg, Engineering/SLT Repair, Day Secondary School
Rivers State	South-South	Church (Port Harcourt), NLNG (Bonny Island), Shell R.A.
Anambra State	South-East	Kingdom Heritage Model School (Onitsha)
Bayelsa State	South-South	Basambiri & Oglomabiri Community Infrastructure

5.4 Core QS Competencies Demonstrated

The following matrix maps My project experience against the core competency areas identified by the NIQS:

NIQS Competency Area	Evidence of Competency	Projects Demonstrated
Cost Management & Planning	Feasibility estimates, cost plans, cost reports	All 10 Projects
Bills of Quantities Production	BOQ preparation for all building types	All 10 Projects
Procurement & Tendering	Tender document preparation and management	Projects 1, 3, 4, 5, 6, 7
Contract Administration	Interim valuations, variation management, final accounts	All 10 Projects
Cost Reporting	Periodic cost reports to clients at all levels	All 10 Projects
Specialist Construction	Oil & Gas, Precast, Remote/Riverine Construction	Projects 6, 7, 8, 9
Repair & Refurbishment	Condition surveys, schedule of dilapidations, BOQ	Projects 2, 10
Community Development	Community infrastructure cost management	Projects 8, 9

CHAPTER 6: PROFESSIONAL DEVELOPMENT AND CONTINUING EDUCATION

6.1 Importance of Continuing Professional Development

Continuing Professional Development (CPD) is a cornerstone of professional practice in quantity surveying. The NIQS requires all its members to maintain CPD records and to participate in activities that advance their professional knowledge and skills. I recognized the importance of CPD as the construction industry continually evolves with new technologies, procurement methods, contract forms, and regulatory requirements.

6.2 Knowledge Development Areas

Over the course of my career, I have developed expertise in the following areas through a combination of formal training, professional reading, seminars, and on-the-job learning:

- Standard Method of Measurement for Building Works (NIQS SMM)
- FIDIC Conditions of Contract (Red Book, Yellow Book, Silver Book)
- Nigerian Building and Road Research Institute (NBRRRI) Standards
- National Building Code of Nigeria
- Public Procurement Act and Bureau of Public Procurement (BPP) Guidelines
- Construction industry software including Microsoft Project, AutoCAD (basic), and cost estimating software
- Health, Safety and Environment (HSE) in Construction — NEBOSH-aligned training
- Value Engineering and Value Management techniques
- Alternative Dispute Resolution (ADR) in construction — mediation and arbitration
- Project management principles — PMBoK framework

6.3 Industry Contributions

Beyond direct project contributions, I am committed to the advancement of the quantity surveying profession in Nigeria. I have actively participated in NIQS state chapter activities, mentored junior QS practitioners within my firm, and contributed to the development of cost databases and benchmarks relevant to the Nigerian construction market.

CHAPTER 7: CHALLENGES ENCOUNTERED AND LESSONS LEARNED

7.1 Overview of Challenges in Nigerian Construction Practice

The practice of quantity surveying in Nigeria is conducted within an environment shaped by specific challenges that differ from those encountered in other countries. These challenges have shaped my professional development and have necessitated the development of adaptive problem-solving skills across my career.

7.2 Key Challenges and Professional Responses

Challenge	Impact on QS Practice	Professional Response
Inflation and Currency Fluctuation	Rapid escalation of construction costs, BOQ pricing quickly outdated	Development of escalation clauses, use of index-linked contracts, frequent market price updates
Logistics and Material Supply	Particularly severe in remote locations (Bonny Island, Bayelsa)	Advanced procurement planning, materials tracking, use of local suppliers where possible
Incomplete/Inadequate Drawings	Difficulty in preparing accurate BOQs, risk of significant variations	Detailed QS review at tender stage, use of provisional sums, close coordination with design team
Client Budget Constraints	Pressure to reduce costs without compromising quality	Value engineering, life-cycle costing, staged construction advice
Contractor Capacity Limitations	Delays, quality issues, payment disputes	Rigorous prequalification, performance monitoring, proactive early warning systems
Regulatory and Permitting Delays	Impact on programme and cost	Early engagement with regulatory authorities, inclusion of regulatory risk in risk registers
Foreign Exchange (for imported materials)	Cost uncertainty for imported items	Use of provisional rates, forex escalation provisions, local substitution where feasible

7.3 Summary of Professional Lessons

The challenges encountered across 26 years of professional practice have yielded the following enduring professional lessons:

1. The QS must be proactive rather than reactive in all aspects of cost and contract management. Prevention of cost overruns is always more effective than cure.

2. Thorough pre-contract preparation — including rigorous Bills of Quantities, well-drafted contract conditions, and careful tender evaluation — is the most important investment a QS can make in a project's ultimate success.
3. Communication is as important as technical skill. The QS must be able to communicate complex financial and contractual information clearly and confidently to clients, contractors, and other professionals.
4. Local knowledge is invaluable. Understanding the construction market conditions, labour rates, and supply chain realities of each project location is essential for accurate cost management.
5. Relationships matter. Building and maintaining positive professional relationships with clients, contractors, consultants, and NIQS colleagues is fundamental to long-term professional success.

CHAPTER 8: CONCLUSION AND RECOMMENDATIONS

8.1 Conclusion

This Technical Report of Professional Experience has presented a comprehensive account of my twenty-six years of professional practice as a Quantity Surveyor in the Nigerian construction industry. The report has documented ten significant projects across two employers — FOLUDY FOUR NIG. LIMITED and JAPPAUL OIL & GAS LIMITED — spanning four states and multiple construction sectors including education, ecclesiastical, oil and gas, community development, and residential construction.

The report demonstrates that I have accumulated a broad and deep portfolio of professional experience that encompasses all the core competency areas recognized by the Nigerian Institute of Quantity Surveyors. My experience ranges from the preparation of Bills of Materials and cost plans at the inception of projects, through the management of procurement and tendering, to contract administration, cost reporting, and the settlement of final accounts.

My experience with JAPPAUL OIL & GAS LIMITED at NLNG Bonny Island provided me with exposure to international construction and procurement standards, significantly enriching my professional competence beyond typical domestic QS practice. My work on community development projects in the Niger Delta demonstrated an ability to adapt QS practice to unique and challenging project environments.

Throughout my career, I have consistently demonstrated the professional values of the NIQS: competence, integrity, and commitment to the public interest. I have contributed to the delivery of significant public, educational, and community infrastructure that have improved the lives of Nigerians in multiple states. My continued service with FOLUDY FOUR NIG. LIMITED attests to the high regard in which my professional services are held.

8.3 Closing Statement

I, Mr. Oluseye Oladosu Nathaniel Opatoki respectfully submits this Technical Report to the Nigerian Institute of Quantity Surveyors in support of my application for corporate membership of the Institute. I am committed to upholding the professional standards and ethical values of the NIQS and to contributing to the continuing development of the quantity surveying profession in Nigeria.

I extend my sincere gratitude to all the clients, colleagues, contractors, and mentors who have contributed to my professional development over the course of my career, and look forward to continued service to the profession and to Nigeria's built environment.

APPENDICES

Appendix A: Glossary of Technical Terms

Term / Abbreviation	Definition
BOQ / Bills of Quantities	A document produced by the QS itemizing all work required in a construction project for pricing by contractors
AGG	Associated Gas Gathering — natural gas infrastructure project in Nigeria's Niger Delta
FIDIC	Fédération Internationale des Ingénieurs-Conseils — international standard construction contracts body
HSE	Health, Safety and Environment — integrated risk management framework
ICMS	International Construction Measurement Standards — global standard for construction cost reporting
IOC	International Oil Company — major multinational petroleum companies
LNG	Liquefied Natural Gas — natural gas cooled to liquid form for storage and transport
NIQS	Nigerian Institute of Quantity Surveyors — professional body for QS in Nigeria
NLNG	Nigeria Liquefied Natural Gas Limited — LNG plant on Bonny Island, Rivers State
QS	Quantity Surveyor — construction professional specializing in cost management
QSRBN	Quantity Surveyors Registration Board of Nigeria — statutory regulatory body
Shell R.A.	Shell Residential Area — staff housing estate of Shell Petroleum in Port Harcourt
SMM	Standard Method of Measurement — standardized rules for measuring construction works
SPDC	Shell Petroleum Development Company of Nigeria Limited
SLT	Science Laboratory Technology — academic discipline and building type
Value Engineering	Systematic method to improve value of goods or services by examining function

Appendix B: States and Projects Map (Narrative)

The projects described in this report span four states across Nigeria's southern regions. Ogun State (South-West) hosts three projects at Covenant University, Ota. Rivers State (South-South) hosts three projects: the 1,000-seater church in Mgbuoba, Port Harcourt; the NLNG building

relocation on Bonny Island; and the Shell R.A. residential renovation in Port Harcourt. Anambra State (South-East) hosts the Kingdom Heritage Model School in Onitsha. Bayelsa State (South-South) hosts the community infrastructure projects in Basambiri and Oglomabiri within Nembe Local Government Area.

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