

Name of Firm: Daniel & Daniel Engineering, Inc

Name of Staff: Alphonsus Daniel

Profession: Sanitary/Environmental and Mechanical Engineer

Date of Birth: October 14, 1960 Nationality: Grenadian

Years with Firm/Entity: Seventeen (17) years

Membership in Professional Societies:

- Member of the American Water Works Association (AWWA)
- Member of the Inter-American Association of Sanitary and Environmental Engineers – AIDIS-USA
- Member of the Caribbean Water and Waste Water Association – CWWA
- Member of the International Water Association – IWA
- Grenada Institute of Professional Engineers – GIPE

Key Qualifications:

Alphonsus Daniel has been a practicing Mechanical, Sanitary and Environmental Engineer for 30 years with a wide range of experience in the planning, design, supervision and management and maintenance of water and waste water systems (both public and private projects).

A 1986 graduate from Superior Polytechnic Institute and the University of the Orient in Santiago De Cuba, Cuba with a B.Sc. and a Master of Engineering in Mechanical Engineering. After graduation experience, has been developed through working with the National Water and Sewerage Authority Grenada, and later in 1994-1996 pursued a post graduate Diploma and a Master of Science Degree in Sanitary Engineering, then was the sole founder of Daniel and Daniel Engineering in 1999, The company started with a Alphonsus Daniel as the lone engineer and his wife and secretary. Today this company has grown to six staff members. Daniel and Daniel Engineering has been performing consulting services for Pan American Health Organization, (PAHO), The Caribbean Environmental Health Institute (CEHI), The United Nation Food and Agriculture Organization (FAO), St. Georges University, Creative Designs and Building Company Ltd. The National Water and Sewerage Authority (NAWASA), The Government of Montserrat, The Government of Grenada, Caribbean Development Bank (CDB), The Caribbean Basin Water Management Project (CBWMP) now CAWASA, Private clients, in St. Vincent CCA- Donald Trump Villas, Anguilla, Trinidad and Tobago, Antigua, St. Kitts Nevis, etc.

Publications include two research Thesis and a paper present at the

CWWA Conference in Trinidad and Tobago in 2000 “Alternative waste water Treatment systems to traditional septic tank and soak away systems and conventional wastewater Treatment methods.

Alphonsus Daniel is the Immediate Past President of the Grenada Institute of Professional Engineers (GIPE), serves on many technical committees; and represented the GIPE and the Grenada Chamber of Industry and Commerce on the National Science Council, the Climate Change Committee, alternate member on the National Emergency Relief Organization (NERO) now NADMA.

He has been a member of the Global Water Partnership Caribbean (GWP-C) since its inception in 2004.

He is the current President of the Caribbean Water and Wastewater Association (CWWA).

Mr Daniel has a passion for lecturing and has been the roving lecturer of The Caribbean Basin Water Management Programme now CAWASA which is responsible for training personnel of all the Water Utilities across the Caribbean. Lectures are in basic Hydraulics for water operators, advanced Potable Water Distribution Modeling and Sewage Collection Modeling using software: WaterCad and SewerCad; Water Distribution and Plant Maintenance and Unit operations.

He is an advocate for the use of appropriate and sustainable technology in the management of wastewater in the Caribbean Small Island Developing states (SIDS)

International Institute for Infrastructural, Hydraulic, and Environmental Engineering (IHE)
Delft, The Netherlands 1994 -1996

◆ Masters of Science in Sanitary Engineering with Distinction (Specialized in Urban Water Supply and Wastewater Collection, Treatment and Disposal)

◆ *Post Graduate Diploma in Sanitary Engineering with Distinction (Water, Wastewater and Solid Waste)*

The East University and Superior Polytechnic Institute – Julio Antonio Mella, Santiago de Cuba, Cuba 1981 -1986

Masters of Engineering in Mechanical Engineering (Distinction)

◆ Bachelor of Science in Mechanical Engineering (Hons.)

Summary of Professional Qualification:

B. Sc., M. Eng. (Mech.), Dipl. Eng. (Sanitary), M. Sc (Delft), Dipl. Management (UWI)

Experience:

1988-1989 Project Engineer – St. George’s Sewerage System Rehabilitation Project – Supervision of all works: \$1,081,000.00 CD\$

1991 –1994 Project Engineer – Grand Anse Sewer Project and was assigned to Louis Berger International Project consultants on a part time basis for two years– Designs, supervision and installation of pumping and gravity mains, pump station, sewer hook-ups: \$4.5 million US

1997 Project Engineer - Borehole testing and evaluation - Brackish water source for Reverse Osmosis Desalination Plant – Grenada Breweries Limited

1997 Sanitary Engineer – Team of Consultant Design of storm water drainage, storm water retention and Leachate Treatment ponds – Grenada Landfill Project - OECS Waste Management Project

2001 Consultancy on Collection and Treatment and Disposal of Septage in St. Vincent and the Grenadines for The Pan American Health Organization (PAHO)

2001 - 2002 Consultant/Design Engineer - Sewage collection, treatment and disposal system and potable water network for Caribbean Dreams Luxury Hotel, Petit Trout, St. David’s, Grenada: \$16.00 Million E. C

2002 Design of drainage, roads, potable water and fire networks, garbage disposal for a subdivision for residential purposes –up to 80 houses, Cost of infrastructural works: \$1.8 M \$E.C

2002 – 2003 Member of EIA team – Environmental/Sanitary/Water Engineer - EIA for Caribbean Aggregates Services Limited – Proposed sand crushing quarry at Perseverance, in Grenada

2002 – 2003 National Coordinator for Food & Agriculture organization (FAO)’s irrigation project in Grenada

2001 - on-going Design Engineer/Consultant Redesign/Revamping of Potable water, fire, and sewerage networks including pumping stations, water tanks, Wells and Desalination Plants, etc., at the St. George’s University, True blue Campus, Grenada

2002 – On-going. Lecturer in Pump Maintenance, Basic Hydraulics, Unit operation – Water and Wastewater Treatment; Hydraulic Modeling, Analysis and Design of Potable water systems, - WATERCAD; Hydraulic Modeling of Sanitary Sewer Systems – SEWERCAD, - for Caribbean Basin Water Management project, Inc (CBWMP) for Water Utilities and

Private Sector organization across the Caribbean. (1-2 March 2006). Lectures in Hydraulics were carried for 13 different Caribbean countries from Grenada in the south to Cayman Islands and Turks and Caicos in the North

2003 Undertake environmental Scoping Exercise, study and Preliminary Design for Bottle Water Plant Bon Accord Estates

2003 Member of Design Team for DIWI Consult on the Drainage Master Plan for St. George's, Grenada

2003 – 2004 Design of Potable water, waste systems for Courts Main Store/Headquarters, St. George's

2003 2004- Design, Build & Supervision of water and wastewater networks for the Garden Group Hotel Project on its five sites, No Problem/Cedars Inn, Camerhogue Park Hotel, Village Hotel, Maffiken, etc

2003-2004 Environmental Scoping and Review of Design and EIA exercise of the Wall Blake Airport Expansion, Anguilla and expert witness in court case Bernice Lake vs the Government of Anguilla

2003 -2004 Member of Team that compiled the Directory on Environmentally Sound Technologies for the integrated Management of Solid, Liquid and Hazardous Waste for SIDS in the Caribbean Region for the Caribbean Environmental Health Institute, St. Lucia

2003 - 2004 Team leader to Conduct EIA for Kenny's Trucking concrete batching Plant, St. Andrew, Grenada

2004 – Team leader to conduct EIA for Battery Assembly Factory for Peterson's Trading, Inc, St. George, Grenada

2004 – Comprehensive Review and Design Report on the existing wastewater collection, treatment & Disposal system, Storm water Drainage, and Potable Water Network at The Dunfermline Housing Project. Presently in the process of re-designing of all systems that were initially constructed inadequately. 24 two-bedroom houses, 30 three-bedroom houses, 36 three-room apartments, 12 one-bedroom apartments, 6 commercial spaces, 56 empty lots that will be developed into residential houses.in St. Andrew's, Grenada for the Government of Grenada.

2004 - Development of wastewater treatment and re-use for the Lance Aux Epines Cottages, Lance Epines, St. George, Grenada.

2004 – Design of potable water, fire, and Wastewater Treatment systems and storm drainage for the proposed Kalinago Luxury Beach Resort for the Morne Rouge Bay, St. George, Grenada.

2004 – EIA Scoping Exercise and Statement for kalinago Luxury Beach Resort for the Morne Rouge Bay, St. George, Grenada.

2004 – EIA Supplement for The Proposed Rhino Linings project for MAG Enterprises, Old Fort, St. George, Grenada

2004 – Redesign/upgrade of Intake structure and raw water pipeline for Glenelg Spring Water Bottling plant, St. Patrick, Grenada

2004 – Design of waste water Treatment system for Restaurant at Bon Accord Estates, St. George, Grenada

2005 - Design of waste water Treatment system for the St. Patrick's Roman Catholic School, Grenada

2005 -2006 Re design of sewer Trunk main and waste stabilization ponds for wastewater treatment for Look Out Housing Project in Montserrat.

2005 – Design of potable water network, waste water collection, treatment and disposal systems for the International School, Vet Division and Animal Hospital of the St. George's University

2005 - Carry out of percolation tests for Tomlin Voss and Associates (TVA) at sites for Mr. & Mrs. Turners, Mr. Simon Yorke, and Mr. Rick Caswell, True Blue and Lance Epines, St. George, Grenada

2005 - Design of waste water Treatment system for the new computer laboratory for The T.A. Marryshow Community College, St. George, Grenada

2005 Design of Infrastructure water and sewerage works, internal design of Spa Jacuzzi and Reflective Pool for Spice Island Beach Resort to upgrade to 5-Star Hotel.

2005 – 2006 National Consultant for the Construction works at the Mirabeau Propagation Station shed house and 6000 feet pipeline replacement project for United Nations Food and Agriculture Organization (FAO)

2005 – On- Going Design all plumbing internal, external, pool, irrigation, potable water pumping station, etc for the Donald Trump Villas for CCA in Canouan, St. Vincent and the Grenadines. Cost of each villas \$2.4-2.6 M U.S. 26 villas over the next four years

2006 Carry out Percolation Test on the site of for La Luna Luxury Condominiums, Morne Rouge, St. George's

2006 Design of Waste water Systems for ABM Caribbean Agro Flour Mills, St. George, Grenada a subsidiary Archer Daniels Midland Company, USA

2006 Design of Main sewer collection System for Super Dorms IV of the St. George's University

2006 Redesign of Internal Waste, potable water and Fire networks for 24 –room upscale Apartments, True Blue, St. George, Grenada

2006 Consultant on Rainwater harvesting in the Caribbean, Development of Technical Manual and Conduct Workshops for the Caribbean Environmental Health institute (CEHI) – in St. George and Carriacou, Grenada

2006 Specification of sewage treatment methods for Vieux Fort in St. Lucia, for the Caribbean Environmental Health Institute (CEHI)

2006- Design of rainwater, potable water, and waste water and fire networks for the new wing of the Grenada Distillers (Rum) Factory, St. George, Grenada

2006- Design of wastewater collection, treatment and disposal system for Government of Grenada Housing Development (managed by the Agency for Reconstruction and Development-ARD) at Mt. Gay, St. George and Soubise, St. Andrews, Grenada 130 lots.

2006 - on going Design of upgrade to sewer collection system for the St. George's University to include the New Vet. Lecture hall and Super dorm 5.

2006 Design of collection, treatment and reuse wastewater system for Grooms – Apartments – 32 rooms, Dr. Grooms Beach near Point Salines International Airport, St. George, Grenada

2006- Design of potable water, wastewater, lift station to pump back into the Constructed wetlands system and gas networks and swimming pools for the La Source Beach Hotel and Spa

2006 Redesign of water and waste networks for upscale town house at Cinnamon Hill, Redesign of the water reticulation and storage system for the existing hotel and the new wing to be constructed, the design of a collection and treatment system for storm water near this beach front property and water and waste system for the New Port St. Louis Marina project to be developed by billionaire Peter Desavry

2006 Part of the Team to undertake Sewage Needs Assessment Study for Vieux Fort, St. Lucia – for UNEP/CEHI., 2006

2007 Design of Main sewer collection System and Grease Traps for Super Dorms V of the St. George's University

2007 Design and Construct Water Treatment system for Huggins Distribution, Mt. Gay

2007 Design of waste water Treatment Plant for the newly Refurbished Belmont Estate Restaurant and Conference centre

2007 Design of Swimming Pool for Jacqueline Francis of La Saggese, St. David

2007 EIA Scoping Exercise for Five Star Restaurant in the Grand Etang Forest Reserve for Phillip Alexander

2007 – on going Design of Bottled Water Treatment Plant for Kool Beverages Limited, St. George's

2007 Design of Pump station and force main for the new wing of the St. George University Club

2007 Design of Irrigation system for Farmers at Chambord Estate, Pumping mains, water Tanks, etc

- Assessment of the Financial Requirement for Wastewater Treatment and Disposal in the Caribbean undertaken jointly with CEMRA, 2009 for UNEP/CAR-RCU
- Part of consulting team to advice on the way forward of the GEF- IWCAM demonstration project in Antigua – 2010
- Design of Storm water out fall system for Gems, Kalinago Beach Resort, Grenada – 2010
- Design of Swimming Pool for Alyson Francis, La Sagesse, St. David - 2 010
- Design of emergency trash/sewage pump for the True-Blue complex of the St. George's University (SGU) Campus – 2010
- Design of potable water, sewerage and irrigation networks for the New Science Lecture Hall of the SGU, True Blue Campus – 2010

- Design of internal plumbing networks, and yard sewers for the New Creole Restaurant for Port Louis Luxury Marina - 2010
- Design of Waste Water Treatment and reuse systems for the proposed 40 – bedroom villa apartment/condos for Shankar/Mina Khushalani, True Blue, St. George -2010
- Design, produce training materials and facilitate the GEF-IWCAM/ GSN workshop on Rehabilitation and management of the Basseterre Valley as a protection measure for the underlying Aquifer in St. Kitts – Onsite Wastewater Treatment and Disposal – 2011
- Design of Wastewater Treatment system for the Lowther’s Lane Government Office Complex, St. George – 2011
- Redesign of waste water Sewerage system for the University Club of the St. George’s University – 2011
- Design of the external sewers, grease traps and manholes for the Super Dorm 7 of the SGU, True Blue Campus – 2011
- Re-Design in a view to upgrade the sewer sub-station at Black Sand Beach of the SGU, Campus – 2011
- Design, produce training materials and facilitate the GEF-IWCAM/ CAWASA workshop on Wastewater Reuse Antigua – April, 2011
- Conduct Environmental Impact Assessment for Grenada Marine Extension of Berthing services – November 2011.
- Team leader on Reducing Risk to Human and Natural Assets Resulting from Climate Change Project (RRACC) project, St. Kitts: Water Sector Assessment, Auditing and Conservation. 2012 - 2013

The project was implemented on the Island of St. Kitts and particularly addressed the issues of potable water wastages and losses. An assessment of the water sector was conducted including the eight (8) surface water plants and eleven (11) deep water wells or boreholes, all storage reservoirs ranging from 15,000 to 2 million gallons, and one hundred and one (101) miles of pipes lines ranging from 2” to 12”. Baseline data was collected, desk studies were conducted and collection additional field data. Then using the AWWA/IWA water Audit Methodology a comprehensive Water Audit was carried out of the entire island resulting in the calculation of a non-revenue water (NRW) of 53.4%, a water conservation plan was developed with performance goals for the years 2017 and 2022 based on the projection of 1.5% reduction per year in system real losses for the first five years, and about 1% reduction per year for the second five-year period.

Interventions goals were as follows: Improve its capacity to provide safe and reliable water service; Eliminate, downsize or delay water infrastructure projects and focusing on network efficiencies, i.e., leak detection, and other waste reduction methods; Reduce operating costs; Reduce energy use, Prevent pollution by reducing wastewater flows, thereby maintaining ecosystems and protecting the water resources of St. Kitts; Enhance the public's appreciation and respect for water as a valuable resource especially with regard to the new realities that climate change will bring; and Improve water use efficiency, thereby building climate resilience and resilience to drought and events that contribute to water scarcity. All this information was feed into a master plan and National Water Policy for St. Kitts.

A training program was conducted on water auditing and water conservation practices where twenty-four (24) water operators obtained certificates, pilot water audits were conducted in Government intuitions using the trainees. The outputs of these exercises were then used to facilitate water conservation practices in whole of St. Kitts. Finally, a public awareness campaign (PAC) was developed and implemented for St. Kitts on water conservation.

- Review design, supervise construction of water and wastewater systems of sandals La Source Grenada. One hundred and fifty (150) bedrooms were redesigned with the necessary potable water pipes, booster pumps stations and storage reservoirs. The sizing of main sewer collectors and sewer lift station to the treatment plant installed was also carried out. 2012 – 2014
- Review/redesign, the wastewater collection, treatment and disposal systems of Pinney's Beach Resort for Caribbean Architects and Planners, Nevis. The proposal for a wastewater package system (Activated sludge) to be installed on Pinney's beach was scrutinized. The system proposed was not recommended. A redesign was carried out and modification/alteration was recommended then approval was granted or the project to go ahead 2014
- Review/redesign, the wastewater collection, treatment and disposal systems of Candy Resort for in association with Caribbean Architects and Planners who led the Environmental Impact Assessment., Nevis. This development is located on a 4.5 -acre parcel at Liburd Estate in the parish of St. James in Nevis. The project includes seventy-two (72) luxury units/condos of two (2) bedroom units. Various options were presented for wastewater water collection, treatment and disposal ranging from on-site septic tanks and soak away systems, conventional system with preliminary, primary and secondary treatment, constructed modular wetlands system and mechanized package plant systems. The client preferred the system of Septic tank and constructed wetlands. A system of 4" and 6" diameter building and yard sewers respectively were designed for collection of wastewater generated on the compound. 2015

- EIA Review/redesign, the wastewater collection, treatment and disposal systems of Nevisian Sunset for Caribbean Architects and Planners, Nevis. Fifteen (15) two (2) units-condos were reviewed and recommendations made. Various methods were presented for wastewater management and client opted to construct septic tanks and leach field systems 2015
- Team leader on Reducing Risk to Human and Natural Assets Resulting from Climate Change Project (RRACC) project, St. Kitts: Water Conservation Retrofitting Project for the OECS Secretariat.
Under this project retrofitting designs for water conservation were carried out on the Basseterre Abattoir, Verchild's Secondary School and St. Paul's Primary school. The design contemplated the installation of water saving devices, low flush toilets, conical spray nozzles, water heaters, etc and installation of rain water harvesting systems and pumping stations to be used for washing down, cleaning and irrigation. Sixteen hundred and Eight hundred- gallon systems were designed with the necessary booster pumps 2014 - 2016
- Regional Disaster Vulnerability Reduction Project (RDRVP) for Consulting Engineers Partnership (CEP): Design of water, fire and foul drainage networks – Cadrona Home, St. Patrick's Anglican School, Holy Cross and Hills view Home. This World Bank Project encompassed the design of potable water mains and booster pumps, and the sewerage network to convey wastewater to an on-site septic tank soak away system for this home for the aged and two schools that were damaged by Hurricane Ivan. 2014 – 2015.
- Conduct training in water and wastewater operation and maintenance for the BVI Water and Sewerage Department, October 2015. Twenty-six (26) water and wastewater operators were trained on the island of Tortola in preparation for ABC's certification exams in water and wastewater plant operations. This training coincided with the startup of two new state - of- the art mechanized activated sludge treatment plants. The field trip was conducted at these plants. Operators were able to appreciate unit operations from preliminary screening and grit removal, primary settling, secondary treatment, tertiary, disinfection and disposal of effluent. 2015
- Design of sewer lift station for Grenada Marine, True Blue St. George's – 2015. This job was carried out for one of Grenada's largest Marina. The main sewer collectors were designed to convey sewage to the proposed sewer lift station and a 3" diameter force main to the municipal sewerage system. 2016
- Design of the potable water, foul drainage, fire network and internal red of water, waste water and venting for Grenada 's first Gated Community, Calivigny consisting of twelve (12) condos, and six (6) villas with related service Buildings. A two (2) inch diameter

potable water ring main, and 4" and 6" diameter sewer trunk mains were designed for conveyance of the wastewater to an on-site mechanized treatment plant 2016

- Design and Supervision of wastewater systems/upgrade to La Sagesse and Beausejour Housing Projects – World Bank projects for Glean's Engineering Co Ltd. Under this project a redesigned was carried out of the on-site septic tank and soak away systems for the two housing Development of 28 and 23 lots respectively 2014 -2017
- Team leader for Technical Assistance for the Development of Climate-resilient Detailed Designs and Supervision for Water Conservation Pilots – Grenada, Montserrat and St. Kitts and Nevis For the OECS Secretariat.
Design were carried for four rain water harvesting systems with filtration systems and solar pumping stations in Grenada at the Mirabeau propagation station (14,300 gallons), the Princess Alice Hospital (44, 000 gallons), the Mac Donald College (30, 800 gallons) and The Richmond Home for the aged (17,600 gallons).
Under this project water conservation retrofitting for the JNF Hospital, Basseterre Fisheries complex, Cayon High School and Edgar T. Morris primary school in St. Kitts were also designed. Pressure management resulting in loss reduction (better network efficiency) in two District Metering Zones (DMA's). i.e., Mattingly and Ponds in the St. Paul area were designed to be used as pilots.
The redesign of two raw water mains from two spring sources (Fountain and Buckley's catchment). Two (2) - inch diameter HDPE pipelines of lengths 2000 feet and 5000 feet respectively from heights of approximately 1600 feet above mean sea level in the foot hills of Mt. Limuga down to the settlements at Buckley and the farm surrounding the Kittian Hills in St. Kitts were also carried out.
An irrigation system for the Monserrat National Trust was also designed for the Montserrat Botanic Garden at Salem consisting of 2", 1" and ¾" pies fitting and necessary equipment powered by a solar pumping station. Supervision of these works is currently on the way. 2015 - on-going
- Design of wastewater and storm water systems for Spring Aire Condominium Resort Development in association with Caribbean Architects and Planners who led the Environmental Impact Assessment. This development is to be located on an 8.57-acre parcel at Spring Estate in the parish of St. James in Nevis. The project includes seventy-five (75) 2-bedroom units, thirty-nine (39) one bedroom units and thirty-six (36) studio units. Various options were presented for wastewater water collection, treatment and disposal ranging from on-site septic tanks and soak away systems, conventional system with preliminary, primary and secondary treatment, constructed modular wetlands system and mechanized package plant systems. A system of 4" and 6" diameter yard sewers were designed for collection of wastewater to be generated on the compound. The main trunk

mains/storm water sewers ranging from 24” up to 48” were designed as part of the storm water management for the proposed development. 2017 – on going

Other specific projects carried out

- Conduct workshops in Equipment Maintenance Management and Installation, Repair and Maintenance of Pumping Equipment for Caribbean Development Bank (CDB) 1988
- Completion of Water storage tank at The Frequente Industrial Park
- Design and construction supervision of New sewage lift station on the New General Hospital Project 2000 - 2002
- Borehole testing and for the Grenada Breweries - 1997
- Storage tank rehabilitation for Grenada Breweries to accommodate the installation of Reverse Osmosis Plant – 1988
- Slow Sand Filtration Water Treatment Plant, NEWLO – 1998
- Design of numerous pumping/irrigation systems for the Farmers throughout Grenada and Bottled water plants 1994- present
- Supervision of sanitary and potable plumbing networks on various commercial projects 1997- Present
- Water and Wastewater Quality Testing
- Supervision of Water and wastewater networks of the Steele Mall Housing Scotia Bank - 2000
- Remedial Design for sewage treatment system for The Silver Beach Hotel, Carriacou 2001
- 1997- 2011 Water networks for various Hotels, Restaurants and Housing projects: Such as wastewater collection, treatment and Disposal systems for Aquarium Restaurant, The Beach House Restaurant & Bar, The Beausejour Housing Scheme, Grenada Marine, Shell Select, La Luna Hotel, Paradise Bay Hotel Development Project, New offices of Nyack and company Belmont Estates, Back up treatment plant for Point Saline’s International

Airport, Grey water System for Calabash Hotel, Barclays Bank Building - Grenville, L.L. Ramdhanny & Co. Building - Grenville, Three Bed room House in St. Lucia, Pilot Plant for squatter housing settlement – PAHO funded project - St. Vincent, T.A. Marryshow Community College, The BayFront Apartment for Azam Rahaman, True Blue, The True Blue Bay Mariner, at True Blue, Wastewater Treatment Plant for St. Andrew's Anglican secondary School, W.T. Plant for the Westerhall Secondary School Extension, Grenada Marine, NIS new offices in Grenville, Bel Air Home for children, Proposed Marian Community Centre upgrade to Emergency Shelter, Up-Scale Residence of Mr. and Mrs. Turners at Lance Aux Epines ,

Education:

University of the West Indies – Institute of Business
Trinidad, West Indies

July-November 2000

◆Diploma in Management

International Institute for Infrastructural, Hydraulic, and Environmental Engineering (IHE) Delft, the Netherlands **1994 -1996**

◆ *Masters of Science in Sanitary Engineering (Specialized in Urban Water Supply and wastewater collection, treatment and disposal)*

◆ *Post Graduate Diploma in Sanitary Engineering (Water, Wastewater and Solid Waste)*

The East University and Superior Polytechnic Institute – Julio Antonio Mella 1981-1986
Santiago de Cuba, Cuba

◆ *Bachelor of Science in Mechanical Engineering (Hons.)*

◆ *Masters of Engineering in Mechanical Engineering*

The University of Havana
Havana, Cuba

1980 -1981

◆ *Certificate in Spanish*

**Institute for Further Education (IFE)
Grenada**

1979 -1980

◆ *1st year completion certificate in Advance level Mathematics, A' level Physics and A' level Economics*

Presentation Brothers College Grenada

1973- 1979

◆ G.C.E. Certificates in O'level Mathematics, Physics, English Language, English Literature, History, Geography, Commerce, and AO' level Additional Mathematics

Employment Record:

From	To	Name of Employer	Titles of Positions	Description/Assignment / Project	Location
1999	Present	Daniel & Daniel Engineering Inc	Managing Director/Sanitary Engineer	All Activities	Grenada
2000	Jun. 2002	NAWASA	Manager	Production and Quality Department – responsible for Water Treatment Plants, Laboratory and Sewer sections	Grenada
1998	2000	NAWASA	Head Engineer	Operation and Maintenance Department – responsible for Production and Quality, Transmission and Distribution, Pump & Electrical, Sewer and Garage Departments	Grenada

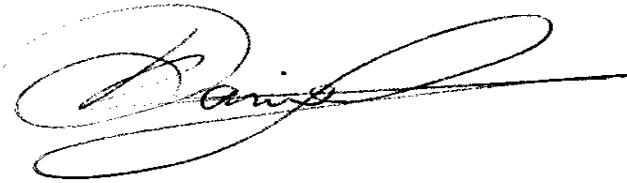
1996	1998	NAWASA	Project Engineer	Vendome Booster pump – Design and execution of installation of storage tank, pumping and distribution mains & pumping stations.	Grenada
			Project Engineer	Concord - Brizan Extension Remedial Works to Transmission/ Distribution mains and Filtration Plant.	
			Project Engineer	Extension/upgrade, Ground water Development/Well drilling Programme	
1994	1996	Study leave			The Netherlands/ Holland
1991	1994	NAWASA	Project Engineer	Grand Anse Sewer Project – Designs, supervision and installation of pumping and gravity mains; pump station & sewer hook-ups	Grenada
1989	1991	NAWASA	Project Engineer	Ground water Development project – Designs of boreholes and pump houses; specification, purchase and installation of pumping equipment & force mains	Grenada
1988	1989	NAWASA	Project Engineer	St. George’s Sewerage System Rehabilitation Project	Grenada
1987	1988	NAWASA	Project Engineer	Ground Water Development Project –Well Drilling and Well Rehabilitation	Grenada
1986	1987	NAWASA	Mechanical Engineer	Responsible for Garage, Pump & Electrical sections	Grenada

Languages:

Language	Proficiency		
	Speaking	Reading	Writing
English	Excellent	Excellent	Excellent
Spanish	Excellent	Excellent	Excellent

Special Skills/Certificates

- Computer literacy: Proficient in the use of Quick Books,, Excel, SlideWrite Plus, AutoCAD, Microsoft Office, Microsoft Project, WaterCAD, SewerCAD, Microsoft Publisher, and Microsoft Power point
- Lecturer in Mathematics (up to Advanced level and 2nd year University)
- Certificates in Soil Compaction, Pipeline Rehabilitation, Human Resources Management, Project Management, Time and Stress Management, Training in Health and environmental Health in the Caribbean Community
- Equipment and Machinery Evaluator



References:

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