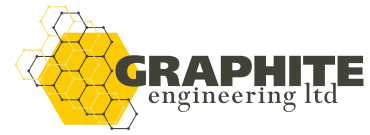


# Raymond D. Bingham

Assistant Engineer

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## ▼ Professional Summary

Dynamic and resourceful mechanical engineering professional with 5+ years of industry experience and 40+ projects associated with MEPFP consulting and design, ranging from plan preparation to construction administration. Strong leadership qualities with the ability to communicate across multi-functional teams, liaison with international firms and clients, and management of projects to complete on time and within budgets through collaborative leadership. He is a research professional with several published articles in international journals and conferences concentrated on sustainability/renewable energy design and building energy optimization practices and their economic feasibility. His PEng. Application for licensure with APEGA is pending approval.

## ▼ Experience

### **2018 – Present: Graphite Engineering Ltd., Assistant Engineer**

- Performed internal and external project management duties for new developments, renovations, design, and construction encompassing small private and governmental projects, to multi-million dollar public and private ventures. Managed schedules and deliverables on multiple projects simultaneously within budgeted hours.
- Broad project track record having experience in healthcare facilities, schools, banks, hotels/condominiums, restaurants, utility plants, churches, office/sales spaces, and consulting for solar micro-grid farm development.
- Prepared engineering calculations and construction documents for commercial/residential HVAC, plumbing, fire protection, and fuel/gas obtaining construction permits.
- Designing and managing individual projects, resolving technical matters, and liaison with clients. Independently execute assigned tasks by applying standard engineering theories, fundamental concepts, and techniques.
- Technical and supervisory guidance in mechanical aspects of the company, mentorship of junior engineers, and sub-contracted inspectors.
- Provided technical support during pre-construction meetings with contractors involving contract requirements.
- Performed and scheduled site inspections for various disciplines to monitor construction activities, and report findings of the work.

### **Sept 2015 – May 2017: Univ. of Ontario Institute of Tech., Graduate Teaching Assistant**

- Developed teaching materials, such as syllabi, course projects, visual aids, answer keys, supplementary notes, or course websites.
- Planned and led discussion sections, tutorials, and laboratory sections ranging from 30-150 students per session.
- Identified and resolved issues on the crank arm design, improving the course project's overall quality.
- TA courses included Advanced Solid Mechanics, Statics, Structures and Properties of Materials Engineering Design, Ethics, Law, and Professionalism.

## ▼ Key Projects

### **Baha Mar Bay, New Providence, Bahamas**

- Reviewed engineering drawings compliance with the project and local codes. Performed inspections for compliance with project specifications.

### **The Pointe Hotel, New Providence, Bahamas**

- Design ventilation system for over 100 guest rooms.

### **Aqualina, New Providence, Bahamas**

- Fire sprinkler and standpipe system consulting and design for the high-rise condominiums.

### **Ann's Town Clinic, New Providence, Bahamas**

- Design of healthcare HVAC system to ASHRAE 170 standard.

### **Peter I. Bethel Building, New Providence**

- Design of VAV HVAC system totaling over 130 tons of cooling incorporating

### **Lyford Cay Club, New Providence, Bahamas**

- Project lead in the MEP redesign of several existing buildings and construction administration throughout the renovation projection.
- Mechanical design of new central utility plant including scalable primary/secondary loop chiller water (up to 240 tons), campus water heating, and LPG and diesel supply systems.

### **Bristol Wine and Spirits, New Providence, Bahamas**

- High-piled storage and Extra Hazard fire sprinkler and standpipe system design.

### **King's College, New Providence, Bahamas**

- Project Lead providing construction administration service for MEPFP.

### **Atlantis, New Providence, Bahamas**

- Various mechanical projects including chilled water system renovation and fire sprinkler system assessment.

### **Sandals Emerald Bay, Exuma, Bahamas**

- Chilled water plant assessment and generator ventilation room design.

### **Solar Micro Grid, Grand Bahama**

- Consulting services on the integration of a utility-scale solar and battery microgrid for the eastern Grand Bahama area.

### **Various Restaurants including Paranza, KFC, Pizza Hut, Vesper, Norman's Cay Beach Club, Baha Mar SLS**

- Kitchen ventilation, plumbing, and LPG design.

### **Various High-End Residential Homes Albany, Old Fort Bay)**

- HVAC, plumbing, and LPG systems design.

### **▼ Education**

2017

#### **University of Ontario Institute of Technology**

MASc. Mech. Engineering.

2014

BEng. Automotive Engineering (Honours).

### **▼ Certifications**

- NFPA 13-19 Sprinkler System Design
- Health and Safety Orientation for Supervisors/Workers (HSOS/HSOW)
- Workplace Hazardous Materials Information System (WHMIS)
- Workplace Violence & Harassment Prevention (WVHP)
- Globally Harmonized System (GHS)

### **▼ Skills**

- AutoCAD MEP
- Revit MEP
- Carrier HAP
- Microsoft Office
- Diesel/LPG Systems
- VRF Systems
- Chilled Water Plants
- HVAC Design
- Plumbing Design
- Fire Protection Design
- Hydronic Systems
- Fuel/Gas Systems
- ASHRAE, NFPA, IBC
- CAD
- Sustainability
- Consulting
- Team Management
- Project Management
- Problem-Solving
- Communication
- Versatile

#### ▼ Published Articles

- *'Whole building optimization of a residential home with PV and battery storage in The Bahamas'*  
**Renewable Energy vol. 132, Mar. 2019.**
- *'Optimization of Residential Buildings and Renewable Energy Integration in Small Island Developing States'*  
**MASc. Thesis, University of Ontario Institute of Technology, Oshawa ON, Canada 2017.**
- *'Multi-objective Optimization of a Residential Building Envelope in The Bahamas'*  
**Smart Energy Grid Engineering, Oshawa ON, Aug. 2017.**
- *'Feasibility Study of a Hybrid Solar and Wind Power System for an Island Community in The Bahamas', Aug. 2015*  
**Int. J. Renew. Energy Res., vol. 6, no. 3, Jul. 2016.**
- *'Comparison of A 10 MW Solar Farm and Equivalent On-Grid Residential Solar Systems in The Bahamas'*  
**Smart Energy Grid Engineering, Oshawa ON Aug. 2015.**

#### ▼ Professional Affiliations

- Bahamas Society of Engineers
- ASHRAE CARICOM Chapter
- NFPA Member