

Angel R. Carrasquillo

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PROFESSIONAL INTEREST:

To be part of an organization that offers with the opportunity to contribute with my expertise in management of Municipal and Private Infrastructure systems.

BRIEF SUMMARY OF QUALIFICATIONS:

- ❑ **Licensed P.E. in FL.** Over 30 years of experience in the engineering and management of infrastructure including Water Treatment Plants, Electrical & Mechanical Industrial equipment, stormwater, construction, utilities, water resources and road systems.
- ❑ Managed Miami Dade Water & Sewer Department (WASD) \$2 Billion Consent Decree Program (Mandated by DOJ and EPA) with 170 projects. Projects include design, procurement and construction of systems with many heavy and light mechanical and electrical equipment ranging from 120V, 240V, 480V, 600V, ATS for large power generator systems, transformers and chemical and mechanical processing equipment.
- ❑ Director of City of Miami CIP \$1 Billion Program ([Office of Capital Improvements - Miami \(miamigov.com\)](http://www.miamigov.com)). Miami's CIP Program includes a PMO (Program Management Office) group, Customer Service/Public Outreach, and a large staff of Project and Construction Managers. The Department manages the design, procurement, bidding, construction and commissioning of ALL City infrastructure. Including: Electrical, mechanical, aquatic, roads and bridges, pumping and control systems.
- ❑ Experience in the Municipal, Industrial, Pharmaceutical, Construction Management, operations and Consulting Engineering (PA, DE, NJ, MA, IN and NY including Construction Management of the NYDEP Bowery Bay 250MGD WWTP expansion at a cost of \$290 million(1997 US dollars));
- ❑ Managed large capital infrastructure programs with focus on Risk control measures to avoid issues on Schedule, Budget and implementation;
- ❑ Lead PMO and controls of project Data, Schedules, resources and man power associated with delivery needs;
- ❑ Performed Value Engineering (VE) for efficiency and cost savings;
- ❑ Very Proficient in using eBuilder, Proliance, Microsoft Project, Power BI, Oracle and other software platforms on Program Management;
- ❑ Managed negotiations, conflicts leading to resolution with large contractor firms, CPR, Payment and Change Orders, established focus groups to lead construction managers to resolve and find resolution and follow on outstanding issues to meet milestones and critical deadlines;
- ❑ Performed Construction Management duties on large Pump Stations rehabilitation (while in operation), large Headworks, Primary & Secondary Clarifiers, & Dewatering systems (including WASD's Consent Decree three Regional WWTP's);
- ❑ Management of the assessment of infrastructure, design, permitting, prepare and execute CARs (Capacity Analysis Reports), construction and rehabilitation of systems;
- ❑ Budget preparation for year CIP, project planning, cost estimation, expenditures forecast, scheduling and implementation and presentation to Municipal Stake Holders/Commission & Mayor's level;
- ❑ Managed DBB, DB, CMAR delivery methods;
- ❑ Managed I/I programs for collection infrastructure;

- ❑ Ability to work with multi regulatory agencies, interact with Local/State/Federal agencies, and executive management, customers, and outside vendors, manufacturers and suppliers;
- ❑ Strong interpersonal communication skills with customers, regulatory agencies and contractors;
- ❑ Experience on large Capital Projects (management of operations, administration and construction);
- ❑ Fully Bilingual English / Spanish (reading, writing and speaking);

WORK EXPERIENCE:

City of Miami (Miami, FL)

- ❑ Director of Capital Improvement Program: June 2021-April 2022

Experience under City of Miami:

Duties included: Directing City of Miami's Office of Capital Improvement (OCI) ([https://www.miamigov.com/My-Government/Departments/Office-of-Capital-Improvements.](https://www.miamigov.com/My-Government/Departments/Office-of-Capital-Improvements)) With OCI I lead the Capital Program of the City with just over \$1Billion and over 300 projects. Some projects include; Resiliency Program (stormwater & flooding control) with large pumping system, controls, electrical and mechanical equipment meeting Federal and local Flooding and Building Code. Manage Program and Construction Management including PMO group. Lead optimization of schedules of all projects within the OCI Department. The OCI Department includes a PMO (Program Management Group), Customer Service/Public Outreach Division, and three assistant directors. Staff consists of many design groups, Project and Construction Managers.

AECOM (Coral Gables/Miami, FL)

- ❑ Vice President/Regional Director Southern Florida/The Caribbean/Program Manager: October 2019-February 2021

Experience under AECOM:

Duties included: Managing staff/offices operations for the Southern part of the State of Florida the Caribbean and Latin America. Helped on developing and leading profit and growth opportunities with key strategic clients and working hand-in-hand with regional and nationwide market leads.

Executed Program Manager, construction Manager and Program Executive for the Consent Decree (CD) \$2Billion Program lead by the Department of Justice and EPA for Miami-Dade County. The Programs is part of a \$13 billion Capital Improvement Program for the County. The CD Program includes 170 projects. Duties included Program and Construction Manager for WASD's largest Pump stations, electrical, controls, mechanical and process rehabilitation to the County System and all three Miami's WASD regional WWTPs (ranging from 115-200 MGD), smaller lift stations and collection and sewer transmission infrastructure. Including the Design Build Contract for the new Thickening & Dewatering buildings (\$190 Million) for CDWWTP & SDWWTP with associated transformers, electrical and process controls. Use of several Program Management and Construction Management software platforms.

CAROLLO ENGINEERS (Miami, FL)

- ❑ Vice President/Senior Project Manager January 2013-October 2019

Experience under Carollo Engineers:

1)Manage Engineering Projects in Florida including for Miami Dade County Programs. The Miami projects are part of the aqueduct department Capital Improvement Program (CIP) of approximately \$13 billion. Main duties include leading engineering management efforts of electrical, mechanical, process controls and instrumentation of the County's water and wastewater treatment plants projects as well as pumping stations, distribution and collection piping and all infrastructure involved with the aqueduct system. 2)Manage Office staff and operations including regional and national resources including strategic pursuits involving Miami Dade's WASD \$13Billion CIP. 3)Provided assistance in corrosion control to old sanitary sewer collection systems and performed many condition and assessment efforts on several municipalities water and sewer infrastructures . 4)Successfully put together the team (Engineers/designers and Contractor and led design build preparation (design/build package for Carollo) for WASD's Thickening & Dewatering Project (\$190Million). Teaming with Poole & Kent (Contractor).

CITY OF NORTH PORT (Sarasota County, FL)

□ Assistant Utilities Director/Engineering Manager/City Engineer– February 2006 –December 2012

Experience under the Public Works Department:

1)Manage Engineering Division staff; Manage Road Resurfacing Projects (up to 813 miles of roads) and City bridges rehabilitation. Manage Fiscal Year budget preparation associated with Engineering Division. Assist on the preparation and presentations to customers, City Council and City Manager. 2)Preparation of RFP for consultants selection, Management of contracts for projects including design and construction rehabilitation of stormwater infrastructure. 3)Plan, schedule and supervise design, bidding process and construction of Department's infrastructure projects including implementation of routine maintenance, preventive and predictive maintenance. 4)Assist Department's Operations with Technical support during daily operations. 5)Perform and/or Manage Engineering Studies and Master Planning of stormwater infrastructure and flooding control, drainage and implementing BMP per City, State, Federal and FDOT criteria. 6)Management of the planning, scheduling of construction. 7)Assist on Fiscal Year Budget Preparation. 8)Prepare cost opinions and make decisions based on sound Engineering Judgment and common sense with considerations on Department needs. 9)Responsible for the training and development of personnel, 10)Responsible for Department's Engineering Standards of the City's ULDC (City CODE).

Experience under the Utilities Department:

As the Assistant Utilities Director some of the major highlights included: Management of the City Wastewater Master Program. (approx. \$50 Million, 2006 dollars). Efforts included management of Engineering Consultants (with a fee of \$10 million) and management of a wastewater expansion program. 1)Managed the design, procurement/bidding and construction of the upgrade of the Central Wastewater Treatment Facility (WWTF) from 3.1 to 7.0 MGD. The Project included a new technology (the first used in Florida) that included centrifugal aeration blowers controlled by dissolved oxygen probes that saved the Utilities Department a great amount of power & energy costs. WWTF upgrade included new SCADA system. 2)Managed the operations of the City's water and wastewater treatment plants. 3) Manage the design and permitting of rehabilitation of approx. 100 sewer Pumping Stations (with associated telemetry and controls). 4)Ensured routine execution of the mechanical integrity test done to the City's Deep Injection wells, pumping and tankage systems at the City's WWTF, 5)Managed assets of the water and wastewater plants infrastructure including pumping, distribution and collection and developed Predictive, preventive and routine maintenance schedules and finance scenarios, 6)Developed CIP and budget preparation for the rehabilitation of infrastructure of plants. 7)Managed Water Resources projects for the region associated with enhancing potable drinking water alternatives. 8)Provided in-house technical assistance to in-house operations staff including Hydraulic Modeling, in-house design, and utilizing GIS for infrastructure assets, 9)Responsible for the training and development of personnel and implementation of disciplinary actions consistent with Human Resources and Department's Policies. 10)Led Developer Agreements engineering efforts into incorporation of water booster stations, interconnects between Counties, Peace River Water Authority, SWFWMD. Evaluated water and sewer transmission mains and other water infrastructure associated with new commercial and residential developments. 11)Manage the Following Master Plans: Master Plan for Potable Water system. Wastewater, Reuse Water Master Plan, Biosolids Master Plan and City and Manasota Region to establish demands for Growth forecast and projections. 12)Assisted Department on budget preparation, preparation of Water Quality Report Confidence Consumer Report (CCR) to Department of Health and system users. Responsible for the Management of area fixed spending, capital spending and variable costs. 13)Coordinate with local, state, federal regulatory agencies for plant operations. 14)Assisted on Septic Tanks elimination program efforts. Lead Engineering analysis and developed infrastructure alternatives with budgeting and financial model scenarios. 15)Developed Preventive and Predictive SOPs and KPIs for system assets.

GREELEY AND HANSEN P.C. (Sarasota FL)

□ Office Mgr/Senior Engineer – August 2003 – February 2006

Main responsibilities included management and preparation of designs and Master Plans utilizing Greeley's regional and national resources for improvements of water and wastewater treatment systems for several municipalities in the state of FL. Most important projects included: 1)Managed design of one Sarasota County largest septic tanks replacement program (Phillippi Creek Septic Tank Replacement Program Area D with approx. 1,500 septic tanks). The entire Program estimation for Sarasota county was short of \$200 Million (yr. 2000 dollars) with a total of approximately 12,000 septic tanks integrated into a

new vacuum sewer collection system. This was with the mayor goal to prevent pollution of Sarasota Bay with a reliable and an affordable sewer collection alternative. 2) Participated on the development of Conceptual Design, Final Design, and Construction Management for BNR (Biological Nutrient Treatment) for Hillsborough County, Managed the design and retrofit of Pump Station 25 (one of the largest in Sarasota), which included the elimination of a 50,000 gal above ground sewage tank converted into below grade large wet well pumping system with VFDs and reconfiguration of south Sarasota county over 45 lift stations through a more efficient pumping system including a 3 mile 18" diameter HDPP force main installed via directional drill. The project included Preventive and Predictive maintenance protocols for their Lift Station. 3) Development of schematics, process flow diagrams, mass balance and sizing of chemical feed systems, supervising of hydraulic modeling. Provided client with technical assistance to in-house operations staff to improve operations (bench scale, pilot testing, Hydraulic Modeling, etc.), Design and construction management of several directional drill pipeline projects.

HAZEN & SAWYER P.C. (New York, NY and Philadelphia, PA)

□ Project Mgr. – November 1999 – July 2003

Responsibilities included: 1) Design for improvements of water and wastewater infrastructure systems (up to \$250 Million) for the states of NY, PA, IN and NJ. Duties included: Responsible for construction management of a portion of the upgrades to the Bowery Bay 250 MGD WWTP NYDEP in Queens NY (Contract 57B, 1997 dollars). Construction management activities included Overseeing Head Works, primary and secondary clarifiers, approval of mechanical equipment to commissioning and change orders approval. 2) Developed conceptual and final design, for sludge Mixing Pumps and New sludge heat exchangers for the Bower Bay 250 MGD. Lead design of Potassium Permanganate, NaOH, NaOCL, and Sulfuric Acid feed systems for the Croton WTP. 3) Lead the design and assist on the construction management of a series of enhanced coagulation projects (for the 1999 finished water Primaries NTU EPA rule) for two WTP for the City of Philadelphia (this was part of the Surface Water Treatment Rule). Assist City of Philadelphia and New York staff on the operations of WTP and WWTP including developing jar testing, pilotesting to size and improve pumps and chemical feed systems. 4) Upgrades to biological nutrient removal (BNR) system, Development of water/wastewater treatment plants Hydraulic Profiles, Design and assessment of Anaerobic Digestion System for Bowery Bay WWTP (Heat Exchangers, Digested Gas Elimination, Digester mixing sludge system for 8 digestors), assist client with plants operations, assist with the review of maintenance tasks to improve safety, performance, and quality. 5) Assist Philadelphia Water Dept (BRC unit) with developing procedures to improve operations and maintenance to ensure reliability of Polymer dry and liquid system, evaluation and design of mechanical equipments including storage tanks, pumps, piping, blowers, valves and others building dehumidification system, preparing of O&M manuals, operation of treatment systems and develop of process flow diagrams (PFD). 6) Assist on design and permitting of chemical feed systems including petroleum based products (hydrocarbons) storage and feed systems (meeting NFPA and API codes), assisting client on expenditures to ensure proper budget utilization.

URS GREINER/DAMEs & MOORE (Willow Grove, PA)

□ Project Manager/Engineer- September 1997- October 1999

Provided Project Management, Technical support and design assistance in the following areas: Improvements of water and wastewater treatment infrastructure components (including over-seeing start-up, permitting, design, preparation of specifications, budgeting), Underground and Aboveground Storage Tanks, Environmental Assessment, and different treatment technologies to solves issues associated with soil and groundwater contamination. Assist on design and permitting of chemical feed systems, hydrocarbons storage and feed systems (meeting NFPA and API codes), assessment of air pollution: included permitting and mass balance calculations for the design, and FDEP approval for the operation of Thermal Oxidizers and incineration systems. Management of Hazardous Materials. Development of PFD and chemical feed systems. Assuring compliance and preparing monitoring reports for local and federal regulations such as: RCRA, CERCLA, CWA, EPA, BOCA, NFPA, NJDEP, PADEP, and many others. Preparation of BMP, SPCC and SPPP.

PENN PROCESS TECHNOLOGIES Inc. (Plumsteadville, PA)

□ Project Engineer –December 1995-August 1997(contract.)

Designing of *Omega Product Line* (former BIF feeder systems) chemical feeder components into manufacturing of water and wastewater treatment systems based on the interpretation of contractors specification and associated blueprints. Preparation of Engineered Design Submittal and associated Operation & Maintenance Manuals.

PRASA: PUERTO RICO AQUEDUCT AND SEWER AUTHORITY

Project Engineer - July 1993 to December 1995

Duties included administering environmental remediation programs imposed by EPA; Construction Manager of improvements of water and wastewater infrastructure systems (Rodrigo Montanez 50 MGD WTP, Pinones WWTP, Lago Carite Cayey Master Intake Pump Station. Duties included troubleshooting and start up; approving mechanical and electrical equipment according to technical specifications; assuring compliance with safety, health, and environmental regulations; (CFR # 29); Installation of Pump Stations and preparing monthly reports for EPA and PRASA concerning the project performance.

VINCENY & ASSOCIATES/MALCOLM PIRNIE (SANTURCE, P.R.)

Environmental Consultant - March 1992 to June 1993

Providing technical support and consulting services to industries in different areas of the environmental field such as: Inlunt Characterization studies for large Regional WWTP within PRASA's system, construction and start up of WWTP and associated equipment, compliance with (local & federal agencies), O & M, permitting. Providing technical support during mass balance studies, laboratories analysis, management and oversees of the construction of wastewater treatment systems, air emissions, preparing Emergency Response Plans, meeting Federal & Local regulations, GMP's & SOP's, EPA, RCRA, SPCP & BMP.

McNEIL CONSUMER PRODUCTS, (MAKERS OF TYLENOL Las Piedras, P.R.)

Project Engineer - December 1990 to March 1992

Duties included: Operation of the Pharmaceutical Wastewater Treatment Plant and chemical Lab. Provided support during construction installation and start up of waste water treatment systems' Sequencing Batch Reactors (SBR), assuring compliance with federal and local regulations including air emissions; operating sanitary and chemical wastewater treatment plants); Installation and start-up of Ozone system; Management of Hazardous Materials and disposal of Hazardous Wastes, implementing recycling systems for paper, aluminum cardboard and plastics; Performing Environmental audits, Spills Prevention Control Plans, GMP's & SOP's, EPA, RCRA and BMP.

EDUCATION:

Registered Professional Engineer (PE) in Florida and Puerto Rico

Bachelor of Science, Civil Engineering

Specialization: Environmental Engineering. University of Puerto Rico and Polytechnical University 1985-1991

TECHNICAL AND MANAGEMENT TRAINING AND CERTIFICATIONS:

- 40-HR OSHA 1910.120 Hazwoper/Hazardous Materials Training
- OSHA 1910.120 (e) Hazardous Materials Supervisor
- Underground Storage Tanks
- WEF
- Confined Space
- ASCE (American Society of Civil Engineers)

COMPUTER/SOFTWARE EXPERIENCE: e-Builder, Proliance, Microsoft Office, AutoCAD, Microsoft Project, Primavera, Oracle and others.