BERNARDO M. BIELER, MS, PE

[redacted]

PROFESSIONAL PROFILE

Professional Engineer with experience in government and private sector playing leading roles in management and technical responsibilities. Multicultural profile gained through academic and professional experience. Mr. Bieler seeks to be part of a team eager to innovate and lead in the engineering field.

AREAS OF EXPERTISE

Project Management	Organizational Development	Economic Analysis	
Roadway Design	Traffic Modeling	CADD Production	GIS
Drainage	Hydrologic Analysis	Hydraulic Modeling	Ground Water
Teaching Experience	Business Development	Web/Graphic Design	

PROFESSIONAL EXPERIENCE

IN GOVERNMENT

Miami Dade County, **Miami, FL Dec 2015 - Present**
Department of Regulatory and Economic Resources

Chief, Pollution Regulation Division Nov 2018 – Present
- Responsible for overseeing the implementation various local and delegated pollution prevention programs in Miami Dade County, including solid waste management; storage tanks; industrial waste pretreatment and domestic wastewater

Chief, Air Facilities Section
- Develop operational procedures for the permitting and compliance activities related to Air Quality Management local and state delegated programs.

Chief, Air Quality Management Division Oct 2016 – Nov 2018
- Responsible for the management and implementation of the Air Quality programs in Miami Dade County, including the oversee of permitting, compliance, enforcement and ambient air monitoring activities.

Chief, Air Facilities Section Dec 2015 – Oct 2016
- Develop operational procedures for the permitting and compliance activities related to Air Quality Management local and state delegated programs.

IN CONSULTING

The Corradino Group, **Miami, FL Jan 2013 – Dec 2015**
Project Engineer - List of sample projects:

SR 924 PD&E Drainage Report – Miami Dade Expressway Authority
- Develop PD&E Drainage Report for the expansion study of the SR 924 to the Florida Turnpike. Special interest was given to analyze hydraulic behavior with FDOT proposed managed lanes for Intestate 75.

Drainage Design – City of Hialeah, FL
- Design and perform all hydraulic calculations for multiple roadway reconstructions projects in the City of Hialeah. Task included plans and drainage structure production and develop all necessary report for permitting purposes.

Main Water Replacement – City of Sunrise, FL
- Engineer of Record for multiple water main replacement projects of 6", 8" and 12"pipes. More than 80,000 LF of design to sustain city's effort to upgrade current system.

CES Consultants, **Miami, FL Jun 2010 – Dec 2012**
Project Manager / Project Engineer- List of sample projects:

Sewer Pipe Design - Miami Dade Water and Sewer Department.
- Engineer of record in the design of more than 13,500' of 8" to 12" Force Main. Task include prepare proposals, negotiate fees, develop complete construction plans and assist client during BID and construction process.

Access Roadway to Scale Houses - Solid Waste Authority of West Palm Beach
- Study of analysis for a improved access roadway to the scale house in light of the construction of a new Waste To Energy (WTE) facility. Complete construction plans and cost estimates were developed in this contract.

SW 27th AV from US-1 to Bayshore Drive - Miami Dade Public Works.
- Engineer of record for a selfcontained drainage systems solving several utility conflicts along this highly dense utility road.
- Performed advanced hydraulic calculations to comply with water quality and quantity regulations.

BCC Engineering, **Miami, FL Sep 2008 - Jun 2010**
Project Engineer – List of sample projects:

Palmetto (SR 826) Section 2 - FDOT D6.
- Design storm drainage system performing hydraulic modeling (ICPR) to assure compliance with water quantity and quality restrictions. From this complete set of plans were developed.
- Develop drainage reports and prepare permitting application for government agencies.
- Perform flooding analysis in areas of temporary traffic during all construction phases and develop drainage systems to serve such areas. Specific spreadsheets were developed for this purpose.

I-75 Expansion Studies - FDOT D4.
- Preliminary analysis of the existing drainage conditions and study of the improvements required by the studies proposal.
- Hydraulic modeling was performed to analyze the potential need for ROW acquisition using ICPR.

Parsons Brinckerhoff, **Miami, FL May 2005 - May 2006**
Civil Designer for the following projects:
Improvements to Scott Key Road – US Virgin Island.
- Roadway design including new geometric elements along existing road.

Port of Miami Tunnel – FDOT D6
- Coordination of all utility companies affected by the tunnel alignment and coordinate relocation of affected entities in a new utility corridor.

Carbones de la Guajira, **Maracaibo, Venezuela Jun 2002 - Aug 2003**
Project Engineer
- Supervised and developed all Civil Engineering activities to support coal mine production, which included roadway design, drainage, earthwork movements and constructions of building office and other facilities in the camp.
- Managed relationship with contractors and performed public bid process on behalf of the company interests.

Bombardier, **Berlin, Germany Jan 2002 - Jun 2002**
Intern
- Assisted Senior Engineers using Auto CAD and Microsoft Office applications to develop productions plans and standards. Gained technical skills in Mass Transit Project design, in a multicultural environment with global approach.

IN RESEARCH

Florida International University, **Miami, FL Aug 2007 - Aug 2010**
Research Assistant
- Develop financial and progress reports for the Antigua and Barbuda Comprehensive Ecological Plan, to assist the principal investigator in all financial related issues.

Central University of Venezuela, Caracas, Venezuela Jun 2006 - Dec 2011
Researcher - Hydraulic Modeler
- Modeler to determine areas of potential Hazard Flood in the event of Dam breaks using 2D Surface Water Flow software (RiverFlow-2D - www.flo-2d.com). This project was funded by the Venezuelan Government.
- Create maps of hazard flow using GIS Arc Maps, and develop awareness campaigns to inform local governments and agencies of areas of high risk flooding.

University of Miami, Coral Gables, FL Aug 2003 - May 2005
Research Assistant
- Remote Sensing data was collected to develop Interferographic images that served as a novel approach to calibrate and validate 2D water flow modeling software (RiverFlo-2D).

IN ACADEMICS

Florida International University, **Miami, FL Aug 2007 – Dec 2012**
Adjunct Faculty
- Courses: Engineering Drawing.

Undergrad class designed to introduce engineering students in the concepts of graphic communication and Computed Aided Drawing Design. Extensive use of AutoCAD from simple elements to 3D solids. Class size 15 to 40 students
Miami Dade College, Miami, FL Jan 2011 – Dec 2011
Adjunct Faculty
- Courses: Computer Aided Drawing/Design.

Introductory class to CAD using AutoCAD from simple elements to 3D solids modeling. Average class size 19 students

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EDUCATION

MS in Civil Engineering – Transportation Pending graduation
Florida International University - Miami, FL
Relevant courses: Mass Transit Systems, Design of Intermodal Facilities, Highway Capacity Analysis, Traffic Demand Analysis, Airport Design, Advanced Highway Design
MS in Civil Engineering – Water Resources 2005
University of Miami - Coral Gables, FL
Relevant courses: Surface Water Hydrology, Ground Water Hydrology, Remote Sensing, Spatial Analysis
BS in Civil Engineering 2001
University of Zulia - Maracaibo, Venezuela

COMPUTER SKILLS

Engineering
- CAD and Roadway Design: Microstation 8, GeoPak, Auto CAD 2018, Civil 3D 2018
- Traffic Simulation: AIMSUN, CORSIM, VISSIM
- Coding: MatLab and VBA
- Hydraulic Modeling: AdICPR, River-Flo2D and MODFLOW
- GIS: Arc GIS 9.2
- Project Management: MS Project, Success

Microsoft Office Word, Excel, Power Point, Access, and Outlook.
Graphic Design Flash XM, Photoshop, Dreamweaver.

LANGUAGES

- Fluent in English and Spanish.
- Advance knowledge of German

PROFESSIONAL AFFILIATIONS

- Licensed Professional Engineer State of Florida (PE 71425).
- Licensed Professional Engineer Venezuela (CIV 132334).
- Institute of Transportation Engineers (ITE). Member No. 1015386