

Zaida E. Rico-Rolón, P.E., M.S.C.E.E.

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Objective

To fulfill a requirement of updated information by my current employer.

Education

- 2006-Present Doctoral Graduate Student; **Ph.D. Transportation Program**, Civil Engineering Department, University of Puerto Rico (UPR), Mayagüez Campus, Mayagüez, PR.
- 1998 **MS Civil and Environmental Engineering** specialized on **Transportation Engineering** University of Wisconsin (UW)-Madison, Madison, WI. Thesis: Impact on UW Student Ridership at Madison Metro due Introduction of Timed Transfer Terminals. Study how the implementation of four timed transfer points and modification to route and scheduling on Madison Metro will affect travel patterns of people using the UW Bus Pass, by analyzing on-board survey and applying an incremental logit model.
- 1996 BS Civil Engineering **Magna Cum Laude**
University of Puerto Rico (UPR), Mayagüez Campus, Mayagüez, PR.

License & Other Professional Requisites

- 1998-Present • **Professional Engineer, License 17075-PE**. Government of Puerto Rico, Department of State, San Juan, PR
- Good standing member of **College of Engineers and Land Surveyors of Puerto Rico**.

Work Experience

- 08/08-Present Puerto Rico Highway and Transportation Authority, Hato Rey, PR: **Chief of Engineering Office/Operations Manager; Operations Office, Integrated Transportation Alternative Area**. Manage one of the offices in charge of oversee the Operations and Maintenance Contract for Tren Urbano, specifically related to productivity indicators, service, transportation, tracks, shop, train control, rolling stock, among others; supervise two engineers and other professional.
- 2004-12/07
- 2001-2004 Puerto Rico Highway and Transportation Authority, Santurce, PR: **Special Assistant to the Undersecretary**. Assist the Undersecretary in various technical tasks such as revising proposals, coordinate projects, plan development and follow-up; help directors and project managers; manage design projects. As appointed **President of the DTOP Board of Awards**: Preside bid openings and some pre-bid meetings, evaluate proposals, answer claims through comments to the Revision Board, propose restructure of the Buys and Contracts Office and to the Bid Regulations.
- 2001 Puerto Rico Traffic Safety Commission, Santurce, PR: **Planning Director**
Develop federal proposals, evaluate submitted proposals to the Commission, develop annual plan and distribution of federal funds, plan and develop strategies in order to lower crash fatalities. Supervise eight professionals, including a data collector, statistician, programmer and traffic safety inspector.
- 2000-2002 Polytechnic University of Puerto Rico, Hato Rey, PR: **Instructor 2**-Civil Engineering Department

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- 1999-2001 Teach one section of the Applied Numerical Analysis course.
City of San Juan, Viejo San Juan, PR: **Transportation Consultant / Engineer**
Prepare a Master Transportation Plan including highways, parking, pedestrians and public transportation for the Municipality of San Juan as part of a team of four. Evaluate diverse proposed developments from the transportation point of view, including access, trip generation, impact on existing and proposed facilities. Help to coordinate the implementation of short-range improvements on transportation facilities.
- 1996 Tren Urbano Office, Hato Rey, PR: **summer intern-Traffic Engineering Department**.
Used SIDRA for intersection analysis. Collected field data on traffic signals, intersections, and land use. Mapped intersection phases and traffic volumes. Used AUTO Turn to analyze bus turning radii. Researched slip lanes, aisles, and turning radii. Conducted trip generation survey.

Special Skills

- **Fully Bilingual: Spanish, English**
- Transportation Computer Softwares: RailFocus, TRANPLAN, NIS, SIDRA, HCS, TEAM
- Other softwares: EPANET, MS Project, SEWER, Word Perfect, Words, Word Pro, Works, Excel, Lotus 123, Quattro-Pro, Freelance Graphics, Harvard Graphics, Power Point, EZ Web, Outlook, Eudora, Netscape, Explorer, Picture It
- Knowledge on transit planning/analysis/operation, intersection analysis, traffic impact analysis, route location & design.
- Familiar with dynamic traffic assignment, pavement condition analysis, pavement design
- Typing

Honors, Awards and Voluntary/Professional Activities/Elected Positions

- 2007-Present • D.D. Eisenhower Hispanic Service Institution (HSI) **Transportation Fellowship**. (I couldn't accept the money on 2007.)
- 2007 • Ada I. Pressman Memorial **Scholarship**, Society of Women **Engineers**.
- 2006-2008 • **Emerging Leader Award**. Institute of Civil Engineers - College of Engineers and Land Surveyors of Puerto Rico.
- 2005-2008 **Director**, College of Engineers and Land Surveyors of Puerto Rico-San Juan Chapter.
- 2005-2008 Member of the Board of Residents, Condominio del Mar. San Juan, PR.
- 2005 • **Woman of the Year**, Women's **Transportation** Seminar-Puerto Rico Chapter
- 2004- Present • Leadership Training Program, WTS / Vorhees **Transportation** Center, Rutgers University, N.J
- 2002-Present **Society of Engineers of Puerto Rico**
- 2000-Present **Institute of Transportation Engineers**
- 2001-2004 **Women's Transportation Seminar**. Puerto Rico Chapter
- 1997-1998 WTS-Puerto Rico **Chapter President**
- 1997 Advance Opportunity Fellowship. The Graduate School, UW-Madison.
- 1997 • University of Wisconsin **ITE-ITSA** Student Chapter. **Secretary**. UW-Madison.
- 1997 • Society of Hispanic Professional Engineers. UW- Madison
- 1997 • College of Agriculture and Mechanical Arts Alumni Association. UPR-Mayagüez
- 1996 • **American Public Transit Foundation Hall of Fame Scholarship Award**. APTA Annual

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Meeting & Expo'96, Anaheim, CA

- **Golden Key National Honor Society.** UPR-Mayagüez
 - Nominated as a National Collegiate Engineering Awards Winner. UPR-Mayagüez
 - Student Chapters of AGC, ASCE, CEA, CIAPR, PRWEAWA. UPR-Mayagüez
- 1995-1996 **D. D. Eisenhower Hispanic Service Institution Fellowship.** UPR-Mayagüez
- 1995 **Tau Beta Pi**, an honor engineering society. UPR-Mayagüez
- 1994-1996 **ITE Student Chapter, President (95-96)/ Treasurer (94-95).** UPR-Mayagüez
- 1992-1996 Dean's Honor List of UPR-Mayagüez
- 1988-1991 Cuatro (Puerto Rican guitar) Player, Dr. Francisco López Cruz Foundation's Cuatros and Bordonúas Orchestra. San Juan, PR.

Continuing Education

Experienced **public transportation** at Bombay, Rome, Venice, Florence, Vienna, Cologne, Bruges, Paris, Versailles, Dijon, Normandy, Prague, Madrid, London, Mexico City, San José, Atlanta, New Orleans, Miami, Orlando, Madison, Chicago, Washington DC, Boston, New York, Newark, Toronto, San Juan, among others.

Year	Professional Development Course (Sample)	Institution	Place
2008	Latin American Association of Metros and Subways (ALAMYS) June 2008 Working Committee Meeting	ALAMYS	San Juan, PR
2008	Transportation of Hazardous Materials	CIAPR	San Juan, PR
2006	Basic French	Pôle Universitaire Léonard De Vinci	Paris, France
2006	Transportation and Urbanism	CIAPR	San Juan, PR
2005	Managing Policy, Politics and People	Voorhees Transportation Center	New Brunswick, NJ
2004	APTA Rail Conference	APTA	Miami, FL
2004	Transportation Research Board Annual Meeting	TRB	Washington, DC
2003	New Security Regulations Related to Transportation	WTS	San Juan, PR
2003	Protecting Bridges & Tunnels Against Terrorists	USCOE	Vicksburg, MS
2003	Latin America Trade & Transportation Study Meeting	FHWA	Gulfport, MS
2003	Bid Process	Bortech Institute	San Juan, PR
2002	Highway Safety	WTS, ACT, CIAPR, SPP	San Juan, PR
2002	Environmental Conscience In Transportation Facilities	DTOP, ACT, FHWA, AASHTO	Dorado, PR
2002	Security At LMM International Airport	WTS, FAA	Carolina, PR
2002	Transportation In Livable Communities	SPP, WTS	San Juan, PR
2002	First Congress In Highway Design And Construction	ACT, CIAPR	Fajardo, PR
2002	WTS National Conference " Advancing Access "	WTS	Minneapolis, MN
2002	FHWA Emergency Relief Program	FHWA	Mayagüez, PR
2001	NHTSA Federal Funding Management	NHSGSR	Salem, MA
2000	Basic Conversational French.	Sacred Heart University	Santurce, PR
2000	Impact of Transportation Systems in The Community	PRTTC	Mayagüez, PR
2000	TEAM Software Training - FTA Funding Management	FTA	Atlanta, GA
1996	TU UPR-MIT Professional Development Program	UPR, TU, DTOP, ACT	San Juan, PR
1996	Public Transportation In Boston Course	MIT	Cambridge, MA

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Research and Presentations (Sample)

- 2007 Analysis of Organizational, Process and Technical Aspects to Consider in Order to Decide What to Do once Operation and Maintenance Contract for **Tren Urbano** Concludes. The research considers three alternatives: do nothing (extend current contract as is), modify contract & modify ATI oversight structure, and direct operation. Some of the aspects considered are: costs, current work effectiveness, procedures, current contract content, fulfillment of current contract, some labor issues, among others. The methodology included: cost analysis comparing TU data with other USA systems' data through regression, maintenance report sampling and analysis including hypothesis test for proportion level of confidence interval, Chi Square test comparing contractor's employees' salaries with PRHTA employees' salaries, risk analysis adapting both National Institute for Standards and Technology Special Publication 800-30 and MIL-STD-882B procedures, interview to professor in labor rights, among other procedures. UPR/PUPR/ATI, San Juan, PR.
- 2007 Limiting Parking Supply on New Developments Within 500 Meters of **Tren Urbano** Stations. As the impact fee included in current policy seems to be ineffective in disincentive parking development, literature is revised to identify ways to calculate a more practical and representative amount for the charge. UPR, San Juan, PR.
- 2007 Analysis of the Investment Program of the **Metropolitan Bus Authority** as Compared with the State Messages of the Governor Acevedo, the Economic Development Plan and the Land Use Plan Draft. Official documents were examined and analyzed for compatibility of goals and objectives. UPR, San Juan, PR.
- 2007 **Tren Urbano** Oversight and Monitoring. PR Highway and Transportation Authority.
/06 Researched and developed organization and monitoring plan for Tren Urbano operations and
/05 maintenance contract. Presented to students of the TU/UPR/UPPR Professional Development Program.
- 2000 Restructure of **Traffic and Parking** at Old San Juan. City of San Juan.
As part of a team, developed strategies to improve traffic conditions at Old San Juan. Training to San Juan Municipal Police was given on a related Project of Ordinance.
- 1998 **Traffic Impact Analysis** for Sprecher Neighborhood. UW-Madison.
Conducted a TIA for a residential and commercial development in Madison, WI, as part of a team. Utilized ITE trip generation tables to get traffic attractions. Used TRANPLAN software to get percent of approach to main collector streets, and used HCS to analyze impact on intersections. Presented at UW-Madison.
- 1998 **Feasibility of Light Rail Transit** in Madison. UW-Madison.
Researched for practicality of the light rail mode as an alternative transportation system for the city of Madison, WI. Compared attributes that normally make this mode workable with the existing in Madison. Related basic characteristics of cities having this kind of mode such as population density and gross leasable area with Madison. Presented at UW-Madison.
- 1997/96 **Park-and-Ride for First Phase of Tren Urbano (TU)** . UPR-Mayagüez.
Analyzed park-and-ride needs for the urban rail system proposed at that time for San Juan Metropolitan Area in PR, and compared with proposed and existing comparable systems in various cities. Presented at the **76th TRB Annual Meeting, Washington, DC** (as an Eisenhower Fellow), and the 31st. ACS Junior Technical Meeting, UPR-CUTA, Arecibo, PR.