

Juan M. Morales, P.E.
President
J.M. Morales & Associates
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Over 38 years of experience in transportation and traffic engineering, including road safety, traffic management, traffic studies and analysis, traffic calming, work zone safety, temporary traffic control, road safety audits, incident management, traffic safety, human factors research and technology transfer. Proven capability in traffic engineering, project management, technical writings, course development, continuing education, technical program development and evaluation.

EDUCATION:

- Master of Science, Civil (Transportation) Engineering, Georgia Institute of Technology, 1980
- Bachelor of Science, Civil Engineering, University of Puerto Rico, 1978

LANGUAGES: Fully fluent in English and Spanish. Conversational Portuguese.

PROFESSIONAL EXPERIENCE:

President, J.M. Morales & Associates, J.M. Morales & Associates (JMMA), 1995 – Present

Principal of a consulting firm specializing in transportation engineering and road safety with emphasis in the United States and Latin America. The company specializes in the areas of traffic engineering, specifically traffic safety and operations, work zone safety, traffic management and congestion mitigation, pedestrian safety and accessibility, application of advanced technologies, traffic studies, including traffic control devices, temporary traffic control in work zones, *Manual on Uniform Traffic Control Devices* (MUTCD), Maintenance of Traffic (MOT) design, traffic modeling and research. Type of work includes traffic safety improvements, work zone design, road safety audits (RSA), traffic calming, vulnerable road user (VRU) safety, traffic impact studies, pedestrian accessibility (American with Disabilities Act), continuing education, training and course development, delivery and evaluation. As Chief Instructor for the American Traffic Safety Services Association (ATSSA) since 2005, develops and delivers work zone safety courses nationwide, and trains other instructors. Served as Vice President of International Programs for the International Road Federation (IRF). World Bank traffic safety consultant for Latin America.

Director of Technical Programs, Institute of Transportation Engineers (ITE), 1990 – 1995

Responsible for directing the technical and professional programs of the Institute, including managing several technical projects and coordinating their development working through volunteer members of the Institute and the ITE staff. Responsible for providing support to ITE's Technical/Coordinating Council. Responsible for developing and carrying out professional development programs, such as developing textbooks, and informational reports, seminars, and others in the areas of safety, advanced technologies, traffic engineering, traffic management, and transportation planning. Actively participated in the development of the *Traffic Engineering Handbook*, the *Transportation Planning Handbook*, the *Traffic Safety Toolbox*, the *Manual of Transportation Engineering Studies*, *Trip Generation* and several recommended practices. Developed several courses in the areas of traffic engineering and safety, including course curriculum and material development, selection of instructors, and course evaluation and modification. Responsible for the development of the ITE annual meeting technical program. Served as ITE's representative in liaison with other organizations, such as the National Committee on Uniform Traffic Control Devices (NCUTCD) and the AASHTO Traffic Engineering Subcommittee.

Highway Research Engineer/Project Manager, Federal Highway Administration (FHWA), 1983 – 1990

Responsible for the development of traffic and safety implementation products in the area of traffic engineering and safety, particularly on traffic modeling and incident management. Responsible for Technology Transfer (T²) activities. Managed several projects in the area of project implementation. Coordinated the development of several courses in the areas of traffic simulation, signal optimization and safety. Coordinated the development of several technical reports, including the *Traffic Detector Handbook*, *Guidelines on the Use of Changeable Message Signs*, the *Arterial Analysis Package (AAP) User Manual* and others. Responsible for traffic safety research projects including safety design, traffic studies, microcomputer applications, and traffic simulation and modeling. As Contracting Officer Technical Representative (COTR), conducted and managed several research projects, including preparation of statements of work, evaluation and selection of technical proposals, contract monitoring, report evaluation and review. Conducted staff research in the areas of sign retroreflectivity, modeling, quantification of urban freeway delay and others. Conducted a validation study of the ROADSIM two-lane simulation model. Awarded the FHWA's 1987 Outstanding Technical Accomplishment Award and ITE's Past President's Award for research work on sign retroreflectivity.

Civil Engineer, Federal Aviation Administration (FAA), 1980 – 1983

Project manager and field resident engineer for several airport construction projects around the Southern Region of the United States, including feasibility studies, project management, cost estimation, design and construction of air traffic control towers and other airport facilities such as Airport Surveillance Radars (ASR), localizers, middle and outer markers. Resident

engineer for phases of the construction of the Chattanooga, TN, Ft. Lauderdale, and Nashville, TN, airport traffic control towers. Responsible for the modernization of several tower cabs.

PROFESSIONAL AFFILIATIONS:

- Fellow Member, Institute of Transportation Engineers (ITE), Member No. 11206
 - Member, Transportation Safety Council
 - Member, Transportation Forensics and Risk Management Council
- Member, American Traffic Safety Services Association (ATSSA)
- Member, Tau Beta Pi, National Engineering Honor Society

CERTIFICATIONS:

- Professional Engineer (P.E.), State of Florida (No. 83093)
- Professional Engineer (P.E.), Commonwealth of Virginia (No. 0402016676)
- Professional Engineer (P.E.), Commonwealth of Puerto Rico (inactive)
- National Highway Institute (NHI)-Certified Instructor
- American Traffic Safety Services Association (ATSSA) - Certified Master Instructor
- World Bank - Consultant

AWARDS:

- Edmund R. Ricker Transportation Safety Council Award, Institute of Transportation Engineers, given to a person who is recognized as a leader in the field of traffic safety through his/her safety activities in professional organizations, in the community, or in the performance of traffic engineering, 2011.
- Special Service Award, Federal Highway Administration, 1989.
- ITE's Past Presidents' Award, Institute of Transportation Engineers, given in recognition of technical accomplishments in transportation engineering, 1987.
- Outstanding Technical Accomplishment Award, Federal Highway Administration, 1987.
- Tau Beta Pi, Outstanding Project Award, Puerto Rico Alpha Chapter, 1978.

SELECTED PUBLICATIONS/COURSE MATERIALS:

- Work Zone Traffic Control, for the National Road Safety Center, Kingdom of Saudi Arabia, 2020.
- Utah Traffic Control Technician (TCT) and Traffic Control Supervisor (TCS) course materials, for ATSSA, 2019.
- Michigan Traffic Control Technician (TCT) and Traffic Control Supervisor (TCS) course materials, for ATSSA, 2020.
- Texas Traffic Control Technician (TCT) and Traffic Control Supervisor (TCS) course materials, Including Texas TTC Guide, for ATSSA, 2020.
- Louisiana Traffic Control Technician (TCT), Traffic Control Supervisor (TCS) and Refresher course materials, for ATSSA, 2019.

- Temporary Traffic Control Corporate Training Partner Train-the-Trainer course materials, for ATSSA, 2018.
- South Carolina Advanced Temporary Traffic Control, for ATSSA, 2018.
- Washington State Traffic Control Supervisor course materials, for ATSSA, 2017.
- Introduction to the Manual on Uniform Traffic Control Devices, for ATSSA, 2016.
- Designing Temporary Traffic Control Zones for Pedestrian Accessibility Training Course, for ATSSA, 2015.
- Traffic Engineering Fundamentals, University of Maryland, 2015-2019.
- Work Zone Worker Protection Training Module and Field Guide, for ATSSA, 2015.
- Designing Temporary Traffic Control Zones for Pedestrian Accessibility, for ATSSA, 2015.
- Operation and Application of Truck-Mounted Attenuators (TMAs), for ATSSA, 2015.
- Pennsylvania Department of Transportation (PennDOT) Traffic Control Manager, Training Course Materials, for ATSSA, 2014.
- Work Zone Road Safety Audits, Course Materials, ATSSA, 2013.
- A Guide to Temporary Traffic Control in Work Zones, for ATSSA, 2013.
- Introduction to Work Zones, University of Maryland Transportation Technology Transfer Center, 2008 to present.
- Work Zone Design, University of Maryland Transportation Technology Transfer Center, 2008 to present.
- Road Safety Audits, Course Materials, for Avery Dennison, 2012.
- Minimizing Worker Exposure in Highway Work Zones Through the Use of Positive Protection and Other Strategies, Training Course Materials for ATSSA, 2013.
- Vulnerable Road User Safety Training Course Materials, for Avery Dennison, 2012.
- Work Zone Traffic Control Coordinator Training Program, for the Manitoba Heavy Construction Association (MHCA), through the American Traffic Safety Services Association, 2012.
- Several Temporary Traffic Control (TTC) course materials for the American Traffic Safety Services Association, 1998 to present, including:
 - Use of Positive Protection Devices in Highway Work Zones
 - Traffic Control Technician Certification, including State-specific courses
 - Traffic Control Supervisor Certification, including State-specific courses
 - Traffic Control Design Specialist, including State-specific courses
 - Virginia Basic, Intermediate and Advanced TTC courses
 - Florida Basic, Restricted Activities, Intermediate and Advanced courses
 - Texas Traffic Control Technician and Traffic Control Supervisor
 - California Traffic Control Technician and Traffic Control Supervisor
 - North Carolina Traffic Control Installer and Traffic Control Supervisor
 - South Carolina Control Technician, Traffic Control Supervisor and Advanced
 - Minnesota Traffic Control Technician and Traffic Control Supervisor
 - Pennsylvania Traffic Control Manager
 - Nighttime Temporary Traffic Control
 - Incident Traffic Control
 - Comprehensive Work Zone Inspection Course

- Flagger Certification, Flagger Handbook and Flagger Workbook (English and Spanish), including online course materials (script) and State-specific materials
 - TTC for Utility Operations
 - TTC in Urban Areas
 - Work Zone Traffic Impact Analysis
 - Work Zone Strategies
 - TTC for Maintenance and Short Duration Operations
 - Work Zone Road Safety Audits
 - Others
- Flagger Certification PowerPoint and online course (English and Spanish)
- Vulnerable Road User Safety Training Course Notebook, The World Bank, 2010 and 2011.
- Roadside Safety Training Course Materials, The World Bank, 2010 and 2011.
- “Transportation Management Plans (TMPs) for Highway Contractors”, American Traffic Safety Services Association, 2009.
- “Work Zone Strategies”, American Traffic Safety Services Association, 2009.
- “Temporary Traffic Control for Utility Operations”, American Traffic Safety Services Association, 2009.
- “Traffic Impact Analysis for Highway Work Zones”, American Traffic Safety Services Association, 2009.
- “Emergency Traffic Control for First Responders”, American Traffic Safety Services Association, 2005.
- “Safe and Effective Use of Law Enforcement Personnel in Work Zones”, American Traffic Safety Services Association and Federal Highway Administration, 2005.
- “Basic Traffic Control for Utility Operations”, American Traffic Safety Services Association, 2003.
- “The Traffic Research Laboratory”, Public Roads, Fall 1999.
- “Evaluation of Emergency Vehicle Signal Preemption on the Route 7, Virginia Corridor”, with Darcy Bullock and Bobby Sanderson, ITT Systems, McLean, VA, 1998.”
- “Simulation Study of the I-495 – I-66 Interchange, Fairfax County, Virginia”, for the Virginia Department of Transportation, ITT Systems, McLean, VA, 1998.
- “Traffic Signing Handbook”, Training and Continuing Education Chapter, Institute of Transportation Engineers, Washington, DC, 1997.
- “ITS Keeps Traffic, Trade Flowing in Mercosur Region”, ITS World, March/April 1997 Issue, Eugene, OR, 1997.
- “ITS in Latin America: Privately Speaking”, ITS Quarterly, 1996 Summer Issue, ITS America, Washington, DC, 1996.
- “ITS America Outreach Mission to the Mercosur Countries of Brazil, Uruguay, Argentina and Chile”, ITS America, Washington, DC, 1996.
- “Traffic Management and Traveler Information Systems in Finland, Sweden, the Netherlands and the United Kingdom”, International Scanning Report, prepared for the Federal Highway Administration, Washington, D.C., 1996.
- “Improving Traffic Signal Operations, A Primer”, Institute of Transportation Engineers, Washington, DC, 1995.

- “Strategies to Alleviate Traffic Congestion”, ITE Seminar Notebook, San Juan, Puerto Rico, 1994.
- “Strategies to Alleviate Traffic Congestion”, Seminar Notebook, Institute of Transportation Engineers, Washington, DC, 1993.
- “Transportation Engineering in Latin America”, Pan American Institute of Highways Annual Meeting, Querétaro, Mexico, 1992.
- “Getting Started – Selecting and Using Computerized Traffic Models”, Public Roads, June 1989.
- “Retroreflective Requirements for Traffic Signs”, ITE Journal, November 1987 and Public Roads, December 1987.
- “Analytical Procedures for Estimating Traffic Congestion”, ITE Journal, January 1987.
- “Analysis of Positive Guidance Improvements”, Master’s Thesis, Georgia Institute of Technology, 1980.

SELECTED TECHNICAL PRESENTATIONS:

- Designing Safer Roads for Vulnerable Road Users, Webinar, Vision Zero – A Traffic Safety Initiative with Proven Results Webinar Series, for Frank Cowan Company, December 2020.
- Work Zone Traffic Control, presented in Riyadh and Jeddah, Kingdom of Saudi Arabia, 2020.
- Smarter Work Zones, Webinar for ATSSA, 2019.
- Developing and Implementing Transportation Management Plans (TMPs), Webinar for ATSSA, 2019.
- Work Zone Road Safety Audits, Webinar for ATSSA, 2019.
- Work Zone Strategies, Webinar for ATSSA, 2019.
- Minimizing Worker Exposure in Highway Work Zones Through the Use of Positive Protection Devices, Webinar for ATSSA, 2019.
- Designing Temporary Traffic Control (TTC) Zones for Pedestrian Accessibility, Webinar for ATSSA, 2019.
- Temporary Traffic Control During Maintenance and Short Duration Activities, Webinar for ATSSA, 2019.
- The Work Zone Safety Grant, presented at the ATSSA Traffic Expo, Tampa, FL, 2019.
- What Everyone Should Know About Work Zone Safety Training Webinar for ATSSA, 2018.
- Road Safety Audit of the Shorsulu Intersections to Astara Intersections, Republic of Azerbaijan, for TERA and the Asian Development Bank, Azerbaijan, 2018.
- The Work Zone Safety Grant, presented at the ATSSA Traffic Expo, San Antonio, TX, 2018.
- Designing Safer Roads for Pedestrians and Bicyclists, Webinar for the University of Florida, 2018.
- What Every Department of Transportation (DOT) Should Know About Work Zone Training, Webinar for ATSSA, October 2017.
- Work Zone Dos and Don’ts, Webinar for ATSSA, August 2017.

- Best Practices in the Application of Truck-Mounted Attenuators, 2017 ATSSA's Traffic Expo, Phoenix, AZ, February 2017.
- Designing Temporary Pedestrian Facilities for Accessibility, and Work Zone Contractor Litigation Pitfalls and How to Avoid Them, Florida Transportation Builders Association, Orlando, FL, February 2017.
- Introduction to the Manual on Uniform Traffic Control Devices (MUTCD) and its Applicability to Parking Areas, Webinar for ATSSA, June 2016.
- Work Zone Safety, 1st Annual Meeting of the Brazilian Association of Traffic Safety (ABSeV), Campinas, Brazil, June 2016.
- Webinar: Legal Aspects of Temporary Traffic Control on Highway Work Zones, for North Dakota State University, 2015 and 2018.
- Use of Truck-Mounted Attenuators (TMAs) in Work Zones, ATSSA Expo, Tampa, FL, 2015.
- Lane Closure Basics at the Madden-Colón Autopista, for Odebrech Panamá, Panamá, 2015.
- Work Zone Road Safety Audits, presented in Carson City, NV, 2014.
- Best Practice on the Use of Truck-Mounted Attenuators (TMA) in Work Zones, ATSSA Expo, San Antonio, TX, 2014.
- Traffic Control Coordinator training courses, Manitoba Heavy Construction Association, Winnipeg, Manitoba, Canada, 2012-2014.
- Work Zone Road Safety Audits, presented in Baltimore, MD and Boston, MA, 2013.
- Road Safety Audits, for Avery Dennison, Sao Paulo, Brazil, 2013.
- Vulnerable Road User Safety Training Course, presented in Sao Paulo, Brazil 2012 for Avery Dennison, 2012.
- Work Zone Basics, The Needs of the Aging Driver, Safety of the Vulnerable Road User, presented at the Avery Dennison Global Traffic Safety Summit, Cleveland, OH, 2012.
- Contractor Litigation Pitfalls and How to Avoid Them, American Traffic Safety Services Association Annual Meeting, Tampa, FL, 2012.
- Congestion Management Workshop, International Road Federation, Orlando, FL, 2011.
- Vulnerable Road User Safety Training Course, presented in Lima, Peru (2010) and Quito, Ecuador, Bogota, Colombia (2011), for the World Bank.
- Vulnerable Road User Safety Training Course, presented in Accra, Ghana and Bogota, Colombia for the International Road Federation (IRF) and the World Bank Global Road Safety Facility, 2010.
- Roadside Safety Training Course, presented in Kampala, Uganda and Lima, Peru for the International Road Federation (IRF) and the World Bank Global Road Safety Facility, 2010.
- Numerous presentations of Work Zone courses through the American Traffic Safety Services Association, ongoing.
- "Recommended Practices for Temporary Traffic Control (for Transmilenio Phase 2)", Instituto de Desarrollo Urbano, Bogota, Colombia, 2008.
- "Safe Practices for Installing Highway Lane Closures", American Traffic Safety Services Association Annual Meeting, New Orleans, LA, 2008.

- “Designing and Operating Intersections for Safety” Seminar, for Federal Highway Administration, presented in Phoenix, AZ, Baton Rouge, LA, Trenton, NJ, Jefferson City, MO and San Juan, PR, 2005.
- “Effective Use of Law Enforcement Officers in Work Zones”, for Federal Highway Administration, Nashville, TN, February, 2005.
- “Urban Work Zone Traffic Control”, Traffic Safety Conference, Lithicum, MD, 2005.
- Florida “INTERMEDIATE Maintenance of Traffic”, for ATSSA, presented in several Florida cities, 2000-present.
- Florida “ADVANCED Maintenance of Traffic”, for ATSSA, presented in several Florida cities, 2000-present.
- “Best Safety Practices in US Work Zones”, Roadway Safety Management Conference, University of Delaware, Dover, DE, 2004.
- “Introduction to Access Management”, INTERTRAFFIC Latin America, Mexico City, 2003.
- “Overview of Work Zone Standards Latin America”, INTERTRAFFIC Latin America, Mexico City, 2003.
- “Introduction to Traffic Simulation and the CORSIM Model”, National Institute of Highways Course, presented in Atlanta, GA (2), Charlottesville, VA, and Richmond, VA, 2003-2004.
- “Strategies to Improve Highway Safety”, Technical seminar presented in Bogotá, Barranquilla, Medellín, and Cali, Colombia, 2000.
- Work Zone Traffic Control for Technicians, Supervisors & Flaggers, presented for the American Traffic Safety Services Association, in several cities throughout the US. 1998 to present.
- “Introduction to Traffic Simulation and the CORSIM Model”, presented in Tallahassee, FL, Phoenix, AZ, Fargo, ND, Topeka, KS, Madison, WI, Concord, NH, Lawrence, KS, Baltimore, MD, San Luis Obispo, CA, McLean, VA, Richmond, VA, for the Federal Highway Administration, 1999-2001.
- “Introduction to Traffic Simulation and the CORSIM model” short course presented at ITS Virginia annual meeting, Roanoke, VA 1999.
- “Introduction to Intelligent Transportation Systems”, Seminar Developer and Instructor, presented at the Colombia Engineering School, Bogotá, Colombia, 1998.
- “Intelligent Transportation Systems and the Environment”, University of Belgrano, Buenos Aires, Argentina, 1998.
- “Intelligent Transportation Systems”, Urban Transportation Intensive Course IV: The technological revolution towards the 21st Century, Metropolitan University, Caracas, Venezuela, 1998.
- “Introduction to Intelligent Transportation Systems”, Seminar Developer and Instructor, Panamerican Institute of Highways, presented in Spanish in 1) Querétaro, Mexico, 2) Quito, Ecuador, 3) Asunción, Paraguay, 4) Sao Paulo, Brazil, 5) Rosario and Buenos Aires, Argentina, 1997.
- “Introduction to the 1994 Highway Capacity Manual”, Seminar Instructor, San Juan, PR, and St. Croix, VI, 1997.
- “Autopistas Del Sol Data Collection Program: Design and Implementation”, Autopistas del Sol, Buenos Aires, Argentina, 1996.

- “Strategies to Improve Safety and Reduce Congestion”, presented (in Spanish) at the 1st Provia Conference, Valencia, Venezuela, 1996.
- “Strategies to Alleviate Traffic Congestion”, presented (in Spanish) at 1996 International Transportation Engineering Symposium, Mexico City, Mexico, 1996.
- “Intelligent Transportation Systems and the Latin American Perspective”, ITS America Annual Meeting, Houston, TX, 1996.
- “The Role of the Transportation Engineer in the Future”, American Association of State and Highway Transportation Officials Annual Meeting, New Orleans, LA, 1992.
- “Estimating Freeway Traffic Congestion”, Conference on Traffic Management and Planning for Freeway Emergencies and Special Events, Washington, D.C., 1989.
- “Analytical Procedures for Estimating Traffic Congestion”, Traffic Management Conference, NYS Association of Transportation Engineers, NYC, 1987.

RELATED EXPERIENCE:

- **Teaching Experience:** In addition to presenting several courses in traffic engineering and traffic safety, served as part time instructor for “Spreadsheet Software” and “Introduction to Microcomputers,” Northern Virginia Community College, Annandale Campus, VA, 1988 – 1990. Former Toastmasters member.
- **Language Skills:** Fully bilingual (English/Spanish). Portuguese at intermediate level. Informal Spanish-English and English-Spanish translator/reviewer for various Federal Highway Administration, ITE and ATSSA technical publications, 1983 – present.