



CURRICULUM VITAE
REZA MARSHAL, MECE, PE, PTOE

SPECIALIZATION

- Traffic Engineering & Highway Design
- MUTCD/Design Standards
- AASHTO/Design Standards
- CalTrans/Design Standards
- Roadway/Highway Design
- Intersection Design
- Traffic Signal Analysis & Design
- Traffic Signal Warrant Investigation
- Speed Survey Study
- Guardrail/Barrier Design
- Construction Zone Safety
- MCLE Instructor

EDUCATION

- Master of Eng. in Transportation Engineering, 1982
Manhattan College, New York, NY
- Bachelor of Science in Civil Engineering, 1981
Roger Williams University, Bristol, RI

REGISTRATION

- Registered Professional Engineer, New Jersey Number 35753
- Registered Professional Engineer, Arizona Number 58467
- Registered Professional Engineer, Nevada Number 023091
- Registered Professional Engineer, New York, Pennsylvania, Maryland and Florida
- Registered Professional Traffic Operations Engineer, Nationwide

PUBLICATION

Transportation Research Board (TRB)
National Cooperative Highway Research program (NCHRP)
Performance-based Analysis of Geometric Design of Highways and Streets

CONTINUING EDUCATIONAL TRAINING AND DEVELOPMENT

- Traffic Signals, UC Berkeley, 2017
- Work Zones for Crash Investigators and Reconstructionist, CAARS, 2017
- Traffic Control Concepts for Urban and Suburban Streets, CED Engineering, 2014
- Traffic Signals, CED Engineering, 2014
- OSHA, 2008
- Project Management, PSMJ, 2005
- MUTCD, TRB, 2004
- Traffic Control Coordinator, Rutgers University, 2003
- Roadside Design Guide, FHWA, 2002
- Synchro & SimTraffic, Traffic Capacity Analysis & Simulation, Trafficware, 2001
- Hydraulic Design of Storm Sewers, Rutgers University, 1990
- PASSER II, Traffic Signal Progression Analysis, Planning Research Corp, 1983
- CINEMA: Highway Capacity Analysis & Simulation, Planning Research Corp, 1982

PROFESSIONAL EXPERIENCE

- 2014 to present **MOMENTUM ENGINEERING CORP.**
Senior Traffic Engineer
Consult in traffic engineering, highway design and construction, traffic signal design/operations, highway safety and maintenance. Analyze as-built drawings, construction plans and traffic control plans. Verify compliance with contracts and engineering standards. Engineering services including site studies, manage and coordinate data collection, accident history analysis, speed surveys, traffic pattern studies, visibility studies, traffic safety analysis, design evaluation and traffic study reports.
- 2006-2014 National Academies, Transportation Research Board (TRB)
Panel Member
Performance-based analysis of geometric design of highways and streets.
- 2010 to 2013 **INDEPENDENT ENGINEERING & BUSINESS CONSULTING**
Senior Business Consultant
Provide management, marketing and consulting to international engineering companies. Work included all aspects of traffic engineering.
- 2007 to 2009 **NEW ENGLAND CONSTRUCTION MANAGEMENT, LLC**
Vice President
Started a construction management company to manage and conduct construction projects. Responsibilities included design support and contract administration. Manage day to day operation including employees and subcontractors. Verified construction performed according to contractual requirements and design standards.
- 2007 **OCEAN COUNTY ENGINEERING**
County Traffic Engineer
Manage the traffic engineering department. Responsibilities included operation, planning and management of staff and public work projects in compliance with contracts and engineering standards. Manage, review and approve private development projects in all 33 municipalities. Project management, quality assurance and control, preparation of traffic study reports and presentations.
- 2001 to 2007 **MASER CONSULTING, P.A.**
Department Manager- Traffic and Transportation
Direct the Traffic Engineering Department including operation, planning and organizing of department projects. Responsibilities included proposal preparation, contract negotiation and marketing. Manage municipal engineering and private development projects that includes highway design, traffic signal design, traffic impact studies and reports, quality assurance and control. Provide professional engineering testimony at planning and zoning boards meetings related to construction projects. Prepare traffic study reports; approve design drawings.

- 2001 URS CORPORATION
Department Manager-Traffic
Responsibilities included planning, organizing, and managing transportation and traffic engineering projects. Provide construction project support services, quality assurance and control. Oversee proposal preparation and contract negotiation.
- 1997 to 2000 LEROY CALLENDER, P.C.
Project Manager
Manage, design, and prepare traffic engineering plans, specifications and estimates for the reconstruction and widening of Whitesville Road. The two-mile section extended from Ridgeway Road to Route 70. The project included design of four traffic signals, preparation of a traffic report. Other responsibilities included supervising engineers, sub-contractors, and budget control.
- 1984 to 1997 BAC Killam
Sr. Project Design Engineer
Management, engineering and design of various projects from conceptual study to the submission of final design as follows:
- U.S. Route 1&9, Secaucus Rd. Interchange, NJ (\$36 Million)
Responsible for the design of permanent temporary traffic signals needed by project. Duties included traffic data collection; signal warrant investigation and capacity analyses. Prepared plans for signing and striping, maintenance and protection of traffic, and jurisdictional maps.
- U.S. Route 46, NJ (\$2 Million)
Responsible for traffic signal design and implementation, including signage as well as preparation of signing and striping plans.
- Traffic Signal Design for Routes 1&9, 139, 169 and 440, NJ (\$21 Million)
Developed a traffic and incident management system to improve traffic flow and data acquisition. Develop problem assessment and strategy deployment capabilities to minimize the impact of traffic congestion along several Routes in New Jersey. Optimized operation of traffic signals, design and install of roadway detectors, closed circuit television cameras, highway advisory radio, communication subsystem equipment, variable message signs, diversionary routing and upgrade of the system.
- U.S. Route 6, Connecticut (\$14 Million)
Develop conceptual design alternatives for the reconstruction and widening of U.S. Route 6. Assist with management of final design development; prepare plans, specs and estimates. Prepared boring contract according to DOT requirements; supervised and inspected the boring work, including rock cores,

undisturbed piston samples and pipe probing. Prepared soil-boring logs per contract requirements, then prepared exhibits and presented at public hearings.

Jersey Avenue Extension, New Jersey (\$2 Million)

Supervised design, develop plans for the extension of a city street and new Light Rail Transit (LRT).

New England Thruway, New York (\$ 39 Million)

Managed staff and coordinated the work between highway and structural groups. Conduct traffic studies, design new road alignments and traffic signals. Design construction staging and drainage in each sequence of construction to avoid flooding or shutdowns.

New Jersey Turnpike, New Jersey (\$ 12 Million)

Designed horizontal and vertical alignments and prepared plans for the two outer roadways of the turnpike including on-ramps and off-ramps. Relocated road over the turnpike and prepared MPT plans.

Rivervale Realty Development

Develop site plan for a sixty six-acre property to build residential townhouses and office buildings, including local road design, flood control management and roadway drainage.

Queens Midtown Viaduct, New York (\$85 Million)

Develop plans, estimates and specifications for the rehabilitation of the viaduct, including widening sections and improving cross slopes to improve drainage. Design profiles for the main line viaduct to improve the sight distance, including drainage design for the viaduct and local streets underneath. Prepare drainage and structural details including the fitting of new downspouts through the existing superstructure. Prepare Uniform Land Use Review Procedure plans.

NY State Thruway at Schoharie Creek, New York (\$ 10 Million)

Assisted in the design of an emergency detour roadway after collapse of the New York State Thruway Bridge over the Schoharie Creek. Involved with all aspects of design and construction support services. This one-mile long detour was designed in twenty-three days and construction was completed within two months. The fast track design of this project achieved National Finalist Status in the ASCE Engineering Award Competition.

Hillsdale Street Improvement Program, New Jersey

Responsible for administration, supervision and construction inspection of street improvements including pavement reconstruction, drainage, and sidewalk. Verify safety and contractual compliance. Certify traffic control plans were followed and project was completed while maintaining public safety.

U.S. Route 1&9, New Jersey (\$140 Million)

Supervise staff conducting traffic surveys. Prepared traffic analyses and final report for the three-mile long roadway including grades at four major interchanges.

1981 to 1984

Planning Research Corporation, Voorhees
Involved in traffic engineering and design, traffic impact studies and computerized signalization design.

New York City TOPICS III, New York City, New York.

As a project engineer, I was involved in traffic operation and control. The work incorporated the design, evaluation, and coordination of a network of 1400 existing traffic signals to be computerized in New York City.

Tasks included 24-hour traffic counts, turning movement counts, speed & delay runs and development of the signal timing plans.

1981 to 1982

Manhattan College
Graduate Teaching Assistant
Responsible for conducting laboratory tests, grading papers, tutoring and other administrative work.

PROFESSIONAL AFFILIATIONS

- Transportation Research Board (TRB)
- National Cooperative Highway Research Program (NCHRP)
- California Association of Accident Reconstruction Specialists (CA2RS)