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*Curriculum Vitae*

Mr. Stein has more than 55 years of roadway / heavy highway construction and materials engineering experience. He offers consulting and expert witness services for attorneys on issues regarding road, street, highway, temporary traffic control, runway and earthwork; asphalt, concrete, coatings and other construction materials; designs, plans, specifications, CPM scheduling (Primavera) and contract documents; right-of-way issues; and work zone safety. He evaluates contract performance, conducts forensic investigations, and provides consulting, expert reports, rebuttals, and testimony if required.

For contractors, bonding sureties, and road and highway agencies, Mr. Stein provides value engineering plans, cost estimates, contract proposals, interim project management; quality assurance and quality control; and claim preparation, analysis, and mediation.

Mr. Stein has a rich and varied work history that includes Construction Work Zone Traffic Safety and Construction Materials Engineering for highways and bridges, industrial plants, high rise offices and power plants. He has worked for private owners and general contractors as well as the Department of Transportation.

**Education**

Associates of Civil Technology, Community College of Beaver County, PA, 1969

Bachelor of Science Civil Engineering, University of Pittsburgh, Pittsburgh, PA, 1987

Awards and Achievements from the University of Pittsburgh:

Received a Fellowship (Geometronics)

Teaching assistant (Soil Mechanics, Concrete, and Geometronics)

William Radcliff Smith Award for outstanding service to the School of Civil Engineering

**Engineering Licensure**

Louisiana PE No. 33164

Pennsylvania PE No. PE073412

Texas PE No. 125932

Mississippi PE No.31405LTD

**Professional Development & Training**

- 2012 Forensic Geotechnical & Material Engineering; Legal Descriptions; Developments in Construction Law; Count the Goals: Accounting Data; Erosion Protection: Articulated Block; Dynamic Loading and Wave Theory of Deep Foundations
- 2013 Tort Liability: Managing Risk
- 2014 Natural Recourses and the Natural Policy Act; Commissioning Construction Projects / Avoid Construction Defects; Complying with Construction Storm Water Regulations
- 2015 Contracting in Public Projects; Public Bid Law; Bridge Rehabilitation
- 2016 Bridge Maintenance and Repair; Concrete Pavements; New DOTD Specifications and Details; Construction Law; Precast Concrete Pavement; Troubleshooting Construction Projects Legal Issues
- 2017 Internal Curing of Concrete; Resistivity in Concrete: How to Design Mixes that Work
- 2018 Evaluation & Repair of Concrete Structures: Stability Analysis of Concrete Structures; Slope Stability; Storm Water Controls during Construction
- 2019 Performance of construction materials, Concrete resistance to fluid penetration, Precast concrete pavement technology.
- 2020 Operation and Application of Truck Mounted Attenuators, Performance of cementitious materials, Asphalt pavement preservation, ADA, and title 4, ROW permit joint use agreements, utility relocation, Geotechnical state of practice.
- 2021 Managing Pavement network with Pavement Preservation, Helical pile design, Subsurface Utility Engineering, Standards of Practice.
- 2022 Promoting safety without Inviting Liability; Micro Surfacing and Slurry seal, Chip sealing and fog seal; Road Design: Green Book 8, Highway Safety: Updates on Statewide Highway Safety Initiatives. ADA Seminar
- 2023 Standards for Accessible Design- ADA Pt1 &2, Construction Fraud, Measures for Prevention, Construction Claims avoidance, Advancement in Concrete, Pedestrian Bridge evaluation, Innovative Solutions for soft soil/problematic soils

## **Certifications**

Certified Construction Manager (CCM)

Certified Primavera Basic (CPM)

Certified Primavera Advanced (CPM)

Certified LADOTD Structural (Bridge)

Certified Traffic Control Supervisor (ATSSA as well as Texas and Louisiana Specific)

Certified Flagger Instructor

International Slurry Surfacing Association (ISSA) trained – Proficient in; Chip Seal and Micro Slurry Surface evaluation and application.

Lead Abatement

Quality Compliance Surveillance in Fossil Power Plants and Inspection of Organic or Inorganic Coatings Applications.

## **Professional Associations**

**Forensic Expert Witness Association (FEWA)**

ASTM International, C9 Committee (1972455)

Construction Management Association of America (CMAA) (204785)

American Society for Civil Engineers (ASCE) (10927645)

American Traffic Safety Services Association (ATSSA) (209924)

## **Professional Experience**

***Owner, Precision Construction Engineering & Services, LLC, 2017-Present***

Consulting services, including troubleshooting, to government and private industry to assist in the successful completion of projects. Consulting, investigation, and other expert witness services, including expert reports, rebuttals, and testimony if needed. Worked on Forensic review of a contract for upgrade of underground utilities and concrete streets and sidewalks this included schedule review and productivity analysis. Supplied opinions on cases dealing with issues with Temporary Traffic Control. Gave opinions on different material failures. Opined on Standards of Care of General contractors and/or Sub-Contractors. Working on roads with failures and rideability issues. Reviewed, working/walking surfaces for OSHA and ADA compliance.

***Project Engineer (Manager), Earnest Management, LLC, 2013-2017***

I-49 Segment K Phase 1 (I-220 to Martin Luther King, Jr. Drive) Responsible for project scheduling using Primavera, environmental issues, and claims. Worked with senior management trouble shooting and resolution of problems. Worked to resolve design issues in the field. Negotiated claims and contract disputes; and coordinated with attorneys on claims. Responsible for resistivity concrete development, cast-in-place concrete, and MSE wall installation.

***Resident Engineer (Manager), The LPA Group Incorporated, 2010-2013***

SP 450-30-0076, I-210 Bridge Pier Protection Replacement. This project was on the Calcasieu Shipping Channel in Lake Charles, Louisiana and involved the complete removal of existing dolphins (caissons) and installation of new dolphins and fender systems. Responsibilities included coordination of two design engineers and the client (LA DOTD). Managed field activities which included coordination with the US Coast Guard and the Port of Lake Charles. Developed monthly pay estimates and prepared and updated the CPM schedule. Negotiated and authored change orders. As the client's representative successfully defended against claims. Developed as-built drawings and developed and rendered all closeout documents. Responsible for a staff of six.

Reconstruction of New York Avenue Bridge over nine railroad tracks in Washington, DC. This included installation of new footers and piers on micro-pile deep foundations. This was a stimulus project. Sent to establish the field office and coordinate between the DC DOT, the engineers, and different rail carriers. There were multiple railroad tracks under this bridge: four METRO, four Amtrak, and one CSX. Responsible for developing detours, both pedestrian and vehicular, as well as the monitoring of Temporary Traffic Control, including a pedestrian detour. Worked closely with the contractor's TCIS, notifying TCIS of any deficiencies including concrete barriers not in proper position / poor reflectivity of the devices, and anything that might confuse the motoring public passing by the project such as poorly placed temporary striped, unneeded improperly covered signs, and signs not properly weighted or out of location due to wind or being moved by construction workers.

***Resident Engineer (Manager), Louisiana Timed Managers, 2004-2010***

Managed \$208 million worth of highway and bridge construction projects concurrently (approximately 63 miles), making two lanes four, with 17 bridges along the US-171 corridor. The overall project was broken up into seven separate contracts and at any one time at least three were working simultaneously. Responsibilities included pre job engineer and constructability reviews, and environmental (storm water control) compliance. Worked with several contractors concurrently performing traffic control in the 63 +/- mile corridor. Worked closely with the contractors TCIS's during setups and teardowns as well as phase lane shifts. Monitored Traffic Control, including the condition of devices and reflectivity, to ensure the motoring public could go through without issues. Responsible for the work zone traffic control and its compliance with LADOTD and MUTCD

requirements. Addressed and resolved many design issues from deep foundation to erosion/storm water runoff. Directed all phases of construction, issuing change orders, negotiating pay estimates, reviewing, and approving monthly CPM schedule updates, and performing QA/QC overview and acceptance. Responsible for developing all closeout documents and as-built drawings as well as contract administration, claims defense, change order writing, trouble shooting and problem resolution. Worked with right-of-way attorneys to resolve landowner complaints to the satisfaction of DOTD and the public. Responsible for a staff of 14.

***Construction Manager/Supervisor, CMC Engineering, 2000-2004***

Managed reconstruction of 3.5 miles of a four-lane divided concrete highway (US 22/30) with demolition and reconstruction of three over pass bridge decks (\$15.5M) (PENNDOT). Responsible for oversight of all testing and QA/QC documentation. Negotiated the monthly estimate with the contractor's supervisor. Supervised a staff of six inspectors. On another project, oversaw building of a three-track railroad bridge for a new four lane road in urban Pittsburgh (PENNDOT). The project consisted of rebuilding a complex intersection of US 19, PA 51, and multiple city streets. Also assisted the traffic control engineer by observing the traffic patterns and reporting deficiencies as they occurred.

***Transportation Construction Manager/Site Supervisor, Blauvelt Engineers, 1996-2000***

Managed the reconstruction of County Road 15 Intersection with Interstate 81 at Martinsburg, West Virginia including utility relocation and traffic control (\$5.3M) (WVDH). On another project, managed the widening of Interstate 81 to six lanes and the addition of three overpass bridges through the urban area of Martinsburg, West Virginia (WVDH). Oversaw reconstruction of Interstate 79, 3.5 miles. This was a four-lane concrete roadway with three overpasses and two major bridges over a valley and abandoned railroad that was turned into a walking trail. The overpasses were re-decked, and the major bridges demolished and replaced. (PENNDOT). On these projects, responsible for construction management, administration, and QA/QC. Monitored traffic control and coordinated a staff of six.

***Site Development and Start-up Engineer, New Earth Technologies, Inc., 1987-1996***

Principal engineer developing new products from agricultural biproducts. Worked in conjunction with the Department of Agriculture and Department of Environmental Quality in the State of Louisiana to establish resource supplies and logistics. Developed equipment list and a business plan to support the implementation of the pilot process.

***Inspection Supervisor, SAI Engineering, 1987***

Supervised reconstruction of the McKee's Rocks Bridge over the Ohio River (PENNDOT). The project consisted of widening the three-lane bridge (1.1 miles long) into four lanes and the replacement of the deck and upgrade of this structure built in 1931. This included replacing badly corroded structural members, rivet replacement, pier repairs, small repair of abutments, lead paint removal, sandblasting and coating. Responsible for QA/QC and work zone traffic safety as well as coordinating with the police from the City of Pittsburgh and McKee's Rocks to assist in traffic control during rush hour time periods.

***Construction Inspector, Achenheil and Associates, 1984-1987***

Inspected the reconstruction of the Parkway Central (I-376) in downtown Pittsburgh (PENNDOT) while attending The University of Pittsburgh. Worked on the Ann Street relocation. This included a 1000' +/- long 175' high soldier beam tieback retaining wall with pin pile foundations (micro-pile). Responsible or QA/QC of a six-lane concrete highway, under traffic. When not in the field, worked in the laboratory testing and analyzing soils and concrete. Built and operated a triaxial compressive strength loading device to do ASTM D 2664 and 2850. Also oversaw relocation of utilities.

***Assistant Field Group Supervisor promoted to Field Group Supervisor (civil), Burns and Roe Engineers, 1977-1983***

Responsible for QA/QC of two 250-MW Coal Fired Power Generation units and all ancillary support facilities in Sebree, Kentucky and QA/QC and contract administrative physical audit (of all civil contracts) of three 600-MW Coal Fired Power Generation units and all ancillary support facilities in New Roads, Louisiana. Reviewed over 5,000 caissons (drill shafts) from 18" to 120". Responsible for all corrosion protective coatings. Coordinated technical QC staff. Worked on the construction of two barge unloading facilities, one on the Green River the other on the Mississippi River at New Roads. This included driving sheet piles mass concrete and barge pulling system. Had complete contract administration and QA/QC for a 64 Ac. fly ash storage pond construction on the bank of the Ohio River (Colman Station). Project was completed ahead of schedule and under budget as well as passing all environmental reviews.

***Project Manager, Construction Systems Management, 1974-1976***

Managed the construction of several offices and relay stations for South Central Bell including a three-story structure. Advertised for bidders and performed contract administration and management, QA/QC and all other duties to bring in a project under budget and time.

***Project Engineer, Utley-James, Inc., 1973-1974***

Oversaw the construction of State Farm Insurance home office in Bloomington, Illinois and the University of Cincinnati Medical Science Building. Coordinated all sub-contractors and suppliers; performed trouble shooting and problem solving; and coordinated all close-out activities.

***Inspector/QA/QC Lab Technician. Alcoa, Inc., 1970-1973***

Worked on the building of an aluminum reduction plant that Alcoa was building for Kiser Aluminum in Sebree, Kentucky. Responsible for the design and equipping of a construction materials lab that was able to test soils, concrete, aggregates, and asphalt. Oversaw a staff of two. Inspected the construction of several turnkey administrative buildings, including the architectural finishes.

1/26/2022