

CAPABILITIES STATEMENT

Rao Research and Consulting (RRC) is a research, innovation, and technology transfer company serving in the broad area of transportation facilities. We develop advanced processes and products for federal, state, and local clients to improve system performance and increase the service lives of highway transportation infrastructure. RRC provides fundamental and applied research, training, technology transfer, and implementation services for its clients. Our project findings and deliverables are based on sound technical concepts using thorough validations with field, experimental, and use case data.

About US:

- Improving performance of transportation infrastructure
- Advancing state of practice
- Moving research to implementation

BUSINESS OVERVIEW

Registrations:

- Federal Certification:
 - 8(a)
 - WOSB and EDWOSB
- DUNS: 078840577
- CAGE: 6WQ71
- Registration: Incorporated in Virginia/
foreign registration in other States



As a small business with 8(a) certification, RRC is nimble in serving our clients with innovative and flexible solutions.

NAICS Codes :

- 541330
- 541715
- 541380
- 541690
- 541990
- 541511
- 518210

CORE COMPETENCIES

Subject Areas:

- Innovations in materials, design, construction, and rehabilitation of pavements and bridges
- Advanced and high-performance materials and technologies (UHPC, internal cured concrete, cold bent steel, precast)
- Structural and material finite element modeling
- Quality assurance systems and performance related specifications
- Development, enhancement, and implementation of mechanistic-empirical pavement design /AASHTOWare Pavement ME
- Long term pavement and bridge performance data analyses
- Statistical modeling and performance prediction
- Evaluation of test methods and innovations for highway applications
- Nondestructive testing and effective use in construction QA
- Data integration and modeling for pavement management system
- Economic analysis and life cycle cost modeling/ value engineering

Services:

- Fundamental and Applied Research
- Standards/specification development
- Implementation and local calibration of research or research products
- Feasibility studies
- Development of guidelines, recommendations, user's manuals drawn from research findings
- Sensor/ prototype development
- Software product development
- Laboratory research support
- Forensic analyses
- Training, workshops, and webinars
- Program management

CAPABILITIES STATEMENT, CONTINUED

PAST PROJECTS OF RRC STAFF

Select Projects:

- Research support services for the structural laboratory at the Turner Fairbank Highway Research Center (FHWA)
- Quality Assurance Data Analysis as a Leading Indicator for Infrastructure Condition Performance Management (FHWA)
- Local Calibration of the AASHTOWare Pavement ME Design Guide (Missouri Department of Transportation)
- Development of the AASHTOWare Pavement ME Design procedure
- LTPP data analysis projects – Backcalculation of layer moduli of LTPP sections; Estimations of concrete properties for design, QA, PMS
- Evaluation of internally cured concrete for paving applications
- Guidelines for airfield pavement concrete mix proportioning incorporating fly ash
- Low-cost Piezoelectric Sensor for Quality Assurance of Asphalt Binders used in Highway Construction – NSF SBIR project
- Repair of corrosion damaged steel girder ends by encasement in UHPC
- Ductility and fracture of cold bent high-performance steels

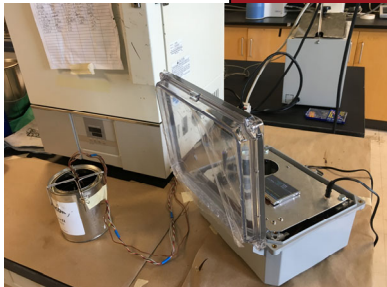
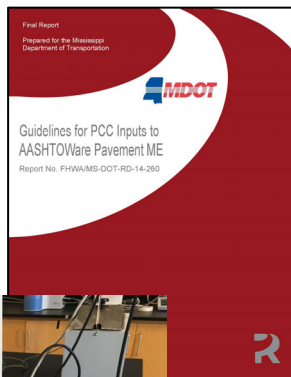
Our Differentiators:

- Meticulously researched and executed
- Rigorously tested and validated
- Actionable as well as practical
- Developed by a small & focused team
- Highly qualified research staff and proven ability to hire competent staff
- Experience working with State agencies and industry
- Strong network with industry and reputed testing laboratories to form collaborative teams with right experts for right projects
- Leverage advances in technologies

SOME CLIENTS



U.S. Department
of Transportation
**Federal Highway
Administration**



CONTACT INFORMATION

Email: crao@raorc.com
Tel: (217) 369-6865
Web: www.raorc.com