

Neal Hawkins, PE	
Associate Director, Institute for Transportation Co-Director, REACTOR Laboratory Iowa State University 2711 South Loop Dr. Suite 4700 Ames, IA 50010	(515) 294-7733 hawkins@iastate.edu IOWA STATE UNIVERSITY Institute for Transportation

BACKGROUND

Mr. Hawkins has 30 years of experience in traffic engineering, operations, and safety and serves a number of research and leadership roles at the Institute for Transportation (InTrans) at Iowa State University. Neal serves as PI and/or Co-PI on a number of operations, safety, pavement marking, and infrastructure related projects and co-directs the Center for Transportation Research and Education (CTRE) Real Time Analytics of Transportation Data (REACTOR) Laboratory, which is a multi-disciplinary research endeavor.

EDUCATION

- MS, Civil Engineering, Iowa State University, Ames, IA, 1990
- BS, Civil Engineering, University of Oklahoma, Norman, OK, 1988

PROFESSIONAL EXPERIENCE

Academic (2003–present)

2016–present Associate Director, Institute for Transportation
2010–2016 Director, Center for Transportation Research and Education
2009–2016 Director, Center for Weather Impacts on Mobility and Safety
2010–present Pooled Fund Manager, FHWA Aurora RWIS
2013–present Traffic Operations Engineer (25% appointment with the Iowa DOT)
2009–2013 Traffic Safety Engineer (25% appointment with the Iowa DOT)
2003–2010 Associate Director, Traffic Operations at CTRE
2003–present Adjunct Lecturer, CCEE at ISU

Private Consulting (1999–2003)

1999–2003 Senior Project Manager, HR Green Company

Public Sector (1989–1999)

1993–1999 Traffic Engineer, City of Des Moines Traffic and Transportation

SELECTED RESEARCH ACTIVITIES

- **Traffic Operations Research Program Support** (PI, Iowa DOT) Led the creation of the Iowa DOT/CTRE Transportation Operations Laboratory, which generates a significant quantity of research each year and includes a high-performance cluster of computers (Hadoop) as well as GPU clusters. This team alone includes 21 people (4 P&S, 4 faculty, 2 post-doc, 5 PhD)

candidates, 5 MS students, and 1 undergraduate student). This includes developing and supporting statewide pavement marking strategies and programs.

- **Connected and Autonomous Vehicle Research** (PI, Iowa DOT). Multi-task effort that included deploying/evaluating SPaT technology at 20 intersections, evaluating data communication standards for internal and external to DOT, improving work zone performance and data accuracy in near real time, and establishing an open data service.
- **Illinois DOT Evaluating All-Weather Pavement Markings & Laboratory Methods to Simulate Field Exposure:** Served as PI for a multi-university team documenting the wet performance of different marking materials across Illinois over a six-year study period.
- **Iowa DOT Pavement Marking Task Force:** Served as PI supporting a range of activities for the Iowa DOT Pavement Marking Program from equipment to materials evaluation and performance.

SELECTED PUBLICATIONS

- Hawkins, Neal, Omar Smadi, and Skylar Knickerbocker. 2019. *Evaluating All-Weather Pavement Markings in Illinois: [Volume 2](#)*. Illinois Center for Transportation/Illinois Department of Transportation, Springfield, IL.
- Smadi, Omar G., Ahmad Alhasan, and Neal R. Hawkins. 2017. *Minnesota Local Agency Pavement Marking: [Mining Existing Data](#)*, No. MN/RC 2017-43. Research Services & Library, Minnesota Department of Transportation, St. Paul, MN.
- Hawkins, Neal, Omar Smadi, and Skylar Knickerbocker. 2016. *[Evaluation of Pavement Makings on Challenging Surfaces](#)*, No. MN/RC 2016-08. Research Services & Library, Minnesota Department of Transportation, St. Paul, MN.
- Hawkins, Neal, Omar Smadi, Skylar Knickerbocker, and Paul Carlson. 2016. *[Rumble Stripe: Evaluation of Retroreflectivity and Installation Practices](#)*, No. MN/RC 2016-13. Research Services & Library, Minnesota Department of Transportation, St. Paul, MN.
- Smadi, Omar, Neal Hawkins, Basak Aldemir-Bektas, Paul Carlson, Adam Pike, and Chris Davies. 2014. *[Recommended Laboratory Test for Predicting the Initial Retroreflectivity of Pavement Markings from Glass Bead Quality](#)*. *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2440, No. 1, pp. 94–102.
- Carlson, Paul, Eun-Sug Park, Adam Pike, R. J. Porter, Jeffrey Miles, Bryan Boulanger, Omar Smadi, Neal Hawkins. 2013. *[Pavement marking demonstration projects: state of Alaska and state of Tennessee](#)*, No. FHWA-HRT-12-048. United States. Office of Safety Research and Development, Federal Highway Administration, Washington, DC.

PROFESSIONAL AFFILIATIONS

- TRB and Member on AHD55 Pavement Marking and Signing Materials
- ATSSA Past Member of Pavement Marking Committee
- ITE Fellow and Past MOVITE President, and Past Chair of the Ethics Task Force
- ITS Heartland: Past Academic Sector Director