

**ASCE UESI BOARD OF GOVERNORS APPLICATION
EXPLANATION OF THE DESIRE TO SERVE ON THE BOARD OF GOVERNORS**

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To Whom It May Concern:

My desire to serve as a UESI Governor is focused on building collaborative relationships among the institutions I serve. I attempt similar collaboration as the Committee Chair for the Transportation Research Board Committee on Utilities. For the previous three years, I have offered committee time for updates from representatives of ASCE UESI, the American Association of State Highway and Transportation Officials (AASHTO) Committee on Right of Way, Utilities, and Outdoor Advertising Control (CRUO), the Subsurface Utility Engineering Association, and the Federal Highway Administration. I have witnessed these organizations moving in a similar direction to support and promote utility engineering and coordination improvements, yet independently so. I envision promoting informal collaboration among these entities to foster a synergistic effort while each can still accomplish its objectives.

Another reason that I desire to serve as a UESI Governor is the partnership that I could help foster with academia. I realize there are other governors from academia, but I believe my addition would only help to support the bond with universities, which is in extreme need of partnership with ASCE's UESI. At my institution, I offer a course titled, CE 594U *Utility Engineering and Coordination*. While there are other utility-related courses, I believe my course, specifically on the topic of Utility Engineering, is unique in the country, and in it, we discuss many aspects of UESI, as well as the standards that UESI is in responsible charge of, such as ASCE 38-22 and ASCE 75-22. Having a more formalized role with ASCE UESI would allow for collaborative efforts to support and enrich my class, but more importantly, an opportunity to share my course materials with other institutions to spread knowledge regarding Utility Engineering.

If given the opportunity to serve as a UESI Governor, my desired accomplishments would be to build partnerships, especially among ASCE and AASHTO and the academic community. I believe these relationships will strengthen ASCE's role in building standardization within utility engineering and in being a source of training and education on the topic. I would cherish the opportunity to serve as a UESI Governor.

Sincerely,



**ASCE UESI BOARD OF GOVERNORS APPLICATION
PREVIOUS VOLUNTEER ACTIVITIES**

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VOLUNTEER ACTIVITIES BY ORGANIZATION

AMERICAN SOCIETY OF CIVIL ENGINEERS

- General Member, 2018—present
- Utility Engineering and Surveying Institute Member, ASCE, 2018—present
 - Utility Risk Management Division Executive Committee – ex officio (unofficial, to coordinate with Transportation Research Board AKD60 Standing Committee on Utilities), 2020—present
 - Utility Coordination Committee, 2018—present
 - Subsurface Utility Engineering and Investigation Committee (unofficial), 2021—present
 - Utility Risk Research and Education Council, 2020—present
 - Construction Institute Member, ASCE, 2018—present
 - CI Student Days, Volunteer, 2023, Denver, Colorado
 - Construction Research Congress Member, ASCE, 2020—present
 - Construction Research Congress Secretary, ASCE, March 2024—present
 - Member of the hosting and planning committee for the 2024 ASCE CI-CRC Joint Conference, Des Moines, IA, March 20-23, 2024

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

- AASHTO Technical Subcommittees, member
 - Utility Mapping, GIS & SUE, 2017—present
 - Utility Project Scoping & Coordination, 2017—present
 - Utility Accommodation & Safety, 2017—present

TRANSPORTATION RESEARCH BOARD

- Committee Chair, Transportation Research Board, Standing Committee on Utilities (AKD 60), 2019 – present
- Committee Member, Transportation Research Board, Standing Committee on Construction Management (AKC 10), 2013 – present

COMMON GROUND IOWA

- Volunteer member, 2021—present

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EARNED DEGREES

Virginia Polytechnic Institute and State University

Master of Science in Engineering, Civil Engineering – Construction Engineering and Project Management, December 2004

Graduate Certificates: Engineering Education, Preparing the Future Professoriate

University of Kentucky– Lexington, Kentucky

Masters of Business Administration, August, 2003

Bachelor of Science in Civil Engineering, Minor: Mathematics, May 2003

Graduate Certificates: Applied Statistics

Ph.D. in Civil Engineering, Fall 2018

PROFESSIONAL EMPLOYMENT

Transportation Engineer Specialist, Kentucky Transportation Cabinet, Central Office Division of Highway Design, Frankfort, KY, October 2011-October 2012

Transportation Engineer Specialist, Kentucky Transportation Cabinet, Central Office Division of Construction, Frankfort, KY, December 2008-October 2011

Engineer-in-Training, Kentucky Transportation Cabinet, Central Office Division of Construction, Frankfort, KY, January 2007-December 2008

Scholarship Trainee/Transportation Engineering Assistant, Kentucky Transportation Cabinet, District 12, Pikeville, KY May 2003-August 2003, May 2001-August 2001, and May 1999-August 1999

ACADEMIC APPOINTMENTS

Assistant Professor, Iowa State University, Department of Civil, Construction and Environmental Engineering, Ames, Iowa, July 2019-present

Research Engineer, University of Kentucky, Kentucky Transportation Center, Lexington, KY, October 2012-June 2019

Adjunct Instructor, University of Kentucky, Dept. of Civil Engineering, Lexington, KY, January 2013-May 2013

Adjunct Instructor, Kentucky Community and Technical College System, Bluegrass Community and Technical College, Lexington, KY, January 2012-May 2014

Graduate Research Assistant, Virginia Polytechnic Institute and State University, Blacksburg, VA, May 2004-December 2006

Graduate Teaching Assistant, Virginia Polytechnic Institute and State University, Blacksburg, VA, May 2003-May 2004

Teaching Assistant, University of Kentucky, College of Engineering, Lexington, KY, August 2002-May 2003

Laboratory Assistant, University of Kentucky, Kentucky Transportation Center Structures Laboratory, Lexington, KY, September 2000-April 2002

HONORS AND AWARDS

Building a World of Difference, Black and Veatch Faculty Fellowship, Iowa State University, 2023
Axis Stewardship Award, American Association of State Highway Transportation Officials, Committee on Right of Way, Utilities and Outdoor Advertising Control 2023 ~ Research Project/Training Program
College of Engineering Award for Early Achievement in Teaching, Iowa State University, 2022
Joseph C. and Elizabeth A. Anderlik Faculty Award for Excellence in Undergraduate Teaching, Iowa State University, 2021
High Value Research in Construction, Specifications, and Materials, American Association of State Highway Transportation Officials, 2022
High Value Research in Safety, American Association of State Highway Transportation Officials, 2019
Outstanding Graduate Student, Myers-Lawson School of Construction, Virginia Tech, 2006

PROFESSIONAL CREDENTIALS AND CERTIFICATIONS

Iowa Licensed Professional Engineer, November 2019, IA PE # P25629 (Active)
Kentucky Licensed Professional Engineer, June 2008, KY PE # 26119 (Active)
Leadership in Energy and Environmental Design Green Associate (LEED-GA), November 2009 (Inactive)
Greenroads Sustainable Transportation Professional, STP α , among the initial 25 credentialed, November 2012 (Inactive)

SELECTED PROJECTS

Ikuma, K (PI), S LaFlamme (Co-PI), **R Sturgill (Co-PI)**, “3D Bioprinting of Microbial Biofilms for Gas Pipeline Corrosion Prevention.” Funded by the Iowa Energy Center. January 2024-present.
R Sturgill (Co-I), HDR, Horrocks, BIO-West, “Advancing Transportation Life-Cycle Digital Delivery Project.” Funded by the Federal Highway Administration, AID Demonstration Grant – Iowa DOT. January 2024-present.
R Sturgill (Co-I), Parsons, Grisham-Smith. “Utilities/SUE Standard Guidance Development.” Funded by the Tennessee Department of Transportation. January 2024-present
Shane, J (PI), **R Sturgill (Co-I)**, University of Kansas, Colorado State University. “NCHRP 10-119 Guidance for Implementing Utility Investigations in Alignment with Project Delivery.” Funded by the National Cooperative Highway Research Program. October 2023-present.
Sturgill, R (PI), Parsons Corporation. “DelDOT Utility Coordination Training Development.” Delaware Department of Transportation [via contract with InfraMap, Inc.]. April 2023-present
Sturgill, R (PI), K Madson, J Shane, J Anspach (Iowa State), K Franklin (Parsons), D Markewicz (NV5). “NCHRP 15-81 Guideline for Depicting Existing and Proposed Utility Facilities in Design Plans.” Funded by the National Cooperative Highway Research Program. September 2022-Present
Charbonnet, J., (PI) and **Sturgill, R (Co-PI)**, “Practices to Identify and Mitigate PFAS Impacts on Highway Construction Projects and Maintenance Operations.” Funded by the National Academy of Sciences. NCHRP 20-05 Topic 54-01. November 2022-October 2023.
Tran, D. (PI), Harper, C. (Co-PI), and **Sturgill, R (Co-PI)**, “Programmatic Implementation of Alternative Contracting Methods.” Funded by the National Academy of Sciences. NCHRP 20-05 Topic 54-12. December 2022-November 2023.
Harper, C. (PI), Tran, D. (Co-PI), and **Sturgill, R (Co-PI)**, “Post-Construction Evaluation Practices for Highway Projects Delivered Using Alternative Contracting Methods.” Funded by the National Academy of Sciences. NCHRP 20-05 Topic 54-16. November 2022-October 2023.
Dadi, G, (PI) and **Sturgill, R (Co-PI)**, “Practices to Motivate Safe Behaviors with Highway Construction and Maintenance Crews.” Funded by the National Academy of Sciences. NCHRP 20-05 Topic 53-02. December 2021-November 2022.

- Nassereddine, H. (PI), **Sturgill, R (Co-PI)**, et al. “Practices for the Collection, Use, and Management of Utility As-Built Information.” Funded by the National Academy of Sciences. NCHRP 20-05 Topic 53-04. September 2021- October 2022.
- Sturgill, R (PI)**, Tran, D. (Co-PI), and Harper, C. (Co-PI). “Strategies and Programs For Electric Vehicle Charging.” Funded by the National Academy of Sciences. NCHRP 20-05 Topic 53-08. December 2021- November 2022.
- Perez, Michael (PI), Whitman, B. (Co-PI) and **Sturgill, R.** “Use of Unmanned Aerial Systems for Inspection of Stormwater Best Management Practices.” Funded by the National Academy of Sciences. NCHRP 20-05 Topic 53-09. January 2022- December 2022.
- Harper, C. (PI), Tran, D. (Co-PI), and **Sturgill, R (Co-PI)**, “State DOT Product Evaluation Processes.” Funded by the National Academy of Sciences. NCHRP 20-05 Topic 53-19. July 2022-June 2023.
- Tran, D. (PI), Harper, C. (Co-PI) and **Sturgill, R (Co-PI)**, “Highway Infrastructure Inspection Practices for the Digital Age.” Funded by the National Academy of Sciences. NCHRP 20-05 Topic 52-01. October 2020-September 2021.
- Sturgill, R (PI)**, Madson, K. (Co-PI) and Anspach, J. (Co-PI), “Implementation of Subsurface Utility Engineering for Highway Design and Construction.” Funded by the National Academy of Sciences. NCHRP 20-05 Topic 52-05. October 2020- September 2021.
- Dadi, G. (PI), **Sturgill, R (Co-PI)** and Al-Shabbani, Z. “Use of Safety Management Systems in Managing Highway Maintenance Worker Safety.” Funded by the National Academy of Sciences. NCHRP 20-05 Topic 52-09. October 2020- September 2021.
- Dadi, G. (PI) and **Sturgill, R (Co-PI)**, “Electronic Ticketing of Material for Construction Management.” Funded by the National Academy of Sciences. NCHRP 20-05 Topic 50-07. October 2018-September 2019.
- Taylor, T. (PI) and **Sturgill, R. (Co-PI)**, “Methods to expedite and streamline utility relocations for road projects Funded by the Federal Highway Administration (80%) and the Kentucky Transportation Cabinet (20%). KYSPR-13-460. July 2012-June 2014.

SELECTED PUBLICATIONS

- Withrow, J., Dadi, G., Nassereddine, H. **Sturgill, R.** “Asphalt Material E-Ticketing Workflow: Qualitative and Quantitative Analysis.” American Society of Civil Engineers. Journal of Construction Engineering and Management. Volume 150. Issue 3. (March 2024)
<https://doi.org/10.1061/JCEMD4.COENG-13945>
- Oguntoye, K., Laflamme, S., **Sturgill, R.** & Eisenmann, D. (2023). "Review of Artificial Intelligence Applications for Virtual Sensing of Underground Utilities" Sensors 23, no. 9: 4367.
<https://doi.org/10.3390/s23094367>
- Patel, P., **Sturgill, R.**, Nassereddine, H., Ramadan, B., & Li, Y. (2023). “Current Benefits of ASCE 75 and its Potential to Affect Digital As-Built Initiatives at State Departments of Transportation.” Transportation Research Record, 0(0). <https://doi.org/10.1177/03611981231182961>
- Al-Bayati, A., **Sturgill, R.**, Panzer, L., Montes Victorio, S., & Omer, T. (2022) “Locating underground utilities in the United States: A comparative analysis of services provided by private locators.” Transportation Research Interdisciplinary Perspectives, Volume 16, 2022, 100707, ISSN 2590-1982, <https://doi.org/10.1016/j.trip.2022.100707>.
- Tripathi A, Patel D, **Sturgill R.**, Dadi GB. (2022) “Analysis of E-Ticketing Technology for Inspection Performance and Practicality on Asphalt Paving Operations.” Transportation Research Record. 2676(8):186-197. doi:10.1177/03611981221083308
- Al-Shabbani, Z., **Sturgill, R.E.**, and Dadi, G.B. (2018). “Developing a Pre-Task Safety Briefing Tool for Kentucky Maintenance Personnel.” Transportation Research Record. 2672(12):187-197. doi:10.1177/0361198118792327
- Wang, X., **Sturgill, Jr., R.E.**, Al-Shabbani, Z., Kirk, A., and Dadi, G.B. (2017). “Estimating Earthwork Volume Calculations Using Unmanned Aerial Systems.” *Transportation Research Record*. No. 2630, 2017 DOI: 10.3141/2630-01. 1-8.

- Sturgill, Jr., R.E.**, Wang, X., and Dadi, G.B. (2017). “Mobile Information Technology Device Strategies, Uses, and Needs Across State Transportation Agencies.” Proceedings from the Transportation Research Board 96th Annual Meeting, Washington, D.C. January 8-12, 2017.
- Wang, X., **Sturgill, Jr., R.E.**, and Dadi, G.B. (2016). “Analyzing Use and Policies for Mobile Information Technology Devices within State Departments of Transportation”. Proceedings from the 2016 Construction Research Congress (CRC). San Juan, Puerto Rico
- Sturgill, R.**, Taylor, T., and Li, Y. Effective Utility Coordination: Application of Research and Current Practices. *National Cooperative Highway Research Program, Synthesis Report 506*. ISBN 978-0-309-38993-6. 2017
- Taylor, T., **Sturgill, R.**, and Li, Y. Practices for Establishing Contract Completion Dates for Highway Project. *National Cooperative Highway Research Program, Synthesis Report 502*. ISBN 978-0-309-38984-6. 2017
- Wang, X., Al-Shabbani, Z., **Sturgill, R.**, Kirk, A., and Dadi, G. Estimating Earthwork Volumes Through Use of Unmanned Aerial Systems. *Transportation Research Record: Journal of the Transportation Research Board*. Volume 2630. 2017.
- Li, Y., Taylor, T., Dadi, G. and **Sturgill, R.** Modeling Long-Term Highway Staffing Requirements for State Transportation Agencies. *Transportation Research Record: Journal of the Transportation Research Board*. Volume 2612. 2017.
- Zhai, D., Shan, Y., **Sturgill, R.**, Taylor, T., and Goodrum, P. Using Parametric Modeling to Estimate Highway Construction Contract Time. *Transportation Research Record: Journal of the Transportation Research Board*. Volume 2573. 2016
- Dadi, G., **Sturgill, R.**, and Wang, X. Uses of Mobile Information Technology Devices in the Field for Design, Construction, and Asset Management. *National Cooperative Highway Research Program, Synthesis Report 491*. ISBN 978-0-309-27212-4. 2016

SERVICE

1. Member, Transportation Research Board, Standing Committee on Construction Management (AKC 10), 2013 – present.
2. Committee Chair, Transportation Research Board, Standing Committee on Utilities (AKD 60), 2019 – present
3. Member, ASCE, UESI Member, 2018—present
 - a. Utility Coordination Committee, 2018—present
4. Member, ASCE, Construction Research Congress, 2019—present
 - a. Secretary, Construction Research Congress, 2024—present
5. Member, AASHTO Technical Subcommittees (Utility Mapping, GIS & SUE; Utility Project Scoping & Coordination; Utility Accommodation & Safety), 2017—present