

Curriculum Vitae

Jennifer D. Schmidt, Ph.D., P.E.

Midwest Roadside Safety Facility
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Education

Doctor of Philosophy, University of Nebraska-Lincoln, December 2012
Major: Civil Engineering
Emphasis: Structural Engineering
Dissertation: Development of a New Energy-Absorbing Roadside/Median Barrier System with Restorable Elastomer Cartridges

Master of Science, University of Nebraska-Lincoln, December 2009
Major: Civil Engineering
Emphasis: Structural Engineering
Thesis: Analysis of Existing Work-Zone Devices with MASH Safety Performance Criteria

Bachelor of Science, University of Nebraska-Lincoln, May 2008
Major: Civil Engineering

Employment

Civil Engineering Department, University of Nebraska-Lincoln, Midwest Roadside Safety Facility, Research Assistant Professor, February 2015 – Present

Civil Engineering Department, University of Nebraska-Lincoln, Lecturer, CIVE441: Steel Design I, January 2017 – May 2017

Midwest Roadside Safety Facility, University of Nebraska-Lincoln, Post-Doctoral Research Associate, December 2012 – February 2015

Civil Engineering Department, University of Nebraska-Lincoln, Lecturer, CIVE898: Special Topics in Structural Engineering, January 2013 – May 2013

Civil Engineering Department, University of Nebraska-Lincoln, Graduate Teaching Assistant, CIVE341: Introduction to Structural Engineering Laboratory, August 2011 - December 2011

Midwest Roadside Safety Facility, University of Nebraska-Lincoln, Graduate Research Assistant, May 2008 – December 2012

Professional Licensure

Licensed Professional Civil Engineer in the State of Nebraska (E-14946), December 2013

Reviewed Journal Publications in print

12. Asadollahi Pajouh, M., Schmidt, J.D., Bielenberg, R.W., Faller, R.K., Reid, J.D., and Emerson, E., *Development of Transition Between Free-standing and Reduced-Deflection Portable Concrete Barriers*, Transportation Research Record, Journal of the Transportation Research Board, DOI: 10.1177/0361198118774745, Washington D.C., 2018.
11. Rosenbaugh, S.K., Schmidt, J.D., and Faller, R.K., *Development of a Standardized Buttress for Approach Guardrail Transitions*, Transportation Research Record, Journal of the Transportation Research Board, DOI: 10.1177/0361198118758676, Washington D.C., 2018.
10. Bielenberg, R.W., Faller, R.K., Reid, J.D., Schmidt, J.D., Pajouh, M.A., and Emerson, E., *Development of a Retrofit, Low-Deflection Temporary Concrete Barrier System*, Journal of Transportation Safety & Security, Taylor & Francis, February 2018, DOI: 10.1080/19439962.2017.1420717, pp. 1-20.
9. Asadollahi Pajouh, M., Schmidt, J.D., Meyer, C.L., Lechtenberg, K.A., and Faller, R.K., *Crash Reconstruction Technique for Cable Barrier Systems*, Journal of Transportation Safety & Security, Taylor & Francis, November 2017, DOI:10.1080/19439962.2017.1386251, pp. 1-18.
8. Asadollahi Pajouh, M., Bielenberg, R.W., Schmidt J.D., and Faller, R.K., *Safe Placement of Breakaway Luminaire Poles behind Midwest Guardrail System*, International Journal of Crashworthiness, August 2017, DOI: 10.1080/13588265.2017.1359367, pp. 1-19.
7. Rosenbaugh, S.K., Schmidt, J.D., Faller, R.K., Larsen, H.P., and Pankratz, A., *Development and Testing of the Manitoba Constrained Width Tall Wall Barrier*, Transportation Research Record, Journal of the Transportation Research Board, Volume 2638, DOI: 10.3141/2638-07, Washington D.C., 2017, pp. 55-64.
6. Schmidt, J.D., Rosenbaugh, S.K., and Faller, R.K., *Evaluation of the Midwest Guardrail System Stiffness Transition with Curb*, Journal of Transportation Safety & Security, Taylor & Francis, Volume 9, Issue 1, 2017, DOI: 10.1080/19439962.2015.113474, pp. 105-121.
5. Schmidt, J.D., Rosenbaugh, S.K., Bielenberg, R.W., Faller, R.K., Reid, J.D., and Schmidt, T.L., *MASH TL-4 Design and Evaluation of A Restorable Energy-Absorbing Concrete Barrier*, Best Paper Award - Transportation Research Board AFB20 Committee on Roadside Safety Design, Transportation Research Record, Journal of the Transportation Research Board, Volume no. 2588, DOI: 10.3141/2588-11, Washington D.C., pp. 98-109, 2016.
4. Schmidt, J.D., Weiland, N.A., Reid, J.D., and Faller, R.K., *Minimum Effective Guardrail Length for the Midwest Guardrail System*, Paper No. 15-0484,

- Transportation Research Record, Journal of the Transportation Research Board, Volume No. 2521, DOI: 10.3141/2521-07, Washington D.C., 2015, pp. 65-76.
3. Rosenbaugh, S.K., Schmidt, J.D., and Faller, R.K., *Development of Socketed Foundations for Cable Guardrail Posts*, Paper No. 15-4518, Transportation Research Record, Journal of the Transportation Research Board, Transportation Research Board, No. 2521, DOI: 10.3141/2521-14, Washington D.C., 2015, pp. 126-134.
 2. Schmidt, J.D., Jowza, E.R., Faller, R.K., Rosenbaugh, S.K., and Reid, J.D., *Safety Investigation and Guidance for Retrofitting Existing Approach Guardrail Transitions*, Best Paper Award - Paper No. 14-4613 Transportation Research Board AFB20 Committee on Roadside Safety Design, Transportation Research Record, Journal of the Transportation Research Board, No. 2437, Highway Design 2014 Volume 2, DOI: 10.3141/2437-06, Washington D.C., 2014, pp. 52-62.
 1. Schmidt, J.D., Faller, R.K., Lechtenberg, K.A., and Sicking D.L., *Analysis of Existing Work-Zone Sign Supports Using Manual for Assessing Safety Hardware Safety Performance Criteria*, Journal of Transportation Safety & Security, Taylor & Francis, Volume 3, Number 4, December 2011, DOI: 10.1080/19439962.2011.599015, pp. 237-251.

Conference Proceedings: peer reviewed

9. Pajouh, M.A., Schmidt, J.D., Bielenberg, R.W., Reid, J.D., and Faller, R.K., *Simplified Soil-Pile Interaction Modeling Under Impact Loading*, ASCE Proceedings of GEESDV 2018, 5th Geotechnical Earthquake Engineering and Soil Dynamics Conference, Austin, Texas, June 2018 (accepted).
8. Pajouh, M.A., Reid, J.D., Bielenberg, R.W., Schmidt, J.D., and Faller, R.K., *Pole Placement Near the Midwest Guardrail System*, Paper No. IMECE2017-71588, Proceedings of ASME 2017 International Mechanical Engineering Congress and Exposition IMECE2017, Tampa, Florida, November 3-9, 2017.
7. Larsen, H.P., Rosenbaugh, S.K., Pankratz, A., Emerson, D., Schmidt, J.D., Faller, R.K., and Regier, E.M., *Design and Implementation of the Manitoba Constrained-Width Tall Wall Barrier*, Paper Call No. CA6 ARH_10 2017A5123, Innovations in Road Safety Session, Proceedings of the 2017 Conference and Exhibition of the Transportation Association of Canada (TAC), St. John's, Newfoundland, Canada, September 24-27, 2017.
6. Schmidt, J.D., Reid, J.D., Stolle, C.S., Faller, R.K., Bielenberg, R.W., and Schroder, B.D., *Evaluation of 45-Degree Crashes into Midwest Guardrail System*, Transportation Research Board 97th Annual Meeting, Paper No. 18-05855, Published in 2018 Compendium of Papers.
5. Schmidt, J.D., Bielenberg, R.W., Faller, R.K., Emerson, E., and Schroder, B., *Evaluation of Energy-Absorbing End Terminals Adjacent to Curbs*, Transportation Research Circular Number E-C220 – June 2017, First International Roadside Safety Conference – Safer Roads, Saving Lives, Saving Money, TRB AFB20 Committee on Roadside Safety Design, Transportation Research Board, San Francisco, California, June 12-15, 2017, ISSN 0097-851.

4. Faller, R.K., Lechtenberg, K.A. Schmidt, J.D., Guajardo, A., Bielenberg, R.W., Reid, J.D., and Emerson E., *Development of a MASH TL-2 Crashworthy Pedestrian Railing System*, Transportation Research Circular Number E-C220 – June 2017, First International Roadside Safety Conference – Safer Roads, Saving Lives, Saving Money, Best New Innovation Paper Award, TRB AFB20 Committee on Roadside Safety Design, Transportation Research Board, San Francisco, California, June 12-15, 2017, ISSN 0097-8515.
3. Faller, R.K., Rosenbaugh, S.K., Bielenberg, R.W., Lechtenberg, K.A., Holloway, J.C., Stolle, C.S., Schmidt, J.D., Reid, J.D., and Pajouh, M.A., *Investigation and Mitigation of Post Penetration into Floor Pan of 1100C Small Cars*, Transportation Research Circular Number E-C220 – June 2017, First International Roadside Safety Conference – Safer Roads, Saving Lives, Saving Money, TRB AFB20 Committee on Roadside Safety Design, Transportation Research Board, San Francisco, California, June 12-15, 2017, ISSN 0097-8515.
2. Bielenberg, R.W., Schmidt, J.D., Faller, R.K., Reid, J.D., and Emerson, E., *Development of a Retrofit, Low-Deflection Temporary Concrete Barrier System*, Paper No. 16-1596, Submitted for publication in Transportation Research Record, Journal of the Transportation Research Board, Published in 2016 Compendium of Papers.
1. Rosenbaugh, S.K., Schmidt, J.D., and Faller, R.K., *Evaluation of the Midwest Guardrail System Stiffness Transition with Curb*, Paper No. 15-4502, Submitted to Transportation Research Record, Journal of the Transportation Research Board, Published in 2015 Compendium of Papers.

Conference Presentations

13. Schmidt, J.D., *Development of a Flatbed SUT Model*, Presented at the Transportation Research Board 97th Annual Meeting, Workshop 877: Modeling and Simulation for Design and Evaluation of Roadside Safety Hardware, Washington D.C., January 11, 2018.
12. Schmidt, J.D., Reid, J.D., Stolle, C.S., Faller, R.K., Bielenberg, R.K., and Schroder, B.D., *Evaluation of 45-Degree Crashes into Midwest Guardrail System*, Presented at the Transportation Research Board 97th Annual Meeting, Session 569: Application of Computational Mechanics for Evaluation of Roadside Safety Hardware, Washington D.C., January 9, 2018.
11. Schmidt, J.D., Bielenberg, R.W., Faller, R.K., Emerson, E., and Schroder, B.D.¹, *Evaluation of Energy-Absorbing End Terminals Adjacent to Curbs*, Presented at the Transportation Research Board International Roadside Safety Conference, Session 8A, June 14, 2017.
10. Schmidt, J.D., *Recent Single-Unit Truck Modeling Experiences*, Presented at the Transportation Research Board 96th Annual Meeting, Computational Mechanics Forum, Washington D.C., January 12, 2017.
9. Schmidt, J.D., *Modeling Concrete and Steel*, Presented at the Transportation Research Board AFB20 Committee on Roadside Safety Design Summer Meeting

and Workshop, Computational Mechanics Simulation Forum, Baltimore, MD, June 23, 2016.

8. Schmidt, J.D., *Verification and Validation Experience and Recommendations*, Presented at the Transportation Research Board AFB20 Committee on Roadside Safety Design Summer Meeting and Workshop, Computational Mechanics Forum, Baltimore, MD, June 23, 2016.
7. Schmidt, J.D., Rosenbaugh, S.K., Bielenberg, R.W., Faller, R.K., Reid, J.D., and Schmidt, T.L., *MASH TL-4 Design and Evaluation of A Restorable Energy-Absorbing Concrete Barrier*, Presented at the Transportation Research Board 95th Annual Meeting, Session 405, Washington, D.C., January 11, 2016.
6. Schmidt, J.D., *Available MASH Hardware*, Presented at the Transportation Research Board AFB20 Committee on Roadside Safety Design Summer Meeting and Workshop, Chicago, IL, July 15, 2015.
5. Schmidt, J.D., Weiland, N., Reid, J.D., and Faller, R.K., *Minimum Effective Length for the Midwest Guardrail System*, Presented at the Transportation Research Board 94th Annual Meeting, Session 209, Washington, D.C., January 12, 2015.
4. Schmidt, J.D., *Rapid Construction for Bridge Railings and Barriers*, Presented at the Transportation Research Board AFB20 Committee on Roadside Safety Design Summer Meeting and Workshop, Portland, ME, July 15, 2014.
3. Schmidt, J.D., Jowza, E., Faller, R.K., Rosenbaugh, S.K., and Reid, J.D., *Safety Investigation and Guidance for Retrofitting Approach Guardrail Transitions*, Presented at Transportation Research Board 93rd Annual Meeting, Washington, D.C., January 14, 2014.
2. Schmidt, J.D., *Development of a New Energy-Absorbing, Restorable Longitudinal Barrier System*, Presented at Transportation Research Board 93rd Annual AFB20 Committee Meeting, Washington, D.C., January 14, 2014.
1. Schmidt, J.D., *Safety Performance of Work-Zone Devices Under MASH Testing*, Presented at Transportation Research Board 89th Annual AFB20 Committee on Roadside Safety Design Meeting, Washington, D.C., January 12, 2010.

Invited Talks, Webinars, or Keynote Speeches

6. *Road Side Design: When is a Barrier Required*, Presented at the Frank Cowan Company Guide Rail Safety Symposium, Ontario, Canada, October 24, 2017.
5. *Roadside Features and Roadside Safety Hardware*, Presented at the Nebraska Section ASCE Transportation Group & UNO Student ASCE Chapter Meeting, Omaha, Nebraska, April 28, 2016.
4. *History of Roadside Testing Standards and Research at MwRSF*, Presented at the Lecol Crash Testing Symposium, Ontario, Canada, September 10, 2015.
3. *Safety Performance of Work-Zone Devices Under MASH Testing*, Presented at the Midwest Pooled Fund and Task Force 13 Joint Spring Meeting, Lincoln, Nebraska, April 17, 2013.

2. *Safety Performance of Work-Zone Devices Under MASH Testing*, Presented at 2012 Mid-America Transportation Center (MATC) Research Showcase Webinar, Lincoln, Nebraska, June 7, 2012.
1. *Safety Performance of Work-Zone Devices Under MASH Testing*, Presented at 2010 Smart Work Zone Deployment Initiative (SWZDI) Research Showcase Webinar, Lincoln, Nebraska, July 26, 2010.

Other Publications – Research Reports

21. Asadollahi Pajouh, M., Schmidt, J.D., Bielenberg, R.W., and Faller, R.K., *Development of a Transition Between Free-Standing and Reduced-Deflection Portable Concrete Barriers – Phase I*, Final Report to the Wisconsin Department of Transportation, Transportation Research Report No. TRP 03-366-17, NDOR Project No.: TPF-5(193) Supplement #78, Midwest Roadside Safety Facility, University of Nebraska Lincoln, Lincoln, Nebraska, August 8, 2017.
20. Schmidt, J.D., Bielenberg, R.W., Schroder, B.D., Faller, R.K., and Lechtenberg, K.A., *Safety Investigation and Design Guidance for Curbs Near Energy-Absorbing End Terminals*, Final Report to the Wisconsin Department of Transportation, Transportation Research Report No. TRP 03-358-17, NDOR Project No.: TPF-5(193) Supplement #62, Midwest Roadside Safety Facility, University of Nebraska Lincoln, Lincoln, Nebraska, July 10, 2017.
19. Asadollahi Pajouh, M., Bielenberg, R.W., Schmidt, J.D., Lingenfelter, J., Faller, R.K., and Reid, J.D., *Placement of Breakaway Light Poles Located Directly Behind Midwest Guardrail System (MGS)*, Final Report to the Illinois Tollway, Transportation Research Report No. TRP 03-361-17, NDOR Project No.: TPF-5(193) Supplement #87, Midwest Roadside Safety Facility, University of Nebraska Lincoln, Lincoln, Nebraska, June 29, 2017.
18. Rosenbaugh, S.K., Schmidt, J.D., Faller, R.K., and Holloway, J.C., *Evaluation of Adjustable Continuity Joint Variations for Use in the RESTORE Barrier*, Final Report to the Nebraska Department of Roads and Federal Highway Administration, Transportation Research Report No. TRP 03-363-17, NDOR Project No.: DPU-STWD (94), Midwest Roadside Safety Facility, University of Nebraska Lincoln, Lincoln, Nebraska, June 22, 2017.
17. Rosenbaugh, S.K., Schmidt, J.D., Regier, E.M., and Faller, R.K., *Development of the Manitoba Constrained-Width, Tall Wall Barrier*, Final Report to Manitoba Infrastructure, MwRSF Research Report No. TRP-03-356-16, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, September 26, 2016.
16. Schmidt, T.L., Faller, R.K., Schmidt, J.D., Reid, J.D., Bielenberg, R.W, and Rosenbaugh, S.K., *Development of a Transition Between An Energy-Absorbing Concrete Barrier and A Rigid Concrete Buttress*, Final Report to the Nebraska Department of Roads and Federal Highway Administration, MwRSF Research Report No. TRP-03-336-16, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, September 26, 2016.
15. Schmidt, J.D., Bielenberg, R.W., Reid, J.D., and Faller R.K., *Continued Development of a Non-Proprietary, High-Tension, Cable End Terminal System*,

Final Report to the Midwest States Pooled Fund Program, MwRSF Research Report No. TRP-03-332-16, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, April 29, 2016.

14. Winkelbauer, B.J. Faller, R.K., Bielenberg, R.W., Rosenbaugh, S.K., Reid, J.D., and Schmidt, J.D., *Phase I Evaluation of Selected Concrete Material in LS-DYNA*, Final Report to the Nebraska Department of Roads and Federal Highway Administration, MwRSF Research Report No. TRP-03-330-16, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, April 29, 2016.
13. Lechtenberg, K.A., Schmidt, J.D., Faller, R.K., Guajardo, A.L., Bielenberg, R.W., and Reid, J.D., *Development of a Crashworthy Pedestrian Rail*, Final Report to the Wisconsin Department of Transportation, MwRSF Research Report No. TRP-03-321-15, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, January 18, 2016.
12. Schmidt, J.D., Schmidt, T.L., Rosenbaugh, S.K., Faller, R.K., Bielenberg, R.W., Reid, J.D., and Holloway, J.C., *MASH TL-4 Testing and Evaluation of the RESTORE Barrier*, Final Report to the Nebraska Department of Roads and Federal Highway Administration, MwRSF Research Report No. TRP-03-318-15, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, November 3, 2015.
11. Schmidt, J.D., Rosenbaugh, S.K., Faller, R.K., Bielenberg, R.W., Reid, J.D., Lechtenberg, K.A., Holloway, J.C., and Kohtz, J., *Design and Evaluation of an Energy-Absorbing, Reusable Roadside/Median Barrier*, Final Report to the Nebraska Department of Roads and Federal Highway Administration, MwRSF Research Report No. TRP-03-317-15, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, July 29, 2015.
10. Schmidt, J.D., Reid, J.D., Faller, R.K., and Sicking, D.L., *Dynamic Testing of a Non-Proprietary, High-Tension, Cable End Terminal System*, Final Report to the Midwest State's Regional Pooled Fund Program, MwRSF Research Report No. TRP-03-294-14, Project No.: TPF-5(193) Supplement #21, Project Code: RPPF-10-CABLE-3 Year 20, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, Lincoln, Nebraska, March 21, 2014.
9. Schmidt, J.D., Schmidt, T.L., Faller, R.K., Sicking, D.L., Reid, J.D., Lechtenberg, K.A., Bielenberg, R.W., Rosenbaugh, S.K., and Holloway, J.C., *Evaluation of Energy Absorbers for Use in a Roadside/Median Barrier*, Final Report to the Nebraska Department of Roads and Federal Highway Administration, MwRSF Research Report No. TRP-03-280-14, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, February 6, 2014.
8. Schmidt, J.D., Reid, J.D., Bielenberg, R.W., and Faller, R.K., *Numerical Investigation on the Performance of Steel Guardrail Systems with Varied Mechanical Properties*, Final Report to Advanced Coatings & Construction Solutions, MwRSF Research Report No. TRP 03-290-13, Midwest Roadside Safety Facility, University of Nebraska Lincoln, Lincoln, Nebraska, July 25, 2013.
7. Schmidt, J.D., Faller, R.K., Sicking, D.L., Reid, J.D., Lechtenberg, K.A., Bielenberg, R.W., Rosenbaugh, S.K., *Development of a New Energy-Absorbing*

- Roadside/Median Barrier System with Restorable Elastomer Cartridges*, Final Report to the Nebraska Department of Roads and Federal Highway Administration, MwRSF Research Report No. TRP 03-281-13, NDOR Contract No.: DPU-STWD (94), Midwest Roadside Safety Facility, University of Nebraska Lincoln, Lincoln, Nebraska, July 16, 2013.
6. Schmidt, J.D., Meyer, C.L., Lechtenberg, K.A., Faller, R.K., Bielenberg, R.W., Stolle, C.S., Sicking, D.L., and Reid, J.D., *Energy Analysis of Vehicle-to-Cable Barrier Impacts*, Final Report to the New York State Department of Transportation, MwRSF Research Report No. TRP-03-283-13, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, June 11, 2013.
 5. Schmidt, J.D., Sicking, D.L., Faller, R.K., Lechtenberg, K.A., Bielenberg, R.W., Reid, J.D., and Rosenbaugh, S.K., *Phase III Development of a Non-Proprietary, Four-Cable, High-Tension Median Barrier*, Final Report to the Midwest State's Regional Pooled Fund Program, MwRSF Research Report No. TRP-03-253-12, Project No.: TPF-5(091) Supplement #1, Project Code: RPPF-09-01 Year 19, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, Lincoln, Nebraska, March 21, 2012.
 4. Schmidt, J.D., Sicking, D.L., Faller, R.K., Reid, J.D., Bielenberg, R.W., and Lechtenberg, K.A., *Investigating the Use of a New Universal Breakaway Steel Post - Phase III*, Final Report to the Midwest State's Regional Pooled Fund Program, MwRSF Research Report No. TRP-03-244-10, Project No.: TPF-5(193), Supplement No. 35, Project Code: RPPF-11-BNOSE - Year 21, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, Lincoln, Nebraska, December 16, 2010.
 3. Schmidt, J.D., Sicking, D.L., Faller, R.K., Reid, J.D., Bielenberg, R.W., and Lechtenberg, K.A., *Investigating the Use of a New Universal Breakaway Steel Post - Phase 2*, Final Report to the Minnesota Department of Transportation, MwRSF Research Report No. TRP-03-230-10, Project No.: SPR-3(017), Supplement #39, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, August 9, 2010.
 2. Schmidt, J.D., Faller, R.K., Lechtenberg, K.A., Sicking, D.L., and Holloway, J.C., *Safety Investigation and Guidance for Work-Zone Devices in Freight Transportation Systems Subjected to Passenger Car and Truck Impacts with New Crash Standards*, Final Report to the Mid-America Transportation Center (MATC) and the Smart Work Zone Deployment Initiative (SWZDI), MwRSF Research Report No. TRP-03-225-10, MATC Report No. MATC-UNL: 100, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, Lincoln, Nebraska, March 1, 2010.
 1. Schmidt, J.D., Faller, R.K., Lechtenberg, K.A., Sicking, D.L., and Reid, J.D., *Development and Testing of a New Vertical-Faced Temporary Concrete Barrier for Use on Composite Panel Bridge Decks*, Final Report to the Kansas Department of Transportation, MwRSF Research Report No. TRP-03-220-09, Sponsor Agency Code: SPR-3(017) Supplement #57, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, October 13, 2009.

Patents

1. System including adjustable continuity joints and/or rotation mitigation sliding posts for rail elements, [Scott Rosenbaugh, Jennifer Schmidt, Robert Bielenberg, and Ronald Faller], Application no. 15/096,889, Filing Date: April 12, 2016, Allowed for issuance: January 26, 2018.

National and International Research Awards and Recognition

3. 2018 Best Paper Award - TRB AFB20 Committee on Roadside Safety Design – *Development of a Standardized Buttress for Approach Guardrail Transitions*, Rosenbaugh, S.K., Schmidt, J.D., and Faller, R.K., Presented at the 2018 Annual TRB Meeting.
2. 2016 Best Paper Award - TRB AFB20 Committee on Roadside Safety Design – *MASH TL-4 Design and Evaluation of A Restorable Energy-Absorbing Concrete Barrier*, Schmidt, J.D., Rosenbaugh, S.K., Bielenberg, R.W., Faller, R.K., Reid, J.D., and Schmidt, T.L., Presented at the 2016 Annual TRB Meeting.
1. 2014 Best Paper Award - TRB AFB20 Committee on Roadside Safety Design - *Safety Investigation and Guidance for Retrofitting Existing Approach Guardrail Transitions*, Schmidt, J.D., Jowza, E.R., Faller, R.K., Rosenbaugh, S.K., and Reid, J.D., Presented at the 2014 Annual TRB Meeting.