

To Iowa Highway Research Board

Date: September 27, 2019

Attention Regular and Alternate Members

From Vanessa Goetz  
Office Research and Analytics

The Iowa Highway Research Board will meet **on September 27, 2019 at 9:00 am in the East/West Materials Conference Rooms at the Iowa Department of Transportation, 800 Lincoln Way, Ames, Iowa.**

#### AGENDA

1. **Agenda review/modification**
2. **Minutes Approval from the July 26<sup>th</sup> meeting**
3. **Minutes Approval from online special meeting 1 for TR-730**
4. **Minutes Approval from online special meeting 2 for TR-730**
5. **Final Report: TR- 684, “Laboratory and Field Evaluation of an Alternative UHPC Mix and an Associated UHPC Bridge”, Brent Phares, Iowa State University, \$85,792, (15 min)**
6. **Final Report: TR- 711, “Investigation of Exterior Girder Rotation and the Effect of Skew during Deck Placement”, Brent Phares, Iowa State University, \$89,999, (15 min)**
7. **Final Report: TR- 615, “Connection Details and Field Implementation of UHPC Piles-Phase II”, Sri Sritharan, Iowa State University, \$210,000, (15 min)**
8. **Proposal IHRB-187**
  - a. **IHRB-0187, “Development of Approaches to Quantify Superloads and Their Impacts on Iowa Road Infrastructure System”, Chris Williams, Iowa State University, \$390,000**
  - b. **IHRB-0187, “Development of Approaches to Quantify Superloads and Their Impacts on Iowa Road Infrastructure System”, Halil Ceylan, Iowa State University, \$389,926**

c. **IHRB-0187**, “*Development of Approaches to Quantify Superloads and Their Impacts on Iowa Road Infrastructure System*”, Dr. Beiwen Li, Iowa State University, \$68,511

9. **Proposal: HR-140: “Collection and Analysis of Streamflow Data”**, Jon Nania, USGS Central Midwest Water Science Center, \$445,185 (FY20 \$261,525, FY21 \$261,525, FY22 \$261,525), (15 min)

10. **Matching Fund Proposal, “Use of Organosilanes to Mitigate the Impact of Freeze-Thaw Damage to the Granular Roadways in Iowa”**, Bora Cetin, Michigan State University, \$349,672, (15 Min)

## 11. New Topic Ranking

Submission #	Topic Action	Proposed Title
272	Previous Cycle	Innovative Substructure and Superstructure with NUCOR/Skyline Steel.
275	Previous Cycle	Design of Bridges for Minimum Maintenance: Phase I
283	Previous Cycle	Satellite Remote Sensing for Pavement Health Monitoring at the Network Level
286	Previous Cycle	Development of Iowa Granular Road Structural Design Tool
288	Previous Cycle	Texturized Pavement Markings for reduced Crashes in Low-light Conditions
305	New	Real-Time Intelligent 3D Scanning Robots for Bridge Inspection
316	New	Nondestructive Pavement Quality Assurance/Quality Control Evaluation System
317	New	Iowa gravel road aggregate crushability evaluation using a high-speed imaging technique
326	New	Improving Maintenance and Rehabilitation Practices on Iowa Gravel Roads
328	New	Utilization of Plastic Waste Recycling Materials for Iowa Road Infrastructure Applications
337	New	Fiber Concrete Pavements with Long Joint Spacing
338	New	Effect of Vibration on Concrete Mixtures
341	New	Thin Bonded Concrete Overlays on Concrete to Improve Rehabilitation of Iowa Roadways
345	New	Evaluation of Flowable Fibrous Concrete (FFC) Mixes for Thin Renewable Concrete Pavement Resurfacing
346	New	Load Rating for Standard Bridges for LRFR

355	New	Stereo photography by smartphone for gravel road health monitoring and assessment
356	New	Low-cost Coupled Active Thermography and Digital Imaging for Screening of Damage in Bridge Decks

**12. Revisit Topics on Hold**

Submission #	Topic Action	Proposed Title
160	Hold	Fiber Reinforcement for HMA pavements
210	Hold	Best Practices for Joint Sawing
218	Hold	The effect of section loss on the service life of HP piles
252	Hold	Impact of ADA standards on Streets with Steep Grades
257	Hold	Intelligent Urban Mobility – The Future of Smart Cities

**13. New business**

**14. Regular Meeting Adjourn**

**15. Business Plan Update Workshop**

The next regular meeting of the Iowa Highway Research Board is scheduled for October 25, 2019 in the East/West Materials Conference Room at the Iowa DOT.

**VG**