

## IOWA HIGHWAY RESEARCH BOARD (IHRB)

*Minutes of October 27, 2023*

### **Regular Members Present**

J. Hauber  
D. Skogerboe  
D. Harness  
R. Koester  
R. Knoche  
A. Bradley  
D. Sanders  
J. Thorius  
T. Roll  
A. Clemons  
W. Rabenberg  
M. Rydl  
B. Skinner  
D. Snead

### **Alternate Members Present**

A. Karimpour  
O. Smadi  
B. Billings  
A. Kersten  
D. Davenport

### **Members with No Representation**

B. Burke

### **Executive Secretary**

**V. Goetz**

### **Administrative Assistant**

T. Bailey

### **Visitor**

Brian Moore	Iowa County Engineers Association
Behrouz Shafei	Iowa State University
Zhengyu Liu	Iowa State University
Abdalla Alomari	Iowa State University
Wayne Sunday	Retired - Iowa Department of Transportation
Jacob Ferro	Mills County

### **Agenda**

1. Agenda review/modification
  - Motion to Approve by T. Roll 2nd by R. Knoche
  - Motion carried with 14, 0, 0
2. Minutes Approval from the September 29th meeting
  - Motion to Approve by A. Clemons 2nd by R. Knoche
  - Motion carried with 14, 0, 0

3. TR-722, [Final Report “Increase Service Life at Bridge Ends through Improved Abutment and Approach Slab Details and Water Management Practices”](#), Behrouz Shafei, Iowa State University, \$100,000, (15 min).

Motion to Approve by J. Thorius 2nd by D. Snead

Motion carried with 14, 0, 0

-This is also the final report for TR-739. <https://ideas.iowadot.gov/subdomain/ideas-main/end/node/3987?qmzn=iKFrYf#Completed>

4. TR-800, [Final Report “Helical Pile Foundation Implementation for Bridge Structures”](#), Iowa State University, Justin Dahlberg, \$70,137, (15 min).

Q. Are you aware of any bridges in Iowa that have been designed or utilized?

A. The DOT did a short pedestrian bridge.

Q. Is anyone working with ASHTO to get in ASHTO standard Spec?

A. I have been talking to committees on this and they see the opportunity to explore this.

Q. When talking with the ASHTO people, has there been any specific requests they have had to bring this in?

A. It has been a year ago, but I am certain they would have specific requests.

Q. Is there any interest with Federal Highway?

A. I have not heard from Federal Highway.

Q. Would this be something suitable for an NCHRP problem statement?

A. I hope this is the first step to many to introduce this technology to transportation structures.

Motion to Approve by A. Clemons 2nd by R. Knoche

Motion carried with 14, 0, 0

5. HR-296, “Iowa Local Technical Assistance Program Update”, Keith Knapp, Iowa State University, (15 min).

6. Proposal IHRB-3851, “Implementation of AASHTOWare BrR program for Rating Iowa Bridges”, HGM and Associates, Kirkham Michael, Michael Baker International, \$2.9M

This project consists of developing template files created in BrR for the Iowa DOT’s standard bridge types, standard policy to set expectations, in using the templates and training materials to help Local Public Agencies and their consultants gain familiarity and proficiency with the BrR templates. This scope of services has been created in response to the Iowa DOT request to modify our original proposed scope in response to the original RFP #: IHRB-3851.

Q. Are there any other pots of money that would be supporting this project or is it just IHRB?

A. This will be split over two Fiscal Years in obligations. It is solely IHRB funding.

Q. How does this tie into the digital delivery that the DOT is implementing?

A. It really isn’t tied into the DOT implementation of Digital Delivery.

Motion to Approve by W. Rabenberg, 2nd by M. Rydl

Motion carried with 14, 0, 0

7. IHRB Ranking of Ideas

These Ideas will be accepted for Project Development:

- Update TR-608 - Financial needs of Iowa’s County Roads (#3926)
- Development of Iowa Pavement Analysis Techniques (IPAT) - Phase II (#3952)

- Next Generation Life-Cycle Cost Analysis Tool for Bridges in Iowa—Phase III- Benefit-cost analysis economic evaluation tool (#3884)
- Enhancing Performance with Internally Cured Ultra-High Performance Concrete (#3919)

This idea will be sent back to submitter to clarify matching fund source.

- Bio Fog Seals for Improved Maintenance of Pavements & Bridges (#3940)

These ideas were not selected to move forward as IHRB projects.

- Elliptical Dowel Performance - 20 Years (#3868)
- Remediation of Bridge Foundation Settlement Issues in Combination with Buried Pipe and Box Culvert Replacements (#3870)
- 3D Printing Repair Strategies for Deteriorating Bridge Structures (#3909)
- Back-in Parking Effectiveness (#3912)

## 8. New Business

- Our STIC implementation funding campaign is open to submit ideas to apply for the next round of innovation funding. This is available on our [ideas website](#). STIC implementation funding is for advancing and making standard practice that use innovative projects and ideas. We have an idea in fiscal year that was ranked last year but there wasn't enough funding to move forward so Concrete Finish Phoenix System was moved to this year's funding. We now have \$90,000 remaining to spend.
- Another [Campaign for Technology Transfer](#) deployment fund with FHWA is active. This is \$10,000 in technology transfer projects. Selected projects will be submitted to FHWA by Nov 24.
- Our current idea submission cycle closes November 1<sup>st</sup>, anything submitted through October 30<sup>th</sup> will go through the next process which is the Bureau review ranking of ideas.

## 9. Adjourn

The next regular meeting of the Iowa Highway Research Board is scheduled for December 12th at 1:00 pm in Des Moines.

TB/VG