Southeast Bridge Preservation Partnership



April 7, 2021 - Teleconference (One Hour) Meeting Minutes

1. Roll Call

Name	Organization
Aaron Immel	Volkert
Allen Scarborough	AZZ
Andy Nanneman	Arkansas DOT
Bill Oliva	Wisconsin DOT
Blake Liberati	Hydro-Technologies, Inc.
Brian Mintz	Phoscrete
Chad Robinson	West Virginia DOT
Charles Linz	Arkansas DOT
Chris Davis	Structural Technologies
Chris Keegan	Washington DOT
Dan Muller	FHWA
Darlene Lane	NCPP
David Heilman	JET Filter Systems
David Miller	Louisiana DOT
Ed Welch	NCPP
Edward Liberati	Hydro-Technologies, Inc.
Eric Nolting	HDR
Graham Bettis	Texas DOT
Greg Heilman	JET Filter Systems
Jeff Pouliotte	Florida DOT
John Hooks	NCPP
Kevin Weston	Arkansas DOT
Lorella Angelini	Angelini Consulting Services

Michael Hill	Arkansas DOT
Michael Sprinkel	Virginia DOT
Nicholas Pierce	North Carolina
Patrick Martens	Bridge Preservation
Raj Ailaney	FHWA
Richard Dunne	GPI
Richard Huza	Salit Specialty Rebar
Steven Austin	Texas DOT
Thomas Collins	
Thomas Quinn	Tennessee DOT
Tim Sherrill	North Carolina DOT
William Murray	West Virginia DOT

2. Approval of minutes from March 3, 2021

John Hooks made a motion to accept the March minutes, the motion was seconded by Jeff Pouliotte and the motion carried.

- 3. Funding proposel from Deck Preservation Working Group (literature search/synthesis) John Hooks
 - a. John Hooks introduced a research proposal from the Deck Preservation Working Group.
 - b. John noted that the idea for this comes from the fact that much research has been done in a number of areas and in some cases the same research is being done by various states. This effort would help to identify completed work and identify areas for further research possibly through an NCHRP project.
 - c. In the past the oversight panel has agreed to provide matching funds. However, a commitment from the regions would be required before agreeing to a match. John has a timeframe on the oversight panel agenda on May 12 to request additional funding from AASHTO.
 - d. John noted that the Deck Preservation Working Group has two different thoughts for consideration. One option is to secure funds for a number of different topics. The second option is to start small. John suggested that starting small may be better received from AASHTO and may be more likely to be funded.

- e. The first topic proposed by the Deck Preservation Group is deck sealing and deck sealing products especially with the recent topics presented.
- f. The benefits of this synthesis is that it could lead to a larger NCHRP project. This would be similar to a \$10,000 project funded by TSP2. The previous project was performed by the University of Delaware and focused on performance of small movement joints. The report by University of Deleware led to a much larger NCHRP project that generated a guide on small movement joints.
- g. Estimated duration for work would be between 6 to 12 months.
- h. Estimated costs have been received from regional academic directors and ranged from \$10,000 to \$62,000. John noted that the difference could be attributed to the fact that the initial outreach on estimated costs was with a one page summary of work. John suggested that the \$10,000 may be more reasonable based on the previous work by Deleware. This cost could be funded by a commitment of \$2,500 per region.
- i. Michael Hill agreed with the idea of starting small and agreed that \$2500 seemed reasonable.
- j. Bill Oliva is scheduling a call with the board of directors for an unrelated matter and plans to include this on the agenda.
- k. John would like to have a final document by May 1st to share with the oversight panel.
- l. Brian Mintz offered to have John discuss at the next ITD meeting. John agreed to provide an overview at the meeting on April 8th.
- m. Ed Welch suggest that engaging Tripp Shenton may be helpful to clarify costs. John noted that Tripp anticipated that a research assistant would work through the summer and fall semester on this assignment and the costs would be roughly \$10,000. John noted that the \$62,000 costs was assuming a full time student for a year but we do not anticipate that level of effort is required.
- n. Steven Austin suggested research team would benefit from a practicing engineer. John noted that the budget of the project would need to be limited by the funds that the regions could contribute.

- o. Group discussed starting small and then perhaps growing.
- p. Tim Sherrill made a motion to contribute \$2500 to this effort, Steven seconded the motion and the partnership voted in favor.

4. Future Conferences

- a. John noted that the feedback from northeast and midwest regional partnerships has generally been that state DOT will need 2 months advance approval for travel.
- b. 2021: Hot Springs November 2nd through 4th
 - i. Mike Hill noted that we are looking at concurrent sessions
 - ii. Mike noted that we may not have enough information for a session on Federal Funds for preservation work and was looking for additional presenters or possibly new topics.
 - 1. Jeff Pouliotte offered a topic from Termarust on a tracking product from Europe. This could be used to track where a coating fails between the fabricator and final construction. Mike suggested that we could have this topic presented at a monthly meeting.
 - 2. Dan Muller noted that with MAP21, preservation activities became eligible activities.
- c. 2022: North Carolina
 - i. No updates on 2022 conference planning.
- d. 2023: National Conference
 - i. John Hooks noted that we are still projecting towards a national meeting in 2023.
- 5. Round Table Talk: Bat Issues
 - a. Mike Hill shared that there have been issues with bats on joint replacement and delays on demolition due to bats in Arkansas.
 - b. Tim Sherrill noted that NC requires survey through environmental process to ensure that when bats are present, that the work must account for the mating season. Mitigation work consisting of bat roost installation on bridges 10 or 15 miles away and outside the project limits to provide alternate housing for bats. Wildlife folks in

- NC are not certain of the effectiveness of this relocation work yet. Biologic research shows that this is a workable solution.
- c. Graham Bettis noted that Texas is unfortunately not doing as much maintenance on bridges and we generally try to work around the bat season.
- d. Aaron Immel shared that he worked on a project in Tennessee and found that they do an extensive cleaning after bat season every year to avoid nesting in following year.
- e. Dick Dunne noted that there is an RFP for an NCHRP study. See last page for NCHRP RFP.
- 6. Upcoming presentations possibilities and who to present
 - a. Mike noted that one topic for consideration is from Alchemco Integral Gel Waterproofing of Concrete Bridge Decks
 - b. John Hooks noted that there will be a presentation in the Western Bridge conference call later today focusing on supply chain challenges and increases in costs. This may be a topic of interest for a future SEBPP meeting.

7. Working Group Report Outs

- a. National Deck No further updates beyond that discussed
- b. National BMS Recently scheduled meeting was cancelled. Group is taking a break.
- c. National Coatings Jeff Pouliette noted that there was no meeting last month. Jeff pursued FDOT research project for \$200,000 for 24 months with two aspects: 1 develop contract requirements for lower bonds and shorter time periods and 2 to evaluate the condition of coating systems through accelerated testing with goal of identifying which coatings should require warranties.
- d. National Working Group for Preservation Construction Quality John Hooks noted that this working group is working to prepare a section to be added to the deck preservation resource document discussing construction quality.
- e. Deck Chloride Levels John Hooks noted that this group is taking a break as they look for new activities.

- f. Outreach to Local Agencies John Hooks noted that Travis Kinney and Gregg Freeman have provided bridge preservation webinars for nearly 10 states.
- g. Outreach and Communication David Miller noted that this working group has been meeting the past three months. Have Transcom folks from AASHTO plugged into the group and David is happy with the direction the group is goind.
- h. Industry Technology Demonstration Program (ITD)
 - Brian Mintz noted that the group is progressing with a number of participants each month.
 - Brian noted that they are looking for more agency volunteers to try a product to better vet products.
- i. Bridge Inspection Program Manager Mike Hill share that recent discussions have focused on inspection reports, plans of corrective actions, and critical findings.
- 8. Voluntary Contributions (9) Report date is March 31, 2021
- 9. Treasury: \$43,590.36 as of December 31, 2020
- 10. Other New Business & List Action Items
- 11. Next Monthly Meetings
 - a. Monthly Meeting: May 5, 2021, 10:00 a.m. EST
 - b. Conference planning meetings: April 20th, 10:00 a.m. EST
- 12. Adjourn

NCHRP 25-63 [RFP]

Handbook on Deterring and Excluding Bats from Transportation Structures

Posted Date: 3/31/2021

Funds: \$500,000 Duration: 38 Months

Anticipated Start Date: 9/1/2021

BACKGROUND

Many bat species use bridges, culverts, and other transportation structures for daytime and/or night-time roosting habitat and for seasonal hibernacula and maternity sites. These structures provide valuable habitat for bats whose populations have been declining in many regions as a result of loss of natural habitat and infection by the fungal disease known as white-nose syndrome. In 2015, the U.S. Fish and Wildlife Service listed the northern long-eared bat (*Myotis septentrionalis*) as threatened under the federal Endangered Species Act; additional bat species may warrant listing in the coming years. Many states also have legal protections for bat species.

When state departments of transportation (DOTs) need to repair or replace transportation structures, they must take measures to avoid and minimize impacts to bats if protected species are present. Such measures are particularly important during the maternity season to avoid further losses to bat populations. To meet all of these objectives, state DOTs can restrict construction or maintenance activities to periods when bats are not present. However, temporal avoidance is challenging in regions where winter conditions and cold temperatures limit the construction season.

Alternatives to temporal avoidance include methods that temporarily deter or exclude bats from a structure for the shortest length of time needed for construction or maintenance activities, with the intent to allow bats to return once the project is complete. Methods to accomplish this include physically blocking bats from the structure or cavities with exclusion or filler material; modifying roosting habitat by changing microclimatic conditions (e.g., installing fans or removing expansion joint glands); and deterring bats with lights or noise. One promising method is the use of non-lethal ultrasonic acoustic devices.

However, effectively excluding or deterring bats can be challenging. Some deterrence methods require costly equipment or materials and considerable labor for installation and maintenance. Some project locations may not have a readily available power source to operate deterrence equipment. At some sites, expensive or sensitive deterrence equipment can be vulnerable to vandalism and/or theft. Further, if a method is not effective and bats continue to use the bridge, the project may be delayed. Additionally, if the intent is to allow bats to return to the structure after the project is completed, the deterrence should be temporary in its effect. Selecting a method that will be effective in deterring or excluding bats and be feasible for the project requires consideration of bat behavior and biological needs, project characteristics, and site conditions.

Methods that are appropriate for the project and target species, properly timed, and effective at temporarily deterring and/or excluding bats from a transportation structure provide several benefits. In addition to reducing impacts on imperiled bat species and successfully meeting regulatory requirements, improved environmental stewardship can strengthen interagency collaboration and partnerships. Effective methods can make construction schedules and costs more predictable, thereby increasing overall cost-effectiveness and reliability in delivering transportation projects and programs for the traveling public.

Previous research has investigated a number of bat deterrence and exclusion methods, although in practice, outcomes have been somewhat mixed and documented examples are limited. Research is needed to evaluate current and promising methods for temporarily deterring and/or excluding bats from a range of structure types and to provide guidelines for state DOTs on selecting and implementing appropriate and effective methods.

OBJECTIVE

The objective of the research is to develop a handbook for state DOT environmental staff and design and maintenance engineers on how to select and implement methods to temporarily deter and/or exclude bats from transportation structures ahead of and during construction and maintenance activities. The handbook will describe methods that are (1) sensitive to the biological needs of bats and (2) effective for a range of geographical locations, project types, and site conditions. The research will include field evaluations of a variety of methods, with a focus on non-lethal ultrasonic acoustic devices used alone and in combination with other methods.