



NETC Advisory Committee Meeting Minutes

Tuesday, January 24, 2023, 11:00am – 12:00pm ET

Attendees:

Ulrich Amoussou-Guenou, MaineDOT	Emily Parkany, VTrans
Brian Hirt, CTC & Associates	Dale Peabody, MaineDOT
Matt Mann, UMTC	Kirsten Seeber, CTC & Associates
Tanya Miller, VTrans	Nicholas Zavalas, MassDOT
Andrew Mroczkowski, ConnDOT	Melanie Zimyeski, ConnDOT

1) Open Project Review (January 2023)

Project # and Title	PI, Organization AC Liaison CTC Project Manager TC Chair	Update	End Date Budget
19-1: Curved Integral Abutment Bridge Design	Adam Stockin, WSP E. Parkany K. Seeber Alex Bardow, MA DOT	The TC reviewed the final report and confirmed their feedback was incorporated. The also reviewed the Fact Sheet and Poster. The research team is incorporating the comments and will resend for final review. Kirsten is working with the PI to schedule the project webinar.	1/31/23 \$225,255
19-3: Experimental Validation of New Improved Load Rating Procedures for Deteriorated Unstiffened Steel Beam Ends	Simos Gerasimidis, UMass Amherst N. Zavalas K. Seeber Matt Weidele, MA DOT	The PI has submitted the amendment request for an extension to 1/31/24 to MaineDOT. The research team has tested a total of 8 beams (2 Connecticut and 6 Maine) and are preparing for the ninth test. They are continuing to improve and work on their newly developed algorithms and protocols for deterioration and capacity estimation. They have also been meeting with all the NE transportation agencies to discuss inspection methods and bridge statistics. The research team presented to the Committee on Steel Bridges and the Subcommittee on Corrosion at the TRB Annual Meeting.	3/31/2023 \$179,995

Project # and Title	PI, Organization AC Liaison CTC Project Manager TC Chair	Update	End Date Budget
20-2: Current Status of Transportation Data Analytics and a Pilot Case Study Using Artificial Intelligence (AI) Speed Collection on Horizontal Curves	Yuanchang Xie, UMass Lowell E. Parkany K. Seeber Susan Klasen, NH DOT	<p>The TC met on 1/31/23 to discuss the progress of the pilot project, Speed Collection on Horizontal Curves. The research team has completed the site identification and started collecting data but have not started the data analysis yet. The research team is focused on making the deliverables useful to the transportation agencies. They will find ways to share project results including at VT's Research and Innovation Symposium and the TRB Annual Meeting.</p> <p>The pilot project is looking at data difference between radar and infrared cameras. Part of the research will be how to install the radar so it's most effective, how to collect data and analyze it (both together) compared to UAS.</p> <p>Kirsten is scheduling the next TC meeting for early May.</p>	3/31/2023 \$200,000
20-3: Investigating Thermal Imaging Technologies and Unmanned Aerial Vehicles to Improve Bridge Inspections	Kevin Ahearn, AECOM D. Peabody K. Seeber John "Sam" Maxim, ME DOT	<p>The TC met on 1/9/23 to provide feedback on the draft final report. Approximately \$30,000 remains in the contract. The PI proposes conducting an In-person meeting of bridge inspectors to demonstrate how to use the drones and cameras. The TAAC approved using the remaining funds for the in-person demo. The TC members can organize the staff from their state to attend.</p> <p>The PI will send all draft deliverables for review, as well as the details of the in-person meeting, for TC approval.</p>	3/31/2023 \$174,931
21-1: Quality Review and Assessment of Pavement Condition Survey Vehicle Data Across New England	Gonzalo Rada, WSP A. Mroczkowski K. Seeber John Henault, CT DOT	<p>The TC will meet on 1/25/23 to discuss the draft control site selection tool and the associated draft guidelines, both of which have been reviewed by the TC.</p>	7/31/23 \$174,932
21-3: Initiating Seed Production for Effective Establishment of Native Plants on Roadsides in New England	Julia Kuzovkina, UConn D. Nash K. Seeber Arin Mills, NH DOT	<p>Part of the TC met on 1/23/23 to discuss the details of establishing the three demonstration plots in CT, MA and VT, along with a request to reallocate \$24,999 from subcontractor, Rutgers University, from Task 2: Investigate local seed production opportunities to Task 3: Establish demonstration sites. The Rutgers subcontractor retired, and the Northeast Eco-Seed Network is doing most of her work on their own. The TC members agreed to the reallocation of funds. The next quarterly meeting will be held on 3/7/23.</p>	6/30/24 \$200,000

2) Implementation

- TAAC members to report on any implementation activities for recently closed projects.
- Kirsten will send quarterly reminders to the TAAC to add information/activities to the implementation spreadsheet. Kirsten sent the first reminder on 1/22/23.
- How can additional states use/implement the results of completed NETC projects?
 - Could NETC hold a webinar featuring a category of projects? TAAC could members invite SMEs from their agencies to attend the webinar.
 - **Action item: Kirsten will review the completed projects to find some that have implementation activities, and or a category of projects, that might make a good webinar.**
 - Possible options:

Other category

- ~ [20-4: Coordinating State Policies, Laws and Regulations for Automated Driving Systems Across New England](#) follow up to [17-1: Quick Response: New England Connected and Autonomous Vehicles](#) – This could be a good category but is it already being covered by the Eastern Transportation Coalition and other groups?
- ~ [18-3: Integration of Unmanned Aircraft Systems \(UAS\) into Operations Conducted by State Departments of Transportation](#) NH is pursuing a UAS implementation plan that will build off this project and be specific to their needs. VT will use this project to look at new platforms, as a starting point to fill in gaps in their existing UAS procedures and workflows, and as a reference for future discussions in the peer group.
- ~ [17-2: Quick Response: Quantification of Research Benefits](#) – CT intends to implement this tool where research results are quantifiable. NH and VT are investigating how to quantify project benefits to utilize the tool.
- ~ [14-1: Measuring the Effectiveness of Competency Models for Job Specific Professional Development of Engineers & Engineering Technicians](#) - – CT feels this project will serve as an excellent foundation for future regional efforts.

Materials and Pavements category

- ~ [18-2: Framework of Asphalt Balanced Mix Design \(BMD\) for New England Transportation Agencies](#) - VT will implement aspects of this project. VT will base their pass/fail criteria for performance test results during mix design review/approval on the anticipated traffic loads, at least for Hamburg results. NH feels the lowest level of BMD may be realistic and beneficial for to implement at some point in the future. The Connecticut Advanced Pavement Lab is building a library of BMD test results, which will be implemented once the library is complete.
- ~ 15-4: [Quality Assurance \(QA\) Processes for Asphalt Pavement Construction in the Northeast](#) - VT is rewriting their main HMA specifications (Sections 406 and 407) to accommodate a tiered approach and is incorporating some of the recommendations from this research. CT already has some of the project recommendations in place and will be implementing others based on several factors. MA would implement if there was a regional effort.
- ~ [15-3: Moisture Susceptibility Testing for Hot Mix Asphalt Pavement in New England](#) - This research reinforced MA's decision to decision to remove the TSR moisture test from its requirements and to move towards the Hamburg Wheel Tracking Test. VT is also

moving towards using the Hamburg Wheel Tracking Test to determine moisture susceptibility. ME has partially implemented the results of this study. NH says the project confirms what they are already doing. and CT may consider implementation in the future.

Bridges and Other Structures category

- ~ [18-1: Development of MASH Computer Simulated Steel Bridge Rail and Transition Details](#) – VT’s S-360 series standards for the NETC 2-Rail bridge rail and approach rail are being updated to reflect the findings in the study by VT. S-361 series NETC 3-Rail bridge rail and approach rail are being developed.
 - [20-1: In-Service Performance Evaluation of NETC Bridge Railings](#) – Follow up project to 18-1. Nothing in the spreadsheet about implementing this project.
- ~ [13-1: Development of High Early-Strength Concrete for Accelerated Bridge Construction Closure Pour Connections](#) - ME feels the results would allow them to specify this type of concrete without using an expensive proprietary mix. However, the use of fly ash in the mix is sometimes hard to acquire.

Traffic Operations, Safety and ITS category

- ~ [15-2: Using the New SHRP2 Naturalistic Driving Study Safety Database to Examine Safety Concerns for Teens and Older Drivers](#) - This study confirmed for five states that older drivers tend to have more crashes at signalized intersections. These states will use the information as a basis for further research and/or as information to share with older drivers.

Energy and Environment category

- ~ [15-1: Use of Forested Habitat Adjacent to Highways by Northern Long-Eared Bats \(and Other Bats\)](#) - MA will use the project’s results to continue coordination with the U.S. Fish & Wildlife Service, FHWA, and MassWildlife on developing appropriate methods to protect rare bats through our transportation activities. CT and NH feel further data collection and research would be helpful in using the models developed in this project.

Construction and Specifications category

- ~ [13-3: Improved Regionalization of Quality Assurance \(QA\) Functions](#) – CT feels this project will serve as an excellent foundation for future regional efforts.
- Emily – What would the vision be for the implementation webinar? A brief description of the research projects and at least one implementer to say how they are using the research. The idea is to have other agencies learn how research is being used.
- Dale – If there is a real success story to tell, it would make a good webinar as Emily described.
- Matt – A webinar could feature a co-presentation between the researcher and the agency that proposed the project. Present a project overview and the TC could speak to how the results could be partially or fully implemented.
- ~ Brian likes this approach. Showcase an agency’s approach to pathways and the barriers to implementation. Think about the audience for this, other potential implementers,

who could ask the right questions.

- Matt – Is the idea to be a national audience? Emily – National and NE.
- Emily would like to focus on three several webinars in a category. Dale is open to that. Matt agrees with Dale.
 - ~ Emily – This conversation is painful. Are the implementers willing to share their activities? This might further prove that NETC should end if we aren't willing to talk about the projects.
 - ~ Materials and Pavements (VT, MA and CT) - Are they willing to talk about how their states are using the projects?
- Dee – Challenging to find SMEs in NH to be involved. She doesn't know of any NH success stories.
- Potential webinar topic
 - ~ Dale – [09-03: Design, Fabrication and Installation of ACM Bridge Drain System](#) - ME is using these as a standard practice, which is a full implementation. This would be a compelling story to tell especially if other NE states are not using them. ME has talked with NH about using them.
- Kirsten will find specific projects and reach out to the TAAC members to see if they have a success story.
- Continue the topic to February?
- If TAAC members know of Tech Transfer Activities for any project, please let Kirsten know so she can add them to the project's web page.

3) Spring 2023 Topical Discussion Symposiums

- A monthly series of virtual in-depth Topical Discussion Symposiums this March, April, and May designed to bring together SMEs from the New England transportation agencies around specific topics. Topics suggested:
 - Animal Vehicle Collision Avoidance
 - ~ NH has someone. NH currently has a research project on this topic and their PI is good. The project is focused on leveraging existing data to find collision patterns. There is much interest in this project from different groups (locals, state police, environmental groups) in NH.
 - ~ Dale and Dee volunteer to be on this planning team.
 - Asset Management for ITS
 - ~ Andrew sent out Emily's explanation of the topic to his SMEs.
 - ~ Emily feels Susan Klasen's involvement is necessary because it's her original idea. Emily will reach out to Susan about the event.
 - ~ Emily and Dee volunteer to be on this planning team.
 - e-Construction for Pavements
 - ~ Dale – Would help/volunteer. If it involves the equipment, then ME is in. If it's related to asset management, such as as-builts, then Dale/Ulrich won't assist. The NH SME is interested in as-builts. Dale would have an SME for as-builts. Both aspects could be addressed by the event.
 - Andrew – An SME for each topic can be involved.

- ~ Dale, Ulrich and Dee volunteer to be on this planning team.
- o Geotech - Geotech
 - ~ Dee – The NH SME works closely with other states, and the group would come up with good topics.
 - ~ Emily and Dee volunteer to be on this planning team.
- On 1/5/23, Kirsten sent a solicitation email to the TAAC members to send to their SMEs requesting assistance with topic selection and the events. Kirsten sent a similar solicitation email to the full NETC mailing list on 1/6/23. Volunteers are to respond by 1/30/23.
- Volunteers as of 1/23/23:

Volunteer	State	Topic
Dale Peabody	ME	eConstruction
Ulrich Amoussou-Gueno	ME	eConstruction
Kate Maguire	ME	Geotech
Callie Ewald	VT	Geotech
Steve Madden	VT	Geotech
Richard Bostwick	ME	Animal Vehicle Collision Avoidance
Kay Hopper	VT	General

- NH has SMEs for the other three topics.
- Next steps:
 - o Confirm volunteers.
 - ~ Kirsten will schedule planning meetings with volunteer SMEs.
 - ~ Each topic needs a clear leader.
 - o Get topic ideas and make final selections.
 - o Select event dates.
 - ~ Confirm event dates with SMEs.
 - o The event format will be up to the SMEs.
 - o Send Save-the-Date emails for the events.
 - o Work with volunteers to secure presenters.
 - o Others?

4) Other Business

- Request from Greenman Pedersen Inc. to use crash test video clips. They are working with RoadSafe LLC (18-1 and 20-1 project PIs) to develop MASH test training for FHWA. The video and the data from that those tests were used for model validation in the NETC 18-1 project. The actual tests were performed 26 years ago at the Southwest Research Institute. Chuck got the video from FHWA, from Will Longstreet who was, at the time, the FHWA employee who reviewed and approved MASH hardware requests. Will currently works for the Canadian company, Safe Roads.
 - o No objections from the TAAC. Kirsten will relay the decision to Greenman Pedersen Inc.

5) Adjourn

Next meeting: February 28, 2023, from 11:00am – 12:00pm ET