

**DRAFT MINUTES
NETC ADVISORY COMMITTEE MEETING**

DATE: May 18, 2015
TIME: 8:45 AM – 1:30 PM
LOCATION: NH DOT - Room 205 of Materials & Research building at 5 Hazen Drive, Concord (building to the left of main building)

Call to Order: William Ahearn, Chairman, called the meeting to order at 9:00 a.m. The following people were in attendance:

State Transportation

Agencies:

Bill Ahearn – VT
Jim Fallon – CT
Colin Franco – RI
Dale Peabody – ME
Stephen Pepin – MA
Ann Scholz - NH

University Representatives:

Lisa Aultman-Hall – UVM
John Collura – UMASS
Deborah Rosen – URI

NETC Coordinators

Laurie Eddy
Jacob Leopold

Others:

George Colgrove – VT
Michael Connors – CT
Patrick McMahon – MA
Bradley Overturf – CT
Erik Shortell – FHWA (by phone)
Michael Sock - RI

AGENDA ITEM

1. Ranking Process 2015 Research Problem Statements - W. Ahearn.....9:03 AM

- a. Yes/No Votes - The traditional NETC rating/ranking process was used. The first round of Yes/No votes determined the Research Problem Statements that moved forward for rating. The Chair's prerogative was used for ties, and problem statements with tied votes were moved forward.
(SEE Yes/No Vote Table below)

RPS #	Value	Project Title	CT	MA	ME	NH	RI	VT	Move Forward?
N15MA1	\$ 150,000.00	BOD Impact of Nonchloride Based Anti-icing and Prewetting Agents on Surface Water Quality	N	Y	N	Y	N	Y	Y
N15MA2	\$ 200,000.00	Effect of Heavy Vehicles and Freight Deliveries on Congestion and Safety on Arterials and Urban Networks	Y	N	N	N	N	N	N
N15MA3	\$ 167,000.00	Decision Support Tool for Critical Transportation Infrastructure Management	N	N	Y	N	N	Y	N
N15MA4	\$ 200,000.00	The impact of pedestrians on vehicular air pollutant emissions at roundabouts vs signalized intersections	N	Y	N	N	N	N	N
N15MA5	\$ 200,000.00	The effect of heavy and extreme precipitation events on highway runoff pollution and stormwater treatment system effectiveness	N	N	Y	N	N	Y	N
N15ME1	\$ 165,000.00	Use of Forested Habitat Adjacent to Highways by Northern Long Ear Bats.	Y	Y	Y	Y	N	N	Y
N15ME2	\$ 150,000.00	Using the New SHRP2 Naturalistic Driving Study Safety Databases to Examine Safety Concerns for Teens and Older Drivers	Y	N	Y	Y	Y	Y	Y
N15ME3	\$ 150,000.00	Moisture Susceptibility testing for Hot Mix Asphalt Pavements in New England	N	Y	Y	Y	Y	Y	Y
N15NH1	\$ 150,000.00	Optimizing Quality Assurance (QA) Process for Asphalt Pavement Construction in the Northeast	Y	N	Y	Y	Y	Y	Y
N15NH2	\$ 300,000.00	Low Temperature Cracking (LTC) in Asphalt Pavements	N	N	N	Y	N	N	N
N15NH3	\$ 100,000.00	Strategy for a Connected Cycling Network Usable by Mainstream Adults	N	N	Y	Y	N	Y	Y
N15RI1	\$ 87,500.00	Promoting VMT reduction and shift towards sustainable modes among State Employees	N	Y	N	N	Y	Y	Y
N15RI2	\$ 200,000.00	Life-Cycle Cost Consideration of Pay Adjustment for Asphalt Pavement Construction	N	N	N	N	Y	Y	N
N15VT1	\$ 200,000.00	Quantifying Uncertainty in Bridge Inspection Ratings	Y	N	Y	N	Y	Y	Y
N15VT2	\$ 150,000.00	Study on Adhesions between Asphalt Binders and Aggregate Minerals at Low Temperatures Using Particle-Modified Atomic Force Microscope Probes	N	N	Y	Y	Y	Y	Y
N15VT3	\$ 250,000.00	Risk-Based Methods in Transportation Planning and Engineering for New England State DOTs	N	N	Y	Y	N	Y	Y

b. Discussion

N15MA1 – BOD Impact of Nonchloride Based Anti-icing and Prewetting Agents on Surface Water Quality – No opening comments, but discussion on N15MA1. Pro: Manufacturing chemicals are finding their way into salts and brines and are acting as corrosive agents. Environmental participants are involved. Con: Where would this output be measured? Chloride is going to impact the beer waste and cheese waste, what's the ratio being used? How is that determined? We are all heavy (brine and salt usage) states, but is there really going to be a way to measure it and where? Ecologies and environments are too different across the states. What value does BOD have versus chloride? No changes to rankings after discussion.

N15ME1 Use of Forested Habitat Adjacent to Highways by Northern Long Ear Bats – No opening comments, but discussion on N15ME1. Pro: It's an area of concern for many states, bats have been given protected status, and DOTs are struggling as to what will be required by the regulatory agencies. DOTs need good science for future action. There is strong environmental interest by State Environmental agencies. Con: Existing northern long-ear bat study in progress under NETC. No issue with bats in certain states, not a concern with tree-cutting being greatly reduced (in RI). Falcon nests and other avian nests are more of a concern in specific states. In VT construction is already place, worthwhile study but not sure it will take us anywhere. No changes to rankings after discussion.

N15ME2 Using the New SHRP2 Naturalistic Driving Study Safety Databases to Examine Safety Concerns for Teens and Older Drivers – Opening comments on N15ME2 – AASHTO has task force to use national data, but none address teens and older drivers. Specific research such as this is not being funded through SHRP2. The database is national and not specific to NE, but it is a wealth of information for teens and older drivers. There were cold-weather areas included in the national data. This is the largest naturalistic data done. Pro: Very valuable database, second component is that a NETC project may help Universities in NE participate in the national dialogue. Complex and unlikely the DOT will explore it on its own. Exactly what the National task force groups wanted for this data. Safety-data group specifically stated teens and older drivers are needed. Con: What's the objective? If we are trying to understand, learn, decipher what the database numbers show and how we relate to the national, but that is not clear in the problem statement, or if it has value. No changes to rankings after discussion, but will be revisited after all statements are ranked.

N15ME3 Moisture Susceptibility testing for Hot Mix Asphalt Pavements in New England – No opening comments, but discussion on N15ME3. Pro: Important concern, wanted to know if type of concern could be considered (could the source of the moisture be determined). Con: Great deal of effort nationally aimed at asphalt modifiers, recycled engine-oil bottoms (REOB) have gotten a lot of attention, severe cracking from REOB, possibly causing stripping, ability to do research with our binders in such disarray is concerning (particularly regarding stripping). Information will be gained, but length of usefulness is uncertain due to changes in binder spec. Variety of binders are being deployed in labs with a number of varying qualities which raise concern. Until AASHTO specs are determined there is no way of knowing which binder and binder-modifiers will be deployed - the AASHTO binder spec is national. No changes to rankings after discussion.

N15NH1 Optimizing Quality Assurance (QA) Process for Asphalt Pavement Construction in the Northeast – Opening comments on N15NH1 – Push is to streamline materials because resources are diminishing, staff down in many states (exceptions CT and MA), work forces are shrinking. There won't be the luxury of having people in the labs and in the field. If consensus can be reached then contracting community in NE will know what DOTs are up to in regards to streamlining, thereby reducing costs which will help the passage of work plans through Federal Highway reviews for testing. Pro: Opening comments covered many pros, including the current push to streamline due to diminished

resources. Consensus will help with contactors and give easy passage to federal highway funds. Cons: Brings FHWA back in to ask more questions, this is a concern because initial reviews of the program currently in place were satisfactory. Limited discussion after ranking, no changes.

N15NH3 Strategy for a Connected Cycling Network Usable by Mainstream Adults – No opening comments, but discussion on N15NH3 Pro: Many times planning is looked at on a local level, and there is a push to connect these types of facilities, but it is difficult to identify the value. There are both interested and disinterested communities which cause issues in assessing the value. This would get us closer. Con: Many pilot programs are taking place; if this was an implementation it might require changes during or after the project. MA had a similar project which was pulled that didn't make sense, wasn't scoped well. MA has regulations in place for such corridors. No changes to rankings after discussion.

N15RI1 Promoting VMT reduction and shift towards sustainable modes among State Employees – Opening comments - N15RI1, MA has a driver behavior modification project using devices in place as well as a mode-shift policy, this project doesn't have a lot of utility. This study is slightly different from MA study as this project discusses stages of the change, identifying different messages for different stages, using targeted communication to effect change. This is a change project using communication based on stages of readiness to change. No changes to ranking, no post-ranking discussion.

N15VT1 Quantifying Uncertainty in Bridge Inspection Ratings – No opening comments, but discussion on N15VT1 Pro: VT did a smaller project, trying to define who bridges progress through that rating system and what affects their change. Key changes for bridges for 4 or less, bridges might improve or accelerate irrationality suggesting a training need, and the system itself contributes to uncertainty. A lot is based on these ratings, and the ratings should be accurate and reliable. Con: MAP-21 changes how NBIS takes place, so the research is of little benefit as some of the problems will be addressed in new NBIS changes (should've been completed Fall 2014). Also National Bridge Elements will be used, rather than NBI ratings (old-system). The system clean-up should correct the variance in inspector rankings. No changes to ranking after discussion, but this project might be of value to NCHRP as there is a lot of variability everywhere, and with a new system it might be of value to start gaining data early on to assess that variability from the onset.

N15VT2 Study on Adhesions between Asphalt Binders and Aggregate Minerals at Low Temperatures Using Particle-Modified Atomic Force Microscope Probes - Opening comments on N15VT2 – This was a NCHRP study with TTI as the lead. Many methods used, but no determinable or predictable data was produced and couldn't be published (timing was 5 or 6 years ago). Pro: Innovative, similar work has been done with a UVM professor who had come up with a different and unique method of assessing this. There have been some new innovations in resonance imaging and different, discernible data, working on binders which AFM cannot achieve. Con: More suited for a national-study and too many binders used to make it a usable survey. Post ranking discussion regarding new methodology being proposed regarding measurement. Could be innovative for this type of work. No changes to ranking after post discussion.

N15VT3 Risk-Based Methods in Transportation Planning and Engineering for New England State DOTs - No opening comments, but discussion on N15VT3 - Timely and appropriate study. Planning index is systems based, there are some specific issues (project locations) which are high-risk or high-cost where resource and effort might not be devoted without a risk based counterpart, those projects aren't flagged. Without looking at risk-based methods locations are not raised up. Con: Research topic is good, but the problem statement is not specific enough to determine the value of the topic. Changes to ranking by ME from 2 to 1.

c. Ranking Process (0,1,2,3 scale)

RPS #	Value	Project Title	CT	MA	ME	NH	RI	VT	Total
N15MA1	\$ 150,000.00	BOD Impact of Nonchloride Based Anti-icing and Prewetting Agents on Surface Water Quality	2	3	1	3	0	3	12
N15ME1	\$ 200,000.00	Use of Forested Habitat Adjacent to Highways by Northern Long Ear Bats.	3	3	3	3	0	1	13
N15ME2	\$ 167,000.00	Using the New SHRP2 Naturalistic Driving Study Safety Databases to Exxamine Safety Concerns for Teens and Older Drivers	3	1	3	3	1	3	14
N15ME3	\$ 200,000.00	Moisture Susceptibility testing for Hot Mix Asphalt Pavements in New England	1	3	3	3	2	1	13
N15NH1	\$ 200,000.00	Optimizing Quality Assurance (QA) Process for Asphalt Pavement Construction in the Northeast	3	1	2	3	3	2	14
N15NH3	\$ 165,000.00	Strategy for a Connected Cycling Network Usable by Mainstream Adults	1	1	3	3	1	2	11
N15RI1	\$ 150,000.00	Promoting VMT reduction and shift towards sustainable modes among State Employees	2	3	1	2	3	1	12
N15VT1	\$ 150,000.00	Quantifying Uncertainty in Bridge Inspection Ratings	2	1	1	0	3	2	9
N15VT2	\$ 150,000.00	Study on Adhesions between Asphalt Binders and Aggregate Minerals at Low Temperatures Using Particle-Modified Atomic Force Microscope Probes	1	1	3	3	1	2	11
N15VT3	\$ 300,000.00	Risk-Based Methods in Transportation Planning and Engineering for New England State DOTs	1	1	1	3	1	3	10

2. Break prior to examination of those statements in the middle of the pack10:20 AM

3. Discussion and Selection of 2015 Research Program..... 10:35 AM

Two projects received the highest rating (14s). N15ME2 and N15NH1 selected to move forward based on rank and cost considerations. N15MA1, N15ME1, N15ME3, N15RI1 (13s and 12s) needs statement selected by chair to review further by the group. Traditional amount is 450k in funding, at

least two additional projects can be selected (reasonably 600k could be awarded this year). Suggested that the remaining 12s and 13s ranked such that a deeper discussion could be had for an additional ranking against one another (1-4) to be arrayed as priorities. Question regarding available funding, have any states contributed for FY15 – all but RI and ME thought that they have contributed. Chris Jolly will be contacted to confirm the fund balance and FY15 contributions. AC determined to rank 13s then rank 12s if funding allows.

Motion: To accept Research Problem Statements N15ME2 and N15NH1 as the 2015 NETC Research Program

By: Dale Peabody
Second: Colin Franco
Discussion: None
In Favor: All
Opposed: None

Motion: To accept Research Problem Statements N15ME1 and N15 ME3 as the 2015 NETC Research Program

By: Dale Peabody
Second: Stephen Pepin
Disussion: None
In Favor: All
Opposed: None

Action Item: Laurie will confirm the Fund Balance and the FY15 contributions with Chris Jolly.

- 4. Discussion: Contingency Project Ranking.....10:50 AM**
N15MA1 and N15RI1 (ranked 12) discussed further to evaluate their place in the program. Motion to include the 11s as contingency rankings. CT No, adds unnecessary complexity, MA No, is unnecessary, RI No, is unnecessary. Consensus to not rank 12s. N15MA1 – question if it was submitted in 14, it was not. UMASS reiterates this project would be helpful and that the initial literature review supports that. No abstentions, in secondary ranking.

Motion: To accept N15RI1 as the first contingency project and N15MA2 as the second contingency project for the NETC 2015 Research Program.

By: Colin Franco
Second: Patrick McMahon
Discussion: None
In Favor: All
Opposed: None

- 5. Approval of minutes, April 2nd & April 16th, 2015.....11:05 AM**

Motion: To approve the minutes from April 2nd and April 16th, 2015.

By: Dale Peabody
Second: Patrick McMahon
Discussion: None
In Favor: All
Opposed: None

- 6. Open Project Summary Table - L. Eddy.....11:10 AM**

Open Project Summary, highlighted cells are areas of potential concern. Ex. NETC 06-4, research team is planning to lead some surveys before moving to tasks 5&6. Specific items such as this are

vetted by Technical Committees to discern whether there are concerns regarding scope or completion.

NETC 06-4 - AC will request that Technical Committee reach out to PI to move the project forward, to avoid further NCEs as there is concern about projects hanging open for too long. A more in depth status update will also be requested.

NETC 07-1 - Similar situation with NCE. AC would like follow up on Daniels' sabbatical and whether the project will be completed as scheduled.

NETC 09-2- Has requested a budget change order and was approved last week by Technical Committee. The change is due to a shift from a GRA to a consultant and Summer Salary by the PI. RI has a serious concern regarding a budget change approved by the Technical Committee; procedurally technical committee cannot ratify changes/amendments to the contract. ME and MA if no contract change technical committee has approval, RI still has serious concerns as there is a bait and switch, it was proposed to support education, but it is in fact not being used to promote education. Concern about maintaining educational goals. **Future discussion item** on allowable redistribution of cost before the Advisory Committee should be involved, to be included in the next advisory committee meeting.

NETC 09-3- Possible NCE, technical committee meeting will meet Wednesday 5/20 to decide if NCE should be requested.

NETC 10-3- Technical committee is reviewing possible NCE, will vote on whether NCE will be moved forward. Coordinator presented concern that no one on technical committee raised concerns that the project hasn't moved forward. AC should touch base with TC member or materials member to move this project forward.

NETC 13-1- Concerns regarding their end date matching the coordinator contract end date.

NETC 13-2- Concerns regarding their end date matching the coordinator contract end date. No progress noted on their quarterly progress reports, only 15% noted under task no. 4, no progress. Dr. Mogawer has a lot of work in progress for the NETC, this sort of delay is unusual.

NETC 13-3 Held its kick-off meeting April 30, work is just beginning. No further progress to report.

NETC 14-1 Waiting final contract to be approved, with Renee Simon at UMASS.

NETC 14-2 Contract is signed; kick-off meeting took place 5/18.

NETC 14-4 New project, Professor Xia at UMASS Lowell is recommended by technical committee.

Motion: To award 14-4 to UMass Lowell.

By: Patrick McMahon

Second: Jim Fallon

Discussion: None

In Favor: All

Opposed: None

Action Item: Bill Ahearn will contact Walaa Mogawer to discuss the progress delays on his three projects (06-4, 10-3 and 13-2)

Action Item: Laurie will follow-up with Jo Daniels regarding sabbatical plans and potential impact on project completion.

Action Item: Laurie will add a discussion on allowable redistribution of cost before the AC should be involved to the next AC Meeting agenda.

Action Item: Laurie will add technical committee member names to open project pages on NETC website.

7. Discussion: No Cost Extension for UVM Coordinator Contract.....11:35 AM

Dialogue between VTrans and UVM, assistant attorney general is now involved due to insurance requirements of the state agency. UVM certifies its insurance on an annual, fiscal year basis, VTrans Contract Administration language does not allow for this, this is being worked out between the two agencies. MA recommended draft language for incorporation into VTrans' contract with UVM.

Action Item: Bill Ahearn will explore adding language recommended by MA in order to move this forward.

8. Peer Review of Dr. Azari's research – W. Ahearn11:40 AM

Third review was received and is available on the NETC website "File Transfer" page. Reviews will be provided as they sit, but the group needs to decide with IRLPD. No problem statements related to it were submitted, but it has been of great concern to a number of the states and there should be a conversation with research folks and Structural and Materials Engineers, to determine if NETC will withdraw from pursuing IRLPD.

Discussion ensued regarding two reviews and appearance of topic at NE Materials and Structures Conference. Mention of providing anonymity in reviews going forward. Remove names from reviews forwarded to Dr. Azari.

Action Item: Laurie will add Dr. Daniel's review to the File Transfer page on the NETC website

Action Item: Laurie will send the reviews to Dr. Azari – without reviewers names

Action Item: The AC members will have a discussion at the upcoming NE Materials & Research Meeting on June 3rd.

9. New NETC Coordinator RFP – W. Ahearn.....11:45 AM

NETC New Coordinator RFP still lodged in VTrans Contract Administration, no proposed date it will be published. Response period may need to be extended.

Action Item: Bill Ahearn will continue to work with VTrans to move this forward.

10. Fund Balance and Transfers – W. Ahearn.....11:45 AM

Fund Balance and Transfers, Chris Jolly was unable to join us. No updates to SPR-3(089), TPF-5(201), and 2015 Contributions.

Action Item: Laurie will follow-up with Chris Jolly to receive an updated report for the June 23rd meeting.

11. Other Business11:50 AM

a. New England Materials and Engineers Meeting – June 3rd in Manchester. NETC Display? Possibly, NETC Attendance? Yes, NETC Coordinator should attend, there will be time on the agenda for project updates, and the NETC pays for space and the food.

b. PI Performance Evaluation Form Draft - This form was developed to be used in reviewing project PIs. Form is to be filled out by technical committee lead and the NETC coordinator.

Future discussion needed, process question is whether it is the TC lead for preparation and edited by the Coordinator, and then how is it incorporated into the NETC process. The intention was such that this form would be included with proposals for TC evaluation of proposals. Discussion took place, concerns regarding investigators being black balled based on past performance, should be addressed in future discussions. Goals should be that it's used for performance feedback. Question whether NCHRP does something similar, Chris Hedges or Chris Jenks(?) to determine whether/how this should be used. Input from University Reps solicited.

Action Item: AC should review the form prior to future conference calls.

- c. NETC Policies and Procedures Revisions – **Open Ballot:** Policies & Procedures - ballots are available, revisions are up on website with track changes. Suggestions from ballots received from ME, VT & NH.

Action Item: CT, RI, MA will submit their ballots by Tuesday, May 26th.

- d. Tech Transfer Toolbox – samples for review Tech Transfer Toolbox samples are up, NETC 05-5 is the example for review. Possible way to communicate project updates (both final and in progress). Approval of first three and should be a matter-of-course (technical summary, open project summary, fact sheet), they should be made available to the technical committee as part of the review. Final product should include technical summary, open project summary, fact sheet and poster). Option for video is open to PI but will not be made a matter-of-course.

Action Item: NETC Coordinator will institute the use of these templates for all NETC projects.

- e. **Other (if time permits).....12:10 PM**

- i. Update on Action Items Review of NETC Action Items. Some items moved from 'In Progress' to 'Completed'. Discussion of Policy Committee and their role. No motions made.
- ii. Reminder to send any implementation of NETC research to NETC@uvm.edu
- iii. Policy Committee member meetings using Memo and Ballot - MA and VT needed for 2014 projects. All will be needed for 2015 projects.
- iv. NETC 05-2 Reimbursement – payment was approved by FHWA-Vermont.

Action Item: Bill Ahearn will shepherd the payment process for 05-2.

- f. New Business: Item presented by MA, MA has implemented an early retirement program. Steve Pepin will be participating and will likely be stepping down as Research Manager at MassDOT by June 30.

12. Adjourn.....12:25 PM

Motion: To Adjourn
By: Stephen Pepin
Second: James Fallon
Disussion: None
In Favor: All
Opposed: None

Next Meeting – June 23, 2015 Conference Call 11:00 AM – 12:00 PM