



LRRB December Meeting MINUTES

December 9 and 10, 2015

University of Minnesota

Northrop Memorial Auditorium, Second Floor

Lindahl Founder's Room

84 Church Street Southeast

Minneapolis, MN 55455

LRRB Members Present:

Bruce Hasbargen (Chair), Beltrami County
Lyndon Robjent, Carver County
Tim Stahl, Jackson County
Paul Oehme, City of Chanhassen
Steve Koehler, City of New Ulm
Kaye Bieniek, Olmsted County
Linda Taylor, MnDOT – Research
Laurie McGinnis, U of M - CTS
Mitch Rasmussen, MnDOT – State Aid
Tom Ravn, MnDOT – Construction
and Innovative Contracting

Others Present:

Bernard Izevbekhai, MnDOT – OMRR
Brenda Thomas, U of M – CTS
Debbie Sinclair, MnDOT – Research
Hafiz Munir, MnDOT – Research
Shuo Wang, MnDOT – Research
Bruce Holdhusen, MnDOT – Research
Dan Sullivan, MnDOT – Research
Jim Foldesi, St. Louis County

1. Call to Order (Day 1) December 9, 2015

Following introductions, Chair Bruce Hasbargen called the meeting to order and reviewed the meeting purpose. The meeting agenda was reviewed by the group. Two additional requests were added to the agenda – added another proposal for NS 410 and discussed board representation on the NRRA Executive Board. After noting these changes, the agenda was approved by Chair Hasbargen.

A motion was made by Steve Koehler, seconded by Tom Ravn, to approve the modified agenda. Motion approved.

Pending June Action Items

Linda Taylor reviewed pending LRRB action items. Action items not listed below were completed or included in the agenda.

June Action Item No. 4: *Mitch Rasmussen will ask Nancy Stone to schedule an update meeting for the LRRB Strategic Plan.*

Linda reported that Mitch will work with Nancy to schedule this meeting and that it was his intention to do this after January 1, 2016.

June Action Item No. 6: *Mitch Rasmussen will follow-up on developing a work plan with Ryan Peterson for further research on Chloride Free Snow and Ice Control.*

Dan Sullivan reported he was currently setting up a meeting with MnDOT maintenance staff to seek their advice on which researcher they would suggest could synthesize the most current available information on the field usage of potassium succinates and acetates.

Pending September Action Items

September Action Item No. 1: *Mitch Rasmussen will be sending out a note to Board members with information on a potential informal outing on Sunday prior to the TRB Annual Meeting.*

Linda reported that it was Mitch's intent to be getting back to the group on this.

September Action Item No. 4: *Dave Van Deusen will identify the 2nd attendee for the AAPT Pavement Technologies Conference in March and get back to the group.*

Dave reported in October that John Garrity is definitely going. Bernard Izevbekhai said Greg Johnson from the Bituminous Office will be going as the 2nd attendee.

September Action Item No. 8: *Guy Kohlnhofer will work with Matt Zeller, and Joel Ulring to survey existing best practices, sponsor training and put together a resource page for concrete projects that includes construction administration and traffic management.*

Dan Sullivan will follow up with Guy, Matt and Joel. *****THIS ACTION ITEM IS COMPLETE*****
A workshop sponsored by CPAM and the National Concrete Pavement Technology Center in Iowa was held in Owatonna on October 28th. Funding for the workshop was provided by the Federal Highway Administration.

October Action Items

October Action Item No. 1: *Mitch Rasmussen will send out his contact information to attendees to get together informally at TRB. This get together will most likely be an evening event at an Italian restaurant.*

Linda reported that it was Mitch's intent to be getting back to the group on this.

October Action Item No. 2: *Shannon Fiecke will relay a suggestion to SRF Consulting to create a video promo similar to CBS' "The World in 90 Seconds" for its upcoming presentation on available LRRB videos at the city and county engineers associations' annual meetings.*

Linda reported that this Action Item was complete.

October Action Item No. 3: *The Outreach Committee will develop a plan by March for how to systematically compile an ongoing list of all Minnesota-led presentations made at state and national transportation conferences. This is to increase information-sharing of innovative practices occurring throughout the state.*

Linda reported that this Action Item will be carried forward to the next time the Outreach Committee meets.

October Action Item No. 4: *To allow for better decision-making on Trip Report Action items, Mitch Rasmussen requests that LRRB members turn in trip reports at the same time as requests for reimbursement.*

Linda reported that this Action Item was complete.

October Action Item No. 5: *The Outreach Committee should discuss the idea of a TED Talks-type web application to showcase research-related presentations.*

Linda reported that this Action Item will be carried forward to the next time the Outreach Committee meets.

October Action Item No. 6: *Tim Stahl will add Major Equipment Life Cycle Cost Analysis (INV 950) to the list of RIC projects where they will beta test the spreadsheet, discuss future implementation, follow-up with City of Minneapolis and recommend next steps.*

Tim Stahl reported that there were several different individuals that volunteered to Beta Test. Task No. 1 in the RIC Support Contract will be real world equipment life cycle cost analysis in Minnesota looking at what are some common practices that are being used, find out what other counties and cities are doing. The group liked the direction of finding out what others are doing on this.

October Action Item No. 7: *Dave Van Deusen will follow-up with MnROAD to see if there are thresholds for light pollution on scenic routes and if there is an upper limit for sign reflectivity.*

There were some e-mails back and forth on sign reflectivity. Minnesota does not have an upper limit on sign reflectivity and neither do AASHTO or ASTM. However, both those organizations are considering whether to develop standards. Bernard Izevbekhai said he would find out about light pollution on scenic routes and let the group know at the next meeting.

October Action Item No. 8: *Tim Stahl will bring the need for a TRS on Base Stabilization Additives to the RIC.*

Tim Stahl reported that the RIC did not move forward with the funding of this as a separate TRS and it may have to wait until the following year. This was because they earmarked \$40,000 for the One Stop Shop Permitting with a match from State Aid in response to some legislation. Task 2 in the RIC Support Contract will include options and guidance when using base stabilization additives, so the needs for the TRS may be satisfied within the scope of this task. There was much discussion regarding base stabilization at the RIC meeting specifically concerning two projects on gravel road maintenance and lightly surface roads. Portions of the topics overlap and others do not and Joel Ulring was working on this.

A motion was made by Lyndon Robjent, seconded by Paul Oehme, to approve the minutes of the LRRB Proposal Selection meeting on October 26, 2015. Motion approved.

2. Budget and Administration

Budget Status Report

Debbie Sinclair reviewed the LRRB budget status spreadsheet that was included in the meeting materials. There wasn't much change in the overall budget since the group met in October 2015

INV 886 Cost-Effective Pavement Preservation Solutions for the Real World has ended and they are doing the final wrap-up of the project.

Several projects are going through the process of contracting:

- INV 983 Cost-competitive Timber Bridge Designs for Long Term Performance
- INV 989 Slope Failure Risk Analysis
- INV 1001 TRS-Developing the Right Recipe for Using Recycled Materials in Aggregate Bases
- INV 1002 TRS-Consolidated Asset Management Best Practices for Local Agencies
- INV 1003 Creating an Inventory of Stormwater BMPs to Meet the MPCA's Requirements

There is \$1,467,566 available for FY17, with \$720,844 still available for FY16, so we have the option of starting project early if needed. FY16 there is still money available with \$1,410,045 from FY15 that will carry forward into FY16. The rule is that we need to spend as much as was carried forward, otherwise we lose the difference. But we are very close so losing funding there is not likely.

The pie charts show the breakdowns by the two categories; the overall budget and the on-going programs.

INV 999 Status Update

The LRRB Administrative budget was set up initially with \$124,000 for the year and to date we have spent \$21,627. With our blanket purchase orders to cover travel costs we have approximately \$49,000 encumbered. So right now, the Program Administration balance remaining (not encumbered) for FY16 is \$44,539 (this figure was on the middle page of the budget status report). Whatever budget is not used from that amount will be released back into program for the following year.

2016 LRRB Meetings

Debbie Sinclair reported on the updated meeting list that was provided in the materials.

Lori Sobczak is working on the RFP for the summer meeting in Duluth as well as the location for the Spring Meeting. Kaye Bieniek and Lyndon Robjent indicated they had trouble with the calendar invite for the Summer Meeting repeating over a series of dates.

Action Item No. 1: Debbie Sinclair will send out updated calendar invitations for the Summer Meeting as well as the remaining 2016 meetings.

Bruce Hasbargen stated that he will need to be replaced on the Outreach Committee. Mitch Rasmussen replied that they will appoint someone.

2016 Conferences

A handout of the remaining 2015 conferences and the upcoming 2016 conferences was provided in the meeting materials.

- Transportation Research Board (January 10-14 in Washington, D.C.)

The people in the table on the following page were registered to attend.

Laurie McGinnis reminded the group about the reception the U of M was hosting at the Marriot on Sunday evening and hoped to see everyone there.

Transportation Research Board 95th Annual Meeting Attendance	
LRRB Members (6) Kaye Bieniek – Olmsted County Bruce Hasbargen – Beltrami County Jeff Hulsether – City of Brainerd Steve Koehler – City of New Ulm Paul Oehme – City of Chanhassen Lyndon Robjent – Carver County	Mn/DOT Staff (1 Research Services, 5 Materials) Dan Sullivan – RS Jerry Geib – OM&RR Bernard Izevbekhai – OM&RR John Siekmeier – OM&RR Curt Turgeon – OM&RR Dave Van Deusen – OM&RR
MnDOT LRRB Members (3) Mitch Rasmussen – State Aid Linda Taylor – RS Paul Johns (Paul is taking the place of Tom Ravn)	RIC Members (2) Klayton Eckles – City of Woodbury Guy Kohlnhofer – Dodge County
CTS (1) Joel Ullring – State Aid (Joel is taking the place of Laurie McGinnis, who is attending but is not in need of funding)	MnDOT RIC Members (1) Hafiz Munir – RS

- NCAT Pavement Test Track Conference (Sponsor Meeting) (March in Auburn, Alabama)

A specific date was not available for this but Linda thought it might conflict with the LRRB Spring Meeting. Linda Taylor suggested that this was something that Mark Maloney (City of Shoreview) or Mike Sheehan (Olmsted County) could possibly attend.

- International Conference on Winter Maintenance and Surface Transportation Weather (April 25-27 in Fort Collins, Colorado)

Debbie Sinclair stated that members should start thinking about this conference and if anyone was interested in attending, they should let her know by the March meeting. Hafiz Munir asked how many people were approved to attend and Debbie Sinclair stated she would look into this.

- National LTAP Conference (July 18-21 in Madison, Wisconsin)

Debbie Sinclair stated that members should start thinking about this conference and if anyone was interested in attending, they should let her know by the March meeting.

- National Pavement Preservation Conference (October 9-13 in Nashville, Tennessee)

Bruce Hasbargen stated that this conference was very worthwhile.

Mitch Rasmussen encouraged new members to look at the calendar for events they would like to attend. He thought if something was of particular interest to someone, there was a greater chance of them bringing back a “nugget” to share with the group.

Action Item No. 2: Linda Taylor will send Jim Foldesi the LRRB Member Website’s Username and Password Information. *THIS ACTION ITEM IS COMPLETE.*****

3. National Road Research Alliance (NRRRA, replaces TERRA)

Bernard Izevbekhai explained that NRRRA is looking for three levels of representation from the LRRB.

- Executive Committee (Board of Directors)
 - Mitch Rasmussen explained that he is looking for one city and one county Board member to serve on the Executive Committee. This may need an official action from the Board to appoint the members.
 - Mitch selected Paul Oehme (City of Chanhassen) and Lyndon Robjent (Carver County) to serve on the NRRRA's Executive Committee.
- Project Teams (Flexible, Rigid, Pavement Preservation, Geotechnical, Tech Transfer)
 - LRRB members are encouraged to assist in these groups. Each will be chaired by an Executive Committee member. **(Staff Note:** This is right now just being developed – more information to come later.)
- MnDOT Advisory Committee
 - Mark Maloney (City of Shoreview) or Mike Sheehan (Olmsted County) are currently serving on the Advisory Committee to help MnDOT look over its financial investment into MnROAD and assist Glenn Engstrom (MnDOT) to oversee the pooled fund funding NRRRA effort.

Bernard Izevbekhai explained that they are looking for city and county membership in order to keep the LRRB actively involved and informed for the future of MnROAD and its related research. Steve Koehler wanted to know what type of commitment was involved. Mitch Rasmussen explained that as the NRRRA gets underway, they are looking to meet once in the Spring and once in the Fall. Bernard will send an e-mail out to Glenn Engstrom to get an idea of what the time commitment would be. Updated information on the NRRRA can be found at:

<http://www.dot.state.mn.us/mnroad/nrra/index.html>.

4. New Format of Past Videos Available from Research Services

There is an effort by MnDOT RS Marketing & Outreach staff to digitize all available videos that were done in other formats.

Action Item No. 3: Shannon Flecke's group will send out a link to the digitized videos once they become available.

5. Research Proposals for FY 2017 Funding

Linda went over some guidelines on how Board members could vote; suggesting that 1 would be the low number and 5 would be the high number. She stated that the proposals were in the order of the projects' corresponding Need Statements. Bruce Hasbargen wanted to clarify if they only had 5 votes to use and Linda explained that there could be up to 5 points awarded to each proposal from a Board member. She also reminded the group that we asked the presenters to explain how their results would be implemented, and that the requirement to demonstrate the benefits was new this year. Some Board members wanted to make sure than the hours of staff time were included in the final Work Plans under the budget details.

Need Statement	Project Title	Principal Investigator
410	Development and Demonstration of a Cost Effective In-Vehicle Lane Departure and Advanced Curve Speed Warning System	Imran Hayee (via telephone)
413	Minnesota Culvert Manual to Accommodate Aquatic Species Passage	Jeff Marr
KB13	Using Adaptive Management to Reduce Road Salt and Improve Winter Vehicle Travel	Larry Baker
KB13	Permeable Pavement for Road Salt Reduction	John Gulliver
KB13	Iron-Enhanced Swale Ditch Checks for Phosphorus Removal	John Gulliver
417	Signing for Effective Roundabout Approach Speed Reduction	Gary Davis
410	In-Vehicle Dynamic Curve Speed Warning at High Risk Rural Curves	John Hourdos
434	Transportation Investment and Job Creation in Minnesota Counties	Jerry Zhao
417	Signing for Effective Roundabout Approach Speed Reduction	Susan Chrysler (via telephone)
KB10	Optimized Taconite-Based Pavement Repair Compound and Deployment System	Larry Zanko (via telephone)
433	Investigation of Cracking Resistance of Asphalt Mixtures and Binders	Mihai Marasteanu
410	In-Vehicle Dynamic Curve Speed Warning at High Risk Rural Curves	Brian Davis Nicole Morris

6. Adjournment

The meeting was adjourned for the day by Chair Hasbargen.

7. Call to Order (Day 2) December 10, 2015

Chair Bruce Hasbargen called the meeting to order.

8. Research Proposals for FY 2017 Funding (continued)

Need Statement	Project Title	Principal Investigator
414	Effective Social Media Engagement Options for Minnesota's Diversifying Population	Ingrid Schneider Karla Rains (via telephone)
431	Investigating the Necessity and Prioritizing Pavement Markings on Low Volume Roads	David Veneziano
416	Field Investigation of Bridge Deck Reinforced with GFRP Rebar	Behrouz Shafei
412	Regional Optimization of Roadside Turfgrass Seed Mixtures	Eric Watkins
432	Comparison of Performances of Structural Fibers and Development of a Specification for using Structural Fibers in Thin Concrete Overlays	Manik Barman
426	Work Zone Intrusion Report Interface Design	Nichole Morris

9. Research Proposal Selection and Funding Decisions for FY 2017

Laurie McGinnis told the group that she would be abstaining from voting. After much discussion the group arrived on the decision to fund the projects in the list included as Attachment 1. Steve Koehler asked if these decisions required formal Board action to approve and Chair Hasbargen asked for a motion.

A motion was made by Tim Stahl, seconded by Kaye Bieniek, to fund the projects as described in the list attached to these minutes. Motion approved.

10. Round Robin

Several Board members wished to express their gratitude to Bruce Hasbargen for his service as the Local Road Research Board Chair.

Debbie Sinclair

The March LRRB Meeting will be held in the MnDOT Golden Valley Offices.

Action Item No. 4: Research Services will include Multi-Proposals discussion added to the March LRRB Meeting Agenda.

Jim Foldesi

Jim said he was looking forward to serving on the LRRB.

Action Item No. 5: Jim Foldesi agreed to represent the LRRB on the University Master Agreement selection process.

Linda Taylor

The TRB Annual Meeting paper program will only include the session number, name and location. The detailed program will be available either on-line or on the meeting app, which is downloadable to either smartphone or ipad/tablet.

Linda went over three handouts that were provided in the meeting materials:

- Nominations for the CTS Research Partnership Awards are due by December 18, 2015
- Submission of presentation abstracts are due by December 14, 2015 for the 2016 MAASTO Annual Conference in Minneapolis from August 8-11, 2016
- Contact Steve Druschel at Minnesota State, Mankato (Stephen.Druschel@mnsu.edu; (507) 389-2115) if you are interested in volunteering your snowplows for the research they are doing for the project known as Salt III (Phase III of a MnDOT-sponsored research project titled Salt Brine Blending to Optimize Deicing and Anti-Icing Performance).

Lyndon Robjent

The National APWA Conference will be taking place in the Twin Cities August 28-31, 2016. They are expecting around 500 participants. Lyndon has attended this in the past and says it was well worth it.

Tom Ravn

Paul Johns will be his substitute at the TRB Annual Meeting.

Shuo Wang

Shuo stated that she appreciated being able to take part in this meeting.

Bernard Izevbekhai

He was temporarily sitting in for Dave Van Deusen, but future LRRB meetings would be attended by Ben Worel.

Brenda Thomas

Brenda also wanted to remind everyone that nominations for the CTS Research Partnership Awards are due by December 18, 2015

11. Adjourn

The meeting was adjourned by Chair Hasbargen.

Summary of Action Items

LRRB December 2016 Meeting Minutes

- Action Item No. 1** Debbie Sinclair will send out updated calendar invitations for the Summer Meeting as well as the remaining 2016 meetings.
- Action Item No. 2** Linda Taylor will send Jim Foldesi the LRRB Member Website's Username and Password Information. *****THIS ACTION ITEM IS COMPLETE.*****
- Action Item No. 3** Shannon Fiecke's group will send out a link to the digitized videos once they become available.
- Action Item No. 4** Research Services will include Multi-Proposals discussion added to the March LRRB Meeting Agenda.
- Action Item No. 5** Jim Foldesi agreed to represent the LRRB on the University Master Agreement selection process.

Attachment 1 Proposal Selection Summary

LRRB December 2016 Meeting Minutes

Research Proposals for FY2017 - LRRB Funding Decisions							
NS #	Project Title	PI	Univ.	Total Budget	LRRB Amount	LRRB Decisions Dec. 9-10, 2015	Notes
410	Development and Demonstration of a Cost Effective In-Vehicle Lane Departure and Advanced Curve Speed Warning System	Imran Hayee	UMD	\$124,704	\$124,704	Yes [100%]	LRRB funded
410	In-vehicle Dynamic Curve Speed Warnings at High Risk Rural Curves	Brian Davis	UMN	\$161,803	\$80,901.50	Yes [50% of revised amount]	Revised amount \$161,803 Funded 50/50 LRRB/TRIG Need revised work plan
410	In-Vehicle Dynamic Curve Speed Warning at High Risk Rural Curves	John Hourdos	UMN	\$95,427		No	Not funded
412	Regional Optimization of Roadside Turfgrass Seed Mixtures	Eric Watkins	UMN	\$142,346	\$71,173.00	Yes [50% of revised amount \$142,346]	Revised amount \$142,346 Funded 50/50 LRRB/TRIG Need revised work plan
413	Minnesota Culvert Manual to Accommodate Aquatic Species Passage	Jeff Marr	UMN	\$164,353	\$82,176.50	Yes [50%]	Funded 50/50 LRRB/TRIG
414	Effective Social Media Engagement Options for Minnesota's Diversifying Population	Ingrid Schneider	UMN	\$165,579	\$69,995	Yes [50% of original amount plus \$4500; MnDOT should fund the added \$23,590]	Co-funded LRRB & TRIG Revised amount \$165,579 LRRB \$69,995 / TRIG \$95,584 Need revised work plan
416	Field Investigation of Bridge Deck Reinforced with GFRP Rebar	Behrouz Shafei	ISU	\$88,000	\$22,000	Yes [25%]	Funded 25/75 LRRB/TRIG
417	Signing for Effective Roundabout Approach Speed Reduction	Susan Chrysler	TTI	\$74,989	\$37,494.50	Yes [50%]	Funded 50/50 LRRB/TRIG
417	Signing for Effective Roundabout Approach Speed Reduction	Gary A. Davis	UMN	\$144,963		No	Not funded
426	Work Zone Intrusion Report Interface Design	Nichole Morris	UMN	\$180,447	\$45,112	Yes [25%]	Funded 25/75 LRRB/TRIG
431	Investigating the Necessity and Prioritizing Pavement Markings on Low Volume Roads	David Veneziano	ISU	\$71,475	\$71,475	Yes [100%]	LRRB funded
432	Comparison of Performances of Structural Fibers and Development of a Specification for using Structural Fibers in Thin Concrete Overlays	Manik Barman	UMD	\$120,375	\$60,187.50	Yes [50%]	Funded 50/50 LRRB/TRIG
433	Investigation of Cracking Resistance of Asphalt Mixtures and Binders	Mihai Marasteanu	UMN	\$149,762		No	TRIG funded
434	Transportation Investment and Job Creation in Minnesota Counties	Zhirong Jerry Zhao	UMN	\$110,350	\$110,350	Yes [100%]	LRRB funded
KB10 "Materials"	Optimized Taconite-Based Pavement Repair Compound and Deployment System	Larry Zanko	UMD	\$127,895	\$100,000	Yes [Drop Task 2, revise plan, OK up to \$100,000]	LRRB Funded up to \$100,000 Need revised work plan
KB13 "Water Quality"	Permeable Pavement for Road Salt Reduction	John Gulliver	UMN	\$197,835	\$197,835	Yes [100%]	LRRB funded
KB13 "Water Quality"	Iron-Enhanced Swale Ditch Checks for Phosphorus Removal	John Gulliver	UMN	\$200,036	\$100,018.00	Yes [approx. 50% - portion not funded by TRIG]	Co-funded LRRB & TRIG
KB13 "Water Quality"	Using Adaptive Management to Reduce Road Salt and Improve Winter Vehicle Travel	Larry Baker	UMN	\$326,569		No	Not funded