



RIC Fall Meeting

September 27, 2017

MnDOT Conference and Training Center

St. Cloud, Minnesota

RIC Minutes

Attendees:

Mike Flaagan (Chair), Pennington County
Guy Kohlhofer, Dodge County
Klayton Eckles, City of Woodbury
Steve Bot, City of St. Michael
John Brunkhorst, McLeod County
Kaye Bieniek, Olmsted County (LRRB)
Ted Schoenecker, MnDOT State Aid
Kelvin Howieson, MnDOT District 3
Ben Worel, MnDOT Materials Office
Jim Grothaus, LTAP / U of M CTS
Hafiz Munir, MnDOT Research Services

Staff:

Bruce Holdhusen, MnDOT Research
Becky Lein, MnDOT Research
Joel Ulring, MnDOT State Aid
Shannon Fiecke, MnDOT Research

Others present:

Renae Kuehl, SRF
Mike Marti, SRF
Nicole Buehne, SRF

1. Call to Order (Mike Flaagan – Chair)

The LRRB research implementation committee meeting was called to order at 10:10 A.M by the Chair, Mike Flaagan. There were no additions to the agenda.

Review of RIC Meeting Minutes from June 28-29, 2017

A motion to approve the RIC meeting minutes from June 28-29, 2017, was made by John Brunkhorst and seconded by Klayton Eckles. Motion approved.

Review of RIC Action Items from June meeting minutes

There were no action items from the June RIC meeting.

2. Synthesis of Bridge Removal Programs and Policies Kelvin Howieson

Kelvin Howieson reviewed the findings and potential next steps for this transportation research synthesis report, State DOT Bridge Removal Programs and Policies (INV 1021). They found 61 bridges in Minnesota that are closed but still listed on the national bridge inventory. The discussion that followed included a question whether the general public response may not be favorable if such facts were publicized with no answers about how to address it. It is a potential future RIC project.

Action item #1: Kelvin Howieson will bring back recommendations for next steps regarding the Synthesis of Bridge Removal Programs and Policies to a future RIC meeting.

3. Is Chip Sealing Counterproductive or Not? (INV1028) Steve Bot

Steve Bot discussed the need for further guidance from the PI at Michigan Tech about the type of samples and number/locations of samples for the LRRB research project titled “Is Chip Sealing Counterproductive or Not?” AET, Inc. provided a draft scope of work for collecting potentially up to 100 samples, but it needs to be finalized, and funding needs to be approved by LRRB or RIC. The RIC discussed alternatives for collecting the samples, such as using MnROAD resources, and whether this should be funded by LRRB or RIC. Ted Schoenecker offered that State Aid funds could be transferred to MnROAD budget via a journal voucher. If MnDOT Office of Materials resources are not available to collect samples this fall, funding will be requested from LRRB for a sampling contract to supplement the LRRB research project, and a contract will be written with AET.

Action item #2: Ben Worel and Steve Bot will follow up to determine the best course of action to collect samples in support of the LRRB research project “Is Chip Sealing Counterproductive or Not?” (INV1028) If necessary Steve Bot or Kaye Bieniek will bring the AET sample collection work plan as a funding request to the LRRB meeting on October 18, 2017.

[Staff note: MnROAD resources were not available. Funding was approved at the LRRB October meeting and a sampling contract with AET was executed on November 2, 2017.]

4. Signing for Effective Roundabout Approach Speed Reduction

(INV 1010)

Marcus Brewer

Marcus Brewer from Texas Transportation Institute (TTI) at Texas A&M University presented the results of the LRRB research project “Signing for Effective Roundabout Approach Speed Reduction (INV 1010). Further research on specific speed reduction methods would be the next steps and those results would be included in future RIC products on the topic.

5. Barriers to Right-of-Way Acquisition and Recommendations for Change

(INV 969)

David Jeong

David Jeong from Iowa State University presented the results of the LRRB research project “Barriers to Right-of-Way Acquisition and Recommendations for Change” (INV 969).

The report had recommendations for implementation or changes categorized in several areas. One of the top recommendations was to change the 2006 Minnesota State Eminent Domain law that gave more leverage to property owner, by requiring early disclosure of the owner’s appraised claim prior to the Commissioner’s hearing.

RIC discussion included an idea to form a committee to prioritize the recommendations and bring them to the CEAM and MCEA meetings. Such a committee would include Ted Schoenecker, Mitch Rasmussen, Mike Marti and others. The discussion also included a question why the data in the report did not seem to reflect what has been observed or perceived by practitioners, in terms of an increase in number and cost of appeals after passage of the 2006 law.

Action Item #3: Ted Schoenecker will explore setting up a committee to prioritize the recommendations from “Barriers to Right-of-Way Acquisition and Recommendations for Change (INV 969)” and work with Mike Marti and Mitch Rasmussen to bring this to the city and county engineers’ meetings for discussion about needs and next steps.

6. Development of a Moving Automatic Flagger Assistance Device (AFAD)
for Moving Work Zone Operations Ed Terhaar

Ed Terhaar from Wenck & Associates presented the results of a MnDOT implementation project that developed a prototype of a mobile automatic flagger for controlling traffic during moving operations on two-lane roads. The cost was about \$20,000 to develop one prototype device and it was demonstrated in MnDOT District 3. Based on the demonstration there were a few improvements suggested for devices to be manufactured, although there is no budget to deploy them.

In response to RIC questions, Ed said a pair of commercially available stationary AFADs would cost about \$10,000 - \$12,000. There is no requirement to crash-test these devices because they are not permanent on the road or roadside. RIC discussion was that this technology has potential and addresses a need but the RIC is probably not the right avenue for moving forward.

7. RIC Support Contract – SRF Consultant Task Updates

Renae Kuehl summarized the progress made by SRF and the TAPs on the tasks included in the Implementation of Research Findings consultant contract, for work in the period from June 2017 – September 2017.

Task	Budget	Chair	Start Date	Percent complete
A1 – Project Management	\$34,130.85	Bruce Holdhusen	July 2016	55%
A2 – Task Scoping	\$36,804.59	Bruce Holdhusen	July 2016	60%
T1 – Fleet Mgmt	\$54,027.14	Guy Kohlhofer	August 2016	80%
T2 – Base Stabilization Additives	\$37,206.45	Ben Worel	February 2016	85%
T3 – Gravel Road Mgmt	\$47,450.76	Mike Flaagen	July 2017	5%
T4 - Lightly Surfaced Roadways	\$34,253.81	John Brunkhorst/Jim Grothaus	April 2018	N/A
T5 – Traffic Safety Concerns	\$25,156.94	Steve Bot	January 2017	85%
T6 – Asset Management	\$50,197.75	Klayton Eckles	January 2018	N/A
T7 – ADA Training	\$38,589.10	Ted Schoenecker	August 2016	90%
T8A – Snow and Ice PPT	~\$3,000	John Brunkhorst	August 2016	100%
T8B – Past Projects Survey	~\$3,000	Bruce Holdhusen	April 2017	90%
T8C – New Tasks	\$7,217.12	Bruce Holdhusen	TBD	N/A

Task 1 – Fleet Management (Chair: Guy Kohlhofer)

- Deliverable: Report summarizing fleet management options and experiences (a draft document was distributed)
- Audience: City and County Fleet Managers

- Goal: To educate local agencies on tools available for fleet management for all sizes of local agencies

Project Update:

- July 11, 2017 – TAP meeting held to review the text for sections 1, 3, 4 and the software matrix
- July 27, 2017 – Small group meeting to brainstorm how to present and collect the fleet management software information.
- Working with software vendors to populate data in the software matrix that will compare attributes of the various software tools. Of the eight software manufactures we are working to collect data from, we have successfully received data from four vendors.
- Updated report text based on input from TAP meeting. Wrote additional sections of the report.
- September 28th, 2017 – Small group meeting (conference call) scheduled with small rural agencies, to confirm that the report is meeting their needs.
- November 6, 2017 – TAP meeting scheduled to review updated report.

Task 2 – Base Stabilization Additives for Pavement Design (Chair: Ben Worel)

- Deliverable: Guidebook
- Audience: County Engineers and Pavement Designers
- Goal: To educate local agencies on the use of Base Stabilization Additives

Project Update:

- August 24, 2017 – TAP meeting to review revised guidebook.
- Guidebook is 90% complete. Working to finalize the guidebook prior to final TAP meeting.
- October 31, 2017 – Final TAP meeting to review the final version of the Guidebook.
- Anticipate final deliverable will be complete (with minor edits from final meeting) and ready for Research Services final review shortly after final TAP meeting.

Action item #4: Shannon Fiecke and Renae Kuehl will bring to the LRRB Outreach Committee a request to develop a video for the LTAP web site on the topic of RIC Task 2, Base Stabilization Additives for Pavement Design and Rehabilitation.

Task 3 – Gravel Road Management Tools (Chair: Mike Flaagan)

- Deliverable: TBD - Guidebook/Manual or Software Guidance
- Audience: TBD - County Engineers
- Goal: To educate local agencies on gravel road management tools

Project Update:

- Invitations to join the TAP have been emailed to identified TAP members.
- November 15, 2017 - Scoping meeting scheduled with TAP
- Ann Johnson – PE Services will be assisting with the development of this project
- Confirmed TAP members:
 - Mike Flaagan (Chair), Pennington County
 - Lon Aune, Marshall County
 - Bruce Holdhusen, MnDOT
 - Bruce Hasbargen, Beltrami County
 - Eddie Johnson, MnDOT
 - Jonathan Large, Mahnomen County
 - Kris Lyytinen, Cass County

- Roger Risser, Watonwan County
- Rich Sanders, Polk County
- Ken Skorseth, Formerly SD LTAP
- Joel Ullring, MnDOT State Aid
- Rick West, Otter Tail County

Action item #5: A city engineer will be added to the TAP for RIC Task 3, Gravel Road Management Tools.

Task 4 – Lightly Surfaced Roadways (Chair: John Brunkhorst)

- Scheduled to commence in April, 2018; no update yet.

Task 5 – Addressing Citizen Traffic Requests (Chair: Steve Bot)

- Deliverable: Guidebook
- Audience: City and County Engineers (specifically traffic engineers)
- Goal: A guidebook for engineers responding to citizen requests that guides the user through the steps to evaluate the request

Project Update:

- Late October/Early November – Scheduling Final TAP meeting to review the final version of the Guidebook.
- Anticipate final deliverable will be complete (with minor edits from final meeting) and ready for Research Services final review shortly after final TAP meeting.

Action item #6: Renae Kuehl will submit an abstract to the 2018 CEAM annual conference for a presentation on RIC Task 5, Addressing Citizen Traffic Requests.

Action item #7: Shannon Fiecke and Renae Kuehl will bring to the LRRB Outreach Committee a request to develop a video on RIC Task 5, Addressing Citizen Traffic Requests.

Task 6 – Consolidated Asset Management Guide for Local Agencies (Chair: Klayton Eckles)

- Deliverable: TBD – Overview of Asset Management tools
- Audience: TBD - City and County Engineers
- Goal: Educate local agencies on Asset Management tool options

Project Update: This task is planned to start in January 2018.

Task 7 – ADA Training for Local Agencies (Chair: Ted Schoenecker)

- Deliverable: Three full day training courses and a webinar
- Audience: City and County Engineers and staff
- Goal: Provide training on ADA law, transition plans, design and construction.

Project Update:

- July 12, 2017 – TAP meeting held to review final sections of the full day policy training
- Edited slides based on TAP input.
- Worked with City of Brooklyn Park staff to develop a video to educate field staff on how to properly measure a curb ramp slope, to be incorporated into the training.

<https://youtu.be/p1rbzZ66FpM>

- Late October – Scheduling TAP meeting schedule to finalize items for the full day policy training and review content for the full day design training.
- Working with CTS staff to schedule and prepare for the delivery of the full day policy training.
- Training delivery may be delayed due to the contract status between LRRB and CTS.
- Course details:
 - Title: Understanding ADA Requirements and Developing a Transition Plan
 - Audience: City and County engineers, planners, and consultants
 - Trainers: Ann Johnson, PE Services and Brady Rutman, SRF

Task 8 – Review of Existing LRRB/RIC Products (Chair: Bruce Holdhusen)

- Deliverable: new products as needed, to be determined by RIC board
- Audience: City and County Engineers
- Goal: Survey of existing/past LRRB/RIC products to update by revising and/or republishing.

Project Update:

- Reduced the number of projects from the last meeting down to ~10. These projects will be included in the project ideas that will be obtained from local agencies during the pre-screening board meetings where research needs will be discussed.

8. LRRB Outreach Committee Update

Shannon Fiecke

The Outreach Committee recently completed a video about careers in civil engineering for a middle school student audience. The video is accompanied by a web site. These are available at the following URLs: Final Video https://youtu.be/7dBi_3NLWIA ; DRAFT website: <https://becomeacivilengineer.com/> .

The Outreach Committee and LRRB have developed a new process for developing research needs that will be used in place of the research needs focus groups that have been conducted for the past few years. The new process will begin by including a research discussion in all of the State Aid pre-screening meetings statewide in October to collect ideas, prioritizing ideas at CEAM and MCEA winter meetings, and then taking the results back to the spring statewide pre-screening meetings. SRF, CTS and State Aid are intending to attend the pre-screening meetings, run the process and produce the research need statements. Some of the ideas are likely suitable for RIC, but the budget and role for RIC in this process have not been formulated yet.

Action item #8: The results of the pre-screening board discussions of LRRB research needs will be presented at the RIC meeting November 20, 2017, by Mitch Rasmussen. Mike Marti or Renae Kuehl.

9. Field Testing and Optimization of Soy Based Dust Control Agents

Joel Ulring

Research on the topic of a soy-based dust control agent by Professor James Bahr at North Dakota State University had been brought to the attention of MnDOT and others. Prof. Bahr was seeking funding for further research and implementation. Joel Ulring presented a slide show provided by Prof. Bahr on why dust control is important on gravel roads, and what are some of the concerns about traditional dust control that uses magnesium chloride or calcium chloride. The presentation included the method, application rate of 0.5 gallons per square yard, visual observation and results of dust monitoring.

RIC discussion suggested doing a study to compare the soy-based compound to Calcium Chloride, including comparing application rates, costs, odor, and coverage per tanker. Several RIC members have gravel roads that could be used for test sections.

Action item #9: Joel Ulring will follow up with Prof. James Bahr at NDSU to request that NDSU submit a project proposal through Bruce Holdhusen for a demonstration and evaluation of Soy-based Dust Control Agents.

10. Innovative Technology Workshop on 3D LIDAR (INV 977)

Brian Davis

Brian Davis from the University of Minnesota presented a summary of a series of demonstrations and workshops that were done to demonstrate the use of 3D LIDAR and explore application of this technology to traffic engineering. Demonstrations were conducted in Rochester and St. Peter. Workshops were conducted in Dakota County and St. Louis County. This technology is not currently ready for implementation by the RIC.

11. Budget and RIC Meetings

Becky Lein

Becky Lein provided a summary of the RIC budget and contracts in development or in-progress. The RIC is being asked to set up a schedule for their 2018 quarterly meetings. The RIC would like to meet at MnROAD for the spring meeting and in St. Cloud for the fall meeting. The summer meeting location is still under discussion and may be in Rochester or another location.

Action item #10: Becky Lein and Mike Flaagan will send out a poll to the RIC members to finalize dates for 2018 RIC meetings.

12. LRRB Liaison Update

Kaye Bieniek

Kaye Bieniek reported that LRRB has approved additional funding for CTS and SRF to work with State Aid and utilize a portion of the pre-screening board meetings to discuss LRRB research and to develop ideas for research. Also, the LRRB Strategic Plan update is being finalized.

13. Round Robin and Adjournment

- Hafiz Munir summarized the LRRB research RFP process that resulted in 83 research proposals being submitted for consideration by LRRB and MnDOT TRIG.
- Klayton Eckles talked about the NLTAPA annual meeting last summer in Norfolk, VA. He observed that Minnesota is ahead of most other states in terms of research and innovation.
- Ben Worel mentioned some upcoming events and meetings including NRRA open house at MnROAD. There are opportunities for RIC members to participate on the TAP of several NRRA long-term research projects.
- Joel Ulring summarized the ongoing State Aid Comparative Chip Seal Study in Crow Wing and Cass counties that is in its 3rd year.

- Shannon Fiecke said the LRRB/RIC trip reports will be provided in a new format that is easier to use.
- Becky Lein reminded all that expense reports and travel should go through Lori Sobczak in MnDOT Research Services.
- Mike Flaagan suggested re-sending the announcements for the pre-screening meetings in each District.
- The meeting was adjourned by Chair Mike Flaagan.

Next RIC meeting: November 20, 2017

Summary of Action Items

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