



## LRRB DRAFT Spring Meeting Minutes

April 5, 2018

Minnesota Department of Transportation

Golden Valley Office

2055 North Lilac Drive

Golden Valley, MN 55422

### LRRB Members Present:

Lyndon Robjent (Chair), Carver County  
Paul Oehme, City of Chanhassen  
Kaye Bieniek, Olmsted County, *RIC Liaison*  
Mitch Rasmussen, MnDOT – State Aid  
Laurie McGinnis, U of M – CTS  
Kevin Western, MnDOT – Bridge  
Linda Taylor, MnDOT – Research

### Others Present:

Ben Worel, MnDOT – OMRR  
Mitch Bartelt, MnDOT – Research  
Hafiz Munir, MnDOT – Research  
Debbie Sinclair, MnDOT – Research  
Shannon Fiecke, MnDOT – Research  
Glenn Engstrom, MnDOT – OMRR

### LRRB Members Absent:

Kent Exner, City of Hutchinson  
Jim Foldesi, Saint Louis County  
Tim Stahl, Jackson County

Minutes prepared by Mitch Bartelt, MnDOT Research

## 1. Call to Order

Chair Lyndon Robjent called the meeting to order. Lyndon welcomed the attendees and discussed the purpose of the meeting. The spring meeting is a second programming meeting and strategy identification meeting, with emphasis placed on determining research topics for the subsequent year.

Next, the Board reviewed the agenda. No additions were made.

Lyndon then brought the minutes from the December 2017 LRRB meeting for review. **Kevin Western made a motion to approve the December 2017 LRRB minutes. Paul Oehme seconded the motion. The motion was approved.**

### Action Items

Linda Taylor led the discussion of the pending LRRB action items. (Note: items indented are the exact same as were in the meeting handout. Items to the left margin were from discussions at the meeting.)

#### Action Items from the December 2017 LRRB Meeting:

**Action Item 1:** Mindy Carlson will invite Tim Horner from the Transportation Learning Network and/or North Dakota LTAP Director Dale Heglund to give a presentation at the Summer 2018 LRRB/RIC joint meeting on the North Dakota Upper Plains learning platform and its potential to be used by Minnesota local agencies.

Status: Kaye Bieniek announced that the RIC voted not to include this in the June meeting; thus, this item is **resolved**.

**Action Item 2:** Debbie Sinclair will come up with a new version of the Local Road Research Board budget information to submit to both Lyndon Robjent and Mitch Rasmussen.

Status: This item is **resolved**. The updated format presented at the Spring 2018 LRRB meeting was

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satisfactory to both Lyndon and Mitch R.

**Action Item 3:** Debbie Sinclair will apprise board members of the Local Road Research Board Travel Rules.

*Status:* This is **resolved**.

**Action Item 4:** Mitch Bartelt will include a short presentation on the Knowledge Book at the April 2018 meeting.

*Status:* This is **resolved**. Scott Taylor from South Central College is presenting.

**Action Item 5:** Shannon Fiecke will give a hard DVD copy of the Careers in Civil Engineering Video to Mitch Bartelt to give to Nicole Bartelt to aid in her work as STEM coordinator.

*Status:* This is **resolved**.

**Action Item 6:** Mitch Bartelt will invite James Bahr from NDSU to the April 2018 Local Road Research Board meeting to present his proposal titled *Field Testing and Optimization of Soy Based Dust Control Agent* as an off-cycle funding request.

*Status:* This is **resolved**. This is on the agenda for the April 2018 meeting.

**Action Item 7:** Lyndon Robjent will work with SRF to negotiate adding roadmap information for the Civil Information Management - Modernizing Construction Plans project at no additional cost.

*Status:* This is **resolved**. The roadmap information is now part of the project scope.

**Action Item 8:** RS and Jim Foldesi will collaborate on a possible solution to get the winter maintenance materials accessible to local agencies and report back to the Board.

*Status:* This items remains **outstanding**.

Shannon said this might be getting addressed in other ways currently. MnDOT recently formed a task force on salt reduction; Renae Kuehl is involved with it, and so is CTC. Mitch R noted that city and county engineers can be involved with this. Edina City Engineer Chad Millner is on the task force. Perhaps Jim is too?

Shannon also noted that there is a Minnesota Freshwater Society that recently held a conference related to reducing salt usage. It was well-attended by local agency public works staff who received professional credits from CTS for attending. Mindy Carlson from CTS will be meeting with the MPCA in June; the MPCA is interested in incorporating some of the research that was presented at the conference.

Lyndon suggested RS follow up with Jim F to see if Jim feels more future steps are needed.

**Action Item 9:** Mitch Rasmussen will work with TRIG to determine if the LRRB is interested in providing a cost share on proposals 491c, 494a, 495b, 498b, and 512a.

*Status:* No cost sharing will take place on these projects. This item is **resolved**.

Unresolved Action Items from prior meetings:

**October 2017 Action Item 1:** Mitch Rasmussen and ~~Jim Grothaus~~ Mindy Carlson will work together to discuss potential replacements for Kent Exner on the LTAP Steering Committee at the October 23 meeting.

*Status:* This is **resolved**. Brainerd City Engineer Paul Sandy is Kent's replacement.

**October 2017 Action Item 4:** Debbie Sinclair will provide Mitch Rasmussen a more simplified financial document representing current LRRB finances that can be shared at upcoming pre-screening board meetings.

*Status:* This item was combined with and superseded by December 2017 Action Item 2. This

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item is **resolved**.

**October 2017 Action Item 5:** Debbie Sinclair will explore available bidding processes to ensure a better venue for the 2018 LRRB Summer Meeting (e.g. she will determine if direct select is an option).

*Status:* This is **resolved**. The Summer 2018 LRRB/RIC Meeting will be held at the Kahler Grand Hotel in Rochester.

**October 2017 Action Item 11:** Lyndon Robjent and Mitch Bartelt will examine the scope of the Strategic Plan Update to ensure that cost to administer the program is considered.

*Status:* This is **resolved**. The Technical Advisory Panel for the LRRB Strategic Plan Update met on March 21 with the consultant. An amendment will be put into place to expand the scope and extend the timeline.

**October 2017 Action Item 13:** Ben Worel will send Mitch Bartelt his spreadsheet tracking Trip Reports for inclusion in the meeting minutes. Mitch B will evaluate it. If it is checked for LRRB, it will be talked about at future meetings.

*Status:* This is **resolved**.

**October 2017 Action Item 16:** Wayne Stevens will develop a proposal, to have this heard at the April 2018 LRRB meeting, as an off-cycle funding request.

*Status:* This is resolved. Wayne is presenting this later in the meeting.

**June 2017 Action Item 5:** ~~Jim Grothaus~~ Mindy Carlson and/or Stephanie Malinoff will work with the Minnesota Local Technical Assistance Program to determine if the North Dakota Upper Plains learning platform is practical for Minnesota local agency use.

*Status:* North Dakota Upper Plains gave a presentation at the LTAP steering committee and LTAP considered it too expensive, and will not use it. This is **resolved**.

**March 2017 Action Item 3:** Shannon Fiecke will examine making the Trip Report fillable in both mobile format and web formats.

*Status:* This is **resolved**.

## 2. Budget and Administration

Debbie Sinclair led the discussion.

### Budget Status Report

Debbie noted some changes to the report, which were made at the request of board members so that it can be easier to interpret and also not show a misleading balance. Ongoing programs are now all on the first page. The Research Implementation Committee currently shows a balance of \$40,563 in FY19.

The available balance for INV 924: YouTube Videos is \$90,718. The Ineffective Specialty Signs contract (approved in FY15) is in process, and ends 8/31/2018. Otherwise, there are no other projects of this type in progress.

- Mitch R asked, what happens to this balance for YouTube videos? Debbie S said it carries over. Linda noted that it is an approved amount, and not specifically a contract amount.

Projects shown in green on the spreadsheet are completed. A few items of note include:

- On Page 4, projects in yellow were approved at the December meeting, at various stages of pre contracting process.
- On Page 5:
  - FY18 uncommitted balance in current year is \$1,904,339. This carries forward to FY19.

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- FY19 allotment is \$4,020,957.
  - Mitch R explained this was a look back number based on last year's program (1/2% of all State Aid funding).
- FY19 Balance Uncommitted in Fiscal year is \$3,527,520. Set asides for on-going programs are just placeholders at the current level.
- An outlined box at the bottom of the spreadsheet gives a concise recap of future FY commitments.

Mitch R noted that we have to be sure not to assume future balances will be granted; however, previous versions of this spreadsheet shown balances in such a way that it appeared the LRRB was obligating unapproved funds.

Debbie also added an Administration Category Breakdown, as there were questions of all that was included in the Administration slice of the pie. All are ongoing programs except for INV 1020 LRRB Strategic Plan Update. Debbie removed the unobligated amount from the pie to give an accurate representation of the percentages of funding for each strategic category.

Mitch R pointed out that the RIC amount shown for 2020 is a placeholder, and that the LRRB Strategic Plan Update will likely result in the Board changing that number. Mitch R also noted that the calendar of when the RIC and LRRB meet with respect to one another should be adjusted so that process for a project or idea that originates with the RIC doesn't end up taking so long to be heard by the LRRB.

Debbie also announced that the Administrative category was broken out on the last page of the chart. Mitch R said that request came from the RIC, as that administration amount without further context and explanation appeared to be large. (It used to appear to some that MnDOT RS was being paid \$600,000 to administer the program, when in actuality it was \$255,000 in FY18.)

### INV 999 Status Update

The current balance is \$65,379. This does not include the following costs:

- Summer joint LRRB/RIC meeting, which is estimated to run \$11,997.
- Spring and summer meeting expenses remain outstanding.
- The \$35,000 amount that was approved by the LRRB last year to cover updating and reprinting of materials. These funds will probably not be used in FY18, but can be carried forward and used in FY19.

### 2018 LRRB/RIC Summer Meeting Update

The joint summer meeting of the LRRB and RIC will take place at the Kahler Grand Hotel in Rochester on June 20-21. Lori Sobczak of MnDOT RS Finance will be sending out booking information soon.

Kaye Bieniek discussed potential nighttime activities in downtown Rochester that were within walking distance of the hotel.

**New Action Item 1: Kaye Bieniek will determine an event for the attendees on the first night of the summer LRRB/RIC meeting.**

**New Action Item 2: Shannon Fiecke will determine a location for the Outreach Committee meeting on Tuesday, June 19.**

Mitch R announced a change in how to register for conferences. Nancy Stone from State Aid will no longer be available to reserve travel for city and county personnel. Everyone will make his or her own reservations and expense it, with the exception of booking flights, which will still be taken care of by MnDOT. Mitch R said Kaye B should bring this information back to the RIC.

**New Action Item 3: Kaye Bieniek will announce changes to conference registration for Local Road Research Board-sponsored travel to the Research Implementation Committee.**

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Shannon asked about reserving hotel rooms with purchase orders. Linda explained that the hotel rooms for LRRB Summer meeting are part of the bid package for the facility and is paid upfront.

### Amendment report

Eight amendment requests have been processed since September 25.

- Six of them requested time extensions; two of these also had scope changes.
- Two of these were processed as Letters to the File.

### Upcoming Conferences and Out-of-State Travel

- The National LTAP Conference will be in New Orleans from July 22-25, 2018.
- Linda will not be going to the World Congress on Intelligent Transport Systems in Copenhagen, Denmark from September 17-21, 2018. Paul expressed interest in attending.

### **New Action Item 4: Paul Oehme will work with MnDOT RS Finance to attend the World Congress on Intelligent Transport Systems in Copenhagen, Denmark from September 17-21, 2018.**

- The European Transport Conference will be held in Dublin, Ireland from October 10-12, 2018. Debbie needs to know as soon as possible if anyone is interested in attending.
- The 2018 Mid-Continent Transportation Research Symposium is set for Madison, but might not happen this year.
- Laurie announced that the 2018 CTS Research Conference will be on November 1.

### Conferences not on Approved List

Mitch R told the rest of the Board that if people know of conferences that are not on the approved conference list, and want to go to them, they should let Mitch R and/or Linda know so that it can get on the list in future years. LRRB members might be able to go even if it isn't on the list, as trips can be traded. Finally, while slots shown on the approved list have been reduced in comparison to previous years, there is still flexibility in out of state travel plan to accommodate different trips if needed.

### Conference Attendees when LRRB members don't attend or fill up all slots

Mitch R asked the Board to weigh in on whether LRRB or RIC member can go on certain trips. RIC members have been working with Mitch R on it. If LRRB members aren't utilizing a trip, Mitch R has been approving an RIC member to go instead. Linda said that Julie Skallman (Mitch R's predecessor as State Aid Engineer) handled it this way, except that international trips were only for LRRB members. Julie encouraged all LRRB members to go on one international trip during their terms.

Kaye has been encouraging RIC members interested in attending conferences to ask to do so, even if not enough RIC slots are listed.

Lyndon asked if we put together a policy on this. Nobody answered either way.

Laurie noted that it is incumbent on the prospective traveler to determine if others will get value from the trip he or she wants to go on. Mitch R added that if a different person than a board member goes to a conference paid for by the LRRB, that is fine, but he or she needs to look at it through a local lens.

## 3. LRRB Outreach Committee Update

Mitch Rasmussen led the discussion of this topic.

### Research Need Statement Development

SRF put together an online survey tool to prioritize the top 10 need statements. Mitch R has received positive feedback on the new idea generation process. He said that 215 out of the 220 ideas came in as part of the new process; at times, similar ideas had to be split to narrow the scope of the ideas. The top 10 need statements from both cities and counties were identified, then the next top three Need

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Statement votes for both the counties and cities were used to identify 16 new Need Statements moving forward.

Out of necessity, many parts of this process have been developed on the fly. CTS wasn't able to perform the need statement development due to staff changes this year, but it's anticipated SRF will hand it over to CTS next year.

### **New Action 5: Mitch Rasmussen and Laurie McGinnis will discuss moving the Need Statement development process back to CTS for next year.**

#### Implementation Opportunities

Of 16 prioritized Need Statements, 3 of them appeared to be pure implementation. (Three more research ideas replaced those 3 implementation ideas.)

Mitch R is requesting that the three implementation ideas be funded. These ideas include:

- 1) Field guide for maintenance supervisors for best practice maintenance techniques for trails
- 2) Turf management guide for local agencies and their residents
  - This will cover how to handle newly planted grass for new projects in the boulevard.
  - A trifold will be developed to help residents take ownership of their new grass and explain when to water and mow so that the installation is successful.
- 3) Pavement maintenance surface treatments
  - This will include microsurfacing techniques, chip seals, et cetera.
  - The goal is to answer the question, which treatments are appropriate for various levels of distress?

Paul Oehme expressed that he felt the second and third ideas were great, but wondered if there is already something out there for the first topic – perhaps done by Three Rivers? Paul also volunteered to be the Technical Liaison for the Turf Management.

Ben Worel noted that the NRRA has some efforts related to both the first and third ideas. He wondered if there were some partnership opportunities.

Mitch R said that he will share the problem statements that were written with Kristine Elwood, the new State Aid Deputy Engineer, to finalize the scope. He said that if the Board approves this request, this will be among the talking points at the upcoming pre-screening meetings. He will use that opportunity to solicit TAP members for these projects.

Laurie expressed that the process for this should be as rigorous as it is for funding other ideas.

Mitch R said that SRF, with help from the MnDOT Library, will work to ensure these ideas are not redundant to research that has already been done.

***Paul Oehme moved to authorize up to \$150,000 for the three aforementioned implementation ideas. Kaye B seconded the motion. The motion passed unanimously.***

#### INV 645B: Outreach Support Funding Request

Mitch R requested \$99,000 to renew the Outreach Support contract. This includes preparing presentation materials for all State Aid pre-screening meetings; attending the fall round of pre-screening meetings; writing national articles, publishing two newsletters, making presentations at city and county engineer conferences, attendance at four outreach committee meetings, and other outreach-related tasks. Before the prescreening meetings and idea generation process were added, the contract used to be about \$20,000 per year; however, the new idea solicitation process has been much more time consuming.

This request for \$99,000 would cover tasks that have been included in the previous contracts, plus a new miscellaneous amount of around \$12,000 that would cover additional outreach needs that come up and is likely to be spent, but wouldn't be paid unless it was used. (Examples of unidentified needs that arose this past year were presentations Mitch R gave at the Ohio Peer Exchange and the 2018

Transportation Research Board conference.)

This funding amount does not include writing need statements, but does include attending pre-screening Board meetings. The board separately approved (via email) a \$51,459 one-year contract with SRF Consulting to develop the research need statements.

**Kevin Western moved to increase INV 645B (Outreach Support Funding) budget to \$99,000. Paul Oehme seconded the motion. Motion passed unanimously.**

#### 4. FY19 Research Annual Program Funding Requests

##### INV 999 Project Administration

Debbie led the discussion for this. The FY18 funding was approved for \$154,000 and LRRB spent \$88,000. There is a balance of \$65,000. Debbie is requesting \$152,500 for FY19.

There was some discussion as to whether this amount was higher than normal. The costs include \$35,000 for updating and reprinting materials. The annual amount used to be closer to \$115,000.

Shannon noted that the \$35,000 in FY18 most likely will not be used and could be rolled to FY19.

**Paul Oehme moved to approved \$152,500 for INV 999 (Project Administration) for FY19. Kevin Western seconded. Motion passed unanimously.**

##### Program Contingency

While this was an item on the agenda, the Board felt it was unneeded. This can be requested and brought before the Board as needed. The board recommended eliminating the contingency of \$50,000; it is no longer needed based on the funding balance.

##### INV 675 Research Support

Linda led this discussion, with help from Hafiz Munir, Debbie, and Shannon as they covered their respective units' responsibilities related to LRRB program support.

MnDOT Research Services requested additional funding of \$60,000 for the remainder of FY18, increasing the amount from \$255,000 to \$315,000 based on RS Salary recap and projected costs. RS also sought feedback on how much would be appropriate to request for FY19.

The Board had many questions regarding this request, which included:

- Why is this nearly 25% in excess of what was requested last year?
- What about applying costs per project? A consultant would do that.
- Was there a discussion on how to cut costs in RS to administer the program?
- A block grant – the way this funding is currently granted from the LRRB to MnDOT RS – doesn't give an opportunity to measure level of service or set appropriate expectations. A line item budget might illuminate this more clearly and tie the level of funding more closely to level of service.
- Shouldn't overhead be broken out in this request?
- Has RS considered changing how many people are sent to various meetings?

Lyndon and Mitch R noted that LRRB Strategic Plan Update will be amended to address the RS support costs for the LRRB program. The LRRB wants the request to be made in such a way that it can be made comparable to a consultant budget.

Laurie pointed out that for better or for worse, LRRB processes are tied to MnDOT processes. She feels the Board should explore where this can be separated to better serve the needs to the LRRB.

Lyndon expressed that the time city and county engineers spend on the LRRB is a big undertaking, but is not covered by county state aid dollars.

Kevin made the valid point that the contract should include overhead costs. This needs to be a bigger discussion. Consultant costs are typically 60% higher with 1.6 multiplier to cover overhead and profit.

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After some discussion, Linda changed the request to an additional \$30,000 for FY18. Lyndon recommended the FY2019 request be made at the summer meeting.

***Mitch Rasmussen made a motion to approve an additional \$30,000 for INV675 (Research Support) for MnDOT Research Services for the remainder of FY2018. Paul Oehme seconded the motion. Motion passed unanimously.***

***Mitch Rasmussen made a second motion to ask RS to bring forward its FY2019 budget request with respect to projected Level of Service. Kaye seconded the motion.***

This led to a discussion.

- Mitch R expressed that the Board should not dictate how many people are at the meetings. That would be a decision for RS to make.
- Kevin asked that if the funding level were back at \$255,000 were FY19, what would get dropped? He would like RS to prioritize its services.
- Debbie noted that LRRB has been approving more projects lately; this leads to more time spent in project management. She noted that staff salaries have increased and this wasn't taken into account. The LRRB support hours had remained pretty consistent.

***Mitch Rasmussen's second motion regarding the RS funding request for FY2019 passed unanimously.***

**New Action 6: Mitch Rasmussen will work with Linda Taylor on the INV645 Research Support funding request for the LRRB Summer meeting.**

### INV 916 Technology Transfer (CTC) Update and funding request

Shannon Fiecke led the discussion. She is requesting \$100,000 for FY2019. Among other items, this funds the LRRB At-A-Glance, technical summaries, and other technical writing.

***Mitch Rasmussen moved to fund up to \$100,000 for INV 916 (Tech Transfer). Paul Oehme seconded the motion. The motion was approved unanimously.***

### TRS: Heavy Commercial Vehicle Oversize/Overweight Permit Fees

Polk County Engineer Rich Sanders made this proposal via teleconference. The MnDOT Freight & Commercial Vehicle Office has already approved a TRS to survey states. Rich would like to amend that TRS to include a survey of local agencies.

Rich was unsure of exactly how much funding he was requesting, but noted that the state survey has a budget of up to \$10,000. Rich says amount requested will depend on what comes through that survey. CTC will be sending the state survey out soon.

## 5. FY19 University of Minnesota Program Funding Requests

Mindy Carlson and Stephanie Malinoff from CTS and Tom Peters of MnDOT led the discussion.

Stephanie introduced herself to the Board; she is the new director of Minnesota LTAP. Both Mindy and Stephanie have been promoted since Jim Grothaus's departure.

### INV 668 LTAP/CTAP

CTS requested \$396,500 per year for two years, for a total of \$793,000 for FY19/20.

### INV 998 OPERA

CTS is requesting \$80,000 per year for two years, for a total of \$160,000 for FY19/20.

They showed a video on the [Otter Plow Cushion](#), which was funded via OPERA.

## 6. MnROAD Funding Request

### INV 676 MnROAD/MnROAD Technology Transfer

Glenn Engstrom presented during lunch. He is requesting \$500,000 annually for MnROAD plus \$70,000 annually for technical support for local agencies. This work is typically performed by Paul Nolan and others at the MnDOT Office of Materials and Road Research.

Glenn noted that the NRRRA has been able to establish new partnerships. He also pointed out that the MnROAD facility has been a huge draw in establishing these partnerships, and that the MnROAD facility would cost \$76 million to build today.

In the future, the lab would like an opportunity to do thermal profiling on cities and counties. Their thermal profiling truck informs the users of densities of each lift within minutes.

**New Action Item 7: Mitch Rasmussen will send out an invitation to local agencies to have the thermal profiling truck on one of their projects on Glenn Engstrom's behalf.**

Lyndon noted that a question he has is how to compare lifecycle of cold in-place recycling (CIR) and full depth reclamation (FDR) versus reconstruction.

## 7. Library Program Funding Request

### FY19/20 INV 745 Library Program Funding Request

Sheila Hatchell from the MnDOT Library made the presentation. She is requesting \$70,000 per year, for each of FY19 and FY20. This request is broken down between \$20,000 for materials and \$50,000 for staff support each year.

Sheila noted a change in process this year for LRRB, where the literature search will inform the Need Statement instead of vice versa.

Sheila also pointed out that the Library provides PE exam materials for MnDOT employees taking the test, but also to city and county engineers. The [Ask a Librarian](#) feature on the MnDOT Library web page is also useful and popular.

## 8. Research Implementation Committee

### RIC Update

Kaye led the discussion based on conversation at the March 12 RIC meeting. It was the first meeting for Stephanie Malinoff in place of Jim Grothaus. There was some discussion regarding the RIC budget, on which Mike Flaagan went into more detail later.

The project titled [Addressing Citizen Requests for Traffic Safety Concerns](#) is up for an award from the American Public Works Association.

Renae Kuehl from SRF discussed the new research idea generation process at prescreening board meetings.

April 28 is Civil Engineer Day at the Science Museum of Minnesota.

Steve Bot gave an update on the project titled "Is Seal Coating Counterproductive or Not?" The scope tasks will have minor changes. Progress is slow but sure on the project.

The RIC voted not to invite the North Dakota LTAP to the summer meeting. (This resolved December 2017 Action Item 1.)

ADA construction training will likely require an amendment, moving the timeline back.

There was a question regarding three projects. Are they all necessary? Are they redundant? Will they be obsolete with what auto manufacturers are already putting in their own vehicles? The projects are:

- INV 1004: Development and Demonstration of a Cost Effective In-Vehicle Lane Departure and Advanced Curve Speed Warning System

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- PI is Imran Hayee, University of Minnesota-Duluth
- INV 1005: In-vehicle Dynamic Curve Speed Warnings at High Risk Rural Curves
  - PI is Brian Davis, University of Minnesota
- INV 1051: Development and Demonstration of an In-Vehicle Lane Departure Warning System using DSRC Based V2V Communication
  - PI is Imran Hayee, University of Minnesota-Duluth

The Sawmill Inn, the location of last year's LRRB/RIC summer meeting in Grand Rapids, has since been condemned.

### INV 645B: Research Implementation Committee Ongoing Funding Request

Mike Flaagan led the discussion.

Mike pointed out that the annual budget for the Research Implementation Committee is \$200,000. The last time this budget was increased was for FY2004, from \$150,000. The RIC feels implementation is not a big enough piece of the puzzle to get great research of the LRRB in use for locals.

Lyndon recommended this be discussed further at the Summer 2018 joint meeting of the LRRB and RIC. Lyndon noted that CPCS, the consultant working on the LRRB Strategic Plan Update, will be invited to that meeting in Rochester. Board members said there is a good chance that the RIC will see its annual funding levels increase as part of the LRRB Strategic Plan Update. Kaye pointed out that the INV 645B – Research Implementation Committee never gets heard for funding increase as it is an ongoing process.

Mitch R said part of the LRRB Strategic Plan Update will be to update the orientation guide; Mike feels this is taking place at a fortuitous time, because the RIC has new members who are unsure of their roles.

Mike expressed frustration with how long the process can take to get ideas generated by the RIC funded. The RIC only has \$40,000 in discretionary money, which can lead to a huge backlog of great ideas.

Mitch R said that there were three implementation projects identified through prioritization process, these were approved. The Board felt this was appropriate because the ideas were generated through a rigorous process.

The final resolution of this discussion is that the funding level of the RIC will be reconsidered in the near future. Mike didn't make a specific funding request at this meeting, but the LRRB is amenable to increased funding level for RIC in future years.

## 9. Continued: Other funding requests and updates

While funding requests were made as described below, funding decisions were made later in the meeting.

### NPDES Stormwater Post-Construction Design Guidebook project update

Mike Flaagan made this request. Stantec was originally granted a contract for \$90,000; \$20,000 was spent, but the contractor stopped work on it due to the Principal Investigator leaving. There is a \$70,000 budget remaining, but the contract has expired.

Mike said this topic was #5 on the list of preferred research ideas for this year, and tied for 1<sup>st</sup> among county voters. Mike is requesting \$70,000 to finish the project.

The Board noted that at that remaining funds can be used to hire a consultant off the TRAP list to complete the project.

There was question as to whether Stantec could resume duties as the contractor, but Mike felt they already would have done so if they were interested in and capable of finishing it.

Mike said the project has a revised scope. Linda suggested that Kevin get a shortlist of recommended

contractors through the MnDOT Bridge Hydraulics section. Also, if a new contract exceeds \$70,000, the Board would vote on a budget increase via e-mail.

**New Action Item 8: RS will send Kevin Western a revised scope for the NPDES Stormwater Post-Construction Design Guidebook project.**

**New Action Item 9: Kevin Western will provide a shortlist of consultants from MnDOT Bridge Hydraulics section to the Technical Advisory Panel of the NPDES Stormwater Post-Construction Design Guidebook project.**

**Field Testing and Optimization of Soy-Based Dust Control Agent**

James Bahr from NDSU gave a presentation on this. He is requesting \$134,419 for a 20 month project. James originally brought this to the RIC, where it was discussed at its November 20 meeting. (His proposal was also discussed at the December 2017 LRRB meeting – see Action Item 6 from that meeting.)

After presenting, James was asked if there is a Minnesota soy bean council, and if he solicited funding from them. James said there is, and he did. His proposal made it to the final round last summer but was not selected. He felt it would increase his hand with them if he got partial funding from somewhere else, like the LRRB.

He was asked if this product is patented; James responded that it is.

**Pooled-fund Request: Unpaved Road: A Research Collaboration to Determine Crash Causation and Countermeasures**

Mark Vizecky from State Aid gave this presentation. He is requesting the LRRB contribute \$15k per year for 4 years, for a total of \$60,000, to represent State Aid. So far, the pooled fund project has received \$150,000 toward there \$600K obligation level. They will need to receive a total of \$600,000 to move this pooled fund project forward.

**Evaluating Effective AC Content in Cold In-Place Recycling Mixtures**

Wayne Stevens (Brown County) led the discussion. Dan Wegman from Braun Intertec joined via teleconference.

This research idea was discussed in detail at the October 2017 LRRB meeting. In summary, Wayne's experience is that it is always more viable to use a far lower asphalt content in the field than was called for in plans, due to constructability issues. If all of the oil called for in the plan were added, the pavement wouldn't stand up. Dan said that asphalt and recycled asphalt pavement (RAP) become an effective binder, and that it should show in their proposed research.

**INV 1030: Examining Optimal Sight Distances at Rural Intersections – FY Funding Shift**

Nichole Morris from the University of Minnesota, the Principal Investigator on this project, presented. This is a project that was funded at the December 2016 meeting.

The HumanFIRST Laboratory was awarded a grant to replace its old simulator, which was a 2002 Saturn. The replacement simulator was scheduled for installation in November 2017. Unfortunately, several problems have arisen with the installation of the new simulator, and it is not yet complete. This is pushing the research project timeline back.

Using the old simulator on this project would have been problematic. If HumanFIRST had waited to replace its old simulator, the funding for the new simulator would have been lost. Also, better data will result from the new simulator, as it is more modern, and the old simulator was in need of maintenance.

Nichole's request was for a contract extension of 6 months, with no extra funding.

Nichole also requested county engineer volunteers to validate sight distances as part of this project.

INV 1043: Evaluating the Impact of Local Expenditures on State and Regional Transportation Facilities

Jerry Zhao from the University of Minnesota is the Principal Investigator on this project. He presented from Toronto, where he was attending a conference. This is a project that was funded at the December 2017 meeting and has yet to begin.

The additional funding amount was suggested by the TAP. PI assumed local agency data was more readily available than it is. Jerry will need to survey local agencies and create case studies; this will result in an extra cost.

Jerry Zhao from the University of Minnesota proposed extending the project timeline 3 months and increasing the budget by \$18,984.

## 10. Project Update: Knowledge Retention Pilot Project

Scott Taylor and Dan Sprague from South Central College presented this. They were the PIs on the original project. (Their presentation was the resolution of December 2017 Action Item 4.)

Scott and Dan discussed a new field of knowledge management. The approach they use is titled MASK: a Method for Analyzing and Structuring Knowledge. MASK was developed in 1993 by the French Atomic Agency. The goal is not simply to just share knowledge for successors to certain positions; the question is, can this knowledge be shared department- or industry-wide?

Mike Leegard from the MnDOT Office of Construction and Innovative Contracting was at TRB, where he heard a presentation from a knowledge management executive at Kraft named Jean-Louis Tendron, and thought it was a great idea. MASK was the method in which Tendron transferred knowledge with the nuclear power industry, then for military for nuclear bombs. (Tendron has worked for other large organizations as well: Goodyear, Montreal Hydro, and ultimately Kraft.)

Mike Leegard is hopeful that this approach will encourage an open culture where sharing of ideas is encouraged.

This is still an active project, funded 100% by MnDOT. The following four subject matter experts have been or will be interviewed (all are MnDOT employees):

- Gordy Bruhn, Concrete Pavement Repair
- Dave Linell, Bituminous Paving
- Todd Niemann, Structural Steel Fabrication
- Jessica Mennenga, Construction Documentation

**New Action Item 10: RS will obtain Jean-Louis Tendron's contact information for Mitch Rasmussen.**

## 11. LRRB Strategic Plan Update discussion

Lyndon led the discussion. Lyndon said he's impressed with the work the consultant, CPCS, has done so far on the project. However, the TAP has determined that more tasks and time will be needed on the contract. CPCS and MnDOT RS are working together on an amendment. Vivek Sakhrani from CPCS will attend the joint summer LRRB/RIC meeting to help complete this project.

Lyndon sees three big picture items to examine:

- 1) Governance of the LRRB and RIC
- 2) Cost accounting to Research Services
- 3) How do the meetings work?
  - What will the meeting frequency and structure look like in the future?
  - It's importance that LRRB and RIC schedules of meetings are compatible.

Two tasks are being reviewed by the project TAP.

## 12. Review Trip Reports / New Form Feedback

Mitch R led the discussion. The Board didn't explicitly review the trip reports included in the binder. Mitch R solicited feedback on the review process for Trip Reports.

Mitch R proposed having a subcommittee review these. The subcommittee would determine Action Items from each trip report, what to do with each Action Item, and would report at each LRRB meeting.

Laurie wondered that, relative to how many ideas have come forward from a trip report, would it be worth a subcommittee's time to do this?

Trip Reports are required. Mitch R feels this requirement should remain, to ensure the expense of the trips is worthwhile.

The Board noted that LRRB travel is not only for idea generation; it is also for knowledge transfer. Nonetheless, if someone who utilizes an LRRB trip has a good idea, it would be good both to initiate a Need Statement from that idea, and also track where this idea came from.

The Board felt that ideas generated should be incorporated into the new "focus group" / Need Statement process.

## 13. Funding Decisions

### INV 645B: Outreach Support Funding Request

\$99,000 was approved for INV 645B – see minutes above on page 6.

### INV 999 Project Administration

\$152,000 was approved for INV 999 – see minutes above on page 7.

### Program Contingency

This was deemed unneeded at this time and not pursued.

### INV 675 Research Support

An additional \$30,000 was approved for INV 675 for FY18. RS will request FY19 funding at the summer meeting. See minutes above on page 7.

### INV 916 Technology Transfer (CTC) Update

\$100,000 was approved for INV 916 – see minutes above on page 8.

### TRS: Heavy Commercial Vehicle Oversize/Overweight Permit Fees

While Rich Sanders from Polk County didn't make an official request, Linda estimated that the revised TRS scope would cost no more than \$10,000 based on information he provided.

***Kevin Western moved to fund a Transportation Research Synthesis on Heavy Commercial Vehicle Oversize/Overweight Permit Fees for up to \$10,000. Mitch Rasmussen seconded the motion. Motion passed unanimously.***

### INV 668 LTAP/CTAP

CTS requested \$396,500 per year for two years, for a total of \$793,000.

***Mitch Rasmussen moved to fund INV 676 (LTAP/CTAP) at the requested level of \$396,500 per year for FY19/20, for a total of \$793,000. Paul Oehme seconded the motion. The motion passed, with Laurie McGinnis abstaining.***

### INV 998 OPERA

CTS requested \$80,000 per year for two years, for a total of \$160,000.

***Kaye Bieniek moved to fund INV 998 (OPERA) at the requested level of \$80,000 per year for FY19/20, for a total of \$160,000. Paul Oehme seconded the motion. The motion passed, with Laurie McGinnis abstaining.***

INV 676 MnROAD/MnROAD Technology Transfer

Glenn Engstrom requested \$570,000 per year for two years.

***Mitch Rasmussen moved to fund INV 676 at the requested level of \$570,000 per year for FY19/20, for a total of \$1.4 million. Paul Oehme seconded the motion. Motion passed unanimously.***

FY19/20 INV 745 Library Program Funding Request

Sheila Hatchell from the MnDOT Library requested \$70,000 per year for two years, for a total of \$140,000.

The Board discussed that the funding amount requested hasn't increased lately, and suggested that it could be increased in the future if necessary. The Board raved about the library's positive customer service and the value of its research. Linda noted that library provides demographic data as well.

***Laurie McGinnis moved to fund INV 745 (MnDOT Library), at the requested level of \$70,000 per year for FY19/20, for a total of \$140,000. Paul Oehme seconded the motion. Motion passed unanimously.***

**New Action Item 11: Mitch Rasmussen will add discussion of the MnDOT Library to his prescreening board talking points.**

INV 645B: Research Implementation Committee Ongoing Funding Request

This contained no specific funding request and was just a discussion of the current RIC funding level. No action was taken by the Board.

\$150,000 was approved to fund for three implementation projects:

- Field Guide for maintenance supervisors for best practices maintenance techniques for trails,
- Turf Management Guide for local agencies, and
- Pavement maintenance surface treatments guidance

See minutes above on page 6 for more details.

NPDES Stormwater Post-Construction Design Guidebook project update

There remains \$70,000 in funding encumbered for this project. If additional funds are needed, a request can be made via email vote from the Board.

**New Action Item 12: RS will give Mike Flaagan notification to recommence the NPDES Stormwater Post-Construction Design Guidebook project.**

Field Testing and Optimization of Soy-Based Dust Control Agent

James Bahr from NDSU made an off-cycle funding request for this project. He is requesting \$134,419 over 20 months.

The Board expressed the following concerns regarding this proposal:

- No other funding has been solicited.
- His capacity to create this soy-based dust control agent appears small, especially relative to the proposed amount of funding.
- There are questions regarding patenting, and if the Board would be providing research and development funding for a product that ends up being proprietary.
- While this product had support from an RIC member, it was not championed by an LRRB member.

After discussion, the Board voted to deny the funding request, and recommended that James Bahr be advised to submit this idea into IdeaScale.

**New Action Item 13: RS will inform James Bahr that his request for funding was denied, and that the Board recommends he submit his idea to IdeaScale as part of the FY19 RFP.**

**Pooled-fund Request: Unpaved Road: A Research Collaboration to Determine Crash Causation and Countermeasures**

Mark Vizecky from State Aid is requesting the LRRB contribute \$15k per year for 4 years, for a total of \$60,000, to represent Minnesota in this study.

***Laurie McGinnis moved to approve \$60,000 in funding for a pooled-fund request titled Unpaved Road: A Research Collaboration to Determine Crash Causation and Countermeasures. Mitch Rasmussen seconded the motion. Motion passed unanimously.***

**Evaluating Effective AC Content in Cold In-Place Recycling Mixtures**

This is an off-cycle funding request for \$35,000. Tim Stahl was the LRRB member who shepherded this request from Wayne Stevens of Brown County.

The Board felt this was a modest amount of money for a good idea, and was encouraged that Brown County has some of its own money in the project.

***Mitch Rasmussen moved to fund \$35,000 for the project titled Evaluating Effective AC Content in Cold In-Place Recycling Mixtures. Paul Oehme seconded the motion. Motion passed unanimously.***

**INV 1030: Examining Optimal Sight Distances at Rural Intersections – FY Funding Shift**

This request involved no additional funding; it was requested contract extension of merely a shift of funding into future fiscal years. The timeline of this project is pushed back 6 months.

***Mitch Rasmussen moved to grant a six-month extension to INV 1030 (Examining Optimal Sight Distances at Rural Intersections). Kevin Western seconded the motion. Motioned passed unanimously.***

**INV 1043: Evaluating the Impact of Local Expenditures on State and Regional Transportation Facilities**

Jerry Zhao from the University of Minnesota proposed extending the project timeline 3 months and increasing the budget by \$18,984. The Board was supportive of it.

***Mitch Rasmussen moved to add \$18,984 in funding and three months to INV 1043 (Evaluating the Impact of Local Expenditures on State and Regional Transportation Facilities). Kevin Western seconded the motion. Motioned passed unanimously.***

#### 14. Round Robin

**Mitch Bartelt** asked whether the Technical Advisory Panel for the LRRB Strategic Plan Update should meet in Rochester after the Summer LRRB/RIC meeting ends on 6/21. Lyndon said this could be discussed just among the project TAP offline.

Every other meeting attendee passed due to time constraints.

***Linda Taylor moved to adjourn the meeting; Kevin Western seconded the motion. The motion to adjourn passed by unanimous vote.***

## Summary of Action Items

### Action Items from this LRRB Meeting:

**Action Item 1:** Kaye Bieniek will determine an event for the attendees on the first night of the summer LRRB/RIC meeting.

**Action Item 2:** Shannon Fiecke will determine a location for the Outreach Committee meeting on Tuesday, June 19.

**Action Item 3:** Kaye Bieniek will announce changes to conference registration for Local Road Research Board-sponsored travel to the Research Implementation Committee.

**Action Item 4:** Paul Oehme will work with MnDOT RS Finance to attend the World Congress on Intelligent Transport Systems in Copenhagen, Denmark from September 17-21, 2018.

**New Action 5:** Mitch Rasmussen and Laurie McGinnis will discuss moving the Need Statement development process back to CTS for next year.

**New Action 6:** Mitch Rasmussen will work with Linda Taylor on the INV645 Research Support funding request for the LRRB Summer meeting.

**Action Item 7:** Mitch Rasmussen will send out an invitation to local agencies to have the thermal profiling truck on one of their projects on Glenn Engstrom's behalf.

**Action Item 8:** RS will send Kevin Western a revised scope for the NPDES Stormwater Post-Construction Design Guidebook project.

**Action Item 9:** Kevin Western will provide a shortlist of consultants from MnDOT Bridge Hydraulics section to the Technical Advisory Panel of the NPDES Stormwater Post-Construction Design Guidebook project.

**Action Item 10:** RS will obtain Jean-Louis Tendron's contact information for Mitch Rasmussen.

**Action Item 11:** Mitch Rasmussen will add discussion of the MnDOT Library to his prescreening board talking points.

**Action Item 12:** RS will give Mike Flaagan notification to recommence the NPDES Stormwater Post-Construction Design Guidebook project.

**Action Item 13:** RS will inform James Bahr that his request for funding was denied, and that the Board recommends he submit his idea to IdeaScale as part of the FY19 RFP.

### Unresolved Action Items from prior meetings:

**December 2017 Action Item 8:** RS and Jim Foldesi will collaborate on a possible solution to get the winter maintenance materials accessible to local agencies and report back to the Board.