1. **Call to Order (Mike Flaagan - Chair)**

The committee meeting was called to order by the Chair, Mike Flaagan, at 9:40 AM. Mike welcomed everyone and attendees introduced themselves.

The agenda was reviewed and approved (motion by Klayton Eckles, seconded by Steve Bot)

There were no additions to the agenda.

**Review of RIC Meeting Minutes from November 23, 2015**

*A motion to approve the November 23, 2015 RIC meeting minutes was made by Steve Bot and seconded by Tim Stahl. Motion approved.*

2. **Budget and Meetings**

**Dates for 2016 RIC quarterly meetings**

- June 22-23, 2016 – Joint meeting with LRRB: Holiday Inn, Duluth, MN
- September 12, 2016 (Monday) at MnDOT D3 Training Center in St. Cloud
- December 6, 2016 – Location TBD (St. Cloud or Arden Hills)

**RIC Budget**

There is $23,195 remaining in the RIC budget for FY 2016, ending June 30, 2016. Any unused budget will roll forward to the next fiscal year.

**Conferences, Travel Arrangements and Reimbursement**

A list of conferences for 2016 was included in the meeting materials, with which ones are open to RIC members, LRRB members or MnDOT staff.

Travel reimbursement is done via an expense report through MnDOT Research Services office; Lori Sobczak is the contact person for LRRB and RIC members. LRRB and RIC members can
submit copies of receipts with the expense report but should hang on to any original receipts until they get reimbursed.

All current travel and reimbursement forms are on the LRRB web site in the ‘members only’ section:
Go to the LRRB web site www.lrrb.org
On the blue navigation bar, on the far right, is ‘MEMBER LOGIN’
Type the following (case sensitive):
User name: LRRBmember
Password: citycounty2012

Any air travel will be booked through the MnDOT Aeronautics office (they will usually accommodate your preferred travel dates and times if you tell them), and the contacts there are Sheila Kvilbang or Linda Conner (call the Office of Aeronautics, Aircraft Dispatcher at (651) 234-7222). If you choose to drive, the mileage reimbursement cannot exceed airfare for that destination.

A “trip report” listing what was implementable or otherwise valuable about the conference must be written up for any out-of-state travel and submitted to Mitch Rasmussen’s office (his assistant is Nancy Stone).

In general, if an RIC member is interested in going to a conference but the list does not indicate it is an RIC-eligible conference, they should make their interest known to Mike Flaagan and Mitch Rasmussen and in many cases LRRB will approve it. However, there is a policy that international travel is approved only for LRRB members. It is possible to add more conferences to the list if there is a need, or to get one-time approval for a conference.

**RFPs for Research Program Universities and Consultants**

MnDOT Research Services is in the process of renewing the list of research universities with master contracts and the list of consultants certified to assist with research, implementation and outreach activities. RIC members requested additional information about universities, consultants and acronyms. RIC members also requested examples of how to properly complete trip reports and expense reports.

**Action item:** Agenda item for the next RIC meeting will be to present an update on RIC travel and reimbursement procedures, as well as “Contracts & Finance 101” for the benefit of new members and as a refresher for continuing members.

**Action item:** Becky Lein will send out more information about the universities, consultants and acronyms.

**Action item:** Lori Sobczak will send out an example of a good expense report.

**Action item:** Hafiz Munir will send out an example of a good Trip Report.

Several conferences were highlighted for RIC consideration:

- NRRA pooled fund meetings will be held in conjunction with the NCAT conference, NRRA will be on the days before and after NCAT; NCAT is May 25-26, 2016.
- National LTAP meeting – July 2016 in Madison, Wisconsin: This is open to all RIC members.
- Mid-Continent Transportation Research Symposium – October 2016 in Madison, WI
- Several conferences in Fall 2016 (more information will be provided at the June LRRB/RIC meeting): TZD conference, Northwest Pavement Management Association, Minnesota ITS Conference

**3. RFP for RIC Consultant Support Contract (FY 2017-19)**
The request for proposals for a consultant to perform RIC support activities closed on February 29, 2016. Two proposals were received, and a proposal selection panel will meet March 25 to make a decision in accordance with MnDOT “best value” selection procedures. The selection panel includes Mitch Rasmussen, Tim Stahl, Mike Flaagan, John Brunkhorst, Guy Kohlnhofer, Klayton Eckles and Bruce Holdhusen.

The timeline leading up to the proposals:
August, 2015 – list of completed research projects and topics was created
September 1 – Research Services and State Aid met to make a final list for RIC consideration
September 14 (RIC Fall Meeting) – The list was provided to RIC for discussion at the fall quarterly meeting
October 29 – RIC “special session” meeting to select topics for the consultant tasks in the RFP
November 23 (RIC Winter Meeting) – RIC commented on draft task descriptions
February 8, 2016 – 5 consultants were pre-notified and the RFP was posted by MnDOT
February 29 – RFP closed and two proposals were received (SRF and Stonebrooke)
March 25 – Selection panel meeting facilitated by MnDOT Consultant Services
(Staff note: SRF was the successful proposer on the RFP)
April – Finalize work plan with selected consultant
July 1 – New contract in place

4. RIC Support Contract Updates – Current Tasks

Renae Kuehl and Mike Marti from SRF provided an update of recent work on tasks in the RIC support contract, currently in FY 2016:

Project Management

- Contract amendment #5 – Fully executed 2/9/2016 regarding scope and budgets for Tasks 9 &13
- Task 16 – “Future Tasks” has $6,401.02 that is currently not assigned to a project
- Submitted invoice #56 for work in the month of February on contract #98383 in the amount of $22,400.56, total amount invoiced to date $893,560.23, 90.3% complete.

Task 7 - Impacts of Heavy Loads – Effects of Implements of Husbandry (IOH) (Chair: Tim Stahl)

- RIC products: White paper and Brochure
- Audience: City and County Engineers
- Goal: To educate local agencies on the impacts heavy farm equipment has on local roads
- Project Update:
  o Developed weight-by-year graphic (1965, 1990, 2015) to illustrate how much heavier these types of farm equipment have become over time
  o Developed a graphic illustrating the various weight laws for MN and surrounding states.
  o February 10, 2016 – Met with TAP

Task 8 - RAP Asphalt Mixtures on MN County Roads (Chair: Mike Flaagan)

- RIC products: Best Practices Guidebook
- Audience: City and County Engineers
- Goal: Provide general information about Recycled Asphalt Pavement (RAP) and stockpile management
- Project Update:
  o Developed a draft fact sheet
  o February 3, 2016 – Met with TAP to review draft fact sheet
Mike Flaagan commented that we should make sure the discussion is driven by the local perspective, not MnDOT or MAPA.

**Action item:** Mike Marti said he would follow up by email with the local agency TAP members for Task 8 (RAP Asphalt Mixtures on MN County Roads) to make sure he understands their input for the task deliverables.

**Task 9 - Temporary Traffic Control for Low Volume Roads (Chair: Jim Grothaus)**

- **RIC products:**
  - Two supplemental guides to the MnMUTCD Temporary Traffic Control Zone Layouts Field Manual 2014 for traffic control work zone layouts on low-ADT roads and streets
  - A letter to MUTCD committee regarding needs for low volume work zones
  - Training materials for Kathy Schaefer (large scale photos for trainees to set up mini-work zones in classroom)
- **Audience:** Maintenance Supervisors and Staff
- **Goal:** To guide local agency maintenance staff on how to select the appropriate work zone layout based on the maintenance activity they are performing.
- **Project Update:**
  - Preparing documents for MnDOT Research Services to post final documents on the LRRB website, pending RIC approval.
  - Presented the maintenance matrices at the MN city and county annual meetings. Tools were well received – have received emails from attendees requesting access once finalized.
- **ACTION:** Requesting final approval of the deliverables from the RIC board

*Motion by Ted Schoenecker, seconded by Guy Kohlnhofer, to approve the final deliverables for RIC Task 9, Temporary Traffic Control for Low Volume Roads. The motion was approved.*

**Action item:** MnDOT Research Services will post the final deliverables for RIC Task 9 (two supplements to the MnMUTCD Temporary Traffic Control Zone Layouts Field Manual 2014, for traffic control work zone layouts on low-ADT roads and streets).

**Task 10 - Implementation of ITS Technology for Side-Street Stop-Controlled Intersections for Local Agencies (Chair: Ted Schoenecker)**

- **RIC products:** Guidebook and Quick Reference Guide
- **Audience:** City and County Engineers
- **Goal:** Provides local agencies basic information about the use, benefits, limitations and costs of installing LED stop signs and Intersection Conflict Warning Systems (ICWS).
- **Project Update:**
  - Sent the anticipated final versions of the guidebook and graphic quick reference document to the TAP for final review. Waiting for final comments.

**Task 11 - De-Icing and Anti-Icing Performance and Cost Effectiveness (Chair: John Brunkhorst)**

- **RIC product:** Guidebook
- **Audience:** City and County Engineers
- **Goal:** Provides local agencies with basic information about the use and effectiveness of various de-icing and anti-icing products from recent research
- **Project Update:**
  - February 17, 2016 – Met with TAP to review and revise the project scope.
Based on TAP discussions, it was determined that the project should leverage the already completed winter maintenance best practice the Minnesota Snow and Ice Control – Field Handbook for Snowplow Operators.

- TAP members identified a need for a Deicing and Anti-icing Guidebook which will educate local agencies on the basics.
- Sent the outline to the TAP to review and approve.
- Working on developing survey questions to be sent to local agencies.

**Motion by Ted Schoenecker, seconded by Guy Kohlnhofer, to amend the RIC Consultant Support Contract with SRF by zeroing out the budget for Task 16 (Future Task) and adding those funds in the amount of approximately $6,400.00 to Task 11 (De-Icing and Anti-Icing Performance and Cost Effectiveness). The motion was approved.**

**Action item:** SRF and MnDOT Research Services will execute a contract amendment to zero out the remaining budget for Task 16 (Future Task) and increase the budget for RIC Task 11 (De-Icing and Anti-Icing Performance and Cost Effectiveness) by that amount, approximately $6,400.00.

**Task 12 – Signing and Lane Markings of Roundabouts (Chair: Klayton Eckles)**

- RIC product: Brochure
- Audience: City and County Engineers
- Goal: TBD
- Project Update:
  - TAP meeting scheduled for early April

**Task 13 – Guidelines for Flashing Yellow Arrows for Protected / Permissive Use (Chair: Steve Bot)**

- RIC products: Training Course and Instructional Video
- Audience: City and County Traffic Engineers
- Goal: To educate traffic engineers on the use of a spreadsheet tool designed to assist in determining the appropriate time of day to use flashing yellow arrows
- Project Update:
  - The instructional video is in production, will be completed in May.

**Task 15 – Outreach**

- RIC products: Web articles, newsletters, national articles, conference presentations, conference exhibits
- Audience: City and County Engineers
- Goal: Develop informational products for publication and outreach purposes, maximizing communications surrounding the LRRB program
- Project Update: (Work completed since the November RIC meeting)
  - Web articles
    - Dec - YouTube videos
  - Conference Presentations:
    - Annual TRB Conference Presentation; Washington DC - Effective, Practical Methods for Technology Transfer
  - City Engineers Annual Conference (CEAM)
    - Younger Drivers Toolkit
    - Major Equipment/Life Cycle
    - Lighting levels at isolated intersections
    - FYA training
    - YouTube Videos
  - County Engineers Annual Conference (MCEA)
    - Timber Bridge Inspection
5. Project Updates


Ed Johnson from the MnDOT Office of Materials and Road Research is conducting the field evaluation and Mihai Marasteanu at University of Minnesota is conducting the lab evaluation to compare fog seal products that are based on non-petroleum materials. There are six test sections in the field on road shoulder that are being tested over time for friction and other performance outcomes. The lab report will be published this summer, and the field testing runs until 2018.

INV 988: Alternatives to Seal Coats TRS – Dan Wegman, Braun Intertec

This was a research idea that was funded for a transportation research synthesis (TRS) instead of a research proposal at the LRRB/RIC joint meeting in June, 2015, and could be the basis for a future RIC task. The TRS documented the existing research regarding alternatives to chip seals. Some of the alternative pavement preservation methods include fog seals (asphalt emulsion, rejuvenator and bio-seal) mastic fog seal with grout added, slurry seal with aggregate (1/8”, 1/4” or 3/8” aggregate), and microsurfacing. It was published in January: [http://www.dot.state.mn.us/research/TRS/2016/TRS1602.pdf](http://www.dot.state.mn.us/research/TRS/2016/TRS1602.pdf)

INV 987: Optimizing Cold In-Place Recycling (CIR) Applications through Fracture Energy Performance Testing – Dan Wegman, Braun Intertec

This project developed a semi-circular bending (SCB) fracture energy test to evaluate low-temperature cracking performance of CIR mixes. CIR mix designs will be adjusted to prevent low-temperature cracking of the CIR base under new HMA surface. The report is in publication review process. A goal is to have a CIR specification available before the 2017 construction season.


A survey of agencies found 89% were using recycled aggregate, typically using it like regular aggregate in their thickness design. Most see no difference in performance, although 25% have seen some performance issues. The TRS is scheduled to be published this summer.

INV 975: Prevention of Stripping under Chip Seals – Dave Rettner, AET, Inc.

Stripping of HMA under chip seals is an issue for 60% of city engineers surveyed through CEAM. The project conducted field tests and inspections of in-place pavements, and lab tests on cored samples. HMA mix design data and chip seal emulsion formulation data were not available, so it was difficult to draw conclusions about the causes of stripping in terms of materials. A report will be published in the fall.

Traffic Sign Retro-Reflectivity Training Workshops – Jim Grothaus, LTAP

The curriculum and schedule for the LTAP traffic sign retro-reflectivity classes has been set. Pilot training classes will be held in late March, with a total of 16 training sessions scheduled through May at locations in MnDOT Districts 1, 2, 3, 4, Metro, 6, 7 and 8. The class size is limited to 10 and there is no cost to participants.
6. LTAP/OPERA Update
   This was not covered due to time constraint.

7. Round Robin
   Ben Worel discussed the new National Road Research Alliance (NRRA) will have teams covering different topic areas, including a Tech Transfer group that will be looking for participation from RIC and LTAP.

   Action item: Add an item on the agenda for the June, 2016 LRRB/RIC summer meeting to discuss NRRA teams and opportunities for RIC members to participate on those teams.

8. Adjournment
   The Committee was adjourned by Chair Mike Flaagan at 3:10 PM.

   Next RIC Quarterly Meeting: Joint meeting with LRRB in Duluth, June 22-23, 2016. Please watch for email in March on the subject of LRRB/RIC Summer Meeting from Debbie Sinclair.