

MEMORANDUM

To: RRC Members  
Debbie Alke, Administrator/Aeronautics Division  
Mike Bousliman, Administrator/Information Services Division  
Jeffery M. Ebert, P.E./District Administrator-Butte  
Larry Flynn, Administrator/Administration Division  
Dwane Kailey, Administrator/Highways and Engineering Division  
Tim Reardon, Director  
Bob Seliskar/FHWA  
Jerry Stephens, P.E./WTI MSU  
Jon Swartz, Administrator/Maintenance Division  
Duane Williams, Administrator/Motor Carrier Services Division  
Lynn Zanto, Administrator/Rail, Transit, and Planning Division

From: Susan C. Sillick, Manager  
Research Programs

Date: June 1, 2012

Subject: 5/30/2012 RRC Meeting Notes

**Action items are bolded and underlined.**

**RRC Members Present:** Debbie Alke, Mike Bousliman, Jeff Ebert, Sue Sillick, Jerry Stephens, Jon Swartz, and Lynn Zanto.

**Others Present:** Kent Barnes, Katy Callon, Kris Christensen, Steve Jenkins, Doug McBroom, Shane Mintz, Roy Peterson, Priscilla Sinclair, and Ed Toavs.

**1. 2012 Solicitation**

<b>SUBJECT AREA</b>	<b>PROB NO.</b>	<b>PROBLEM TITLE</b>	<b>CHAMPION</b>
Planning	12-003	Assessing the Effectiveness of Montana's Occupant Protection Programs	Priscilla Sinclair
Engineering	12-009	Evaluating Transition Zones as Two and Four-Lane Rural Highways Enter Communities	Roy Peterson
Engineering	12-010	Investigation of Prefabricated Steel Truss/Bridge Deck Systems	Kent Barnes
Planning	12-022	Port Planning and Needs Study for Two Northern Montana Corridors (PPNS)	Doug McBroom
Engineering	12-023	Informational/Educational Campaign for Roundabouts	Roy Peterson

Sue explained Research Office staff solicits for research ideas annually, with topic statements being due on 4/30 of each year. This year, 23 topic statements were received. Of these 23, MDT staff were willing to champion and sponsor five. Champions for each of these five topic statements attended the RRC meeting to present their research topics.

Sue also explained the RRC and District Administrators would vote whether to move each topic forward to a technical panel for further, more in-depth consideration. At this point funding is not being approved.

**The RRC and District Administrators should submit names for technical panel members for each of these projects to Sue no later than 6/12/12.**

### **12-003: Assessing the Effectiveness of Montana's Occupant Protection Programs**

As champion, Priscilla Sinclair was present to discuss this research topic. A Special Management Review by NHTSA resulted in a suite of recommendations focused on improving Montana seatbelt usage rates. In addition, Tim Reardon requested a review of the effectiveness of the Highway Traffic Safety programs. Given this, Priscilla would like to begin with a review of the effectiveness of the Highway Traffic Safety occupant protection programs. Several collaborative occupant protection efforts are ongoing providing public information, education, and enforcement activities with the goal of increasing seatbelt use. These efforts include Buckle-Up Montana coalitions, Respect the Cage Program, Selective Traffic Enforcement Program (STEP), earned and paid media efforts, Safe On All Roads (SOAR), OPI's driver education program, Montana child safety seat inspection stations, seatbelt emphasis area of Montana's *Comprehensive Highway Safety Plan*, and a one-stop website ([www.buckleup.mt.gov](http://www.buckleup.mt.gov)).

The effectiveness of these efforts will be evaluated with this proposed research project by identifying program strengths, problem areas, and recommended improvements. This will be accomplished through a literature review, development of best practices for assessing occupant protection programs, and assessing Montana's occupant protection programs.

Mike asked about the financial benefits of a primary seatbelt law, rather than the current secondary law. He indicated perhaps if we were able to show these benefits, it would be easier to convince the legislature to approve a primary seatbelt law. Mike also asked if the research would include information on successful occupant protection efforts in other states. Priscilla responded it would and though not specifically addressed in the topic statement, this will be a part of the literature review.

Lynn made a motion to move this research topic forward to a technical panel for further consideration. Mike seconded the motion. All present voted in favor of the motion; the motion passed. **Research staff will work with Priscilla to establish a technical panel to further consider this research topic.**

### **12-009: Evaluating Transition Zones as Two and Four-Lane Rural Highways Enter Communities**

As champion, Roy Peterson attended to present this research topic to evaluate the impact of safety improvements in transition zones along US 93 South in the Bitterroot Valley, a high speed highway that bisects a number of communities. The proposed research would examine treatments to determine what motivates drivers to reduce their speed and increase attentiveness as they enter communities. Proposed tasks would include a literature review, identification and documentation of study sites, and data collection and analysis.

Mike asked whether the results would be applicable to other areas in Montana. Roy responded that they would.

Lynn clarified this research does not involve the deployment of speed reducing measures. Roy confirmed this is the case.

Jeff emphasized we should not duplicate efforts with the ongoing undergraduate research effort at MSU. This was confirmed; the technical panel will consider the ongoing research when scoping the project.

Jon wanted to confirm this project would review successful practices in other states. Again, although not specifically stated, the literature review would include information on the best practices of other states.

Jeff made a motion to move this research topic forward to a technical panel for further consideration. Jon seconded the motion. All present voted in favor of the motion; the motion passed. **Research staff will work with Roy to establish a technical panel to further consider this research topic.**

### **12-010: Investigation of Prefabricated Steel Truss/Bridge Deck Systems**

As champion, Kent Barnes attended to present this research topic. The objective of this proposed research is to investigate and develop, as appropriate, a prefabricated steel/truss deck system as an alternative to other accelerated bridge construction systems. This project would begin with a review of the state of the practice in prefabricated steel bridge systems, including fatigue issues in steel truss elements. If warranted, a phase 2 would involve proof-of-concept testing.

Mike made a motion to move this research topic forward to a technical panel for further consideration. Lynn seconded the motion. All present voted in favor of the motion; the motion passed. **Research staff will work with Kent to establish a technical panel to further consider this research topic.**

### **12-022: Port Planning and Needs Study for Two Northern Montana Corridors (PPNS)**

The distance between US-Canadian commercial port services between Sweetgrass and Raymond (about 360 miles) suggests the potential for expanded freight transportation services in north-

central Montana. MDT's 2010 research report, *Impacts of Increased Canadian Economic Development on Northern Montana Highways (ICED)*, recommended more detailed planning about: "expanded port operations between Sweetgrass and Raymond – this would include one-to-two ports of entry with 18 to 24-hour operations to facilitate regional connectivity and economic opportunities ... coordinated with improved connecting highway corridors (p. 174)." This research would implement this recommendation.

This study will focus on Montana highway corridors associated with the US ports of Wild Horse and Morgan. It will assess future freight needs by identifying economic growth and change in industries related to wind development, oil, gas, pipeline construction, agriculture, and other freight-reliant growth industries in the region, as well as through-going freight. It will consider significant freight-related investments by other public and private bodies. This analysis will consider benefits and costs of MDT highway improvements in view of the information, and it will communicate recommendations to within MDT and to other leaders.

Jon asked if 24 hour operation is currently being considered for these ports and, if not, if the data would still be good if it is considered in the future. The short answer to whether 24 hour operation is currently being considered is no; however, there is a resolution to do so and there is a push by the public to do so. Doug indicated a forecasting tool can be added to the research to help us identify the needs in the future.

Jeff indicated when the Port of Morgan expanded operations, the roadway was also changed from a secondary to National Highway System classification, without the traffic levels supporting this change. He questioned if the same change would be made if these ports expanded operations to 24 hours. Both Lynn and Doug indicated the purpose of this research is determine if there is a need for 24 hour operations, not to change the highway classification.

Mike asked why these two ports. The response was these two ports were recommended in the previous research and the distances between ports make sense.

Jeff made a motion to move this research topic forward to a technical panel for further consideration. Lynn seconded the motion. All present voted in favor of the motion; the motion passed. **Research staff will work with Doug to establish a technical panel to further consider this research topic.**

### **12-023: Informational/Educational Campaign for Roundabouts**

As champion, Roy Peterson attended to present this research topic. Roundabouts have been shown to be the safer alternative for traffic control for at-grade intersections and are listed on FHWA's current list of nine proven safety countermeasures. In the past year, the roundabouts MDT has proposed have been opposed quite strongly by the general public. MDT needs an effective strategy to promote this intersection control to educate the public on the proven safety benefits roundabout offer. The proposed research would be to find the most effective and efficient way MDT can educate and promote roundabouts for use in MDT's public meetings and/or other public settings, and would include reviewing the successful campaigns of other states

Jeff indicated he's seen public opposition to roundabouts before construction, but widespread support after construction. He said this research is spot-on.

Jon suggested this might be approached through the Public Information office rather than Research. Mike questioned this as a research topic and suggested hiring a marketing expert to develop the information and educational material. Sue suggested if a motion was put forward, it could include the panel making the determination as to the best method to approach this issue.

Mike made a motion as Sue described above to move this research topic forward to a technical panel for further consideration. Jon seconded the motion. All present voted in favor of the motion; the motion passed. **Research staff will work with Roy to establish a technical panel to further consider this research topic.**

2. **Budget Report:** Attached

No discussion

3. **Research Projects – current listing:** Attached

a. **Design and Analysis Procedures for Asphalt Mixtures Containing High RAP Contents and/or RAS Pooled-Fund Study**

Funding for this pooled-fund study was approved during the March 2012 RRC meeting. Since then, Matt Strizich, as per RRC request, further investigated the potential benefits to MT. He has decided to forgo funding for this pooled-fund study for a couple of reasons.

- 1) NCHRP project 9-46 (Improved Mix Design, Evaluation, and Materials Management Practices for Hot Mix Asphalt with High Reclaimed Asphalt Pavement Content) is scheduled to be completed later this summer, and it will provide at least some of the guidance on high RAP content projects that we would be looking for with this research. Matt feels we should at least wait for this information to become available to better focus any additional research that would be needed.
- 2) The needs of the other participants will not necessarily be the same as those of MDT, and since we will be getting a lot of information we need from the NCHRP study, Matt believes we should hold off on further study until we have the information. If further study is necessary, we can propose our own research that better fits our needs.

4. **Reports:** Available Upon Request

No discussion.

a. **Concrete Median Barrier Condition and Transition Plan** – April and May Monthly Progress Reports

b. **Determination of Material Properties and Deflection Behaviors for Contemporary Prestressed Beam Design (10.009)** – April 2012 Progress Report

- c. **Feasibility of Reclaimed Asphalt Pavement (RAP) in Portland Cement Concrete Pavements (PCCP) (09.004)** – April 2012 Progress Report
- d. **Livability for Montana Transportation (10-021)** – *Final Report*
- e. **LTAP** – April 2012 Progress Report
- f. **Steel Pipe Pile/Concrete Pile Cap Bridge Support Systems (09.016)** –April 2012 Progress Report
- g. **Recycling Recovered Traction Sanding Material (09.08)**- April 2012 Progress Report and Task 1 Report
- h. **Relative Operational Performance of Geosynthetics Used as Subgrade Stabilization (10-008)** – April 2012 Progress Report and Task 1 Report
- i. **US 93 Wildlife Structure Monitoring (04-016)** – 2011 Annual Report

5. **Contract Extensions:**

a. **Impacts to Montana State Highways Due to Bakken Oil Development**

Doug attended to present this contract extension request. The purpose of this request is to secure additional funding for traffic count data collection if it is needed. A determination as to the need for additional traffic data will be made in June. The proposed \$35,000 is a maximum cost to obtain additional traffic data. It may be we don't need any or we find we need a lower level of additional traffic data counts.

Lynn made a motion to approve this contract amendment. Mike seconded the motion. All present voted in favor of the motion; the motion passed. **Research staff will amend the contract if needed.**

6. **Proposals:** Attached

a. **Local Technical Assistance Program**

Steve Jenkins attended. He gave a brief overview of the SFY 2013 LTAP work plan, and discussed SFY 2012 training and a tentative SFY 2013 training schedule.

Jon expressed concern for the lack of work zone traffic control training in the summer months as there is not usually training during this time and the ATSSA online training is not accepted. Steve responded this is an issue and while officially the online ATSSA training is not accepted, in practice there is no way to distinguish between the online and in-person training. Steve said he would raise the issue at the next safety board meeting.

Jon made a motion to approve \$80,000 in SPR funds to SFY 2013 LTAP. Lynn seconded the motion. All present voted in favor of the motion; the motion passed. **Research staff program LTAP funds and execute a contract for the SFY 2013 program.**

7. **Implementation/Technology Transfer:** None

8. **Department/Division Hot Topics – RRC Members Roundtable Discussion**

Sue introduced Katy Callon, the new librarian in the Research Section.

cc: Craig Abernathy/Research Programs  
Kent M. Barnes, P.E./Bridge Bureau  
Katy Callon/Research Programs  
Kevin Christensen/Highways and Engineering Division  
Kris Christensen/Research Programs  
Tim Conway, P.E./Consultant Design Bureau  
Lisa Durbin/Construction Administration-Bureau  
Mike Dyrdaahl/Highways and Engineering Division  
Paul R. Ferry, P.E./Highways Bureau  
Paul Jagoda, P.E./Construction Engineering Bureau  
Michael P. Johnson/District Administrator-Great Falls  
Tom Martin, P.E./Environmental Services Bureau  
Doug McBroom/Multimodal Programs Bureau  
Shane Mintz/District Administrator-Glendive  
Ed Toavs/District Administrator-Missoula  
Roy Peterson, P.E./Traffic & Safety Bureau  
Suzy Price/Contract Plans Bureau  
Jim Skinner/Planning and Policy Analysis Bureau  
Rob Stapley/Right of Way Bureau  
Stefan Streeter, P.E. /District Administrator-Billings  
Matt Strizich, P.E./Materials Bureau  
James A. Walther, P.E./Highways and Engineering Division  
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