

MONTANA DEPARTMENT OF TRANSPORTATION  
Helena, Montana 59620-1001

MEMORANDUM

To: RRC Members  
D. John Blacker, Administrator/Maintenance Division  
Monte N. Brown, Administrator/Administration Division  
Jim Currie, Deputy Director/Department of Transportation  
Dave Galt, Director/ Department of Transportation  
Gary A. Gilmore, P.E., Administrator/Highway and Engineering Division  
Drew F. Livesay, Administrator/Motor Carrier Services Division  
Joel M. Marshik, P.E., Manager/Environmental Services  
Patricia Saindon, Administrator/Transportation Planning Division  
Federal Highway Administration

From: Susan C. Sillick  
Manager, Research Section

Date: October 4, 2001

Subject: 8/28/01 RRC Meeting Agenda (9:00 a.m. MDTCNF Commission Room)

1. **Budget Report:** Distributed at meeting

Since this was the first meeting of the restructured Research Review Committee (RRC), Sue reviewed the entire Research budget. This presented the committee with a financial overview enabling them to have a working knowledge of the current obligation/expenditure status and future funding schedules.

During the budget discussion Director Galt told the RRC that he had a Technical Panel formed and a draft RFP prepared to investigate the economic impact of two-lane highway versus four-lane highway. Dave informed the committee that this project will be funded through Research and wanted to make sure that funding was not an issue.

Sue fielded several questions from the committee pertaining to funding, funding sources, current projects, and proposed projects.

2. **Research Project – current listing:** Distributed at meeting

2a. *Cooperative Highway Construction Industry Training Program* (01.007) – For approval-in-concept

Barbara Martin was present to discuss this project for the Technical Panel. This project is a result of discussions of the Education and Training Committee for the MHQI group, and has the support of the Montana construction industry, design professionals, and MDT.

The purpose of this project is to determine the feasibility of developing a cooperative training program, involving public sector owners, design consultants, and contractors. This project would involve a literature review, training needs and availability assessment, and development of a business plan. The cost of the project is roughly estimated to be between \$200,000.00 and \$300,000.00. Implementation of this effort is beyond the scope of the research.

Joel Marshik made a motion to proceed with the RFP. Jim Currie seconded the motion. Motion passed. The Technical Panel will issue the RFP; a proposal will be presented to the RRC, at a later date, for final funding approval.

2b. *Field Evaluation of the Performance of 3 Concrete Bridge Decks on Montana Route 243-* (this proposal is part of the high performance concrete project on the Research Project List)

Kent Barnes and Joe Kolman were present to discuss this project for the Technical Panel. Three bridge decks are going to be replaced on MT 243 near Saco. The bridge decks are identical and will be let together in the same contract. Bridge and Materials Bureaus feel this is an almost perfect situation to try three different bridge deck designs: high performance concrete design, empirical design, and the standard MDT design. The purpose of this project is to evaluate and compare these three bridge deck designs.

Since the project proposal was distributed at this meeting and this committee hasn't had an opportunity to thoroughly review this proposal, Sue will conduct an e-mail ballot to determine project funding.

3. **Reports:**

3a. *Landslide Inventory Project* – Progress Report – 4/1/2001 to 6/30/2001 – Attached (98.023)

3b. *Highways as Potential Barriers to Movement and Genetic Exchange in Small Mammals* – Progress Report 4 – July 31, 2001 – Attached (99.028)

**3c. *Develop Performance Prediction Models for Checking Design Generated by a Flexible Pavement Design Procedure*** – July 2001 Monthly Progress Report – Distributed at Meeting (98.003)

**3d. *Field Evaluation of Corrosion Inhibitors for Concrete*** – FHWA Pooled-Fund Study – 4/1/2001 to 6/30/2001 – Available Upon Request

4. **Contract Extensions:** None

5. **Proposals:**

**5a. *Advanced Research of an Image Analysis System for Hardened Concrete*** – Pooled Fund Study – Attached

The purpose of this pooled-fund study is to improve and expand the detection analysis capabilities of the automated concrete evaluation system. This system is used to determine the air void structure in hardened cement.

While not a high priority to MDT, this system has the potential as a qualification tool for working with mixes. Kent Barnes recommended that MDT contribute \$10,000.00 toward the \$500,000.00 projected cost.

Gary Gilmore made a motion to join this pooled-fund study for \$10,000.00. Joel Marshik seconded the motion. Motion passed.

**5b. *Fish Passage at Road Crossings in Montana Watersheds Providing Bull and Cutthroat Trout Habitat*** - Attached

Joel Marshik and Joel Cahoon/MSU were present to discuss this project.

The purpose of this project is to examine the extent to which road crossings fragment fish populations across a large drainage basin or basins in Montana.

Joel Marshik made a motion to approve this proposal for \$119,571.00. Gary Gilmore seconded the motion. Motion passed.

**5c. *Population Biology of American Dippers (*Cinclus mexicanus*) in the Gallatin River Watershed: How Important are Bridges to Population Persistence?*** - Attached

The purpose of this project is to determine the importance bridges may play in the population density and viability of dippers in the Rocky Mountains.

The question arose: if we approve projects like this with no safety, project delivery, or threatened and endangered issues, where do we stop. After much discussion John Blacker made a motion that, as the proposal is written, we not fund this project. Jim Currie seconded the motion. Motion passed.

Dave Galt asked Joel Marshik and Sue Sillick to make a presentation at the next Administrative staff meeting to discuss MDT priorities/requirements for future Fisheries and Wildlife Ecology and Transportation MOA RFP's.

**5d. *The Effects of Highways on Fragmentation of Small Mammal Populations and Modification of Crossing Structures (Culverts) to Mitigate Such Impacts*** – Attached (continuation of Monitoring Animal Use of Modified Drainage Culverts on the Lolo South Project)

The purpose of this project is to: 1) determine the extent to which a four-lane highway causes a significant barrier for small animal movement and 2) develop concrete guidelines for the modification of existing culverts as well as the development of a new culvert design that will mitigate for the barrier produced when water is present.

Joel Marshik made a motion that the proposal be approved for \$156,763.00 John Blacker seconded the motion. Motion passed.

6. **Implementation:** None

7. **Federal Highway Technologies Transfer Funding** – Attachment (Bob Burkhardt)

Bob Burkhardt discussed FHWA T<sup>2</sup> funding. FHWA has \$10,000.00 available annually for T<sup>2</sup> funding in Montana. In addition, the Western Resource Center has \$180,000.00 available annually for T<sup>2</sup> funding in the Western states. Montana Division – FHWA is interested in having the RRC prioritize projects for this funding. Sue will put together a packet of information for the Administrators, soliciting proposals. Proposals will be due in October with funding sometime after January 1, 2002.

cc: Craig Abernathy/Research Section  
Kent M. Barnes, P.E./Materials Bureau  
Bruce H. Barrett/District Administrator-Billings  
Michael D. Ferguson/Aeronautics Division  
Loran Frazier, P.E./District Administrator-Missoula  
Jason Giard, P.E./District Administrator-Butte  
John Horton/Right-of-Way Bureau  
Michael P. Johnson/District Administrator-Great Falls  
Joseph P. Kolman, P.E./Bridge Bureau  
William L. McChesney/District Administrator-Glendive  
Russell G. McDonald/Human Resources Division  
Robert D. Morgan, P.E./Traffic & Safety Bureau  
Kenneth H. Neumiller/Engineering Oversight Bureau  
Jeanne Nydegger/Research Section  
Brooke Page/Research Section  
Carl S. Peil, P.E./Preconstruction Bureau  
Timothy W. Reardon/Legal Services  
James A. Walther, P.E./Highway and Engineering Division  
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