

MEMORANDUM

To: RRC Members
Debbie Alke, Administrator/Aeronautics Division
D. John Blacker, Administrator/Maintenance Division
Monte N. Brown, Administrator/Administration Division
Robert E. Burkhardt/Federal Highway Administration
Dick Clark, Administrator/Information Services Division
Jim Currie, Deputy Director/Department of Transportation
Loran Frazier, P.E., Acting Administrator/Highway and Engineering Division
Drew F. Livesay, Administrator/Motor Carrier Services Division
Jim Lynch, Director/Department of Transportation
Sandra S. Straehl, Administrator/Transportation Planning Division

From: Susan C. Sillick, Manager
Research Programs

Date: April 12, 2005

Subject: Summary of Minutes from January 25, 2005 RRC Meeting

The following RRC members were present: Debbie Alke, John Blacker, Monte Brown, Bob Burkhardt, Dick Clark, Loran Frazier, Sandy Straehl, and Sue Sillick.

1. **2005 Research Solicitation** – Sue distributed a handout detailing the research projects process. She explained that new ideas for the solicitation cycle were due 12/31/04. Champions and sponsors were then sought for all research topics submitted by 12/31/04.

Six topics did not have either a champion or sponsor. Two topics were synthesis topics; proposals for these two topics will be presented to the RRC at a later date. One topic was sent to the Directors Office for consideration. Champions for the remaining seven topics (see table below) presented their topics at this meeting. Rating forms are due to Sue Sillick by January 31, 2005.

SUBJECT AREA	PROB NO.	PROBLEM TITLE
Environmental	5.006	Evaluation of fence modifications to exclude deer and elk from highways
Design	5.008	Design of a vertical shape portable concrete barrier
Human Resources	5.009	Business market analysis
Environmental	5.010	Compost application for optimized vegetation response
Planning	5.013	Developing a One-Stop Shop for Public/Specialized Transportation Information in Montana
Traffic	5.014	Field Evaluation of passing lane operational benefits on two-lane rural roads in Montana
Planning	5.015	Logistics and marketing research in support of container on flatcar shuttle train on BNSF mainline to Port of either Seattle or Tacoma

Deb Wambach, Champion – *Evaluation of Fence Modifications to Exclude Deer and Elk from Highways* – 05.006

An increasing deer and elk population in Montana continues to pose hazards to motorists. MDT currently uses an 8’ fencing technique that costs \$30,000.00 per mile to construct. The goal of this research is to field test various fence designs 5-6’ high, costing \$600.00 to \$2400.00 per mile to construct.

The RRC emphasized the fact that available literature should be evaluated before proceeding.

Paul Ferry, Champion – *Design of a Vertical Shape Portable Concrete Barrier* – 05.008

This research involves the development of a new vertical shape portable concrete barrier. The goal is to design a barrier with increased safety and functionality attributes.

This project may be a pooled-fund study.

Rebecca Johnson, Champion – *Business Market Analysis* – 05.009

The purpose of this research is to determine where opportunities and barriers exist for highway construction/consulting jobs.

It was suggested that contractors, other state agencies, and tribes might want to partner in this research. It was also suggested that this analysis would need to be updated periodically.

Phil Johnson, Champion – *Compost Application for Optimized Vegetation Response* – 05.010

This research would be a Phase II effort. Phase I, which currently is ongoing, involves evaluating the effects of compost application and incorporation on plant growth. Based on positive early results from Phase I, this Phase II project is proposed to fine-tune the amount of compost necessary for plant growth and to evaluate plant growth and compost application in drought conditions and wind-prone areas.

Sandy Straehl, Champion – *Developing a One-Stop Shop for Public/Specialized Transportation Information in Montana* – 05.013

The goal of this research is to determine how to integrate transportation information into existing information portals, such as Internet, 2-1-1, and 5-1-1 systems.

John Blacker expressed a concern about the 5-1-1 system becoming too cumbersome. It was also suggested that in order to accommodate other information, such as a 2-1-1 system, the 5-1-1- system may need to be reformatted from a road location menu to a topical menu.

Duane Williams, Champion – *Field Evaluation of Passing Lane Operational Benefits on Two-Lane Rural Roads in Montana* – 05.014

This proposed research involves 1) conducting a field evaluation of the current passing lane performance using as test-sites previously installed passing lanes on Montana rural roads, 2) validating analytical modeling tools that are currently used by MDT, and 3) calibrating the models to best reflect current conditions on Montana's two-lane highways.

It was suggested that other studies, and calibrations and verification of the modeling tools we use have already been completed. It was also suggested that as traffic patterns change, the analysis should be repeated periodically.

Dick Turner, Champion – *Logistics and Marketing Research in Support of Container on Flatcar Shuttle Train on BNSH Mainline to Port of Either Seattle or Tacoma* – 05.015

Larry Bonderud, Mayor of Shelby, MT presented an overview of this proposal, stating intermodal shipping capabilities are vital to Montana's economy. The current loss of all Montana Intermodal facilities presents a huge hurdle for Montanans as they attempt to serve the United States and international market place.

Presently there are no locations within the entire State of Montana where containers can be loaded on rail cars at competitive rates on regularly scheduled intermodal trains. This proposed research will include: 1) research logistics related to dedicated container on flatcar shuttle service, 2) research characteristics of Montana value added exports that could use container on flatcar shuttle, and 3) review existing studies and analyses

regarding Montana's position relative to container on flatcar service and suggest additional strategies that may expand this service in Montana.

2. **Budget Report** – The budget was distributed with no comments.

3. **Research Project – current listing** – Attached – No comments.

4. **Reports:** Available Upon Request

4a. *Pavement Performance Prediction Models (98.003)* – Progress Report – September, October, and November 2004

4b. *Potential Effects of Highway Mortality and Habitat Fragmentation on a Population of Painted Turtles in Montana* – Progress Report – October 2004

4c. *Field Evaluation of the Performance of Three Concrete Bridge Decks on Montana Route 243 (HPC – Phase II, Saco)* - Progress Report – September 2004

4d. *Ride Specification Review (03.002)* – Progress Report – August, September, October, and November 2004

4e. *Implementation Plan for Wildlife Mitigation Measures Along Highway 83 in the Seeley-Swan Valley, Montana: Animal-Vehicle Collisions and Habitat Connectivity* - Progress Report – August-November 2004

4f. *Evaluation of Organic Matter Addition and Incorporation on Steep Cut Slopes, Phase II (98.019)* – Progress Report – June and September 2004

4g. *Use of Montana Highway Structures by Bats (01.016)* – Progress Report – September 2004

4h. *Evaluation of Wildlife Crossing Structures on US Highway 93 Evaro to Polson* – Progress Report – September 2004

4i. *Determine the Current Rates of Motor Fuel Tax Evasion in Montana (03.013)* – Progress Report – November 2004

4j. *LTAP* – Progress Report – June and September 2004

4k. *Determine Properties of Compacted Rap and Rap Mixtures (04.020)* – Progress Report – September 2004

4l. *Fish Passage at Road Crossings in Montana Watersheds Providing Bull and Cutthroat Trout Habitat* – Progress Report – September 2004

4m. *Fish Passage in Montana Culverts – Phase II – Passage Goals* – Progress Report – September and December 2004

4n. *Warm Water Species Fish Passage in Eastern Montana Culverts* – Progress Report – September and December 2004

4o. *The Association between Landscape Features and Transportation Corridors on Movements and Habitat-Use Patterns on Wolverines* – Progress Reports – October 2004

4p. *Bozeman Pass Wildlife Linkage and Highway Safety Pilot Study* - Progress Report - September 2004

4q. *Investigation of the Soil Air Voids Test for Use in Compaction Control* – Progress Report – September 2004

4r. *Traffic Noise in Montana: Community Awareness and Recommendations for a Rural State* – Final Report – FHWA/MT-04-007-8172

4s. *Recommendations for Winter Traction Material Management on Roadways Adjacent to Bodies of Water* – Final Report – FHWA/MT-04-008/8117-19

4t. *Evaluation of Biodiesel Fuel: Field Test* – Final Report - FHWA/MT-04-009/8117-22

5. **Contract Extensions:** None

6. **Proposals:**

6a. *Transportation Library Connectivity* – Pooled Fund Study

The goal of this pooled-fund study is to develop a national technology transfer program for information and knowledge management.

This will be accomplished by:

- 1) cataloging materials in participating libraries
- 2) group purchasing of services, such as database subscriptions
- 3) pooling of cataloged materials in an on-line group catalog
- 4) developing networks and agreements for:
 - a. access to a broad range of materials
 - b. interlibrary loan
 - c. shared collection development
 - d. shared reference services
 - e. technical support

The result will be increased access to information at reduced costs through the sharing of resources and reducing service fees, and the duplication of efforts.

Sandy Straehl made a motion to fund this research project for \$20,000.00 for 2 years with a report to the RRC every six months. Loran Frazier seconded the motion. The motion passed.

7. MDT-WTI MOA:

No action was taken on this item, as Jim Lynch wants to review the proposed MOA. Additionally, Steve Garrison/MDT Attorney has some questions that need to be addressed prior to any action.

cc: Craig L. Abernathy/Research Programs
Suzy Althof/Contract Plans Bureau
Kent M. Barnes, P.E./Bridge Bureau
Bruce H. Barrett/District Administrator-Billings
Lisa Durbin/Construction Administration Bureau
Jeffery M. Ebert, P.E./District Administrator-Butte
Paul R. Ferry, P.E./Highways Bureau
John Horton/Right-of-Way Bureau
Paul Jagoda, P.E./Construction Engineering Bureau
Michael P. Johnson/District Administrator-Great Falls
Dwane Kailey, P.E./Acting District Administrator-Missoula
Russell G. McDonald/Human Resources Division
Ray Mengel/District Administrator-Glendive
Victoria A. Murphy, CPA, CFE/Highway and Engineering Division
Jeanne Nydegger/Research Programs
Timothy W. Reardon/Legal Services
Jean A. Riley, P.E./Environmental Services Bureau
Matt Strizich, P.E./Materials Bureau
James A. Walther, P.E./Highways and Engineering Division
Duane E. Williams, P.E./Traffic & Safety Bureau
Mark A. Wissinger, P.E./Highways and Engineering Division
File