TECHNOLOGY TRANSFER REGIONAL
RESOURCE LIBRARY PROJECT

Eugene M. Wilson
Director of Wyoming Technology Transfer Center
Professor of Civil Engineering

Department of Civil Engineering
University of Wyoming
P. O. Box 3295
Laramie, WY 82071

September 1997
Acknowledgments

I would like to acknowledge and thank FHWA Region 8 Reviewers, participating T² Centers of Region 8, and participating MPC University Centers. In particular, I would like to thank University of Wyoming students Sandra Stahl, Debra Sherrill, Joe Tate, Keith Haiar, and Laurie Roylance and University of Wyoming staff member Beth Thornburg. Also, a thank you to FHWA and UW for their financial support.

Disclaimer

The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the information presented herein. This document is disseminated under the sponsorship of the Department of Transportation, University Transportation Centers.
Program, in the interest of information exchange. The U.S. Government assumes no liability for the contents or use thereof.

**TABLE OF CONTENTS**

Background and Objective .................................................. 4

Procedure .............................................................. 5

Alternatives ............................................................. 8

Benefits ................................................................ 9

Problems Encountered ..................................................... 9

Summary .............................................................. 10
TECHNOLOGY TRANSFER REGIONAL
RESOURCE LIBRARY PROJECT

Background and Objective

This report highlights a cooperative project between the Mountain-Plains Consortium universities and the Region 8 Technology Transfer Centers. Region 8 consists of six states: Wyoming, Montana, Colorado, North Dakota, South Dakota, and Utah. Each of these states has a Transportation Technology Transfer Center at a state university, which perform various functions. They primarily act as a resource for the numerous transportation-related firms and local agencies throughout their respective state. The centers provide workshops that inform and train people on the most up-to-date information, practices, and procedures on different transportation topics. In addition, these centers have libraries that provide free publications, loan references, and loan videos on transportation topics. Each center throughout the region has developed its own library to provide the latest technologies and other road and street technology transfer information to local agencies. The T\textsuperscript{2} Centers in FHWA Region 8 did not evaluate the effectiveness of the publications that had been incorporated into the free and lending libraries of the centers. This project was to cooperatively develop library resources which are current in state of the art practice. This project evaluated the existing centers’ publications and resulted in an opportunity for all regional centers to develop a listing of publications for the latest methods and procedures.
Procedure

This regional resource library project involved establishing regional topic areas, categorizing the publications, and reviewing the publications to sort out obsolete or inactive resources. The first step involved establishing regional topic areas and categories to sort the publications. This was necessary to break the publications into smaller groups so they could be reviewed. The following is a list of the categories that were chosen for this process:

**Category 5  Career/Personal Development**
Resumes, Time Management, Communication, Leadership

5.17  Career
5.18  Personnel

**Category 10  Conferences, Annual Meetings, Annual Reports**

**Category 11  Administration**
Finance, Legislation, Policy

11.1  Risk Management
11.2  Tort Liability

**Category 12  Planning, ROW, Research**
Highway Statistics, Surveying, Access Management

12.1  Planning
12.2  Right of Way
12.3  Research

**Category 17  Energy and Environment**
Pollution, Recycling, Wetlands, Hazardous Materials

17.1  Energy
17.2  Environment

**Category 20  Design-General**
Roadway Design
Category 22  Hydrology and Hydraulics
Fluid Mechanics, Drainage, Culverts

Category 24  Pavement Design and Performance
Friction, Skid Resistance, Joints, Overlays, Pavement Management

  24.1  Asphalt Pavement
  24.2  Concrete Pavement
  24.3  Unpaved Roads

Category 25  Structures Design and Performance
Bridge Decks, Bridge Management

Category 30  Materials and Construction
Steel, Aluminum, Timber, Plastic

  30.1  Construction Materials (non-soil)
  30.2  Construction Methods

Category 31  Bituminous Materials and Mixes
Hot Mix, Cold Mix, Crumb Rubber

Category 32  Cement and Concrete
Fly Ash, Reinforced Concrete, Prestressed Concrete

Category 40  Maintenance and Construction
Potholes, Patching, Vegetation Control

  40.1  Road Maintenance
  40.2  Equipment Maintenance
  40.3  Weather Related Maintenance

Category 50  Traffic Operations and Safety
Pavement Markings, Guardrails, Traffic Signals, HOV

  50.1  Traffic operations
  50.2  Safety

  50.21  Equipment Safety
  50.22  Worker Safety

Category 55  ITS
Intelligent Transportation Systems
These categories were chosen by the regional T^2 centers in committee meetings held over the Tel-8 system. The categories were formed based on the Transportation Research Board’s categories and were modified to best fit this project.

Then it was time to find reviewers for all of the different categories in the database. The reviewers consisted of personnel from five of the Technology Transfer Centers throughout the region and personnel from the Federal Highway Administration. The reviewers for each category were selected to maximize the reviewer’s familiarity/expertise with the category. They were mailed publication lists for their respective category. After reviewing, they returned the list of publications having marked each publication as good, bad, or uncertain. This information was used to create lists for each center showing the ratings of their resources. This information could then be used by each center to sort out obsolete/inactive resources.

The next step was to develop an Access database of publications and to obtain library listings from each Technology Transfer Center in the region. All of the databases were edited to make them consistent, and then combined into one regional database. All of the duplicate
entries for resources possessed by more than one center were deleted, and the locations of the publication were noted under one listing. The entire regional database was then sorted by category.

The following is the format of the regional database:

<table>
<thead>
<tr>
<th>Publication Name</th>
<th>Category</th>
<th>Pub. Type</th>
<th>Publisher</th>
<th>Pub. Date</th>
<th>Location</th>
<th>Good</th>
<th>Bad</th>
<th>?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance Management</td>
<td>40</td>
<td>Free</td>
<td>NACE</td>
<td>1992</td>
<td>WY, UT, ND</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pavement Design</td>
<td>24</td>
<td>Loan</td>
<td>TRB</td>
<td>1988</td>
<td>MT, SD</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**Alternatives**

Traditional libraries eliminate resources based on use and replacements of new editions. In the T² centers a similar practice also is a possibility. However, one difficulty is in how to provide only current state-of-practice material. Latest editions of reference manuals help to provide this quality control. However, articles discussing practice often are not reflective of changes that occur over time. Another alternative is to review publications over five years old for inaccuracies due to state-of-practice changes. It is difficult to devise a system to eliminate old references. This alternative also assumes that local T² expertise exists on the categories of the references. When adding a new reference to a library, also check the current library topic area for materials that are obsolete or inactive. This, however, also has the inherent problem of needed expertise to review the old materials.

During this study, no alternative approach to keeping a library current with only state-of-practice publications or video tapes surfaced. Summarized are benefits derived from this project and a discussion of the problems encountered.
Benefits

Cooperating as a region was one of the major benefits of the project. It brought together the MPC universities and the state T^2 centers. Using the Tel 8 system for several meetings included the T^2 centers of Montana and South Dakota, which do not have direct local access to Tel 8, but were able to use the DOT sites. The centers learned about the libraries of the other centers. The project also resulted in the regional T^2 centers addressing the issue of resource validity.

Problems Encountered

Resource validity should have resulted in a common library and a means to keep the T^2 libraries current. However, this did not occur. Also, all topics were not reviewed in the full detail envisioned by the project. After the initial review, the plan had been to mail publications that were in the questionable or uncertain category to the reviewers. Due to the number of reviewers who did not complete the initial review, it was decided to terminate the project.

During the course of the project, one T^2 center turned its library over to the state DOT. This also added to the termination of the project.
Summary

Each state in the region that participated in this project has been sent a list of their publications and the reviewers’ indications for each of the publications that were reviewed. The state T² centers will hopefully use this to eliminate obsolete or inactive resources.

The need to validate references is a continuing issue. As a result of this project the Wyoming T² center is publishing a new resource catalog. The resource catalog has a current listing of free publications and the loan publications listing has been reduced to include only key references. It is now the center’s practice to check if existing references are obsolete when adding a new publication to the library. Loan references have been sub-classified and a limited listing has resulted in a more manageable reference listing. Special user requests will take advantage of library search procedures that exist in the T² center’s library, such as using the Access database to find resources for a certain topic area.