



Research Services Section
Mail Stop 330, 395 John Ireland Boulevard
St. Paul, Minnesota 55155 (phone: 651-282-2274)

LRRB RESEARCH PROBLEM STATEMENT

*** * SUBMITTAL FORM * ***

Please mail, email to Barbara.Loida@dot.state.mn.us or fax to 651/297-2354

Contact Person(s): Fredrick V. Salsbury
Address: 508 South State Street Waseca, MN 56093
Email: fredsv@ci.waseca.mn.us
Phone / Fax #: (507) 835-9739/ (507) 835-8871

I. Title (Be brief yet descriptive): Use of Flyash for reconstruction of bituminous roads.

II. Problem (Clearly & concisely describe the problem):

The City of Waseca has for the past few years been experimenting with reconstruction local streets utilizing flyash. We have obtained strengths of 10 – 12 ton axel weights calibrated to spring load limits on streets that had previously been at best at a 5-ton axel loading. The cost to do so has been about 1/3 the cost of a total reconstruct and the strength appears to be as good or better. I would like to have this technique evaluated, determination of gravel equivalency, etc. as an optional design technique. The problem I have at this point is that there is no experience to show the expected life. Although strength is a factor, it does not necessarily determine the life of the improvement.

III. Research you propose (State how you see the research to be done):

Determine where it fits into the gravel equivalency tables.

Determine life expectancy.

In cooperation with another LRRB project on flyash, establish criteria to meet PCA requirements.

IV. If research is successful, what are the potential benefits?

Cheaper stronger roads. Also, environmentally, utilizing waste material in a productive manner.

V. In general, what would have to be done to gain the benefits from these research results?

If it is a viable alternative, it could save millions of dollars in road construction, allowing more to be accomplished with less dollars.

VI. Qualified Researcher(s):

Name:

Phone/Address:

MnRoad

U of M

MSU

VII. Project Review (Recommended people to review a research proposal on this topic):

Name:

Phone/Address:

Present users of flyash, flyash suppliers, reclamation contractors

VIII. Key Words (List of descriptive key words to assist in a literature search):



Research Services Section
Mail Stop 330, 395 John Ireland Boulevard
St. Paul, Minnesota 55155 (phone: 651-282-2274)

IX. This is a (design, construction, maintenance/operations, environmental compatibility) problem.
(circle one) Design primarily, but would involve them all.