

Technology Deployment Initiatives and Partnership Program
Request for Funding
FY 2002

FHWA Strategic Goal Area: PRODUCTIVITY

Project Title: Pipe Inspection for Rehabilitation Projects

Problem Statement: The Yellowstone National Park, in cooperation with the Federal Highway Administration, plans to reconstruct and rehabilitate the Park road system known as the Grand Loop. Part of the rehabilitation and reconstruction work will involve improvement of the existing drainage system which consists of hundred of culverts. The types of culverts installed on park road are varies from verified clay, corrugated metal, and/or reinforced concrete and masonry. To help the park determine the existing conditions of these culverts, FHWA inspectors spend considerable time investigating and documenting . The inspections are done visually and dependent on the accessibility to the culvert. As a result, many culverts of smaller sizes (less than 54 inches) could not be thoroughly inspected and could have deteriorated without noticed.

Proposal: To provide a better inspection and documentation of the existing culvert conditions, we propose to purchase a mini cam system that can traverse and operate remotely to provide an inside culvert inspection to help determine the true conditions.

Benefits: The benefits are many folds. First it allows the inspector to provide a thoroughly inspection of culvert conditions. Second, The recorded visual image of the inspection and notes will help determine whether the culvert will need a replacement or simply a repair order. This will probably be the biggest benefit in reducing the cost of culvert replacement and the associated cost with such replacement (road closures, purchasing new materials, and traffic delays to the traveling public, etc...) The system can also be used on other Park projects with the same benefits. The other benefit of using the mini cam system is it could help the Park establish a culvert maintenance program.

Resources/Cost: \$40,000 for equipment purchase and training.

Duration: One year evaluation in the field on current designs.

Organization/Method: Purchase equipment and evaluate in house with designers or other WFLHD staff.

Submitter:

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