



Accelerated Construction Technology Transfer (ACTT)



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IMPROVED
CONSTRUCTION
AND
PRESERVATION
SYSTEM
TECHNOLOGIES
performance of highway systems
new strategies to enhance the quality

Accelerated Construction Technology Transfer (ACTT) is a strategic process that uses various techniques and technologies to reduce construction time on major highway projects while enhancing safety and improving quality. The process is implemented by conducting 2-day workshops for State Departments of Transportation (DOTs). The American Association of State Highway and Transportation Officials (AASHTO) and the Federal Highway Administration (FHWA) jointly fund ACTT workshops.

In January 2004, the Montana Department of Transportation (MDT) hosted a workshop that brought together almost 100 transportation experts from many States. The primary objective of the workshop was to draw on the expertise of participants to help MDT achieve its goal of minimizing construction time for its US 93 upgrade between Evaro and Polson, in Western Montana. The \$100 million project is to reconstruct this 80 km (50 mi) stretch of US 93 to upgrade the facility to today's design standards and add capacity. The project is somewhat unique, for it is entirely located within the Flathead Indian Reservation, the homeland of the Confederated Salish and Kootenai Tribes (CSKT). The Tribes recognize these lands as their homeland as well as the homeland for a variety of wildlife. The biggest challenge the project presents is upgrading to best accommodate traffic demands while minimizing impact on wildlife, as well as other culturally sensitive issues. Another primary challenge is maintaining traffic flow during construction to ensure minimized disruption of tourist traffic, which peaks during the short construction season.

Opening the workshop on January 26 were representatives of the three governments involved (MDT, FHWA, and CSKT), including: the MDT Director, MDT District Administrator, and the Division Administrator for FHWA's Montana Division Office. Following the opening remarks and a project tour, the participants spent a day and a half brainstorming, looking for methods and measures that would help achieve project goals.

The Skill Sets represented at the MDT's workshop were: Construction; Traffic/Work Zone Safety; Right-of-Way/Utilities/Railroad; Public Relations/ITS; Geotechnical and Materials; Innovative Contracting; Environmental; and Structures. Each group focused on how the ACTT process applied to the specific concerns of their Skill Set. The teams presented numerous ideas and recommendations, many of which were deemed viable and will be pursued, according to MDT. Among these recommendations were:

- Establish a corridor management/communication team to include all three governments with a single-point-contact speaker.
- Change the sequence of project construction to allow for a more efficient use of resources.



US 93, Montana

- Employ such construction methods and materials as jet grouting, welded wire walls for wall facings, and controlled staging of geotech work. Utilize contractor staking and predetermined pay quantities. Accommodate and encourage GPS grade control.
- Use prefabricated structural components and install them at night. Due to the short construction season, prefabricate structural components during the off-season.
- Pre-approve tribal borrow sites to minimize inspection time during construction.
- Establish a comprehensive traffic management plan, including considerations such as pedestrian traffic control, elderly drivers, property access, wildlife concerns, and regular coordination meetings.
- Allow contractors to bid with an option for traffic control/sequence of operation.
- Employ Transportation Demand Management techniques to reduce the number of vehicles on the roadway resulting from local commuters.
- Create a database accessible by all entities to track Right-of-Way/Utilities progress. Make automated acquisition forms available.

With the workshop now completed, it remains for MDT to sift through the reports produced by the Skill Set groups and decide which ideas should be implemented in future planning, design, and construction phases of the project.

To find out more about the project and the implementation of recommendations, contact:

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