Roadsoft Roundup

April 2013
Volume 13, Issue 1

"The ultimate goal is to create a state database containing stream crossing surveys which would give a better idea of how to determine the effects of stream crossing developments."

-Luke Peterson
Roadsoft Sofware Engineer

Stream Crossing Reporting

Last September, Roadsoft version 7.5 added the ability to add Great Lakes Road Stream Crossing Inventory data to culverts in the culvert module. This addition came as a part of the total rewrite of the culvert module that occurred for that update.

About the Inventory

In late 2009, a group of representatives from environmental/ natural resource agencies and assorted transportation agencies met in Peshtigo, Wisconsin to discuss the creation of a standard for stream crossing inventories, hoping that a standard inventory could benefit both the environment and transportation management. "We thought if we could come together with a standardized inventory," said Chris Freiburger of the Habitat Management Unit of the Michigan Department of Natural Resources, "we could come up with a regional or statewide database."

The state of Vermont already has a similar plan in place. They have gotten local road and environmental agencies to submit data to a statewide database. This collaboration between agencies allows them to work together to find funding sources for renovations and repairs to existing crossings, lightening the financial load on both groups. Freiburger explained the line of thinking, "This is not just an inventory issue, this is a public safety issue, this is an infrastructure issue. So how can we get the transportation agencies involved in this as much as possible to make this as successful as possible for all of us?"

"Being able to assess, prioritize, and find funding to complete this work," said Freiburger, "I think that's the benefit that this allows us to bring to local communities if we have this inventory information."

How Roadsoft Does It

The standard for the inventory comes with a form that can be filled out that contains all of the information necessary to catalog the crossings. Both Roadsoft and the Laptop Data Collector (LDC) have automated forms that a user can fill out with the same fields as the form included in the standard. The data can then be uploaded to the state from within Roadsoft.

The new culvert module running on a Yuma

The stream crossing survey tab of the Culvert Module includes explanations of all of the measures it asks the user to enter. When a user selects a field to fill in, an explanation appears on the bottom of the frame. Additionally, it was designed with the possible use of a Trimble Yuma, a rugged tablet PC, in mind. The United States Fish and Wildlife Service has a lending program through which they lend Yuma tablets to local agencies on a first come first served basis.

Additionally, pictures can be imported to the LDC for use with the surveys, which request six different viewing angles. Pictures can be either taken by a camera built in to the device, or imported from a separate digital camera. When the LDC data is imported into Roadsoft, the pictures come with it.

At this point, stream crossing data is attached to a culvert which is related to a milepoint on a road. In the future, said Roadsoft software engineer Luke Peterson, there is the possibility of adding the ability to place stream crossing surveys at locations that are not related to a road.

The Center for Technology & Training at Michigan Technological University publishes Roadsoft Roundup four times a year. To obtain permission to reprint any articles or graphics from Roadsoft Roundup, or subscribe, contact the CTT.

Director: Tim Colling, Ph.D., P.E.
Project Leader: Gary Schlaff
Software Engineers: Mary Crane, Nick Koszykowski, Nancy Moore, Luke Peterson, Chris Pinnow, Mike Pionke, Andrew Rollenhagen, Sean Thorpe
Civil Engineers: Chris Gilbertson, Ph.D., P.E., John Kiefer, P.E., Melanie Kueber, P.E.
Editors: Shaughn Kern, John Ryynanen **Interns:** Alex Slepak, Belle Wirtanen

Center for Technology & Training
Michigan Technological University
309 Dillman Hall
1400 Townsend Dr.
Houghton, MI 49931-1295

Telephone ..... (906) 487-2102
Fax ..... (906) 487-3409
E-mail ..... Roadsoft@mtu.edu
Web..... Roadsoft.org