



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

January 20, 2015

CIRCULAR LETTER 2015-02

LOW WATER CROSSING RESEARCH SURVEY

COUNTY ENGINEERS/SUPERINTENDENTS OF HIGHWAYS
MUNICIPAL ENGINEERS/DIRECTORS OF PUBLIC WORKS

The Illinois Department of Transportation has partnered with the Illinois Center for Transportation at the University of Illinois to conduct a research project entitled: "Development of Low Water Crossing Design Guidelines for Very Low ADT Routes in Illinois." The focus of this project will be to evaluate existing low water crossings, as well as pull from past research and experience, in order to develop low water crossing design guidelines for Illinois conditions.

This project is just getting underway and one of our first objectives is to identify existing low water crossings around the state and past experience with them. We ask that you complete the attached survey questionnaire for all low water crossings under your jurisdiction. We would also ask the county engineers to work with the road commissioners within their county for identifying any low water crossings on the local system. The attached spreadsheet may be used to list and identify multiple low water crossings.

Survey responses are due by February 20, 2015 and should be returned to heidi.r.howard@usace.army.mil. Questions concerning the survey questionnaire, or the research project in general, may be directed to Thomas Winkelman at (217) 782 – 0675 or tom.winkelman@illinois.gov.

Sincerely,

A handwritten signature in cursive script that reads "James K. Klein".

James K. Klein, P.E., S.E.
Acting Engineer of Local Roads and Streets

TW/

Attachment

cc: Greg Smothers, Illinois Association of County Engineers
Joe Schatteman, Illinois Municipal League
Bryan Smith, Township Officials of Illinois
Technical Review Panel membership

Development of Low-Water Crossing Design Guidelines for Very Low ADT Routes in Illinois

Survey Questionnaire

Responses Due: February 20, 2015

This survey is to assist the Illinois Department of Transportation (IDOT) and local public agencies in determining a safe, cost-effective, and environmentally friendly design of Low-Water Crossings (LWCs) for very low average daily traffic (ADT) routes in Illinois. The focus of this work is to develop guidelines that can be used to determine appropriate locations and an optimal design of LWCs to meet traffic needs, while maintaining natural channel function.

As part of this project, we are surveying IDOT, county, and municipal engineers on the current status of LWCs in Illinois. The survey will provide critical information to effectively determine optimal design, current practices, and potential design issues impacting natural channel flow and safety.

For Questions, please contact either Niels Svendsen (niels.g.svendsen@usace.army.mil) 217-373-3448 or Heidi Howard (heidi.r.howard@usace.army.mil) 217-373-5865.

Definition: The Natural Resources Conservation Service (NRCS) defines a LWC as "a stabilized area or structure constructed across a stream to provide a travel way for people, livestock, equipment or vehicles." These LWCs may consist of an unvented ford, a vented ford, or bridges and culverts designed to be overtopped by high flows during flooding conditions. For purposes of this survey, as there are currently no design standards in Illinois, please provide locations which appear to meet the functional definition of a LWC.



LWC: Unvented ford



LWC: Vented ford

Respondent Information

1. Name:
2. Organization:
3. Telephone:
4. E-mail:

General LWC Questions

1. Please indicate the number of LWCs meeting the above definition within your jurisdiction:
2. Please indicate the number of LWCs proposed for development in 2015 and 2016:
3. Do you have your LWCs located within an available GIS layer (location, name, etc)?

Individual LWC Questions (See attached spreadsheet for multiple LWCs)

1. Please number the LWCs, and indicate the NBIS Structure Number if applicable. (We will then assign a tracking number for our database and for future reference):
2. Please indicate the LWC location: (Latitude and Longitude are preferred, or an approximate location (street address/junction))
3. Please indicate the stream or body of water the LWC is on:
4. Please clearly label and include any photographs of the LWC: (Insert here or attach)
5. Please indicate the LWC type: (*Examples; at grade structure (vented/unvented), above grade structure (vented/unvented), culvert, low water bridge (pier and pillar), etc:*)
6. Please indicate the design specifications used for this LWC if applicable:
7. Please indicate the storm event the LWC was designed for, if applicable: (i.e. 15 year, 30 year, etc.)
8. Please indicate the function and intended use of this LWC:
9. Please indicate the Average Daily Traffic (ADT):
10. Please estimate the number of over-toppings per year:
11. Does this LWC have advance warning signs?
 - a. If Yes, what type(s):
 - b. Please insert any photographs of the warning signs:

12. Do you experience any maintenance issues with this LWC:

13. Have you experienced any safety issues with this LWC:

14. What is the local public perception of this LWC:

Completed Surveys: Completed surveys may be returned to
heidi.r.howard@usace.army.mil

OR

ERDC-CERL
ATTN: H. Howard
P.O. Box 9005
Champaign, IL 61826

