





6 – 20 Foot "Small Bridge" - Culvert Program Overview

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Learning Objectives

- Increase understanding of the issues
- Increase understanding of the 6 20 foot small bridge/culvert program
 - Inventory Phase (Go Find Them)
 - Assessment Phase (Inspect Condition)
- Ensure towns understand their responsibilities in the inventory phase
- Discuss options to accomplish these responsibilities
 - Consistency
 - Efficiency
 - Future Cost Savings

Issue Overview: Bridge v. Culvert

- The definition of a bridge is found in the Code of Federal Regulations (CFR)
 - CFR 650.305

A structure including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening

measured along the center of the roadway of more than 20 feet

between under copings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it includes multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening.

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Issue Overview: Bridge v. Culvert

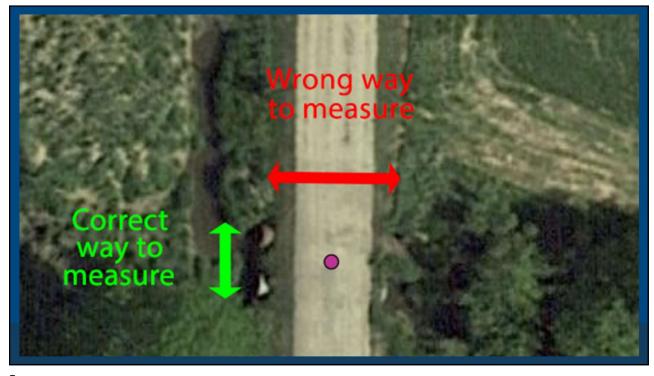






NOT THIS WAY

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Issue Overview: Bridge v. Culvert

- Bridges...
 - ...must have <u>inventory</u> information collected and stored.
 - ...have requirements to be <u>regularly inspected</u>.
 - ...must have an <u>up-to-date load rating</u> (capacity check).
 - ...are eligible for federal bridge rehab and replacement <u>funding</u>.
- All bridge data (state and local) stored in the Highway Structures Information System (HSIS)

Issue Overview: Bridge v. Culvert

- Structures under 20ft long are culverts.
 - ...have NO inventory requirements.
 - ...have NO inspection requirements.
 - ...have NO load rating requirements.
 - ...are NOT eligible for federal bridge rehabilitation and replacement funding.

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Issue Overview: Bridge v. Culvert

• Bridges and "not bridges" can look and act very similar



NOT A BRIDGE



BRIDGE



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Issue Overview: Bridge v. Culvert

• Small structures can still present issues...



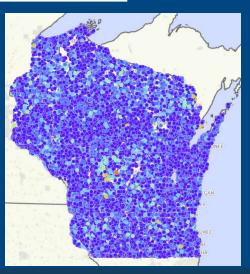




• ...and require funding to repair or replace.

The Program: Overview

- \$12.5 M in state budget to inventory and assess 6 to 20 foot culverts
- Approximately 25,000 structures that meet criteria



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The Program: Phased Approach

Phase 1: Inventory



Towns HAVE Responsibilities

GO FIND THEM PHASE – COLLECT BASIC DATA

Phase 2: Assessment



Towns DO NOT HAVE Responsibilities

INSPECT FOR CONDITION

• Load rating - as needed and pending available funds

Phase 1: Inventory Information

- Town is responsible for finding them and collecting the following information:
 - Name of person collecting information
 - Date of inventory
 - Owner
 - County
 - Municipality
 - Feature on (roadway name/number)
 - Number of lanes on structure
 - Feature under (if known)

- Location (Latitude / Longitude)
- Location description (distance from an intersection)
- Total structure length
- Structure type (pipe culvert, box culvert, girder bridge, etc.)
- Structure material (concrete, steel, etc.)
- Weight limit (if posted)
- Concerns/photos

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Phase 1: Inventory Information

- Towns can:
 - Use a private-sector vendor
 - Use their own staff
 - Use county highway department (if willing)

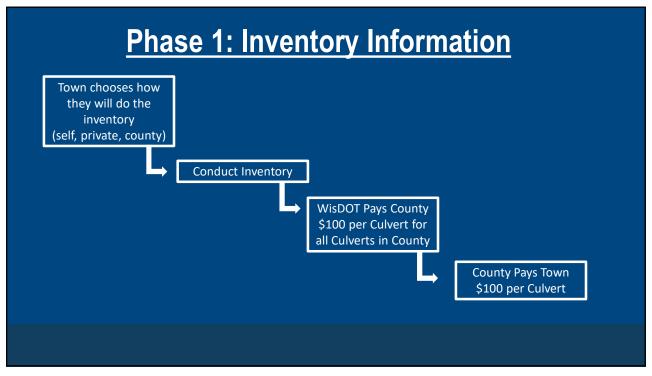


- No qualifications for person collecting this information
- WisDOT Bureau of Structures to provide direction/training
- Data provided to WisDOT via the county
- WisDOT will upload to the Highway Structures Information System (HSIS)

Phase 1: Inventory Information

- WisDOT will reimburse \$100 per structure
 - WisDOT will reimburse County Highway Commissioners based on the number of structure inventories received for their respective county.
 - The County Highway Commissioners will be responsible for distributing those funds to local owners, as applicable.

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Phase 2: Assessment - Inspection

- Inspections performed by Wisconsin certified bridge inspectors
- Based on National Bridge Inspection (NBI) rating scale (0-9)
 - \bullet 0 2: Severe condition
 - 3 4: Poor condition
 - 5 6: Fair condition
 - 7 9: Good condition

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Phase 2: Assessment - Inspection

- Three options for resourcing the effort:
 - Municipalities with staff certified as bridge inspectors and the capacity to resource the effort may inspect structures in their jurisdiction.
 - Up to half a dozen
 - County Highway Commissioners with county staff certified as bridge inspectors and the capacity to resource the effort will inspect all local structures within their county.
 - Up to 32 counties
 - If the County Highway Commissioner does not have certified bridge inspectors on staff or does not have capacity to resource the effort, private sector certified bridge inspectors will be used.
 - At least 40 counties

Phase 2: Assessment - Inspection

- WisDOT will reimburse \$350 per structure
 - When either municipal or county inspectors are used, reimbursement will go to the County Highway Commissioner and distributed from there as appropriate.
 - Up to half a dozen cities
 - Up to 32 counties
 - Wisconsin Counties Association (WCA) will coordinate contracts for consultant inspectors. Reimbursement will go to WCA.

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Phase 2: Assessment - Load Rating

- As deemed necessary and pending availability of funds, perform load ratings to ensure safety
- Performed by structural engineers
- Contracting and reimbursement mechanism pending availability of funds

Target Timelines

- 1. Towns choose who will conduct inventory and send form to county highway department and WTA (towns) or LWM (villages/cities) by April 15, 2024.
 - Use a private-sector vendor
 - Use their own staff
 - Use county highway department (if willing)
- 2. Target one year for inventory (complete by 12/31/2024)
- 3. Target inspection completion (12/31/2025)

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Looking Ahead

- WTA would like to attempt to obtain some funding for repair and replacement in the 2025-2027 state budget
- That requires as much inventory and inspection data as possible
- Obtaining as much data as possible requires:
 - All towns make their decision by April 15th
 - Data consistency
 - Capturing efficiency by meshing with inspection phase

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Data Consistency and Efficiency

- Consistency
 - Achieved by having the fewest number of people conducting the inventory
 - Recommend towns seriously consider NOT doing it on their own
 - Recommend considering one of 2 Service providers from private sector (Delmore / Paladin)





Paladin Project Management Group LLC

- Efficiency
 - Opportunity to have culvert <u>inventory</u> and <u>inspection</u> occur at same time
 - Recommend that certainly in the 40 counties without certified bridge inspectors on staff that towns use the private sector

Counties that DO NOT have Inspectors on Staff*

Adams
Barron
Bayfield
Buffalo
Burnett
Calumet
Crawford
Door
Eau Claire
Florence

Forest
Green
Green Lake
Iron
Jackson
Kenosha
Kewaunee
Lafayette
Langlade
Lincoln

Marinette
Marquette
Menominee
Milwaukee
Monroe
Oconto
Oneida
Ozaukee
Pepin
Polk

Price
Racine
Richland
Rock
Sawyer
Trempealeau
Vernon
Vilas
Walworth
Washburn

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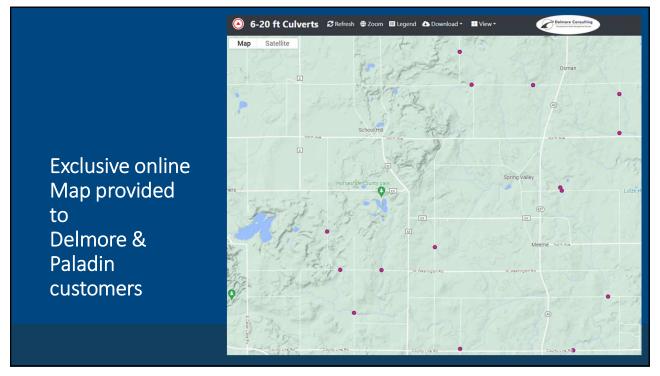


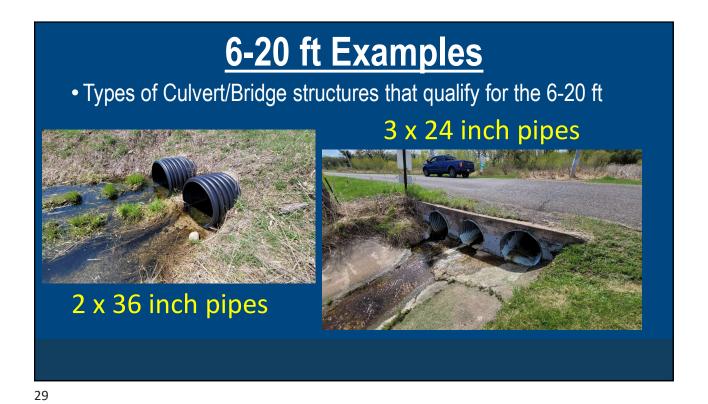


- Over 150 years of combined experience working with local governments
- Inventoried over 5,500 culverts
- · Certified Bridge Inspectors to increase efficiency "one stop shop"
- Extensive experience with WisDOT programs & Bridge Management System
- · Extensive experience working with Towns across entire state
- Currently the Program Manager for the LRIP Pilot in District 2 & 3
- · Exclusively endorsed by WTA to conduct the inventory phase



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Inventory, collect data, & map culverts under 6'
PASER rating analysis, including WisDOT electronic submittal
Sign inventory and condition assessment
Road maintenance plan
Bid letting and creation of bid documents
LRIP grant assistance



