

County & City Engineer's Form 107 Instruction Guide

UPDATED AS OF:

October 2012

Prepared by the

Iowa Department of Transportation

Performance & Technology Division

DEFINITION OF A STRUCTURE

To qualify as an NBI structure, a structure must comply with the following definition:

*“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 measure along the center of the roadway of more than 20 feet between undercopings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes**; it may also include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening.”*

A FORM 107 MUST BE COMPLETED FOR ALL NEW STRUCTURES, REPLACEMENT STRUCTURES, AND/OR REMOVALS OF STRUCTURES TO THE INVENTORY.

REPORTING CHANGES TO THE INVENTORY

Additions, along with replacements and removals, are to be **reported when completed** via the link to the electronic Form 107 on <https://siims.iowadot.gov/>. The federal mandate states that new structures must be reported and NBI data populated when open to traffic.

There will no longer be an annual structure update request sent to you. You will not receive an inventory listing. You may view your asset list through the SIIMS application.

NEW STRUCTURES ADDED TO INVENTORY

A new structure that meets the above definition should be added to the inventory when it is new to a location due to new construction or realignment of a route. If a bridge is removed and another one constructed in the same place, a replacement form should be completed. You should not complete a removal form and a new form for these types of structures. If applicable, please measure and report the **NEW** vertical clearances.

REPLACEMENTS OF STRUCTURES IN INVENTORY

Replacements are defined as being structures where the location of a new bridge is the same as a previous structure. If the structure qualifies as a replacement, location information is not needed on the Form 107. When you enter the original FHWA number, the form will pre-populate with data associated with that structure. It is imperative to add the new length and year built for the replacement structure. When replaced with a new FHWA number, the original number will be archived in SIIMS. If applicable, please measure and report the **NEW** vertical clearances.

REMOVAL OF STRUCTURES FROM INVENTORY

Problems have arisen with the distinction between the removal process and the closure process. If a structure is replaced by a structure that is 20 feet or less OR is physically removed and not replaced, it is considered a **REMOVAL**. Only removals require a Form 107. **Closures** must be updated in the SIIMS application. Any structure that is closed to traffic should be noted as “closed” (K) under NBI Item 41 in SIIMS. No Form 107 is required for open/closed status change. These closures will remain on the inventory list, but will be carried as “closed only” in our records until such time the structure is replaced, removed, or repaired. The FHWA allows closed structures to remain in their inventory for a maximum of 10 years to collect federal aid in the event the structure is replaced and/or reopened in the future.

CHANGES FROM THE PREVIOUS HARD COPY 107 FORM

There are a few **minor changes** from the previous 107 Form:

1. Sections & fields previously on Form 107 that are now reported through SIIMS:
 - **Superstructure data**
 - **Substructure data**
 - **Width figures**
 - **Underpass information**
2. Program Managers:
 - **Approved through the Office of Bridges and Structures “Bridge Inspector Form”**
 - https://siims.iowadot.gov/inspector_form.aspx
 - **Assigned by Bridge Owner only (eg. County or City)**
 - **Indicate Name of Bridge Owner/Program Manager on right hand side of Form 107**

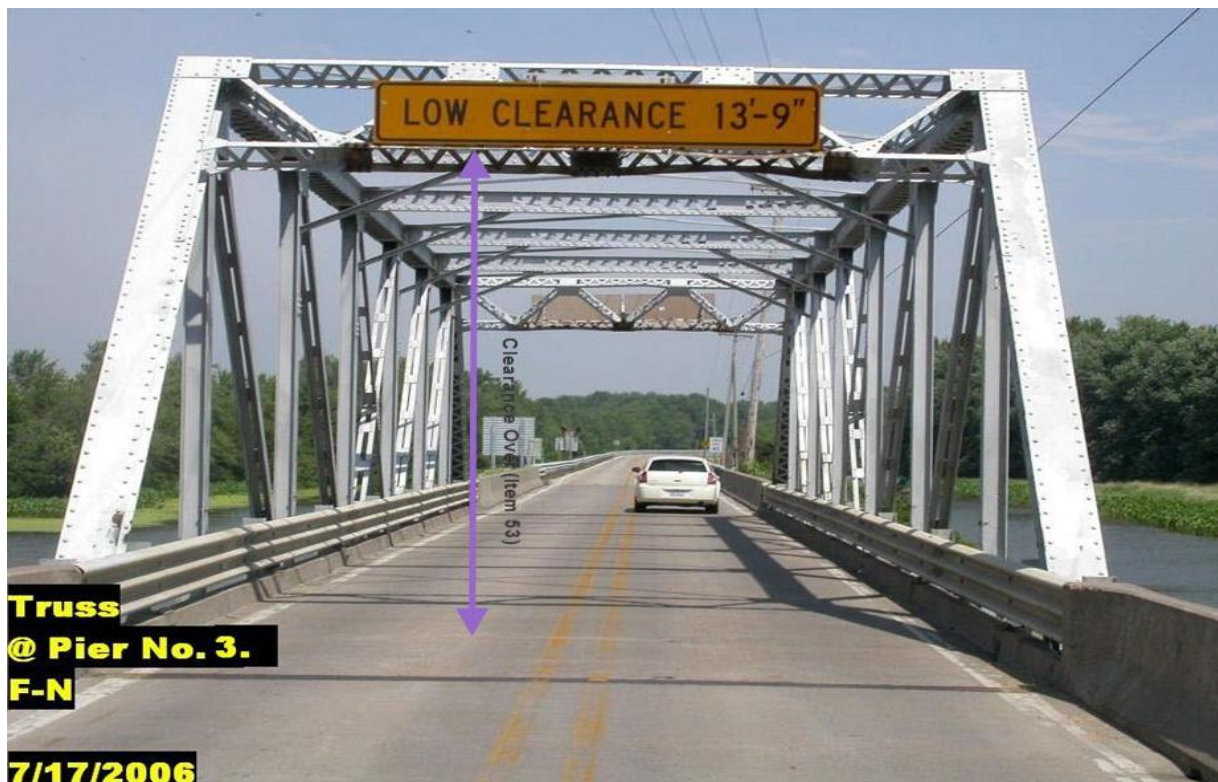
REQUIRED FIELDS ON THE FORM 107 WITHIN ADOBE LIVE CYCLE

1. Indication of BRIDGE OWNER
2. Indication of ADDITION/REPLACEMENT/REMOVAL
 - If removal, please state why the structure is being removed from the inventory
3. Indication of NBI STRUCTURE (Item 112) Indicate YES or NO
 - If NO, please explain why it is not an NBI structure
4. LENGTH OF STRUCTURE IN FEET (Item 49)
 - Structure length is the length of the roadway which is supported on the bridge structure. The length should be measured back to back of backwalls of abutments or from paving notch to paving notch.
 - Culvert lengths should be measured along the center line of the roadway regardless of their depth below grade. Measurement should be made between inside faces of exterior walls.

5. LAT/LONG
6. SECTION/TOWNSHIP/RANGE (for new structures)
7. LOCATION DESCRIPTION (Item 9) (distance and direction from nearest intersection)
8. FACILITY CARRIED (Item 7)
9. FEATURE INTERSECTED (Item 6)
10. COUNTY or CITY (Item 3/Item 4)
11. COUNTY BRIDGE NUMBER (optional)
12. YEAR BUILT (Item 27)
13. DATE REPORTED
14. SUBMITTER'S NAME
15. SUBMITTER'S EMAIL
16. Indication of BRIDGE OWNER
 - If you are not the Bridge Owner or are completing the form on behalf of the Bridge Owner, please enter the name of the Bridge Owner
17. Indication of PROGRAM MANAGER
 - If you are not the Program Manager or are completing the form on behalf of the Program Manager, please enter the name of the Program Manager

OTHER FIELDS ON FORM 107

1. MINIMUM VERTICAL CLEARANCE OVER STRUCTURE (Item 53) *required if* under another route and/or feature:
 - a. Example of feature: TRUSS over structure



- b. Example of feature: OVERPASS over structure



2. MINIMUM VERTICAL CLEARANCE UNDER STRUCTURE (Item 54) required if over another route and/or feature:

- a. Example of feature: ROAD or RAILROAD



PLEASE MAKE SURE THE APPROPRIATE STAFF REPORT ALL VERTICAL CLEARANCE CHANGES FOR A STRUCTURE ON THE VERTICAL CLEARANCE FORM TO JODI CLEMENT IN THE PERFORMANCE & TECHNOLOGY DIVISION VIA EMAIL TO JODI.CLEMENT@DOT.IOWA.GOV.

CHANGES TO STRUCTURE DATA

Please update any structure data, including inspection data, through the SIIMS application at the following link: <https://siims.iowadot.gov/>.

If you discover incorrect values in SIIMS within fields that you are unable to edit, please contact:

Jodi Clement, Structure & Rail Data Maintainer

Performance & Technology Division

Jodi.Clement@dot.iowa.gov


515.233.7741

Adobe LiveCycle Process for Bridge Survey Report – Form 107

The following link will direct you to the Bridge Survey Report – Form 107:

<https://siims.iowadot.gov>

1. Select the “Forms” Tab on the left side of the page and then click on “Bridge status change – Form 107”



Structure Inventory and Inspection Management System

- ▶ SIIMS home
- ▶ Contacts
- ▶ FAQs
- ▶ **Forms**
 - ▶ Bridge owner
 - ▶ Bridge inspector
 - ▶ Bridge load rating
 - ▶ Bridge inspection data entry
 - ▶ Bridge information
 - ▶ **Bridge status change - Form 107**
- ▶ Resources and information
- ▶ Training information

Resources and information

Federal Highway Administration (FHWA) Memoranda

- [1985 - Permits over 80,000 pounds allowed on Interstate highways](#)
- [1993 - Requirements for using Load Factor Rating Method](#)
- [2004 – Rating Method codes for NBI reporting](#)
- [2006 – When can ASR vs. LFR vs. LRFR be used](#)
- [2011 - Revisions to NBI items 31, 63, and 65](#)

National Bridge Inspection Standards (NBIS)

- [NBIS Metrics](#)
- [NBIS 2005](#)
- [FHWA's FAQ on the NBIS](#)
- [Recording and Coding Guide for the Structure Inventory and Appraisal](#)
- [Input Procedures for FHWA Metrics](#)

Load Ratings for Standard Bridges (HR-239 Phases 1 through 4)

- [Phase 1 – 1982 ASR Rating Method](#)
- [Phase 2 – 1991 ASR Rating Method](#)
- [Phase 3 – 1998 ASR Rating Method](#)
- [Phase 4 – 2008 LFR Rating Method](#)

Other information

- [County and City Engineer's Form 107 Instruction Guide](#)
- [SIIMS implementation for local agencies](#)
- [SIIMS implementation for consultants](#)

The image below depicts the log in page to enter the Form 107 process within Adobe Live Cycle.

2. YOU WILL ENTER THE SAME LOG IN AND PASSWORD THAT YOU USE FOR SIIMS (Enterprise A&A Account ID).



 Iowa Department of Transportation
Iowa DOT Web Forms

Version 8.2

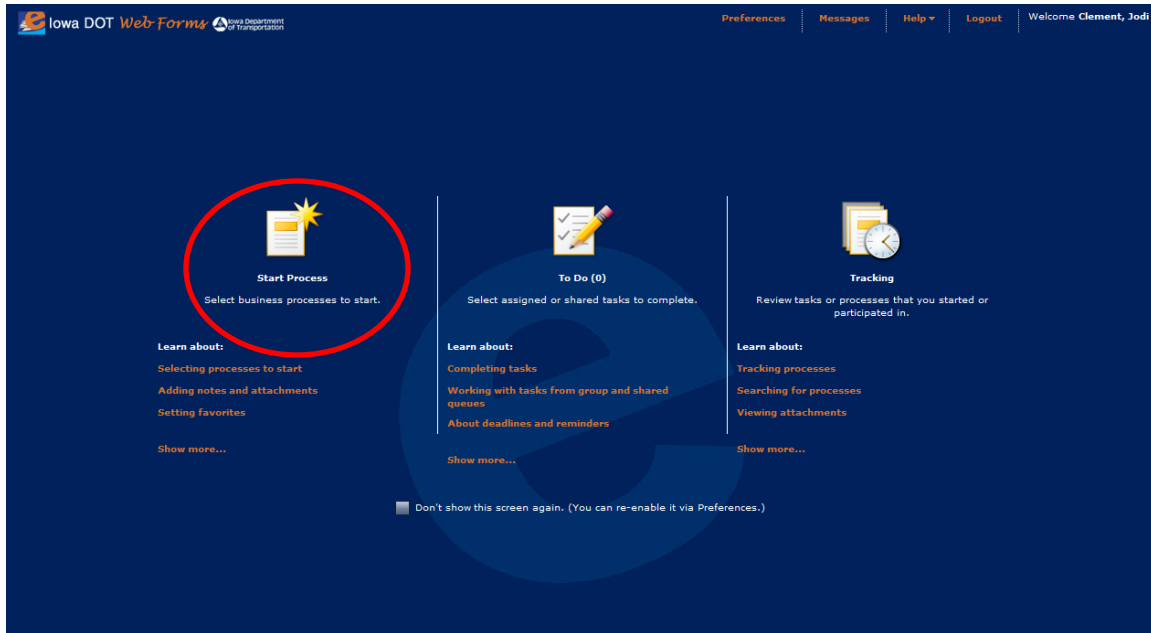
User ID

Password

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*If you do not have a log in to SIIMS, follow this link and click Register for a user name and password: <https://siims.iowadot.gov/Default.aspx>. If you have questions regarding this process, please contact Annette Jeffers in the Bridges & Structures Office at 515-239-1079 or Annette.Jeffers@dot.iowa.gov.

After successfully logging in to Adobe Live Cycle, you will be brought to the front page:

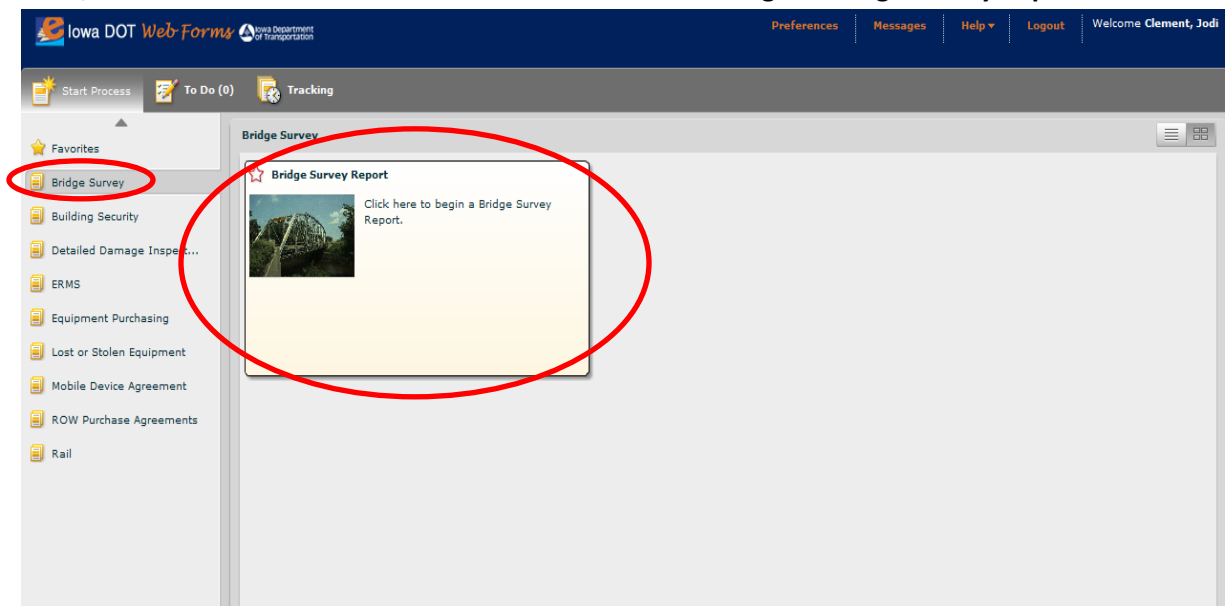


3. Click “Start Process”


- You will not have “To Do” Items unless a form has been rejected and needs further review and/or possible re-submission.
- You may use “Tracking” to see your submitted form’s current status in the process.

4. After selecting “Start Process”, the following screen should be displayed. Click “Bridge Survey” from the list on the left side of your screen.

5. Then, click within the white box that states: “Click here to begin a Bridge Survey Report”



6. Select the box indicating the bridge owner of the bridge you are reporting:

 Iowa Department of Transportation
Form 220023 (9-12)
Performance & Technology Division
800 Lincoln Way Ames, IA 50010


**Bridge Survey Report
(Form 107)**

Form questions should be directed to:
Jodi Clement at 515-233-7741
or Jodi.Clement@dot.iowa.gov

Bridge Owner (Item 22)
☐ County ☐ City ☐ Other

Please determine structure type before continuing.

7. Select one of the following options: New Bridge, Replacement, or Removal.

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Bridge Owner (Item 22)
☒ County ☐ City ☐ Other

☐ New Bridge
(new location) ☐ Replacement
(same location) ☐ Removal

8. Enter the existing FHWA number for any replacements or removals. For new bridges, please do not assign your own FHWA number to the bridge, leave this area blank.

- When you enter the original FHWA number for Replacements, the form will pre-populate with data associated with that structure. It is imperative to add the new length and year built for the replacement structure. A new FHWA number will be assigned to you through the approved form.
- When you enter the FHWA number for Removal, you will need to state why the bridge is being removed. You will not be able to alter the length of the structure if it has changed as you are only removing the structure and the data we have regarding that particular structure.
- For new structures, leave the FHWA number field blank. The Structure Data Maintainer will assign this number and report it back to you through the approved form. Please complete all other fields on the form.

9. Click “Complete” on the bottom right hand corner of the screen when you are finished with the form. This will apply your electronic signature and route it to the Structure Data Maintainer for approval.

Bridge Survey Report

Task Details Form

Please fill out the following form. You can save data typed into this form.

Performance & Technology Division
800 Lincoln Way Ames, IA 50010

(Form 107)

Jodi Clement at 515-233-7741
or Jodi.Clement@dot.iowa.gov

Bridge Owner (Item 22)
☒ County ☐ City ☐ Other

☐ New Bridge (new location) ☒ Replacement (same location) ☐ Removal

FHWA Number (Item 8): Current: 346261

NBI Structure* (Item 112) ☒ Yes ☐ No

Length of Structure (Item 49) 75 feet

Structure 43.09696547 Lat -91.75051886 Long

Location Description (Item 9) .15 miles N of 107th St

Facility Carried (Item 7) 180TH AVE

Feature Intersected (Item 6) CREEK

Minimum Vertical Clearance OVER Structure (Item 53) 15 ft 7 in

Minimum Vertical Clearance UNDER Structure (Item 54) 0 ft 0 in

County (Item 3) WINNESHIEK

County Bridge Number MILITARY 186

Year Built (Item 27) 2012

Date Reported

Reported By (Submitter) Jodi Clement

Submitter's Email jodi.clement@dot.iowa.gov

Are you the Bridge Owner? ☐ Yes ☒ No ☐ On Behalf Of

Bridge Owner John Smith

Are you the Program Manager? ☒ Yes ☐ No ☐ On Behalf Of

For complete instructions on filling out this form, see the "County & City Engineer's Form 107 Instruction Guide" at the following location: <https://siims.iowadot.gov/Form107InstGuide.pdf> or by clicking [here](#).

For further reference on filling out the above form with item numbers indicated, please see the NBI Guide.

IMPORTANT NOTICE:
The FHWA requires that all fields in the structure inventory and appraisal inventory be completed. The data can be entered by either completing an initial inspection from the SIIMS Inspection Website or editing the Central Database Values from the SIIMS Manager Website. The required NBI data must be completed within 30 days of the notification of a new FHWA bridge number.

NBI Structure (Item 112):
"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 measure along the center of the roadway of more than 20 feet between undercopings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening."

Approvals:

(Bridge Owner / Program Manager) (Date)

Save Offline Complete

**YOU WILL RECEIVE AN EMAIL CONFIRMATION WITH
EVERY SUBMISSION, COMPLETION OR REJECTION.**

If you do not get a confirmation email, please contact Jodi Clement in the Performance & Technology Division at 515-233-7741 or Jodi.Clement@dot.iowa.gov.

Once your form has been approved by the Structure Data Maintainer, you will receive a notification email that your form has been approved and a new FHWA number will have been assigned for all New and Replacement bridges.

10. The FHWA requires that all fields in the structure inventory and appraisal inventory be completed. The data can be entered by either completing an initial inspection from the SIIMS Inspection Website or editing the Central Database Values from the SIIMS Manager Website. The required NBI data must be completed within 30 days of the notification of a new FHWA bridge number.

*If a submission is not accepted by the Structure Data Maintainer they will "Cancel" the form. You will be notified your form was cancelled and remarks regarding the submission will be found in the Performance & Technology Division Comments Box.

Facility Carried (Item 7) _____
 Feature Intersected (Item 8) _____
 Minimum Vertical Clearance OVER Structure (Item 53) _____ ft _____ in
 Minimum Vertical Clearance UNDER Structure (Item 54) _____ ft _____ in

Are you the Bridge Owner? _____
 Bridge Owner John Smith
 Are you the Program Manager? ☒ Yes ☐ No ☐ On Behalf Of

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Performance & Technology Division Comments

Approvals:

Jodi Clement

09-28-2012

(Bridge Owner / Program Manager)

(Date)

(IDOT - Performance & Technology Division)

(Date)

**If your form is rejected by the Structure Data Maintainer you will be notified and remarks regarding the submission will be found in the Rejection Comment Box. You may resubmit the form with changes or you may choose to "Cancel" the form yourself to close it out.



Iowa Department of Transportation

Form 220023 (9-12)

Performance & Technology Division
 800 Lincoln Way Ames, IA 50010

Bridge Survey Report (Form 107)

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 Jodi Clement at 515-233-7741
 or Jodi.Clement@dot.iowa.gov

Rejection Comments

Bridge Owner (Item 22)

☒ County ☐ City ☐ Other

☒ New Bridge (new location) ☐ Replacement (same location) ☐ Removal