



Pete Ricketts  
Governor

# STATE OF NEBRASKA

DEPARTMENT OF ROADS  
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December 31, 2015

Dear Nebraska Bridge Owner:

RE: Bridge Inspection Program

The Quality Assurance (QA) Evaluation of the Bridge Inspection Program (BIP) has been completed for data entered into BrM from April 1, 2014 to March 1, 2015. The seven primary operations related to the BIP receiving a QA evaluation during 2015 were:

- Qualifications of Personnel
- Inspection Frequency
- Inspection Procedures
- Bridge Load Rating
- Bridge Posting or Closure
- Owner Records
- Scour Assessments

This year a new system was implemented by the QA Team to track the completeness of Bridge Owner's files. Results obtained this year will be more easily compared to subsequent years to measure progress. A total of 431 Bridge Owner files were reviewed this year and 60% were either Compliant or Substantially Compliant.

Review Result	Percent
Compliant → All required items are included in file	32% (138 of 431)
Substantially Compliant → File is missing one required item	28% ( 121 of 431)
Non-Compliant → File is missing two or more required items	40% (172 of 431)

Below is a brief summary of the significant findings for this year.

- **Fracture critical bridge documentation should be stored in the bridge file with the other bridge documentation.** This cycle saw a 28% decrease in files containing the most current fracture critical report. Only 34% of fracture critical bridge files reviewed this year had the most current report in the file. Fracture critical bridges receive inspections through the statewide program performed by consultants. However, FC inspection reports should be reviewed, and the bridge files are required to be updated by the Bridge Owner each year.
- **Each bridge file must contain the latest load rating summary sheet (LRSS) for the structure.** This cycle saw a 10% improvement over last year in files containing the latest LRSS. In all, 86% of the bridge files reviewed this cycle contained the LRSS. However, many files contained multiple summary sheets with conflicting information. When new load ratings are completed and delivered, the previous load rating should have "VOID" or something similar written across it to make clear what the current legal load rating is. It can still be kept in the bridge file for a record of posting changes.

- **The current Structure Inventory and Appraisal (SI&A) sheets should be kept in each file.** Each bridge file should be a complete record of the bridge and should be stored either electronically or physically with the Bridge Owner. For example, this year approximately 40% of the files sampled during the QA review did not contain the most current SI&A sheet. Please review your bridge files to make certain current required information is being stored. Instructions for printing files from the ftp site as well as instructions for printing the latest SI&A sheets from BrM are included as attachments to this memo.
- **Bridge Owners must maintain and regularly update Plans of Action (POA) Monitoring Logs.** This cycle saw another large increase in owners properly maintaining POA logs. Over 70% of files required to have a POA log had one. This is a 15% improvement over last year and a 31% improvement over two years ago. Your efforts to tackle this issue are paying off. Standard form DR385E is available for use when developing POA monitoring logs. It is included as an attachment to this memo for your use. As a reminder, updating the form should be done after each event as described in each structure's POA. As a best practice, a master list of structures requiring a POA monitoring log should be kept in one location in your office for easy access. When an event occurs that meets the trigger set forth in the POA, each structure identified as scour critical should be visited to verify the structure is safe for continued public use. It is the responsibility of each owner to complete a POA and POA monitoring log for each structure identified by NDOR as scour critical. Scour critical bridges have Item 113 equal to 3, 2, 1 or U. Also, should you make it through a calendar year without any trigger events, a good practice is to document this across the top of the POA Log so it is evident events are not being missed.
- **Owners should track maintenance and repair items.** Most owners are not tracking maintenance and repair items for their structures. This will become an increasing point of emphasis moving forward. Any significant repairs made to the structure should be documented. These could include a new or repaired beam, reconstructed abutment, riprap placement, a new deck, etc. Records on coatings or protective membranes should also be documented. Included as an attachment to this memo are standard forms DR27 and DR321A which NDOR has created to track these items.
- **Owners and inspectors should review section 4.10.3 of the Bridge Inspection Program Manual (BIPM) for the requirements of special inspections.** Special inspections are required when Item 59, 60 or 62 fall to levels outlined in Section 4.10.3. Only 56% of files reviewed this year that required a Special Inspection had these documents in the file. NDOR recommends that owners keep a master list of all bridges requiring a special inspection. Additionally the reason for the special inspection should also be recorded. Note that all special inspections required at fracture critical bridges are scheduled and completed by consultants working through NDOR's fracture critical bridge inspection program and not the responsibility of owners.
- **Inspectors should verify Item 32 – Approach Roadway Width.** Much improvement was made in Item 32 coding this cycle. In all, 75% of structures had this item coded acceptably. As in past years, most of the errors are on structures with gravel or minimum maintenance roads. Per the BIPM this number should represent the width of the usable roadway approaching the structure. This should include shoulders if they are maintained. Grass or turf shoulders should not be included.

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Nebraska Department of Roads and Federal Highway Administration appreciate your cooperation in meeting the requirements of the National Bridge Inspection Standards.

This memorandum is being sent to all local Bridge Owners and is intended to provide an update on the Nebraska Bridge Inspection Program (BIP). Electronic copies of this and previous BIP memos, as well as other BIP information, can be found on the NDOR Bridge Division website at [www.transportation.nebraska.gov/design/bridge](http://www.transportation.nebraska.gov/design/bridge).

Sincerely,

Mark Traynowicz, PE  
State Bridge Engineer

Enclosures: Attachment 1 – Forms DR27, DR321A, and BR385E  
Attachment 2 – How to print SI&A forms from BrM  
Attachment 3 – How to print bridge record items from the ftp site