# Chapter 6 Bridge Records

## 6.01 General

The on-site inspection of each bridge is important for gathering information about the bridge's structural condition and adequacy. This information must be stored as a permanent bridge record. Such a record provides a useful and accurate history. It also contains information on previous repairs and provides others with ready access to information.

Each agency is responsible for maintaining a bridge file for each bridge within its jurisdiction. A detailed list of information that should be in the bridge file is listed and described in Chapter 1. When inclusion of this information in the bridge file is not possible or impractical, reference to the location where it can be found will suffice.

In addition, agencies are required to maintain a record of other general information. This information may be requested during the quality assurance review of the bridge inspection program. The following general information should be on file:

- An experience and training record for each lead inspector.
- A master list of all bridges within the agency's jurisdiction. This list should identify bridges that have fracture critical members, require underwater inspection, and/or warrant special attention because of their design features, location, or strategic importance.

## 6.02 Individual Bridge Records

A permanent record on each bridge must be maintained. This record provides a history of the bridge's condition, maintenance, and inventory data. This information must be kept current. The National Bridge Inspection Standards (NBIS) require changes to the bridge record information to be reported quarterly.

### *A. Washington State Bridge Inventory System (WSBIS) Inventory Coding Form*

A copy of the completed WSBIS Inventory Coding Form must be in the bridge file as a ready source of the current bridge information. The procedures for establishing, maintaining, and updating the inventory information is described in detail in Chapter 2.

### *B. Bridge Inspection Reports*

Copies of all on-site inspection reports must be kept in the individual bridge file. The reports provide specific details about the bridge's condition, how conditions have changed over time, and any previous repairs or maintenance performed. This information is reviewed prior to each bridge on-site visit to prepare the inspector for the conditions or problems they may encounter. Procedures for completing bridge inspection reports are covered in Chapter 3.

## C. Critical Damage Bridge Repair Report

A copy of the Critical Damage Bridge Repair Report must be kept in the bridge file. This report provides evidence that formal recommendations to correct major bridge damage were made and acted upon in a timely manner, ensuring the safety of the public. See Chapter 7 for more information.

## D. Photographs

Labeled and dated copies of elevation and deck photographs of the bridge must be kept in the bridge file. The label should include the structure ID, bridge name, bridge number, inspector's initials, and a description including orientation. Whenever the bridge's condition changes, new photographs should be taken and added to the file. An agency may also keep on file photographs of problems or deficiencies discovered at the bridge (e.g., section loss in a deteriorating piling or significant spalling on a bridge deck). These photographs can provide documentation of existing or developing problems that could lead to repairs.

## E. Plans

Most bridges will have detailed design plans used for the construction of the bridge. These plans should be kept in the bridge file. If these plans are not available, a detailed sketch of the bridge needs to be made showing bridge length, width, span length, clearances, and a typical section with bridge materials and dimensions.

## F. Calculations

Bridge calculations necessary for inclusion in the bridge file are detailed in Chapter 5.

A copy of the stamped, signed and dated load rating must be kept in the bridge file. Include a note in the bridge file with location of any load rating that is too bulky to fit in the file itself.

Scour elevations must also be included in the bridge file. The scour evaluation must include the code entered in WB76 - 80 and an action plan for high water events for scour critical bridges.

## G. Correspondence

All letters regarding the inspection, maintenance, or ownership of the bridge should be kept in the bridge file. This may include correspondence from FHWA, WSDOT, other agencies, and/or individuals.

## H. Inspection Procedures

Each agency is required to develop and maintain procedures that address the special features of a bridge. Special features include fracture critical members, underwater elements, or any other feature requiring special attention due to location, strategic importance, or special design features.

The members that require an underwater inspection shall be identified and the inspection procedures specified. Waters deeper than 4 feet will normally require a diver that is trained in bridge inspections. Wading types of inspections can usually be performed by regular bridge inspection teams as part of the structural inspection. Detailed procedures for conducting these inspections are in Chapter 3.

### *I. Other Information*

All other information gathered about the bridge should be kept on file. This includes details about maintenance work performed, special reports or studies, heat straightening, damage, and paint reports.

## 6.03 Master List

The purpose of a master list is to assist in the management of nonroutine inspections, bridges needing special attention and/or inspection equipment.
**Each agency is required to maintain a master list of:**

- Bridges with fracture critical members
- Bridges requiring underwater diving inspections
- Bridges with special features (e.g., segmental bridges, etc.)

It is recommended that each agency maintain a master list of:

- Bridges that are scour critical
- Load posted bridges
- Bridges requiring an Under Bridge Inspection Truck to inspect limited access members
- Short span bridges
- Bridges needing repairs
- Bridges needing traffic control for routine inspections
- Fatigue cracked bridges
- Environmentally sensitive bridges
- Bridges needing deck replacement
- Bridges that are seismic vulnerable
- Bridges needing painting

This information can be used to plan, schedule, and monitor the special inspections. At a minimum, the following information must be included for each bridge:

- Bridge type and location
- Type and frequency of inspection required
- Location of particular members to be inspected
- Inspection procedures to be used
- Type of special equipment required

- Previous inspection dates
- Most recent inspection findings
- Any follow-up action taken as a result of the most recent inspection findings

Bridges are added to the master list when they are identified as needing an underwater, fracture critical, or special features inspections. As these inspections are performed, the master list is updated with the most current information. Bridges are kept on the master list throughout their service life, unless the bridge's category (e.g., fracture critical, special features, etc.) changes.

## 6.04 Short Span Bridges

Short span bridges (see Chapter 8) are bridges or multiple culverts having an opening of 20 feet or less. The short span bridges are generally not reported to the Federal Highway Administration. Washington State encourages the reporting of short span bridge information because of concerns about their condition and possible maintenance repairs required.

## 6.05 Inspector Qualifications

The NBIS outline the minimum training and experience required for the head of the bridge inspection organization and the lead bridge inspector. Each agency is required to maintain a record of qualifications for each of its bridge inspection personnel. The agency needs to include the names and qualifications of each individual performing bridge inspections.

The Bridge Inspector Experience and Training Record Form was developed for this purpose. The form is completed by the head of the bridge inspection organization who verifies that lead inspectors meet the qualifications. The completed form is sent to the Bridge Engineer for Local Agencies for review and the issuance of a bridge inspector identification number. This number is required on the inspection reports. A copy of the completed form is kept on file with the agency.

Each agency is responsible for keeping this information current. During the quality assurance review process, agencies may be asked to verify the qualifications of their inspectors.

## Forms

Bridge Inspector Experience and Training Record

Washington State Department of Transportation

# Bridge Inspector Experience and Training Record

| Team Leader Name | Date |
|---|---|
| | |

Agency Name

## Education

| Institution | Major | Years | Degree |
|---|---|---|---|
| | | | |

## Professional Registration

| State | Branch/Agency | Registration Number |
|---|---|---|
| | | |

## Bridge Inspection Training

| Course | Hours | Sponsor | Dates |
|---|---|---|---|
| | | | |

## Special Technical Course

| Course | Hours | Sponsor | Dates |
|---|---|---|---|
| | | | |

## Bridge Inspection Experience

| Agency/Firm | Bridge Duties | Years |
|---|---|---|
| | | |

To the best of my knowledge, the above information is true and accurate.

Team Leader's Signature _____ Date _____

Having reviewed the above information, I conclude that this individual meets the minimum qualifications for a bridge inspection team leader as specified in the current National Bridge Inspection Standards.

Team Leader's Supervisor's Signature _____ Date _____

Supervisor's Name (Print) _____ Title _____