



**Table of Contents**

1.7 Emergency Notification and Follow-Up Documentation ..... 2

    1.7.1 Introduction..... 2

    1.7.2 Critical Findings Notification Process ..... 5

    1.7.3 Onset Inspection and Initial Assessment ..... 6

    1.7.4 Analysis and Design ..... 6

    1.7.5 Close-out Inspection and Completed Report ..... 6

    1.7.6 Definitions..... 7

    1.7.7 Examples..... 7



## 1.7 EMERGENCY NOTIFICATION AND FOLLOW-UP DOCUMENTATION

### 1.7.1 Introduction

The NBIS Metrics for Oversight of the National Bridge Inspection Program, Metric #21: Inspection Procedures – Critical Findings states:

1. A procedure is established to assure that critical findings, as defined in 650.305, are addressed in a timely manner.
2. FHWA is periodically notified of the actions taken to resolve or monitor critical findings.

A Critical Finding per the FHWA Metrics and by extension 23 CFR 650.305 is defined as “a structural or safety-related deficiency that requires immediate follow-up inspection or action”. The Wisconsin Department of Transportation – Bureau of Structures has modified the previous definition to provide clearer guidance as to what qualifies as a critical finding. WisDOT’s definition is below:

“A bridge or portion thereof, discovered either by bridge inspection or notification by the public, which critically threatens the structural stability of the bridge and/or the public safety, and is of such severity that immediate partial or full closure of the structure may be warranted.”

The first part of this definition touches on the discovery of a certain condition or incident. Potential findings which may warrant a critical finding designation are as follows:

- Extreme Deterioration which threatens the integrity of primary structural element(s)
- Scour Critical Deficiencies
- Fracture Critical Inspection Findings
- Non-Destructive Evaluation Findings
- Other Safety Deficiencies (Movement, Natural Disaster, Bridge Hits, etc.)

The second part of the definition imposes a threshold based on severity. WisDOT splits findings into four classifications based on severity of the finding:

1 – **Urgent**: Structural deficiency of a primary structural element which threatens the integrity of the structure as a whole. The bridge is closed as soon as possible. Deficiency may require bridge replacement or major rehabilitation.

2 – **Severe**: Structural deficiency of a primary structural element which dramatically lowers previously established load posting and or necessitates lane restrictions. The bridge is restricted as soon as possible, either with strict posting or partial closure of the structure. Analysis and recommendations shall be completed within 3 days.

3 – **Significant**: Finding does not pose an immediate threat to the traveling public, but repairs are required. The bridge need not be restricted in any way. Planning and programming shall be completed within 6 months. Repairs shall be completed as soon as practical.



4 – **Follow-up:** Finding is routine in nature. The bridge need not be restricted in any way. Work will be performed on a regular schedule.

Critical findings, per the WisDOT definition, shall be findings classified as either Urgent or Severe. Significant findings and Follow-up findings shall be captured using the Maintenance actions within the inspection form.

Refer to Figure 1.7.1-1 for a flow chart of this system.

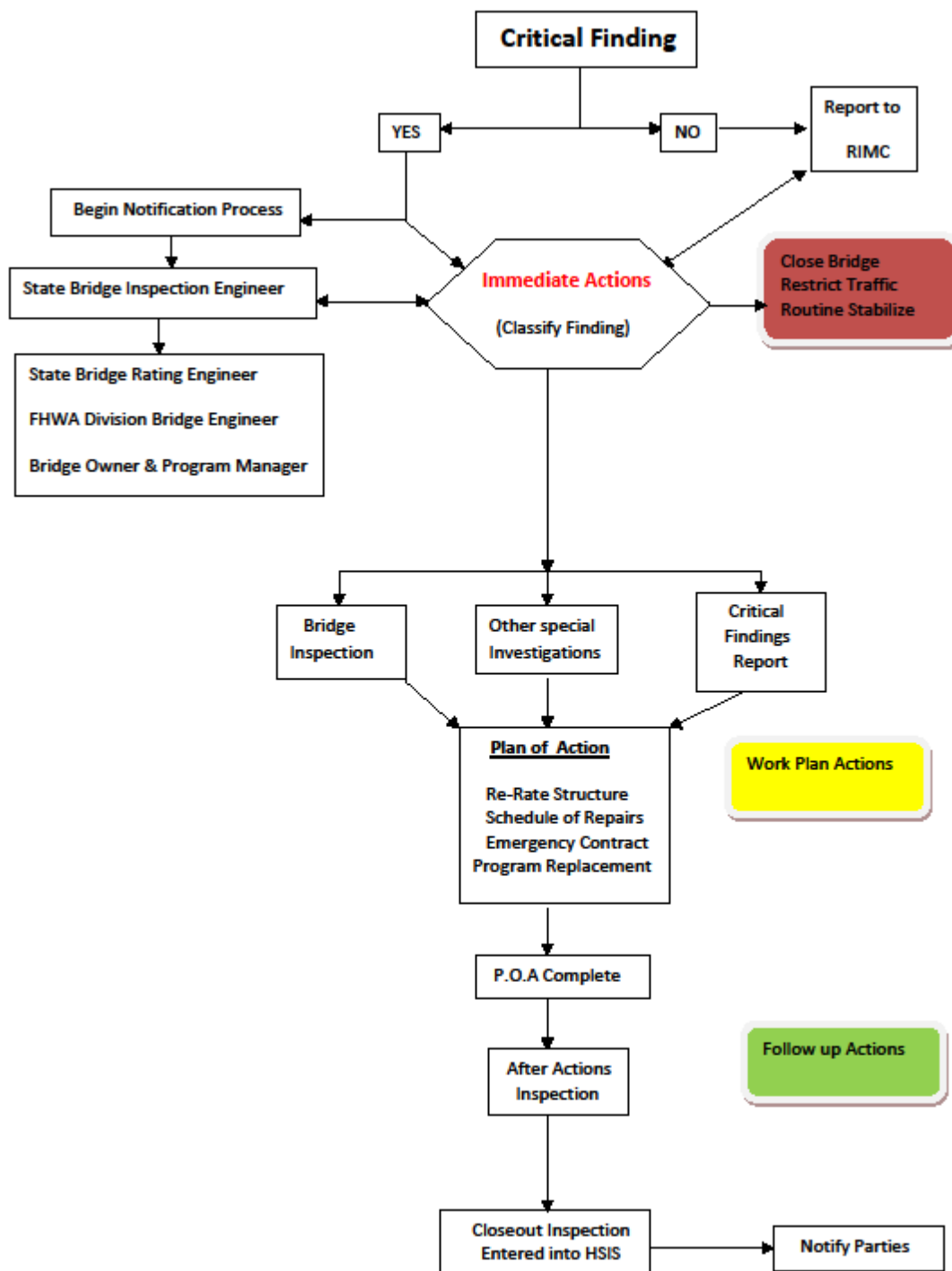


Figure 1.7.1-1: Emergency Notifications and Follow-up Documentation Flow Chart.



1.7.2 Critical Findings Notification Process

Upon discovery of a critical finding, the inspector will immediately begin the notification process by first contacting the Program Manager (PM) who has jurisdiction over the structure. If an inspector is unsure if the finding they discover is serious enough to warrant a critical finding designation, he/she should consult with the PM to make a determination. Once a critical finding designation is established the PM shall then contact the owner of the structure, the Regional Program Manager, and the WisDOT Statewide Program Manager (SPM). The Regional Program Manager will inform his/her Regional Operations Manager. Once notified, the SPM will assume the lead role in the notification process. The SPM will be responsible to contact the State Bridge Rating Engineer and the FHWA Division Bridge Engineer. The following table summarizes the notification process, emphasizing the notification responsibilities:

Involved Party	Contacted By
Program Manager	Inspector
Bridge Owner	Program Manager
Regional Program Manager	Program Manager
Regional Operations Manager	Regional Program Manager
Statewide Program Manager <b>[Lead]</b>	Program Manager
State Bridge Rating Engineer	Statewide Program Manager
FHWA Division Bridge Engineer	Statewide Program Manager

This notification process only occurs for findings designated as Critical Findings. The primary method of contact will be phone notification and a required, follow-up email to properly document discussion. During the notification process, discussion shall include: description of finding, Plan of Action (regarding any immediate actions), and communication plan going forward. Initial communication with Bureau of Structures shall be documented on the Critical Findings Report. This report only needs to be filled out for Critical Findings and can be found on the WisDOT DT Forms Webpage as DT 2026 “Critical Findings Report”.



### 1.7.3 Onset Inspection and Initial assessment

The Onset Inspection is defined as the inspection in which the Critical Finding was discovered. This will often be either a Routine or Damage Inspection (although it is plausible to occur during Fracture Critical, Underwater Dive, or In-Depth Inspections). Along with this Onset Inspection, there should be an associated Critical Finding Activity. The inspector shall check the appropriate box during inspection report entry in HSIS and will be required to upload a Critical Findings Report document. At this stage, only the portion of the report titled “Initial Assessment” is to be filled out.

In this Initial Assessment portion, the key entries are related to documenting the finding and its impact. The entry field for “Structural Components Affected” should include a detailed narrative of exact location, size, and severity of all structural deficiencies that warrant a Critical Findings designation. The entry field for “Incident Situation Description” should document how the critical finding was discovered, comment on why the deficiency exists (mainly for bridge hits), and note the timeline for determining critical finding status.

### 1.7.4 Analysis and Design

The determination of a critical finding may require that structural calculations be performed to determine load-carrying capacity or that an engineered repair be designed to mitigate the structural deficiency. Although the State Bridge Rating Engineer is part of the notification process, each County Inspection Program (for local structures) is still responsible to independently perform any necessary load ratings or repair designs. Bureau of Structures will then serve as oversight to the counties. For critical findings on state structures, Bureau of Structures will perform, or have performed, any necessary load ratings and repair designs.

### 1.7.5 Close-out Inspection and Completed Report

The Close-out Inspection is defined as the inspection performed after Short-Term Follow-up Actions have been taken. This means a plan is in place and sufficient countermeasures have been implemented to restore light service or to fortify closures in order to ensure public safety. A Long-Term Plan of Action for the structure shall also be established at this time. Close-out Inspections will often be Interim Inspections. Along with this Close-out Inspection, there should be an associated Critical Finding Activity. The inspector shall check the appropriate box during inspection report entry in HSIS and will be required to upload a Critical Findings Report document. At this stage, the report should be filled out in its entirety. When this inspection is entered into HSIS the incident will be considered Closed.



### 1.7.6 Definitions

Immediate actions – Actions taken on-site during the Onset Inspection to ensure public safety. Until structural calculations have been performed, these actions are likely to remain in effect.

Short-Term actions – Temporary actions following a structural review. These actions include the placement of sufficient countermeasures to restore light service or to fortify closures in order to ensure public safety.

Long-Term actions – Plan of Action that is established following a structural review. These actions include decisions related to planning and programming of the structure for future repair, rehabilitation, or replacement.

### 1.7.7 Examples

The following examples are real cases and are provided merely to act as a tool for understanding the Critical Findings Process.

#### Example 1 – Urgent Finding: P-5-77

During a Routine inspection, the inspectors were walking the deck, investigating several potholes when they quickly discovered deterioration that clearly affected the safety of the structure. This is the point in which the finding was discovered. The inspectors conferred on-site (one of the inspectors being the County's Program Manager) and decided to immediately close the structure to traffic, classifying the deficiency to be of such severity that it warranted an Urgent Critical Finding designation.

This is when the Notification Process, as outlined in 1.6.2, began. The first step could be bypassed as one of the inspectors on-site was the County Program Manager and Highway Commissioner. The County Program Manager then contacted the WisDOT Regional Program Manager to inform him of the Critical Finding. At this point the notification followed a different path than that outlined in 1.6.2 above but nonetheless ensured lines of communication to necessary parties. The Regional Program Manager contacted an employee within the Maintenance Section of the Bureau of Structures. From there, the Statewide Program Manager, State Bridge Rating Engineer, and FHWA Division Bridge Engineer were all informed.

Being that the proposed action for this structure was still to be decided, they left the temporary closure in place. At this point, the onset inspection should be documented



and entered into HSIS. The inspector created a Routine inspection with a Critical Finding Activity, documented all elements in their current condition states, and updated the NBI component values. Attached to this inspection in HSIS was a DT 2026 form with the Initial Assessment section filled out. It thoroughly detailed the extent and severity of all defects associated with the Critical Finding.

During the following day, the County made the decision not to reopen the structure to traffic and to push the structure into the next year's bridge replacement program. The County was very transparent in making sure WisDOT was informed of their decisions as the process progressed. As part of the decision to keep the structure closed, the County would need to fortify its closures to act in a more permanent capacity than what they previously had in place. In other words, the short-term follow up action was the placement of temporary concrete barriers at both approaches to ensure that vehicles could not drive over the structure and the long-term plan of action was to replace the structure on an expedited timeline.

Once the concrete barriers were in place, the inspector could then perform an Interim inspection and close out the Critical Finding. The inspector entered this inspection into HSIS, checking the Critical Finding Activity, and attached the completed DT 2026 form. A few pictures of the temporary concrete barriers in place at the structure were also provided with the close-out inspection. A completed DT 2026 form can be seen on the next page.

#### Example 2 – Severe Finding: B-XX-XXXX

The prestressed concrete girder structure was hit by an over height load, prompting the Regional Program Manager to go out and perform a damage inspection. Traffic was already being restricted underneath the structure as the over height load was still wedged underneath the structure and concrete was still on the roadway. Once on site, the inspector could see that the damage to the exterior girder warranted at least a partial closure of the roadway above. The lane above the damaged girder was barricaded off with signage indicating the bridge was to function as a bi-directional one lane structure.

At this point, the inspector made the determination of a Severe Critical Finding and began the notification process. Being that the inspector himself was the Regional Program Manager, he simply called the Region Operations Manager and the Statewide Program Manager to inform them of the Critical Finding. The Statewide Program Manager informed the State Bridge Rating Engineer and the FHWA Division Bridge Engineer.

Once the load and loose concrete were removed from the structure, the inspector gathered