

A. Bridge Inventory and Inspection Rules

1. The Bridge and Structures Engineer transmits inventory data for all bridges on public highways to the Federal Highway Administration (FHWA) in accordance with the National Bridge Inspection Standards.
2. The Bridge and Structures Engineer performs the following:
 - a. Routine inspections on all department-owned bridges in M 23-09, “Bridge List” (except those identified in Appendix 3 as the inspection responsibility of other agencies) at the following maximum intervals:
 - (1) Annually
 - (a) All bridges having a posted load limit.
 - (b) All floating bridges.
 - (c) All movable bridges
 - (d) All cable stayed bridges.
 - (e) All suspension bridges.
 - (f) All segmental concrete bridges.
 - (2) Every two years
 - (a) All highway bridges not identified for annual routine inspection and not approved by FHWA for a four-year inspection interval.
 - (b) All major culverts.
 - (c) All tunnels.
 - (3) Every four years
 - (a) All highway bridges meeting criteria approved by the Federal Highway Administration for a four-year inspection interval in accordance with the National Bridge Inspection Standards.
 - (4) Every five years
 - (a) Small span highway bridges
 - (b) All pedestrian bridges.
 - (c) All highway lids.
 - b. Random inspections on all floating bridges as follows:
 - (1) Annual verification of the water tightness of the bridge pontoons.
 - (2) Verification of the reliability of mechanical and electrical systems at two-year intervals.
 - c. Routine and in-depth inspections of ferry terminals at the following maximum intervals:
 - (1) Vehicle transfer spans — Routine inspection annually. In-depth inspection every two years.

- (2) All other ferry terminal structures including vehicle holding areas and pedestrian transfer spans, but excluding buildings — Routine inspection annually. In-depth inspection every two years.
 - d. Inventory inspection on all bridges.
 - e. Fracture critical inspections as required but at maximum two-year intervals.
 - f. Underwater inspections as required but at maximum five-year intervals.
 - g. Scour inspections as required but at maximum two-year intervals.
 - h. Flood, damage, in-depth, and/or interim inspections as warranted.
 - i. Private structural inspections of all privately owned transportation structures, crossing over state highways, at maximum five-year intervals.
 - j. Routine nondestructive testing services on mechanical components of movable bridges for the region and assists the region in arranging for any outside nondestructive testing required by age and operating conditions.
 - k. In-depth mechanical and electrical inspections on a maximum six-year interval or as age and operating conditions require.
 - l. Provides recommended repairs based on structural, mechanical, and electrical inspections; furnishes drawings showing recommended repair or strengthening details, if needed.
 - m. In-depth or special inspections on major bridges as warranted; develops an inspection program for these bridges outlining the procedures for the inspection; supplements the inspection as necessary by analytical, physical, and chemical analysis to verify the adequacy of the structure using state-of-the-art analytical and testing procedures.
3. The Regional Administrator performs the following:
- a. Maintenance inspections on bridges.
 - b. Furnishes traffic control as requested by the Bridge and Structures Office for performing structural inspections, upon receipt of reasonable notice.
 - c. Establishes a schedule to perform inspection (including testing) and maintenance for movable bridges, floating bridges, and other major transportation structures requiring special inspection and maintenance procedures, as prescribed in the operations, inspection, & maintenance manuals or preventive maintenance manuals.
 - d. Performs monthly trial openings of all movable spans (except those noted in this document in Appendix 4, “WSDOT Movable Bridges” as “no longer opened for marine traffic”) to ensure proper operation. Any traffic opening will satisfy the trial opening requirement.
4. The Director of the Washington State Ferries Division performs:
- a. Annual maintenance inspections on all ferry terminals;
 - b. Annual routine inspections of all ferry terminal machinery, electrical systems, and hoist systems; and
 - c. Annual depth soundings in the vicinity of all vehicle transfer spans. A copy of all soundings shall be transmitted to the Bridge and Structures Engineer.

B. Bridge Rating Rules

1. The Bridge and Structures Engineer performs the following:
 - a. Prepares and maintains a current load rating for all of the department's highway bridges and major culverts;
 - b. Reports all ratings which require load restrictions or reduced overload capacity (including temporary ratings which result from damage or construction activities) to the Motor Carrier Services Administrator and the Regional Administrator.
 - c. Advises the regions on the need to post or restrict bridges where necessary.
2. The Regional Administrator erects and maintains load posting signs in accordance with the federal "Manual on Uniform Traffic Control Devices for Streets and Highways" and "Washington State Modifications to MUTCD, M 24-01" on all bridges rated below legal load limits.
3. The Director of the Washington State Ferries Division performs the following:
 - a. Prepares and maintains a current load rating for all vehicle transfer spans and holding areas;
 - b. Erects and maintains load posting signs in accordance with the federal "Manual on Uniform Traffic Control Devices for Streets and Highways" at all ferry terminals rated below legal load limits.

C. Rules for Maintenance of Bridges

1. The Bridge and Structures Engineer performs the following:
 - a. Prepares and furnishes to the Regional Administrators and the State Maintenance Engineer, the Director of the Washington State Ferries Division, and local agencies under agreement for inspection services, recommendations for preventive and corrective maintenance of bridges and ferry terminals based on structural inspections.
 - b. Develops and maintains operations, inspection and maintenance manuals and preventive maintenance manuals for movable bridges, floating bridges and other major transportation structures requiring special inspection and maintenance procedures.
 - c. Monitors preventive maintenance activities to ensure compliance with established procedures and schedules.
2. The Regional Administrator performs the following:
 - a. Budgets for programs, and performs required preventive and corrective maintenance identified during maintenance or structural inspections on all the department's transportation structures except ferry terminals.
 - b. Upon completion of repairs on bridges, prepares and furnishes maintenance reports to the Bridge and Structures Engineer.

- c. Implements a preventive maintenance program for all movable bridges, floating bridges and other major transportation structures requiring special inspection and maintenance procedures, in accordance with the operations, inspection and maintenance manuals or the preventive maintenance manuals.
 - d. Schedules and performs additional maintenance as required to maintain the operational status of the movable spans in compliance with Code of Federal Regulations, Chapter 33, Section 117.
 - e. Informs the Bridge and Structures Office promptly of inadequacies or errors in the operations, inspection and maintenance manuals or the preventive maintenance manuals.
3. The Director of the Washington State Ferries Division develops and implements a preventive maintenance program for all ferry terminals; and budgets for, programs, and performs required preventive and corrective maintenance identified during maintenance or structural inspections on ferry terminals.

D. Bridge Damage/Emergency Repair Rules

- 1. The Regional Administrator performs the following:
 - a. Immediately makes an on-site investigation whenever reports of vehicle or ship collision or other damage to any transportation structure except ferry terminals are received;
 - b. Takes suitable action to stop or restrict traffic and/or protect a structure when warranted.
 - c. Notifies the Bridge and Structures Engineer and the Chief Maintenance Engineer promptly of bridge damage, or in the case of movable bridges, mechanical and/or electrical failure or problems (including an accurate and detailed description of the damage and all emergency actions taken).
 - d. Initiates and acquires programming approval for the work.
 - e. Makes immediate repairs and institutes traffic restrictions as advised by the Bridge and Structures Engineer and in accordance with D 07-45, "General Emergency Declarations, and Emergency Work"; obtains approval of the Bridge and Structures Engineer for reopening of the bridge and/or removing vehicle restrictions.
 - f. Immediately advises the Thirteenth U.S. Coast Guard District when a malfunction or accident involving a movable bridge will prevent the bridge from opening for marine traffic.
 - g. Obtains the necessary information and institutes timely action to recover costs in accordance with D 16-01, "Reporting and Recovering Property Damage Costs."
 - h. Furnishes flaggers, welders and additional personnel and equipment to work under the supervision of Bridge Preservation Engineer as required for heat straightening support or Bailey Bridge construction.
 - i. Disassembles, cleans, paints if necessary, bundles, and returns Bailey Bridge units to storage when use is completed.
 - j. Administers construction of the repair(s).

2. The Bridge and Structures Engineer performs the following.
 - a. Inspects bridge damage and/or mechanical or electrical problems immediately after receiving notice unless it can be positively determined from the region report that the damage is minor; requests that the region post the bridge for restrictive conditions if warranted.
 - b. Advises the FHWA Division Bridge Engineer if bridge damage is such that closure or traffic restrictions are required.
 - c. Advises the Thirteenth U.S. Coast Guard District when damage to a movable bridge is such that the future passage of marine traffic will be restricted.
 - d. Provides the Regional Administrator with an assessment of damage and with recommendations for permanent or temporary repairs; mobilizes and dispatches heat straightening crew if needed; if necessary, initiates the dispatching of Bailey Bridge components and provides assistance in the Bailey Bridge planning, installation, and subsequent removal.
 - e. Furnishes the Regional Administrator with plans and specifications for use in ordering any necessary new steel components.
 - f. Furnishes drawings showing recommended repair or strengthening details to the Regional Administrator, if needed.
 - g. Coordinates a schedule for accomplishing repairs with the Regional Administrator.
 - h. Assists the region, as needed, during construction of the repair(s).
 - i. Inspects the repair upon completion of construction.
 - j. Monitors the integrity of the repair during subsequent inspections.
 - k. When damage is beyond repair, prepares the necessary reports to the FHWA for requesting Emergency Bridge Replacement funds.
 - l. Advises the FHWA Division Bridge Engineer when a bridge closed or restricted due to damage has been reopened and/or traffic restrictions have been removed.
 - m. Advises the Thirteenth U.S. Coast Guard District when marine traffic restrictions have been removed on a movable bridge.

7.F:DP/TSPM

