

## Activity 162 Bridge Repair

### Description

Activity 162 involves repairing bridges, major culverts, tunnels, and other structures classed as bridges to retain or restore design integrity.

### General Instructions

A major culvert is a culvert, pipe, box culvert, or other drainage structure that is 6 feet (1.8 meters) or more in width or diameter.

Refer to Activity 123 for repairing culverts, box culverts, or other drainage structures that are less than 6 feet (1.8 meters) in width or diameter.

Refer to Activity 142, 143, 144, 145, 146, 151, 153, or other appropriate activity for maintaining or repairing other features that are located on bridges including guardrail and barrier transition ends and attachments. Features under these activities are considered part of the highway and not part of the structure.

Refer to Activity 160 for maintaining bridges or major structures.

Refer to Activity 165 for costs involved in operating moveable bridges.

Refer to Activity 304 if the work will upgrade the structure or add new features.

Refer to Activity 305 when assisting with elements of the bridge inspection program.

Refer to the General Instructions section preceding Activity 160 in this section of this Guide and:

- If a repair requires changes to structural elements, obtain approval of the Bridge Section for the methods and materials to be used. Remember that a Professional Engineer must approve many repairs.
- Perform the repairs according to the priority listing and strategy developed for all bridge repair work in the District.
- Record needed information about each repair. Share with the Region Bridge Inspector.
- Notify the Bridge Maintenance Engineer when each major structural repair is completed.

Refer to the:

- “As Constructed” plans for each structure, including incorporated materials.
- *Oregon Standard Specifications for Construction.*
- *Qualified Products List.*

### Controlling Erosion, Sedimentation, and Pollutants or Contaminants

Plan and implement methods to control erosion, sedimentation, and pollutants or contaminants, including those discussed in the Control of Erosion, Sedimentation, and Pollutants or Contaminants section of this Guide and the ODOT *Routine Road Maintenance Water Quality and Habitat Guide Best Management Practices*.

As appropriate, implement and maintain devices and processes including those described in the *Field Manual for Erosion and Sediment Control*.

Also implement appropriate practices to control or contain removed or waste material from the work, from cleanup of tools or equipment, or from other operations.

### Temporary Protection and Direction of Traffic

Plan, implement, and maintain traffic control as addressed in the *Traffic Control on State Highways for Short Term Work Zones* handbook.

### Equipment

Select equipment suitable for the work and situation.

### Materials

Select materials needed to perform the work. Use products from ODOT's *Qualified Products List* or seek Bridge Maintenance Engineer approval to try new products.

### Work Method

1. Identify the work to be performed and obtain needed resources.
2. Implement appropriate traffic control.
3. Implement appropriate methods to control erosion, sedimentation, and pollutants or contaminants, including removed or waste products.
4. Perform the repair operation.
5. Remove traffic control.
6. Dispose of waste or excess material at an appropriate location.

### Measurement of Accomplishment, Expenditure Account, and Charge Activity

If another entity, such as the States of Washington or Idaho for structures over the Columbia or Snake Rivers, must be billed for some incurred costs, record information as required for the agreement related to the structure.

Measurement is number of worker hours involved. Expenditure account type is Bridge EA (use a sub-job of 020). Designate a sub-job of 820 if the work involves bicycle path facilities.

- Do not charge any costs to TEAMS Activity 162.
- Charge TEAMS Activity 213 for repairing or replacing timber caps and sills.
- Charge TEAMS Activity 214 for repairing or replacing steel caps and sills.
- Charge TEAMS Activity 215 for repairing or replacing concrete caps and sills.
- Charge TEAMS Activity 216 for repairing or replacing concrete superstructure members.

- Charge TEAMS Activity 217 for repairing or replacing steel superstructure members.
- Charge TEAMS Activity 218 for repairing or replacing timber superstructure members.
- Charge TEAMS Activity 221 for repairing or replacing concrete decks.
- Charge TEAMS Activity 223 for repairing or replacing wood decking.
- Charge TEAMS Activity 225 for repairing or replacing wood, steel, or concrete curbs, bridge rail, and felloe guards.
- Charge TEAMS Activity 226 for repairing or replacing timber piling and posts.
- Charge TEAMS Activity 227 for repairing or replacing concrete piling and posts.
- Charge TEAMS Activity 228 for repairing or replacing steel piling and posts.
- Charge TEAMS Activity 229 for repairing or replacing wood or steel bracing.
- Charge TEAMS Activity 231 for repairing or replacing metal decking or metal decking inlaid with concrete.
- Charge TEAMS Activity 233 for repairs at the abutment and bridge end panels.
- Charge TEAMS Activity 235 for repairing or replacing deck joints and paving dams.
- Charge TEAMS Activity 237 for diving and related underwater work needed to plan and perform bridge repairs. When performing or assisting with diving or other underwater work involved with the bridge inspection program, perform the work under MMS Activity 305 with the expenditure information provided by the bridge inspection program.
- Charge TEAMS Activity 238 for sounding work to measure water depth at required locations, except for work involved with the bridge inspection program.
- Charge TEAMS Activity 239 for performing other structure repairs not listed as or included in a separate activity.
- Charge TEAMS Activity 340 for repairing or replacing bearings or seats.
- Charge TEAMS Activity 341 for repairing or replacing rivets or bolts when the work is not part of another activity.
- Charge TEAMS Activity 342 for repairing or replacing elements of the structure's storm water drainage system.
- Charge TEAMS Activity 343 for repositioning or replacing riprap, bioremediation, or similar material at these structures.
- Charge TEAMS Activity 344 for repairing or replacing slope paving at these structures.
- Charge TEAMS Activity 345 for repairing or replacing major culverts.
- Charge TEAMS Activity 348 for repairing or replacing bridge fender systems.
- Charge TEAMS Activity 359 for all repair or replacement of elements of these structures to preserve or restore fish passage.