

Multnomah County Willamette River Bridges Capital Improvement Plan



Project Summary Information: Paint and Structural Rehabilitation of Steel and Concrete Members - East Approach							
Bridge Names(s):	Hawthorne			Project ID#:	BUN-HA-11	Project Status:	In Progress
Project Rank:	33	Primary Category of Work	Paint	Performance Attribute Total Score	24	Importance Score	TI-3 31.49
Logical Grouping Project ID #'s:	HA-PAINT-02 and HA-STRUCT-17						
Bridge Num and Names(s):	02757F SE Hawthorne Blvd over SE Water Ave (Hawthorne) [Hawthorne] ; 02757B SE Madison St Ramp over Hwy 1E SB (SE MLK Blvd) [Hawthorne] ; 02757A Hawthorne Blvd Ramp to Hwy 1E SB [Hawthorne]						

Definition of Problem

The Hawthorne Bridge East Approach spans were observed to have a large percentage of the total surface area showing signs of deterioration or paint system failure, including areas of exposed metal. A review of available existing information also suggests that the current paint system contains lead. The bridge bearings were observed to have debris accumulation and deterioration of the bearing protective system. Based on the era of installation of the paint protective system, it is assumed to contain lead. Concrete degradation, bent bearing device anchor bolts, cracked and spalled concrete, and reinforcing steel corrosion including section loss were also observed for bridge elements and pedestrian access stairway structures.

Description of Proposed Solution

The proposed solution for the deteriorating and failing paint systems includes the removal of existing lead-based paint, and the application of a new protective paint system. Bridge bearings will have current debris removed and a new protective paint system applied to metal components, which allow for continued movement of the bearings. The project also includes a repair of degraded concrete areas, the patching of structural concrete throughout the East Approach structure, and the replacement of bent bearing device anchor bolts.

Project Justification

The benefits of completing the proposed paint system repairs are to arrest the ongoing corrosion and deterioration of the structural steel members, and to restore a protective paint system which would extend the service life of the bridge. Additionally, the removal of the lead-based paint system would reduce the health exposure risk to maintenance staff and eliminate a potential source for environmental contamination. With the project, the service life of the bridge bearings would be extended, and ongoing maintenance costs would be reduced. Repairs to the pedestrian access stairways will improve connectivity to the bridges and reduce the potential for full replacement if the elements continue to deteriorate over time. Replacement of the bent bearing device anchor bolts will allow for appropriate temperature expansion and contraction of the bridge.



Right-of-Way:	\$94,851
Utility Reimbursement:	\$0
Construction:	\$24,547,052
Preliminary Engineering:	\$5,402,577
Construction Engineering:	\$5,402,577
Total Cost at Target Construction Time:	\$35,447,056
Target Construction Time:	2025-2029

Notes:

This project includes improvements identified during the 2014 public engagement process.