

Memorandum

To: Valerie Gizinski
North Region Environmental Management

Date: 16 Sept. 2013

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EA: 01-464800
Richardson Grove STAA

From: **Department of Transportation**
North Region - Landscape Architecture, Eureka

The following addendum to the VIA has been prepared for the proposed STAA curve correction project on State Route 101 in Richardson Grove State Park in Humboldt County, California.

Crash cushion at ends of existing bridge (undercrossing) rail and north end of proposed retaining wall

This project proposes to modify the end-treatment of metal beam guardrail at the existing concrete railing of the Richardson Grove Undercrossing near PM 1.61 and to add a new crash cushion at the north end of the proposed retaining wall at the north end of the project. The proposed modification is to upgrade the barrier end system to Federal safety standards.

The work proposed at the each corner of the Undercrossing includes removing the existing MBGR and adding a short concrete wall at the end of the existing concrete railing which the new crash cushion would attach to. The crash cushion looks like MBGR thrie-beam with a rectangular yellow and black striped end piece. The crash cushion would be 15 feet in length, which is about 20 feet shorter in length compared to the existing MBGR. At the northern end of the northern proposed wall, there would be no concrete wall transition section. The crash cushion would be 10 feet in length, and have a slight angle away from the roadway at it's terminus.

The concrete wall and crash cushion will age in color naturally over time. To quicken the look of aging, both the concrete wall and crash cushion can be treated before installation. A dark grey powder dye can be added to the concrete to darken the color of the wall. The concrete can then be sandblasted to roughen the surfaces. The rougher finish will improve the similarity of the new wall and the existing railing. The roughen surfaces also provide minute ledges for lichen, moss and dirt to attach to which gives the viewer the sense that the structure is not new. The metal in the crash cushion can be acid-etched to remove the new sheen. These treatments would allow the new elements to quickly "recede" into the landscape.

MBGR is a common feature along highways. Both at the bridge Undercrossing and wall at the north end, introducing the slightly wider MBGR with a crash cushion end treatment will have a minimal visual impact.

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