

March 28, 2003

INSTRUCTIONAL BULLETIN NO. 2003-5

SUBJECT: Drainage for Bridge Ends

EFFECTIVE DATE: April 2, 2003

SUPERSEDES: Instructional Bulletin No. 2002-4

RE: Bridge Design Memorandum DM0299 dated November 20, 2002 (Attached)
Standard Drawing No. 721-1

The designer will use "Concrete Transition Curb and Flume at Bridge Ends" with a paved shoulder area on all bridge ends. "Bridge Concrete Curb and Gutter with Flumes" will not be used as noted in the attached memorandum from the Bridge Design Engineer.

"Concrete Transition Curb and Flume" will be placed on all bridge ends unless otherwise directed by the Hydraulic Section. On the high side of superelevated sections, only the concrete transition curbs and paved shoulder areas will be constructed. The flume and riprap will not be placed on the high side of superelevated sections.

The bridge end drainage should be designed in accordance with Standard Drawing No. 721-1 and the pay items and quantities determined as noted thereon. Be aware of the two types of bridge ends, with and without a bridge approach slab. In addition, three linear feet of 9" x 15" concrete curb for each corner of the bridge using the concrete transition curb should be placed in the inclusions to be used as determined by the engineer.

The Bridge Design Engineer requests us to be aware of the following:

Section C2.6.6.1 of the AASHTO LRFD Bridge Design Specifications states that: "A longitudinal gradient on bridges should be maintained. Zero gradients and sag vertical curves should be avoided."

Where possible, please avoid zero gradients and sag vertical curves on all future bridge projects that are in the planning stage for both LRFD and LFD designed bridges. Any zero gradients and/or sag vertical curves should be brought to the attention of the appropriate Assistant Bridge Design Engineer.

Approved: _____
E. S. Eargle
Road Design Engineer

ESE:afg

Attachment

cc:

Mark C. Lester, Prog. Dev. West

Rocque Kneece, Prog. Dev. East

Jim Coogler, Interim Bridge Design Engr.

Clem Watson, Director of CRM Operations

CRM East

CRM West

Al Barwick, CRM Manager

Jim Frick, Contract Document Facilitator