



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division Of Highways

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Charleston, West Virginia 25305-0440 • 304/558-3505

Joe Manchin III
Governor

May 17, 2005

MEMORANDUM

TO: ALL HOLDERS OF DRAINAGE MANUAL

**FROM: GREG L. BAILEY, ACTING DIRECTOR
ENGINEERING DIVISION**

**SUBJECT: ADDENDUM 3 TO THE 1984
DRAINAGE MANUAL**

Attached for your use is Addendum 3 to the 1984 Drainage Manual. This addendum is necessary to revise the West Virginia Department of Transportation, Division of Highways Drainage Manual dated 1984.

The following revision is included in this package:

- Remove and replace page 7-1. This page included revised criteria for allowable spread of water on the pavement surface of curbed roadways and bridges.

GLB:DK

Attachments

GENERAL CRITERIA

Inlets are used to drain rainfall which accumulates on a highway pavement or bridge surface. Where curbs are used, runoff from cut slopes and areas outside the right of way are, wherever possible, to be intercepted by ditches or other means in order to reduce the amount of water that has to be picked up by inlets and to prevent mud and debris from being carried onto the pavement, particularly at the high side of superelevated curves. Large quantities of runoff from areas beyond the pavement that would normally enter the highway from a side street are to be intercepted on the side street before it reaches the highway.

Sufficient inlets are to be provided to drain a 2-year design discharge from the highway or bridge surface; however the entire facility is to be designed to adequately handle the design discharge as specified in Chapter 2 to prevent downstream property damage. The latter discharge is especially important in sag curves where at least one lane in each direction should remain passable. **For roadways designed for speeds of 40 mph or greater, spread of the flow on a bridge deck or curbed section of pavement is generally limited to 5 feet or the shoulder width, whichever is greater. If the design speed is less than 40 mph, spread is generally limited to 5 feet, or the shoulder width plus 2 feet into the traveled way, whichever is greater. If a parking lane is present, then the spread will be limited to 8 feet.**

Grade inlets elevations as shown on plans are to be computed from established profile-grade elevations with