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TT II —

J. Goodnight, P

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

DAVID MCCOY
SECRETARY

Roadway Design Project Engineers
David Henderson, PE
Bob Brown, PE
Charlie Casey, PE

FROM: Jay A. Bennett, PE
Assistant State Roadway Design Engineer

DATE: May 25, 2000

SUBJECT: Drainage Issue - Changing the Shape of Expressway Curb and Gutter

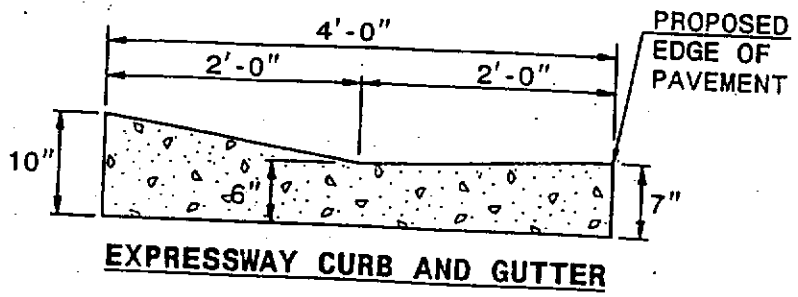
The shape of expressway curb and gutter is being revised to improve its drainage characteristics. The thickness for the back of expressway curb and gutter has increased from 10 inches to 12 inches. This allows a higher curb to control the water. The original shape is shown in figure 1 and the modified shape is shown in figure 2.

We will continue to use expressway curb and gutter for our designs as we have in the past. For situations that require a concrete gutter in front of guardrail and shoulder berm gutter will not function hydraulically, the modified shape expressway curb and gutter will be used as shown in figure 3. The hydraulic design engineer will recommend the appropriate treatment.

The next edition of the roadway standard drawings will show the modified shape as the sole shape for expressway curb and gutter.

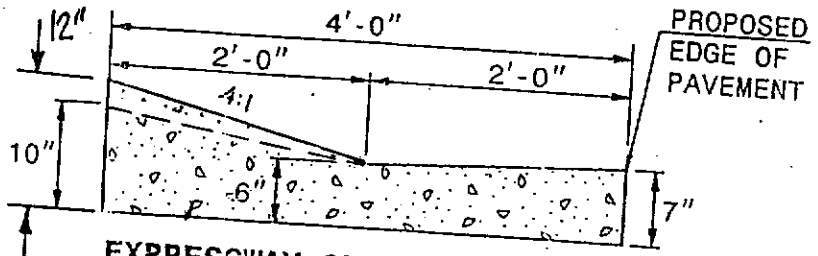
If you need to discuss further, please contact me at (919) 250-4016.

JAB
Attachment
cc/attachment: Debbie Barbour, PE
John Alford, PE
Dewayne Sykes, PE



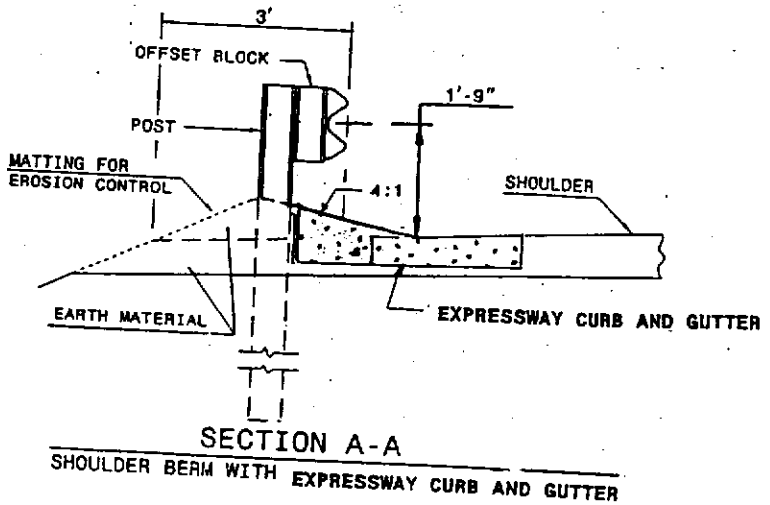
EXPRESSWAY CURB AND GUTTER

FIGURE 1



EXPRESSWAY CURB AND GUTTER
"MODIFIED"

FIGURE 2



SECTION A-A
SHOULDER BERM WITH EXPRESSWAY CURB AND GUTTER

FIGURE 3