

CATHY METZLER  
JOHN LANSFORD



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAY  
P.O. BOX 25201, RALEIGH, N.C. 276

June 7, 1993

JAMES B. HUNT, JR.  
GOVERNOR

SAM HUNT  
SECRETARY

5-Stepney  
Please share!  
with your  
squads

Sandra

MEMORANDUM TO: Project Engineers  
FROM: Len Hill *Len Hill*  
SUBJECT: Guardrail Items

1) For many years we have used 3:1 as the maximum slope not requiring guardrail. The 3:1 slope is traversable but not recoverable. This slope usually requires a distance at the bottom to obtain a clear recovery area. In many cases this distance is not attainable due to trees, rip-rap ditches, etc. Therefore we should generally use 4:1 as the maximum slope not requiring guardrail. In general, 3:1 slopes can still be used without guardrail protection for fill heights less than 12 feet. However, long sections of unprotected 3:1 slopes for fill heights greater than 12 feet should be avoided.

Attached is a revised guardrail warrant chart which reflects the above changes. Please begin using this chart (desirable line) when determining guardrail fill slope warrants.

2) On freeway projects (new construction or rehabs) with median widths less than 44', our revised policy calls for some type of median guardrail protection. Please bring these projects to my attention so the Guardrail Committee can review and discuss the installation type.

RLH/

cc: Mr. Tom Shearin, P.E.  
Mr. Harry Thompson, P.E.  
Mr. W. R. Brown, P.E.  
Mr. Garry Lee