



USE FLARE RATE AS THE CONTROL IF THE "N<sub>1</sub>" DISTANCE IS NOT OBTAINED.  
 ("N<sub>1</sub>" IS BASED ON SHOULDER WIDTHS IN THE ROADWAY DESIGN MANUAL)  
 SEE STD. 862.03 FOR STRUCTURE ANCHOR UNITS  
 FOR POSTED SPEEDS ≥ 45MPH USE GREU TYPE TL-3  
 FOR POSTED SPEEDS < 45MPH USE GREU TYPE TL-2  
 GUARDRAIL LENGTH OF NEED (X) IS CALCULATED BASED ON THE AASHTO ROADSIDE DESIGN GUIDE.

**LENGTHS AND OFFSETS FOR PROPOSED GUARDRAIL AT TWO LANE - TWO WAY LOCATIONS**

STATE OF  
 NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR  
**GUARDRAIL PLACEMENT**



Signed by:  
 Nicole M. Hackler  
 588432034164CS  
 11/06/2024

SHEET 4 OF 15  
**862D01**

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

**CONTRACTS STANDARDS  
 AND DEVELOPMENT UNIT**  
 Office 919-707-6950 FAX 919-250-4119

**SEE TITLE BLOCK**

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