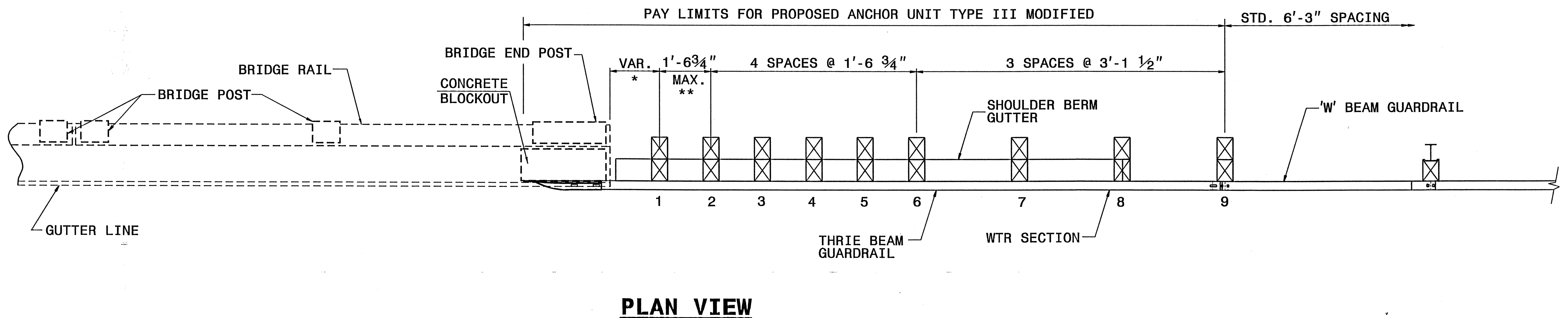


*THE DISTANCE FROM END OF BRIDGE RAIL TO CENTER LINE OF THE FIRST POST SHOULD BE $11\frac{1}{2}$ " IF CONCRETE BACKWALL IS NOT PRESENT.
 **POST NOT REQUIRED FOR SKEW ANGLES GREATER THAN 150° OR LESS THAN 30° UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

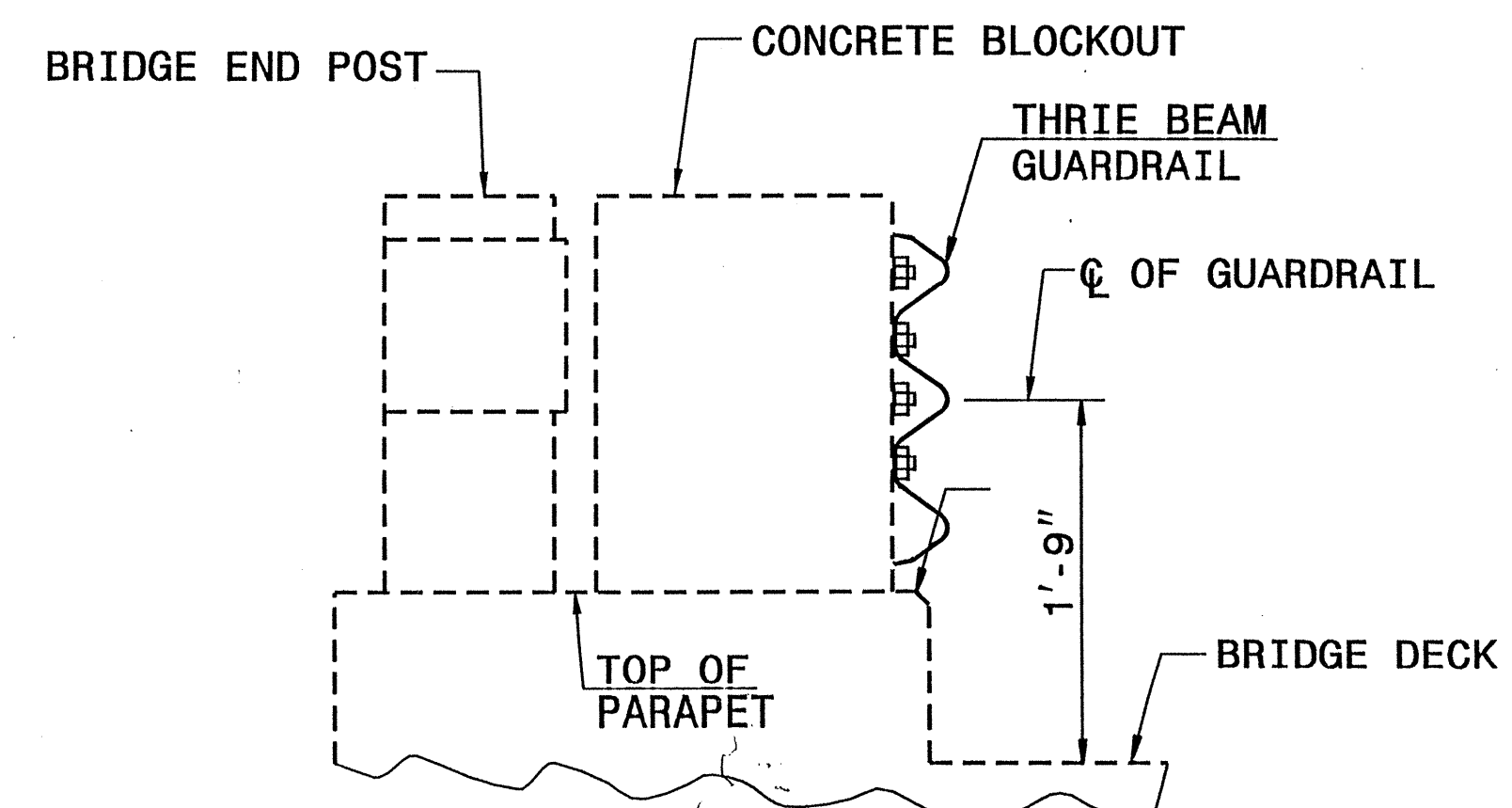


GENERAL NOTES:

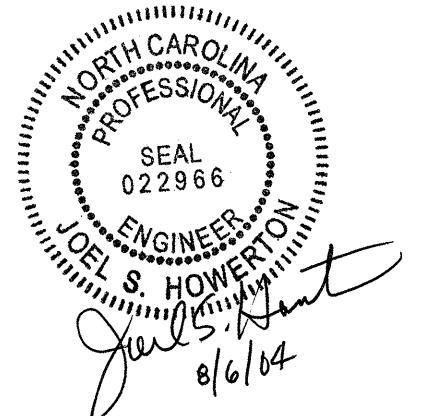
1. USE THIS DETAIL ONLY FOR BRIGES WITH POST AND BEAM TYPE RAIL WITH CONCRETE BLOCKOUT.
2. MEASURE GUARDRAIL HEIGHT FROM THE TOP OF ADJACENT SURFACE (SHOULDER, BERM, OR GUTTER).
3. USE NO STEEL POSTS WITHIN THE GUARDRAIL ANCHOR UNIT LIMITS.
4. LAP JOINTS IN THE DIRECTION OF TRAFFIC FLOW.
5. REFER TO STANDARD SPECIFICATIOIN SECTION 862 FOR GUARDRAIL.
6. SHOULDER BERM GUTTER (STD. 846.01) IS A SEPARATE PAY ITEM.

NOTES FOR ANCHORING END OF GUARDRAIL WITH CHEMICAL BONDING BOLTS OR STUDS:

1. THE HOLE SHALL BE CLEAN OF ALL DIRT, DUST, RUST, WATER AND OTHER CONTAMINATES.
2. SUFFICIENT ADHESIVE SHALL BE PLACED INTO EACH HOLE TO DEVELOP 125% THE YIELD STRENGTH OF THE BOLT OR STUD.
3. TESTING OF THE BOLT OR STUD TO 90% OF THE SPECIFIED STRENGTH SHALL BE PERFORMED AT THE OPTION OF THE ENGINEER.
4. NO SEPARATE METHOD OF PAYMENT SHALL BE MADE FOR THIS TYPE OF INSTALLATION OR TESTING.
5. ALL WORK AND MATERIALS USED SHALL MEET THE APPROVAL OF THE ENGINEER.



**GUARDRAIL ATTACHMENT
TO CONCRETE BLOCKOUT**



DESIGN SERVICES UNIT STANDARDS AND SPECIAL DESIGN	
Office 919-250-4128 FAX 919-250-4119	
DETAIL OF GUARDRAIL ANCHOR UNIT TYPE III MODIFIED	
SHEET 1 OF 2	
ORIGINAL BY: E.E. WARD	DATE: 7-11-02
MODIFIED BY: <i>[Signature]</i>	DATE: <i>[Date]</i>
CHECKED BY: <i>[Signature]</i>	DATE: 7-02
FILE SPEC: usp\details\stand\bp.dgn	