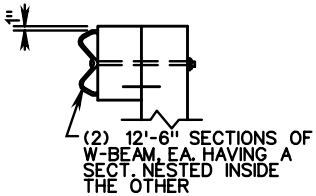


**ONE POST OMITTED  
TOP VIEW**

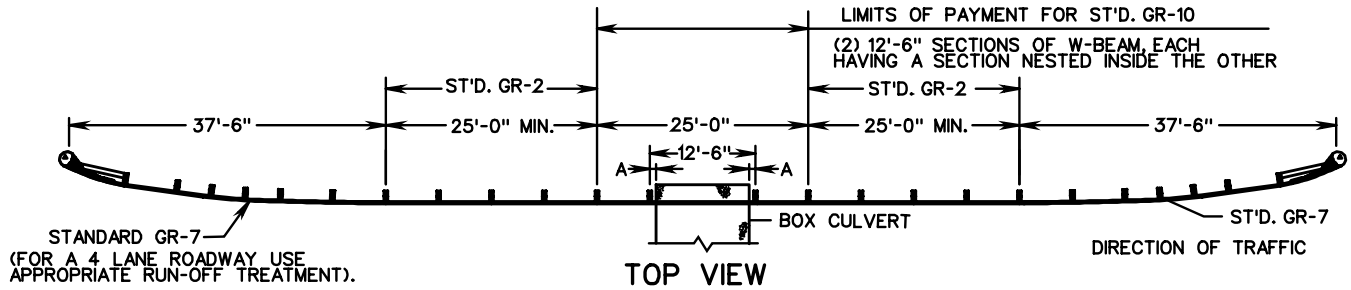
FOR DETAILS OF GUARDRAIL POSTS AND BLOCKOUTS, SEE STANDARD GR-2, 2A.



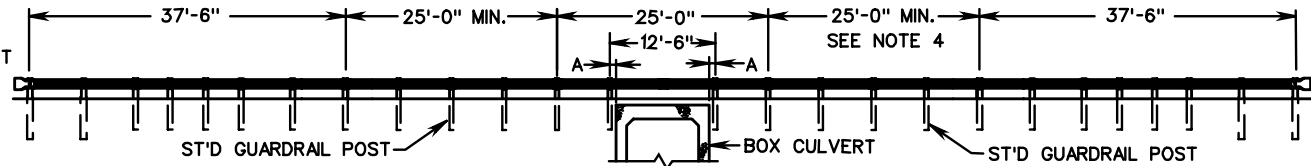
**TABLE OF MAXIMUM  
ALLOWABLE STRUCTURE  
WIDTHS FOR THIS DESIGN**

\* "A" THE MINIMUM ALLOWABLE DISTANCE BETWEEN CLOSEST POINT OF POST TO STRUCTURE.

TYPE I - ONE POST OMITTED			TYPE II - TWO POST OMITTED		
SKEW	A*	MAX. PERPENDICULAR WIDTH (FEET)	SKEW	A*	MAX. PERPENDICULAR WIDTH (FEET)
0°	9"	10.5	0°	9"	16.75
5°	9"	10.4	5°	9"	16.6
10°	9"	10.2	10°	9"	16.4
15°	9"	10.0	15°	9"	16.0
20°	9"	9.6	20°	9"	15.5
25°	9"	9.2	25°	9"	14.9
30°	9"	8.8	30°	9"	14.2
35°	9"	8.2	35°	9"	13.2
40°	9"	7.6	40°	9"	12.4
45°	9"	7.0	45°	9"	11.4

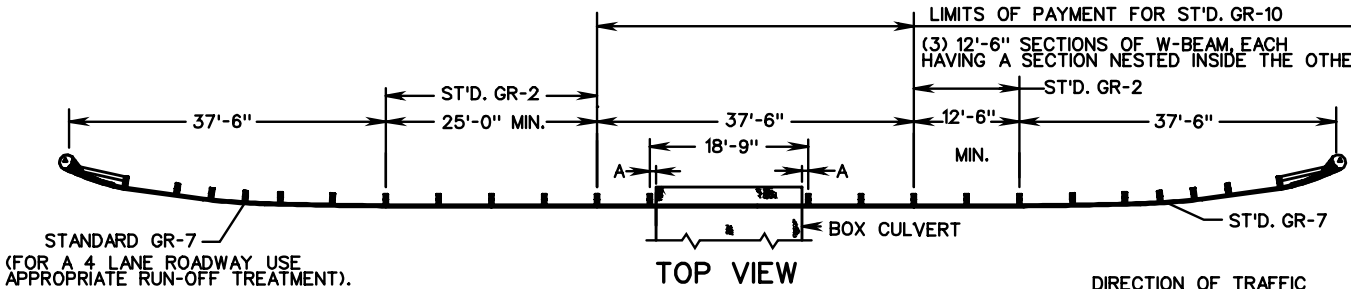


**TOP VIEW**

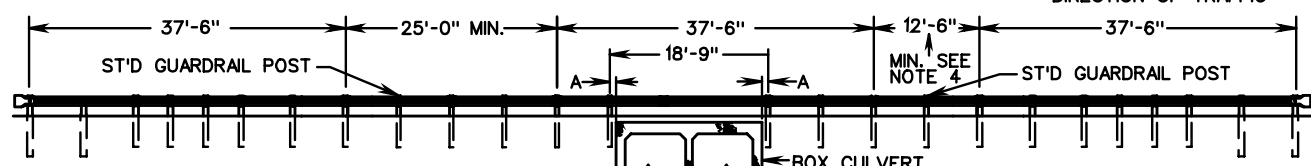


**ELEVATION**

**TYPE I-ONE POST OMITTED**



**TOP VIEW**



**ELEVATION**

**TYPE II-TWO POSTS OMITTED**

- NOTES:**
1. THIS SHEET IS APPLICABLE WHEN GUARDRAIL IS REQUIRED AND THE DEPTH OF FILL ABOVE THE TOP SLAB OF THE BOX CULVERT IS LESS THAN 4'-0".
  2. GUARDRAIL INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 505 OF THE SPECIFICATIONS. MATERIAL REQUIREMENT FOR COMPONENTS SHALL BE IN ACCORDANCE WITH SECTION 221 OF THE SPECIFICATIONS.
  3. GUARDRAIL POST SPACING SHALL BE IN ACCORDANCE WITH STANDARD GR-2.
  4. THIS DISTANCE SHALL BE IN ACCORDANCE WITH VDOT POLICY ON DETERMINING THE LENGTH OF NEED FOR GUARDRAIL WITH A MINIMUM DISTANCE AS SHOWN.
  5. ALL SPLICES IN NESTED W-BEAM SECTIONS MUST COINCIDE AT A COMMON POINT AND BE BOLTED TOGETHER USING ONE SET OF BOLTS AT EACH SPLICE.



ROAD AND BRIDGE STANDARDS

**GUARDRAIL AT LOW-FILL CULVERTS**

SPECIFICATION REFERENCE

SHEET 1 OF 2

REVISION DATE

221  
505

501.18

VIRGINIA DEPARTMENT OF TRANSPORTATION