

REFERENCES

NATIONAL DOCUMENTS

TASK FORCE 13 REPORT- WWW.AASHTOTF13.ORG

SCDOT DOCUMENTS

RELATED DRAWINGS & KEY WORDS

PRECONSTRUCTION
SUPPORT ENGINEER

SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
NO. 8858
EDMUND SYLVESTER EARLE, II


SIGNATURE

MARCH 3, 2010
DATE

6			
5			
4			
3			
2			
1	1/2010	DSO	GENERAL REVISION
0	3/2008	DSO	GENERAL REVISION
#	DATE	CHK	DESCRIPTION


SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

STANDARD DRAWING
GUARDRAIL
HARDWARE

805-090-00

EFFECTIVE LETTING DATE | JAN, 2011

NOTES:

- SEE 805-001-XX FOR GENERAL NOTES.
- GALVANIZE UNLESS SPECIFIED OTHERWISE IN THE PLANS OR SPECIAL PROVISIONS.
- USE GUARDRAIL BOLTS, RECESSED NUTS AND ROUND WASHERS FOR STANDARD GUARDRAIL CONNECTIONS. USE HEX HEAD BOLTS AND NUTS WITHIN END TREATMENT SECTIONS AS SPECIFIED BY THE END TREATMENT MANUFACTURER.

TABLE 805-090A			
ITEM #	L	(T) THREAD LENGTH (MIN.)	USAGE
FBB01	1 1/4"	1 1/8"	SPLICES
FBB02	2"	1 3/4"	LAPPED SPLICES
FBB03	10"	4"	RAIL, OFFSET BLOCK, STEEL POST
FBB04	18"	4"	TIMBER POST SYSTEM OR MULTIPLE OFFSET BLOCKS
FBB05	25"	4"	MULTIPLE OFFSET BLOCKS

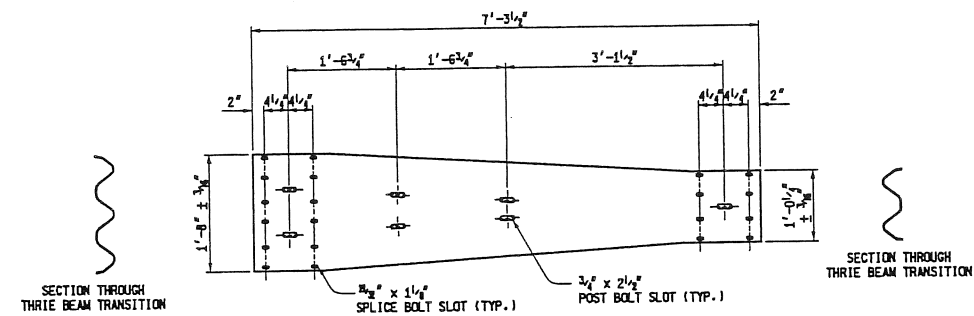
DETAIL 1
SCALE 1"=1"
5/8" GUARDRAIL BOLT &
RECESSED HEAVY HEX NUT
FBB01-05

DETAIL 2
SCALE 1"=1"
5/8" PLAIN ROUND WASHER
FWC16d

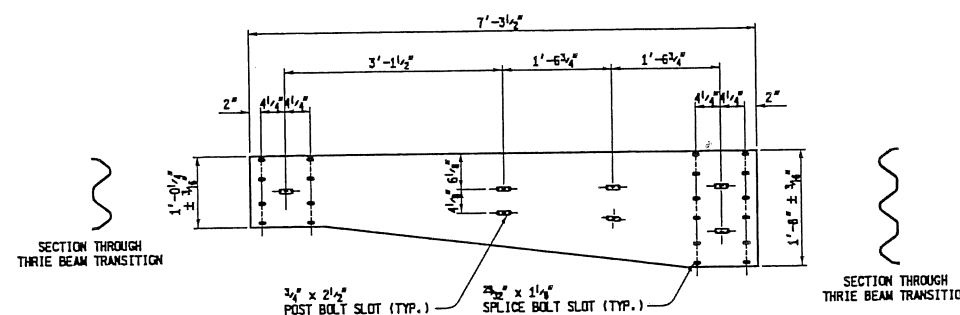
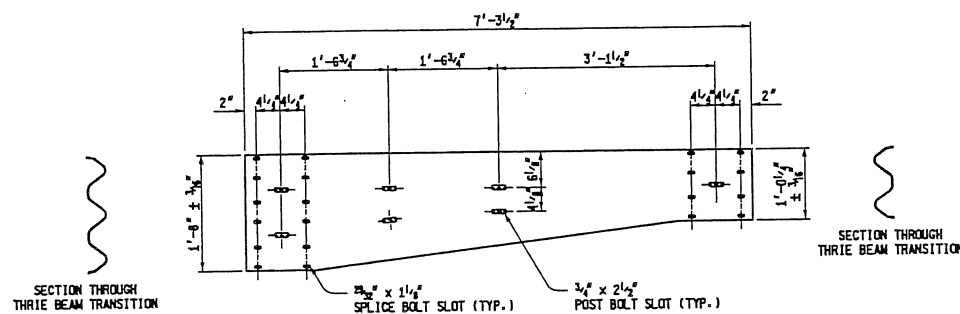
(USE ONLY WHERE SHOWN ON STANDARD DRAWINGS)

DETAIL 4
SCALE 1"=1"
DETAIL OF
RECTANGULAR
GUARDRAIL
PLATE WASHER
FWR03

DETAIL 3
SCALE 1"=1"
5/8" HEX BOLT AND NUT
FBX16d
(USED WHERE SPECIFIED)

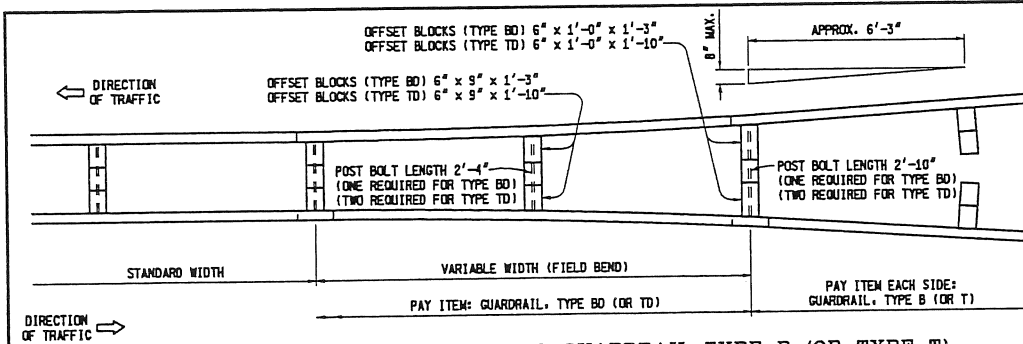


THRIE BEAM TRANSITION



ASYMMETRICAL THRIE BEAM TRANSITIONS
NOTE: ASYMMETRICAL TRANSITION TYPE WILL VARY BY LOCATION DEPENDING ON GUARDRAIL LAYOUT

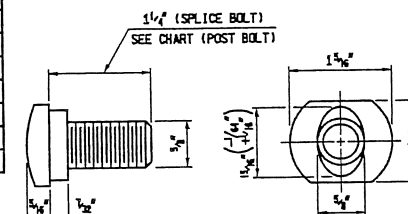
MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR			
GUARDRAIL, TYPES A, B, BD, T, TD, MGS-8, & MGS-8D			
F.H.W.A. APPROVAL	4-22-2016 PLAN DATE	R-60-J	SHEET 13 OF 16



DETAIL SHOWING TRANSITION FROM GUARDRAIL, TYPE B (OR TYPE T)
TO GUARDRAIL, TYPE BD (OR TYPE TD)

POST BOLTS, SPLICE BOLTS AND WASHERS AT BEAM ELEMENT SPLICE POSTS AND AT INTERMEDIATE POSTS						
GUARDRAIL TYPE	POST	OFFSET BLOCK	POST BOLTS NO. REQ'D	LENGTH (NO. REQ'D)	SPLICE BOLTS (1 1/4" LONG) (NO. REQ'D)	WASHERS (ROUND) (NO. REQ'D)
A	WOOD	N/A	1	9 1/2"	8	1
	STEEL	N/A	1	2"		1
B	WOOD	WOOD	1	18"	8	1
	STEEL	WOOD	1	9 1/2"		1
BD	WOOD	WOOD	1	26 1/2"	16	2
	STEEL	WOOD	2	9 1/2"		2
T	WOOD	WOOD	2	18"	12	2
	STEEL	WOOD	2	9 1/2"		2
TD	WOOD	WOOD	2	26 1/2"	24	4
	STEEL	WOOD	4	9 1/2"		4

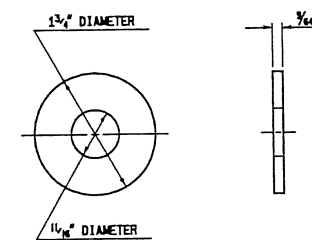
MINIMUM POST BOLT THREAD LENGTH	
BOLT LENGTH	MINIMUM THREAD LENGTH
9 1/2"	1 3/4"
18"	2 1/2"
26 1/2"	3"



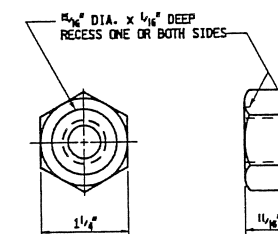
SPLICE BOLT AND POST BOLT

THRIE BEAM TRANSITIONS REQUIRE 20 SPLICE BOLTS EACH (12 ON TYPE T END AND 8 ON TYPE B END).

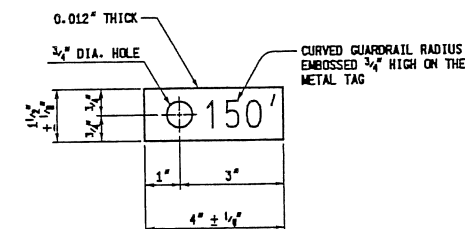
* EXCEPT AS SPECIFIED ON DETAIL SHOWING TRANSITION FROM GUARDRAIL, TYPE B (OR TYPE T) TO GUARDRAIL, TYPE BD (OR TYPE TD). POST BOLTS SHALL NOT EXTEND MORE THAN 1/2" BEYOND NUT.



ROUND WASHER



NUT

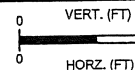


METAL TAG

FOR CURVED GUARDRAIL WITH RADIUS OF 150' OR LESS

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR			
GUARDRAIL, TYPES A, B, BD, T, TD, MGS-8, & MGS-8D			
F.H.W.A. APPROVAL	4-22-2016 PLAN DATE	R-60-J	SHEET 14 OF 16

AS-LET PLAN REVISIONS					
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE



FILE:

DATE:

DESIGN UNIT:

TSC:

CS:

JN:

DRAWING SHEET