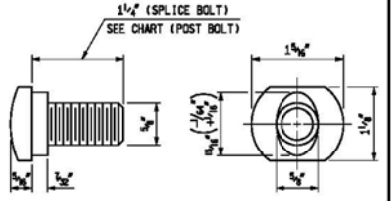
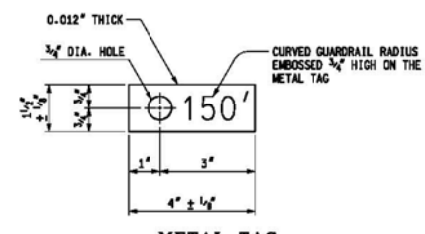
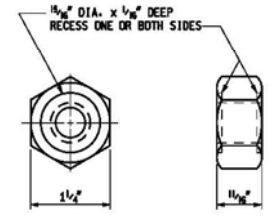
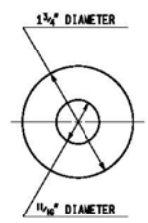


POST BOLTS, SPLICE BOLTS AND WASHERS AT BEAM ELEMENT SPLICE POSTS AND AT INTERMEDIATE POSTS						
GUARDRAIL TYPE	POST	OFFSET BLOCK	POST BOLTS (NO. REQ'D)	SPLICE BOLTS (1 1/2" LONG) (NO. REQ'D)	WASHERS (ROUND) (NO. REQ'D)	
A	WOOD	N/A	1	9 1/2"	8	NOT NEEDED AT INTERMEDIATE POSTS
	STEEL	N/A	1	2"	8	
B	WOOD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

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

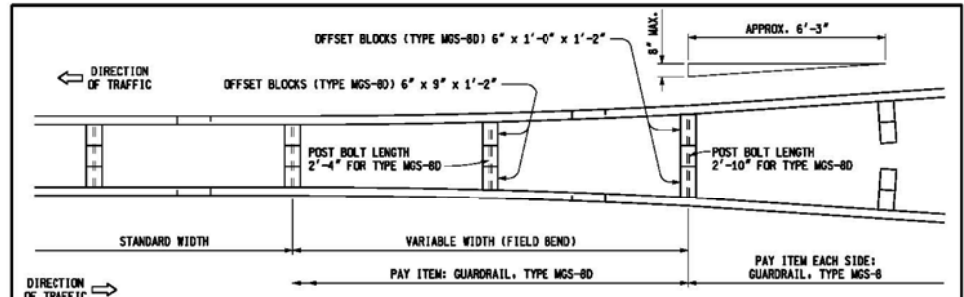


THREE BEAM TRANSITIONS REQUIRE 20 SPLICE BOLTS EACH (12 ON TYPE T END AND 8 ON TYPE B END).  
 \* EXCEPT AS SPECIFIED ON DETAIL SHOWING TRANSITION FROM GUARDRAIL, TYPE B (OR TYPE T) TO GUARDRAIL, TYPE BD (OR TYPE TD), POST BOLTS SHALL NOT EXTEND MORE THAN 1/2" BEYOND NUT.



MICHIGAN DEPARTMENT OF TRANSPORTATION  
 BUREAU OF DEVELOPMENT STANDARD PLAN FOR  
**GUARDRAIL,  
 TYPES A, B, BD, T, TD,  
 MGS-8, & MGS-8D**

F.I.E.L. APPROVAL: \_\_\_\_\_ 7-25-2017 PLAN DATE: \_\_\_\_\_ R-60-J SHEET 15 OF 17



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)	SPLICE BOLTS (1 1/2" LONG) (NO. REQ'D)	WASHERS (ROUND) (NO. REQ'D)	
MGS-8	WOOD	WOOD	1	18"	8	NOT NEEDED AT INTERMEDIATE POSTS
	STEEL	WOOD	1	9 1/2"	8	
MGS-8D	WOOD	WOOD	1	26 1/2"	16	NOT NEEDED AT INTERMEDIATE POSTS
	STEEL	WOOD	2	9 1/2"	16	

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

THREE BEAM TRANSITIONS REQUIRE 20 SPLICE BOLTS EACH (12 ON TYPE T END AND 8 ON TYPE MGS-8 END).  
 \* EXCEPT AS SPECIFIED ON DETAIL SHOWING TRANSITION FROM GUARDRAIL, TYPE MGS-8 TO GUARDRAIL, TYPE MGS-8D POST BOLTS SHALL NOT EXTEND MORE THAN 1/2" BEYOND NUT.

MICHIGAN DEPARTMENT OF TRANSPORTATION  
 BUREAU OF DEVELOPMENT STANDARD PLAN FOR  
**GUARDRAIL,  
 TYPES A, B, BD, T, TD,  
 MGS-8, & MGS-8D**

F.I.E.L. APPROVAL: \_\_\_\_\_ 7-25-2017 PLAN DATE: \_\_\_\_\_ R-60-J SHEET 16 OF 17

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



DATE: \_\_\_\_\_ CS: \_\_\_\_\_  
 DESIGN UNIT: \_\_\_\_\_ JN: \_\_\_\_\_  
 TSC: \_\_\_\_\_  
 FILE: \_\_\_\_\_

EXISTING  
 FOR INFORMATION ONLY  
 DO NOT WORK FROM THIS SHEET. THE INFORMATION SHOWN HERE IS FOR REFERENCE ONLY. NO PAY ITEMS ARE SHOWN.

DESCRIPTION	DR	CHK	DATE	DATE	DATE	DATE	DATE	DATE	DATE

CITY OF DETROIT  
 CITY ENGINEERING DIVISION - D.P.W.  
 BUREAUS OF STREETS AND HIGHWAYS  
 FOR

WEST PARKWAY CULVERT OVER ASHCROFT - SHERWOOD DRAIN

ROAD - DETAILS

SHEET 20 OF 39 SHEETS  
 CONTRACT NO. PW-6987  
 ASSIGNMENT NO. \_\_\_\_\_  
 DATE 01/24/2018