

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

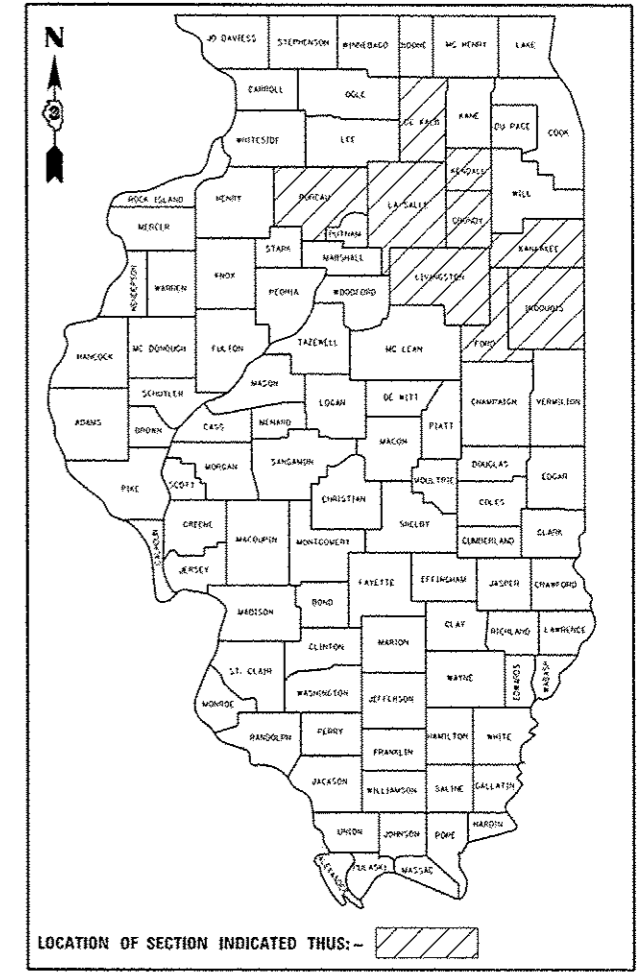
VARIOUS ROUTES
D-3 HIGHWAY DAMAGE REPAIR FY 16
VARIOUS COUNTIES

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAB		VARIOUS	43	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	66E22	
* D-3 HIGHWAY DAMAGE REPAIR FY 16				

D-93-006-15

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- 21 TRAFFIC BARRIER TERMINAL, TYPE 9
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- 23 - 43 PRE-MGS GUARDRAIL STANDARDS EFFECTIVE APRIL 1, 2006

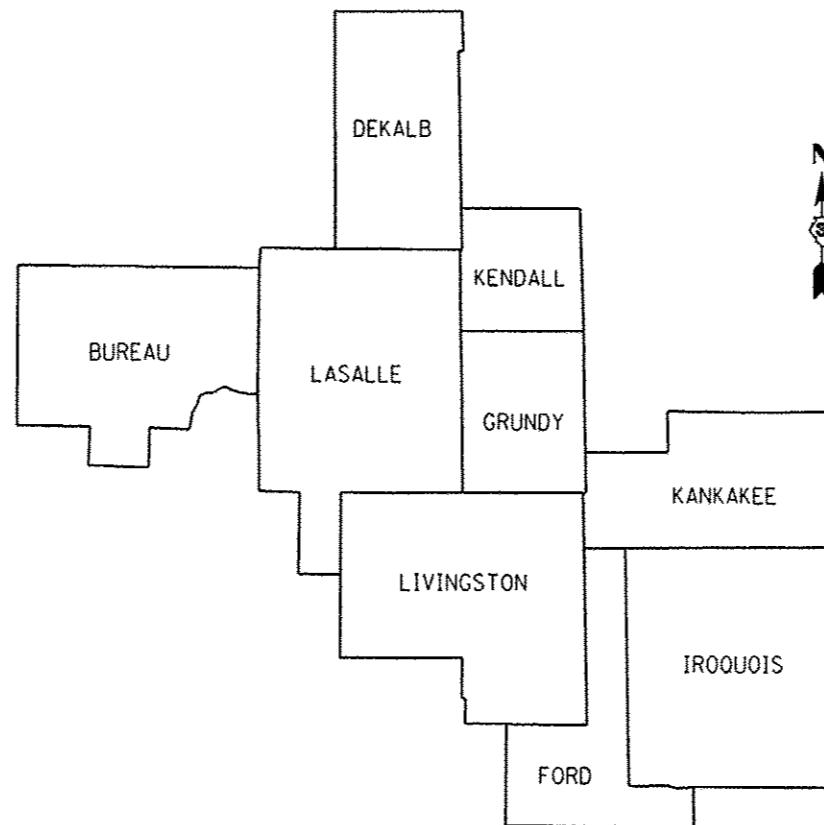


C-93-054-15
REPAIRING MOTORIST CAUSED DAMAGE TO HIGHWAY FACILITIES

HIGHWAY STANDARDS

SEE PAGE 2 FOR LIST OF HIGHWAY STANDARDS
EFFECTIVE JANUARY 1, 2015

MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE
ON THE FOLLOWING SHEETS _____



DISTRICT 3

LOCATION MAP
NOT TO SCALE

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

SAFETY AND CLAIMS MANAGER : KRIS FOGARTY
UNIT CHIEF : PAT BRABOY, P.E.

DISTRICT 3 NO. (815) 434-6131
CONTRACT NO. 66E22

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED March 24th 2015
Paul C. [Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 8, 2015
Don D. Baranzelli, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

May 8, 2015
Omer Osman, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

PLOT DATE = 3/2/2015
FILE NAME = c:\pwworking\pwworking\plots\06426210\06426210-D366E22-sht-detail.dgn
PLOT SCALE = 5000.0000 / 1"
USER NAME = pletscht

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				MCHD	CONSTR. MAINT.	HTC BARRIER
				100% MCHD	100% STATE	100% STATE
				ROADWAY 0021 07MOA, 01	ROADWAY 0021 07E0. 01	ROADWAY 0021 07A0, 02
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2	2		
63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	1	1		
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	1	1		
63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	1	1		
63100089	TRAFFIC BARRIER TERMINAL, TYPE 6B	EACH	1	1		
63100095	TRAFFIC BARRIER TERMINAL, TYPE 8	EACH	1	1		
63100101	TRAFFIC BARRIER TERMINAL, TYPE 9	EACH	1	1		
63100105	TRAFFIC BARRIER TERMINAL, TYPE 10	EACH	1	1		
63100115	TRAFFIC BARRIER TERMINAL, TYPE 12	EACH	1	1		
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	35	20	15	
63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	4	2	2	
63301210	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	150		150	
63301215	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL, TYPE B	FOOT	25		25	
63400105	GUARD POSTS	EACH	25	15	10	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE						
				MCHD 100% MCHD ROADWAY 0021 07MOA, 01	CONSTR. MAINT. 100% STATE ROADWAY 0021 07AO, 01	HTC BARRIER 100% STATE ROADWAY 0021 07AO, 02				
				64300260	IMPACT ATTENUATORS (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1	1		
				66400105	CHAIN LINK FENCE, 4'	FOOT	150	100	50	
66400305	CHAIN LINK FENCE, 6'	FOOT	175	75	100					
66500105	WOVEN WIRE FENCE, 4'	FOOT	10000	5000	5000					
67100100	MOBILIZATION	L SUM	1	0.5	0.5					
78200410	GUARDRAIL MARKERS, TYPE A	EACH	200	100	100					
X0321563	REPAIR TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL	EACH	50	20	30					
X0322878	TIMBER CURB	FOOT	32	32						
X0326126	WOOD TERMINAL POST	EACH	1	1						
X0327278	REPAIR HIGH TENSION CABLE	FOOT	450	300		150				
X0327279	REPLACE HIGH TENSION CABLE END SECTION	EACH	3	1		2				
X0327281	REMOVE AND REPLACE HIGH TENSION CABLE POST	EACH	750	500		250				
X0327282	REMOVE AND REPLACE HTC POST (HEAVY DUTY)	EACH	200	100		100				
X6300215	RAIL ELEMENT PLATES	EACH	600	300	300					

14

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				MCHD	CONSTR. MAINT.	HTC BARRIER
				100% MCHD	100% STATE	100% STATE
				ROADWAY	ROADWAY	ROADWAY
				0021	0021	0021
				07MOA, 01	07A0, 01	07A0, 02
X6300230	STEEL POSTS	EACH	600	300	300	
X6331101	TUBULAR THRIE BEAM	FOOT	50	25	25	
X6331105	STEEL POSTS, MODIFIED	EACH	5	3	2	
X6331110	STEEL POSTS, SPECIAL	EACH	30	10	20	
X6432110	REPLACE IMPACT ATTENUATORS (NON-REDIRECTIVE), TEST LEVEL 3	EACH	100	70	30	
X6610200	HOT-MIX ASPHALT CURB REPAIR	FOOT	50	50		
X6640502	CHAIN LINK FENCE POST	EACH	15	10	5	
X7011834	TRAFFIC CONTROL AND PROTECTION, CALL OUT WORK	EACH	30	15	15	
X7011836	TRAFFIC CONTROL AND PROTECTION, FREEWAY/EXPRESSWAY, CALL OUT WORK	EACH	95	20	15	60
Z0008760	EMERGENCY WORK CALL OUT	EACH	200	100	50	50
Z0012752	CONCRETE STRUCTURE REPAIR	CU FT	15	15		
Z0020210	PULL POST ARRANGEMENT	EACH	25	10	15	
Z0026305	FURNISHING AND MAINTAINING AUTOMOTIVE VEHICLES	CAL MO	12	12		
Z0029657	HIGH TENSION CABLE SYSTEM MAINTENANCE	EACH	700	300		400

FILE NAME =	USER NAME = pletachr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT DATE = 3/23/2015	DATE -	REVISED -		ILLINOIS FED. AID PROJECT								

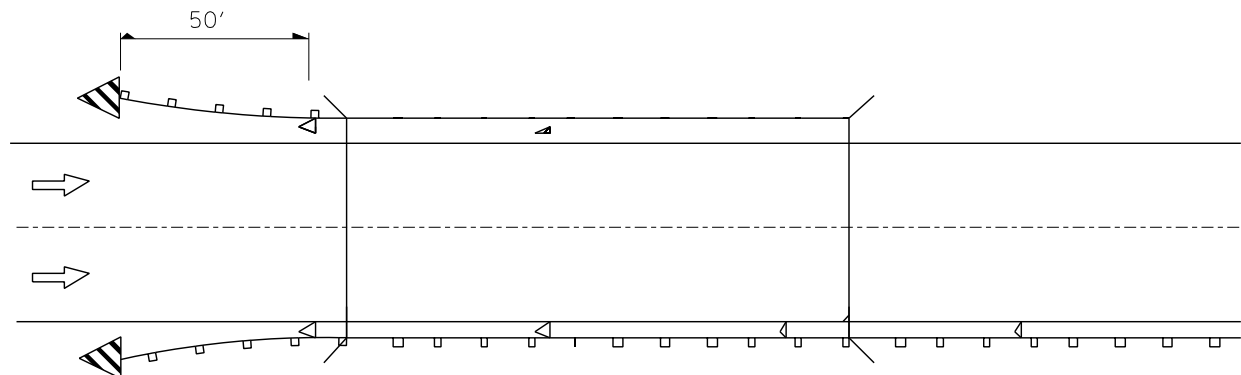
Rev.

7/15/15

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				MCHD 100% MCHD	CONSTR. MAINT. 100% STATE	HTC BARRIER 100% STATE
				ROADWAY	ROADWAY	ROADWAY
				0021	0021	0021
				07MOA, 01	07A0, 01	07A0, 02
Z0029659	FURNISH AND INSTALL HIGH TENSION CABLE FOUNDATION AND POST	EACH	25	15		10
Z0029660	FURNISH AND DRIVE METAL SOCKET WITH POST	EACH	20	10		10
Z0029665	REPAIR TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL - RAIL ELEMENT PULLEY	FOOT	50		50	
Z0052400	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	1		1	
Z0052600	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1	1		
Z0052700	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 3	EACH	1	1		
Z0052800	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 3A	EACH	1	1		
Z0052900	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 4	EACH	1	1		
Z0053000	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	1	1		
Z0053200	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2		
Z0053210	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	2	2		
Z0053220	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 6B	EACH	2	2		
Z0053400	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 8	EACH	1	1		
Z0053500	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 9	EACH	1	1		
Z0053575	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 12	EACH	1	1		

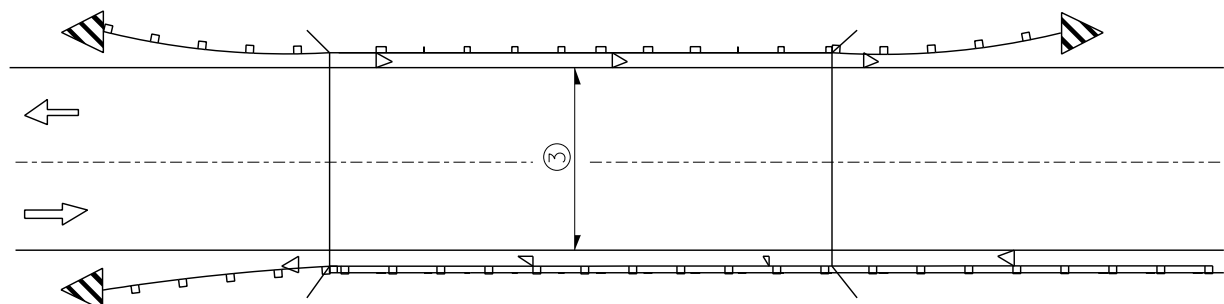
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FILE NAME =	USER NAME = platechr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					



Reflectors are not to be placed on Terminal End Sections.
(min. 3 reflectors regardless of length).
After 400 ft transition, match existing delineator spacing.

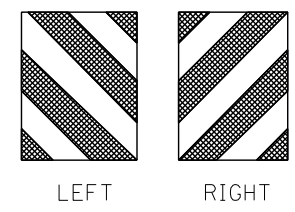
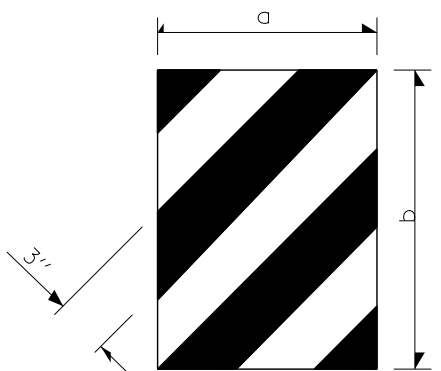
ONE-WAY TRAFFIC



③ Bidirectional silver/silver should be used in lieu of monodirectional silver on both sides of two-lane bridges where the pavement is less than 24" wider than the pavement approaching the bridge.

- ◁ Monodirectional silver
- ◀ Monodirectional amber
- ▤ Terminal Marker - Black/Yellow
Left or Right as appropriate

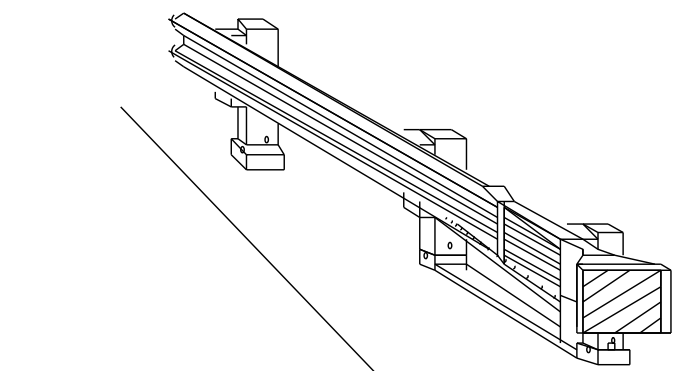
TWO-WAY TRAFFIC



DIMENSION	CASE I	CASE II
a	*	450 (18)
b	*	406 (16)

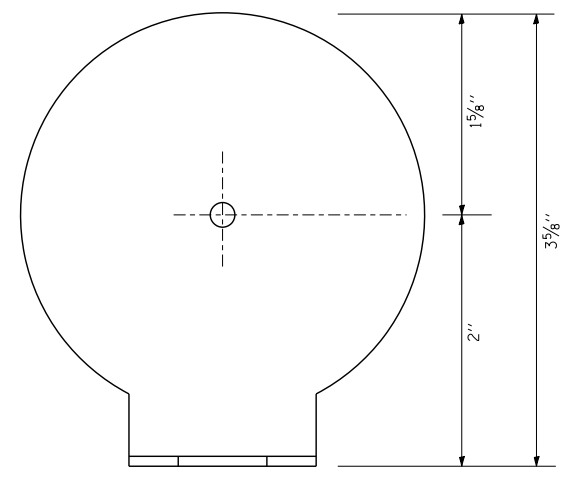
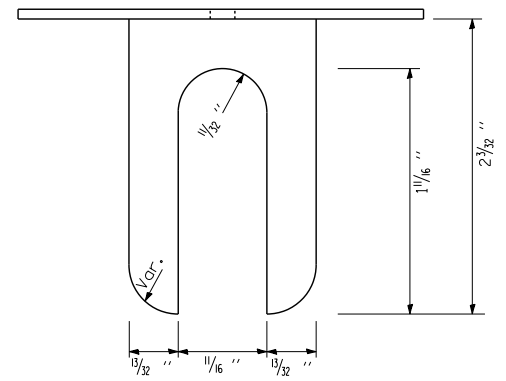
* The width and height (a, b) of the terminal marker shall be within approximately 25 mm (1 inch) of the outer edge of the terminal end, with a minimum reflective area of 0.18 m² (288 sq. in.)

TERMINAL MARKER DETAILS
Color: Black / Yellow reflectorized



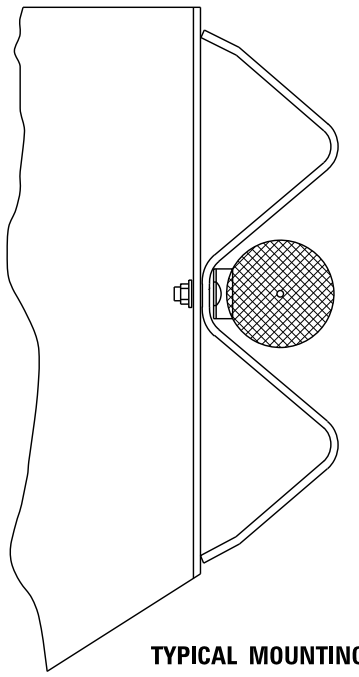
REFLECTOR AND TERMINAL MARKER PLACEMENT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

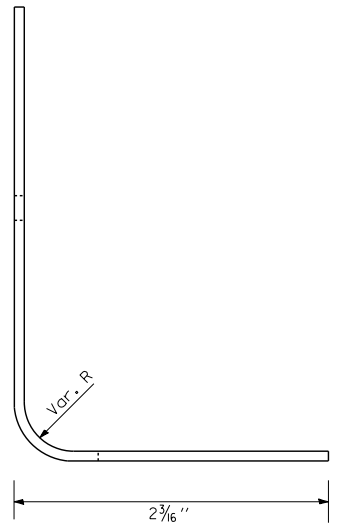


REFLECTOR MARKER TYPE A

- NOTES:**
- BRACKET IS TO BE FABRICATED FROM 12 GA. (MIN) STEEL GALVANIZED IN ACCORDANCE WITH AASHTO M III.
 - MIN. 3 REFLECTORS PER SIDE.
 - BRACKET "FOOT" SHALL BE PLACED BETWEEN THE BOLT HEAD AND THE PLATE WASHER (IF PRESENT).
 - ON THRIE BEAM RAIL, THE BRACKETS SHALL BE ATTACHED TO THE UPPER SPLICE BOLTS.
 - USE CRYSTAL COLOR, BI-DIRECTIONAL REFLECTORS USE AMBER (LEFT) AND CRYSTAL (RIGHT), MONODIRECTIONAL REFLECTORS ON INTERSTATES
 - ALL DIMENSIONS SHOWN ARE MINIMUM



TYPICAL MOUNTING WITH REFLECTOR



REFLECTOR DETAIL

REFLECTOR AND TERMINAL MARKER PLACEMENT DETAIL

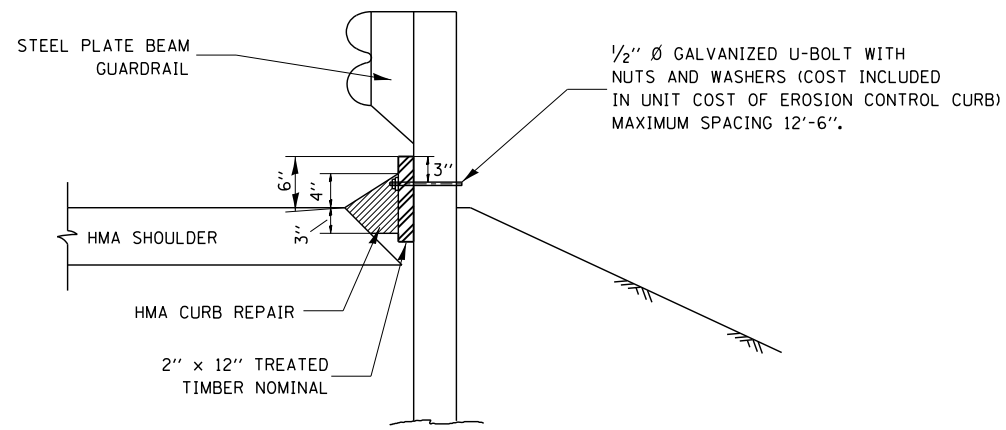
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• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016

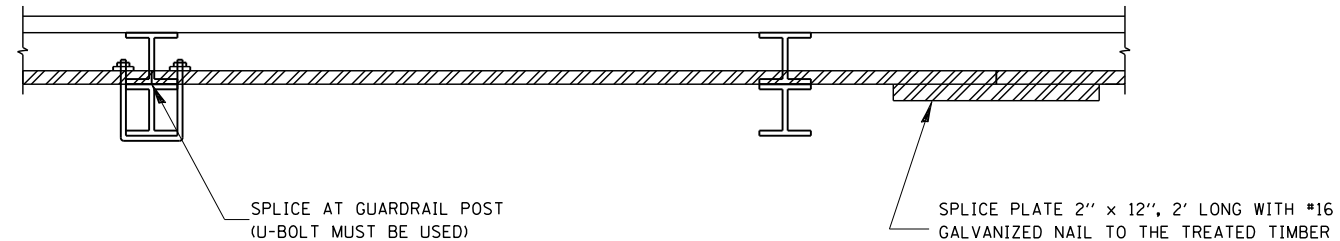
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
V&B.	*	V&B.	43	7

CONTRACT NO. 66DE22
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT

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	PLOT SCALE = 5000.0000 / in.	CHECKED -	REVISED -
	PLOT DATE = 3/2/2015	DATE -	REVISED -



SIDE VIEW



TOP VIEW

NOTE:
 THE TREATED TIMBER SHALL BUTT TOGETHER AT THE GUARDRAIL POST OR SPLICED AS SHOWN ON THE DETAIL.

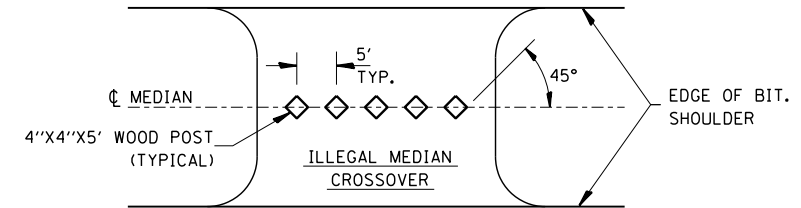
THE TREATED TIMBER SHALL BE TREATED IN ACCORDANCE TO ARTICLE 1007.12 AND ALL PRESERVATIVES SPECIFIED IN THE ARTICLE WILL BE ALLOWED.

THE PRICE FOR EROSION CONTROL CURB SHALL INCLUDE THE U-BOLTS ATTACHING THE TREATED TIMBER TO THE GUARDRAIL POSTS, TREATED TIMBER, AND THE NECESSARY GRADING TO COMPLETE THIS WORK.

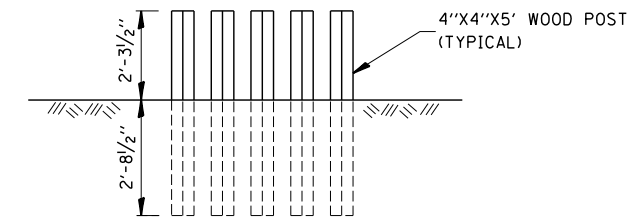
HMA CURB REPAIR SHALL BE MEASURED AND PAID FOR AT CONTRACT UNIT PRICE PER TON.

HMA CURB REPAIR SHALL BE IN ACCORDANCE WITH SECTION 408 OF THE STANDARD SPECIFICATIONS.

TIMBER CURB & HMA CURB REPAIR



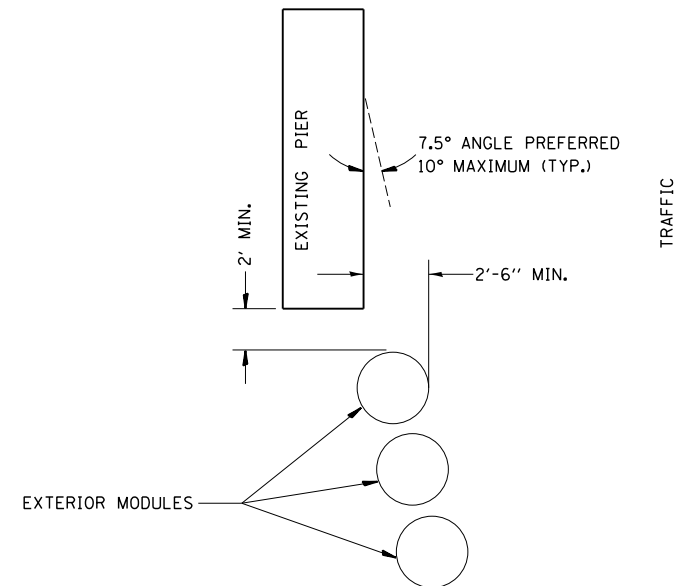
PLAN



ELEVATION

WOOD POST DETAIL

IMPACT ATTENUATOR LAYOUT PLAN



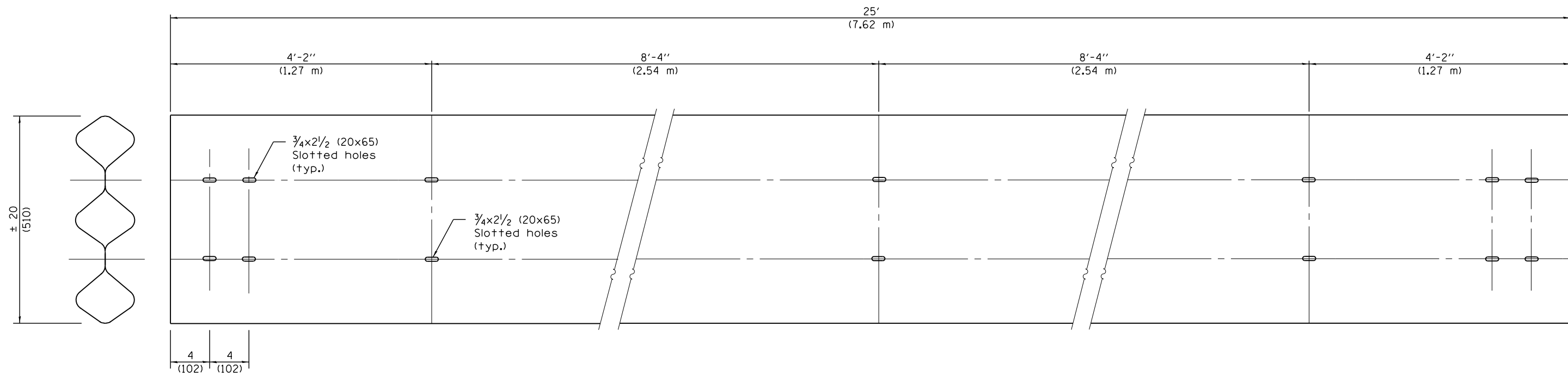
TYPICAL EXTERIOR MODULE LAYOUT

NOTES:

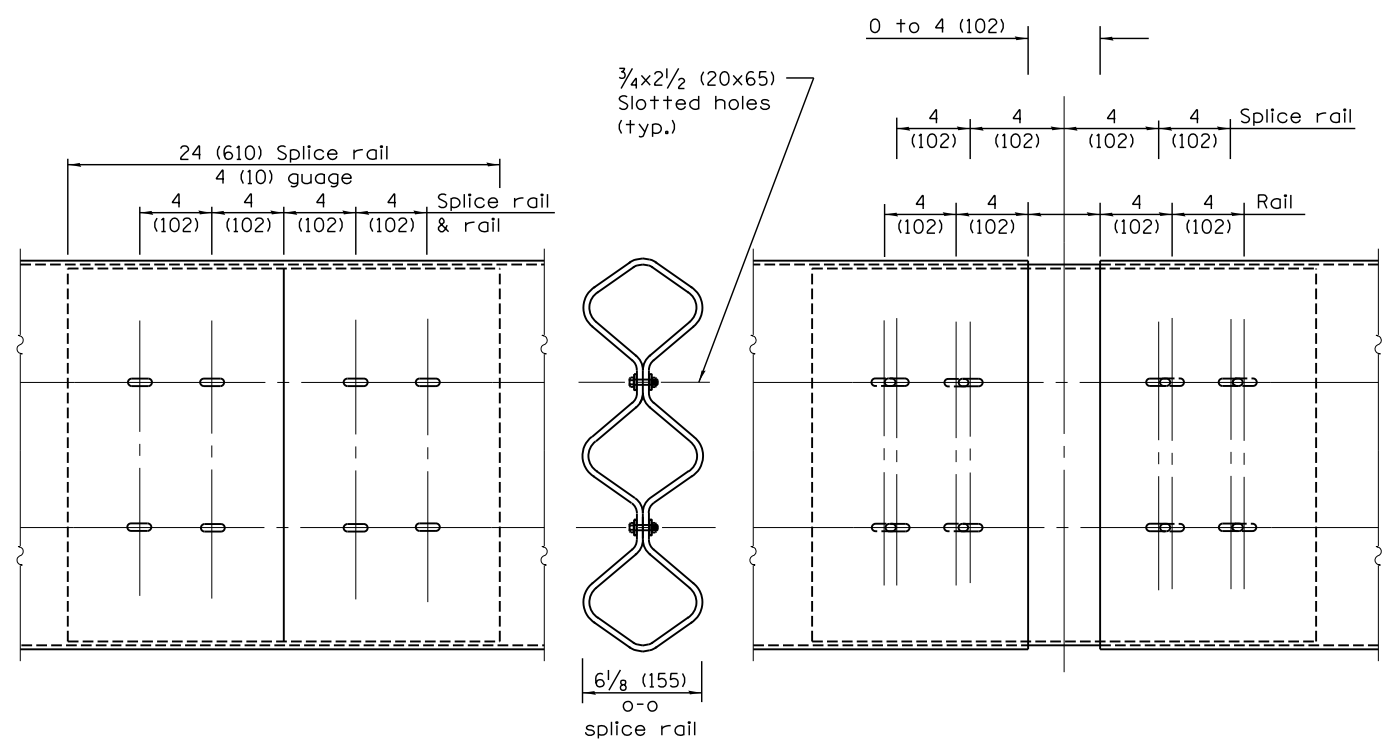
1. THE PAY ITEM "REPLACE IMPACT ATTENUATORS, (NON-REDIRECTIVE), TEST LEVEL 3" HAS BEEN INCLUDED TO REPLACE INDIVIDUAL DAMAGED SAND MODULES.
2. REPLACEMENT MODULES SHALL MATCH THE KIND OF MODULES THAT ARE REMAINING.
3. IMPACT ATTENUATORS SHALL BE IN ACCORDANCE WITH SECTION 643 FOR IMPACT ATTENUATORS.
4. THIS SHEET SHOWS THE LAYOUT INFORMATION FOR REPLACEMENT OF SAND MODULES (IMPACT ATTENUATORS) AT A TYPICAL INTERSTATE LOCATION.
5. ADJACENT SAND MODULE IMPACT ATTENUATORS THAT ARE NOT DAMAGED, BUT HAVE BEEN SHIFTED Laterally FROM THEIR ORIGINAL POSITION SHALL BE REALIGNED OR MOVED BACK TO THEIR ORIGINAL POSITION, AS DIRECTED BY THE ENGINEER. REALIGNMENT OR MOVING OF ADJACENT UNDAMAGED MODULES SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF REPLACEMENT. THE WORK TO REALIGN OR SHIFT UP TO 2 MODULES SHALL BE INCLUDED WITH EACH REPLACED SAND MODULE IMPACT ATTENUATOR.

• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016

FILE NAME =	USER NAME = pletschtr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TIMBER CURB & BITUMINOUS CURB REPAIR & GUARD POST DETAIL & IMPACT ATTENUATOR PLAN	F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pw\work\p\id\p\letschtr\d0426210\0366E22-sht-details.dgn	DRAWN -	REVISED -	V&B.			*	V&B.	43	9	
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PLOT DATE = 3/2/2015	DATE -	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

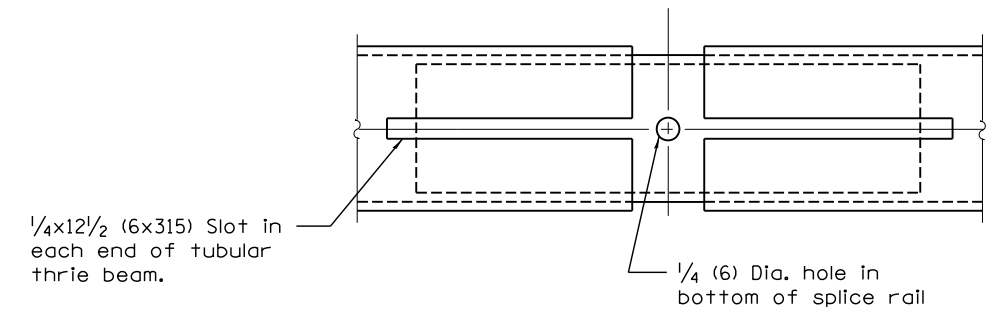


TUBULAR THRIE BEAM FOR INTERNAL SPLICE JOINT



INTERNAL SPLICE JOINT

INTERNAL EXPANSION SPLICE JOINT



BOTTOM VIEW OF INTERNAL EXPANSION SPLICE JOINT

GENERAL NOTES

Plate Washers B are to be placed under both heads and nuts of splicing bolts for internal splice and internal expansion splice joint.

Plate Washers C are to be placed under both heads and nuts of splicing bolts for lap expansion and internal lap splice joint.

See Standard 630001 for details of guardrail not shown.

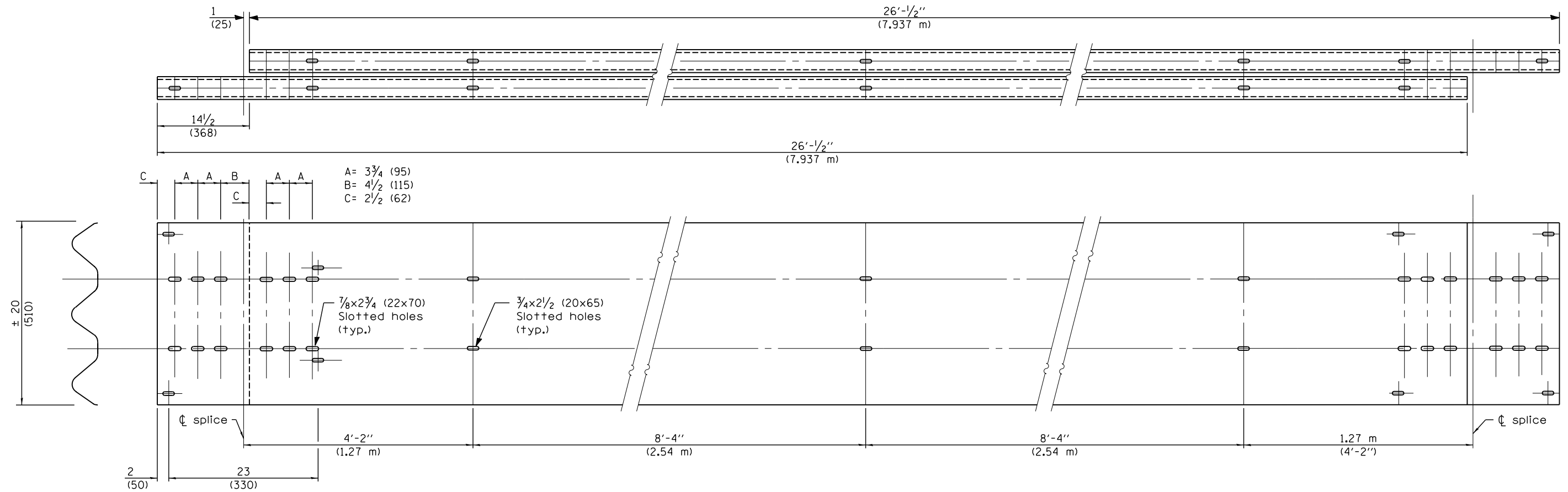
All dimensions are in inches (millimeters) unless otherwise shown.

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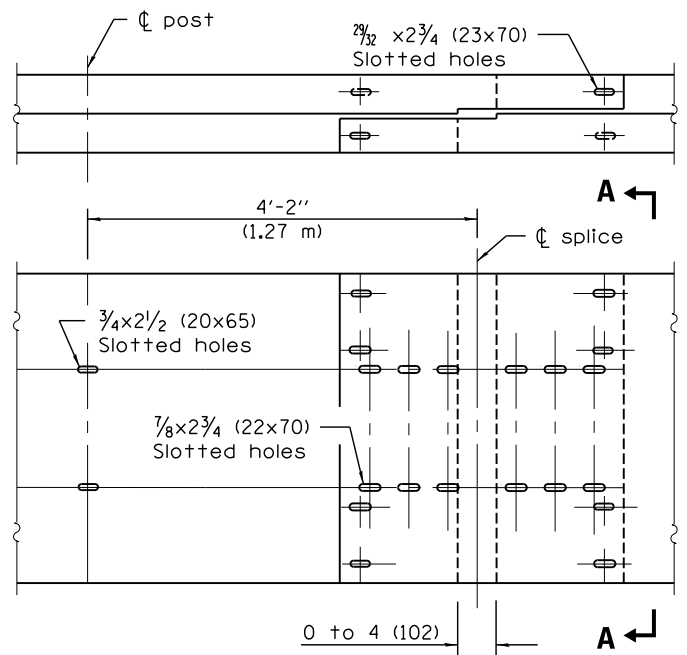
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TUBULAR THRIE BEAM		RETROFIT RAIL FOR BRIDGES	
SCALE: _____	SHEET 1 OF 3 SHEETS	STA. _____	TO STA. _____

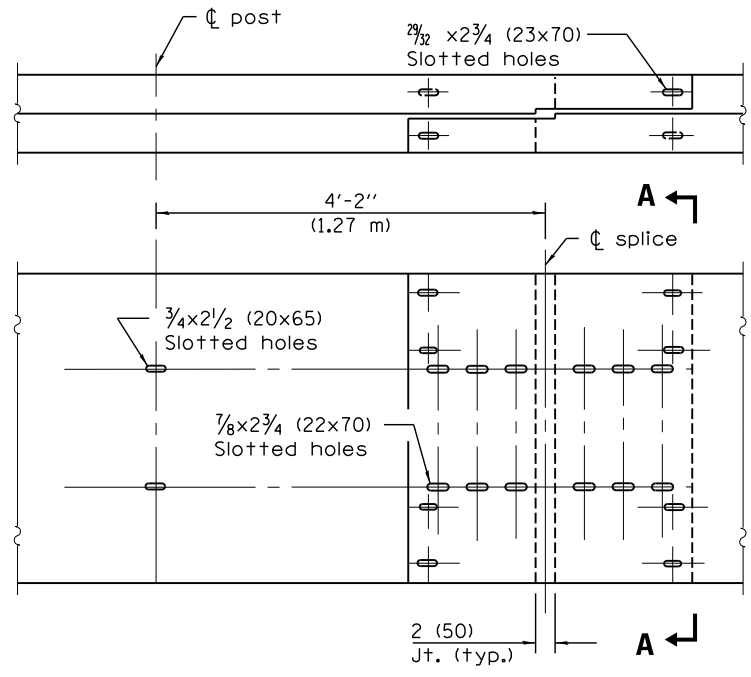
• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016			
F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS
VAR.	*	VAR.	43
			SHEET NO. 10
CONTRACT NO. 66E22			
ILLINOIS FED. AID PROJECT			



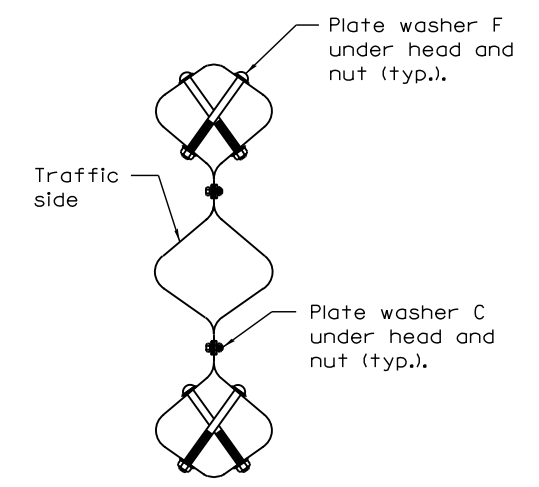
TUBULAR THRIE BEAM FOR LAP SPLICE JOINT



LAP EXPANSION SPLICE JOINT



LAP SPLICE JOINT



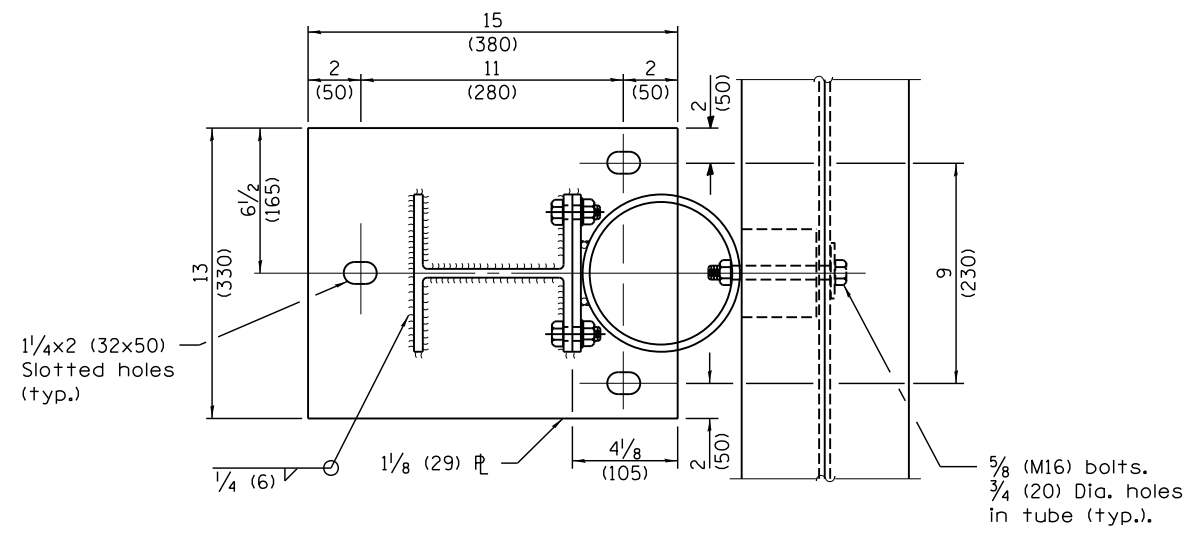
SECTION A-A

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	PLOT DATE = 3/2/2015	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

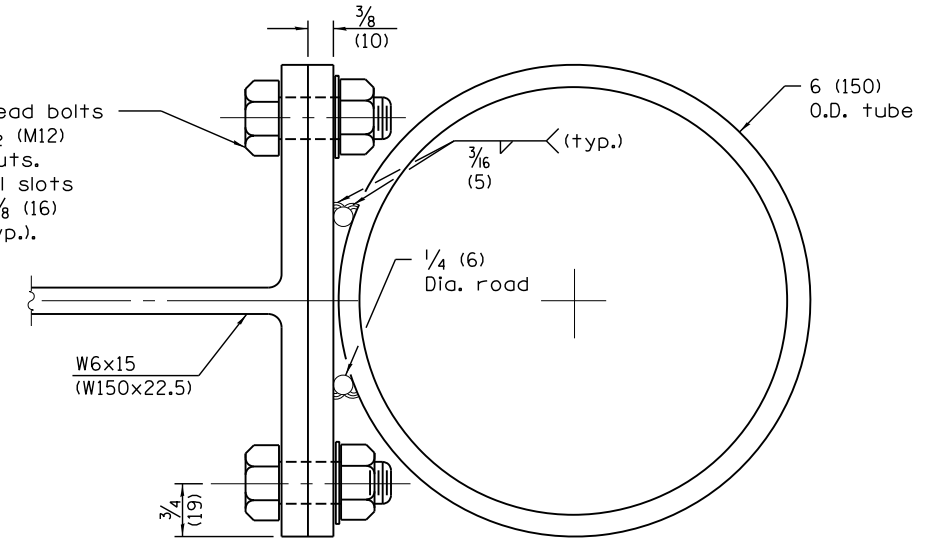
TUBULAR THRIE BEAM		RETROFIT RAIL FOR BRIDGES	
SCALE: _____	SHEET 2_ OF 3_ SHEETS	STA. _____	TO STA. _____

• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016			
F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS
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			CONTRACT NO. 66E22
ILLINOIS FED. AID PROJECT			

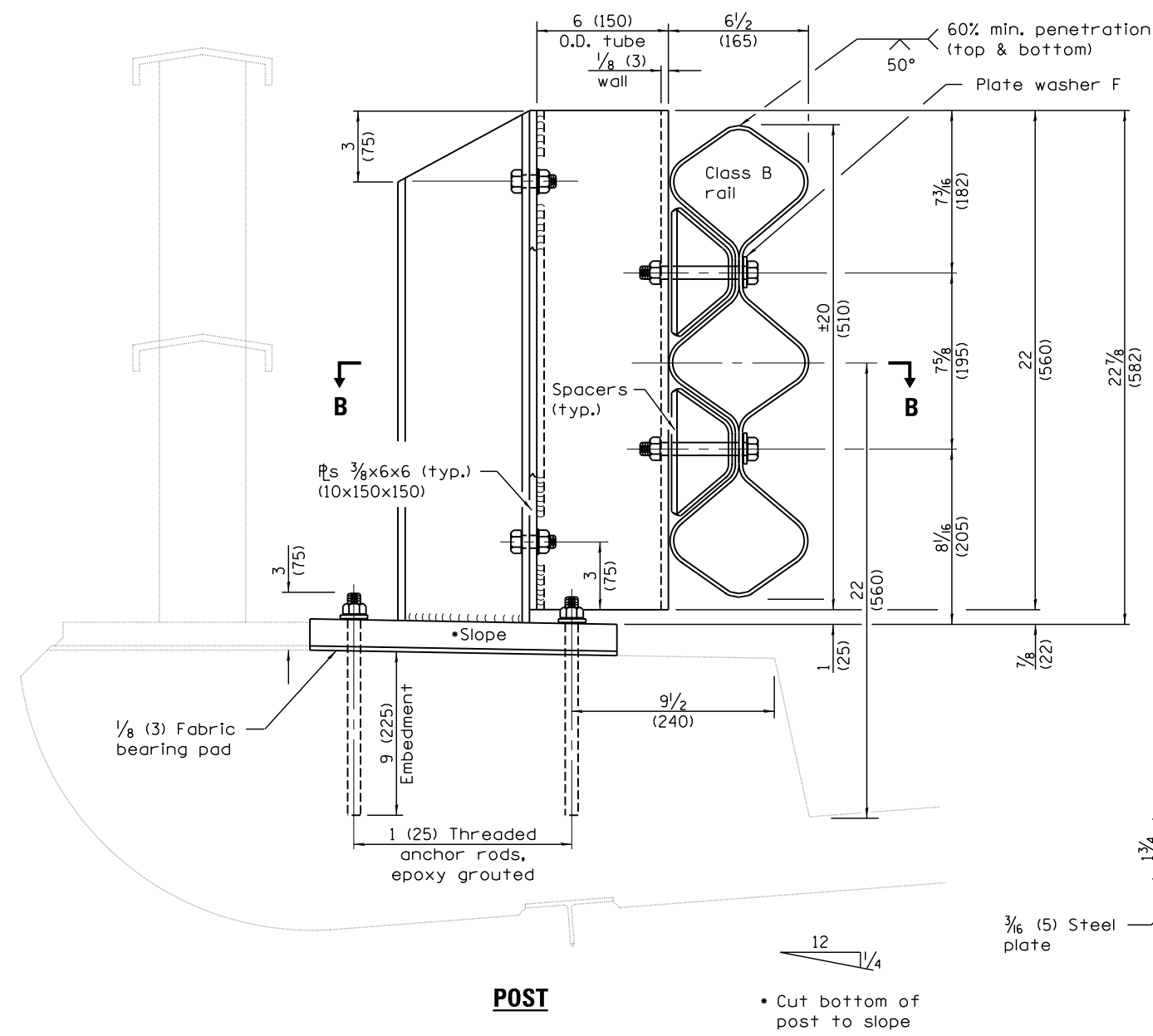


SECTION B-B

1/2x1/4 (M12x32) hex head bolts with hex nuts and 1/2 (M12) flat washer under nuts.
 5/8x1/2 (16x38) vertical slots in 3/8 (10) plate and 5/8 (16) dia. holes in post (typ.).

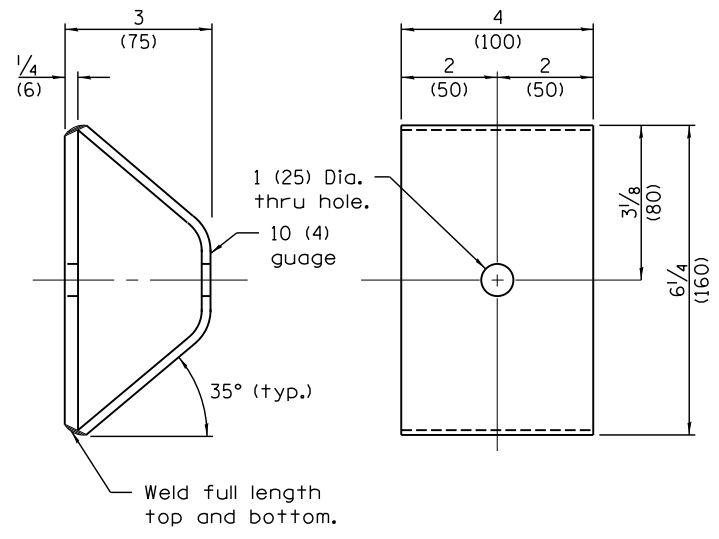


TUBE TO POST ATTACHMENT



POST

• Cut bottom of post to slope



SPACER

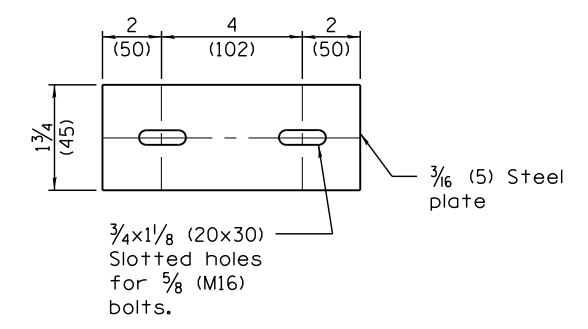


PLATE WASHER B

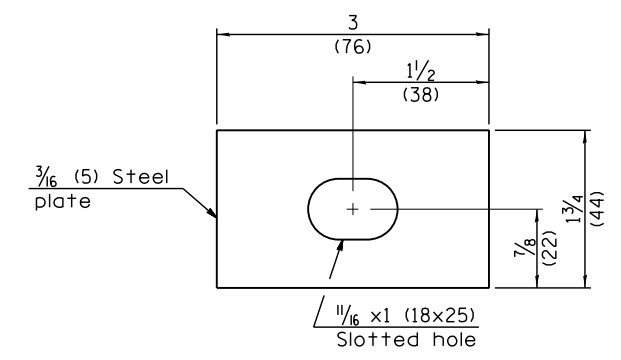


PLATE WASHER F

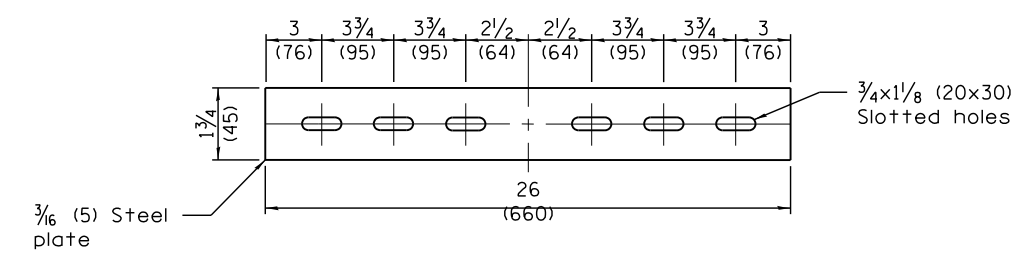


PLATE WASHER C

FILE NAME =	USER NAME = pletschr	DESIGNED -	REVISED -
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Default	PLOT SCALE = 5000.0000 / in.	CHECKED -	REVISED -
	PLOT DATE = 3/2/2015	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

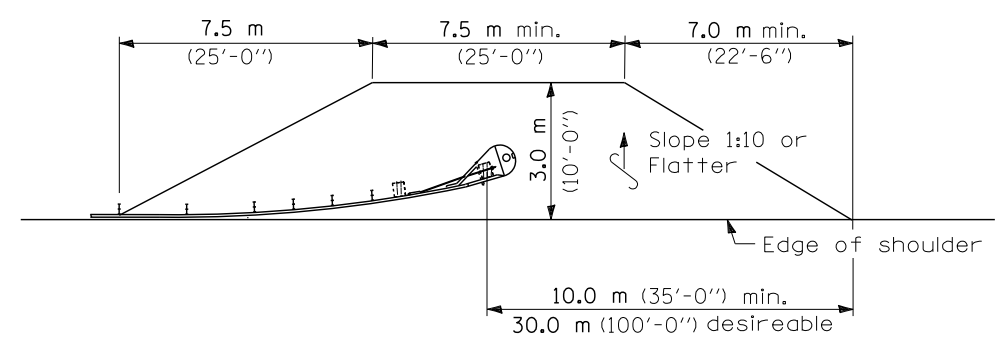
**TUBULAR THRIE BEAM
 RETROFIT RAIL FOR BRIDGES**

SCALE: _____ SHEET 3 OF 3 SHEETS STA. _____ TO STA. _____

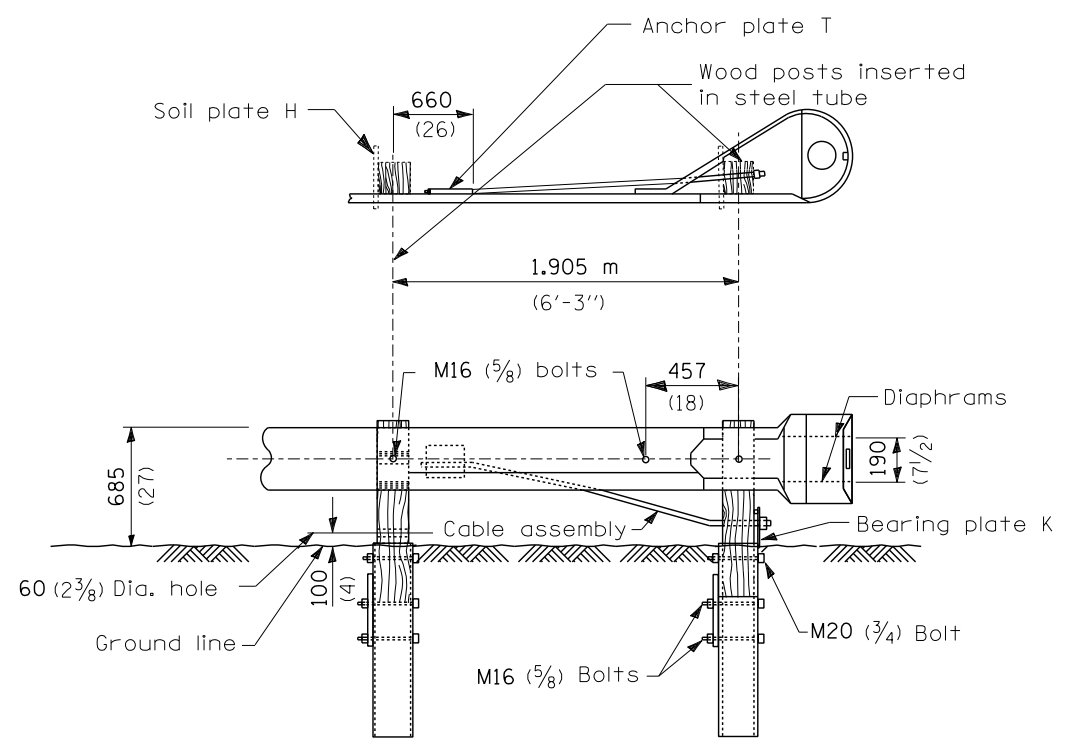
• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016			
F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS
VAR.	•	VAR.	43 12
			CONTRACT NO. 66E22
ILLINOIS FED. AID PROJECT			

OFFSETS TO FACE OF RAIL

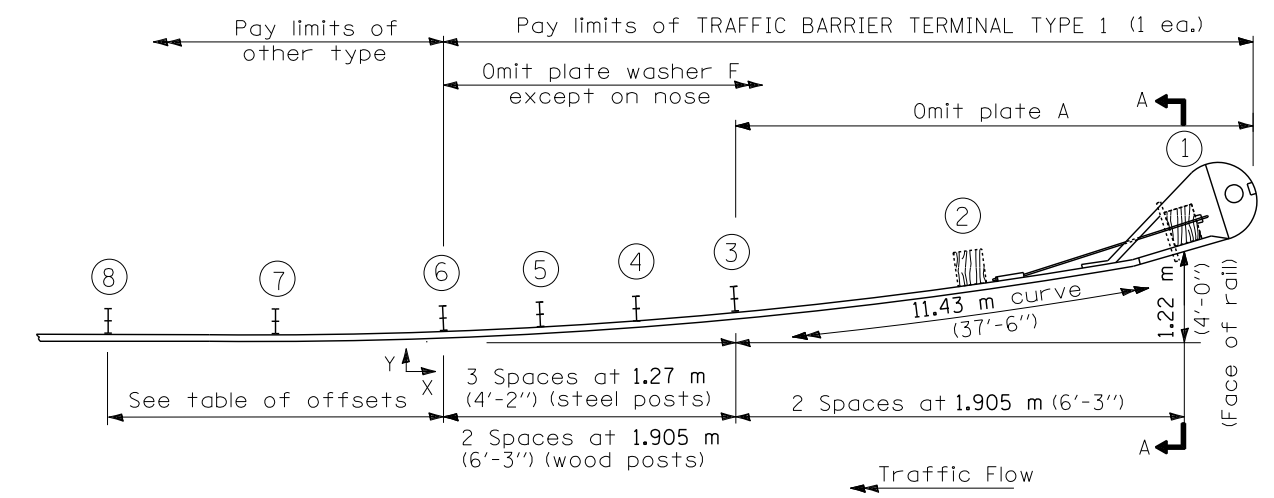
Post	X _m (ft)	Y _m (ft)
①	11.345 (37.22)	1.22 (4.0)
②	9.475 (31.09)	0.850 (2.79)
③	7.595 (24.92)	0.545 (1.79)
④	6.335 (20.79)	0.380 (1.25)
⑤	5.070 (16.64)	0.245 (0.80)
⑥	3.805 (12.49)	0.135 (0.45)
⑦	1.905 (6.25)	0.035 (0.11)
⑧	0 (0.00)	0 (0.00)



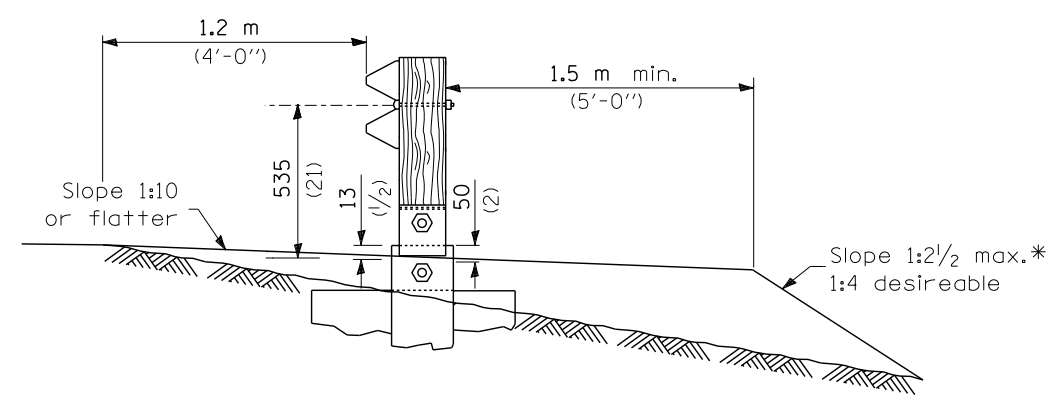
SHOULDER WIDENING TRANSITION



WOOD BREAKAWAY POSTS
TUBULAR STEEL FOUNDATIONS



PLAN



SECTION A-A

* If fill height exceeds 1.5 m (5'-0'') use 1:3 max.

**DETAIL INCLUDED
FOR REPAIR ONLY**

GENERAL NOTES

See Standard 630001 for details of guardrail not shown.

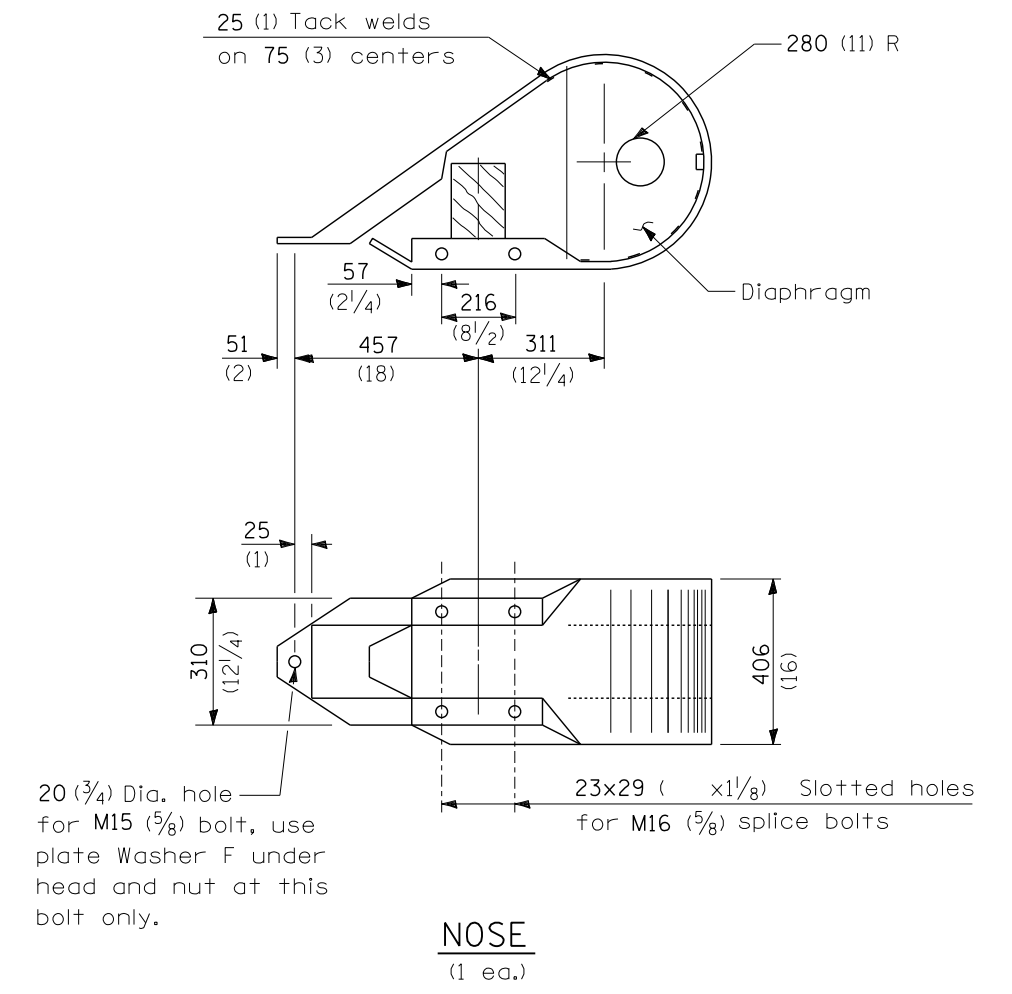
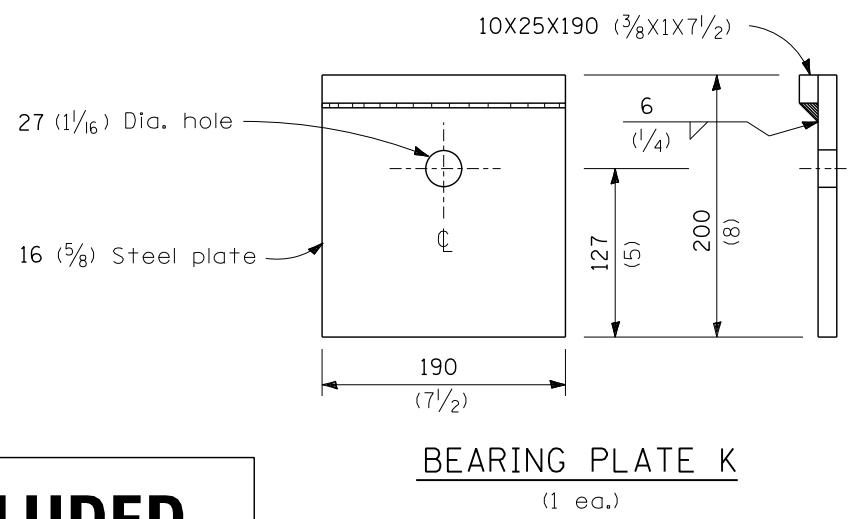
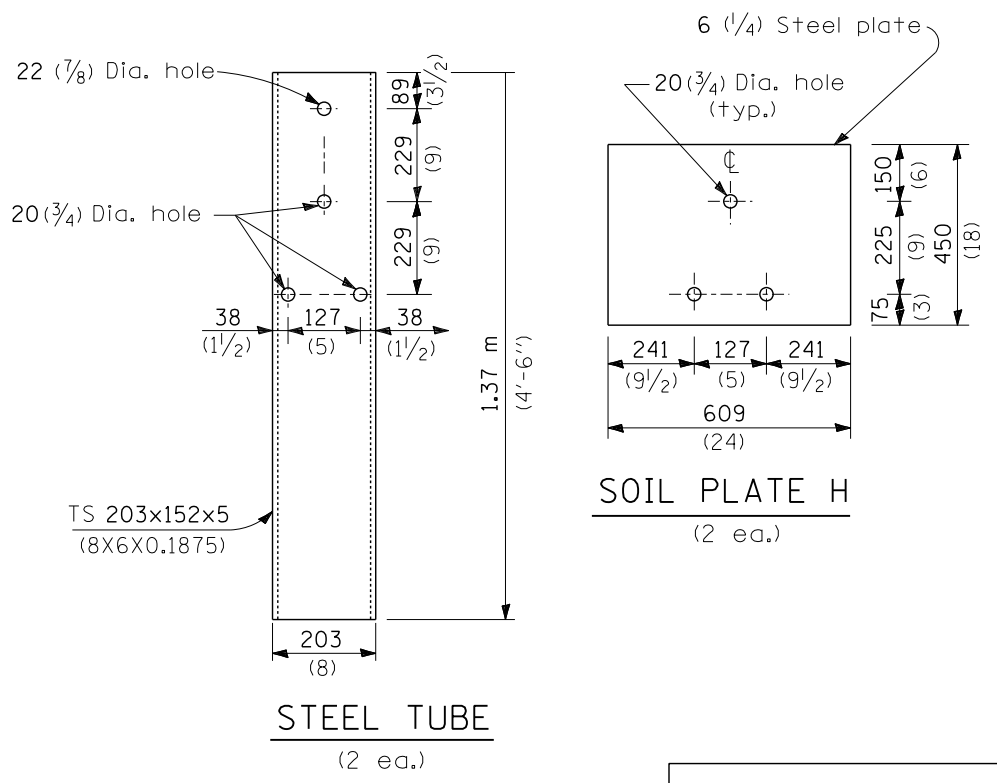
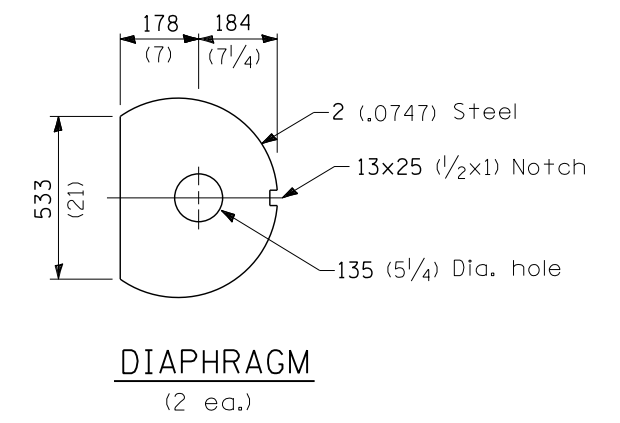
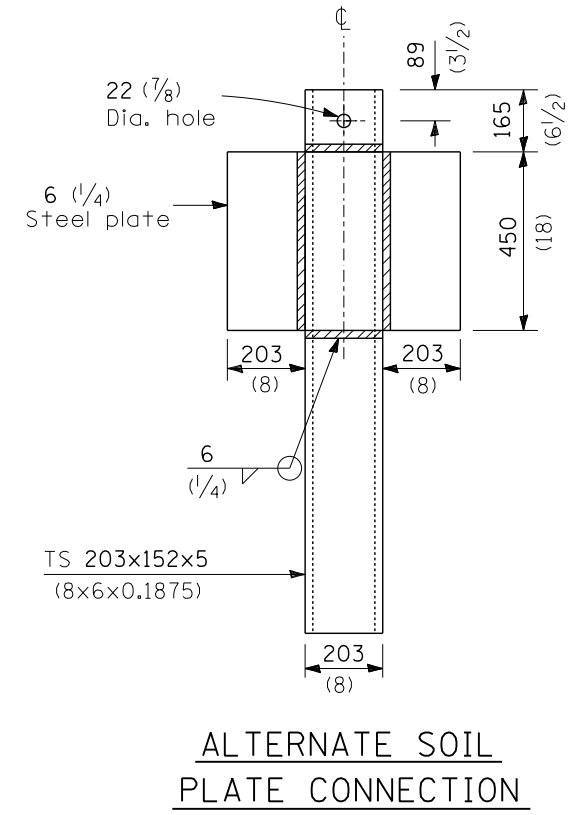
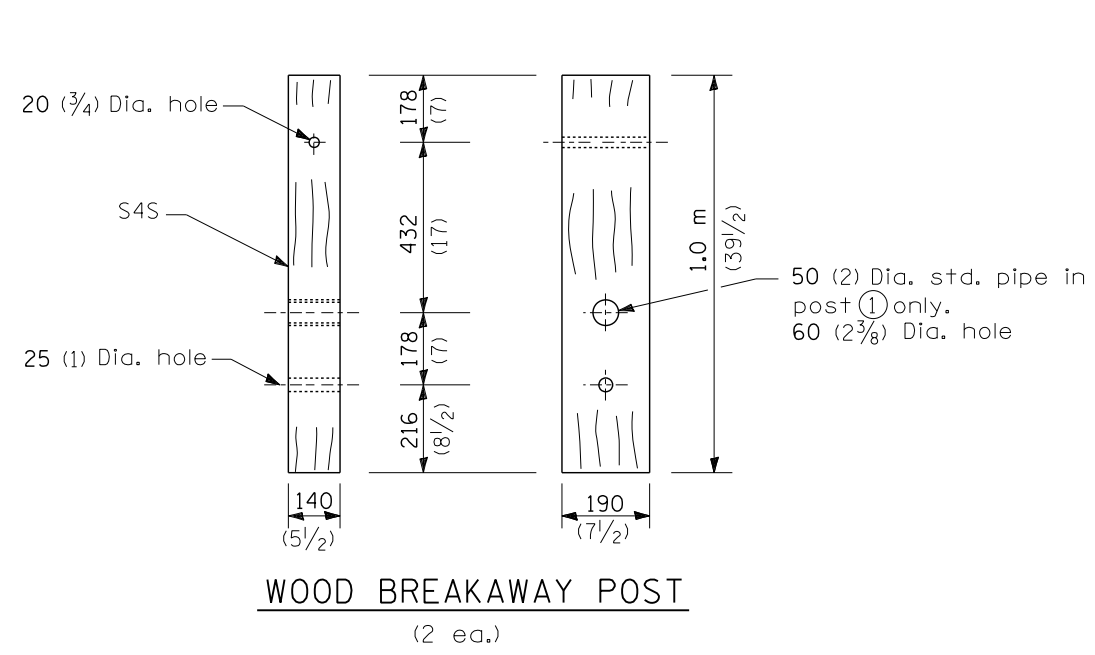
Posts at location 1 & 2 shall be wood breakaway posts. Posts other than 1 & 2 may be either standard wood posts or steel posts, at the option of the Contractor. If standard wood posts are used, one post shall be located midway between and in lieu of posts 4 & 5. The offset (Y) for this post shall be 300 mm (12 inches).

A two-piece assembly may be substituted for the one piece nose shown above.

The bearing plate K shall be held in position by (2) two eightpenny nails driven into the post and bent over the top of the plate.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in millimeters (inches) unless otherwise shown.



DETAIL INCLUDED FOR REPAIR ONLY

All dimensions are in millimeters (inches) unless otherwise shown.

• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016

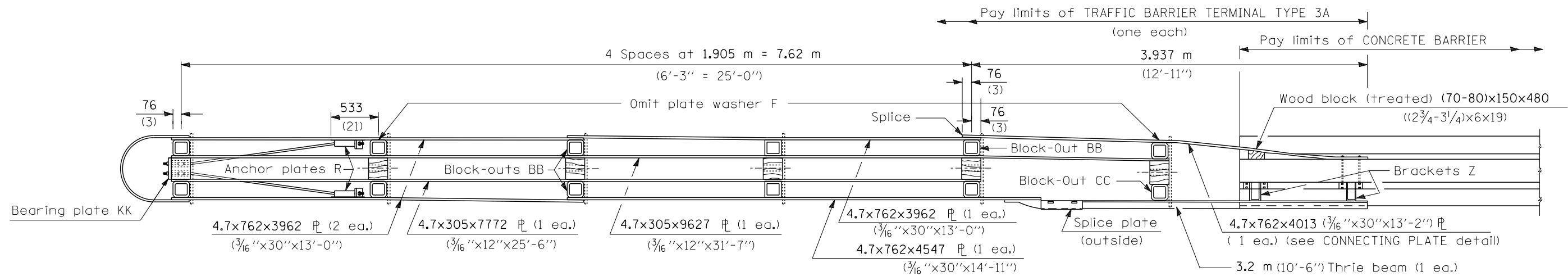
FILE NAME =	USER NAME = pletschr	DESIGNED -	REVISED -
ca:\pw\work\p\id\p\letschr\d0426210\0366E22-sht-details.dgn		DRAWN -	REVISED -
	PLOT SCALE = 5000.0000 / in.	CHECKED -	REVISED -
	PLOT DATE = 3/2/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

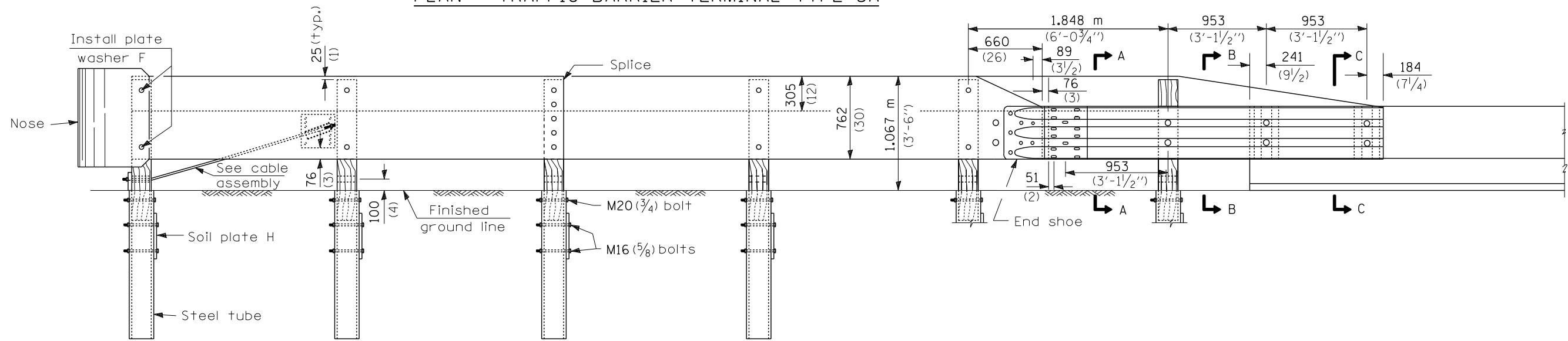
TRAFFIC BARRIER TERMINAL TYPE 1
STANDARD B.L.R. 23

SCALE: _____ SHEET NO. ___ OF ___ SHEETS STA. _____ TO STA. _____

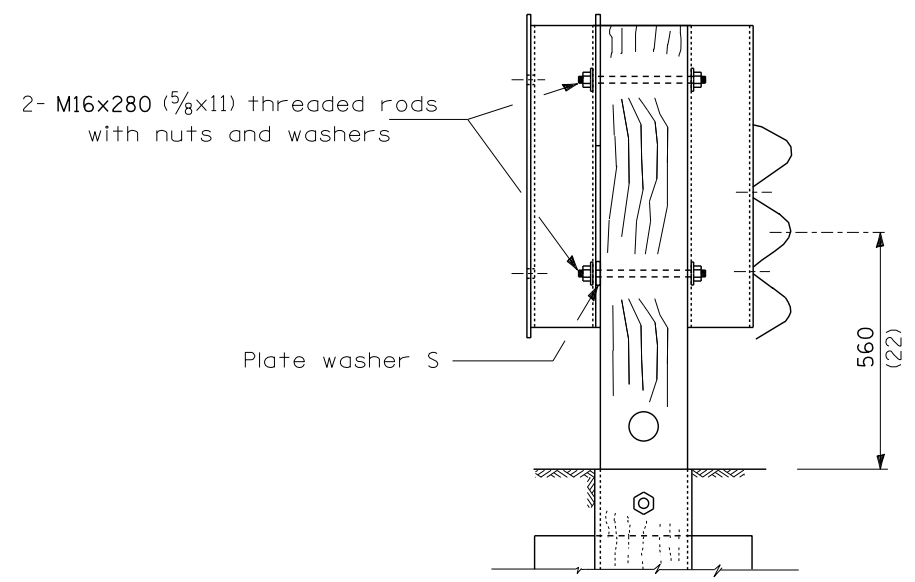
F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
V&B.	*	V&B.	43	14
CONTRACT NO. 66E22				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				



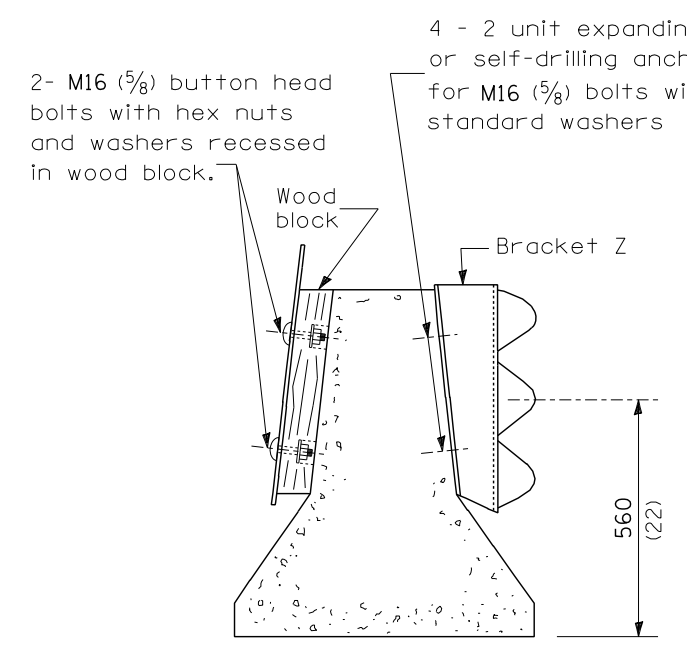
PLAN - TRAFFIC BARRIER TERMINAL TYPE 3A



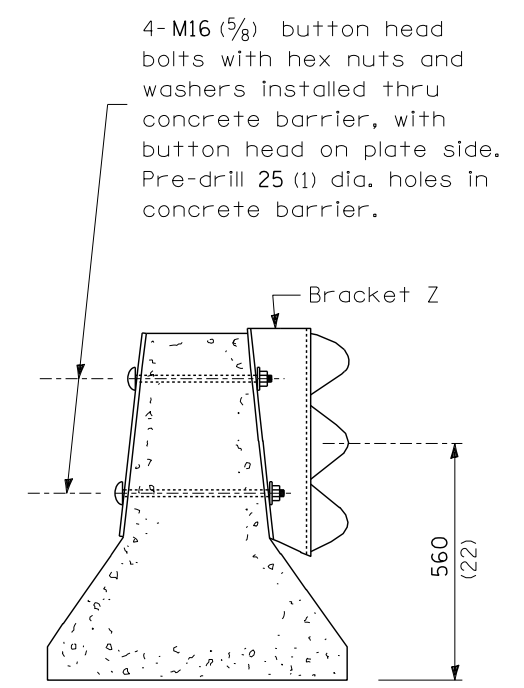
ELEVATION



SECTION A-A



SECTION B-B

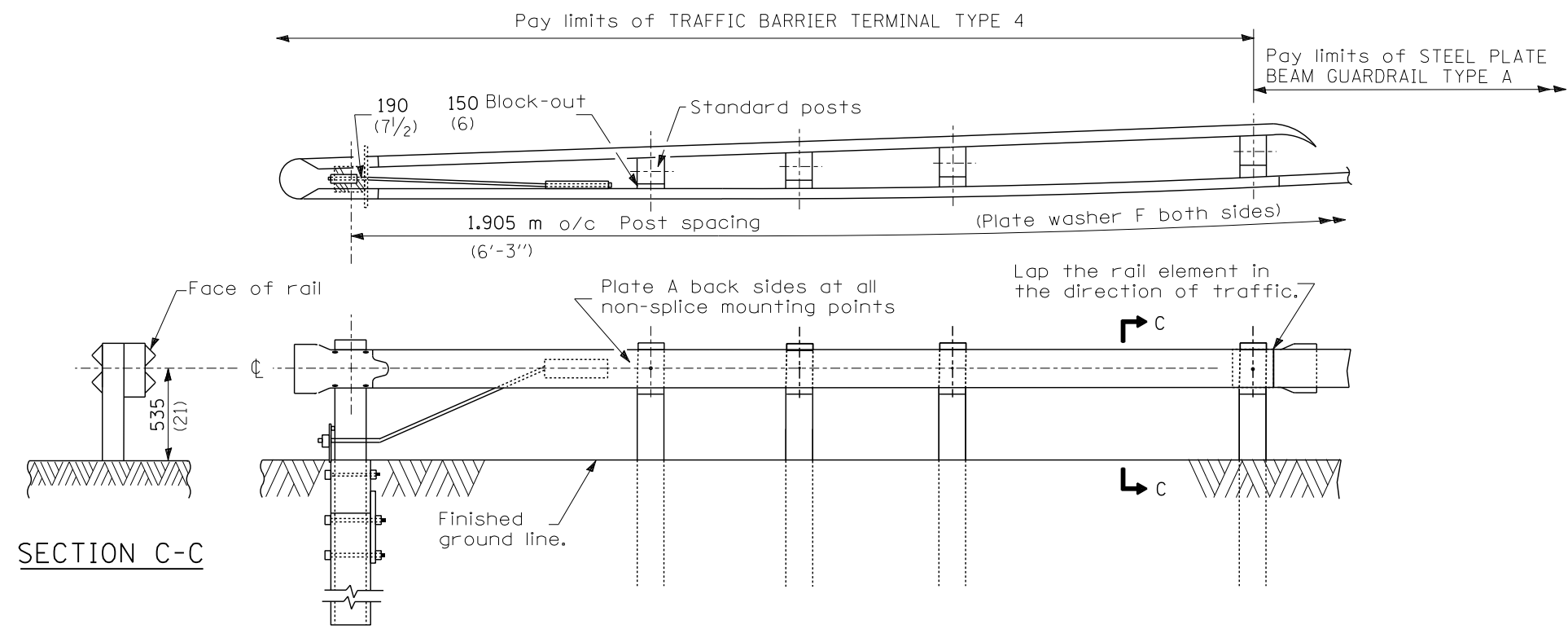


SECTION C-C

DETAIL INCLUDED FOR REPAIR ONLY

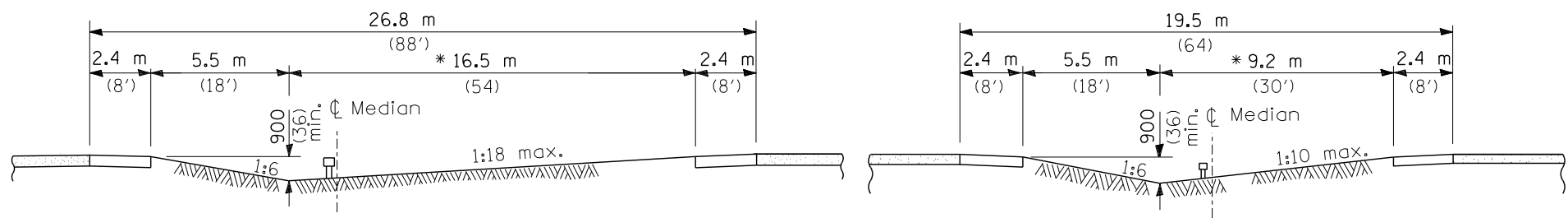
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME =	USER NAME = pletschr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC BARRIER TERMINAL TYPE 3 & 3A		F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pw_work\p1dot\pletschr\d0426210\0366E22-sht-details.dgn		DRAWN -	REVISED -		V&B.	.	V&B.	43	16		
PLOT SCALE = 5000.0000 / in.		CHECKED -	REVISED -		SCALE: _____ SHEET NO. ____ OF ____ SHEETS STA. _____ TO STA. _____		CONTRACT NO. 66E22				
PLOT DATE = 3/2/2015		DATE -	REVISED -		FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT						



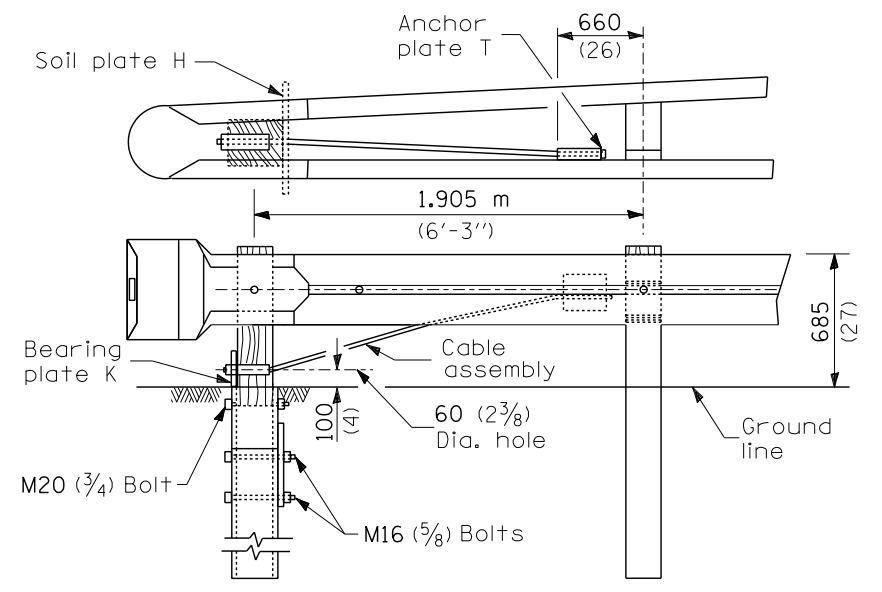
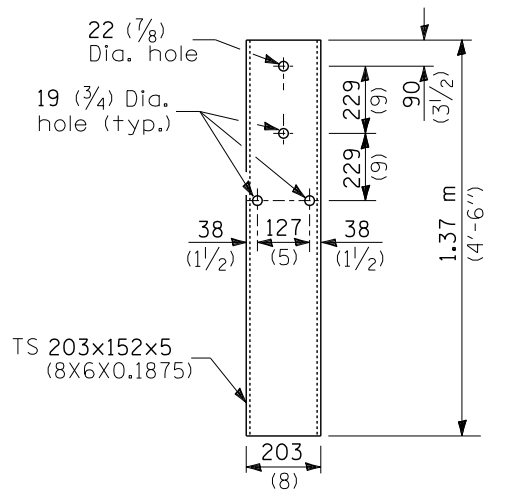
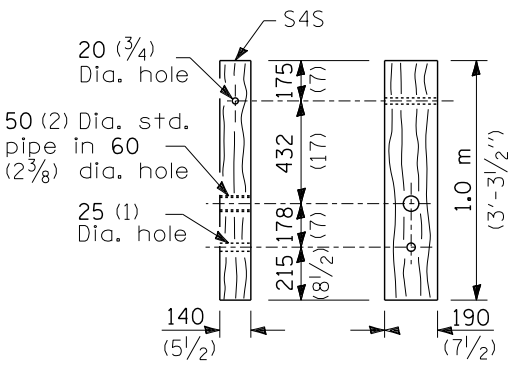
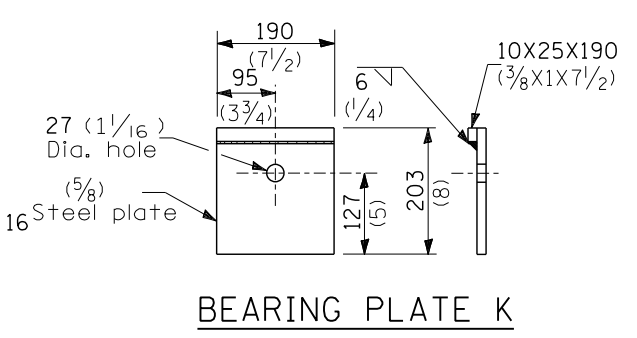
RETURNED END DETAIL

* Adjust this dimension when the width of the shoulders is other than 2.4 m (8').

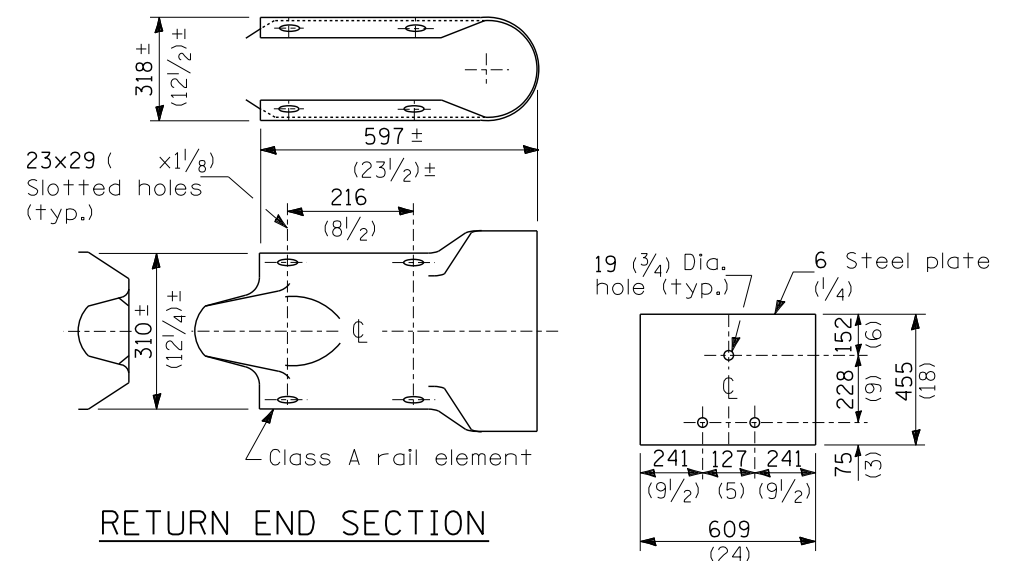


SECTION A-A

SECTION B-B

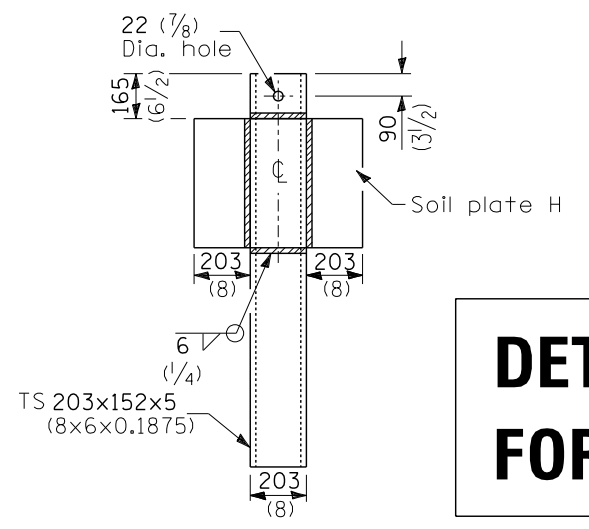


WOOD POST TUBULAR STEEL FOUNDATION



RETURN END SECTION

SOIL PLATE H



ALTERNATE SOIL PLATE CONNECTION

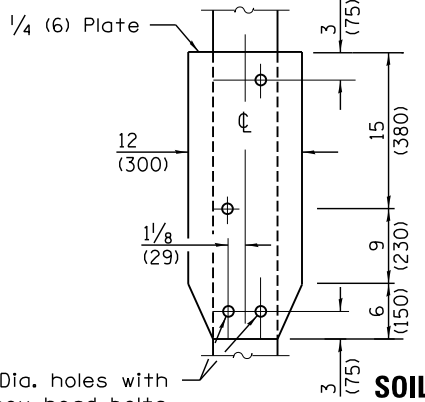
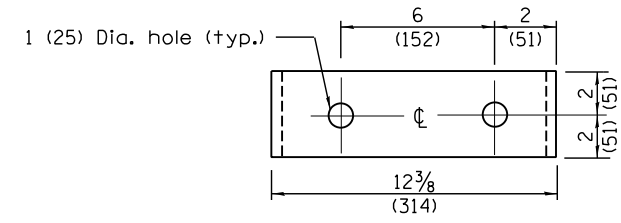
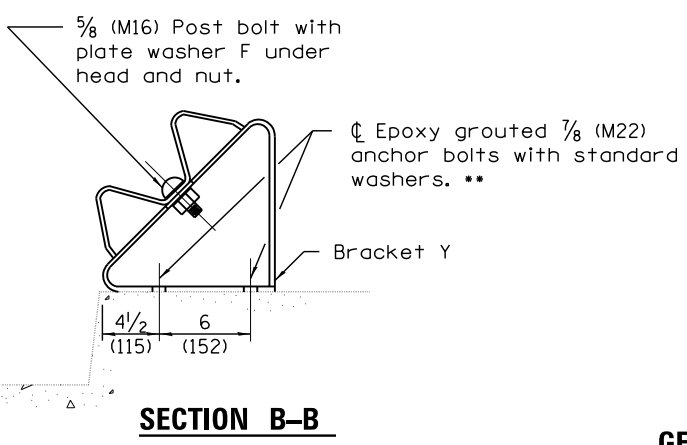
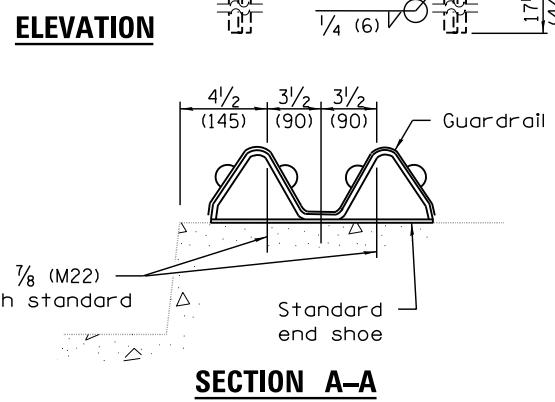
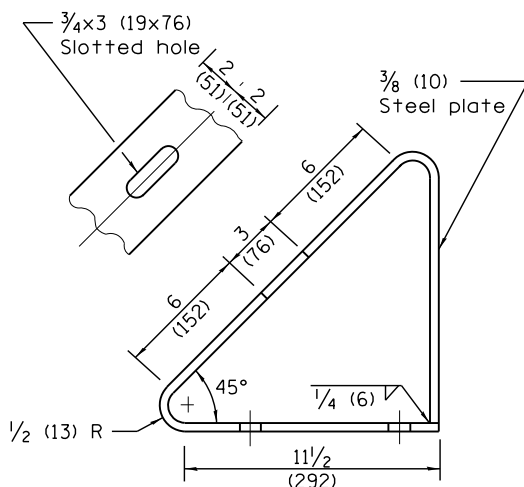
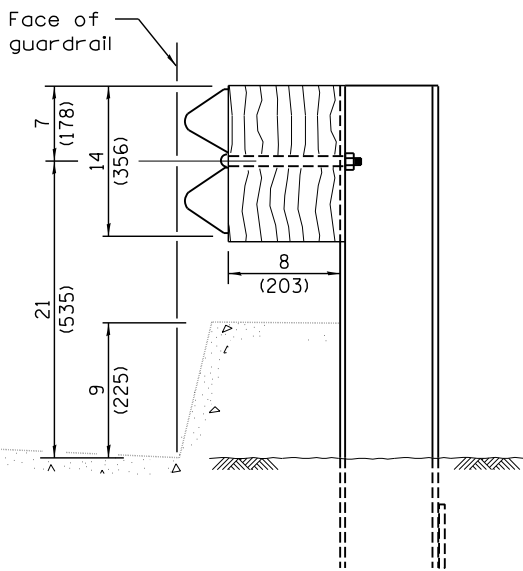
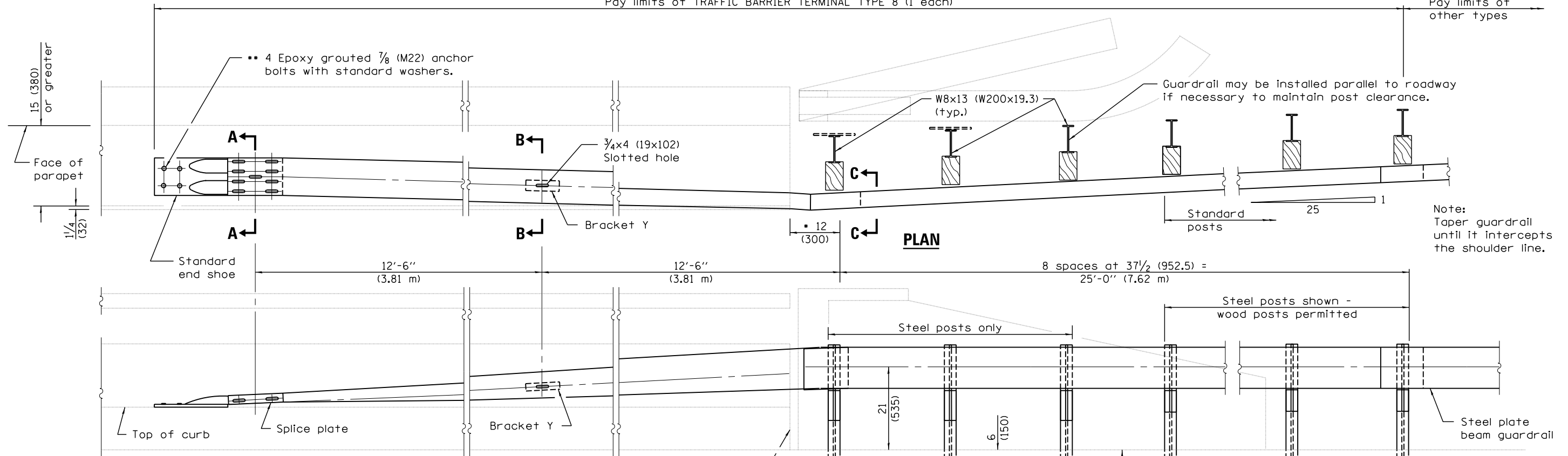
DETAIL INCLUDED FOR REPAIR ONLY

All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME =	USER NAME = pletschr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC BARRIER TERMINAL TYPE 4		• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016		
ca:\pw_work\pwidot\pletschr\d0426210\0386E22-sht-details.dgn		DRAWN -	REVISED -		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 5000.0000 / in.		CHECKED -	REVISED -		V&B.	.	V&B.	43	19
PLOT DATE = 3/2/2015		DATE -	REVISED -		CONTRACT NO. 66E22			FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT	

Pay limits of TRAFFIC BARRIER TERMINAL TYPE 8 (1 each)

Pay limits of other types



GENERAL NOTES

- See Standard 630001 for details of guardrail not shown.
- This dimension may be increased to fit field conditions. This post shall be located first. The layout of the terminal shall be determined by its location.
- After tightening, cut the anchor bolts flush with nuts, and damage the bolt head to prevent them from loosening.

All dimensions are in inches (millimeters) unless otherwise shown.

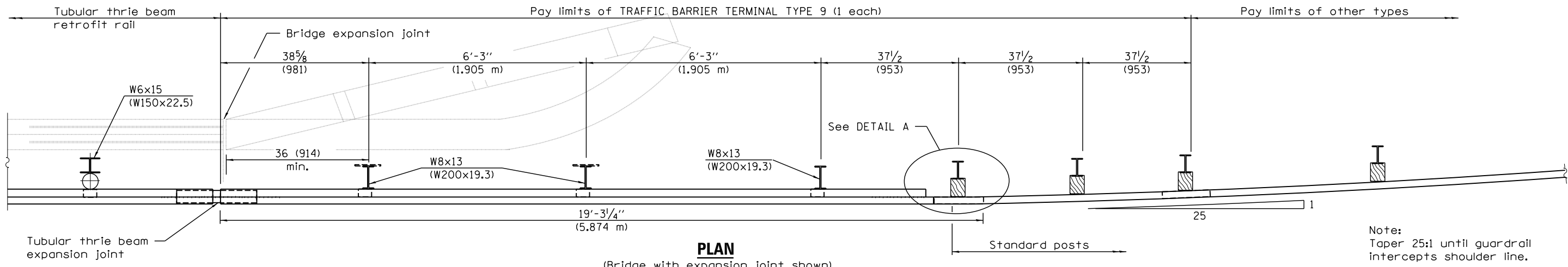
FILE NAME =	USER NAME = pletschr	DESIGNED -	REVISED -
ci:\pw\work\pwidot\pletschr\d0426210\0366E22-sht-details.dgn		DRAWN -	REVISED -
Default	PLOT SCALE = 5000.0000 / in.	CHECKED -	REVISED -
	PLOT DATE = 3/2/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC BARRIER TERMINAL TYPE 8

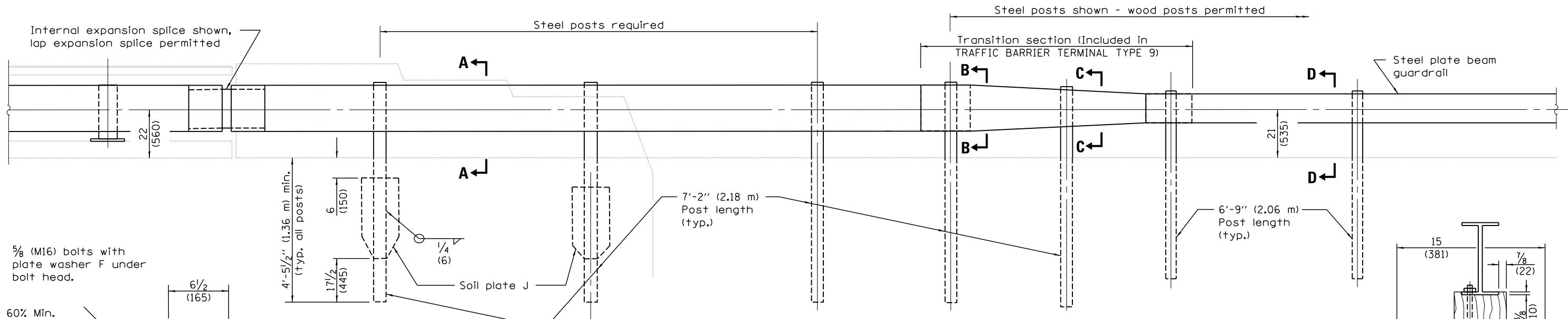
SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	*	VAR.	43	20
CONTRACT NO. 66E22				
ILLINOIS FED. AID PROJECT				

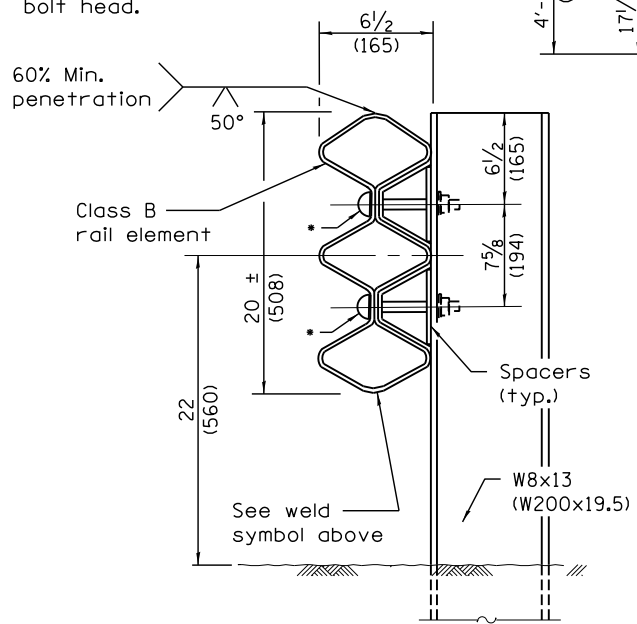


PLAN
(Bridge with expansion joint shown)

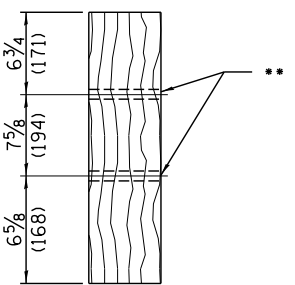
Note:
Taper 25:1 until guardrail intercepts shoulder line.



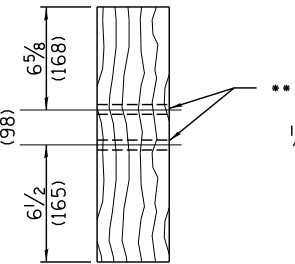
ELEVATION



SECTION A-A



SECTION B-B

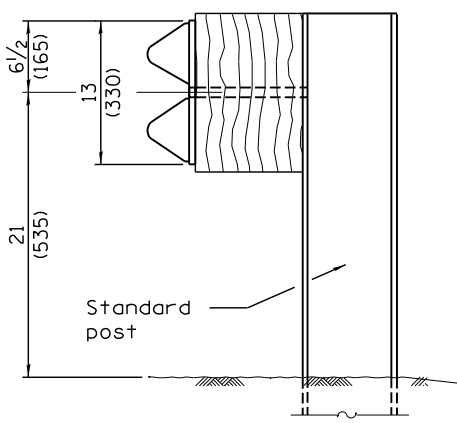


SECTION C-C

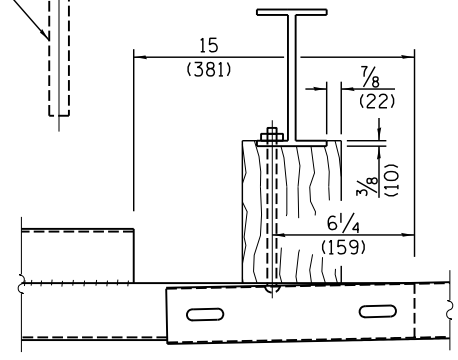
DETAILS of BLOCK-OUTS
•• \varnothing 3/4 (19) Dia. hole

4-3/4 (19) Dia. holes with
5/8 (M16) hex head bolts
with std. hex nut (typ.)

SOIL PLATE J & ALTERNATE CONNECTION DETAILS



SECTION D-D



DETAIL A

See Standards 509001 and 630001 for details of guardrail elements not shown.

GENERAL NOTES

The Type 9 terminal shall be installed after the posts for the Bridge Retrofit Rail have been located as shown on Standard 509001.

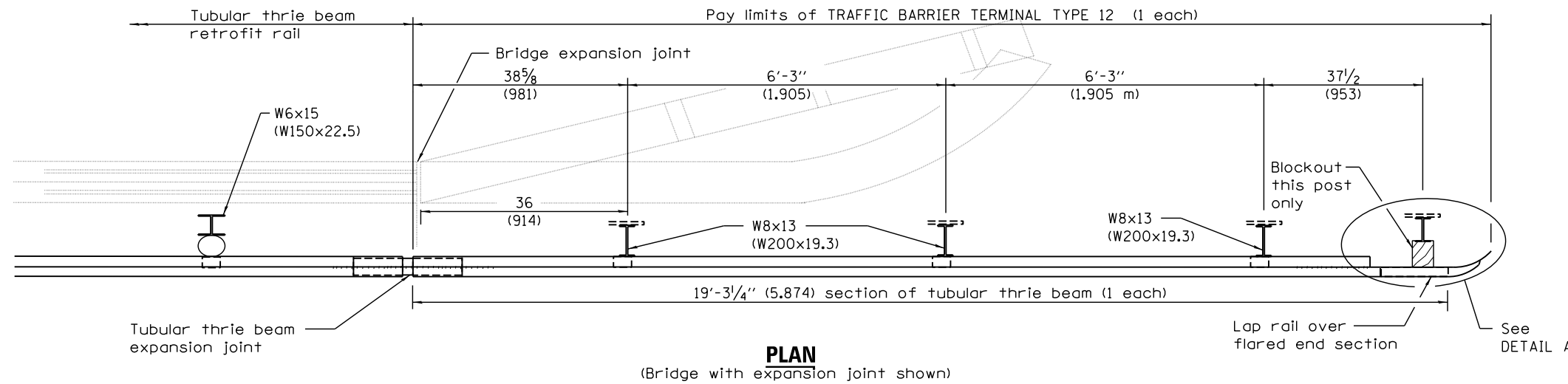
The Type 9 terminal shall be installed after the posts for the Bridge Retrofit Rail have been located as shown on Standard 509001.

FILE NAME =	USER NAME = pletschr	DESIGNED -	REVISED -
ca:\pw_work\pwidot\pletschr\d0426210\0366E22-sht-details.dgn		DRAWN -	REVISED -
Default	PLOT SCALE = 5000.0000 / in.	CHECKED -	REVISED -
	PLOT DATE = 3/2/2015	DATE -	REVISED -

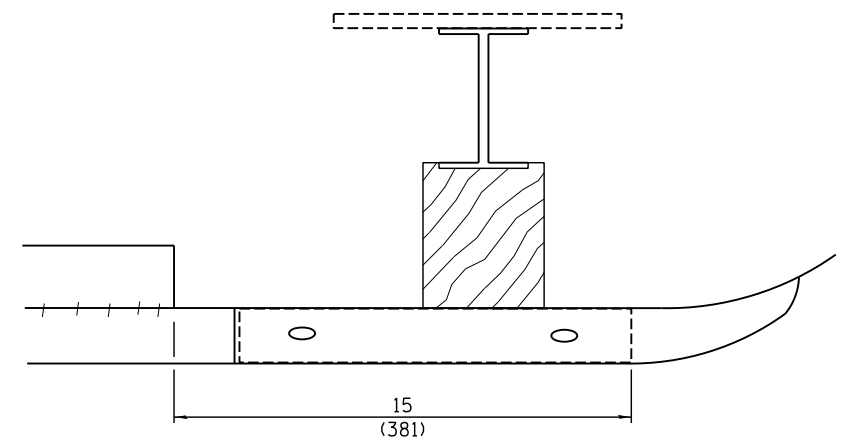
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC BARRIER TERMINAL TYPE 9	
SCALE: _____	SHEET _____ OF _____ SHEETS
STA. _____	TO STA. _____

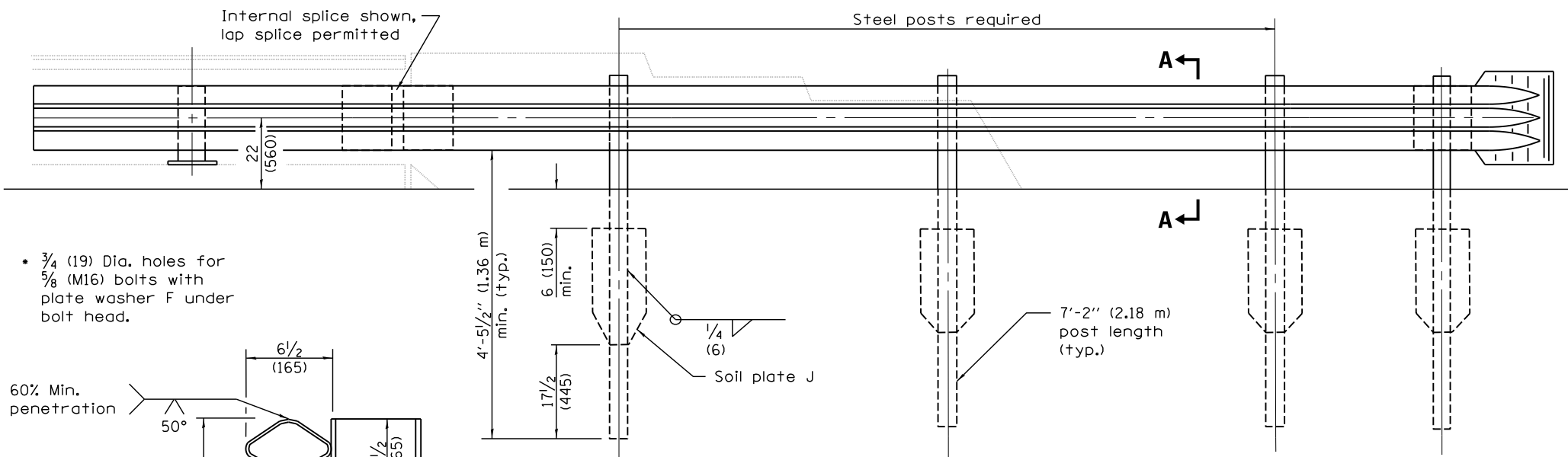
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	*	VAR.	43	21
CONTRACT NO. 66E22				



PLAN
(Bridge with expansion joint shown)

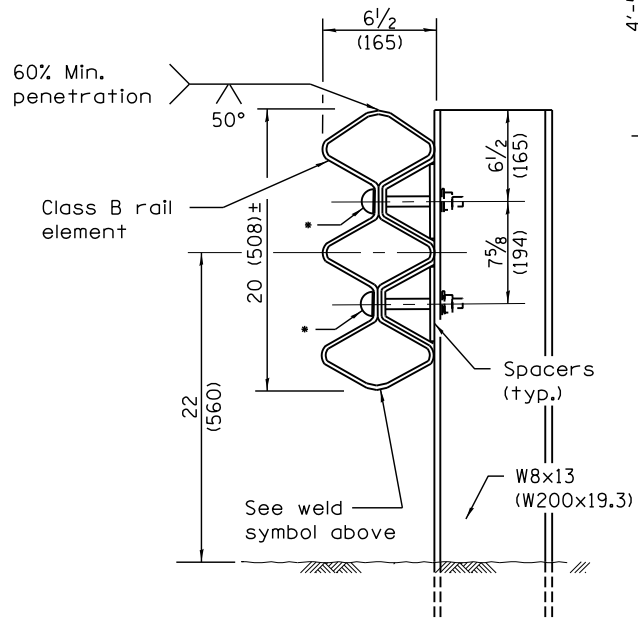


DETAIL A

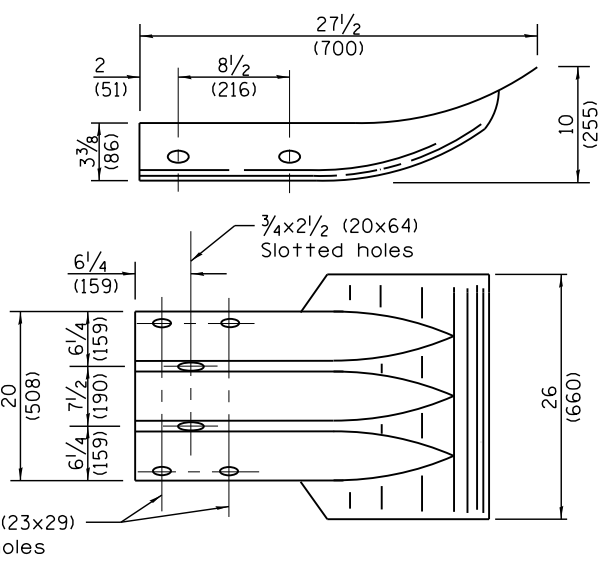


ELEVATION

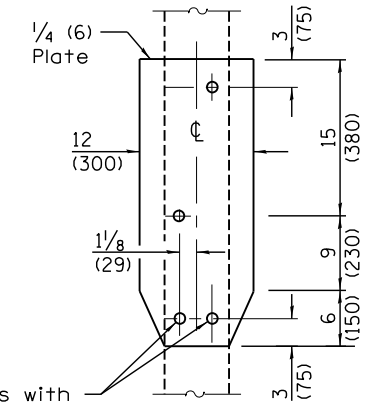
- 3/4 (19) Dia. holes for 5/8 (M16) bolts with plate washer F under bolt head.



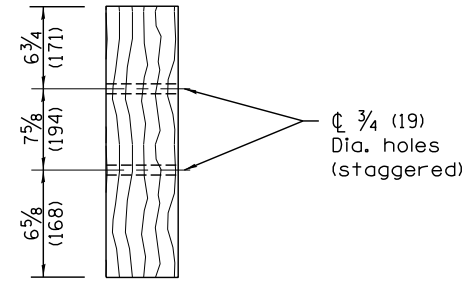
SECTION A-A



THRIE BEAM FLARED END SECTION



SOIL PLATE J & ALTERNATE CONNECTION DETAILS



DETAIL of BLOCK-OUT
(1 each)

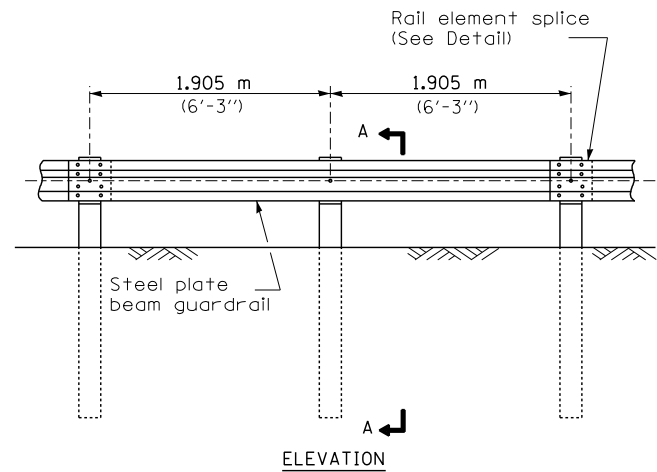
GENERAL NOTES

See Standard 509001 and 630001 for details of guardrail elements not shown.

The Type 12 terminal shall be installed after the posts for the bridge retrofit rail have been located as shown on Standard 509001.

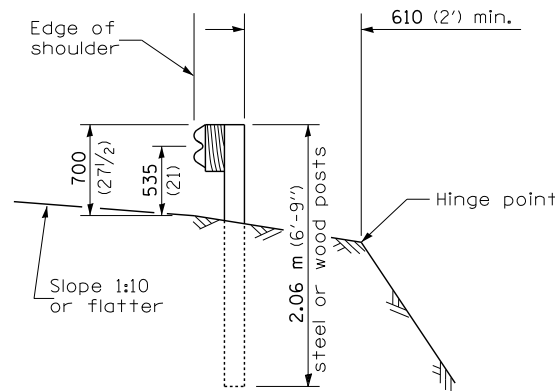
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = pletschr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC BARRIER TERMINAL TYPE 12	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Default	Plot Scale = 5000.0000' / in.	DRAWN -	REVISED -			VAR.	VAR.	VAR.	43	22	
	PLOT DATE = 3/2/2015	CHECKED -	REVISED -			CONTRACT NO. 66E22					
		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

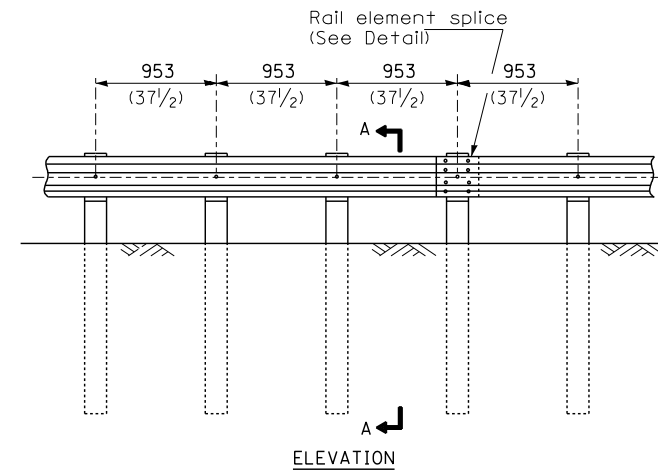


TYPE A

1.905 m (6'-3") Typical post spacing

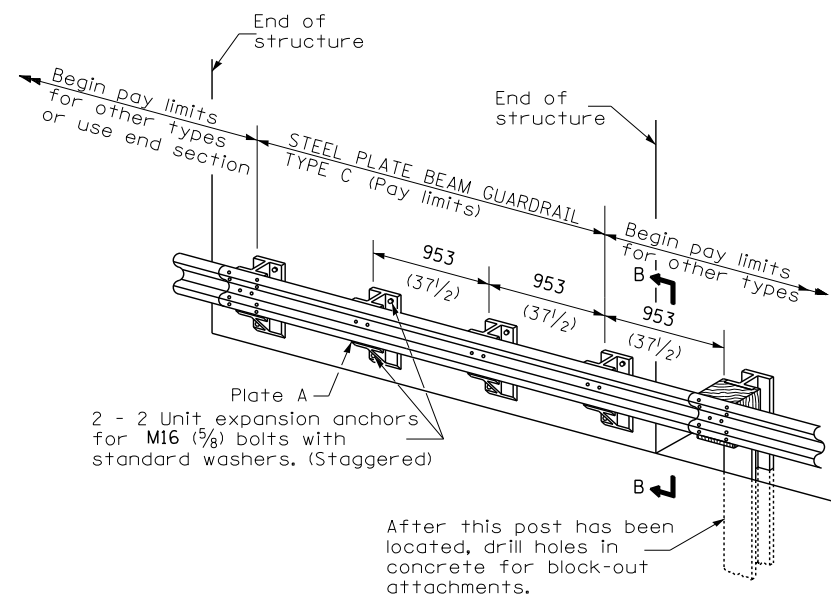


SECTION A-A



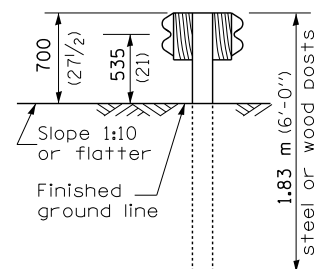
TYPE B

953 (37 1/2") Closed post spacing

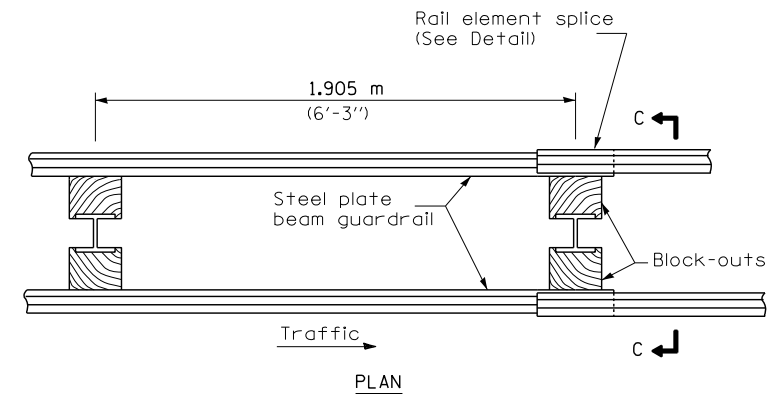


TYPE C

953 (37 1/2") Block-out spacing

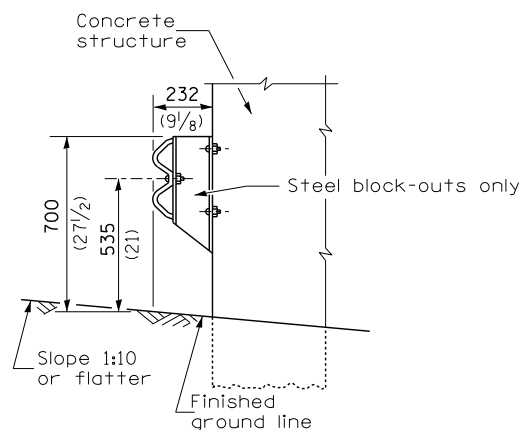


SECTION C-C



TYPE D

Double steel plate beam guardrail
1.905 m (6'-3") typical post spacing



SECTION B-B

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME =	USER NAME = pletschr	DESIGNED -	REVISED -
ct:\pw\work\p\dot\pletschr\d0426210\0366E22-sht-details.dgn		DRAWN -	REVISED -
PLOT SCALE = 5000.0000 / in.		CHECKED -	REVISED -
PLOT DATE = 3/2/2015		DATE -	REVISED -

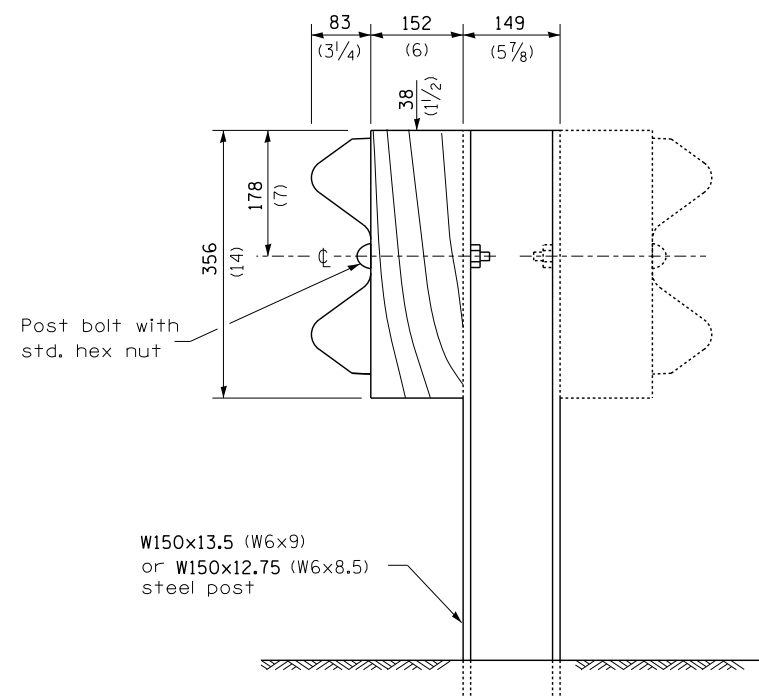
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PRE-MGS EFFECTIVE 4-1-06
STEEL PLATE BEAM GUARDRAIL
STANDARD 630001-06**

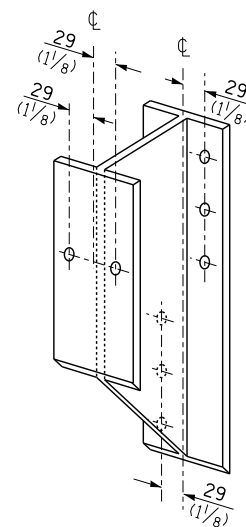
(Sheet 1 of 4)

SCALE: _____ SHEET NO. ___ OF ___ SHEETS STA. _____ TO STA. _____

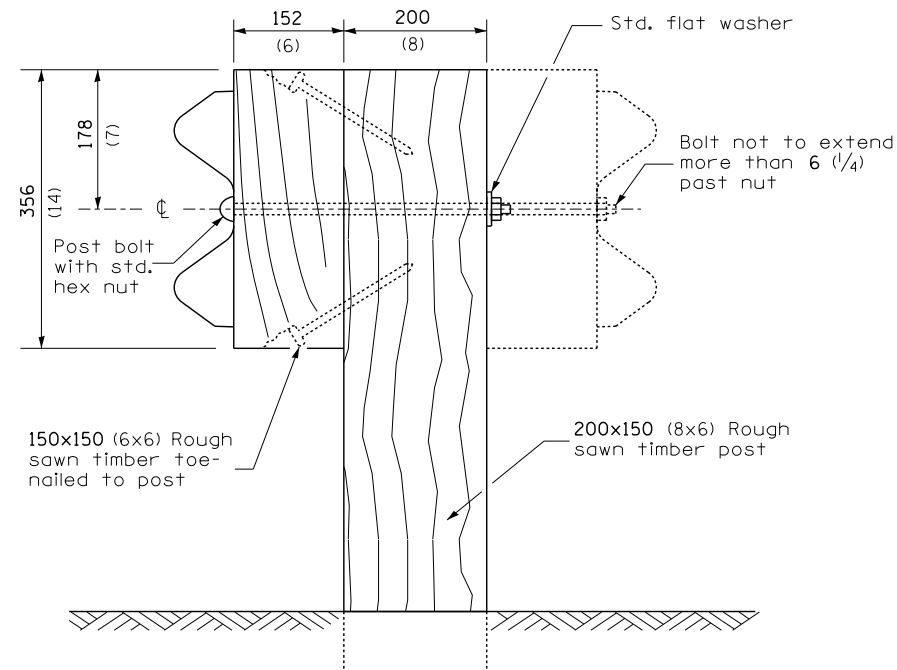
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
V&B.	*	V&B.	43	23
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 66E22	



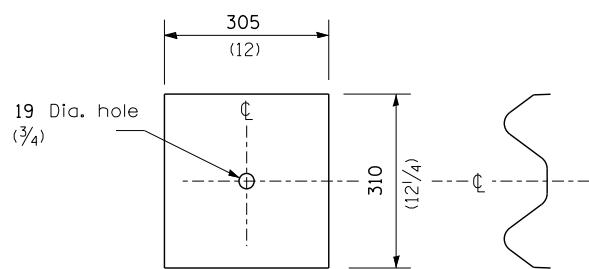
STEEL POST CONSTRUCTION



STEEL BLOCK-OUT DETAIL



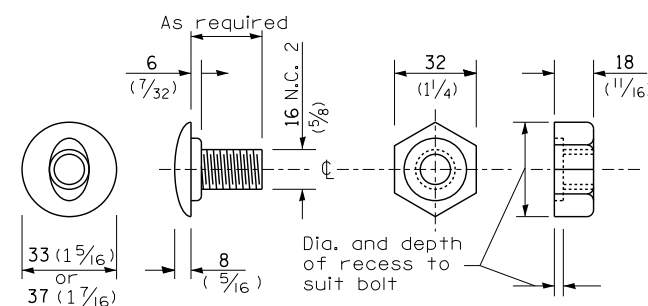
WOOD POST CONSTRUCTION



NOTE

Plate A shall be placed between rail element and block-out at non-splice mounting points only when steel block-outs are used.

PLATE A



POST OR SPLICE BOLT & NUT

FILE NAME =	USER NAME = pletschr	DESIGNED -	REVISED -
ct:\pw\work\p1dot\pletschr\d0426210\036E22-sht-details.dgn		DRAWN -	REVISED -
PLOT SCALE = 5000.0000 ' / in.		CHECKED -	REVISED -
PLOT DATE = 3/2/2015		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

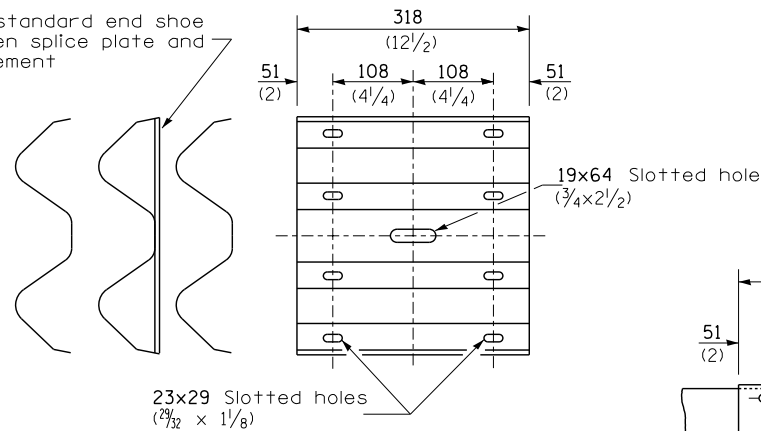
**PRE-MGS EFFECTIVE 4-1-06
STEEL PLATE BEAM GUARDRAIL
STANDARD 630001-06**

(Sheet 2 of 4)

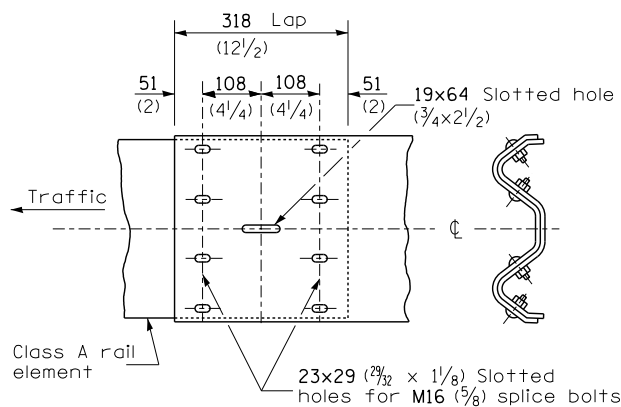
SCALE: _____	SHEET NO. ____ OF ____ SHEETS	STA. _____ TO STA. _____
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
V&B.	*	V&B.	43	24
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 66E22	

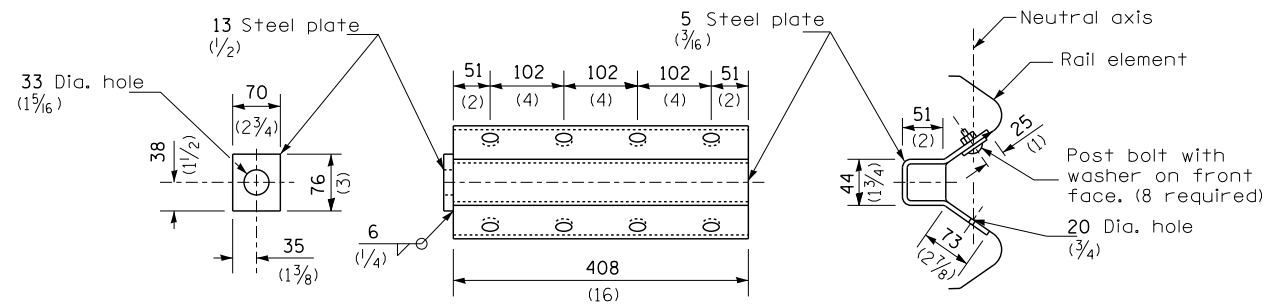
Place standard end shoe between splice plate and rail element



SPLICE PLATE



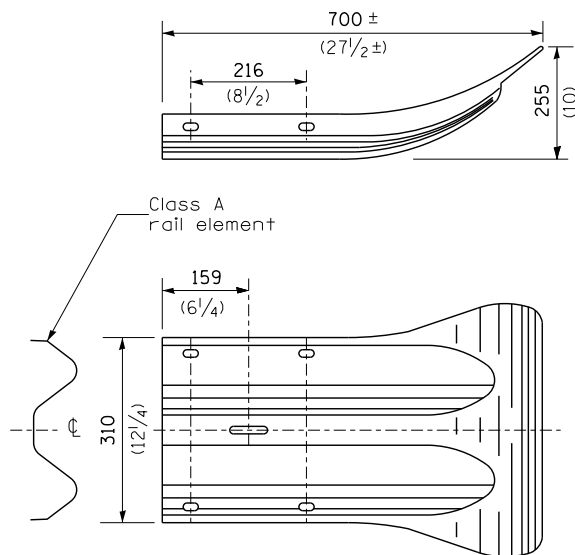
RAIL ELEMENT SPLICE



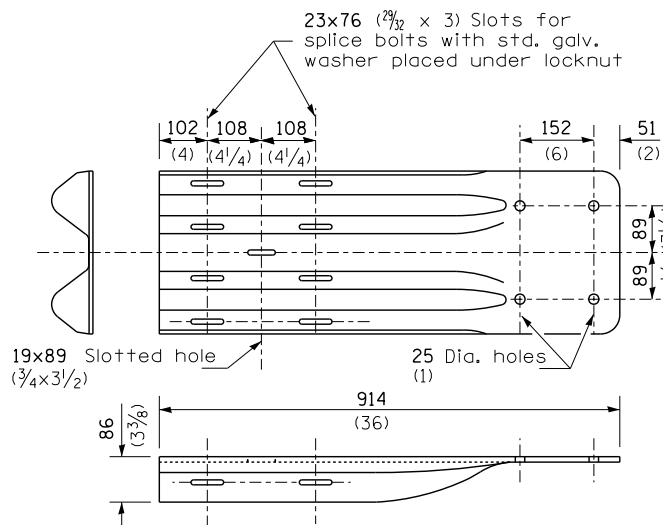
NOTE

Anchor plate T shall be used to attach cable assembly to guardrail when required on traffic barrier terminals.

ANCHOR PLATE T DETAILS



END SECTION



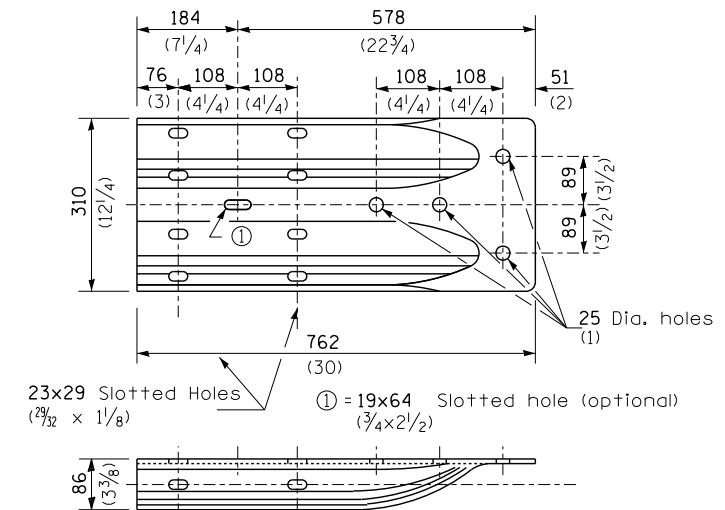
NOTE

When end shoe is attached to a bridge parapet which has an expansion joint, the bolts shall be provided with a locknut or double nut and shall be tightened only to a point that will allow guardrail movement.

The standard end shoe shall be attached to the concrete with pre-drilled or self-drilling anchor bolts. The anchor cone shall be set flush with the surface of the concrete.

Externally threaded studs protruding from the surface of the concrete will not be permitted.

END SHOE



ALTERNATE END SHOE

FILE NAME =	USER NAME = pletschr	DESIGNED -	REVISED -
ct:\pw\work\p1dot\pletschr\d0426210\0366E22-sht-details.dgn		DRAWN -	REVISED -
PLOT SCALE = 5000.0000 / in.		CHECKED -	REVISED -
PLOT DATE = 3/2/2015		DATE -	REVISED -

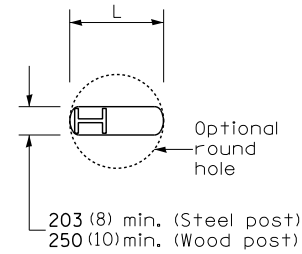
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PRE-MGS EFFECTIVE 4-1-06
STEEL PLATE BEAM GUARDRAIL
STANDARD 630001-06**

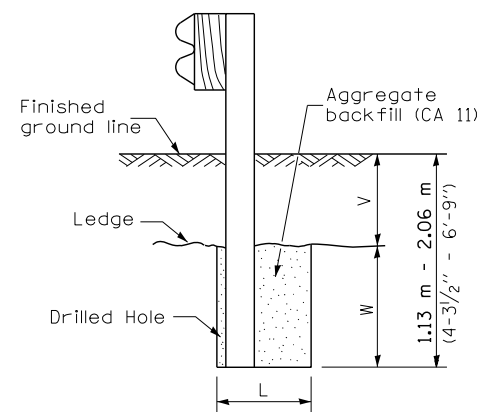
(Sheet 3 of 4)

SCALE: _____ SHEET NO. ___ OF ___ SHEETS STA. _____ TO STA. _____

• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
V&B.	•	V&B.	43
			SHEET NO. 25
			CONTRACT NO. 66E22
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			



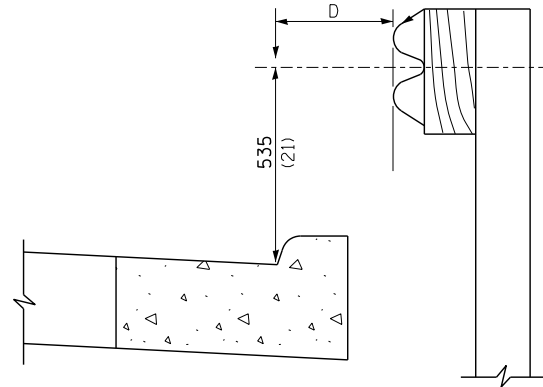
PLAN



Note:
Ledge line is top of rock ledge or hard slag fill.

ELEVATION

FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED



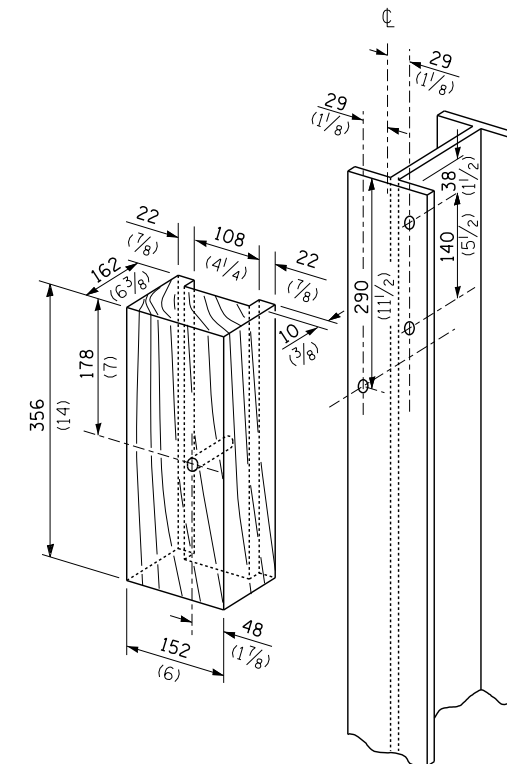
Note:

If it is necessary for D to be more than 300 (12) and less than 3.0 m (10'-0") type M-5 (M-2) curb and gutter (Std. 606001) shall be used in front of and in advance of the guardrail.

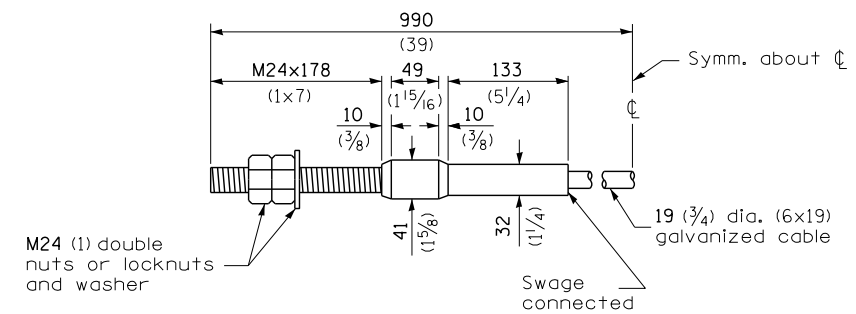
GUARDRAIL PLACED BEHIND CURB

(D = 0 desirable to 300 (12) maximum)

V	W	L	
		Steel Post	Wood Post
0 - 460 (0 - 18)	610 (24)	530 (21)	580 (23)
>460 - 825 (>18 - 41.5)	305 (12)	203 (8)	250 (10)
>825 - 1.13 m (>41.5 - 53.5)	305 - 0 (12 - 0)	203 (8)	250 (10)



WOOD BLOCK-OUT AND STEEL POST DETAILS



CABLE ASSEMBLY

(18,100 kg (40,000 lbs.) min. breaking strength)
Tighten to taut tension.

FILE NAME =	USER NAME = pletschr	DESIGNED -	REVISED -
ct:\pw\work\p\dot\pletschr\d0426210\0366E22-sht-details.dgn		DRAWN -	REVISED -
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PLOT DATE = 3/2/2015		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

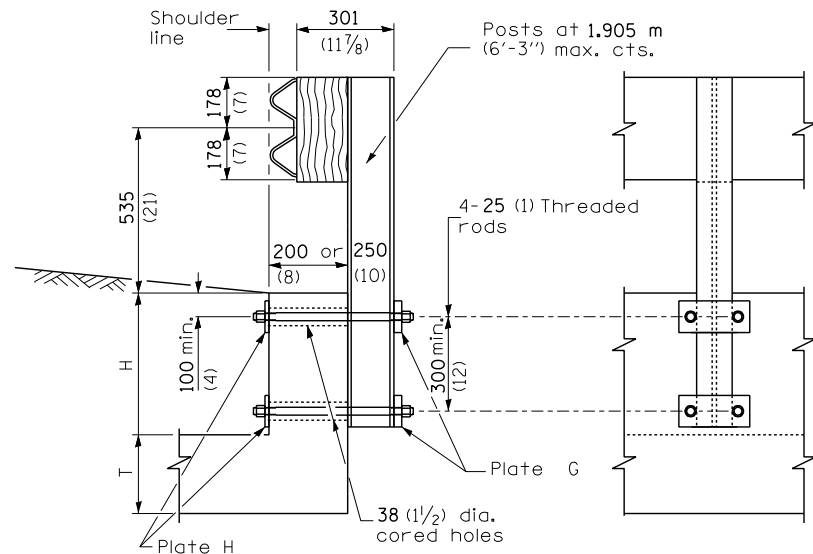
**PRE-MGS EFFECTIVE 4-1-06
STEEL PLATE BEAM GUARDRAIL
STANDARD 630001-06**

(Sheet 4 of 4)

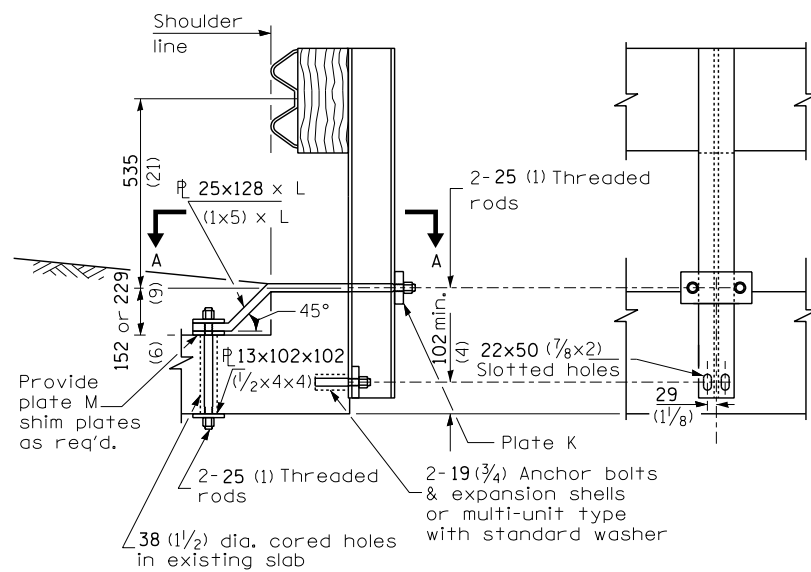
SCALE: _____ SHEET NO. ____ OF ____ SHEETS STA. _____ TO STA. _____

• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016

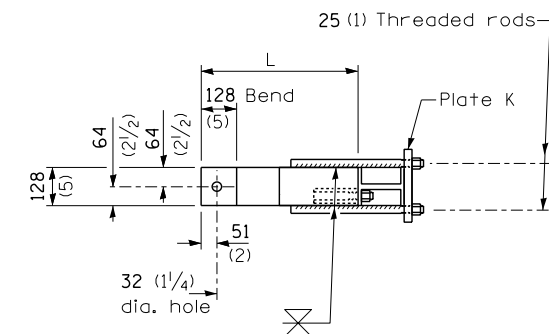
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
V&B.	*	V&B.	43	26
			CONTRACT NO. 66E22	
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				



CROSS SECTION **ELEVATION**
CONDITION H > 450 (18)



CROSS SECTION **ELEVATION**
CASE II
MOUNTED ON TOP HEADWALL
WITH SQUARE TIP



SECTION A-A

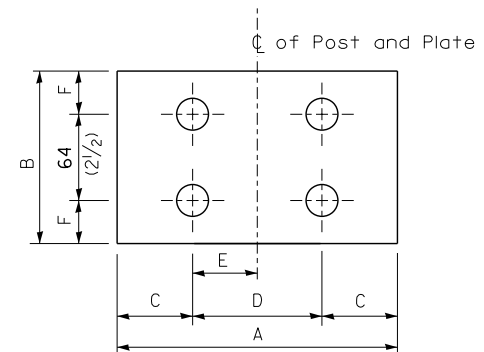


PLATE TYPE J

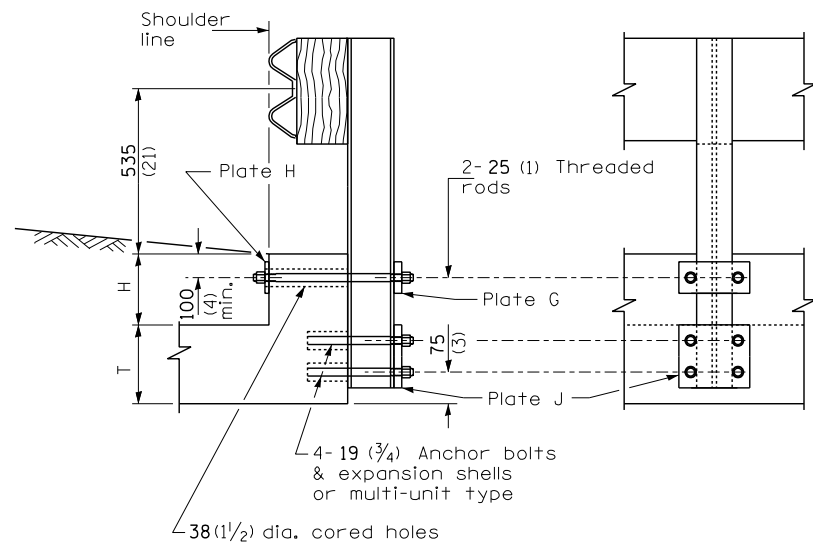
GENERAL NOTES

Except as noted, dimensions and notes specified for case II, III, and IV are the same as specified for case I.

For details of guardrail elements not shown, see Standard 630001.

All threaded rods shall be installed with heavy hex nuts and standard washers.

All dimensions are in millimeters (inches) unless otherwise shown.



CROSS SECTION **ELEVATION**
CONDITION H < 450 (18) & H+T ≥ 510 (20)

CASE I
MOUNTED ON
RAISED HEADWALL

PLATE DIMENSIONS								
Type	A	B	C	D	E	F	Hole Dia.	Thick-ness
G	230 (9)	100 (4)	40 (1 1/2)	150 (6)	75 (3)	50 (2)	29 (1 1/8)	25 (1)
H	230 (9)	100 (4)	40 (1 1/2)	150 (6)	75 (3)	50 (2)	29 (1 1/8)	13 (1/2)
J	230 (9)	126 (5)	40 (1 1/2)	150 (6)	75 (3)	31 (1 1/4)	22 (7/8)	25 (1)
K	230 (9)	100 (4)	40 (1 1/2)	150 (6)	75 (3)	50 (2)	29 (1 1/8)	32 (1 1/4)
M	100 (4)	100 (4)	50 (2)	N/A	N/A	50 (2)	32 (1 1/8)	13 (1/2)

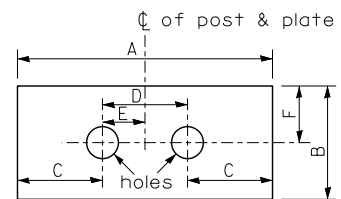


PLATE TYPES G, H & K

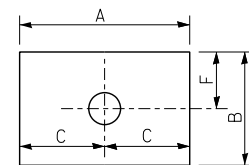


PLATE TYPE M

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PLOT DATE = 3/2/2015		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

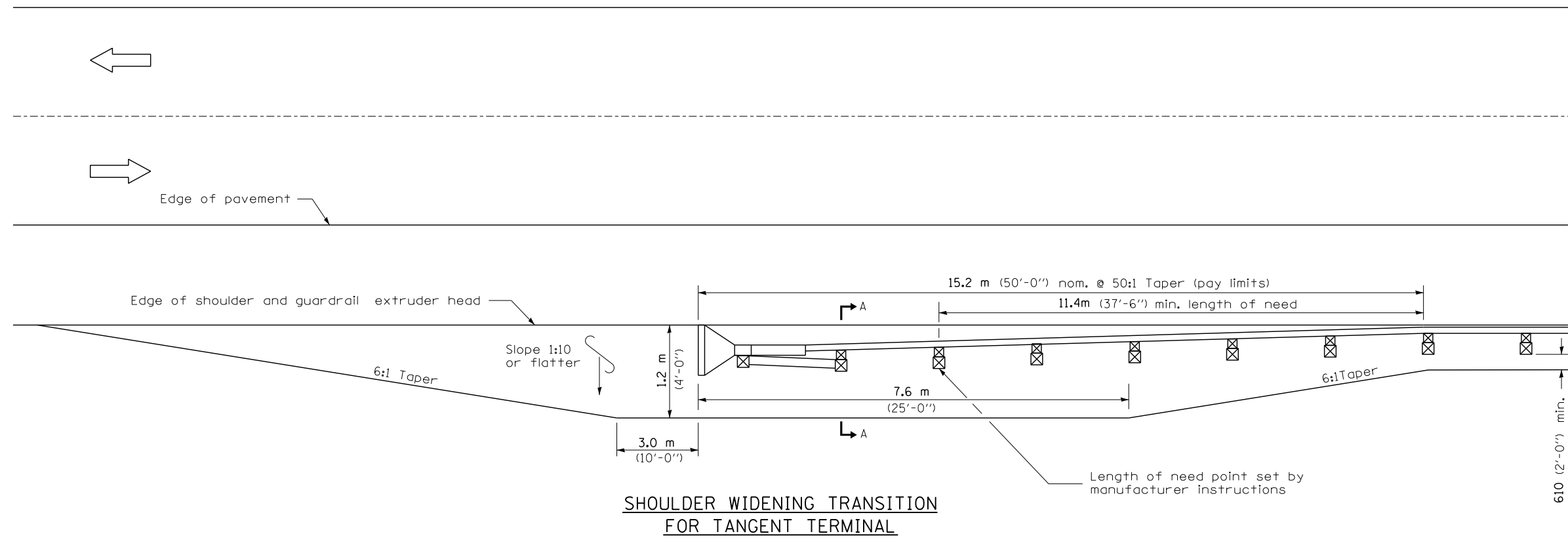
PRE-MGS EFFECTIVE 4-1-06
GUARDRAIL MOUNTED ON EXISTING CULVERTS
STANDARD 630101-06

(Sheet 1 of 2)

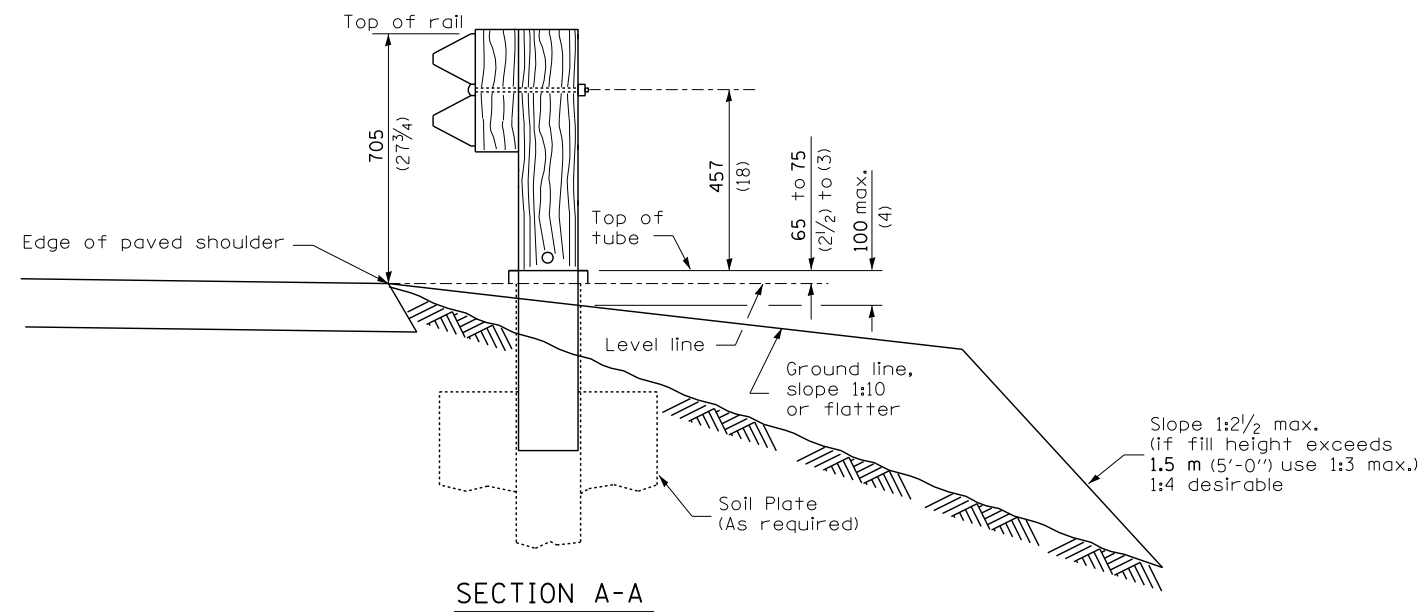
SCALE: _____ SHEET NO. ____ OF ____ SHEETS STA. _____ TO STA. _____

• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016

F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
V&B.	*	V&B.	43	27
			CONTRACT NO. 66E22	
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				



**SHOULDER WIDENING TRANSITION
FOR TANGENT TERMINAL**



SECTION A-A

GENERAL NOTES

50:1 Taper required so the guardrail head will not encroach on the shoulder.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

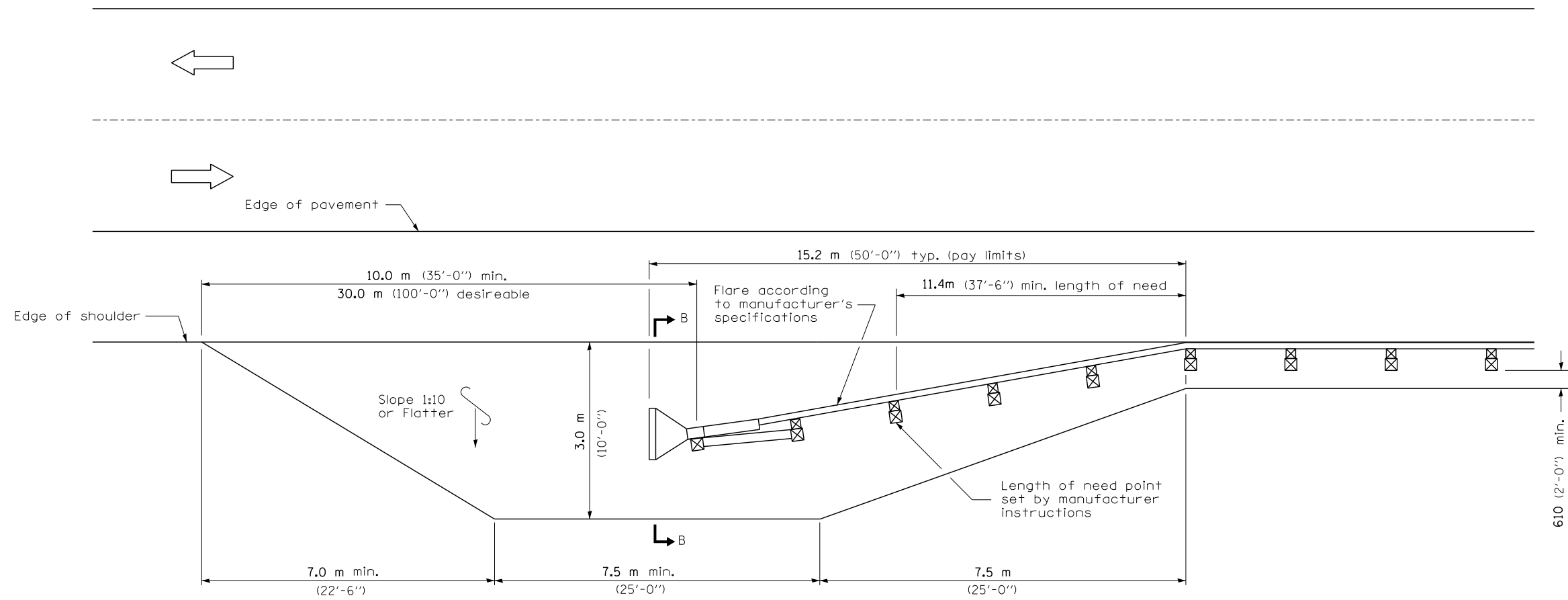
All dimensions are in millimeters (inches) unless otherwise shown.

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PLOT DATE = 3/2/2015		DATE -	REVISED -

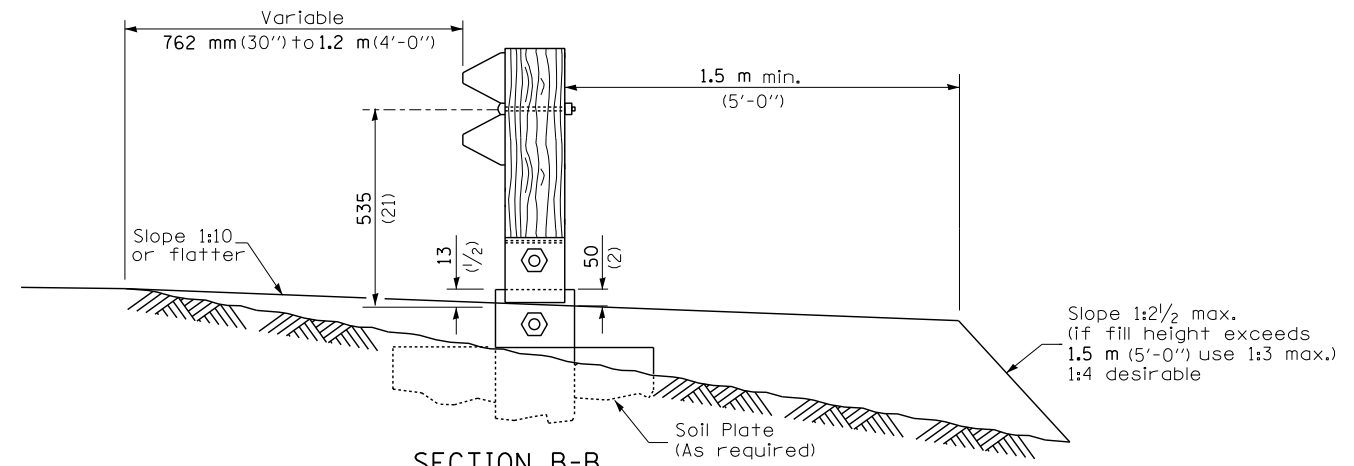
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PRE-MGS EFFECTIVE 4-1-06			
SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS			
STANDARD 630301-03			
<small>(Sheet 1 of 2)</small>			
SCALE: _____	SHEET NO. ____ OF ____ SHEETS	STA. _____ TO STA. _____	

<small>• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016</small>				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
V&B.	*	V&B.	43	29
CONTRACT NO. 66E22				
<small>FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT</small>				



**SHOULDER WIDENING TRANSITION
FOR FLARED TERMINAL**



SECTION B-B
(End section omitted for clarity.)

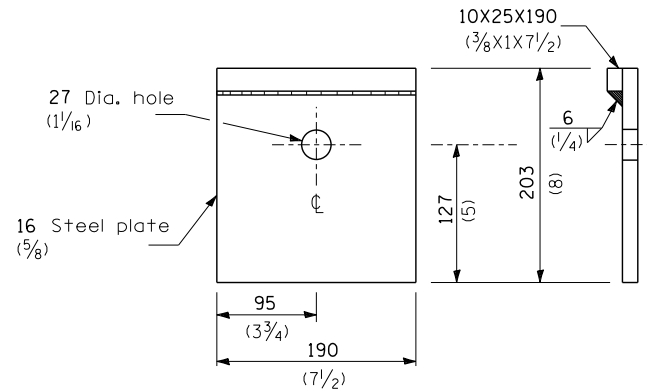
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

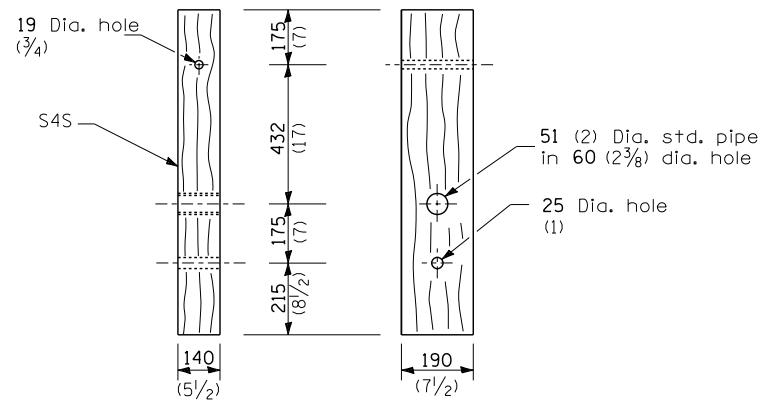
**PRE-MGS EFFECTIVE 4-1-06
SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
STANDARD 630301-03**
(Sheet 2 of 2)

• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
V&B.	*	V&B.	43	30
			CONTRACT NO. 66E22	
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

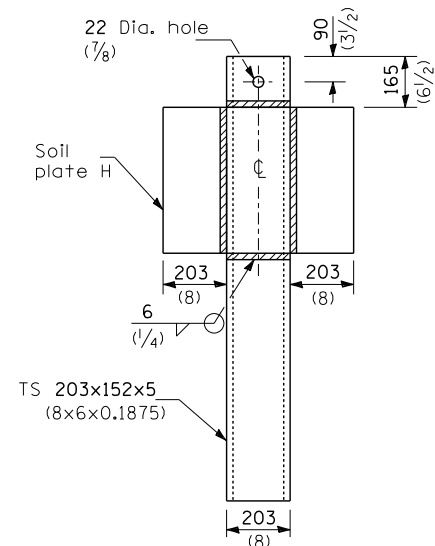
SCALE: _____ SHEET NO. ___ OF ___ SHEETS STA. _____ TO STA. _____



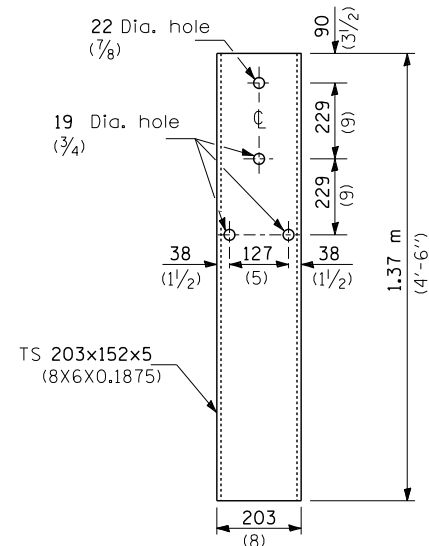
BEARING PLATE K



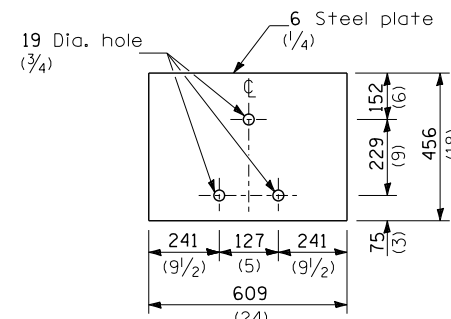
WOOD POST



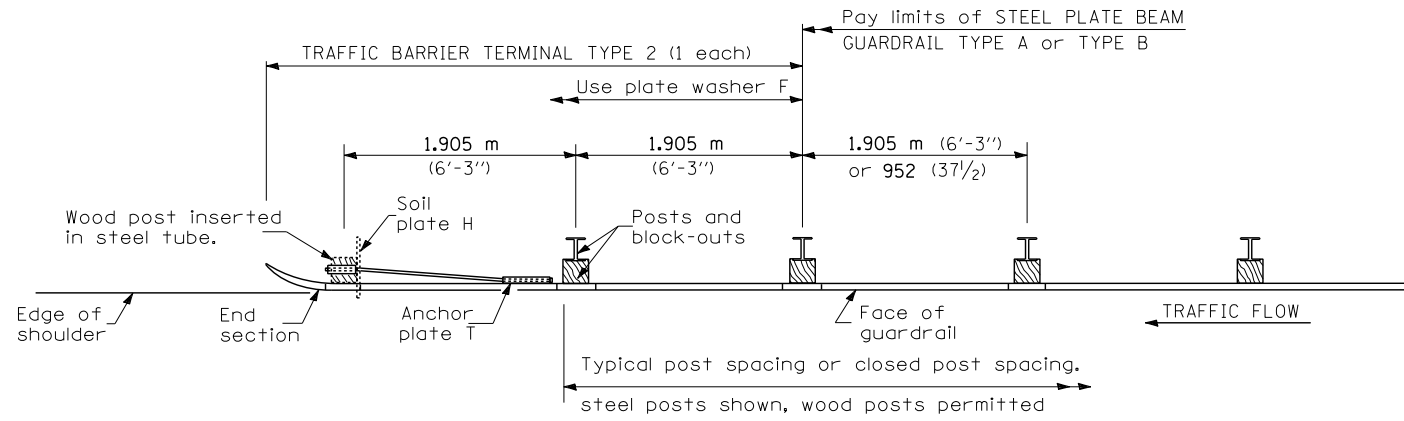
ALTERNATE SOIL PLATE CONNECTION



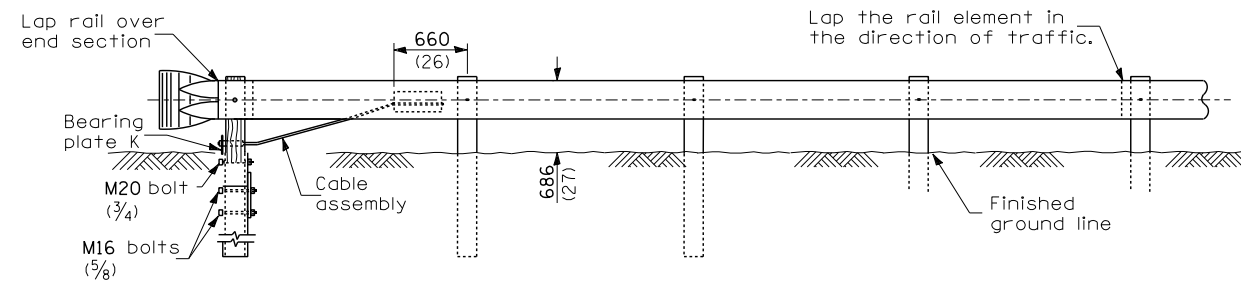
STEEL TUBE



SOIL PLATE H



PLAN



ELEVATION

GENERAL NOTES

See Standard 630001 for details of guardrail not shown.

Use plate washer F at all posts.

The bearing plate K shall be held in position by (2) two eight penny nails driven into the post and bent over the top of the plate.

All dimensions are in millimeters (inches) unless otherwise shown.

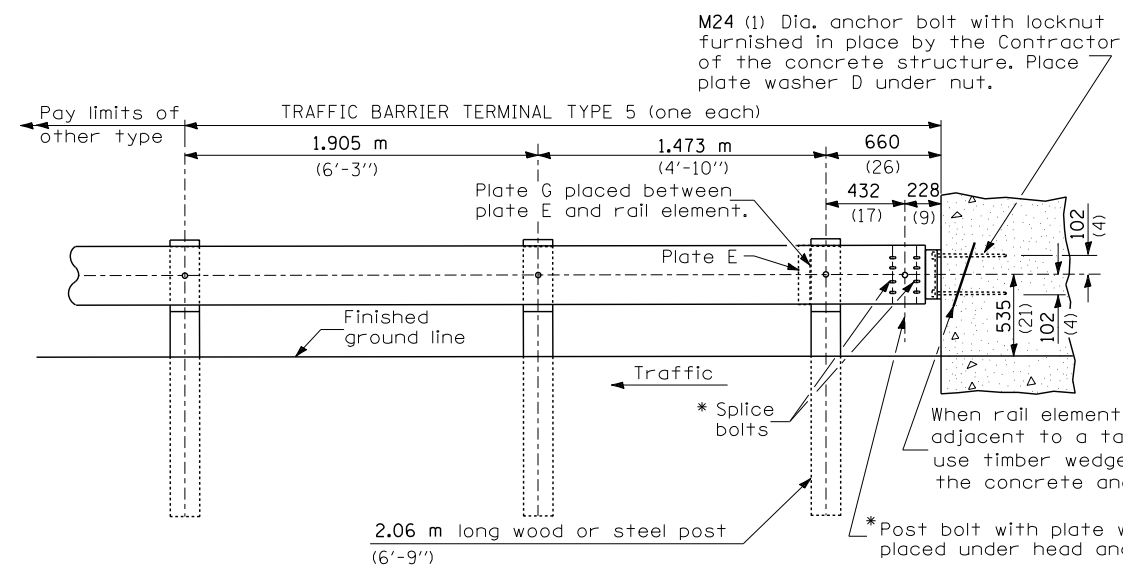
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

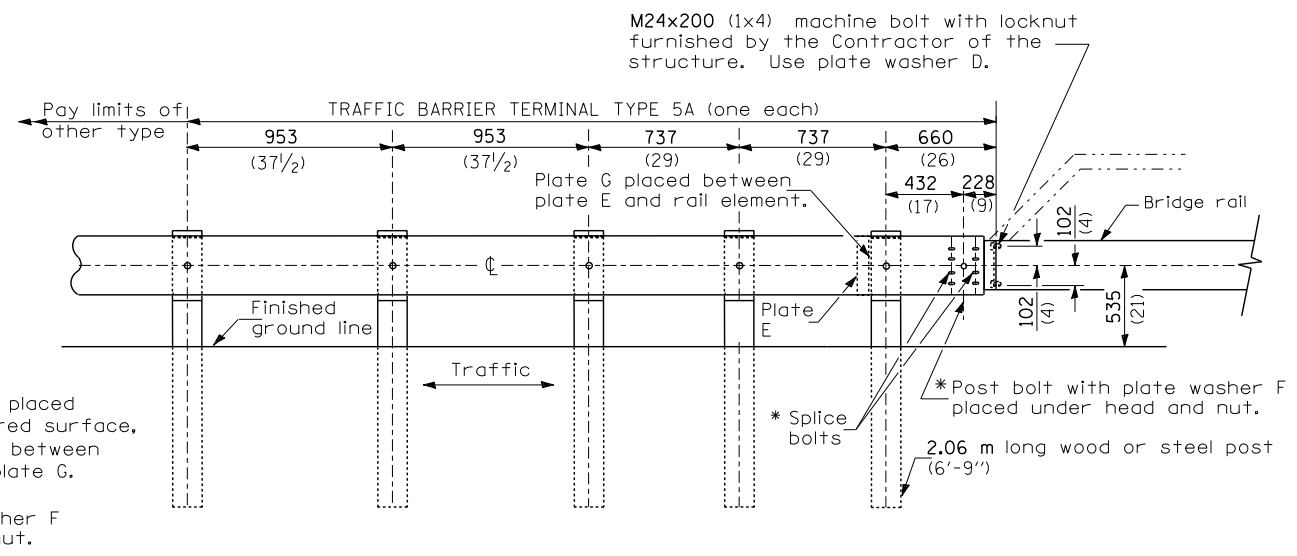
**PRE-MGS EFFECTIVE 4-1-06
TRAFFIC BARRIER TERMINAL TYPE 2
STANDARD 631011-02**

SCALE: _____ SHEET NO. ___ OF ___ SHEETS STA. _____ TO STA. _____

• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
V&B.	*	V&B.	43	31
			CONTRACT NO. 66E22	
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				



TYPE 5 - CONCRETE BRIDGE PARAPET



TYPE 5A - STEEL BRIDGE RAIL

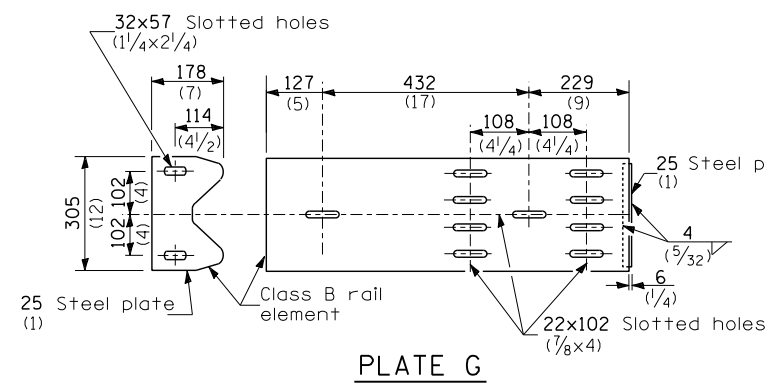


PLATE G

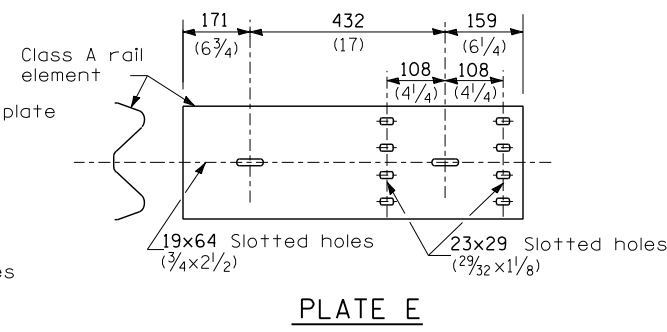
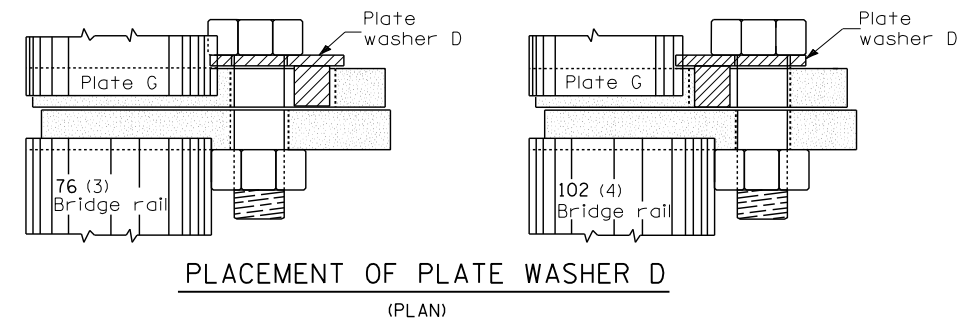


PLATE E



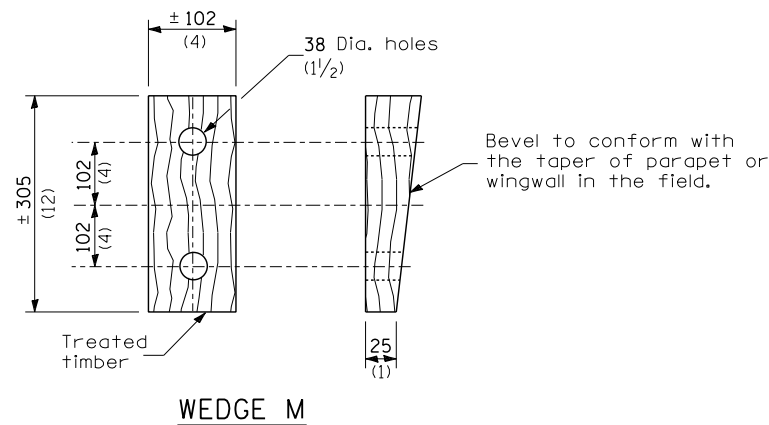
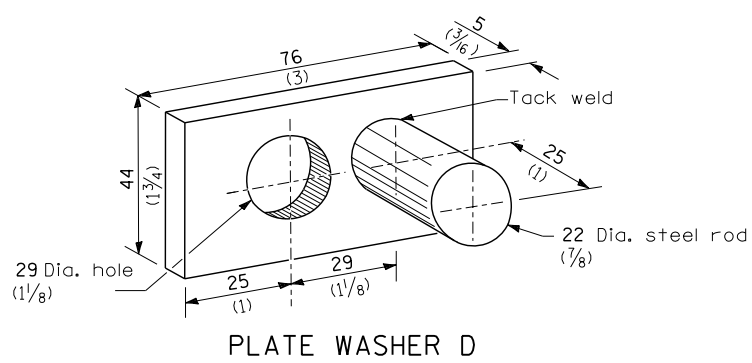
GENERAL NOTES

Install plate washer D so that the 25 mm (1") projection fills the remainder of the slotted holes in the 25 mm (1") end plate on plate G after the M24 (1") dia. bolts are in place.

* Bolts shall be provided with locknut or double nut and shall be tightened only to a point that will allow plate G to be free to move when an expansion joint exists below the connector.

See Standard 630001 for details of guardrail not shown.

All dimensions are in millimeters (inches) unless otherwise shown.



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

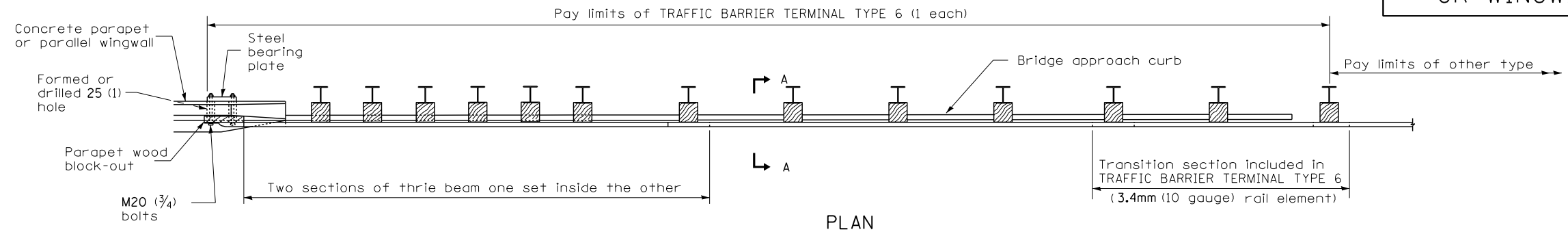
PRE-MGS EFFECTIVE 4-1-06
TRAFFIC BARRIER TERMINAL TYPE 5 & 5A
STANDARD 631026-02

SCALE: _____ SHEET NO. ____ OF ____ SHEETS STA. _____ TO STA. _____

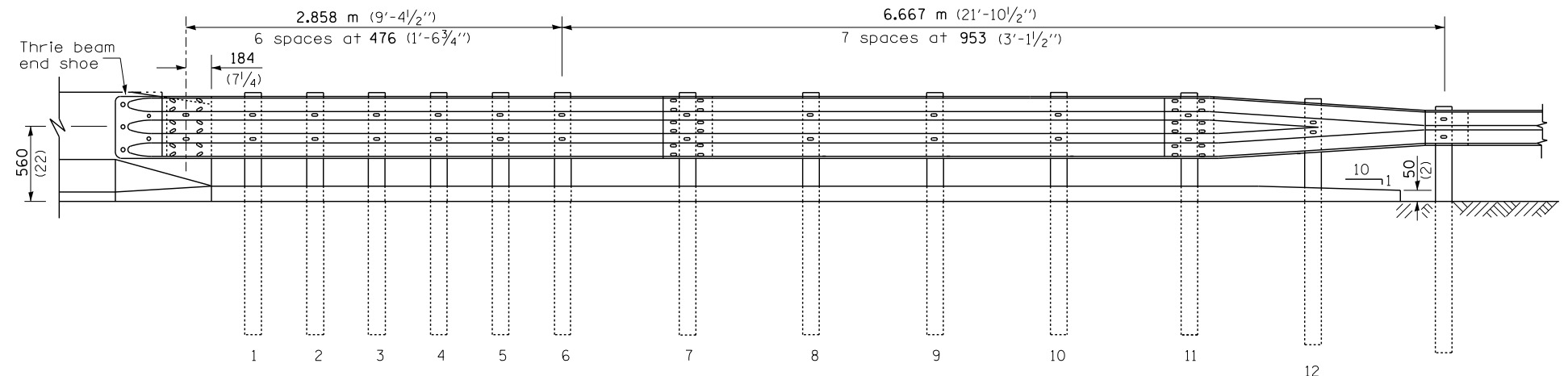
DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016

F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
V&B.	*	V&B.	43	32
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 66E22	

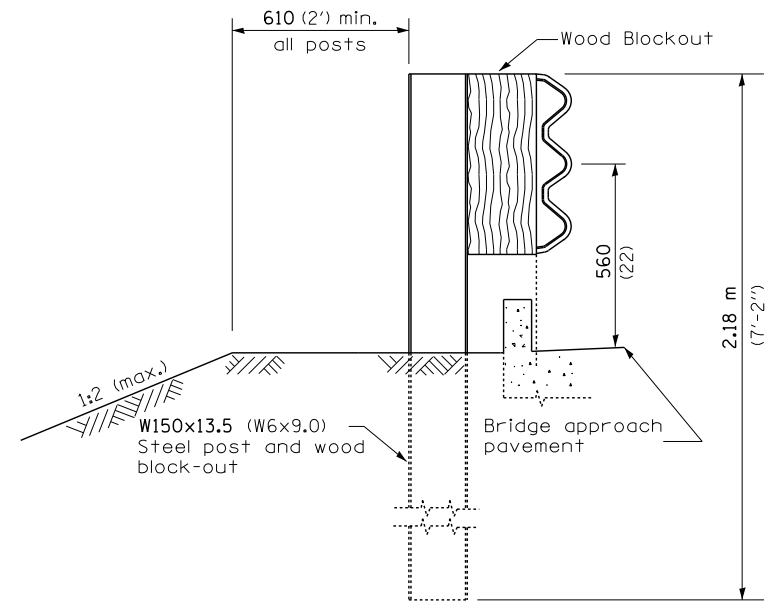
PARAPET
OR WINGWALL



PLAN



ELEVATION



SECTION A-A

GENERAL NOTES

- See Standard 630001 for details of guardrail not shown.
- Thrie beam rail shall be bolted to block-out at all posts.
- See Standard 420401 for details of bridge approach pavement.
- All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
- All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME =	USER NAME = pletschr	DESIGNED -	REVISED -
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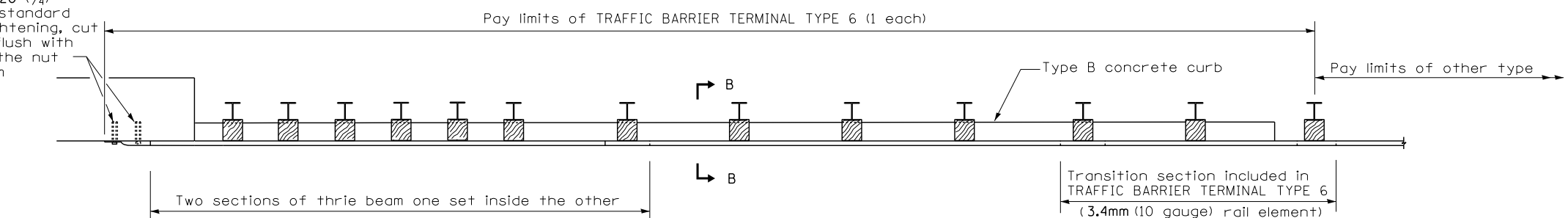
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRE-MGS EFFECTIVE 4-1-06		F.A. RTE.		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TRAFFIC BARRIER TERMINAL, TYPE 6		V&B.		*	V&B.	43	33
STANDARD 631031-05		SCALE: _____		SHEET NO. ___ OF ___ SHEETS		STA. _____ TO STA. _____	
		Sheet 1 of 3		FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT		CONTRACT NO. 66E22	

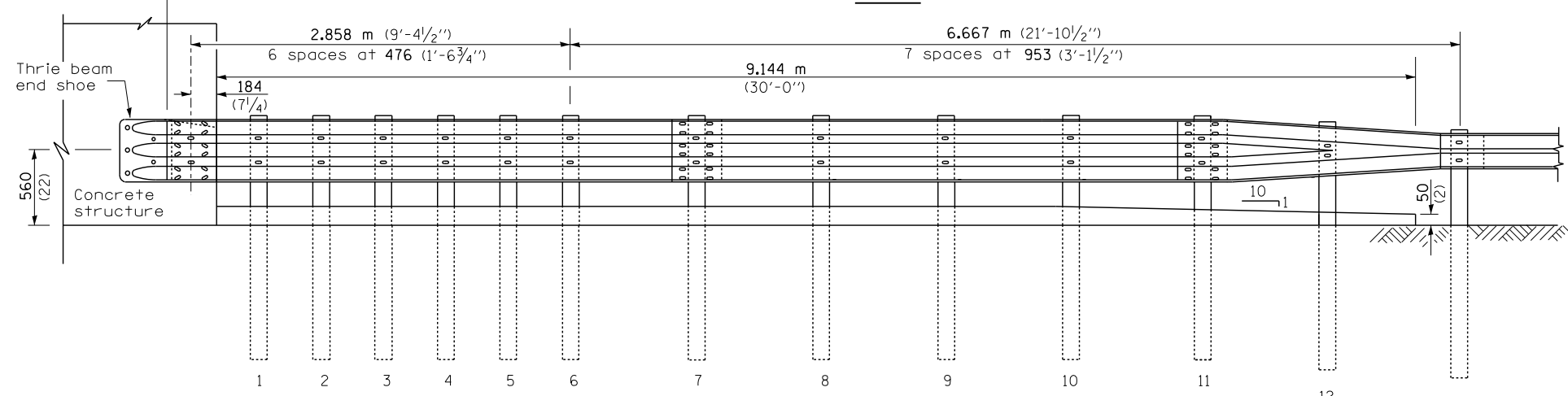
DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016

5 Epoxy grouted M20 (¾") anchor bolts with standard washers. After tightening, cut the anchor bolts flush with nuts, and damage the nut to prevent it from loosening.

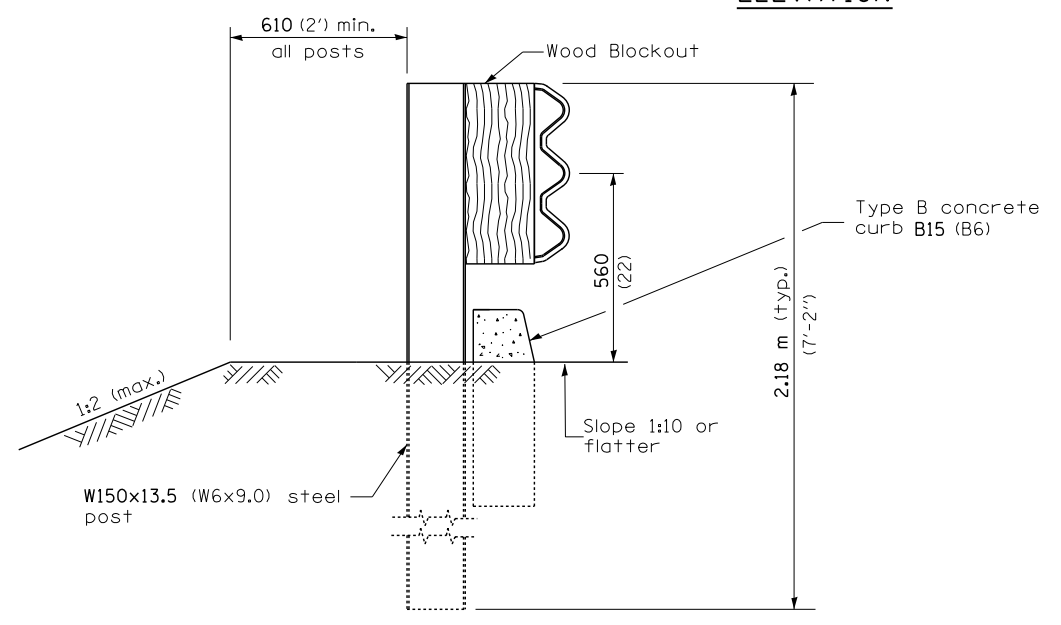
OTHER CONCRETE STRUCTURE



PLAN



ELEVATION



SECTION B-B

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PLOT DATE = 3/2/2015		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

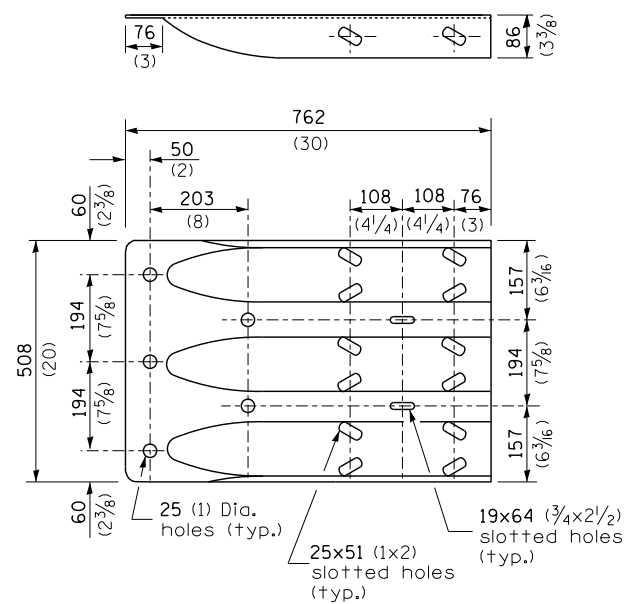
PRE-MGS EFFECTIVE 4-1-06
TRAFFIC BARRIER TERMINAL, TYPE 6
STANDARD 631031-05

Sheet 2 of 3

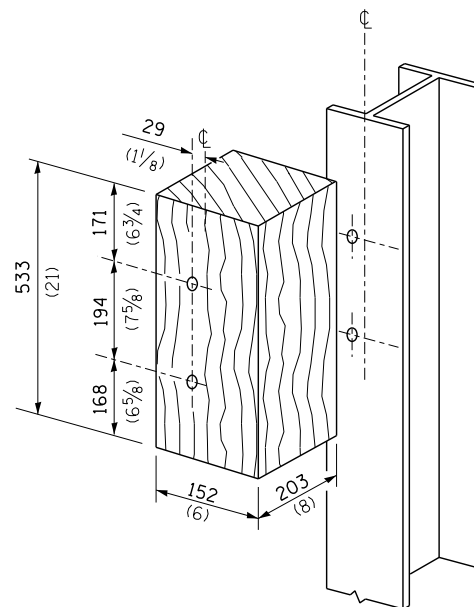
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DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016

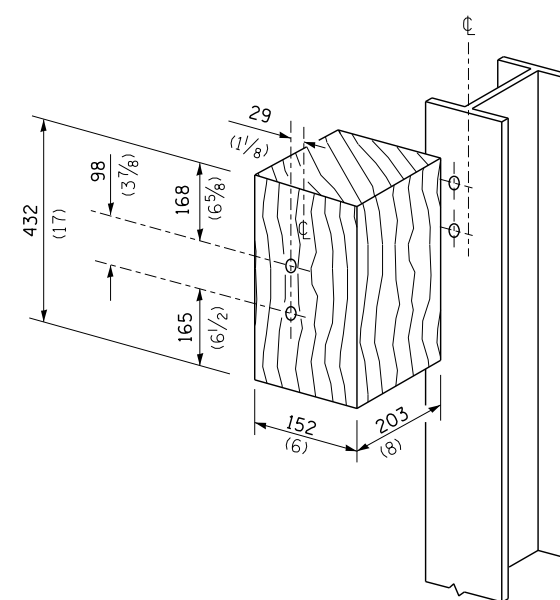
F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
V&B.	*	V&B.	43	34
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 66E22	



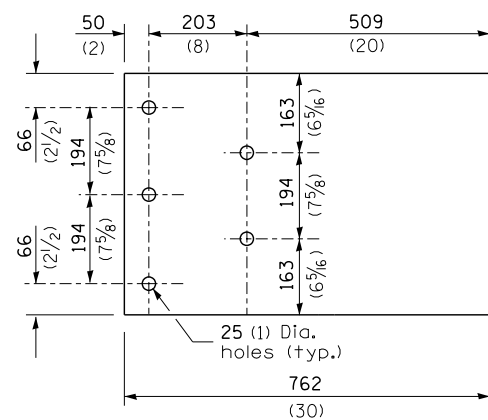
THRIE BEAM END SHOE DETAIL



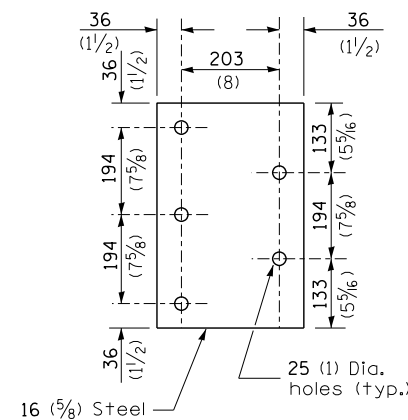
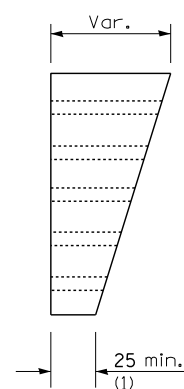
POSTS 1-11 WOOD BLOCKOUT DETAIL



POST 12 WOOD BLOCKOUT DETAIL



PARAPET WOOD BLOCK-OUT DETAIL



PARAPET STEEL BEARING PLATE DETAIL

(5 each individual 125x125x16 (5x5x5/8) steel plates with centered 25 (1)holes may be substituted for the plate shown.)

FILE NAME =	USER NAME = pletschr	DESIGNED -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

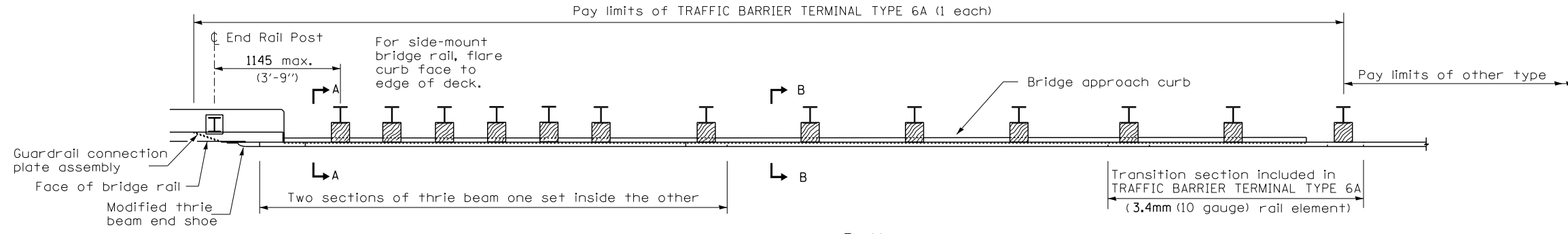
PRE-MGS EFFECTIVE 4-1-06
TRAFFIC BARRIER TERMINAL, TYPE 6
STANDARD 631031-05

Sheet 3 of 3

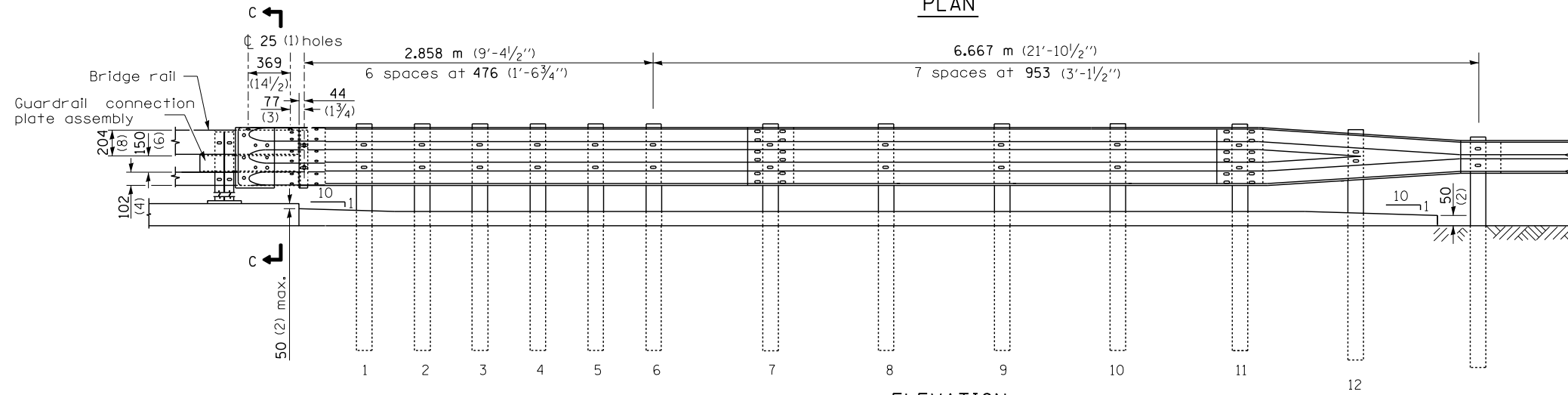
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• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016

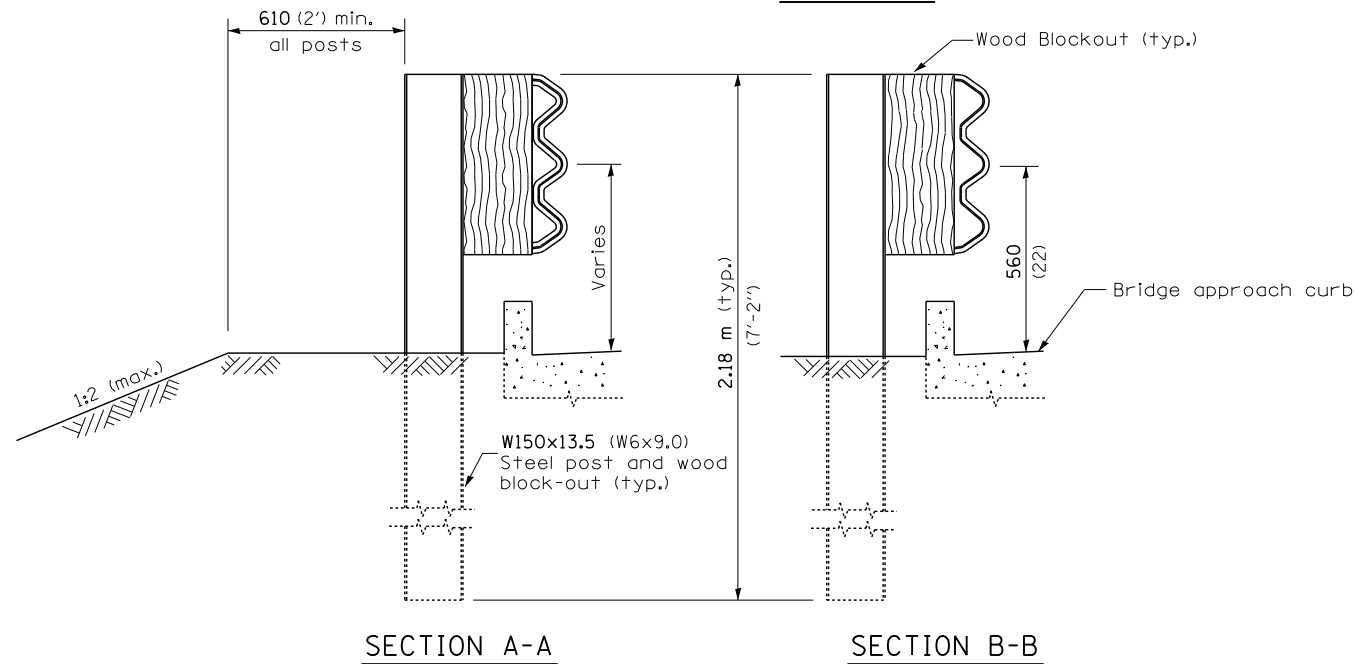
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V&B.	*	V&B.	43	35
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 66E22	



PLAN



ELEVATION



GENERAL NOTES

This standard shows attachment to curb mounted bridge rail. Attachment to side mounted bridge rail is similar.

See Standard 630001 for details of guardrail not shown.

Thrie beam rail shall be bolted to block-out at all posts.

See Standard 420401 for details of bridge approach pavement.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in millimeters (inches) unless otherwise shown.

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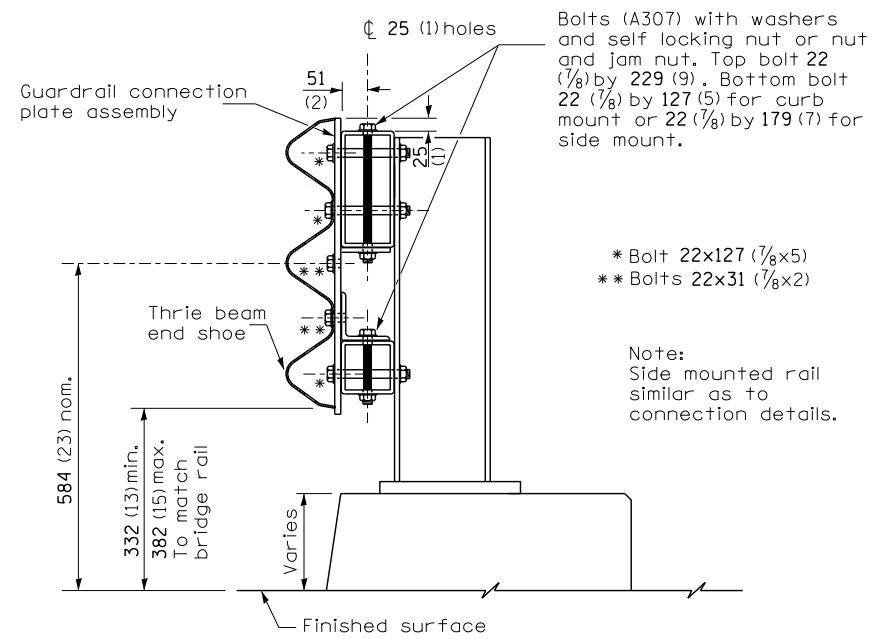
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRE-MGS EFFECTIVE 4-1-06
TRAFFIC BARRIER TERMINAL, TYPE 6A
STANDARD 631032-02

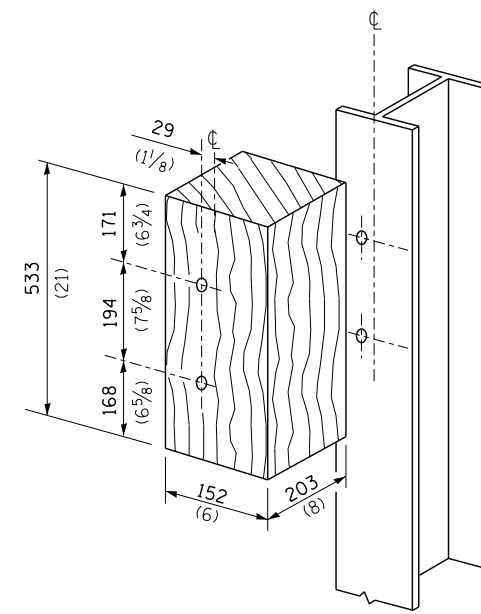
Sheet 1 of 3

SCALE: _____ SHEET NO. ____ OF ____ SHEETS STA. _____ TO STA. _____

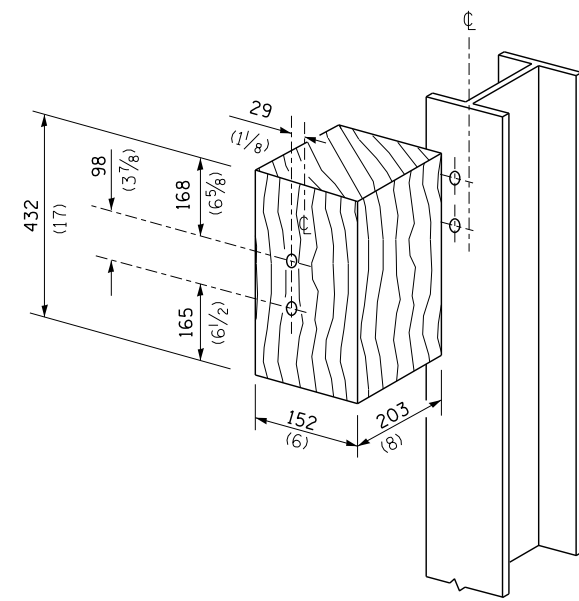
• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO. 66E22	
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT				



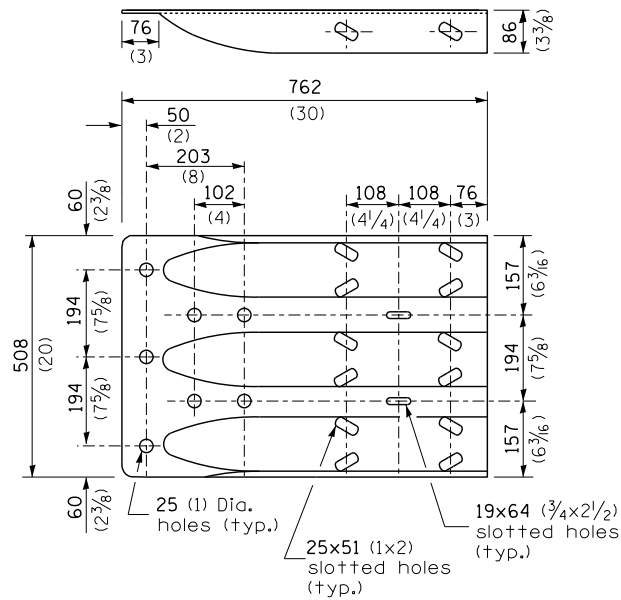
SECTION C-C



POSTS 1-11 WOOD BLOCKOUT DETAIL



POST 12 WOOD BLOCKOUT DETAIL



MODIFIED THRIE BEAM END SHOE DETAIL

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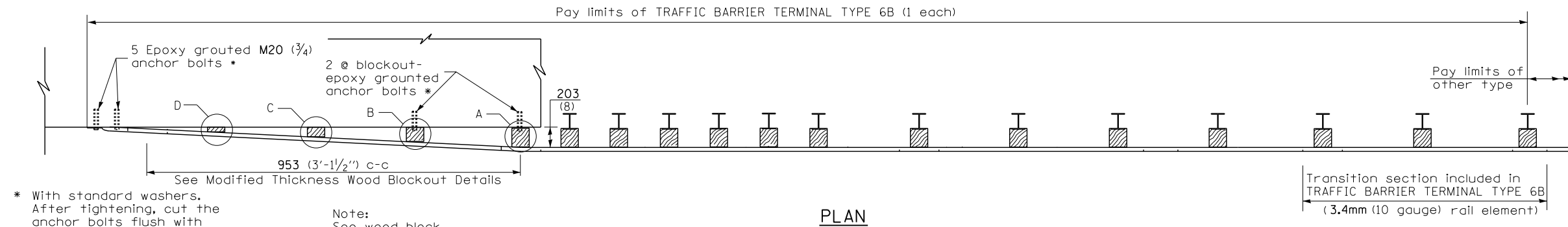
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRE-MGS EFFECTIVE 4-1-06
TRAFFIC BARRIER TERMINAL, TYPE 6A
STANDARD 631032-02

Sheet 2 of 3

SCALE: _____ SHEET NO. ___ OF ___ SHEETS STA. _____ TO STA. _____

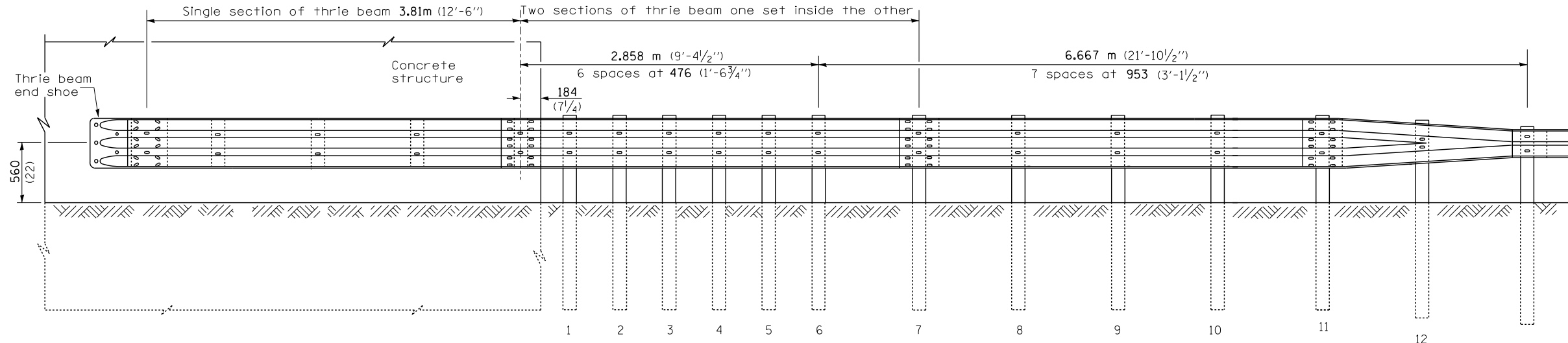
• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016				
F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 66E22	



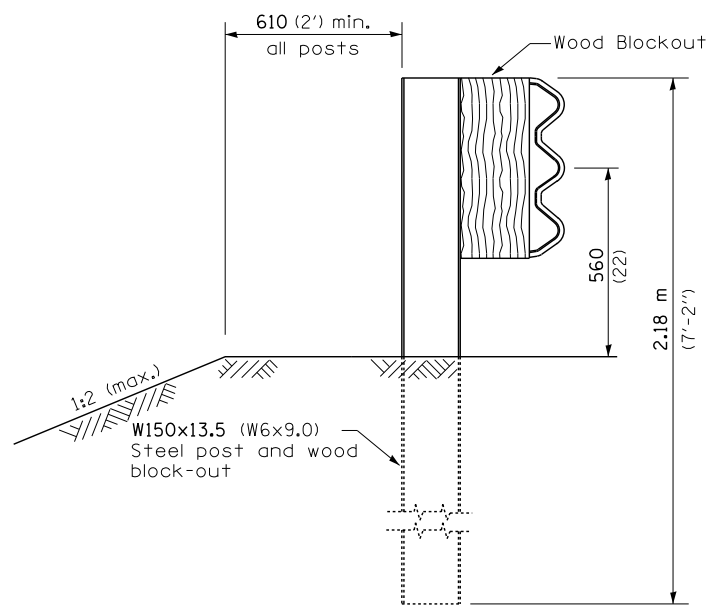
* With standard washers. After tightening, cut the anchor bolts flush with nuts, and damage the nut to prevent it from loosening.

Note: See wood block details A, B, C. & D

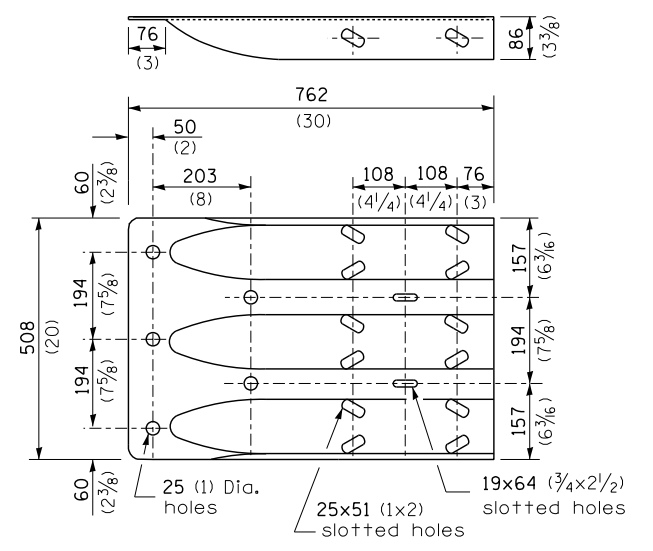
PLAN



ELEVATION



SECTION A-A



THRIE BEAM END SHOE DETAIL

GENERAL NOTES

See Standard 630001 for details of guardrail not shown.

Thrie beam rail shall be bolted to block-out at all posts.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

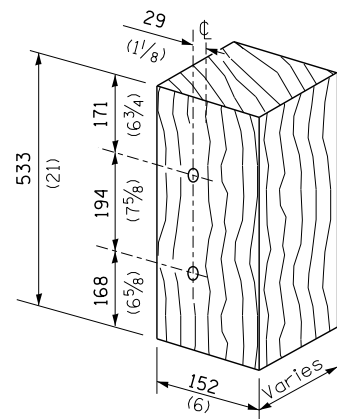
All dimensions are in millimeters (inches) unless otherwise shown.

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PLOT DATE = 3/2/2015		DATE -	REVISED -

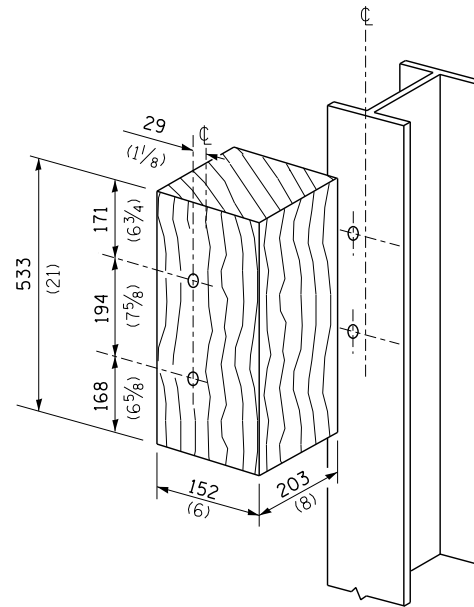
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRE-MGS EFFECTIVE 4-1-06			
TRAFFIC BARRIER TERMINAL, TYPE 6B			
STANDARD 631033-01			
SCALE: _____		SHEET NO. ___ OF ___ SHEETS	
STA. _____		TO STA. _____	

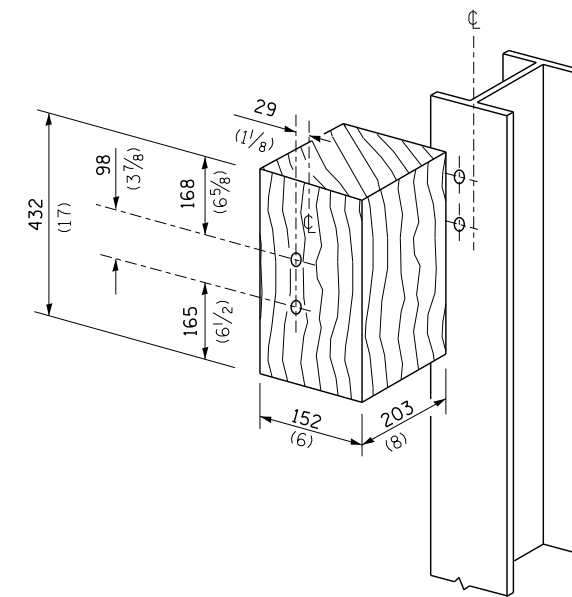
• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
V&B.	*	V&B.	43
			SHEET NO. 39
			CONTRACT NO. 66E22
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT			



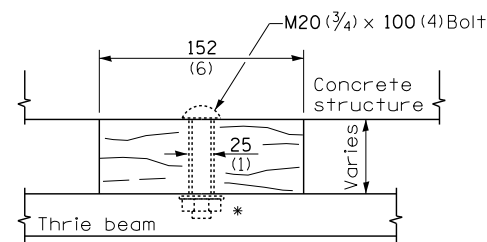
MODIFIED THICKNESS WOOD BLOCKOUT DETAIL



POSTS 1-11 WOOD BLOCKOUT DETAIL

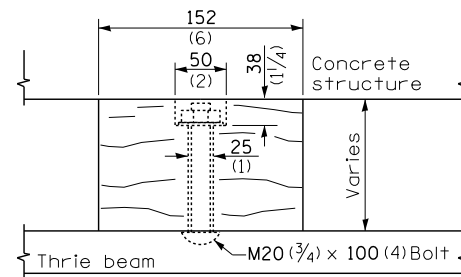


POST 12 WOOD BLOCKOUT DETAIL

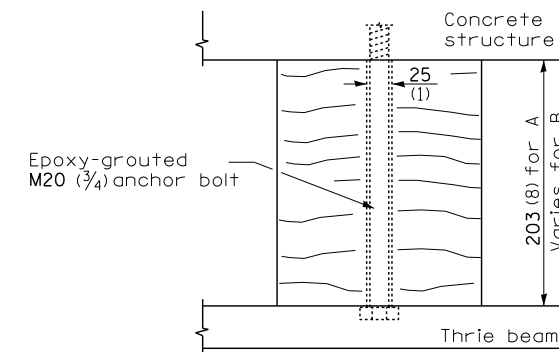


WOOD BLOCKOUT D

Bolt to thrie beam with M20 (3/4) by 100 (4) bolt, washer & nut. Reverse direction of insertion. *



WOOD BLOCKOUT C



WOOD BLOCKOUT A & B

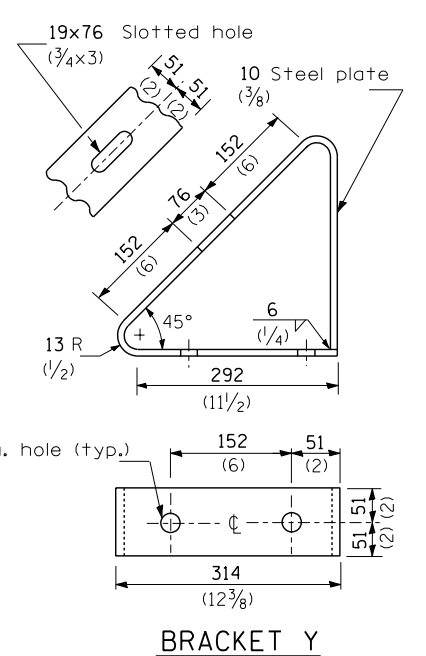
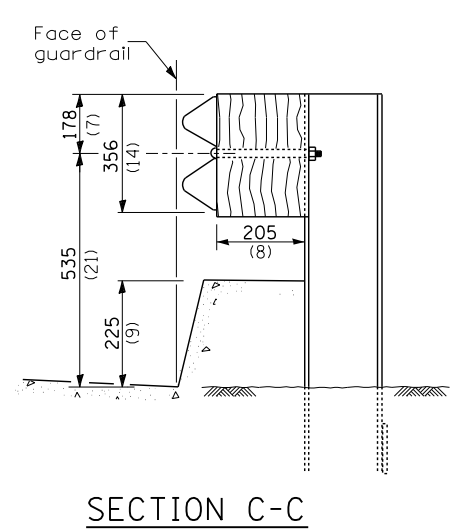
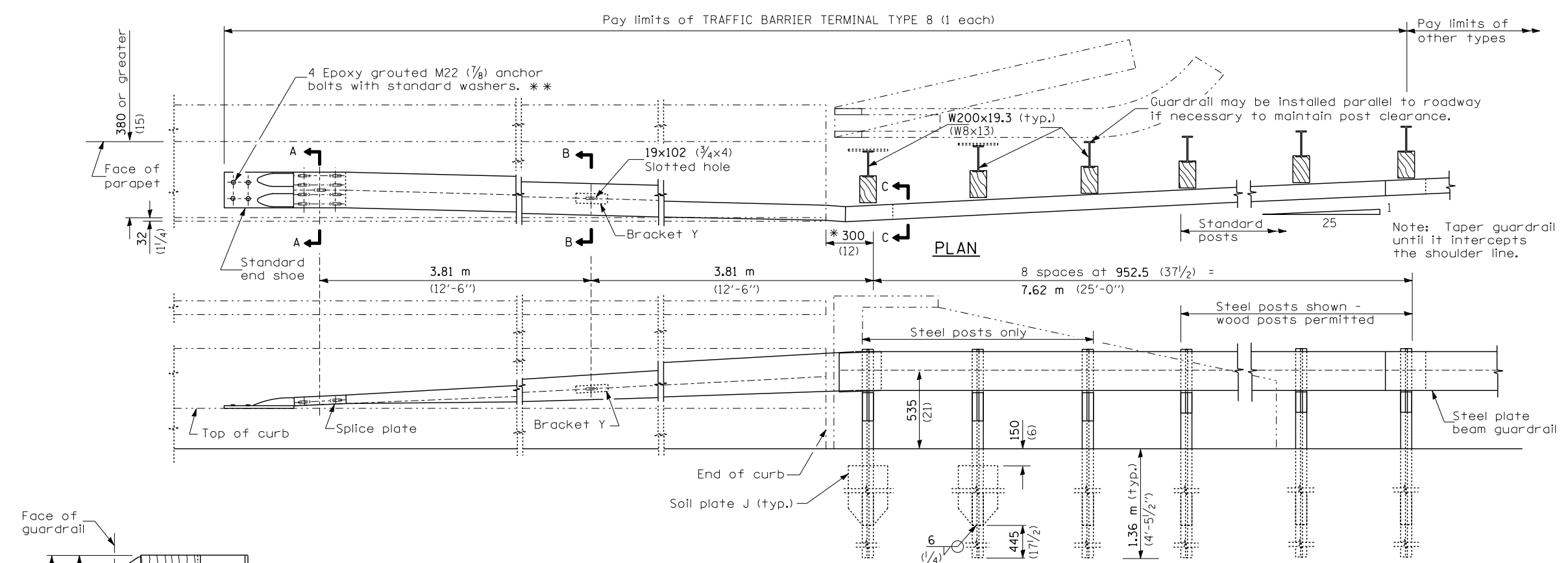
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

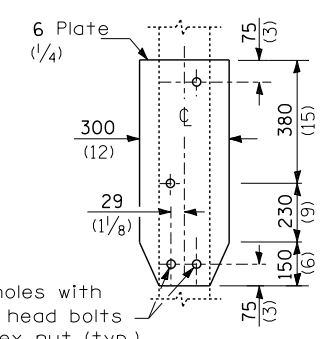
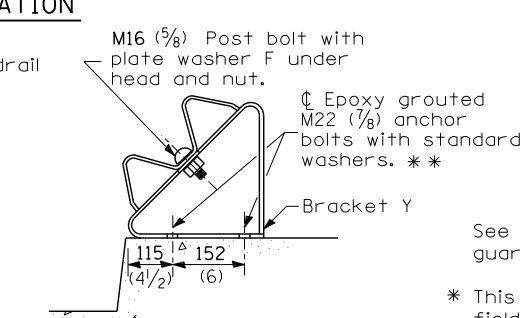
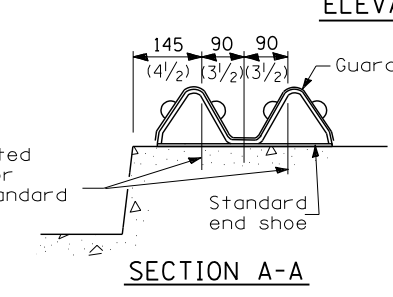
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TRAFFIC BARRIER TERMINAL, TYPE 6B		SECTION		COUNTY		43	
STANDARD 631033-01		•		V&B		40	
Sheet 2 of 2		SCALE: _____		SHEET NO. ____ OF ____ SHEETS		STA. _____ TO STA. _____	

• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016

F.A. R.T.E.		TOTAL SHEETS		SHEET NO.	
SECTION		COUNTY		43	
•		V&B		40	
CONTRACT NO. 66E22		FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT	



4 Epoxy grouted M22 (7/8) anchor bolts with standard washers. **



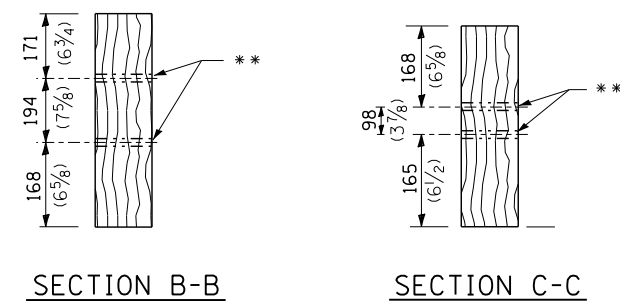
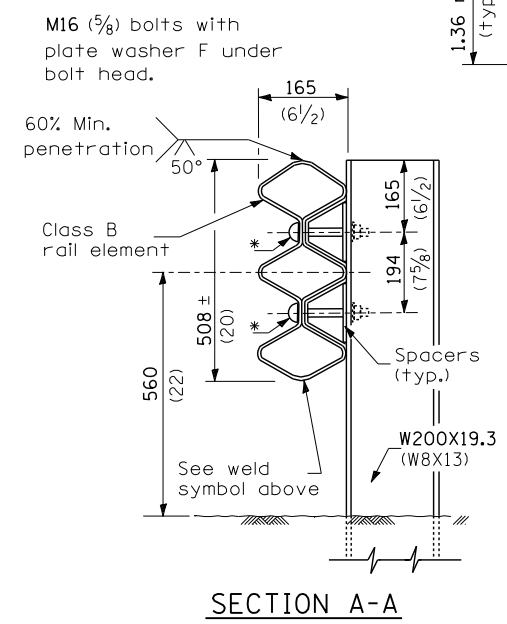
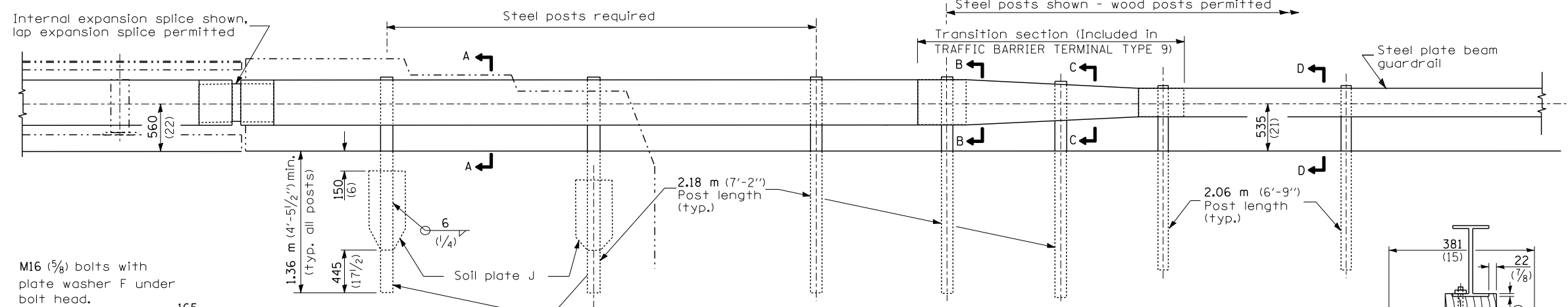
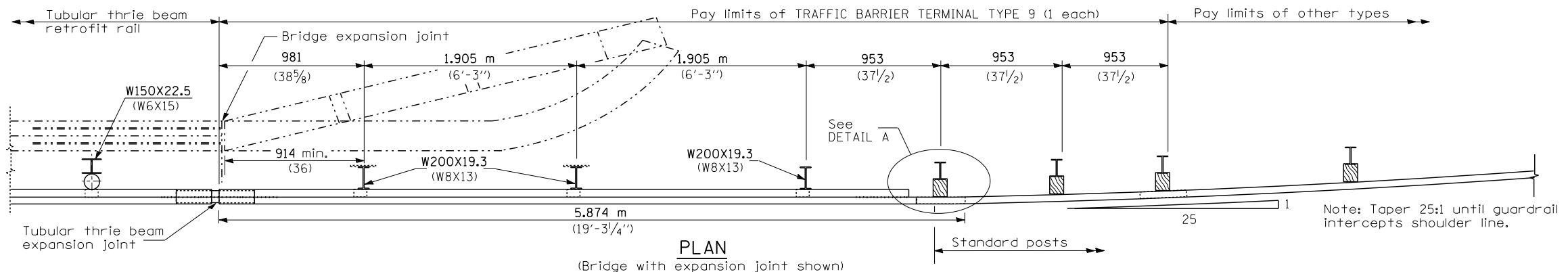
GENERAL NOTES

See Standard 630001 for details of guardrail not shown.

* This dimension may be increased to fit field conditions. This post shall be located first. The layout of the terminal shall be determined by its location.

** After tightening, cut the anchor bolts flush with nuts, and damage the bolt head to prevent them from loosening.

All dimensions are in millimeters (inches) unless otherwise shown.

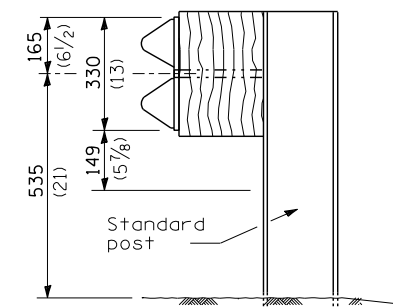
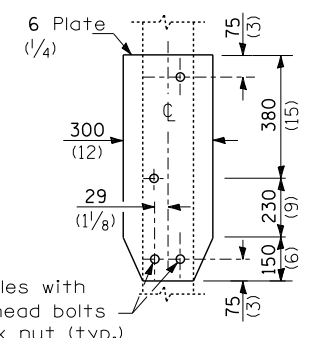


DETAILS of BLOCK-OUTS

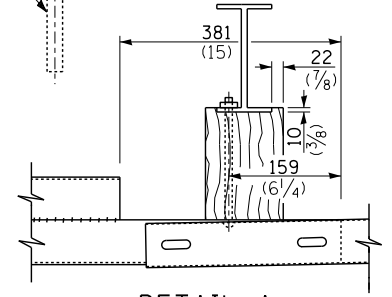
** \varnothing 19 (3/4) Dia. hole

4-19 (3/4) Dia. holes with M16 (5/8) hex head bolts with std. hex nut (typ.)

SOIL PLATE J & ALTERNATE CONNECTION DETAILS



SECTION D-D



DETAIL A

GENERAL NOTES

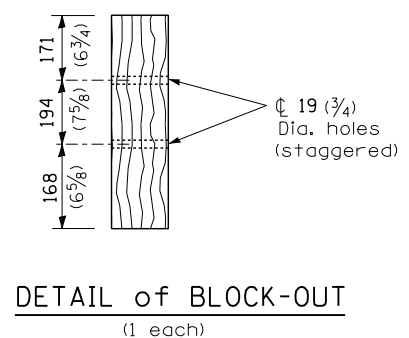
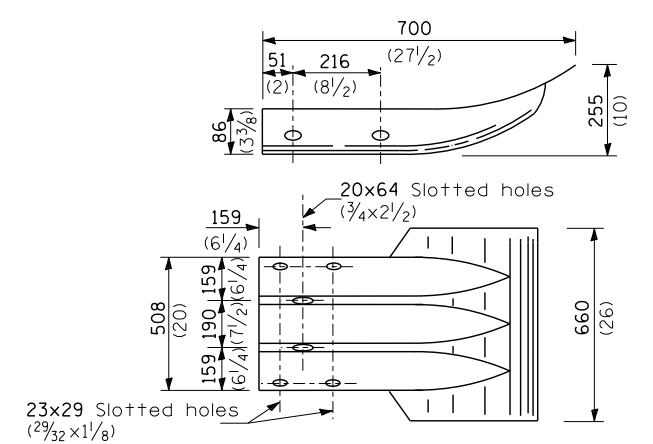
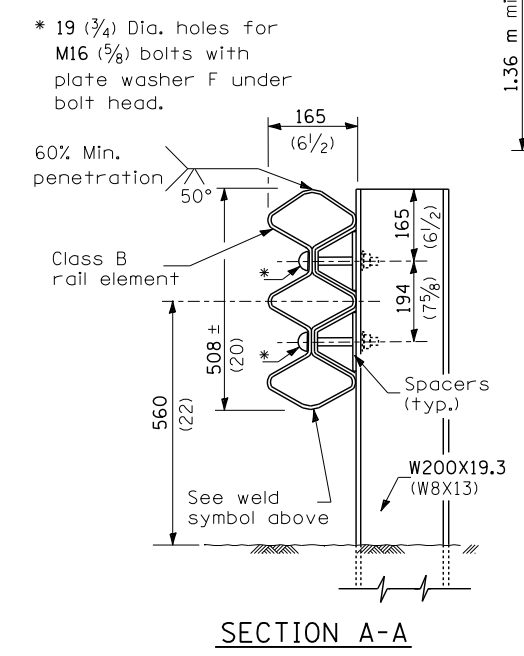
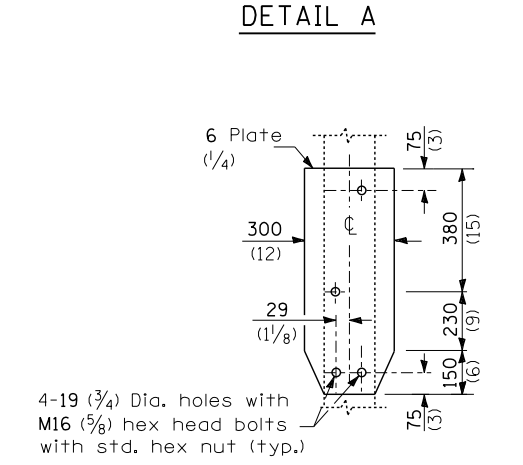
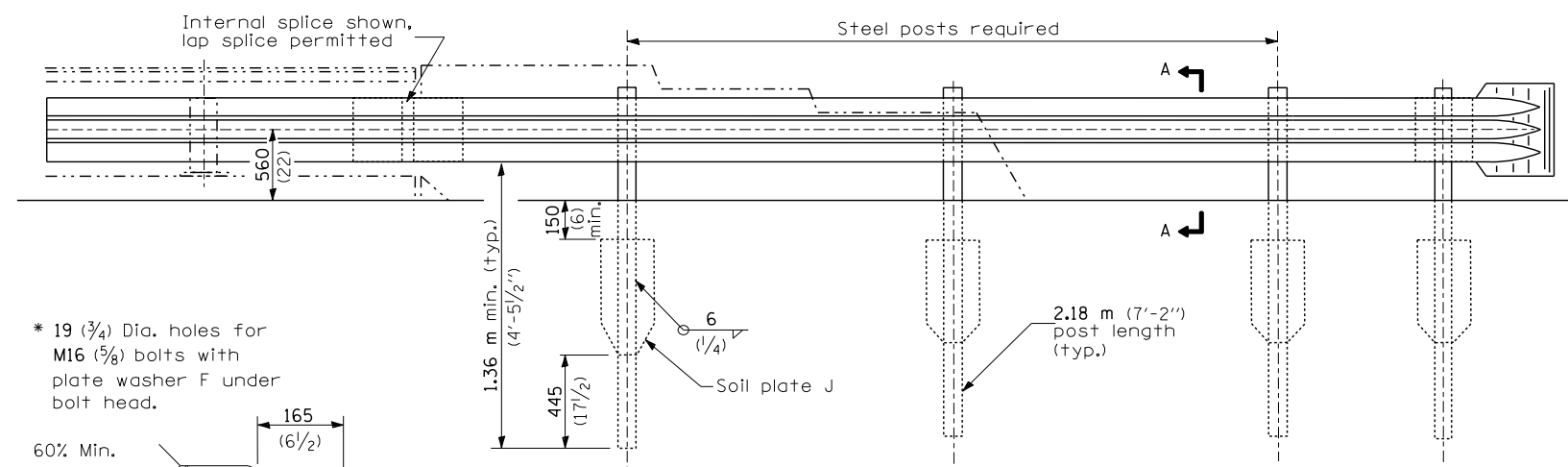
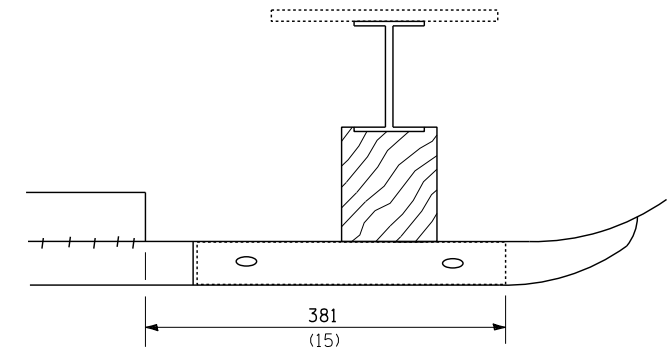
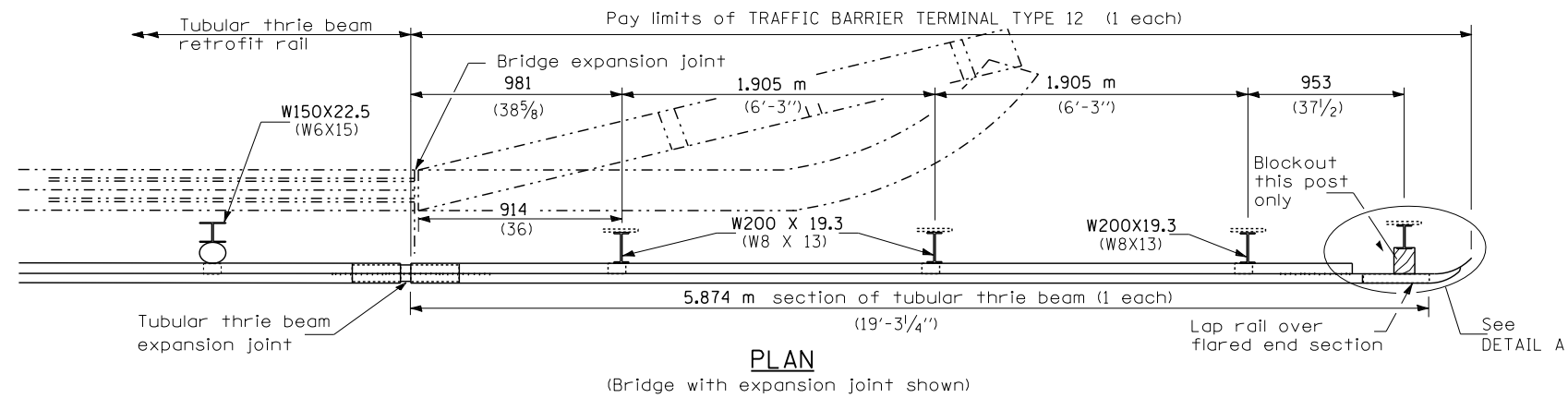
See Standards 509001 and 630001 for details of guardrail elements not shown.
 The type 9 terminal shall be installed after the posts for the bridge retrofit rail have been located as shown on Standard 509001.
 All dimensions are in millimeters (inches) unless otherwise shown.

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PLOT DATE = 3/2/2015		DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PRE-MGS EFFECTIVE 4-1-06			
TRAFFIC BARRIER TERMINAL TYPE 9			
STANDARD 631041-01			
SCALE:	SHEET NO. 01 OF 02 SHEETS	STA. _____	TO STA. _____

• DISTRICT 3 HIGHWAY DAMAGE REPAIR FY 2016				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
V&B.	*	V&B.	43	42
			CONTRACT NO. 66E22	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



GENERAL NOTES

See Standard 509001 and 630001 for details of guardrail elements not shown.

The type 12 terminal shall be installed after the posts for the bridge retrofit rail have been located as shown on Standard 509001.

All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME =	USER NAME = pletschr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PRE-MGS EFFECTIVE 4-1-06 TRAFFIC BARRIER TERMINAL TYPE 12 STANDARD 631056-01	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE = 5000.0000 / in.	CHECKED -	REVISED -	CONTRACT NO. 66E22							
PLOT DATE = 3/2/2015	DATE -	REVISED -	FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT							