

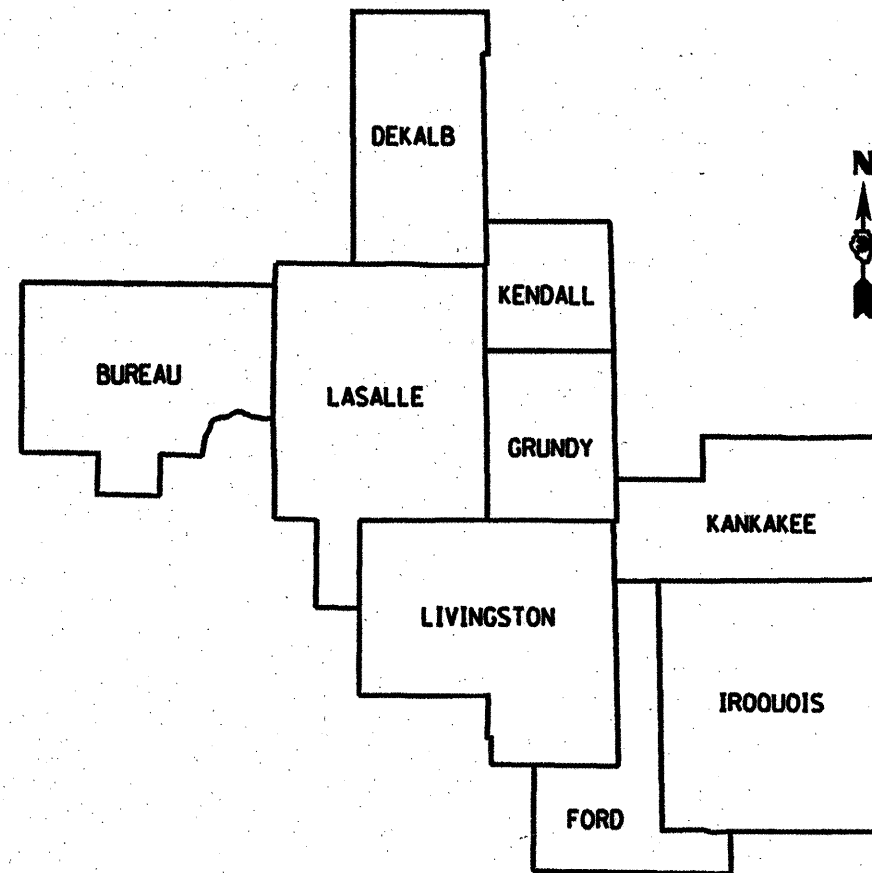
INDEX OF SHEETS

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- 16-36 PRE-MGS GUARDRAIL STANDARDS EFFECTIVE APRIL 1, 2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROPOSED
HIGHWAY PLANS

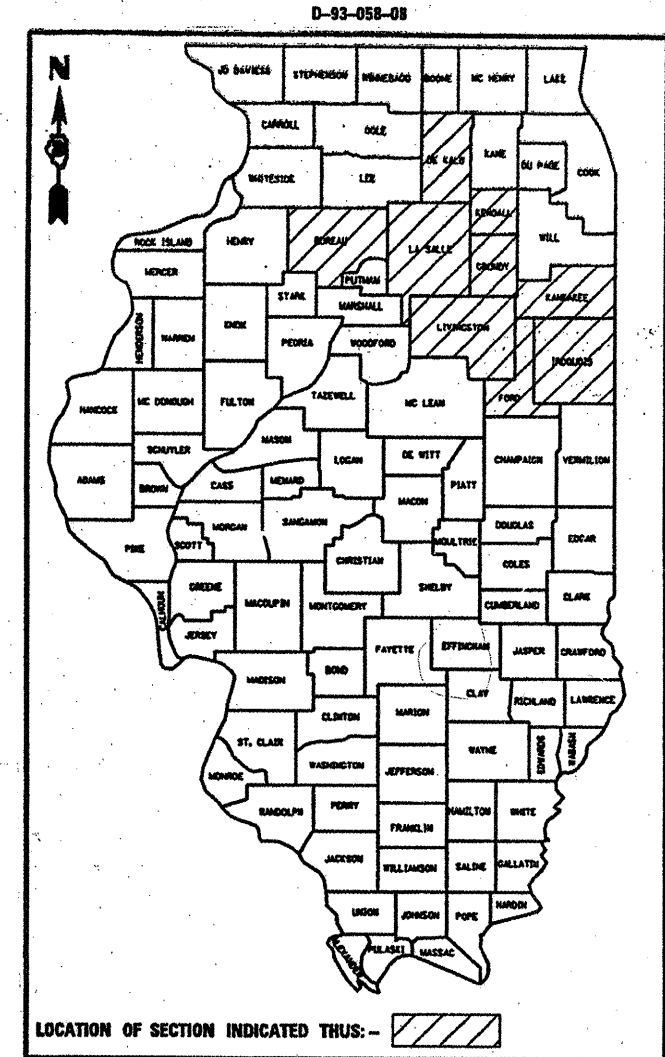
VARIOUS ROUTES
D-3 HIGHWAY DAMAGE REPAIR 2009
VARIOUS COUNTIES

C - 93 - 090 - 08
REPAIRING MOTORIST CAUSED DAMAGE TO HIGHWAY FACILITIES



LOCATION MAP
NOT TO SCALE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	#	VARIOUS	36	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 66812	
* D-3 HIGHWAY DAMAGE REPAIR 2009				



HIGHWAY STANDARDS

SEE PAGE 2 FOR LIST OF HIGHWAY STANDARDS
EFFECTIVE JANUARY 1, 2008

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

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 : MARK JONES
 DISTRICT 3 NO. (815) 434-6131
CONTRACT NO. 66812

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED _____ 20____

Henry Ryan
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 9, 20 08
Eric E. Baran
 INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

May 9, 20 08
Christine M. Reed
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

PLOT DATE = Apr 17, 2008 - 02:21:31 PM
 FILE NAME = c:\projects\66812\66812-shs-details.dgn
 PLOT SCALE = 100.0000 / IN.
 USER NAME = schwenker

HIGHWAY STANDARDS

EFFECTIVE JANUARY 1, 2008

- 606001-03 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
- 630001-07 STEEL PLATE BEAM GUARDRAIL
- 630101-07 GUARDRAIL MOUNTED ON EXISTING CULVERTS
- 630301-04 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 631011-04 TRAFFIC BARRIER TERMINAL, TYPE 2
- 631026-04 TRAFFIC BARRIER TERMINAL, TYPE 5 & 5A
- 631031-06 TRAFFIC BARRIER TERMINAL, TYPE 6
- 631032-03 TRAFFIC BARRIER TERMINAL, TYPE 6A
- 631033-02 TRAFFIC BARRIER TERMINAL, TYPE 6B
- 631036-04 TRAFFIC BARRIER TERMINAL, TYPE 8
- 631041-01 TRAFFIC BARRIER TERMINAL, TYPE 9
- 631056-01 TRAFFIC BARRIER TERMINAL, TYPE 12
- 635001 DELINEATORS
- 635006-02 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 664001-01 CHAIN LINK FENCE
- 665001-01 WOVEN WIRE FENCE
- 701001-01 OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 4.5 m (15') AWAY
- 701006-02 OFF-ROAD OPERATIONS 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
- 701101-01 OFF-ROAD OPERATIONS MULTILANE, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
- 701106-01 OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 4.5 m (15') AWAY
- 701201-02 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS \geq 45 MPH
- 701301-02 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701400-02 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701406-04 LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
- 701411-04 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP FOR SPEEDS \geq 45 MPH
- 701421-01 LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS \geq 45 MPH TO 55 MPH
- 701426-02 LANE CLOSURE, MULTILANE INTERMITTENT OR MOVING OPERATION, FOR SPEEDS \geq 45 MPH
- 701501-04 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
- 701502-02 URBAN LANE CLOSURE 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
- 701601-05 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
- 701602-03 URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
- 701606-05 URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
- 701701-05 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701801-03 LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
- 701900 TRAFFIC CONTROL DEVICES

GENERAL NOTES

THE CONTRACTOR IS REMINDED TO CAREFULLY EXAMINE THIS CONTRACT FOR NEW OR CHANGED CONDITIONS FROM ANY PREVIOUS VERSION HE MAY HAVE EXAMINED.

THE REMOVAL OF DAMAGED GUARDRAIL AND DAMAGED POSTS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE VARIOUS REPLACEMENT PAY ITEMS.

THE TRAFFIC CONTROL REQUIRED FOR THE REPAIRS OR INSTALLATION OF GUARDRAIL OR FENCE SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS PAY ITEMS OF WORK, AND SHALL BE IN ACCORDANCE WITH THE TRAFFIC CONTROL STANDARDS INCLUDED HEREIN.

ALL HARDWARE (NUTS, BOLTS, WASHERS, STAPLES, WIRES, TIES, ETC.) REQUIRED FOR THE REPAIRS TO OR INSTALLATION OF GUARDRAIL AND FENCE SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS PAY ITEMS OF WORK IN THIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE J.U.L.I.E. NUMBER IS 1-800-892-0123. A MINIMUM OF FORTY-EIGHT HOURS ADVANCE NOTICE IS REQUIRED.

~~ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.~~

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

PREPARED BY: *Re Paul*
DISTRICT STUDIES & PLANS ENGINEER

DATE: 4.10.08

EXAMINED BY: *Herb Jung*
DISTRICT CONSTRUCTION ENGINEER

Wayne Phillips
DISTRICT MATERIALS ENGINEER

Bence A. Hockert
DISTRICT OPERATIONS ENGINEER

D-3 HIGHWAY DAMAGE REPAIR 2009

FILE NAME =	USER NAME = cprcorrenim	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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PLOT DATE = Apr 10, 2008 - 10:40:00 AM		DATE	REVISED -			FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 66812	

SUMMARY OF QUANTITIES

CODE NO.	ITEM	CONSTRUCTION CODE TYPE:		100% MCHD	100% STATE CONTR. MAINT.
		UNIT	TOTAL QUANTITY	MCHD SFTY-3J	SFTY-3J
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	10	8	2
63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	3	2	1
63301000	REMOVE AND RE-ERECT STEEL PLATE BEAM GUARDRAIL	FOOT	50		50
63400105	GUARD POSTS	EACH	100	50	50
66400105	CHAIN LINK FENCE, 4'	FOOT	300	150	150
66400305	CHAIN LINK FENCE, 6'	FOOT	350	200	150
66500105	WOVEN WIRE FENCE, 4'	FOOT	9800	8550	1250
67100100	MOBILIZATION	L SUM	1	0.5	0.5
78200405	GUARDRAIL MARKERS	EACH	102	90	12
X0300159	EMERGENCY WORK CALL OUT	EACH	115	90	25
X0300160	PULL POST ARRANGEMENT	EACH	22	20	2
X0300161	CONCRETE STRUCTURE REPAIR	CU FT	15	15	
X0321563	REPAIR TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL	EACH	10	7	3
X0322878	TIMBER CURB	FOOT	64	32	32
X0639500	CHAIN LINK FENCE POST	EACH	21	15	6

• 0-3 HIGHWAY DAMAGE REPAIR 2009

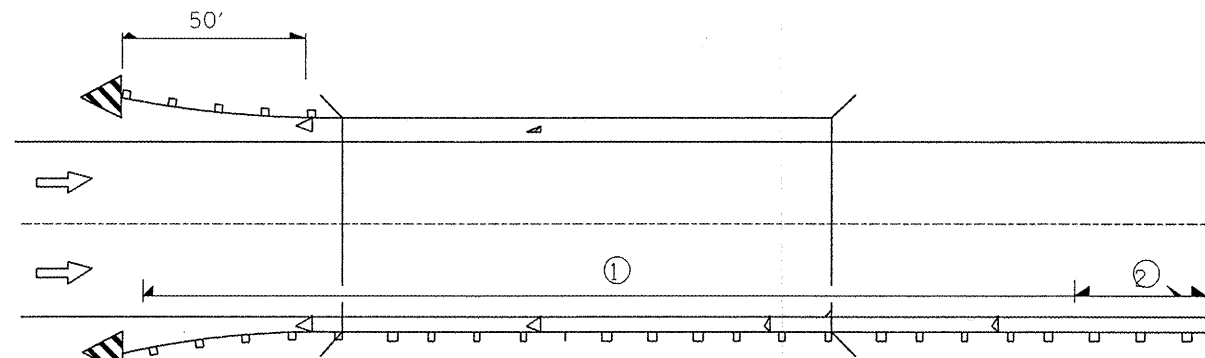
FILE NAME •	USER NAME • schneberg	DESIGNED •	REVISED •	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PROJECT NO. • 036612-036612-036612	PLAT SCALE • 1/8" = 1'-0"	DRAWN •	REVISED •					VAR.			36	3
PLAT DATE • May 25, 2009 - 03:06:07 PM	CHECKED •	DATE •	REVISED •		SCALE: SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 66612				
					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

SUMMARY OF QUANTITIES

CODE NO.	ITEM	CONSTRUCTION CODE TYPE:		100% MCHD	100% STATE
		UNIT	TOTAL QUANTITY	MCHD SFTY-3J	CONTR. MAINT. SFTY-3J
X6610100	BITUMINOUS CURB REPAIR	FOOT	64	32	32
Z0025550	FURNISHING AND INSTALLING RAIL ELEMENT PLATES	FOOT	7550	6550	1000
Z0026260	FURNISHING AND INSTALLING TUBULAR THRIE BEAM	FOOT	150	100	50
Z0026700	FURNISHING AND SETTING STEEL POSTS	EACH	600	500	100
Z0026800	FURNISHING AND SETTING STEEL POSTS (MODIFIED)	EACH	5	5	
Z0026900	FURNISHING AND SETTING STEEL POSTS (SPECIAL)	EACH	50		50
Z0030030	IMPACT ATTENUATORS (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	1	1
Z0030390	IMPACT ATTENUATORS, REPLACEMENT (NON-REDIRECTIVE), TEST LEVEL 3	EACH	195	175	20
Z0052400	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	2	1	1
Z0052600	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 2	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	
Z0026305	FURNISHING AND MAINTAINING AUTOMOTIVE VEHICLES	CAL MO	12	12	
X0325264	REPAIR IMPACT ATTENUATORS (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	1	1
X0325256	REPAIR HIGH TENSION CABLE (BRIFEN)	FOOT	3000	2000	1000
X0325257	REPAIR HIGH TENSION CABLE (US HIGH TENSION CABLE SYSTEM)	FOOT	3000	2000	1000
X0325258	REPAIR HIGH TENSION CABLE SYSTEM END SECTION (BRIFEN)	EACH	20	15	5
X0325259	REPAIR HIGH TENSION CABLE SYSTEM END SECTION (US HIGH TENSION CABLE SYSTEM)	EACH	20	15	5
X0325262	REMOVE AND REPLACE POSTS (BRIFEN)	EACH	100	60	40
X0325263	REMOVE AND REPLACE POSTS (US HIGH TENSION CABLE SYSTEM)	EACH	100	60	40

• D-3 HIGHWAY DAMAGE REPAIR 2009

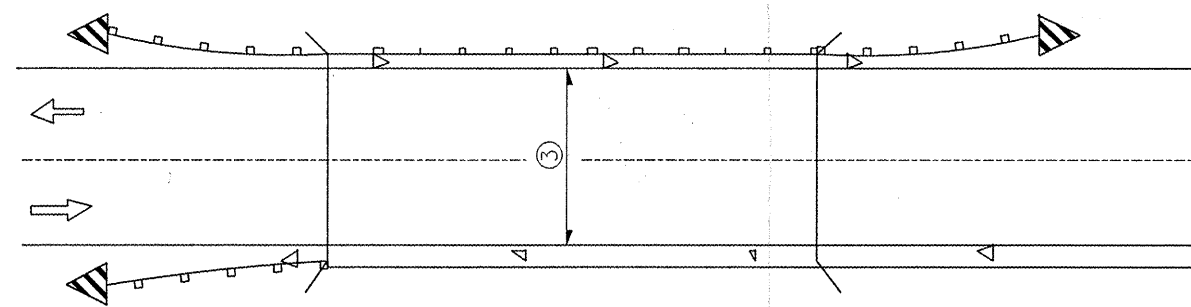
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PLOT DATE = May 21, 2009 - 8:38:27 PM		DATE -	REVISED -										



① Spacing 80 ft max. for first 400 ft or curve spacing shown in Standard 635001, whichever is less (min. 4 reflectors regardless of length).

② After 400 ft, transition to normal delineator spacing shown in Standard 635001, and continue as required.

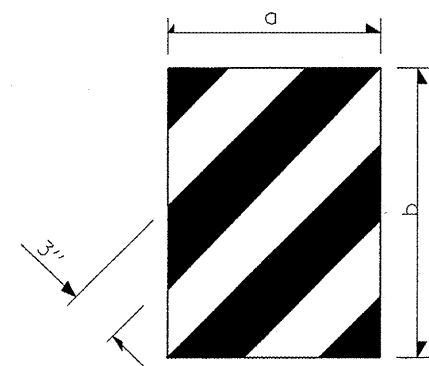
ONE-WAY TRAFFIC



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.

TWO-WAY TRAFFIC

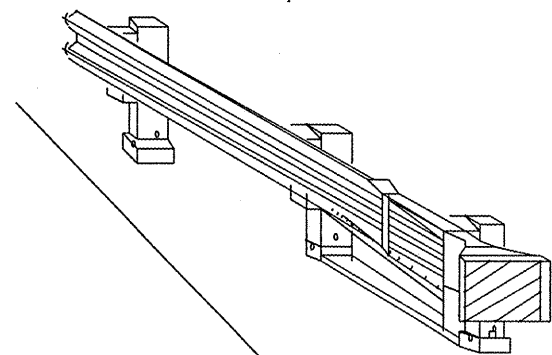
- ◁ Monodirectional silver
- ▷ Monodirectional amber
- ▴ Terminal Marker - Black/Yellow
Left or Right as appropriate



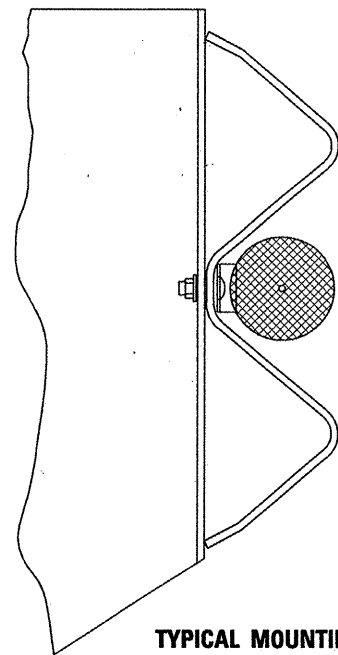
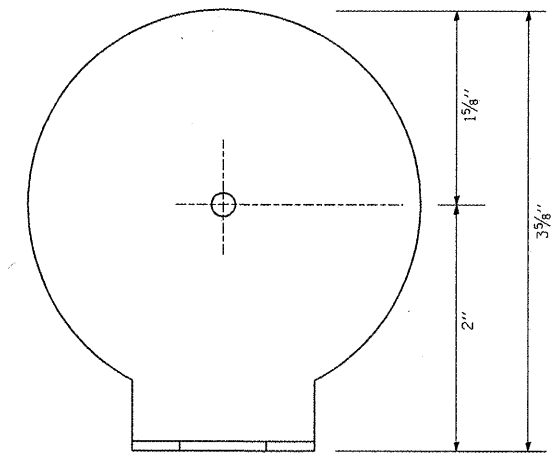
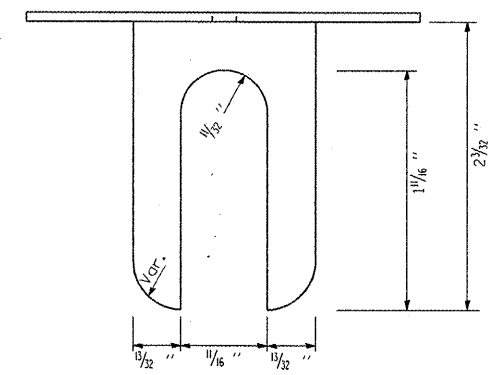
DIMENSION	CASE I	CASE II
a	*	450 (18)
b	*	406 (16)

* 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



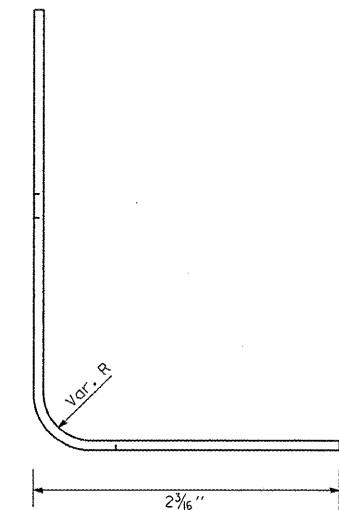
REFLECTOR AND
TERMINAL MARKER PLACEMENT



TYPICAL MOUNTING
WITH REFLECTOR

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



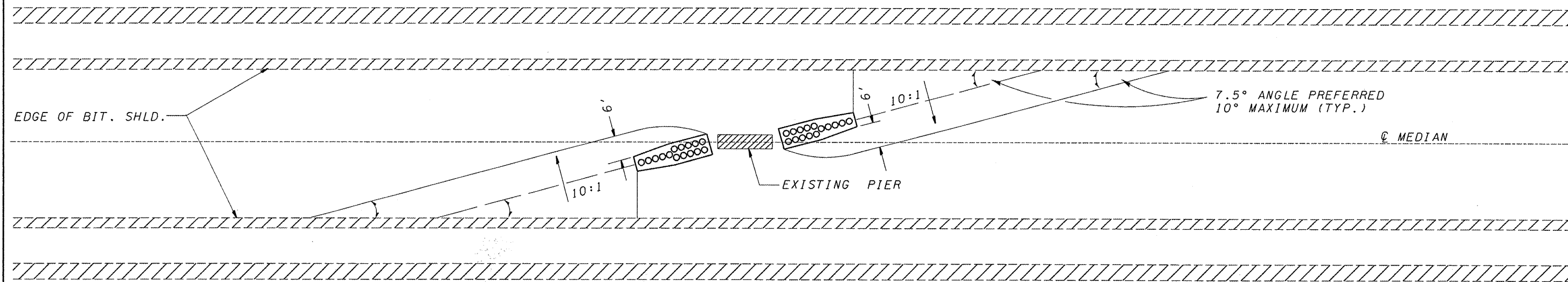
REFLECTOR DETAIL

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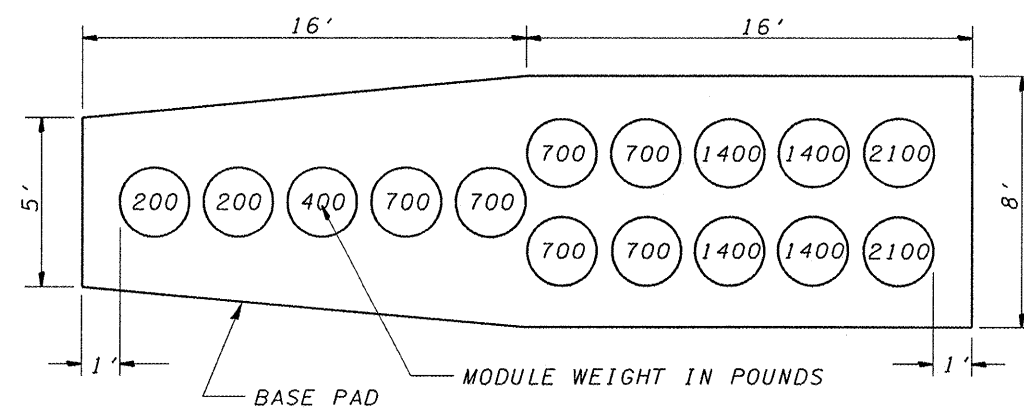
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REFLECTOR AND TERMINAL MARKER PLACEMENT DETAIL			
SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	

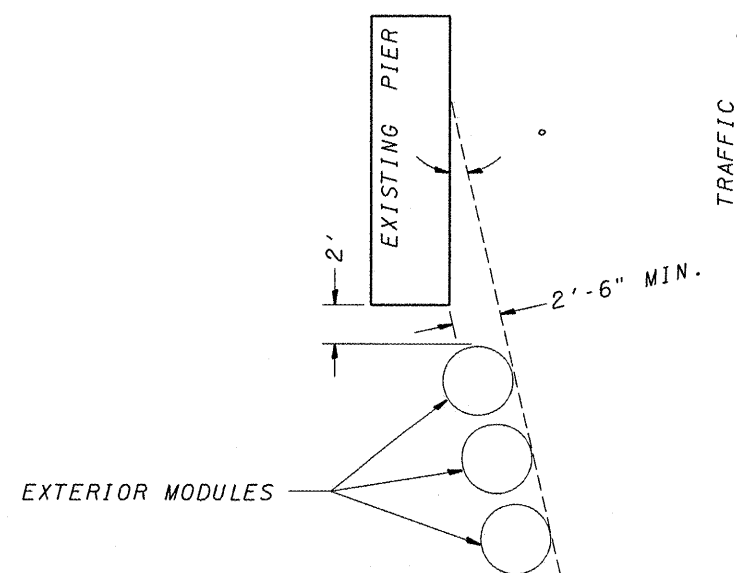
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	*	VAR.	36	6
CONTRACT NO. 66812				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



**IMPACT ATTENUATOR LAYOUT AND GRADING PLAN
FOR INFORMATION ONLY**



**LAYOUT FOR IMPACT ATTENUATOR
(NON-REDIRECTIVE), TEST LEVEL 3
FOR INFORMATION ONLY**



**EXTERIOR MODULE LAYOUT
FOR INFORMATION ONLY**

NOTES:

1. THE PAY ITEM "IMPACT ATTENUATORS, REPLACEMENT (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 THE BDE SPECIAL PROVISION FOR IMPACT ATTENUATORS, EFFECTIVE: NOVEMBER 1, 2003 REVISED JANUARY 1, 2007
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.

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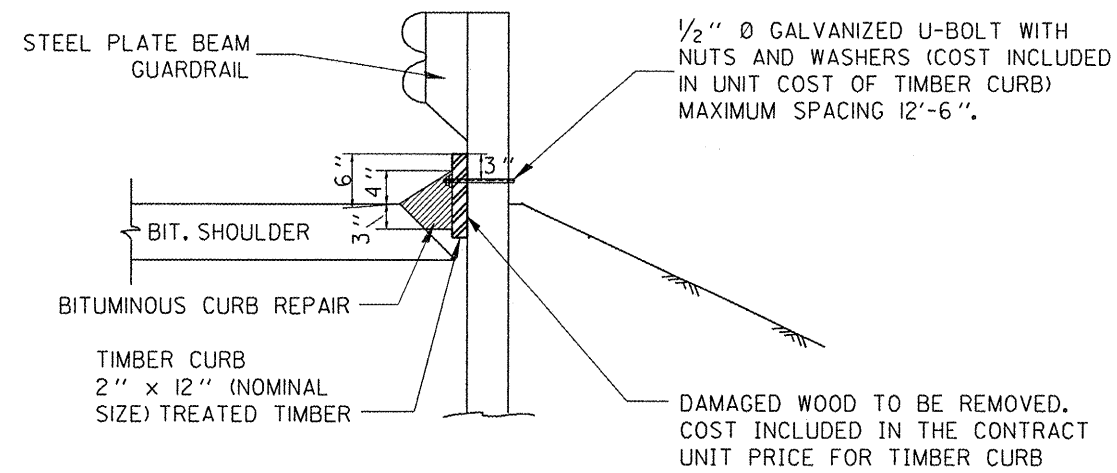
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IMPACT ATTENUATOR INSTALLATION
& NON-REDIRECTIVE DETAIL**

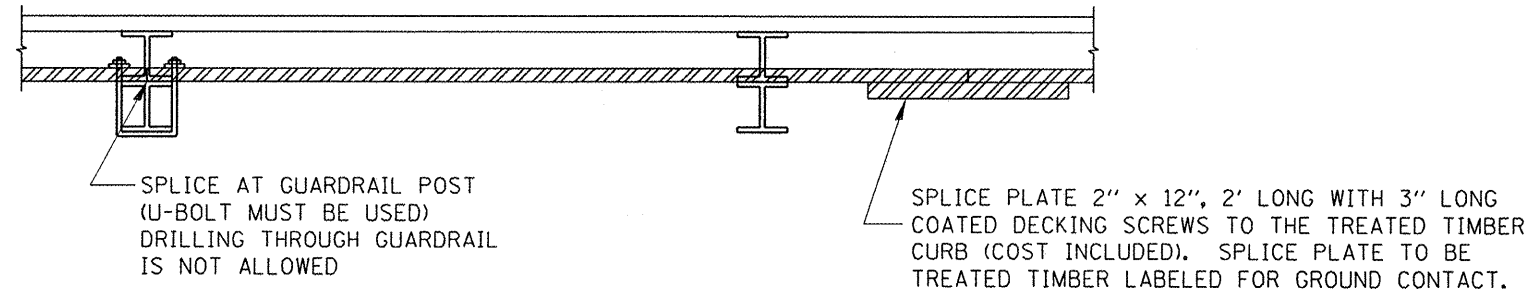
SCALE: SHEET NO. OF SHEETS STA. TO STA.

• D-3 HIGHWAY DAMAGE REPAIR 2009

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	.	VAR.	36	7
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 66812	



SIDE VIEW



TOP VIEW

NOTE:

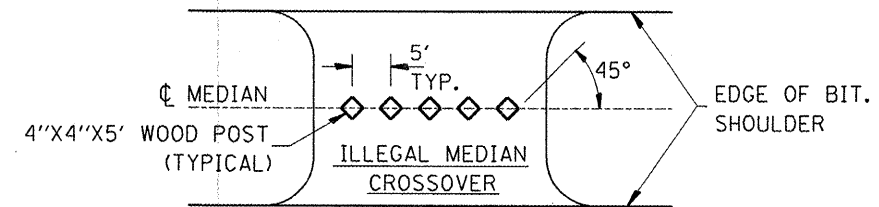
THE TIMBER CURB SHALL BUTT TOGETHER AT THE GUARDRAIL POST OR SPLICED AS SHOWN ON THE DETAIL.

THE TIMBER CURB SHALL BE COMMERCIALY AVAILABLE TREATED LUMBER, LABELED FOR GROUND CONTACT.

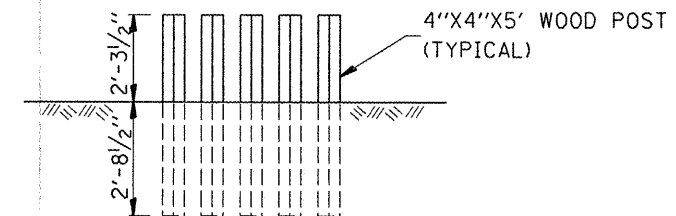
THE PRICE FOR TIMBER CURB SHALL INCLUDE THE U-BOLTS ATTACHING THE TREATED TIMBER TO THE GUARDRAIL POSTS, TREATED TIMBER, AND REMOVING DAMAGED LUMBER.

BITUMINOUS CURB REPAIR SHALL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT.

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



PLAN



ELEVATION

GUARD POST DETAIL

TIMBER CURB & BITUMINOUS CURB REPAIR

• D-3 HIGHWAY DAMAGE REPAIR 2009

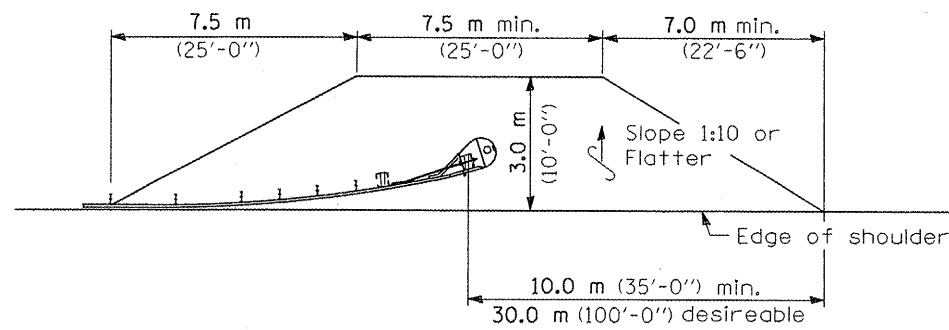
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		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

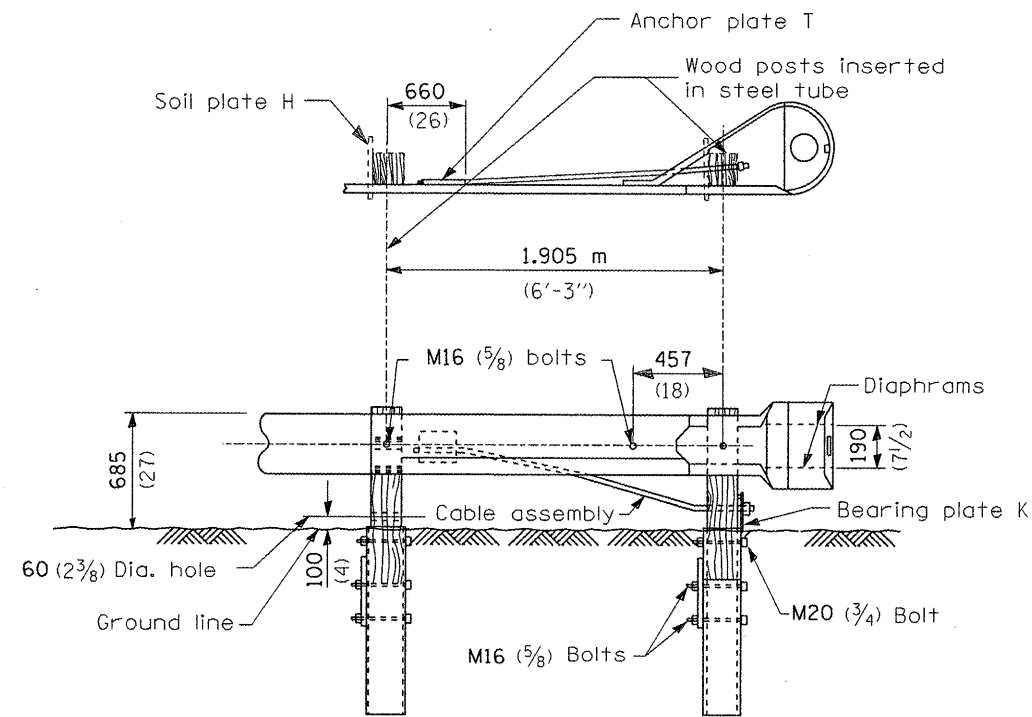
TIMBER CURB & BITUMINOUS CURB REPAIR & GUARD POST DETAIL			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	*		36	8
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 66812	

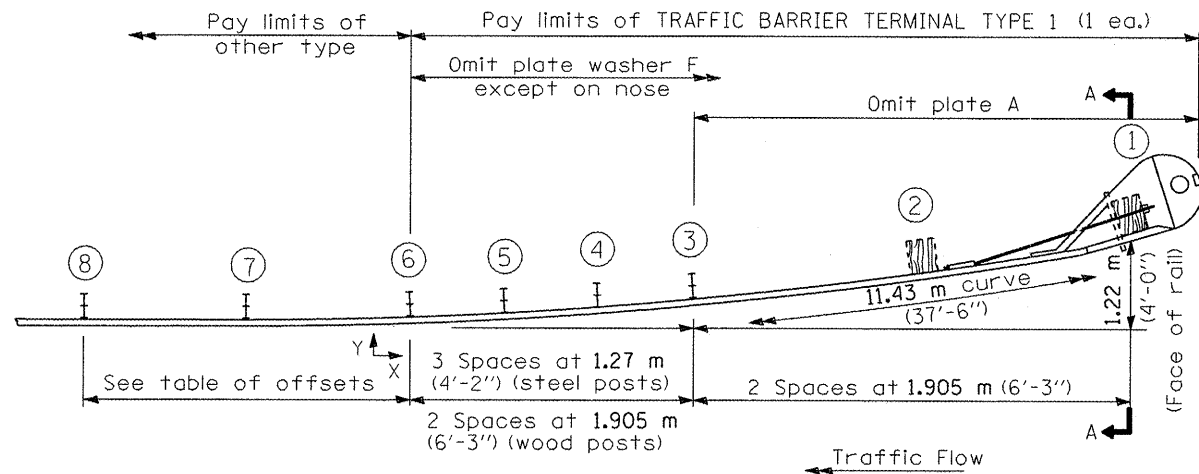
OFFSETS TO FACE OF RAIL		
Post	X ^m (ft)	Y ^m (ft)
①	11.345 (37.22)	1.22 (4.0)
②	9.475 (31.09)	0.850 (2.79)
③	7.595 (24.92)	0.545 (1.79)
④	6.335 (20.79)	0.380 (1.25)
⑤	5.070 (16.64)	0.245 (0.80)
⑥	3.805 (12.49)	0.135 (0.45)
⑦	1.905 (6.25)	0.035 (0.11)
⑧	0 (0.00)	0 (0.00)



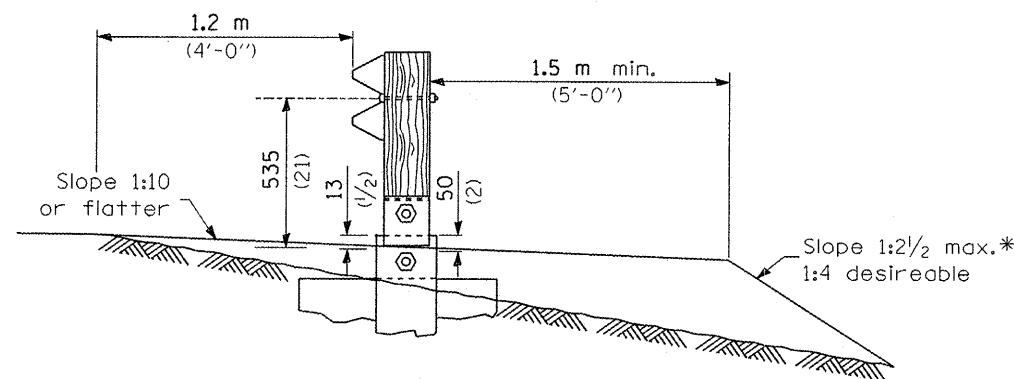
SHOULDER WIDENING TRANSITION



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.

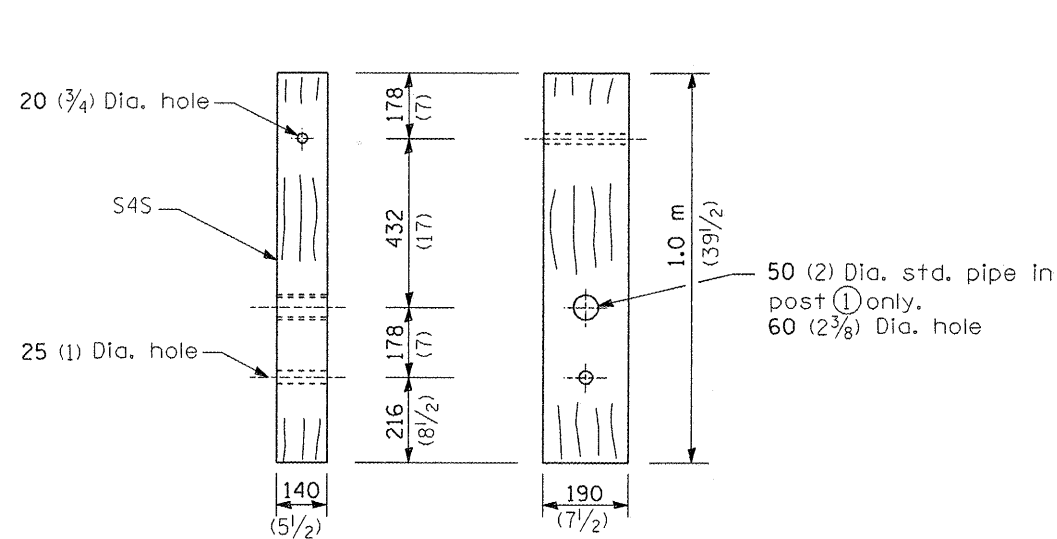
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		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

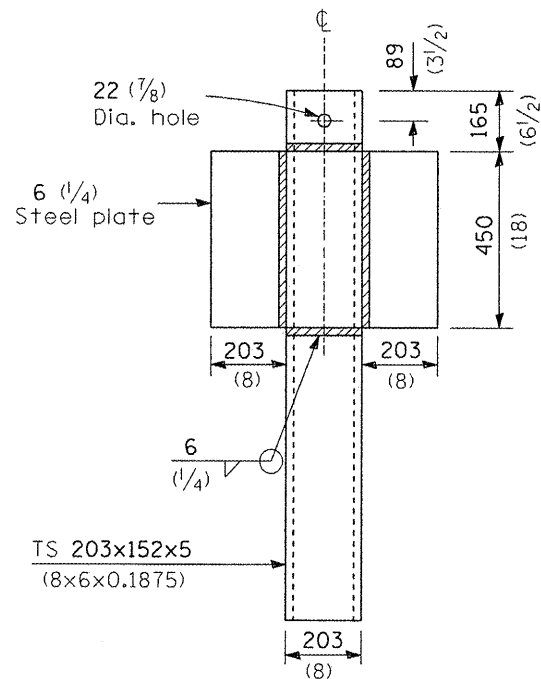
TRAFFIC BARRIER TERMINAL TYPE 1
STANDARD B.L.R. 23

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	*	VAR.	36	9
CONTRACT NO. 66812				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

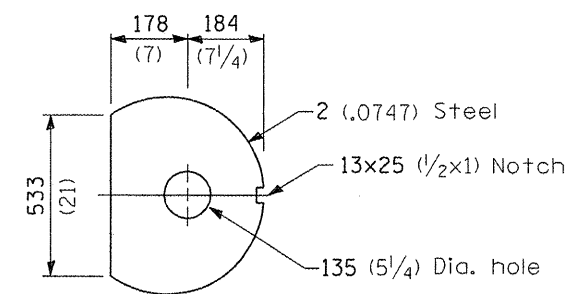
• D-3 HIGHWAY DAMAGE REPAIR 2009



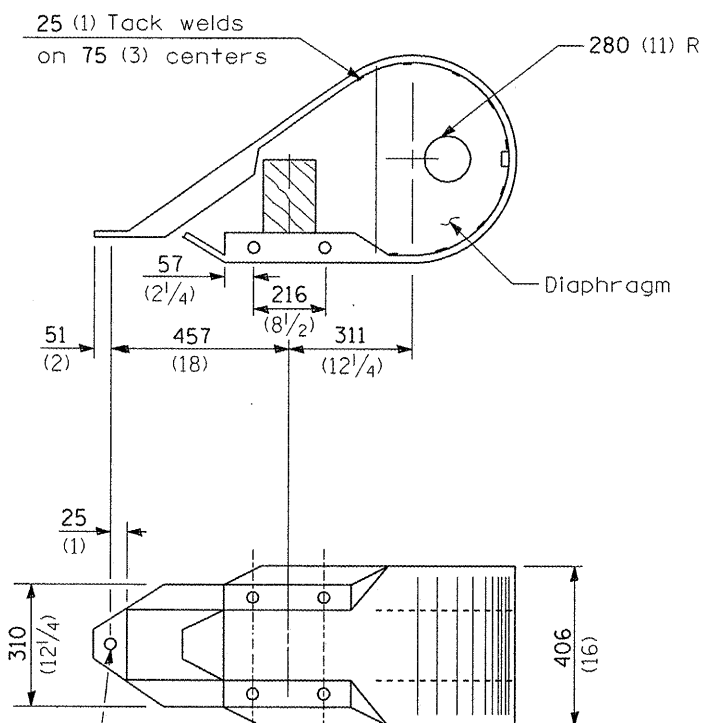
WOOD BREAKAWAY POST
(2 ea.)



ALTERNATE SOIL PLATE CONNECTION



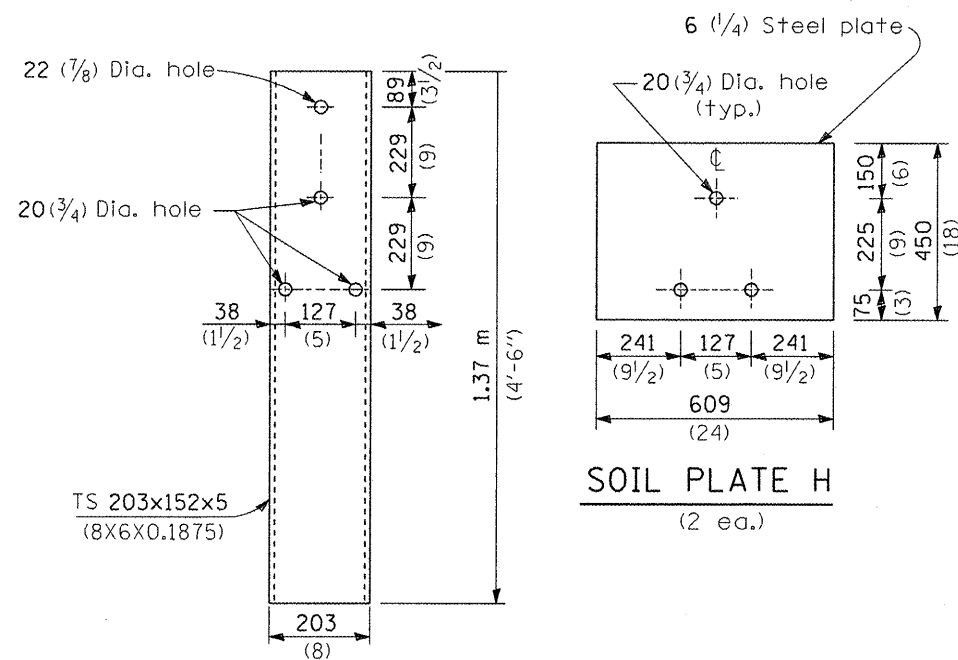
DIAPHRAGM
(2 ea.)



20 (3/4) Dia. hole for M15 (5/8) bolt, use plate Washer F under head and nut at this bolt only.

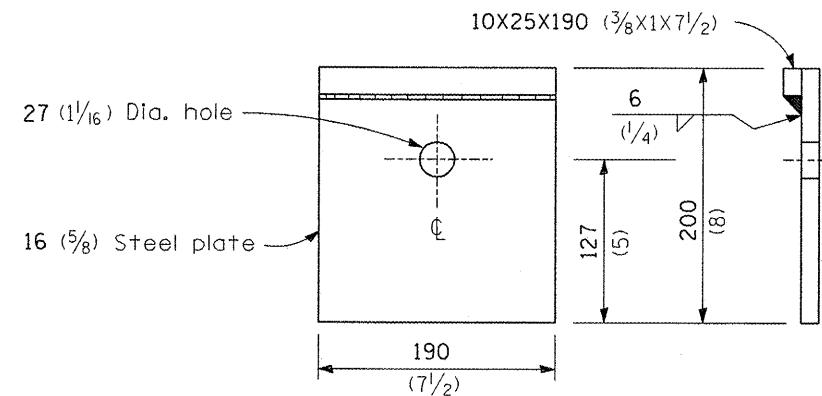
23x29 (x1/8) Slotted holes for M16 (5/8) splice bolts

NOSE
(1 ea.)



STEEL TUBE
(2 ea.)

SOIL PLATE H
(2 ea.)



BEARING PLATE K
(1 ea.)

DETAIL INCLUDED FOR REPAIR ONLY

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

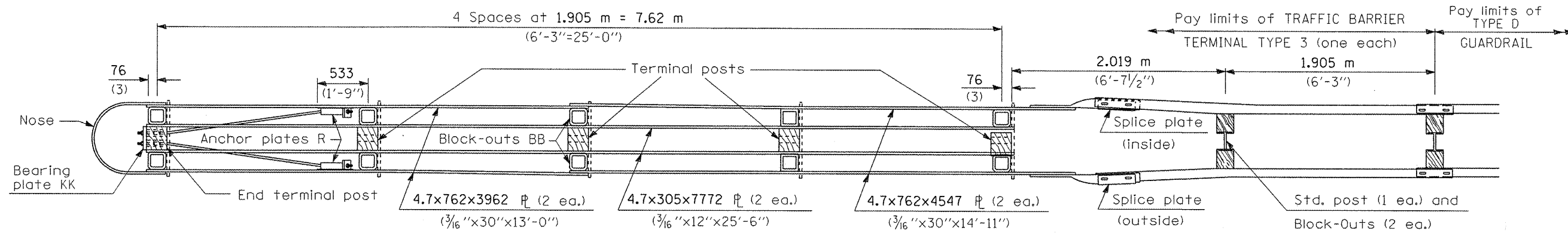
• D-3 HIGHWAY DAMAGE REPAIR 2009

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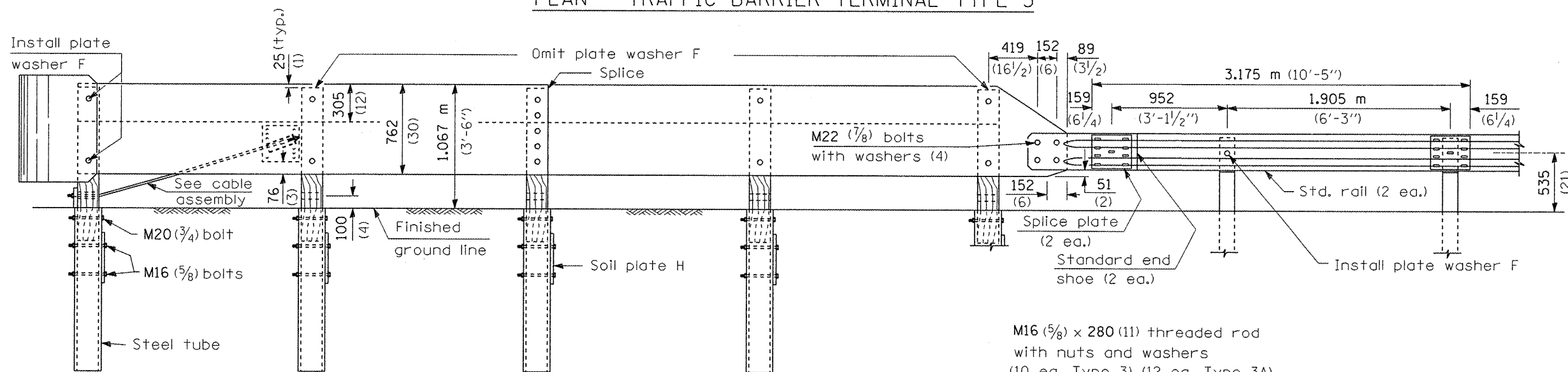
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

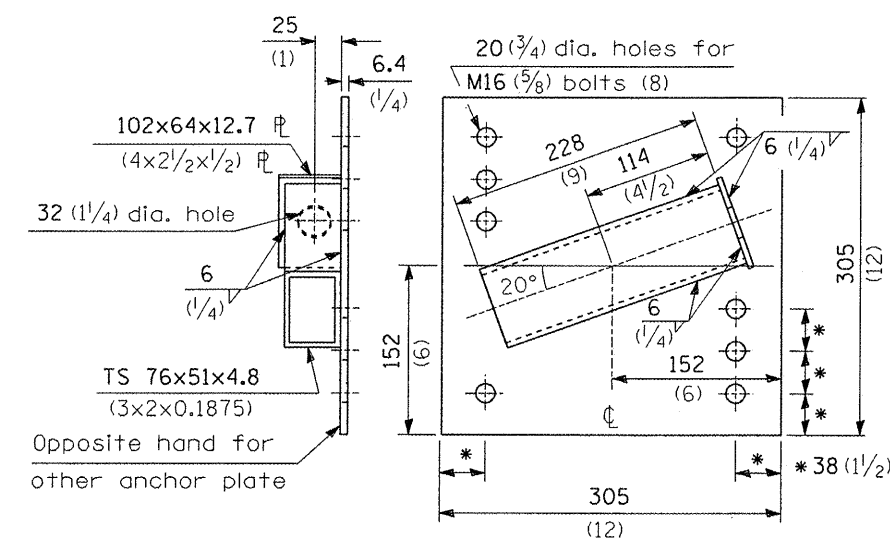
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VAR.			36	10
CONTRACT NO. 66812				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



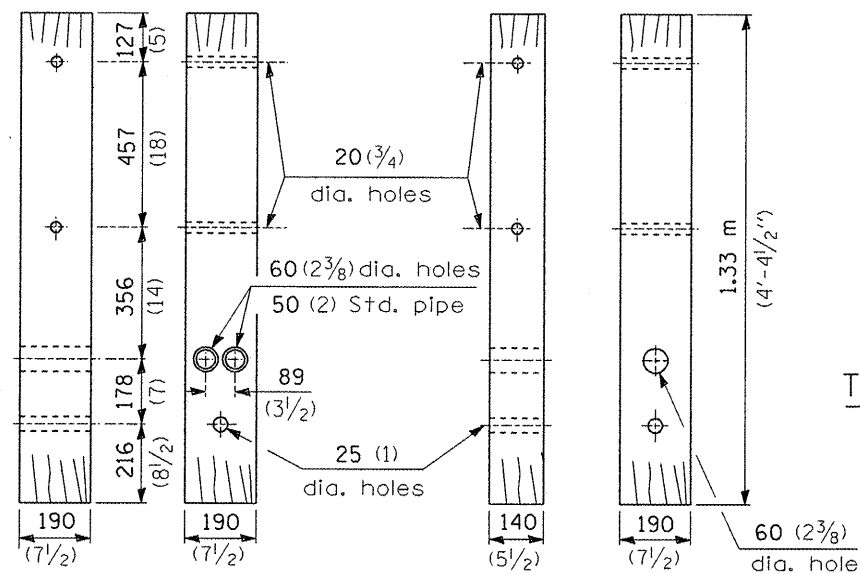
PLAN - TRAFFIC BARRIER TERMINAL TYPE 3



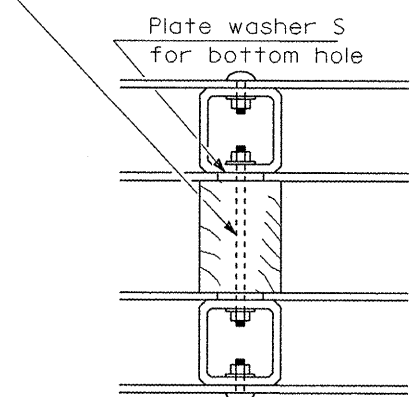
ELEVATION



ANCHOR PLATE R
(1 ea. lt. hd. & 1 ea. rt. hd.)



END TERMINAL POST
(1 ea.)
TERMINAL POST
(4 ea. Type 3)
(5 ea. Type 3A)



TYPICAL BLOCK-OUT/POST ATTACHMENT

GENERAL NOTES

All holes in Posts, Block-Outs and Plates shall be 20 mm (3/4") diameter unless otherwise noted.

See Standard 63001 for details of guardrail elements not shown.

Unless otherwise shown all bolts and nuts shall be Standard Post and Splice Bolts and Nuts (See Standard 63001).

Block-Out AA shall be used at all locations unless otherwise noted.

DETAIL INCLUDED FOR REPAIR ONLY

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

FILE NAME =	USER NAME = schwankerg	DESIGNED -	REVISED -
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		CHECKED -	REVISED -
		DATE -	REVISED -

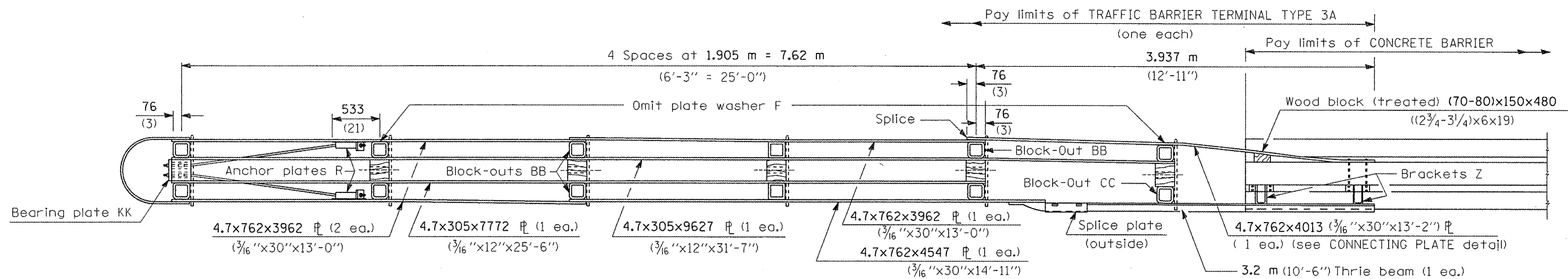
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC BARRIER TERMINAL TYPE 3 & 3A

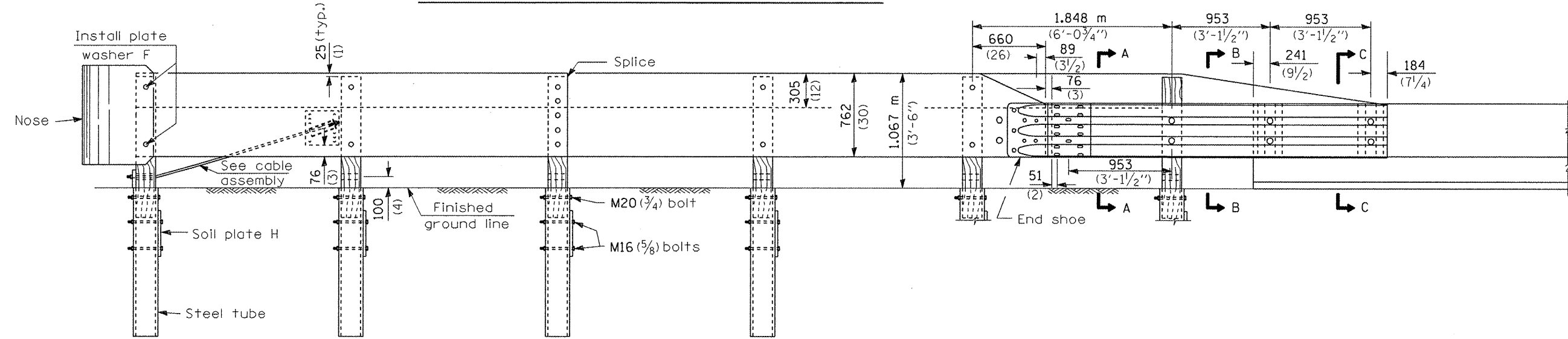
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.		VAR.	36	11
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 66812	

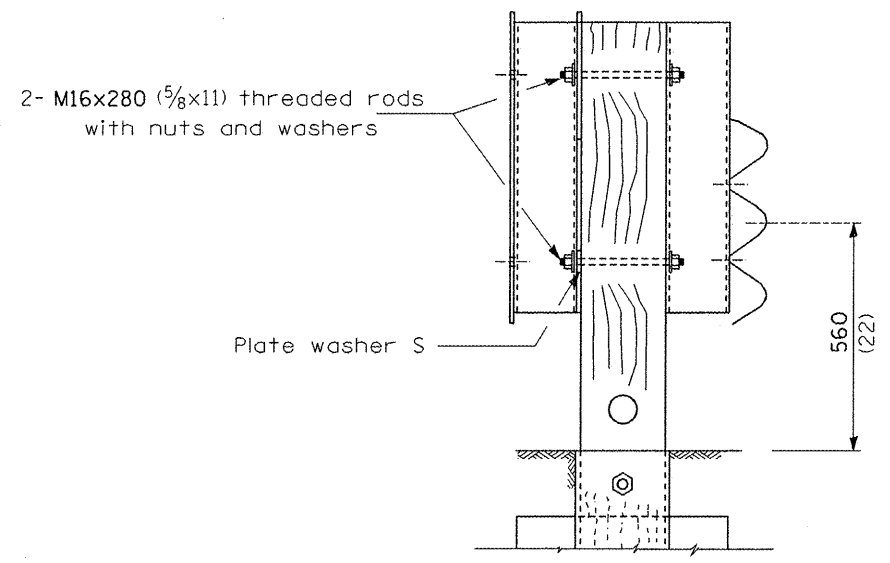
D-3 HIGHWAY DAMAGE REPAIR 2009



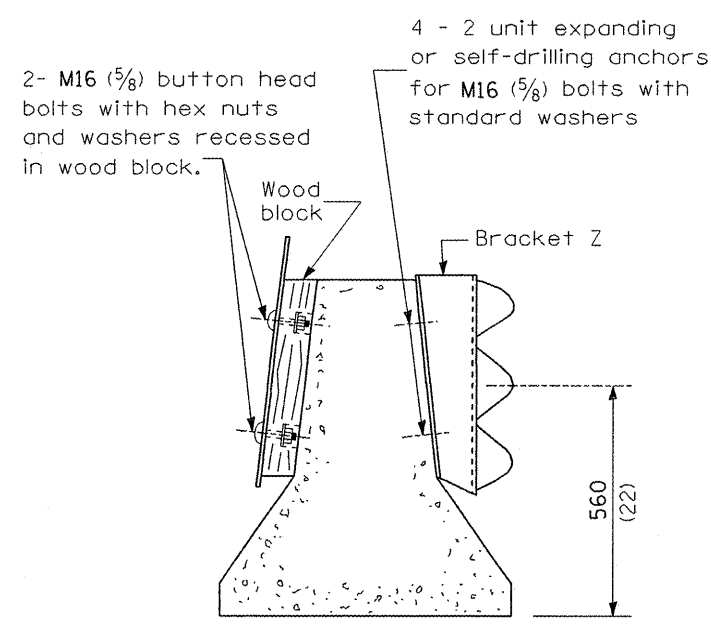
PLAN - TRAFFIC BARRIER TERMINAL TYPE 3A



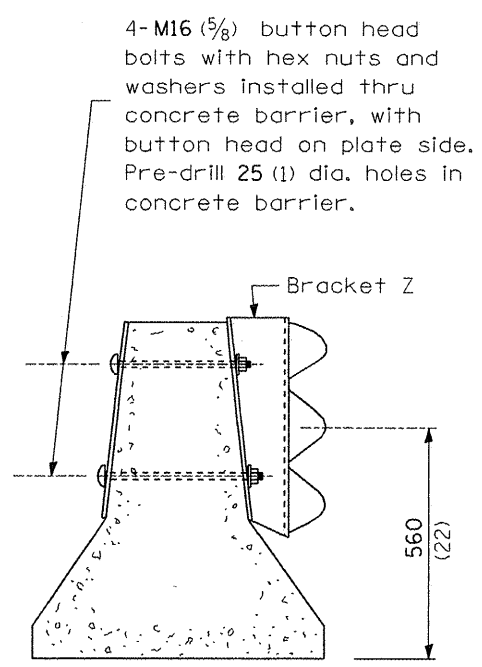
ELEVATION



SECTION A-A



SECTION B-B



SECTION C-C

DETAIL INCLUDED FOR REPAIR ONLY

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

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		DATE -	REVISED -

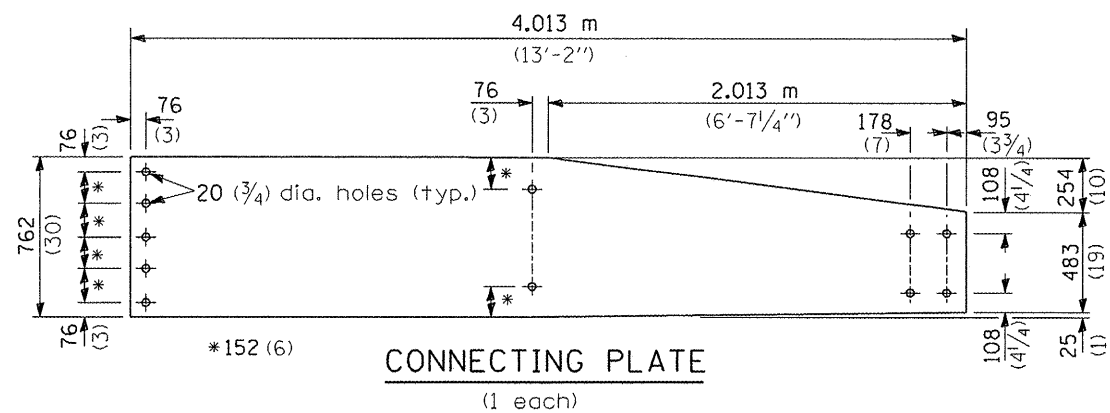
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC BARRIER TERMINAL TYPE 3 & 3A			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

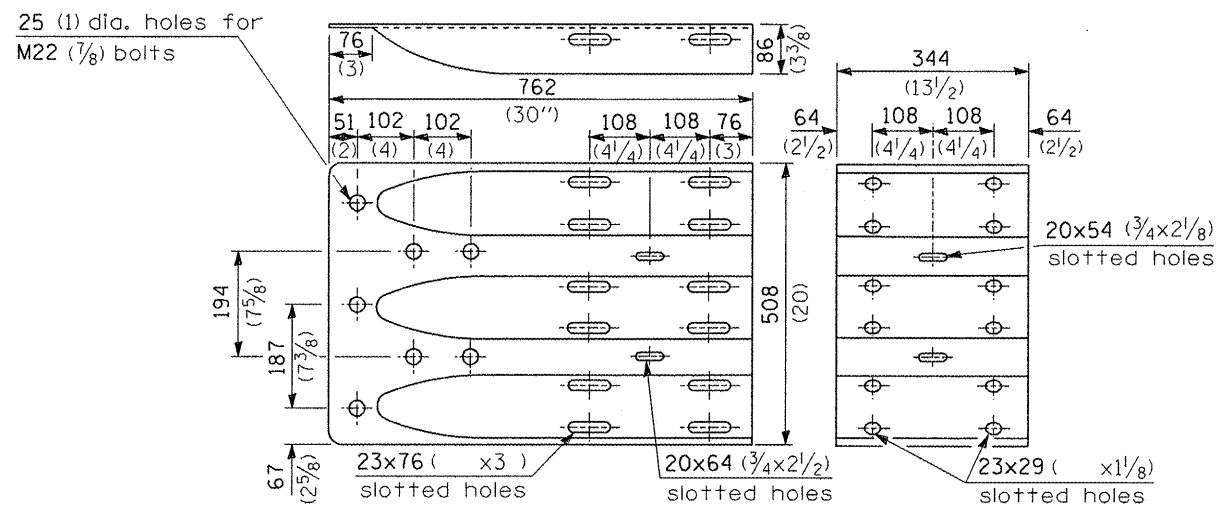
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VAR.	*	VAR.	36	12
CONTRACT NO. 66812				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

D-3 HIGHWAY DAMAGE REPAIR 2009

TYPE 3A ONLY

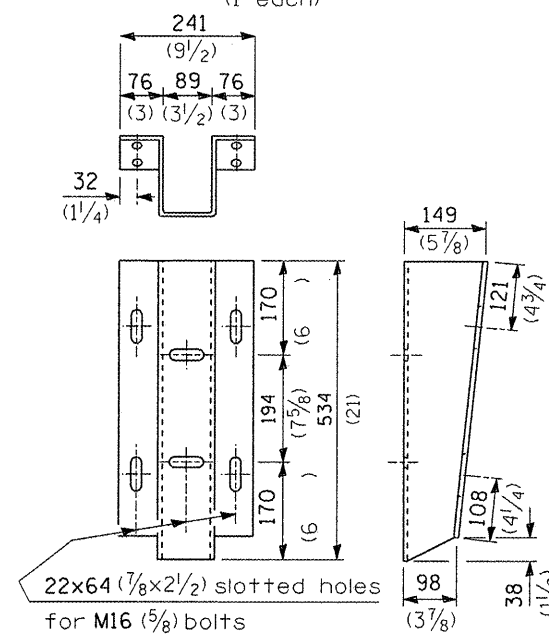


CONNECTING PLATE
(1 each)



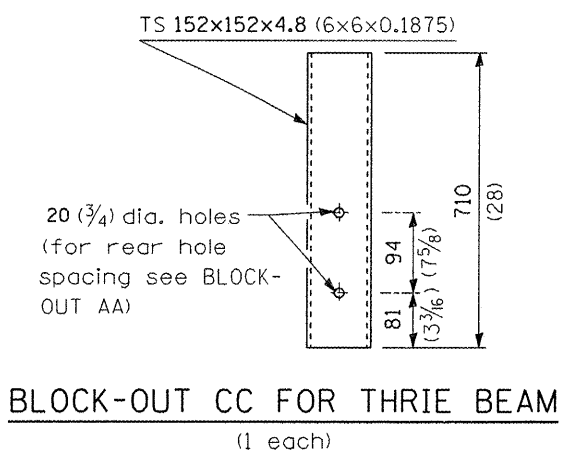
THRIE BEAM END SHOE
(1 each)

SPLICE PLATE
(1 each)



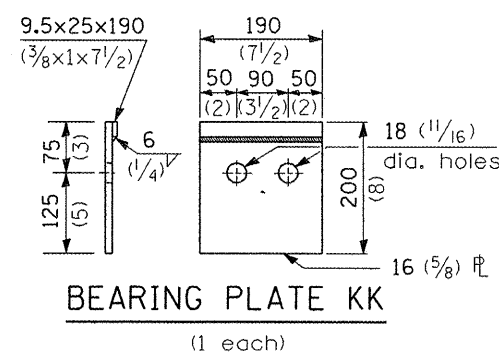
BRACKET Z
(2 each)

(6.4 1/4) steel plate or section of rectangular tubing with flanges welded on)

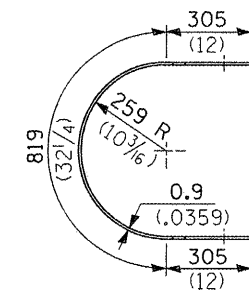


BLOCK-OUT CC FOR THRIE BEAM
(1 each)

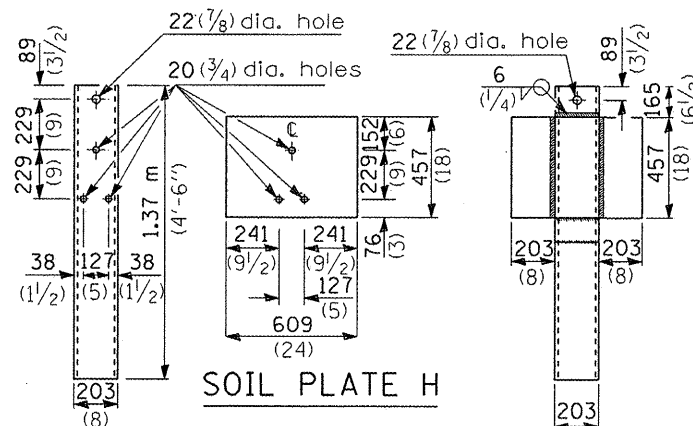
TYPE 3 & 3A



BEARING PLATE KK
(1 each)



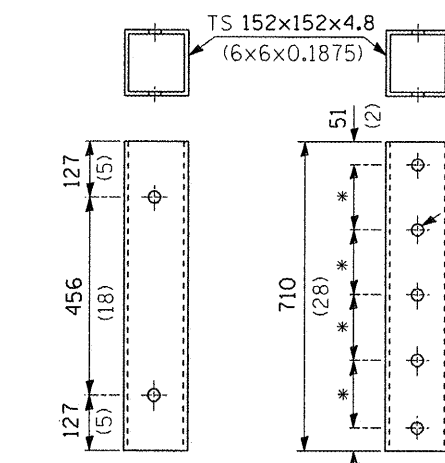
NOSE
(1 ea.)



SOIL PLATE H

ALTERNATE SOIL PLATE CONNECTION

TS 203x203x4.8 (8x8x0.1875) (end terminal post) (1 ea.)
TS 203x152x4.8 (8x6x0.1875) (terminal post) (4 ea. Type 3) (5 ea. Type 3A)



BLOCK-OUT AA
(8 ea.)

BLOCK-OUT BB AT SPLICE
(2 ea. Type 3) (3 ea. Type 3A)

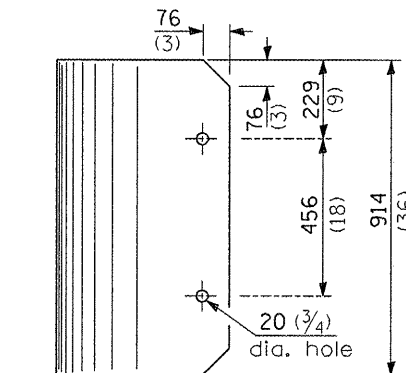


PLATE WASHER S
(10 ea. Type 3) (11 ea. Type 3A)

DETAIL INCLUDED FOR REPAIR ONLY

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

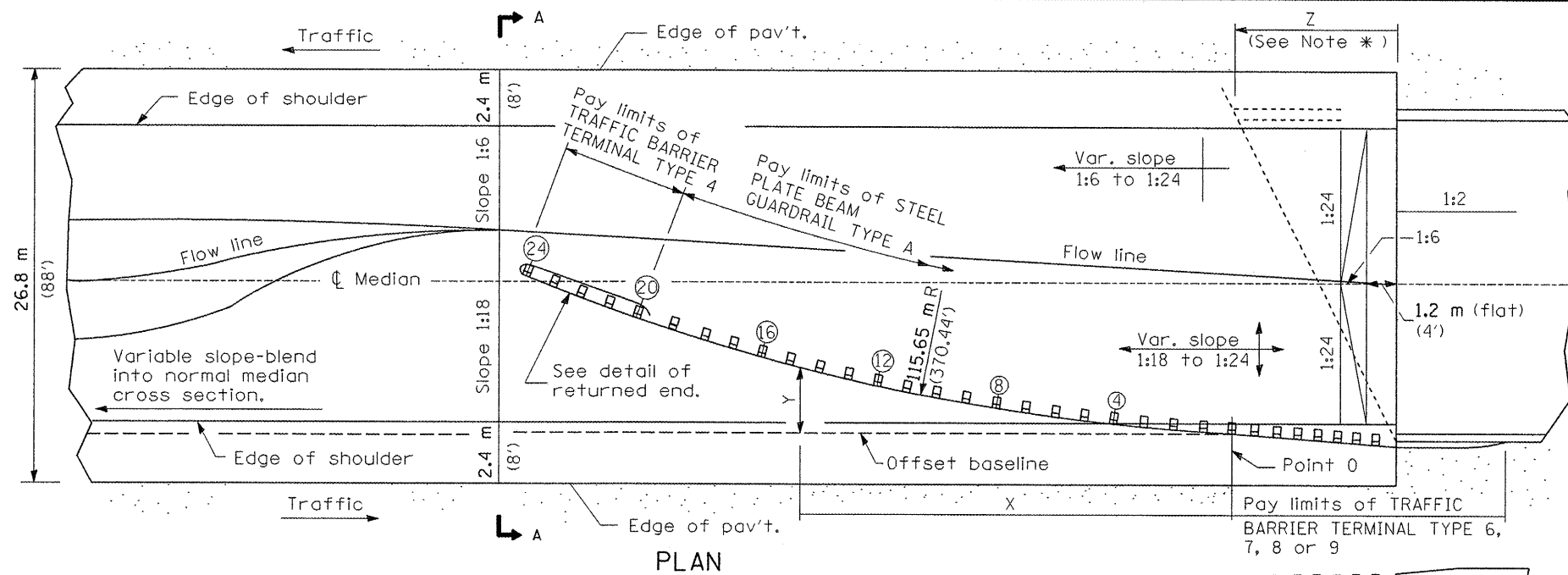
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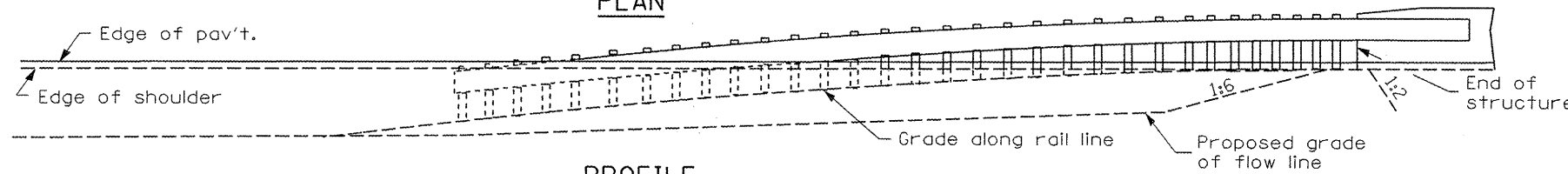
TRAFFIC BARRIER TERMINAL TYPE 3 & 3A
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.		VAR.	36	13
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 66812	

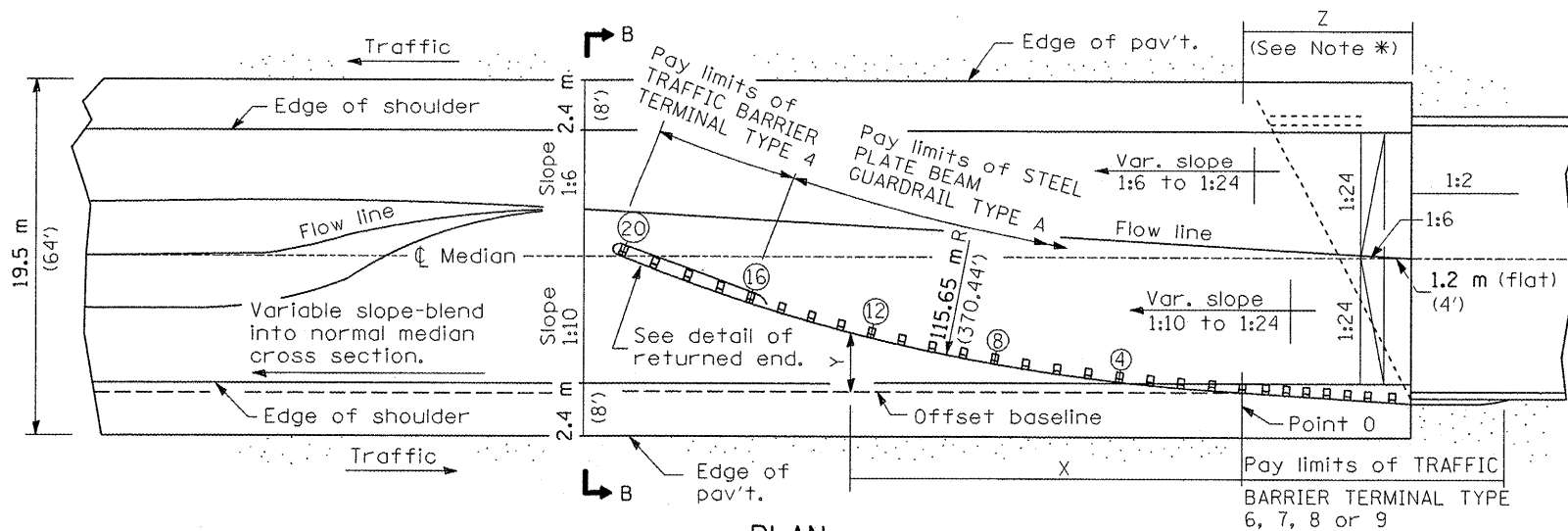
• D-3 HIGHWAY DAMAGE REPAIR 2009



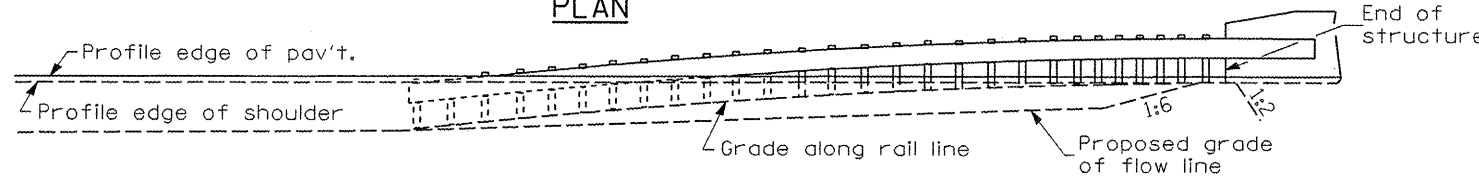
PLAN



PROFILE
ASSEMBLY FOR 26.8 m (88 ft.) MEDIAN



PLAN



PROFILE
ASSEMBLY FOR 19.5 m (64 ft.) MEDIAN

OFFSETS TO FACE OF RAIL

POST	DISTANCE X m (ft.)	OFFSET Y m (ft.)
POINT 0	0 (0)	0 (0)
④	7.60 (24.93)	0.56 (1.83)
⑧	15.14 (49.68)	1.60 (5.28)
⑫	22.60 (74.16)	3.16 (10.37)
⑰	29.94 (98.23)	5.20 (17.05)
⑳	37.13 (121.83)	7.71 (25.3)
㉑	44.14 (144.83)	10.70 (35.09)

Offsets (Y) are measured between the face of rail and the offset baseline, which is parallel to the pavement edge and passes through point 0.

The location of point 0 will vary, being dependent on structure details and the type of traffic barrier terminal utilized.

GENERAL NOTES

See Standard 630001 for details of guard-rail not shown.

*For dual structures skewed right forward, the nose of the Type 4 terminal shall be positioned longitudinally away from the structure for a distance equal to dimension Z. Appropriate adjustments to the length of the Type A guardrail and its offsets (Y) shall be calculated and used. All additional lengths of guardrail shall be in increments of 3.87 m (12'-6").

For dual structures that are 90° or skewed left forward, the length of guardrail is appropriate.

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 slopes 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.

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		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

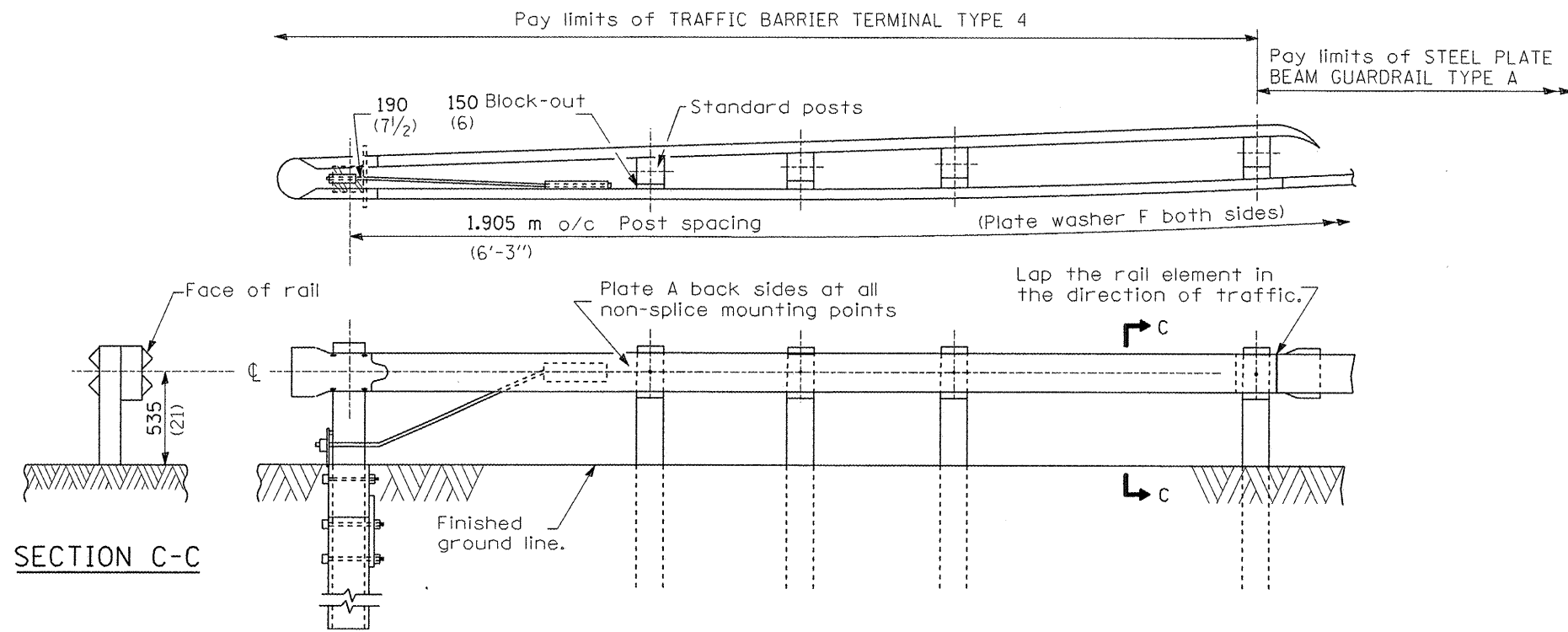
TRAFFIC BARRIER TERMINAL TYPE 4

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.		VAR.	36	14
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

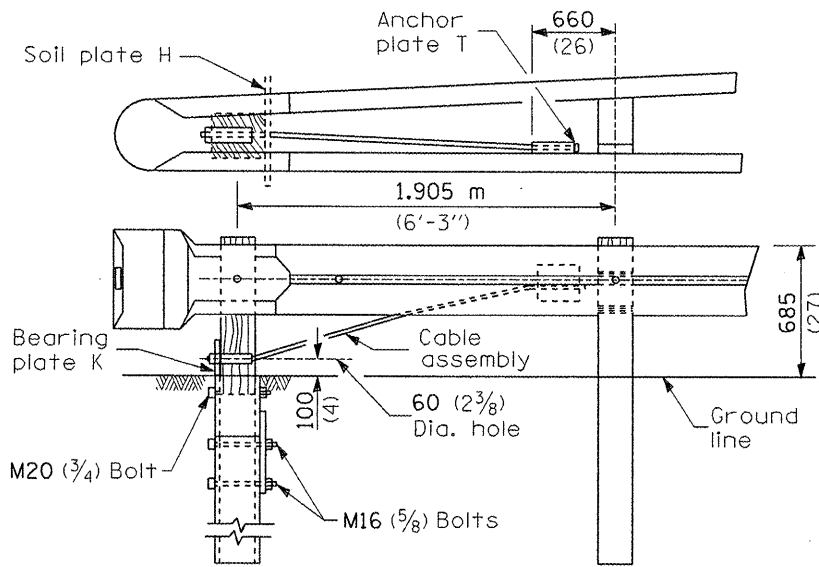
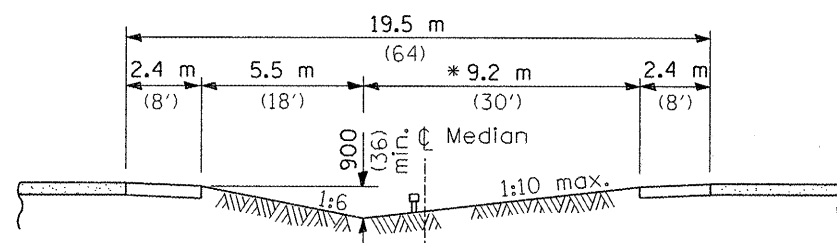
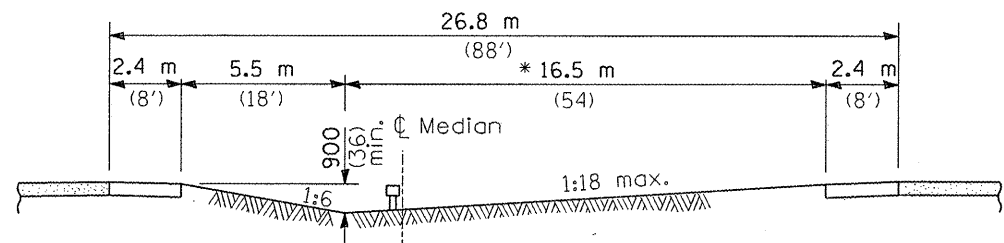
D-3 HIGHWAY DAMAGE REPAIR 2009

CONTRACT NO. 66812

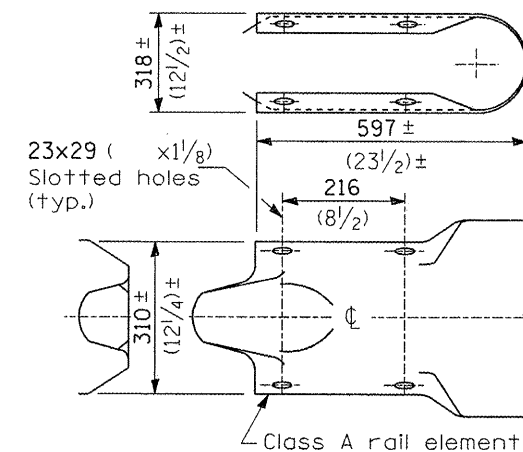


RETURNED END DETAIL

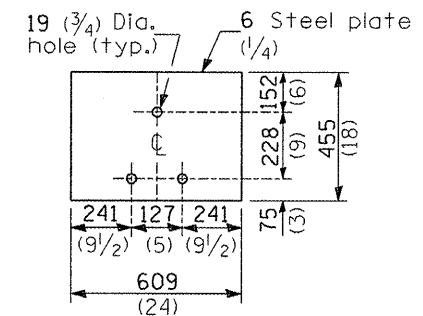
* Adjust this dimension when the width of the shoulders is other than 2.4 m (8').



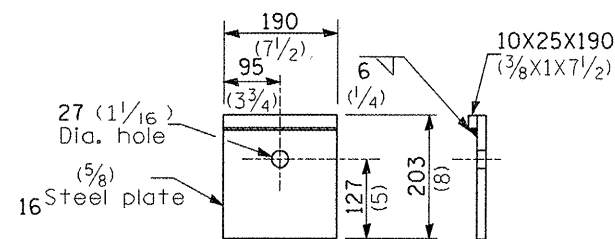
WOOD POST TUBULAR STEEL FOUNDATION



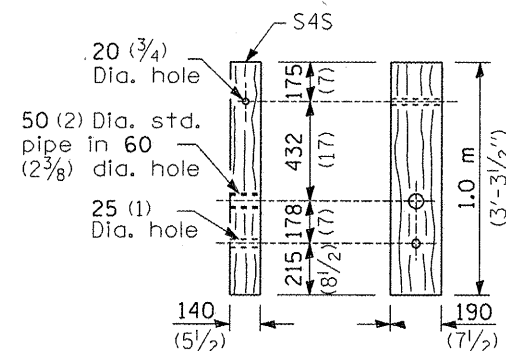
RETURN END SECTION



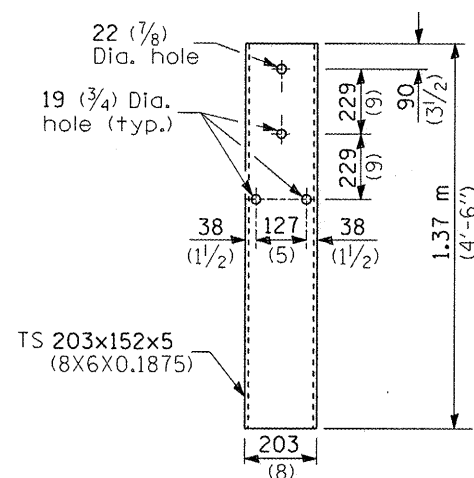
SOIL PLATE H



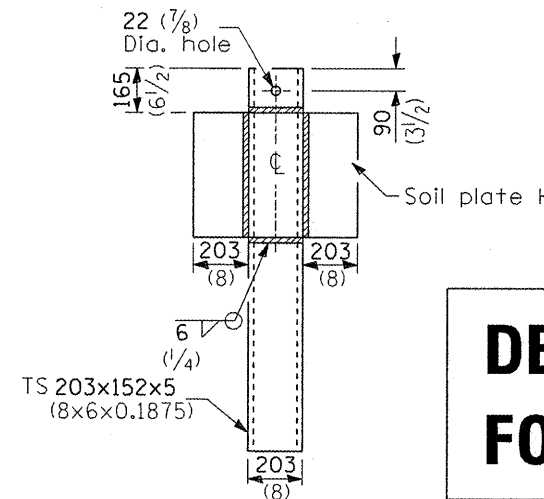
BEARING PLATE K



WOOD BREAKAWAY POST



STEEL TUBE



ALTERNATE SOIL PLATE CONNECTION

DETAIL INCLUDED FOR REPAIR ONLY

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

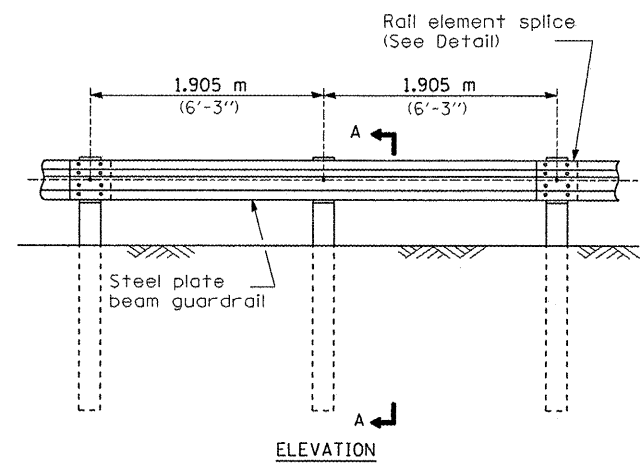
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TRAFFIC BARRIER TERMINAL TYPE 4			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

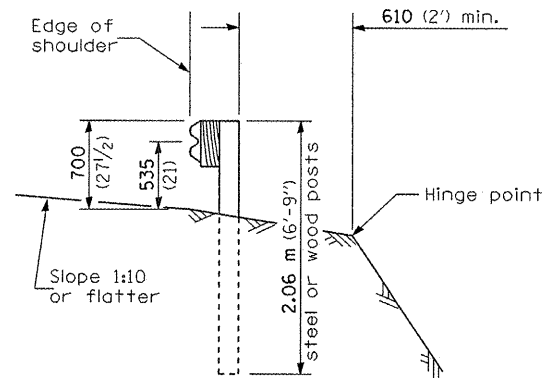
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	*	VAR.	36	15
CONTRACT NO. 66812				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

D-3 HIGHWAY DAMAGE REPAIR 2009

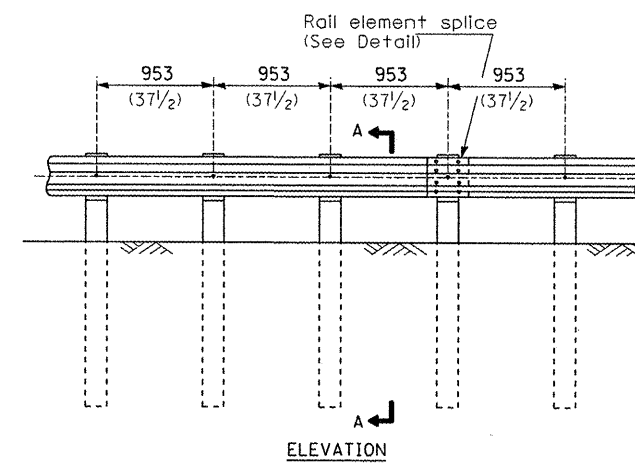


TYPE A

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

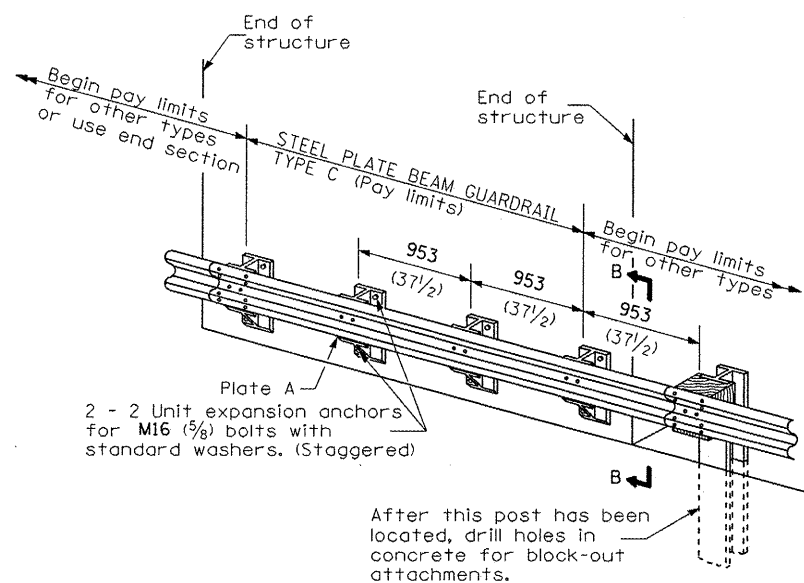


SECTION A-A



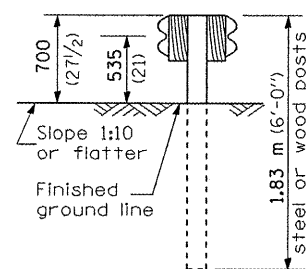
TYPE B

953 (37 1/2) Closed post spacing

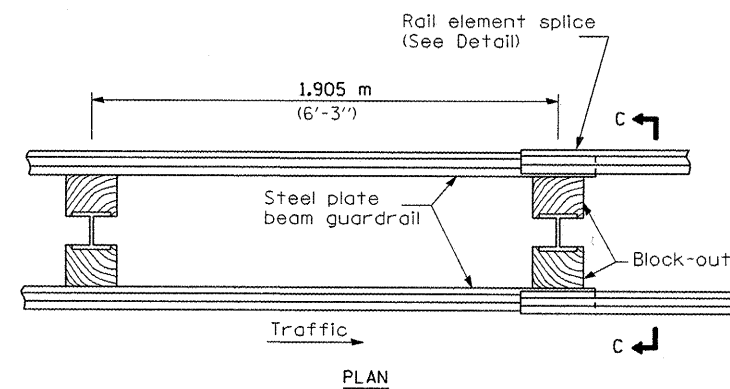


TYPE C

953 (37 1/2) Block-out spacing

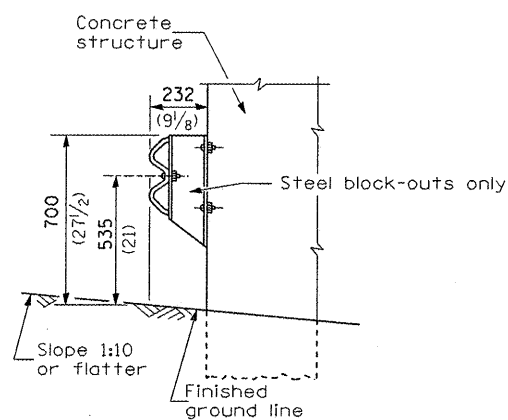


SECTION C-C



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.

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		DATE -	REVISED -

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

(Sheet 1 of 4)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.			36	16
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66812		

• D-3 HIGHWAY DAMAGE REPAIR 2009

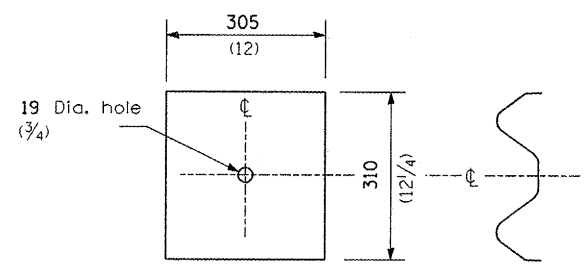
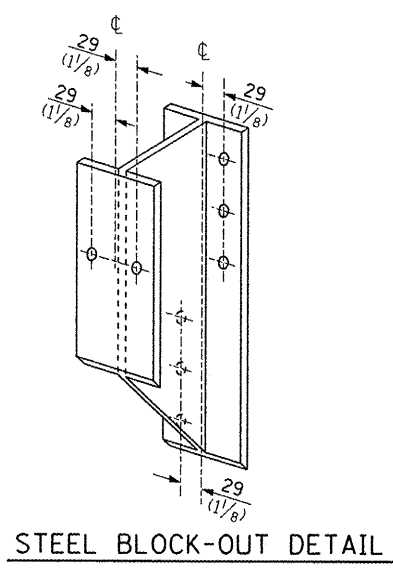
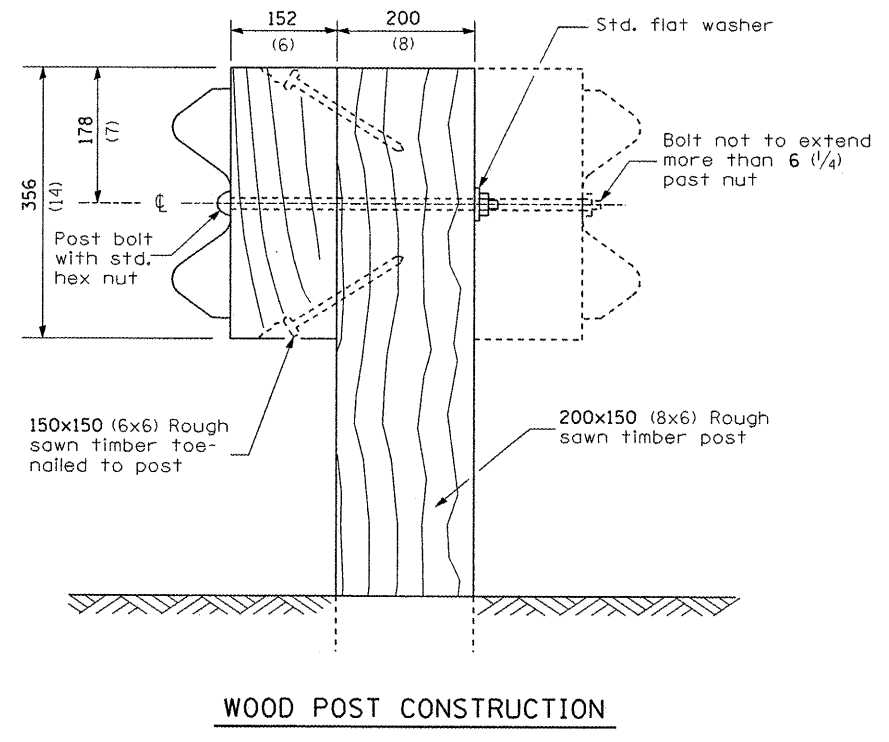
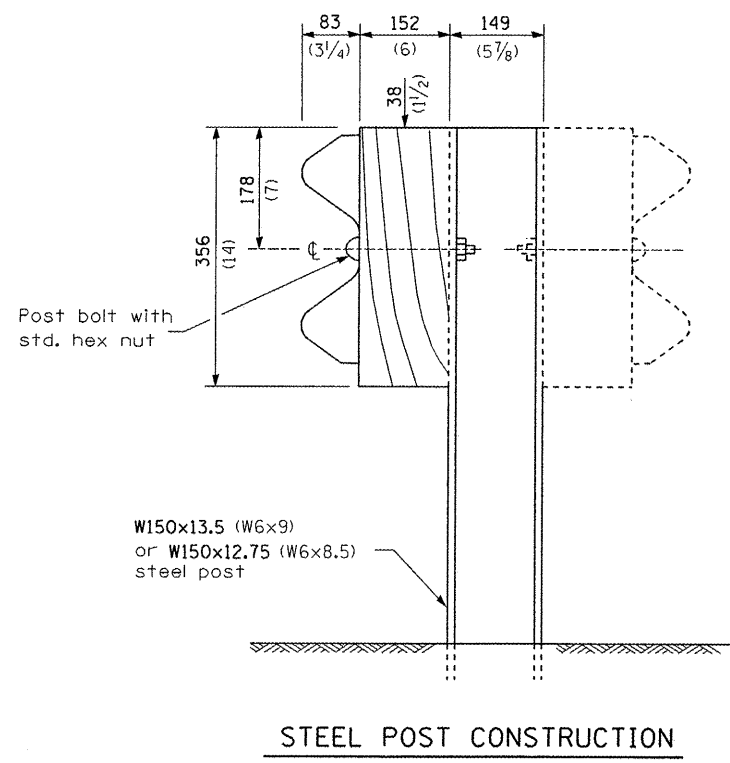
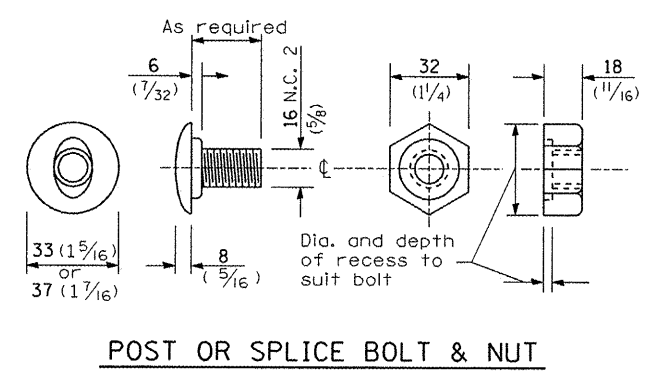


Plate A shall be placed between rail element and block-out at non-splice mounting points only when steel block-outs are used.

PLATE A



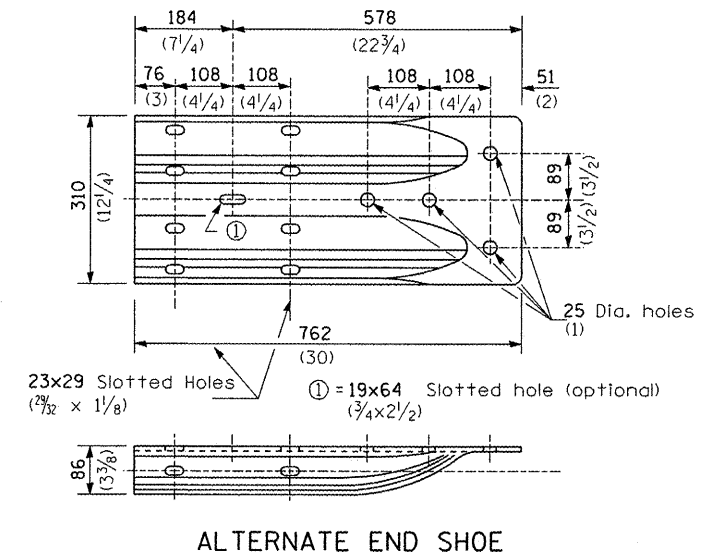
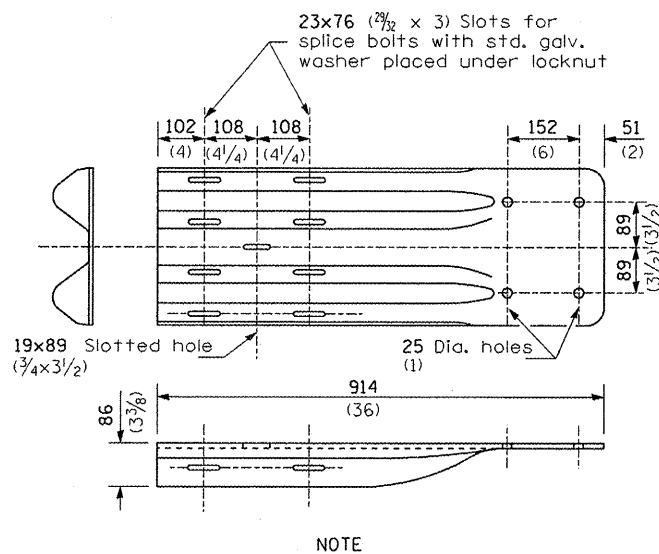
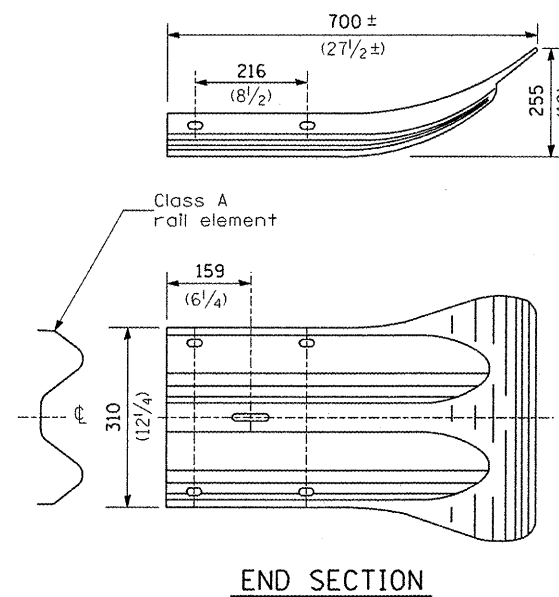
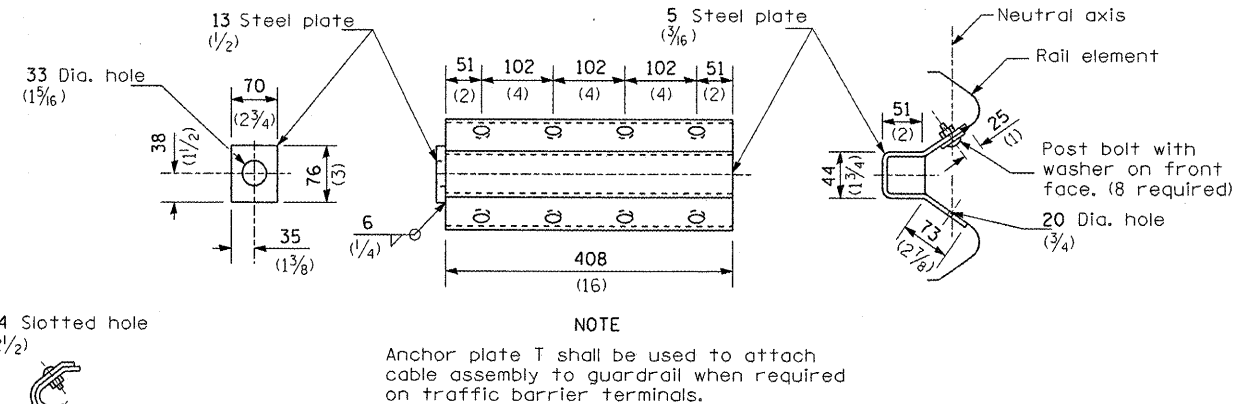
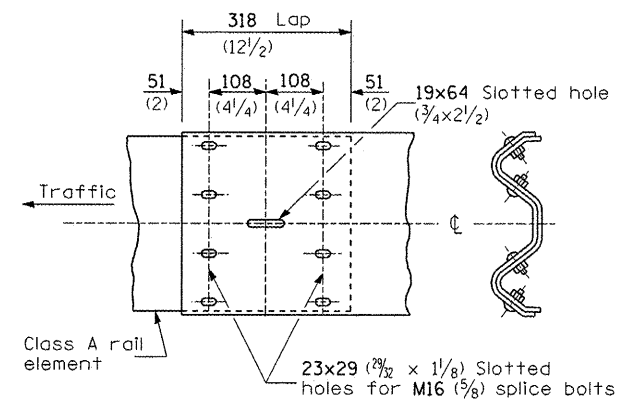
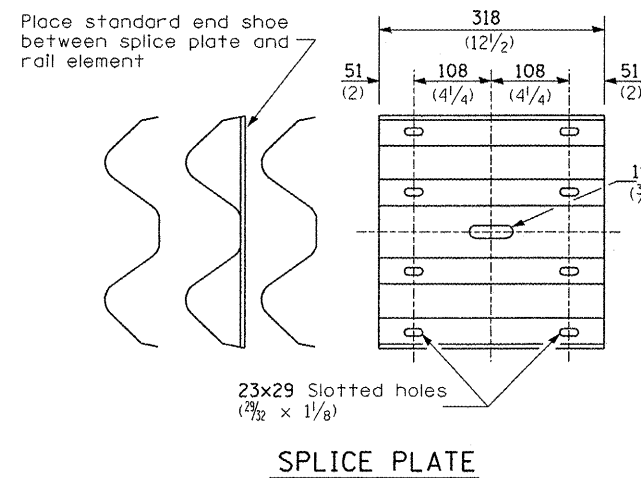
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		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRE-MGS EFFECTIVE 4-1-06
STEEL PLATE BEAM GUARDRAIL
STANDARD 630001-06
SCALE: SHEET NO. OF SHEETS STA. TO STA. (Sheet 2 of 4)

F.A. RTE.		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.				36	17
FED. ROAD DIST. NO.				CONTRACT NO. 66812	
ILLINOIS FED. AID PROJECT					

D-3 HIGHWAY DAMAGE REPAIR 2009

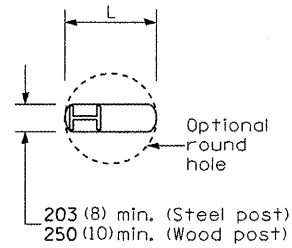


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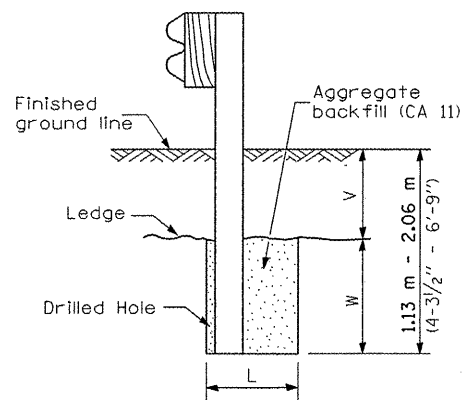
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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.

• D-3 HIGHWAY DAMAGE REPAIR 2009				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	*	VAR.	36	18
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 66812	



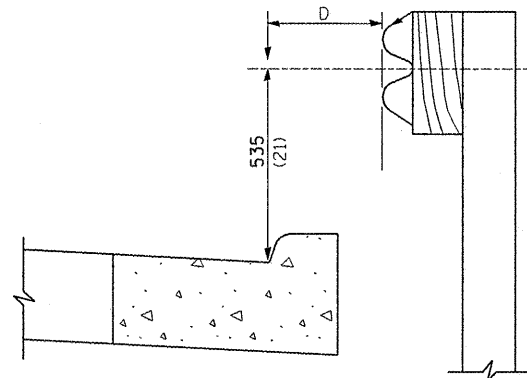
PLAN



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

ELEVATION

FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED

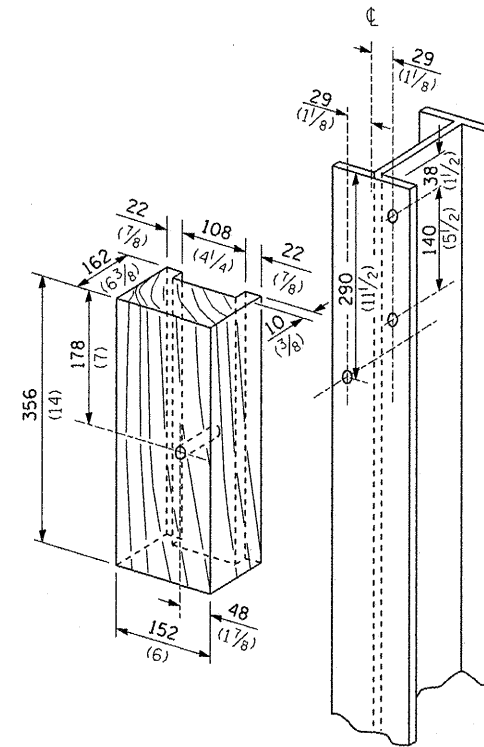


Note:
If it is necessary for D to be more than 300 (12) and less than 3.0 m (10'-0") type M-5 (M-2) curb and gutter (Std. 606001) shall be used in front of and in advance of the guardrail.

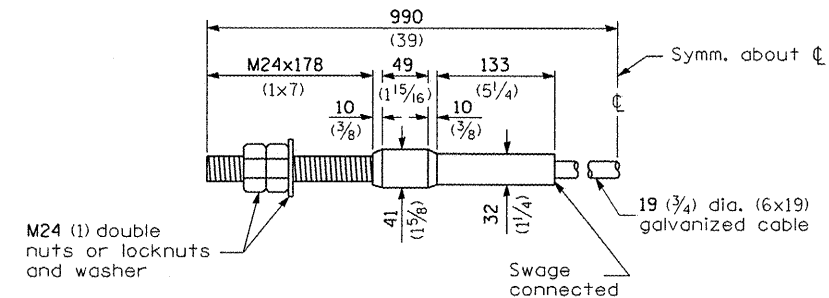
GUARDRAIL PLACED BEHIND CURB

(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

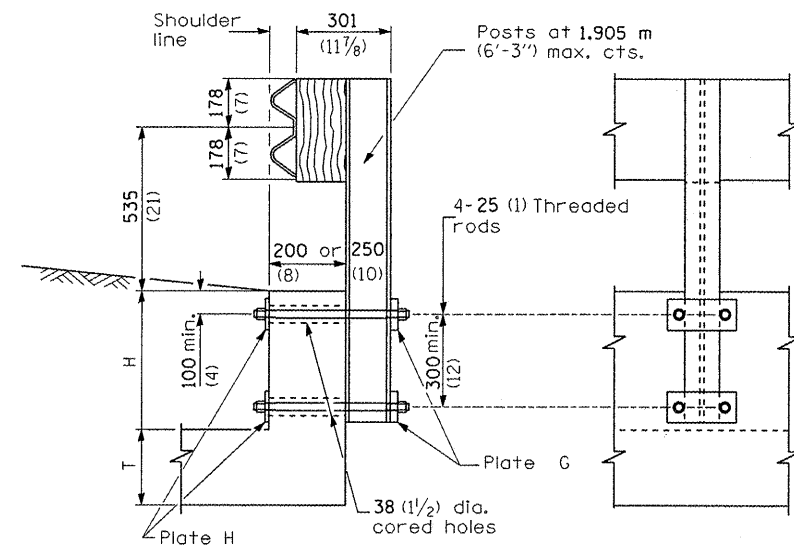
(18,100 kg (40,000 lbs.) min. breaking strength)
Tighten to taut tension.

FILE NAME =	USER NAME = schwankerg	DESIGNED -	REVISED -
c:\projects\d366812\d366812-sht-details.dgn		DRAWN -	REVISED -
	PLOT SCALE = 103.1210 "/ IN.	CHECKED -	REVISED -
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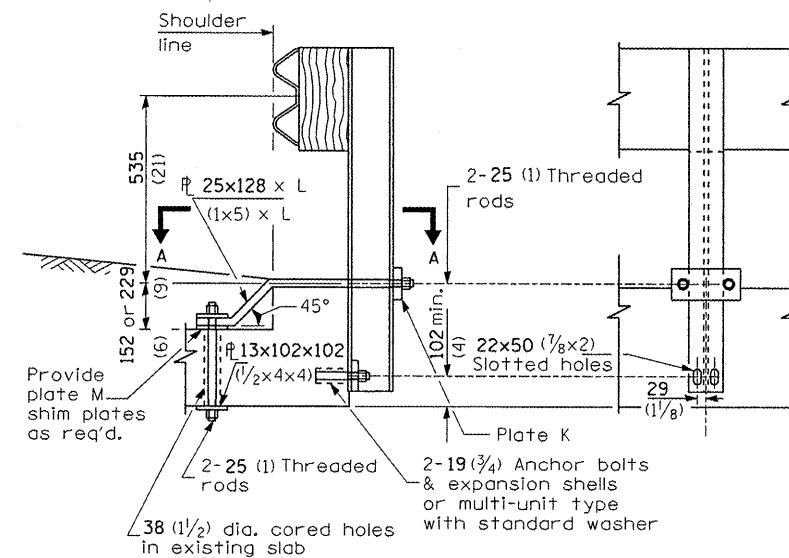
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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.

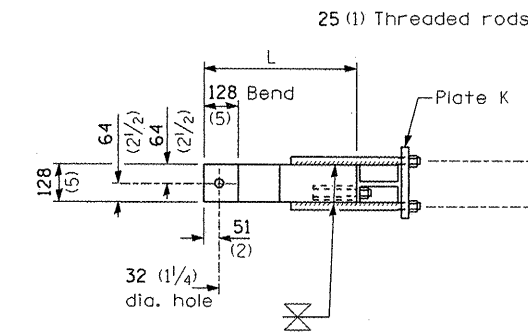
• D-3 HIGHWAY DAMAGE REPAIR 2009				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	.	VAR.	36	19
			CONTRACT NO. 66812	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



CROSS SECTION ELEVATION
CONDITION H > 450 (18)



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



SECTION A-A

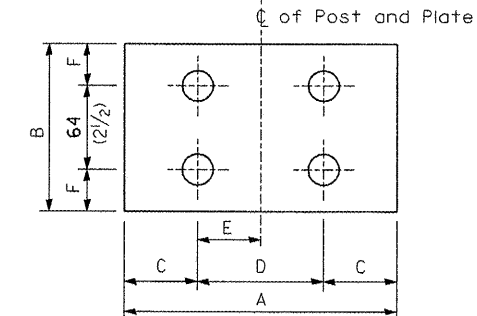


PLATE TYPE J

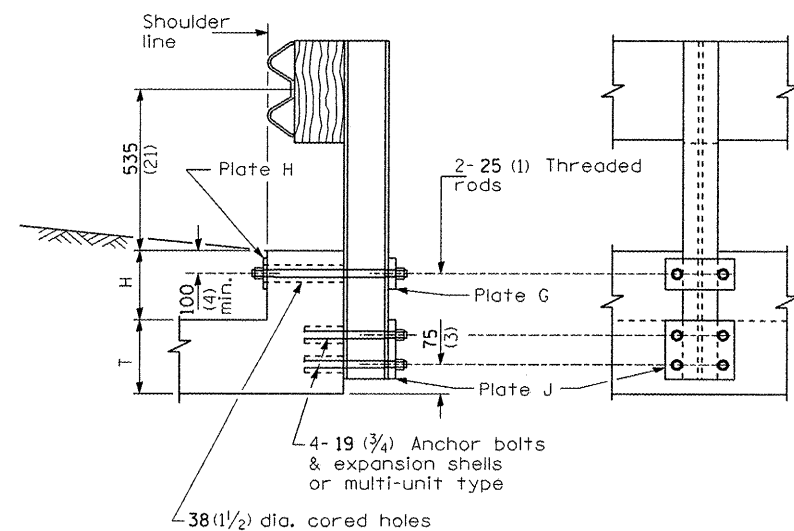
GENERAL NOTES

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)

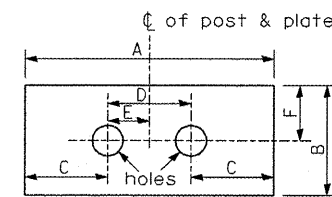


PLATE TYPES G, H & K

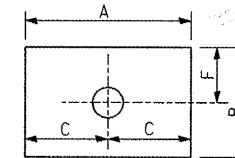


PLATE TYPE M

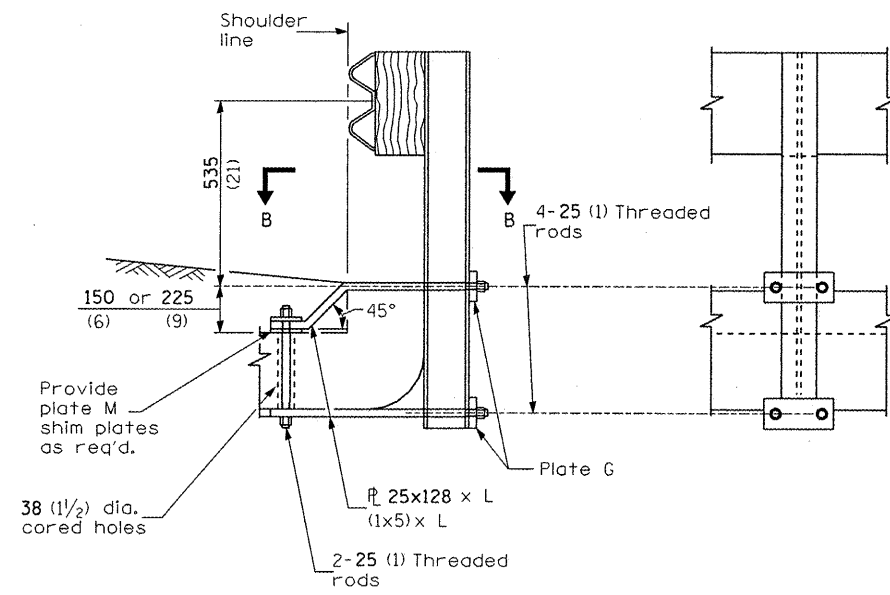
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PLOT DATE = May 21, 2008 - 03:37:03 PM		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRE-MGS EFFECTIVE 4-1-06
GUARDRAIL MOUNTED ON EXISTING CULVERTS
STANDARD 630101-06 (Sheet 1 of 2)

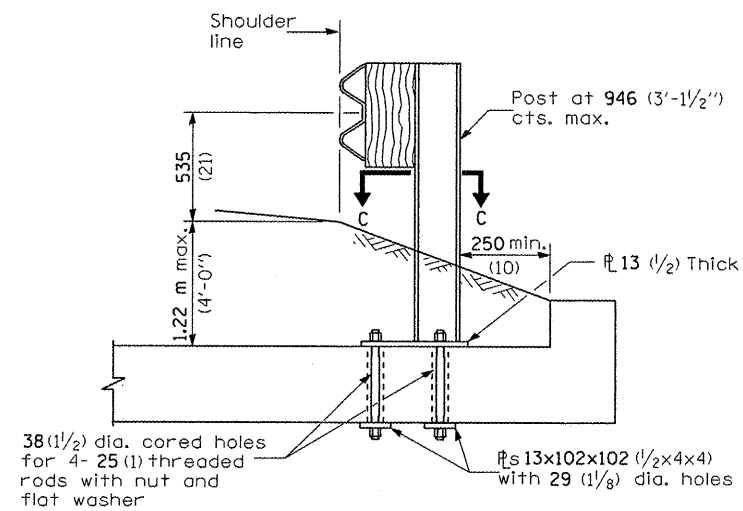
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.		VAR.	36	20
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 66812	

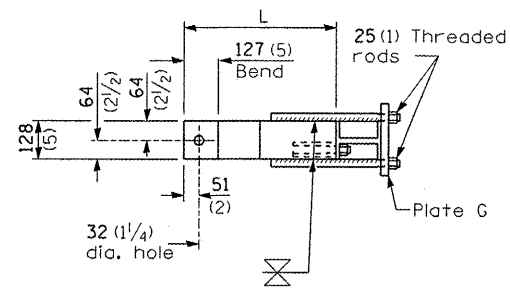


CROSS SECTION

ELEVATION

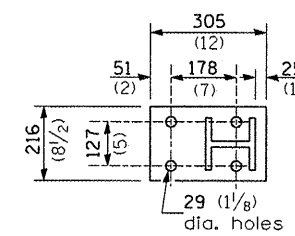


CROSS SECTION



SECTION B-B

CASE III
MOUNTED ON HEADWALL
WITH CURVED OR DEMOLISHED TIP



SECTION C-C

CASE IV
MOUNTED ON SLAB

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

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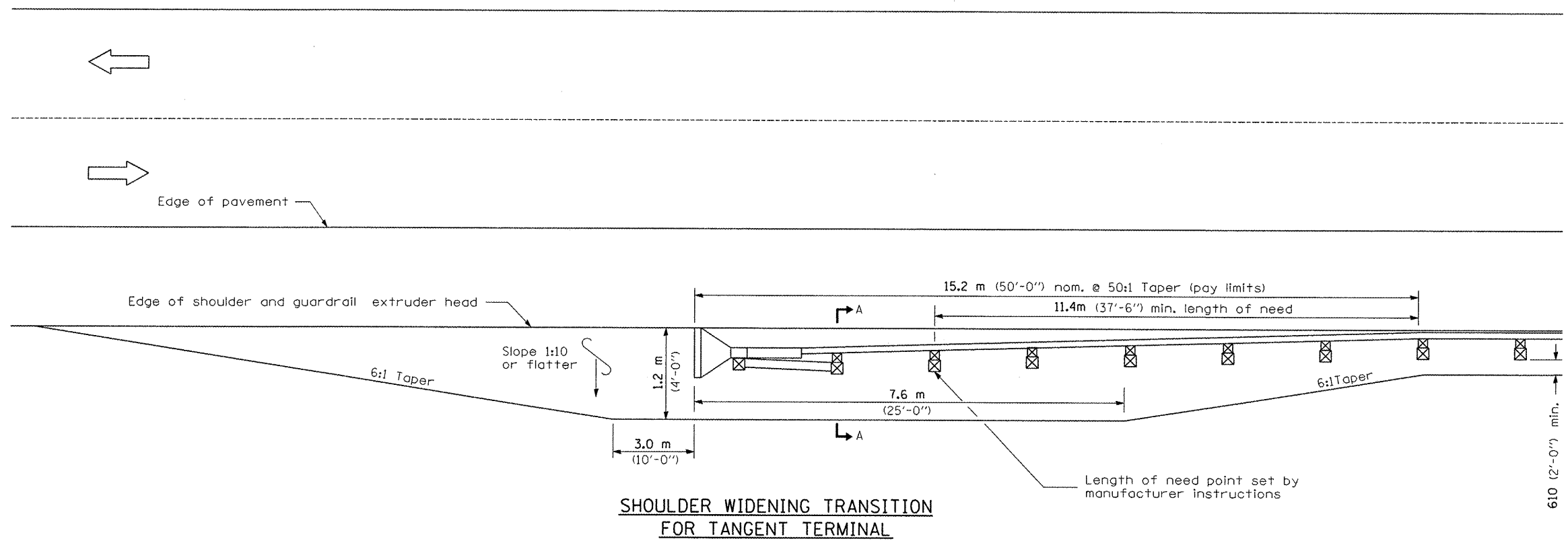
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRE-MGS EFFECTIVE 4-1-06
GUARDRAIL MOUNTED ON EXISTING CULVERTS
STANDARD 630101-06 (Sheet 2 of 2)

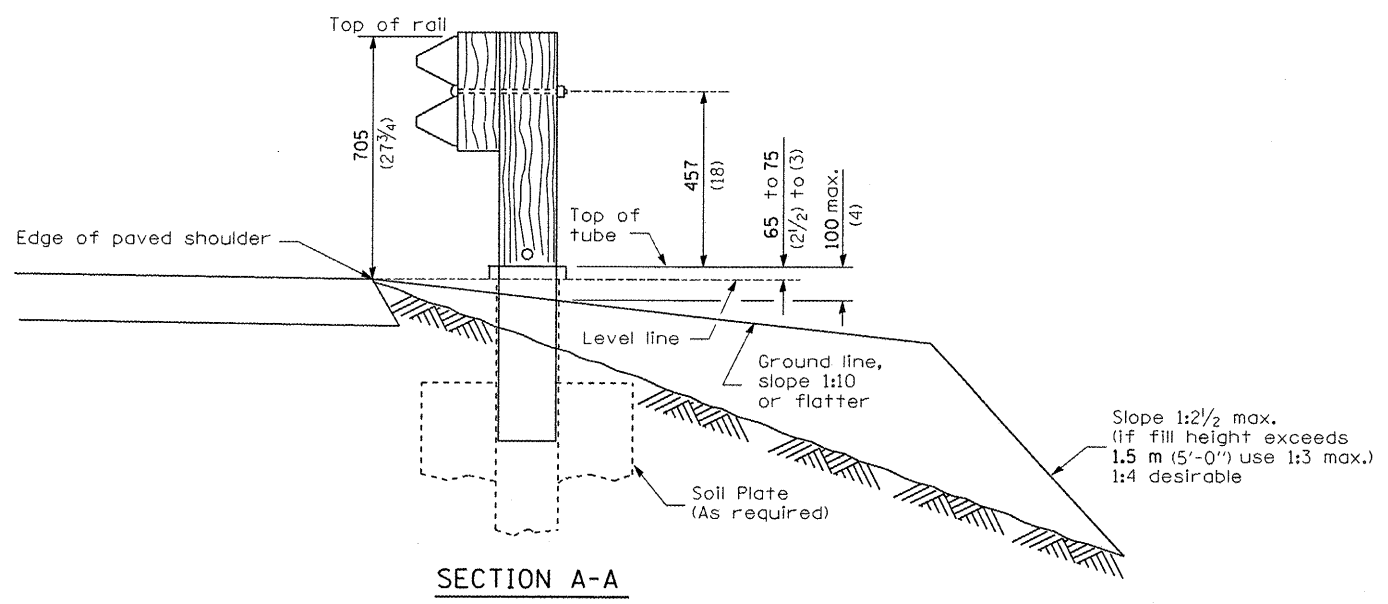
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VAR.	.		36	21
CONTRACT NO. 66812				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

• D-3 HIGHWAY DAMAGE REPAIR 2009

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



**SHOULDER WIDENING TRANSITION
FOR TANGENT TERMINAL**



SECTION A-A

GENERAL NOTES

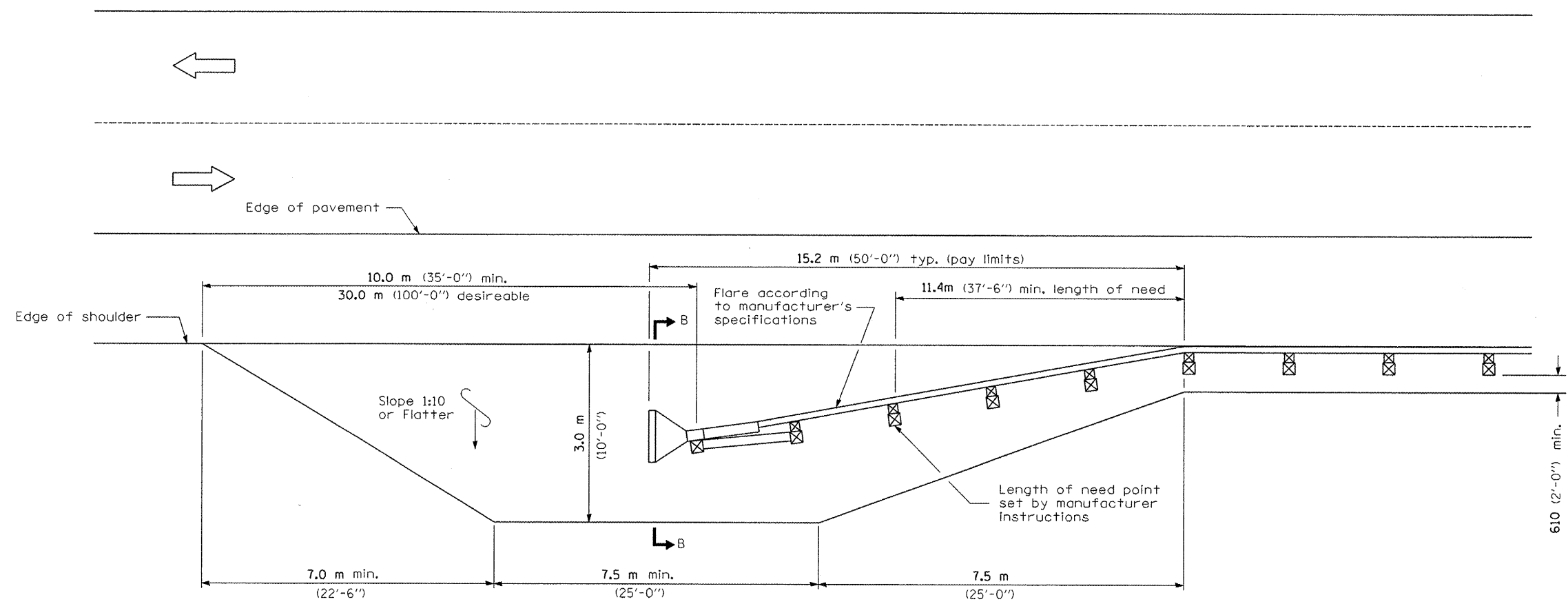
50:1 Taper required so the guardrail head will not encroach on the shoulder.

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

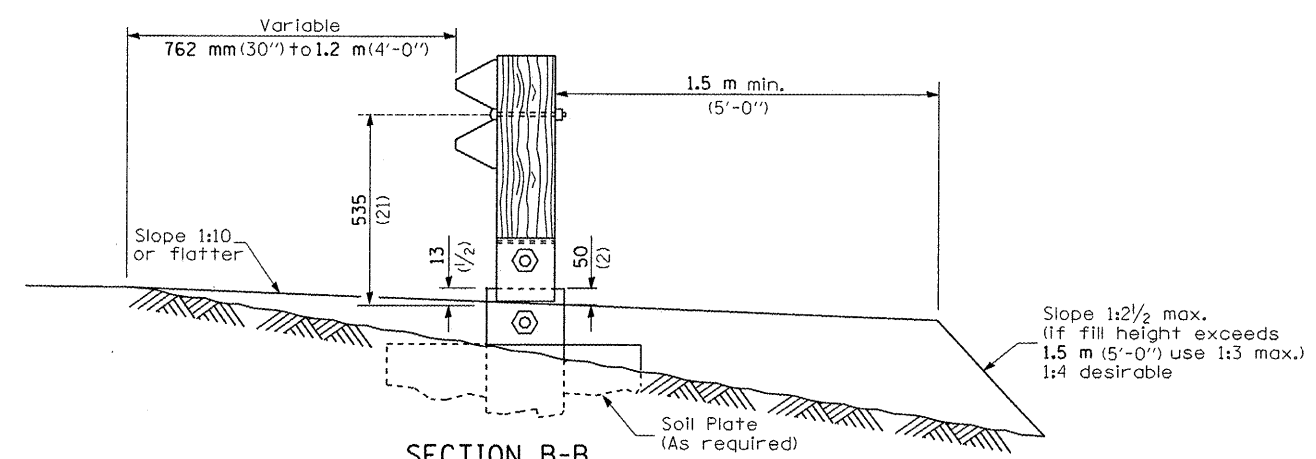
All dimensions are in millimeters (inches) unless otherwise shown.

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PLOT DATE = May 21, 2008 - 03:37:20 PM				DATE -				REVISED -																					
												SCALE:		SHEET NO. OF SHEETS						STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

• 0-3 HIGHWAY DAMAGE REPAIR 2009



**SHOULDER WIDENING TRANSITION
FOR FLARED TERMINAL**



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

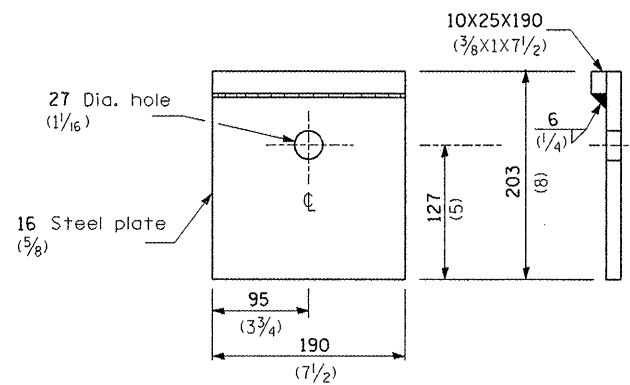
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		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

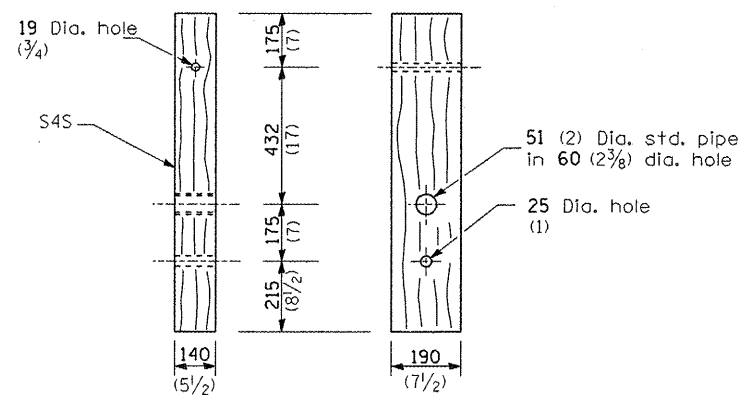
**PRE-MGS EFFECTIVE 4-1-06
SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
STANDARD 630301-03**
(Sheet 2 of 2)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 66812	

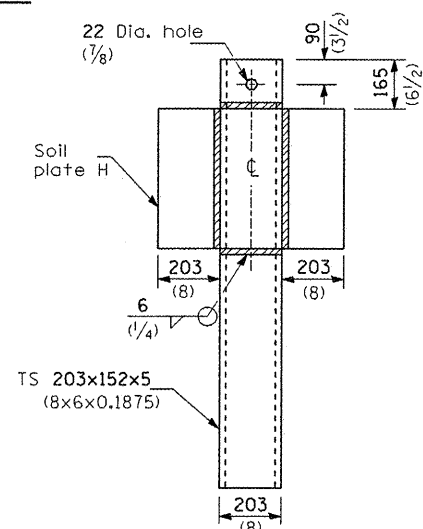
• D-3 HIGHWAY DAMAGE REPAIR 2009



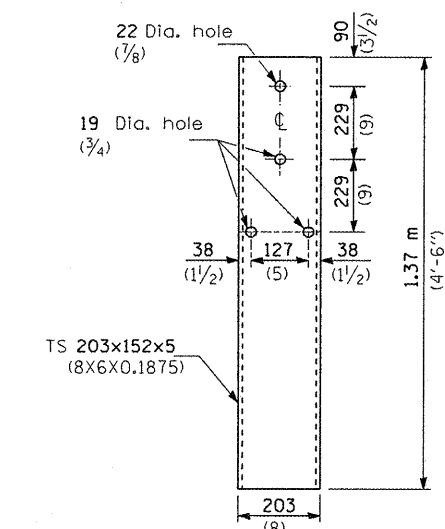
BEARING PLATE K



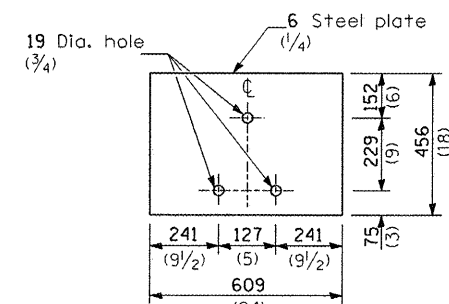
WOOD POST



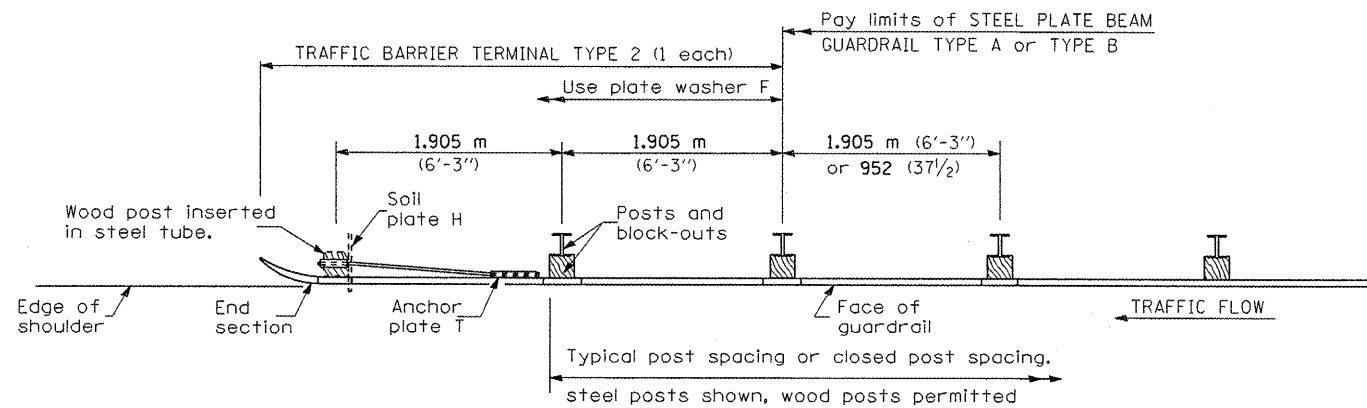
ALTERNATE SOIL PLATE CONNECTION



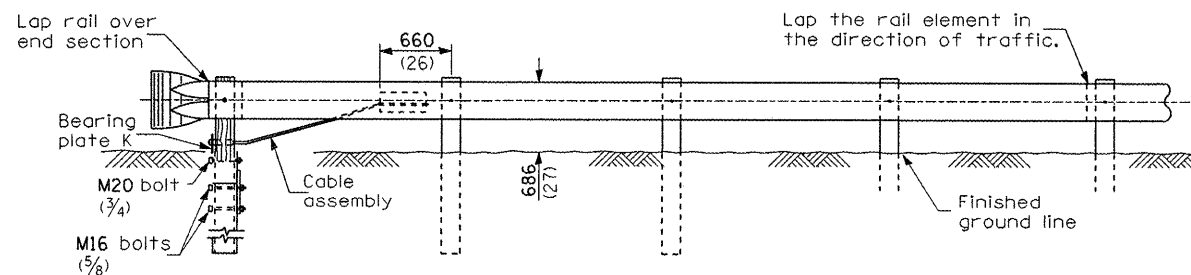
STEEL TUBE



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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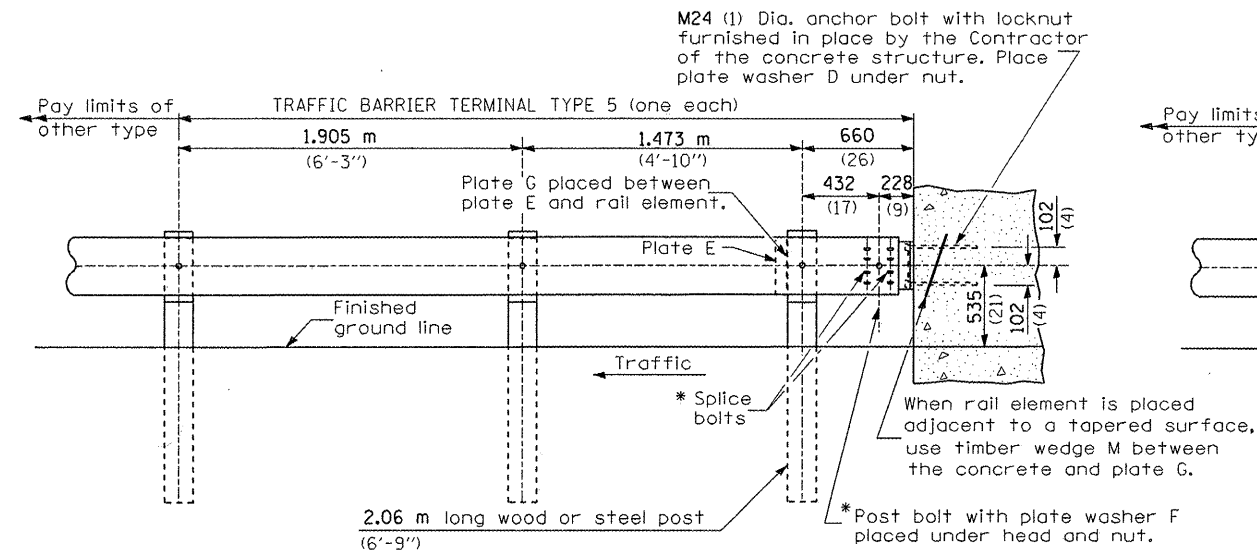
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DRAWN -	REVISED -
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DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

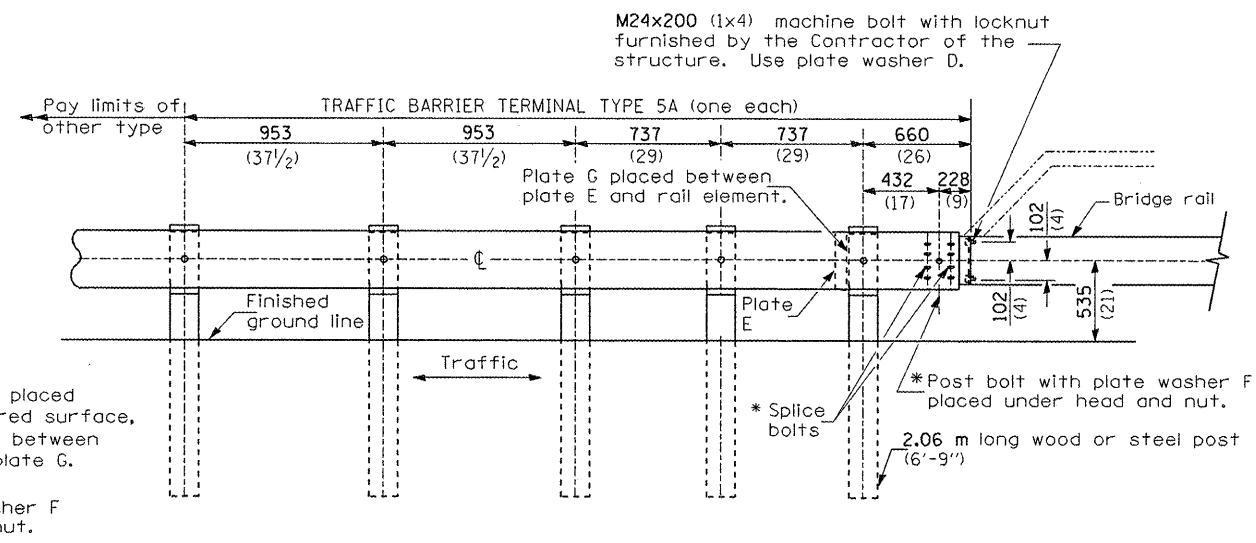
**PRE-MGS EFFECTIVE 4-1-06
TRAFFIC BARRIER TERMINAL TYPE 2
STANDARD 631011-02**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.			36	24
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 66812	



TYPE 5 - CONCRETE BRIDGE PARAPET



TYPE 5A - STEEL BRIDGE RAIL

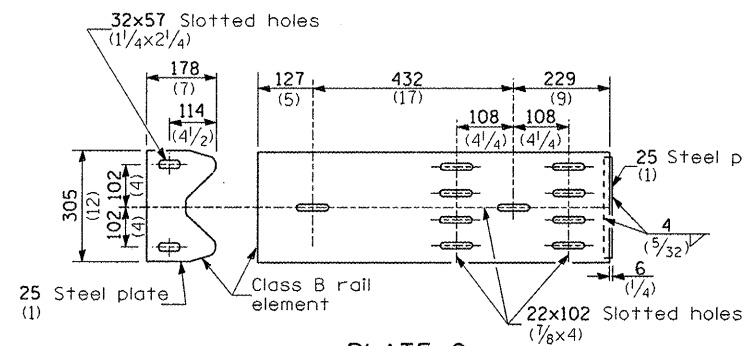


PLATE G

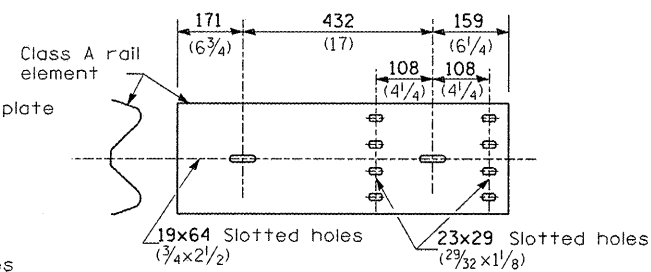
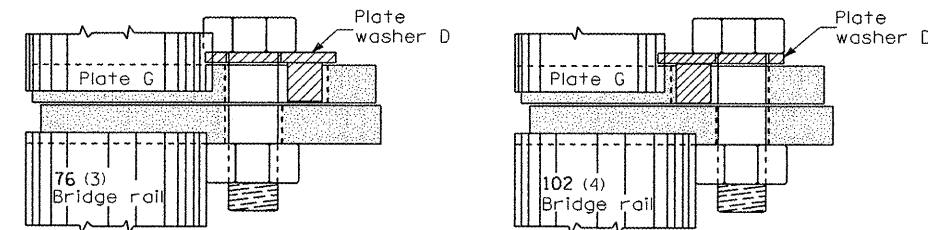


PLATE E



PLACEMENT OF PLATE WASHER D (PLAN)

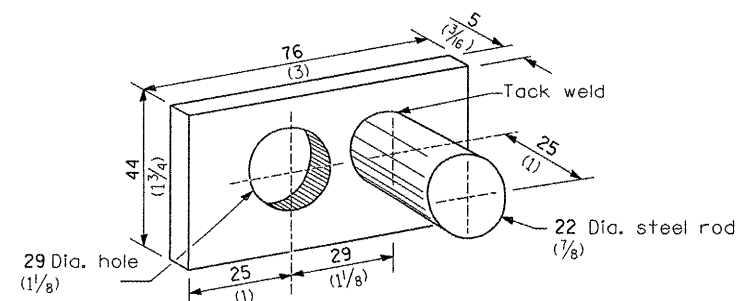
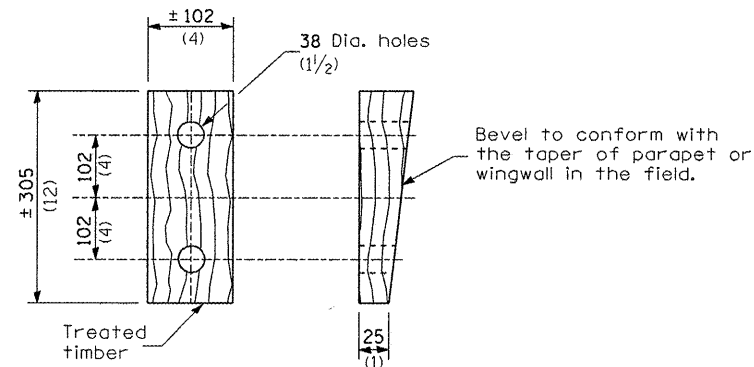


PLATE WASHER D



WEDGE M

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.

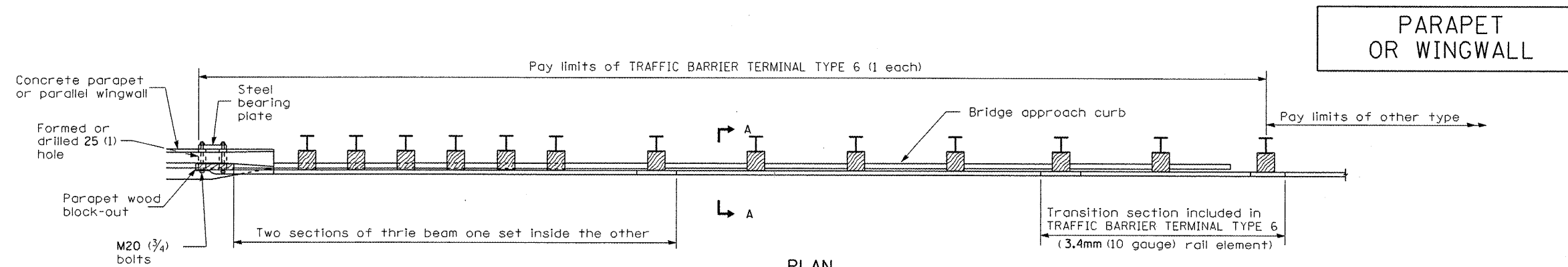
All dimensions are in millimeters (inches) unless otherwise shown.

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		DATE -	REVISED -

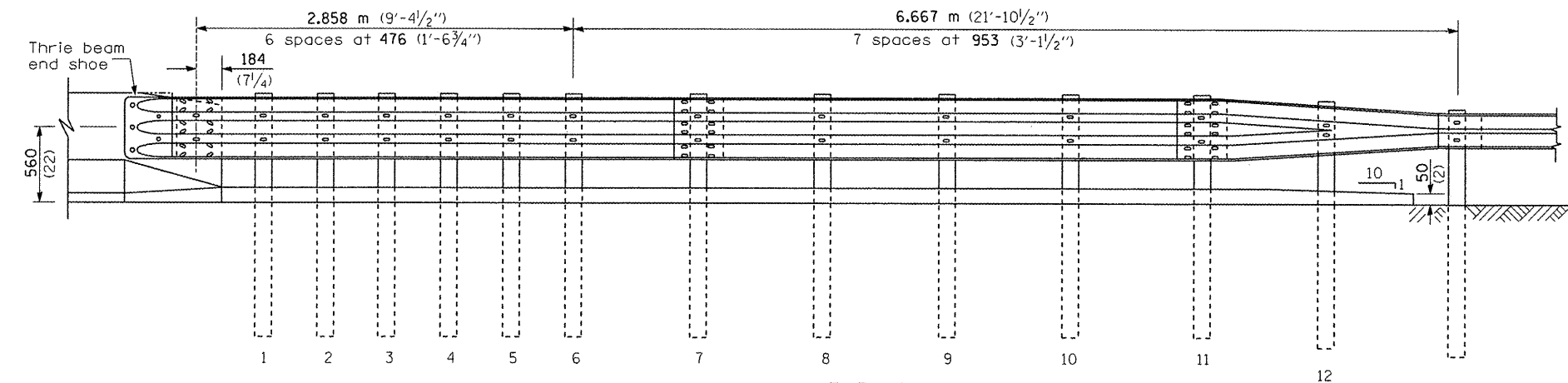
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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

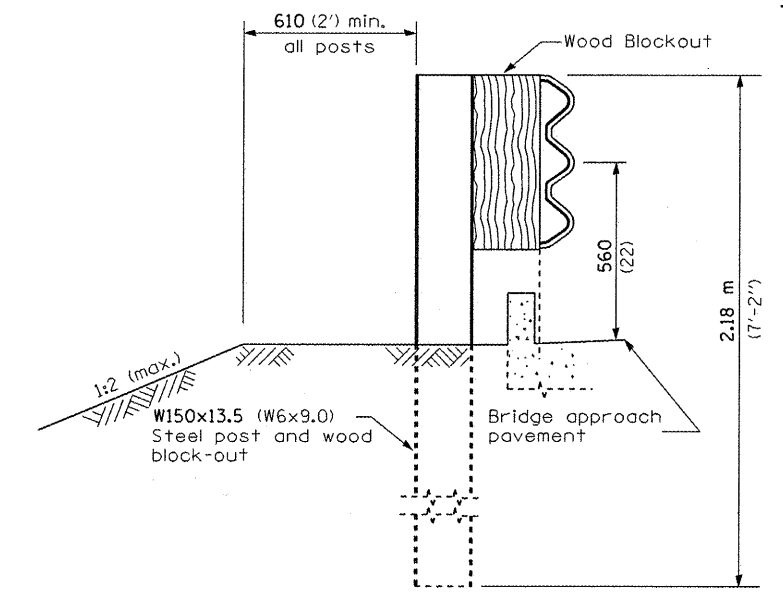
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	*	VAR.	36	25
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



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 = schwankerg	DESIGNED -	REVISED -
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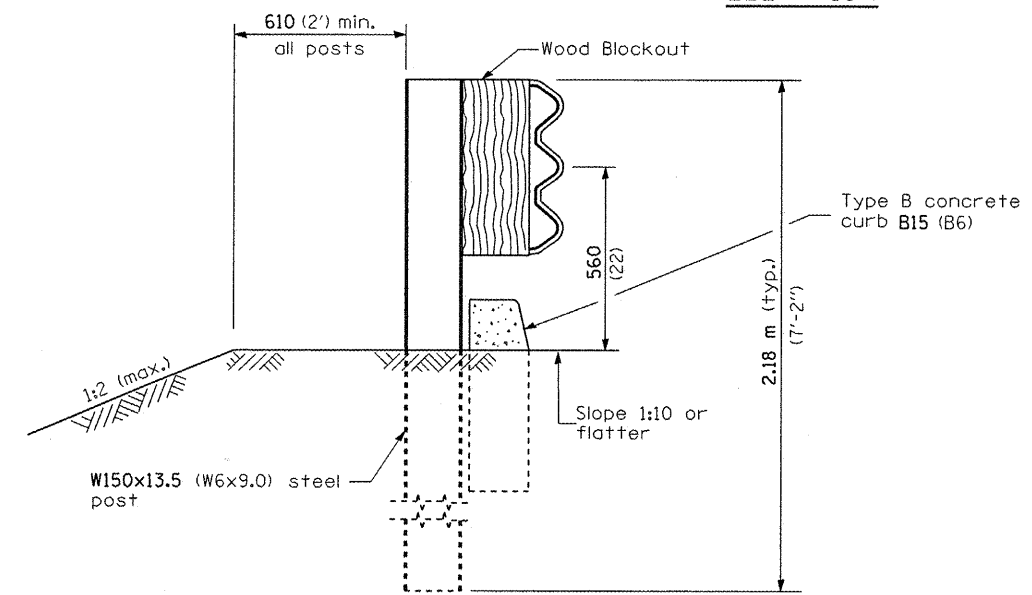
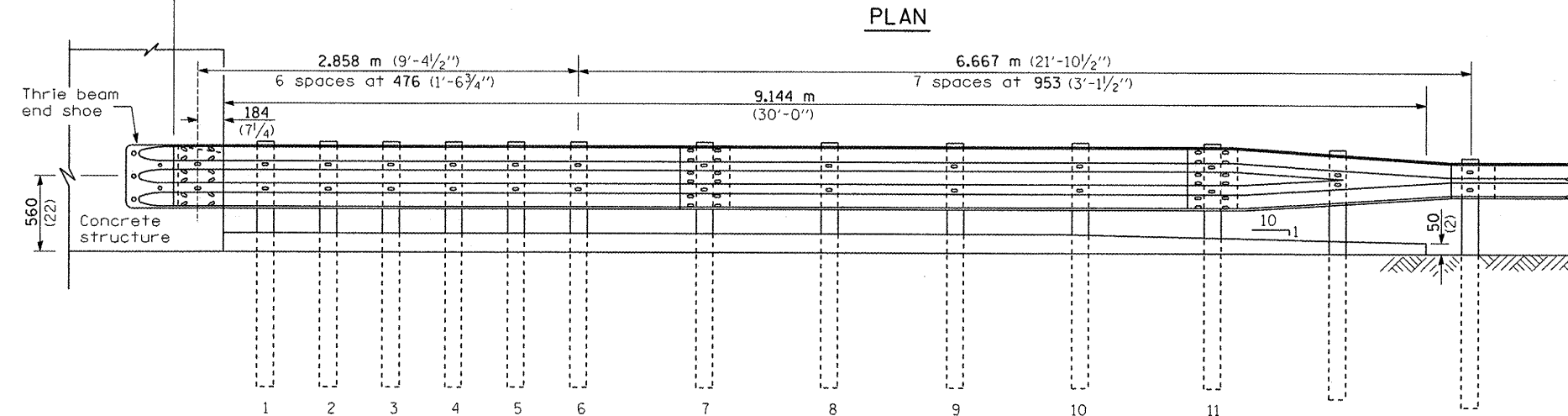
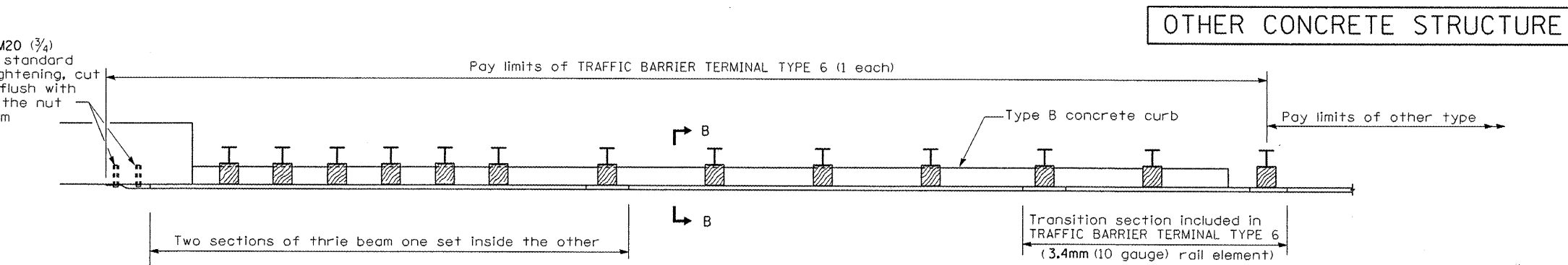
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRE-MGS EFFECTIVE 4-1-06
TRAFFIC BARRIER TERMINAL, TYPE 6
STANDARD 631031-05
Sheet 1 of 3

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	*		36	26
CONTRACT NO. 66812				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

D-3 HIGHWAY DAMAGE REPAIR 2009

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.



SECTION B-B

OTHER CONCRETE STRUCTURE

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PLOT DATE = May 21, 2008 - 03:38:03 PM		DATE -	REVISED -

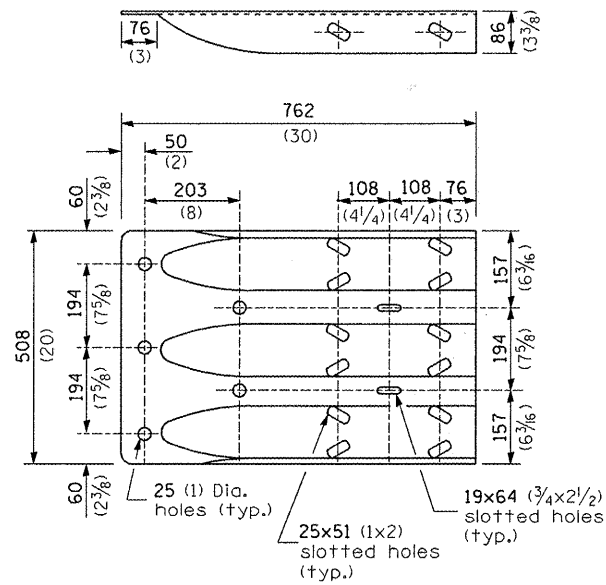
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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

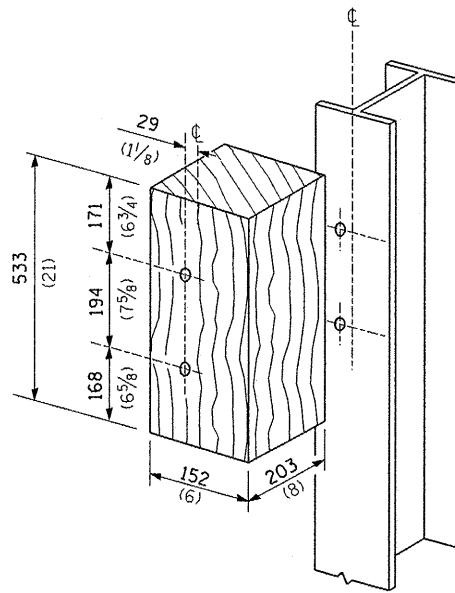
Sheet 2 of 3

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	*	VAR.	36	27
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 66812	

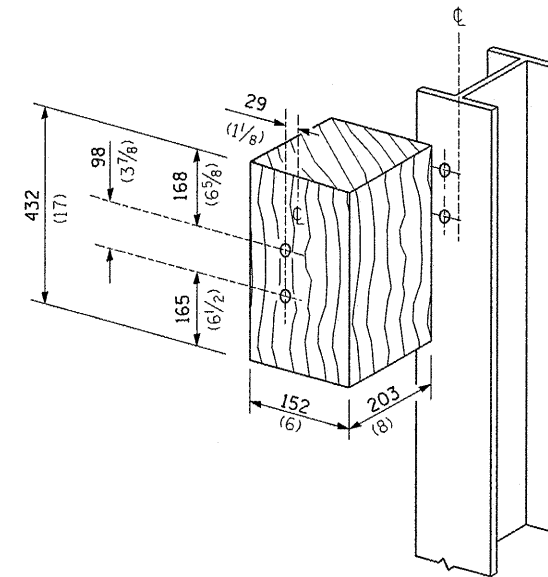
• D-3 HIGHWAY DAMAGE REPAIR 2009



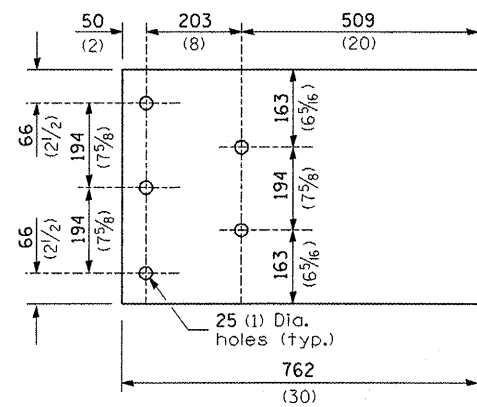
THRIE BEAM END SHOE DETAIL



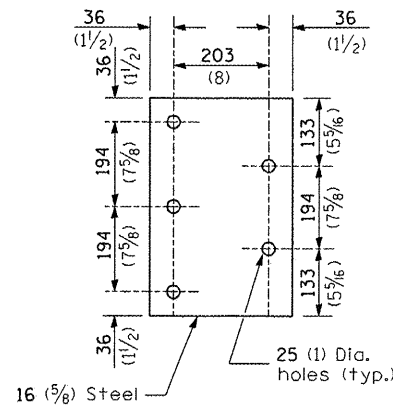
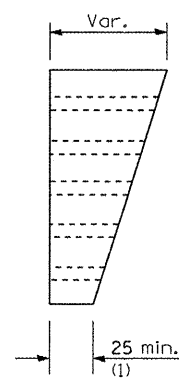
POSTS 1-11 WOOD BLOCKOUT DETAIL



POST 12 WOOD BLOCKOUT DETAIL



PARAPET WOOD BLOCK-OUT DETAIL



PARAPET STEEL BEARING PLATE DETAIL

(5 each individual 125x125x16 (5x5x 5/8) steel plates with centered 25 (1) holes may be substituted for the plate shown.)

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cr:\projects\66812\66812-ehd-details.dgn		DRAWN -	REVISED -
PLOT SCALE = 103.1218 / IN.		CHECKED -	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

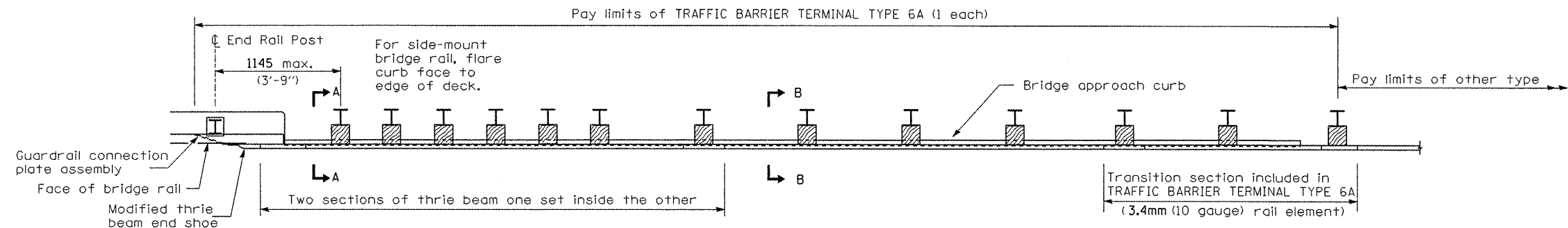
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	*	VAR.	36	28
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

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

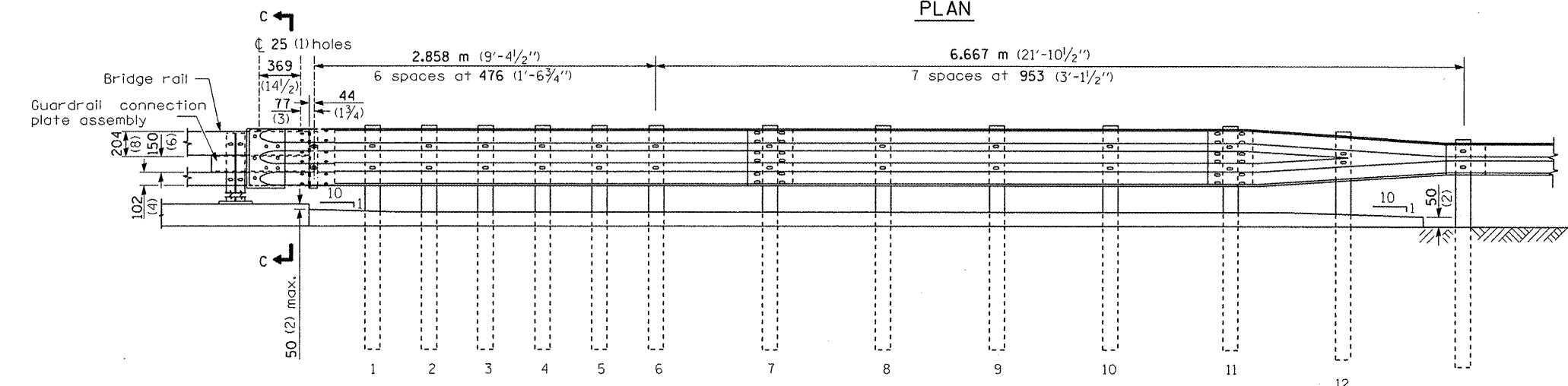
D-3 HIGHWAY DAMAGE REPAIR 2009

Sheet 3 of 3

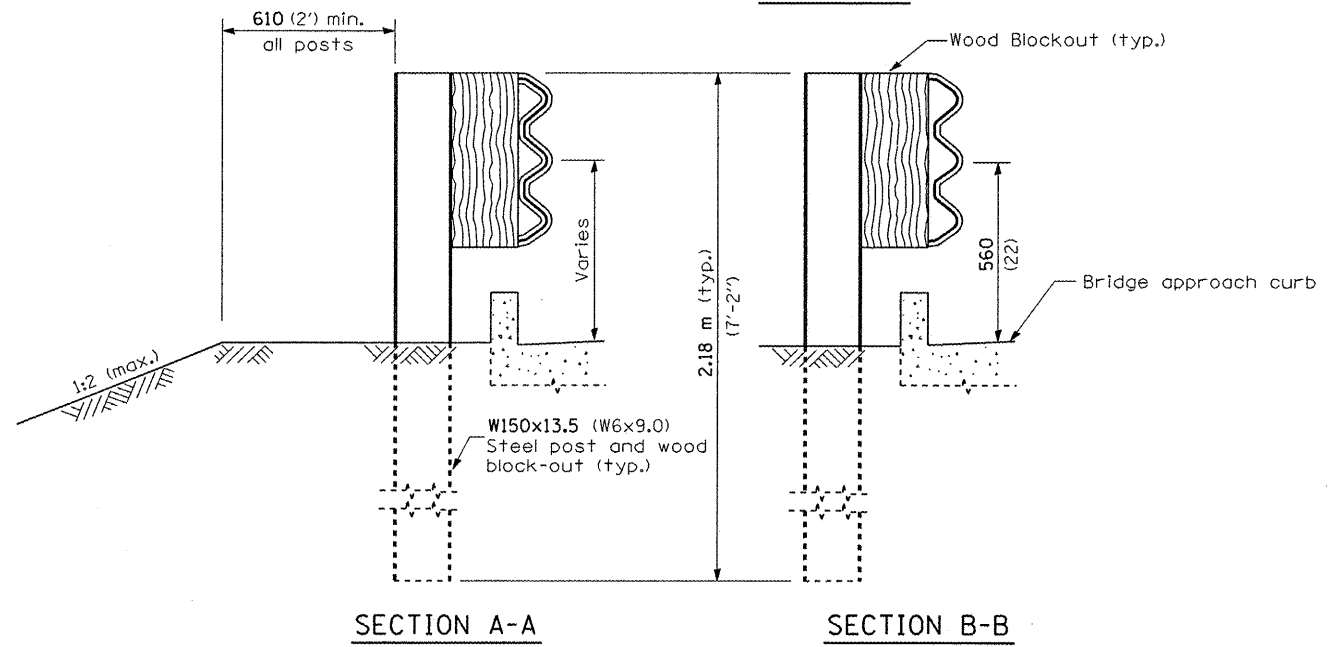
CONTRACT NO. 66812



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.

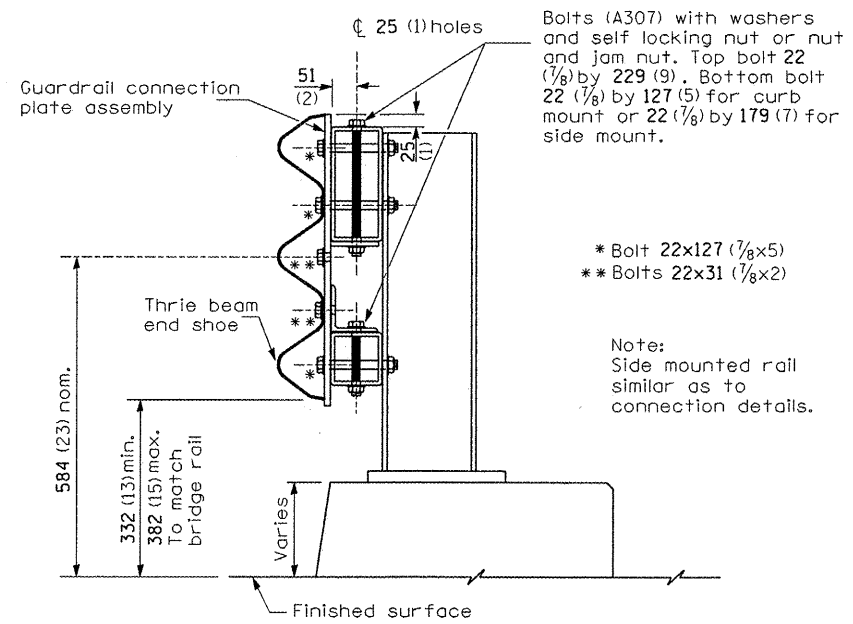
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PLOT DATE = May 21, 2008 - 03:38:21 PM		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PRE-MGS EFFECTIVE 4-1-06 TRAFFIC BARRIER TERMINAL, TYPE 6A STANDARD 631032-02			
SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	Sheet 1 of 3

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.			36	29
FED. ROAD DIST. NO.			CONTRACT NO. 66812	
ILLINOIS FED. AID PROJECT				

• D-3 HIGHWAY DAMAGE REPAIR 2009

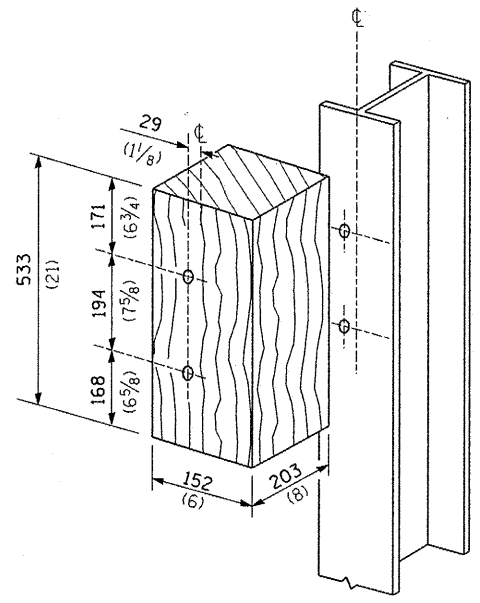


SECTION C-C

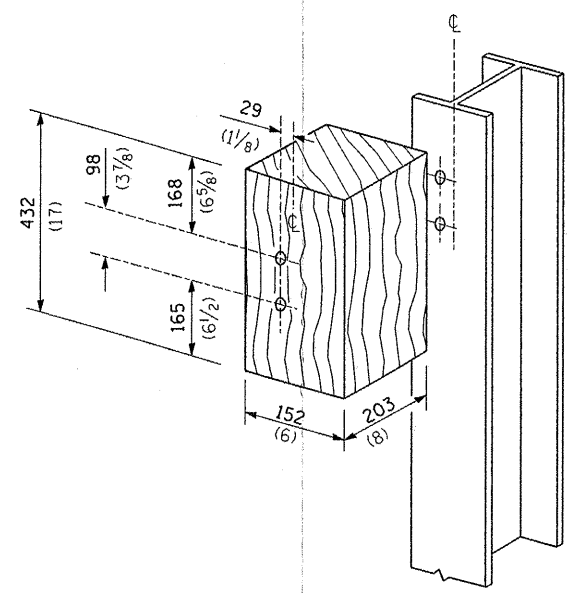
Bolts (A307) with washers and self locking nut or nut and jam nut. Top bolt 22 (7/8) by 229 (9). Bottom bolt 22 (7/8) by 127 (5) for curb mount or 22 (7/8) by 179 (7) for side mount.

- * Bolt 22x127 (7/8x5)
- ** Bolts 22x31 (7/8x2)

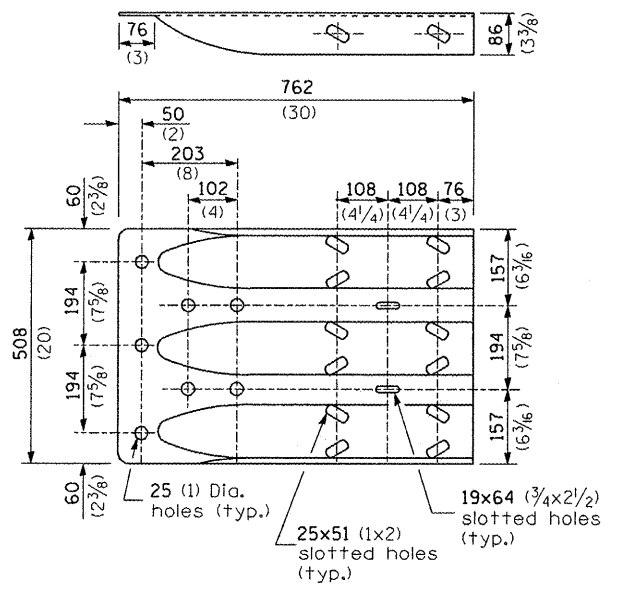
Note: Side mounted rail similar as to connection details.



POSTS 1-11 WOOD BLOCKOUT DETAIL



POST 12 WOOD BLOCKOUT DETAIL



MODIFIED THRIE BEAM END SHOE DETAIL

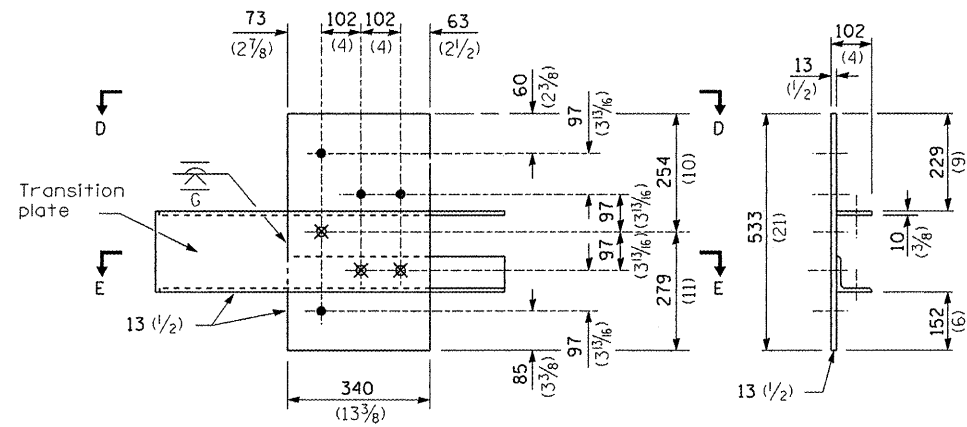
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PLOT DATE = May 21, 2008 - 03:38:31 PM		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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

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

• D-3 HIGHWAY DAMAGE REPAIR 2009	
F.A. RTE.	SECTION
VAR.	•
COUNTY	TOTAL SHEETS
VAR.	36
CONTRACT NO. 66812	
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT

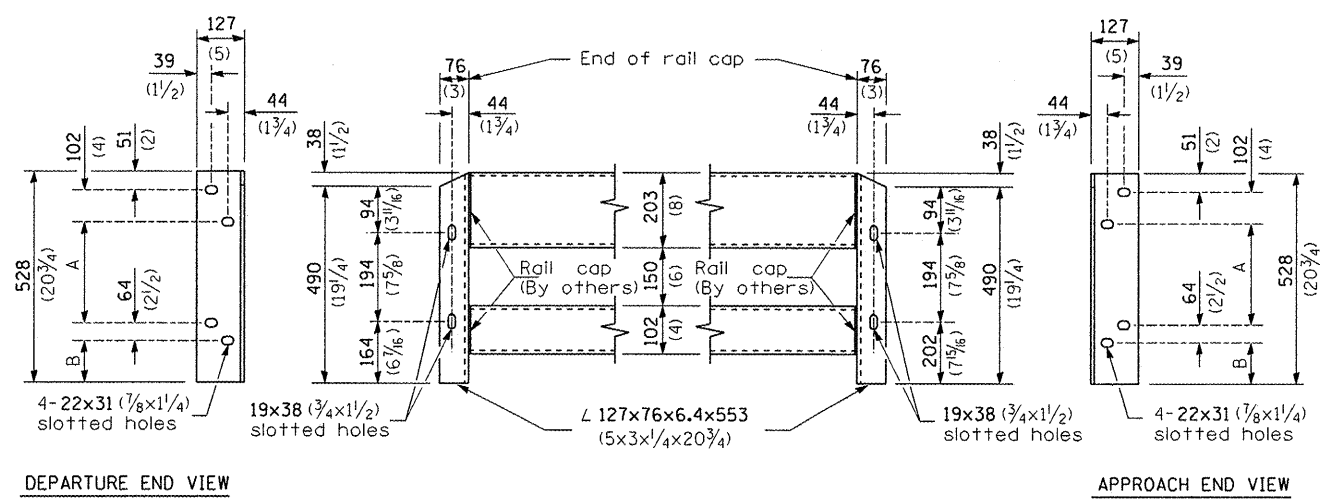
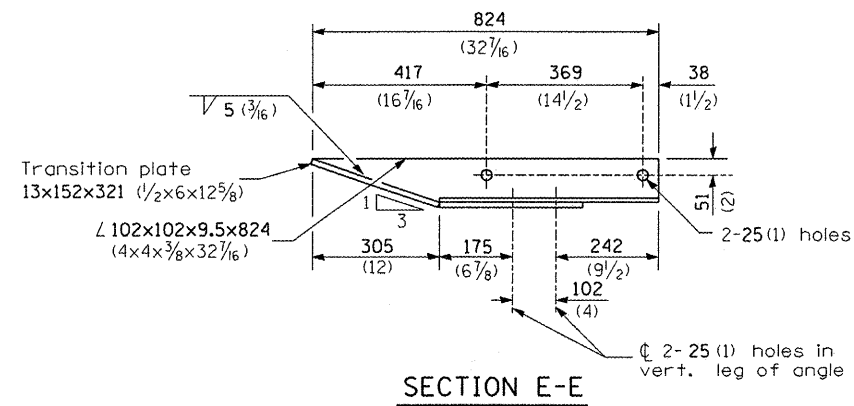
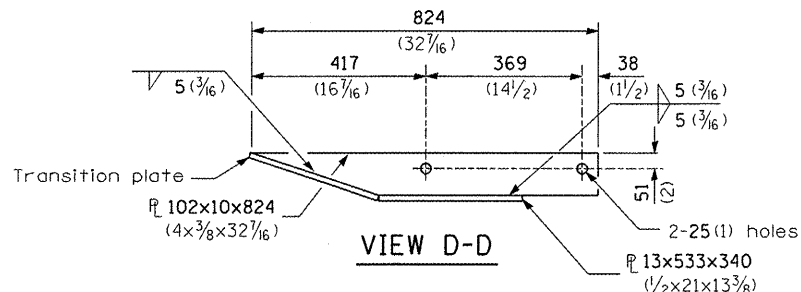


- ϕ 4-25 (1) holes for 22 (7/8) H.S. bolts and nuts
- ✕ Drill and tap 3 holes for 22 (7/8) H.S. bolts.

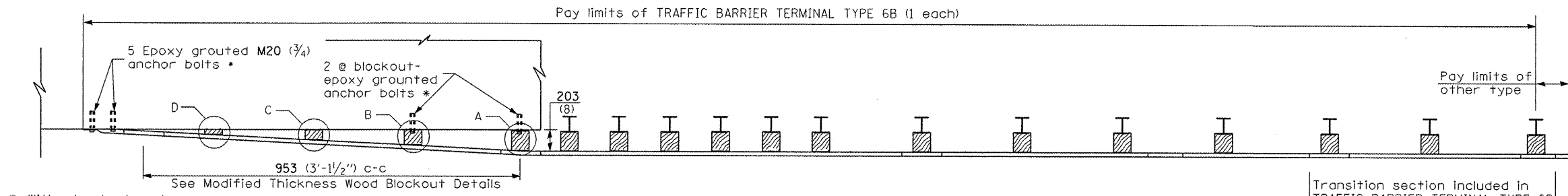
LEGEND

Dimensions	A	B
For Curb Mounted Rail	222 (8 3/4)	89 (3 1/2)
For Side Mounted Rail	247 (9 3/4)	64 (2 1/2)

GUARDRAIL CONNECTION PLATE ASSEMBLY DETAILS
(Mirror for opposite end)



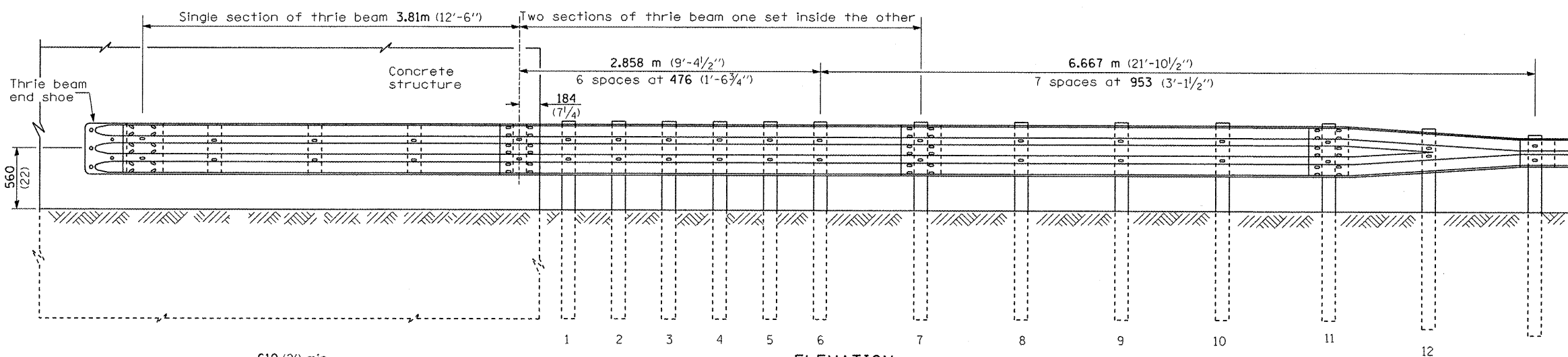
(Install angles to rail caps using 19 (5/8) washers and self-locking nuts or nuts and jam nuts, to be provided by others)



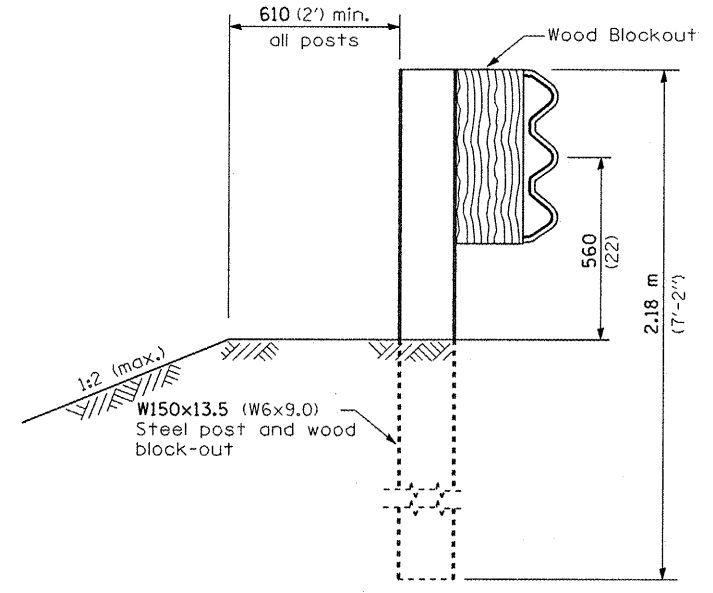
* With standard washers. After tightening, cut the anchor bolts flush with nuts, and damage the nut to prevent it from loosening.

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

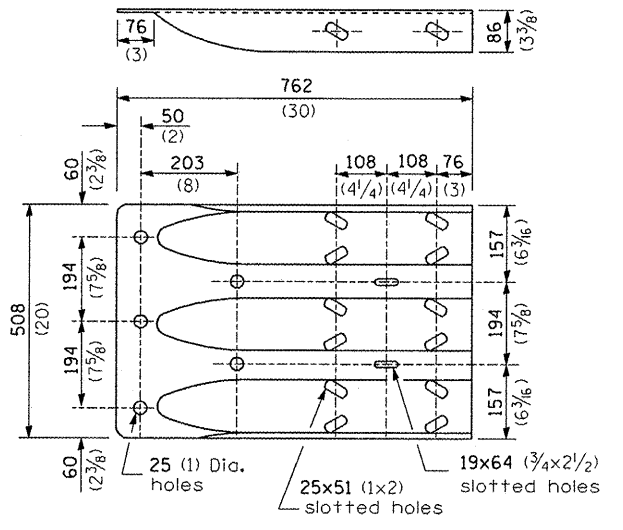
PLAN



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.

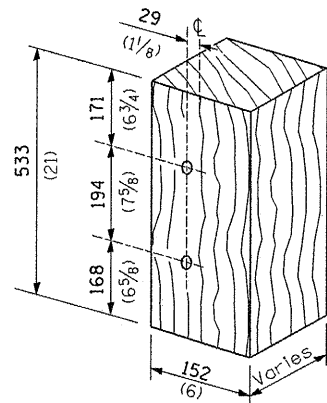
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

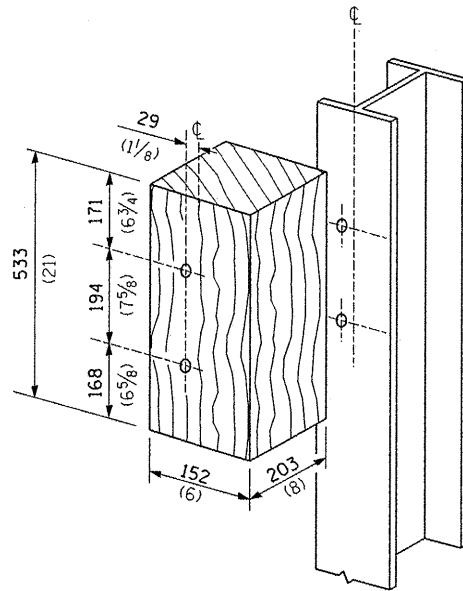
**PRE-MGS EFFECTIVE 4-1-06
TRAFFIC BARRIER TERMINAL, TYPE 6B
STANDARD 631033-01**

Sheet 1 of 2
SCALE: SHEET NO. OF SHEETS STA. TO STA.

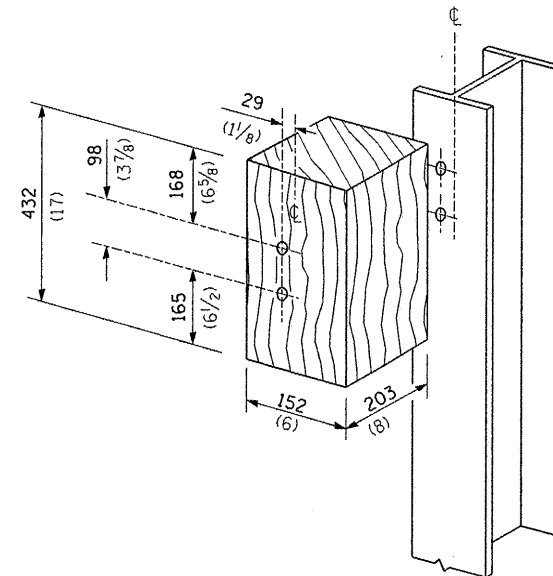
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VAR.	.	VAR.	36	32
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 66812	



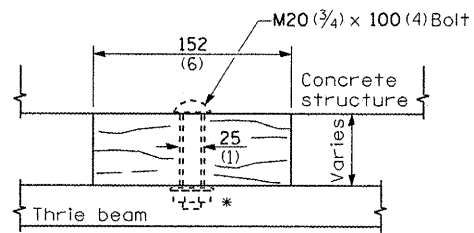
MODIFIED THICKNESS WOOD BLOCKOUT DETAIL



POSTS 1-11 WOOD BLOCKOUT DETAIL

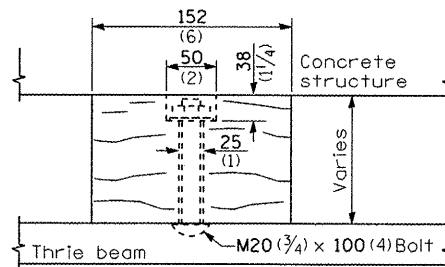


POST 12 WOOD BLOCKOUT DETAIL

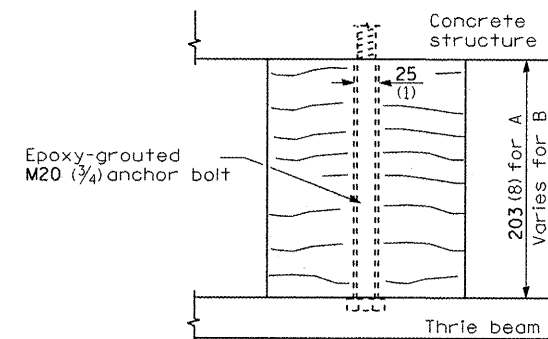


WOOD BLOCKOUT D

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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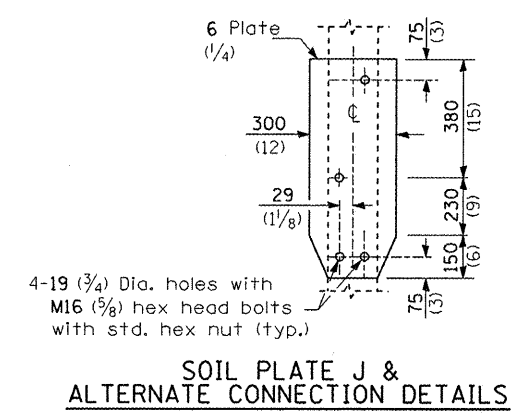
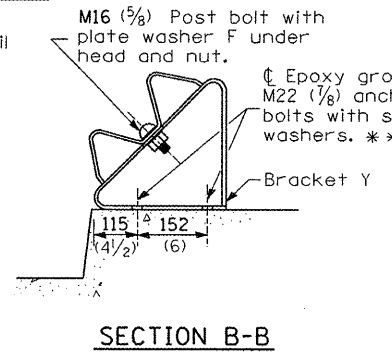
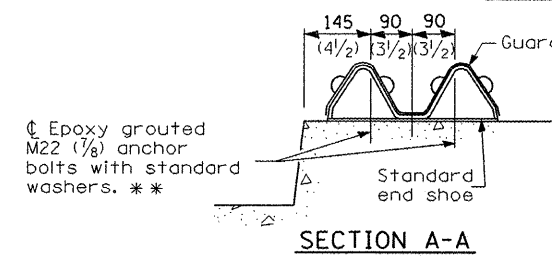
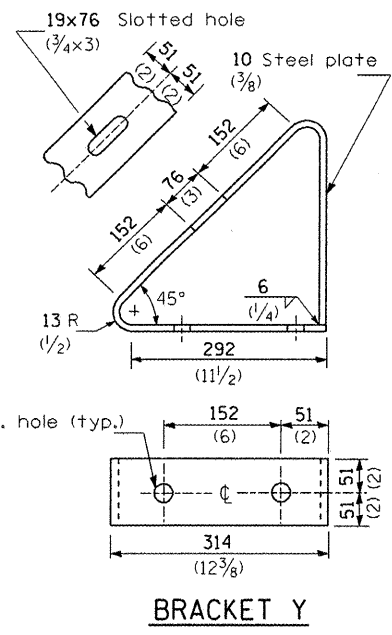
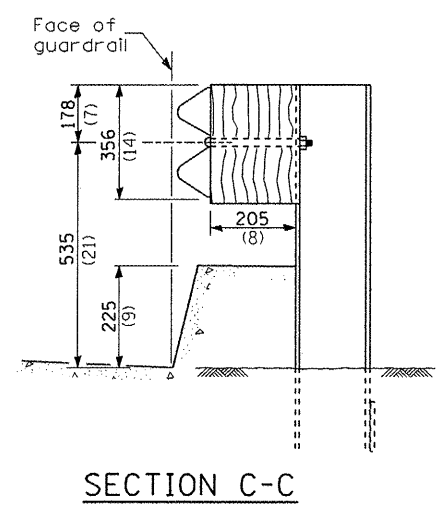
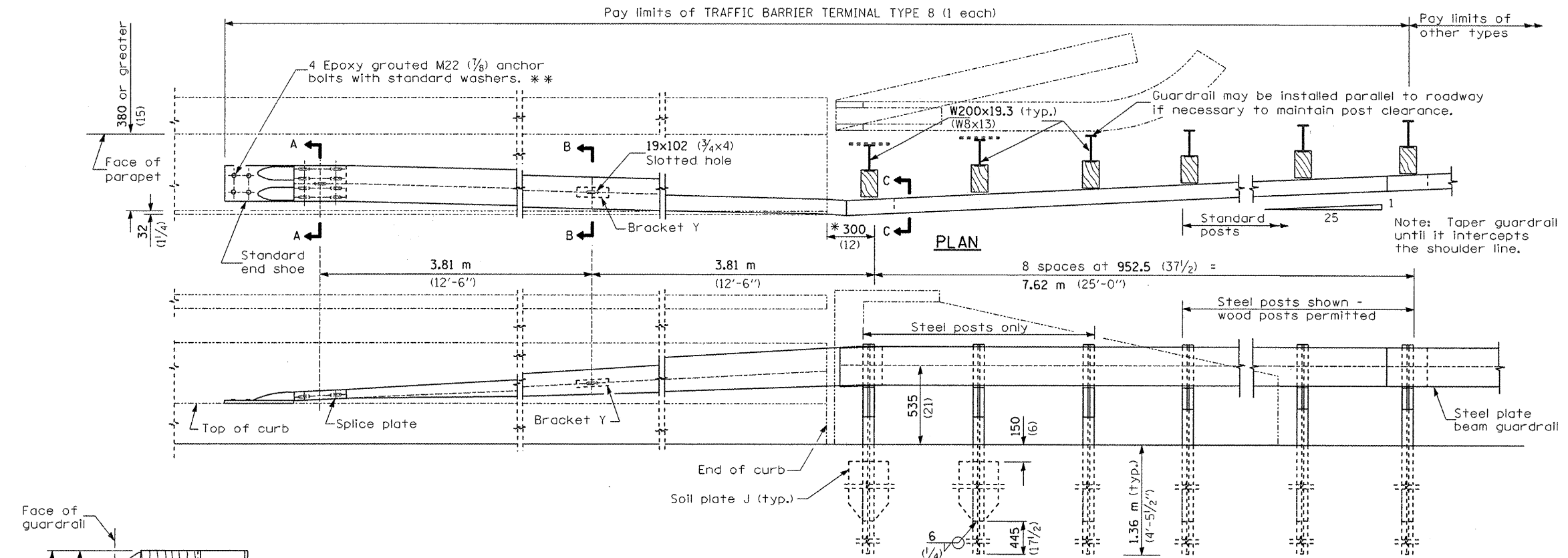
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRE-MGS EFFECTIVE 4-1-06
TRAFFIC BARRIER TERMINAL, TYPE 6B
STANDARD 631033-01

SCALE: SHEET NO. OF SHEETS STA. TO STA. Sheet 2 of 2

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.		VAR.	36	33
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 66812	

• D-3 HIGHWAY DAMAGE REPAIR 2009

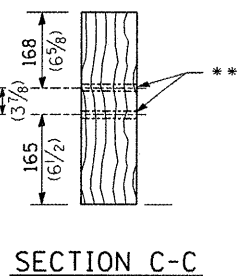
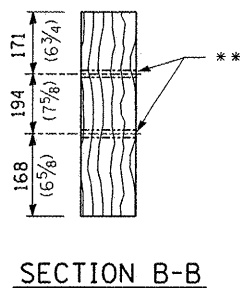
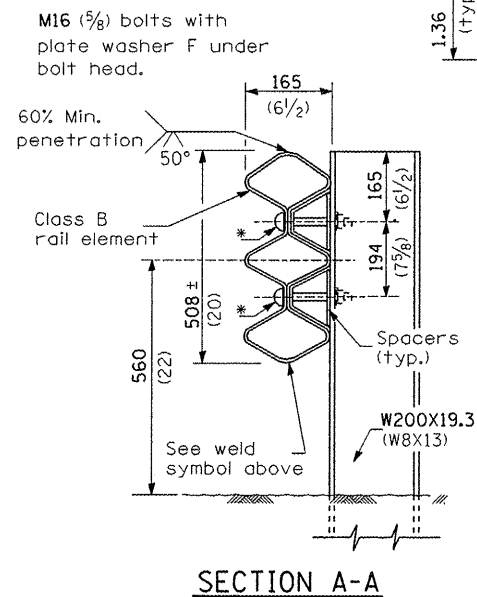
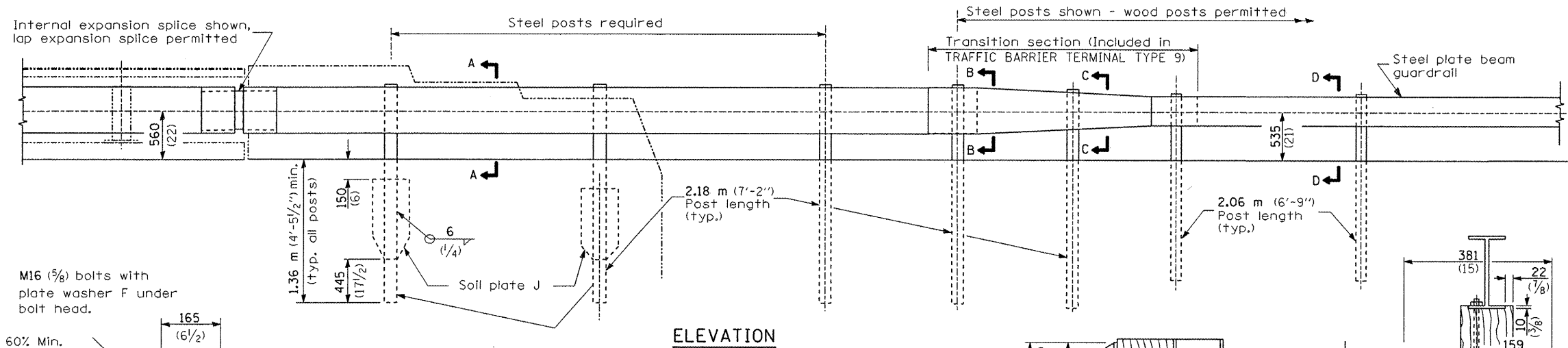
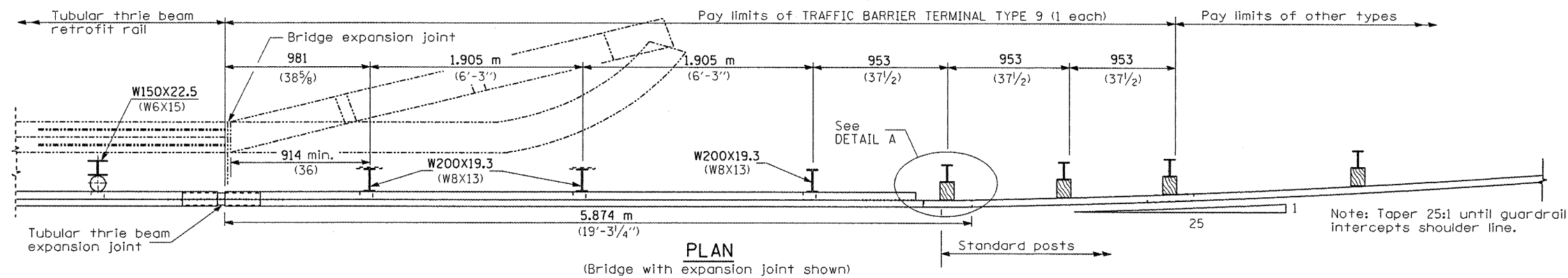


GENERAL NOTES

- 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.

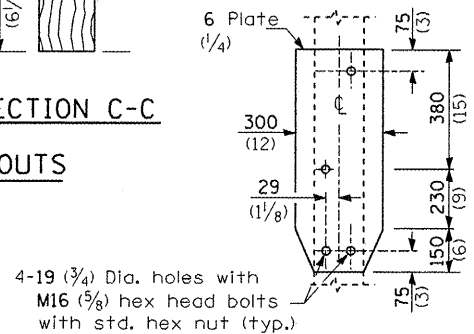
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• D-3 HIGHWAY DAMAGE REPAIR 2009

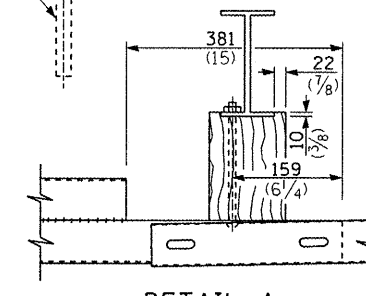
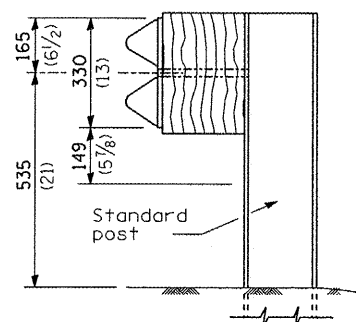


DETAILS of BLOCK-OUTS

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



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



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.

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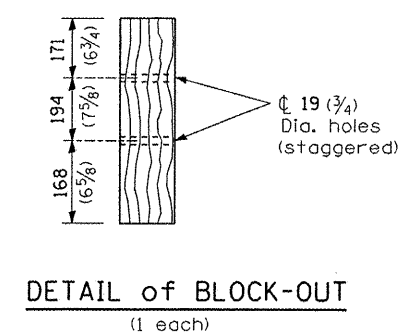
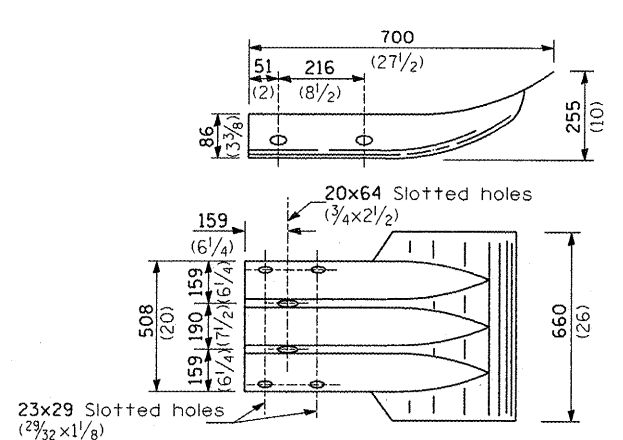
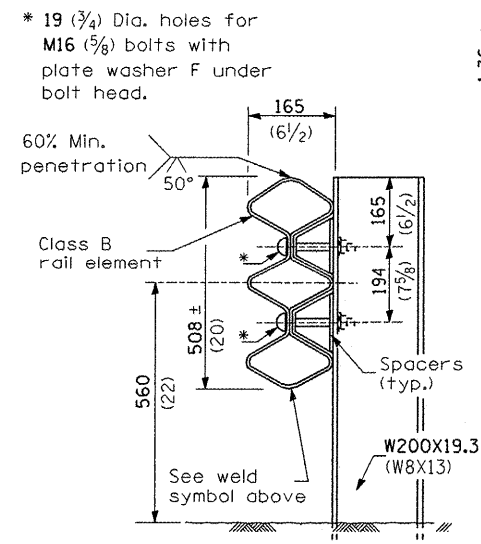
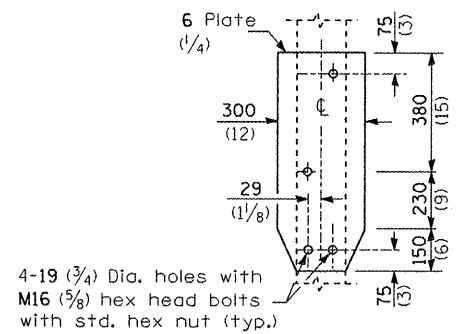
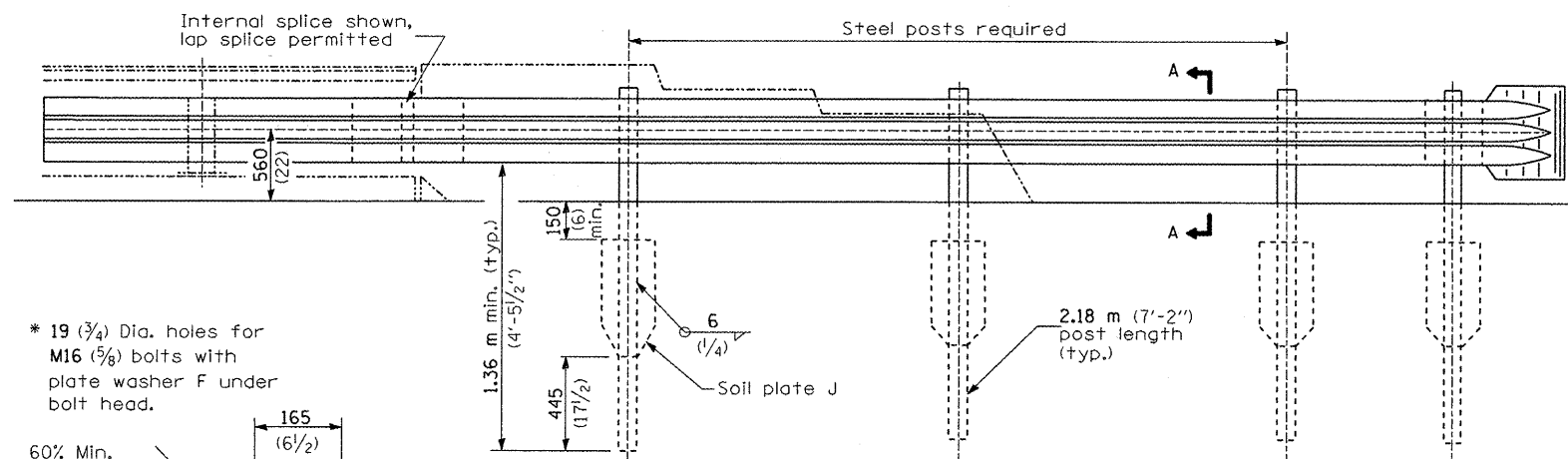
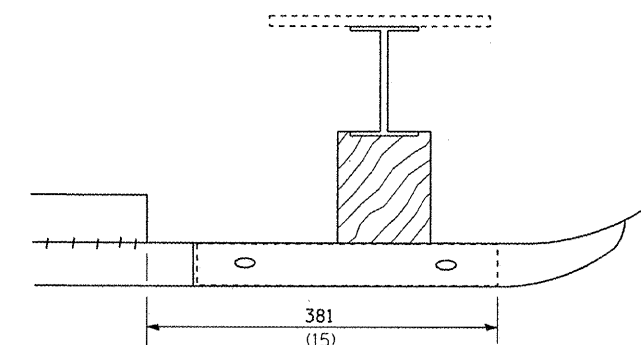
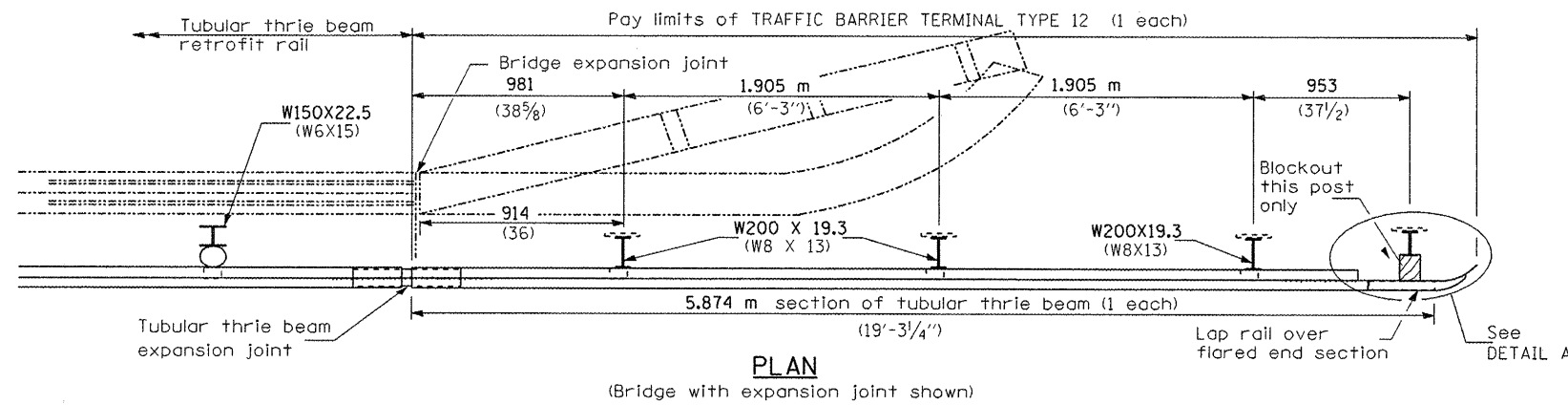
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PRE-MGS EFFECTIVE 4-1-06
TRAFFIC BARRIER TERMINAL TYPE 9
STANDARD 631041-01**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.		VAR.	36	35
CONTRACT NO. 66812				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

• D-3 HIGHWAY DAMAGE REPAIR 2009



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 = schwankerg	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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• D-3 HIGHWAY DAMAGE REPAIR 2009