

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D9 GUARDRAIL REPAIR FY24-1	VARIOUS	20	1
		ILLINOIS	CONTRACT NO. 78A01	

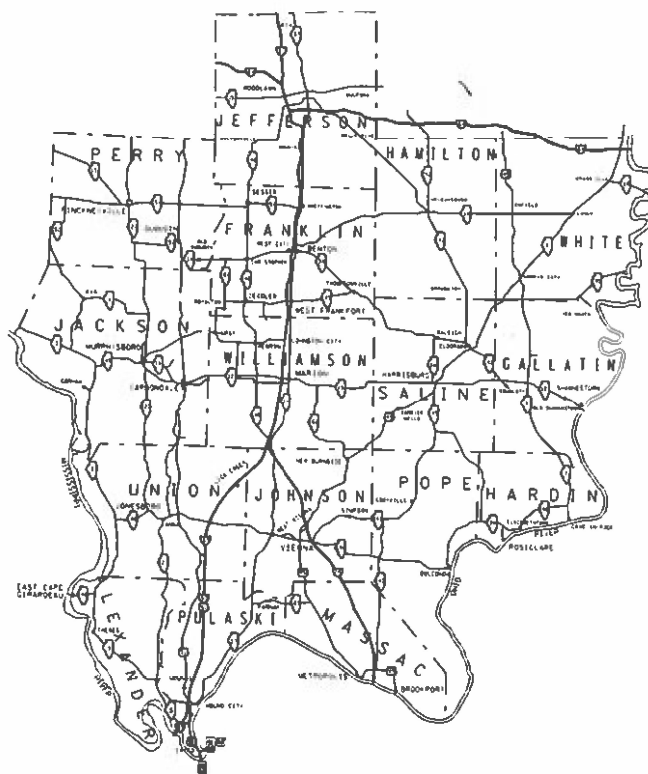
FOR INDEX OF SHEETS, SEE SHEET NO. 3
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 5

PROPOSED
HIGHWAY PLANS

VARIOUS ROUTES
SECTION D9 GUARDRAIL REPAIR FY24-1

GUARDRAIL REPAIR
VARIOUS COUNTIES

C-99-050-23



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

PROJECT ENGINEER : SUSAN POE
PROJECT DESIGNER : JAKE STARK

CONTRACT NO. 78A01

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED April 17 2023
Kirk H. Brown
REGION FIVE ENGINEER

June 30, 2023 [Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

June 30, 2023 [Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

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DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: [Signature]
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Examined By: Days J. ...
DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: Days J. ...
DISTRICT CONSTRUCTION ENGINEER

Examined By: Aam Hays
DISTRICT MATERIALS ENGINEER

FILE NAME :	USER NAME : Jacob.Stark	DESIGNED -	REVISED -
p:\1\dot\p.bentley.com\1001\Documents\1001\Offices\District 9\Projects\Geometrics\DRAWN\geom\geom\guardrail.dgn		CHECKED -	REVISED -
Default	PLOT SCALE = 100.0000 1/1 in.	DATE -	REVISED -
	PLOT DATE = 4/3/2023		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SIGNATURE SHEET

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. 09	GUARDRAIL REPAIR FY24-1	VARIOUS	20	2
				CONTRACT NO. 78A01
ILLINOIS FED. AID PROJECT				

INDEX OF SHEETS

SHEET NO	DESCRIPTION
1	COVER SHEET
2	SIGNATURE SHEET
3	INDEX OF SHEETS, HIGHWAY STANDARDS
4	GENERAL NOTES
5-7	SUMMARY OF QUANTITIES
8-11	STEEL PLATE BEAM GUARDRAIL STANDARD INSTALLED PRIOR TO JANUARY 1, 2007
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15-17	TRAFFIC BARRIER TERMINAL, TYPE 6A STANDARD INSTALLED PRIOR TO JANUARY 1, 2007
18-19	TRAFFIC BARRIER TERMINAL, TYPE 6B STANDARD INSTALLED PRIOR TO JANUARY 1, 2007
20	CRASH-CUSHION ATTENUATING TERMINAL (C-A-T)

HIGHWAY STANDARDS

- 000001-08_STANDARDSYMBOLSABBREVIATIONS-PATTERNS-001
- 001006_DECIMALOFINCH-FOOT
- 630001-12_STEELPLATEBEAMGRDRAIL
- 630006_NONBLOCKEDSTEELPLATEBEAMGRDRAIL
- 630101-10_STRONGPOSTGUARDRAILATTACHEDTOCULV
- 630116_BACKSIDEPROTECTIONOFGRDRAIL
- 630301-09_SHLDWIDENFORTYPE1GRDRAILTERMS
- 631011-10_TRAFBARTERM TYPE2
- 631026-06_TRAFBARTERM TYPE5
- 631031-18_TRAFBARTERM TYPE6
- 631032-10_TRAFBARTERM TYPE6A
- 631033-09_TRAFBARTERM TYPE6B

- 636001-02_CABLERDGRD-SINGLESTRAND
- 643001-02_SANDMODULEIMPACTATTENUATORS
- 664001-02_CHAINLINKFENCE
- 665001-02_WOVENWREFENCE
- 701001-02_OFFRDOP-2L2W-15FTMINFROMEOP
- 701006-05_OFFRDOP-2L2W-15FTTOEOP
- 701011-04_OFFRDMOVINGOP-2L2W-DAYONLY
- 701101-05_OFFRDOP-MULTILN-LESSTHAN15FTTOEOP
- 701106-02_OFFRDOP-MULTILN-MORETHAN15FTAWAY
- 701201-05_LNCLOSURE2L2W-DAYONLY
- 701301-04_LNCLOSURE2L2W-SHORTTIMEOP
- 701400-11_APPRCHTOLNCLOSURE-FRWAYEXPWAY
- 701401-13_LNCLOSUREFRWAYEXPWAY
- 701406-13_LNCLOSUREFRWAYEXPWAY-DAYOPONLY
- 701421-08_LNCLOSUREMULTILN-DAYOPONLY45-55MPH
- 701422-10_LNCLOSUREMULTILN-45-55MPH
- 701428-01_TRAFFICCONTROLSETUPREMOVALFREEWAYEXPRESSWAY
- 701451-05_RAMPCLOSUREFREEWAYEXP
- 701456-05_PARTIALEXITRAMPCLOSUREFREEWAYEXPRESSWAY
- 701501-06_URBANLNCLOSURE2L2W-UNDIVIDED
- 701502-09_URBANLNCLOSURE2L2WWITHBIDIRECTLEFTTURNLN
- 701601-09_URBANLNCLOSUREMULTILN1W2WWITHNONTRV SABLEMED
- 701602-10_URBANLNCLOSUREMULTILN2WWITHBIDIRECTLEFTTURNLN
- 701606-10_URBANSINGLELNCLOSUREMULTILN2WWITHMOUNTABLEMED
- 701701-10_URBANLNCLOSUREMULTILNINTERSECTION
- 701901-08_TRAFCNTRLDEVICES
- 725001-01_OBJECTANDTERMINALMARKERS
- 782006-01_GUARDRAILANDBARRIERWALLREFLECTORMOUNTINGDEATILS

REV. - MS

FILE NAME =	USER NAME = Jacob.Stark	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS & LIST OF STANDARDS	F.A. .	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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Default	PLOT DATE = 4/13/2023	DATE -	SCALE:			SHEET OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT		

GENERAL NOTES

COMMITMENTS

NONE

BEFORE ORDERING THE IMPACT ATTENUATORS, THE CONTRACTOR MUST CONTACT THE RESIDENT ENGINEER TO RECEIVE APPROVAL OF THE PROPOSED INSTALLATION.

ALL WORK IS TO BE REPLACED IN KIND OR AS INDICATED ON THE CONTRACT PLANS OR SPECIAL PROVISIONS.

THE LOCATIONS OF THE REPAIR AREAS SHALL BE DETERMINED BY THE ENGINEER.

GUARDRAIL WORK WILL INCLUDE ALIGNMENT AS NECESSARY TO RESTORE THE RAIL TO THE ORIGINAL CONDITIONS.

REMOVAL OF DAMAGED MATERIALS WILL INCLUDE DISMANTLING, LOADING, HAULING AND DISPOSAL THE WORK SITE WILL BE LEFT IN A SAFE AND ORDERLY CONDITION.

THE LIMITS OF THE DAMAGED GUARDRAIL WILL BE MARKED WITH PAINT. THE REPLACEMENT PARTS AND THE QUANTITIES INDICATED ARE WITHIN THESE LIMITS AS MARKED.

REMOVED GUARDRAIL THAT IS NOT REPLACED ON THE SAME DAY MUST BE DELINEATED WITH LIGHTED BARRICADES. NO LOCATIONS WILL BE LEFT WITHOUT EITHER LIGHTED BARRICADES OR RESTORED GUARDRAIL AT ANY TIME.

ILLINOIS STATE LAW ENFORCES A 48-HOUR NOTICE TO BE GIVEN TO UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.L.E. (PHONE:800 892-0123) OR FOR NON-MEMBER, THE UTILITY COMPANY DIRECTLY.

THE CONTRACTOR SHALL BE ADVISED THAT THE GUARDRAIL PAY ITEMS INCLUDED IN THE PLANS MAY BE USED TO REPLACE/REPAIR SPBGR AND TRAFFIC BARRIER TERMINALS FOR THE NEW MIDWEST STANDARD AS SHOWN ON THE HIGHWAY STANDARDS AS WELL AS SPBGR AND TRAFFIC BARRIER TERMINAL INSTALLED PRIOR TO JAN. 1, 2007 AS SHOWN IN THE PLAN DETAILS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR UTILIZING THE CURRENT MIDWEST STANDARDS.

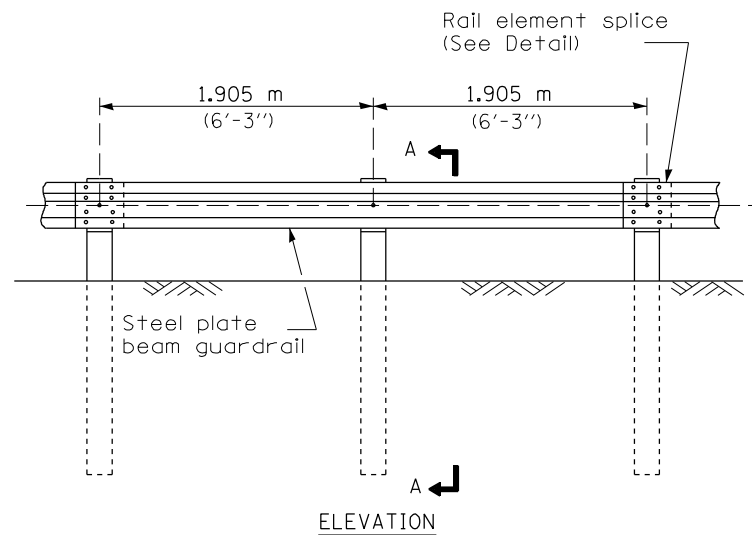
REV. SK

FILE NAME =	USER NAME = Jacob.Stark	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES & COMMITMENTS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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SUMMARY OF QUANTITIES - CONT

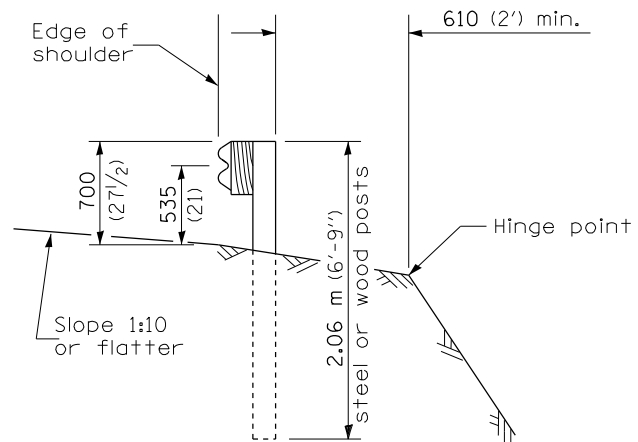
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ROUTE:	ROUTE:	VARIOUS	VARIOUS	VARIOUS
FUNDING:	FUNDING:	100% STATE	100% STATE	100% STATE
LOCATION:	LOCATION:	RURAL/URBAN	RURAL/URBAN	RURAL/URBAN
		MCHD	HIT AND RUN	HIGH TENSION CABLE
		0021	0021	0021

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	MCHD	HIT AND RUN	HIGH TENSION CABLE
X6650208	WOVEN WIRE FENCE REMOVAL AND REPLACEMENT	FOOT	112	112		
X7010102	NIGHTTIME WORK ZONE LIGHTING	EACH	46	25	21	
X7011834	TRAFFIC CONTROL AND PROTECTION, CALL OUT WORK	EACH	41	23	18	
X7011836	TRAFFIC CONTROL AND PROTECTION, FREEWAY/EXPRESSWAY, CALL OUT WORK	EACH	52	20	20	12
Z0052410	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)	EACH	17	9	8	
Z0052415	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (FLARED)	EACH	9	6	3	
Z0053200	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	8	5	3	
Z0053210	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	6	6		
Z0053220	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 6B	EACH	6	6		

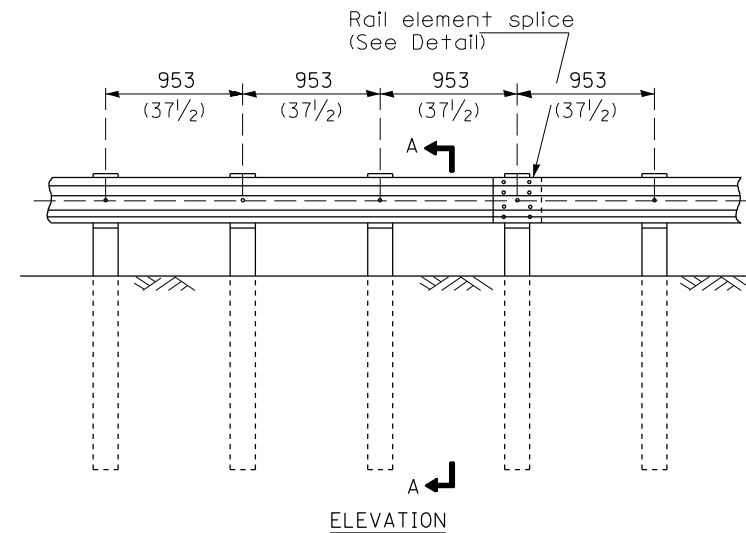


TYPE A

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

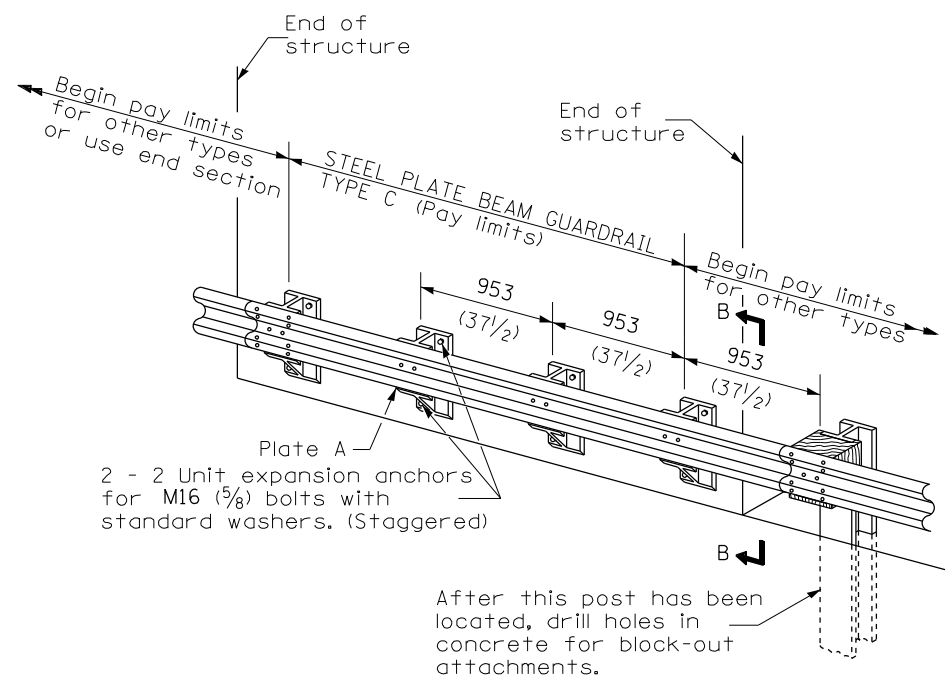


SECTION A-A



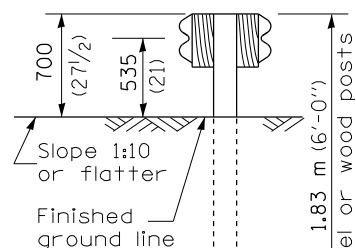
TYPE B

953 (37 1/2) Closed post spacing

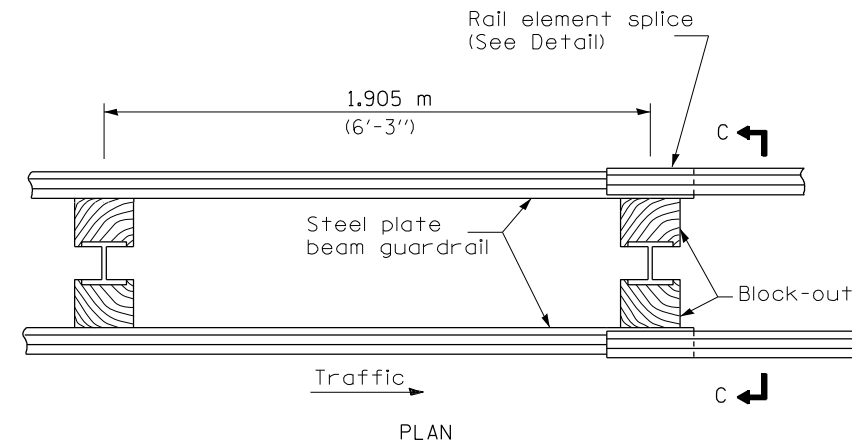


TYPE C

953 (37 1/2) Block-out spacing

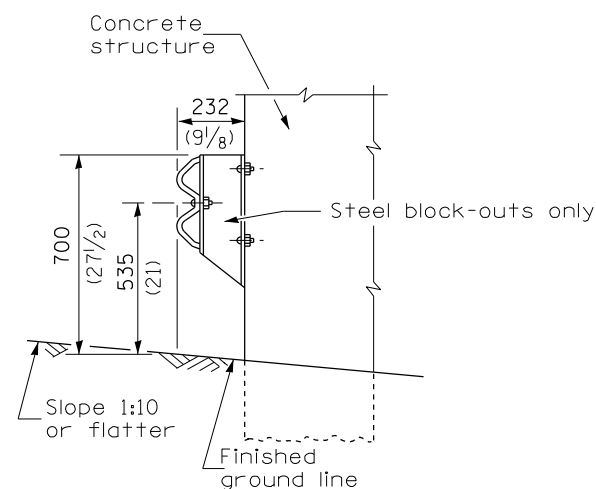


SECTION C-C



TYPE D

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



SECTION B-B

THIS DETAIL IS APPLICABLE TO THE GUARDRAIL
INSTALLED PRIOR TO JANUARY 1, 2007.

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.

DATE	REVISIONS
4-1-06	Deleted plate washer F.
1-1-05	Rev. post in impervious material on sheet 4.

STEEL PLATE BEAM GUARDRAIL

(Sheet 1 of 4)

STANDARD 630001-06

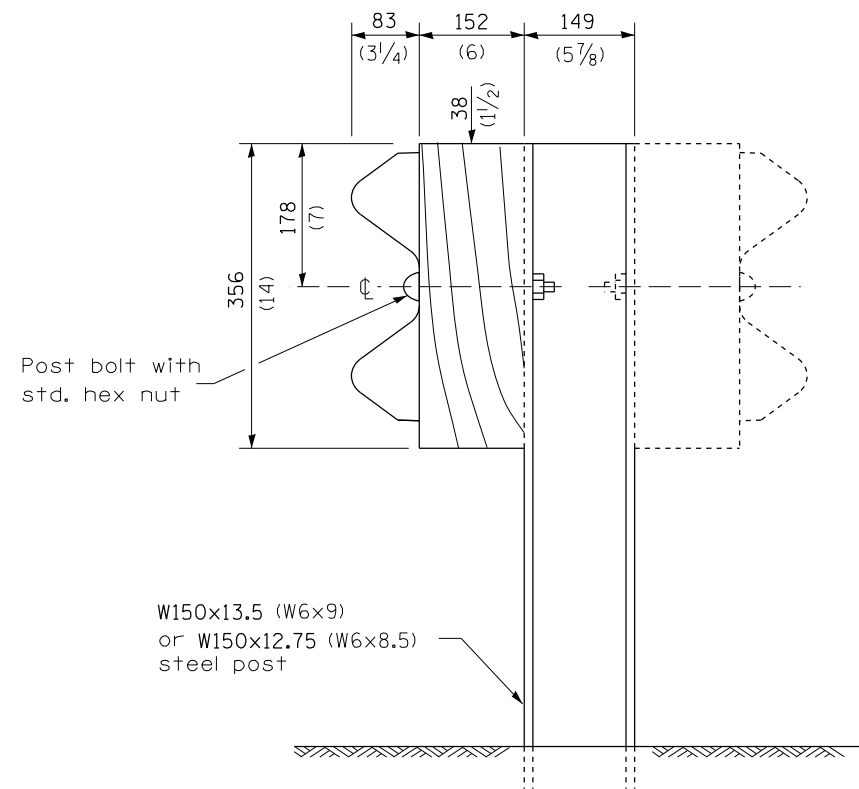
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p:\ildot\pw.bentley.com\PIWIDOT\Documents\IDOT Offices\District 9\Projects\Geometrics\DRAWING\Geometrics\guardrail.dgn		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

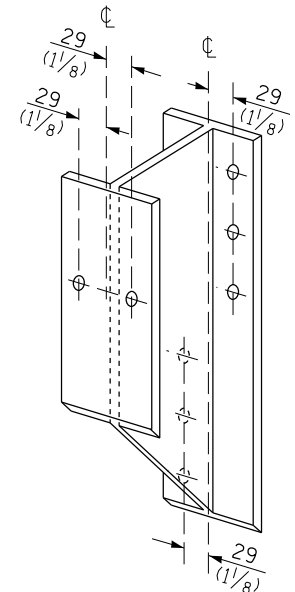
**STEEL PLATE BEAM GUARDRAIL STANDARD
INSTALLED PRIOR TO JANUARY 1, 2007**

SCALE: SHEET OF SHEETS STA. TO STA.

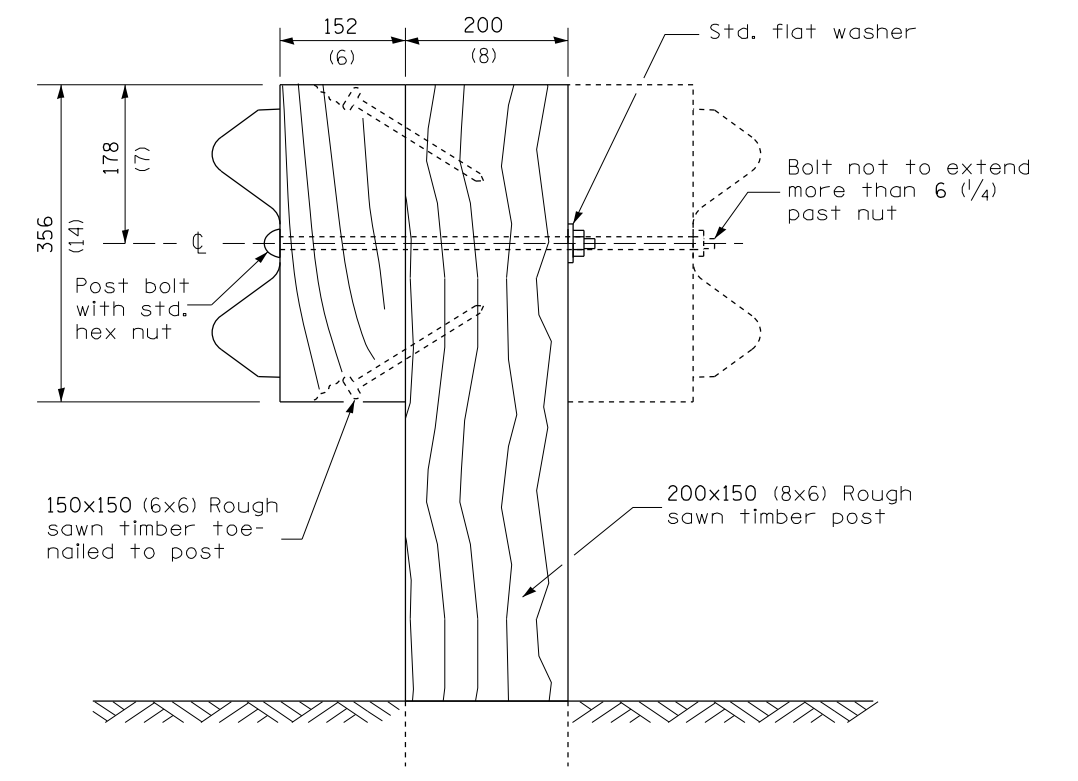
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D9 GUARDRAIL REPAIR FY24-1	VARIOUS	20	8
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78A01	



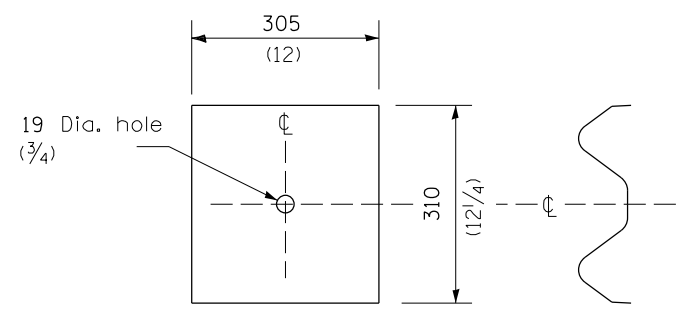
STEEL POST CONSTRUCTION



STEEL BLOCK-OUT DETAIL



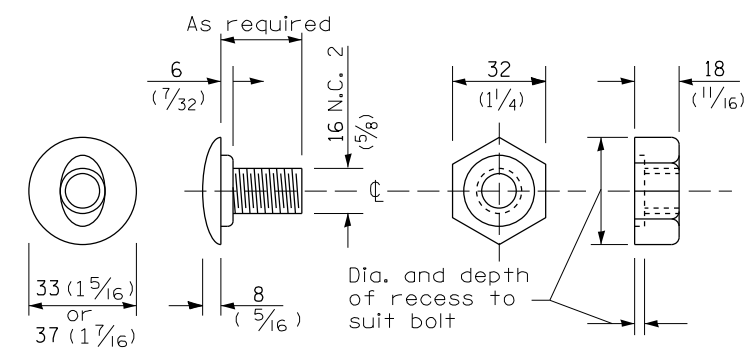
WOOD POST CONSTRUCTION



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

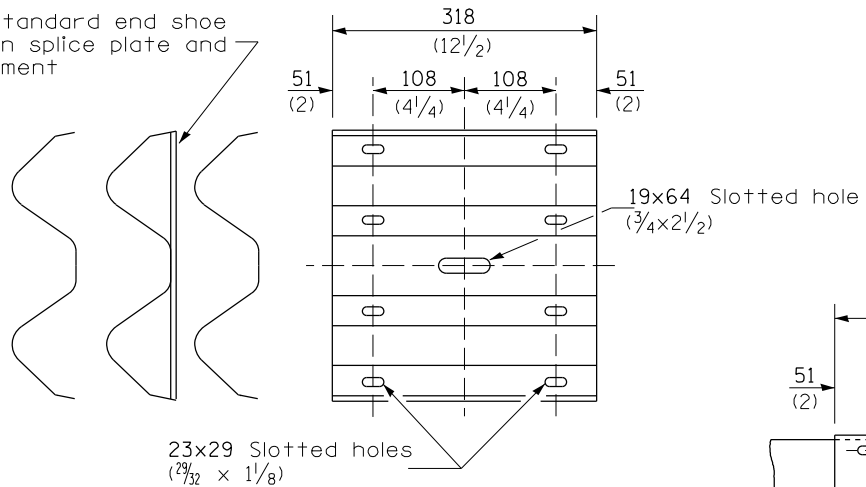
STEEL PLATE BEAM GUARDRAIL
(Sheet 2 of 4)

THIS DETAIL IS APPLICABLE TO THE GUARDRAIL INSTALLED PRIOR TO JANUARY 1, 2007.

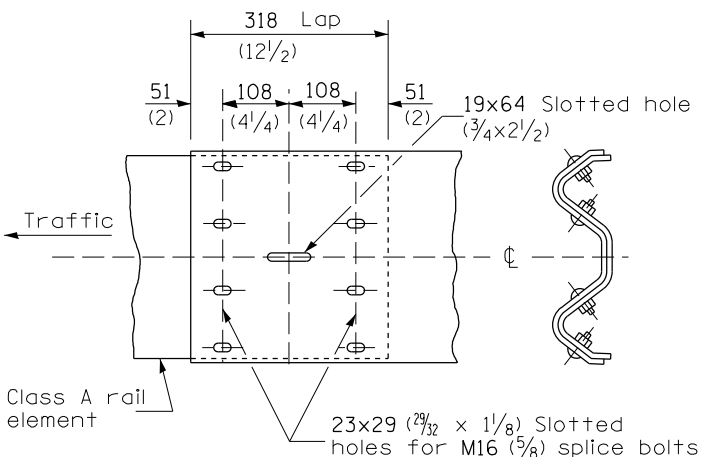
STANDARD 630001-06

FILE NAME =	USER NAME = Jacob.Stark	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STEEL PLATE BEAM GUARDRAIL STANDARD INSTALLED PRIOR TO JANUARY 1, 2007	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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Default	PLOT DATE = 4/13/2023	DATE -	REVISED -			CONTRACT NO. 78A01					
						ILLINOIS FED. AID PROJECT					

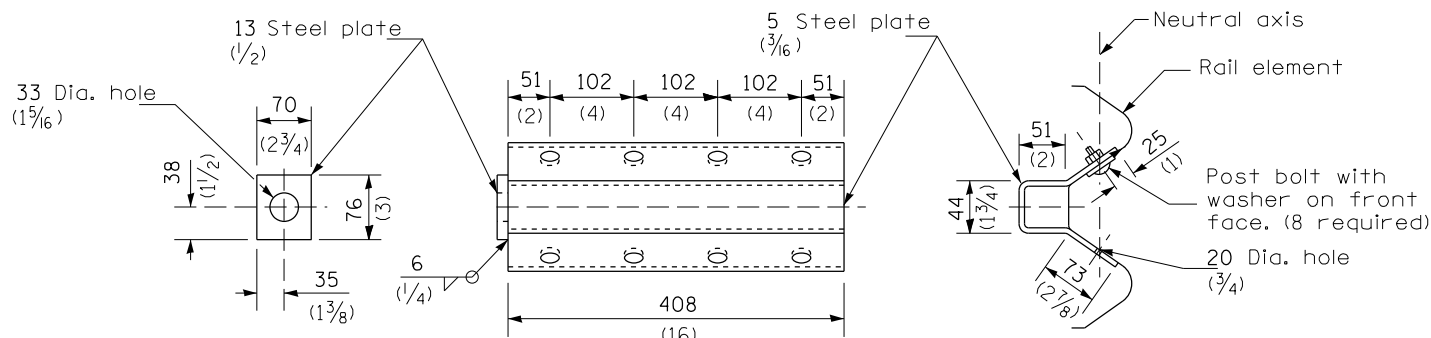
Place standard end shoe between splice plate and rail element



SPLICE PLATE



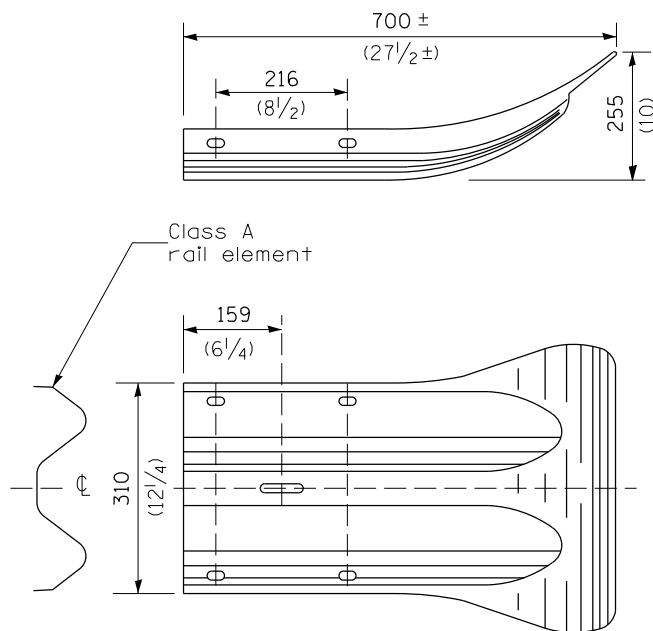
RAIL ELEMENT SPLICE



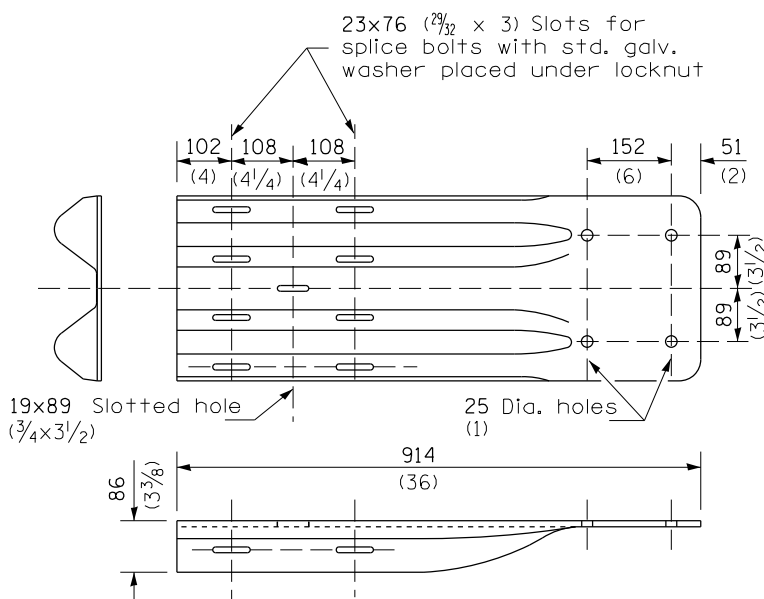
NOTE

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

ANCHOR PLATE T DETAILS



END SECTION



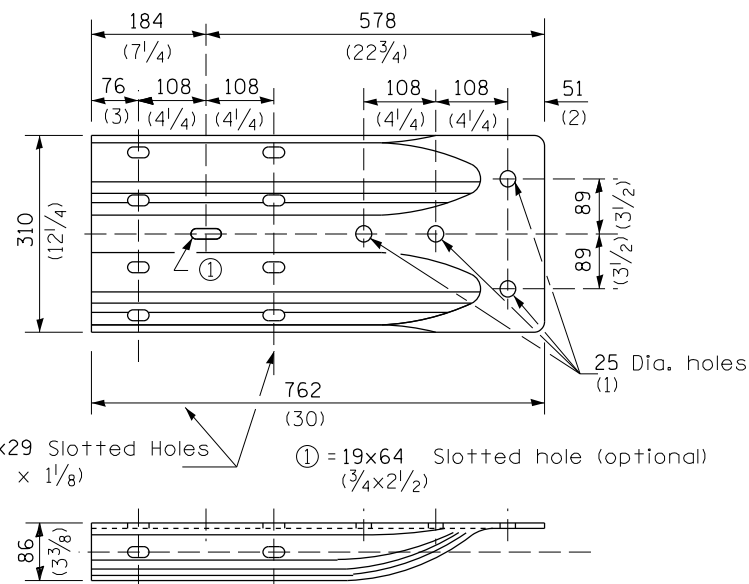
NOTE

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

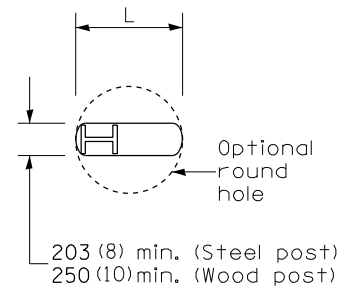
THIS DETAIL IS APPLICABLE TO THE GUARDRAIL INSTALLED PRIOR TO JANUARY 1, 2007.

STEEL PLATE BEAM GUARDRAIL

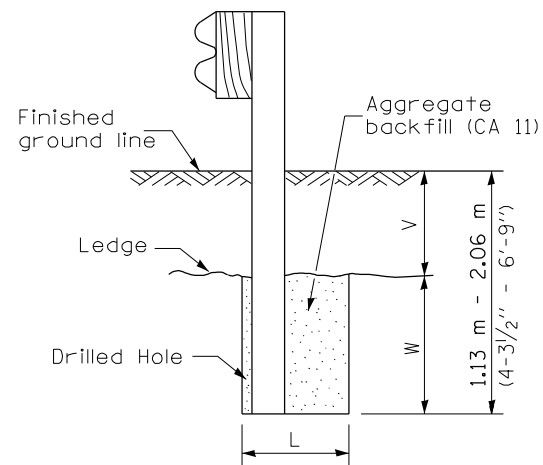
(Sheet 3 of 4)

STANDARD 630001-06

FILE NAME =	USER NAME = Jacob.Stark	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STEEL PLATE BEAM GUARDRAIL STANDARD INSTALLED PRIOR TO JANUARY 1, 2007	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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Default	PLOT DATE = 4/13/2023	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
						SCALE:	SHEET	OF	SHEETS	STA.	TO



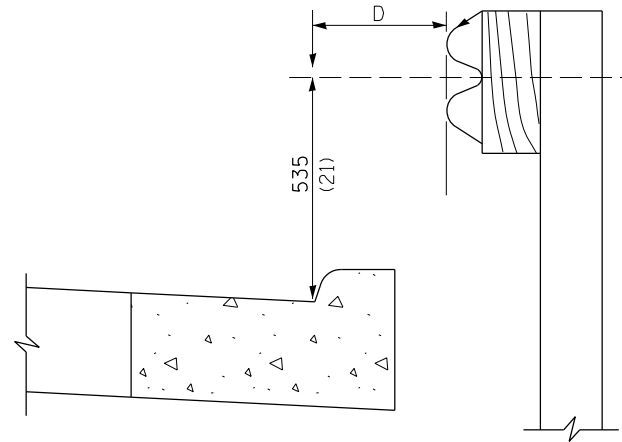
PLAN



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

ELEVATION

FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED

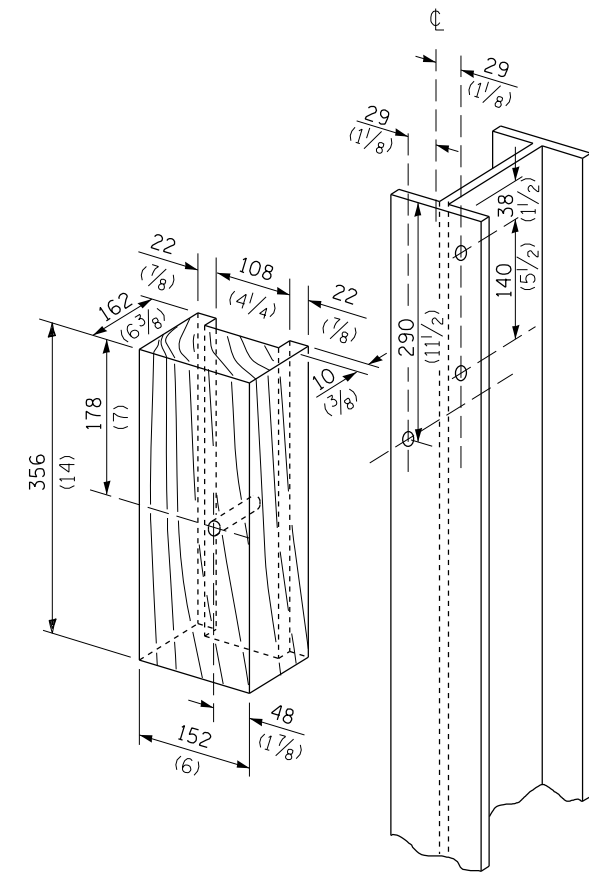


Note:
If it is necessary for D to be more than 300 (12) and less than 3.0 m (10'-0") type M-5 (M-2) curb and gutter (Std. 606001) shall be used in front of and in advance of the guardrail.

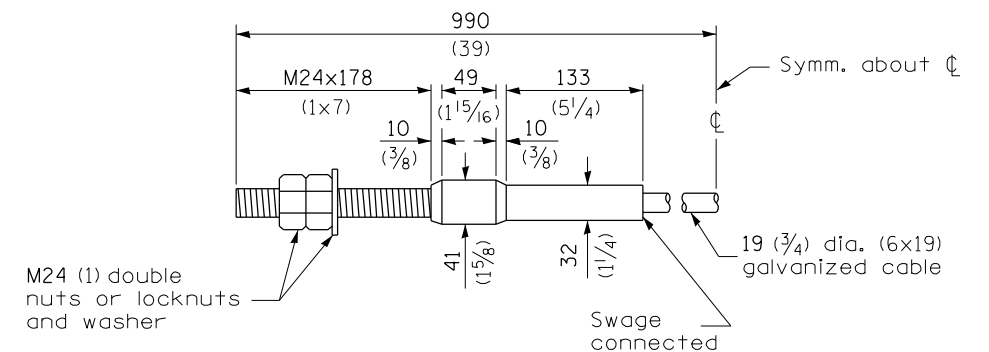
GUARDRAIL PLACED BEHIND CURB

(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.

STEEL PLATE BEAM GUARDRAIL

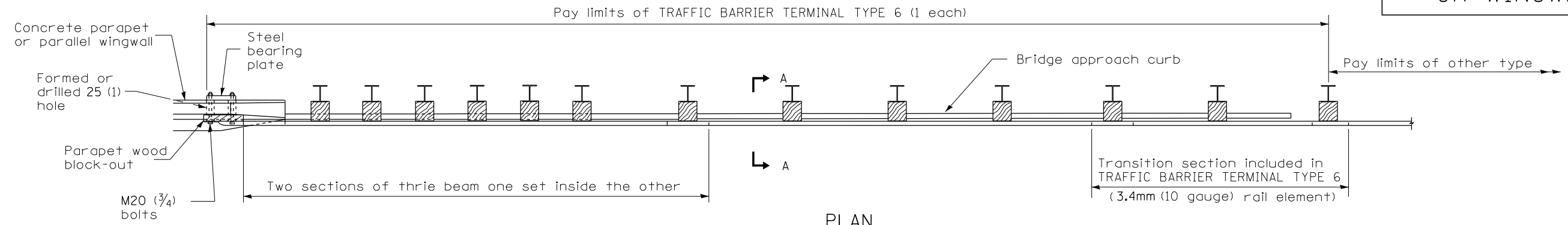
(Sheet 4 of 4)

STANDARD 630001-06

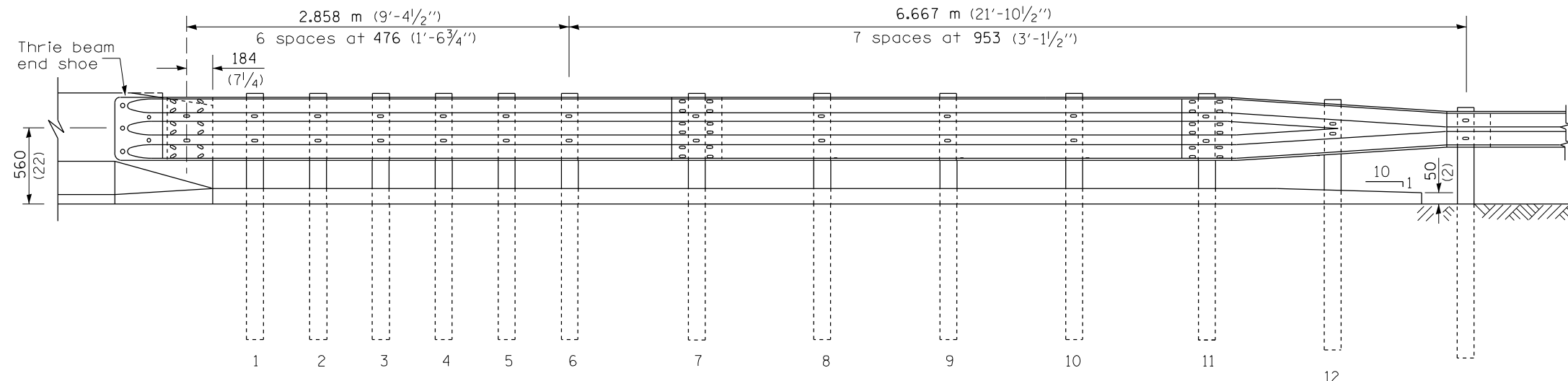
THIS DETAIL IS APPLICABLE TO THE GUARDRAIL
INSTALLED PRIOR TO JANUARY 1, 2007.

FILE NAME =	USER NAME = Jacob.Stark	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STEEL PLATE BEAM GUARDRAIL STANDARD INSTALLED PRIOR TO JANUARY 1, 2007	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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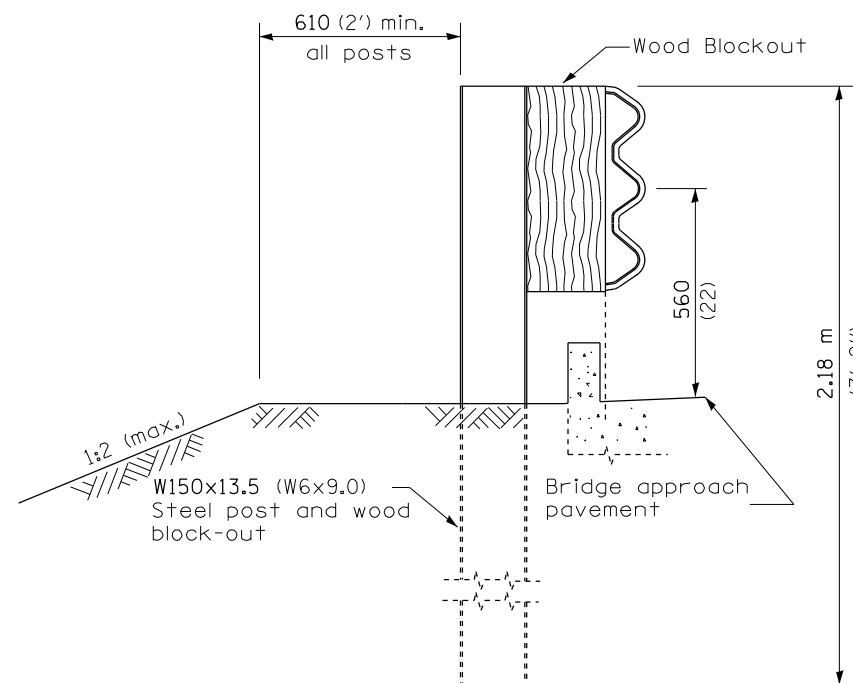
PARAPET
OR WINGWALL



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.

TRAFFIC BARRIER
TERMINAL, TYPE 6

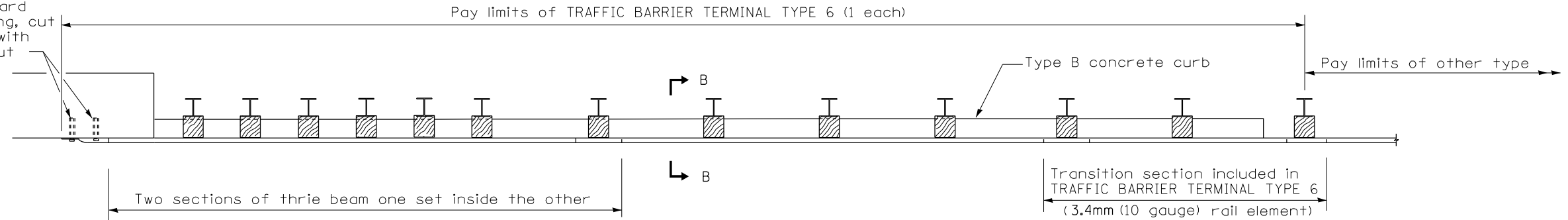
Sheet 1 of 3

STANDARD 631031-05

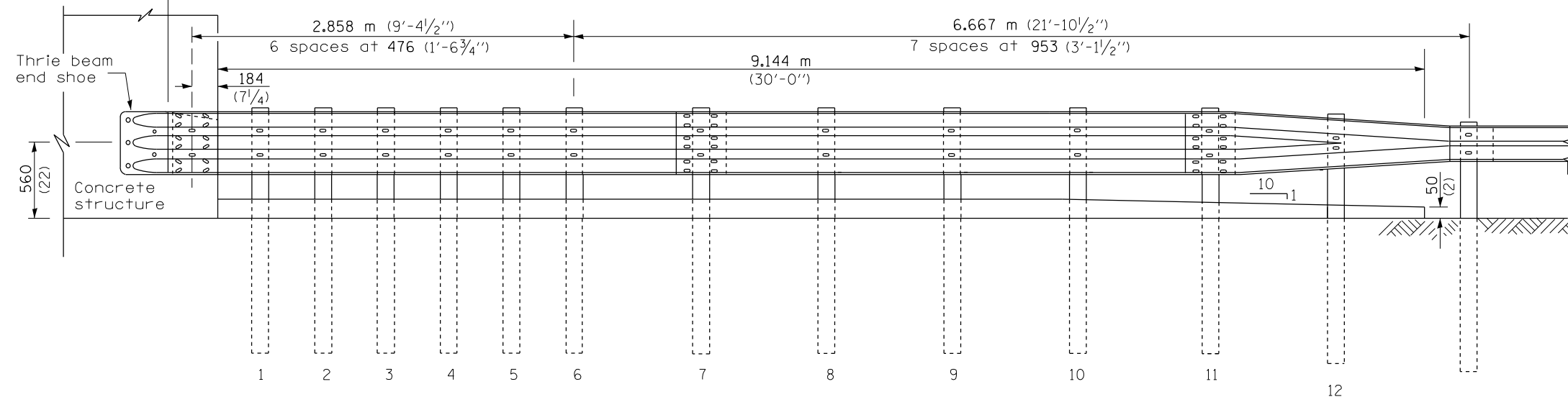
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FILE NAME =	USER NAME = Jacob.Stark	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC BARRIER TERMINAL, TYPE 6 STANDARD INSTALLED PRIOR TO JANUARY 1, 2007	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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						ILLINOIS FED. AID PROJECT					

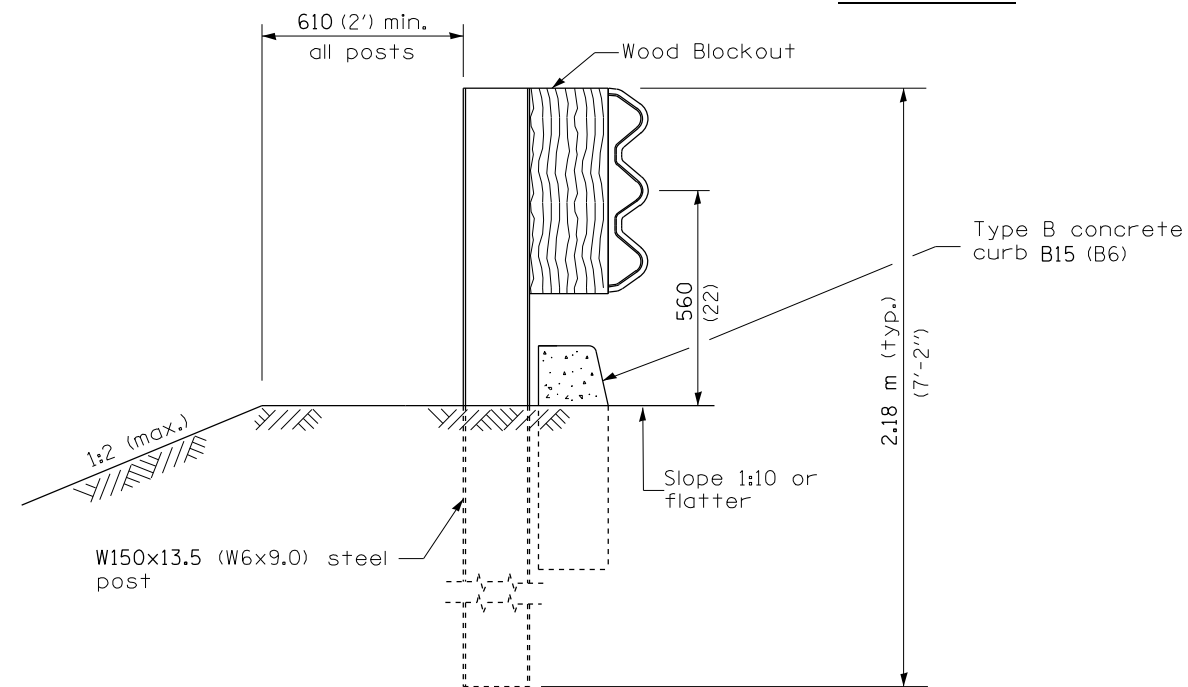
5 Epoxy grouted M20 (3/4") anchor bolts with standard washers. After tightening, cut the anchor bolts flush with nuts, and damage the nut to prevent it from loosening.



PLAN



ELEVATION



SECTION B-B

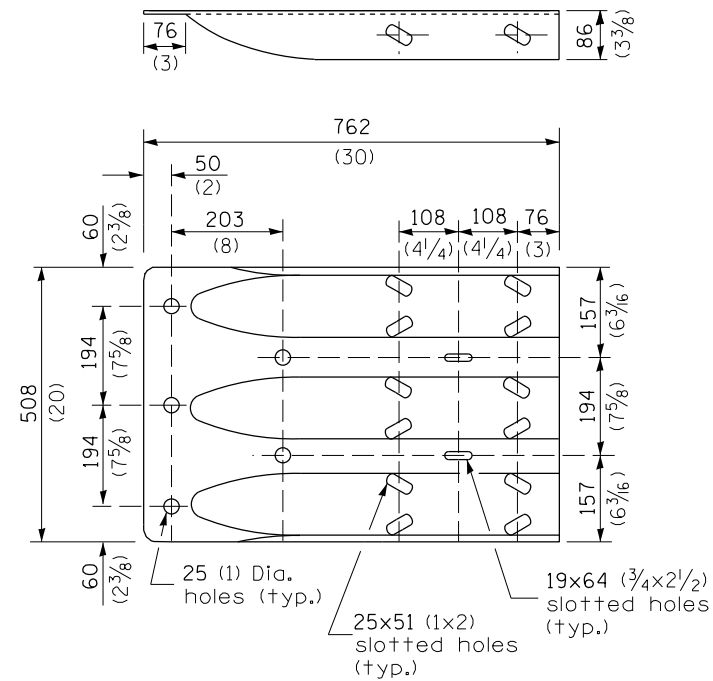
THIS DETAIL IS APPLICABLE TO THE GUARDRAIL INSTALLED PRIOR TO JANUARY 1, 2007.

TRAFFIC BARRIER TERMINAL, TYPE 6

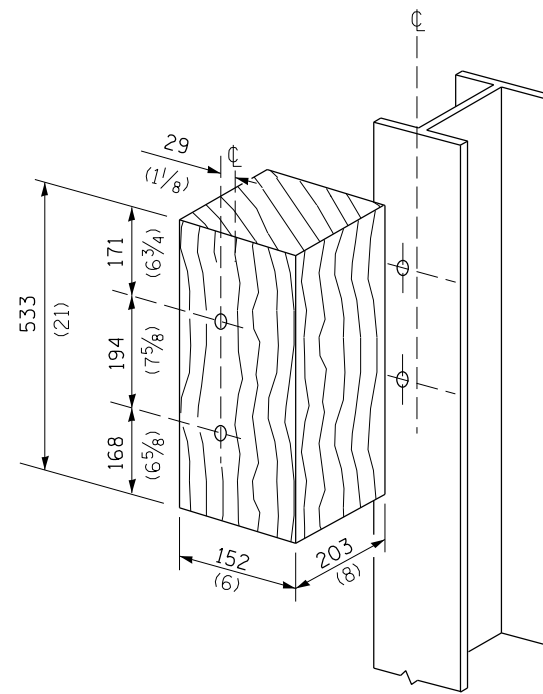
Sheet 2 of 3

STANDARD 631031-05

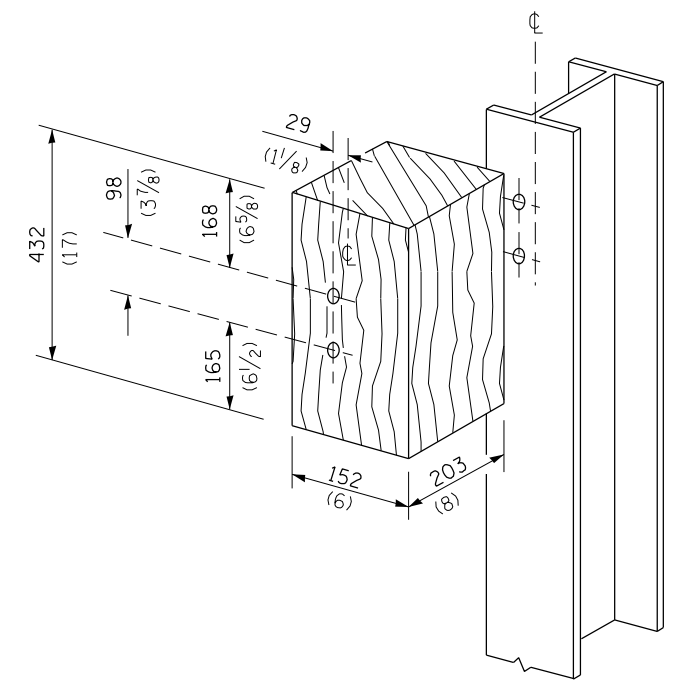
FILE NAME =	USER NAME = Jacob.Stark	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC BARRIER TERMINAL, TYPE 6 STANDARD INSTALLED PRIOR TO JANUARY 1, 2007	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\wildot-pw\bentley.com\PIWIDOT\Documents\DOT Offices\District 9\Projects\Geometrics\DRAWING\Geometrics\guardrail.dgn	PLOT SCALE = 24.5556 ' / in.	CHECKED -	REVISED -			VAR.	D9 GUARDRAIL REPAIR FY24-1	VARIOUS	20	13
Default	PLOT DATE = 4/13/2023	DATE -	REVISED -			SCALE: SHEET OF SHEETS STA. TO STA.		CONTRACT NO. 78A01		
						ILLINOIS FED. AID PROJECT				



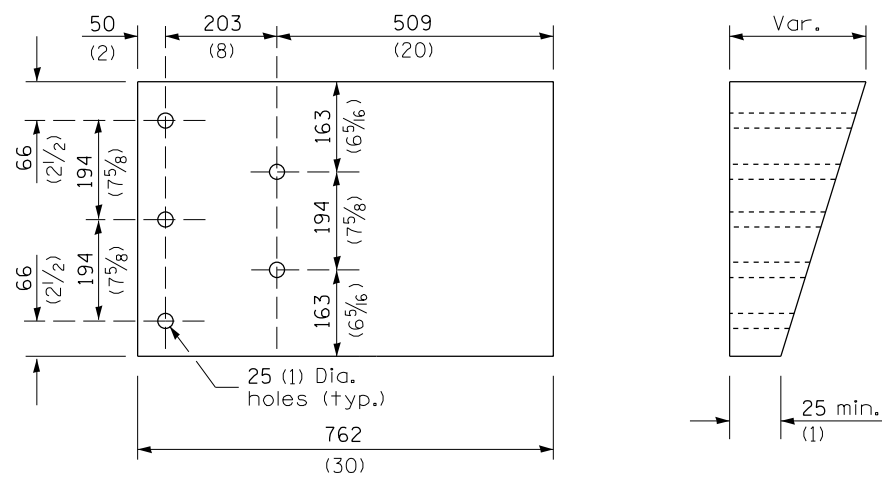
THRIE BEAM END SHOE DETAIL



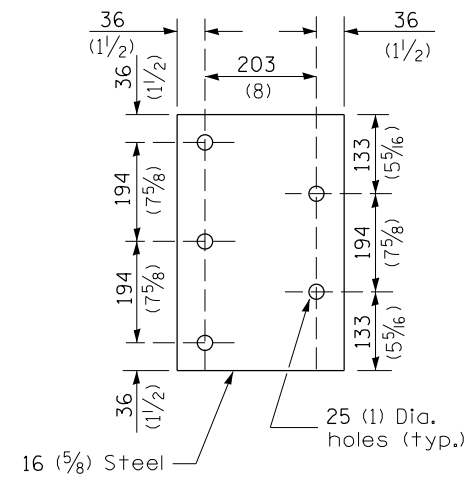
POSTS 1-11 WOOD BLOCKOUT DETAIL



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.)

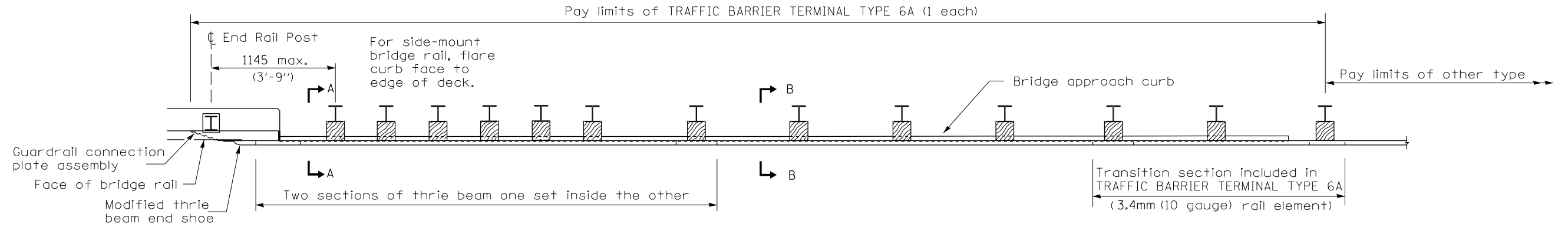
THIS DETAIL IS APPLICABLE TO THE GUARDRAIL
INSTALLED PRIOR TO JANUARY 1, 2007.

TRAFFIC BARRIER
TERMINAL, TYPE 6

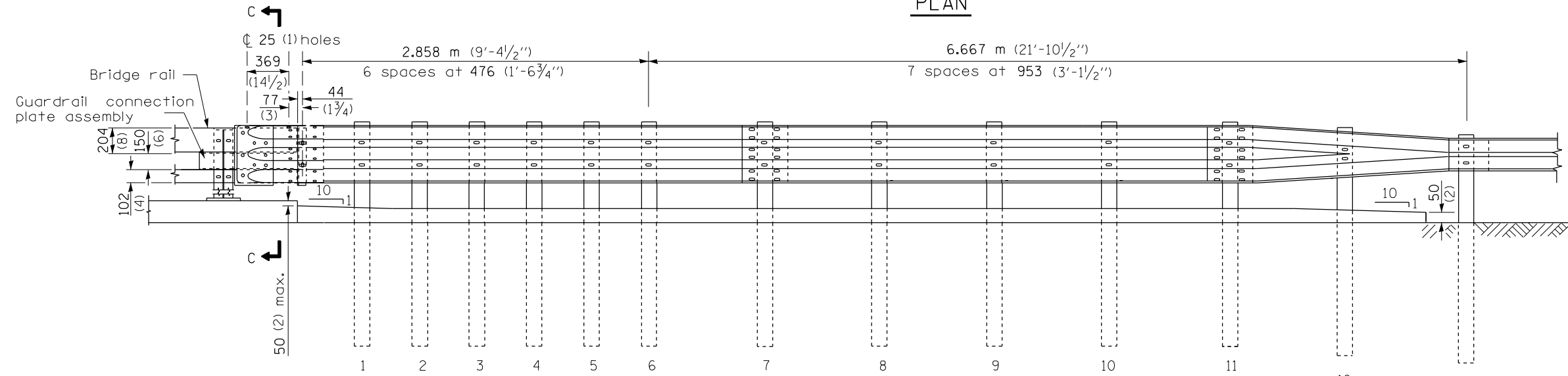
Sheet 3 of 3

STANDARD 631031-05

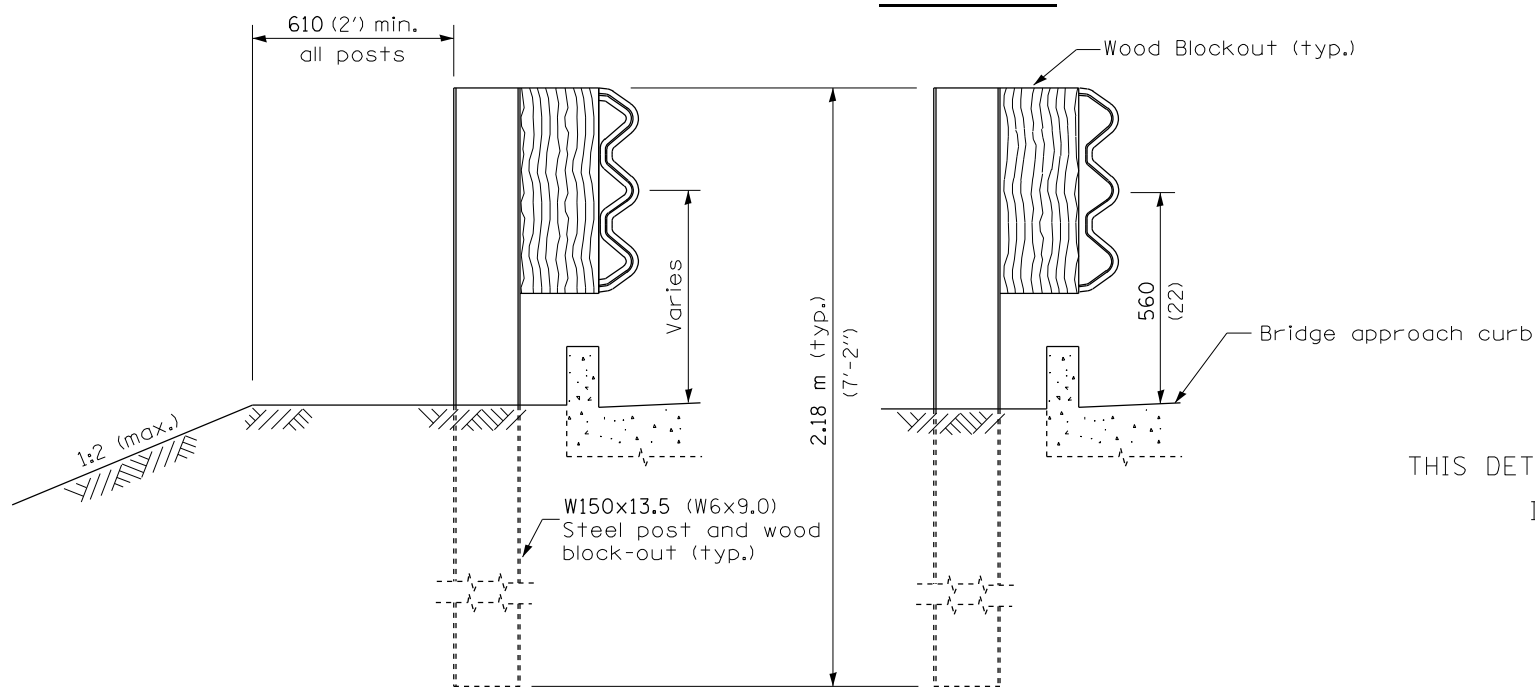
FILE NAME =	USER NAME = Jacob.Stark	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC BARRIER TERMINAL, TYPE 6 STANDARD INSTALLED PRIOR TO JANUARY 1, 2007	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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Default	PLOT DATE = 4/13/2023	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
SCALE: SHEET OF SHEETS STA. TO STA.											



PLAN



ELEVATION



SECTION A-A

SECTION B-B

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.

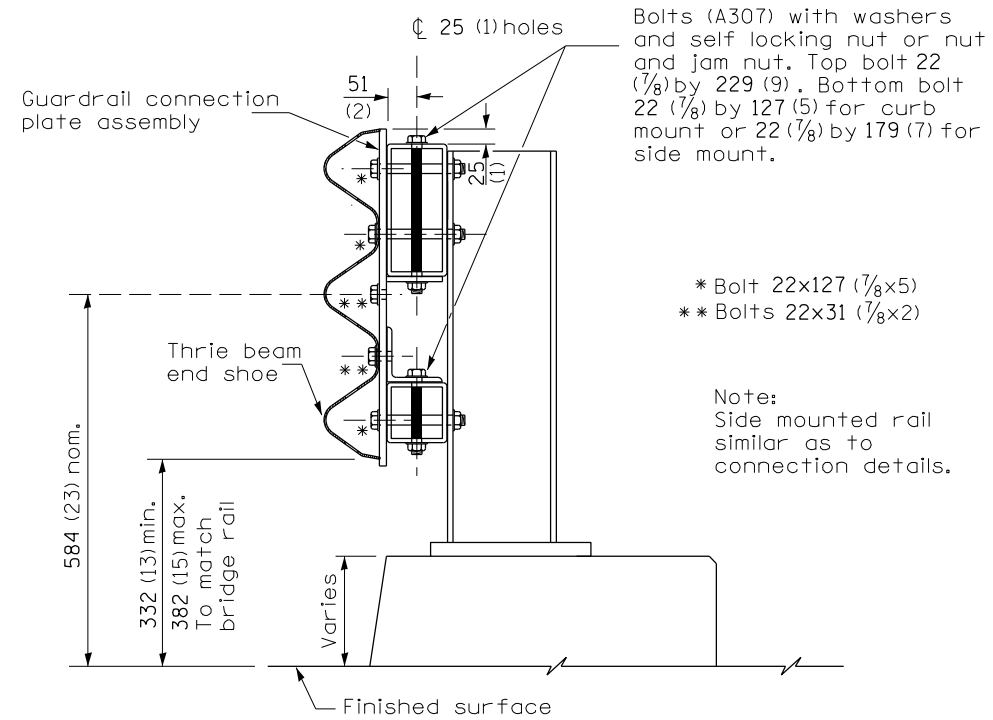
THIS DETAIL IS APPLICABLE TO THE GUARDRAIL INSTALLED PRIOR TO JANUARY 1, 2007.

DATE	REVISIONS
4-1-06	Added a General Note.
1-1-04	Revised bolts and bolt spacing in connection plate & wood blockouts.

TRAFFIC BARRIER TERMINAL, TYPE 6A

Sheet 1 of 3

STANDARD 631032-02

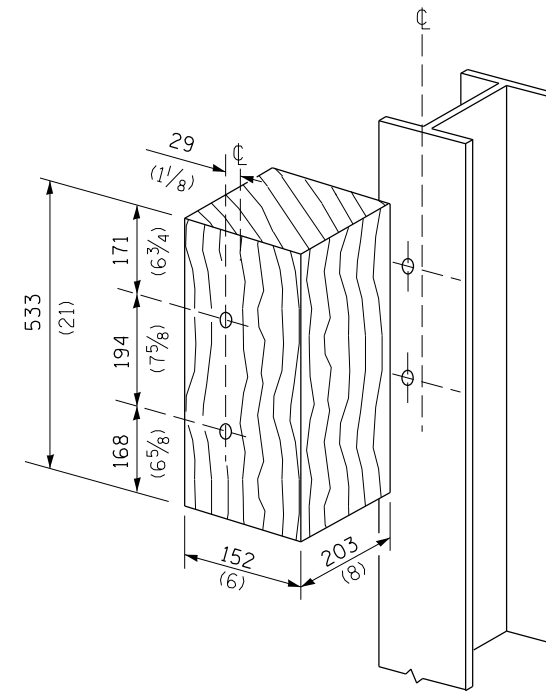


SECTION C-C

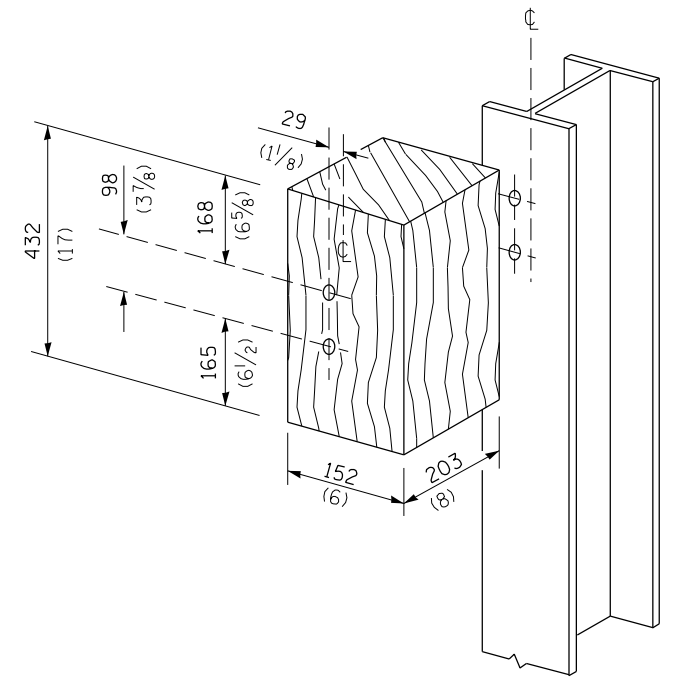
Bolts (A307) with washers and self locking nut or nut and jam nut. Top bolt 22 (7/8) by 229 (9). Bottom bolt 22 (7/8) by 127 (5) for curb mount or 22 (7/8) by 179 (7) for side mount.

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

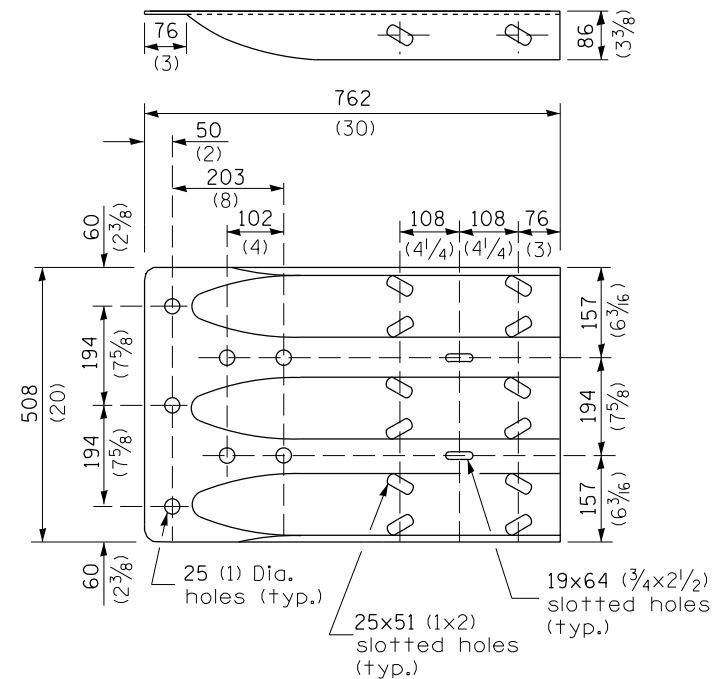
Note:
Side mounted rail similar as to connection details.



POSTS 1-11 WOOD BLOCKOUT DETAIL



POST 12 WOOD BLOCKOUT DETAIL



MODIFIED THRIE BEAM END SHOE DETAIL

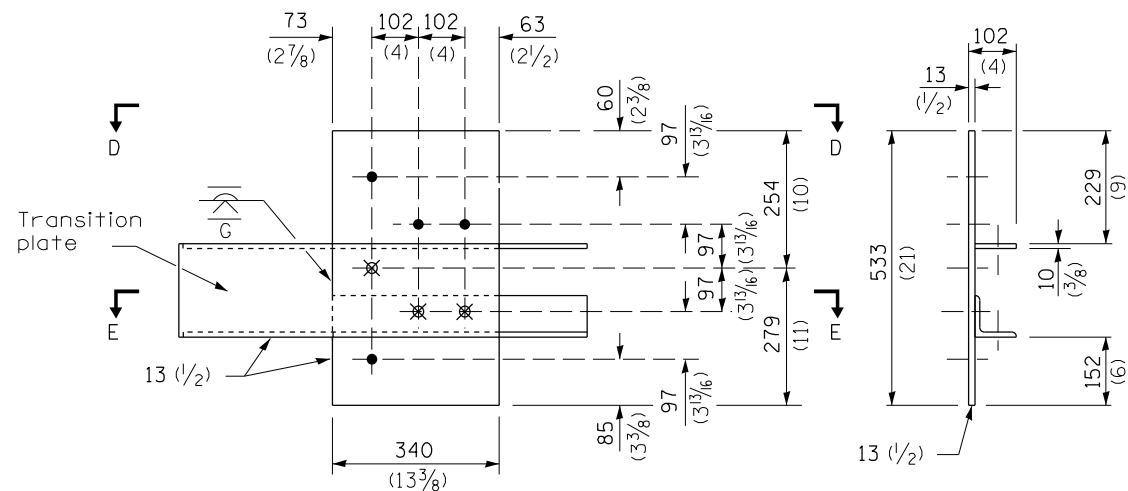
THIS DETAIL IS APPLICABLE TO THE GUARDRAIL INSTALLED PRIOR TO JANUARY 1, 2007.

TRAFFIC BARRIER TERMINAL, TYPE 6A

Sheet 2 of 3

STANDARD 631032-02

FILE NAME =	USER NAME = Jacob.Stark	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC BARRIER TERMINAL, TYPE 6A STANDARD INSTALLED PRIOR TO JANUARY 1, 2007	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
pwr\ildot-pw.bentley.com\PWIDOT\Documents\IDOT Offices\District 9\Projects\Geometrics\DRAWING\ometrics\guardrail.dgn		CHECKED -	REVISED -			VAR.	D9 GUARDRAIL REPAIR FY24-1	VARIOUS	20	16	
PLOT SCALE = 24,5556 ' / in.		DATE -	REVISED -			CONTRACT NO. 78A01					
Default	PLOT DATE = 4/13/2023					ILLINOIS FED. AID PROJECT					



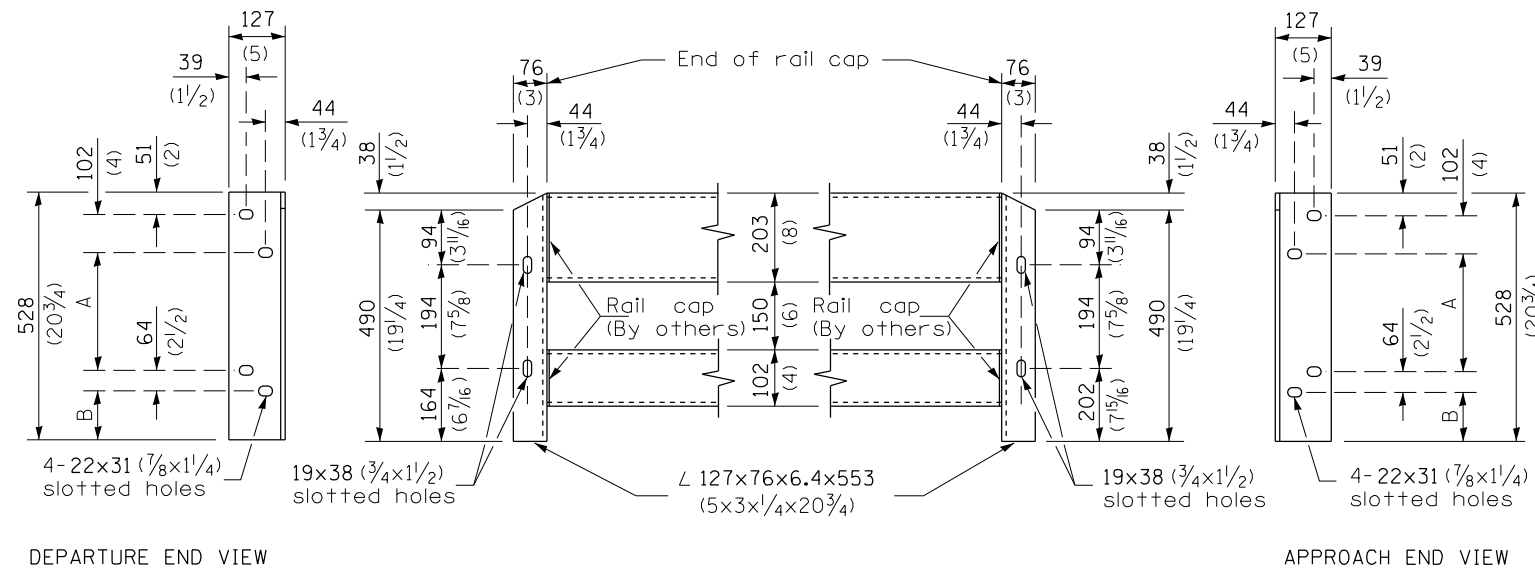
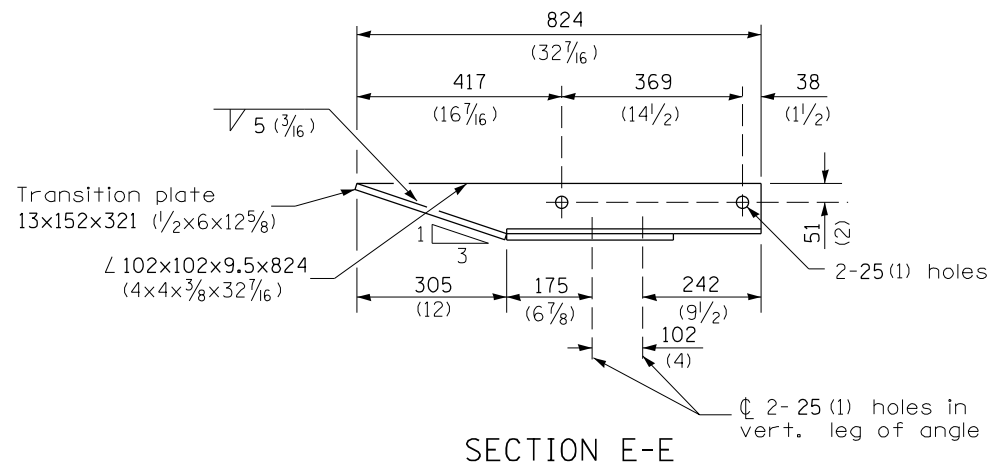
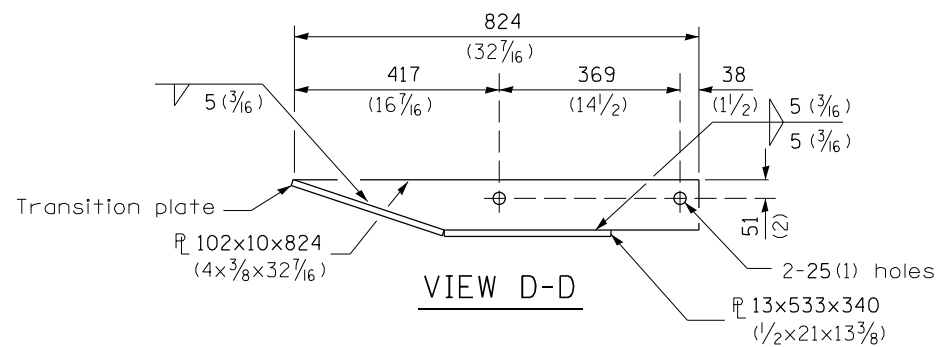
- \varnothing 4-25 (1) holes for 22 (7/8) H.S. bolts and nuts
- ⊗ Drill and tap 3 holes for 22 (7/8) H.S. bolts.

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)



CONNECTION ANGLES

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

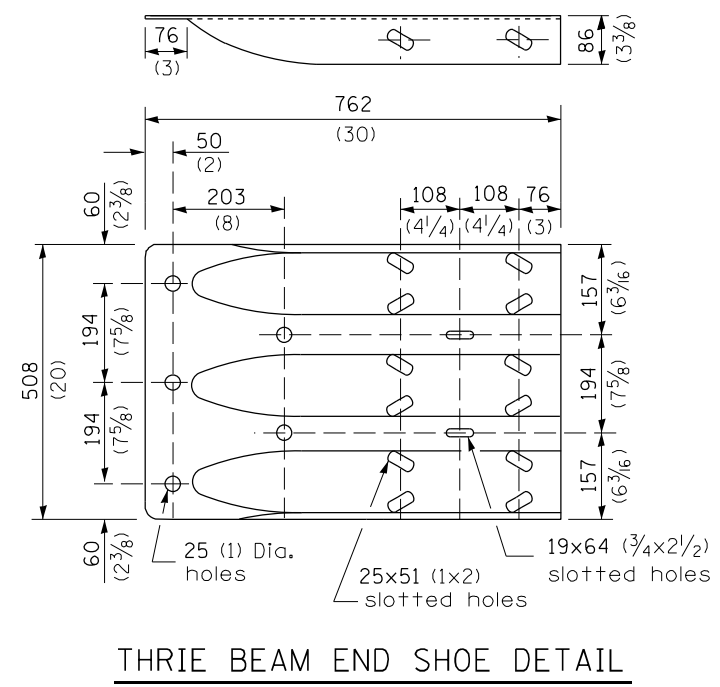
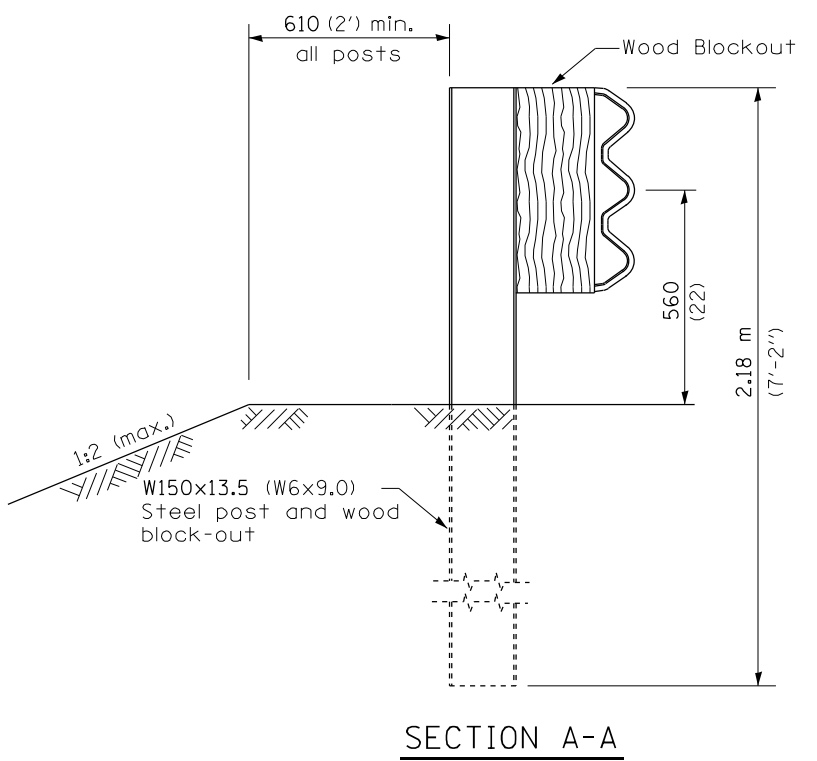
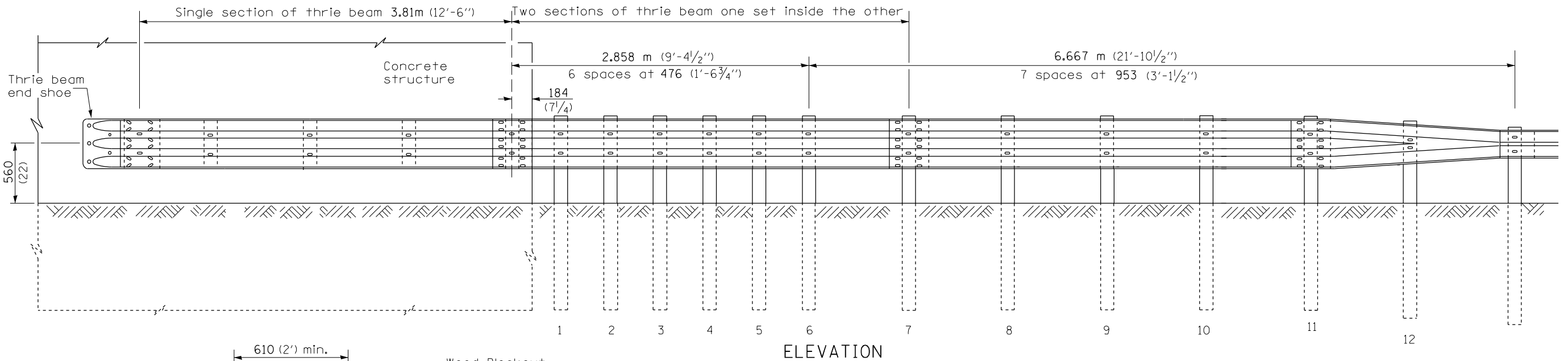
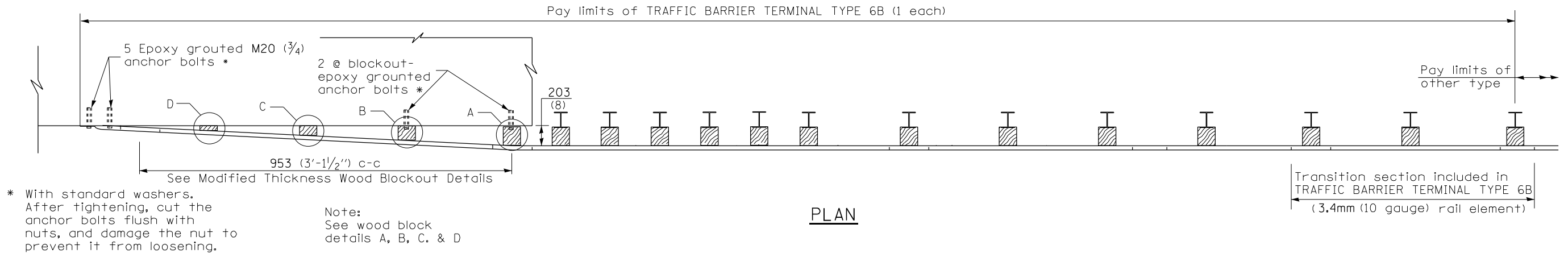
THIS DETAIL IS APPLICABLE TO THE GUARDRAIL INSTALLED PRIOR TO JANUARY 1, 2007.

TRAFFIC BARRIER TERMINAL, TYPE 6A

Sheet 3 of 3

STANDARD 631032-02

FILE NAME =	USER NAME = Jacob.Stark	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC BARRIER TERMINAL, TYPE 6A STANDARD INSTALLED PRIOR TO JANUARY 1, 2007	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE = 24,5556 ' / in.	CHECKED -	REVISED -	REVISED -			CONTRACT NO. 78A01				
Default	PLOT DATE = 4/13/2023	DATE -	REVISED -			ILLINOIS FED. AID PROJECT				



THIS DETAIL IS APPLICABLE TO THE GUARDRAIL INSTALLED PRIOR TO JANUARY 1, 2007.

GENERAL NOTES

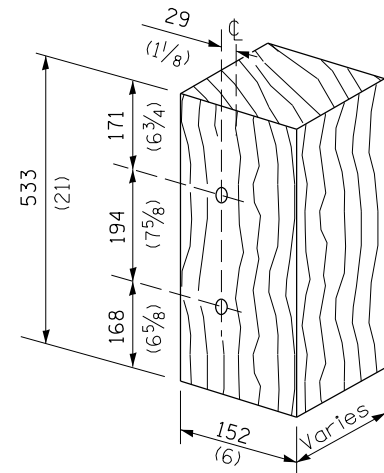
- See Standard 630001 for details of guardrail not shown.
- Thrie beam rail shall be bolted to block-out at all posts.
- All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
- All dimensions are in millimeters (inches) unless otherwise shown.

TRAFFIC BARRIER TERMINAL, TYPE 6B

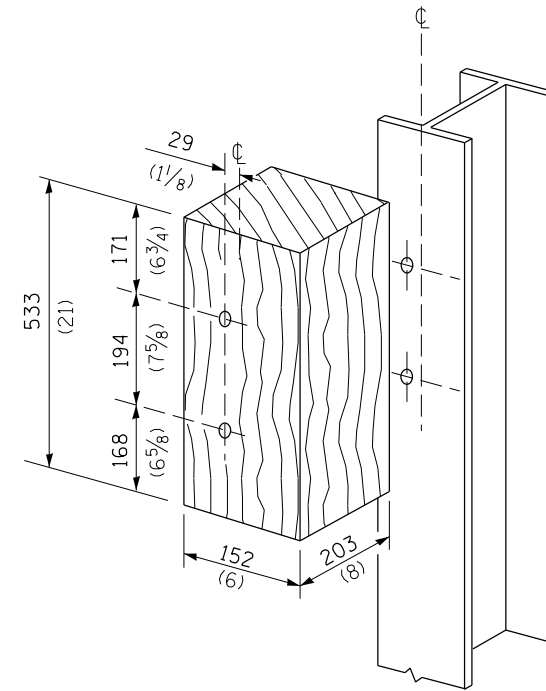
Sheet 1 of 2

STANDARD 631033-01

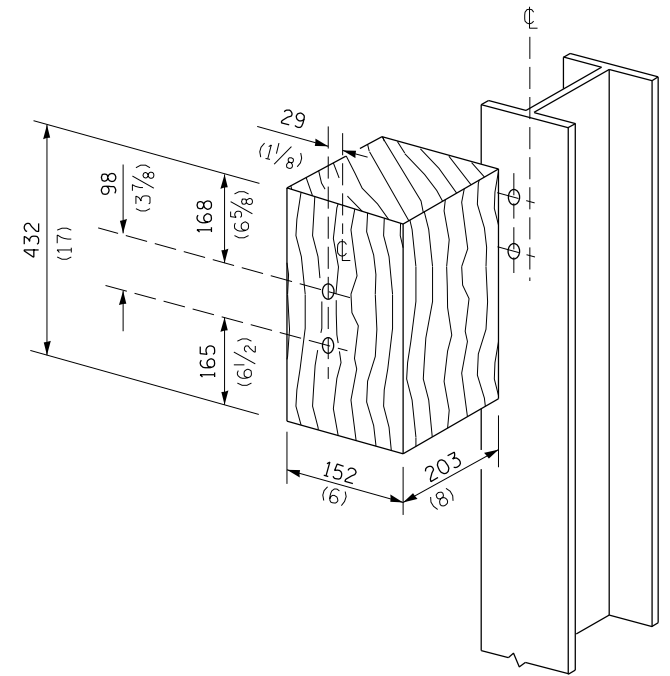
FILE NAME =	USER NAME = Jacob.Stark	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC BARRIER TERMINAL, TYPE 6B STANDARD INSTALLED PRIOR TO JANUARY 1, 2007	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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Default	PLOT DATE = 4/13/2023	DATE -	REVISED -			CONTRACT NO. 78A01			ILLINOIS FED. AID PROJECT	
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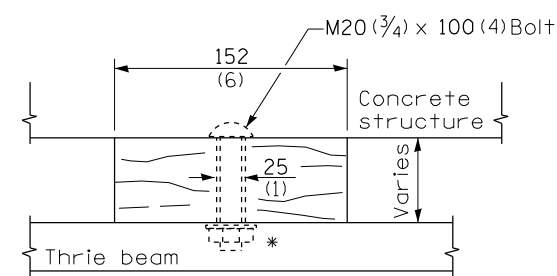
MODIFIED THICKNESS WOOD BLOCKOUT DETAIL



POSTS 1-11 WOOD BLOCKOUT DETAIL

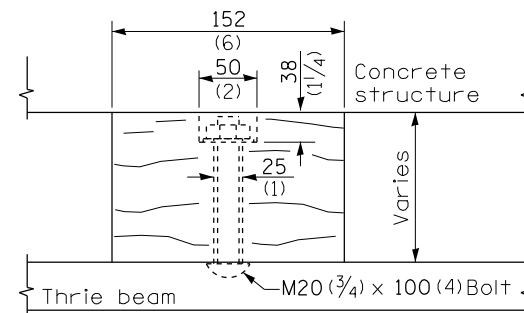


POST 12 WOOD BLOCKOUT DETAIL

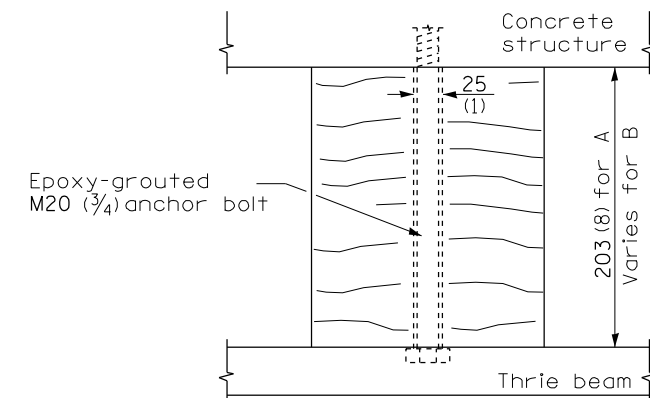


WOOD BLOCKOUT D

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

THIS DETAIL IS APPLICABLE TO THE GUARDRAIL
INSTALLED PRIOR TO JANUARY 1, 2007.

TRAFFIC BARRIER
TERMINAL, TYPE 6B

Sheet 2 of 2

STANDARD 631033-01

FILE NAME =	USER NAME = Jacob.Stark	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC BARRIER TERMINAL, TYPE 6B STANDARD INSTALLED PRIOR TO JANUARY 1, 2007	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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Default	PLOT DATE = 4/13/2023	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
						SCALE:	SHEET	OF	SHEETS	STA.	TO STA.

