

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

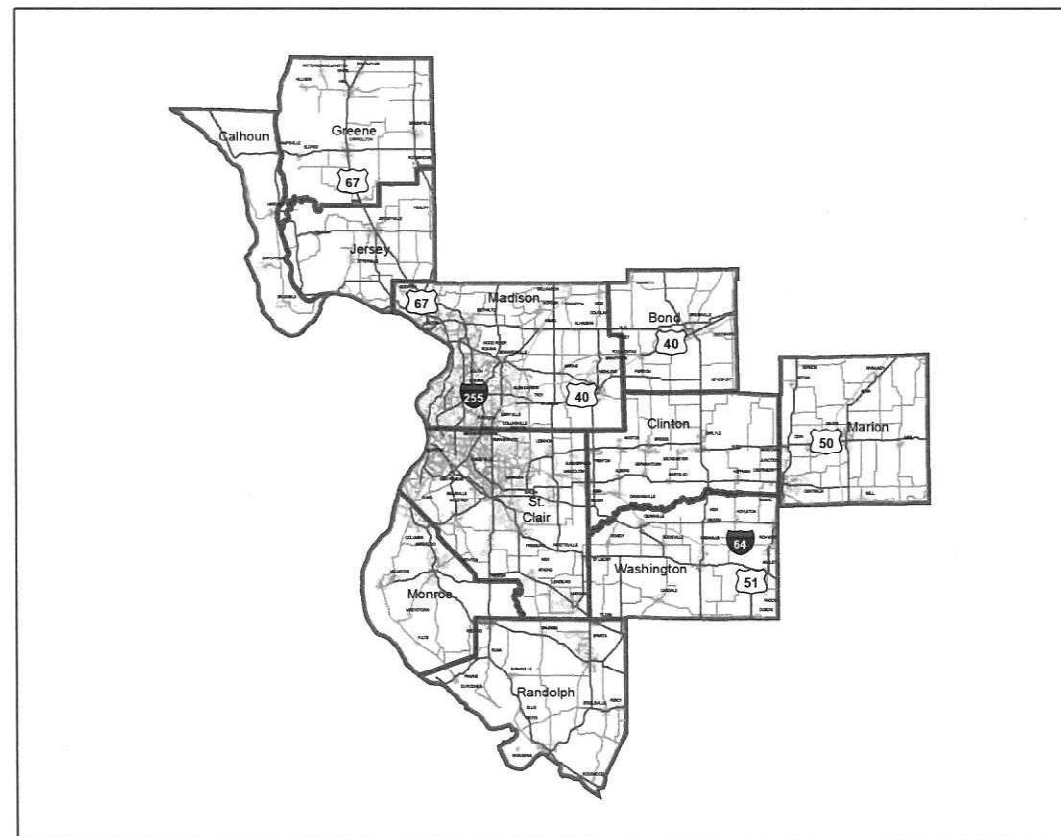
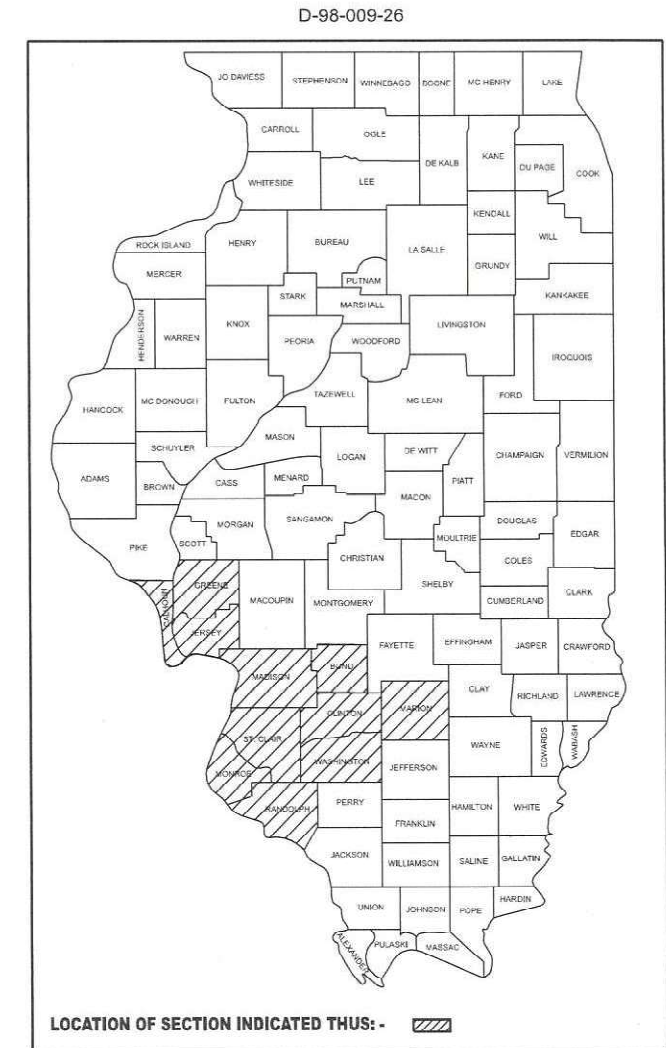
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 GUARDRAIL 2027-1	VARIOUS	12	1
		ILLINOIS	CONTRACT NO. 76U97	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

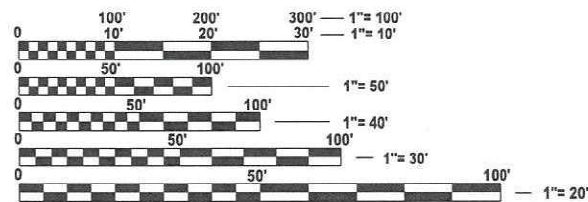
PROPOSED  
HIGHWAY PLANS

VARIOUS ROUTES  
SECTION DIST 8 GUARDRAIL 2027-1  
GUARDRAIL & CABLE MEDIAN REPAIR  
VARIOUS COUNTY

C-98-034-26



NOT TO SCALE



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER CHERLY KEPLAR  
PROJECT MANAGER NATHAN COX

CONTRACT NO. 76U97

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED *Mar 25 20 26*  
*[Signature]*  
REGIONAL ENGINEER

May 8 20 26  
*[Signature]*  
ENGINEER OF DESIGN AND ENVIRONMENT

May 8 20 26  
*[Signature]*  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS



MODEL: SOQ (Sheet)  
 FILE NAME: c:\p\work\pawid\lewis\kald1200914\B876U97-shr-SOQ.dgn

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
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				SAFETY	MCHD	HTCMB
				0021	0021	0021
				URBAN	URBAN	URBAN
63000350	LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN	FOOT	310	140	170	
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	14	6	8	
63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	14	6	8	
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	14	6	8	
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	230	110	120	
63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	95	40	55	
64300260	IMPACT ATTENUATORS (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	11	5	6	
64300370	IMPACT ATTENUATORS (FULLY REDIRECTIVE, WIDE), TEST LEVEL 3	EACH	11	5	6	
67100100	MOBILIZATION	L SUM	1	0.33	0.34	0.33
72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	180	90	90	
78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	90	35	55	
X0326468	MEDIAN CABLE	FOOT	1610	700	910	
X6300210	GUARDRAIL BLOCKS	EACH	1200	550	650	
X6300215	RAIL ELEMENT PLATES	EACH	905	385	520	

USER NAME = Kevin.Lewis	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 3/24/2026	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 GUARDRAIL 2027-1	VARIOUS	12	3
			CONTRACT NO. 76U97	
		ILLINOIS	FED. AID PROJECT	

MODEL: SOQ-1 [Sheet]  
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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				100% STATE	100% STATE	100% STATE
				SAFETY	MCHD	HTCMB
				0021	0021	0021
				URBAN	URBAN	URBAN
X6300217	RAIL ELEMENT PLATES (RADIUS)	EACH	80	35	45	
X6300220	EXTRUDER HEAD	EACH	30	10	20	
X6300225	SINGLE END SECTION	EACH	14	6	8	
X6300231	STEEL POST, ATTACHED TO STRUCTURES	EACH	22	10	12	
X6300236	STEEL POSTS 6'	EACH	1000	440	560	
X6300239	STEEL POSTS 9'	EACH	495	220	275	
X6310302	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)	EACH	125	56	69	
X6310304	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (FLARED)	EACH	25	10	15	
X6310306	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL - POST	EACH	160	70	90	
X6310310	REPAIR TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL - RAIL ELEMENT PLATE	EACH	65	30	35	
X6310316	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	16	7	9	
X6310322	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 3A	EACH	16	7	9	
X6310326	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	16	7	9	
X6310330	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	16	7	9	

USER NAME = Kevin.Lewis	DESIGNED -	REVISED -
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	CHECKED -	REVISED -
PLOT DATE = 2/5/2026	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 GUARDRAIL 2027-1	VARIOUS	12	4
			CONTRACT NO. 76U97	
		ILLINOIS	FED. AID PROJECT	

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
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				SAFETY	MCHD	HTCMB
				0021	0021	0021
				URBAN	URBAN	URBAN
X6331110	STEEL POSTS (SPECIAL)	EACH	16	7	9	
X6360108	CABLE GUARD POST	EACH	1000	450	550	
X6360109	HIGH TENSION CABLE ROAD GUARDPOST	EACH	2250			2250
X6360111	HIGH TENSION CABLE SYSTEM MAINTENANCE	EACH	1050			1050
X6430210	REMOVE AND REINSTALL IMPACT ATTENUATORS	EACH	185	85	100	
X6440120	HIGH TENSION CABLE POST REPAIR	EACH	1000			1000
X7011834	TRAFFIC CONTROL AND PROTECTION, CALL OUT WORK	EACH	700	200	300	200
X7011836	TRAFFIC CONTROL AND PROTECTION, FREEWAY/EXPRESSWAY, CALL OUT WORK	EACH	1085	385	500	200
X8030110	LOCATING UNDERGROUND CABLE (SPECIAL)	EACH	9	4	5	
Z0029662	REPLACE HIGH TENSION CABLE GUARDPOST FOUNDATION	EACH	1500			1500

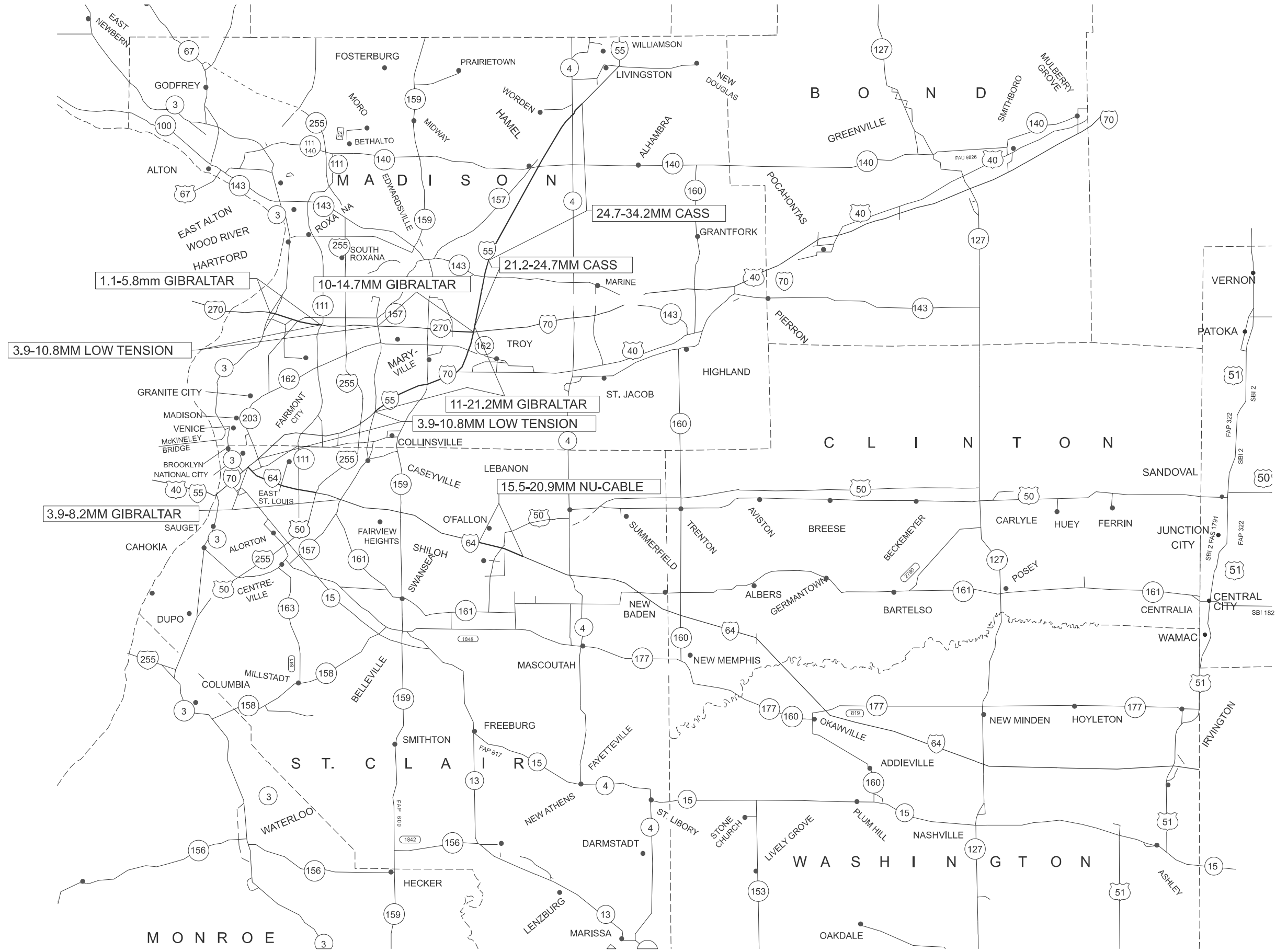
USER NAME = Kevin.Lewis	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 3/24/2026	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 GUARDRAIL 2027-1	VARIOUS	12	5
			CONTRACT NO. 76U97	
		ILLINOIS FED. AID PROJECT		



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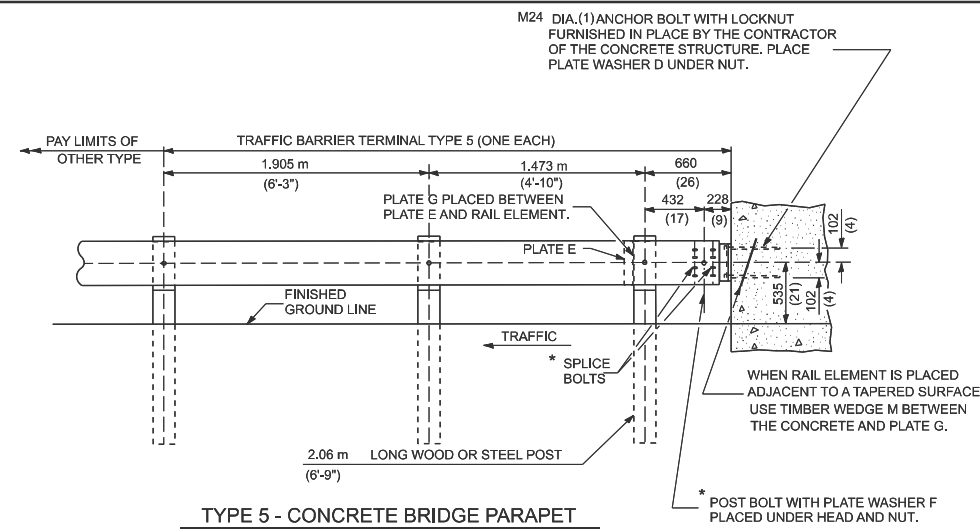
FOR INFORMATION ONLY.  
 CONTRACTOR SHALL CONFIRM  
 SYSTEM TYPE PRIOR TO  
 ORDERING MATERIALS.

USER NAME = Kevin.Lewis	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2026	DATE -	REVISED -

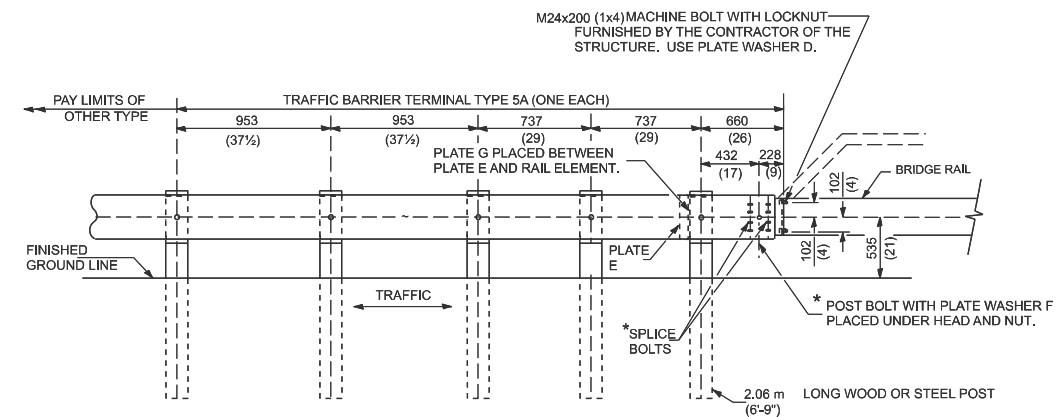
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>HIGH TENSION CABLE    LOCATION MAP</b>			
SCALE:	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 GUARDRAIL 2027-1	VARIOUS	12	6
CONTRACT NO. 76U97				
ILLINOIS FED. AID PROJECT				



TYPE 5 - CONCRETE BRIDGE PARAPET



TYPE 5A - STEEL BRIDGE RAIL

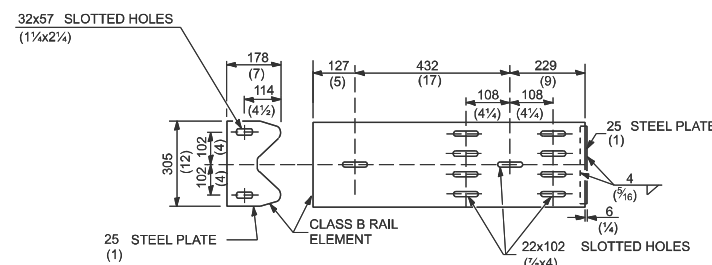


PLATE G

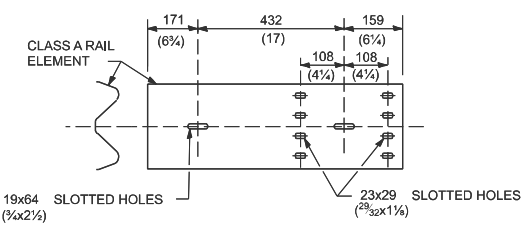
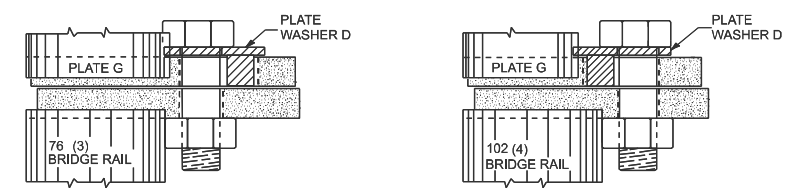


PLATE E



PLACEMENT OF PLATE WASHER D (PLAN)

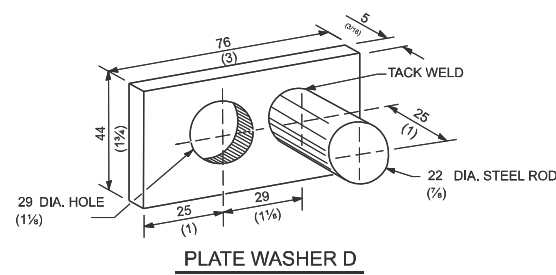
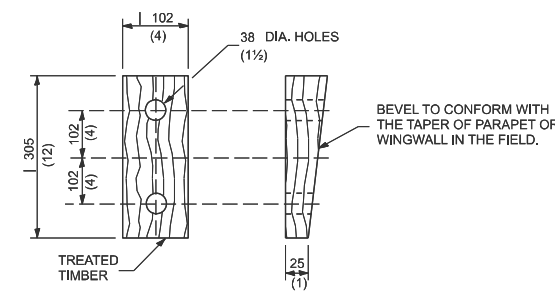


PLATE WASHER D



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.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.

THIS DETAIL IS APPLICABLE TO THE GUARDRAIL SYSTEM USED PRIOR TO JANUARY 1, 2007. FOR DETAILS ON THE MIDWEST GUARDRAIL SYSTEM, SEE STANDARD 630001.

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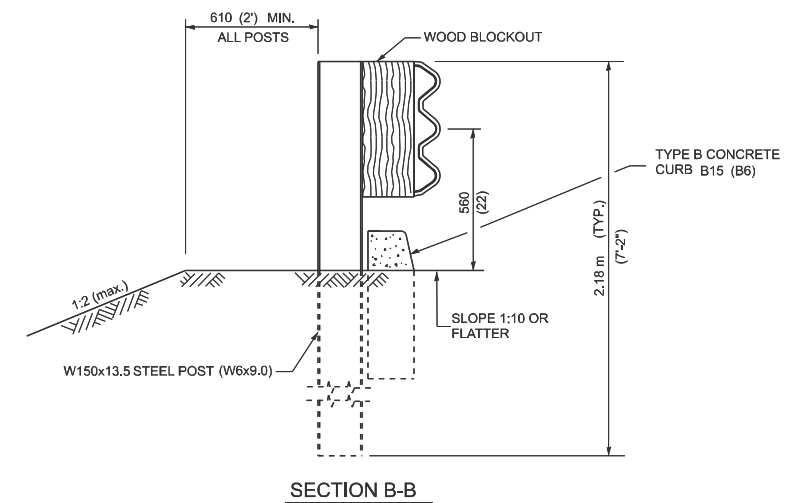
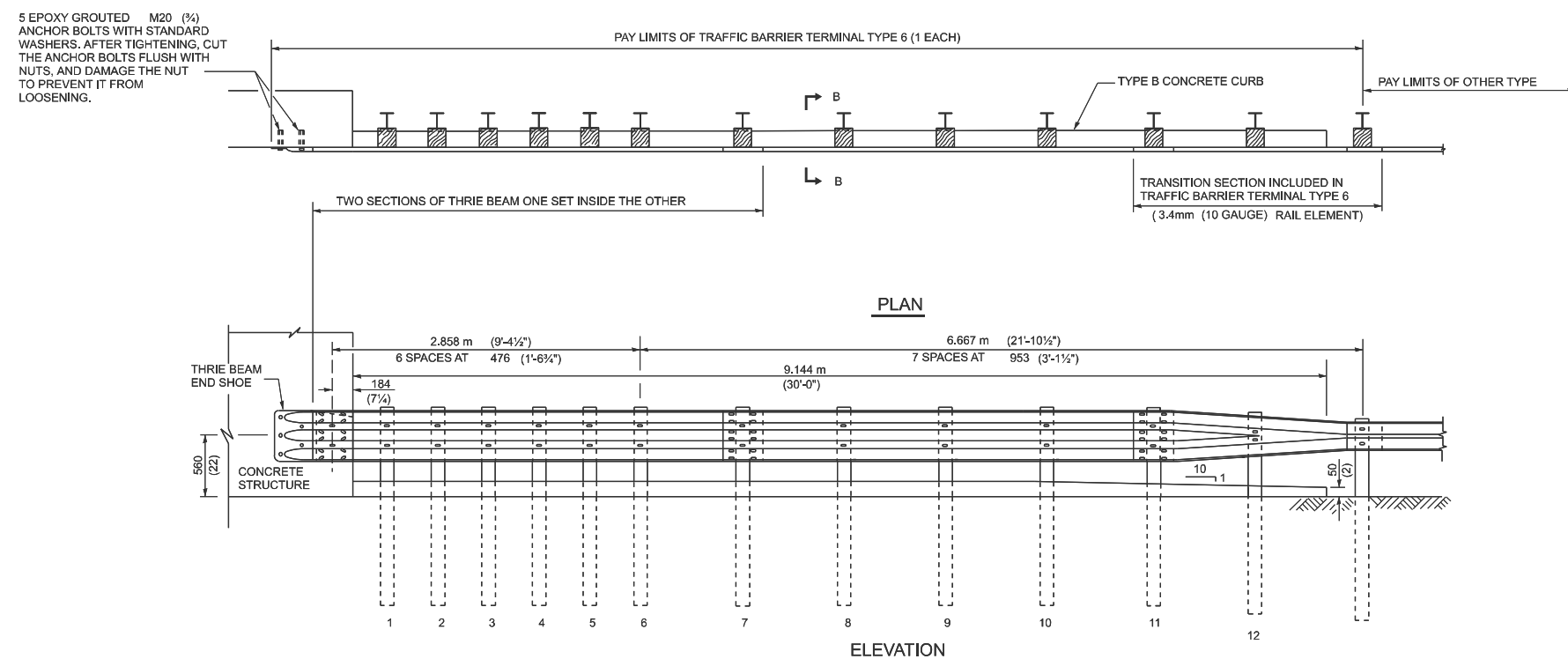
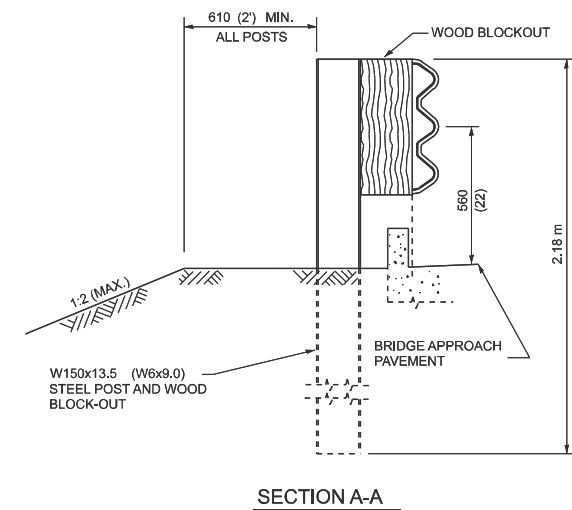
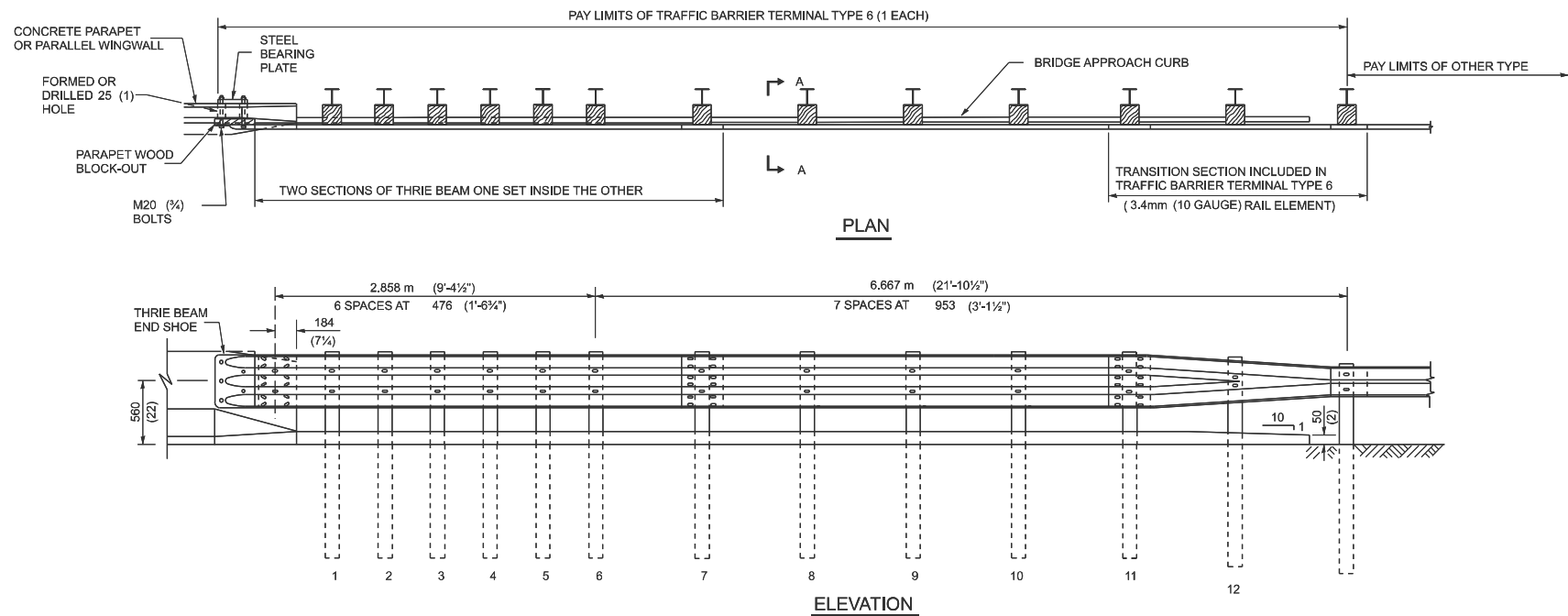
USER NAME = Kevin.Lewis	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2026	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC BARRIER TERMINAL  
TYPE 5 & 5A

SCALE: SHEET 1 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 GUARDRAIL 2027-1	VARIOUS	12	7
CONTRACT NO. 76U97				
ILLINOIS FED. AID PROJECT				



GENERAL NOTES

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.

THIS DETAIL IS APPLICABLE TO THE GUARDRAIL SYSTEM USED PRIOR TO JANUARY 1, 2007. FOR DETAILS ON THE MIDWEST GUARDRAIL SYSTEM, SEE STANDARD 630001.

MODEL: Detail Sheet-1 (Sheet)  
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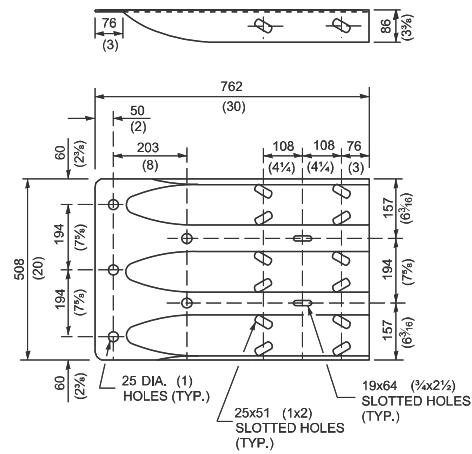
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	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2026	DATE -	REVISED -

STATE OF ILLINOIS  
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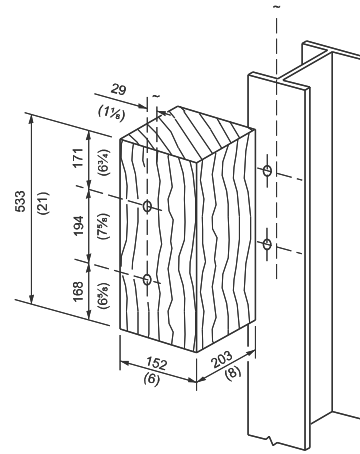
TRAFFIC BARRIER  
TERMINAL TYPE 6

SCALE: SHEET 2 OF 6 SHEETS STA. TO STA.

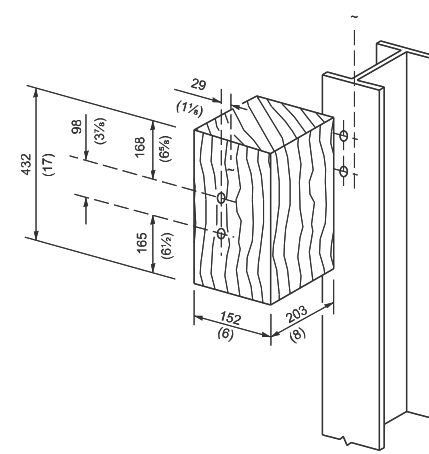
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 GUARDRAIL 2027-1	VARIOUS	12	8
CONTRACT NO. 76U97				
ILLINOIS FED. AID PROJECT				



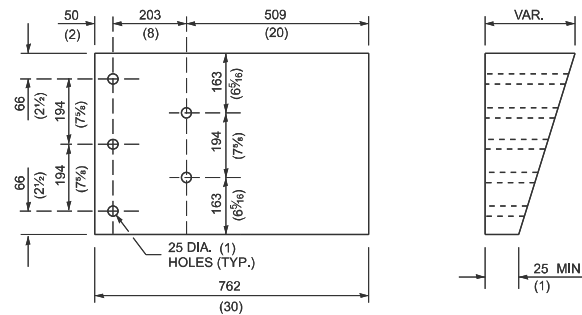
**THRIE BEAM END SHOE DETAIL**



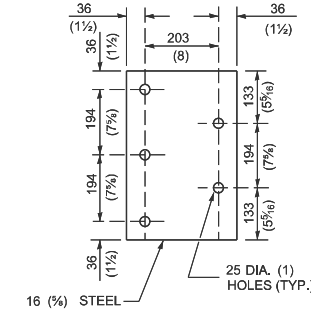
**POSTS 1-11 WOOD BLOCKOUT DETAIL**



**POST 12 WOOD BLOCKOUT DETAIL**



**PARAPET WOOD BLOCK-OUT DETAIL**



**PARAPET STEEL BEARING PLATE DETAIL**

(5 EACH INDIVIDUAL 125x125x16 (5x5x3/4) STEEL PLATES WITH CENTERED 25 (1) HOLES MAY BE SUBSTITUTED FOR THE PLATE SHOWN.)

THIS DETAIL IS APPLICABLE TO THE GUARDRAIL SYSTEM USED PRIOR TO JANUARY 1, 2007. FOR DETAILS ON THE MIDWEST GUARDRAIL SYSTEM, SEE STANDARD 630001.

MODEL: Detail Sheet-2 (Sheet)  
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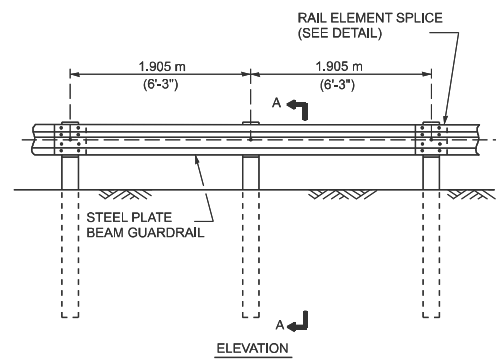
USER NAME = Kevin.Lewis	DESIGNED -	REVISED -
	DRAWN -	REVISED -
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PLOT DATE = 2/5/2026	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

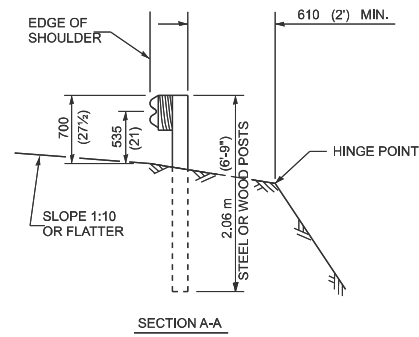
**TRAFFIC BARRIER  
TERMINAL TYPE 6**

SCALE: SHEET 3 OF 6 SHEETS STA. TO STA.

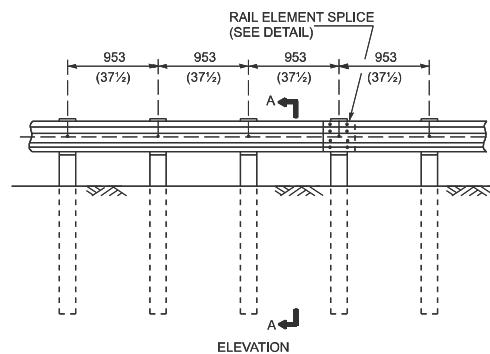
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 GUARDRAIL 2027-1	VARIOUS	12	9
CONTRACT NO. 76U97				
ILLINOIS FED. AID PROJECT				



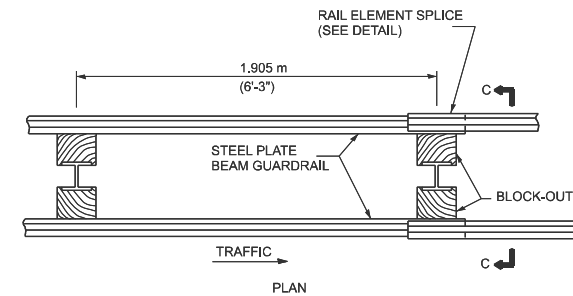
**TYPE A**  
1.905 m (6'-3") TYPICAL POST SPACING



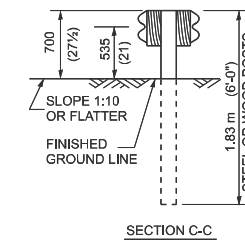
SECTION A-A



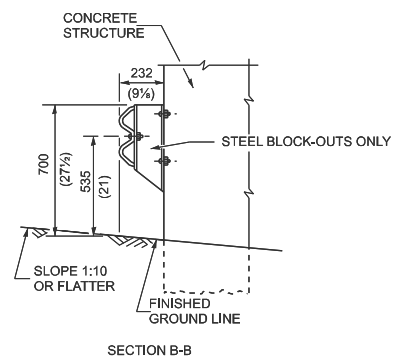
**TYPE B**  
953 (37 1/2) CLOSED POST SPACING



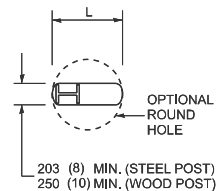
**TYPE D**  
DOUBLE STEEL PLATE BEAM GUARDRAIL  
1.905 m (6'-3") TYPICAL POST SPACING



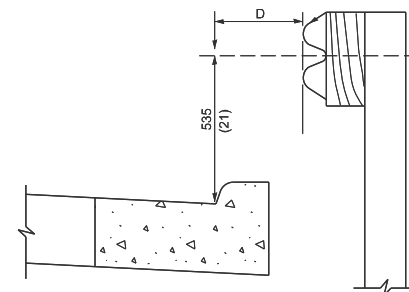
SECTION C-C



SECTION B-B

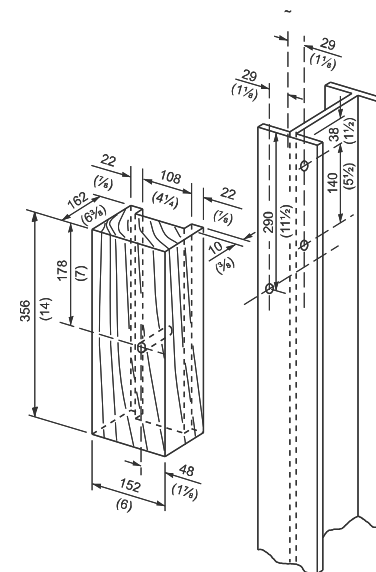


PLAN

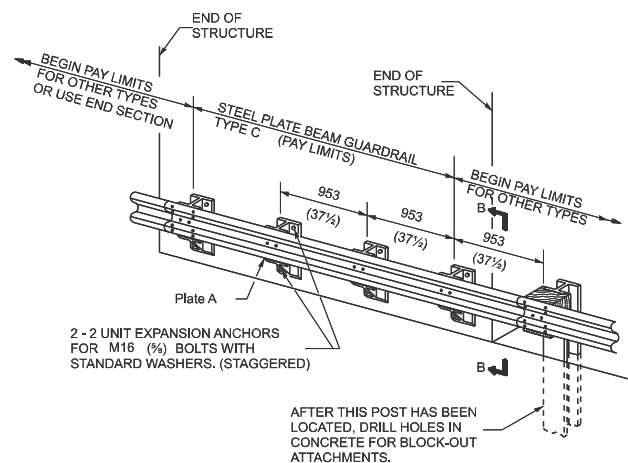


Note:  
IF IT IS NECESSARY FOR D TO BE MORE THAN 300 (12) INCHES AND LESS THAN 3.0 m (10') CURB AND GUTTER (STD. 606001) SHALL BE USED IN FRONT OF AND IN ADVANCE OF THE GUARDRAIL.

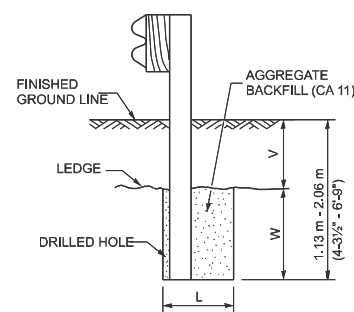
**GUARDRAIL PLACED BEHIND CURB**  
(D = 0 DESIRABLE TO 300 (12) INCHES)



**WOOD BLOCK-OUT AND STEEL POST DETAILS**



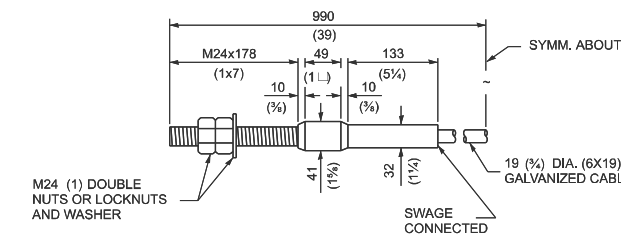
**TYPE C**  
953 (37 1/2) BLOCK-OUT SPACING



ELEVATION

**FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED**

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)



**CABLE ASSEMBLY**  
(18,100 kg (40,000 LBS.) MIN. BREAKING STRENGTH)  
TIGHTEN TO TAUT TENSION.

**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.

THE EXISTING STEEL POSTS MAY BE DRILLED TO MATCH THE BOLT PATTERN SHOWN HEREIN FOR THE WOOD BLOCK-OUT, OR A NEW STEEL POST SHALL BE PROVIDED.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

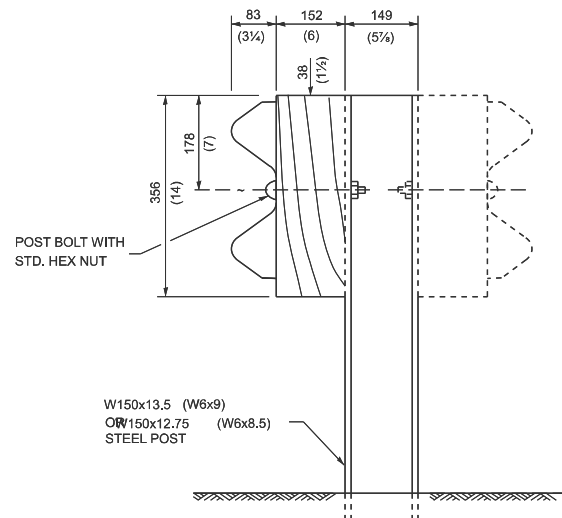
STEEL PLATE BEAM GUARDRAIL

SCALE: SHEET 4 OF 6 SHEETS STA. TO STA.

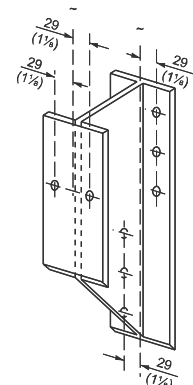
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 GUARDRAIL 2027-1	VARIOUS	12	10
CONTRACT NO. 76U97				
ILLINOIS FED. AID PROJECT				

MODEL: Detail Sheet-3 (Sheet)  
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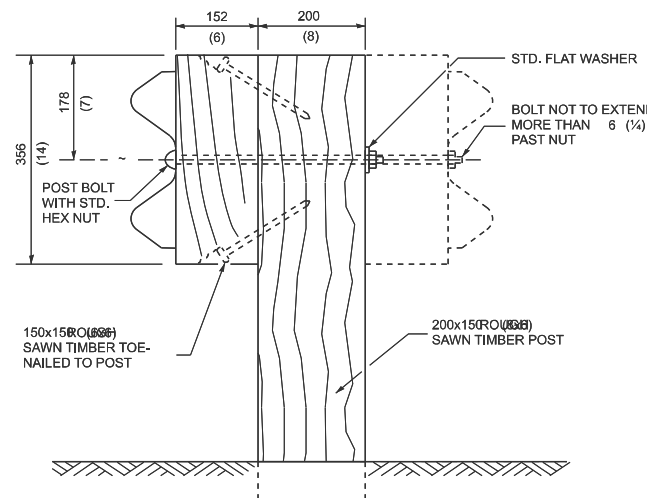
USER NAME = Kevin.Lewis	DESIGNED -	REVISED -
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PLOT DATE = 2/5/2026	DATE -	REVISED -



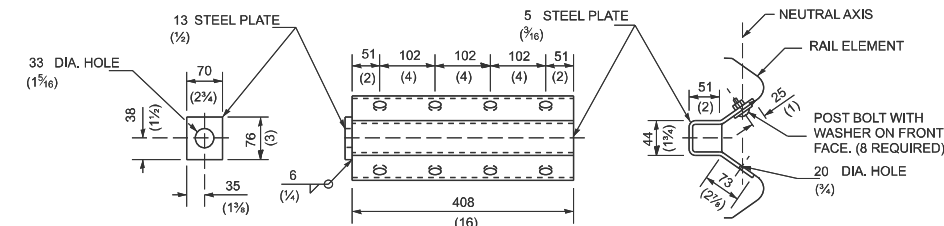
**STEEL POST CONSTRUCTION**



**STEEL BLOCK-OUT DETAIL**

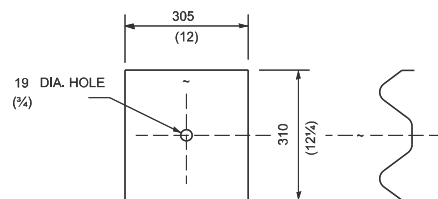


**WOOD POST CONSTRUCTION**



NOTE  
ANCHOR PLATE T SHALL BE USED TO ATTACH CABLE ASSEMBLY TO GUARDRAIL WHEN REQUIRED ON TRAFFIC BARRIER TERMINALS.

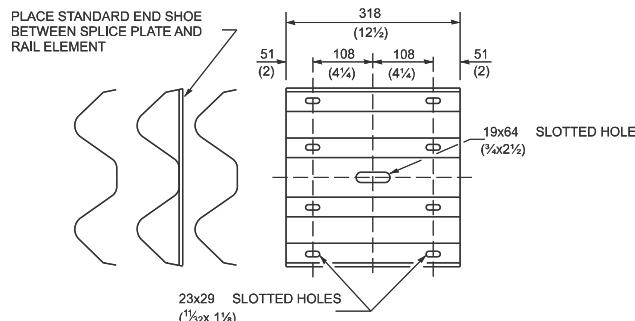
**ANCHOR PLATE T DETAILS**



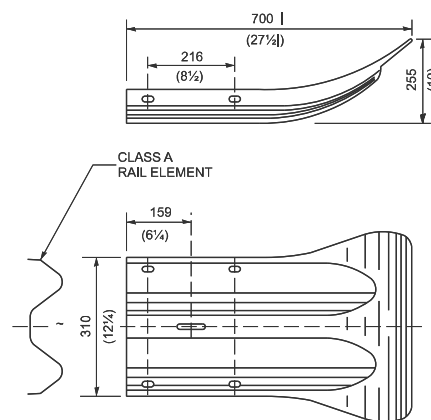
NOTE

PLATE A SHALL BE PLACED BETWEEN RAIL ELEMENT AND BLOCK-OUT AT NON-SPLICE MOUNTING POINTS ONLY WHEN STEEL BLOCK-OUTS ARE USED.

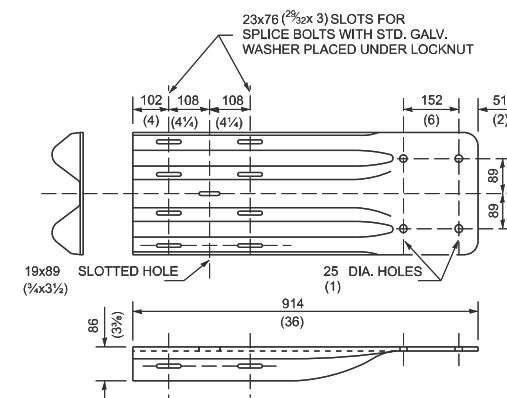
**PLATE A**



**SPLICE PLATE**



**END SECTION**



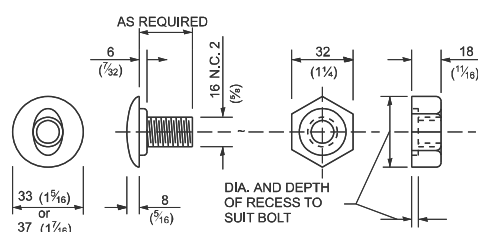
NOTE

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.

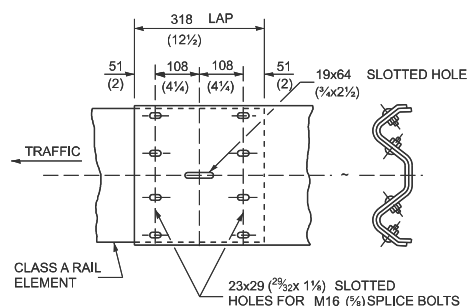
THE STANDARD END SHOE SHALL BE ATTACHED TO THE CONCRETE WITH PRE-DRILLED OR SELF-DRILLING ANCHOR BOLTS. THE ANCHOR CONE SHALL BE SET FLUSH WITH THE SURFACE OF THE CONCRETE.

EXTERNALLY THREADED STUDS PROTRUDING FROM THE SURFACE OF THE CONCRETE WILL NOT BE PERMITTED.

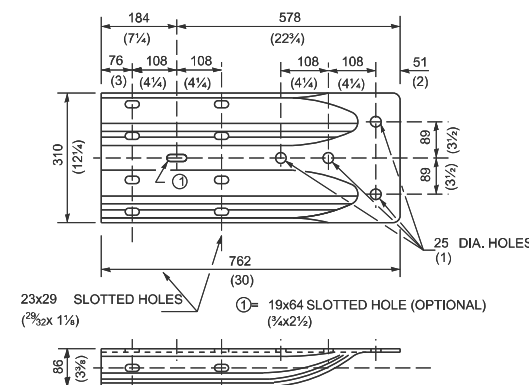
**END SHOE**



**POST OR SPLICE BOLT & NUT**



**RAIL ELEMENT SPLICE**



**ALTERNATE END SHOE**

THIS DETAIL IS APPLICABLE TO THE GUARDRAIL SYSTEM USED PRIOR TO JANUARY 1, 2007. FOR DETAILS ON THE MIDWEST GUARDRAIL SYSTEM, SEE STANDARD 630001.

MODEL: Detail Sheet-4 (Sheet)  
FILE NAME: c:\p\work\pvt\lewis\skad1200914\B876U97-shd-details.dgn

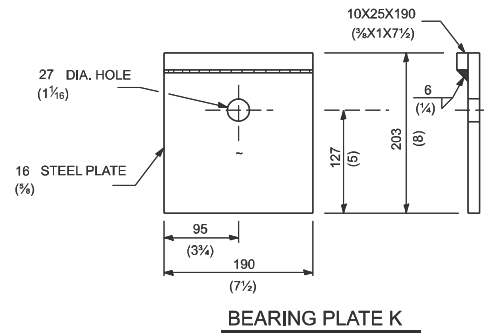
USER NAME = Kevin.Lewis	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2026	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

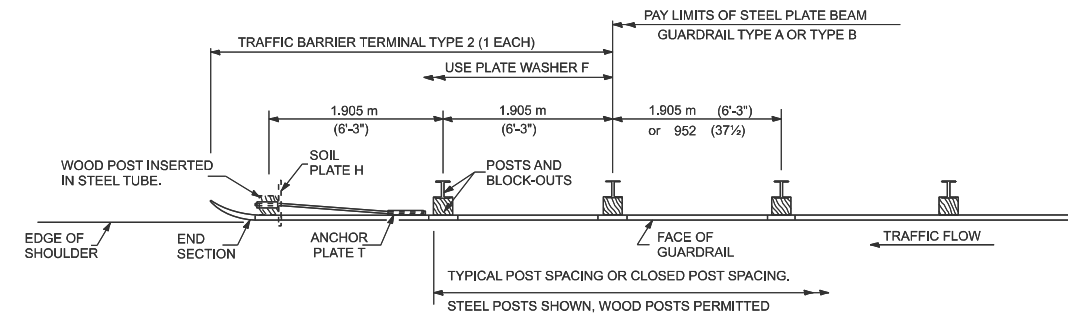
**STEEL PLATE BEAM GUARDRAIL**

SCALE: SHEET 5 OF 6 SHEETS STA. TO STA.

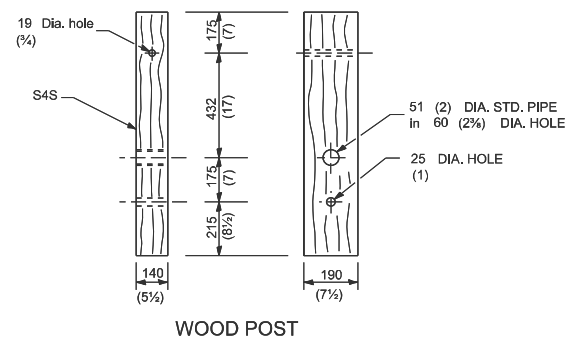
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 GUARDRAIL 2027-1	VARIOUS	12	11
CONTRACT NO. 76U97				
ILLINOIS FED. AID PROJECT				



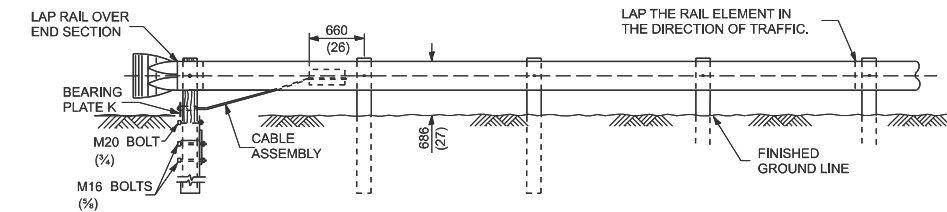
**BEARING PLATE K**



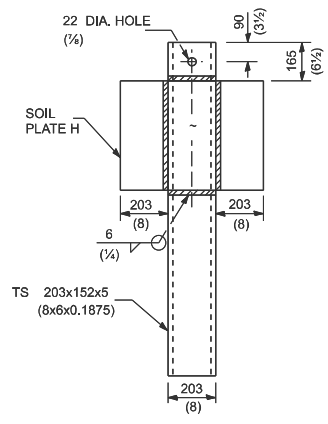
**PLAN**



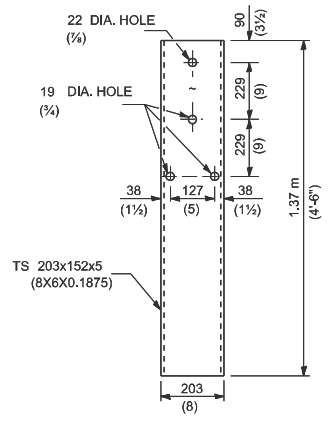
**WOOD POST**



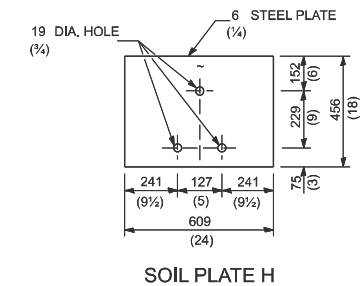
**ELEVATION**



**ALTERNATE SOIL PLATE CONNECTION**



**STEEL TUBE**



**SOIL PLATE H**

**GENERAL NOTES**

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.

THIS DETAIL IS APPLICABLE TO THE GUARDRAIL SYSTEM USED PRIOR TO JANUARY 1, 2007. FOR DETAILS ON THE MIDWEST GUARDRAIL SYSTEM, SEE STANDARD 630001.

MODEL: Detail Sheet-5 (Sheet) FILE NAME: c:\p\work\lewis\lewis\kald1200914\B076\B07697-shd-details.dgn

USER NAME = Kevin.Lewis	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/5/2026	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC BARRIER  
TERMINAL TYPE 2**

SCALE: SHEET 6 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DIST 8 GUARDRAIL 2027-1	VARIOUS	12	12
			CONTRACT NO. 76U97	
ILLINOIS FED. AID PROJECT				