

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	*	VARIOUS	10	1
		ILLINOIS	CONTRACT NO. 70C73	

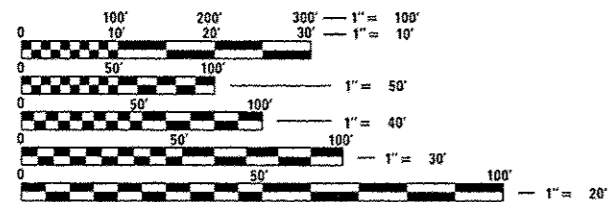
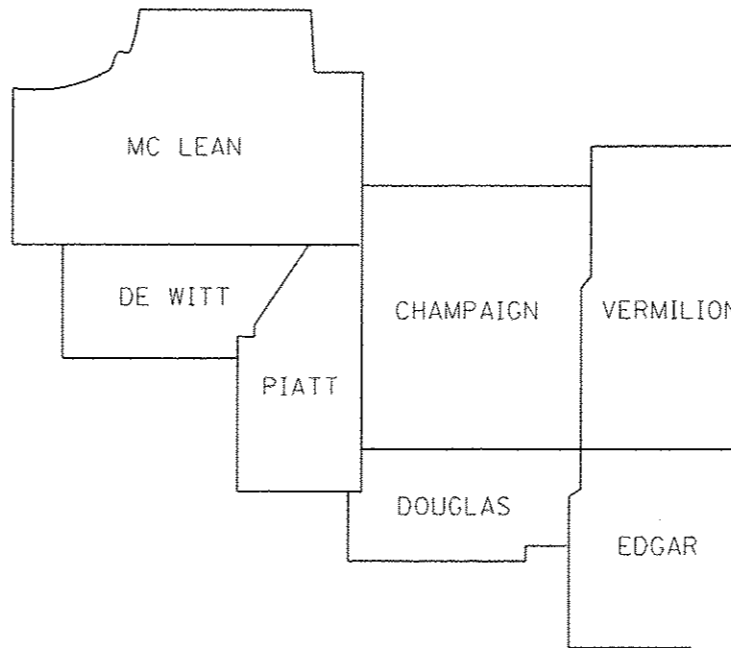
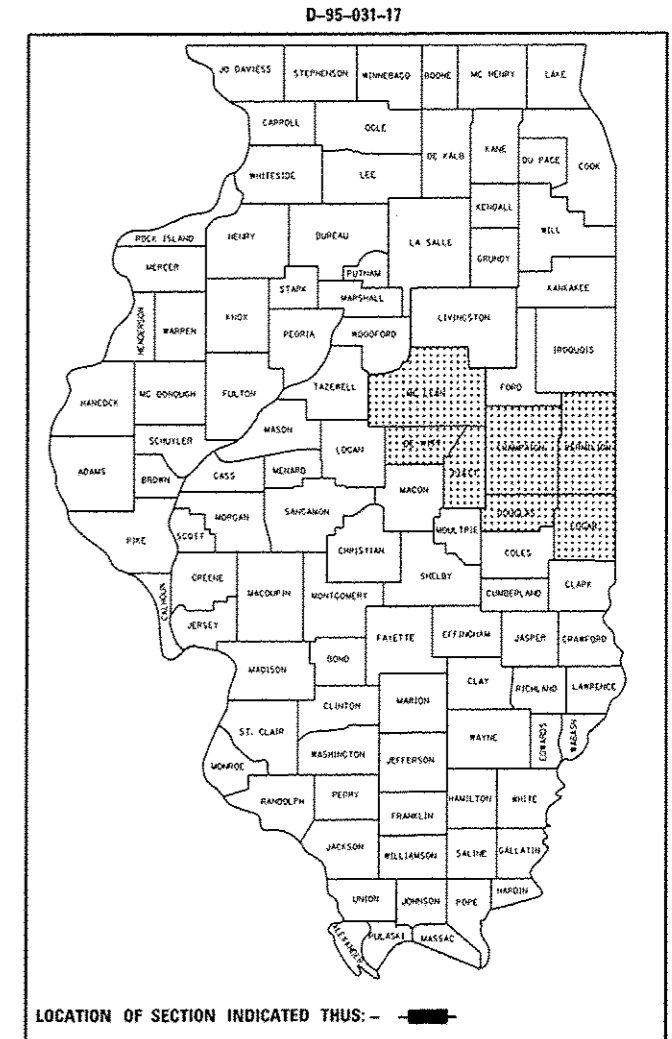
* D5 GR & FENCE REPAIR 2018-20

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3-6

PROPOSED HIGHWAY PLANS

VARIOUS ROUTES
SECTION D5 GR & FENCE REPAIR 2018-20
GUARDRAIL & FENCE REPAIR
VARIOUS COUNTIES

C-95-031-17



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: JASON STULTS
PHONE NUMBER: (217)465-4181

CONTRACT NO. 70C73

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED February 7 20 17
Paul A. James
REGIONAL ENGINEER

Mar 24 20 17
Mawman M. Addis, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

Mar 24 20 17
[Signature]
DIRECTOR OF PROGRAM DEVELOPMENT

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

LOCATION OF WORK:

VARIOUS ROUTES
VARIOUS ROUTES
VARIOUS ROUTES

VARIOUS COUNTIES
VARIOUS COUNTIES
VARIOUS COUNTIES

CONSTRUCTION TYPE CODE:

0021
0021
0021
100% STATE
100% STATE
100% STATE

CODE NO	ITEM	UNIT	TOTAL QUANTITY	MCHD	CONTRACT MAINT	HTCB
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	100.0	75.0	25.0	
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	4.0	2.0	2.0	
63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	1.0	1.0		
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	1.0	1.0		
63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	1.0	1.0		
63100089	TRAFFIC BARRIER TERMINAL, TYPE 6B	EACH	1.0	1.0		
63100105	TRAFFIC BARRIER TERMINAL, TYPE 10	EACH	1.0	1.0		
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1(SPECIAL) TANGENT	EACH	25.0	16.0	9.0	
63100169	TRAFFIC BARRIER TERMINAL, TYPE 1(SPECIAL) FLARED	EACH	8.0	4.0	4.0	
63400105	GUARD POSTS	EACH	10.0	10.0		
64300260	IMPACT ATTENUATORS (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1.0	1.0		
64300370	IMPACT ATTENUATORS (FULLY REDIRECTIVE, WIDE), TEST LEVEL 3	EACH	1.0	1.0		
66400105	CHAIN LINK FENCE, 4'	FOOT	300.0	200.0	100.0	
66400305	CHAIN LINK FENCE, 6'	FOOT	450.0	250.0	200.0	

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• DS GR & FENCE REPAIR 2018-20

FILE NAME *	USER NAME = plersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw\ill004EBIDINTEG\illinois.gov\FWIDOT\Documents\DOT Offices\District 5\Projects\0072\Drawings\0876073-plens.dgn	PLLOT SCALE = 42.0000' / in.	CHECKED -	REVISED -						VAR	*	VARIOUS	10	3
MODEL NAME *	PLLOT DATE = 2/7/2017	DATE -	REVISED -		SCALE: N/A	SHEET 1	OF 4 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT CONTRACT NO. 70C73			

LOCATION OF WORK:

VARIOUS ROUTES
 VARIOUS ROUTES
 VARIOUS COUNTIES

CONSTRUCTION TYPE CODE:

0021 100% STATE
 0021 100% STATE
 0021 100% STATE

CODE NO	ITEM	UNIT	TOTAL QUANTITY	100% STATE MCHD	100% STATE CONTRACT MAINT	100% STATE HTC
66500105	WOVEN WIRE FENCE, 4'	FOOT	3,500.0	2,500.0	1,000.0	
66501200	WOVEN WIRE GATES, 4' X 8' DOUBLE	EACH	1.0	1.0		
72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	28.0	14.0	14.0	
78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	14.0	8.0	6.0	
X2300003	SPLICING HIGH TENSION CABLE (BRIFEN)	EACH	1.0	1.0		
X2300004	SPLICING HIGH TENSION CABLE (GIBALTAR)	EACH	5.0	3.0		2.0
X2300005	SPLICING HIGH TENSION CABLE (TRINITY)	EACH	2.0	2.0		
X0325256	REPAIR HIGH TENSION CABLE (BRIFEN)	FOOT	70.0	40.0		30.0
X0325258	REPAIR HIGH TENSION CABLE SYSTEM END SECTION (BRIFEN)	EACH	2.0	1.0		1.0
X0325260	REPAIR POSTS (BRIFEN)	EACH	11.0	6.0		5.0
X0325264	REPAIR IMPACT ATTENUATORS (FULLY REDIRECTIVE, NARROW) TEST LEVEL 3	EACH	1.0	1.0		
X0325899	REPAIR HIGH TENSION CABLE (GIBALTAR)	FOOT	800.0	600.0		200.0
X0325901	REPAIR POSTS (GIBALTAR)	EACH	800.0	600.0		200.0
X0325975	REPAIR HIGH TENSION CABLE SYSTEM END SECTION (GIBALTAR)	EACH	18.0	16.0		2.0

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• 05 GR & FENCE REPAIR 2018-20

FILE NAME *	USER NAME * piersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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											CONTRACT NO. 70C73		

11/20/17

LOCATION OF WORK:

VARIOUS ROUTES
 VARIOUS ROUTES
 VARIOUS COUNTIES

CONSTRUCTION TYPE CODE:

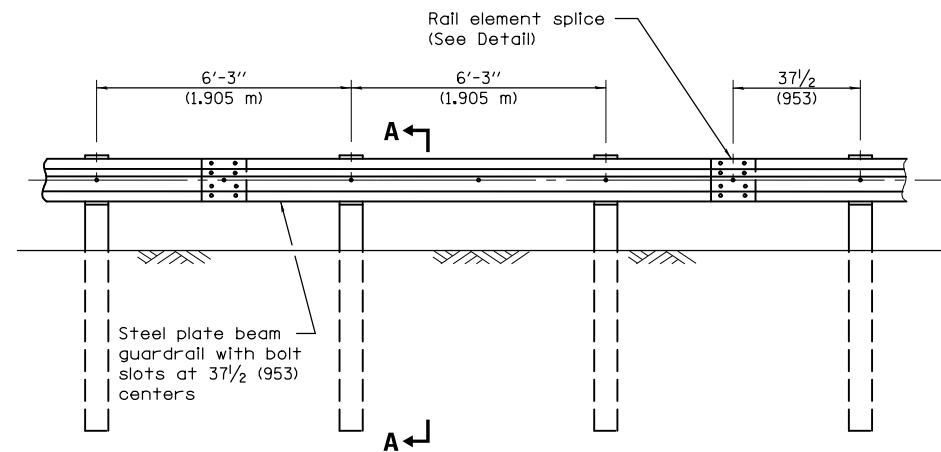
0021 100% STATE
 0021 100% STATE
 0021 100% STATE

CODE NO	ITEM	UNIT	TOTAL QUANTITY	100% STATE MCHD	100% STATE CONTRACT MAINT	100% STATE HTCB
Z0052410	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 1SPECIAL (TANGENT)	EACH	20.0	14.0	6.0	
Z0052415	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 1SPECIAL (FLARED)	EACH	4.0	2.0	2.0	
Z0052600	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	4.0	2.0	2.0	
Z0053000	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	1.0	1.0		
Z0053200	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4.0	2.0	2.0	
Z0053210	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	1.0	1.0		
Z0053220	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 6B	EACH	1.0	1.0		

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• 05 GR & FENCE REPAIR 2018-20

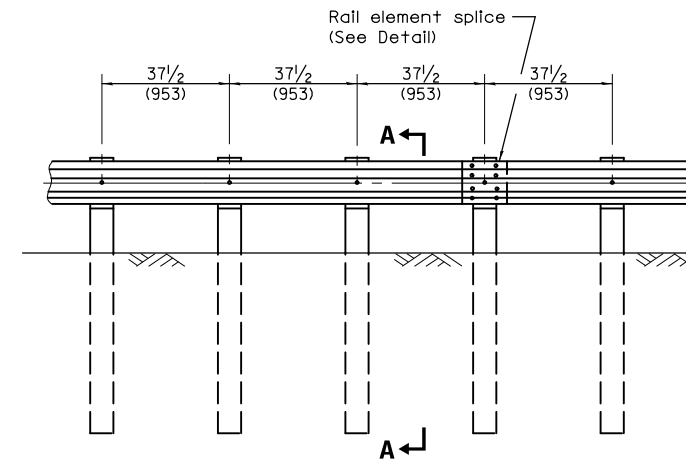
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							ILLINOIS FED. AID PROJECT					



ELEVATION

TYPE A

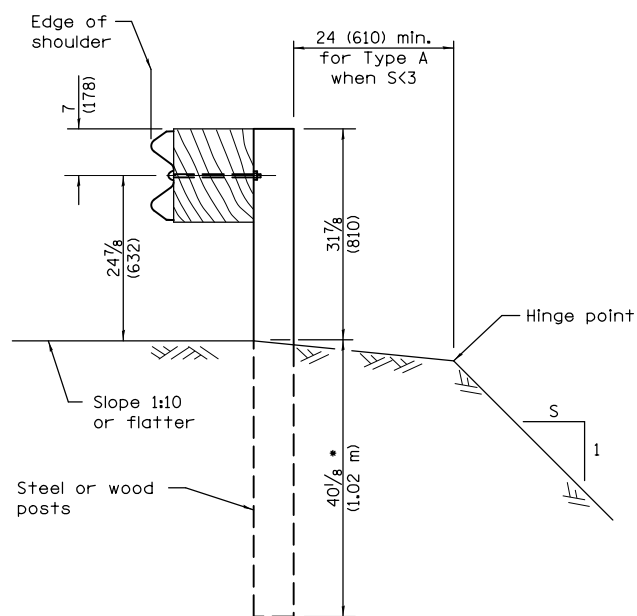
6'-3" (1.905 m) Typical post spacing



ELEVATION

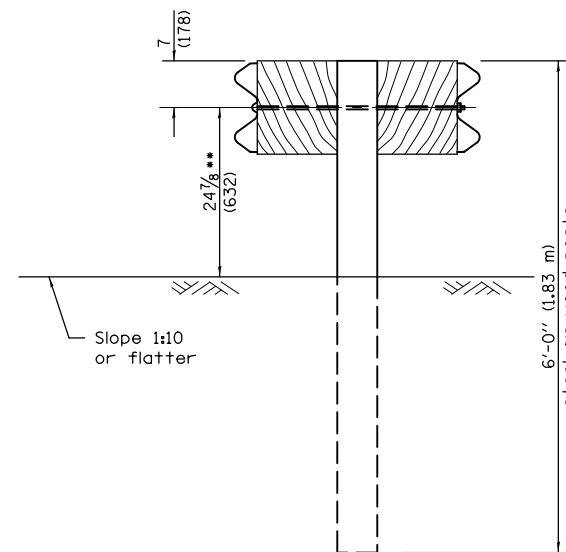
TYPE B

37 1/2 (953) Closed post spacing



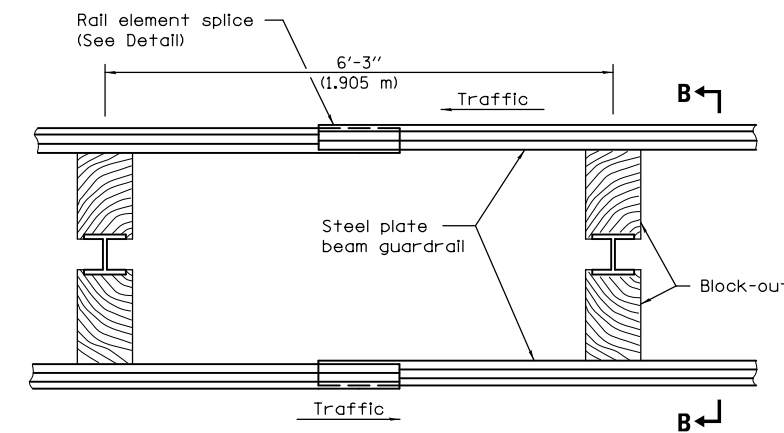
SECTION A-A

- When "S" is less than 3 and the distance from the back of post is less than 24 (610), the post shall be steel and the embedment shall be 76 7/8 (1934).



SECTION B-B

- When connecting Type D guardrail to an impact attenuator, adjust this dimension to 21 7/8 (556) over a distance of 25'-0" (7.62 m) from point of connection.



PLAN

TYPE D

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

GENERAL NOTES

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

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

STEEL PLATE BEAM GUARDRAIL

(Sheet 1 of 4)

STANDARD 630001-10

• D5 GR & FENCE REPAIR 2018-20

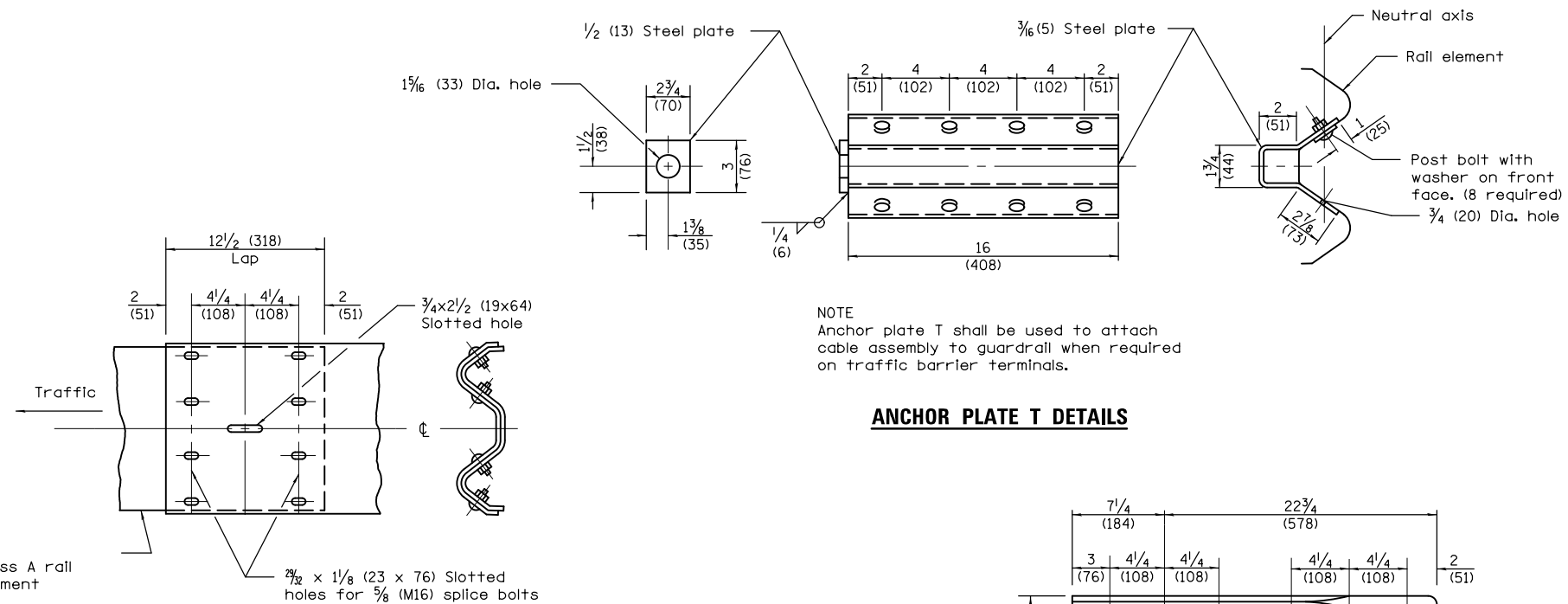
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		DATE -	REVISED -
\$MODELNAME\$	PLOT DATE = 2/7/2017		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

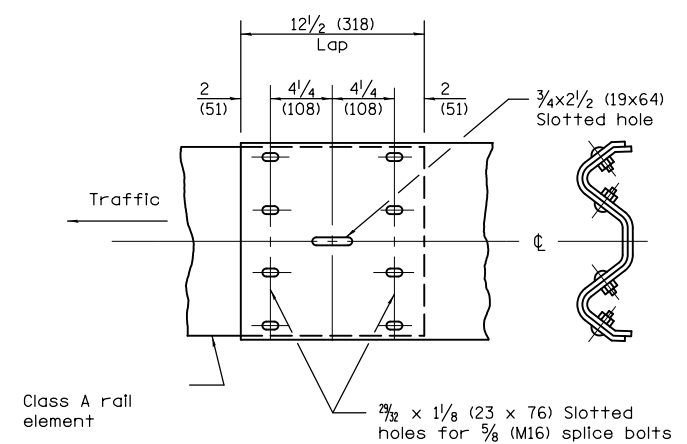
DETAIL OF 27 1/2" STEEL PLATE BEAM GUARDRAIL

SCALE: N/A SHEET 1 OF 4 SHEETS STA. TO STA.

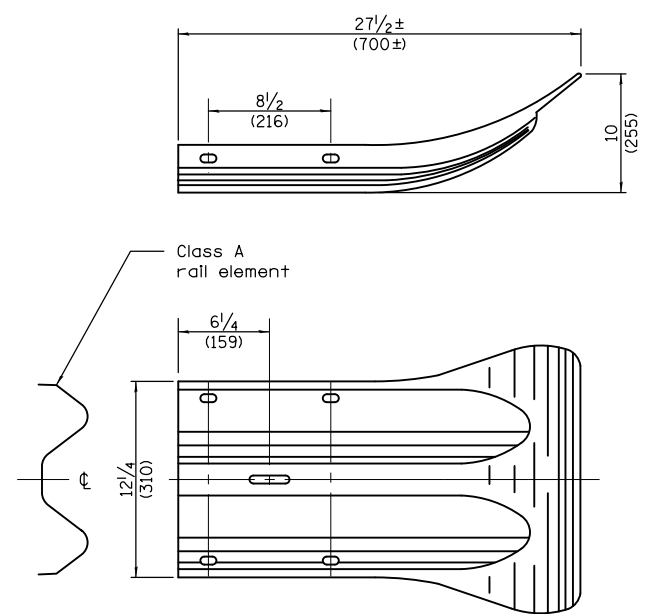
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	•		10	7
			CONTRACT NO. 70C73	
ILLINOIS FED. AID PROJECT				



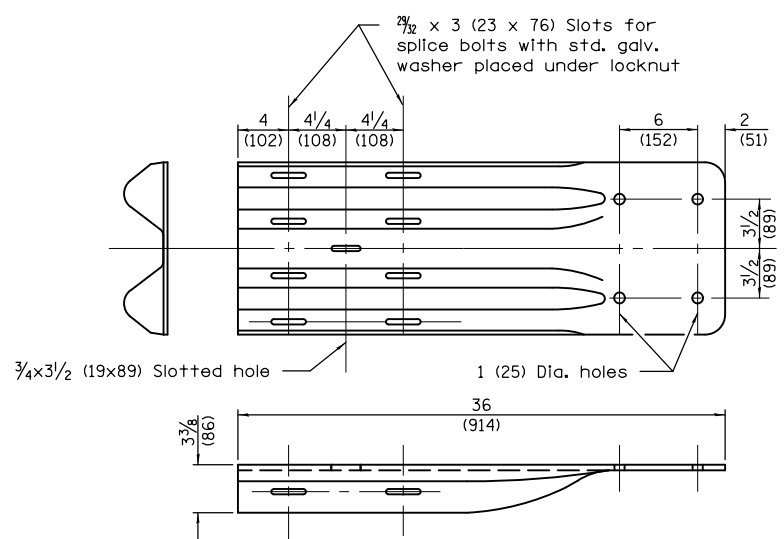
ANCHOR PLATE T DETAILS



RAIL ELEMENT SPLICE



END SECTION

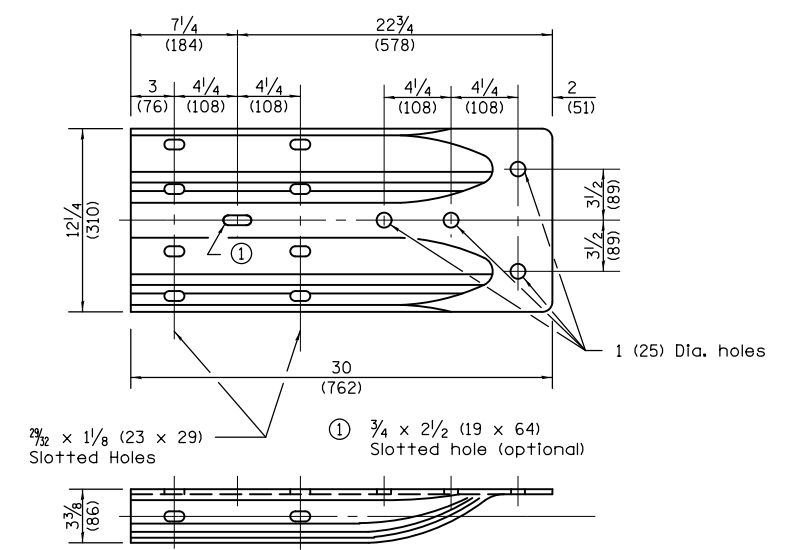


NOTE
When end shoe is attached to a bridge parapet which has an expansion joint, the bolts shall be provided with a locknut or double nut and shall be tightened only to a point that will allow guardrail movement.

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

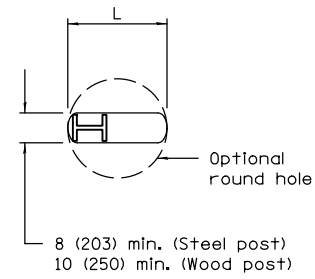


ALTERNATE END SHOE

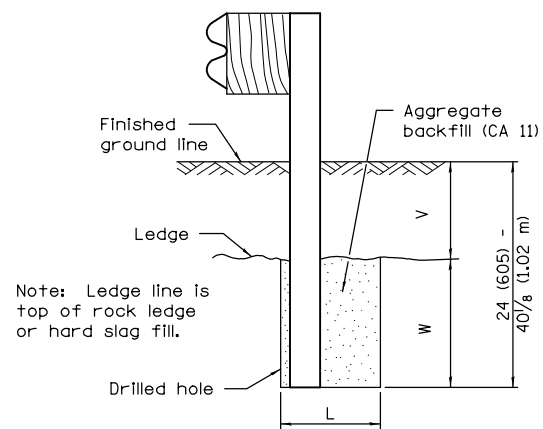
**STEEL PLATE BEAM
GUARDRAIL**

(Sheet 3 of 4)

STANDARD 630001-10

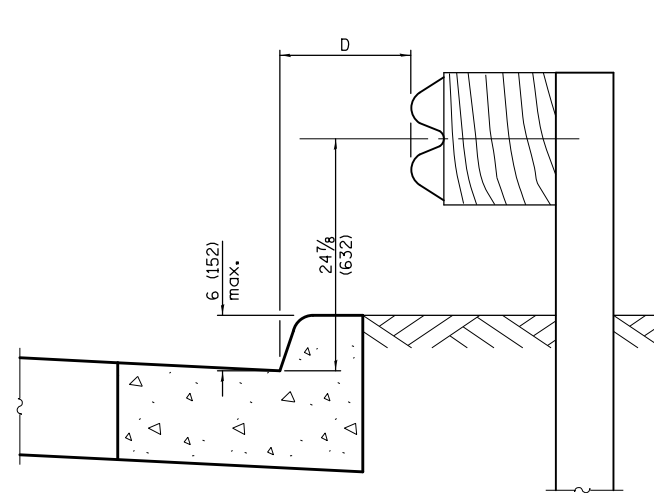


PLAN

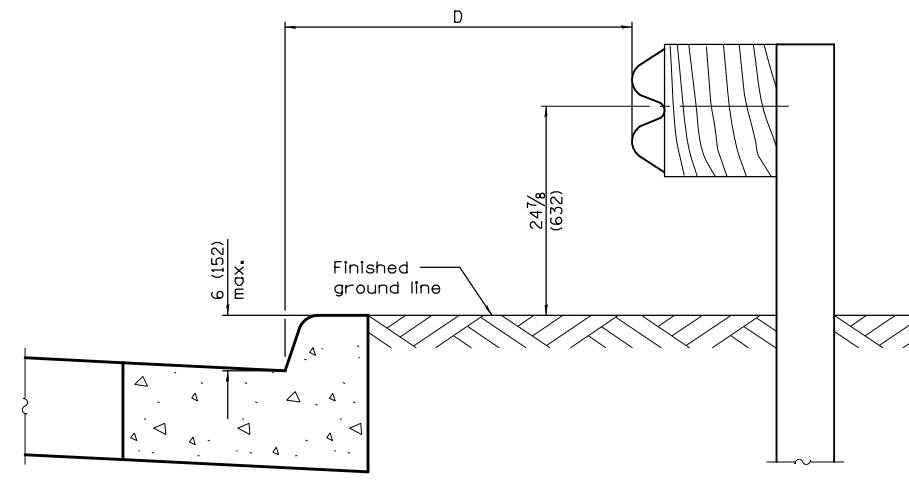


ELEVATION

FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED



0 ≤ D < 4'-0" (1.2 m)

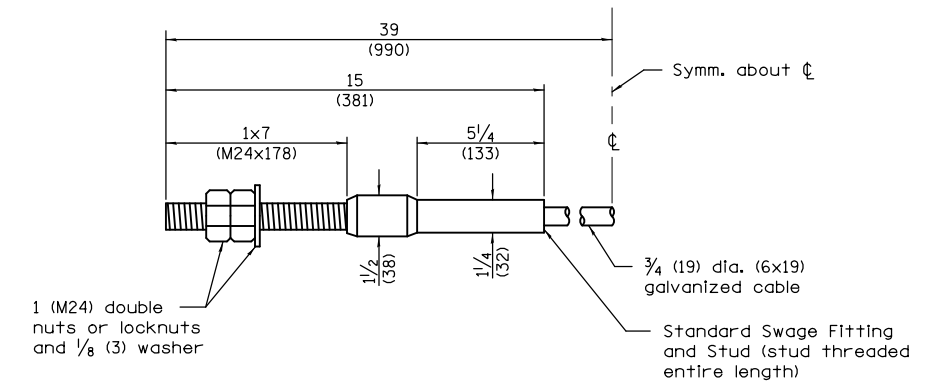


4'-0" (1.2 m) ≤ D ≤ 12'-0" (3.7 m)

GUARDRAIL PLACED BEHIND CURB

Note: 'D' shall not exceed 6 (152) for design speeds greater than 45 mph.

V	W	L	
		Steel Post	Wood Post
0 - 6 (0 - 152)	24 (610)	21 (530)	23 (580)
> 6 - 18 (> 152 - 458)	18 (458)	14 1/2 (368)	16 1/2 (419)
> 18 - 31 (> 458 - 787)	12 (305)	8 (203)	10 (250)
> 31 - 40 1/8 (> 787 - 1.02 m)	12 - 0 (305 - 0)	8 (203)	10 (250)



CABLE ASSEMBLY

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

STEEL PLATE BEAM GUARDRAIL

(Sheet 4 of 4)

STANDARD 630001-10

• D5 GR & FENCE REPAIR 2018-20

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -
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MODELNAME	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/7/2017	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETAIL OF 27 1/2" STEEL PLATE BEAM GUARDRAIL

SCALE: N/A SHEET 4 OF 4 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•		10	10
CONTRACT NO. 70C73			ILLINOIS FED. AID PROJECT	