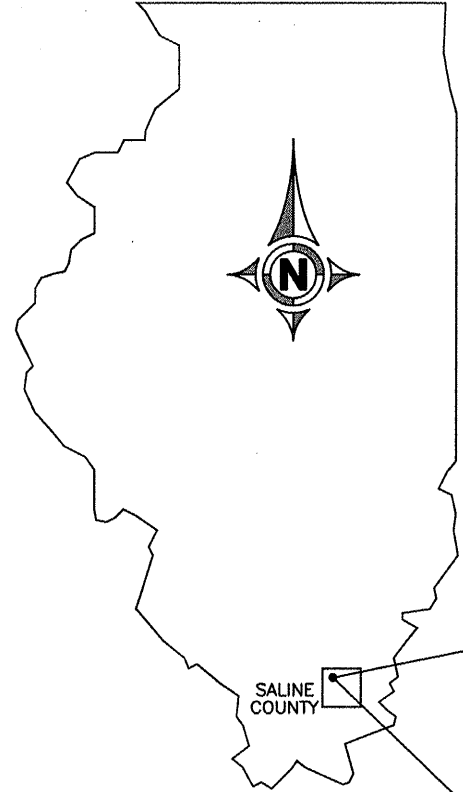


STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANS FOR PROPOSED

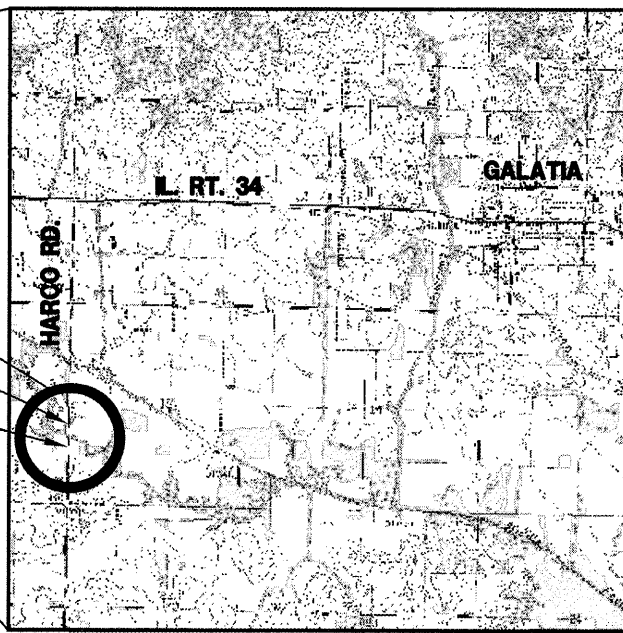
FUNCTIONAL CLASS: Collector
ADT (09): 1500
DESIGN SPEED: 50 MPH



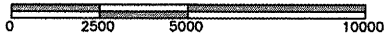
HARCO ROAD BRIDGE SALINE COUNTY F.A.S. ROUTE 898 SECTION 06-00141-00-BR PROJECT NO. BROS-165(27) JOB NO. C-99-515-07 CONTRACT NO. 99387

INDEX OF SHEETS

1	COVER SHEET
2	SUMMARY OF QUANTITIES & TYPICAL SECTIONS
3-4	PLAN - PROFILE
5	FIELD ENTRANCE DETAILS
6	GENERAL PLAN & ELEVATION
7-8	DECK BEAM DETAILS
9	ABUTMENT DETAILS
10	STEEL RAILING DETAILS
11	PILE DETAILS
12-16	CROSS SECTIONS



LOCATION MAP



TOTAL/NET LENGTH
PROJECT LENGTH = 740.00 FT. (0.14 MILES)

STANDARDS **BLR 26-1 STEEL PLATE BEAM GUARDRAIL 27 1/2"**

- 280001-04 TEMPORARY EROSION CONTROL
 - 420401-07 BRIDGE APPROACH PAVEMENT
 - 515001-03 NAME PLATE
 - ~~630001-08 STEEL PLATE BEAM GUARDRAIL~~
 - ~~631006-06 TRAFFIC BARRIER TERM TY 1B~~
 - 701901-01 TRAFFIC CONTROL
 - BLR 21-8 TRAFFIC CONTROL
 - BLR 23-3 TRAFFIC BARRIER TERMINAL, TYPE 1**
- ALL EXISTING UTILITIES AND LOCATIONS TO BE CONFIRMED BY J.U.L.I.E. 800-892-0123

Revised 5-28-09

Jim W. Brown
 Jim W. Brown as President of
 Illinois Professional Design Firm
 Land Survey & Prof. Eng. Corp.
 Number 184-002518
 Expires April 30, 2011



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
APPROVED	04-15-09 <i>[Signature]</i> JEFFREY L. JONES, COUNTY ENGINEER
PASSED	4/16/2009 <i>[Signature]</i> DISTRICT 9 ENGINEER OF LOCAL ROADS & STREETS
RELEASING FOR BID BASED ON LIMITED REVIEW	4/17/09 <i>[Signature]</i> MARY C. LAMIE, P.E. DEPUTY DIRECTOR OF HIGHWAYS REGION FIVE ENGINEER

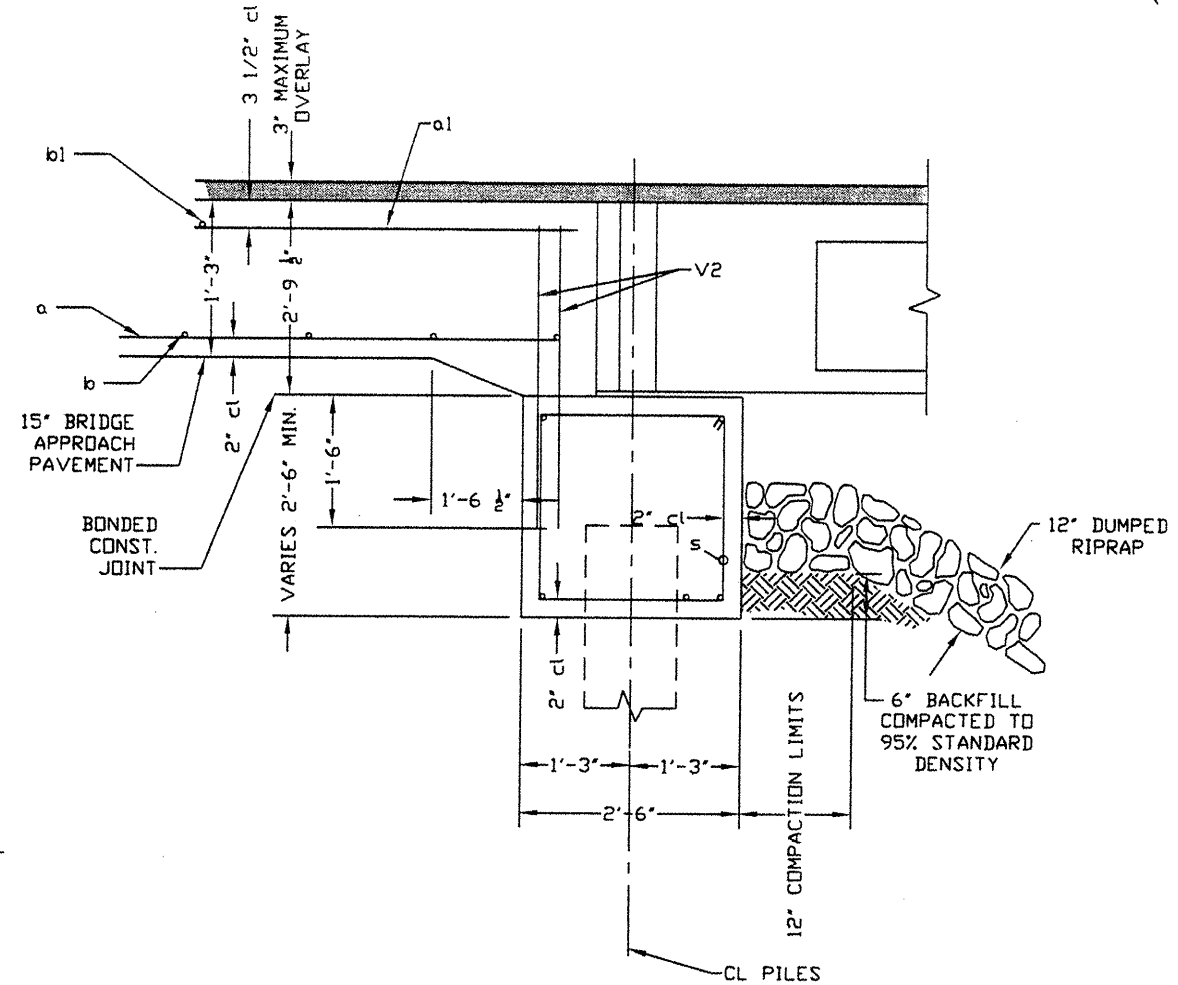
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
898	06-001141-000-BR	SALINE	16	2
SALINE COUNTY		HARCO ROAD		

CONTRACT NO. 99387
PROJECT NO. BROS-165(27)

SUMMARY OF QUANTITIES

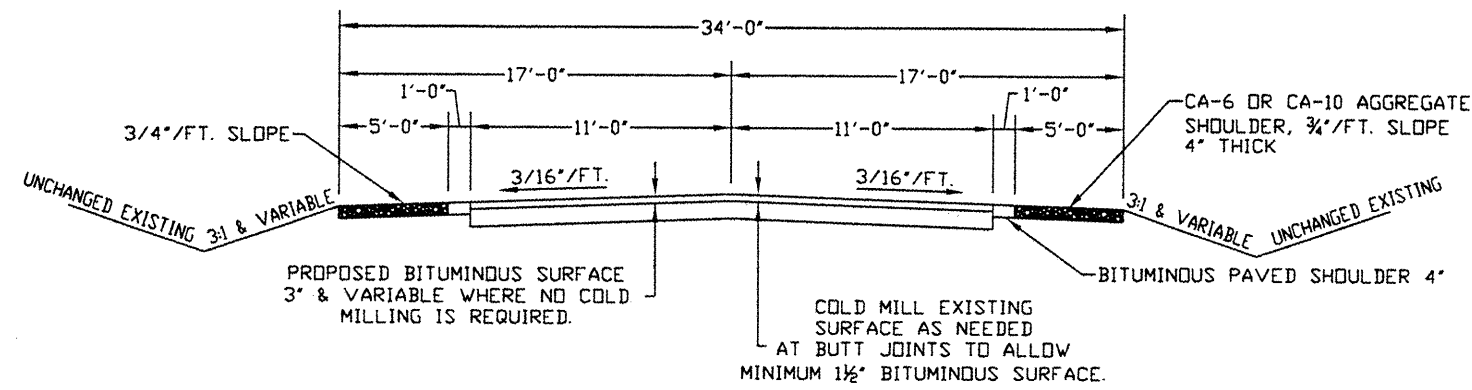
X081-2A

CODE NO.	PAY ITEM	UNIT	QUANTITY
20100500	TREE REMOVAL, ACRES	ACRE	0.2
Δ 20200100	EARTH EXCAVATION	CU YD	140
Δ 25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.3
Δ 28100807	STONE DUMPED RIPRAP, CLASS A4	TON	260
Δ 40603320	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N90	TON	150
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	146.6
Δ 44000080	HOT-MIX ASPHALT SURFACE REMOVAL (COLD MILLING)	SQ YD	490
48101200	AGGREGATE SHOULDERS, TYPE B	TON	100
Δ 50100200	REMOVAL OF EXISTING STRUCTURES	L SUM	1
50105220	PIPE CULVERT REMOVAL	FOOT	50
50300225	CONCRETE STRUCTURES	CU YD	27.2
50300280	CONCRETE ENCASEMENT	CU YD	4.0
50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	2250
50800105	REINFORCEMENT BARS	POUND	3220
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	11174
Δ *50901050	STEEL RAILING, TYPE SM	FOOT	150
51201600	FURNISHING STEEL PILES HP12X53	FOOT	756
51202305	DRIVING PILES	FOOT	756
51500100	NAME PLATES	EACH	1
54200439	PIPE CULVERTS, TYPE 1 RCCP 24"	FOOT	170
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	250
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	675
Δ *63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	230
*63000005	STEEL PLATE BEAM GUARDRAIL, TYPE B	FOOT	100
Δ *63100041	TRAFFIC BARRIER TERMINAL, TYPE 1B	EACH	4
67100100	MOBILIZATION	L SUM	1
*78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	675
Δ *50901550	STEEL RAILING, TYPE WT (SPECIAL)	FOOT	150
Δ *LR631020	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	4
Δ *G3000002	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6.75 FOOT POSTS	FOOT	230
* SPECIALTY ITEMS			
Δ SEE SPECIAL PROVISIONS			
HOT MIX ASPHALT SURFACE REMOVAL			
STATION 60+50 TO 61+50			
STATION 63+00 TO 64+00			



SECTION THRU ABUTMENT
(AT RIGHT ANGLES)
SECTION B-B
NO SCALE

Δ Revised 5-28-09



TYPICAL SECTION

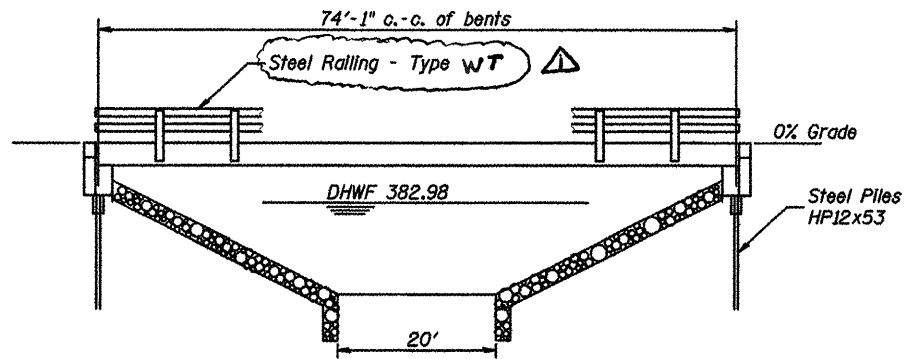
NO SCALE

BAR LIST FOR ONE APPROACH PAVEMENT

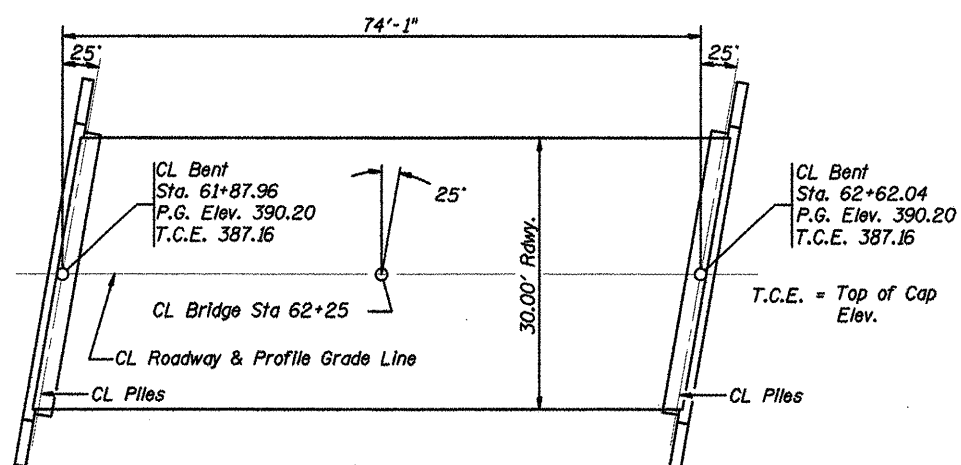
BAR	NO.	SIZE	LENGTH	SHAPE
a	44	#9	29'-6"	U
a1	18	#4	29'-6"	—
b	29	#5	23'-0"	—
b1	8	#4	23'-0"	—

TOTAL REINFORCEMENT BARS, EPDXY COATED = 11174 LBS.

B.M. -
Existing Structure -
Salvage -



ELEVATION



PLAN



- GENERAL NOTES**
- The Contractor shall drive 0 test pile, as specified, in a permanent location as directed by the Engineer before ordering the remaining piles.
 - See Special Provisions for boring logs.
 - A Corrosion inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.
 - The Steel H-piles shall be according to AASHTO M270 Grade 50.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Removal of Existing Structures	Each				1
HMA Surface Course	Ton	35			35
Waterproofing Membrane System	Sq. Yd.	250			250
Concrete Structures	Cu. Yd.			27.2	27.2
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	2250			2250
Steel Bridge Rail, Type WT	Foot	150			150
Reinforcement Bars	Pound			3220	3220
Furnishing Steel Piles HP12x53	Foot			756	756
Driving Steel Piles	Foot			756	756
Name Plates	Each			1	1
Concrete Encasement	Cu. Yd.			4.0	4.0

Revised 5-28-09

DESIGN SPECIFICATIONS

2007 AASHTO LRFD
HL 93 Loading, Load Factor Design.

LOADING HS20-44

Allow 25#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = Bedrock Acceleration Coefficient (A) = Site Coefficient (S) =

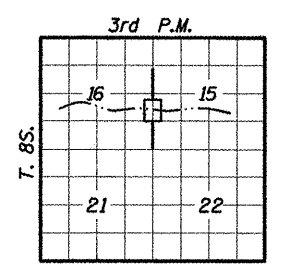
PILE DATA (2-ABUTS.)

Type	HP 12X53
Nominal Require Beams	418 KIPS
Allowable Resistance Available	139 KIPS
Capacity	Tons
Estimated Length	Feet 63
Number Required	12

STATION 62+25
UNNAMED CREEK
SEC. 06-00141-00-BR BUILT 2009
SALINE COUNTY
LOADING # 93
STR. NO. 083-3234

LETTERING FOR NAME PLATE

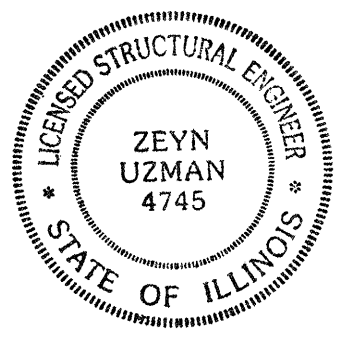
Locate Name Plate at Northwest Corner of Bridge



LOCATION SKETCH

I certify that to the best of knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.

4/14/09
Illinois Structural No. 4745
Expires 11/30/2010

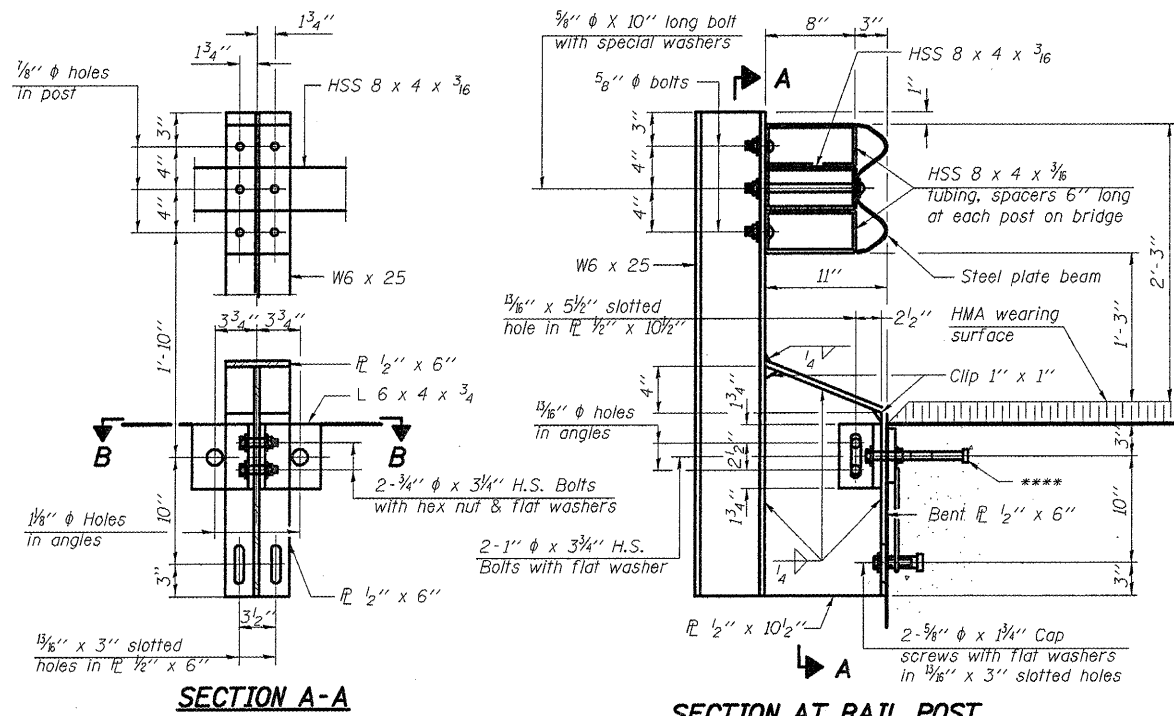


WATERWAY INFORMATION

Drainage Area = 8.29 S.M.		Low Grade Elev. = 389.9 @ Sta. 55+30					
Flood Yr.	Freq.	Q	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft.	Headwater El.	Headwater El.
			Exlst. Prop.	Exlst. Prop.	Exlst. Prop.	Exlst. Prop.	Exlst. Prop.
Design	20	1539	162 166	382.98	0.85 0.85	383.83	383.83
Base	100	2172	196 203	384.25	1.65 1.59	385.90	385.84
Overtopping							
Max. Calc.	500	2749	229 243	385.36	2.45 2.32	387.81	387.68

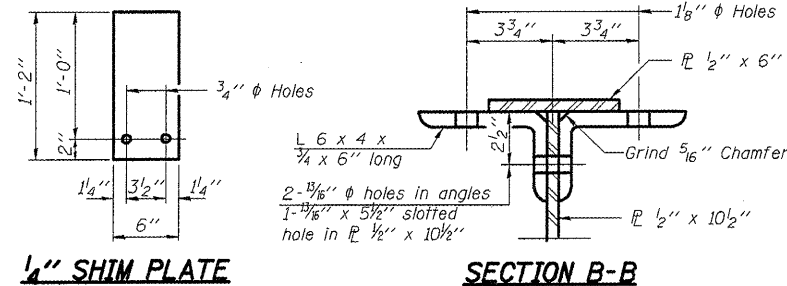
GENERAL PLAN & ELEVATION
F.A.S. ROUTE 898
OVER TRIB TO MFSR
SECTION 06-00141-00-BR
SALINE COUNTY
STATION 62+25

Notes:
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type WT.
 All steel rail members shall be galvanized according to Article 509.05 of the Standard Specifications.
 **** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



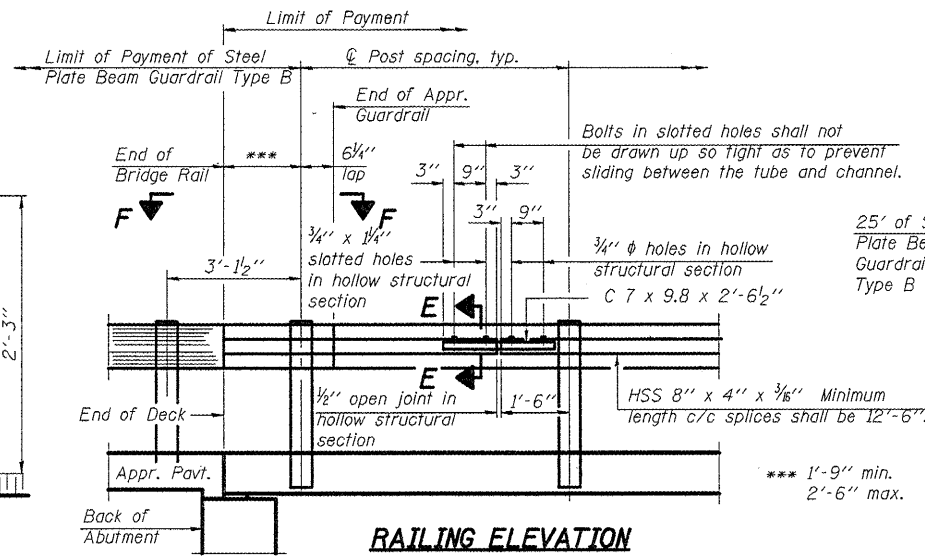
SECTION A-A

SECTION AT RAIL POST

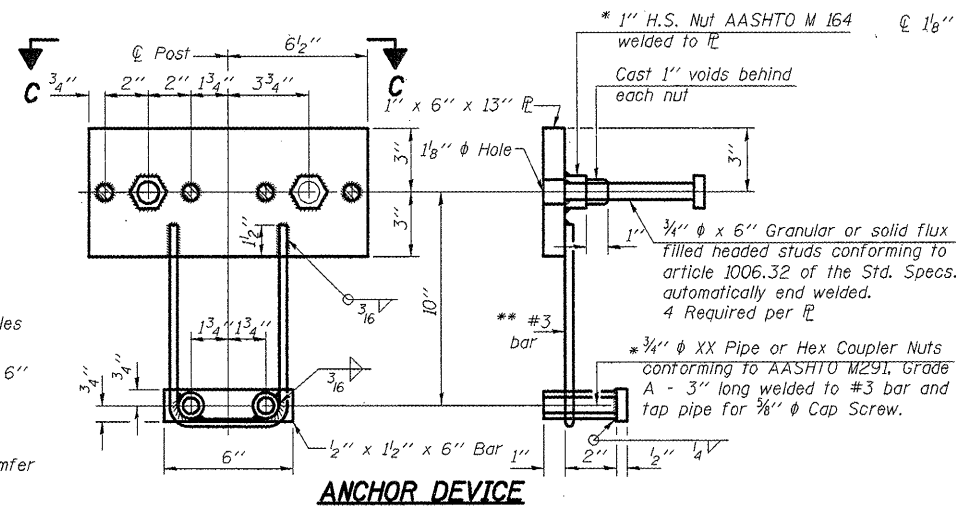


1/4" SHIM PLATE

SECTION B-B

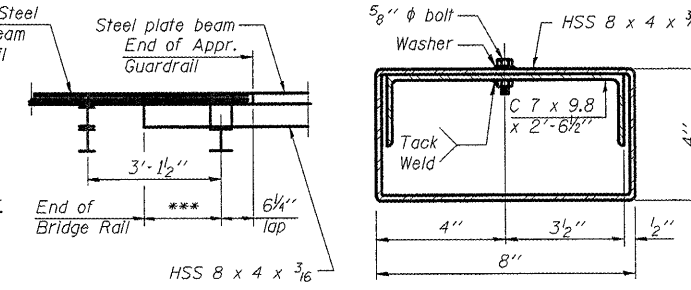


RAILING ELEVATION



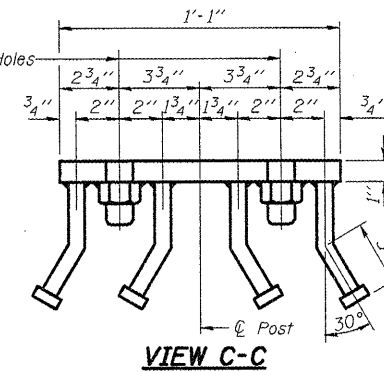
ANCHOR DEVICE

* Threaded areas shall be plugged or blocked off during casting of beam.
 ** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



VIEW F-F

SECTION E-E



VIEW C-C

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type WT	Foot	150