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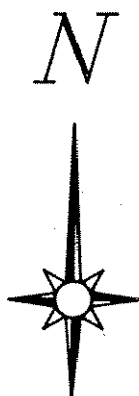
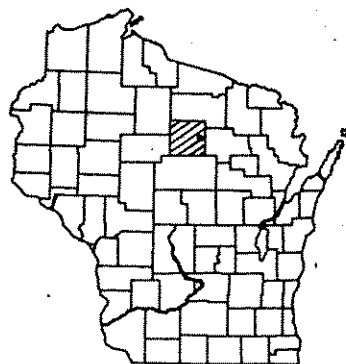
TOTAL SHEETS = 22.

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

PRAIRIE RIVER BRIDGE & APPROACHES  
(BACHELORS AVENUE)  
TOWN ROAD  
LINCOLN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9859-05-70	BRZ 3599(17)	1



STATE PROJECT NUMBER  
**9859-05-70**

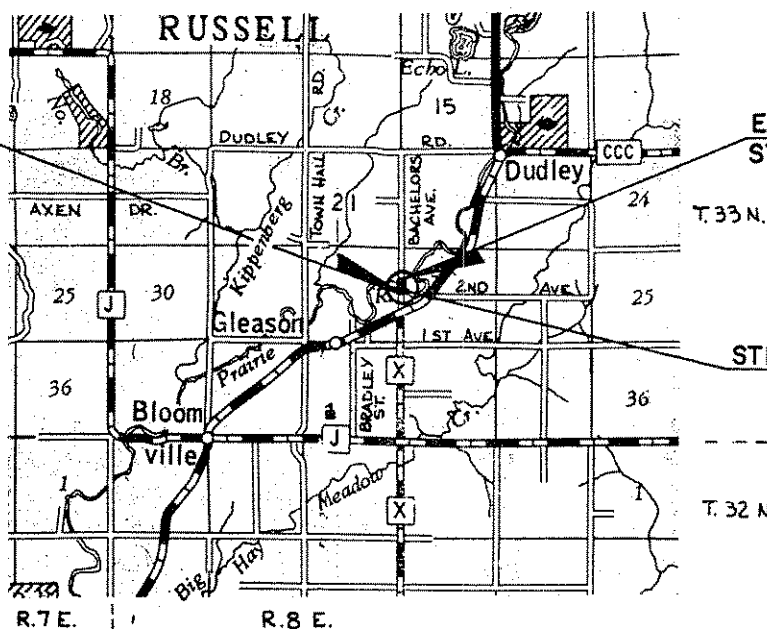
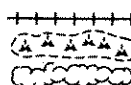
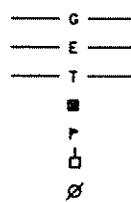
DESIGN DESIGNATION

A.D.T. (1990)	= 60
A.D.T. (2010)	= 73
D.H.V.	=
D.	=
T.	= 8%

CONVENTIONAL SIGNS

COUNTY LINE	-----
CORPORATE LIMITS	=====
PROPERTY LINE	-----
LOT LINE	-----
LIMITED HIGHWAY EASEMENT	-----
EXISTING RIGHT OF WAY	-----
NEW RIGHT OF WAY	-----
REFERENCE LINE	-----
SLOPE INTERCEPT	-----
ORIGINAL GROUND	-----
MARSH OR ROCK PROFILE	-----
CULVERT IN PLACE	-----
CULVERT REQUIRED	-----
CULVERT REQUIRED (Profile)	-----

COMBUSTIBLE FLUIDS (UNDER PRESSURE)	-----
UNDERGROUND UTILITIES	-----
GAS	-----
ELECTRIC	-----
TELEPHONE	-----
SERVICE PEDESTAL	-----
CABLE MARKER	-----
POWER POLE	-----
TELEPHONE POLE	-----
RAILROADS	-----
MARSH	-----
WOODED AREA	-----



TOTAL NET LENGTH OF CENTERLINE = 0.104 MI. (RURAL)

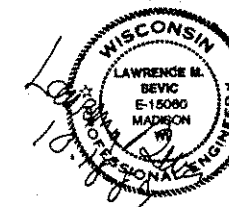
NOTE: All coordinates shown are referenced to the WISCONSIN COORDINATE SYSTEM, CENTRAL ZONE, and are scaled from the GLEASON QUADRANGLE for identification purposes only.

APPROVED FOR  
LINCOLN  
COUNTY BY

10/23/89  
DATE

*M. J. Hap*  
HIGHWAY COMMISSIONER

ORIGINAL  
PLANS PREPARED BY  
BARRIENTOS & ASSOC., INC.  
CONSULTING ENGINEERS  
MADISON, WISCONSIN



STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

Surveyor	BAI	District Checker	FWB
Designer	BAI	C.O. Checker	PLC
District Supervisor	RJS	C.O. Coordinator	LAS

APPROVED:

DATE: 11/10/89

*James D. Strandler*  
DISTRICT DIRECTOR

APPROVED:

DATE: 12/5/89

*Robert W. Berg*  
REGIONAL CHIEF ROAD DESIGN ENG.

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
REGION 5 WISCONSIN DIVISION

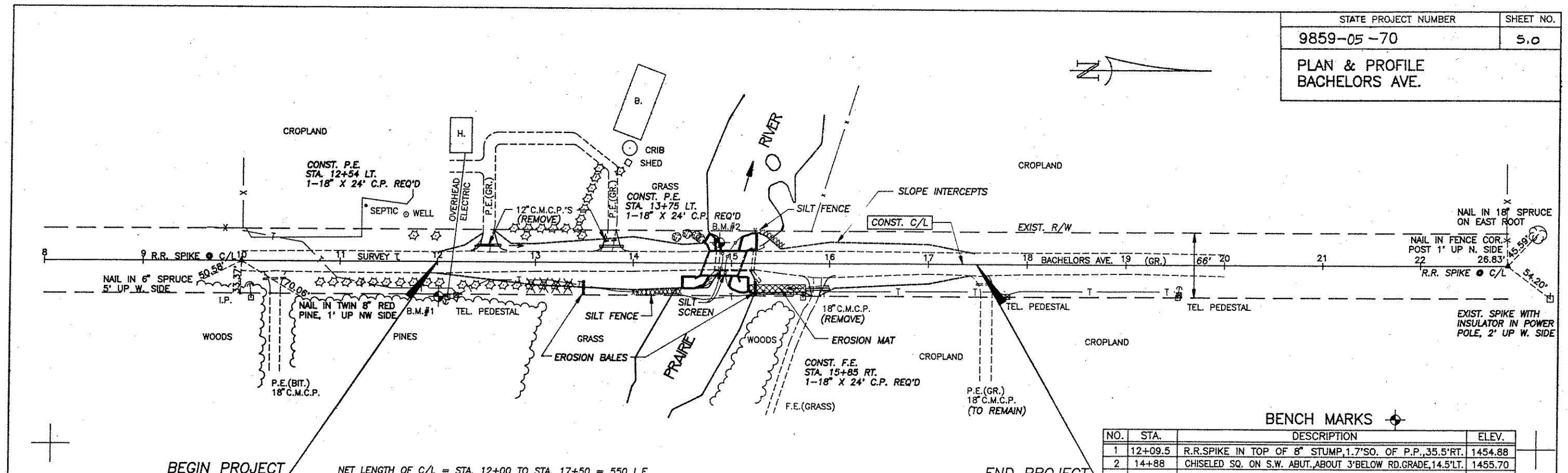
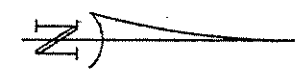
APPROVED:

DATE:

DIVISION ADMINISTRATOR

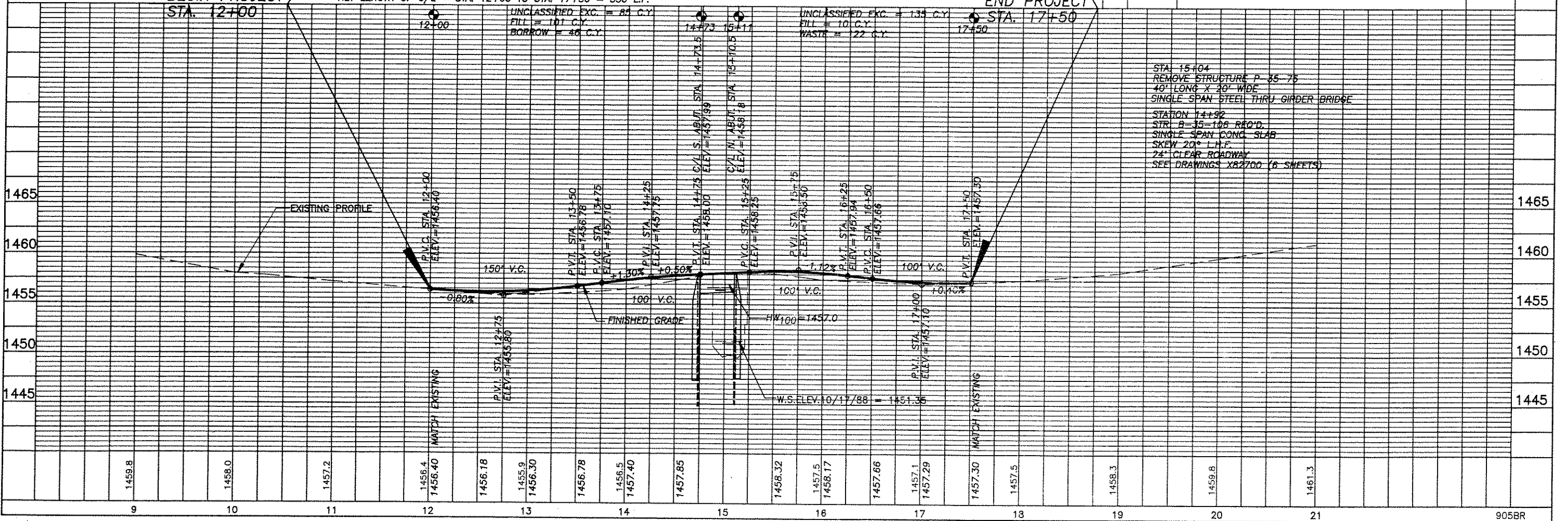
WJ 9432-1-70 9857-3-70

FEB



**BENCH MARKS**

NO.	STA.	DESCRIPTION	ELEV.
1	12+09.5	R.R. SPIKE IN TOP OF 8" STUMP, 1.7' SQ. OF P.P., 35.5' RT.	1454.88
2	14+88	CHISELED SQ. ON S.W. ABUT., ABOUT 3' BELOW RD. GRADE, 14.5' LT.	1455.70



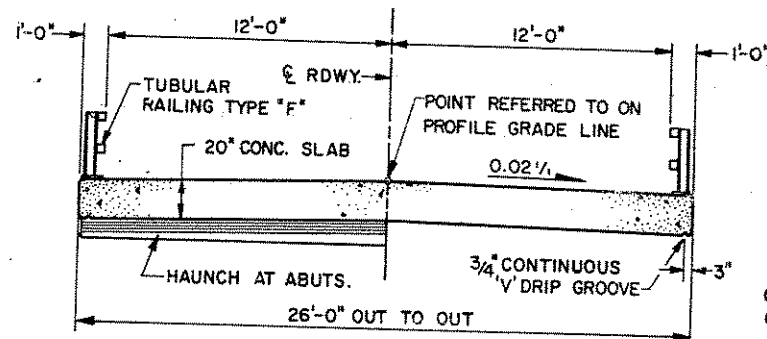
\* ANCHOR ASSEMBLY FOR STEEL PLATE BEAM TYPE GUARD RAIL

PRAIRIE RIVER

STATE PROJECT NUMBER	SHEET NO.
9859-05-70	6.0

**GENERAL NOTES**

DRAWINGS SHALL NOT BE SCALED.  
 BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE NOTED.  
 THE SLOPES IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP TO THE EXTENT SHOWN ON THIS SHEET.  
 JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION M153 TYPE I, II, OR III OR M213.  
 THIS STRUCTURE WILL REPLACE P-35-75 WHICH IS A STEEL THRU GIRDER BRIDGE 41' LG. x 21.3' WIDE.



**CROSS SECTION THRU ROADWAY**

**DESIGN DATA (CONT.)**

**HYDRAULIC DATA:**

DRAINAGE AREA	63.3 SQ. MI.
HIGHWATER 100	EL. 1457.0
Q <sub>100-1,900 C.F.S.</sub>	Q BRIDGE 1,758 C.F.S.
	Q OVERFLOW 142 C.F.S.
WATERWAY AREA	182 SQ. FT.
VELOCITY	8.8 FPS.

**ROADWAY OVERTOPPING**

Q	12
HW	EL. 1456.3

**TRAFFIC DATA**

A.D.T. (1989)	60
A.D.T. (2010)	73
R.D.S.	55 MPH.

**DESIGN DATA**

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 P.S.F.

**RATINGS:** DESIGN RATING \_\_\_\_\_ HS 20  
 INVENTORY RATING \_\_\_\_\_ HS 21  
 OPERATING RATING \_\_\_\_\_ HS 35  
 MAX. STD. PERMIT VEHICLE LOAD \_\_\_\_\_ 210 KIPS

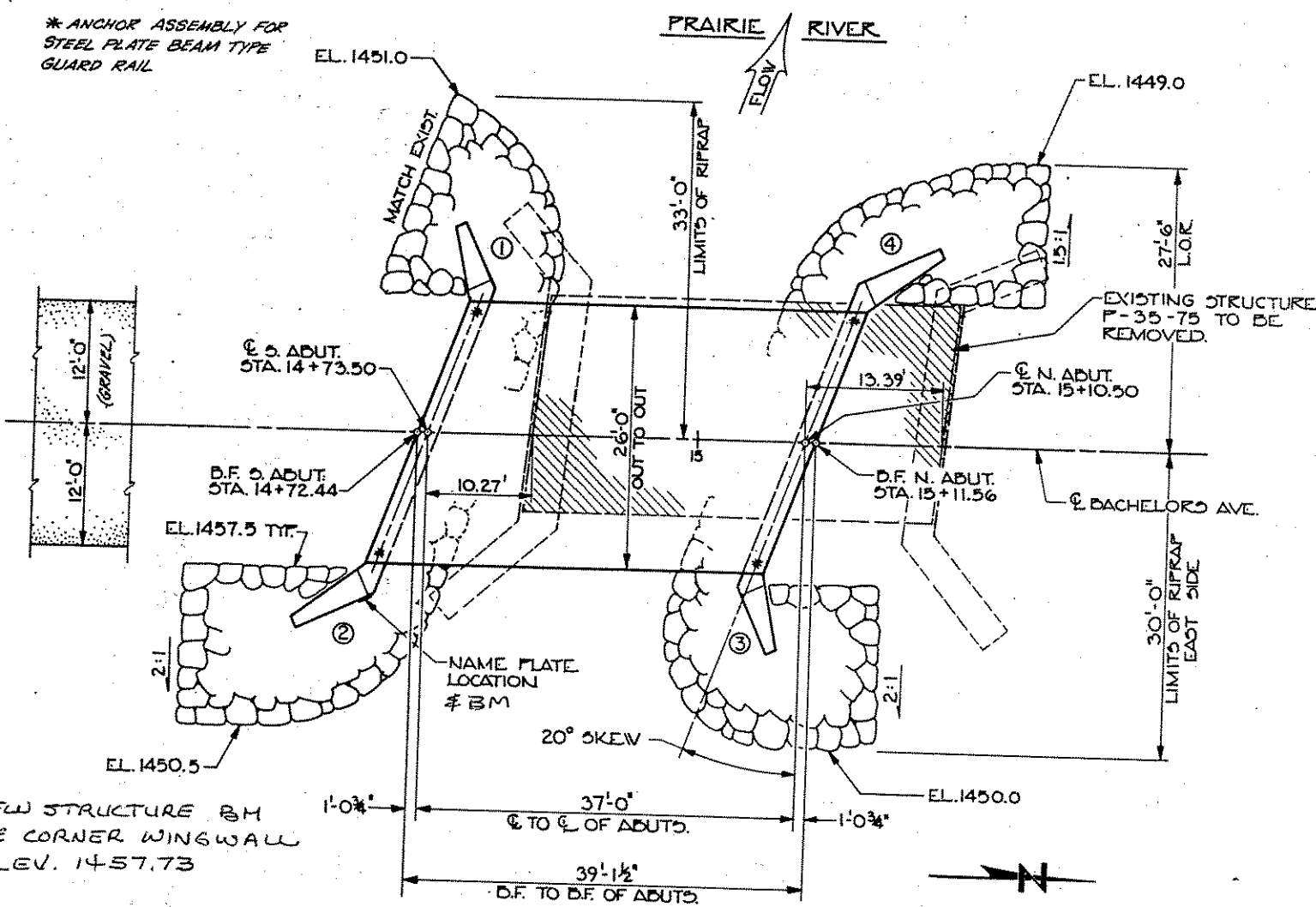
**ALLOWABLE DESIGN STRESSES:**

CONCRETE MASONRY - SLAB	f <sub>c</sub> = 4,000 PSI
- OTHER	f <sub>c</sub> = 3,500 PSI
HIGH STRENGTH BAR STEEL REINFORCEMENT - GRADE 60	f <sub>y</sub> = 60,000 PSI

**FOUNDATION DATA:** ABUTMENTS TO BE SUPPORTED ON HP10x42 STEEL "H" PILES EST. 40'-0" LG. & DRIVEN TO A MIN. BEARING VALUE OF 40 TONS / PILE.

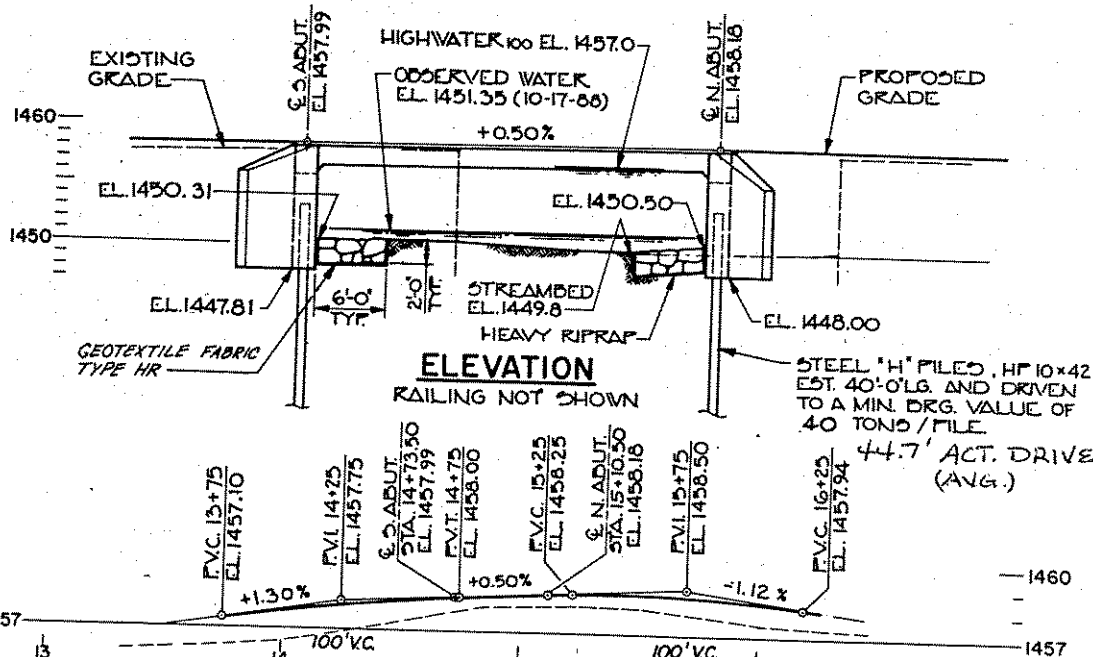
**TOTAL ESTIMATED QUANTITIES**

BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER	TOTAL
REMOVING OLD STRUCTURE STA. 15+04	L.S.				
EXCAVATION FOR STRUCTURES, BRIDGES	L.S.				
CONCRETE MASONRY, BRIDGES	C.Y.	28.3	28.3	66.4	123.0
HIGH STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LBS.	2,090	2,090	9,255	13,435
COATED HIGH STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LBS.			1,810	1,810
HEAVY RIPRAP	C.Y.	55	55		110
PROTECTIVE SURFACE TREATMENT	GAL.			5	5
GEOTEXTILE FABRIC, TYPE HR	S.Y.	85	85		170
STEEL PILING, DELIVERED AND DRIVEN, HP10x42	L.F.	240	240		480
TUBULAR RAILING TYPE "F" B-35-106	L.S.				1
<b>NON-BID ITEMS</b>					
FILLER	SIZE				1/2" x 3/4"
POLYVINYL CHLORIDE WATERSTOP	L.F.	33	33		66



**PLAN**

SINGLE SPAN CONCRETE SLAB



**ELEVATION**

RAILING NOT SHOWN

**LIST OF DRAWINGS**

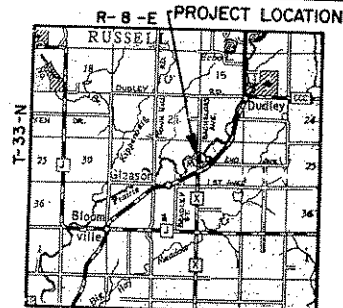
1. GENERAL PLAN
2. SUBSURFACE EXPLORATION
3. ABUTMENTS
4. WINGS
5. SUPERSTRUCTURE
6. TUBULAR RAILING TYPE "F"

**BENCH MARK LOCATION**

NO.	STA.	LOCATION	ELEV.
1	12+09.5	R.R. SPIKE IN 8" STUMP	35.5 RT. 1454.88
2	14+88	CHISELED "D" ON S.W. ABUT.	14.5 LT. 1455.70
		DOT MON. SE WINGWALL - NEW STRUC.	1457.73



PLANS PREPARED BY:  
 BARRIENTOS & ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 3822 MINERAL PT. RD. - MADISON, WI. 53705  
 PH. 608-238-6781



**LAYOUT**

No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
<b>STRUCTURE B-35-106</b>			
<b>BACHELORS AVE. OVER PRAIRIE R.</b>			
County LINCOLN	Town RUSSELL	Design Spec. A.A.S.H.T.O. '88	Load HS 20
Designed By L.M.D.	Design Checked J.T.T.	Drawn By O.K.L.	Plans Checked S.R.L.
Approved <i>Stanley M. Woods</i> State Bridge Engineer		Date 11-16-89	
<b>GENERAL PLAN</b>			SHEET 1 OF 6 X 82700

**ABBREVIATIONS**

F — Fine	M — Medium	C — Coarse
Ws — Weathered	So — Sound	

**MATERIAL SYMBOLS**

Topsoil	Silt	Sandstone
Sand	Peat	Limestone
Gravel	Clay	Igneous Rock

**LEGEND OF PROBING**

Probing No. Sta. Elevation

95/6=95 Blows for 6' Penetration  
 Probing taken with a 350# wt. Falling 18" on a 2" O. D. Point.

7 Average Blows Per Foot  
 Refusal 95/6

**LEGEND OF BORING**

Boring No. Sta. Elev.

Unconfined Strength  $\frac{7.7}{7}$  \*  
 Blows Per Ft. Using 140# Wt. Falling 30"

Wash Sample  
 Shelby Tube — S. T.

Ground Water Elevation  
 No Ground Water Observed Above This Elevation

Sandy Gravel  
 F.  
 Boulders or Cobbles  
 Sand  
 Silty Clay  
 So  
 Limestone

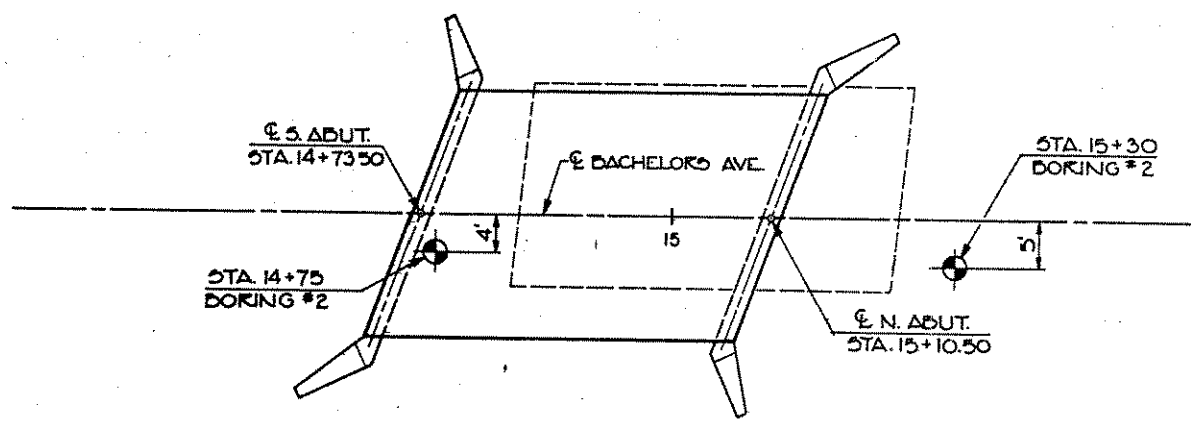
Unless otherwise specified, the blows per foot at the locations indicated are based on driving a 2" O. D. x 1.4" I. D. split spoon sampler with a 140# hammer having a free fall of 30". The blow count is taken in undisturbed soil immediately below a cased or open hole eliminating side friction on the drive pipe.

**SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION**

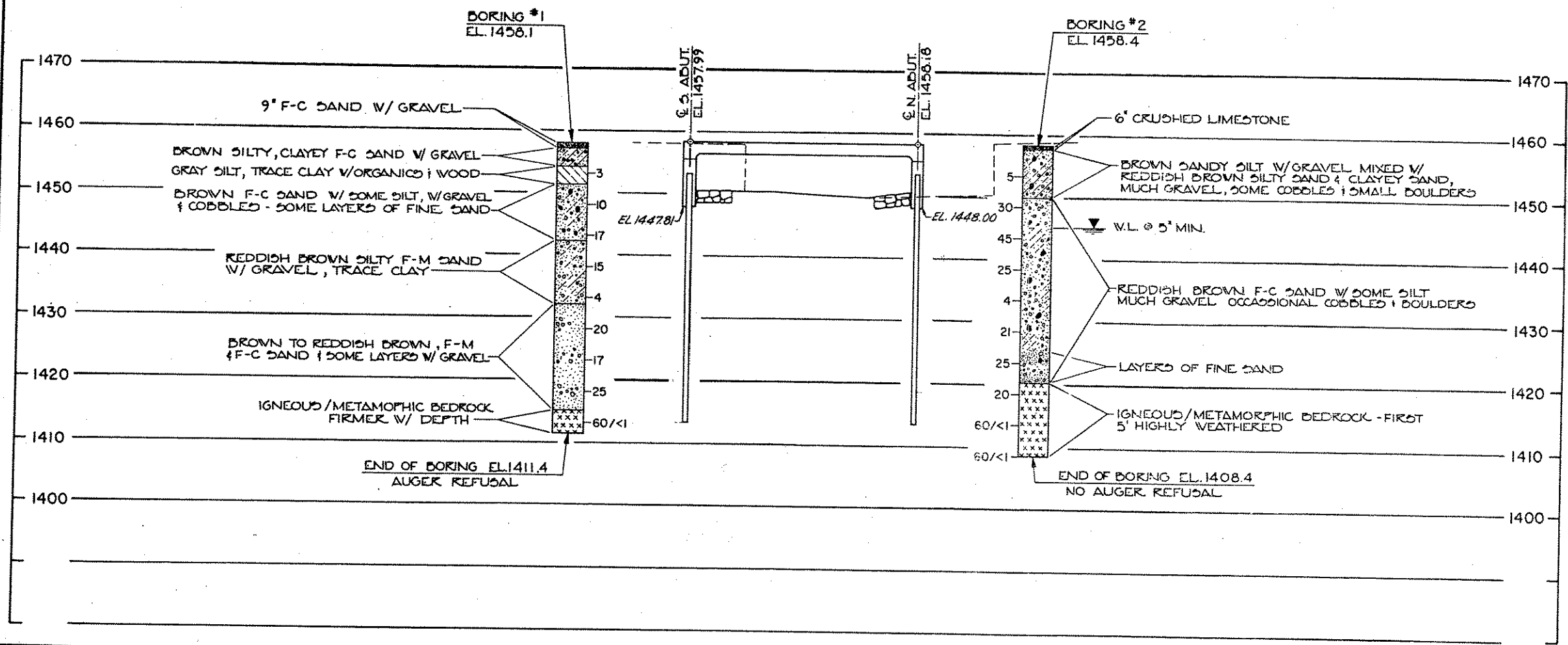
To obtain relative data concerning the character of material in and upon which the foundation might be built, borings and/or soundings were made at points approximately as indicated on this drawing. The data presented herein represents the findings of the subsurface explorations made. However, because the depths investigated are limited and the area of the borings and/or soundings is very small in relation to the entire area, the Division of Highways does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.

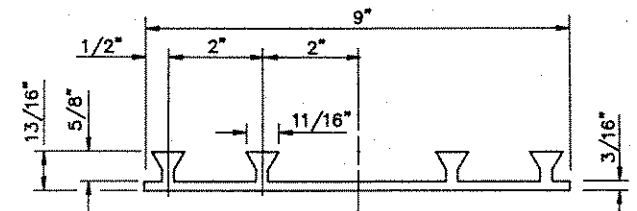
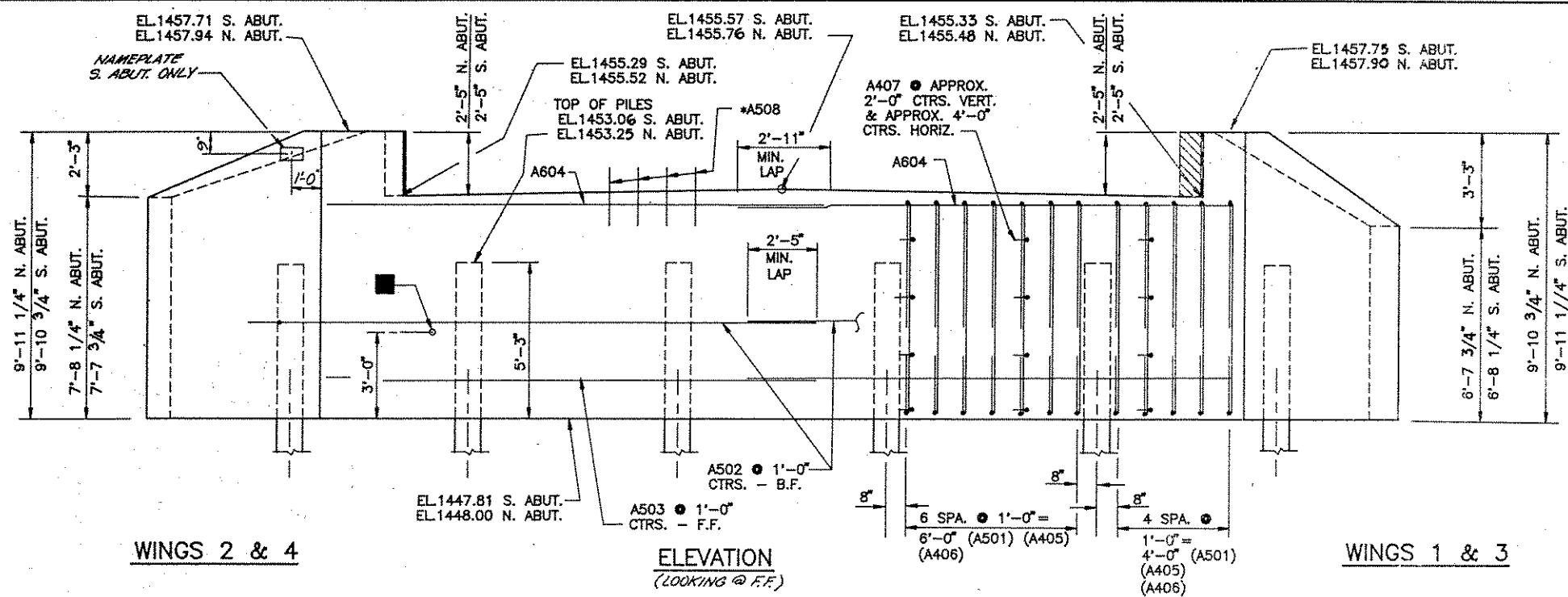
No.	Date.	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
<b>STRUCTURE B-35-106</b>			
Const. Spec.	WIS. '89	Drawn By	DR.L.
		Plans Checked	L.M.B.
<b>SUBSURFACE EXPLORATION</b>			SHEET 2 OF 6 X 82700

PRAIRIE RIVER



PLAN





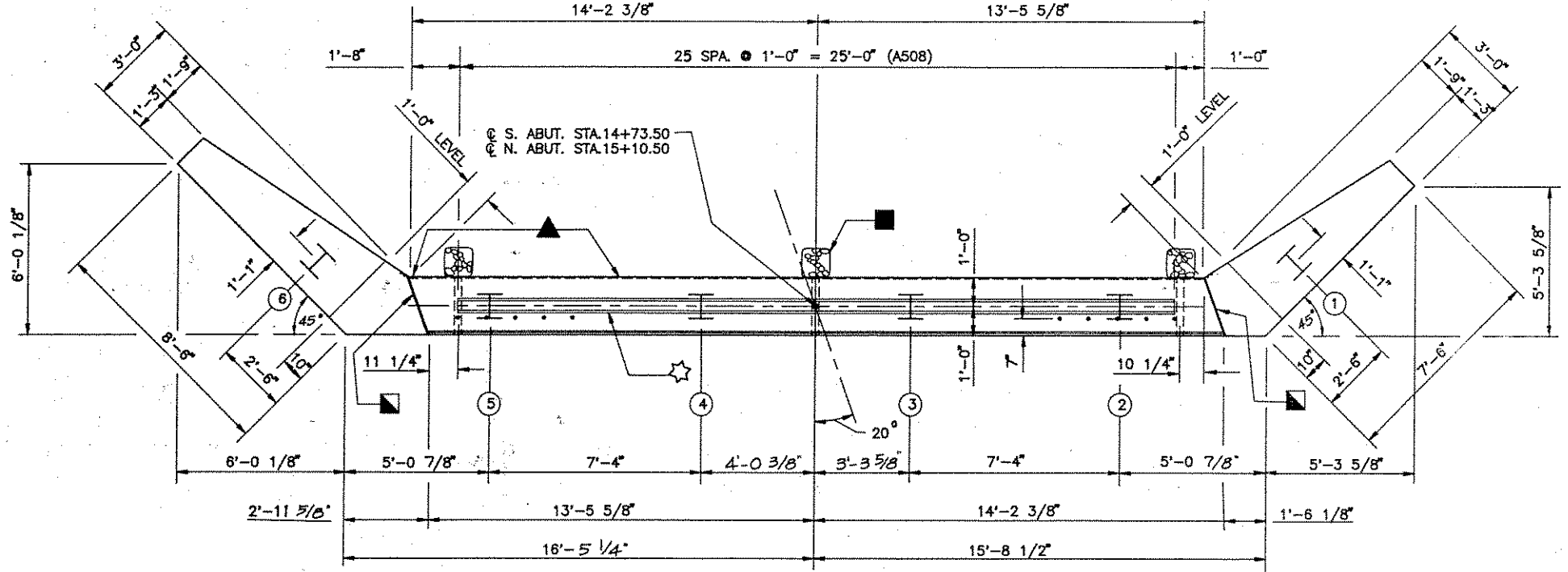
POLYVINYL CHLORIDE WATERSTOP

\*A508 DOWEL BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.

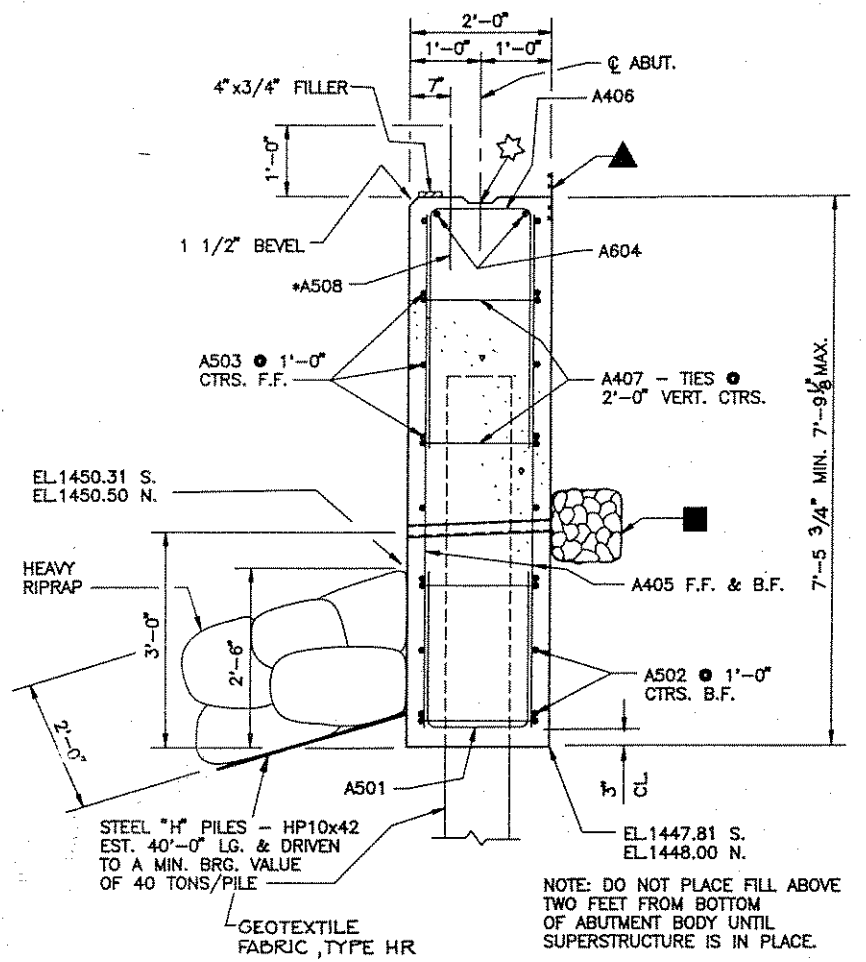
WINGS 2 & 4

WINGS 1 & 3

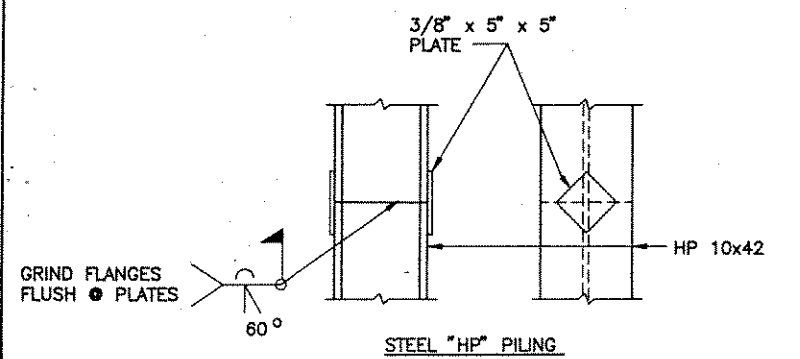
ELEVATION  
(LOOKING @ F.F.)



PLAN



SECTION THRU  
ABUTMENT BODY



PILE SPLICE DETAILS

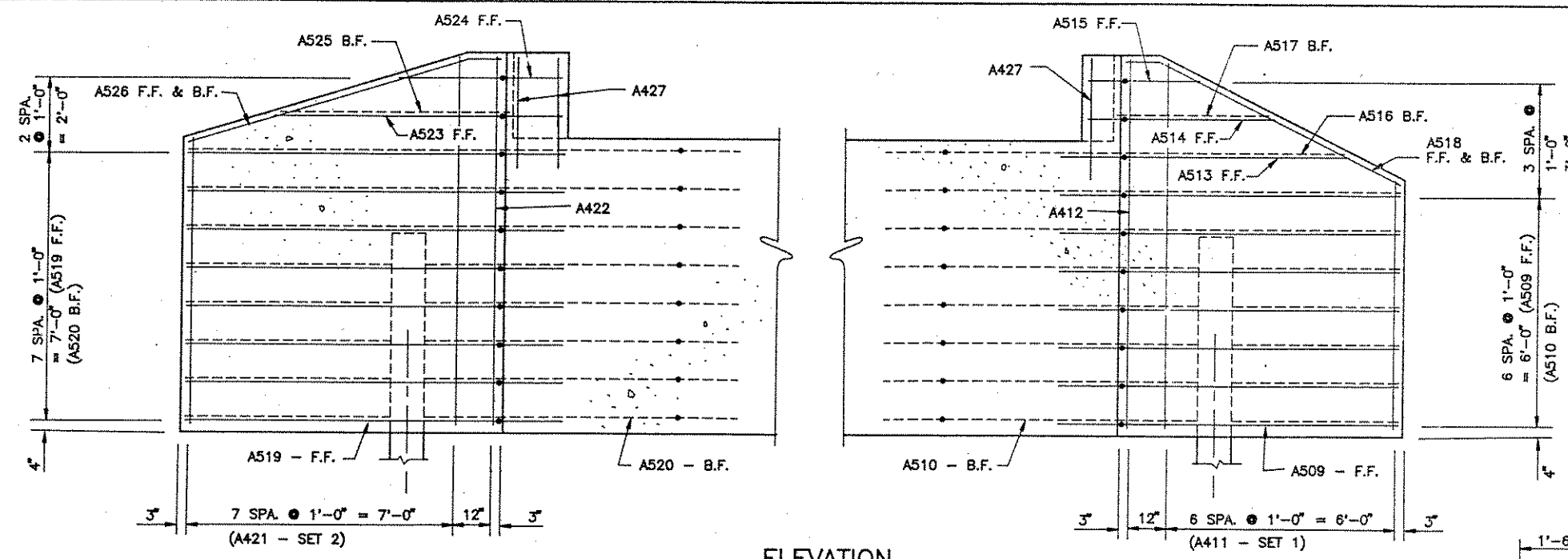
- 2" DIA. WEEP HOLE ● LOCATIONS SHOWN. USE FILTER CLOTH W/SELECT GRANULAR MATERIAL ● EA. HOLE (ON B.F. 12"x12"x12" MIN.) COST TO BE INCIDENTAL TO "CONCRETE MASONRY BRIDGES."
- ▲ POLYVINYL CHLORIDE WATERSTOP TO EXTEND FULL WIDTH OF ABUT. SEAT & VERT. FROM SEAT TO TOP OF WINGS. P.C.W. SHALL BE BUTT-SPLICED AT ALL INTERSECTIONS BY USING A HEATED SPLICING IRON. HOLD FLUSH TO CONC.

★ CONST. JOINT KEYWAY FORMED WITH A SURFACED, BEVELED 2" x 6".

◆ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONC.)

NOTE: DO NOT PLACE FILL ABOVE TWO FEET FROM BOTTOM OF ABUTMENT BODY UNTIL SUPERSTRUCTURE IS IN PLACE.

No.	Date.	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-35-106			
Const. Spec.	WIS. '89	Drawn By	T.R.L.
		Plans Checked	S.R.L.
ABUTMENTS			SHEET 3 of 6
			X 82700



ELEVATION

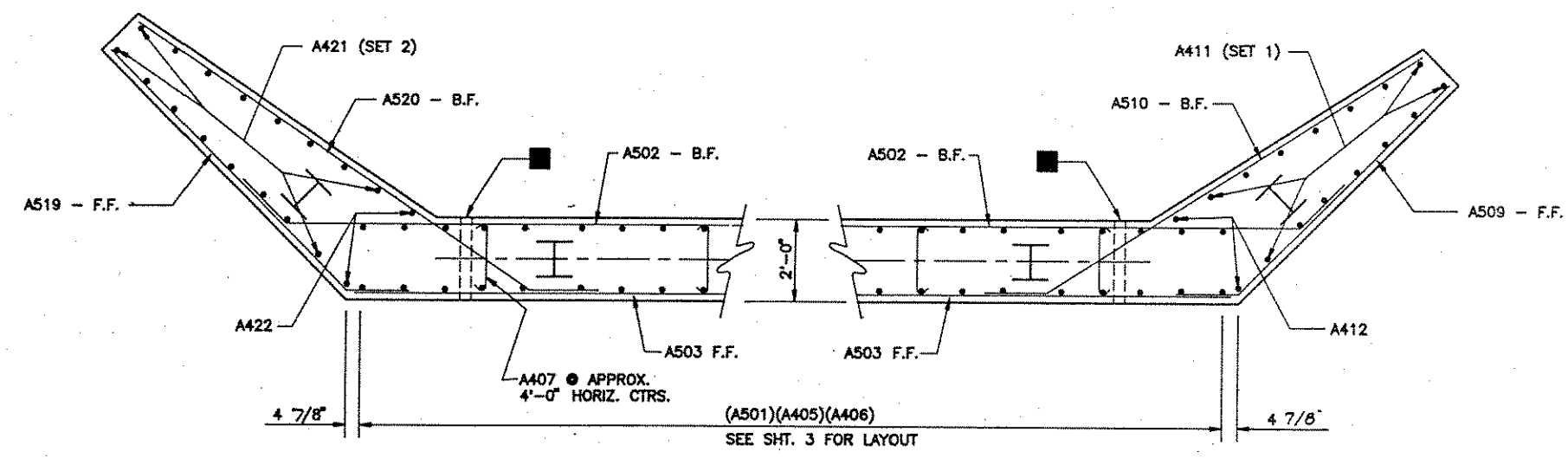
WINGS 2 & 4

WINGS 1 & 3

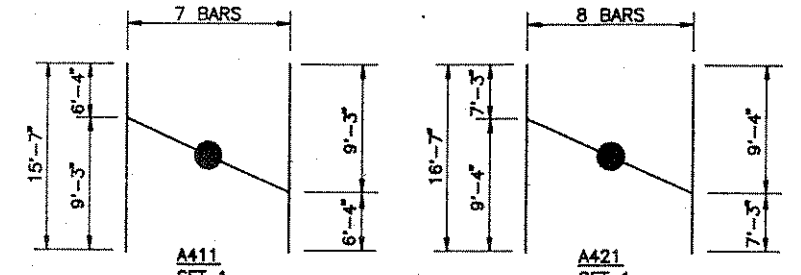
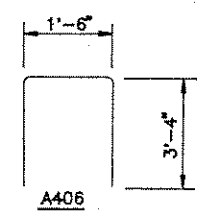
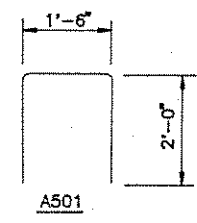
BILL OF BARS 4,180 # (2 ABUTS.)

MARK	NO.	LENGTH	BENT	CUT	LOCATION
A501	62	5'-3"	X		BODY - VERT. - STIRRUP @ BTM.
A502	32	20'-4"	X		BODY - HORIZ. - B.F.
A503	32	17'-4"			BODY - HORIZ. - F.F.
A604	8	17'-7"			BODY - HORIZ. - TOP
A405	124	7'-1"			BODY - VERT. B.F. & F.F.
A406	62	8'-0"	X		BODY - VERT. - STIRRUPS @ TOP
A407	56	2'-5"	X		BODY - HORIZ. TIES
A508	52	2'-0"			BODY - VERT. - DOWELS @ TOP
A509	14	8'-8"	X		WINGS 1 & 3 - HORIZ. - F.F.
A510	14	12'-3"	X		WINGS 1 & 3 - HORIZ. - B.F.
A411	14	15'-7"		X	WINGS 1 & 3 - VERT. - F.F. & B.F.
A412	4	9'-5"			WINGS 1 & 3 - VERT. - F.F. & B.F.
A513	2	7'-2"	X		WINGS 1 & 3 - HORIZ. - F.F.
A514	2	5'-1"	X		WINGS 1 & 3 - HORIZ. - F.F.
A515	2	3'-1"	X		WINGS 1 & 3 - HORIZ. - F.F.
A516	2	10'-9"	X		WINGS 1 & 3 - HORIZ. - B.F.
A517	2	3'-10"			WINGS 1 & 3 - HORIZ. - B.F.
A518	4	7'-11"	X		WINGS 1 & 3 - TOP - F.F. & B.F.
A519	16	9'-8"	X		WINGS 2 & 4 - HORIZ. - F.F.
A520	16	13'-1"	X		WINGS 2 & 4 - HORIZ. - B.F.
A421	16	16'-7"		X	WINGS 2 & 4 - VERT. - F.F. & B.F.
A422	4	9'-5"			WINGS 2 & 4 - VERT. - F.F. & B.F.
A523	2	8'-8"	X		WINGS 2 & 4 - HORIZ. - F.F.
A524	2	5'-4"	X		WINGS 2 & 4 - HORIZ. - F.F.
A525	2	6'-0"			WINGS 2 & 4 - HORIZ. - B.F.
A526	4	8'-6"	X		WINGS 2 & 4 - TOP - F.F. & B.F.
A427	6	3'-3"			ALL WINGS - VERT. CORNERS

BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.



PLAN SECTION  
SHOWING BAR STEEL BELOW SEAT

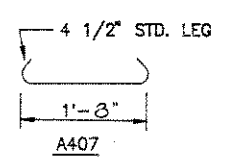


CUTTING DIAGRAMS

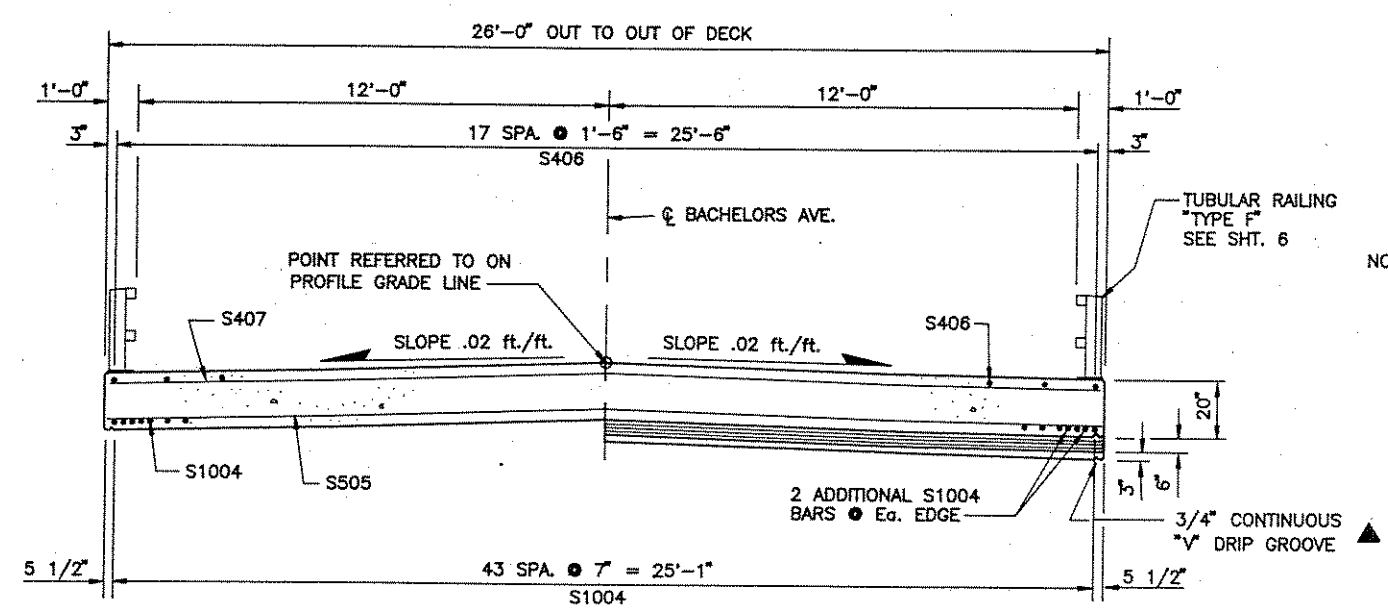
CUT ALL BARS ALONG THIS LINE. MAKE ALL CUTS NORMAL TO BAR AXIS. BUNDLE AND MARK CUT BARS WITH BAR AND SET NUMBER.

2" DIA. WEEP HOLE @ LOCATIONS SHOWN. USE FILTER CLOTH W/SELECT GRANULAR MATERIAL @ EA. HOLE (ON B.F. 12"x12"x12" MIN.) COST TO BE INCIDENTAL TO "CONCRETE MASONRY BRIDGES."

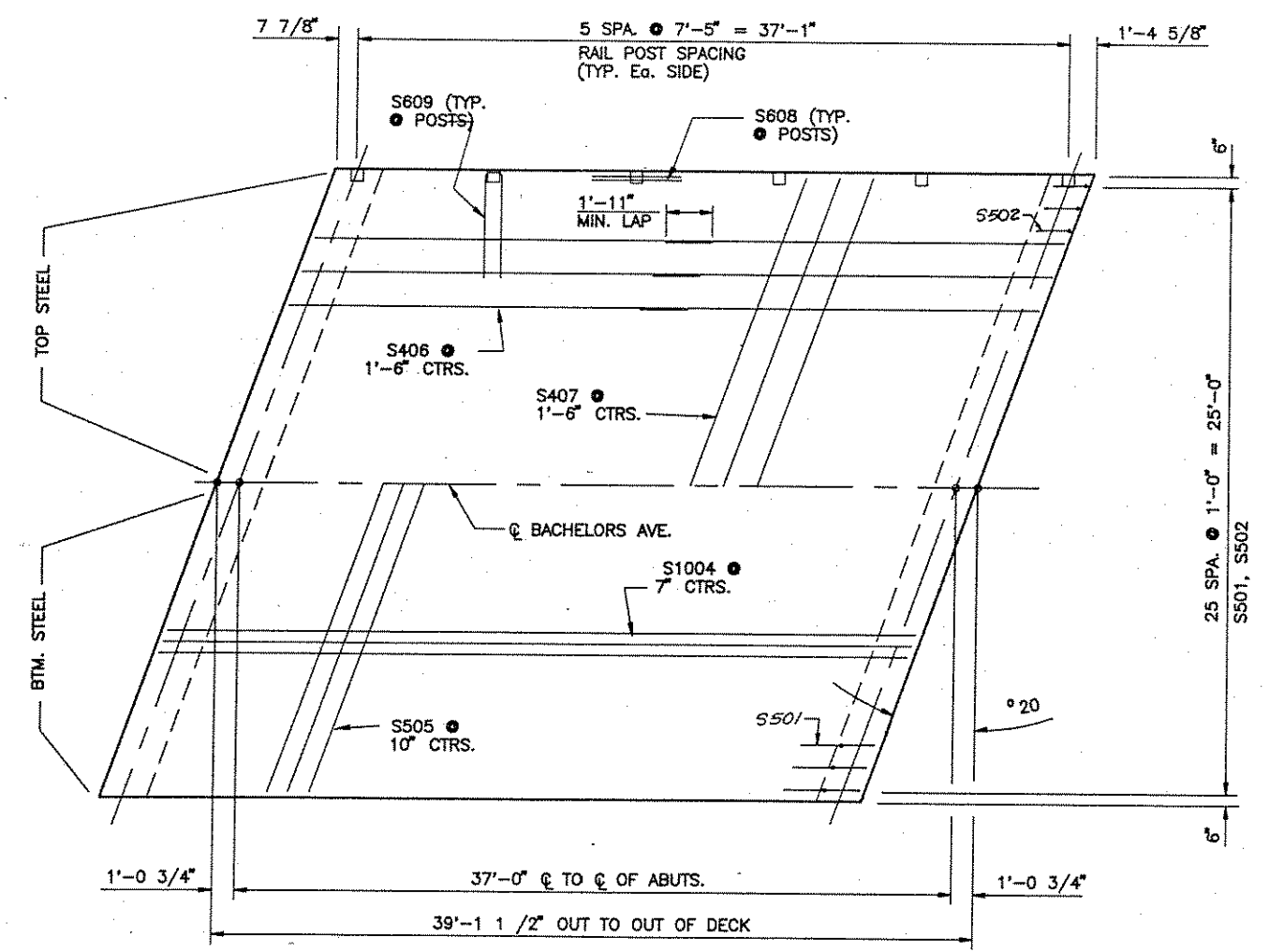
MARK	"A"	"B"
A502	1'-6"	1'-1"
A509	1'-6"	1'-1"
A510	1'-6"	10"
A513	1'-6"	1'-1"
A514	1'-4"	11"
A515	1'-4"	11"
A518	8"	4"
A519	1'-6"	1'-1"
A520	1'-6"	11"
A523	2'-8"	1'-10"
A524	2'-8"	1'-10"
A526	8"	4"
A516	1'-6"	10"



No.	Date.	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-35-106			
Const. Spec.	WIS. '89	Drawn By	T.R.L.
		Plans Checked	S.R.L.
WINGS			SHEET 4 OF 6 X 82700

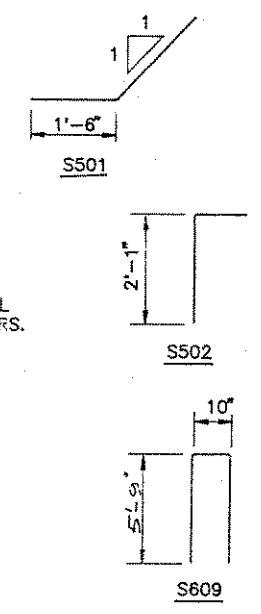


CROSS SECTION THRU ROADWAY



PLAN

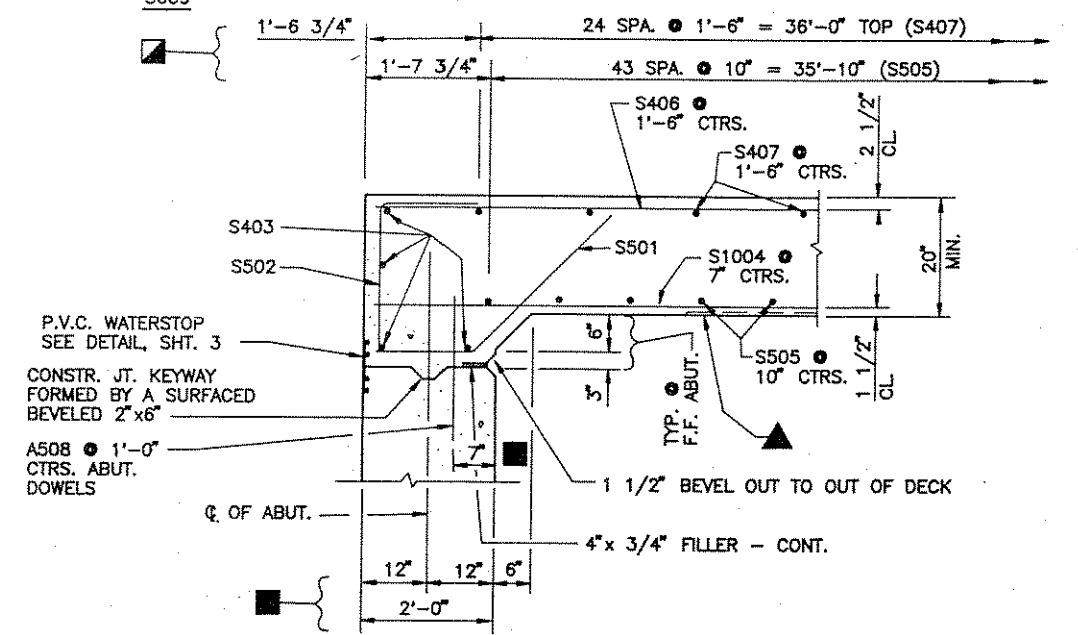
NOTE: ALTERNATE TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CTRS. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CTRS.



BILL OF BARS 11,065 #

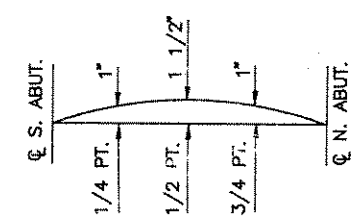
MARK	NO.	LENGTH	COAT	BENT	LOCATION
S501	52	4'-0"	X	X	HAUNCH @ ABUT. - VERT. STIRRUP
S502	52	3'-3"	X	X	HAUNCH @ ABUT. - VERT. STIRRUP
S403	8	27'-3"	X		HAUNCH @ ABUT. HORIZ.
S1004	48	38'-9"			SLAB - LONGIT. - BTM.
S505	44	27'-3"			SLAB - TRANSV. - BTM.
S406	36	20'-4"	X		SLAB - LONGIT. - TOP
S407	25	27'-3"	X		SLAB - TRANSV. - TOP
S608	24	4'-0"	X		SLAB @ RAIL POSTS - 2 Ea. POSTS
S609	12	12'-0"	X	X	SLAB @ RAIL POSTS

THE FIRST DIGIT, OR THE FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE. DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BARS.



PARTIAL LONGITUDINAL SECTION

- DIMENSION IS GIVEN NORMAL TO ABUTMENT.
- ▣ DIMENSION IS GIVEN NORMAL TO @ OF ROADWAY.
- ▲ 3/4" CONTINUOUS "V" DRIP GROOVE TERMINATE 2'-0" FROM Ea. ABUTMENT



CAMBER DIAGRAM

PROVIDE CAMBER AS SHOWN ABOVE TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE PLASTIC FLOW THIS DOES NOT INCLUDE AN ALLOWANCE FOR FORM SETTLEMENT. DEAD LOAD DEFLECTION ONLY EQUALS APPROXIMATELY 1/4 OF CAMBER VALUES SHOWN.

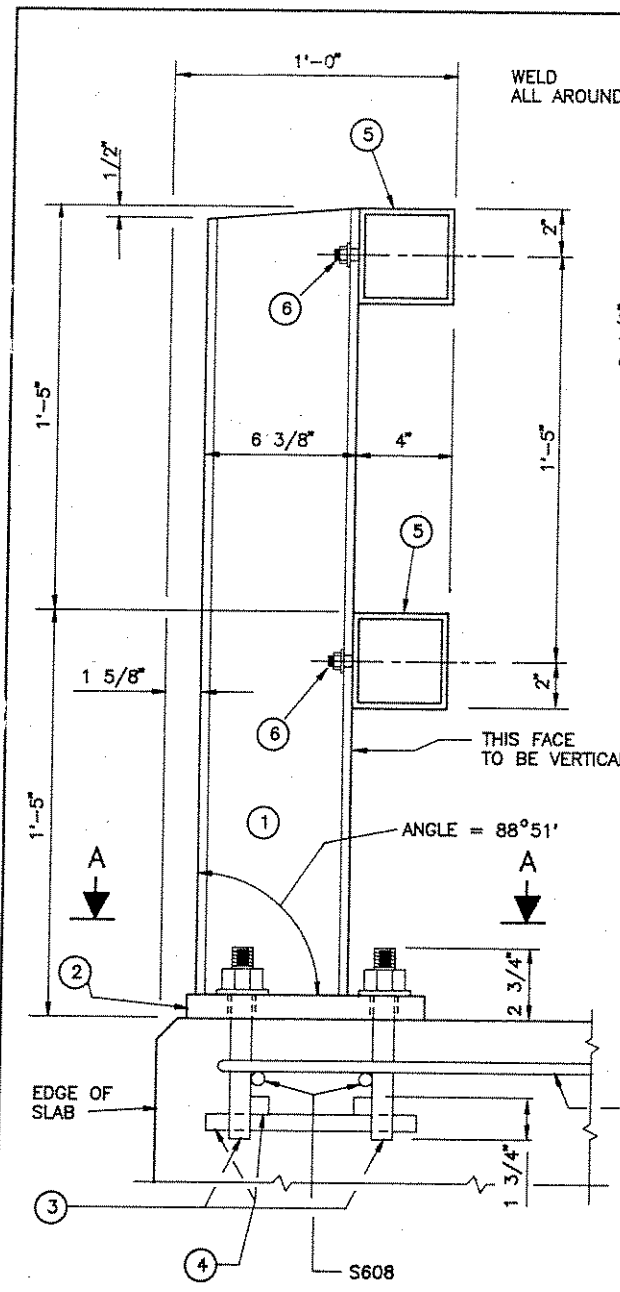
No.	Date.	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-35-106			
Const. Spec.	WIS.'89	Drawn By	T.L.
		Plans Checked	S.R.L.
SUPERSTRUCTURE			SHEET 5 OF 6
			X82700

**LEGEND**

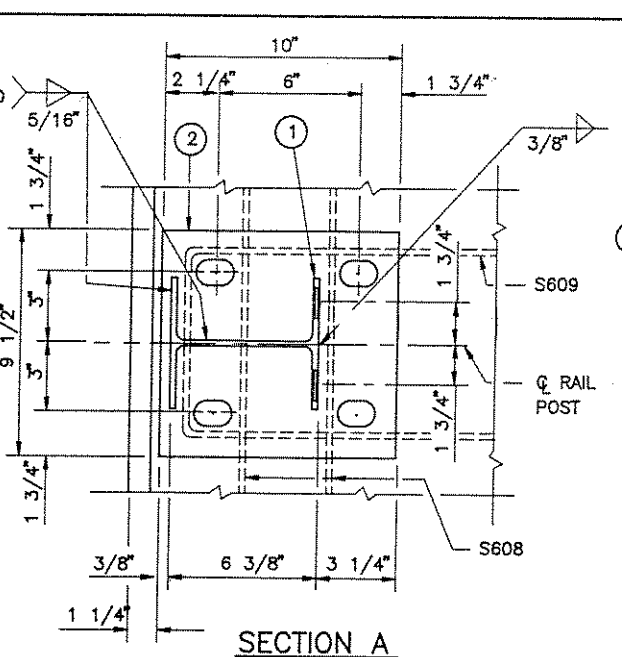
- ① W6x25 WITH 1 1/4" DIA. HOLES ON EACH SIDE OF POST FLANGE. FOR STUD NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POST NORMAL TO GRADE LINE.
- ② PLATE 1"x9 1/2"x0'-10", WITH 1 1/16"x1 1/2" SLOTTED HOLES FOR ANCHOR BARS NO.3. WELD TO NO. 1 AS SHOWN.
- ③ A449 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION ANCHOR BAR 7/8" DIA.x 1'-3" LONG AT END POSTS AND 10" LONG AT ALL OTHER POST LOCATIONS FOR CONCRETE SLAB STRUCTURES AND 8 1/2" LONG AT ALL OTHER POST LOCATIONS FOR PRESTRESSED GIRDER STRUCTURES. (MIN. YIELD OF 92 K.S.I. AND ELONGATION OF 14%) WITH A325 NUT AND WASHER. 4 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 3. CHAMFER TOP OF BOLTS BEFORE THREADING.
- ④ BAR 3/4" SQ.x0'-8" LONG. WELD TO ANCHOR BAR NO. 3
- ⑤ TS 4x4x.25 STRUCTURAL TUBING, CONFORMING TO A.S.T.M. DESIGNATION A36. ATTACH TO NO. 1 WITH STUDS NO. 6.
- ⑥ 1 5/8" DIA.x 1 1/2" LONG SHOP WELDED STUDS, WITH HEX. NUT AND 2" WASHERS. 4 PER POSTS REQ'D. (2 REQ'D. AT EACH LOCATION.)
- ⑦ PLATE 3/4"x1'-0"x1'-6". WELD TO END RAIL POST AS SHOWN IN DETAIL. REQUIRED AT BEAM GUARD ATTACHMENTS ONLY.
- ⑧ 1" DIA. HOLES IN PLATE NO.7 FOR 7/8" DIA. A325 BOLTS W/HEX NUTS AND WASHERS.
- ⑨ SQUARE SLEEVE FABRICATED FROM 1/4" PLATE. PROVIDE "SLIDING FIT" WITH A MINIMUM OUT TO OUT DIMENSION OF 3 13/32".
- ⑩ TS 3x3x.25x1'-10" LONG. PROVIDE 1/2" DIA. SURFACE WELDS ON ALL SIDES AS SHOWN. GRIND WELDS TO FIT FREE INTO I.D. OF NO.5 PROVIDE 3/8" DIA. x1/2" WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.

**GENERAL NOTES**

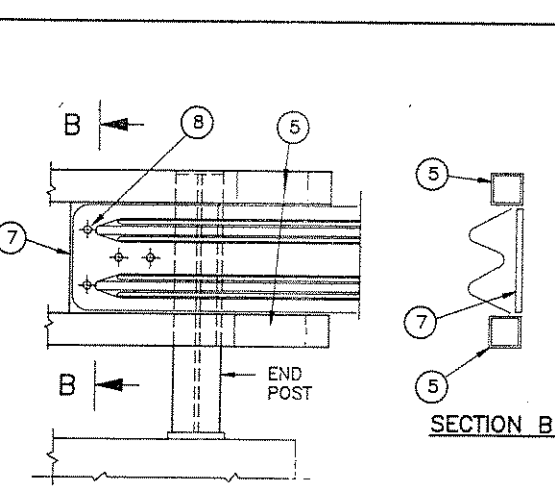
BID ITEM SHALL BE "TUBULAR RAILING TYPE 'F'. WHICH INCLUDES ALL ITEMS SHOWN.  
 RAILING SHALL BE FABRICATED IN 2 OR 3 PANEL LENGTHS. POSTS BASE PLATES, NO.2, SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.  
 ALL MEMBERS INCLUDING UPPER 4" OF NO.3 SHALL BE GALVANIZED AFTER FABRICATION.  
 FILL BOLT SLOT OPENINGS IN POSTS SHIMS AND PLATE NO.2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.  
 ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A36 UNLESS NOTED OTHERWISE.  
 STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.  
 PRIOR TO GALVANIZING, ALL STEEL RAILING SHALL BE GIVEN A NO.6 COMMERCIAL BLAST CLEANING BY S.S.P.C. SPECIFICATIONS. BLAST CLEANING IS NOT REQUIRED FOR COLD FORMED TUBING (5). EXCEPT TO REMOVE WELDING SLAG AND IMPERVIOUS SUBSTANCES. WELD WITH E70 ELECTRODES.



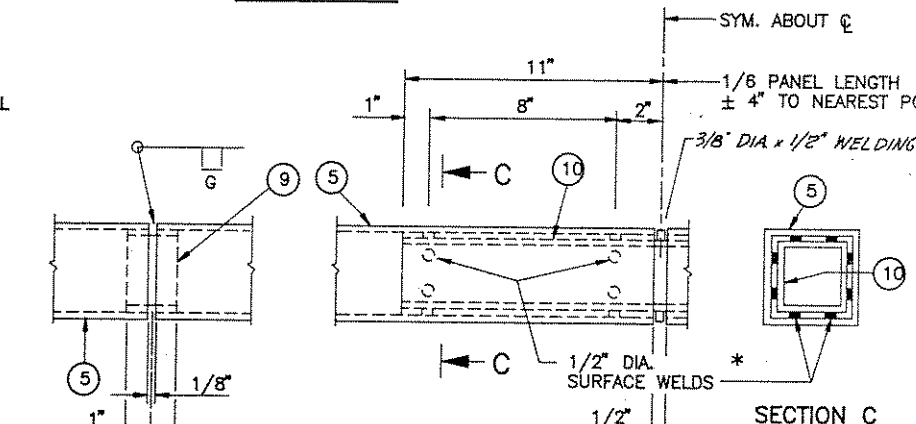
**SECTION THRU RAILING**



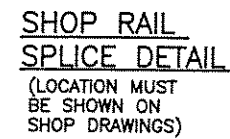
**SECTION A**



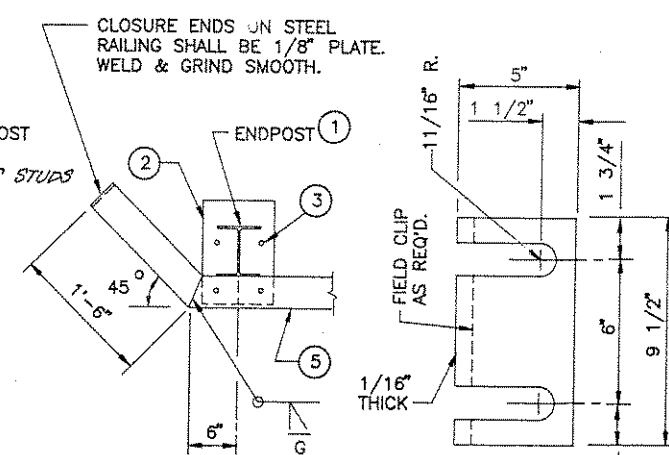
**DETAIL AT END POST  
(PLATE BEAM GUARD RAIL ATTACHMENT)**



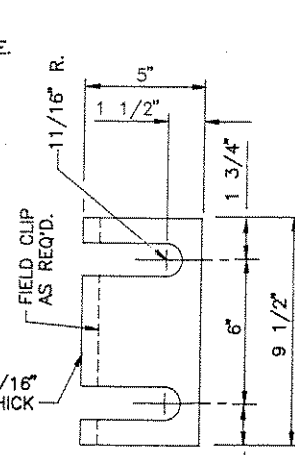
**FIELD ERECTION JOINT DETAIL**



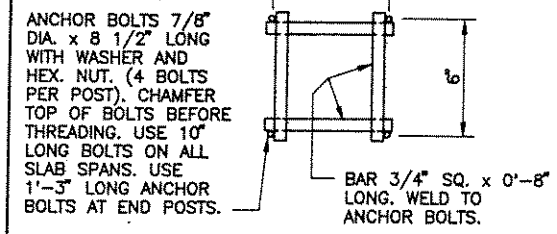
**SHOP RAIL SPLICE DETAIL  
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)**



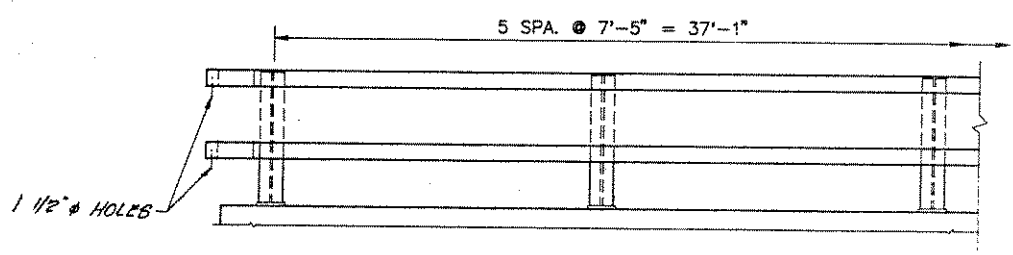
**END DETAIL FOR WINGS**



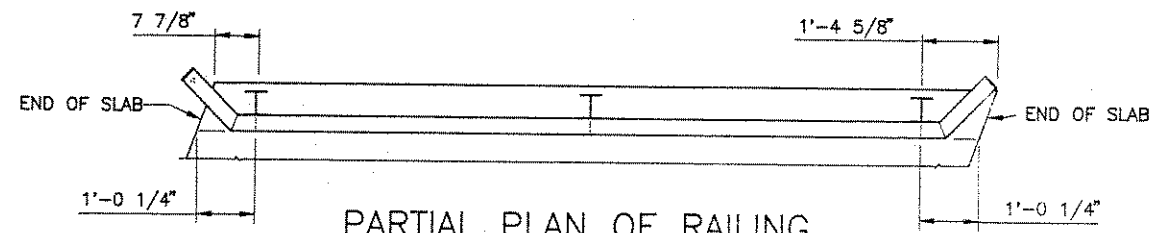
**POST SHIM DETAIL  
(4 PER POST)**



**ANCHOR BOLT DETAIL**



**PARTIAL ELEVATION OF RAILING**



**PARTIAL PLAN OF RAILING**

No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
<b>STRUCTURE B-35-106</b>			
Const. Spec.	WIS. '89	Drawn By	T.L.
		Plans Checked	S.R.L.
<b>TUBULAR RAILING TYPE "F"</b>			SHEET 6 OF 6
			X 82700