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TOTAL SHEETS



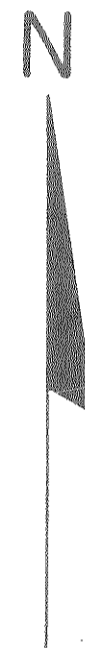
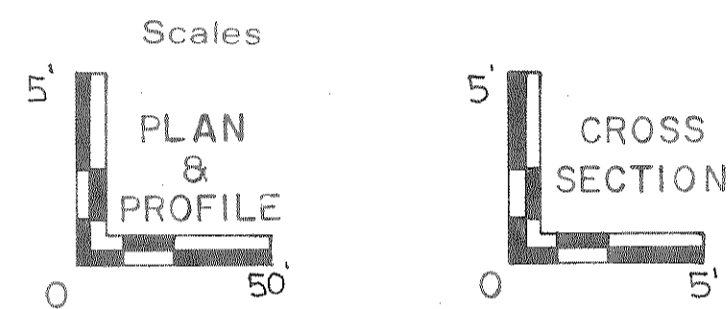
# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

## PLAN OF PROPOSED IMPROVEMENT

### PINE RIVER BRIDGE & APPROACHES

CENTER ROAD  
TOWN ROAD  
LINCOLN COUNTY

STATE PROJECT NUMBER  
**9857-01-70**



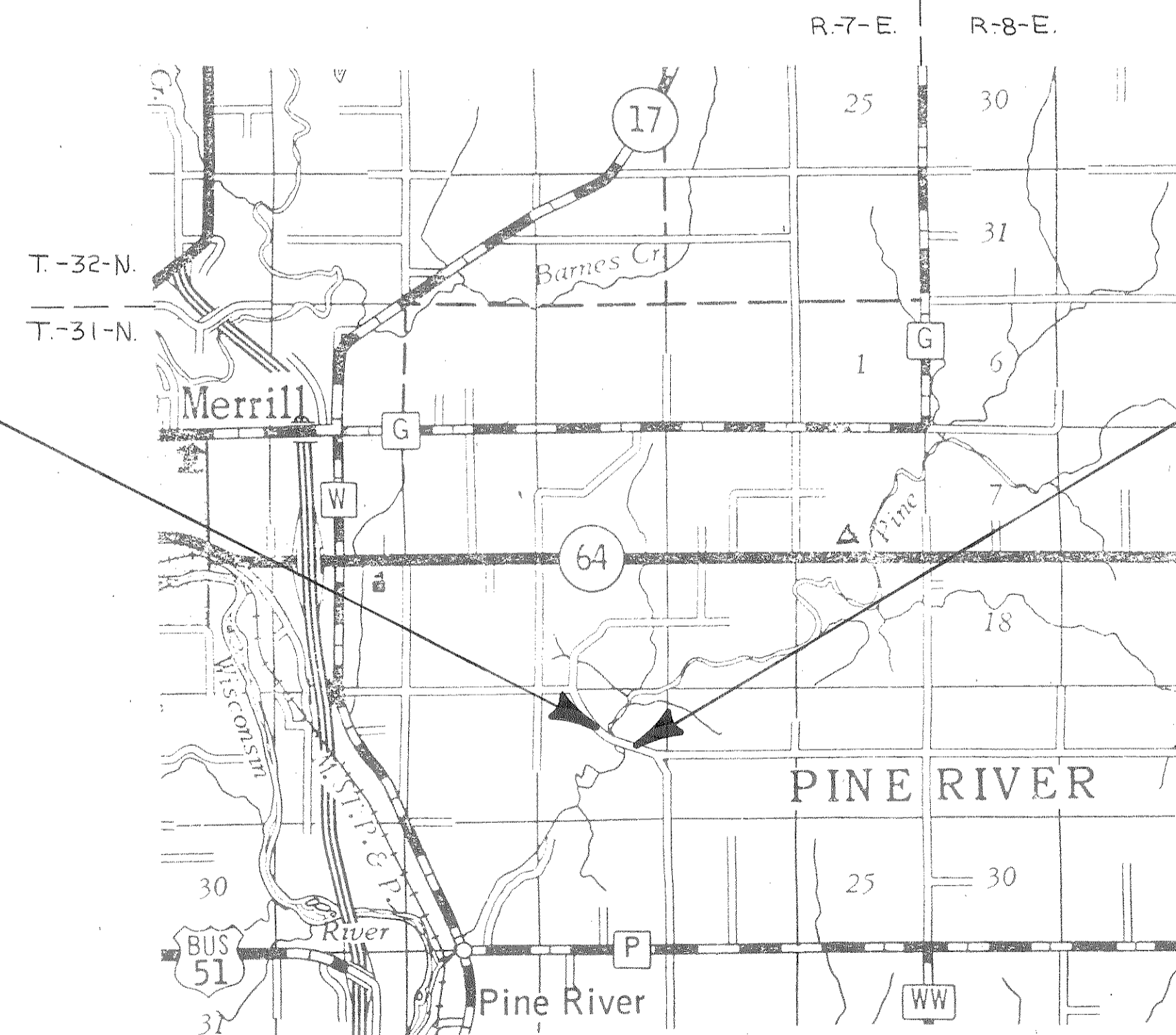
Design Designation

A.D.T. 1986	=	42
A.D.T. 2006	=	62
D.H.V.	=	
D.	=	50
T.	=	8%
V.	=	50 M.P.H.

**BEGIN PROJECT STA. 7+50**

N. = 483,000 (±100) \*  
E. = 2,103,600 (±100) \*

**END PROJECT STA. 12+00**



Conventional Signs

County Line	-----	Caution Symbol (Combustible fluids under pressure)	
Township or Range Line	-----	Railroads	-----
Section Line	-----	Fence	-----
Corporate or City Limits	-----	Culverts in Place	-----
Property line	-----	Culverts Required	-----
Lot Line	-----	Power Pole	-----
Existing Right of Way Line	-----	Telephone or Telegraph Pole	-----
New Right of Way Line	-----	Right of Way Markers	-----
Base or Survey Line	-----	Marsh	-----
Slope Intercept	-----	Wooded Area	-----
Existing Roadway or Private Entrance	-----	Grade Elevation	-----



Total Net Length of Centerline = 0.085 Mi. RURAL

\* COORDINATES SCALED FROM U.S.G.S. TOPOGRAPHIC MAP PINE DELLS 7.5 MIN. SERIES, WISCONSIN, QUADRANGLE FOR IDENTIFICATION ONLY.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9857-01-70		

FILE COPY

APPROVED FOR  
LINCOLN CO.

BY

1-21-86 (Date) *Mitchell L. Hap* (Signature of Official)

ORIGINAL  
PLANS PREPARED BY

**Foth & Van Dyke**

Engineers/Architects  
2737 S. Ridge Road  
P. O. Box 19012  
Green Bay, WI 54307-9012  
414-497-2500  
© 1986 Foth & Van Dyke and Associates Inc.

*F. B. V. D.*  
*Jan 16, 1986*

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

Supervisor: F. B. V. D. District Checker: \_\_\_\_\_  
Designer: F. B. V. D. C. O. Coordinator: \_\_\_\_\_  
District Supervisor: \_\_\_\_\_

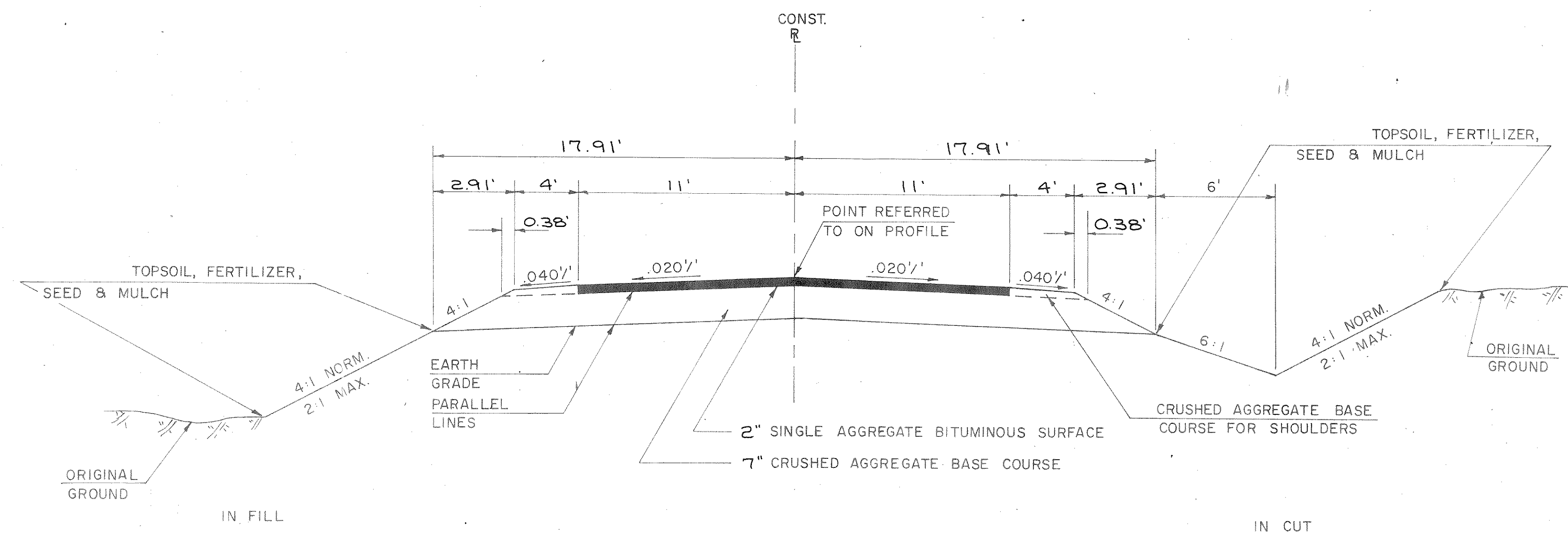
Approved: \_\_\_\_\_  
Date: \_\_\_\_\_ District Transportation Director

Approved: \_\_\_\_\_  
Date: \_\_\_\_\_ Chief Design Engineer

Approved: \_\_\_\_\_  
Date: \_\_\_\_\_ Director of Development

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
REGION 5 WISCONSIN DIVISION  
Approved: \_\_\_\_\_  
Date: \_\_\_\_\_ District Administrator

FINAL Plans 1-21-86



TYPICAL FINISHED SECTION

CRUSHED AGGREGATE BASE COURSE	
LOCATION	TON
MAINLINE	522
SHOULDERS	45

TEMPORARY SILT FENCE, ALTERNATE A	
LOCATION	L.F.
NORTHWEST QUAD.	65
SOUTHWEST QUAD.	35
NORTHEAST QUAD.	20
SOUTHEAST QUAD.	15

STANDARD DETAIL DRAWINGS

SILT FENCE	8E9-2
NAME PLATE - STRUCTURES	12A3-4
CONSTRUCTION BARRICADES AND STANDARD SIGNS	15C1-7

UTILITIES

WISCONSIN PUBLIC SERVICE  
 301 EAST SECOND STREET  
 MERRILL, WI 54452  
 ATTN: GENE BONDIOLI  
 1-715-536-5541

GENERAL TELEPHONE  
 413 MC CLELLAN STREET  
 WAUSAU, WI 54401  
 ATTN: JERRY ERMELING  
 1-715-847-1590

GENERAL NOTES

PRIVATE UTILITY COMPANIES SHALL ADJUST OR MOVE ALL PRIVATELY-OWNED FACILITIES TO FIT THE NEW CONSTRUCTION. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS, AS SHOWN ON THE PLANS, ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE CONTRACTOR SHALL CONTACT THE UTILITIES TO VERIFY THEIR FACILITIES PRIOR TO ANY EXCAVATION.

THE DEPARTMENT OF TRANSPORTATION WILL FURNISH A BRASS MARKER TO BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

WHEN THE QUANTITY OF THE ITEM OF BASE COURSE OR SURFACE COURSE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS AS SHOWN ON THE PLAN IS APPROXIMATE. THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

FILL AS SHOWN ON THE PLAN SHEETS PERTAINS TO EMBANKMENT CONSTRUCTED FROM UNCLASSIFIED EXCAVATION. THE SHRINKAGE ALLOWANCE USED TO COMPUTE THE VOLUME OF MATERIAL NECESSARY TO COMPLETE THE FILL IS 40% FOR UNCLASSIFIED EXCAVATION BASED ON THE VOLUME OF THE FILL.

EXCAVATION BELOW SUBGRADE (EBS) THAT IS NOT SHOWN ON THE CROSS SECTIONS OR PLAN AND PROFILE SHEETS, BUT IF REQUIRED, SHALL BE MEASURED AS UNCLASSIFIED EXCAVATION. THE LOCATION FOR (EBS), IF REQUIRED, SHALL BE DETERMINED BY THE ENGINEER.

ALL DISTANCES ARE GROUND DISTANCES.

ALL TIES ON THIS PLAN ARE HORIZ. UNLESS DESCRIBED.

GRADE DATUM IS U.S.G.S.

DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE TOPSOILED, FERTILIZED, SEEDED AND MULCHED AS DIRECTED BY THE ENGINEER. USE SEED MIX NO. 2

TREES TO BE CLEARED AND GRUBBED ARE THOSE WITHIN THE CONSTRUCTION LIMITS OR INDICATED WITH AN X UNLESS CHANGED IN THE FIELD BY THE ENGINEER.

AREAS TO BE GRUBBED ARE THOSE WITHIN THE CONSTRUCTION LIMITS AS SHOWN ON THE PLAN AND LOCATED BY THE ENGINEER IN THE FIELD.

NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT PRIOR APPROVAL OF THE ENGINEER IN THE FIELD.

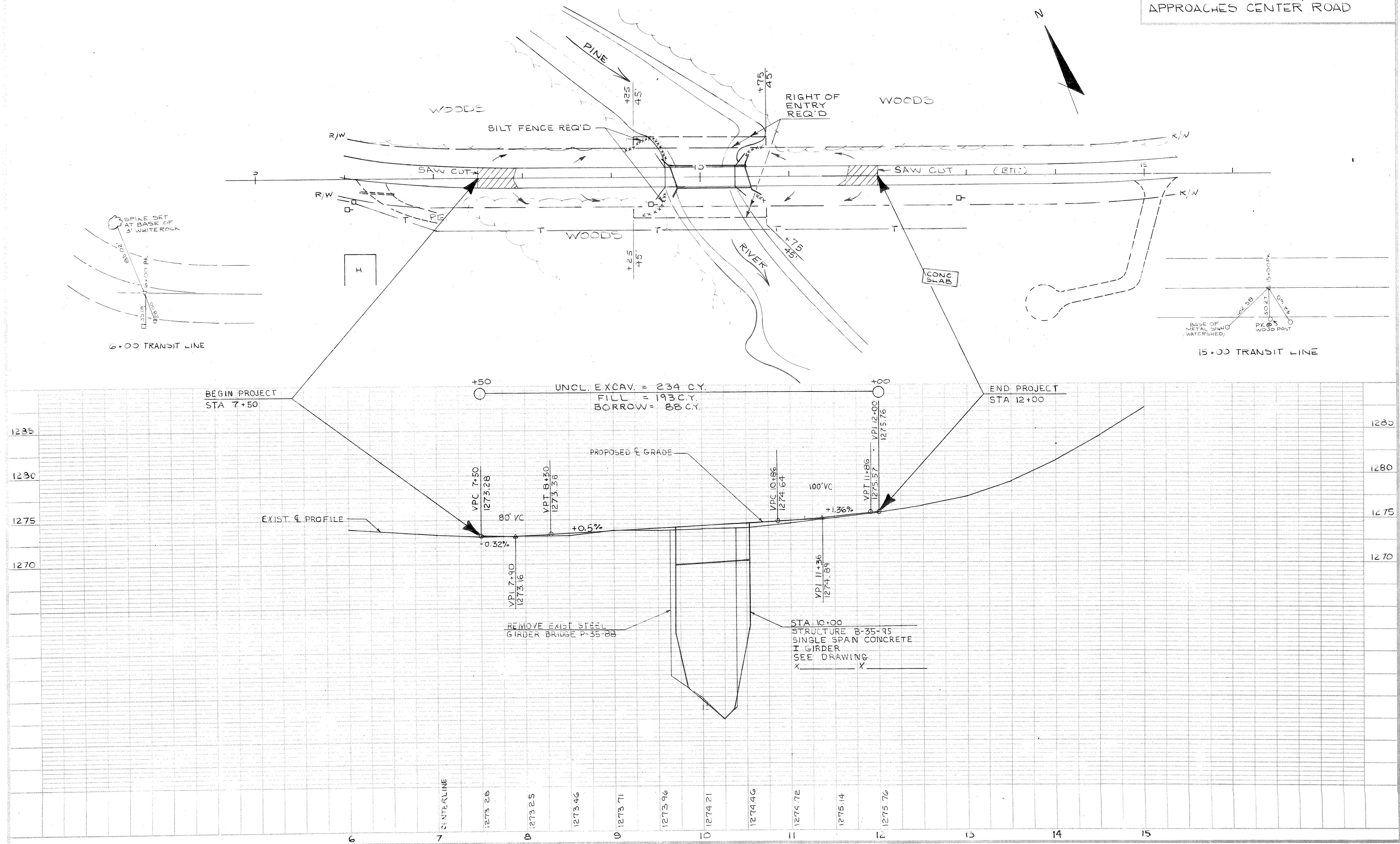
DIMENSIONS AS SHOWN ON TYPICAL SECTIONS ARE FOR NORMAL WIDTHS OF PAVEMENT AND SHOULDERS AND MAY VARY AT TRANSITIONS.

SAWING EXISTING PAVEMENT WILL BE INCIDENTAL TO UNCLASSIFIED EXCAVATION.

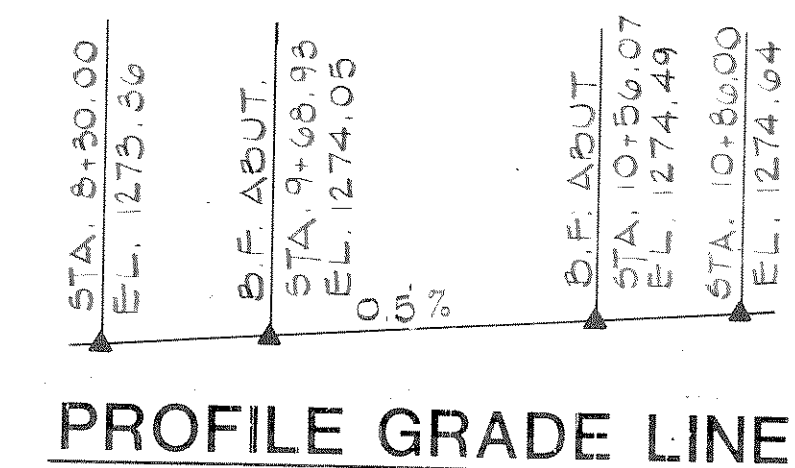
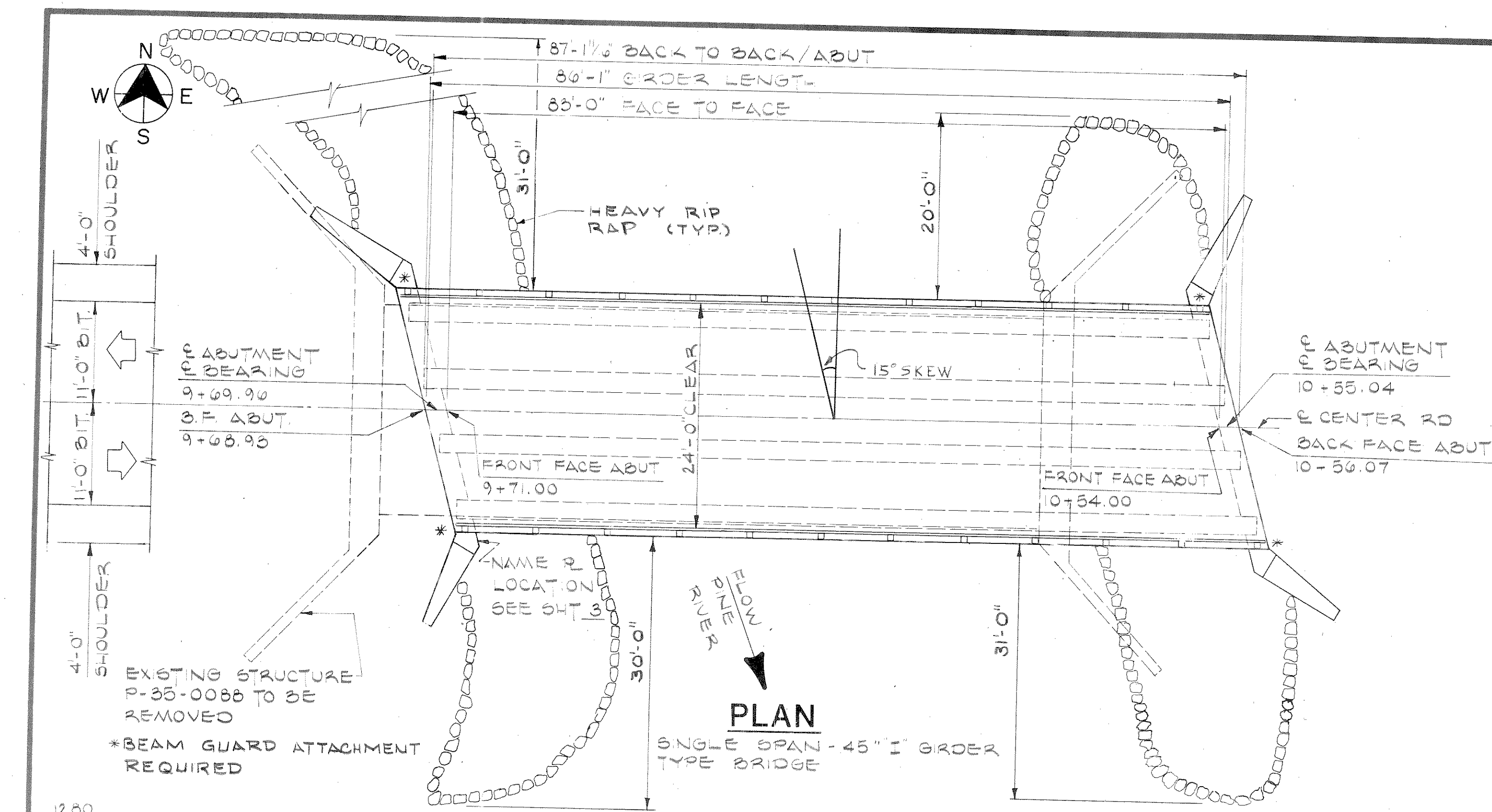
NO	DESCRIPTION	ELEV
1	PK IN POWER POLE 3107-22E4 STA. 6+02 25' RT	1276.11
2	PK IN POWER POLE 3107-22E3 STA. 9+44 30' RT	1270.58

STATE PROJECT NUMBER  
**9857-1-70**

SHEET NO.  
**PINE RIVER BRIDGE & APPROACHES CENTER ROAD**



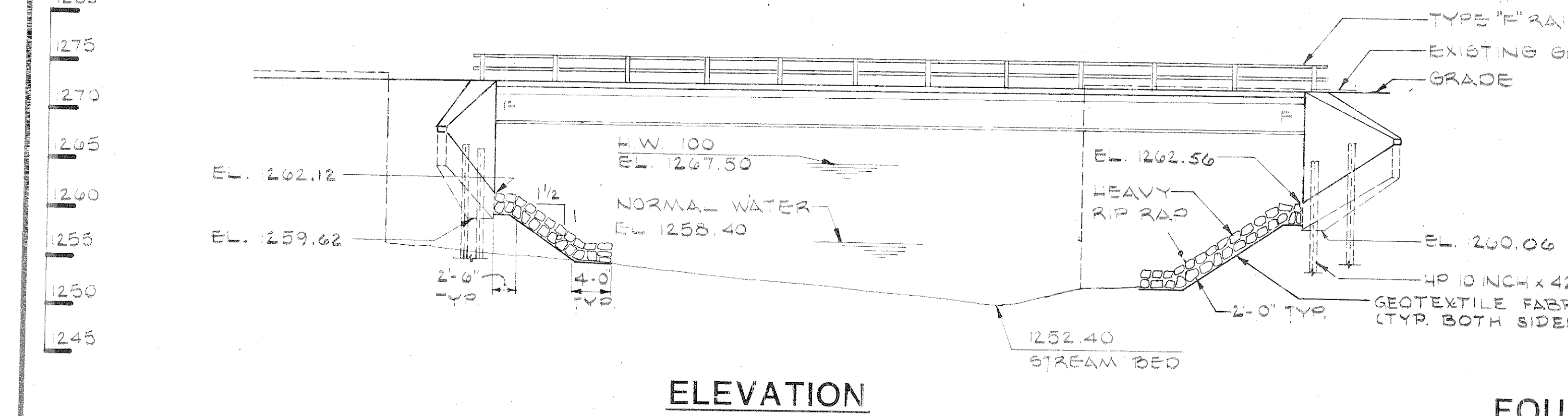
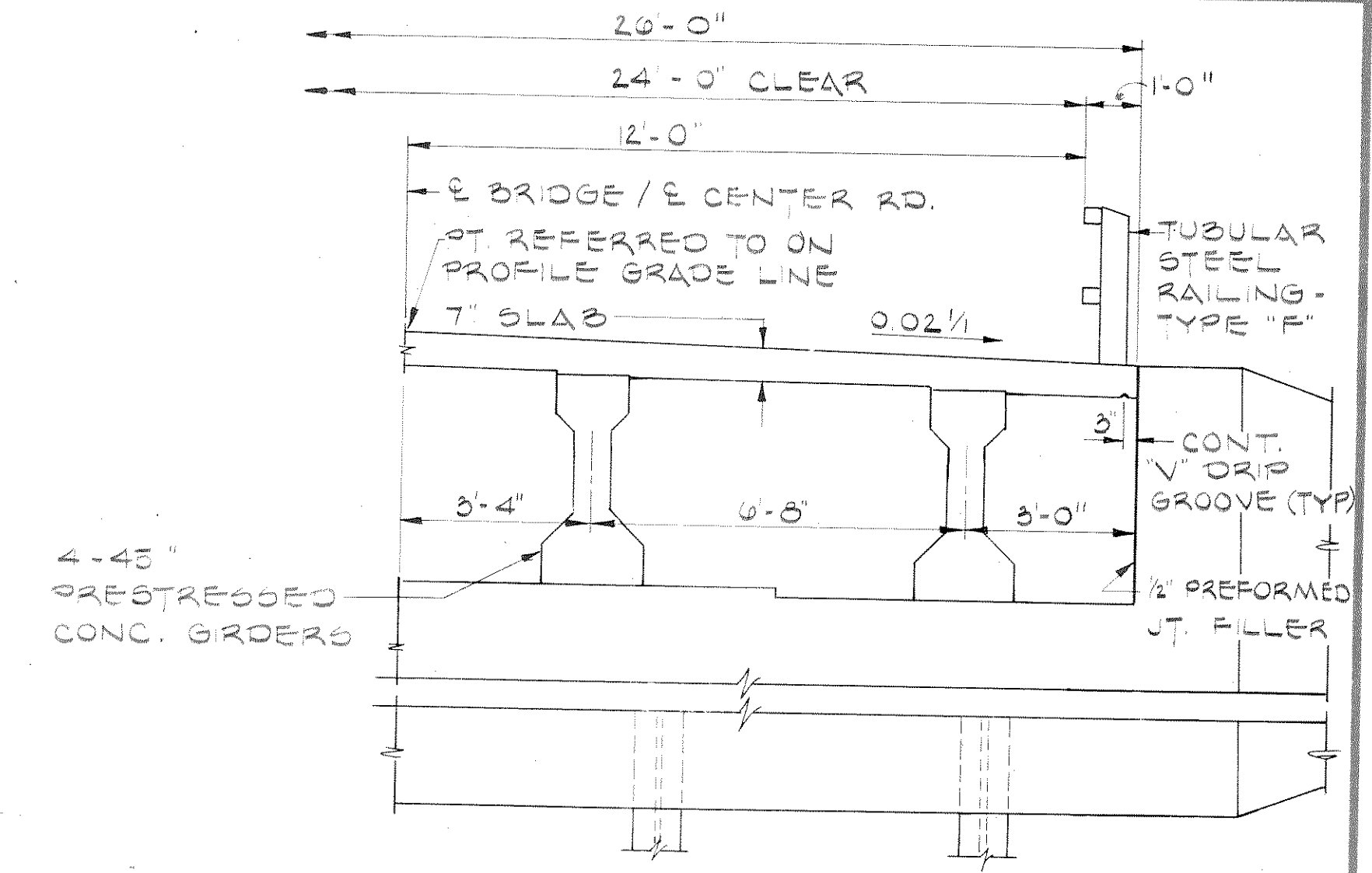
FINAL PLANS 1-21-86



**TRAFFIC VOLUME**

A.D.T. (1986)	42
A.D.T. (2006)	62
R.D.S.	50 M.P.H.

STATE PROJECT NUMBER	9857-01-70	SHEET NO.
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**FOUNDATION DATA**

ABUTMENTS TO BE SUPPORTED ON HP 10" x 42 LB. PILING DRIVEN TO BEDROCK AND HAVING A MIN. BEARING VALUE OF 46 TONS PER PILE. ESTIMATED LENGTH PER PILE IS 50' N. ABUT., 50' S. ABUT.

**TOTAL ESTIMATED QUANTITIES**

BID ITEMS	UNIT	W. ABUT	E. ABUT	SUPER	TOTAL
REMOVING OLD BRIDGE, STA. 10+00.00	L.S.				1
EXC. FOR STRUCTURES, BRIDGES 8-35-95	L.S.				1
CONCRETE MASONRY BRIDGES	C.Y.	39.2	39.4	66.4	145
COATED HIGH STRENGTH BAR STEEL REINFORCEMENT	L.B.			9640	9640
PRESTRESSED GIRDER, I TYPE 45"	L.F.			344	344
HIGH STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	L.B.	2680	2750	6980	12410
BEARING PADS, ELASTOMERIC	SF.			10	10
HEAVY RIP RAP	C.Y.	115	110		225
STEEL PILING, DELIVERED AND DRIVEN, HP 10-INCH 42 POUND	L.F.	300	300		600
TUBULAR RAILING TYPE F STRUCT. 8-35-95	L.S.				1
PROTECTIVE SURFACE TREATMENT	GAL.			10	10
GEOTEXTILE FABRIC, TYPE HR	S.Y.	173	165		338
<b>NON BID ITEMS</b>					
PREFORMED JOINT FILLER	SIZE				1/2" x 3/4"
POLYVINYL CHLORIDE WATERSTOP	L.F.	36	36		72

**GENERAL NOTES CROSS SECTION THRU ROADWAY**

THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE. DRAWINGS SHALL NOT BE SCALED. BAK STEEL REINFORCEMENT SHALL BE IMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE. THE SLOPE OF FILL SHALL BE COVERED W/HEAVY RIP RAP TO THE EXTENT SHOWN ON THIS SHEET AND IN THE ABUTMENT DETAILS. ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE. DO NOT BACKFILL ABUTMENTS UNTIL SUPERSTRUCTURE IS CURED. THE EXISTING GROUNDLINE SHALL BE THE UPPER L.M.T.S OF EXCAVATION FOR STRUCTURES. THIS STRUCTURE WILL REPLACE P-35-0088 WHICH IS A SINGLE SPAN THRU GIRDER TYPE BRIDGE. AT ABUTMENTS ALL SPACES EXCAVATED AND NOT OCCUPIED BY NEW STRUCTURE SHALL BE BACK-FILLED W/ GRANULAR BACKFILL GRADE 1. COST IS INCIDENTAL TO "EXCAVATION FOR STRUCTURES".

**HYDRAULIC DATA**

**BASE FLOOD**

Q100	7,300 CFS
VEL.	10.2 F.P.S.
H.W.	1267.5
WATERWAY AREA	718 SQ. FT.
DRAINAGE AREA	110 SQ. MI.
OVERTOPPING FLOOD	N/A

**LIST OF DRAWINGS**

1. GENERAL PLAN
2. SUBSURFACE EXPLORATION
3. ABUTMENTS
4. ABUTMENT REINFORCEMENT
5. SUPERSTRUCTURE
6. 45" PRESTRESSED GIRDER DETAILS
7. TUBULAR STEEL RAILING TYPE "F"

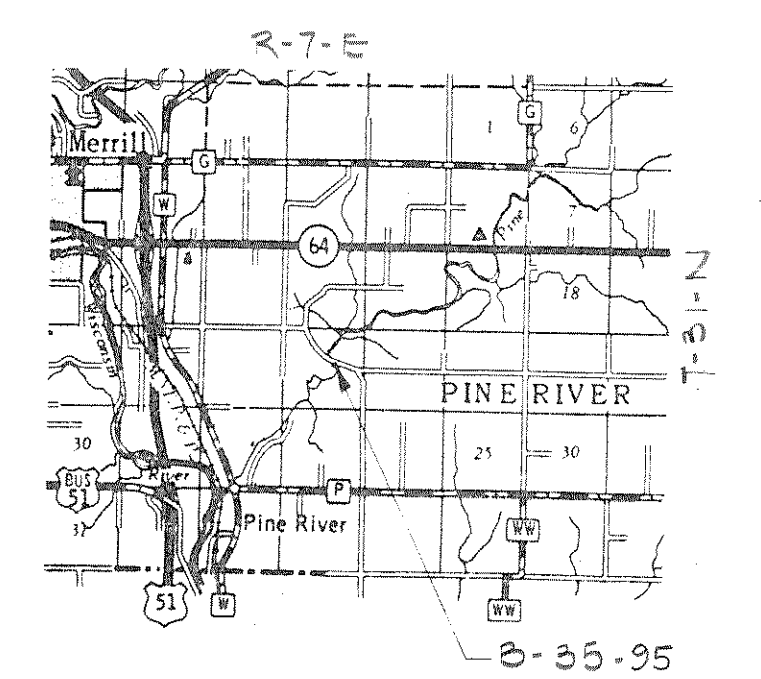
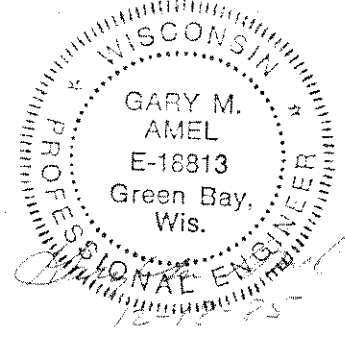
**DESIGN DATA**

**LIVE LOAD**  
DESIGN RATING: HS-20  
INVENTORY RATING: HS-20  
OPERATIONAL RATING: HS-46  
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

**ALLOWABLE DESIGN STRESSES:**  
CONCRETE MASONRY SLABS AND DIAPHRAGMS  $f_c = 4,000$  P.S.I.  
ALL OTHERS  $f_c = 3,500$  P.S.I.  
BAR STEEL REINFORCEMENT GRADE 60  $f_y = 60,000$  P.S.I.  
45" PRESTRESSED GIRDERS, CONCRETE MASONRY  $f_c = 6,000$  P.S.I.  
STRANDS - 1/2" WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

**BENCH MARK**

NO.	STATION	DESCRIPTION	ELEV.
1	9+44.30	PK IN POWER POLE 3107-22E3	1270.58
2	6+02.25	PK IN POWER POLE 3107-22E4	1276.11



NO.	Date	Revisions	By
FOTH & VAN DYKE and Associates, Inc. CONSULTING ENGINEERS GREEN BAY, WIS.			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-35-95			
CENTER ROAD OVER PINE RIVER			
County	LINCOLN	Town Of	PINE RIVER
Design Spec	AASHTO 1984	Load	HS-20
Designed GMA	Design	Drawn	D.L.D.
By	D.E.M./Checked G.M.A.	By	D.L.D./Checked D.S.G.
Approved	Chief Bridge Engineer	Date	
<b>GENERAL PLAN</b>			SHEET 1 OF 7
FILE COPY			

**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 — 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

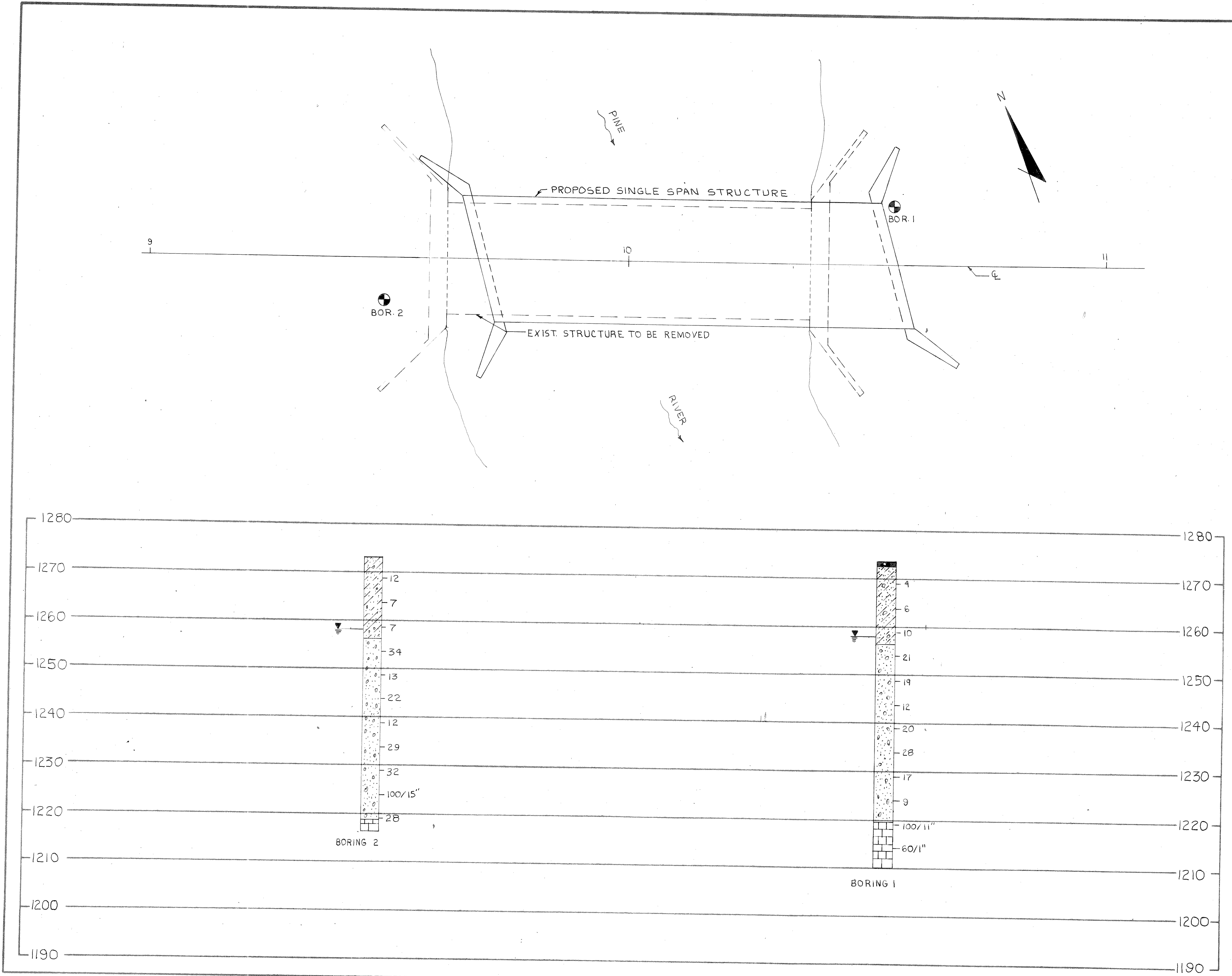
So Limestone

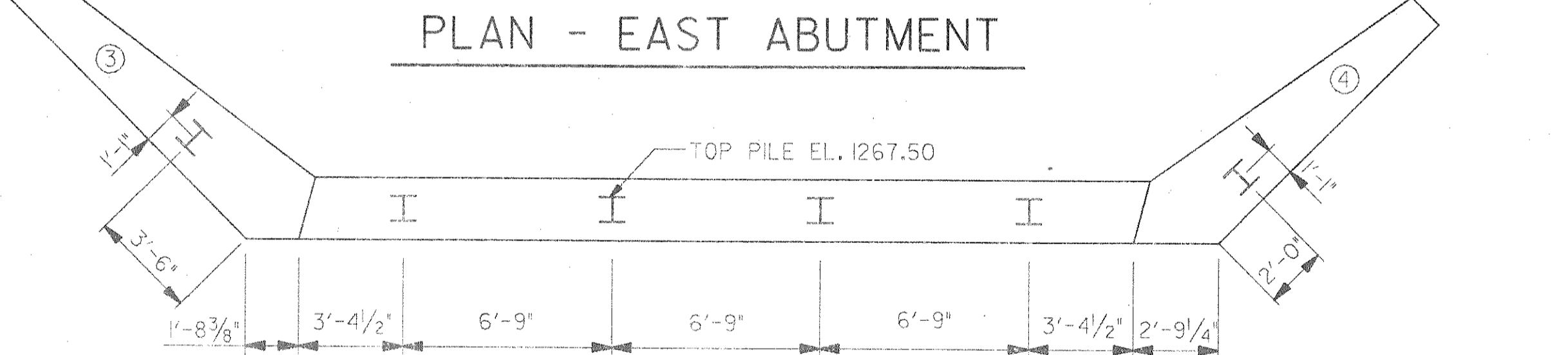
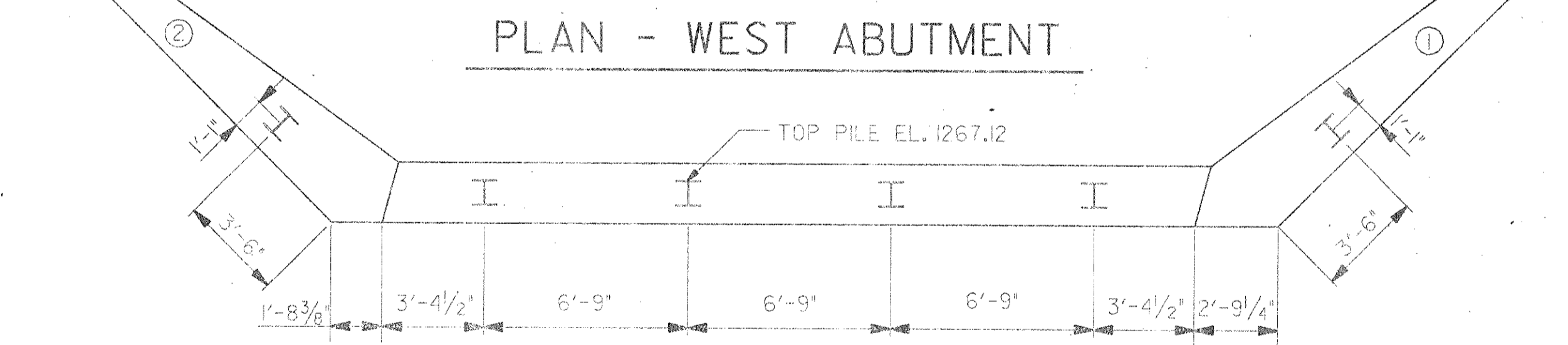
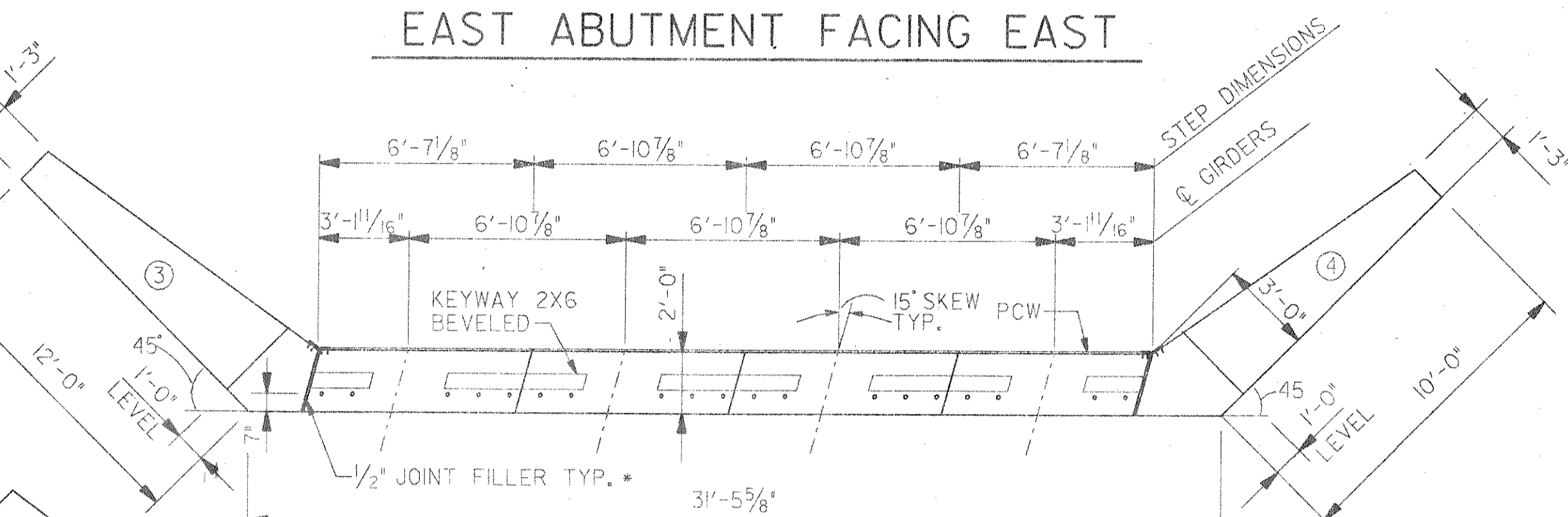
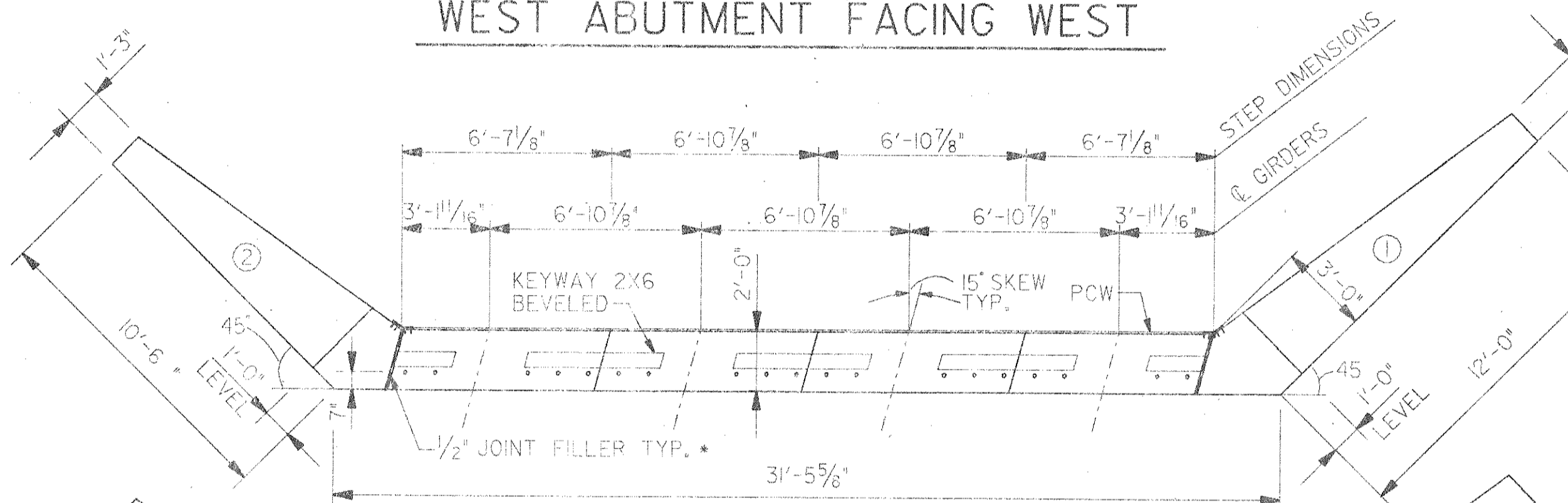
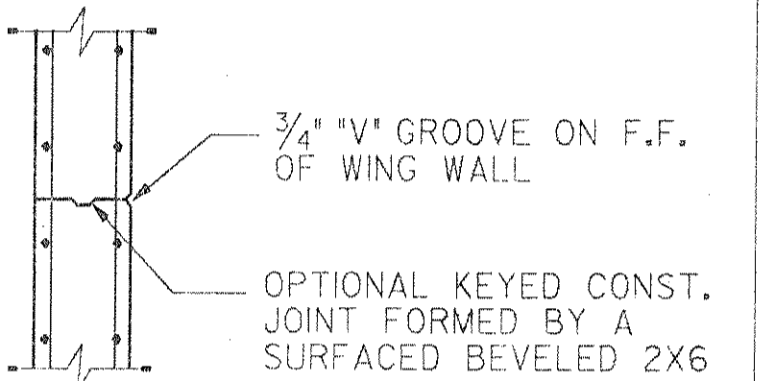
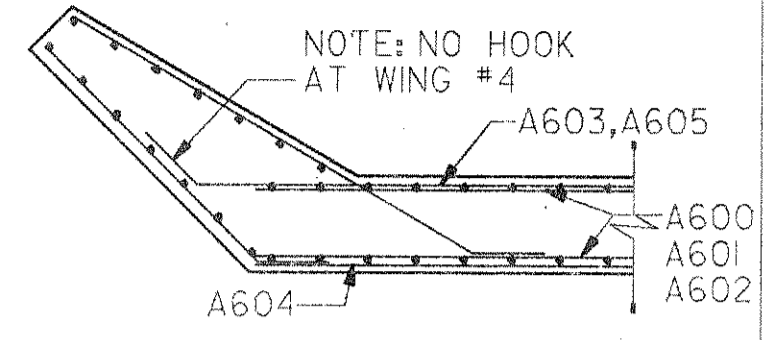
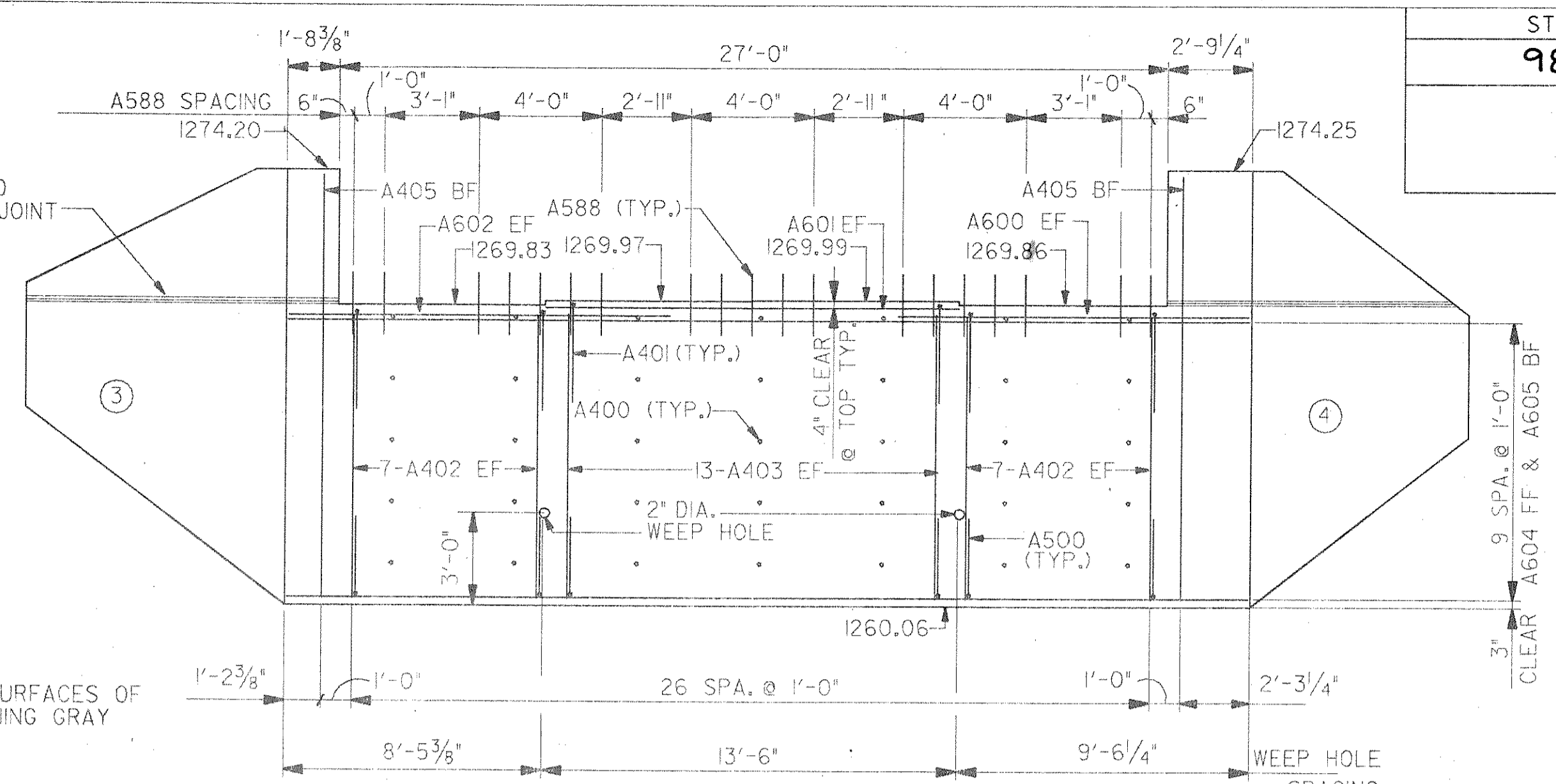
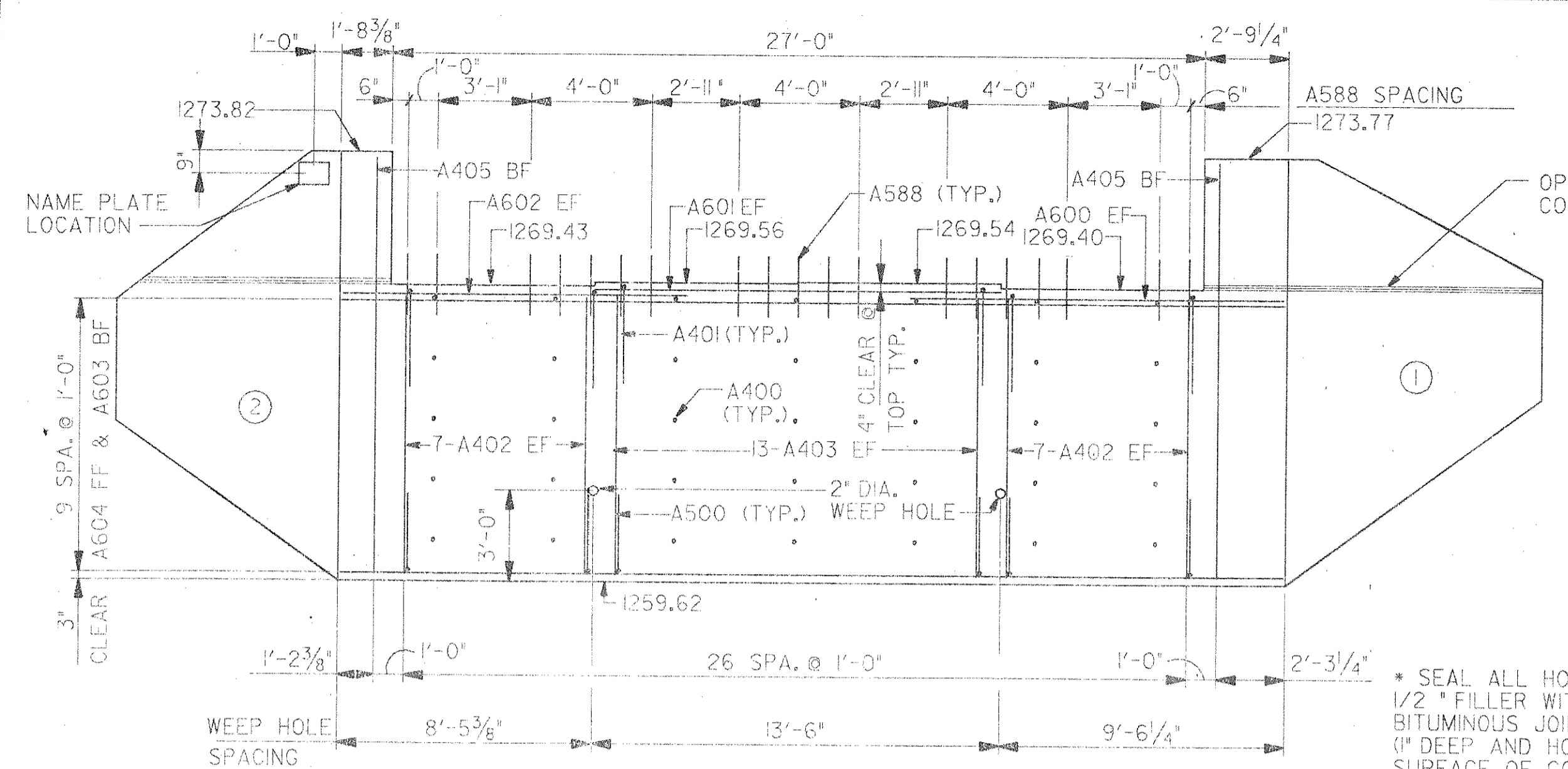
Unless otherwise specified, the blows per foot at the locations indicated are based on driving a 2" O. D. x 1.4" I. D. split spoon sampler with a 140# hammer having a free fall of 30". The blow count is taken in undisturbed soil immediately below a cased or open hole eliminating side friction on the 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>			
Const. Spec.	Drawn By	Plans Checked	
	RJK	D.S.G.	
<b>SUBSURFACE EXPLORATION</b>			SHEET 2 OF 7
			X



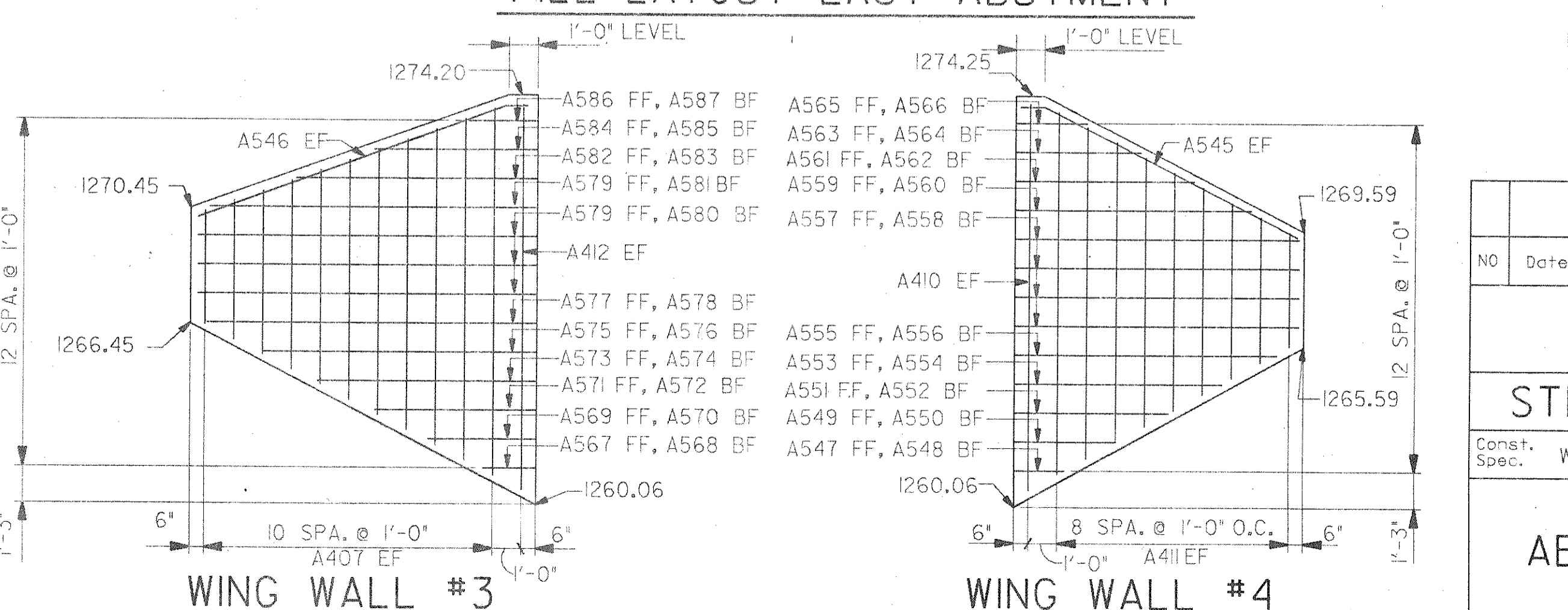
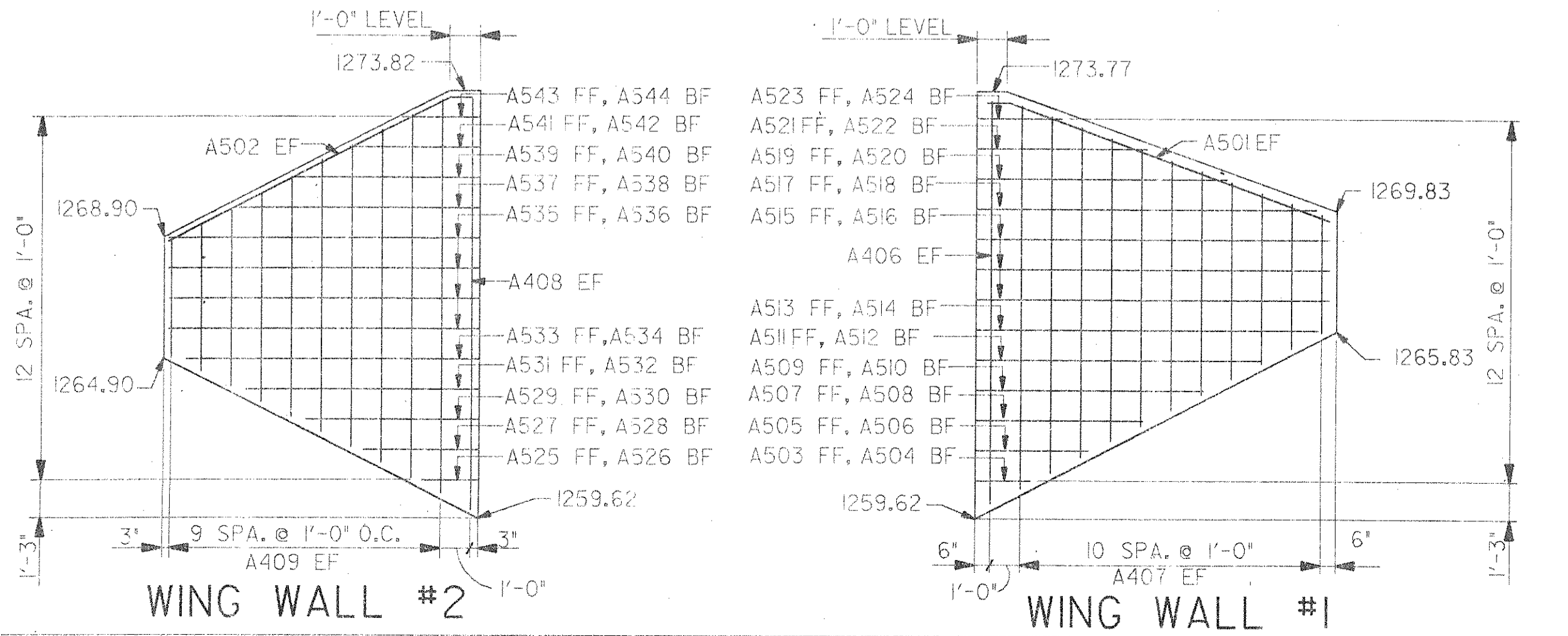


**GENERAL NOTES**

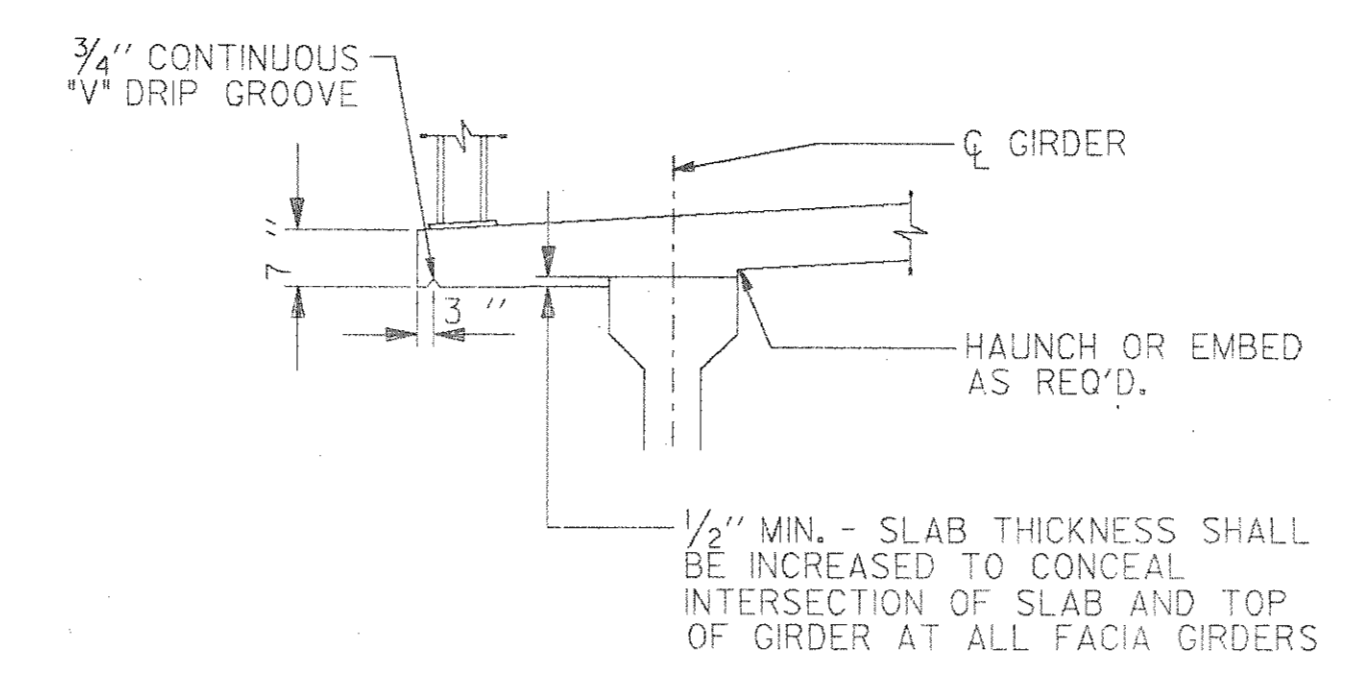
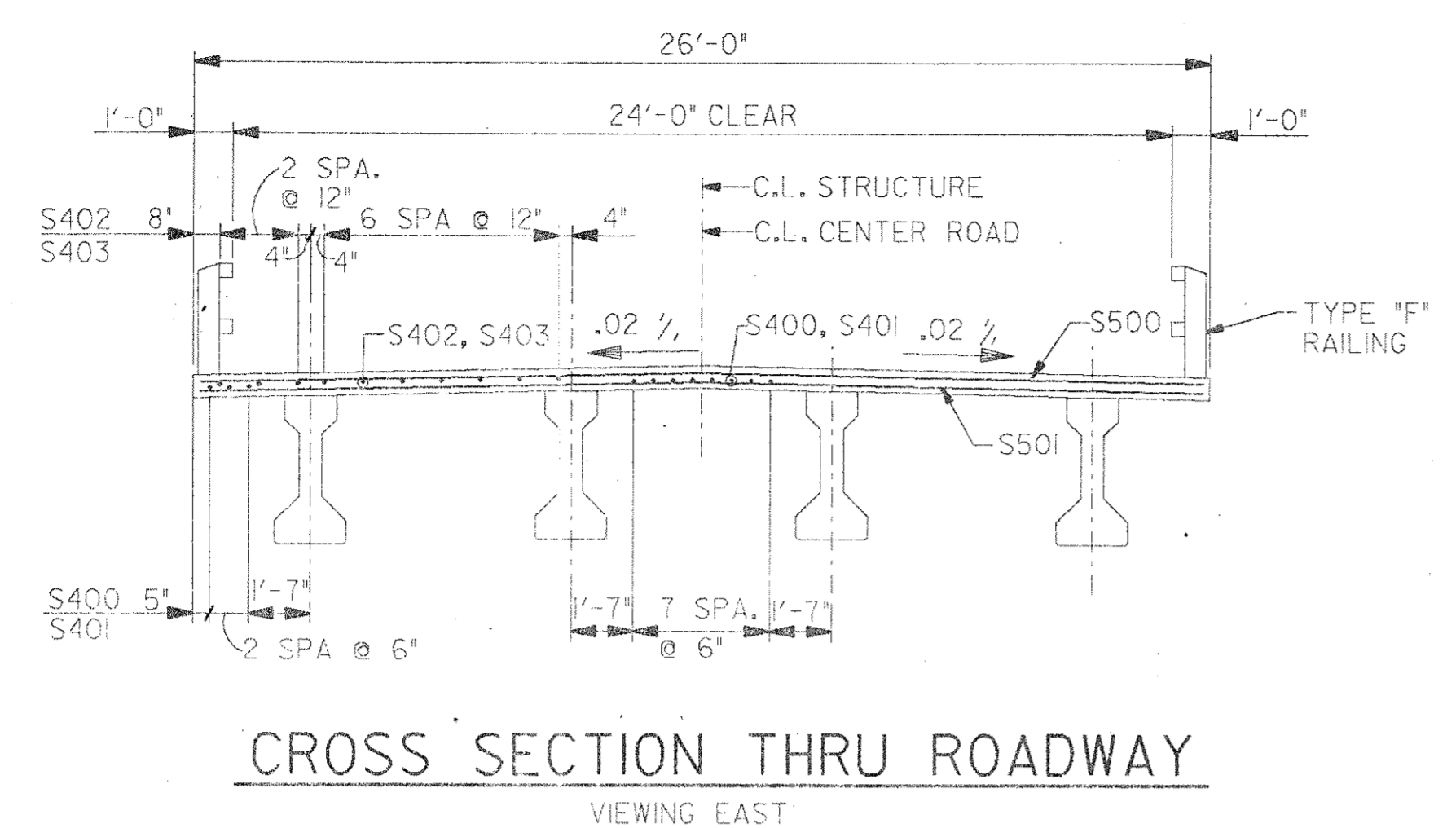
SPLICES IF REQUIRED IN ABUTMENT PILES SHALL BE MADE BY A CERTIFIED WELDER

SEAT ELEVATIONS SHOWN ARE AT THE CENTER LINE OF THE ABUTMENTS

SEE ABUTMENT REINFORCEMENT SHEET FOR CROSS SECTION THRU BODY AND ABUTMENT FILL DETAIL

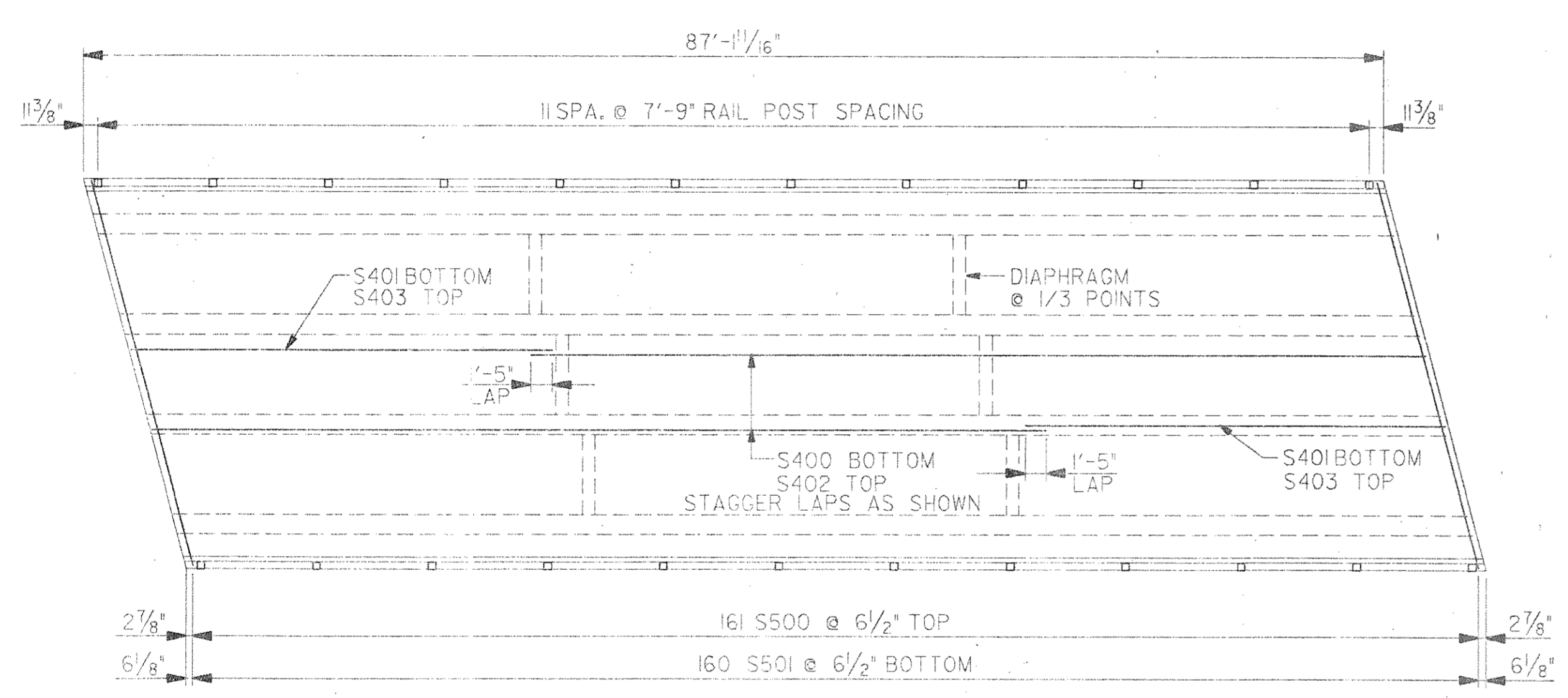


NO	Date	Revisions	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
<b>STRUCTURE B-35-95</b>			
Const. Spec.	WIS. 1981	Drawn By	RAE
Plans Checked	DEM	GMA	DSC
<b>ABUTMENTS</b>			SHEET 3 OF 7



CROSS SECTION THRU ROADWAY  
VIEWING EAST

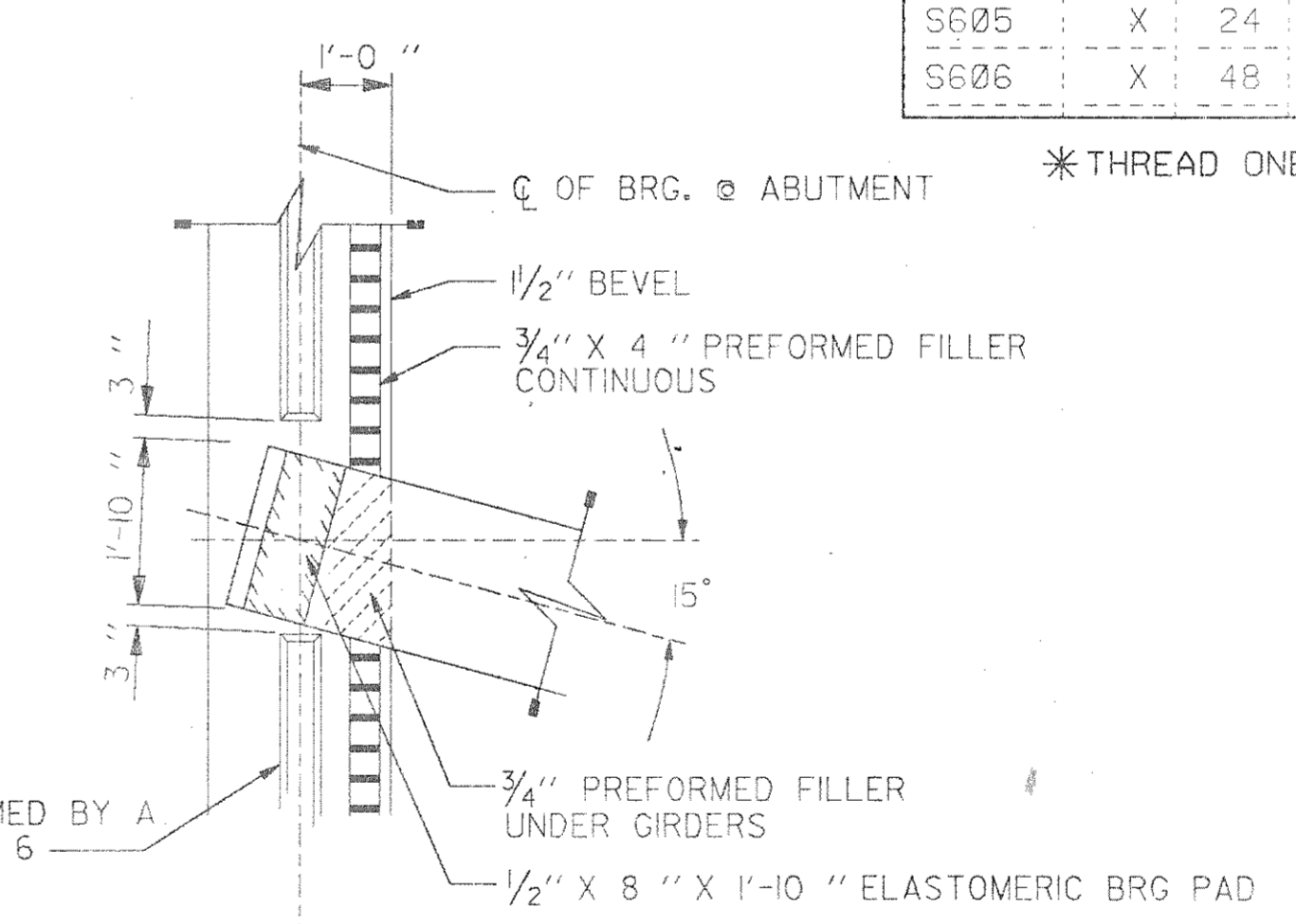
SLAB FORMING AT EXTERIOR GIRDERS



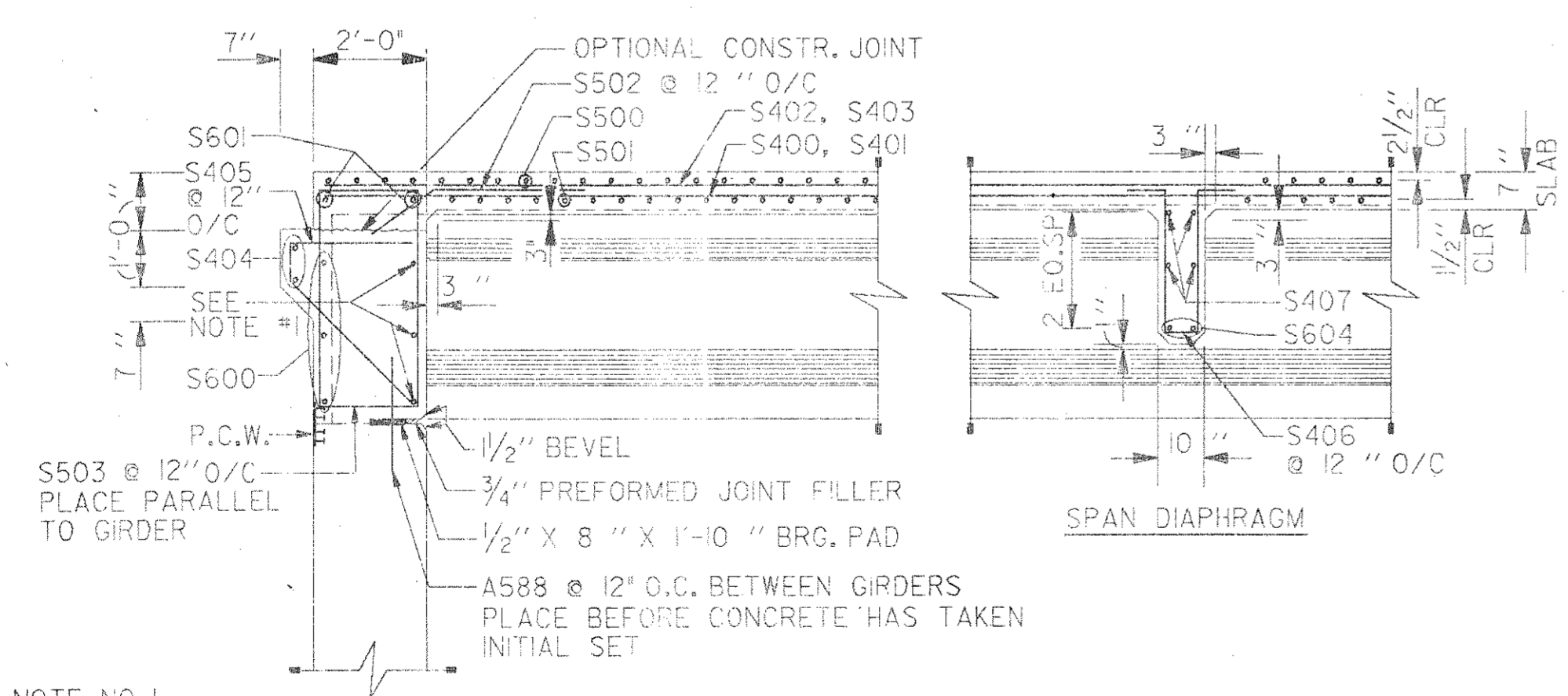
PLAN

**BILL OF BARS FOR SUPERSTRUCTURE 16620 LBS.**

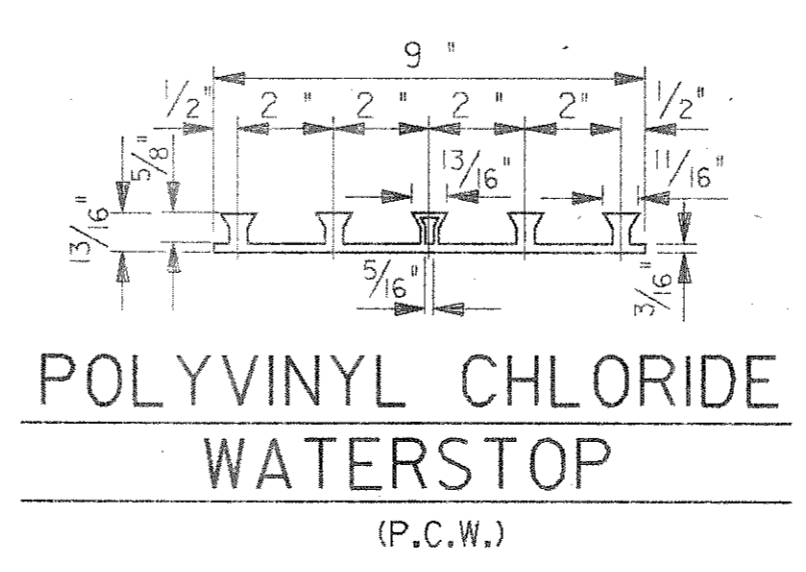
BAR MARK	COAT	NO. REQ.	LENGTH	BENT	CUT	LOCATION
S400		30	60'-0"			DECK LONGI TUDINAL
S401		30	28'-3"			DECK LONGI TUDINAL
S402	X	27	60'-0"			DECK LONGI TUDINAL
S403	X	27	28'-3"			DECK LONGI TUDINAL
S404	X	4	26'-7"			PAVING NOTCH
S405	X	54	5'-3"	X		PAVING NOTCH
S406		36	6'-6"	X		SPAN DIAPHRAGM
S407		24	5'-0"	X		SPAN DIAPHRAGM
S500	X	161	26'-7"			DECK TRANSVERSE
S501		160	26'-7"			DECK TRANSVERSE
S502	X	48	4'-0"	X		ABUTMENT DIAPHRAGM
S503	X	48	11'-3"	X		ABUTMENT DIAPHRAGM
S600		6	26'-7"			ABUTMENT DIAPHRAGM
S601	X	4	26'-7"			ABUTMENT DIAPHRAGM
S602		18	4'-6"			ABUTMENT DIAPHRAGM
S603		12	0'-10"			ABUTMENT DIAPHRAGM
* S604		24	4'-7"			SPAN DIAPHRAGM
S605	X	24	9'-11"	X		AT RAIL POST BASE
S606	X	48	4'-9"			AT RAIL POST BASE



BEARING PAD DETAILS  
AT ABUTMENT



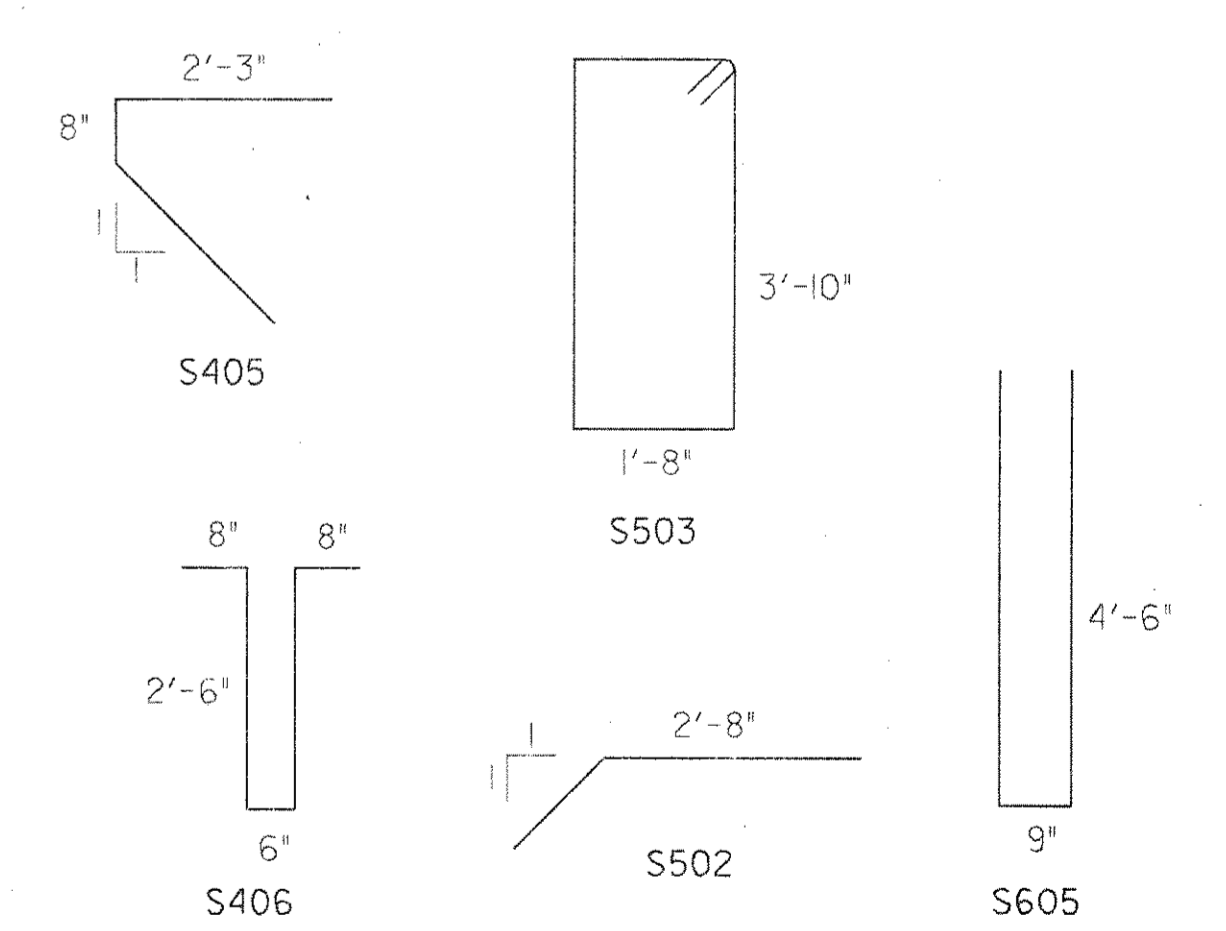
PARTIAL LONGITUDINAL SECTION



POLYVINYL CHLORIDE  
WATERSTOP  
(P.C.W.)

**GENERAL NOTES FOR SUPERSTRUCTURE**

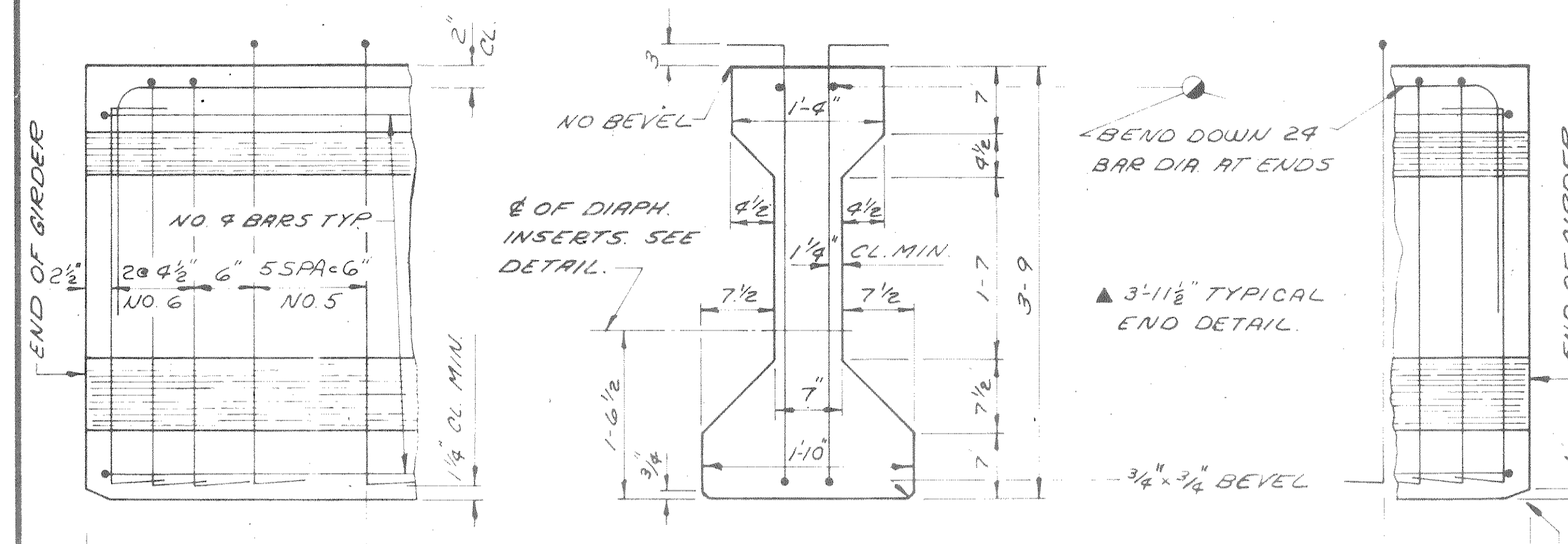
- TOP OF SLAB TO BE BROOMED TRANSVERSELY
- STAGGER LAPS OF SLAB STEEL (S400, S401, S402, & S403)
- RAIL SPACING DIMENSIONS AS SHOWN ARE TYPICAL FOR BOTH SIDES
- FURNISH ONE 14'-0" LENGTH OF COATED BAR FOR EACH BAR SIZE COATED TO BE USED FOR COATING TESTING



NO	Date	Revisions	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
<b>STRUCTURE B-35-95</b>			
Const. Sec.	WIS. 1981	Drawn By	RAE
Plans Checked	DEM	GMA	DSG
SUPERSTRUCTURE			SHEET 5 OF 7

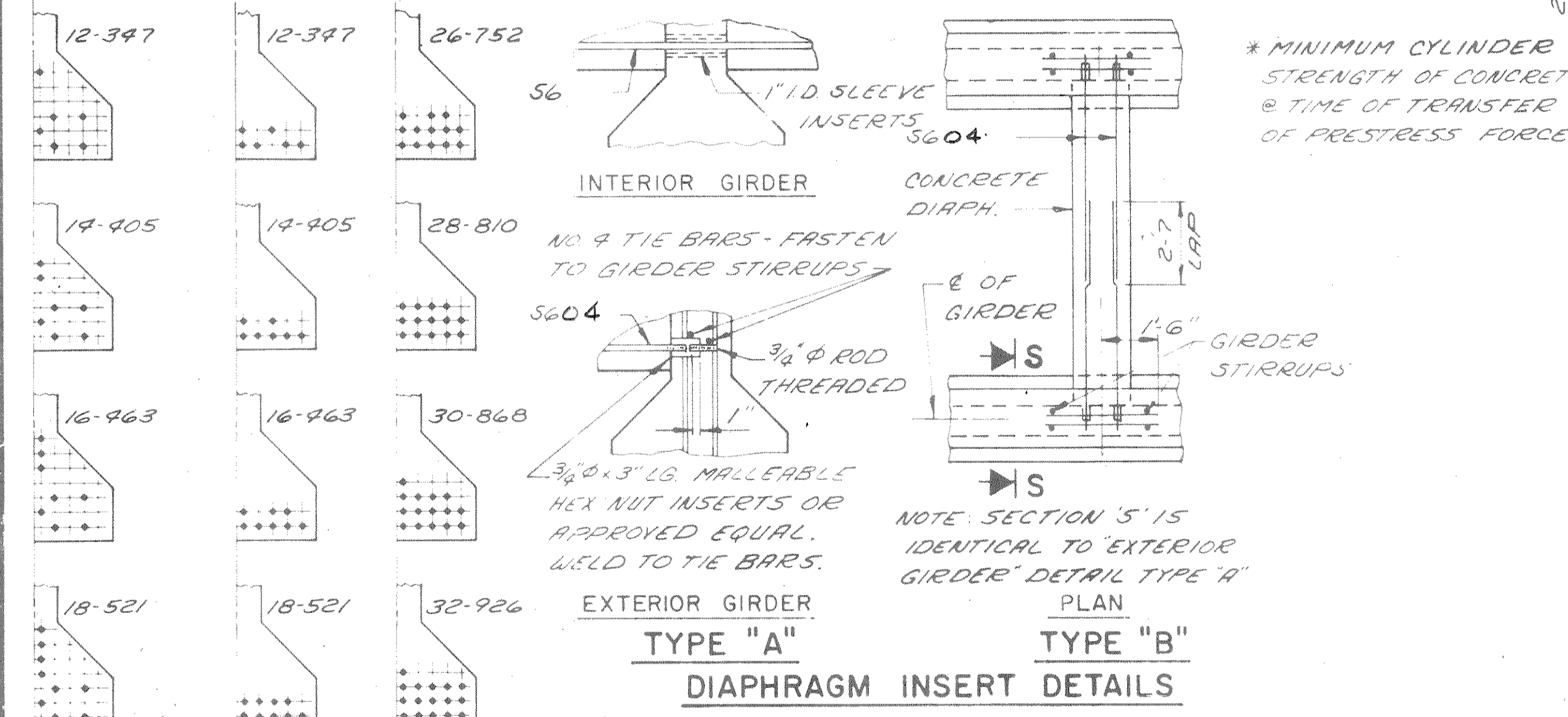
**GIRDER NOTES**

TOP OF GIRDERS TO BE ROUGH FLOATED AND BROOMED TRANSVERSLEY FOR BONDING TO THE SLAB.  
 THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING & ERECTING THE GIRDERS. ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.  
 PRESTRESSING STRANDS SHALL BE 1/2" - 7 WIRE STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 p.s.i. AND SHALL BE FLUSH WITH THE ENDS OF THE GIRDER. INSERTS SHALL BE PLACED ON 4" CTRS. SYMMETRICALLY ABOUT THE @ OF DIAPHRAGMS IN SPANS.  
 ALL STIRRUPS SHALL BE IN PAIRS AND THE SPACING SHOWN IN "ELEVATION" IS MAXIMUM. THE LOCATION SHALL BE SHOWN IN THE SHOP DRAWINGS.  
 BEND EACH END OF NO. 4 AND NO. 5 STIRRUPS 6" AND NO. 6 STIRRUPS 6 1/2".  
 ENDS OF STRANDS SHALL BE PAINTED WITH NON-STRAINING GRAY NON-BITUMINOUS JOINT SEALER. (THIS APPLIES ONLY TO THOSE ENDS OF GIRDERS THAT ARE FINALLY EXPOSED.)  
 DATA SHOWN IN "DEFLECTION DATA" IS THEORETICAL AND MAY VARY WITH CONCRETE STRENGTH, VARIABLE PRESTRESS CONDITIONS AND PRESTRESS LOSSES.

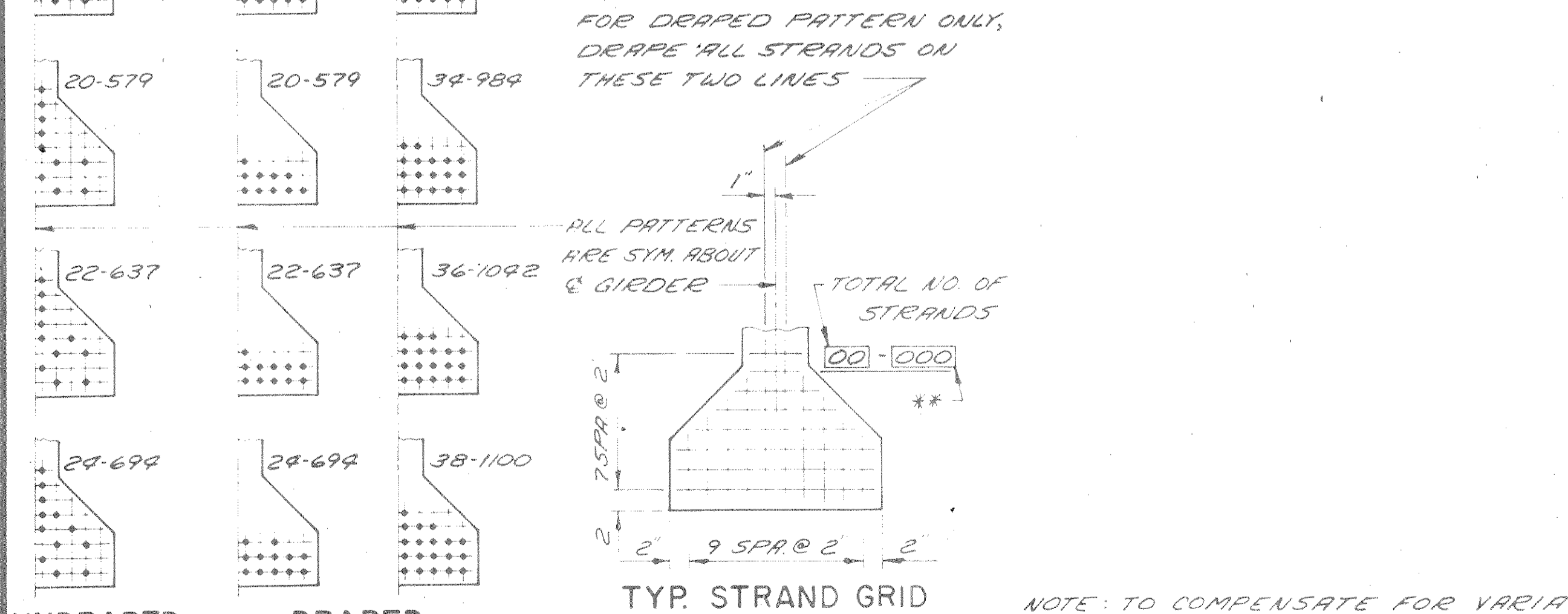


**45" GIRDER - ELEVATION & TYPICAL SECTION IN SPAN**

GIRDER DATA		DEFLECTION DATA (IN.)		TYPE OF STRANDS		DRAPED PATTERN					UNDRAPED PATTERN		
SPAN LENGTH	L	D	E	F	STRESS RELIEVED LOW RELAXATION	TOTAL NO OF STRANDS	f'ci * (P.S.I.)	(INCHES)			TOTAL NO OF STRANDS	f'ci * (P.S.I.)	
								A	B	C			
86'-1"	2 3/8	1 3/16	1 3/16	3/16	STRESS RELIEVED LOW RELAXATION	34	5'100	34"	2'14"	15'14"	5"		



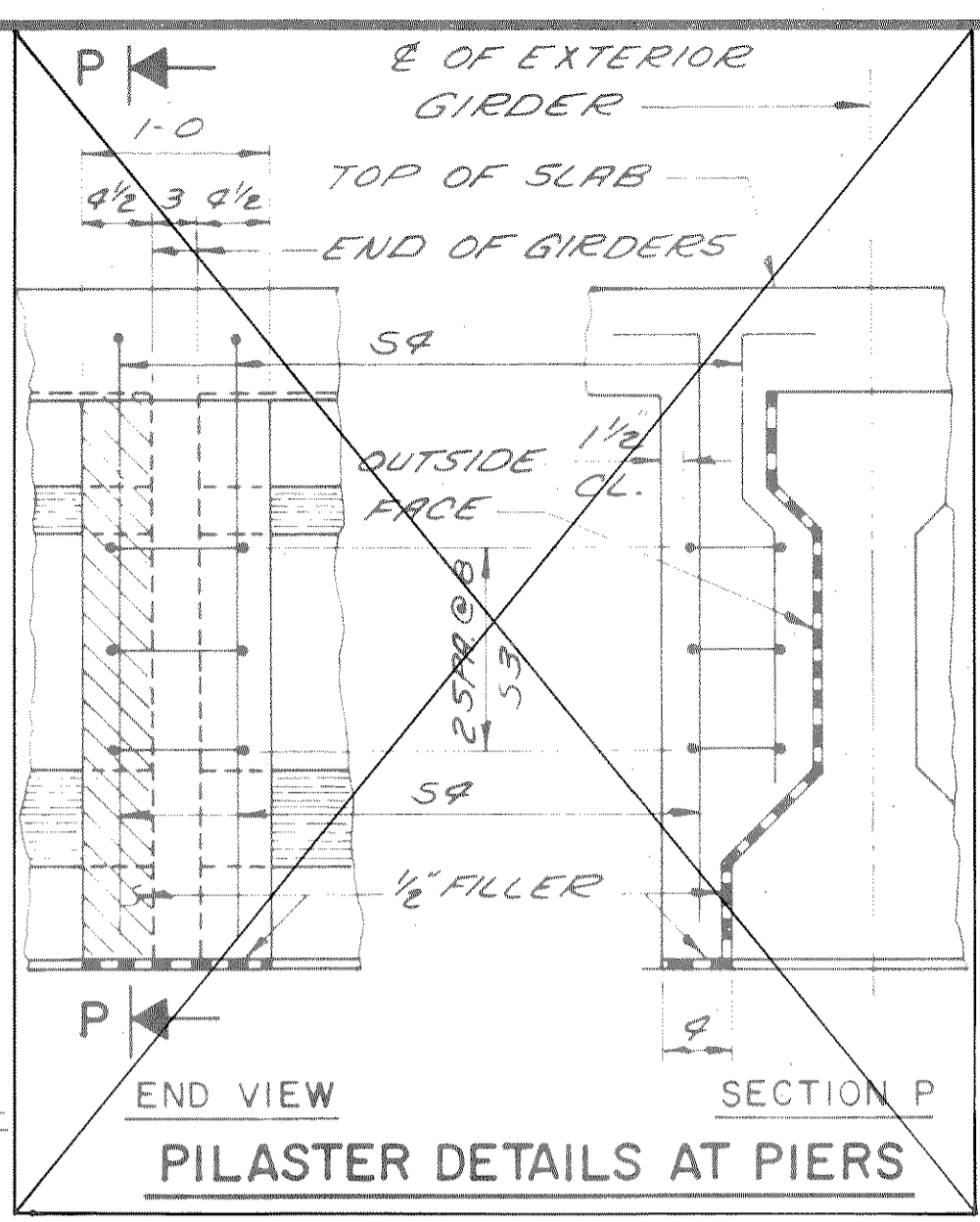
**DIAPHRAGM INSERT DETAILS**



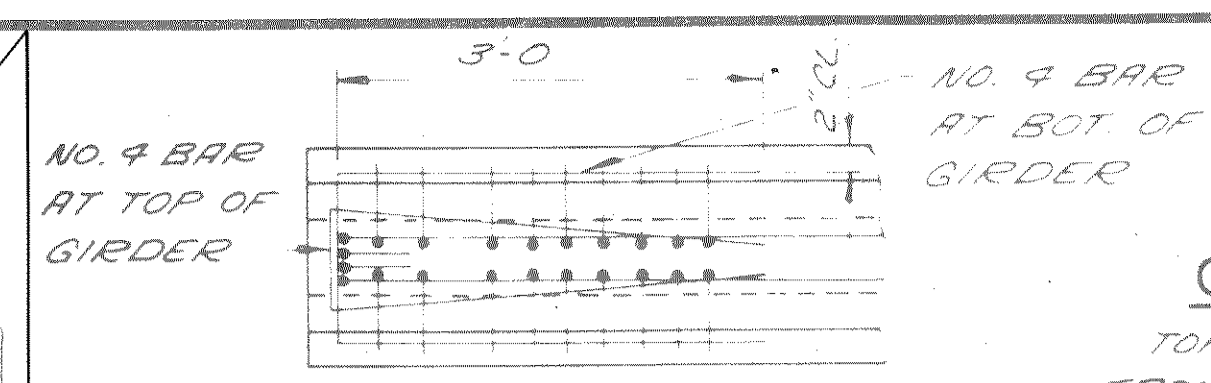
**TYP. STRAND GRID**

**UNDRAPED PATTERN**  
**DRAPED PATTERN**

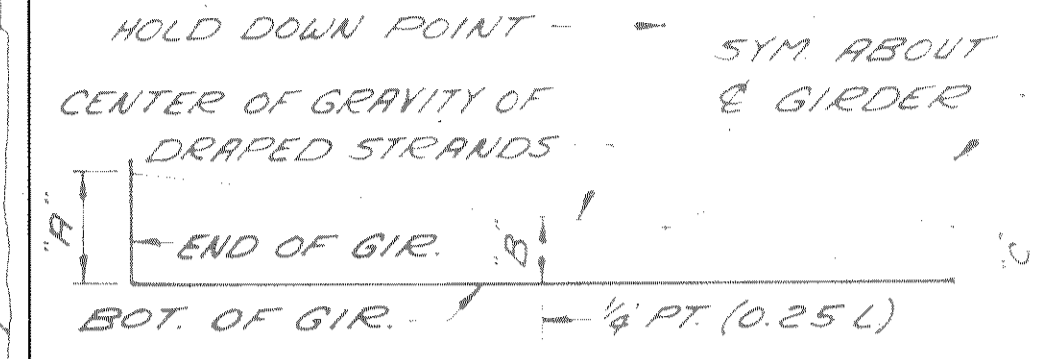
NOTE: TO COMPENSATE FOR VARIATIONS IN PRESTRESS CAMBER AND OTHER MINOR CONSTRUCTION DISCREPANCIES, THE IMBEDMENT OF THE GIRDER INTO THE SLAB MAY BE VARIED WITH A MAXIMUM OF 1/2" ALLOWABLE AND THE SLAB HELD TO PLAN THICKNESS. IF THE VARIATIONS ARE OF SUCH A MAGNITUDE THAT THE 1/2" ALLOWABLE IMBEDMENT WILL BE EXCEEDED, THE HAUNCH OR IMBEDMENT DIMENSIONS AT THE @ OF SUBSTRUCTURE UNITS AND THE GRADE LINE SHALL BE REVISED. THE 1/2" IMBEDMENT AND THE PLAN SLAB THICKNESS SHALL BE HELD.



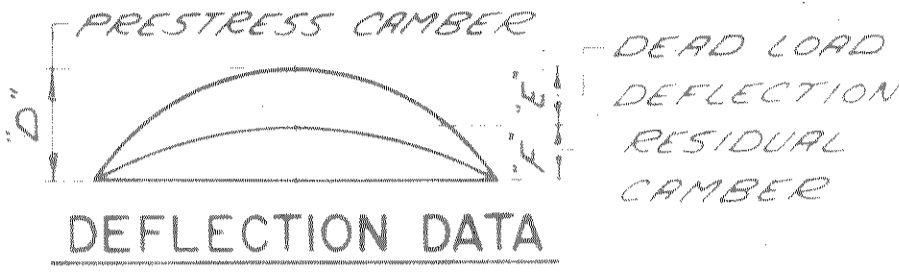
**PILASTER DETAILS AT PIERS**



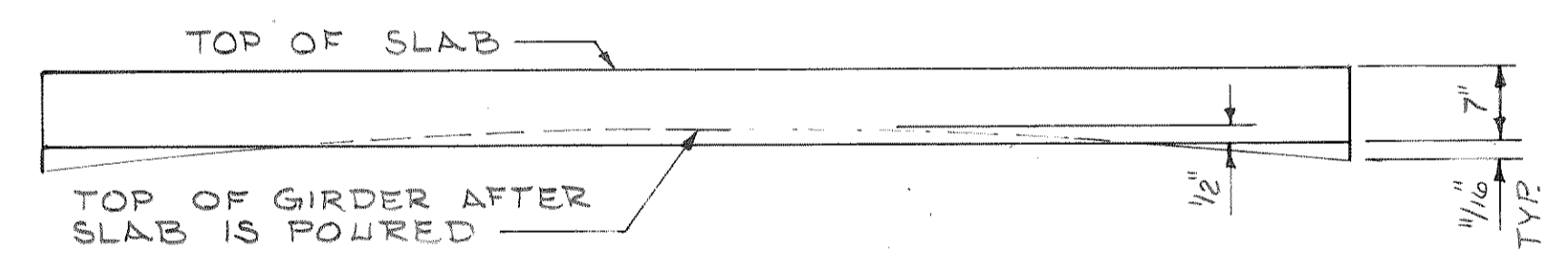
**TOP VIEW OF GIRDER ENDS**



**DRAPED STRAND PROFILE**



**DEFLECTION DATA**



**SLAB FORMING DIAGRAM**

No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
<b>STRUCTURE B-35-95</b>			
Drawn By	1981	RAE	Plong DEM GMA Checked DSG
45" PRESTRESSED GIRDER DETAILS		SHEET 6 OF 7	



**LEGEND**

1. ALL WELDS TO BE MADE IN ACCORDANCE WITH THE WELDED FLANGE, FOR STEEL WELDED TO STEEL OR WELDED TO CAST IRON. SLOPE OF WELDS TO BE AS SHOWN UNLESS OTHERWISE SPECIFIED. ALL WELDS TO BE MADE IN ACCORDANCE WITH THE WELDED FLANGE, FOR STEEL WELDED TO STEEL OR WELDED TO CAST IRON. SLOPE OF WELDS TO BE AS SHOWN UNLESS OTHERWISE SPECIFIED.

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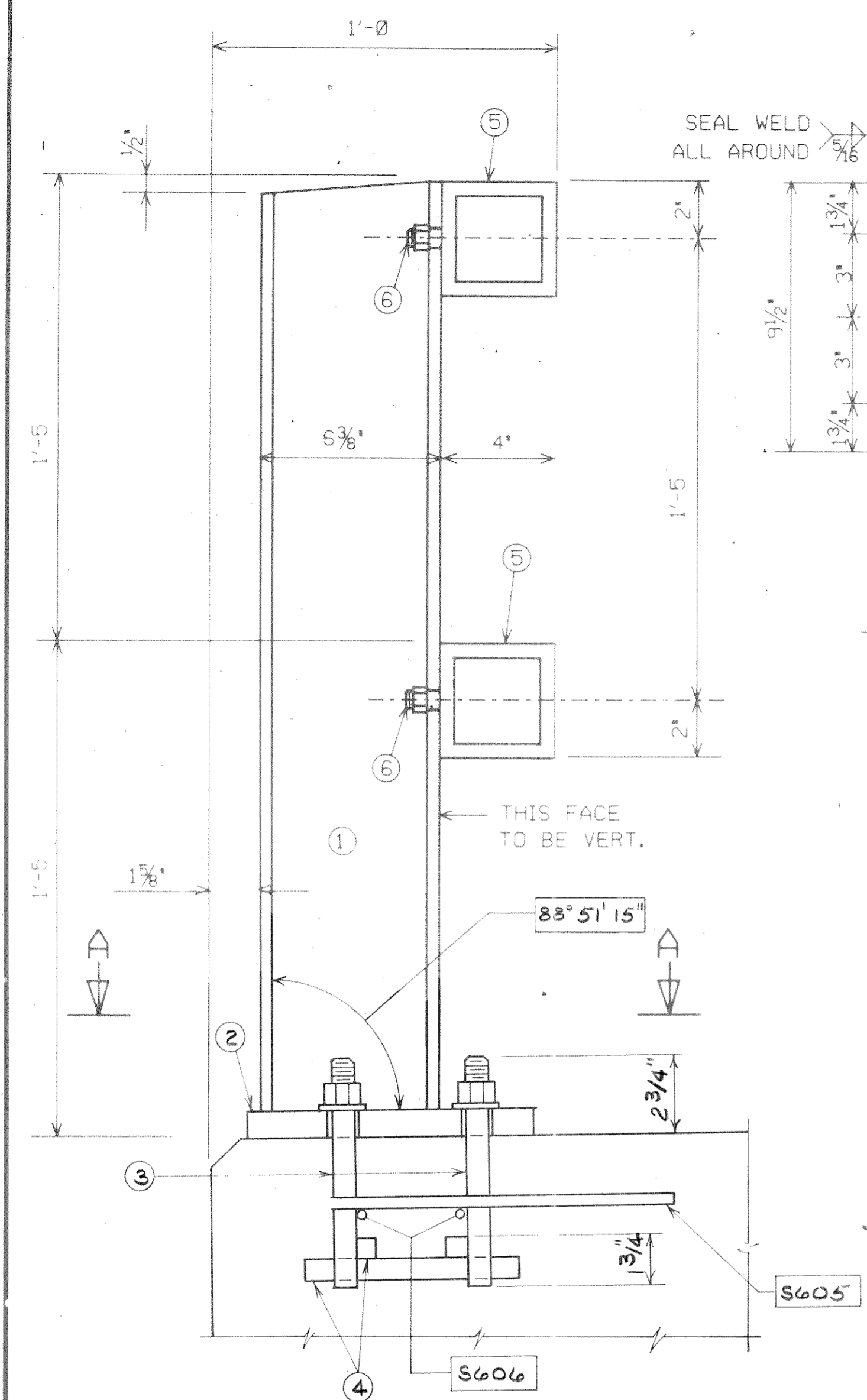
6. ALL WELDS TO BE MADE IN ACCORDANCE WITH THE WELDED FLANGE, FOR STEEL WELDED TO STEEL OR WELDED TO CAST IRON. SLOPE OF WELDS TO BE AS SHOWN UNLESS OTHERWISE SPECIFIED.

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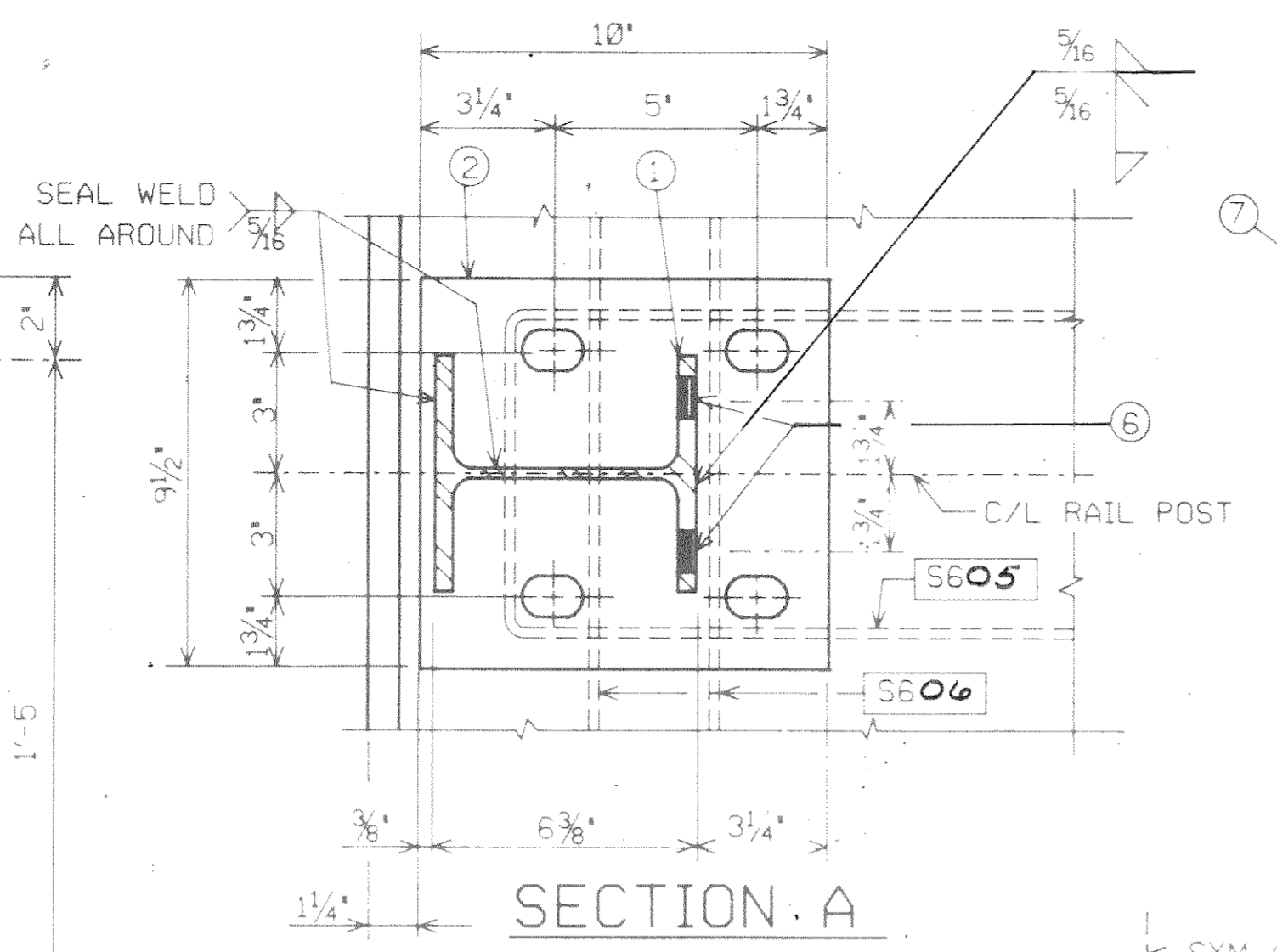
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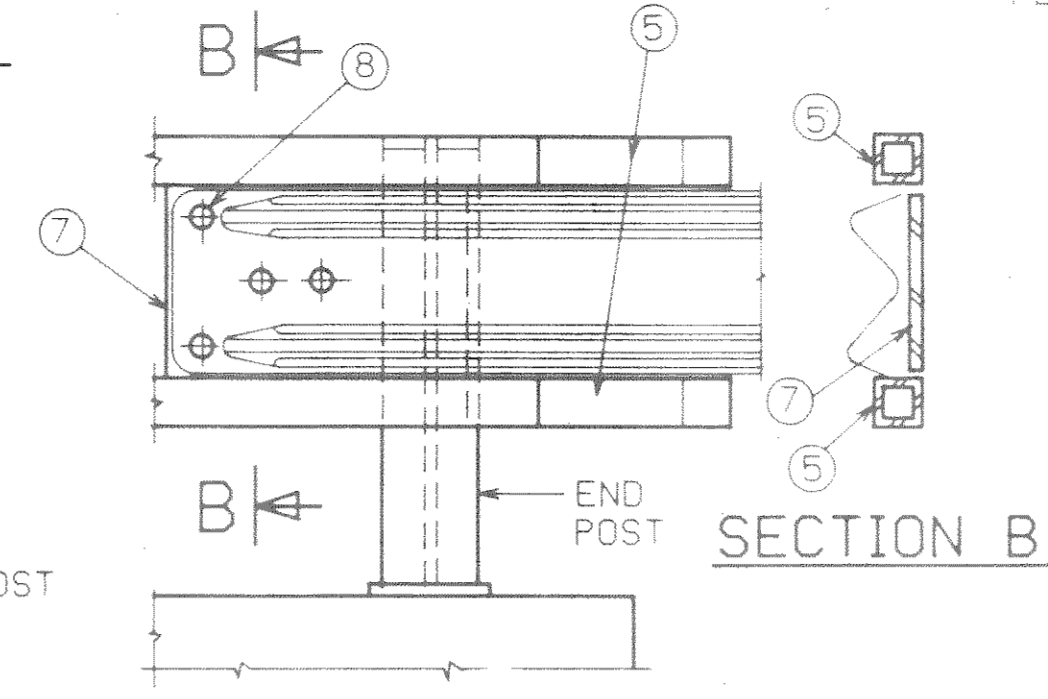
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**SECTION THRU RAILING**

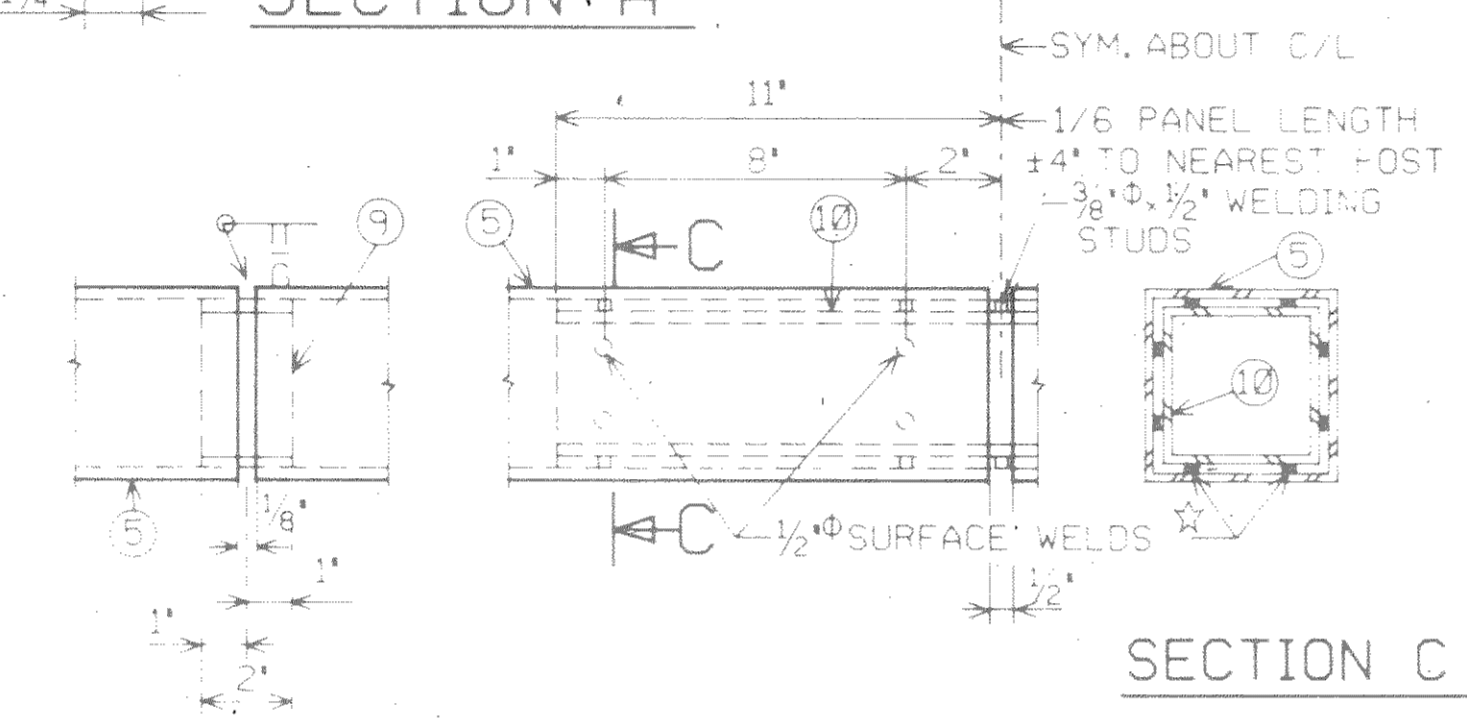


**SECTION A**



**SECTION B**

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



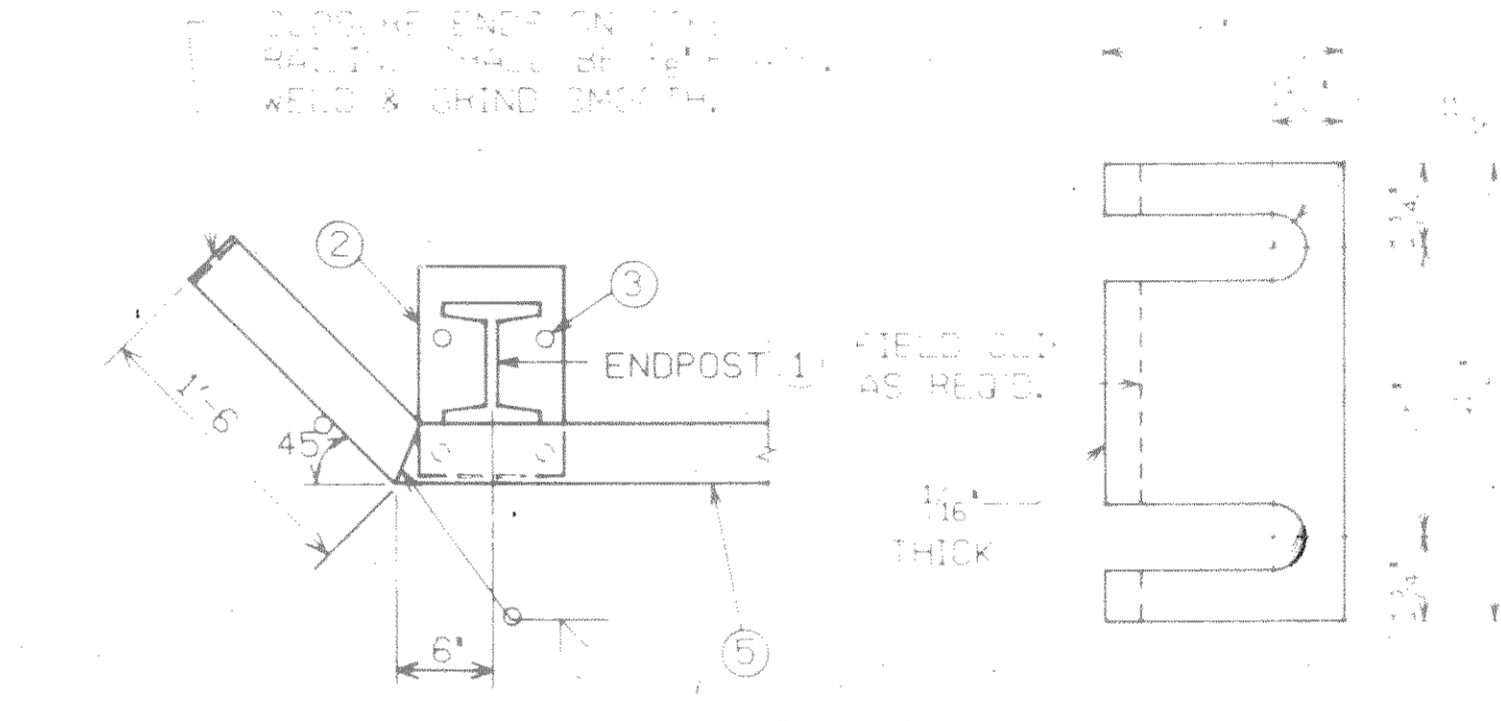
**SECTION C**

**SHOP RAIL SPLICE DETAIL**

(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)

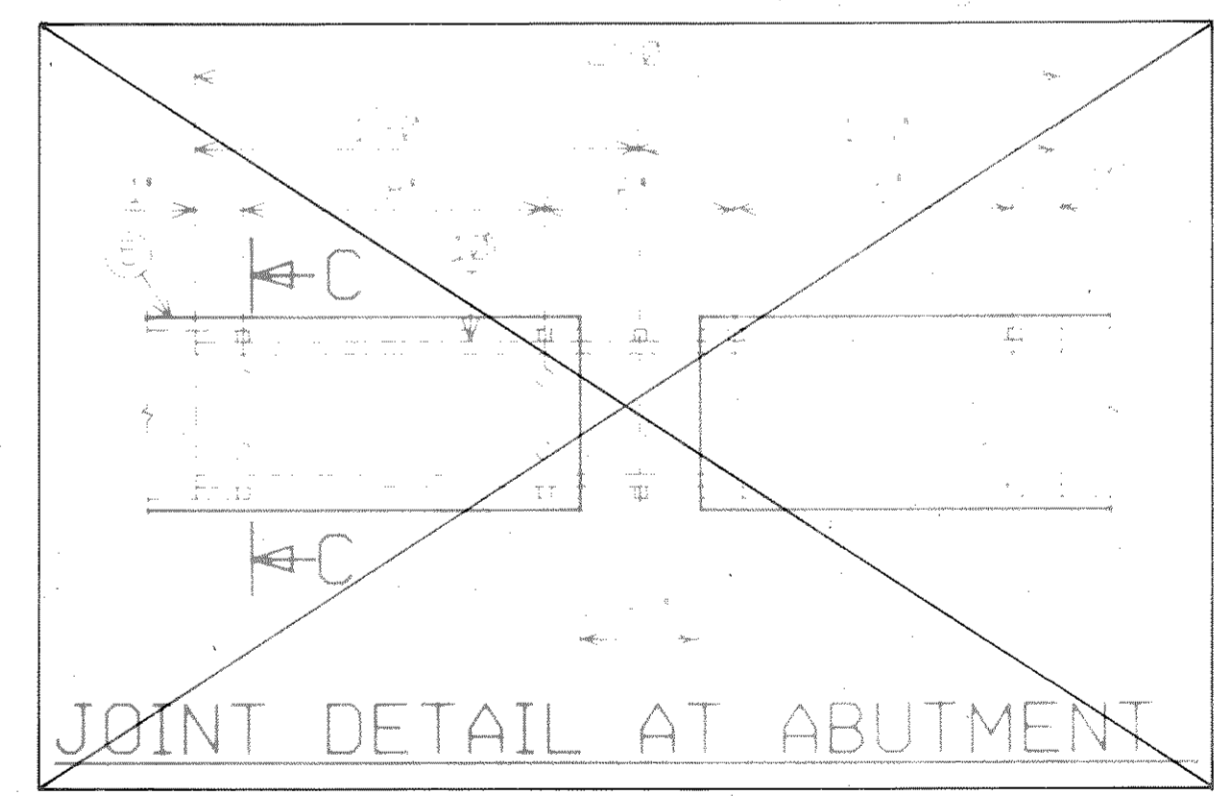
**FIELD ERECTION JOINT DETAIL**

\* MIN. 1/8" FLAT SURFACE DIA. FINISHES OR STUDS MAY BE USED AS AN ALTERNATE.

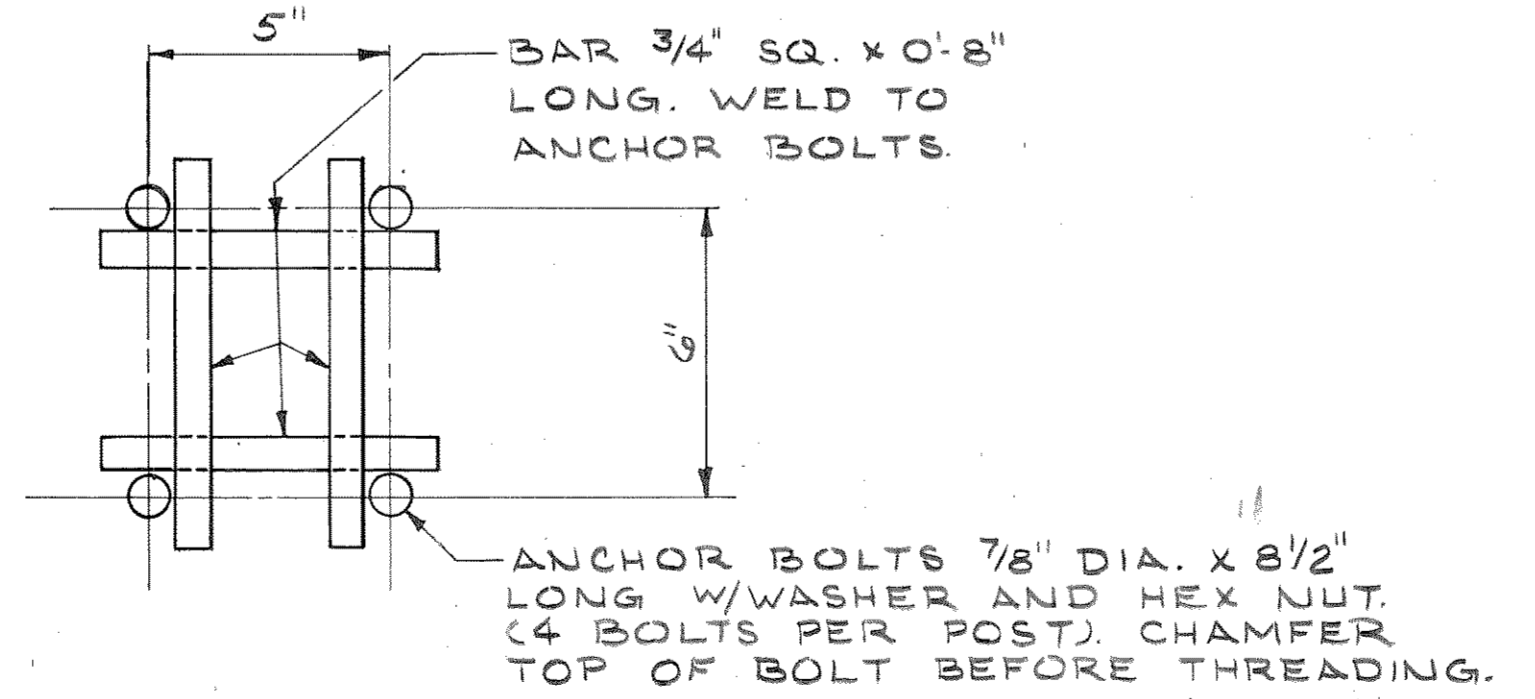


**END DETAIL FOR WINGS**

**POST SHIM DETAIL**



**JOINT DETAIL AT ABUTMENT**



**ANCHOR BOLT DETAIL**

**GENERAL NOTES**

1. ALL WELDS TO BE MADE IN ACCORDANCE WITH THE WELDED FLANGE, FOR STEEL WELDED TO STEEL OR WELDED TO CAST IRON. SLOPE OF WELDS TO BE AS SHOWN UNLESS OTHERWISE SPECIFIED.

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DATE REVISION BY

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS		
STRUCTURE B-35-95		
NO. WIS. 1981	DRAWN BY RAE	PLANNED BY GMA
TUBULAR STEEL RAILING TYPE 'F'		SHEET 7 OF 7
		X