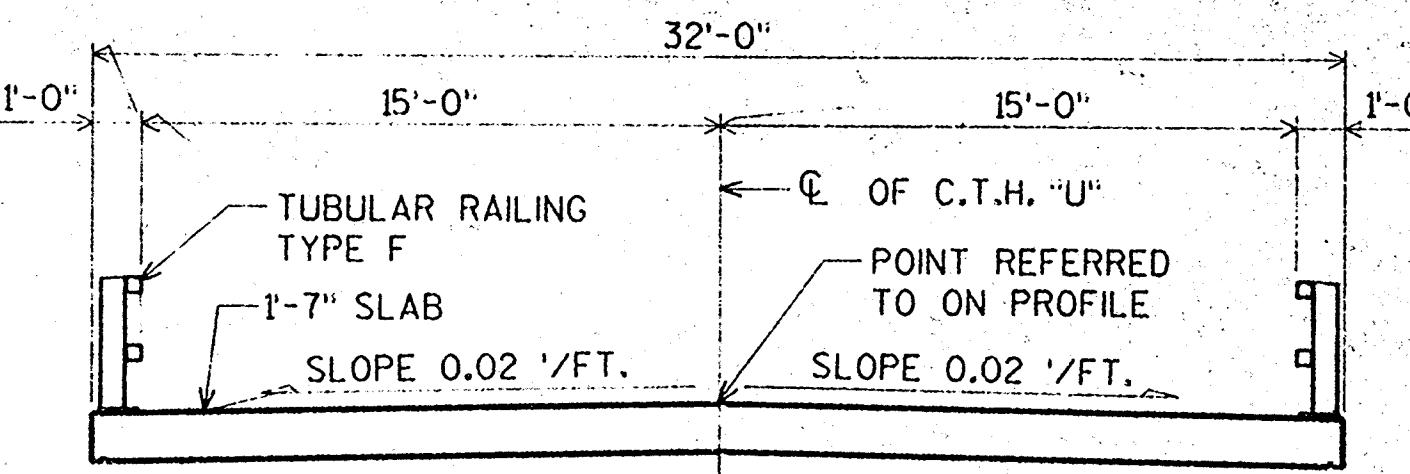
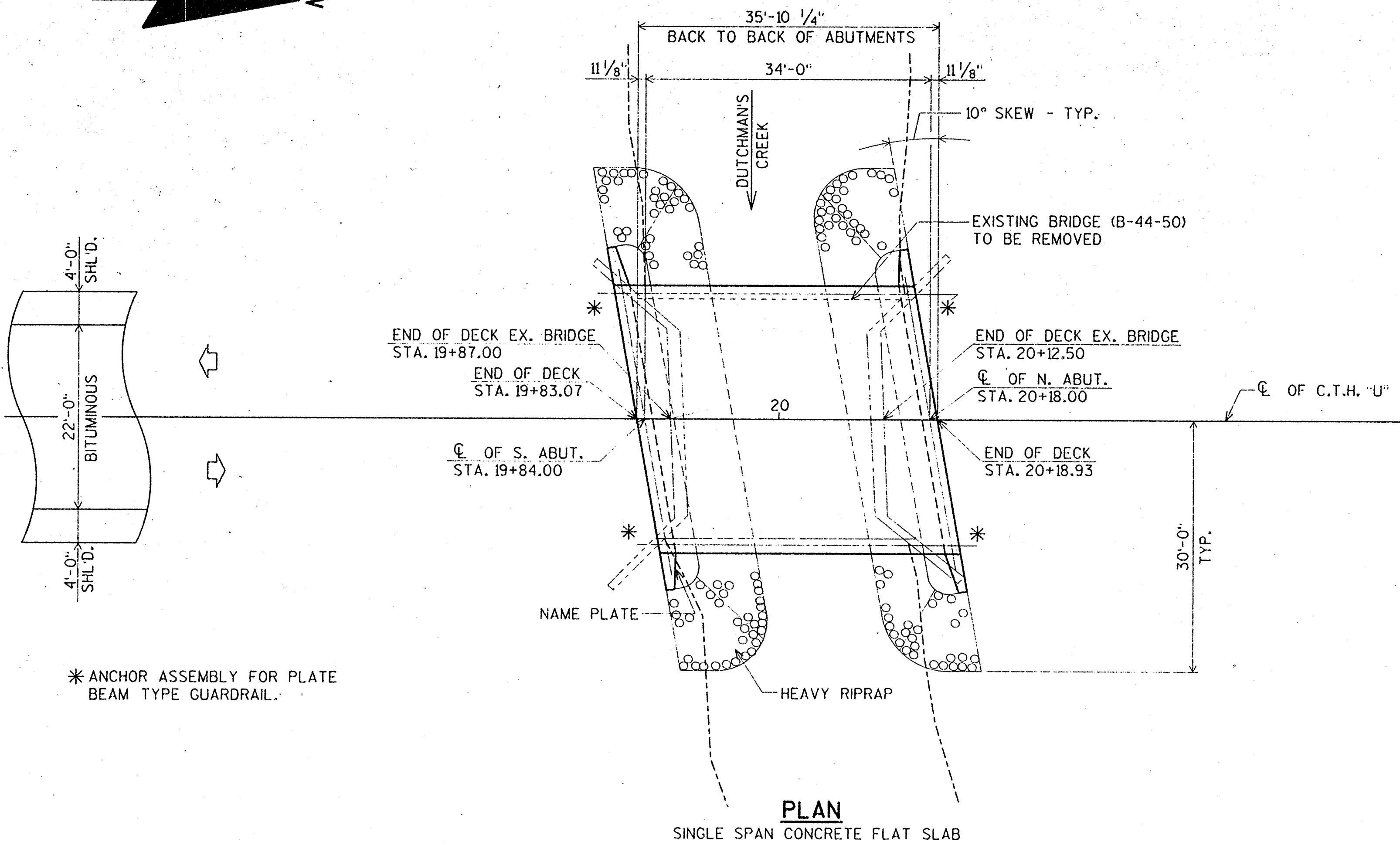


SUBSET:

FILE NAME: 07127GP



CROSS SECTION THRU ROADWAY

DESIGN DATA

LIVE LOAD: HS-20 (STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20#/S.F.)

RATINGS: INVENTORY = HS-22 OPERATING = HS-38

ALLOWABLE DESIGN STRESSES:

CONCRETE MASONRY (SLAB) f'_c = 4,000 p.s.i.
(ALL OTHER) f'_c = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) f_y = 60,000 p.s.i.

HYDRAULIC DATA:

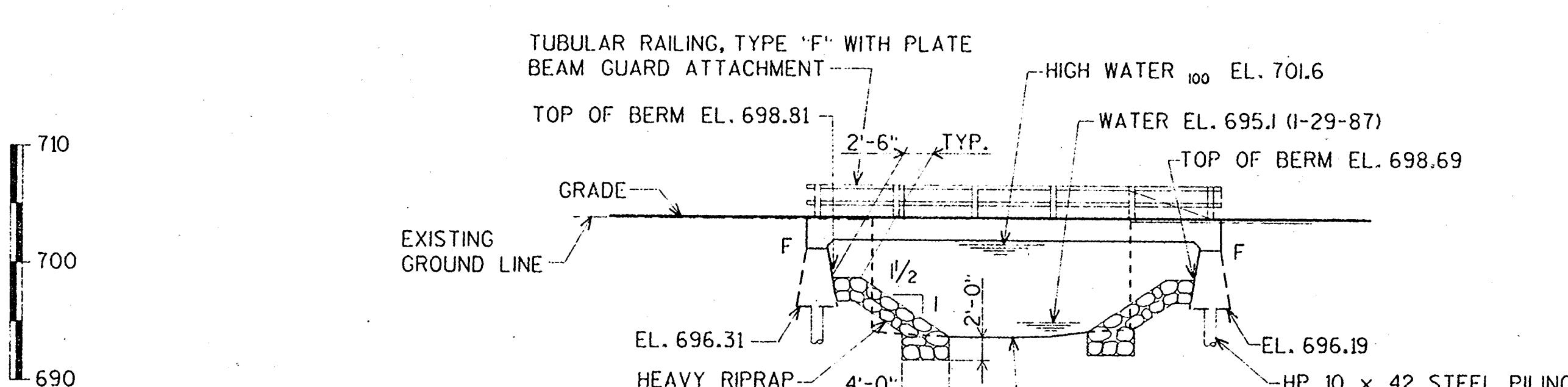
DRAINAGE AREA = 7.9 sq. mi.
WATERWAY AREA = 142 sq. ft.
V = 8.8 f.p.s.
 Q_{100} = 1,250 c.f.s.
HIGH WATER Q_{100} EL. 701.6
RDWY. OVERFLOW = N/A

FOUNDATION DATA:

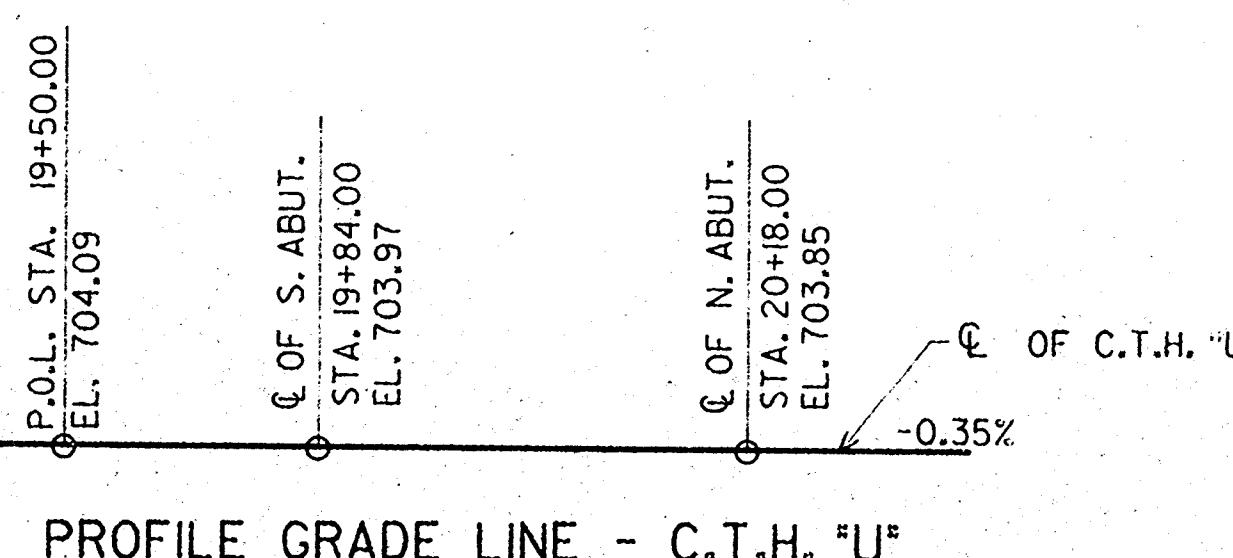
PLACE ABUTMENTS ON HP 10 x 42 STEEL PILING. DRIVEN TO 35 TONS/PILE
MINIMUM BEARING VALUE. EST. LENGTH 25'-0"

TRAFFIC DATA:

A.D.T. = 415 (1988)
A.D.T. = 550 (2008)
R.D.S. = 55 M.P.H.



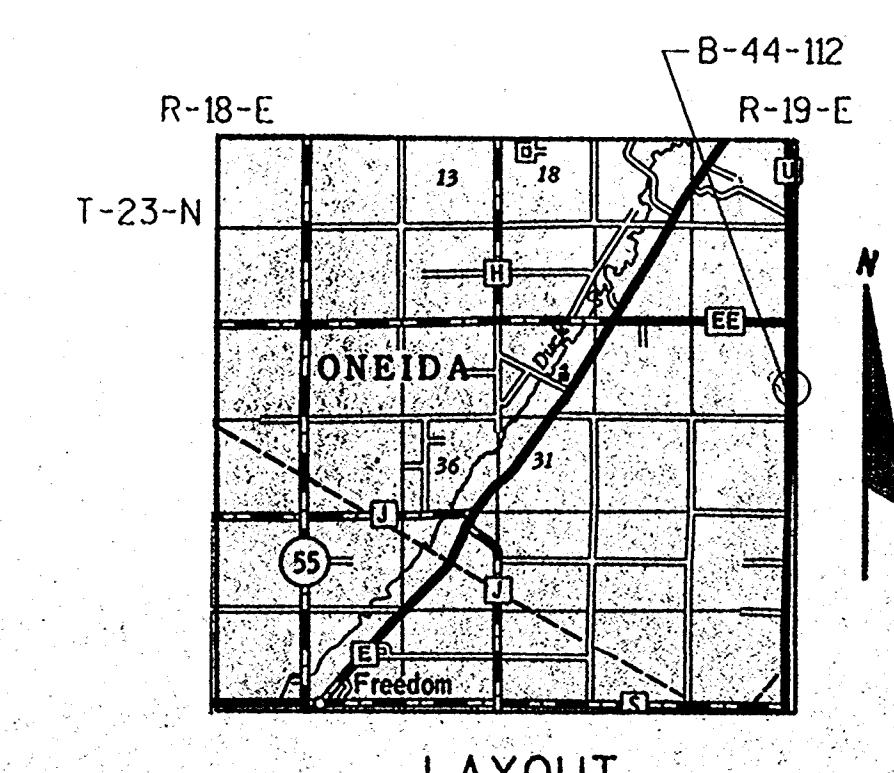
ELEVATION
(TAKEN NORMAL TO CREEK)



BENCH MARK:
CHISELED BOX IN SW CORNER WHEEL
GUARD. STA. 19+82.50, 14' LT. OF C
EL. 703.89

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES & NOTES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. NORTH ABUTMENT
6. SUPERSTRUCTURE
7. TUBULAR RAILING TYPE "F"



LAYOUT

No.	Date	Revision	By
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PLANS PREPARED BY
AYRES Engineers/Architects
Planners/Surveyors
Owen Ayres & Associates Inc.
Eau Claire, Wisconsin

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-II2

C.T.H. "U" OVER DUTCHMAN'S CREEK

County OUTAGAMIE Town of ONEIDA

Design Spec. A.A.S.H.T.O. '85 Load HS-20 Const. Spec. 1981

Designed by GMW Design Checked DHP Drawn by G.L.D. Plans Checked GMW

Approved State Bridge Engineer Date

GENERAL
PLAN

SHEET 1 OF 7
X

TOTAL ESTIMATED QUANTITIES

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR
UNLESS SHOWN OR NOTED OTHERWISE.

UNLESS SHOWN OR NOTED OTHERWISE.
THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST
TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.
JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF
A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR
A.A.S.H.T.O. DESIGNATION M 213.

A.A.S.H.T.O. DESIGNATION M 213.
THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS
SHALL BE COVERED WITH HEAVY RIPRAP TO THE EXTENT
SHOWN ON THE GENERAL PLAN SHEET AND IN THE
ABUTMENT DETAILS.

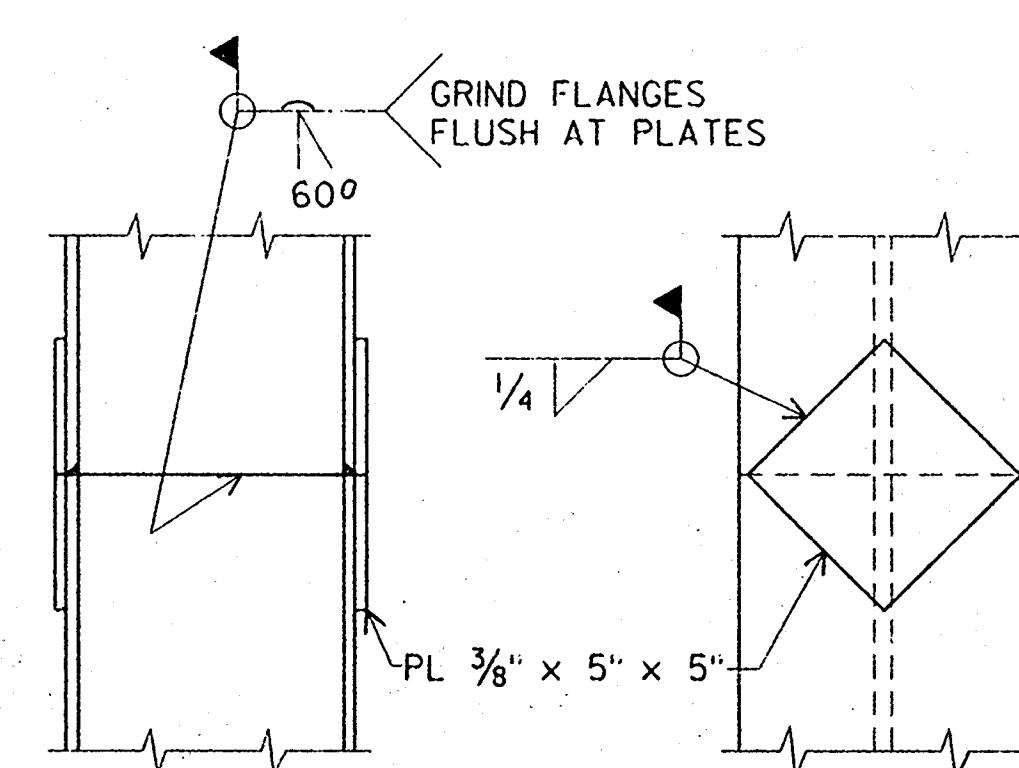
ABUTMENT DETAILS.
SLAB FALSEWORK SHALL BE SUPPORTED ON PILES UNLESS
OTHERWISE APPROVED BY THE ENGINEER

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO
THE TOP OF DECK

THE EXISTING BRIDGE (B-44-50) IS A SINGLE SPAN CONCRETE SLAB ON VERTICAL ABUTMENTS. THE OVERALL LENGTH IS 25 FEET, THE CLEAR ROADWAY WIDTH IS 26 FEET.

A technical drawing of a rectangular frame. The overall width is 9", and the overall height is 13/16". The left vertical wall has a thickness of 1/2" and a slot of 13/16" depth. The right vertical wall has a slot of 5/8" depth. The top horizontal wall has a thickness of 1/2" and two 2" wide slots. The bottom horizontal wall has a thickness of 11/16" and two 2" wide slots.

POLYVINYL CHLORIDE WATERSTOP DETAIL



HP 10 x 42 SPLICE DETAIL

No.	Date	Revision	By
PLANS PREPARED BY AYRES ASSOCIATES Engineers/Architects Planners/Surveyors Owen Ayres & Associates Inc. Eau Claire, Wisconsin			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-44-112	
const. pec.	1981	Drawn By	G.L.D.
		Plans checked	
		GMW	
QUANTITIES & NOTES		SHEET 2 OF 7	
		X	

CHECKED BY:

DATE:

BACK CHECKED BY:

DATE:

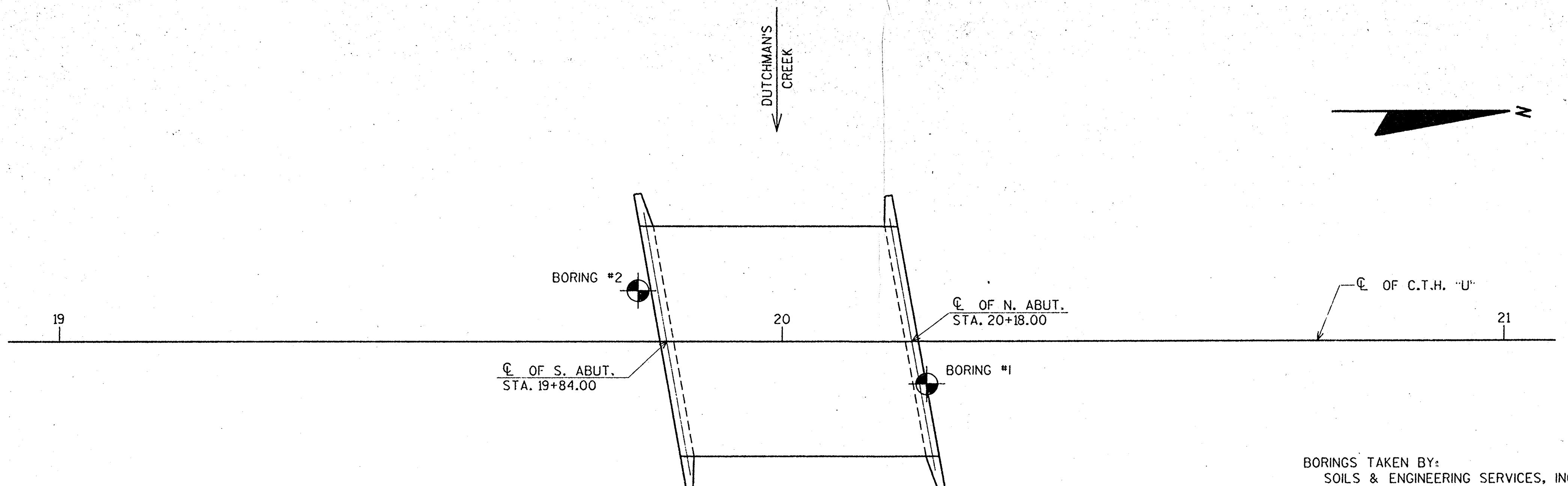
CORRECTED BY:

DATE:

LEVELS ON = 12,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

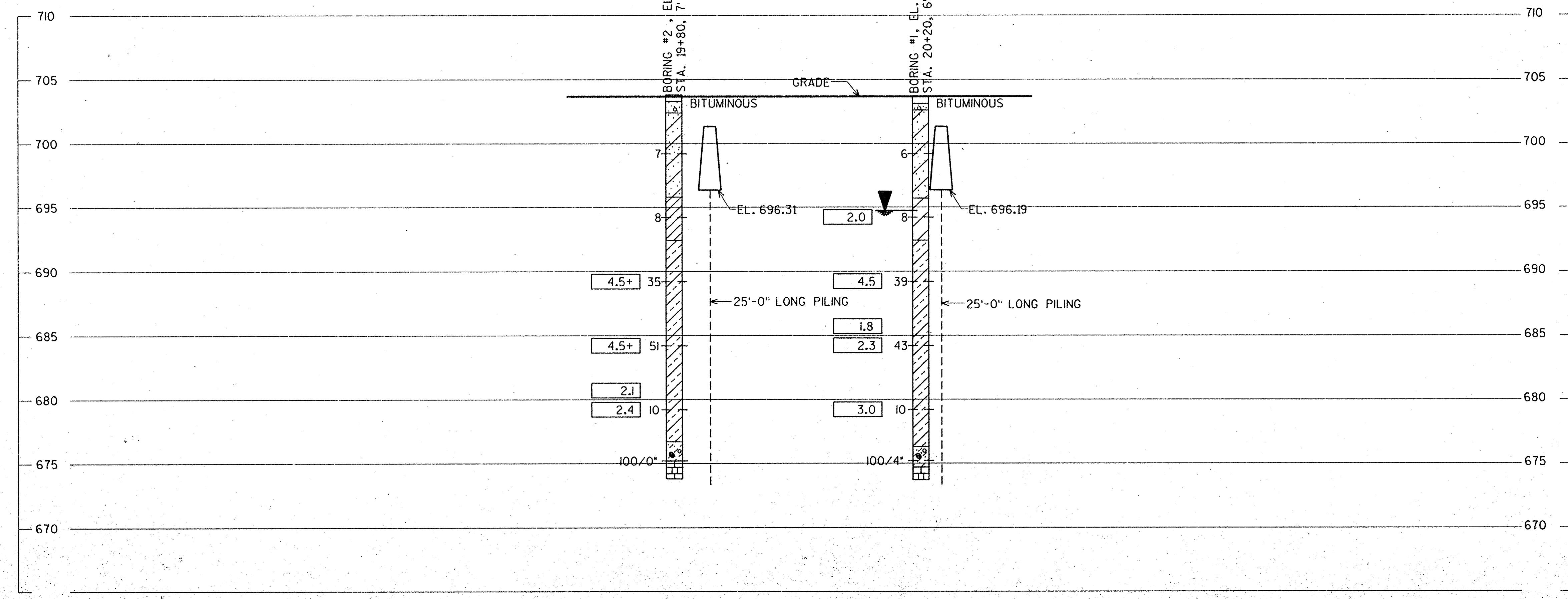
SUBSET:

FILE NAME: 07127GP

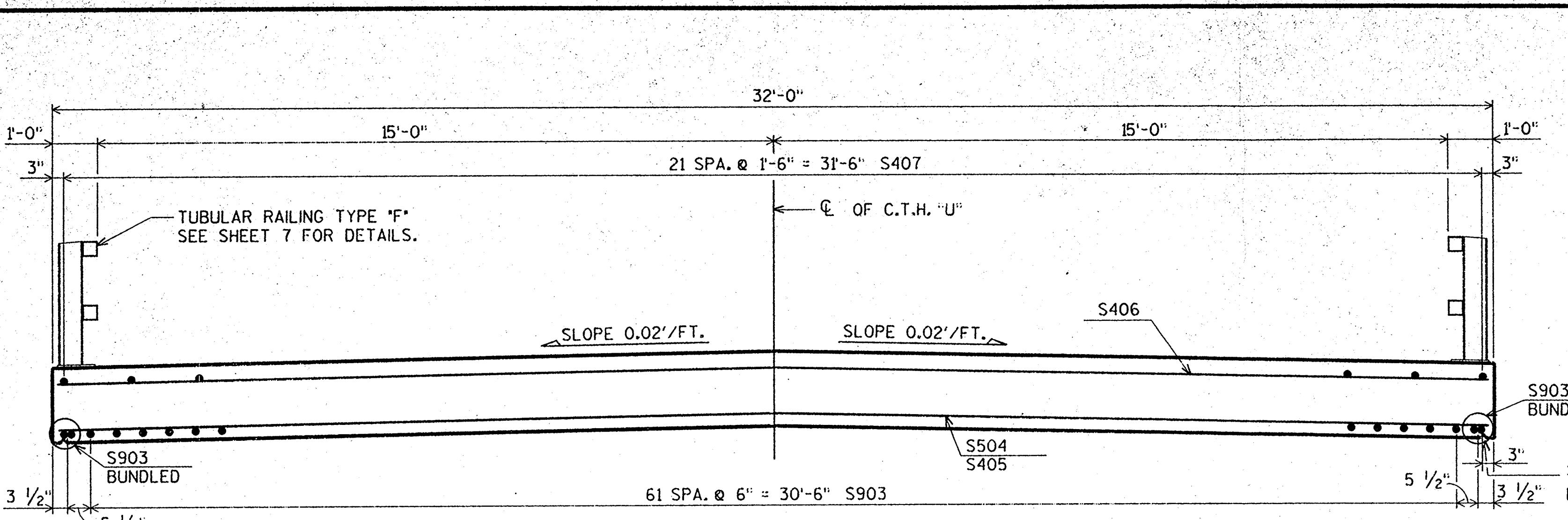


BORINGS TAKEN BY:
SOILS & ENGINEERING SERVICES, INC.
MADISON, WISCONSIN
JUNE 3, 1987

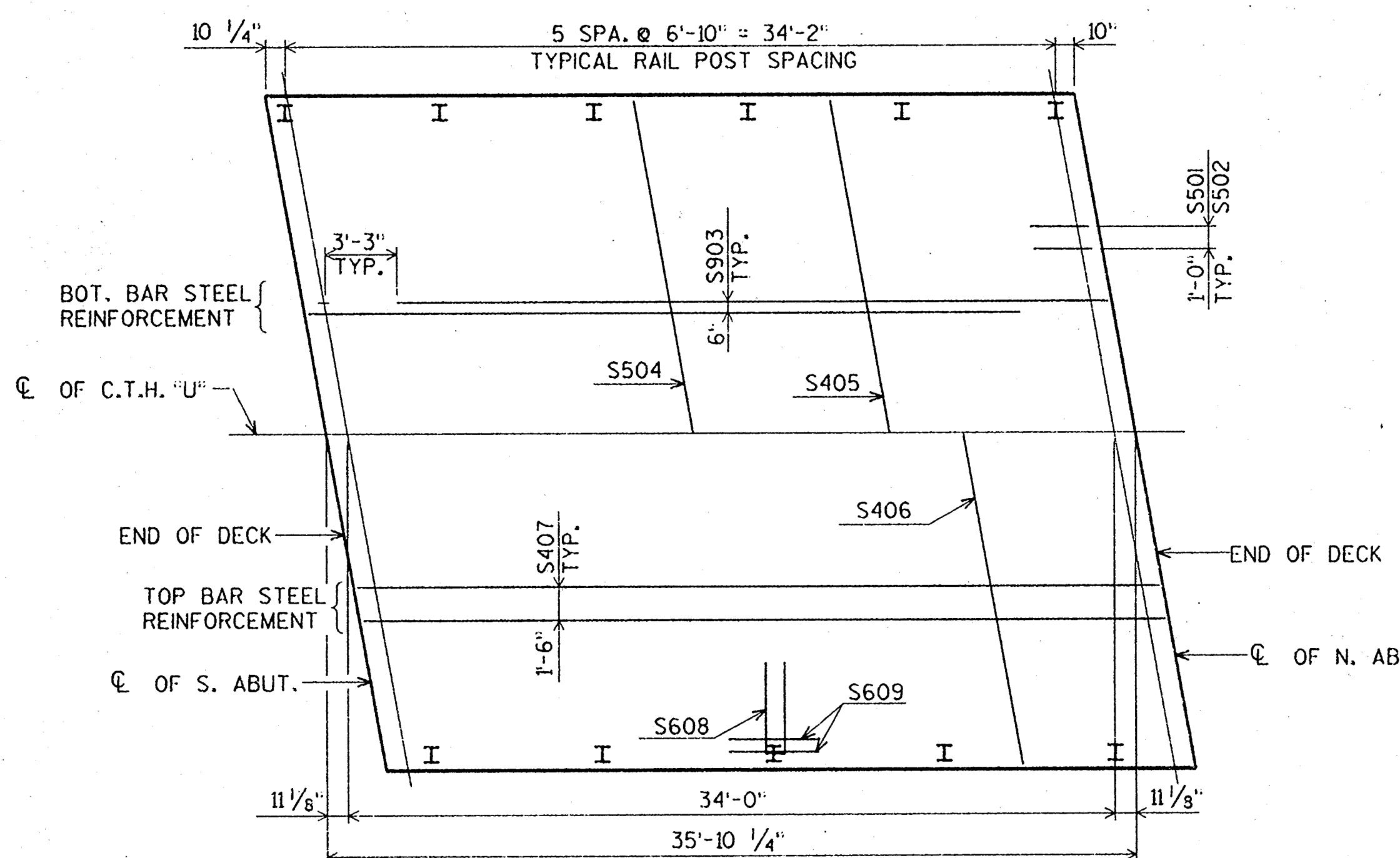
NOTE:
UNCONFINED STRENGTH SHOWN
ESTIMATED BY POCKET PENETROMETER.



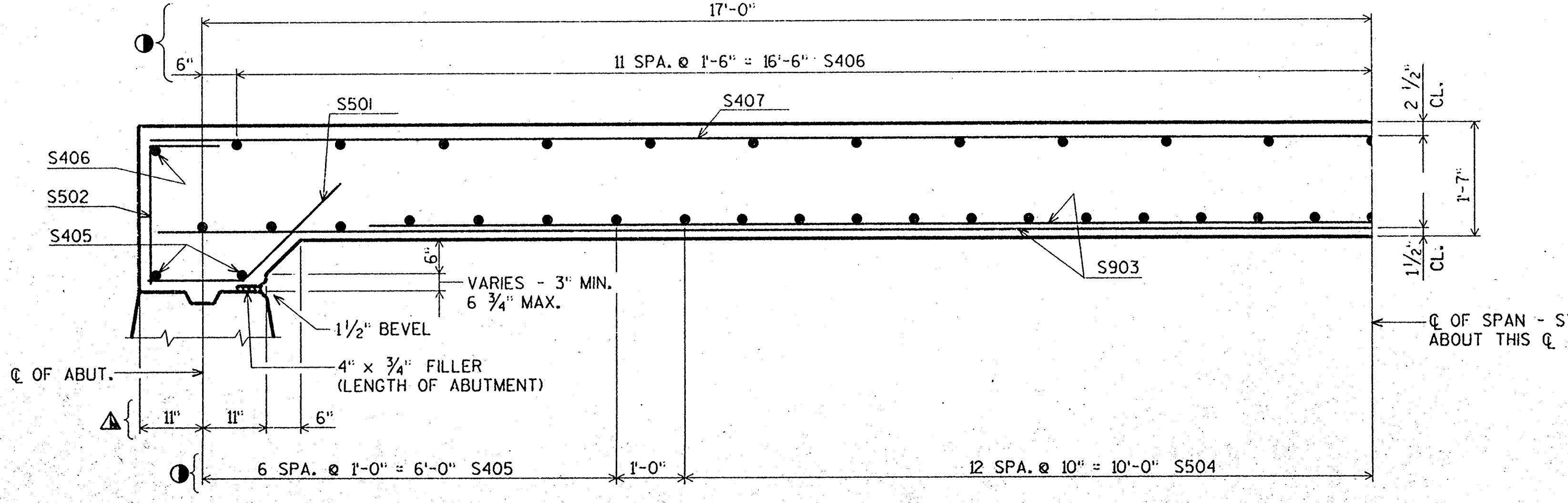
STATE PROJECT NUMBER		SHEET NO.			
ABBREVIATIONS					
F ---- Fine M ---- Medium C ---- Coarse Ws ---- Weathered So ---- Sound					
MATERIAL SYMBOLS					
Topsoil	Slit	Sandstone			
Sand	Peat	Limestone			
Gravel	Clay	Igneous Rock			
LEGEND OF PROBING					
Probing No.	Station	Elevation			
95/6 = 95 Blows for 6"			7 Average Blows Per Foot		
Penetration					
Probing taken with a					
350# wt.					
Falling 18° on a 2"					
O.D. Point.			Refusal 95/6		
LEGEND OF BORING					
Boring No., Elev.	Sta. & Offset				
Unconfined Strength	7.7	Sandy Gravel			
Blows Per Foot	7	F			
Using 140# Wt.		Boulders or Cobbles			
Falling 30°		Sand			
Wash Sample		Shelby Tube			
Shelby Tube	S.T.	Ground Water Elevation			
Ground Water Elevation		Slity Clay			
No Ground Water Observed Above This Elevation		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 DEPT. OF TRANSPORTATION 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		
PLANS PREPARED BY AYRES Engineers/Architects Planners/Surveyors Owen Ayres & Associates Inc. Eau Claire, Wisconsin					
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION					
STRUCTURE B-44-II2					
Const. Spec.	1981	Drawn By G.L.D.	Plans Checked G.M.W.		
SUBSURFACE EXPLORATION					
SHEET 3 OF 7		X			



CROSS SECTION THRU ROADWAY



PLAN



PART LONGITUDINAL SECTION

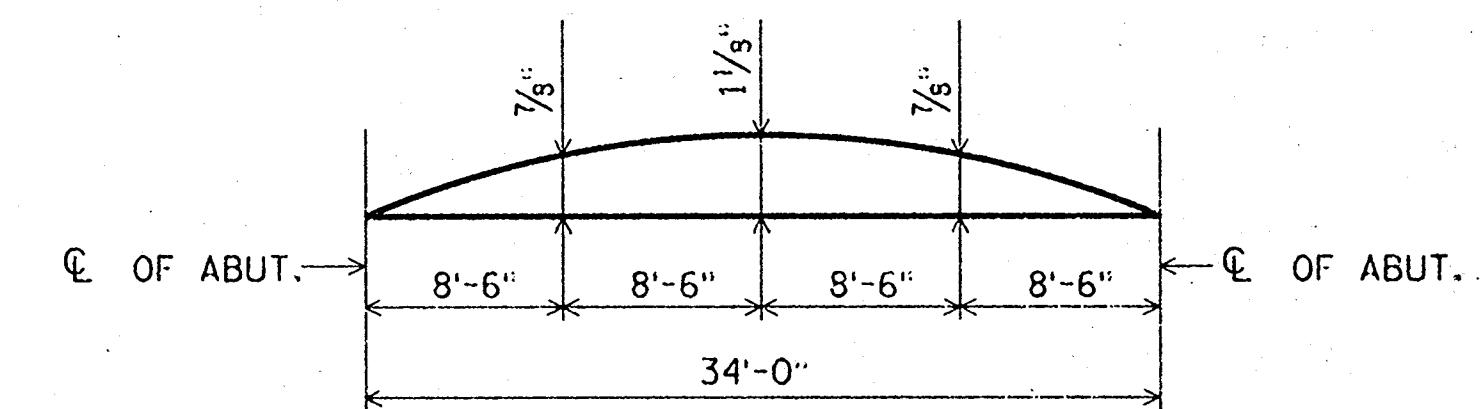
ALTERNATE TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

BILL OF BARS

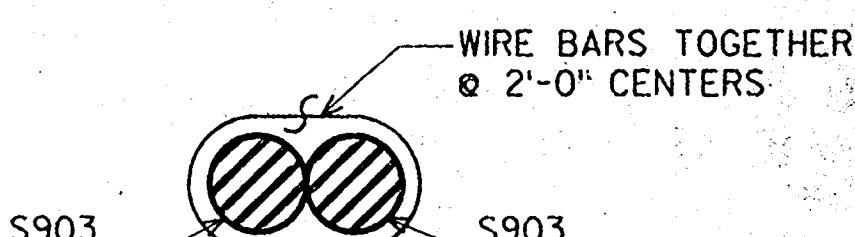
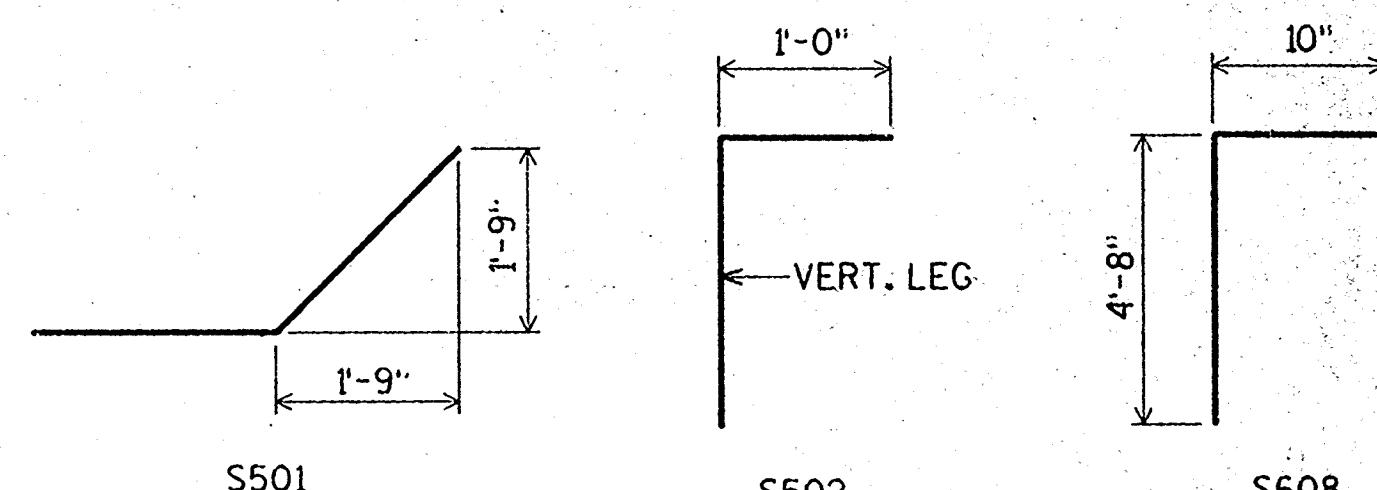
BAR. NO.	NO. REQ'D.	LENGTH	BENT BAR	CUT. DIAGR.
			COATED	
S501	64	3'-9"	X	1,580# COATED
S502	64	2'-11"	X	8,540# UNCOATED
S903	66	31'-6"		LOCATION
S504	25	32'-1"		
S405	18	32'-1"		
S406	25	32'-1"	X	
S407	22	35'-6"	X	
S608	12	10'-0"	X	
S609	24	4'-0"	X	

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



CAMBER DIAGRAM

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION & FUTURE PLASTIC FLOW. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. DEADLOAD DEFLECTION ONLY EQUALS APPROXIMATELY $\frac{1}{4}$ OF CAMBER VALUES SHOWN.



BUNDLING DETAIL

No.	Date	Revision	By
PLANS PREPARED BY			
AYRES ASSOCIATES Engineers/Architects Planners/Surveyors Owen Ayres & Associates Inc. Eau Claire, Wisconsin			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-44-II2			
Const. Spec.	1981	Drawn By G.L.D.	Plans Checked (initials)
SHEET 6 OF 7			
SUPERSTRUCTURE X			

● DIMENSIONS MEASURED ALONG ℓ OF C.T.H. "U".

△ DIMENSIONS MEASURED NORMAL TO ℓ OF SUBSTRUCTURE.

STATE PROJECT NUMBER	SHEET NO.
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GENERAL NOTES

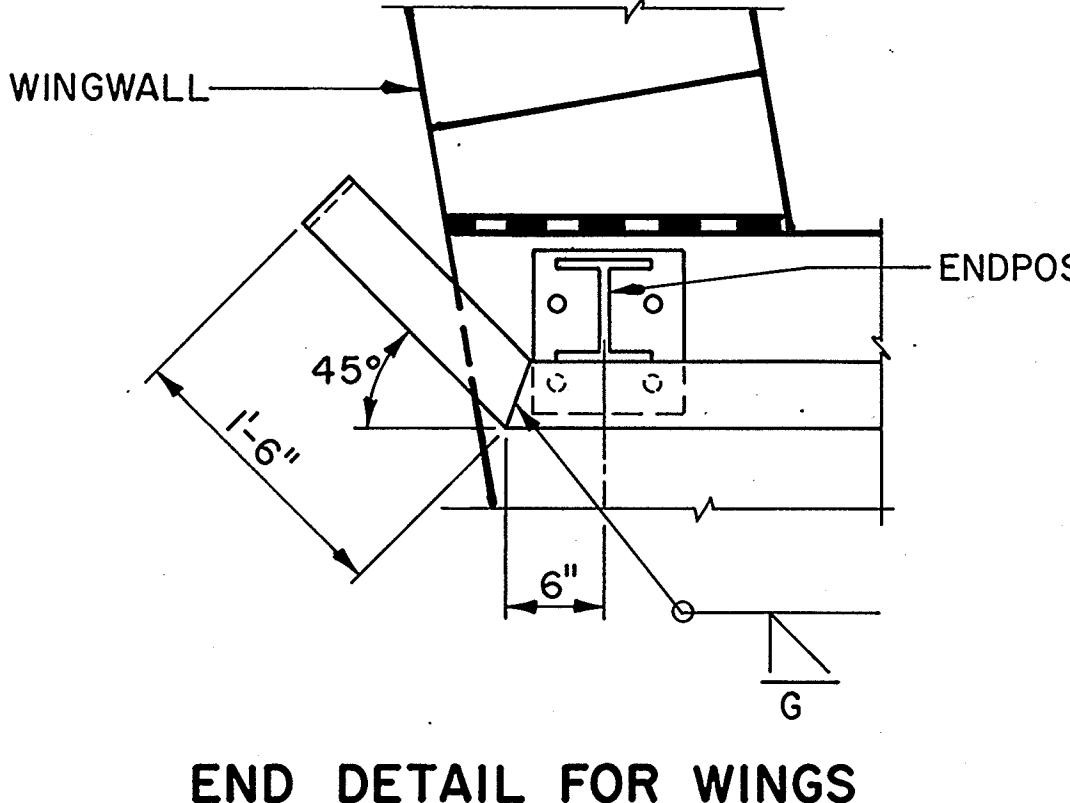
1. BID ITEM SHALL BE "TUBULAR RAILING, TYPE F".
2. POST BASE PLATE SHALL BE FLAT WITH ALL SURFACES SMOOTH & FREE FROM WARP & ALL EDGES SMOOTH, STRAIGHT & VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.
3. RAILING SHALL BE 4" x 4" x .25" STRUCTURAL TUBING CONFORMING TO A.S.T.M. DESIGNATION A36.
4. ANCHOR BOLTS SHALL BE $\frac{7}{8}$ " Ø NOMINAL CONFORMING TO A.S.T.M. A449 WITH 3" THREAD AND A325 NUTS AND WASHERS.
5. CAULK EXPOSED OPENINGS BETWEEN SHIMS.
6. POST, BASE PLATES & SHIMS SHALL BE MADE FROM MATERIAL CONFORMING TO A.S.T.M. DESIGNATION A36. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST NORMAL TO GRADE LINE.
7. PLACE ANCHOR BOLTS NORMAL TO BASE PLATE.
8. ALL MEMBERS, INCLUDING UPPER 4" OF ANCHOR BOLTS, SHALL BE GALVANIZED AFTER FABRICATION.

10. FILL BOLT SLOT OPENINGS IN POST SHIMS AND BASE PLATE WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

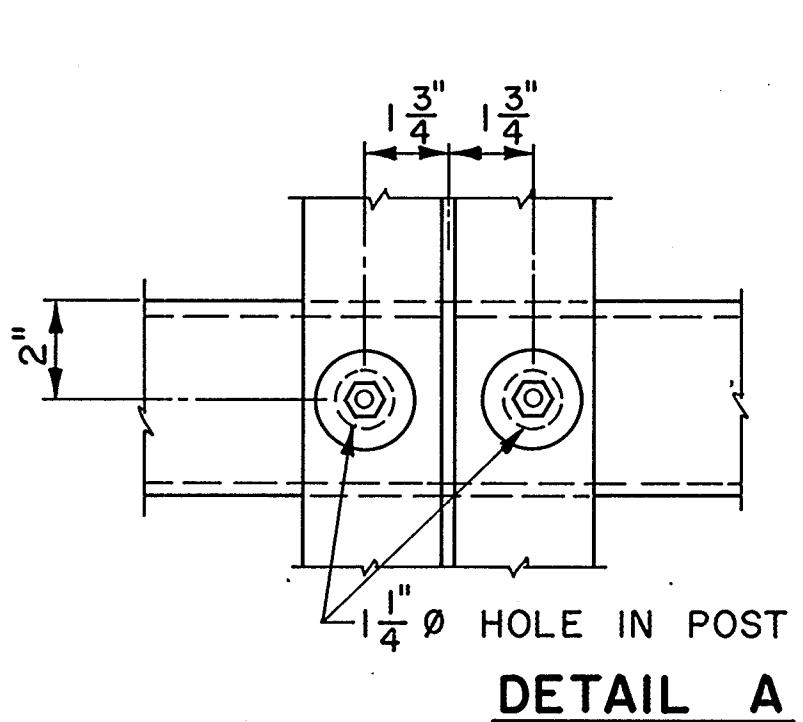
11. STEEL SHIMS SHALL BE USED UNDER POSTS WHERE REQUIRED FOR ALIGNMENT.

12. RAILING SHALL BE FABRICATED IN 2 AND 3 PANEL LENGTHS.

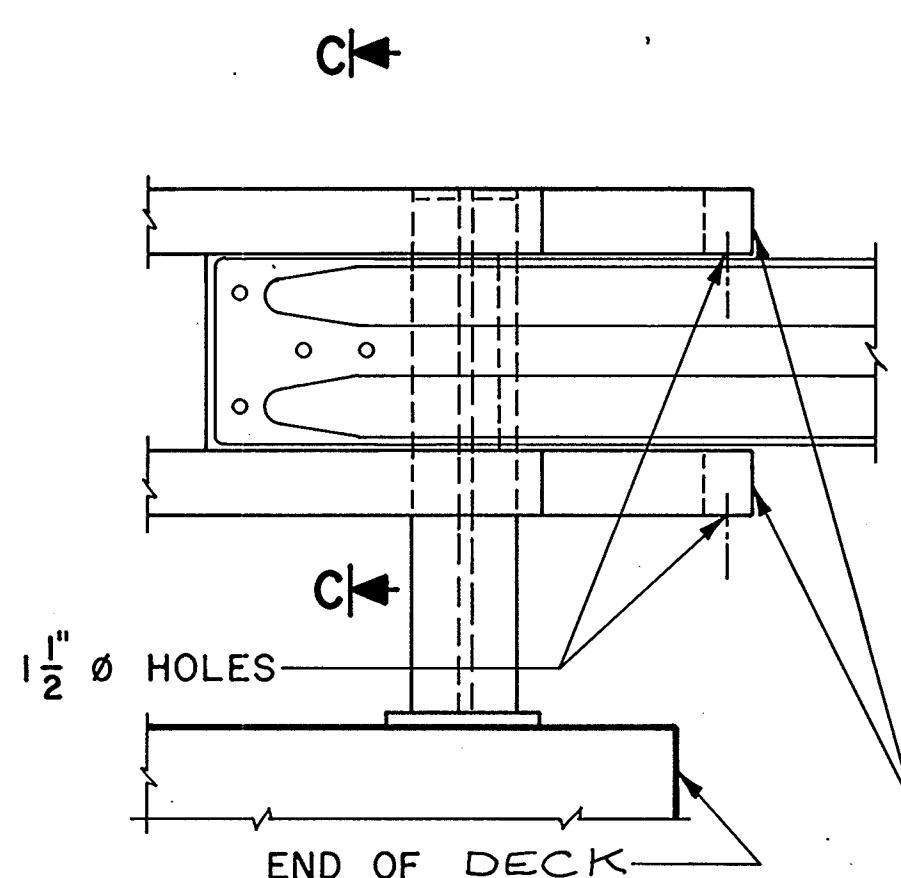
13. PRIOR TO GALVANIZING, ALL STEEL RAILING SHALL BE GIVEN A NO. 6 COMMERCIAL BLAST CLEANING BY S.S.P.C. SPECIFICATIONS. BLAST CLEANING IS NOT REQUIRED FOR COLD FORMED 4" x 4" x .25" STRUCTURAL TUBING, EXCEPT TO REMOVE WELDING SLAG AND IMPERVIOUS SUBSTANCES.



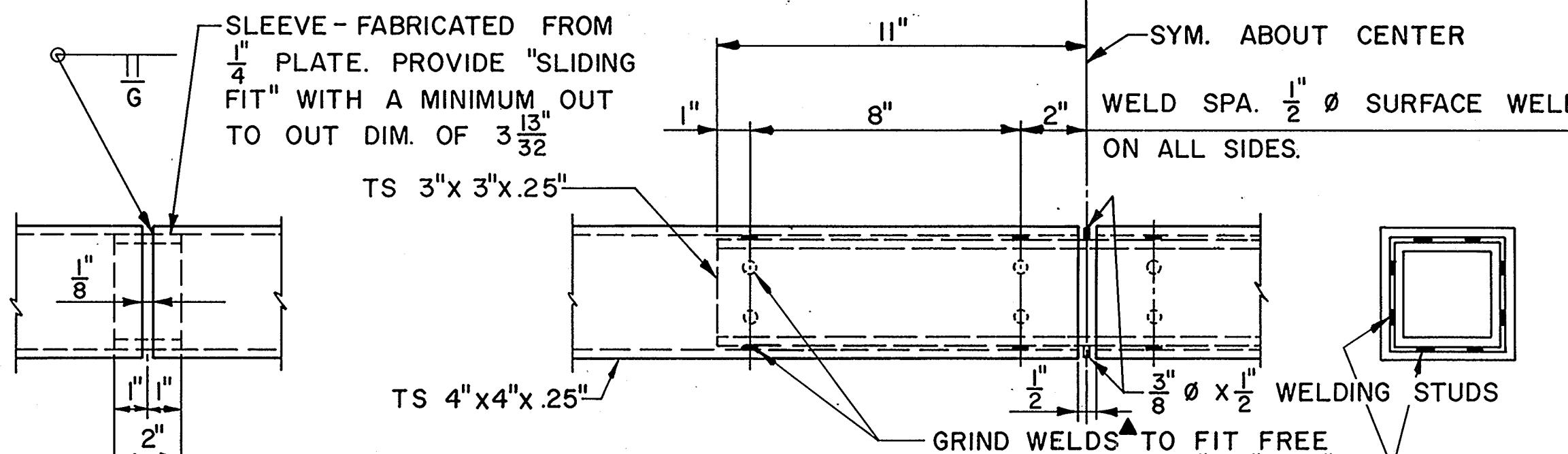
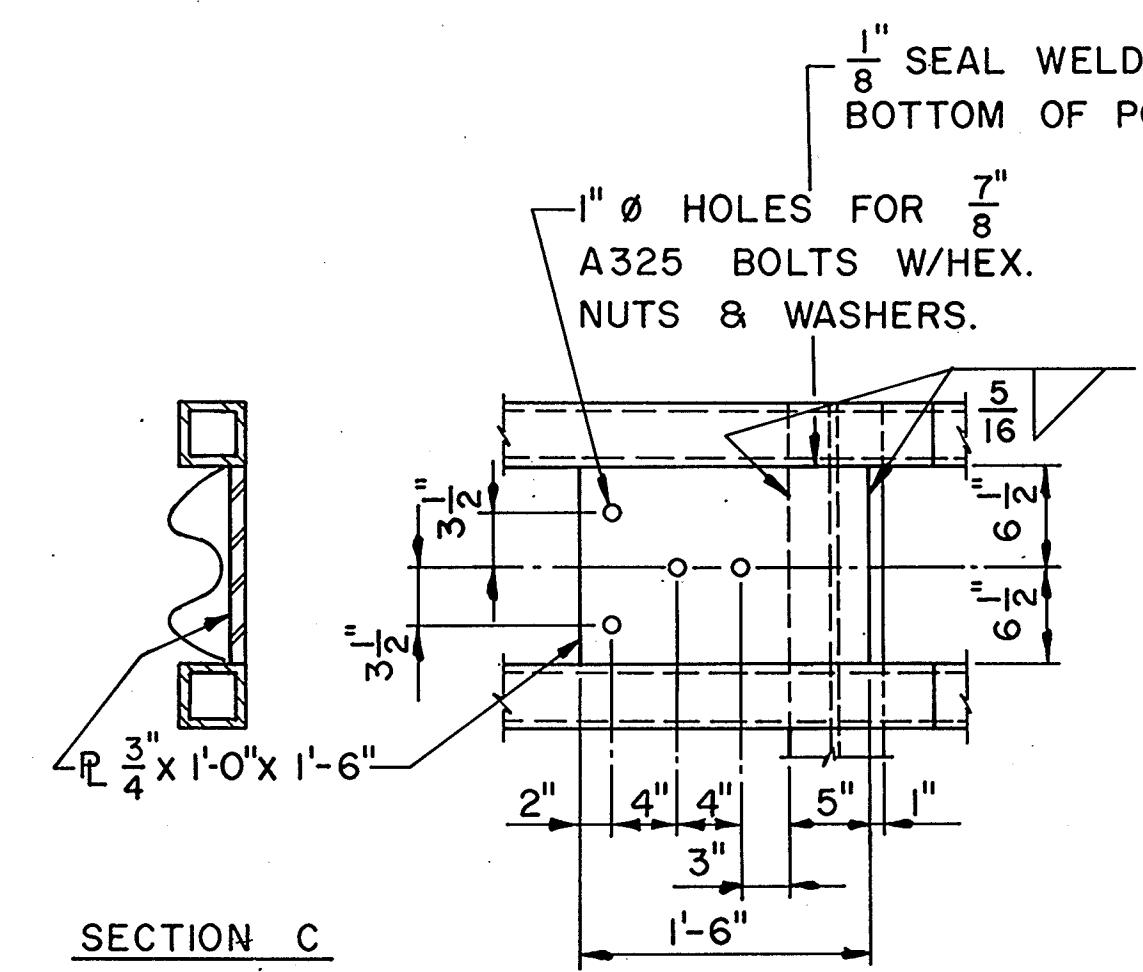
END DETAIL FOR WINGS



DETAIL A

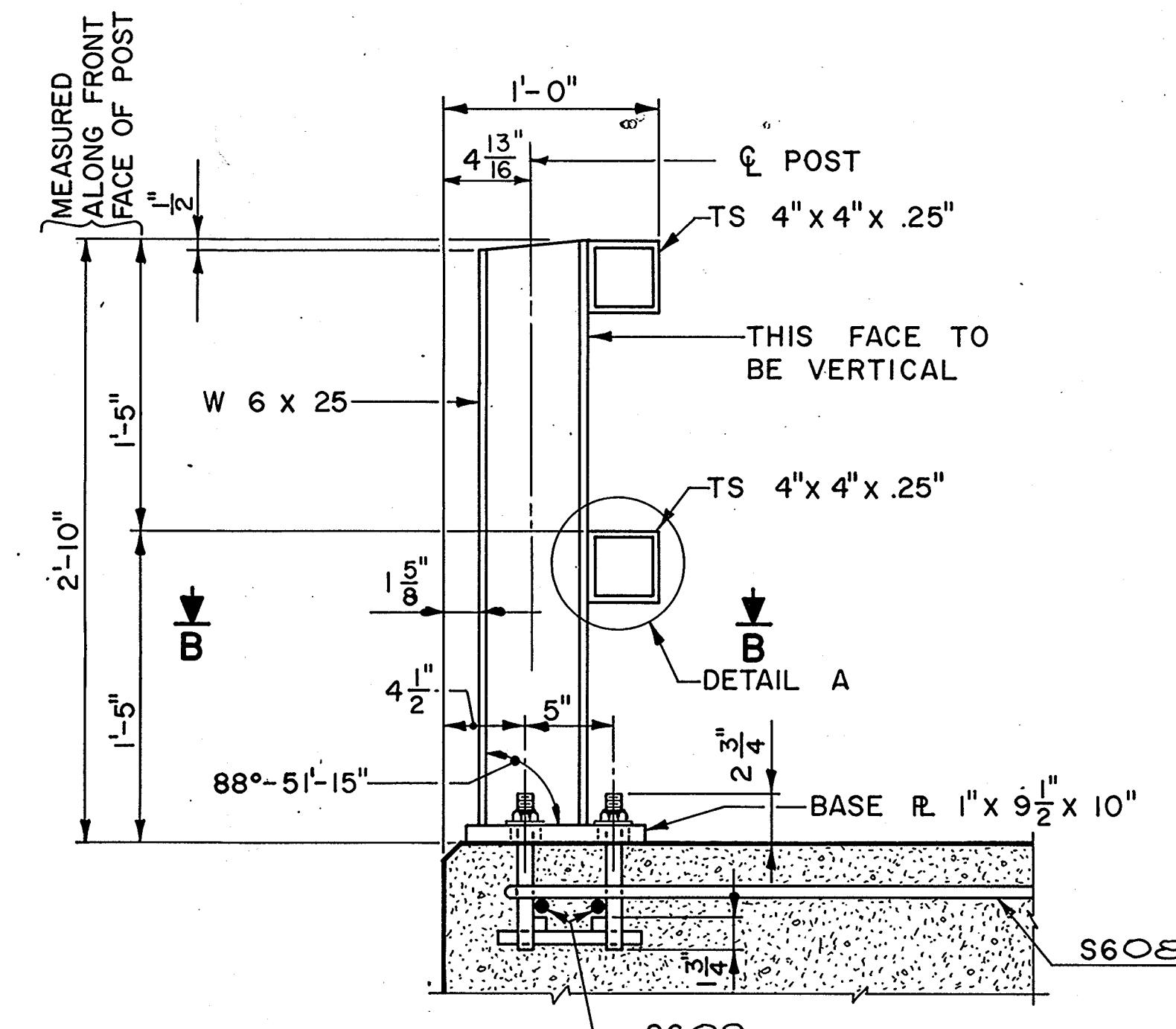


DETAIL AT END POST
(BEAM GUARD RAIL ATTACHMENT)

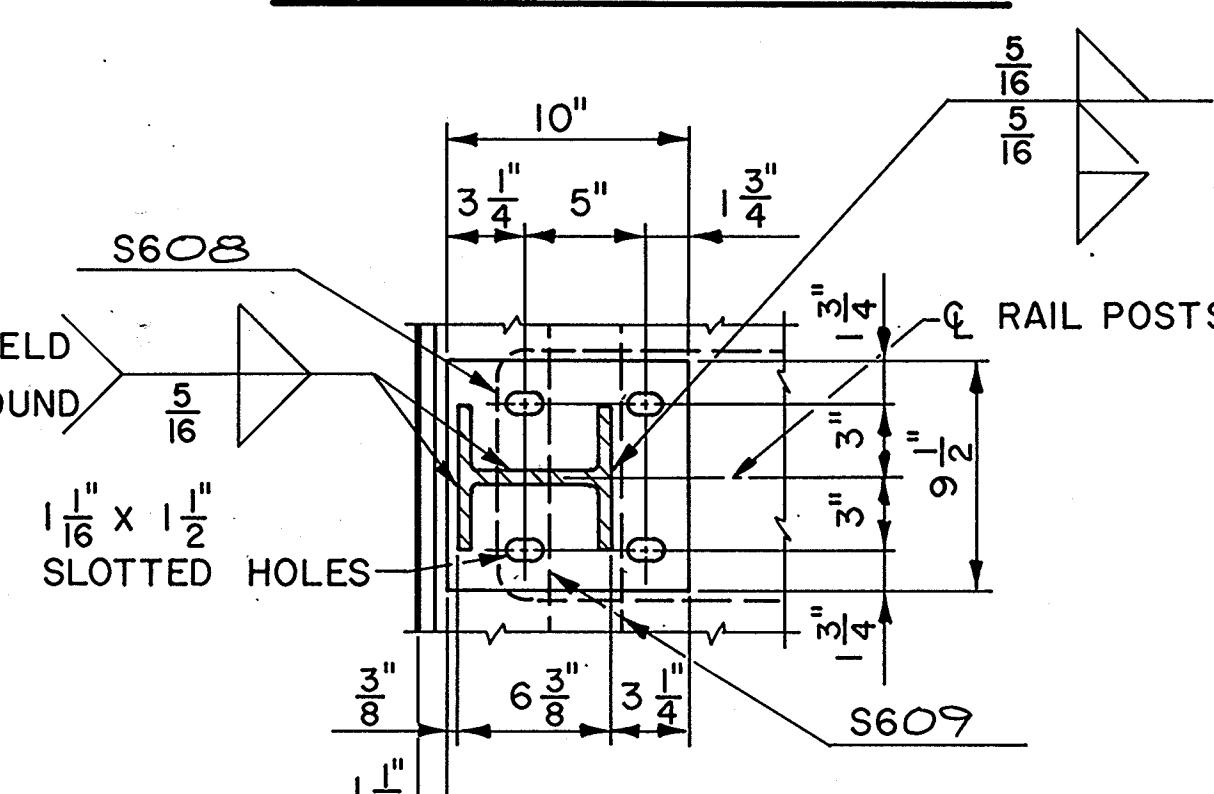


SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN ON THE SHOP DRAWINGS)

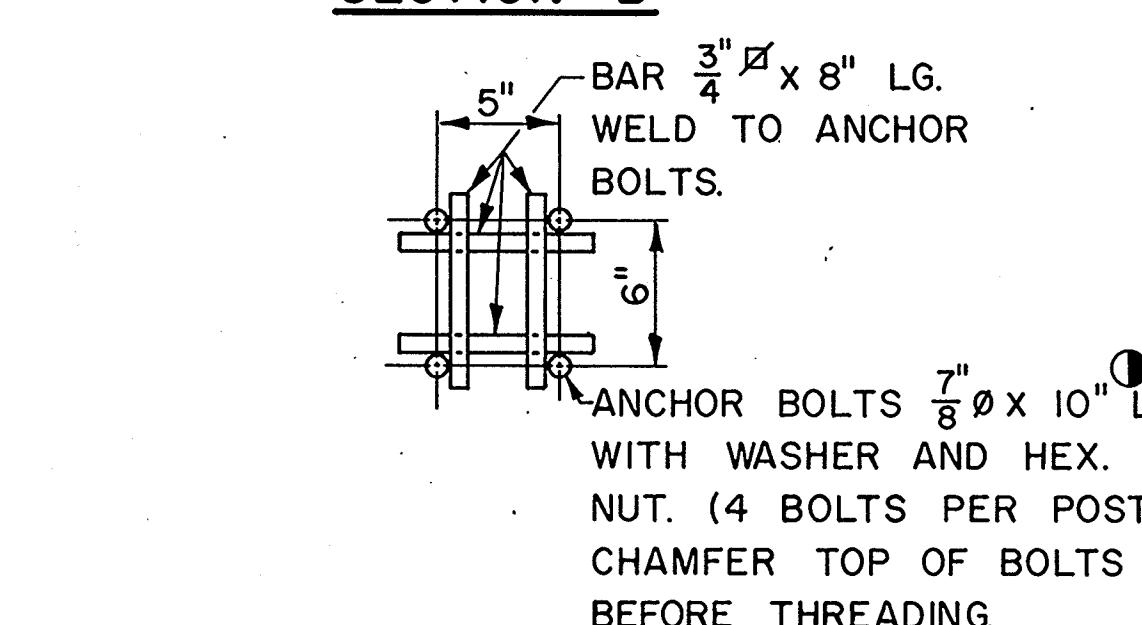
FIELD ERECTION
JOINT DETAIL



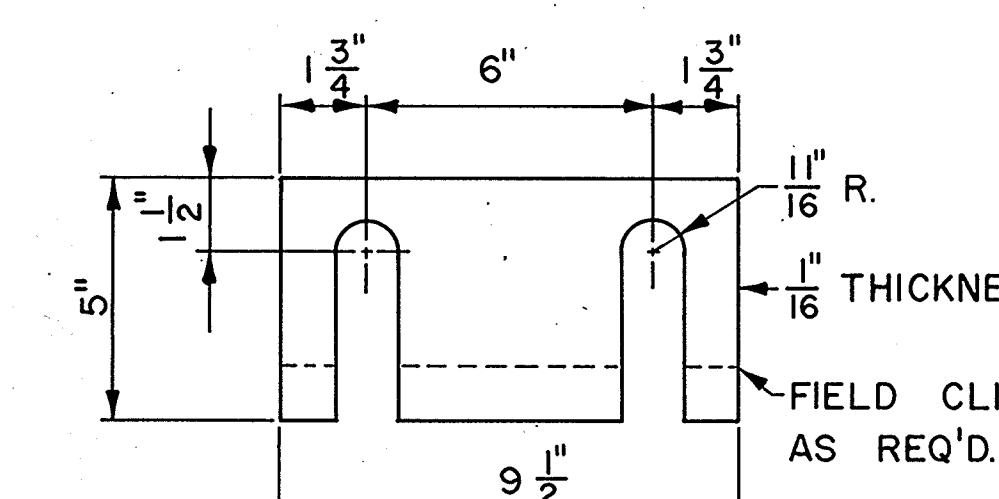
SECTION THRU RAILING



SECTION B



ANCHOR BOLT DETAIL



POST SHIM DETAIL
(4 PER POST)

▲ MINIMUM $\frac{5}{8}$ " FLAT SURFACE DIAMETER
PUNCHINGS OR STUDS MAY BE USED
AS AN ALTERNATE.

● OR MATERIAL OF EQUIVALENT
YIELD STRENGTH AND ELONGATION.
(MIN. YIELD OF 92 K.S.I. AND ELONGATION
OF 14%).

● 1-3" LG. ANCHOR BOLTS AT END POSTS.

No.	Date	Revision	By
AYRES ASSOCIATES			
Engineers / Architects Planners / Surveyors Owen Ayres & Associates Inc. Eau Claire, Wisconsin			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-44-112			
Const. Spec.	Drawn By	Plans Checked	GMW
1981	G.L.D.		
TUBULAR RAILING TYPE "F"			
SHEET 7 OF 7			
X			