

BRIDGES OVER 20' SPAN					
FEDERAL REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	IM-80-1(143)4	1998	1	81

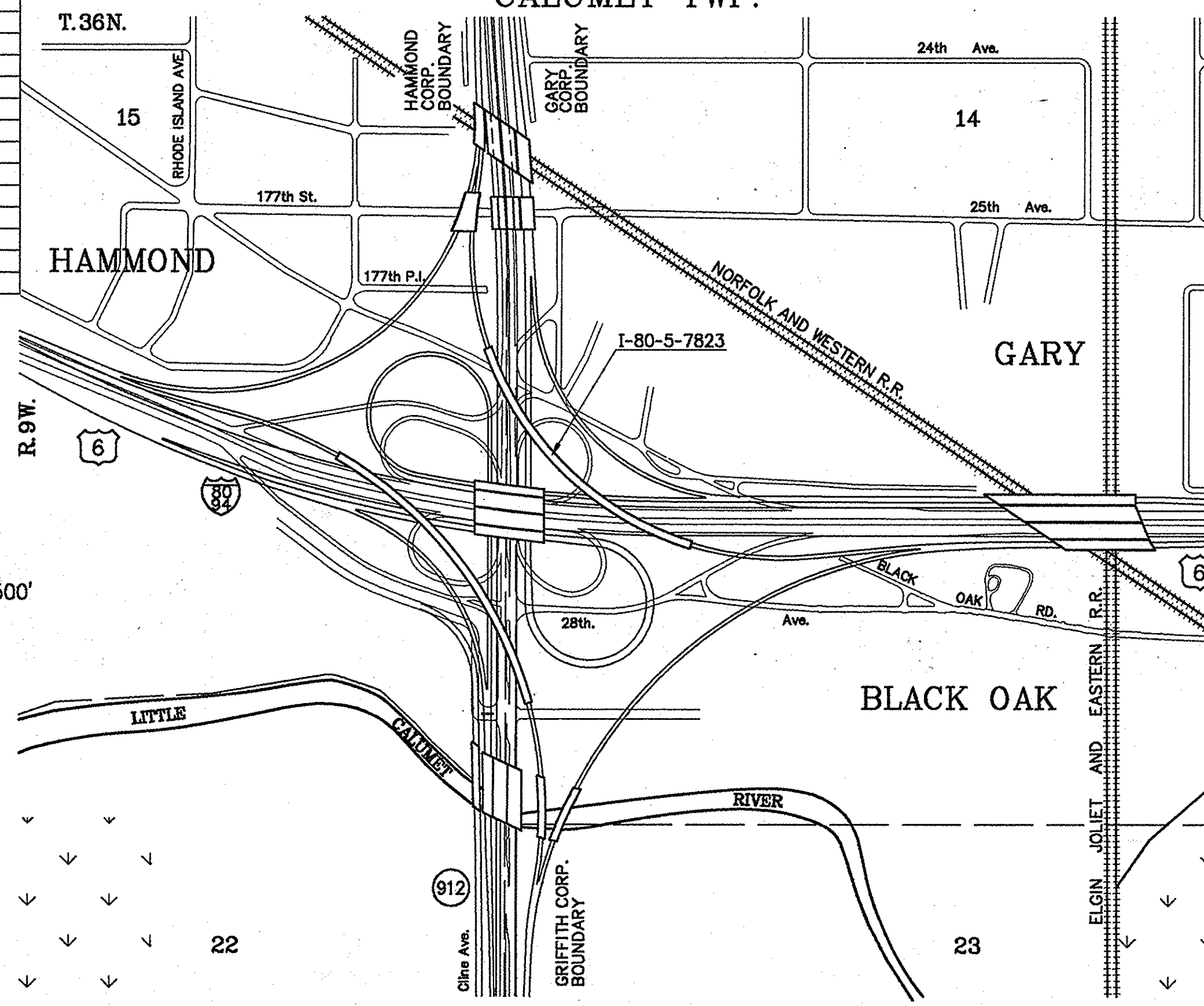
INDIANA
DEPARTMENT OF
TRANSPORTATION

BRIDGE PLANS
FOR SPANS OVER 20 FEET
ON
I-80/94 AND S.R.912
INTERCHANGE MODIFICATION

PROJECT NO. MM-220-1(029) P.E.
NH-080-1(026)4 R/W
IM-80-1(143)4 CONST.

I-80/94, S.R. 912 @ R.P. 10 + 41

CALUMET TWP.



SHEET NO.	SHEET DESIGNATION	SUBJECT	APPROVAL	
			F. H. W. A.	ADOPTED "A"
	BRIDGE STD. BR1	CONCRETE BRIDGE RAILING TRANSITION TYPE TGB		
	BRIDGE STD. BR1A	CONCRETE BRIDGE RAILING TRANSITION TYPE TGB		
	BRIDGE STD. BR2	CONCRETE BRIDGE RAILING TRANSITION TYPE WGB		
	BRIDGE STD. BR2A	CONCRETE BRIDGE RAILING TRANSITION TYPE WGB		
71	BRIDGE STD. C1	MISCELLANEOUS DETAILS	9-01-97	R 9-01-97
	BRIDGE STD. C2	MISCELLANEOUS DETAILS		
72	BRIDGE STD. C3	MISCELLANEOUS DETAILS	1-26-95	R 1-03-95
	BRIDGE STD. C4	PRESTRESSED CONCRETE PILES		
	BRIDGE STD. C5	PRECAST DECK PANEL DETAILS		
73	BRIDGE STD. D	CASTING DETAILS, ROADWAY DRAINS	1-11-89	R 9-01-88
	BRIDGE STD. D1	ADJUSTING FRAME DETAILS FOR ROADWAY DRAINS		
	BRIDGE STD.			
	BRIDGE STD. PB	PRESTRESSED CONCRETE, TYPE I-BEAMS		
	BRIDGE STD. PB	PRESTRESSED CONCRETE, TYPE I-BEAMS		
	BRIDGE STD. PB6	PRESTRESSED BOX BEAMS		
	BRIDGE STD. PB	PRESTRESSED COMPOSITE BOX BEAMS, WIDE		
	BRIDGE STD. PB	PRESTRESSED COMPOSITE BOX BEAMS, WIDE		
	BRIDGE STD. PB10	TOLERANCES FOR FABRICATION OF PRESTRESSED BEAMS		
	BRIDGE STD. PB11	ELASTOMERIC BEARING PAD DETAILS		
	BRIDGE STD.			
	BRIDGE STD. R2B	BRIDGE LIGHTING DETAILS		
74	BRIDGE STD. S1	"D" BORROW PLACEMENT	1-22-87	R 12-01-86
	BRIDGE STD. SH	STEEL SHOE DETAILS		
75	BRIDGE STD. SS-1A	STRUCTURAL EXPANSION JOINTS CLASS SS, SHEET 1A	12-14-94	A 12-01-94
76	BRIDGE STD. SS-1B	STRUCTURAL EXPANSION JOINTS CLASS SS, SHEET 1B	12-14-94	A 12-01-94
77	BRIDGE STD. SS2	STRUCTURAL EXPANSION JOINTS CLASS SS, SHEET 2	6-20-91	A April, 1991
	BRIDGE STD. TA	STANDARD TEMPORARY BRIDGE		
	BRIDGE STD. TB	STANDARD TEMPORARY BRIDGE		
	BRIDGE STD.			
	BRIDGE STD.			
78	ROAD STD. SHEET CCP-1	STANDARD PAVEMENT JOINTS	1-31-96	R 9-01-95
79	ROAD STD. SHEET CCP-4	STANDARD PAVEMENT JOINTS	1-31-96	R 9-01-95
80	ROAD STD. SHEET RCBA-1	MISCELLANEOUS STANDARDS	1-31-96	R 10-02-95
81	ROAD STD. SHEET RCBA-2	MISCELLANEOUS STANDARDS	1-31-96	R 1-02-96
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MB2	MISCELLANEOUS STANDARDS	5-21-82	R 4-1-82
	ROAD STD. SHEET MB4	MISCELLANEOUS STANDARDS	6-14-74	R 1-2-74
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MC2	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET ME	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MH	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MH1	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MH2	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MH2A	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MN	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MN1	MISCELLANEOUS STANDARDS		
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	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
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81C	GUARDRAIL SHEET G-1	W-BEAM GUARDRAIL COMPONENTS	2-5-98	R 1-2-98
	GUARDRAIL SHEET G-2	THREE-BEAM GUARDRAIL COMPONENTS		
81D	GUARDRAIL SHEET G-3	W-BEAM GUARDRAIL ASSEMBLIES	5-1-98	R 5-1-98
	GUARDRAIL SHEET B-1	TYPICAL BRIDGE APPROACH GUARDRAIL		
	GUARDRAIL SHEET E-1	GUARDRAIL END TREATMENT TYPE I		
	GUARDRAIL SHEET E-2	GUARDRAIL END TREATMENT TYPE OS	5-1-98	R 5-1-98
	GUARDRAIL SHEET E-3	GUARDRAIL END TREATMENT TYPE MS	2-5-96	A 1-2-96
	GUARDRAIL SHEET E-4	CURVED W-BEAM GUARDRAIL SYSTEM	2-5-96	A 1-2-96
	GUARDRAIL SHEET T-1	GUARDRAIL TRANSITION TYPE TGB		
	GUARDRAIL SHEET T-1A	GUARDRAIL TRANSITION TYPE WGB		
	GUARDRAIL SHEET T-2	GUARDRAIL TRANSITION TYPE GP		
	GUARDRAIL SHEET T-3	GUARDRAIL TRANSITION TYPE VH		
	GUARDRAIL SHEET T-4	PIER CONNECTION DETAILS		
	GUARDRAIL SHEET P-1	PIER PROTECTION GUARDRAIL		
	ROAD STD. SHEET EBT-CB2	CONCRETE MEDIAN BARRIER - TEMPORARY CONCRETE BARRIER	1-2-98	R 1-2-98
	ROAD STD. SHEET CB24	TEMPORARY CONCRETE BARRIER	1-21-94	A Nov. 1993
	ROAD STD. SHEET 1 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 1A DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 1B DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 2 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 2A DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 3 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 3A DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 4 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 5 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 5A DETOURS	STANDARD DETOUR SIGNS		

INDEX					
PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION
IM-80-1(143)4	I-80-5-7823	CONTINUOUS COMPOSITE WELDED PLATE GIRDER BRIDGE	187'-7 1/8, 120'-6 1/8, 129'-0 3/4, 2 @ 120'-1 1/8, 129'-10 3/8, 151'-10, 235'-6	S.R.912 AND I-80/94	616+64.0 "SE"

SHEET NO.	SHEET DESIGNATION	SUBJECT	F. H. W. A. APPROVAL
1	One Sheet	Index And Title Sheet	
2	Road Plan Sheet No.5	Typical Sections I-80	
3	Road Plan Sheet No.8	Typical Sections S.R. 912	
4	Road Plan Sheet No.9	Typical Sections Ramps	
5-6	Road Plan Sheets No.11 & 12	Road Plan And Profile I-80	
7-8	Road Plan Sheets No.14 & 15	Road Plan And Profile S.R. 912	
9	One Sheet	R.C. Bridge Approach Details	
10	One Sheet	Notes and Details	
11-15B	Five Sheets - Seven Sheets	Soil Borings	
16-17	S1, S2	Layout	
18-19	S3, S4	General Plan	
20	S5	Tie-Up Diagram	
21-23	S6-S8	Bent No.1 Details	
24-25	S9, S10	Pier No.2 Details	
26-27	S11, S12	Pier No.3 Details	
28-29	S13, S14	Pier No.4 Details	
30-31	S15, S16	Pier No.5 Details	
32-33	S17, S18	Pier No.6 Details	
34-35	S19, S20	Pier No.7 Details	
36-37	S21, S22	Pier No.8 Details	
38-40	S23-S25	Bent No.9 Details	
41	S26	Framing Plan - Unit "A"	
42-46	S27-S31A	Structural Steel Details - Unit "A"	
47	S32	Framing Plan - Unit "B"	
48-52	S33-S37A	Structural Steel Details - Unit "B"	
53	S38	Elastomeric Bearing Assembly Details	
54-60	S39-S45	Floor Details - Unit "A"	
61-67	S46-S52	Floor Details - Unit "B"	
68	S53	Modular Expansion Joint Details At Pier No.5	
69	S54	Bridge Drainage Details - Unit "B"	
70	On-Sheet One Sheet	Bridge Summary	

TRAFFIC DATA							
	RAMP "SE"		I-80/94		S.R.912		
A. D. T. (1987)	5,400	V.P.D.	124,700	V.P.D.	53,900	V.P.D.	
A. D. T. (2007 PROJECTED)	8,100	V.P.D.	187,050	V.P.D.	80,850	V.P.D.	
D. H. V. (2007 PROJECTED)	1,050	V.P.H.	14,310	V.P.H.	7,205	V.P.H.	
DIRECTIONAL DISTRIBUTION	100	%	55	%	66	%	
TRUCKS	D.H.V. 5%	A.D.T. 16%	D.H.V. 17%	A.D.T. 26%	D.H.V. 13%	A.D.T. 15%	
DESIGN SPEED	50 M.P.H.		60 M.P.H.		60 M.P.H.		
PROJECT DESIGN CRITERIA	NEW CONSTRUCTION (FREEWAY)		COMPLETE RECONSTR. (FREEWAY)		COMPLETE RECONSTR. (FREEWAY)		
FUNCTIONAL CLASSIFICATION	URBAN INTERSTATE		URBAN INTERSTATE		URBAN OTHER FREEWAY/EXP.		
RURAL/URBAN	URBAN		URBAN		URBAN		
TERRAIN	LEVEL		LEVEL		LEVEL		
ACCESS CONTROL	FULL		FULL		FULL		

REVISIONS			
DATE	SHEET NO.	DESCRIPTION	BY
July 9, 1998		Revised Sheets No.: 1, 9, 10, 11, 16-19, 23-37, 40, 42-70	
		Added Sheets No.: 15A, 15B, 46A, 52A	
		Added Road Standard Sheets: MB2, MB4, G-1, G-3, E-2, E-5, E-5A, CB2 and CB2A	
Sept. 1, 1998		Revised Sheets No.: 11, 18, 19, 23, 40, 41, 47, 49, 70	

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 1995
TO BE USED WITH THESE PLANS.
DES. NO. 920260A

PLANS PREPARED BY:
AMERICAN CONSULTING ENGINEERS, INC.
4165 MILLERSVILLE ROAD
INDIANAPOLIS, INDIANA 46205-2998
TEL 317-547-5580
FAX 317-543-0270

CERTIFIED BY: *Michael H. Warriner*
DATE: *June 1, 1998*

APPROVED FOR LETTING *6/2/98*
Phyllis K. Kline
CHIEF, DIVISION OF DESIGN

FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

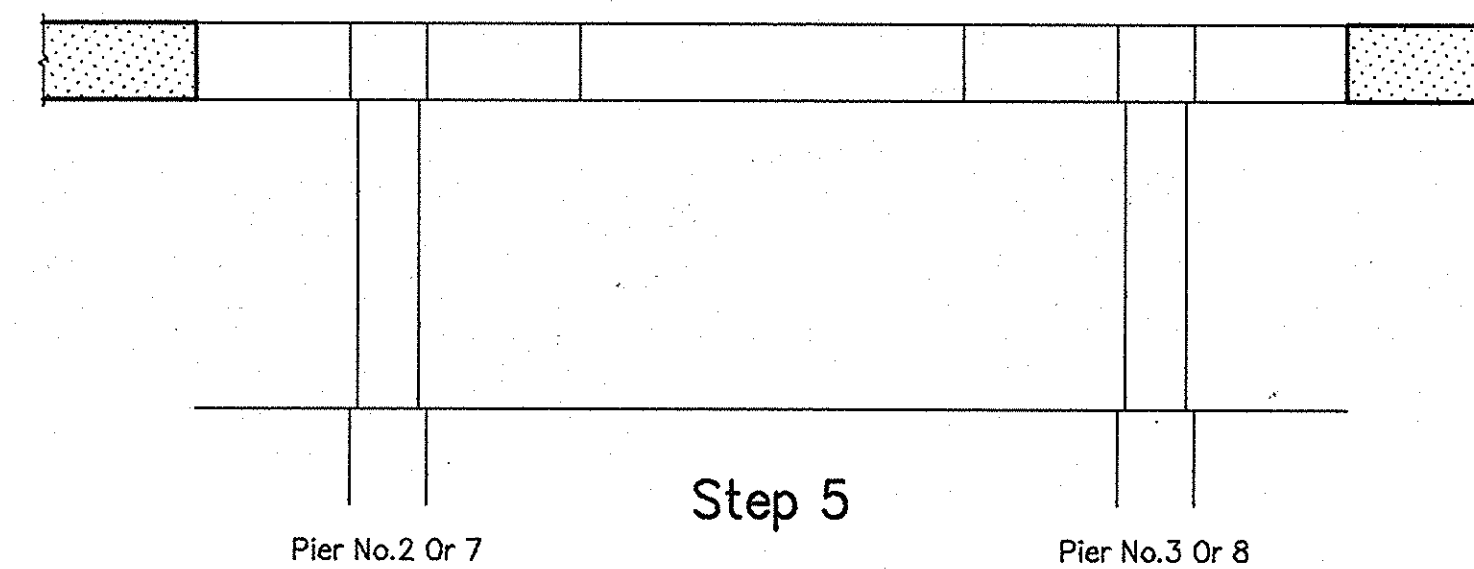
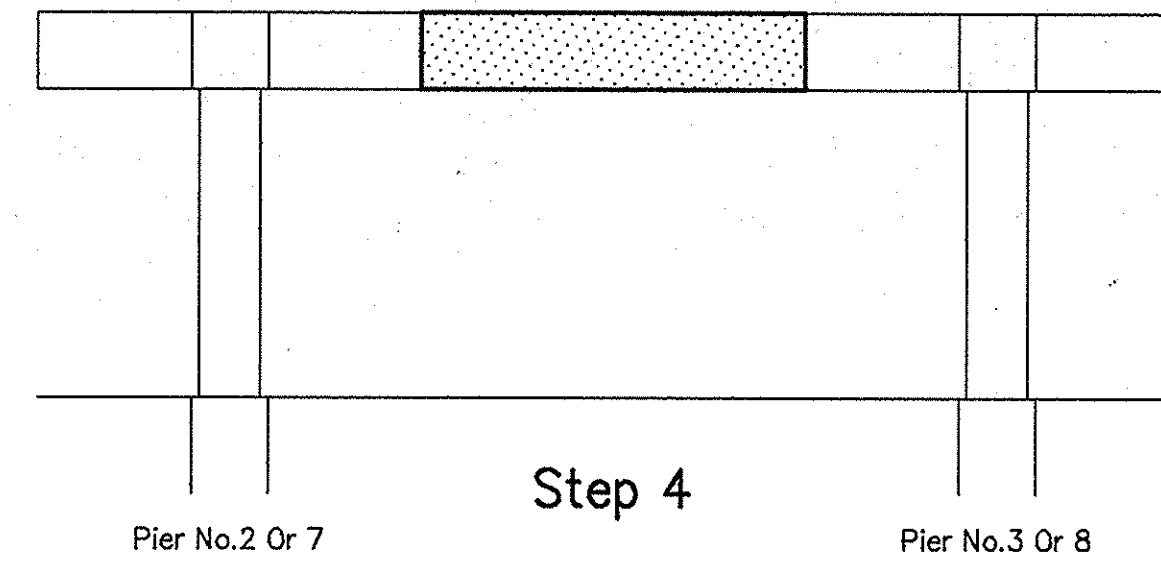
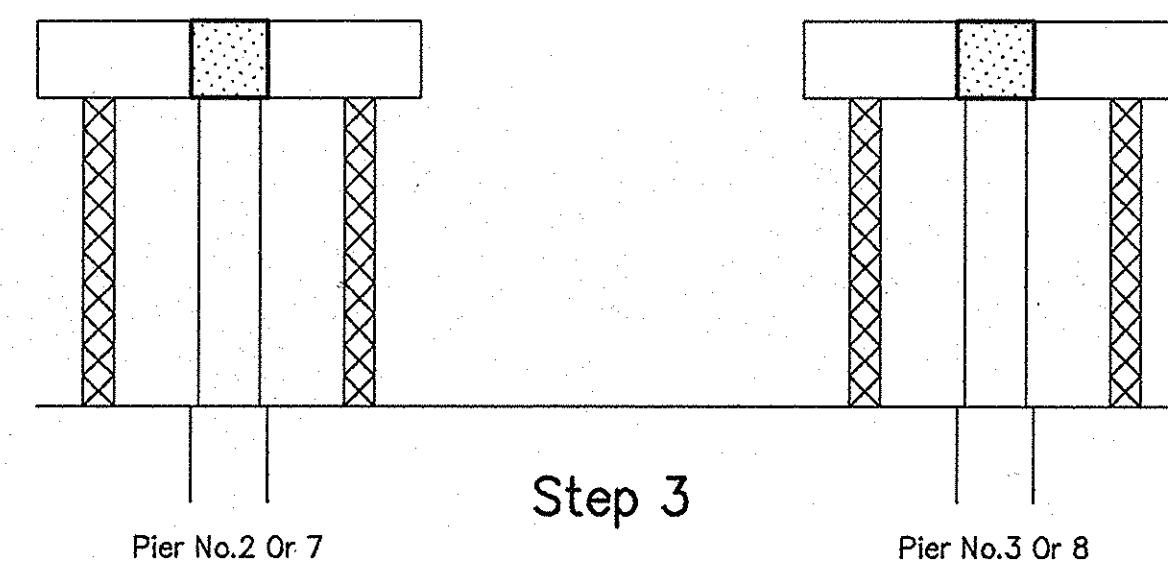
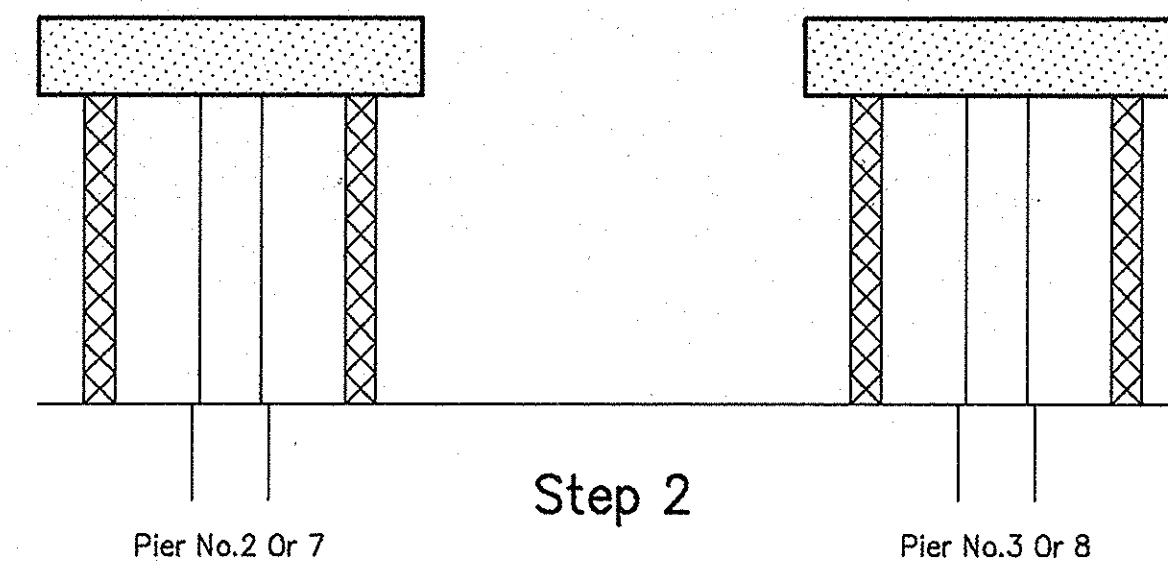
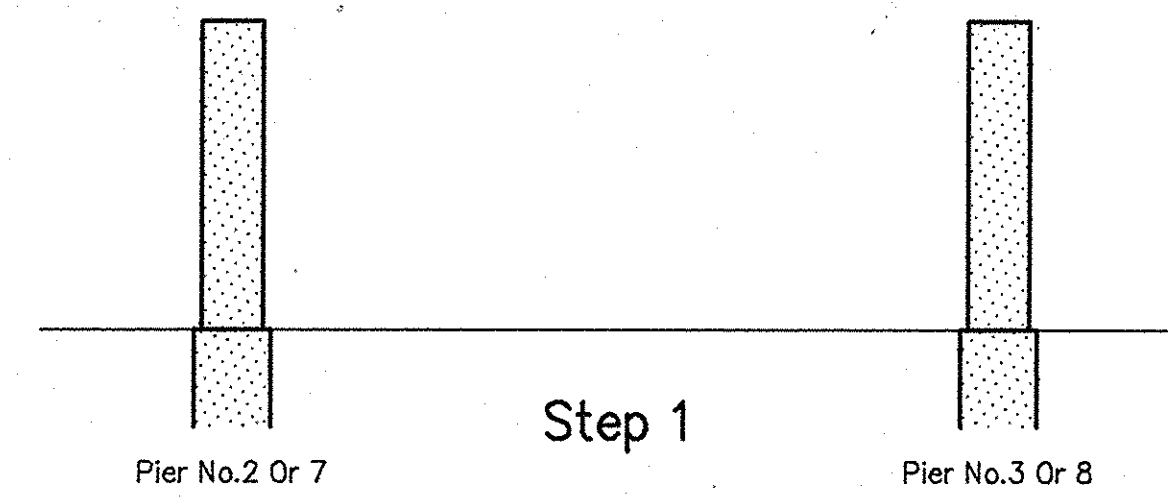
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DIVISION ADMINISTRATOR DATE

BRIDGE FILE: - I-80-5-7823

R-23808 part 6 of 9

CONSTRUCTION PROCEDURE

- 1 Construct foundations and pier stems.
- 2 Erect temporary supports and structural steel at integral (fixed) piers.
- 3 Pour integral cap and apply Phase I post-tensioning.
- 4 Erect structural steel section between integral piers and remove temporary supports.
- 5 Erect remainder of structural steel, pour deck and apply Phase II post-tensioning.
- 6 Concrete deck shall be poured beginning at Pier 5.



UTILITY OWNERS

TELEPHONE: INDIANA BELL TELEPHONE
P.O. Box 6040 Ph.# 219-556-3560
Indianapolis, In 46207

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
8357 Indianapolis Blvd. Ph.# 219-838-1118
Highland, In 46322

GAS AND ELECTRIC: NORTHERN INDIANA PUBLIC SERVICE COMPANY
5265 Hohman Ave. Ph.# 219-853-5200
Hammond, In 46320

WATER: HAMMOND DEPARTMENT OF PUBLIC WORKS
Hammond, In
PEOPLES WATER COMPANY
2129 Cline Avenue Ph.# 219-844-2706
Gary, In 46406

NATURAL GAS AND PRODUCTS PIPELINES: WOLVERINE PIPELINE COMPANY
1595 W. Center St. Ph.# 219-844-2398
Kalamazoo, MI 49002

AMOCO PIPELINE COMPANY
1500 W. Main Ph.# 219-924-7425
Griffith, In

MARATHON PIPELINE COMPANY
1900 W. Avenue H Ph.# 219-924-8577
Griffith, In

DESIGN DATA

LIVE LOAD: HS20-44 loading with impact in accordance with 1992 AASHTO Specifications and Interim Specifications. Distribution computed using Influence Surface Method. Checked for Special Loading of 2-24,000 Lbs axles spaced at 4'-0" centers and Special Toll Road Loading shown on this drawing.

DEAD LOADS: Actual weight plus 35 psf (Composite) to provide for future wearing surface. 15 psf (Non-Composite) for permanent metal deck forms.

FLOOR SLAB: Designed for 16,000 Lbs. wheel load plus impact with a structural depth of 6 1/2".

UNIT STRESSES: Reinforcing Steel, $F_y = 60,000$ psi
Concrete Class B, $f'_c = 3,000$ psi
Concrete Class A, $f'_c = 3,500$ psi
Concrete Class C, $f'_c = 4,000$ psi
Concrete Class C, Special $f'_c = 5,500$ psi

ALLOWABLE STRESSES: In accordance with 1992 AASHTO Specifications and Interim Specifications using Load Factor Design Method and 1986 AASHTO Guide Specifications For Horizontally Curved Highway Bridges.

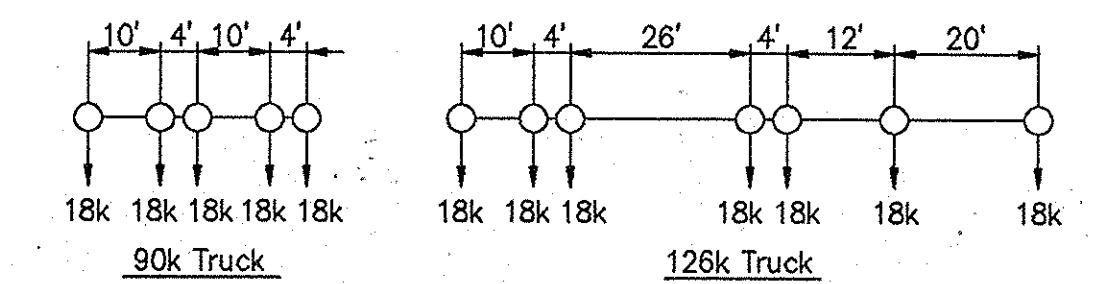
STANDARD DRAWINGS		
BRIDGE	ROAD	PURPOSE
C1		Reinforcing Bar Notes, Pile Shell
C3		Type IA Jt., Constr. Jt. Type A, Optional Railing Splice
D		Roadway Drain Type SQ-A
S-1		"B" Borrow For Str. Backfill
SS-1A		Expansion Joint Class - SS
SS-1B		Expansion Joint Class - SS
SS-2		Expansion Joint Class - SS
RCBA-1		R.C. Br. Appr. Terminal Joint Details
RCBA-2		R.C. Br. Appr. Terminal Joint Details
CCPJ-1		Sawed Longitudinal Joint
CCPJ-4		Sawed Contraction Joint Seal
MB2		Concrete Slopewall
MB4		Slopewall Drainage
G-1		W-Beam Guardrail
G-3		W-Beam Guardrail
E-2		Guardrail End Treatment Type OS
E-5		Grading At Guardrail End Treatments
E-5A		Grading At Guardrail End Treatments
CB2		Temporary Concrete Barrier
CB2A		Temporary Concrete Barrier

GENERAL NOTES

Reinforcing steel covering shall be 2 1/2" in the top and 1" min. in the bottom of the floor slabs, 3" in the footings except the bottom steel which shall be 4", 2" in tie beams columns, and 2" in all other parts, unless noted.

Only the top and vertical faces of pier caps, top of end bent caps, top and front face of mudwalls, top and exposed vertical faces of wing, and superstructure as shown in detail plans is to be sealed in accordance with Article 702.20 of the Specifications.

All structure railings to be masonry coated.



SPECIAL TOLL ROAD LOADING
No Scale

NOTES AND DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - NONE

DATE: - July 9, 1998

SUBMITTED FOR APPROVAL

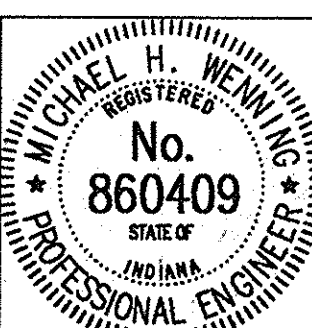
Michael H. Wynn

DRAWING: - OF SHEET: - 10 OF 81

PROJECT: - IM-80-1(143)4

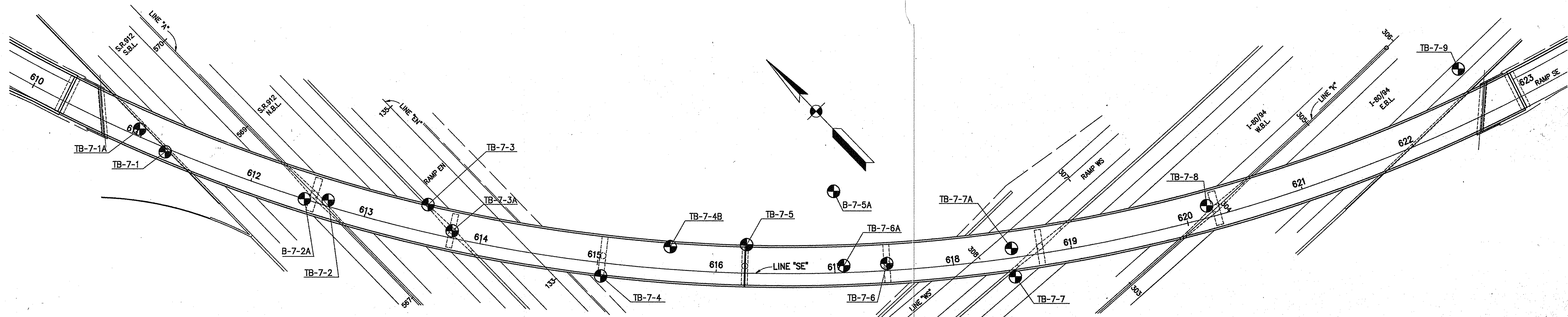
CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7823

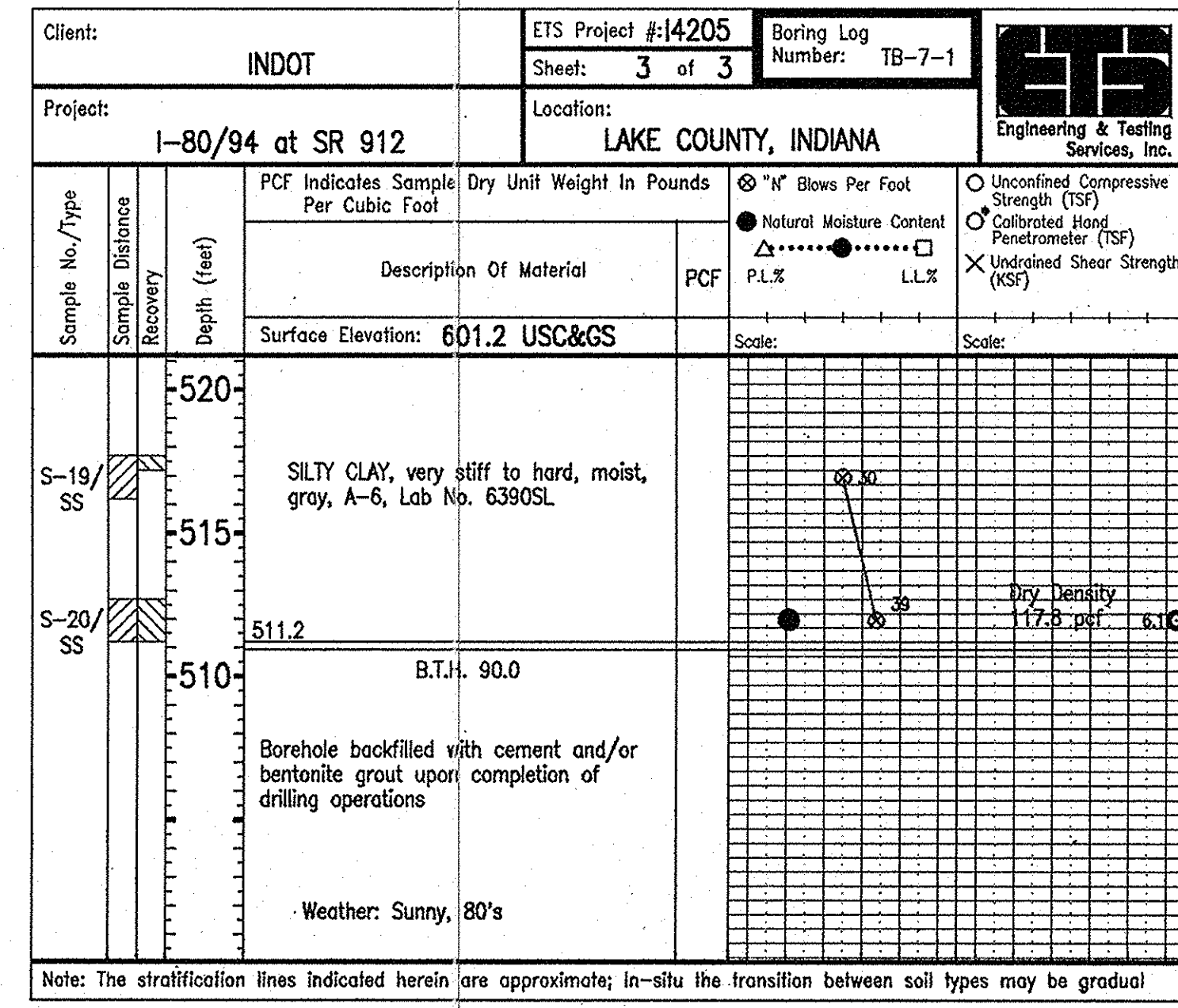
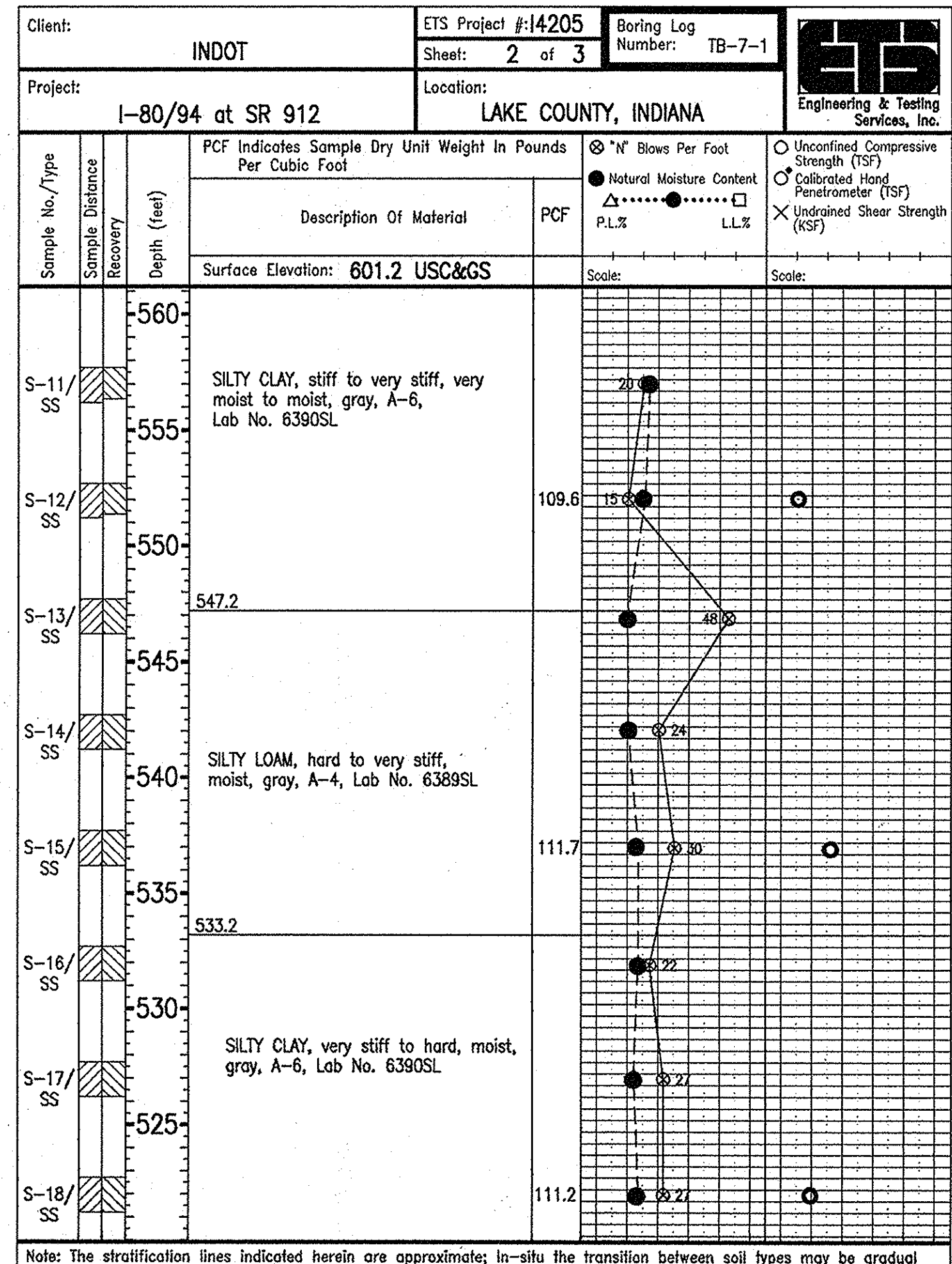
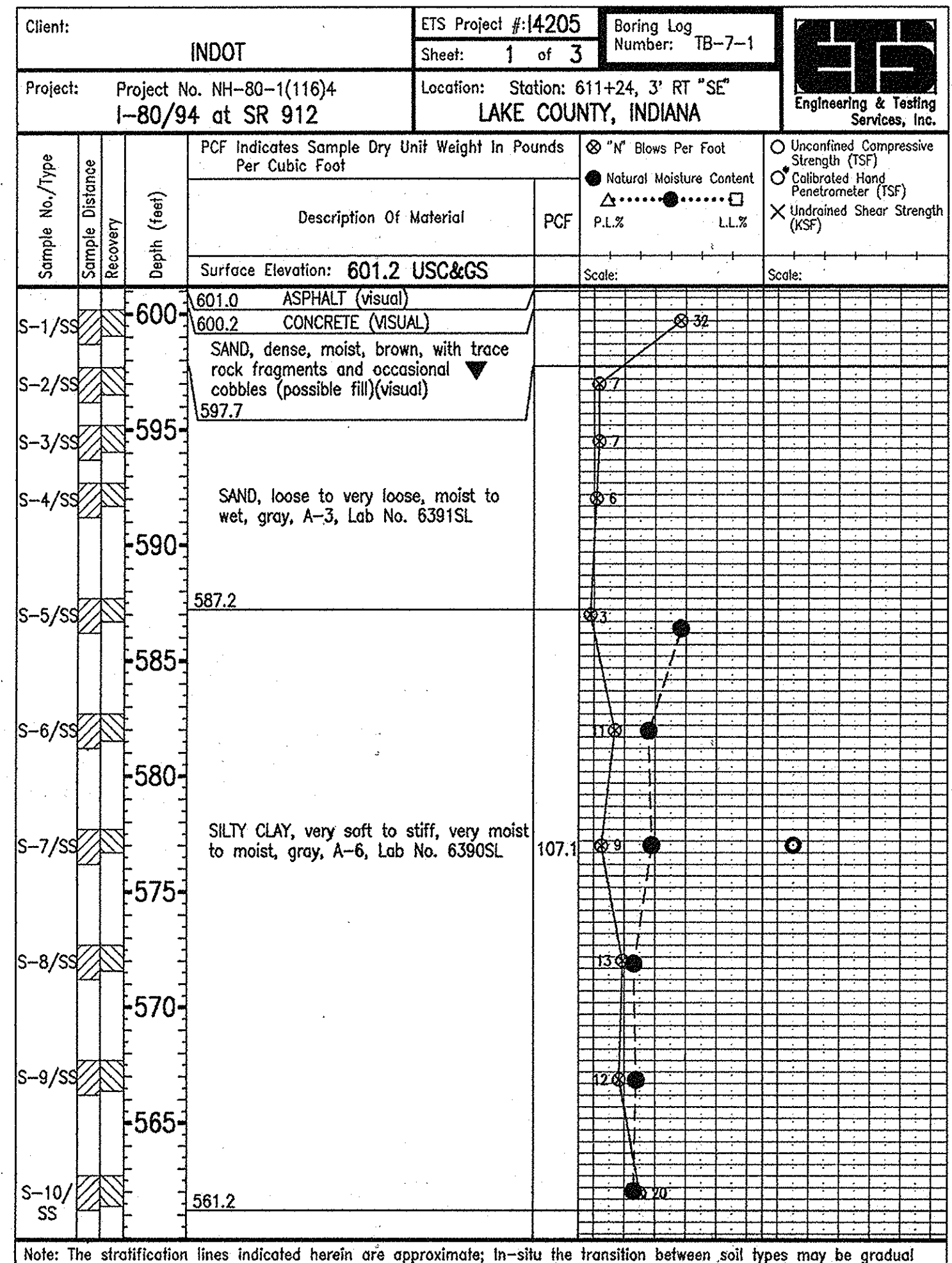


DESIGNED: CK'D
DRAWN: RUC 6/17/93 CK'D MHW 6/18/93
TRACED: CK'D

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EDIT DATE: 07/09/98
EDITED BY: TLH - 5131



PLAN
Scale: 1" = 40'



BENT	NO. 1	NO. 9
ALLOWABLE DESIGN LOAD	90 Tons	90 Tons
FACTOR OF SAFETY	2.5	2.5
FACTORED DESIGN LOAD	225 + 0 Tons	225 + 0 Tons
SCOUR ZONE FRICTION	0 Tons	0 Tons
DOWN DRAG FRICTION	27 + 0 Tons	27 + 0 Tons
ULTIMATE LOAD (BEARING)	252 + 0 Tons	225 + 0 Tons
TESTING METHOD	By Formula, Standard Specifications 701.06	

- NOTES:
- ▼ Indicates Ground Water Level
 - N Indicates the number of blows required to drive a 1 3/8" I.D., 2" O.D. Split Spoon sampler 12" by means of a 140 lb. weight falling 30".

SOIL BORINGS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - Horiz. 1" = 40'
Vert. 1" = 5'

DATE: - July 9, 1998

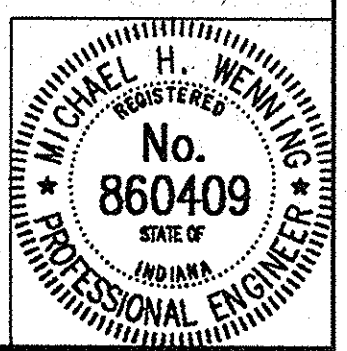
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PROJECT: - IM-80-1(143)4

CONTRACT NO. R-23808

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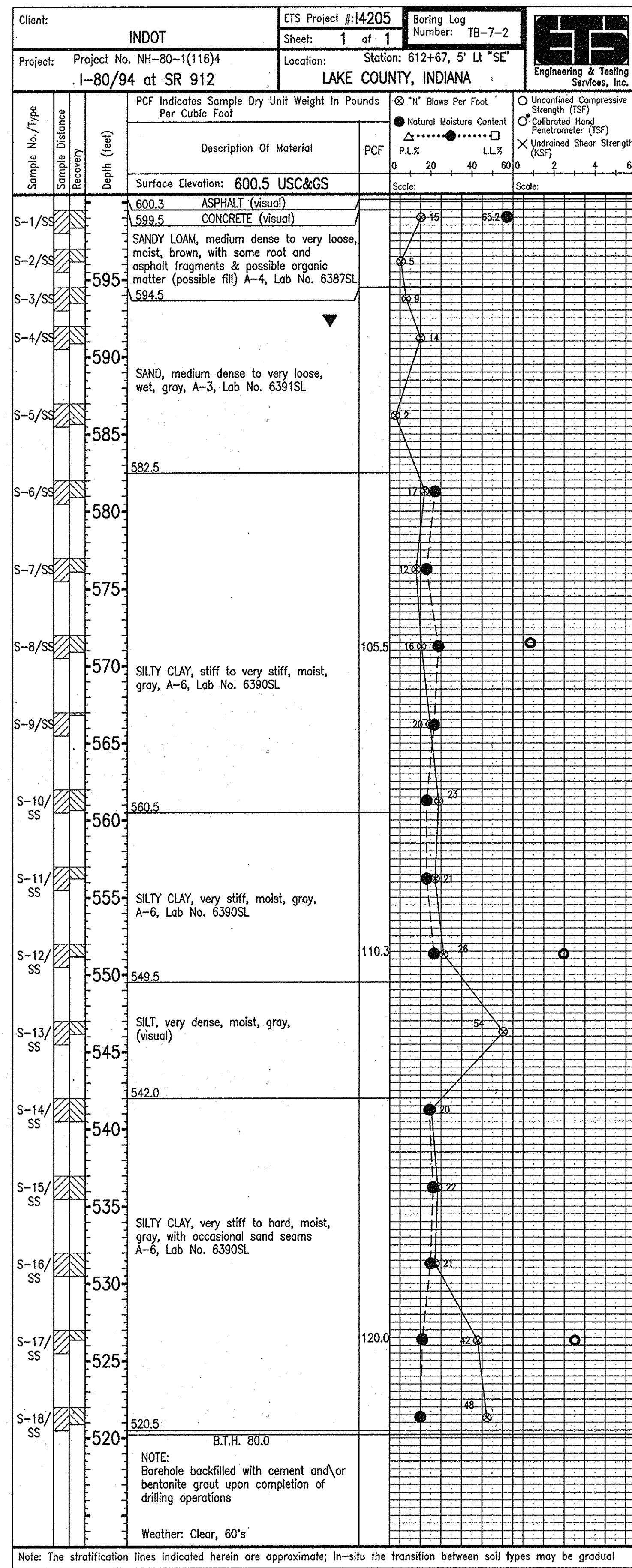
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DRAWN: JDC 12/10/92
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CHK'D: MHW 6/8/93

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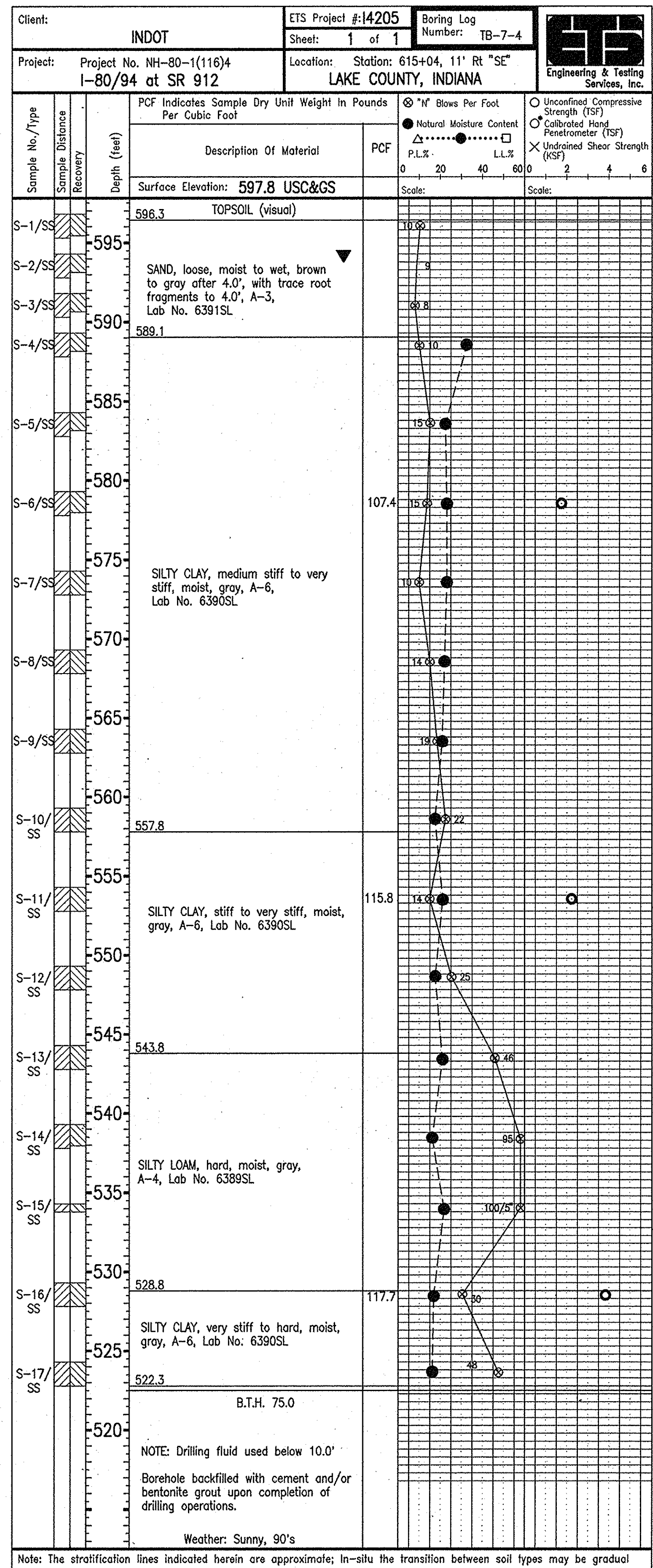
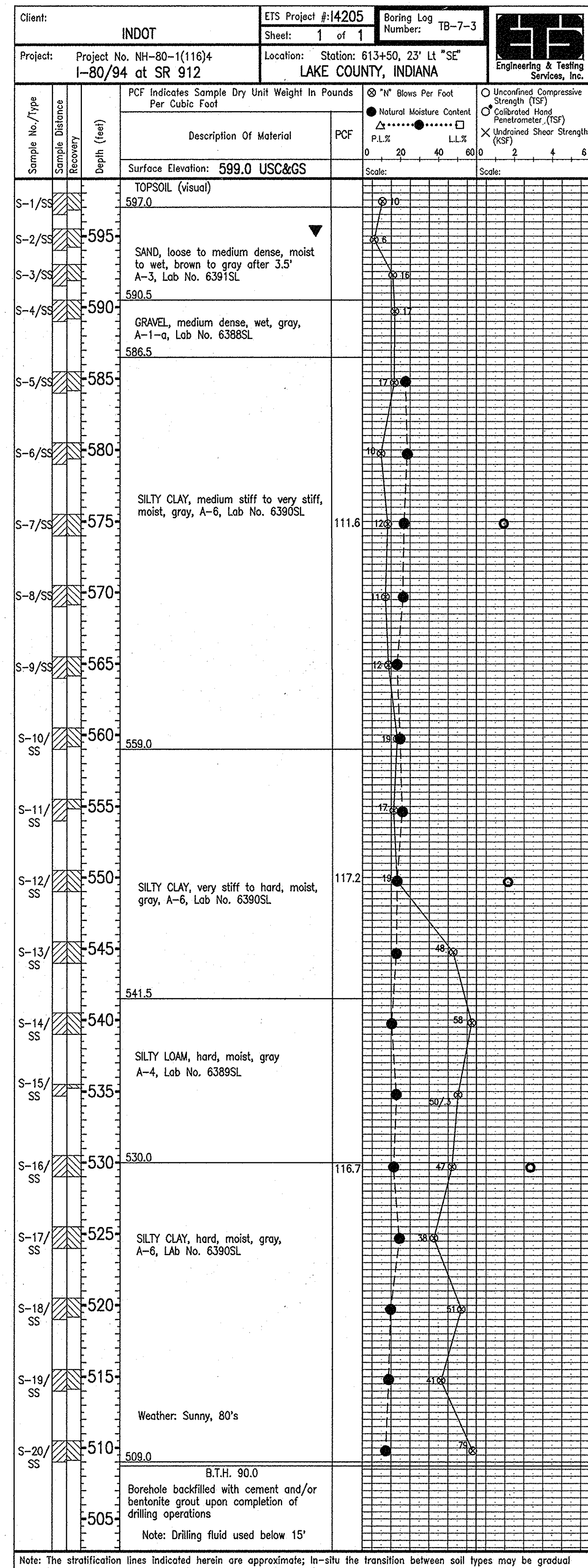
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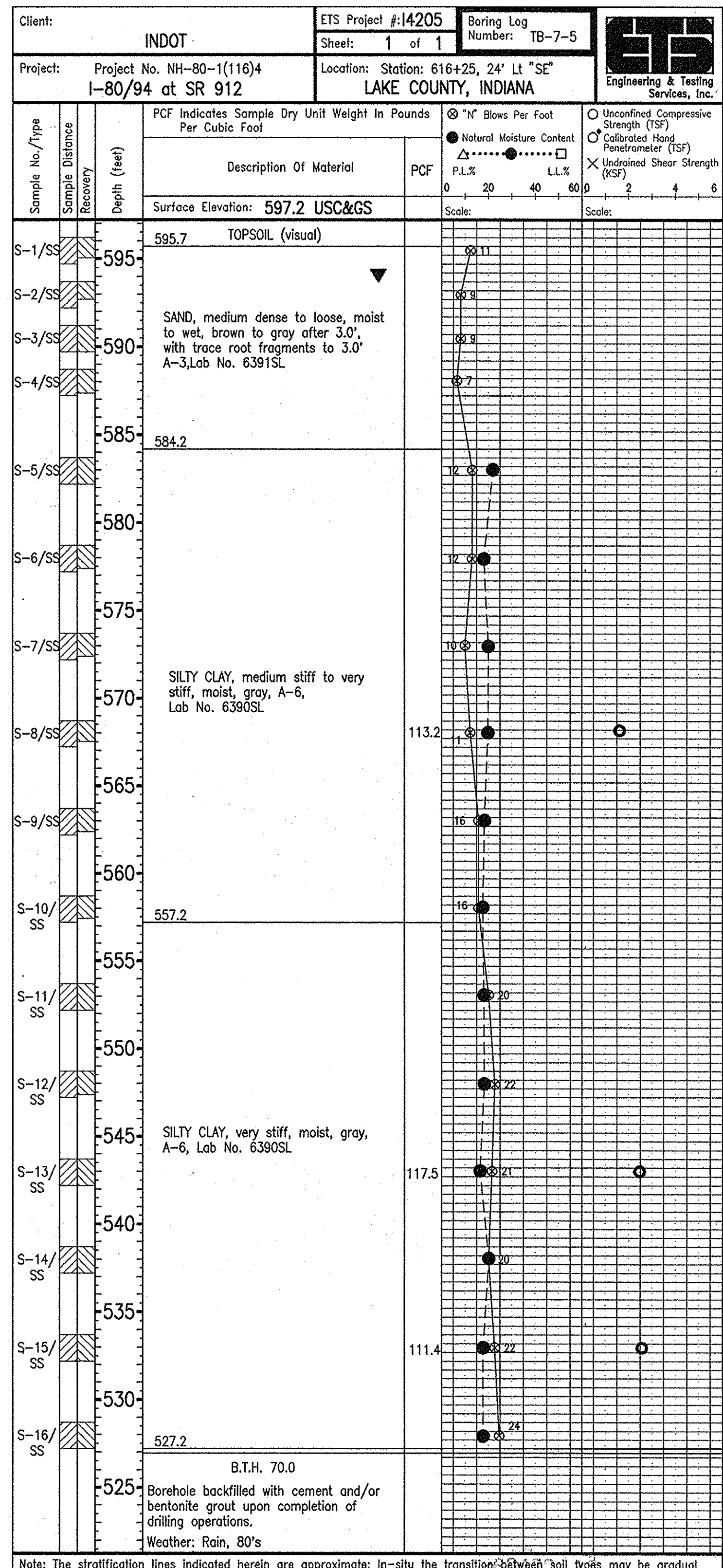
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SPELLOK:
EDIT DATE: 06/01/98
EDIT BY: RUC - 5128



NOTES:
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SOIL BORINGS INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - Horiz. 1"=40'
Vert. 1"=5'

DATE: - June 1, 1998

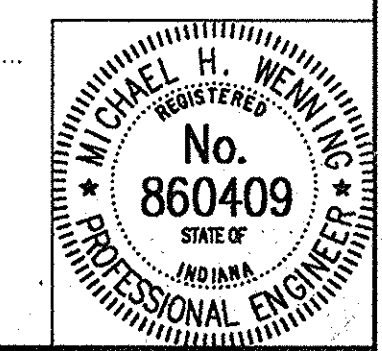
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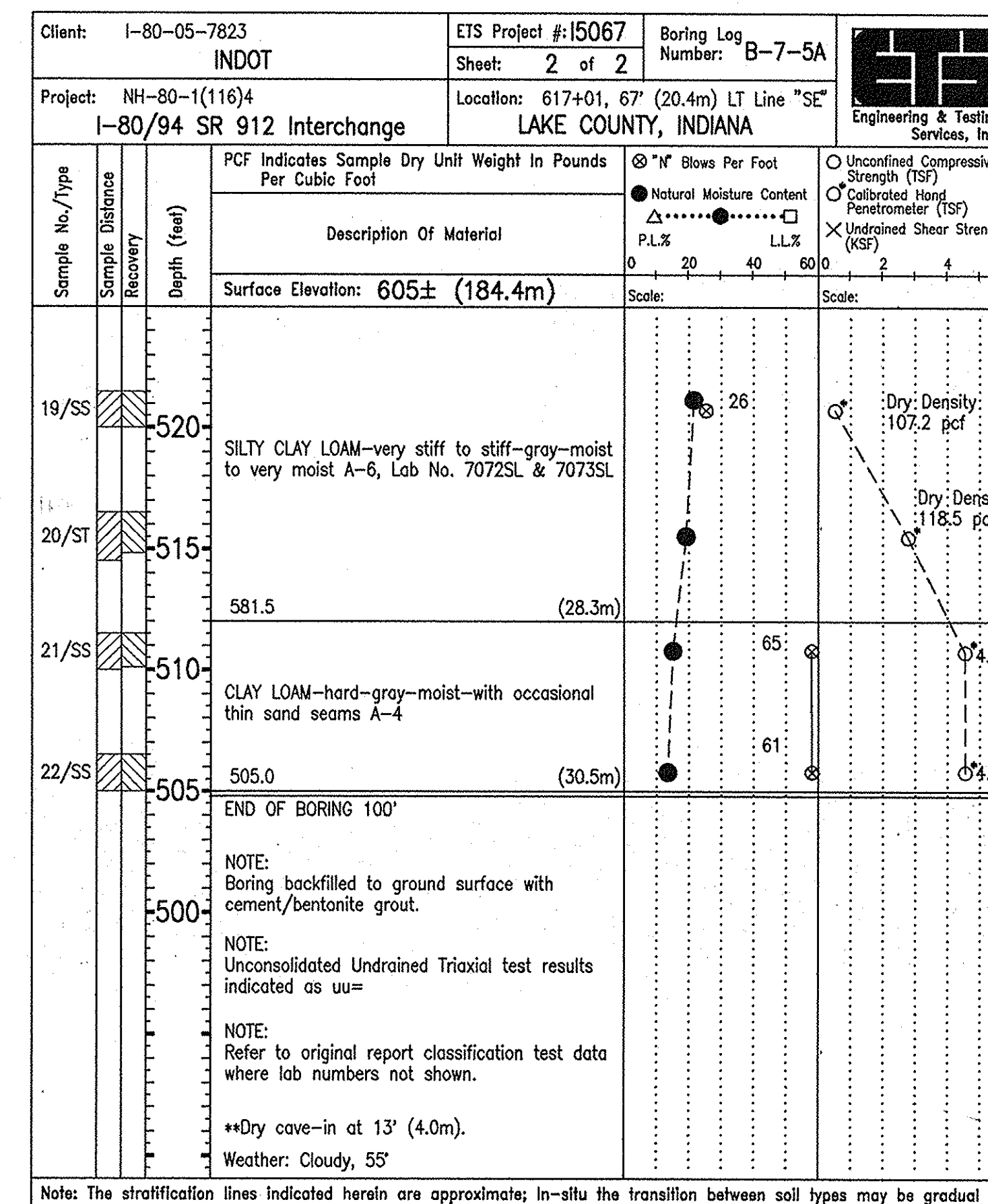
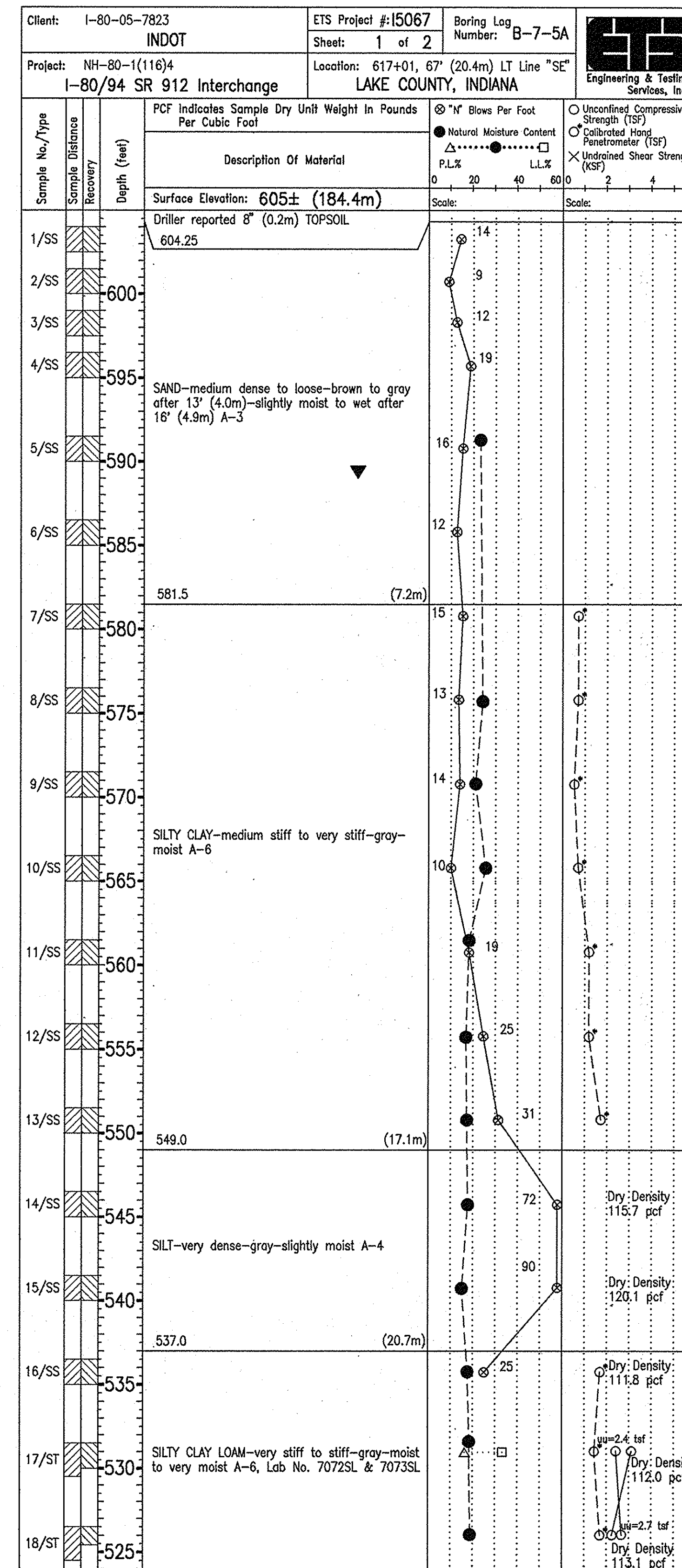
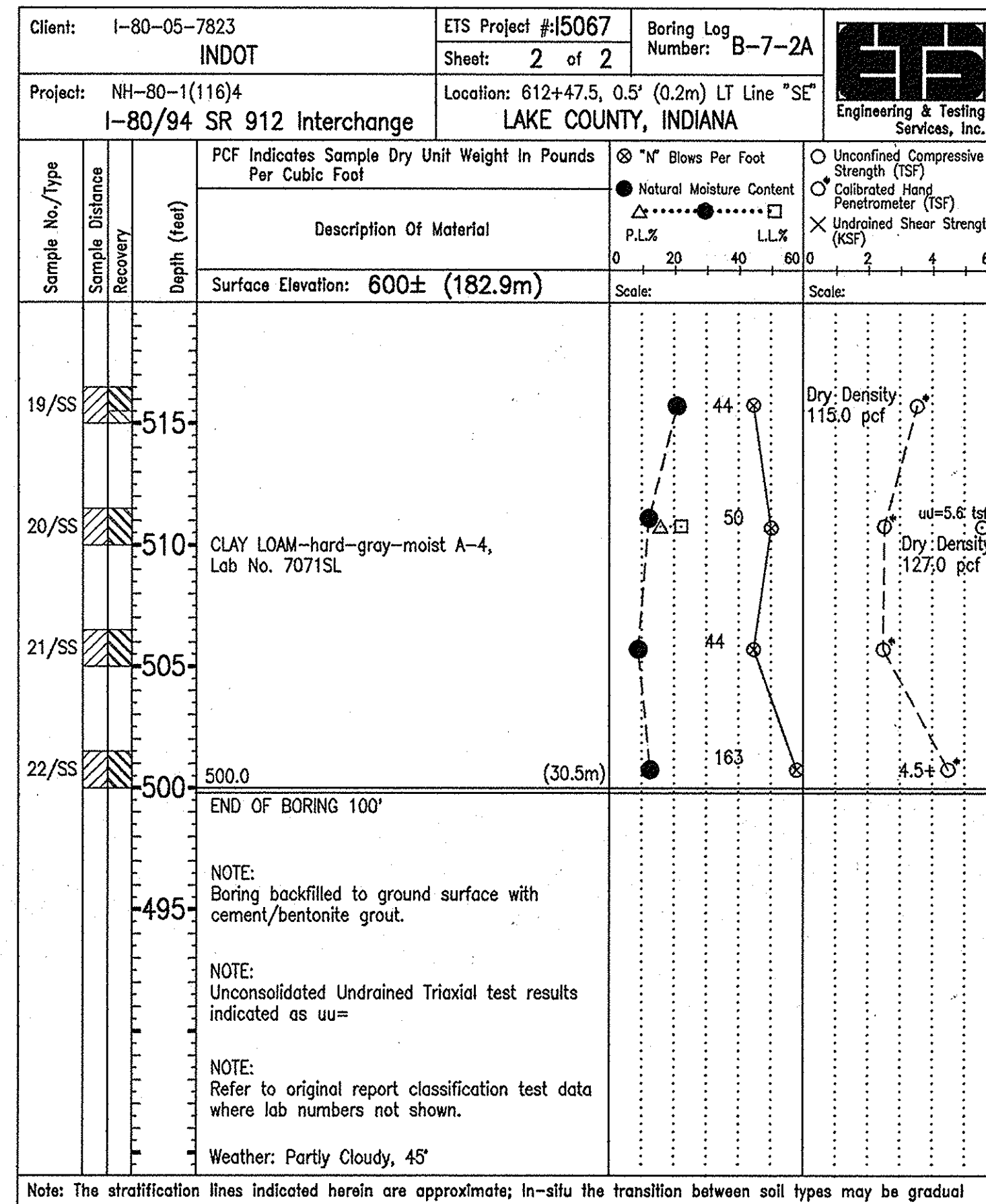
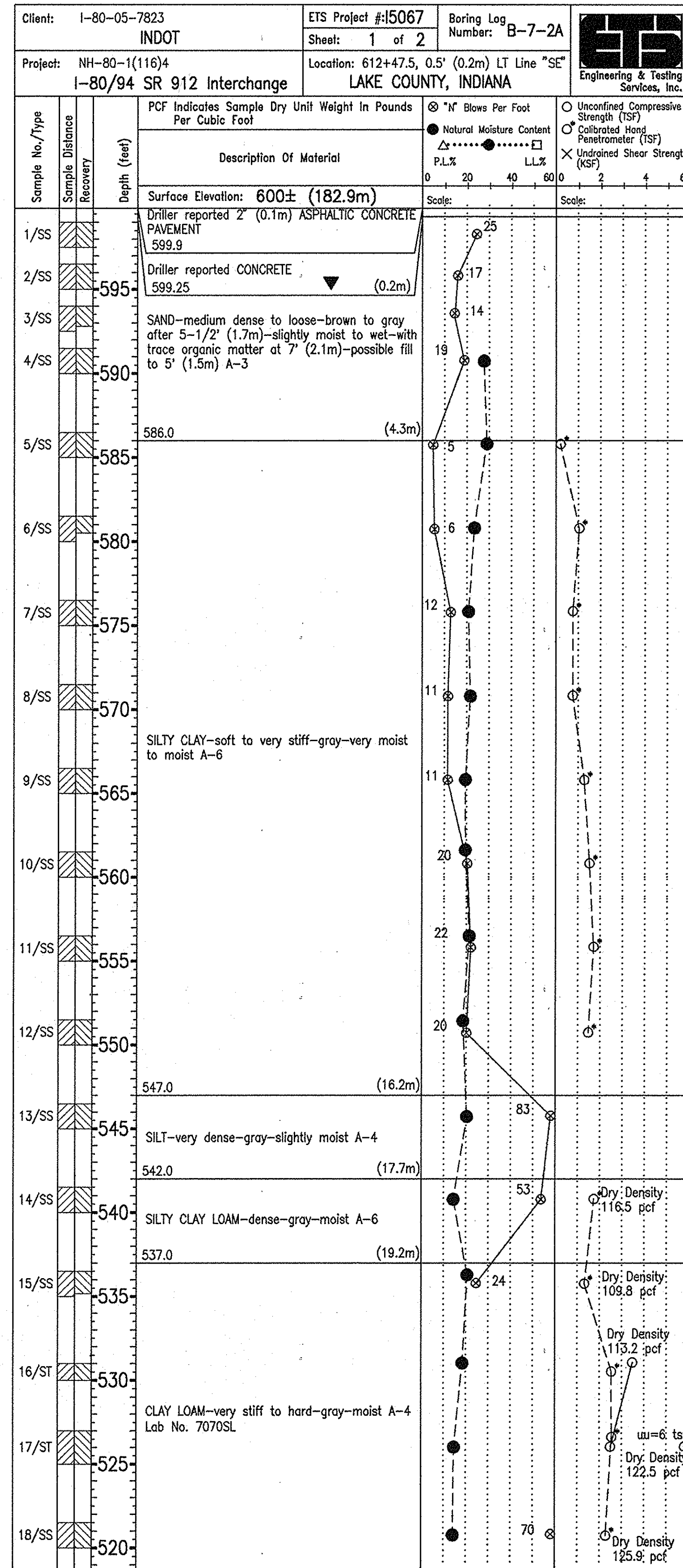
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PROJECT: - IM-80-1(143)4

CONTRACT NO. R-23808

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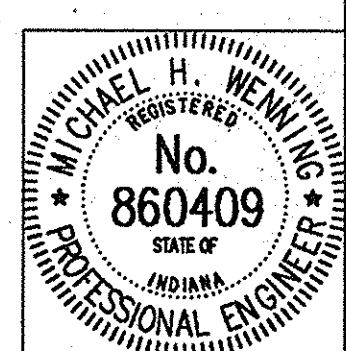




NOTES:
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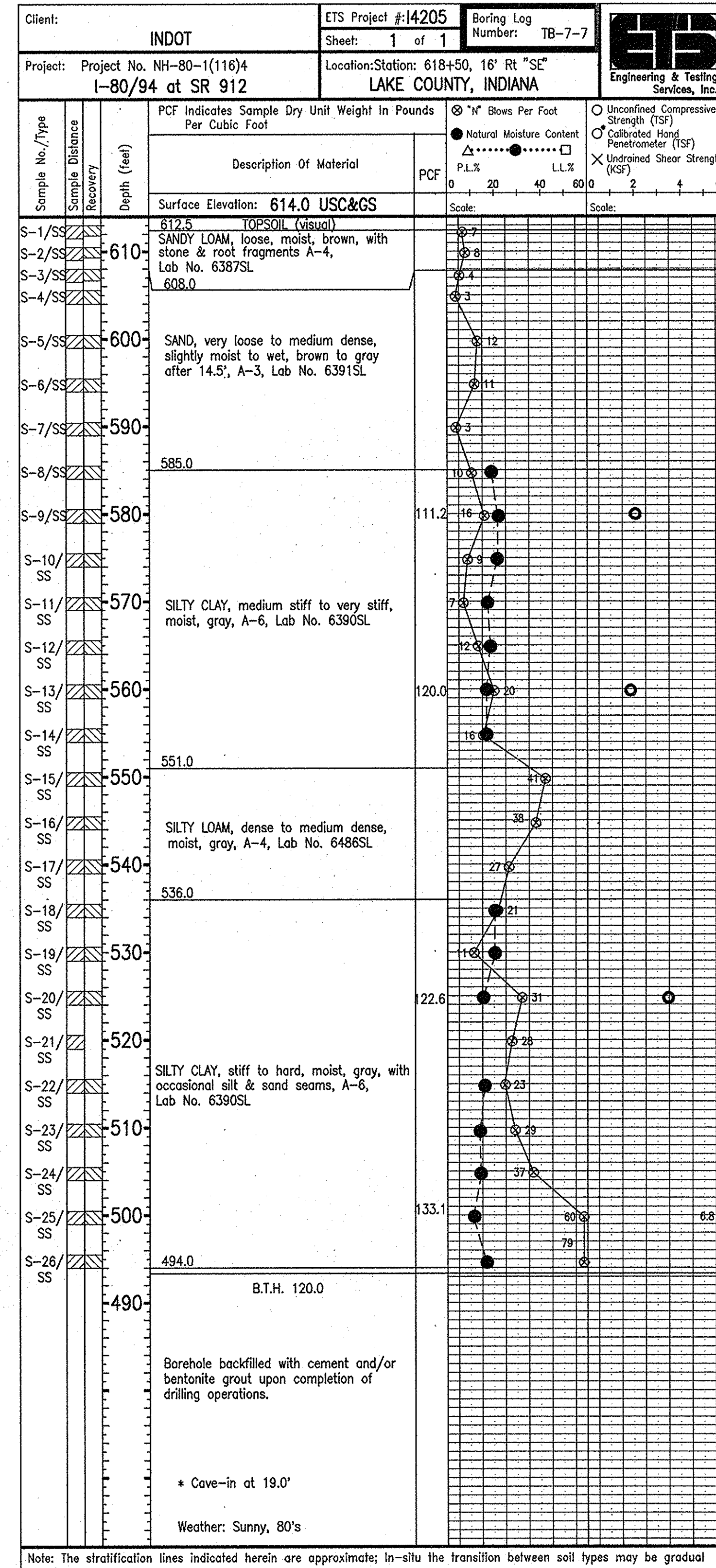
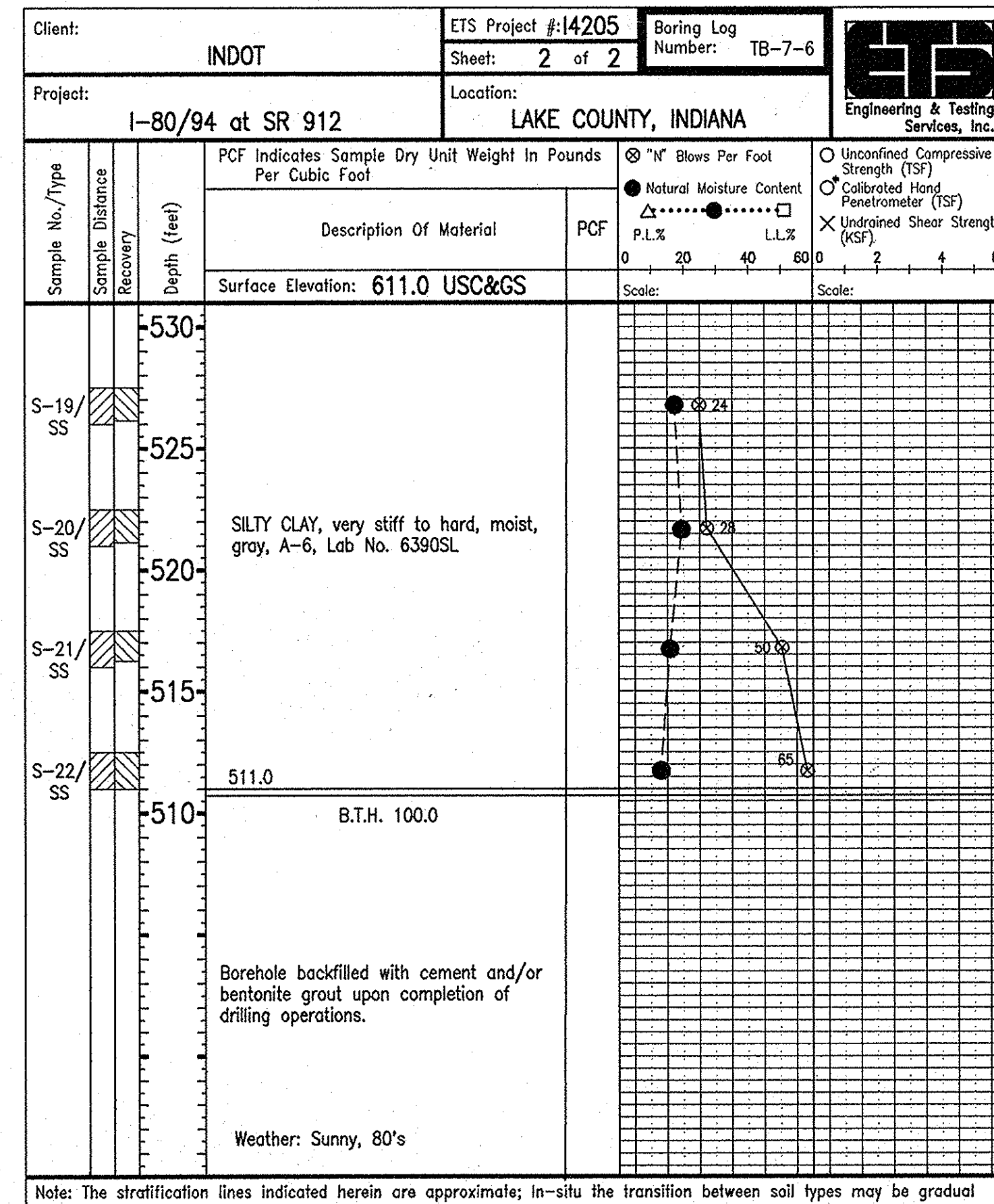
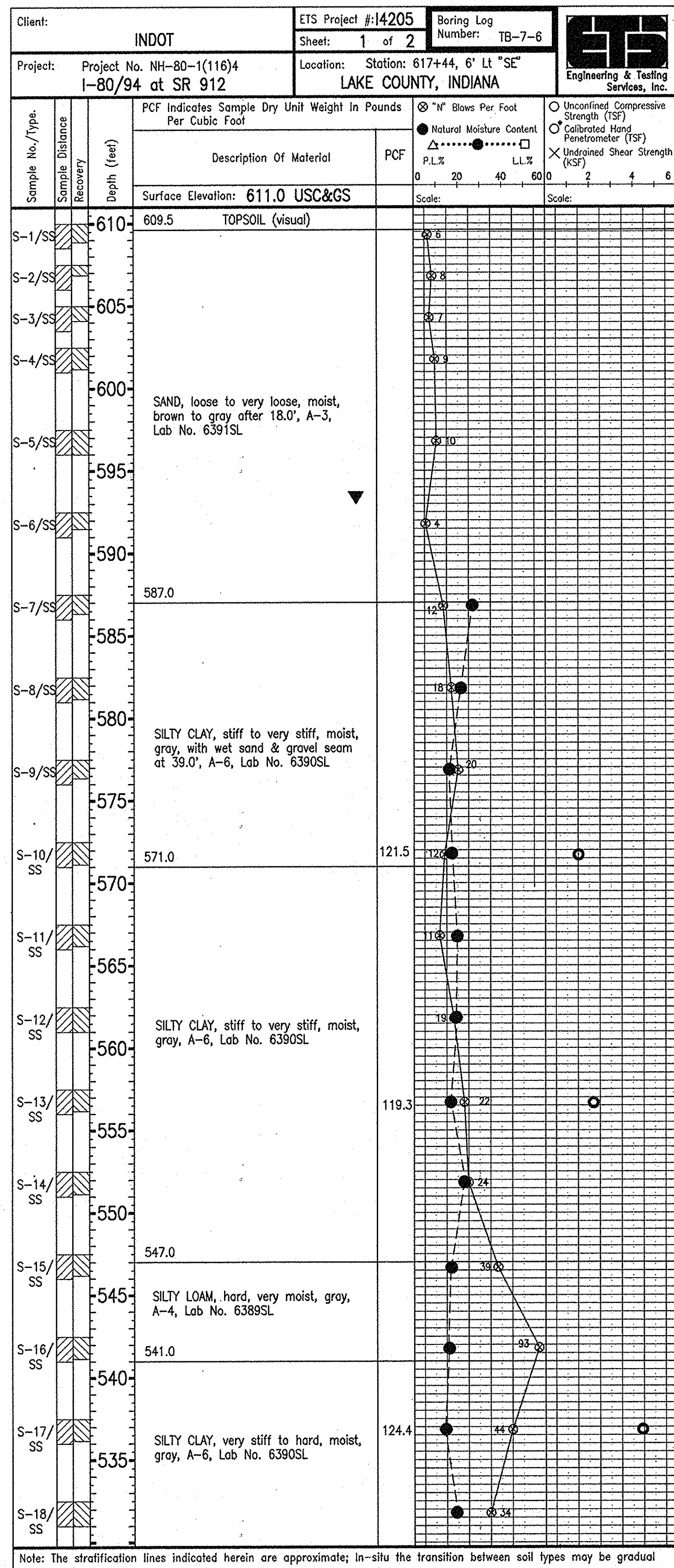
SOIL BORINGS INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - Horiz. 1"=40'
 Vert. 1"=5'
 DATE: - June 1, 1998
 SUBMITTED FOR APPROVAL: *Michael H. Wynn*
 DRAWING: - OF SHEET: - 13 OF 81
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7823



DESIGNED: DDG 1/20/94 CKD
 DRAWN: DDG 1/20/94 CKD
 TRACED: DDG 1/20/94 CKD

DWG FILE: C:\321\321\1220813
 PLOT SCALE: 11.000
 PLOT ORIGIN: 0.00,0.00
 SPELLING: 06/01/98
 EDIT DATE: RJC - 5126



NOTES:

- ▼ Indicates Ground Water Level
- N Indicates the number of blows required to drive a 1 3/8" I.D., 2" O.D. Split Spoon sampler 12" by means of a 140 lb. weight falling 30".

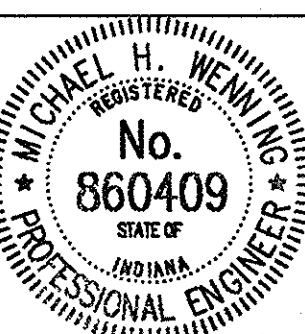
SOIL BORINGS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - Horiz. 1"=40'
Vert. 1"=5'

DATE: - June 1, 1998

SUBMITTED FOR APPROVAL *Michael H. Wynn*

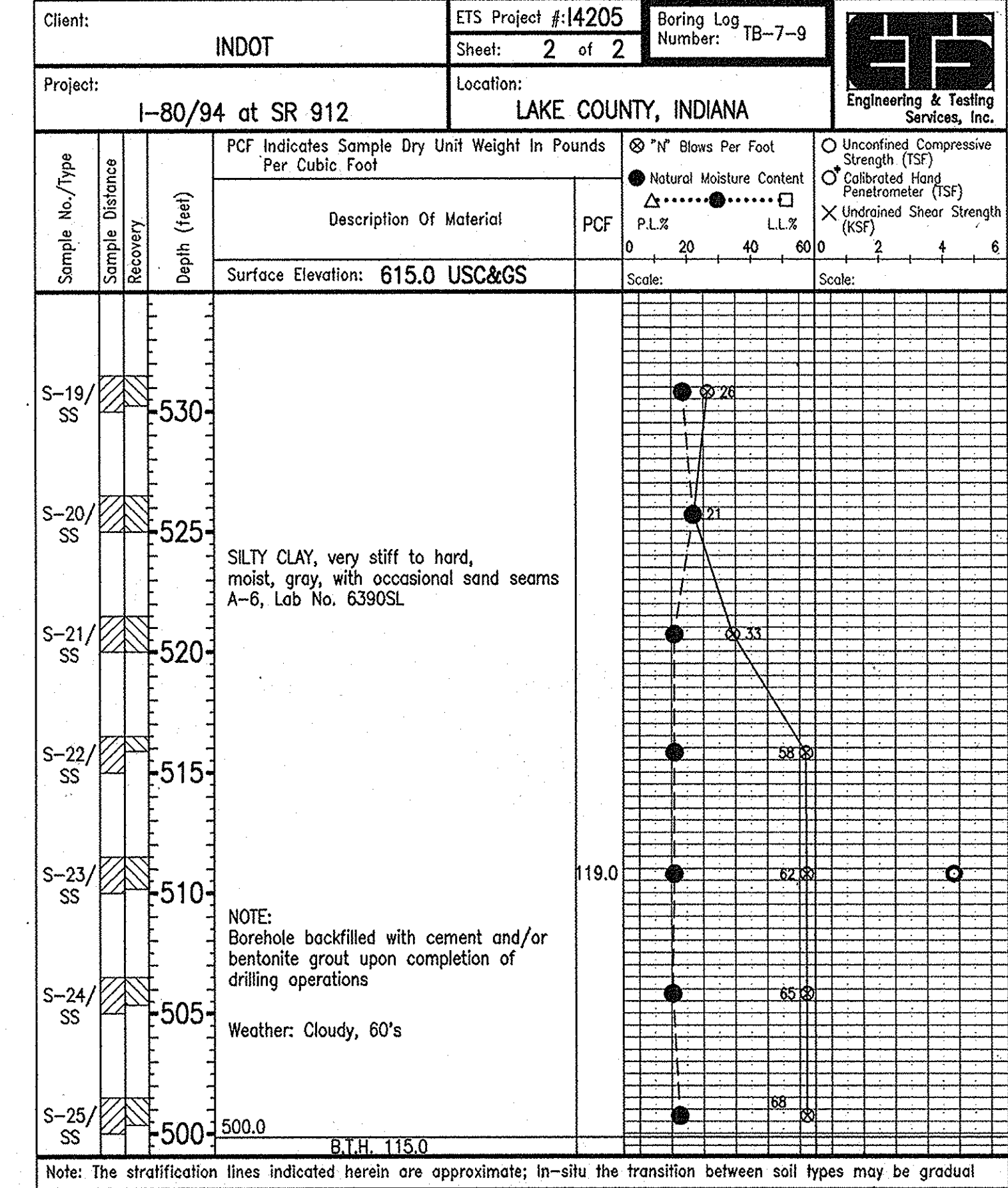
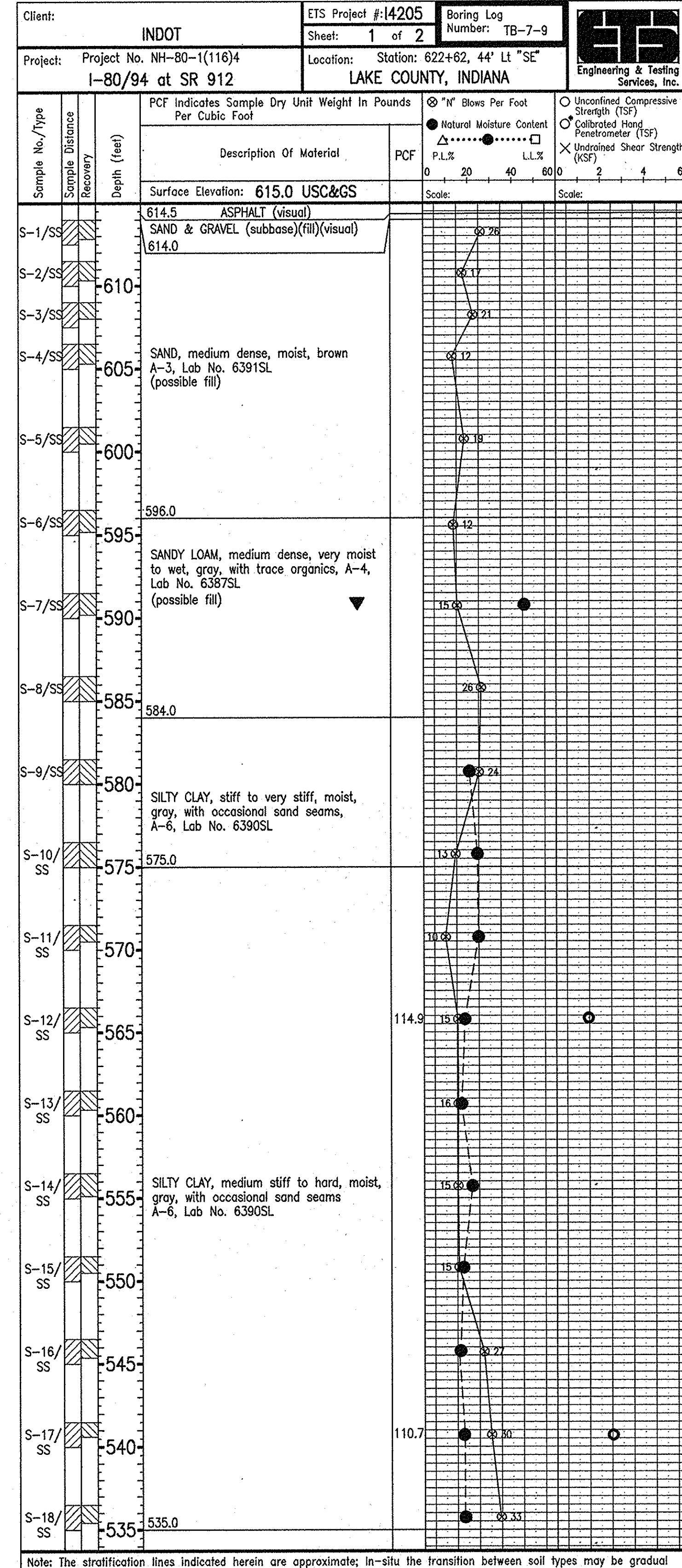
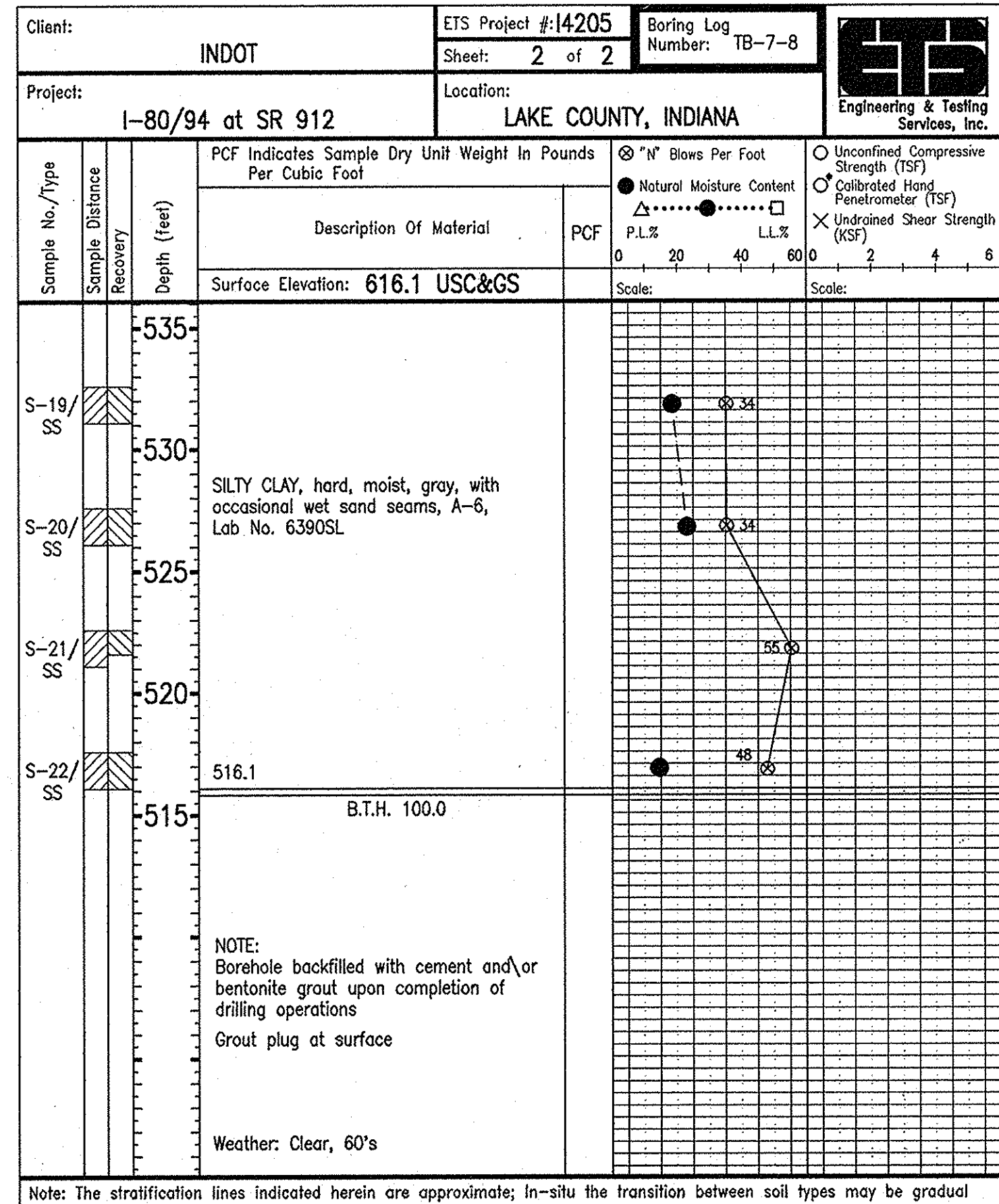
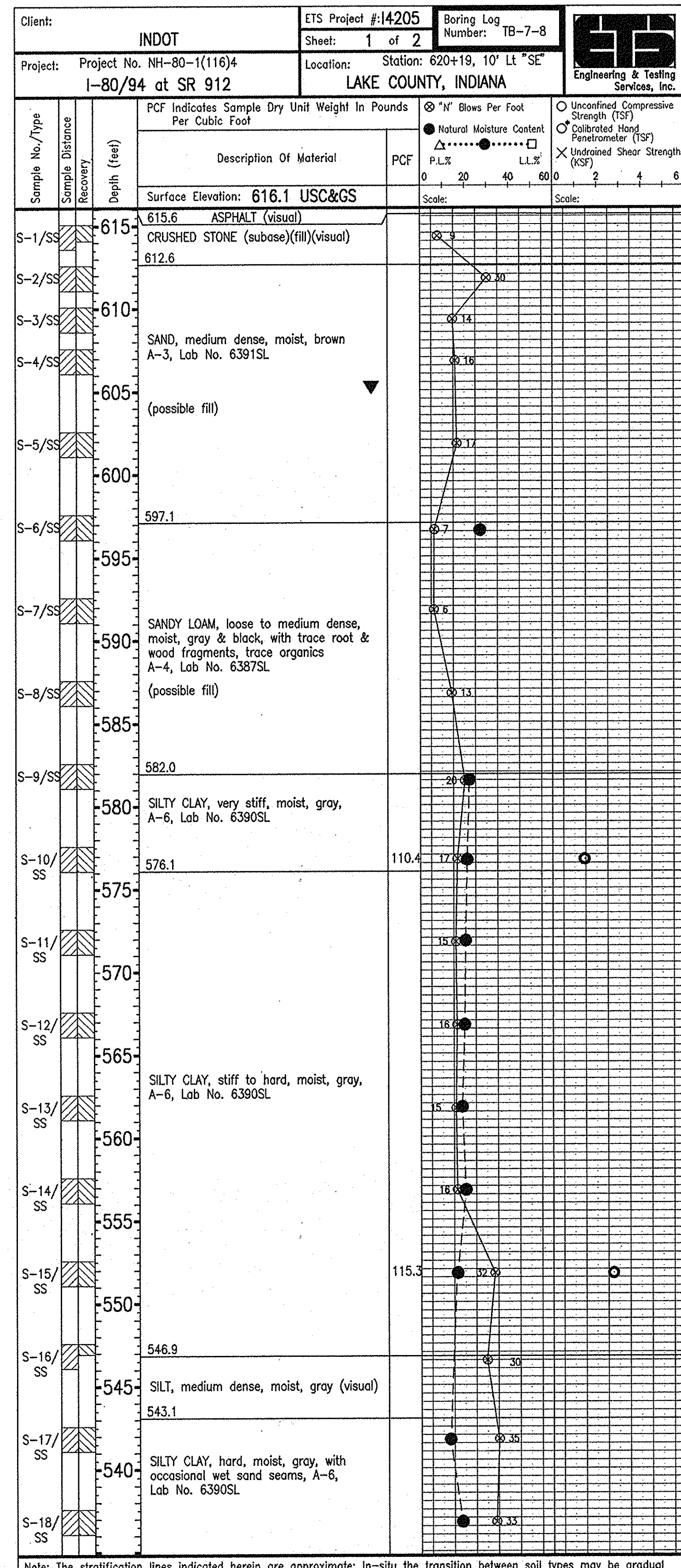
DRAWING: - OF SHEET: - 14 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823



DESIGNED: CK'D
DRAWN: JDC 12/10/92 CK'D MHW 6/8/93
TRACED: CK'D

DWG FILE: C:\201\120\92120910
PLOT SCALE: 1:1,000
PLOT ORIGIN: 0,00,000

SPELLING: 09/01/98
EDIT DATE: 09/01/98
EDIT BY: RJC - S126



NOTES:

- ▼ Indicates Ground Water Level
- N Indicates the number of blows required to drive a 1 1/8" I.D., 2" O.D. Split Spoon sampler 12" by means of a 140 lb. weight falling 30".

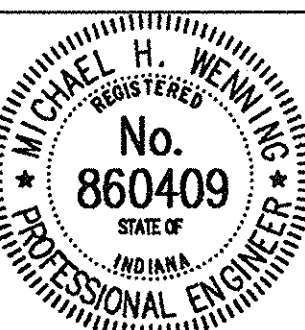
SOIL BORINGS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - Horiz. 1"=40'
Vert. 1"=5'

DATE: - June 1, 1998

SUBMITTED FOR APPROVAL *Michael H. Wenzel*

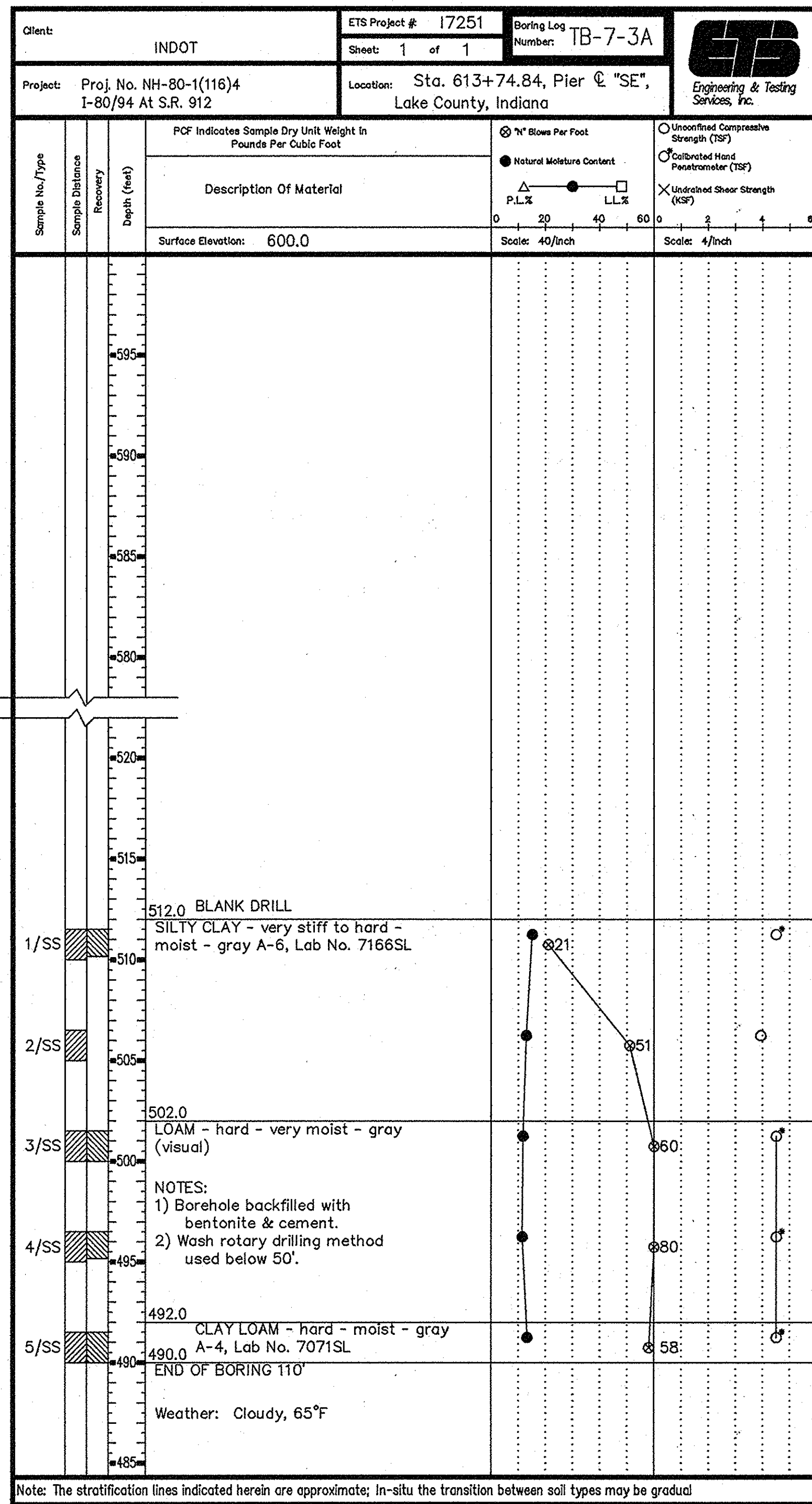
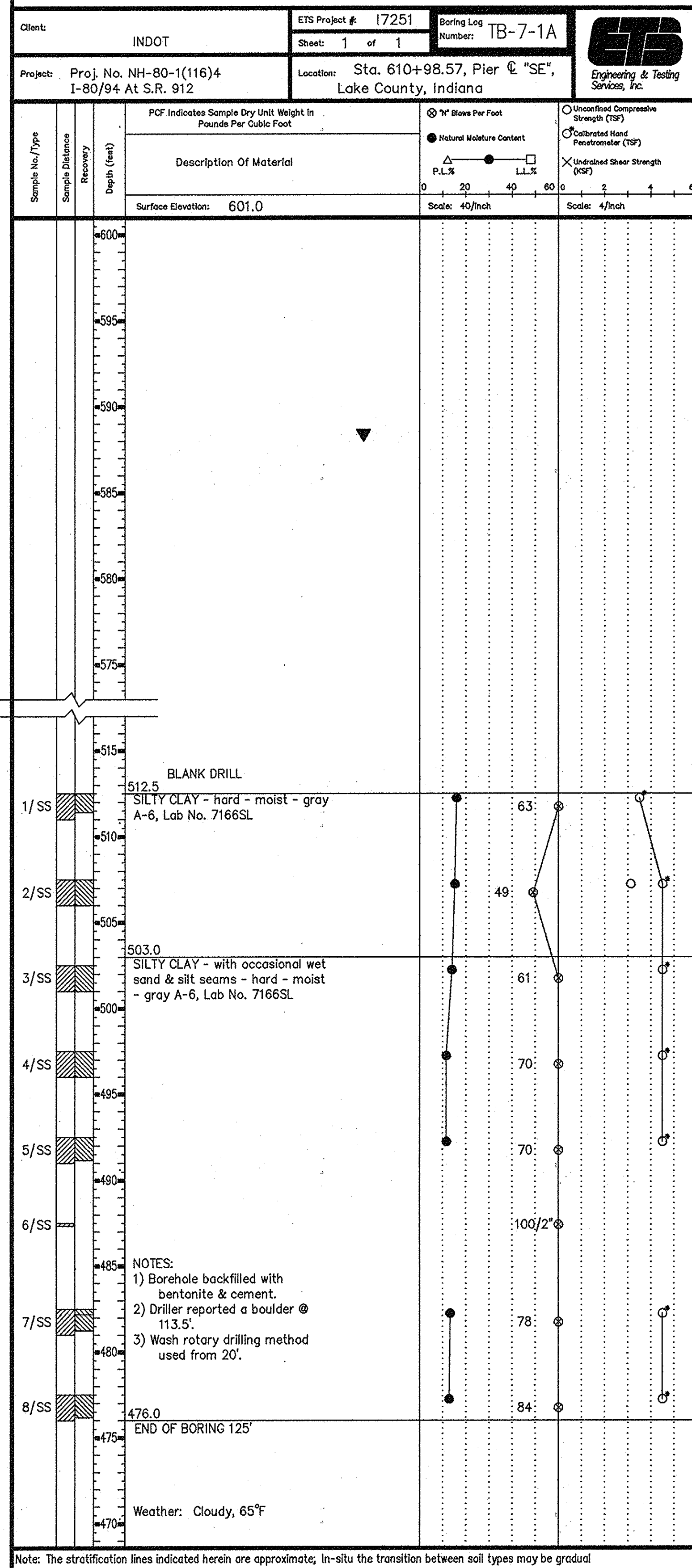
DRAWING: - OF SHEET: - 15 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823



DESIGNED: CWD
DRAWN: JDC 12/10/92 CWD MHW 6/8/93
TRACED: CWD

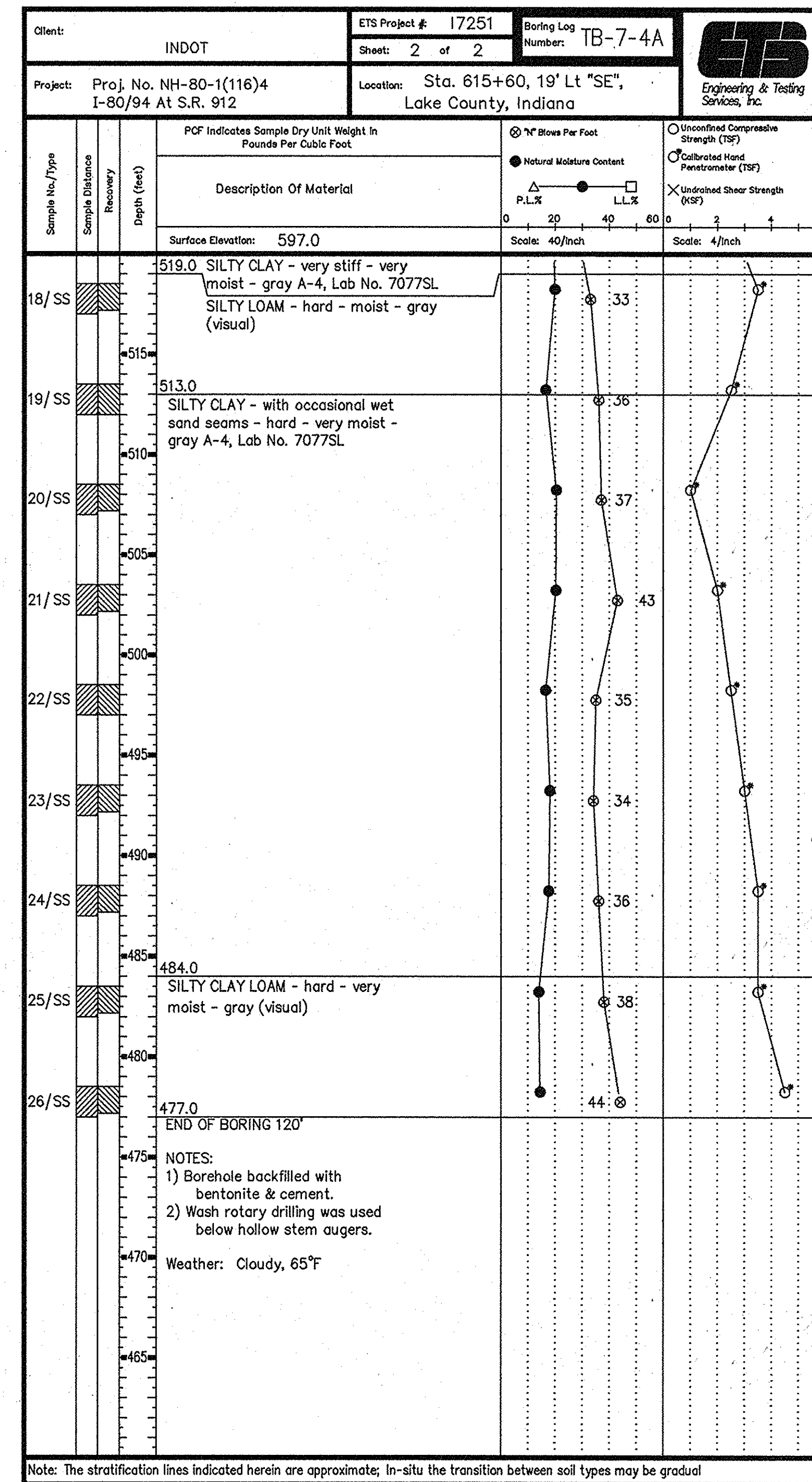
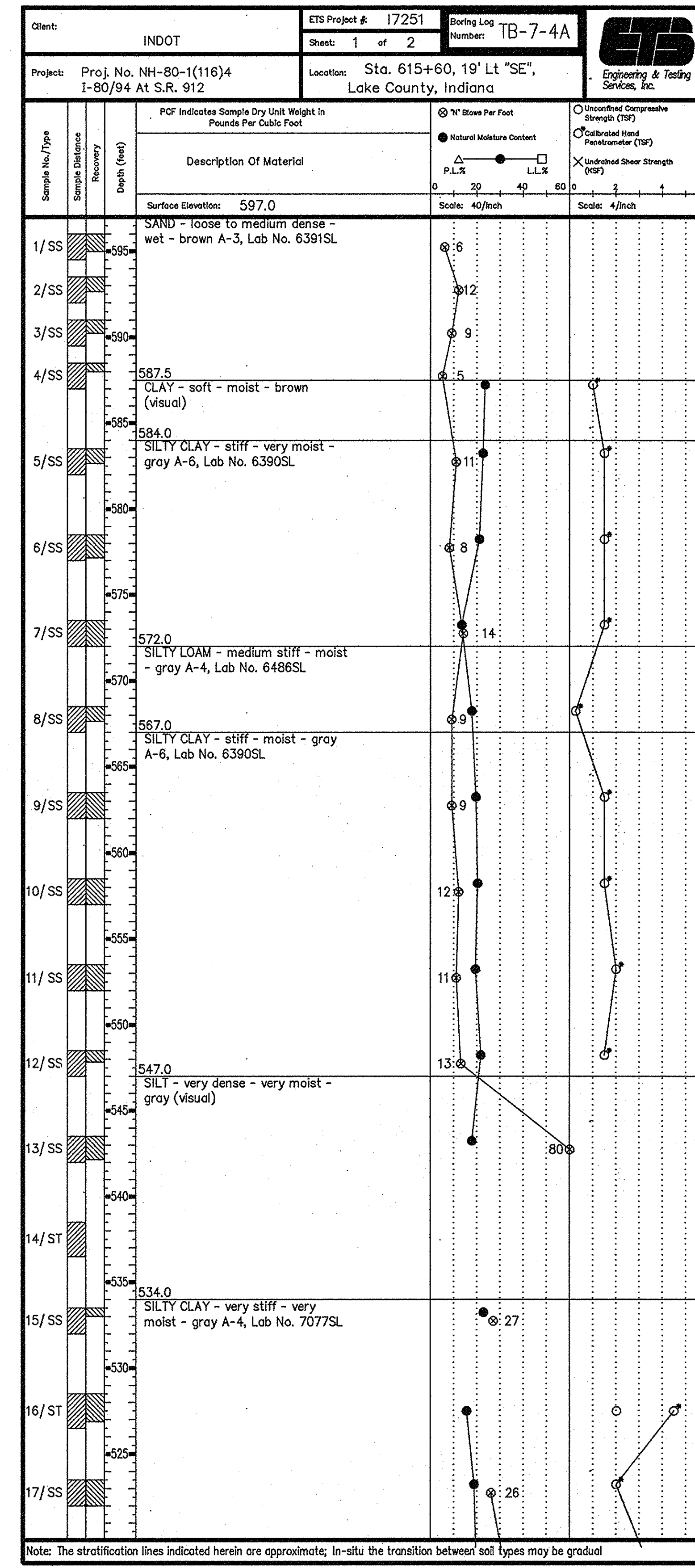
DWG FILE: C:\ETS\1209\92120811
PLOT SCALE: 1:1,000
PLOT ORIGIN: 0.00,0.00

SPELLOK:
EDIT DATE: 06/01/98
EDIT BY: RJC - 5128



NOTES:

- ▼ Indicates Ground Water Level
- N Indicates the number of blows required to drive a 1 3/8" I.D., 2" O.D. Split Spoon sampler 12" by means of a 140 lb. weight falling 30".



SOIL BORINGS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - Horiz. 1"=40'
Vert. 1"=5'

DATE: - July 9, 1998

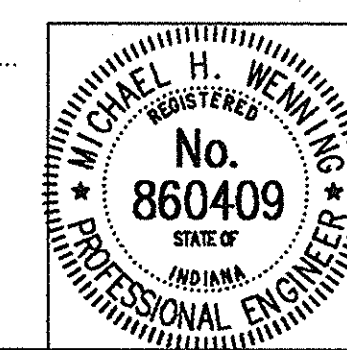
SUBMITTED FOR APPROVAL *Michael H. Wemy*

DRAWING: - OF SHEET: - 15A OF 81

PROJECT: - IM-80-1 (143)4

CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7823

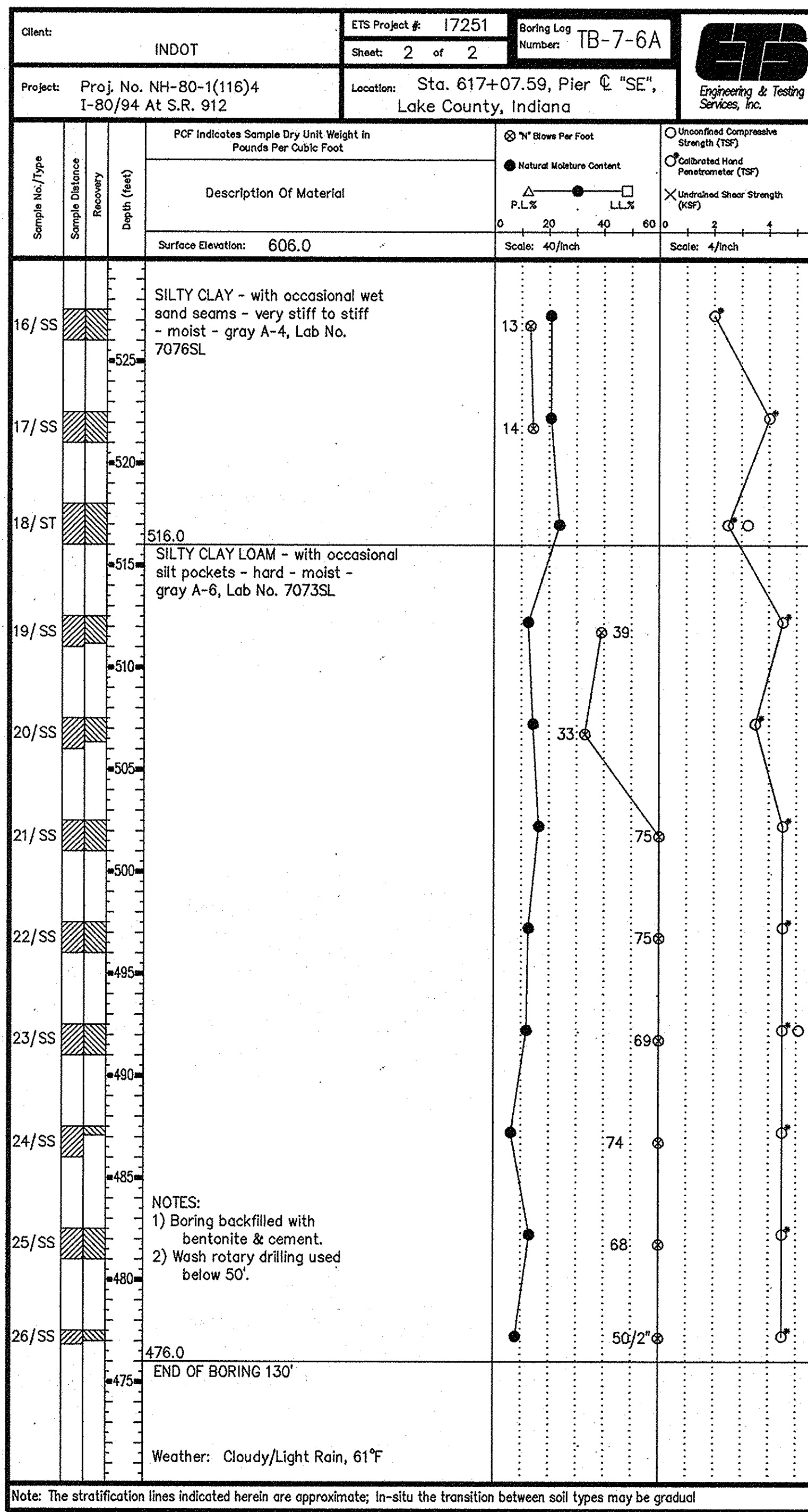
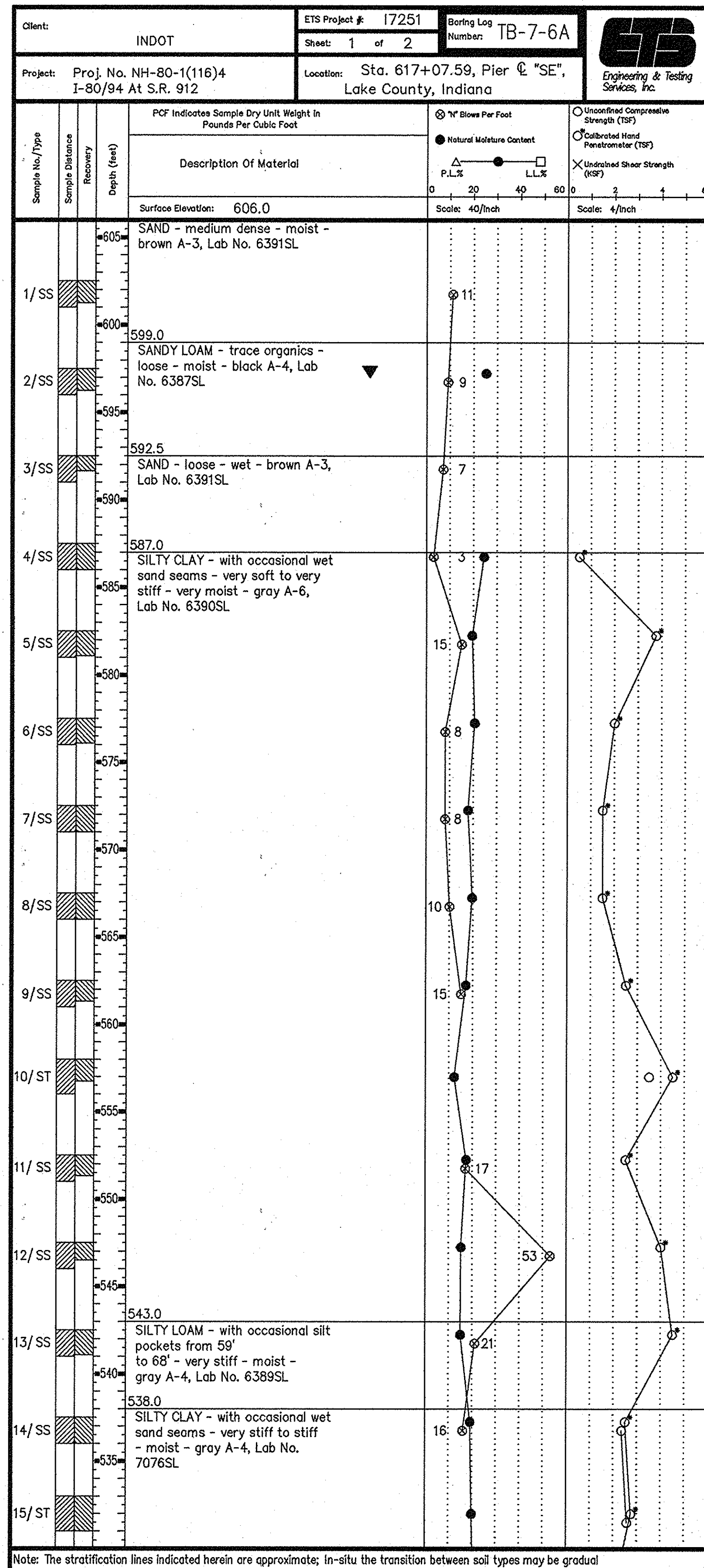


DESIGNED: C/K/D
DRAWN: DSH 7/6/98
TRACED: C/K/D

C/K/D MHW 7/8/98

PLT SCALE: 1:1000
PLOT ORIGIN: 0.00,0.00

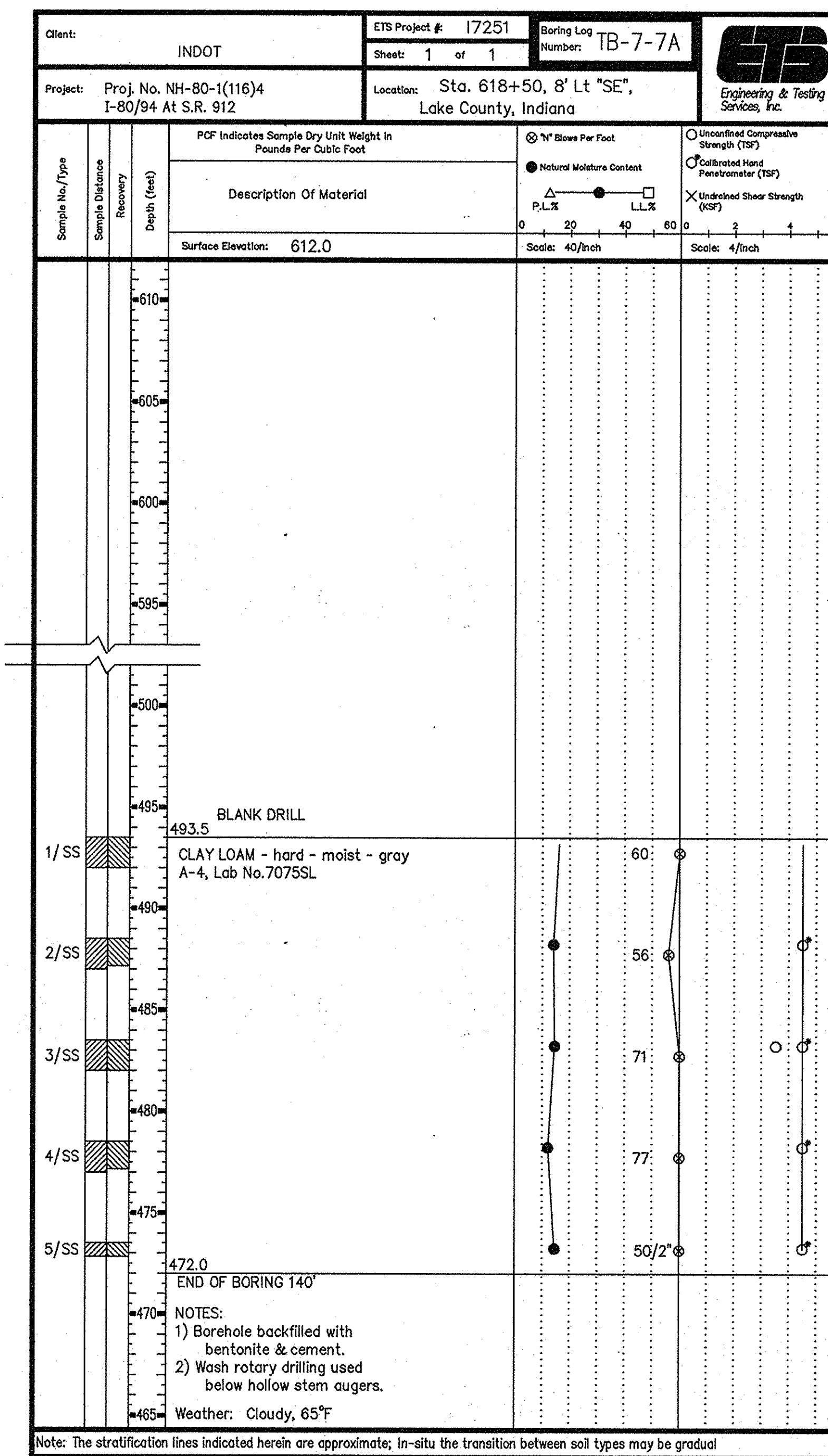
SPRINT: 07/08/98 09:58:22
EDIT DATE: 07/08/98
EDITED BY: DSH - SRI



NOTES:

▼ Indicates Ground Water Level

N Indicates the number of blows required to drive a 1 3/8" I.D., 2" O.D. Split Spoon sampler 12" by means of a 140 lb. weight falling 30".



SOIL BORINGS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - Horiz. 1"=40'
Vert. 1"=5'

DATE: - July 9, 1998

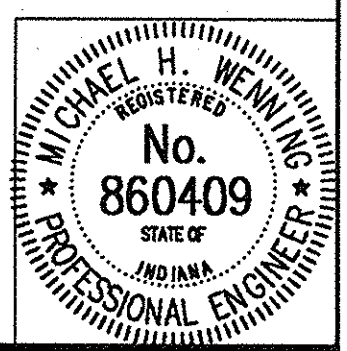
SUBMITTED FOR APPROVAL *[Signature]*

DRAWING: - OF SHEET: - 15B OF 81

PROJECT: - IM-80-1 (143)4

CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7823



DESIGNED: _____ C.K.D.

DRAWN: DSH 7/6/98 C.K.D. MHW 7/8/98

TRACED: _____ C.K.D.

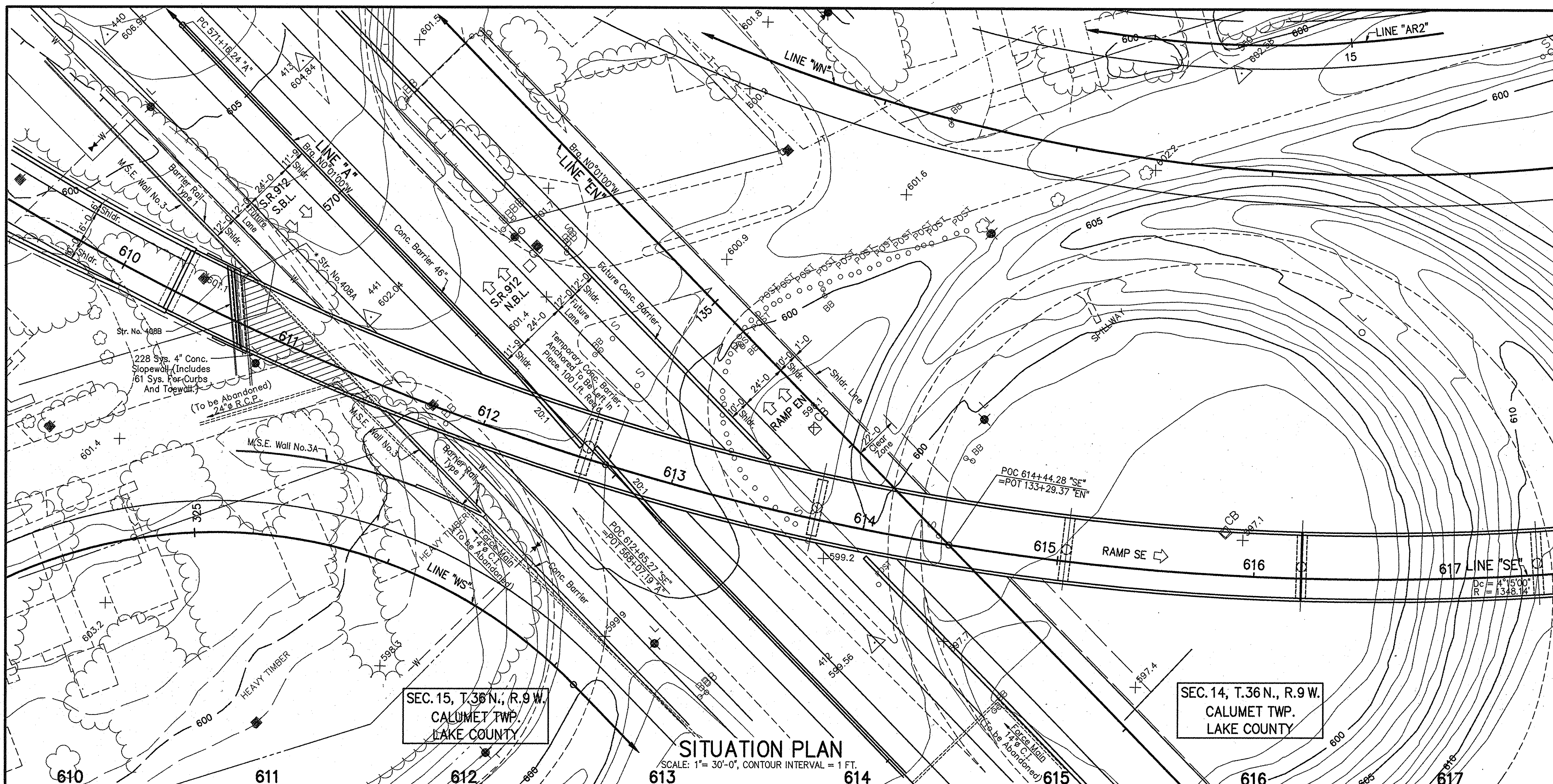
DWG FILE: C:\821\20\92120888

PLOT SCALE: 1:1000

PLOT ORIGIN: 0.00,0.00

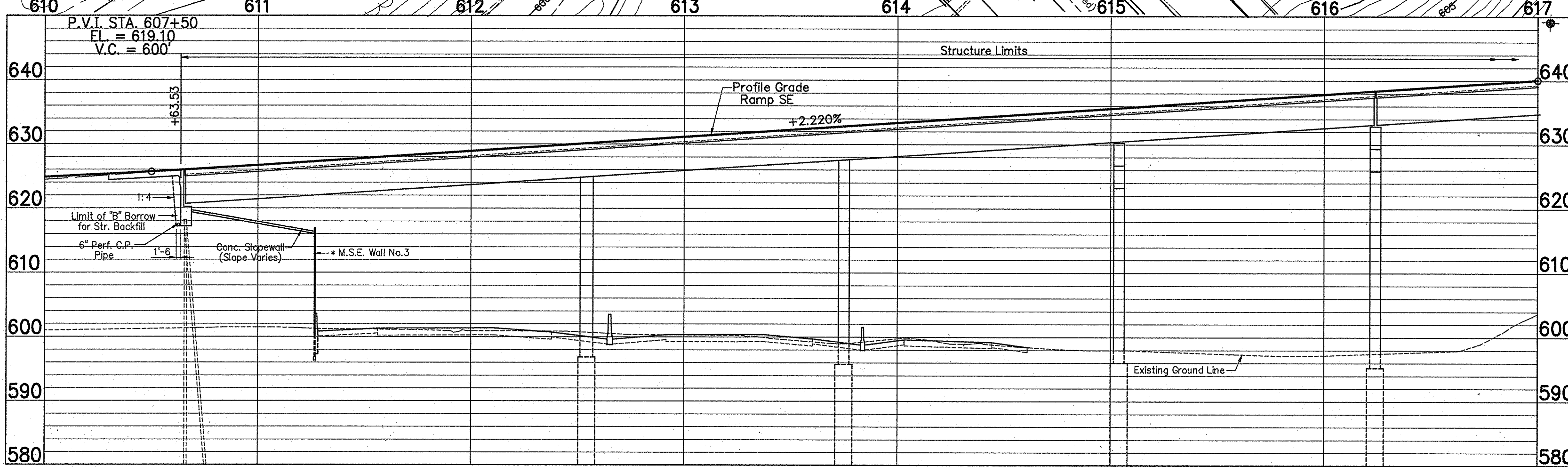
SPLOTTED: 07/08/98 10:00:29

EDITED BY: DSH - S91



CURVE DATA
 P.I. 621+05.23 "SE"
 $\Delta = 103^{\circ}56'22''$ Lt.
 $D_c = 4'15.00''$
 $R = 1348.14'$
 $T = 1723.65'$
 $L = 2445.63'$
 $E = 840.12'$
 $Se = 6.3\%$

- NOTES:**
- Hatched area indicate limits of concrete slopewall.
 - For Utility Owners, see Sheet No. 10.
 - For Alignment References, and Bench Marks See Road Plan And Profile Sheets No. 6-8.
 - * Indicates Road Item.



P.V.I. STA. 621+25
 EL. = 649.63
 V.C. = 850'

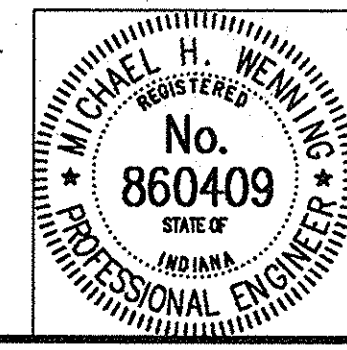
LAYOUT

CONTINUOUS COMPOSITE WELDED PLATE GIRDER BRIDGE
 8 SPANS: 187'-7⁷/₁₆ 120'-6¹/₁₆ 129'-0⁷/₁₆ 2 @ 120'-1¹/₁₆ 129'-10¹/₁₆ 151'-10 235'-6 SKEW: Varies
 32'-0 CLEAR ROADWAY

RAMP SE OVER S.R.912 AND I-80/94

INDIANA DEPARTMENT OF TRANSPORTATION
 LAKE COUNTY

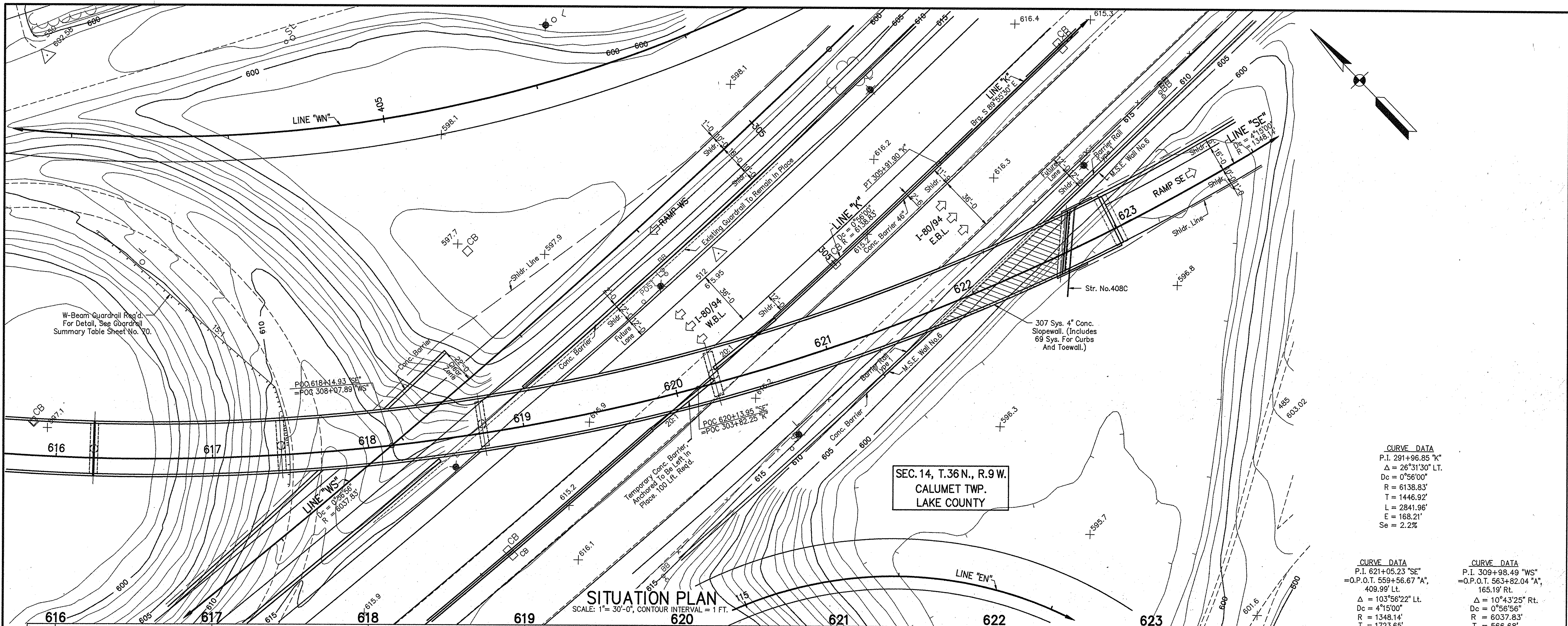
SCALE: - As Noted DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL *Michael H. Wenzel*
 DRAWING: - S1 OF S54 SHEET: - 16 OF 81
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7823



DESIGNED: CK'D
 DRAWN: RJC 6/17/93 CK'D MHW 6/18/93
 TRACED: CK'D

PROFILE LINE SE
 SCALES: 1" = 30'-0 Horizontal, 1" = 10'-0 Vertical

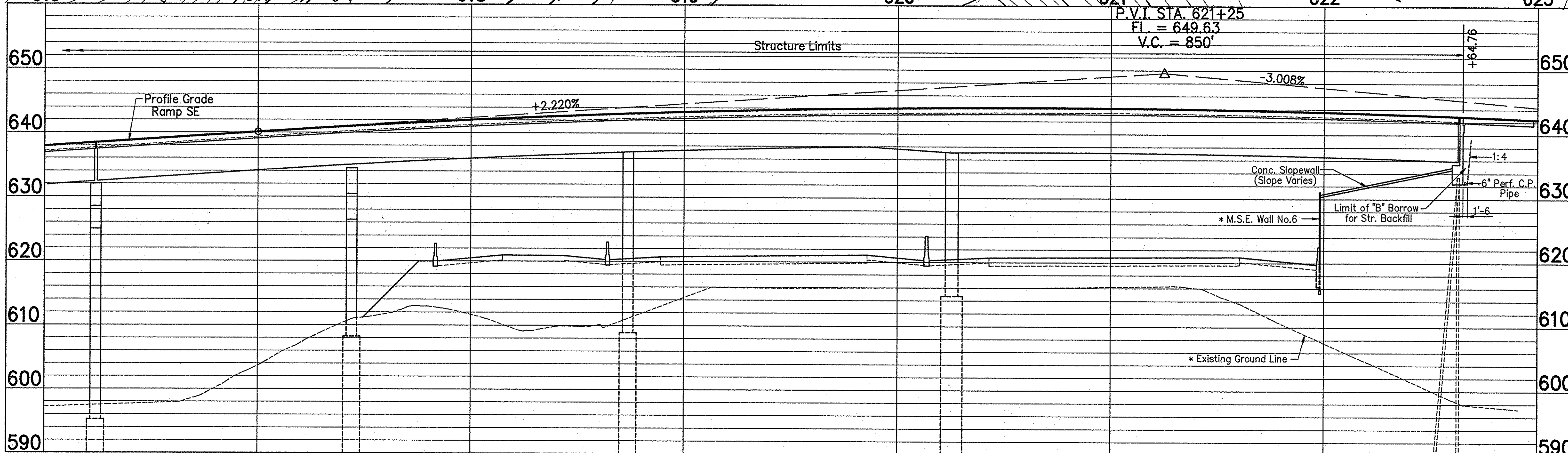
NOTE: FIELD NOTES, BOOK: 16215L1 & 16215T1



CURVE DATA
 P.I. 291+96.85 "K"
 $\Delta = 26^{\circ}31'30"$ LT.
 $D_c = 0^{\circ}56'00"$
 $R = 6138.83'$
 $T = 1446.92'$
 $L = 2841.96'$
 $E = 168.21'$
 $Se = 2.2\%$

CURVE DATA
 P.I. 621+05.23 "SE"
 =O.P.O.T. 559+56.67 "A",
 409.99' Lt.
 $\Delta = 103^{\circ}56'22"$ Lt.
 $D_c = 4^{\circ}15'00"$
 $R = 1348.14'$
 $T = 1723.65'$
 $L = 2445.63'$
 $E = 840.12'$
 $Se = 6.3\%$

CURVE DATA
 P.I. 309+98.49 "WS"
 =O.P.O.T. 563+82.04 "A",
 165.19' Rt.
 $\Delta = 10^{\circ}43'25"$ Rt.
 $D_c = 0^{\circ}56'56"$
 $R = 6037.83'$
 $T = 566.68'$
 $L = 1130.06'$
 $E = 26.53'$
 $Se = 2\%$



NOTES:
 Hatched area indicate limits of concrete slopewall.
 For Utility Owners, see Sheet No. 10.
 For Alignment References, and Bench Marks See Road Plan And Profile Sheets No. 6-8.
 * Indicates Road Item.

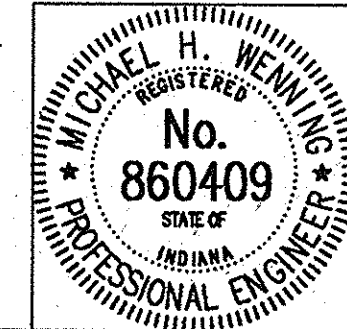
LAYOUT

CONTINUOUS COMPOSITE WELDED PLATE GIRDER BRIDGE
 8 SPANS: 187'-7¹/₁₆, 120'-6¹/₁₆, 129'-0³/₄, 2 @ 120'-1¹/₁₆, 129'-10³/₁₆, 151'-10, 235'-6 SKEW: VARIES
 32'-0 CLEAR ROADWAY
 RAMP SE OVER S.R.912 AND I-80/94

INDIANA DEPARTMENT OF TRANSPORTATION
 LAKE COUNTY

SCALE: - As Noted DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL *Michael H. Henry*

DRAWING: - S2 OF S54 SHEET: - 17 OF 81
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7823



DESIGNED: CKD
 DRAWN: RJC 7/17/93
 TRACED: CKD

CKD MHW 6/18/93

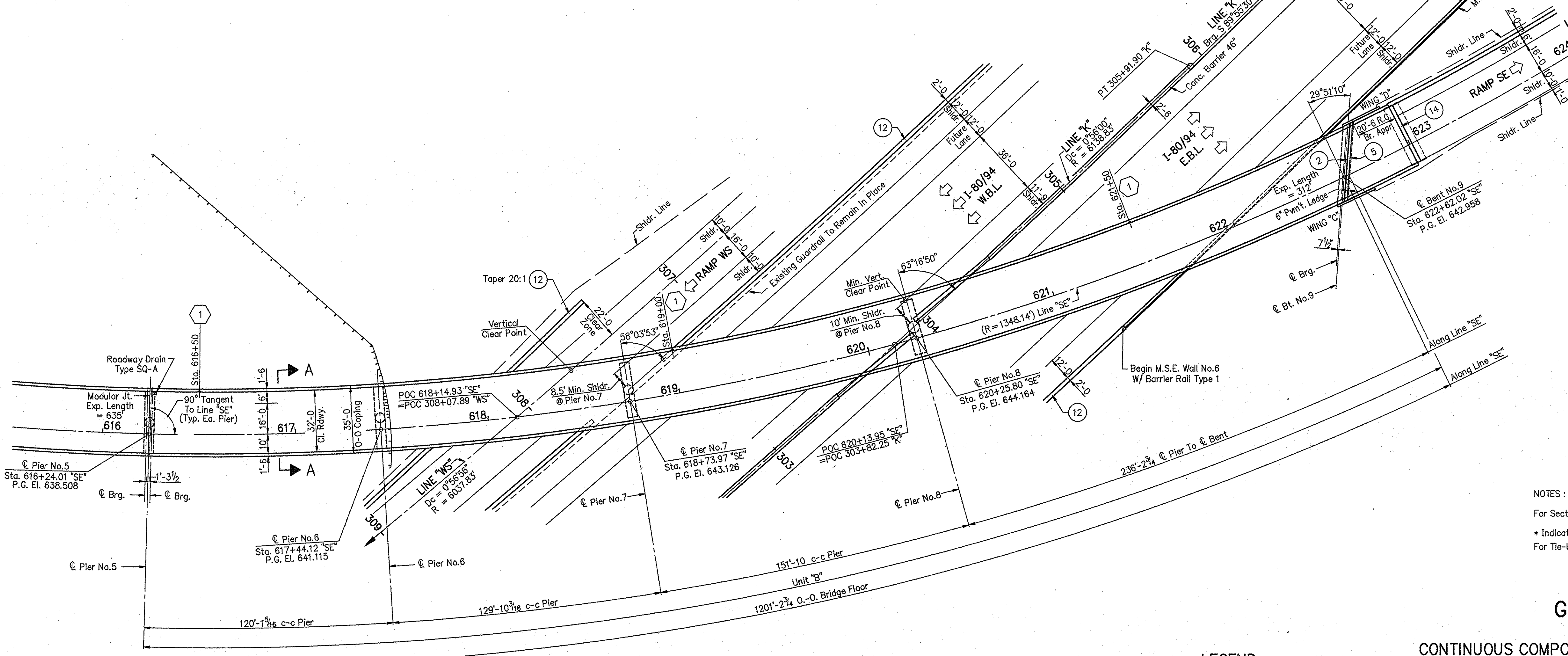
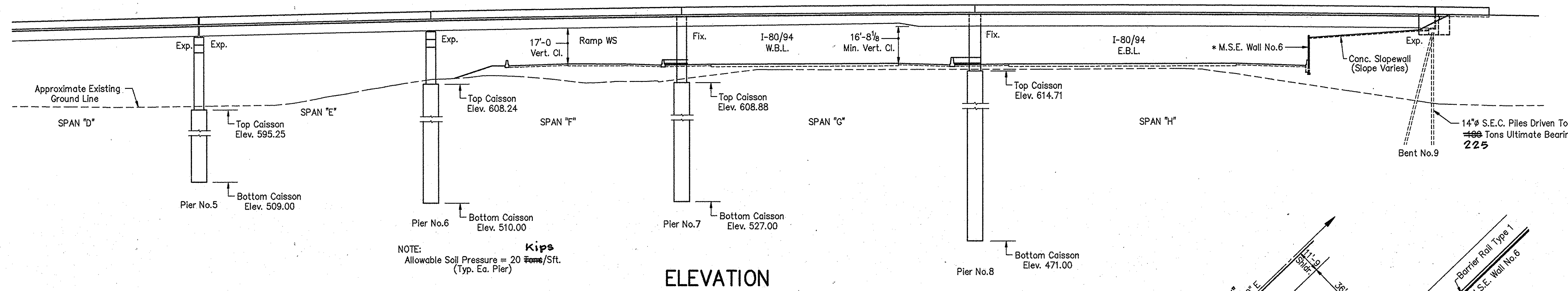
PROFILE LINE SE
 SCALES: 1" = 30'-0 Horizontal, 1" = 10'-0 Vertical

NOTE: FIELD NOTES, BOOK: 16215L1 & 16215T1

ONE FILE: 613012010212084
 PLOT SCALE: 1:30,000
 PLOT ORIGIN: -3892.10,75430.06

SPELLCHK: 07/10/98 15:08:54
 EDIT DATE: 07/10/98 15:08:54
 EDIT BY: TUI - 6131

THIS PORTION OF STRUCTURE (UNIT "B") TO BE BUILT TO A +2.220% GRADE AND A 850' VERTICAL CURVE AND A 4°15' HORIZONTAL CURVE



NOTES:
 For Section A-A, see Drawing S3.
 * Indicates Road Item
 For Tie-Up Diagram, see Drawing S5.

LEGEND

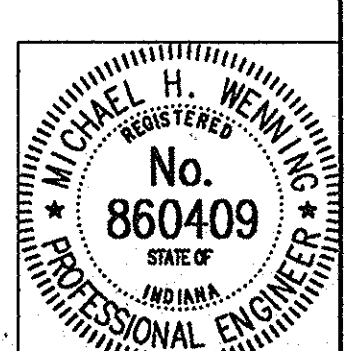
- (2) Expansion Joint Class S-S
- (5) Type IA Joint
- (12) * Concrete Barrier
- (14) * Terminal Joint
- (1) Conduit Pull Box
See Drawing S52 For Details.

CURVE DATA P.I. 291+06.85 "K" $\Delta = 28^{\circ}31'30"$ Lt. Dc = 0°56'00" R = 6138.83' T = 1446.92' L = 2841.96' E = 168.21' Se = 2.2%	CURVE DATA P.I. 621+05.23 "SE" $\Delta = 103^{\circ}56'22"$ Lt. Dc = 4°15'00" R = 1348.14' T = 1723.65' L = 2445.63' E = 840.12' Se = 6.3%	CURVE DATA P.I. 309+98.49 "WS" $\Delta = 10^{\circ}43'25"$ Rt. Dc = 0°56'56" R = 6037.83' T = 566.68' L = 1130.06' E = 26.53' Se = 2%
---	---	--

INDIANA DEPARTMENT OF TRANSPORTATION
 LAKE COUNTY

CONTINUOUS COMPOSITE WELDED PLATE GIRDER BRIDGE
 8 SPANS: 187'-7 $\frac{1}{16}$ ", 120'-6 $\frac{1}{16}$ ", 129'-0 $\frac{3}{4}$ ", 2 @ 120'-1 $\frac{1}{16}$ ", 129'-10 $\frac{3}{16}$ ", 151'-10", 235'-6"
 32'-0" CLEAR ROADWAY
 S.R.912 AND I-80/94

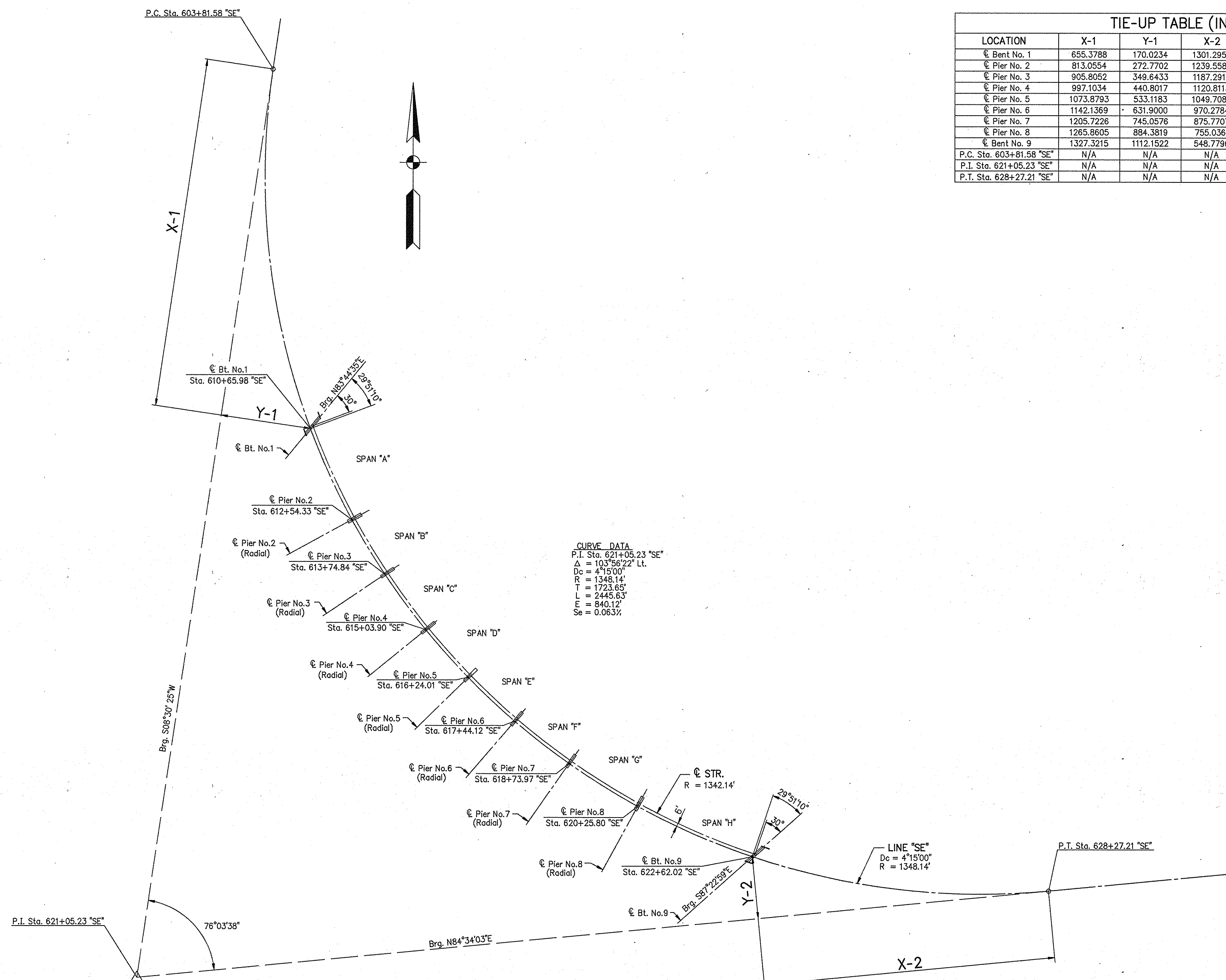
SCALE: - 1" = 30'-0", Unless Noted
 DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL: *Michael H. Wemy*
 DRAWING: - S4 OF S54 SHEET: - 19 OF 81
 PROJECT: - IM-80-1(14)34
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7823



DESIGNED: RJC 6/08/93 CKD
 DRAWN: RJC 6/08/93 CKD MHW 6/18/93
 TRACED: CKD

DWG FILE: D:\91\102\92120002
 PLOT SCALE: 1:30.000
 PLOT ORIGIN: -3748.70,75642.50
 SHEETNO: 01/21/98
 EDIT DATE: 07/10/98 13:34:55
 EDITED BY: TLH - 5131

9-1-98: Revised Pile and Soil Notes

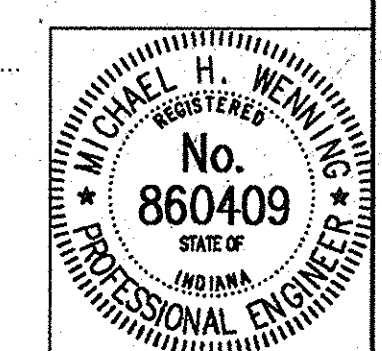


TIE-UP TABLE (IN FEET)						
LOCATION	X-1	Y-1	X-2	Y-2	NORTHING	EASTING
☉ Bent No. 1	655.3788	170.0234	1301.2959	995.8582	57343.3257	49916.5067
☉ Pier No. 2	813.0554	272.7702	1239.5583	818.0738	57172.1848	49994.7985
☉ Pier No. 3	905.8052	349.6433	1187.2919	709.5371	57069.0838	50057.1057
☉ Pier No. 4	997.1034	440.8017	1120.8113	598.9680	56965.3053	50133.7557
☉ Pier No. 5	1073.8793	533.1183	1049.7082	502.2144	56875.7179	50213.6994
☉ Pier No. 6	1142.1369	631.9000	970.2784	412.1710	56793.5989	50301.2972
☉ Pier No. 7	1205.7226	745.0576	875.7707	323.1987	56713.9736	50403.8038
☉ Pier No. 8	1265.8605	884.3819	755.0361	231.2694	56633.8875	50532.6993
☉ Bent No. 9	1327.3215	1112.1522	548.7790	116.7497	56539.4094	50748.8720
P.C. Sta. 603+81.58 "SE"	N/A	N/A	N/A	N/A	58016.6453	49845.3020
P.I. Sta. 621+05.23 "SE"	N/A	N/A	N/A	N/A	56311.9543	49590.3271
P.T. Sta. 628+27.21 "SE"	N/A	N/A	N/A	N/A	56475.1390	51306.2392

TIE-UP DIAGRAM

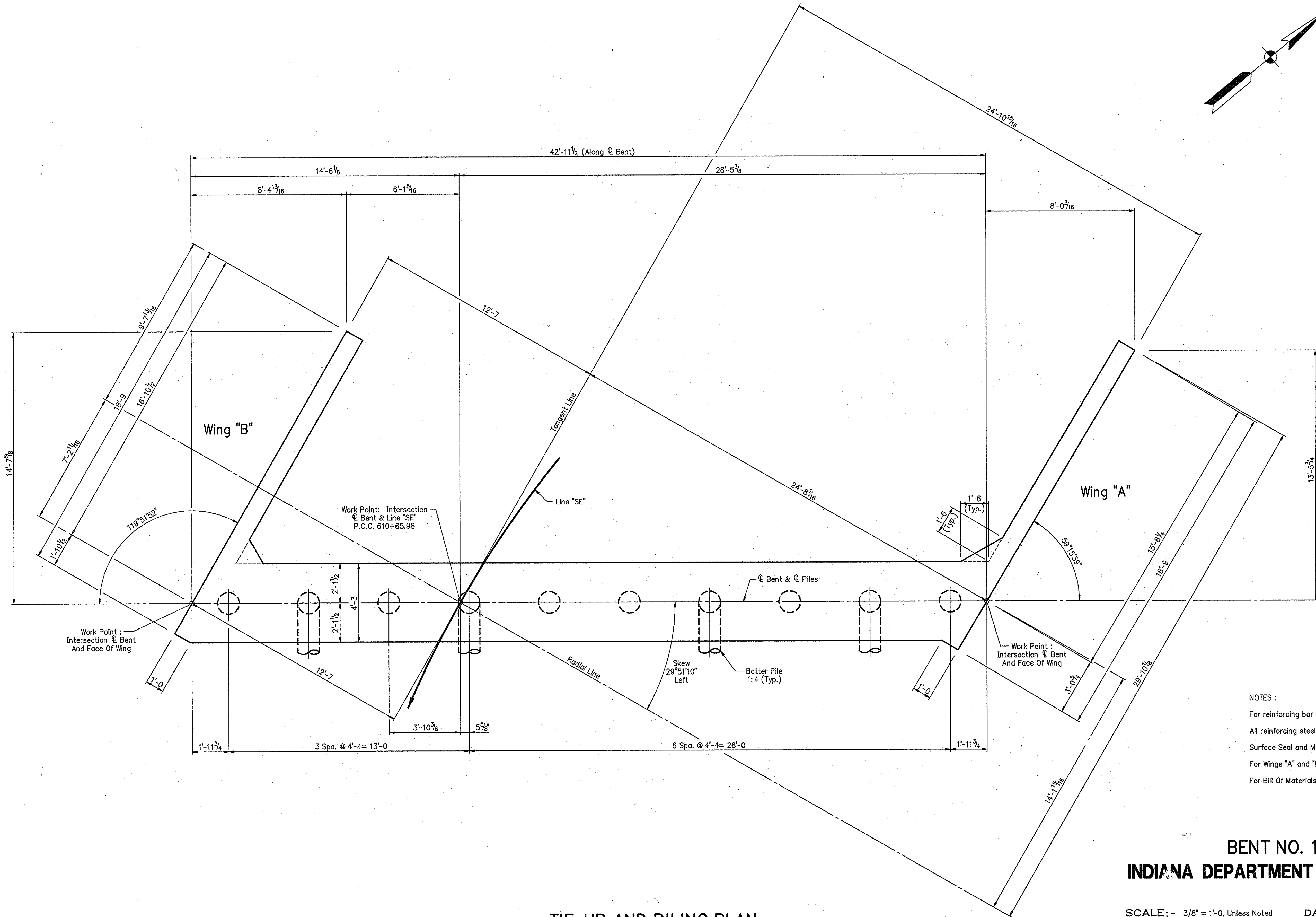
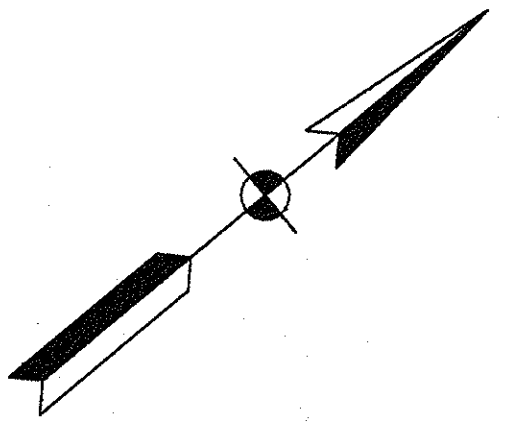
RAMP SE OVER S.R.912 AND I-80/94
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1" = 100'
 DATE: - June 1, 1998
 SUBMITTED FOR APPROVAL *Michael H. Wenzel*
 DRAWING: - S5 OF S54 SHEET: - 20 OF 81
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7823



DESIGNED: _____ CK'D: _____
 DRAWN: RJC 5/26/98 CK'D: DAD 5/27/98
 TRACED: _____ CK'D: _____

DWG FILE: C:\DATA\200\20005
 PLOT SCALE: 1:100,000
 PLOT ORIGIN: 49558.45,56114.37
 SPELLING: _____
 EDIT DATE: 06/01/98
 EDITED BY: RJC - S126



NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 All reinforcing steel to be epoxy coated.
 Surface Seal and Masonry Coat exposed surfaces of wings.
 For Wings "A" and "B" details, see Drawing S8.
 For Bill Of Materials, see Drawing S8.

BENT NO. 1 DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/8" = 1'-0", Unless Noted DATE: - June 1, 1998
 SUBMITTED FOR APPROVAL: *Michael H. Weir*

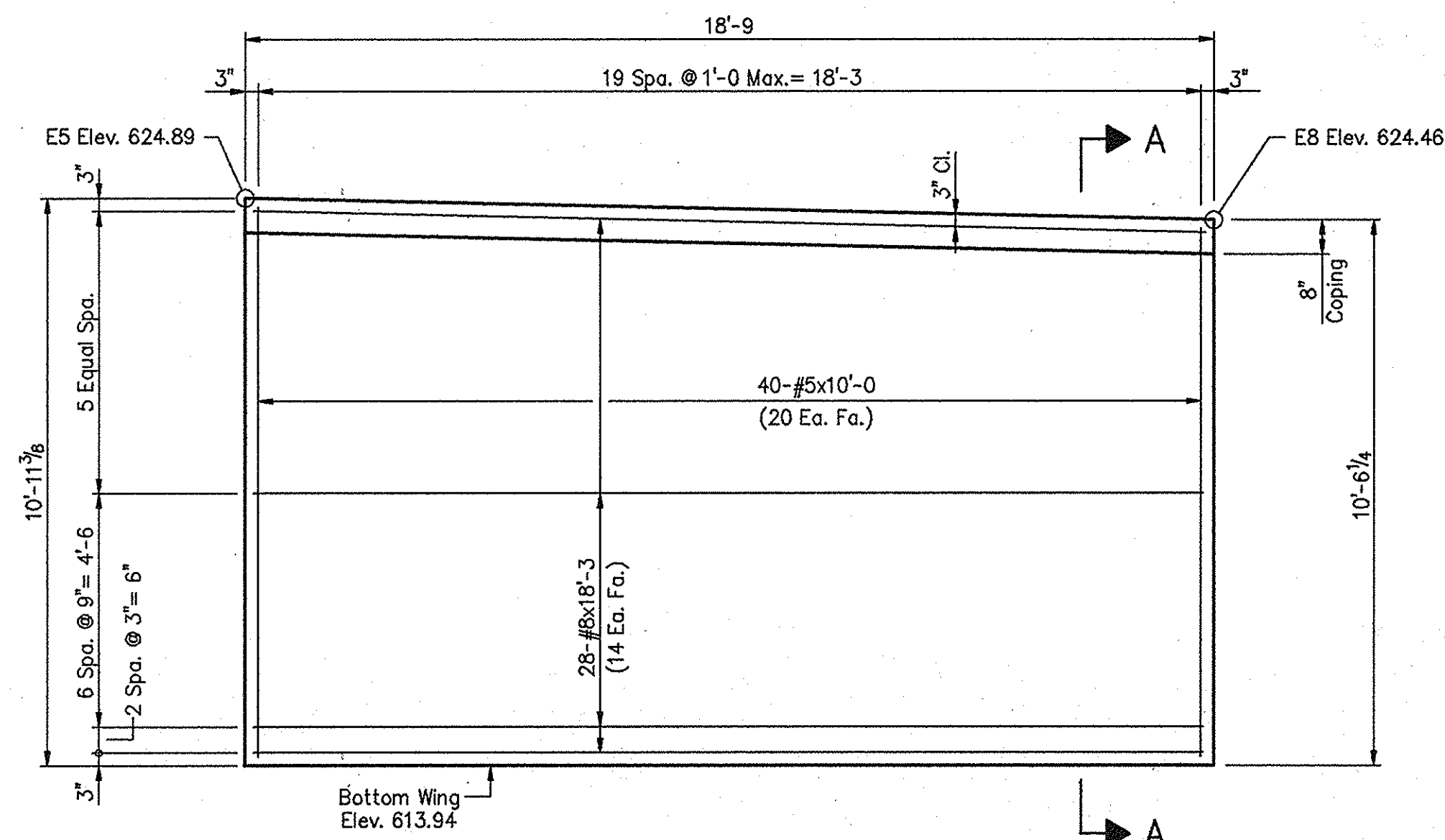
DRAWING: - S7 OF S54 SHEET: - 22 OF 81
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7823



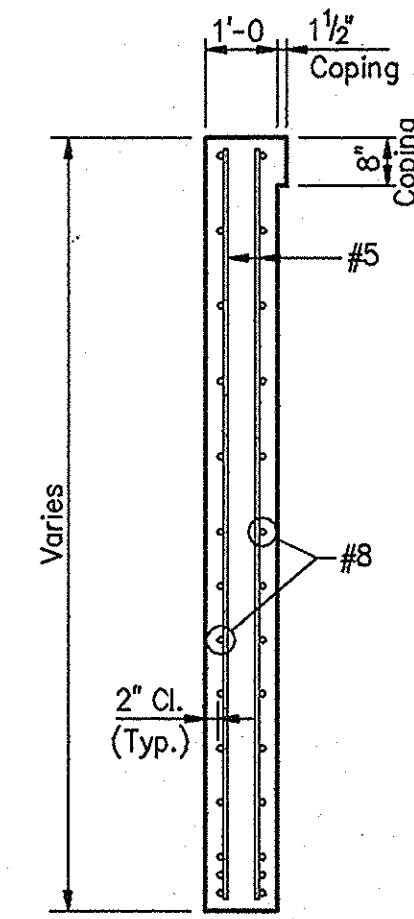
TIE-UP AND PILING PLAN

DESIGNED: MDR 4/24/95 CK'D: MSP 1/20/97
 DRAWN: JEE 5/19/95 CK'D: DAD 2/5/97
 TRACED: _____ CK'D: _____

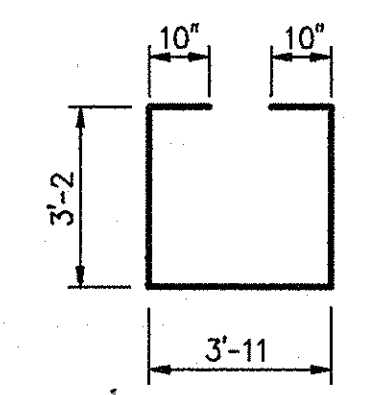
DWG FILE: 0:\25\20\5212085 SPELLOK: 05/01/98
 PLOT SCALE: 1:32,000 EDIT DATE: 05/01/98
 PLOT ORIGIN: 0.00,0.00 EDITED BY: TLM - 5131



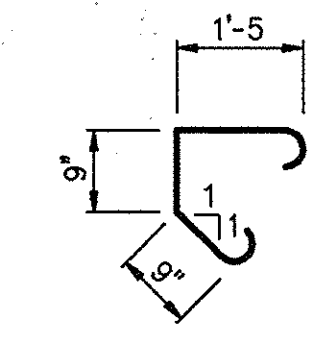
WING "A" ELEVATION



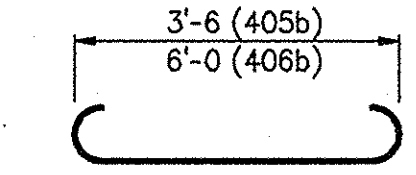
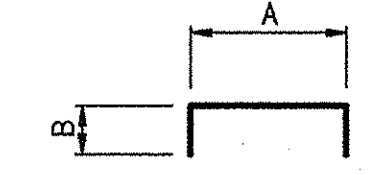
SECTION A-A



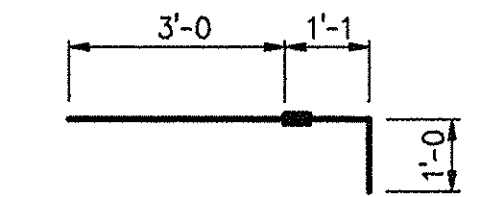
501b x 11'-11"



404b x 3'-11"



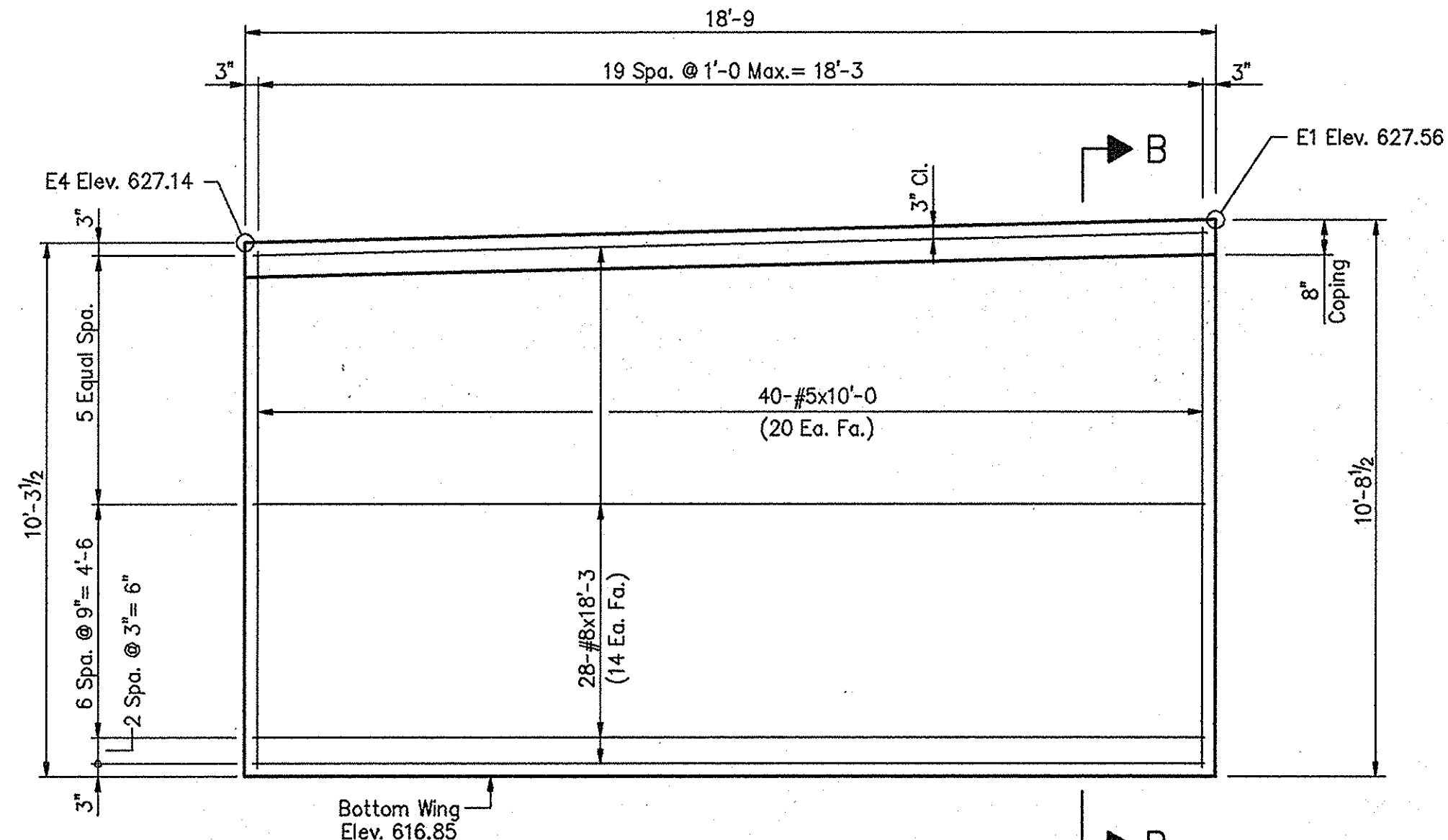
405b x 4'-6"
406b x 7'-0"



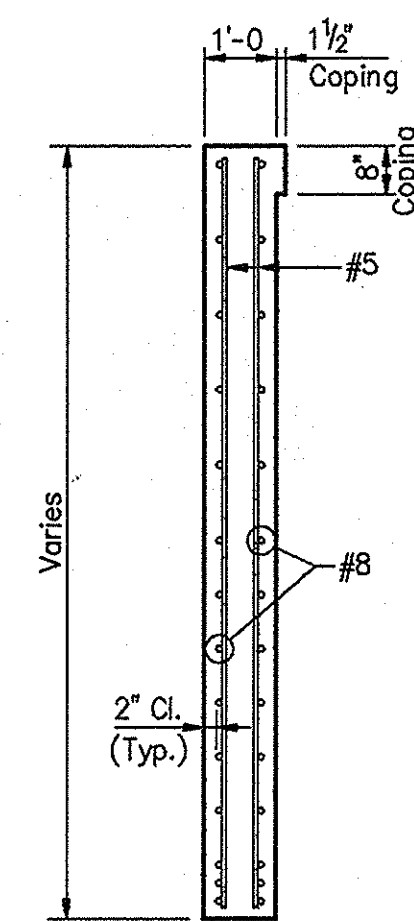
Threaded Tie Bar

BILL OF MATERIALS

Epoxy Coated Reinforcing Steel (fy = 60,000 psi)			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
#8	56	18'-3	2,729
#7	24	23'-6	1,153
501b	38	11'-11	
#5	80	10'-0	
Total No. 5			1,307
401b	101	5'-3	
402b	33	5'-0	
403b	41	17'-5	
404b	41	3'-11	
405b	11	4'-6	
406b	11	7'-0	
#4	44	22'-6	
#4	12	8'-3	
#4	41	3'-0	
#4	8	2'-3	
Total No. 4			1,955
Total Epoxy Coated Reinforcing Steel			7,144
Concrete			
Class "A" In Substructure			
Pour No.1			46.5 Cys.
Pour No.2			5.4 Cys.
Total Class "A" In Substructure			51.9 Cys.
Class "C" In Superstructure (Pour No. 3)			
			5.7 Cys.
Miscellaneous			
Surface Seal			770 Sft.
Masonry Coating			270 Sft.
10-Piles, Concrete, Steel Shell Encased,			1500
0.375" Min. Thick, 14" x 14" Approx.			450 Lft.
Threaded Tie Bar Assembly			46 Each
2" Galvanized Steel Pipe Conduit			17 Lft.
6" Perf. C.P. Pipe			64 Lft.



WING "B" ELEVATION

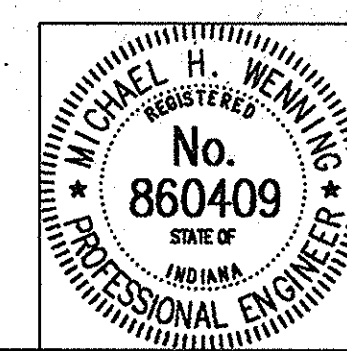


SECTION B-B

NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 All reinforcing steel to be epoxy coated.
 Surface Seal and Masonry Coat exposed surfaces of wings.

BENT NO. 1 DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION

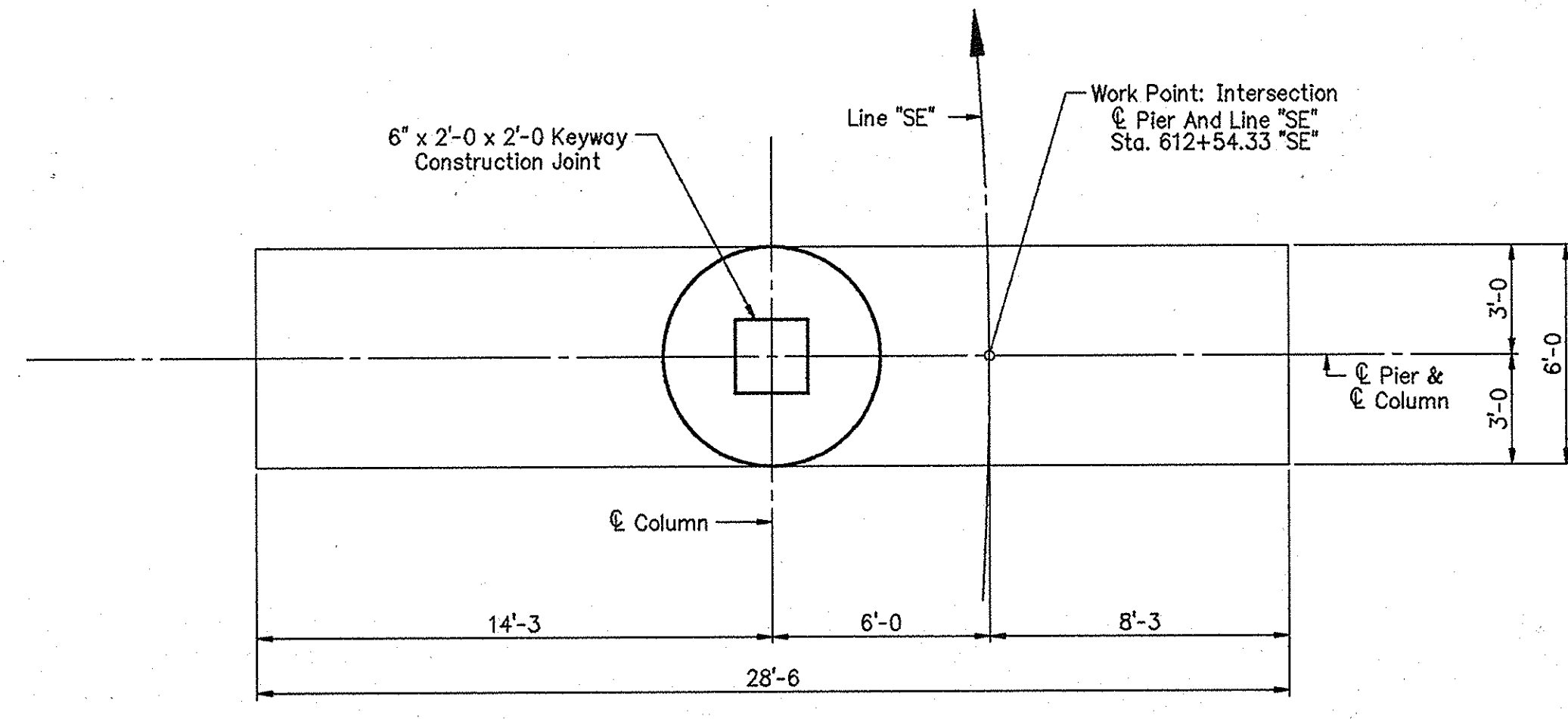
SCALE: - 3/8" = 1'-0, Unless Noted DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL: *[Signature]*
 DRAWING: - S8 OF S54 SHEET: - 23 OF 81
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7823



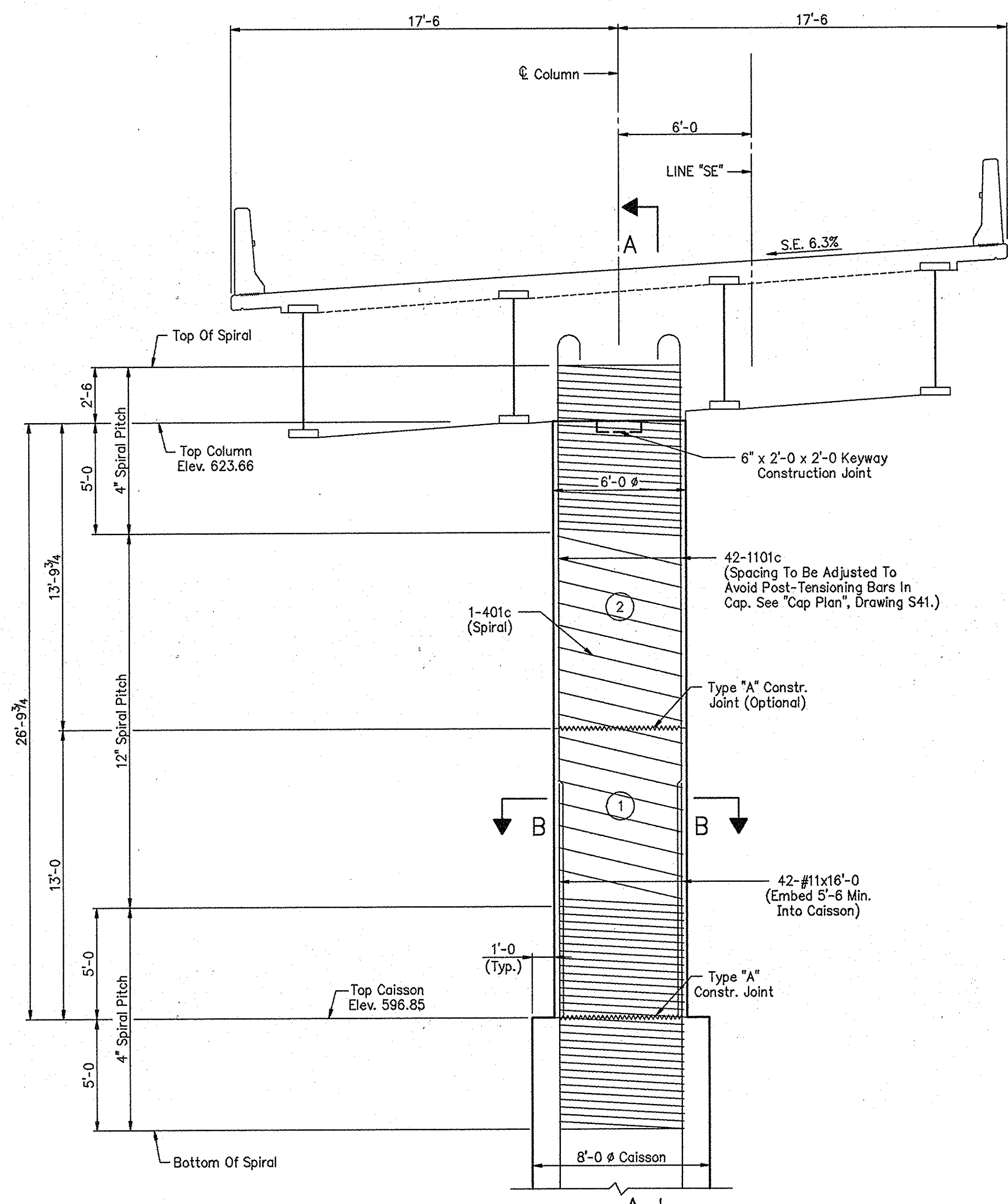
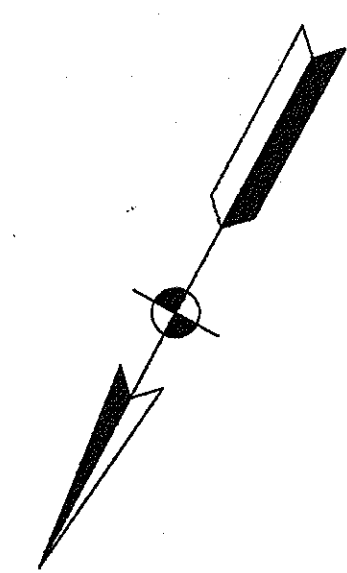
DESIGNED: MDR 4/24/95 CK'D: MSP 1/20/97
 DRAWN: JEE 5/19/95 CK'D: DAD 2/5/97
 TRACED: _____ CK'D: _____

DWG FILE: 02120109220820 SHEET NO: 07/10/98 14:54:38
 PLOT SCALE: 1:32.000 EDIT DATE: 07/10/98 14:54:38
 PLOT ORIGIN: 0.00,0.00 EDIT BY: TLH - 5131

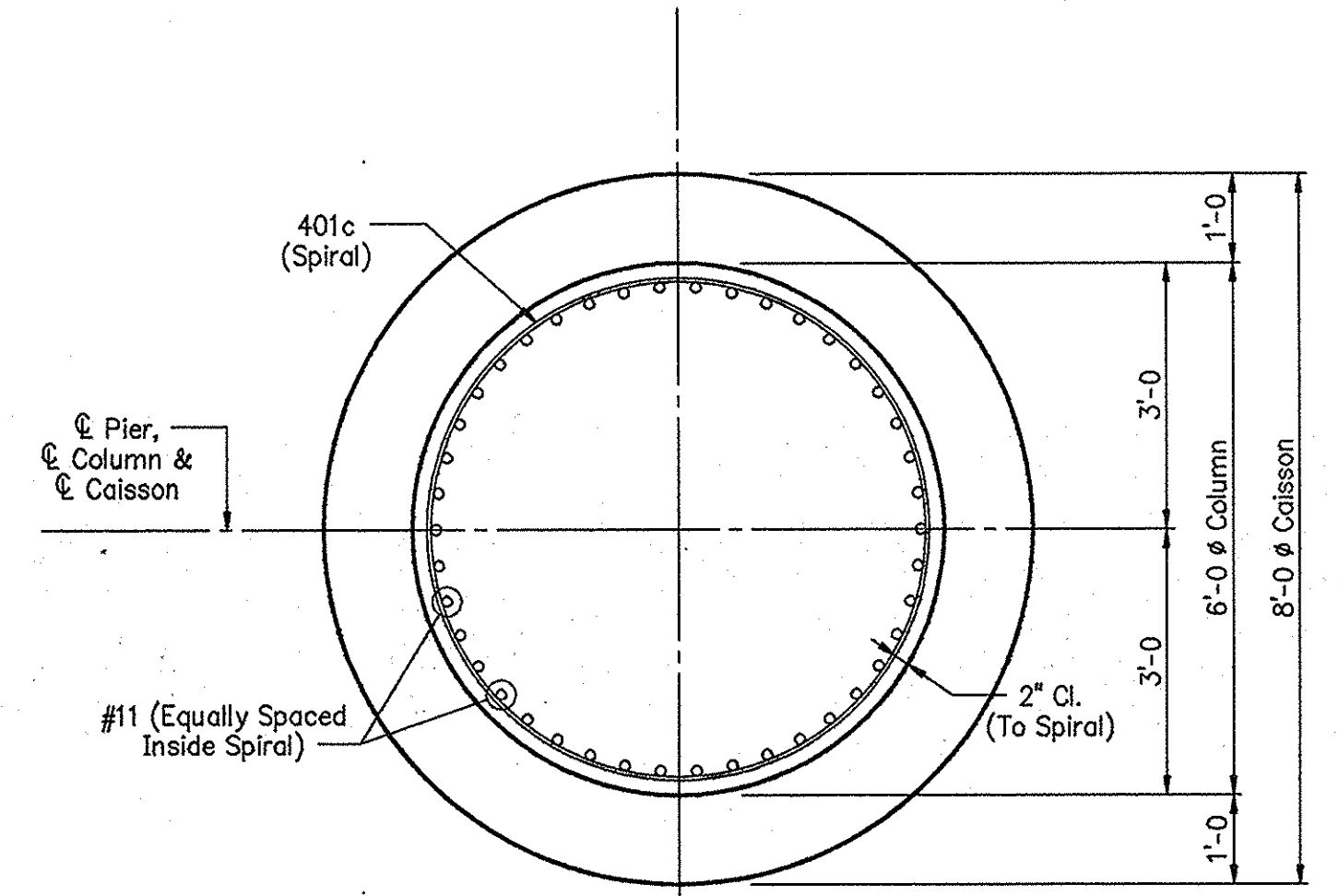
9-1-98: Revised Pile Length



PLAN

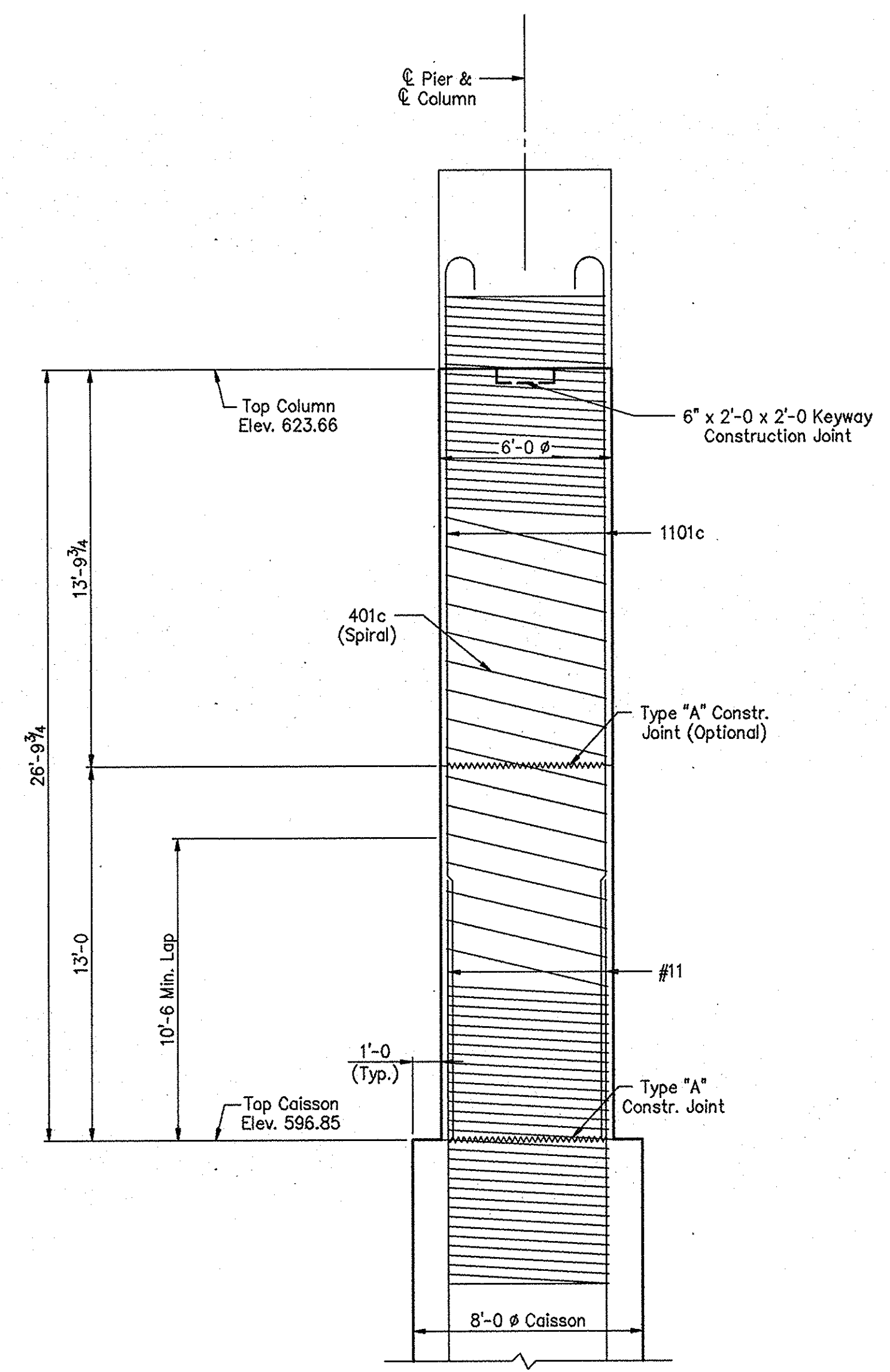


ELEVATION



SECTION B-B

Scale: 1/2" = 1'-0"



SECTION A-A

- NOTES :
- For reinforcing bar notes, see Bridge Standard C1.
 - All reinforcing steel to be epoxy coated, unless noted.
 - For Cap details, see Drawing S41.
 - For Caisson details, additional details and Bill of Materials, see Drawing S10.
 - (X) Indicates concrete pour number.

PIER NO.2 DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0", UNLESS NOTED DATE: - July 9, 1998

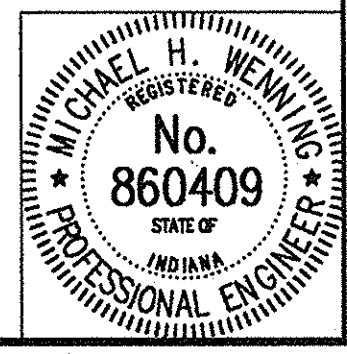
SUBMITTED FOR APPROVAL

DRAWING: - S9 OF S54 SHEET: - 24 OF 81

PROJECT: - IM-80-1(143)4

CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7823



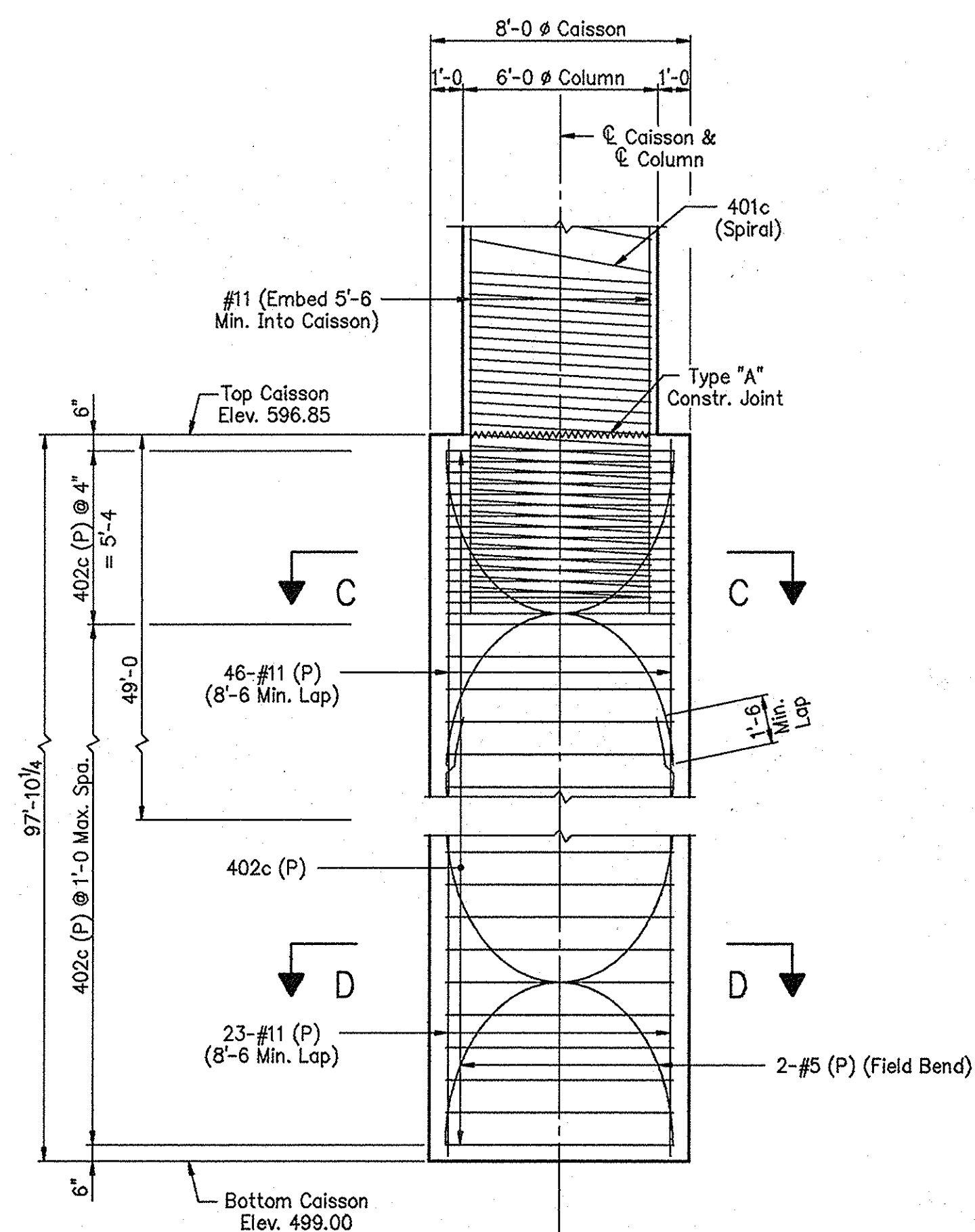
DESIGNED MDR 3/4/98 C/K/D MSP 3/31/98
 DRAWN TLH 4/3/98 C/K/D MDR 4/12/98
 TRACED C/K/D

DWG FILE: D:\27\120\2120844
 PLOT SCALE: 1/4"=1'-0"
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 SPELLCHK: 07/09/98 15:53:13
 EDIT DATE: 07/09/98 15:53:13
 EDIT BY: TLH - 5131

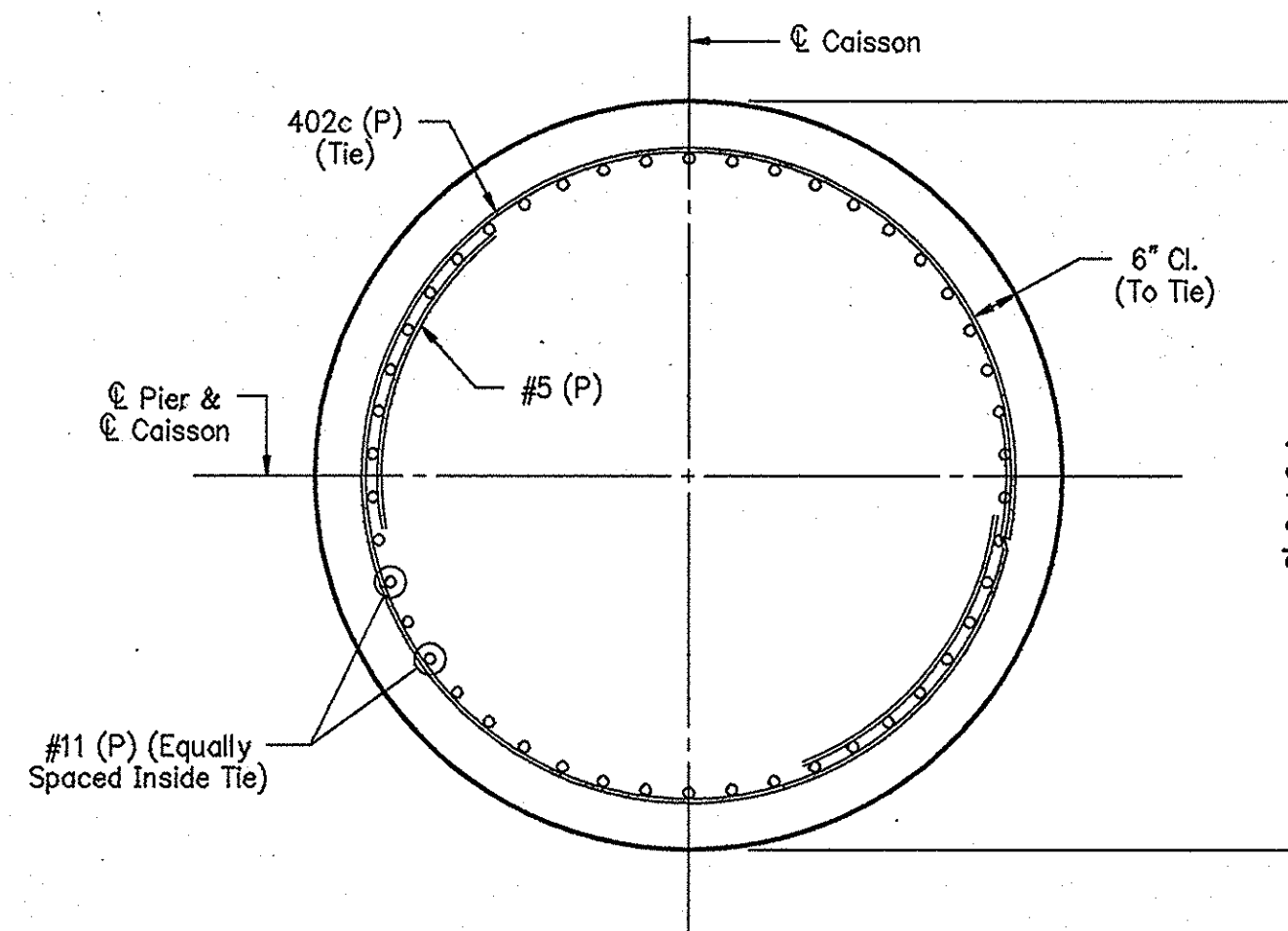
PIER No.2
BILL OF MATERIALS

Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
1101c	42	32'-3	
#11	42	16'-0	
Total No. 11			10,767
401c	1	1287'-4	860
Total Epoxy Coated Reinforcing Steel			11,627
Concrete			
Class "A" In Substructure			
Pour No.1			13.6 Cys.
Pour No.2			14.5 Cys.
Total Class "A" In Substructure			28.1 Cys.
Drilled Shaft Concrete *			182.2 Cys.

* Includes reinforcing steel, see Special Provisions.

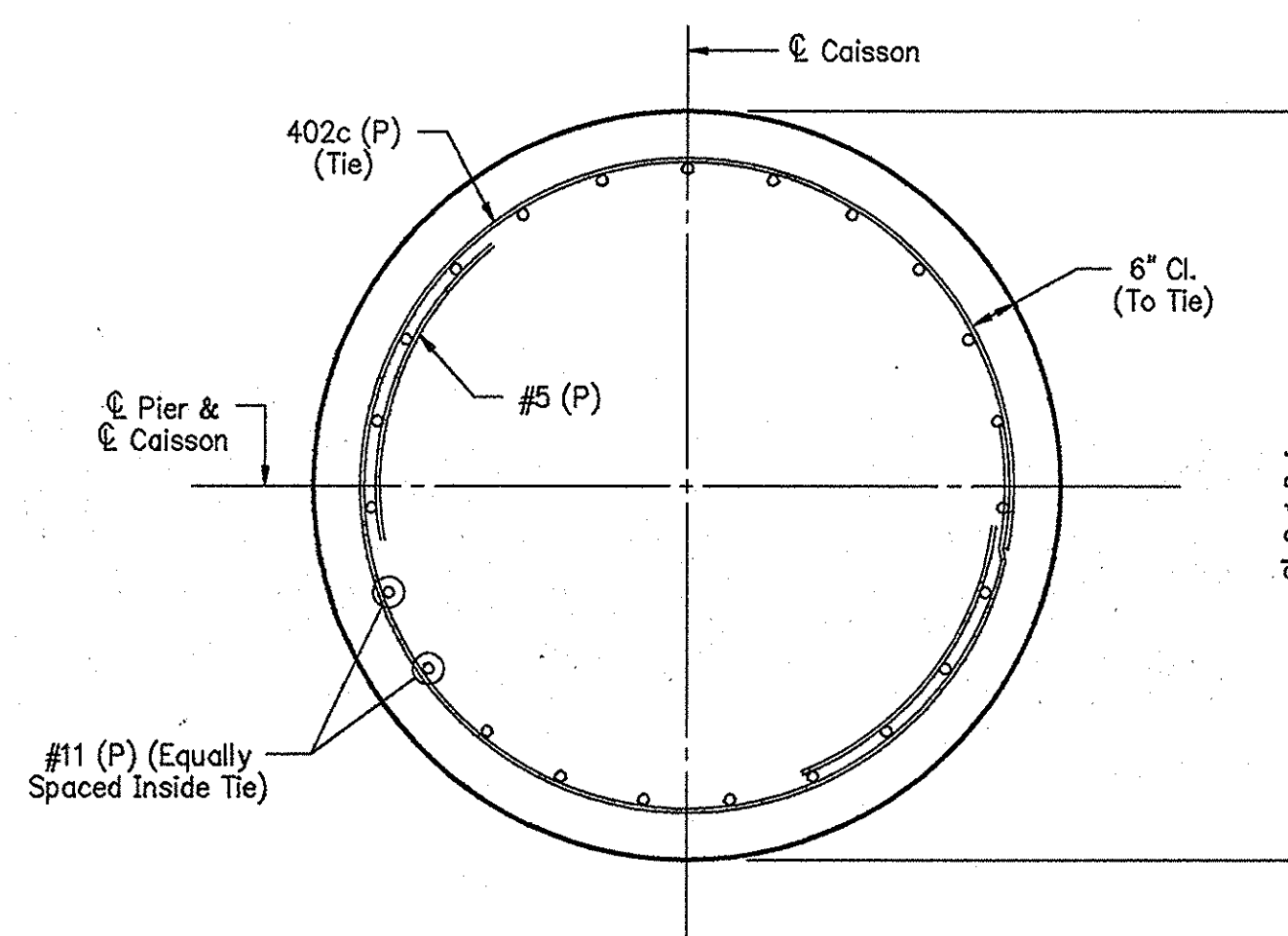


PARTIAL CAISSON ELEVATION



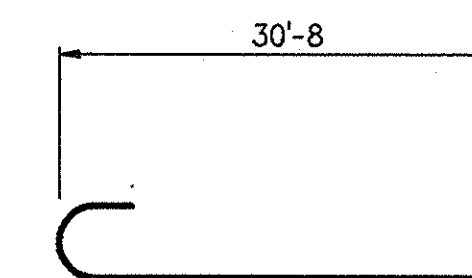
SECTION C-C

Scale: 1/2" = 1'-0"

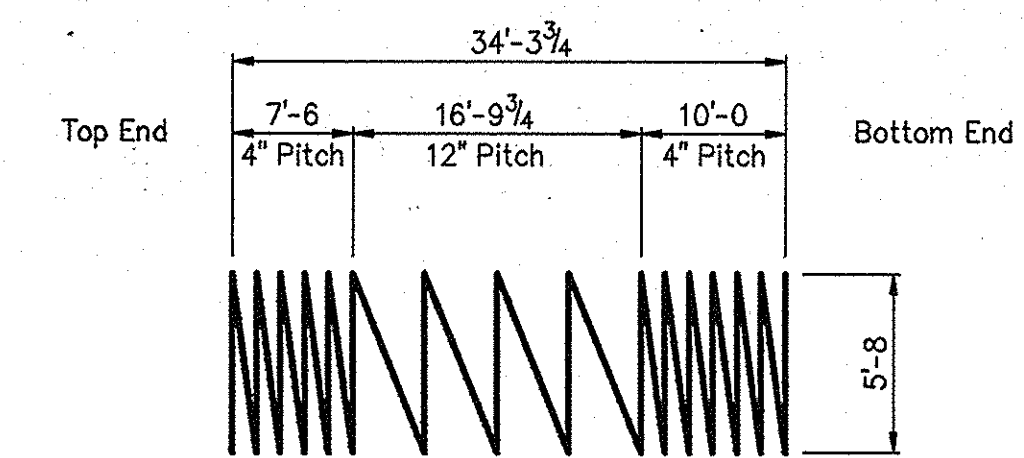


SECTION D-D

Scale: 1/2" = 1'-0"

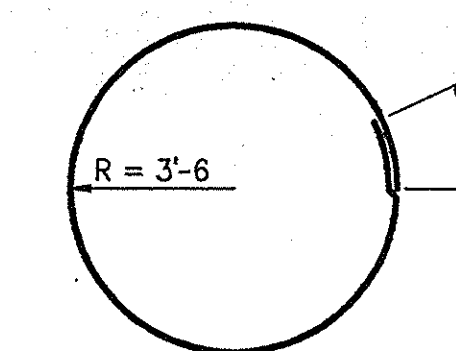


1101c x 32'-3



401c x 1287'-4

Spiral Bars To Be Formed Of Cold Drawn Wire With A Yield Of 60,000 P.S.I.



402c x 23'-4 (P)

NOTES :

- For reinforcing bar notes, see Bridge Standard C1.
- All reinforcing steel to be epoxy coated, unless noted.
- (P) Indicates plain reinforcing steel.

PIER NO.2 DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

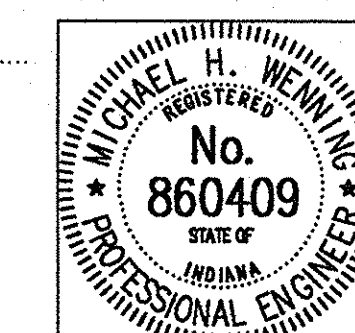
SUBMITTED FOR APPROVAL *[Signature]*

DRAWING: - S10 OF S54 SHEET: - 25 OF 81

PROJECT: - IM-80-1(143)4

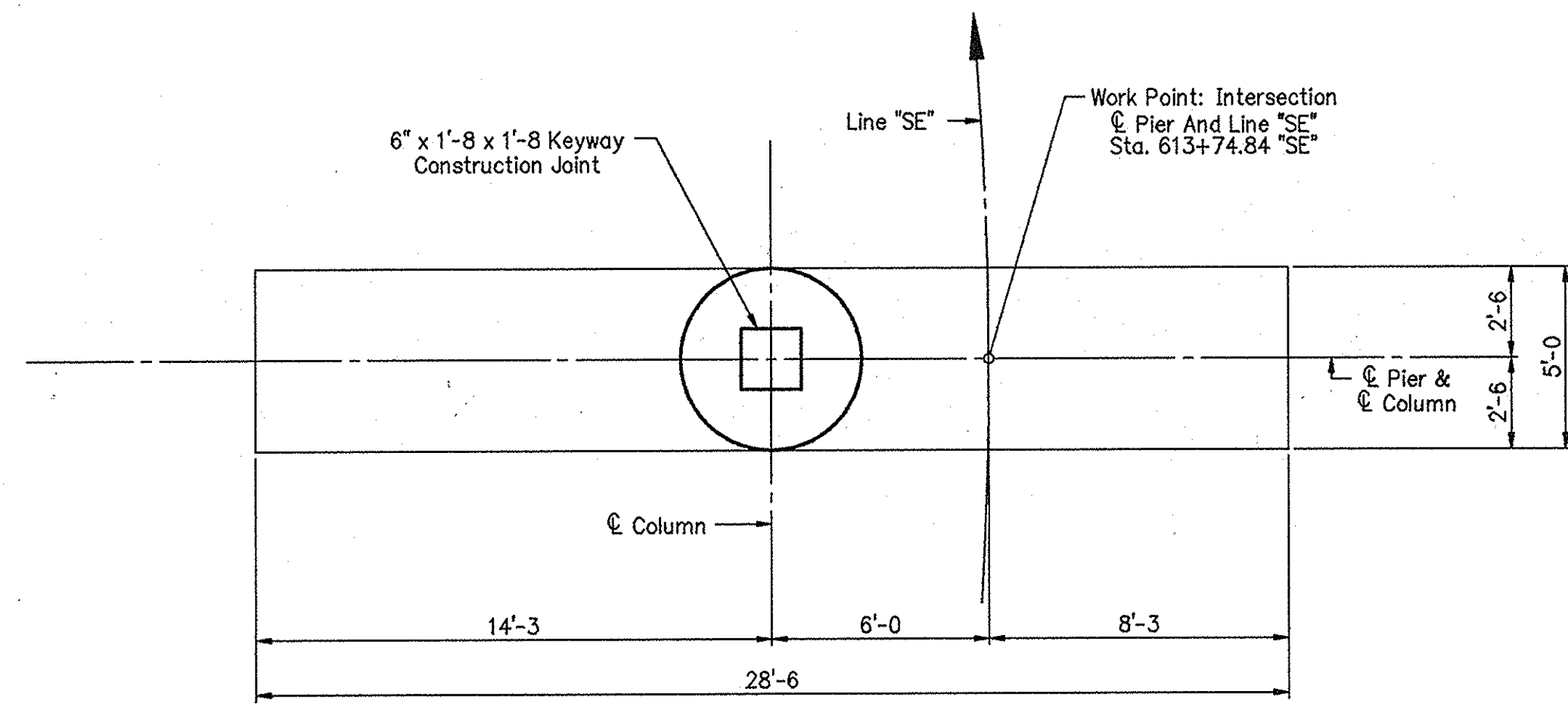
CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7823

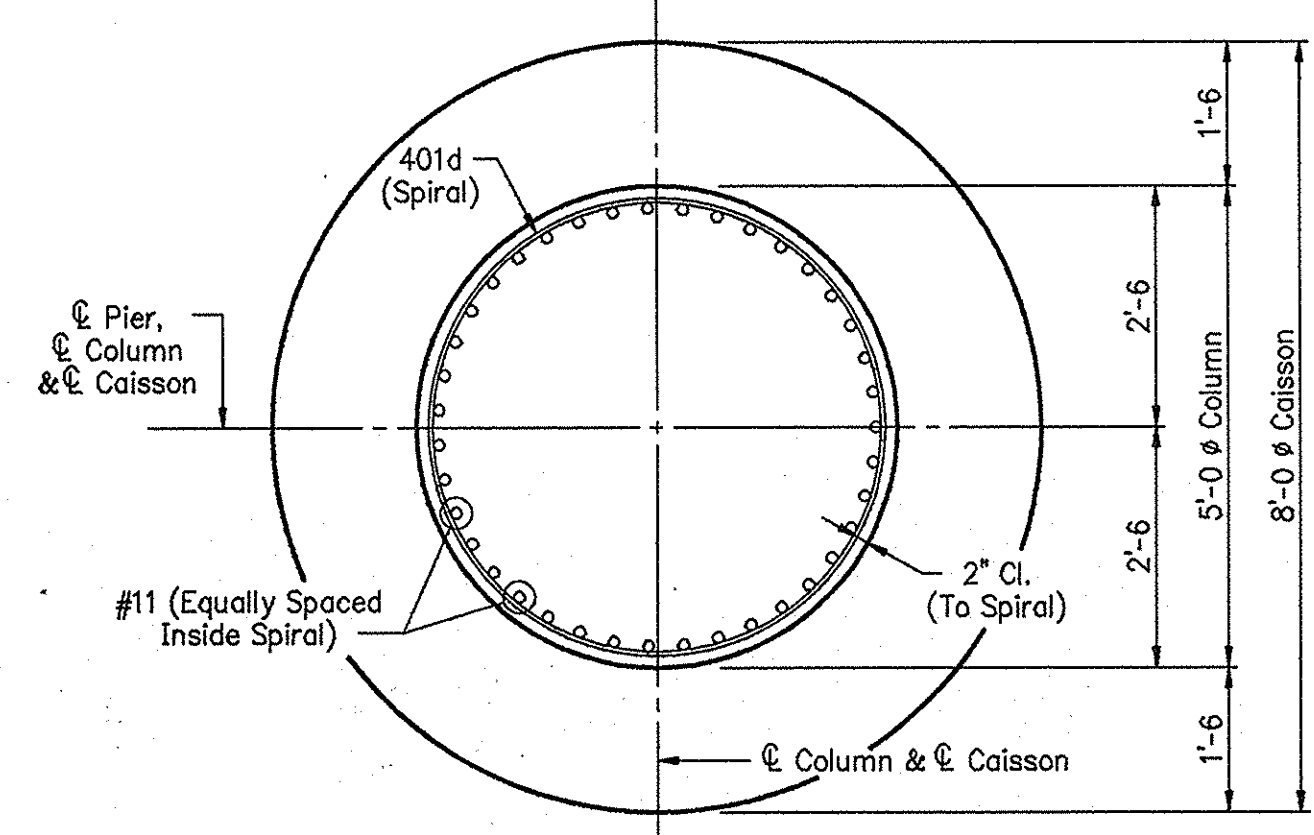
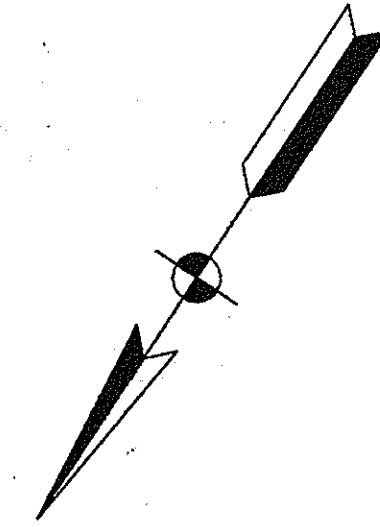


DESIGNED MDR 3/4/98	CK'D MSP 3/31/98
DRAWN TLH 4/4/98	CK'D MDR 4/12/98
TRACED _____	CK'D _____

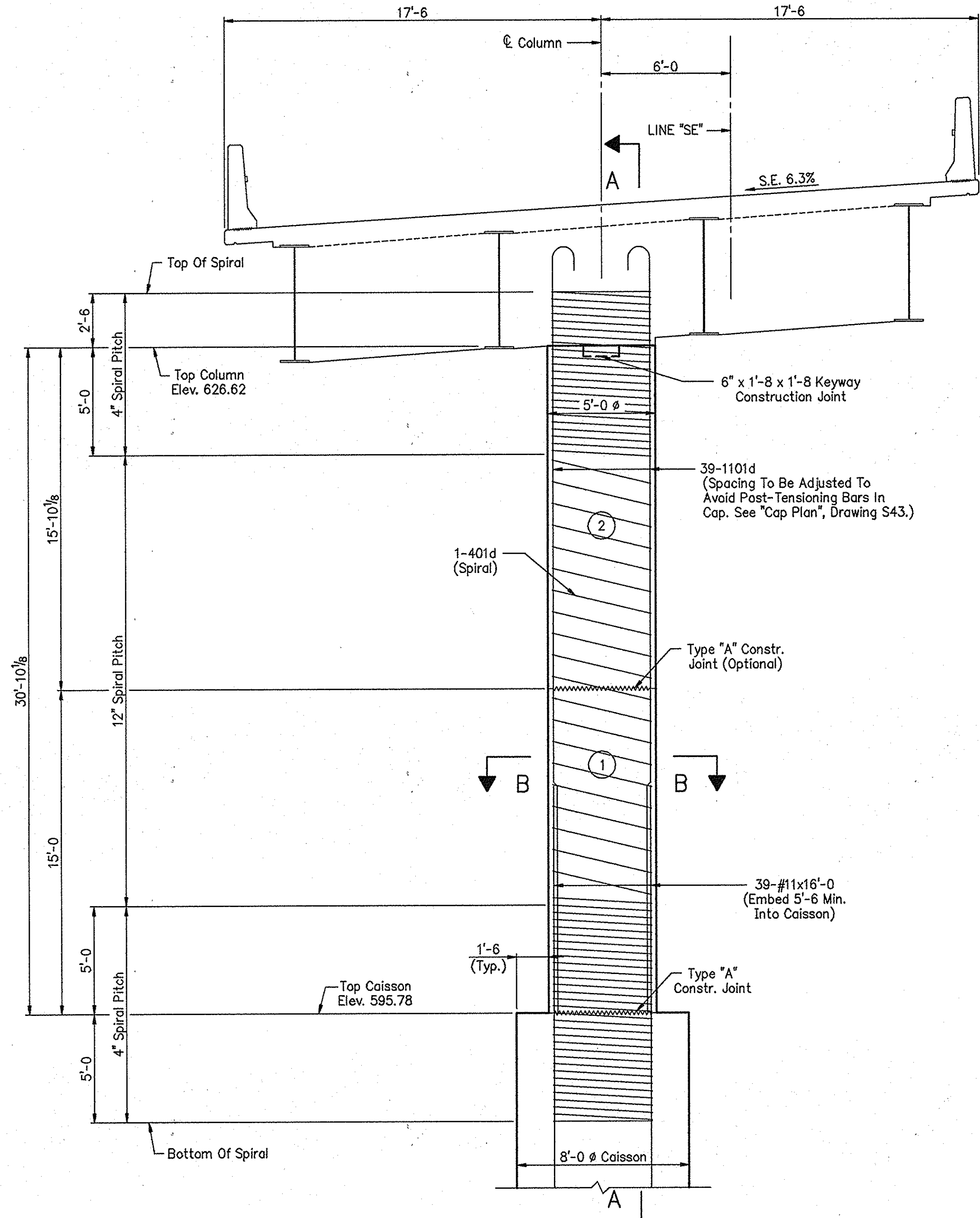
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SPELCHK: 07/09/98 13:16:28
EDIT DATE: TLH - S131



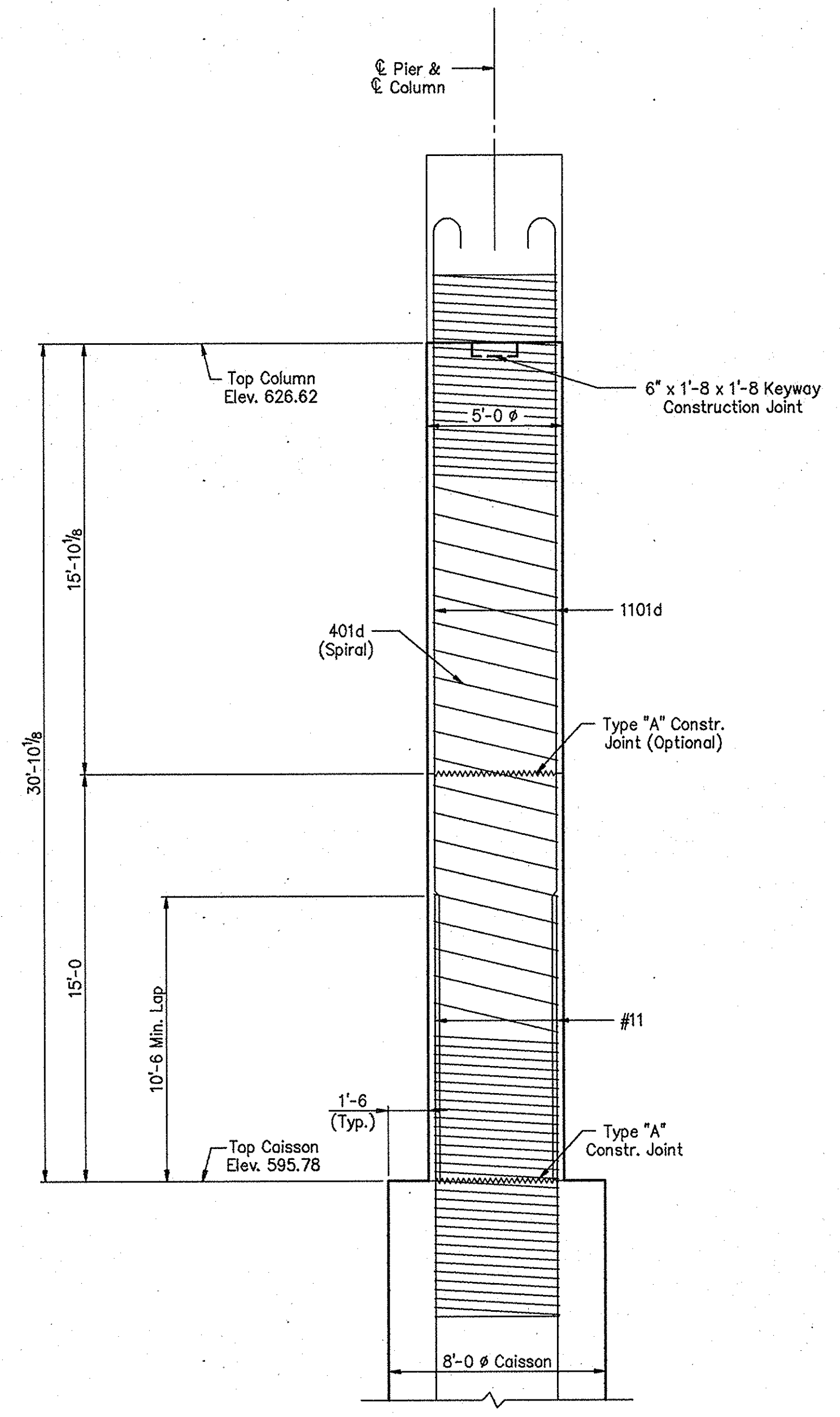
PLAN



SECTION B-B
Scale: 1/2" = 1'-0"



ELEVATION



SECTION A-A

NOTES:

For reinforcing bar notes, see Bridge Standard C1.

All reinforcing steel to be epoxy coated, unless noted.

For Cap details, see Drawing S43.

For Caisson details, additional details and Bill of Materials, see Drawing S12.

(*) Indicates concrete pour number.

PIER NO.3 DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

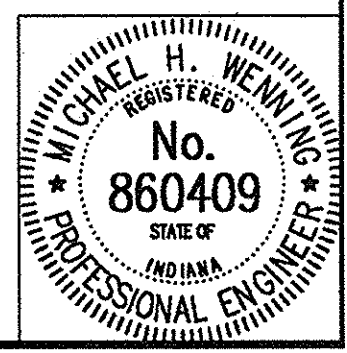
SUBMITTED FOR APPROVAL *Michael H. Weening*

DRAWING: - S11 OF S54 SHEET: - 26 OF 81

PROJECT: - IM-80-1(143)4

CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7823



DESIGNED MDR 3/4/98 C/K'D MSP 3/31/98

DRAWN TLH 4/3/98 C/K'D MDR 4/12/98

TRACED _____ C/K'D _____

DWG FILE: D:\92\120\2120848

PLOT SCALE: 1/4"=1'-0

PLOT ORIGIN: 0,0,0,0

SPELLCHK: _____

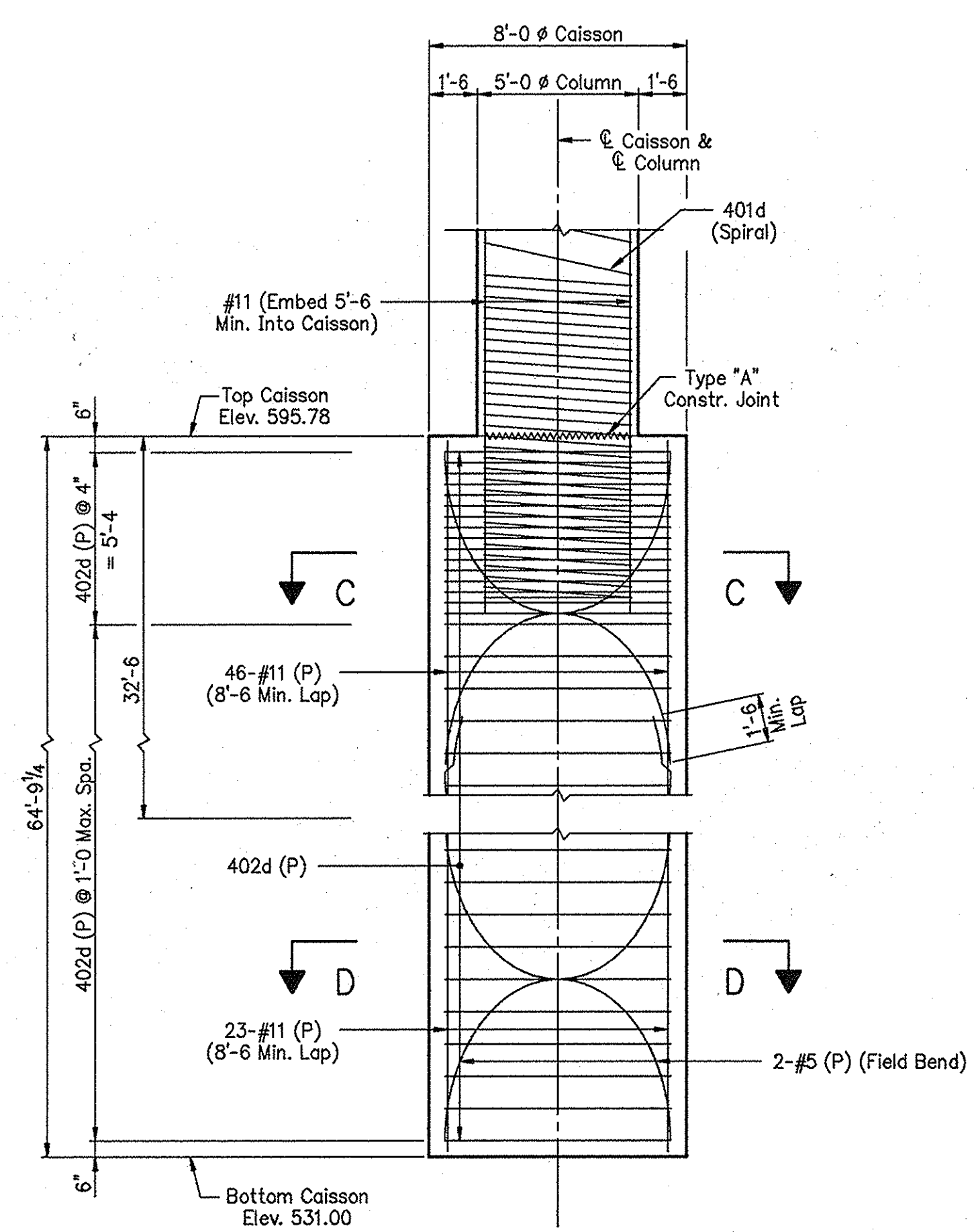
EDIT DATE: 07/09/98 15:56:18

EDIT BY: TLH - S13

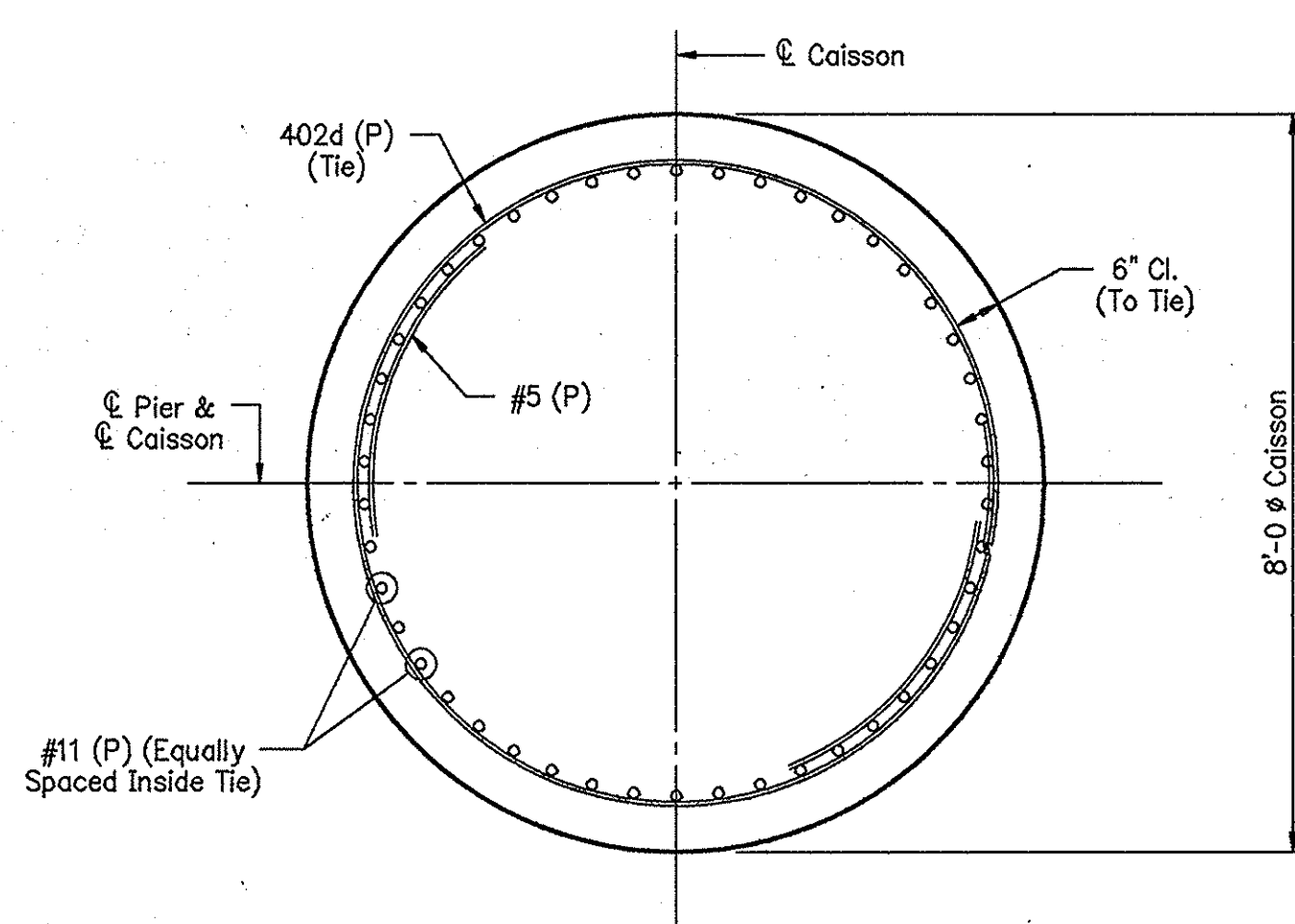
PIER No.3 BILL OF MATERIALS

Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
1101d	39	37'-0	
#11	39	16'-0	
Total No. 11			10,982
401d	1	1119'-3	748
Total Epoxy Coated Reinforcing Steel			11,730
Concrete			
Class "A" In Substructure			
Pour No.1			10.9 Cys.
Pour No.2			11.5 Cys.
Total Class "A" In Substructure			22.4 Cys.
Drilled Shaft Concrete *			120.6 Cys.

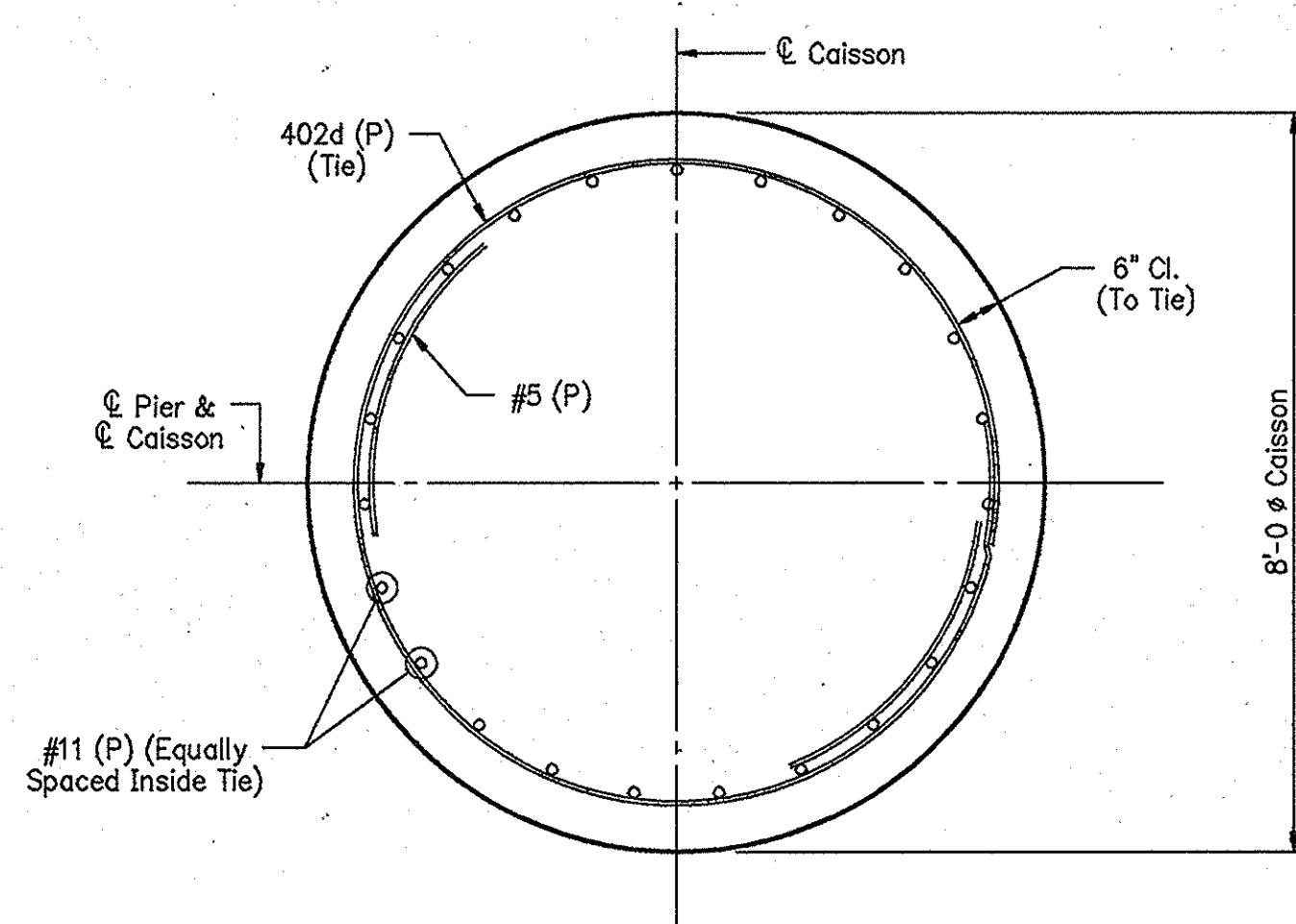
* Includes reinforcing steel, see Special Provisions.



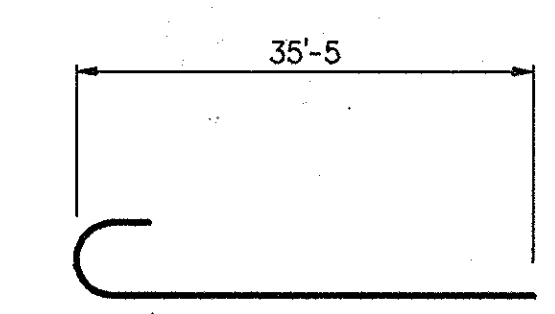
PARTIAL CAISSON ELEVATION



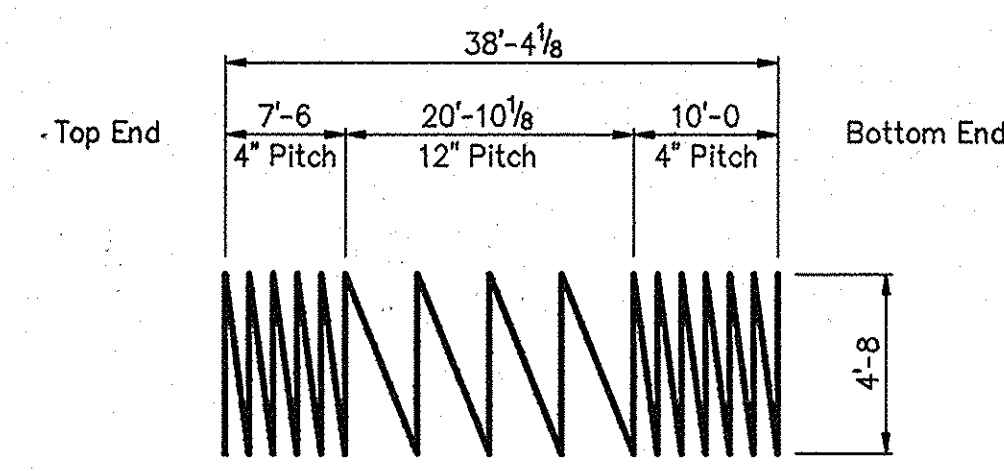
SECTION C-C
Scale: 1/2" = 1'-0"



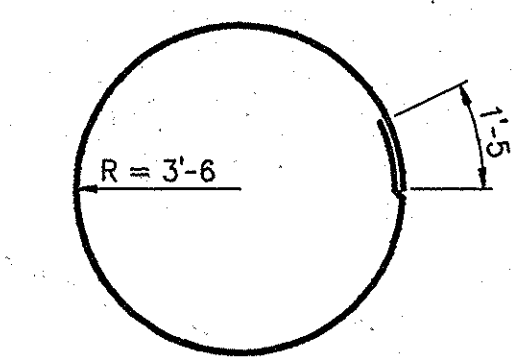
SECTION D-D
Scale: 1/2" = 1'-0"



1101d x 37'-0



401d x 1119'-3
Spiral Bars To Be Formed Of Cold Drawn Wire With A Yield Of 60,000 P.S.I.



402d x 23'-4 (P)

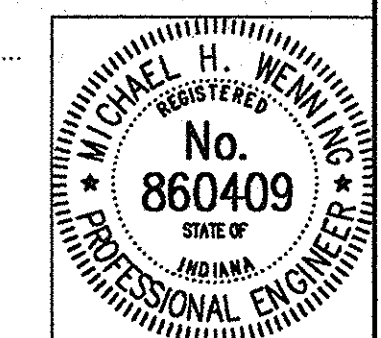
NOTES:
For reinforcing bar notes, see Bridge Standard C1.
All reinforcing steel to be epoxy coated, unless noted.
(P) Indicates plain reinforcing steel.

PIER NO.3 DETAILS INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

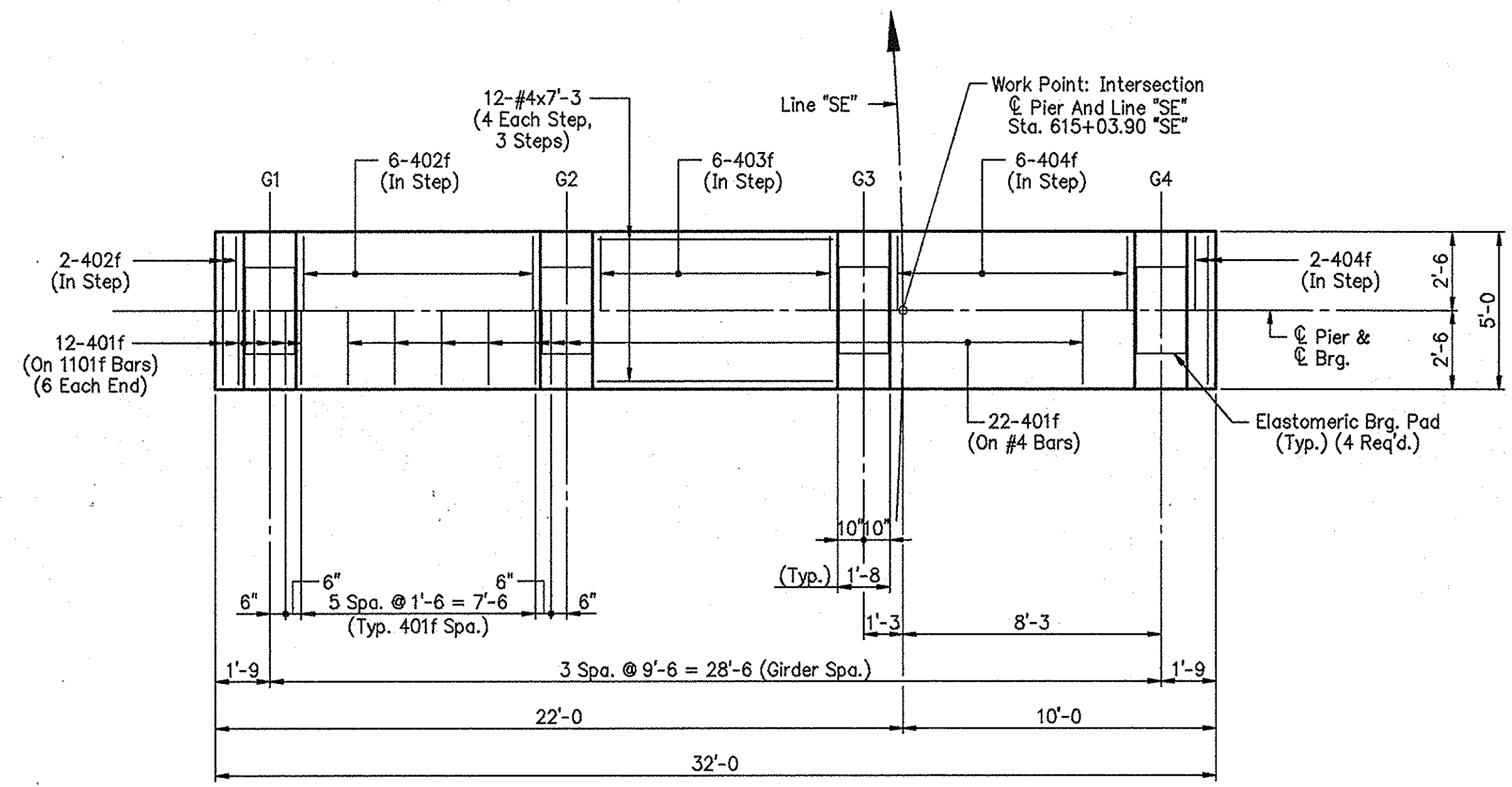
SUBMITTED FOR APPROVAL *[Signature]*

DRAWING: - S12 OF S54 SHEET: - 27 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823

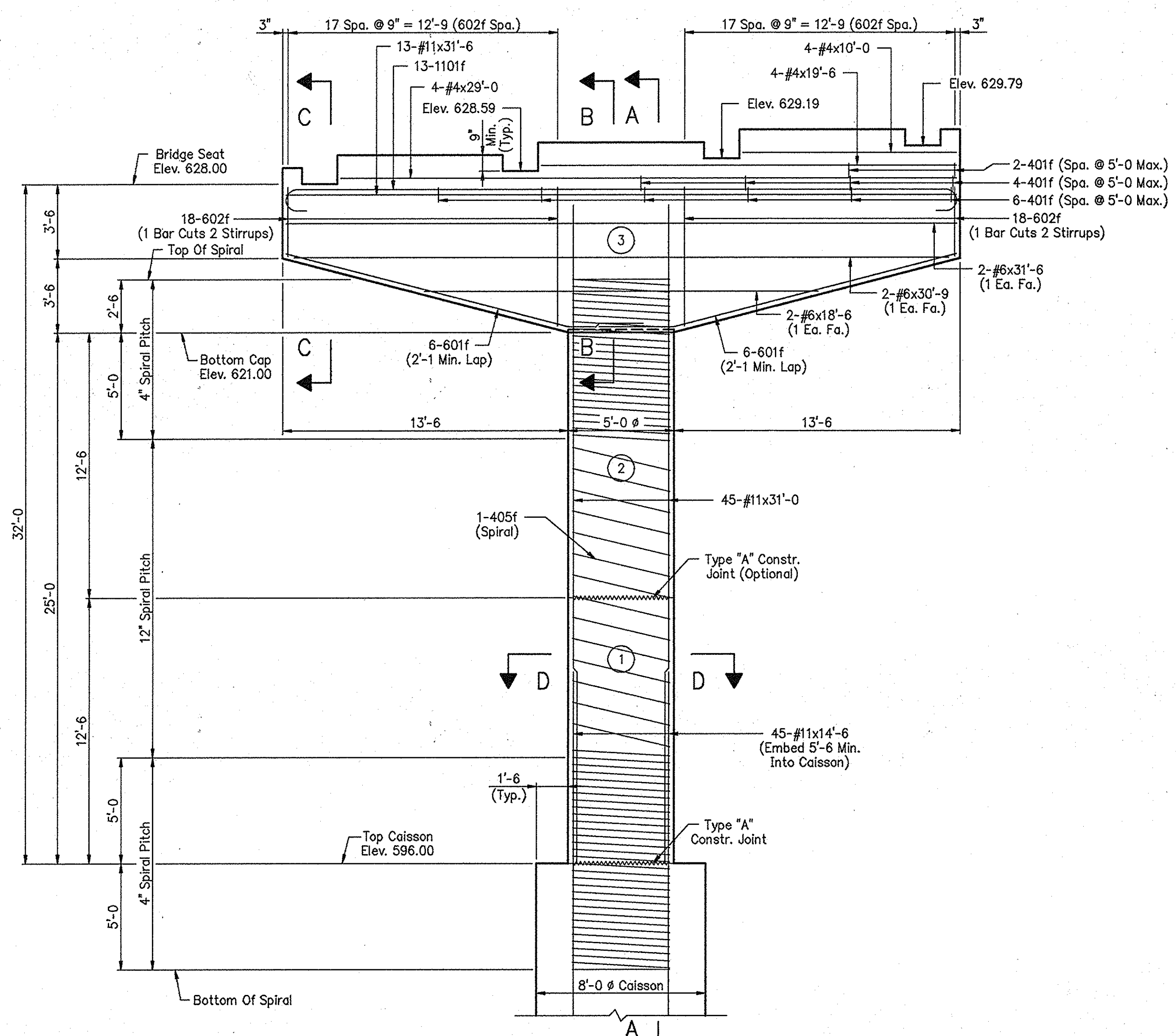
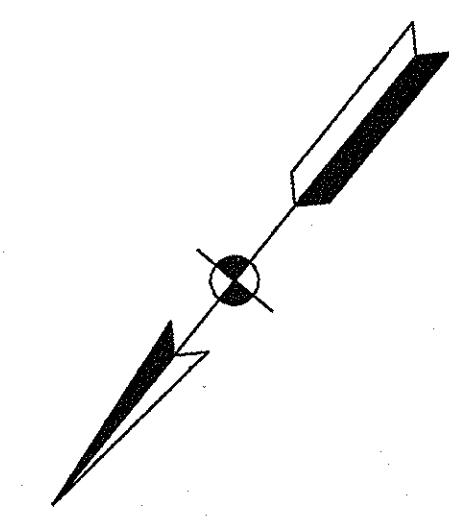


DESIGNED MDR 3/4/98 MSP 3/31/98
DRAWN TLH 4/4/98 CKD MDR 4/12/98
TRACED CKD

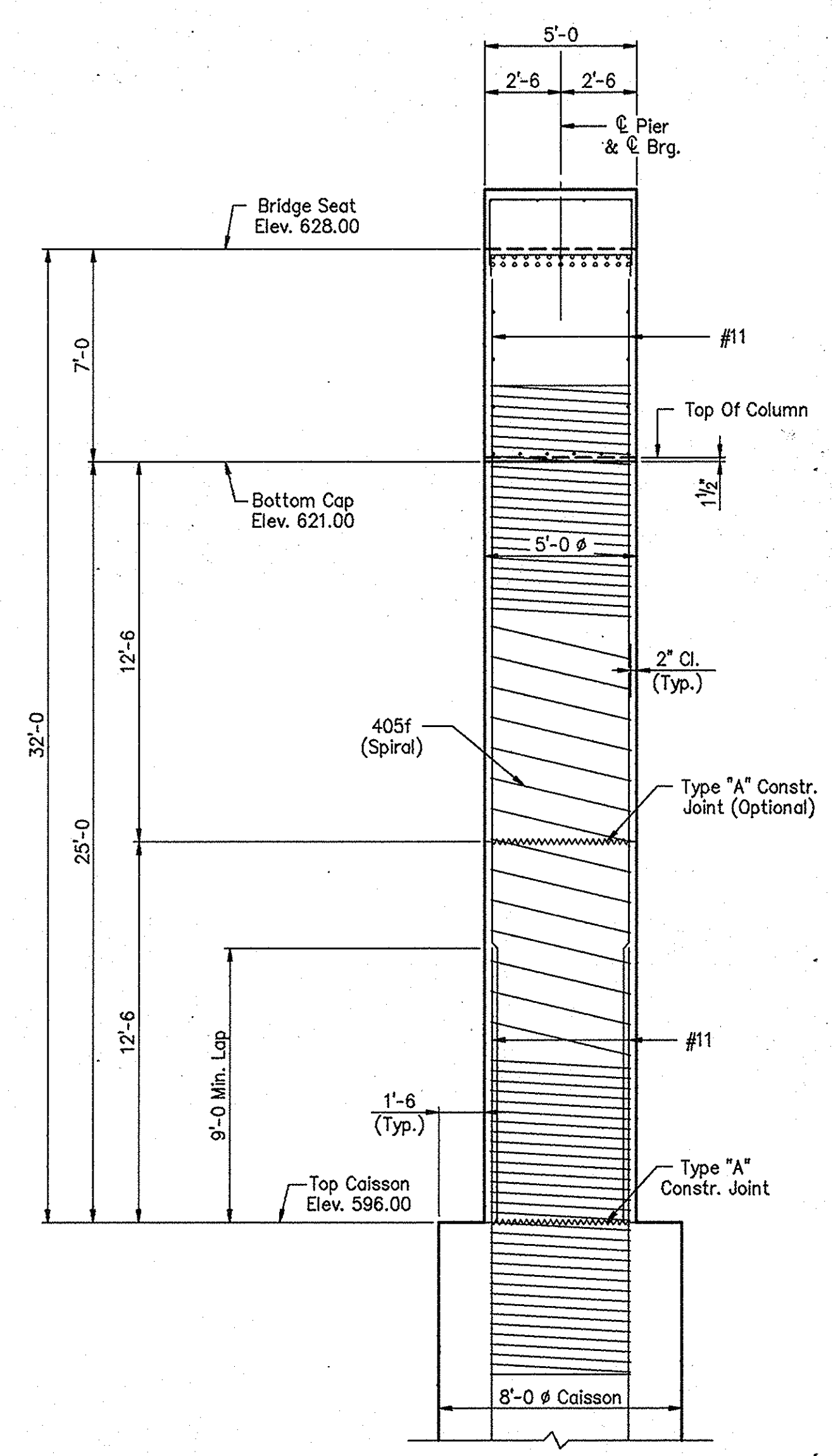
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SPELCHK: 07/07/98
EDIT DATE: 07/07/98
EDIT BY: TLH - S131



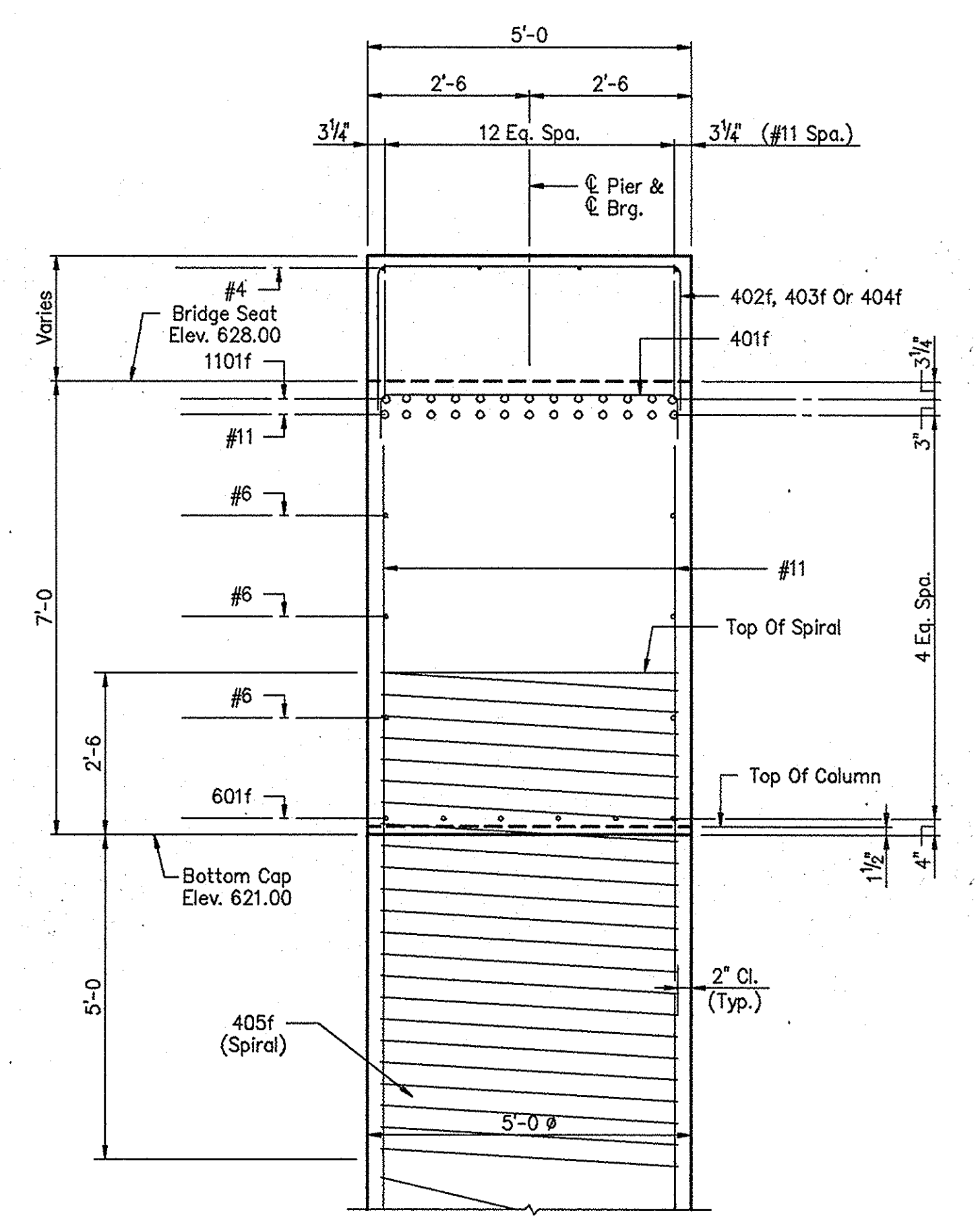
CAP PLAN



ELEVATION



SECTION A-A

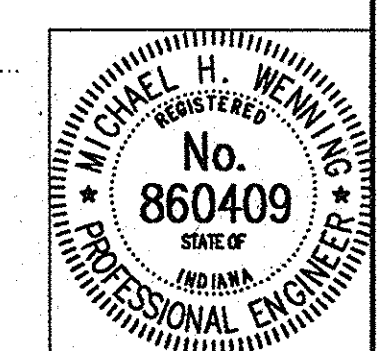


SECTION B-B
Scale: 1/2" = 1'-0"

NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 All reinforcing steel to be plain.
 Surface seal top and vertical surfaces of cap.
 For Caisson details, Sections C-C and D-D, additional details and Bill of Materials, see Drawing S14.
 (X) Indicates concrete pour number.

PIER NO.4 DETAILS
 INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL *[Signature]*
 DRAWING: - S13 OF S54 SHEET: - 28 OF 81
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7823



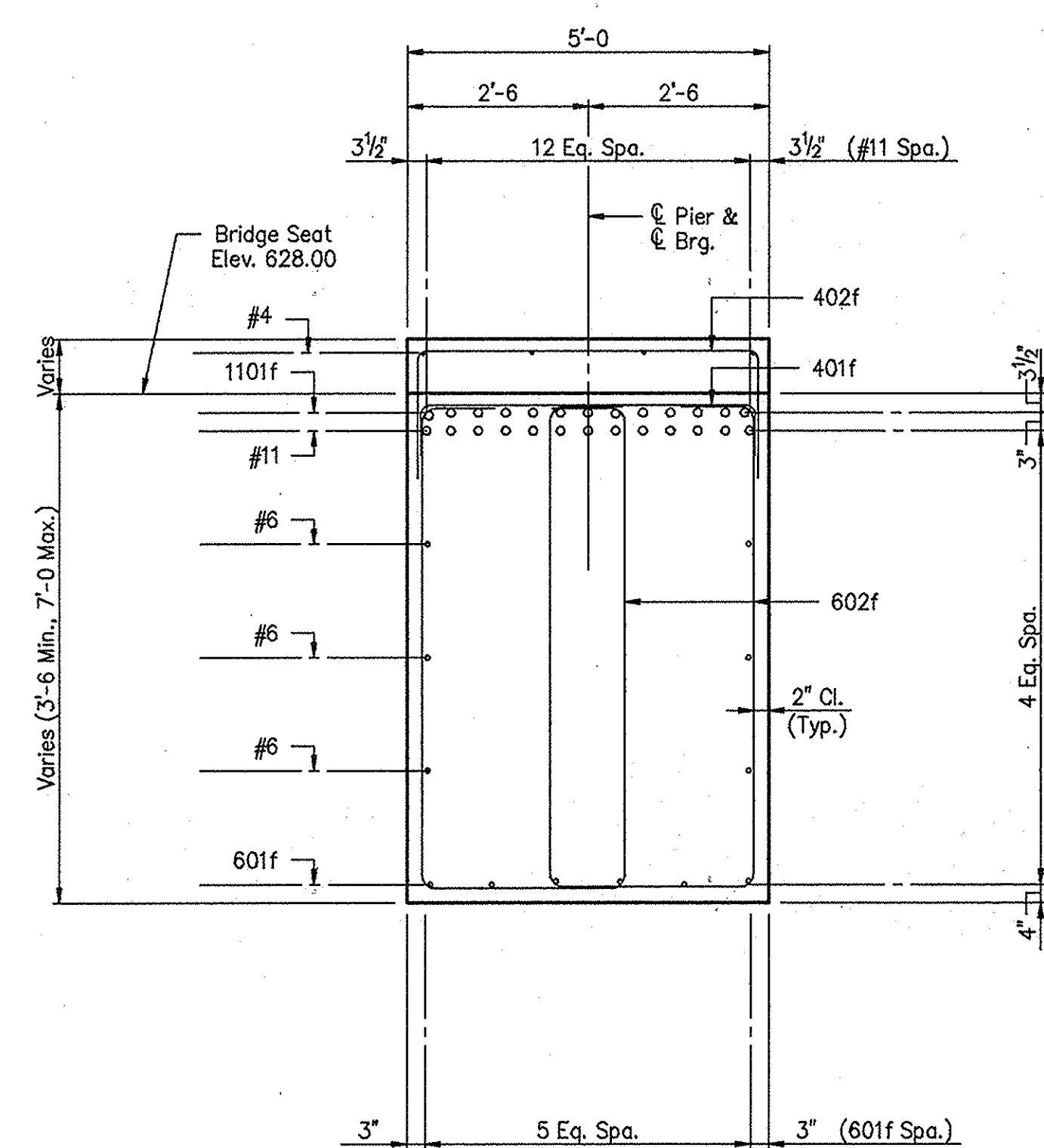
DESIGNED MDR 2/20/98 CKD MHW 3/17/98
 DRAWN TLH 2/25/98 CKD MDR 3/25/98
 TRACED CKD

DWG FILE: D:\P2\120\92120638
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 EDIT DATE: 07/09/98 13:18:06
 EDITED BY: TLH - S131

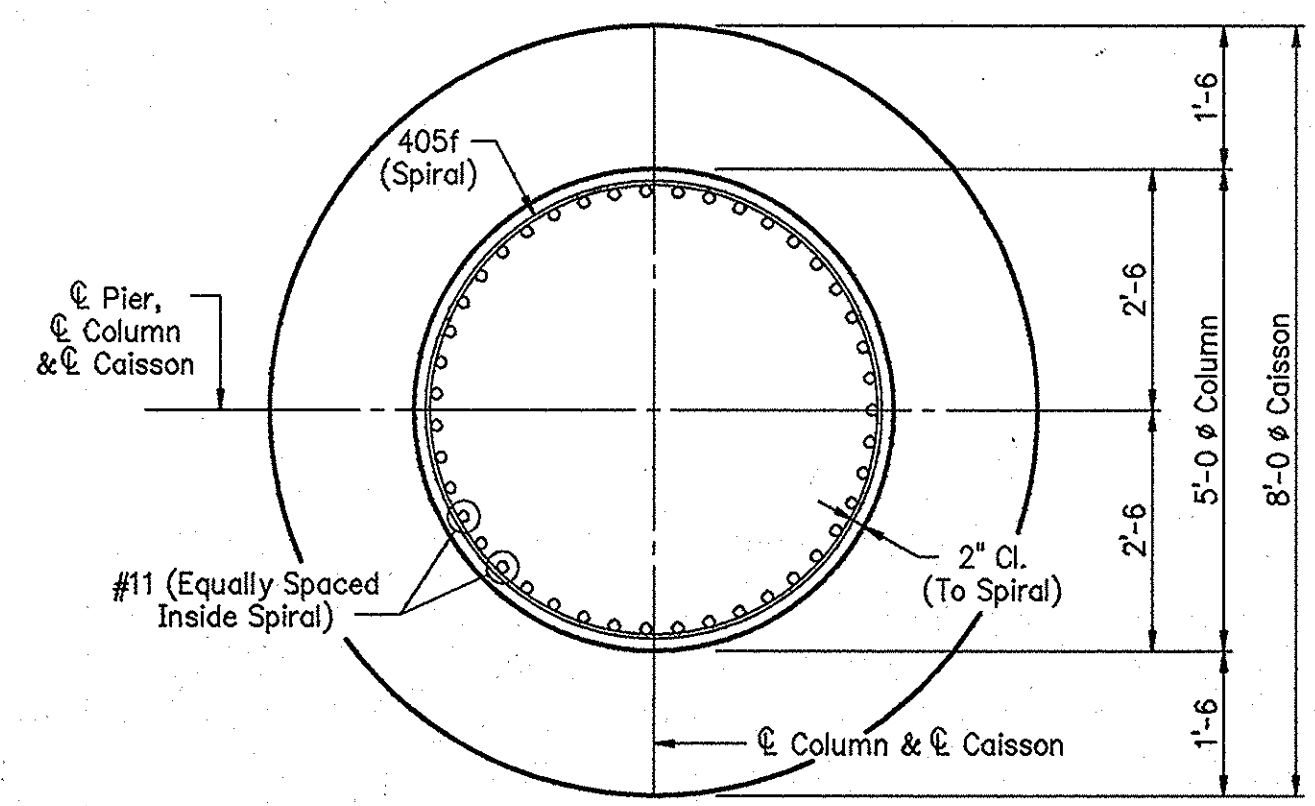
PIER No. 4 BILL OF MATERIALS

Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
1101f	13	34'-8"	
#11	13	31'-6"	
#11	45	31'-0"	
#11	45	14'-6"	
Total No. 11			15,448
601f	12	17'-3"	
602f	36	29'-8"	
#6	2	31'-6"	
#6	2	30'-9"	
#6	2	18'-6"	
Total No. 6			2158
401f	46	6'-0"	
402f	8	8'-4"	
403f	6	9'-4"	
404f	8	10'-6"	
405f	1	1033'-8"	
#4	4	29'-0"	
#4	4	19'-6"	
#4	4	10'-0"	
#4	12	7'-3"	
Total No. 4			1227
Total Plain Reinforcing Steel			18,833
Concrete			
Class "A" In Substructure			
Pour No. 1			9.1 Cys.
Pour No. 2			9.1 Cys.
Pour No. 3			42.9 Cys.
Total Class "A" In Substructure			61.1 Cys.
Drilled Shaft Concrete *			219.7 Cys.
Miscellaneous			
Surface Seal			720 Sft.

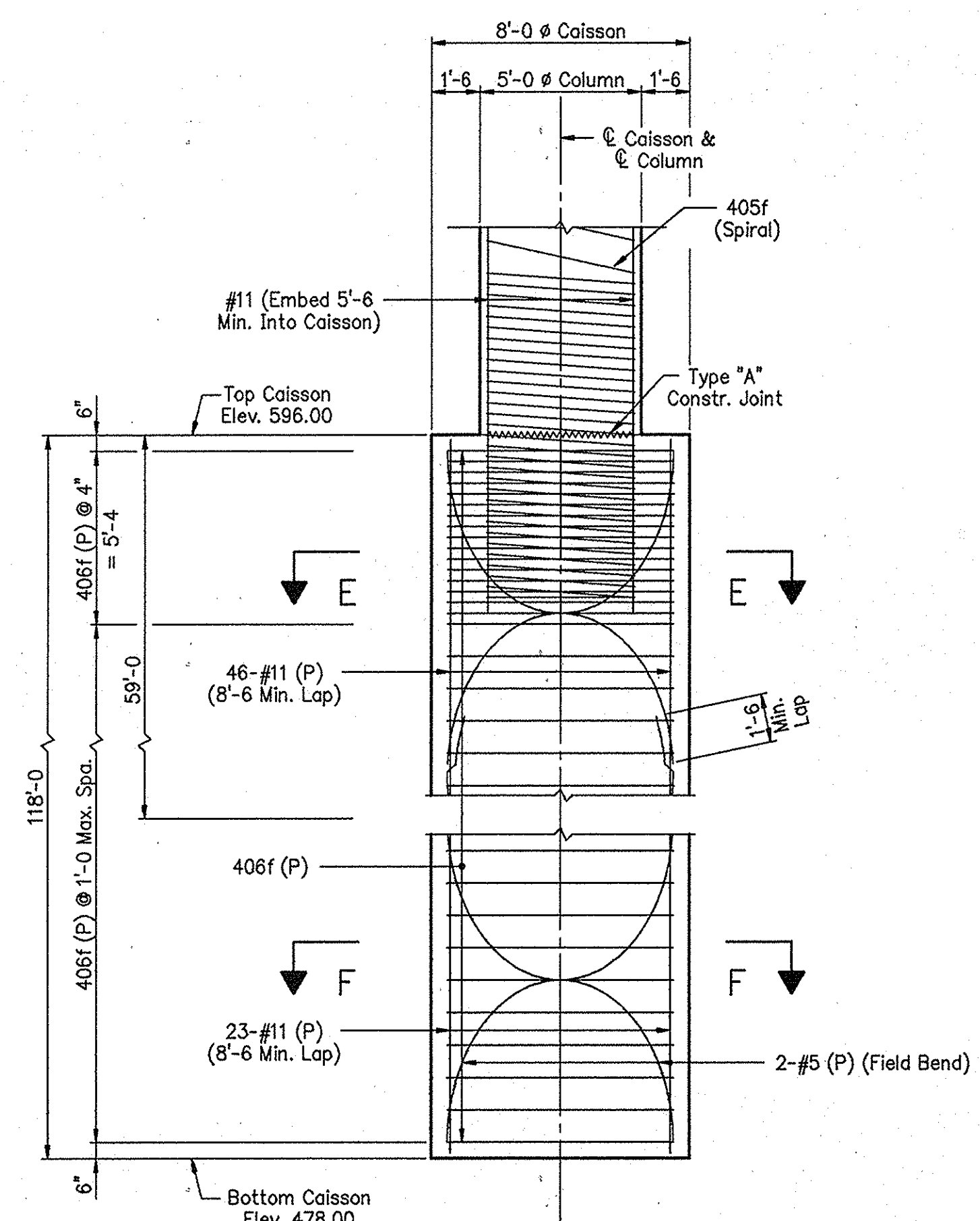
* Includes reinforcing steel, see Special Provisions.



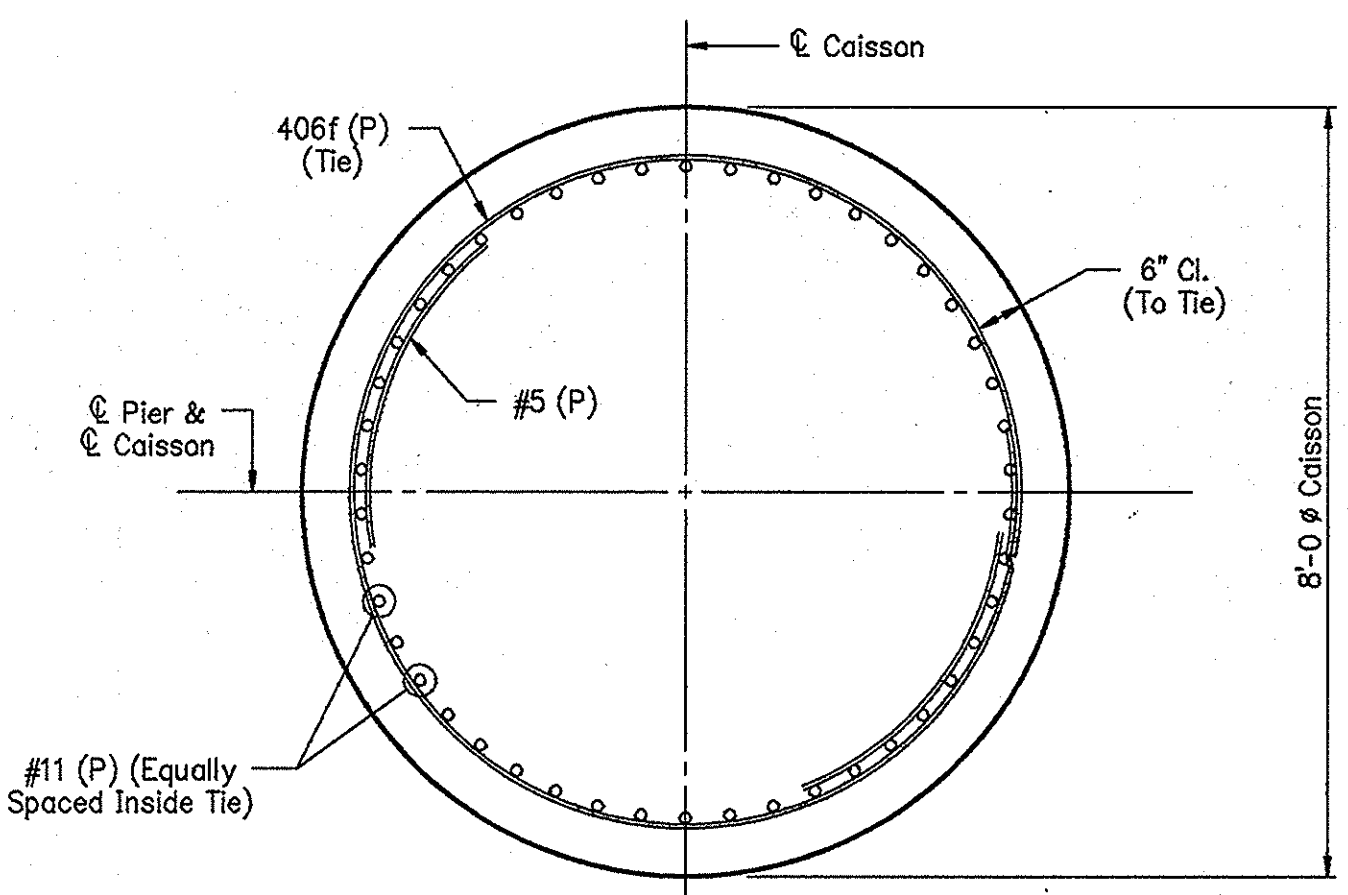
SECTION C-C
Scale: 1/2" = 1'-0"



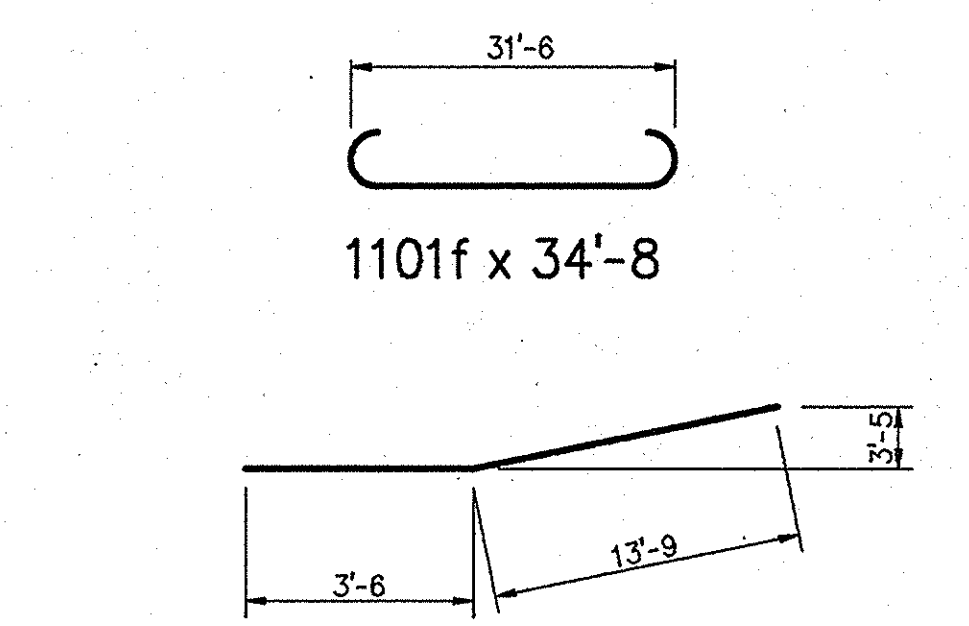
SECTION D-D
Scale: 1/2" = 1'-0"



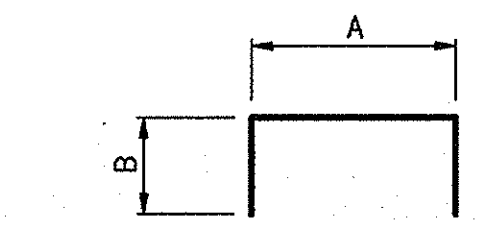
PARTIAL CAISSON ELEVATION



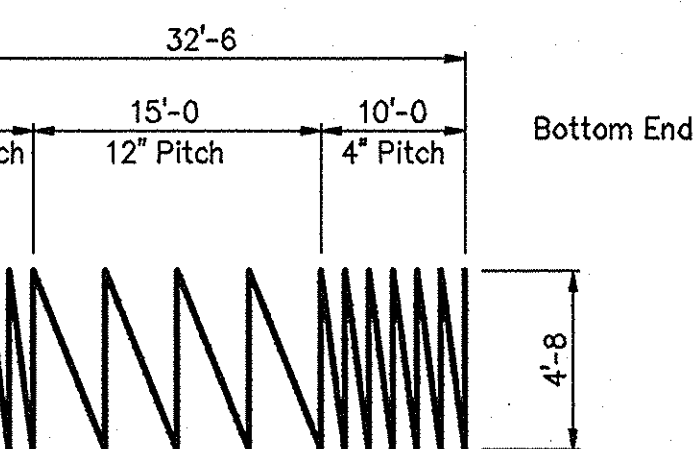
SECTION E-E
Scale: 1/2" = 1'-0"



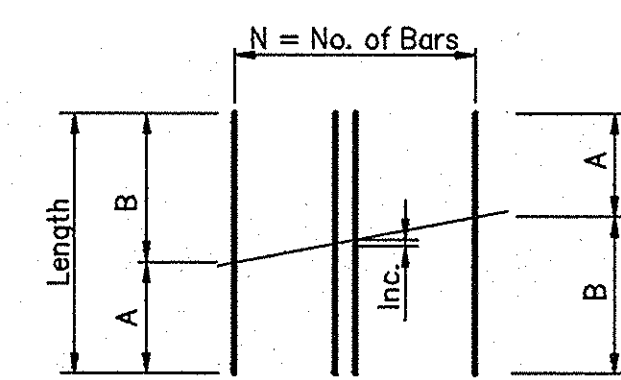
1101f x 34'-8"



Mark	Length	A	B
401f	6'-0"	4'-8"	8"
402f	8'-4"	4'-8"	1'-10"
403f	9'-4"	4'-8"	2'-4"
404f	10'-6"	4'-8"	2'-11"

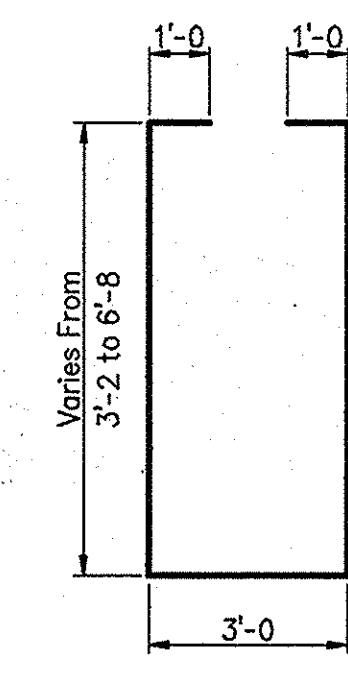


405f x 1033'-8"
Spiral Bars To Be Formed Of Cold Drawn Wire With A Yield Of 60,000 P.S.I.

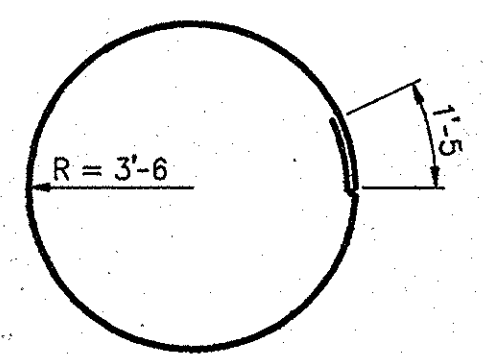


Cutting Diagram (1 Bar Cuts 2 Stirrups)

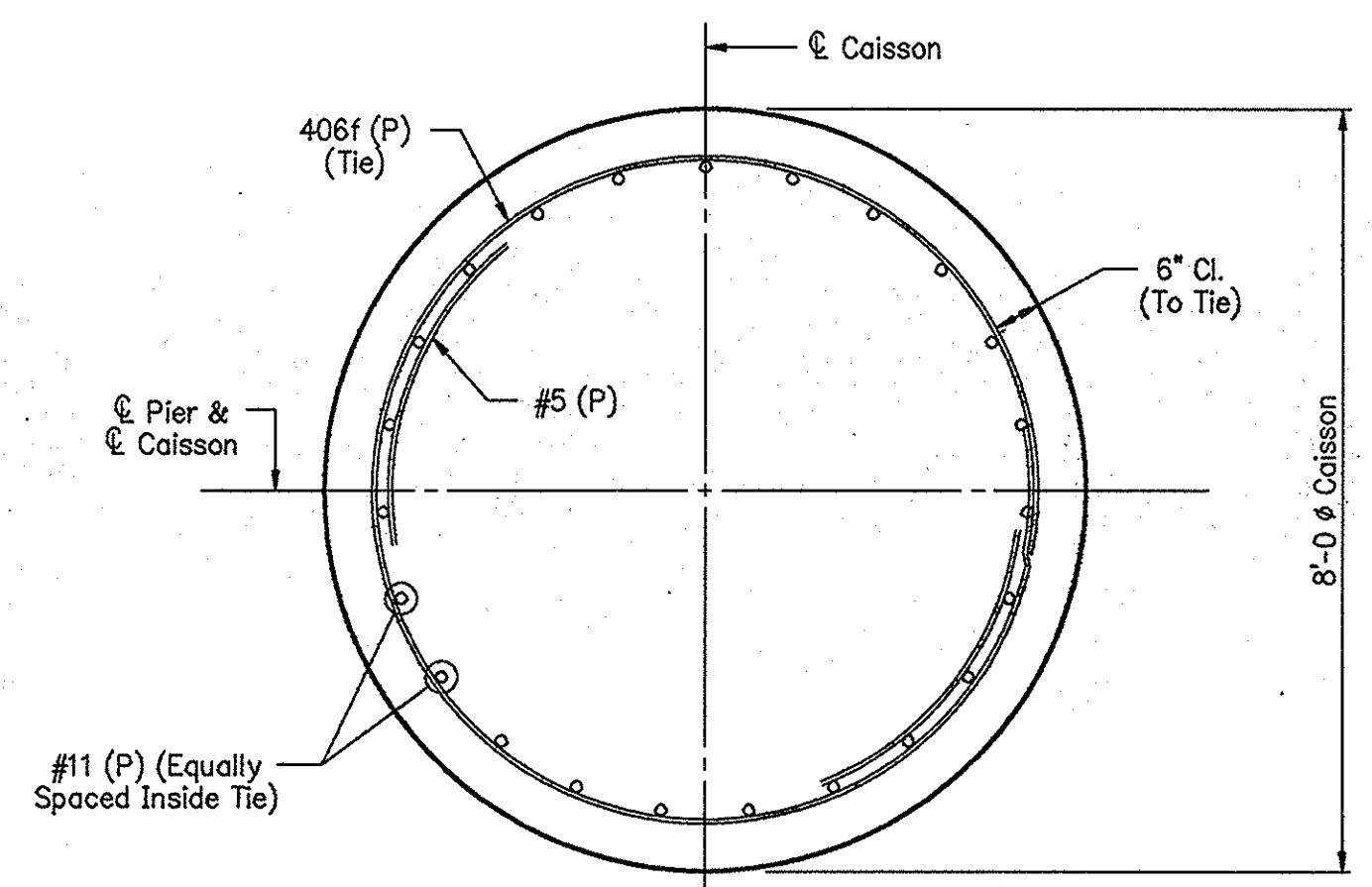
Mark	Length	A	B	N	Inc.
602f	29'-8"	11'-4"	18'-4"	18	4 15/16"



Bending Diagram For 602f



406f x 23'-4"

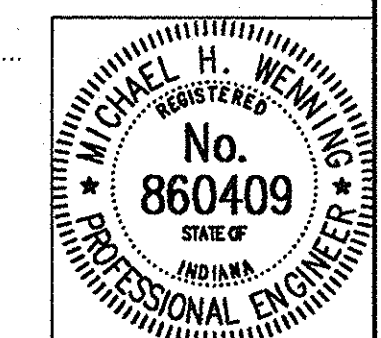


SECTION F-F
Scale: 1/2" = 1'-0"

NOTES:
For reinforcing bar notes, see Bridge Standard C1.
For location of Sections C-C and D-D, see Drawing S13.
All reinforcing steel to be plain.

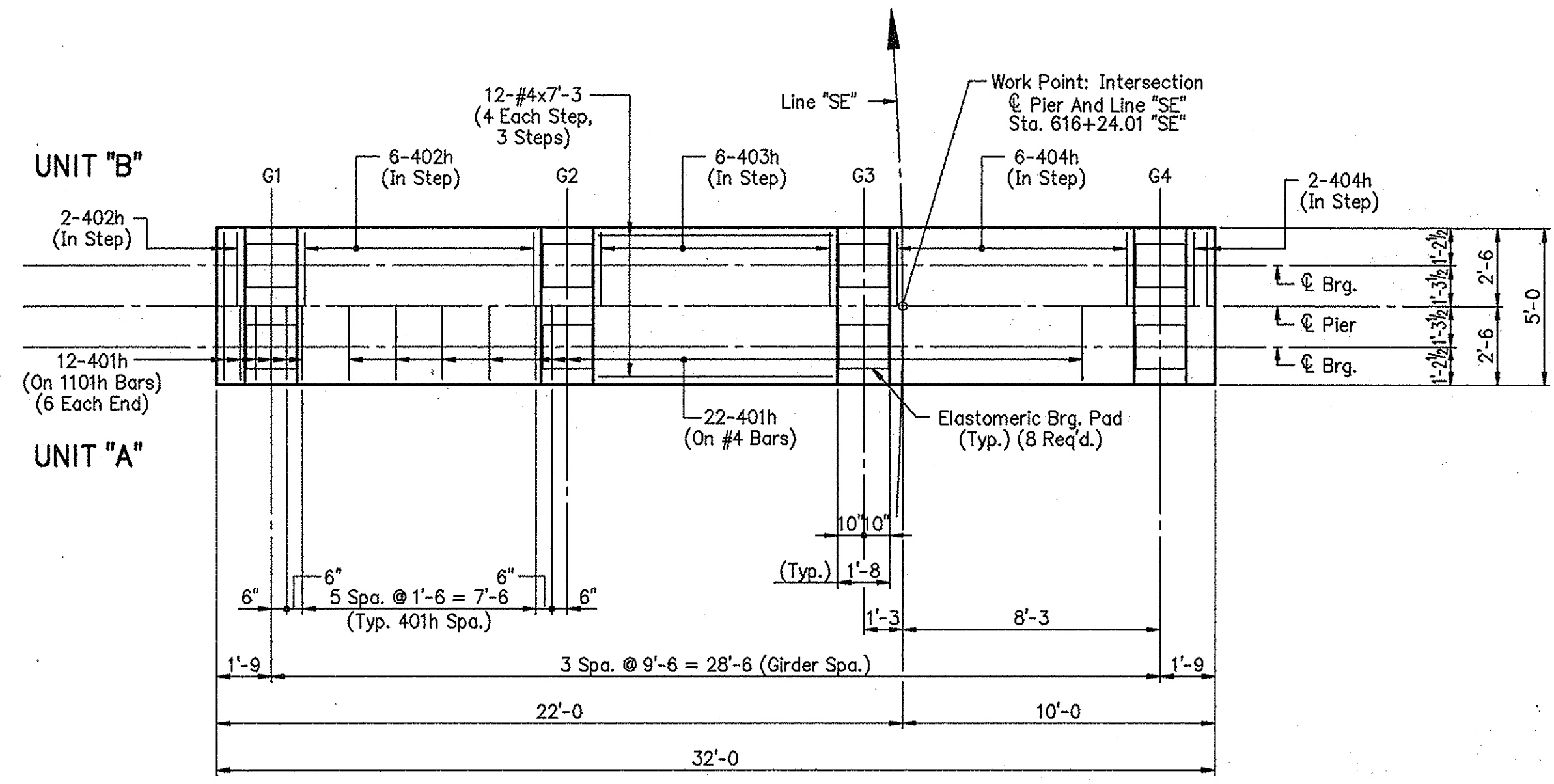
PIER NO. 4 DETAILS INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0", UNLESS NOTED DATE: - July 9, 1998
SUBMITTED FOR APPROVAL *[Signature]*
DRAWING: - S14 OF 554 SHEET: - 29 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823

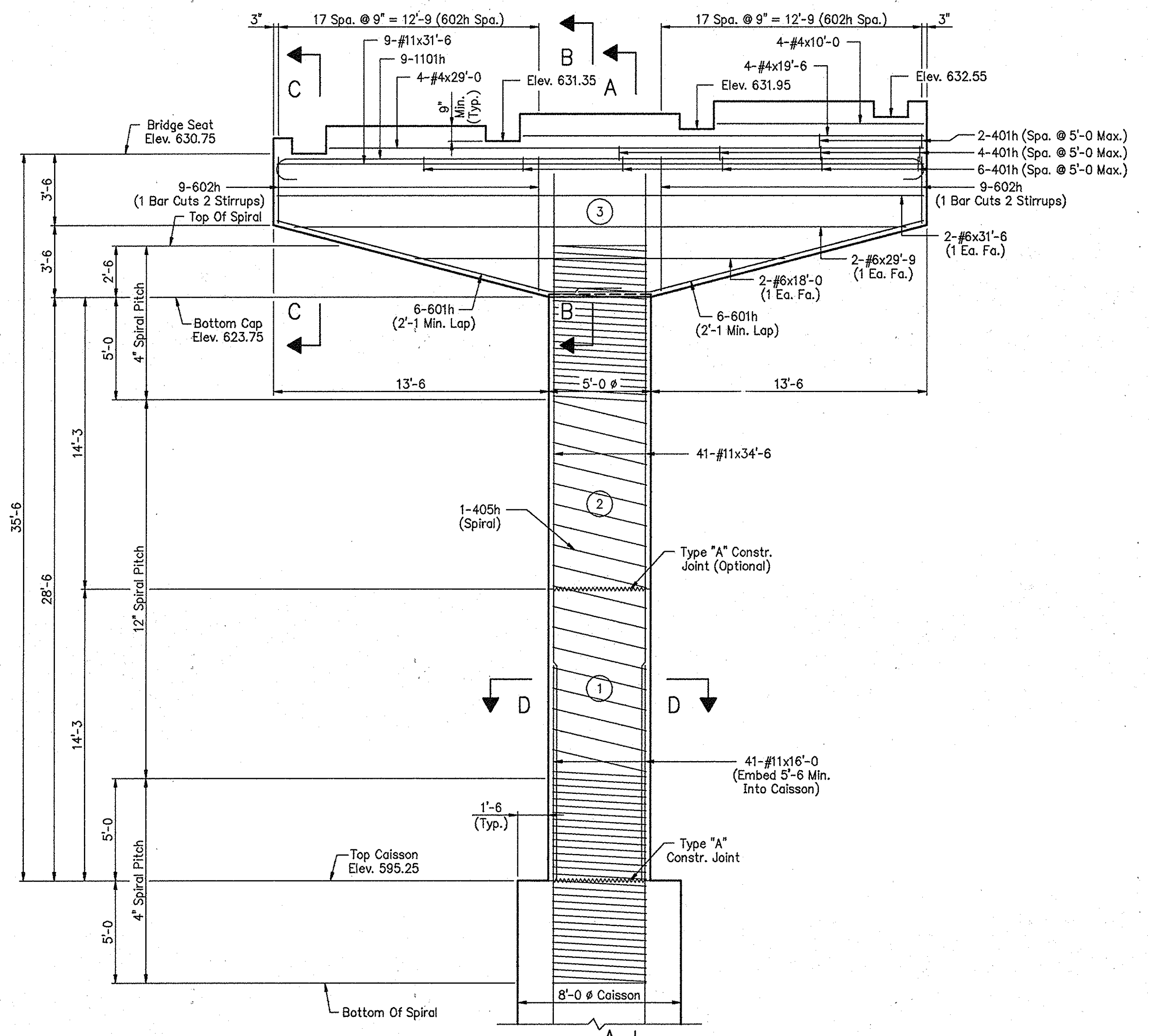


DESIGNED MDR 2/20/98 MHW 3/17/98
DRAWN TLH 2/27/98 CKD MDR 3/25/98
TRACED CKD

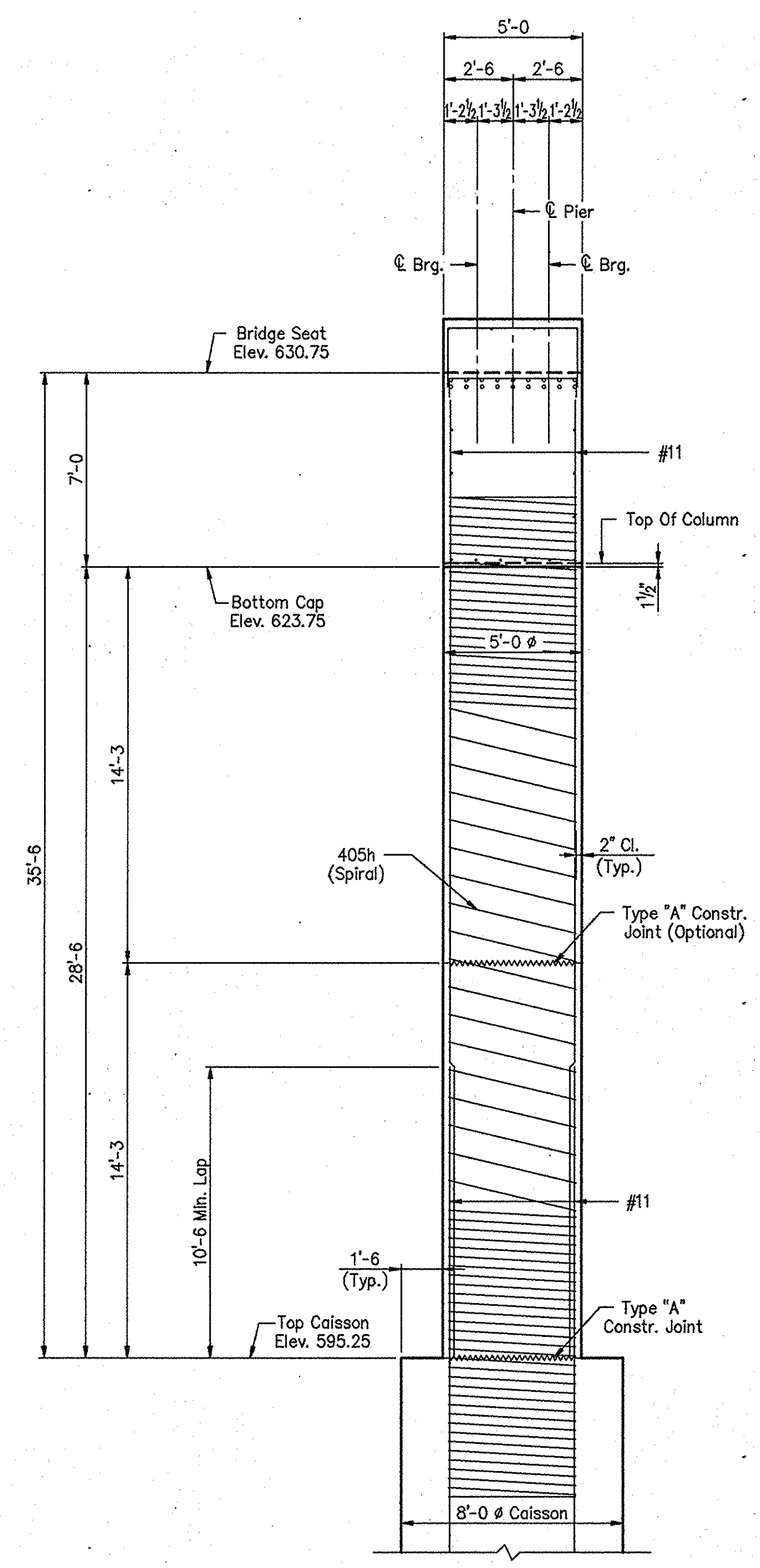
DWG FILE: D:\21\20\98\2120039
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SPELCHK: 07/09/98 13:18:29
EDIT DATE: TLH - S131



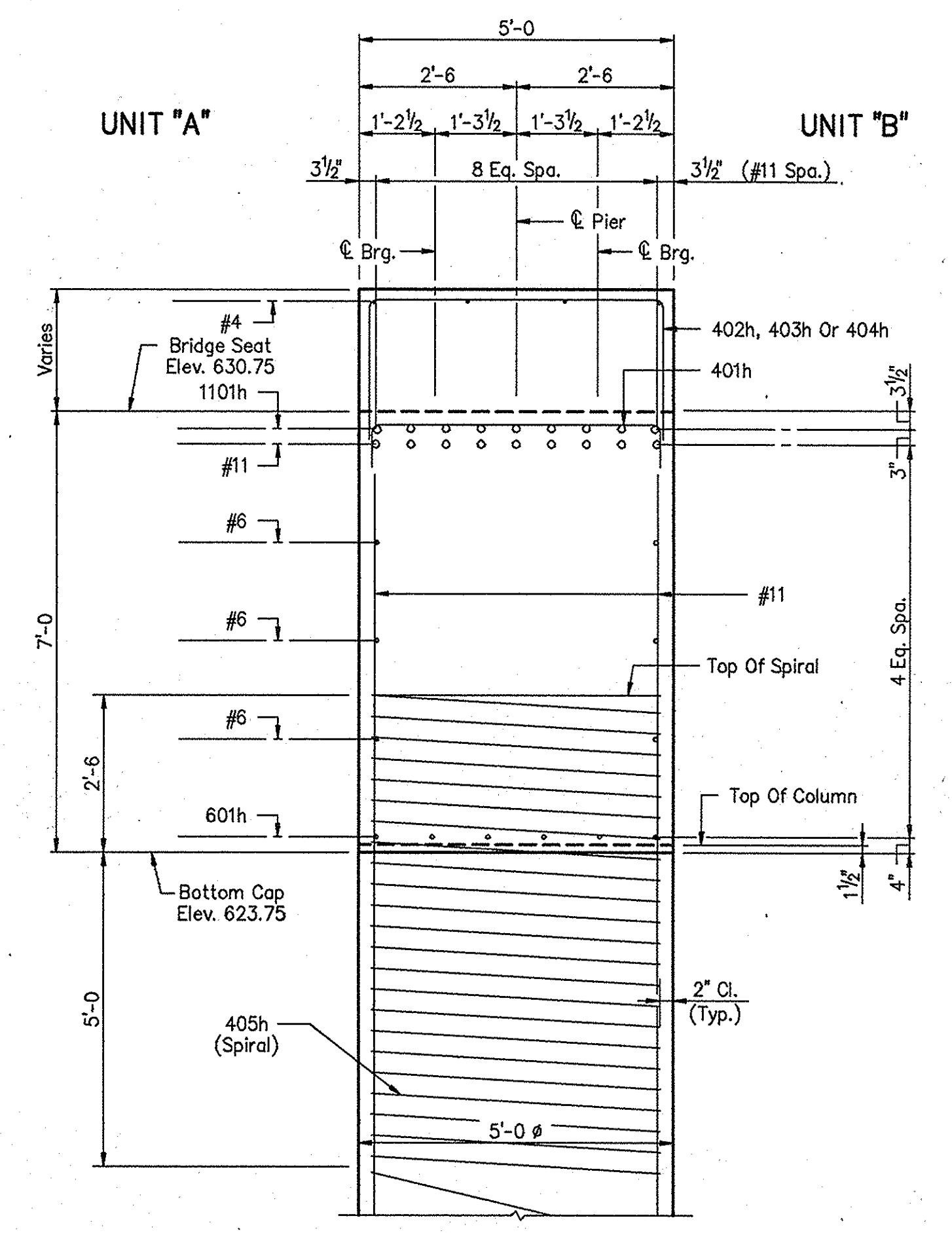
CAP PLAN



ELEVATION



SECTION A-A

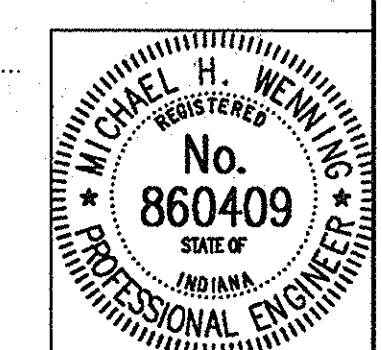


SECTION B-B
Scale: 1/2" = 1'-0"

NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 All reinforcing steel to be epoxy coated.
 Surface seal top and vertical surfaces of cap and column.
 For Caisson details, Sections C-C and D-D, additional details and Bill of Materials, see Drawing S16.
 (X) Indicates concrete pour number.

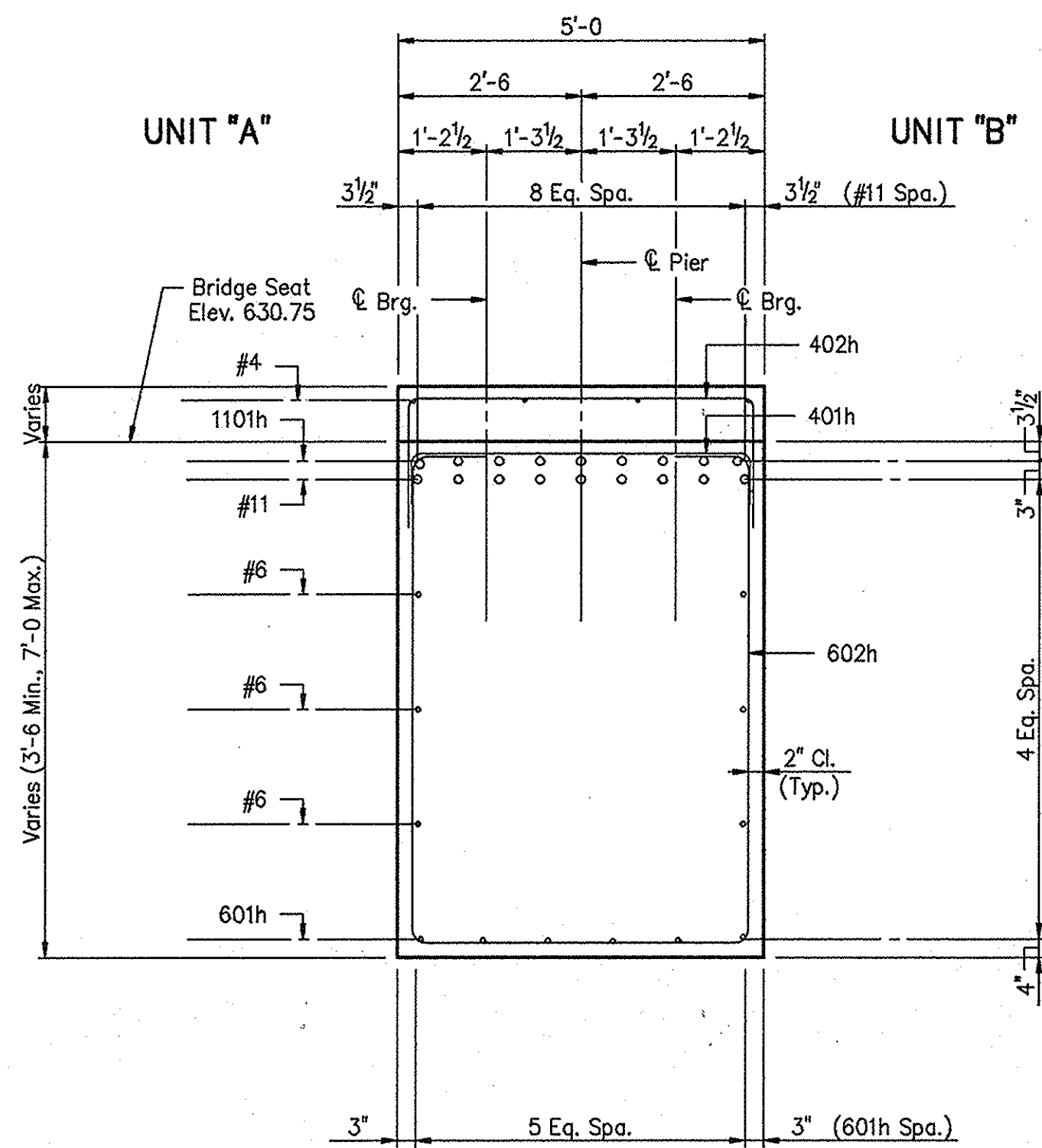
PIER NO.5 DETAILS
 INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL
 DRAWING: - S15 OF S54 SHEET: - 30 OF 81
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7823

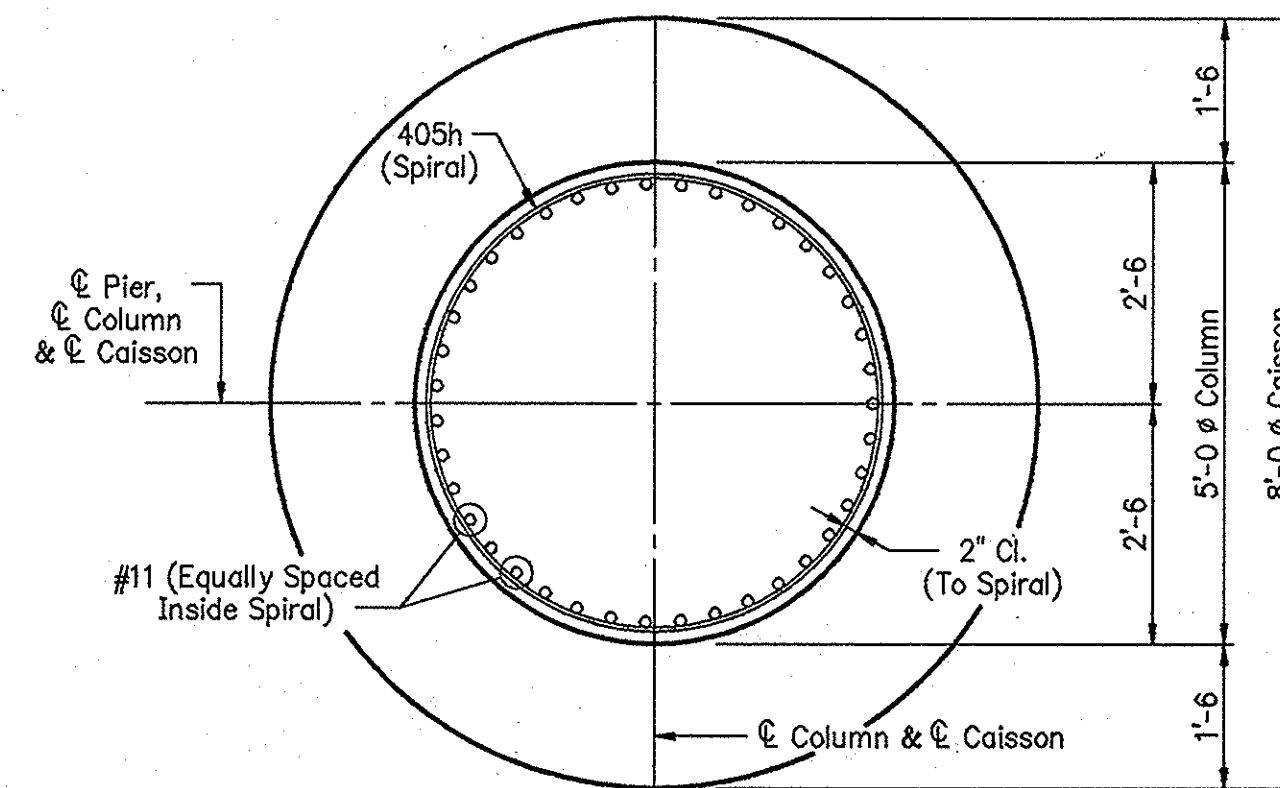


DESIGNED MDR 2/20/98 C/K/D MSP 3/31/98
 DRAWN TLH 3/3/98 C/K/D MDR 3/27/98
 TRACED C/K/D

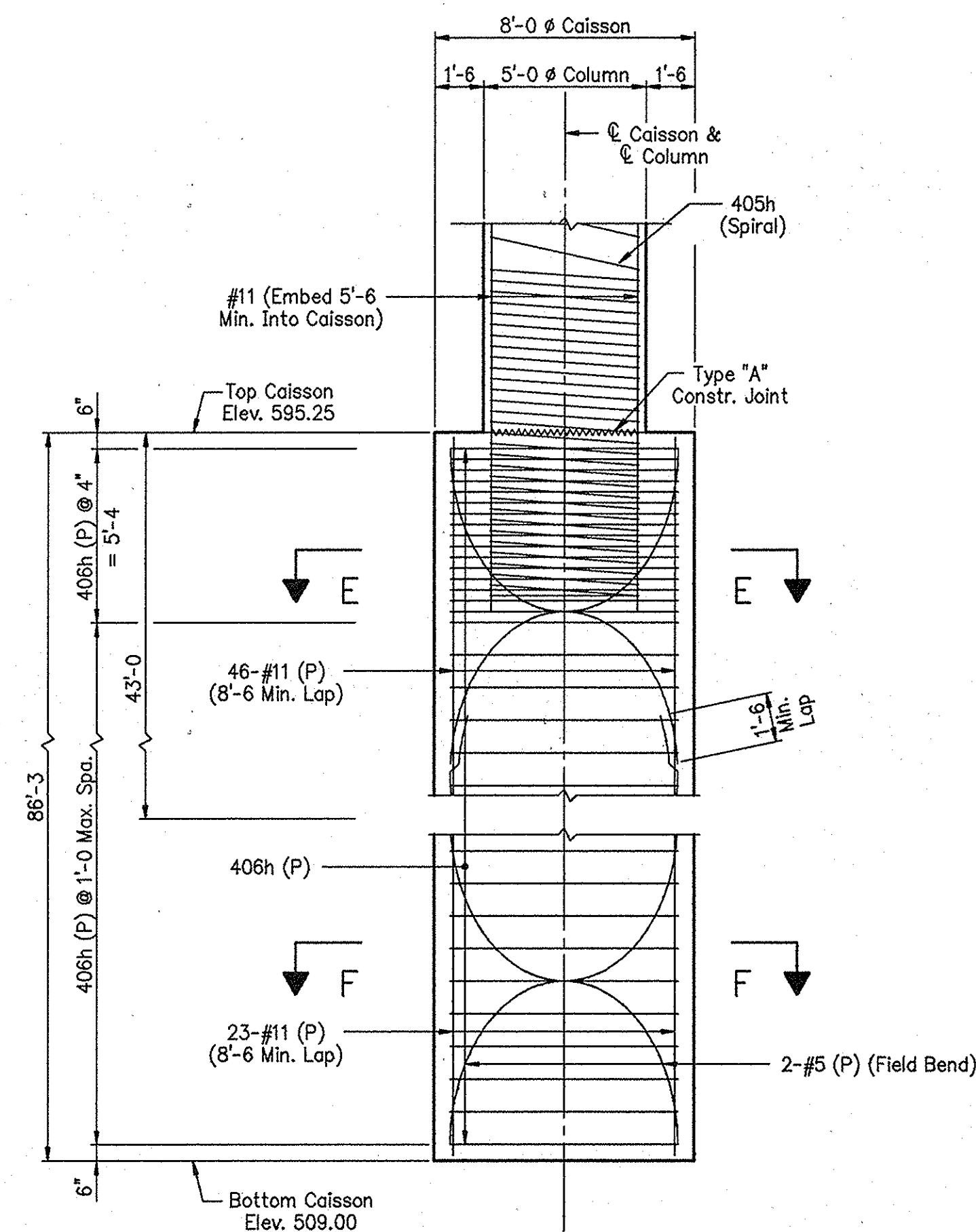
DWG FILE: D:\P21\20\98\2120842
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 PLOT ORIGIN: 0.00,0.00
 SPELLOK: 07/09/98 13:20:57
 EDIT DATE: TLH - S131



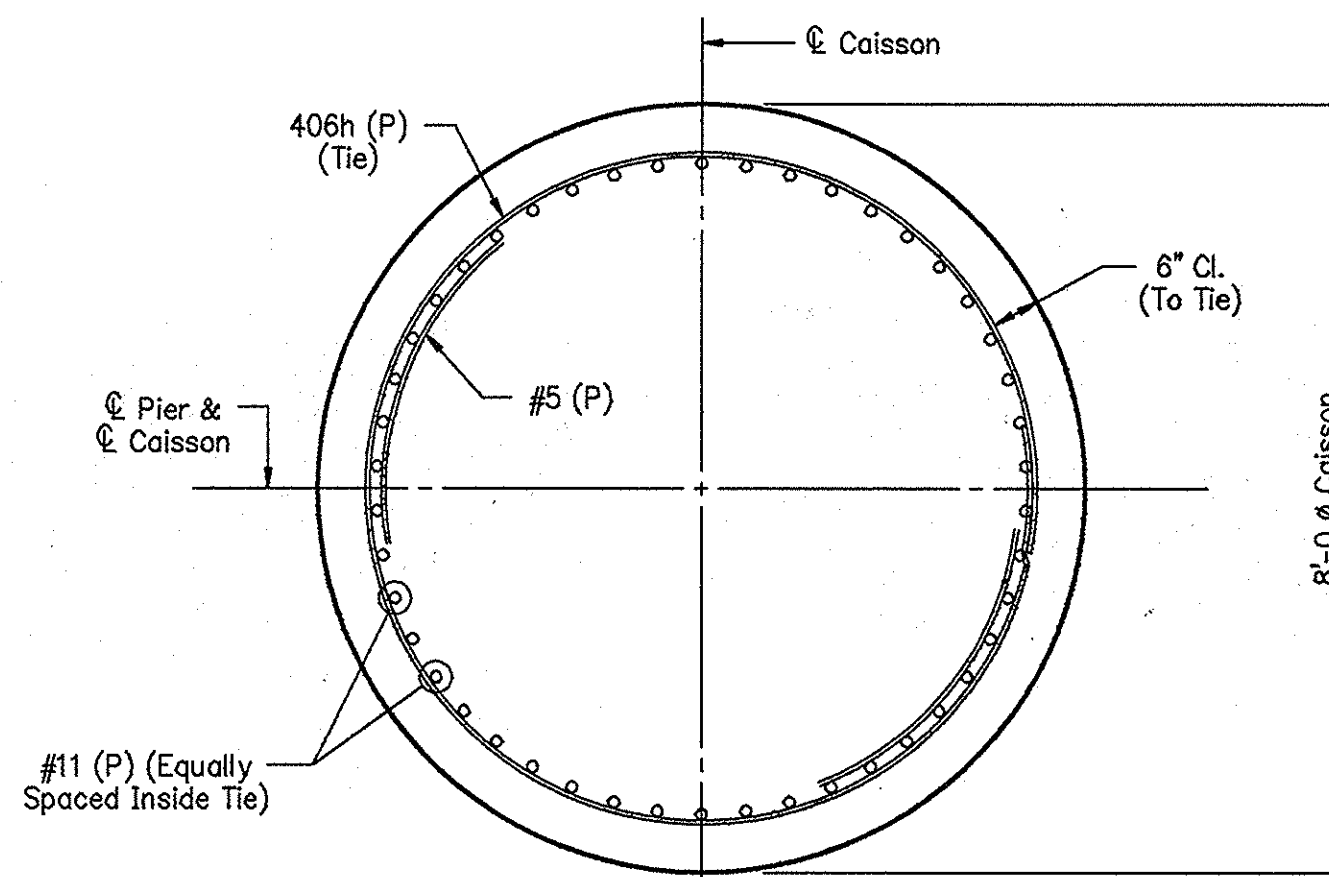
SECTION C-C
Scale: 1/2" = 1'-0"



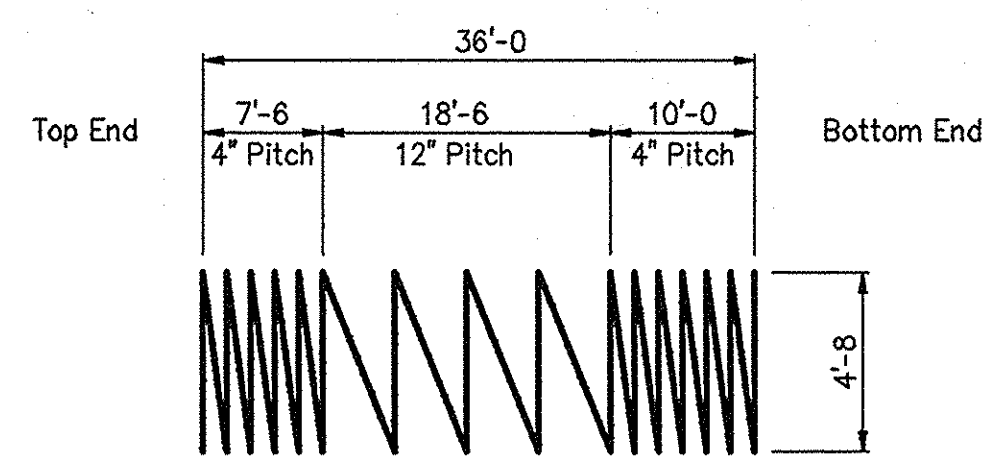
SECTION D-D
Scale: 1/2" = 1'-0"



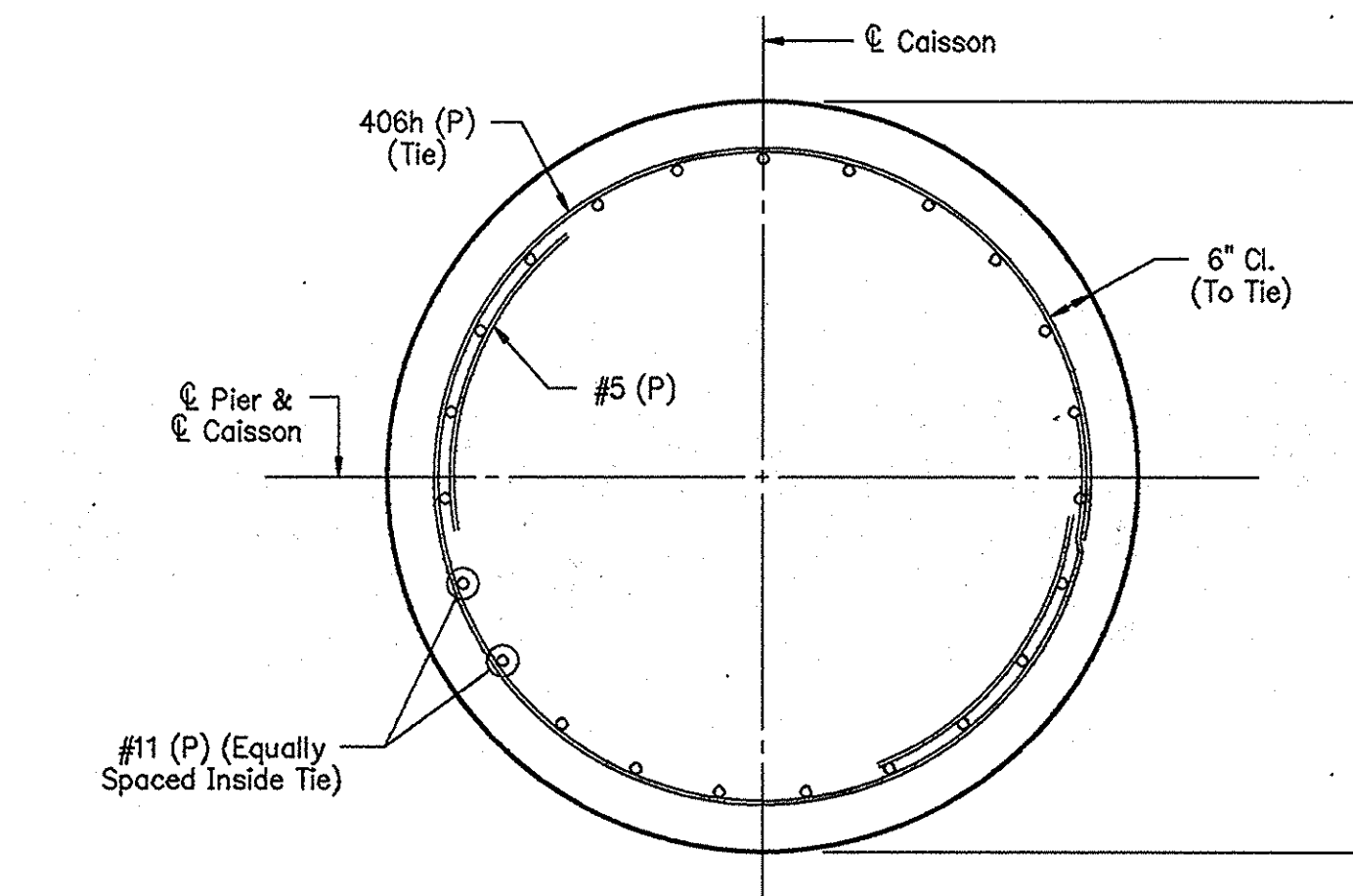
PARTIAL CAISSON ELEVATION



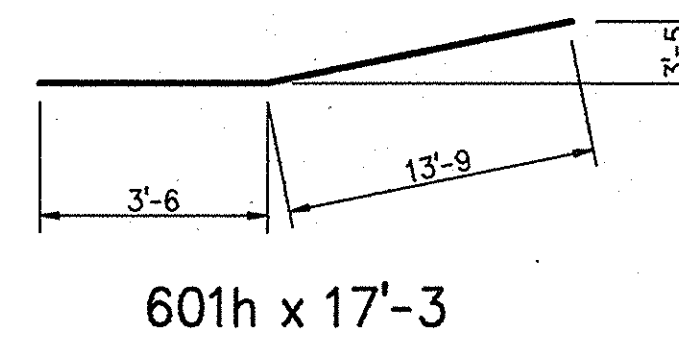
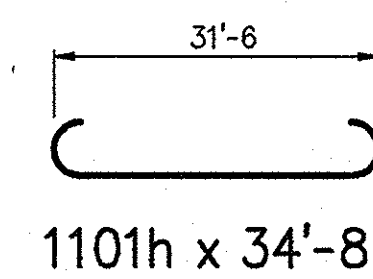
SECTION E-E
Scale: 1/2" = 1'-0"



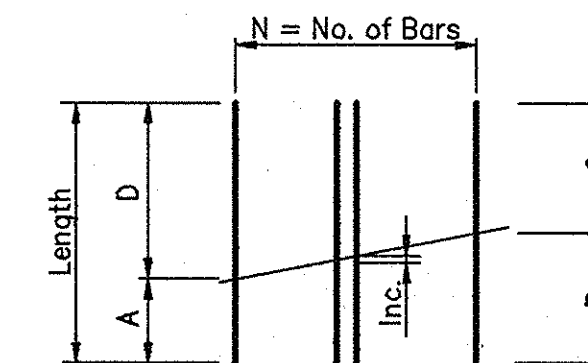
405h x 1085'-0
Spiral Bars To Be Formed Of Cold Drawn Wire With A Yield Of 60,000 P.S.I.



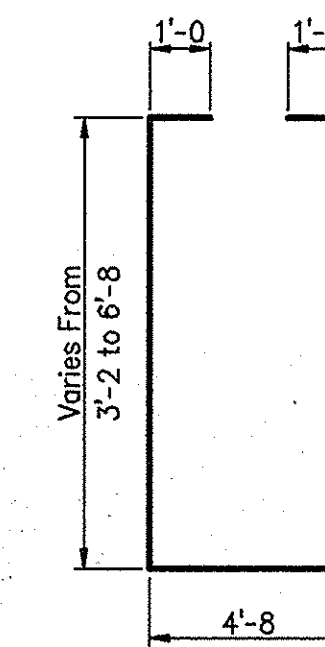
SECTION F-F
Scale: 1/2" = 1'-0"



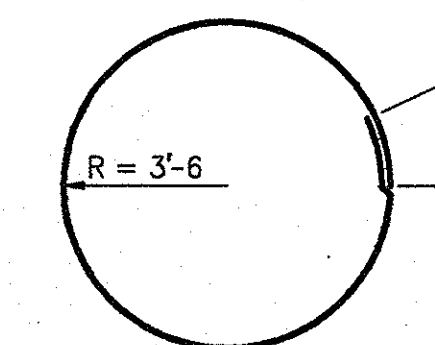
Mark	Length	A	B
401h	6'-0	4'-8	8"
402h	8'-4	4'-8	1'-10
403h	9'-4	4'-8	2'-4
404h	10'-6	4'-8	2'-11



Mark	Length	A	B	C	D	N	Inc.
602h	33'-0	13'-0	16'-3 1/2	16'-8 1/2	20'-0	9	4 1/8"



Bending Diagram
For 602h



406h x 23'-4 (P)

PIER No.5
BILL OF MATERIALS

Epoxy Coated Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
1101h	9	34'-8	
#11	41	34'-6	
#11	9	31'-6	
#11	41	16'-0	
Total No. 11			14,165

601h	12	17'-3	
602h	18	33'-0	
#6	2	31'-6	
#6	2	29'-9	
#6	2	18'-0	
Total No. 6			1441

401h	46	6'-0	
402h	8	8'-4	
403h	6	9'-4	
404h	8	10'-6	
405h	1	1085'-0	
#4	4	29'-0	
#4	4	19'-6	
#4	4	10'-0	
#4	12	7'-3	
Total No. 4			1261
Total Epoxy Coated Reinforcing Steel			16,867

Concrete	
Class 'A' In Substructure	10.4 Cys.
Pour No.1	10.4 Cys.
Pour No.2	42.9 Cys.
Pour No.3	63.7 Cys.
Total Class 'A' in Substructure	160.6 Cys.
Drilled Shaft Concrete *	160.6 Cys.

Miscellaneous	
Surface Seal	1170 Sft.

* Includes reinforcing steel, see Special Provisions.

NOTES:
For reinforcing bar notes, see Bridge Standard C1.
For location of Sections C-C and D-D, see Drawing S15.
All reinforcing steel to be epoxy coated unless noted.
(P) Indicates plain reinforcing steel.

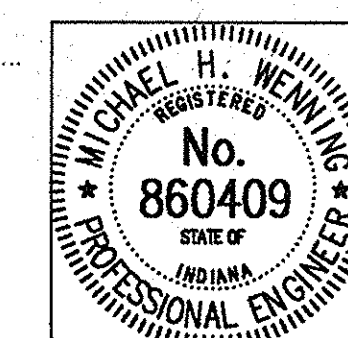
PIER NO.5 DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

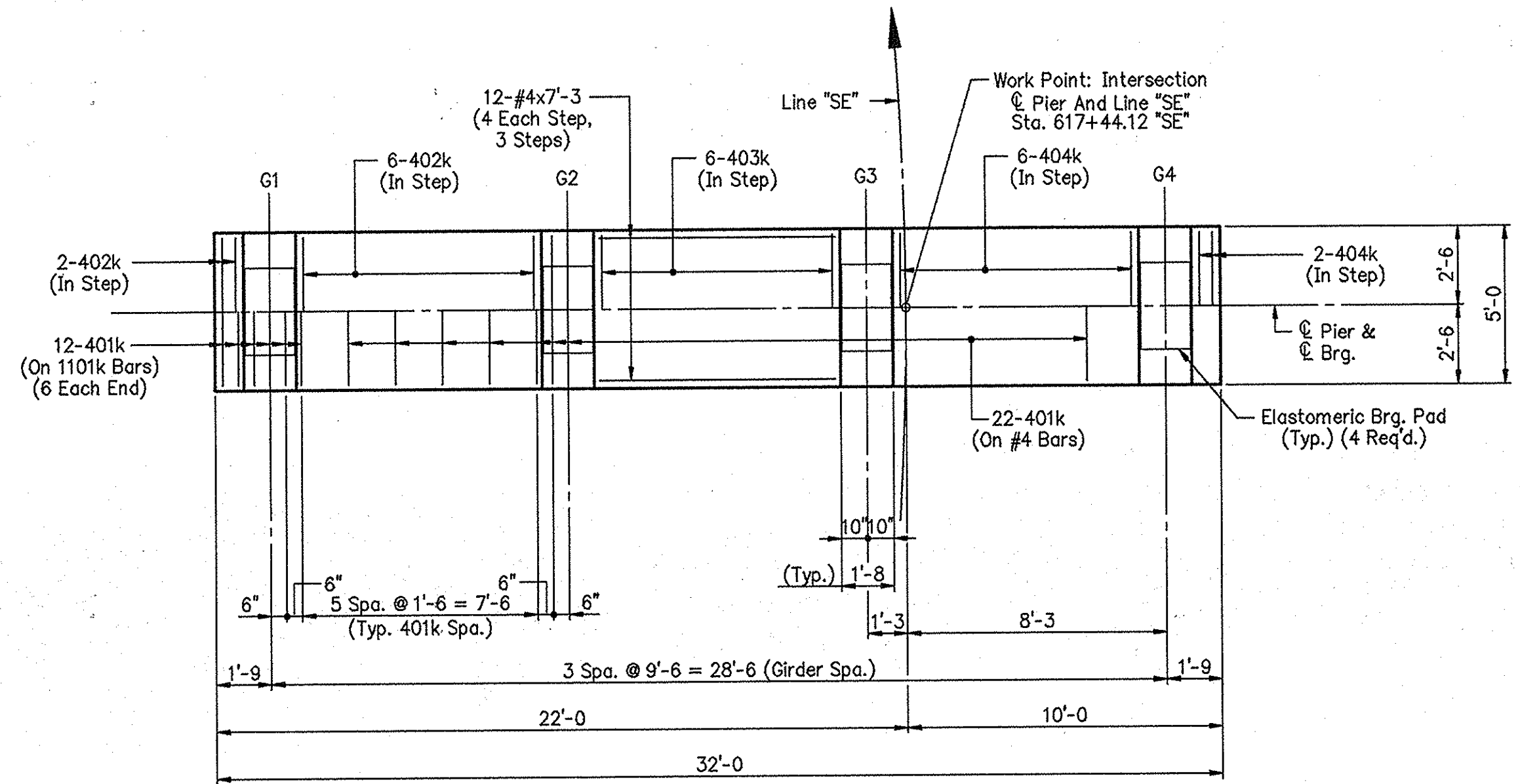
SUBMITTED FOR APPROVAL

DRAWING: - S16 OF S54 SHEET: - 31 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823

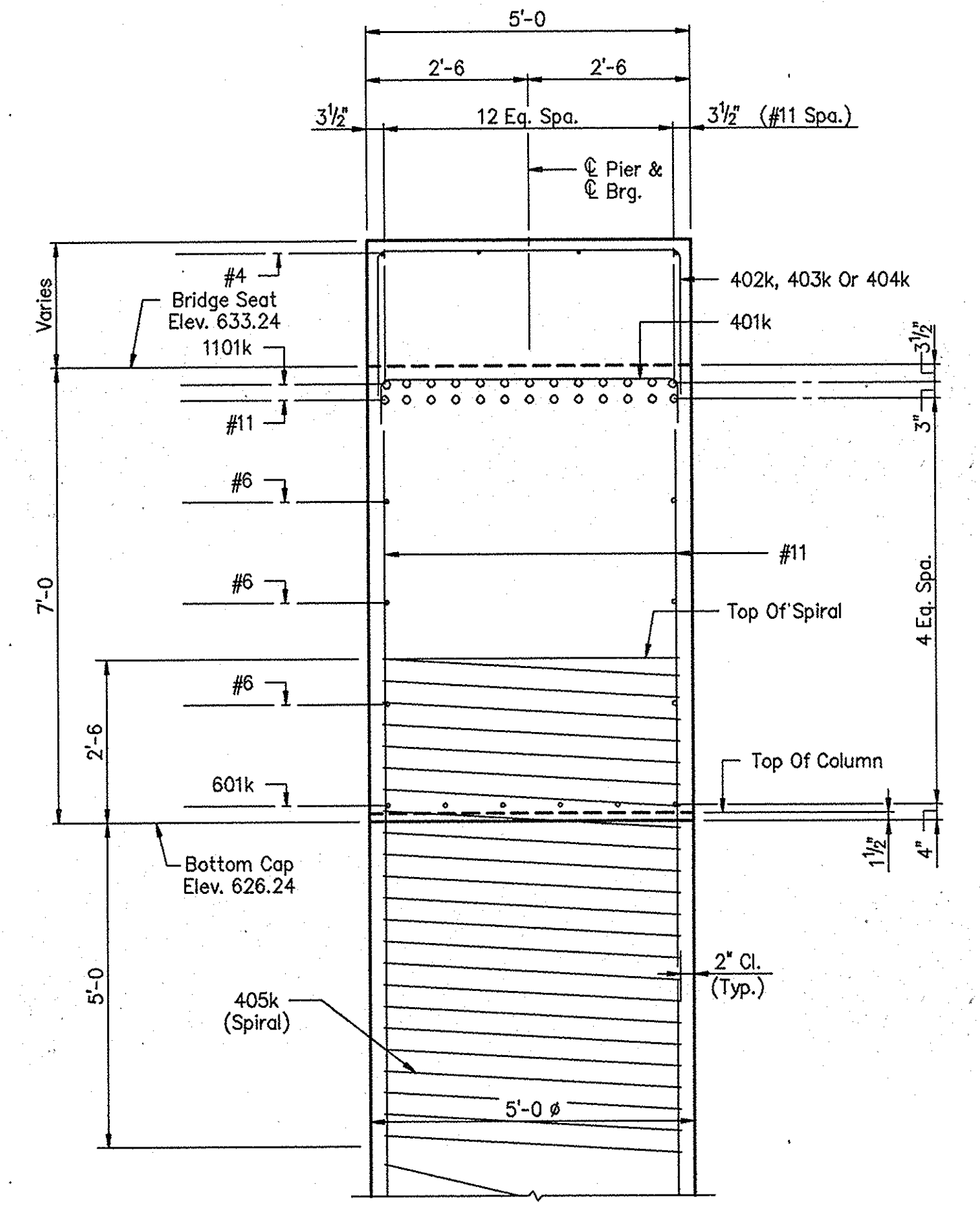
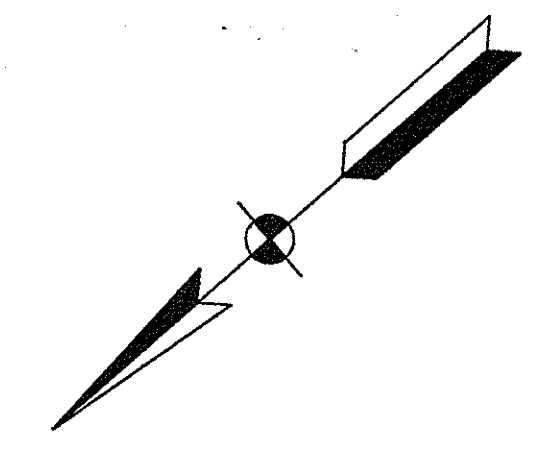


DESIGNED MDR 2/20/98 MSP 3/31/98
DRAWN TLH 3/4/98 CKD MDR 3/27/98
TRACED CKD

DWG FILE: D:\P\120\2120843
PLOT SCALE: 1:48,000
PLOT ORIGIN: 0.00,0.00
SPELLCHK: 07/09/98 13:22:06
EDIT DATE: TLH - S131

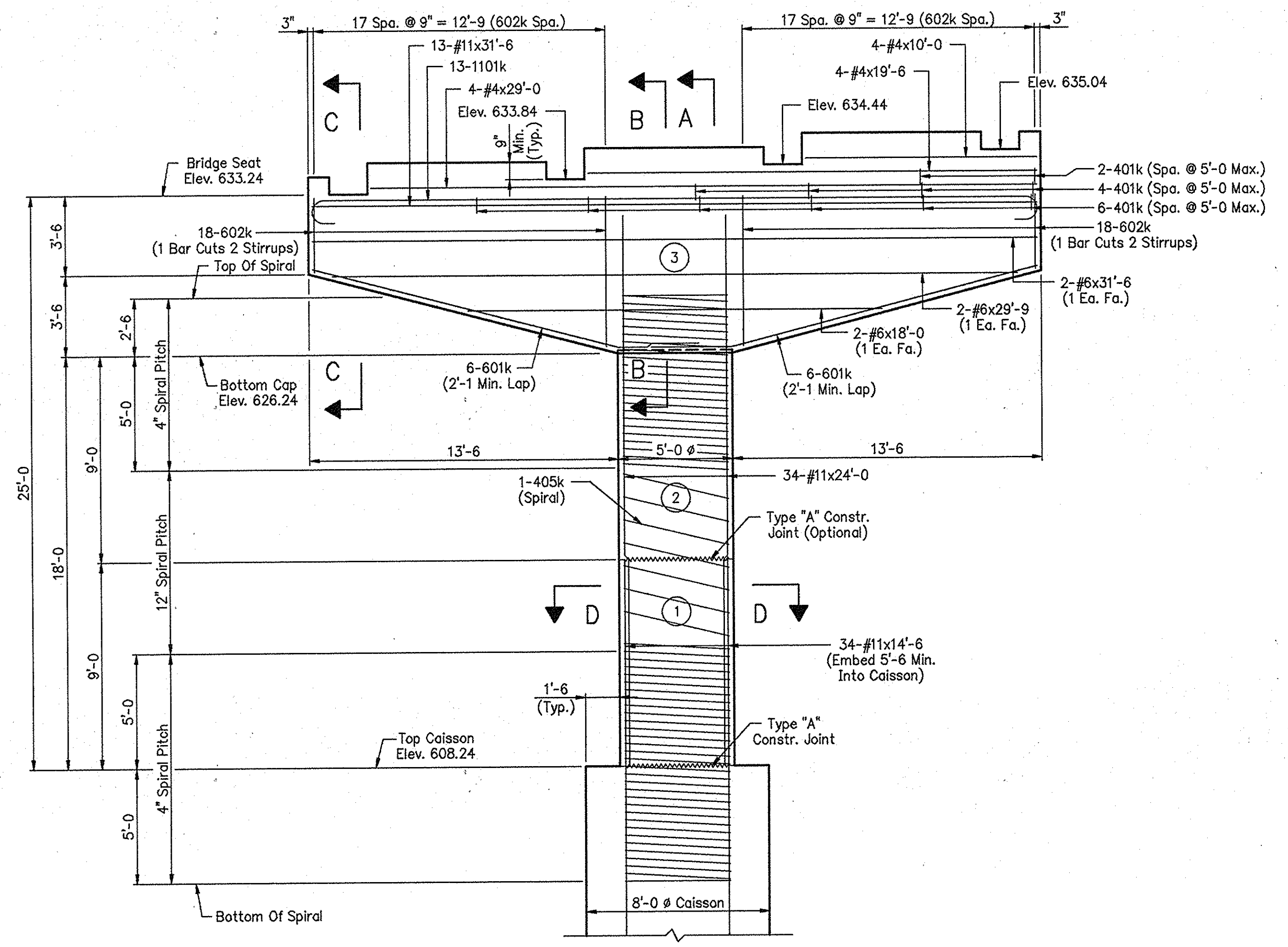


CAP PLAN

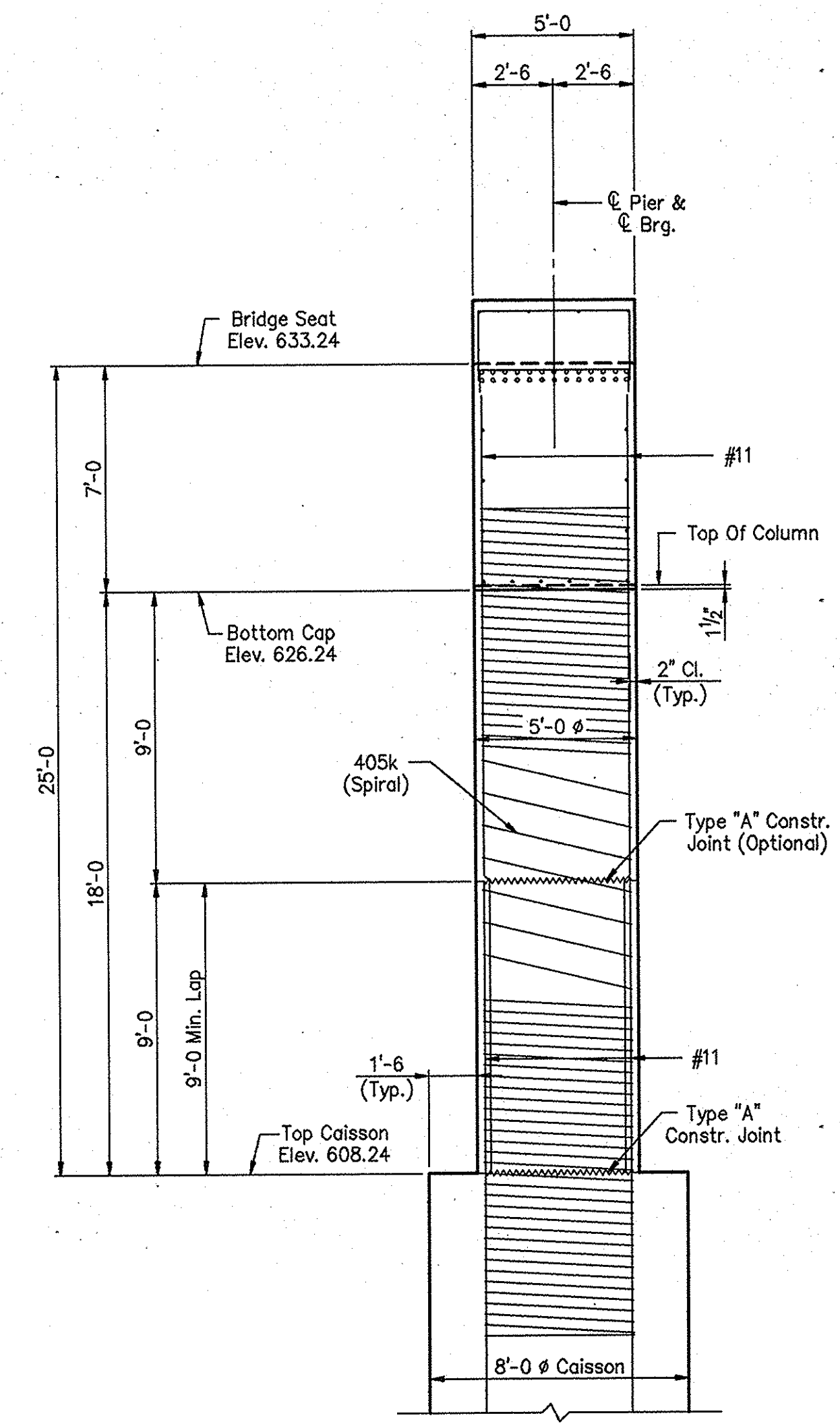


SECTION B-B

Scale: 1/2" = 1'-0"



ELEVATION



SECTION A-A

- NOTES:
- For reinforcing bar notes, see Bridge Standard C1.
 - All reinforcing steel to be plain.
 - Surface seal top and vertical surfaces of cap.
 - For Caisson details, Sections C-C and D-D, additional details and Bill of Materials, see Drawing S18.
 - (X) Indicates concrete pour number.

PIER NO.6 DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998
SUBMITTED FOR APPROVAL
DRAWING: - S17 OF S54 SHEET: - 32 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823



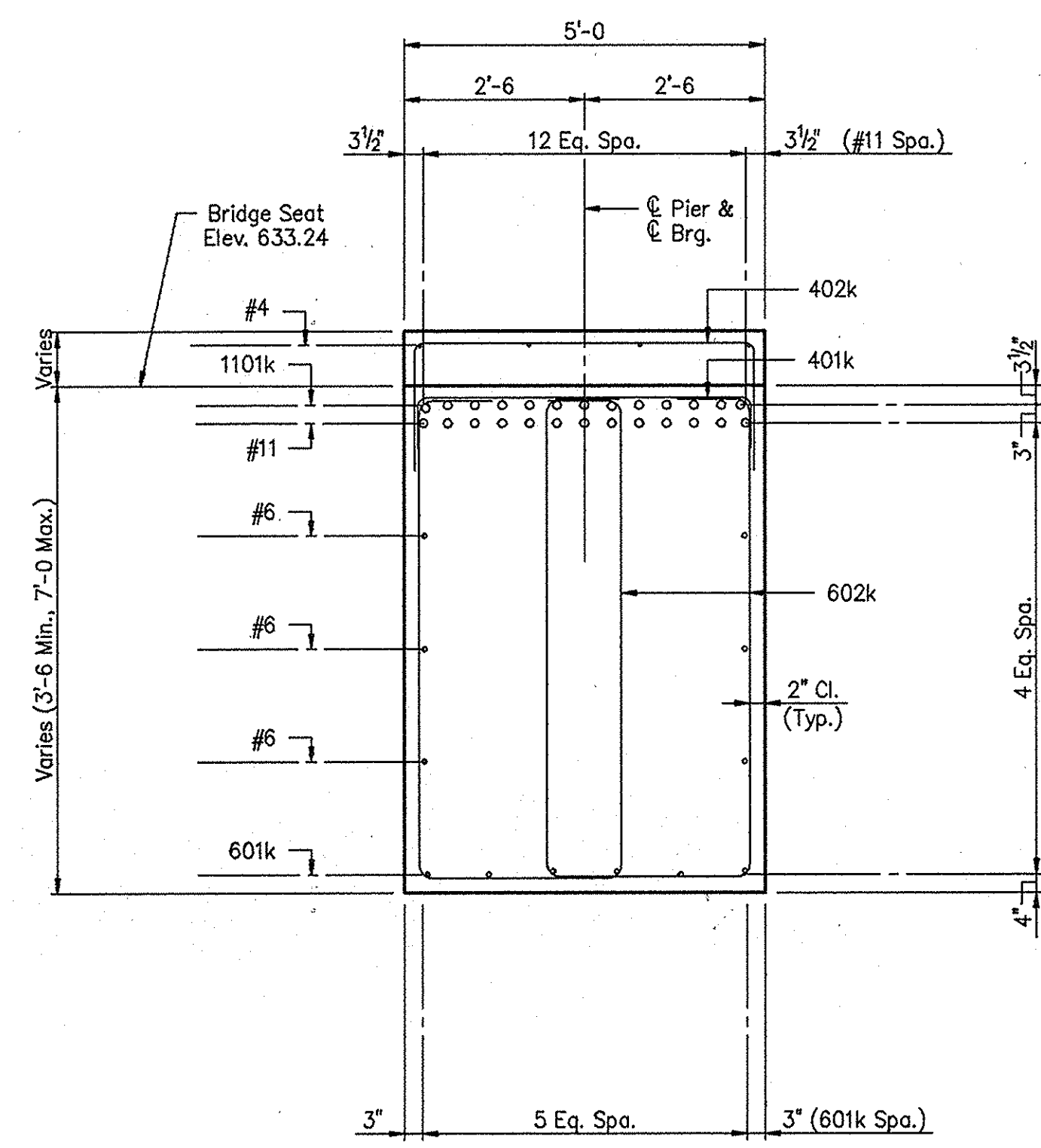
DESIGNED MDR 2/20/98 C.K.D. MSP 3/31/98
DRAWN TLH 3/3/98 C.K.D. MDR 3/26/98
TRACED C.K.D.

DWG FILE: D:\92\100\92120840
PLOT SCALE: 1/4"=1'-0
PLOT ORIGIN: 0.00,0.00
SPELLOK: 07/09/98 13:25:42
EDIT DATE: TLH - 5131

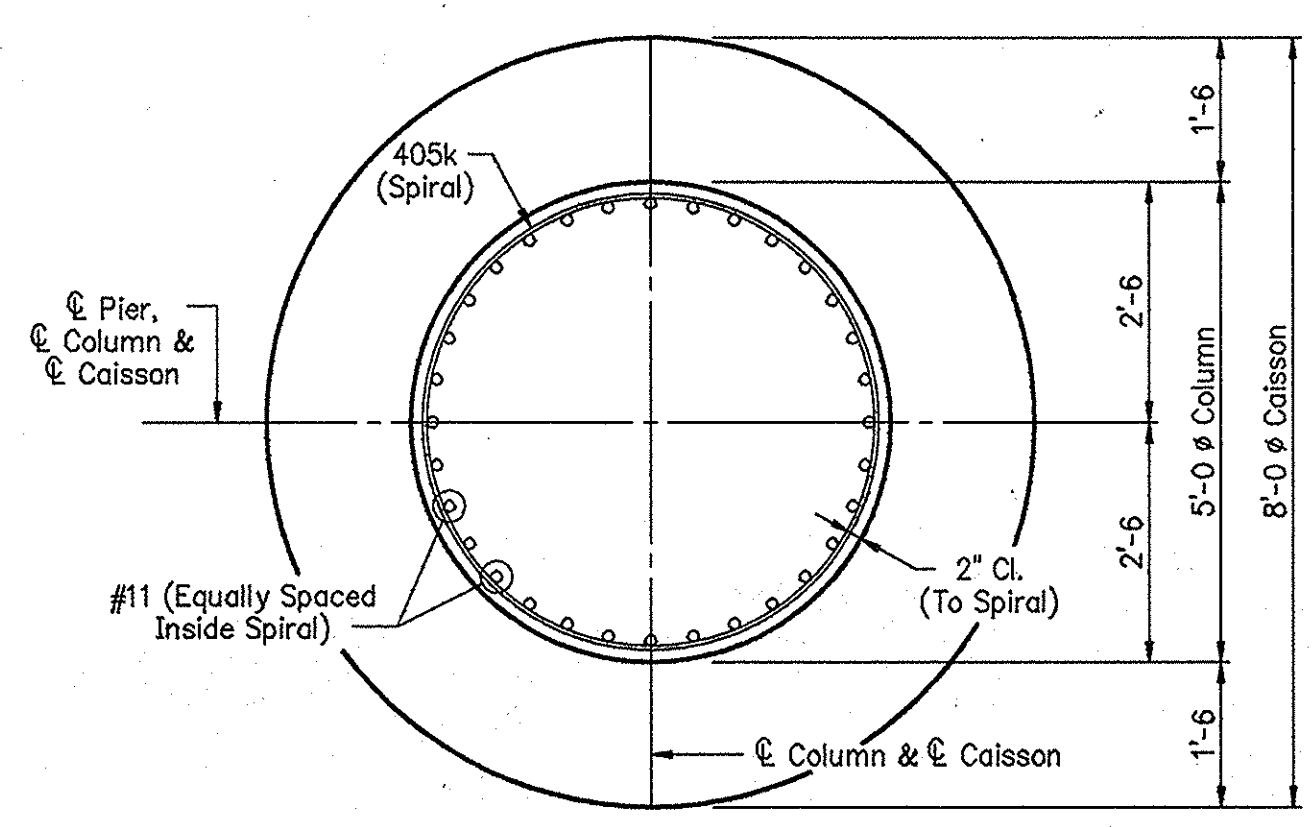
PIER No.6 BILL OF MATERIALS

Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
1101k	13	34'-8"	
#11	13	31'-6"	
#11	34	24'-0"	
#11	34	14'-6"	
Total No. 11			11,525
601k	12	17'-3"	
602k	36	29'-8"	
#6	2	31'-6"	
#6	2	29'-9"	
#6	2	18'-0"	
Total No. 6			2153
401k	46	6'-0"	
402k	8	8'-4"	
403k	6	9'-4"	
404k	8	10'-6"	
405k	1	931'-0"	
#4	4	29'-0"	
#4	4	19'-6"	
#4	4	10'-0"	
#4	12	7'-3"	
Total No. 4			1159
Total Plain Reinforcing Steel			14,837
Concrete			
Class "A" In Substructure			
Pour No.1		6.5	Cys.
Pour No.2		6.5	Cys.
Pour No.3		42.9	Cys.
Total Class "A" In Substructure			55.9 Cys.
Drilled Shaft Concrete *			182.9 Cys.
Miscellaneous			
Surface Seal		720	Sft.

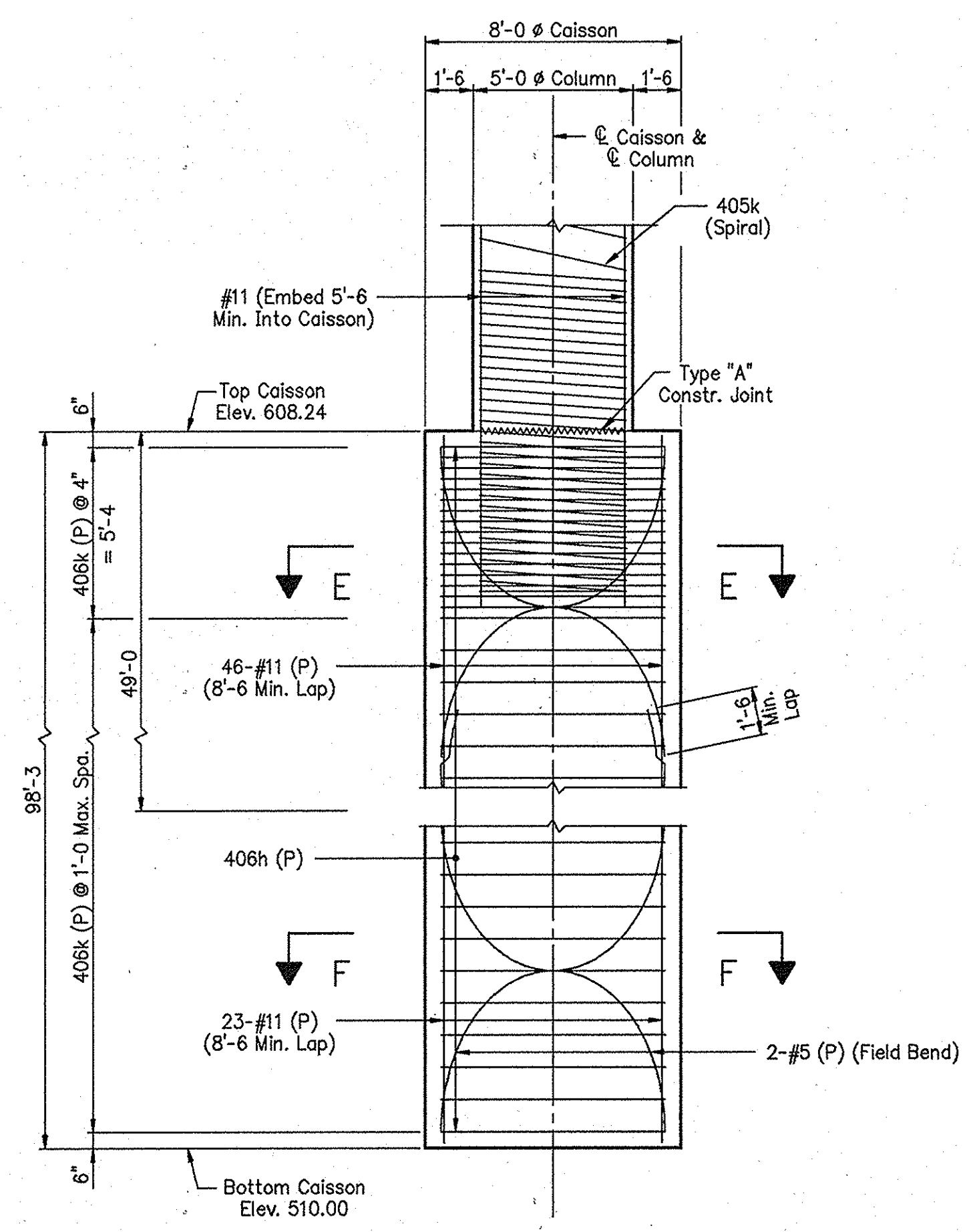
* Includes reinforcing steel, see Special Provisions.



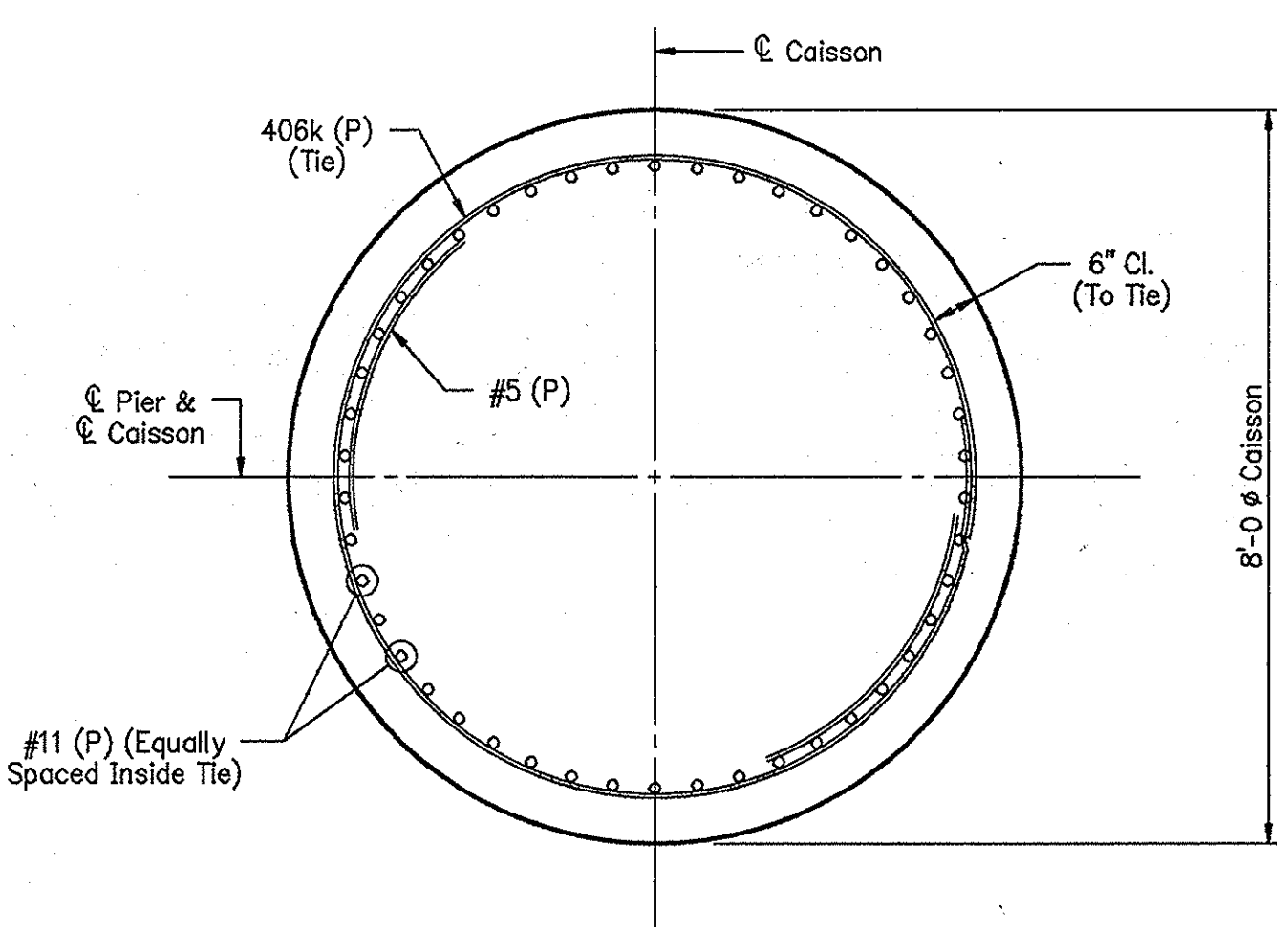
SECTION C-C
Scale: 1/2" = 1'-0"



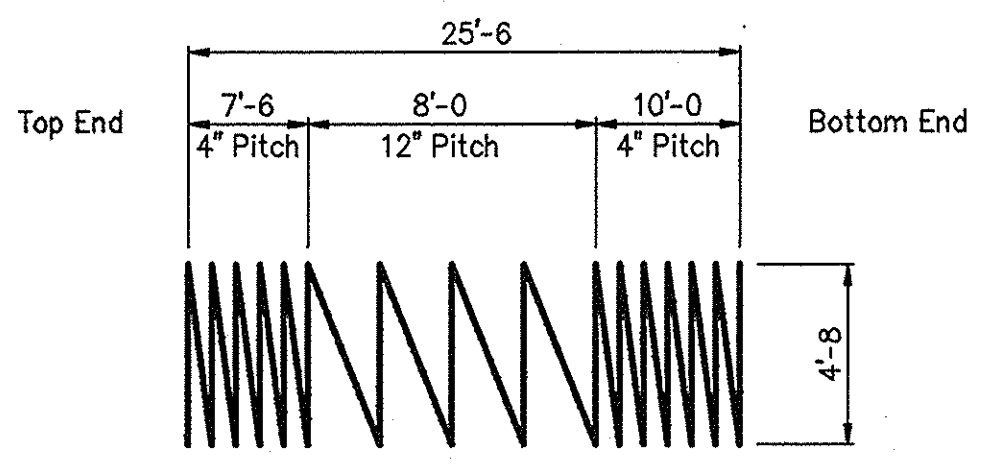
SECTION D-D
Scale: 1/2" = 1'-0"



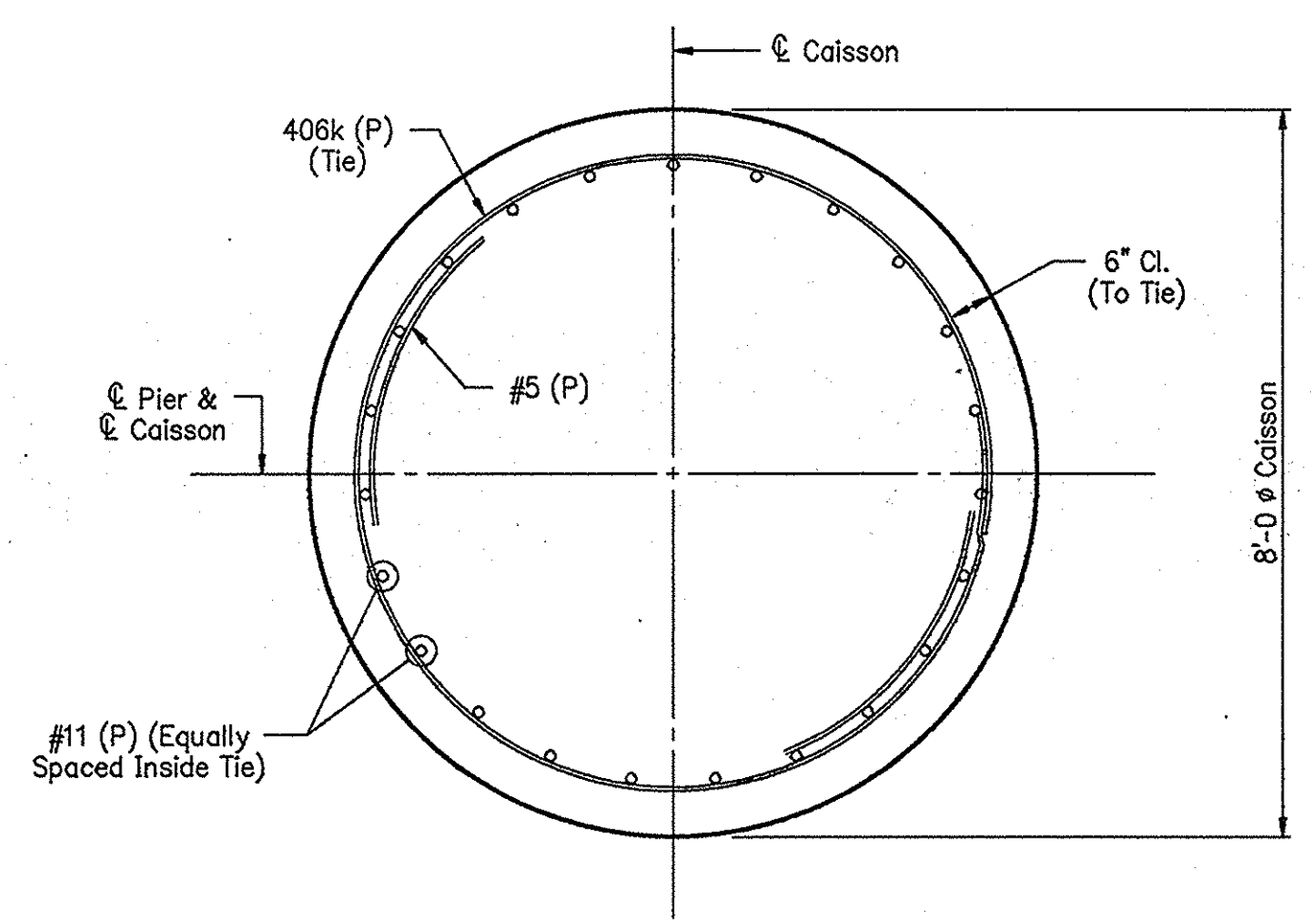
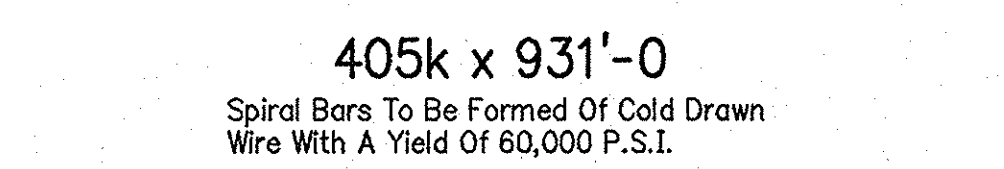
PARTIAL CAISSON ELEVATION



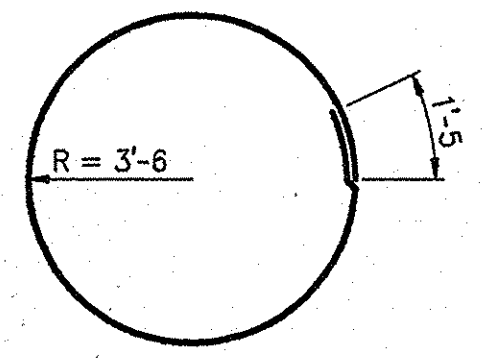
SECTION E-E
Scale: 1/2" = 1'-0"



**Bending Diagram
For 602k**



SECTION F-F
Scale: 1/2" = 1'-0"



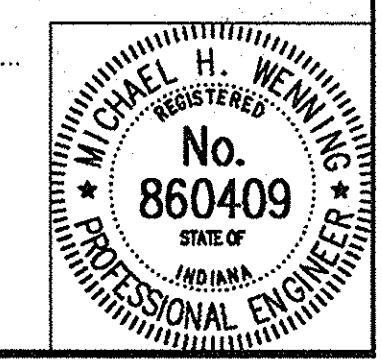
406k x 23'-4

NOTES:
For reinforcing bar notes, see Bridge Standard C1.
For location of Sections C-C and D-D, see Drawing S17.
All reinforcing steel to be plain.

PIER NO.6 DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION

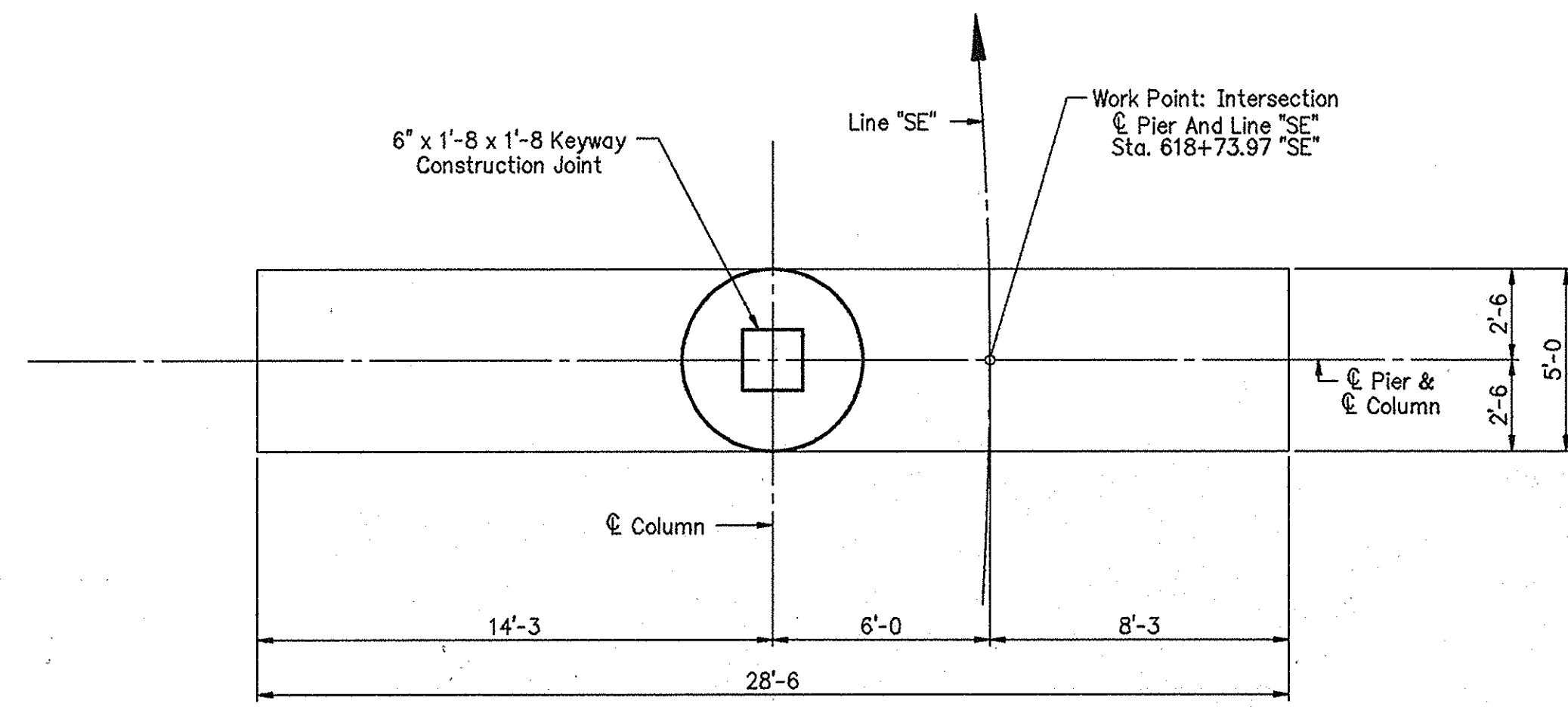
SCALE: - 1/4" = 1'-0, UNLESS NOTED
DATE: - July 9, 1998
SUBMITTED FOR APPROVAL: *Michael H. Womack*

DRAWING: - S18 OF S54 SHEET: - 33 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823

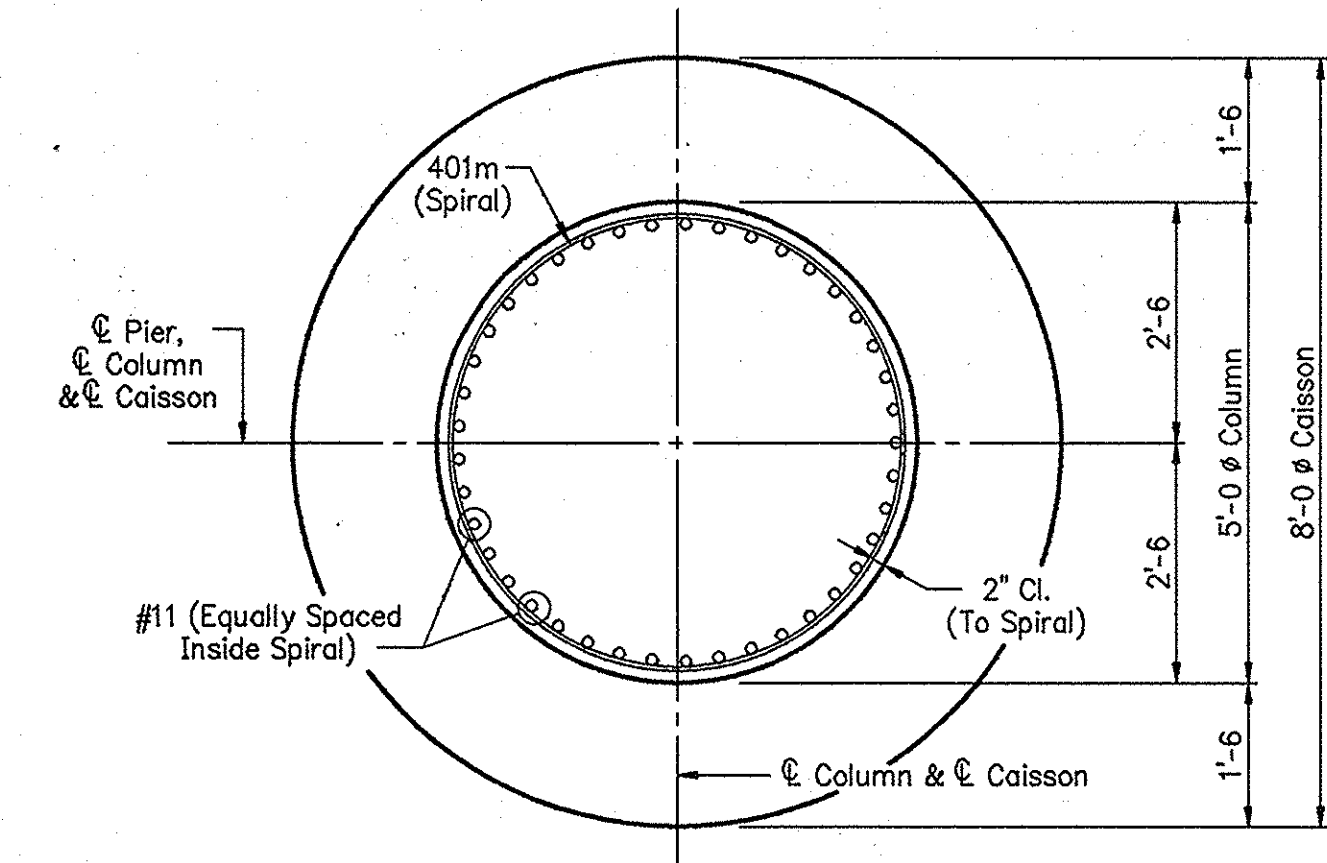
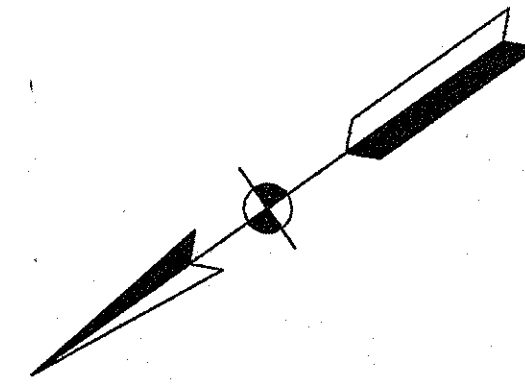


DESIGNED MDR 2/20/98 CK'D MSP 3/31/98
DRAWN ILH 2/27/98 CK'D MDR 3/27/98
TRACED CK'D

DWG FILE: D:\82\180\82120841
PLOT SCALE: 1/48 000
PLOT ORIGIN: 0.00,0.00
SPELLCHK: 07/09/98 13:25:01
EDIT DATE: 07/09/98 13:25:01
EDIT BY: TLL-5131

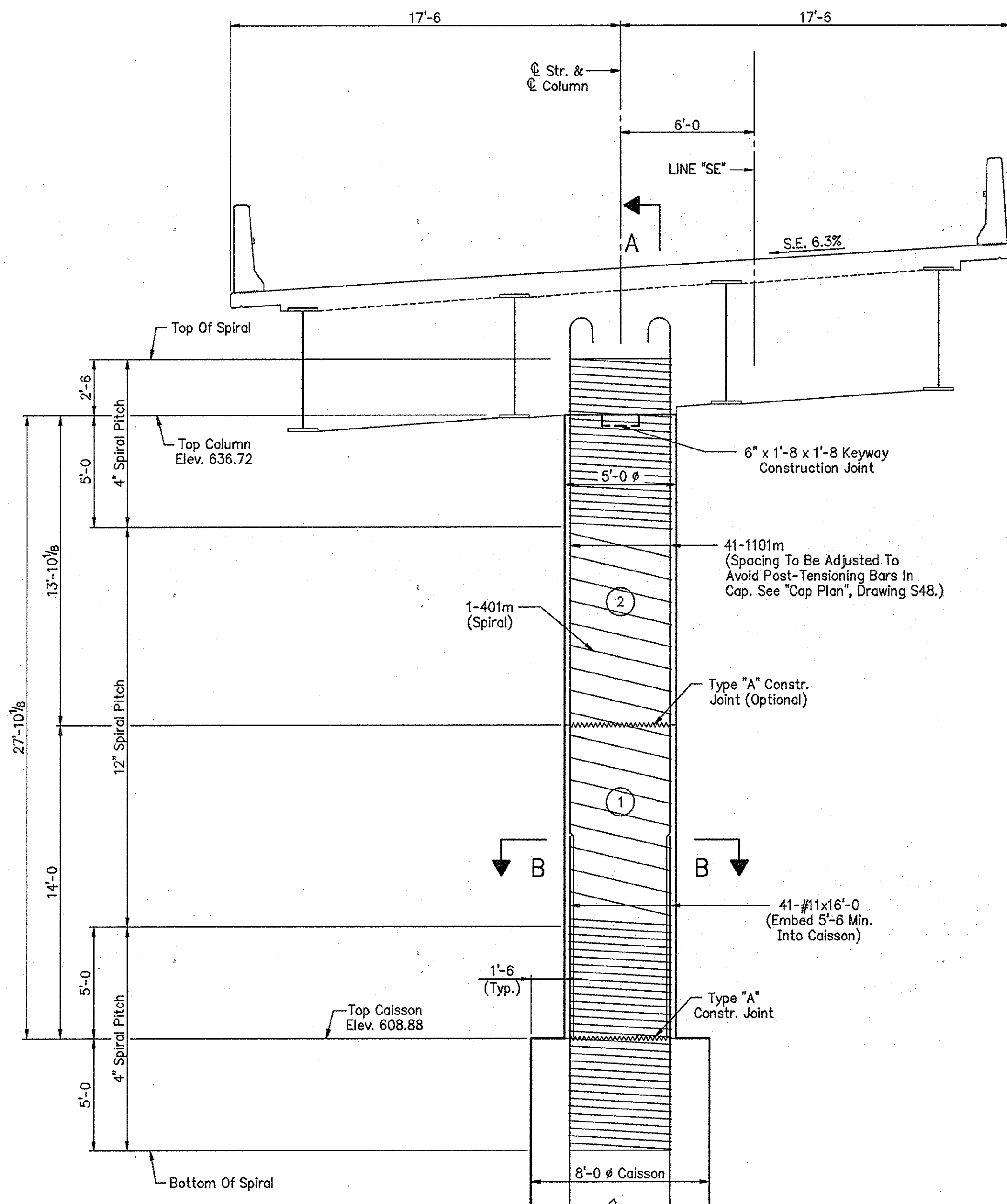


PLAN

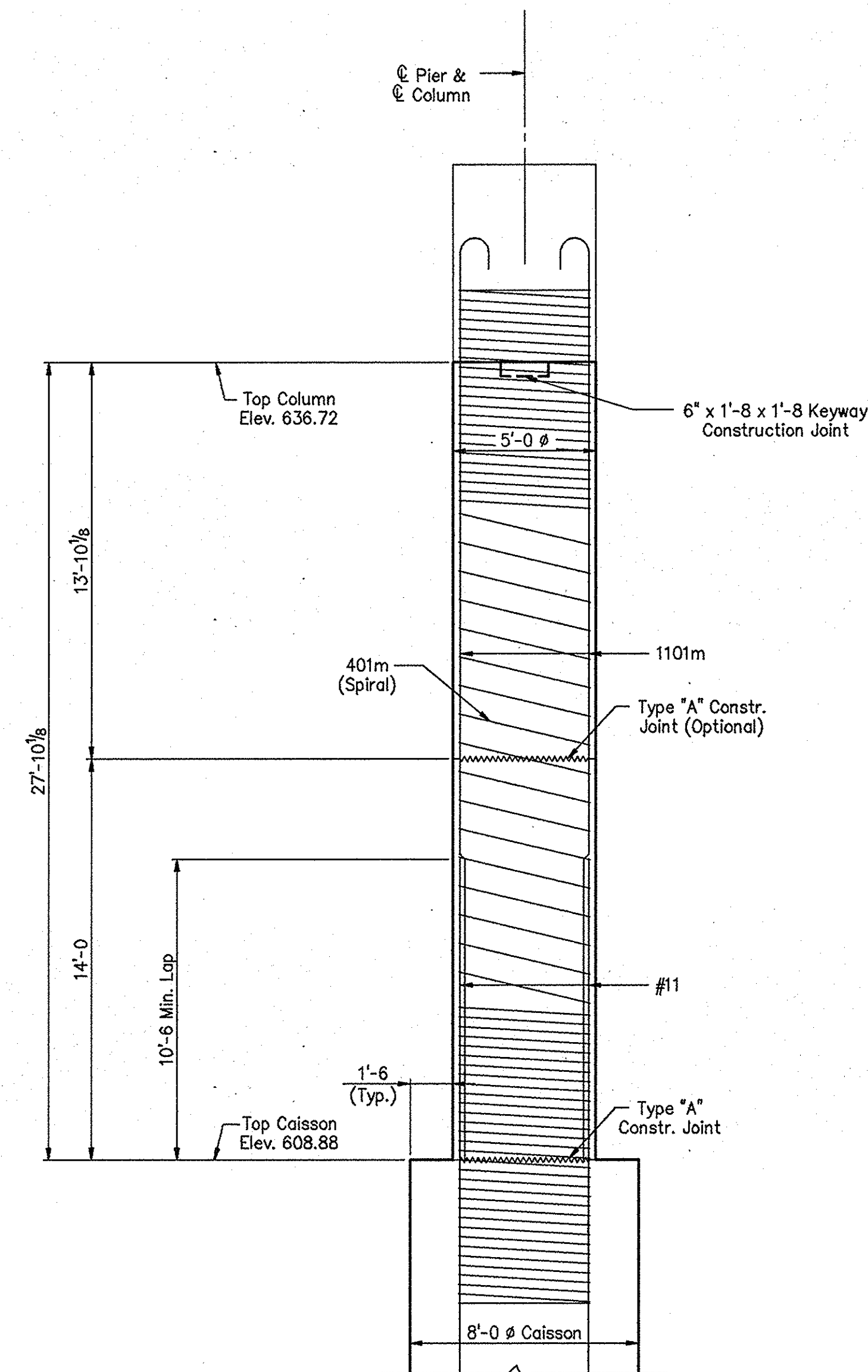


SECTION B-B

Scale: 1/2" = 1'-0"



ELEVATION



SECTION A-A

NOTES :

- For reinforcing bar notes, see Bridge Standard C1.
- All reinforcing steel to be epoxy coated, unless noted.
- For Cap details, see Drawing S48.
- For Caisson details, additional details and Bill of Materials, see Drawing S20.
- (X) Indicates concrete pour number.

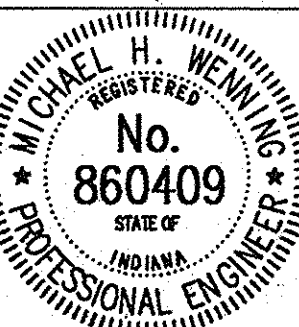
PIER NO.7 DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

SUBMITTED FOR APPROVAL *[Signature]*

DRAWING: - S19 OF S54 SHEET: - 34 OF 81
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7823



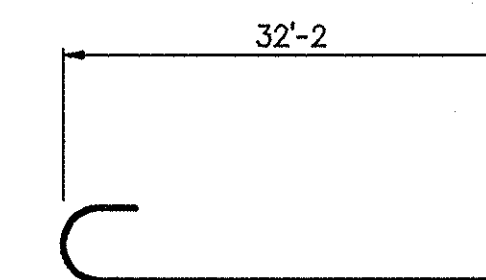
DESIGNED MDR 3/4/98 C.K.D. MSP 3/31/98
 DRAWN TLH 4/3/98 C.K.D. MDR 4/12/98
 TRACED _____ C.K.D.

DWG FILE: D:\82\120\2120948
 PLOT SCALE: 1/4"=1'-0
 PLOT ORIGIN: 0.00,0.00
 SPELLCHK: _____
 EDIT DATE: 07/09/98 15:58:09
 EDITED BY: TLH - S131

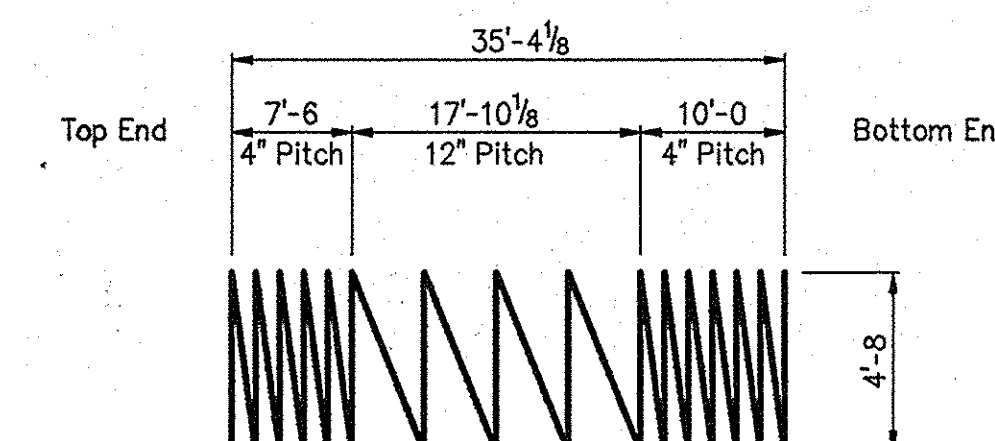
PIER No. 7 BILL OF MATERIALS

Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
1101m	41	33'-9"	
#11	41	16'-0"	
Total No. 11			10,837
401m	1	1075'-3"	718
Total Epoxy Coated Reinforcing Steel			11,555
Concrete			
Class "A" In Substructure			
Pour No.1			10.2 Cys.
Pour No.2			10.1 Cys.
Total Class "A" In Substructure			20.3 Cys.
Drilled Shaft Concrete *			152.4 Cys.

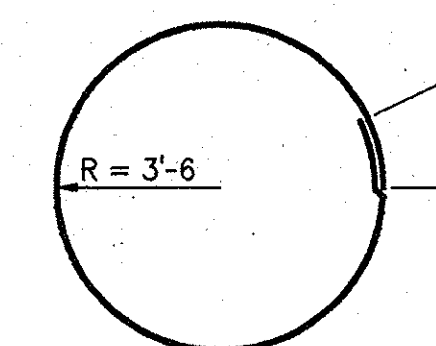
* Includes reinforcing steel, see Special Provisions.



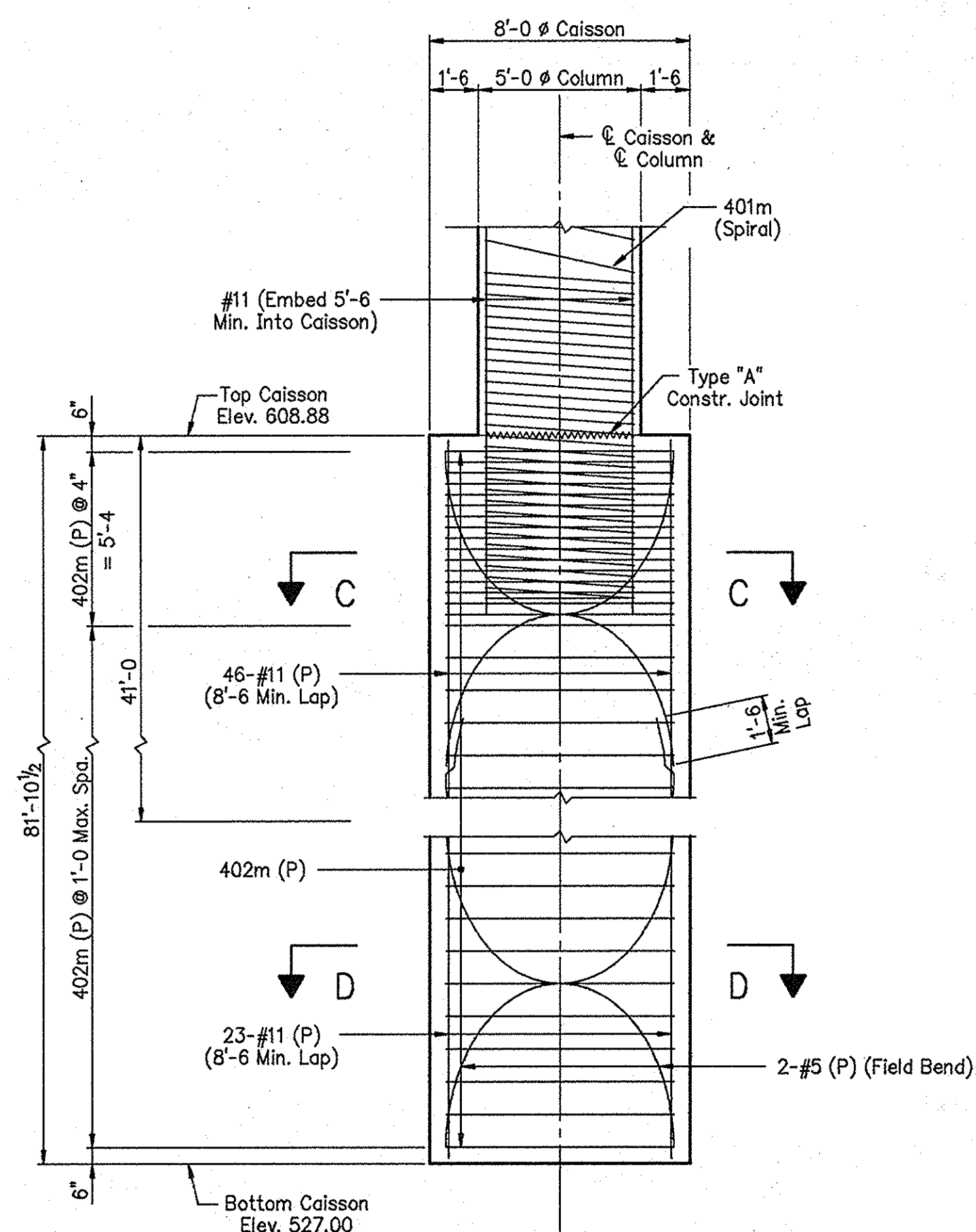
1101m x 33'-9"



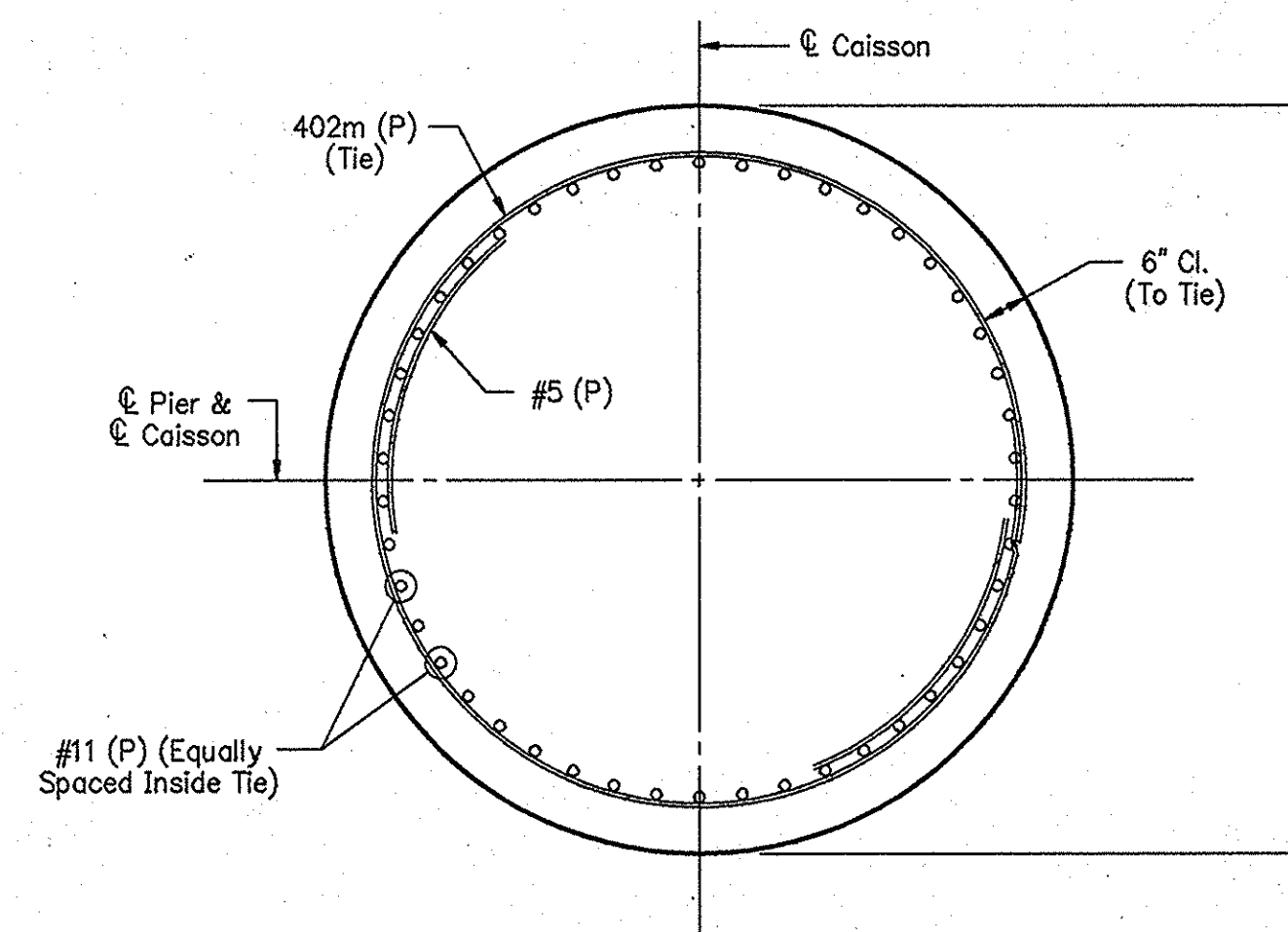
401m x 1075'-3"
Spiral Bars To Be Formed Of Cold Drawn Wire With A Yield Of 60,000 P.S.I.



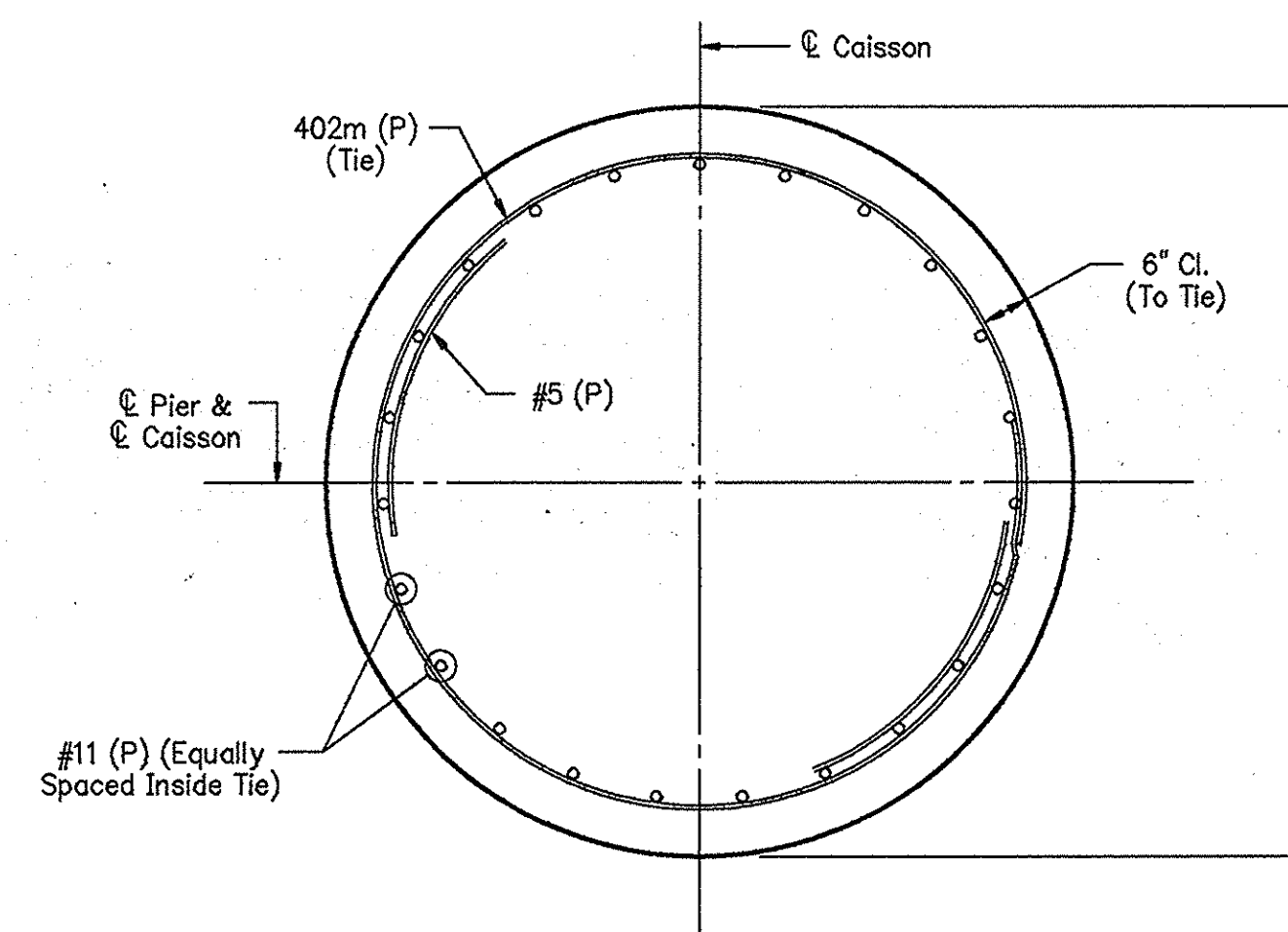
402m x 23'-4 (P)



PARTIAL CAISSON ELEVATION



SECTION C-C
Scale: 1/2" = 1'-0"



SECTION D-D
Scale: 1/2" = 1'-0"

NOTES:

- For reinforcing bar notes, see Bridge Standard C1.
- All reinforcing steel to be epoxy coated, unless noted.
- (P) Indicates plain reinforcing steel.

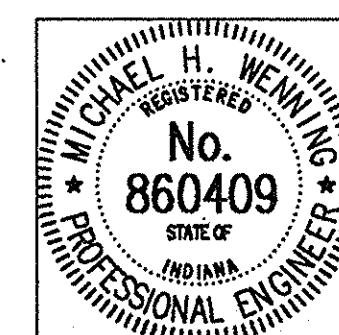
PIER NO.7 DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

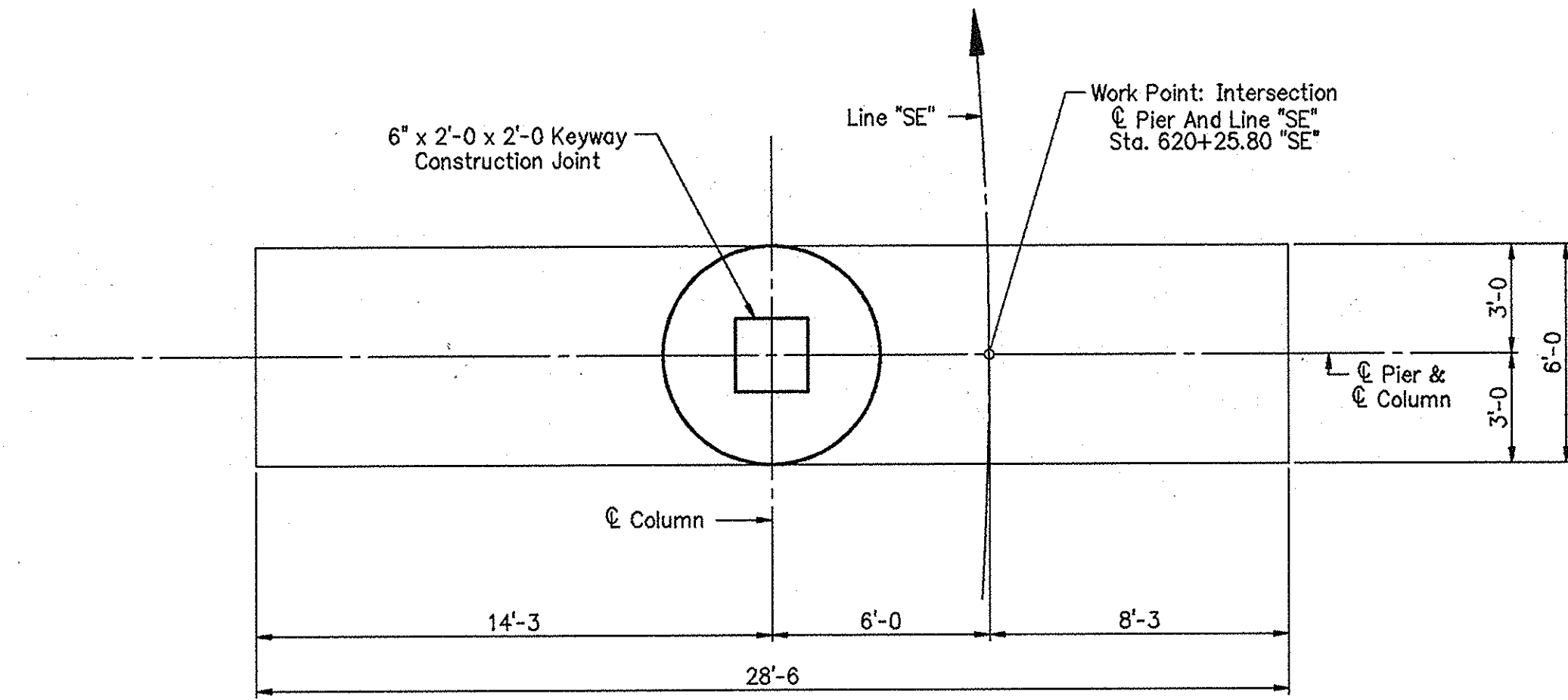
SUBMITTED FOR APPROVAL *Michael H. Janney*

DRAWING: - S20 OF S54 SHEET: - 35 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823

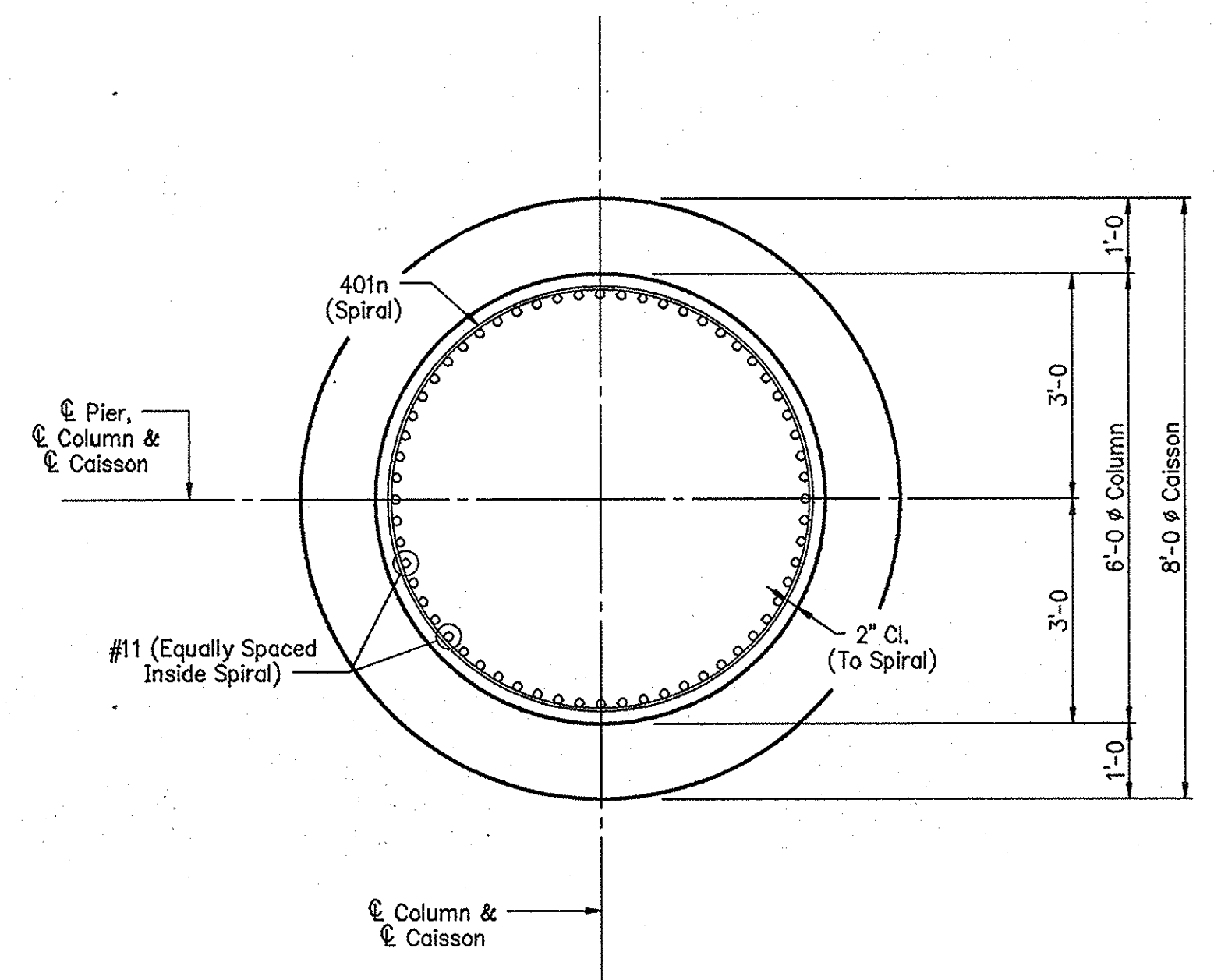
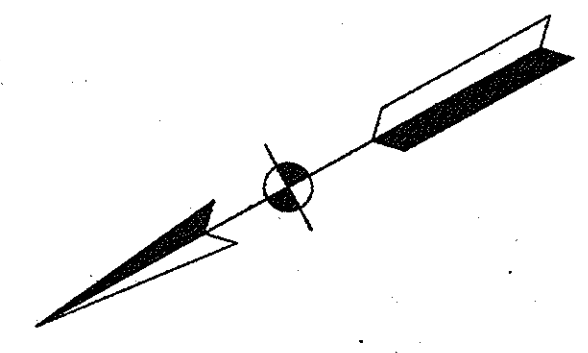


DESIGNED MDR 2/20/98 CK'D MSP 3/31/98
DRAWN TLH 4/4/98 CK'D MDR 4/12/98
TRACED CK'D

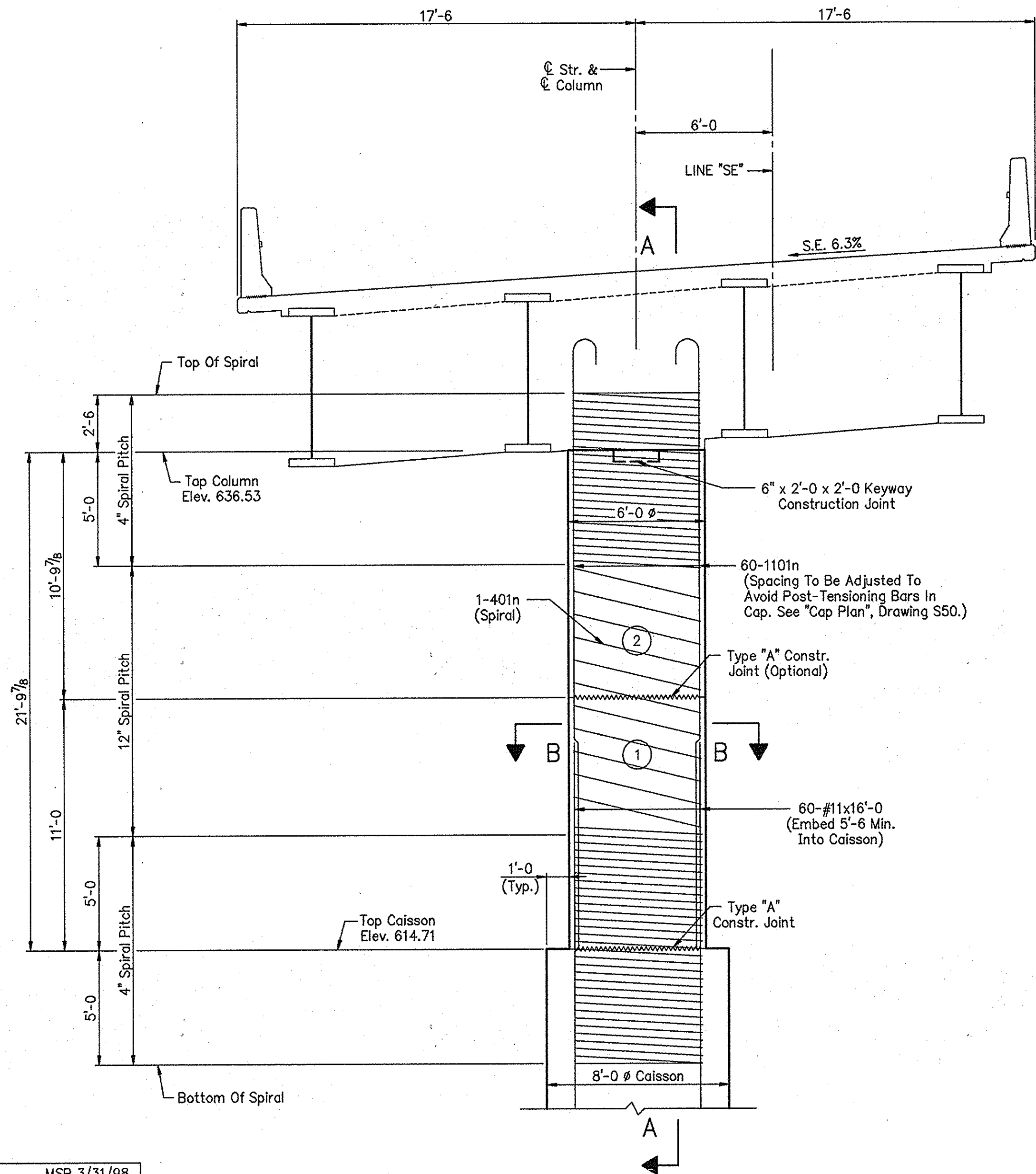
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SPELLCHK: OK
EDIT DATE: 07/07/98
ENTERED BY: TLH - 5/31



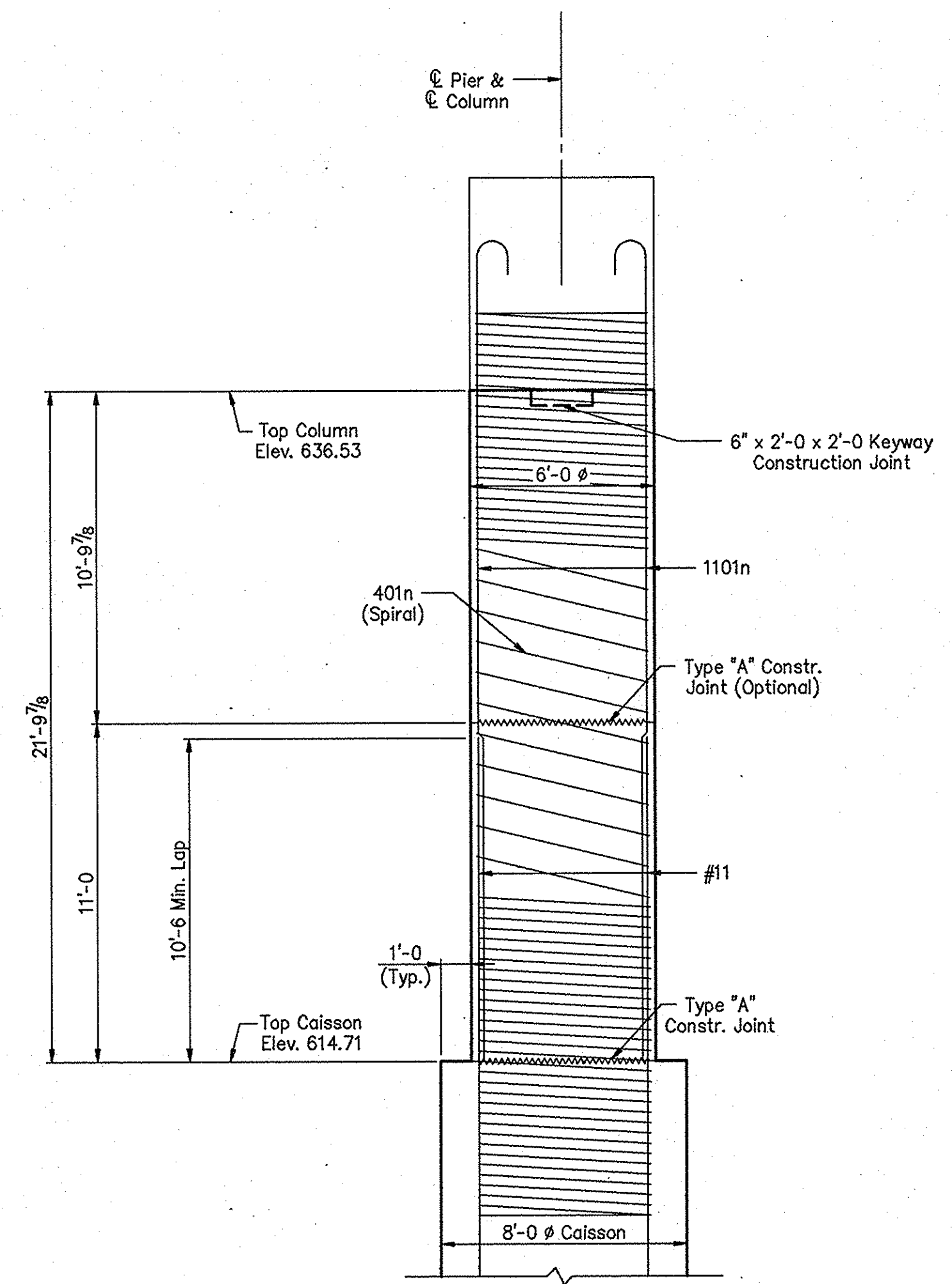
PLAN



SECTION B-B
Scale: 1/2" = 1'-0"



ELEVATION



SECTION A-A

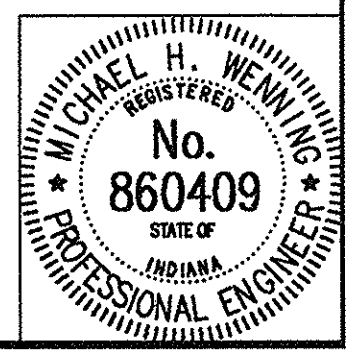
NOTES:

- For reinforcing bar notes, see Bridge Standard C1.
- All reinforcing steel to be epoxy coated, unless noted.
- For Cap details, see Drawing S50.
- For Caisson details, additional details and Bill of Materials, see Drawing S22.
- (X) Indicates concrete pour number.

PIER NO.8 DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0", UNLESS NOTED DATE: - July 9, 1998
SUBMITTED FOR APPROVAL *Michael H. Weening*

DRAWING: - S21 OF S54 SHEET: - 36 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823



DESIGNED MDR 3/4/98 C/K'D MSP 3/31/98
DRAWN TLH 4/6/98 C/K'D MDR 4/12/98
TRACED C/K'D

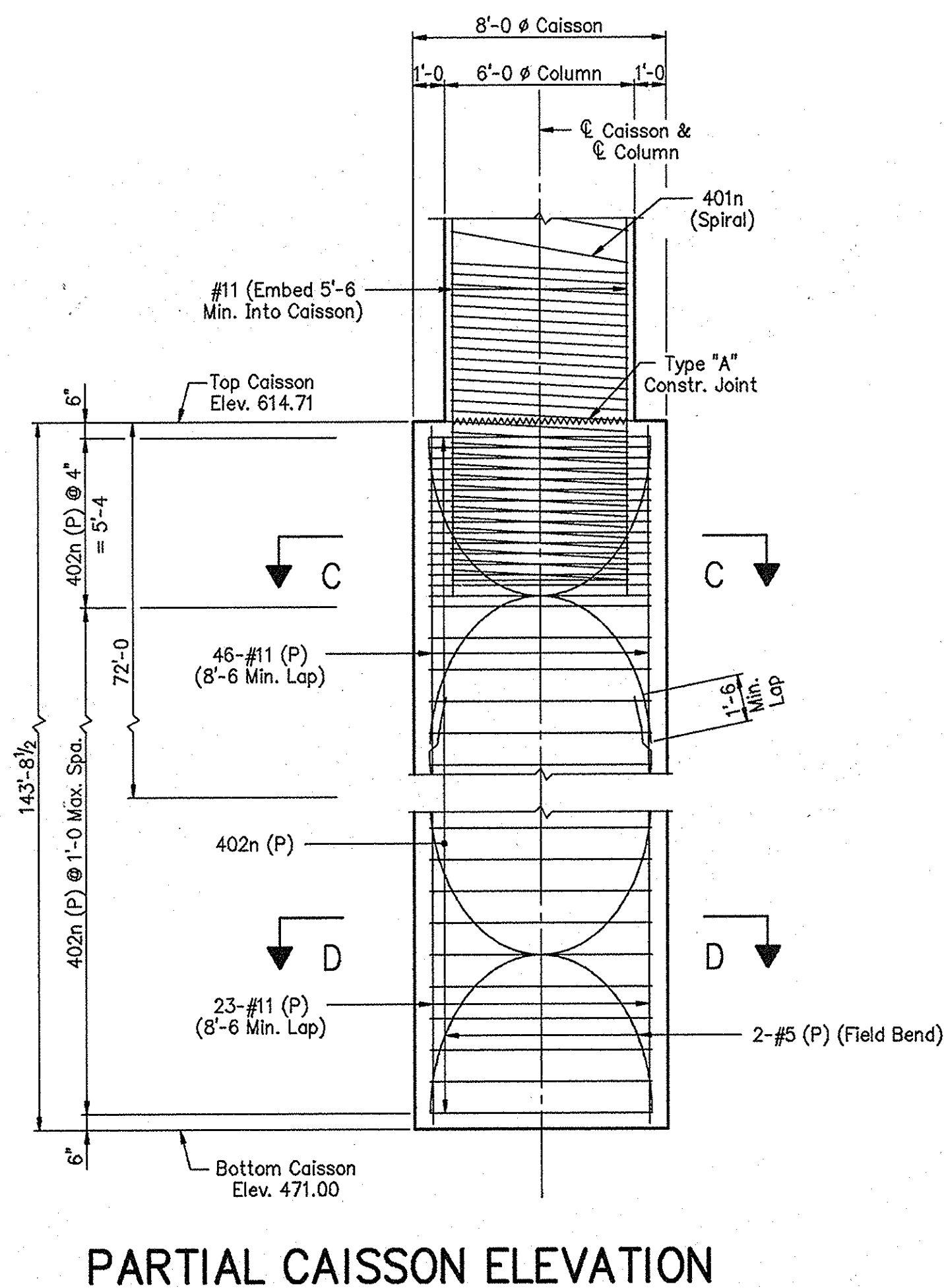
DWG FILE: C:\V2\120\2120850
PLOT SCALE: 1/48,000
PLOT ORIGIN: 0.00,0.00

SPELLCHK: 07/09/98 15:58:41
EDITED BY: TLH - 513

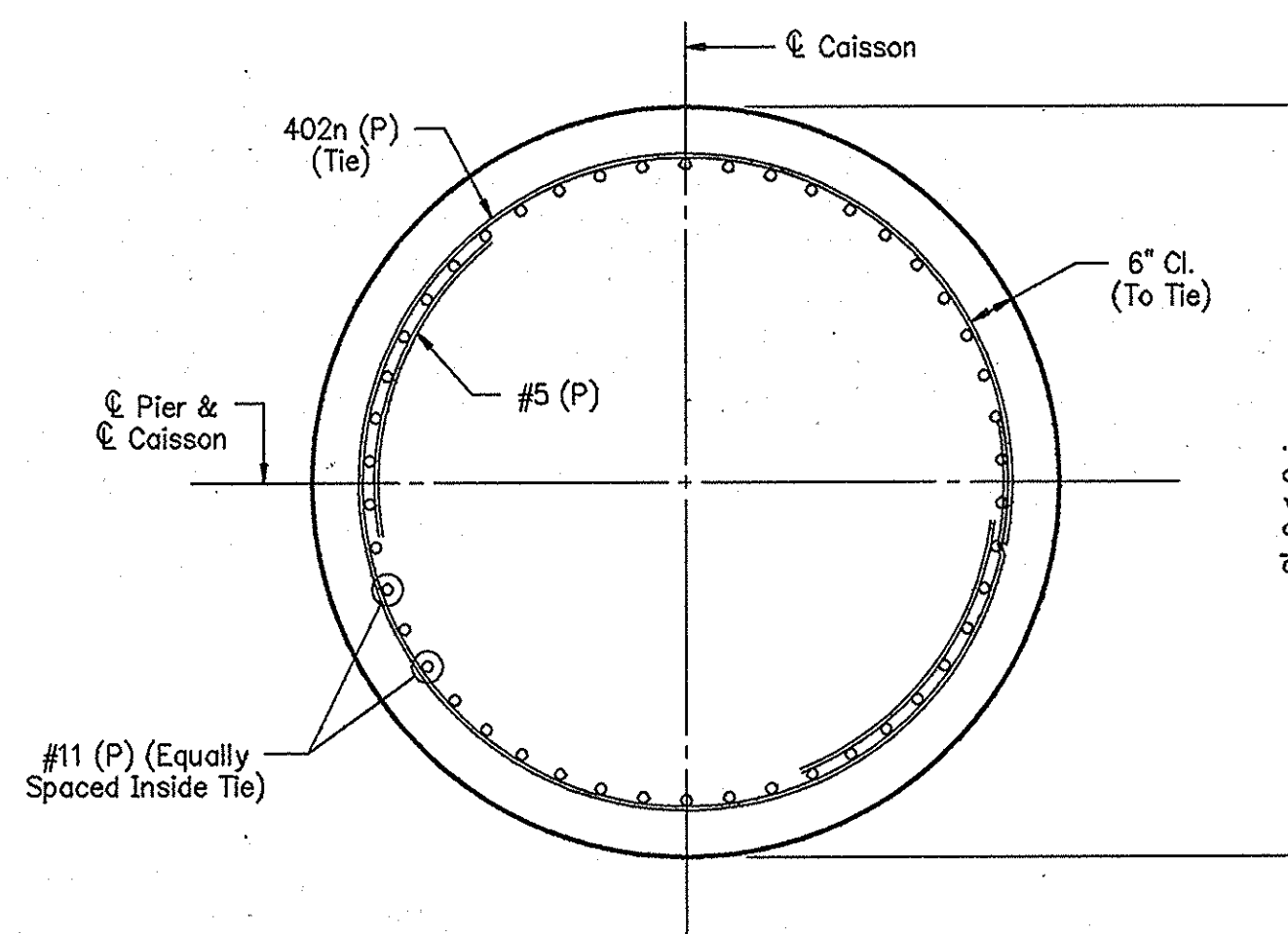
PIER No.8 BILL OF MATERIALS

Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
1101n	60	28'-3	
#11	60	16'-0	
Total No. 11			14,106
401n	1	1198'-6	801
Total Epoxy Coated Reinforcing Steel			14,907
Concrete			
Class "A" In Substructure			
Pour No.1			11.5 Cys.
Pour No.2			11.3 Cys.
Total Class "A" In Substructure			22.8 Cys.
Drilled Shaft Concrete *			267.5 Cys.

* Includes reinforcing steel, see Special Provisions.

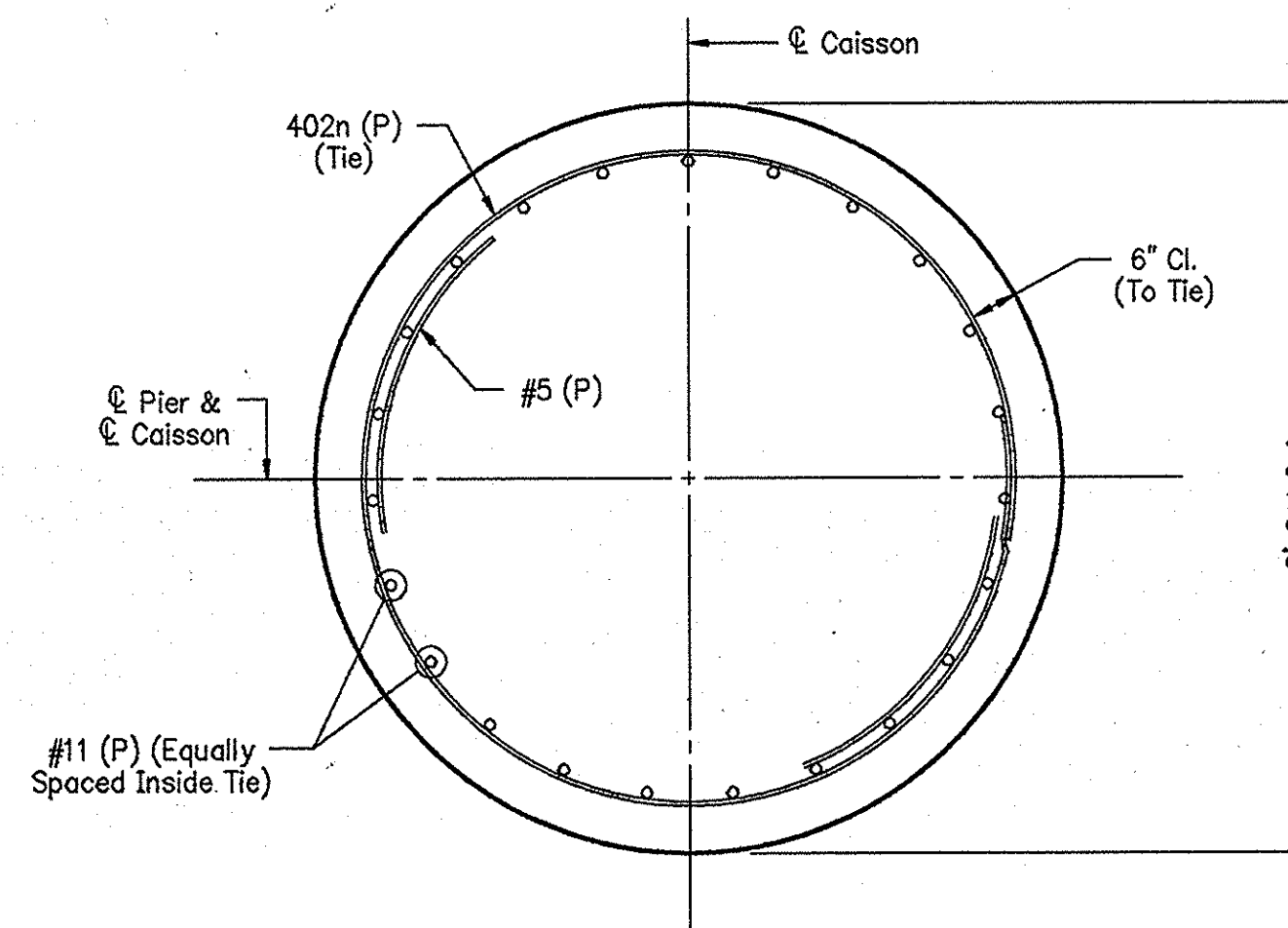


PARTIAL CAISSON ELEVATION



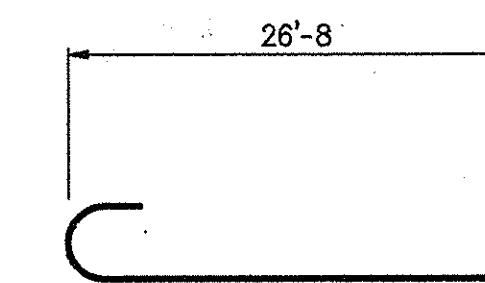
SECTION C-C

Scale: 1/2" = 1'-0"

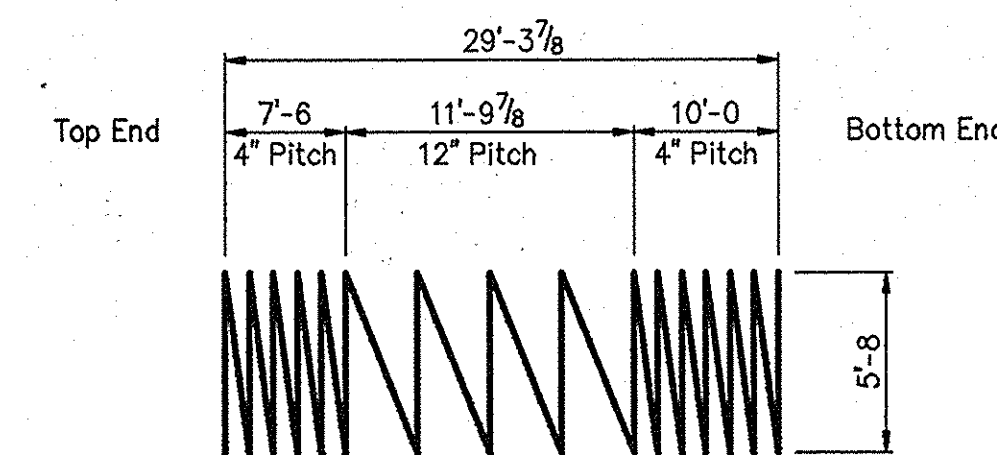


SECTION D-D

Scale: 1/2" = 1'-0"

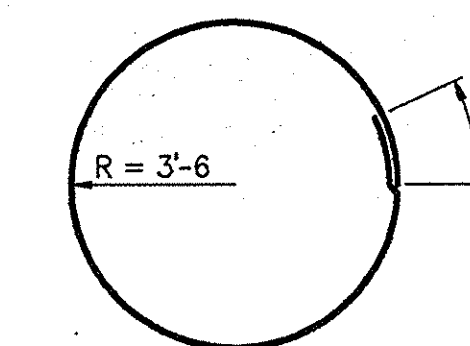


1101n x 28'-3



401n x 1198'-6

Spiral Bars To Be Formed Of Cold Drawn Wire With A Yield Of 60,000 P.S.I.



402n x 23'-4 (P)

NOTES :

- For reinforcing bar notes, see Bridge Standard C1.
- All reinforcing steel to be epoxy coated, unless noted.
- (P) Indicates plain reinforcing steel.

PIER NO.8 DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

SUBMITTED FOR APPROVAL *Michael H. Weir*

DRAWING: - S22 OF S54 SHEET: - 37 OF 81

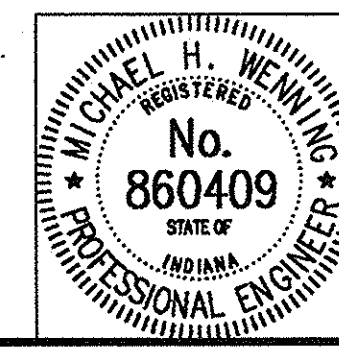
PROJECT: - IM-80-1(143)4

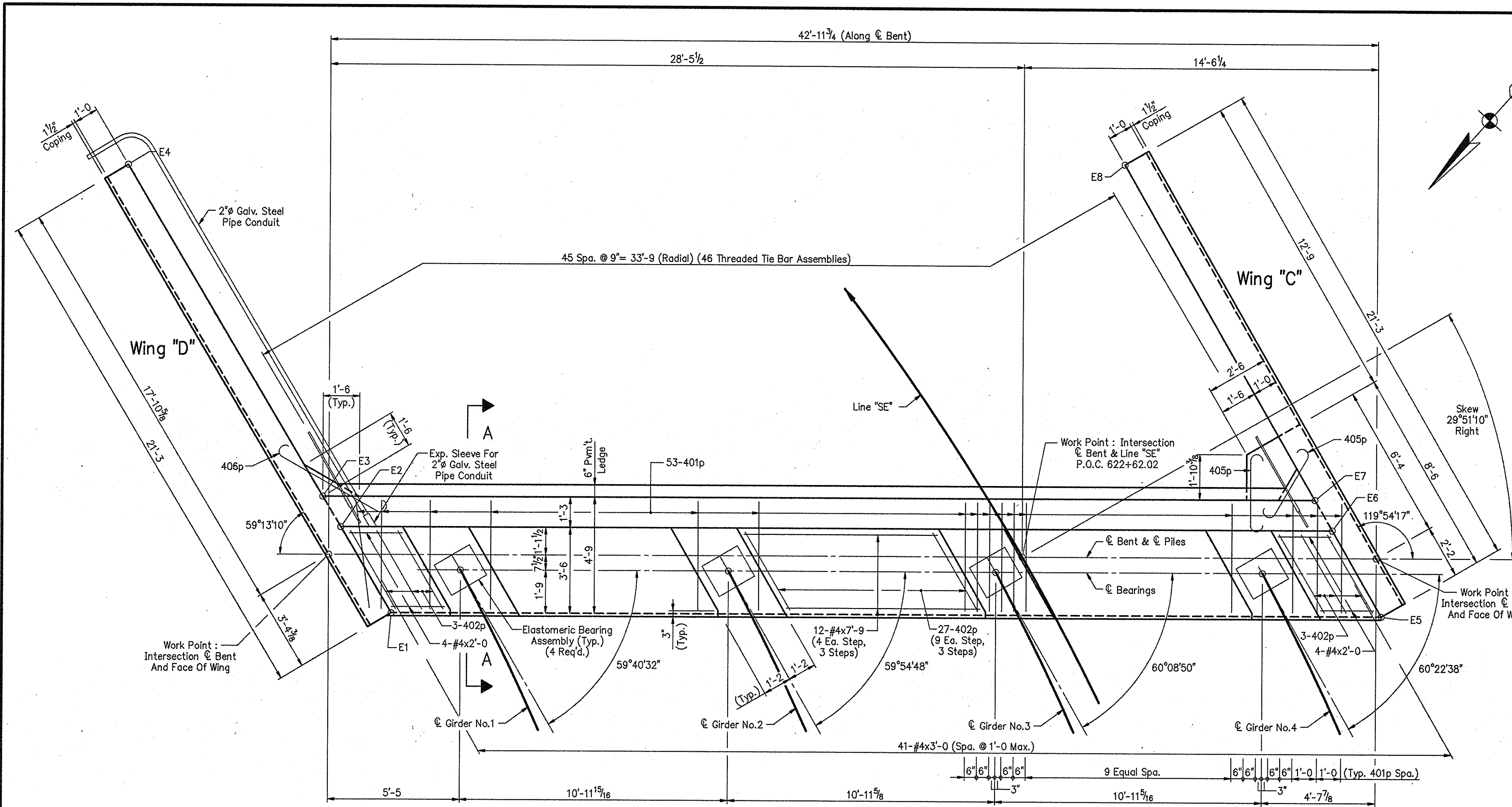
CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7823

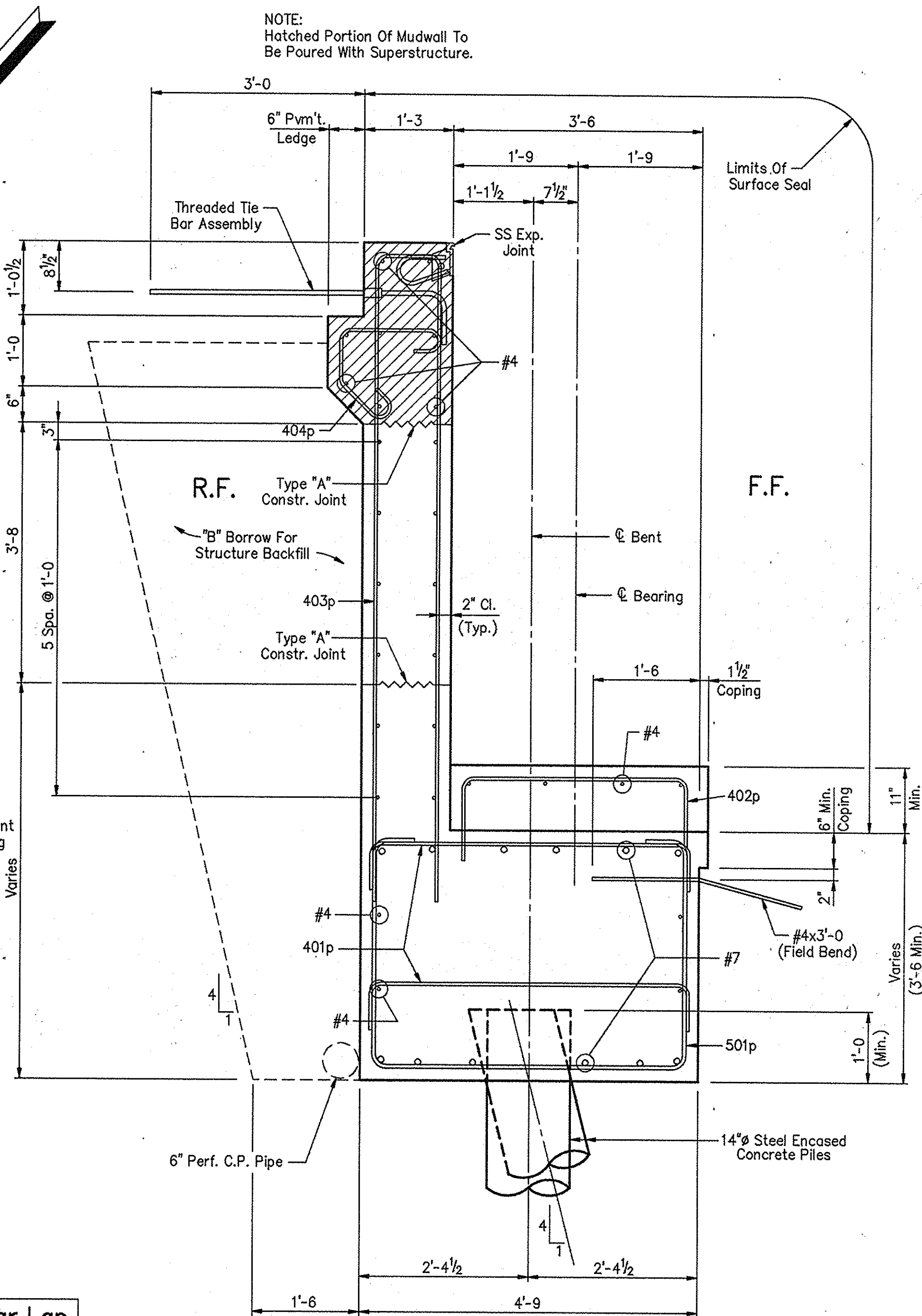
DESIGNED MDR 3/4/98 CKD MSP 3/31/98
DRAWN TLH 4/4/98 CKD MDR 4/12/98
TRACED _____ CKD _____

DWG FILE: D:\82\120\02120801 SPELLOH: 07/07/98
PLOT SCALE: 1/4"=0'0" EDIT DATE: 07/07/98
PLOT ORIGIN: 0,00,0,00 EDITED BY: TLH - 9131



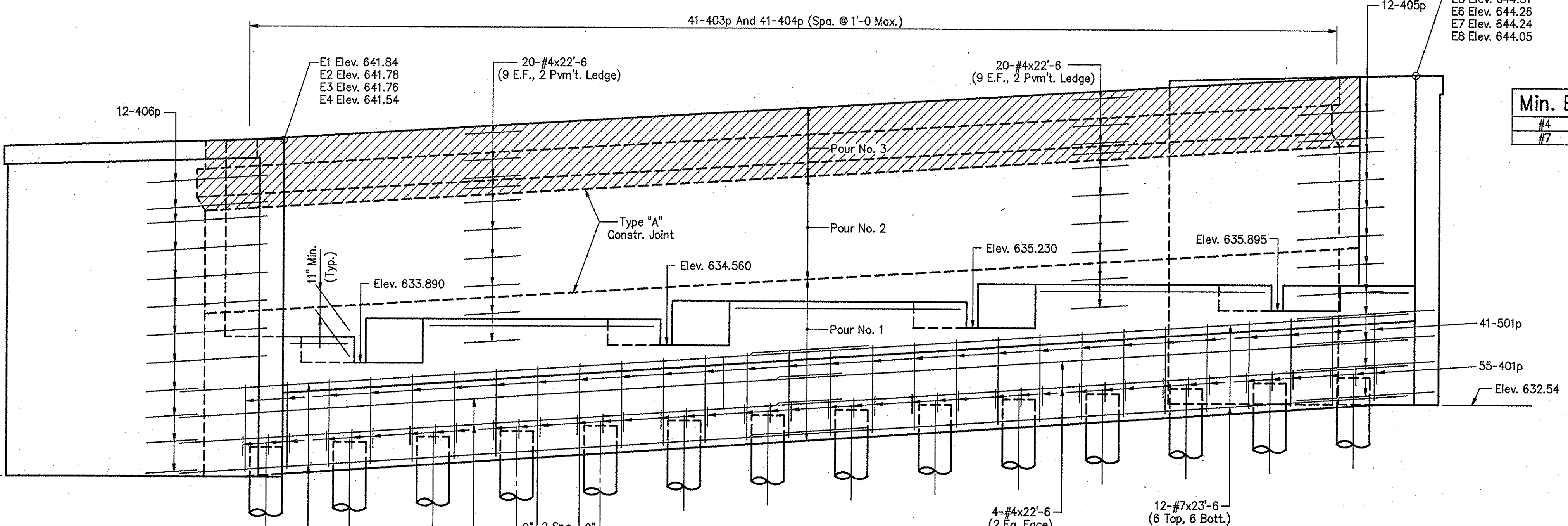


CAP PLAN



SECTION A-A
Scale: 3/4"=1'-0"

NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 All reinforcing steel to be epoxy coated.
 For Wings "C" and "D" details, see Drawing S25.
 For Bill of Materials, see Drawing S25.
 Surface Seal and Masonry Coat exposed surfaces of wings.



ELEVATION

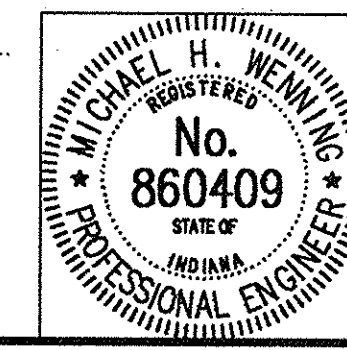
Min. Bar Lap	
#4	2'-3"
#7	4'-2"

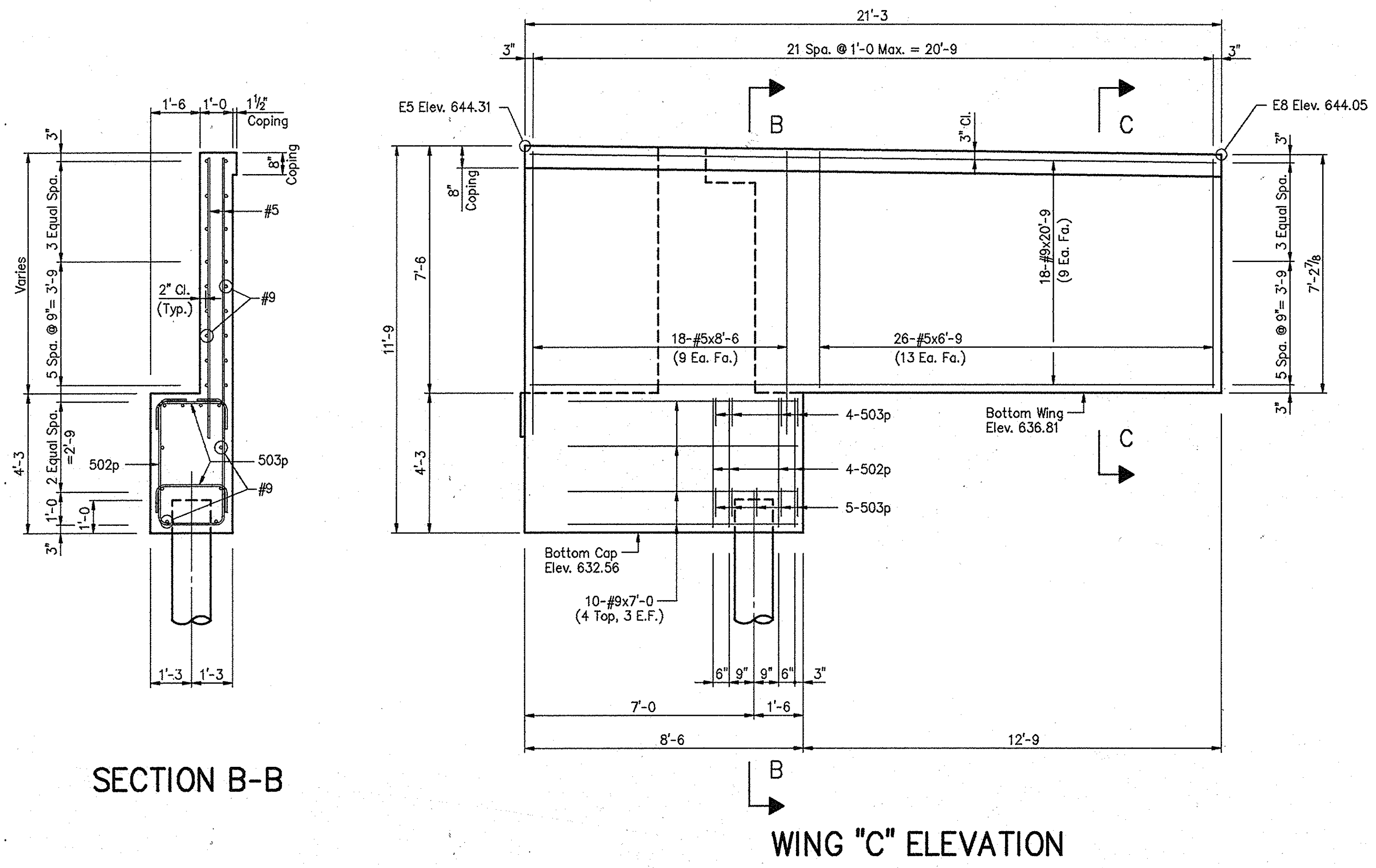
BENT NO. 9 DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/8" = 1'-0", Unless Noted DATE: - June 1, 1998
 SUBMITTED FOR APPROVAL *Michael H. Sawing*
 DRAWING: - S23 OF S54 SHEET: - 38 OF 81
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7823

DESIGNED MDR 3/10/95 CKD MSP 1/20/97
 DRAWN JEE 5/19/95 CKD DAD 2/5/97
 TRACED _____ CKD _____

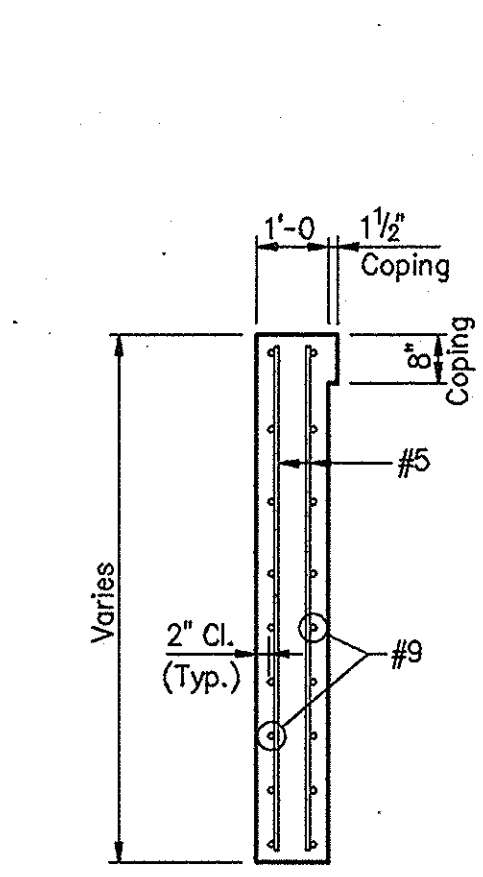
DWG FILE: D:\82\130\92120821
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 PLOT ORIGIN: 0.00,0.00
 SPELLING: _____
 EDIT DATE: 08/01/88
 EDITED BY: TLH - 5131



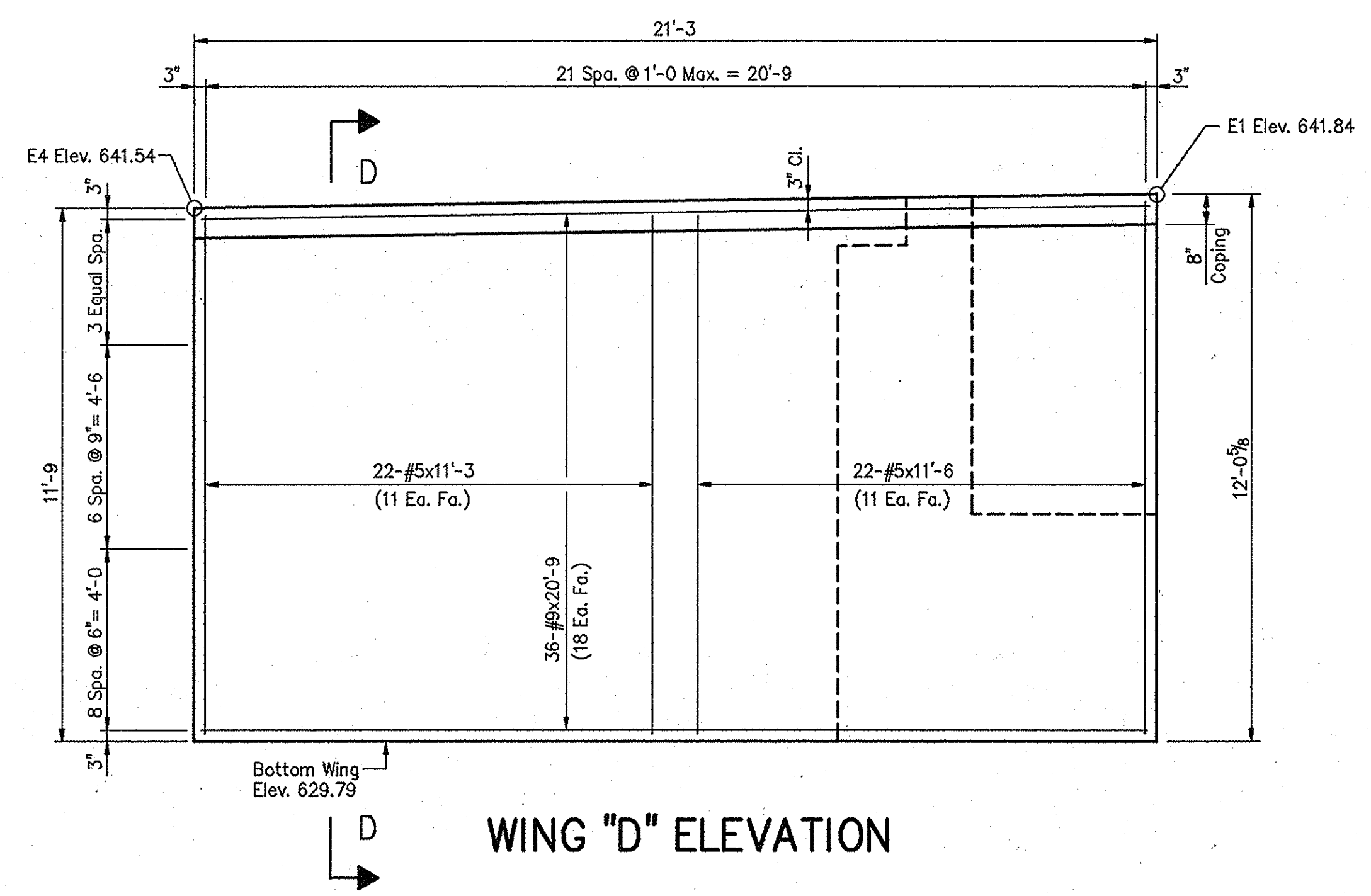


SECTION B-B

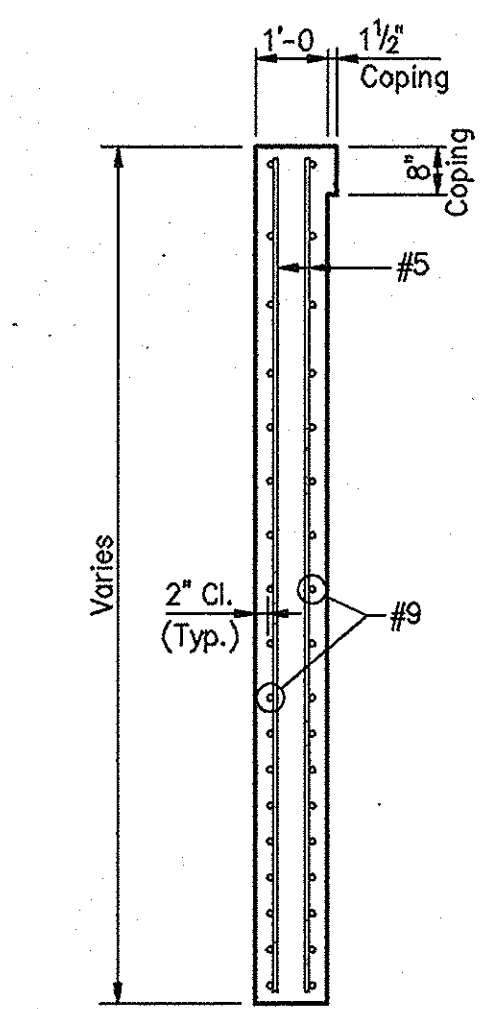
WING "C" ELEVATION



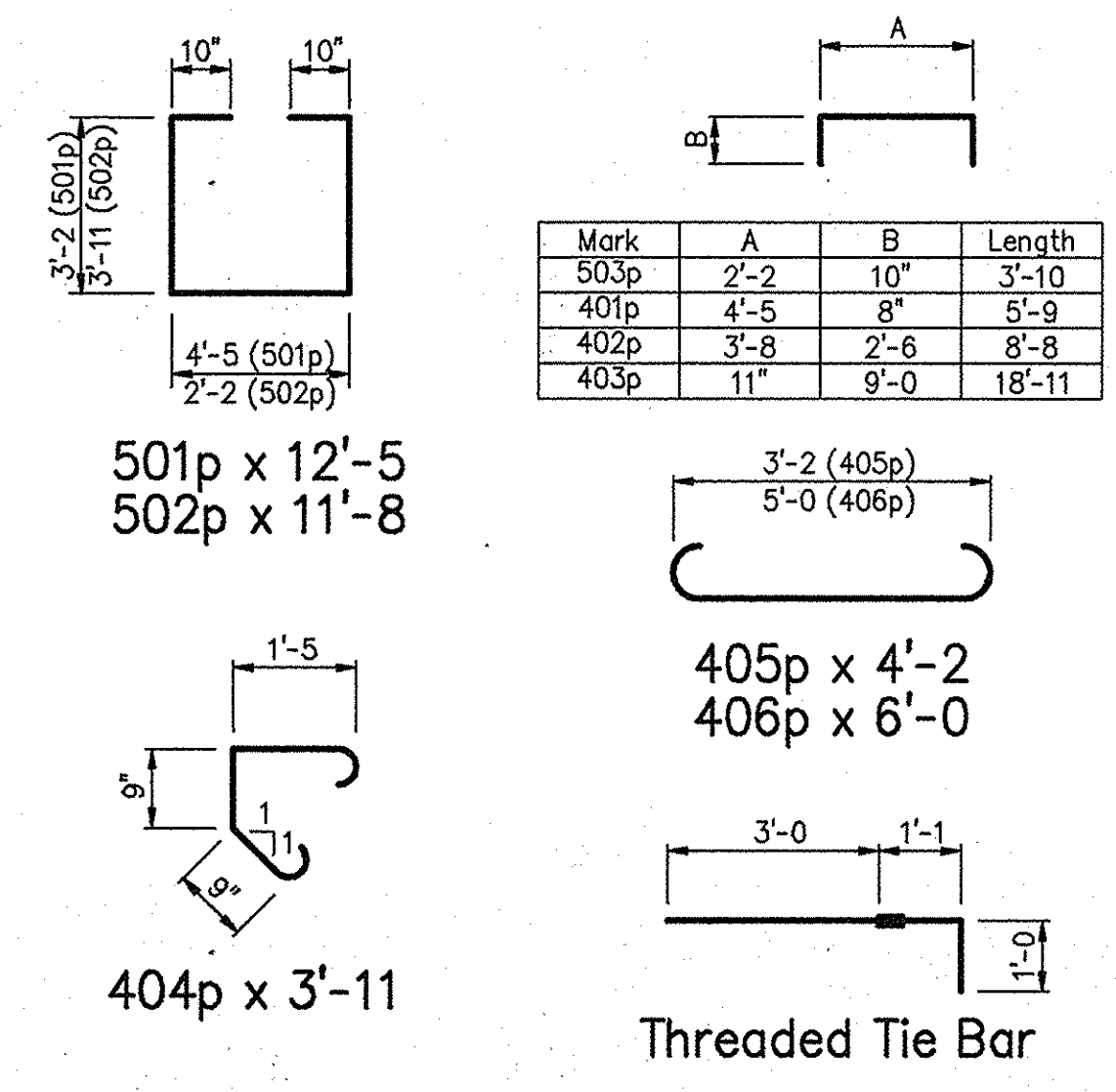
SECTION C-C



WING "D" ELEVATION



SECTION D-D



BILL OF MATERIALS

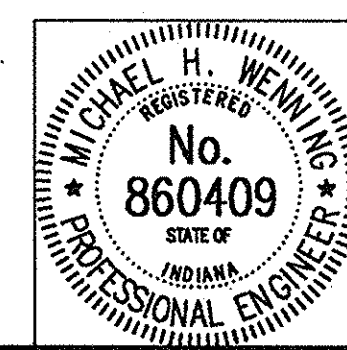
Epoxy Coated Reinforcing Steel (fy = 60,000 psi)			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
#9	54	20'-9	
#9	10	7'-0	
Total No. 9			4,048
#7	24	23'-6	1,153
501p	41	12'-5	
502p	4	11'-8	
503p	9	3'-10	
#5	22	11'-6	
#5	22	11'-3	
#5	18	8'-6	
#5	26	6'-9	
Total No. 5			1,480
401p	108	5'-9	
402p	33	8'-8	
403p	41	18'-11	
404p	41	3'-11	
405p	12	4'-2	
406p	12	6'-0	
#4	48	22'-6	
#4	12	7'-9	
#4	41	3'-0	
#4	8	2'-0	
Total No. 4			2,189
Total Epoxy Coated Reinforcing Steel			8,870
Concrete			
Class "A" In Substructure			
Pour No. 1		54.4	Cys.
Pour No. 2		7.2	Cys.
Total Class "A" In Substructure			61.6 Cys.
Class "C" In Superstructure (Pour No. 3)			
		5.7	Cys.
Miscellaneous			
Surface Seal		910	Sft.
Masonry Coating		330	Sft.
15-Piles, Concrete, Steel Shell Encased,		2220	
0.375" Min. Thick, 14" x 14" x 14" Approx.		2,220	Lft.
Threaded Tie Bar Assembly		1480	46 Each
2" Galvanized Steel Pipe Conduit		19	Lft.
6" Perf. C.P. Pipe		67	Lft.

NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 All reinforcing steel to be epoxy coated.
 Surface Seal and Masonry Coat exposed surfaces of wings.

BENT NO. 9 DETAILS
 INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/8" = 1'-0", Unless Noted DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL *Michael H. ...*

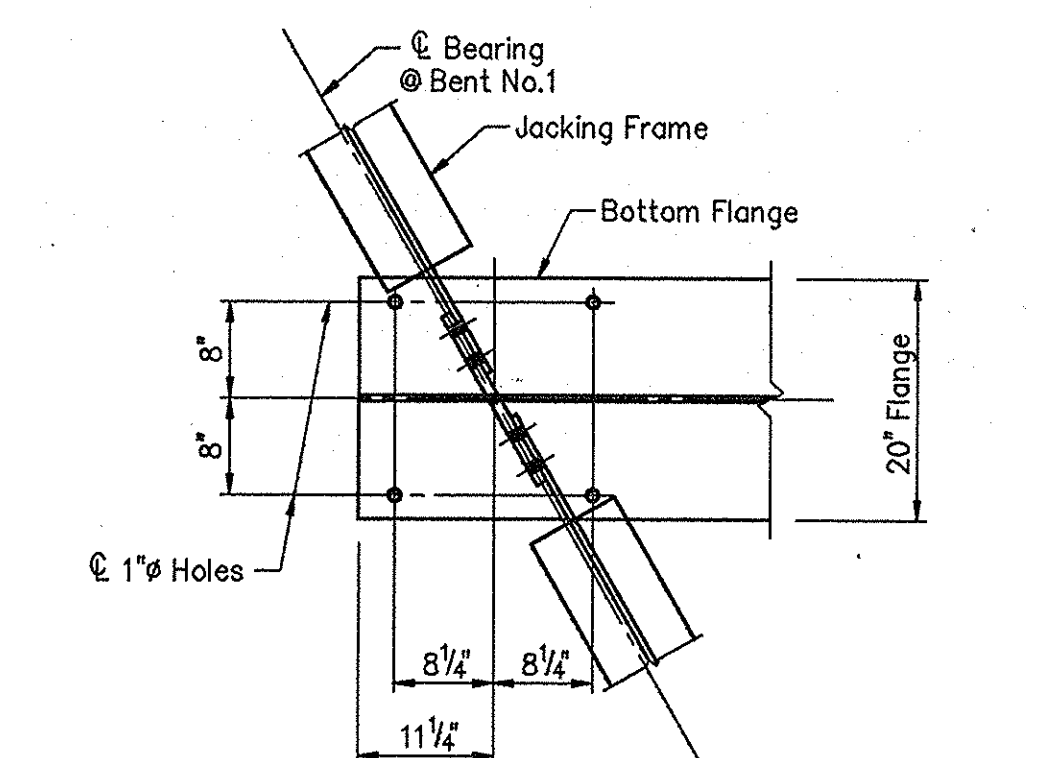
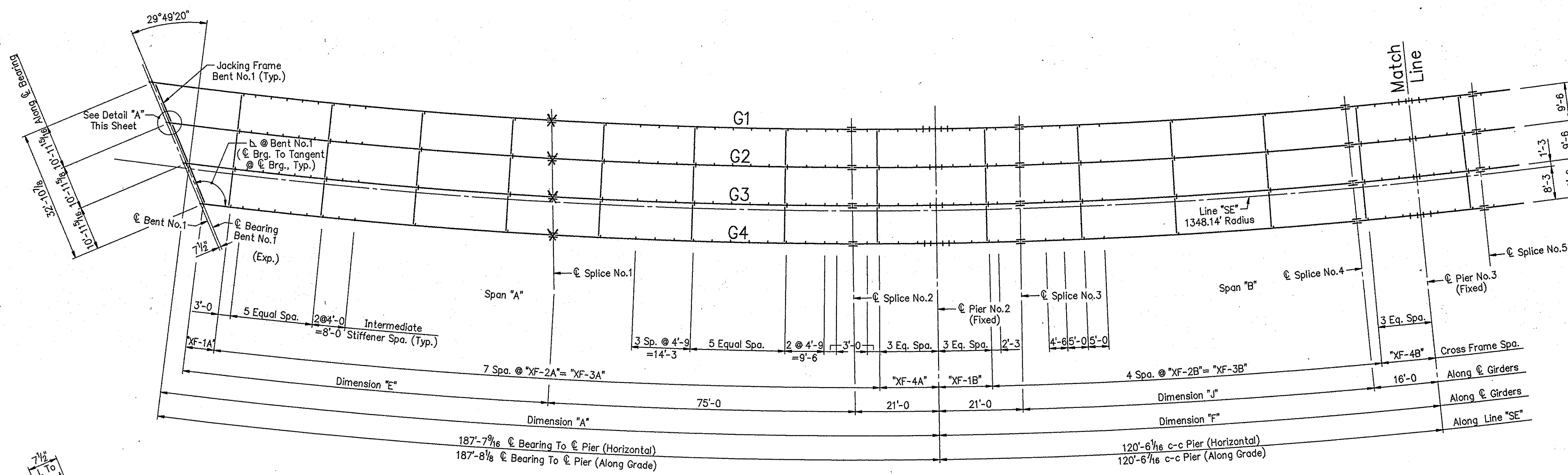
DRAWING: - S25 OF S54 SHEET: - 40 OF 81
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7823



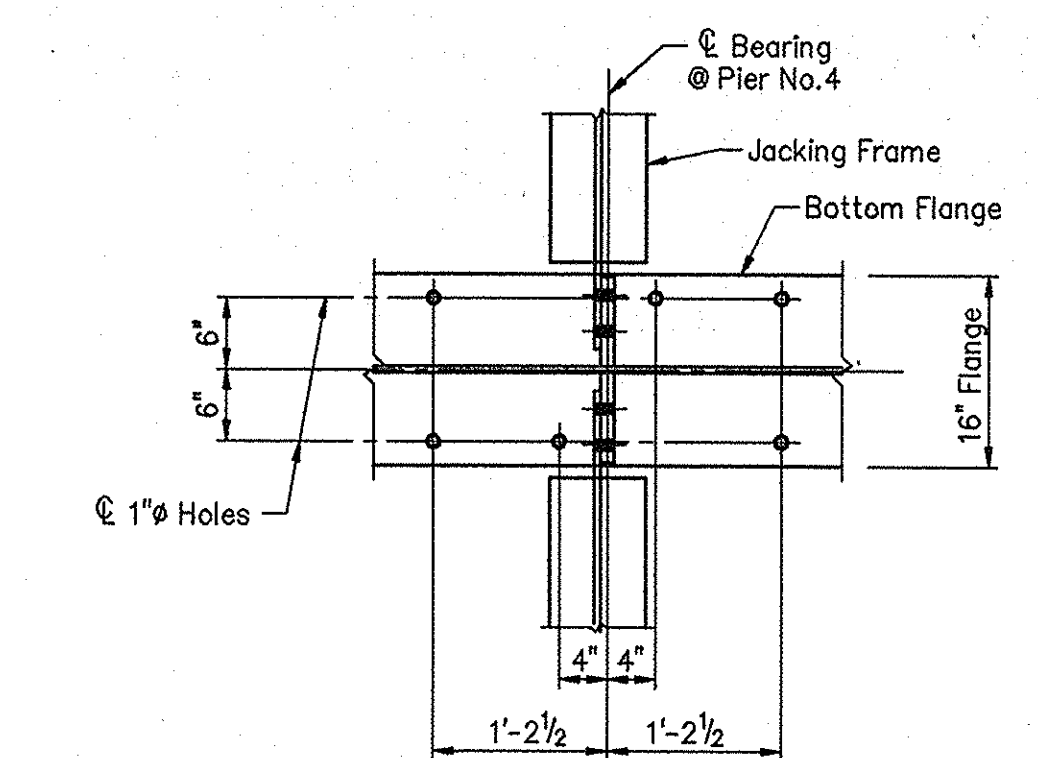
DESIGNED MDR 3/10/95 CKD MSP 1/20/97
 DRAWN JEE 5/19/95 CKD DAD 2/5/97
 TRACED CKD

DWG FILE: D:\82\1201\2120822
 PLOT SCALE: 1:32,000
 PLOT ORIGIN: 0.00,0.00
 SPELLOK
 EDIT DATE: 07/10/98 14:54:28
 EDIT BY: TUI - 9131

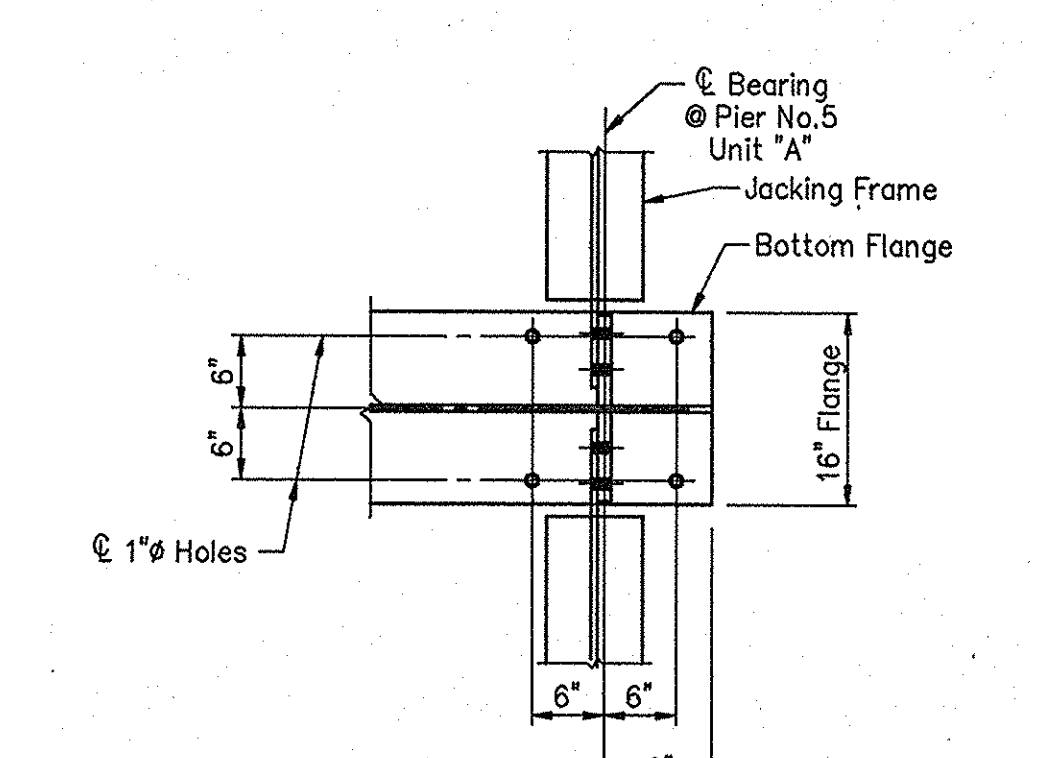
9-1-98: Revised Pile Length



DETAIL "A"
Scale- 3/4"=1'-0"



DETAIL "B"
Scale- 3/4"=1'-0"

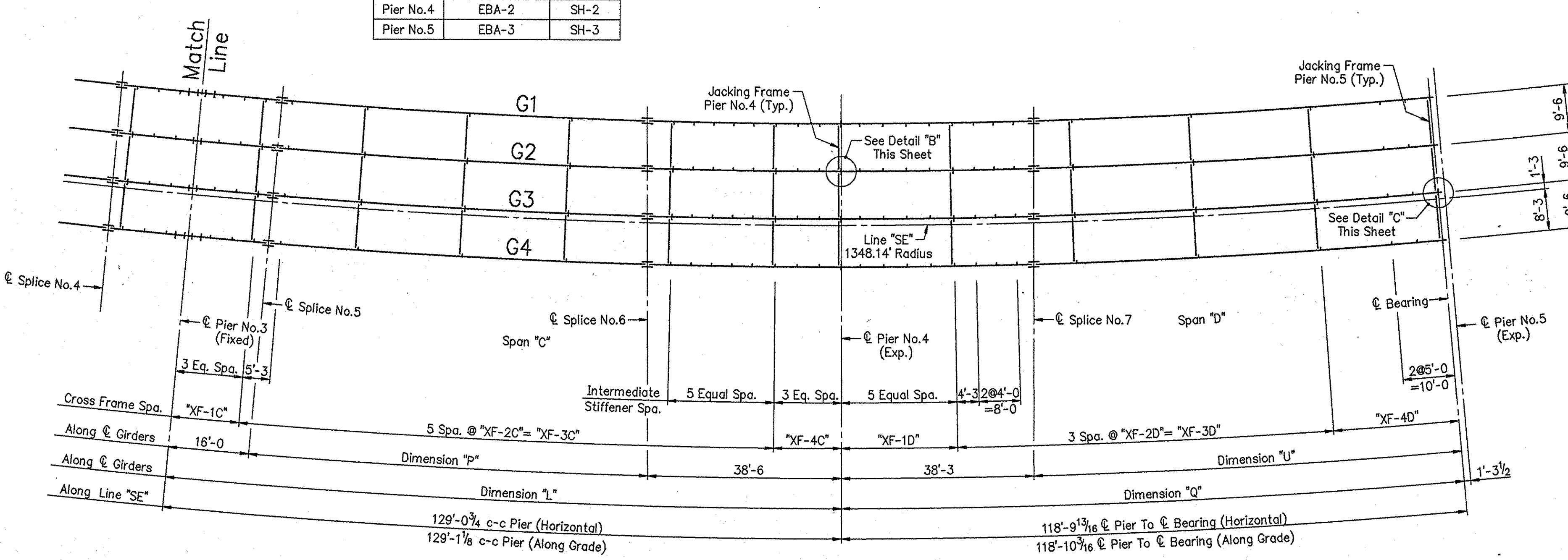


DETAIL "C"
Scale- 3/4"=1'-0"

Location	Bearing Assembly	Shim
Bent No.1	EBA-1	SH-1
Pier No.2	N/A	N/A
Pier No.3	N/A	N/A
Pier No.4	EBA-2	SH-2
Pier No.5	EBA-3	SH-3

BENT NO.1 TIE-UP DETAIL
No Scale

Girder No.	∠ @ Bent No.1
G1	120°19'28"
G2	120°05'12"
G3	119°51'10"
G4	119°37'22"



NOTES:
 All structural steel shall conform to ASTM A709 Grade 50W, unpainted except as noted.
 All dimensions shown are horizontal distances, unless otherwise noted.
 All cross frames to be Type X-1 and constructed radially.
 No shims to be placed at Piers No.2 or No.3.

FRAMING PLAN - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

Girder No.	Radius	Span "A"		Span "B"			Span "C"		Span "D"	
		A	E	F	J	L	P	Q	U	
G1	1327.89'	196'-5 3/8"	100'-5 3/8"	118'-8 3/8"	81'-8 3/8"	127'-1 3/8"	72'-7 3/8"	117'-0 3/8"	78'-9 3/8"	
G2	1337.39'	192'-3 3/8"	96'-3 3/8"	119'-6 1/2"	82'-6 1/2"	128'-0 3/8"	73'-6 3/8"	117'-10 3/8"	79'-7 3/8"	
G3	1346.89'	188'-2 1/8"	92'-2 1/8"	120'-4 3/4"	83'-4 3/4"	128'-11 3/8"	74'-5 3/8"	118'-8 1/2"	80'-5 1/2"	
G4	1356.39'	184'-0 3/8"	88'-0 3/8"	121'-3"	84'-3"	129'-10 1/4"	75'-4 1/4"	119'-6 3/8"	81'-3 3/8"	

Span "A"				Span "B"				Span "C"				Span "D"			
XF-1A	XF-2A	XF-3A	XF-4A	XF-1B	XF-2B	XF-3B	XF-4B	XF-1C	XF-2C	XF-3C	XF-4C	XF-1D	XF-2D	XF-3D	XF-4D
23'-0 3/4"	22'-9 1/8"	159'-3 1/8"	14'-1 3/8"	12'-10"	23'-3"	93'-0"	12'-10 3/8"	12'-10 3/8"	20'-3 3/8"	101'-4 15/16"	12'-10 1/4"	22'-0 3/8"	23'-8 15/16"	71'-2 13/16"	23'-8 3/4"
17'-8 1/8"	22'-11+	160'-5 1/8"	14'-2 3/8"	12'-11 1/8"	23'-5"	93'-8"	12'-11 1/8"	12'-11 1/8"	20'-5 1/8"	102'-1 1/8"	12'-11 3/8"	22'-2 1/8"	23'-11-	71'-8 13/16"	23'-10 15/16"
12'-3 3/8"	23'-1-	161'-6 1/8"	14'-3 3/8"	13'-0 3/8"	23'-7"	94'-4"	13'-0 3/8"	13'-0 3/8"	20'-6 3/8"	102'-10 3/8"	13'-0 3/8"	22'-4 3/8"	24'-1+	72'-3 1/8"	24'-1 1/8"
6'-11 3/8"	23'-2 15/16"	162'-8 1/2"	14'-4 1/8"	13'-1 1/4"	23'-9"	95'-0"	13'-1 1/8"	13'-1 1/8"	20'-8 3/8"	103'-7 1/8"	13'-1 1/2"	22'-6 1/4"	24'-3 3/8"	72'-9 3/8"	24'-3 1/4"

DESIGNED: MDR 3/27/95 CKD DAD 11/26/96
 DRAWN: DSH 6/1/95 CKD DAD 12/17/96
 TRACED: CKD

DATE FILE: 01/22/1201/22120223
 PLOT SCALE: 1:16,000
 PLOT ORIGIN: 0,0,0,0,0

SPELLCHK: 06/01/98
 EDIT DATE: 06/01/98
 EDIT BY: TLH - 5131

SCALE: - 1/16"=1'-0, UNLESS NOTED DATE: - June 1, 1998

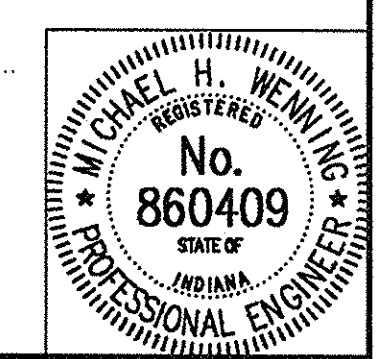
SUBMITTED FOR APPROVAL *Michael H. Wynn*

DRAWING: - S26 OF S54 SHEET: - 41 OF 81

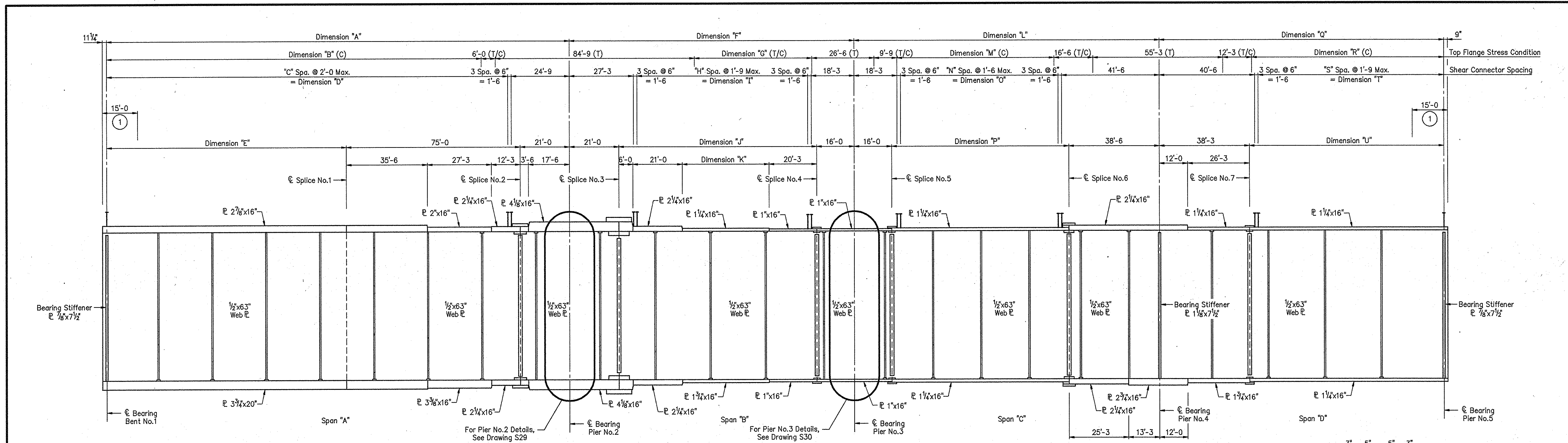
PROJECT: - IM-80-1(143)+

CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7823



9-1-98: Revised Splice No.1



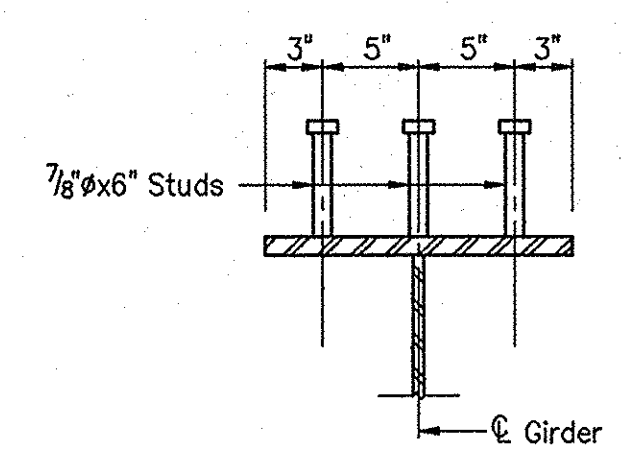
BEAM ELEVATION - UNIT "A"

LEGEND

- C = Compression
 - T/C = Tension/Compression
 - T = Tension
- ① All structural steel in length indicated (except top beam flanges) to be painted.

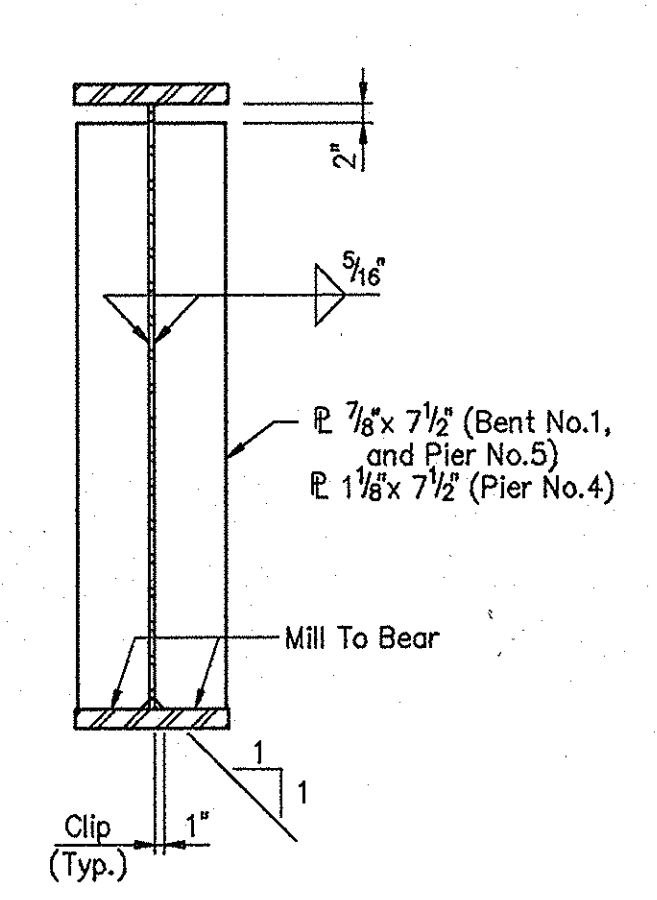
Base Metal Thickness Of Thicker Part Joined (In.)	Minimum Size Fillet Weld (In.)
3/8" To 3/4" Inclusive	1/4"
Over 3/4"	5/16"

Girder No.	Radius	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
G1	1327.89'	196'-5 3/8"	159'-8 3/8"	86	170'-2 3/8"	100'-5 3/8"	118'-8 3/8"	47'-5 3/8"	41	70'-2 3/8"	81'-8 3/8"	34'-5 3/8"	127'-1 3/8"	64'-1 3/8"	43	64'-4 3/8"	72'-7 3/8"	117'-0 3/8"	77'-0 3/8"	43	75'-0 3/8"	78'-9 3/8"
G2	1337.39'	192'-3 3/8"	155'-6 3/8"	84	166'-0 3/8"	96'-3 3/8"	119'-6 1/2"	48'-3 1/2"	41	71'-0 1/2"	82'-6 1/2"	35'-3 1/2"	128'-0 3/8"	65'-0 3/8"	44	65'-3 3/8"	73'-6 3/8"	117'-10 3/8"	77'-10 3/8"	44	75'-10 3/8"	79'-7 3/8"
G3	1346.89'	188'-2 1/8"	151'-5 1/8"	81	161'-11 1/8"	92'-2 1/8"	120'-4 3/4"	49'-1 3/4"	42	71'-10 3/4"	83'-4 3/4"	36'-1 3/4"	128'-11 3/8"	65'-11 3/8"	45	66'-2 3/8"	74'-5 3/8"	118'-8 1/2"	78'-8 1/2"	44	76'-8 1/2"	80'-5 1/2"
G4	1356.39'	184'-0 5/8"	147'-3 5/8"	79	157'-9 5/8"	88'-0 5/8"	121'-3	50'-0	42	72'-9	84'-3	37'-0	129'-10 1/4"	66'-10 1/4"	45	67'-1 1/4"	75'-4 1/4"	119'-6 3/8"	79'-6 3/8"	45	77'-6 3/8"	81'-3 3/8"

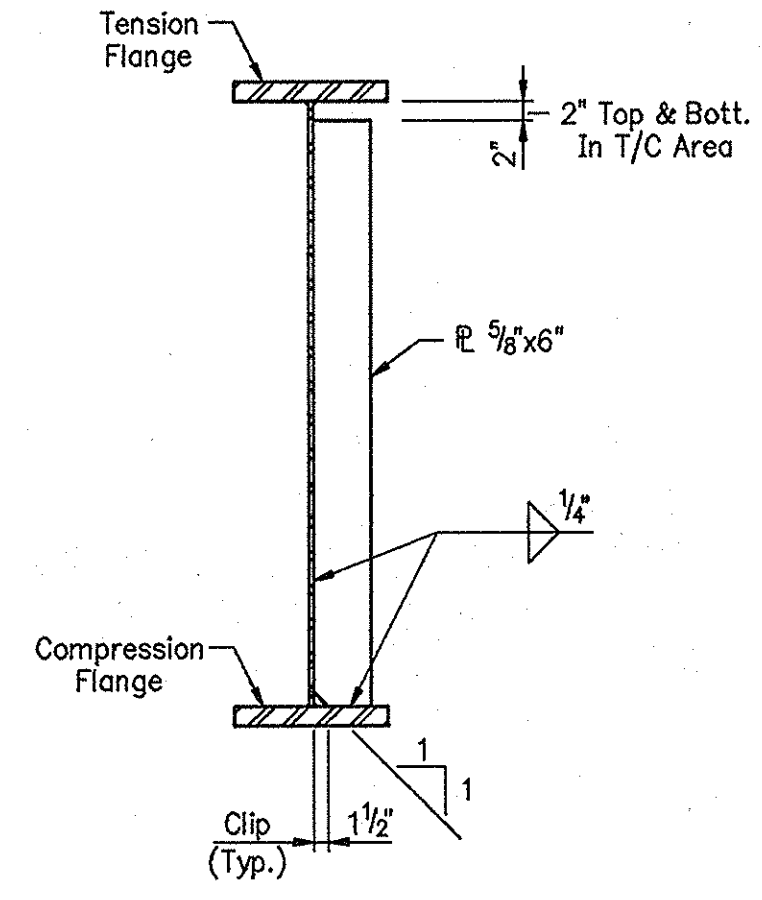


The contractor may use welded channels or 3/4" diameter welded studs as alternate shear connectors. If used they shall have equivalent shear value and the proposed size and spacing submitted for approval.

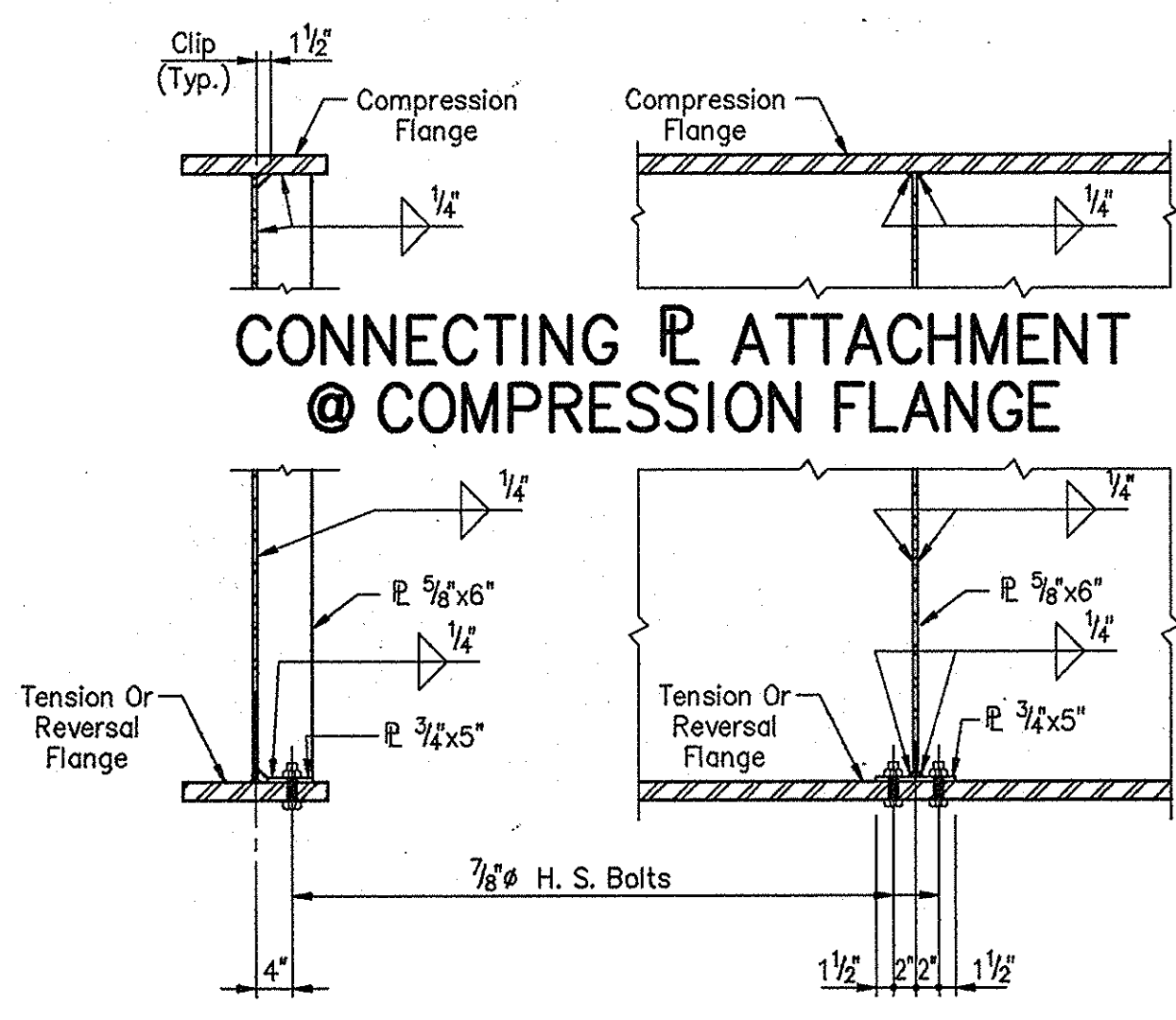
TYPICAL SHEAR CONNECTOR DETAILS
No Scale



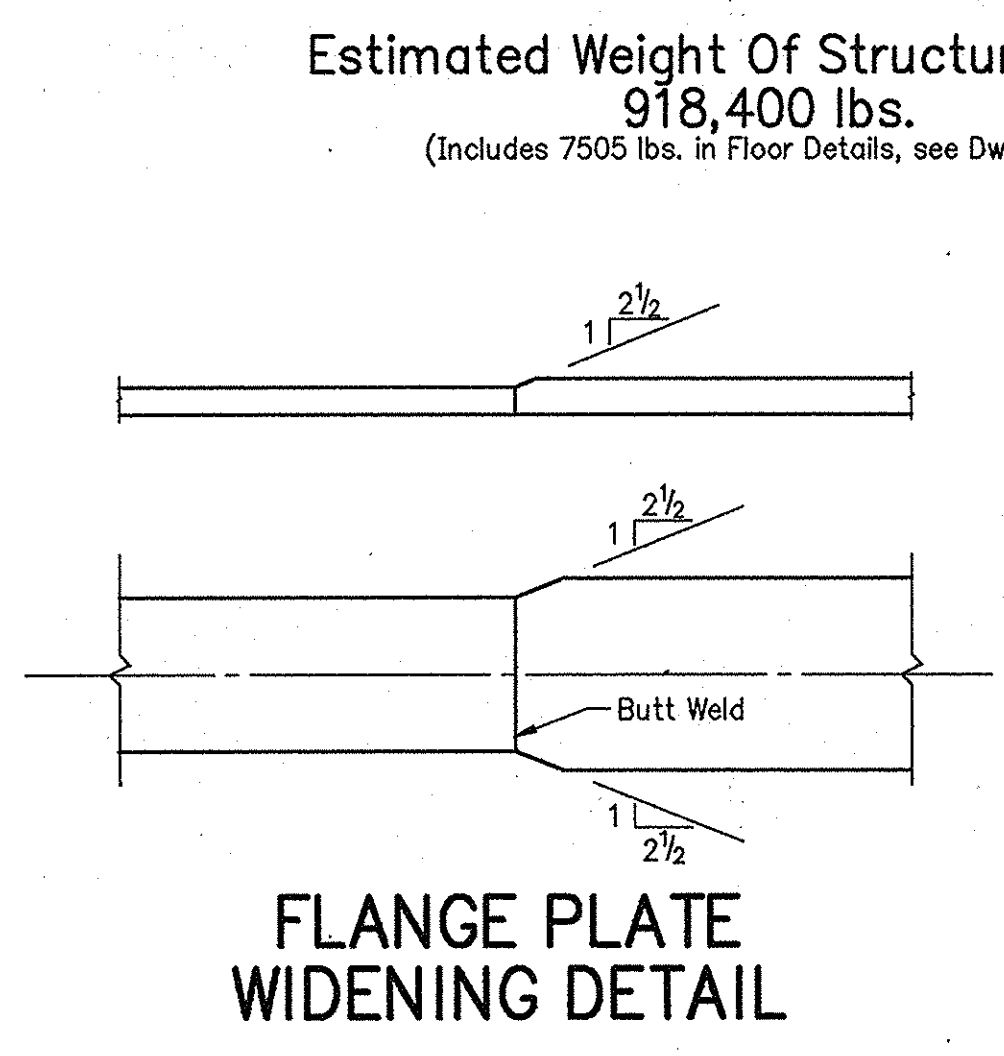
BEARING STIFFENER



INTERMEDIATE STIFFENER



CONNECTING PLATE ATTACHMENT @ TENSION OR REVERSAL FLANGE



FLANGE PLATE WIDENING DETAIL

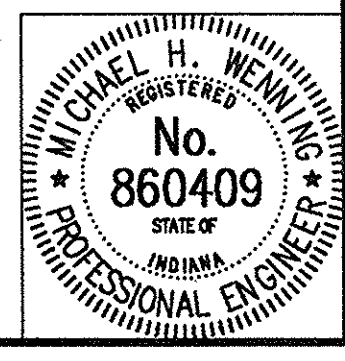
Estimated Weight Of Structural Steel :
918,400 lbs.
(Includes 7505 lbs. in Floor Details, see Dwg. S45.)

- NOTES :**
- All structural steel shall conform to ASTM A709 Grade 50W, unpainted except as noted.
 - The weight of high strength bolts is not included in the estimated weight of structural steel. The cost of these bolts shall be included in the cost of structural steel.
 - For Camber and Blocking Diagram and additional structural steel details, see Drawing S31.
 - For Elastomeric Bearing Assembly Details, see Drawing S38.

STRUCTURAL STEEL DETAILS - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

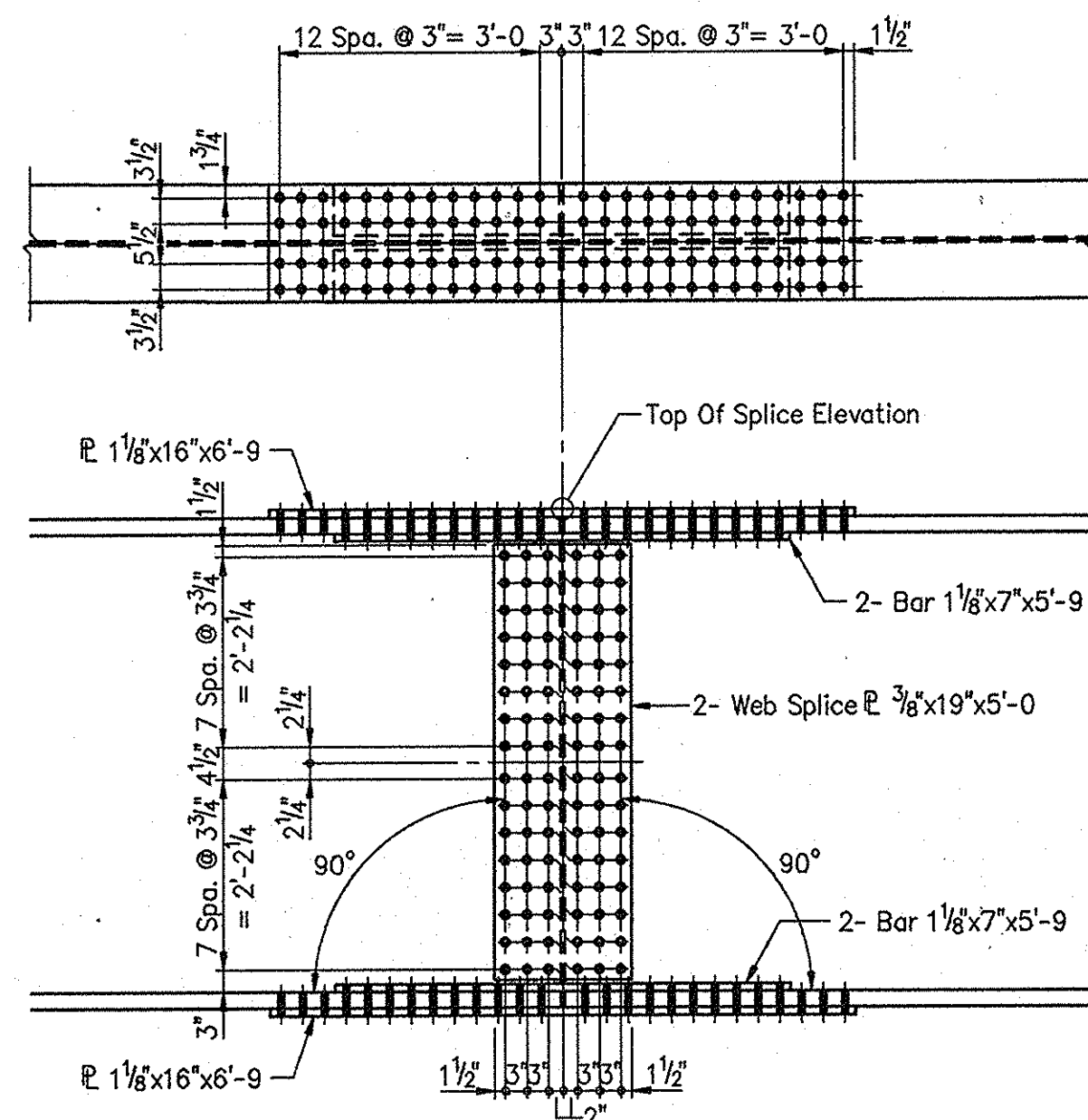
SCALE: - NONE DATE: - July 9, 1998
SUBMITTED FOR APPROVAL: *[Signature]*

DRAWING: - S27 OF S54 SHEET: - 42 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. - R-23808
BRIDGE FILE: - I-80-5-7823

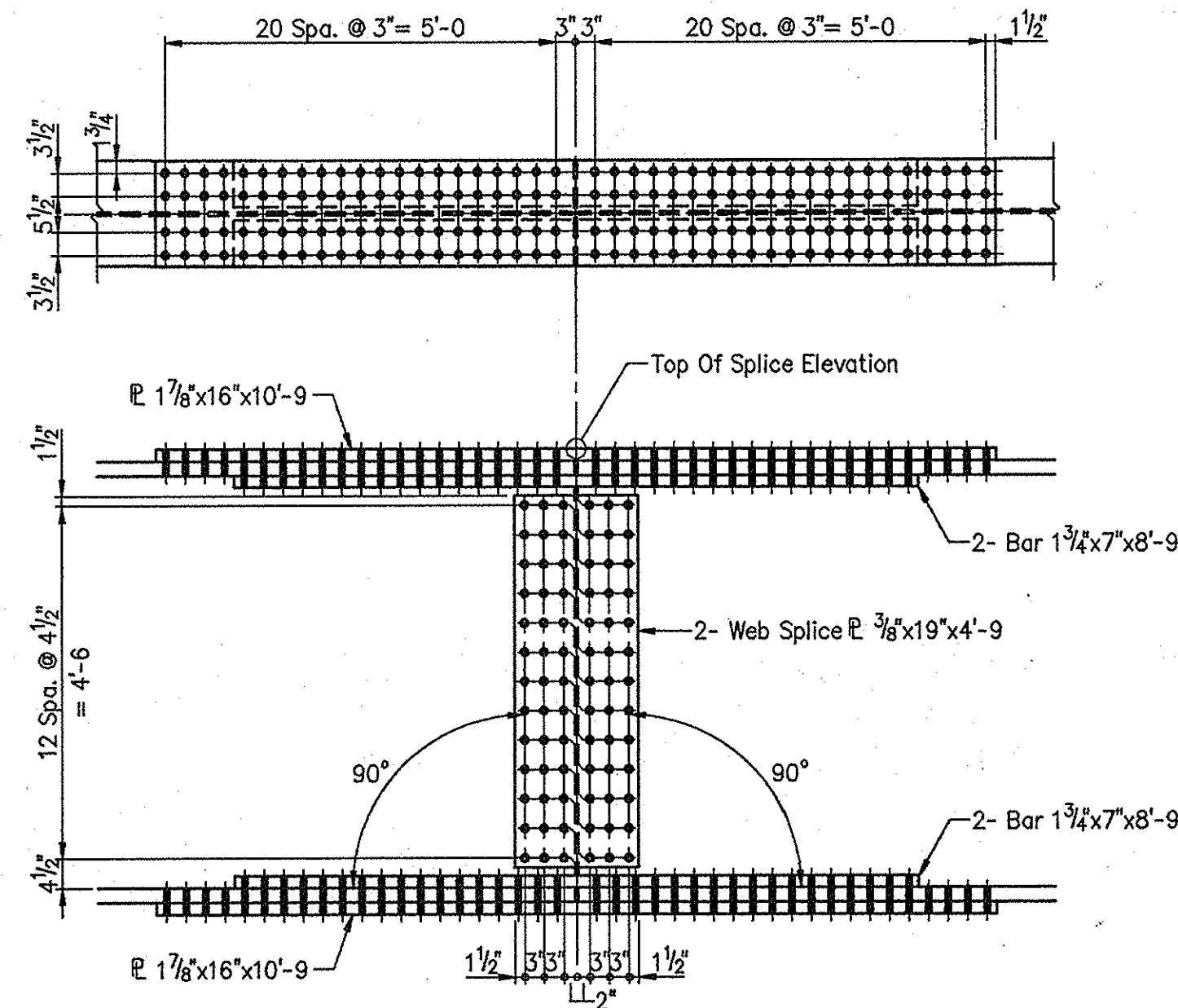


DESIGNED: MDR 3/27/95 CKD DAD 11/26/96
DRAWN: DSH 6/2/95 CKD DAD 12/16/96
TRACED: _____ CKD

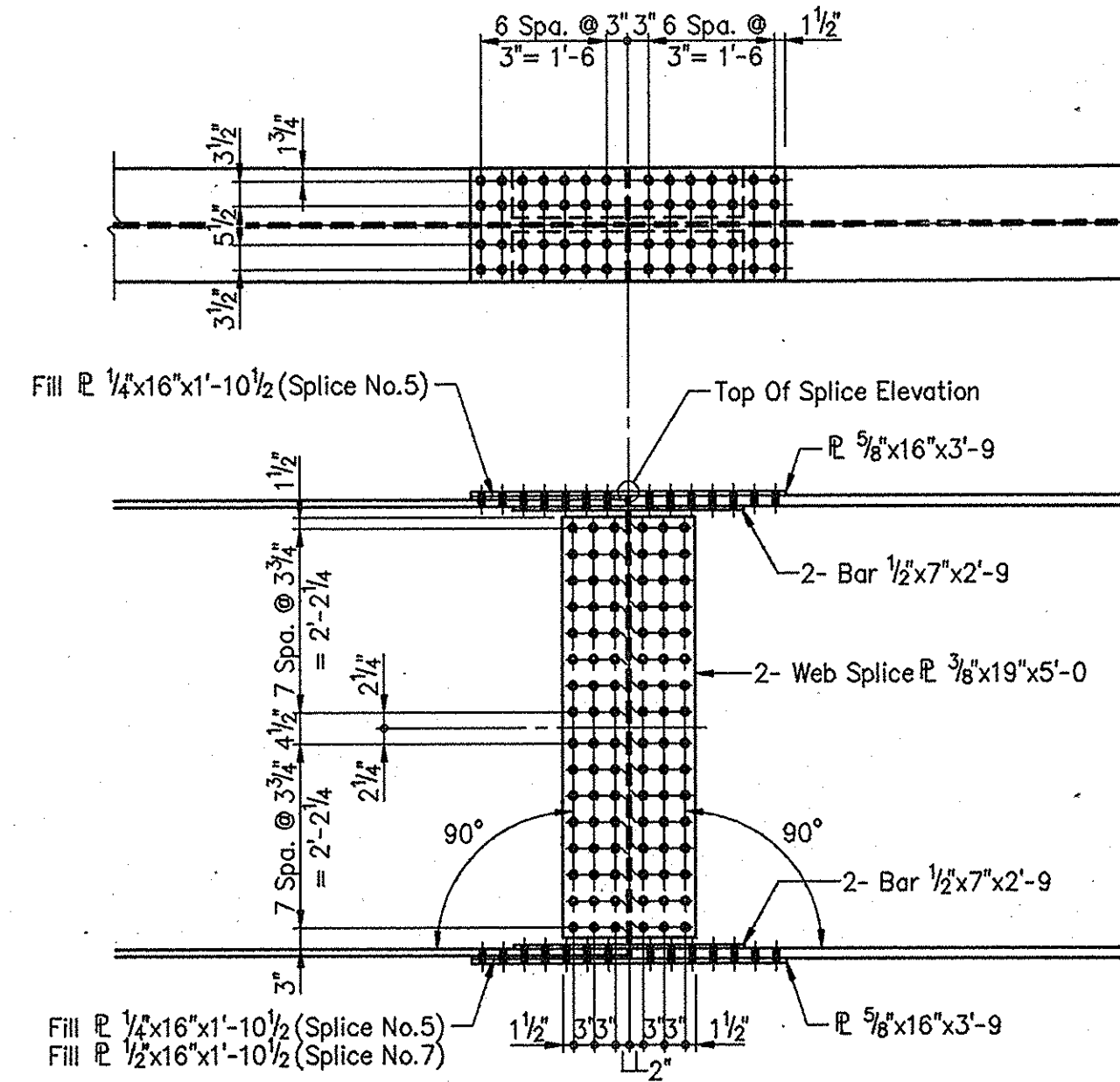
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PLOT ORIGIN: 0,0,0,0 EDITED BY: RJC - 3125



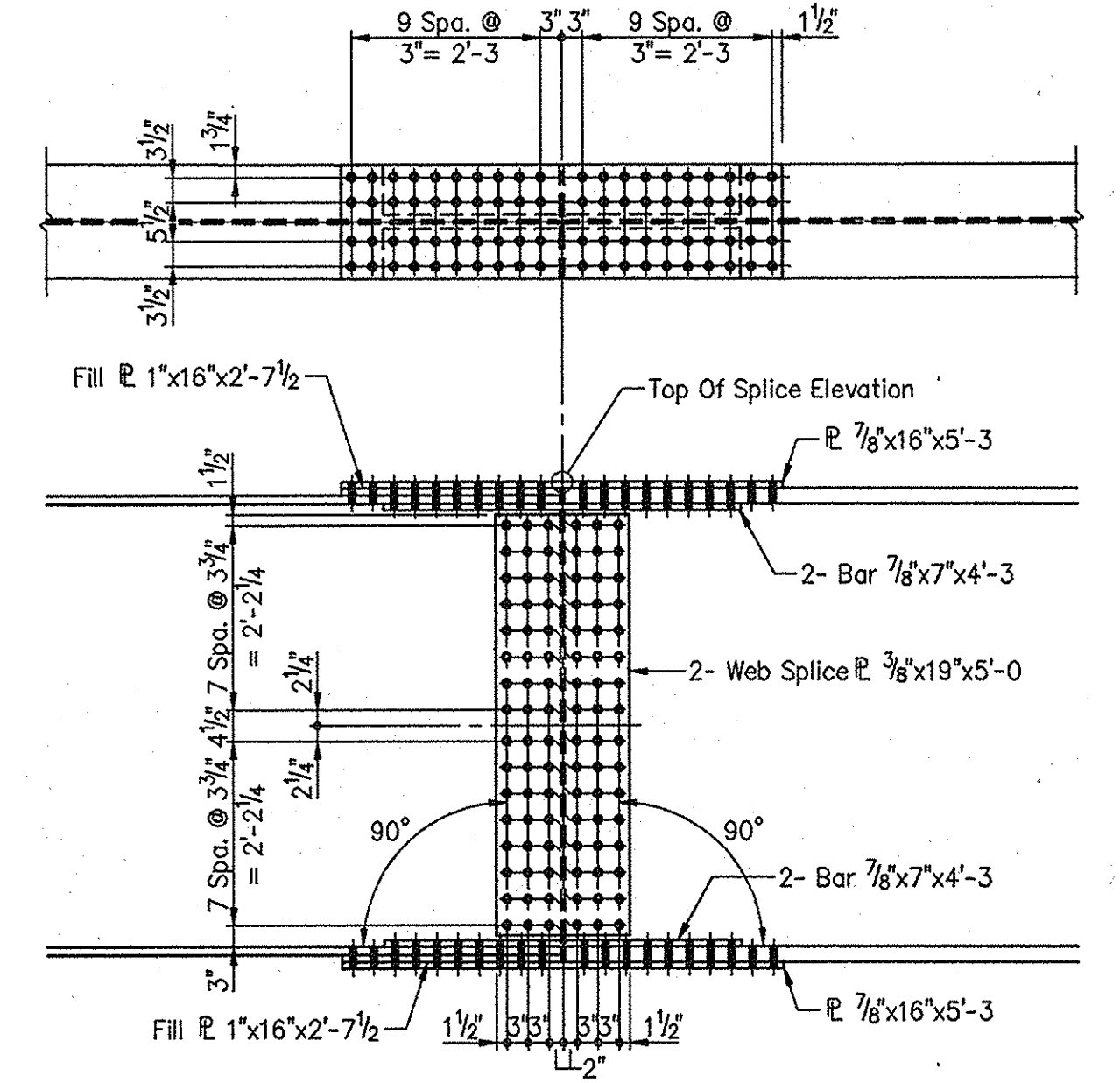
SPLICE No.2 DETAILS



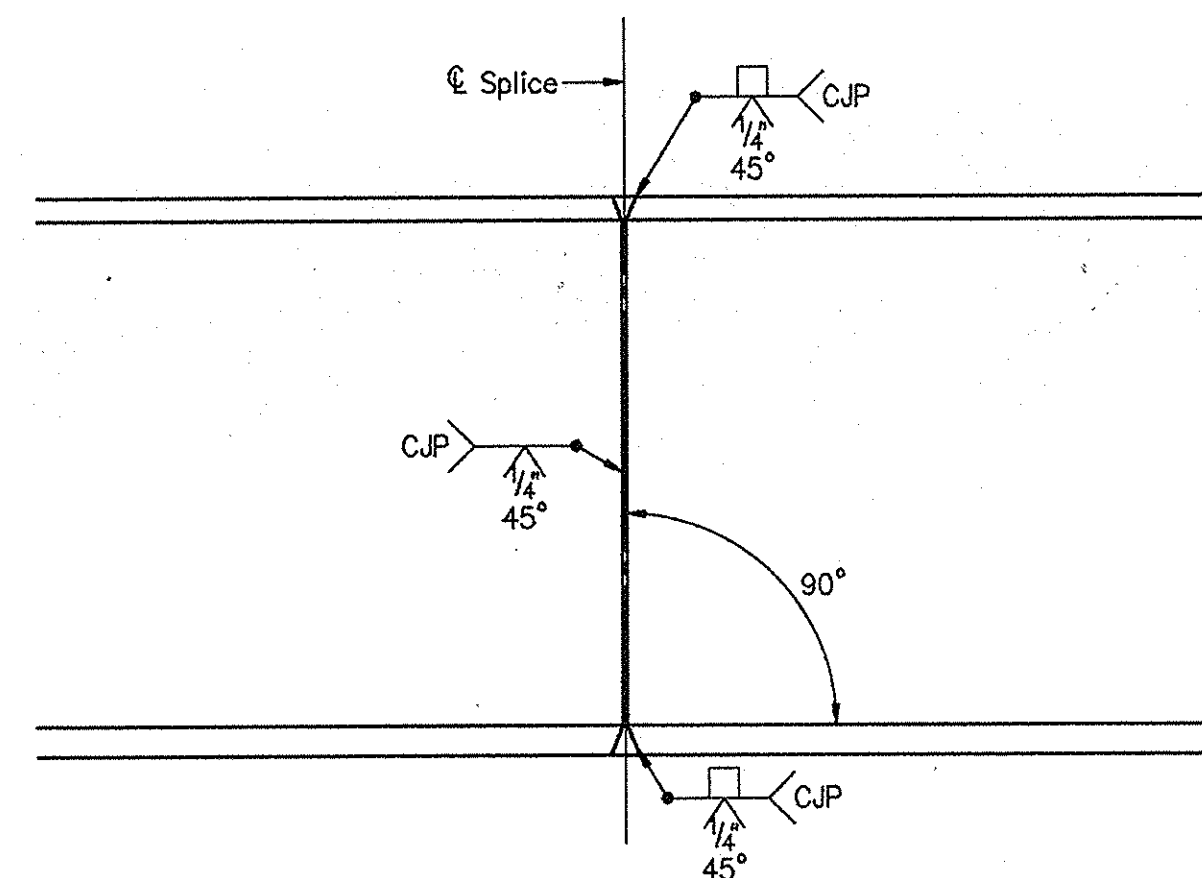
SPLICE No.3 DETAILS



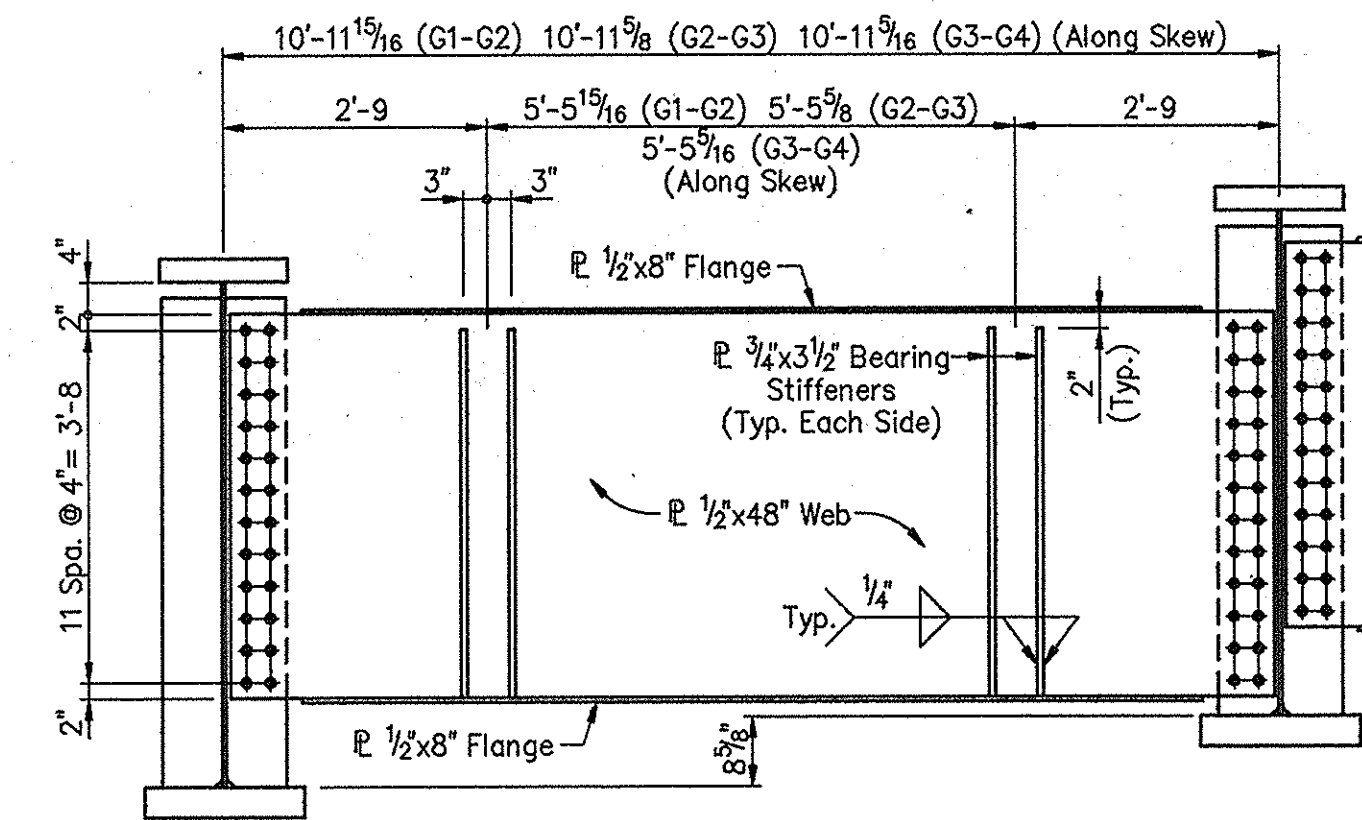
SPLICE No.4, 5 AND 7 DETAILS



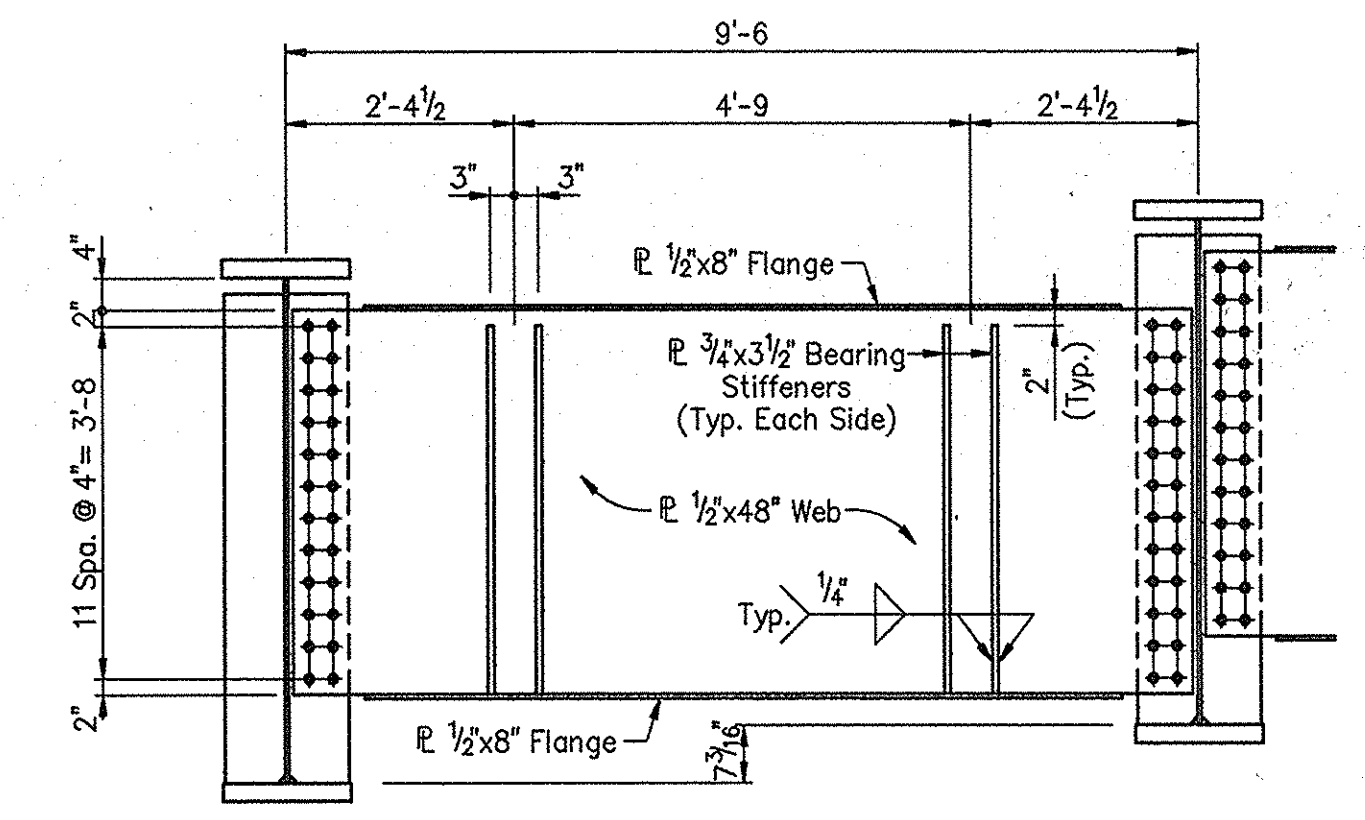
SPLICE No.6 DETAILS



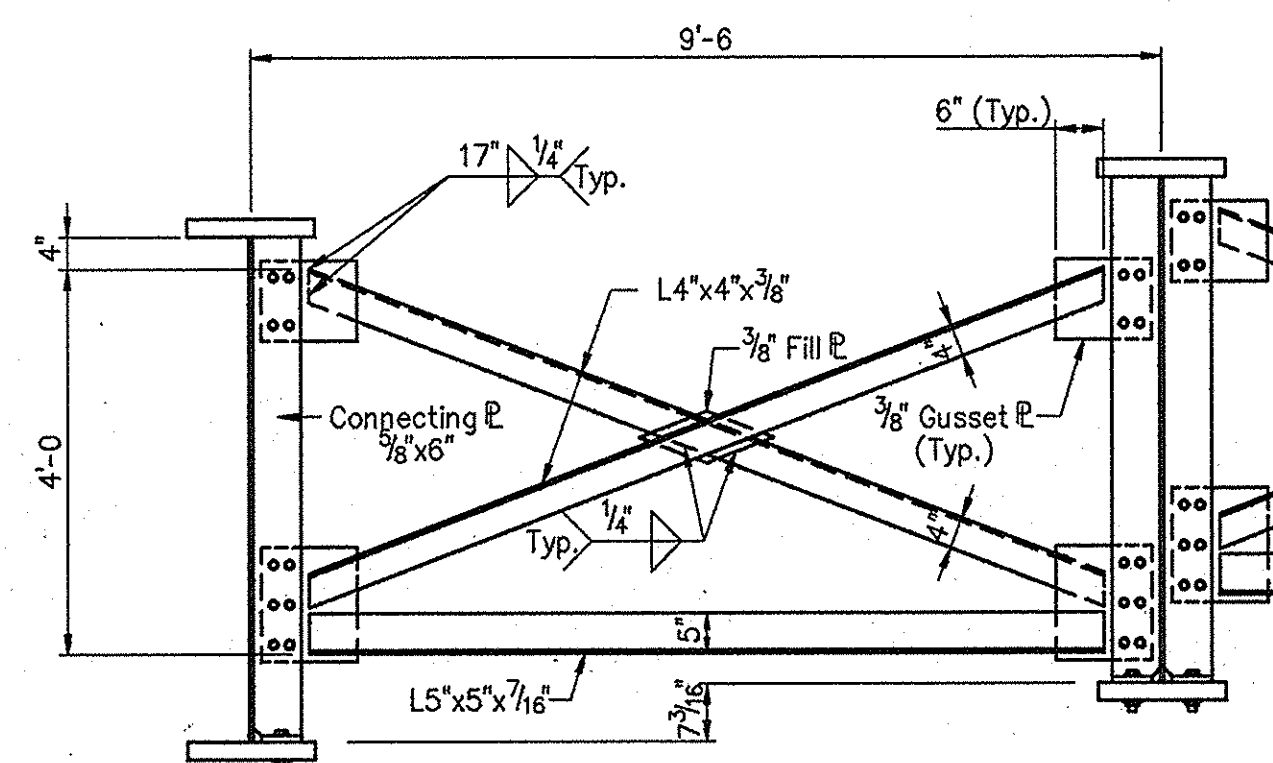
SPLICE No.1 DETAILS



TYPICAL JACKING FRAME AT BENT No.1.



TYPICAL JACKING FRAME AT PIERS No.4 AND 5



TYPICAL CROSS FRAME TYPE X-1

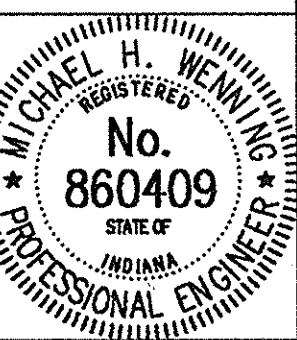
TOP OF SPLICE ELEVATIONS ($\pm 1/4"$)				
Location	G1	G2	G3	G4
Splice No.2	628.445	629.050	629.660	630.265
Splice No.3	629.460	630.055	630.645	631.240
Splice No.4	630.965	631.565	632.170	632.770
Splice No.5	631.770	632.370	632.965	633.560
Splice No.6	633.530	634.140	634.745	635.350
Splice No.7	635.160	635.760	636.360	636.950

NOTES:
All bolts to be 7/8" high strength, open holes to be 1 5/16".

STRUCTURAL STEEL DETAILS - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

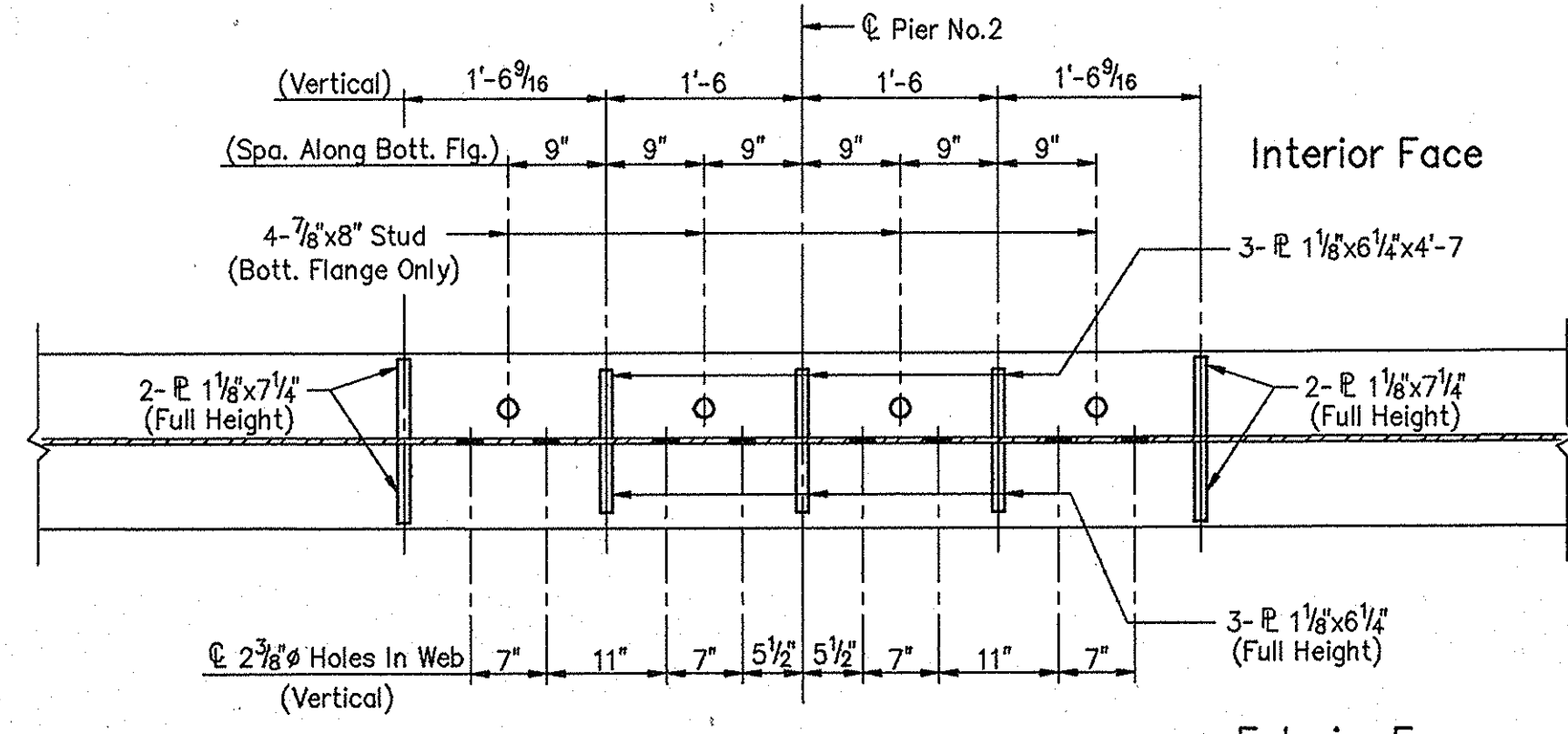
SCALE: - 1/2" = 1'-0", UNLESS NOTED DATE: - July 9, 1998
SUBMITTED FOR APPROVAL *Michael H. Weir*

DRAWING: - S28 OF S54 SHEET: - 43 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823

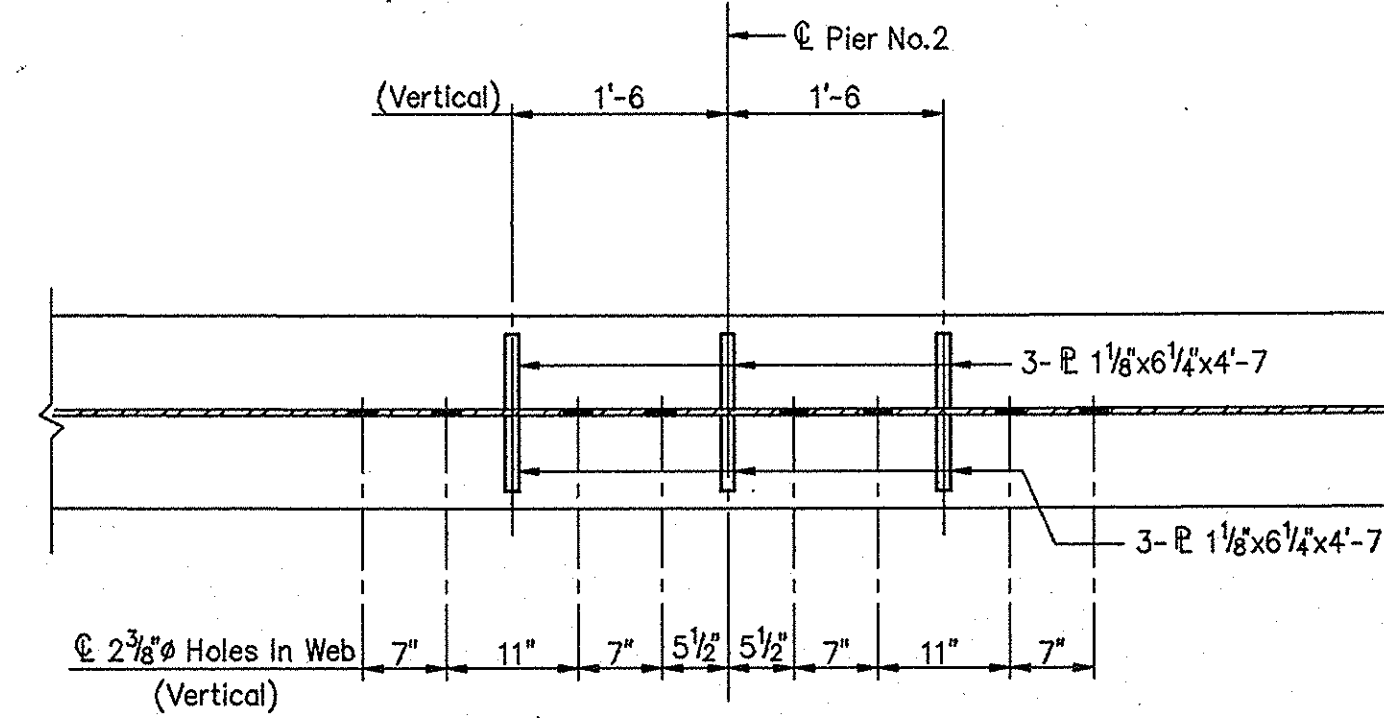


DESIGNED MDR 3/27/95 CK'D DAD 11/27/96
DRAWN DSH 6/7/95 CK'D DAD 12/13/96
TRACED _____ CK'D _____

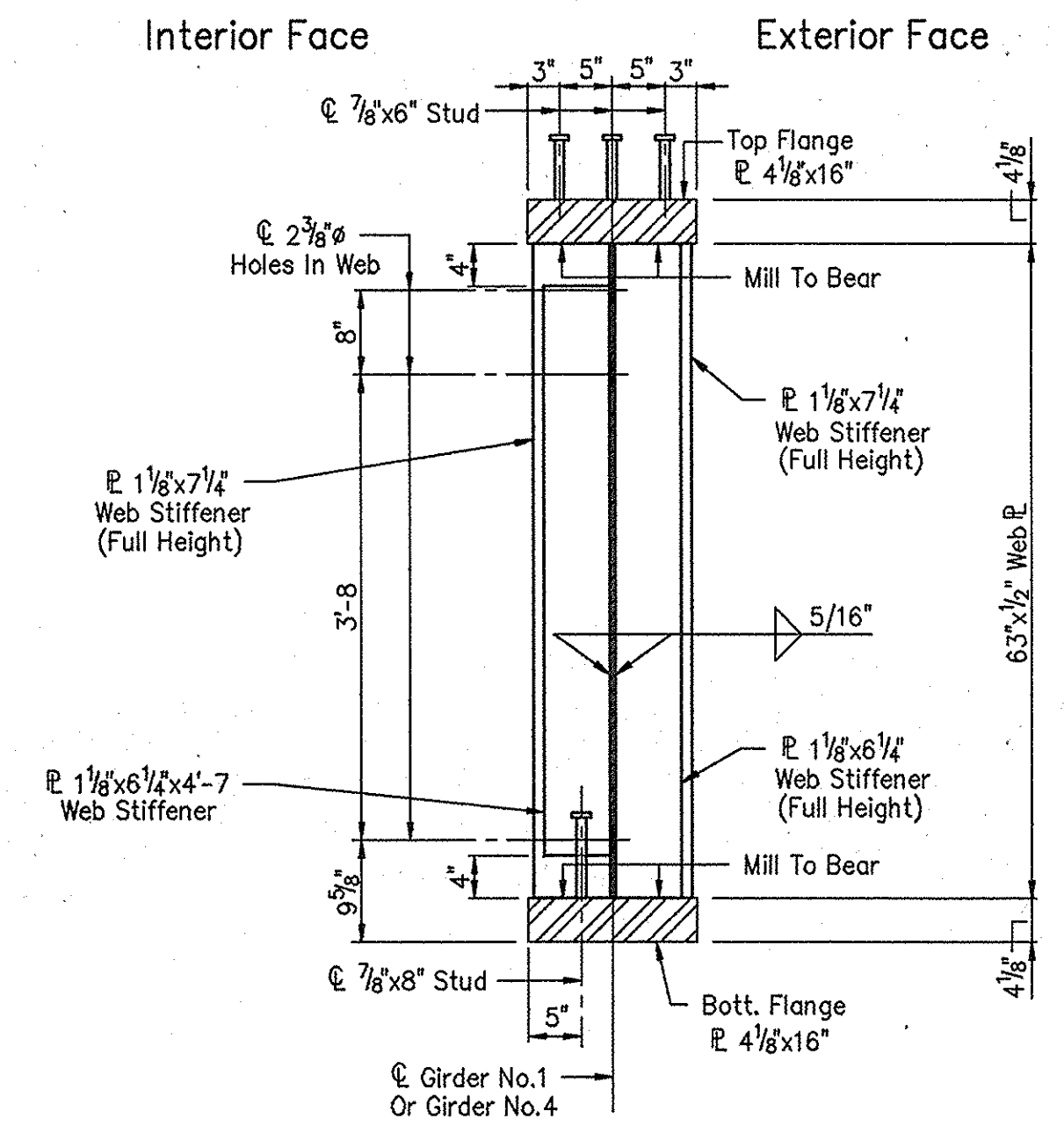
DWG FILE: \\s131\1\92\120\92120227 SPELLOK
PLOT SCALE: 1/2"=1'-0"
PLOT ORIGIN: 0,0,0,0



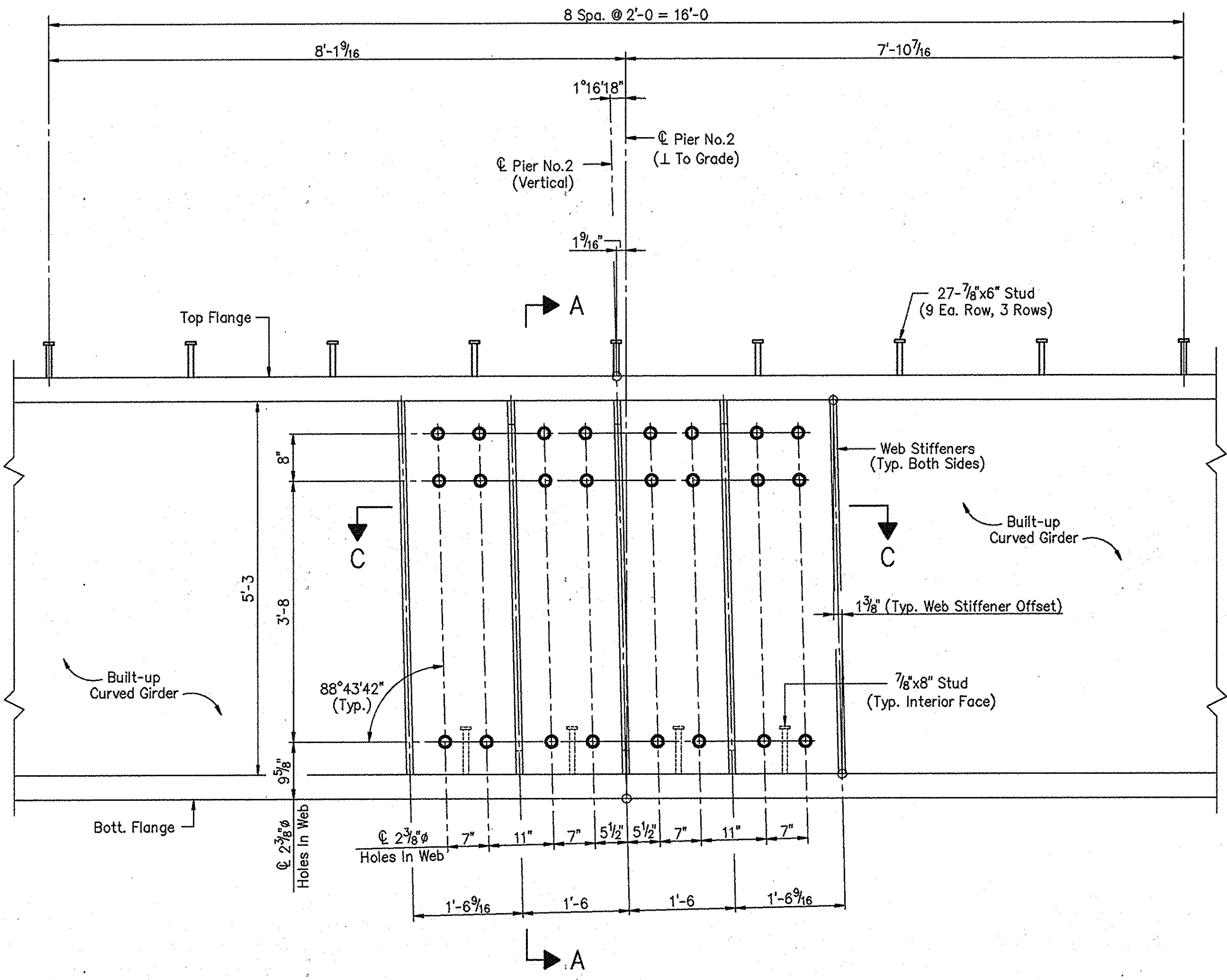
SECTION C-C



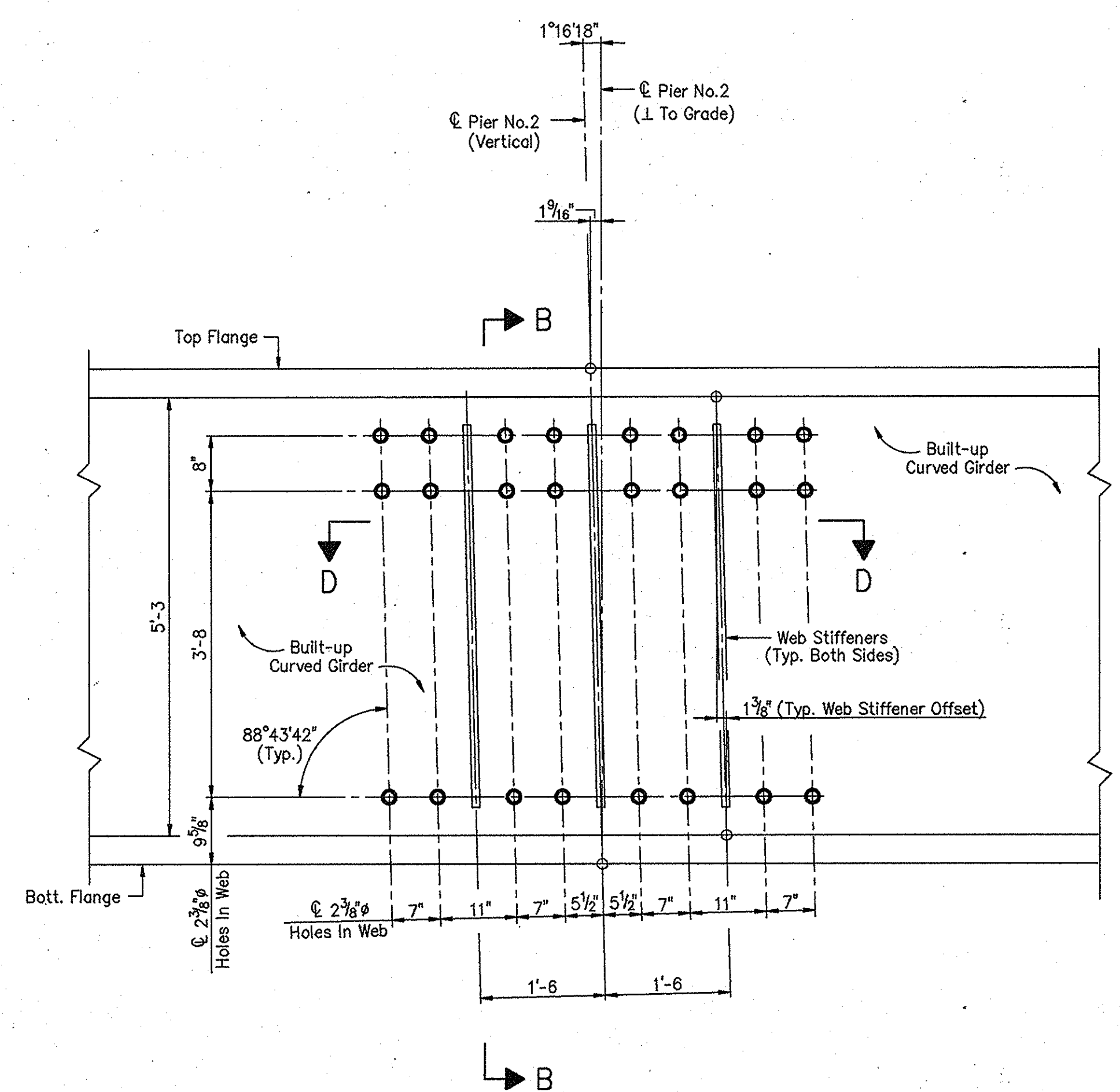
SECTION D-D



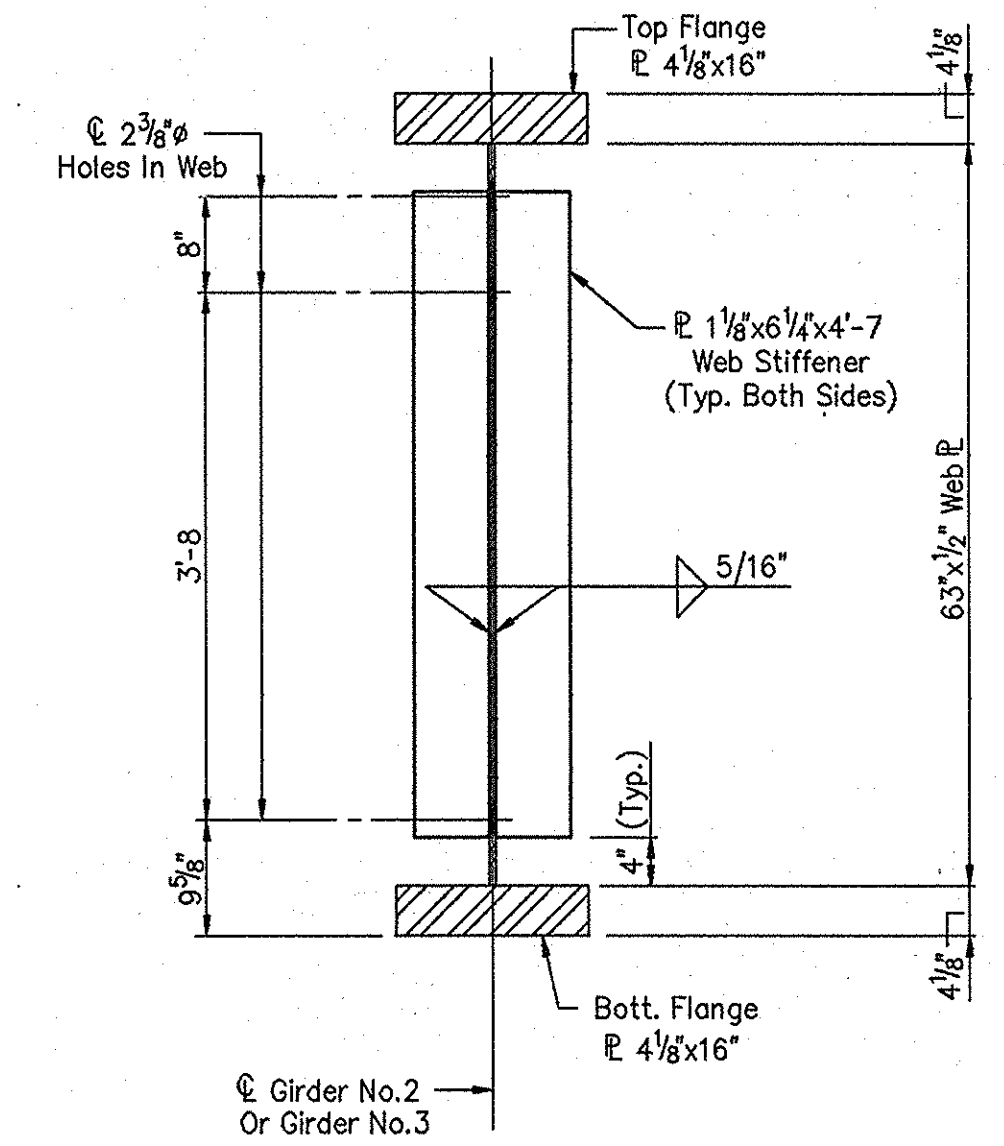
SECTION A-A



GIRDER NO.1 ELEVATION AT PIER NO.2
(Girder No.4 Similar By Opposite hand)



GIRDER NO.2 ELEVATION AT PIER NO.2
(Girder No.3 The Same)



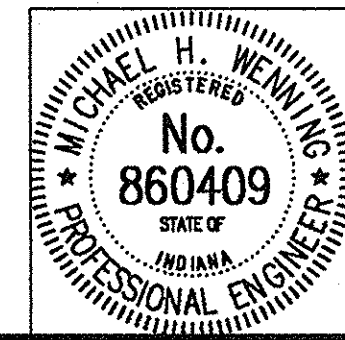
SECTION B-B

NOTES:
All structural steel shall conform to ASTM A709 Grade 50W.

STRUCTURAL STEEL DETAILS - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

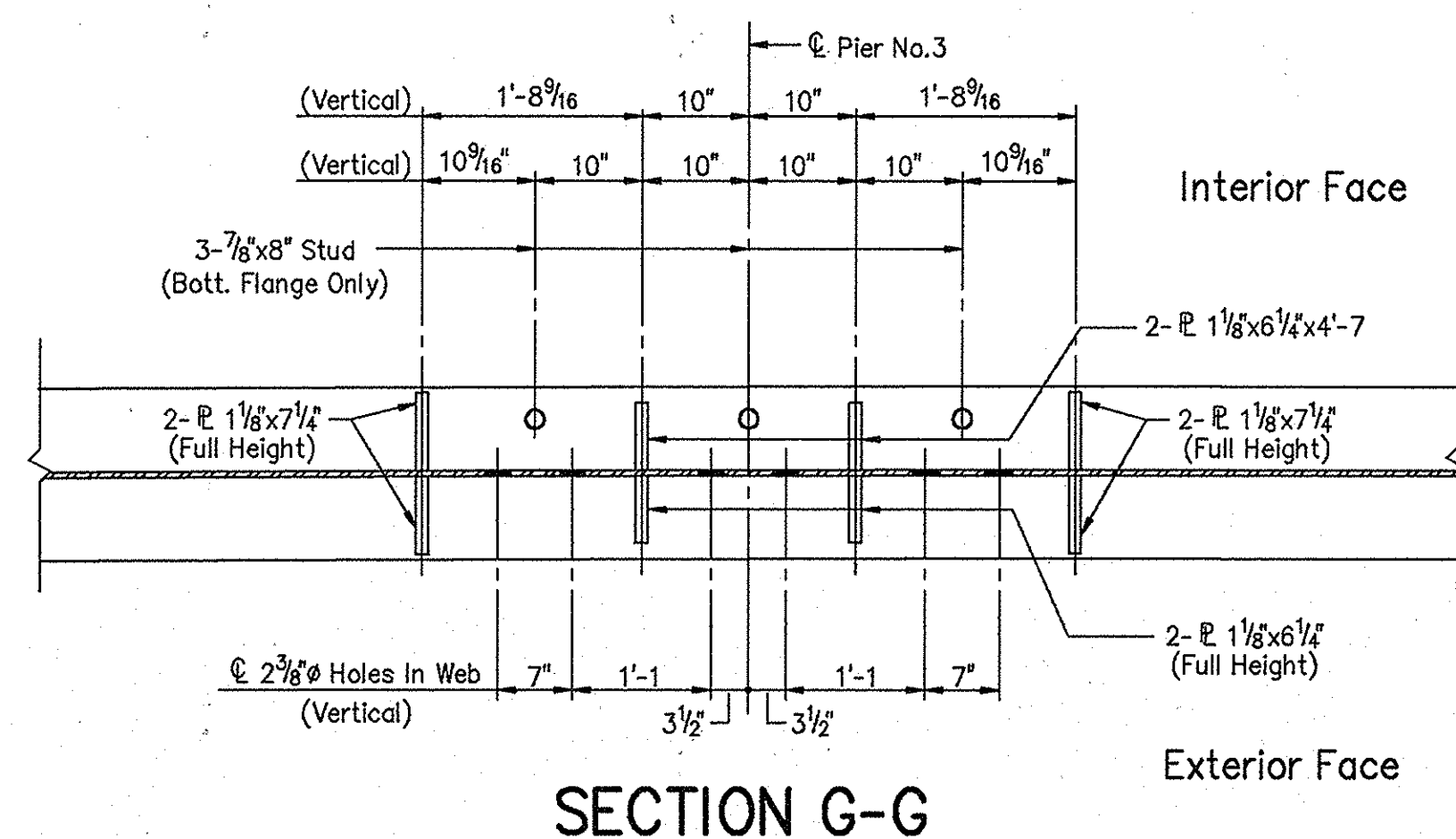
SCALE: - 3/4"=1'-0, UNLESS NOTED DATE: - July 9, 1998
SUBMITTED FOR APPROVAL: *[Signature]*

DRAWING: - S29 OF S54 SHEET: - 44 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823

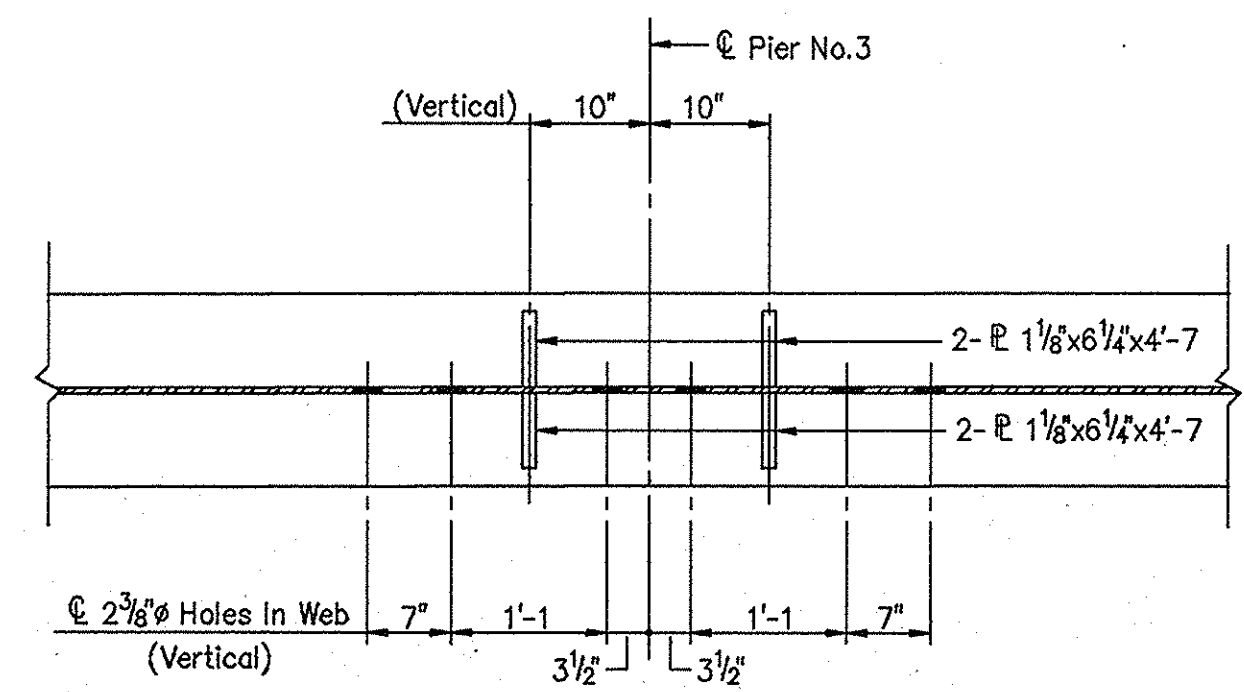


DESIGNED: MDR 3/04/98 C.K.D. MSP 6/23/98
DRAWN: RJC 5/15/98 C.K.D. MDR 7/01/98
TRACED: _____ C.K.D.

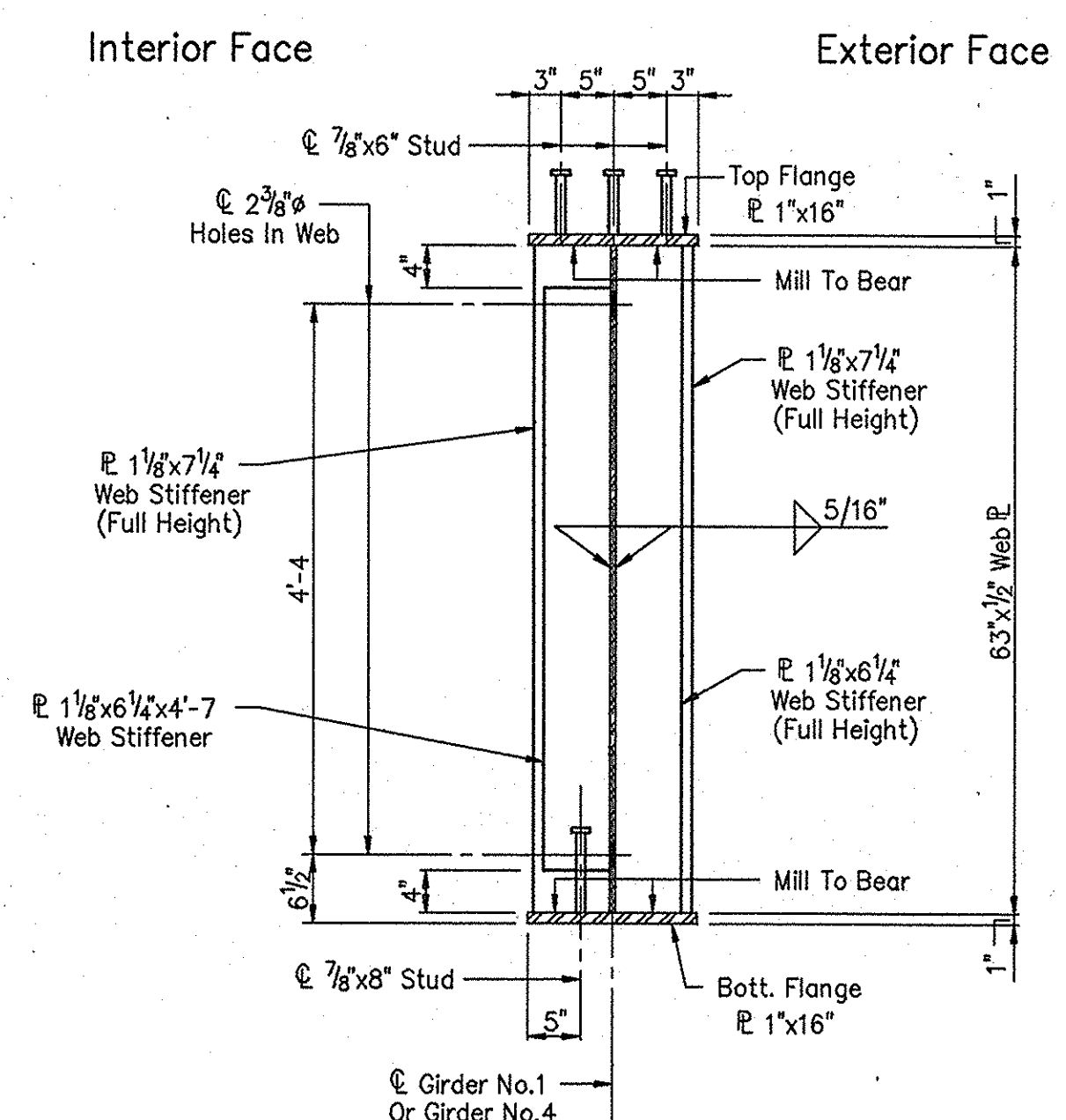
DWG FILE: \\S131\A92\120\212083 SPELLOK:
PLOT SCALE: 0.000000 EDIT DATE: 07/09/98 08:53:34
PLOT ORIGIN: 0.00,0.00 EDITED BY: RJC - 5126



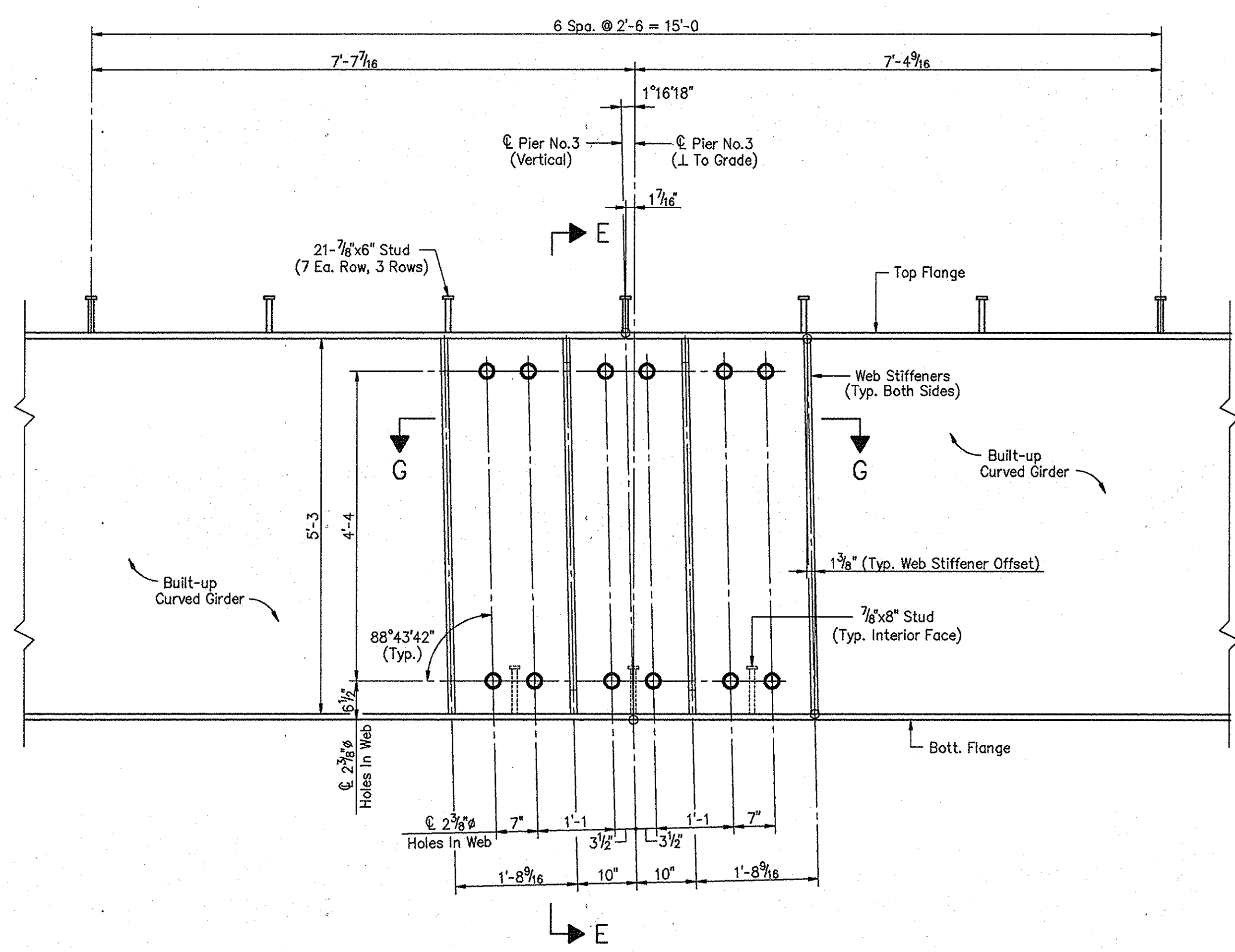
SECTION G-G



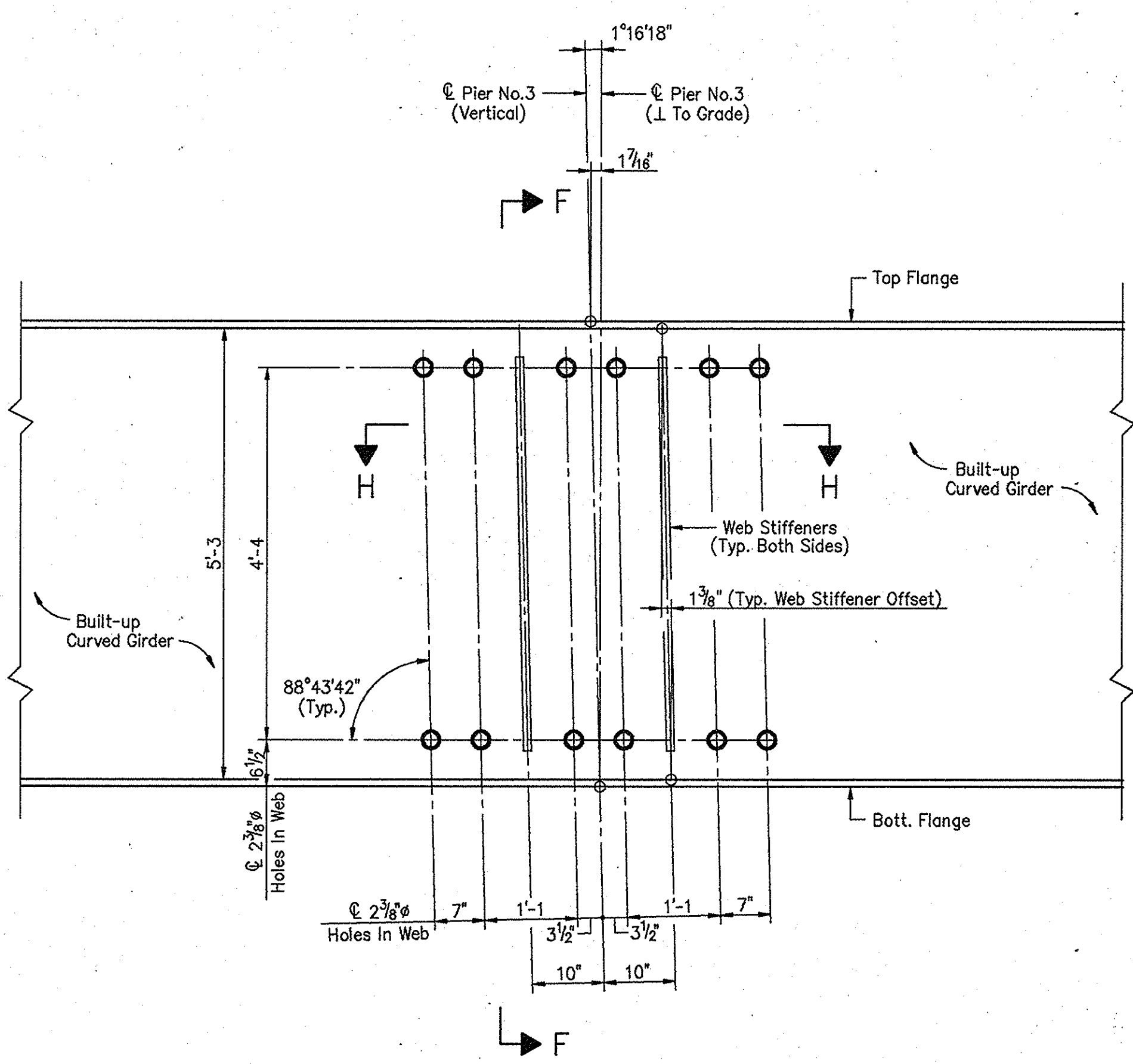
SECTION H-H



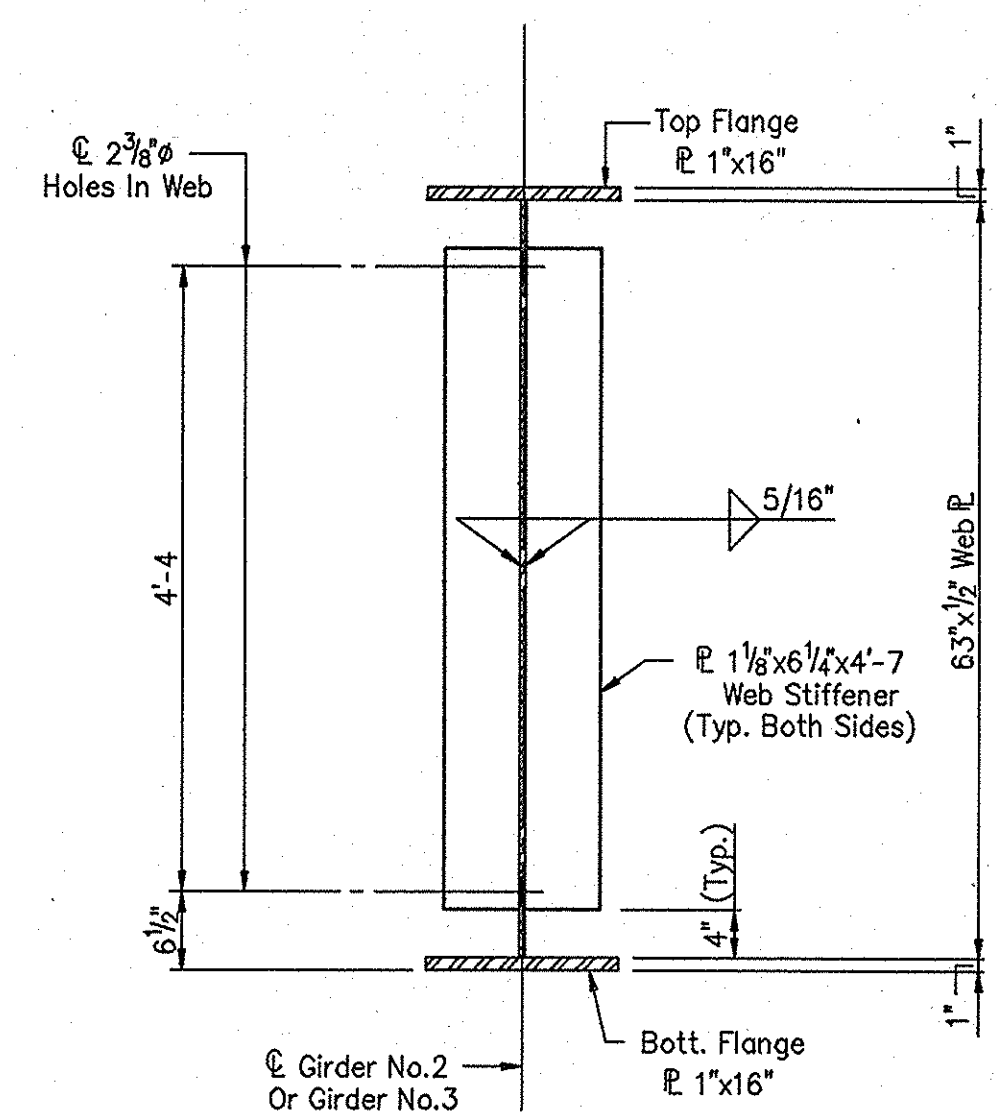
SECTION E-E



GIRDER NO.1 ELEVATION AT PIER NO.3
(Girder No.4 Similar By Opposite Hand)



GIRDER NO.2 ELEVATION AT PIER NO.3
(Girder No.3 The Same)



SECTION F-F

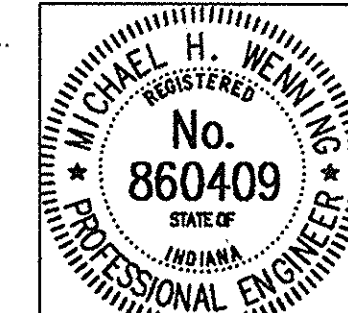
NOTES:
All structural steel shall conform to ASTM A709 Grade 50W.

STRUCTURAL STEEL DETAILS - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/4" = 1'-0", UNLESS NOTED DATE: - July 9, 1998

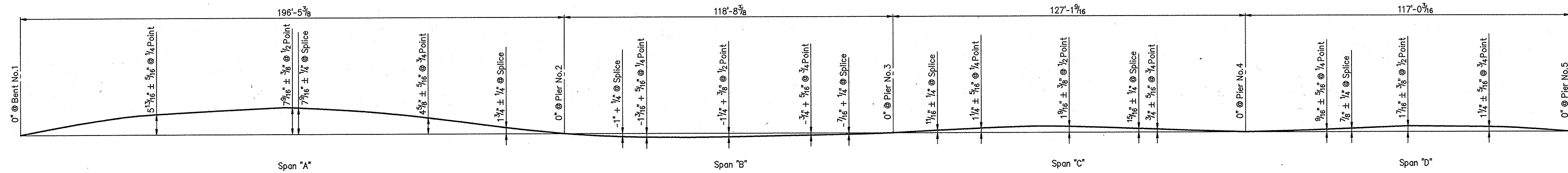
SUBMITTED FOR APPROVAL *Michael H. Wainwright*

DRAWING: - S30 OF S54 SHEET: - 45 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823

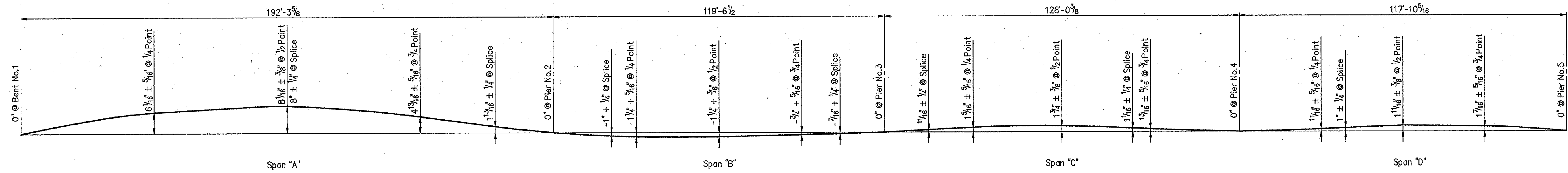


DESIGNED: MDR 3/4/98 MSP 6/29/98
DRAWN: TLH 4/29/98 CK'D: MDR 7/01/98
TRACED: CK'D:

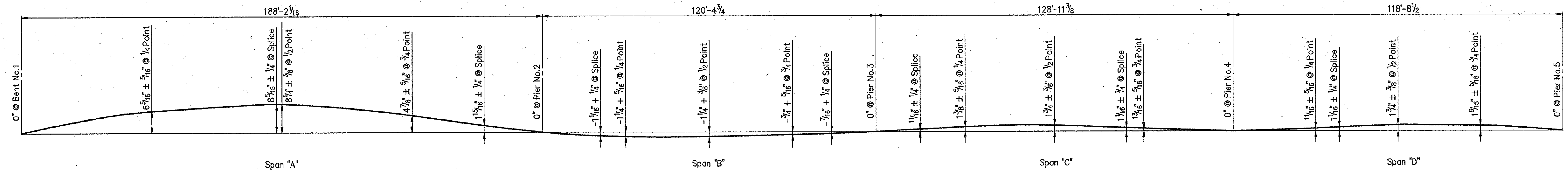
DWG FILE: C:\P2\120\92120881
PLOT SCALE: 5:16,000
PLOT ORIGIN: 0.00,0.00
SPELORIK: 07/10/98 08:45:02
EDIT DATE: DSH - S91



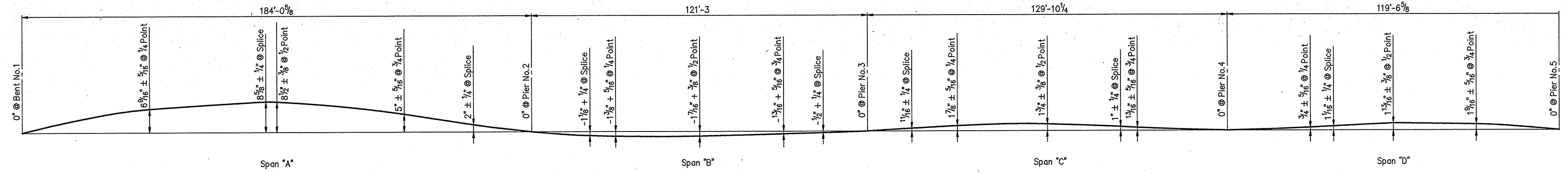
NO LOAD CAMBER AND BLOCKING DIAGRAM - GIRDER G1



NO LOAD CAMBER AND BLOCKING DIAGRAM - GIRDER G2



NO LOAD CAMBER AND BLOCKING DIAGRAM - GIRDER G3

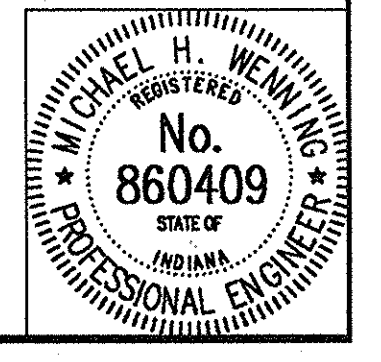


NO LOAD CAMBER AND BLOCKING DIAGRAM - GIRDER G4

STRUCTURAL STEEL DETAILS - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

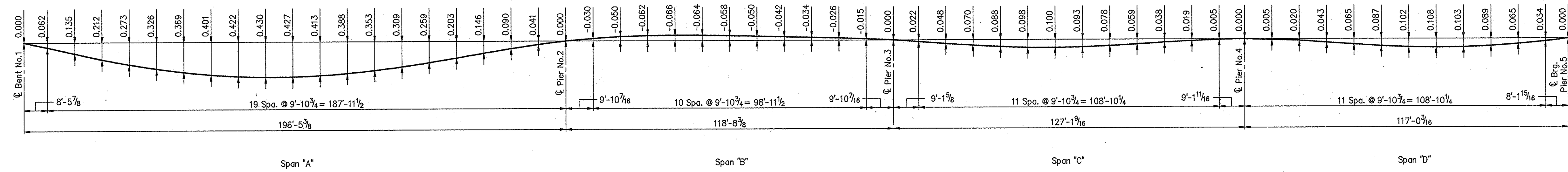
SCALE: - NONE DATE: - July 9, 1998
SUBMITTED FOR APPROVAL *[Signature]*

DRAWING: - S31 OF S54 SHEET: - 46 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823

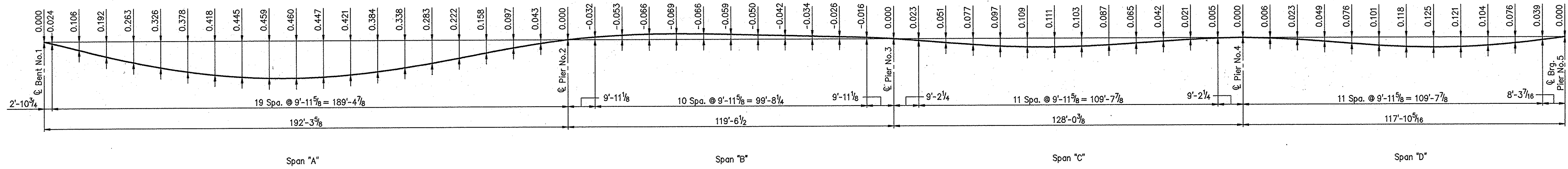


DESIGNED MSP 6/15/98 C.Y.D. APE 6/16/98
DRAWN ILH 6/19/98 C.Y.D. APE 7/01/98
TRACED C.Y.D.

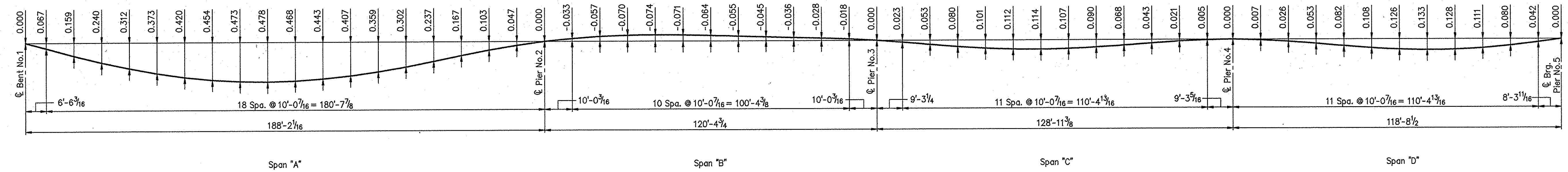
DWG FILE: \\S131\192\120\92120228 SPELLOK
PLOT SCALE: 1:50.000 EDIT DATE: 07/09/98 11:15:41
PLOT ORIGIN: 0.00,0.00 EXTEND BY: RUC - 5128



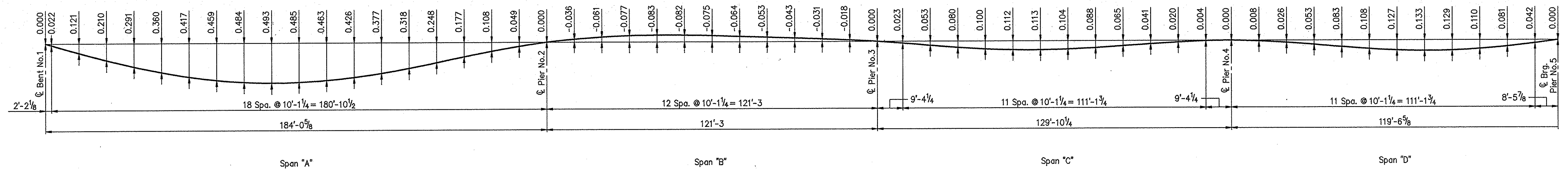
CONCRETE DEAD LOAD DEFLECTION DIAGRAM - GIRDER G1 (Feet)



CONCRETE DEAD LOAD DEFLECTION DIAGRAM - GIRDER G2 (Feet)



CONCRETE DEAD LOAD DEFLECTION DIAGRAM - GIRDER G3 (Feet)



CONCRETE DEAD LOAD DEFLECTION DIAGRAM - GIRDER G4 (Feet)

Note:
Minus Sign Indicates Upward Deflection.

STRUCTURAL STEEL DETAILS - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

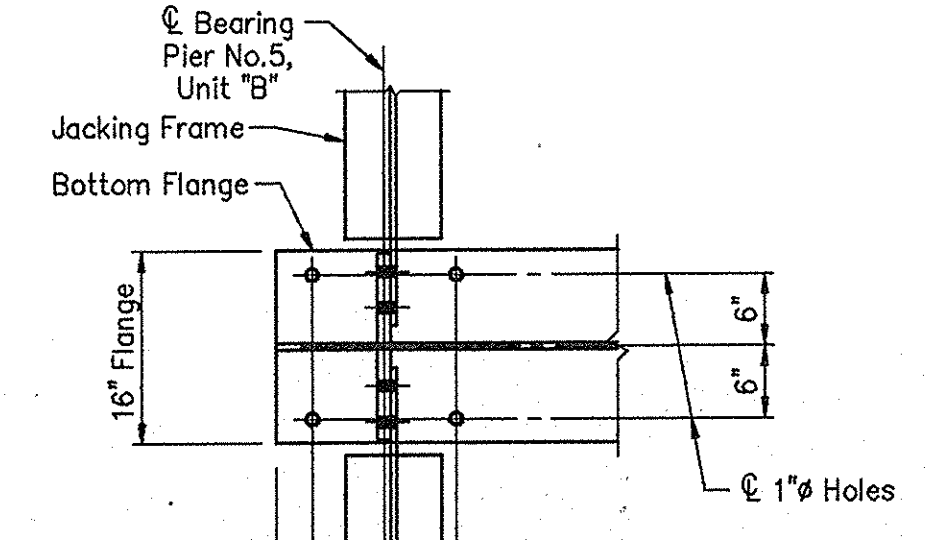
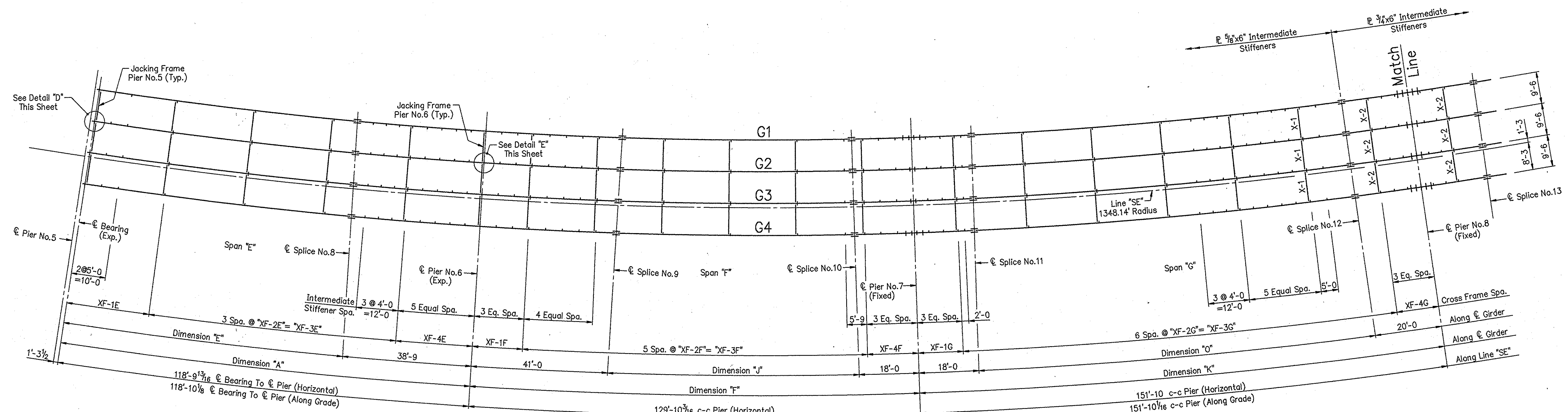
SCALE: - NONE DATE: - July 9, 1998
SUBMITTED FOR APPROVAL *Michael H. Weir*

DRAWING: - S31A OF S54 SHEET: - 46A OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823



DESIGNED MDR 6/15/98 CKD MSP 6/18/98
DRAWN TLH 6/22/98 CKD APE 7/01/98
TRACED _____

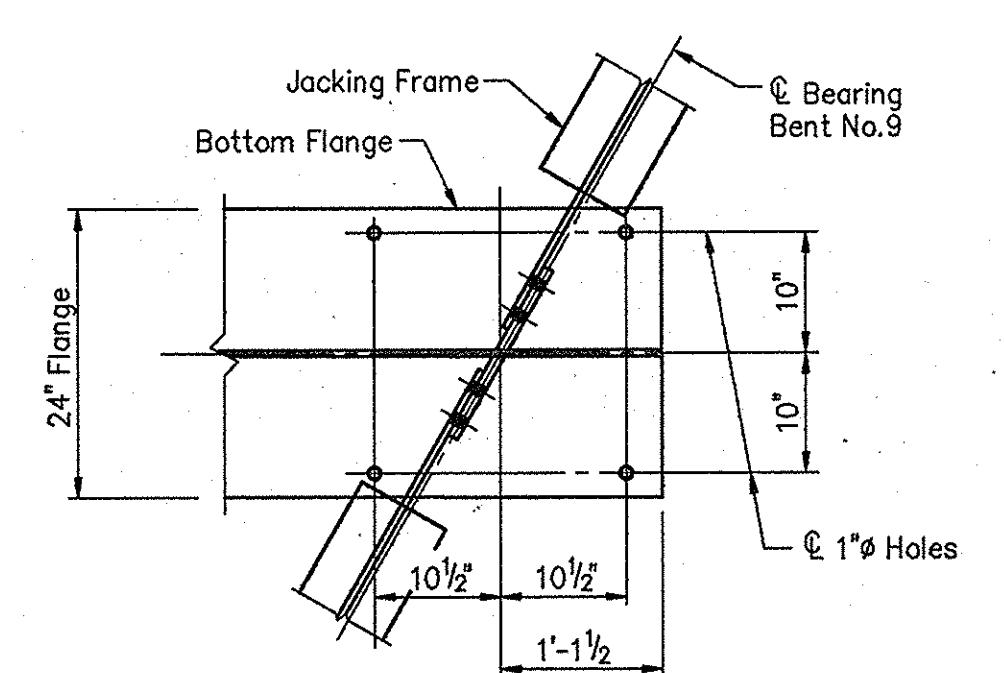
DWG FILE: \\s131\102\120\2120855 SPELLOCH:
PLOT SCALE: 1:20,000 EDIT DATE: 07/09/98 15:57:43
PLOT ORIGIN: 0.00,0.00 ENTER PR: R4 - 5128



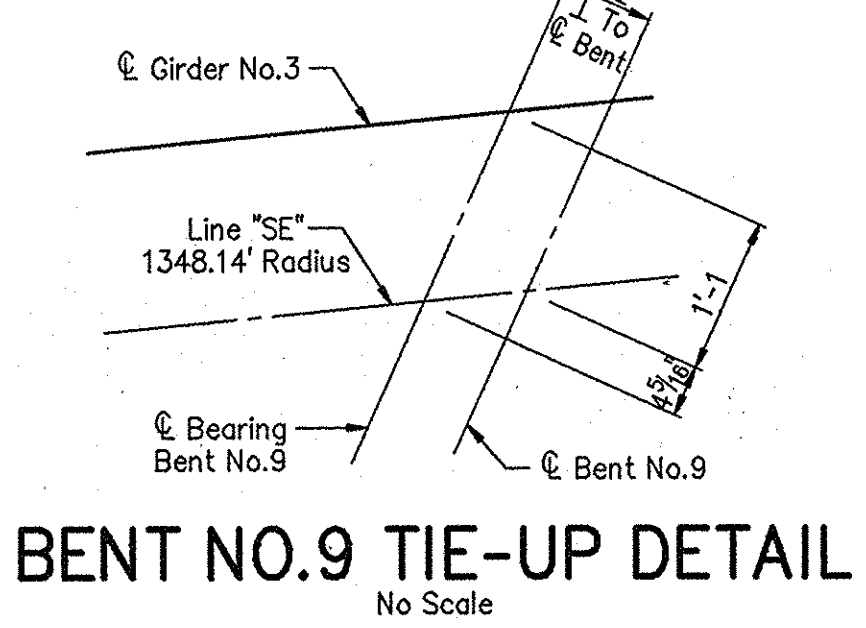
DETAIL "D"
Scale- 3/4"=1'-0"

TABLE OF SHIMS AND BEARINGS

Location	Bearing Assembly	Shim
Pier No.5	EBA-3	SH-4
Pier No.6	EBA-2	SH-5
Pier No.7	N/A	N/A
Pier No.8	N/A	N/A
Bent No.1	EBA-4	SH-6



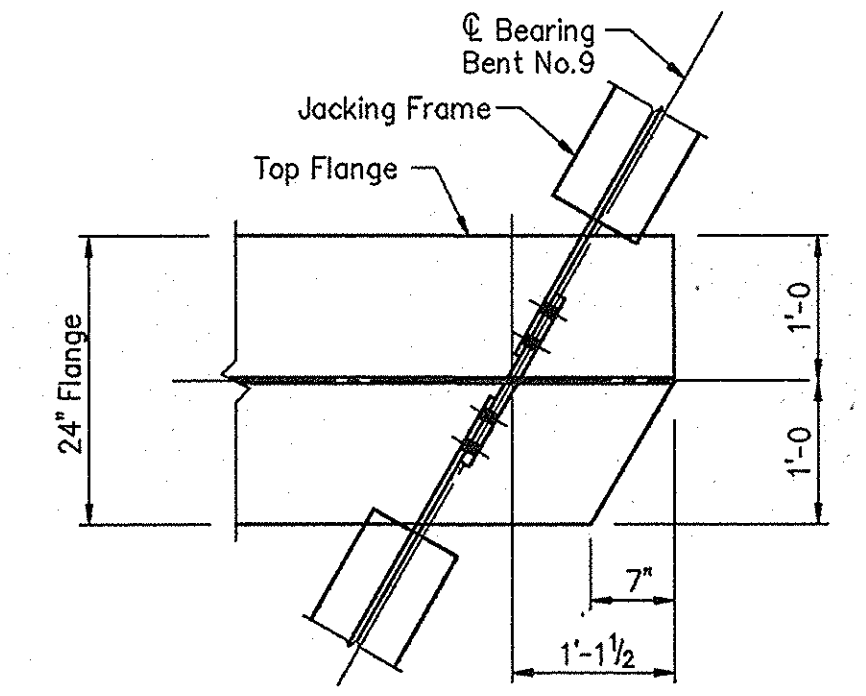
DETAIL "F"
Scale- 3/4"=1'-0"



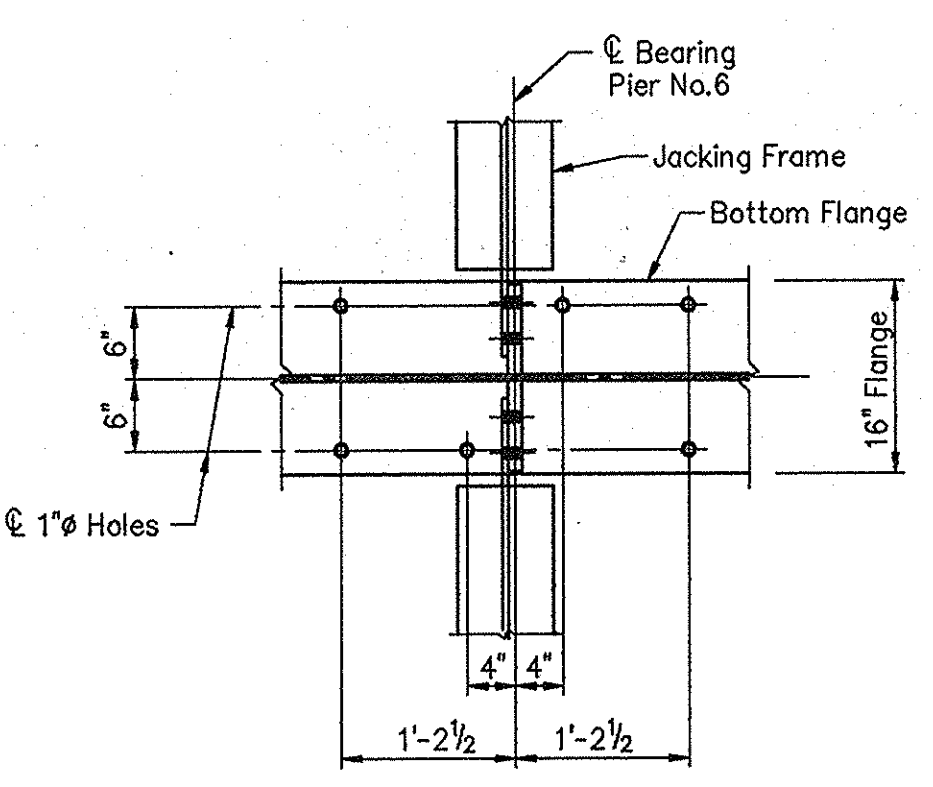
BENT NO.9 TIE-UP DETAIL
No Scale

TABLE OF JACKING FRAME ANGLES

Girder No.	b @ Bent No.9
G1	120°19'28"
G2	120°05'12"
G3	119°51'10"
G4	119°37'22"



DETAIL "G"
Scale- 3/4"=1'-0"



DETAIL "E"
Scale- 3/4"=1'-0"

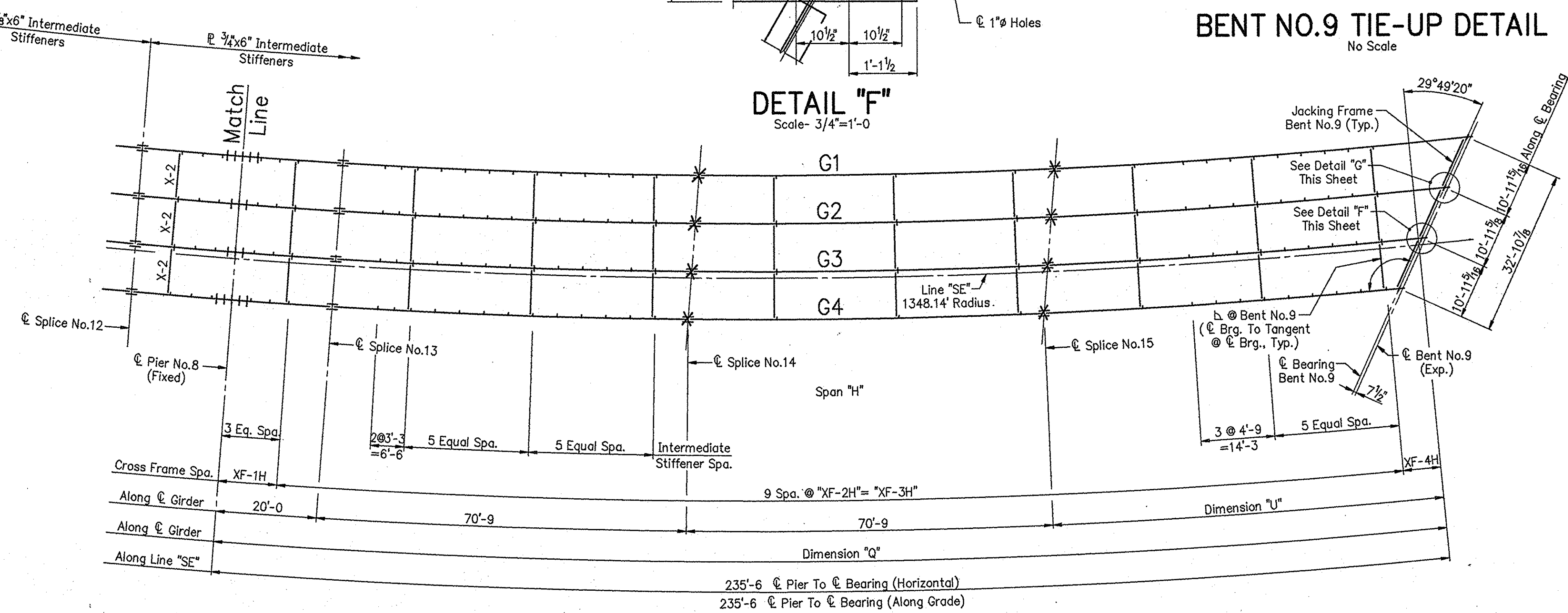


TABLE OF GIRDER DIMENSIONS

Girder No.	Radius	Span "E"		Span "F"		Span "G"		Span "H"	
		A	E	F	J	K	O	Q	R
G1	1327.89'	117'-0 3/16"	78'-3 3/16"	27'-10 13/16"	68'-10 13/16"	149'-6 5/8"	111'-6 5/8"	243'-7 3/16"	82'-1 3/16"
G2	1337.39'	117'-10 9/16"	79'-1 1/16"	128'-9 3/4"	69'-9 3/4"	150'-7 1/2"	112'-7 1/2"	239'-9 1/2"	78'-3 1/2"
G3	1346.89'	118'-8 1/2"	79'-11 1/2"	129'-8 3/4"	70'-8 3/4"	151'-8 3/16"	113'-8 3/16"	236'-0"	74'-6"
G4	1356.39'	119'-6 9/8"	80'-9 9/8"	130'-7 3/4"	71'-7 3/4"	152'-9 1/8"	114'-9 1/8"	232'-2 5/8"	70'-8 5/8"

TABLE OF CROSS FRAME DIMENSIONS

Span "E"				Span "F"				Span "G"				Span "H"			
XF-1E	XF-2E	XF-3E	XF-4E	XF-1F	XF-2F	XF-3F	XF-4F	XF-1G	XF-2G	XF-3G	XF-4G	XF-1H	XF-2H	XF-3H	XF-4H
23'-8 3/4"	23'-8 15/16"	71'-2 7/8"	22'-0 9/16"	14'-4 1/8"	19'-9 7/16"	98'-11 5/16"	14'-7 3/8"	12'-10 5/16"	20'-9 5/16"	124'-8"	12'-0 5/16"	11'-1 9/16"	23'-8 15/16"	213'-8 1/2"	18'-9 1/8"
23'-10 13/16"	23'-11"	71'-8 5/16"	22'-2 1/16"	14'-5 5/8"	19'-11 1/16"	99'-7 7/4"	14'-8 5/8"	12'-11 7/16"	20'-11 1/8"	125'-6 11/16"	12'-1 7/16"	11'-2 1/2"	23'-11"	215'-2 3/16"	13'-4 3/16"
24'-1 1/8"	24'-1+	72'-3 3/8"	22'-4 7/8"	14'-6 7/8"	20'-0 7/8"	100'-4 1/4"	14'-9 1/8"	13'-0 7/8"	21'-0 7/8"	126'-5 5/16"	12'-2 7/16"	11'-3 1/2"	24'-1+	216'-9 9/16"	7'-11 1/16"
24'-3 1/4"	24'-3 1/8"	72'-9 1/8"	22'-6 1/4"	14'-7 7/8"	20'-2 3/8"	101'-0 3/4"	14'-11 1/8"	13'-1 11/16"	21'-2 11/16"	127'-4"	12'-3 7/16"	11'-4 7/16"	24'-3 1/8"	218'-3 3/16"	2'-6 5/8"

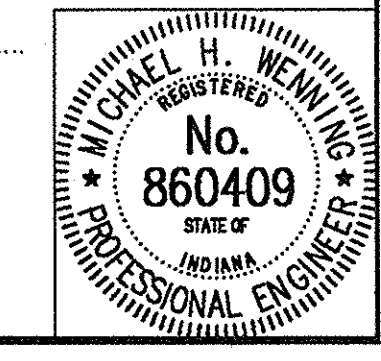
NOTES:

- All structural steel shall conform to ASTM A709 Grade 50W, unpainted except as noted.
- All dimensions shown are horizontal distances, unless otherwise noted.
- All cross frames in Spans "E", "F" and "G" to be Type X-1, unless otherwise noted.
- All cross frames in Span "H" to be Type X-2, unless otherwise noted.
- All cross frames to be constructed radially.
- No shims to be placed at Piers No.7 or No.8.

FRAMING PLAN - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/16"=1'-0, UNLESS NOTED DATE: - July 9, 1998
SUBMITTED FOR APPROVAL *Michael H. Wenzel*

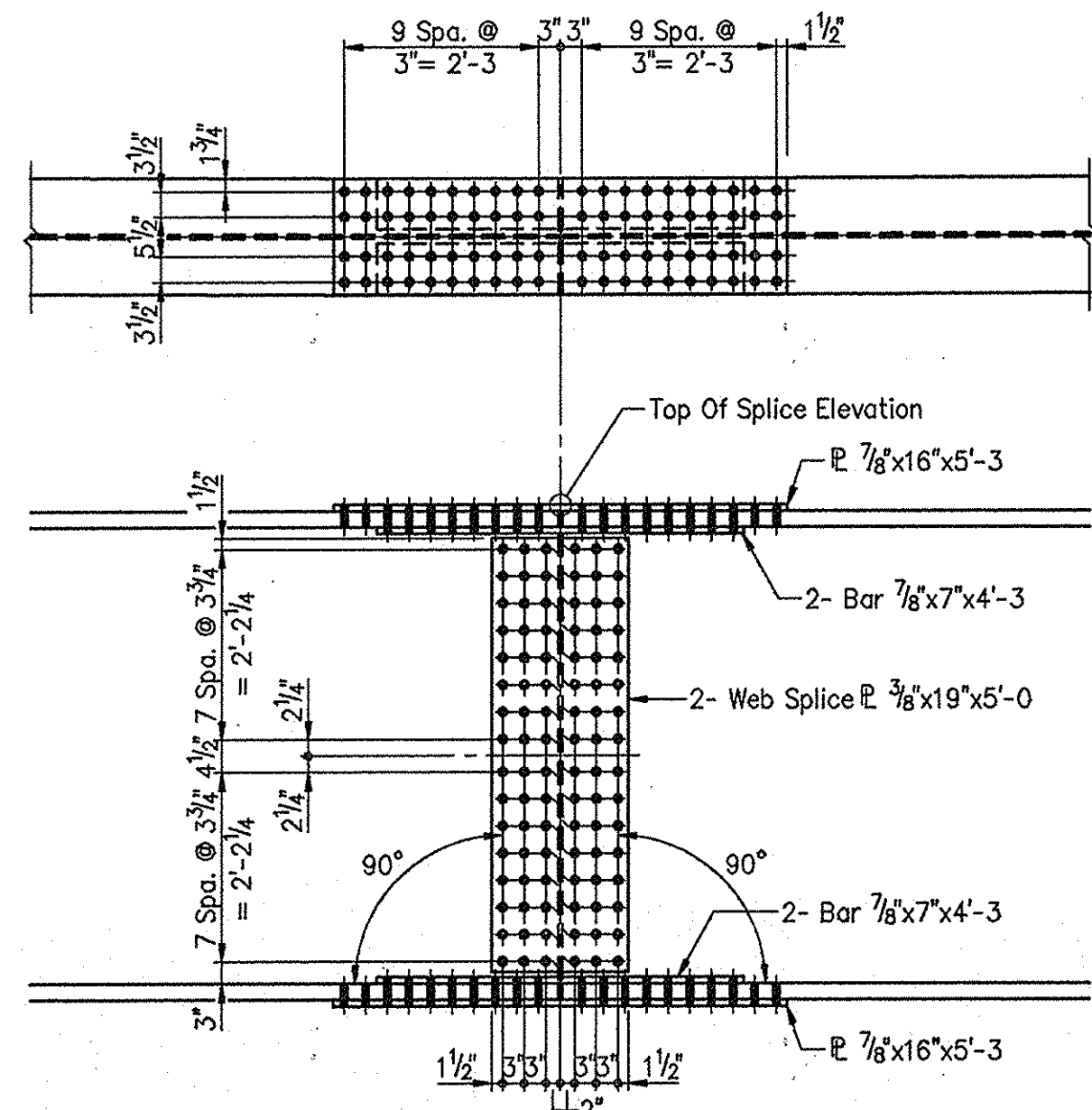
DRAWING: - S32 OF S54 SHEET: - 47 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823



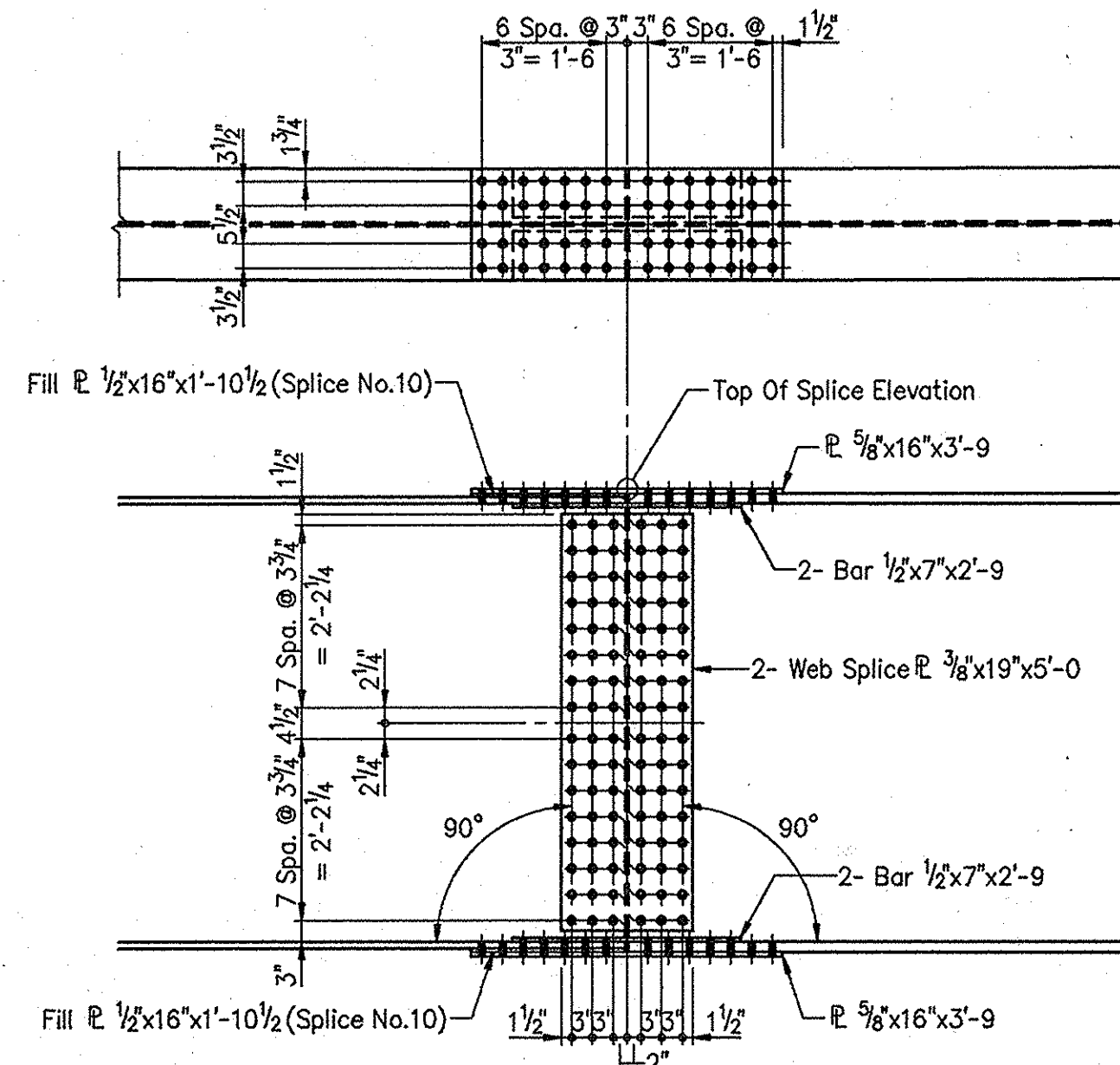
DESIGNED: MDR 3/27/95 CK'D DAD 12/2/96
DRAWN: DSH 6/1/95 CK'D DAD 12/26/96
TRACED: CK'D

DWG FILE: \\S31\A\92\120\9212024 SPELCHK
PLOT SCALE: 1:16,000 EDIT DATE: 07/09/98 11:18:59
PLOT ORIGIN: 0,0,0,0 EDITED BY: RJC - S32

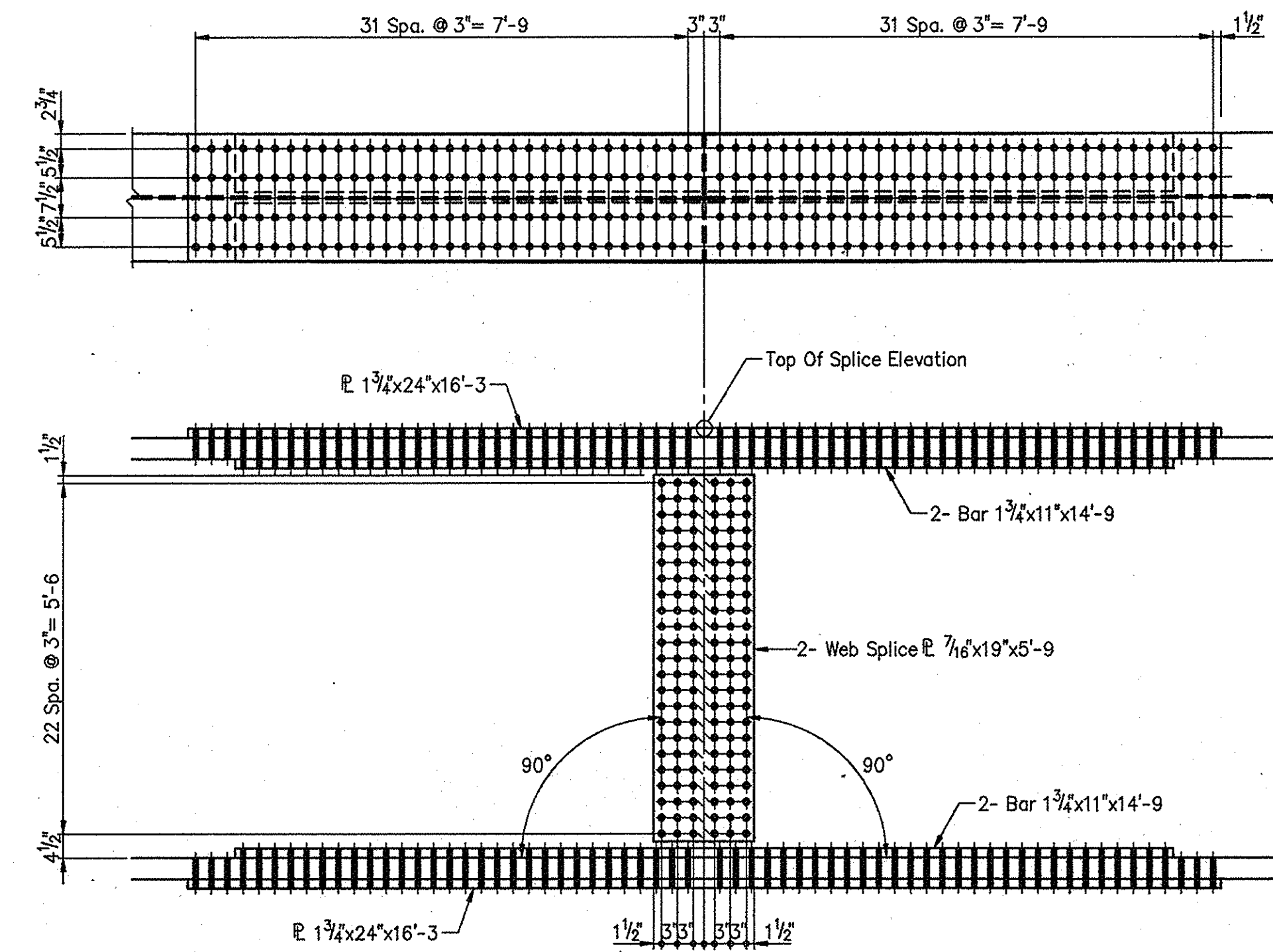
9-1-98: Revised Splice No. 14 and No. 15



SPLICE No.8 AND 11 DETAILS

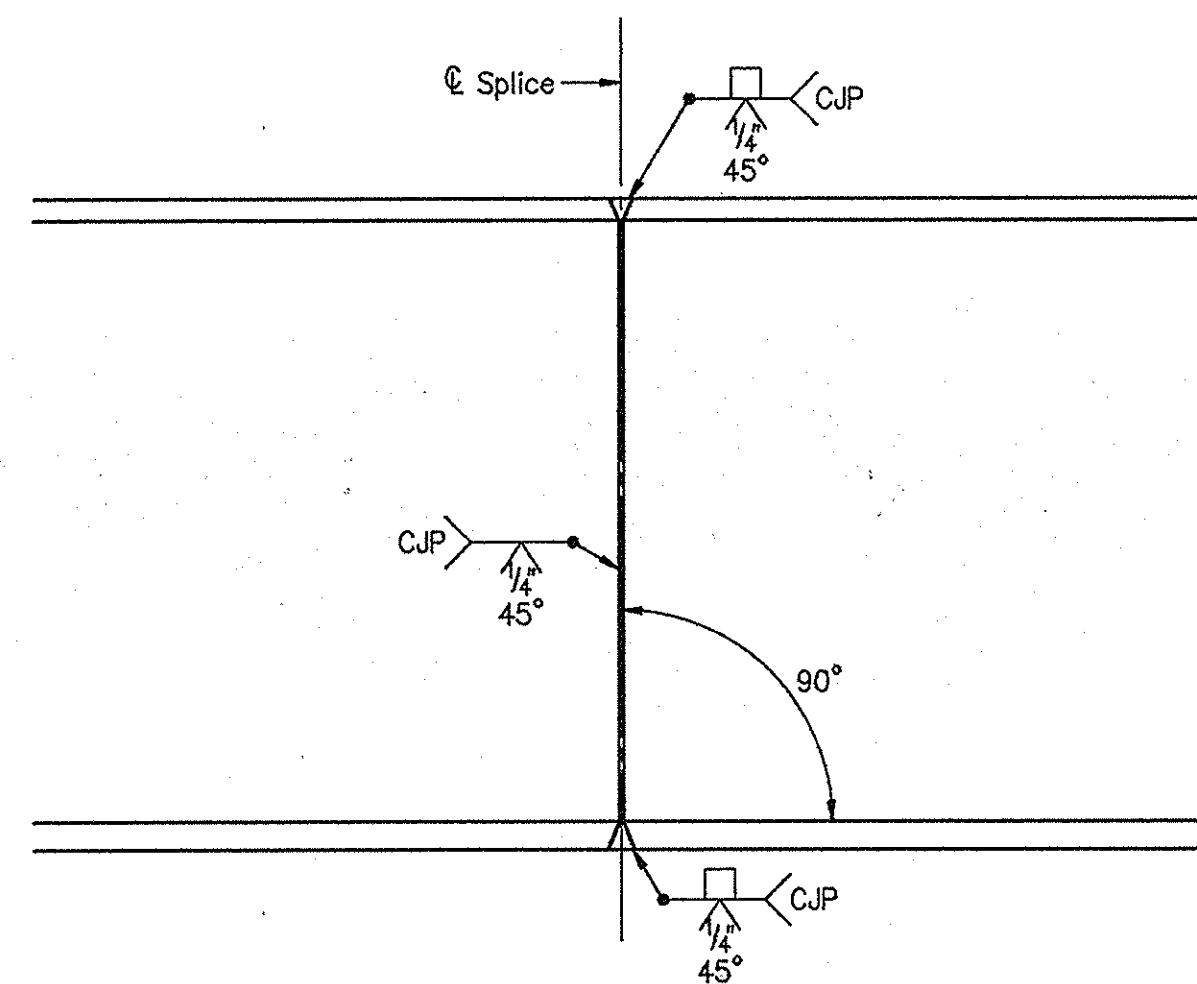


SPLICE No.9 AND 10 DETAILS

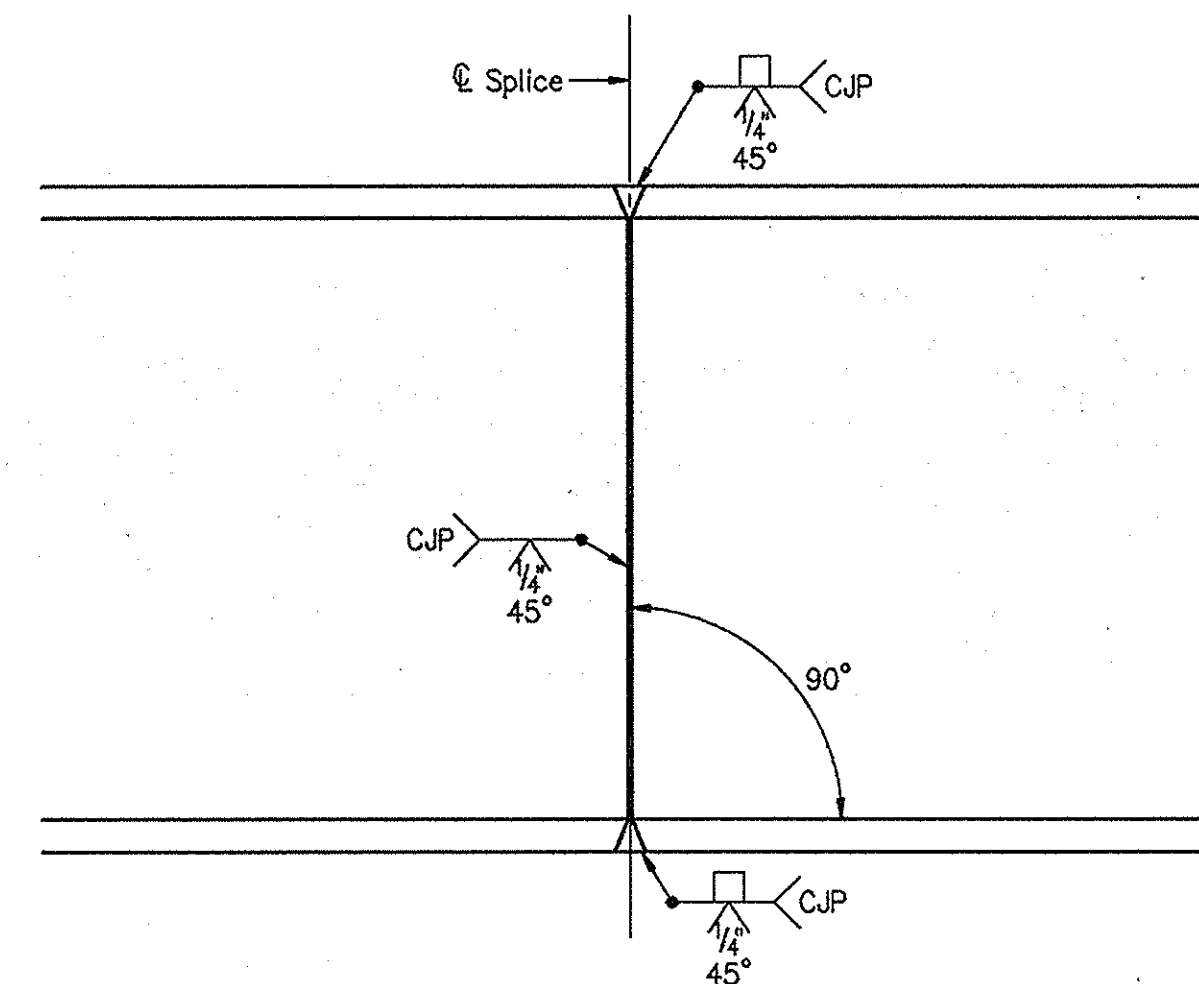


SPLICE No.12 AND 13 DETAILS

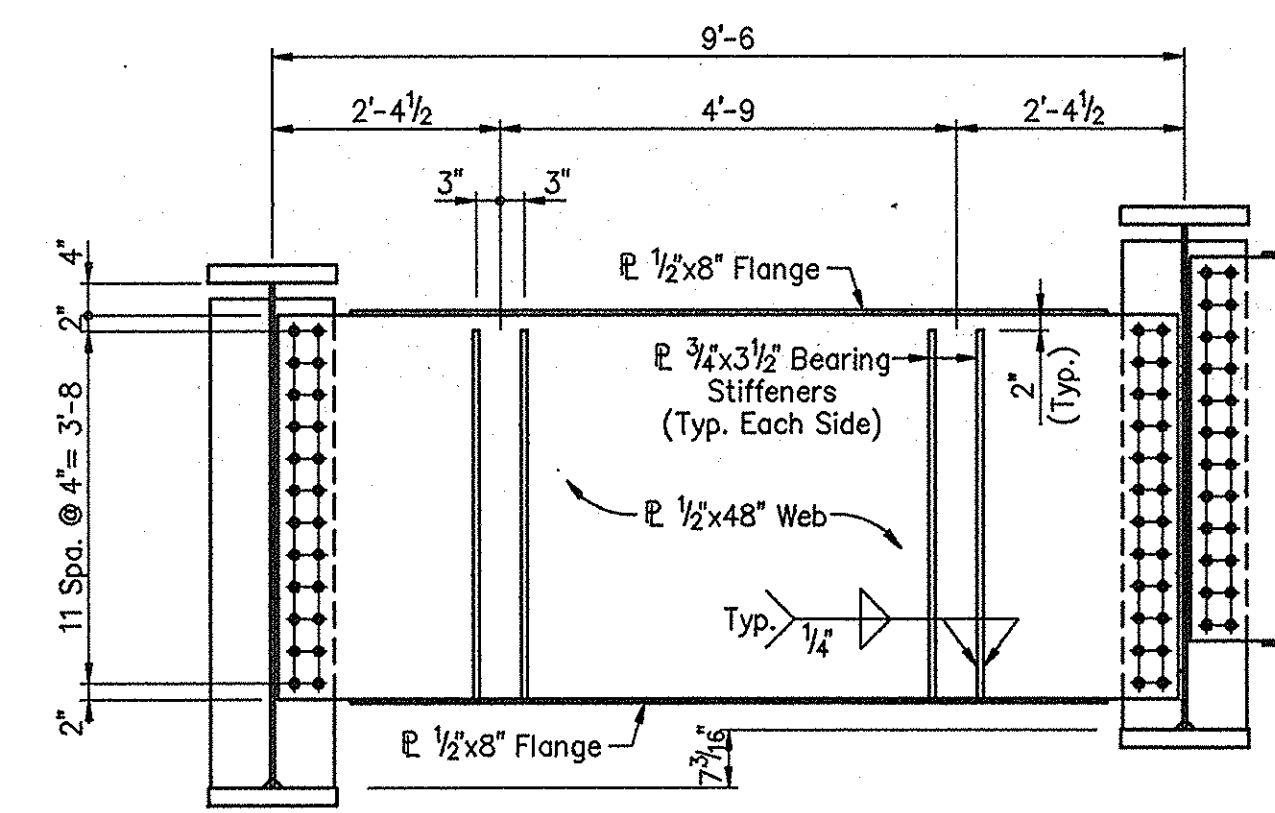
TOP OF SPLICE ELEVATIONS ($\pm 1/4"$)				
Location	G1	G2	G3	G4
Splice No.8	638.785	639.395	640.005	640.610
Splice No.9	640.295	640.890	641.485	642.075
Splice No.10	641.345	641.950	642.550	643.155
Splice No.11	641.740	642.335	642.935	643.510
Splice No.12	642.755	643.350	643.945	644.540
Splice No.13	642.990	643.595	644.205	644.810



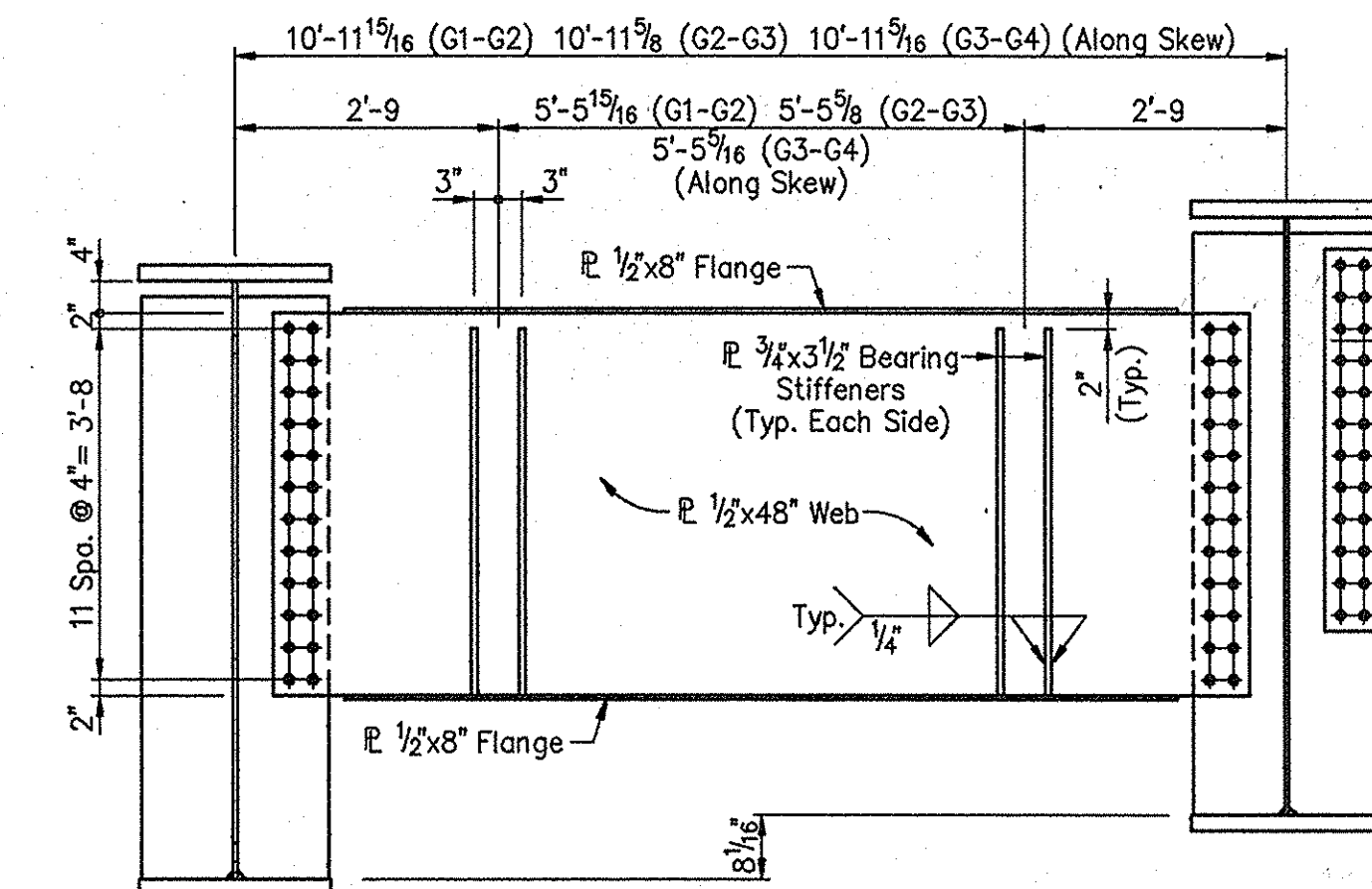
SPLICE No.14 DETAILS



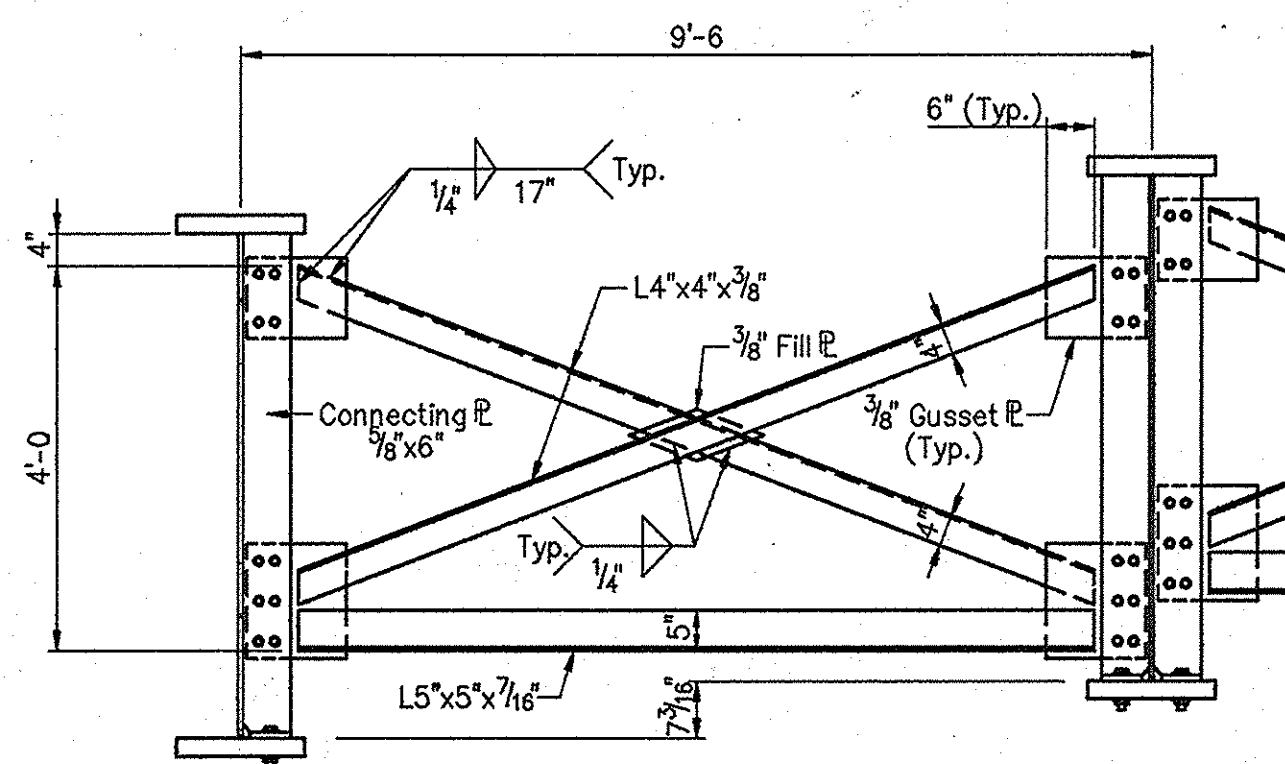
SPLICE No.15 DETAILS



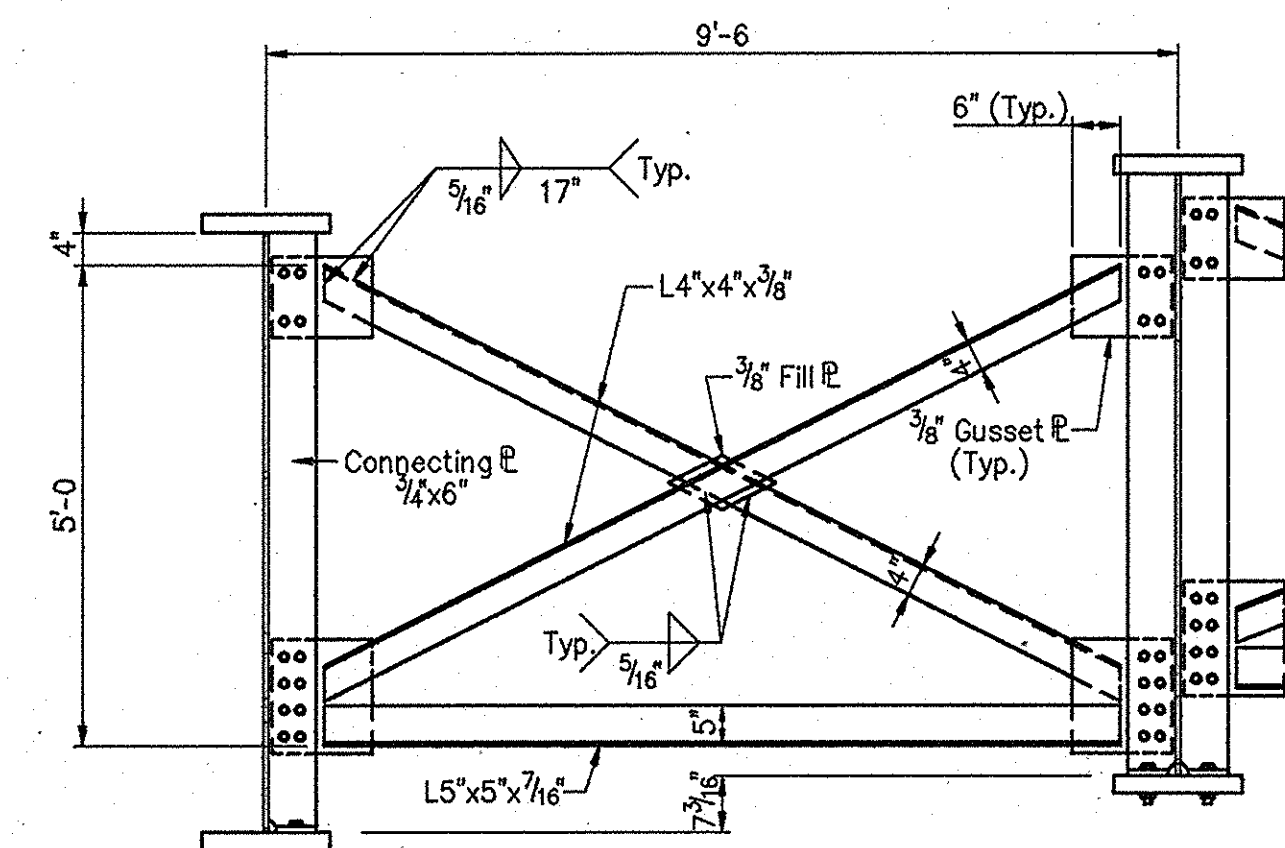
TYPICAL JACKING FRAME AT PIER No.6 AND PIER No. 5



TYPICAL JACKING FRAME AT BENT No.9



TYPICAL CROSS FRAME TYPE X-1



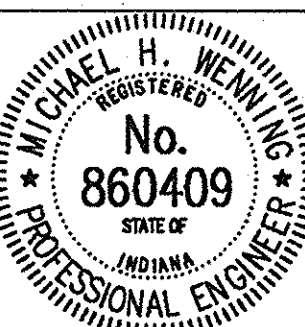
TYPICAL CROSS FRAME TYPE X-2

NOTES:
All bolts to be 7/8" high strength, open holes to be 15/16".

STRUCTURAL STEEL DETAILS - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/2" = 1'-0", UNLESS NOTED DATE: - July 9, 1998
SUBMITTED FOR APPROVAL

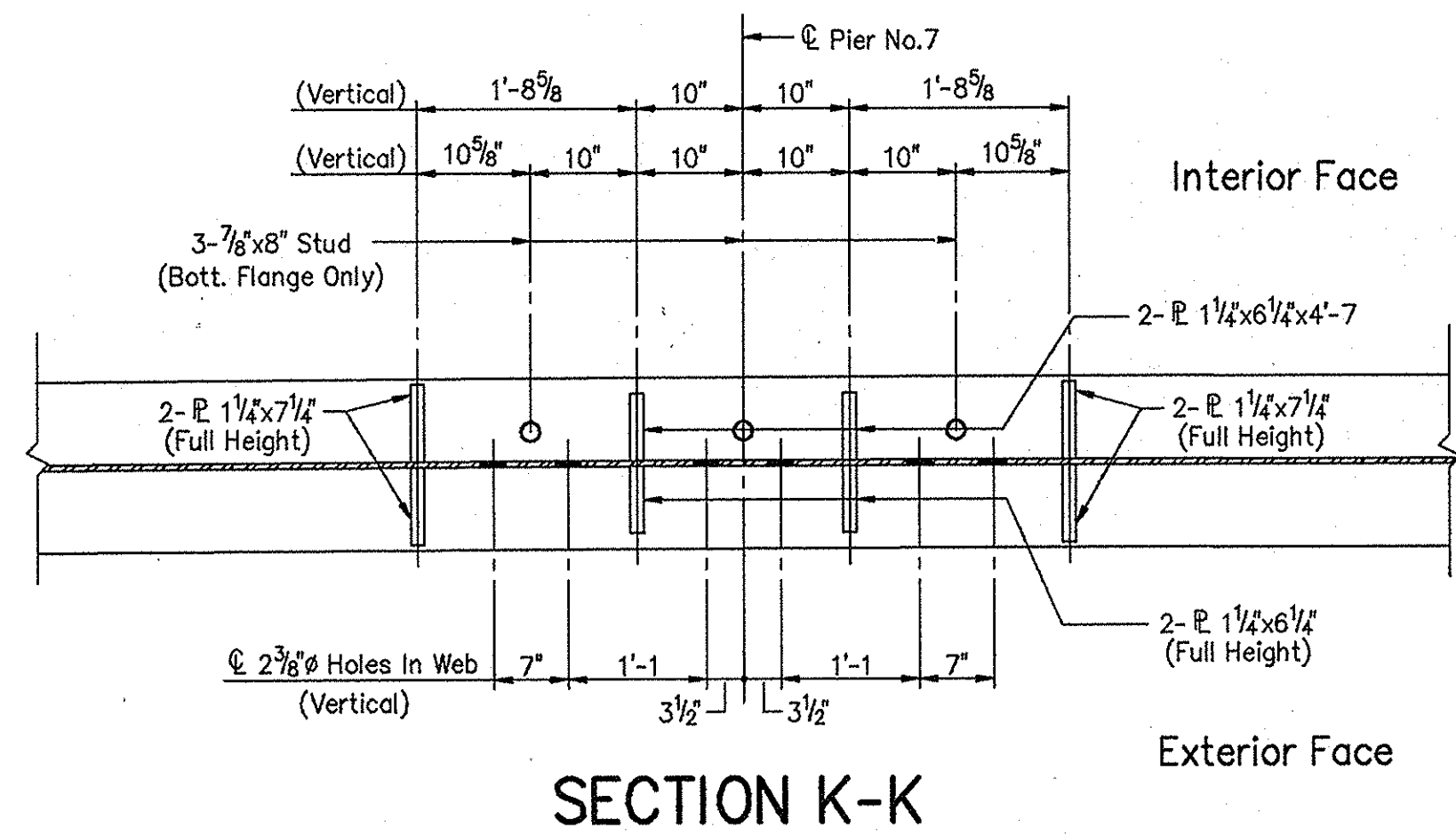
DRAWING: - S34 OF S54 SHEET: - 49 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823



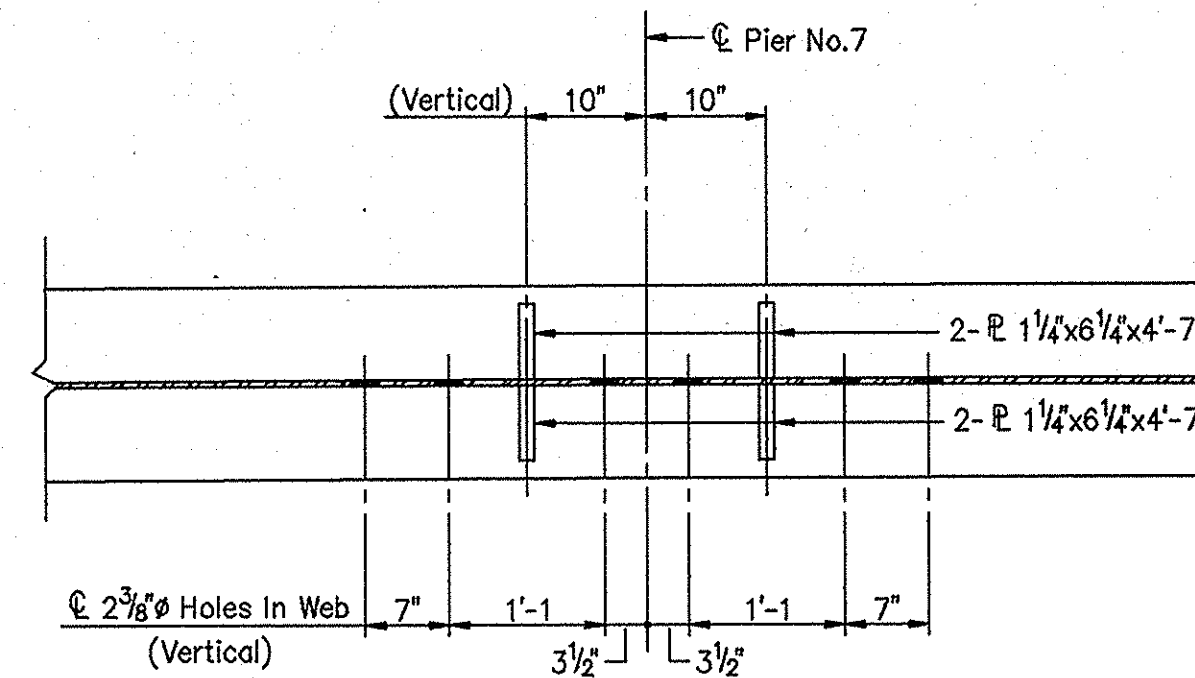
DESIGNED MDR 3/27/95 CK'D DAD 12/2/96
DRAWN DSH 6/7/95 CK'D DAD 12/31/96
TRACED CK'D

DWG FILE: D:\82\120\92120830
PLOT SCALE: 1:24,000
PLOT ORIGIN: 0,000,000
SPELCHK: 07/09/98 09:37:15
EDIT DATE: 11-1-93

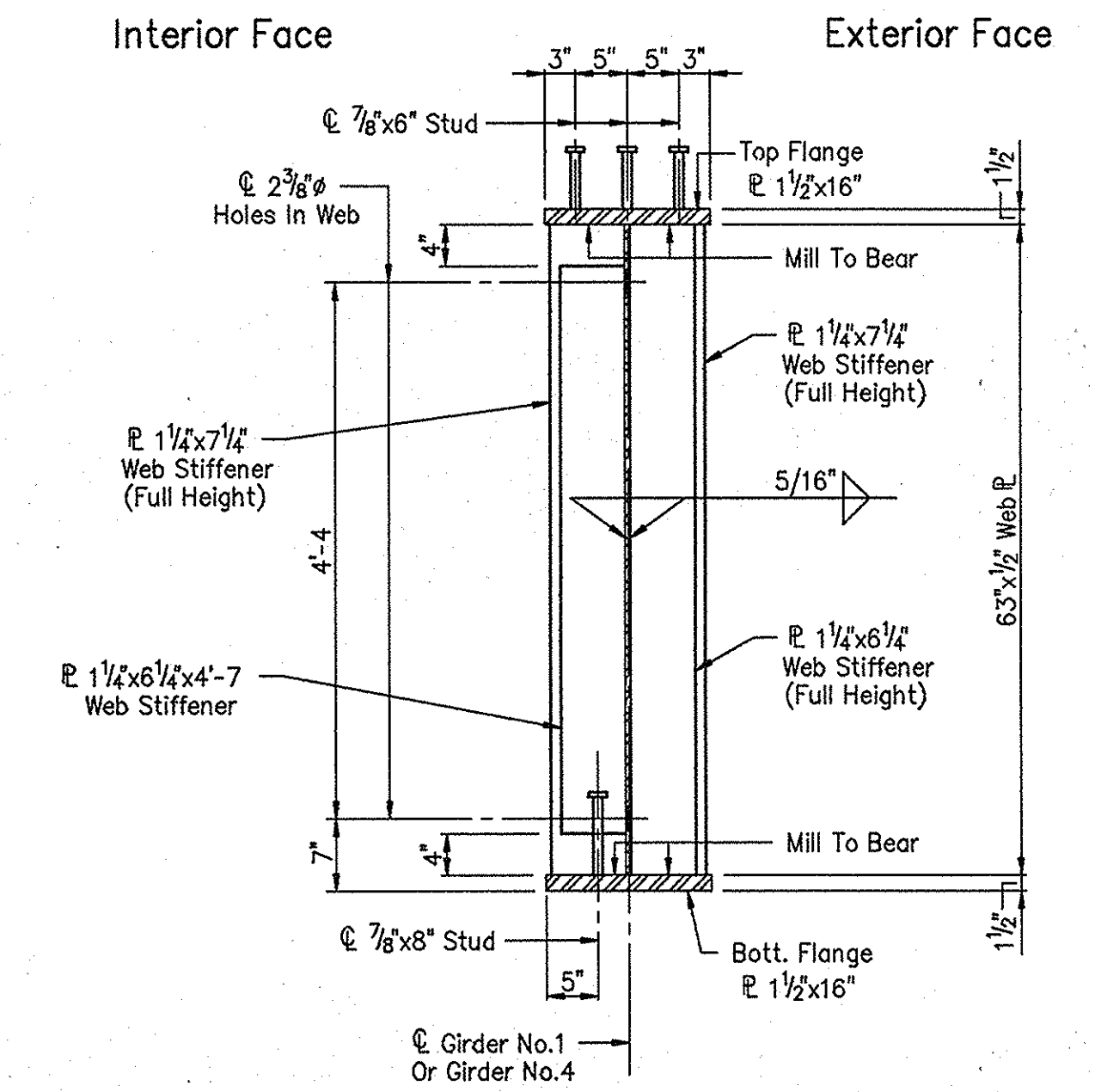
9-1-98: Revised Jacking Frame Pier No.5



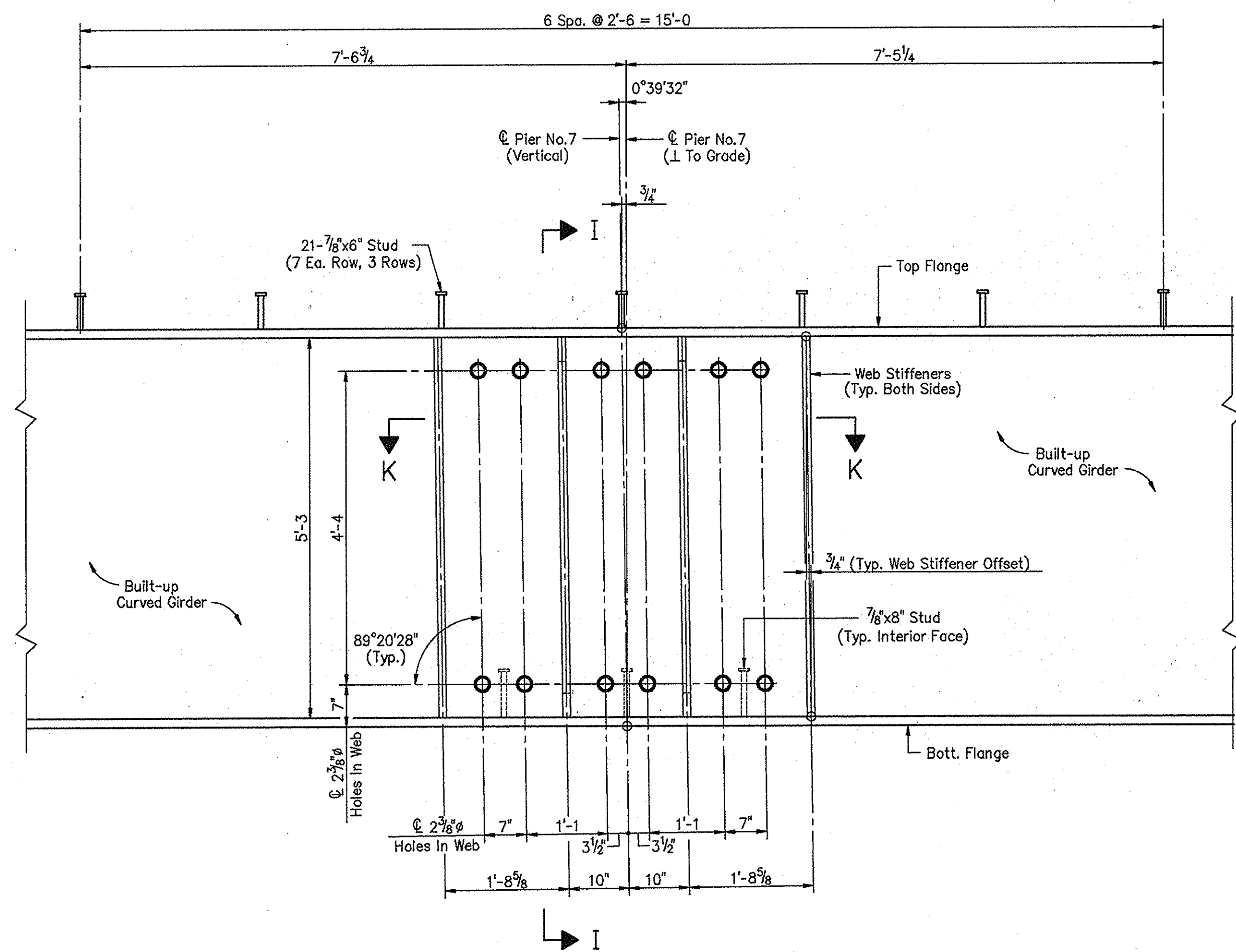
SECTION K-K



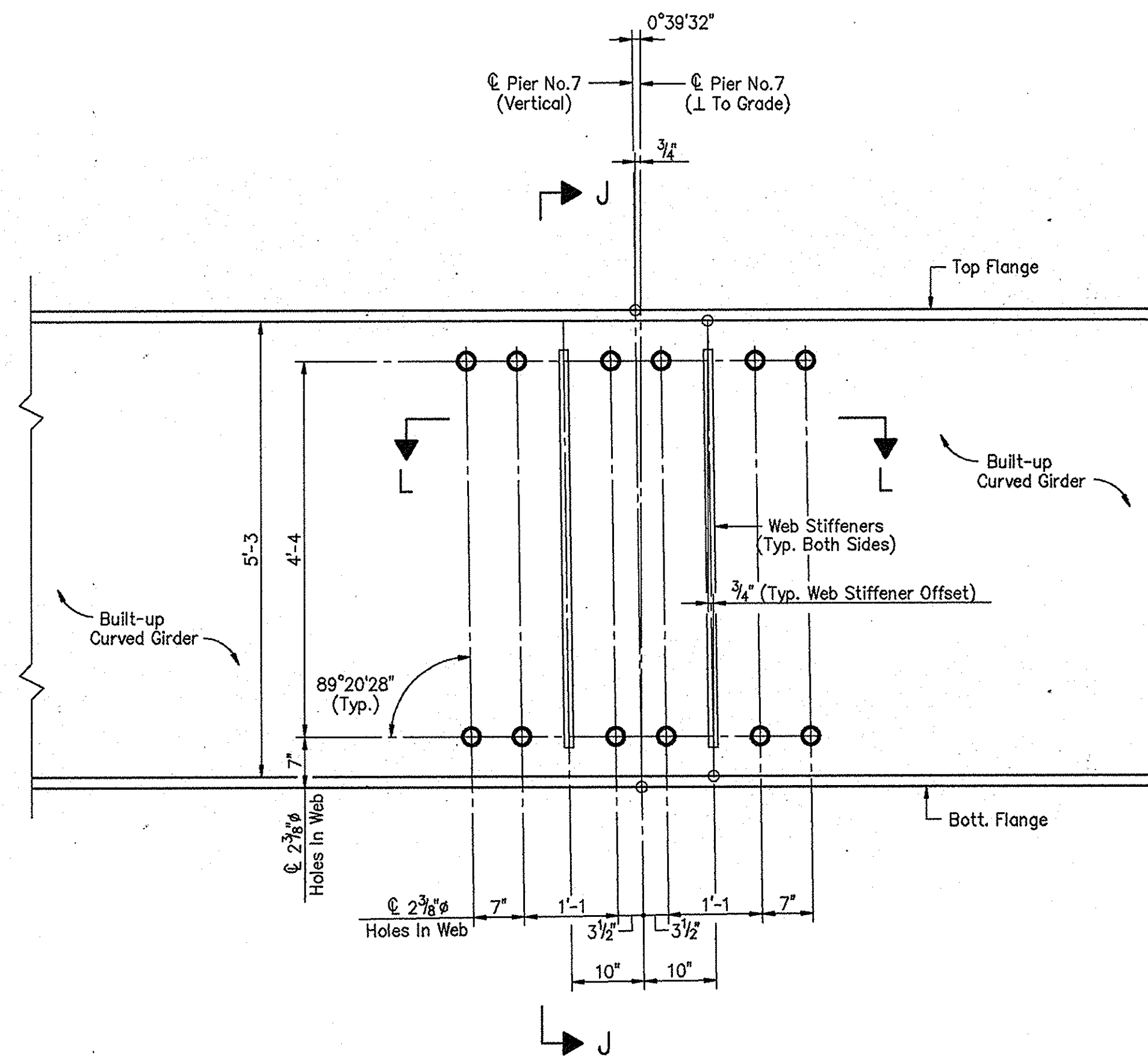
SECTION L-L



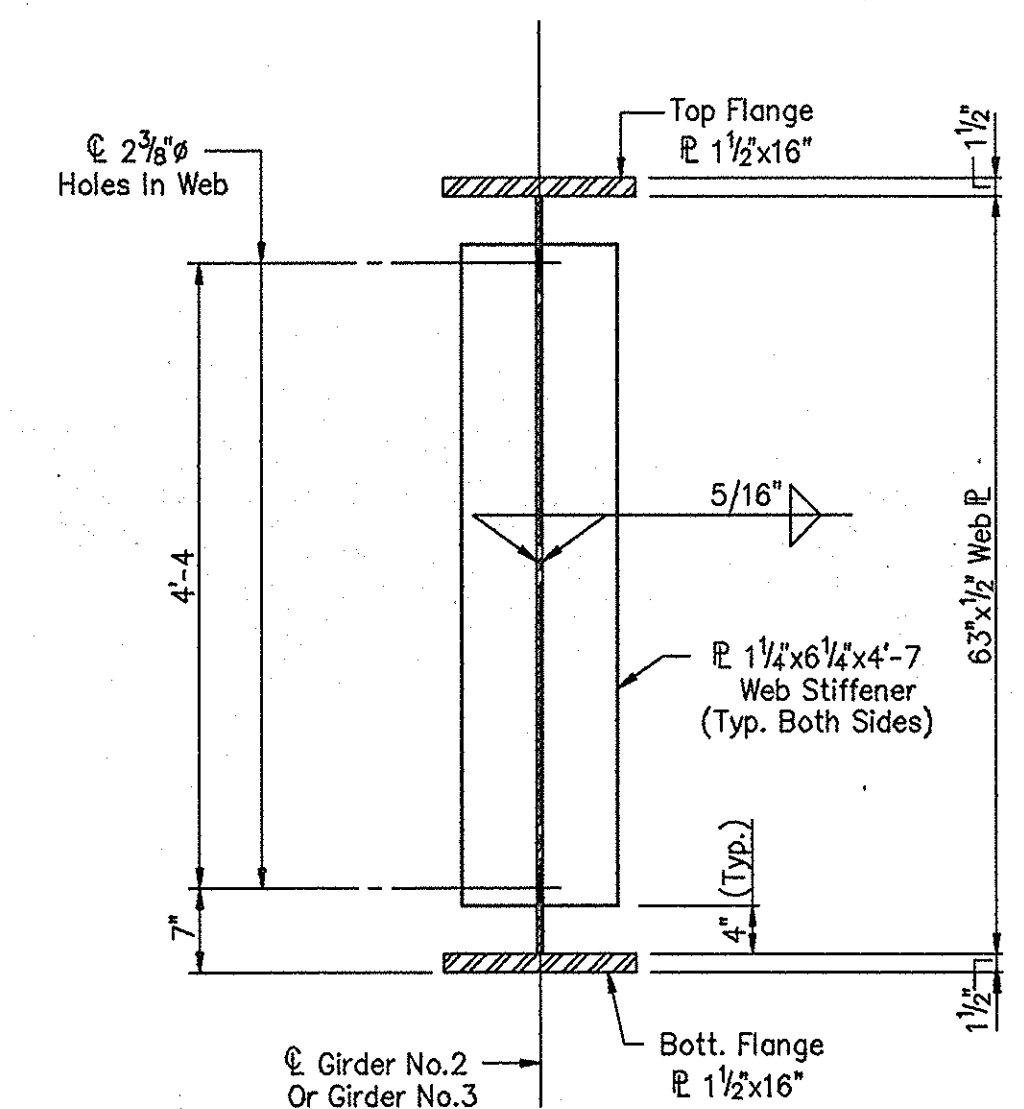
SECTION I-I



GIRDER NO.1 ELEVATION AT PIER NO.7
(Girder No.4 Similar By Opposite Hand)



GIRDER NO.2 ELEVATION AT PIER NO.7
(Girder No.3 The Same)



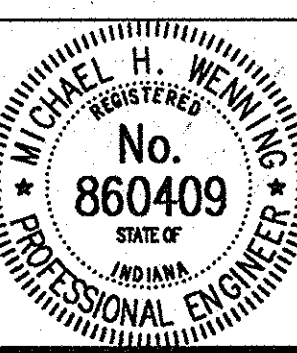
SECTION J-J

NOTES:
All structural steel shall conform to ASTM A709 Grade 50W.

STRUCTURAL STEEL DETAILS - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

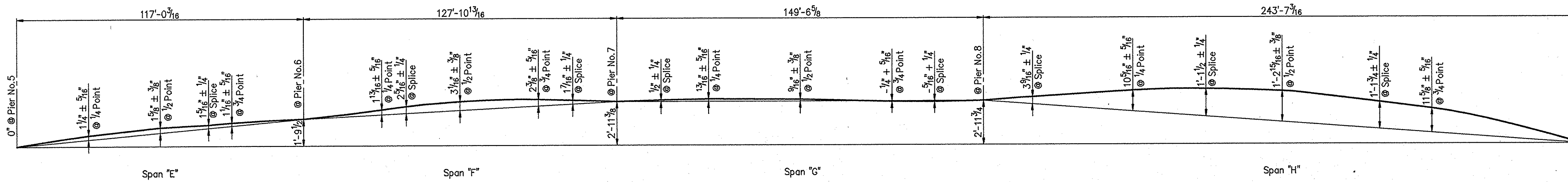
SCALE: - 3/4" = 1'-0", UNLESS NOTED DATE: - July 9, 1998
SUBMITTED FOR APPROVAL *Michael H. Wentz*

DRAWING: - S35 OF S54 SHEET: - 50 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823

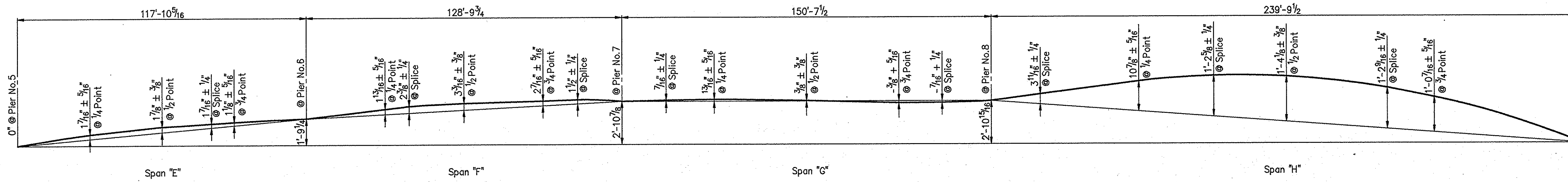


DESIGNED: MDR 3/4/98 CK'D: MSP 6/30/98
DRAWN: TLH 4/30/98 CK'D: MDR 7/1/98
TRACED: CK'D

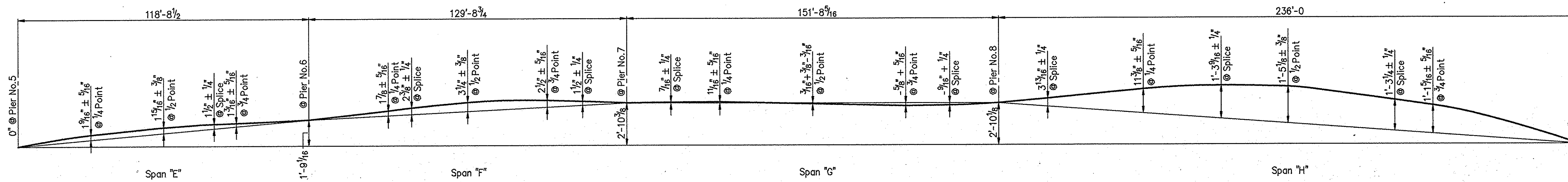
DWG FILE: D:\P1\20\0212062
PLOT SCALE: 1:16,000
PLOT ORIGIN: 0.00,0.00
SPELLOK: 07/09/98 10:45:34
EDIT DATE: TLH - 5131



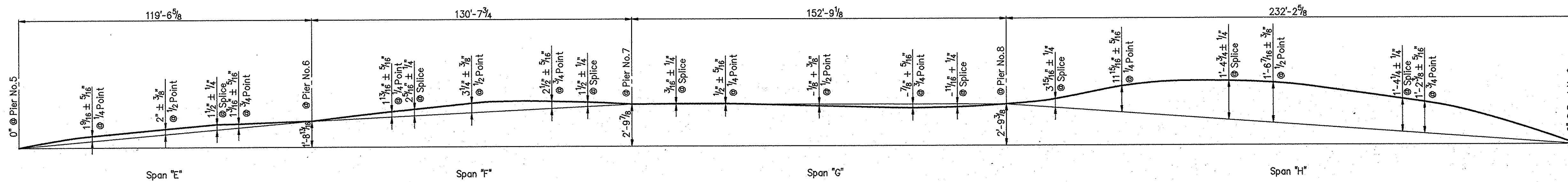
NO LOAD CAMBER AND BLOCKING DIAGRAM - GIRDER G1



NO LOAD CAMBER AND BLOCKING DIAGRAM - GIRDER G2



NO LOAD CAMBER AND BLOCKING DIAGRAM - GIRDER G3



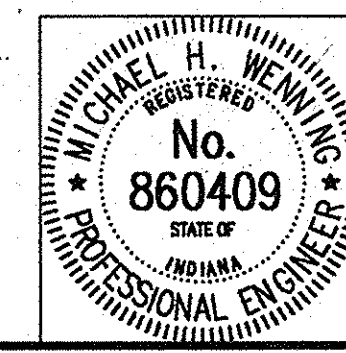
NO LOAD CAMBER AND BLOCKING DIAGRAM - GIRDER G4

STRUCTURAL STEEL DETAILS - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - NONE DATE: - July 9, 1998

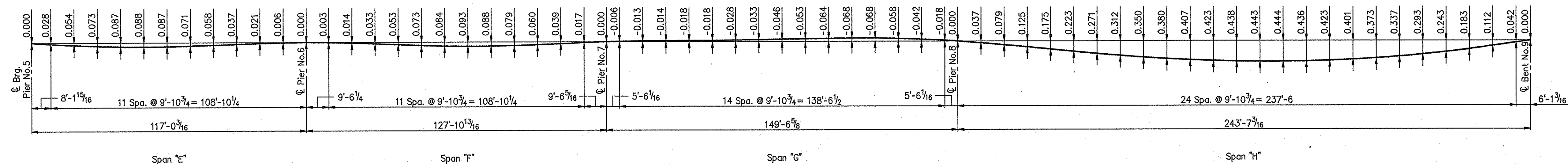
SUBMITTED FOR APPROVAL *Michael H. Bennett*

DRAWING: - S37 OF S54 SHEET: - 52 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823

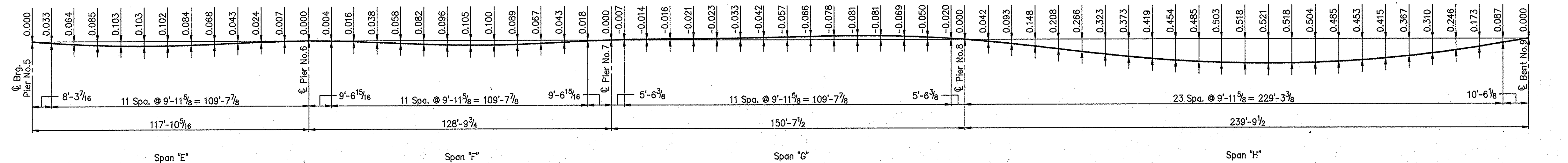


DESIGNED MSP 6/15/98 C/K/D APE 6/16/98
DRAWN TLH 6/19/98 C/K/D APE 7/1/98
TRACED C/K/D

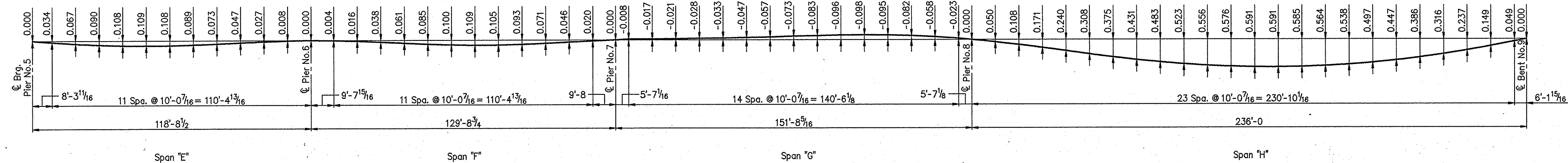
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SPELLOK: 07/09/98 15:42:21
EDITED BY: TLH - 5131



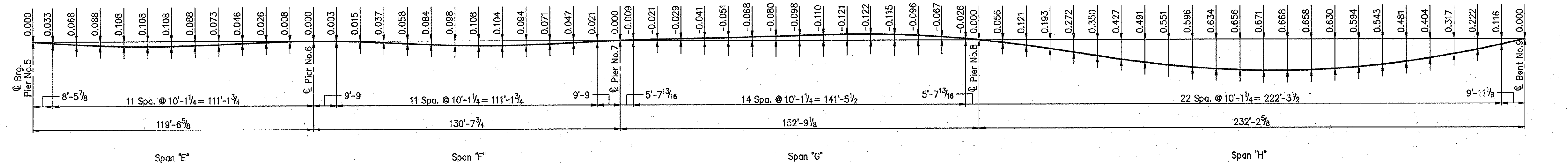
CONCRETE DEAD LOAD DEFLECTION DIAGRAM - GIRDER G1 (Feet)



CONCRETE DEAD LOAD DEFLECTION DIAGRAM - GIRDER G2 (Feet)



CONCRETE DEAD LOAD DEFLECTION DIAGRAM - GIRDER G3 (Feet)



CONCRETE DEAD LOAD DEFLECTION DIAGRAM - GIRDER G4 (Feet)

Note:
Minus Sign Indicates Upward Deflection.

STRUCTURAL STEEL DETAILS - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

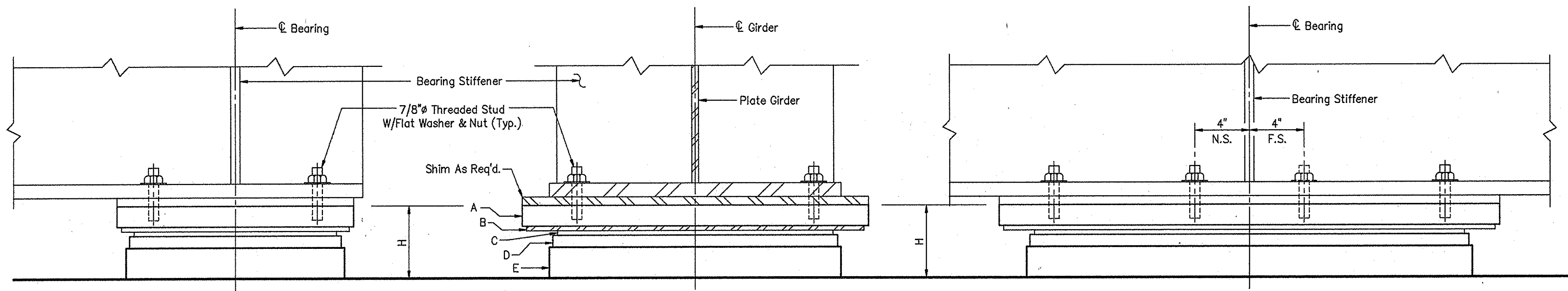
SCALE: - NONE
DATE: - July 9, 1998
SUBMITTED FOR APPROVAL *[Signature]*

DRAWING: - S37A OF S54 SHEET: - 52A OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823



DESIGNED MDR 6/15/98 CKD MSP 6/17/98
DRAWN TLH 6/23/98 CKD APE 7/1/98
TRACED _____ CKD _____

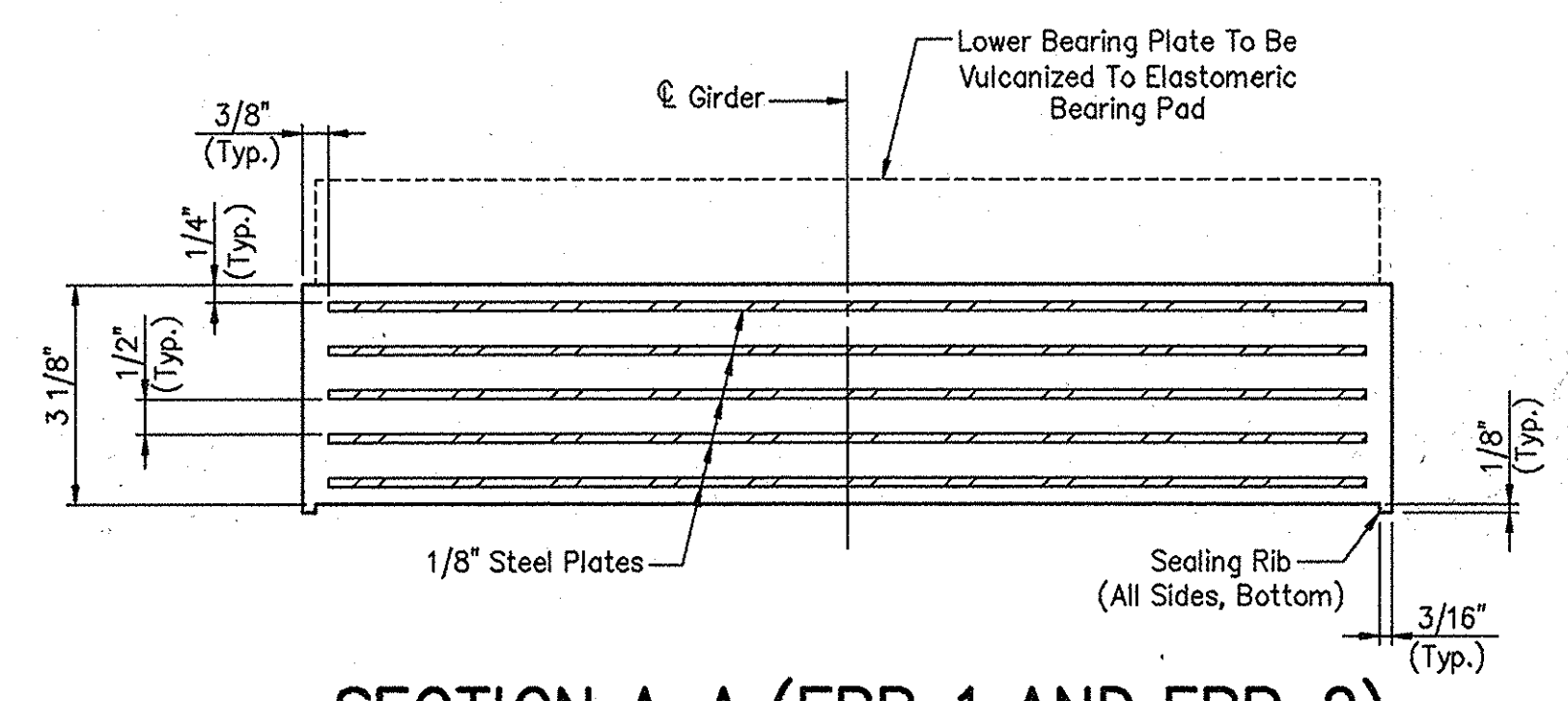
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SPELLOK: 07/09/98 15:12:37
EDIT DATE:
EDIT BY: TLH - 5131



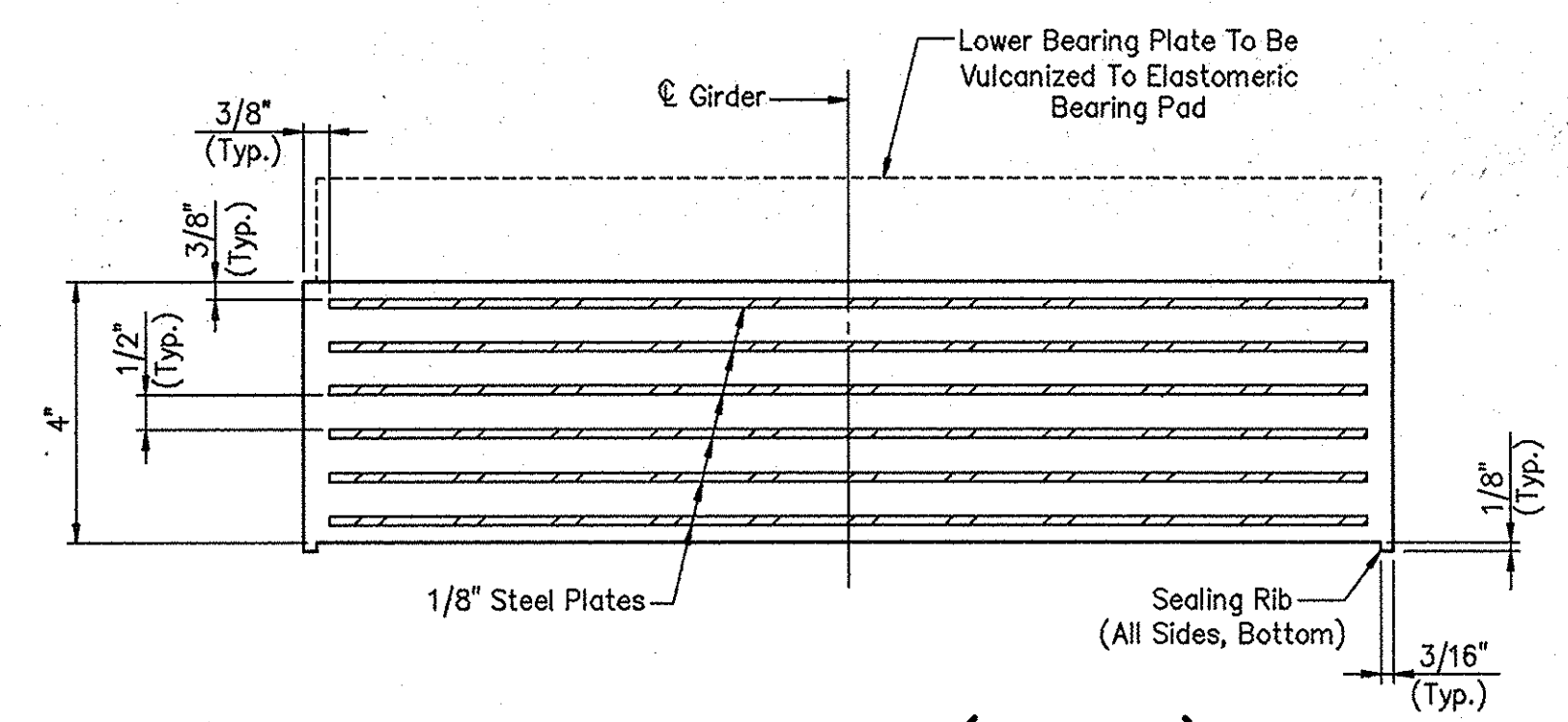
ELEVATION
(BENT NO.1 & PIER NO.5 UNIT A)
(PIER NO.5 & BENT NO.9 UNIT B)

TYPICAL END SECTION
ELASTOMERIC BEARING ASSEMBLY

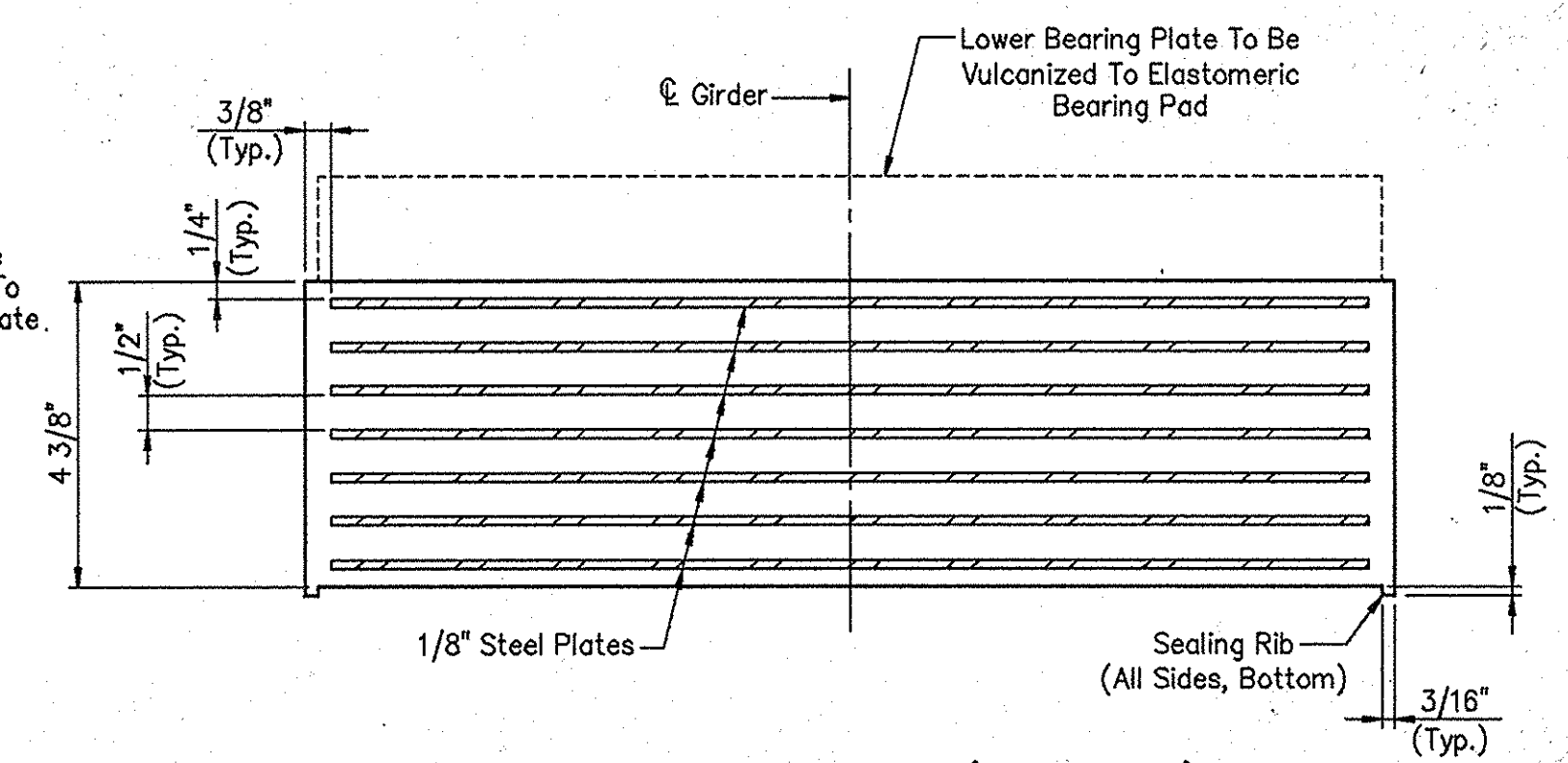
ELEVATION
(PIER NO.4 UNIT A)
(PIER NO.6 UNIT B)



SECTION A-A (EBP-1 AND EBP-2)

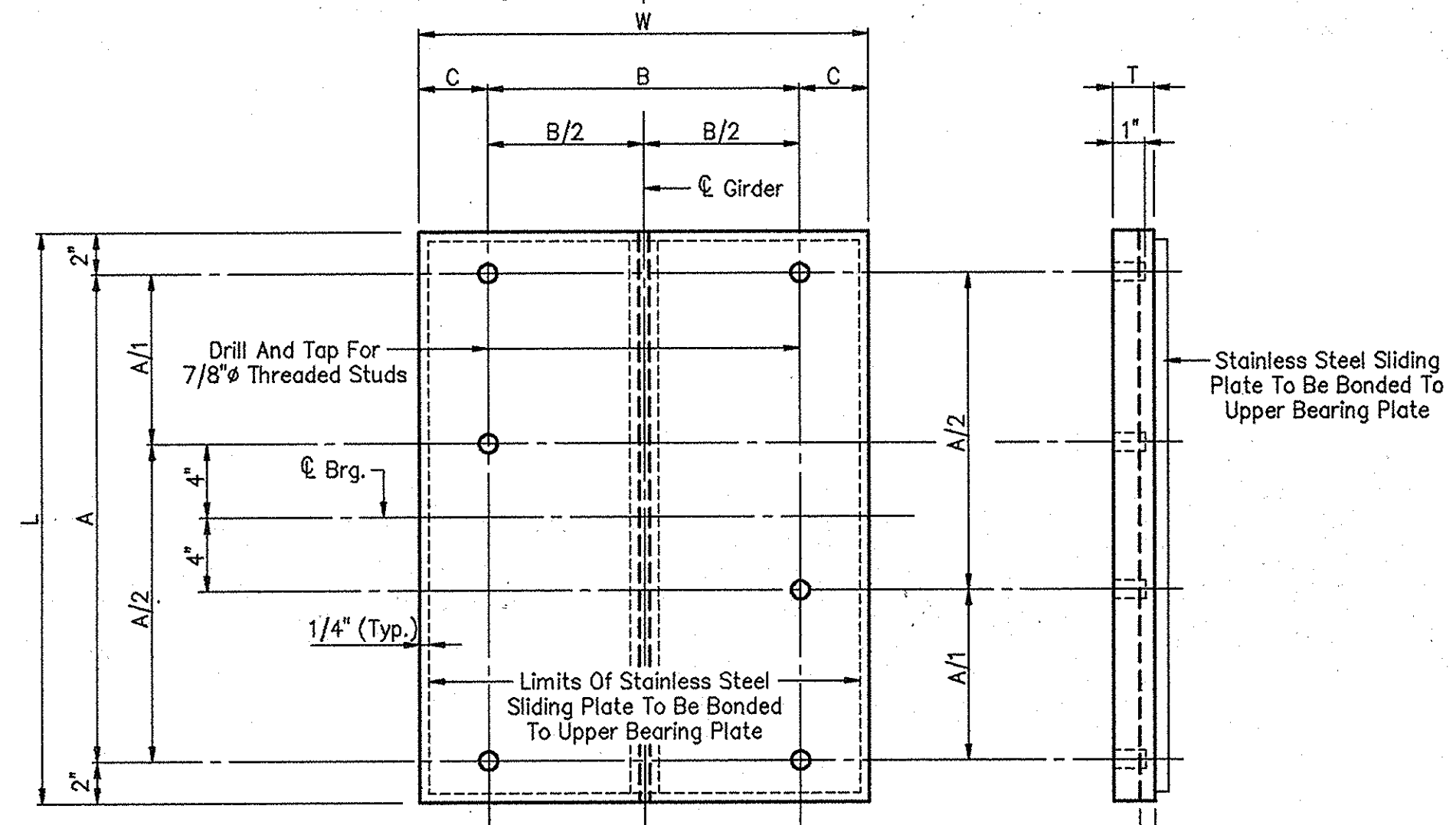
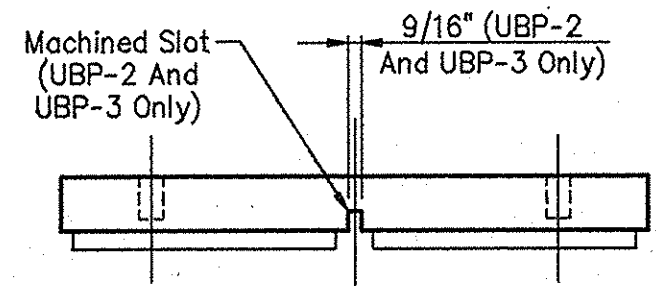


SECTION A-A (EBP-3)



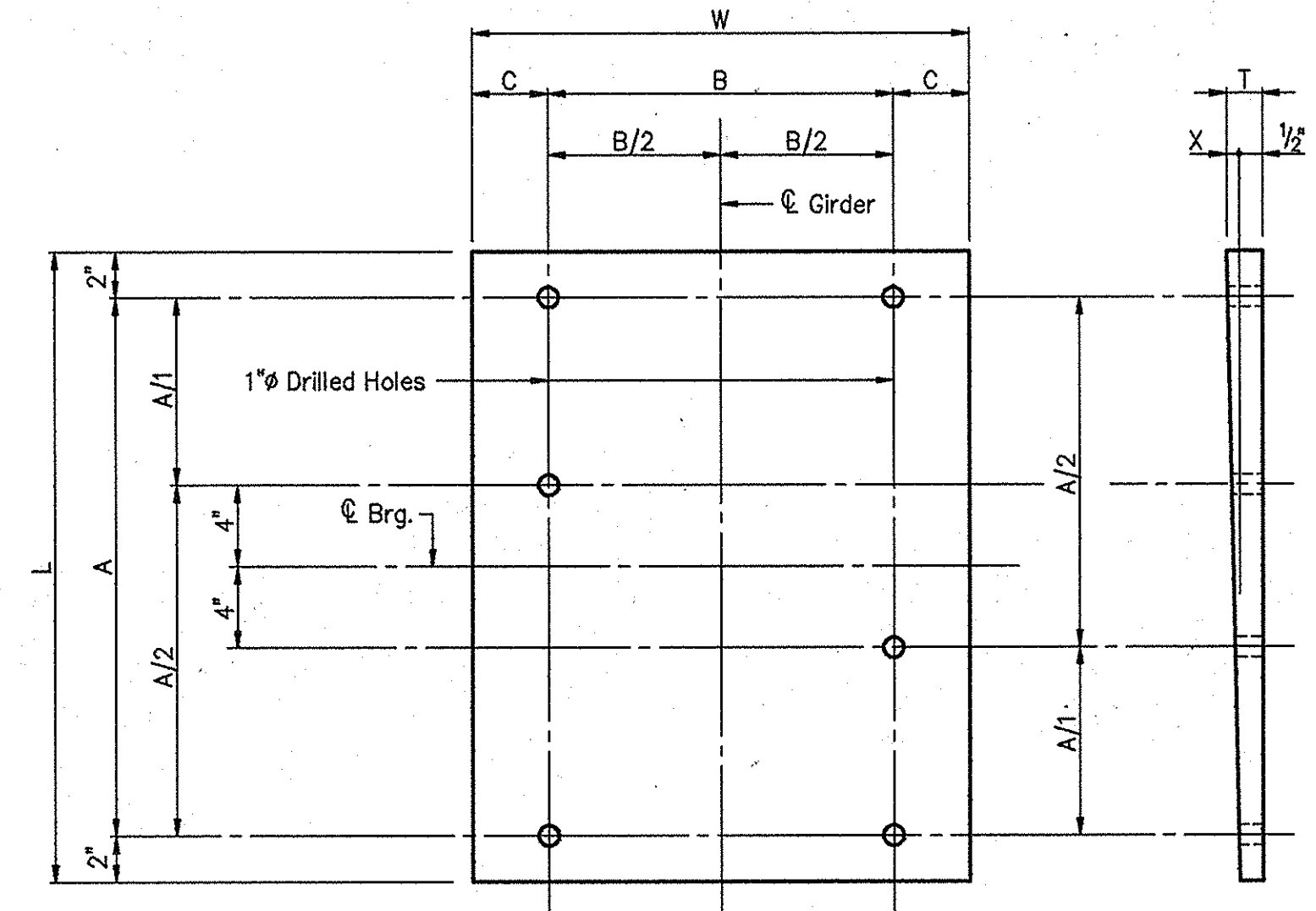
SECTION A-A (EBP-4)

ASSEMBLY	QUANTITY	LOCATION		A	B	C	D	E	F	H
		UNIT No.1	UNIT No.2							
EBA-1	4 Each	Bent No.1	-	UBP-1	SSSP-1	TFE-1	LBP-1	EBP-1	SH-1	6 13/16"
EBA-2	4 Each	Pier No.4	-	UBP-2	SSSP-2	TFE-2	LBP-2	EBP-2	SH-2	6 9/16"
EBA-3	4 Each	Pier No.5	-	UBP-3	SSSP-3	TFE-3	LBP-3	EBP-3	SH-3	7 1/16"
EBA-3	4 Each	-	Pier No.5	UBP-3	SSSP-3	TFE-3	LBP-3	EBP-3	SH-4	7 1/16"
EBA-2	4 Each	-	Pier No.6	UBP-2	SSSP-2	TFE-2	LBP-2	EBP-2	SH-5	6 9/16"
EBA-4	4 Each	-	Bent No.9	UBP-4	SSSP-4	TFE-4	LBP-4	EBP-4	SH-6	8 9/16"



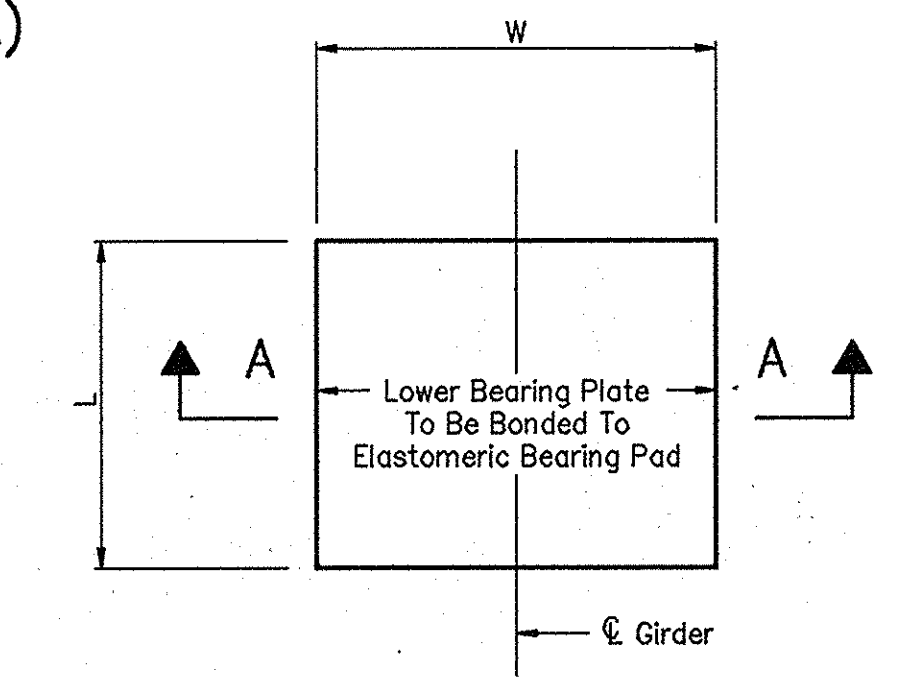
UPPER BEARING PLATE

MARK	L	W	A	A/1	A/2	B	B/2	C	T
UBP-1	1'-8 1/2"	1'-11"	1'-4 1/2"	-	1'-4"	6"	3 1/2"	2 1/2"	2 1/2"
UBP-2	2'-9"	1'-7"	2'-5"	10 1/2"	1'-6 1/2"	1'-0"	6"	3 1/2"	2 1/4"
UBP-3	1'-4"	1'-7"	1'-0"	-	1'-0"	6"	3 1/2"	1 7/8"	1 7/8"
UBP-4	2'-1"	2'-3"	1'-9"	-	1'-8"	-	3 1/2"	3"	3"



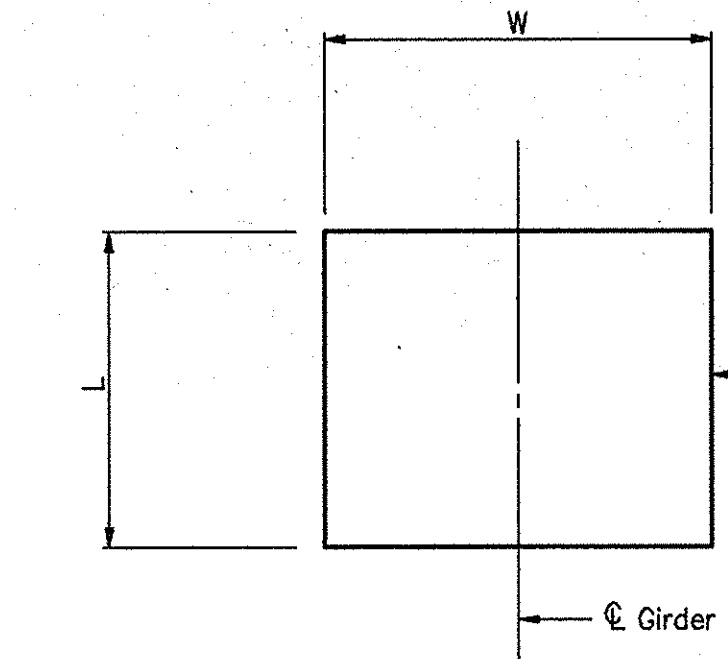
BEVELLED SHIMS

MARK	L	W	A	A/1	A/2	B	C	T	X
SH-1	1'-8 1/2"	1'-11"	1'-4 1/2"	-	-	1'-4"	3 1/2"	7/8"	3/8"
SH-2	2'-9"	1'-7"	2'-5"	10 1/2"	1'-6 1/2"	1'-0"	3 1/2"	1 1/4"	3/4"
SH-3	1'-4"	1'-7"	1'-0"	-	-	1'-0"	3 1/2"	1/2"	0"
SH-4	1'-4"	1'-7"	1'-0"	-	-	1'-0"	3 1/2"	13/16"	0"
SH-5	2'-9"	1'-7"	2'-5"	10 1/2"	1'-6 1/2"	1'-0"	3 1/2"	1 1/8"	5/8"
SH-6	2'-1"	2'-3"	1'-9"	-	-	1'-8"	3 1/2"	1/2"	0"



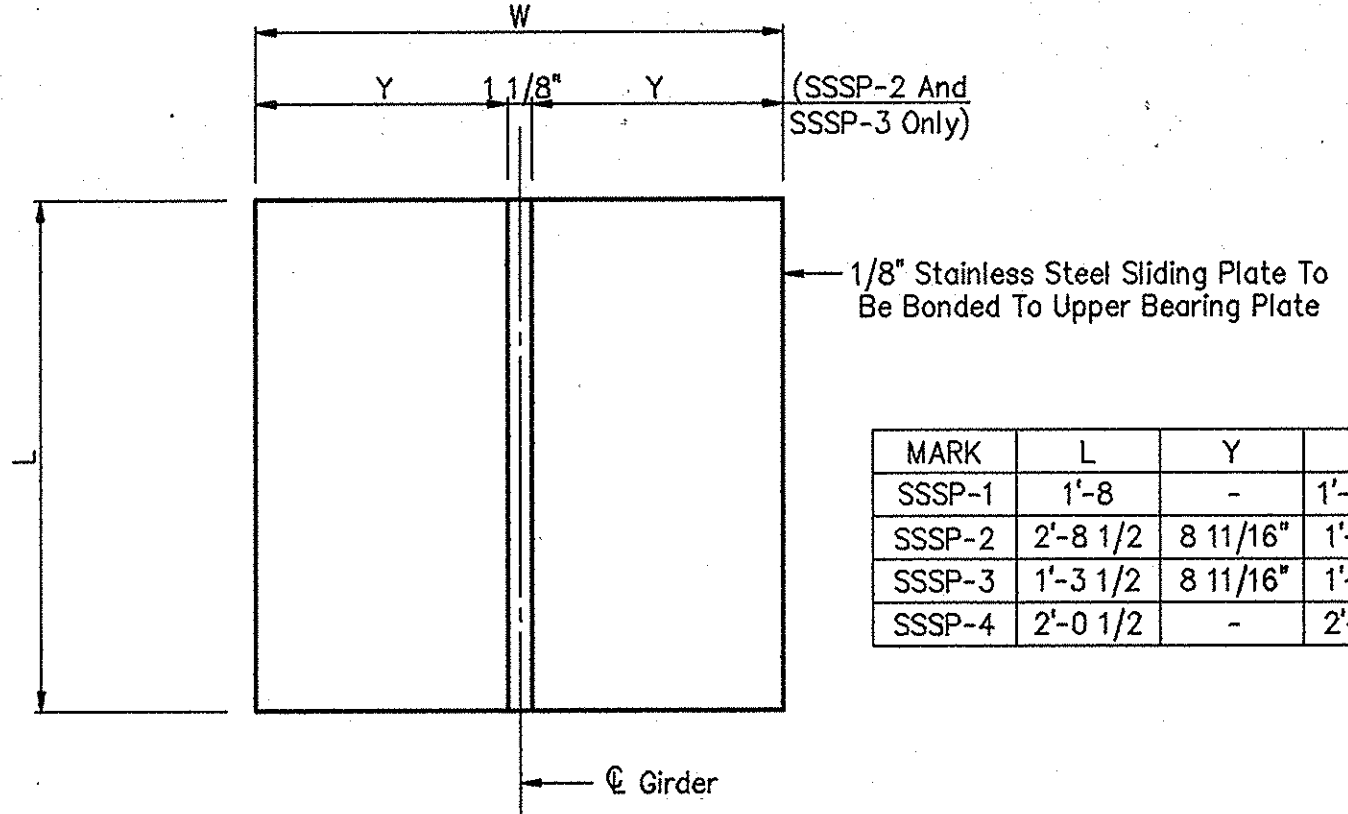
ELASTOMERIC BEARING PAD

MARK	L	W
EBP-1	1'-5"	1'-8"
EBP-2	2'-6"	1'-4"
EBP-3	1'-0"	1'-4"
EBP-4	1'-9"	2'-0"



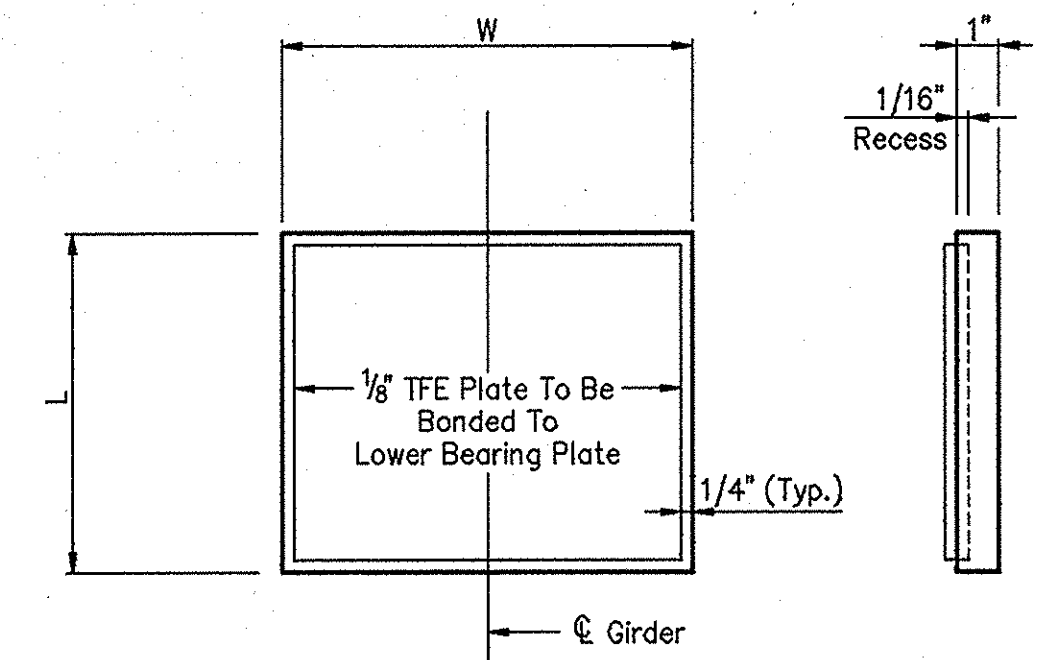
TFE PLATE

MARK	L	W
TFE-1	1'-4 1/8"	1'-7 1/8"
TFE-2	2'-5 1/8"	1'-3 1/8"
TFE-3	11 1/8"	1'-3 1/8"
TFE-4	1'-8 1/8"	1'-11 1/8"



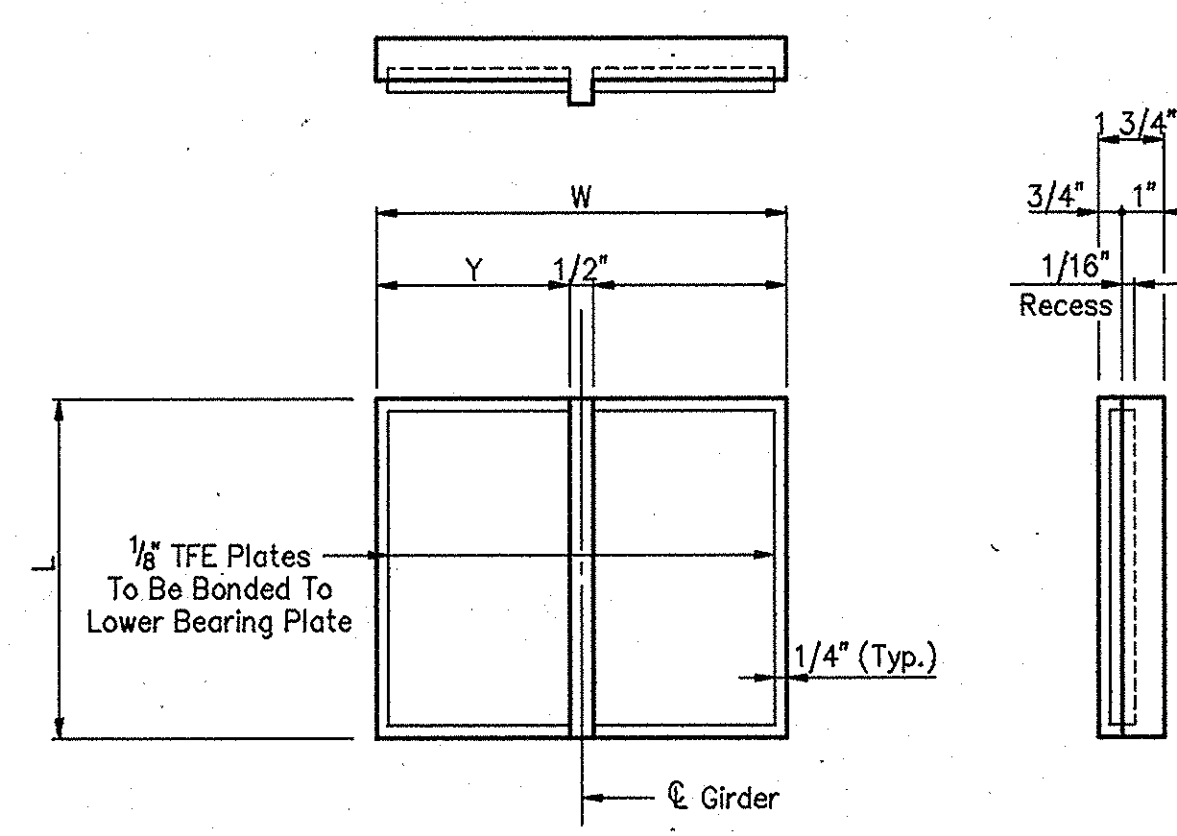
STAINLESS STEEL SLIDING PLATE

MARK	L	Y	W
SSSP-1	1'-8"	-	1'-10 1/2"
SSSP-2	2'-8 1/2"	8 11/16"	1'-6 1/2"
SSSP-3	1'-3 1/2"	8 11/16"	1'-6 1/2"
SSSP-4	2'-0 1/2"	-	2'-2 1/2"



LOWER BEARING PLATE

MARK	L	W
LBP-1	1'-4 5/8"	1'-7 5/8"
LBP-4	1'-8 5/8"	1'-11 5/8"



LOWER BEARING PLATE

MARK	L	Y	W
LBP-2	2'-5 5/8"	7 9/16"	1'-3 5/8"
LBP-3	11 5/8"	7 9/16"	1'-3 5/8"

NOTES:
Upper Bearing Plates, Stainless Steel Sliding Plates, TFE Plates, Lower Bearing Plates, Shims and Elastomeric Bearing Pads shall be furnished with and included in the cost of the pay item "Elastomeric Bearing Assemblies, Lump Sum". See the Special Provisions.
Material: 55 (±5) Durometer Elastomer

ELASTOMERIC BEARING ASSEMBLY DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - NONE DATE: - July 9, 1998

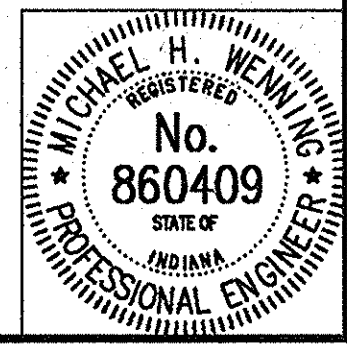
SUBMITTED FOR APPROVAL

DRAWING: - S38 OF S54 SHEET: - 53 OF 81

PROJECT: - IM-80-1(143)4

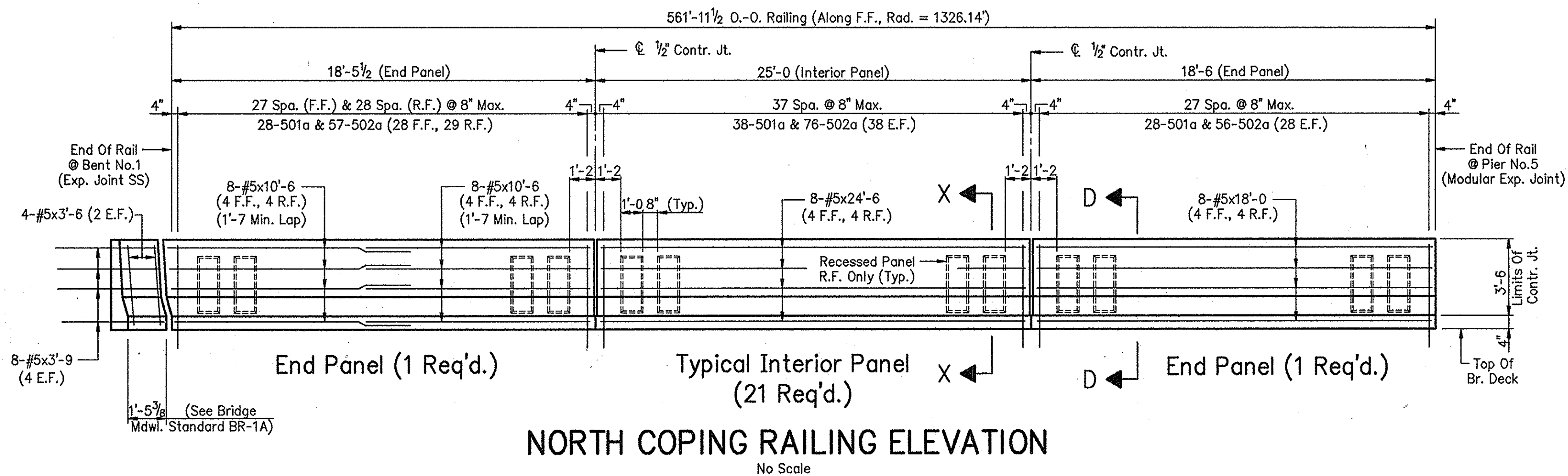
CONTRACT NO. R-23808

BRIDGE FILE: - 1-80-5-7823

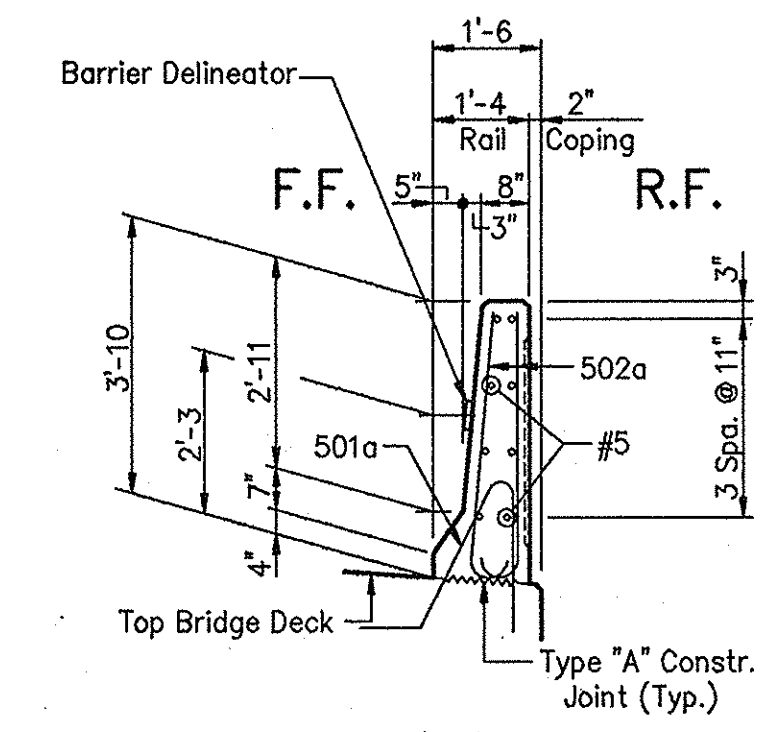


DESIGNED MDR 3/07/95 ckd DAD 1/2/97
DRAWN RJC 3/22/95 ckd DAD 1/3/97
TRACED

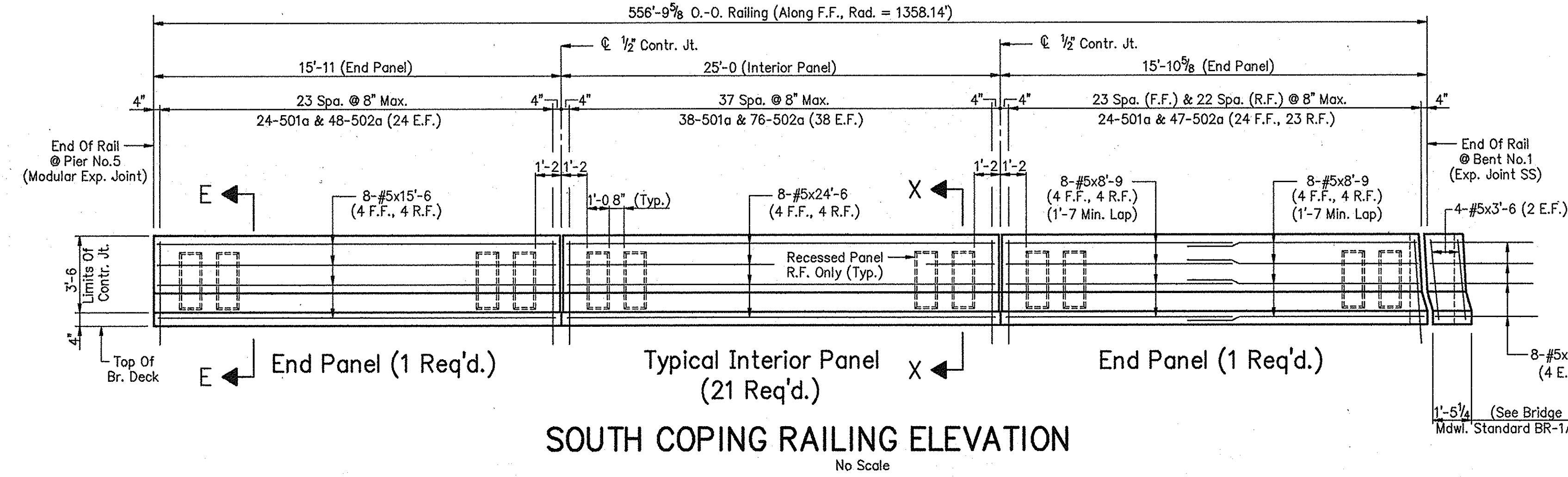
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EDIT DATE: 07/09/98 14:16:44
EDIT BY: T.H. - 5131



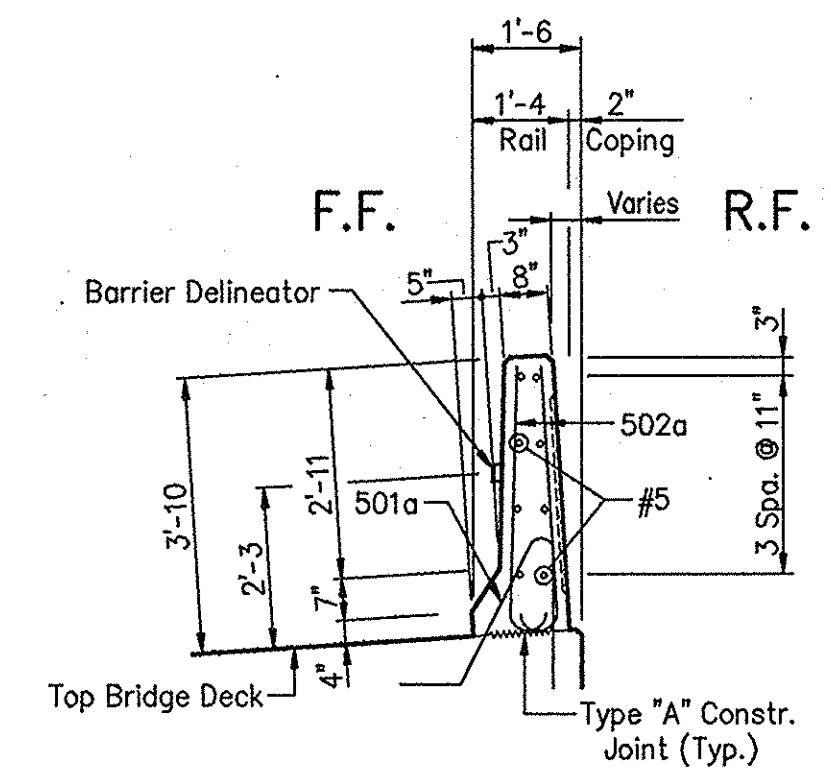
NORTH COPING RAILING ELEVATION
No Scale



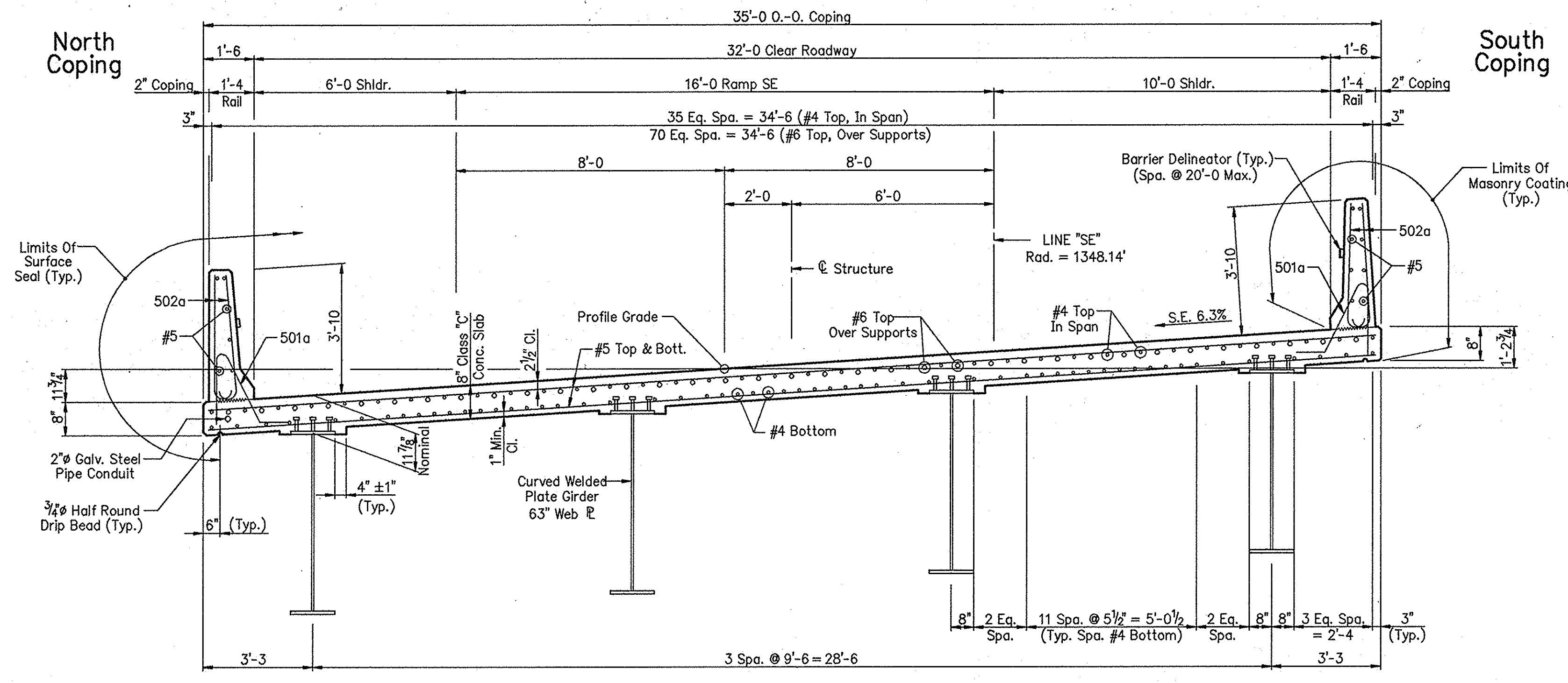
SECTION D-D



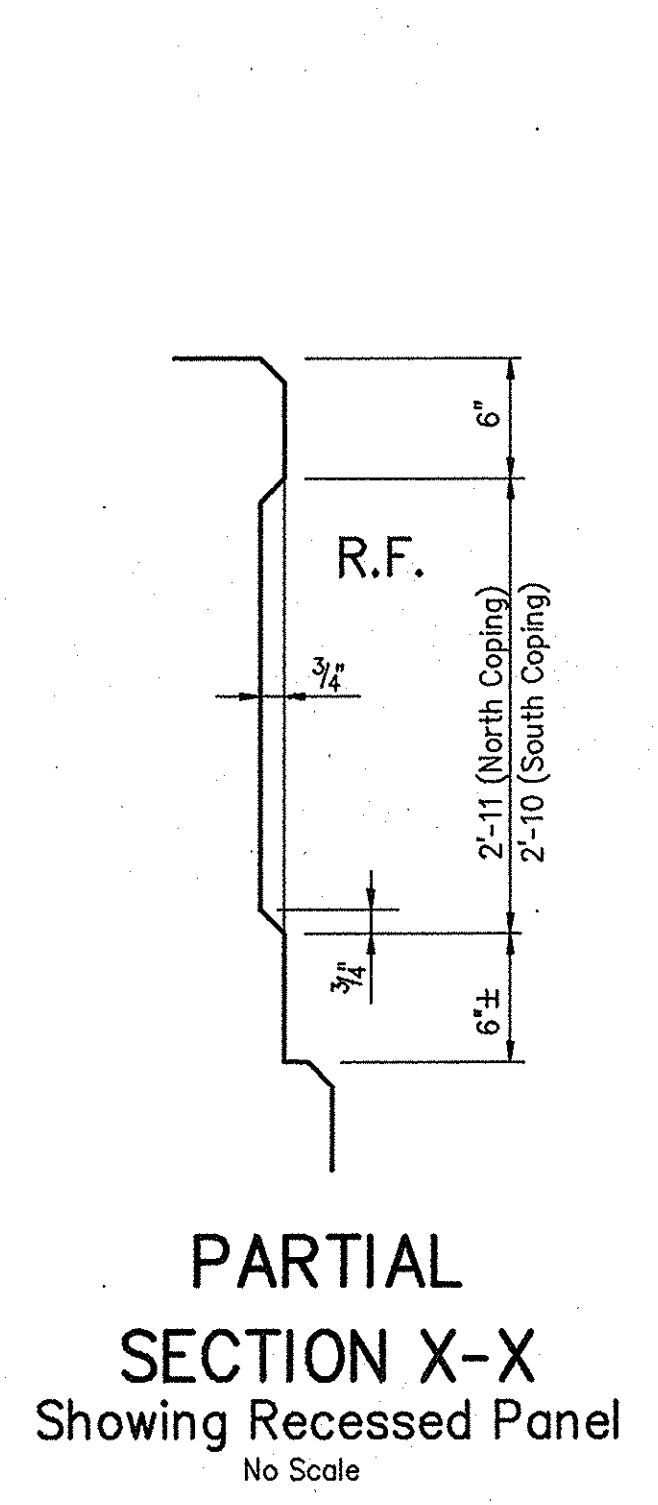
SOUTH COPING RAILING ELEVATION
No Scale



SECTION E-E



SECTION A-A



PARTIAL SECTION X-X
Showing Recessed Panel
No Scale

NOTES:
For reinforcing bar notes, see Bridge Standard C1.
All reinforcing steel to be epoxy coated.
For location of Section A-A, see Drawing S39.

FLOOR DETAILS - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/8" = 1'-0", Unless Noted
DATE: - July 9, 1998

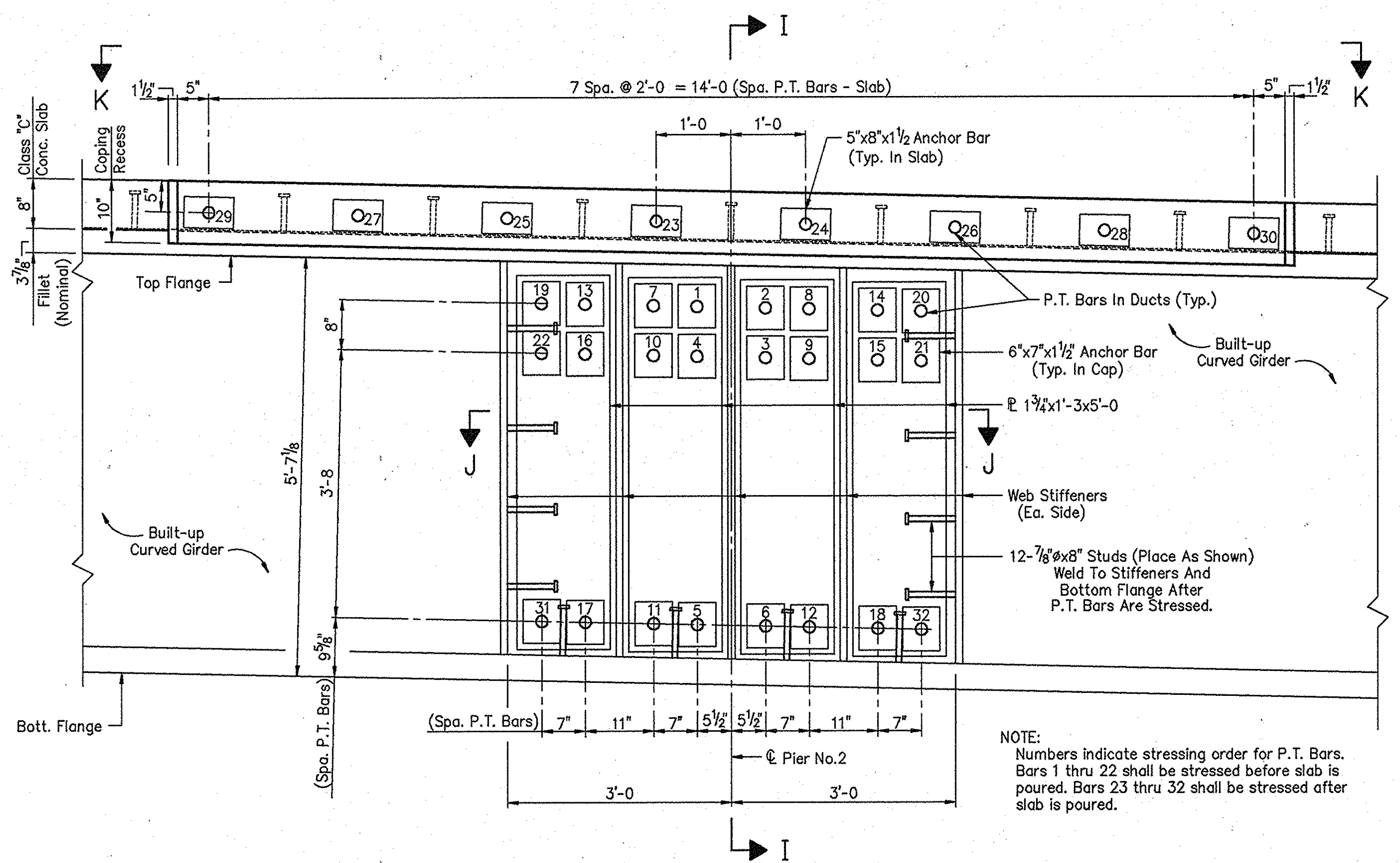
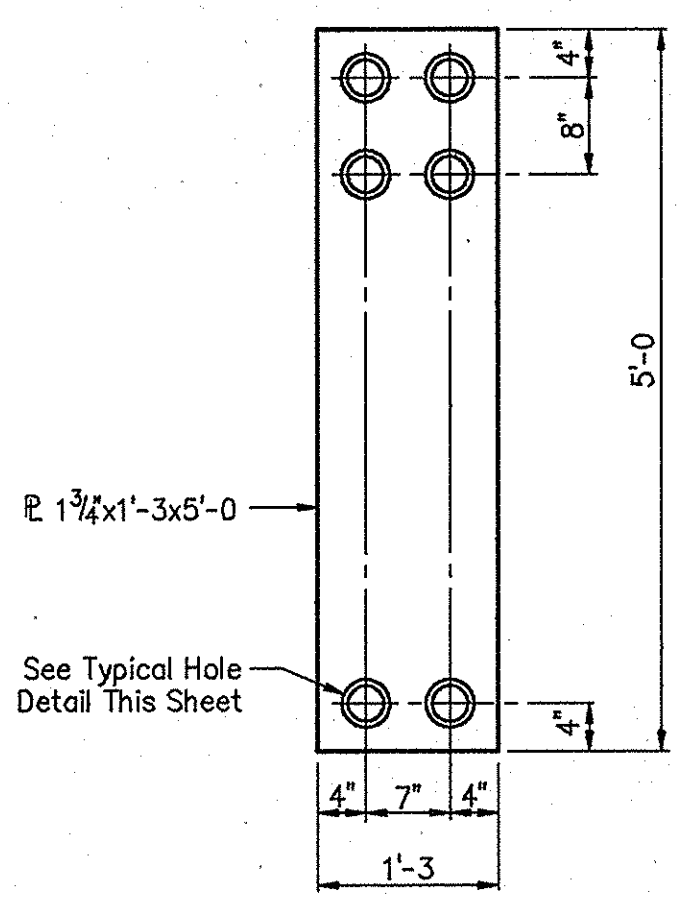
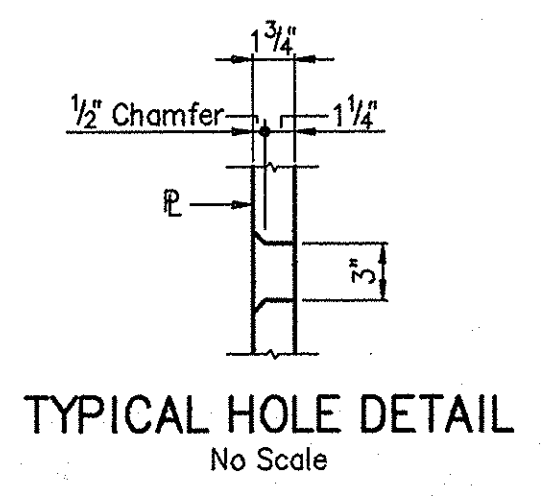
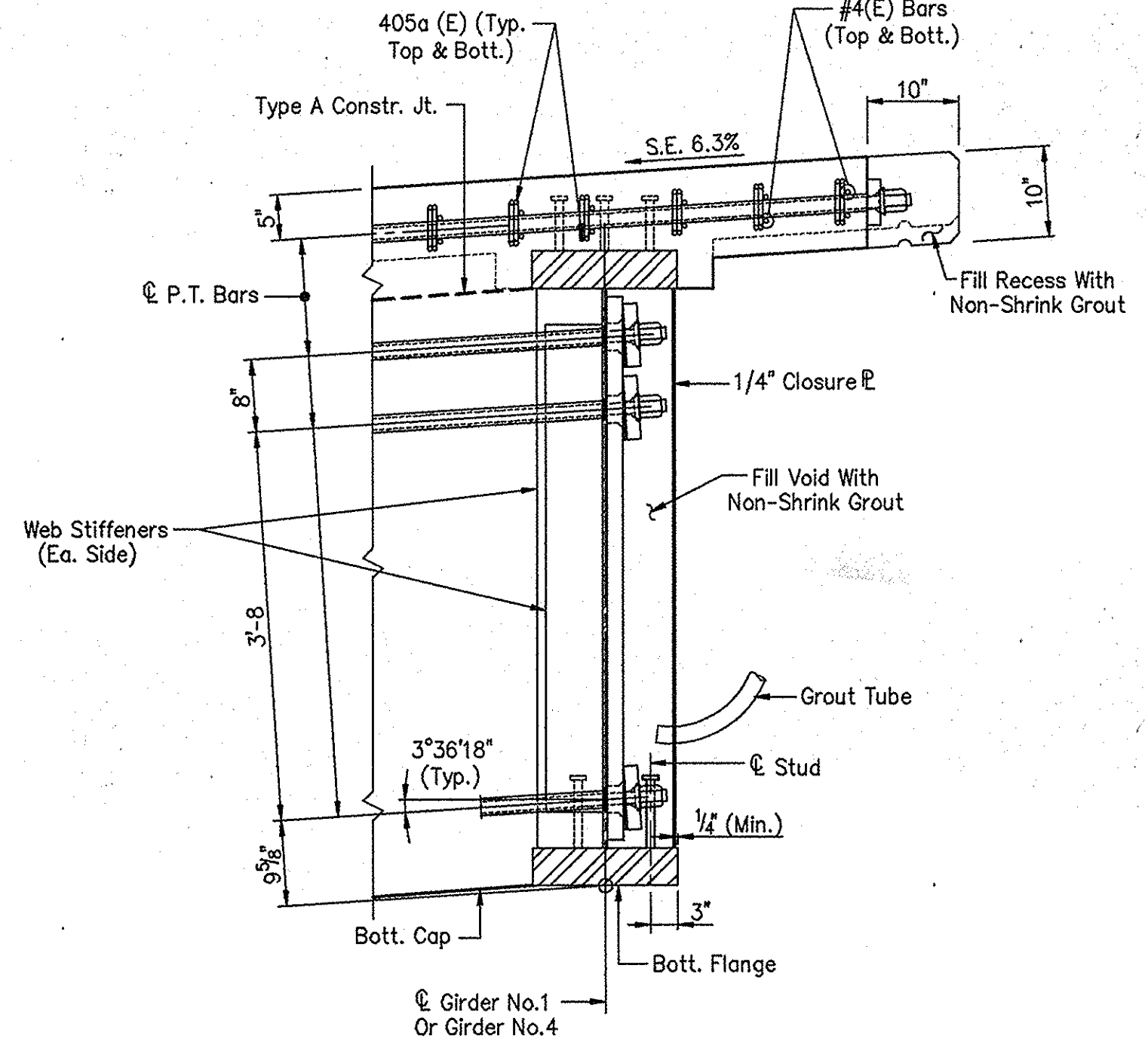
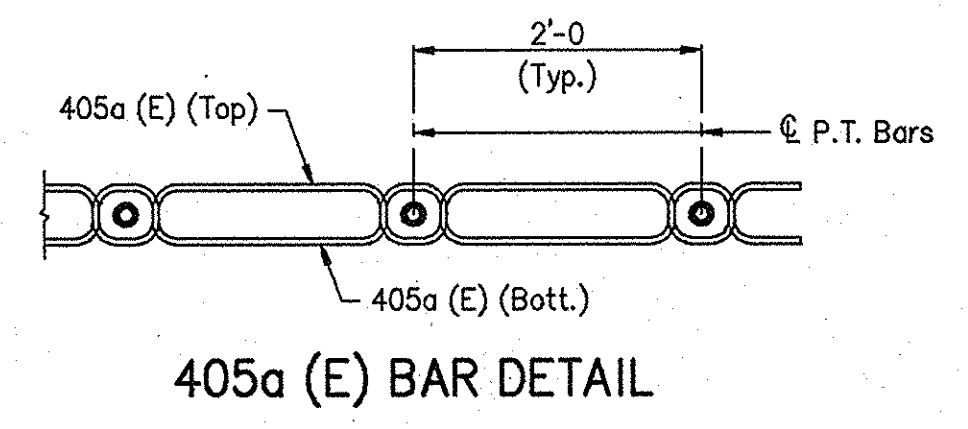
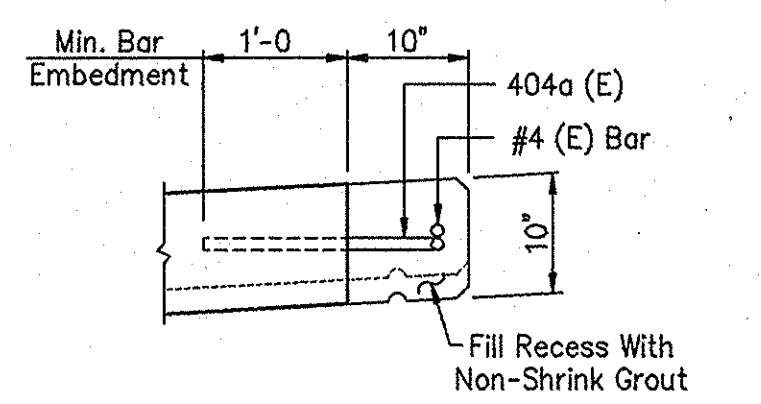
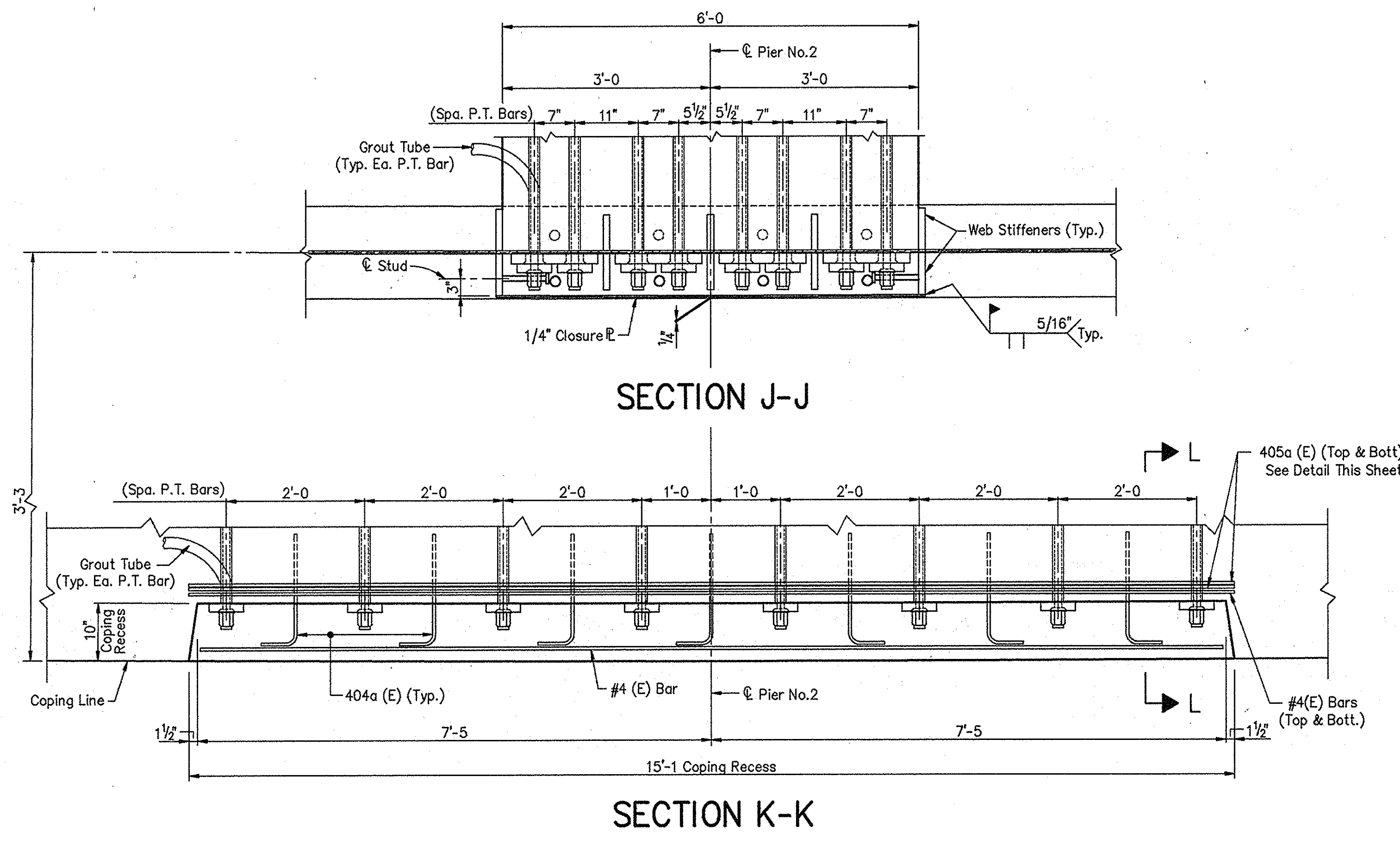
SUBMITTED FOR APPROVAL
DRAWING: - S40 OF S54 SHEET: - 55 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823



DESIGNED MDR 12/2/94 CK'D MSP 9/13/96
DRAWN RJC 12/29/94 CK'D DAD 1/6/97
TRACED _____ CK'D _____

DWG FILE: \\S131\92\20\2120814
PLOT SCALE: 1:32,000
PLOT ORIGIN: 0,0,0,0,0

SPFELCHK: _____
EDIT DATE: 07/09/98 12:08:16
EDITED BY: RJC - 5128



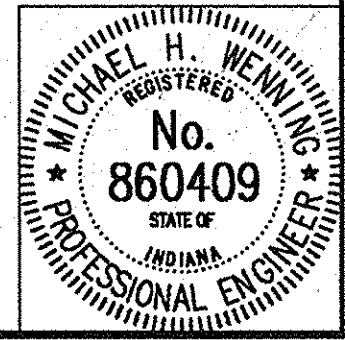
GIRDER NO.1 ELEVATION AT PIER NO.2
(Girder No.4 Similar By Opposite hand)

NOTES:
For reinforcing bar notes, see Bridge Standard C1.
(E) indicates Epoxy Coated reinforcing steel.
For Bill Of Materials and bar bending details, see Drawing S45.

FLOOR DETAILS - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

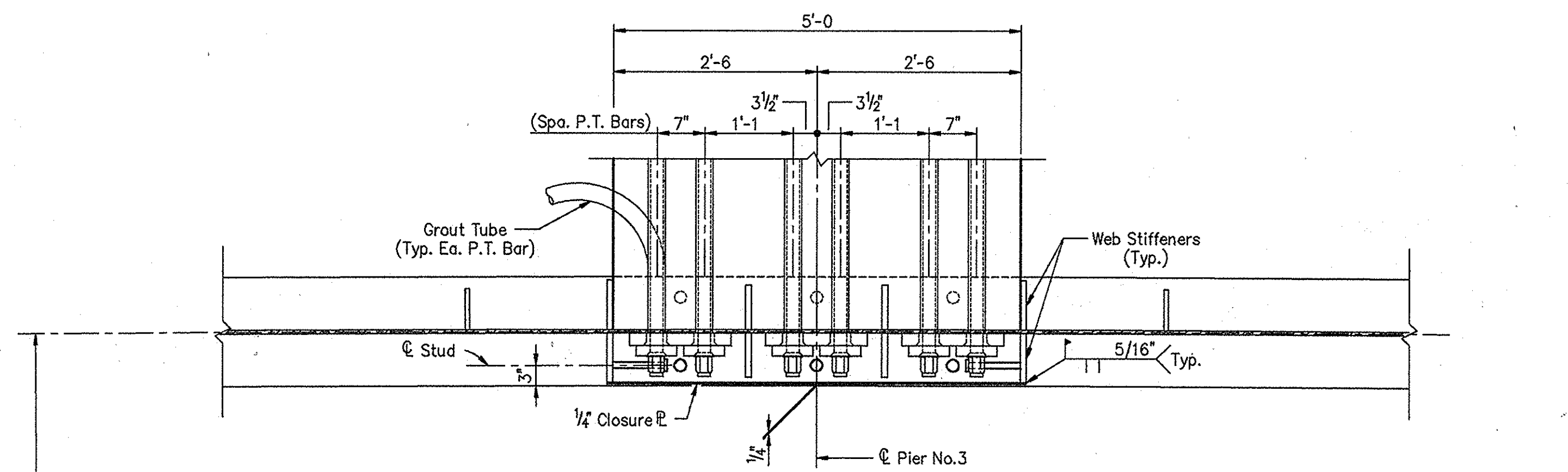
SCALE: - 3/4" = 1'-0", UNLESS NOTED DATE: - July 9, 1998
SUBMITTED FOR APPROVAL *Michael H. Weeny*

DRAWING: - S42 OF S54 SHEET: - 57 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823

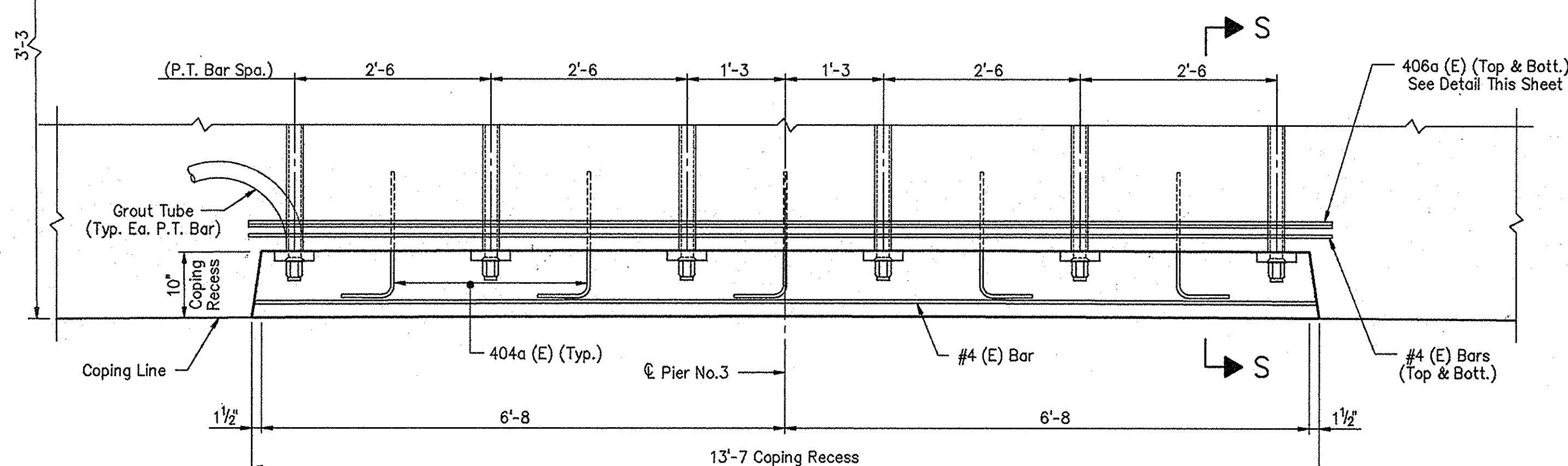


DESIGNED: MDR 3/04/98 C.K.D. MSP 6/29/98
DRAWN: RJC 5/14/98 C.K.D. MDR 7/01/98
TRACED: C.K.D.

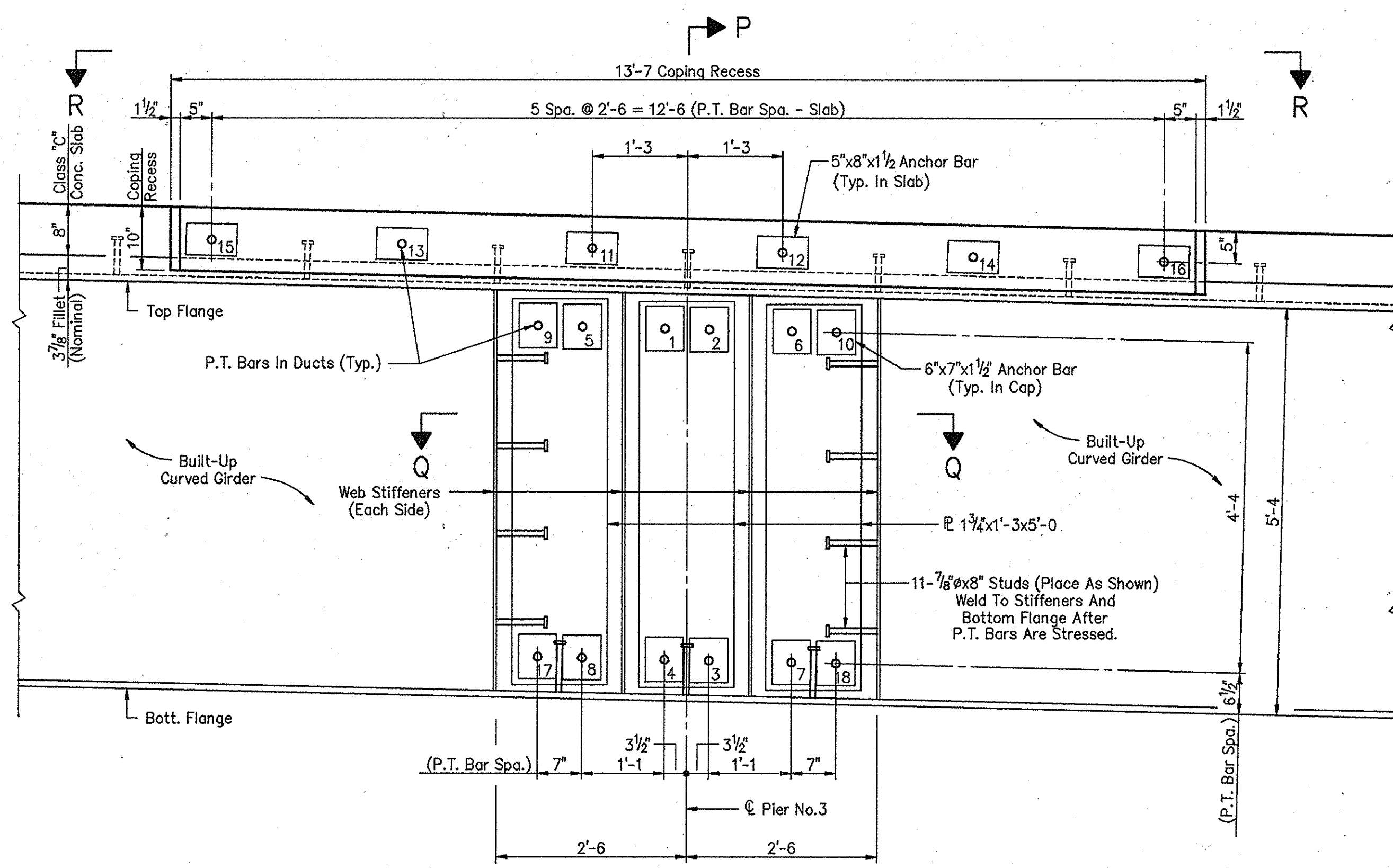
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PLOT SCALE: 1:10,000 PLOT DATE: 07/09/98 17:37:27
PLOT ORIGIN: 0.05,0.00 EDITED BY: RJC - 9128



SECTION Q-Q

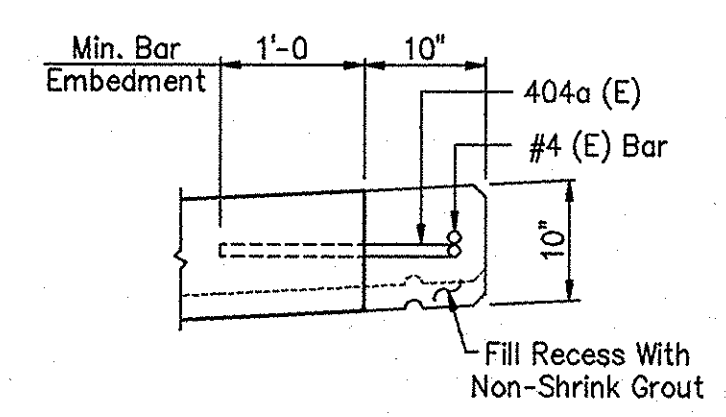


SECTION R-R

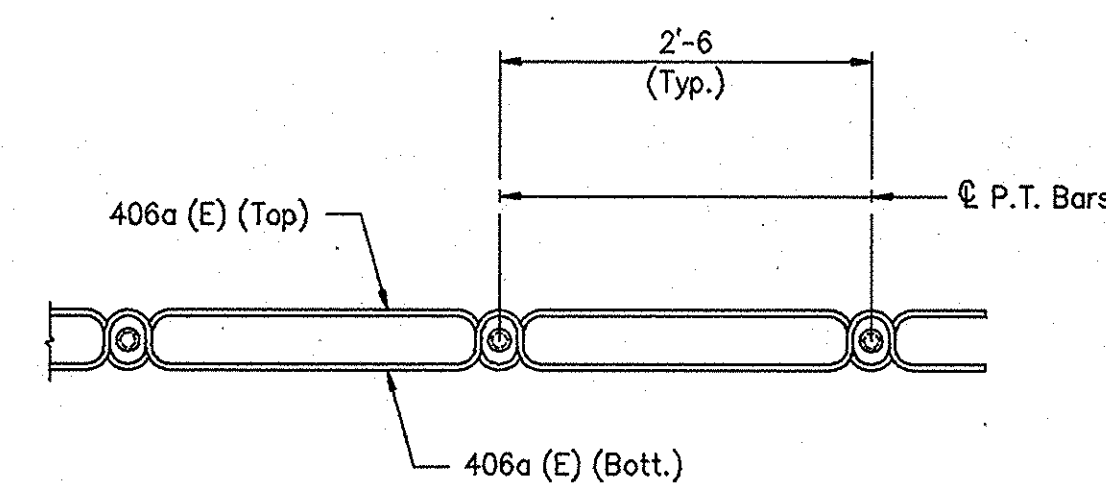


GIRDER NO.1 ELEVATION AT PIER NO.3
(Girder No.4 Similar, By Opposite Hand)

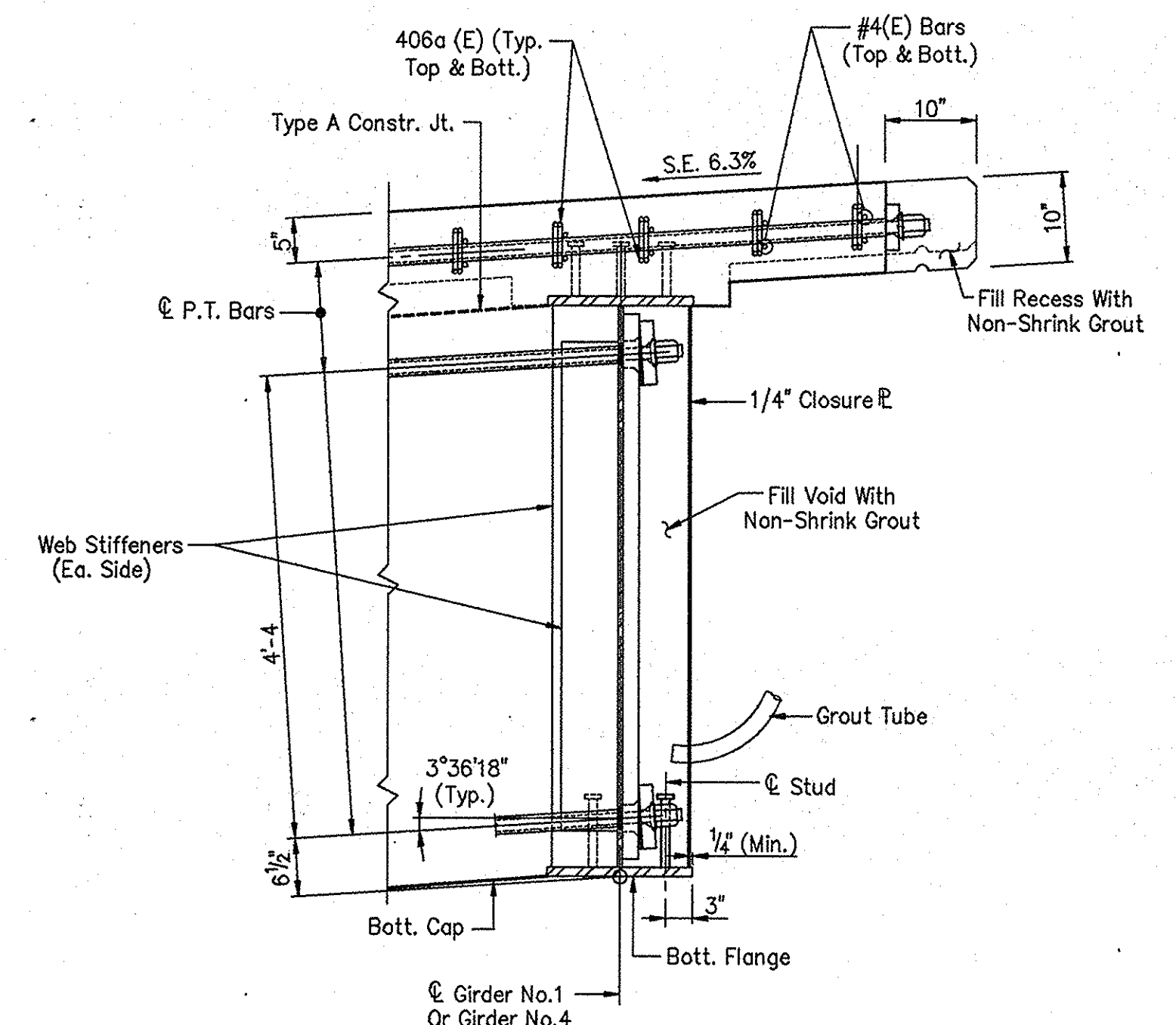
Note:
Numbers indicate stressing order for P.T. Bars.
Bars 1 thru 10 shall be stressed before slab is poured. Bars 11 thru 18 shall be stressed after slab is poured.



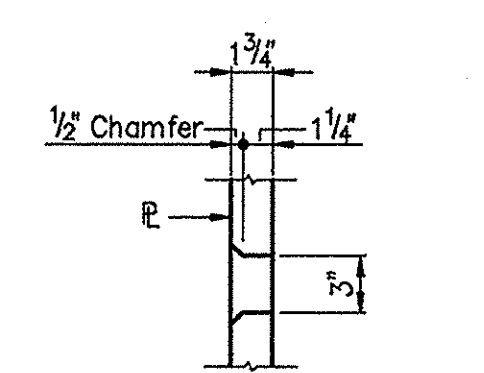
SECTION S-S



406a (E) BAR DETAIL



SECTION P-P



TYPICAL HOLE DETAIL
No Scale

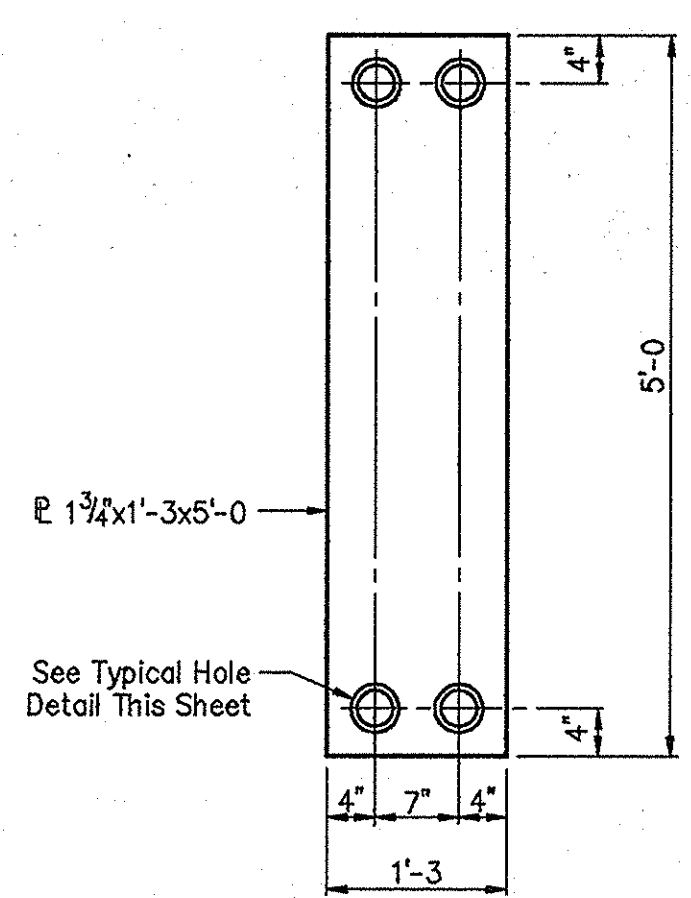


PLATE DETAIL

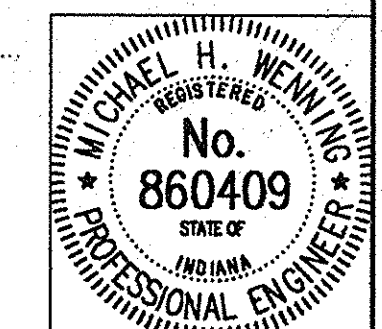
NOTES:
For reinforcing bar notes, see Bridge Standard C1.
(E) indicates Epoxy Coated reinforcing steel.
For Bill Of Materials and bar bending details, see Drawing S45.

FLOOR DETAILS - UNIT "A"
INDIANAPOLIS DEPARTMENT OF TRANSPORTATION

SCALE: - 3/4" = 1'-0", UNLESS NOTED DATE: - July 9, 1998

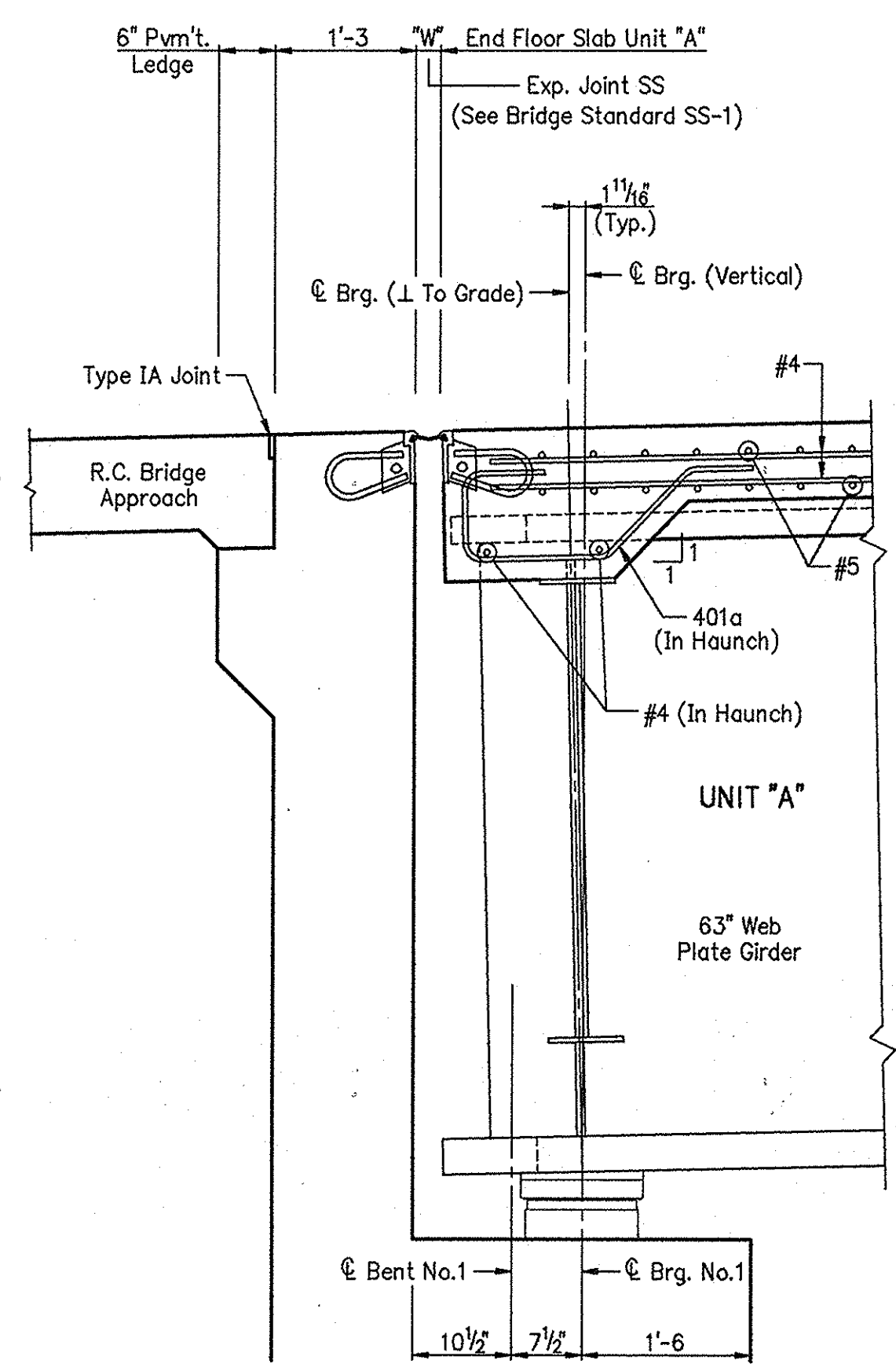
SUBMITTED FOR APPROVAL *Michael H. Werning*

DRAWING: - S44 OF S54 SHEET: - 59 OF 81
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823

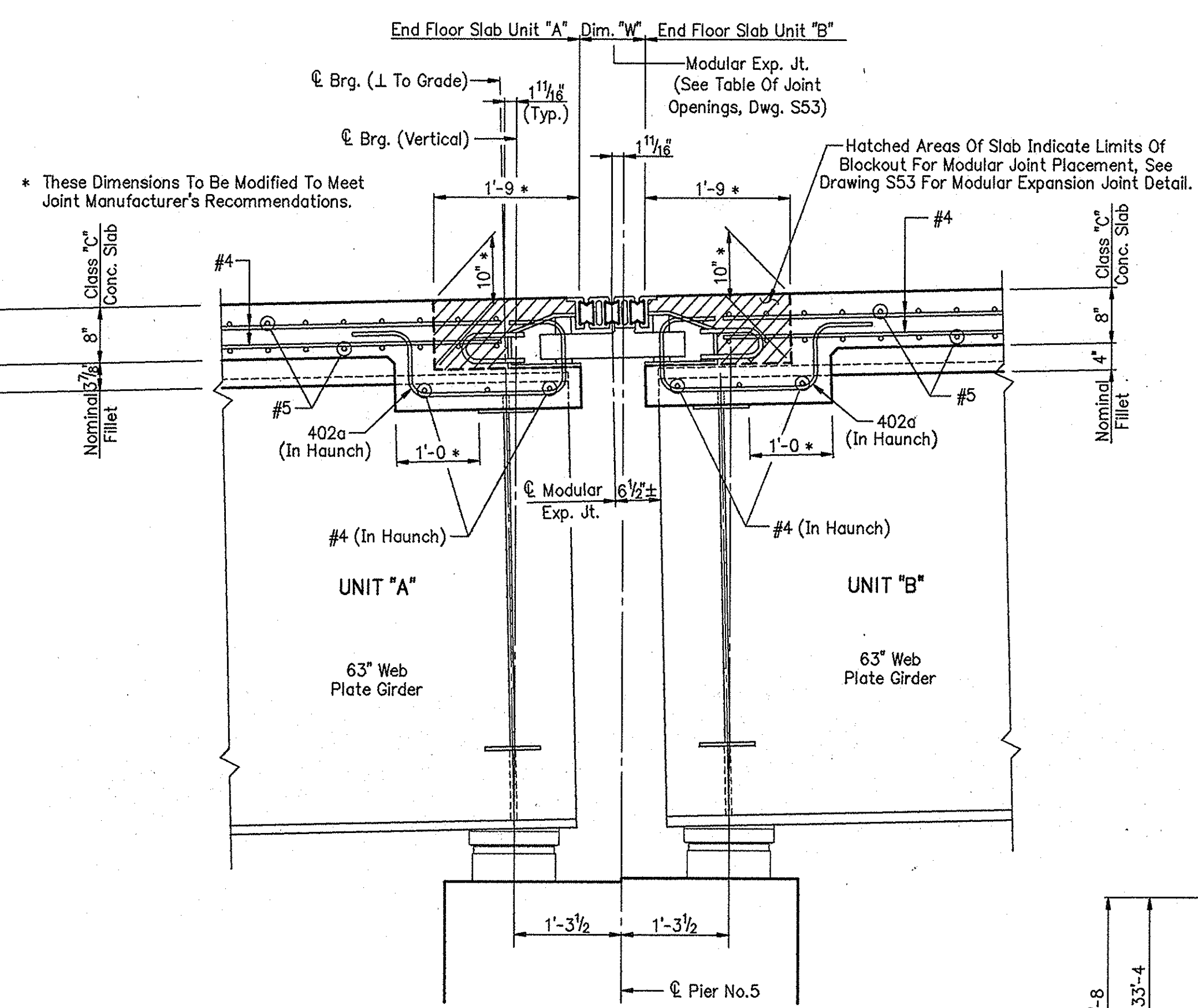


DESIGNED: MDR 3/4/98 C/K/D MSP 6/29/98
DRAWN: TLH 4/14/98 C/K/D MDR 7/01/98
TRACED: C/K/D

DWG FILE: \151\31\42\120\02120657 SPLOTTING: 07/10/98 10:20:30
PLOT SCALE: 1/8"=1'-0" EDIT DATE:
PLOT ORIGIN: 0.00,0.00 EDIT BY: RJC - 5128



SECTION B-B



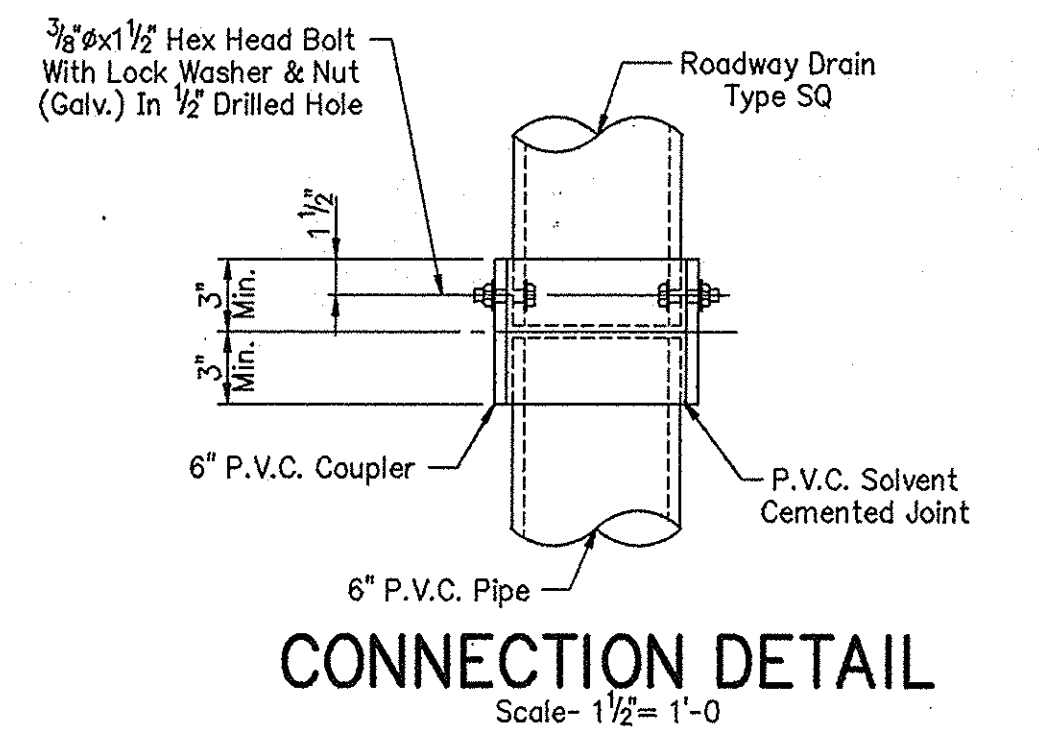
SECTION C-C

Bill of Materials Continued		
Miscellaneous		
Surface Seal		29,000 Sft.
Masonry Coating		10,550 Sft.
Barrier Delineators	58	Each
2" Galvanized Steel Pipe Conduit	562	Lft.
Cast Iron Grates, Basins And Fittings		
1- Standard Roadway Drain		
Type SQ, Grate A	192	Lbs.
2- Conduit Pull Boxes @ 105 Lbs. Each	210	Lbs.
Total Cast Iron Grates, Basins And Fittings	402	Lbs.
Pipe, PVC, 6"	6	Lft.
Expansion Joint SS	39	Lft.
Post-Tensioning Bars, 1 1/4"		
Pier No.2 (In Cap & Slab)	4383	Lbs.
Pier No.3 (In Cap & Slab)	2495	Lbs.
Post-Tensioning Ducts, 1 5/8" I.D.		
Pier No.2 (In Cap & Slab)	951	Lft.
Pier No.3 (In Cap & Slab)	542	Lft.
Anchor Bars, 6"x7"x1 1/2"		
Pier No.2 (In Cap)	48	Ea.
Pier No.3 (In Cap)	24	Ea.
Anchor Bars, 5"x8"x1 1/2"		
Pier No.2 (In Slab)	16	Ea.
Pier No.3 (In Slab)	12	Ea.
Structural Steel *		
Pier No.2 (In Cap)	4254	Lbs.
Pier No.3 (In Cap)	3251	Lbs.

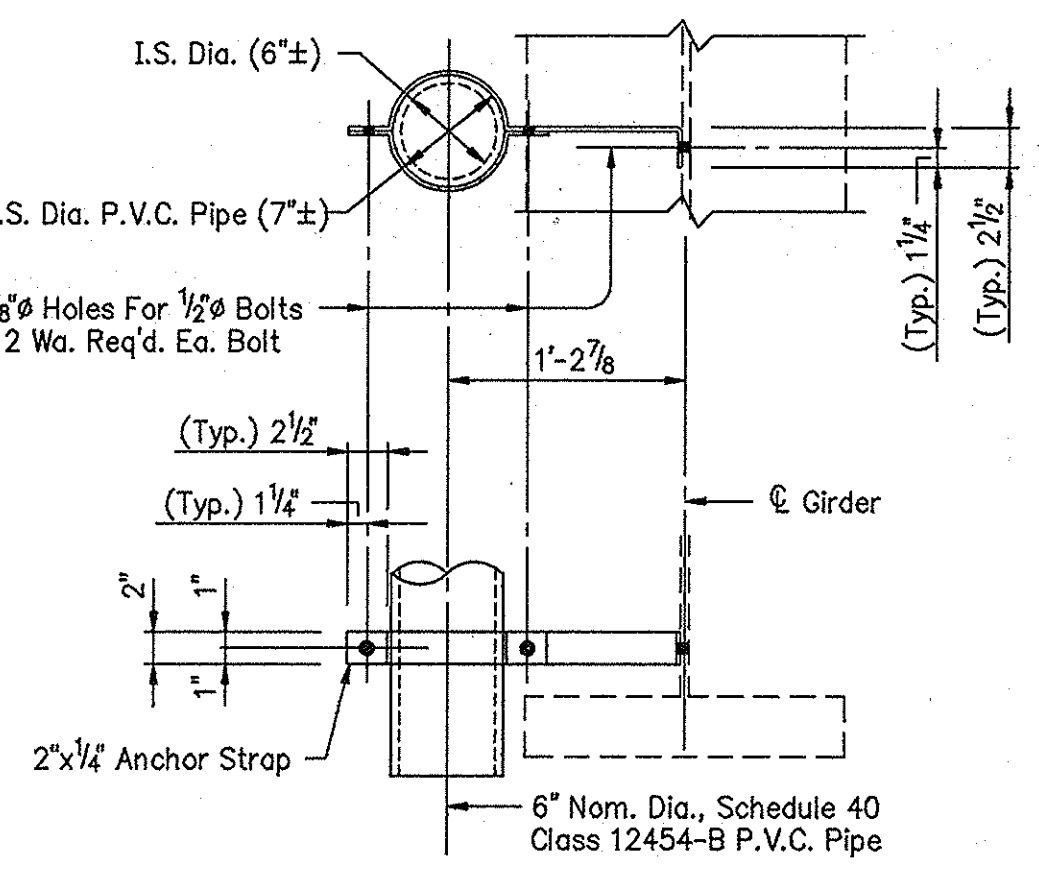
* Included In The Estimated Weight Of Structural Steel, See Dwr. S27.

SUPERSTRUCTURE BILL OF MATERIALS

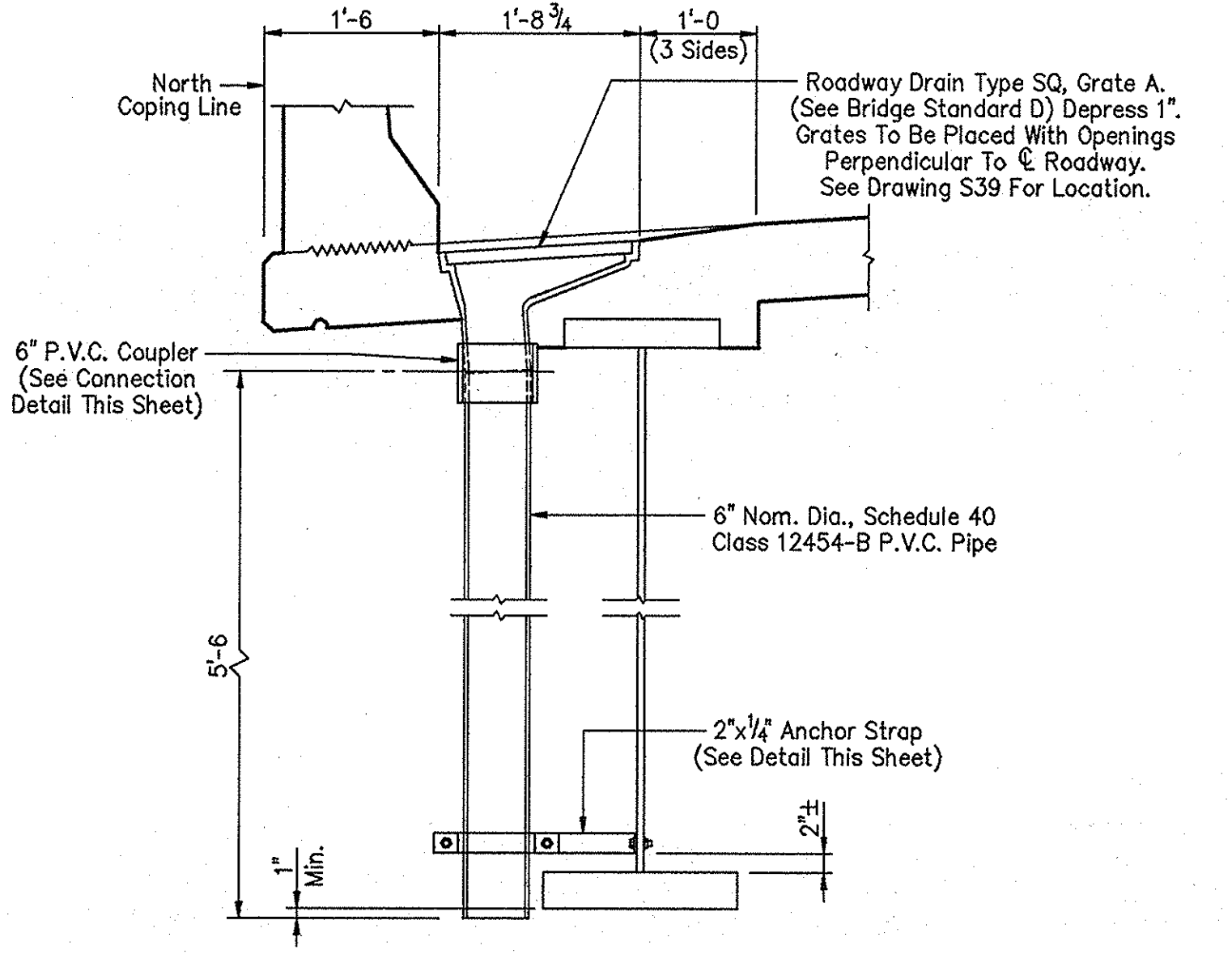
Epoxy Coated Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
601a	40	22'-8"	
603a	20	23'-2"	
#6	213	31'-6"	
#6	142	30'-9"	
#6	142	23'-0"	
Total No.6			23,600
501a	1700	5'-5"	
502a	3400	4'-1"	
503a	42	34'-8"	
#5	2	39'-8"	
#5	2304	34'-6"	
#5	124	33'-0"	
#5	336	24'-6"	
#5	8	18'-0"	
#5	8	15'-6"	
#5	16	10'-6"	
#5	16	8'-9"	
#5	16	3'-9"	
#5	8	3'-6"	
Total No.5			122,138
401a	27	4'-5"	
402a	27	4'-9"	
404a	24	2'-4"	
405a	24	21'-0"	
406a	20	18'-2"	
#4	72	40'-6"	
#4	840	39'-6"	
#4	72	38'-3"	
#4	180	36'-6"	
#4	72	35'-6"	
#4	24	15'-3"	
#4	20	13'-9"	
#4	6	9'-0"	
#4	9	7'-6"	
Total No.4			33,340
Total Epoxy Coated Reinforcing Steel			179,078
Plain Reinforcing Steel			
602a	12	20'-2"	
604a	6	21'-2"	
#6	48	9'-0"	
#6	27	7'-9"	
Total Plain Reinforcing Steel			1517
Concrete			
Class "C" In Superstructure			526.8 Cys.
Concrete Railing Class "C"			
North Coping			72.3 Cys.
South Coping			79.4 Cys.
Total Concrete Railing Class "C"			151.7 Cys.
Special Class "C" Concrete			
Pier No.2 (In Cap)			35.6 Cys.
Pier No.3 (In Cap)			28.3 Cys.
Total Special Class "C" Concrete			63.9 Cys.



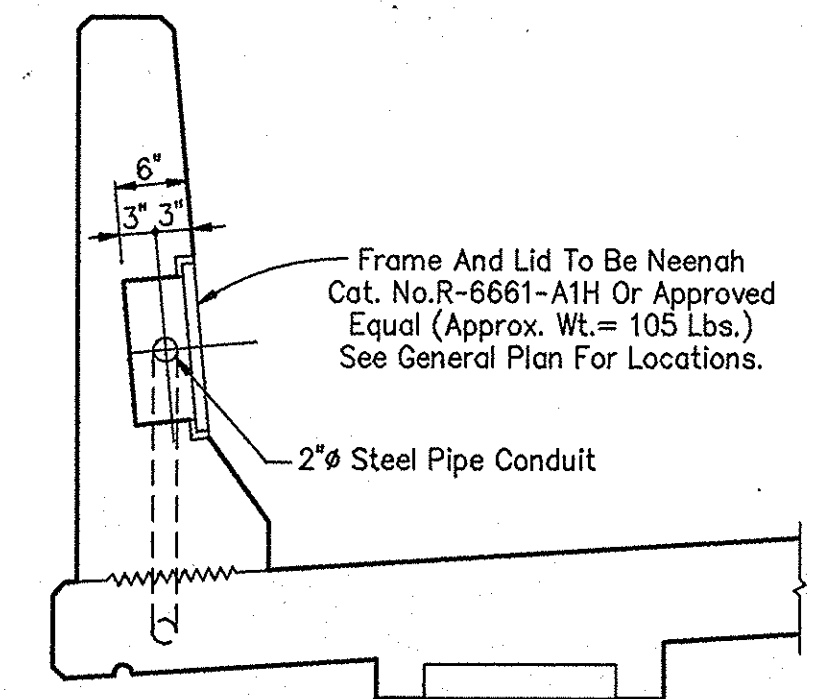
CONNECTION DETAIL
Scale: 1 1/2" = 1'-0"



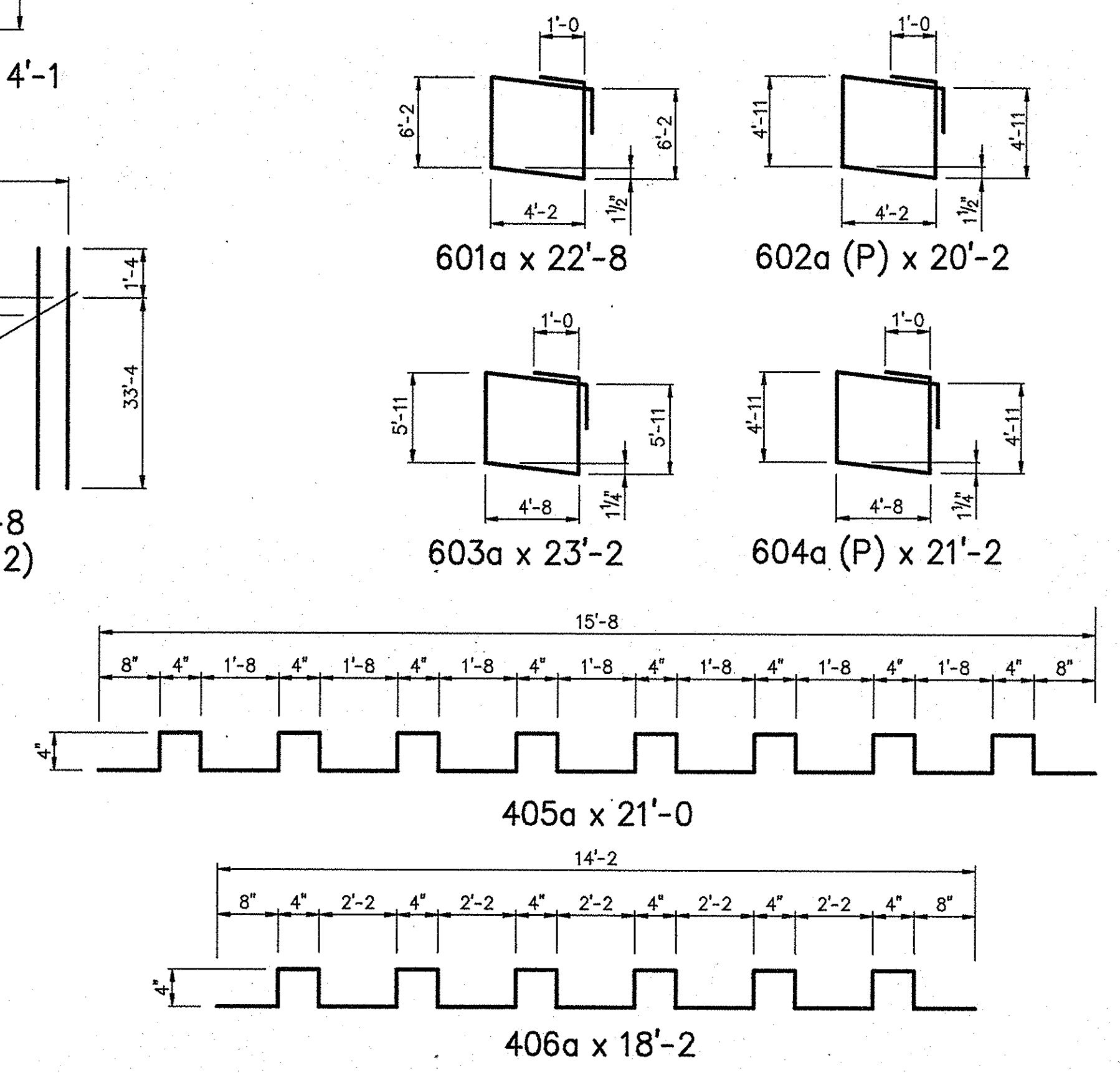
DRAIN PIPE BRACKET DETAIL
Scale: 1" = 1'-0"



SECTION @ ROADWAY DRAIN TYPE SQ-A
(1 REQUIRED)



CONDUIT PULL BOX



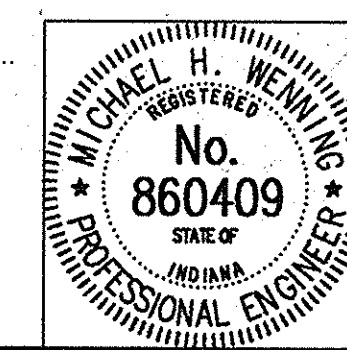
NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 All reinforcing steel to be epoxy coated, except as noted.
 (P) Indicates plain reinforcing steel.
 For location of Sections B-B and C-C, see Drawing S39.
 For modular expansion joint details, see Drawing S53.

FLOOR DETAILS - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/4" = 1'-0, Unless Noted DATE: - July 9, 1998

SUBMITTED FOR APPROVAL *Michael H. Weening*

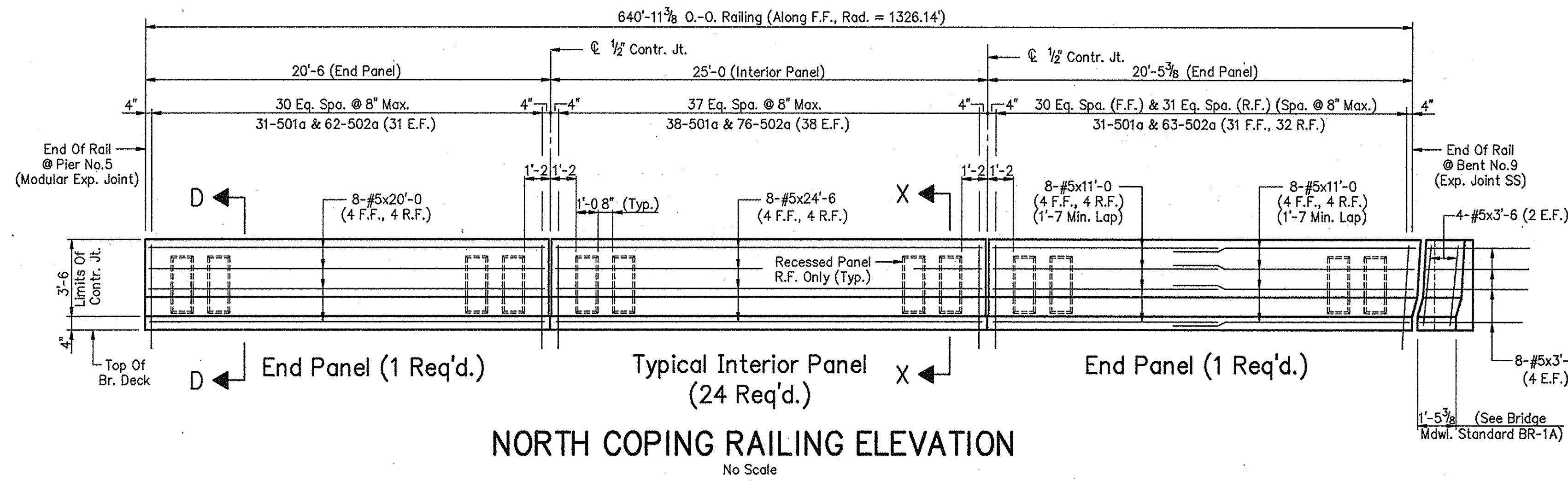
DRAWING: - S45 OF S54 SHEET: - 60 OF 81
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7823



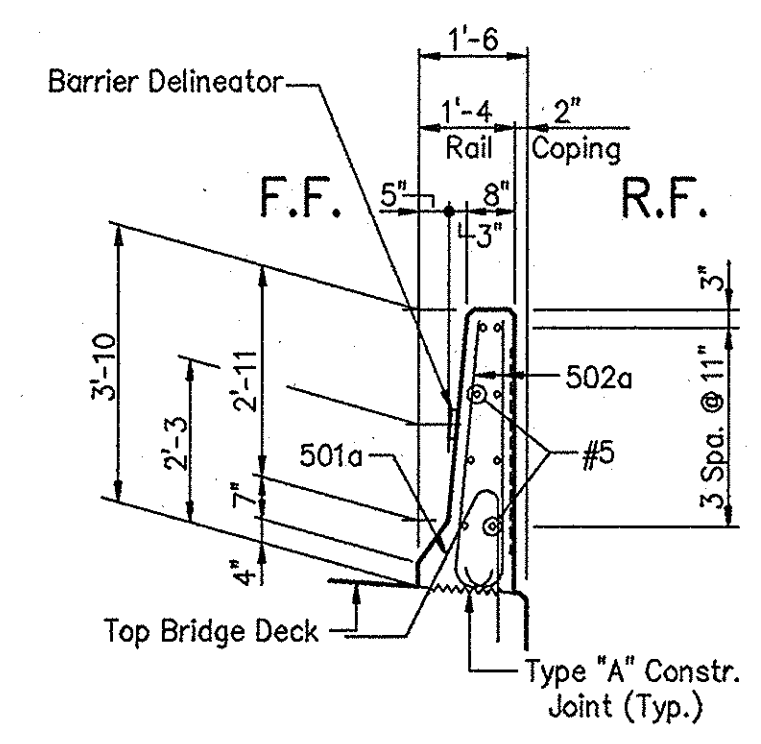
DESIGNED: CKYD
 DRAWN: DSH 9/20/98
 TRACED: CKYD

SPR: 11/18/00
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 PLOT ORIGIN: 0.00,0.00

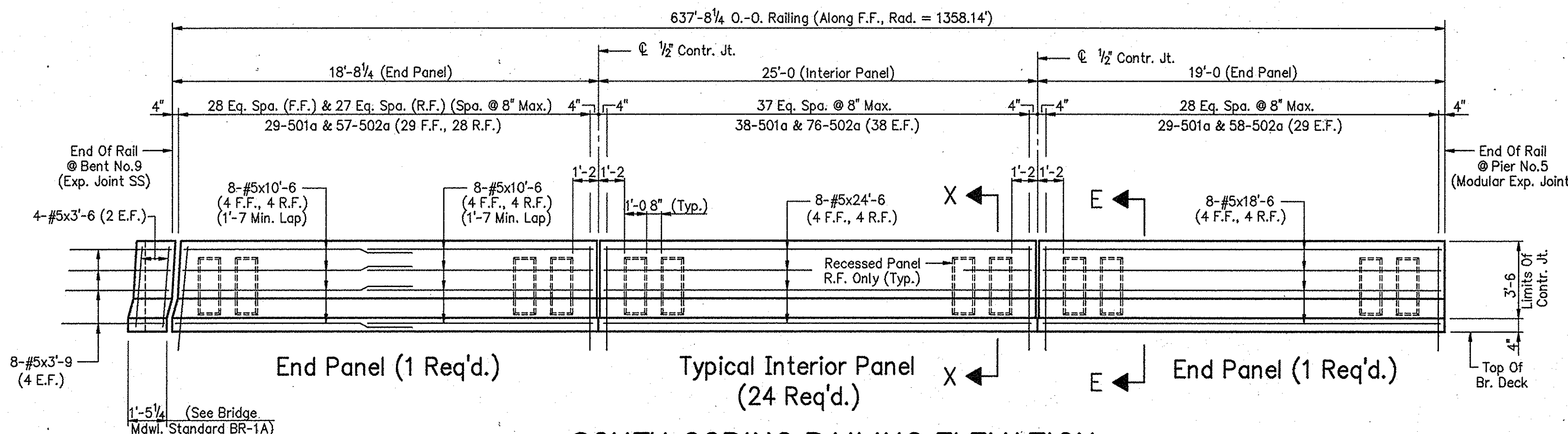
SPELLING: 07/10/98 08:24:06
 EDITED BY: RAC - S128



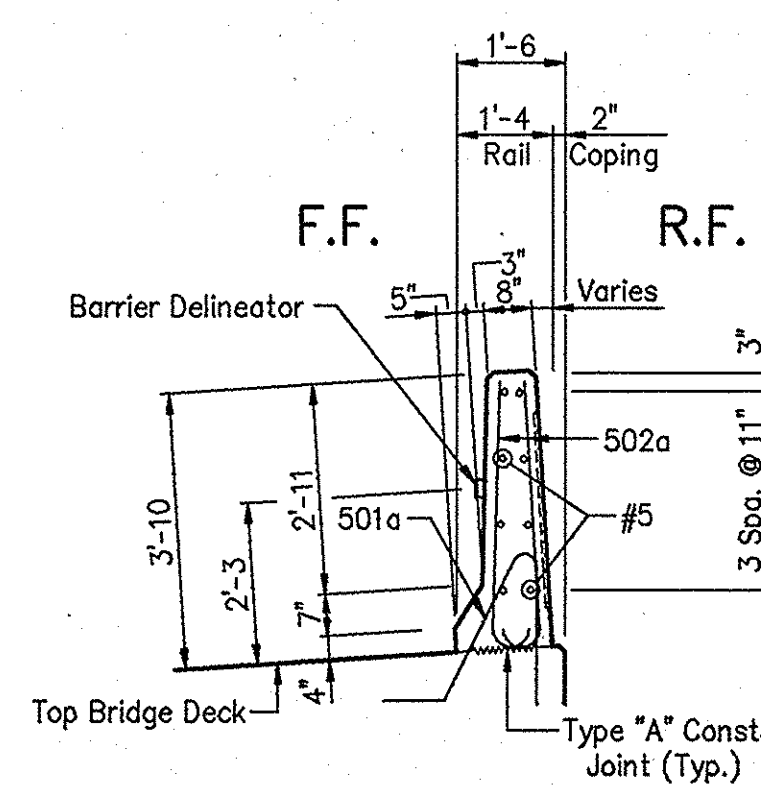
NORTH COPING RAILING ELEVATION
No Scale



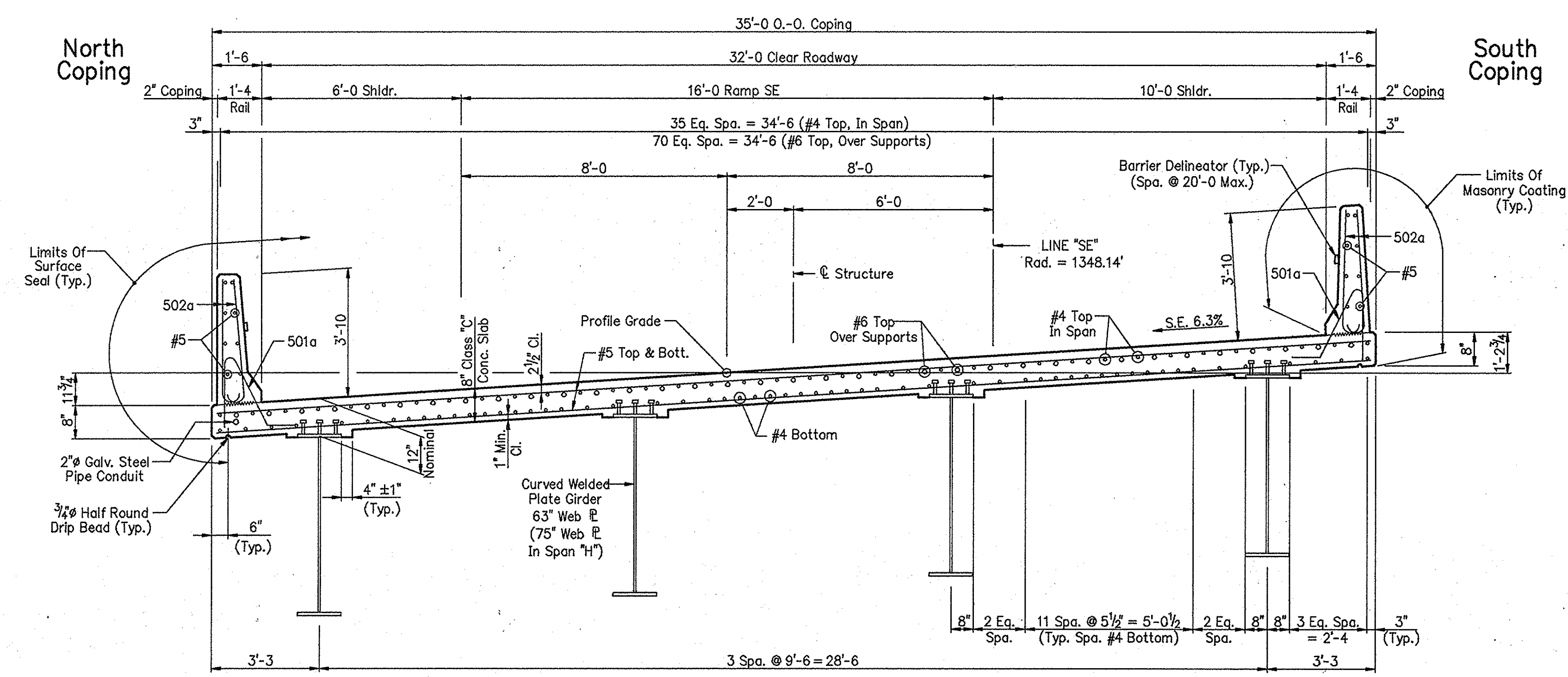
SECTION D-D



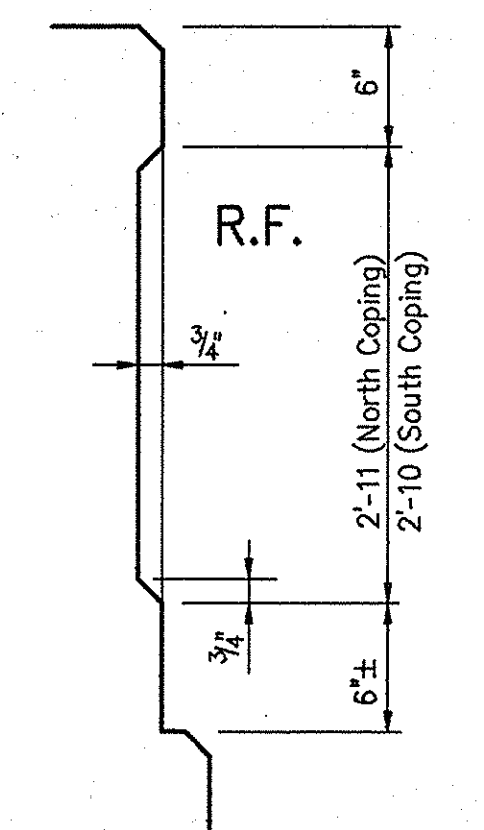
SOUTH COPING RAILING ELEVATION
No Scale



SECTION E-E



SECTION A-A
No Scale



PARTIAL SECTION X-X
Showing Recessed Panel
No Scale

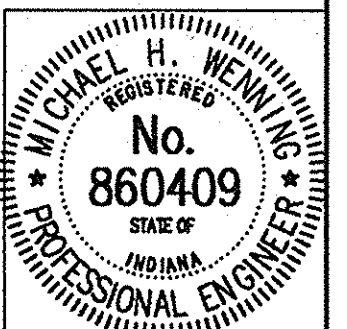
NOTES:
For reinforcing bar notes, see Bridge Standard C1.
All reinforcing steel to be epoxy coated.
For location of Section A-A, see Drawing S46.

FLOOR DETAILS - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/8" = 1'-0, Unless Noted DATE: - July 9, 1998

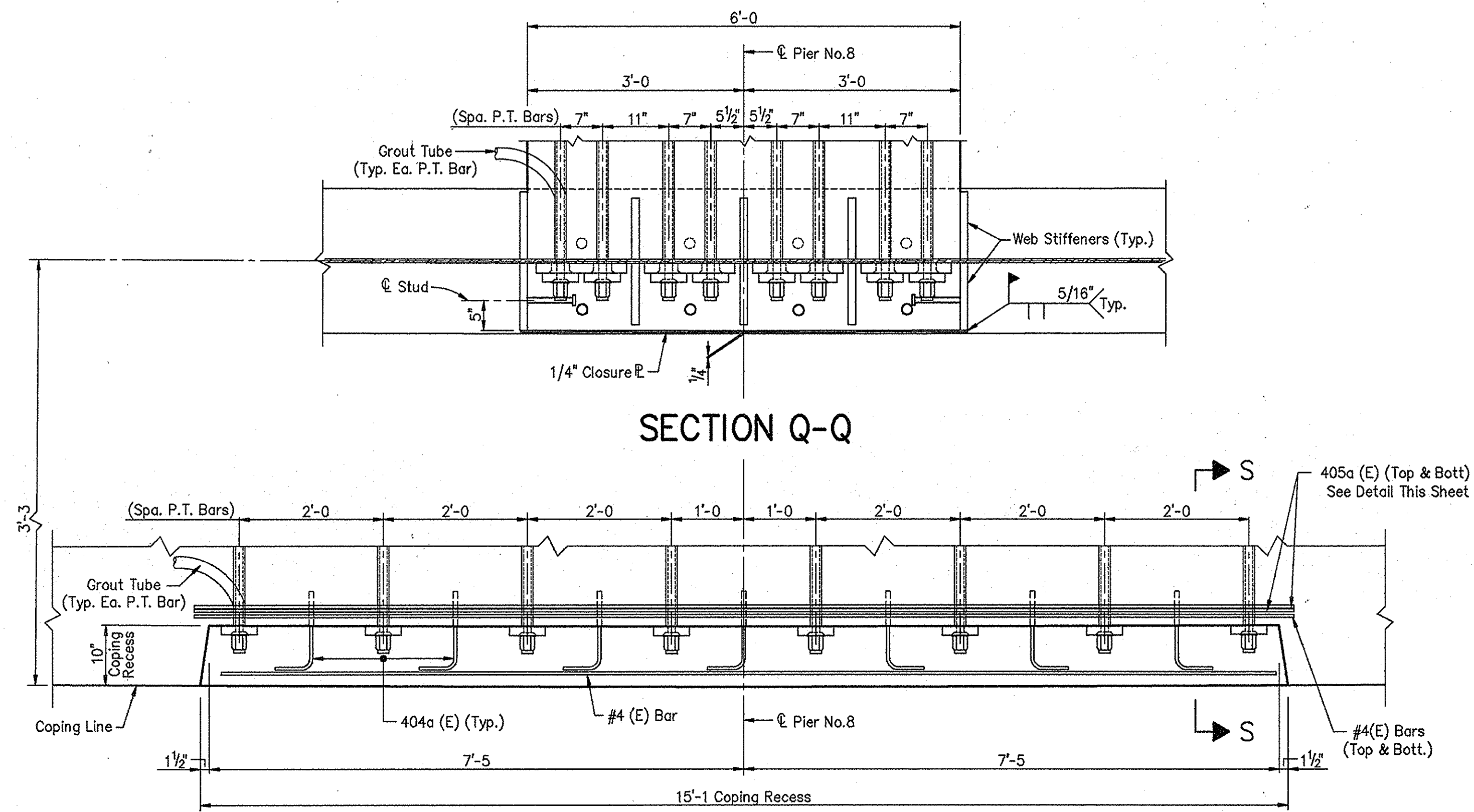
SUBMITTED FOR APPROVAL *[Signature]*

DRAWING: - S47 OF S54 SHEET: - 62 OF 81
PROJECT: - IM-80-1 (143) 4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823

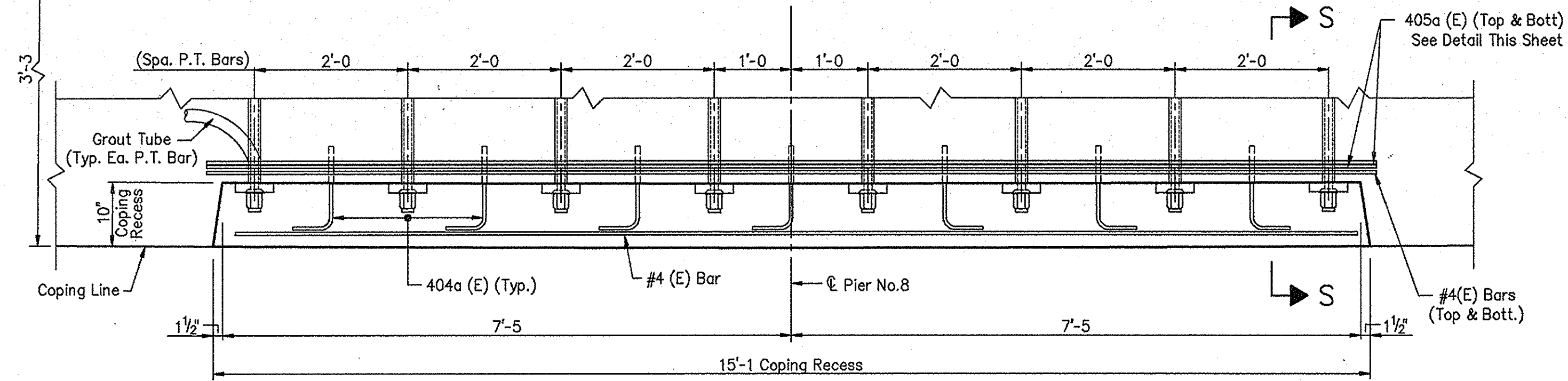


DESIGNED MDR 12/2/94 C.K.D. MSP 9/13/96
DRAWN RJC 12/29/94 C.K.D. DAD 1/27/97
TRACED C.K.D.

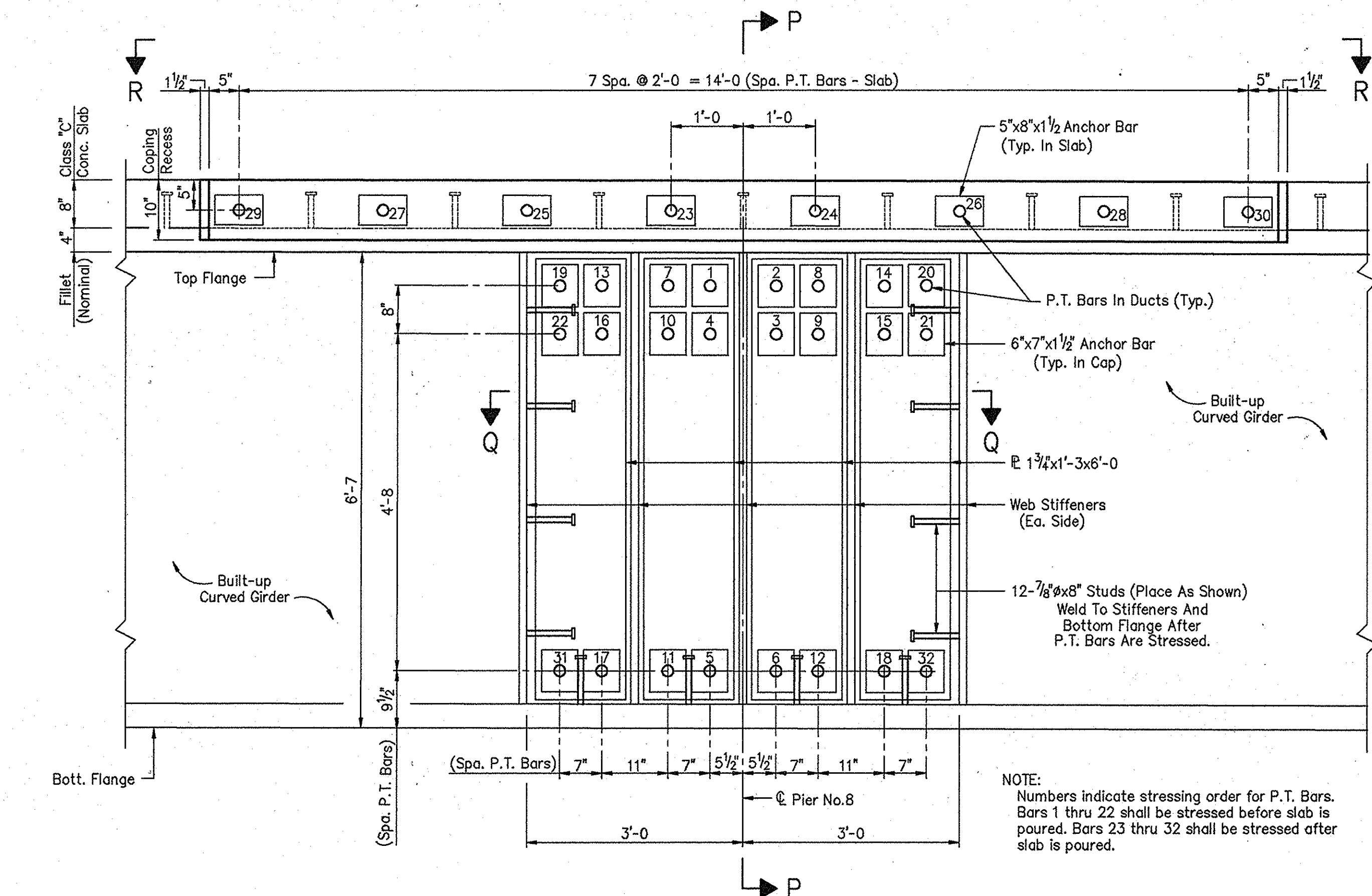
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EDIT DATE: 07/09/98 16:43:19
EDITED BY: TLH - 5131



SECTION Q-Q

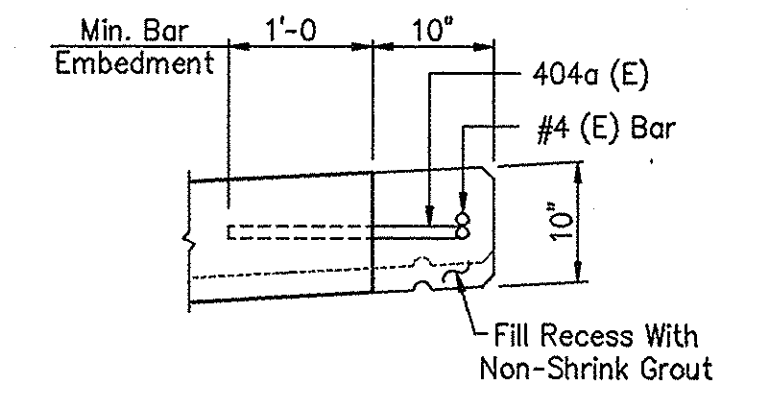


SECTION R-R

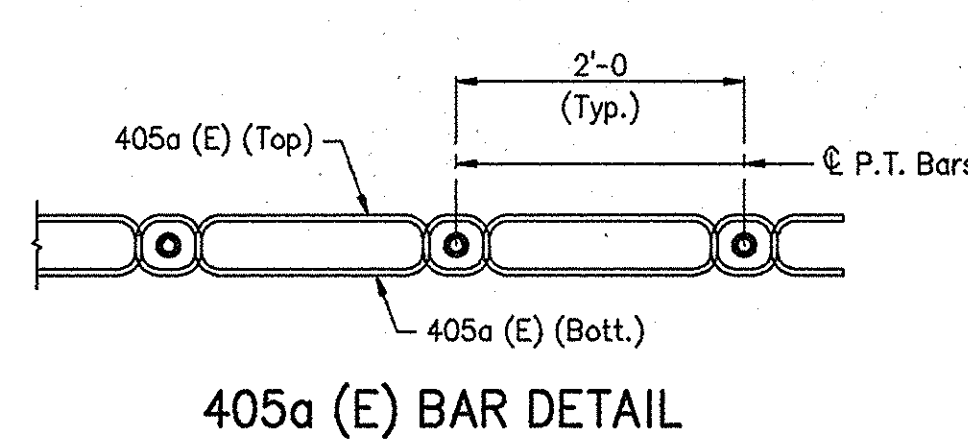


GIRDER NO.1 ELEVATION AT PIER NO.8
(Girder No.4 Similar By Opposite hand)

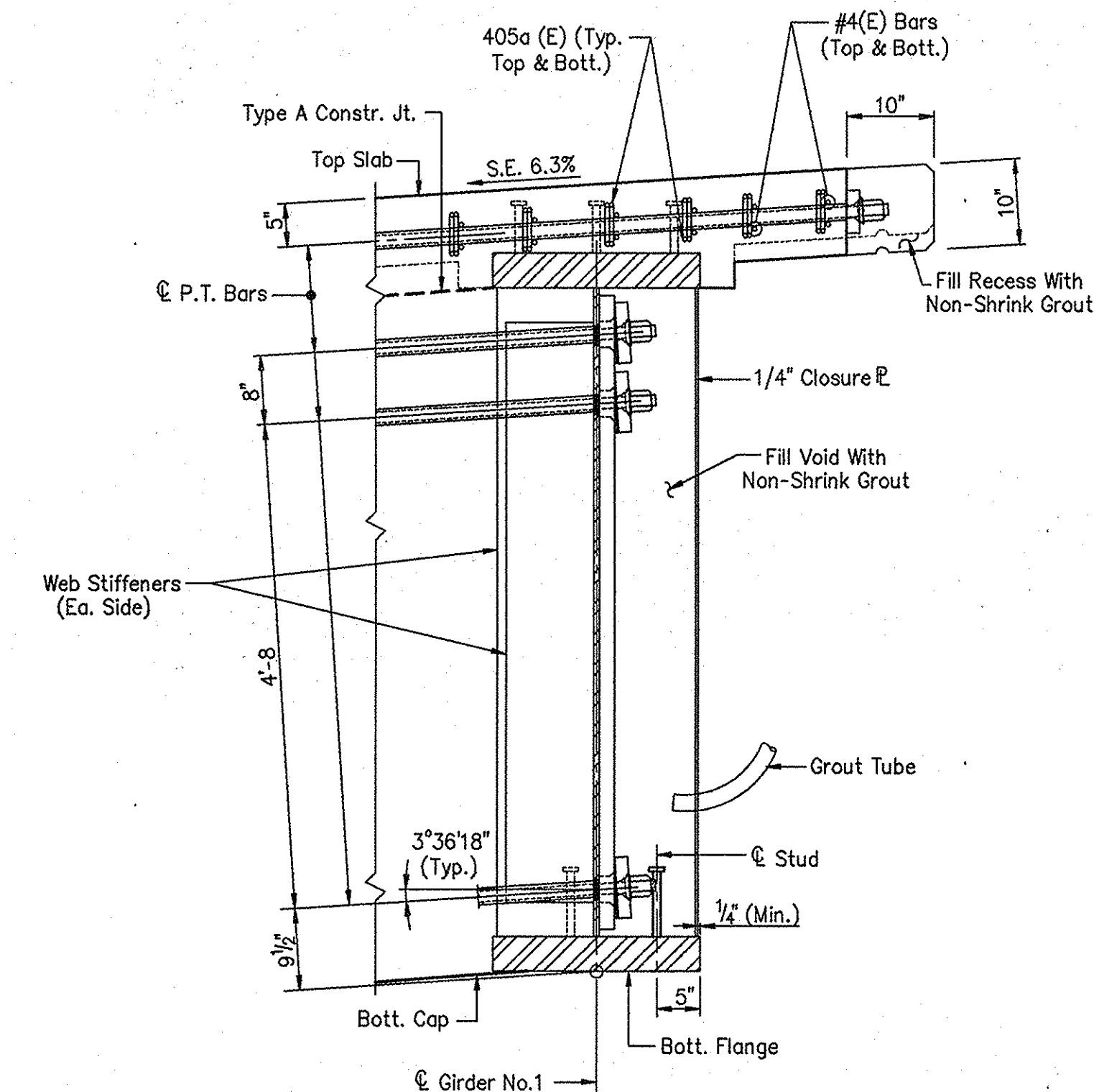
NOTE:
Numbers indicate stressing order for P.T. Bars. Bars 1 thru 22 shall be stressed before slab is poured. Bars 23 thru 32 shall be stressed after slab is poured.



SECTION S-S

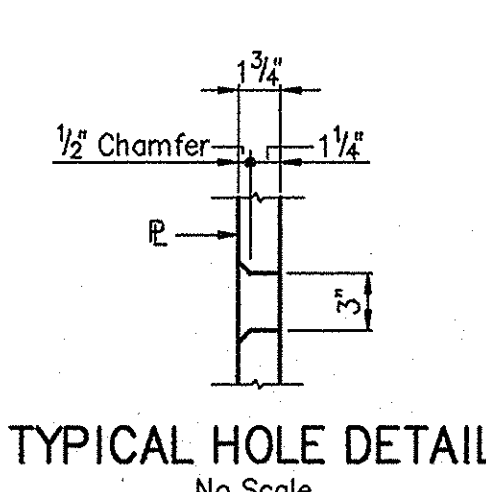


405a (E) BAR DETAIL



SECTION P-P

NOTES:
For reinforcing bar notes, see Bridge Standard C1.
(E) Indicates Epoxy Coated reinforcing steel.
For Bill Of Materials and bar bending details, see Drawing S52.



TYPICAL HOLE DETAIL
No Scale

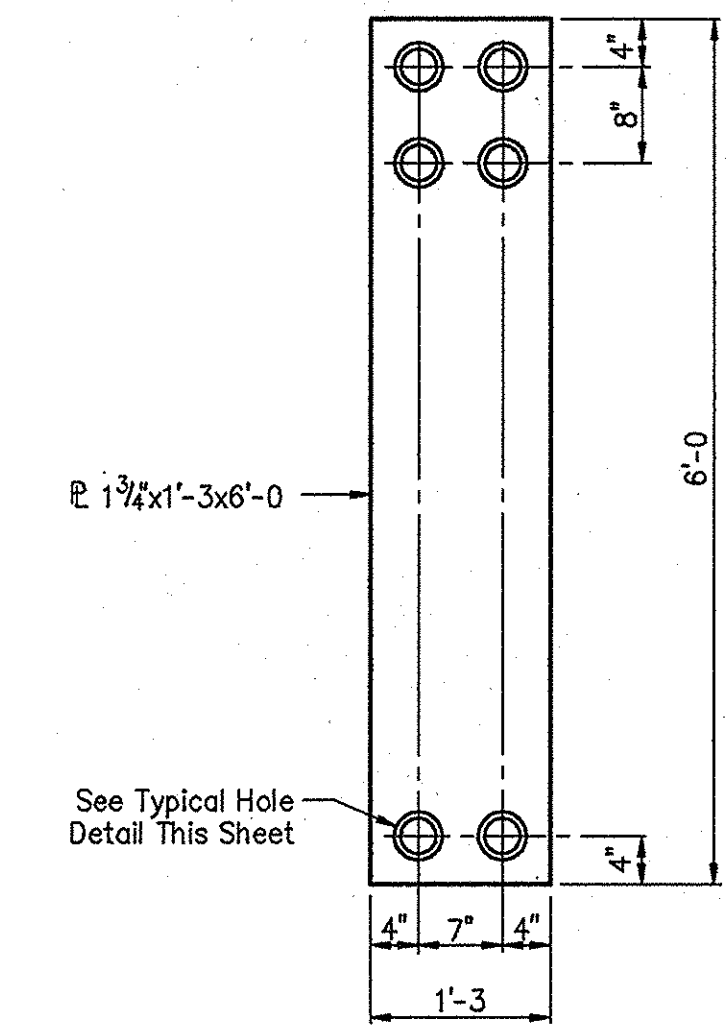


PLATE DETAIL

FLOOR DETAILS - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/4" = 1'-0", UNLESS NOTED DATE: - July 9, 1998

SUBMITTED FOR APPROVAL

DRAWING: - S51 OF S54 SHEET: - 66 OF 81

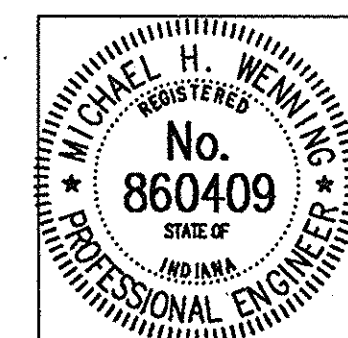
PROJECT: - IM-80-1 (143) 4

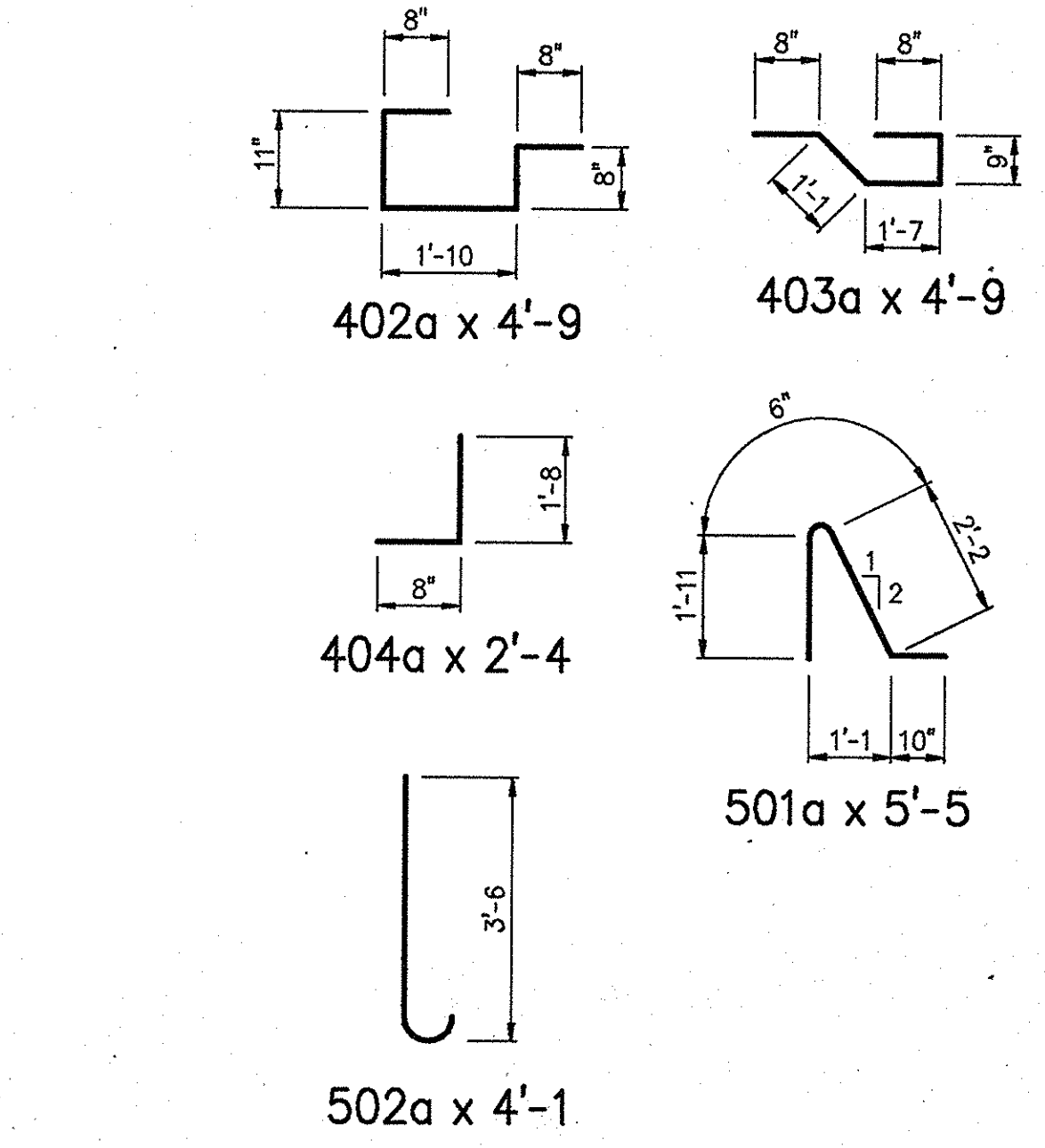
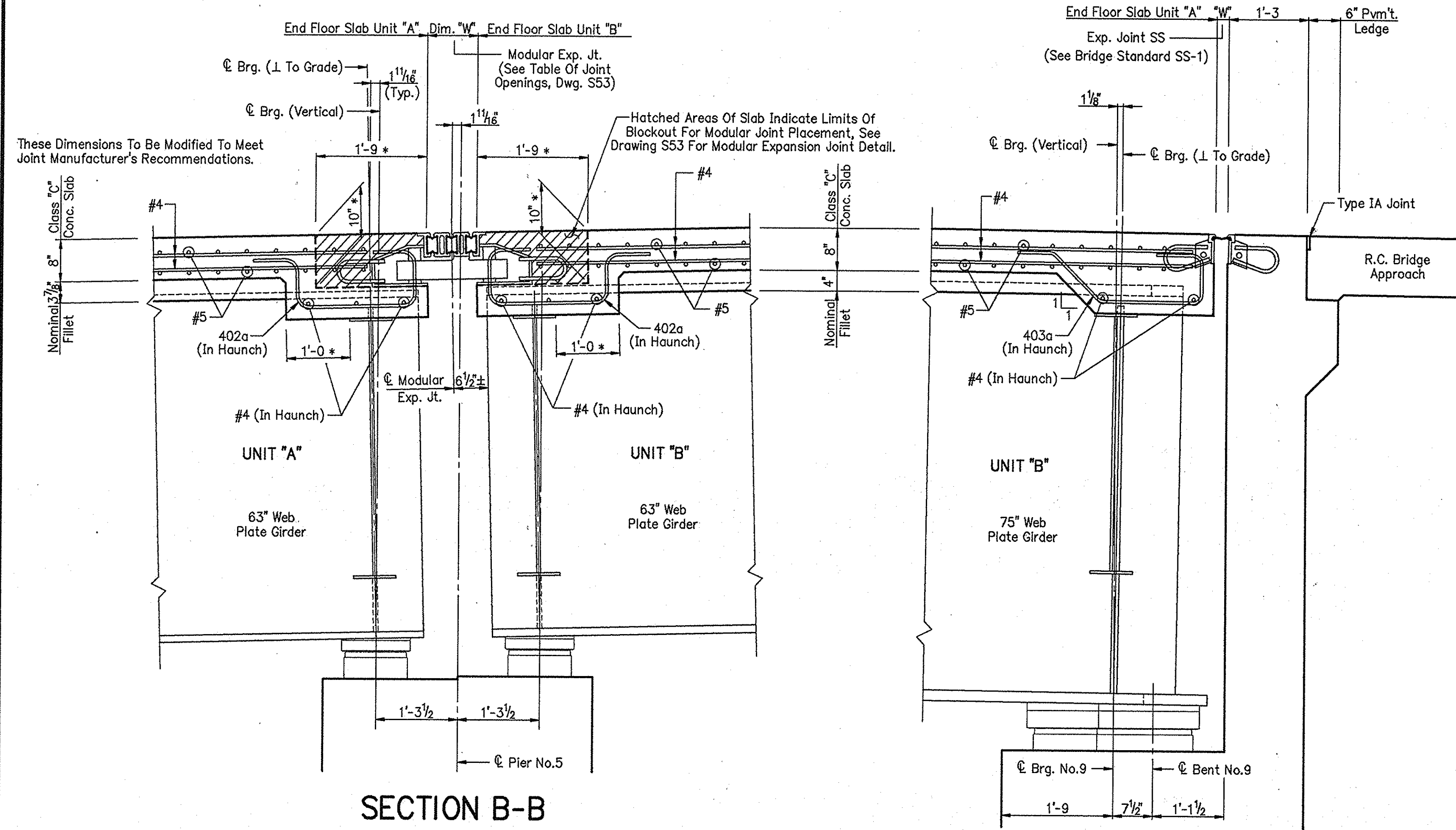
CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7823

DESIGNED: MDR 3/04/98 MSP 6/29/98
DRAWN: RJC 5/18/98 CKD MDR 7/03/98
TRACED: CKD

DWG FILE: \3131\A\92\120\92120859
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SPELLOW: 07/09/98 20:10:12
EDIT DATE: RJC - 5128



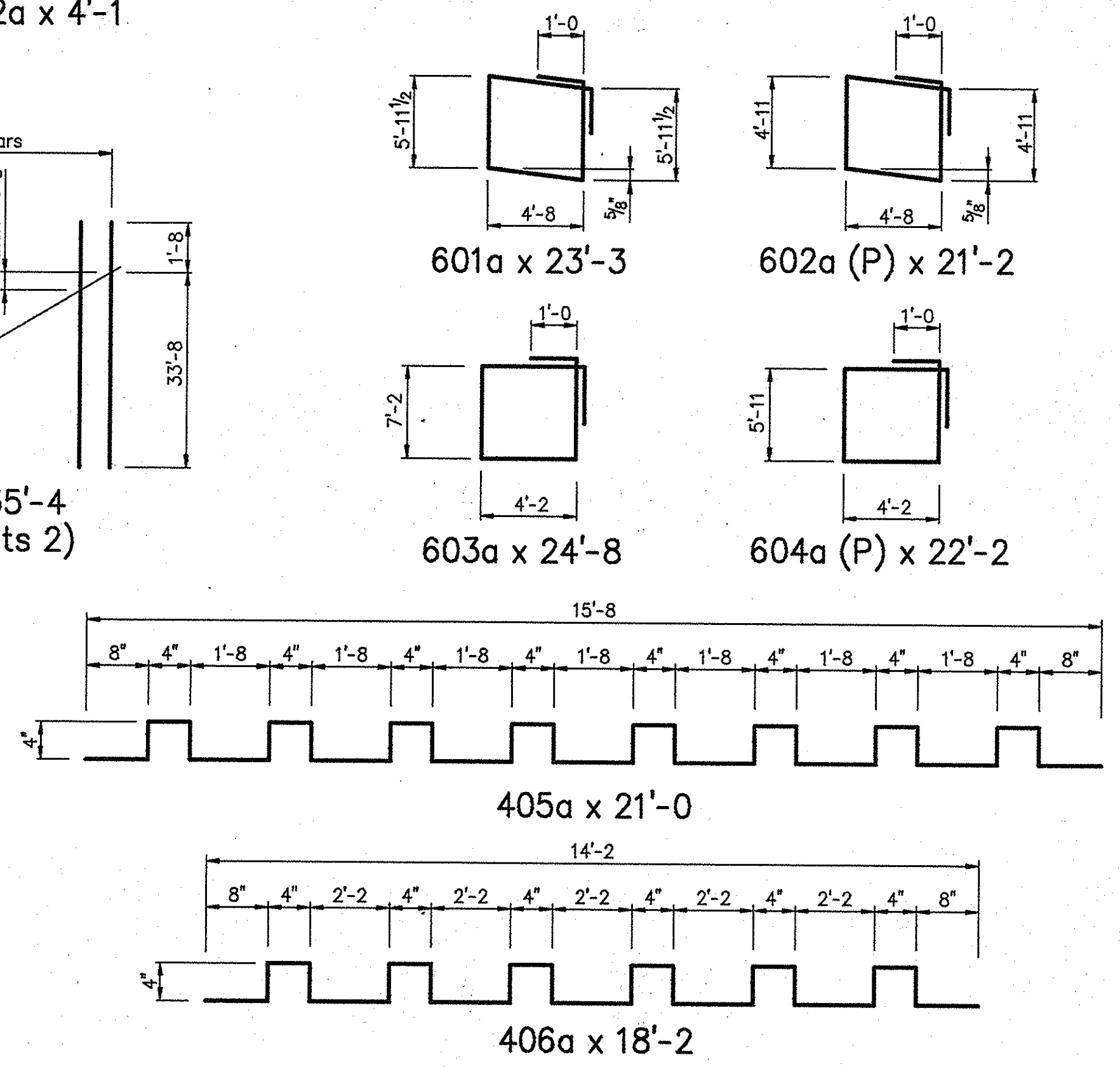
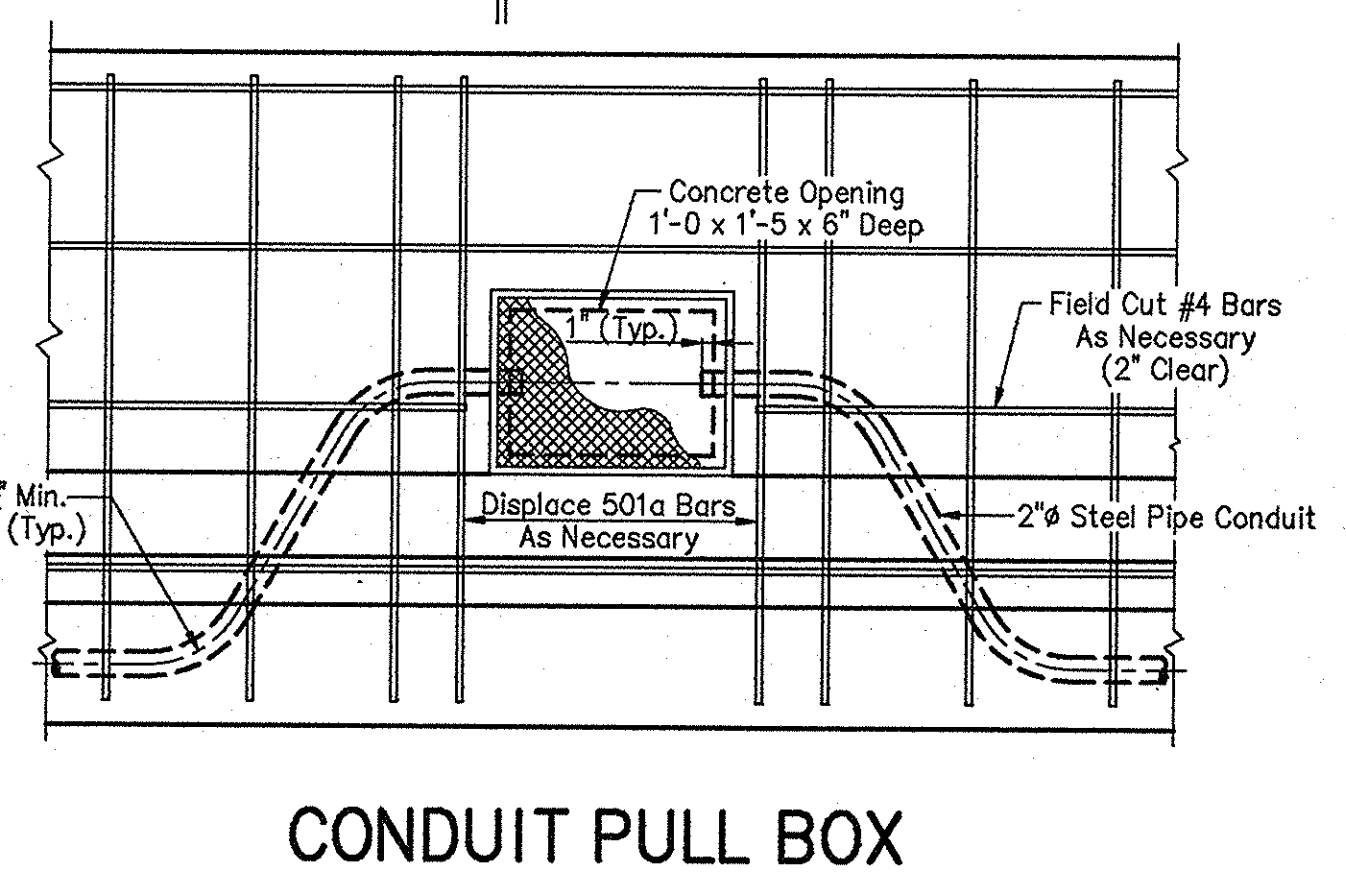
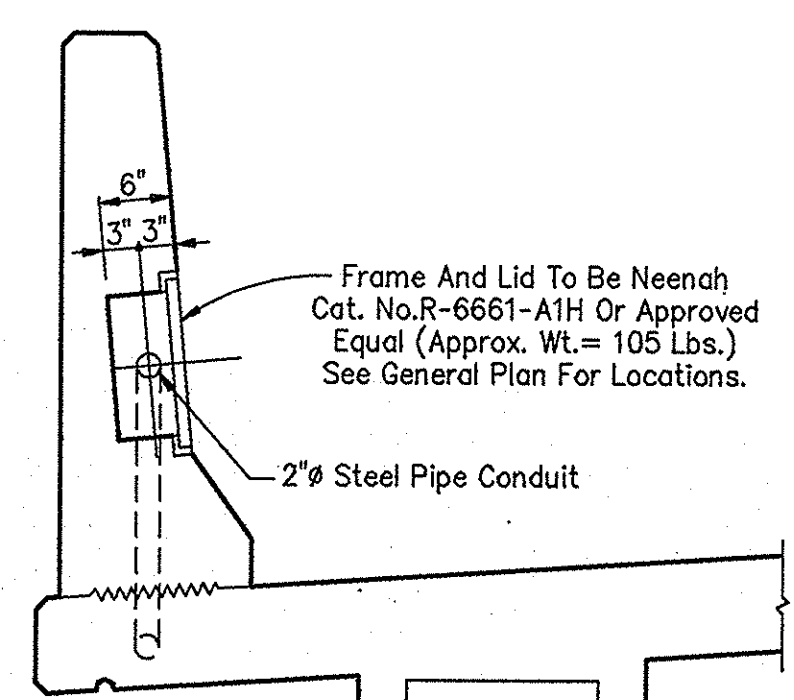
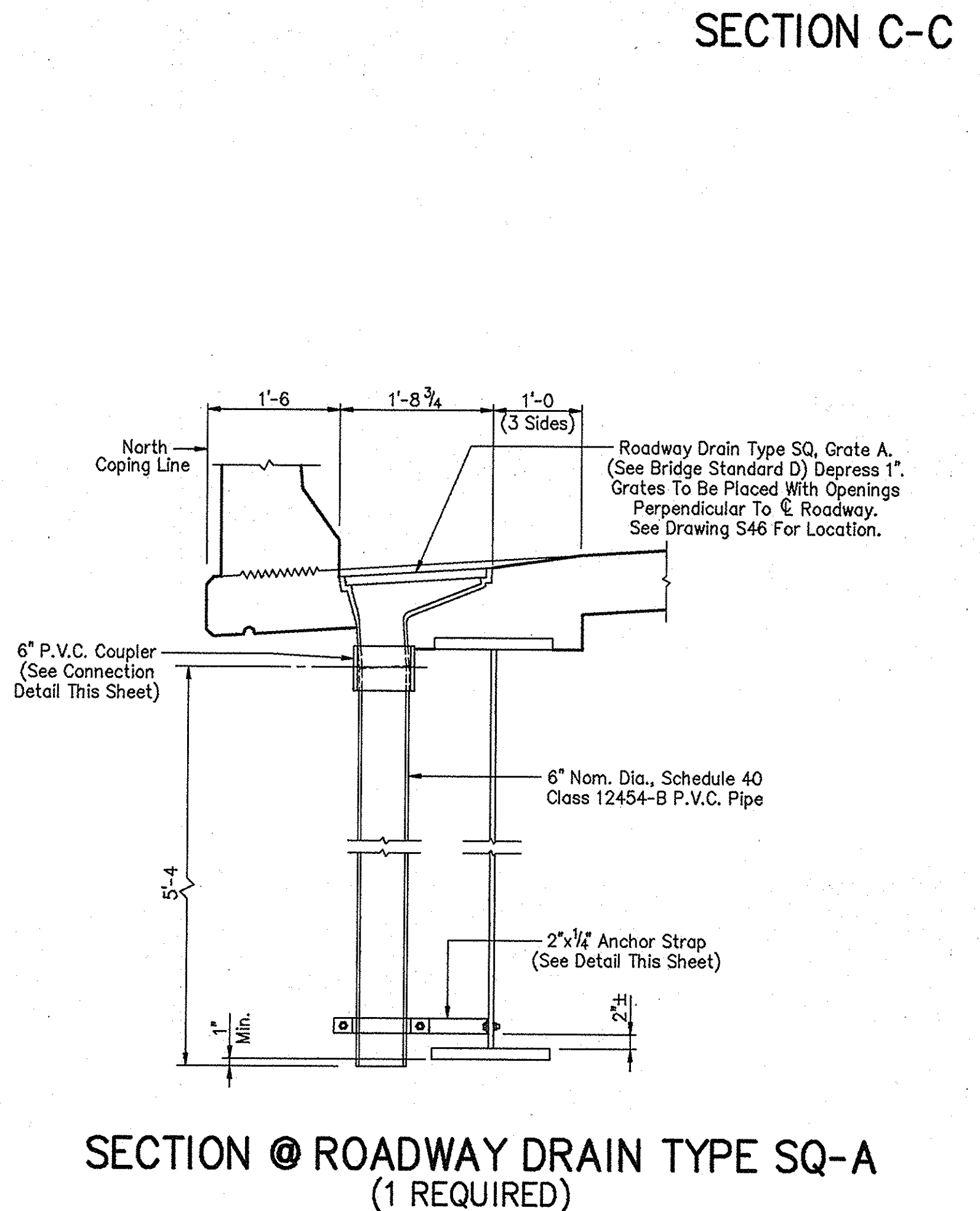
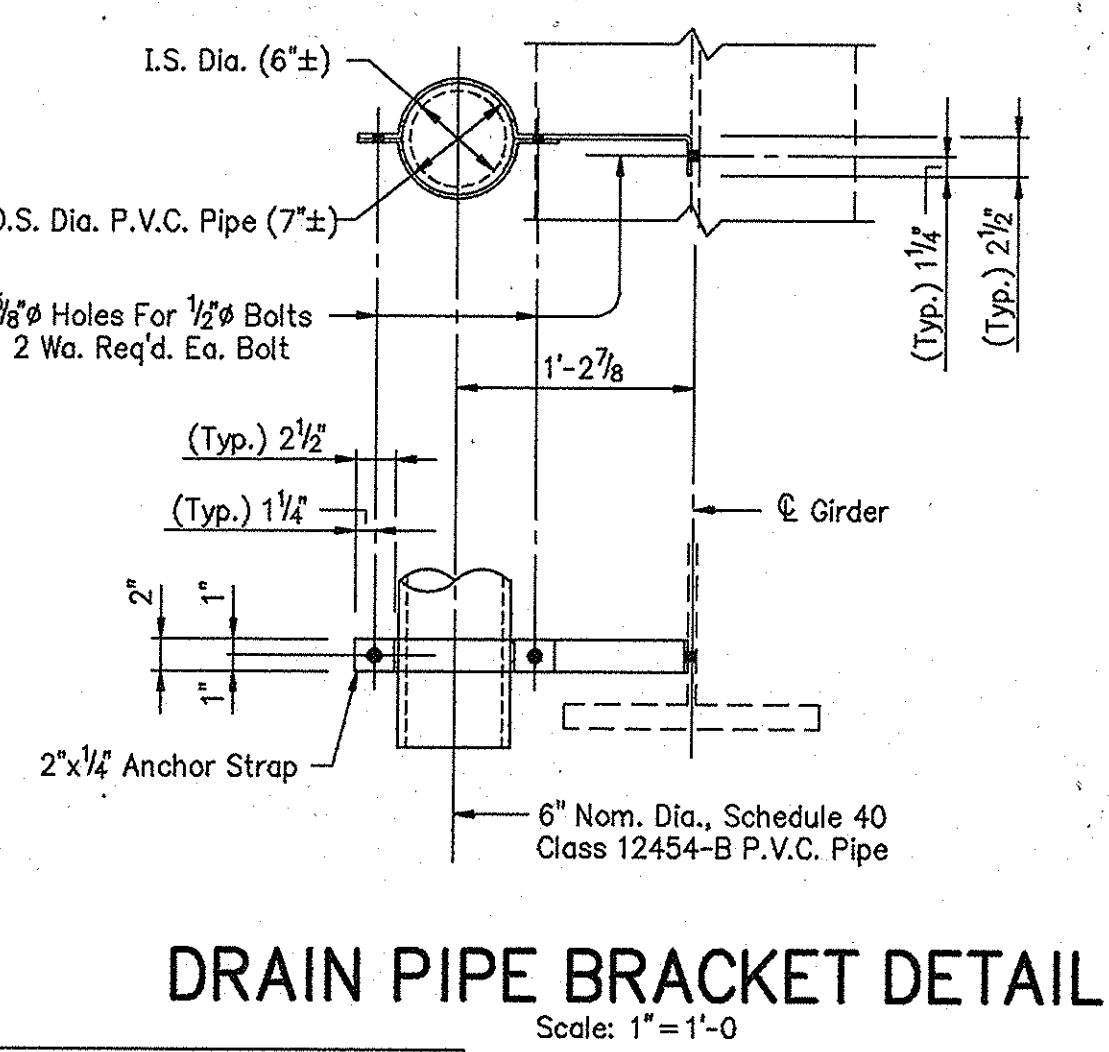
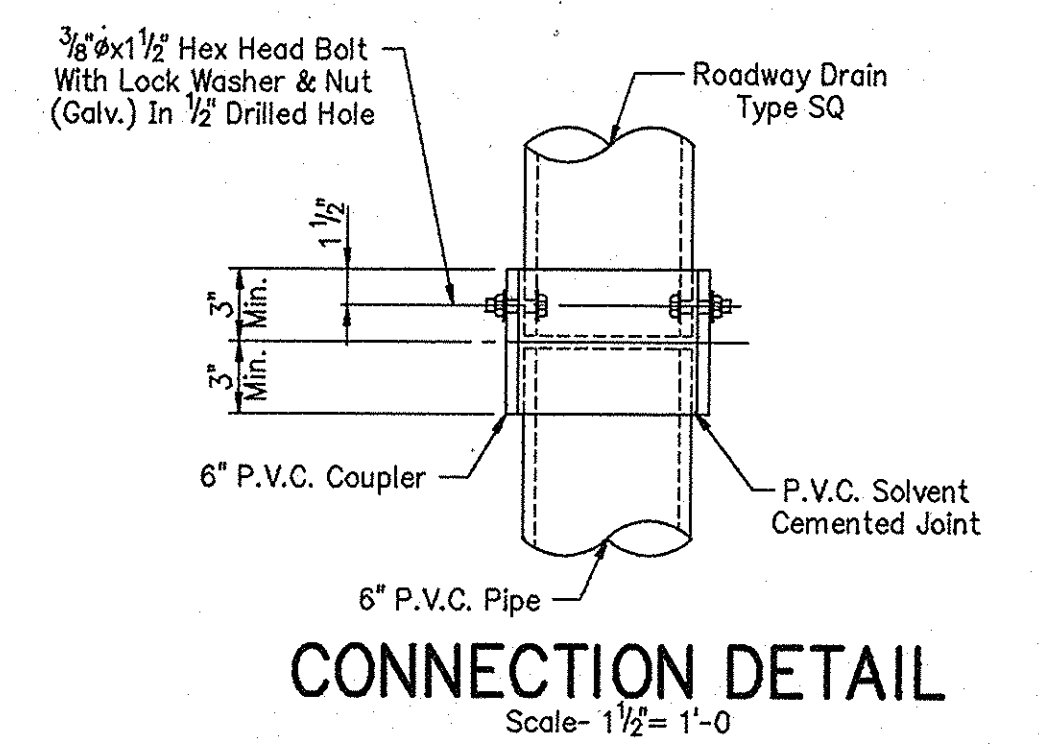


Bill of Materials Continued		
Miscellaneous		
Surface Seal		33,150 Sft.
Masonry Coating		12,050 Sft.
Barrier Delineators	66	Each
2" Galvanized Steel Pipe Conduit		641 Lft.
Cast Iron Grates, Basins And Fittings		
1- Standard Roadway Drain		
Type SQ, Grate A	192	Lbs.
2- Conduit Pull Boxes @ 105 Lbs. Each	315	Lbs.
Total Cast Iron Grates, Basins And Fittings	507	Lbs.
Pipe, PVC, 6"	6	Lft.
Expansion Joint SS	39	Lft.
Modular Expansion Joint	35.0	Lft.
Post-Tensioning Bars, 1 1/4"		
Pier No.7 (In Cap & Slab)	2495	Lbs.
Pier No.8 (In Cap & Slab)	4384	Lbs.
Post-Tensioning Ducts, 1 5/8" I.D.		
Pier No.7 (In Cap & Slab)	542	Lft.
Pier No.8 (In Cap & Slab)	952	Lft.
Anchor Bars, 6"x7"x1 1/2"		
Pier No.7 (In Cap)	24	Ea.
Pier No.8 (In Cap)	48	Ea.
Anchor Bars, 5"x8"x1 1/2"		
Pier No.7 (In Slab)	12	Ea.
Pier No.8 (In Slab)	16	Ea.
Structural Steel *		
Pier No.7 (In Cap)	3251	Lbs.
Pier No.8 (In Cap)	5091	Lbs.

SUPERSTRUCTURE BILL OF MATERIALS

Epoxy Coated Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
601a	20	23'-3	
603a	40	24'-8	
#6	142	33'-6	
#6	213	32'-6	
#6	142	25'-3	
Total No.6			25,108
501a	1944	5'-5	
502a	3888	4'-1	
504a	42	35'-4	
#5	2	39'-6	
#5	2660	34'-6	
#5	122	33'-0	
#5	384	24'-6	
#5	8	20'-0	
#5	8	18'-6	
#5	16	11'-0	
#5	16	10'-6	
#5	16	3'-9	
#5	8	3'-6	
Total No.5			139,671
402a	27	4'-9	
403a	27	4'-9	
404a	24	2'-4	
405a	24	21'-0	
406a	20	18'-2	
#4	1024	40'-0	
#4	216	38'-0	
#4	108	35'-6	
#4	72	34'-0	
#4	24	15'-3	
#4	20	13'-9	
#4	6	8'-0	
#4	9	7'-6	
Total No.4			38,334
Total Epoxy Coated Reinforcing Steel			203,113
Plain Reinforcing Steel			
602a	6	21'-2	
604a	12	22'-2	
#6	48	9'-0	
#6	12	7'-9	
#6	15	7'-0	
Total Plain Reinforcing Steel			1537
Concrete			
Class "C" In Superstructure			601.5 Cys.
Concrete Railing Class "C"			
North Coping			82.5 Cys.
South Coping			90.9 Cys.
Total Concrete Railing Class "C"			173.4 Cys.
Special Class "C" Concrete			
Pier No.7 (In Cap)			28.5 Cys.
Pier No.8 (In Cap)			41.8 Cys.
Total Special Class "C" Concrete			70.3 Cys.

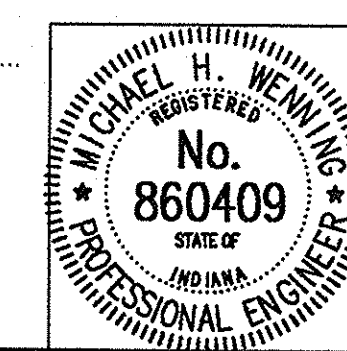
* Included in Estimated Weight of Structural Steel, see Dwg. S33.



NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 All reinforcing steel to be epoxy coated.
 For location of sections B-B and C-C, see Drawing S46.
 For modular expansion joint details, see Drawing S53.

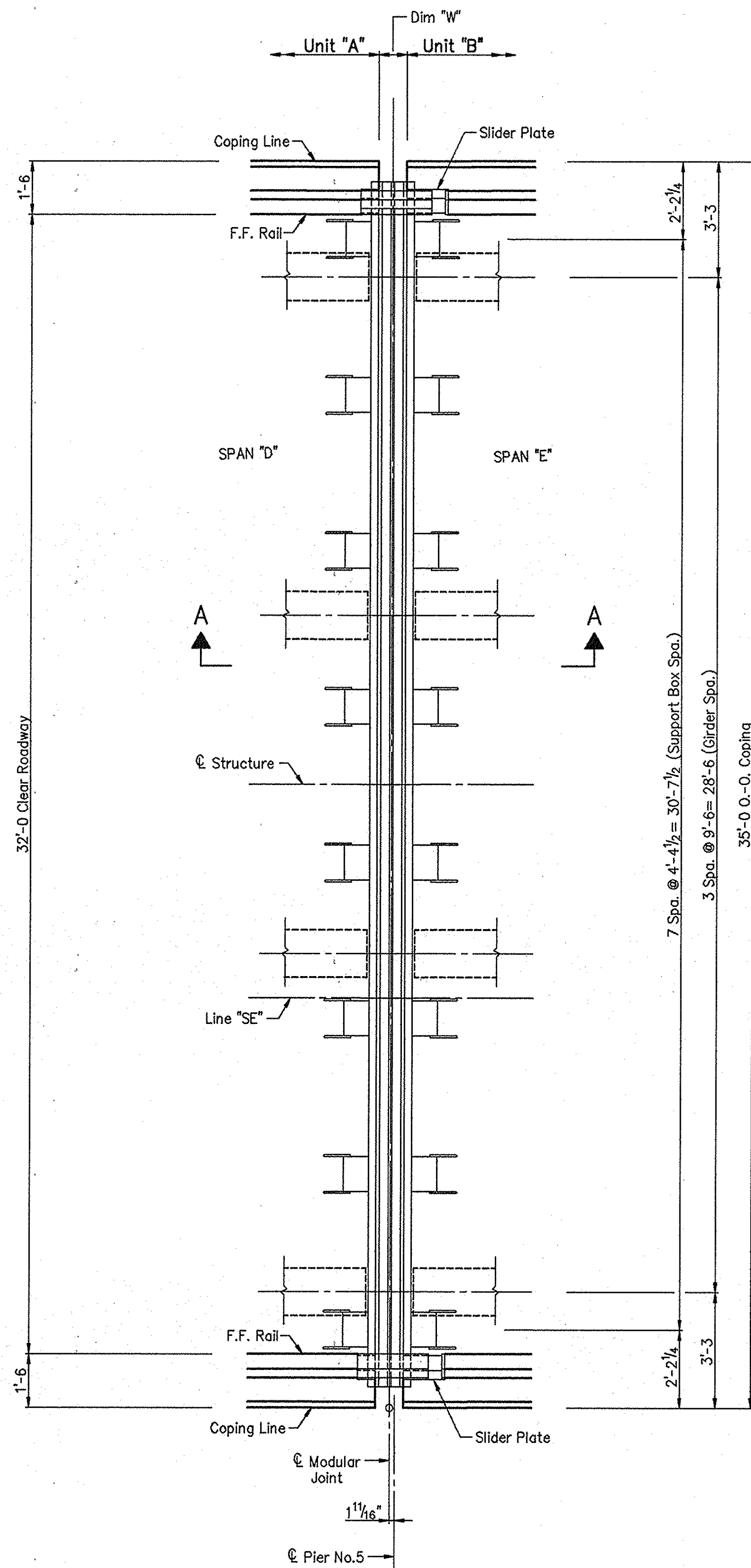
FLOOR DETAILS - UNIT "B" INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/4" = 1'-0, Unless Noted
 DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL
 DRAWING: - S52 OF S54 SHEET: - 67 OF 81
 PROJECT: - IM-80-1(143) 4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7823

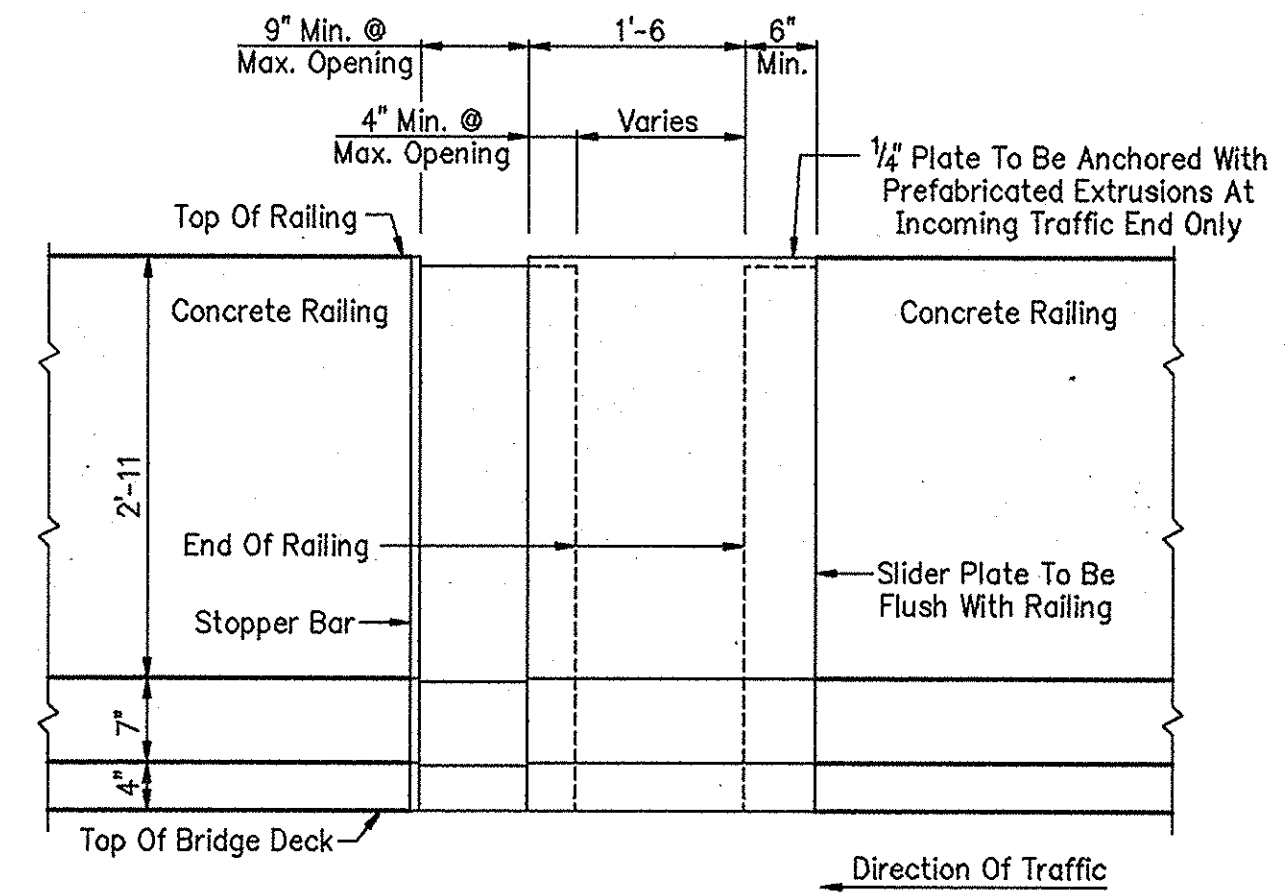


DESIGNED: C/K/D
 DRAWN: DSH 9/26/98 C/K/D DAD 1/27/97
 TRACED: C/K/D

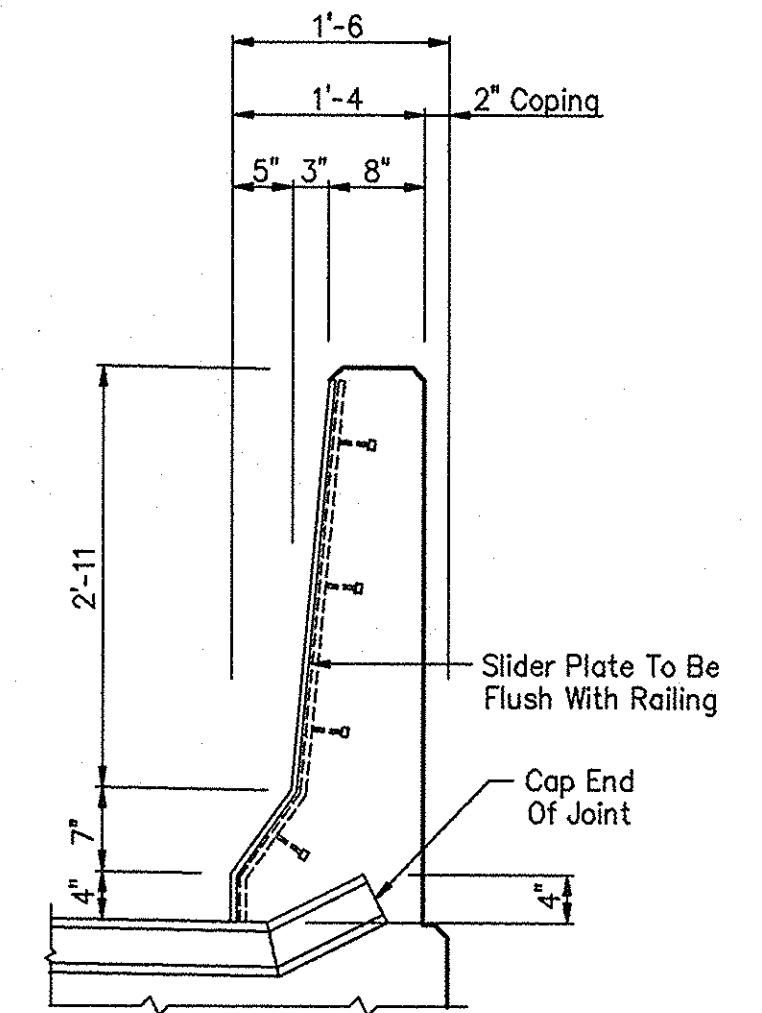
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 EDITED BY: TLH - 5131



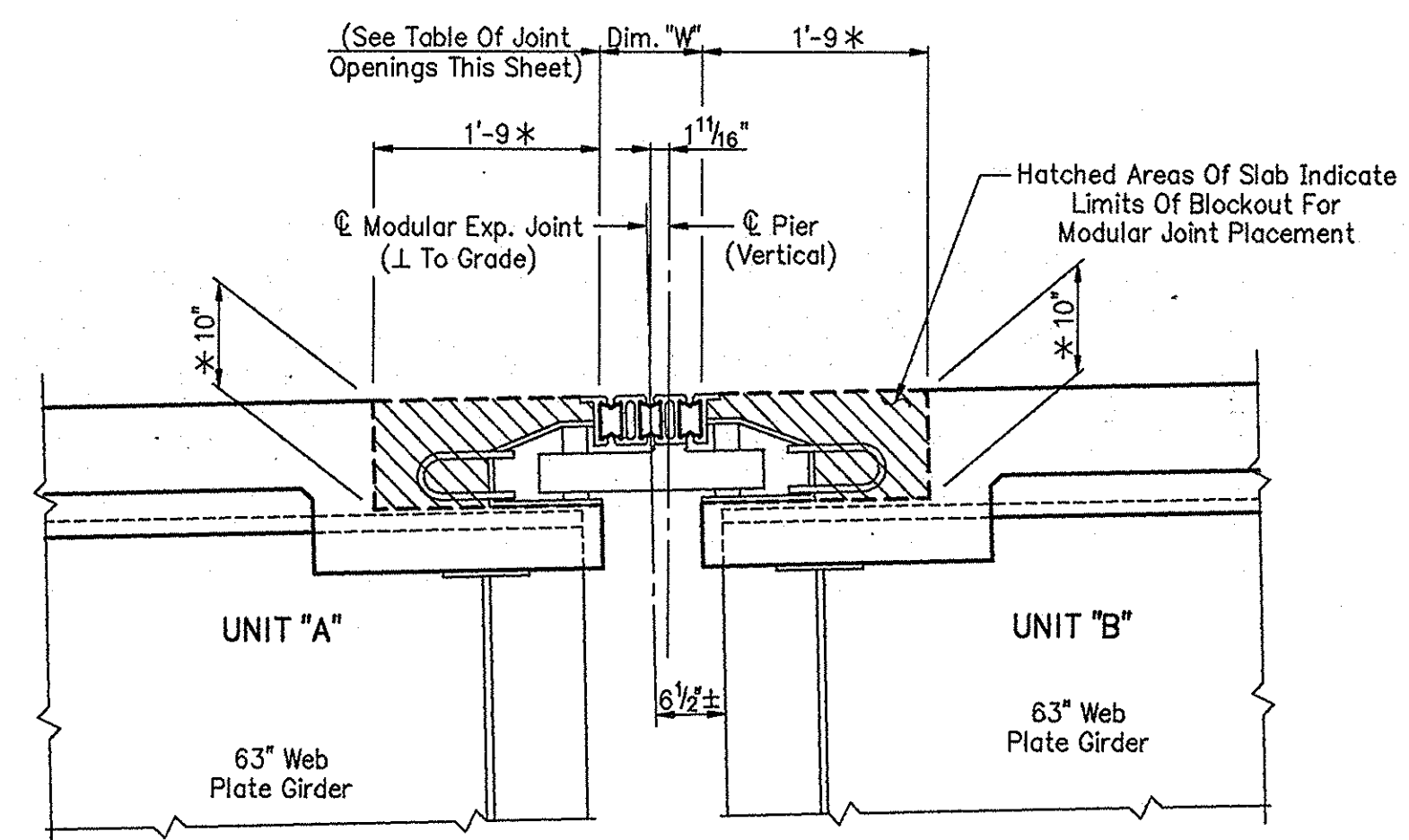
PLAN AT PIER NO.5
Scale: 3/8" = 1'-0"



SLIDER PLATE ELEVATION



TYPICAL JOINT INSTALLATION AT COPING



NOTE:
* These dimensions to be modified to meet Modular Expansion Joint Manufacturer's recommendations.

SECTION A-A

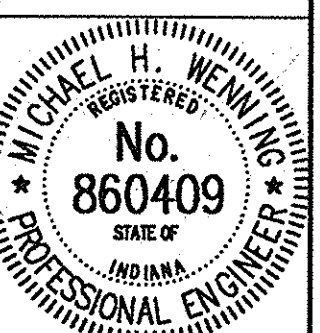
TABLE OF JOINT OPENINGS							
Temperature	0°	20°	40°	60°	80°	100°	120°
Dimension "W"	1'-2"	12 1/2"	11"	9 1/2"	8"	6 1/2"	5"

- NOTES:
- The profile of the expansion joint shall conform to the roadway cross section at the centerline of Pier No.5.
 - Allow 3/8" for maximum movement due to live load, deflection, shrinkage and creep.
 - The joint opening is to be set in accordance with the table shown.
 - See the Special Provisions for material specifications.
 - The joint shall be installed in accordance with the manufacturer's specifications.
 - Slider plates to be included in the cost of the expansion joint and all dimensions to be determined by joint manufacturer.
 - Anchor assemblies shall be placed at 9" maximum between support beams.

**MODULAR EXPANSION JOINT DETAILS
AT PIER NO.5
INDIANA DEPARTMENT OF TRANSPORTATION**

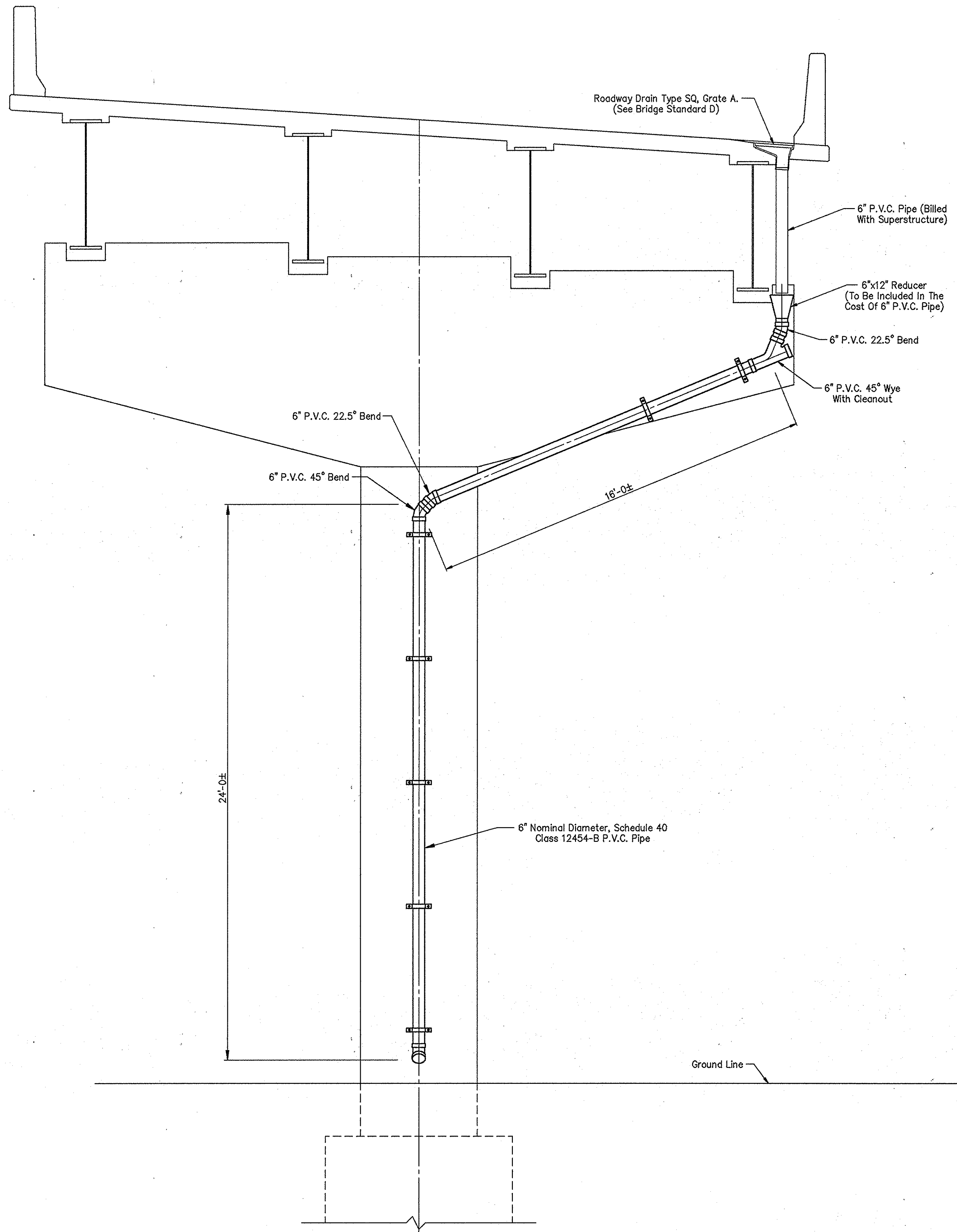
SCALE: - 3/4" = 1'-0, Unless Noted DATE: - July 9, 1998
SUBMITTED FOR APPROVAL *Michael H. Weening*

DRAWING: - S53 OF S54 SHEET: - 68 OF 81
PROJECT: - IM-80-1 (143) 4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7823

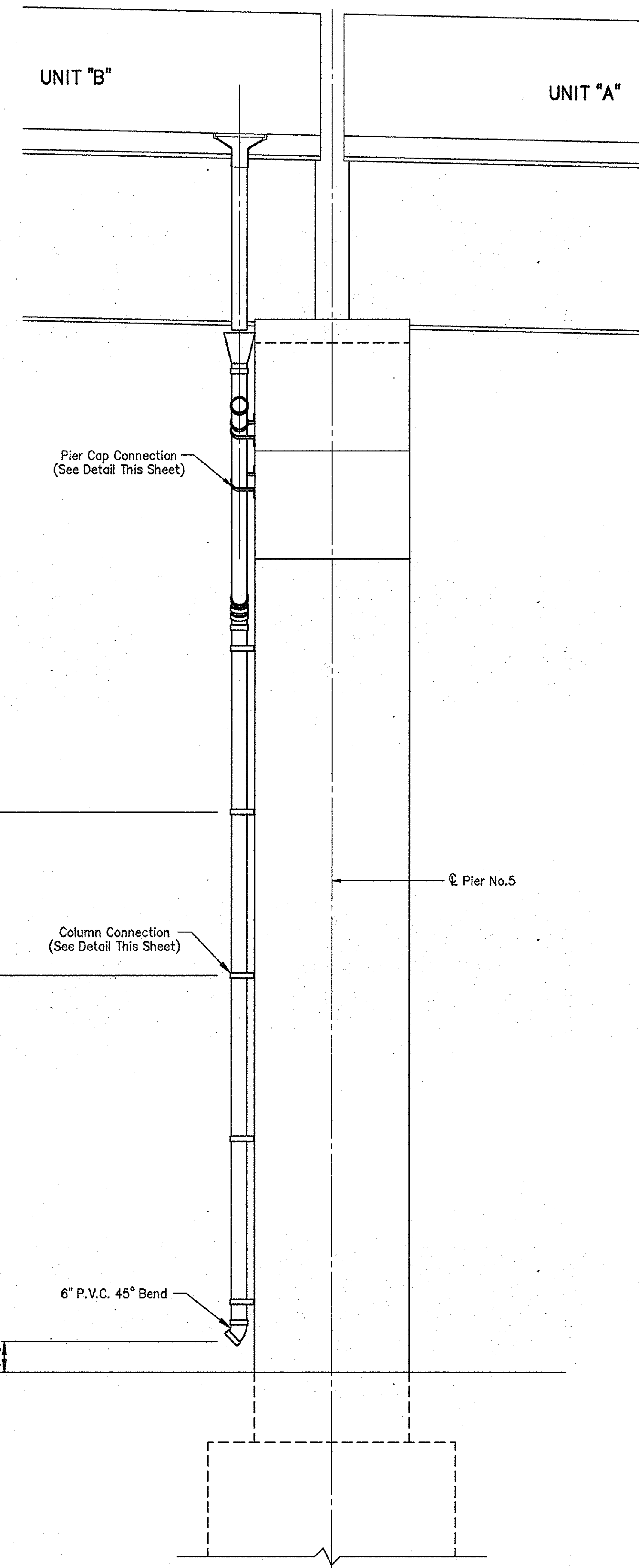


DESIGNED: CK'D
DRAWN: DSH 10/2/96 CK'D DAD 1/28/97
TRACED: CK'D

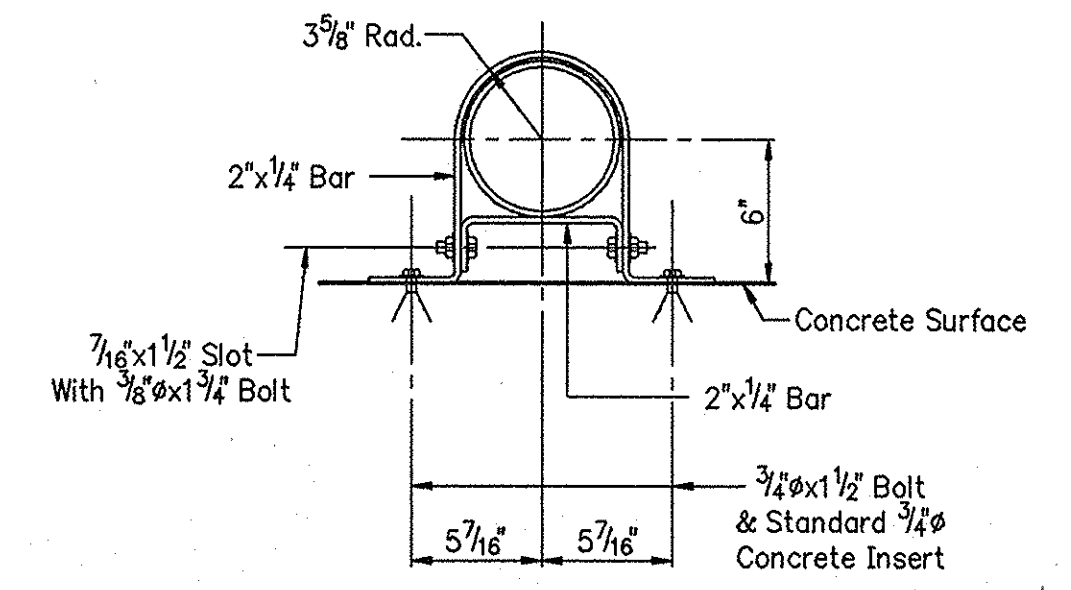
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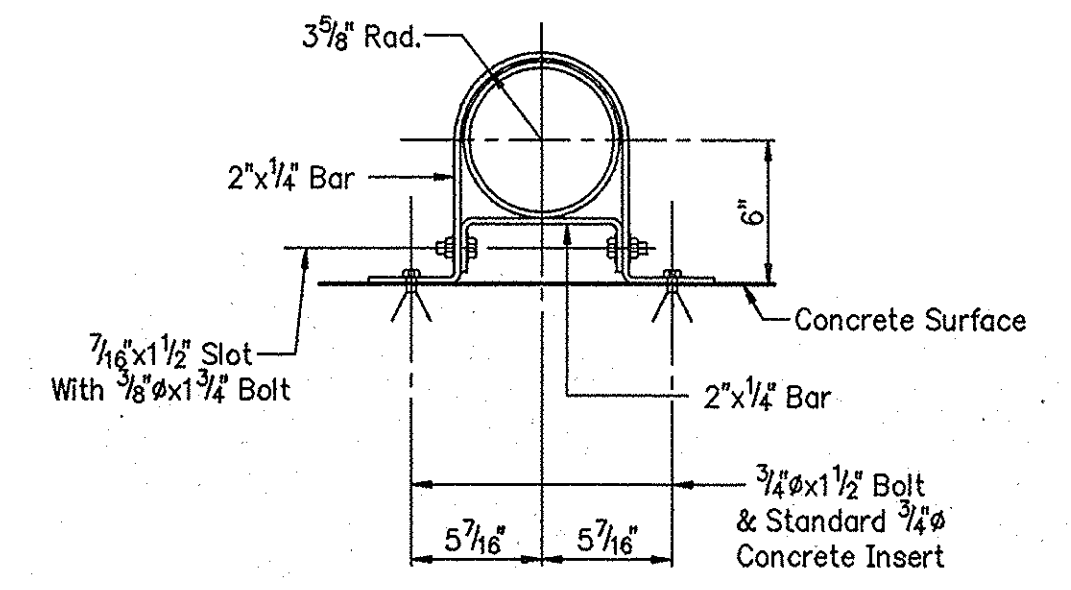
ELEVATION AT PIER NO.5
(Looking Back Stationing)



SIDE ELEVATION AT PIER NO.5



PIER CONNECTION DETAIL
Scale - 1 1/2" = 1'-0"



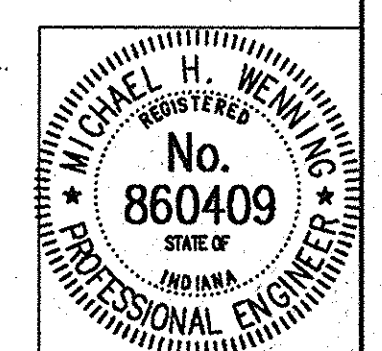
COLUMN CONNECTION DETAIL
Scale - 1 1/2" = 1'-0"

PVC PIPE SUMMARY	
Material	Length
6" P.V.C. Pipe	40.0 Lft.
2- 45° Elbows @ 2.0 Lft.	4.0 Lft.
2- 22.5° Elbows @ 2.0 Lft.	4.0 Lft.
1- 45° Wye @ 5.0 Lft.	5.0 Lft.
1- Reducer @ 5.0 Lft.	5.0 Lft.
Total P.V.C. Pipe	58.0 Lft.

NOTES:
The cost of hangers, straps, bolts, concrete inserts, clean out covers and miscellaneous items to be included in the cost of P.V.C. pipe.

BRIDGE DRAINAGE DETAILS - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/8" = 1'-0, UNLESS NOTED DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL *[Signature]*
 DRAWING: - S54 OF S54 SHEET: - 69 OF 81
 PROJECT: - IM-80-1 (143) 4
 CONTRACT NO. - R-23808
 BRIDGE FILE: - I-80-5-7823



DESIGNED: C'K'D
 DRAWN: DSH 4/15/98 C'K'D DAD 4/29/98
 TRACED: C'K'D

DRG FILE: D:\20\120\120\2120860
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 EDIT DATE: 07/09/98 18:46:48
 EDITED BY: TLH - 5131

