

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	STI-465-4(BB)	1990	1	

INDIANA
DEPARTMENT OF
TRANSPORTATION

BRIDGE PLANS
FOR SPANS OF OVER 20 FEET
ON
STATE ROAD NO.

ST-PROJECT I-465-4 (BB) P.E.
MA IR-PROJECT I-465-4 (257)R/W
(257)30CONST. UTIL.

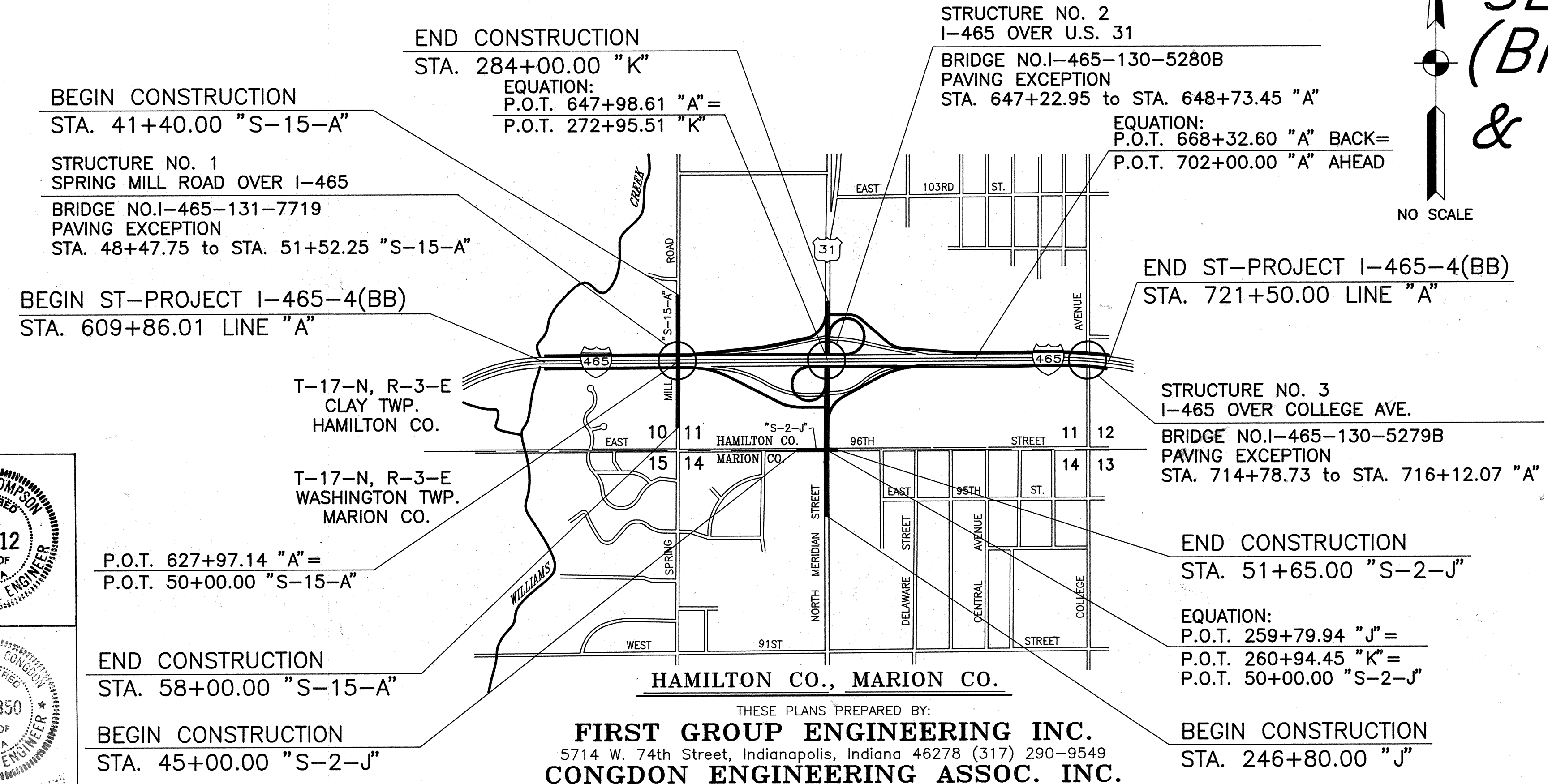
BEGINNING AT A POINT ON I-465 3821.60 FEET WEST OF THE INTERSECTION OF I-465 AND U.S. 31. THENCE IN AN EASTERLY DIRECTION A DISTANCE OF 7796.59 FEET TO A POINT 3983.99 FEET EAST OF THE INTERSECTION OF I-465 AND U.S. 31 IN SECTIONS 10 AND 11, ALL IN T-17-N, R-3-E, CLAY TOWNSHIP, HAMILTON COUNTY, INDIANA.

I-465 OVER U.S. 31 & COLLEGE AVE.
BRIDGE LENGTH: 0.054 MI.
ROADWAY LENGTH: 1.243 MI.
TOTAL LENGTH: 1.477 MI.
MAX. GRADE: 4.72 %

SHEET NO.	SHEET DESIGNATION	SUBJECT	F.H.W.A. APPROVAL	ADOPTED "A" REVISION "R"
	BRIDGE STD. BR1	ALUMINUM BRIDGE RAILING		
	BRIDGE STD. BR2	ALUMINUM BRIDGE RAILING DETAILS		
	BRIDGE STD. BR3	STEEL BRIDGE RAILING		
	BRIDGE STD. BR4	STEEL BRIDGE RAILING DETAILS		
37	BRIDGE STD. BR5	RAILING CONNECTION DETAILS	1-22-87	R 12-01-86
	BRIDGE STD. BR6	RAILING CONNECTION DETAILS		
38	BRIDGE STD. C1	MISCELLANEOUS DETAILS	7-13-88	R 6-1-88
	BRIDGE STD. C2	MISCELLANEOUS DETAILS		
39	BRIDGE STD. C3	MISCELLANEOUS DETAILS	1-26-88	R 11-2-87
	BRIDGE STD. C4	MISCELLANEOUS DETAILS		
	BRIDGE STD. D	CASTING DETAILS ROADWAY DRAINS		
	BRIDGE STD. D1	ADJUSTING FRAME DETAILS FOR ROADWAY DRAINS		
	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. R2A	BRIDGE LIGHTING DETAILS		
	BRIDGE STD. R2B	BRIDGE LIGHTING DETAILS		
40	BRIDGE STD. S1	MISCELLANEOUS DETAILS	1-22-87	R-12-1-86
41	BRIDGE STD. SH1	STEEL SHOE DETAILS	2-1-85	R 10-29-84
	BRIDGE STD. T SHEET A	STANDARD TEMPORARY BRIDGE		
	BRIDGE STD. T SHEET B	STANDARD TEMPORARY BRIDGE		
42		FOR ROAD STANDARDS SEE SET 1 OF 3 CONCRETE BARRIER TRANSITION SHEET FOR CROSS SECTIONS SEE SET 1 OF 3		

INDEX					
PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION
STI-465-4(BB)	I-465-130-5280B I-465-130-5279B	CONT. STEEL BEAM CONT. STEEL BEAM	SEE PLANS SEE PLANS	U.S. 31 (MERIDIAN ST.) COLLEGE AVE.	@ 647+98.61 "A" @ 715+44.16 "A"
SHEET NO.	SHEET DESIGNATION	SUBJECT			F.H.W.A. APPROVAL
1		TITLE SHEET			
2-3		TYPICAL CROSS SECTION			
4-6		ROAD PLAN & PROFILE			
7-8		INTERCHANGE GEOMETRICS			
9		INTERCHANGE CONSTRUCTION DETAILS			
10		U.S. 31 CONSTRUCTION DETAILS			
11-12		I-465-130-5280B U.S. 31			
13-14		RAMP PROFILES			
15	S1-M	RETAINING WALL LAYOUT			
16	S2-M	GENERAL PLAN			
17-18	S3-M & S4-M	BENT NO. 1 & NO. 3 DETAILS			
19-20	S5-M & S6-M	BENT NO. 2 DETAILS			
21	S7-M	FRAMING PLAN			
22	S8-M	STRUCTURAL STEEL DETAILS			
23-24	S9-M & S10-M	SUPERSTRUCTURE DETAILS			
25	S11-M	BRIDGE SUMMARY			
26	S1-C	I-465-130-5279B COLLEGE AVENUE LAYOUT			
27	S2-C	GENERAL PLAN			
28-29	S3-C & S4-C	BENT NO. 1 & NO. 4 DETAILS			
30-31	S5-C & S6-C	BENT NO. 2 & NO. 3 DETAILS			
32	S7-C	FRAMING PLAN			
33	S8-C	STRUCTURAL STEEL DETAILS			
34-35	S9-C & S10-C	SUPERSTRUCTURE DETAILS			
36	S11-C	BRIDGE SUMMARY			

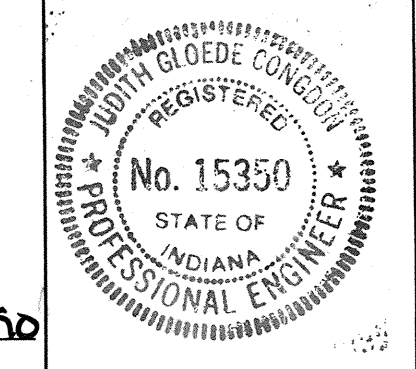
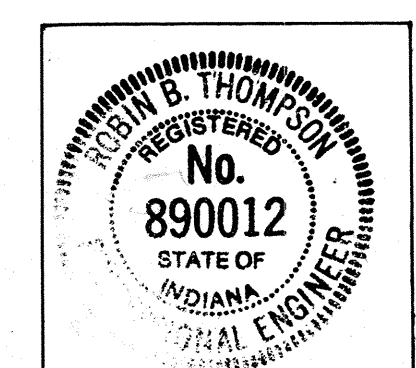
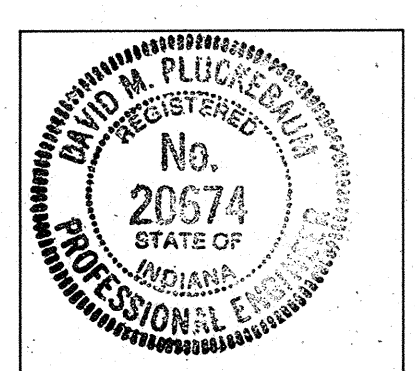
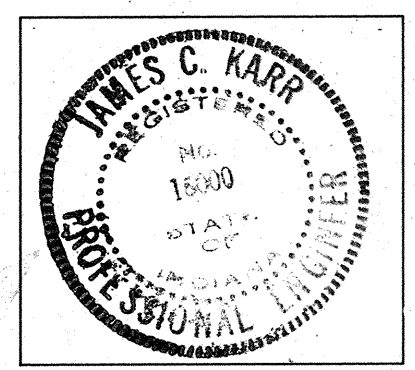
SET 3 OF 3
(BRIDGES OVER U.S. 31 & COLLEGE AVE.)



Recommended for Approval: 4-10-91
Date: _____
James C. Karr
Bridge Rehabilitation Engineer
Indiana Department of Transportation

Recommended for Approval: 4-17-91
Date: _____
David Bell
Design Consultant Services Manager
Indiana Department of Transportation

Approved: 4-18-91
Date: _____
Raymond J. Hark
Chief, Division of Design
Indiana Department of Transportation



THESE PLANS PREPARED BY:
FIRST GROUP ENGINEERING INC.
5714 W. 74th Street, Indianapolis, Indiana 46278 (317) 290-9549
CONGDON ENGINEERING ASSOC. INC.
3500 DePauw Blvd., Suite 1055, College Park Pyramids, Indianapolis, Indiana 46268

REVISIONS		
DATE	SHEET NO.	DESCRIPTION
6-17-91	1, 5, 16, 24, 27, 35	ADDED: 42

REVISIONS		
DATE	SHEET NO.	DESCRIPTION

FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

APPROVED _____

DIVISION ADMINISTRATOR _____ DATE _____

BRIDGE FILE: -

R 19557 4 OF 4

NOTE: WHENEVER STI-465-4(BB) APPEARS IN THESE PLANS OR CONTRACT DOCUMENTS IT SHALL BE INTERPRETED AS MA IR-465-4(257)130

CERTIFIED BY: *Robin B. Thompson* DATE: 7-5-91

CERTIFIED BY: *Judith Gloede* DATE: 2-5-90

INDIANA DEPARTMENT OF HIGHWAYS
STANDARD SPECIFICATIONS DATED 1988
TO BE USED WITH THESE PLANS

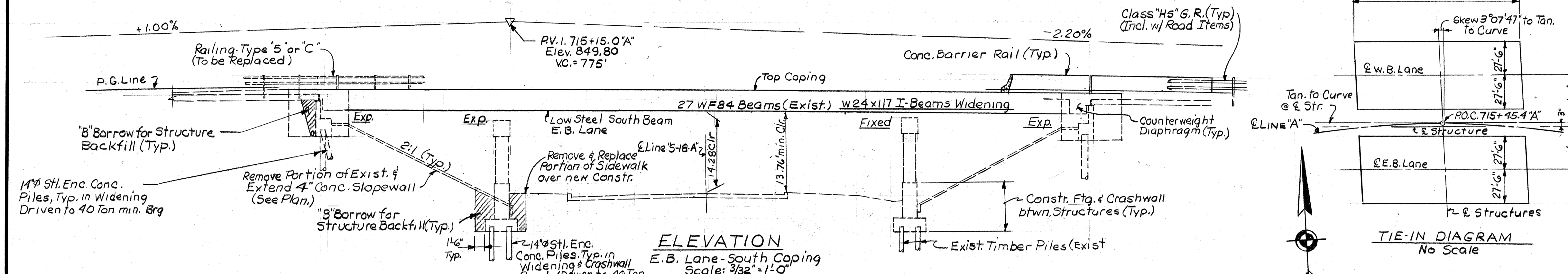
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REVISED: 6-17-91 BY: *JPS* REVISED INDEX

R-19557

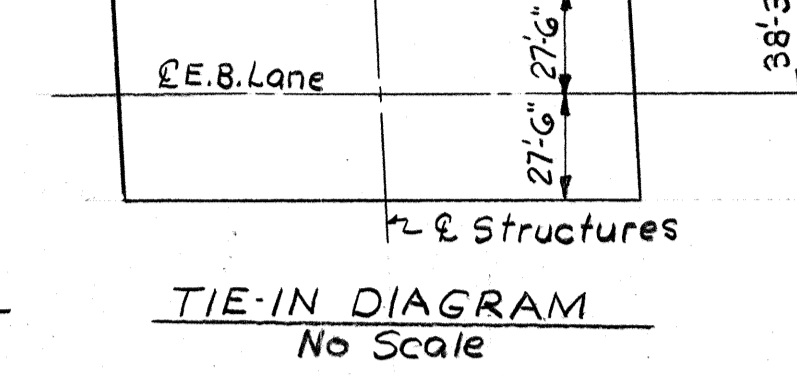
PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
STI-465-4(BB)		1		

EXISTING STRUCTURE BUILT ON 775' CREST VERTICAL CURVE



DESIGN DATA
 Designed for HS-20-44 Loading in accordance with 1988 AASHTO Specifications & Interims.
 Reinf. Steel: $F_y = 40,000$ P.S.I. (Grade 40)
 Concrete: $F_c = 3000$ P.S.I.
 Structural Steel: $F_y = 50,000$ P.S.I.

TYPICAL CROSS SECTION

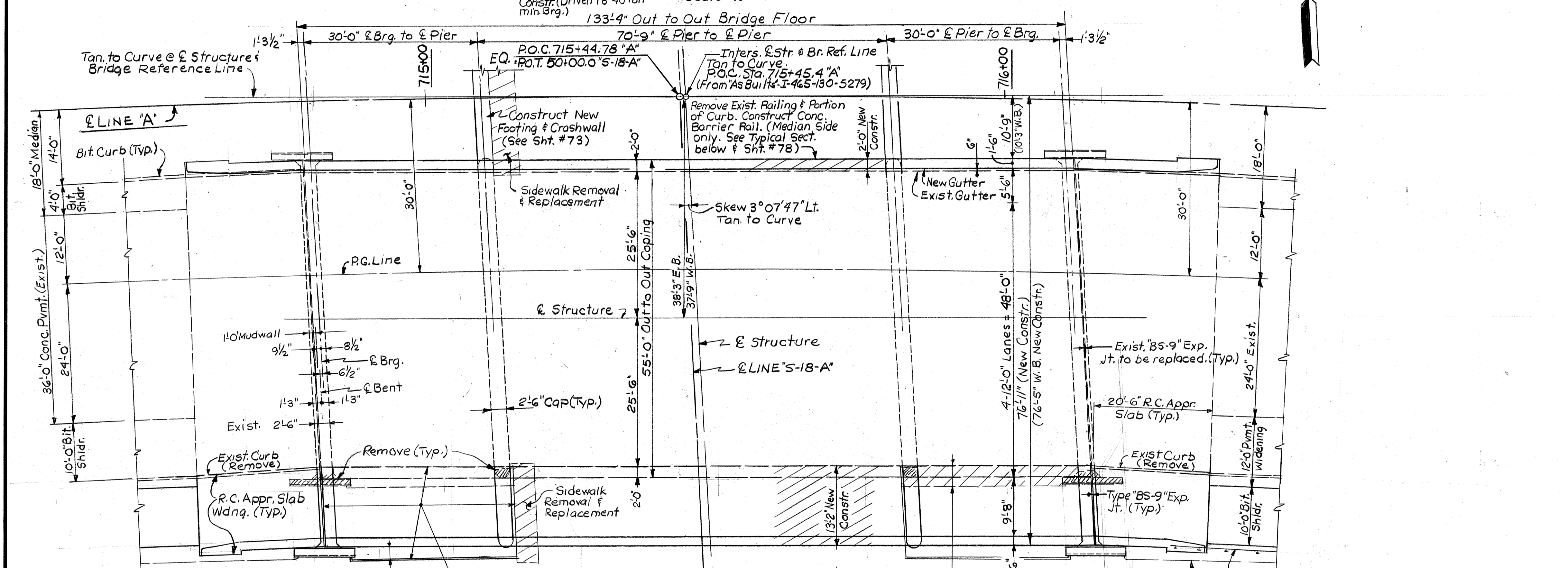


GENERAL NOTES

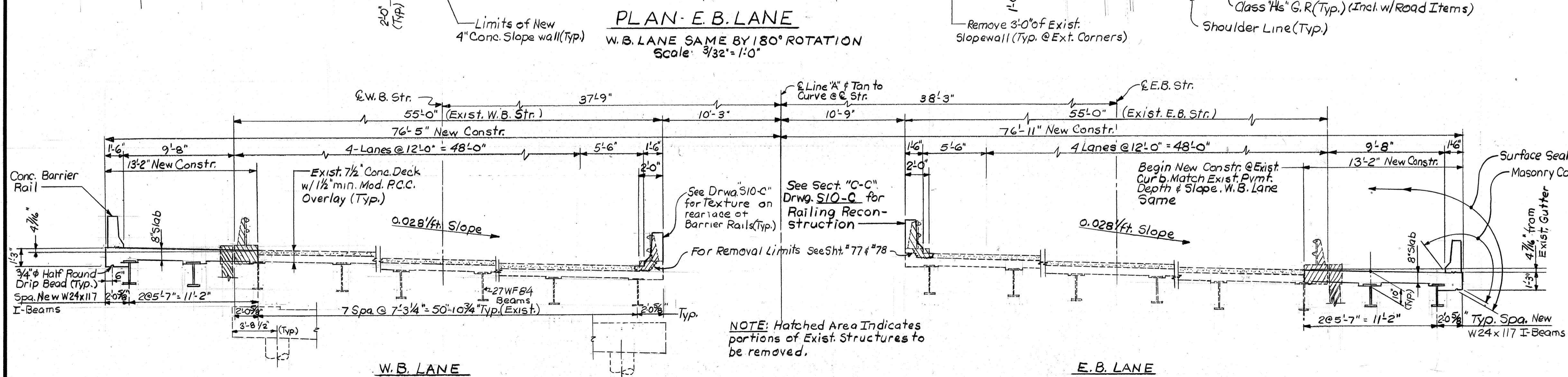
Existing 2-Span, Twin, Steel Beam Bridges to be widened to 4-12'-0" Lanes. Footings and Crashwalls @ Center Bents to be connected for future widening.
 Depth of Footings to be extended if found necessary. See Article 206.11 of Specifications.
 Steel Enclosed Concrete Piles to be driven to elevations shown on plans or below if necessary to obtain minimum required Bearing Values. Determine pile lengths by Article 701 of Specifications.
 For Details of Steel Enclosed Concrete Piles, See Bridge Standard C1 and applicable articles in the Specifications.
 Reinforcing steel covering shall be 2 1/2" in top and 1" minimum in bottom of floor slabs, 3" in footings except bottom steel which shall be 4". 2" in Columns and 2" in all other parts unless noted.
 Concrete in Superstructure, Barrier Railings and End Bents (New Structures) to be Class "C".
 Concrete in End Bents (Widening), Bent No. 2 Caps, Columns and Crashwalls to be Class "A".
 Concrete in Footings to be Class "B".
 Continuous concrete shall be required between construction joints as shown on detail plans.
 Chamfer exposed edges 1" unless noted.
 Construct 4" Concrete Slope wall at locations shown on "Layout".

The front face of Mudwalls, Top of Bent Caps, Exposed surfaces of Wingwalls and Concrete Barrier Railing, Top and End surfaces of Deck and coping to drip beads to be Surface Sealed (Estimated Quantities 21,894 Sft.).
 Reinforcing Steel in Deck slab and extending into Deck slab, Concrete Railing, Wingwalls and End Bents (Widening) to be Epoxy Coated. (See Special Provisions).

Exposed Surfaces of Wingwalls, coping and barrier wall to be Masonry Coated. Use Federal Color #2777B.



BRIDGE	ROAD	PURPOSE
BR 5		Concrete Railing Connector
C1		Bar Bending & Steel Enc. Conc. Pile Details
C3		Type "BS-9" & Type "I-A" Joints
S1		Placing "B" Borrow
SH1		Steel Shoe Details (E-1, E-2 & F-2)
A-joints		Wire Fabric
B-joints		R.C. Bridge Approach Details
MB-2		Concrete Slope wall Details
MP		Pipe Classification
GR-2		Class "Hs" Guard Rail
GR-4A		Class "Hs" G.R. Installation @ Bridge



GENERAL PLAN
WIDENING CONT. COMPOSITE STEEL BEAM BRIDGES
 3-SPANS - 30'-0", 70'-9" & 30'-0" Skew 3°07'47" Lt. to Tan to Curve @ E. Str.
 51'-0" Clr. Rdwy. w/ 2'-0" Curbs Exist. 55'-0" Out to Out Coping Over College Ave.
 On I-465

INDIANA DEPARTMENT OF TRANSPORTATION
 HAMILTON COUNTY

SCALE: - AS NOTED DATE: 1990
 SUBMITTED FOR APPROVAL
 DRAWING: S2-C OF S11-C SHEET: 27 OF 41
 PROJECT: STI-465-4 (B) STATION: -715+45.4 'A'
 BRIDGE CONTRACT NO. R-19557
 BRIDGE FILE: I-465-130-5279 B

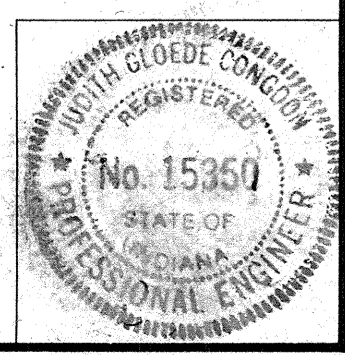
DESIGNED: E.J.D. CKD: J.G.C.
 DRAWN: D.E.B. CKD: E.J.D.
 TRACED: CKD

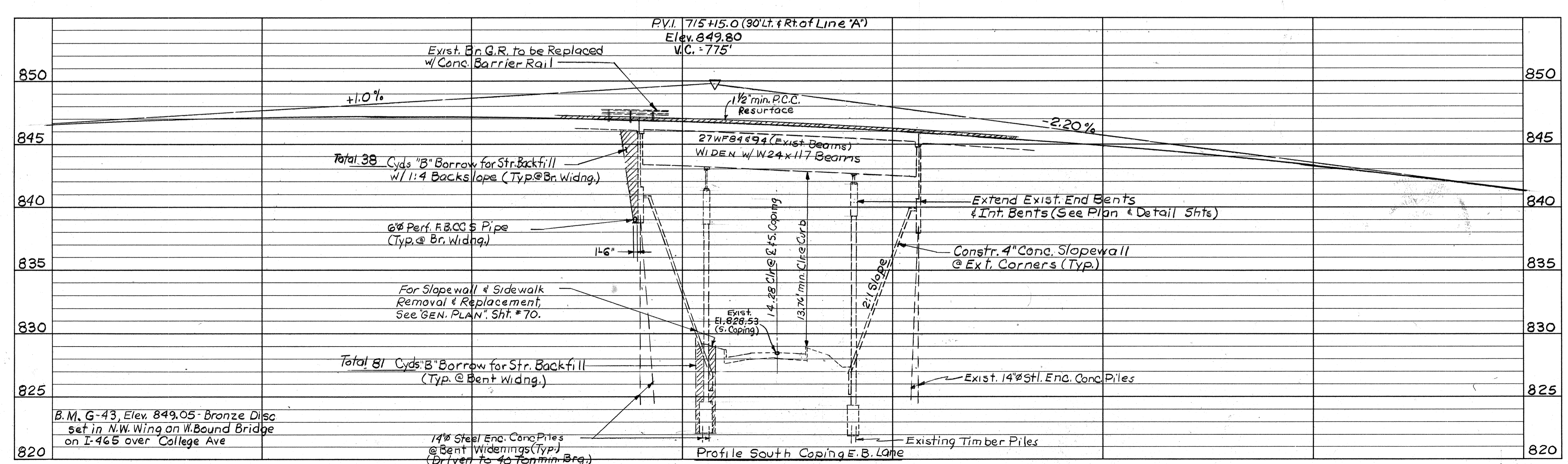
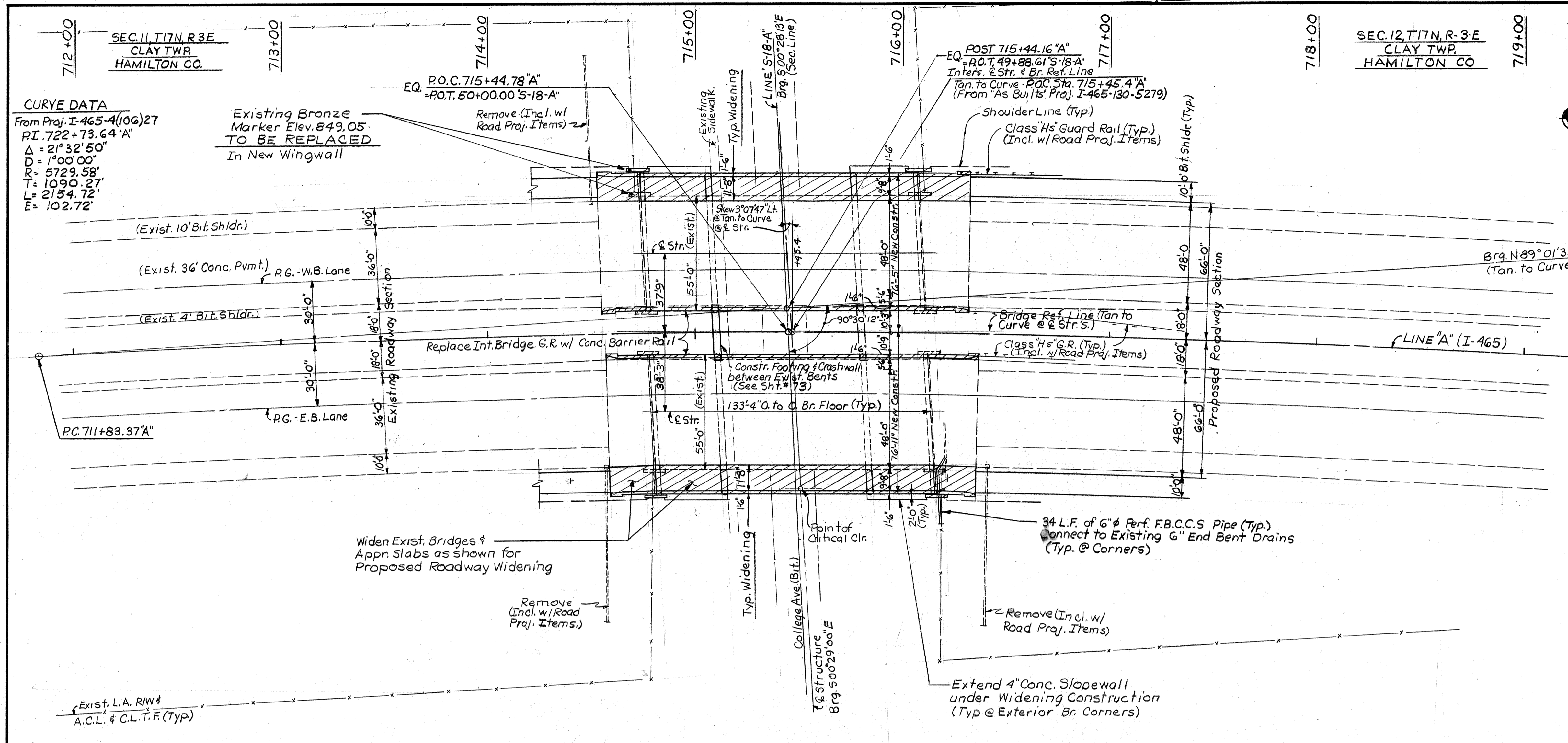
SF-22317

TYPICAL SECTION ⊥ TO TANGENT
 Scale: 3/16" = 1'-0"

NOTE: Hatched Area Indicates portions of Exist. Structures to be removed.

REVISED: 6-17-91 BY: [Signature] DELETED GR 4A STD.

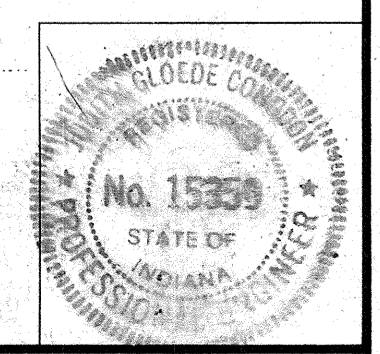


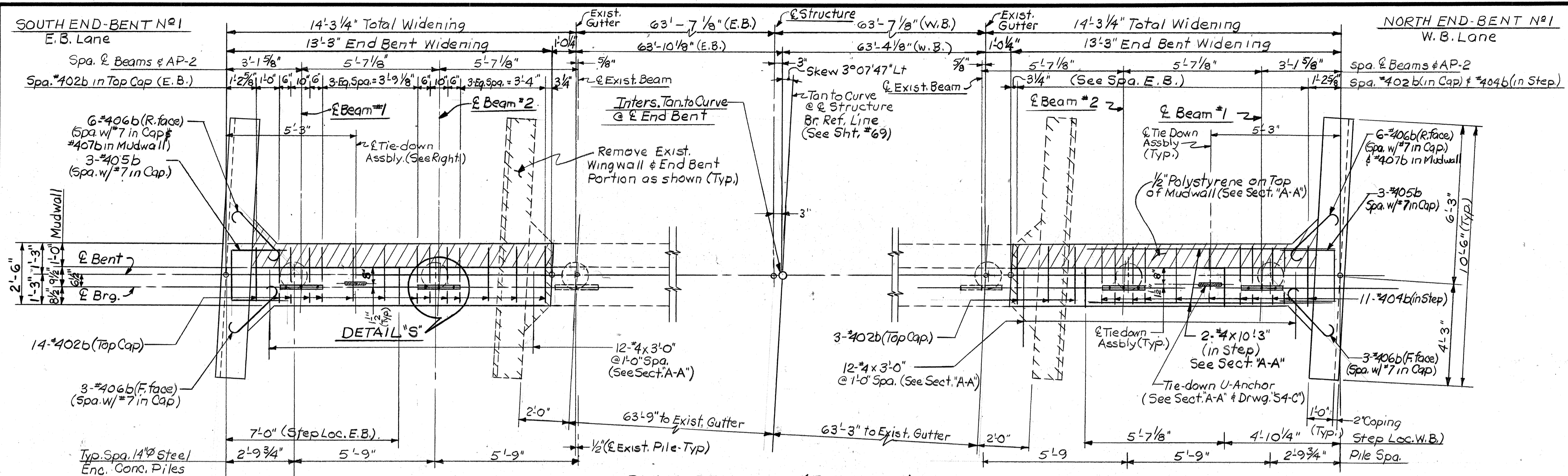


DRAWN: D.E.B. CKD: E.J.D.
 DESIGNED: E.J.D. CKD: J.G.C.
 TRACED: CKD

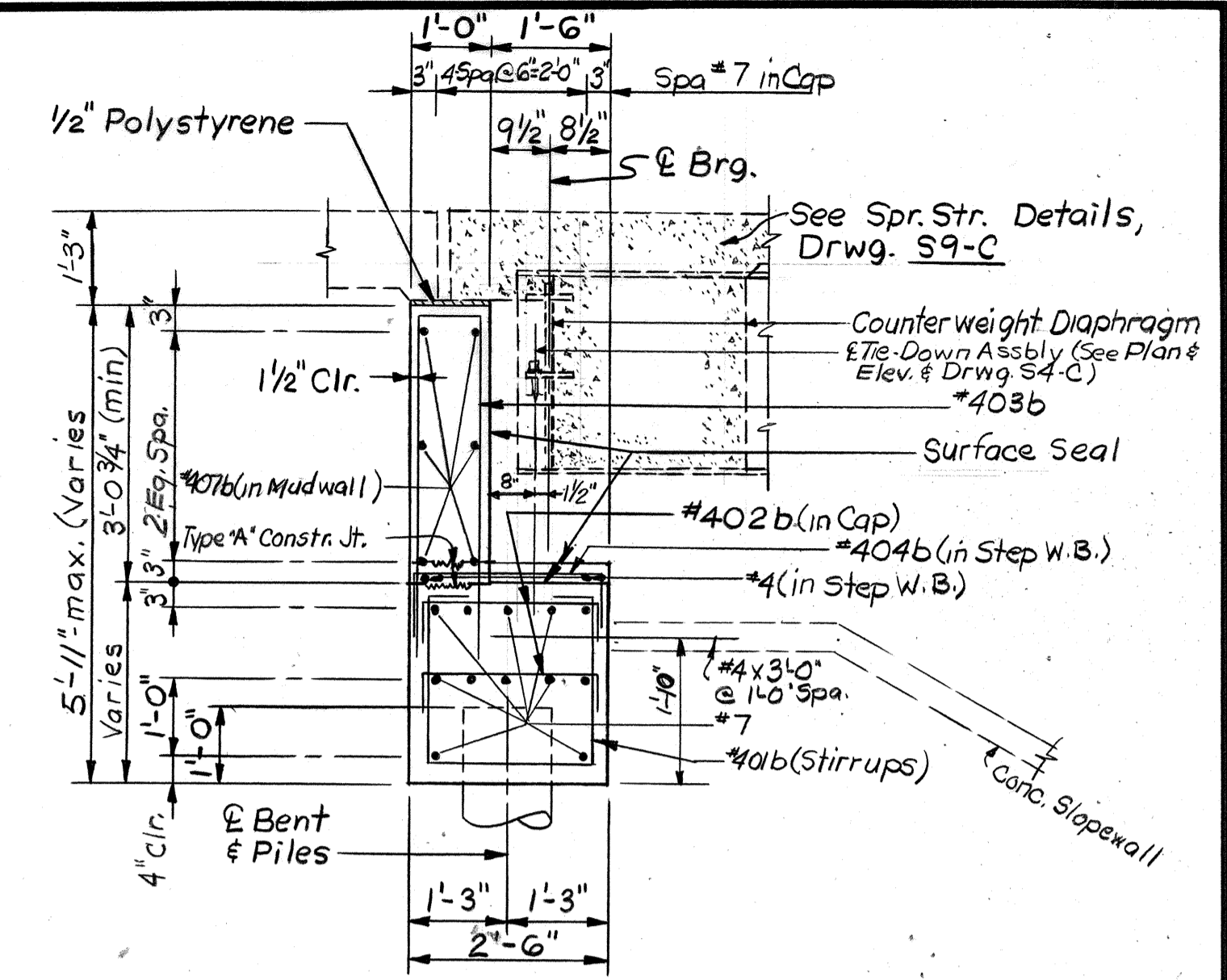
SP-22396

NOTE: FIELD NOTES, BOOK

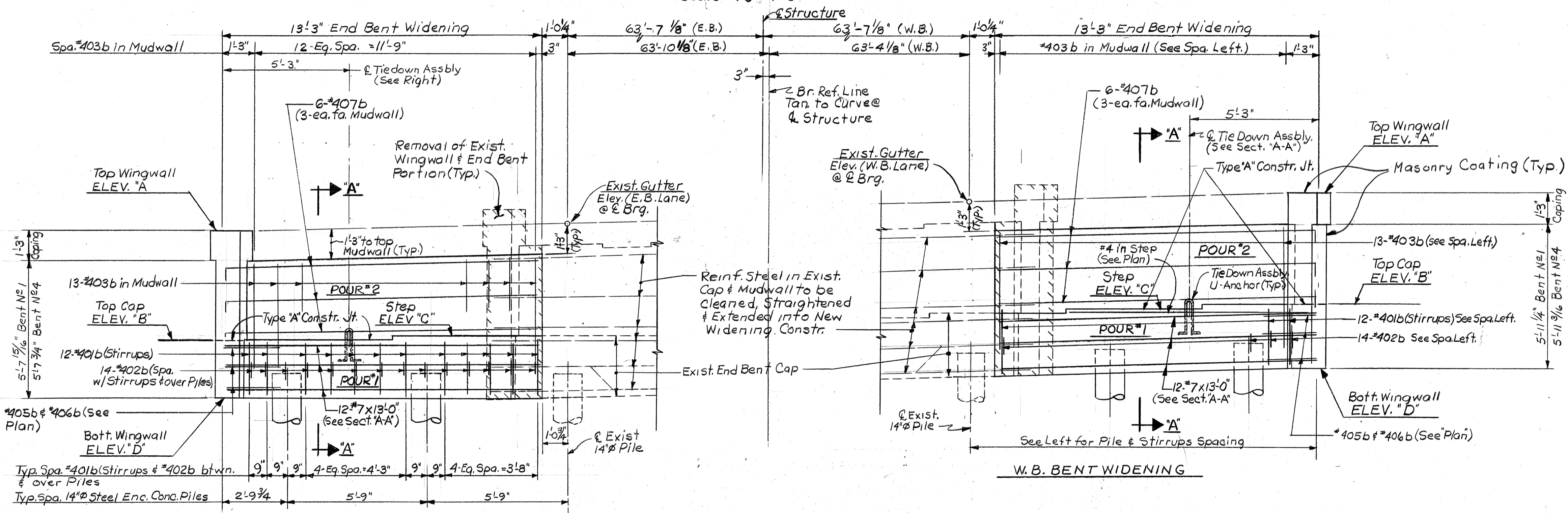




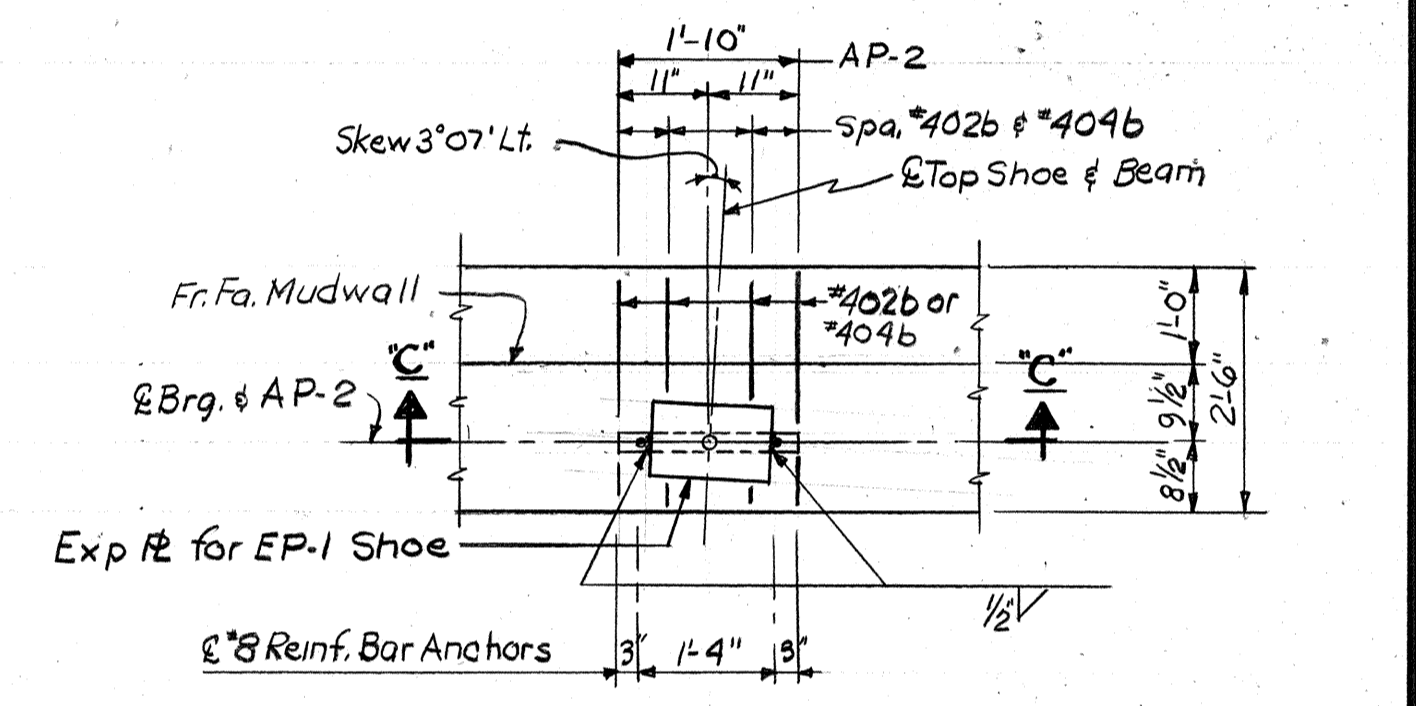
PLAN-BENT N°1 (E.B. & W.B.)
 Bent N°4 same by Opposite Hand
 Scale: 3/8" = 1'-0"



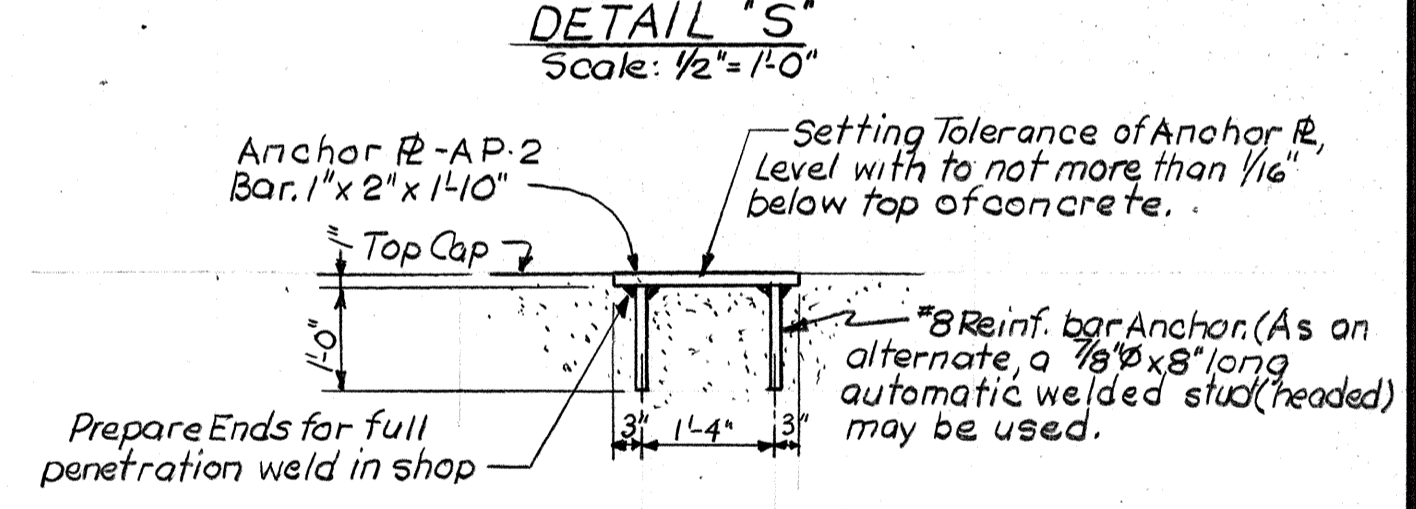
SECTION 'A-A'
 Typical End Bent Widening Detail
 Scale: 1/2" = 1'-0"



ELEVATION-BENT N°1 (E.B. & W.B.)
 BENT N°4 E.B. & W.B. Similar - See TABLE OF ELEVATIONS
 Scale: 3/8" = 1'-0"



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



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

NOTES:
 For Reinforcing Bar Notes, see Br. Std. C1.
 Anchor R5-AP2 & Tie Down 'U' Anchors to be preset in concrete.
 All Reinforcing Steel to be Epoxy Coated.
 For Additional Information, Details and Bill of Materials, see Drwg. S4-C.
 For Tie Down Assembly Details, see Drwg. S4-C.

END BENTS N°1 & N°4
TABLE OF ELEVATIONS

BENT N°	Top Wingwall ELEV. "A"	Top Cap ELEV. "B"	Step ELEV. "C"	Bottom Wingwall ELEV. "D"
N°1 W.B.	848.665	844.250	844.095	841.475
N°1 E.B.	846.040	841.725	841.885	839.130
N°4 W.B.	847.735	843.320	843.160	840.555
N°4 E.B.	845.065	840.750	840.910	838.170

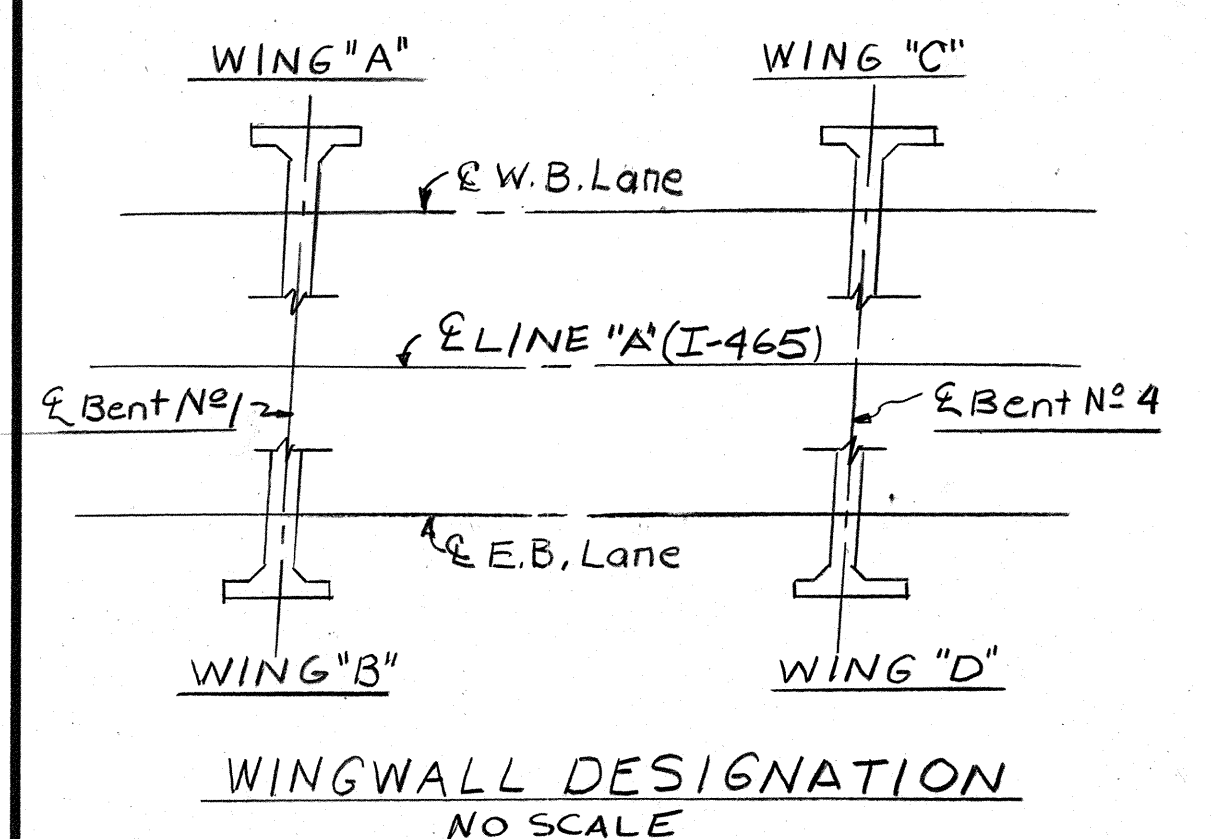
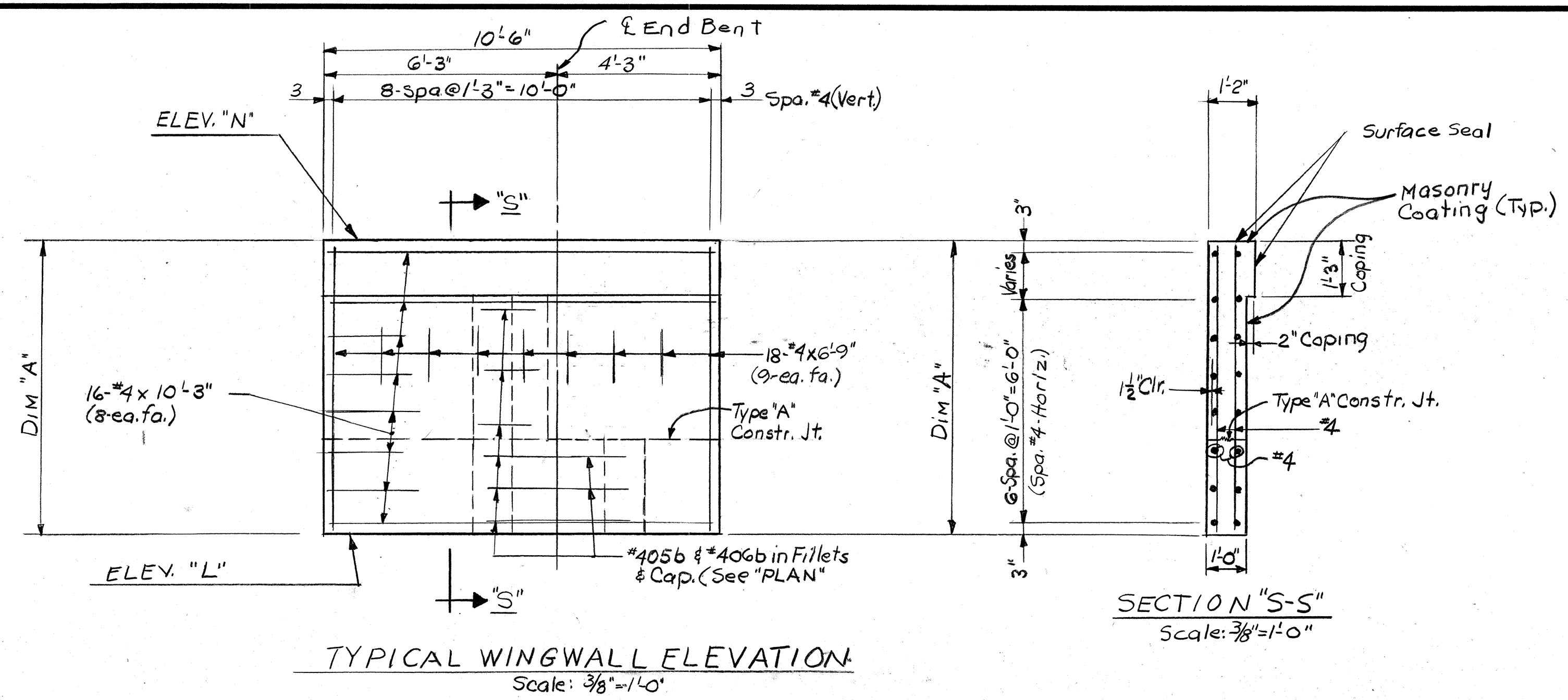
DESIGNED E.J.D. CKD J.G.C.
 DRAWN D.A.B. CKD E.J.D.
 TRACED CKD

SF-22317

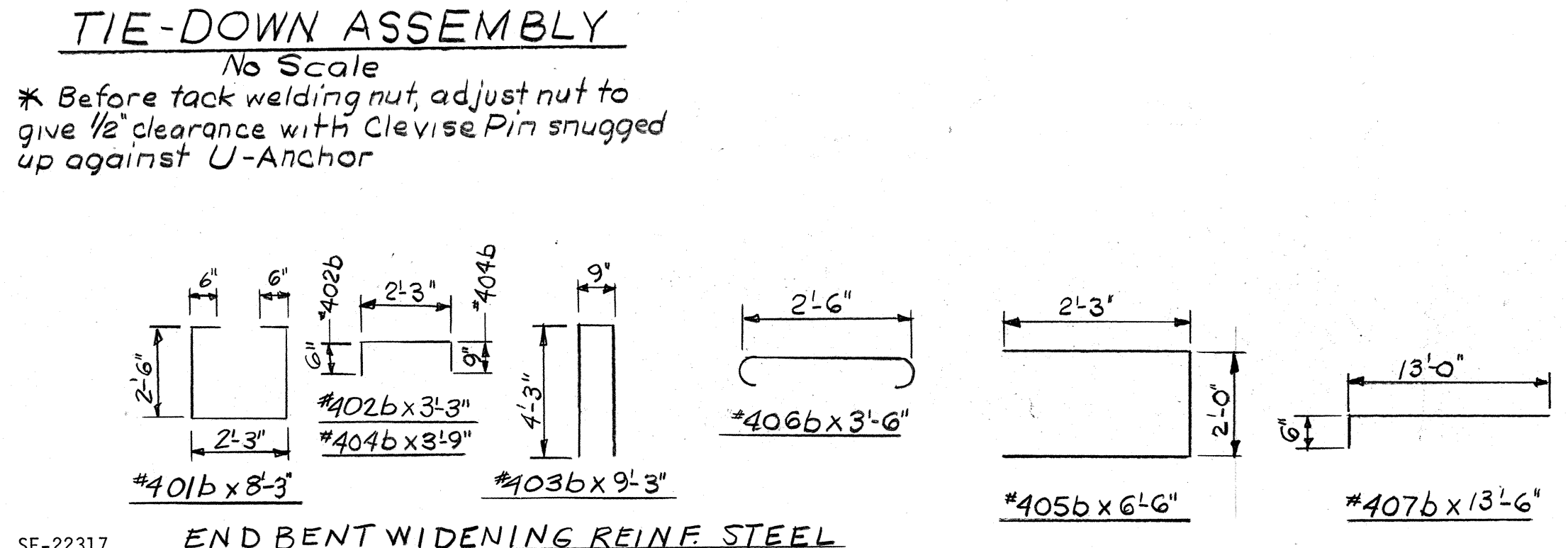
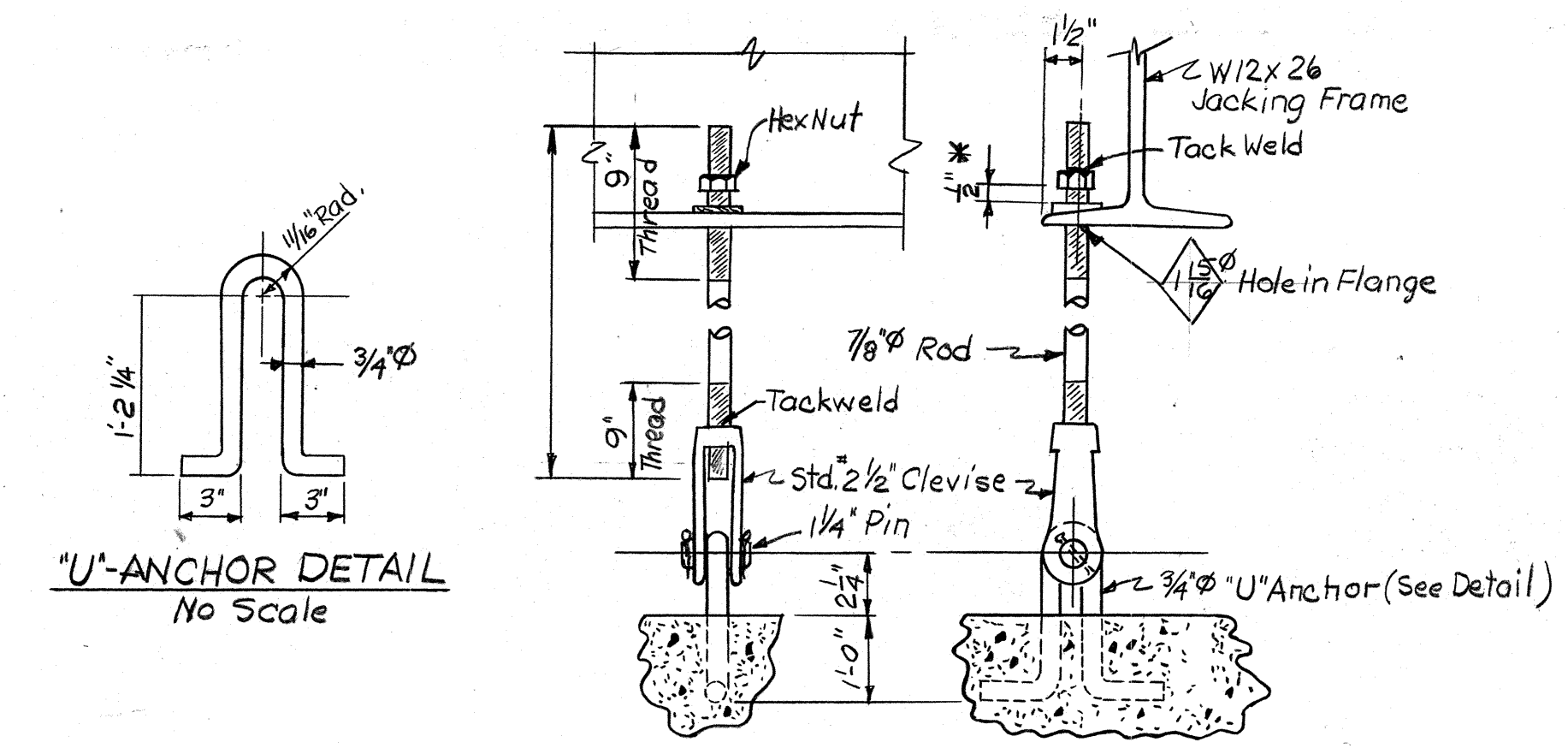
BENT N°1 & N°4 DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: AS NOTED DATE: 1990
 SUBMITTED FOR APPROVAL
 DRAWING-S3-C OF S11-C SHEET-28 OF 41
 PROJECT: ST-I-465-4(B)
 BRIDGE CONTRACT NO. R-19557
 BRIDGE FILE: I-465-130-5279 B





WING	ELEV. "N"	ELEV. "L"	DIM. "A"
A	848.665	841.475	7'-2 1/4"
B	846.040	839.130	6'-10 15/16"
C	847.735	840.555	7'-2 3/16"
D	845.065	838.170	6'-10 3/4"



DESIGNED E.J.D. C.K.D. J.G.C.
DRAWN D.E.B. C.K.D. E.J.D.
TRACED C.K.D.

SF-22317

BENT NO. 1 (E.B. & W.B.)
BILL OF MATERIALS
BENT NO. 4 (E.B. & W.B.) SAME

EPOXY COATED REINFORCING STEEL			
Mark & Size	No. of Bars	Length	Weight (Lbs)
#7	24	13'-0"	638#
#401b	24	8'-3"	
#402b	45	3'-3"	
#403b	26	9'-3"	
#404b	11	3'-9"	
#405b	6	6'-6"	
#406b	18	3'-8"	
#407b	12	13'-6"	
#4	34	10'-3"	
#4	36	6'-0"	
#4	24	3'-0"	
Total #4			1035#

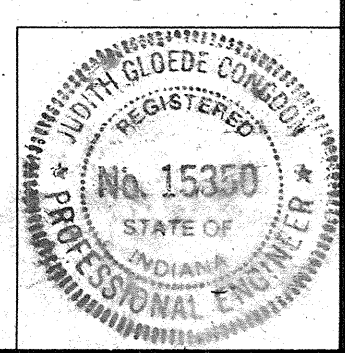
TOTAL - Epoxy Coated Reinforcing Steel	
	1673 #
CONCRETE	
Class 'A' Conc. in Substructure	
E.B. Widening	Pour #1 4.0 Cysds
	Pour #2 3.2 Cysds
W.B. Widening	Pour #1 4.2 Cysds
	Pour #2 3.3 Cysds
Total - Class 'A' Conc. in Substructure 14.7 Cys.	

MISCELLANEOUS	
Surface Seal	2135ft.
Anchor Bs. - AP-2	4 ea.
Tie Down Assemblies	2-ea.
14" Steel Encased Conc. Piles (4@35LF ea)	140 LF.
Masonry Coating (Wings)	96 Sft.

NOTES:
For Reinforcing Bar Notes, see Brstd. C1.
All Reinforcing Steel to be Epoxy Coated.
For Location of Tie Down Assemblies, see Drwg. S3-C.
For Additional Information, Details & Sections, see Drwg. S3-C.

BENT NO. 1 & NO. 4 DETAILS
& BILL OF MATERIALS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - AS NOTED DATE: _____ 1990
SUBMITTED FOR APPROVAL _____
DRAWING: S4-COF S11-C SHEET: 29 OF 41
PROJECT: ST I-465-4 (B)
BRIDGE CONTRACT NO. R-19557
BRIDGE FILE: I-465-130-5279 B



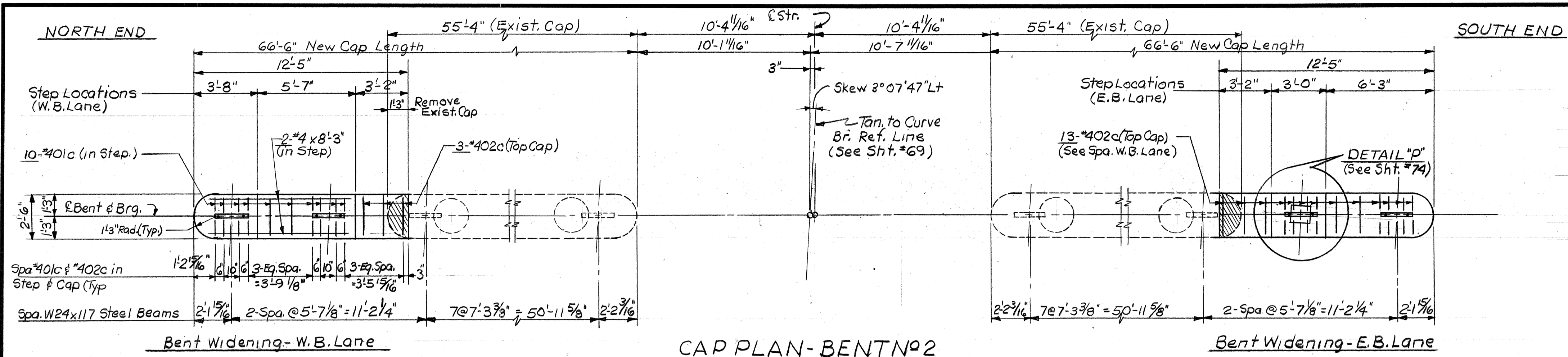
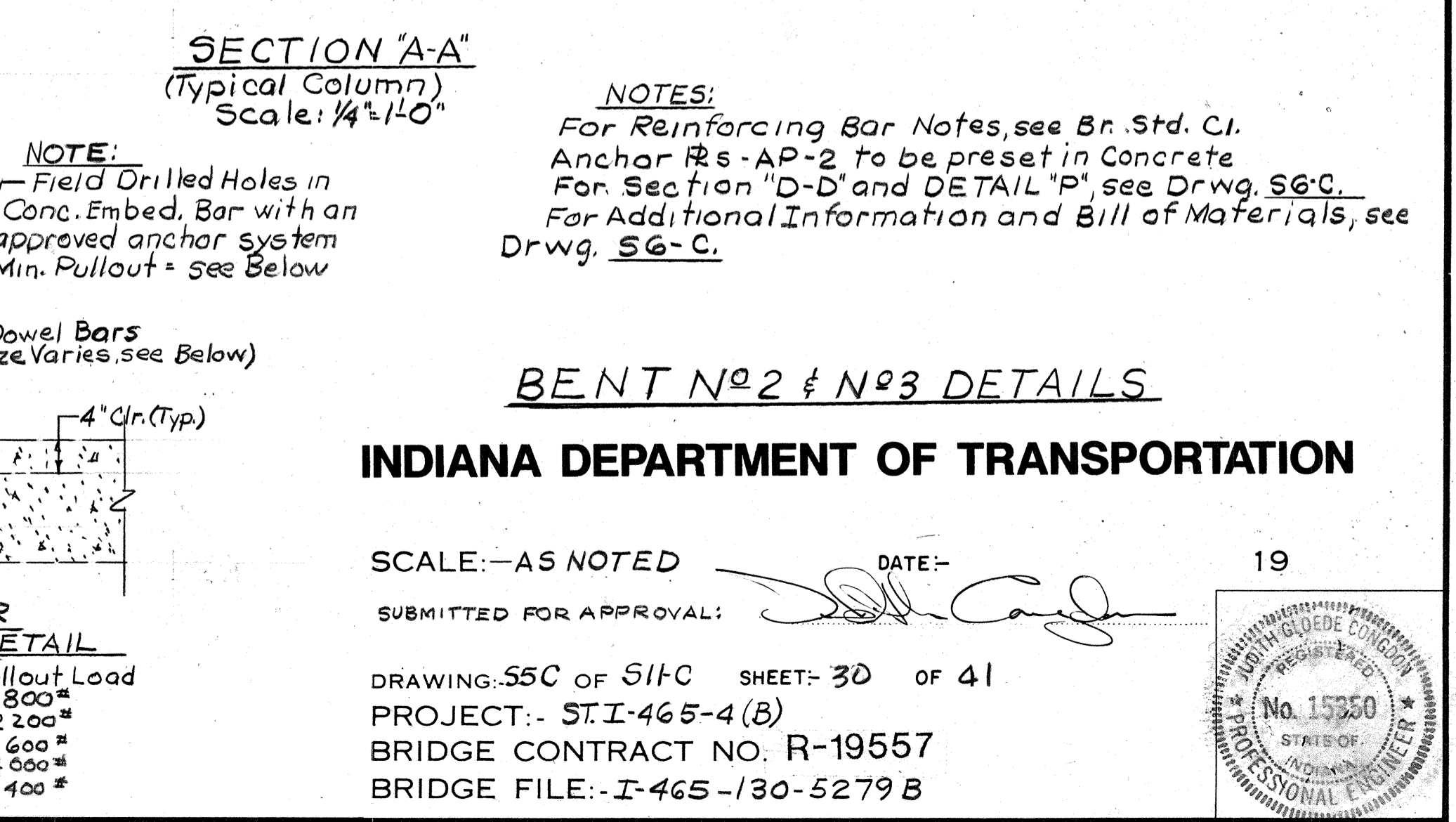
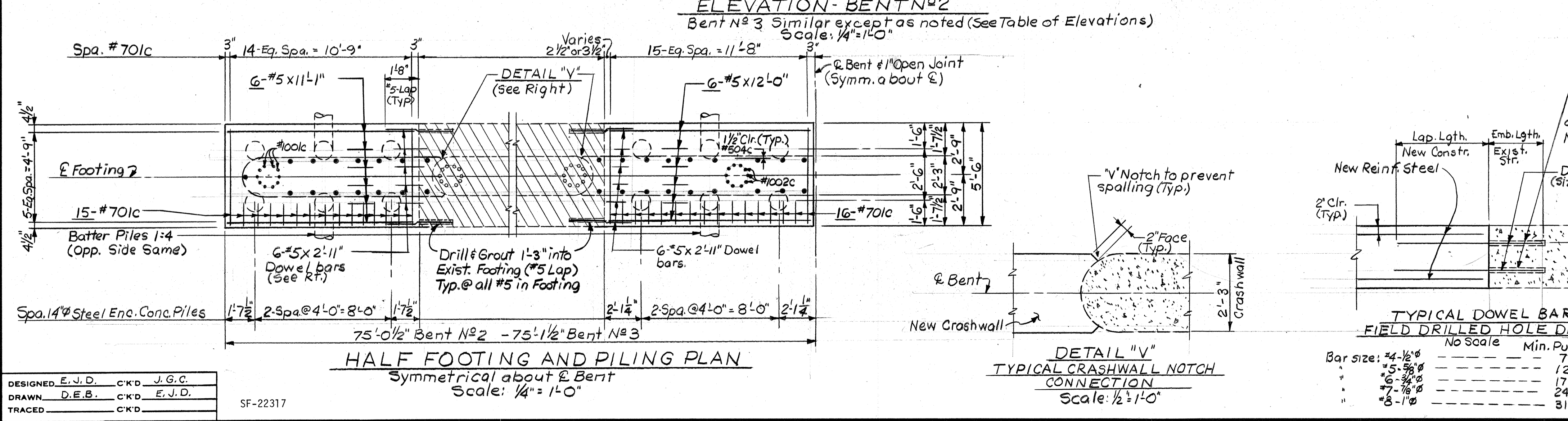
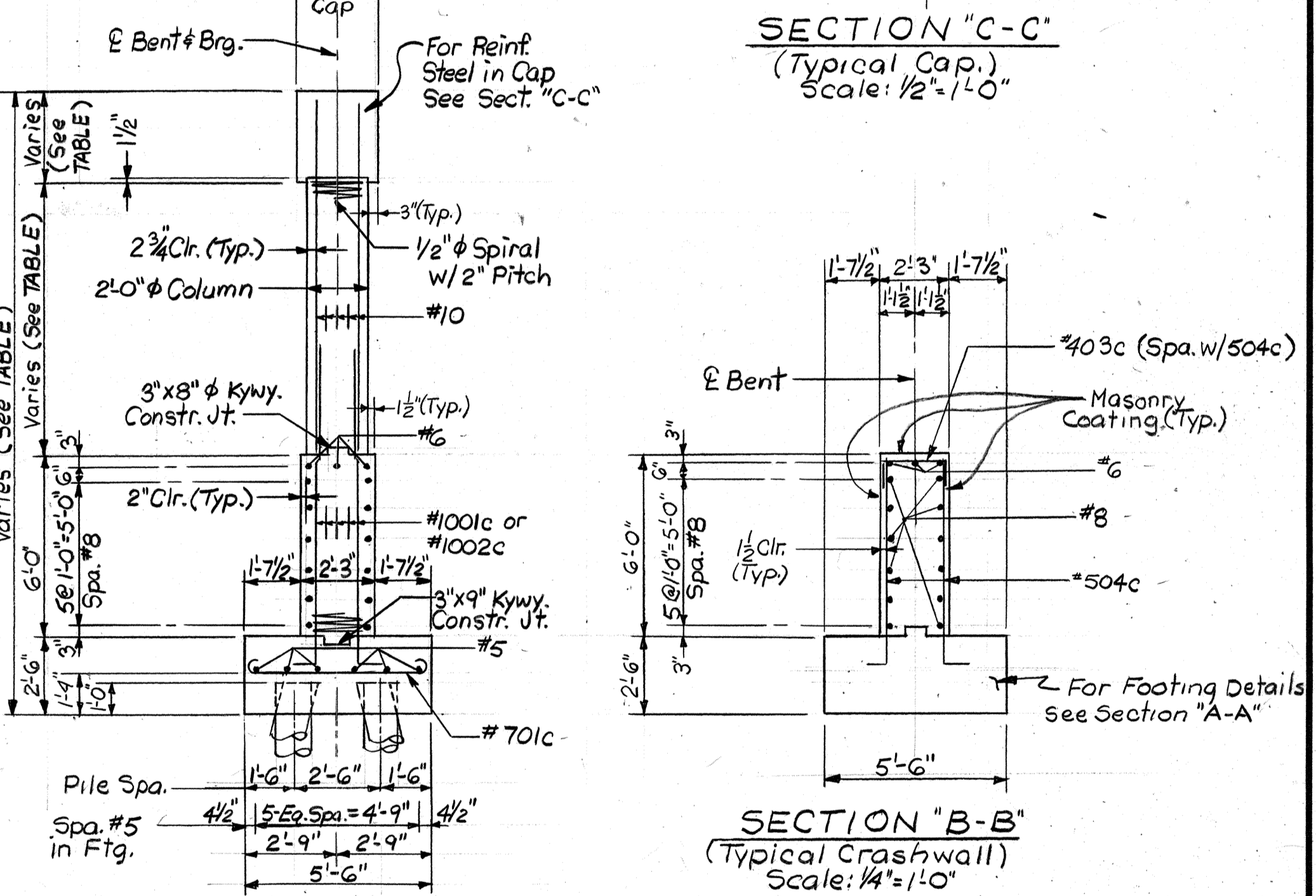
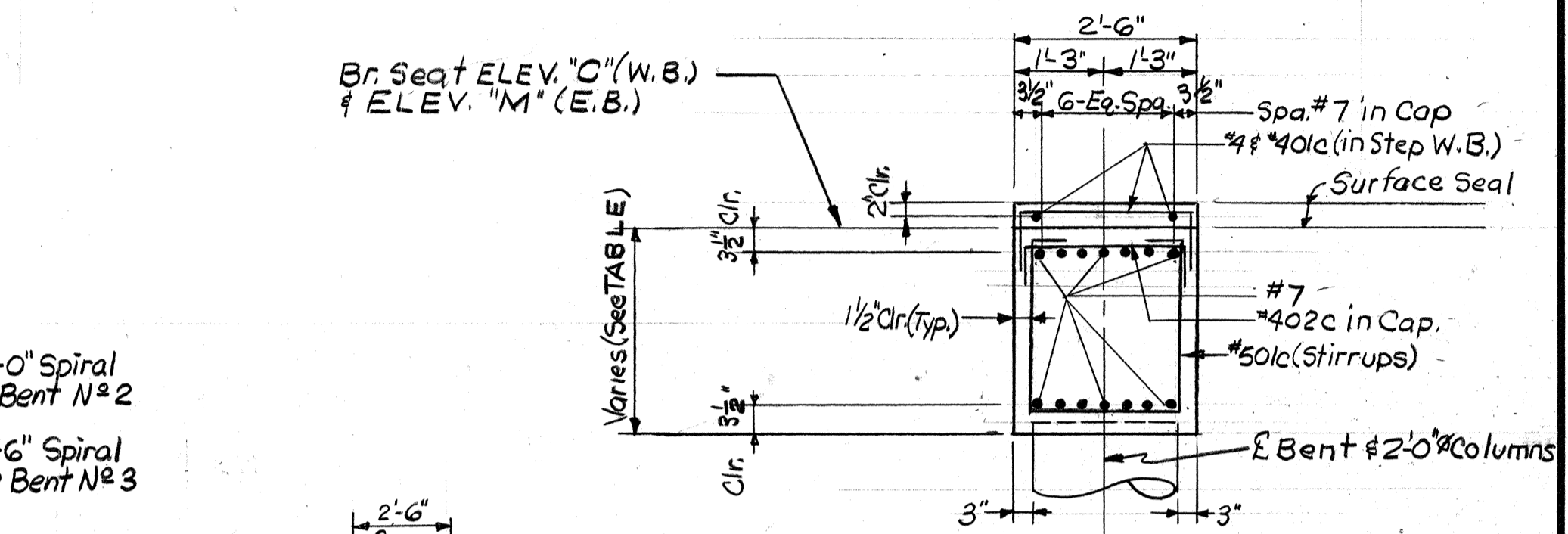
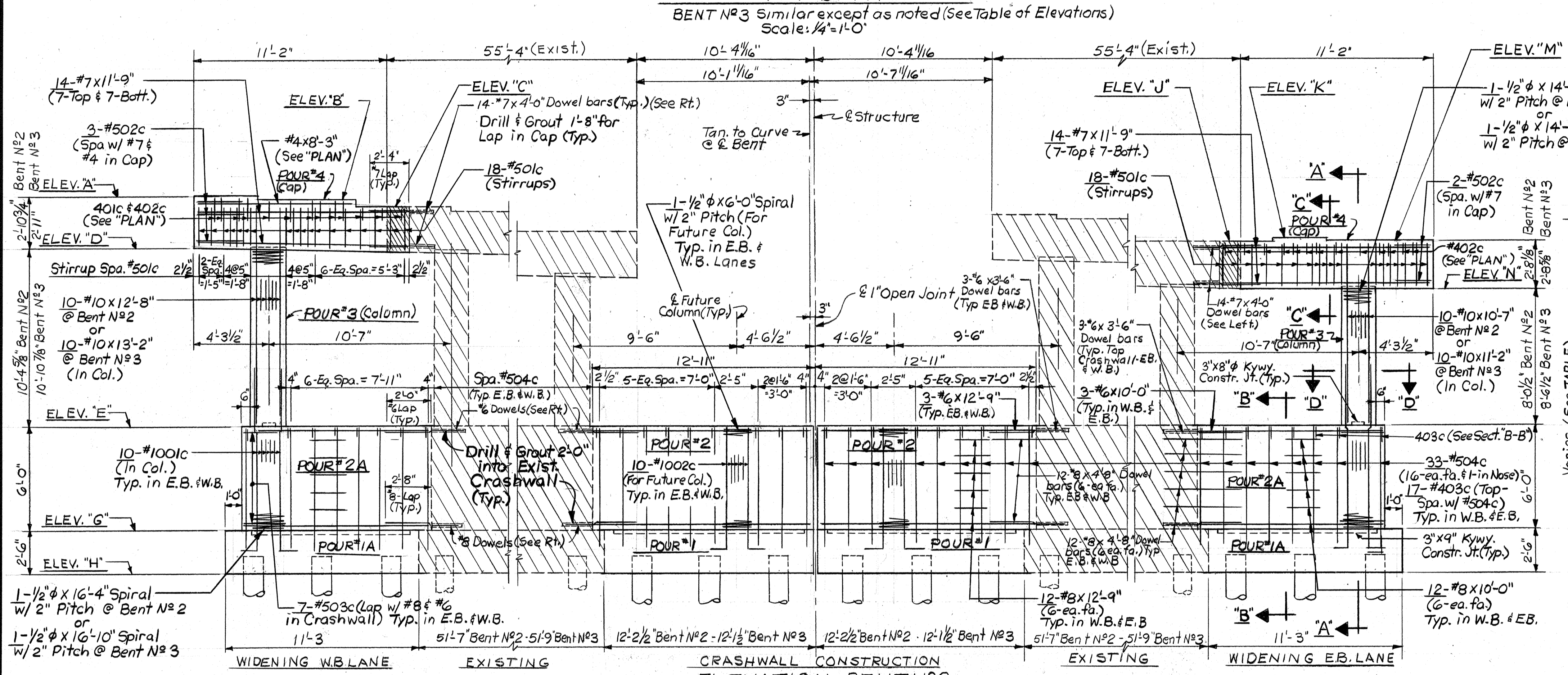


TABLE OF ELEVATIONS

BENT NO	ELEV. "A"	ELEV. "B"	ELEV. "C"	ELEV. "D"	ELEV. "E"	ELEV. "G"	ELEV. "H"
Nº2 W.B.	844.060	843.900	843.530	841.165	830.780	824.780	822.280
Nº3 W.B.	844.480	844.325	843.920	841.565	830.660	824.660	822.160
BENT NO	ELEV. "J"	ELEV. "K"	ELEV. "M"	ELEV. "N"	ELEV. "E"	ELEV. "G"	ELEV. "H"
Nº2 E.B.	841.650	841.680	841.525	838.850	830.810	824.810	822.310
Nº3 E.B.	841.980	842.080	841.925	839.210	830.670	824.670	822.170



NOTES:
For Reinforcing Bar Notes, see Br. Std. C.I. Anchor R5-AP-2 to be preset in Concrete.
For Section "D-D" and DETAIL "P" see Drwg. SG-C.
For Additional Information and Bill of Materials, see Drwg. SG-C.

BENT NO 2 & NO 3 DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - AS NOTED DATE: _____

SUBMITTED FOR APPROVAL: _____

DRAWING: S5C OF S11C SHEET: 3D OF 41

PROJECT: ST.I-465-4(B)

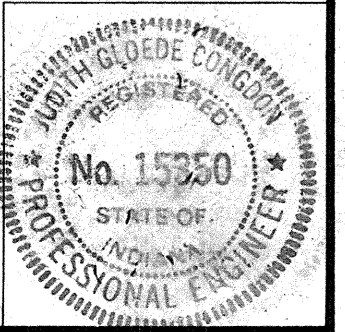
BRIDGE CONTRACT NO. R-19557

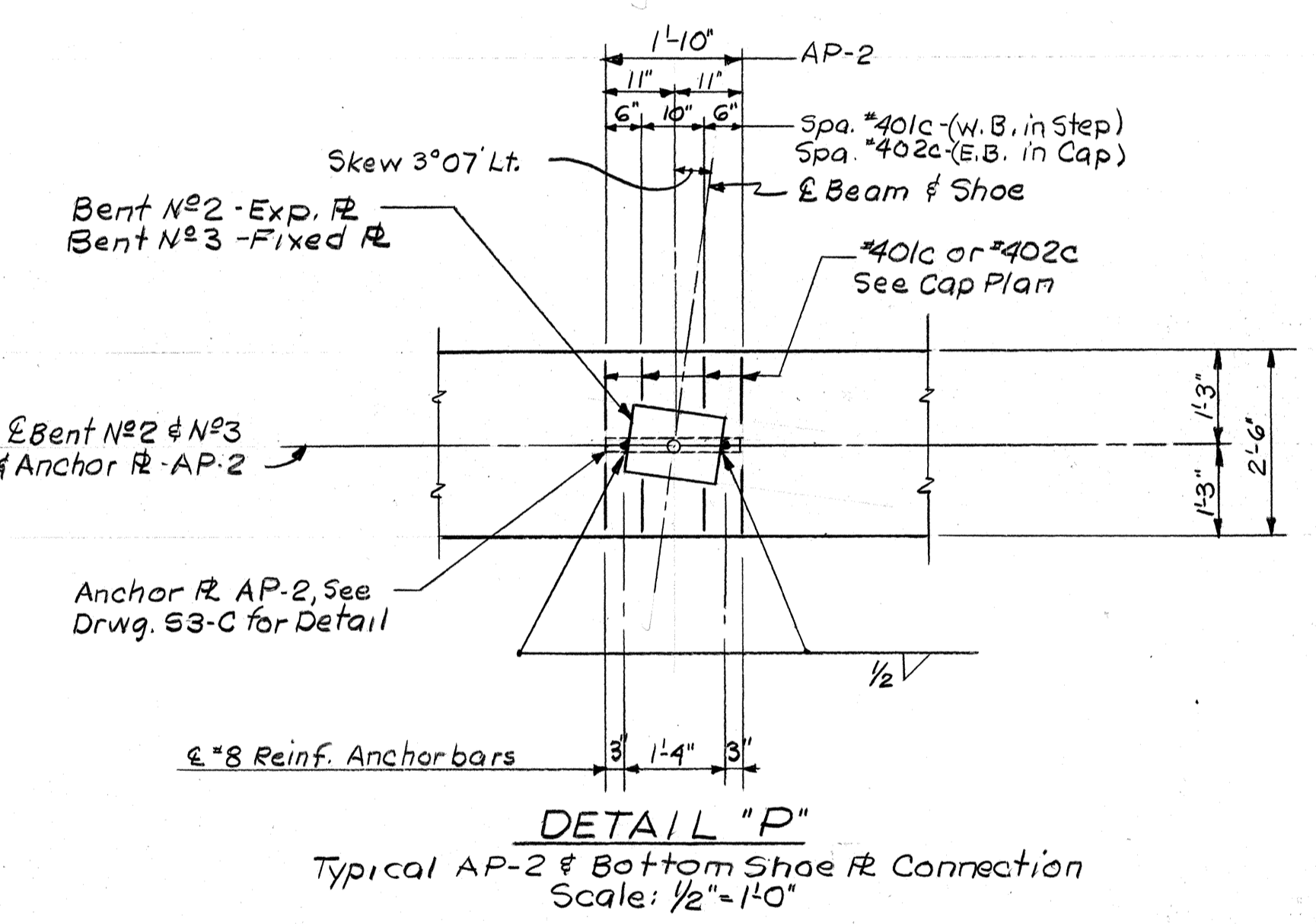
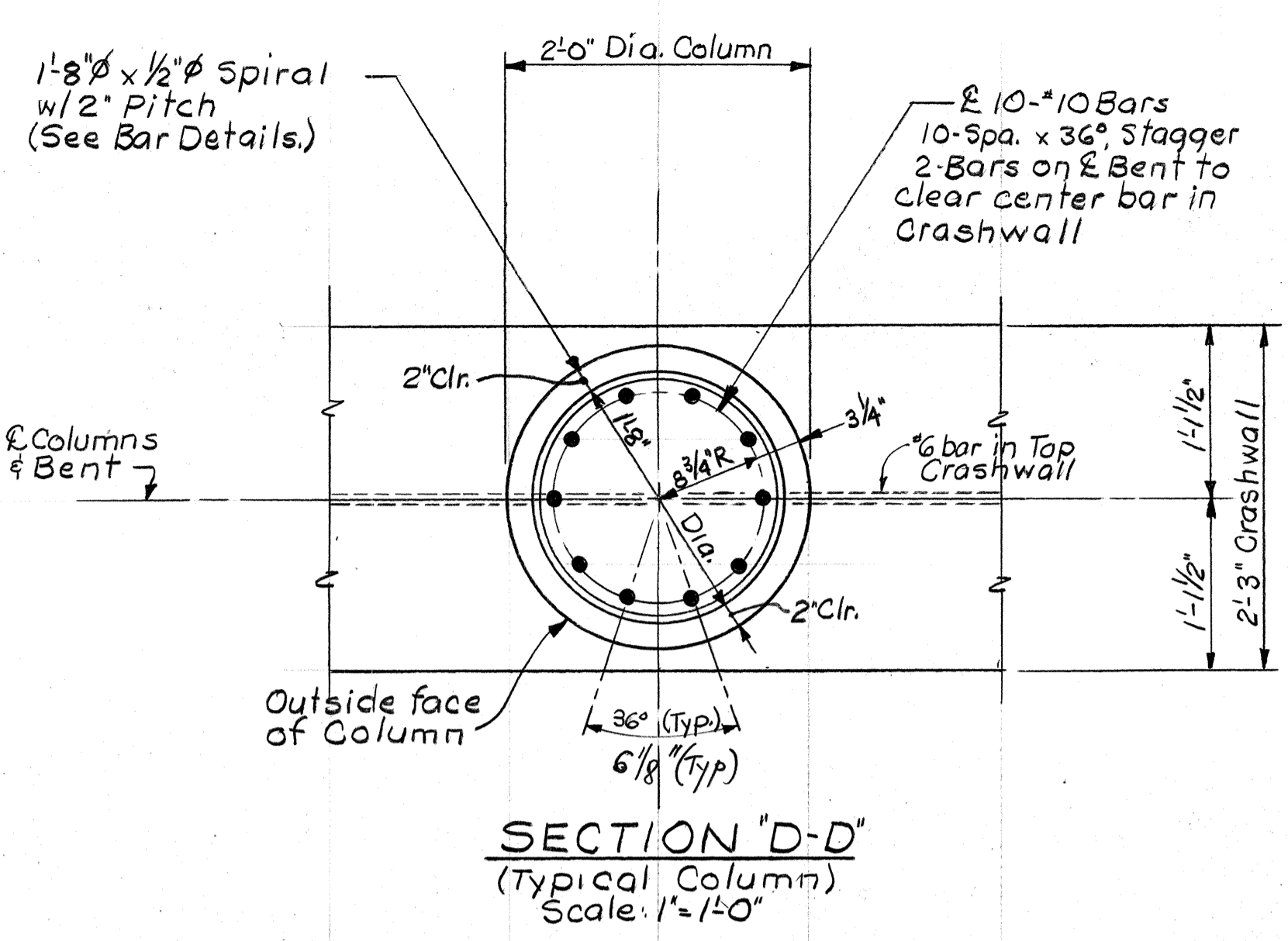
BRIDGE FILE: -I-465-130-5279 B

19

DESIGNED: E.J.D. C.K.D. J.G.C.
DRAWN: D.E.B. C.K.D. E.J.D.
TRACED: C.K.D.

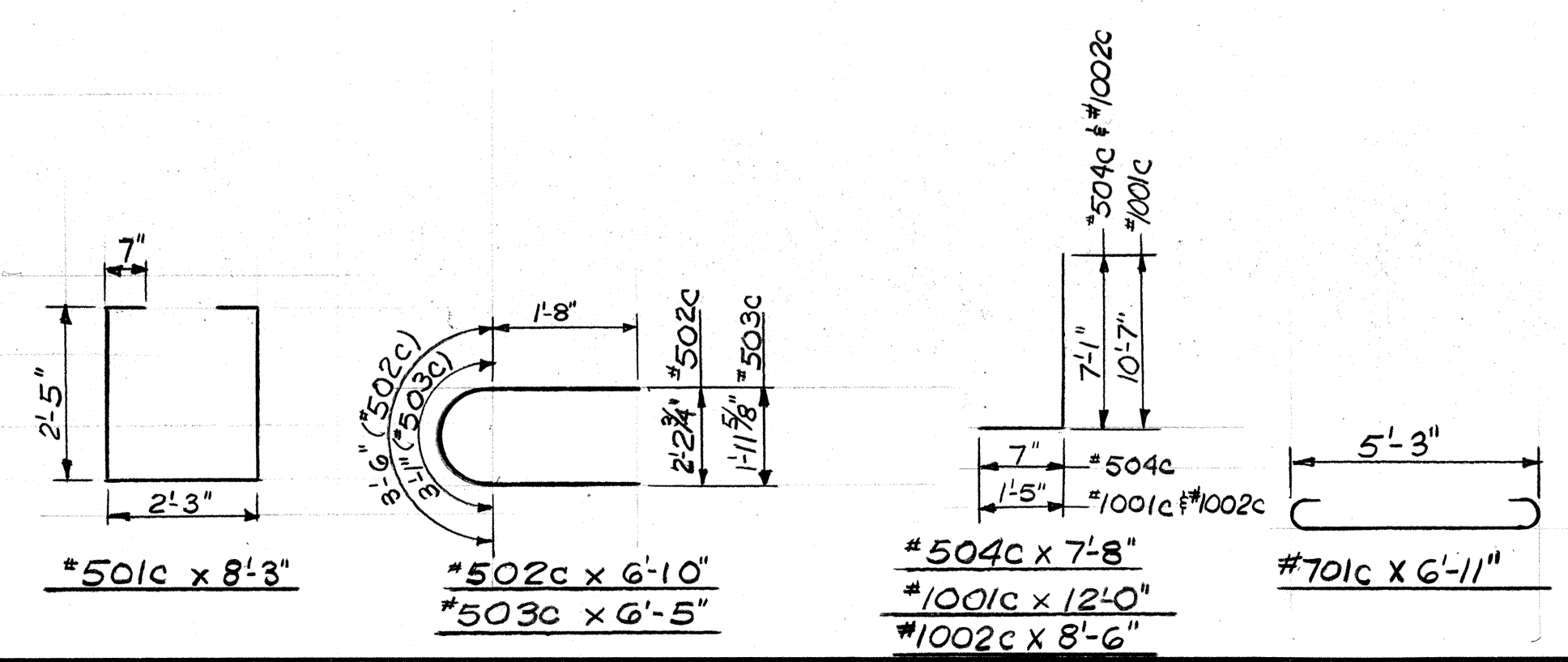
SF-22317





Spiral Height	Total Length	Spirals Required			
		BENT #2		BENT #3	
		W.B.	E.B.	W.B.	E.B.
6'-0"	204 L.F.				
16'-10"	545 L.F.				
16'-4"	529 L.F.				
14'-6"	472 L.F.				
14'-0"	456 L.F.				

Mark Size	Dim. "A"	Dim. "B"	Total Length
#40c	2'-3"	9"	3'-9"
#402c	2'-3"	6"	3'-3"
#403c	2'-0"	6"	3'-0"



DESIGNED: E.J.D. CKD J.G.C.
 DRAWN: D.E.B. CKD E.J.D.
 TRACED: CKD

SF-22317

**BENT #2
BILL OF MATERIALS**

REINFORCING STEEL			
Mark # Size	Nº of Bars	Length	Weight (Lbs)
#1001c	20	12'-0"	
#1002c	20	8'-6"	
#10	10	12'-8"	
#10	10	10'-7"	
Total #10			2765 #
#8	24	12'-9"	
#8	24	10'-0"	
#8 (Dowels)	48	4'-8"	
Total #8			2056 #
#701c	62	6'-11"	
#7	28	11'-9"	
#7 (Dowels)	28	4'-0"	
Total #7			1778 #
#6	6	12'-9"	
#6	6	10'-0"	
#6 (Dowels)	12	3'-6"	
Total #6			291 #
#501c	36	8'-3"	
#502c	5	6'-10"	
#503c	14	6'-5"	
#504c	66	7'-8"	
#5	12	12'-0"	
#5	12	11'-1"	
#5 (Dowels)	24	2'-11"	
Total #5			1329 #
#401c	10	3'-9"	
#402c	16	3'-3"	
#403c	34	3'-0"	
#4	2	8'-3"	
#4-Spiral	1	529'-0"	
#4-Spiral	1	456'-0"	
#4-Spiral	2	204'-0"	
Total #4			1069 #
Total Reinforcing Steel			9288 #
CONCRETE			
Class "B" Conc. in Footing			
E.B. Lane	Pour #1	6.2 Cyd.	
W.B. Lane	Pour #1-A	5.7 Cyd.	
W.B. Lane	Pour #1	6.2 Cyd.	
W.B. Lane	Pour #1-A	5.7 Cyd.	
Total - Class "B" Conc. in Footing			23.8 Cyd.
Class "A" Conc. in Substructure			
E.B. Lane (Crashwalls)	Pour #2	6.5 Cyd.	
E.B. Lane (Crashwalls)	Pour #2-A	5.5 Cyd.	
W.B. Lane (Crashwalls)	Pour #2	6.5 Cyd.	
W.B. Lane (Crashwalls)	Pour #2-A	5.5 Cyd.	
E.B. Lane (Column)	Pour #3	0.9 Cyd.	
W.B. Lane (Column)	Pour #3	1.2 Cyd.	
E.B. Lane (Cap)	Pour #4	3.2 Cyd.	
W.B. Lane (Cap)	Pour #4	3.3 Cyd.	
Total - Class "A" Conc. in Substructure			32.6 Cyd.
MISCELLANEOUS			
Anchor IR - AP-2		4 ea.	
Surface Seal		62 Sft.	
14"Ø Steel Encased Conc. Piles - 24 ea. @ 25 L.F.		600 L.F.	
Field Drilled Holes in Concrete		112 ea.	
Masonry Coating (Crashwalls)		3975 ft.	

**BENT #3
BILL OF MATERIALS**

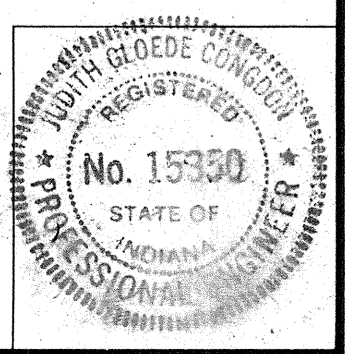
REINFORCING STEEL			
Mark # Size	Nº of Bars	Length	Weight (Lbs)
#1001c	20	12'-0"	
#1002c	20	8'-6"	
#10	10	13'-2"	
#10	10	11'-2"	
Total #10			2812 #
#8	24	12'-9"	
#8	24	10'-0"	
#8	48	4'-8"	
Total #8			2056 #
#701c	62	6'-11"	
#7	28	11'-9"	
#7	28	4'-0"	
Total #7			1778 #
#6	6	12'-9"	
#6	6	10'-0"	
#6	6	3'-6"	
Total #6			291 #
#501c	36	8'-3"	
#502c	5	6'-10"	
#503c	14	6'-5"	
#504c	66	7'-8"	
#5	12	12'-0"	
#5	12	11'-1"	
#5	24	2'-11"	
Total #5			1329 #
#401c	10	3'-9"	
#402c	16	3'-3"	
#403c	34	3'-0"	
#4	2	8'-3"	
#4-Spiral	1	545'-0"	
#4-Spiral	1	472'-0"	
#4-Spiral	2	204'-0"	
Total #4			1091 #
Total Reinforcing Steel			9357 #
CONCRETE			
Class "B" Conc. in Footing			
E.B. Lane	Pour #1	6.2 Cyd.	
W.B. Lane	Pour #1-A	5.7 Cyd.	
W.B. Lane	Pour #1	6.2 Cyd.	
W.B. Lane	Pour #1-A	5.7 Cyd.	
Total - Class "B" Conc. in Footing			23.8 Cyd.
Class "A" Conc. in Substructure			
E.B. Lane (Crashwalls)	Pour #2	6.5 Cyd.	
E.B. Lane (Crashwalls)	Pour #2-A	5.5 Cyd.	
W.B. Lane (Crashwalls)	Pour #2	6.5 Cyd.	
W.B. Lane (Crashwalls)	Pour #2-A	5.5 Cyd.	
E.B. Lane (Column)	Pour #3	1.0 Cyd.	
W.B. Lane (Column)	Pour #3	1.3 Cyd.	
E.B. Lane (Cap)	Pour #4	3.2 Cyd.	
W.B. Lane (Cap)	Pour #4	3.3 Cyd.	
Total - Class "A" Conc. in Substructure			32.8 Cyd.
MISCELLANEOUS			
Anchor IR - AP-2		4 ea.	
Surface Seal		62 Sft.	
14"Ø Steel Encased Conc. Piles - 24 ea. @ 25 L.F.		600 L.F.	
Field Drilled Holes in Concrete		112 ea.	
Masonry Coating (Crashwalls)		397 Sft.	

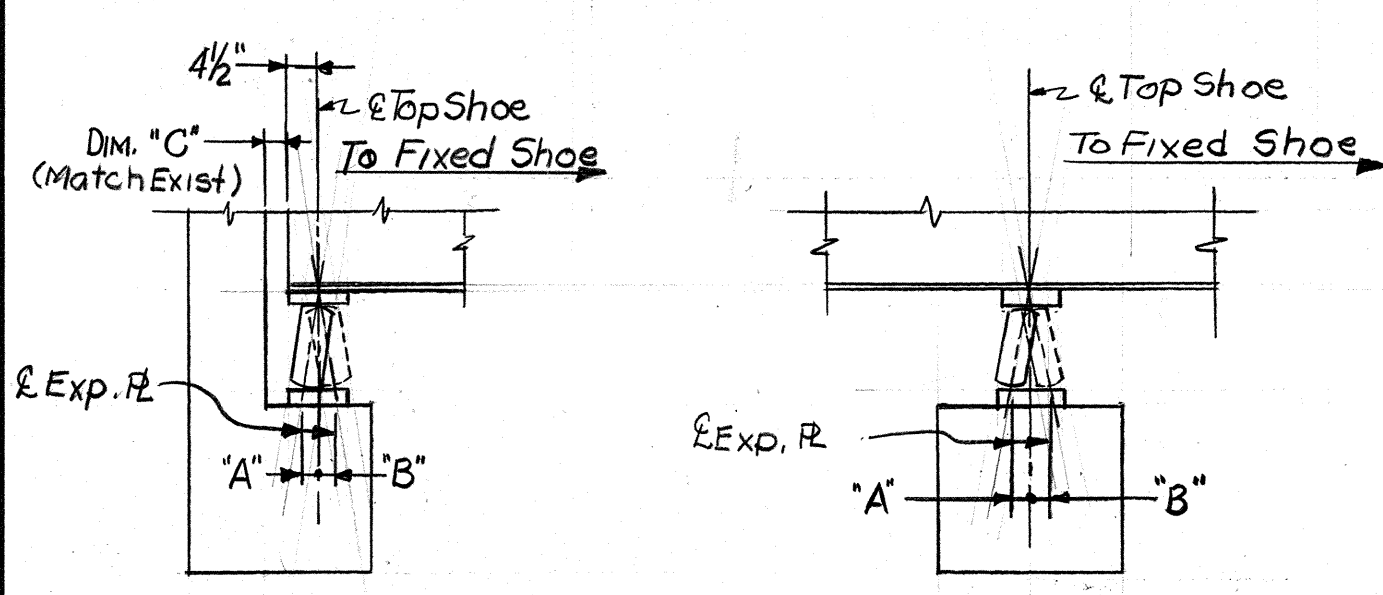
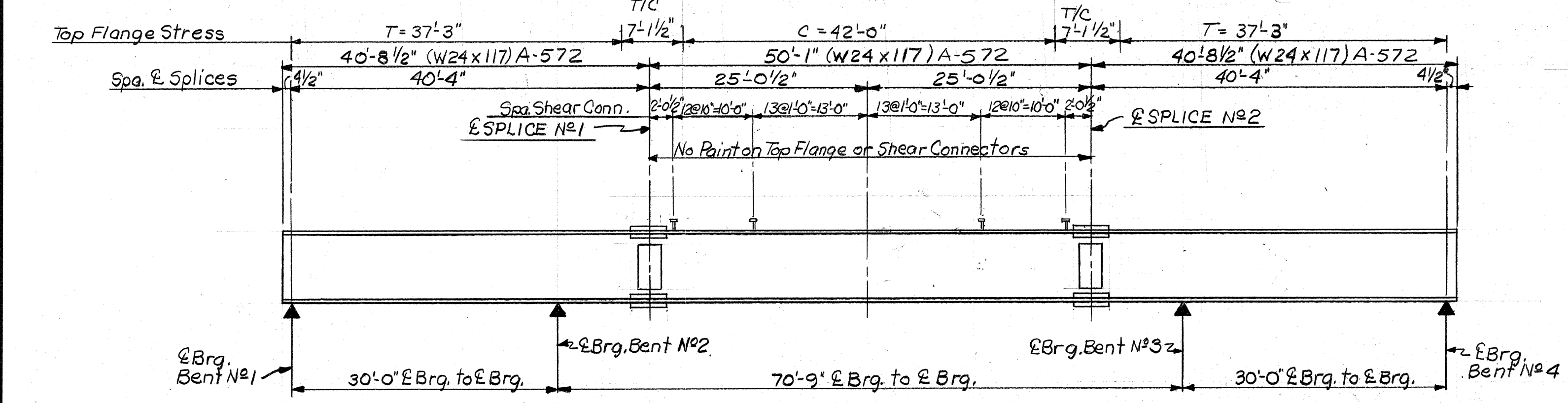
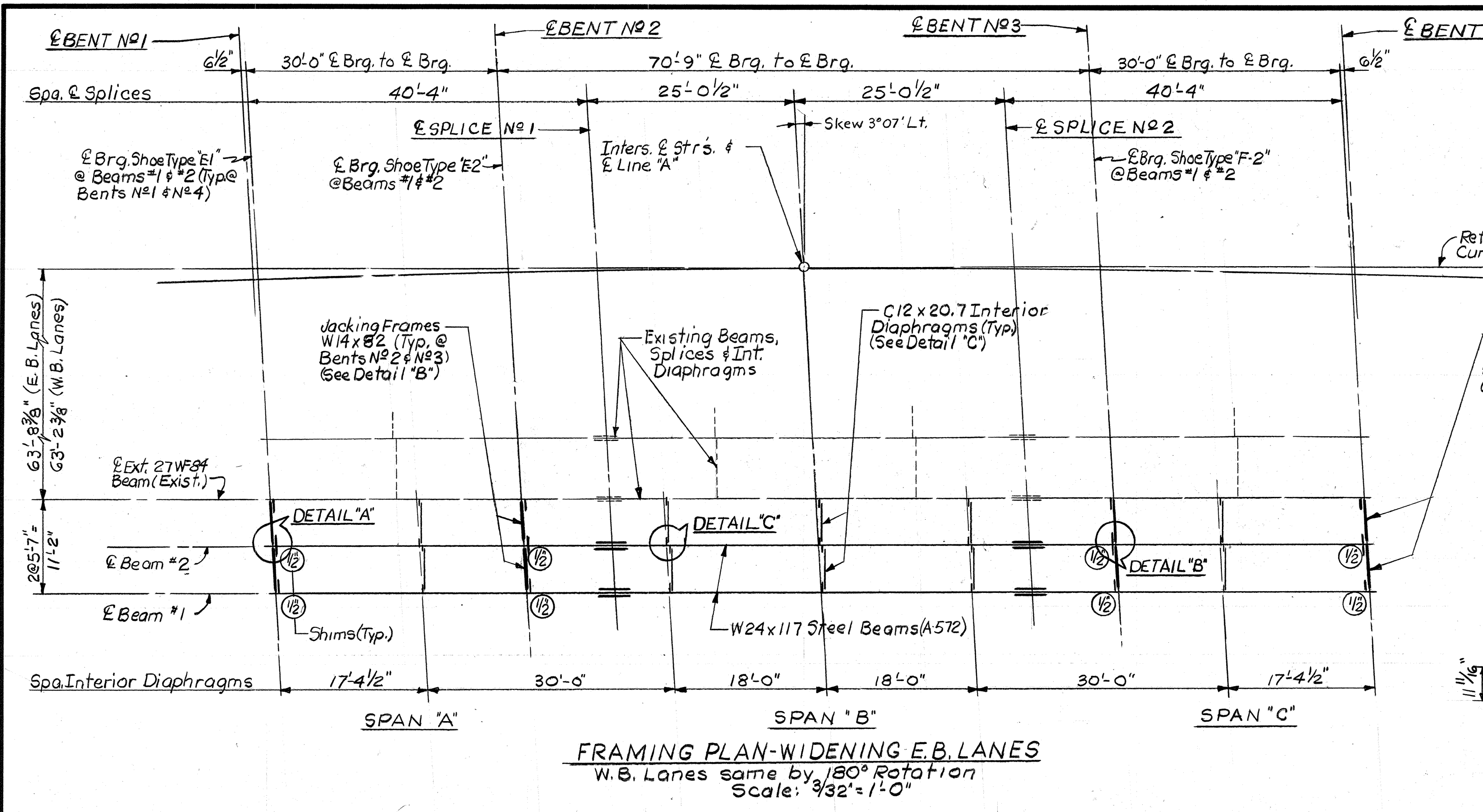
NOTES:
 For Reinforcing Bar Notes, see Br. Std. C1
 Anchor IRs, AP-2 to be preset in Concrete.
 For Additional Details, Sections & Table of Elevations, see Drwg. S5-C

**BENT #2 & #3 DETAILS
& BILL OF MATERIALS**

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - AS NOTED
 SUBMITTED FOR APPROVAL: [Signature]
 DATE: [Signature]
 1990
 DRAWING: 56-COF S11-C SHEET: 31 OF 41
 PROJECT: ST I- 465-4 (B)
 BRIDGE CONTRACT NO. R-19557
 BRIDGE FILE: I-465-130-5279B





SETTING OF BEARINGS

TEMP. °F	BENT N ^o 1		BENT N ^o 2		BENT N ^o 4	
	"A"	"B"	"A"	"B"	"A"	"B"
0°	1"	5/16"			1/8"	
20°	3/16"	1/4"			0	
40°	5/8"	1/8"			1/16"	
60°	7/16"	0			1/8"	
80°	1/4"		1/8"		3/16"	
100°	1/16"		1/4"		1/4"	
120°		1/16"	5/16"		1/4"	

GENERAL ERECTION PROCEDURE

After all connections have been bolted and welding completed, adjust superstructure longitudinally so that DIM. "C" at each end bent is equal. MATCH EXISTING SUPERSTRUCTURE SETTING.

With the superstructure in the adjusted position, set anchor bolts at Fixed BENT N^o 3.

Adjust the expansion plates under each expansion shoe in accordance with DIM. "A" & "B" for the prevailing temperature. DIM. "A" is always in a direction away from the fixed shoe. Weld the Exp. R's to the Anchor Plates (AP-2).

Screed Elevations shall be determined by adding the Concrete Dead Load Deflections to the required final Concrete Elevations at all Screed Points. Screed Elevations will be provided upon request.

No Concrete shall be poured until the above operations are completed.

DESIGNED: E.J.D. C.K.D. J.G.C.
DRAWN: D.E.B. C.K.D. E.J.D.
TRACED: C.K.D.

SF-22317

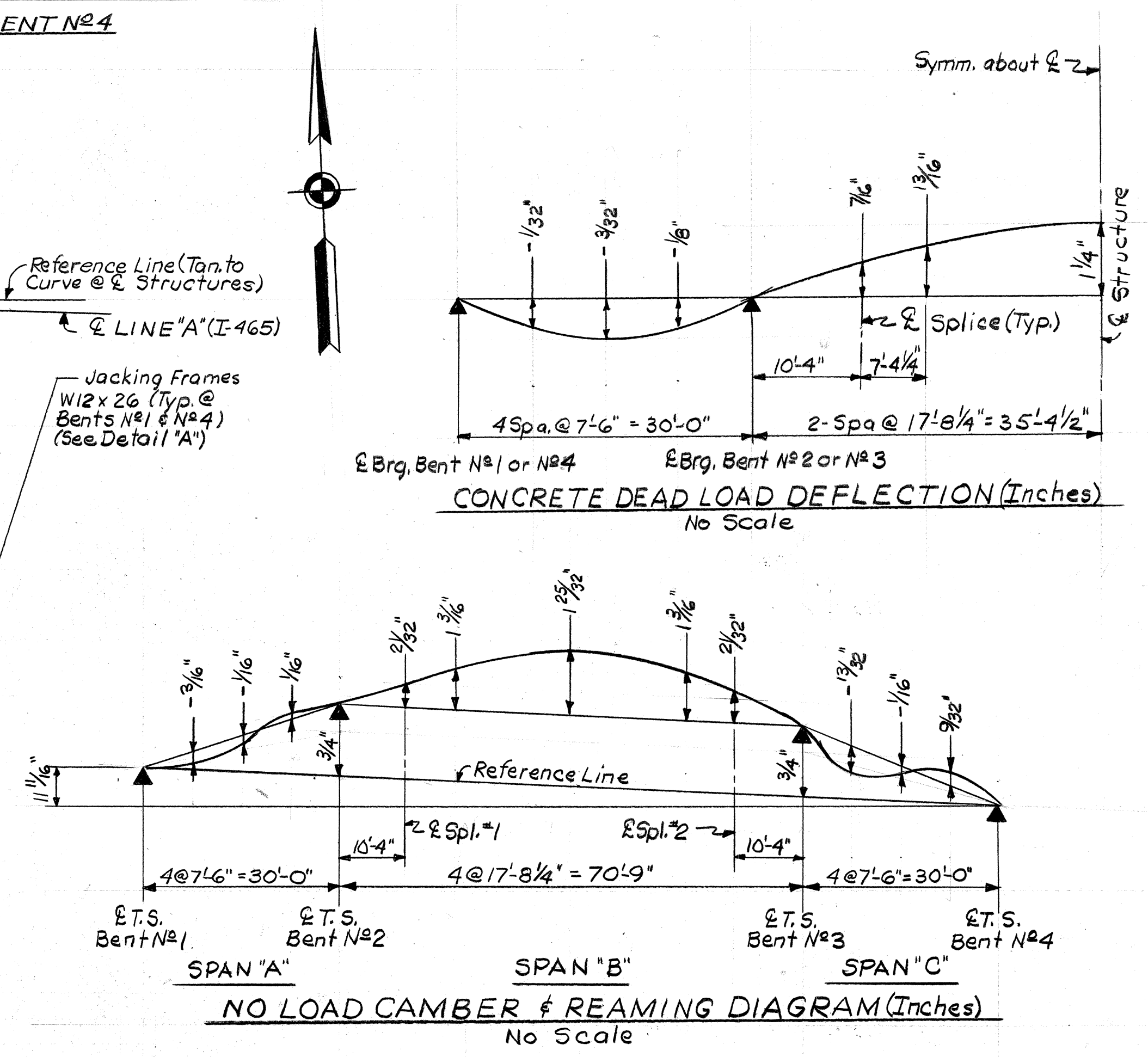
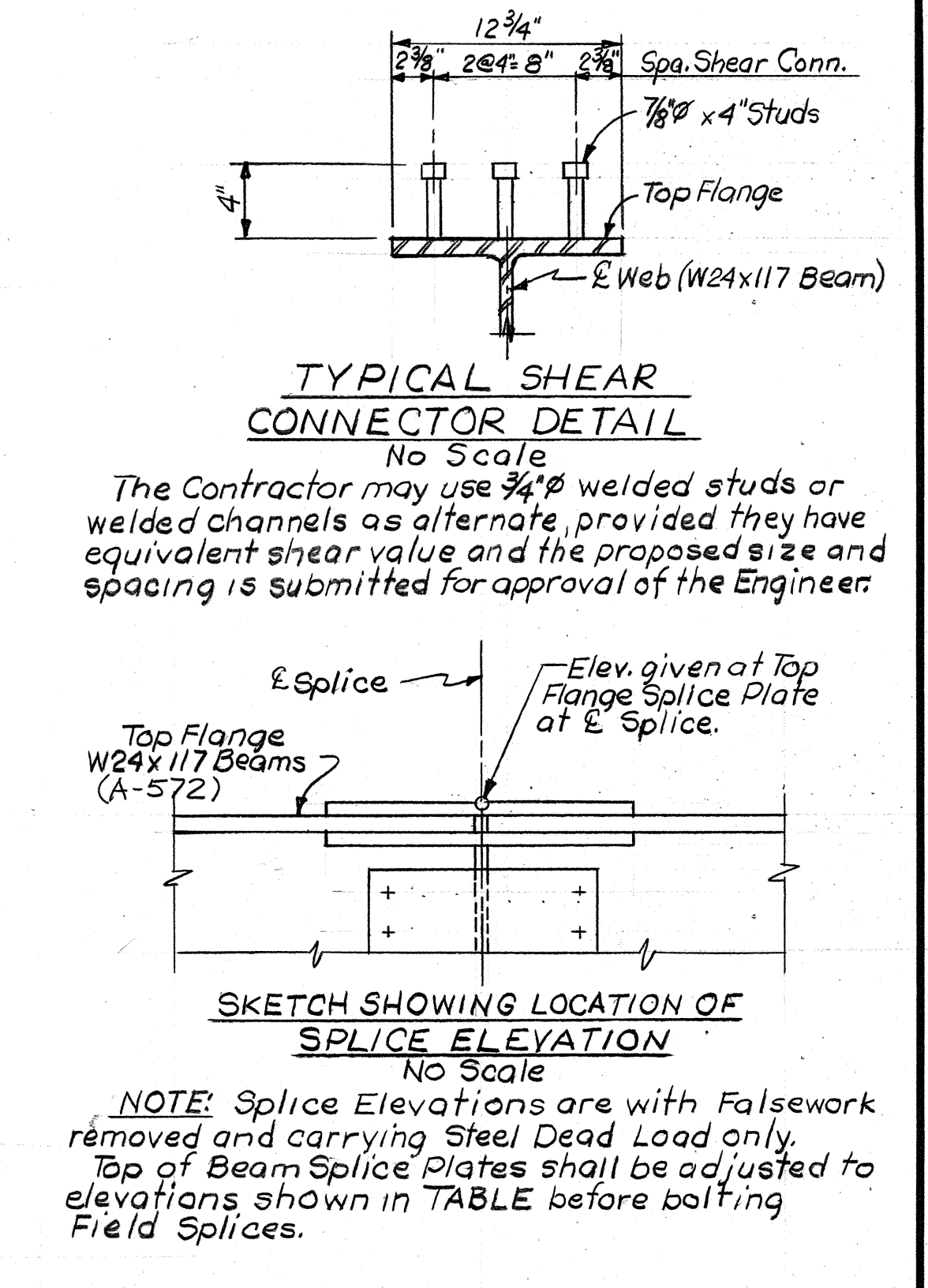


TABLE OF CAMBERS (Inches)

	EBrg. Bent No. 1		EBrg. Bent No. 2			EBrg. Bent No. 3			EBrg. Bent No. 4			
	1/4 Point	1/2 Point	3/4 Point	EBrg. Splice #1	1/4 Point	1/2 Point	3/4 Point	EBrg. Splice #2	1/4 Point	1/2 Point	3/4 Point	
DEAD LOAD STEEL	0	-1/32	-1/32	0	1/16	5/32	7/32	5/32	1/16	0	-1/32	-1/32
DEAD LOAD CONCRETE	0	-1/32	-3/32	0	7/16	1/16	1/4	1/16	7/16	0	-1/8	-3/32
SUB-TOTAL	0	-1/16	-1/8	0	1/2	3/32	1/32	3/32	1/2	0	-5/32	-1/16
VERTICAL CURVE	0	-1/8	1/16	7/32	0	5/32	7/32	5/32	0	-1/4	1/16	1/32
TOTAL CAMBER	0	3/16	1/16	1/16	0	2 1/32	1 1/16	1 25/32	1/16	3/32	1/16	9/32

TABLE OF ELEVATIONS FOR TOP FLANGE SPLICE PLATES AT E SPLICE

BEAM N ^o	SPLICE N ^o 1	SPLICE N ^o 2
*1-W.B.	847.739	847.383
*2-W.B.	847.581	847.224
*2-E.B.	845.359	844.986
*1-E.B.	844.206	844.827



NOTES:

For "GENERAL NOTES" and "DESIGN DATA", see Drwg. S2-C.

For PAINTING, FABRICATION and ERECTION NOTES, see Special Provision 711-B-067.

Screed Elevations will be furnished upon request.

For Details of Exp. Shoe "E1", "E-2" & Fixed Shoe "F-2", see Br. Std. SH-1.

For Additional Information, Sections and Details, see Drwg. S8-C.

All Structural Steel shall conform to ASTM-A 36 Steel, unless otherwise noted.

Estimated weight of Structural Steel 80,726 Lbs. Includes:
69835 Lbs. of ASTM A-572 (Grade 50 Steel)
10891 Lbs. of ASTM A-36 Steel

The weight of high strength bolts not included. Cost of bolts to be included in the cost of Structural Steel.

FRAMING PLAN

INDIANA DEPARTMENT OF TRANSPORTATION

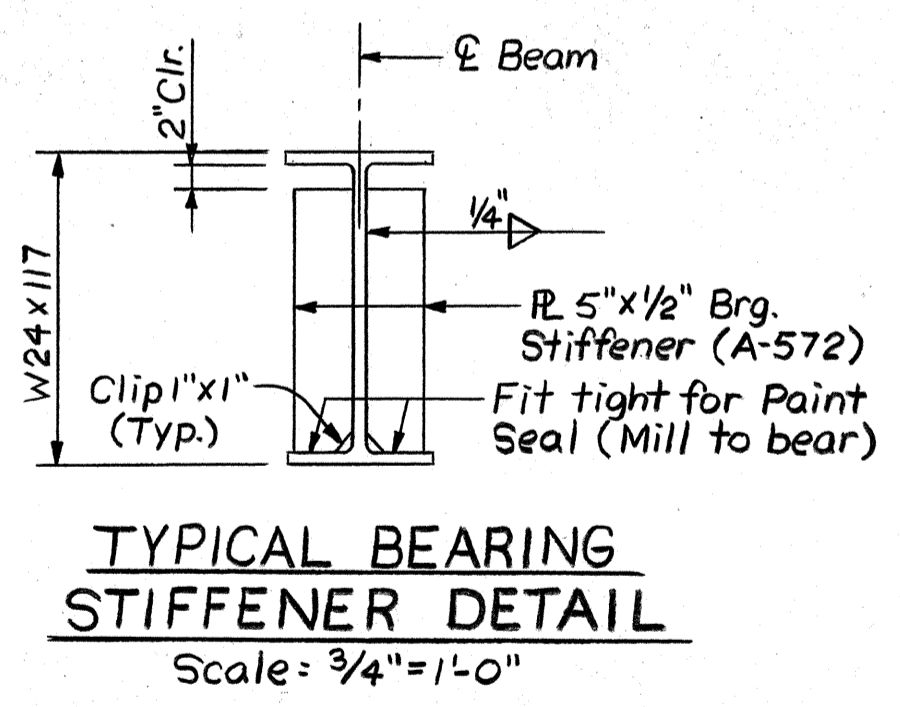
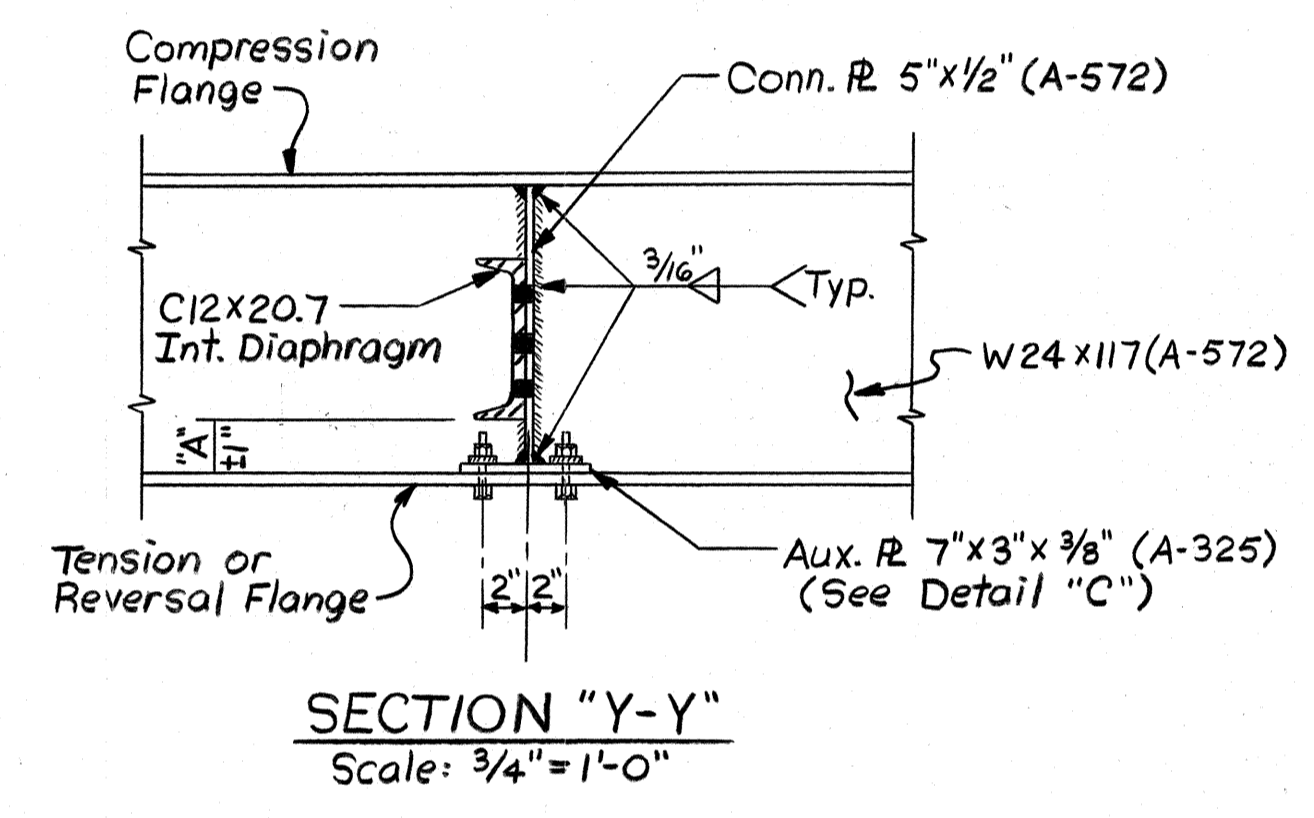
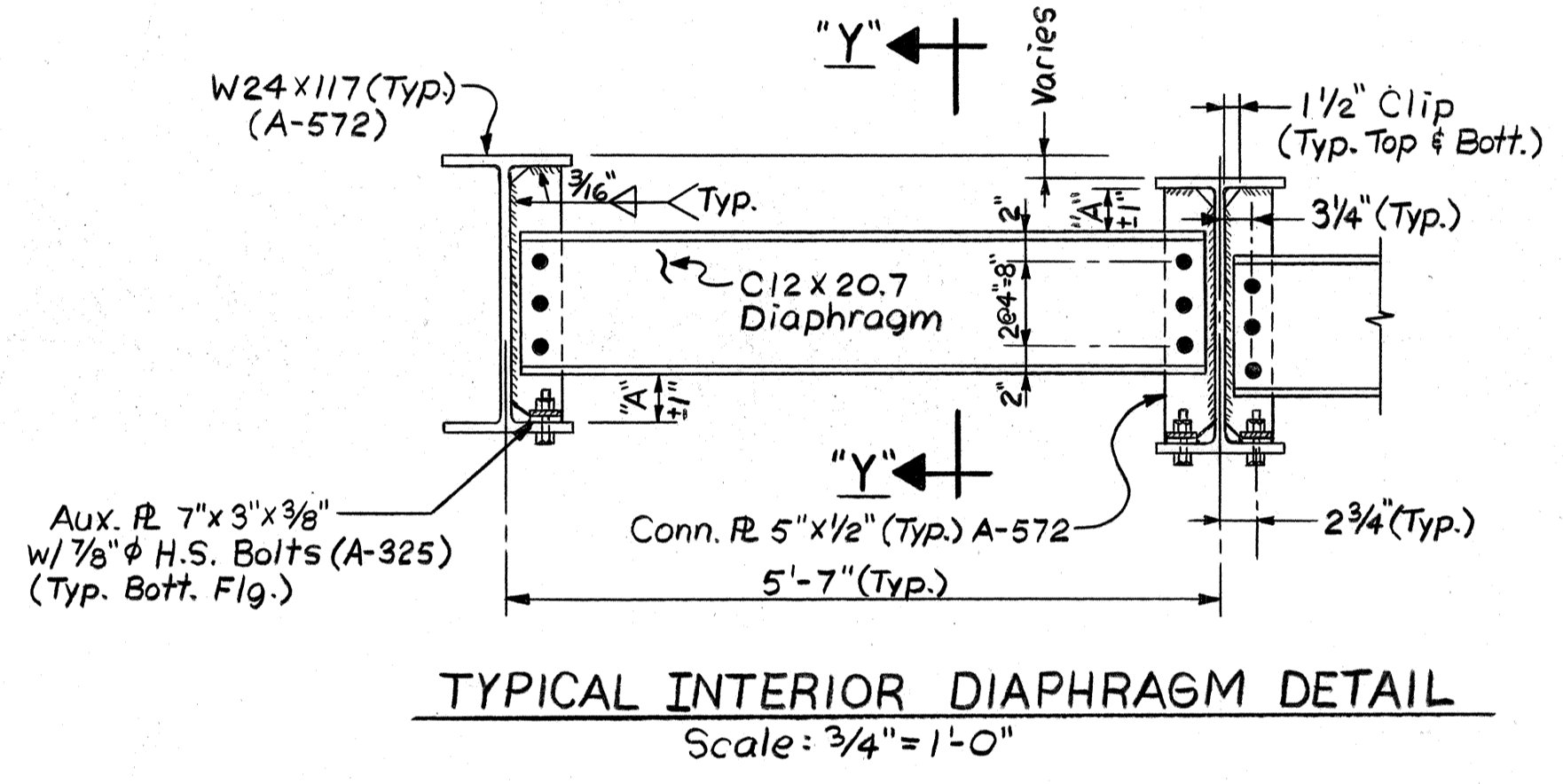
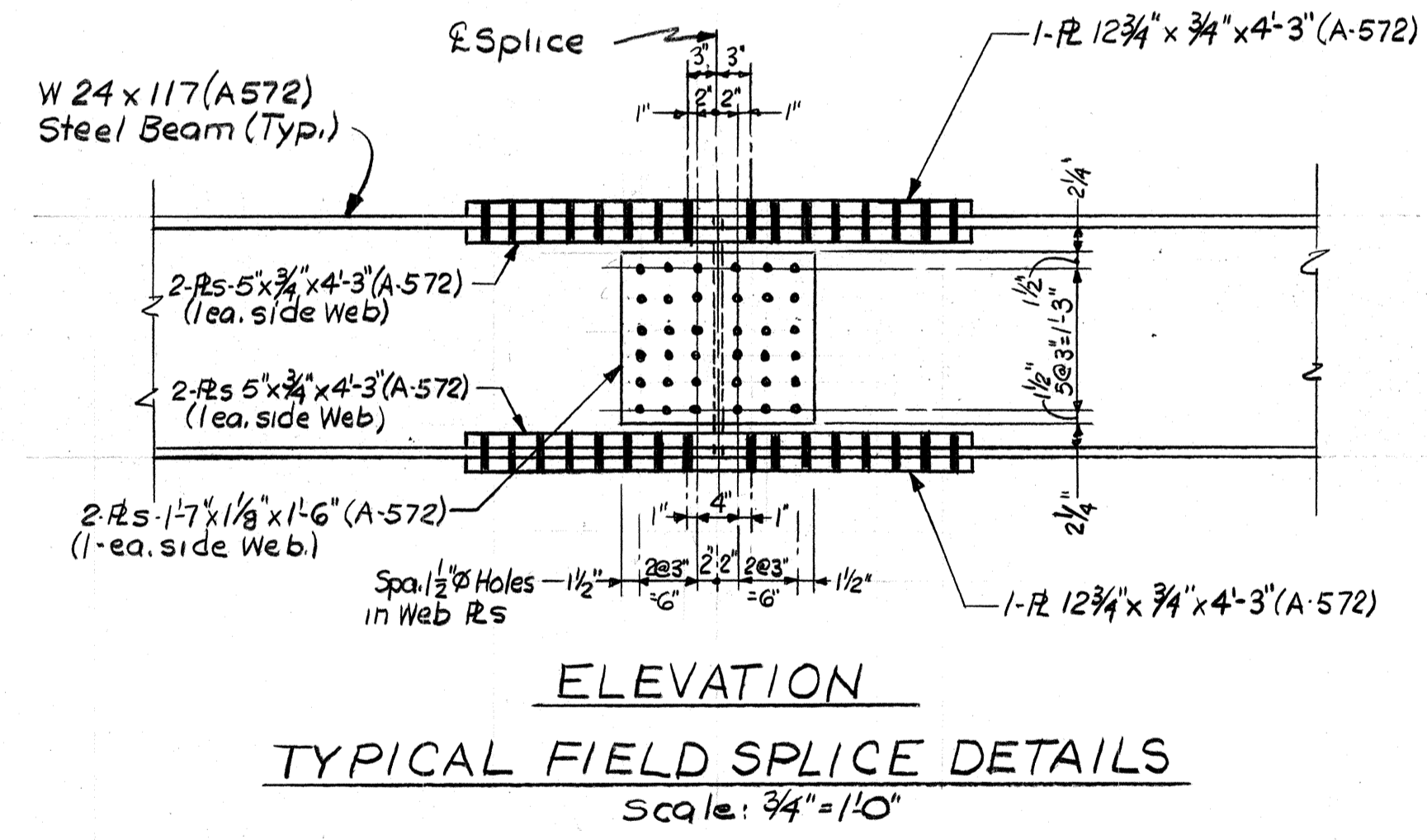
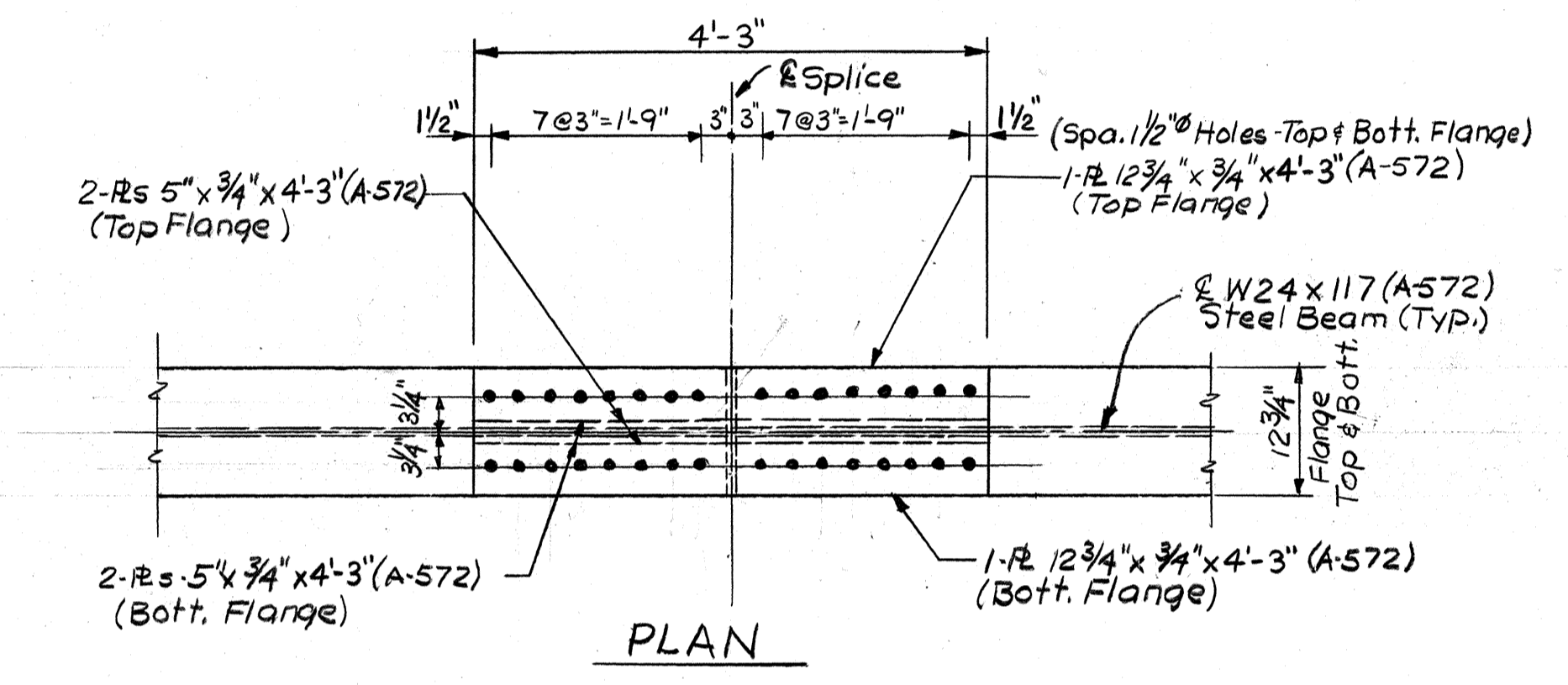
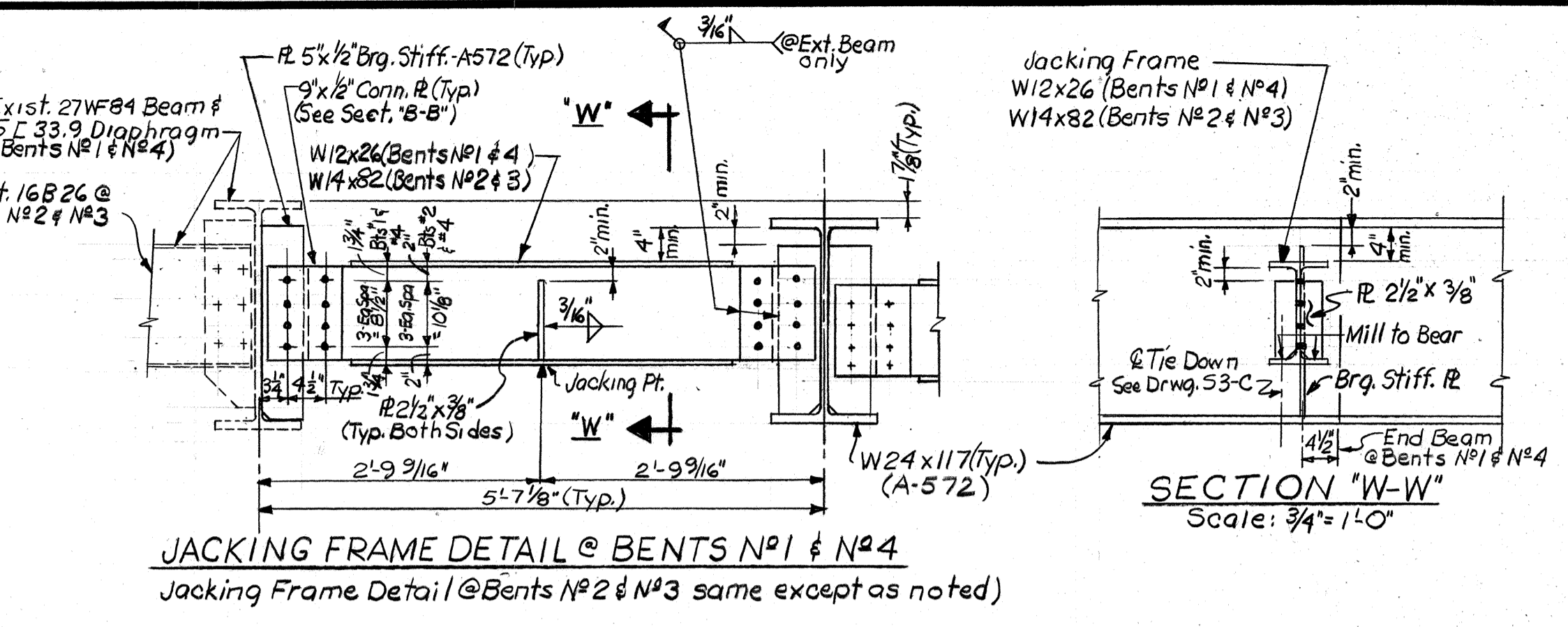
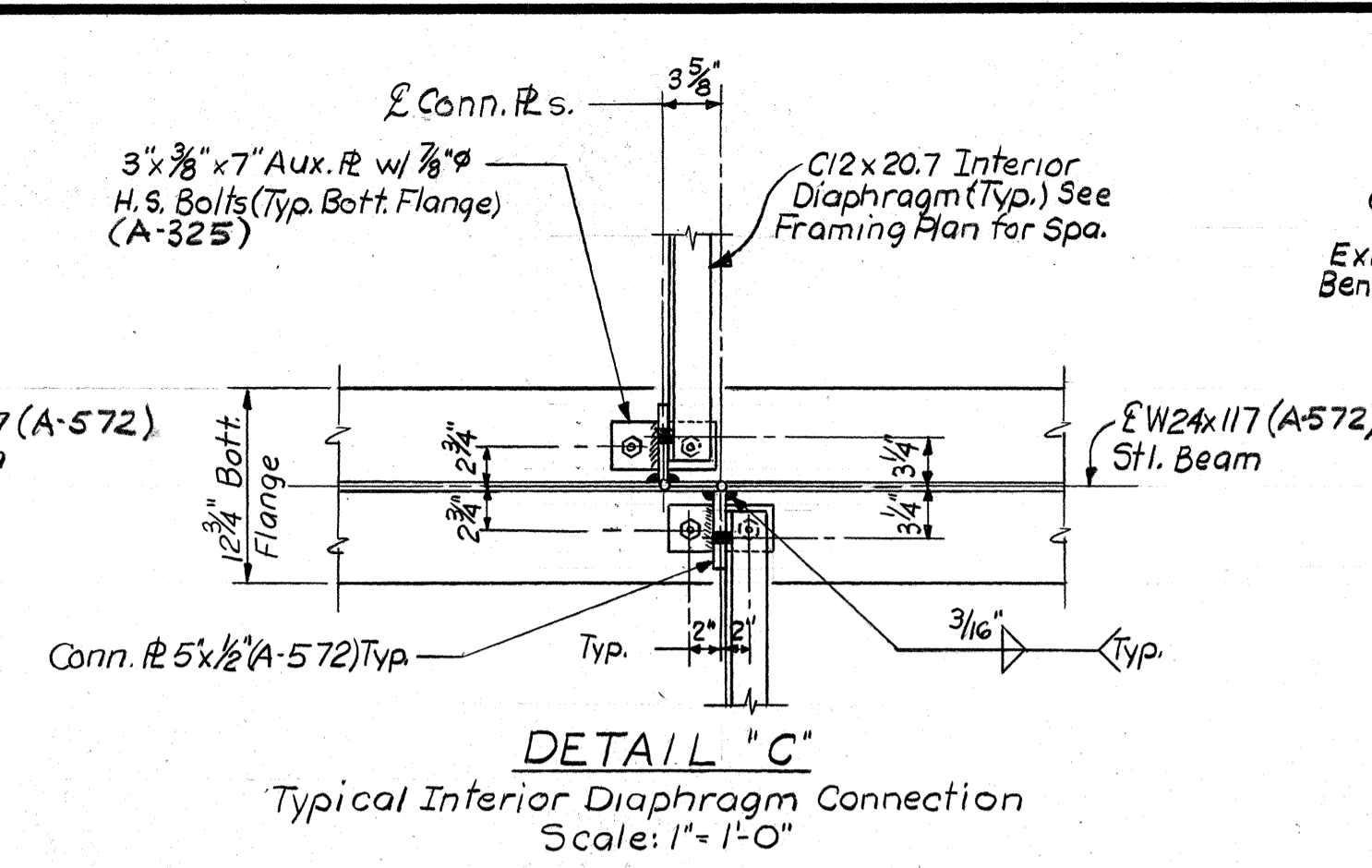
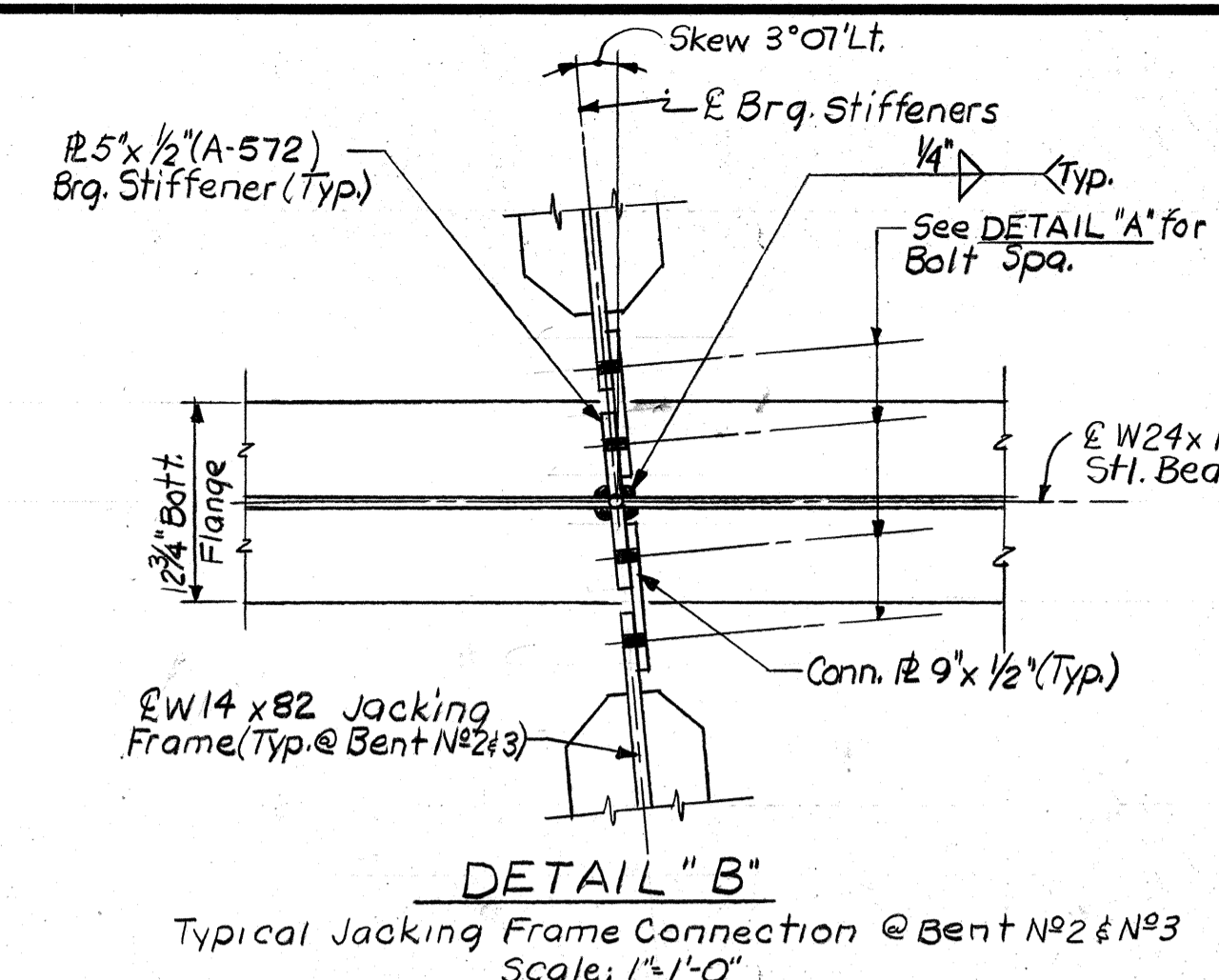
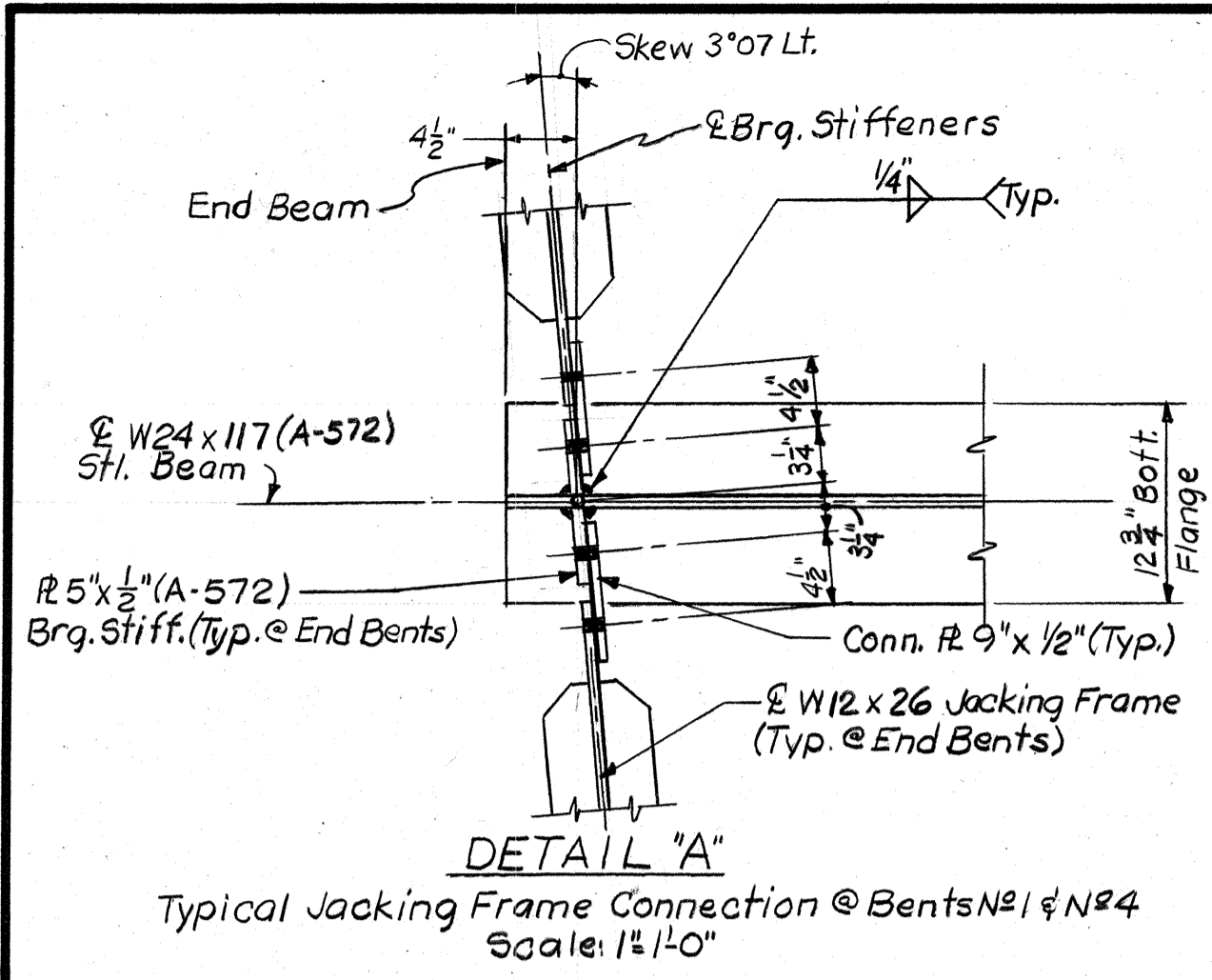
SCALE:—AS NOTED DATE: _____

SUBMITTED FOR APPROVAL _____

DRAWING: ST-C OF S11-C SHEET: 32 OF 41
PROJECT: ST I-465-4(B)
BRIDGE CONTRACT NO. R-19557
BRIDGE FILE: I-465-130-5279 B

1990

REGISTERED PROFESSIONAL ENGINEER
No. 15360
STATE OF INDIANA



NOTES
For PAINTING, FABRICATION and ERECTION NOTES, see Special Provisions 711-B-067.
Screed Elevations will be furnished upon request.
For Additional Information, Details and Sections, see Drwg. S7-C.

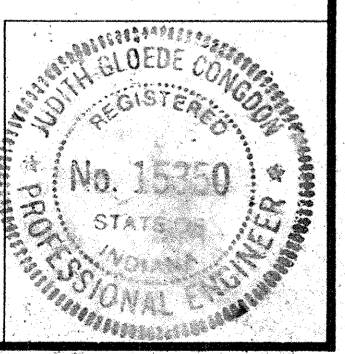
STRUCTURAL STEEL DETAILS

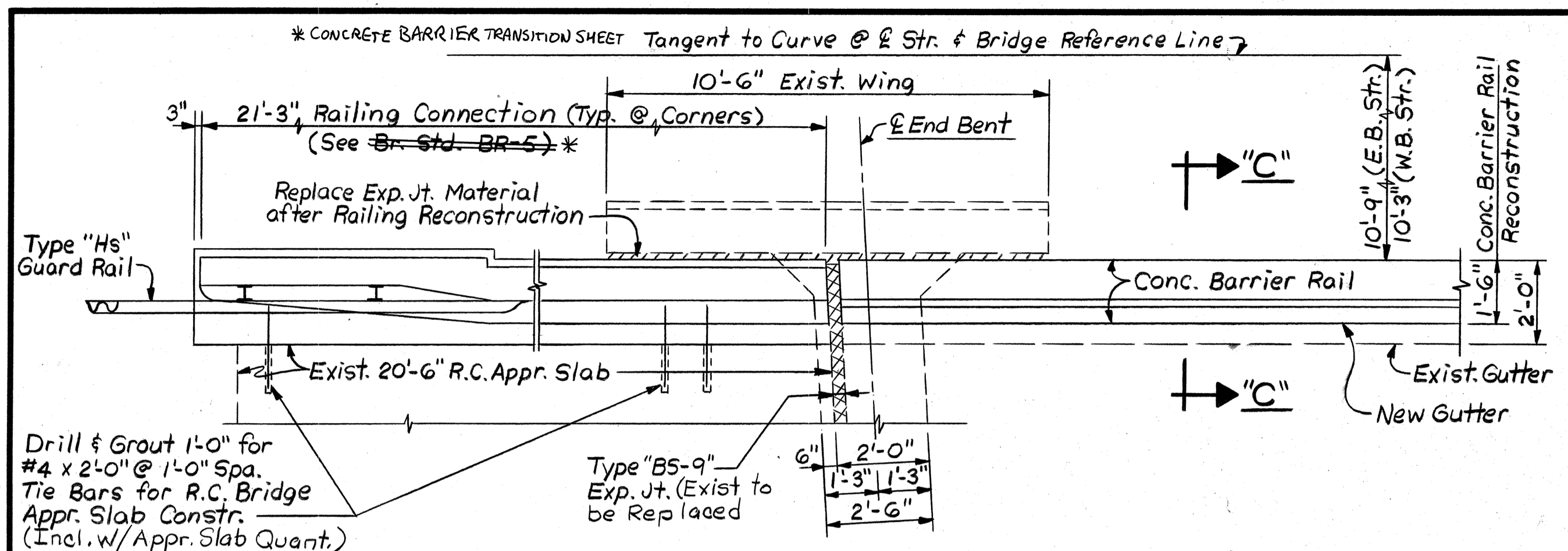
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - AS NOTED DATE: _____ 1990
SUBMITTED FOR APPROVAL _____
DRAWING: S8-C OF S11-C SHEET: 33 OF 41
PROJECT: - ST I-465-4 (B)
BRIDGE CONTRACT NO: R-19557
BRIDGE FILE: - I-465-130-5279 B

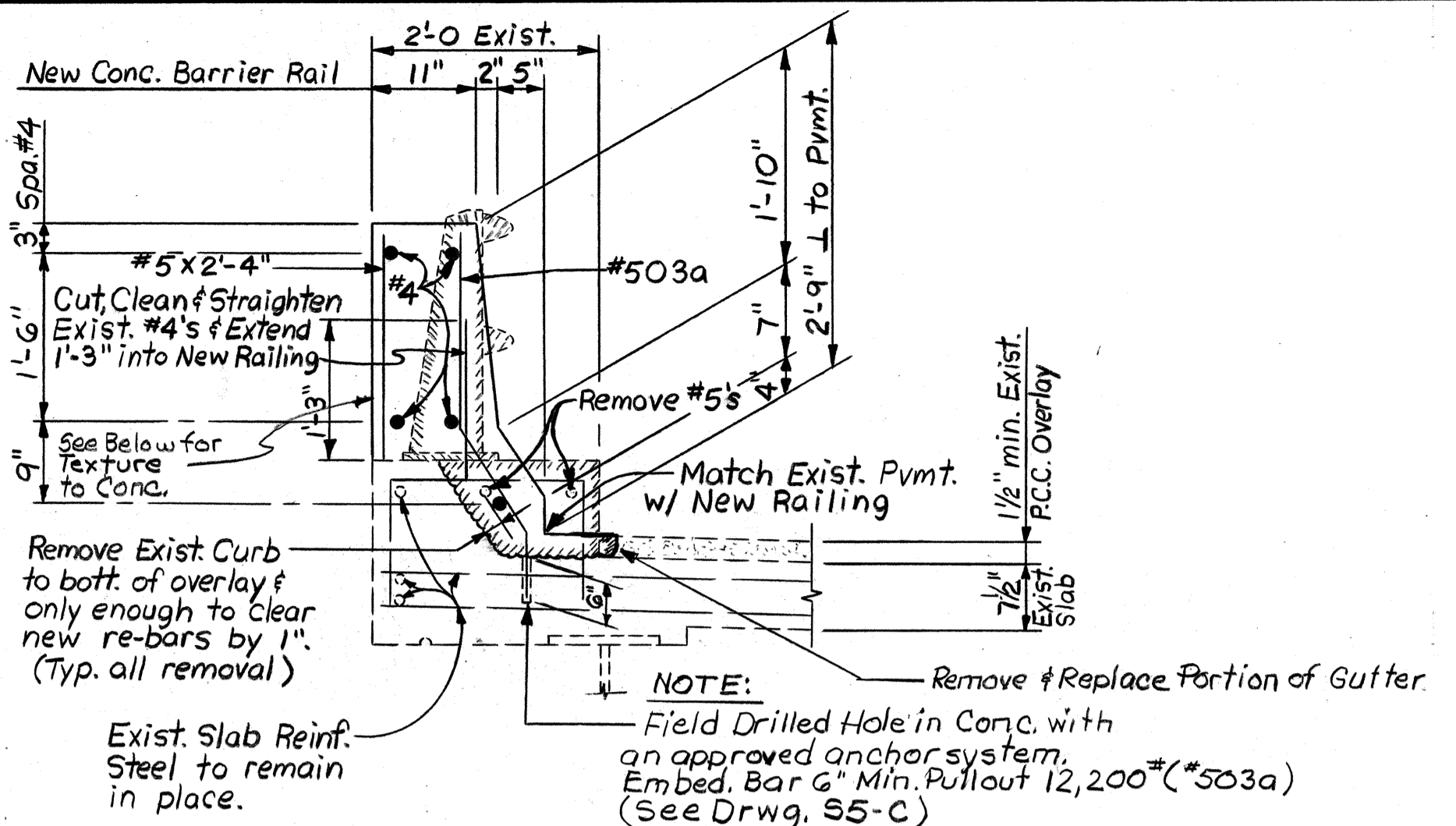
DESIGNED E.J.D.	CKD J.G.C.
DRAWN D.E.B.	CKD E.J.D.
TRACED _____	CKD _____

SF-22317

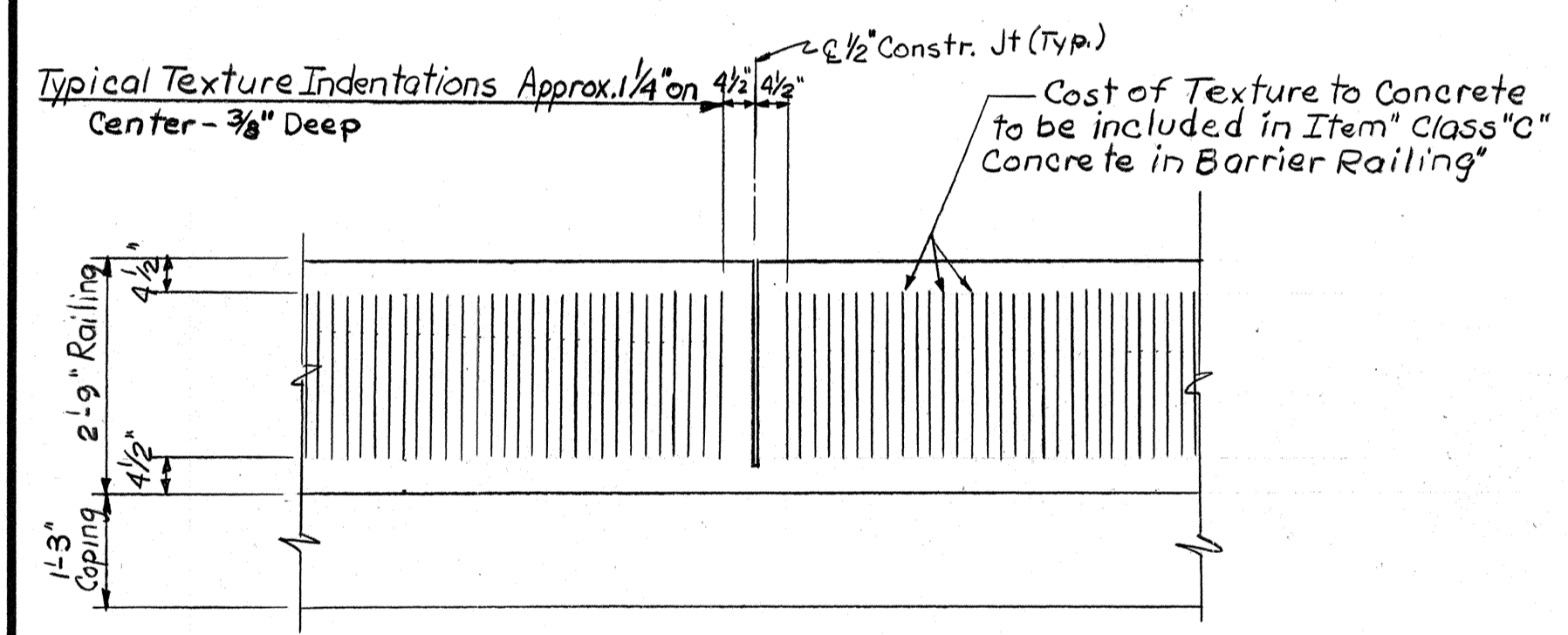




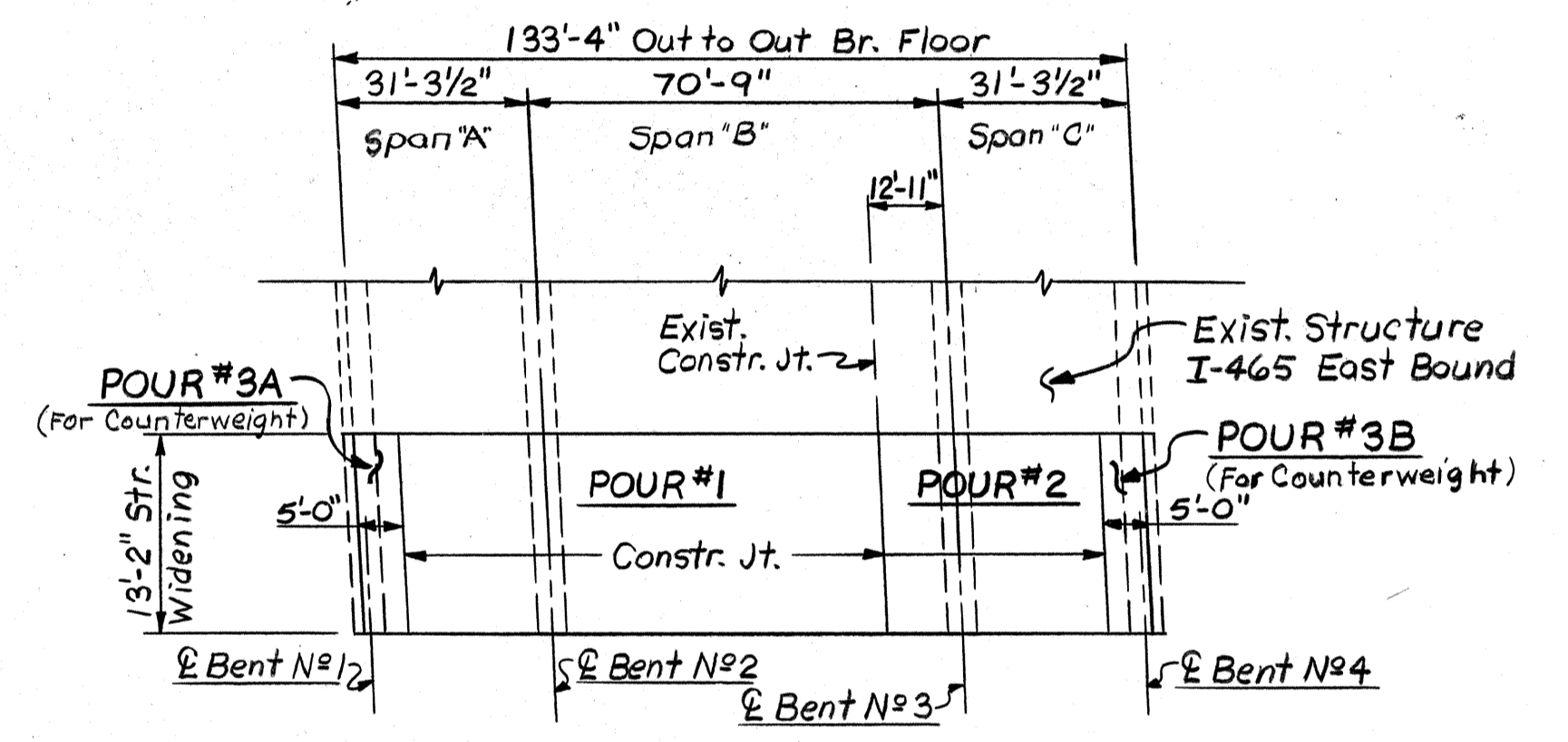
TYPICAL CORNER DETAIL
 INTERIOR RAILING RECONSTRUCTION
 Scale: 3/8" = 1'-0"



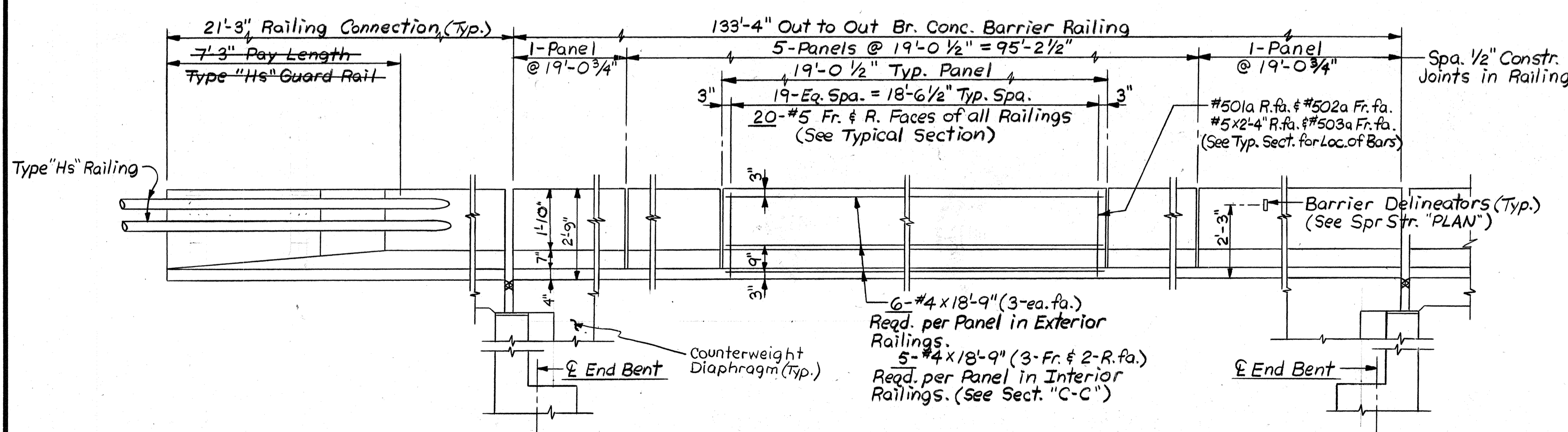
SECTION "C-C"
 Interior Railing Reconstruction
 Scale: 3/4" = 1'-0"



TYPICAL TEXTURE W/FORMED LINERS ON OUTSIDE
 FACE OF CONC. BRIDGE RAILINGS
 No Scale



POUR DIAGRAM
 I-465 EAST BOUND
 (West Bound Same by 180° Rotation)
 No Scale



TYPICAL BARRIER RAILING ELEVATION
 (See Typical Section for Railing Locations)
 Scale: 3/8" = 1'-0"

DESIGNED: E.J.D. C.K.D. J.G.C.
 DRAWN: D.A.B. C.K.D. E.V.D.
 TRACED: C.K.D.

SF-22317

SUPERSTRUCTURE - E.B. LANES
BILL OF MATERIALS

BILL OF MATERIALS - W.B. LANES SAME

EPOXY COATED REINFORCING STEEL			
Mark & Size	No. of Bars	Length	Weight (lbs)
#6	24	56'-3"	
#6	69	36'-0"	
#6	46	15'-9"	
#6	358	13'-0"	
Total #6			13,837#
#501a	140	3'-9"	
#502a	140	3'-11"	
#503a	140	3'-5"	
#5	140	2'-4"	
Total #5			1,960#
#401a	89	4'-0"	
#402a	16	8'-2"	
#403a	16	4'-8"	
#4	42	36'-0"	
#4	77	18'-9"	
#4	28	15'-9"	
#4	20	5'-3"	
Total #4			2,714#
Total - Epoxy Coated Reinforcing Steel			18,511#
CONCRETE			
Class "C" Concrete in Superstructure			
POUR #1			34.0 Cyds
POUR #2			17.9 Cyds
POUR #3A (Counterweight Diaph.)			4.1 Cyds
POUR #3B (Counterweight Diaph.)			4.1 Cyds
Total - Class "C" Concrete in Superstructure			60.1 Cyds
Class "C" Concrete in Barrier Railing			
Int. Barrier Rail Reconstr.			133.3 L.F.
Std. Barrier Rail			133.3 L.F.
Total - Class "C" Concrete in Barrier Rails			266.6 L.F.
MISCELLANEOUS			
Barrier Delineators			14 Each
Exp. Jt. BS-9 (2 @ 66'-3")			132.5 L.F.
Surface Seal			3665 SFT.
Masonry Coating (Railings)			2715 SFT.
Field Drilled Holes in Concrete			140 Ea.

NOTES:

For Reinforcing Bar Notes, see Br. Std. C1.
 For Additional Information, Sections & Details, see Drwg. S9-C.
 All Reinforcing Steel to be Epoxy Coated.
 Concrete and Reinforcing Steel Quantities in Approach Slab Extensions and Concrete Barrier Rail Transition to be included in R.C. Approach Slab Quantities.
 For Approach Slab Extensions and Barrier Rail Transition Details, see Br. Std. BR-5.
 FOR BARRIER RAIL TRANSITION DETAILS, SEE CONCRETE BARRIER TRANSITION SHEET

SUPERSTRUCTURE DETAILS & BILL OF MATERIALS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - AS NOTED
 SUBMITTED FOR APPROVAL: [Signature]
 DATE: [Signature]
 1990
 DRAWING: SI-COF S11-C SHEET: 35 OF 41
 PROJECT: ST-I-465-4(B)
 BRIDGE CONTRACT NO. R-19557
 BRIDGE FILE: I-465-130-5279 B

REVISED: 10-6-79 BY: JPS/2012
 REVISED TYPICAL CORNER DETAIL TYPICAL BARRIER RAILING ELEVATION NOTES

