

INDEX						
PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION	CONTRACT NO.
I-465-4 (129)127	I-465- 128-5276	CONTINUOUS STEEL BEAM	38'-6" 64'-6" 64'-6" 34'-6"	S-SR-431-A	815 + 30.9	
SHEET NO.	SHEET DESIGNATION	SUBJECT				B.P.R. APPROVAL
1	ONE SHEET	INDEX AND TITLE SHEET				
2	ONE SHEET	SOIL BORINGS				
3	S-1	LAYOUT				
4	S-2	GENERAL PLAN				
5	S-3	GENERAL PLAN				
6	S-4	BENT 1 DETAILS				
7	S-5	BENT 1 DETAILS				
8	S-6	BENT 5 DETAILS				
9	S-7	BENT 5 DETAILS				
10	S-8	BENT 2 DETAILS				
11	S-9	BENT 2 DETAILS				
12	S-10	BENT 3 DETAILS				
13	S-11	BENT 3 DETAILS				
14	S-12	BENT 4 DETAILS				
15	S-13	BENT 4 DETAILS				
16	S-14	FRAMING PLAN				
17	S-15	SUPERSTRUCTURE DETAILS				
18	S-16	SUPERSTRUCTURE DETAILS				
19	S-17	TOOTH EXPANSION JOINT DETAILS				
20	S-18	SUPERSTRUCTURE BEARING DETAILS				
21	S-19	DECK PLAN AND TRANSVERSE SECTION				
22	S-20	SUPERSTRUCTURE DETAILS				
23	S-21	SUPERSTRUCTURE DETAILS				
24	S-22	SCREED DETAILS				
25	S-23	SCREED DETAILS				
26	ONE SHEET	SUMMARY				

STATE OF INDIANA
INDIANA STATE HIGHWAY COMMISSION

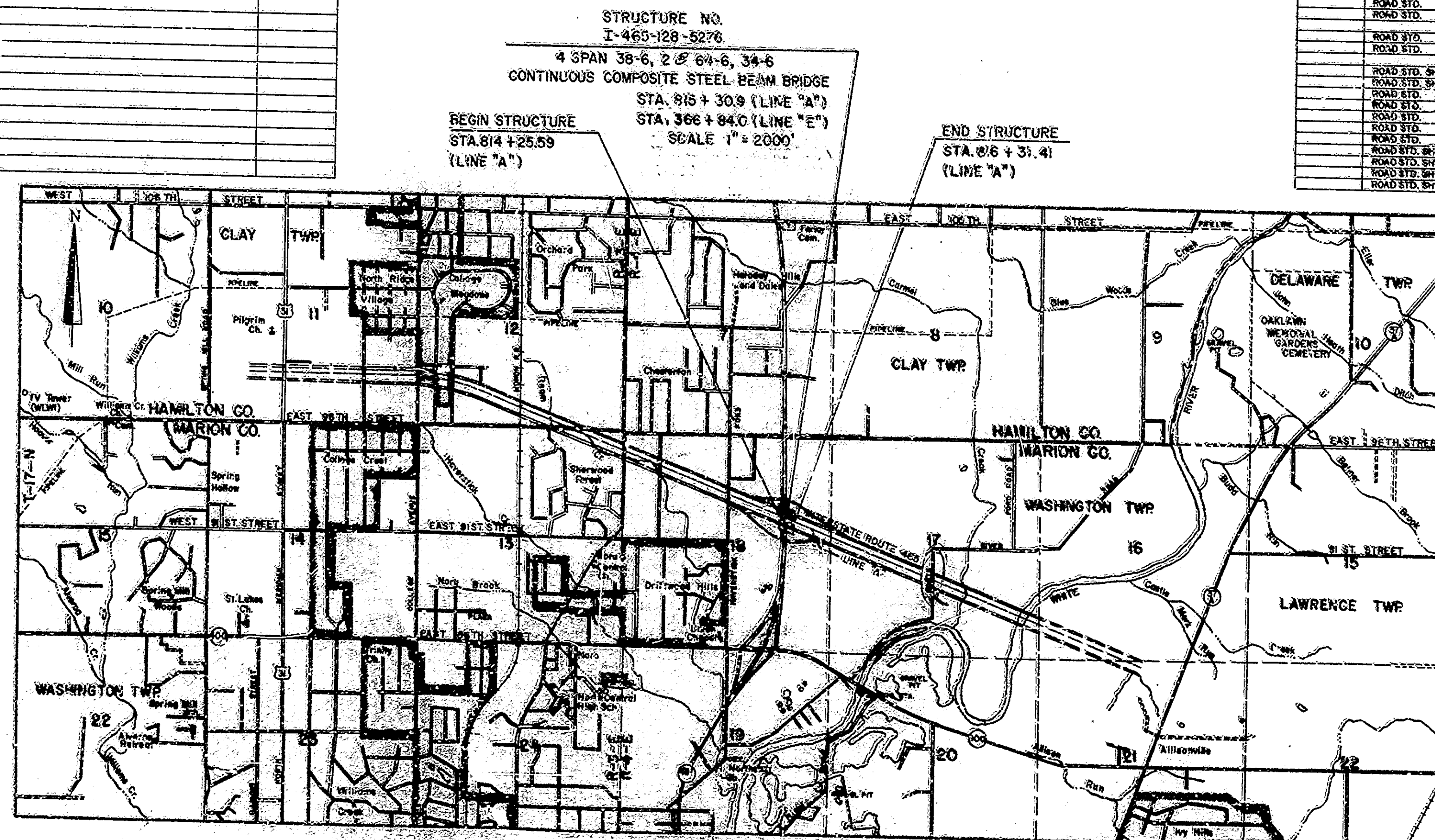
BRIDGE PLANS FOR SPANS OVER 20 FEET

ON INTERSTATE ROUTE - 465 - SECTION NO. 4 F.A. PROJECT NO. I-465-4(129)127 CONST.

BEGINNING AT A POINT ON LINE "A" APPROXIMATELY 1406.9 FEET SOUTHEAST OF THE INTERSECTION OF LINE "A" AND THE NORTH-SOUTH HALF SECTION LINE OF SEC. 18, T-47-N, R-4-E, WASHINGTON TWP., MARION CO., AND ALONG LINE "A" IN A SOUTH-EASTERLY DIRECTION FOR A DISTANCE OF 208.2 FEET TO A POINT ON LINE "A" APPROXIMATELY 1616.1 FEET SOUTHEAST OF THE ABOVE DESCRIBED INTERSECTION.

ROADWAY LENGTH = 0.000mi
BRIDGE LENGTH = 0.039mi
TOTAL LENGTH = 0.039mi

MAX. GRADE = 2.04% (LINE "A" APPROACHES)



BRIDGES OVER 20' SPANS					
FISCAL YEAR	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1968	IND.	I-465-4(129)127	1968	1	26

INDEX CONTINUED STANDARD DRAWINGS			
SHEET NO.	SHEET DESIGNATION	SUBJECT	APPROVAL
27	BRIDGE STD. 01	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 02	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 03	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 04	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 05	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 06	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 07	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 08	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 09	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 10	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 11	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 12	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 13	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 14	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 15	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 16	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 17	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 18	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 19	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 20	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 21	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 22	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 23	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 24	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 25	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 26	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 27	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 28	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 29	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 30	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 31	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 32	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 33	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 34	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 35	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 36	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 37	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 38	STANDARD MISCELLANEOUS DETAILS	
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	BRIDGE STD. 84	STANDARD MISCELLANEOUS DETAILS	
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	BRIDGE STD. 96	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 97	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 98	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 99	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. 100	STANDARD MISCELLANEOUS DETAILS	

TRAFFIC DATA			
			SR. 431
A.D.T. (1964)	32,167	V.P.D.	62
A.D.T. (1975 PROJECTED)	53,881	V.P.D.	82
TRUCKS		%	14.590
DESIGN SPEED	70 M.P.H.		5%
ACCESS CONTROL	FULL		Limited

THESE PLANS PREPARED BY
**ALDEN E. STILSON & ASSOCIATES
LIMITED**
CONSULTING ENGINEERS
COLUMBUS, OHIO

BY: *Tom L. Woodward, P.E.* DATE: _____

INDIANA STATE HIGHWAY COMMISSION
STANDARD SPECIFICATIONS DATED 1968
TO BE USED WITH THESE PLANS.

DATE	REVISIONS
10-10-66	1. 11/13/66
11-2-66	2. 11/18/66
2-9-67	3. 2/9/67

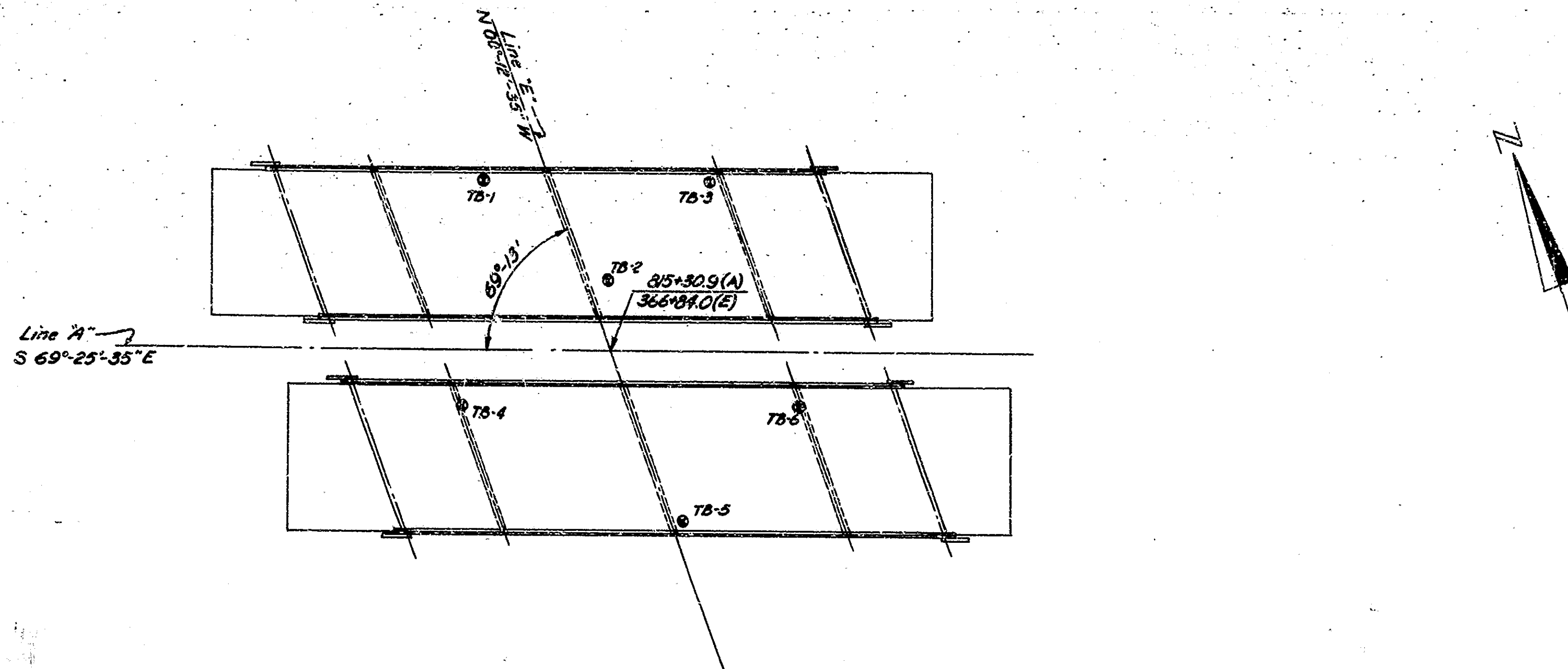
RECOMMENDED FOR APPROVAL: *8-29-66*
C. J. Klingel
CHIEF ENGINEER - INDIANA STATE HIGHWAY COMMISSION



DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED: _____
DIVISION ENGINEER DATE: _____

BRIDGES OVER 20' SPAN					
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-465-4(129)127	1965	2	34



BORING NO.	TB-1		TB-2		TB-3		TB-4		TB-5		TB-6				
STATION	814+84		815+25		815+68		814+75		815+58		815+00				
OFFSET	60' Lt.		20' Lt.		60' Lt.		20' Rt.		60' Rt.		20' Rt.				
GROUND ELEV.	761.9		760.2		760.8		760.1		759.2		758.3				
765	SAMPLE NO. ELEV.	N	DESCRIPTION	SAMPLE NO. ELEV.	N	DESCRIPTION	SAMPLE NO. ELEV.	N	DESCRIPTION	SAMPLE NO. ELEV.	N	DESCRIPTION	SAMPLE NO. ELEV.	N	DESCRIPTION
760	761.9		Ground Elev.	760.2		Ground Elev.	760.1		Ground Elev.	759.2		Ground Elev.	758.3		Ground Elev.
755	761.8	1	Brown sandy clay with fine gravel, moist-very stiff	758.8	1	Brown sandy clay, moist-medium stiff	758.8	1	Brown sandy clay, moist-medium stiff	757.7	1	Brown sandy clay, moist-medium stiff	756.8	1	Brown sandy clay, moist-medium stiff
750	761.7	2	Brown and gray sandy clay with fine gravel, moist-hard	758.7	2	Brown fine to medium sand with fine gravel, moist-medium dense	758.7	2	Brown fine to medium sand with fine gravel, moist-medium dense	757.6	2	Brown fine to medium sand with fine gravel, moist-medium dense	756.7	2	Brown fine to medium sand with fine gravel, moist-medium dense
745	761.6	3	Brown fine to coarse sand with fine gravel and silt seams, moist-dense	758.6	3	Brown fine to coarse sand with fine gravel and silt seams, moist-dense	758.6	3	Brown fine to coarse sand with fine gravel and silt seams, moist-dense	757.5	3	Brown fine to coarse sand with fine gravel and silt seams, moist-dense	756.6	3	Brown fine to coarse sand with fine gravel and silt seams, moist-dense
740	761.5	4	Brown fine to coarse sand and gravel, moist-very dense	758.5	4	Brown fine to coarse sand and gravel, moist-very dense	758.5	4	Brown fine to coarse sand and gravel, moist-very dense	757.4	4	Brown fine to coarse sand and gravel, moist-very dense	756.5	4	Brown fine to coarse sand and gravel, moist-very dense
735	761.4	5	Brown fine to coarse sand and gravel, moist-dense	758.4	5	Brown fine to coarse sand and gravel, moist-dense	758.4	5	Brown fine to coarse sand and gravel, moist-dense	757.3	5	Brown fine to coarse sand and gravel, moist-dense	756.4	5	Brown fine to coarse sand and gravel, moist-dense
730	761.3	6	Brown fine to coarse sand and gravel, moist-dense	758.3	6	Brown fine to coarse sand and gravel, moist-dense	758.3	6	Brown fine to coarse sand and gravel, moist-dense	757.2	6	Brown fine to coarse sand and gravel, moist-dense	756.3	6	Brown fine to coarse sand and gravel, moist-dense
725	761.2	7	Brown fine to coarse sand and gravel, moist-dense	758.2	7	Brown fine to coarse sand and gravel, moist-dense	758.2	7	Brown fine to coarse sand and gravel, moist-dense	757.1	7	Brown fine to coarse sand and gravel, moist-dense	756.2	7	Brown fine to coarse sand and gravel, moist-dense
720	761.1	8	Brown fine to coarse sand and gravel, moist-dense	758.1	8	Brown fine to coarse sand and gravel, moist-dense	758.1	8	Brown fine to coarse sand and gravel, moist-dense	757.0	8	Brown fine to coarse sand and gravel, moist-dense	756.1	8	Brown fine to coarse sand and gravel, moist-dense
715	761.0	9	Brown fine to coarse sand and gravel, moist-dense	758.0	9	Brown fine to coarse sand and gravel, moist-dense	758.0	9	Brown fine to coarse sand and gravel, moist-dense	756.9	9	Brown fine to coarse sand and gravel, moist-dense	756.0	9	Brown fine to coarse sand and gravel, moist-dense
710	760.9	10	Brown fine to coarse sand and gravel, moist-dense	757.9	10	Brown fine to coarse sand and gravel, moist-dense	757.9	10	Brown fine to coarse sand and gravel, moist-dense	756.8	10	Brown fine to coarse sand and gravel, moist-dense	755.9	10	Brown fine to coarse sand and gravel, moist-dense
	760.8	11	Brown fine to coarse sand and gravel, moist-dense	757.8	11	Brown fine to coarse sand and gravel, moist-dense	757.8	11	Brown fine to coarse sand and gravel, moist-dense	756.7	11	Brown fine to coarse sand and gravel, moist-dense	755.8	11	Brown fine to coarse sand and gravel, moist-dense
	760.7	12	Brown fine to coarse sand and gravel, moist-dense	757.7	12	Brown fine to coarse sand and gravel, moist-dense	757.7	12	Brown fine to coarse sand and gravel, moist-dense	756.6	12	Brown fine to coarse sand and gravel, moist-dense	755.7	12	Brown fine to coarse sand and gravel, moist-dense
	760.6	13	Brown fine to coarse sand and gravel, moist-dense	757.6	13	Brown fine to coarse sand and gravel, moist-dense	757.6	13	Brown fine to coarse sand and gravel, moist-dense	756.5	13	Brown fine to coarse sand and gravel, moist-dense	755.6	13	Brown fine to coarse sand and gravel, moist-dense

Notes:
 b - Denotes Ground Water Table
 N - Denotes the number of blows required to drive a 1 1/8" I.D., 2" O.D. split spoon sampler 6" by means of a 140# weight falling 30".

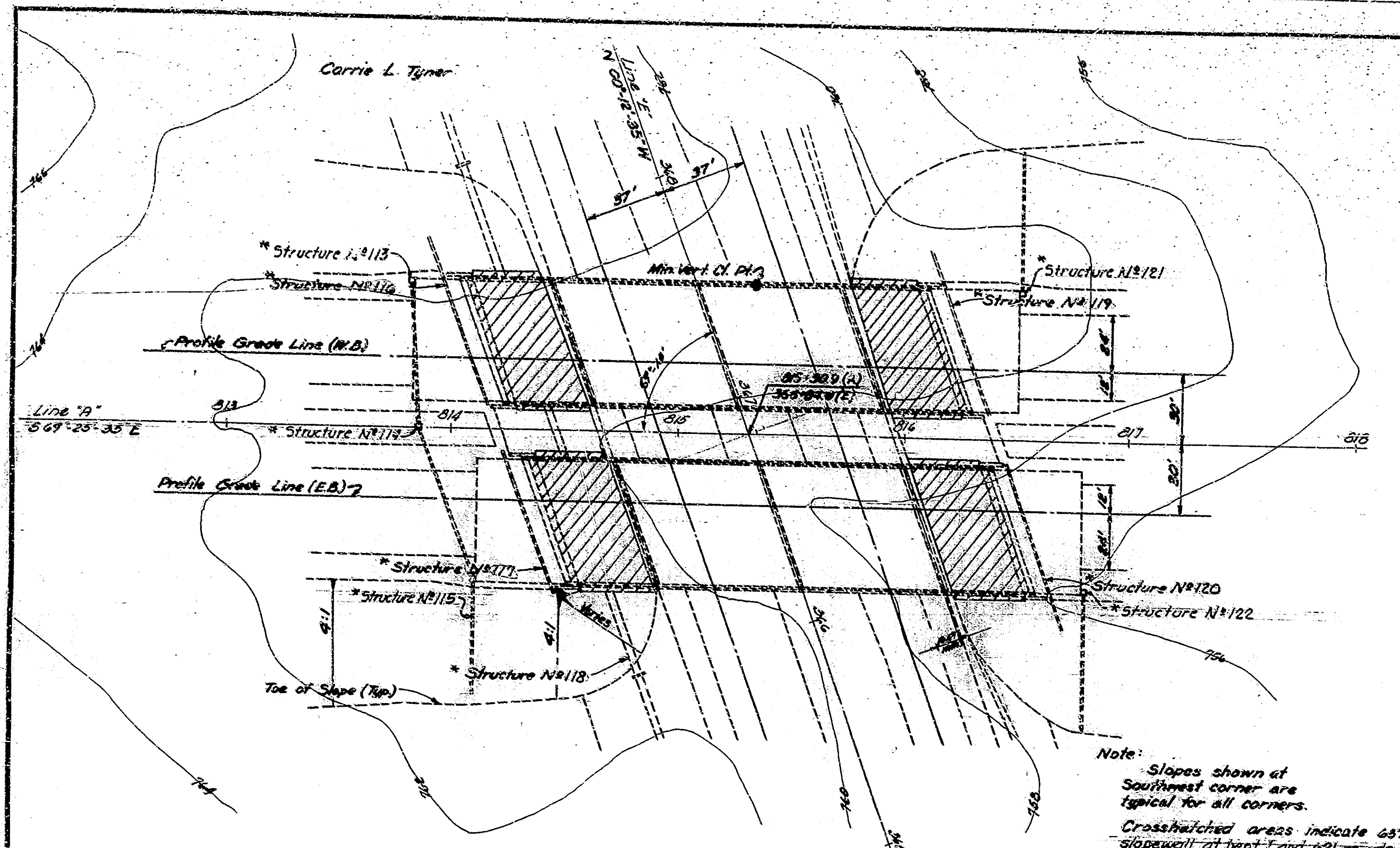
SOIL BORINGS

SCALES: HORIZ. 1"=30'-0", VERT. 1"=5'-0"
 SUBMITTED FOR APPROVAL Tom L. H. [Signature]
 PROJECT - I-465-4(129)127
 BRIDGE CONTRACT NO. R-7391
 BRIDGE FILE I-465-128-5276

Sta. 815+30.9
 & Pier 3

PLAN
 DATE
 DRAWN BY
 CHECKED BY
 APPROVED BY
 TITLE

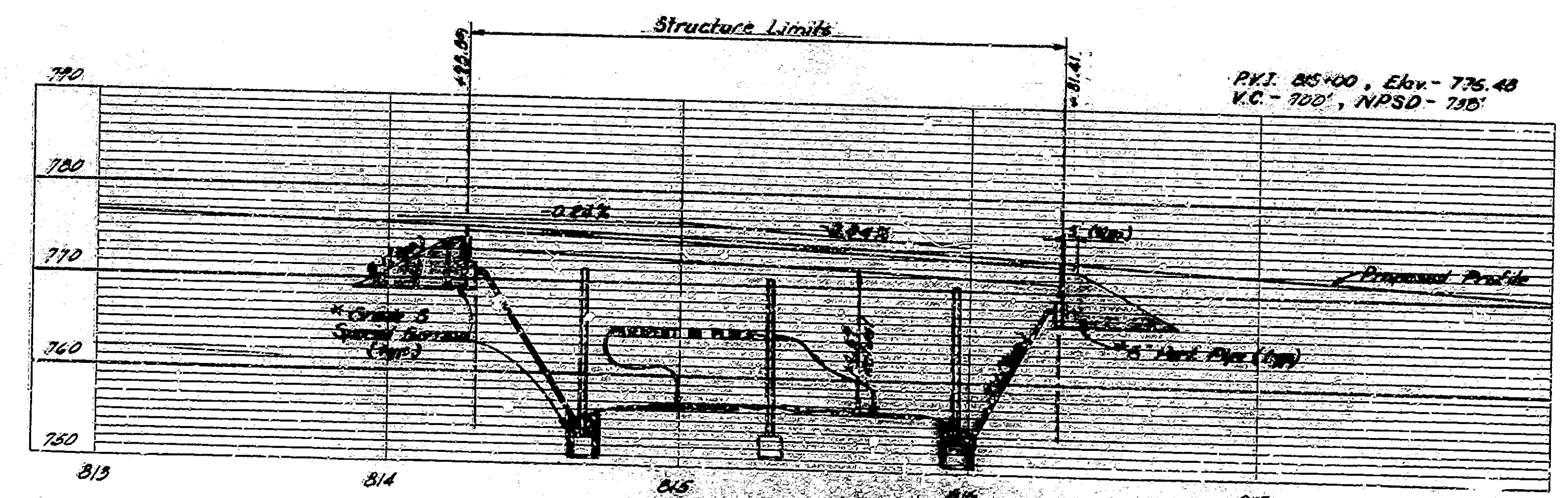
BRIDGES OVER 20' SEAN					
NO. ROAD	STATE	PROJECT	FISCAL	TOTAL	
SEC. NO.		NO.	YEAR	AMOUNT	
4	IND.	1-465-4 (129)127	1965	3	36



SITUATION PLAN
SCALE 1" = 30' CONTOUR INTERVAL = 2 FT.

Note:
Slopes shown at Southwest corner are typical for all corners.
Crosshatched areas indicate 657 sq. yds. slopewall at bent 1 and 1621 sq. yds. at bent 5 including 133 sq. yds. equiv. concrete toewall at bent 1 and 132 sq. yds. at bent 5, and 20 sq. yds. equiv. spec. conc. curb.
* Indicates items included in Road Quantities

Notes:
Location: Section 18, Township 17N, Range 4E, Washington Township, Marion County
Approach Data: For bench marks, alignment references, and additional approach details, see sheet no. 15, Project 1-465-4(129)127 Roadway Plans
Soil Data: For soil borings, see sheet no. See Article A.203 of the specifications regarding test pit data.
Field Notes:
Book 8353 T, pages 33 & 34
Book 8354 L, pages 42 & 44
Book 8355 T, page 26
Book 8356 L, pages 29 & 30



PROFILE ON SURVEY LINE 'A'
SCALE HORIZ. 1" = 30' VERT. 1" = 10'

LAYOUT
Twin Continuous Steel Beam Bridges
4 Spans @ 38'-5", 64'-5", 64'-6", 38'-5"
50'-6" Roadways, 7' Curbs, 20"-47" Left Slab
Over State Route 402 (proposed) on Interstate 465

INDIANA STATE HIGHWAY COMMISSION
MARION COUNTY

SCALE: As Noted
JUNE 1, 1965

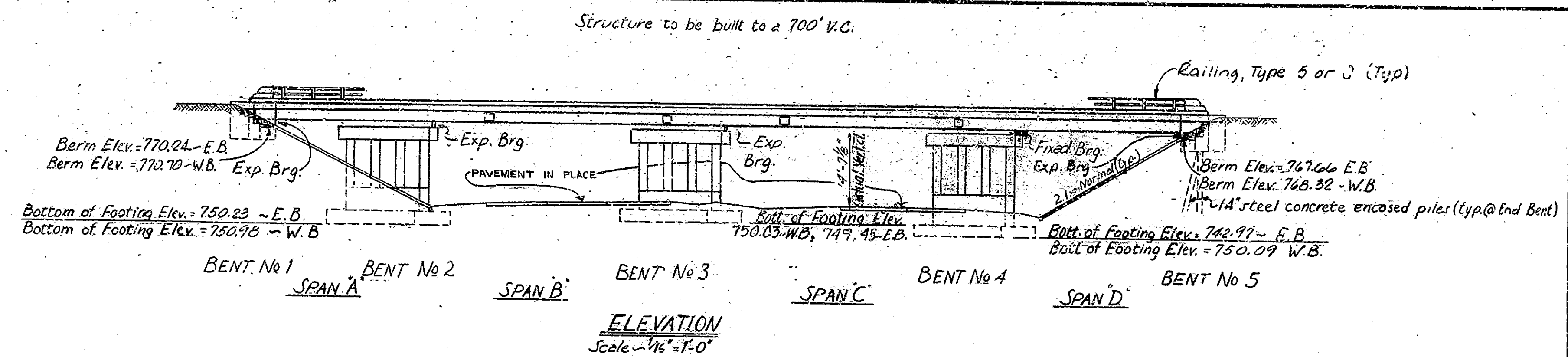
SUBMITTED FOR APPROVAL: *Tom L. ...*

DRAWING: 51 OF 23
PROJECT: 1-465-4(129)127
BRIDGE CONTRACT NO. R-7391
BRIDGE FILE: 1-465-129-3276
Sta. 85+30.9
Sheet 3

DESIGNED: T.L.O.	CHKD: J.W.H.
DRAWN: T.L.O.	CHKD: J.W.H.
TRACED: J.W.H.	CHKD: J.W.H.

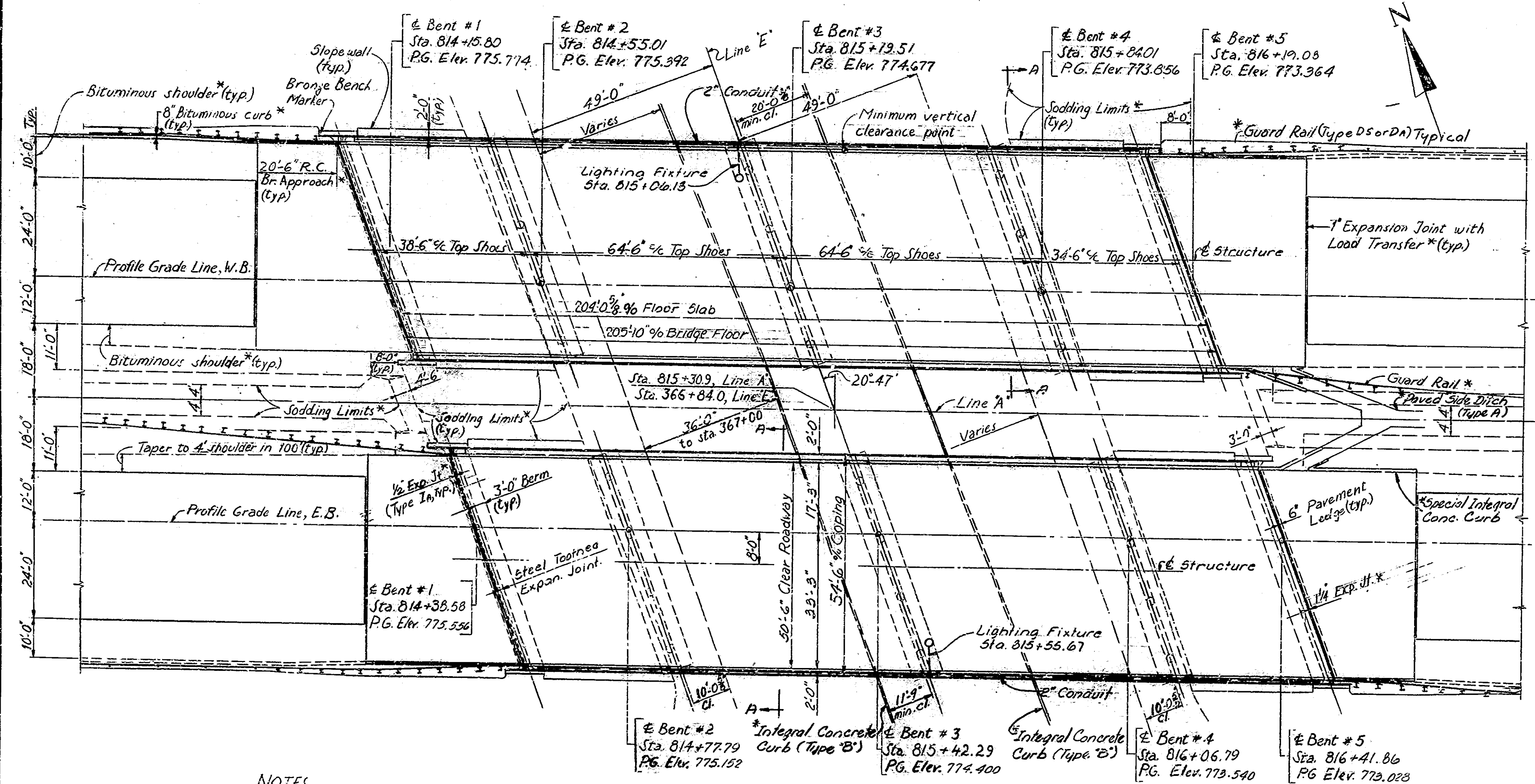
NOTES
 E.B. indicates Eastbound Lanes.
 W.B. indicates Westbound Lanes.

BRIDGES OVER 20' SPAN				
PUB. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.	I-465-4 (29) 127	1965	4 34



STANDARD DRAWINGS

Bridge	Road	Purpose
C1		Bar bending, test bar samples, reinforcing bar notes, pile splicing, notch in slab at end of beam, Exp. Jt. *
	MB2	Slope Wall Details
	MA	Pavement Offsets
R1-C		Aluminum Railing Details (Type 5)
R1-E		Aluminum Railing Details
R1-F		Steel Railing Details (Type C)
	R2A	Bridge Lighting Details



NOTES
 * Indicates Road Item
 Dimensions shown are typical for both structures unless otherwise shown.
 DESIGN DATA: Designed for HS 20-44 loading in accordance with 1965 AASHTO Specifications (Checked for a special loading consisting of 2-22,000 pound axles 4'-0" apart)

NOTE: 1 1/2" Exp. Jt. same as 1" Exp. Jt. shown on G, except for width. Slab thickness as shown on plans to be increased 1/2" to provide 2" top cover on slab steel. This change shall be made by raising the grade on the structure 1/2". No change in structure elevations is required except those affected by raising floor surface, including coping and wingwalls. The approach grade to be warped to match bridge floor. No revisions have been made in these plans for this change. See the Special Provisions.

GENERAL PLAN
 Twin Continuous Steel Beam Bridges
 4 spans @ 38'-6", 64'-6", 64'-6", 34'-6"
 30'-6" Roadways, 9" Curbs, 20'-4 1/2" Left Skew
 Over State Route 431 (proposed) on Interstate 465
INDIANA STATE HIGHWAY COMMISSION
 MARION COUNTY

SCALE: As Noted
 SUBMITTED FOR APPROVAL: *Tom L. Anderson, P.E.*
 DRAWING: S2 OF 23
 PROJECT: I-465-4 (29) 127
 BRIDGE CONTRACT NO. R-7397
 BRIDGE FILE: I-465-128-5276
 Sta 815+30.9
 & Pier 3

DESIGNED: ANA	CKD: GEA
DRAWN: ANA	CKD: GEA
TRACED: ANA	CKD: GEA

Rev. 3-23-67 Slab thickness Note
 Rev. 2-9-67 Exp. Jt. Notes
 Rev. 10-10-66 Guard Rail

BRIDGES OVER 20' SPAN					
PUB. ROAD RES. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-465-4 (129)127	1965	5	34

GENERAL NOTES

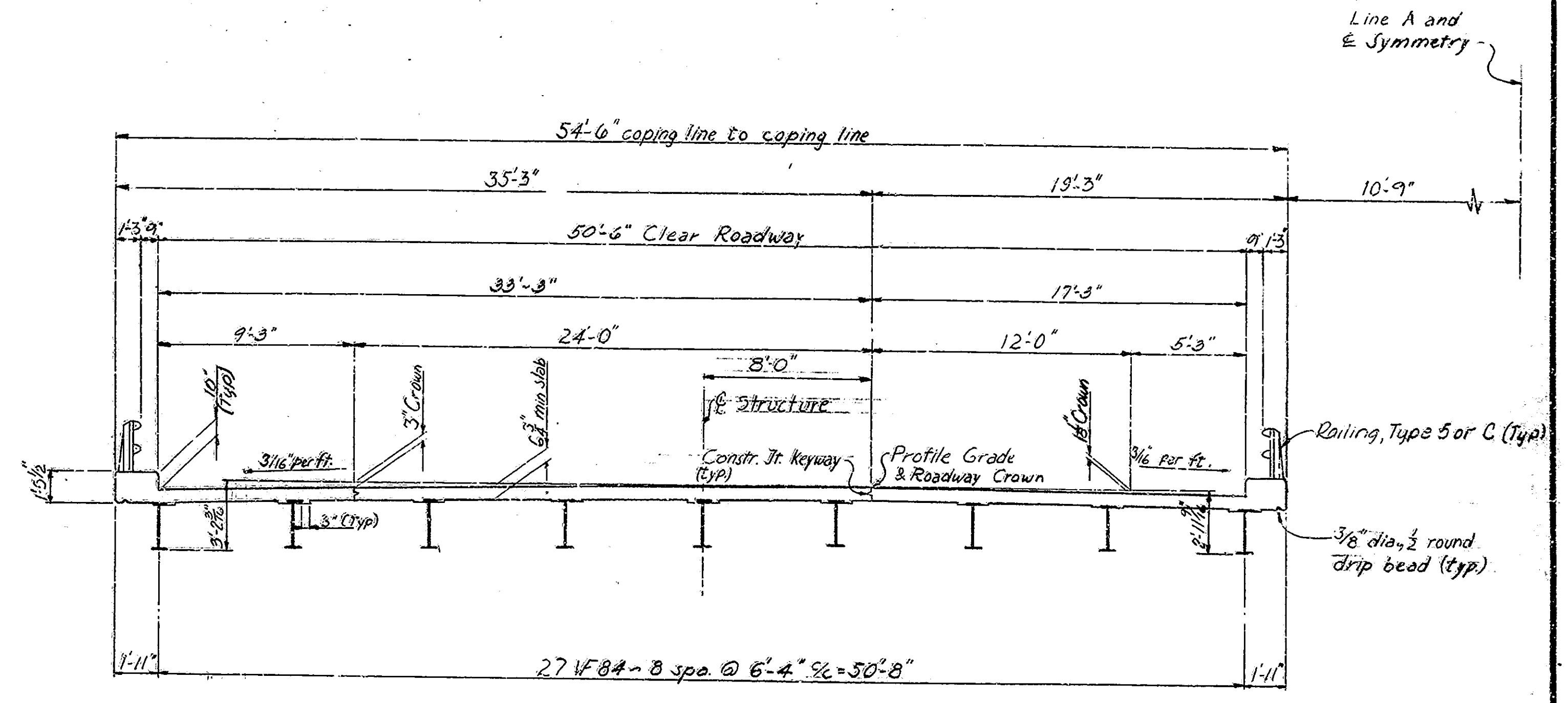
- Existing Structure: No present structure at proposed bridge site.
- Footing Depth: Depth of footing to be extended if found necessary. See Article B 403.2 (a) of Specifications.
- Pile Capacity and Length: Piles shall have minimum bearing value shown on detail drawings. Determine pile lengths by Articles F103 and F203 of Specifications.
- Encased Concrete Piles: For details of steel encased concrete piles, see Bridge Standard C1, the Special Provisions, and applicable articles in the Specifications.
- Reinforcing Steel Covering: Reinforcing steel covering shall be 1/2 inches minimum in top and 1 inch minimum in bottom of floor slabs, 3 inches in footings, except bottom steel which shall be 4 inches, 1/2 inches for ties in beams and columns and 2 inches in all other parts unless noted.
- Superstructure Concrete: Concrete in superstructure, including railing, to be Class F.
- End Bent Concrete: Concrete in end bents to be Class F.
- Interior Bent Concrete: Concrete in footings and crash walls to be Class E. Concrete in columns to be Class D. Concrete in caps to be Class F.
- Miscellaneous Concrete: Concrete in steel encased concrete piles, to be class D.
- Concrete Pours: Continuous concrete pours shall be required between construction joints as shown on detail plans.
- Waterproofing: Waterproof backs of medwalls and wingwalls on end bents in accordance with Specifications.
- Concrete Chamfer: Bevel forms 1/4 inch under copings and chamfer exposed edges 1 inch unless noted.
- Slope Protection: Construct slope wall at locations as shown on layout.
- Pile Tolerance: Maximum tolerance in position of pile head is 2 inches for steel encased concrete piles.
- * Expansion Joints: Three 1 inch expansion joints with load transfer to be placed in the pavement as shown on Bridge Standard M3.
- Railings: All railing to be constructed perpendicular to grade.
- Special Provisions: See Special Provisions for items included in this contract.

SHOP DRAWINGS: The Contractor shall prepare detailed working or shop drawings to enable him to fabricate, erect and construct all parts of the work in conformity with the Engineer's drawings and specifications and shall submit 5 copies of these to the Engineer. See Article E103.2 of the Specifications.

PAY ITEMS: For Pay items covering this structure, see Bridge Summary

LIGHTING FIXTURES: Lighting fixtures are not a part of this project. Conduit, anchor bolts, support details and coping shall conform to Bridge Standard R2. Conduit shall extend 2.5 feet beyond the bridge floor.

The top of caps, bents 1 & 5 shall be sealed with 2 coats of epoxy resin. See special provisions.



SECTION A-A
Westbound lanes shown
(Eastbound lanes same by 180° rotation)

GENERAL PLAN

Twin Continuous Steel Beam Bridges
4 spans @ 38'-6", 64'-6", 64'-6", 34'-6"
50% Roadways, 9" curbs, 20'-4" Left Skew
Over State Route 431 (proposed) on Interstate 465

INDIANA STATE HIGHWAY COMMISSION
MARION COUNTY

SCALE: 1/4" = 1'-0" JUNE 1, 1965

SUBMITTED FOR APPROVAL: *Frank W. ... P.E.*

DRAWING: 53 OF 23
PROJECT: 1-465-4 (129)127
BRIDGE CONTRACT NO. 13-7391
BRIDGE FILE: 1-465-128-5276 Sta. 815+30.9
@ Pier 3

DESIGNED: ANA	C.K.D.	GEA
DRAWN: ANA	C.K.D.	GEA
TRACED: _____	C.K.D.	_____

BRIDGES OVER 20' SPAN					
PUB. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-465-4 (129) 127	1965	6	34

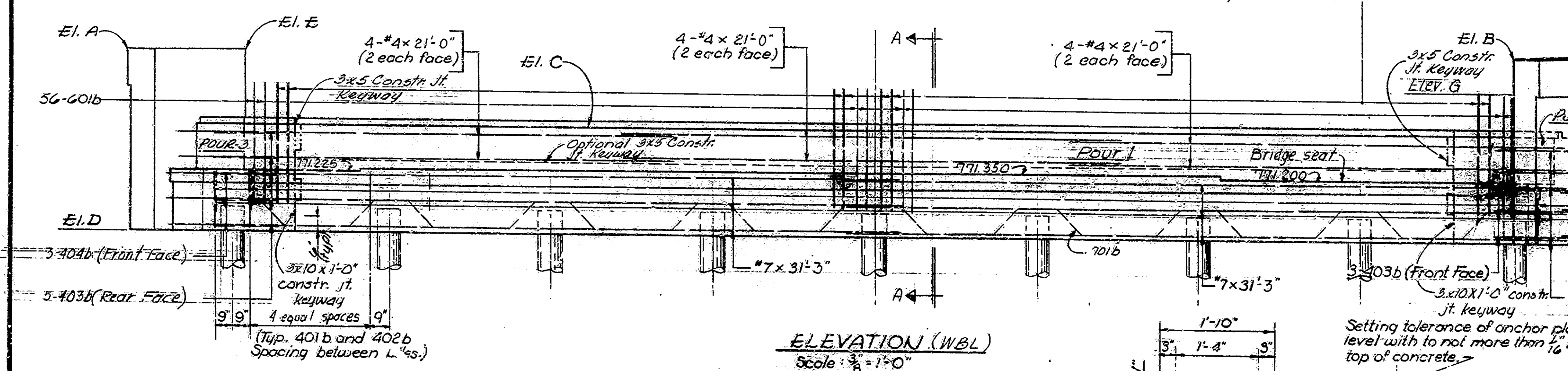
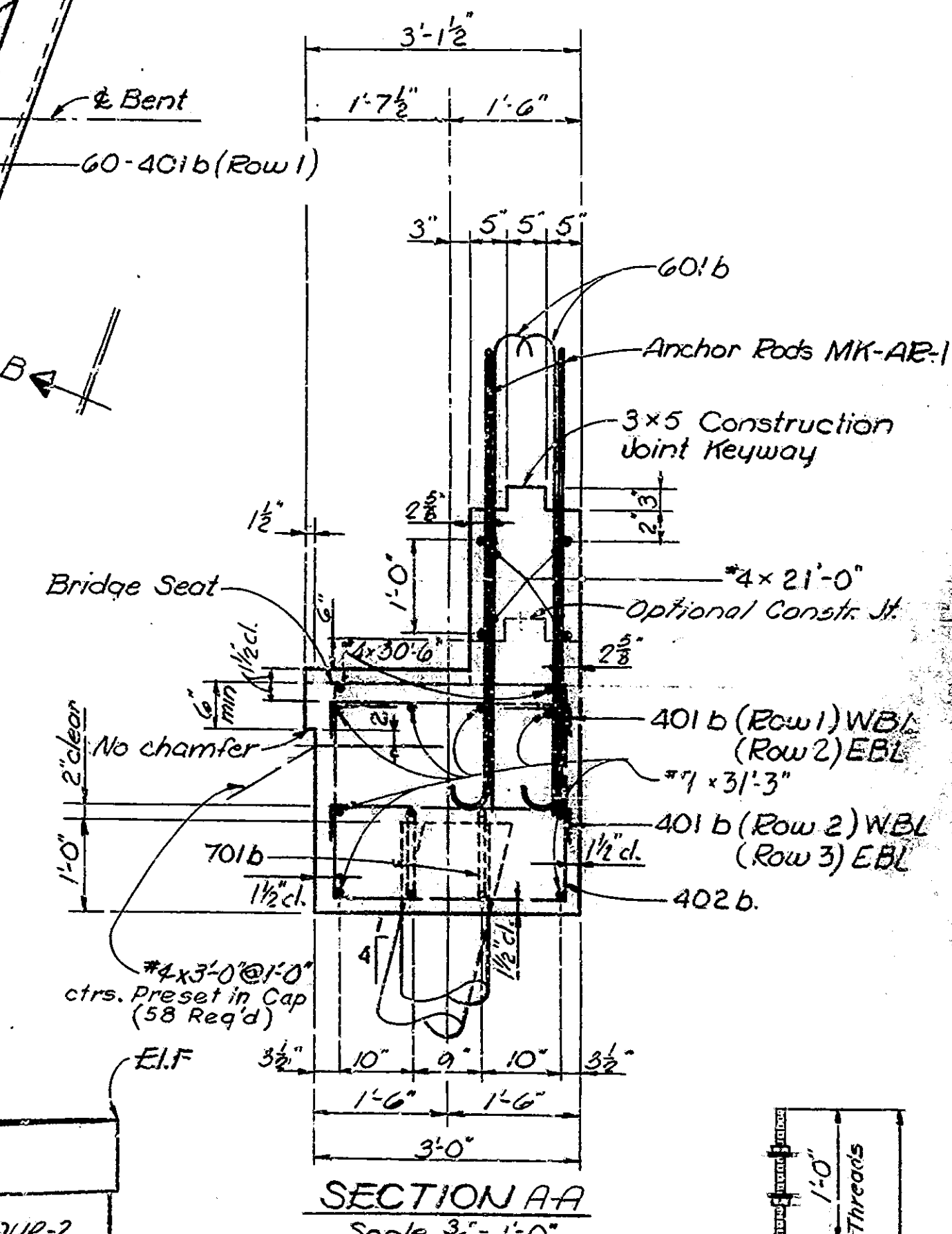
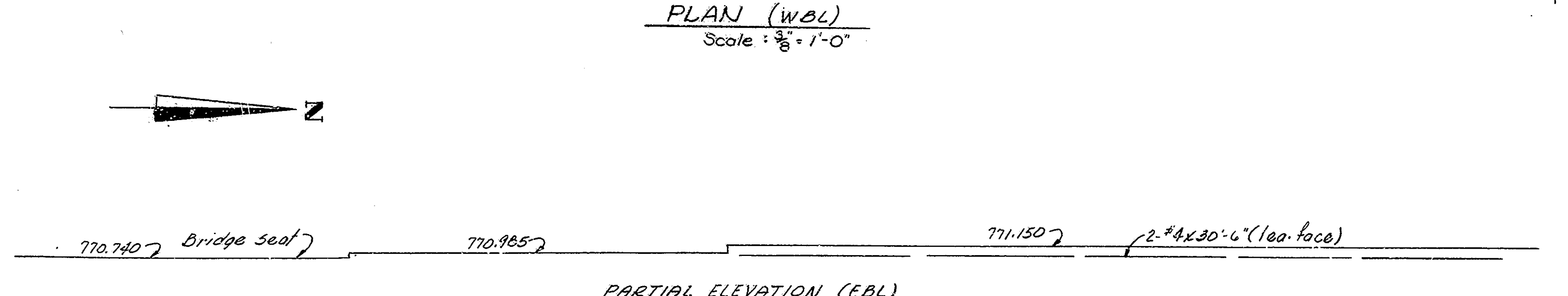
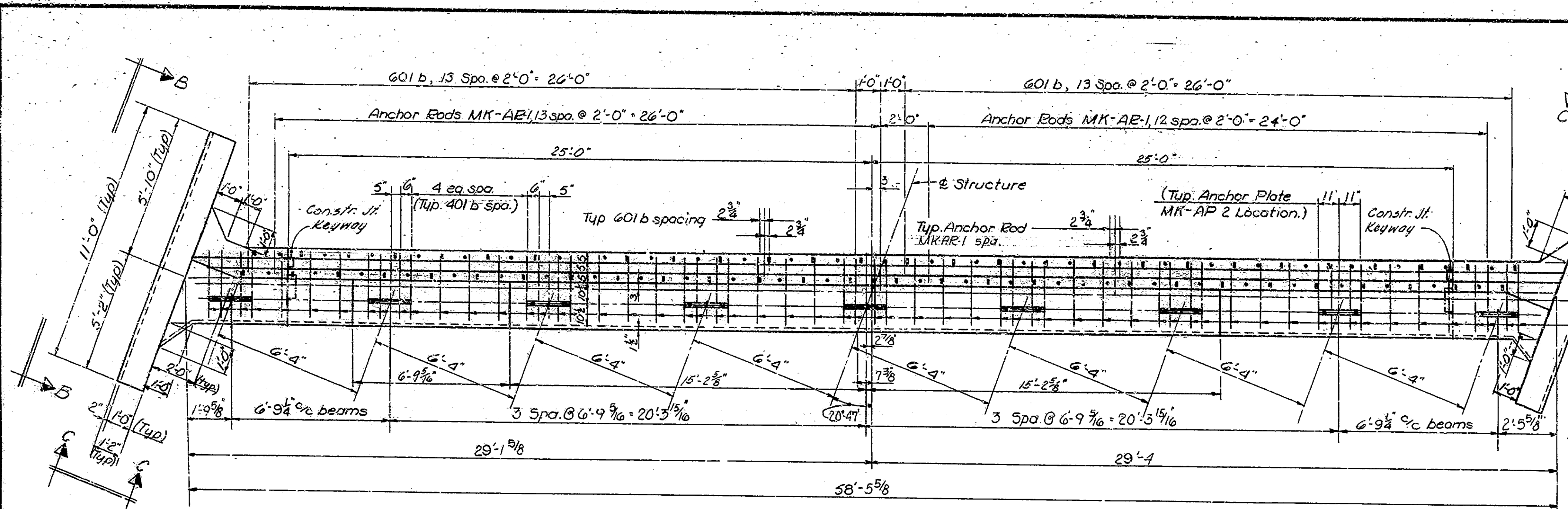
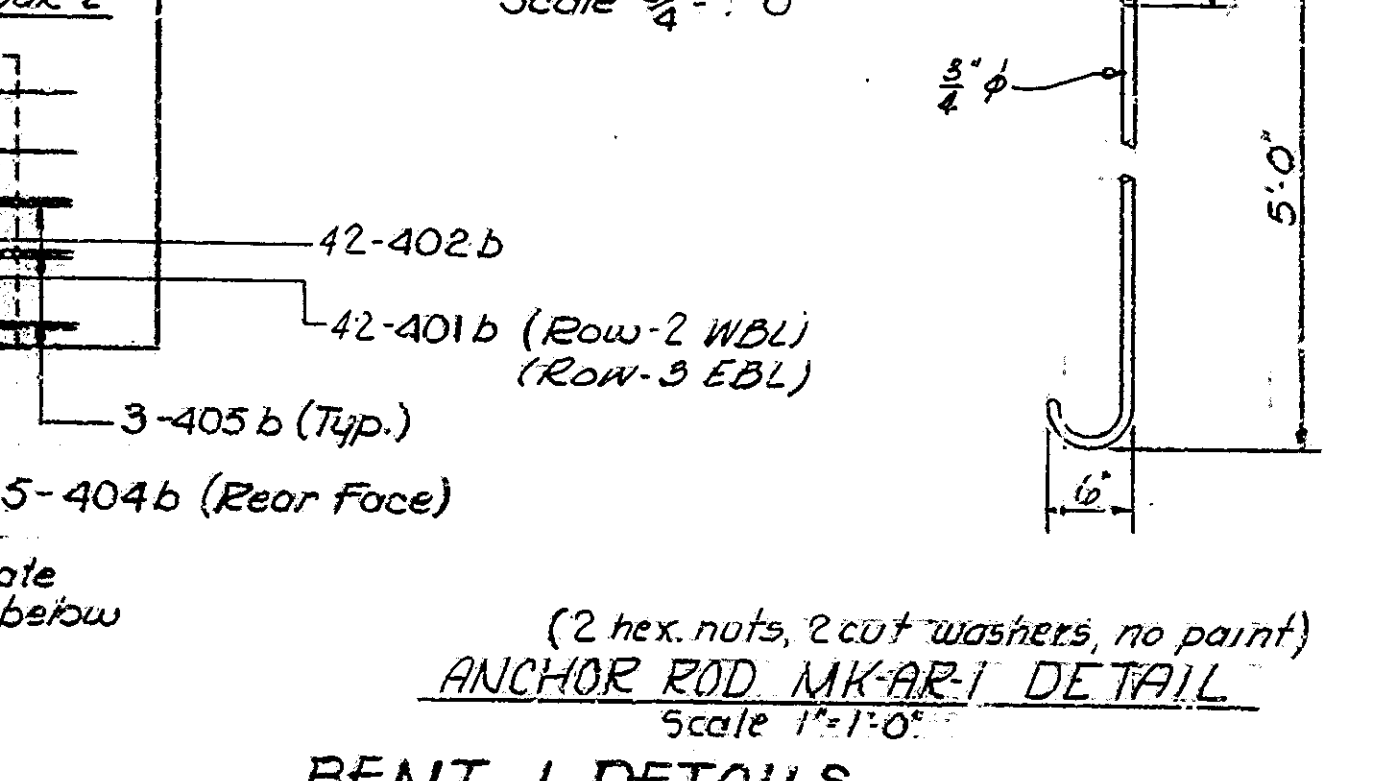
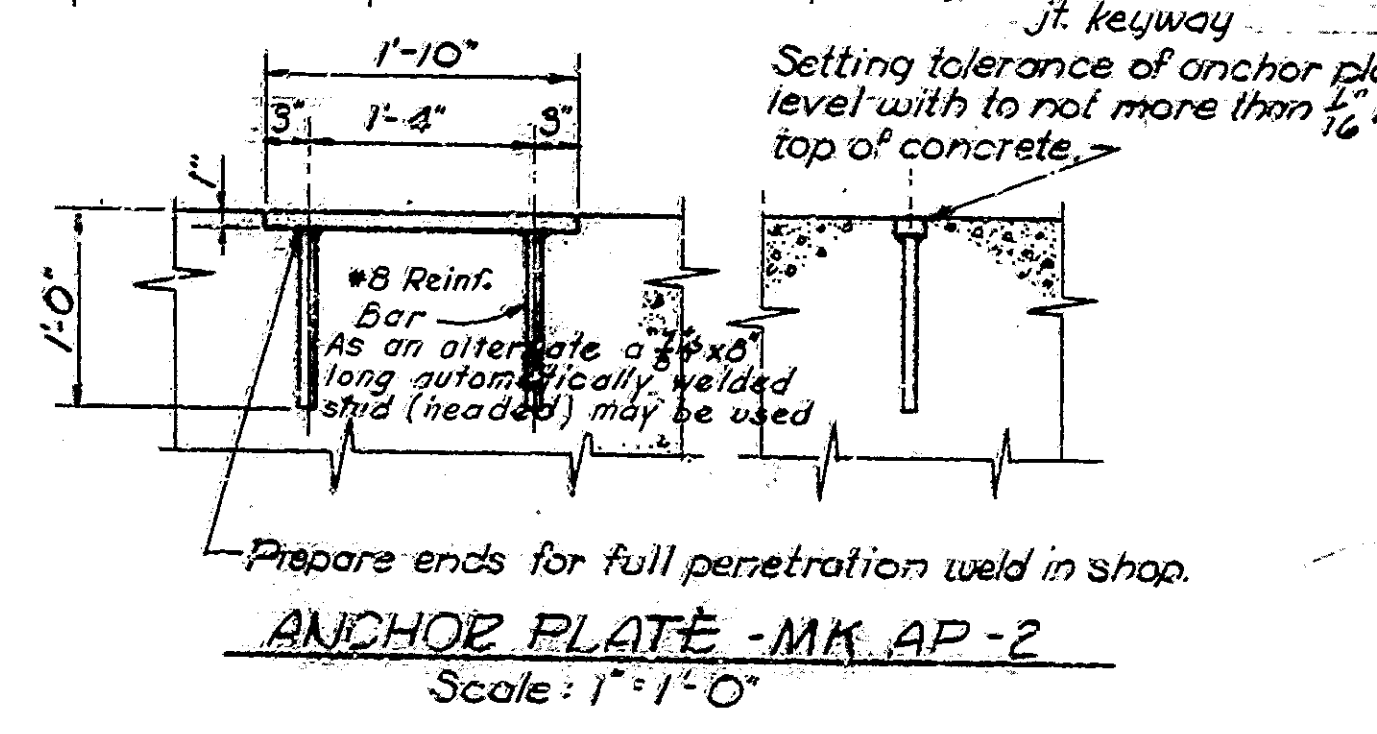


TABLE OF ELEVATIONS

LOCATION	A	B	C	D	E	F	G
BENT-1 EB	775.80	776.24	772.86	768.24	775.93	776.34	774.61
BENT-1 WB	776.92	776.28	775.33	768.70	776.42	776.38	775.08

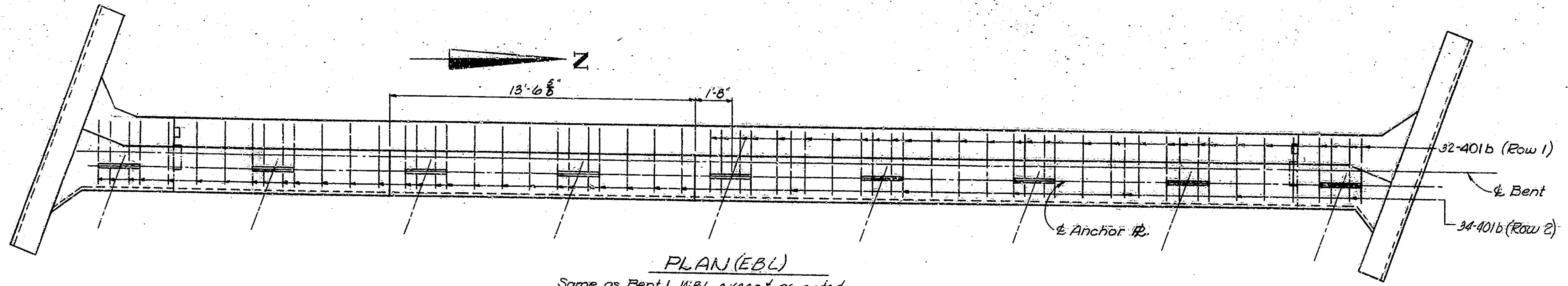


ANCHOR RODS: Anchor rods MK-AR-1 to be pre-set in the concrete.
 ANCHOR PLATES: Anchor plates MK-AP-2 to be pre-set in the concrete.
 GENERAL NOTES: See Drawing S3 for General Notes.
 ADDITIONAL DETAILS: For additional details see Drawing S5

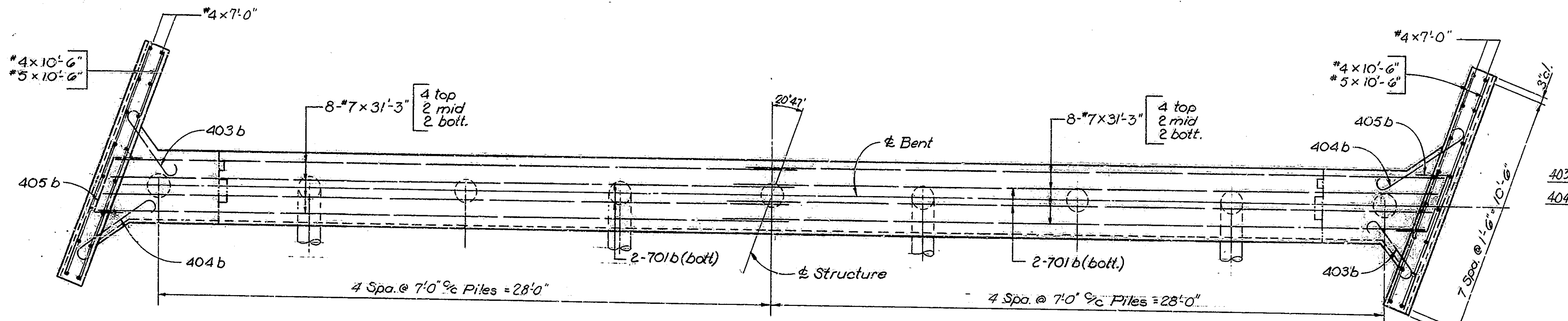
INDIANA STATE HIGHWAY COMMISSION
 SCALE: AS NOTED
 JUNE 1, 1965
 SUBMITTED FOR APPROVAL: Tom P. Anderson, P.E.
 DRAWING: 54 of 23
 PROJECT: I-465-4 (129) 127
 BRIDGE CONTRACT NO. R-7391
 BRIDGE FILE: I-465-128-5276

DESIGNER: SEA	CHKD: PWD
DRAWN: DNS	CHKD: PWD
TRACED: CND	

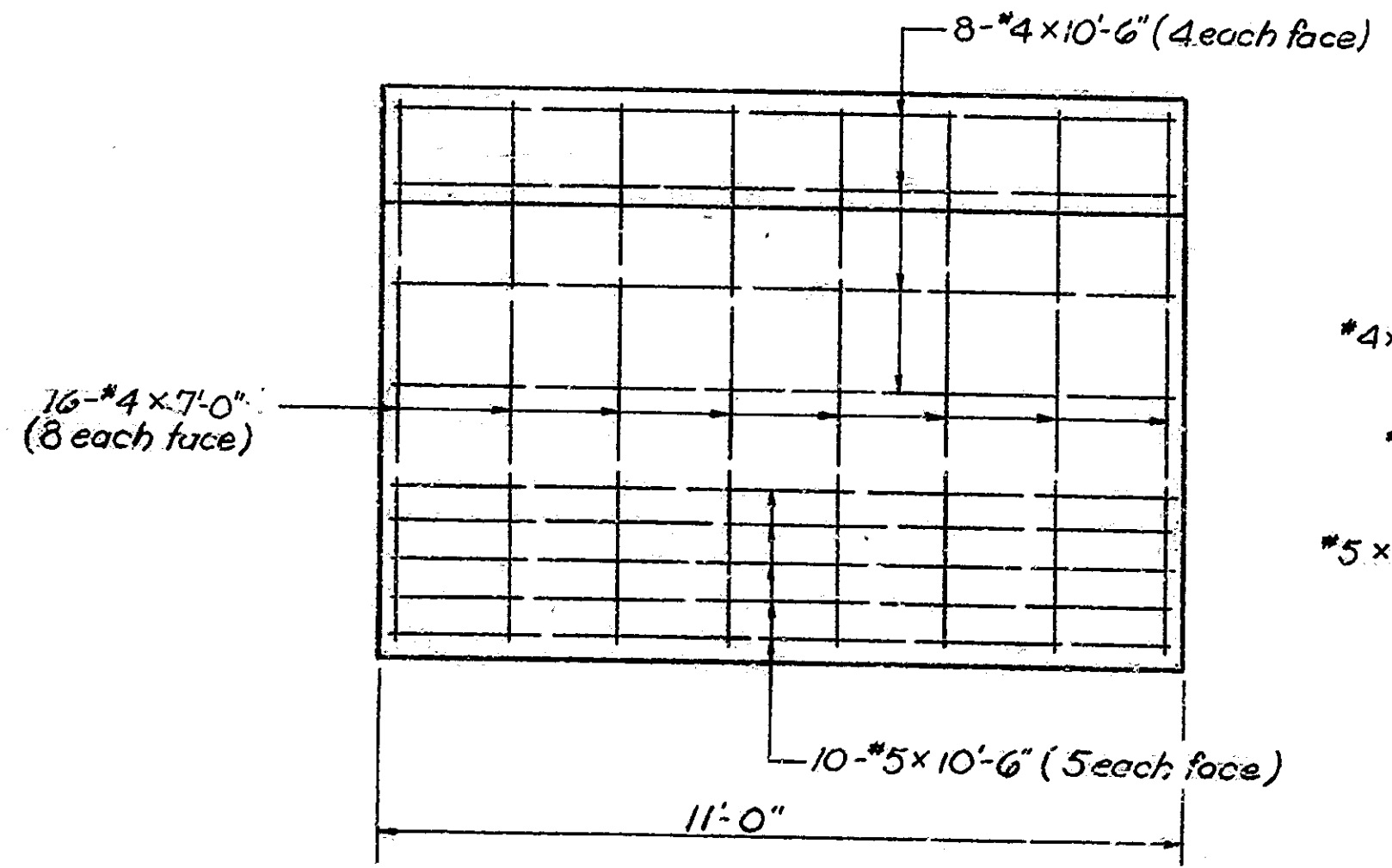
BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-465-4 (129) 127	1965	7	34



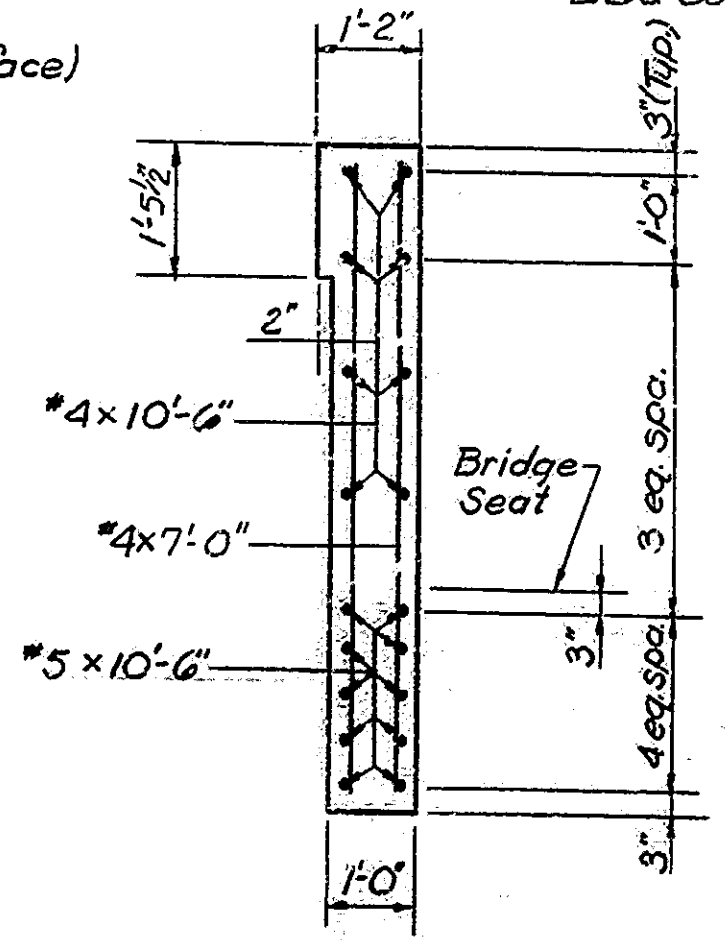
PLAN (EBL)
Same as Bent 1 WBL except as noted
Scale: $\frac{3}{8}'' = 1'-0''$



CAP PLAN (WBL)
Scale: $\frac{3}{8}'' = 1'-0''$
EBL same



VIEW B-B
Scale: $\frac{1}{2}'' = 1'-0''$



VIEW C-C
Scale: $\frac{1}{2}'' = 1'-0''$

BENT CAP: Bent cap shall not be poured until after fill has been completed up to approximate elevation of bottom of cap.

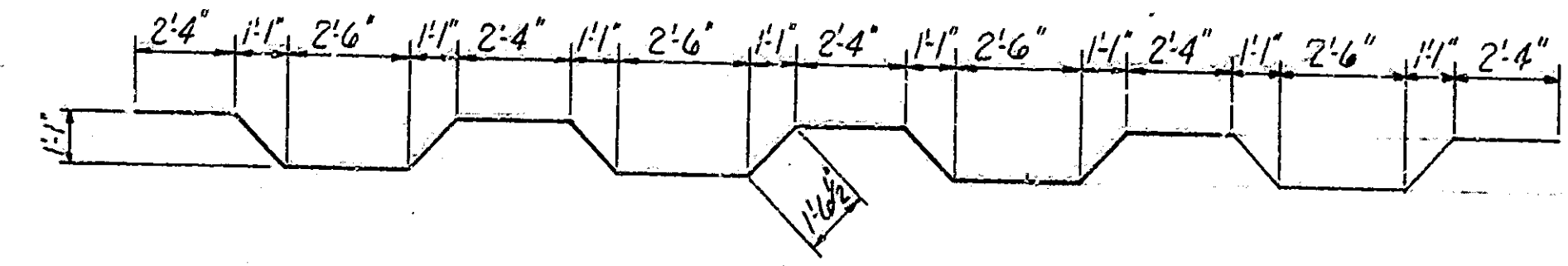
PILES: 14 # Steel Encased Concrete 7 Ga. piles to be driven to 35 tons minimum bearing capacity. Approximate pile length 35 feet.

KEYWAYS: Top of Mudwall & Top of depressed keyways shall be trowelled smooth. Cover horizontal surfaces with one layer of medium weight roofing felt and provide 2 inch expansion joint material along vertical sides of keyways.

REINFORCING STEEL: For reinforcing bar notes, see Bridge Standard C 1.

GENERAL NOTES: See Drawing S 3 for General Notes.

ADDITIONAL DETAILS: For additional details, see Drawing 54.



REINFORCING STEEL				
SIZE OF MARK	NO OF BARS	LENGTH	WEIGHT	
701b	4	34'-0"	278	
#7	16	31'-3"	1022	
		Total #7	1300	
401b	36	5'-10"	491	
#5	20	10'-6"	219	
401b	102	3'-9"	256	
402b	42	8'-3"	231	
403b	8	4'-6"	23	
404b	8	5'-6"	29	
405b	8	5'-4"	27	
#4	12	21'-0"	168	
#4	16	10'-6"	112	
#4	32	7'-0"	150	
#4	58	3'-0"	116	
		Total #4	1107	
		Total Steel	3173	

Bent #1 E.B. same as Bent #1 W.B. except add 2 #4 x 30'-6" and 6-401b	
403b	3'-6"
404b	4'-6"
403b x 4'-6"	
404b x 5'-6"	
Total #4	1163
Total Steel	3173

CLASS 'F' CONCRETE	
Pour 1	20.4 cu yd
Pour 2	3.9 cu yd
Pour 3	3.8 cu yd
Total	28.1 cu yd

MISCELLANEOUS	
Anchor Plates MK-AR-2	9 each
9-14 # Steel Encased Concrete Piles 7 ga.	
@ 3.5'	115 LF
Anchor Rods MK-AR-1	54 each

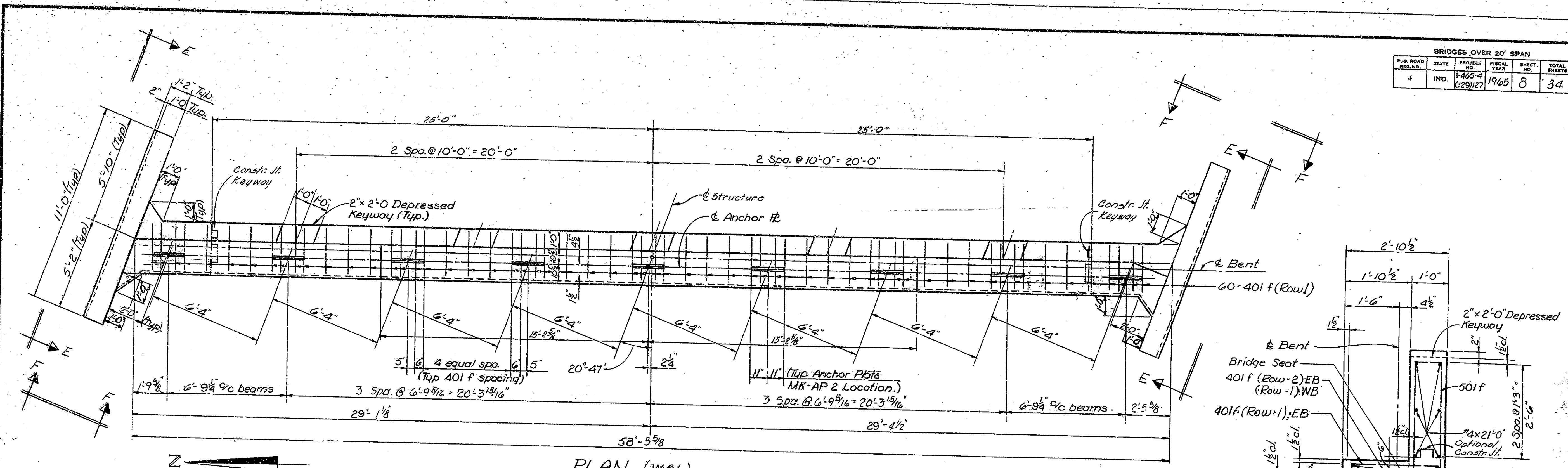
BENT 1 DETAILS

INDIANA STATE HIGHWAY COMMISSION

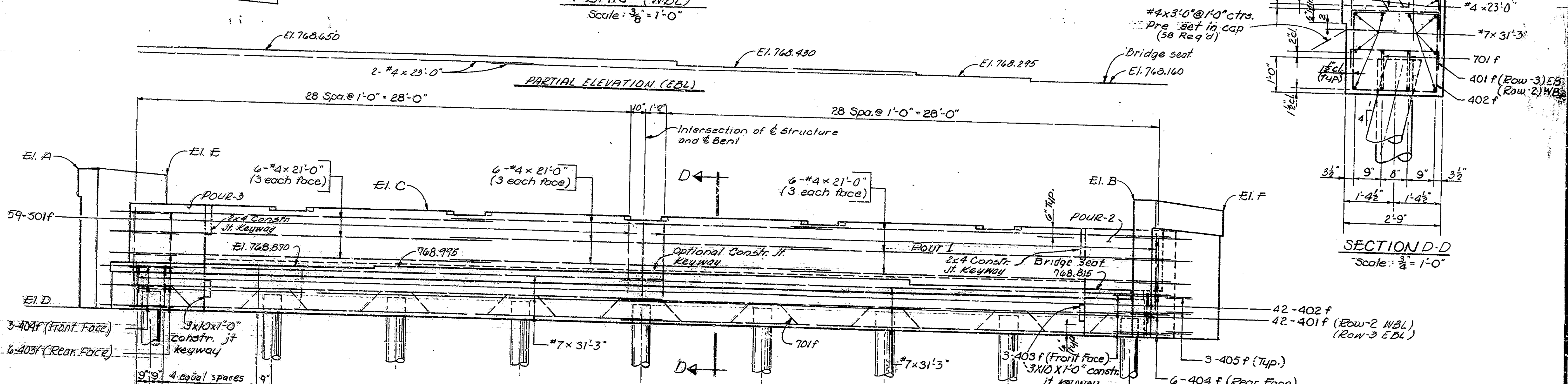
SCALE: AS NOTED
 SUBMITTED FOR APPROVAL: Tom L. Anderson, P.E.
 DRAWING: 55 OF 23
 PROJECT: I-465-4(129) 127
 BRIDGE CONTRACT NO. B-7391
 BRIDGE FILE: I-465-128-5276

DESIGNER: GEA	CHKD: PWD
DRAWN: CWS	CHKD: PWD
TRACED: CWS	CHKD: PWD

BRIDGES OVER 20' SPAN					
PUB. ROAD	STATE	PROJECT	FISCAL	SHEET	TOTAL
NO.		NO.	YEAR	NO.	SHEETS
4	IND.	I-465-4 (129)127	1965	8	34



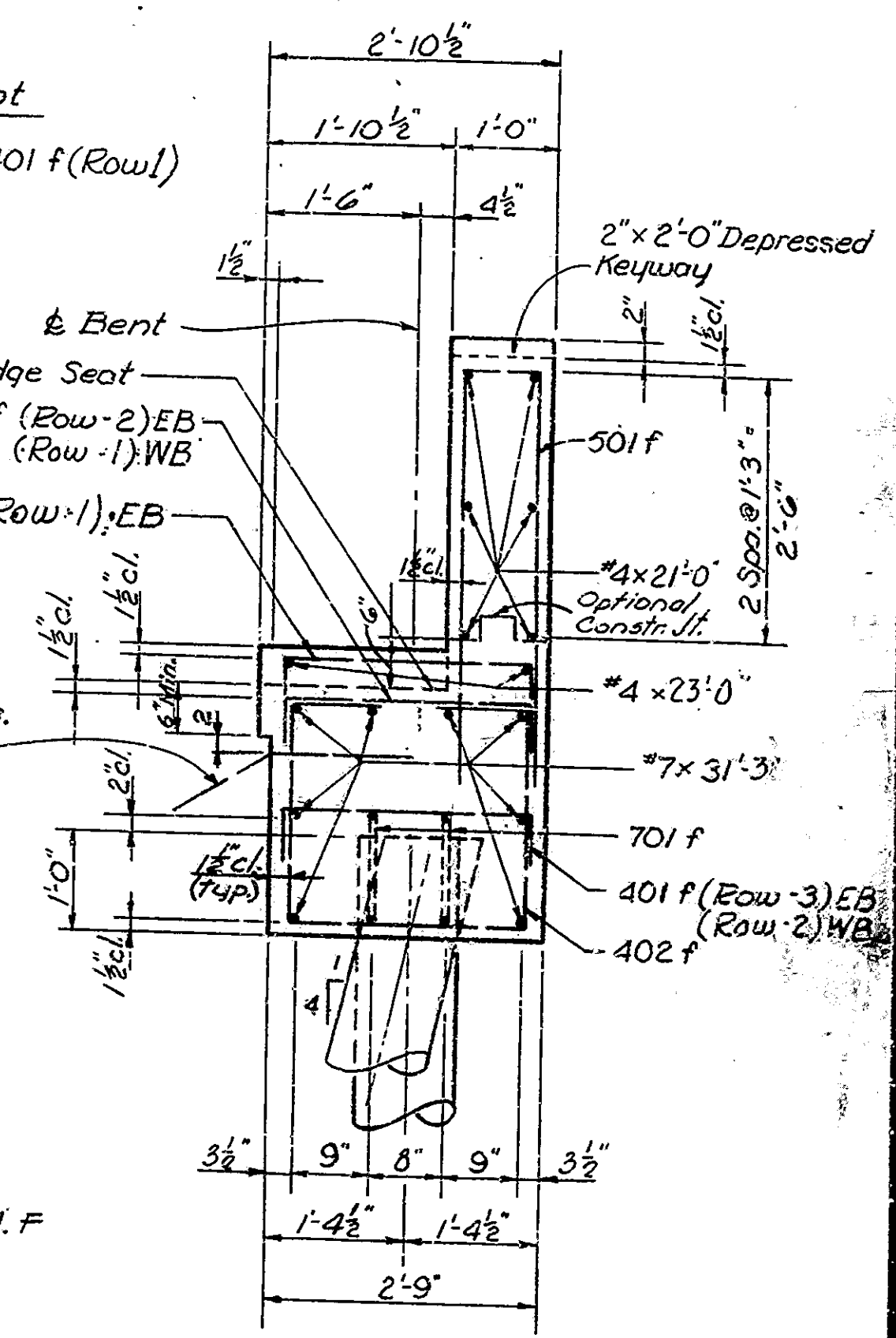
PLAN (WBL)
Scale: 3/8" = 1'-0"



ELEVATION (WBL)
Scale: 3/8" = 1'-0"
E.B.L. same except as noted

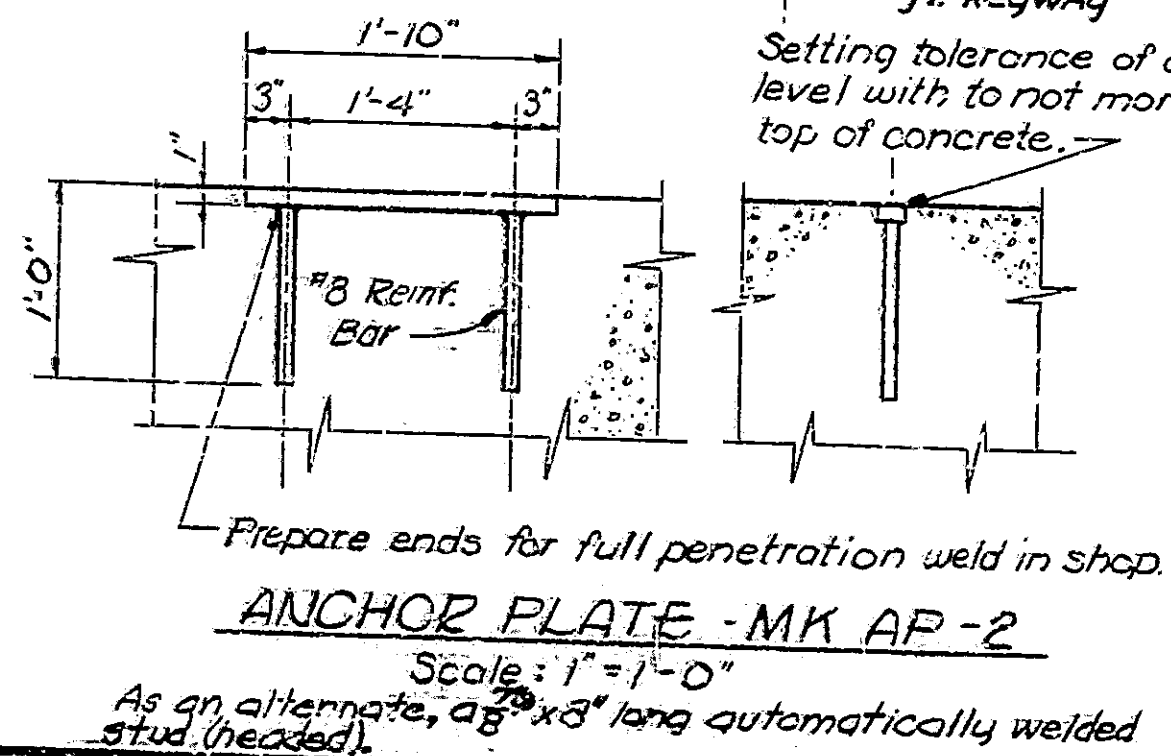
TABLE OF ELEVATIONS

LOCATION	A	B	C	D	E	F
BENT-5 EB	773.85	773.93	771.62	765.66	773.70	773.16
BENT-5 WB	774.05	773.98	772.50	766.32	773.90	773.82



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

NOTES:
ANCHOR PLATES: Anchor plates MK AP-2 to be pre-set in the concrete.
GENERAL NOTES: See Drawing S3 for General Notes
ADDITIONAL DETAILS: For additional details, see Drawing 57



ANCHOR PLATE - MK AP-2
Scale: 1" = 1'-0"
As an alternate, a 6" x 8" long automatically welded stud (headed)

BENT 5 DETAILS
INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED
 JUNE 1, 1965
 SUBMITTED FOR APPROVAL: Tom E. Anderson, ISE
 DRAWING: 56 of 23
 PROJECT: I-465-4 (129) 127
 BRIDGE CONTRACT NO. E-7391
 BRIDGE FILE: I-465-128-5276

DESIGNED: GEA CKD JWD
 DRAWN: CWS CKD JWD
 TRACED: CKD

BRIDGES OVER 20' SPAN					
PUB. ROAD NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NOS.	TOTAL SHEETS
4	IND.	I-465-4 (129) 127	1965	9	34

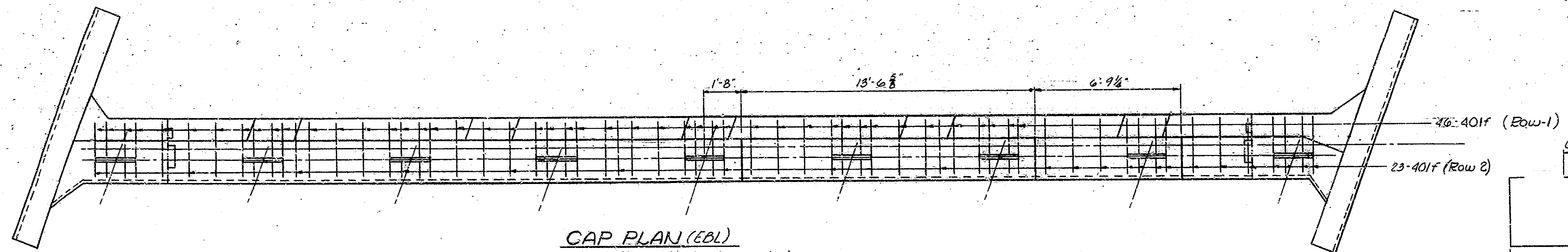
EBL Same except as noted
WBL

REINFORCING STEEL				
SIZE	# OF MARK BARS	LENGTH	WEIGHT	
701f	4	34-0	278	
#7	16	31-3	1022	
		Total #7	1300	
501f	59	8-5	518	
#5	20	10-6	219	
		Total #5	737	
401f	102	3-6	288	
402f	42	8-0	224	
403f	9	4-6	27	
404f	9	5-6	33	
405f	6	5-1	20	
#4	12	21-0	168	
#4	16	10-6	112	
#4	32	7-0	150	
#4	58	3-0	115	
		Total #4	1098	
		Total Steel	3123	

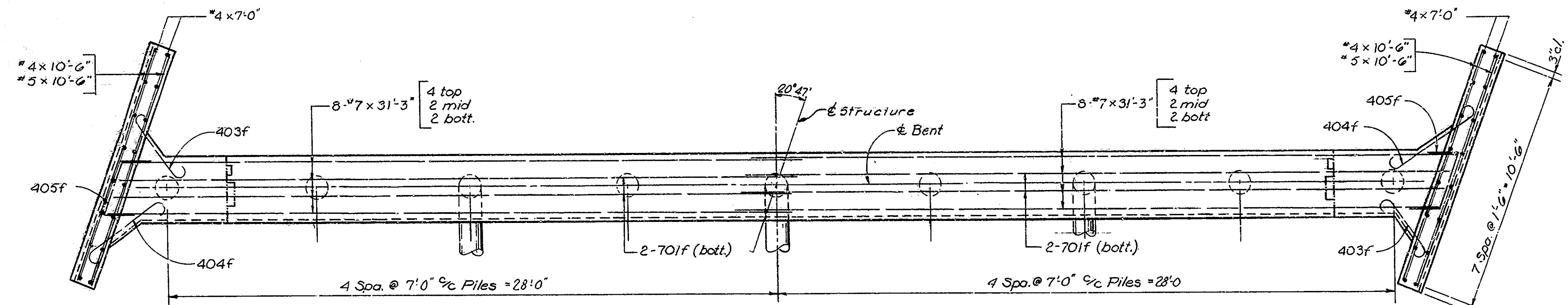
Bent #5 EB same as Bent #5 WB except add 4 #4 x 23'-0" and 9-401f	
Total #4	1170
Total Steel	3202

CLASS 'F' CONCRETE	
Pour 1	189 cu yd
Pour 2	126 cu yd
Pour 3	42 cu yd
Total	257 cu yd

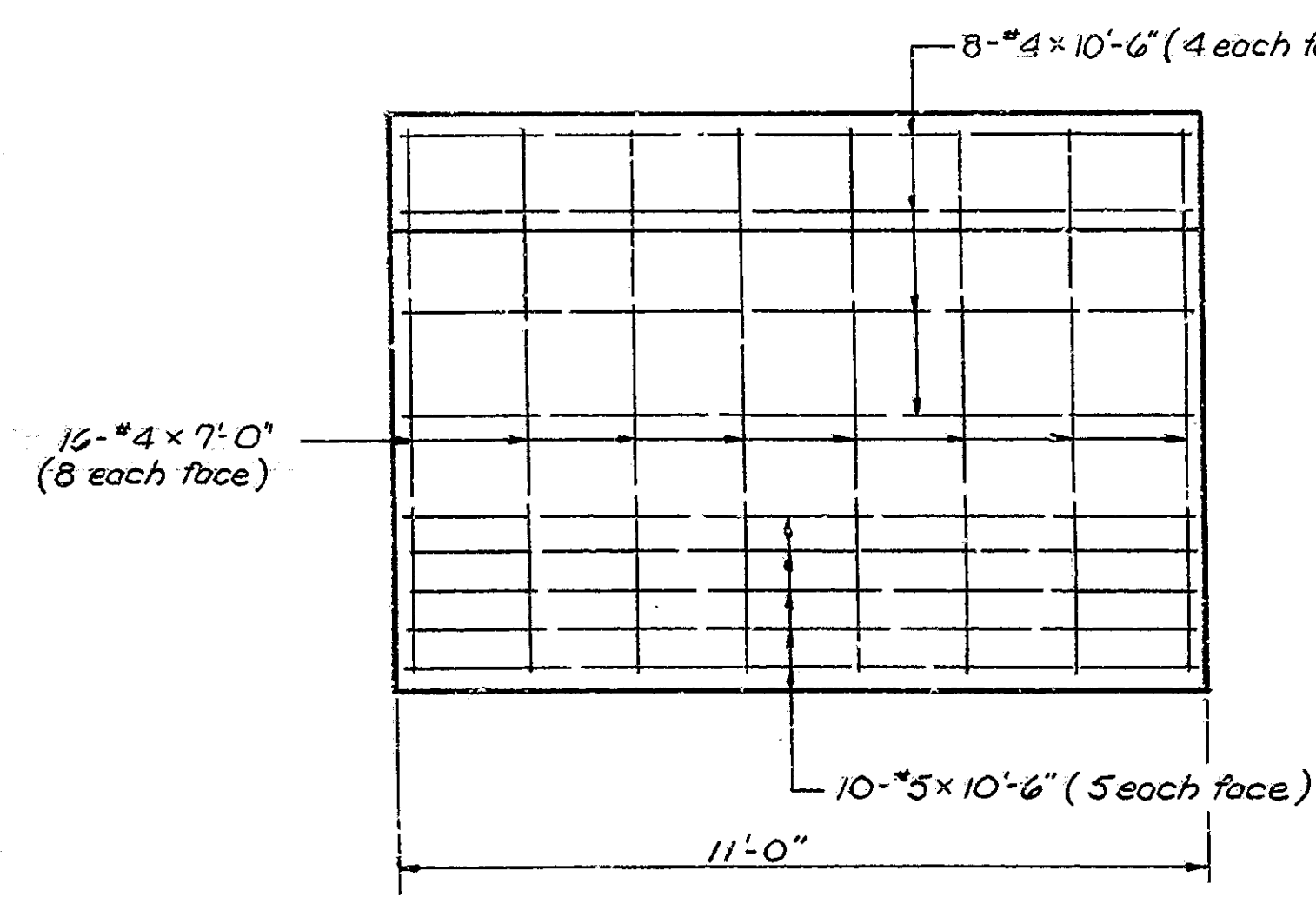
MISCELLANEOUS	
Anchor Plates MK-AP-2	9 each
9-1" x 3" Steel Encased Concrete Piles 7 ga @ 35'	375 ft



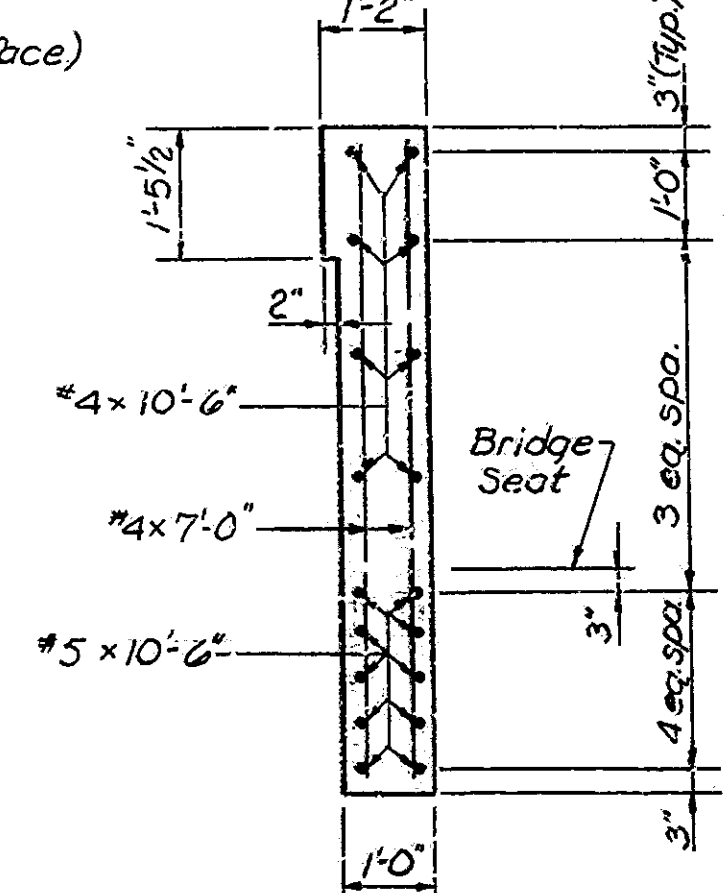
CAP PLAN (EBL)
Same as Bent 5 Westbound except as noted.
Scale: 3/8" = 1'-0"



CAP PLAN (WBL)
Scale: 3/8" = 1'-0"
(EBL same)



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



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

BENT CAP: Bent cap shall not be poured until after fill has been completed up to approximate elevation of bottom of cap.

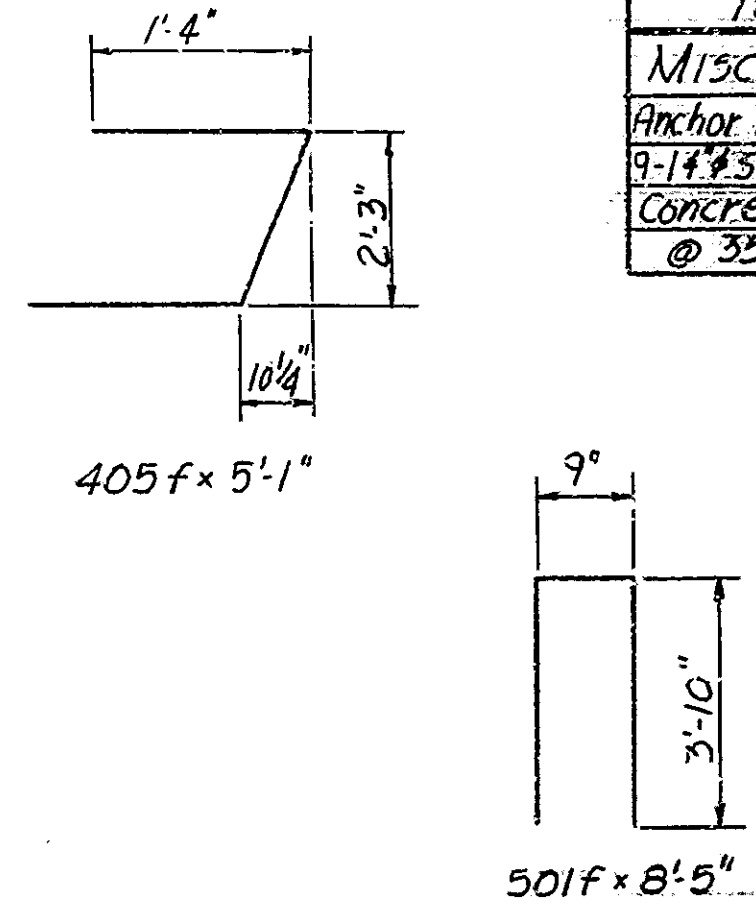
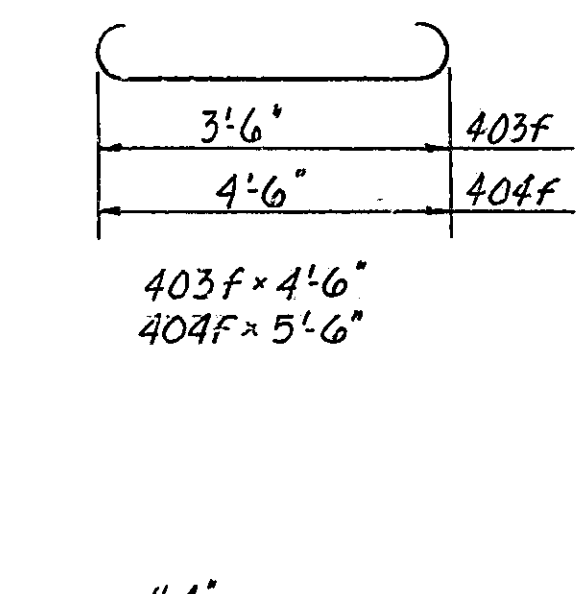
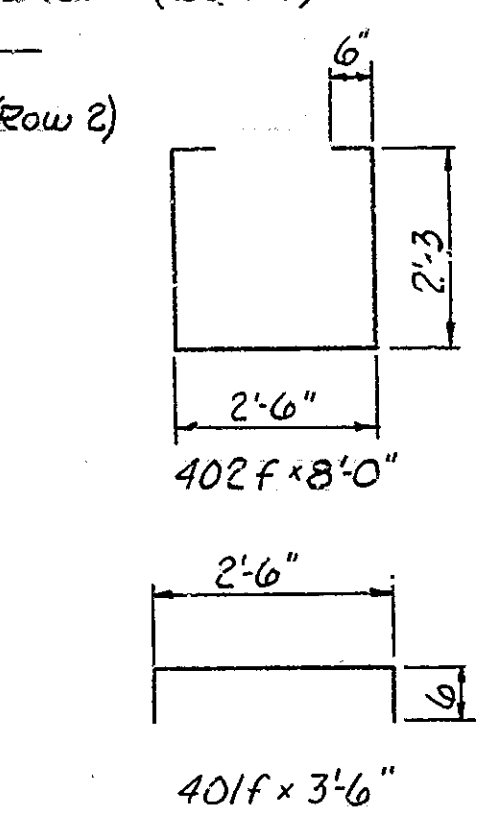
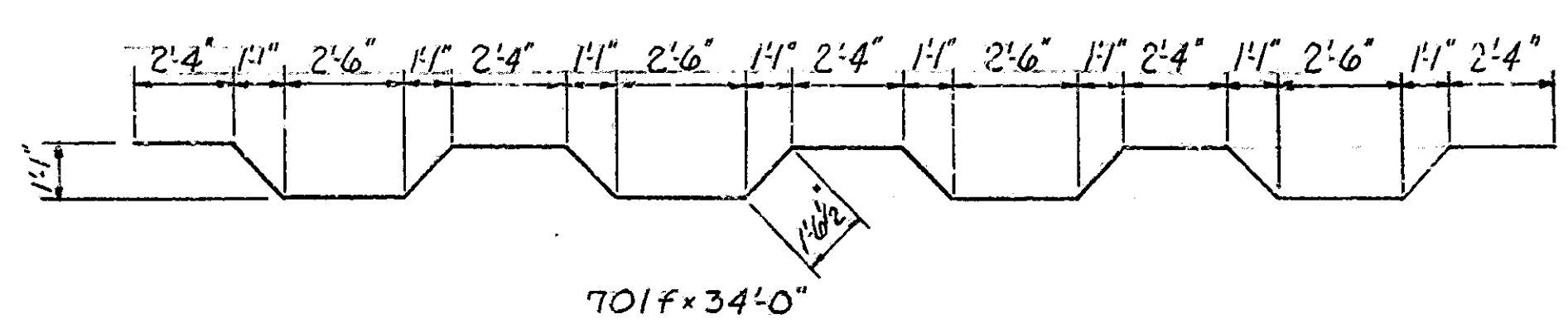
PILES: 14" x Steel Encased Concrete 7 Ga. piles to be driven to 35 tons minimum bearing capacity. Approximate pile length 35 feet.

TOP OF MUDWALL: Top of mudwall and top depressed keyways shall be troweled smooth. Cover horizontal surfaces with one layer of medium weight roofing felt and provide 1/4 inch expansion joint material along vertical sides of keyways.

REINFORCING STEEL: For reinforcing bar notes, see Bridge Standard C1.

GENERAL NOTES: See Drawing S3 for General Notes.

ADDITIONAL DETAILS: For additional details, see Drawing 56



BENT 5 DETAILS

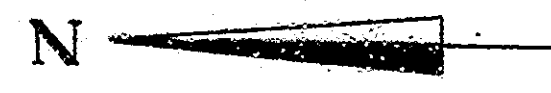
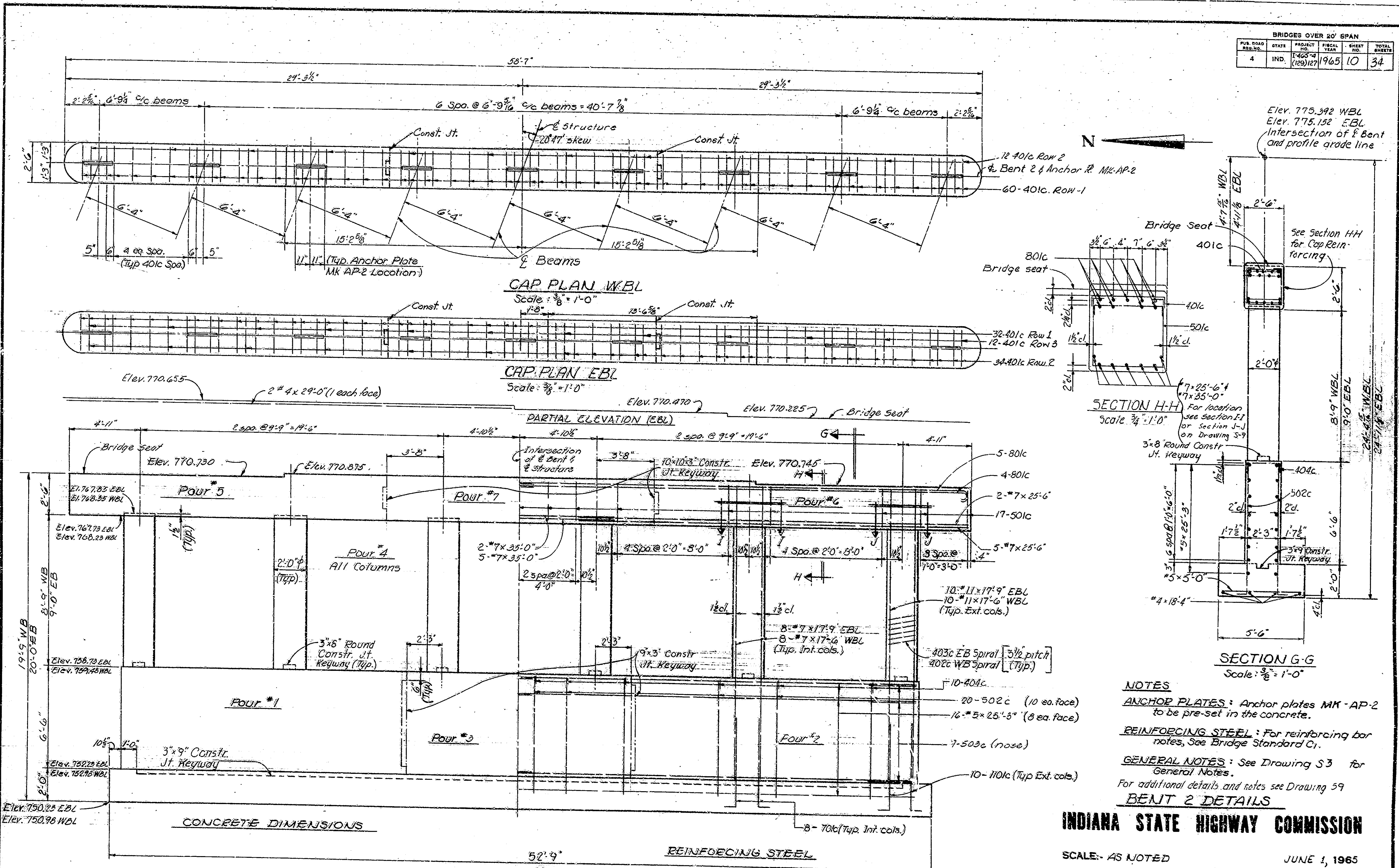
INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED
JUNE 1, 1965
SUBMITTED FOR APPROVAL: *Tom R. Anderson, E.E.*
DRAWING: 57 OF 23
PROJECT: I-465-4(129) 127
BRIDGE CONTRACT NO. R-7391
BRIDGE FILE: I-465-128-5276

DESIGNED	G.E.A.	CYD	P.W.D.
DRAWN	C.W.S.	CYD	P.W.D.
TRACED		CYD	

PROJECT NO.	LINE	SHEET	TOTAL SHEETS	DATE
I-465-4(129) 127	4	9	23	12/1/65

BRIDGES OVER 20' SPAN				
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.	I-465-4 (129) 127	1965	10
				34



Elev. 775.392 WBL
Elev. 775.152 EBL
Intersection of Bent and profile grade line

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

SECTION G-G
Scale: 3/8" = 1'-0"

- NOTES**
- ANCHOR PLATES:** Anchor plates MK-AP-2 to be pre-set in the concrete.
 - REINFORCING STEEL:** For reinforcing bar notes, See Bridge Standard C1.
 - GENERAL NOTES:** See Drawing S3 for General Notes.
- For additional details and notes see Drawing 59
- BENT 2 DETAILS**

INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED JUNE 1, 1965

SUBMITTED FOR APPROVAL: *Tout Industrial, P.A.*

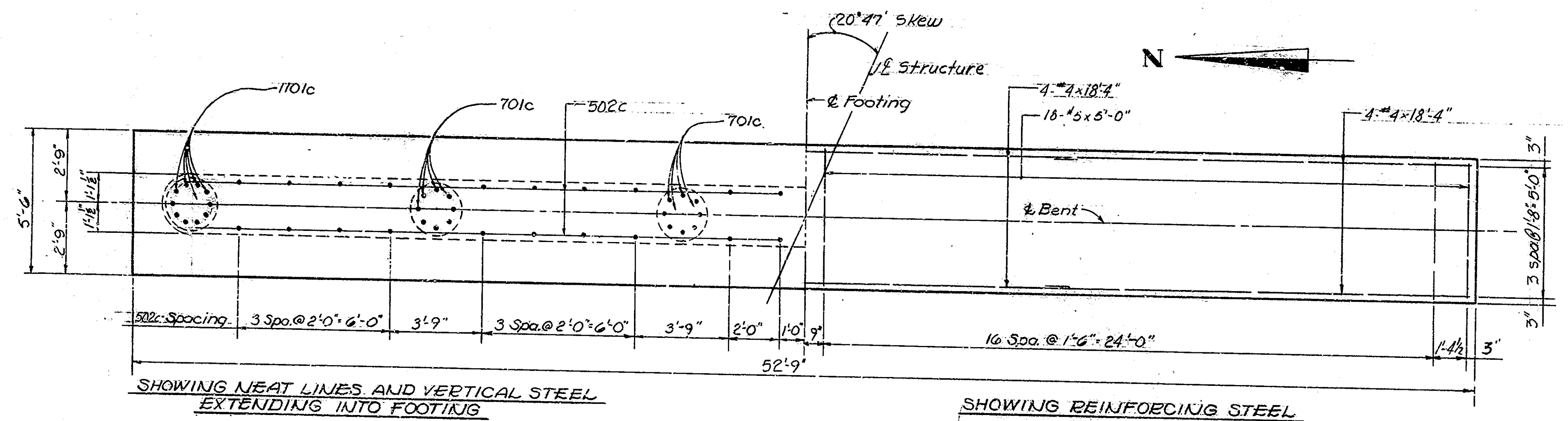
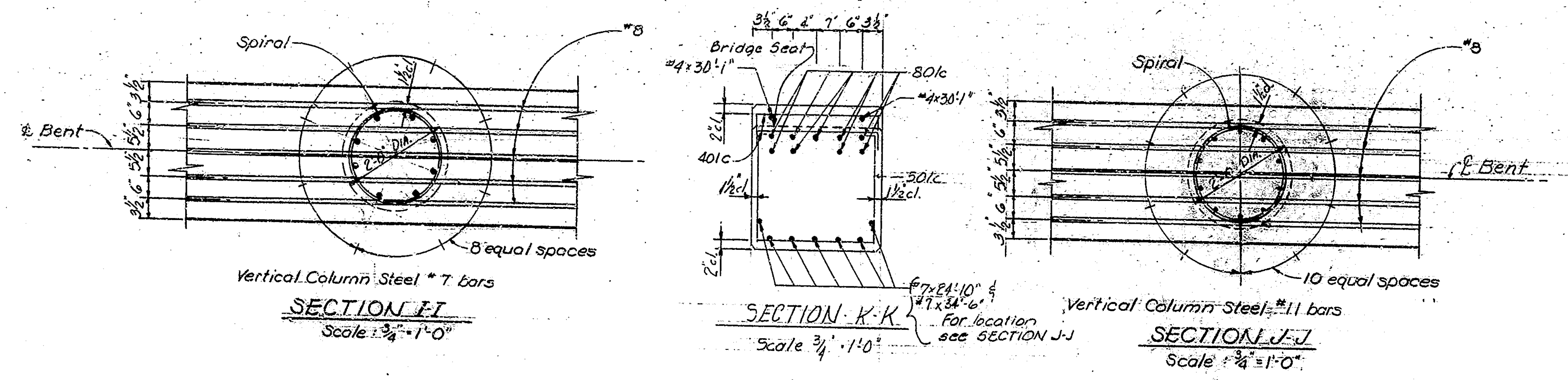
DRAWING: 58 OF 23
PROJECT: I-465-4 (129) 127
BRIDGE CONTRACT NO. B-7391
BRIDGE FILE: I-465-128-5276

DESIGNED: GEA	CHKD: PND
DRAWN: CNS	CHKD: PND
TRACED:	CHKD:

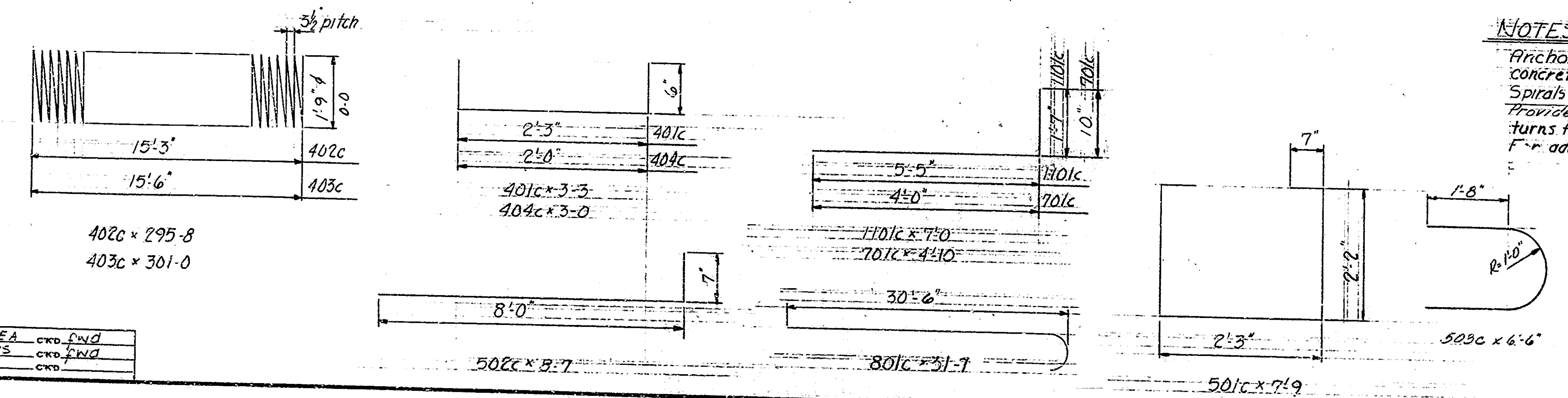
BENT ELEVATION (WBL)
Scale: 3/8" = 1'-0"
(EBL same except as noted)

PROJECT NO.	LINE	DATE	BY	APP.
I-465-4(129)127	A	10	34	

BRIDGES OVER 20' SPAN					
PUB. ROAD	STATE	PROJECT	FISCAL	SHEET	TOTAL
NO.		NO.	YEAR	NO.	SHEETS
4	IND.	I-465-4 (129)127	1965	11	34



BILL OF MATERIAL EBL				BILL OF MATERIAL WBL			
REINFORCING STEEL				REINFORCING STEEL			
SIZE #	Nº OF MARK BARS	LENGTH	WEIGHT	SIZE #	Nº OF MARK BARS	LENGTH	WEIGHT
1101c	20	7-0	744	1101c	20	7-0	744
#11	20	17-9	1886	#11	20	17-6	1860
		Total #11	2630			Total #11	2604
801c	18	31-7	1518	801c	18	31-7	1518
701c	32	4-10	316	701c	32	4-10	316
#7	7	25-6	365	#7	7	25-6	365
#7	7	35-0	501	#7	7	35-0	501
#7	32	17-9	1161	#7	32	17-6	1145
		Total #7	2343			Total #7	2327
501c	33	7-9	267	501c	33	7-9	267
502c	40	8-7	358	502c	40	8-7	358
503c	14	6-6	95	503c	14	6-6	95
#5	32	25-3	843	#5	32	25-3	843
#5	36	5-0	188	#5	36	5-0	188
		Total #5	1751			Total #5	1751
401c	78	3-5	169	401c	72	3-5	156
403c	6	301-0	1206	403c	6	295-8	1185
404c	20	3-0	40	404c	20	3-0	40
#4	12	18-4	147	#4	12	18-4	147
		Total #4	1562			Total #4	1529
		Total Steel	9804			Total Steel	9728
CONCRETE				CONCRETE			
Footing Class E				Footing Class E			
Above Footing				Above Footing			
Pour #1 Class E				Pour #1 Class E			
Pour #2 Class E				Pour #2 Class E			
Pour #3 Class E				Pour #3 Class E			
Total Class E				Total Class E			
Pour #4 Class D				Pour #4 Class D			
Pour #5 Class F				Pour #5 Class F			
Pour #6 Class F				Pour #6 Class F			
Pour #7 Class F				Pour #7 Class F			
Total Class F				Total Class F			
MISCELLANEOUS				MISCELLANEOUS			
Anchor Plates MK-AP-2 9 each				Anchor Plates MK-AP-2 9 each			



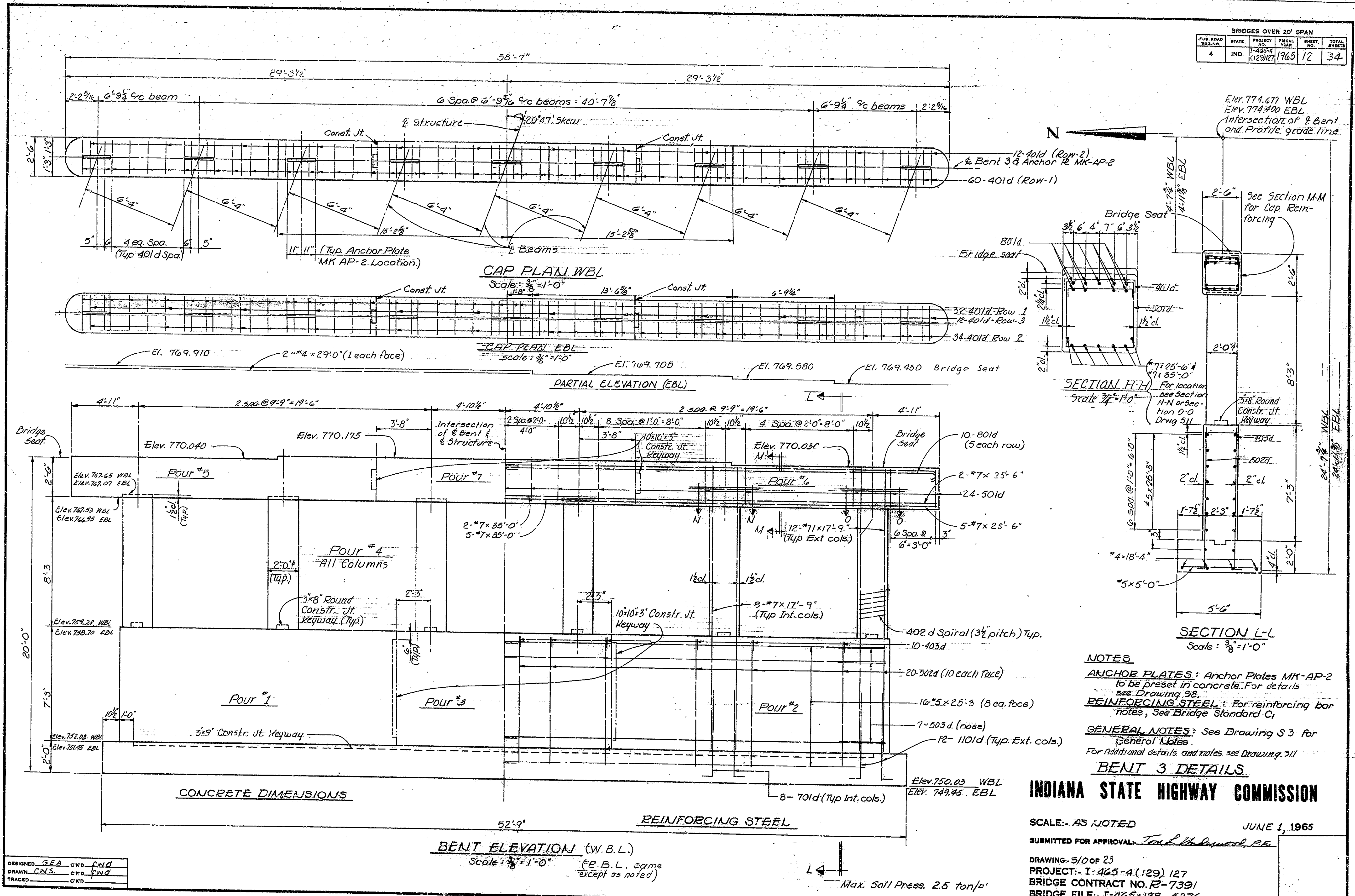
NOTES
Anchor Plates to be pre-set in concrete. For details see Drawing 56
Spirals: spirals to be formed of cold drawn wire
Provide 1/2 extra turns at both top and bottom and 1/2 turns for a lap of spiral reinforcing.
For additional details, see Drawing 58.

INDIANA STATE HIGHWAY COMMISSION
SCALE: AS NOTED
JUNE 1, 1965
SUBMITTED FOR APPROVAL: Tom L. Woodard, P.E.
DRAWING: 59 OF 23
PROJECT: I-465-4(129) 127
BRIDGE CONTRACT NO. B-7391
BRIDGE FILE: I-465-126-5276

DESIGNED: GEA	CHKD: FND
DRAWN: CNS	CHKD: FND
TRACED: CNS	CHKD:

PROJECT NO.	LINE	SHEET	TOTAL SHEETS	FILE
I-465-4(129) 127	A	11	34	I-465-126-5276

BRIDGES OVER 20' SPAN				
PUB. ROAD DESIGN.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.	I-465-4 (129) 127	1965	34



DESIGNED GEA CWD CWD
DRAWN CWS CWD CWD
TRACED CWD

PROJECT NO.	LINE	SHEET	TOTAL SHEETS
I-465-4(129)127	A	12	34

BRIDGES OVER 20' SPAN					
PUB. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND	I-465-4 (129)127	1965	13	34

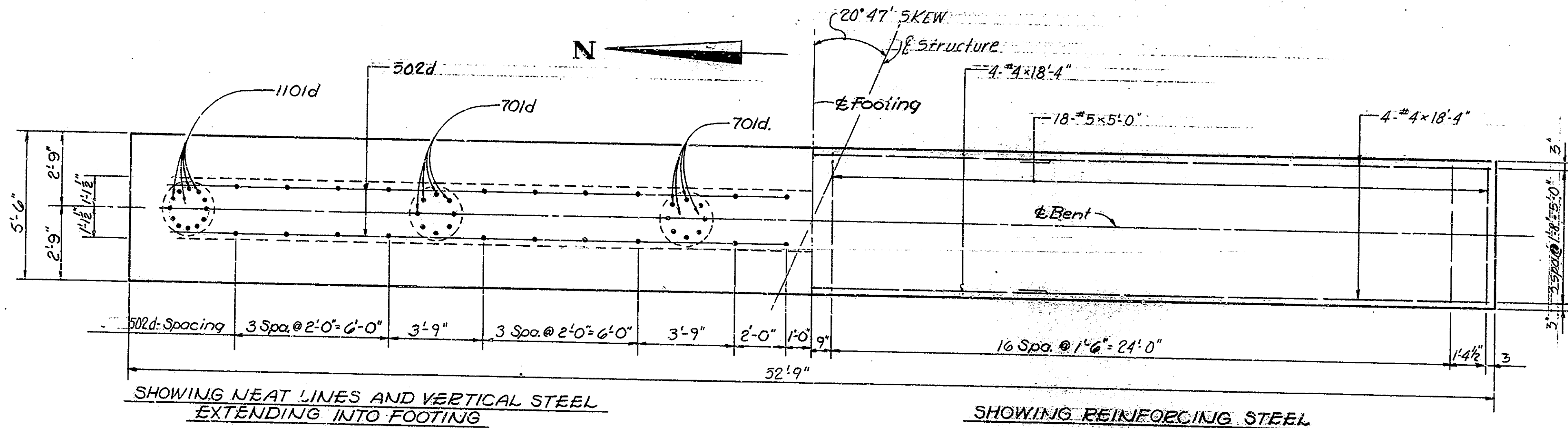
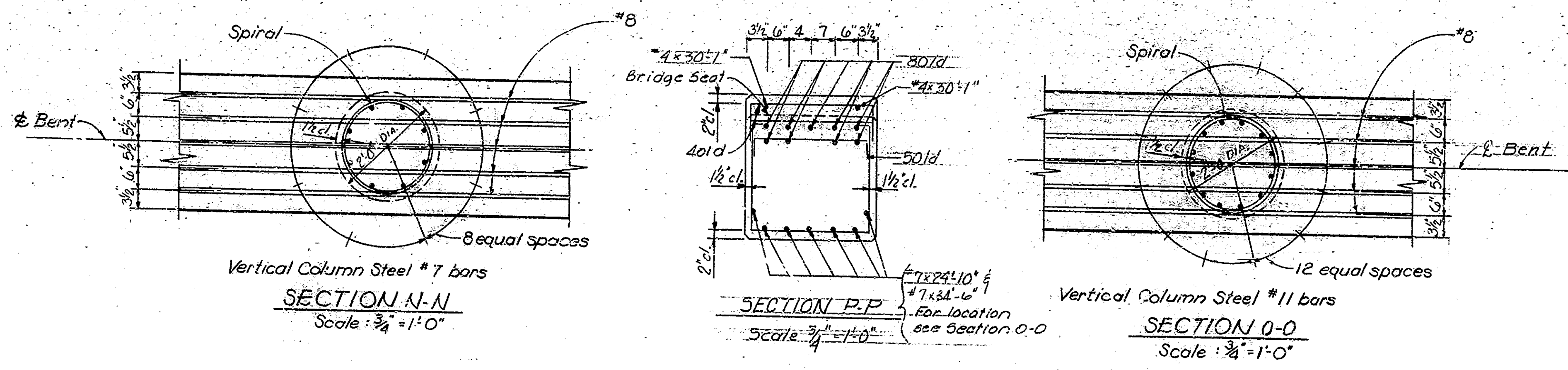
BILL OF MATERIAL
EBL

BILL OF MATERIAL
WBL

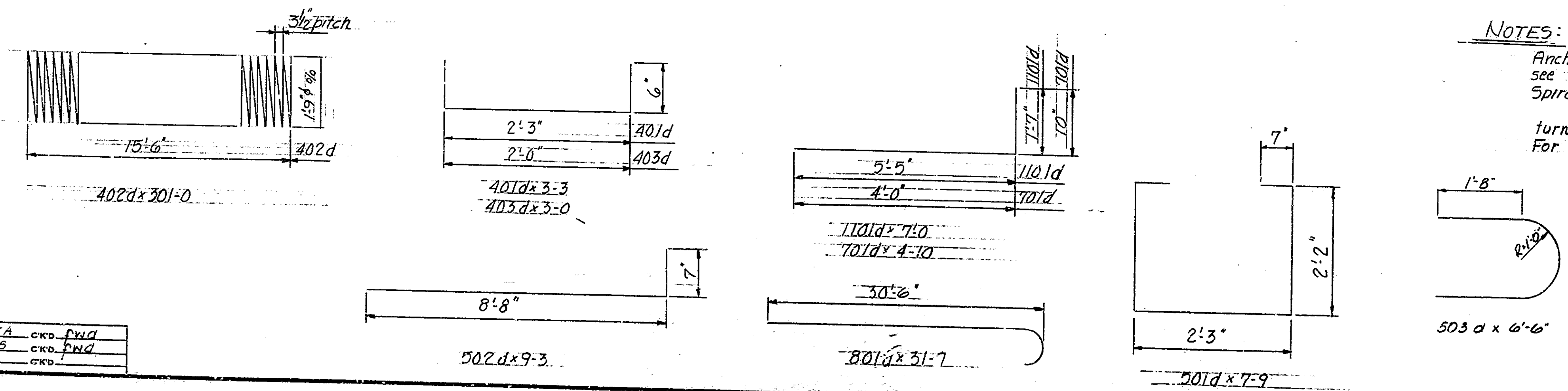
REINFORCING STEEL				REINFORCING STEEL			
SIZE #	Nº OF MARK BARS	LENGTH	WEIGHT	SIZE #	Nº OF MARK BARS	LENGTH	WEIGHT
1101d	24	7-0	744	1101d	24	7-0	744
#11	24	17-9	1886	#1	24	17-9	1886
		Total #11	2630			Total #1	2630
801d	20	31-7	1686	801d	20	31-7	1686
701d	32	4-10	316	701d	32	4-10	316
#7	32	17-9	1161	#7	32	17-9	1161
#7	7	25-6	365	#7	7	25-6	365
#7	7	35-0	501	#7	7	35-0	501
		Total #7	2343			Total #7	2343
501d	47	7-9	380	501d	47	7-9	380
502d	40	9-3	386	502d	40	9-3	386
503d	14	6-6	95	503d	14	6-6	95
#5	32	25-3	843	#5	32	25-3	843
#5	36	5-0	188	#5	36	5-0	188
		Total #5	1892			Total #5	1892
401d	78	3-3	169	401d	72	3-3	156
402d	6	301-0	1206	402d	6	301-0	1206
403d	20	3-0	40	403d	20	3-0	40
#4	12	18-4	147	#4	12	18-4	147
		Total #4	1562			Total #4	1549
Total Steel				Total Steel			
10,113				10,100			

CONCRETE		CONCRETE	
Footing Class E	21.5 cys.	Footing Class E	21.5 cys.
Above Footing		Above Footing	
Pour #1 Class E	11.3 cys.	Pour #1 Class E	11.3 cys.
Pour #2 Class E	8.6 cys.	Pour #2 Class E	8.6 cys.
Pour #3 Class E	11.3 cys.	Pour #3 Class E	11.3 cys.
Total Class E	31.2 cys.	Total Class E	31.2 cys.
Pour #4 Class D	5.8 cys.	Pour #4 Class D	5.8 cys.
Pour #5 Class F	4.7 cys.	Pour #5 Class F	4.7 cys.
Pour #6 Class F	4.7 cys.	Pour #6 Class F	4.7 cys.
Pour #7 Class F	4.0 cys.	Pour #7 Class F	4.0 cys.
Total Class F	13.4 cys.	Total Class F	13.4 cys.

MISCELLANEOUS		MISCELLANEOUS	
Anchor Plates MK AP-2	9 each	Anchor Plates MK AP-2	9 each



FOOTING PLAN (WBL)
Scale: 3/8" = 1'-0"
C.B.L. Same



NOTES:
Anchor Plate to be pre-set in concrete. For details see Drawing 56
Spirals: Spirals to be formed of cold drawn wire. Provide 1/2 extra turns at both top and bottom and 1/2 turns for a lap of spiral reinforcing.
For additional details, see Drawing 510.

BENT 3 DETAILS

INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED
JUNE 1, 1965

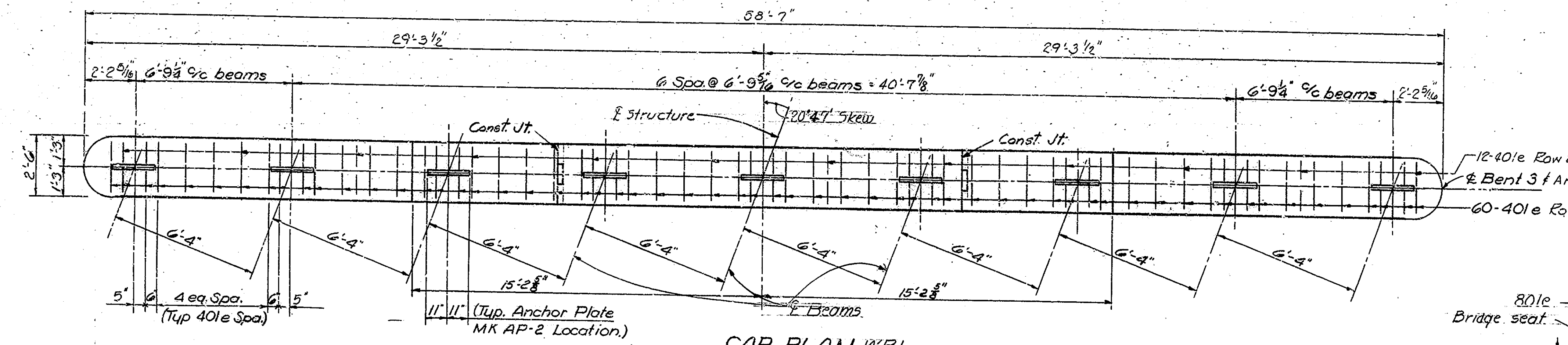
SUBMITTED FOR APPROVAL: Tom L. Wood, P.E.

DRAWING: 511 OF 23
PROJECT: I-465-4 (129) 127
BRIDGE CONTRACT NO. R-739/
BRIDGE FILE: I-465-128-5276

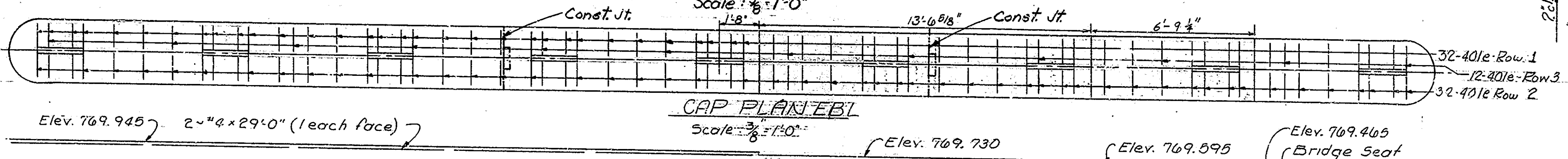
DESIGNED	G.E.A.	C.K.D.	P.W.D.
DRAWN	C.N.S.	C.K.D.	P.W.D.
TRACED		C.K.D.	

PROJECT NO.	LINE	SHEET	TOTAL	P.S.R.
I-465-4(129)127	A	13	34	1-465-128-5276

BRIDGES OVER 20' SPAN					
PUB. ROAD	STATE	PROJECT	FISCAL	SHEET	TOTAL
REQ. NO.		NO.	YEAR	NO.	SHEETS
4	IND.	I-465-4 (129)127	1965	14	32

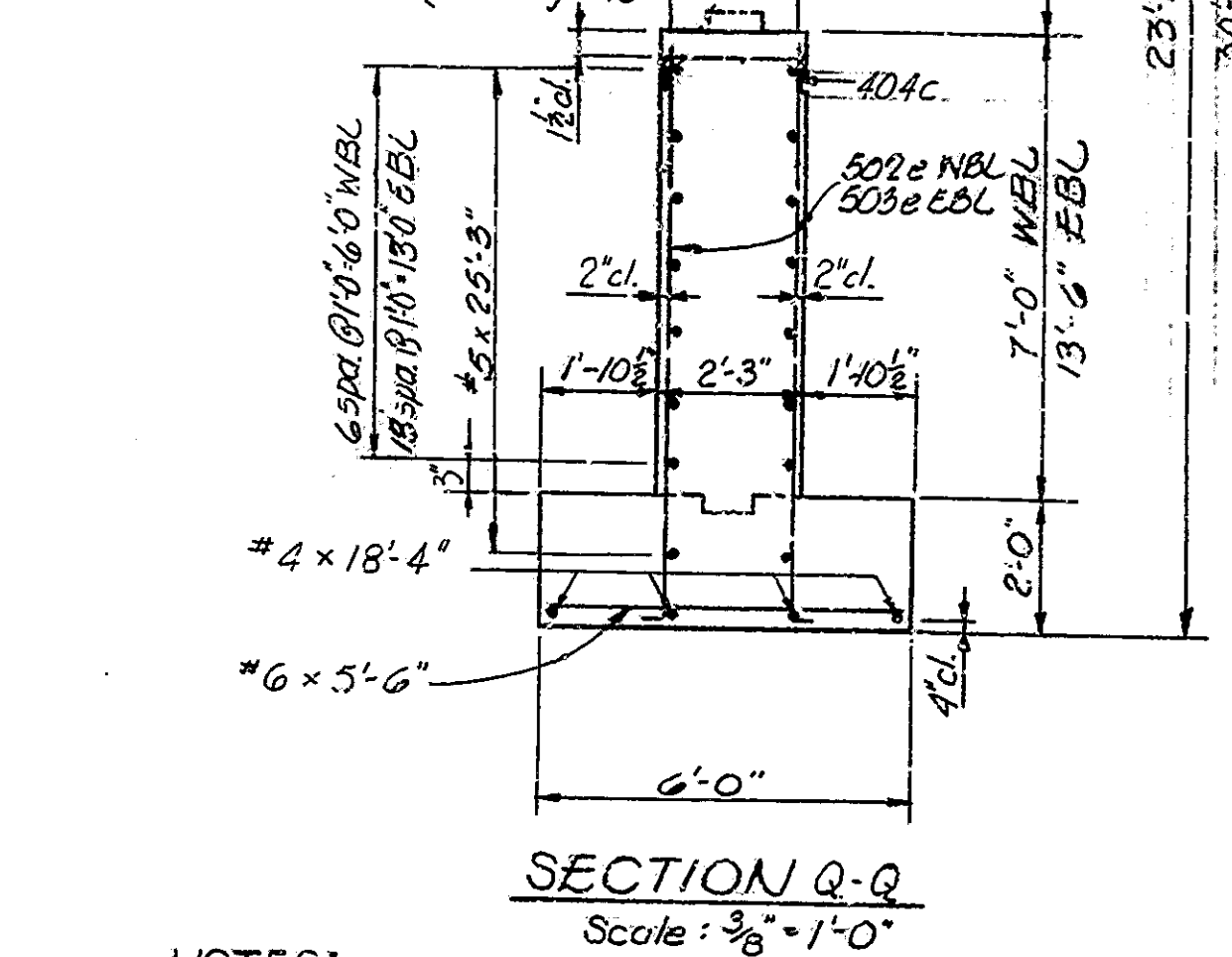
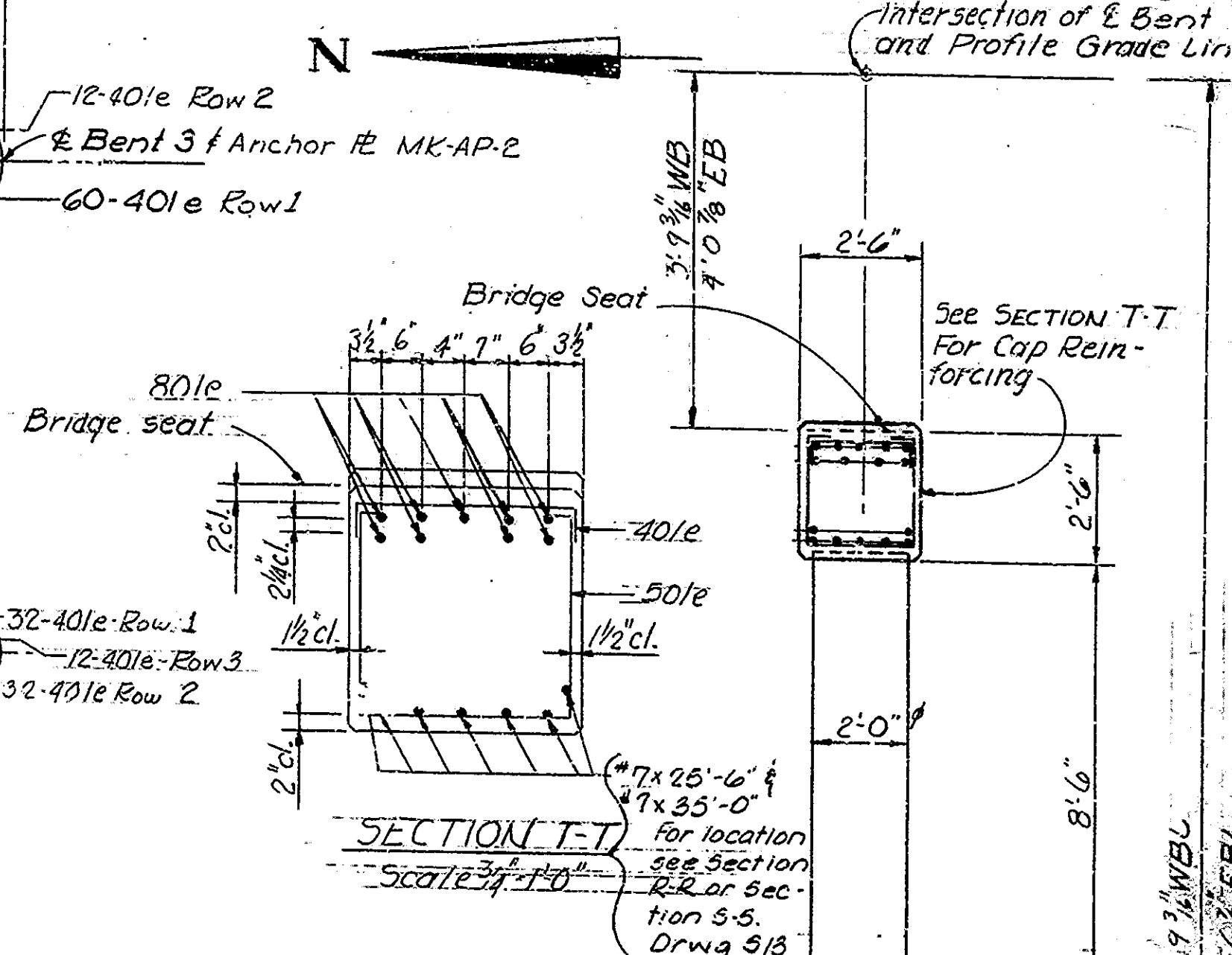
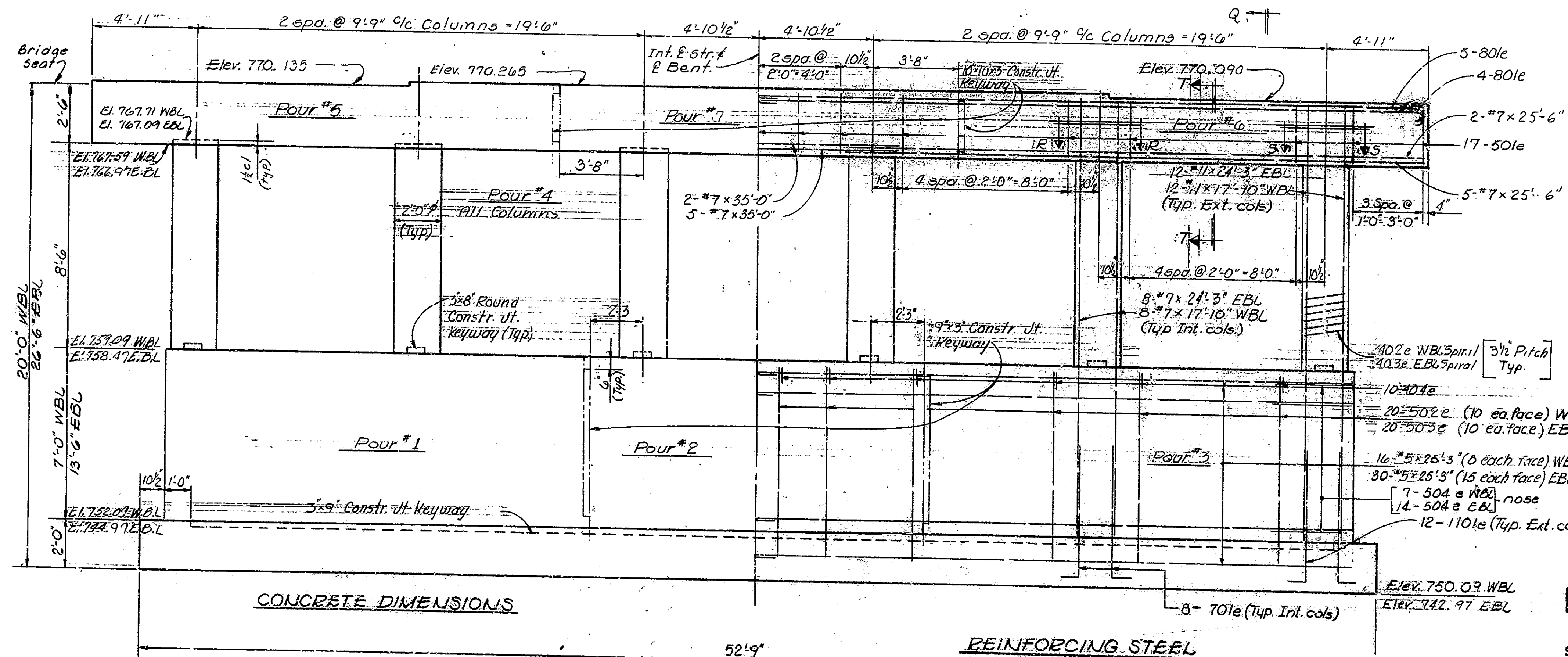


CAP PLAN WBL
Scale: 3/8" = 1'-0"



CAP PLAN EBL
Scale: 3/8" = 1'-0"

PARTIAL ELEVATION (EBL)



NOTES:

ANCHOR PLATES: Anchor plates MK-AP-2 to be pre-set in the concrete. For details see Drawing 51b

REINFORCING STEEL: For reinforcing bar notes, see Bridge Standard C1.

GENERAL NOTES: See Drawing S3 for General Notes.

For additional details and notes see Drawing 51b

BENT 4 DETAILS

INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED JUNE 1, 1965

SUBMITTED FOR APPROVAL: Tom L. Anderson, P.E.

DRAWING: 512 of 23

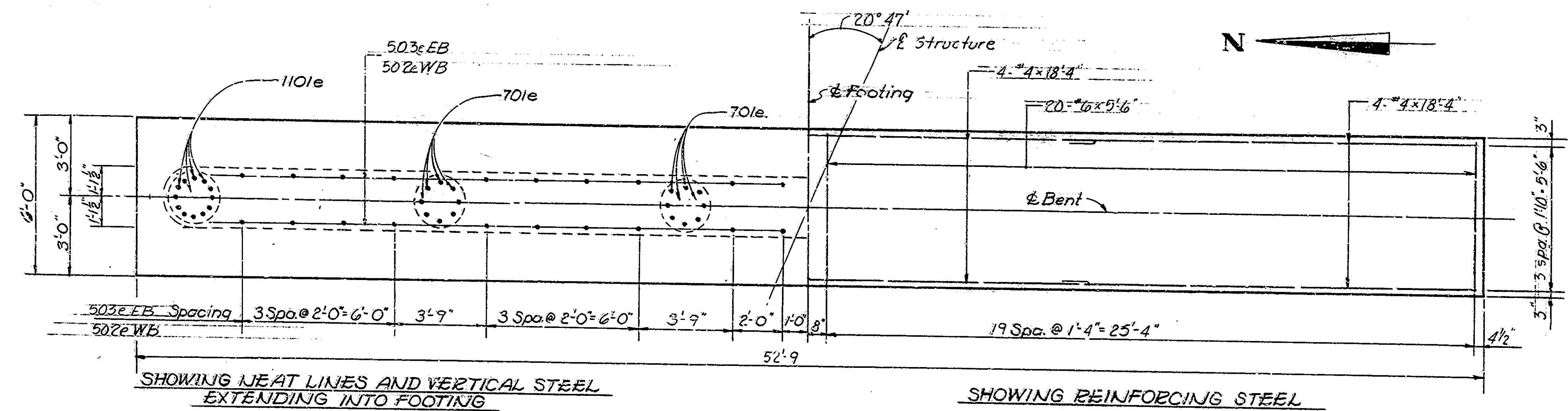
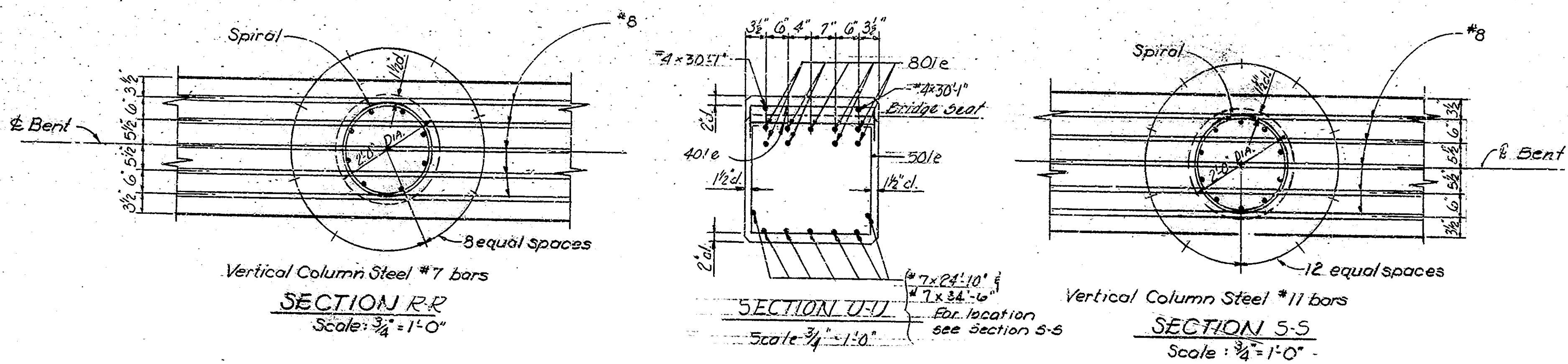
PROJECT: I-465-4 (129) 127

BRIDGE CONTRACT NO. R-7391

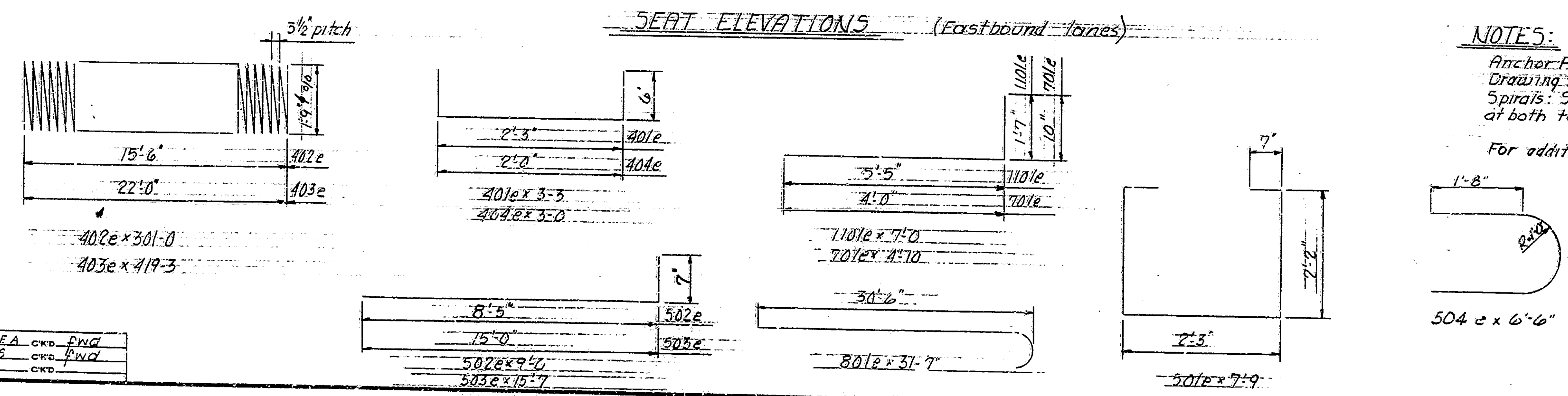
BRIDGE FILE: I-465-128-5276

DESIGNED	SEA	CKD	FWD
DRAWN	CWS	CKD	FWD
TRACED		CKD	

BRIDGES OVER 20' SPAN					
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	465-4 (129) 127	1965	15	34



FOOTING PLAN WBL
Scale: 3/8"=1'-0"
EBL Same



BILL OF MATERIAL EBL						BILL OF MATERIAL WBL					
REINFORCING STEEL						REINFORCING STEEL					
SIZE & MARK	Nº OF BARS	LENGTH	WEIGHT	SIZE & MARK	Nº OF BARS	LENGTH	WEIGHT	SIZE & MARK	Nº OF BARS	LENGTH	WEIGHT
1101e	24	7-0	744	1101e	24	7-0	744				
#11	24	24-3	3092	#11	24	17-10	2274				
		Total #11	3836			Total #11	3018				
801e	18	31-7	1518	801e	18	31-7	1518				
701e	32	4-10	316	701e	32	4-10	316				
#7	7	25-6	365	#7	7	25-6	365				
#7	7	35-0	501	#7	7	35-0	501				
#7	32	24-3	1586	#7	32	17-10	1166				
		Total #7	2768			Total #7	2348				
#6	40	5-6	330	#6	40	5-6	330				
501e	35	7-9	267	501e	33	7-9	267				
503e	40	15-7	650	502e	40	9-0	375				
504e	28	6-6	190	504e	14	6-6	95				
#5	60	25-3	1580	#5	32	25-3	843				
		Total #5	2687			Total #5	1580				
401e	76	3-3	165	401e	72	3-3	156				
403e	6	419-3	1680	402e	6	301-0	1206				
404e	20	3-0	40	404e	20	3-0	40				
#4	12	18-4	147	#4	12	18-4	147				
		Total #4	2032			Total #4	1549				
		Total Steel	13,171			Total Steel	10,343				
CONCRETE						CONCRETE					
Footing Class E						Footing Class E					
23.5 cys. Above Footing						23.5 cys. Above Footing					
Pour #1 Class E						Pour #1 Class E					
21.1 cys.						11.0 cys.					
Pour #2 Class E						Pour #2 Class E					
16.1 cys.						8.3 cys.					
Pour #3 Class E						Pour #3 Class E					
21.1 cys.						11.0 cys.					
Total Class E						Total Class E					
58.3 cys.						30.3 cys.					
Pour #4 Class D						Pour #4 Class D					
5.9 cys.						5.9 cys.					
Pour #5 Class F						Pour #5 Class F					
4.7 cys.						4.7 cys.					
Pour #6 Class F						Pour #6 Class F					
4.7 cys.						4.7 cys.					
Pour #7 Class F						Pour #7 Class F					
4.0 cys.						4.0 cys.					
Total Class F						Total Class F					
13.4 cys.						13.4 cys.					
MISCELLANEOUS						MISCELLANEOUS					
Anchor Plates MK-AP-2						Anchor Plates MK-AP-2					
9 each						9 each					

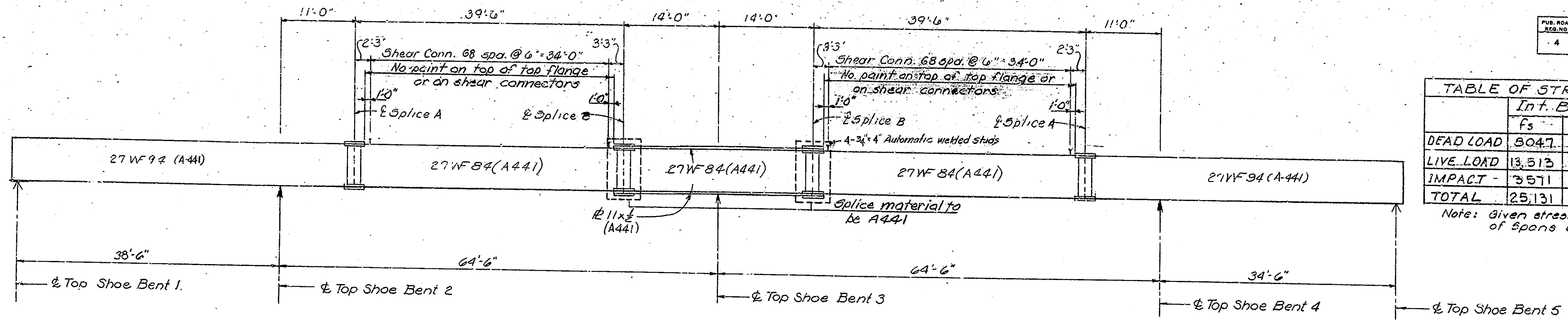
NOTES:
Anchor Plate to be pre-set in concrete. For details see Drawing 516.
Spirals to be formed of cold drawn wire. Provide 1/2 extra turns at both top and bottom and 1/2 turns for a lap of spiral reinforcing.
For additional details, see Drawing 514.

BENT 4 DETAILS
INDIANA STATE HIGHWAY COMMISSION
SCALE: AS NOTED
JUNE 1, 1965
SUBMITTED FOR APPROVAL: Tom H. ... P.E.
DRAWING: 513 OF 23
PROJECT: I-465-4 (129) 127
BRIDGE CONTRACT NO. B-7391
BRIDGE FILE: I-465-125-3276

DESIGNED: GEA CKD PWD
DRAWN: CNS CKD PWD
TRACED: CKD

PROJECT NO.	DATE	BY	CHKD	APPD
I-465-125-3276	9/15/64

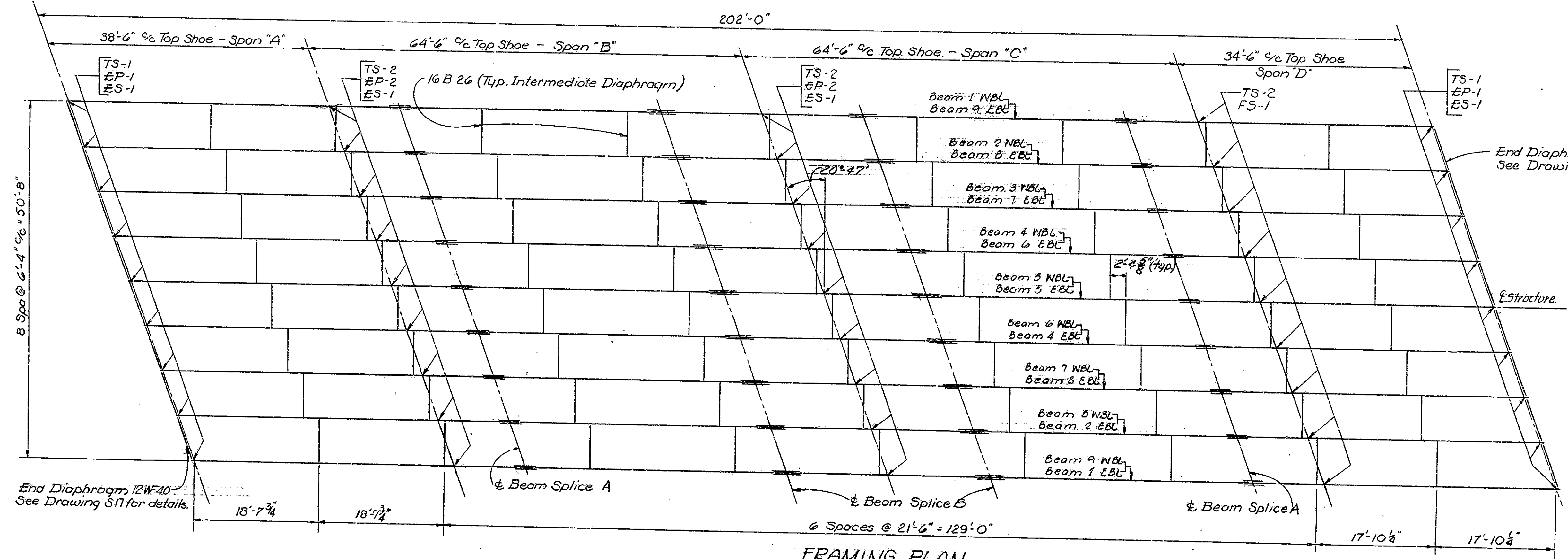
BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-465-4 (129)127	1965	16	34



	Int. Bm.		Ext. Bm.	
	f _s	f _c	f _s	f _c
DEAD LOAD	8047	41	10,455	42
LIVE LOAD	13,513	493	13,127	479
IMPACT	3571	130	3474	127
TOTAL	25,131	664	27,056	648

Note: Given stresses are at 0.5 Pt. of Spans B and C.

BEAM ELEVATION
Horizontal scale $\frac{1}{8}'' = 1'-0''$



FRAMING PLAN
Scale: $\frac{1}{8}'' = 1'-0''$

	Max. Pos. Mom @ 0.4 Pt. Span A		Max. Pos. Mom @ 0.5 Pt. Span B		Max. Pos. Mom @ 0.5 Pt. Span C		Max. Pos. Mom @ 0.7 Pt. Span D		Max. Neg. Mom @ Bent 2		Max. Neg. Mom @ Bent 3		Max. Neg. Mom @ Bent 4		Reaction at Bent 1		Reaction at Bent 2		Reaction at Bent 3		Reaction at Bent 4		Reaction at Bent 5	
	Int. Bm.	Ext. Bm.	Int. Bm.	Ext. Bm.	Int. Bm.	Ext. Bm.	Int. Bm.	Ext. Bm.	Int. Bm.	Ext. Bm.	Int. Bm.	Ext. Bm.	Int. Bm.	Ext. Bm.	Int. Bm.	Ext. Bm.	Int. Bm.	Ext. Bm.	Int. Bm.	Ext. Bm.	Int. Bm.	Ext. Bm.	Int. Bm.	Ext. Bm.
DEAD LOAD	52.4	65.3	151.9	188.9	156.5	194.7	34.9	43.4	248.0	312.0	335.0	423.0	238.0	301.0	9.9	12.4	48.9	61.5	57.8	72.6	47.5	59.7	7.7	9.7
LIVE LOAD	190.3	187.4	343.7	388.4	339.5	339.2	159.3	156.8	207.0	203.0	238.0	234.0	194.0	196.0	33.0	28.9	43.8	41.5	57.8	72.6	47.5	59.7	7.7	9.7
IMPACT	57.1	56.2	90.7	89.2	89.6	88.2	47.7	47.0	68.0	67.0	62.0	61.0	67.0	56.0	10.1	8.0	12.4	11.0	11.8	17.2	12.6	11.2	9.9	8.3
TOTAL	300.0	309.0	586.5	616.7	585.6	611.2	242.0	247.3	513.0	579.0	635.0	714.0	495.0	553.0	53.7	50.0	105.2	111.4	114.4	123.9	109.3	110.2	50.2	45.9

FRAMING PLAN

INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED JUNE 1, 1965

SUBMITTED FOR APPROVAL: *Tom R. Edwards, P.E.*

DRAWING: 514 of 23
PROJECT: I-465-4 (129) 127
BRIDGE CONTRACT NO. R-7391
BRIDGE FILE: I-465-128-5276

DESIGNED: GEA CKD: RWG
DRAWN: CNS CKD: JND
TRACED: CKD

NOTES: For superstructure, general notes see Drawing 516.
For splice and cover plate details, see Drawing 515.
For elevations on load and splice points, see Drawing 515.

Rev. 2-9-67 Bms. Splices, Shear Connectors

PROJECT NO.	LINE	POST	DATE	FILE
I-465-4(129)127	A	16	34	I-465-128-5276

BRIDGE OVER 20' SPAN				
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.	I-465-4 (129)127	1965	17 34

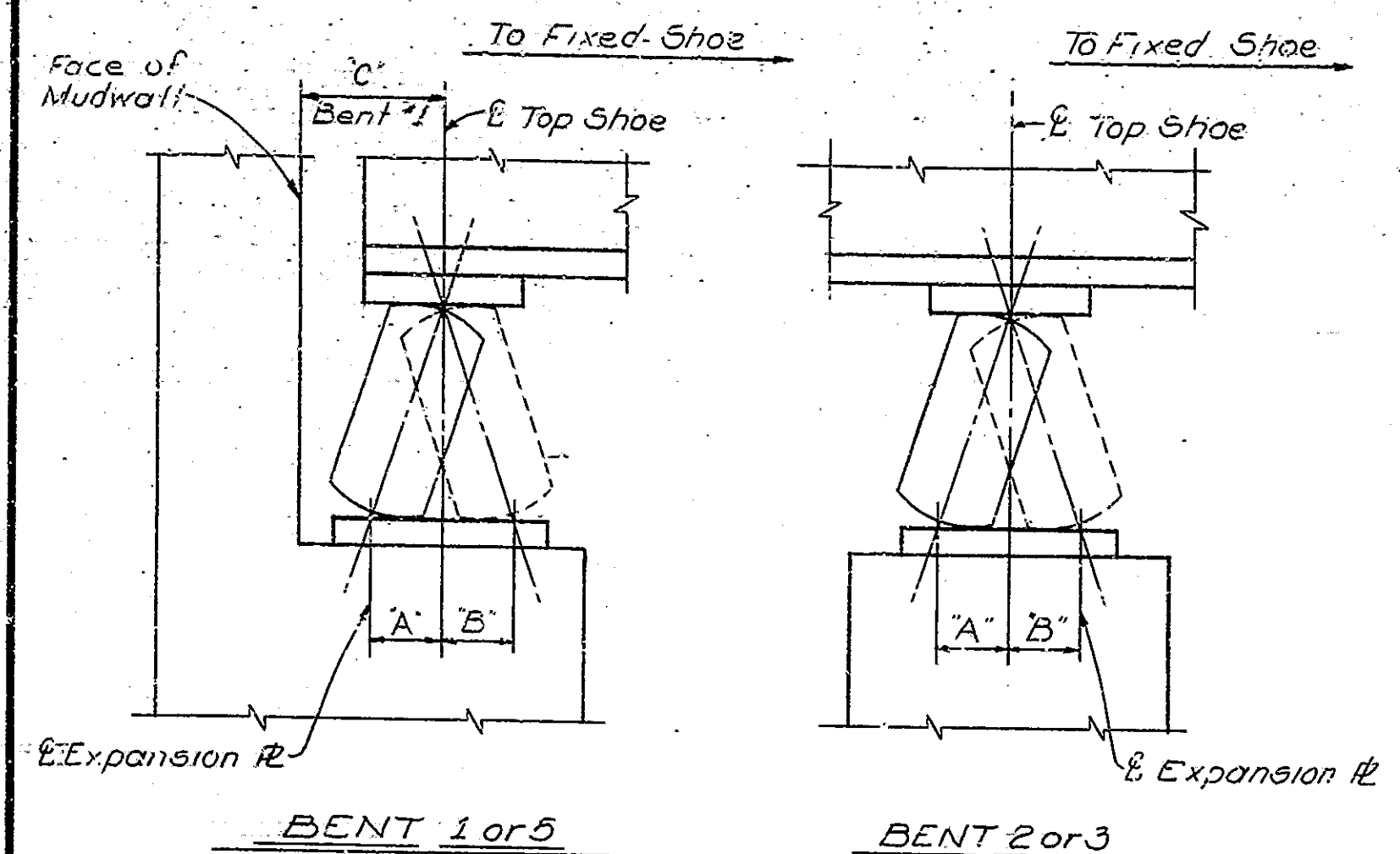


TABLE OF SHOE SETTING AT BENT 1

Temp.	0°	20°	40°	60°	80°	100°	120°
Dim. "A"	1 1/4"	1"	3/4"	1/2"	1/4"	0"	
Dim. "B"						0"	1/4"

TABLE OF SHOE SETTING AT BENT 2

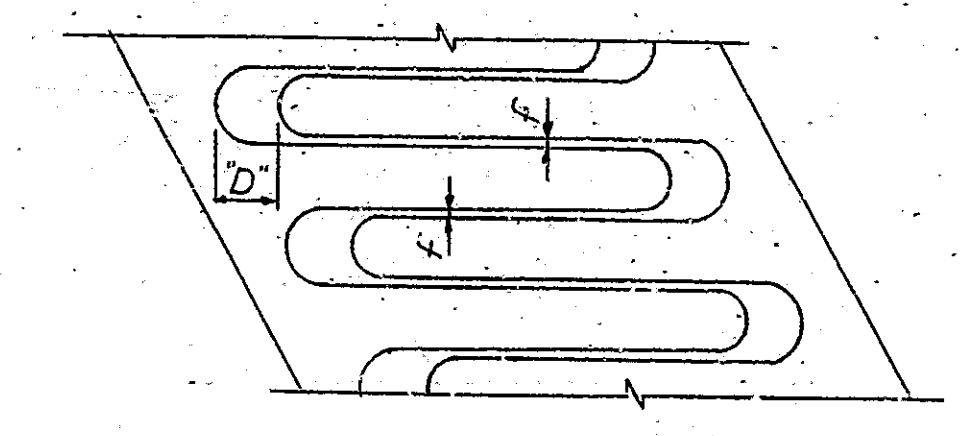
Temp.	0°	20°	40°	60°	80°	100°	120°
Dim. "A"	5/8"	3/8"	1/8"	0"			
Dim. "B"				0"	3/16"	3/8"	3/8"

TABLE OF SHOE SETTING AT BENT 3

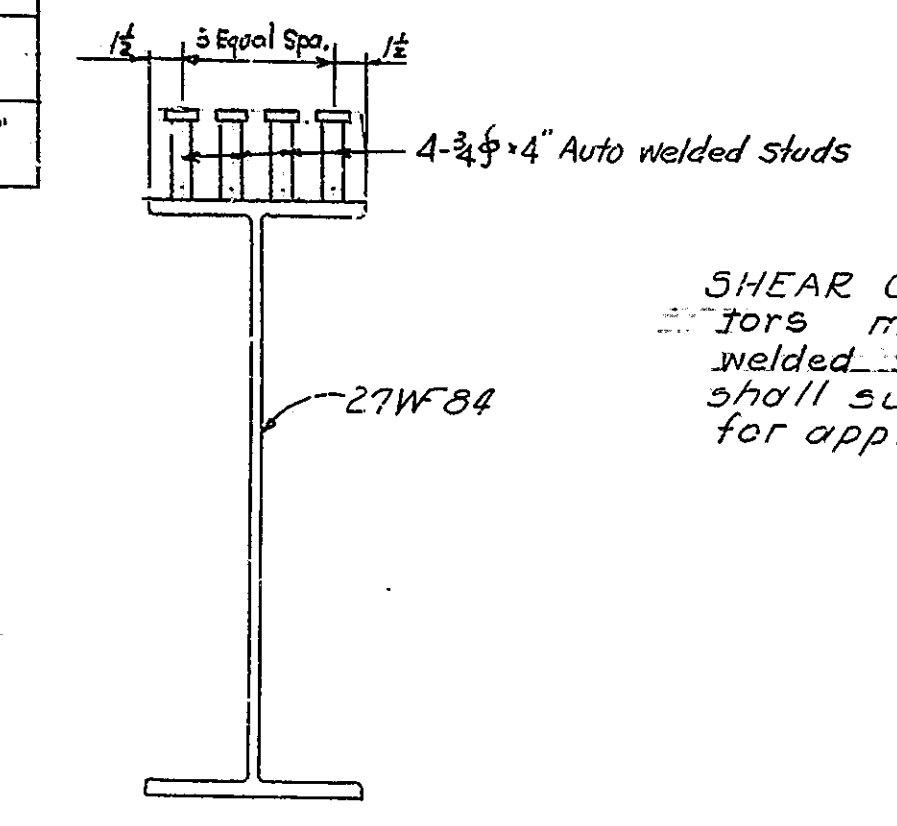
Temp.	0°	20°	40°	60°	80°	100°	120°
Dim. "A"	5/16"	3/16"	1/8"	0"			
Dim. "B"				0"	1/8"	3/16"	5/16"

TABLE OF SHOE SETTING AT BENT 5

Temp.	0°	20°	40°	60°	80°	100°	120°
Dim. "A"	1/16"	5/8"	9/16"	1/2"	1/16"	3/8"	5/16"



Temp.	0°	20°	40°	60°	80°	100°	120°
Dim. "C" AT Bent 1	1'-0 1/2"	1'-0 1/4"	1'-0"	11 3/4"	11 1/2"	11 1/4"	11"
Dim. "D" AT Toothed Exp. Jt.	3 3/4"	3 1/2"	3 1/4"	3"	2 3/4"	2 1/2"	2 1/4"



SHEAR CONNECTORS: Channel shear connectors may be substituted for Automatic welded studs shown. The Contractor shall submit details of the studs for approval.

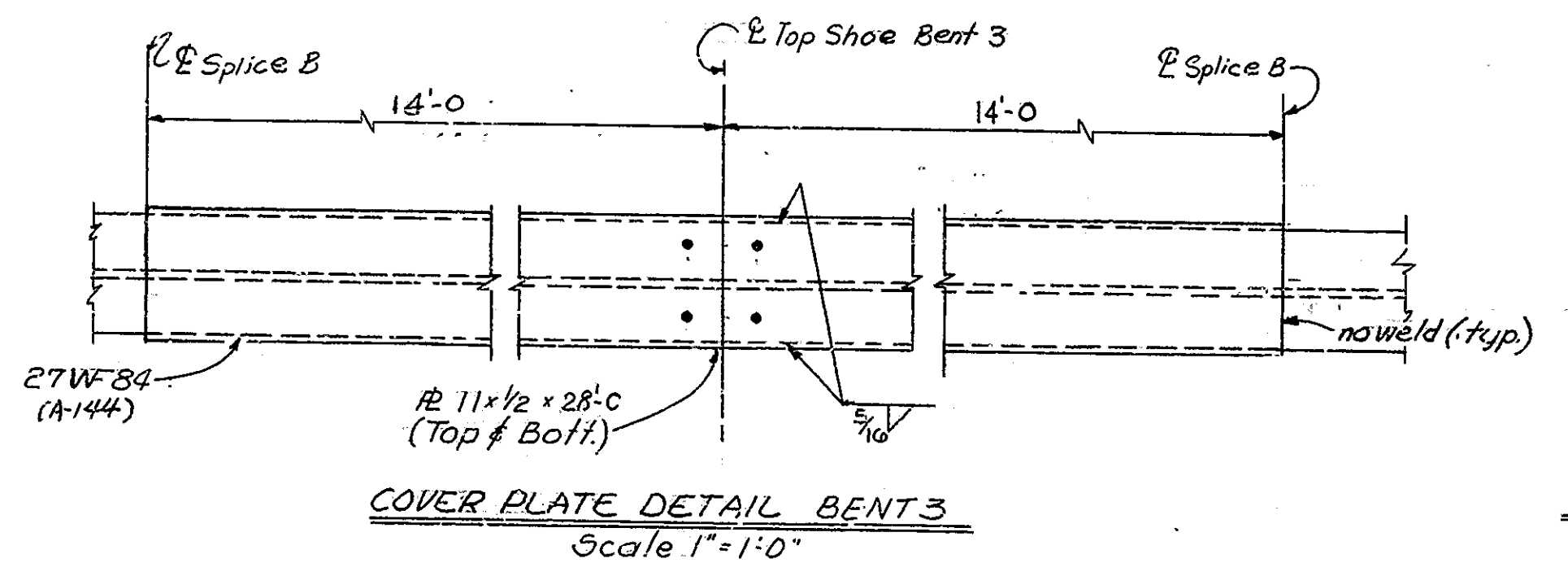
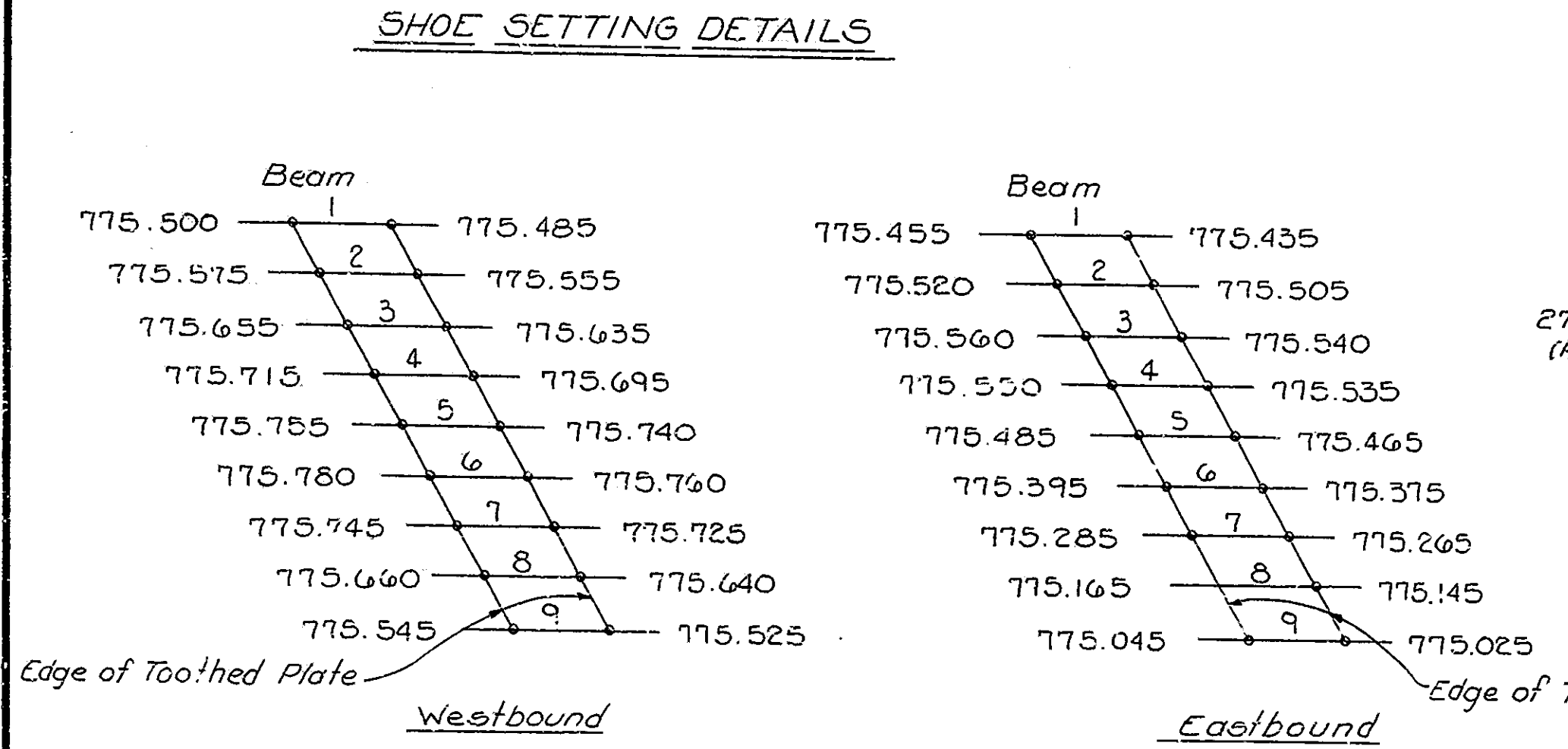


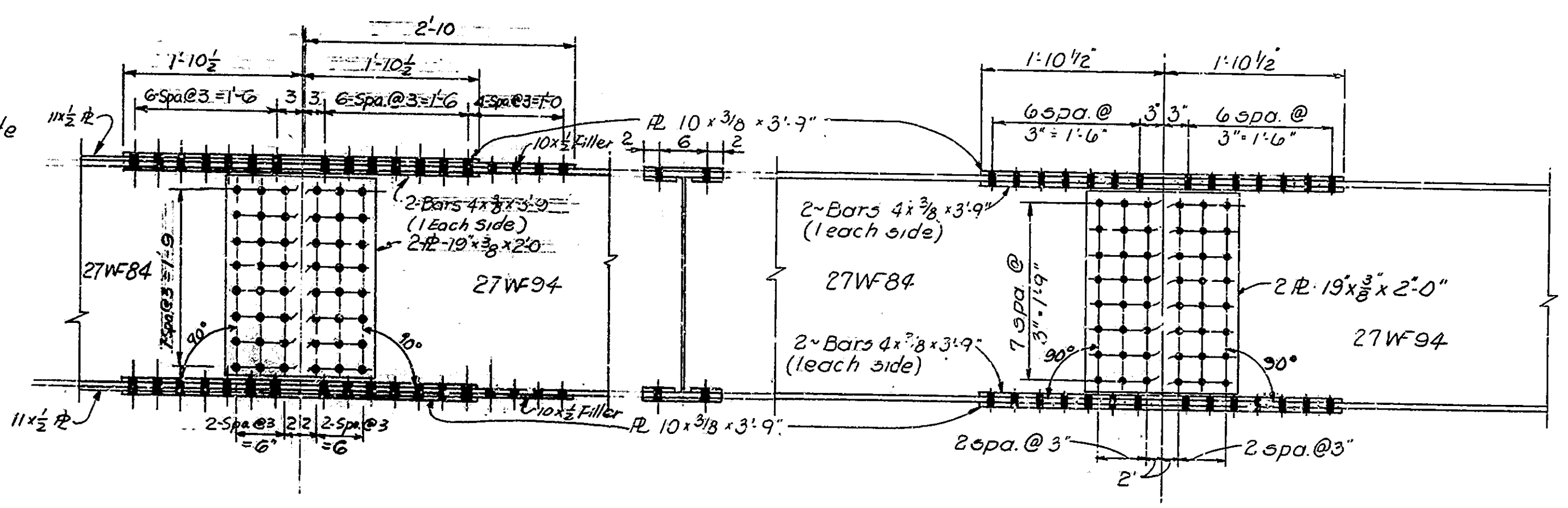
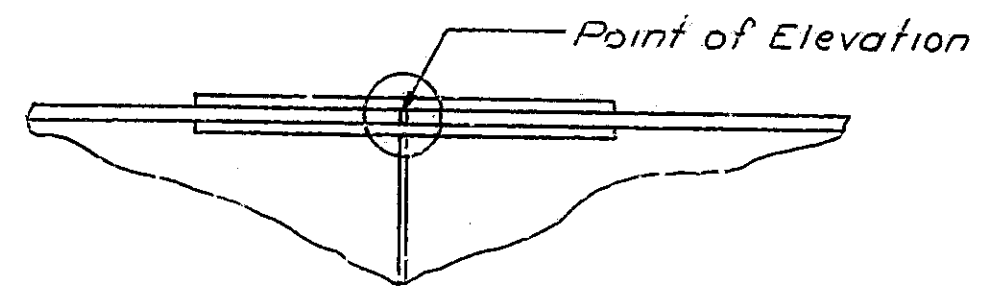
TABLE OF SPLICE ELEVATIONS ~ W.B.L.

SPAN	SPLICE	1	2	3	4	5	6	7	8	9
B	A	774.470	774.540	774.615	774.670	774.710	774.730	774.690	774.605	774.485
	B	774.045	774.115	774.185	774.240	774.280	774.295	774.255	774.165	774.045
C	B	773.720	773.790	773.860	773.910	773.950	773.925	773.920	773.830	773.705
	A	773.230	773.300	773.360	773.415	773.445	773.460	773.415	773.320	773.195

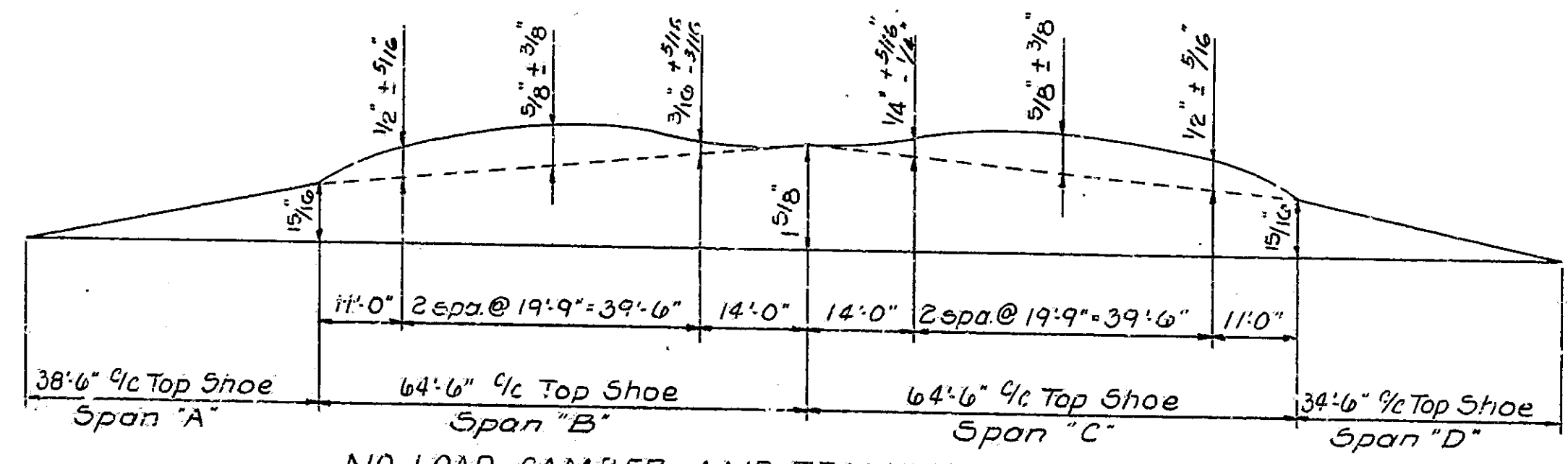
TABLE OF SPLICE ELEVATIONS ~ E.B.L.

SPAN	SPLICE	1	2	3	4	5	6	7	8	9
B	A	773.950	774.070	774.195	774.305	774.410	774.470	774.480	774.445	774.380
	B	773.475	773.600	773.730	773.840	773.935	774.010	774.025	773.995	773.930
C	B	773.120	773.245	773.375	773.490	773.585	773.665	773.680	773.645	773.585
	A	772.80	772.710	772.840	772.955	773.055	773.135	773.150	773.125	773.065

NOTE:
All Elevations given are at the top of Beam Flange
Tolerance: Splice Elevations may vary by 0.02 ±



NOTE:
For structural General notes see drawing S-16



SUPERSTRUCTURE DETAILS
INDIANA STATE HIGHWAY COMMISSION
SCALE: - AS NOTED
JUNE 1, 1965
SUBMITTED FOR APPROVAL: Tom L. Henderson, P.E.
DRAWING: 515 OF 23
PROJECT: - I-465-4 (129) 127
BRIDGE CONTRACT NO. R-7391
BRIDGE FILE: - I-465-128-5276

DESIGNED AND CKD: GEA
DRAWN: CKD: GEA
TRACED: CKD

NO LOAD CAMBER AND REAMING DIAGRAM
Rev. 10-10-66 Camber Tolerance, Cover Plate Weld
Rev. 11-2-66 A 441 Note

PROJECT NO.	LINE	SHEET	TOTAL SHEETS
I-465-4 (129) 127	A	17	34

BRIDGES OVER 20' SPAN					
PUR. ROAD	STATE	PROJECT	FISCAL	SHEET	TOTAL
NO.		NO.	YEAR	NO.	SHEETS
4	IND.	I-465-4 (129)127	1965	18	34

SUPERSTRUCTURE GENERAL NOTES:

STRUCTURAL STEEL: All structural steel shall conform to ASTM A-36, unless otherwise noted.

BOLTS: All A.S. bolts shall be 7/8 inch diameter and holes 15/16 inch diameter, unless noted. Rivets shall not be used in the assembly of structural steel.

TOP SHOE CONNECTION: Diameter of holes in all material connecting top shoes to beam flanges shall be 1".

Bolts connecting beam flange to top shoe shall extend into top shoe a minimum of 1 inch.

SHOP DETAILS: The shop details shall show a plan of match-marking for all reamed pieces.

SPLICE PLATES: All splice plates to be removed, cleaned and painted after reaming. Splice plates shall not extend beyond the end of beam after bolting for shipment. Holes in beam splices shall be subpunched or subdrilled and reamed to size while assembled. See Article E-1103.18(d) of the Specifications. Flange splice bars shall have planed or rolled edges and holes in bars shall be subdrilled and reamed or drilled full size while assembled.

SHIMS: Shims between beams and top shoes may be built up. No shim shall be less than 1/8 inch in thickness.

ERECTION MARKS: Eastbound and Westbound structures shall have separate erection marks.

PAINTING: All paint shall be in accordance with Current State Highway Specifications.

Shop Paint } Basic Lead Silico Chromate (see Special Provisions)
Field Paint }

As soon as the Engineer has approved the field welds, all welds and any surface from which the shop coat has been omitted or becomes worn off or has otherwise become defective shall be thoroughly cleaned of all charred paint or any foreign matter and completely covered with one coat of shop paint.

FIELD SPLICES: All structural steel shall be erected and beams adjusted to their true elevation before bolting field splices. The elevations shall be checked with splices connected by full size drift pins and erection bolts and with beams unsupported by any false work. See Drawing S15 for true elevations of splices.

WELDING: All welding shall conform to the current AWS Specifications for Welded Highway and Railway Bridges unless otherwise noted.

STRUCTURAL STEEL: Estimated weight of structural steel =
ASTM - A36 = 93,400
ASTM - A441 = 352,200
total = 445,600 (includes 15,600 lbs. for 2 str steel expansion joints.)

GENERAL NOTES: See Drawing S3 for General Notes.

CAMBER: Beams in Spans B and C must be cambered to a smooth curve. Camber must be checked while beams are supported in such a way as to have no bending moment in direction of camber after shop welding completed. Beams in spans A and D to be straight within a tolerance of 3/8 inch at center. If camber exists, lay out beams with camber up. Beams shall be checked for camber while supported in such a way as to have no bending moment in the direction of camber and after all shop welding has been completed.

DATA USED FOR DESIGN AND DETAILS

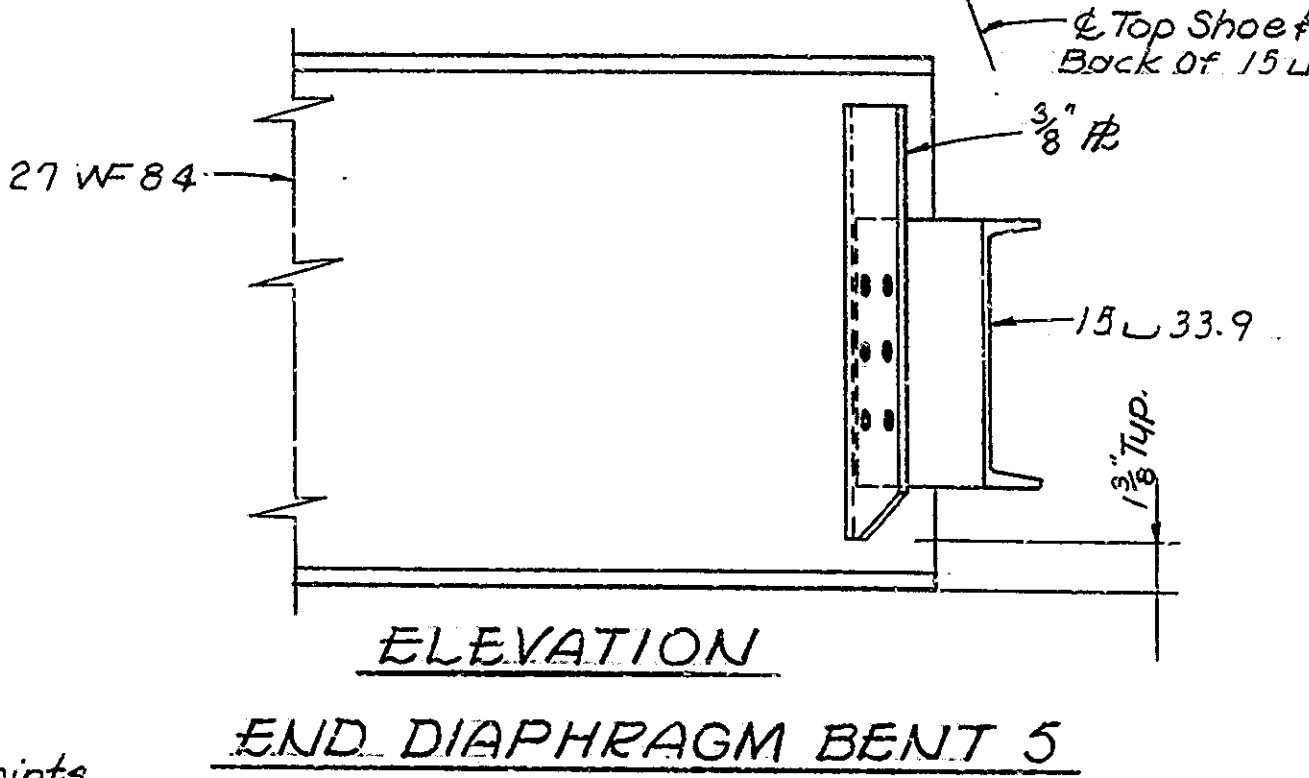
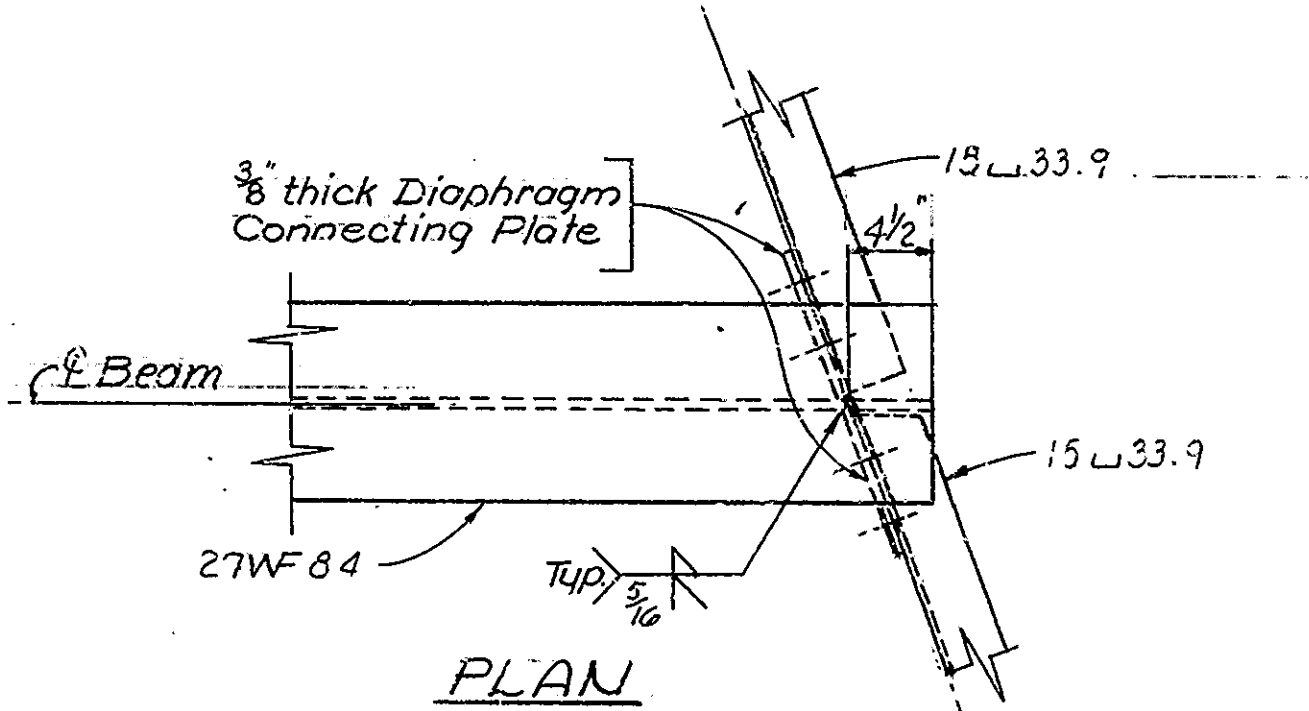
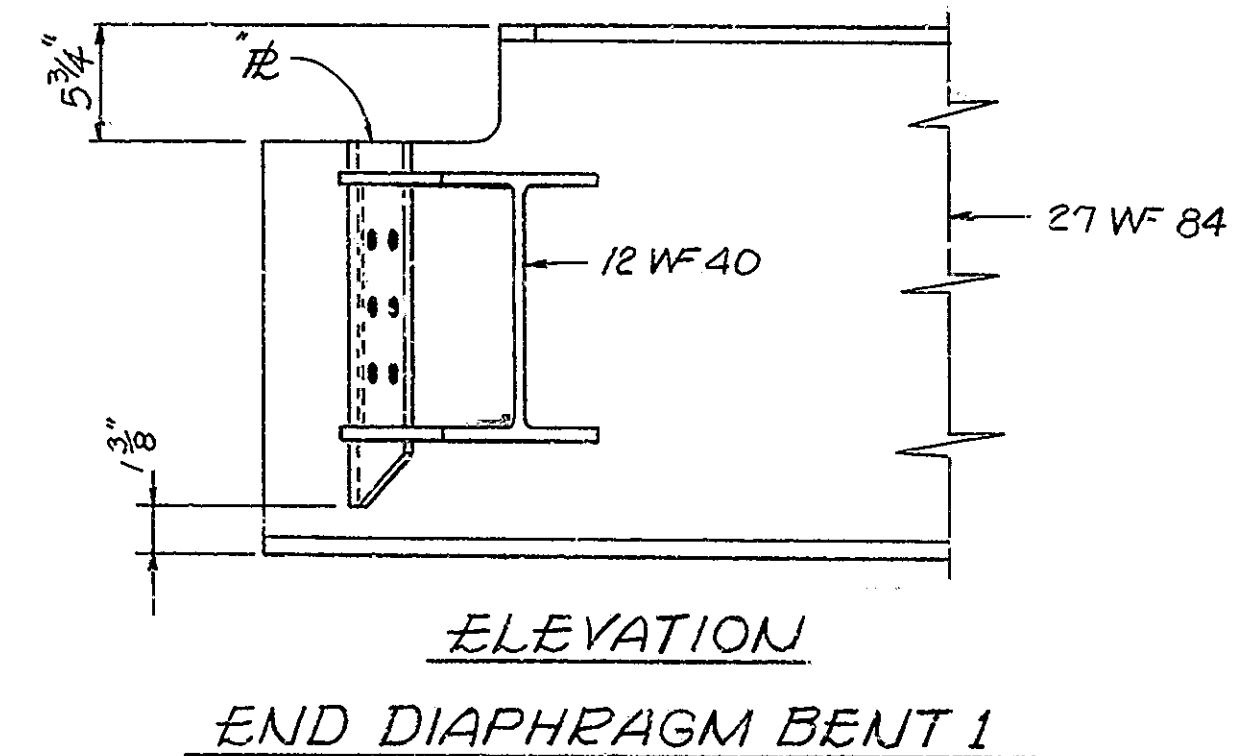
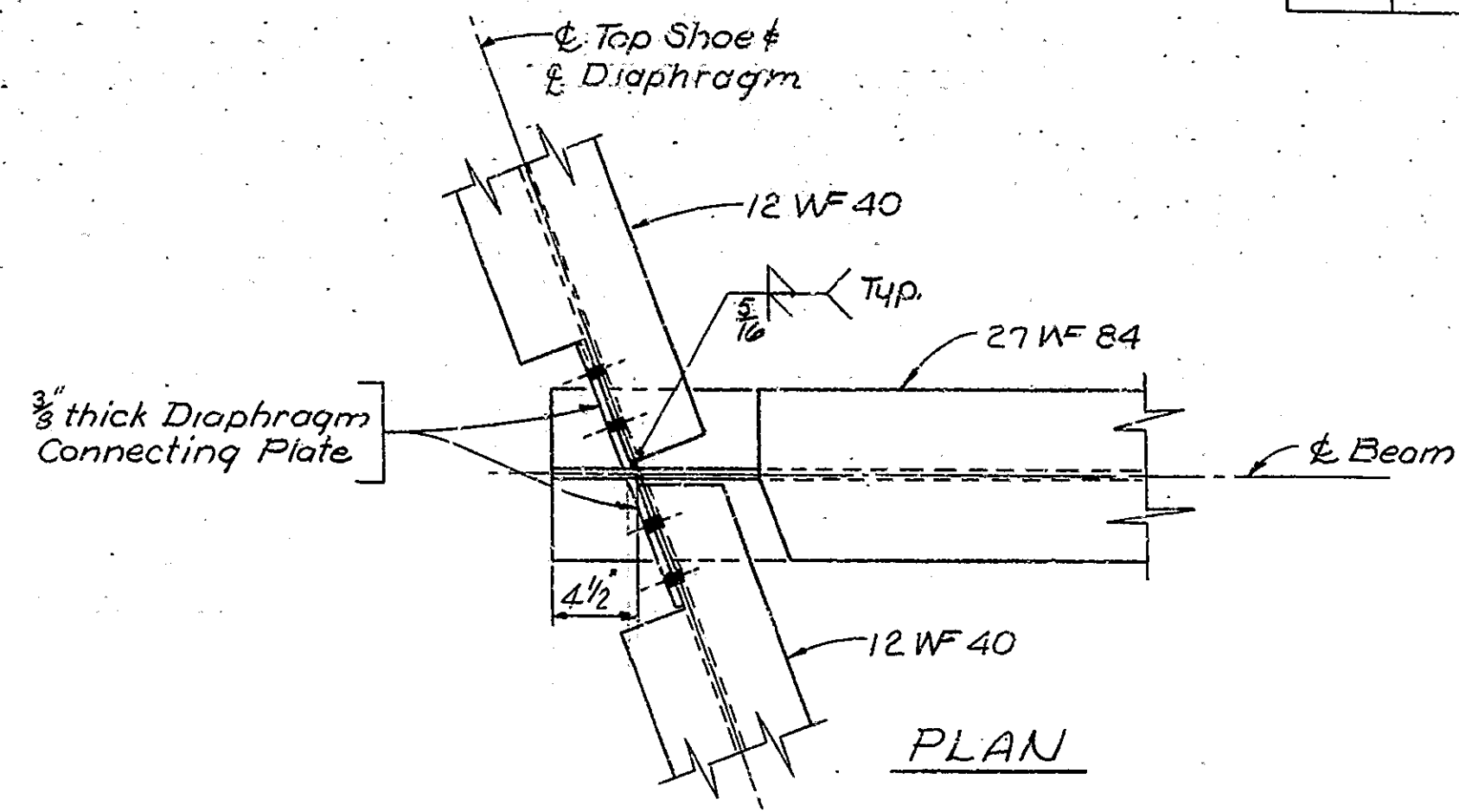
LIVE LOAD: HS 20-44 loading with impact and distribution of loads in accordance with 1961 AASHTO Specifications. Checked for special loading consisting of 2-24,000 pound axles spaced 4'-0" apart.

DEAD LOAD: Actual weight plus 35 pounds per square foot of roadway to provide for future wearing surface.

SLAB: Designed for 16,000 pound wheel plus impact, and with 1/2" monolithic wearing surface.

UNIT STRESSES

Bending, Tension or Compression	20,000#/Sq. In.
A36	27,000#/Sq. In. x
A441 (3/4 inch and under)	24,000#/Sq. In. x
A441 (3/4 inch to 1 1/2 inch incl.)	12,400#/Sq. In.
Shear in Fillet Welds (A36)	14,700#/Sq. In. x
Shear in Fillet Welds (A441)	13,500#/Sq. In.
Shear on Rivets or Bolts	
Bearing (Not including Power Driven Rivets and Torqued High Strength Bolts.)	29,500#/Sq. In.
Bearing (Power Driven Rivets and Torqued High Strength Bolts)	40,000#/Sq. In.
Bearing Steel on Concrete (Including Overturning and Eccentric Loading)	1,000#/Sq. In.
Reinforcing Steel (Tension)	20,000#/Sq. In.
Concrete (Compression)	1,200#/Sq. In.



BEAM	#1	#2	#3	#4	#5	#6	#7	#8	#9
Bent #1 WB	0	3/8	0	3/4	1 1/2	1 1/2	1 1/16	0	3/16
Bent #1 EB	0	1 1/16	0	1 1/2	3/8	1 3/16	1 1/2	1 1/2	0
Bent #2 WB	7/16	1 5/16	7/16	1 3/16	1 5/8	1 5/16	1 3/16	1 15/16	9/16
Bent #2 EB	7/16	1 1/8	7/16	1 3/4	1 1/16	1 1/2	1 3/8	1 3/16	7/16
Bent #3 WB	0	3/4	0	1 1/8	1 1/16	1 5/16	3/4	1 1/16	0
Bent #3 EB	0	0	0	1 3/8	0	1 5/16	1 3/8	3/4	0
Bent #4 WB	7/16	1 3/16	7/16	1 1/2	1 3/8	1 3/16	1	1 15/16	7/16
Bent #4 EB	7/16	7/16	7/16	1 13/16	7/16	1 3/8	1 5/8	1 1/4	5/8
Bent #5 WB	0	3/4	0	5/8	1 5/16	1 1/16	1/2	1 1/2	0
Bent #5 EB	0	0	0	1 1/16	0	1 5/16	1 1/4	1 5/16	1/4

The shop plans shall indicate whether reaming or drilling is to be done in shop or field. If shop reaming or drilling is used, the beams shall be assembled in accordance with the no load camber and reaming diagram. If the beams are shop reamed or drilled all beams shall be erected using full size drift pins in a minimum of 1 1/4 percent (20%) of the flange splice holes and fifty percent (50%) of the web splice holes.

Diaphragm connections to beams may be either bolted or riveted in lieu of field welded connections. If the contractor elects to use connections other than those shown in the contract plans he shall submit details to the engineer for approval. He shall assume full responsibility for layout of all diaphragm connections and for accurate fitted parts. No increase in

pay weight will be permitted. The weight of high strength bolts is not included in the weight of structural steel. The cost of these bolts shall be included in the cost of structural steel.

SUPERSTRUCTURE DETAILS

INDIANA STATE HIGHWAY COMMISSION

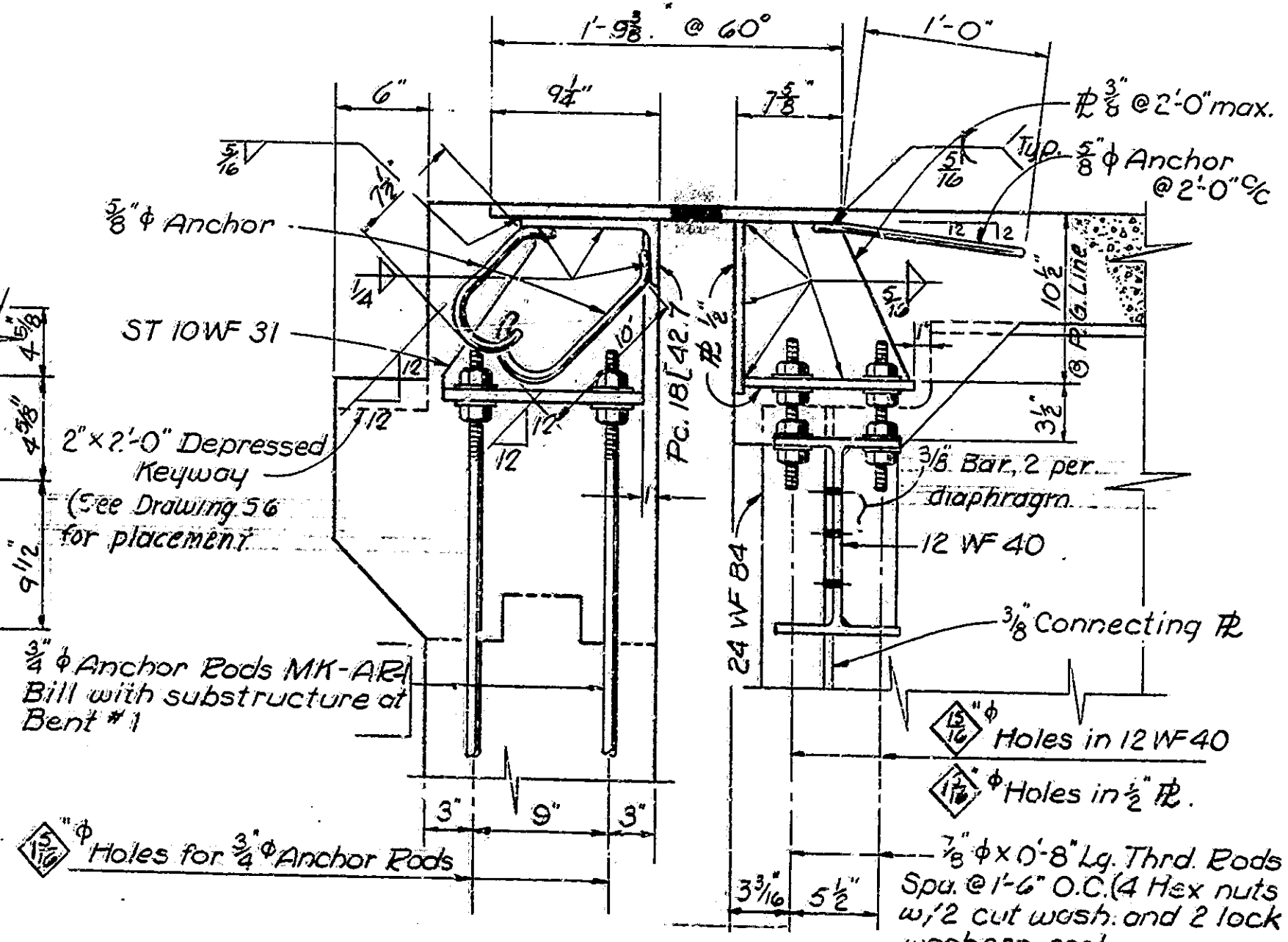
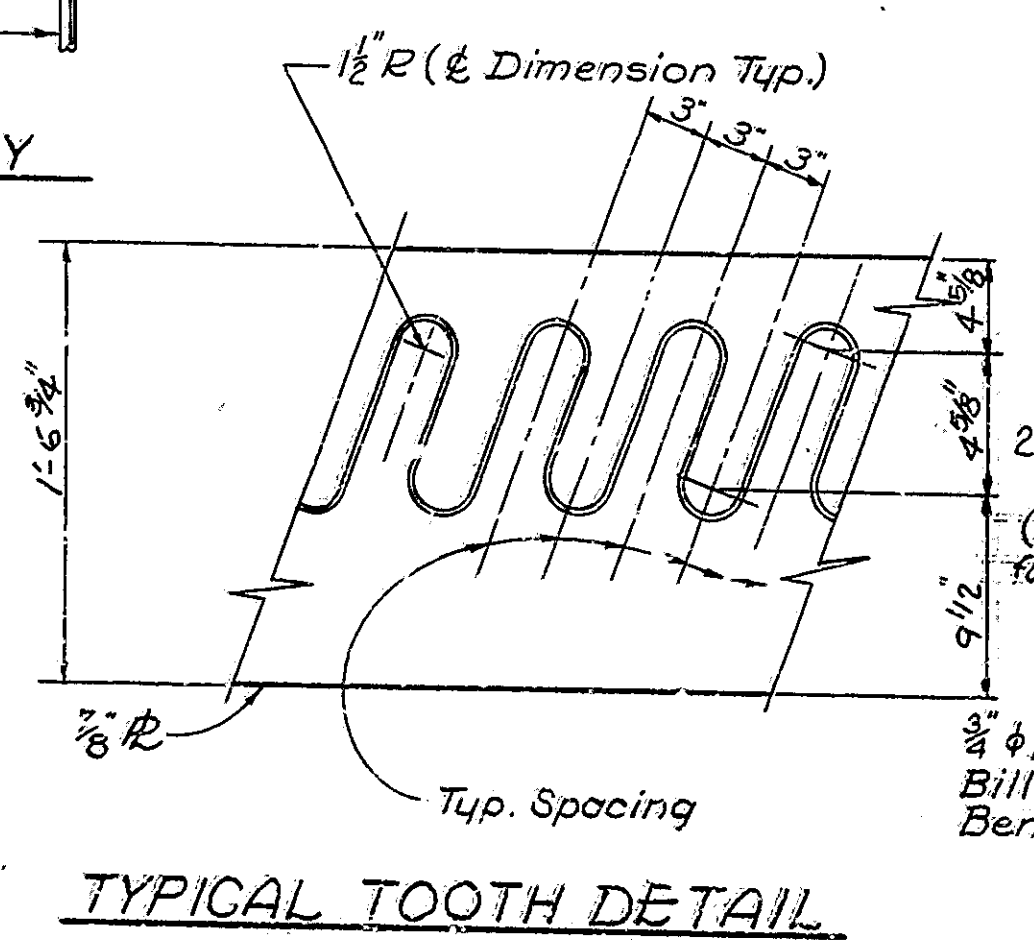
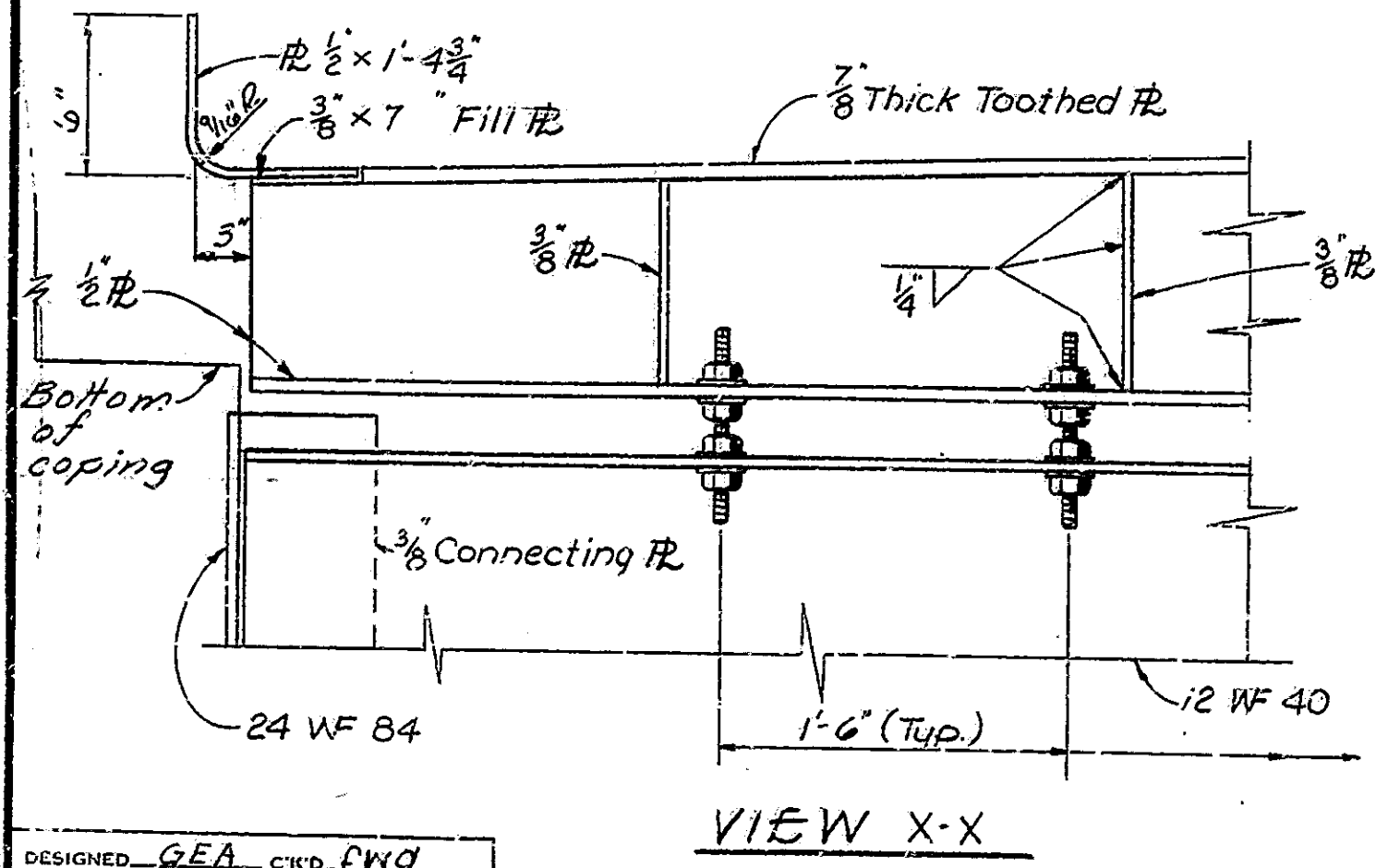
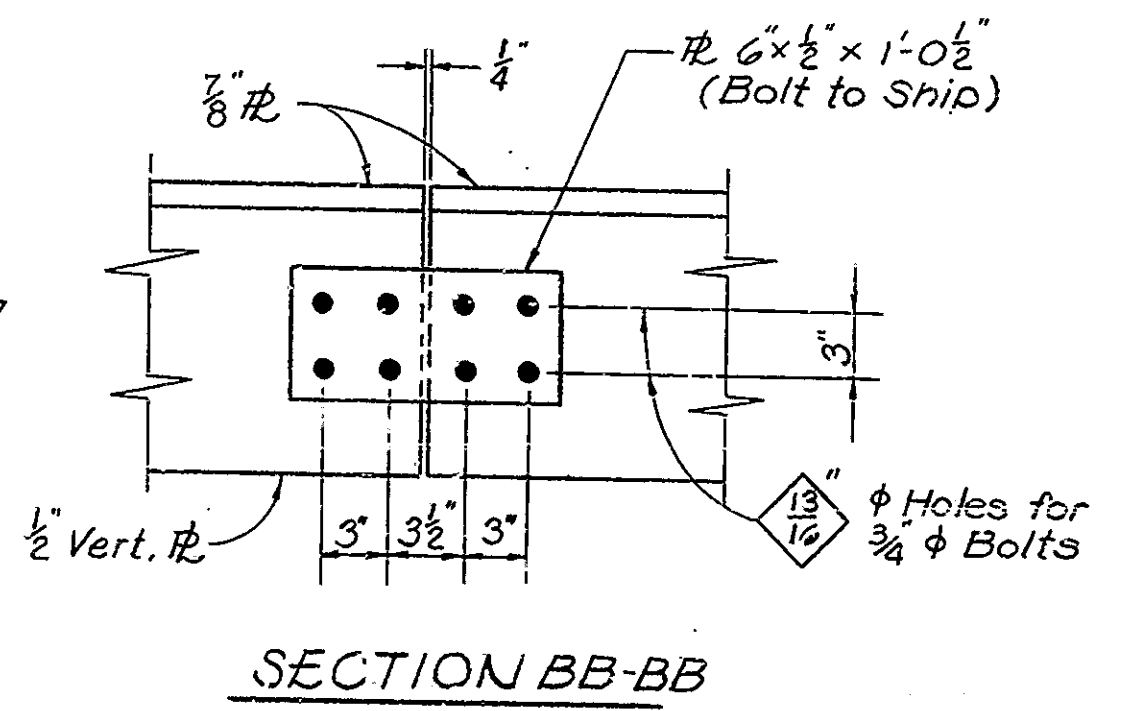
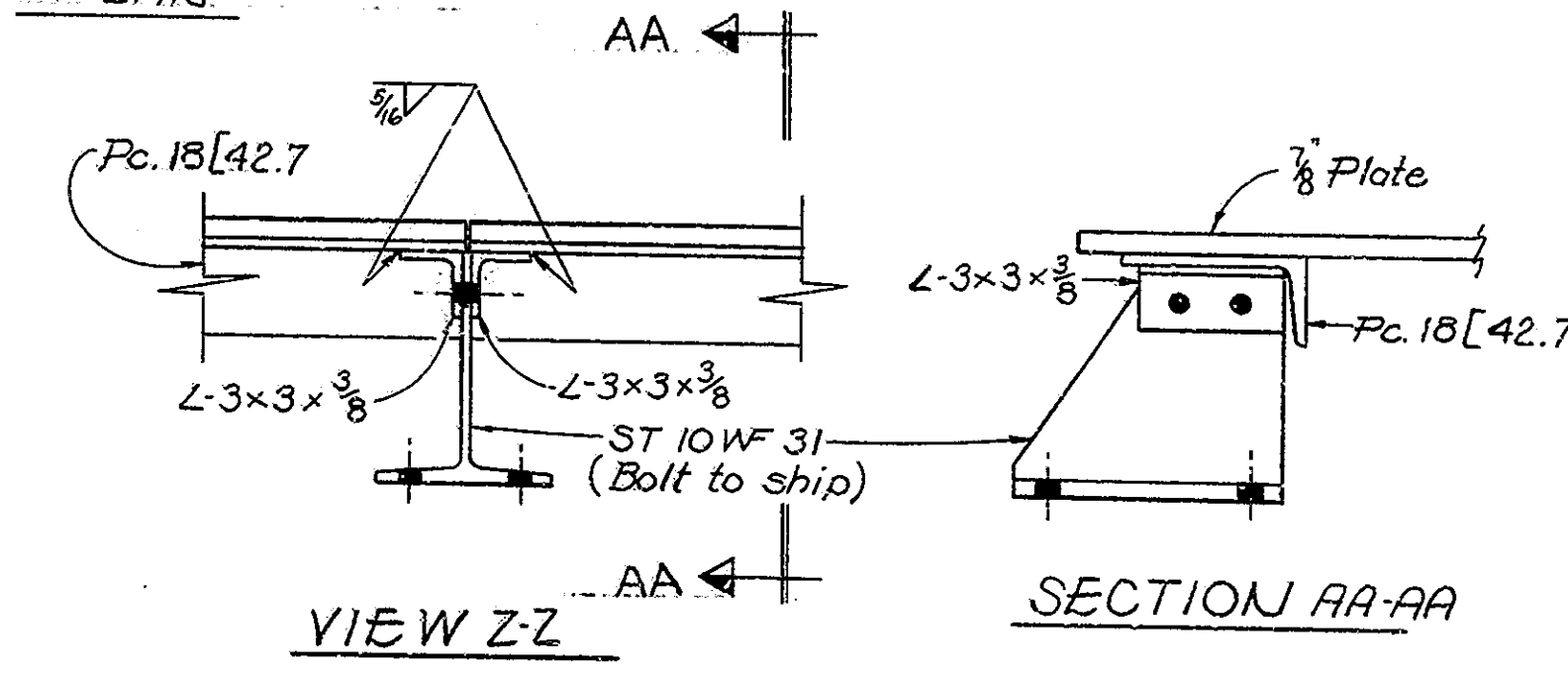
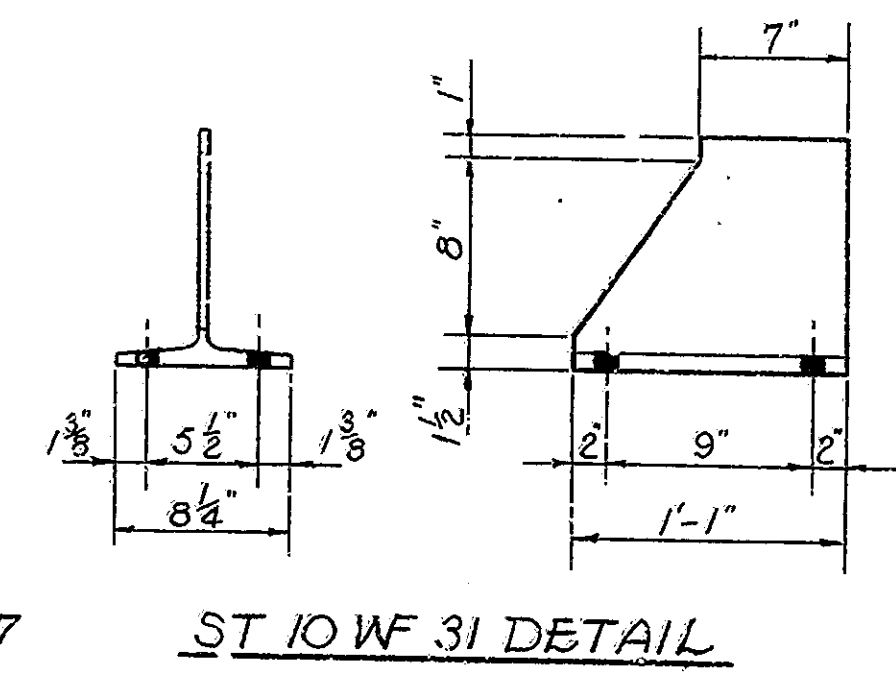
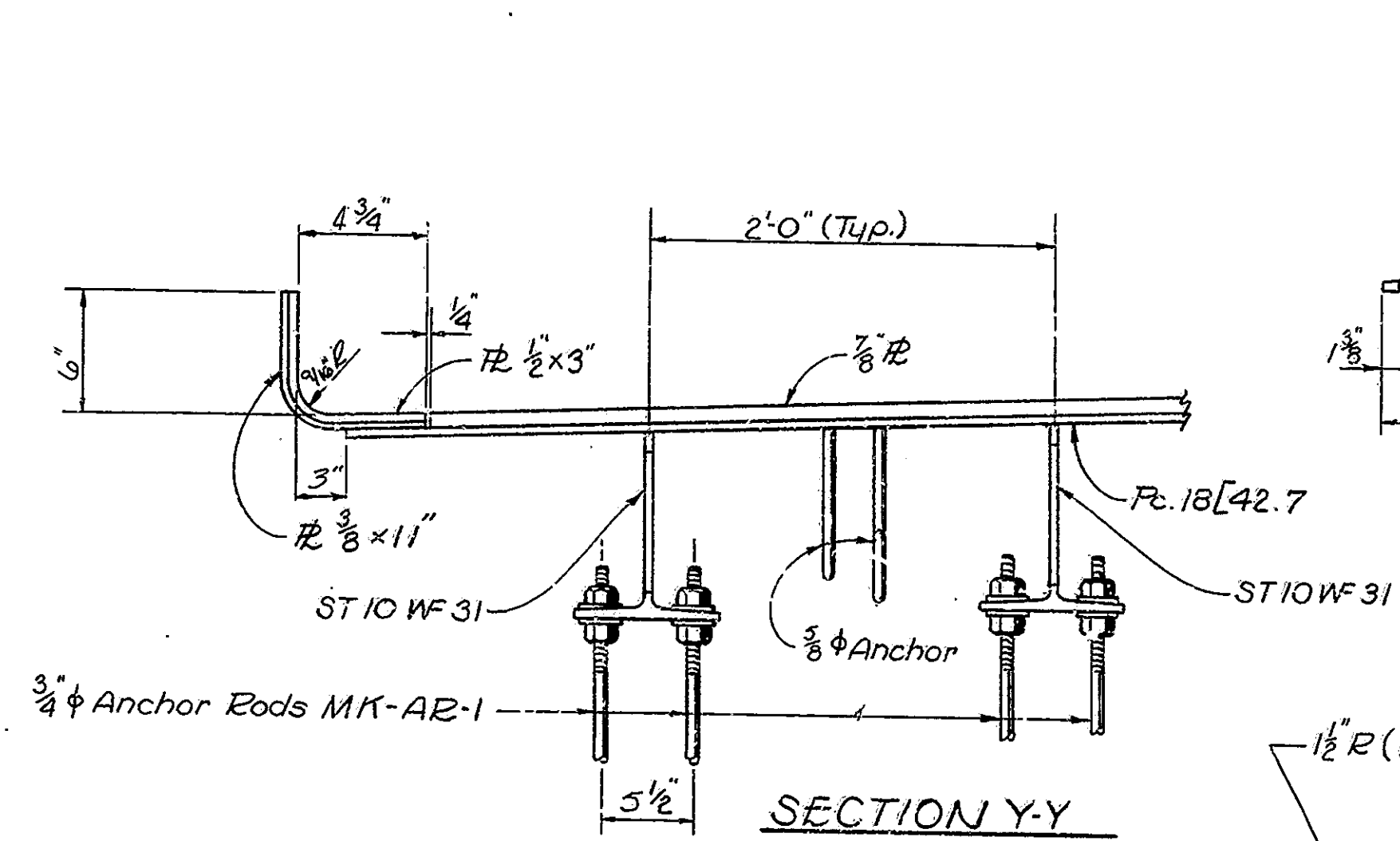
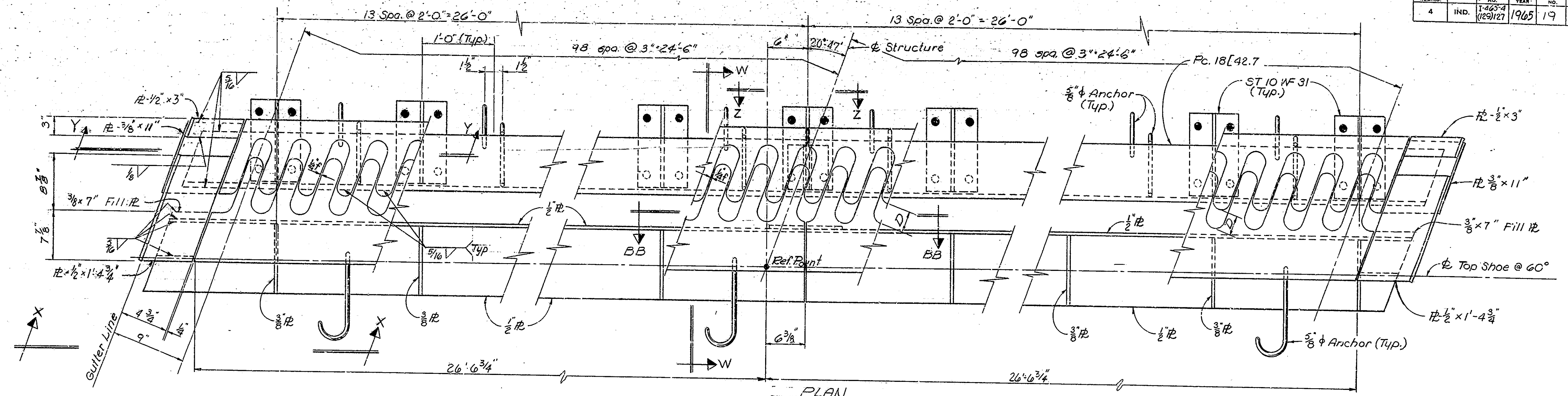
SCALE: 1/2" = 1'-0" JUNE 1, 1965

SUBMITTED FOR APPROVAL: Tom L. Anderson, P.E.

DRAWING: 516 OF 23
PROJECT: I-465-4 (129) 127
BRIDGE CONTRACT NO. R-7391
BRIDGE FILE: I-465-128-5276

DESIGNED	GEA	CKD	PLN
DRAWN	CNS	CKD	PLN
TRACED		CKD	

BRIDGES OVER 20' SPAN					
PUR. ROAD	STATE	PROJECT	FISCAL	SHEET	TOTAL
NO.		NO.	YEAR	NO.	SHEETS
4	IND.	I-465-4 (129)127	1965	19	34



ASSEMBLY: Expansion joints are to be assembled in the shop in their relative erection positions and inspected for fit.

SHAPE: Top of expansion joint to conform to roadway crown curvature.

TOLERANCE: Dimension "D" may vary 1" from tabulated value if required for fit.

CUTTING: All dimensions are given to centerline cut. See Specifications Article E1103.13, regarding burning of toothed plates shall be match-marked to maintain the same relative position before and after cutting.

GENERAL NOTES: See Drawing S3 for General Notes.

BURNING: If curves in plates and angles are flame cut, they shall be ground smooth.

TOOTH EXPANSION JOINT DETAIL
INDIANA STATE HIGHWAY COMMISSION

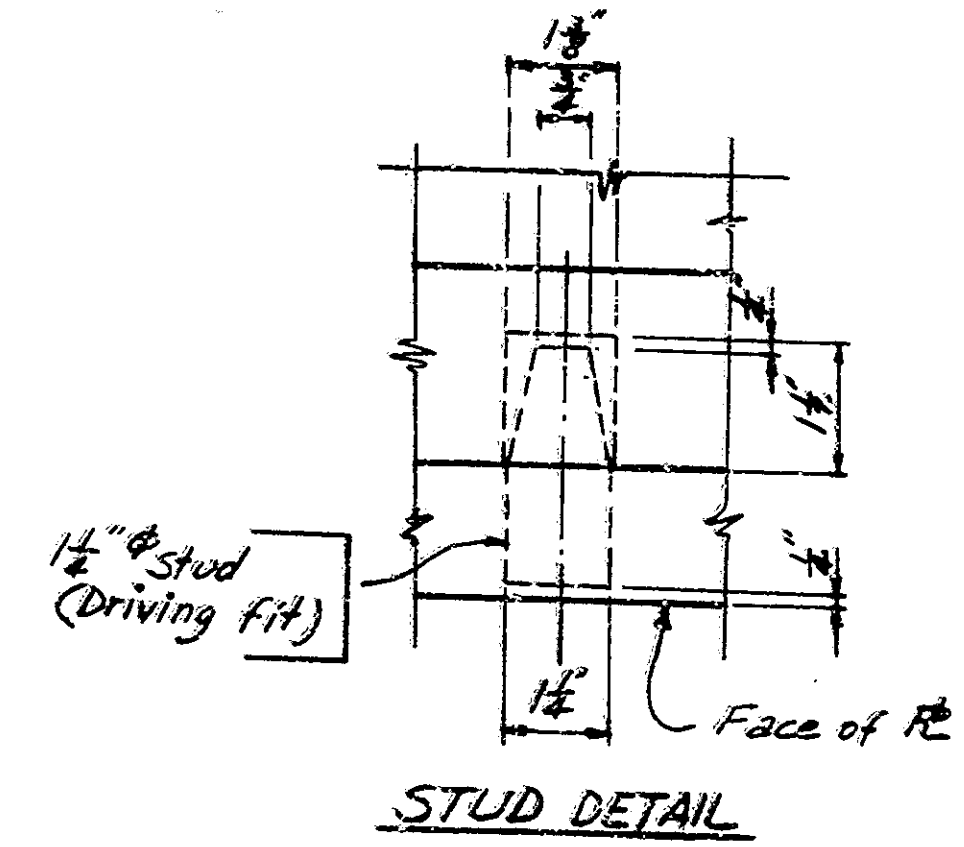
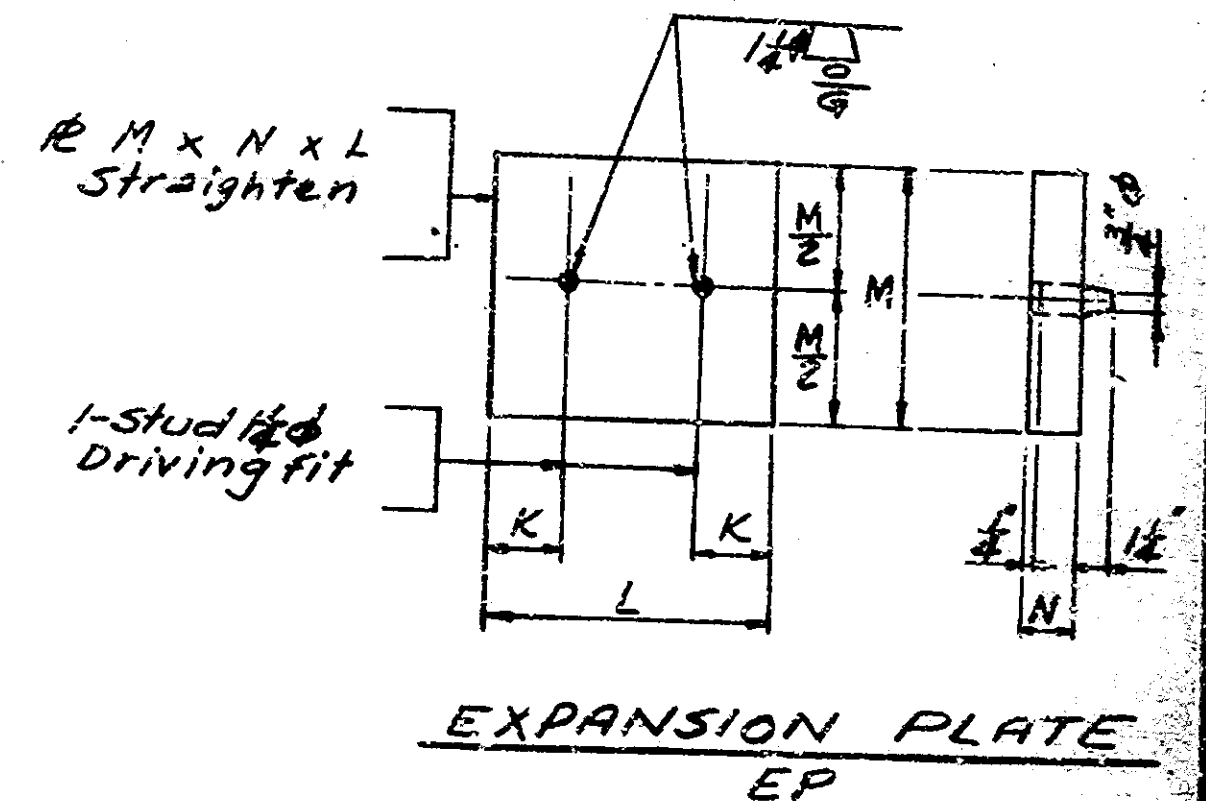
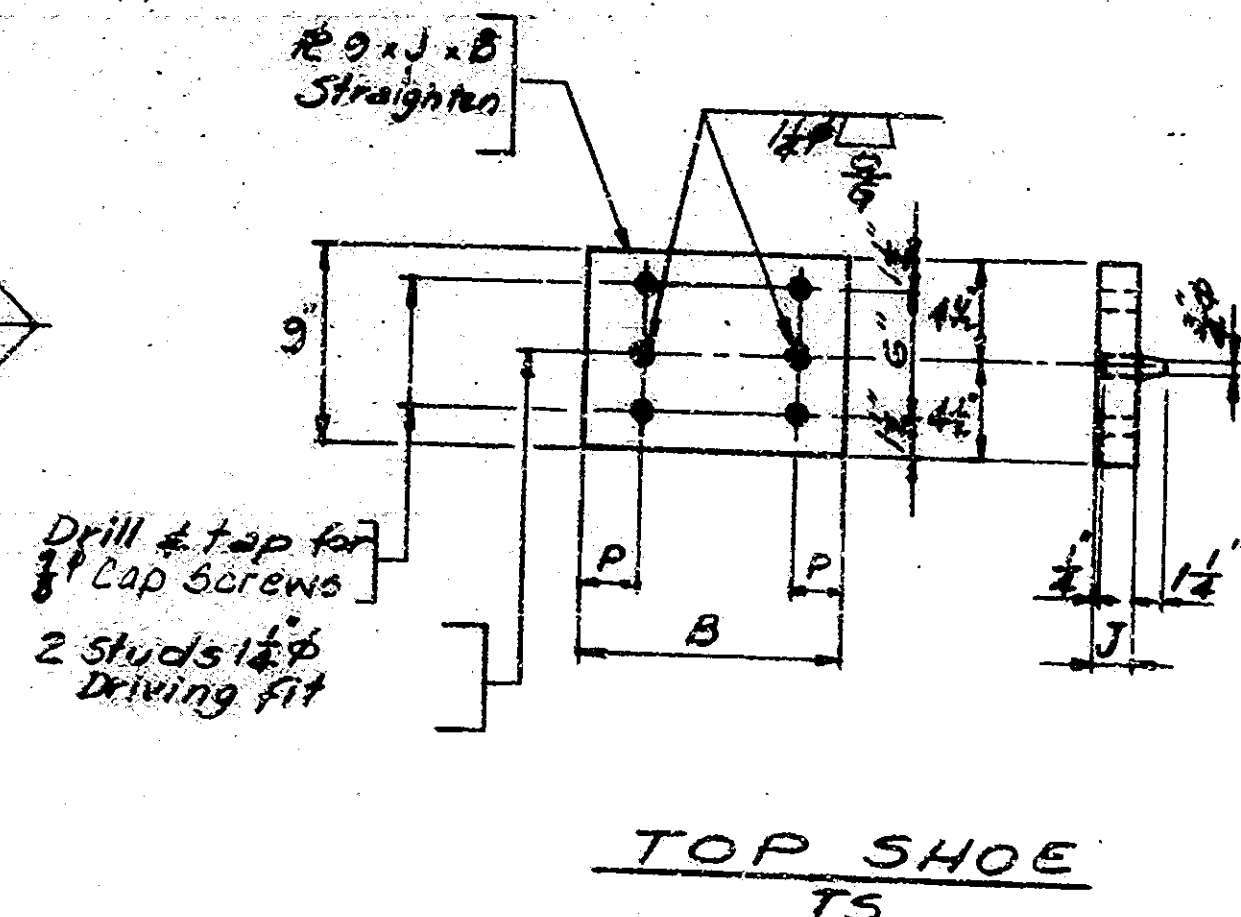
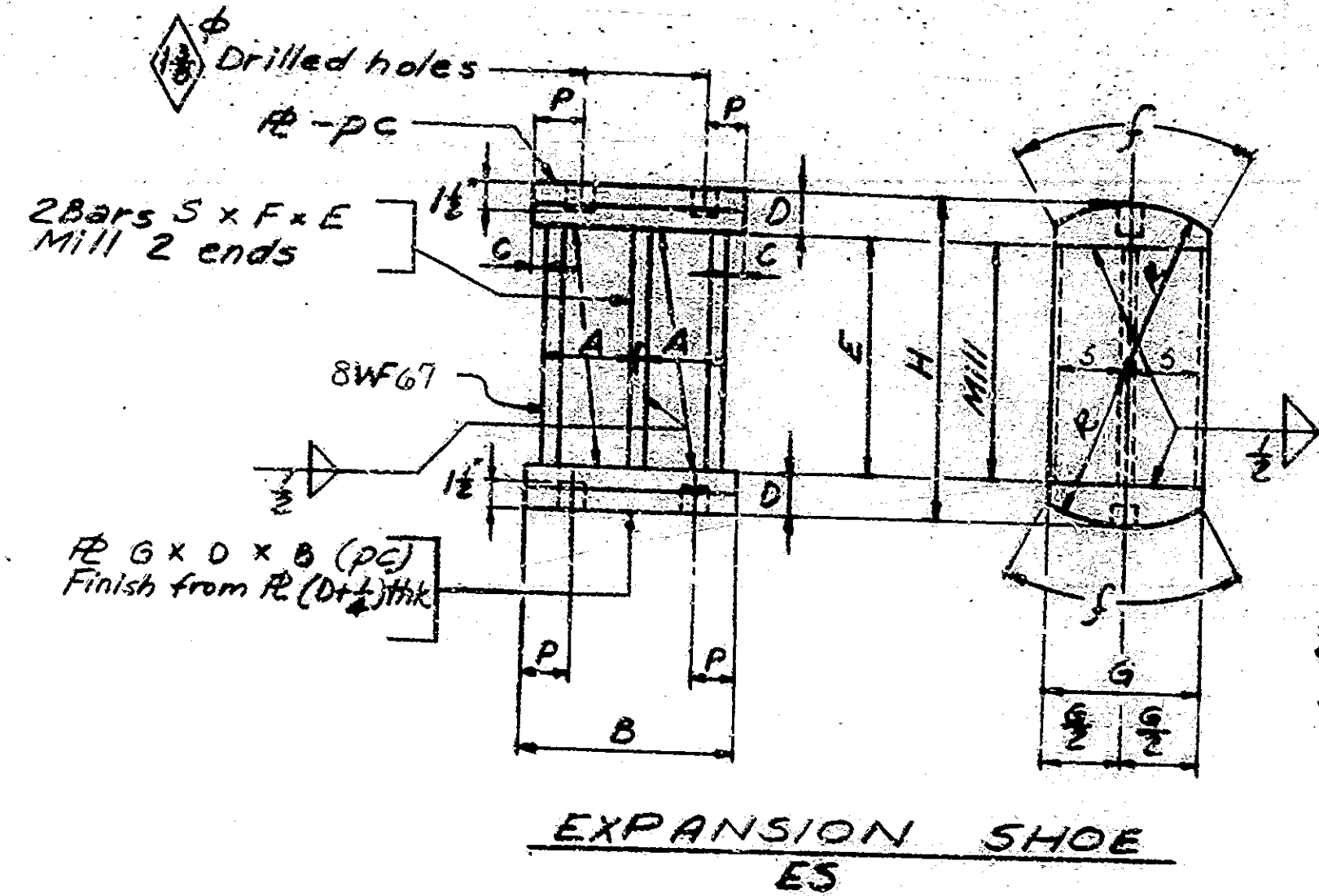
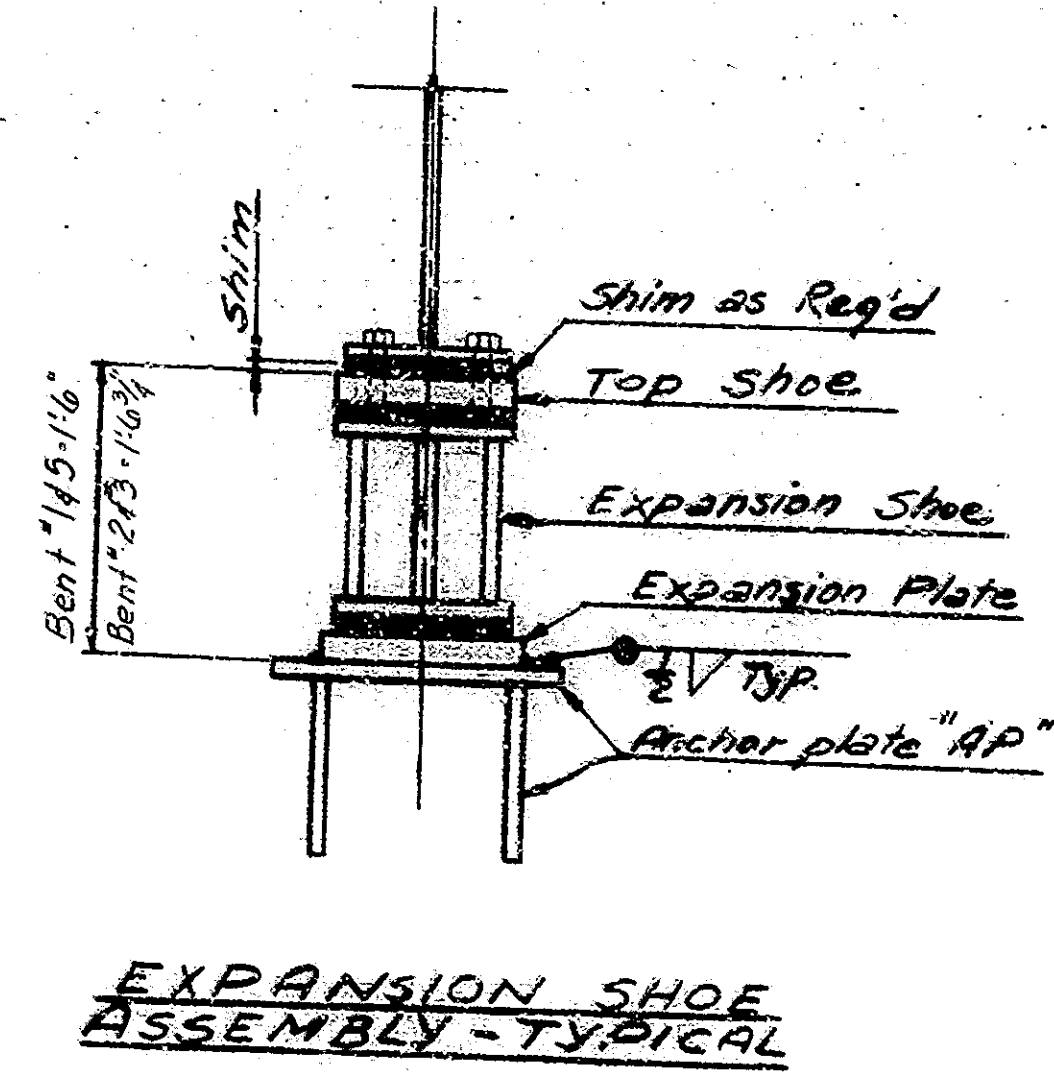
SCALE: 1/2" = 1'-0"
 JUNE 1, 1965
 SUBMITTED FOR APPROVAL: *Tom L. Johnson, P.E.*
 DRAWING: 517 OF 25
 PROJECT: I-465-4 (129) 127
 BRIDGE CONTRACT NO. R-7391
 BRIDGE FILE: I-465-128-5276

DESIGNED: GEA CKD: FWG
 DRAWN: CNS CKD: FWG
 TRACED: CKD

PROJECT NO.	LINE	SHEET	TOTAL	FILE
I-465-4(129)127	A	19	34	I-465-128-5276

BRIDGES OVER 20' SPAN					
PUB. ROAD RES. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND	1-465-4 (129)127	1965	20	21

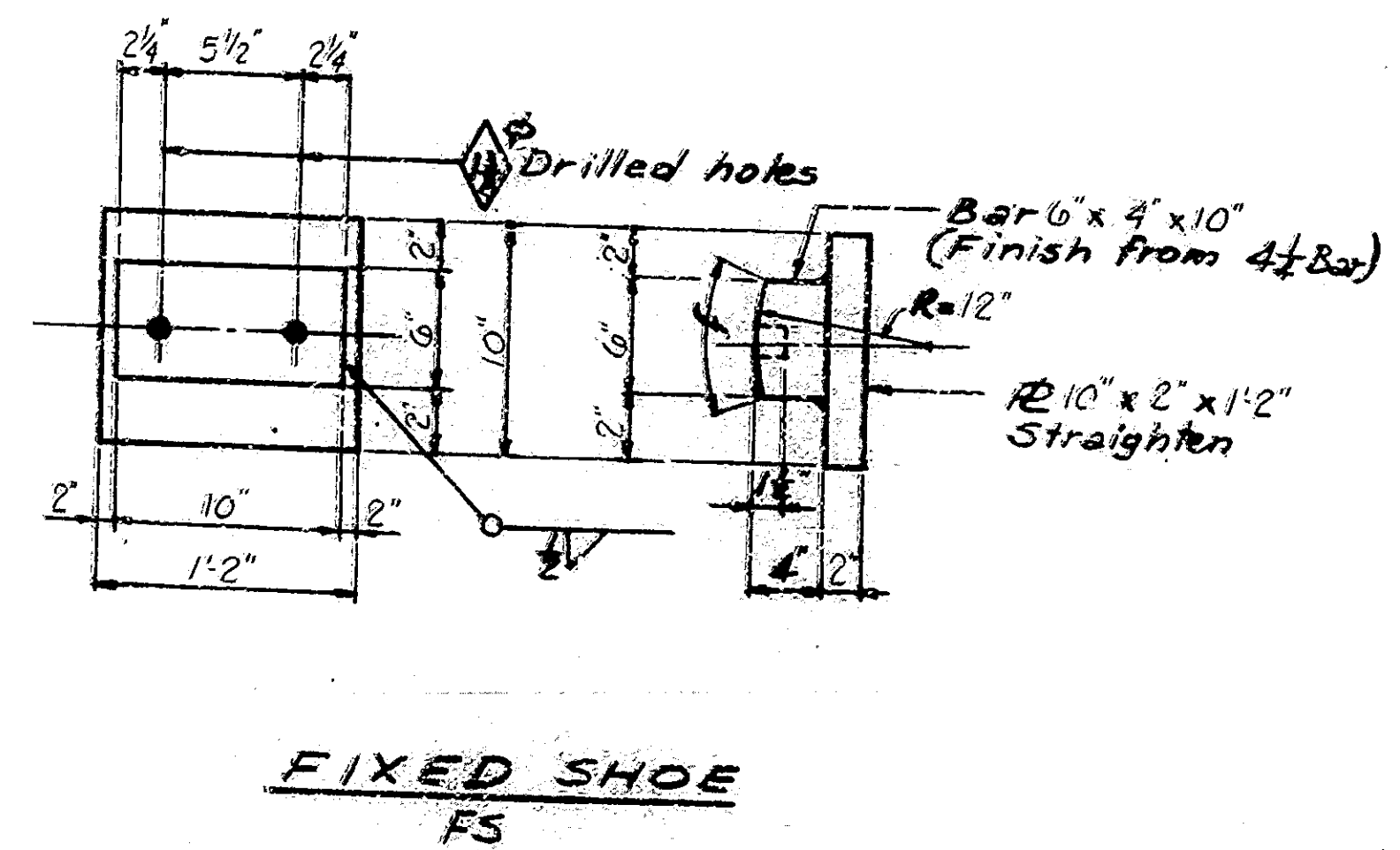
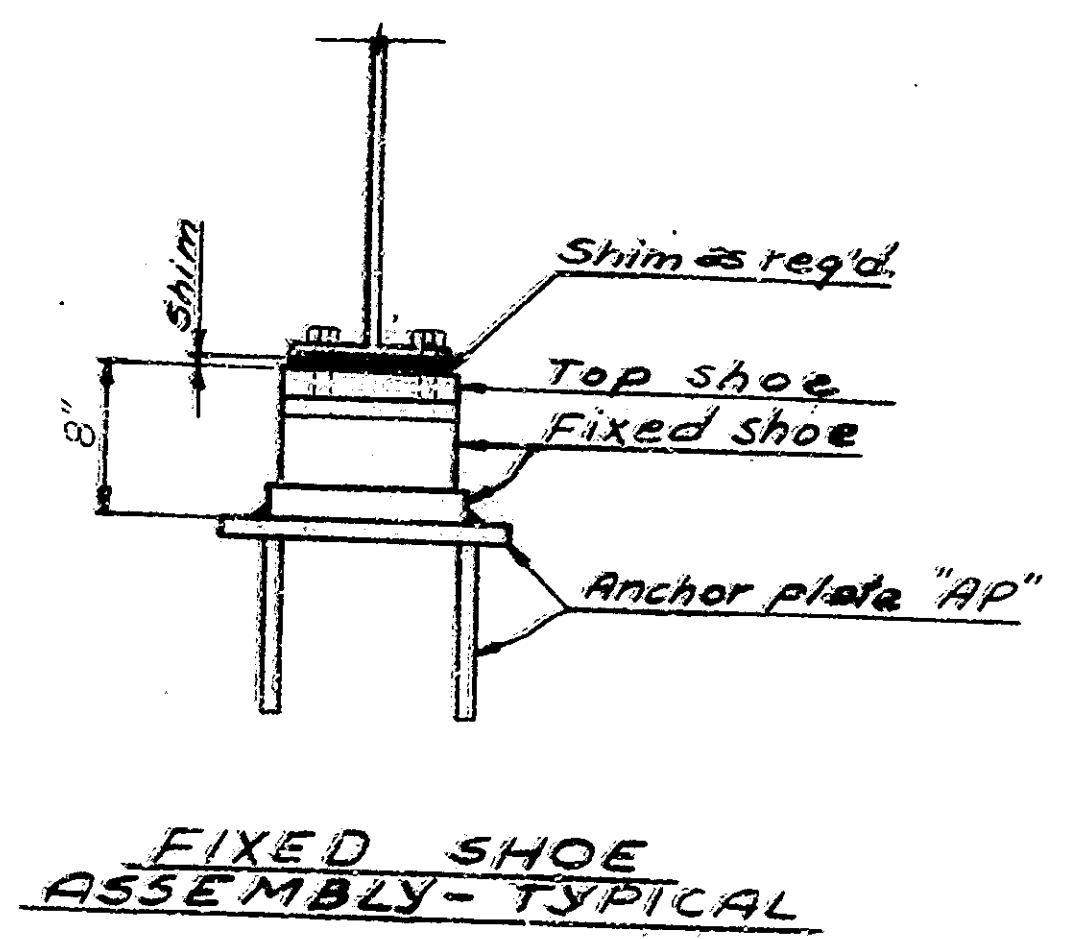
NOTE: Curved surfaces of shoes to be machined after weldments have been completed.



MARK	EXPANSION SHOE DIMENSIONS (inches)										
	A	B	C	D	E	F	G	H	P	R	S
ES-1	4	10	1/2	2	11	1	8 1/4	15	2 1/4	7 1/2	3 1/2

MARK	TOP SHOE DIM. (in.)		
	B	J	P
TS-1	10	1 1/2	2 1/4
TS-2	10	2	2 1/4

MARK	EXPANSION R DIM. (in)			
	K	L	M	N
EP-1	3 3/4	13	9	1 1/2
EP-2	4 3/4	15	10	1 3/4



See Drwg 53 for General Notes

SUPERSTRUCTURE BEARING DETAILS
INDIANA STATE HIGHWAY COMMISSION

SCALE: NO SCALE
JUNE 1, 1965

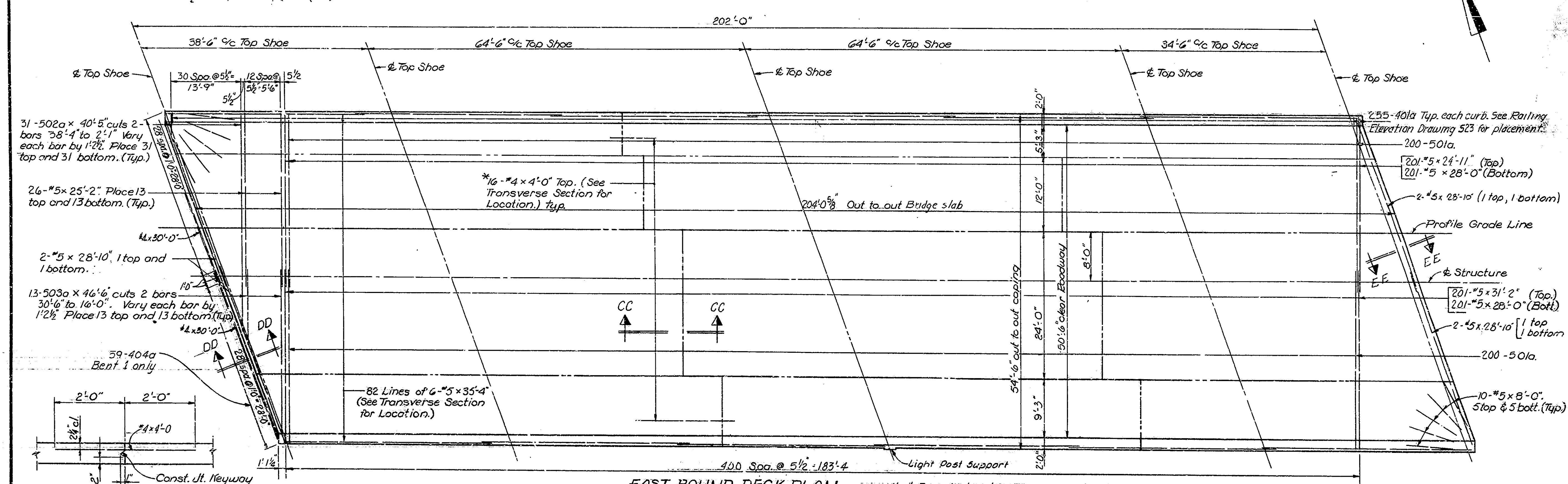
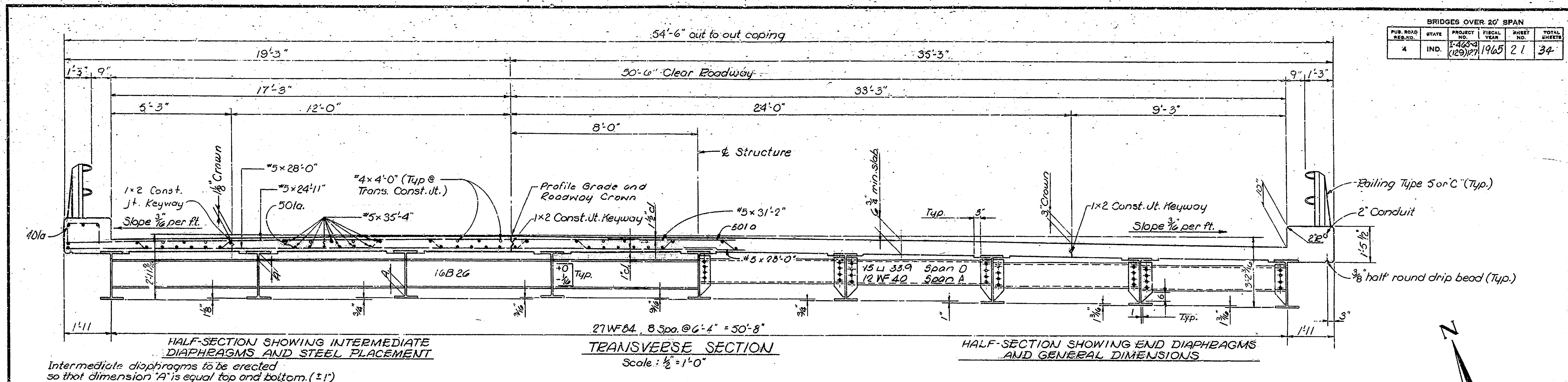
SUBMITTED FOR APPROVAL: Tom L. Woodward, P.E.

DRAWING: 518 OF 25
PROJECT: I-465-4(129)127
BRIDGE CONTRACT NO. R-7391
BRIDGE FILE: I-465-128-52700

DESIGNED: SEA CKD FWD
DRAWN: CNS CKD JPK
TRACED: CKD

Rev. 10-10-66 Remove field weld on Exp Shoe

BRIDGES OVER 20' SPAN					
PUB. ROAD	STATE	PROJECT	FISCAL	SHEET	TOTAL
NO.		NO.	YEAR	NO.	SHEETS
4	IND.	I-465-4 (129)127	1965	21	34



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

- NOTES**
- CORNER DETAILS:** For corner details, see Drawing 521
 - REINFORCING STEEL:** For reinforcing bar notes see Bridge Standard C₁
 - CONCRETE FORMS:** After the structural steel has been erected, concrete forms shall not be blocked against the expansion end of the steel in making pours adjacent to the steel spans.

- GENERAL NOTES:** See Drawing S 16 for General Notes.
- ADDITIONAL DETAILS:** For additional details, see Drawing 522 & 523
- LIGHT POST SUPPORTS:** For Light Post Support details, see Bridge Standard R_{2A}.
- * To be paid for in cost of other items.

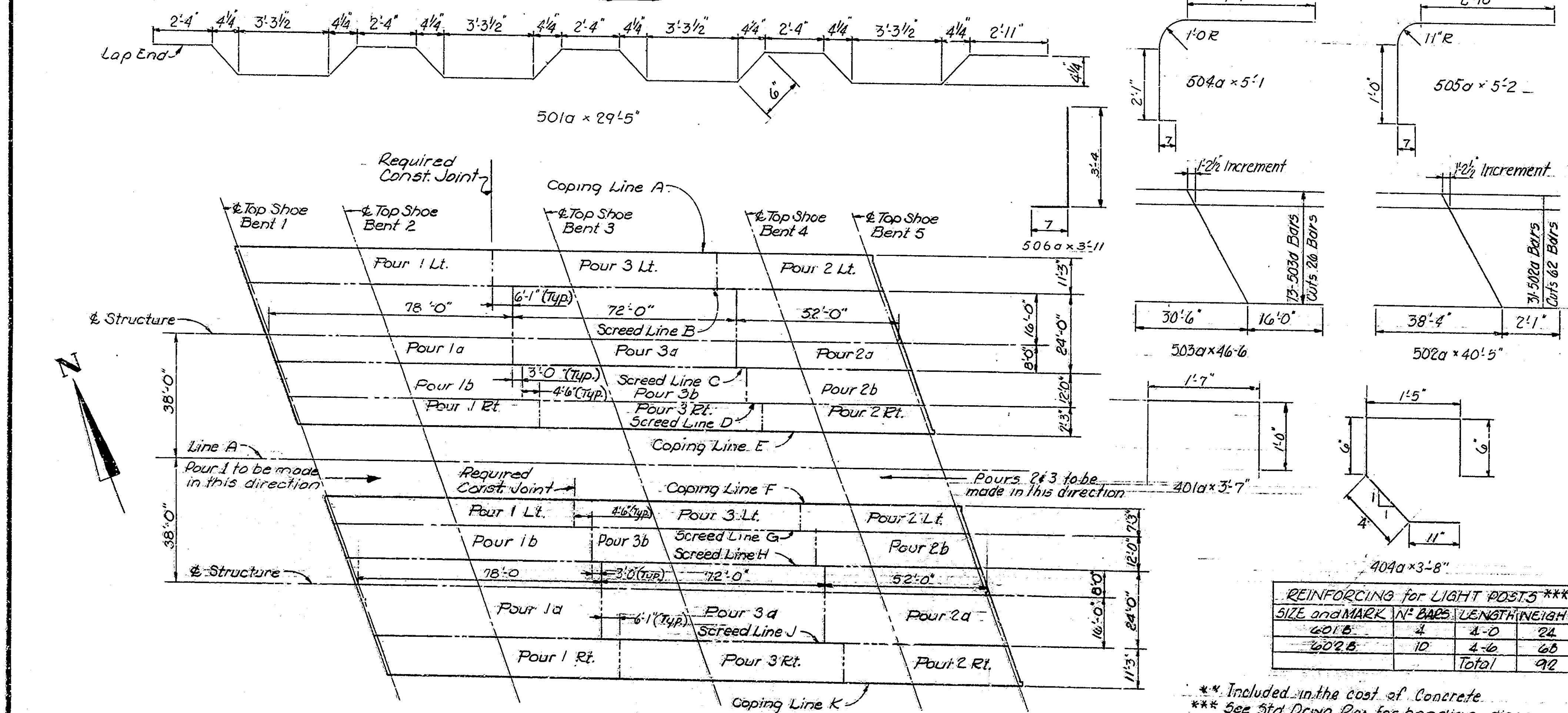
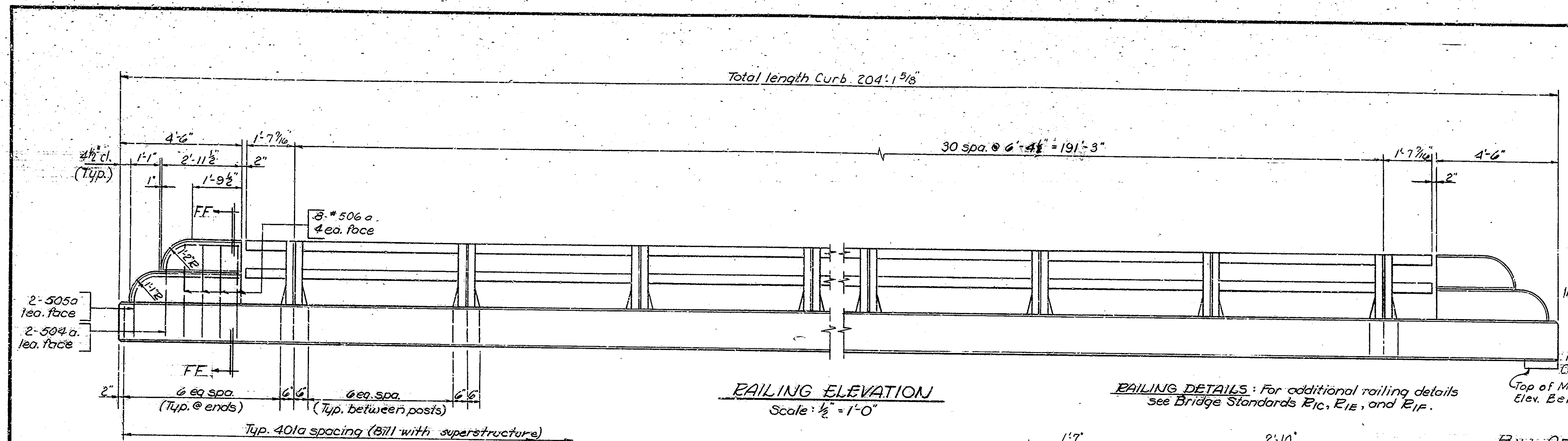
DECK PLAN and TRANSVERSE SECTION
INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED
JUNE 1, 1965
SUBMITTED FOR APPROVAL: Tom L. DeWard, P.E.
DRAWING: 519 OF 23
PROJECT: I-465-4 (129)127
BRIDGE CONTRACT NO. R-7391
BRIDGE FILE: I-465-128-5276

DESIGNED	SEA	CKD	PND
DRAWN	CRS	CKD	PND
TRACED		CKD	

PROJECT NO.	LINE	SHEET	TOTAL SHEETS	FILE
I-465-4(129)127	7	21	34	I-465-128-5276

BRIDGES OVER 20' SPAN				
PUB. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.	1-465-4 (129)127	1965	22 34



CONCRETE - EBL				REINFORCING STEEL			
Class F Superstructure	SIZE	N ^o	MARK	SIZE	N ^o	MARK	WEIGHT
Pour 1a	39.0 cys.	7	OF	501a	400	29-5	12-273
Pour 2a	28.0 cys.	5	OF	502a	62	40-5	2614
Pour 3a	35.9 cys.	501a	400	504a	8	5-1	42
Pour 1b	20.1 cys.	502a	62	506a	8	5-2	49
Pour 2b	12.4 cys.	503a	26	505a	20	8-0	159
Pour 3b	18.0 cys.	504a	8	506a	8	5-2	49
Pour 1Lt.	18.2 cys.	506a	8	506a	8	5-2	49
Pour 2Lt.	10.6 cys.	5	20	506a	8	5-2	49
Pour 3Lt.	14.7 cys.	5	402	506a	8	5-2	49
Pour 1Rt.	22.4 cys.	5	201	506a	8	5-2	49
Pour 2Rt.	16.4 cys.	5	201	506a	8	5-2	49
Pour 3Rt.	21.1 cys.	5	52	506a	8	5-2	49
Cap	6.0 cys.	5	492	506a	8	5-2	49
Total Class F except railing	262.8 cys.	5	8	506a	32	3-11	134
Railing Concrete 4.8-0.3	1.2 cys.	506a	32				
			Total				59,768

CONCRETE - WBL				REINFORCING STEEL			
Class F Superstructure	SIZE	N ^o	MARK	SIZE	N ^o	MARK	WEIGHT
Pour 1a	40.4 cys.	4	6	401a	510	3-7	1220
Pour 2a	26.8 cys.	4	6	404a	39	3-8	175
Pour 3a	35.9 cys.	4	6				
Pour 1b	18.9 cys.						
Pour 2b	13.6 cys.						
Pour 3b	18.0 cys.						
Pour 1Lt.	23.9 cys.	4	32				
Pour 2Lt.	15.9 cys.						
Pour 3Lt.	21.0 cys.						
Pour 1Rt.	11.5 cys.						
Pour 2Rt.	10.8 cys.						
Pour 3Rt.	14.7 cys.						
Cap	6.0 cys.						
Total Class F except railing	262.8 cys.						
Railing Concrete 4.8-0.3	1.2 cys.						

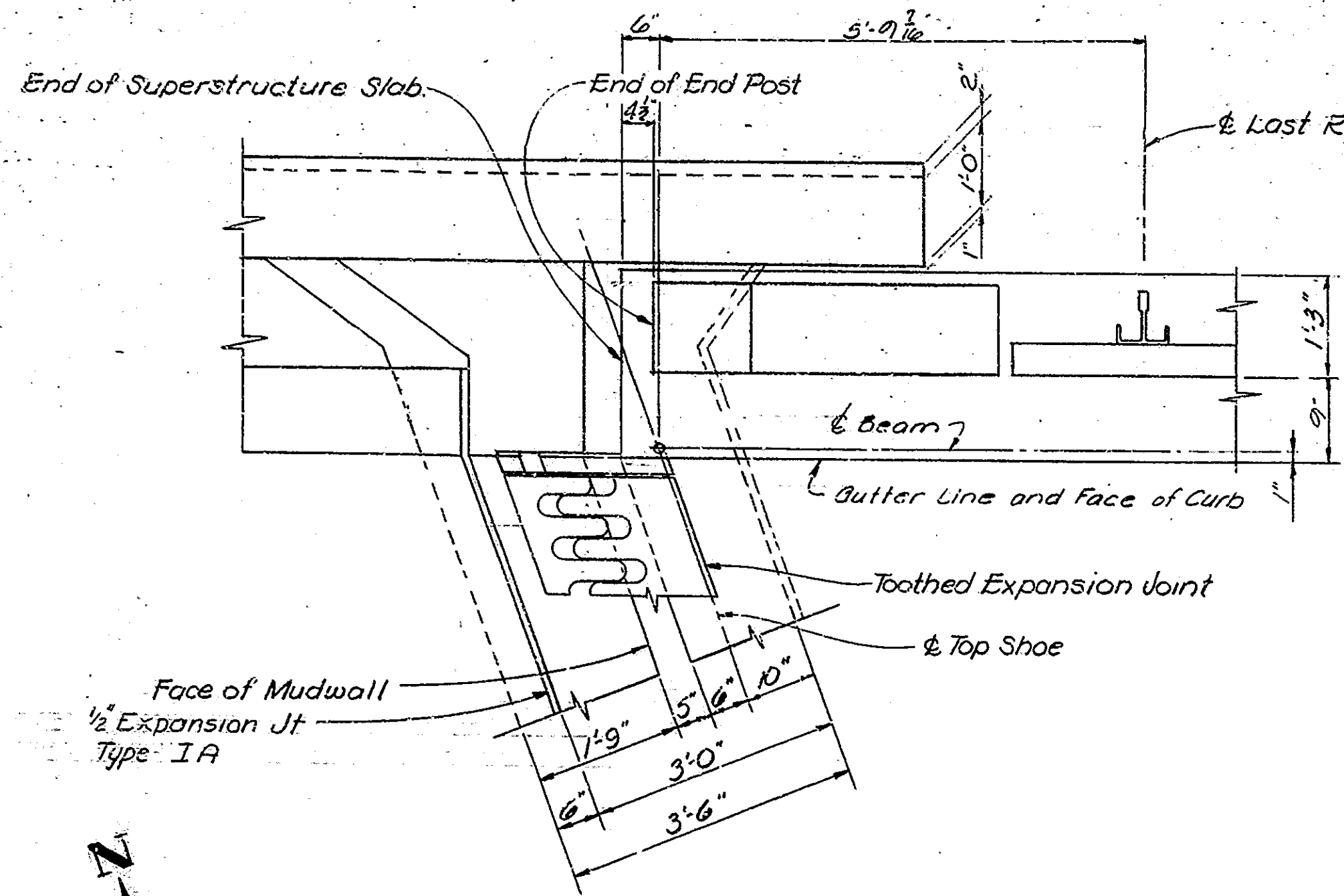
REINFORCING for LIGHT POSTS ***			
SIZE and MARK	N ^o BARS	LENGTH	WEIGHT
401B	2	4-0	24
402B	10	4-6	65
	Total		92

SUPERSTRUCTURE DETAILS
INDIANA STATE HIGHWAY COMMISSION
 SCALE: AS NOTED
 JUNE 1, 1965
 SUBMITTED FOR APPROVAL: *Tom J. Whitcomb, P.E.*
 DRAWING: S20 OF 23
 PROJECT: 1-465-4 (129) 127
 BRIDGE CONTRACT NO. E-7391
 BRIDGE FILE: 1-465-125-3276

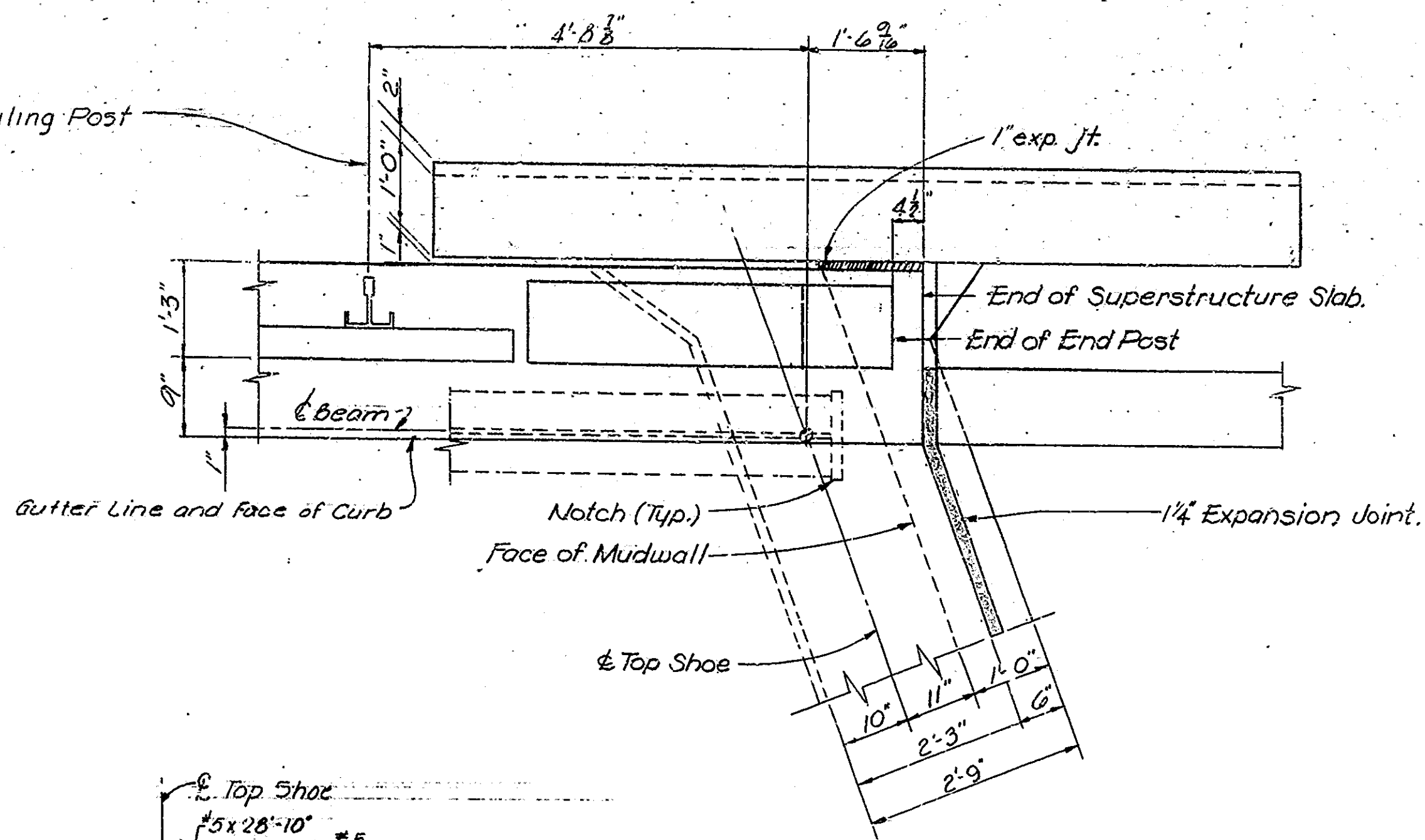
POUR SEQUENCE: Sequence of pours to be made in the order of pour numbers. All superstructure construction joints are optional, except as noted. Pours may be continuous provided the pour terminates at a construction joint indicated on the plan except as noted.
 For additional details and notes see Drawing S19 & S21

DESIGNED: GEA CKD: FNG
 DRAWN: CYS CKD: FNG
 TRACED: CKD

BRIDGES OVER 20' SPAN					
PUB. ROAD RES. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-465-4 (129)127	1965	23	34

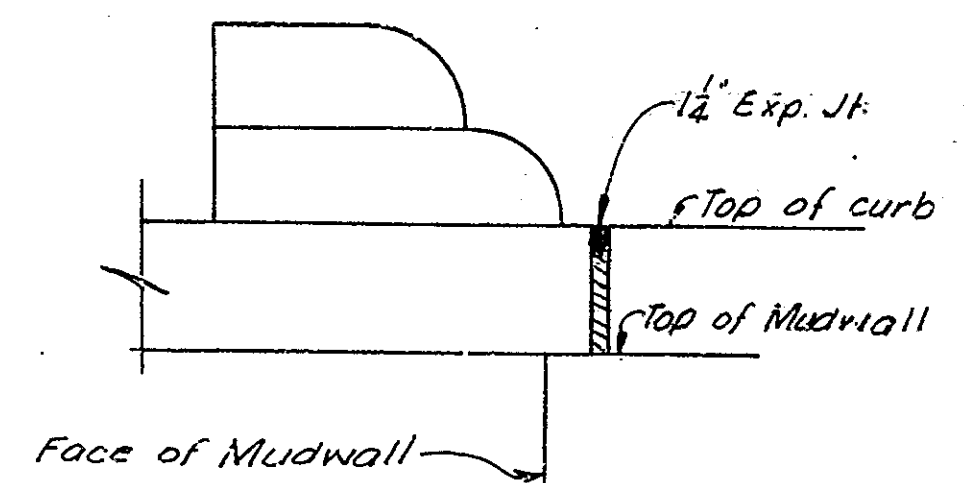


CORNER DETAIL BENT 1 EB & WB
Scale: 3/4" = 1'-0"

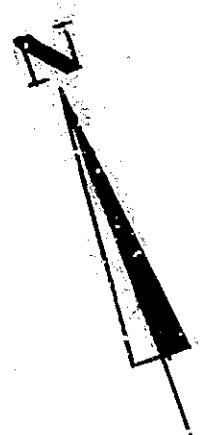


CORNER DETAIL BENT 5 EB & WB
Scale: 3/4" = 1'-0"

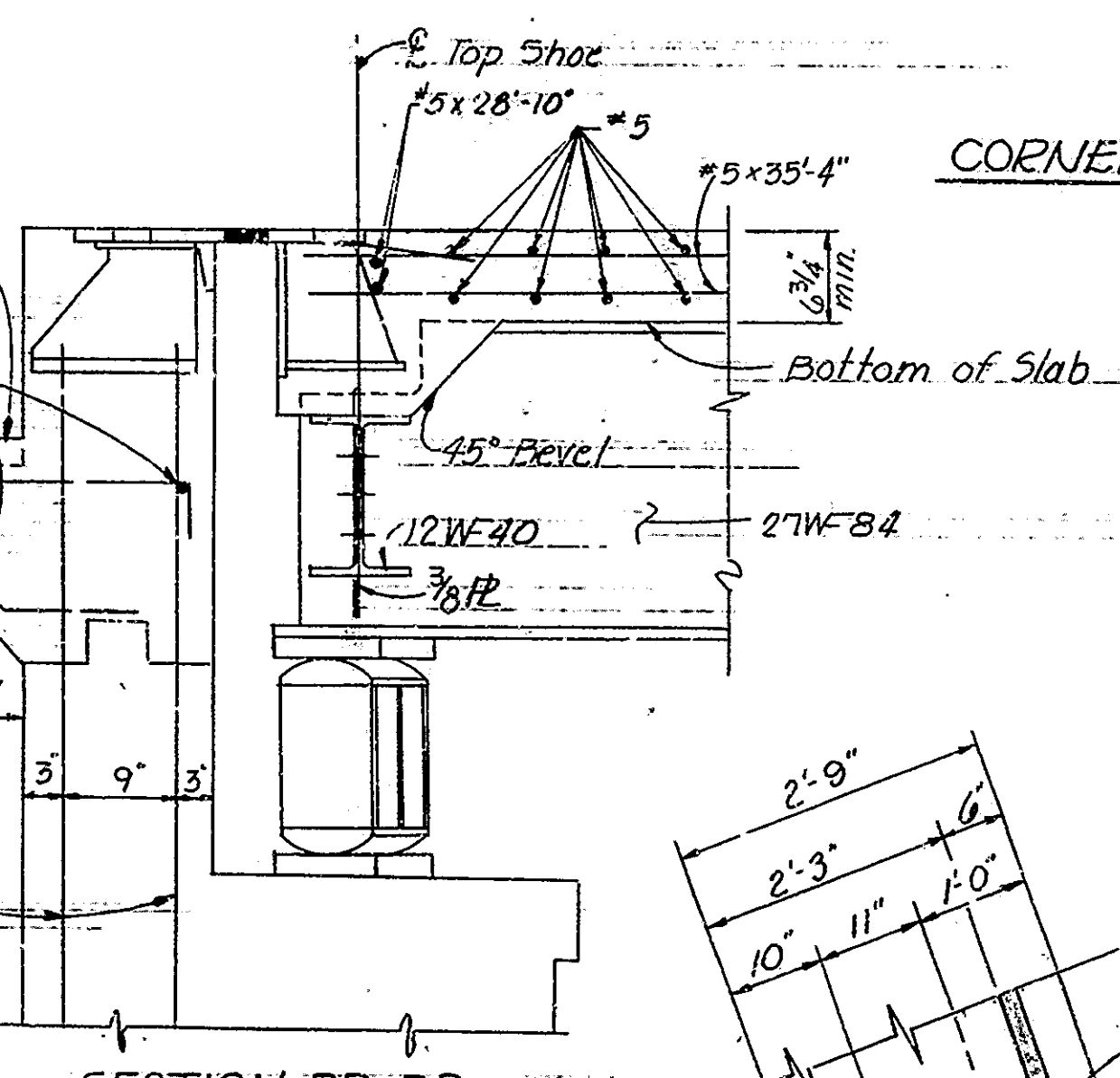
NOTE
For notch in slab at end of beams, see Bridge Standard C1.



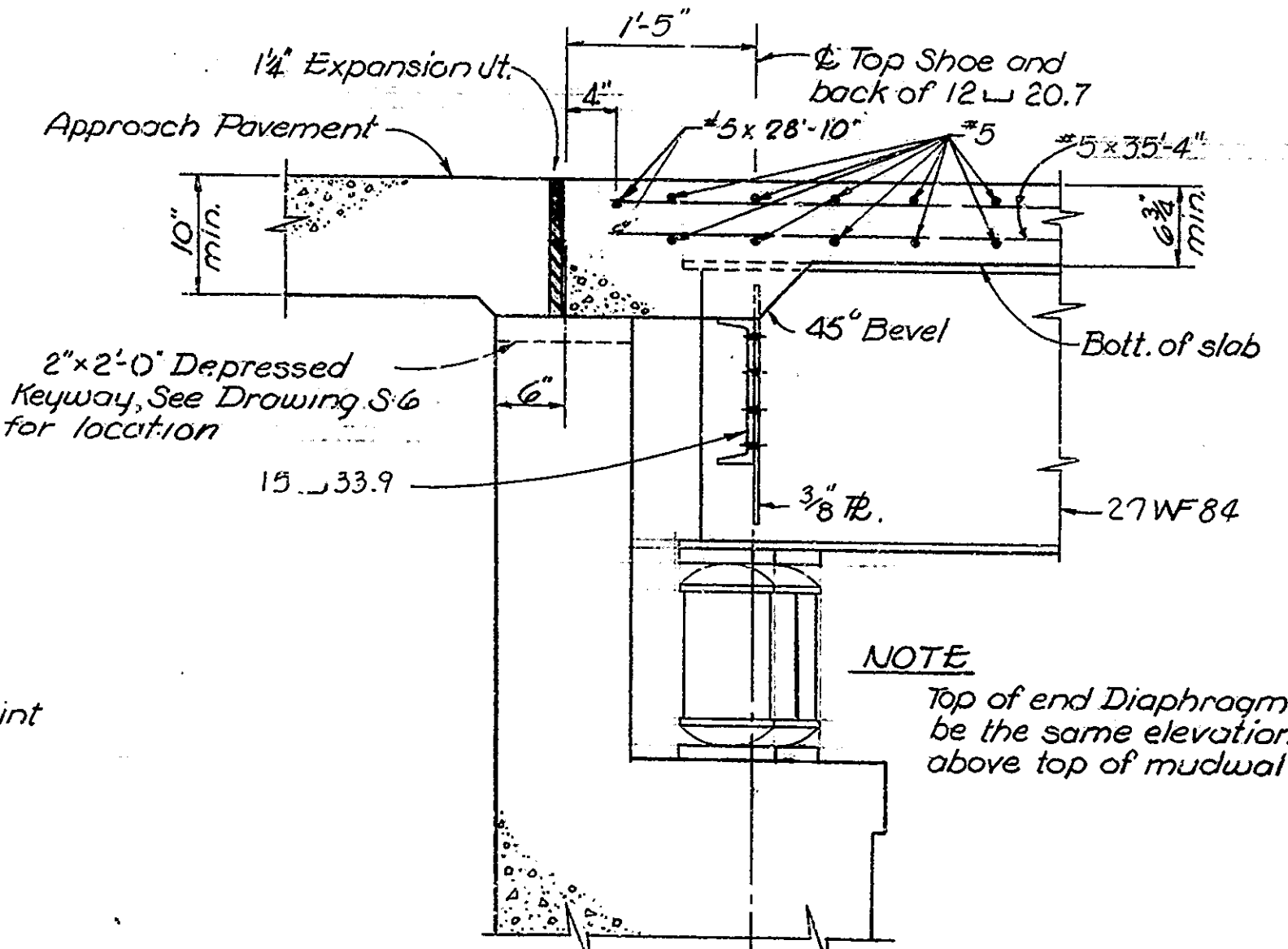
VIEW F-F
Scale: 1/2" = 1'-0"



Elev. 772.94 EB
Elev. 773.58 WB
#4x30'-0" billed with slab
2"x2'-0" Depressed Keyway See Drawing S6 for location
409a billed with slab
45° Bevel

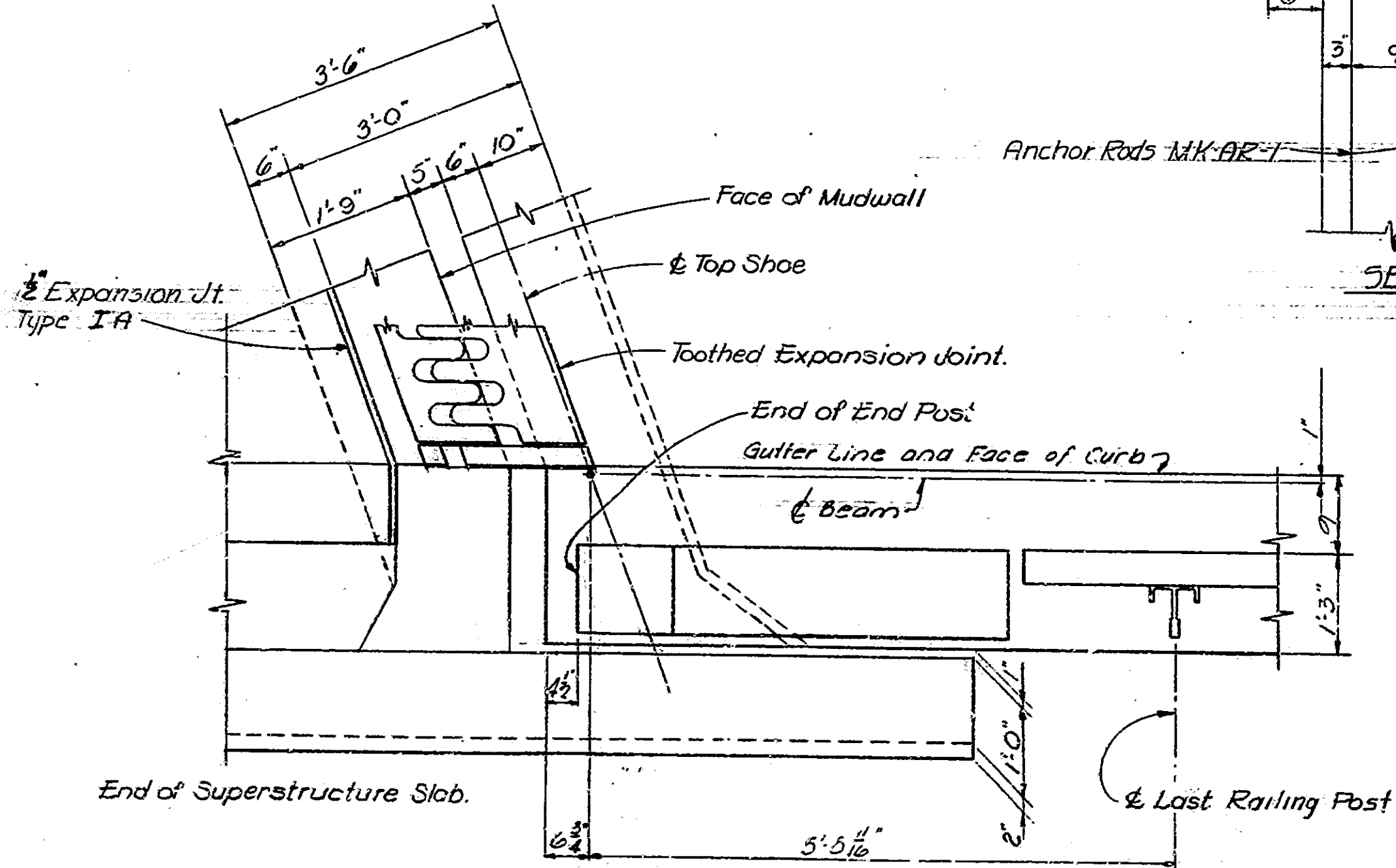


SECTION DD-DD
Scale: 1" = 1'-0"

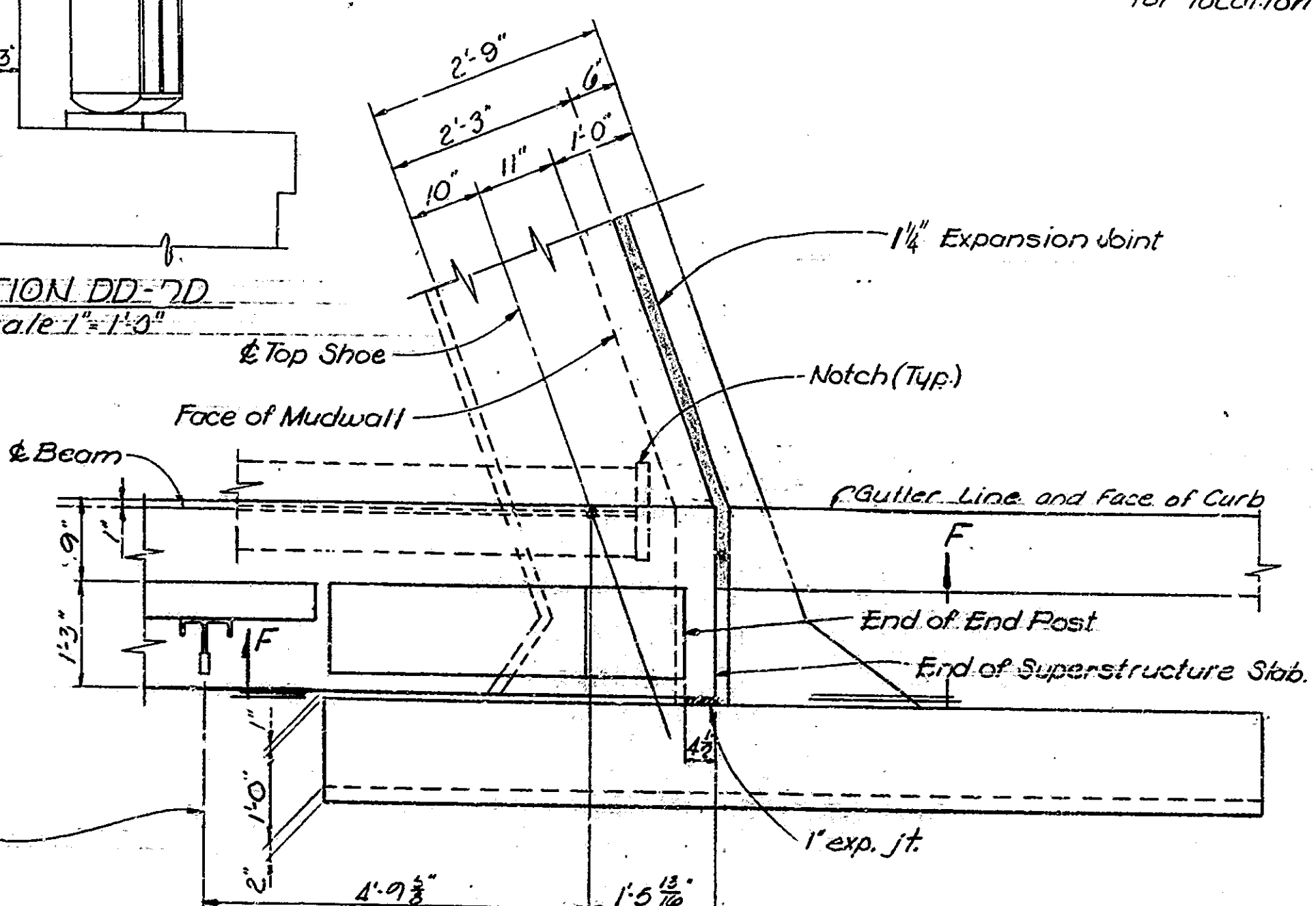


SECTION EE-EE
Scale: 1" = 1'-0"

NOTE
Top of end Diaphragm to be the same elevation or above top of mudwall.



CORNER DETAIL BENT 1 EB & WB
Scale: 3/4" = 1'-0"



CORNER DETAIL BENT 5 EB & WB
Scale: 3/4" = 1'-0"

SUPERSTRUCTURE DETAIL
INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED JUNE 1, 1965

SUBMITTED FOR APPROVAL: Tom L. Edwards, P.E.

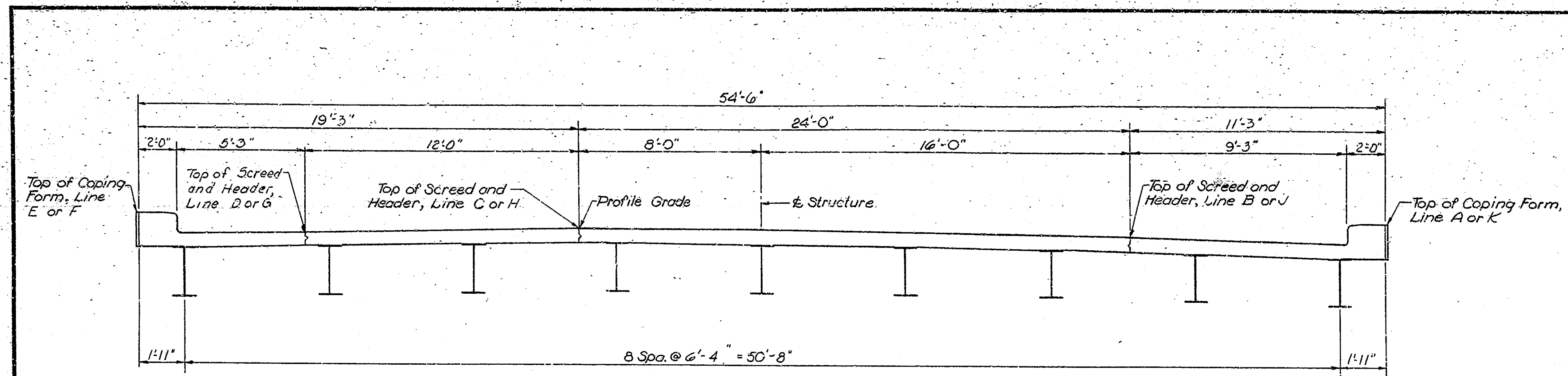
DRAWING: 521 OF 23
PROJECT: I-465-4 (129) 127
BRIDGE CONTRACT NO. R-7391
BRIDGE FILE: I-465-128-5286

DESIGNED	G.E.A.	C.R.D.	F.M.D.
DRAWN	C.W.S.	C.R.D.	F.M.D.
TRACED		C.R.D.	

Rev. 2-9-67 EXP. JT.
Rev. 10-10-66 Diaphragm Connection (N&R)

PROJECT NO.	LINE	SHEET	TOTAL SHEETS	FILE
I-465-4 (129) 127	23	23	34	I-465-128-5286

BRIDGES OVER 20' SPAN				
PUB. HOUS. RES. NO.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.	1-465-4 (129) 127	1965	24
				34



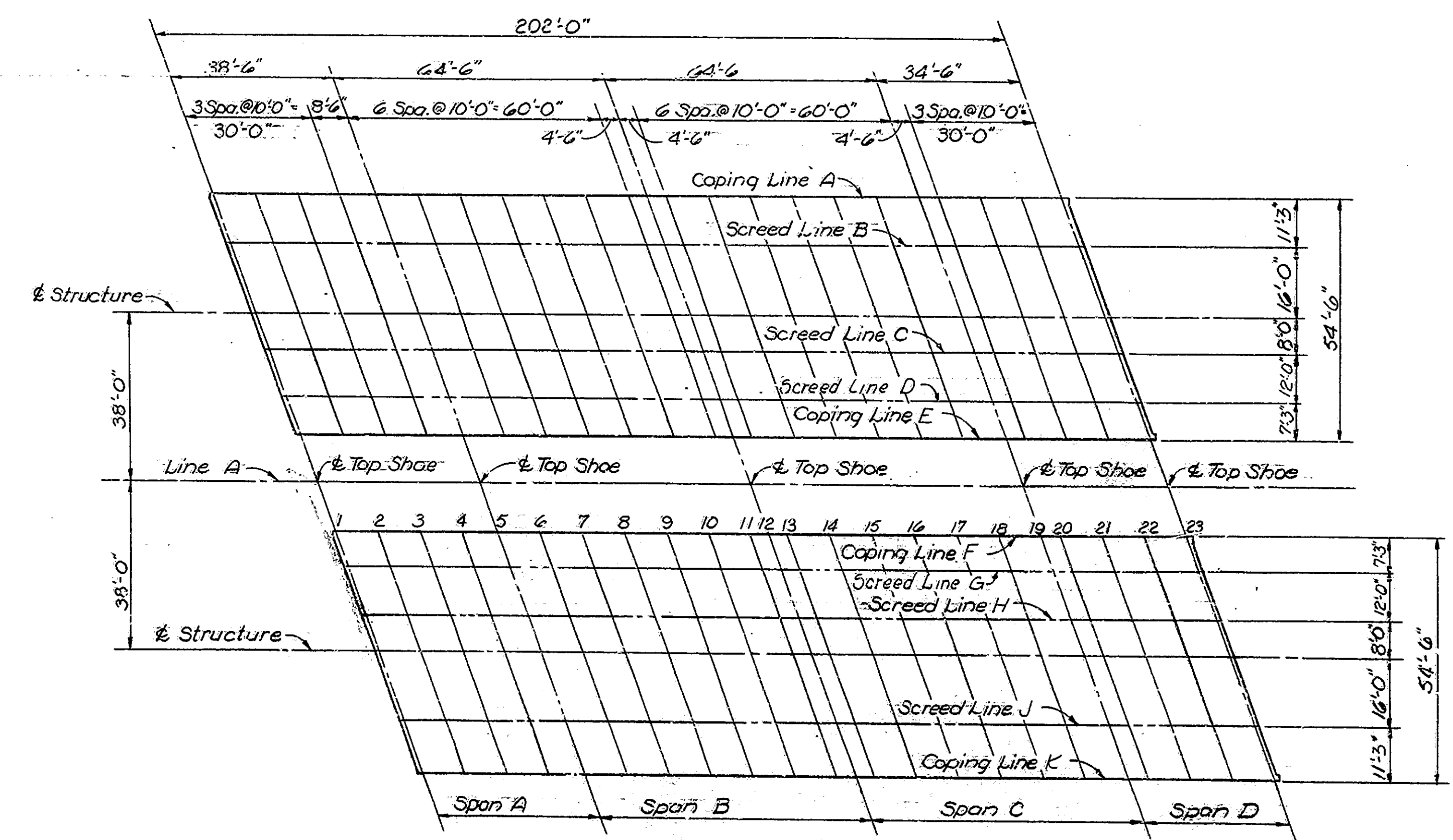
CROSS-SECTION FOR SCREEDS
Scale: $\frac{3}{8}'' = 1'-0''$

(Eastbound Lanes shown - Westbound Lanes opposite hand)

SUPERSTRUCTURE GENERAL PROCEDURE

1. After the structural steel is erected, adjust the superstructure longitudinally so that the distance "C" at Bent "1" from the centerline of top shoe to the face of mudwall is equal to dimension "C" in Table II for prevailing temperature. Dimension "C" is measured parallel to roadway.
2. With the superstructure in the adjusted position called for in (1) above, weld the anchor plates for the fixed shoes at bent number 4.
3. Adjust the expansion plates under each expansion shoe in accordance with Dimension "A" or "B" shown on Drawing S16 for the prevailing temperature. Note that Dimension "A" is always the distance from a vertical line through the centerline of top shoe in a direction away from the fixed shoe. Weld the anchor plates.
4. Set steel expansion joint and adjust it to proper elevation using the double nuts for adjustment.
5. Adjust steel expansion joint transversely to make openings "F" between teeth equal and openings "D" to the dimensions shown in Table II on Drawing S17 for the prevailing temperature.
6. After the shoes are set, take elevations of all screed points on top of the adjacent beams. Enter these elevations in the "Table of Elevations", Drawing S23. Subtract these elevations from the tabulated elevations and use the resulting dimension as the height for setting the screed or coping form above that point. This dimension remains constant regardless of how much or in what order the concrete is poured. Do not set screeds or coping forms by leveling.
7. No concrete in the floor is to be poured until the above operations are completed.

GENERAL NOTES: See Drawing S 16 for General Notes.



PLAN OF SCREEDS
Scale: $1'' = 20'-0''$

SCREED DETAILS

INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED JUNE 1, 1965

SUBMITTED FOR APPROVAL: *Tom B. Woodward, P.E.*

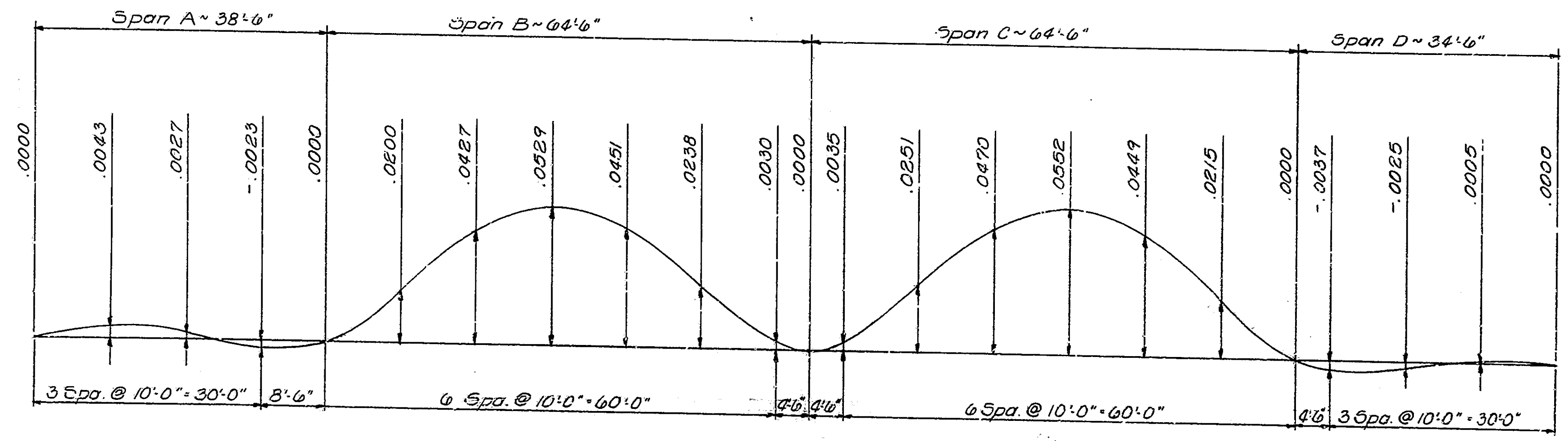
DRAWING: 522 of 23
PROJECT: I-465-4(129) 127
BRIDGE CONTRACT NO. R-739/
BRIDGE FILE: I-465-128-5276

DESIGNED	G.E.A.	C.K.D.	D.W.D.
DRAWN	C.N.S.	C.K.D.	D.W.D.
TRACED		C.K.D.	

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS
1-465-4(129)	A	22	34

BRIDGES OVER 20' SPAN					
PUB. ROAD RES. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-445-4 (129) 127	1965	25	34

LINE	POINT	SPAN "A"					SPAN "B"						SPAN "C"						SPAN "D"								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
A	Elev. at top of coping form	774.325	774.240	774.145	774.045	773.965	773.865	773.805	773.710	773.595	773.460	773.330	773.215	773.225	773.180	773.030	772.915	772.780	772.625	772.475	772.310	772.180	772.005				
	Elev. at top of beam																										
	Dist. top of beam to top of coping																										
B	Elev. at top of screed	775.600	775.515	775.415	775.315	775.235	775.150	775.070	774.975	774.860	774.725	774.590	774.535	774.485	774.390	774.290	774.170	774.035	773.880	773.730	773.665	773.530	773.395	773.255			
	Elev. at top of beam																										
	Dist. top of beam to top of screed																										
C	Elev. at top of screed	775.765	775.680	775.580	775.475	775.390	775.310	775.225	775.125	775.005	774.870	774.735	774.675	774.625	774.525	774.425	774.305	774.165	774.010	773.855	773.790	773.655	773.515	773.375			
	Elev. at top of beam																										
	Dist. top of beam to top of screed																										
D	Elev. at top of screed	775.630	775.540	775.440	775.335	775.250	775.165	775.080	774.980	774.860	774.725	774.585	774.530	774.480	774.375	774.275	774.155	774.015	773.855	773.700	773.635	773.495	773.360	773.215			
	Elev. at top of beam																										
	Dist. top of beam to top of screed																										
E	Elev. at top of coping form	776.355	776.265	776.165	776.060	775.975	775.890	775.805	775.700	775.580	775.445	775.305	775.245	775.195	775.095	774.990	774.870	774.730	774.570	774.415	774.350	774.210	774.070	773.925			
	Elev. at top of beam																										
	Dist. top of beam to top of coping																										
F	Elev. at top of coping form	776.280	776.185	776.085	775.975	775.890	775.800	775.710	775.610	775.485	775.345	775.205	775.150	775.095	774.990	774.885	774.765	774.620	774.460	774.300	774.235	774.095	773.950	773.805			
	Elev. at top of beam																										
	Dist. top of beam to top of coping																										
G	Elev. at top of screed	775.500	775.405	775.305	775.195	775.105	775.020	774.930	774.825	774.705	774.565	774.420	774.365	774.310	774.205	774.100	773.975	773.830	773.670	773.510	773.445	773.305	773.160	773.010			
	Elev. at top of beam																										
	Dist. top of beam to top of screed																										
H	Elev. at top of screed	775.550	775.465	775.365	775.240	775.150	775.060	774.975	774.870	774.745	774.600	774.440	774.380	774.345	774.240	774.135	774.010	773.865	773.700	773.540	773.475	773.330	773.185	773.035			
	Elev. at top of beam																										
	Dist. top of beam to top of screed																										
I	Elev. at top of screed	775.210	775.110	775.005	774.895	774.800	774.710	774.620	774.510	774.385	774.240	774.095	774.035	773.980	773.875	773.760	773.635	773.490	773.325	773.160	773.090	772.945	772.800	772.650			
	Elev. at top of beam																										
	Dist. top of beam to top of screed																										
K	Elev. at top of coping form	775.655	775.555	775.450	775.335	775.245	775.160	775.070	774.970	774.855	774.730	774.670	774.615	774.505	774.395	774.265	774.120	773.955	773.790	773.720	773.575	773.425	773.275				
	Elev. at top of beam																										
	Dist. top of beam to top of coping																										



CONCRETE DEFLECTION DIAGRAM
 Scale: Vertical - 1" = 0.03'
 Horizontal - 1" = 10.00'

DESIGNED: FND CKD: GEA
 DRAWN: BDB CKD: GEA
 TRACED: CKD

SCREED DETAILS
INDIANA STATE HIGHWAY COMMISSION
 SCALE: AS NOTED
 SUBMITTED FOR APPROVAL: Tom L. Underwood, P.E.
 DRAWING: 523 OF 23
 PROJECT: I-445-4 (129) 127
 BRIDGE CONTRACT NO. E-7391
 BRIDGE FILE: I-445-128-5276

