

**STARK COUNTY
STA-30-18.66**

Backwall Elevations are given at this point (1/4" below top of Asphalt Concrete)

BACKWALL CONCRETE:
In addition to the provisions of 511.08, backwall concrete above the optional construction joint at the approach slab seat shall not be placed until after the deck concrete in the span adjacent to the abutment has been placed.
BEARING ANCHORS:
At the option of the Contractor, bearing anchors (or formed holes), located and supported by templates, may be cast in place.

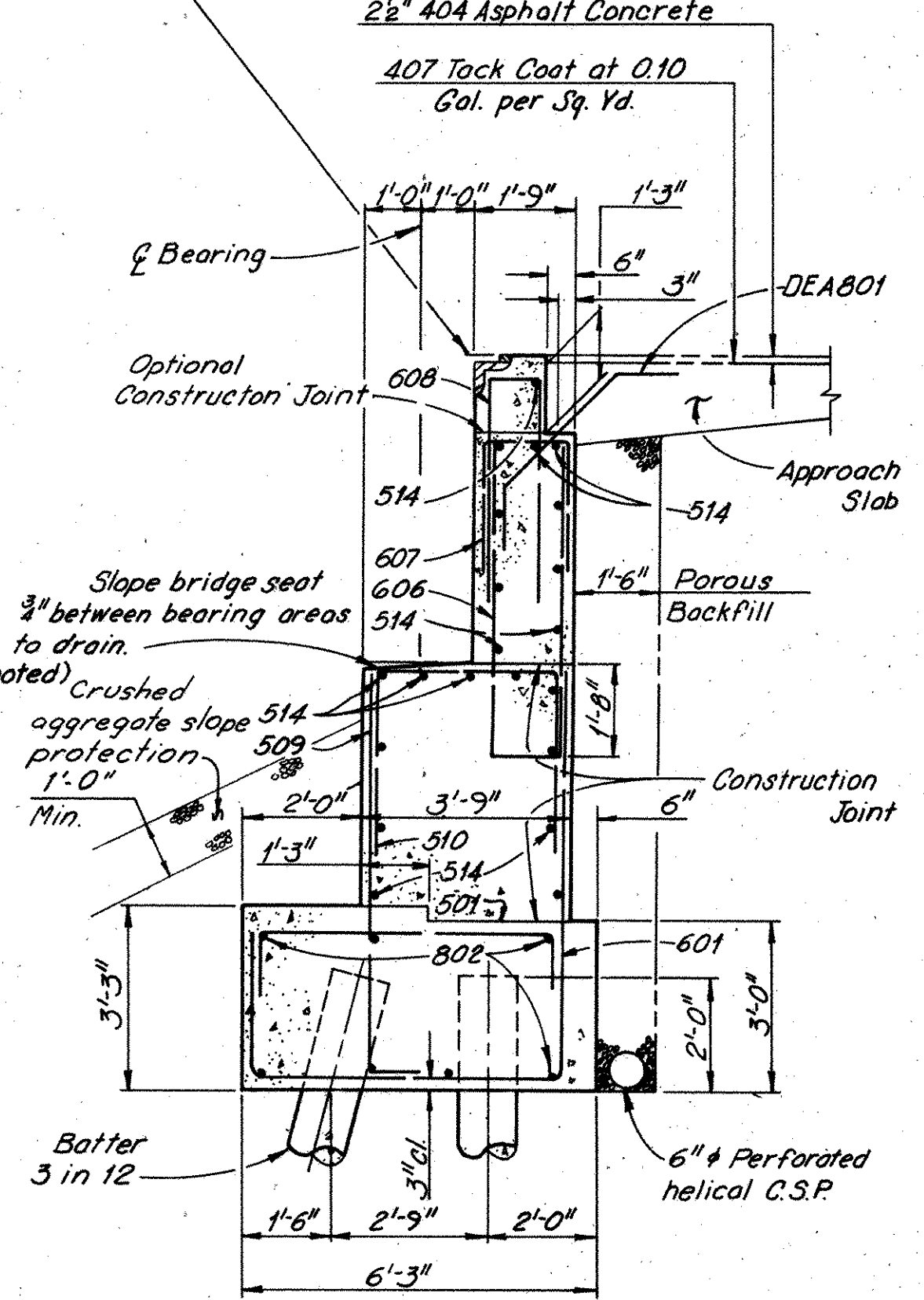
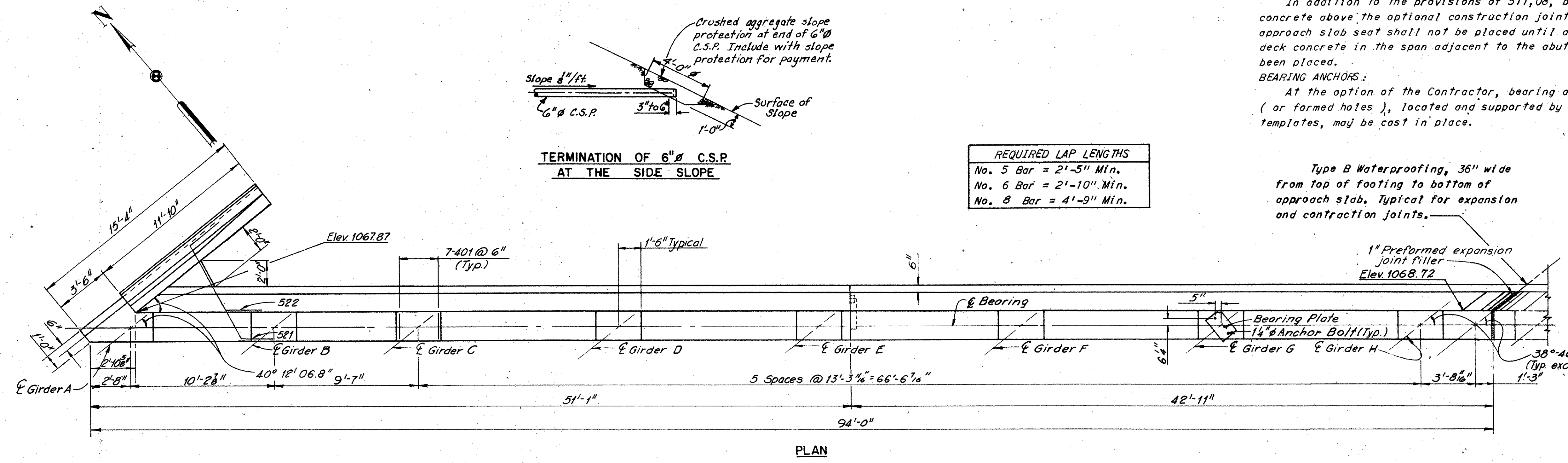
TERMINATION OF 6" C.S.P. AT THE SIDE SLOPE

Crushed aggregate slope protection at end of 6" C.S.P. Include with slope protection for payment.

Slope 8"/ft. 6" C.S.P. 3" to 6" Surface of Slope 1'-0"

REQUIRED LAP LENGTHS
No. 5 Bar = 2'-5" Min.
No. 6 Bar = 2'-10" Min.
No. 8 Bar = 4'-9" Min.

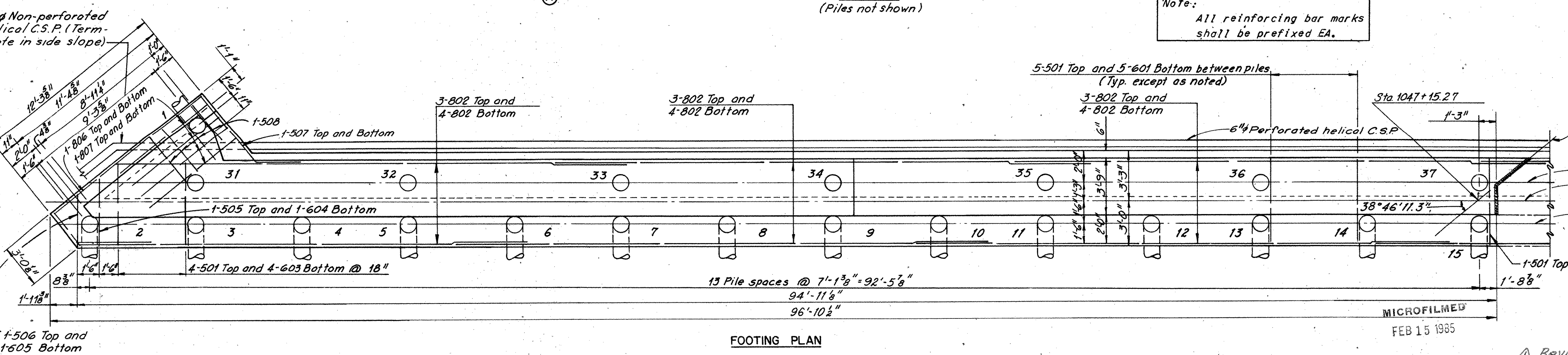
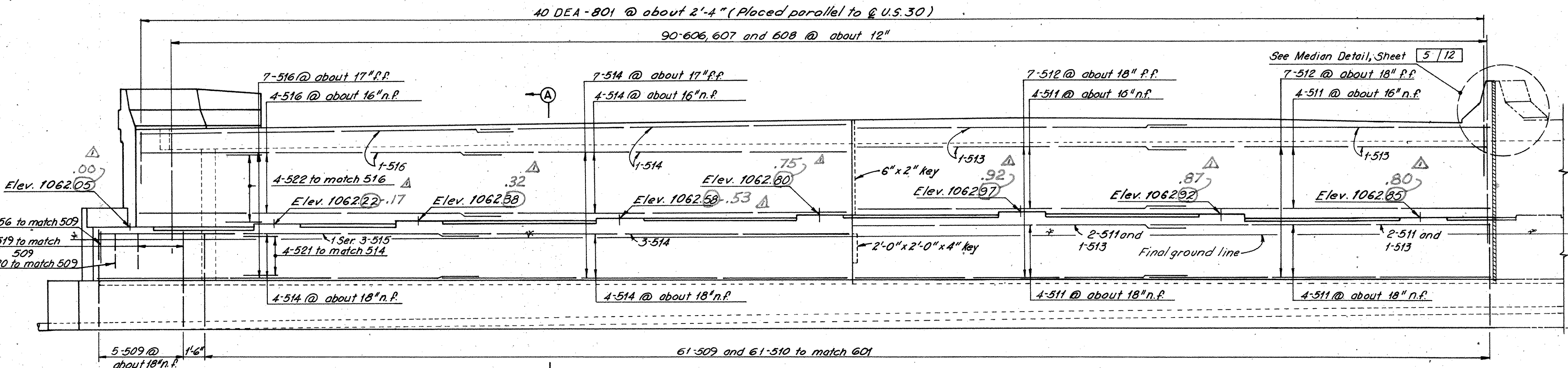
Type B Waterproofing, 36" wide from top of footing to bottom of approach slab. Typical for expansion and contraction joints.



Notes:
For roadway end dam details see Ohio Standard Drawing SD-1-69, Sheets 1 and 2 of 4, and Sheet CD3.
401 bars shall be placed 2 1/4" below top of bridge seat.
For reinforcement schedule, see Sheet R1.

Shear keys at contraction joints shall be centered between front and back faces.
All battered piles are battered 3 in 12.
Pile dimensions are measured along bottom of footing.
All piles are 12" dia cast-in-place reinforced concrete.
Special care shall be taken during placing of reinforcing under bearing plates to avoid interference with anchor bolts.
Parapet transitions shall be as shown on these sheets. Reinforcing steel shall be field bent or cut to fit the revised shape.

The following abbreviations are used:
n.f. = near face e.f. = each face
f.f. = far face Typ. = Typical
cl. = clear Ser. = Series
C.S.P. = Corrugated Steel Pipe



H.N.T.B. BRIDGE No. 20A

HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

EAST ABUTMENT
U.S. 30 OVER N.&W. R.R.
BR. NO. STA-30-1646 STA 1044+40.69
STA 1047+18.86

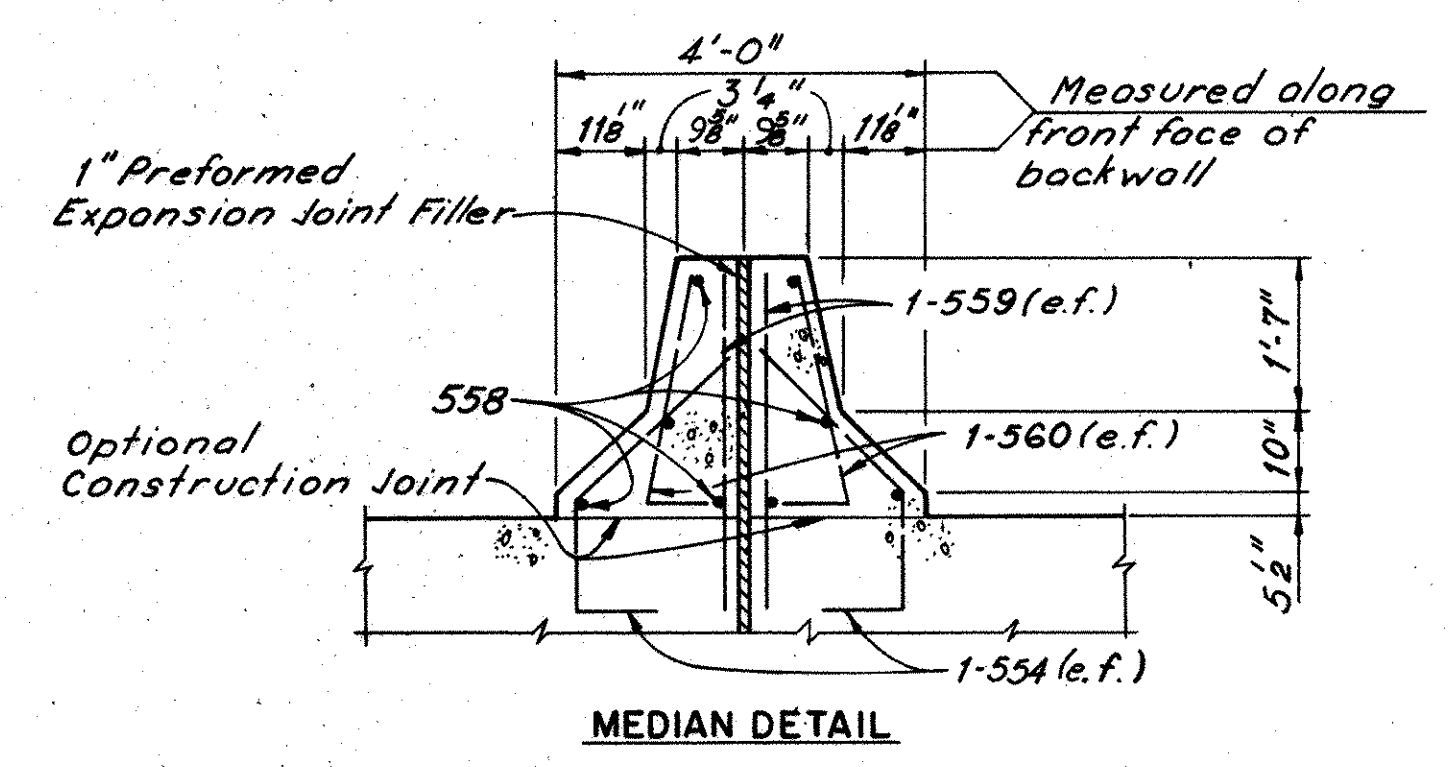
RELOCATED U.S. 30
CANTON STARK COUNTY OHIO

DATE 2-23-78	TRACED T.W./M.	CHECKED P.A.S.	REVIEWED	REVISION
	DATE 2-23-78	DATE 3-10-79	DATE	

MICROFILMED FEB 15 1985

Revised 4-27-82

STARK COUNTY
STA-30-15.66



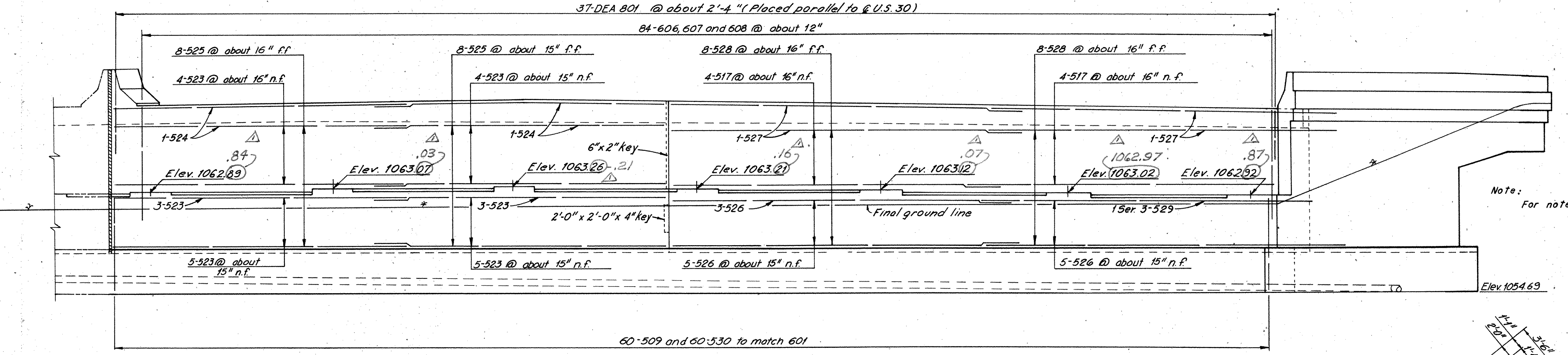
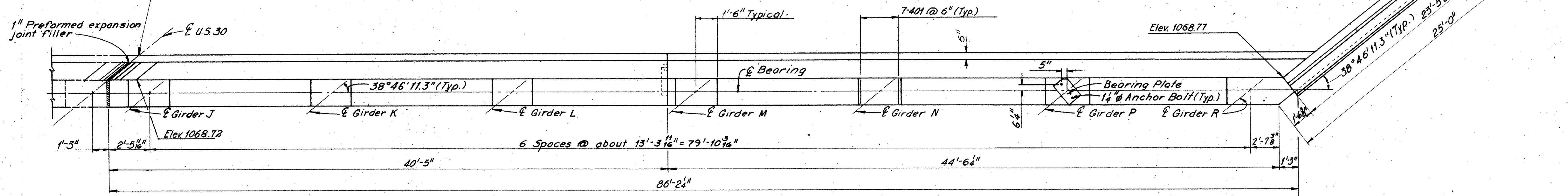
REQUIRED LAP LENGTHS

No. 5 Bar = 2'-5" Min.

No. 6 Bar = 2'-10" Min.

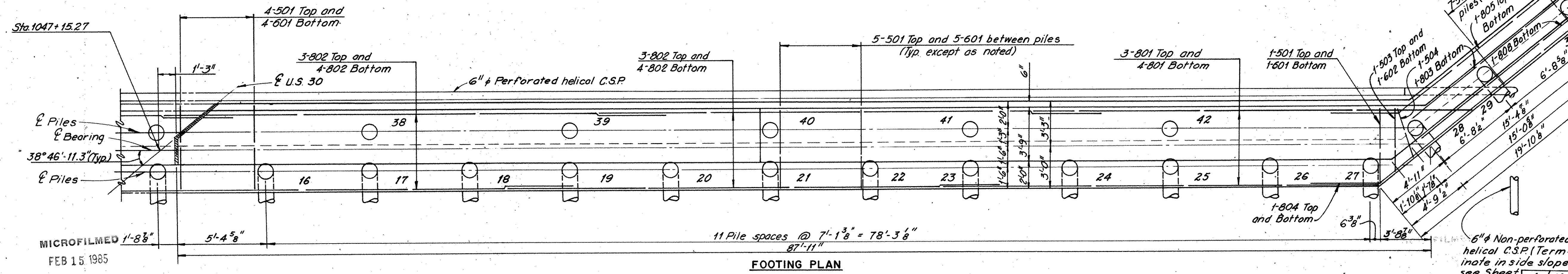
No. 8 Bar = 4'-9" Min.

Type B Waterproofing, 36" wide from top of footing to bottom of approach slab. Typical for expansion and contraction joints.



Note: For notes, see Sheet 4/12

Note: All reinforcing bar marks shall be prefixed EA.



H.N.T.B. BRIDGE No. 20A A Revised 4-27-82

HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

EAST ABUTMENT
U.S. 30 OVER N.&W. R.R.
BR. NO. STA-30-1646 STA 1044+40.69
STA 1047+18.66

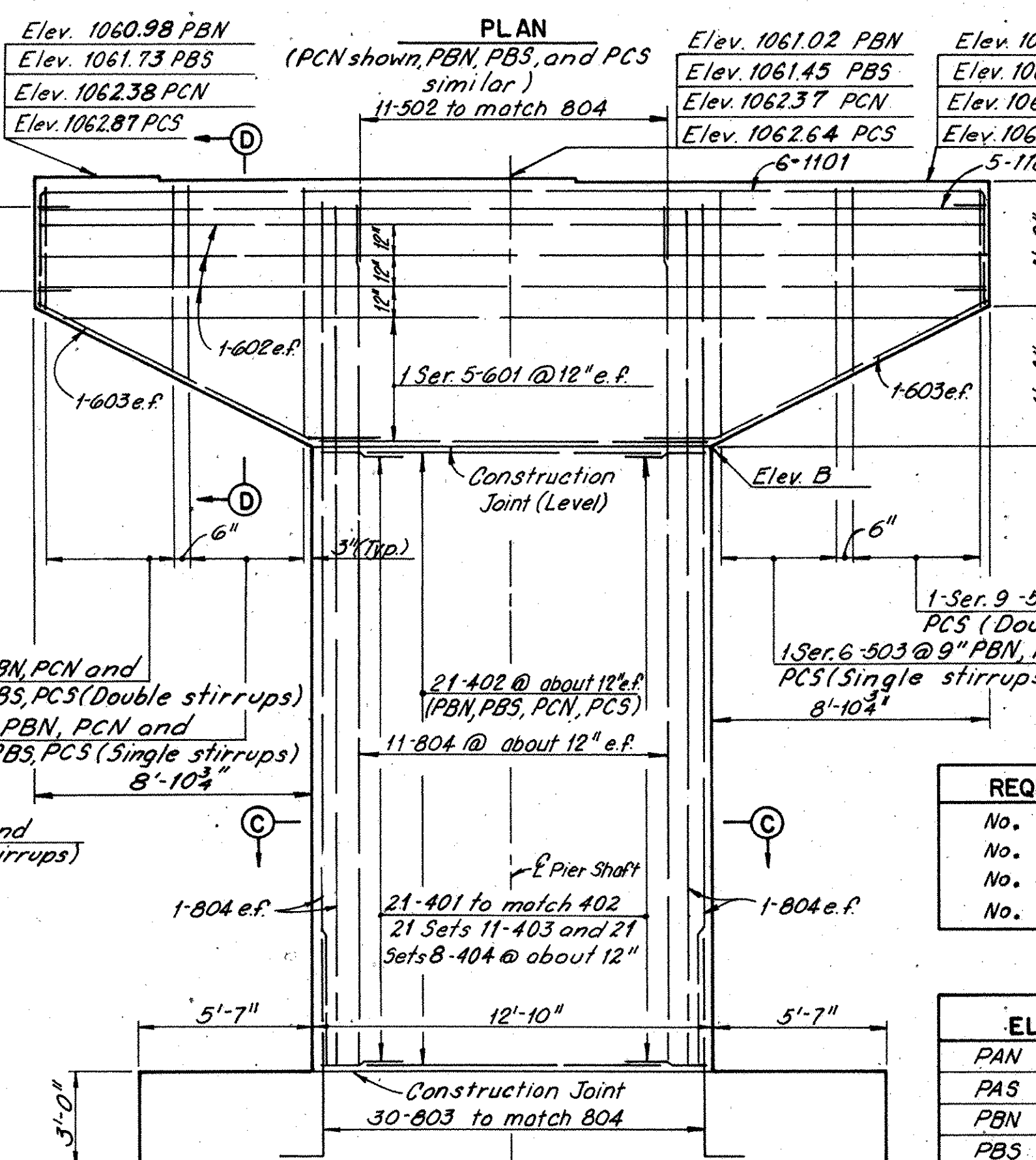
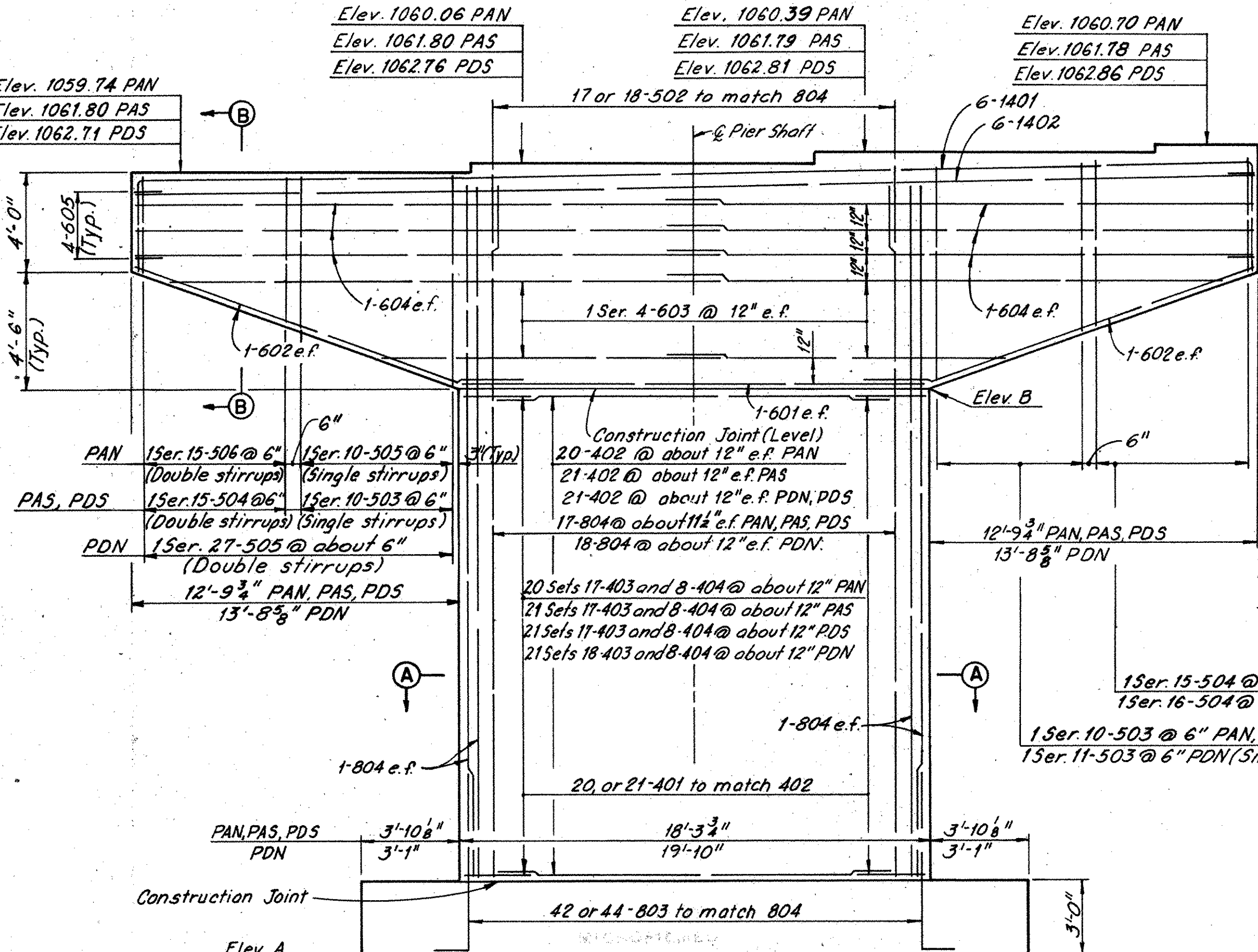
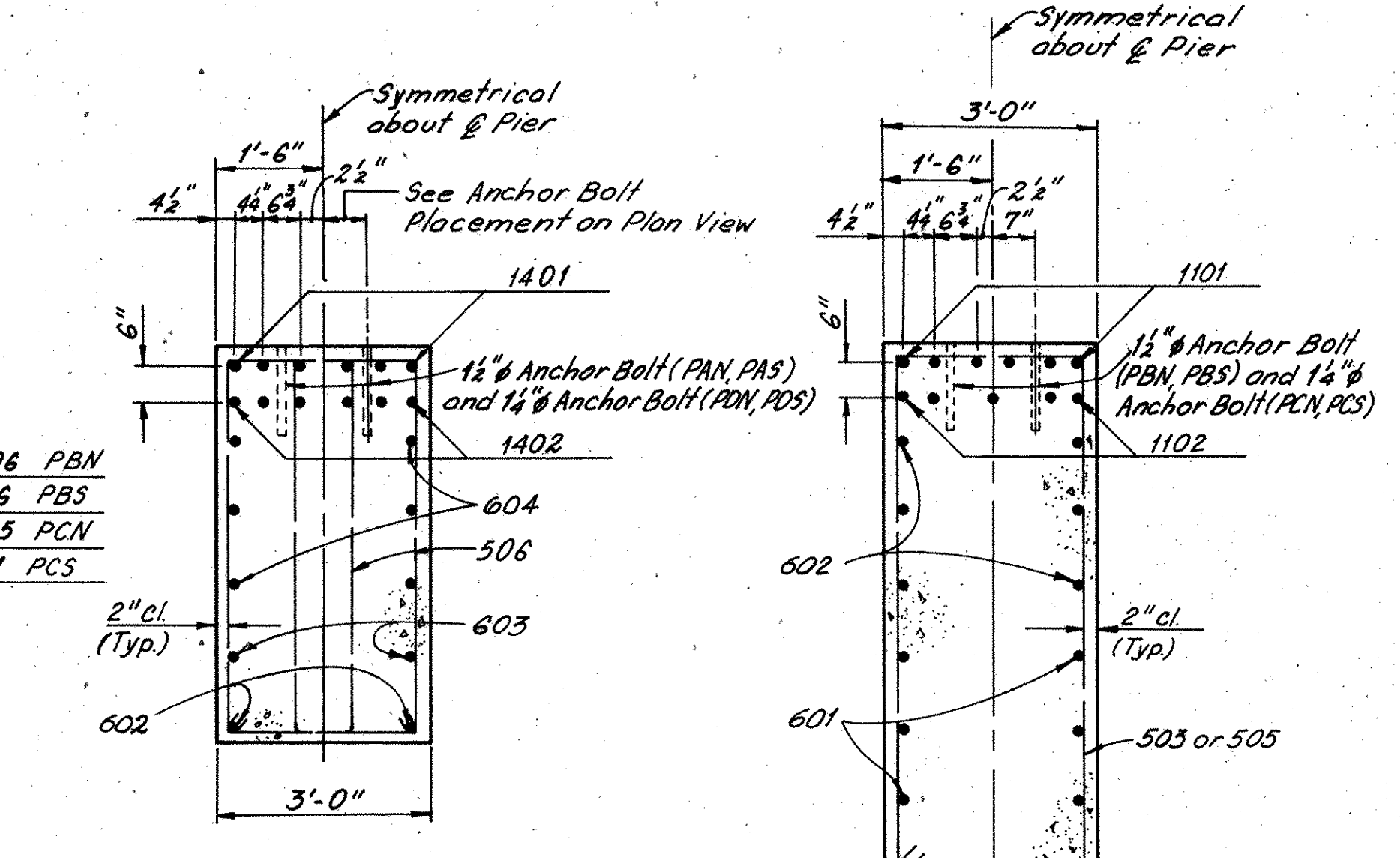
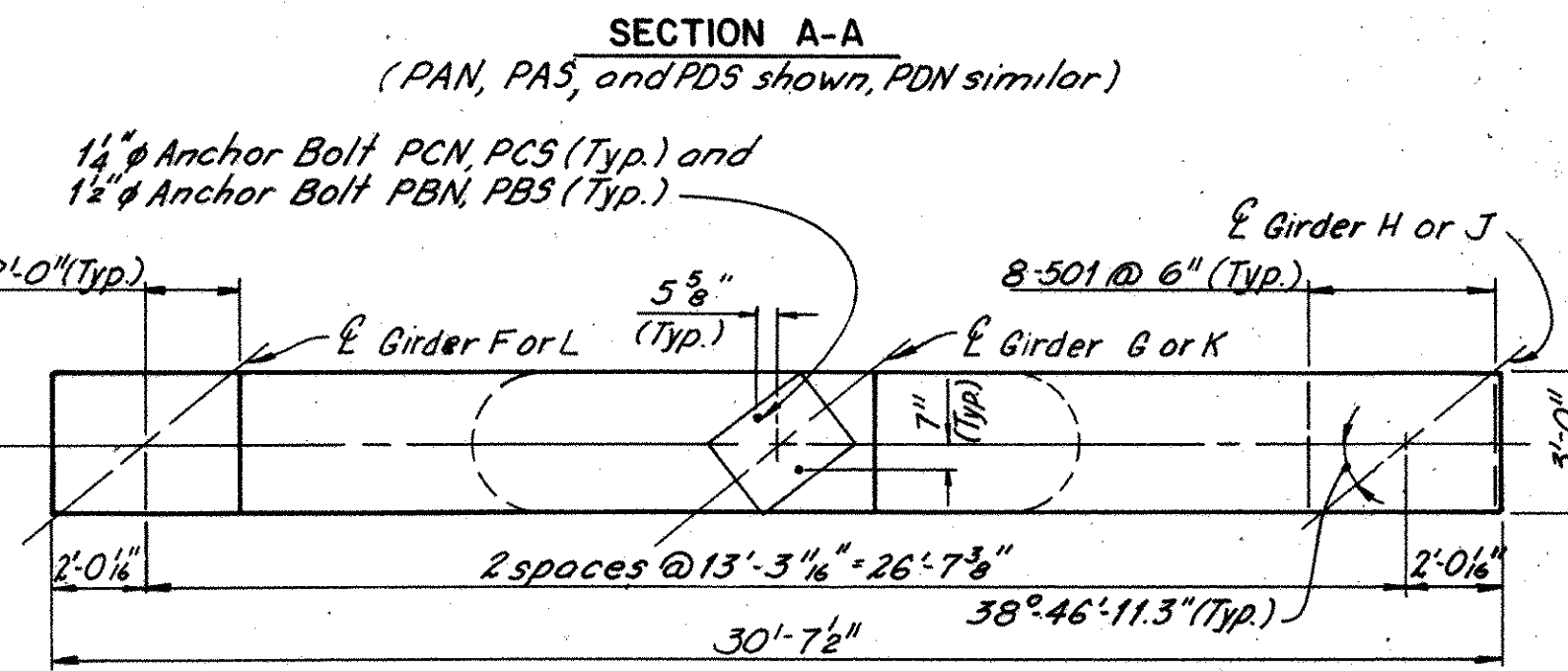
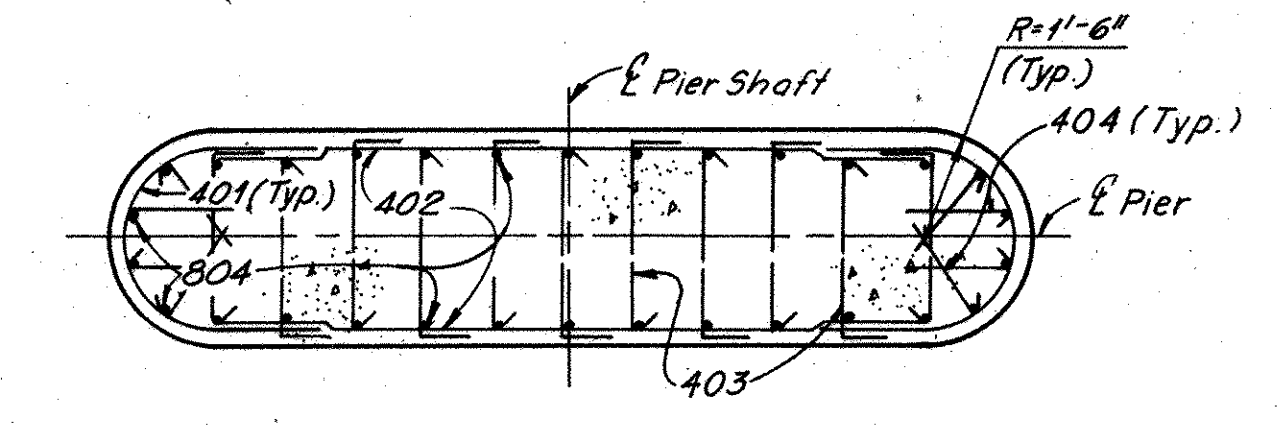
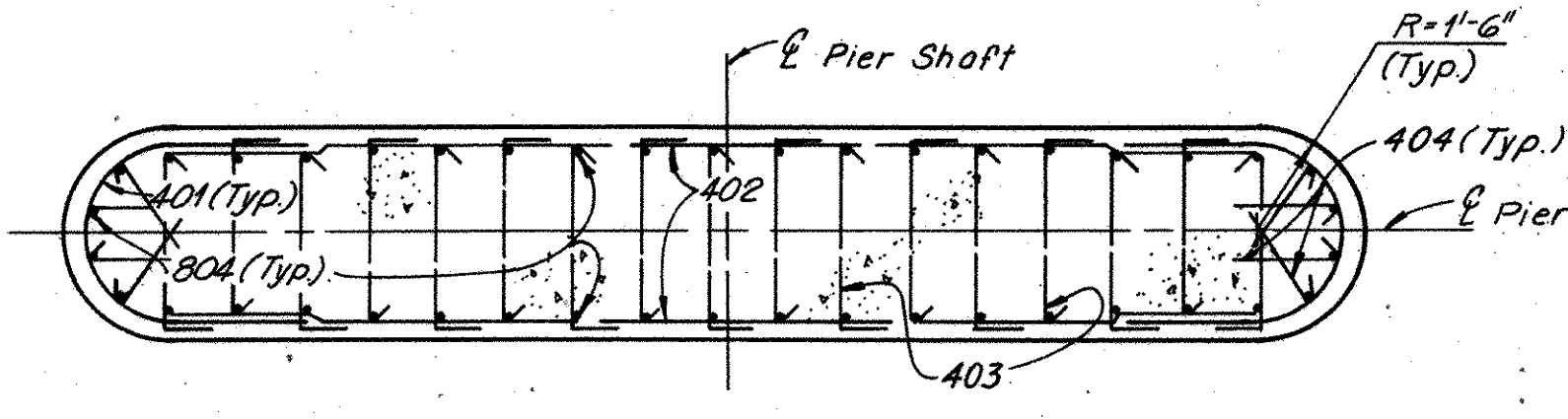
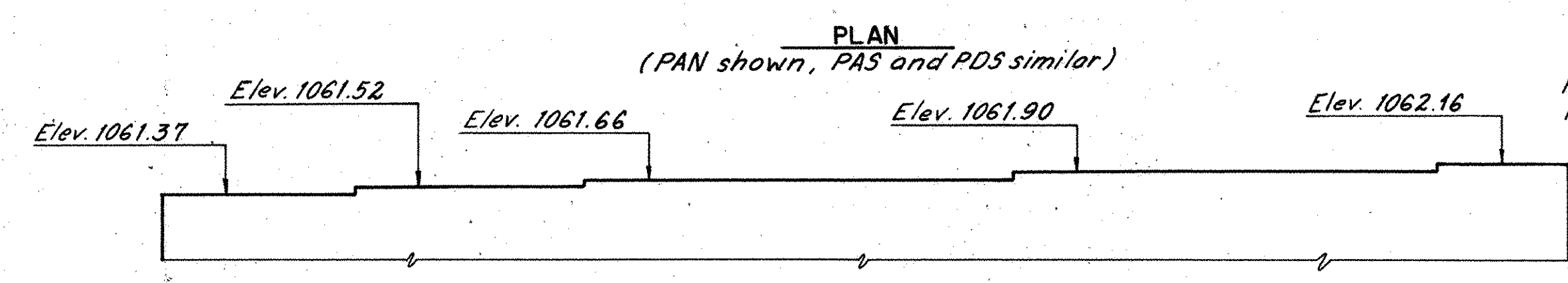
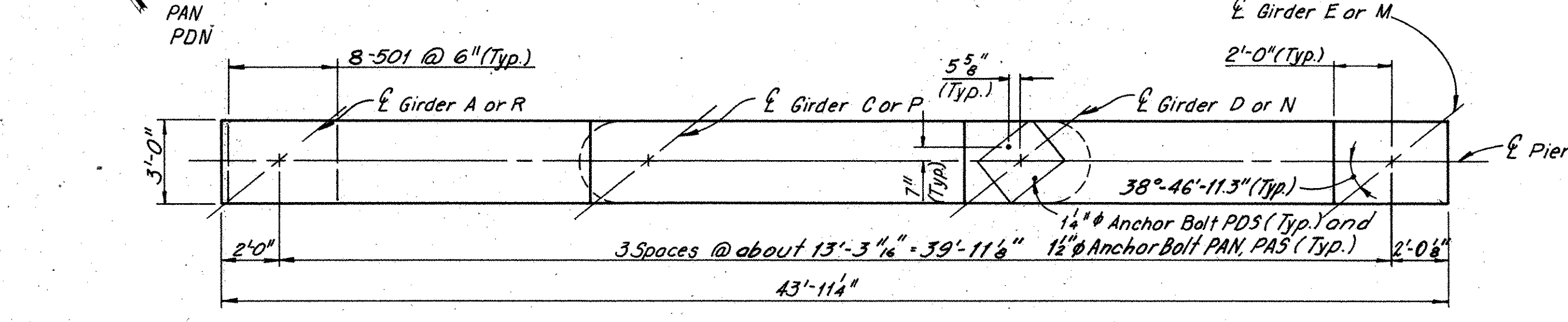
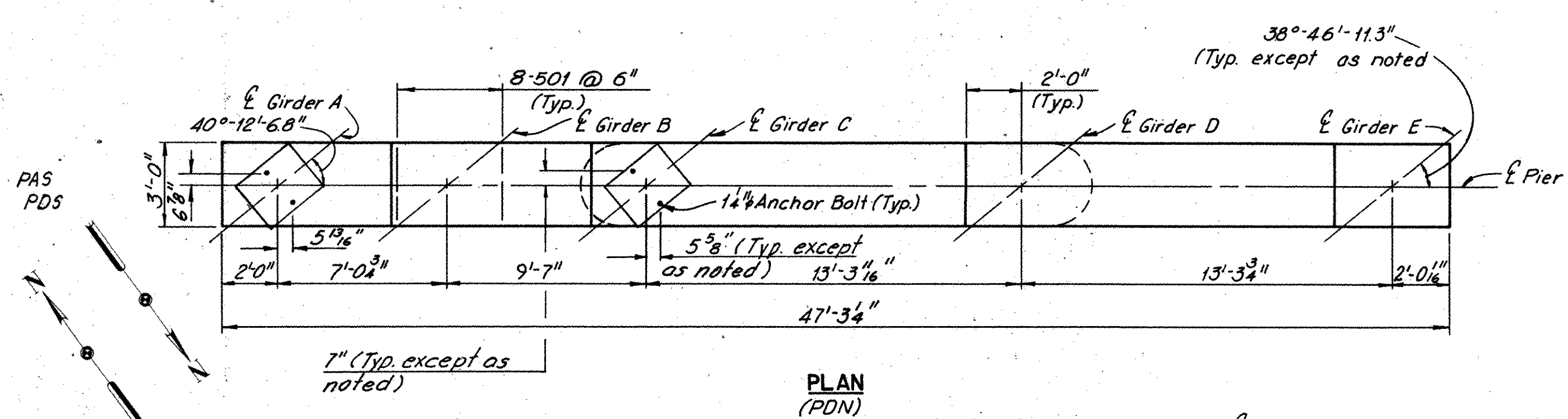
RELOCATED U.S. 30
CANTON STARK COUNTY OHIO

DRAWN	TRACED	CHECKED	REVIEWED	REVISED
DATE 2-23-79	DATE 7-11-79	DATE 7-11-79	DATE 5-17-79	DATE

MICROFILMED 1'-8 3/8"
FEB 15 1985

STARK COUNTY
STA-30-15.66

Note:
Top of masonry elevations for Pier 2 are set .01 feet high to allow for 1/8" compression of the elastomeric bearings.



REQUIRED LAP LENGTH	
No. 4 Bar	= 1'-5" Min.
No. 5 Bar	= 1'-4" Min.
No. 6 Bar	= 2'-2" Min.
No. 8 Bar	= 3'-5" Min.

ELEVATION A	
PAN	1029.00
PAS	1030.00
PBN	1029.30
PBS	1029.60
PCN	1030.60
PCS	1030.90
PDN	1030.20
PDS	1031.20

ELEVATION B	
PAN	1051.24
PAS	1053.28
PBN	1052.48
PBS	1052.66
PCN	1053.85
PCS	1053.91
PDN	1052.87
PDS	1054.21

Notes:
At the option of the Contractor, bearing anchors (or formed holes), located and supported by templates, may be cast in place.
Number 14 bars in the top of the exterior caps, may be mechanically spliced in accordance with 509.08. All labor, materials and equipment necessary, shall be included with the unit price bid for Item 509, Reinforcing Steel.
For Reinforcement Schedule, see Sheets R2 and R3.
For Pile Layout, Footing Details and additional notes, see Sheet 7/12.

H.N.T.B. BRIDGE NO. 20A *Revised 4-27-82*
HOWARD, NEEDLES, TAMMEN & BERGENDOFF 8/12
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

PIERS-SHAFTS AND CAPS
U.S. 30 OVER N.&W. R.R.
BR. NO. STA-30-1646 STA 1044+40.69
STA 1047+18.86

RELOCATED U.S. 30
CANTON STARK COUNTY OHIO

DRAWN J.V.	TRACED 7/81	CHECKED P.	REVIEWED	REVISED
DATE 2-27-79	DATE 3-2-79	DATE 8-8-79	DATE	

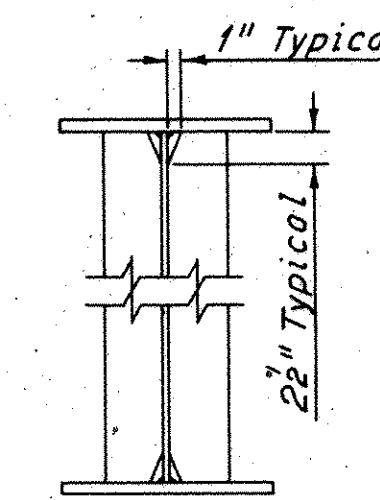
MICROFILMED
FEB 15 1985

MICROFILMED
FEB 15 1985

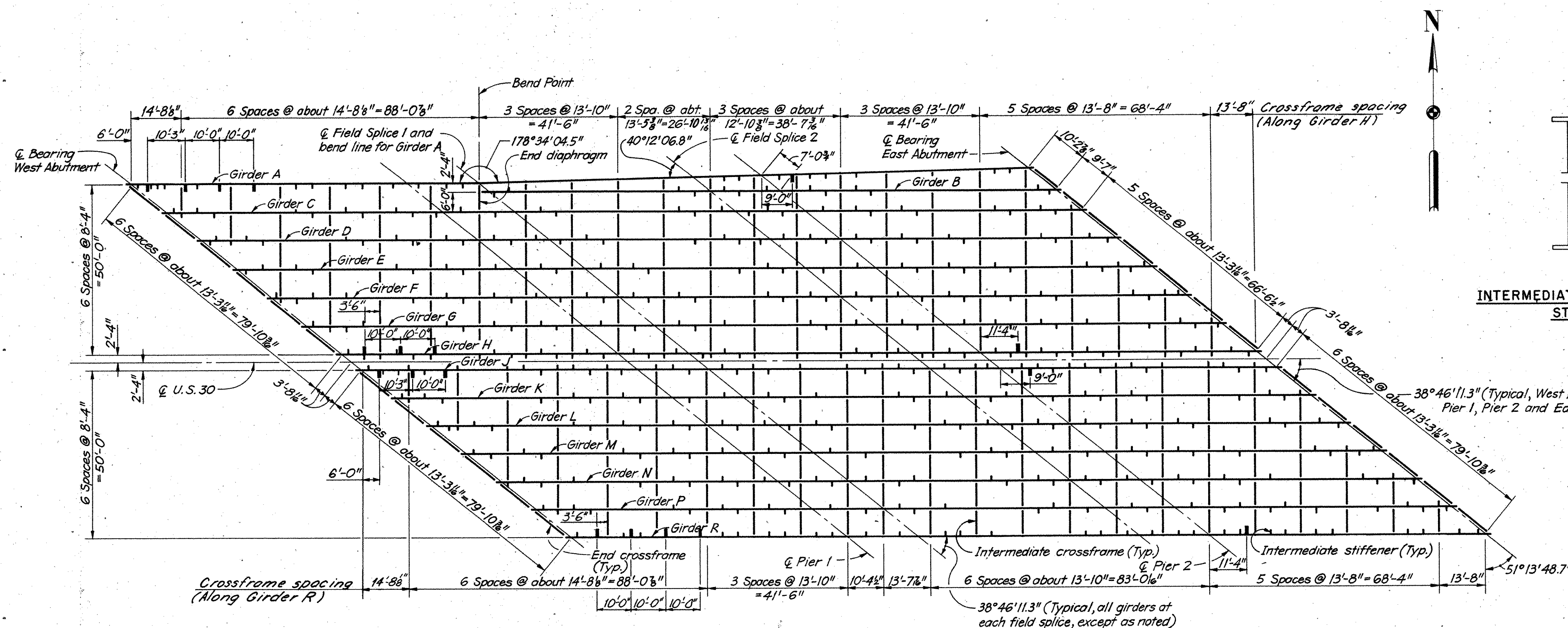
**STARK COUNTY
STA-30-15.66**

Girder Notes:
 All structural steel is ASTM A588.
 Top and bottom flanges are identical in size.
 All intermediate stiffener to web welds shall be 3/8" continuous fillets on both sides of stiffeners.
 All intermediate stiffeners shall be Pts. 1/2 x 5.
 For Camber and Deflection Table see Sheet 10/12.
 All bolts used in girder splice shall be 1" ASTM A490 High Strength bolts, Type B.
 Intermediate stiffeners shall be placed as shown on the framing plan, equally spaced between crossframes or crossframes and bearing stiffeners at pier or crossframes and splices, or crossframe and stiffener adjacent to abutments.
 Intermediate stiffeners shall be placed in pairs at crossframes, except of exterior girders and shall have a tight fit with the tension flange and may have either a tight fit with, or be welded to the compression flange with the fillet welds on both sides of the stiffener. The fillet welds shall be the same size as the web to flange weld at the same location. Intermediate stiffeners which are not placed in pairs shall have a tight fit with the tension flange and shall be welded to the compression flange with fillet welds on both sides of the stiffener. The fillet welds shall be the same size as the web to the flange weld at the same location.
 Bearing stiffeners at piers shall be placed in pairs on all girders.

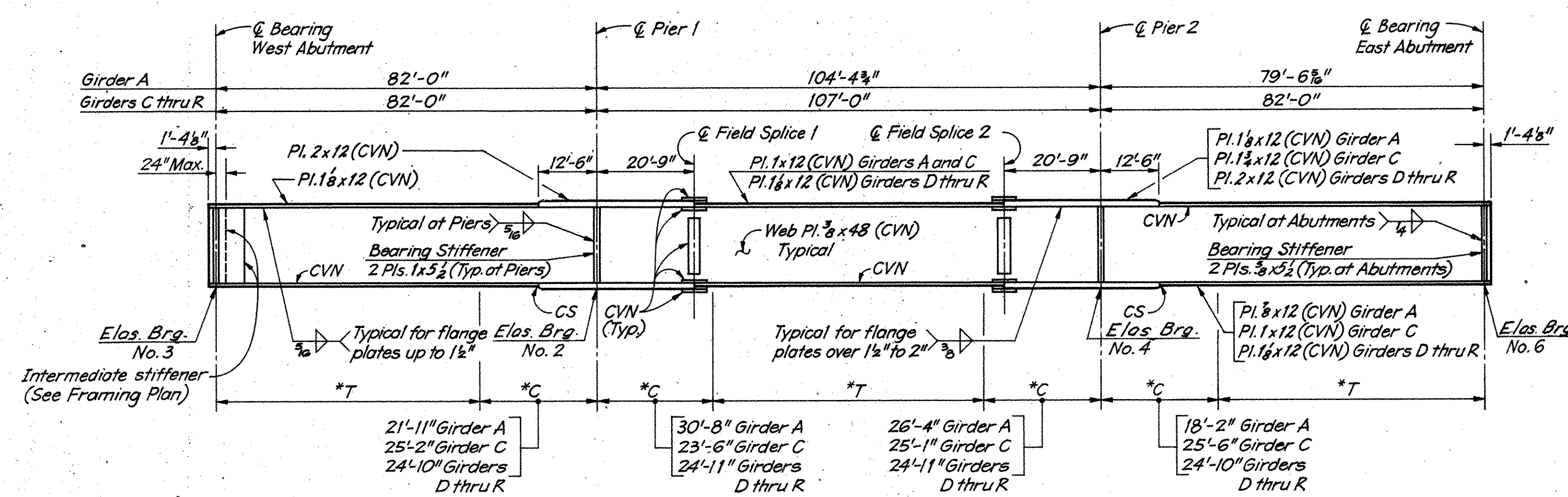
Intermediate stiffeners shall be normal to the girder flange.
 All intermediate and bearing stiffeners shall be clipped at corners as shown on this sheet.
 The girders shall be fabricated to lines parallel to profiles formed by top of pavement elevations directly over girders, plus the camber required to compensate for dead load deflection.
 The allowance to be made in screed settings to compensate for dead load deflections due to concrete and wearing course are to be made above or below the top of the pavement elevations as required. Screeds may require further adjustment due to irregularities in fabricated steel.
 *T denotes area of tension in the bottom flange. The top flange in these areas are in compression.
 *C denotes area of compression in the bottom flange. The top flange in these areas are in tension.
 I denotes scupper.



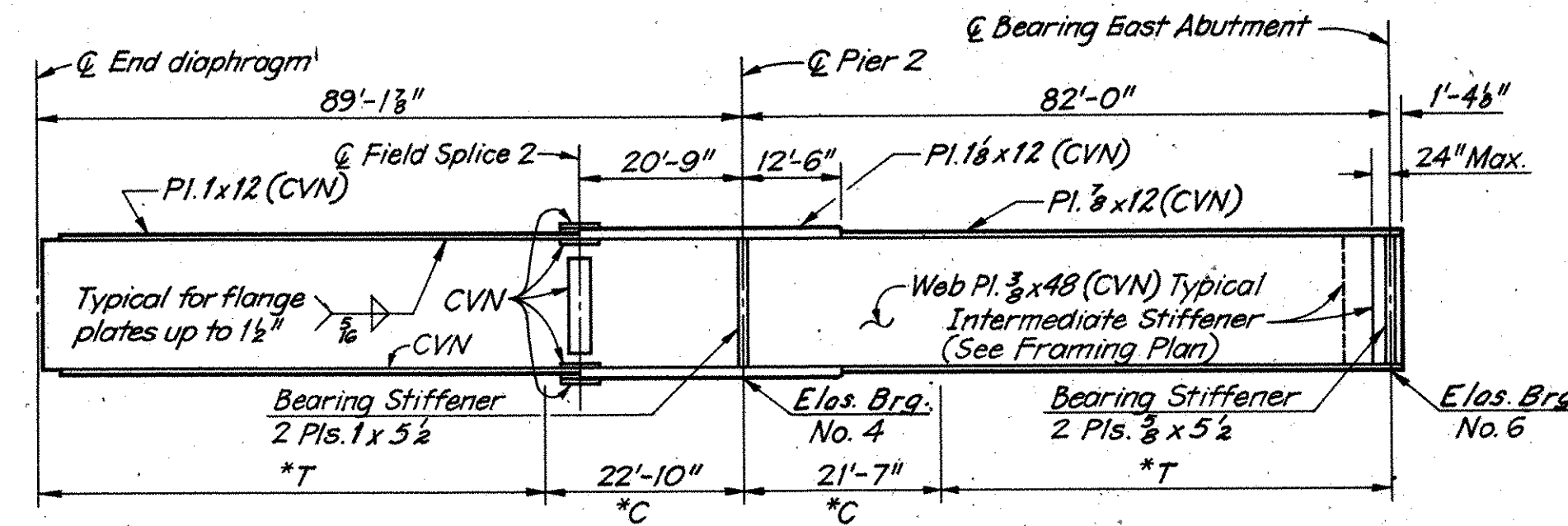
INTERMEDIATE AND BEARING STIFFENER



FRAMING PLAN



**GIRDER ELEVATION
(Girders A and C thru R)**



GIRDER B ELEVATION

Note:
 CS- Indicates butt weld subject to compressive stress only
 CVN- see Sheet 6N/1.

Note:
 In lieu of A588 steel, A36 steel, galvanized, shall be furnished for the end dams. This A-36 steel shall be included with A588 steel quantity for payment.

For details of Elastomeric Bearings, see Sheet CD/6.
 For intermediate crossframe details see Sheet 12/12.
 All crossframes are intermediate crossframes unless noted otherwise.
 For end crossframe detail, see Sheet CD/5.
 For end diaphragm details, see Sheet 10/12.
 For end dam details, see Sheet CD/5, and Ohio Drawing SD-1-69, Sheet 2 of 4.

The following abbreviations are used:
 Max. = Maximum Typ. = Typical
 Elas. Brg. No. = Elastomeric Bearing Number

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H.N.T.B. BRIDGE NO. 20A
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS
 KANSAS CITY CLEVELAND, NEW YORK

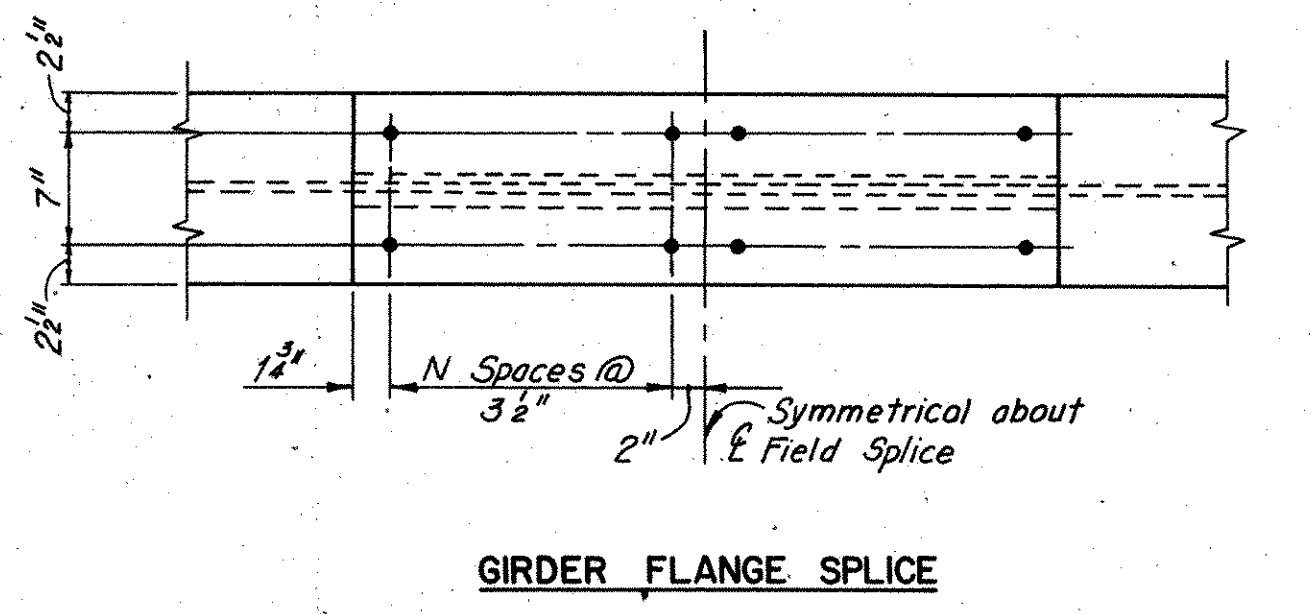
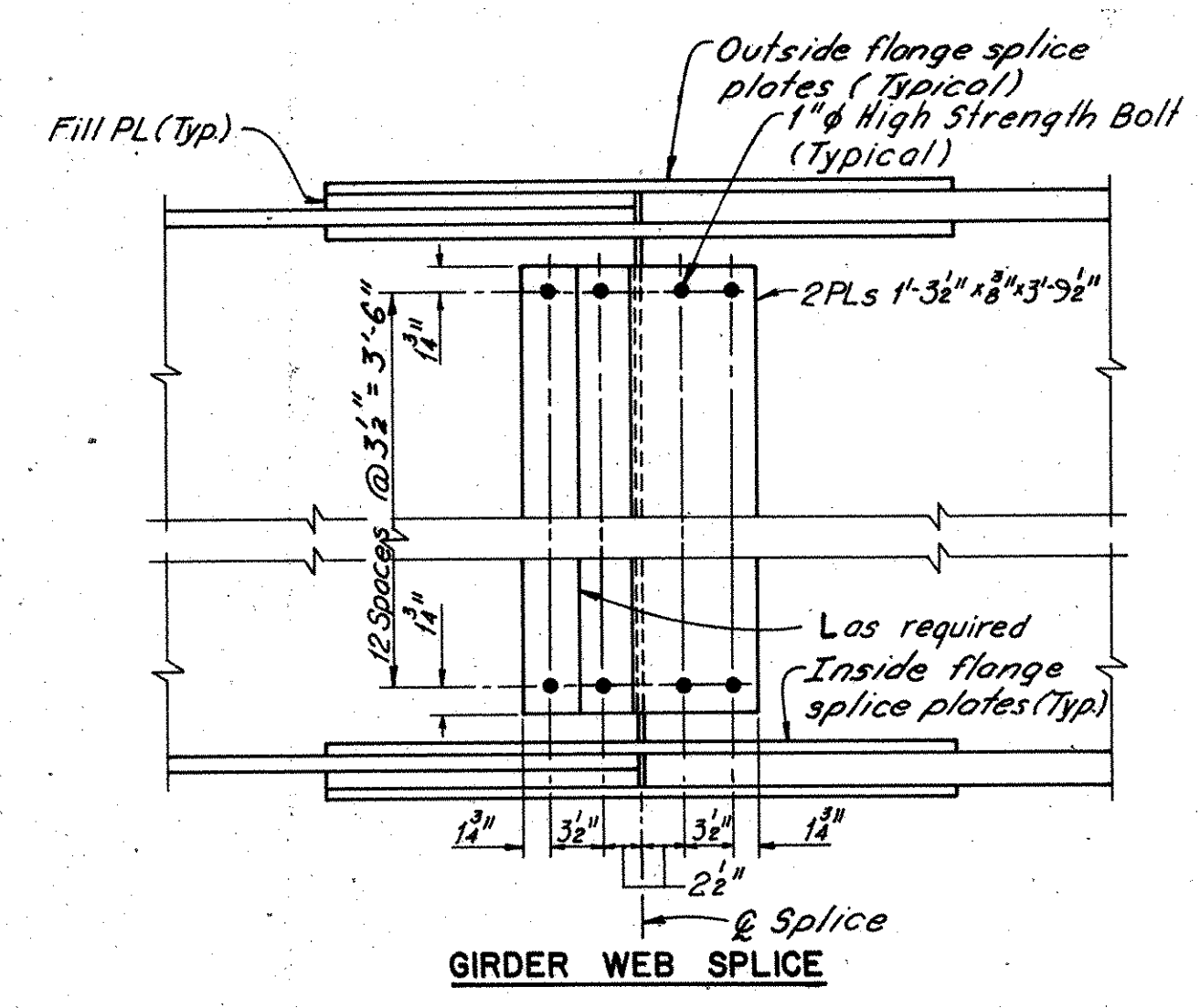
FRAMING PLAN
 U.S. 30 OVER N.&W. RR.
 BR. NO. STA-30-1646 STA 1044+40.69
 STA 1047+18.86

RELOCATED U.S. 30

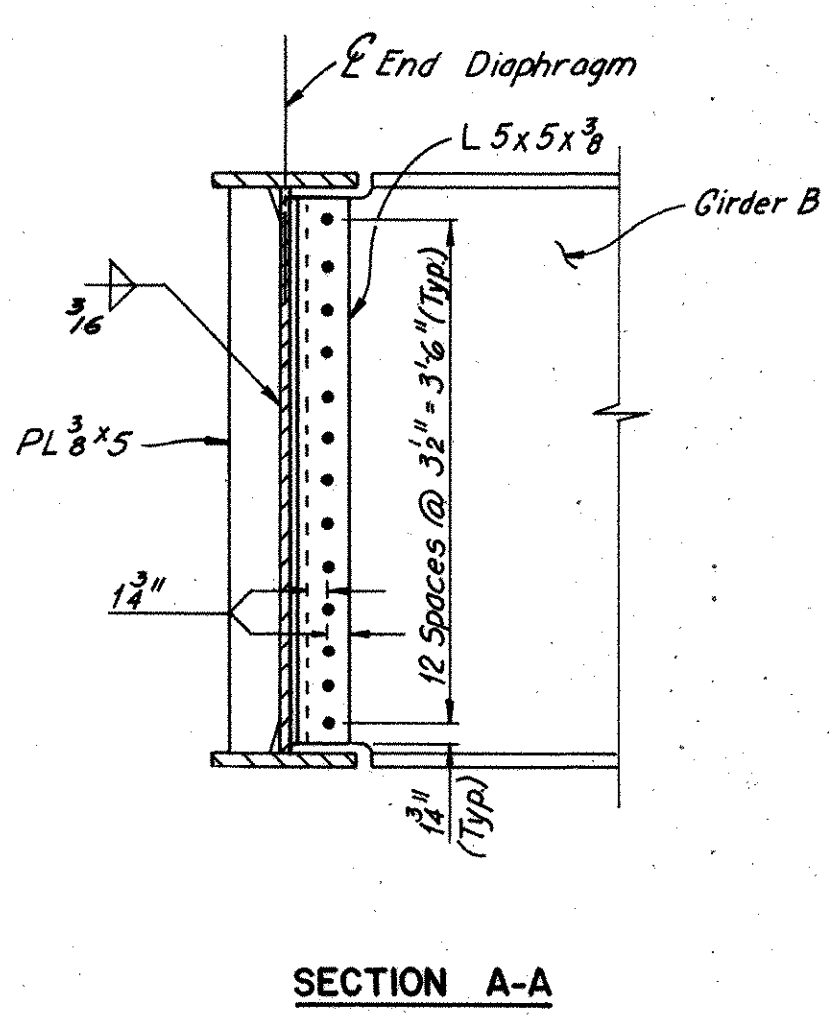
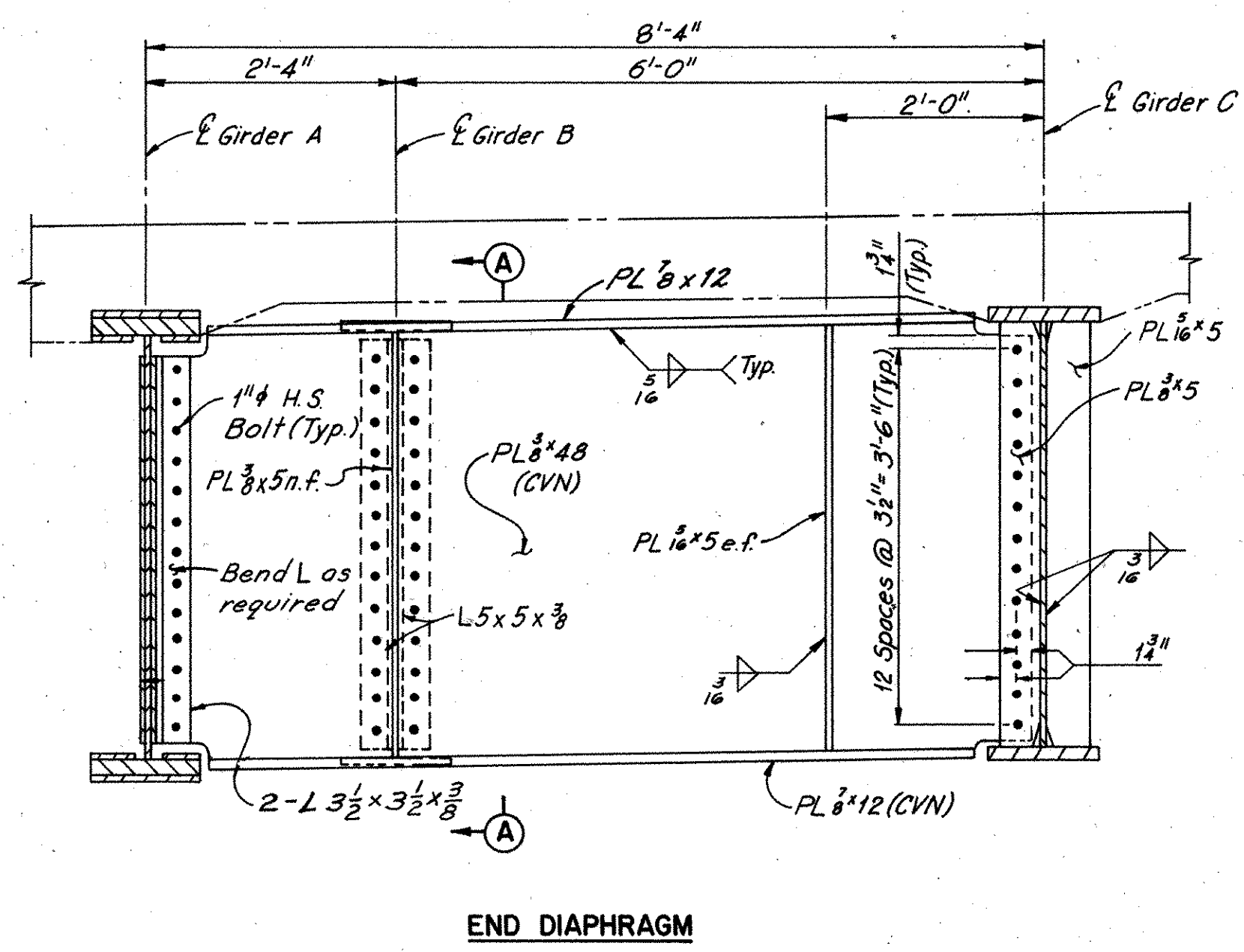
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DRAWN JLS	TRACED JLS	CHECKED JLV	REVIEWED
DATE 2-16-79	DATE 2-16-79	DATE 6-8-79	DATE

STARK COUNTY
STA-30-15.66

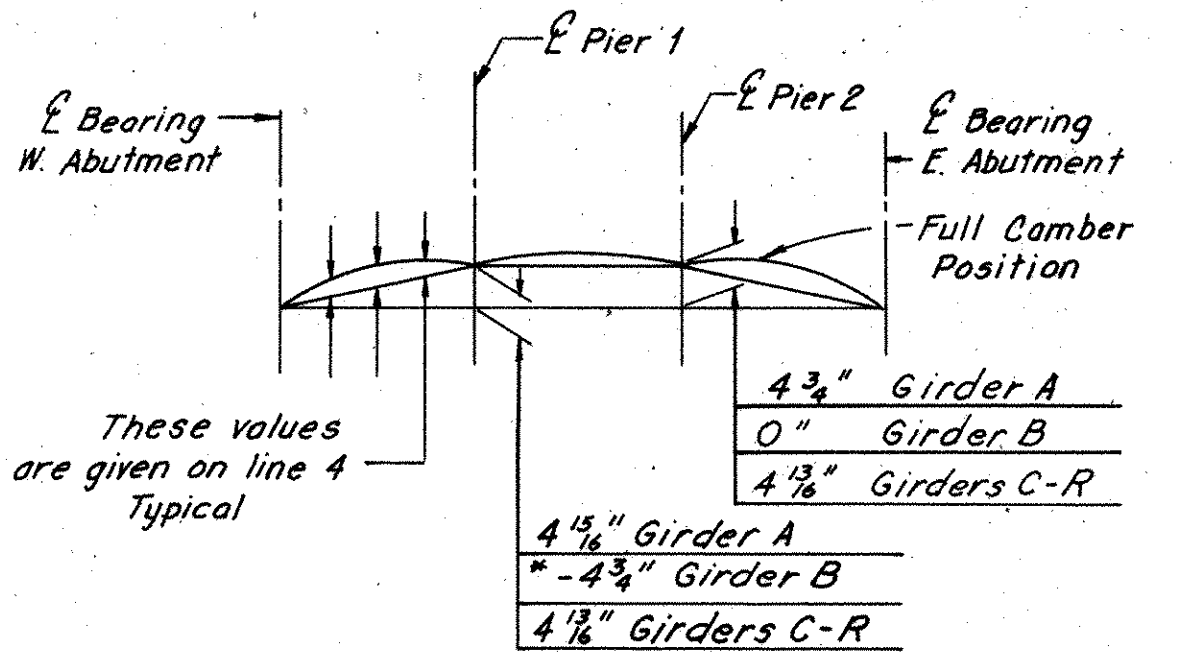
		DEFLECTION AND CAMBER																															
		W. Abutment	.10	.20	.30	.40	.50	.60	.70	.80	.90	Pier 1	10 F.S.	30	40	50	60	70	F.S.	90	Pier 2	.10	.20	.30	.40	.50	.60	.70	.80	.90	E. Abutment		
Girder A	1	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	
	2	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	
	3	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0
	4	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0
Girder B	1											1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	
	2											1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	
	3											1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	
	4											1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	
Girder C	1											0	0	1/16	1/16	1/16	1/16	1/16	1/16	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	
	2											0	0	1/16	1/16	1/16	1/16	1/16	1/16	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	
	3											0	0	1/16	1/16	1/16	1/16	1/16	1/16	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	
	4											0	0	1/16	1/16	1/16	1/16	1/16	1/16	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	
Girders D thru R	1	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	0	1/16	1/16	1/16	1/16	1/16	1/16	0	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	
	2	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	0	1/16	1/16	1/16	1/16	1/16	1/16	0	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	
	3	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	0	1/16	1/16	1/16	1/16	1/16	1/16	0	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0
	4	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	0	1/16	1/16	1/16	1/16	1/16	1/16	0	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0



CONNECTION	OUTSIDE PLATE	INSIDE PLATE	FILL PLATE	N. SPA.
12 x 1 to 12x1 1/2	2 Required 12x1/2x3'-6 1/2"	4 Required 5x1/2x3'-6 1/2"	1/4"	5
12 x 1 to 12x1 3/4	2 Required 12x1/2x3'-6 1/2"	4 Required 5x1/2x3'-6 1/2"	3/8"	5
12 x 1 to 12x2	2 Required 12x1/2x3'-6 1/2"	4 Required 5x1/2x3'-6 1/2"	1"	5
12 x 1 1/2 to 12x2	2 Required 12x1/2x4'-1 1/2"	4 Required 5x1/2x4'-1 1/2"	7/8"	6



± Denotes the End Diaphragm for Girder B.



SCHEMATIC DETAIL
* Offsets of Girder End Diaphragm in final position, measured from a chord between Bearing E. Abutment and Pier 2 and extended to Girder End Diaphragm.

Deflection and Camber Notes:
Line 1 Deflection due to the weight of steel.
Line 2 Deflection due to the remaining dead load.
Line 3 Adjustment required for vertical curve.
Line 4 Required shop camber.

Values given in the table are to the nearest 1/16 inch.
Negative deflections indicate upward deflection.
ES. denotes Field Splice.

Note:
For End Diaphragm location and additional notes see Sheet 9/12.

MICROFILMED
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H.N.T.B. BRIDGE NO. 20A
HOWARD, NEEDLES, TAMMEN & BERGENDOFF 10/12
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

SUPERSTRUCTURE DETAILS AND DEFLECTION AND CAMBER
U.S. 30 OVER N.&W. R.R.
BR. NO. STA-30-1646 STA 1044+40.69
STA 1047+18.86

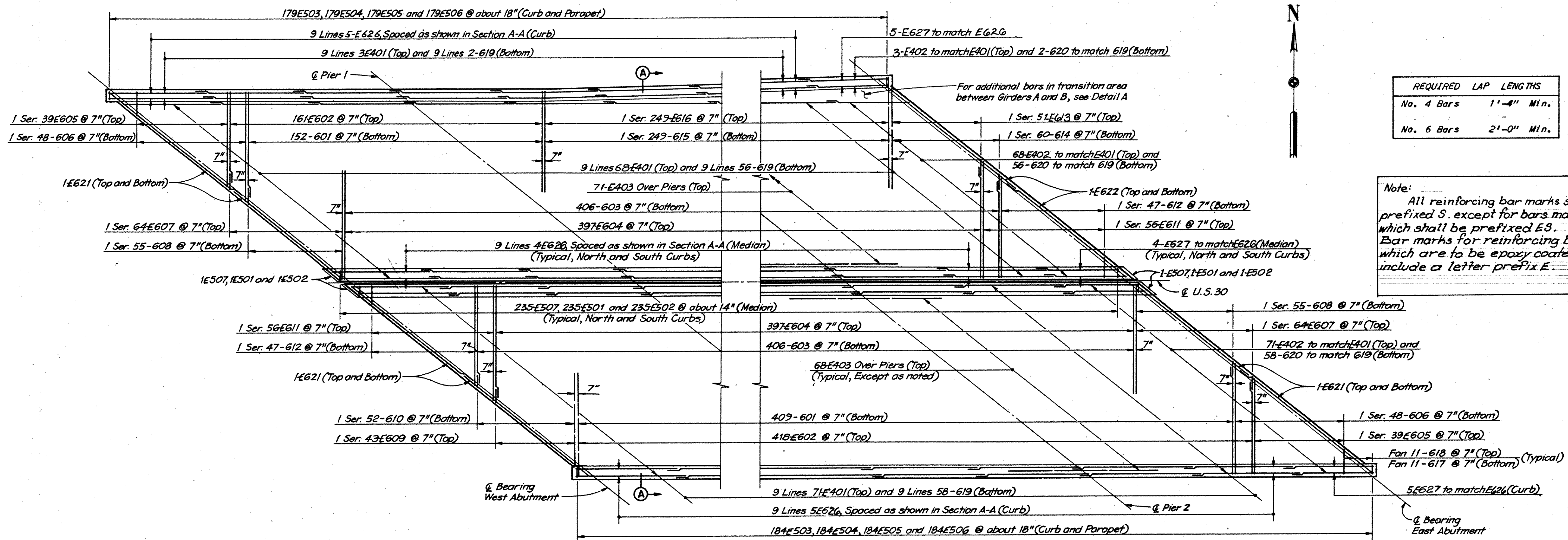
RELOCATED U.S. 30
CANTON STARK COUNTY OHIO

DRAWN RAS	TRACED T.D.W.	CHECKED L.V.	REVIEWED
DATE 3-2-79	DATE 3-5-79	DATE 7-23-79	DATE

STARK COUNTY
STA-30-15.66

REQUIRED LAP LENGTHS	
No. 4 Bars	1'-4" Min.
No. 6 Bars	2'-0" Min.

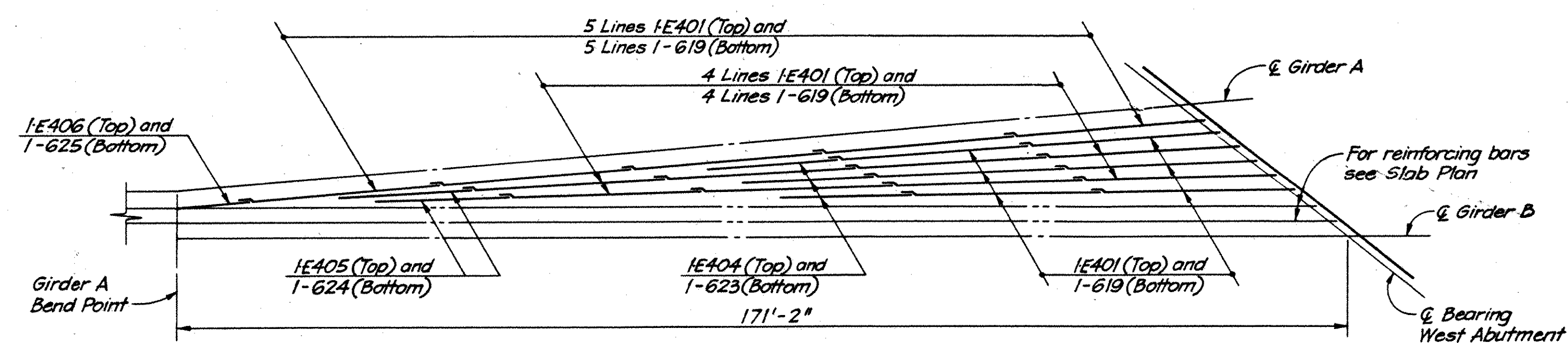
Note:
All reinforcing bar marks shall be prefixed S, except for bars marked E which shall be prefixed ES. Bar marks for reinforcing bars which are to be epoxy coated include a letter prefix E.



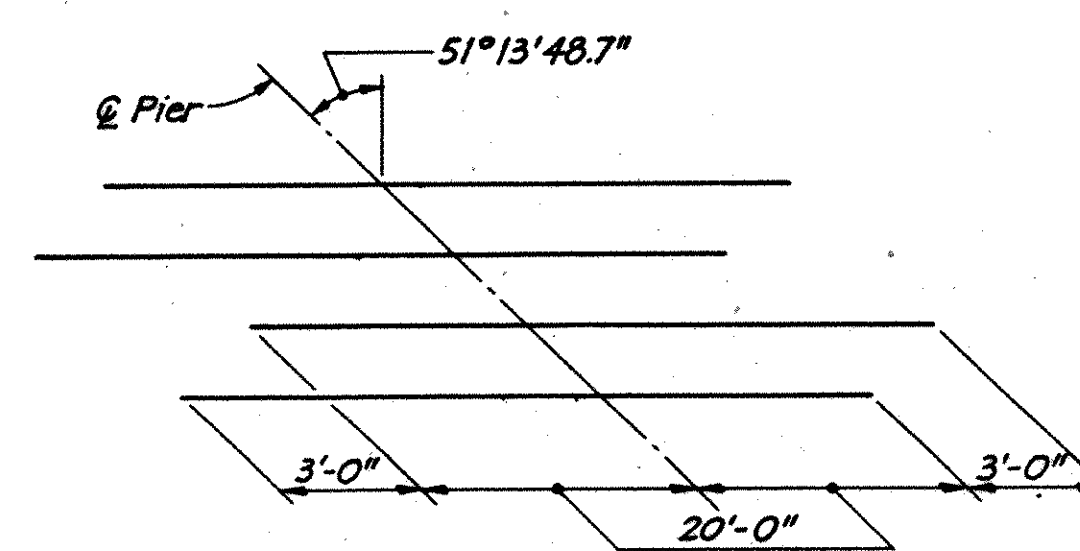
SLAB PLAN

Notes:
For section A-A, see Sheet 12/12.
Reinforcing steel shall be adjusted as required to clear scuppers.
For railing and deflection joint details, see Sheet CD3.
For light standard location and details, see Sheet L2.
For reinforcement schedule, see Sheet R.
A typical haunch width of 9" shall be used for computing quantity of concrete. However the haunch width may vary between 6" and 12" provided that the slope shall not be more than 1:4 for a haunch less than 9" in width.

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DETAIL A



PLACEMENT DIAGRAM SHOWING STAGGER OF No. 4 BARS OVER PIERS

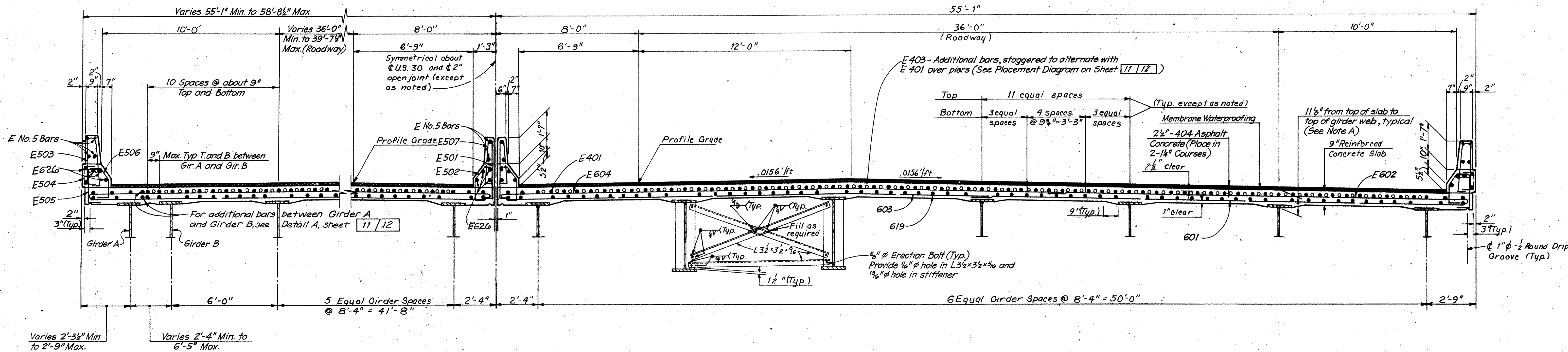
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FEB 15 1985

H.N.T.B. BRIDGE NO. 20A
HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

SLAB PLAN
U.S. 30 OVER N.&W. RR.
BR NO. STA-30-1646 STA 1044+40.69
STA 1047+18.86
RELOCATED U.S. 30
CANTON STARK COUNTY OHIO

DRAWN J.L.S.	TRACED J.L.S.	CHECKED J.L.S.	REVIEWED J.L.S.	REVISED
DATE 3-5-79	DATE 3-7-79	DATE 3-19-79	DATE	

**STARK COUNTY
STA-30-15.66**



SECTION A-A

TOP OF PORTLAND CEMENT CONCRETE ELEVATIONS																															
Girder	W. Abut.	.1	.2	.3	.4	.5	.6	.7	.8	.9	Pier 1	.1	F.S.1	.3	.4	.5	.6	.7	F.S.2	.9	Pier 2	.1	.2	.3	.4	.5	.6	.7	.8	.9	E. Abut.
A	1063.34	1063.53	1063.72	1063.90	1064.08	1064.26	1064.43	1064.60	1064.77	1064.93	1065.09	1065.29	1065.48	1065.67	1065.84	1066.01	1066.18	1066.34	1066.50	1066.64	1066.78	1066.89	1066.99	1067.09	1067.19	1067.28	1067.37	1067.45	1067.53	1067.61	1067.69
B											†1065.52	1065.68		1065.98	1066.13	1066.28	1066.41	1066.55		1066.81	1066.93	1067.04	1067.14	1067.25	1067.34	1067.44	1067.53	1067.62	1067.70	1067.79	1067.86
C	1063.71	1063.90	1064.08	1064.26	1064.44	1064.61	1064.78	1064.94	1065.11	1065.26	1065.42	1065.62	1065.80	1065.99	1066.17	1066.35	1066.51	1066.67	1066.84	1066.98	1067.12	1067.23	1067.33	1067.43	1067.53	1067.62	1067.71	1067.79	1067.87	1067.95	1068.02
D	1064.08	1064.26	1064.44	1064.61	1064.79	1064.95	1065.12	1065.28	1065.44	1065.59	1065.74	1065.93	1066.11	1066.30	1066.47	1066.64	1066.80	1066.95	1067.11	1067.25	1067.39	1067.49	1067.59	1067.68	1067.77	1067.86	1067.94	1068.02	1068.10	1068.17	1068.24
E	1064.44	1064.62	1064.79	1064.96	1065.13	1065.29	1065.45	1065.61	1065.76	1065.91	1066.06	1066.24	1066.41	1066.60	1066.76	1066.92	1067.08	1067.23	1067.38	1067.51	1067.64	1067.74	1067.83	1067.92	1068.01	1068.09	1068.17	1068.25	1068.32	1068.39	1068.46
F	1064.78	1064.93	1065.10	1065.27	1065.43	1065.59	1065.75	1065.90	1066.05	1066.19	1066.34	1066.52	1066.68	1066.86	1067.02	1067.17	1067.32	1067.47	1067.61	1067.74	1067.88	1067.96	1068.05	1068.13	1068.21	1068.29	1068.37	1068.44	1068.51	1068.57	1068.63
G	1064.85	1065.02	1065.18	1065.35	1065.50	1065.66	1065.81	1065.96	1066.10	1066.24	1066.38	1066.55	1066.71	1066.88	1067.04	1067.19	1067.33	1067.47	1067.61	1067.73	1067.85	1067.94	1068.02	1068.11	1068.18	1068.26	1068.33	1068.40	1068.46	1068.52	1068.58
H	1064.93	1065.10	1065.28	1065.41	1065.57	1065.72	1065.87	1066.01	1066.15	1066.29	1066.42	1066.59	1066.74	1066.91	1067.06	1067.20	1067.34	1067.47	1067.60	1067.72	1067.83	1067.92	1068.00	1068.07	1068.15	1068.22	1068.28	1068.35	1068.40	1068.46	1068.51
J	1065.05	1065.21	1065.37	1065.52	1065.68	1065.82	1065.97	1066.11	1066.25	1066.38	1066.51	1066.68	1066.83	1066.99	1067.13	1067.28	1067.41	1067.54	1067.67	1067.78	1067.89	1067.97	1068.05	1068.13	1068.20	1068.26	1068.33	1068.39	1068.44	1068.50	1068.55
K	1065.38	1065.54	1065.69	1065.85	1065.99	1066.14	1066.28	1066.41	1066.55	1066.67	1066.80	1066.96	1067.10	1067.26	1067.40	1067.54	1067.67	1067.79	1067.91	1068.02	1068.12	1068.20	1068.27	1068.34	1068.41	1068.47	1068.53	1068.59	1068.64	1068.69	1068.74
L	1065.71	1065.86	1066.01	1066.16	1066.30	1066.44	1066.58	1066.71	1066.84	1066.96	1067.09	1067.24	1067.38	1067.53	1067.66	1067.79	1067.92	1068.03	1068.15	1068.25	1068.35	1068.42	1068.49	1068.56	1068.62	1068.68	1068.73	1068.78	1068.82	1068.88	1068.92
M	1065.81	1065.95	1066.10	1066.24	1066.38	1066.51	1066.65	1066.77	1066.90	1067.02	1067.14	1067.28	1067.42	1067.56	1067.69	1067.81	1067.93	1068.04	1068.16	1068.25	1068.34	1068.41	1068.48	1068.54	1068.59	1068.65	1068.70	1068.75	1068.79	1068.83	1068.87
N	1065.86	1066.01	1066.15	1066.29	1066.42	1066.55	1066.68	1066.80	1066.92	1067.04	1067.15	1067.29	1067.42	1067.56	1067.68	1067.80	1067.91	1068.02	1068.12	1068.21	1068.30	1068.36	1068.42	1068.48	1068.53	1068.58	1068.63	1068.67	1068.71	1068.75	1068.78
P	1065.92	1066.06	1066.19	1066.32	1066.45	1066.58	1066.70	1066.82	1066.94	1067.05	1067.16	1067.29	1067.41	1067.55	1067.66	1067.78	1067.88	1067.98	1068.08	1068.17	1068.25	1068.31	1068.36	1068.42	1068.46	1068.51	1068.55	1068.59	1068.62	1068.66	1068.68
R	1065.98	1066.10	1066.23	1066.36	1066.48	1066.60	1066.72	1066.84	1066.95	1067.05	1067.18	1067.29	1067.41	1067.53	1067.64	1067.75	1067.85	1067.95	1068.04	1068.12	1068.19	1068.25	1068.30	1068.35	1068.39	1068.43	1068.47	1068.50	1068.53	1068.56	1068.58

† Indicates end diaphragm of girder B.

GUTTERLINE ELEVATIONS AT TOP OF PORTLAND CEMENT CONCRETE																				
	West Abutment	.10	.20	.30	.40	.50	.60	.70	.80	.90	Pier 1	.10	.20	.30	.40	.50	.60	.70	.80	.90
North Gutterline	1063.32	1063.54	1063.74	1063.94	1064.13	1064.30	1064.47	1064.62	1064.77	1064.93	1065.08	1065.28	1065.48	1065.68	1065.86	1066.03	1066.20	1066.35	1066.49	1066.63
N. Gutterline of Med	1064.92	1065.10	1065.28	1065.44	1065.60	1065.74	1065.88	1066.01	1066.14	1066.27	1066.40	1066.58	1066.76	1066.94	1067.11	1067.25	1067.39	1067.51	1067.61	1067.71
S. Gutterline of Med	1065.03	1065.21	1065.39	1065.55	1065.70	1065.85	1065.99	1066.11	1066.24	1066.36	1066.49	1066.67	1066.85	1067.02	1067.18	1067.33	1067.46	1067.58	1067.68	1067.77
South Gutterline	1065.94	1066.10	1066.25	1066.39	1066.51	1066.63	1066.74	1066.84	1066.94	1067.04	1067.14	1067.29	1067.43	1067.57	1067.70	1067.81	1067.91	1067.98	1068.05	1068.11

GUTTERLINE ELEVATIONS AT TOP OF PORTLAND CEMENT CONCRETE											
	Pier 2	.10	.20	.30	.40	.50	.60	.70	.80	.90	East Abutment
North Gutterline	1066.77	1066.89	1067.02	1067.14	1067.25	1067.35	1067.44	1067.52	1067.58	1067.63	1067.68
N. Gutterline of Med	1067.82	1067.90	1067.99	1068.08	1068.17	1068.24	1068.31	1068.37	1068.42	1068.46	1068.50
S. Gutterline of Med	1067.88	1067.96	1068.04	1068.13	1068.22	1068.29	1068.36	1068.41	1068.46	1068.50	1068.53
South Gutterline	1068.18	1068.23	1068.29	1068.35	1068.41	1068.46	1068.50	1068.53	1068.55	1068.56	1068.57

Note:
The gutterline elevations shown have been adjusted for dead load deflections due to the weight of the concrete and wearing course, and are the elevations required before the concrete deck is placed.

Note A:
This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact gamber or confirmation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. 511.18 of the Construction and Materials Specifications.

MICROFILMED
FEB 15 1955

H.N.T.B. BRIDGE NO. 20A
HOWARD, NEEDLES, TAMMEN & BERGENDOFF 12/12
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

DECK SECTION AND PAVEMENT ELEVATIONS
U.S. 30 OVER N.&W. RR.
BR. NO. STA-30-1646 STA 1044+40.69
STA 1047+18.86

RELOCATED U.S. 30
CANTON STARK COUNTY OHIO

DRAWN D.J.	TRACED D.J./J.S.	CHECKED R.A.S.	REVIEWED	REVISED
DATE 3-2-79	DATE 3-5-79	DATE 3-20-79	DATE	DATE