

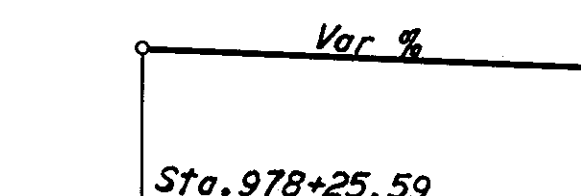
STARK COUNTY
STA-30-15.04
STA-77-9.22

CURVE DATA TABLE STA. 978+02.58 TO STA. 980+02.58 #			CURVE DATA	
	SO. GUTTERLINE		RAMP H	
A	17°09'06.1"		70°46'21.1"	
D	8°40'16.1"		8°00'00.0"	
R	660.764'		716.197'	
L	197.802'		884.656'	
T	99.646'		508.716'	

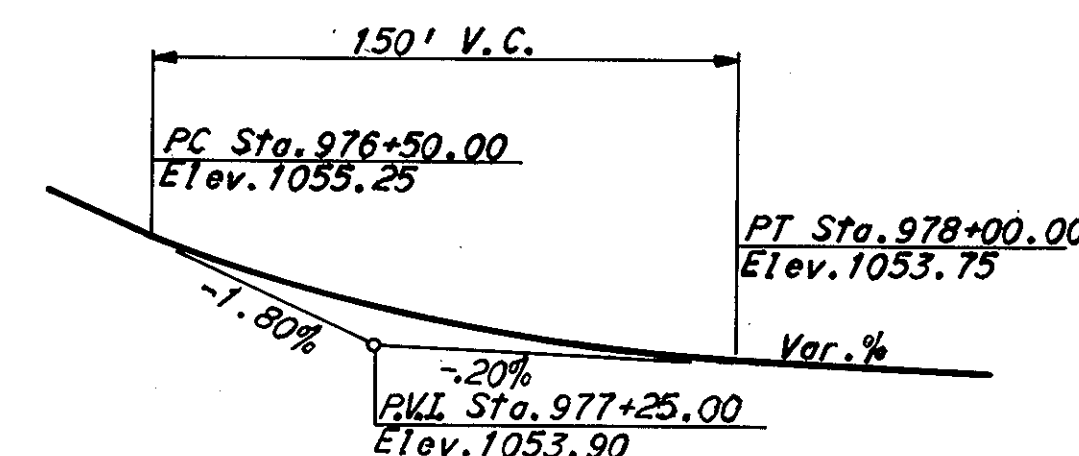
For South gutter line curb transition, see Deck Contour Plan, Sheet 238.

SPIRAL DATA TABLE	
	US 30
Δ_s	38'57'51.6"
θ_s	6°45'00.0"
L_s	450.00'
T_s	902.106'
D_c	3°00'00.0"
R_c	1909.859'
L_c	848.811'

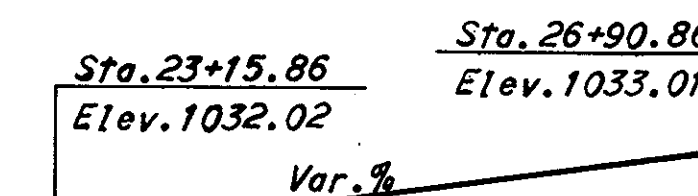
Notes:
The following items are not included in the bridge plans. See roadway plans for details.
1. Relocation or removal of existing utilities.
2. Approach grading, pavement and slabs.
3. Guardrails.
16,969 Denotes one way average daily traffic.
Earthwork limits shown are schematic. Actual slopes shall conform to plan cross-sections.
⊙ Denotes point of minimum vertical clearance.
■ Denotes Standard Type Scupper.
All piles shall be 12" cast-in-place concrete with an estimated average pay length of 85'-0" for both East and West abutments. These estimates are based on boring data and are approximate only. The contractor shall assume full responsibility for the length of piling selected for driving. For Lighting Details see Lighting Plans. For Table of Quantities see sheet 201.



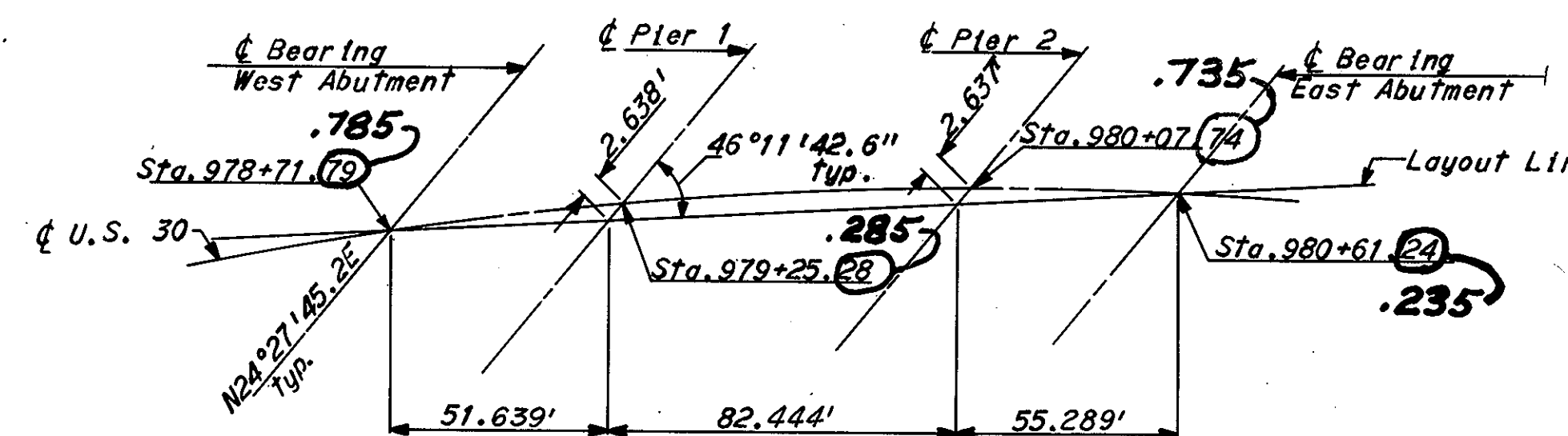
PROFILE GRADE - RAMP D



PROFILE GRADE - RAMP H



PROFILE GRADE - MARKET AVE



LAYOUT SKETCH

UTILITY LEGEND

- G --- Gas
- W --- Water
- SS --- Storm Sewer
- San --- Sanitary Sewer
- T --- Telephone
- E --- Power Lines
- 4W-EAKV 4 Wire, Primary 4 Kilovolt
- 3W-Es 3 Wire, Secondary
- Manhole
- Catch Basin
- ⊕ Pole Telephone
- ⊙ Pole, Electric

* Modify Std. Drawing AS-1-72 by providing 3" clear over the top rebars instead of the 2" shown on the Std. Drwg. The jacking holes as called for on Std. Drwg. AS-1-72 are not required.

PROPOSED STRUCTURE

Type: Continuous Welded Girders with Reinforced Concrete Slab.
Spans: 53'-6", 82'-6", 53'-6" = 189'-5 1/2" Ctr. to Ctr. of End Bearings along U.S. 30.
Roadway: Varies face to face of parapets, including 3'-0" Median Barrier.
Loading: HS-20-44, Case I and the Alternate Military Loading.
Skew: 46°11'42.6" to Layout Line
Wearing Surface: 2 1/2" Asphalt Concrete
Approach Slab: AS-1-72 (30'-0" long) (Modified)

H.N.T.B. BRIDGE NO. 4 Revised 12-12-75 By RAS
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KANSAS CITY CLEVELAND NEW YORK

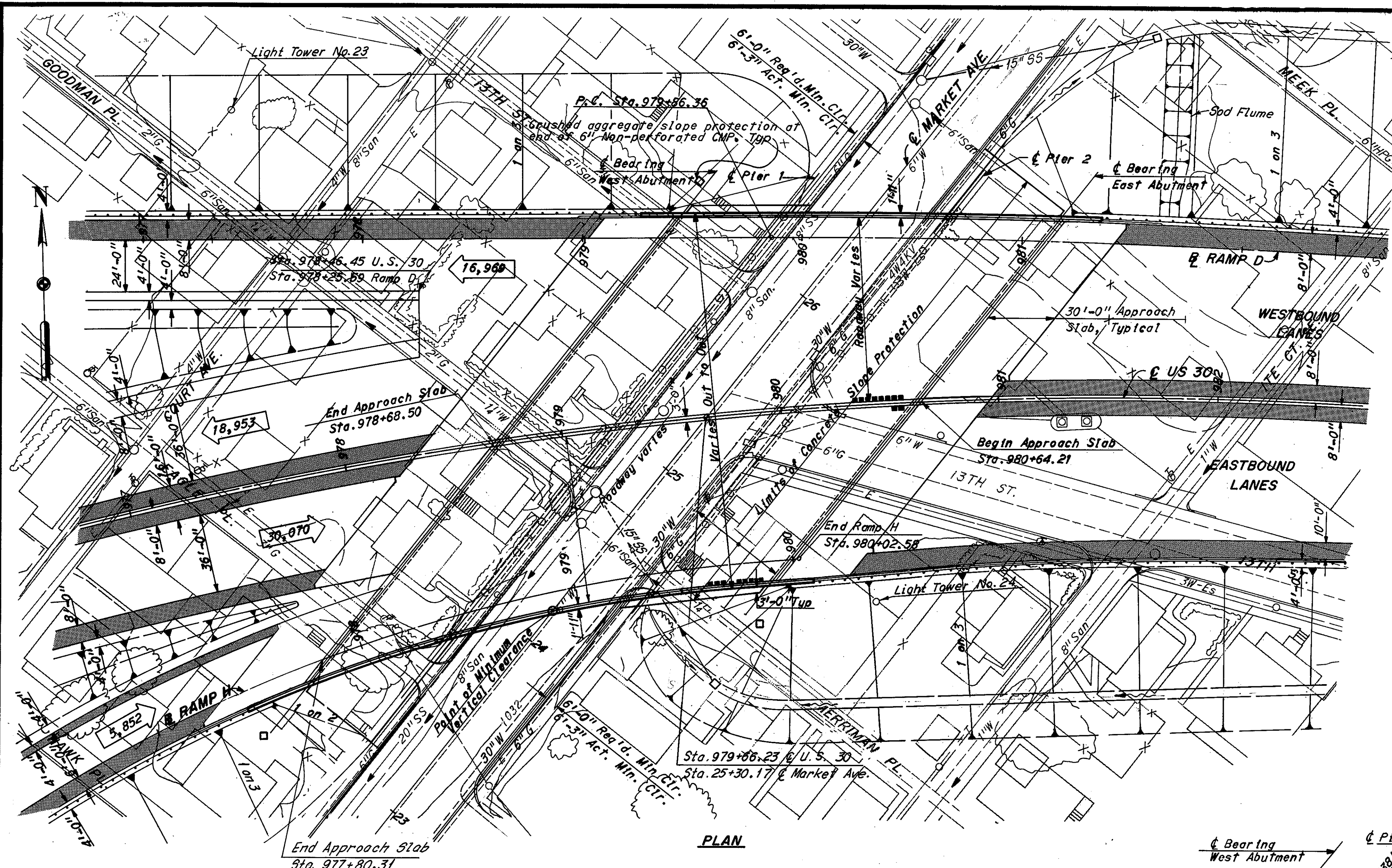
SITE PLAN

U.S. 30, RAMP D AND RAMP H
OVER MARKET AVENUE
BR. NO. STA-30-15.22 STA. 978+68.50
SCALE: 1"= 30' STA. 980+64.21

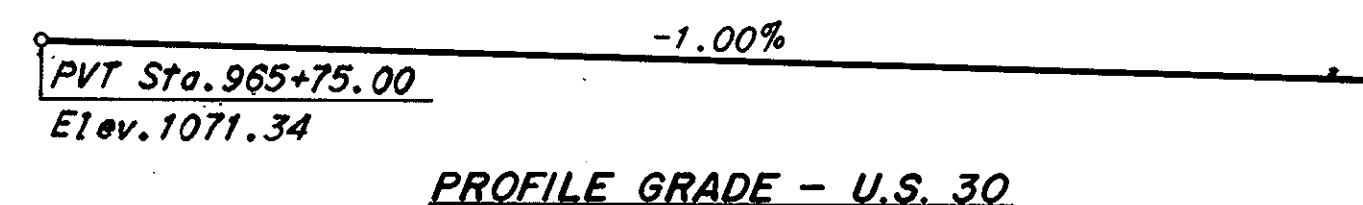
RELOCATED U.S. 30

CANTON, STARK COUNTY OHIO

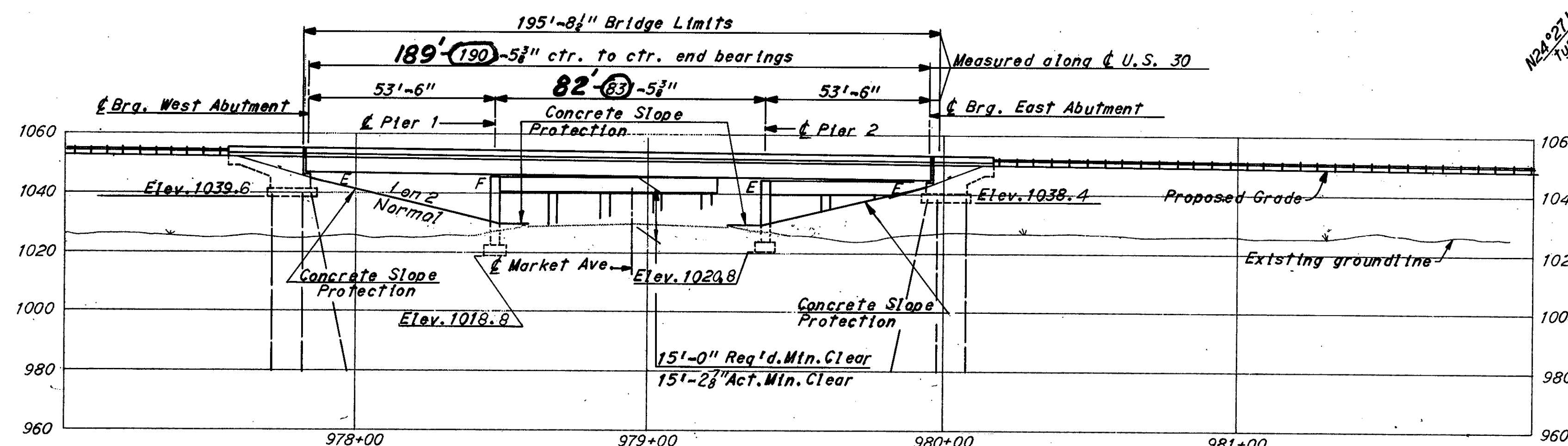
DRAWN	CHECKED	REVIEWED	REVISION
DATE 2-10-70	DATE	DATE 8-6-70	DATE 11-24-71



PLAN



PROFILE GRADE - U.S. 30



ELEVATION

MICROFILMED
APR 16 1985

FED ROAD DIV NO	STATE	FEDERAL AID PROJECT NO	TYPE FUNDS
2	OHIO		



STARK COUNTY
STA-30-15.04
STA-77-9.22

PLAN

Key dimensions and features shown in the plan view:

- Approach Ramp: 30° OS 44", 201'-0", 221'-9 3/8"
- Abutment AA517: 61'-0"
- Span lengths: 15'-7 3/8" (Girder X), 15'-1 1/2" (Girder W), 14'-7 3/8" (Girder V), 14'-2 3/8" (Girder U), 13'-8 1/2" (Girder T), 13'-2 7/8" (Girder S), 12'-9 3/8" (Girder R), 12'-3 1/2" (Girder Q), 11'-9 3/8" (Girder P), 11'-4 3/8" (Girder M), 4'-6" (Girder L), 2'-0" (US 30)
- Span counts: 6-AA401 @ 6" Typ.
- Elevations: Elev. 1053.19, Elev. 1055.57, Elev. 1058.28, Elev. 1058.25, Elev. 1058.47, Elev. 1058.46
- Reinforcement: AA517, AA541, AA401, AA505, AA506, 6-AA403
- Other details: 12"x4" Premolded sealing strip, 1/2" Expansion joint, 4'-0" Rounding, 5'-10", 3'-7 3/4", 3'-3", 1'-1 1/2", 5 1/8"

This elevation drawing illustrates the structural details of a bridge, including the main span, approach, and various reinforcement components. Key features include:

- Dimensions:**
 - 51-AA604, 51-AA605 and 51-AA606 @ abt. 12"
 - 18-DA 801 @ about 2'-11" (Place Parallel to @ Ramp H)
 - 31-AA604, 31-AA605 and 31-AA606 @ about 12"
 - 16-DA 802 @ about 2'-1" (Place Parallel to @ U.S.30)
 - 52-AA604, 52-AA605 and 52-AA606 @ about 12"
 - 25-DA 802 @ about 2'-1" (Place Parallel to @ U.S.30)
- Elevations:**
 - Elev. 1039.60
 - Elev. 1046.92
 - Elev. 1047.56
 - Elev. 1048.19
 - Elev. 1048.84
 - Elev. 1049.44
 - Elev. 1049.98
 - Elev. 1050.53
 - Elev. 1051.04
 - Elev. 1051.53
 - Elev. 1052.02
 - Elev. 1052.14
 - Elev. 1051.98
 - Elev. 1044.60
- Reinforcement and Components:**
 - 3-AA554 n.f., 3-AA517 f.f., 1-AA613 f.f.
 - 3-AA554 n.f., 3-AA517 f.f.
 - 3-AA538 n.f., 3-AA536 f.f.
 - 3-AA537 n.f., 3-AA537 f.f.
 - 3-AA537
 - 3-AA536 n.f., 3-AA536 f.f.
 - 3-AA536
 - 4"x2'-0"x2'-0" Shear Key Typical
 - 2" x 6" Key, Typ.
 - 7-AA536 Spaced as shown Section AA
 - AA 403, AA 505, AA 506
 - Construction joint
 - Cap end
- Other Details:**
 - 6" Helical Nonperforated CMP
 - 8'-0"
 - 6" Helical perforated CMP
 - 94-AA528 to match AA612
 - 94-AA539 to match AA612

ELEVATION

For additional notes see Sheet 6/1

94-AA509 Top to match AA612

7-AA806 Spaced as shown in Section A-A

5-AA612 Bottom @ about 18" between piles Typical except as shown

7-AA806 Spaced as shown in Section A-A

1-AA612 Bottom

U.S. 30

H.N.T.B. BRIDGE NO. 4

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

WEST ABUTMENT

U.S. 30, RAMP D AND RAMP H OVER MARKET AVENUE

BR. NO. STA. 30-15.22 STA. 978+68.50

SCALE: 3/16" = 1'-0" STA. 980+64.2

RELOCATED U.S. 30

CANTON STARK COUNTY OHIO

DRAWN BY H.H. TRACED CHECKED BY M.G. REVIEWED BY J.H. REVISED

FOOTING PLAN

DRAWN <i>ELH</i>	TRACED	CHECKED <i>MAG</i>	REVIEWED <i>MJK</i>	REVISED
DATE <i>3-9-70</i>	DATE	DATE <i>4-20-70</i>	DATE <i>11-24-71</i>	<i>1668</i>

FED. ROAD DIV. NO	STATE	FEDERAL AID PROJECT NO	TYPE FUNDS
2	OHIO		



Technical drawing of a bridge deck cross-section showing reinforcement details, elevations, and dimensions.

Dimensions and Reinforcement:

- Top reinforcement: 46-AA604, 46-AA605 and 46-AA606 @ about 12"; 22-DA802 @ about 2'-1" (Place Parallel to U.S. 30)
- Top reinforcement: 42-AA604, 42-AA605 and 42-AA606 @ about 12"; 21-DA802 @ about 2'-1" (Place Parallel to U.S. 30)
- Top reinforcement: 39-AA604, 39-AA605 and 39-AA606 @ abt. 12"; 21-DA802 @ about 2'-1" (Place Parallel to U.S. 30)
- 3-AA516 n.f.
- 2" x 6" Key, Typical
- 7-AA518
- 2" ϕ Electrical Conduit
- 2-AA 607 f.f. @ about 12"
- 7-AA518
- 3-AA 521 f.f.
- 2-AA 607 f.f. @ about 12"
- 3-AA512 n.f.
- 3-AA513 f.f.
- 3-AA514 n.f.
- 3-AA522 f.f.
- 6" Helical perforated CMP
- 1-AA511
- 27-AA524, 27-AA525 to match AA603
- 27-AA510, 27-AA523 to match AA602
- 29-AA510, 29-AA511 to match AA601

Elevations:

- Elev. 1052.48
- Elev. 1053.06
- Elev. 1053.62
- Elev. 1054.20
- Elev. 1054.67
- Elev. 1054.93
- Elev. 1055.00
- Elev. 1055.06
- Elev. 1055.17
- Elev. 1055.30
- Elev. 1044.60

Other Details:

- 1-AA526
- 7-AA526
- 1-AA522
- 7-AA522
- 3-AA526 n.f.
- 3-AA526 f.f.
- 3-AA522 n.f.
- 3-AA522 f.f.
- 4" x 2'-0" x 2'-0" Shear Key, Typical
- Cap end

[illegible]

For additional notes see Sheet

6	17
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HOWARD, NEEDLES, TAMMEN & BERGENDOFF 3/11
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KANSAS CITY CLEVELAND NEW YORK

U.S. 30, RAMP D AND RAMP H
OVER MARKET AVENUE

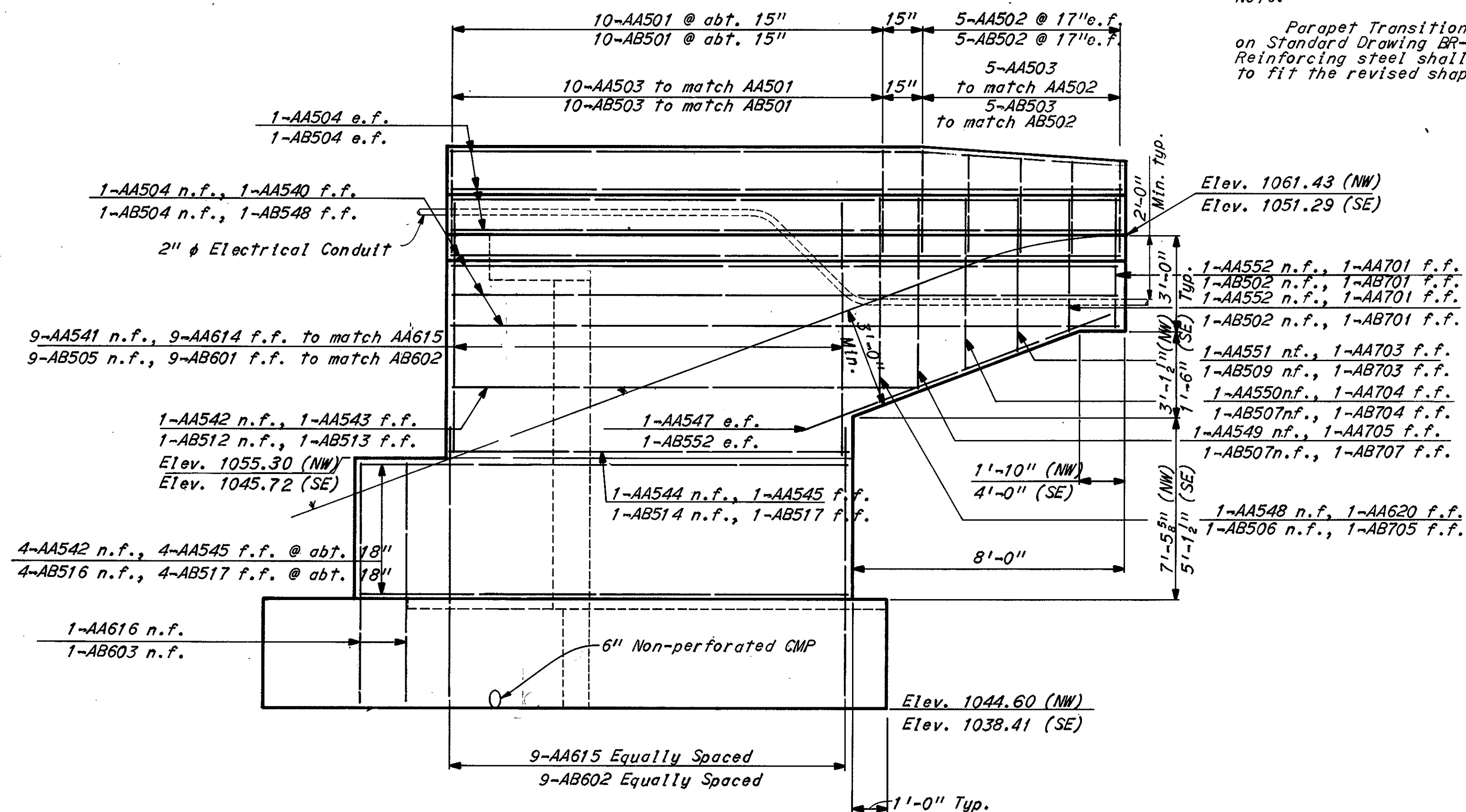
BR. NO. STA-30-1522 STA. 978+68.50
SCALE: 3/16"=1'-0" STA. 980+64.21

RELOCATED U.S. 30

CANTON STARK COUNTY OHIO

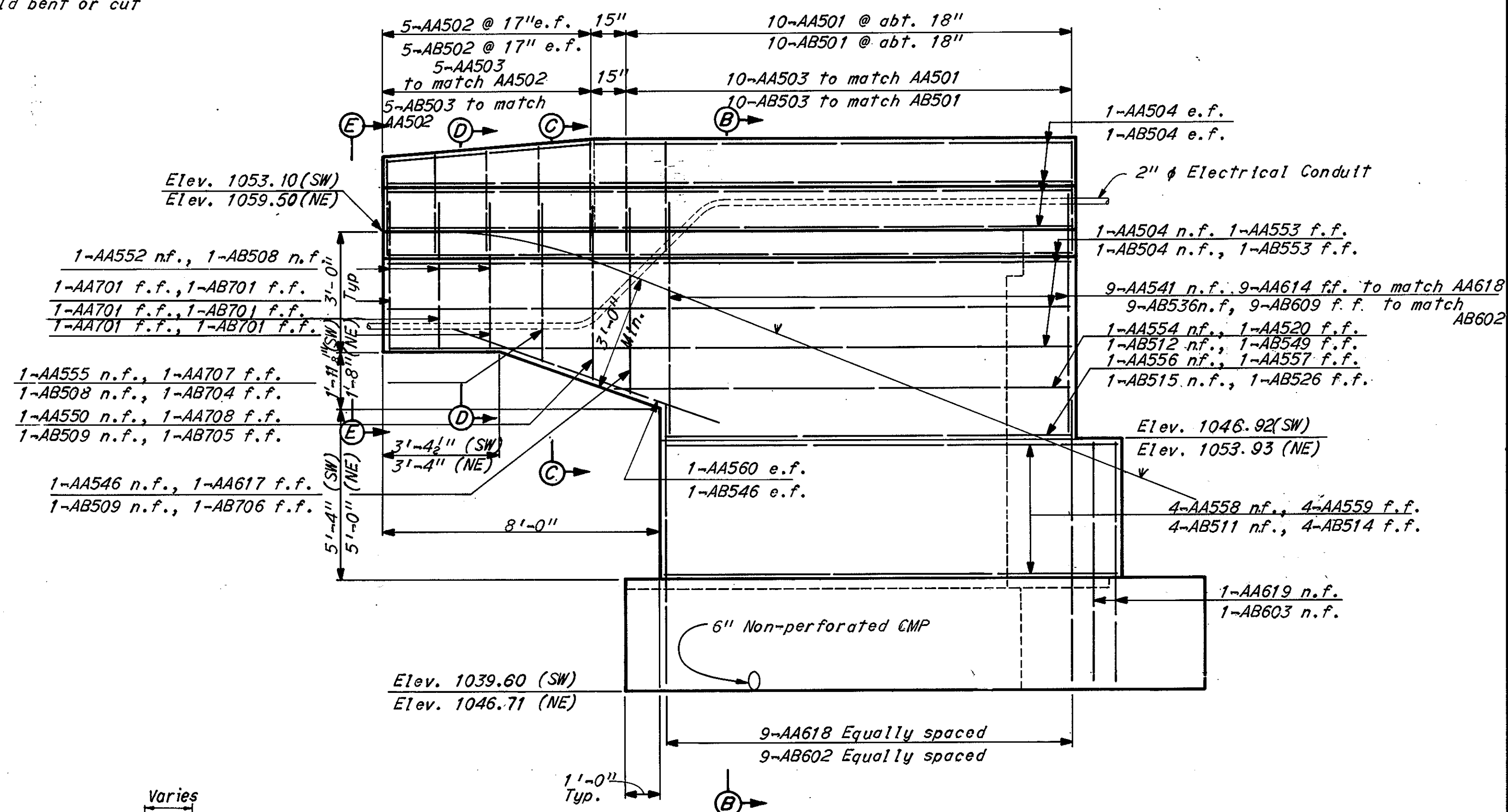
DRAWN ^{ELH}	TRACED	CHECKED ^{AG}	REVIEWED ^{JK}	REVISED
DATE 3-13-70	DATE	DATE 4-20-70	DATE 11-24-71	1665

STARK COUNTY
STA-30-15.04
STA-77-9.22



Note:

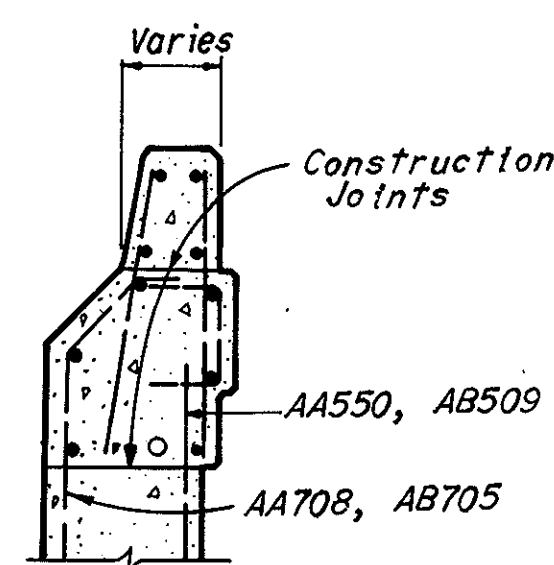
Parapet Transitions shall be as shown on Standard Drawing BR-1-67 revised 10-15-71. Reinforcing steel shall be field bent or cut to fit the revised shape.



NORTHWEST AND SOUTHEAST
WINGWALL ELEVATION
Piles not shown

Backwall Concrete:

In addition to the provisions of 511.08, backwall concrete or 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.

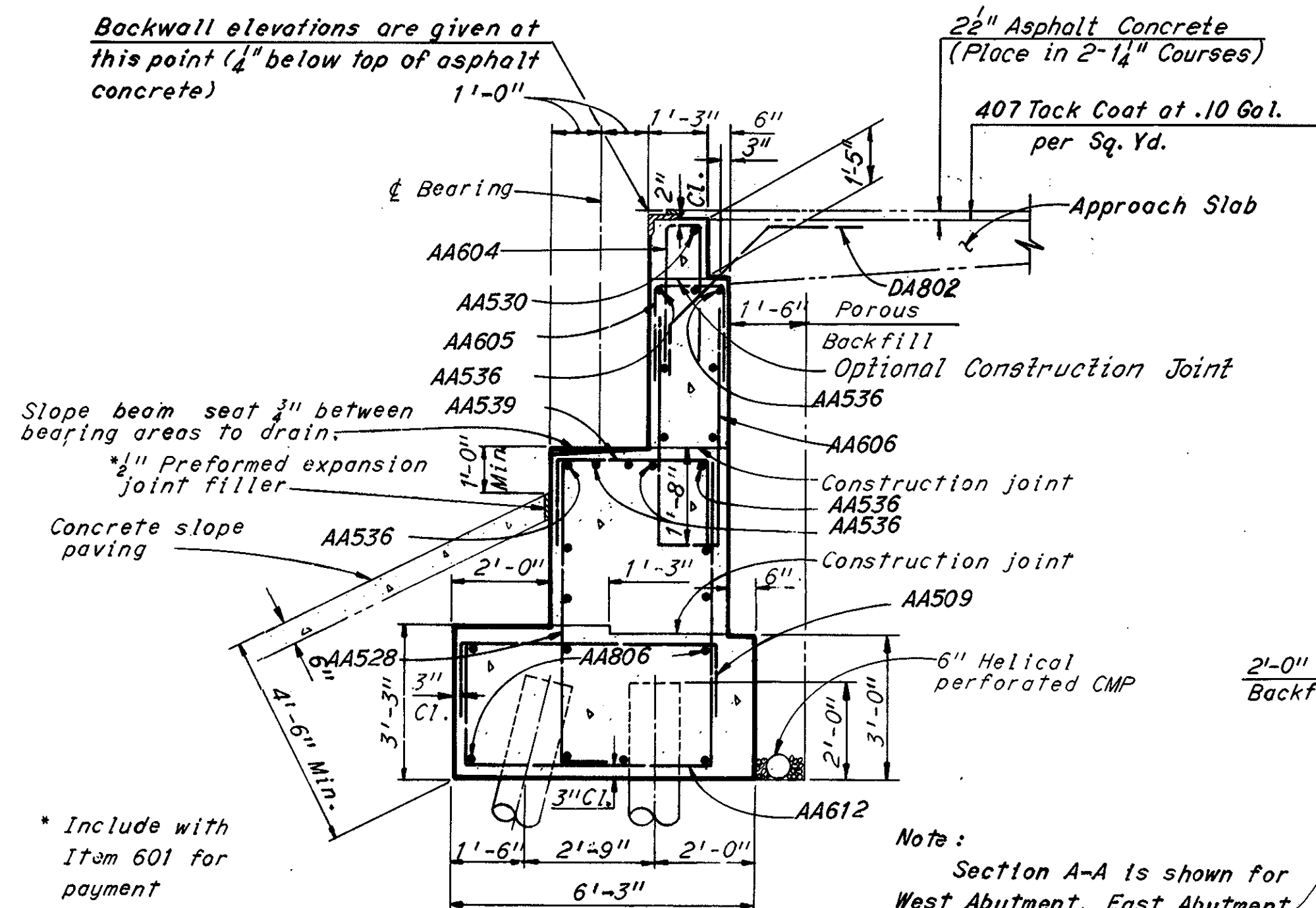


SECTION C-C

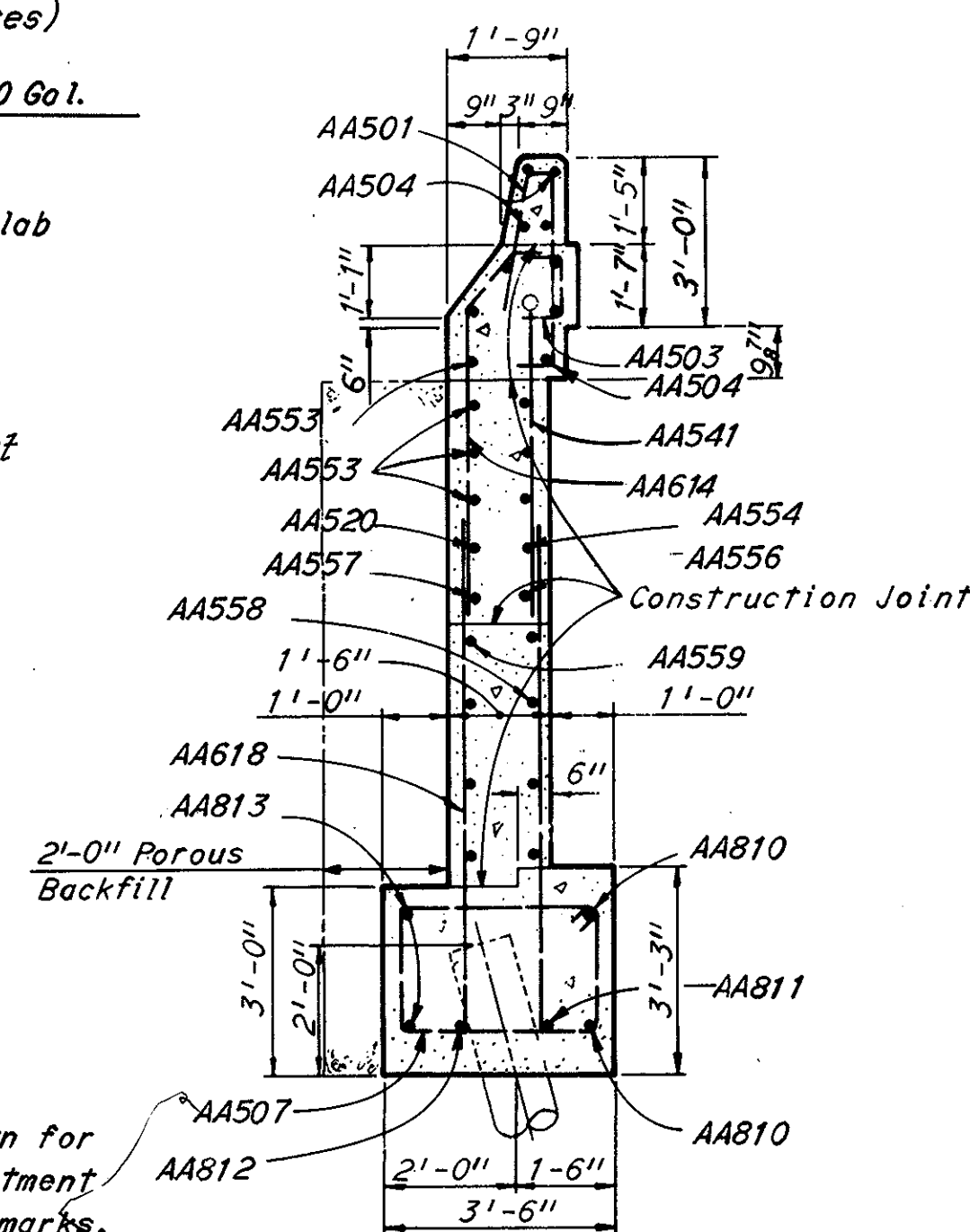
NORTHEAST AND SOUTHWEST
WINGWALL ELEVATION
Piles not shown

No tes:

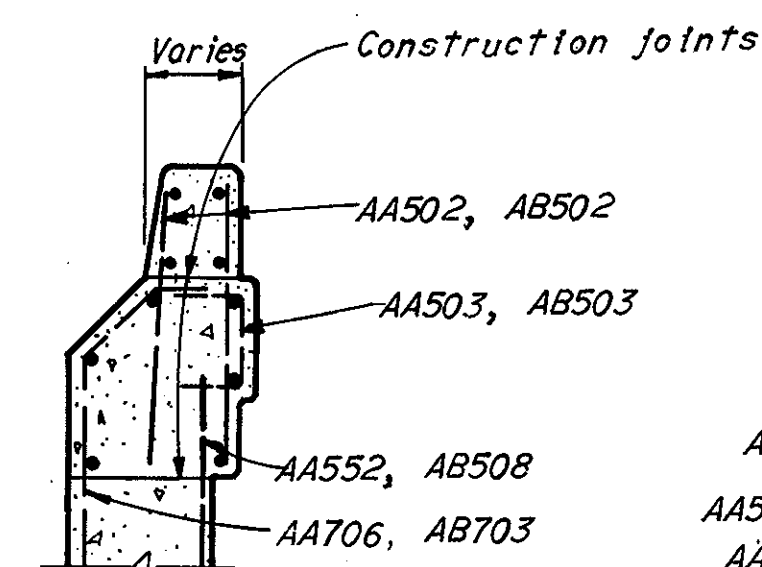
For notes see Sheet 6 / 17
For method of terminating the
6" CMP see Sheet 204.



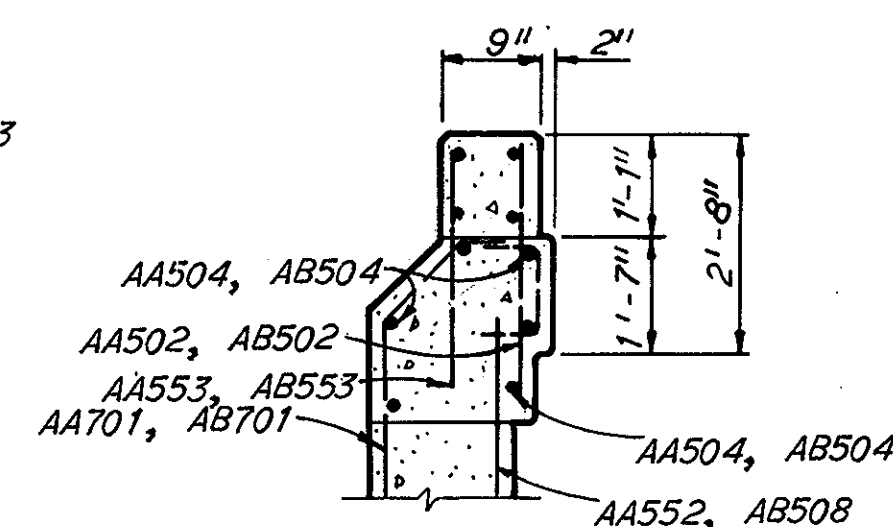
SECTION A - A



SECTION B-B



SECTION D-D



VIEW E-E

H.N.T.B. BRIDGE NO. 4 Revised 12-15-75 By RAS
HOWARD, NEEDLES, TAMMEN & BERGENDOFF 4 / 17
 CONSULTING ENGINEERS
 KANSAS CITY CLEVELAND NEW YORK

ABUTMENT DETAILS

U.S. 30, RAMP D AND RAMP H
OVER MARKET AVENUE
BR. NO. STA. 30+15.22 STA. 978+68.50
SCALE: $\frac{3}{8}" = 1'-0"$ STA. 980+64.21

RELOCATED U.S. 30

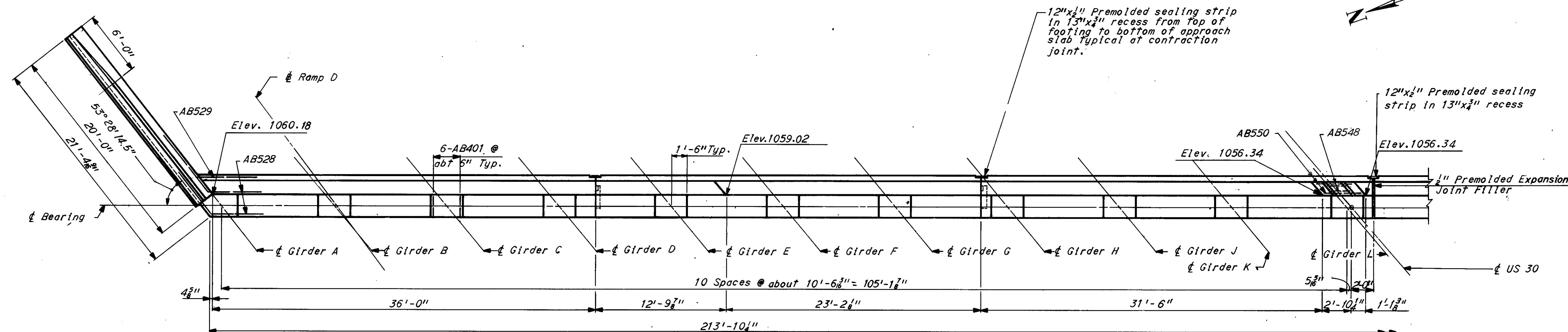
DRAWN <u>ELH</u>	TRACED	CHECKED <u>BM</u>	REVIEWED <u>MJK</u>	REVISED
DATE <u>4-14-70</u>	DATE	DATE <u>MAR 6-18-70</u>	DATE <u>11-24-71</u>	<u>1668</u>

MICROFILMED
APR 16 1985

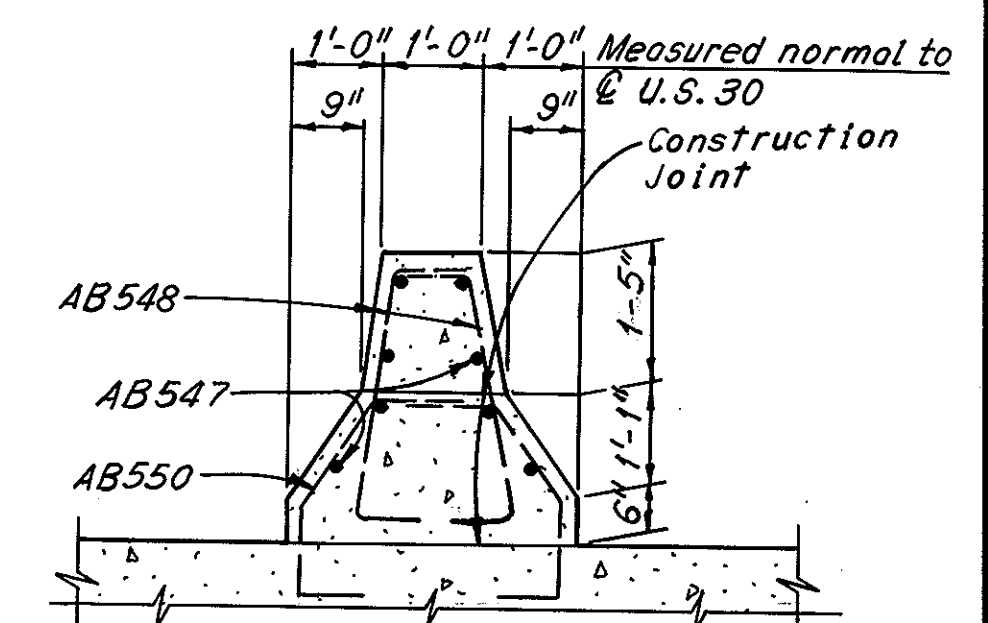
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	TYPE FUNDS
2	OHIO		

229
299

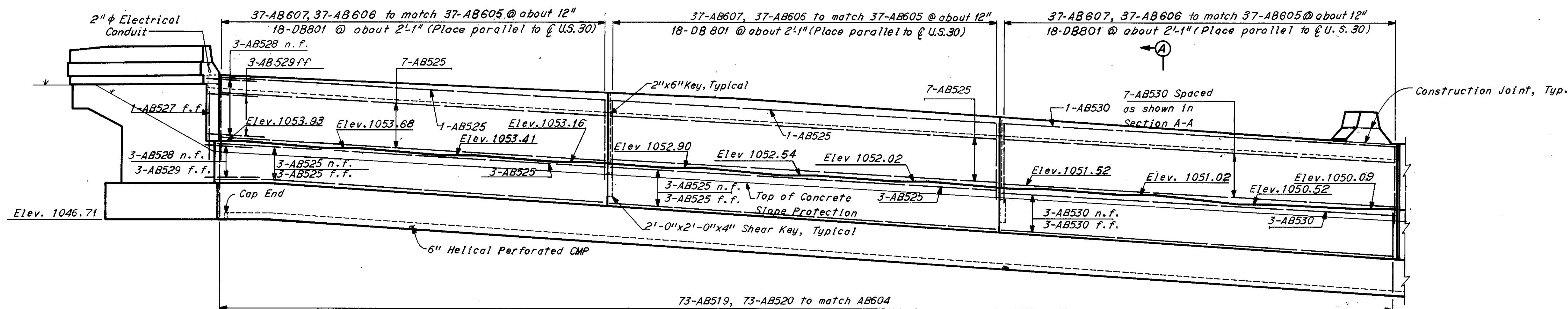
STARK COUNTY
STA-30-15.04
STA-77-9.22



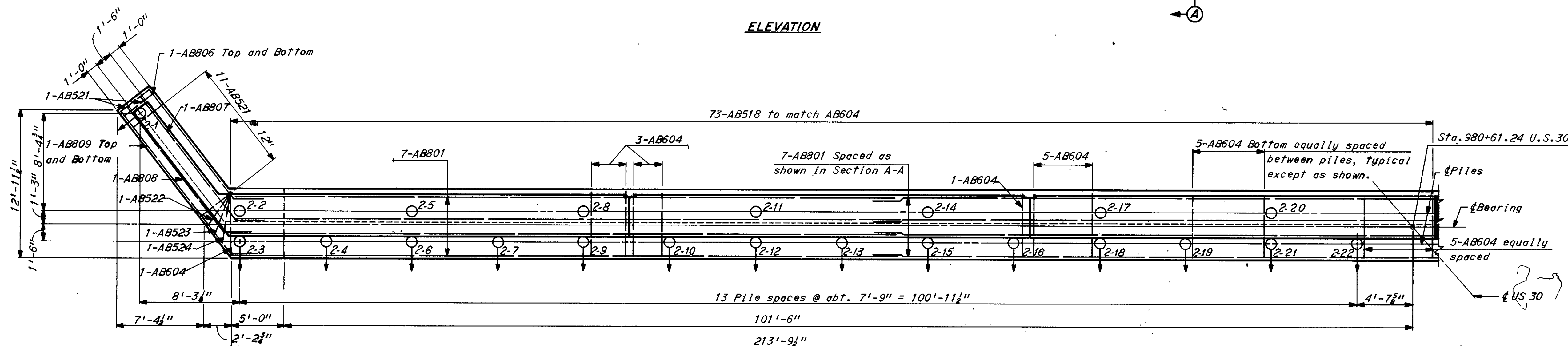
PLAN



MEDIAN DETAILS



ELEVATION



FOOTING PLAN

For notes see Sheet 6 / 17

H.N.T.B. BRIDGE NO. 4		Revised 12-15-75 By RAS	
HOWARD, NEEDLES, TAMMEN & BERGENDOFF		5 / 17	
CONSULTING ENGINEERS			
KANSAS CITY CLEVELAND NEW YORK			
EAST ABUTMENT			
U.S. 30, RAMP D AND RAMP H			
OVER MARKET AVENUE			
BR. NO. STA-30-15.22		STA. 978+68.50	
SCALE: 3/16"=1'-0"		STA. 980+64.21	
RELOCATED U.S. 30			
CANTON		STARK COUNTY OHIO	
DRAWN	ELH	TRACED	CHECKED BM
DATE	4-6-70	DATE	6-18-70
		REVIEWED	JK
		DATE	11-24-71
			1668

MICROFILMED
APR 16 1985

MARK	NUMBER	LENGTH	TYPE	DIMENSIONS			SERIES INCRE.	WEIGHT POUNDS
				A	B	C		
DECK								
S501	265	2'-4"	105	7½"	1'-4"			644
S502	265	5'-10"	144					1,612
S503	265	2'-2"	104	1'-8"	7½"			600
S504	265	3'-5"	143	9"				945
S505	176	3'-3"	119					597
S506	12	13'-7"	Str					170
S507	60	30'-0"	Str					1877
S508	5	34'-0"	Str					178
S509	5	22'-6"	Str					117
S511	132	7'-2"	Str					985
S512	8	12'-8"	Str					105
S513	12	14'-9"	Str					185
S514	8	13'-10"	Str					116
S515	28	15'-8"	Str					458
S516	12	12'-2"	Str					152
S517	12	15'-4"	Str					192
S518	176	3'-1"	166					565
S519	176	2'-6"	Str					459
S520	168	4'-1"	167					715
S521	168	3'-2"	165					555
S522	168	3'-3"	101	2'-8"				569
S523	176	3'-0"	143	5"				550
S601	55	40'-0"	Str					3304
S602	1771	30'-0"	Str					79,801
S603	5	4'-6"	Str					34
S604	5	5'-2"	101	4'-6"				39
S605	1 Ser. 37	24'-0" to 5'-0"	101	23'-4" to 4'-4"			6⅝"	806
S606	1 Ser. 41	33'-0" to 10'-6"	Str				6¾"	1,502
S607	41	16'-0"	101	15'-4"				985
S608	1 Ser. 44	40'-0" to 14'-6"	Str				7⅛"	1,800
S609	1 Ser. 38	32'-9" to 12'-6"	Str				6⅝"	1,290
S610	1 Ser. 265	35'-0" to 30'-0"	101	34'-4" to 29'-4"			4"	12,936
S611	1 Ser. 30	30'-0" to 13'-0"	Str				7⅞"	970
S612	1 Ser. 44	40'-0" to 10'-6"	Str				8¼"	1,670
S613	1 Ser. 56	40'-8" to 5'-8"	101	40'-0" to 5'-0"			7⅝"	1,955
S614	163	28'-6"	Str					6,978
S615	1 Ser. 142	32'-0" to 29'-0"	Str				4"	6,510
S616	1 Ser. 257	35'-8" to 32'-8"	101	35'-0" to 32'-0"			⅝"	13,180
S617	1 Ser. 58	36'-6" to 4'-6"	Str				6¾"	1,786
S618	1 Ser. 54	40'-0" to 11'-3"	Str				6½"	2,075
S619	28	18'-6"	Str					778
S620	1 Ser. 48	37'-9" to 12'-6"	Str				6⅝"	1,820
S621	1 Ser. 231	37'-6" to 32'-6"	Str				4"	12,144
S622	1 Ser. 39	33'-0" to 9'-0"	Str				7⅞"	1230
S623	1 Ser. 42	36'-6" to 9'-9"	Str				7⅞"	1,460
S624	1 Ser. 49	37'-3" to 5'-0"	Str				8⅛"	1,550
S625	270	21'-0"	Str					8,500
S626	1 Ser. 222	40'-0" to 37'-0"	Str				⅞"	12,850
S627	13	7'-0"	Str					137
S628	13	7'-8"	101	7'-0"				150
S629	1 Ser. 35	27'-4" to 6'-4"	101	26'-8" to 5'-8"			7⅞"	885
S630	1 Ser. 34	35'-0" to 13'-6"	Str				7⅞"	1,240
S631	34	16'-4"	101	15'-8"				834
S632	1 Ser. 45	40'-0" to 13'-0"	Str				7⅞"	1,790
S633	253	39'-4"	101	38'-8"				14,947
S634	1 Ser. 53	38'-0" to 8'-0"	Str				6⅝"	1,884
S635	1 Ser. 42	34'-0" to 11'-0"	Str				6¾"	1,420
S636	1 Ser. 42	22'-2" to 24'-8"	101	21'-6" to 24'-0"			¾"	1,470
S637	261	27'-8"	101	27'-0"				10,870
S638	70	17'-0"	Str					1,790
S639	1 Ser. 191	24'-0" to 17'-0"	Str				7⅞"	5,900
S640	1 Ser. 37	28'-6" to 5'-6"	Str				7⅞"	945
S641	1 Ser. 28	31'-0" to 12'-6"	Str				8¼"	915
S642	1 Ser. 49	37'-9" to 10'-0"	Str				6⅝"	1,760
S643	153	34'-6"	Str					7,928
S644	1 Ser. 41	33'-6" to 13'-0"	Str				6⅛"	1,430
S645	1 Ser. 38	37'-6" to 18'-0"	Str				6⅝"	1,580
S646	38	25'-0"	Str					1,430
S647	1 Ser. 70	40'-0" to 7'-6"	Str				5⅝"	2,500
S648	194	32'-0"	Str					9,310
S649	1 Ser. 54	33'-8" to 8'-2"	101	33'-0" to 7'-6"			5¼"	1,700
S650	14	36'-8"	Str					775

MARK	NUMBER	LENGTH	TYPE	DIMENSIONS			SERIES INCRE.	WEIGHT POUNDS
				A	B	C		
S651	8	35'-1"	Str					420
S652	6	37'-9"	Str					340
S653	232	33'-0"	Str					11499
S654	2 Ser. 54	12'-0" to 25'-6"	Str				3 $\frac{1}{8}$ "	3042
S655	2 Ser. 63	18'-6" to 26'-9"	Str				1 $\frac{1}{8}$ "	4280
S656	2 Ser. 94	12'-0" to 25'-6"	Str				1 $\frac{3}{4}$ "	5295
S657	2 Ser. 104	18'-6" to 26'-9"	Str				1"	7060
S658	1 Ser. 194	19'-0" to 16'-0"	Str				1 $\frac{1}{8}$ "	5100
S659	42	28'-0"	Str					1756
S660	8	4'-0"	Str					48
S661	8	4'-6"	101	3'-10"				54
S662	8	5'-0"	Str					60
S663	8	5'-10"	101	5'-2"				70
S664	8	22'-6"	Str					270
S665	104	40'-6"	Str					6,326
Total								309,519

MARK	NUMBER	LENGTH	TYPE	DIMENSIONS			SERIES INCRE.	WEIGHT POUNDS
				A	B	C		

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	TYPE FUNDS
2	OHIO		

241
299

STARK COUNTY
STA-30-15.04
STA-77-9.22

For bending diagrams see Sheet 15/17

H.N.T.B. BRIDGE NO. 4				Revised 12-20-75 By RAS	
HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS KANSAS CITY CLEVELAND NEW YORK					
REINFORCEMENT SCHEDULE					
U.S. 30, RAMP D AND RAMP H OVER MARKET AVENUE					
BR. NO. STA-30-15 22 STA. 978+68.50					
SCALE: STA. 980+64.21					
RELOCATED U.S. 30					
CANTON STARK COUNTY OHIO					
DRAWN BY DATE 10-30-70	TRACED DATE	CHECKED BY DATE 10-30-70	REVIEWED BY DATE 11-24-71	REVISED	1668

FED. ROAD DIV. NO	STATE	FEDERAL AID PROJECT NO	TYPE FUNDS
2	OHIO		

230

299

MICROFILMED
APR 16 1985

12"x $\frac{1}{2}$ " Premolded sealing strip in 13"x $\frac{3}{4}$ " recess from top of footing to bottom of approach slab. Typical for expansion joint and contraction joint.

Elev. 1056.52
Elev. 1056.34
Elev. 1056.53
Elev. 1053.55
Elev. 1051.95

U.S. 30
Rounding
4'-0"
4'-0"
4'-6"
1'-1 $\frac{3}{8}$ "
1'-2 $\frac{7}{8}$ "
10' $\frac{5}{8}$ "

6-AB601 @ 6" Typ.

Contraction Joint
1'-6" Typ.

Contraction Joint Typical

AB544
AB510
AB543
AB545
130° 54' 08"

6'-0"
23'-3 $\frac{3}{8}$ "
20'-0"
2'-0"
2'-8 $\frac{3}{4}$ "
6'-6"
6'-3"

10 Spaces @ 9'-11 $\frac{5}{8}$ " = 99'-8 $\frac{3}{8}$ "

38'-0"
33'-5"
4'-7"
25'-9 $\frac{7}{8}$ "
213'-10 $\frac{1}{4}$ "

1" Premolded Expansion Joint Filler

€ Girder M
€ Girder N
€ Girder P
€ Girder Q
€ Girder R
€ Girder S
€ Girder T
€ Girder U
€ Girder V
€ Girder W
€ Girder X

€ Bearing

PLAN

[illegible]

Notes:

For roadway end dam details see Ohio Standard Drawing SD-1-69, Sheets 1 and 2 of 4. and Sheet 203.

AA401 and AB401 bars shall be placed $2\frac{1}{2}$ " below top of bridge seat.

n.f. denotes near face, f.f. denotes far face, and e.f. denotes each face.

For reinforcement schedule see Sheet 15/17

Shear keys at contraction joints shall be centered between front and back faces.

Bearings may be set in line with girders. See Sheets 9/17 and 10/17 for intersection angles between centerline of abutment and girders.

All battered piles are battered 3 in 12.

Pile dimensions are measured along bottom of footing.

All piles are 12" ϕ cast-in-place concrete.

○ Denotes battered piles.

Only that CMP located in the porous backfill will be perforated.

For median details see Sheet 203.

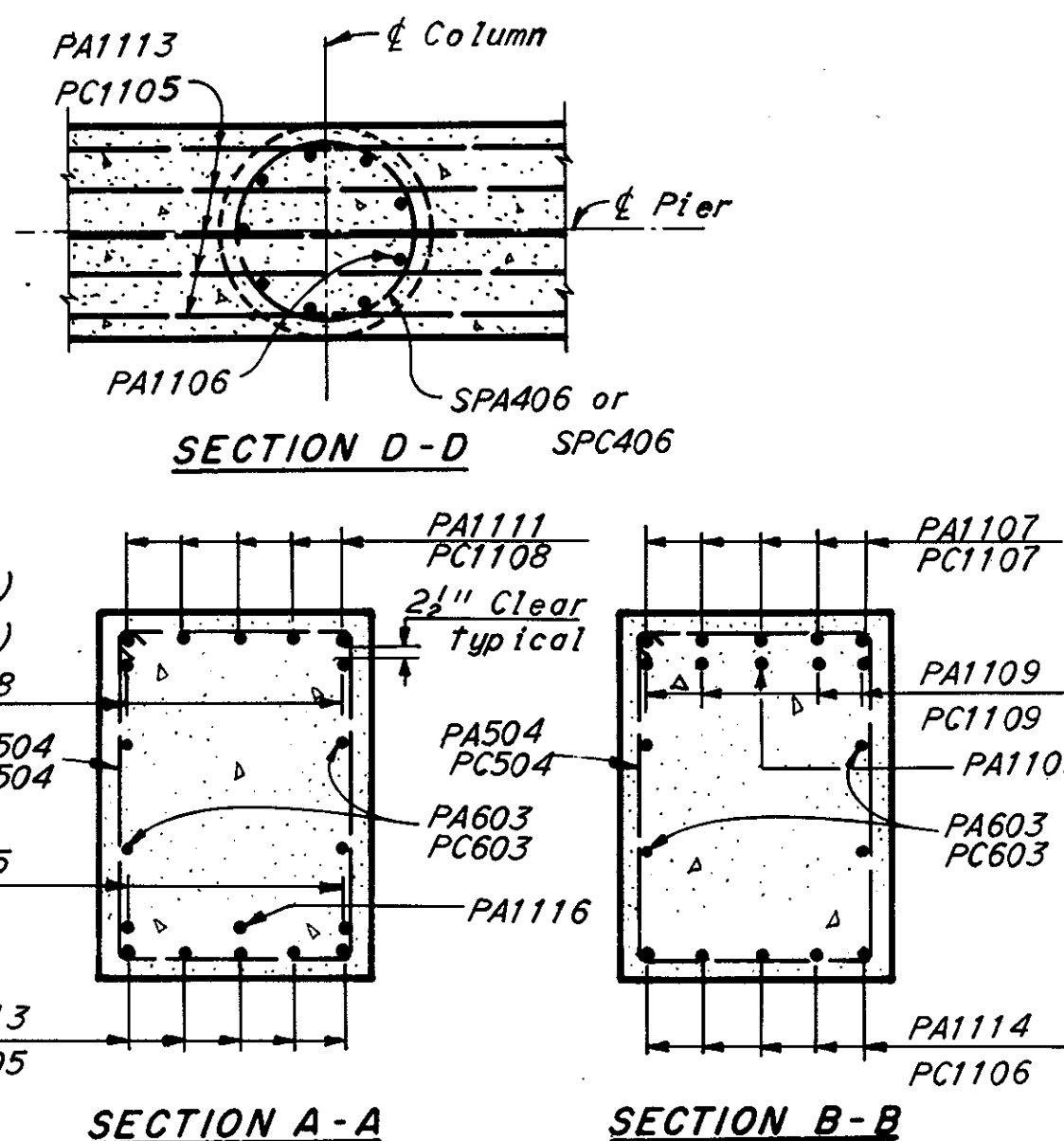
HOWARD, NEEDLES, TAMMEN & BERGENDOFF 6/1
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

BR. NO. STA-30-1522 STA. 978+68.50
SCALE: $\frac{3}{16}'' = 1'-0''$ STA. 980+64.21

RELOCATED U.S. 30

CANTON STARK COUNTY OHIO

DRAWN <i>ELH</i>	TRACED	CHECKED <i>BM</i>	REVIEWED <i>MJK</i>	REVISED <i>3-1-78</i>
DATE <i>7 APR 70</i>	DATE	DATE <i>6-19-70</i>	DATE <i>11-24-71</i>	<i>166</i>

[illegible]

Notes:

Bearings shall be set in line with girders. See Sheets 9/17 and 10/17 for intersection angles between centerline of pier and girders.

For layout sketch see Sheet 1/17

Special care shall be taken when placing reinforcing steel so as not to interfere with anchor bolt setting (Pier 1 only).

For anchor bolt details see Sheet 8/17

PA501, PA502, PA503, PC501, PC502 and PC503 bars shall be placed $2\frac{1}{2}" \pm$ below top of cap beam.

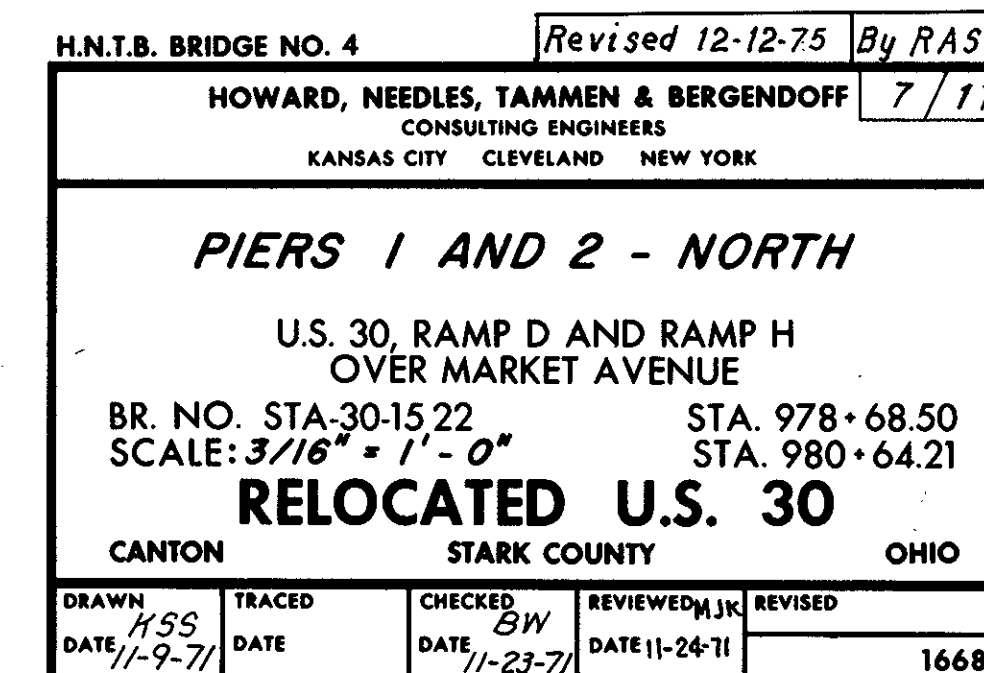
(1) Denotes Pier 1 and (2) denotes Pier 2.

PA bar designations are for Pier 1 North.

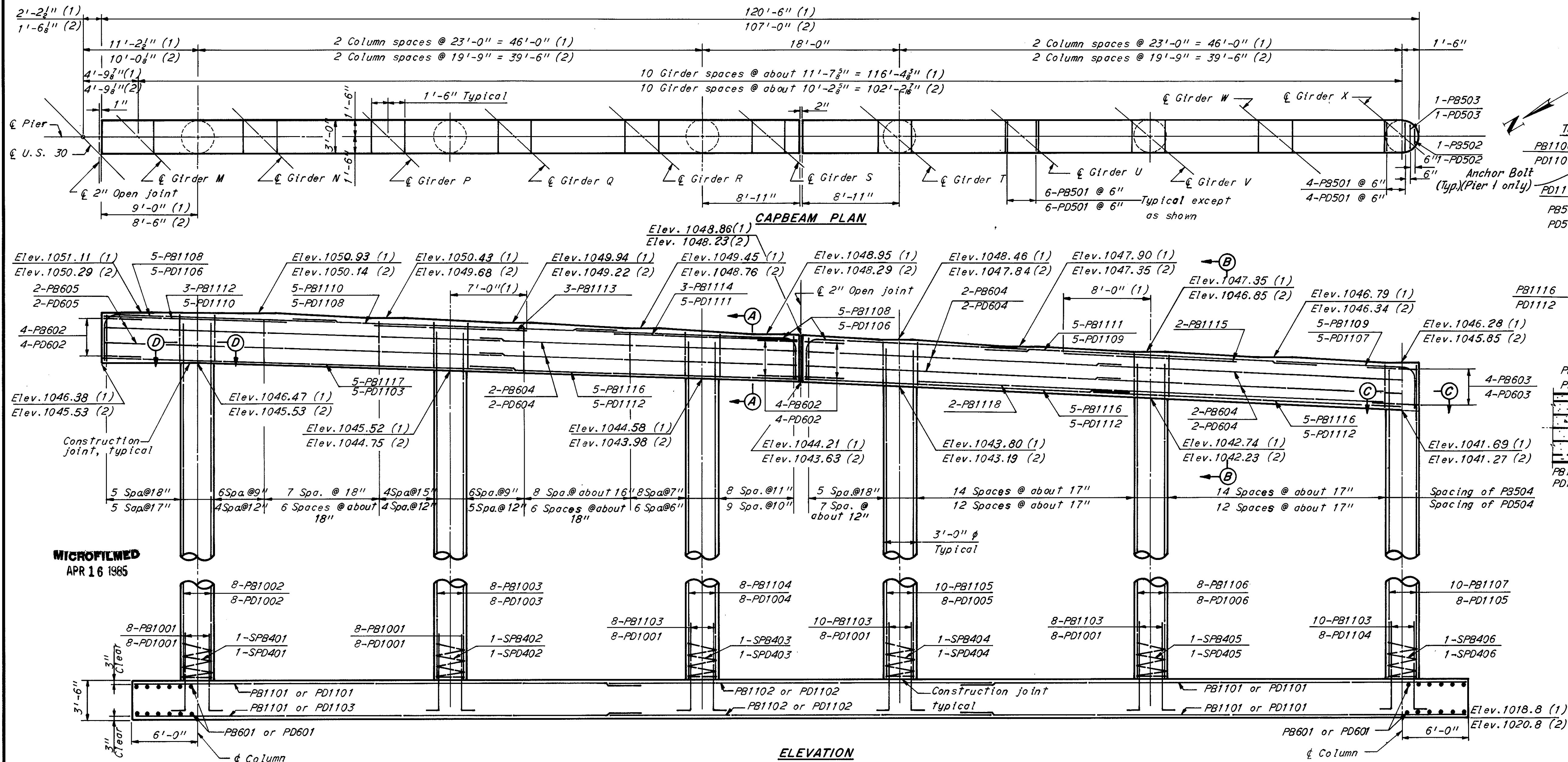
PC bar designations are for Pier 2 North.

The stirrups in all cantilevers and within 6 feet of the $\frac{1}{2}$ of column shall be placed with the hooks at the bottom. All others shall be placed with the hook at the top.

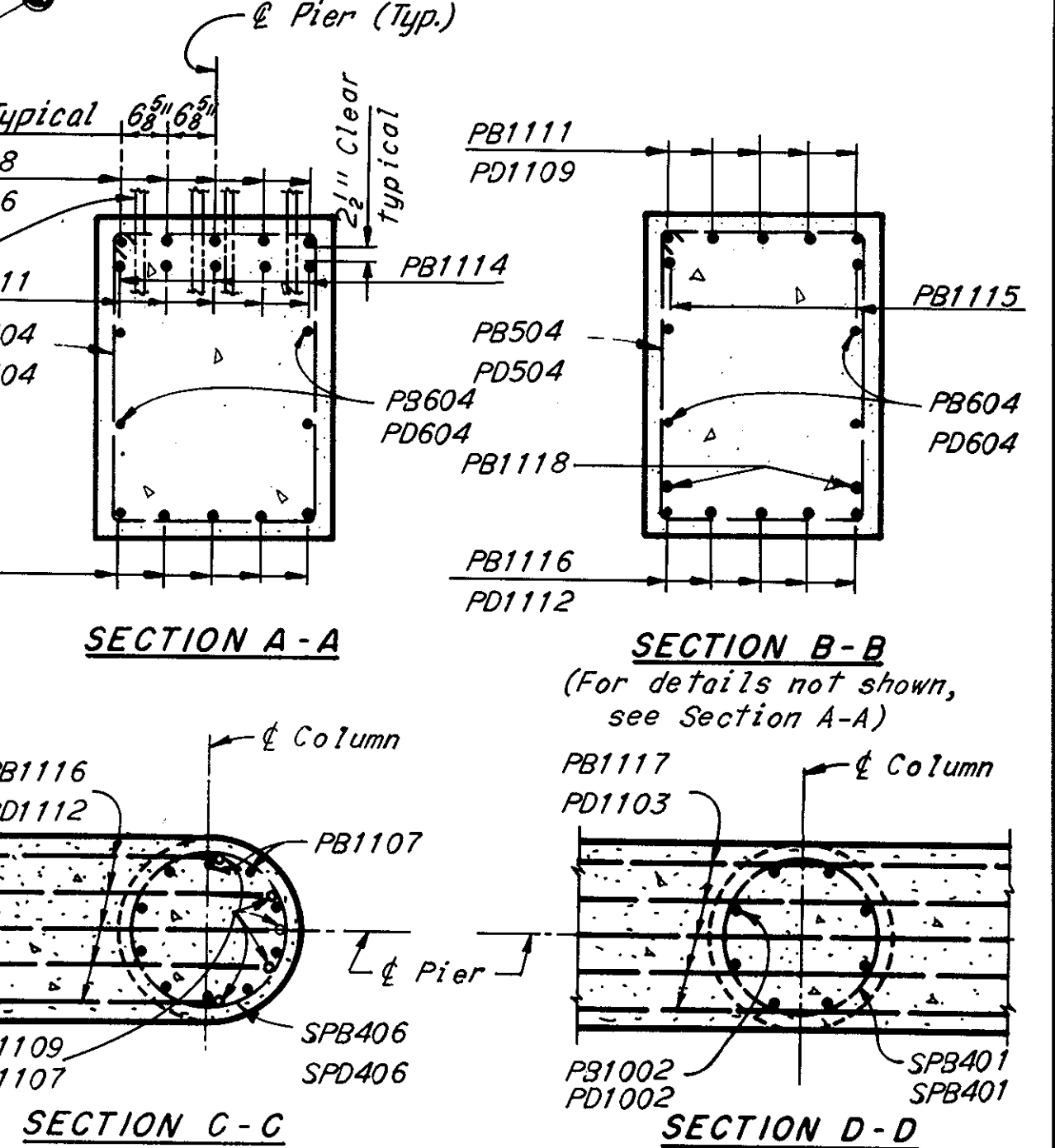
For reinforcement schedule See Sheet 16/17



STARK COUNTY
STA-30-15.04
STA-77-9.22



MICROFILMED
APR 16 1985



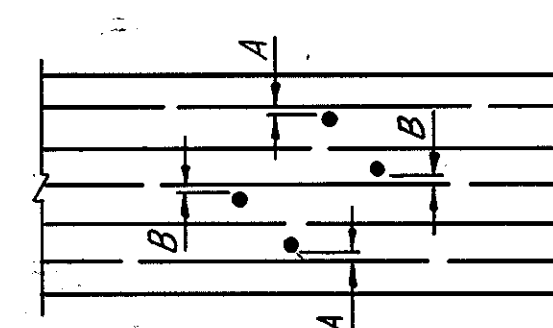
Notes:
The stirrups in all cantilevers and within 6 feet of the & Column shall be placed with the hooks at the bottom. All others shall be placed with the hooks at the top of the cap beam.
Special care shall be taken when placing reinforcing steel so as not to interfere with anchor bolt setting (Pier 1 only).
PB501, PB502, PB503, PD501, PD502 and PD503 bars shall be placed 2 1/2" ± below top of cap beam.
(1) Denotes Pier 1 South.
(2) Denotes Pier 2 South.
PB bar designation for Pier 1 South.
PD bar designation for Pier 2 South.
For reinforcement schedule see Sheet 16/17.
For layout sketch see Sheet 1/17.
Bearings shall be set in line with girders. See Sheets 9/17 and 10/17 for intersection angles between centerline of pier and girders.

ELEVATION

FOOTING PLAN

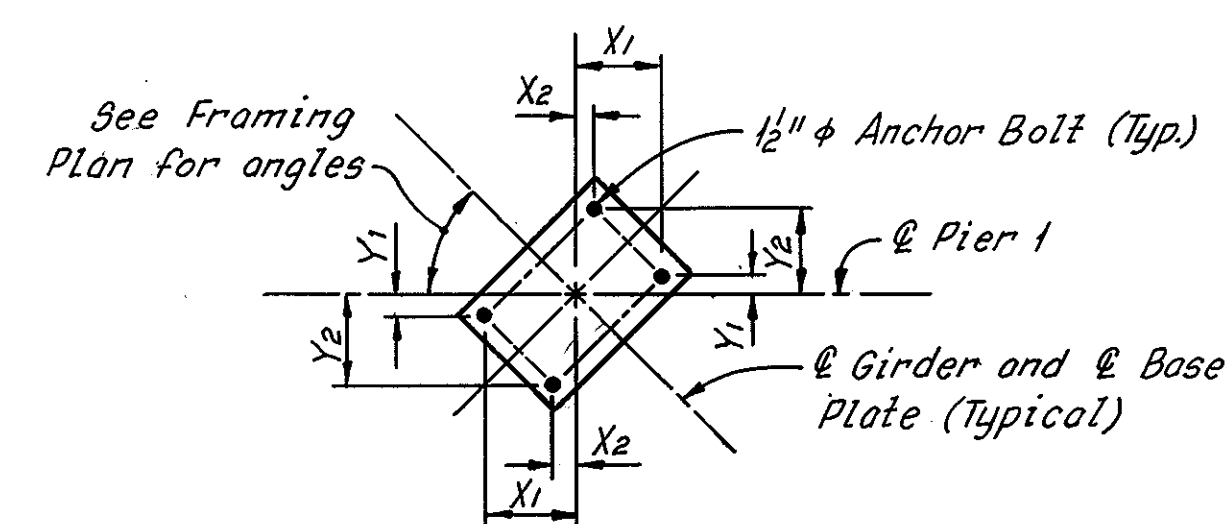
ANCHOR BOLT PLACEMENT - PIER 1														
Girder	X ₁	X ₂	Y ₁	Y ₂	Girder	X ₁	X ₂	Y ₁	Y ₂	Girder	X ₁	X ₂	Y ₁	Y ₂
A	11 1/8"	4 1/8"	1 1/8"	10 1/8"	J	11 1/8"	3 1/8"	2 1/8"	11 1/8"	S	11 1/8"	2 1/8"	3 1/8"	11 1/8"
B	11 1/8"	4 1/8"	1 1/8"	10 1/8"	K	11 1/8"	3 1/8"	2 1/8"	11 1/8"	T	11 1/8"	2 1/8"	3 1/8"	11 1/8"
C	11 1/8"	4 1/8"	1 1/8"	11 1/8"	L	11 1/8"	3 1/8"	2 1/8"	11 1/8"	U	11 1/8"	2 1/8"	3 1/8"	11 1/8"
D	11 1/8"	3 1/8"	1 1/8"	11 1/8"	M	11 1/8"	3 1/8"	2 1/8"	11 1/8"	V	11 1/8"	1 1/8"	3 1/8"	11 1/8"
E	11 1/8"	3 1/8"	1 1/8"	11 1/8"	N	11 1/8"	2 1/8"	2 1/8"	11 1/8"	W	11 1/8"	1 1/8"	3 1/8"	11 1/8"
F	11 1/8"	3 1/8"	2 1/8"	11 1/8"	P	11 1/8"	2 1/8"	3 1/8"	11 1/8"	X	10 7/8"	1 1/8"	4 1/8"	11 1/8"
G	11 1/8"	3 1/8"	2 1/8"	11 1/8"	Q	11 1/8"	2 1/8"	3 1/8"	11 1/8"					
H	11 1/8"	3 1/8"	2 1/8"	11 1/8"	R	11 1/8"	2 1/8"	3 1/8"	11 1/8"					

Note:
Anchor bolts are 1 1/2" x 2'-4" swedge anchor bolts set 1'-6" into concrete and threaded 5".



PARTIAL PLAN

(Minimum clearance between cap beam reinforcement and anchor bolt)



ANCHOR BOLT PLACEMENT - PIER 1

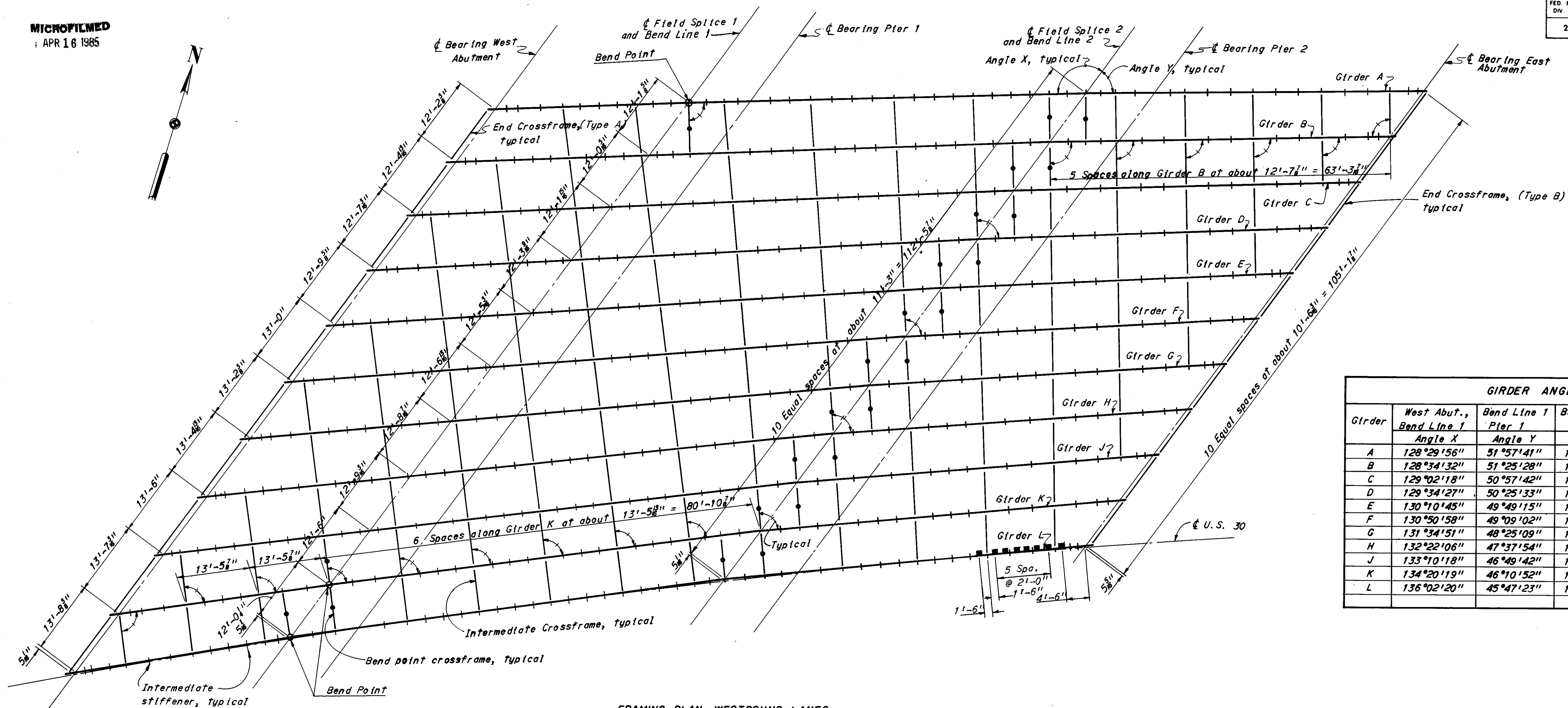
H.N.T.B. BRIDGE NO. 4		Revised 12-12-75 By RAS	
HOWARD, NEEDLES, TAMMEN & BERGENDOFF 8/17			
CONSULTING ENGINEERS KANSAS CITY CLEVELAND NEW YORK			
PIERS 1 AND 2 - SOUTH			
U.S. 30, RAMP D AND RAMP H OVER MARKET AVENUE			
BR. NO. STA-30-15.22		STA. 978+68.50	
SCALE: 3/16" = 1'-0"		STA. 980+64.21	
RELOCATED U.S. 30			
CANTON		STARK COUNTY OHIO	
DRAWN KSS DATE 11-16-71	TRACED DATE	CHECKED BW DATE 11-23-71	REVIEWED MJK DATE 11-24-71
			1668

MICROFILMED
APR 16 1985

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	TYPE FUNDS
2	OHIO		

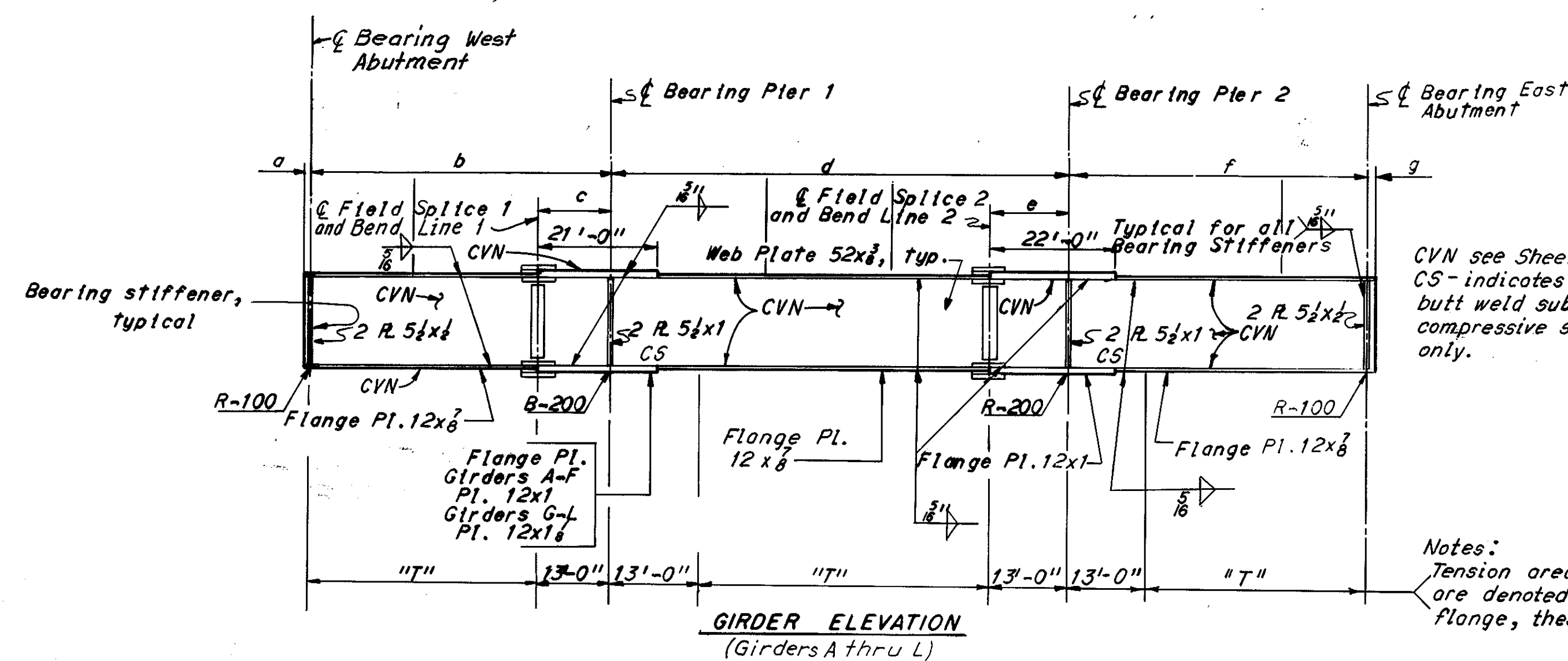
233
299

STARK COUNTY
STA-30-15.04
STA-77-9.22



GIRDER ANGLES				
Girder	West Abut., Bend Line 1 Angle X	Bend Line 1 Pier 1 Angle Y	Bend Line 2 Angle X	Bend Line 2, Pier 2, E Abut. Angle Y
A	128°29'56"	51°57'41"	128°02'19"	52°58'55"
B	128°34'32"	51°25'28"	128°34'32"	52°27'09"
C	129°02'18"	50°57'42"	129°02'18"	51°55'50"
D	129°34'27"	50°25'33"	129°34'27"	51°24'56"
E	130°10'45"	49°49'15"	130°10'45"	50°54'30"
F	130°50'58"	49°09'02"	130°50'58"	50°24'29"
G	131°34'51"	48°25'09"	131°34'51"	49°54'54"
H	132°22'06"	47°37'54"	132°22'06"	49°25'44"
J	133°10'18"	46°49'42"	133°10'18"	48°56'59"
K	134°20'19"	46°10'52"	133°49'08"	48°28'39"
L	136°02'20"	45°47'23"	134°12'37"	48°00'43"

FRAMING PLAN - WESTBOUND LANES



DIMENSIONS (Measured Along @ Girder)						
GIRDER	a	b	c	d	e	f
A	11 1/2"	47'-6 1/2"	11'-7 1/2"	75'-4 1/2"	12'-10 1/2"	49'-11 1/2"
B	11 1/2"	47'-8"	11'-8 1/2"	75'-11 1/2"	12'-11 1/2"	50'-3 1/2"
C	11 1/2"	47'-11 1/2"	11'-9 1/2"	76'-5 1/2"	13'-0 1/2"	50'-8 1/2"
D	11 1/2"	48'-4 1/2"	11'-10 1/2"	77'-0 1/2"	13'-1 1/2"	51'-0 1/2"
E	11 1/2"	48'-9 1/2"	11'-11 1/2"	77'-8"	13'-2 1/2"	51'-4 1/2"
F	11 1/2"	49'-3 1/2"	12'-1 1/2"	78'-4 1/2"	13'-4"	51'-9 1/2"
G	1'-0"	49'-9 1/2"	12'-2 1/2"	79'-2 1/2"	13'-5 1/2"	52'-1 1/2"
H	1'-0 1/2"	50'-5 1/2"	12'-4 1/2"	80'-1 1/2"	13'-6 1/2"	52'-6 1/2"
J	1'-0 1/2"	51'-1 1/2"	12'-6 1/2"	81'-1 1/2"	13'-7 1/2"	52'-10 1/2"
K	1'-0 1/2"	51'-11 1/2"	12'-8 1/2"	81'-11 1/2"	13'-8 1/2"	53'-3 1/2"
L	1'-0 1/2"	53'-3 1/2"	12'-9 1/2"	82'-6"	13'-9 1/2"	53'-8 1/2"

Notes:
Tension areas of bottom flange
are denoted by "T". For the top
flange, these areas are in compression.

Note:
There are no restrictions for welded
attachments to the exterior girders.

For Notes see Sheet 10/17

H.N.T.B. BRIDGE NO. 4 Revised 12-12-75 By RAS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF 9/17
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

FRAMING PLAN

U.S. 30, RAMP D AND RAMP H
OVER MARKET AVENUE
BR. NO. STA-30-15.22 STA. 978+68.50
SCALE: STA. 980+64.21

RELOCATED U.S. 30

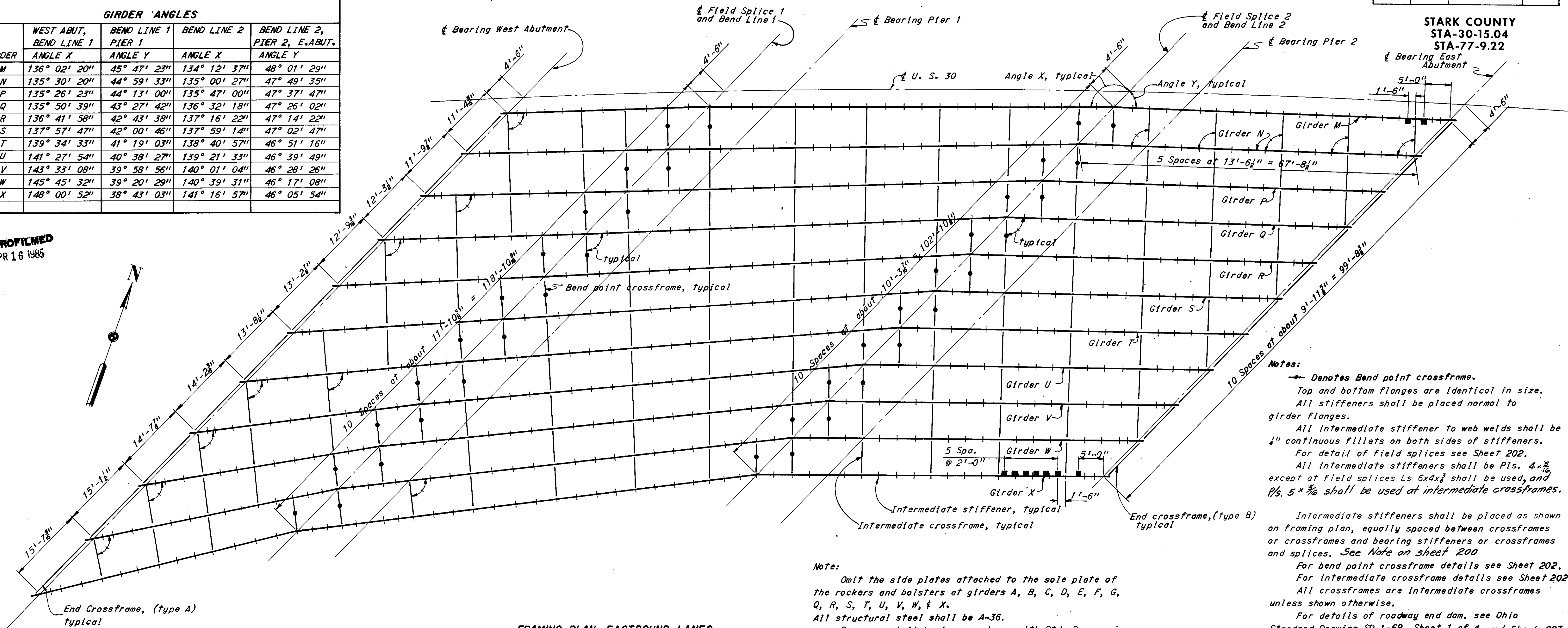
CANTON STARK COUNTY OHIO

DRAWN M.A.G. TRACED CHECKED B.M. REVIEWED M.J.K. REVISION
DATE 5-18-70 DATE 5/29/70 DATE 11-24-71

1668

GIRDER ANGLES				
GIRDER	WEST ABUT. BEND LINE 1 ANGLE X	BEND LINE 1 PIER 1 ANGLE Y	BEND LINE 2 ANGLE X	BEND LINE 2, PIER 2, E. ABUT. ANGLE Y
M	136° 02' 20"	45° 47' 23"	134° 12' 37"	48° 01' 29"
N	135° 30' 20"	44° 59' 33"	135° 00' 27"	47° 49' 35"
P	135° 26' 23"	44° 13' 00"	135° 47' 00"	47° 37' 47"
Q	135° 50' 39"	43° 27' 42"	136° 32' 18"	47° 26' 02"
R	136° 41' 58"	42° 43' 38"	137° 16' 22"	47° 14' 22"
S	137° 57' 47"	42° 00' 46"	137° 59' 14"	47° 02' 47"
T	139° 34' 33"	41° 19' 03"	138° 40' 57"	46° 51' 16"
U	141° 27' 54"	40° 38' 27"	139° 21' 33"	46° 39' 49"
V	143° 33' 08"	39° 58' 56"	140° 01' 04"	46° 28' 26"
W	145° 45' 32"	39° 20' 29"	140° 39' 31"	46° 17' 08"
X	148° 00' 52"	38° 43' 03"	141° 16' 57"	46° 05' 54"

MICROFILMED
APR 16 1985



Notes:
 — Denotes Bend point crossframe.
 Top and bottom flanges are identical in size.
 All stiffeners shall be placed normal to girder flanges.
 All intermediate stiffener to web welds shall be 4" continuous fillets on both sides of stiffeners.
 For detail of field splices see Sheet 202.
 All intermediate stiffeners shall be Pls. 4x5/16 except at field splices Ls 6x4x5/16 shall be used, and Pls. 5x5/16 shall be used at intermediate crossframes.

Intermediate stiffeners shall be placed as shown on framing plan, equally spaced between crossframes or crossframes and bearing stiffeners or crossframes and splices. See Note on sheet 200.

For bend point crossframe details see Sheet 202.
 For intermediate crossframe details see Sheet 202.

All crossframes are intermediate crossframes unless shown otherwise.

For details of roadway end dam, see Ohio Standard Drawing SD-1-69, Sheet 1 of 4, and Sheet 203.

For end crossframe details see sheet 202.
 For details of curb plates at concrete bridge railing and medians see Ohio Standard Drawing SD-1-69, Sheet 2 of 4 and Sheet 203.

For details at rockers and bolsters see Ohio Standard Drawing RB-1-55.

■ Denotes standard scupper.

Dimensions to scuppers are measured along center-line of girders.

For underpass light support details see sheet 125.
 For Camber and Deflection Table see Sheet 11/17.

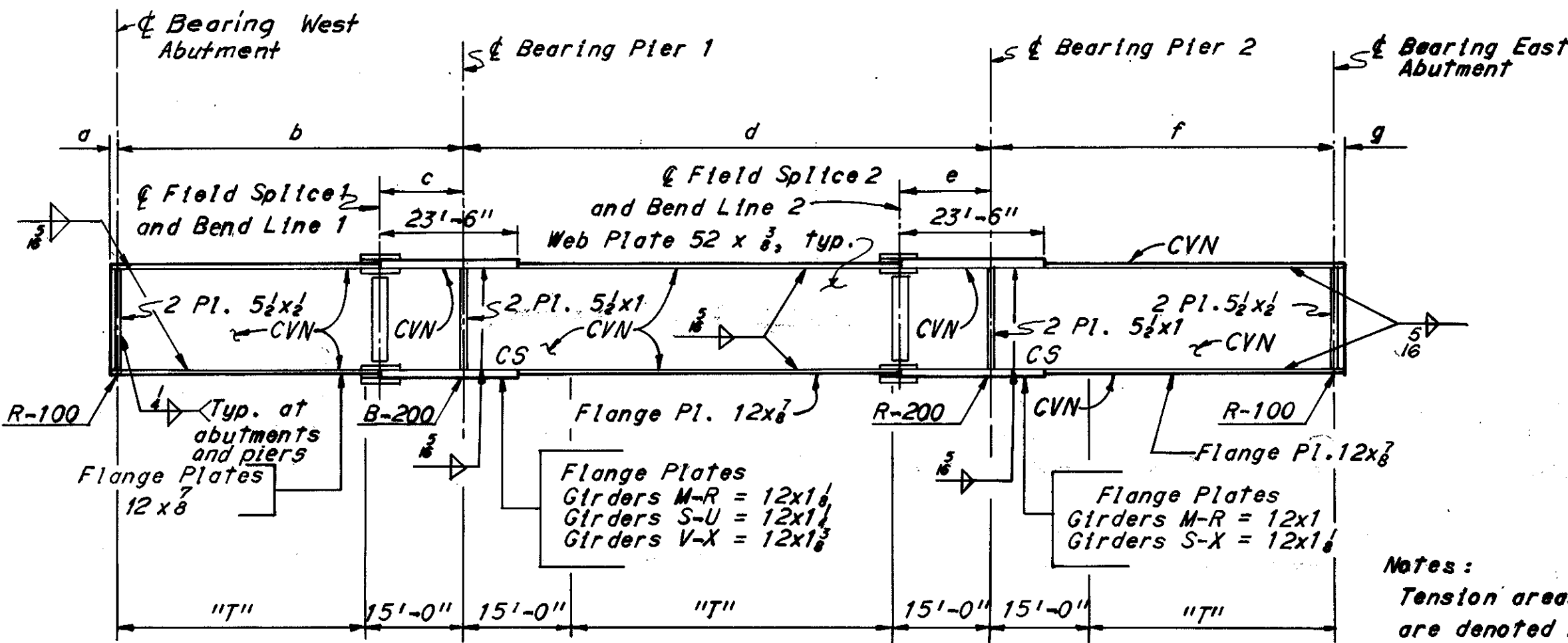
⊥ Denotes 90°00'00".
 Set bend point crossframes normal to girder near the bend point.

Note:
 Omit the side plates attached to the sole plate of the rockers and bolsters at girders A, B, C, D, E, F, G, Q, R, S, T, U, V, W, & X.
 All structural steel shall be A-36.
 Scuppers shall be in accordance with Std. Dwg. SD-1-69 except that scupper pipes shall extend 8" below the bottom of the beams instead of 2" and top of scupper shall be 4" below asphalt concrete wearing course.

DIMENSIONS (Measured Along Q Girder)							
GIRDER	a	b	c	d	e	f	g
M	1'-0 5/8"	53'-3 1/4"	12'-9 1/4"	82'-5 5/8"	13'-9 7/8"	53'-8 1/4"	1'-0 1/4"
N	1'-0 5/8"	53'-0 3/4"	12'-11 1/4"	83'-5 1/4"	13'-10 3/8"	53'-10 1/4"	1'-0 1/4"
P	1'-0 5/8"	53'-2 3/8"	13'-1 1/4"	84'-5 5/8"	13'-10 5/8"	54'-0 1/4"	1'-0 1/4"
Q	1'-0 1/2"	53'-8"	13'-3 1/4"	85'-6 1/4"	13'-11 1/8"	54'-2 1/4"	1'-0 3/8"
R	1'-1 1/4"	54'-5 5/8"	13'-5 1/4"	86'-6 1/4"	13'-11 3/8"	54'-4 3/8"	1'-0 1/4"
S	1'-1 1/4"	55'-7 5/8"	13'-8 1/4"	87'-7"	14'-0 1/8"	54'-6 1/4"	1'-0 1/4"
T	1'-1 1/4"	57'-2 3/4"	13'-10 3/8"	88'-7 1/4"	14'-1"	54'-8 1/4"	1'-0 3/8"
U	1'-2 3/4"	59'-2 3/4"	14'-0 3/4"	89'-8 1/4"	14'-1 3/8"	54'-10 3/8"	1'-0 3/8"
V	1'-3 1/4"	61'-6 3/4"	14'-3 1/4"	90'-9 3/4"	14'-2 1/4"	55'-0 3/4"	1'-0 3/8"
W	1'-4 1/4"	64'-4 1/4"	14'-5 3/4"	91'-10 3/4"	14'-2 3/4"	55'-2 1/4"	1'-0 3/8"
X	1'-5"	67'-8 1/4"	14'-7 3/4"	92'-11 1/4"	14'-3 1/4"	55'-4 1/4"	1'-0 3/8"

Notes:
 Tension areas of bottom flange are denoted by "T". For the top flange, these areas are in compression.
 CVN see Sheet 200.
 CS indicates flange butt weld subject to compressive stress only.

Note
 For table of top of pavement elevations see Sheet 11/17



Note:
 There are no restrictions for welded attachments to the exterior girders.

H.N.T.B. BRIDGE NO. 4
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS
 KANSAS CITY CLEVELAND NEW YORK

FRAMING PLAN
 U.S. 30, RAMP D AND RAMP H
 OVER MARKET AVENUE
 BR. NO. STA-30-15-22 STA. 978+68.50
 SCALE: 1"= 10'-0" STA. 980+64.21
RELOCATED U.S. 30
 CANTON STARK COUNTY OHIO
 DRAWN/MAG TRACED
 DATE 2/20/70 DATE
 CHECKED/BM REVIEWED/MLK
 DATE 4/1/70 DATE 11-24-71
 1668

STARK COUNTY
STA-30-15.04
STA-77-9.22

DEFLECTION AND CAMBER

	W. ABUT.	.25	.50	.75	PIER 1	.25	.50	.75	PIER 2	.25	.50	.75	E. ABUT.
GIRDER A	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER B	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER C	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER D	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER E	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER F	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER G	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER H	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER I	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER J	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER K	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER L	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0

*Values given are at field splices.

DEFLECTION AND CAMBER

	W. ABUT.	.25	.50	.75	PIER 1	.25	.50	.75	PIER 2	.25	.50	.75	E. ABUT.
GIRDER M	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER N	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER O	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER P	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER Q	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER R	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER S	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER T	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER U	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
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5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER V	1	0	0	0	0	0	0	0	0	0	0	0	0
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GIRDER W	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
GIRDER X	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0

TOP OF PORTLAND CEMENT CONCRETE ELEVATIONS

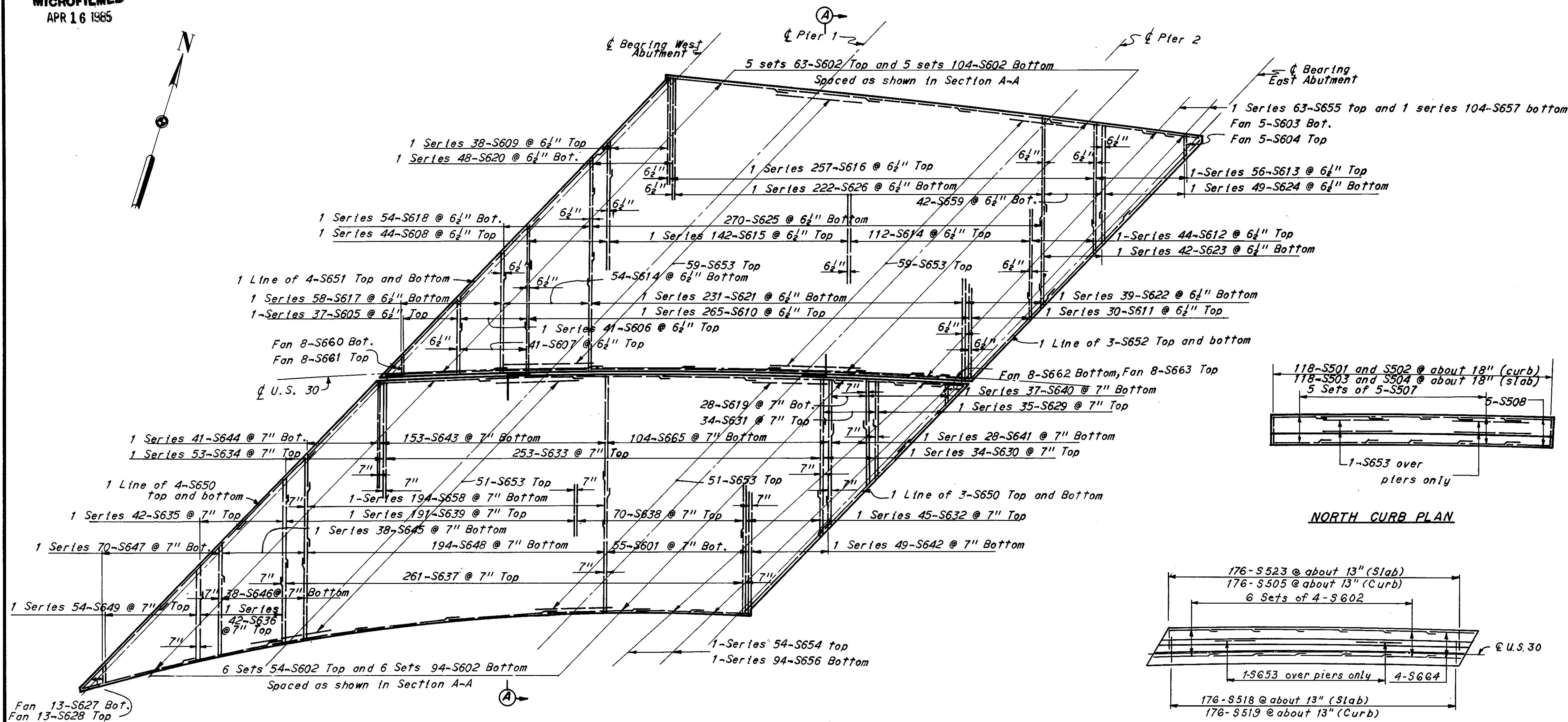
GIRDER	WEST ABUT.	.25	.50	.75*	PIER 1	.25	.50	.75*	PIER 2	.25	.50	.75	EAST ABUT.
A	1061.36	1061.29	1061.23	1061.17	1061.10	1060.99	1060.87	1060.71	1060.55	1060.41	1060.27	1060.13	1059.99
B	1061.23	1061.15	1061.08	1060.98	1060.89	1060.75	1060.61	1060.43	1060.29	1060.15	1060.01	1059.87	1059.74
C	1061.12	1061.03	1060.93	1060.83	1060.73	1060.54	1060.36	1060.18	1060.03	1059.88	1059.75	1059.61	1059.47
D	1061.06	1060.93	1060.81	1060.71	1060.59	1060.36	1060.15	1059.90	1059.77	1059.63	1059.49	1059.36	1059.22
E	1060.99	1060.85	1060.68	1060.54	1060.40	1060.17	1059.95	1059.66	1059.51	1059.37	1059.23	1059.10	1058.96
F	1060.73	1060.58	1060.43	1060.28	1060.13	1059.88	1059.64	1059.34	1059.18	1059.02	1058.87	1058.73	1058.60
G	1060.27	1060.09	1059.92	1059.75	1059.59	1059.34	1059.11	1058.82	1058.66	1058.51	1058.36	1058.23	1058.09
H	1059.70	1059.52	1059.36	1059.19	1059.04	1058.80	1058.58	1058.30	1058.14	1058.00	1057.85	1057.72	1057.59
J	1059.13	1058.98	1058.79	1058.64	1058.49	1058.26	1058.05	1057.79	1057.63	1057.49	1057.35	1057.21	1057.08
K	1058.56	1058.40	1058.25	1058.10	1057.95	1057.73	1057.53	1057.28	1057.12	1056.98	1056.84	1056.71	1056.58
L	1058.05	1057.92	1057.79	1057.65	1057.52	1057.32	1057.11	1056.83	1056.70	1056.56	1056.43	1056.29	1056.16
M	1058.19	1058.06	1057.93	1057.78	1057.67	1057.47	1057.27	1056.97	1056.85	1056.72	1056.59	1056.45	1056.30
N	1058.08	1057.92	1057.77	1057.63	1057.49	1057.28	1057.08	1056.85	1056.69	1056.55	1056.41	1056.28	1056.16
P	1057.59	1057.43	1057.28	1057.13	1056.99	1056.79	1056.61	1056.39	1056.23	1056.09	1055.95	1055.82	1055.68
Q	1057.09	1056.93	1056.78	1056.63	1056.50	1056.31	1056.14	1055.93	1055.77	1055.63	1055.49	1055.35	1055.23
R	1056.59	1056.42	1056.28	1056.14	1056.01	1055.83	1055.67	1055.47	1055.32	1055.17	1055.03	1054.89	1054.77
S	1056.05	1055.91	1055.77	1055.65	1055.53	1055.36	1055.20	1055.02	1054.86	1054.71	1054.57	1054.44	1054.31
T	1055.51	1055.38	1055.27	1055.15	1055.05	1054.88	1054.74	1054.57	1054.41	1054.26	1054.12	1053.98	1053.85
U	1054.91	1054.80	1054.69	1054.59	1054.48	1054.34	1054.21	1054.09	1053.92	1053.77	1053.60	1053.48	1053.37
V	1054.27	1054.15	1054.11	1054.05	1053.95	1053.82	1053.70	1053.59	1053.43	1053.25	1053.08	1052.96	1052.86
W	1053.64	1053.55	1053.50	1053.49	1053.39	1053.27	1053.17	1053.08	1052.92	1052.75	1052.56	1052.42	1052.35
X	1053.00	1052.96	1052.92	1052.95	1052.88	1052.81	1052.72	1052.59	1052.43	1052.27	1052.10	1051.89	1051.79

MICROFILMED
APR 16 1985

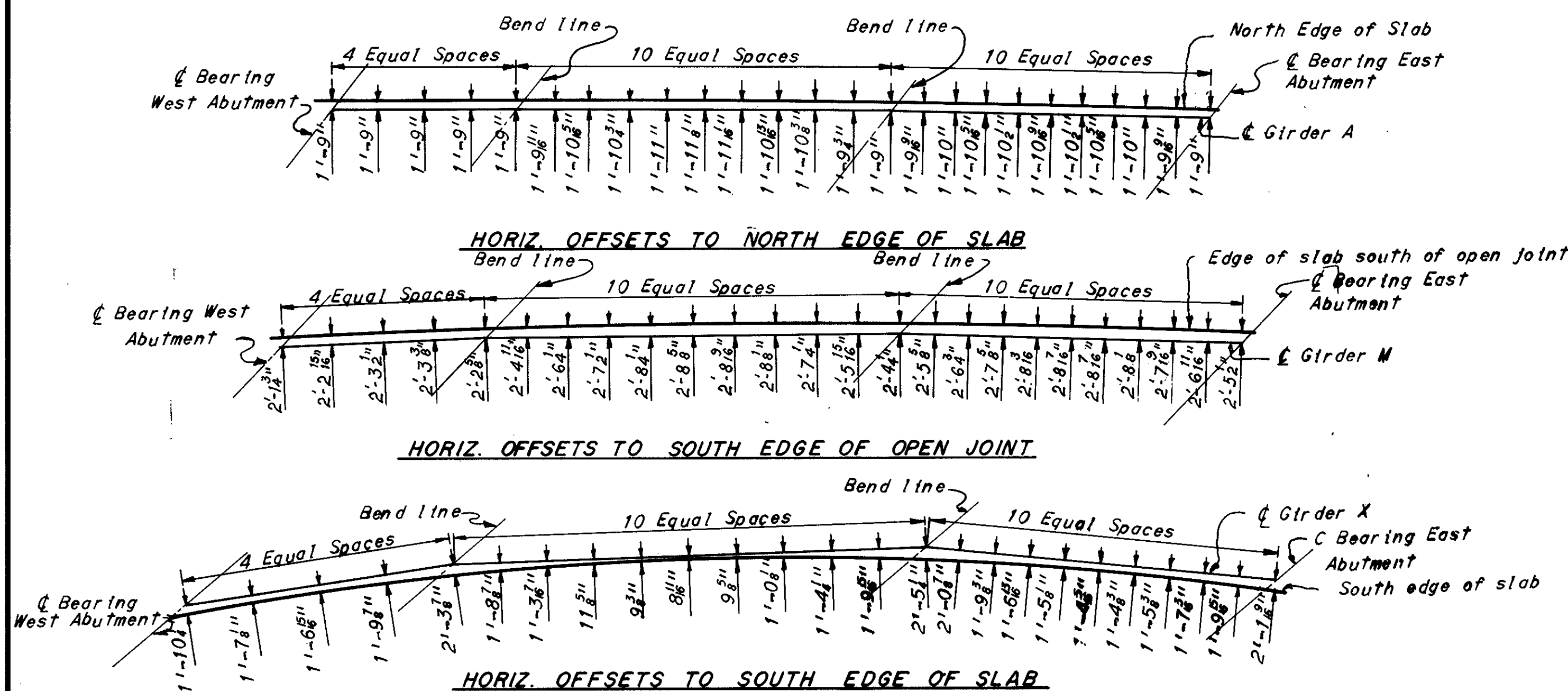
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	TYPE FUNDS
2	OHIO		

236
299

STARK COUNTY
STA-30-15.04
STA-77-9.22



DECK PLAN



HORIZ. OFFSETS TO NORTH EDGE OF SLAB

HORIZ. OFFSETS TO SOUTH EDGE OF OPEN JOINT

HORIZ. OFFSETS TO SOUTH EDGE OF SLAB

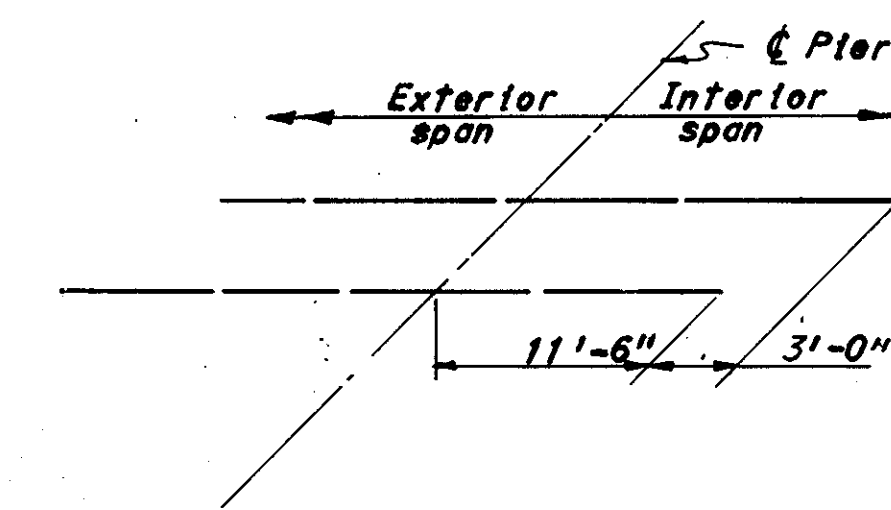
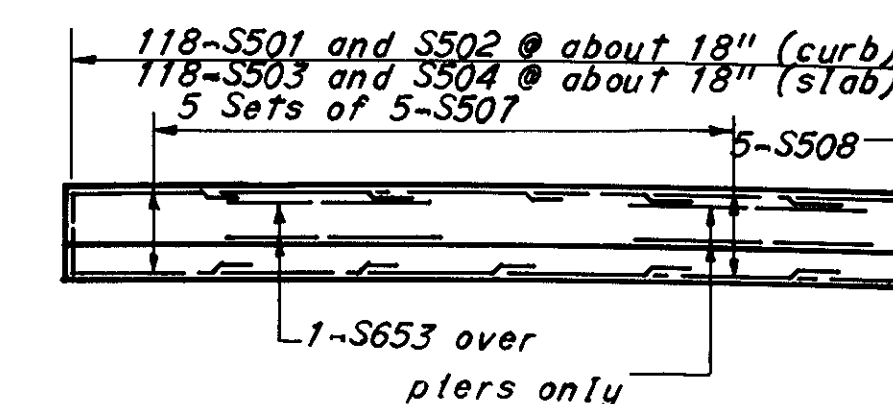
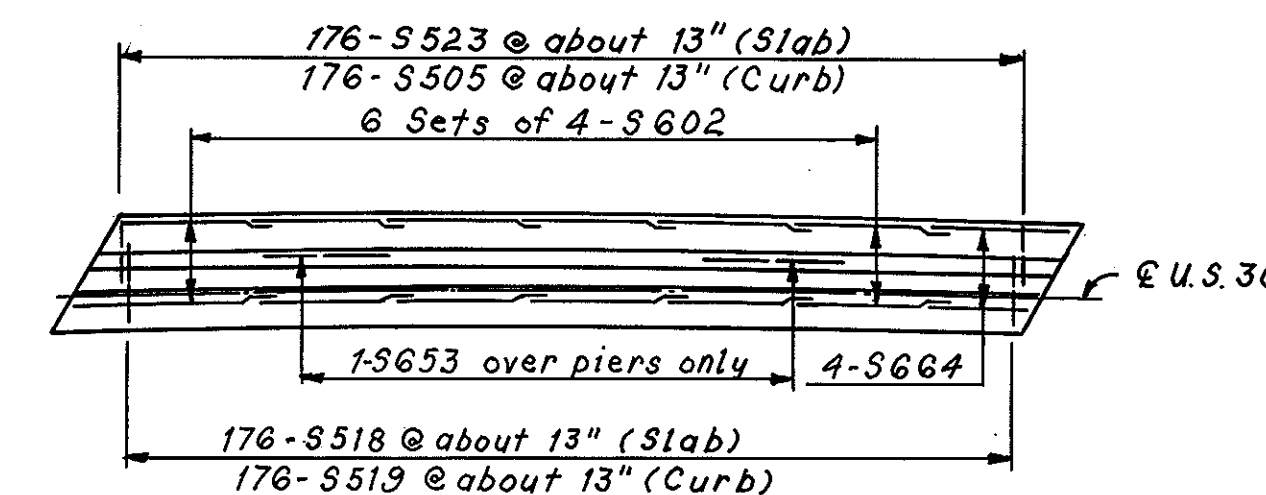


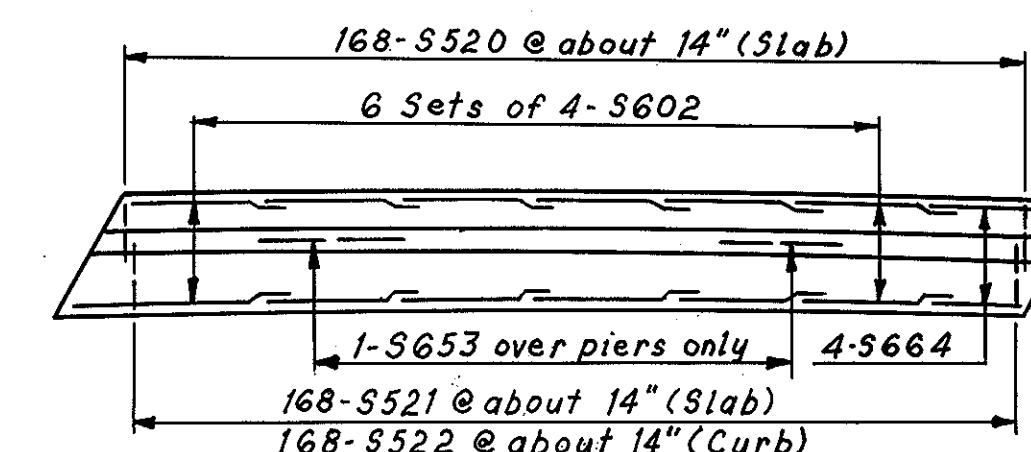
Diagram showing stagger of S653 bars over piers



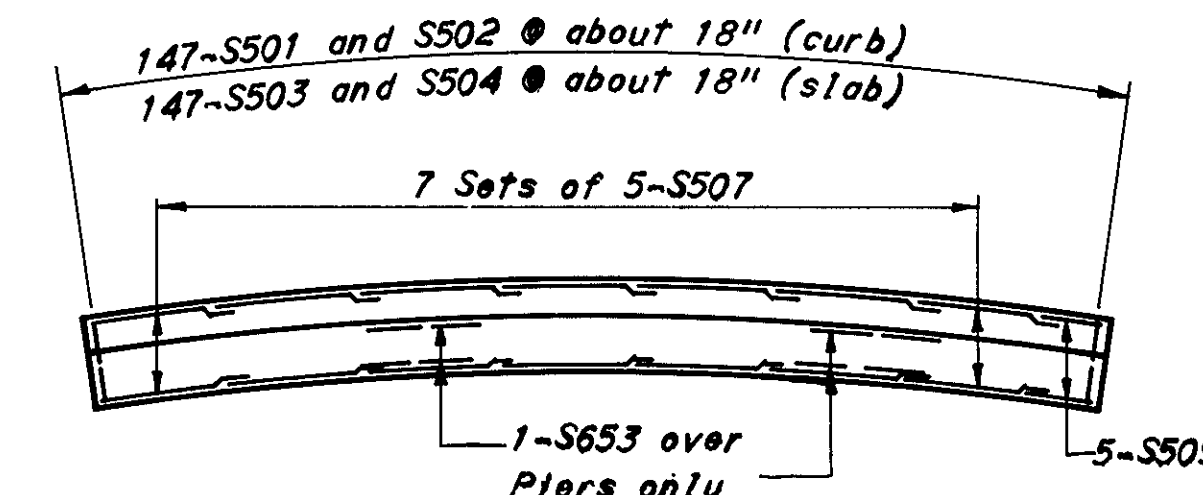
NORTH CURB PLAN



WESTBOUND MEDIAN CURB PLAN



EASTBOUND MEDIAN CURB PLAN



SOUTH CURB PLAN

Notes:
Reinforcing steel shall be adjusted as required to clear scuppers.

For concrete parapet elevations see Sheet 13/17
For deflection joint details see Sheet 203
For curb and parapet details see Sheet 203
Transverse reinforcing steel shall be placed normal to layout line.
For reinforcement schedule see Sheet 17/17

H.N.T.B. BRIDGE NO. 4
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

DECK PLAN

U.S. 30, RAMP D AND RAMP H
OVER MARKET AVENUE
BR. NO. STA-30-15.22 STA. 978+68.50
SCALE: 1" = 20'-0" STA. 980+64.21

RELOCATED U.S. 30

CANTON STARK COUNTY OHIO

DRAWN	TRACED	CHECKED	REVIEWED	DATE
MAJ	5/1/70	5/1/70	5/1/70	5/1/70

GIRDERS	*DEPTH
A thru F	9 1/2"
G thru L	9 3/4"
M thru R	9 1/2"
S thru U	9 1/2"
V thru X	9 3/4"

*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 camber or conformation 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.

Notes:
Reinforcing steel shall be adjusted as required to clear scuppers.

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 be not more than 1:4 for a haunch less than 9" in width.

For curb and parapet details see Sheet 203.
For reinforcement schedule see Sheet 17/17

For median curb and parapet details see Sheet 203.

For Subdrainage details see Sheet 204A
For Median Curb Plans see Sheet 236

H.N.T.B. BRIDGE NO. 4 Revised 12-19-75 By RAS

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

DECK SECTION AND DETAILS

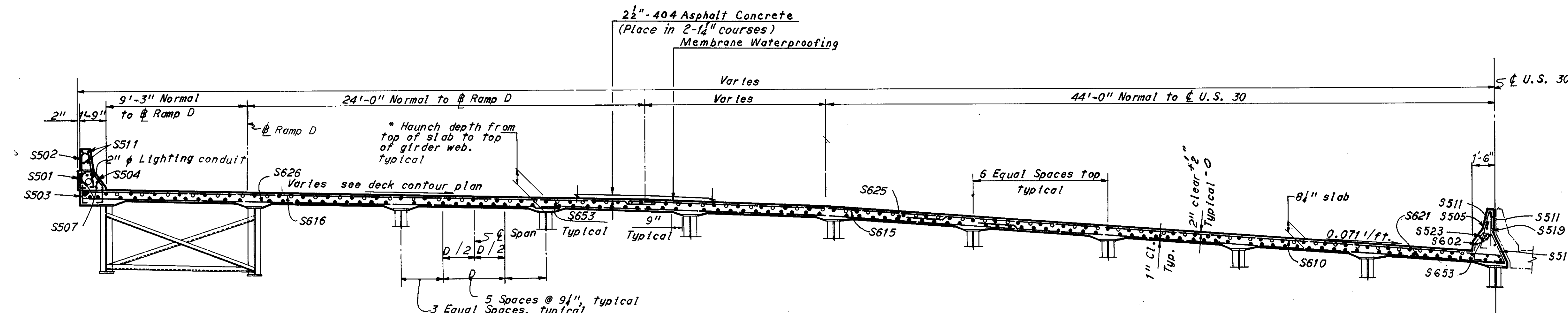
U.S. 30, RAMP D AND RAMP H
OVER MARKET AVENUE

BR. NO. STA-30-15.22 STA. 978+68.50
SCALE: 1/4" = 1'-0" STA. 980+64.21

RELOCATED U.S. 30

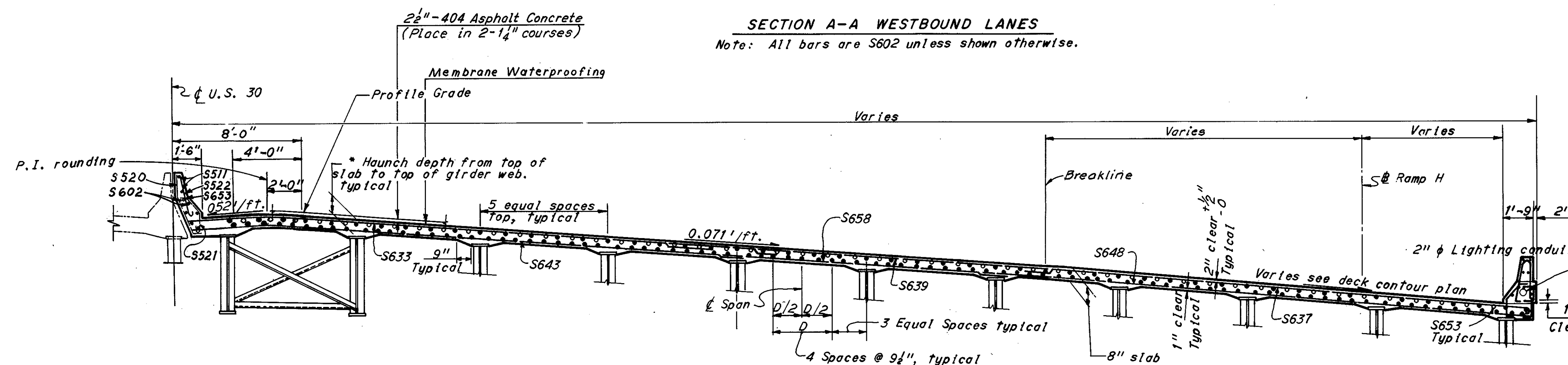
CANTON STARK COUNTY OHIO

DRAWN MAG 3-4-70	TRACED DATE	CHECKED DATE 7/22/70	REVIEWED DATE 11-24-71	REVISED
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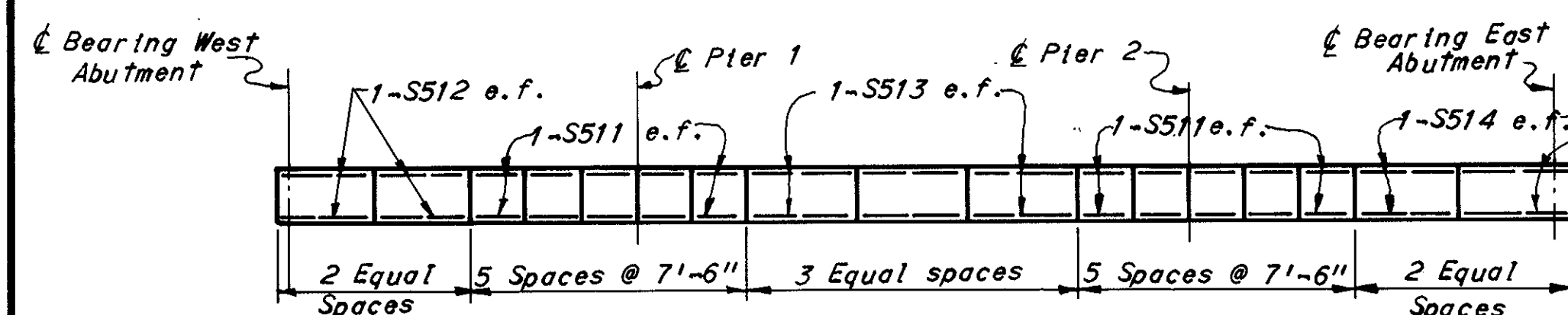
SECTION A-A WESTBOUND LANES

Note: All bars are S602 unless shown otherwise.



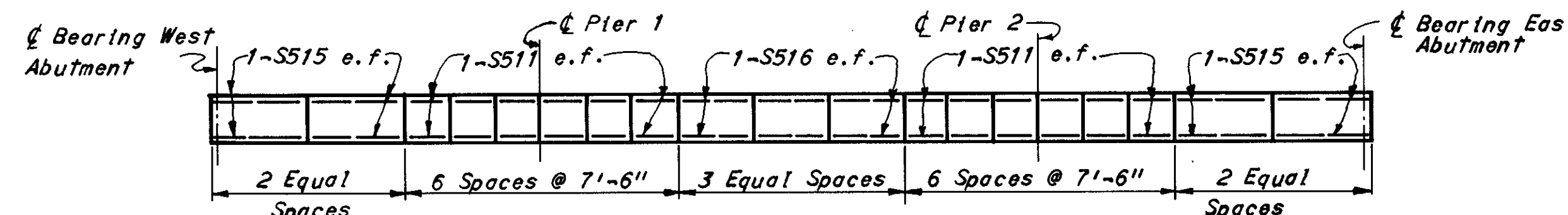
SECTION A-A EASTBOUND LANES

Note: All bars are S602 unless shown otherwise.



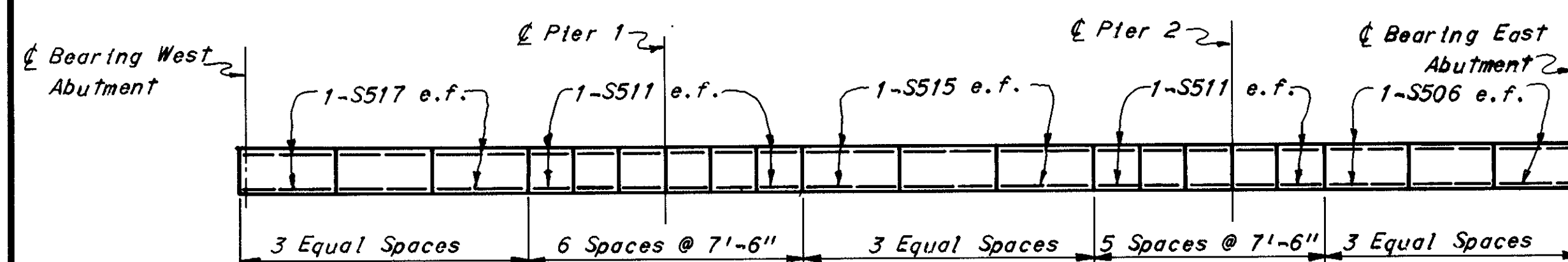
NORTH PARAPET ELEVATION

Note: Dimensions are given along outside face of parapet.



MEDIAN PARAPET ELEVATION

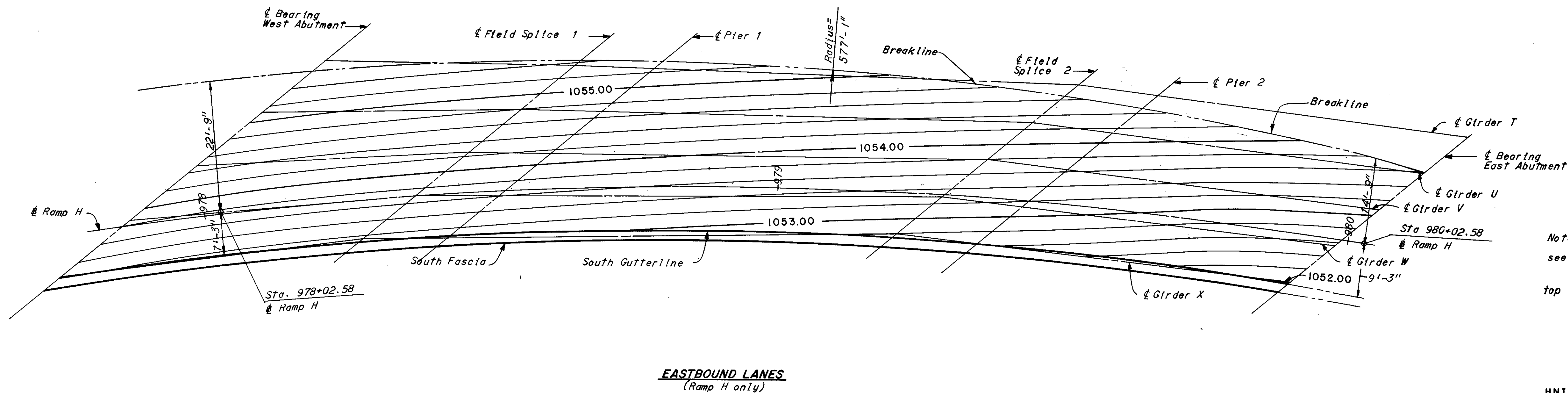
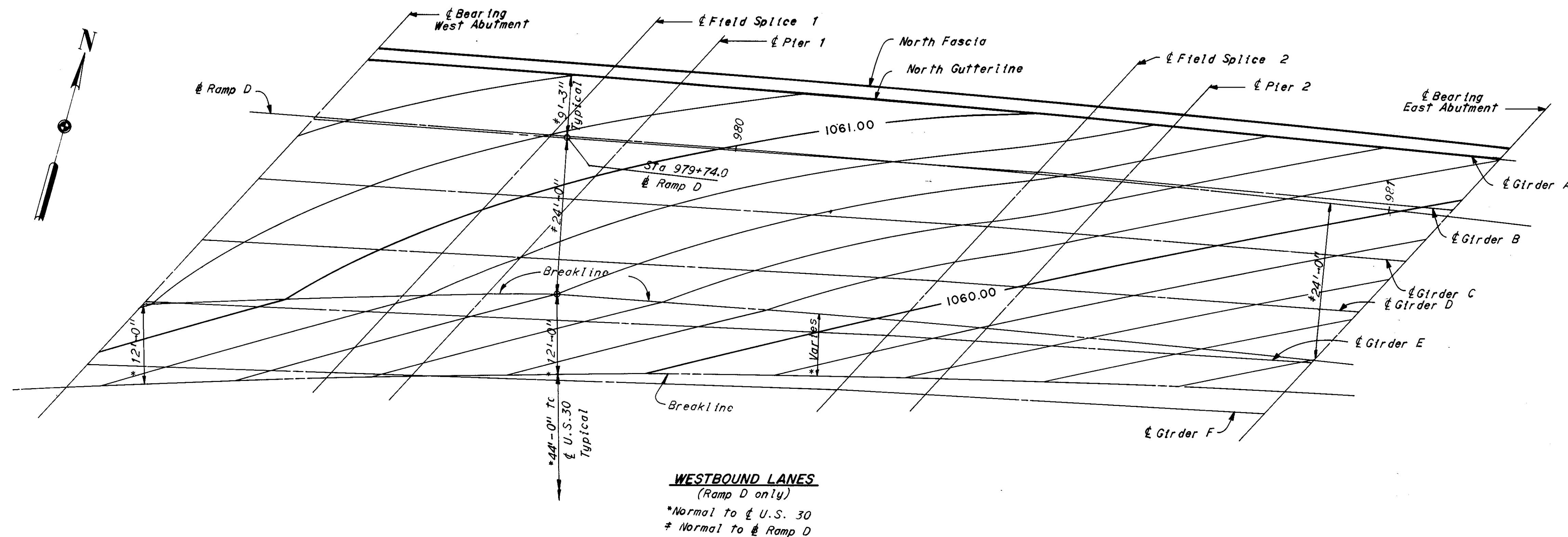
Note: Dimensions are given along U.S. 30.



SOUTH PARAPET ELEVATION

Note: Dimensions are given along outside face of parapet.

STARK COUNTY
STA-30-15.04
STA-77-9.22



Note:
For US 30 superelevation data
see Sheet 13/17
Contour elevations are
top of Asphalt Concrete.

H.N.T.B. BRIDGE NO. 4		Revised 12-17-75 By RAS	
HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS KANSAS CITY CLEVELAND NEW YORK			
DECK CONTOUR PLAN			
U.S. 30, RAMP D AND RAMP H OVER MARKET AVENUE			
BR. NO. STA-30-15.22		STA. 978+68.50	
SCALE: 1"=10'		STA. 980+64.21	
RELOCATED U.S. 30			
CANTON		STARK COUNTY OHIO	
DRAWN: ELH	TRACED	CHECKED: MAG	REVIEWED: HJK
DATE: 4/11/70	DATE:	DATE: 3-6-70	DATE: 11-24-71
		1668	

MARK	NUMBER	LENGTH	TYPE	DIMENSIONS			SERIES INCR.	WEIGHT POUNDS
				A	B	C		
WEST ABUTMENT								
AA401	132	3'-7"	105	1'-0"	1'-10"			316
AA403	6	1'-0"	Str					4
AA501	20	7'-2"	114	3'-6"				150
AA502	20	3'-6"	Str					73
AA503	30	2'-4"	105	7 1/2"	1'-4"			73
AA504	24	19'-8"	Str					491
AA505	4	3'-1"	166					13
AA506	4	3'-7"	143	9"				15
AA507	25	10'-9"	109	3'-0"	2'-2"			280
AA508	3	16'-5"	109	5'-6"	2'-6"			51
AA509	177	8'-4"	105	1'-7"	5'-5"			1,540
AA510	56	8'-6"	105	2'-8"	3'-5"			496
AA511	31	10'-8"	104	9'-9"	1'-0"			346
AA512	3	3'-9"	118	2'-0"	3"	1'-2"		11
AA513	3	10'-8"	117	7'-6"	6'-9"	7"		33
AA514	3	43'-6"	Str					136
AA515	3	43'-0"	Str					135
AA516	3	4'-9"	118	2'-0"	1'-3"	1'-2"		15
AA517	6	7'-0"	108	4'-0"	3'-0"	1'-9"		44
AA518	8	41'-2"	Str					344
AA520	1	12'-0"	Str					13
AA521	3	8'-5"	117	5'-3"	5'-0"	7"		26
AA522	20	41'-0"	Str					856
AA523	27	9'-10"	104	8'-11"	1'-0"			277
AA524	27	10'-10"	105	3'-10"	3'-5"			305
AA525	27	7'-8"	104	6'-9"	1'-0"			214
AA526	17	44'-3"	Str					785
AA527	1	7'-9"	Str					8
AA528	95	7'-9"	104	6'-11"	1'-0"			769
AA529	1	7'-3"	Str					8
AA530	1	5'-0"	Str					5
AA531	1	33'-3"	Str					35
AA536	28	49'-6"	Str					1,446
AA537	16	42'-2"	Str					705
AA538	6	49'-3"	Str					309
AA539	94	6'-6"	105	1'-8"	3'-5"			637
AA540	4	17'-0"	Str					71
AA541	18	6'-6"	Str					122
AA542	5	14'-9"	Str					77
AA543	1	12'-3"	Str					13
AA544	1	11'-9"	Str					13
AA545	5	9'-3"	Str					48
AA546	1	5'-6"	Str					6
AA547	2	8'-9"	Str					19
AA548	1	6'-0"	Str					6
AA549	1	5'-9"	Str					6
AA550	2	5'-0"	Str					10
AA551	1	4'-3"	Str					4
AA552	5	3'-6"	Str					18
AA553	4	19'-0"	Str					79
AA554	6	4'-0"	108	2'-0"	2'-0"	1'-3"		25
AA555	1	4'-6"	Str					5
AA556	1	11'-8"	Str					12
AA557	1	10'-11"	Str					11
AA558	4	14'-4"	Str					60
AA559	4	11'-0"	Str					46
AA560	2	8'-3"	Str					17
AA601	29	17'-6"	106	5'-5"	9'-9"	2'-8"		760
AA602	27	16'-8"	106	5'-5"	8'-11"	2'-8"		676
AA603	27	14'-6"	106	5'-5"	6'-9"	2'-8"		586
AA604	264	5'-7"	105	2'-6"	11"			2213
AA605	264	4'-1"	105	1'-6"	1'-5"			1618
AA606	273	13'-11"	105	6'-5"	1'-5"			5708
AA607	2	6'-6"	Str					19
AA608	9	7'-7"	105	3'-3"	1'-5"			102

MARK	NUMBER	LENGTH	TYPE	DIMENSIONS			SERIES INCR.	WEIGHT POUNDS
				A	B	C		
AA609	1	13'-10"	106	5'-0"	6'-6"	2'-8"		21
AA610	1	13'-1"	106	4'-3"	6'-6"	2'-8"		20
AA611	1	12'-7"	106	3'-9"	6'-6"	2'-8"		19
AA612	94	14'-3"	106	5'-5"	6'-6"	2'-8"		2,018
AA613	1	5'-0"	Str					8
AA614	18	8'-2"	115	6'-4"	9"	9"		221
AA615	9	24'-4"	105	11'-9"	1'-2"			329
AA616	2	10'-4"	Str					32
AA617	1	6'-8"	115	4'-10"	9"	9"		10
AA618	9	13'-10"	105	6'-6"	1'-2"			188
AA619	2	7'-0"	Str					21
AA620	1	7'-8"	115	5'-10"	9"	9"		11
AA701	5	5'-0"	115	3'-4"	9"	7 1/2"		51
AA703	1	5'-6"	115	3'-10"	9"	7 1/2"		11
AA704	1	6'-3"	115	4'-7"	9"	7 1/2"		13
AA705	1	7'-0"	115	5'-4"	9"	7 1/2"		14
AA707	1	5'-6"	115	3'-10"	9"	9"		11
AA708	1	6'-0"	115	4'-4"	9"	9"		12
AA801	2	17'-0"	Str					91
AA802	1	14'-0"	Str					37
AA803	1	12'-9"	Str					34
AA804	2	11'-9"	Str					63
AA805	2	8'-4"	153	4'-0"	2'-0"	1'-3"		45
AA806	28	60'-0"	Str					4,480
AA807	2	42'-6"	Str					227
AA808	3	45'-0"	Str					360
AA809	2	46'-0"	Str					246
AA810	2	20'-0"	108	17'-6"	2'-6"	1'-4"		107
AA811	1	17'-0"	108	14'-6"	2'-6"	1'-4"		45
AA812	1	16'-6"	108	14'-0"	2'-6"	1'-4"		44
AA813	2	14'-9"	108	12'-3"	2'-6"	1'-4"		79
DA801	21	7'-1"	142	5'-0"				397
DA802	105	6'-2"	142	4'-1"				1730
EAST ABUTMENT								
AB401	132	3'-7"	105	1'-0"	1'-10"			316
AB501	20	6'-11"	114	3'-5"				144
AB502	22	3'-1"	Str					71
AB503	30	2'-4"	105	7 1/2"	1'-4"			73
AB504	24	19'-9"	Str					493
AB505	11	7'-3"	Str					83
AB506	1	5'-3"	Str					5
AB507	1	5'-0"	Str					5
AB508	5	4'-4"	Str					22
AB509	3	4'-3"	Str					13
AB510	3	9'-8"	117	6'-6"	7'-0"	6"		30
AB511	4	13'-0"	Str					54
AB512	2	13'-0"	Str					27
AB513	1	11'-3"	Str					12
AB514	5	11'-6"	Str					60
AB515	1	11'-9"	Str					12
AB516	4	14'-9"	Str					62
AB517	5	9'-3"	Str					48
AB518	143	8'-4"	105	1'-7"	5'-5"			1,240
AB519	143	7'-8"	104	6'-9"	1'-0"			1,150
AB520	143	6'-4"	105	1'-7"	3'-5"			945
AB521	26	10'-8"	109	3'-0"	2'-2"			288
AB522	1	8'-3"	103	3'-6"	2'-6"			8
AB523	1	10'-3"	105	4'-0"	2'-6"			11
AB524	1	11'-3"	105	4'-6"	2'-6"			12
AB525	34	35'-8"	Str					1,265
AB526	1	11'-0"	Str					11
DB801	105	6'-2"	142	4'-1"				1730
AB701	5	5'-2"	115	3'-4"	9"	7 1/2"		52
AB703	1	5'-2"	115	3'-6"	9"	7 1/2"		11
AB704	2	5'-6"	115	3'-10"	9"	7 1/2"		22
AB705	2	6'-2"	115	4'-6"	9"	7 1/2"		25
AB706	2	6'-8"	115	5'-0"	9"	9"		14
AB707	1	6'-1"	115	4'-4"	9"	9"		12
AB801	21	60'-0"	Str					3,370
AB802	7	41'-4"	Str					720
AB803	2	8'-10"	153	2'-6"	2'-6"	4'-0"		45
AB804	1	14'-9"	Str					40
AB805	2	18'-0"	Str					96
AB806	2	14'-0"	108	11'-3"	2'-9"	2'-0"		75
AB807	1	15'-9"	108	13'-0"	2'-9"	2'-0"		43
AB808	1	16'-9"	108	14'-0"	2'-9"	2'-0"		45
AB809	2	18'-0"	108	15'-3"	2'-9"	2'-0"		96
AB810	1	13'-0"	Str					35
AB811	2	12'-6"	Str					67
DB801	105	6'-2"	142	4'-1"				1730
Total 27,321								

MARK	NUMBER	LENGTH	TYPE	DIMENSIONS			SERIES INCRE.	WEIGHT POUND.
				A	B	C		
AB527	3	6'-0"	Str					19
AB528	6	3'-2"	108	1'-7"	1'-7"	1'-3"		53
AB529	6	4'-7"	108	3'-0"	1'-7"	1'-3"		29
AB530	17	35'-10"	Str					635
AB531	3	28'-0"	Str					88
AB534	1	12'-9"	105	5'-3"	2'-6"			13
AB535	1	13'-3"	105	5'-6"	2'-6"			14
AB536	9	6'-6"	Str					61
AB538	34	37'-8"	Str					1,336
AB541	8	23'-6"	Str					196
AB542	3	27'-0"	Str					85
AB543	4	6'-4"	118	3'-9"	1'-2"	1'-1 5/8"		26
AB544	3	7'-11"	117	4'-9"	4'-6"	6"		25
AB545	3	3'-6"	118	1'-7"	6"	1'-1 5/8"		10
AB546	2	9'-0"	Str					19
AB547	8	1'-6"	Str					13
AB548	4	3'-1"	166					13
AB549	2	2'-0"	Str					4
AB550	4	3'-7"	143	9"				15
AB551	3	27'-6"	Str					85
AB552	2	8'-0"	Str					17
AB553	8	17'-0"	Str					131
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