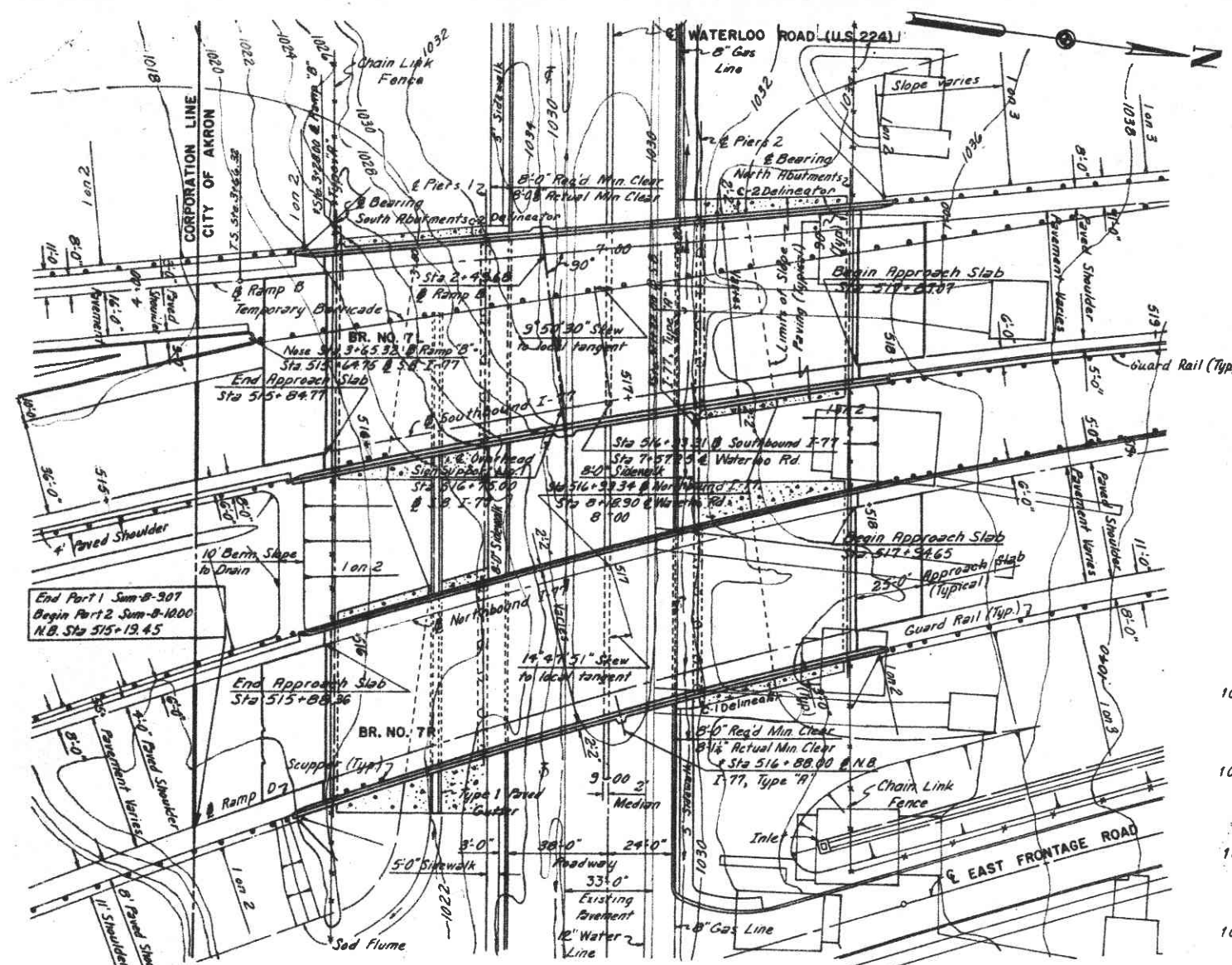


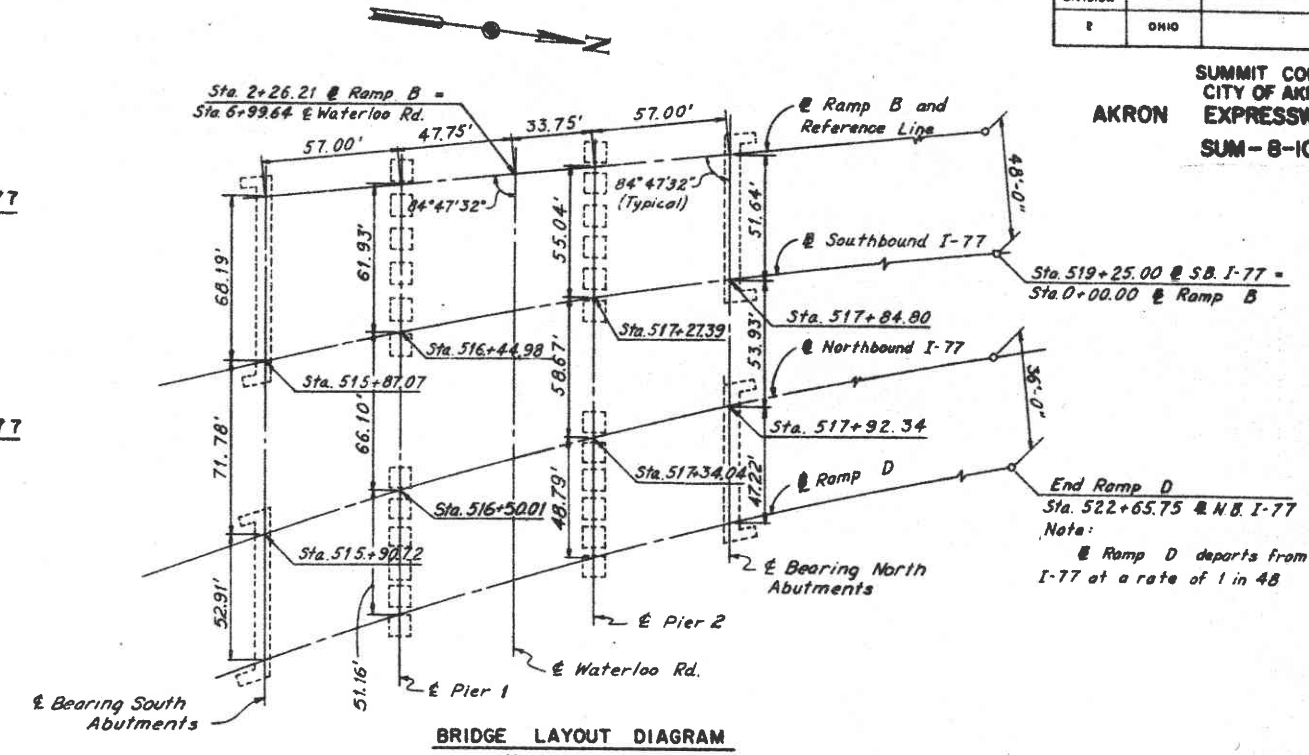
SUMMIT COUNTY
CITY OF AKRON
EXPRESSWAY SYSTEM
SUM-8-10.00



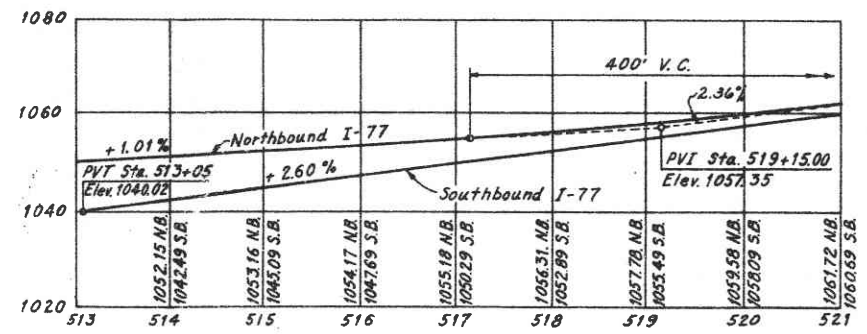
PLAN
Scale: 1" = 30'
† Denotes Light Standard Support

CURVE DATA
NORTHBOUND I-77
P.I. Sta. 517+22.20
Δ = 31°58'00"
D = 2°30'00" Rt.
R = 2291.83'
T = 656.45'
L = 1278.67'
E = 92.16'

CURVE DATA
SOUTHBOUND I-77
P.I. Sta. 514+78.48
Δ = 33°58'00"
D = 2°00'00" Rt.
R = 2864.79'
T = 874.94'
L = 1698.33'
E = 130.63'



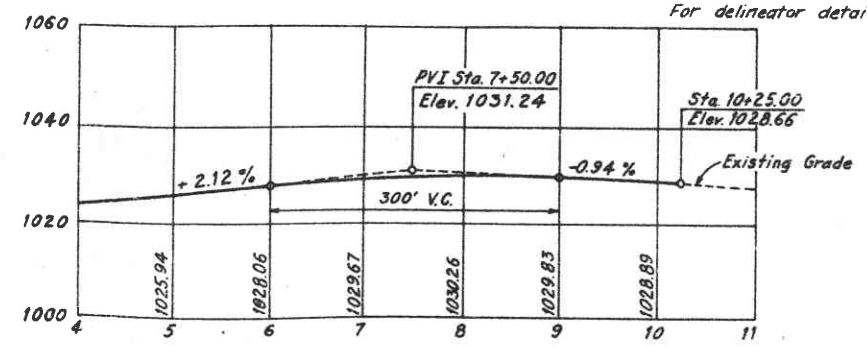
BRIDGE LAYOUT DIAGRAM
No Scale



PROFILES I-77
Scale: Horiz. 1" = 100'
Vert. 1" = 20'

BRIDGE DELINEATORS
(Item I-127)

One bridge delineator Type C-1, shall be placed on the East parapet at the following location of Br. No. 7R:
Sta. 517+20 @ Northbound I-77
One bridge delineator Type C-2, shall be placed on the West parapet at the following locations of Br. No. 7L:
Sta. 1+80 and Sta. 2+80 @ Ramp B
For delineator details see sheet 96A.



PROFILE WATERLOO ROAD
Scale: Horiz. 1" = 100'
Vert. 1" = 20'

PROPOSED STRUCTURES

TYPE: Continuous steel beam with reinforced concrete deck and substructure.

SPANS: Northbound 59'-3 1/2", 84'-0 1/2", 58'-3 3/8"
Southbound 57'-10 1/2", 82'-4 1/2", 57'-4 1/2"

ROADWAY: Northbound - Varies
Southbound - Varies

LOAD FREQUENCY: CF 2000 (57) adequate for AASHTO alternate loading.

SKIEW: Varies

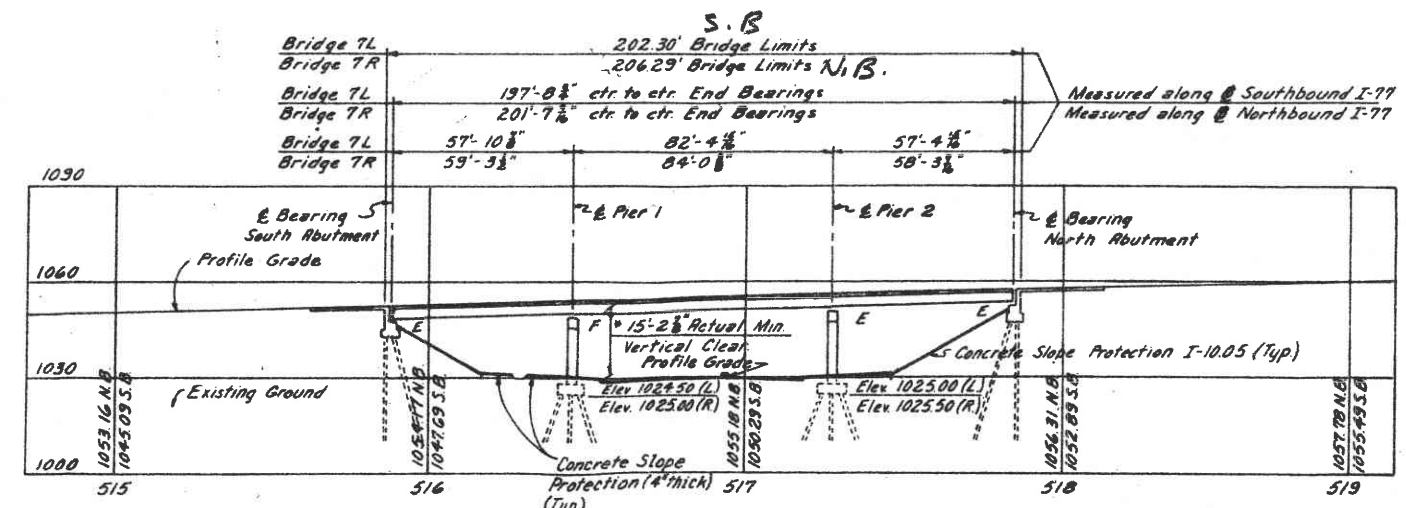
WEARING SURFACE: 1" Monolithic Concrete.

APPROACH SLAB: AS-1-54 (25' Long)

ALIGNMENT: Northbound - 2°30'00" Rt.
Southbound - 2°00'00" Rt.

TRAFFIC DATA:
1975 - 19,959 A.D.T. (each way)

Notes:
All piles in all piers shall be 12BP53 steel bearing piles and all piles in all abutments shall be 10BP42 steel bearing piles.
The estimated average pile lengths are as tabulated:
South Abutments 32'
Piers 1 35' (Varies 20' to 50')
Piers 2 30' (Varies 20' to 40')
North Abutments 44'



ELEVATION
Scale: 1" = 30'

*15'-0" Required minimum clear. Point of actual minimum vertical clearance at exterior east beam of Br. No. 7L and south edge of Waterloo Road.

Notes: Type 1 paved gutter and concrete slope protection (4" thick) including 1" preformed expansion joint filler around each pier column are included for payment in Roadway Quantities.

H.N.T.B. BRIDGE NO. 7L & R PART 17

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

SITE PLAN
I-77 OVER WATERLOO ROAD (U.S. 224)
BR. NO. SUM-8-1001&R STA. 515+88.36
SCALE: AS NOTED STA. 517+94.65

AKRON EXPRESSWAY SYSTEM

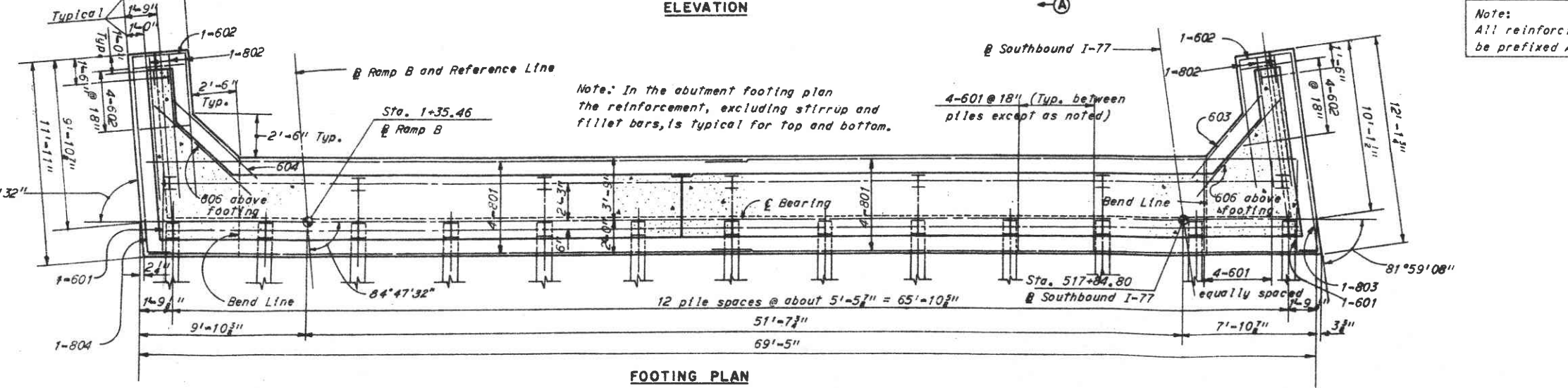
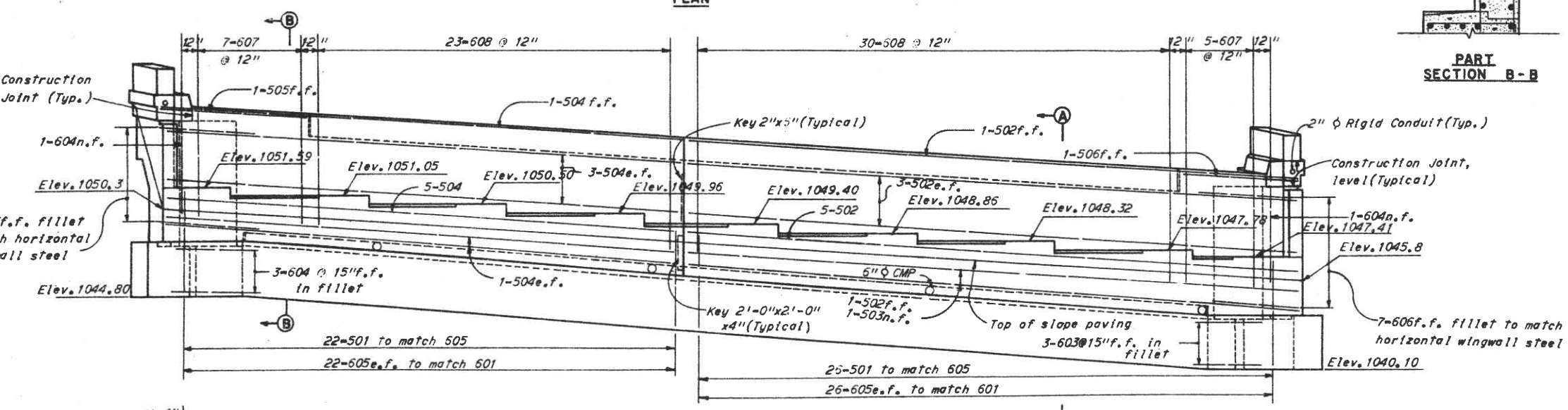
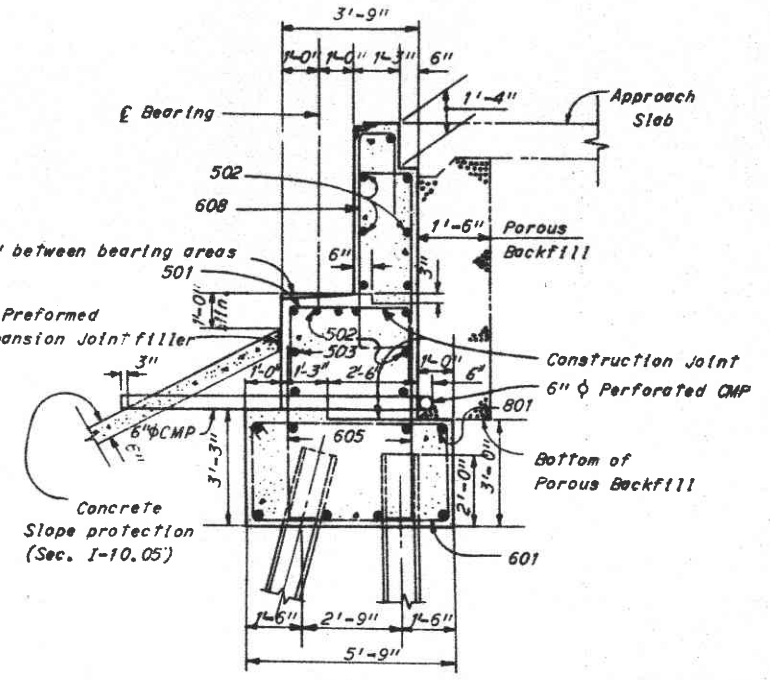
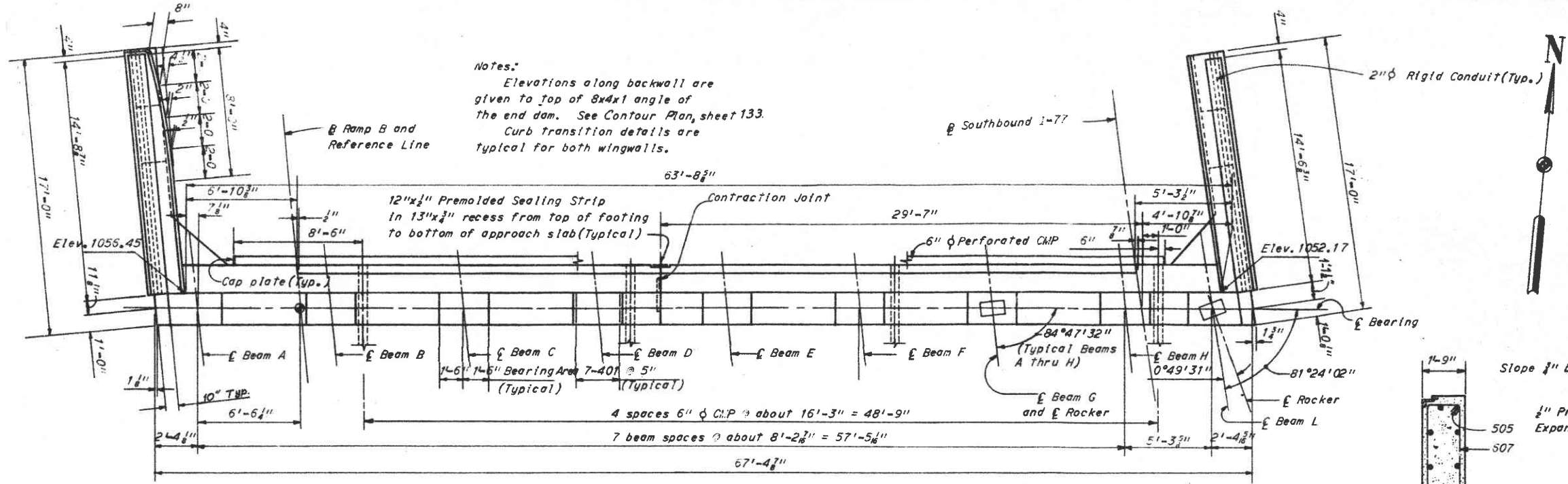
DATE	CHKD	DATE	CHKD	DATE	CHKD
12-5-63		12-9-63		1-9-64	

SHEET 122

FED. RD. DIVISION	STATE	PROJECT
1	OHIO	

124
147

SUMMIT COUNTY
CITY OF AKRON
EXPRESSWAY SYSTEM
SUM-8-10.00



Notes:
The following abbreviations are used:
f.f. = far face
e.f. = each face
n.f. = near face
For additional notes see sheet 123.
For wingwall details see sheet 127.

Note:
All reinforcing bar marks shall be prefixed AB.

H.N.T.B. BRIDGE NO. 7L & R PART 17

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

NORTH ABUTMENT- BR. NO. 7L
1-77 OVER WATERLOO ROAD (U.S. 224)
BR. NO. SUM-8-1001 L&R STA. 515+88.36
SCALE: 1/4" = 1'-0" STA. 517+94.65

AKRON EXPRESSWAY SYSTEM

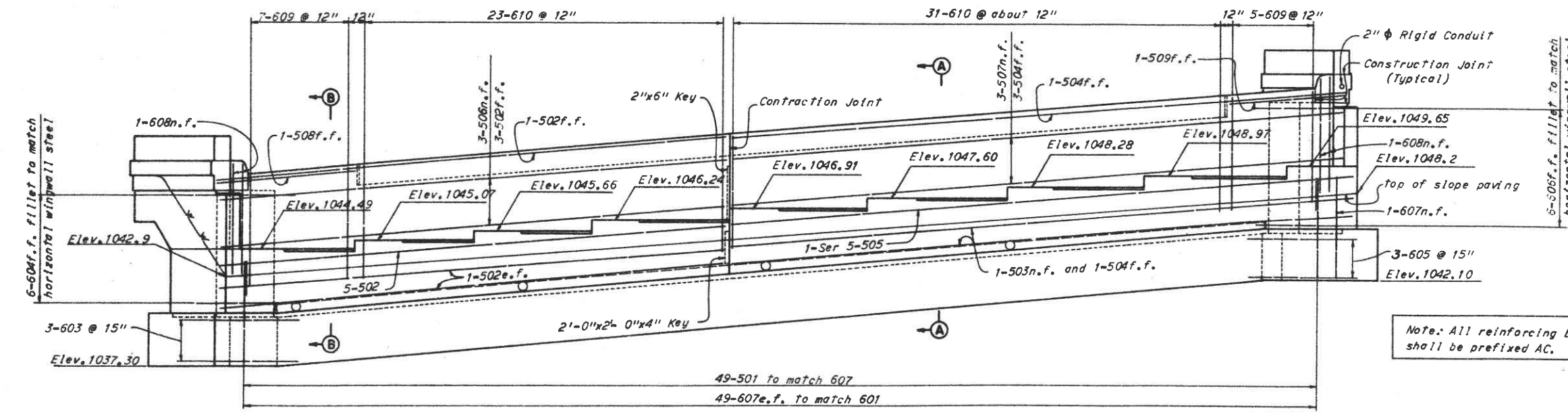
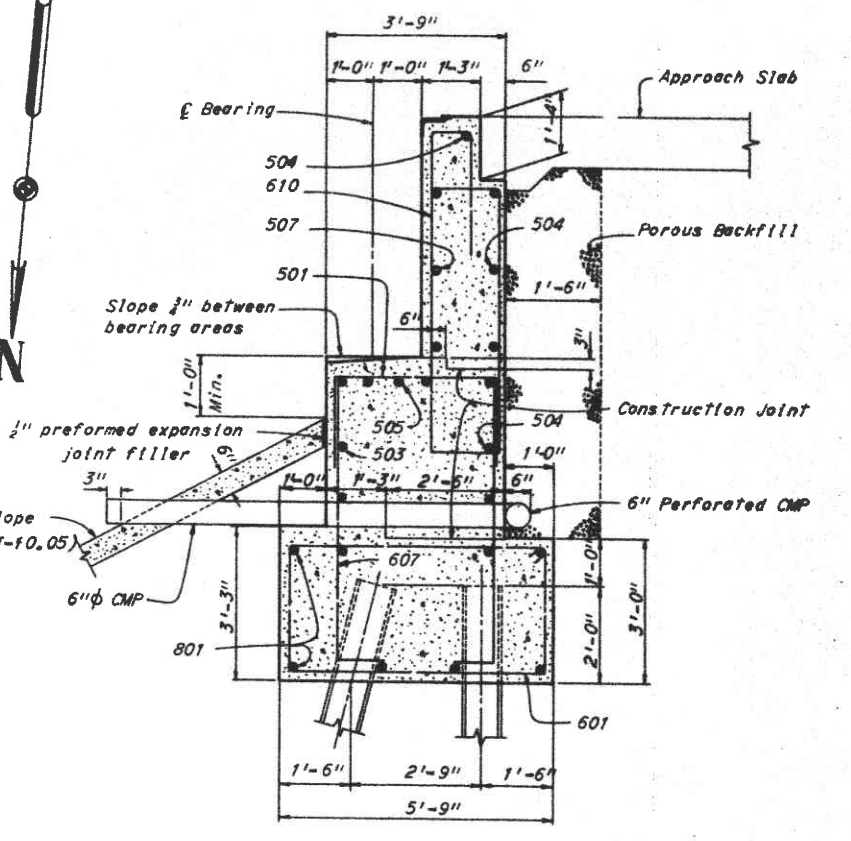
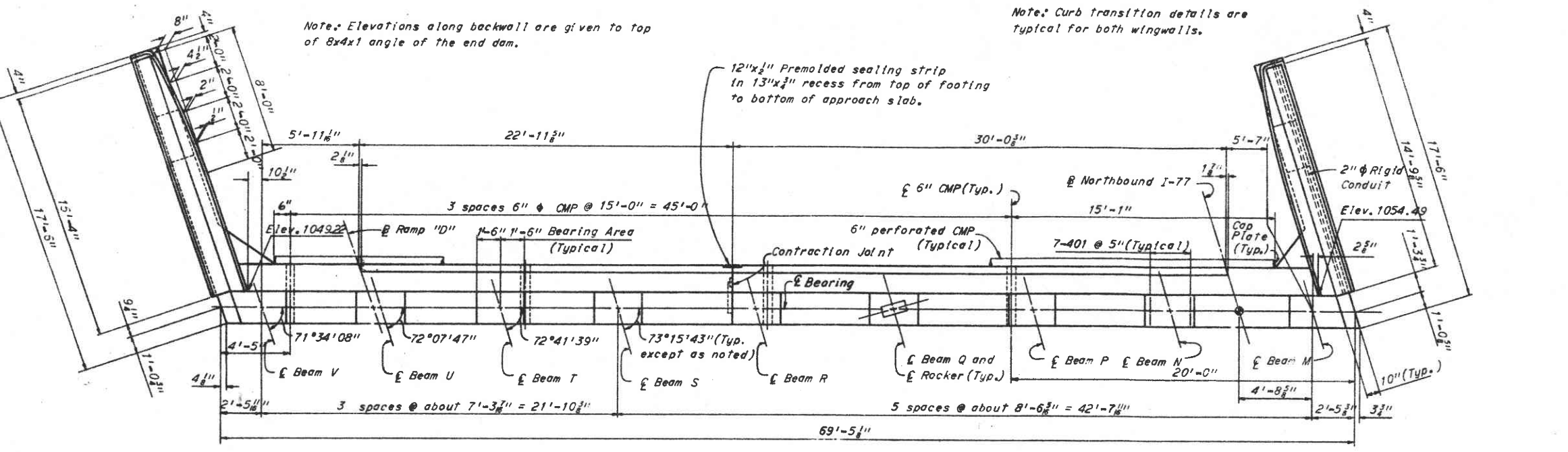
AKRON	SUMMIT COUNTY	OHIO
DRAWN L.J.D.	TRACED	CHECKED
DATE 12-17-54	DATE 1/5/56	DATE 5/56

SHEET 124

SUMMIT COUNTY
CITY OF AKRON
AKRON EXPRESSWAY SYSTEM
SUM-8-10.00

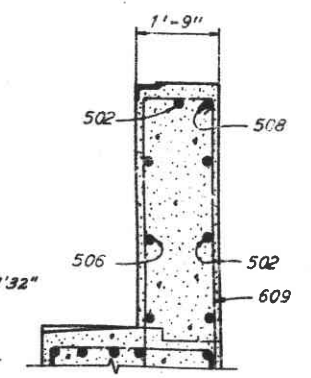
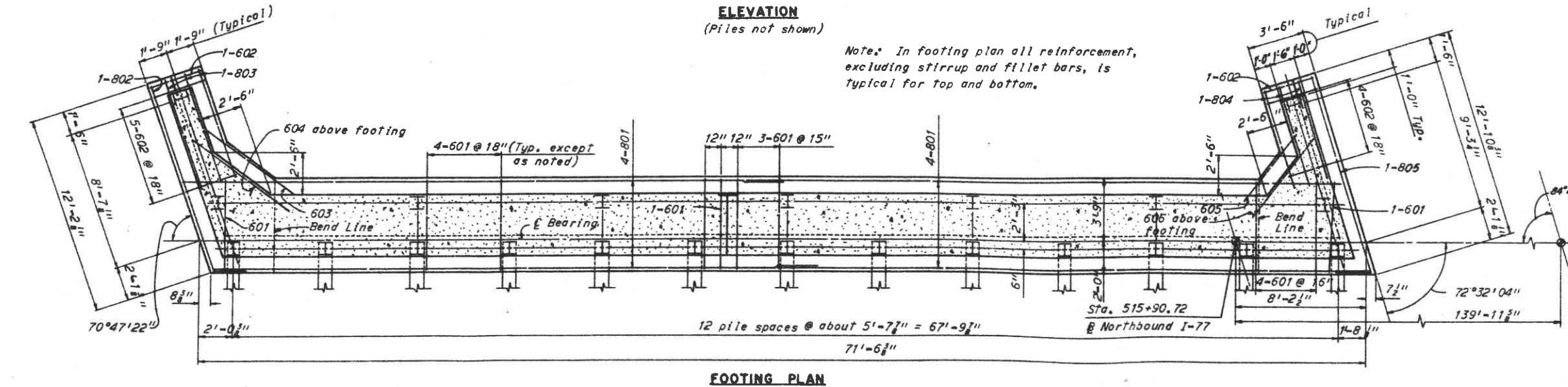
Note: Elevations along backwall are given to top of 8x4x1 angle of the end dam.

Note: Curb transition details are typical for both wingwalls.



Note: All reinforcing bar marks shall be prefixed AC.

Notes:
For wingwall details see sheet 127.
The following abbreviations are used:
f.f. = far face
n.f. = near face
e.f. = each face
For additional notes see sheet 123.



H.N.T.B. BRIDGE NO. 7L & R PART 17

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

SOUTH ABUTMENT - BR. NO. 7R
1-77 OVER WATERLOO ROAD (U.S. 224)
BR. NO. SUM-8-1001LR STA. 515+88.36
SCALE: 1/4" = 1'-0" STA. 517+94.65

AKRON EXPRESSWAY SYSTEM

AKRON	SUMMIT COUNTY	OHIO
DATE 12-63	DATE 1-8-64	DATE 5-64

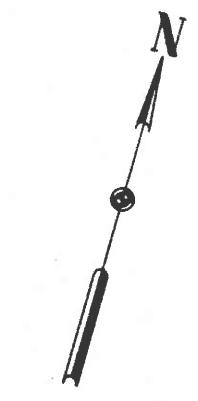
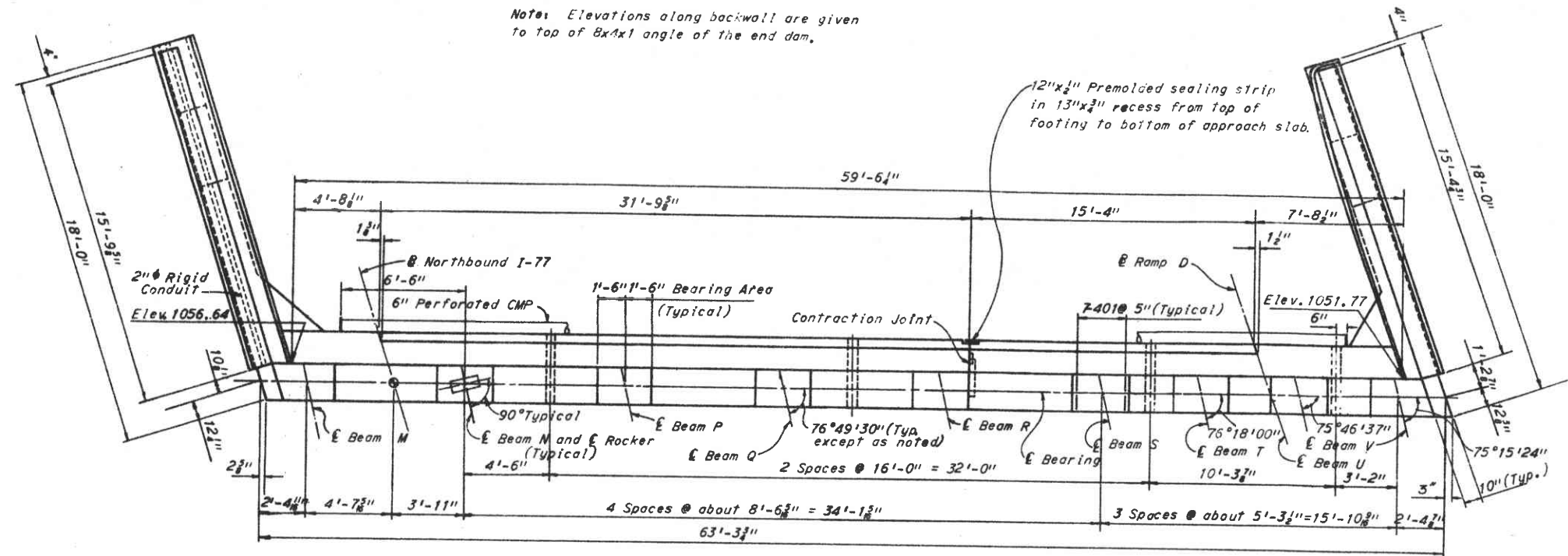
DRW/INC TRACED CHECKED BY DATE REVISIONS

SHEET 125

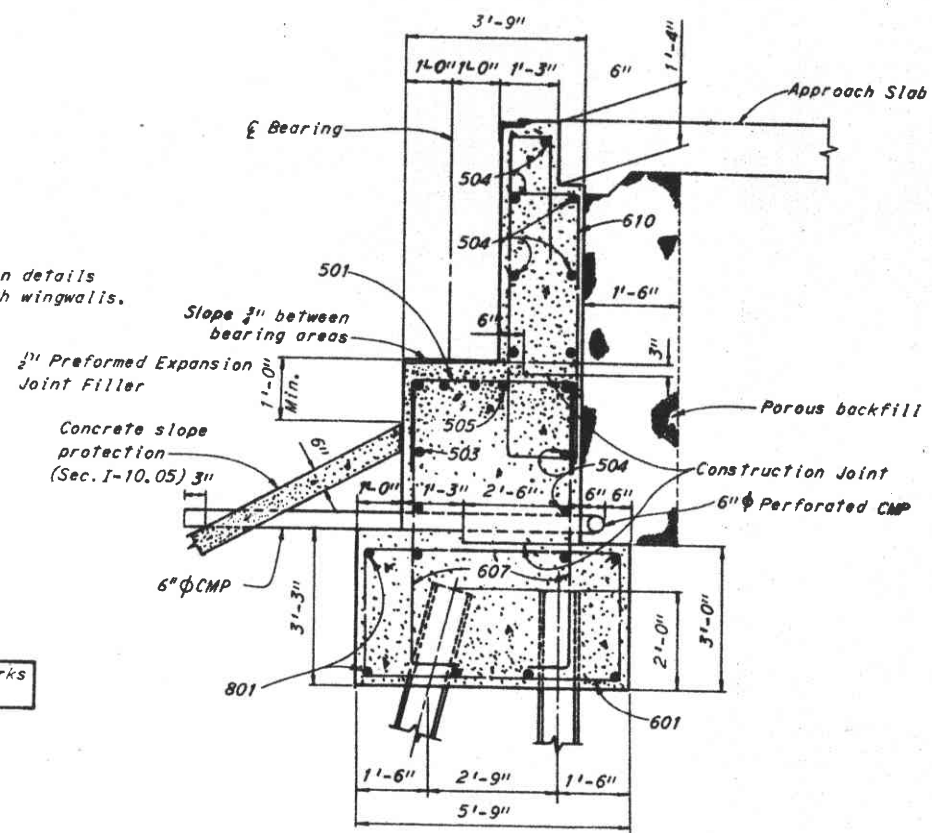
SUMMIT COUNTY
CITY OF AKRON
AKRON EXPRESSWAY SYSTEM
SUM-8-10.00

Note: Elevations along backwall are given to top of 8x4x1 angle of the end dam.

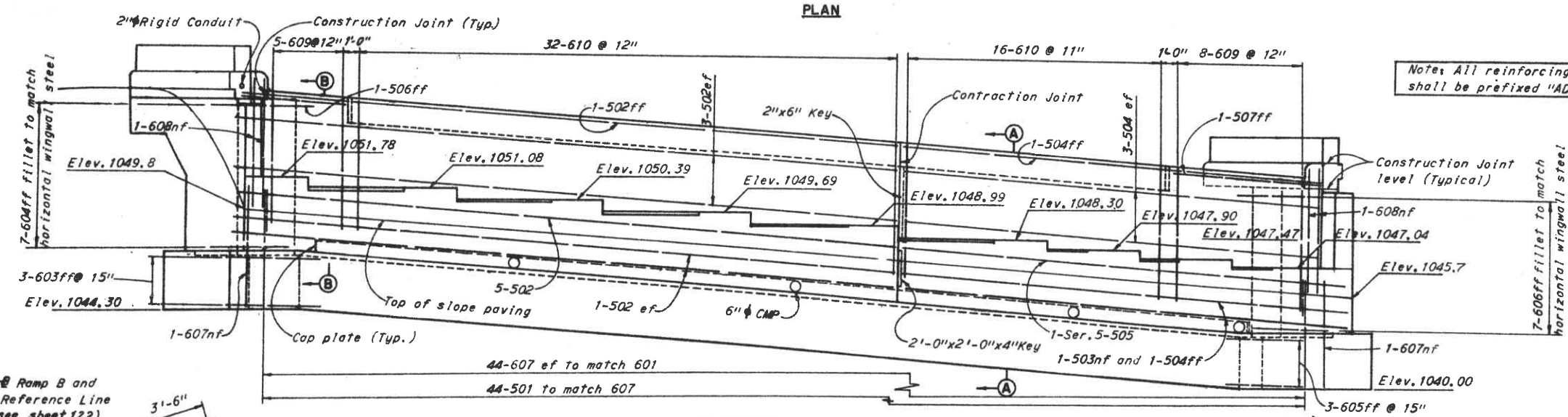
Note: For curb transitioning details see sheet 125.



Notes: Curb transition details are typical for both wingwalls.

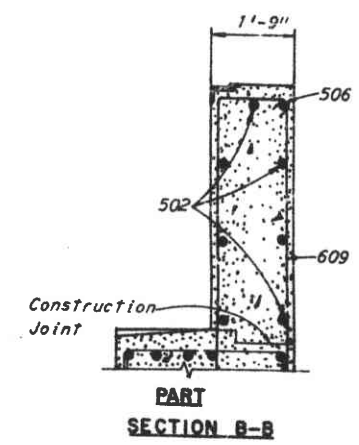
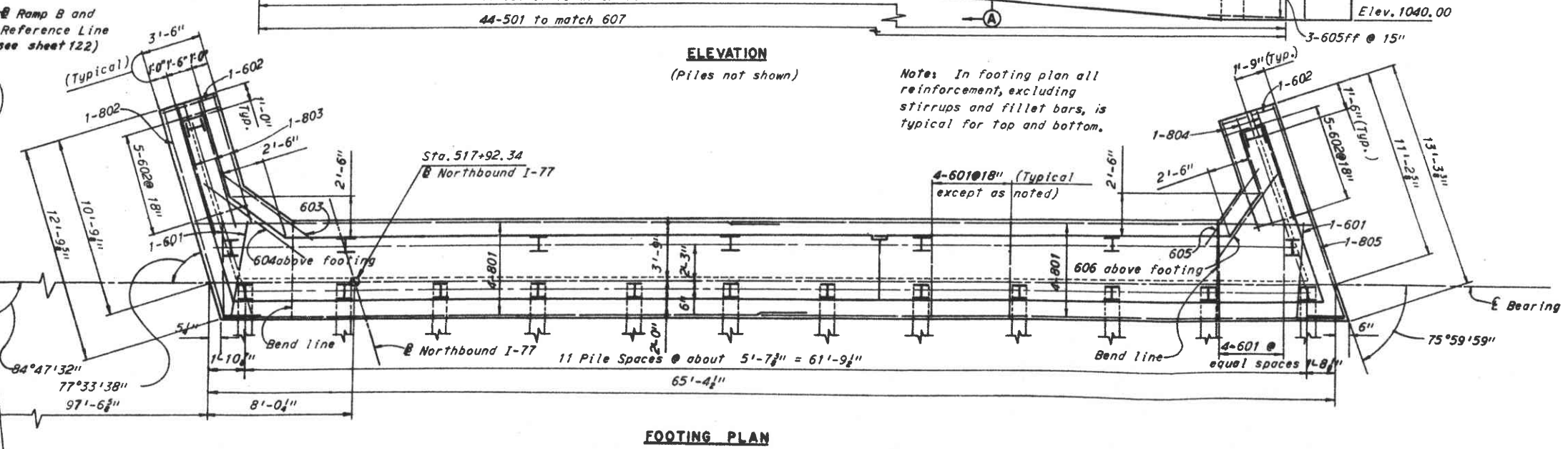


Note: All reinforcing bar marks shall be prefixed "AD".



Note: In footing plan all reinforcement, excluding stirrups and fillet bars, is typical for top and bottom.

Notes: For Wingwall details see sheet 127. The following abbreviations are used: ff= for face ef= each face nf= near face For additional notes see sheet 123.



H.W.T.B. BRIDGE NO. 7 PART 17

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY, MO. NEW YORK, N.Y.

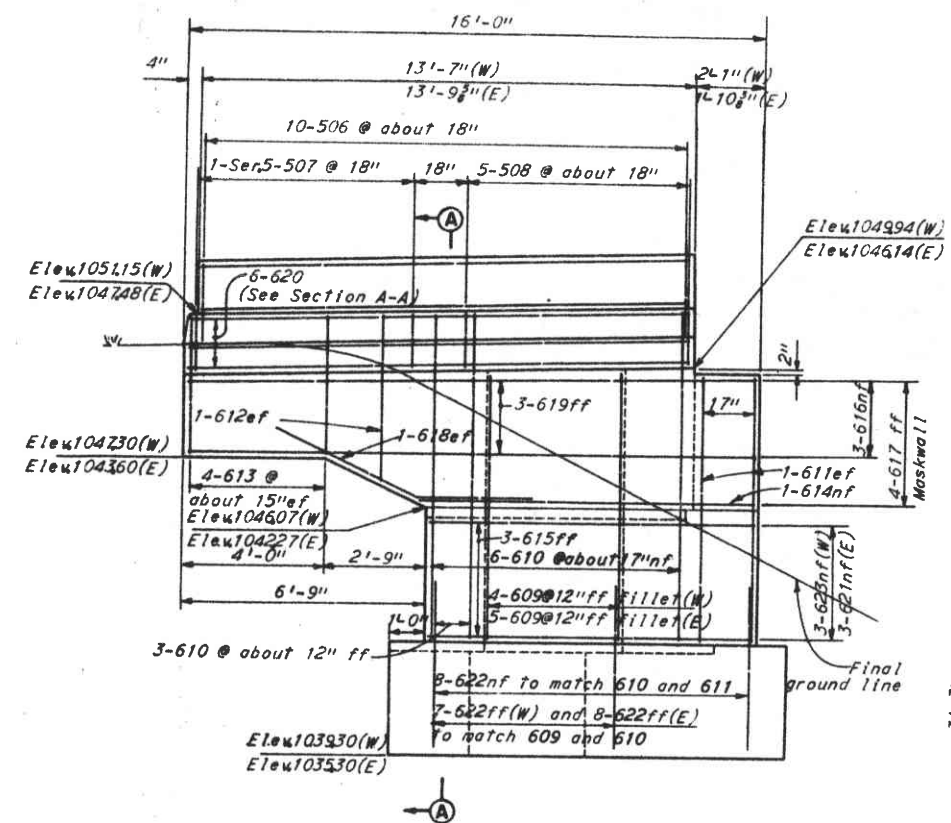
NORTH ABUTMENT - BR. NO. 7R
I-77 OVER WATERLOO ROAD (U.S. 224)
BR. NO. SUM-8-1001 L.R. STA. 515+88.36
SCALE: $\frac{1}{4}$ " = 1'-0" STA. 517+94.65

AKRON EXPRESSWAY SYSTEM
AKRON, OHIO

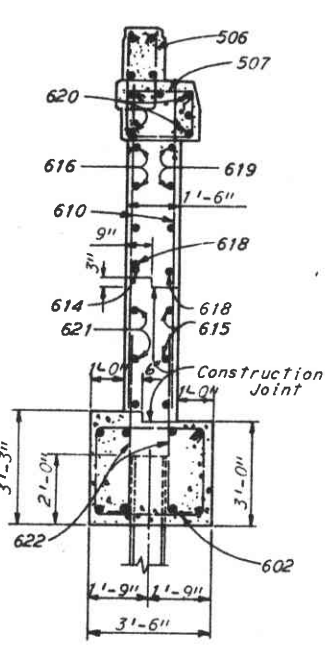
DATE	TRACED	CHECKED	REVISION
7-11-58		3-3-61	5-6-61

SHEET 126

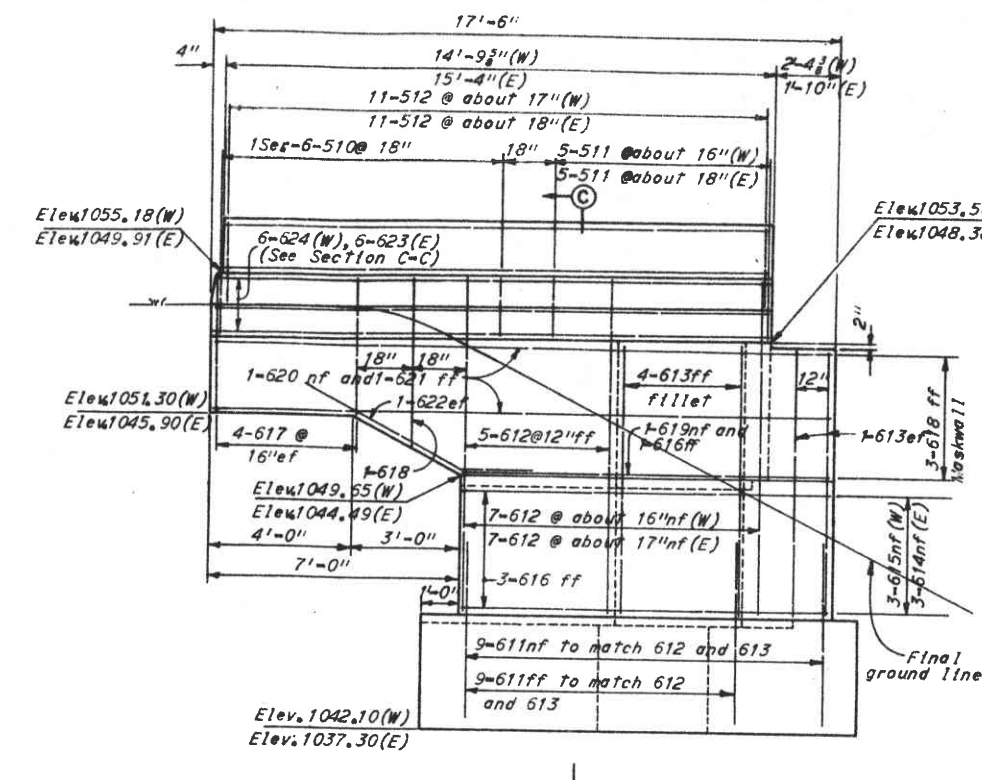
SUMMIT COUNTY
CITY OF AKRON
EXPRESSWAY SYSTEM
SUM-8-10.00



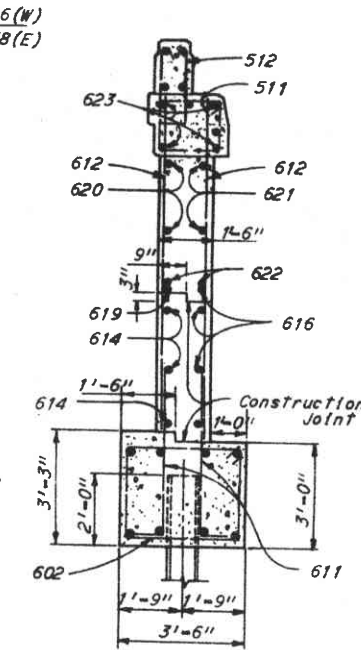
SOUTHWEST AND SOUTHEAST WINGWALL BR-7L
(Piles not shown.)



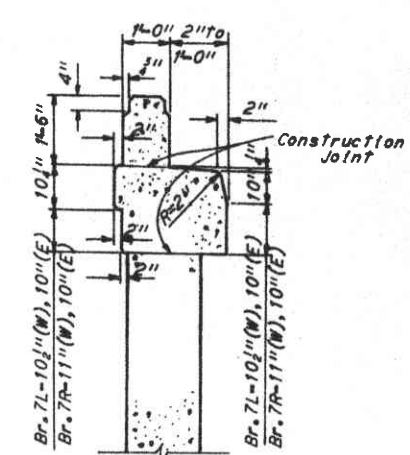
SECTION A-A
(East Wingwall shown.)



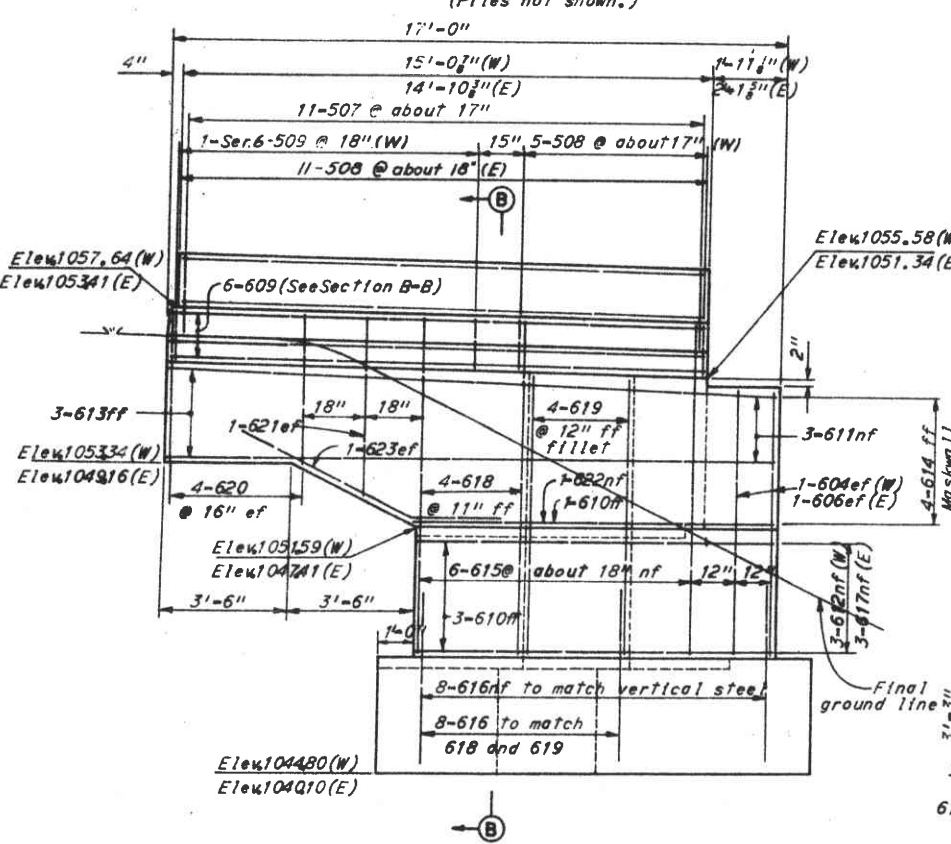
SOUTHWEST AND SOUTHEAST WINGWALL BR-7R
(Piles not shown.)



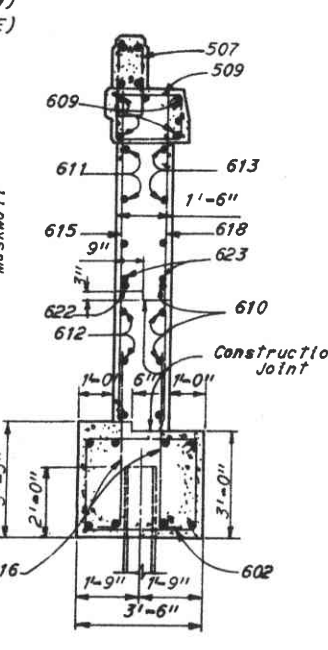
SECTION C-C
(East Wingwall shown.)



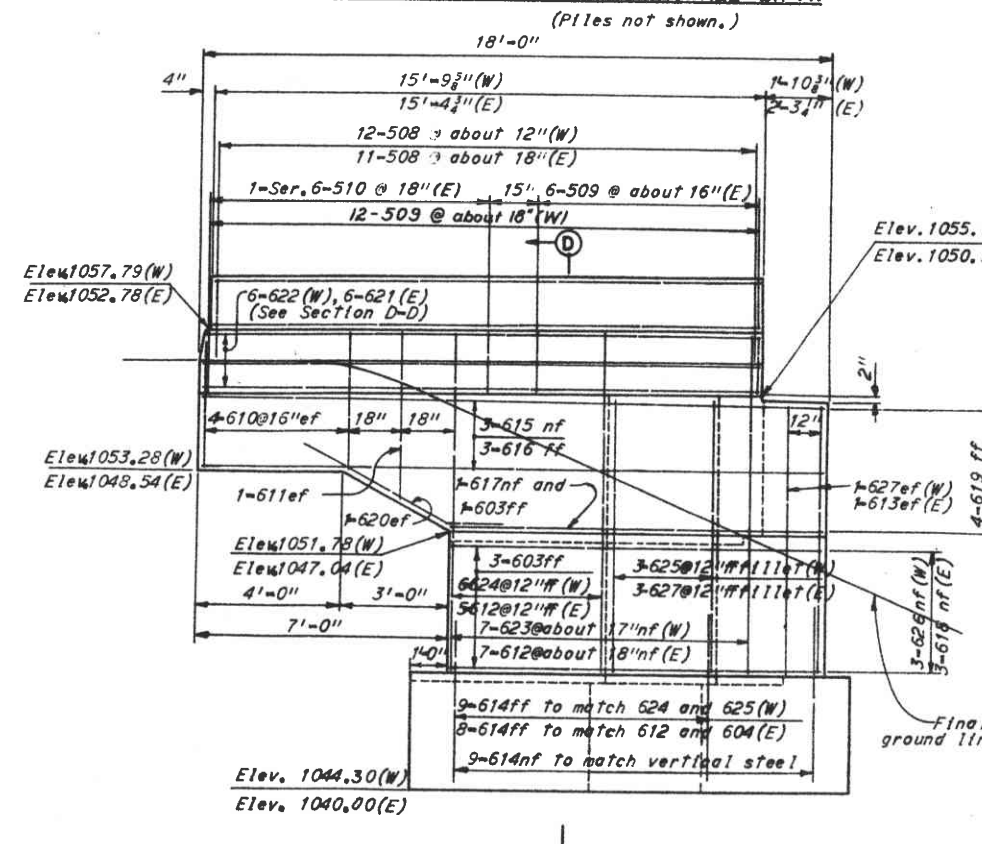
TYPICAL CURB DETAILS
(Reinforcement and Type A Railing not shown.)



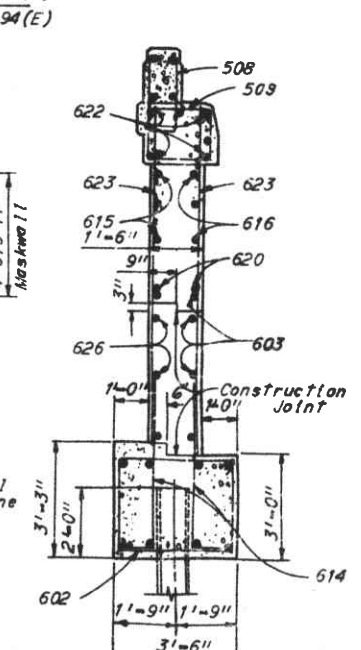
NORTHWEST AND NORTHEAST WINGWALL BR-7L
(Piles not shown.)



SECTION B-B
(West Wingwall shown.)



NORTHWEST AND NORTHEAST WINGWALL BR-7R
(Piles not shown.)



SECTION D-D
(West Wingwall shown.)

Notes
The following abbreviations are used:
nf = near face, ff = far face, ef = each face, (W) = West, (E) = East.
For railing details see Ohio Standard Drawing AR-1-57.
For longitudinal reinforcement in the parapets and railing post spacing see sheet 139.
For additional notes see sheet 123.

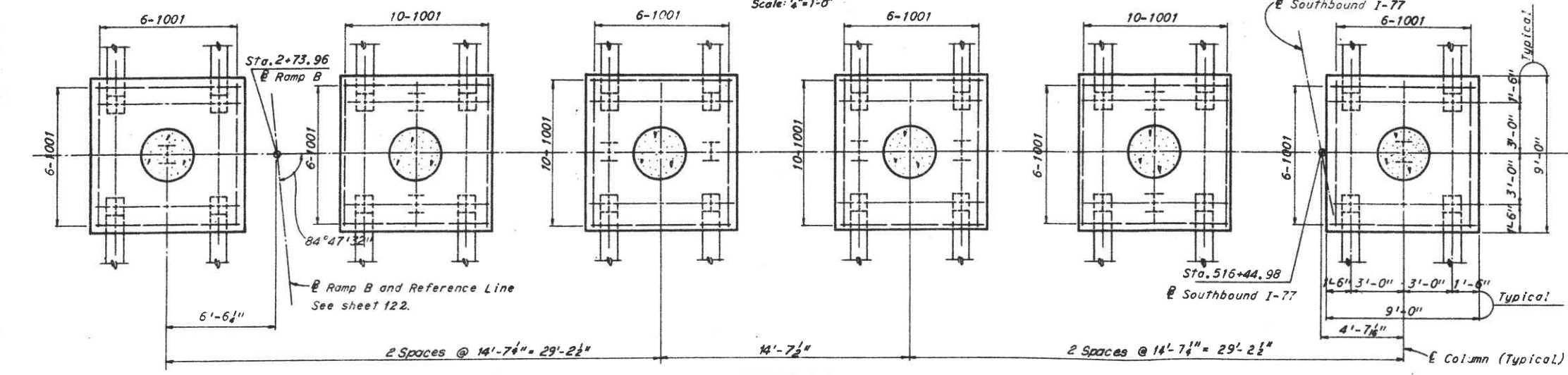
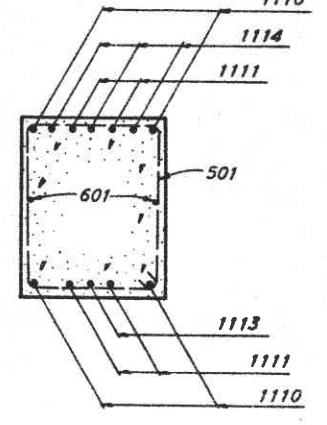
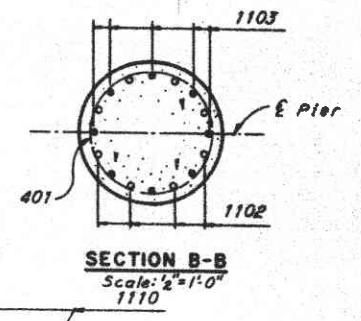
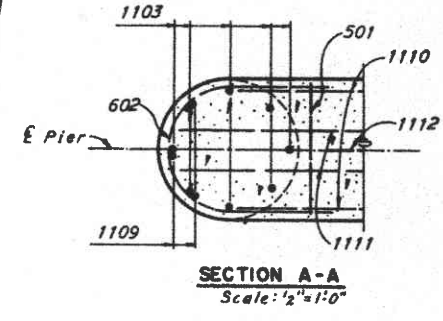
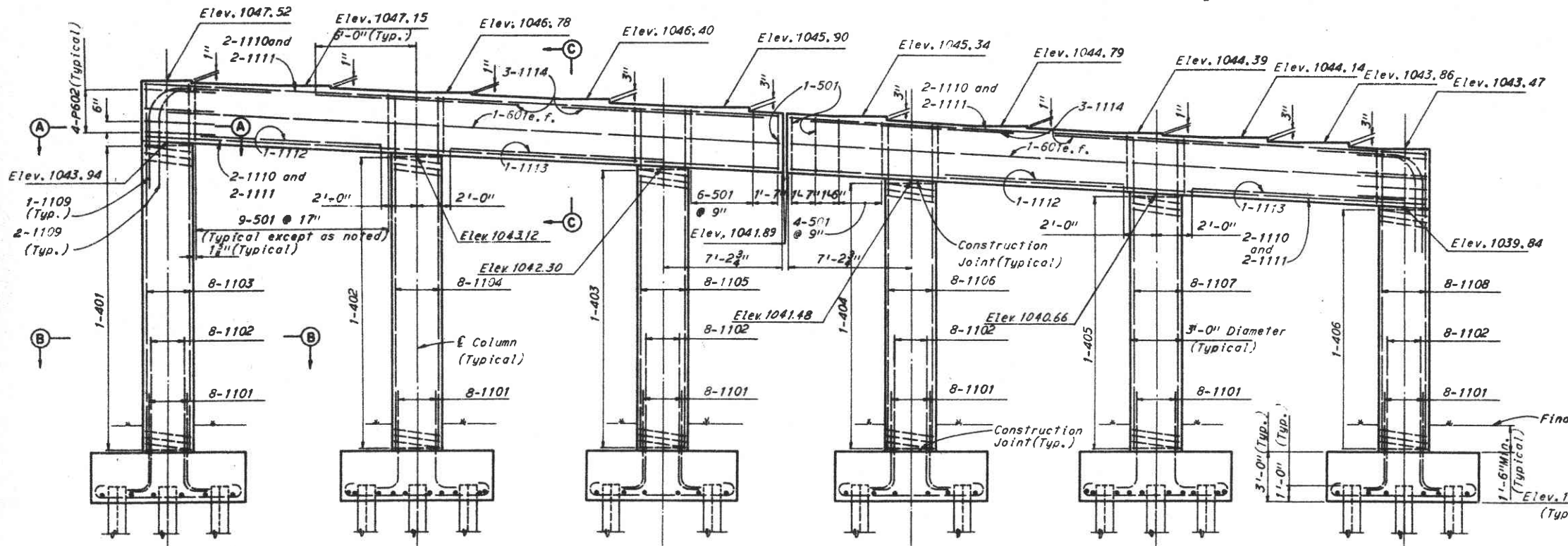
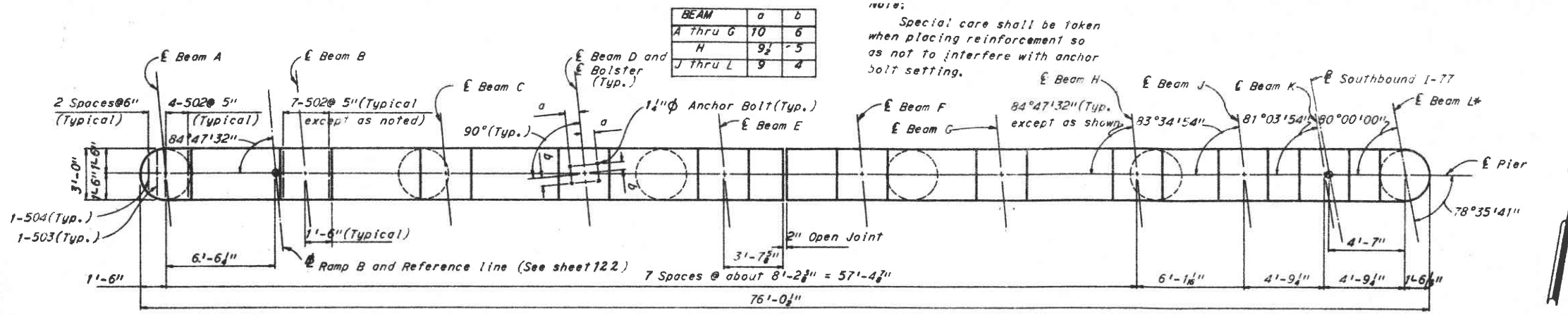
H.N.T.B. BRIDGE NO. 7L & R PART 17
HOWARD, NEEDLES, TAMMEN & BERGENOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

WINGWALL ELEVATIONS
1-77 OVER WATERLOO ROAD (U.S. 224)
BR. NO. SUM-8-1001 L&R STA. 515+88.36
SCALE: 3/8" = 1'-0" STA. 517+94.65

AKRON EXPRESSWAY SYSTEM
AKRON SUMMIT COUNTY OHIO

DESIGNED BY	CHECKED BY	DATE
DRAWN BY	DATE	DATE

**SUMMIT COUNTY
CITY OF AKRON
AKRON EXPRESSWAY SYSTEM
SUM-8-10.00**



All reinforcing bar marks shall be prefixed PA.

Notes:
For anchor bolt details see Ohio Standard Drawing RB-1-55.
All piles are 12BP53. All battered piles are inclined 3 in 12 in direction shown.
Pile spacings are measured along bottom of footings.
For Reinforcement Schedule and Bending Diagrams see sheet 137.
The following abbreviation is used:
e.f. = each face

H.N.T.B. BRIDGE NO. 7L & R PART 17

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

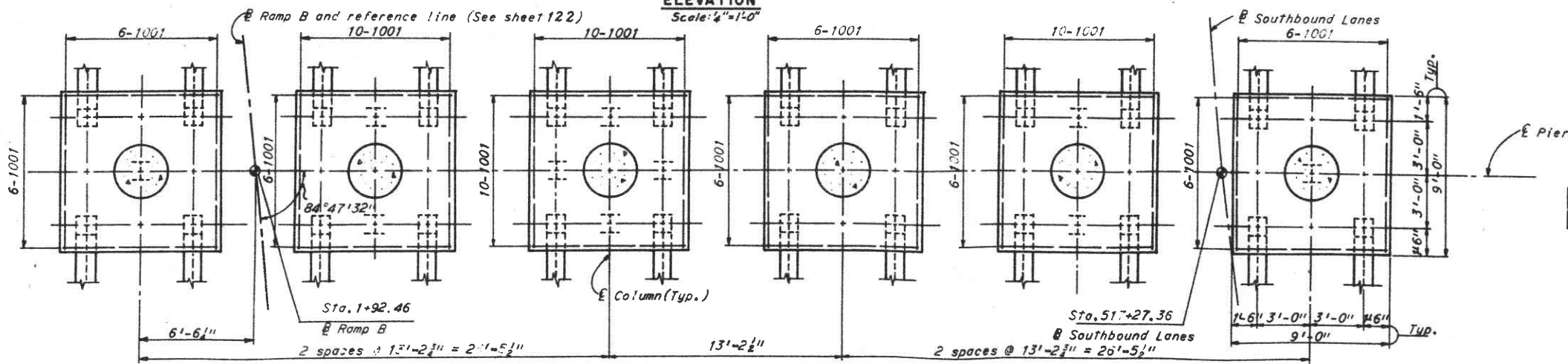
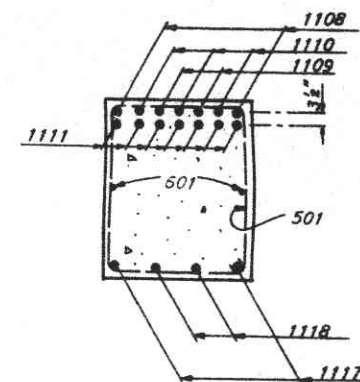
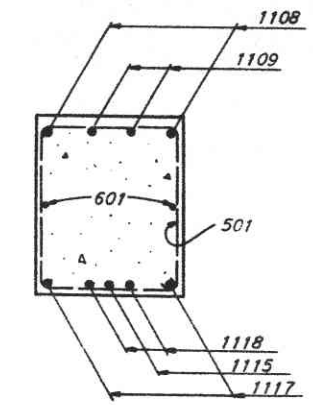
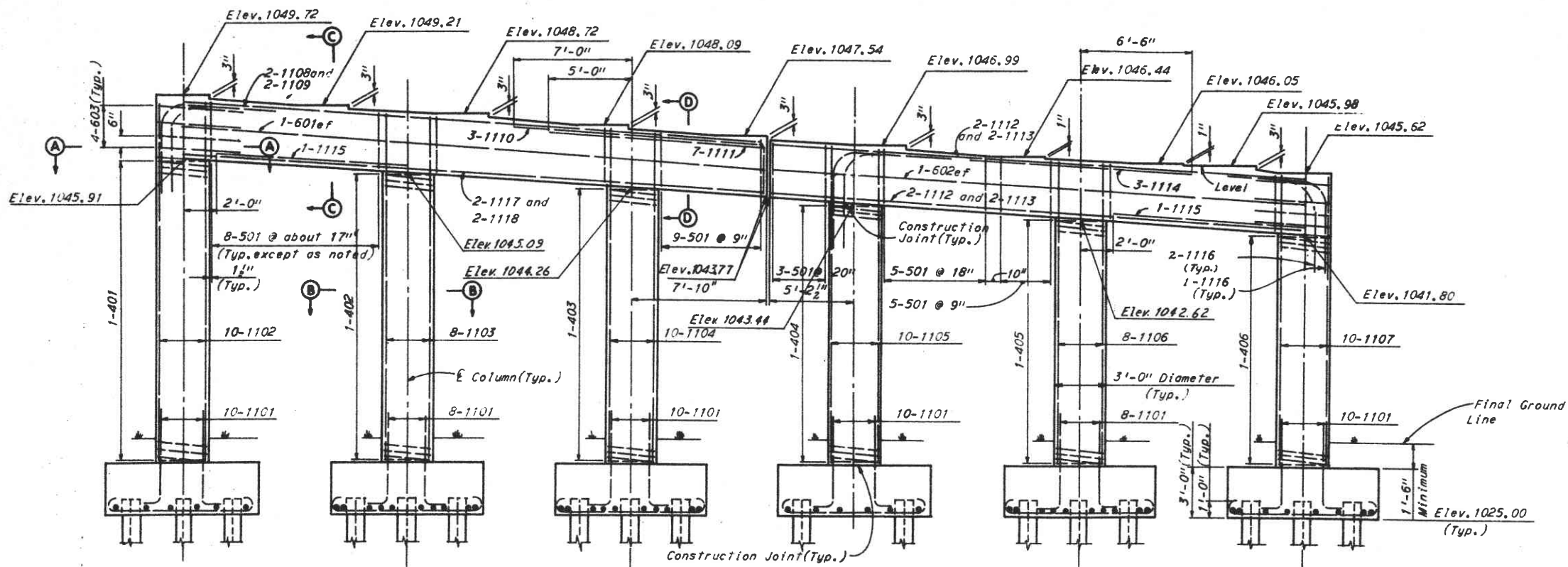
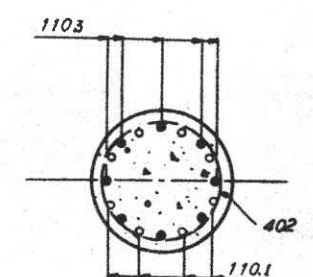
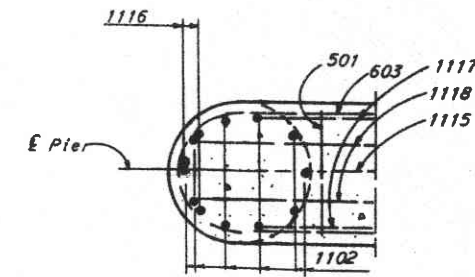
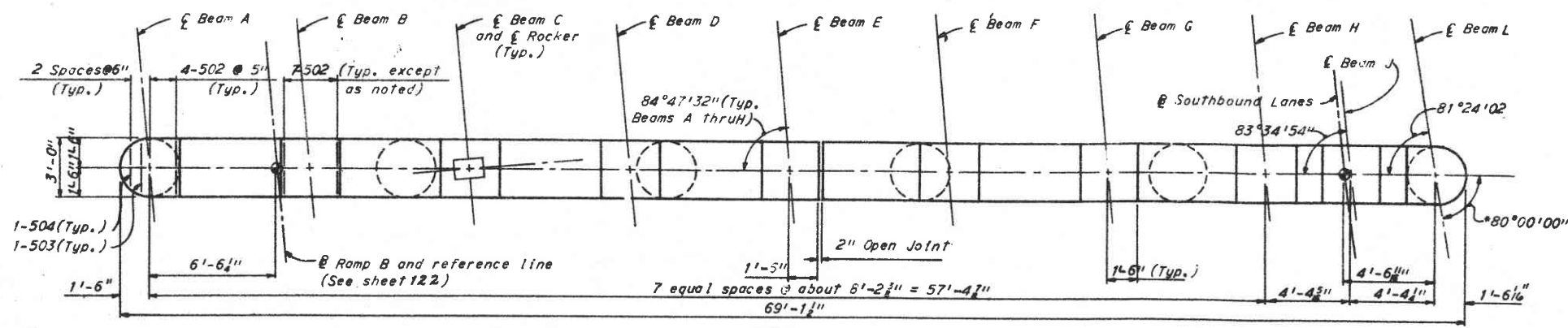
PIER I - BR. NO. 7L
I-77 OVER WATERLOO ROAD (U.S. 224)
BR. NO. SUM-8-1001 L&R STA. 515+88.36
SCALE: AS NOTED STA. 517+94.65

AKRON EXPRESSWAY SYSTEM
AKRON SUMMIT COUNTY OHIO

DATE	TRACED	CHECKED	REVIEWED	REVISED
12-11-63		3.3.64	5-5-64	

SHEET 128

SUMMIT COUNTY
CITY OF AKRON
EXPRESSWAY SYSTEM
SUM-8-10.00



All reinforcing bar marks shall be prefixed PR.

Notes:
All piles are 12BP53. All battered pile are inclined 3 in 12 in direction shown.
Pile spacings are measured along bottom of footings.
For Reinforcement Schedule and Bending Diagrams see sheet 137.
The following abbreviation is used:
ef = each face

H.N.T.B. BRIDGE NO. 7L & R PART 17
HOWARD, NEEDLES, TAMMEN & BERENSON
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

PIER 2 - BR. NO. 7L
1-77 OVER WATERLOO ROAD (U.S. 224)
BR. NO. SUM-8-1001L&R STA. 515+88.36
SCALE: AS NOTED STA. 517+94.65

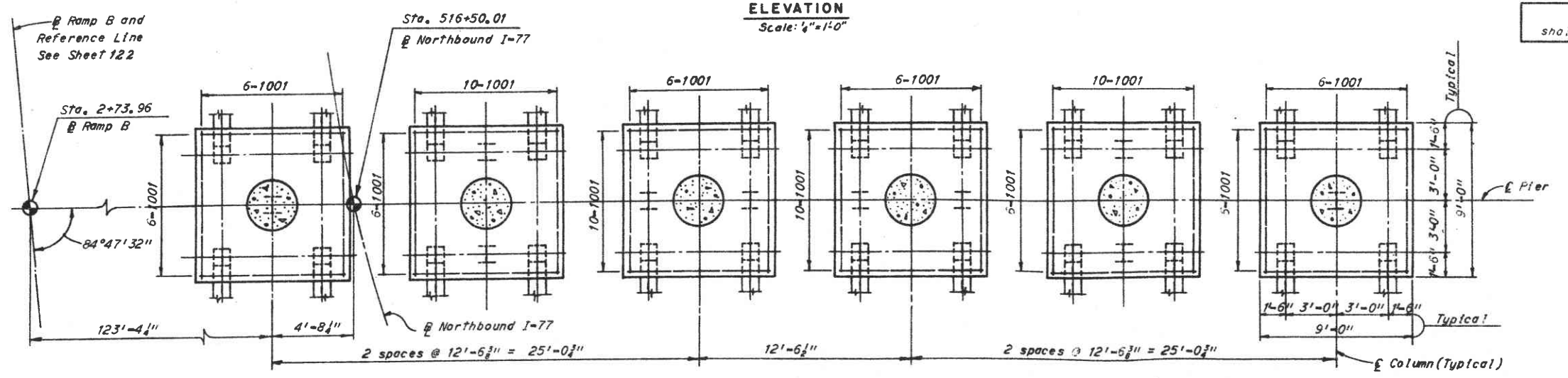
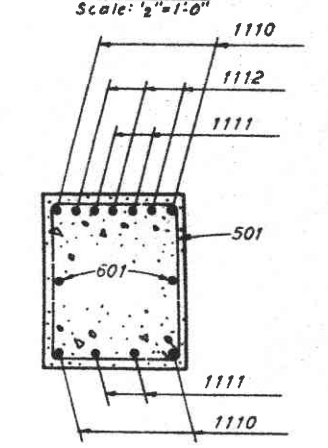
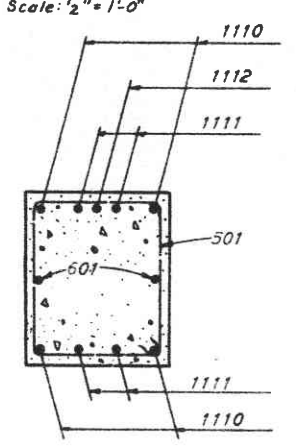
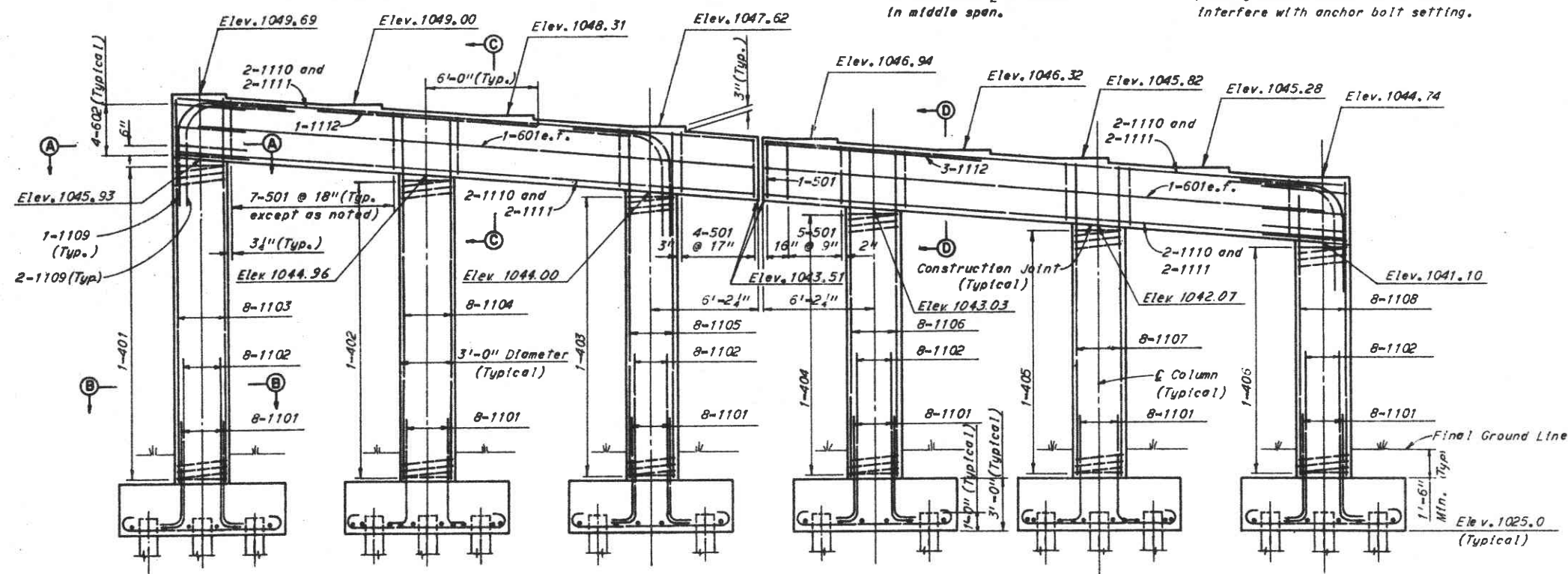
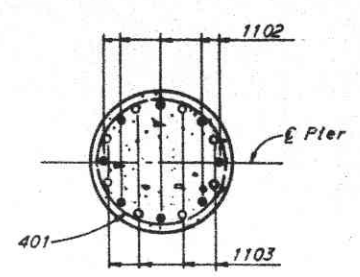
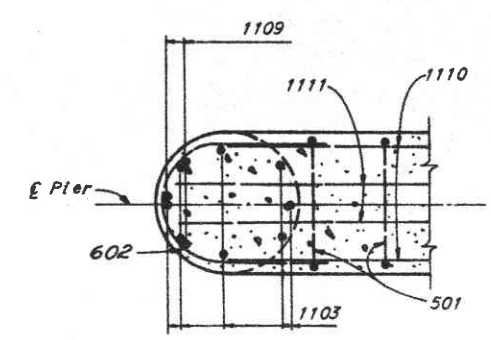
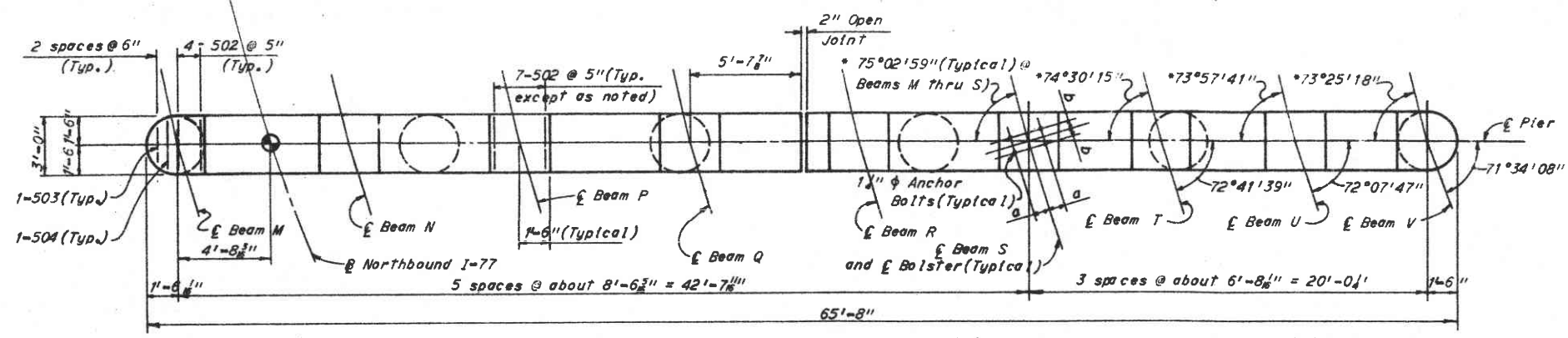
AKRON EXPRESSWAY SYSTEM
AKRON SUMMIT COUNTY OHIO

DRAWN	TRACED	CHECKED	REVIEWED	DATE
J.S.	J.S.	J.S.	J.S.	3.3.64

DATE 1-2-64 DATE 3-5-64 SHEET 129

SUMMIT COUNTY
CITY OF AKRON
EXPRESSWAY SYSTEM
SUM-8-10.00

BEAM	a	b
M Thru R	10"	5"
S Thru V	9 1/2"	5"



All reinforcing bar marks shall be prefixed PC.

Notes:
For anchor bolt details see Ohio Standard Drawing RB-1-55.
All piles are 12 BP 53. All battered piles are inclined 3 in 12 in direction shown.
Pile spacings are measured along bottom of footings.
For Reinforcement Schedule and Bending Diagrams see sheet 137.
The following abbreviation is used:
e.f. = each face.

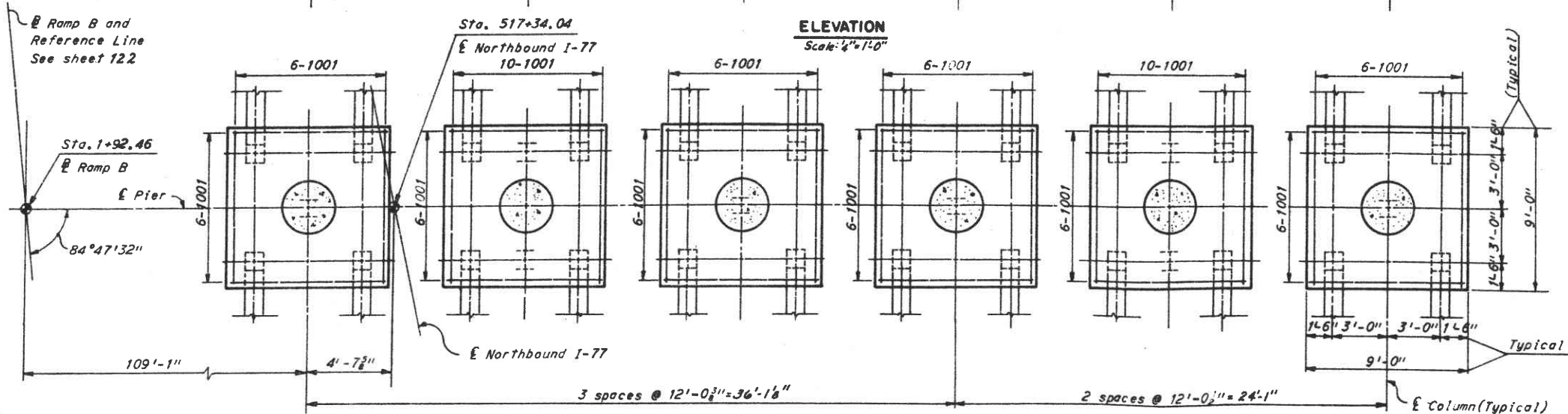
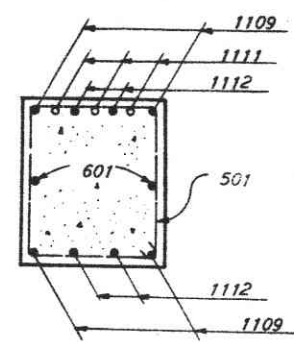
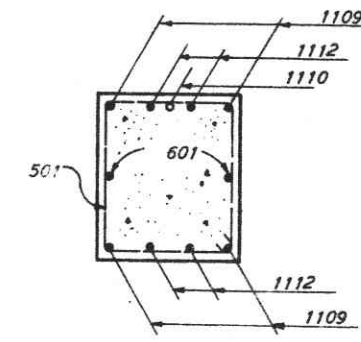
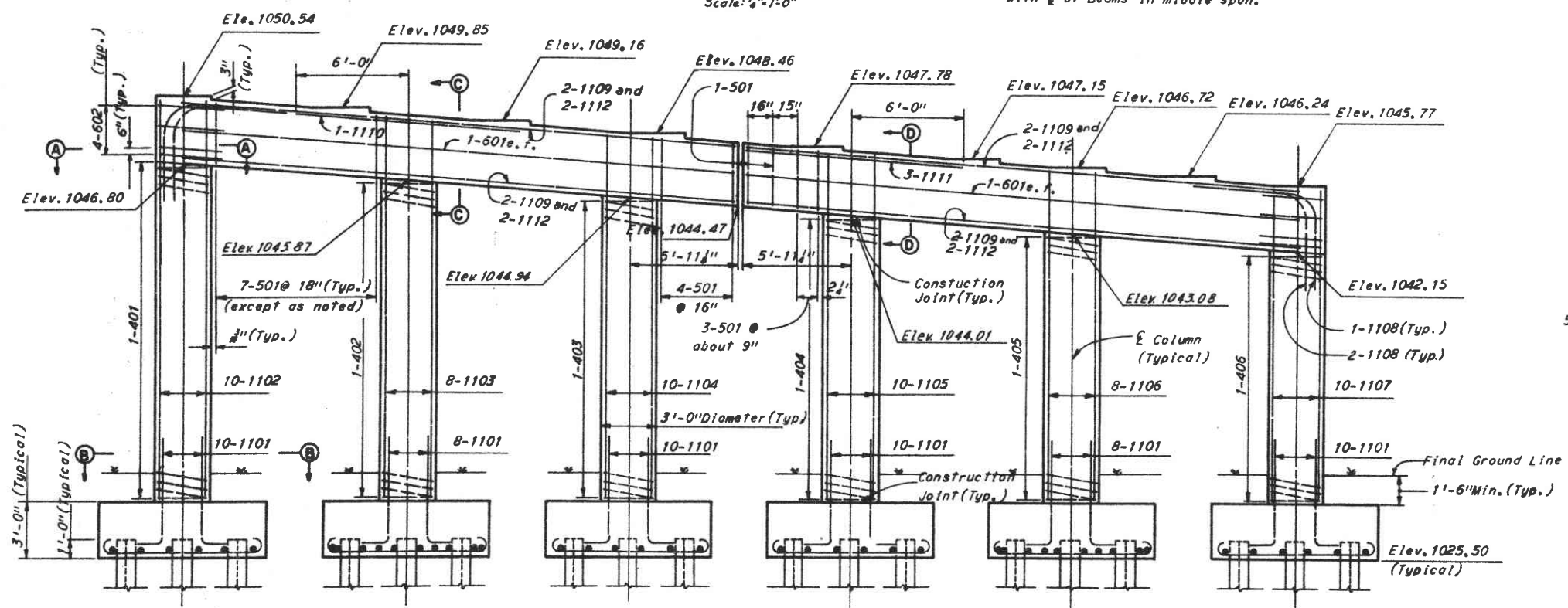
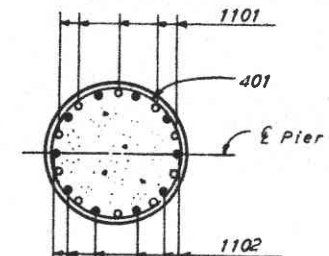
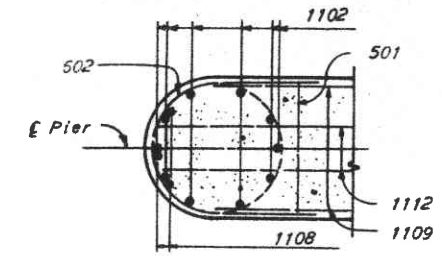
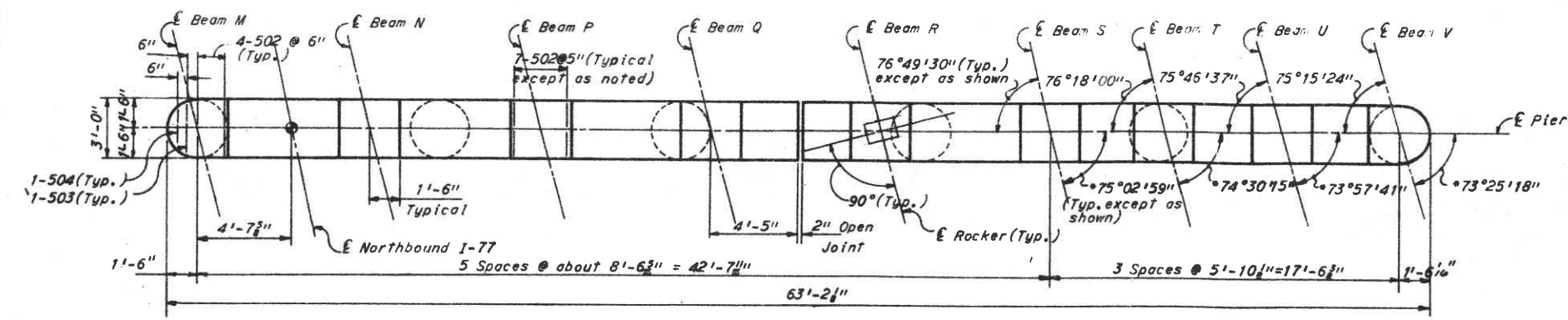
H.N.T.B. BRIDGE NO. 7L & R PART 17
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

PIER 1 - BR. NO. 7R
1-77 OVER WATERLOO ROAD (U.S. 224)
BR. NO. SUM-8-1001 L&R STA. 515+88.36
SCALE: AS NOTED STA. 517+94.65

AKRON EXPRESSWAY SYSTEM
AKRON SUMMIT COUNTY OHIO

DRAWN	TRACED	CHECKED	REVIEWED	REVISED
DATE 2/27/63	DATE	DATE 3-3-64	DATE 5-5-64	

SUMMIT COUNTY
CITY OF AKRON
AKRON EXPRESSWAY SYSTEM
SUM-8-10.00



All reinforcing bar marks shall be prefixed PD.

Notes:
All piles are 12BP53. All battered piles are inclined 3 in 12 in direction shown.
Pile spacings are measured along bottom of footings.
For reinforcement Schedule and Bending Diagrams see sheet 13.7.
The following abbreviation is used:
e.f. = each face

H.N.T.B. BRIDGE NO. 7L & R PART 17

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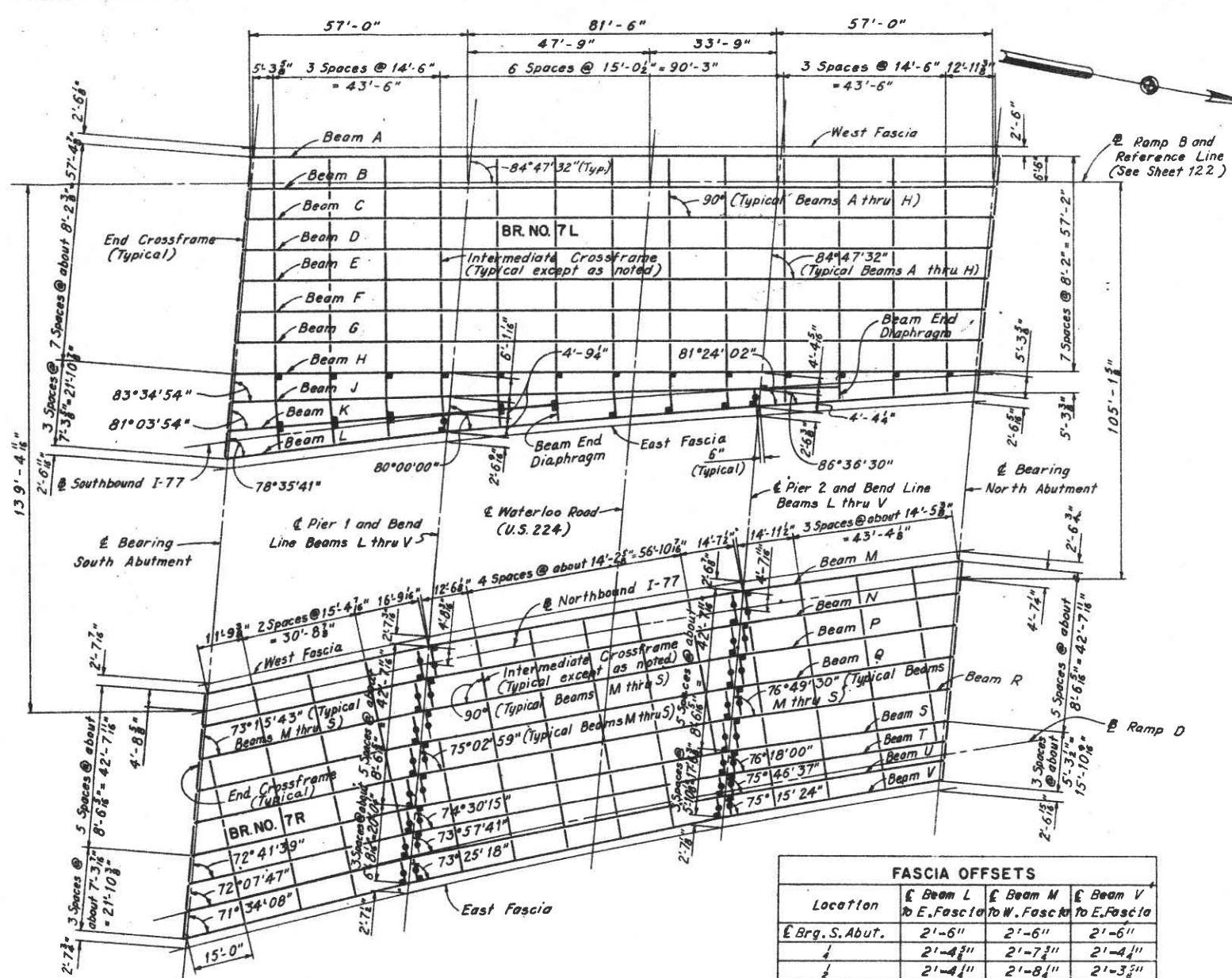
PIER 2 - BR. NO. 7R
1-77 OVER WATERLOO ROAD (U.S. 224)
BR. NO. SUM-8-1001&R STA. 515+88.36
SCALE: AS NOTED STA. 517+94.65

AKRON EXPRESSWAY SYSTEM

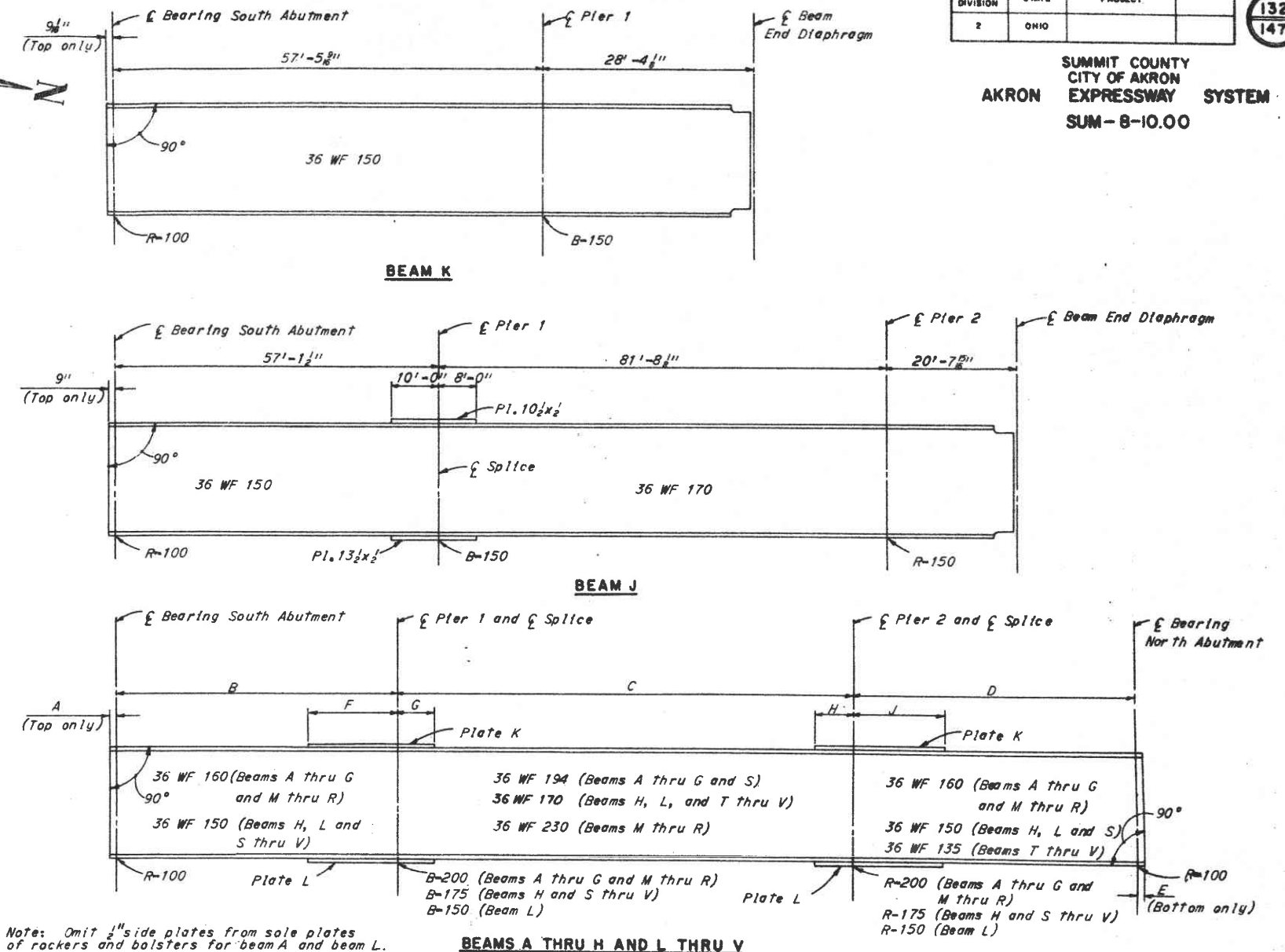
AKRON	SUMMIT COUNTY	OHIO
DRAWN: J.D.	TRACED	CHECKED: R.S.G.
DATE: 12-27-65	DATE: 3-3-66	DATE: 5-5-66

SHEET 131

SUMMIT COUNTY CITY OF AKRON EXPRESSWAY SYSTEM
SUM-8-10.00

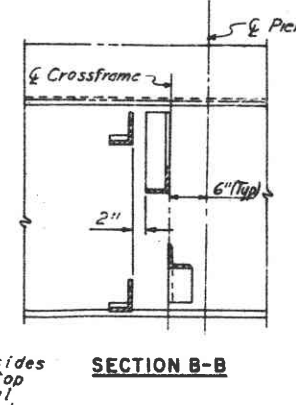
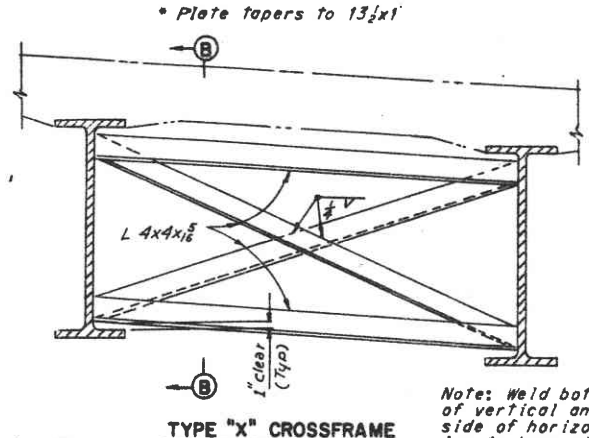
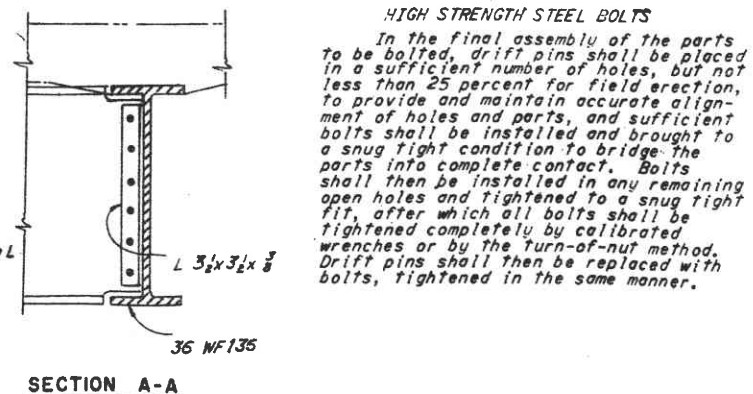
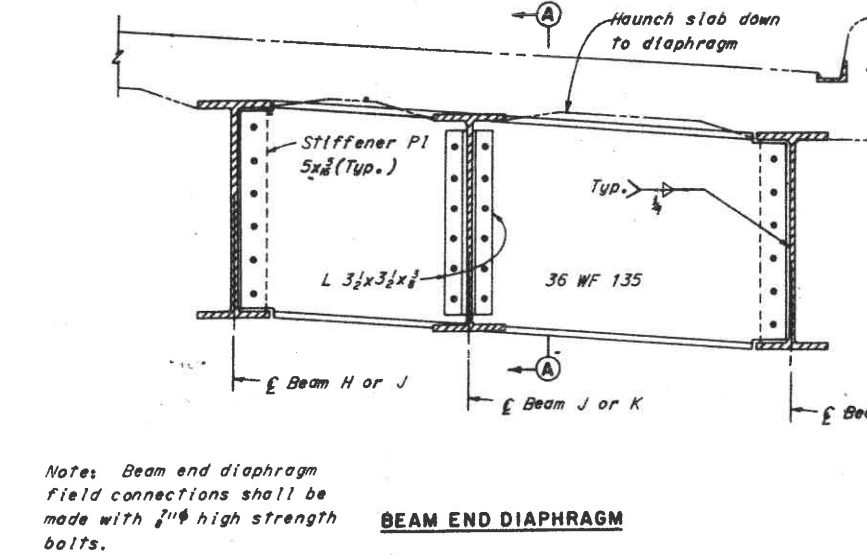


Location	Beam L To E. Fascia	Beam M To W. Fascia	Beam V To E. Fascia
Brq. S. Abut.	2'-5"	2'-6"	2'-6"
↓	2'-4 1/2"	2'-7 1/2"	2'-4 1/2"
↓	2'-4 1/2"	2'-8 1/2"	2'-3 1/2"
↓	2'-4 1/2"	2'-7 1/2"	2'-4 1/2"
Brq. N. Abut.	2'-6"	2'-6"	2'-6"
↓	2'-3 1/2"	2'-9 1/2"	2'-2 1/2"
↓	2'-2 1/2"	2'-10 1/2"	2'-1 1/2"
↓	2'-3 1/2"	2'-9 1/2"	2'-2 1/2"
Brq. N. Abut.	2'-6"	2'-6"	2'-6"
↓	2'-4 1/2"	2'-8 1/2"	2'-3 1/2"
↓	2'-4 1/2"	2'-7 1/2"	2'-4 1/2"



BEAMS	A	B	C	D	E	F	G	H	J	Plate K	Plate L
A thru G	9"	57'-0"	81'-6"	57'-0"	9"	17'-0"	10'-0"	10'-0"	17'-0"	10 1/2 x 1 1/2	13 1/2 x 1
H	9"	57'-0"	81'-6"	57'-0"	9"	16'-0"	10'-0"	10'-0"	16'-0"	10 1/2 x 1 1/2	13 1/2 x 1 1/2
L	9 1/2"	57'-10 1/2"	82'-5"	57'-4 1/2"	9 1/2"	16'-0"	10'-0"	10'-0"	16'-0"	10 1/2 x 1 1/2	13 1/2 x 1 1/2
M thru R	9 1/2"	59'-3 1/2"	84'-0 1/2"	58'-3 1/2"	9 1/2"	18'-0"	8'-0"	8'-0"	18'-0"	10 1/2 x 1 1/2	13 1/2 x 1 1/2
S	9 1/2"	59'-3 1/2"	84'-0 1/2"	58'-3 1/2"	9 1/2"	18'-0"	10'-0"	10'-0"	18'-0"	10 1/2 x 1 1/2	13 1/2 x 1 1/2
T	9 1/2"	59'-5 1/2"	84'-2 1/2"	58'-5 1/2"	9 1/2"	16'-0"	10'-0"	10'-0"	18'-0"	10 1/2 x 1 1/2	13 1/2 x 1 1/2
U	9 1/2"	59'-7 1/2"	84'-5 1/2"	58'-7 1/2"	9 1/2"	16'-0"	10'-0"	10'-0"	18'-0"	10 1/2 x 1 1/2	13 1/2 x 1 1/2
V	9 1/2"	59'-10"	84'-8 1/2"	58'-8 1/2"	9 1/2"	16'-0"	10'-0"	10'-0"	18'-0"	10 1/2 x 1 1/2	13 1/2 x 1 1/2

Notes:
 Fascia offsets are given at E bearing and at J points between bearing lines and are perpendicular to E of beam.
 For details of Rockers and Bolsters see Ohio Standard Drawing RB-1-35.
 For details of roadway end dam, and crossframe and for treatment of beams at the abutment see Ohio Standard Drawing SD-1-63, sheet 2 of 4. The supporting angle shown in the "Roadway End Dam Data" table shall be increased from 6x4x1/2 to 8x4x1/2.
 For details of typical intermediate crossframe see sheet 120.
 For scupper locations see sheet 122.
 For scupper details see sheet 13A.
 For curb plate details see Ohio Standard Drawing SD-1-63, sheet 4 of 4.
 For beam jacking and splice procedure see sheet 133.



H.N.T.B. BRIDGE NO. 7L & R PART 17

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FRAMING PLAN

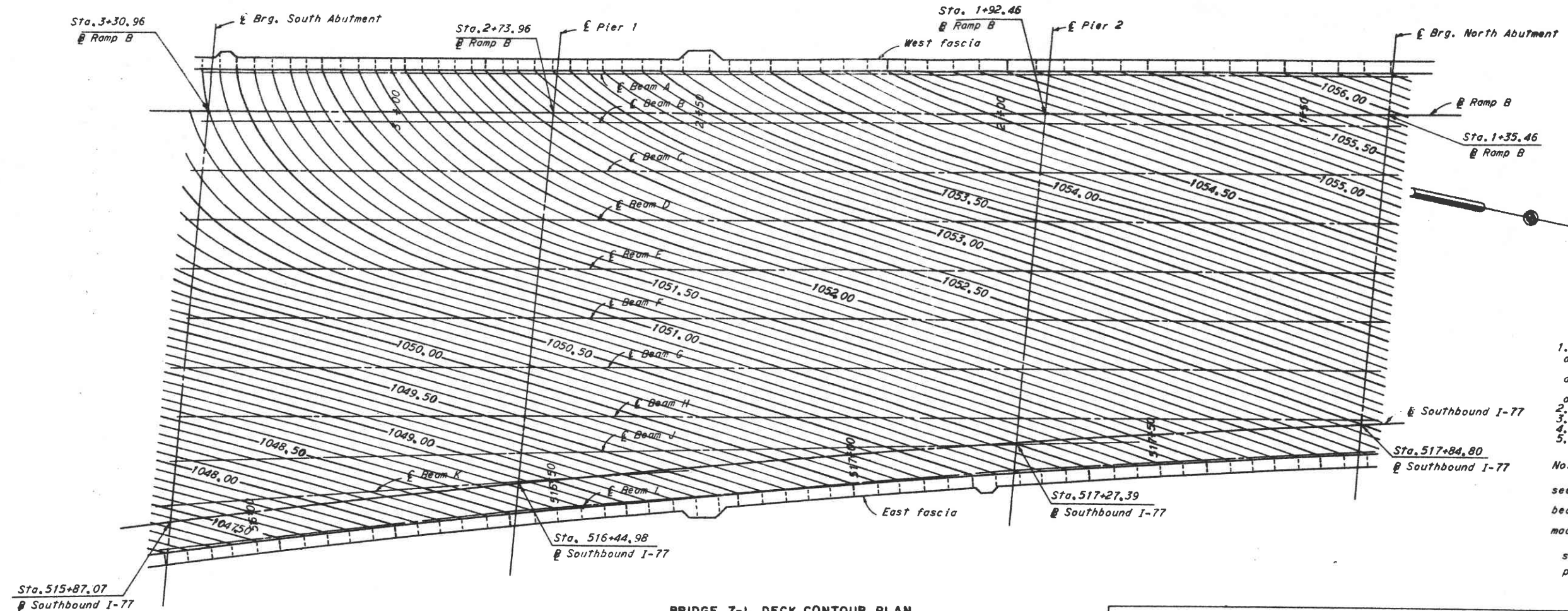
1-77 OVER WATERLOO ROAD (U.S. 224)
 BR. NO. SUM-8-1001 & R STA. 515+88.36
 SCALE: NONE STA. 517+94.65

AKRON EXPRESSWAY SYSTEM

AKRON	SUMMIT COUNTY	OHIO
DRAWN BY: J.C.	CHECKED BY: J.C.	REVIEWED BY: J.C.
DATE: 1/27/64	DATE: 3-3-64	DATE: 5-5-64

SHEET 132

SUMMIT COUNTY CITY OF AKRON EXPRESSWAY SYSTEM
SUM-8-10.00



BRIDGE 7-L DECK CONTOUR PLAN



BEAM JACKING PROCEDURE

1. Raise ends of Beams A thru H and L 1/8" at each abutment.
 2. Raise ends of Beams M thru S 1/8" at each abutment.
 3. Raise ends of Beams T thru V 1/8" at each abutment.
 4. Splice of Piers 1 and 2.
 5. Splice of Pier 1.
 6. Lower beams into final position.
- Note:**
 For splice details and welding procedure see Ohio Standard Drawing SD-1-63, sheet 1 of 4. Weld all Type "X" Crossframes before the beams are lowered into their final position. The Beam End Diaphragm Connection shall be made after all beams are in their final position. Cover plates at bend points of beams shall be fabricated from a single wide plate.

BEAM	TOP OF PAVEMENT ELEVATIONS												BEAM	
	W. Brg. S. Abut.	SPAN 1			SPAN 2			SPAN 3			E. Brg. N. Abut.			
	a	b	c	a	b	c	a	b	c					
A	1050.85	1051.35	1051.85	1052.38	1052.91	1053.57	1054.10	1054.66	1055.11	1055.42	1055.73	1056.05	1056.37	A
B	1050.77	1051.21	1051.65	1052.10	1052.54	1053.16	1053.71	1054.28	1054.60	1054.86	1055.18	1055.50	1055.83	B
C	1050.63	1051.01	1051.40	1051.80	1052.17	1052.66	1053.17	1053.68	1054.11	1054.38	1054.66	1054.95	1055.28	C
D	1050.44	1050.76	1051.10	1051.44	1051.79	1052.20	1052.62	1053.06	1053.48	1053.79	1054.10	1054.40	1054.74	D
E	1050.16	1050.45	1050.73	1050.00	1051.29	1051.68	1052.08	1052.50	1052.93	1053.23	1053.54	1053.86	1054.18	E
F	1049.66	1049.93	1050.20	1050.46	1050.73	1051.12	1051.54	1051.96	1052.38	1052.68	1053.00	1053.32	1053.64	F
G	1049.10	1049.37	1049.62	1049.90	1050.18	1050.57	1050.98	1051.40	1051.83	1052.13	1052.45	1052.77	1053.10	G
H	1048.55	1048.81	1049.07	1049.34	1049.62	1050.03	1050.43	1050.85	1051.28	1051.58	1051.90	1052.22	1052.55	H
J	1048.04	1048.32	1048.50	1048.90	1049.20	1049.53	1050.08	1050.53	1051.00	*1051.23	**1051.46			J
K	1047.54	1047.87	1048.20	1048.53	1048.86	**1049.22	**1049.58							K
L	1047.05	1047.42	1047.79	1048.17	1048.55	1049.07	1049.62	1050.17	1050.70	1051.06	1051.43	1051.81	1052.18	L
M	1054.45	1054.59	1054.74	1054.89	1055.05	1055.24	1055.44	1055.66	1055.90	1056.05	1056.22	1056.40	1056.59	M
N	1053.77	1053.91	1054.05	1054.20	1054.36	1054.55	1054.75	1054.97	1055.21	1055.36	1055.52	1055.70	1055.89	N
P	1053.08	1053.22	1053.36	1053.52	1053.68	1053.86	1054.06	1054.28	1054.52	1054.67	1054.83	1055.00	1055.19	P
Q	1052.40	1052.54	1052.58	1052.83	1052.99	1053.17	1053.37	1053.59	1053.83	1053.97	1054.13	1054.31	1054.50	Q
R	1051.72	1051.85	1051.99	1052.14	1052.30	1052.48	1052.69	1052.90	1053.14	1053.28	1053.44	1053.61	1053.80	R
S	1051.03	1051.16	1051.31	1051.46	1051.61	1051.80	1052.00	1052.21	1052.44	1152.59	1052.74	1052.91	1053.10	S
T	1050.45	1050.59	1050.74	1050.91	1051.07	1051.27	1051.49	1051.72	1051.97	1052.12	1052.29	1052.47	1052.67	T
U	1049.86	1050.02	1050.18	1050.36	1050.54	1050.75	1050.98	1051.23	1051.50	1051.66	1051.83	1052.03	1052.23	U
V	1049.28	1049.44	1049.62	1049.81	1050.00	1050.23	1050.48	1050.74	1051.02	1051.15	1051.38	1051.58	1051.80	V

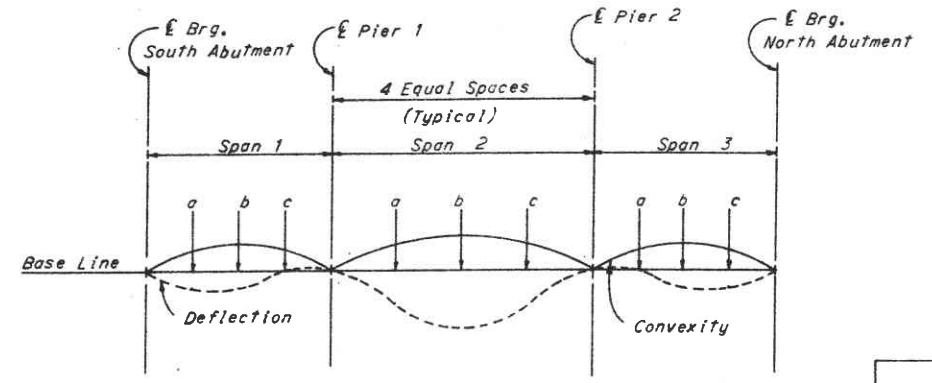
* 0.5 Point of beam in span noted.
 ** end of beam
 Note: To obtain top of beam elevations at supports, exclusive of cover plates deduct:
 0.89' for Beams A thru L
 0.91' for Beams M thru V
 from respective top of pavement elevations.

BEAM	CONVEXITY CORRECTIONS								
	SPAN 1			SPAN 2			SPAN 3		
	a	b	c	a	b	c	a	b	c
A	-3/16"	-3/16"	-3/16"	1/8"	1/8"	1/8"	-1/16"	-1/16"	-1/16"
B	0	-1/16"	0	1/4"	1/8"	1/8"	-1/16"	-1/16"	-1/16"
C	-1/8"	0	3/16"	1/16"	1/16"	1/16"	-1/16"	-1/16"	-1/16"
D	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	0	-1/16"	-1/16"	-1/16"
E	1/16"	1/16"	1/16"	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"
F	0	1/16"	0	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"
G	0	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"
H	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"
J	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	0		
K	0	0	0	0	0	0			
L	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	1/16"	-1/16"	-1/16"	0
M thru U	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"

Negative values indicate convexity below the base line.
 Point a for Beams J and K in Spans 3 and 2 respectively is at the 0.5 point.

BEAM	DEAD LOAD DEFLECTIONS											
	SPAN 1				SPAN 2				SPAN 3			
	Tot.	Con.	Tot.	Con.	Tot.	Con.	Tot.	Con.	Tot.	Con.	Tot.	Con.
M thru U	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"
H	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"
J	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"
K	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"
L	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"
M thru R	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"
S thru U	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"
V	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"

Negative values indicate deflection above the base line.
 Point a for Beams J and K in Spans 3 and 2 respectively is at the 0.5 point and point b is at the end of the beams.



DEAD LOAD DEFLECTION AND CONVEXITY DIAGRAM

BEAM CAMBER NOTE

Where the combined effects of dead load deflection and convexity are 3/16 inch or more, the required camber shall be the same as this amount. If the combined effects are less than 3/16 inch no camber is required, but the beams shall be fabricated so that any curved beam will be placed with the convex flange up.

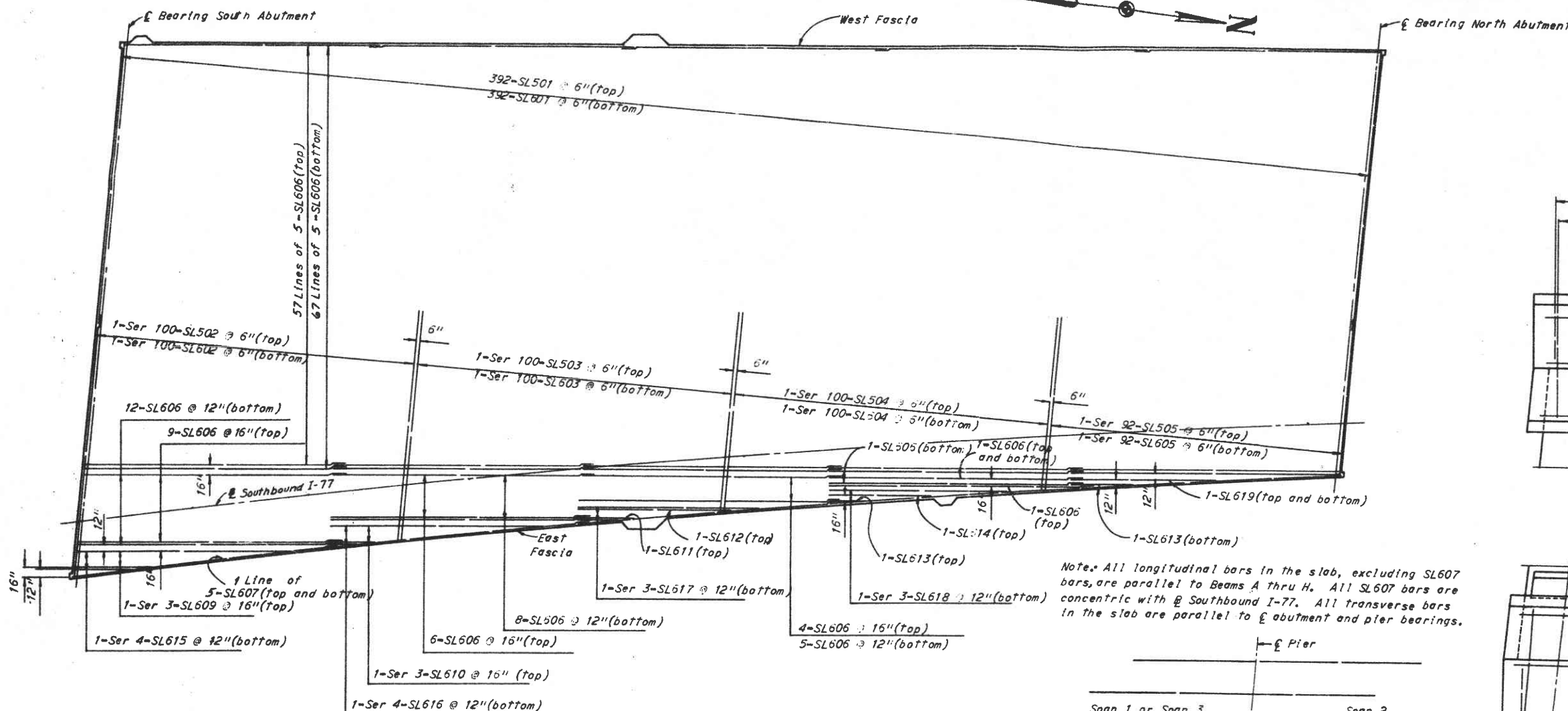
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DECK CONTOUR PLAN - BR. NO. 7L & R
 1-77 OVER WATERLOO ROAD (U.S. 224)
 BR. NO. SUM-8-1001 L&R STA. 515+88.36
 SCALE: AS NOTED STA. 517+94.65

AKRON EXPRESSWAY SYSTEM

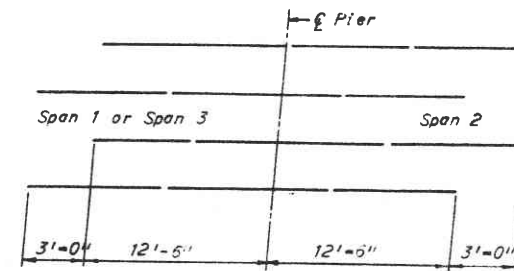
AKRON	SUMMIT	COUNTY	OHIO
DRAWN BY	TRACED	CHECKED	REVIEWED
DATE 12/19/64	DATE 1/10/65	DATE 3-3-65	DATE 5-6-64

SHEET 133

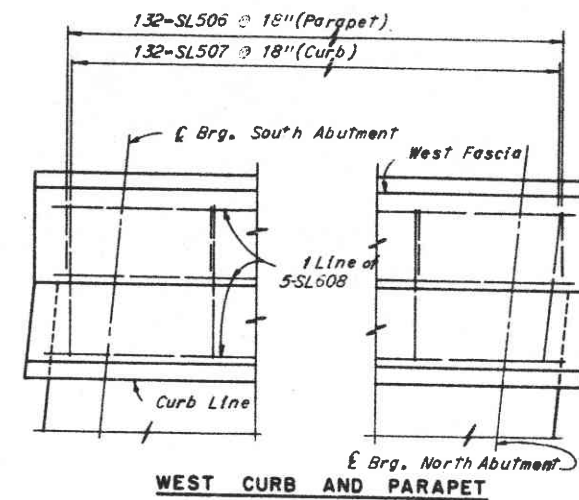


PLAN

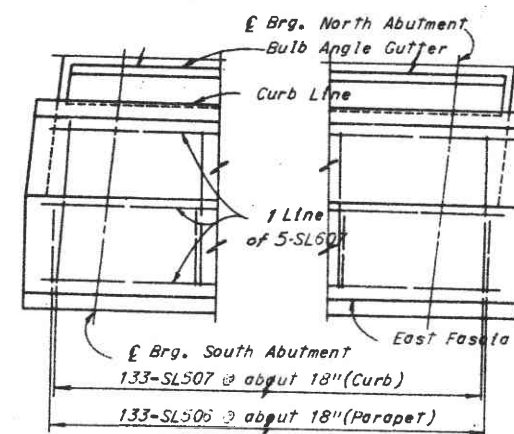
Note: All longitudinal bars in the slab, excluding SL607 bars, are parallel to Beams A thru H. All SL607 bars are concentric with @ Southbound I-77. All transverse bars in the slab are parallel to @ abutment and pier bearings.



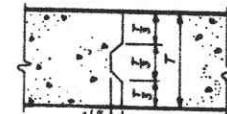
PLACEMENT OF SL620 BARS OVER PIERS



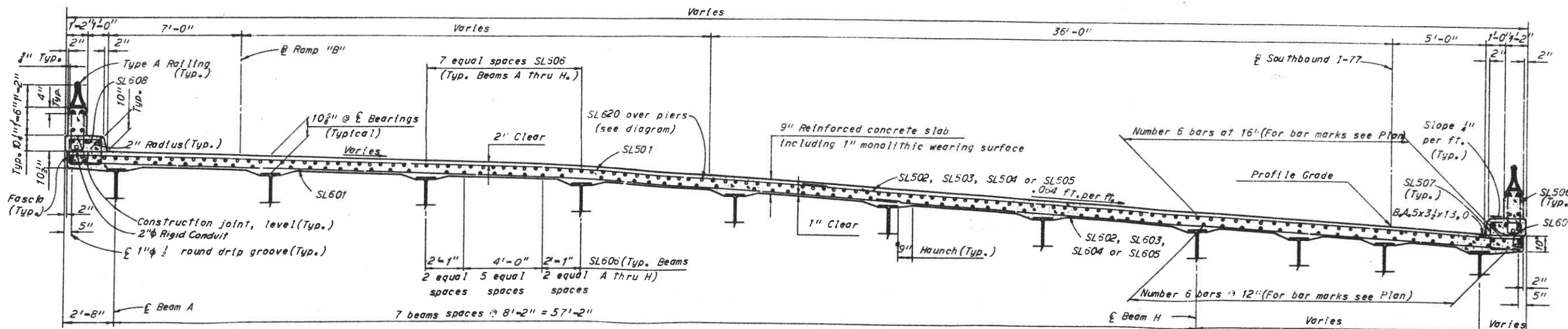
WEST CURB AND PARAPET



EAST CURB AND PARAPET



T = Slab Thickness
OPTIONAL TRANSVERSE SLAB
CONSTRUCTION JOINT



TYPICAL SECTION

Note: The haunch in the deck slab adjacent to the top of steel beams, which is shown as 9" wide, may vary from this dimension between the limits of 6" and 12" on the low side and between 9" and 12" on the high side. The maximum slope shall not exceed 3 inches per foot on the low side. Payment for deck slab concrete shall be based on the 9" width.

Notes: For Reinforcement Schedule and Bending Diagrams see sheet 137.
For longitudinal reinforcement in the parapets see sheet 139.
For railing post and parapet joint spacing see sheet 139.
For additional railing details see Ohio Standard Drawing AR-1-57.
For location of overhead sign supports and light standard supports see sheet 122.
For details of overhead sign supports see sheet 139.
For details of light standard supports see sheet 122.

H.N.T.B. BRIDGE NO. 7L & R PART 17

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SLAB PLAN - BR. NO. 7L
1-77 OVER WATERLOO ROAD (U.S. 224)
BR. NO. SUM-8-1001&R STA. 515+88.36
SCALE: NONE STA. 517+94.65

AKRON EXPRESSWAY SYSTEM

AKRON SUMMIT COUNTY OHIO

DRAWN	TRACED	CHECKED	REVIEWED
DATE 11-21-63	DATE	DATE 3-3-64	DATE 5-6-64