

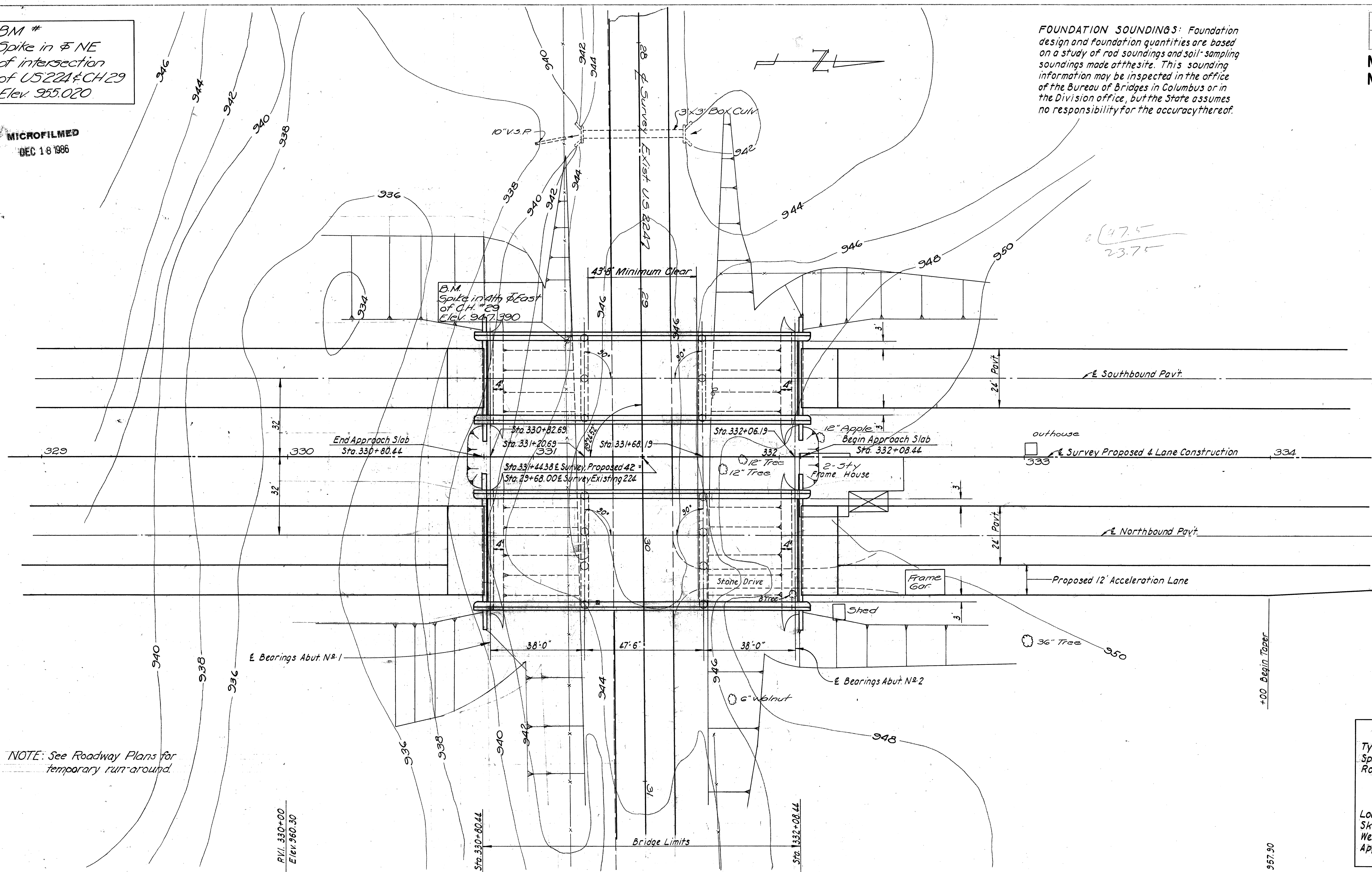
BM #
Spike in NE
of intersection
of US 224 & CH 29
Elev. 955.020

MICROFILMED
DEC 18 1986

FED. RD. DIST.	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-420 (11)	

MED-42-1.89
MED-224-6.25

FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of rod soundings and soil sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division office, but the State assumes no responsibility for the accuracy thereof.



NOTE: See Roadway Plans for temporary run-around.

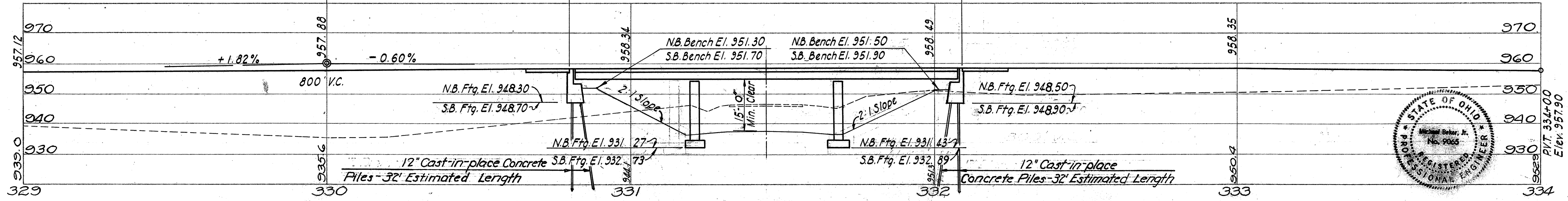
PROPOSED STRUCTURES
 Type: 2-Continuous Steel Beam Bridges
 Spans: 38'-47.5'-38' c.c. Bearings
 Roadway: Southbound Lanes - 30' between Curbs with 2' Safety Curbs
 Northbound Lanes - 42' between Curbs with 2' Safety Curbs
 Loading: C.F. 2000-51
 Skew: 0°
 Wearing Surface: 1" monolithic concrete
 Approach Slab: AS-1-54 (15' Long)

STEPLETON McDONNELL & BARBER
ASSOCIATED ENGINEERS & ARCHITECT
TOLEDO, O.

SITE PLAN
BRIDGE NO. MED-42-0310
OVER EXISTING U.S. 224

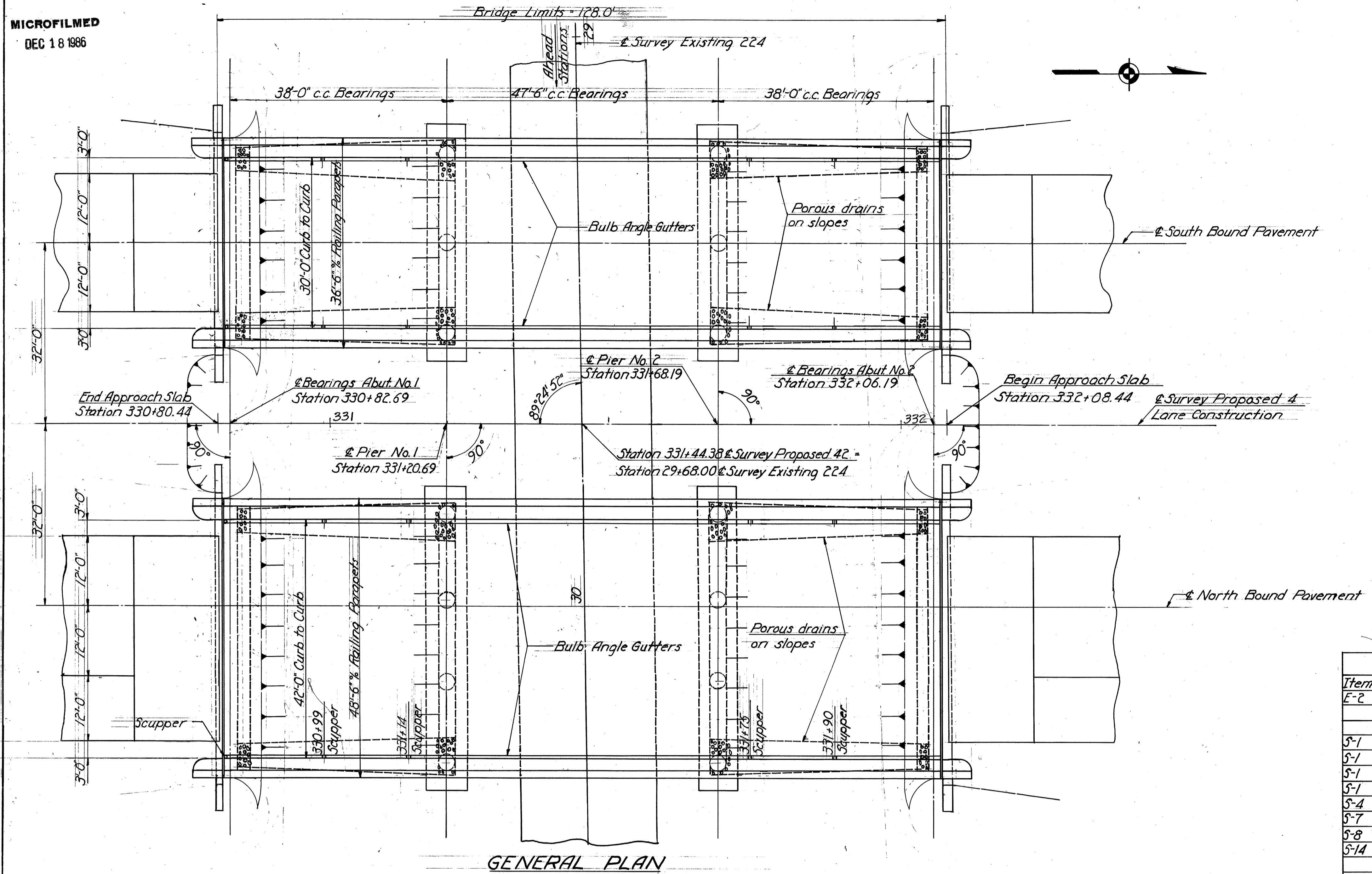
MEDINA COUNTY STA. 330 + 80.44
332 + 08.44
DATE: APRIL, 1956

Topography	Proposed Work
Survey	Drawn
Design	Drawn
Checked	Rev.
LAB	J.C.P.
OK	J.K.
	A.F.O.



GENERAL NOTES

- Design Specifications: This structure conforms to the requirements of "Design Specifications for Highway Structures of the State of Ohio, Department of Highways, dated 10-1-51, together with revisions thereof dated 7-15-52, 4-1-54 and 2-1-55.
- Loading: CF 2000-51.
- Reference shall be made to Sheets 1 & 2 of 8 of Standard Drawing CSB-1-55 (dated 3-1-55).
- Excavation quantity includes the removal of fill material between the top of the earth bench and the bottom of the abutment.
- Welding of structural steel shall be Class "A" except as otherwise shown.
- Porous drains, extending from face of abutment to the ditch, shall be provided at all four corners. The drains shall be 6 feet wide at the low end, tapering to 4 feet wide at the face of the abutment, and one foot thick, centered under scuppers.
- Gravel, if used as the coarse aggregate, shall be according to Section M-3.93 instead of M-3.91 for Class "C" concrete in the superstructure. Gravel meeting the requirements of Section M-3.93 also may be used for other concrete in this structure.
- Surface Finish of Concrete: Railing end posts, curb faces, fascias of deck and exposed surfaces of piers, abutments, and wing walls shall receive a rubbed surface finish. All other exposed surfaces shall be governed by the provisions of Item S-1.
- Paint, both shop and field, shall be applied by brushing. Spray application will not be permitted.
- Piles shall be driven to a minimum bearing capacity of 25 tons for the abutments. The length of the penetration of every pile shall be at least 80% of the estimated average length of penetration of the piles in the pertinent abutment as indicated on the plans unless a lesser penetration is approved by the Director.

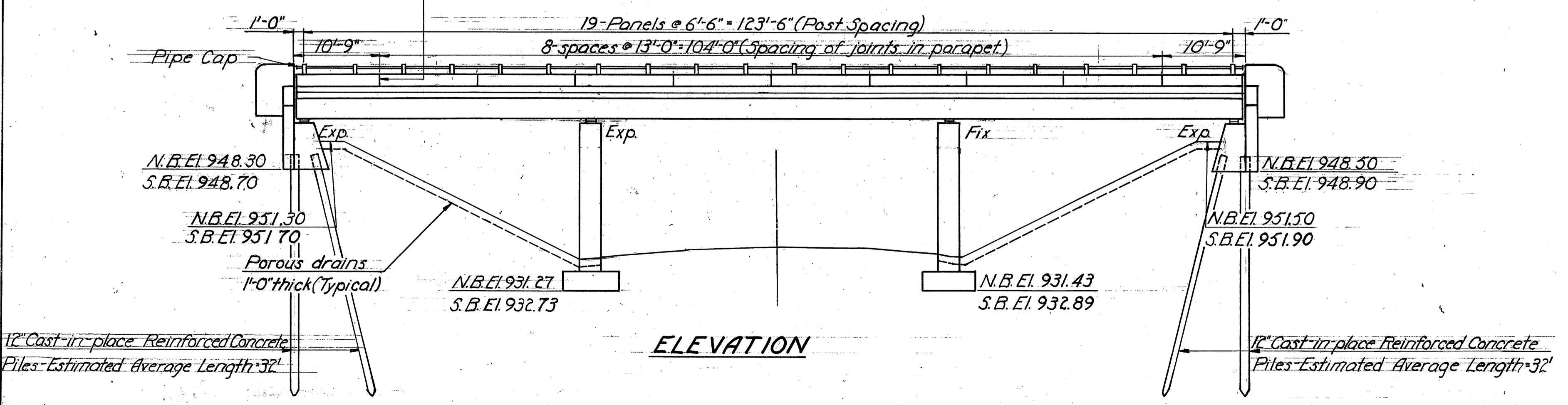


GENERAL PLAN

ESTIMATED QUANTITIES						
Item	Total	Unit	Description	Superstr.	Abuts.	Piers General
E-2	530	Cu.Yd.	Unclassified Excavation		200	330
S-1	342	Cu.Yd.	Class "C" Concrete, Superstructure	342		
S-1	98	Cu.Yd.	Class "C" Concrete, Pier Columns & Caps.			98
S-1	265	Cu.Yd.	Class "E" Concrete, Abutments		265	
S-1	122	Cu.Yd.	Class "E" Concrete, Pier Footings			122
S-4	139,473	Lbs.	Reinforcing Steel	95,625	13,880	29,968
S-7	220,000	Lbs.	Structural Steel	220,000		
S-8	220,000	Lbs.	Field Painting of Structural Steel	220,000		
S-14	541	Lin.Ft.	Railing (Aluminum Rail & Supports, Concrete Parapet and End Posts.)			541
S-16	Lump	Sum	First Test Pile			
S-18	1215	Lin.Ft.	12" Cast-in-place Reinforced Concrete Piles		1215	
S-29	55	Cu.Yd.	Porous Backfill		55	
S-29	58	Cu.Yd.	Porous Drains on Embankment Slopes			58

AS BUILT
S-29; 1215

1/4 grey sponge rubber preformed expansion joint filler meeting the requirements of Section M-10.02, Type I.



ELEVATION

MICHAEL BAKER, JR.
Consulting Engineer

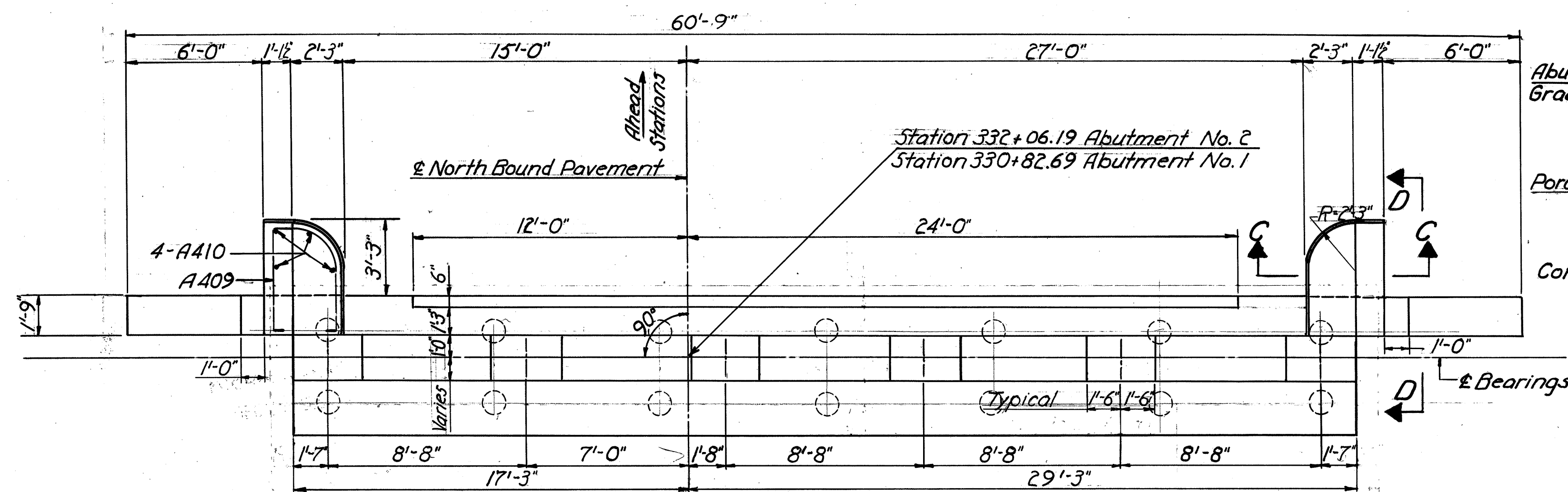
GENERAL PLAN & ELEVATION
BRIDGE NO. MED-42-0310
OVER EXISTING U.S. 224
MEDINA COUNTY STA. 330 + 80.44
332 + 08.44
DATE: APRIL, 1956

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
JFK	P.D.	P.D.	AFO			

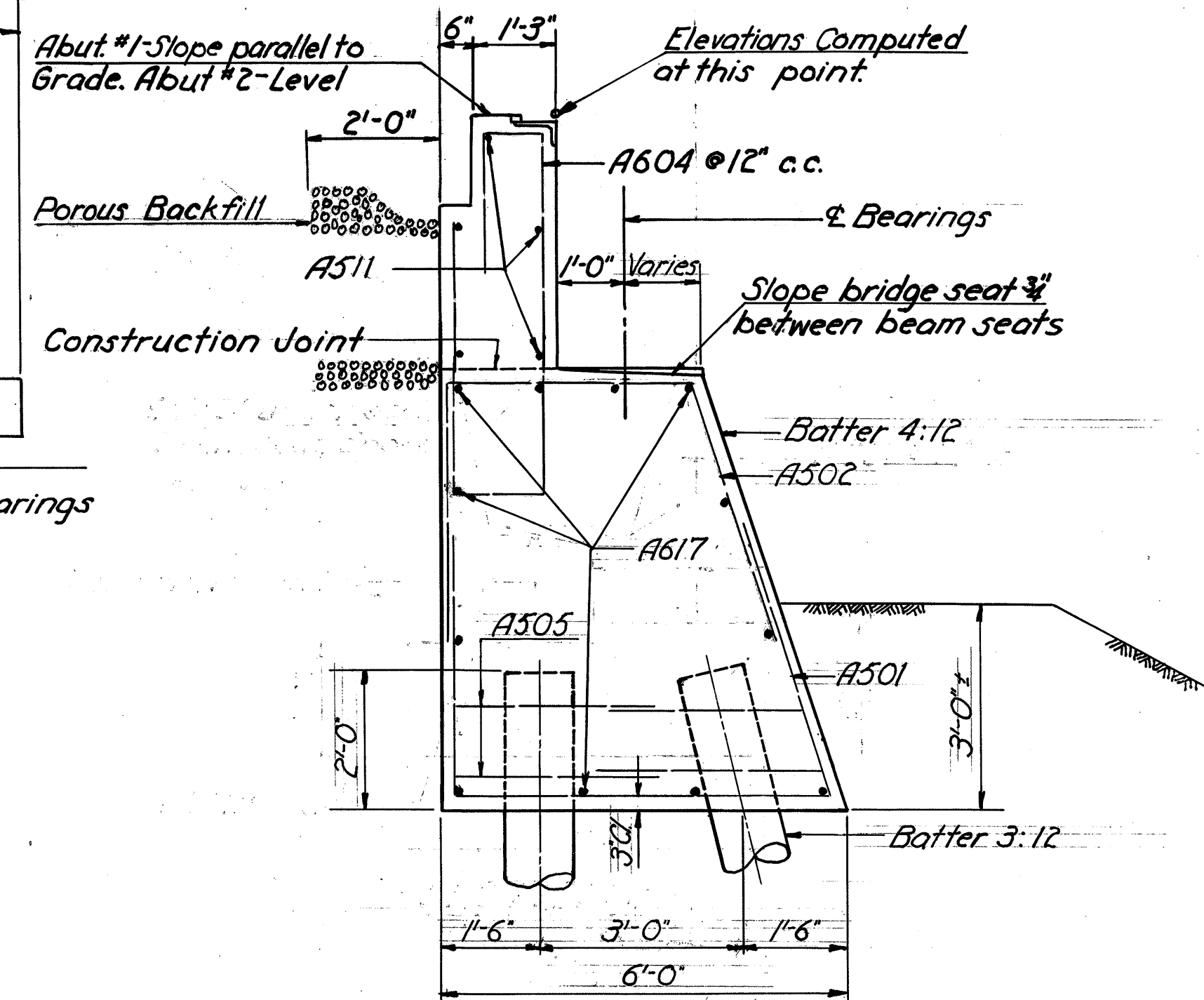
MICROFILM
DEC 18 1986

Fed. Rd. Div. No.	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-420 (II)	

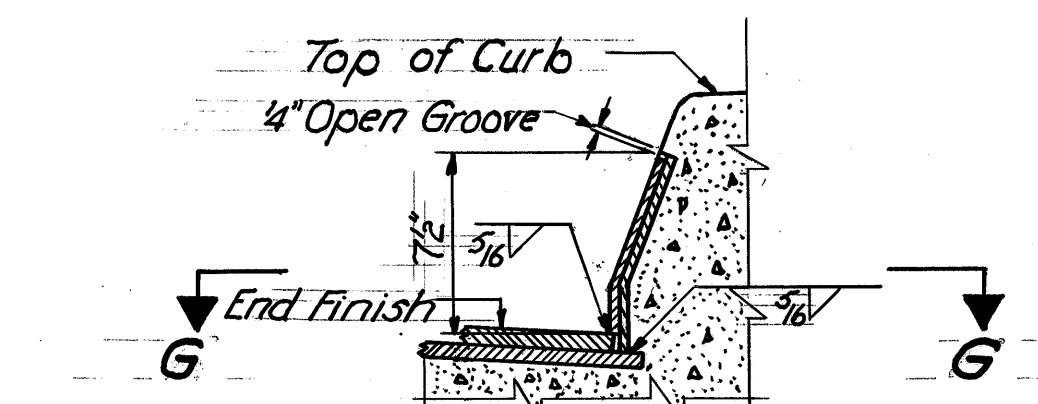
MED-42-1.89
MED-224-6.25



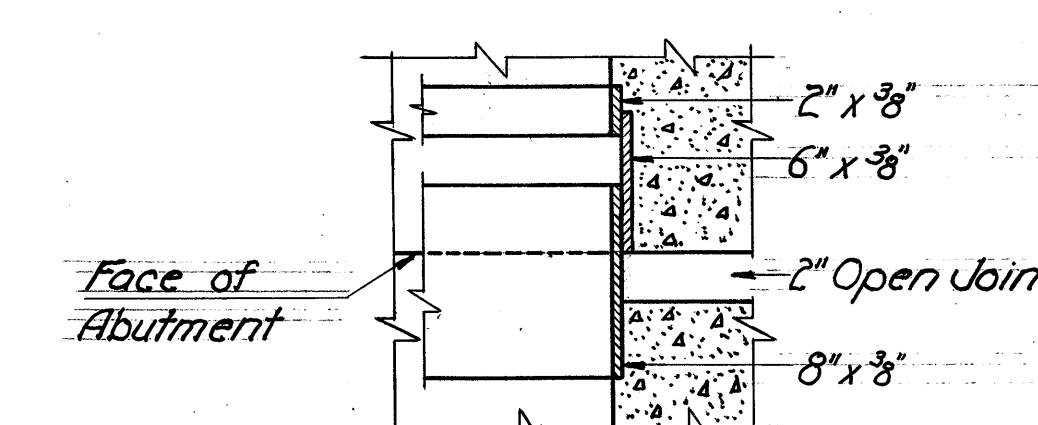
PLAN- ABUTMENT NO. 2 NORTH BOUND
Abutment No. 1 North Bound similar by opposite hand.



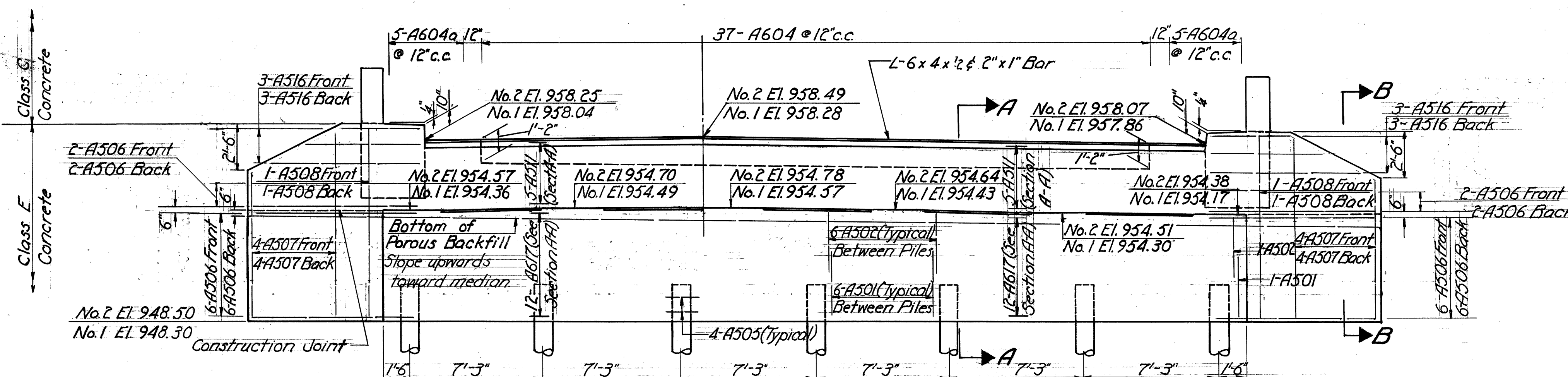
SECTION A-A



SPLASH GUARD DETAIL



SECTION G-G

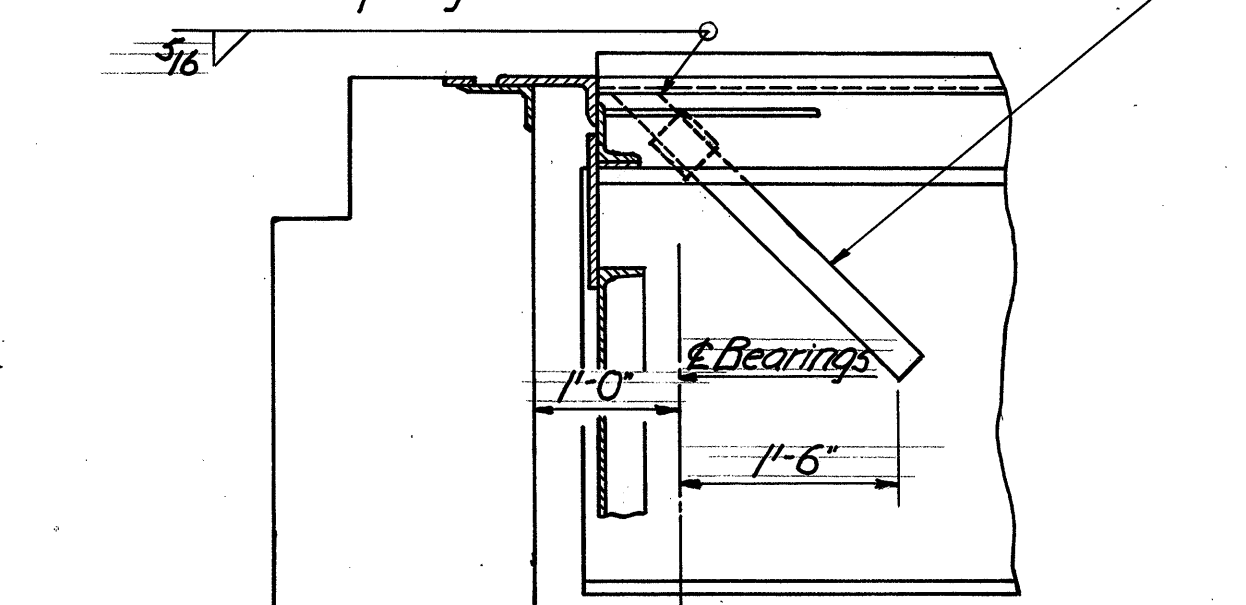


ELEVATION- ABUTMENT NO. 2 NORTH BOUND
Abutment No. 1 North Bound similar by opposite hand.

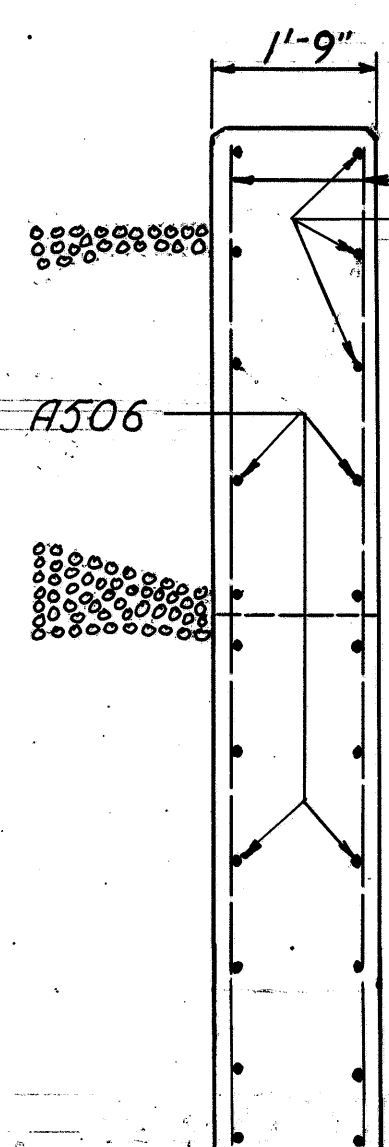
NOTES FOR ABUTMENTS:

- Porous backfill 2 feet thick full length of the abutment and wings shall extend up to the underside of the approach slab or up to the finished ground surface and to embankment slope.
- Clearance of reinforcing steel from face of concrete shall be 2" unless otherwise shown.
- Concrete above bridge seat construction joint shall not be placed until after steelwork is erected.
- Steel end finish shall be used as a template for top of backwall.

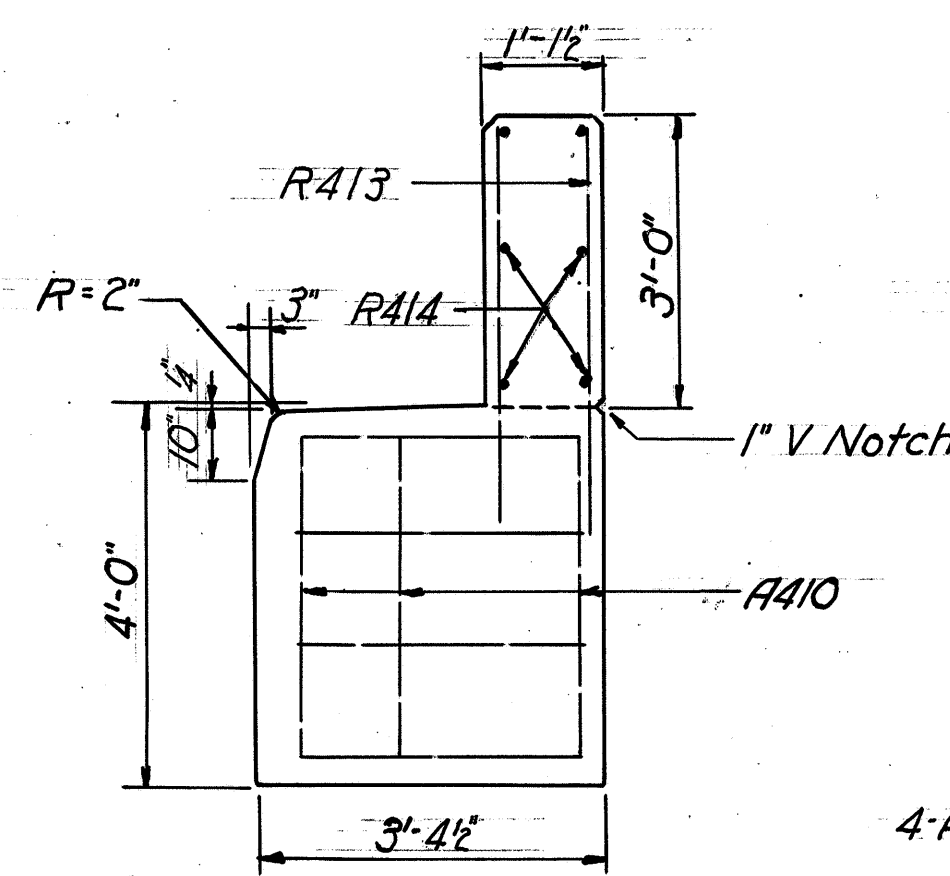
3" Diameter Standard Steel Pipe Weld stub end full perimeter to Bulb L and provide coupling.



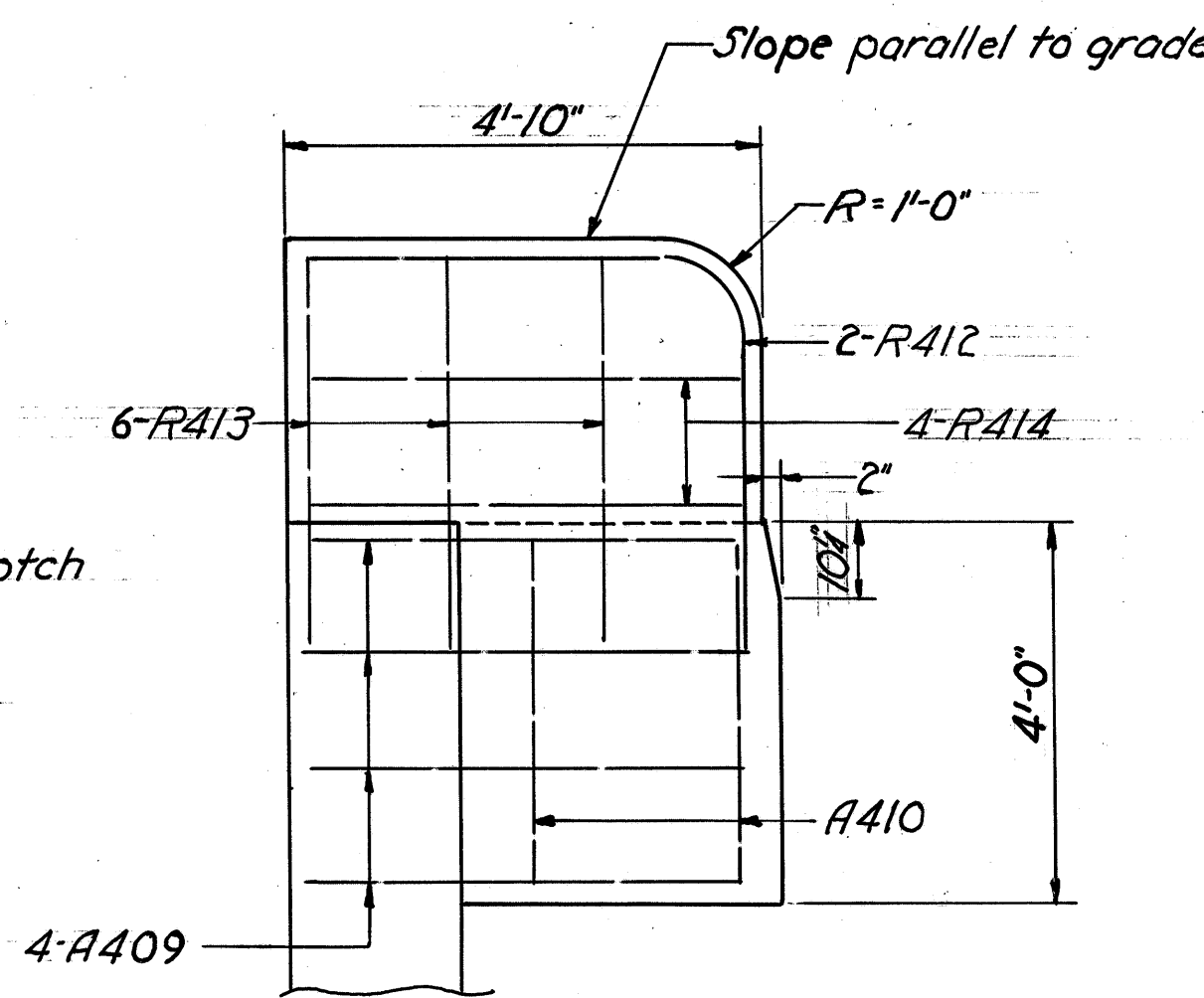
SCUPPER DETAIL AT ABUTMENT NO. 1
(4 Required)



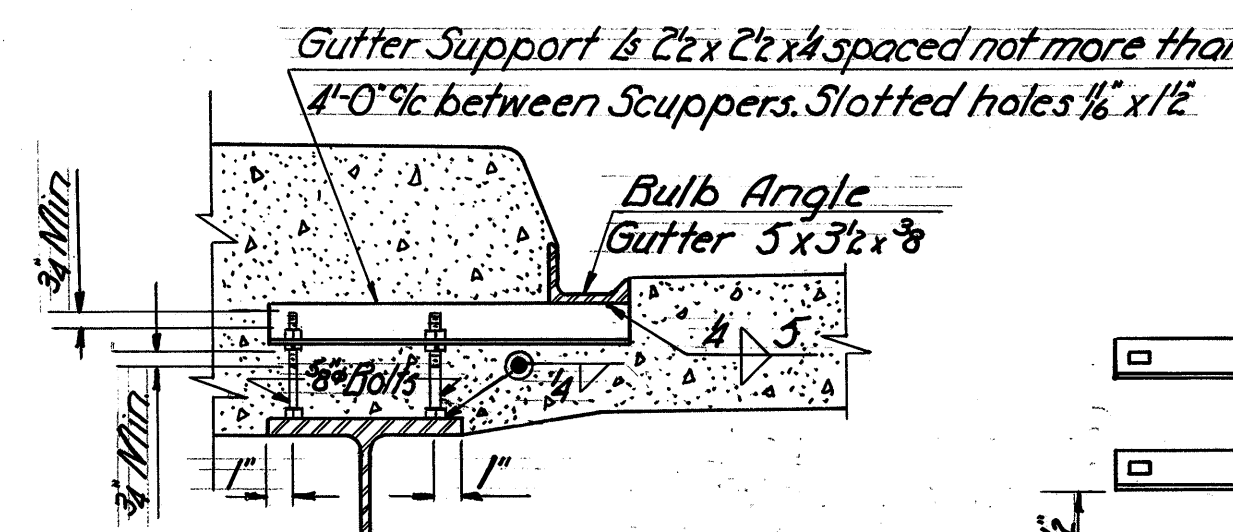
SECTION B-B



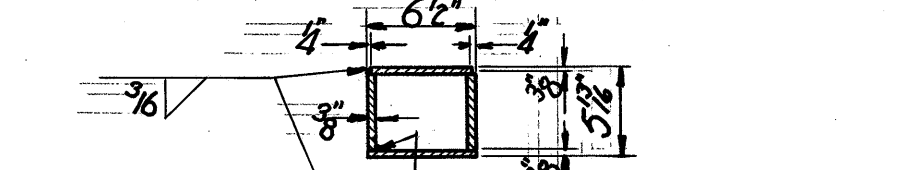
SECTION C-C



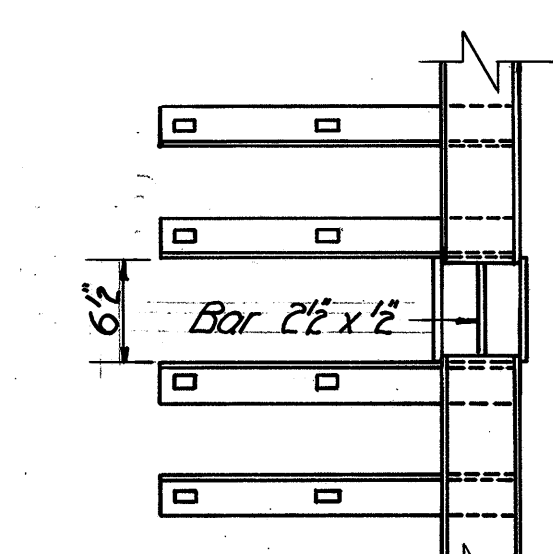
SECTION D-D



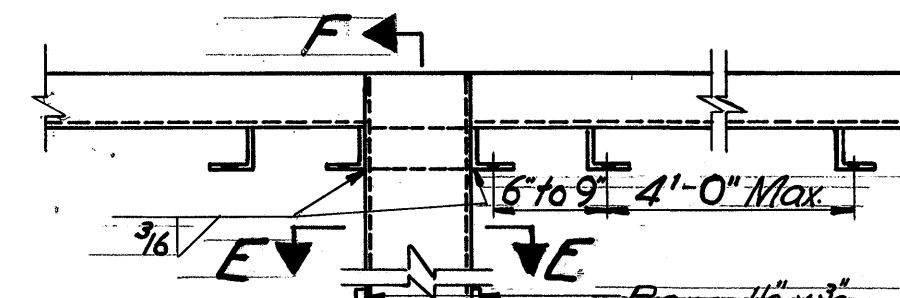
GUTTER SUPPORT



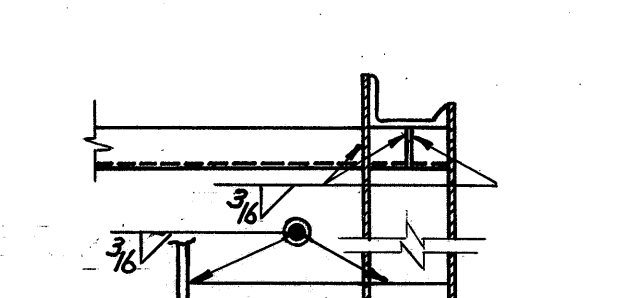
SECTION E-E



PART PLAN



REAR ELEVATION



SECTION F-F

MICHAEL BAKER, JR.
Consulting Engineer

NORTH BOUND ABUTMENTS
BRIDGE NO. MED-42-0310
OVER EXISTING U.S. 224

MEDINA COUNTY STA. 330 + 80.44
332 + 08.44

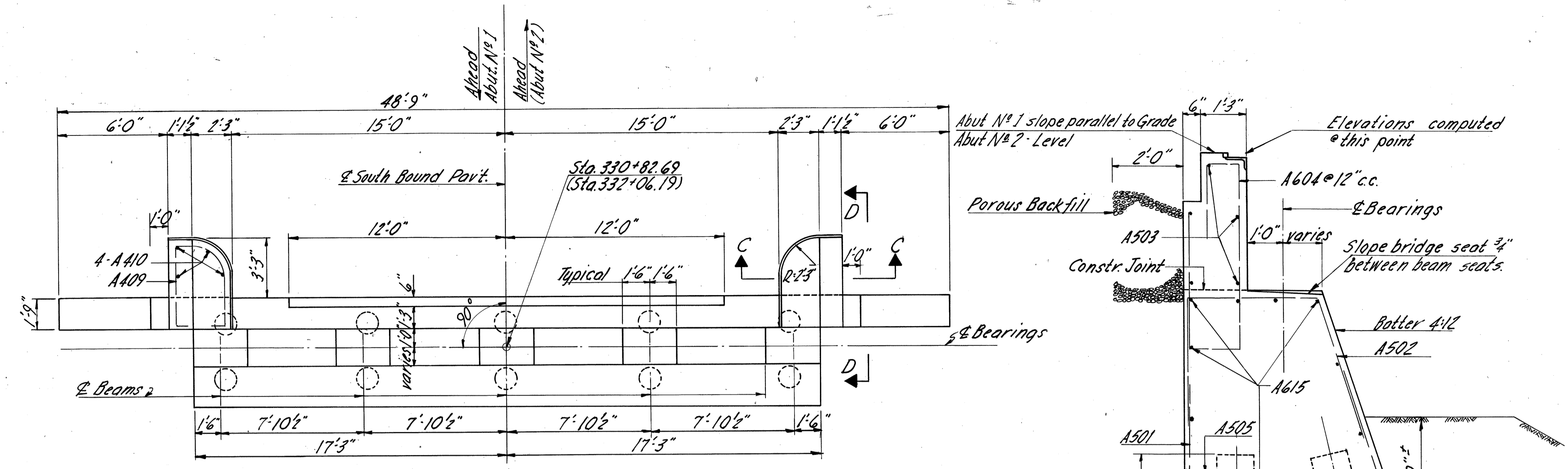
DATE: APRIL, 1956

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
MBK	P.D.	P.D.	A.F.O.			

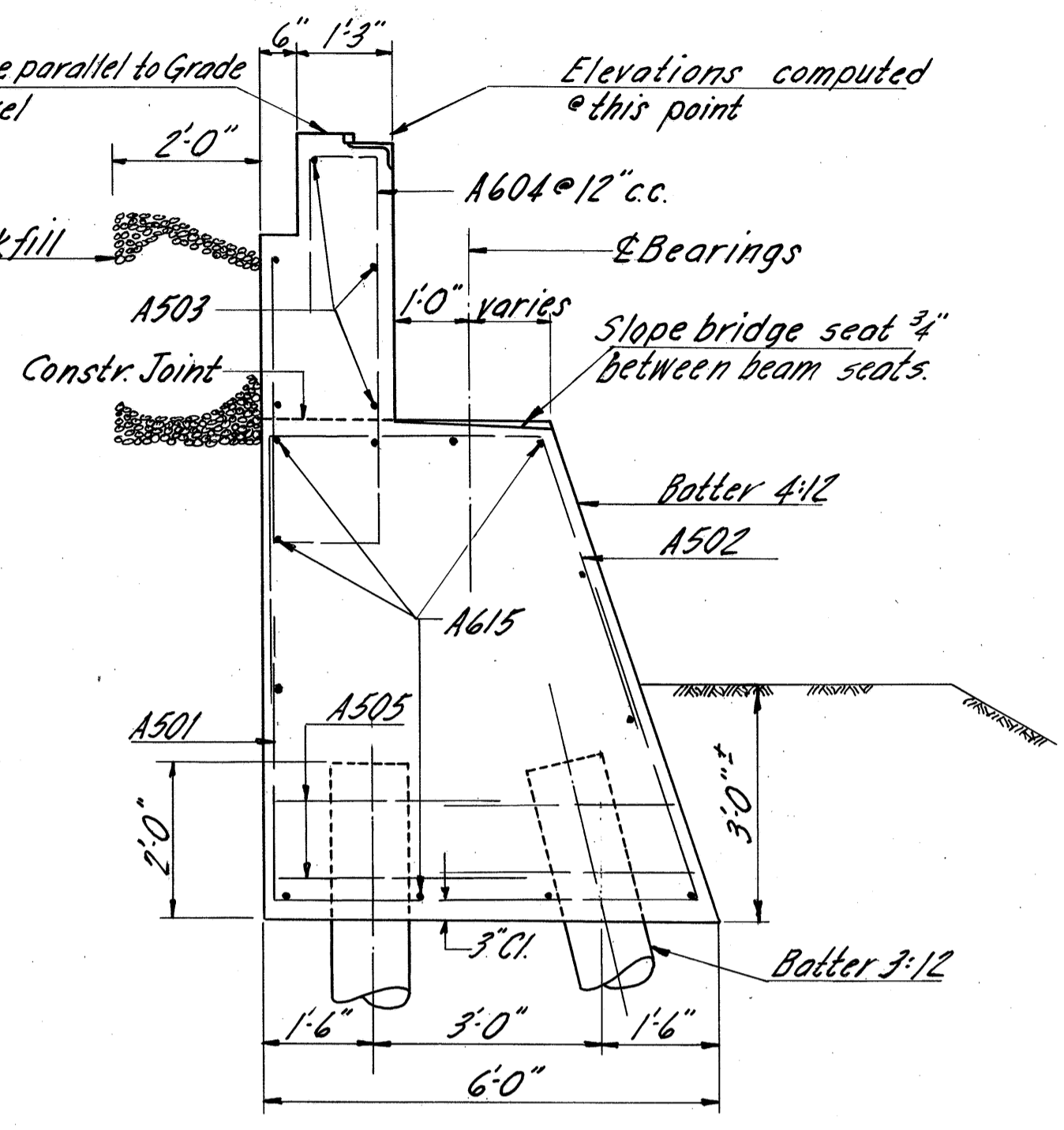
MICROFILMED
DEC 18 1986

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-420 (II)	157

MED-42-1.89
MED-224-6.25



PLAN ABUTMENT NO. 1 SOUTH BOUND
Abutment No. 2 South Bound similar except as noted thus: ()



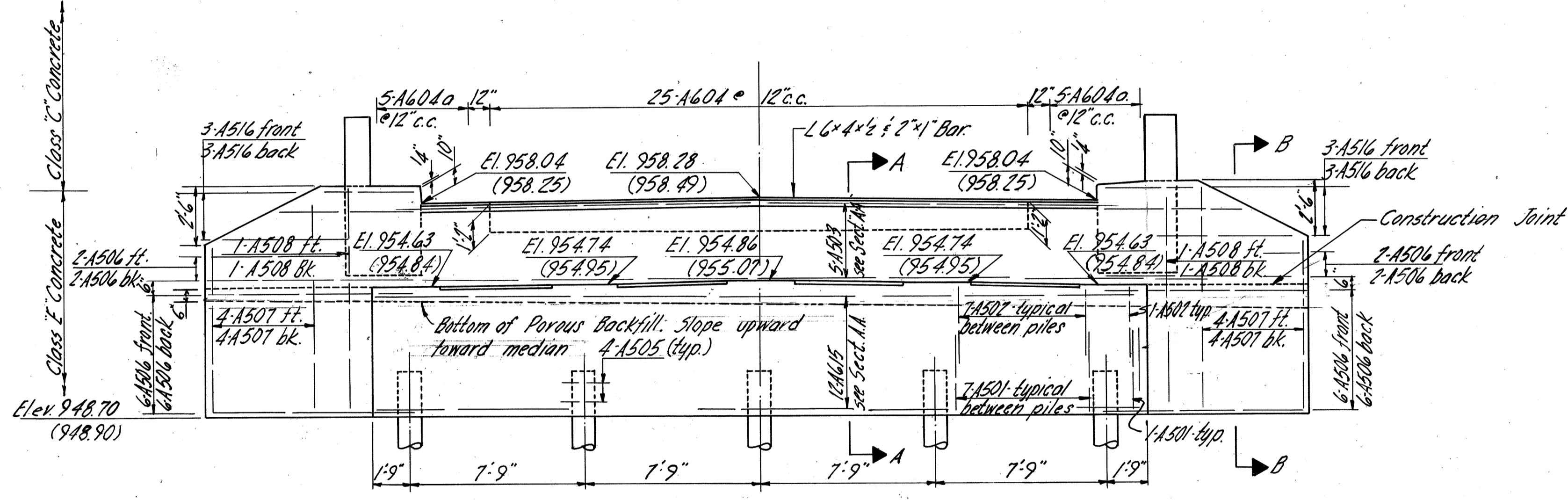
SECTION A-A

BAR SCHEDULE FOR ABUTMENTS

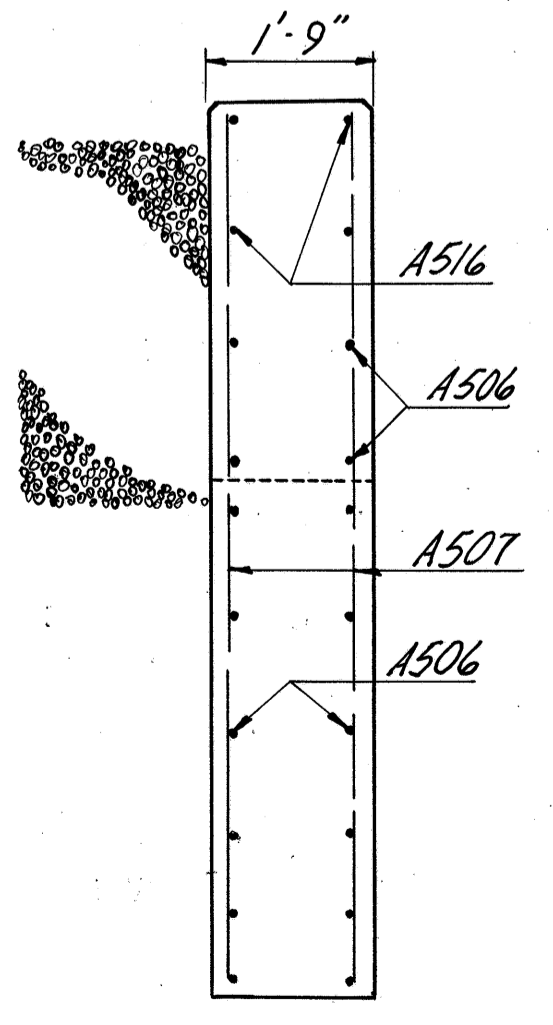
All Dimensions are out to A out

Mark	SB.1	SB.2	NR.1	NR.2	Total	Size	Length	Type	A	B	C	D	E	Weight
A501	30	30	38	38	136	5	12'-6"	1	3'-7"	5'-5"	3'-9"	1'-3"		1773
A502	30	30	38	38	136	5	10'-6"	6	3'-7"	3'-5"	3'-9"	1'-3"		1489
A503	5	5			10	5	34'-0"	Str.						354
A604	25	25	37	37	124	6	13'-5"	2	4'-3"	1'-5"	5'-5"	11"	2'-0"	2,514
A604a	10	10	10	10	40	6	14'-1"	2	5'-5"	1'-5"	5'-5"	1'-5"	1'-0"	846
A505	20	20	28	28	96	5	8'-1"	3	3'-8"	1'-6"				859
A506	32	32	32	32	128	5	9'-0"	Str.						1202
A507	16	16	16	16	64	5	7'-6" to 9'-9"	Str.	16 each vary by 9"					576
A508	4	4	4	4	16	5	9'-10"	Str.						164
A409	8	8	8	8	32	4	12'-2"	4	2'-8"	2'-11"	1'-1"	4'-6"	1'-0"	258
A410	8	8	8	8	32	4	3'-8"	Str.						78
A511			10	10	20	5	23'-9"	Str.						495
R412	4	4	4	4	16	4	8'-3"	5	3'-3"	1'-4"	3'-8"	10"		
R413	12	12	12	12	48	4	4'-0"	Str.						
R414	8	8	8	8	32	4	4'-6"	Str.						
A615	12	12			24	6	34'-0"	Str.						1226
A516	12	12	12	12	48	5	4'-0" to 8'-6"	Str.	16 ea. vary by 2'-3"					313
A617			24	24	48	6	24'-0"	Str.						1730
Total Weight = 13,880#														

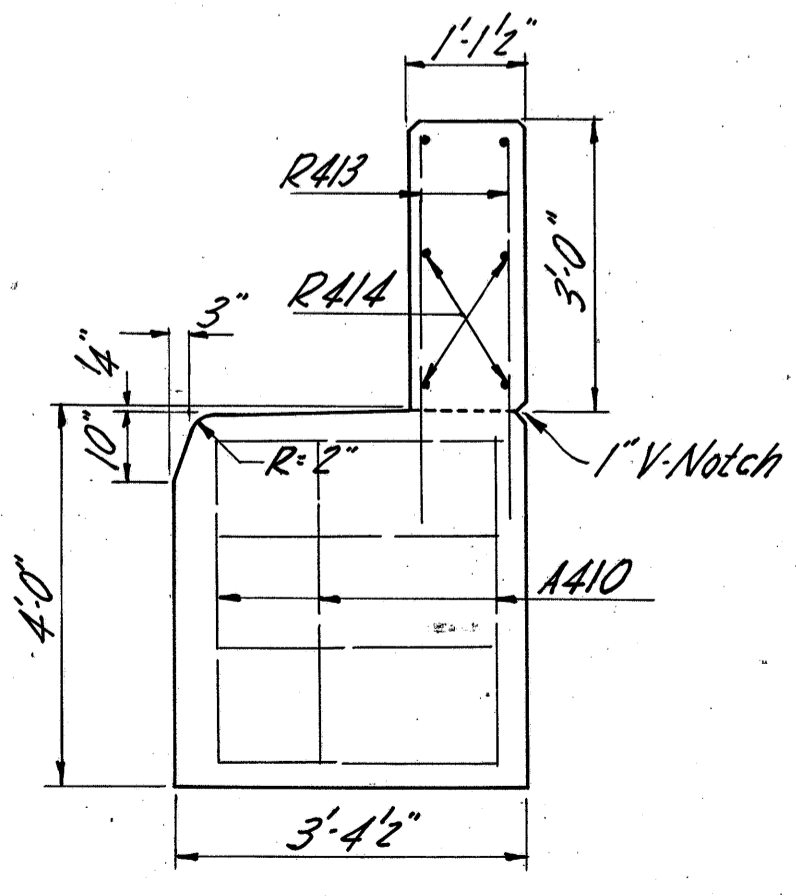
NOTES:
See North bound Abutment Sheet for notes.



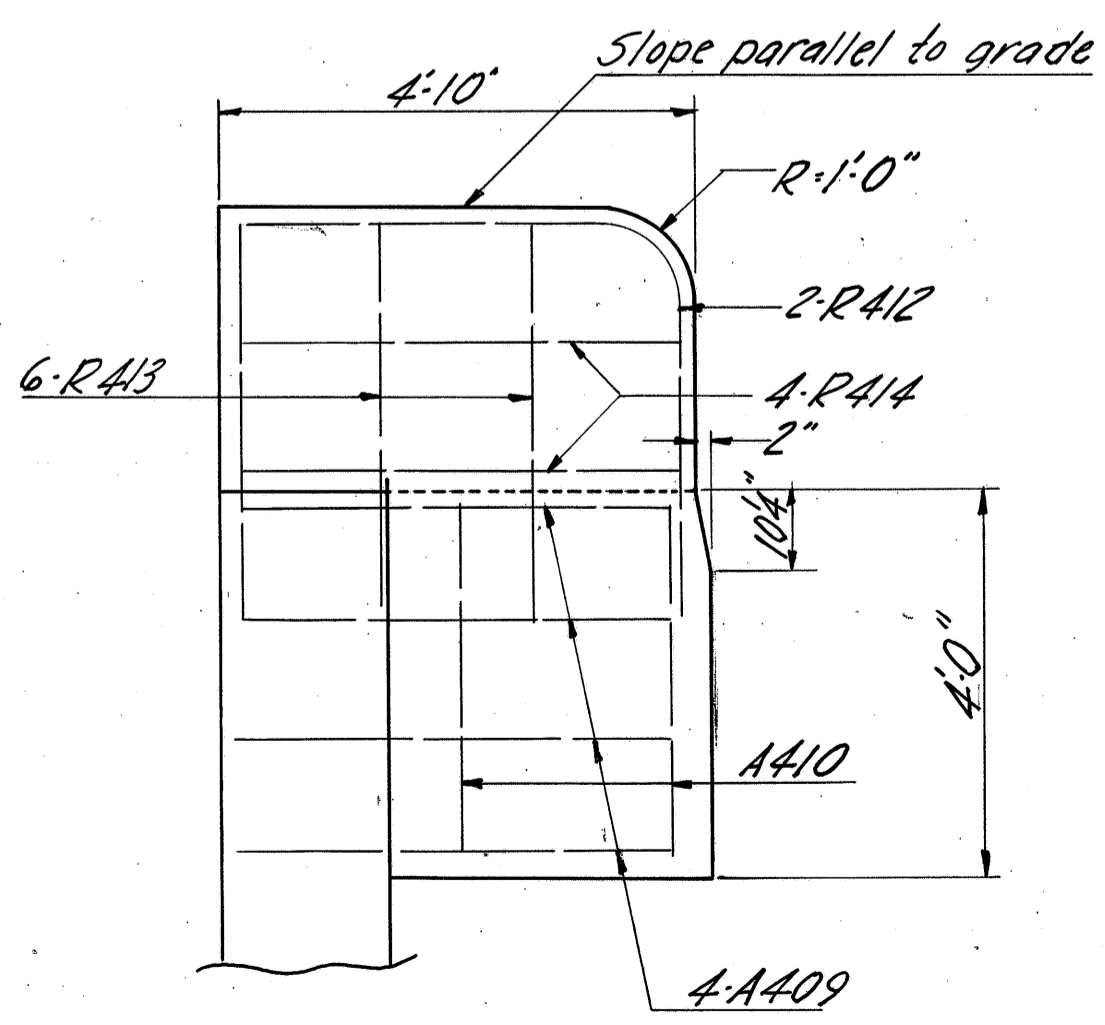
ELEVATION ABUTMENT NO. 1 SOUTH BOUND
Abutment No. 2 South Bound similar except as noted thus: ()



SECTION B-B



SECTION C-C



SECTION D-D

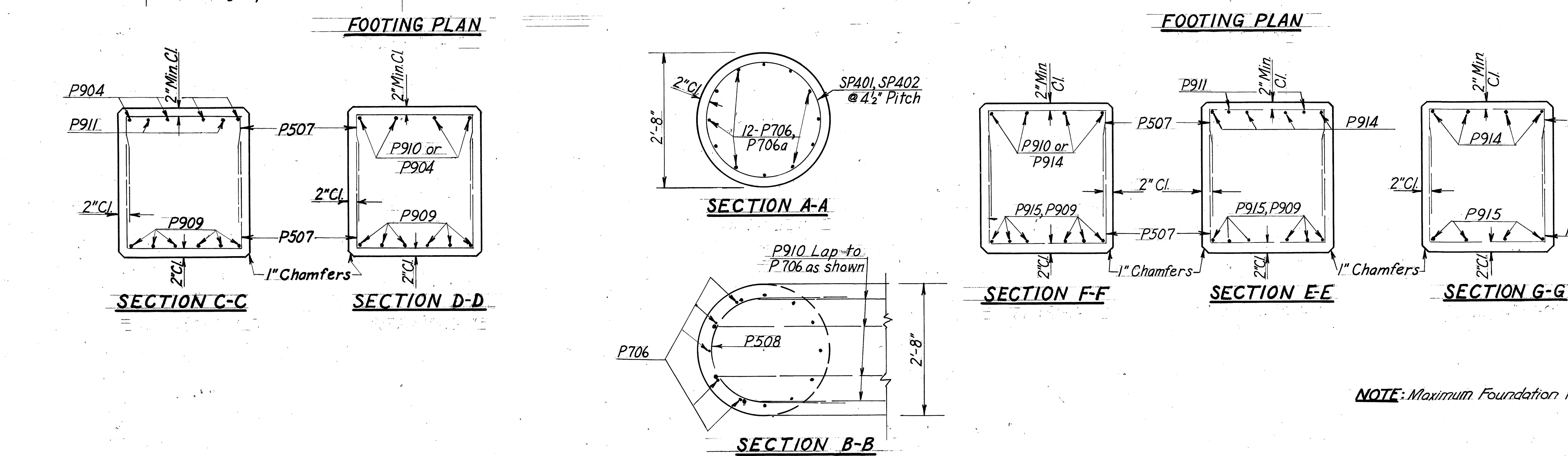
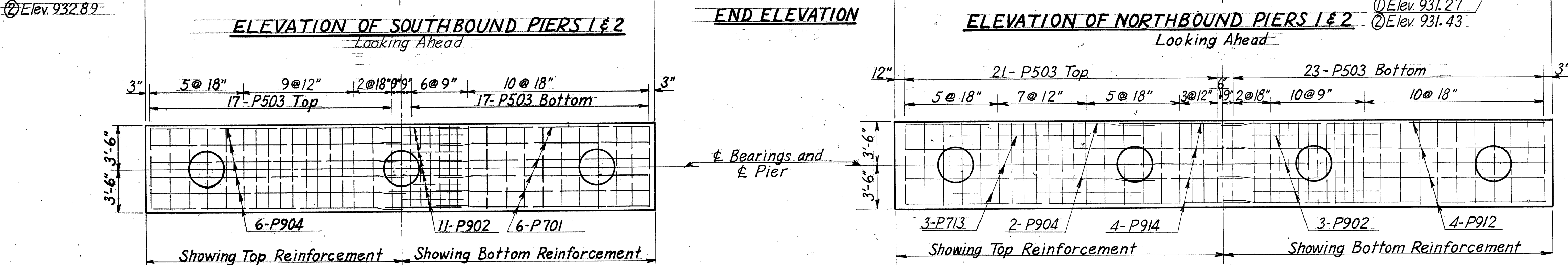
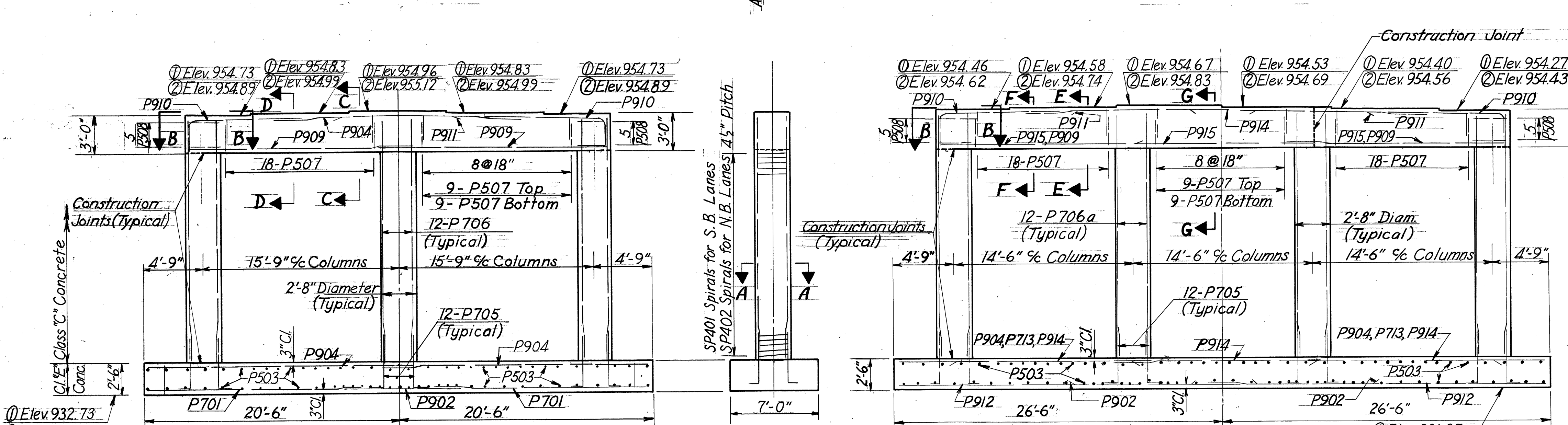
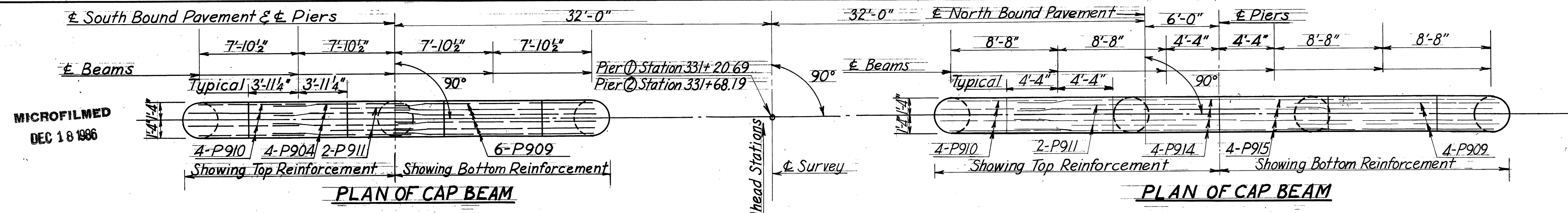


MICHAEL BAKER JR.
Consulting Engineer

SOUTH BOUND ABUTMENTS
BRIDGE NO. MED-42-0310
OVER EXISTING U.S. 224
MEDINA COUNTY STA. 330 + 80.44
332 + 08.44
DATE: APRIL, 1956

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
F.J.K.	F.J.K.	M.M.	A.F.O.			

MED-42-1.89
MED-224-6.25



BAR SCHEDULE FOR PIERS

All bar dimensions are out to out.

Mark	SB1	SB2	NB1	NB2	Total	Size	Length	Type	A	B	C	J	Weight
P701	12	12			24	7	17'-0"	Str.					834
P902	11	11	6	6	34	9	11'-6"	Str.					1329
P503	69	69	88	88	314	5	6'-8"	Str.					2184
P904	16	16	4	4	40	9	21'-6"	Str.					2924
P705	36	36	48	48	168	7	5'-6"	Str.		4'-6"			1889
P706	36	36			72	7	19'-0"	Str.					2796
P706a			48	48	96	7	20'-0"	Str.					3924
P507	36	36	54	54	180	5	6'-9"	3	2'-4"	2'-4"			1267
P508	10	10	10	10	40	5	6'-4"	4	3'-2"	1'-7"	1'-0"		264
P909	12	12	8	8	40	9	17'-6"	Str.					2380
P910	8	8	8	8	32	9	11'-6"	2	2'-9"	9'-0"			1251
P911	2	2	4	4	12	9	10'-0"	Str.					408
P912			8	8	16	9	27'-6"	Str.					1496
P713			6	6	12	7	15'-0"	Str.					368
P914			8	8	16	9	34'-0"	Str.					1850
P915			4	4	8	9	30'-0"	Str.					816

Mark	SB1	SB2	NB1	NB2	Total	Size	Length	Pitch	No. Turns	Core Diam.	Weight
SP401	3	3			6	4	16'-6"	4 1/2"	47	28"	1650
SP402			4	4	8	4	17'-6"	4 1/2"	50	28"	2338
Total Weight = 29,968											

- SPIRAL NOTES:**
- The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap.
 - The "No Turns" shown in the steel list for the spiral bars is the "Length" divided by the pitch, plus 3 turns (total number of closed coils), expressed as the nearest whole number.
 - Spiral reinforcing bars shall not have deformations but shall in other respects conform to Item S-4.
 - 1/2 closed coils shall be provided at the ends of each spiral unit.
 - Four steel channel, tee or angle spacers, weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 lb. per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

REPLACEMENT BAR LIST

Mark	No.	Size	Length	Type
R401	1	4	5'-3"	Str.
R501	1	5	5'-7"	Str.
R601	4	6	5'-11"	Str.
R701	3	7	6'-2"	Str.
R901	1	9	6'-10"	Str.

MICHAEL BAKER JR.
Consulting Engineer

PIERS
BRIDGE NO. MED-42-0310
OVER EXISTING U.S.224
MEDINA COUNTY STA. 330 + 80.44
332 + 08.44
DATE: APRIL, 1956

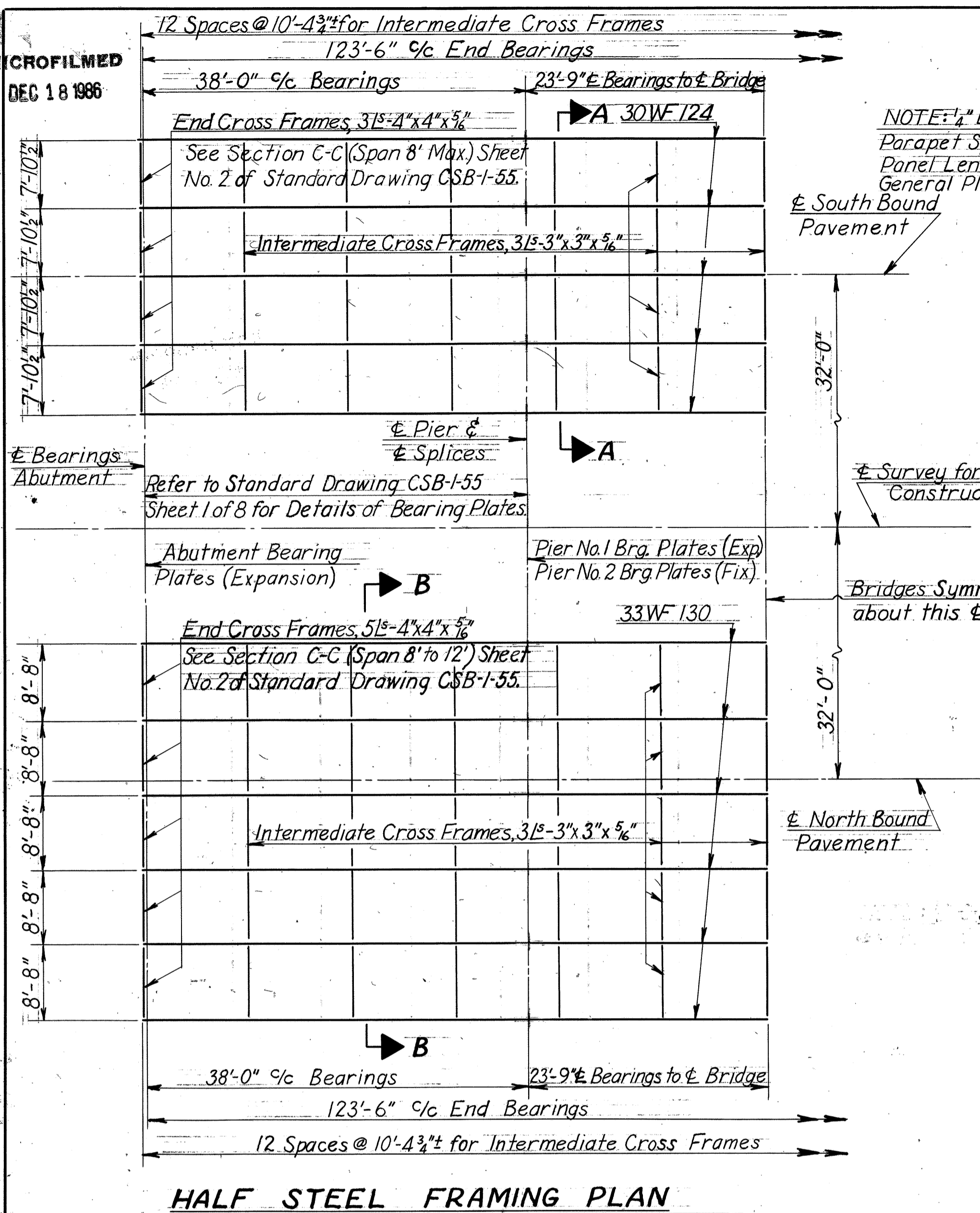
Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
JFK	JFK	CLL	A.F.O.			

NOTE: Maximum Foundation Pressure = 1 Ton per square foot

MICROFILMED
DEC 18 1986

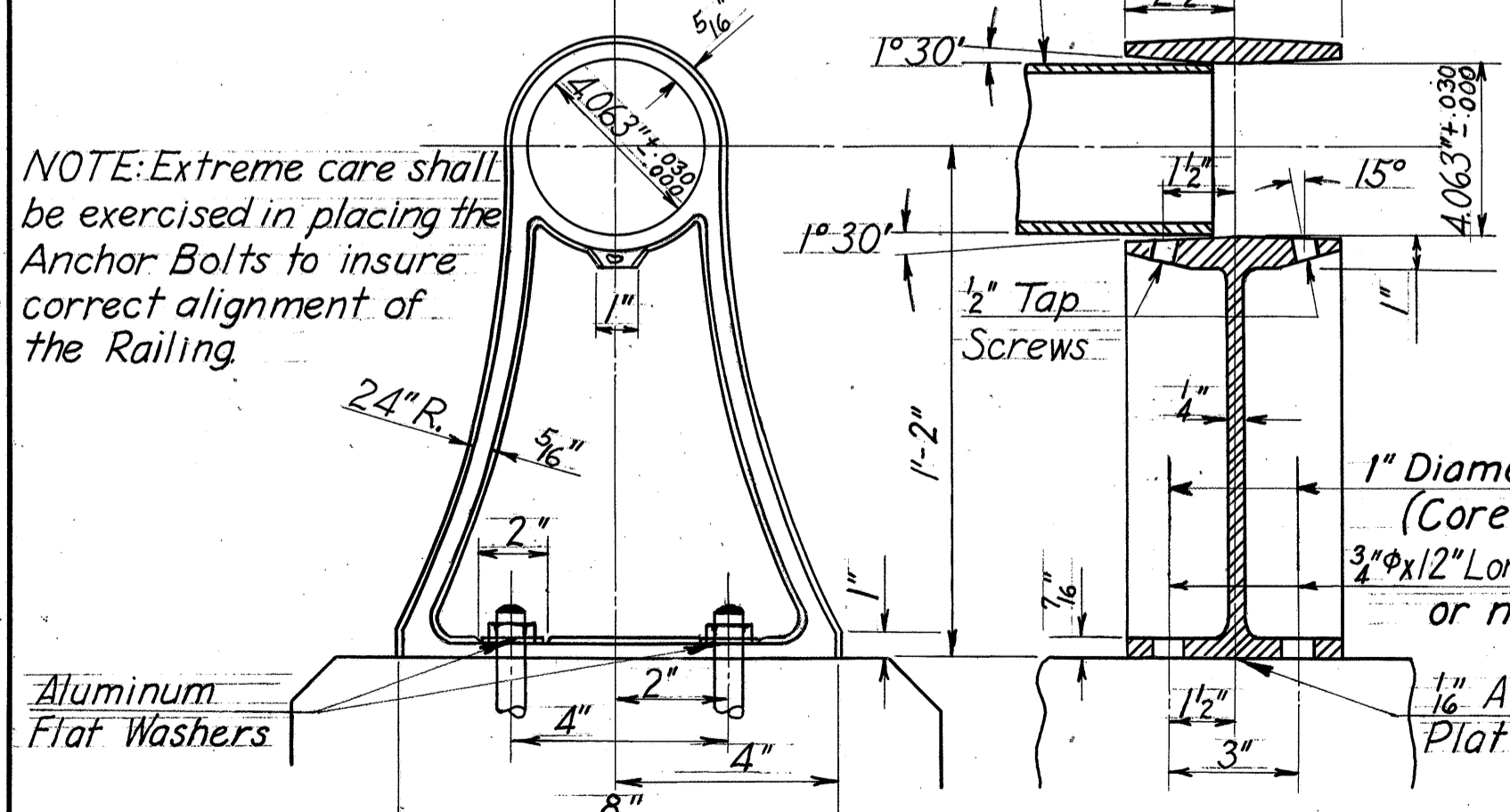
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-420 (II)	

MED-42-189
MED-224-6.25



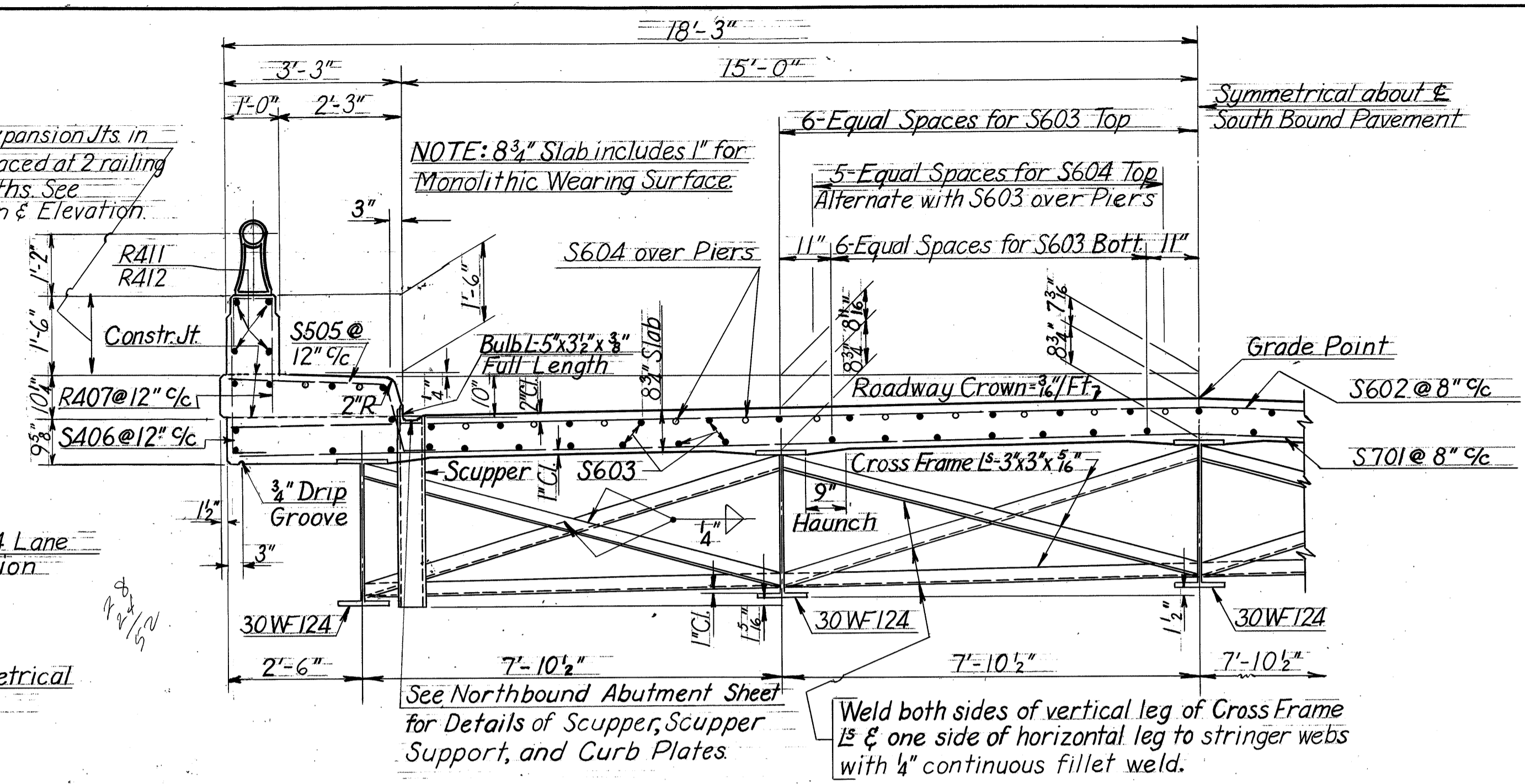
HALF STEEL FRAMING PLAN

4" O.D. x 3/8" wall aluminum tube. Railing is generally continuous. Where necessary, railing tube shall be joined as shown.

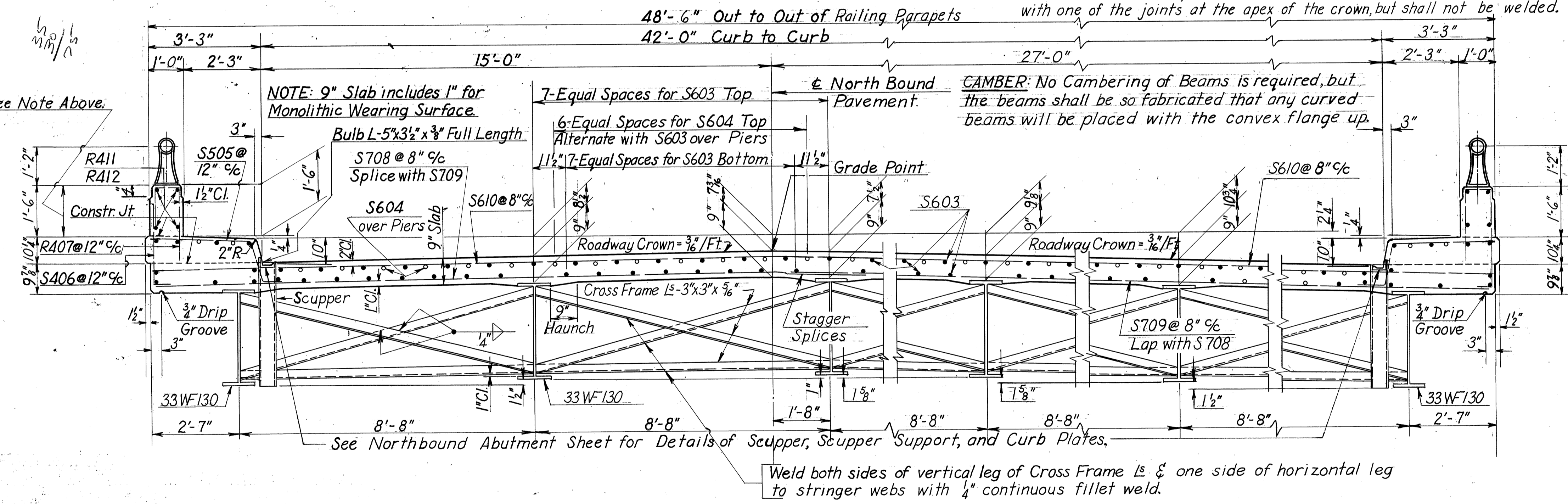


RAILING POST DETAILS

NOTE: Refer to Supplemental Specification No. S-114, Aluminum for Bridge Railing, dated Aug 30, 1955.



HALF SECTION A-A SOUTHBOUND ROADWAY



PART SECTION B-B NORTHBOUND ROADWAY

END FINISH: A welded butt joint in the end finish, at the centerline of roadway, will be required for that portion of the end finish attached to the superstructure. The portion attached to the backwall shall be placed in segments which shall be closely butted, with one of the joints at the apex of the crown, but shall not be welded.

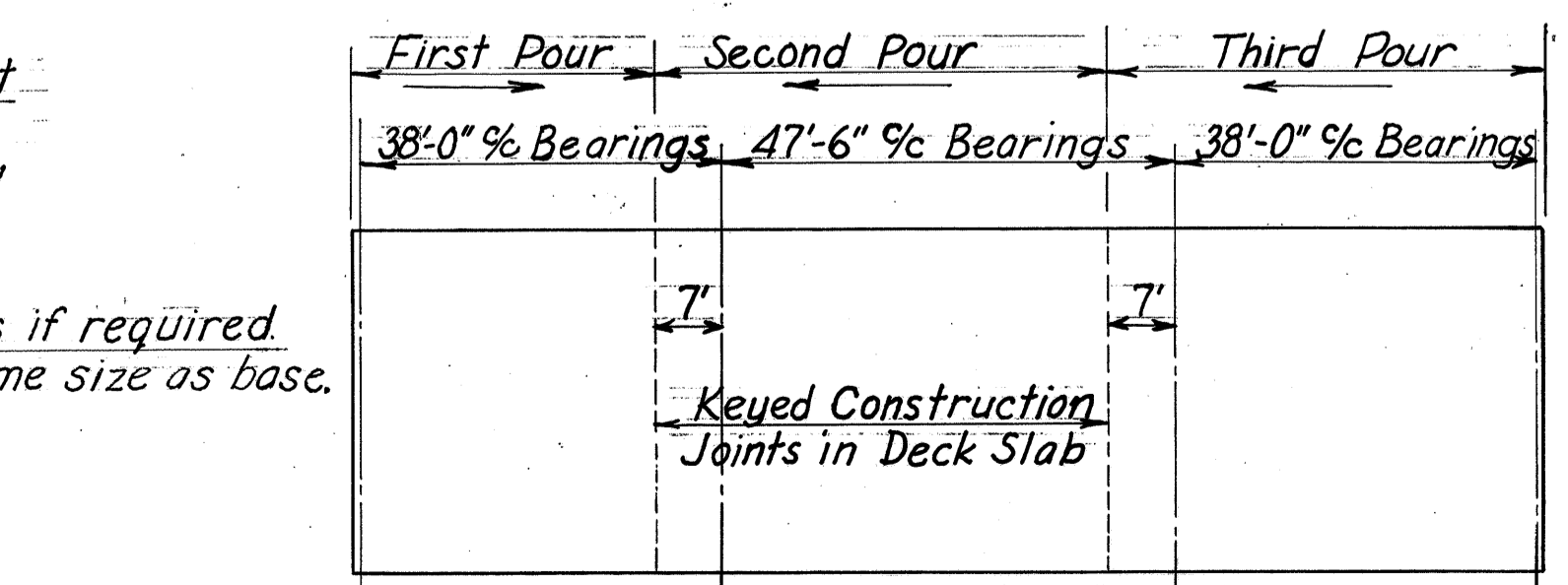
CAMBER: No Cambering of Beams is required, but the beams shall be so fabricated that any curved beams will be placed with the convex flange up.

BAR SCHEDULE FOR DECKS

All dimensions are out to out.

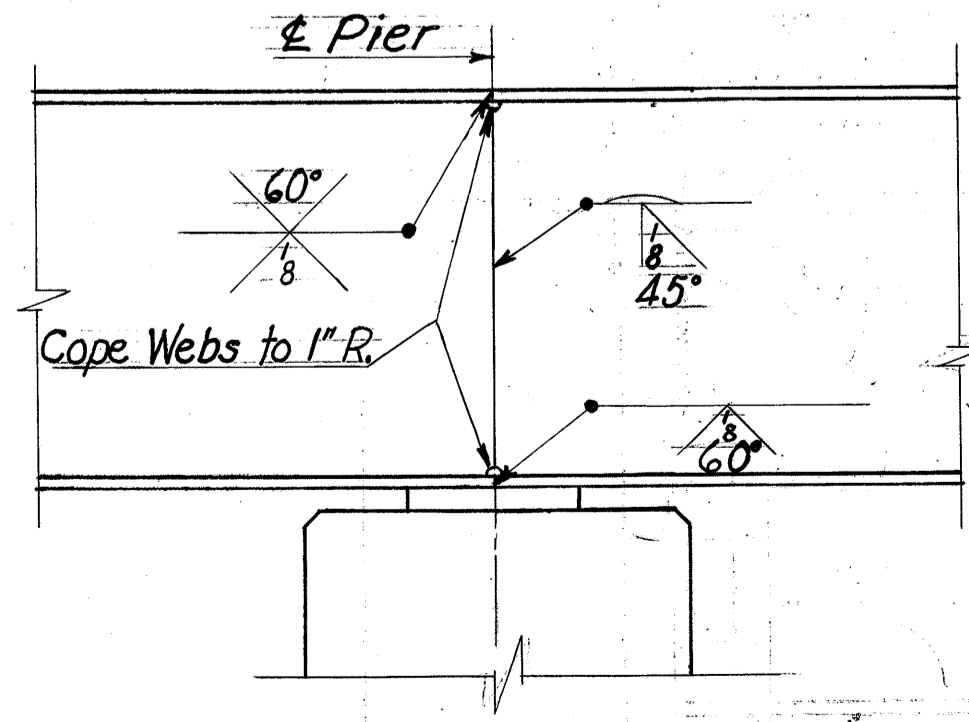
Mark	S/Lanes	N/Lanes	Total	Size	Length	Type	A	B	C	J	Weight
S701	187		187	7	36'-0"	Str.					13,760
S602	187		187	6	36'-0"	Str.					10,111
S603	276	368	644	6	32'-6"	Str.					31,436
S604	52	74	126	6	19'-0"	Str.					3,596
S505	250	250	500	5	4'-7"	1	2'-9"	3"	1'-4"	9"	2,390
S406	250	250	500	4	3'-4"	2		2'-7"		10"	1,112
R407	250	250	500	4	4'-0"	3	2'-2"	9"	1'-3"		
S708		187	187	7	20'-9"	Str.					7,931
S709		187	187	7	29'-5"	Str.					11,245
S610		374	374	6	25'-0"	Str.					14,044
R411	16	16	32	4	10'-3"	Str.					
R412	64	64	128	4	12'-8"	Str.					

Total Weight = 95,625



DECK SLAB PLAN

DECK CONSTRUCTION PROCEDURE: Deck slab shall be placed in Sections, between Transverse construction joints, in the numerical order & in the direction indicated on deck slab plan above, in order that the major portion of dead load deflection may occur prior to placing concrete over each pier.



BEAM SPLICE DETAIL

BEAM SPLICE WELDING PROCEDURE:

- Raise the abutment ends of the beams 3/8" for the Southbound Bridge, and nothing for the Northbound Bridge.
- Butt-weld the beam flanges and web make one pass on each flange, then one on the web, repeat until welds are completed.
- Lower the beam ends to final position.

MICHAEL BAKER JR.
Consulting Engineer

SUPERSTRUCTURE
BRIDGE NO. MED-42-0310
OVER EXISTING U.S. 224

MEDINA COUNTY STA. 330 + 80.44
332 + 08.44
DATE: APRIL, 1956

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
PK	PK	CLD	AFO			