

STA. 62 - (3.92-4.03)
STA. 93 - (3.70-4.32)
At Brewster

Wooded Area
Small Trees

CREEK

Wooded Area
Small Trees

To Beach City

To Brewster

CURVE DATA
Δ = 0°-49'
D = 0°-30'
R = 11459.16
T = 81.70
L = 163.33'
E = 0.29'
P.I. Sta. 192+66.70

Bench Mark
Spike in 24" Maple 122' Lt.
of Sta. 198+00
Elev. 967.83

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 an abridged form in the Division office, but the State assumes no responsibility for the accuracy thereof.

ROADSIDE

PARK

BRIDGE LIMITS

PROPOSED STRUCTURE

Type: Continuous steel beam with reinf. concrete deck and substructure.
Spans: 75'-75' 1/2 Brgs.
Roadway: 36 ft. face to face of guard rails.
Load Frequency Rating: CF-130
Skew: None
Surf. Course: Bituminous
Appr. Slabs: AS-4-47
Alignment: Tangent

EXISTING BRIDGE DATA

TYPE: High Steel Truss (Riveted)
LOADING: S-9.6
SPAN: 86'-0" CLEAR
ROADWAY: 14'-5"
SKEW: None
CONDITION: Fair - 1952
BRIDGE: To be removed

DRAINAGE AREA 145 SQ. MI.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

SITE PLAN
BRIDGE No. ST-93-49
OVER SUGAR CREEK
STARK CO. S.E. 93
STA. 196+07.50

SCALE - 1" = 20'
PRESENT TOPO PROPOSED WORK
Surveyed R.P. Drawn T.R.P. Designed J.E.R. Drawn J.E.R. Checked H.H.B. Reviewed E.N.A.

BFG 99.7 2-26-54

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GRAVEL, if used as the coarse aggregate, shall be according to Sec. M-3.93 instead of M-3.91 for class C concrete superstructure.

REINFORCING STEEL shall be 2 inches clear of surface of concrete except as shown otherwise.

SURFACE FINISH OF CONCRETE: Fascia of deck slab shall receive a rubbed surface finish. All other exposed surfaces shall be governed by the provisions of Item 5-1.

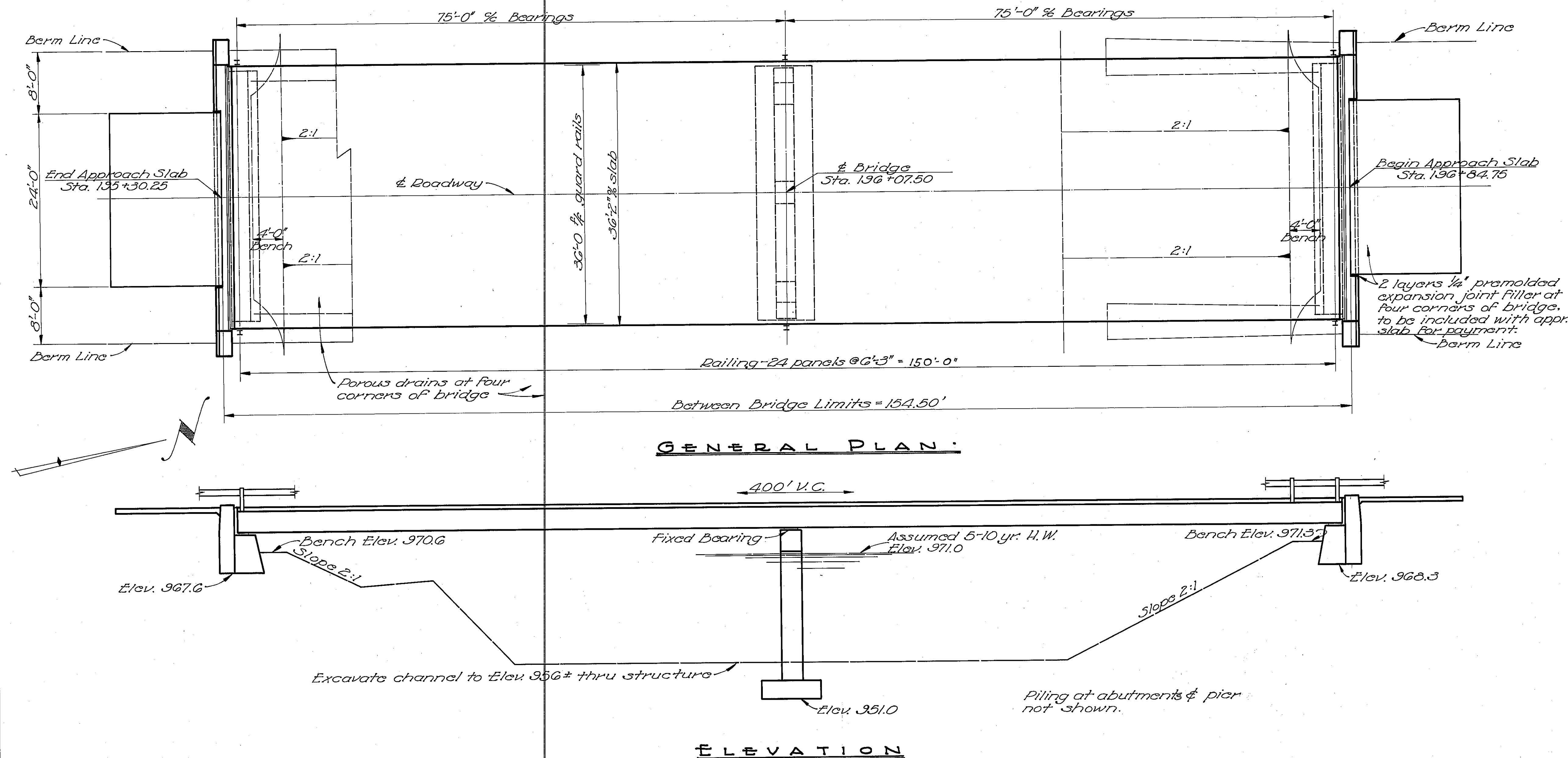
WELDING OF structural steel shall be class "A".

MILL TEST REPORTS shall include tests of drillings from metal more than 1" thick. For these test specimens the carbon and manganese content, as well as the phosphorous and sulphur content, shall be reported in order to permit determination of the need for preheating in connection with welding as per Art. 105 (Method 2) and Art. 604 (F) of the American Welding Society specifications.

2 1/2" ASPHALTIC CONCRETE SURFACE COURSE, Item T-35, laid in two 1 1/2" courses, shall be provided.

PAINTING, both shop and field, shall be according to Item 5-6 except that the paint shall be applied by brushing. Spray application will not be permitted.

POROUS DRAINS, extending from face of abutments to Elev. 966 at the southwest corner, 966.0 at south-east corner and 963.0 at north-east and northwest corners, shall be placed on and flush with embankment slopes. The drains shall be 4' wide at the south end of bridge and the drains at the north end shall be 7' wide at the lower end tapering to 4' wide at face of abutment. All shall be one foot thick and centered under edge of deck. They shall be composed of No. 1 or No. 12 gravel, stone, or slag. Construction procedure shall conform essentially to Item T-9. Trench excavation shall be included for payment with the price per cu. yd. bid for "Porous drains on embankment slopes".



GENERAL PLAN

ELEVATION

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER	PIERS	ABUTS	GEN'L
E-2	Lump	Sum	Cofferdams, cribs, and sheeting			85	Lump
E-2	151	Cu. yd.	Unclassified excavation				
E-3	2450	Cu. yd.	Channel excavation				2450
S-1	121	Cu. yd.	Class "C" concrete, superstructure	121			
S-1	20	Cu. yd.	Class "C" concrete, pier cap and columns		20		
S-1	30	Cu. yd.	Class "E" concrete, pier footing		30		
S-1	96	Cu. yd.	Class "E" concrete, abutments			96	
S-3	608	Sq. yd.	Type "C" waterproofing	608			
S-4	53,733	Lbs.	Reinforcing steel	33,805	8084	5737	107
S-7	18,9500	Lbs.	Structural steel	18,9500			
S-8	18,9500	Lbs.	Field painting of structural steel	18,9500			
S-14	309	Lin. Ft.	Railing (Type I-15.13 with galvanized steel posts)	309			
S-16	Lump	Sum	First test pile				Lump
S-17	Lump	Sum	First pile test load				Lump
S-17	1	Each	Subsequent pile test load				1
S-18	2140	Lin. Ft.	Piling, 12 cast-in-place reinforced concrete		1020	1120	
S-24	Lump	Sum	Removal of existing structure				Lump
S-29	17	Cu. yd.	Porous drains on embankment slopes				17
T-35	43	Cu. yd.	Asphaltic concrete surface course Type "A" or "C" (70-80)	43			

GENERAL NOTES

REMOVAL OF EXISTING STRUCTURE: Existing structure shall be removed. Floor beams and joists shall be piled along the right-of-way for disposal by the State's forces. The remainder of the removed material shall become the property of the Contractor. South abutment shall be removed to Elev. 968.0 and north abutment shall be removed to 6' below proposed ground surface. Both abutments shall also be removed to whatever extent is necessary to avoid interference with new construction, including pile driving. Suitable waste masonry may be disposed of as bank protection where directed by the Engineer; the remainder may be used in embankment slopes at the structure.

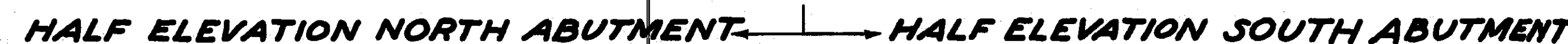
EXCAVATION QUANTITY includes the removal of fill material between top of earth bench and bottom of abutment cross-beam.

PILING shall be driven to a minimum bearing capacity of 36 tons.

PILE TEST LOADS: The first pile test load shall be applied if and where directed by the Engineer. A subsequent test load shall be applied if and where directed by the Engineer. The Engineer may direct the subsequent load to be applied on the same pile as the first or on another pile in the same footing or in a different footing. The maximum amount of load required shall be equal to 3R unless the "yield point" is reached at a lesser tonnage.

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES AND RAILROAD CROSSINGS					
GENERAL PLAN, ELEVATION NOTES & ESTIMATED QUANTITIES					
BRIDGE No. ST-93-49 OVER SUGAR CREEK					
STARK COUNTY SEC. STA-93-(3.70-4.32) STA. 196+07.50					
DESIGNED REK	DRAWN REK	TRACED JEV	CHECKED Ray	REVIEWED BFG	DATE 2-26-54

STA-62-(3.92-4.03)
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NOTE: In the reinforcing steel bar marks, the numeral following the first letter is the Bar Number which indicates the size of the bar.

BRIDGE SEAT PROCEDURE: Concrete above the bridge seat construction joint shall not be placed until after steel work is erected. Steel end finish shall be used as a template for top of backwall.

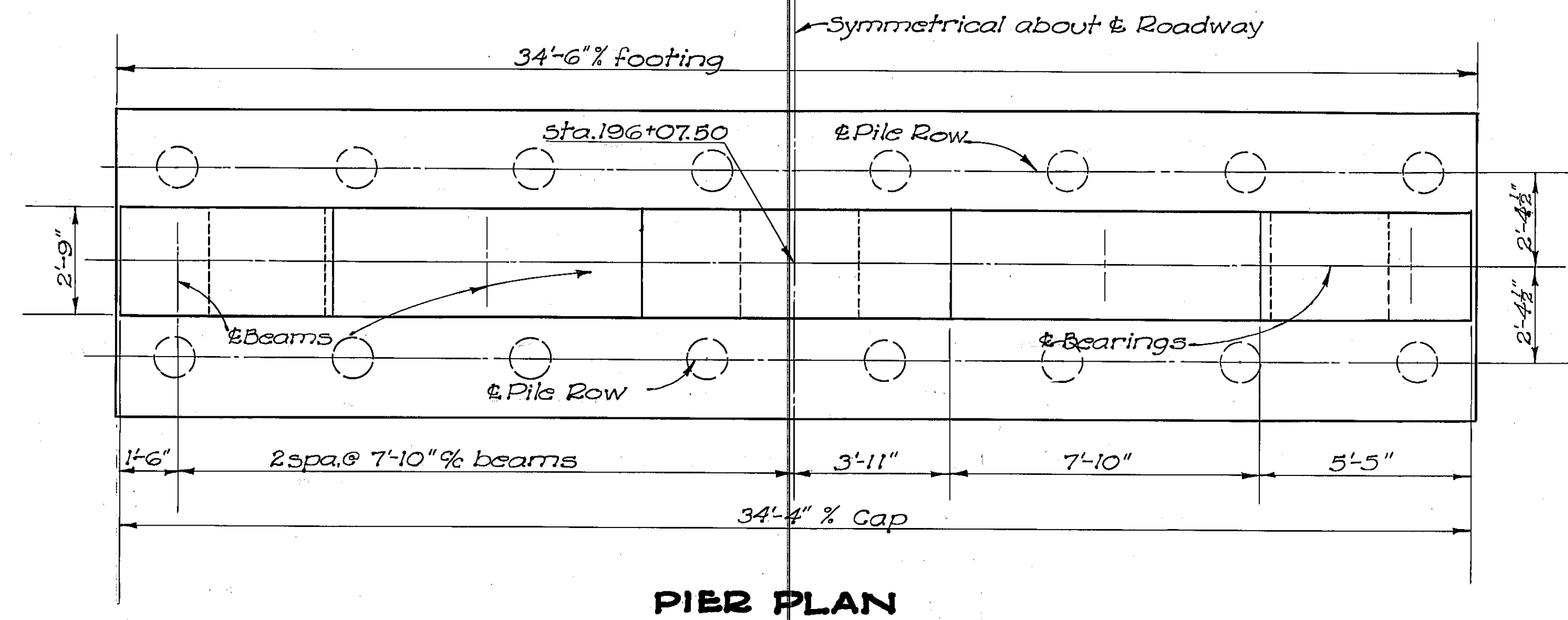
STARK COUNTY
SEC. STA-93-(3.70-4.32) Sta. 196+07.5

DESIGNED R.E.K.	DRAWN R.E.K.	TRACED EA	CHECKED Ray	REVIEWED BFG 9.8.54	DATE 2-26-54	REV
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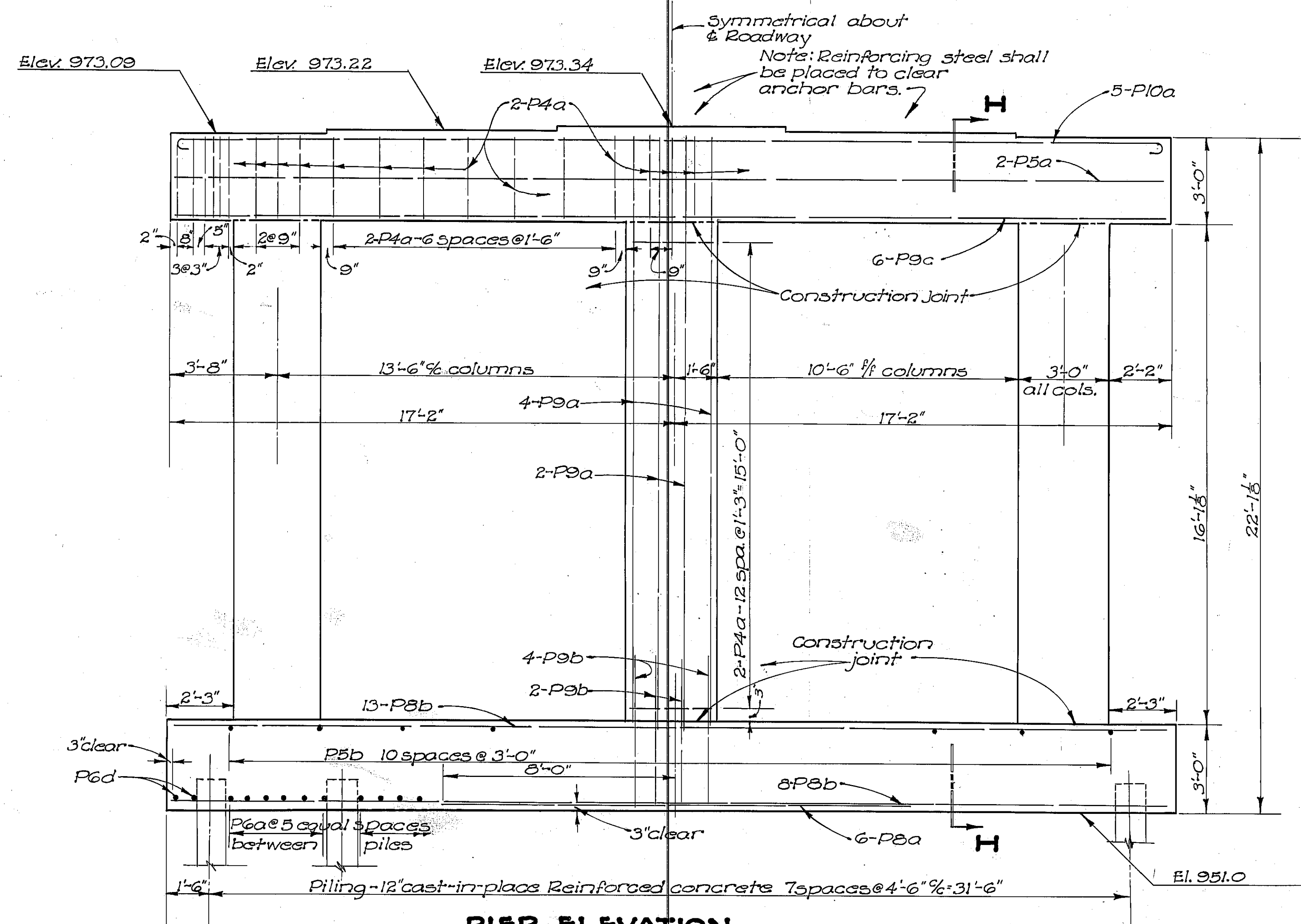
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	5840(2)	

42
48

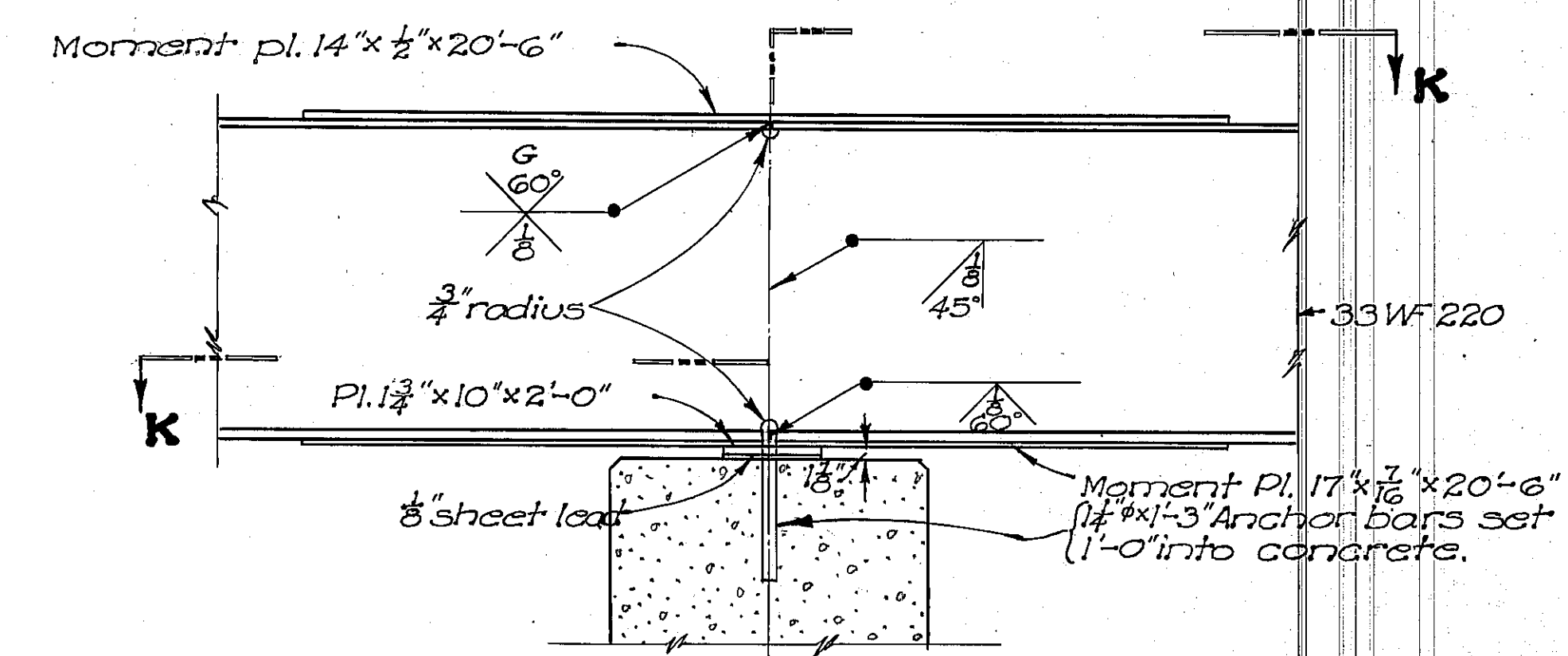
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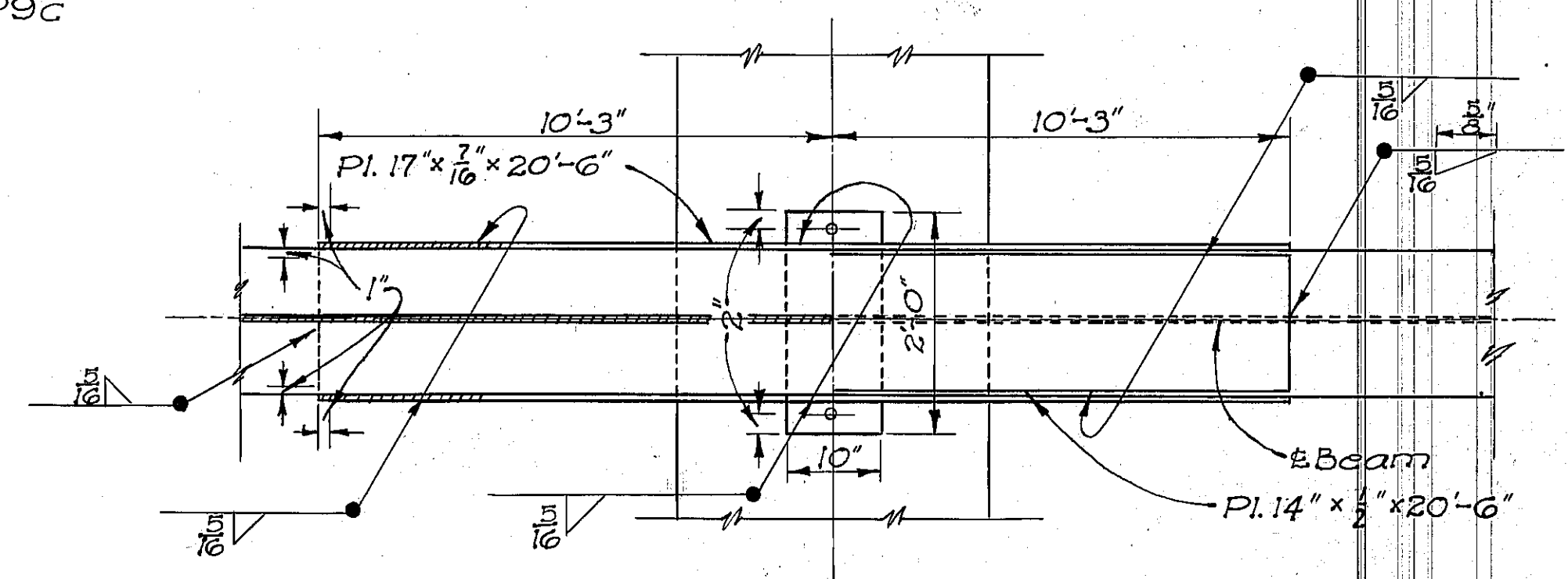
PIER PLAN



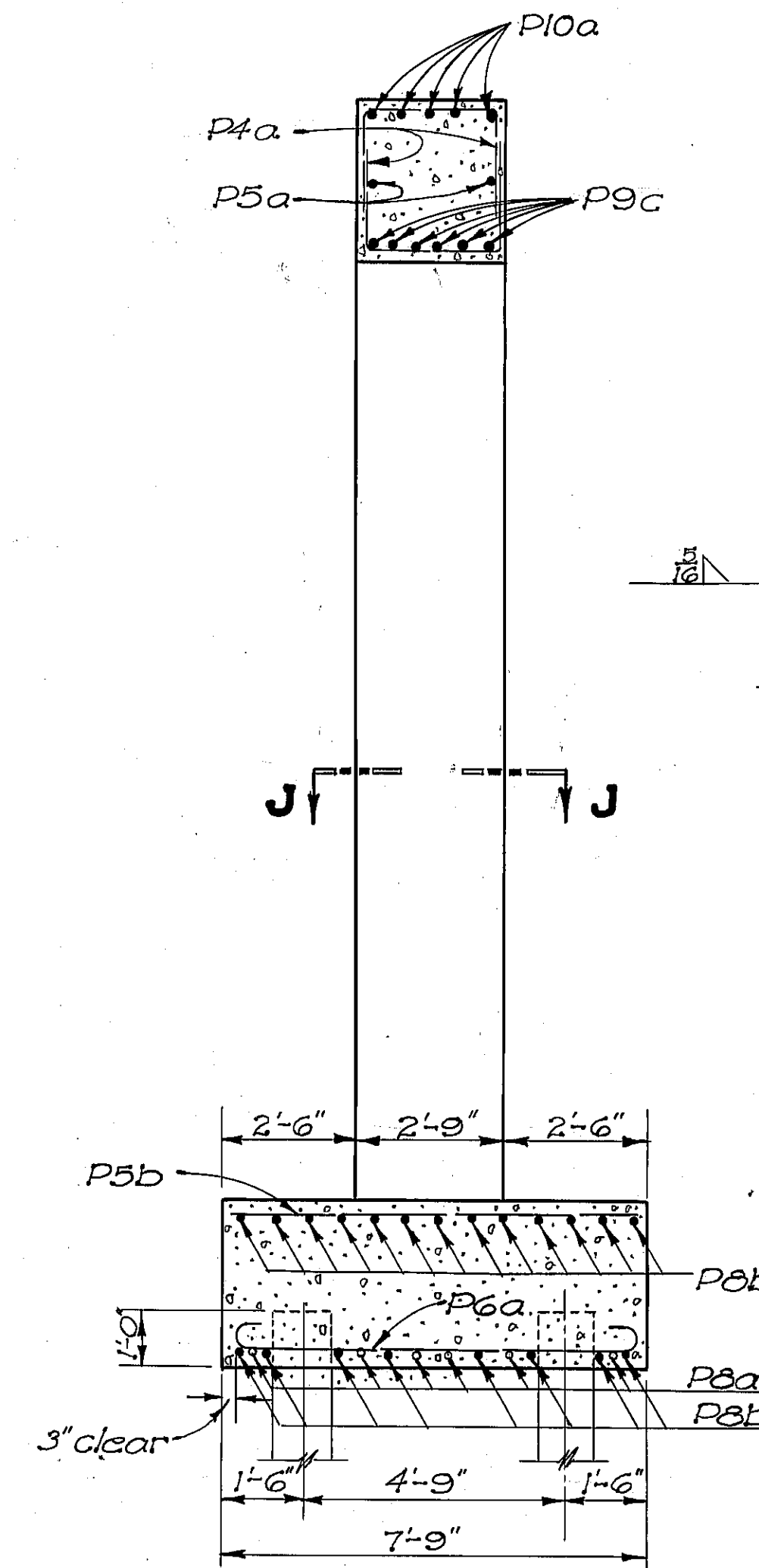
PIER ELEVATION



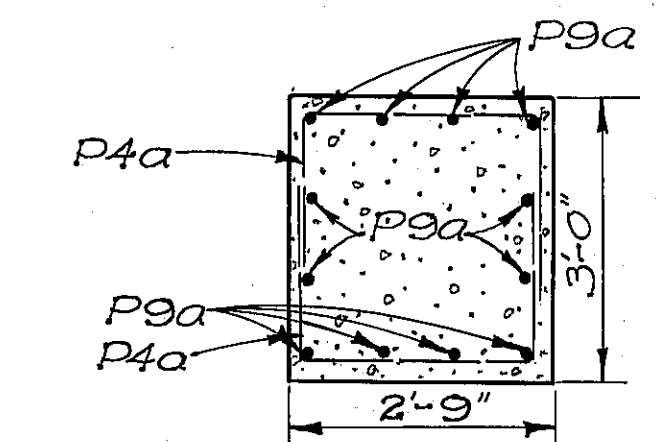
BEAM SPLICE DETAILS



SECTION K-K



SECTION H-H



SECTION J-J

- BEAM SPLICE PROCEDURE:
1. Raise beam 2" at one abutment.
 2. Butt-weld the beam flanges and web.
 3. Weld bottom and top moment plates.
 4. Lower the beam end to final position.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
REK	REK	P.S.B.	Ray	BFG	2-26-54	

