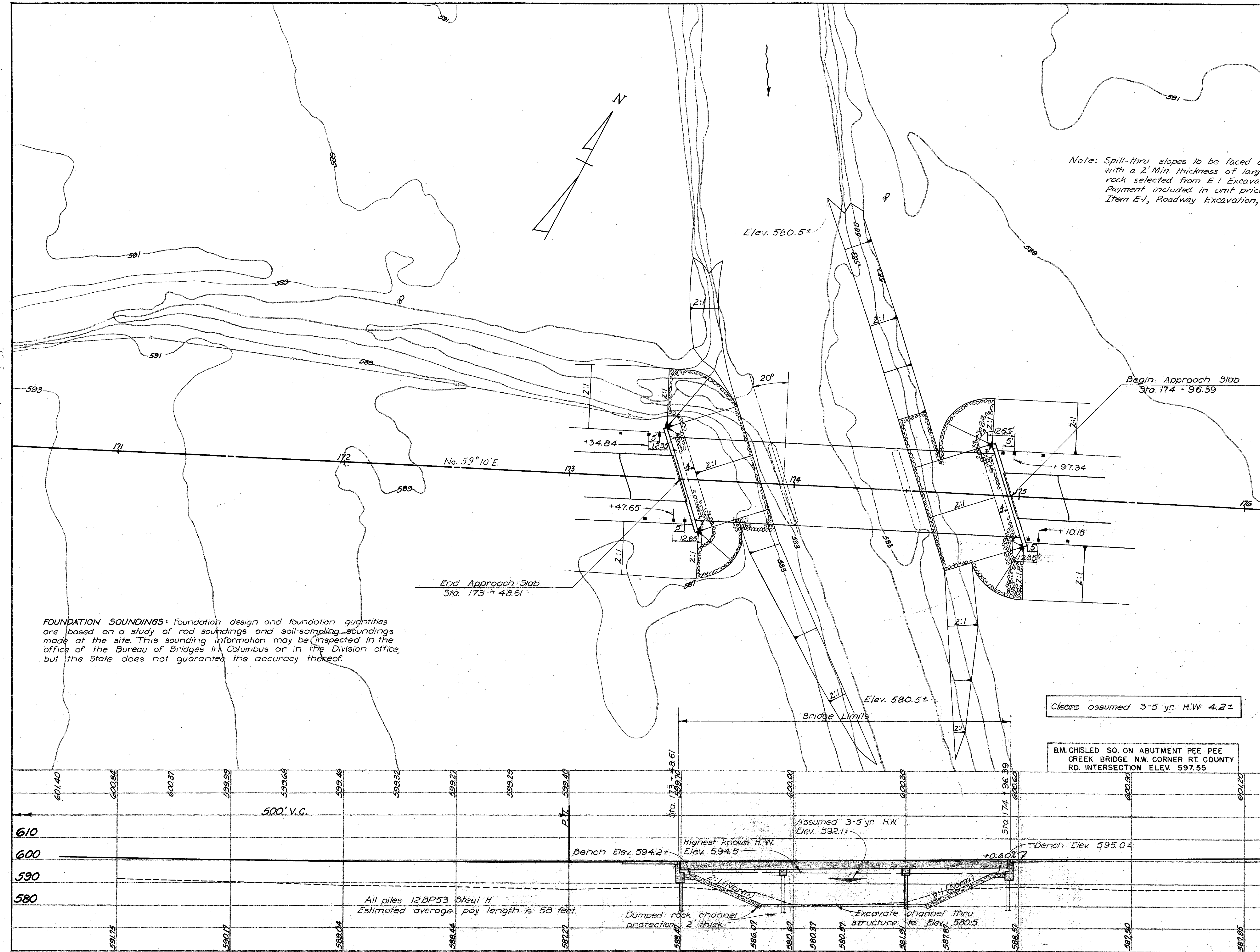


FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

109  
120

**PIKE COUNTY  
PIK-220-2.31  
AT DAILYVILLE**

Note: Spill-thru slopes to be faced as shown with a 2' Min. thickness of large durable rock selected from E-1 Excavation. Payment included in unit price bid for Item E-1, Roadway Excavation, Method "B."



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 does not guarantee the accuracy thereof.

EXISTING BRIDGE DATA	
Bridge No.	PIK-220-0332
Type	Steel High Truss
Span	95'-6" Clear
Roadway	12.5'
Condition	Fair
Reduction	None
Ht. Gr. to Fl.	15'
Skew	0°-00'
Suff. Rating	40
Ht. Gr. to H.W.	4'

**DRAINAGE AREA = 28.2 Sq. Mi.**

**PROPOSED STRUCTURE**  
 TYPE: Continuous steel beams with reinf. conc. deck and capped pile piers and abuts.  
 SPANS: 44'-55"-44' 1/2 brgs.  
 ROADWAY: 36'-0" 1/2 guard rails.  
 LOAD FREQUENCY: CF=130(57).  
 SKEW: 20° R.F.  
 WEARING SURFACE: 3/4 Monolithic conc.  
 APPR. SLABS: AS-1-54 (25' Long).  
 ALIGNMENT: Tangent.

Clears assumed 3-5 yr. H.W. 4.2±

B.M. CHISLED SQ. ON ABUTMENT PEE PEE CREEK BRIDGE N.W. CORNER RT. COUNTY RD. INTERSECTION ELEV. 597.55

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
BUREAU OF BRIDGES

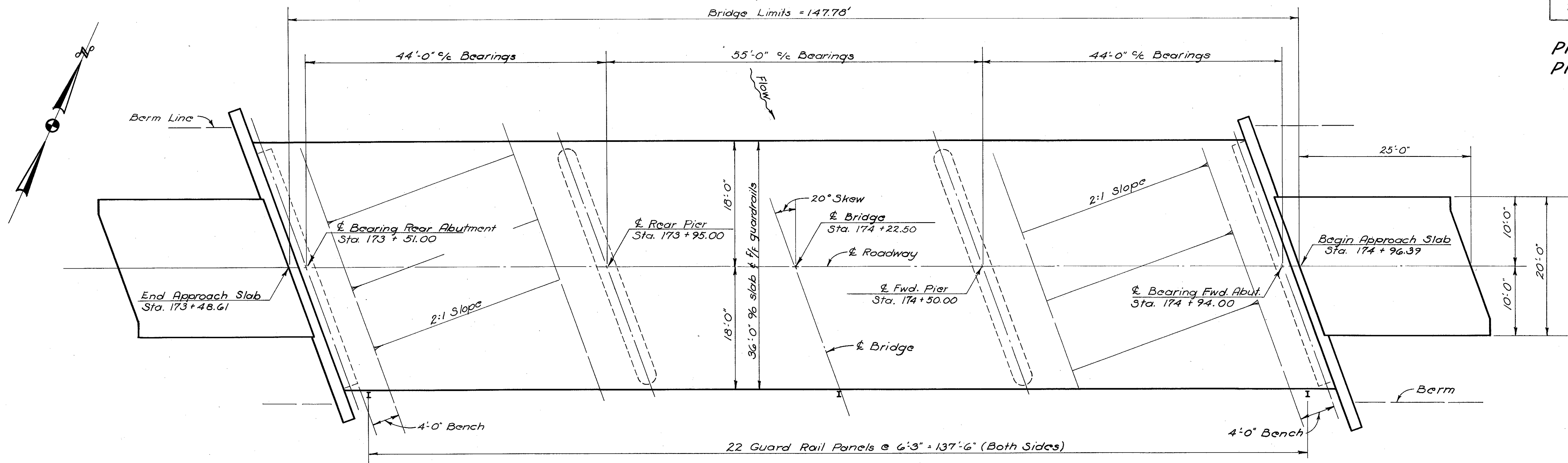
**SITE PLAN**  
 BRIDGE NO. PIK-220-0328  
 OVER PEE PEE CREEK  
 PIKE CO. SR-220  
 STA. 173 + 48.61  
 174 + 96.39

SCALE 1" = 20'		PROPOSED WORK			
PRESENT TOPOGRAPHY	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
AERIAL	AERIAL	NJB	NJB	DGM	G.E.S.

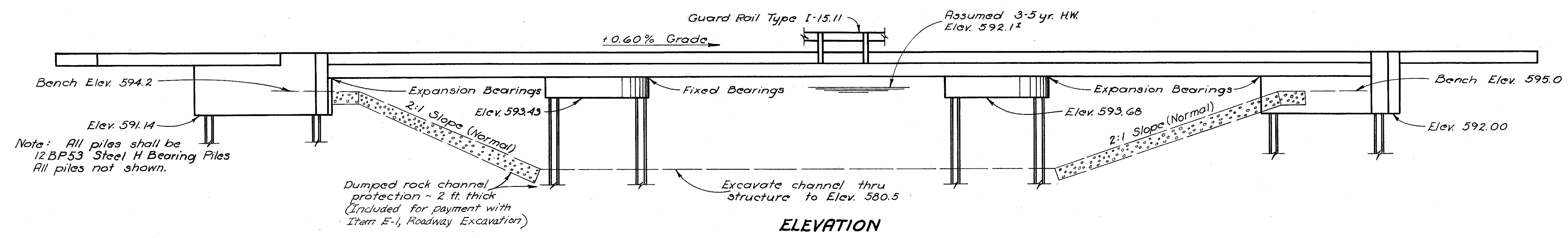
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

110  
120

PIKE COUNTY  
PIK-220-2.31



GENERAL PLAN



ELEVATION

GENERAL NOTES

REFERENCE shall be made to Standard Drawing CSB-1-55, sheets 1, 2, and 6, revised 2-2-59.

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with current revisions thereof.

REMOVAL OF EXISTING STRUCTURE: When no longer needed to maintain traffic the existing structure shall be removed. The five transverse 18" I floor beams shall be carefully removed and piled along the right-of-way for disposal by the State's forces. Rear abutment shall be removed according to Item S-2A. Forward abutment shall remain in place as protection for County Road.

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

PILES shall be driven with a hammer of not less than 11,000 ft. lb. per blow to firm contact with shale. If the length of penetration is approximately equal to the depth to shale according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

- 50 tons per pile using a 11000 ft. lb. hammer
- 44 tons per pile using a 15000 ft. lb. or greater hammer

If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 40 tons per pile.

SLAB THICKNESS is 7 1/4" which includes 3/4" for monolithic wearing surface.

MACHINE FINISH: At the Contractor's option, the concrete bridge deck may be finished by the use of a finishing machine.

See sheet 113 for Estimated Quantities

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

**GENERAL PLAN & ELEVATION**  
**GENERAL NOTES**  
BRIDGE No. PIK-220-0328  
OVER FEE FEE CREEK  
PIKE COUNTY

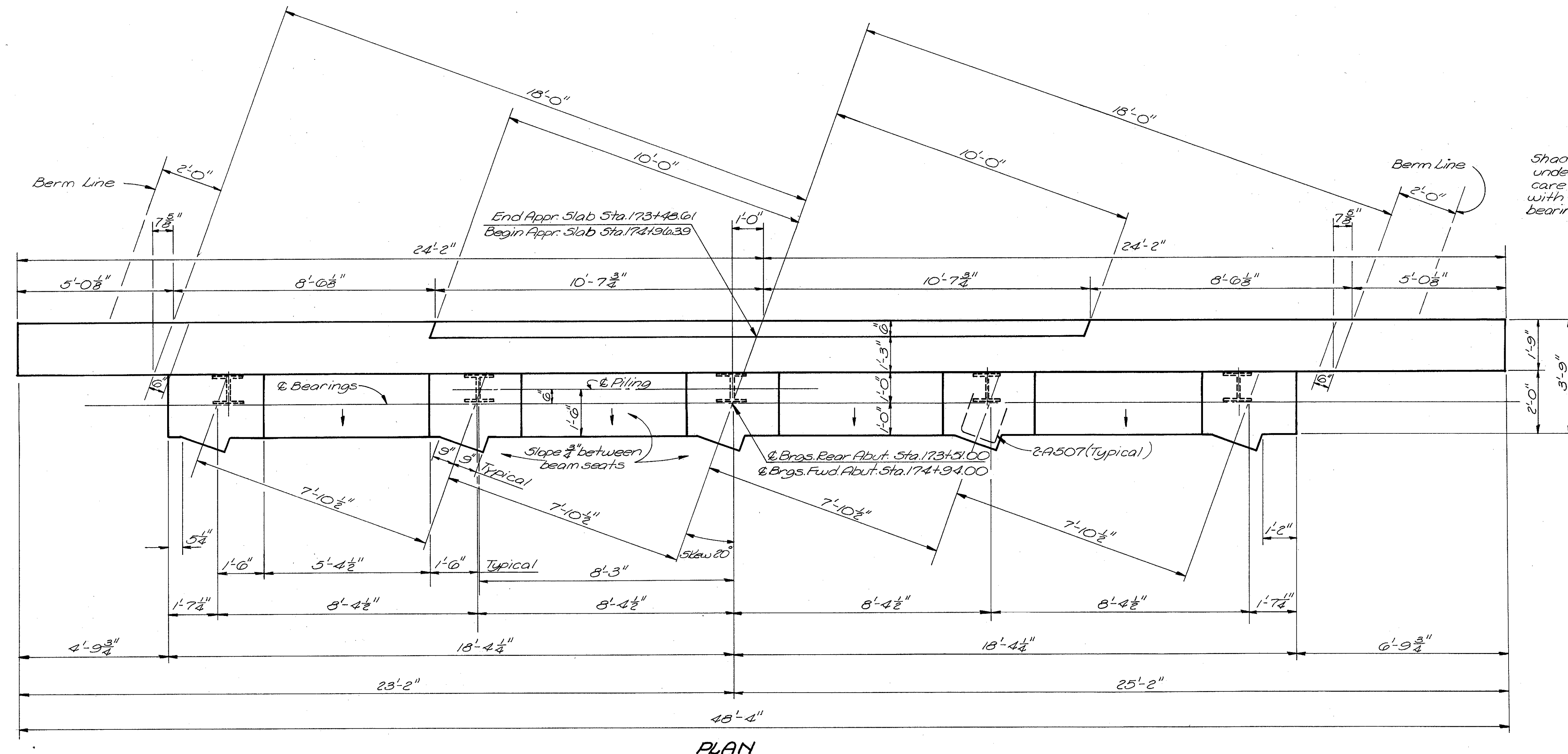
STA 173+48.61  
STA 174+96.39

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JGB	JGB			BFG	1-27-61	

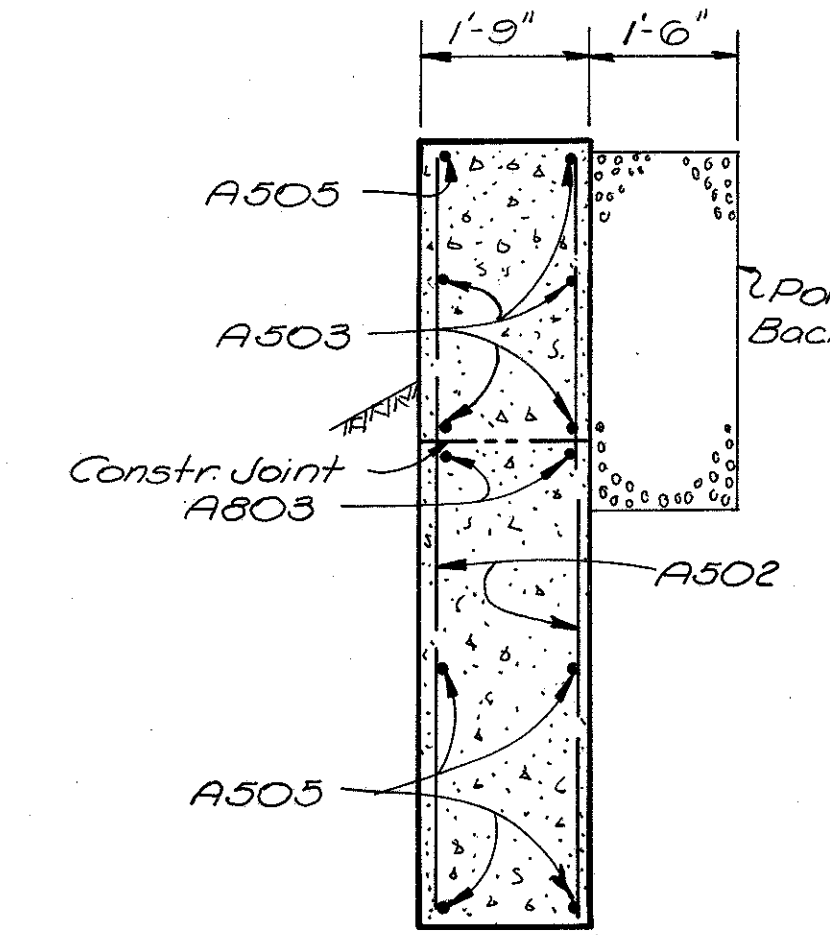


PIKE COUNTY  
PIK-220-2.31

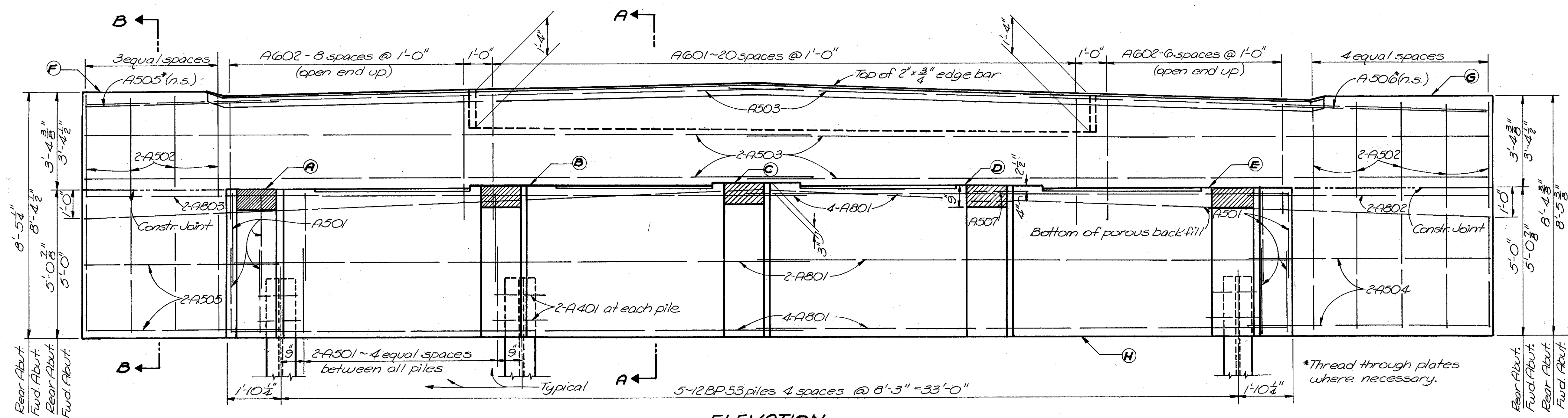
Shaded areas on face of abutment (9"x1'-6" centered under each beam) shall be finished with particular care to provide plane surfaces at right angles with the grade of the structure, insuring full bearing for the bumper angles.



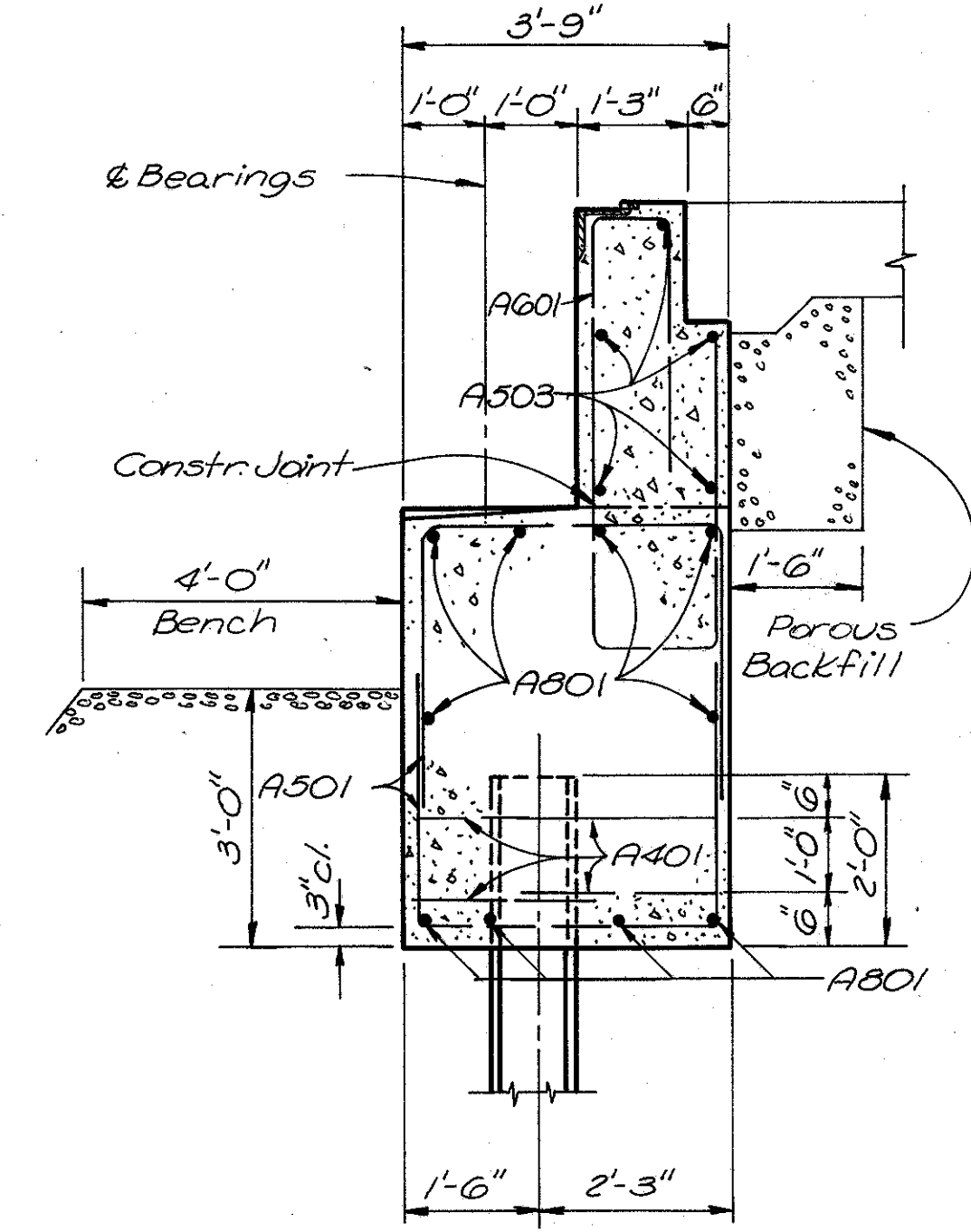
PLAN



SECTION B-B



ELEVATION



SECTION A-A

ELEVATIONS								
Location	A	B	C	D	E	F	G	H
Rear Abut.	596.21	596.32	596.42	596.28	596.14	599.58	599.50	591.14
Fwd. Abut.	597.00	597.14	597.28	597.18	597.07	600.37	600.45	592.00

**PROCEDURE:** The embankment shall be placed and compacted to the level of the earth benches after which excavation shall be made for the abutments and piles driven.  
**CONCRETE** shall be Class "E" and payment will be made on this basis but Class "C" concrete may be used for any or all parts of the abutments.

**POROUS BACKFILL** shall extend upward to the approach slab and to the surface of the earth shoulders, and outward to the surface of the embankment slopes. Excavation therefor, in excess of that required for construction of the abutment, shall be considered as paid for in the bid price per cu. yd. paid for porous backfill.

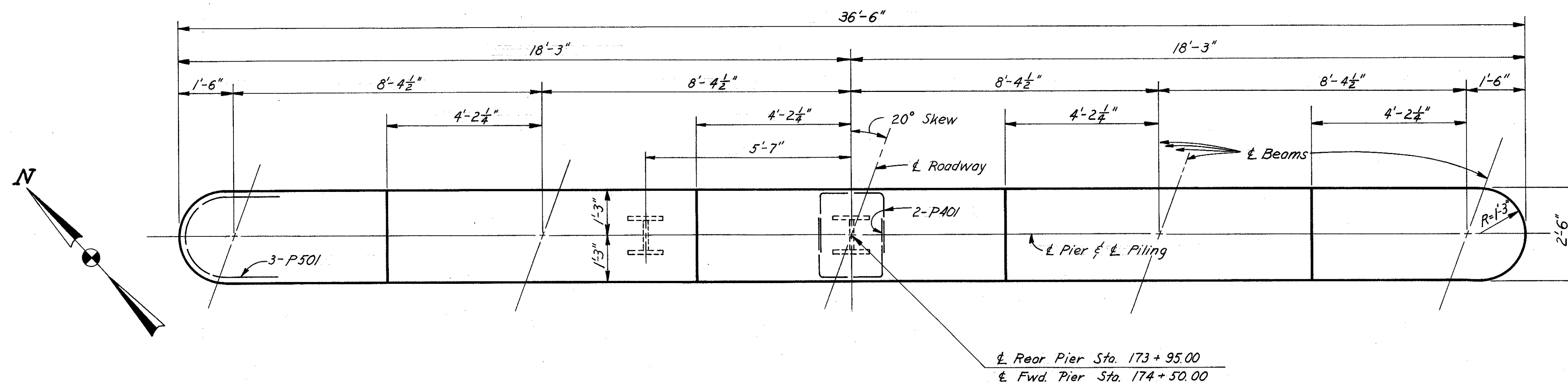
STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

**ABUTMENT DETAILS**  
Bridge No. PIK-220-0328  
over Pee Pee Creek

PIKE COUNTY STA 173+48.61  
STA 174+90.39

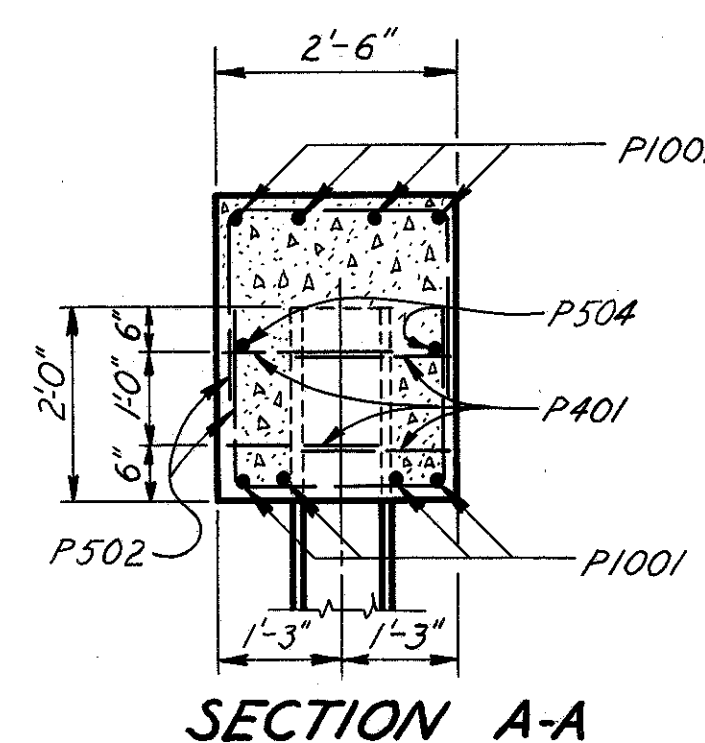
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JGB	JGB	M.L.	W.J.	A.J.F.	1-27-61	

PIKE COUNTY  
PIK-220-2.31

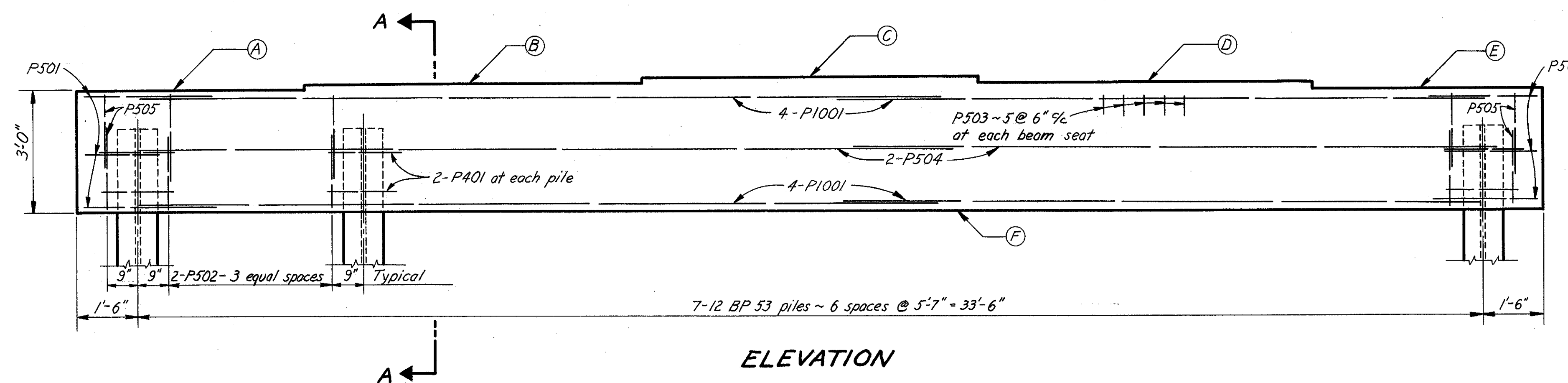


PLAN

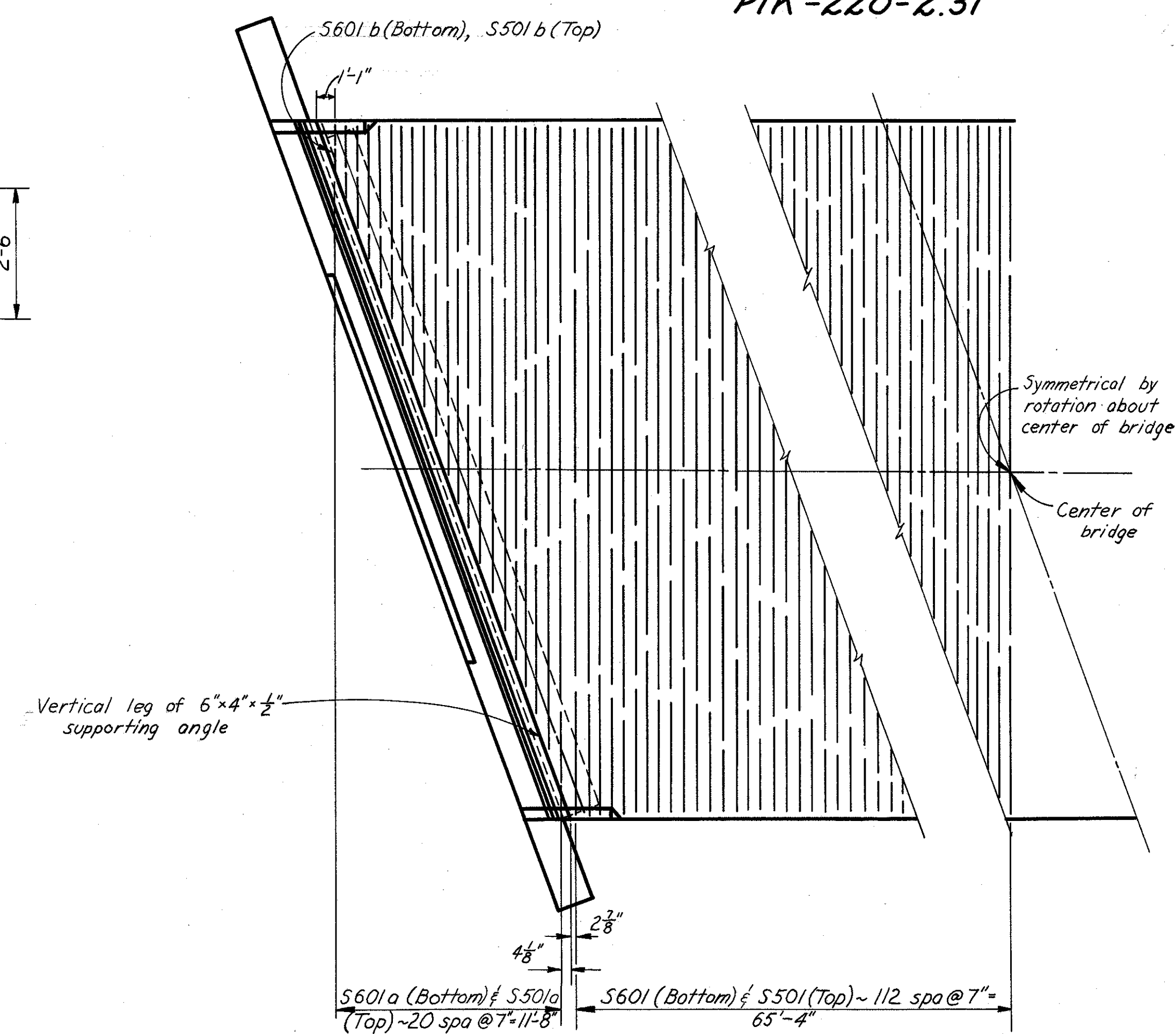
ELEVATIONS		
Point	Rear Pier	Fwd. Pier
A	596.43	596.68
B	596.57	596.82
C	596.71	596.96
D	596.61	596.86
E	596.50	596.75
F	593.43	593.68



SECTION A-A



ELEVATION



PART PLAN OF TRANSVERSE REINFORCING STEEL

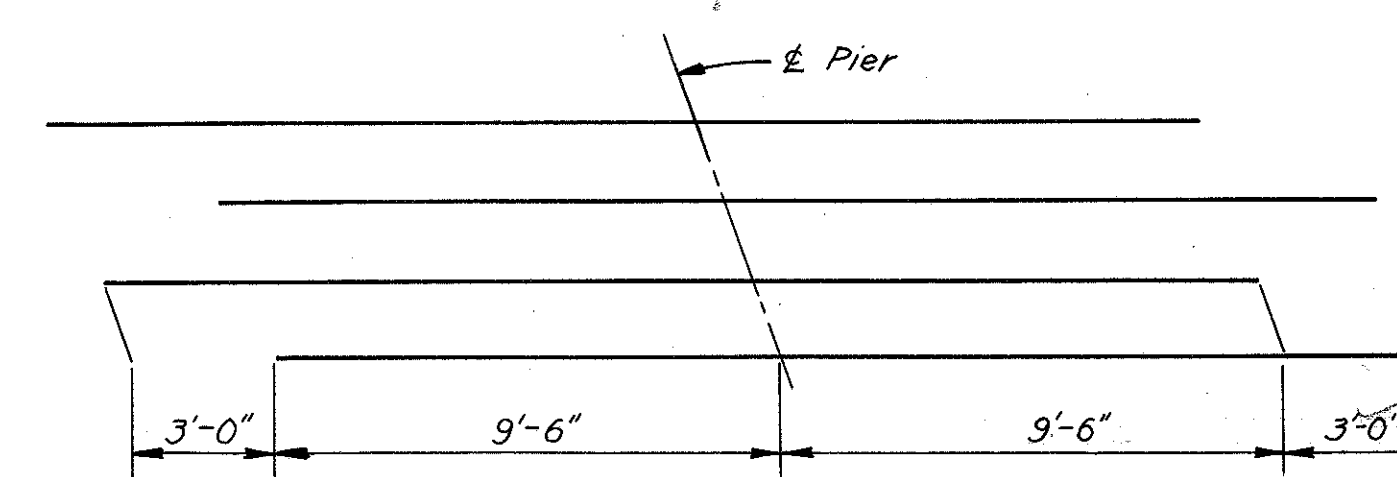


DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS

SPECIAL CARE shall be taken in the placing of reinforcing steel so as to avoid interference with the drilling of anchor bolt holes.

PILE PAINTING: The exposed portion of the piles shall be painted in accordance with Item S-8, applying two coats as per Secs. M-9.9, M-9.20 or M-9.21 and two coats as per Sec. M-9.12. The painting of piles shall extend to at least one foot below the proposed surface of the ground.

PAYMENT FOR PILES, per lin. ft. includes payment for the pile painting.

CONCRETE shall be Class "C."

BUMPER ANGLES as shown on Standard Drawing CSB-1-55, revised 2-2-59 will be required.

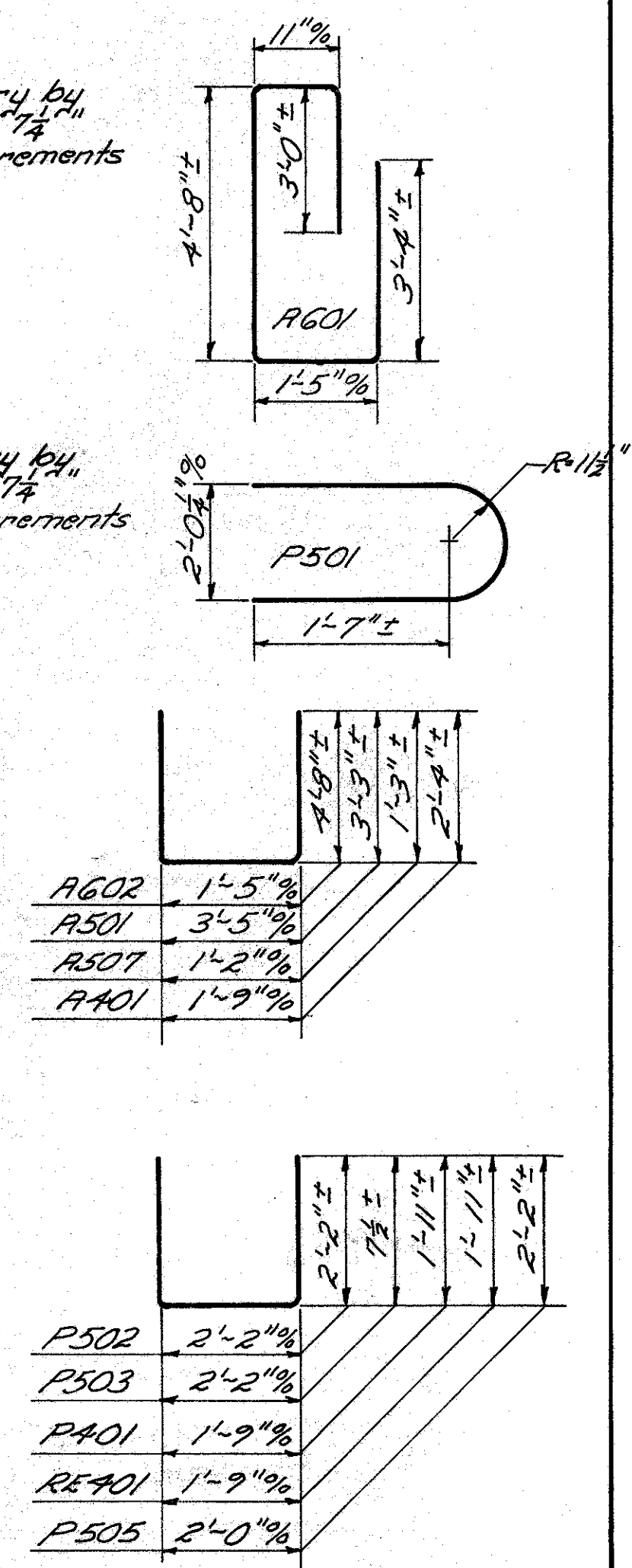
STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES					
<b>PIER DETAILS AND SLAB REINFORCING STEEL PLAN</b>					
BRIDGE No. PIK-220-0328 OVER PEE PEE CREEK PIKE COUNTY					
				STA. 173+48.61	
				STA. 174+96.39	
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
JGB	JGB	AAK	wjg	BFG	1-27-61

PIKE COUNTY  
PIK-220-2.31

ESTIMATED QUANTITIES						
ITEM	TOTAL	UNIT	DESCRIPTION	SUPER.	ABUT.	PIERS GEN'L
E-2	60	Cu. Yds.	Unclassified excavation		60	
E-3	937	Cu. Yds.	Channel excavation			937
S-1	132	Cu. Yds.	Class "C" concrete, superstructure	132		
S-1	21	Cu. Yds.	Class "C" concrete, pier caps			21
S-1	80	Cu. Yds.	Class "E" concrete, abutments		80	
S-4	15,509	Lbs.	Reinforcing steel	35,805	5,726	3,978
S-7	103,800	Lbs.	Structural steel	103,800		
S-8	103,800	Lbs.	Field painting of structural steel	103,800		
S-14	295.56	Lin. Ft.	Railing (Type I-15.11 with galvanized steel posts and bolts)	295.56		
S-16	Lump	Sum	First test pile			lump
S-18	1390	Lin. Ft.	Steel piles, 12 BP53		580	810
S-24	Lump	Sum	Removal of existing structure			lump
S-29	21	Cu. Yds.	Porous backfill		21	
Special	132	Each	Water-reducing, set-retarding admixture*	132		

\* See Proposal Note.

REINFORCING STEEL LIST					BENDING DIAGRAMS	
MARK	NO.	LENGTH	WEIGHT	SHAPE		
<b>Superstructure</b>						
S601	225	35'-5"	12,054	S		
S601a	2 Series of 21 bars	2'-5" to 34'-6"	1164	S	Vary by 1 1/4" increments	
S601b	2	2'-7"	8	S		
S602	212	37'-6"	11,941	S		
S603	44	22'-0"	1,454	S		
S501	225	35'-5"	8,370	S		
S501a	2 Series of 21 bars	2'-5" to 34'-6"	809	S	Vary by 1 1/4" increments	
S501b	2	2'-7"	5	S		
<b>Abutments</b>						
A801	40	19'-5"	2,074	S		
A802	4	9'-4"	100	S		
A803	4	7'-4"	78	S		
A601	42	12'-8"	799	B		
A602	32	10'-5"	501	B		
A501	96	9'-8"	968	B		
A502	36	8'-0"	300	S		
A503	20	24'-10"	518	S		
A504	8	8'-5"	70	S		
A505	10	6'-5"	67	S		
A506	2	7'-2"	15	S		
A507	20	3'-5"	71	B		
A401	40	6'-2"	165	B		
<b>Piers</b>						
P1001	32	19'-8"	2,708	S		
P501	12	6'-4"	79	B		
P502	96	6'-3"	626	B		
P503	50	3'-2"	165	B		
P504	8	17'-10"	149	S		
P505	8	6'-1"	51	B		
P401	56	5'-4"	200	B		
<b>Replacement Bars</b>						
RE1001	1	7'-2"		S		
RE801	1	6'-6"		S		
RE601	1	5'-11"		S		
RE501	1	5'-7"		S		
RE401	1	5'-4"		B		



BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example, A601 is a No. 6 size bar and P1001 is a No. 10 size bar.

REPLACEMENT BARS: If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec. S-4.02 need not be furnished and replacement bars will not be required.

STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES						
<b>ESTIMATED QUANTITIES AND STEEL LIST</b>						
BRIDGE No. PIK-220-0328 OVER PEE PEE CREEK						
PIKE COUNTY STA. 173 + 18.61 174 + 96.39						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JGB	JGB	Morgan	WJ	BFG	9.17.61	