

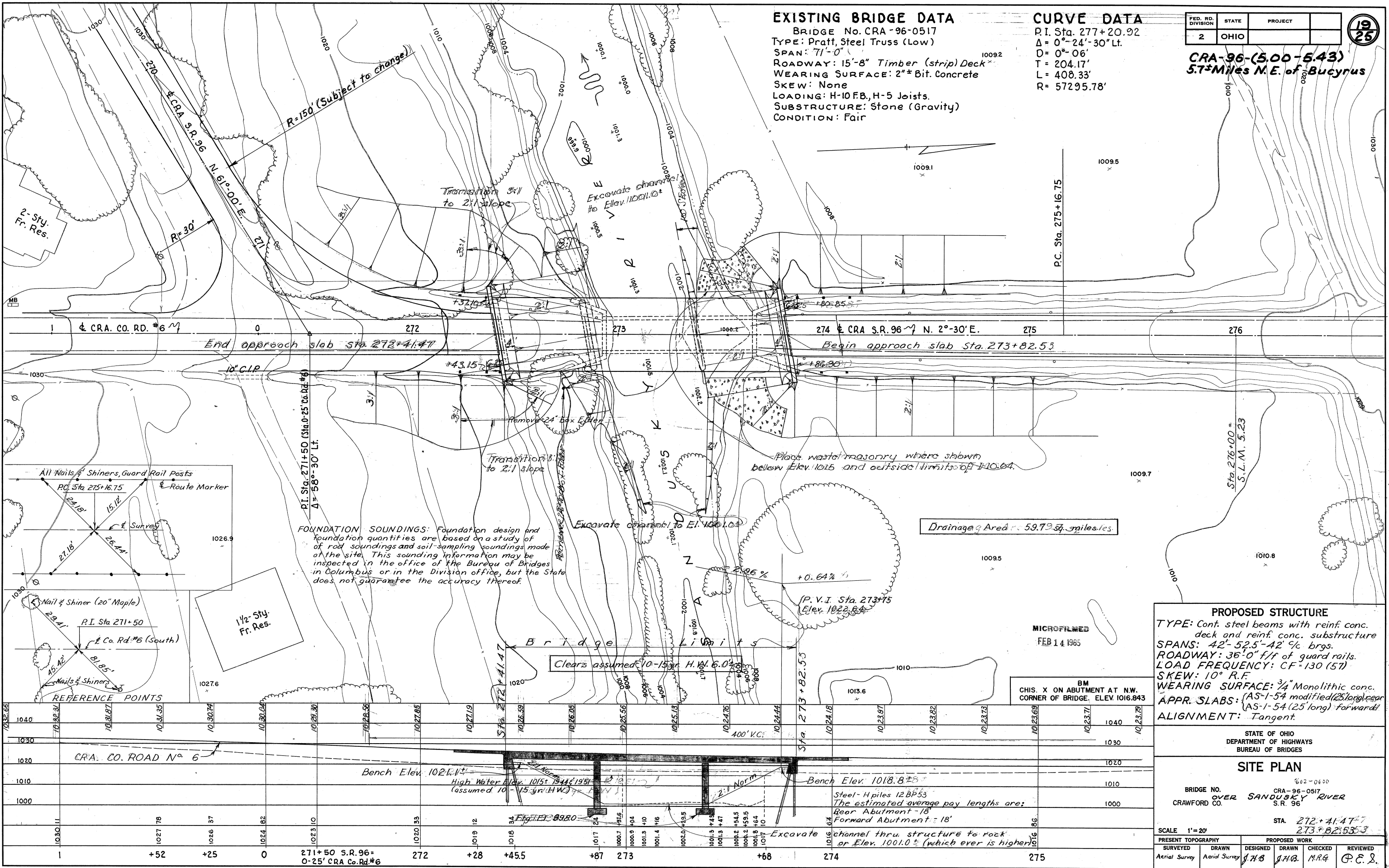
EXISTING BRIDGE DATA
 BRIDGE No. CRA-96-0517
 TYPE: Pratt, Steel Truss (Low)
 SPAN: 71'-0"
 ROADWAY: 15'-8" Timber (strip) Deck
 WEARING SURFACE: 2"± Bit. Concrete
 SKEW: None
 LOADING: H-10 F.B., H-5 Joists.
 SUBSTRUCTURE: Stone (Gravity)
 CONDITION: Fair

CURVE DATA
 P.I. Sta. 277+20.92
 $\Delta = 0^\circ-24'-30''$ Lt.
 $D = 0^\circ-06'$
 $T = 204.17'$
 $L = 408.33'$
 $R = 57295.78'$

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

1925

CRA-96-(5.00-5.43)
5.7± Miles N.E. of Bucyrus



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.

PROPOSED STRUCTURE
 TYPE: Cont. steel beams with reinf. conc. deck and reinf. conc. substructure
 SPANS: 42'-52.5'-42' % brgs.
 ROADWAY: 36'-0" f/f of guard rails.
 LOAD FREQUENCY: CF-130 (57)
 SKEW: 10° R.F.
 WEARING SURFACE: 3/4" Monolithic conc.
 APPR. SLABS: (AS-1-54 modified (25' long) rear / AS-1-54 (25' long) forward)
 ALIGNMENT: Tangent

STATE OF OHIO
 DEPARTMENT OF HIGHWAYS
 BUREAU OF BRIDGES

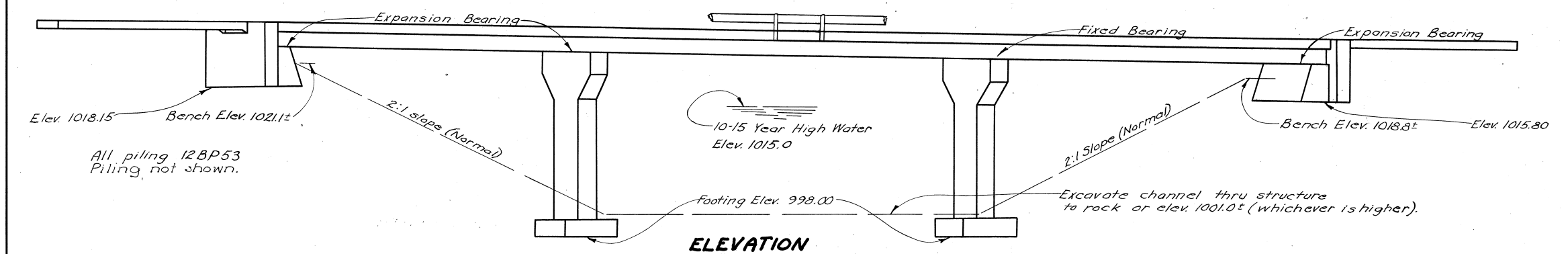
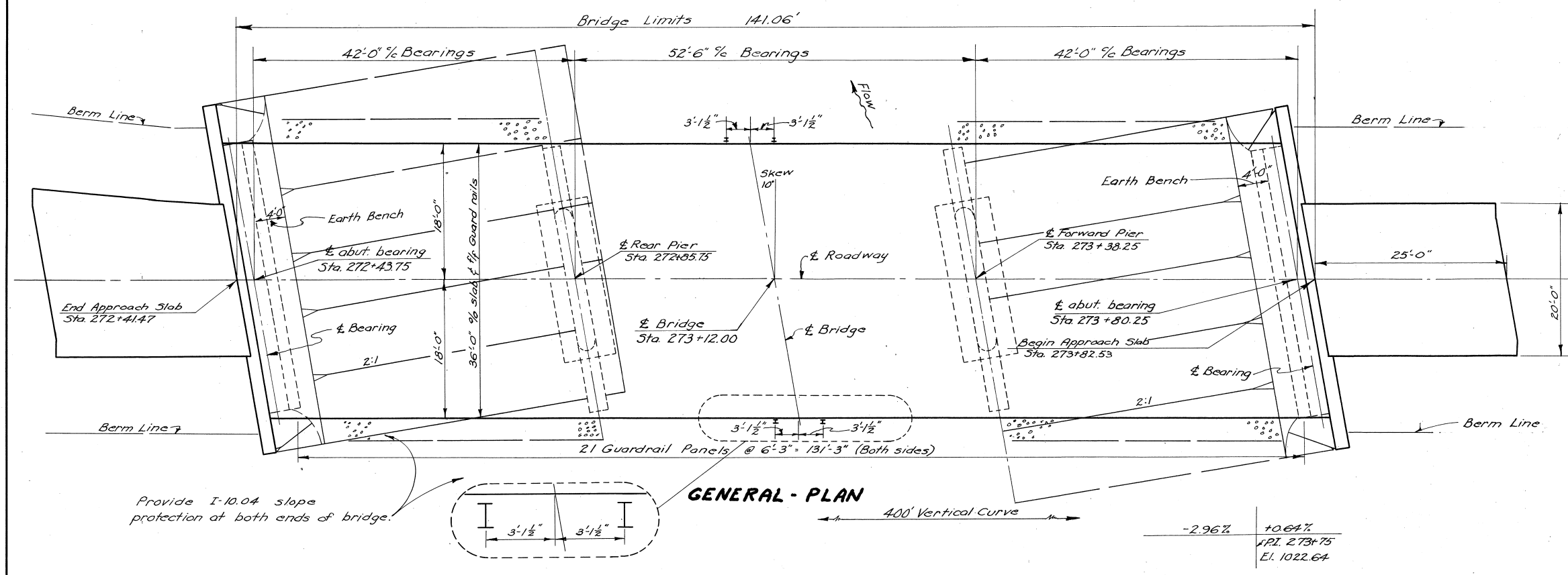
SITE PLAN

BRIDGE NO. CRA-96-0517
 CRAWFORD CO. OVER SANDUSKY RIVER S.R. 96

STA. 272+41.47
 273+82.53

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
Aerial Survey	Aerial Survey	J.H.B.	J.H.B.	M.R.G.	P.E.S.

CRAWFORD COUNTY
CRA - 96 - (5.00-5.43)



ESTIMATED QUANTITIES							
Item	Total	Unit	Description	Super	Abut.	Pier	Gen.
E-2	Lump	sum	Cofferdams, Cribbs and sheeting				Lump
E-2	91	Cu. Yds.	Unclassified excavation		74	17	
E-2	40	Cu. Yds.	Rock excavation			40	
E-3	592	Cu. Yds.	Channel excavation				592
S-1	126	Cu. Yds.	Class "C" concrete, superstructure	126			
S-1	88	Cu. Yds.	Class "C" concrete, piers above footing			88	
S-1	94	Cu. Yds.	Class "E" concrete, abutments		94		
S-1	28	Cu. Yds.	Class "E" concrete, pier footings			28	
S-4	48,582	lbs.	Reinforcing steel	34,495	5,307	8,780	
S-7	99,220	lbs.	Structural steel	99,220			
S-8	99,220	lbs.	Field painting of structural steel (as per plan)	99,220			
S-14	282.12	Lin. ft.	Railing (Type I-15.13 with galvanized steel posts and bolts)	282.12			
S-16	Lump	sum	First test pile				Lump
S-18	360	Lin. ft.	Steel piles 12BP53		360		
S-24	Lump	sum	Removal of existing structure				Lump
S-29	18	Cu. Yds.	Porous backfill		18		
I-10	440	Sq. Yds.	Crushed aggregate slope protection				440

GENERAL NOTES

REFERENCE shall be made to Standard Drawing CSB-1-55, sheets 1, 2, 6 revised 2-2-59, and Supplemental Specification No. 3-101, dated 12-2-59.

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. Floor beams, stringers, and steel beam guardrail on bridge and approaches shall be carefully dismantled and piled along the right-of-way for disposal by the State's forces. All suitable waste masonry shall be placed as bank protection as shown on plans or at the direction of the Engineer.

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 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. 5-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

50 tons per pile using a 11,000 ft. lb. hammer
40 tons per pile using a 15,000 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 25 tons per pile.

PIER FOOTINGS shall extend a minimum of 3" into solid rock or to the elevation shown, whichever is lower.

FOUNDATION BEARING PRESSURE: Pier footings are designed for a maximum bearing pressure of 5 tons per sq. ft.

NOTE: See proposal regarding A-373 steel.

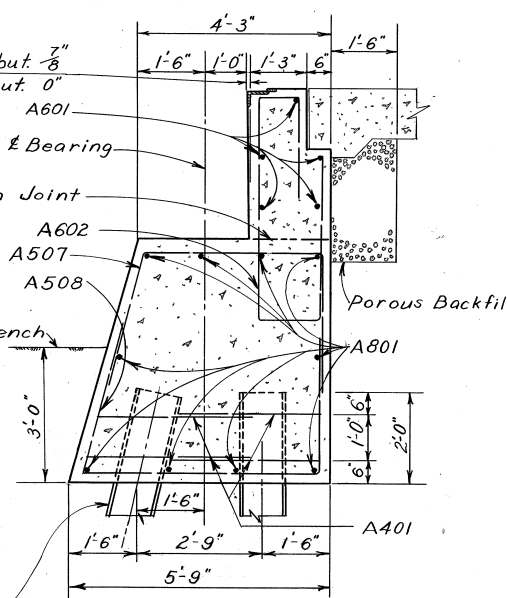
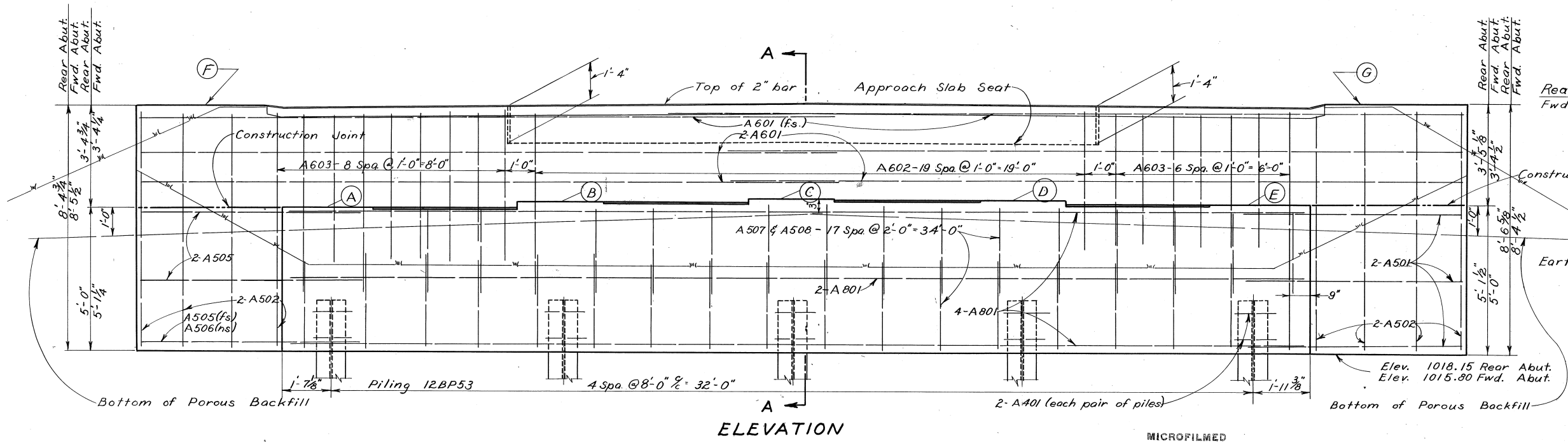
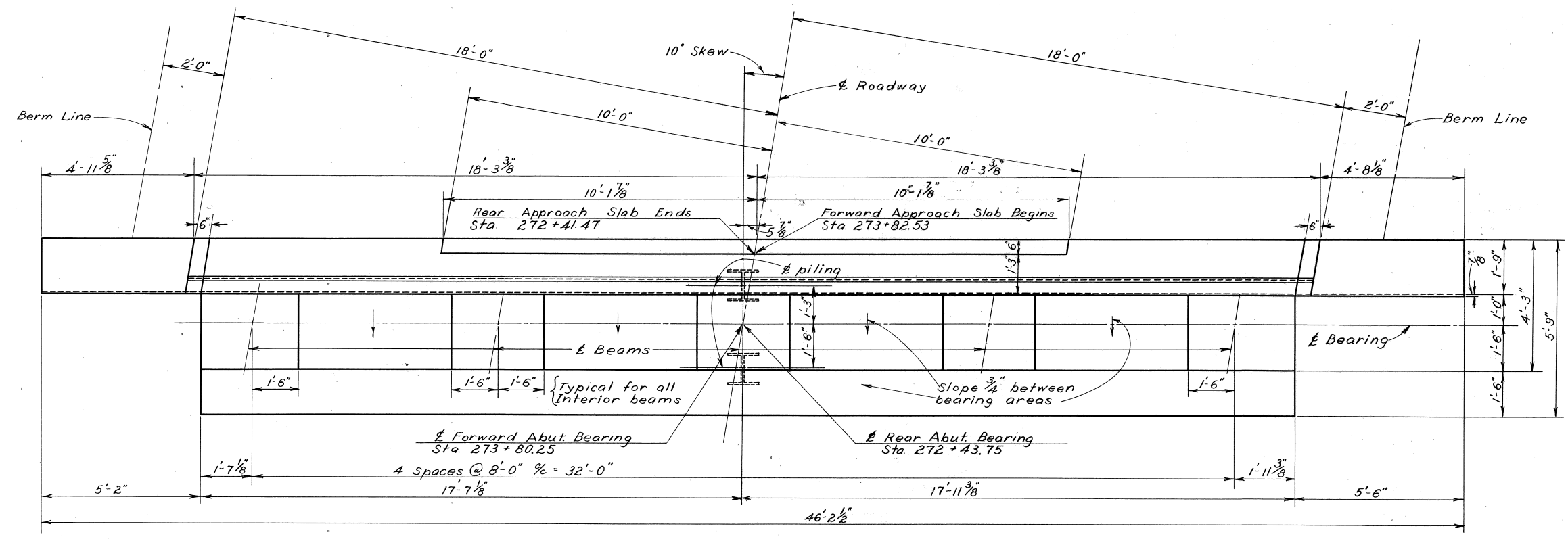
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FEB 14 1965

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

GENERAL PLAN & ELEVATION NOTES & QUANTITIES
BRIDGE No. CRA-96-0517
OVER SANDUSKY RIVER
CRAWFORD COUNTY Sta. 272+41.47
273+82.53

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FPK	FPK	E.R.B.	E.B.L.	BFG	NOV 12-10-59	

CRAWFORD COUNTY
CRA-96-(5.00-5.43)



REINFORCING STEEL in the bridge seat shall be spaced to clear the anchor bolts for bearing plates.

POROUS BACKFILL shall extend upward 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.

PROCEDURE: The embankment shall be placed and compacted to the level of the earth bench after which excavation shall be made for the abutment and piles driven.

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Batter front piles 1:4

Abutment	ELEVATIONS						
	A	B	C	D	E	F	G
Rear	1023.15	1023.30	1023.46	1023.37	1023.28	1026.55	1026.70
Forward	1020.90	1020.99	1021.10	1020.96	1020.80	1024.25	1024.18

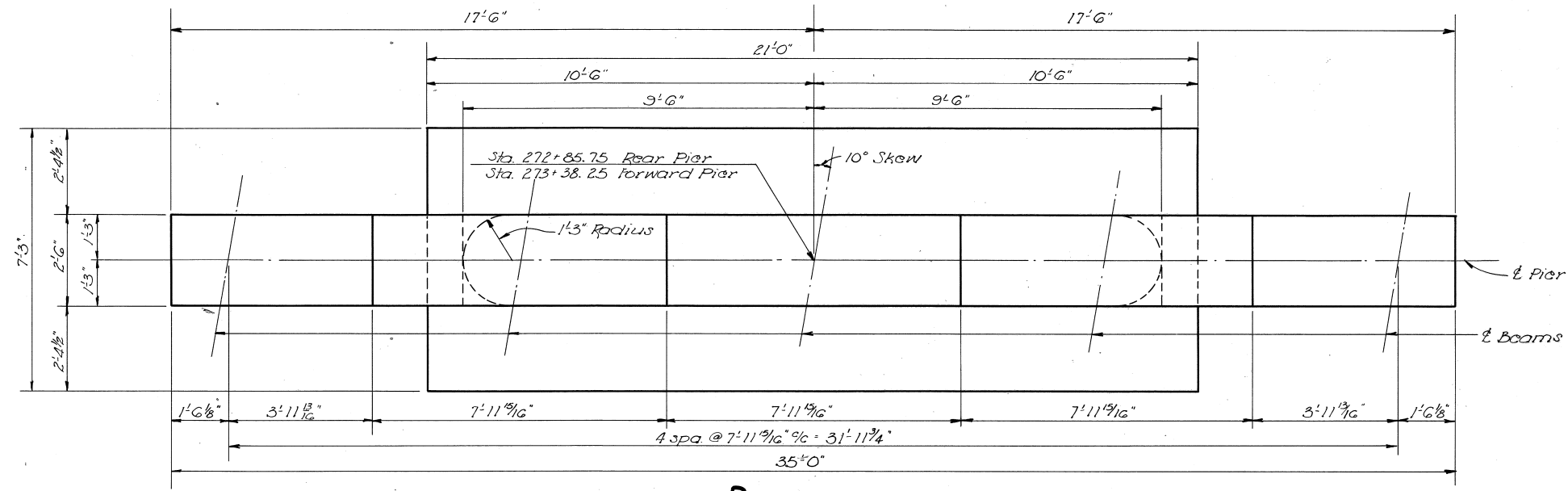
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

ABUTMENT DETAILS
BRIDGE No. CRA-96-0517
over SANDUSKY RIVER
CRAWFORD COUNTY Sta. 272+41.47
273+82.53

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FPK	FPK	RLJ	E.B.L.	BFG	12-10-59	

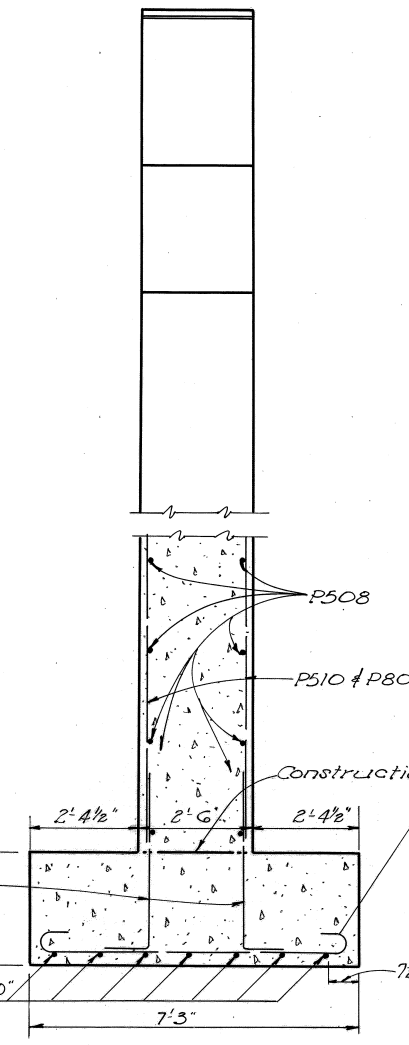
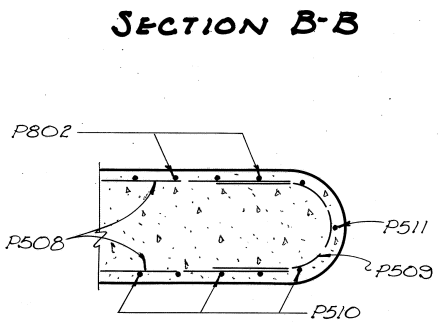
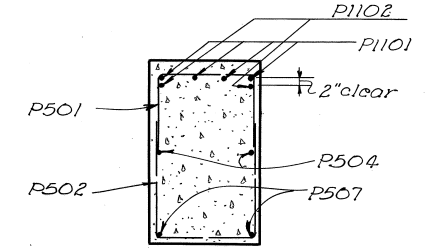
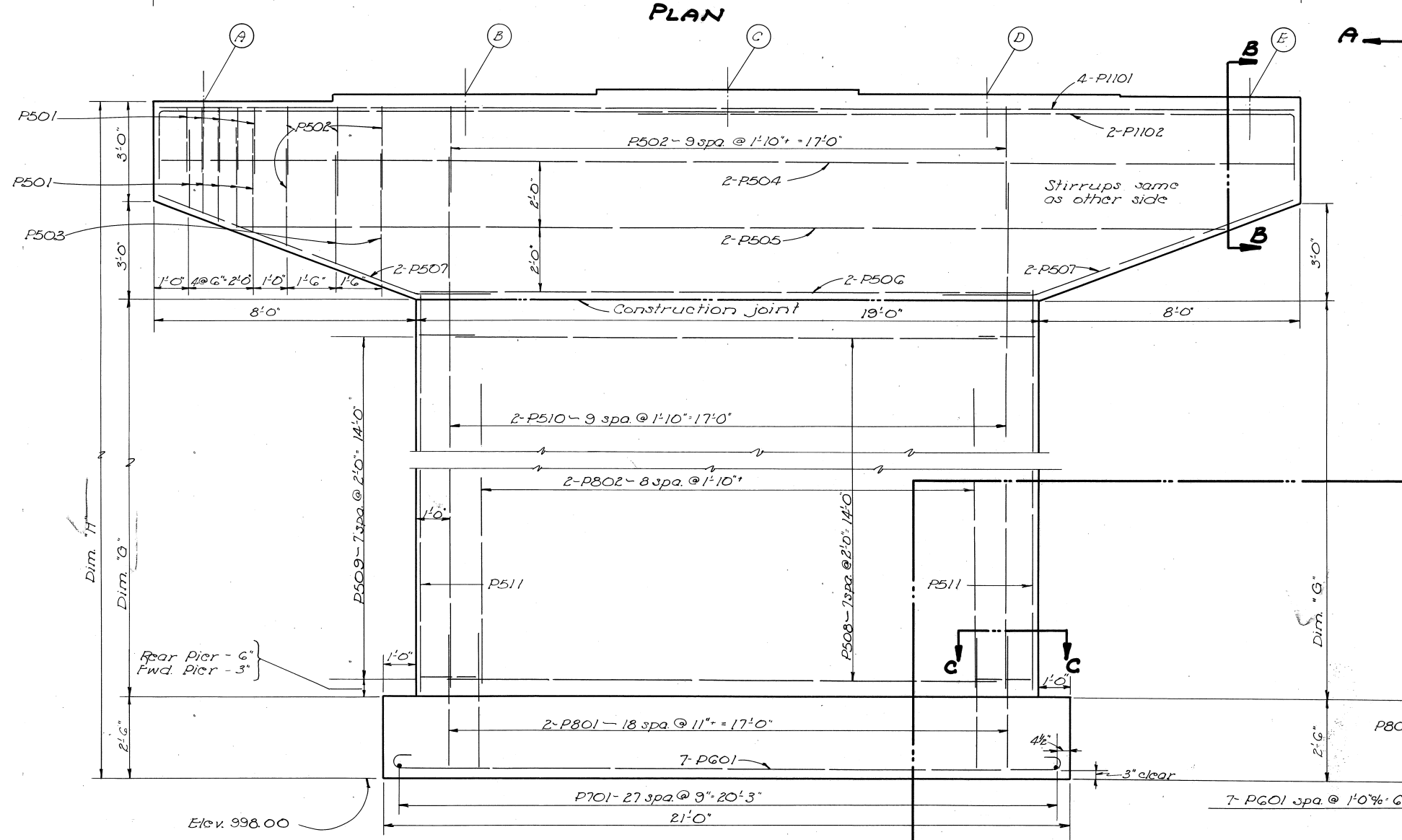
**CRAWFORD COUNTY
CRA-96-(5.00-5.43)**

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FEB 14 1985



ELEVATIONS	A	B	C	D	E	Dim. "G"	Dim. "H"
Rear Pier	1022.20	1022.34	1022.50	1022.40	1022.30	15'-8 ³ / ₈ "	24'-2 ³ / ₈ "
Fwd Pier	1021.38	1021.52	1021.66	1021.57	1021.47	14'-10 ¹ / ₂ "	23'-4 ¹ / ₂ "

REINFORCING STEEL in the bridge seat shall be spaced to clear anchor bolts for bearing plates.

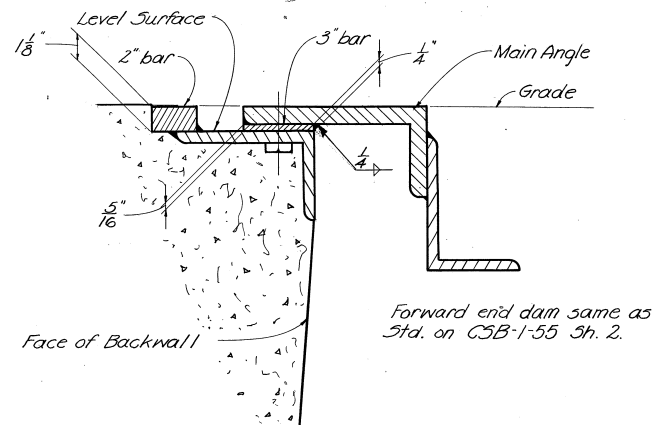


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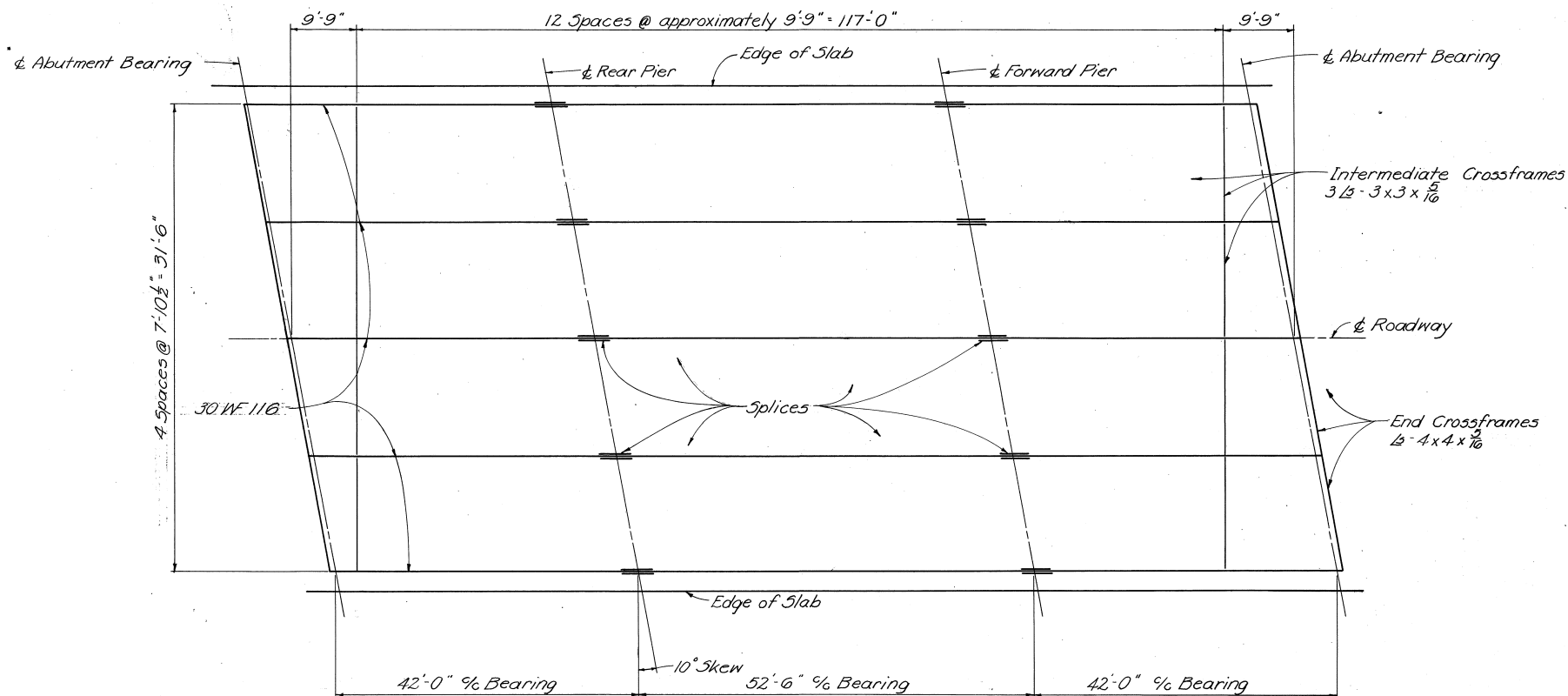
PIER DETAILS
BRIDGE NO. CRA-96-0517
OVER SANDUSKY RIVER

CRAWFORD COUNTY
Sta. 272+41.47
273+82.53

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FPK	FPK	RIC	E.B.L.	BFG	MMH 12-10-59	



REAR END DAM



STEEL FRAMING PLAN

REINFORCING STEEL LIST					BENDING DIAGRAMS				
Mark	No.	Length	Weight	Shp.					
Superstructure									
3601	236	36'-2"	12821	5					
3602	212	35'-9"	11,384	5					
3603	44	21'-0"	1,388	5					
3501	236	36'-2"	8,902	5					
Abutments									
A801	20	35'-2"	1878	5					
A601	20	23'-11"	718	5					
A602	40	12'-3"	736	B					
A603	32	10'-11"	525	B					
A501	12	7'-1"	89	5					
A502	32	8'-0"	267	5					
A505	10	6'-9"	70	5					
A506	2	7'-0"	15	B					
A507	36	9'-10"	369	B					
A508	36	11'-3"	422	B					
A401	40	8'-2"	218	B					
Piers									
P1101	8	34'-8"	1473	5					
P1102	8	20'-6"	871	B					

Mark	No.	Length	Weight	Shp.
Piers (Continued)				
P801	76	5'-6"	1116	B
P802	36	11'-6"	1,105	5
P701	56	8'-5"	963	B
P601	14	21'-10"	459	B
P501	20	7'-3"	151	B
P502	56	7'-11"	462	B
P503	8	9'-9"	81	B
P504	4	34'-8"	145	5
P505	4	29'-10"	124	5
P506	4	18'-8"	78	5
P507	8	10'-4"	86	B
P508	32	16'-6"	551	5
P509	32	6'-4"	211	B
P510	40	20'-1"	838	5
P511	4	15'-9"	66	5
Replacement Bars				
RE1100	1	7'-6"	—	5
RE800	1	6'-6"	—	5
RE700	1	6'-2"	—	5
RE600	2	5'-11"	—	5
RE500	1	5'-7"	—	5
RE400	1	5'-3"	—	5

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, A700 is a No. 7 size bar and A1014 is a No. 10 size.

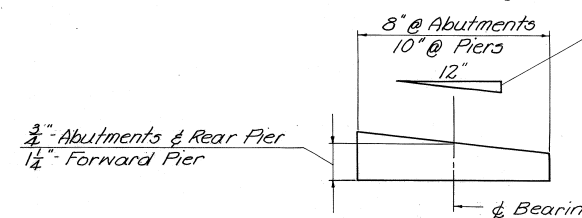
REPLACEMENT BARS: If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec. 3-402 need not be furnished and replacement bars will not be required.

PAINTING: After erection and after the shop coat has been cleaned and, where necessary, repainted in accordance with Sec. 804, an additional coat of the same paint as used in the shop shall be applied over the outside face of the outside steel beams, all sides of bottom flange.

CONCRETE SLAB THICKNESS is 7 1/4" which includes 2" monolithic wearing surface.

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FEB 14 1963

5/16" Rear Abut. 1/2" Forward Abut.
1/4" Rear Abut. 3/16" Forward Abut.



For details not shown, see Standard Drawing CSB-1-55.

BEVELED SOLE PLATES

STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES					
SUPERSTRUCTURE DETAILS & REINFORCING STEEL LIST					
BRIDGE No. CRA-96-0517 Over SANDUSKY RIVER					
CRAWFORD COUNTY				STA. 272+41.47	STA. 273+82.53
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
FPH	FPK	JEF	E.B.L.	BFG	MCH 12-10-59