FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

190/279

JACKSON COUNTY
JAC - 346 - 0.90

RACCOON CREEK

LITTLE

Flow

End Approach Slab
Sta. 1076+55.00

Std. No. 8 Catch Basin

Std. No. 2-2-B Catch Basin

℄ JAC-346 and Survey

1075

1076

1077

1078

1079

3' Typ.

30' Prop. Dumped Rock Chan. Prot. Channel Bott.

Begin Approach Slab
Sta. 1077+73.50

N 42° 46' 27" E

Exist. B & O R.R. Track To be removed

658.8

658.2

658.1

660.1

691.7

666.6

656.3

DRAINAGE AREA = 63 Sq. Miles
WATERWAY OPENING = 1,100 Sq. Ft. Under Elev. 662.6 (25 Yrs. Freqcy)

Q (25 yr. frequency) = 7300 c.f.s.

PLAN

VERTICAL CURVE DATA
P.V.I. Sta. 1078+25.00
P.V.I. Elev. 662.93
V.C. = 600'
G_1 = −4.00%
G_2 = +0.84%

P.V.C. Sta. 1075+25

Exist. Ground Line along ℄ Survey

−4.0%

+0.84%

Bridge Limits = 118.50

Est. H.W. Elev. 662.6 (25 Yrs. Freqcy)

Normal Water Elev. 653.8 (June 22, 1966)

Sta. 1076+55.00 Elev. 670.41

Sta. 1077+73.50 Elev. 667.48

P.V.I. Sta. 1078+25 Elev. 662.93

3'-9" bench Elev. 666.60

3'-9" bench Elev. 663.70

Elev. 663.60

Elev. 660.73

Abuts. 1 & 3

Abuts. 2 & 4

Crushed Aggregate Slope Protection

Elev. 641.0

Elev. 641.0

Excavate Channel thru structure to Elev. 645.50

Piers 1 & 3

Piers 2 & 4

675.93 672.16 671.33 670.56 669.84 669.17 668.54 667.97 667.45 666.98 663.60

740 730 720 710 700 690 680 670 660 650 640

1075+00 1076+00 1077+00 1078+00 1079+00

PROFILE ALONG ℄ SURVEY

All piles shall be 10 BP 42 steel "H" piles.

Estimated average pay lengths are -
Abutments 1 & 3 : 35'
Piers : 20'
Abutments 2 & 4 : 45'

PROPOSED STRUCTURE

TYPE	:	3 Span Continuous Reinforced Conc. Slab with Capped Pile Abutments and Reinforced Conc. T-Piers.
SPANS	:	36'-45'-36' c/c Brgs.
ROADWAY	:	38'-8" f/f Guard Rail
LOAD FREQUENCY	:	CF = 400 (57)
SKEW	:	None
WEARING SURFACE	:	1" Monolithic Conc.
APPROACH SLAB	:	AS-1-54 (25' Long)
ALIGNMENT	:	Tangent

SITE PLAN

BRIDGE NO. JAC-346-0364L & R
OVER
LITTLE RACCOON CREEK
JACKSON COUNTY
STA. 1076+55.00
STA. 1077+73.50

DESIGNED BY	DRAWN BY	TRACED BY	CHECKED BY	REVIEWED BY	REVISED
	A.J.M.	G.M.D.	M.K. 8/24/66		2-28-68

FRANKLIN ENGINEERING ASSOCIATES, LIMITED
COLUMBUS, OHIO

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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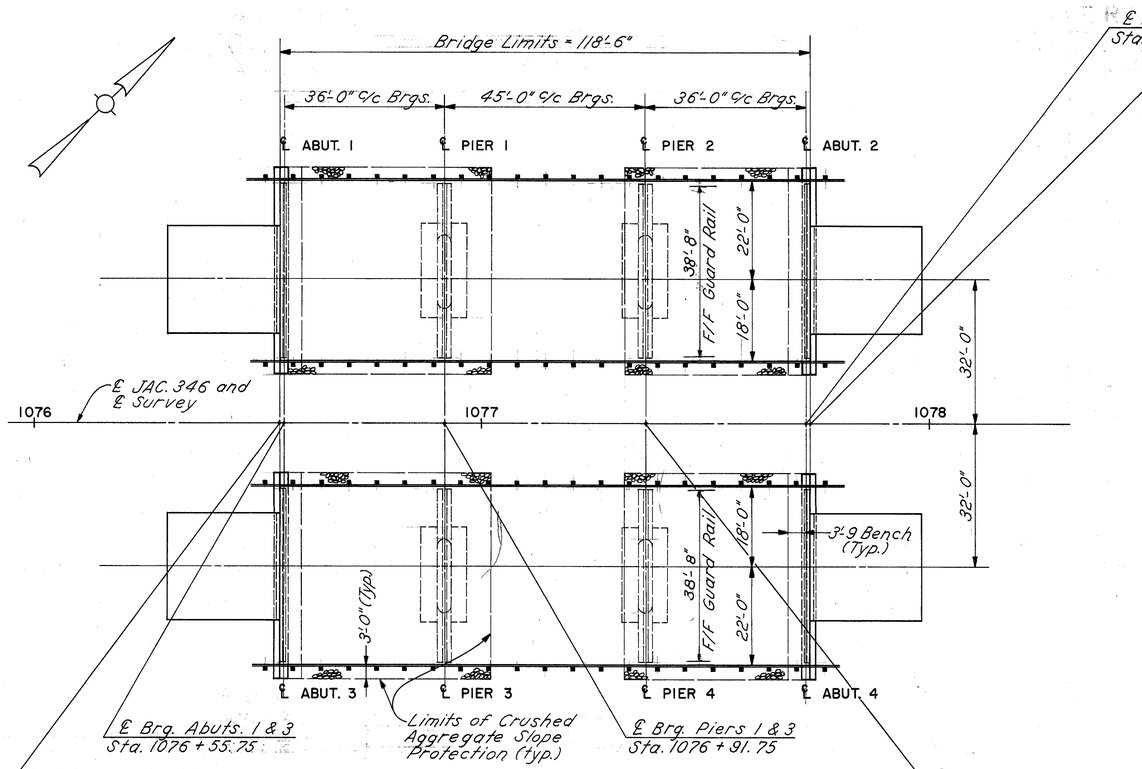
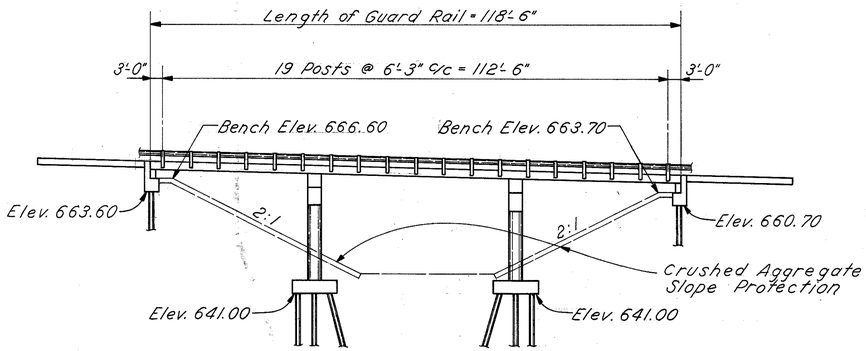
JACKSON COUNTY
JAC - 346 - 0.90



PLAN



ELEVATION

ESTIMATED QUANTITIES (2 BRIDGES)

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTS.	PIERS	SUPER.	GEN.	As Built.	
503	LUMP	SUM	COFFERDAMS, CRIBS AND SHEETING				LUMP		
503	518	CU. YD.	UNCLASSIFIED EXCAVATION	180	338			C-B 57	461
505	LUMP	SUM	FIRST TEST PILE						
507	2,800	LIN. FT.	STEEL - H PILES (10 BP 42)	1,120	1,680			C-B 334	2,466
509	165,965	LBS.	REINFORCING STEEL	10,164	26,921	128,880			
511	574	CU. YD.	CLASS "C" CONCRETE - SUPERSTRUCTURE			574			
511	212	CU. YD.	CLASS "C" CONCRETE - PIERS ABOVE FOOTINGS		212				
511	96	CU. YD.	CLASS "E" CONCRETE - ABUTMENTS	96					
511	93	CU. YD.	CLASS "E" CONCRETE - PIER FOOTINGS		93				
517	474	LIN. FT.	RAILING - DEEP BEAM TYPE WITH STEEL POSTS &			474			
518	33	CU. YD.	POROUS BACKFILL BOLTS *	33					
601	952	SQ. YD.	CRUSHED AGGREGATE SLOPE PROTECTION				952		
808	574	UNITS	WATER-REDUCING SET-RETARDING ADMIXTURE			574		C-B 574	—
825	1,139	SQ. YD.	CONCRETE SURFACE TREATMENT				1,139		

*Modified as per plan.

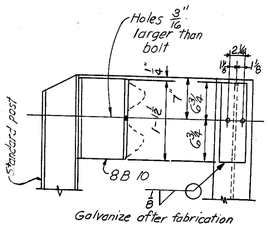
GENERAL NOTES

REFERENCE SHALL BE MADE TO:
- Standard Drawing CS-1-55, sheets 1 and 2, dated 6-1-65.
- Standard Drawing AS-1-54, revised 8-10-65.
- Supplemental Specifications 808 dated 1-13-67. and 825 dated 1-1-67.

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

DESIGN LOADING: CF = 400 (57)
CLASS "C" CONCRETE: Basic Unit Stress = 1,333 psi
CLASS "E" CONCRETE: Basic Unit Stress = 1,133 psi
REINFORCING STEEL: ASTM 415, A16, A160 deformed, intermediate or hard grade.
Basic Unit Stress = 20,000 psi
MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

SLAB THICKNESS is 19½" which includes 1" for monolithic wearing surface.



BLOCKING BETWEEN RAILING POST AND RAIL ON BRIDGE

GENERAL PLAN

BRIDGE NO. JAC-346-0364 L&R OVER
LITTLE RACCOON CREEK
JACKSON COUNTY STA. 1076 + 55.00 STA. 1077 + 73.50

DESIGNED	DRAWN BY	TRACED BY	CHECKED BY	REVIEWED	REVISED
A.S.B.	A.J.M.	A.J.M.	M.K. 11/10/66		

FRANKLIN ENGINEERING ASSOCIATES, LIMITED
COLUMBUS, OHIO

REV. 4-16-70 GFJ

FED. RD. DIVISION	S	PROJECT	
2	0		

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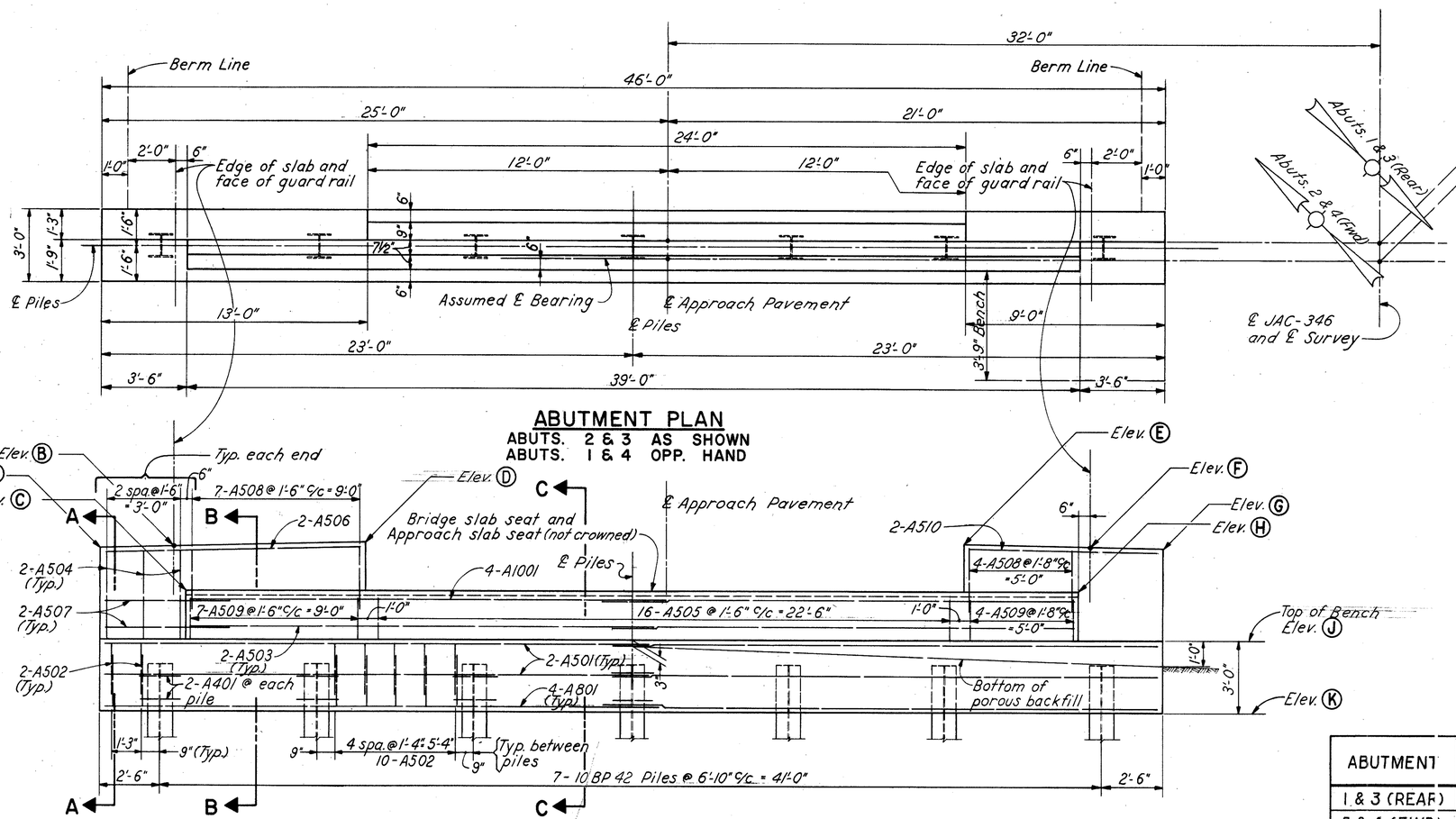
JACKSON COUNTY
JAC - 346 - 0.90

End Approach Slab Sta. 1076+55.00
Begin Approach Slab Sta. 1077+73.50
℄ Abuts. 1 & 3 (Rear) Sta. 1076+55.75
℄ Abuts. 2 & 4 (Fwd.) Sta. 1077+72.75



ABUTMENT PLAN
ABUTS. 2 & 3 AS SHOWN
ABUTS. 1 & 4 OPP. HAND

ABUTMENT ELEVATION
ABUTS. 2 & 3 AS SHOWN
ABUTS. 1 & 4 OPP. HAND

ABUTMENT	ELEVATION									
	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	Ⓙ	Ⓚ
1 & 3 (REAR)	670.21	670.26	668.63	670.41	670.41	670.32	670.27	668.69	666.60	663.60
2 & 4 (FWD.)	667.29	667.34	665.71	667.49	667.49	667.40	667.35	665.77	663.70	660.70

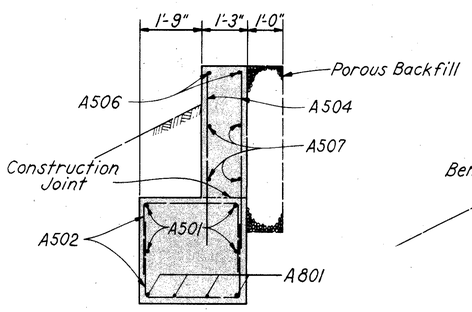
NOTES

PILE CAPACITY shall be 35 tons per pile.
CONCRETE shall be class "E".

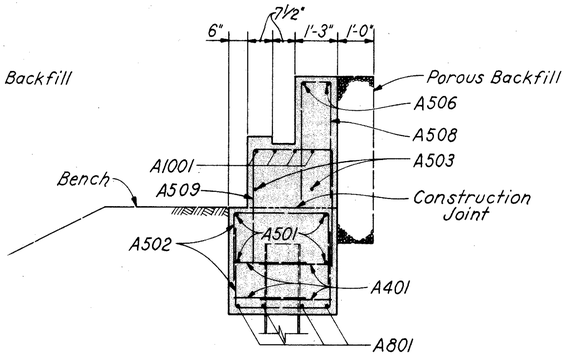
POROUS BACKFILL shall extend upward to the approach slab and to the surface of earth shoulders, and outward to the surface of embankment slopes. Excavation therefor, in excess of that required for construction of the abutment, shall be considered as paid for in bid price per cu. yd. paid for porous backfill.

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

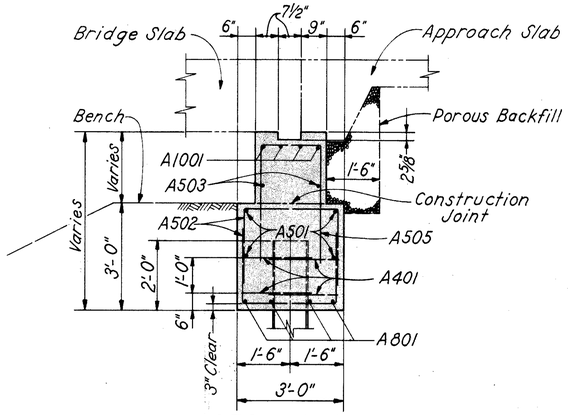
PROCEDURE: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the earth bench after which excavation shall be made for the abutments and the piles driven.



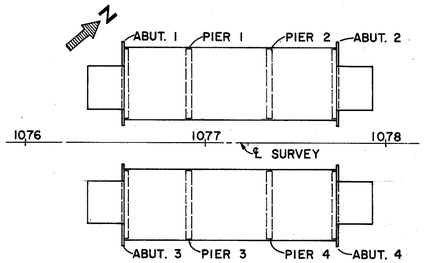
SECTION A-A



SECTION B-B



SECTION C-C



KEY PLAN

ABUTMENT DETAILS

BRIDGE NO. JAC-346-0364 L&R
OVER
LITTLE RACCOON CREEK
JACKSON COUNTY
STA. 1076+55.00
STA. 1077+73.50

DESIGNED	DRAWN BY	TRACED BY	CHECKED BY	REVIEWED	REVISED
A.S.B.	A.J.M.	A.J.M.	M.K. 11/10/66		

FRANKLIN ENGINEERING ASSOCIATES, LIMITED
COLUMBUS, OHIO

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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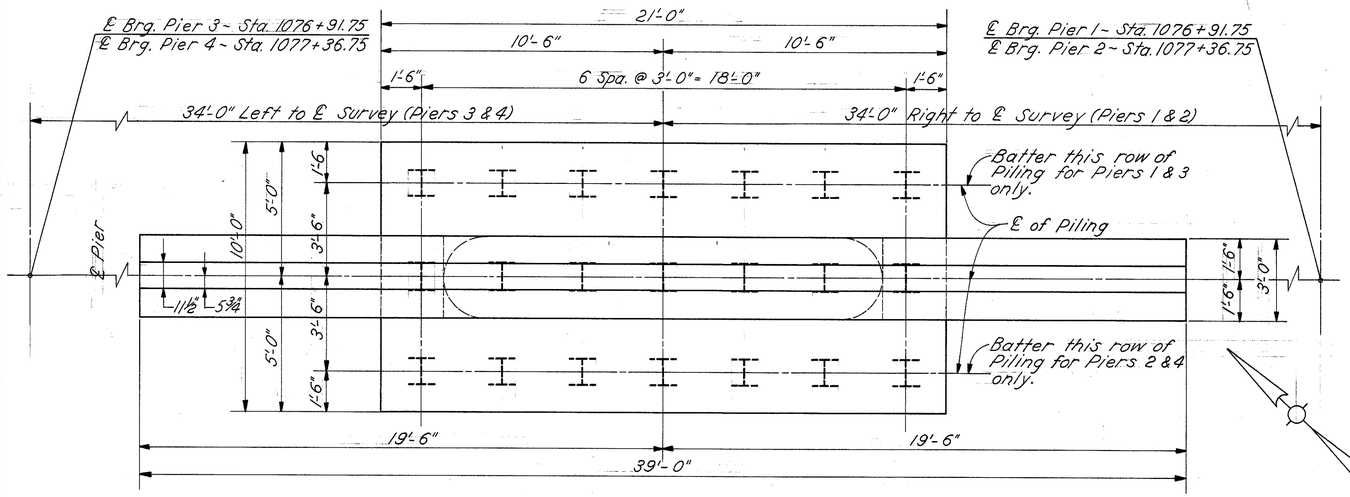
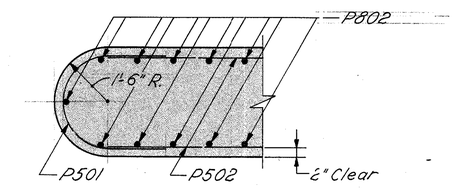
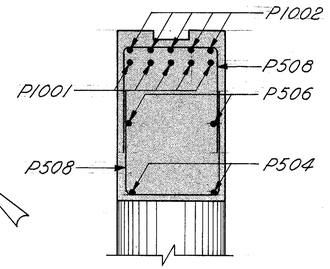
JACKSON COUNTY
JAC - 346 - 0.90



TYPICAL PIER PLAN
LOOKING UP STATION



SECTION C-C



SECTION B-B

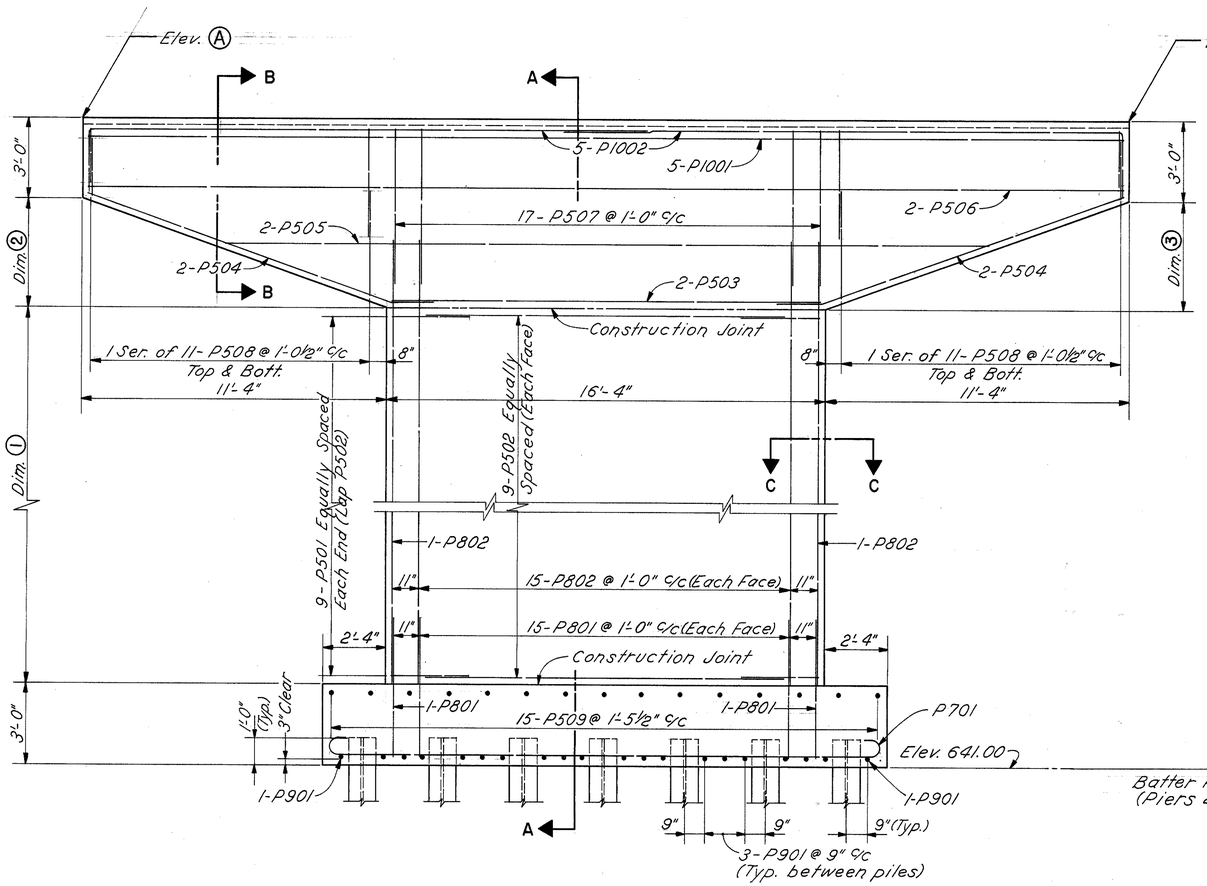
NOTES

REINFORCING STEEL IN FOOTING: The bent portion of the footing dowel shall be in the plane of the bottom footing bars.

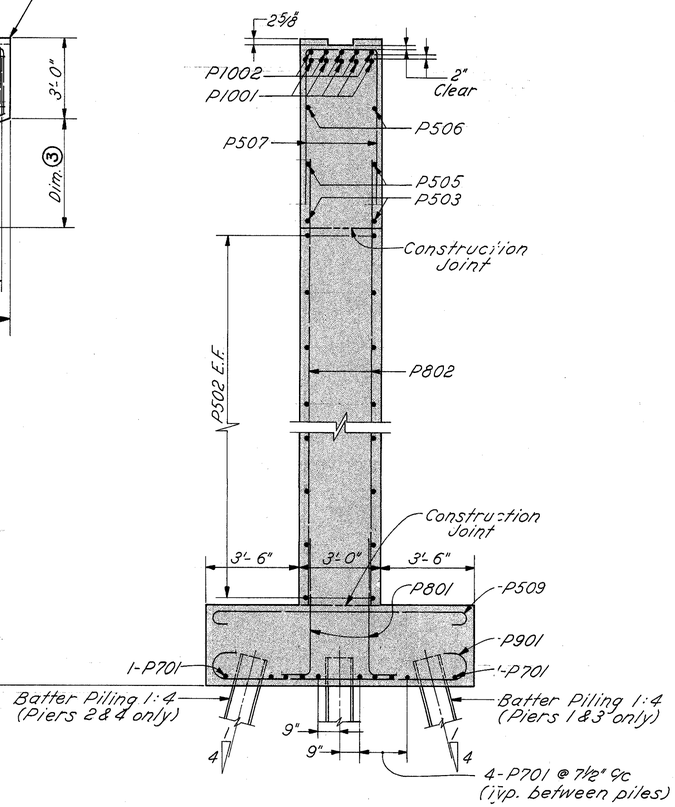
EXCAVATION QUANTITY shall be in accordance with Section 503.10.

PILE CAPACITY shall be 30 tons per pile.

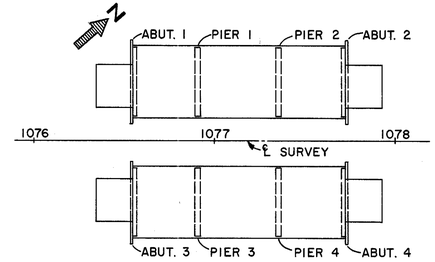
CONCRETE for piers above footing shall be Class "C", and footings shall be Class "E".



TYPICAL PIER ELEVATION
LOOKING UP STATION



SECTION A-A



KEY PLAN

PIER	DIMENSION			ELEVATION	
	①	②	③	Ⓐ	Ⓑ
1	16'-7⅜"	4'-0"	4'-0¾"	667.61	667.67
2	15'-6"	4'-0"	4'-0¾"	666.50	666.56
3	16'-7⅜"	4'-0¾"	4'-0"	667.67	667.61
4	15'-6"	4'-0¾"	4'-0"	666.56	666.50

PIER DETAILS

BRIDGE NO. JAC-346-0364 L&R
OVER
LITTLE RACCOON CREEK
JACKSON COUNTY
STA. 1076 + 55.00
STA. 1077 + 73.50

DESIGNED	DRAWN BY	TRACED BY	CHECKED BY	REVIEWED	REVISED
A.S.B.	A.J.M.	A.J.M.	M.K. 11/10/66		

FRANKLIN ENGINEERING ASSOCIATES, LIMITED
COLUMBUS, OHIO

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

194
219

JACKSON COUNTY
JAC - 346 - 0.90

ABUTMENTS

MARK	NO.	LENGTH	TYPE	DIMENSIONS a	b	c	d	e	f	Rad.	Inc.	WEIGHT
A1001	32	20'-11	Str.									2,880
A801	32	24'-1"	Str.									2,058
A501	32	23'-7"	Str.									787
A502	272	6'-7"	5	2'-8"	2'-1"							1,869
A503	16	20'-1"	Str.									335
A504	48	5'-4"	Str.									267
A505	64	7'-11"	5	1'-8"	3'-3"							529
A506	8	12'-8"	Str.									106
A507	32	4'-11"	Str.									164
A508	44	6'-8"	5	0'-11"	3'-0"							306
A509	44	8'-5"	5	2'-2"	3'-3							386
A510	8	8'-8"	Str.									72
A401	112	5'-5"	5	1'-9"	1'-11"							405
										Total		10,164

PIERS

MARK	NO.	LENGTH	TYPE	DIMENSIONS a	b	c	d	e	f	Rad.	Inc.	WEIGHT
P1001	20	38'-8"	Str.									3,328
P1002	40	23'-2"	4	2'-6"	21'-0"							3,988
P901	80	12'-2"	2	9'-8"								3,310
P801	128	6'-5"	4	1'-1"	5'-6"							2,193
P802	128	19'-3"	Str.									6,579
P701	40	22'-4"	2	20'-8"								1,826
P501	72	7'-4"	10	4'-2	1'-7"					1'-3 3/8"		551
P502	72	13'-4"	Str.									1,002
P503	8	16'-0"	Str.									134
P504	16	13'-6"	3	1'-7"	12'-0"	11'-4"	4'-0"					225
P505	8	28'-6"	Str.									238
P506	8	38'-8"	Str.									323
P507	68	13'-11"	5	2'-8"	5'-9"							987
	16 Ser.	6'-5"			2'-0"							
P508	of 11	to	5	2'-8"	to	(vary "b" by 2 1/2")					5"	1,559
	=176	10'-7"			4'-11"							
P509	60	10'-10"	2	9'-8"								678
										Total		26,921

SUPERSTRUCTURE

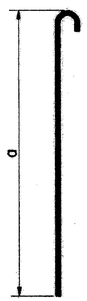
*MARK	NO.	LENGTH	TYPE	DIMENSIONS a	b	c	d	e	f	Rad.	Inc.	WEIGHT
A1050	228	41'-6"	Str.									40,715
B1050	72	29'-11"	1	28'-6"								9,269
C1050	76	26'-3"	1	24'-10"								8,585
D1050	36	26'-0"	Str.									4,028
E1050	38	19'-10"	Str.									3,243
F1150	148	29'-8"	Str.									23,328
G1150	68	14'-1"	Str.									5,088
H1150	72	9'-6"	Str.									3,635
J601	72	23'-5"	Str.									2,532
K601	36	19'-8"	Str.									1,063
N601	146	39'-6"	Str.									8,662
M701	232	39'-6"	Str.									18,732
										Total		128,880

* Mark taken from Standard Drawing CS-1-65, sheet 2.

REPLACEMENT BARS

MARK	NO.	LENGTH	TYPE	DIMENSIONS a	b	c
RE1100	2	7'-6"				
RE1000	4	9'-2"				
RE900	1	8'-1"	1	6'-10"		
RE800	1	6'-6"				
RE700	2	6'-2"				
RE600	1	5'-11"				
RE500	1	5'-7"				
RE400	1	5'-3"				

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 bar size and A1014 is a No. 10 size.



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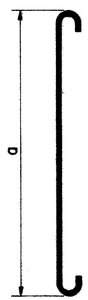

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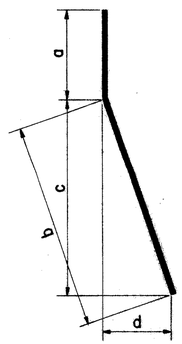

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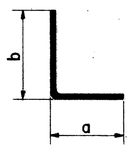

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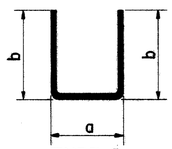

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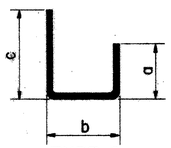

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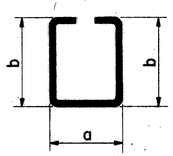

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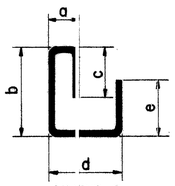

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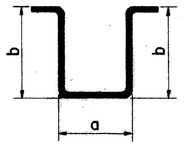

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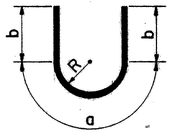

TYPE 10

BENDING DETAILS

REINFORCING STEEL LISTS

BRIDGE NO. JAC-346-0364 L&R
OVER
LITTLE RACCOON CREEK
JACKSON COUNTY STA. 1076+55.00 STA. 1077+73.50

DESIGNED	DRAWN BY	TRACED BY	CHECKED BY	REVIEWED	REVISED
A.S.B.	A.J.M.	A.J.M.	M.E. 11/16/66		

FRANKLIN ENGINEERING ASSOCIATES, LIMITED
COLUMBUS, OHIO