

HIGHLAND COUNTY
HIG-73-21.07
Approx. 0.3 Mile S.E. of Belfast

SPIRAL CURVE
P.I. Sta. = 1117+00.99
 $\Delta = 36^\circ - 30' Lt.$
Dc = 9°-00'
Ls = 300'
Ts = 361.59'
Es = 39.91'
Xc = 298.34'
Yc = 23.47'
Os = 13°-30'

SPIRAL CURVE
 $\Delta = 9^\circ - 30'$
Dc = 9°-00'
Lc = 105.56'

SPIRAL CURVE
P.I. Sta. = 1128+01.38
 $\Delta = 26^\circ - 40' Rt.$
Dc = 6°-00'
Ls = 300'
Ts = 377.13'
Es = 30.5'
Xc = 299.26'
Yc = 15.68'
Os = 9°-00'

PROPOSED STRUCTURE TYPE: Continuous concrete slab on reinf. conc. substructure
SPAN: 42'-52.5'-42' 9/16" bearings
LOAD FREQUENCY: CF = 130 (51)
SKEW: None
SURFACE COURSE: Bituminous
ALIGNMENT: Tangent
APPROACH SLABS: AS-1-54 (15' long)

FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of rod soundings and soil-sampling soundings made of 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.

EXISTING BRIDGE DATA

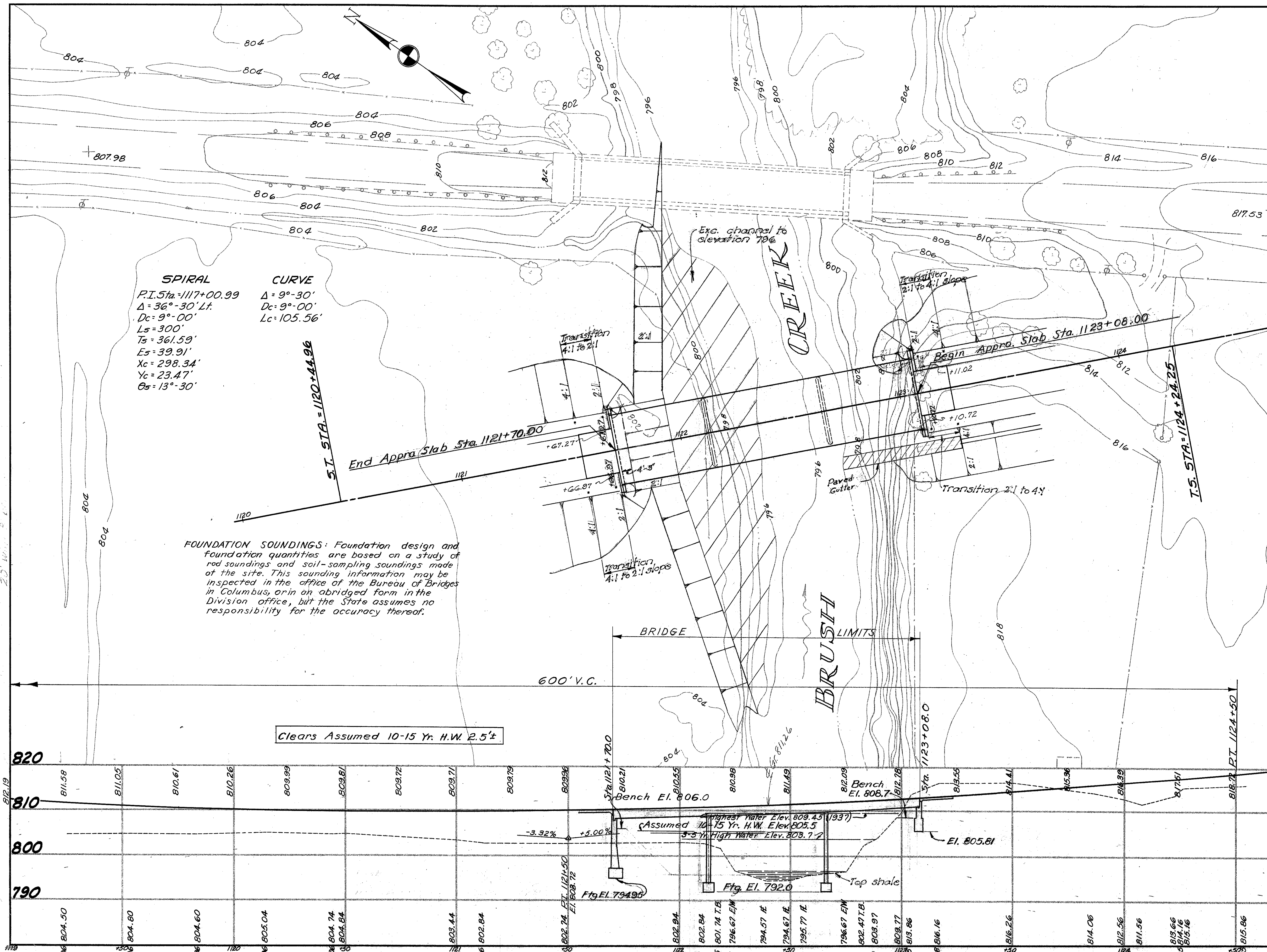
Bridge No.	HI - 73 - 212
Type	Covered Wood Truss
Span	118'-0"
Rdwy	16'-2"
Condition	Floor
Skew	0°-00'
Legal Load Reduced	75%

DRAINAGE AREA = 29.15 sq. Mi.

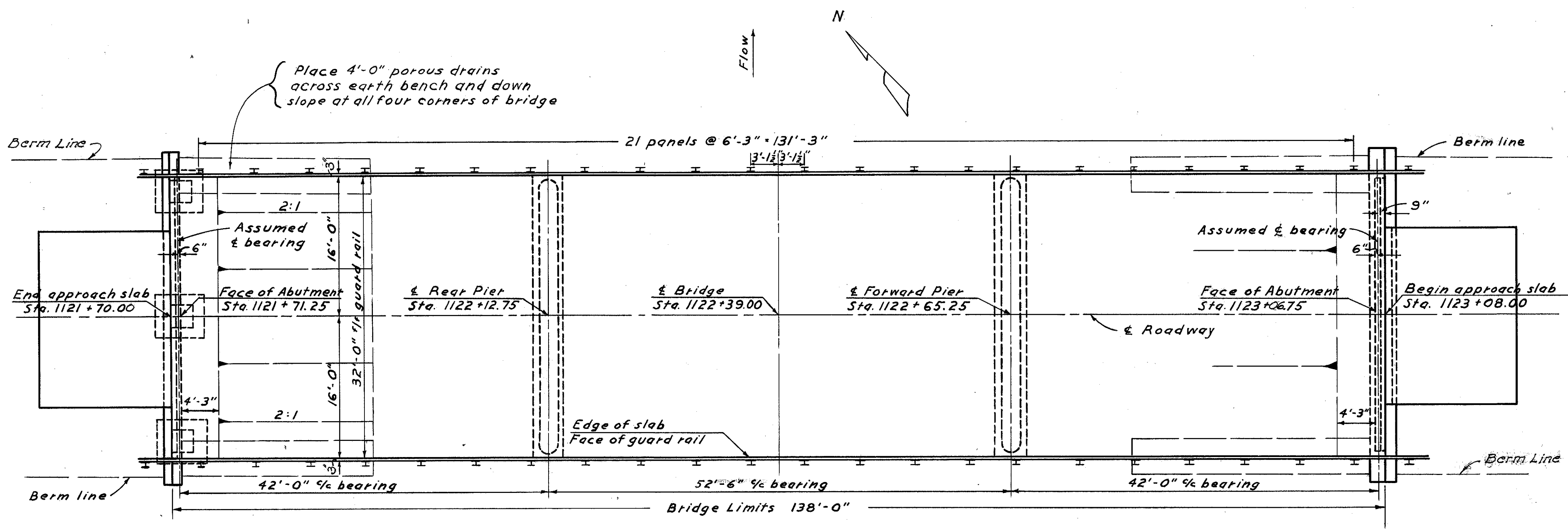
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

SITE PLAN
BRIDGE NO. HI - 73 - 212
OVER OHIO BRUSH CREEK
HIGHLAND CO. S.R. 73
SEC. HIG-73-21.07 STA. 1121+70.0
SCALE 1" = 20' STA. 1123+08.0

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
(Signature)	(Signature)	P.E.S.	P.E.S.	P.E.S.	P.E.S.



Clears Assumed 10-15 Yr. H.W. 2.5'



GENERAL PLAN

GENERAL NOTES

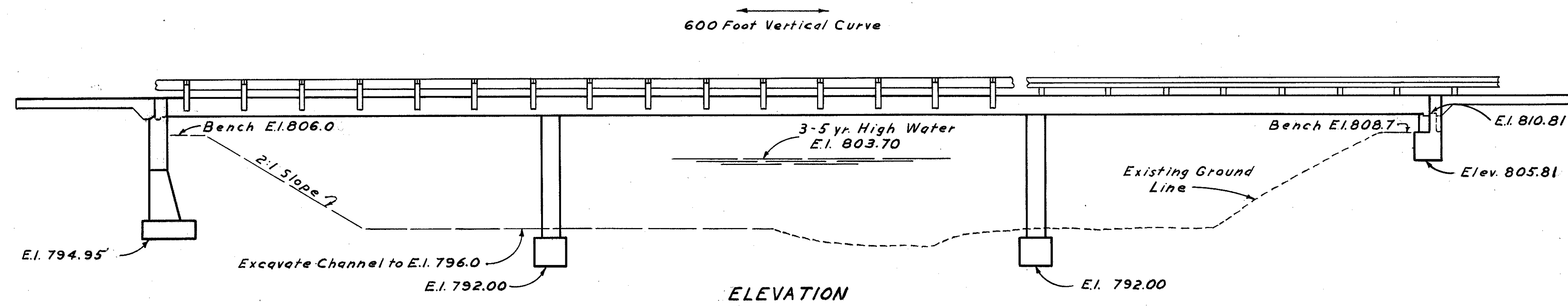
REFERENCE shall be made to Standard Drawings CS-1-54 dated 7-1-54, and A-1-54 dated 7-1-54.

REMOVAL OF EXISTING STRUCTURE: Existing superstructure shall be removed when no longer needed to maintain traffic. Steel beams shall be removed and piled along the right-of-way of the disposal of State Forces. The remainder shall become the property of the contractor.

Existing substructure shall be removed to 6" below existing ground at face of abutment and slopes dressed to 2:1. Removal of earth and dressing slopes shall be included with removal of existing structure for payment. All material removed shall be placed on embankment in front of and around abutments.

POROUS DRAINS, extending from face of abutment to Elev. 796 ±, shall be placed on and flush with embankment slopes at all four corners of the bridge. The drains shall be 4 ft wide and 1 ft thick and shall be 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 I-9. Trench excavation shall be included for payment with the price per cu. yd. bid for "Porous drains on embankment slopes."

EAST ABUTMENT shall be according to Standard Drawing A-1-54 except for omitting R401 reinforcing bars. No piling is to be used.



ELEVATION

ESTIMATED QUANTITIES				SUPER	PIERS	ABUTS.	GENRL.
ITEM	TOTAL	UNIT	DESCRIPTION				
E-2	Lump	Sum	Cofferdams, cribs and sheeting		Lump		
E-2	121	Cu. Yd.	Unclassified excavation			121	
E-2	49	Cu. Yd.	Shale excavation		40	9	
E-3	1071	Cu. Yd.	Channel excavation				1071
S-1	288	Cu. Yd.	Class "C" concrete, superstructure	288			
S-1	105	Cu. Yd.	Class "E" concrete, abutments and pier walls		63	42	
S-1	31	Cu. Yd.	Class "E" concrete, pier and rear abutment footings		24	7	
S-3	548	Sq. Yd.	Type "C" waterproofing	548			
S-4	66,088	Lb.	Reinforcing steel	59,754	2,211	3,976	147
S-9	5	Sq. Ft.	½" Premolded expansion joint filler	5			
S-14	276	Lin. Ft.	Railings, Type I-15.13 with galvanized steel posts	276			
S-24	Lump	Sum	Removal of existing structure			Lump	
S-29	13	Cu. Yd.	Porous backfill			13	
S-29	18	Cu. Yd.	Porous drains on embankment slopes				18
T-35	31	Cu. Yd.	Asphaltic concrete surface course, Type "A" or "C" (85-100)	31			

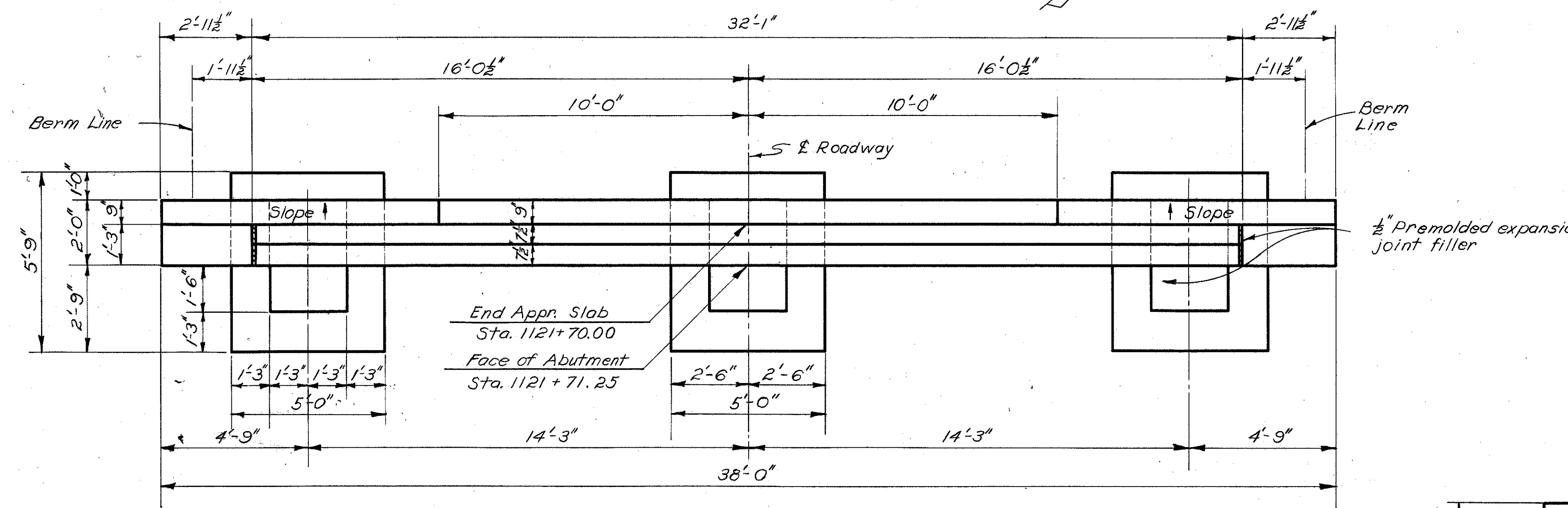
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

**GENERAL PLAN & ELEVATION
NOTES & ESTIMATED QUANTITIES**

BRIDGE NO. H1-73-212
OVER OHIO BRUSH CREEK

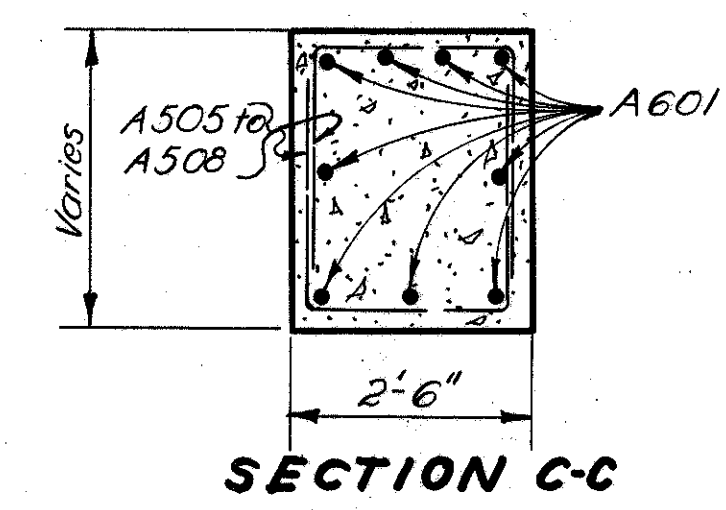
HIGHLAND COUNTY STA. 1121+70.00
SEC. HIG-73-2107 STA. 1123+08.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
CTR	CTR	E.B.L.	R.G.	BFG	10-21-54	

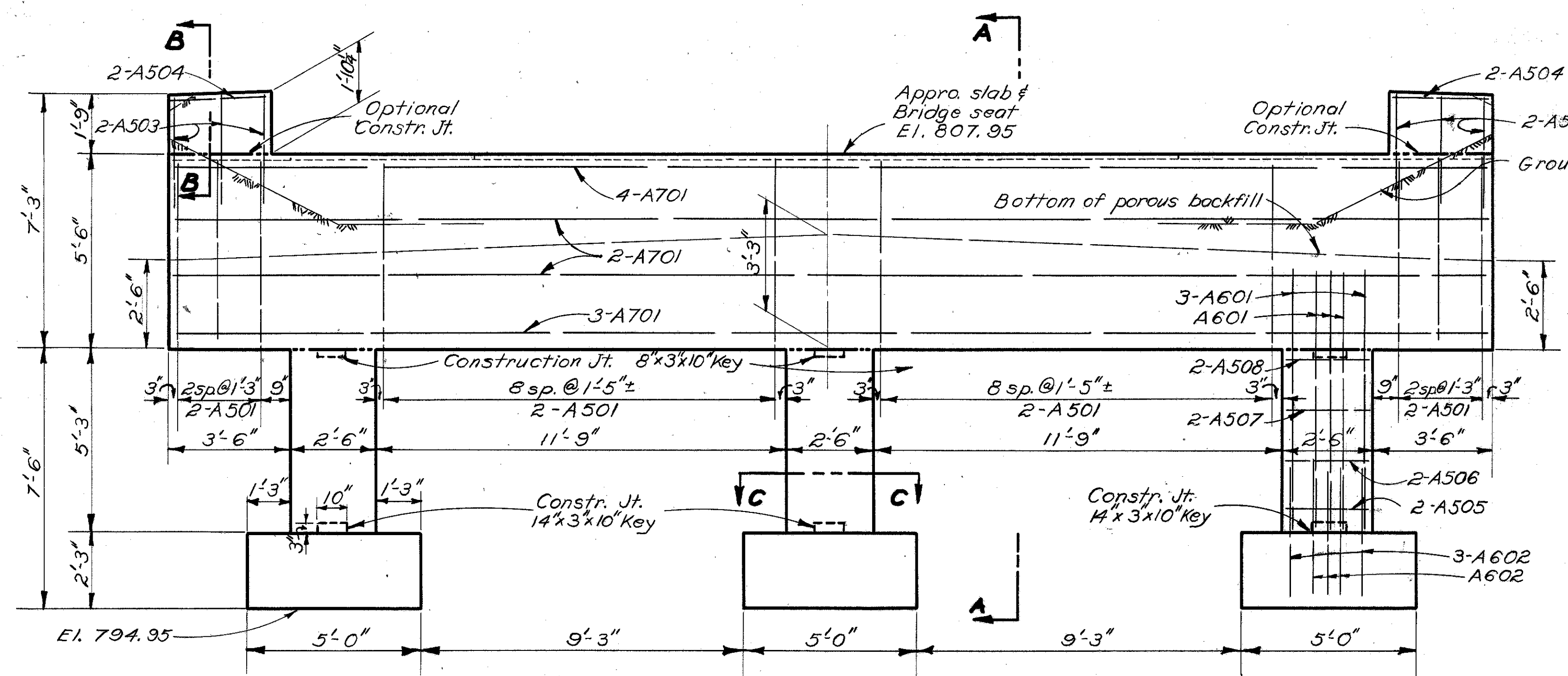


PLAN OF REAR ABUTMENT

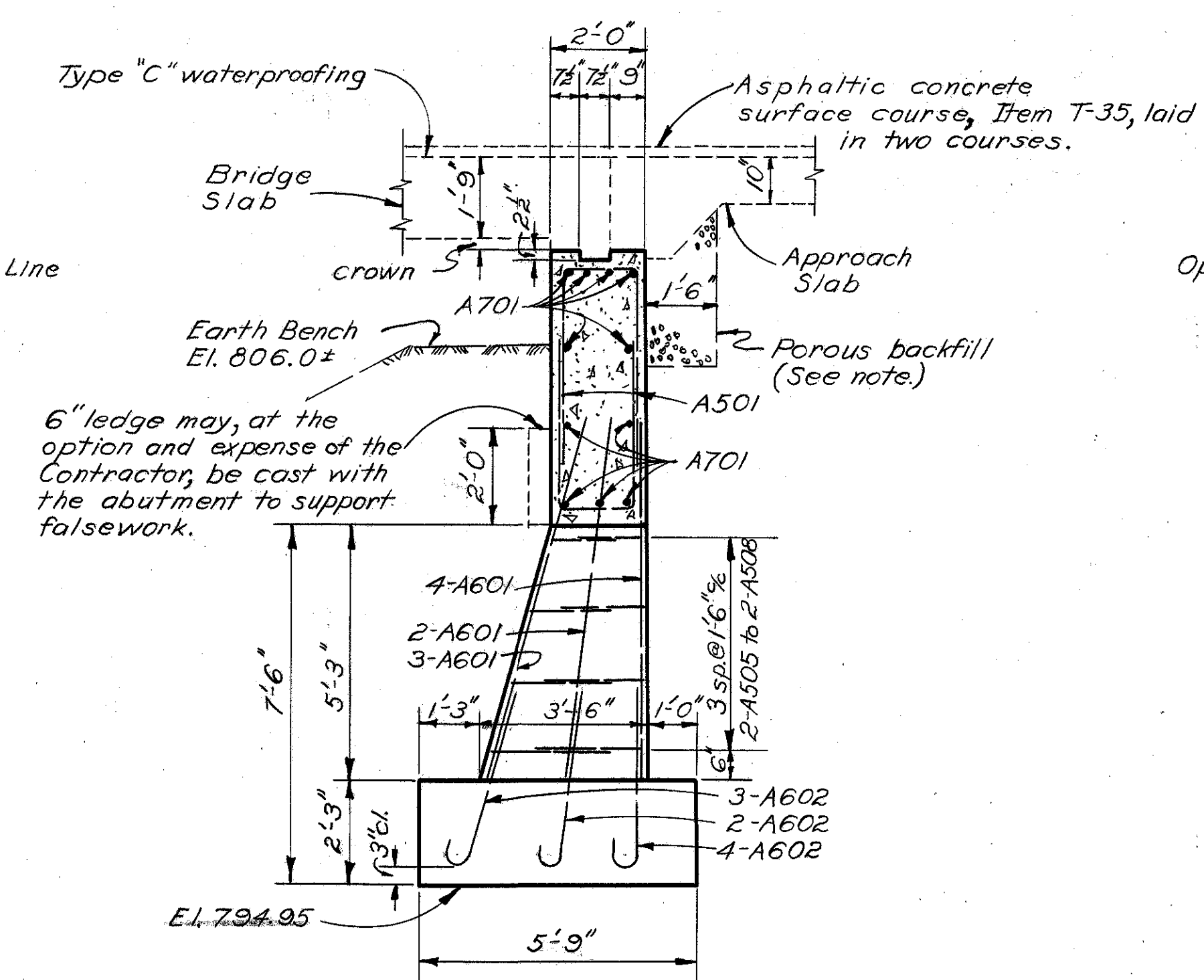
NOTES:
 REINFORCING STEEL shall be 2" clear from face of concrete unless otherwise shown.
 EARTH EMBANKMENT shall be placed to full height of earth bench after pedestals have been placed. Excavation shall then be made for crossbeam.
 EXCAVATION QUANTITY includes the removal of fill material between top of earth bench and bottom of abutment crossbeam.
 POROUS BACKFILL (see A-1-54).



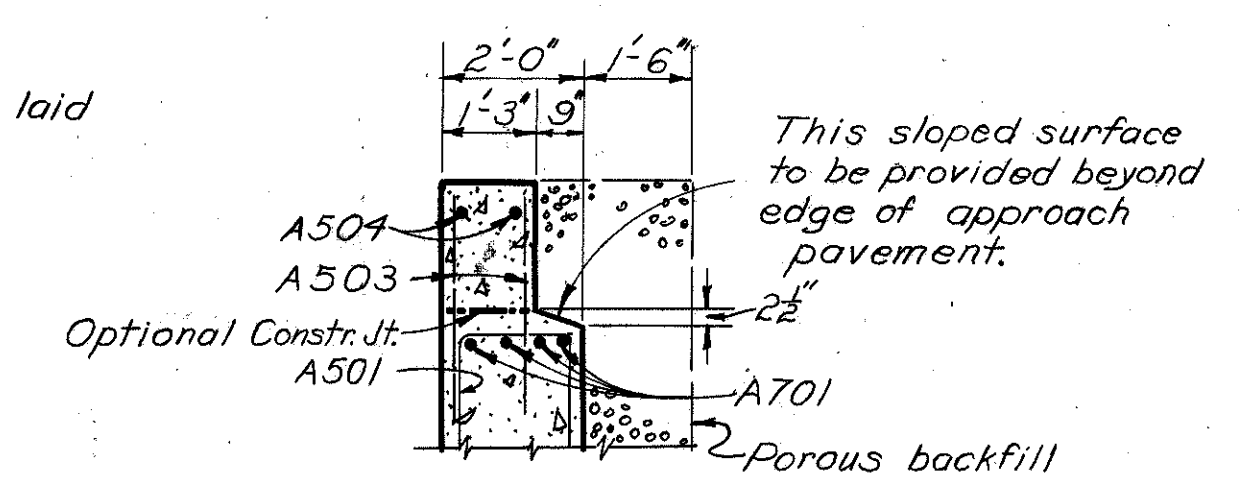
SECTION C-C



ELEVATION OF REAR ABUTMENT



SECTION A-A



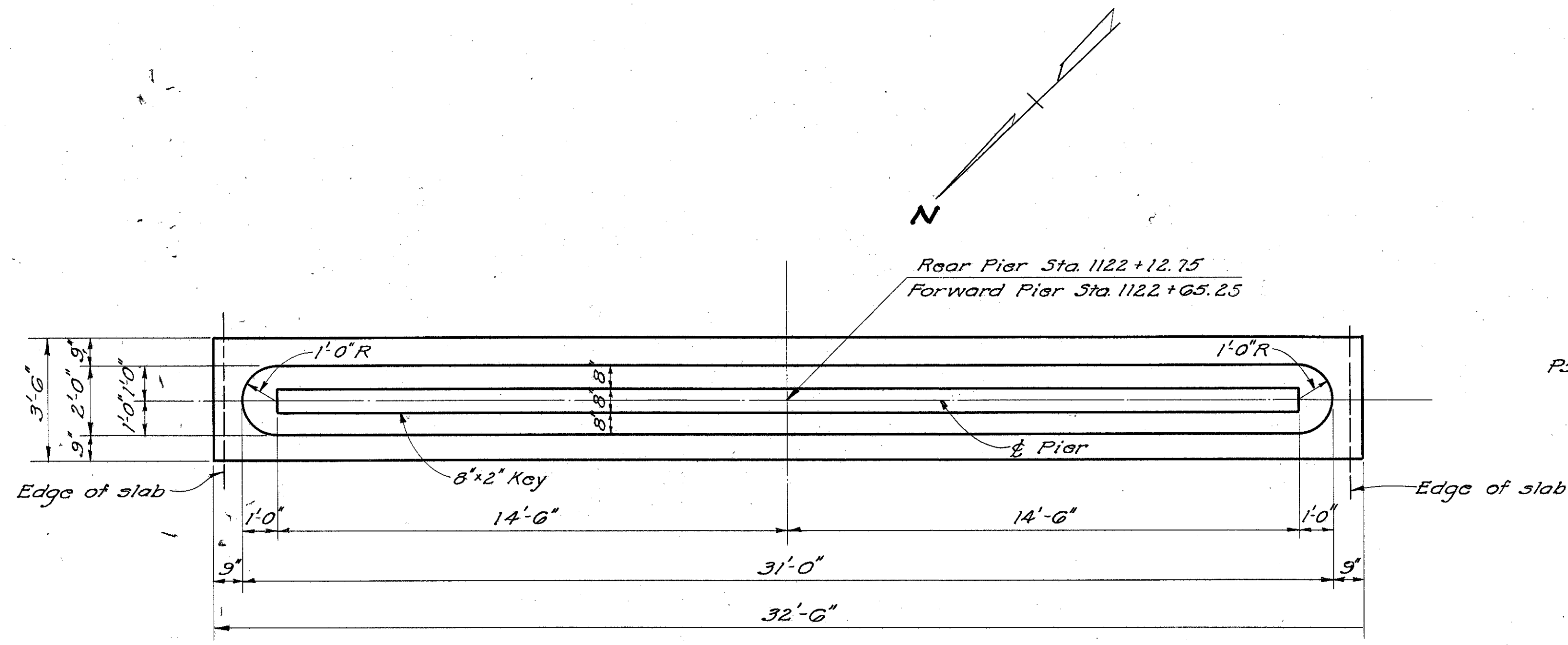
SECTION B-B

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

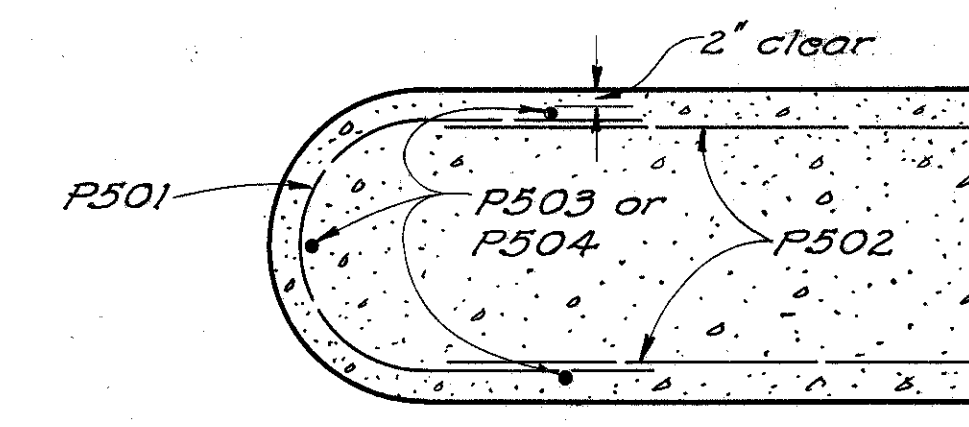
REAR ABUTMENT DETAILS
 BRIDGE No. HI-73-212
 OVER OHIO BRUSH CREEK

HIGHLAND COUNTY STA. 1121+70.00 to
 SEC. HIG-73-21.07 1123+08.00

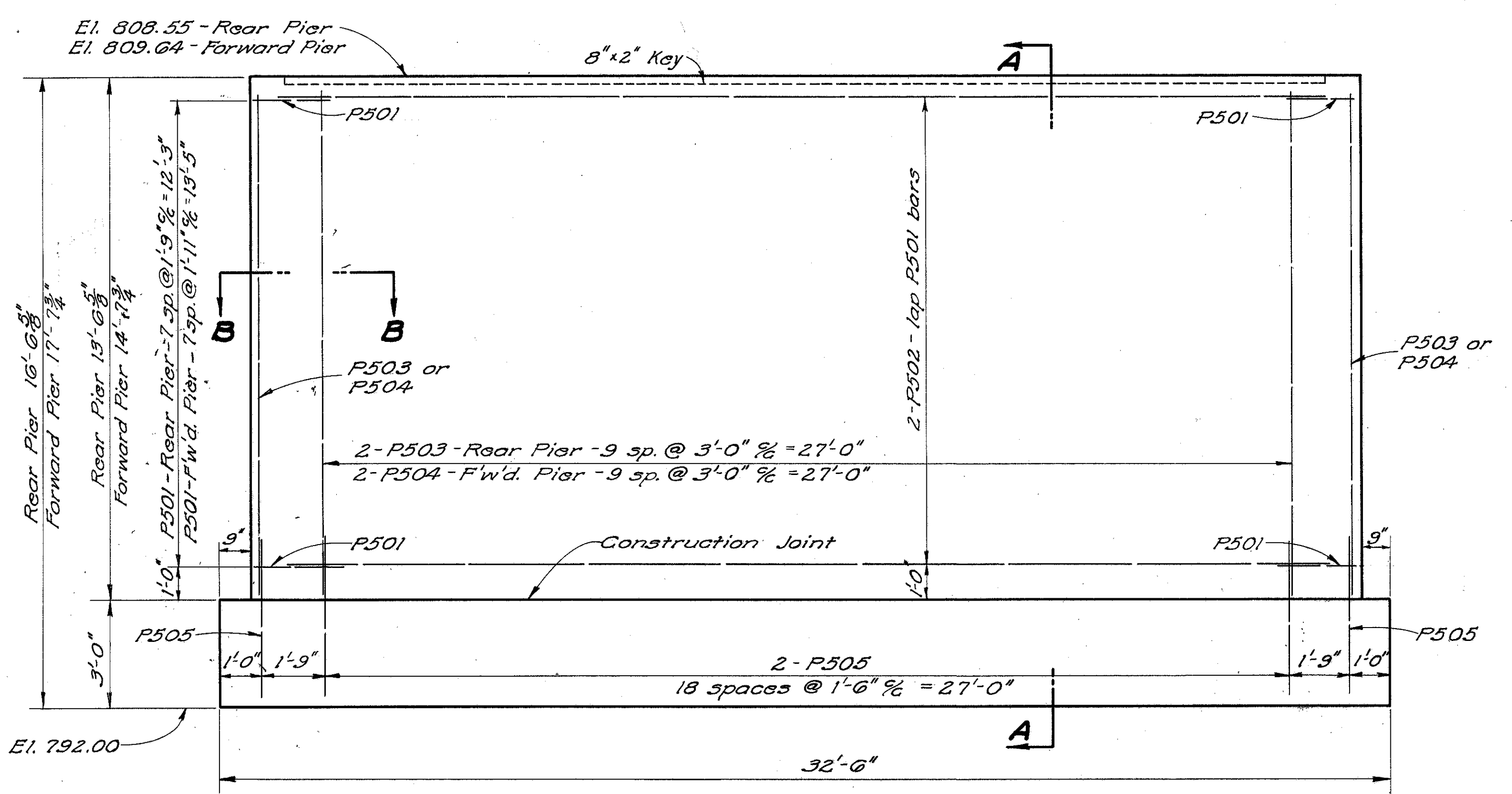
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
CTR	C.E.M.	B.D.H.	R.G.	BFG	10-21-54	



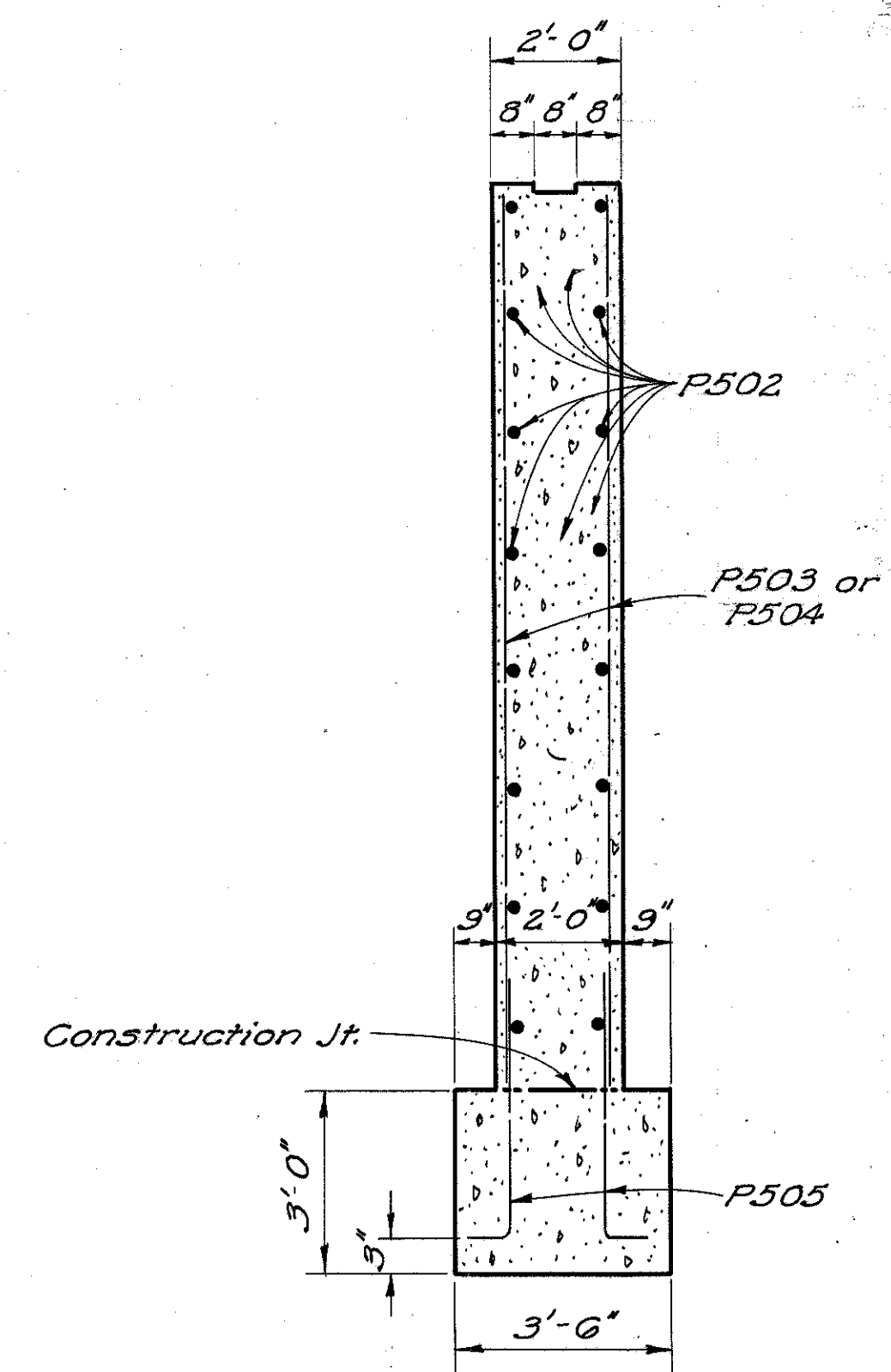
PLAN



SECTION B-B



ELEVATION

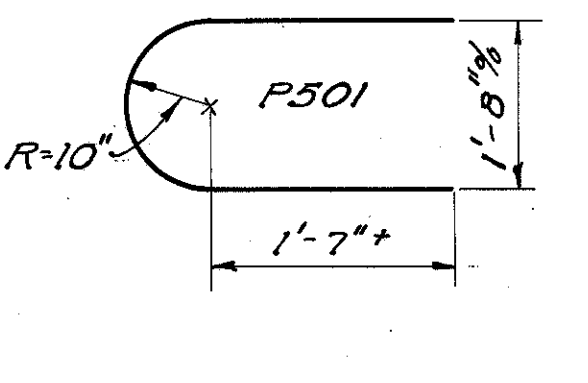


SECTION A-A

NOTE: Reinforcing steel shall be 2" clear from face of concrete unless otherwise shown.

REINFORCING STEEL LIST

MARK	No.	LENGTH	WEIGHT	SHR	BENDING DIAGRAMS	MARK	No.	LENGTH	WEIGHT	SHR					
Superstructure					West Abutment										
A1033	90	48'-0"	18389	3		A701	11	37'-6"	843	3					
B1033	30	33'-9"	4357	B		C1033									
C1033	28	29'-7"	3564	B		A601	27	7'-0"	284	3					
D1033	15	30'-6"	1969	3		A602	27	4'-7"	186	B					
E1033	14	22'-2"	1335	3		A501	48	7'-11"	396	B					
F1133	68	31'-4"	11320	3		A503	12	3'-5"	43	3					
G1133	34	15'-4"	2770	3	A504	4	2'-7"	11	3						
H1133	32	10'-0"	1700	3	A505	6	6'-7"	41	B						
J601	34	28'-6"	1455	3	A506	6	6'-3"	39	B						
K601	17	25'-8"	655	3	A507	6	5'-11"	37	B						
NG01	83	31'-6"	3927	3	A508	6	5'-3"	33	B						
M701	126	31'-6"	8113	3	Piers										
East Abutment					R501	8	19'-7"	163	3	P501	32	5'-8"	189	B	
R1001	8	16'-11"	582	3	R502	58	6'-7"	398	B	P502	32	29'-0"	968	3	
R801	8	20'-1"	429	3	R503	4	16'-1"	67	3	P503	22	13'-4"	306	3	
R501	8	19'-7"	163	3	R504	12	5'-4"	67	3	P504	22	14'-5"	331	3	
R502	58	6'-7"	398	B	R505	14	7'-11"	116	B	P505	80	5'-0"	417	B	
R503	4	16'-1"	67	3	R506	4	8'-8"	36	3	Replacement Bars					
R504	12	5'-4"	67	3	R507	8	4'-11"	41	3	RE11	1	7'-7"	40	3	
R505	14	7'-11"	116	B	R508	10	7'-4"	76	B	RE10	2	7'-3"	62	3	
R506	4	8'-8"	36	3	R509	10	8'-5"	88	B	RE8	1	6'-6"	17	3	
R507	8	4'-11"	41	3							RE7	1	6'-9"	13	3
R508	10	7'-4"	76	B							RE6	1	5'-11"	9	3
R509	10	8'-5"	88	B							RE5	1	5'-7"	6	3



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

PIER DETAILS & REINFORCING STEEL LIST
BRIDGE NO. HI-73-212
OVER OHIO BRUSH CREEK
HIGHLAND COUNTY STA. 1121+70.00
SEC. HIG-73-21.07 STA. 1123+08.00

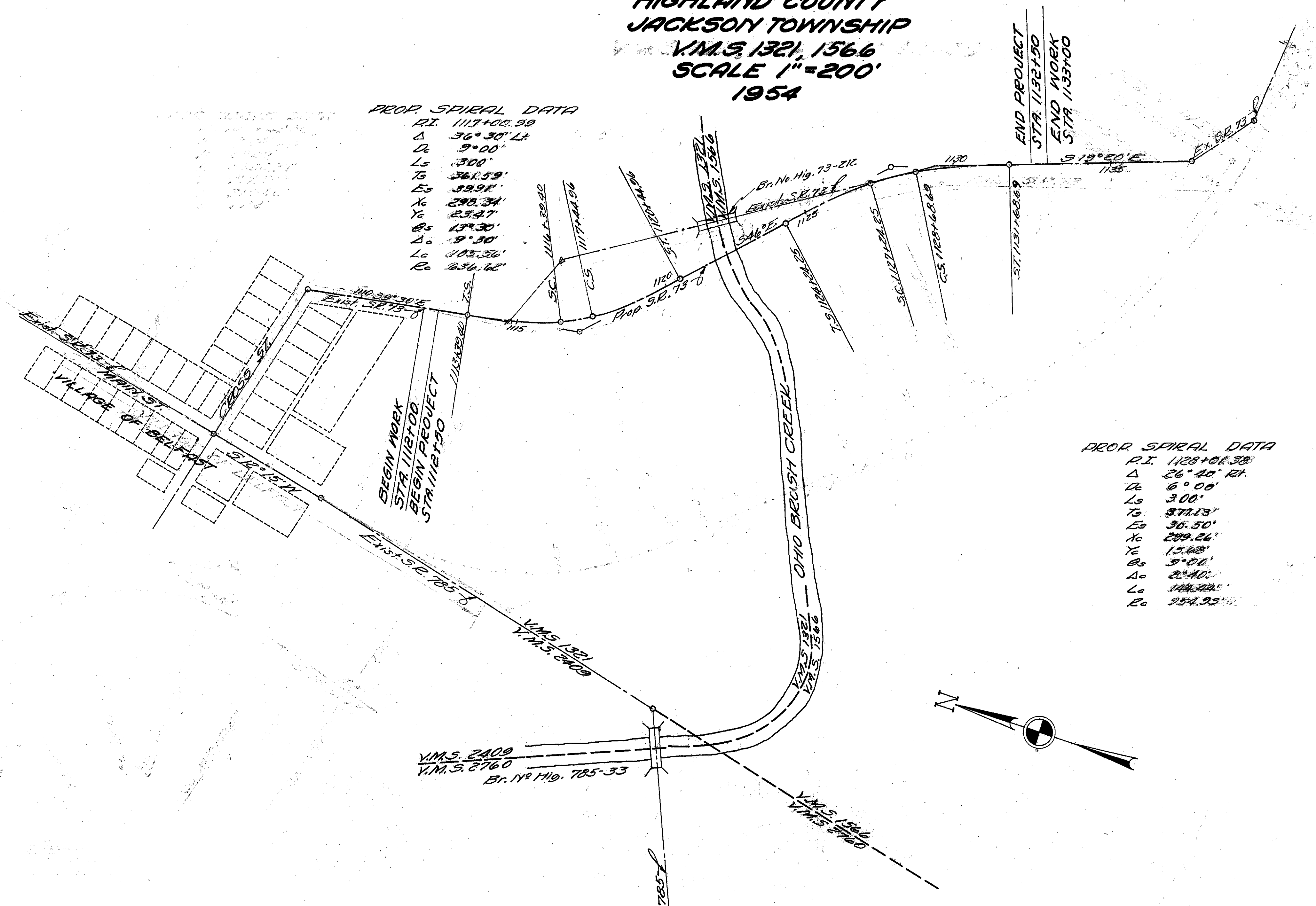
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
CTR	CEM	JDJ	R.G.	Q. J.	10-21-54	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		



LOCATION PLAN

STATE OF OHIO DEPARTMENT OF HIGHWAYS
STATE ROUTE NO 73
SECTION 21.07
HIGHLAND COUNTY
JACKSON TOWNSHIP
V.M.S. 1321, 1566
SCALE 1"=200'
1954

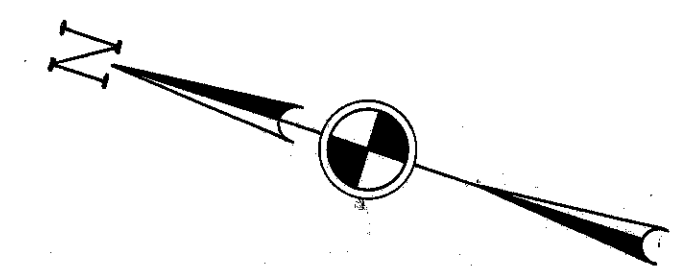


PROP SPIRAL DATA

P.I.	1117+00.99
Δ	36° 30' Lt
Lt	9° 00'
Ls	300'
Ts	361.59'
Es	59.91'
Xc	298.34'
Yc	23.47'
Os	13° 30'
Δo	9° 30'
Lo	105.58'
Ro	636.62'

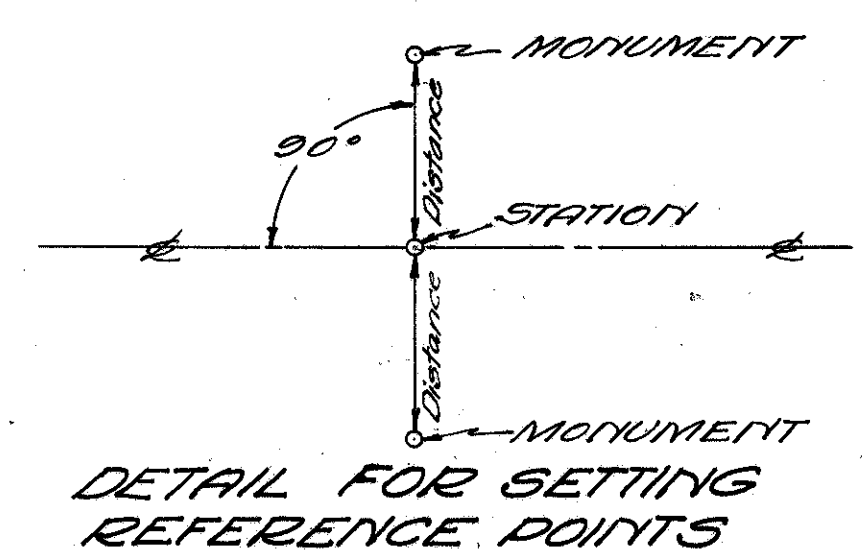
PROP SPIRAL DATA

P.I.	1128+01.38
Δ	26° 40' Rt
Lt	6° 00'
Ls	300'
Ts	371.13'
Es	36.50'
Xc	299.26'
Yc	15.88'
Os	9° 00'
Δo	2° 40'
Lo	144.32'
Ro	254.25'



REFERENCE POINTS TO BE SET AFTER CONSTRUCTION

Station	Dist. from E		Station	Dist. from E		Station	Dist. from E	
	Lt.	Rt.		Lt.	Rt.		Lt.	Rt.
1112+50	17'	17'	1117+49.6	17'	17'	1127+24.25	17'	17'
1113+39.40	17'	17'	1120+44.96	17'	17'	1129+68.69	17'	17'
1116+39.40	17'	17'	1124+24.25	17'	17'	1134+68.69	17'	17'
						1132+50	17'	17'



RECORDED IN HIGHLAND COUNTY RECORDS
BOOK 2 PAGE 21 DATE Dec. 16, 1954

NOTE:
This relocation was approved by the Director of Highways on 6 Dec. 1954 and recorded in his Journal Volume 39 Page 797

I HEREBY CERTIFY THAT THIS PLAN IS A TRUE DELINEATION OF A SURVEY MADE BY THE OHIO DEPARTMENT OF HIGHWAYS.
Date 1/4/54
Joseph M. Doyle
DIVISION ENGINEER
DIVISION 9 (R.E. 1209)

UTILITIES:
 Telephone Line Owned By The Ohio Bell Telephone Company; Cleveland, Ohio

Power Line Owned By The Inter County Rural Electrification Cooperative Association; Hillsboro, Ohio

PROP SPIRAL DATA
 P.I. 1117+00.99
 Δ 36°30' Lt.
 D_c 9°00'
 L_s 300'
 T_s 361.59'
 E_s 39.91'
 X_c 298.34'
 Y_c 23.47'
 θ_c 13°30'
 Δ_c 9°30'
 L_c 105.56'

EXIST CURVE DATA
 Δ 57°50' Lt.
 R 26°45'
 T 214.19'
 L 113.32'
 E 216.20'
 F 30.51'

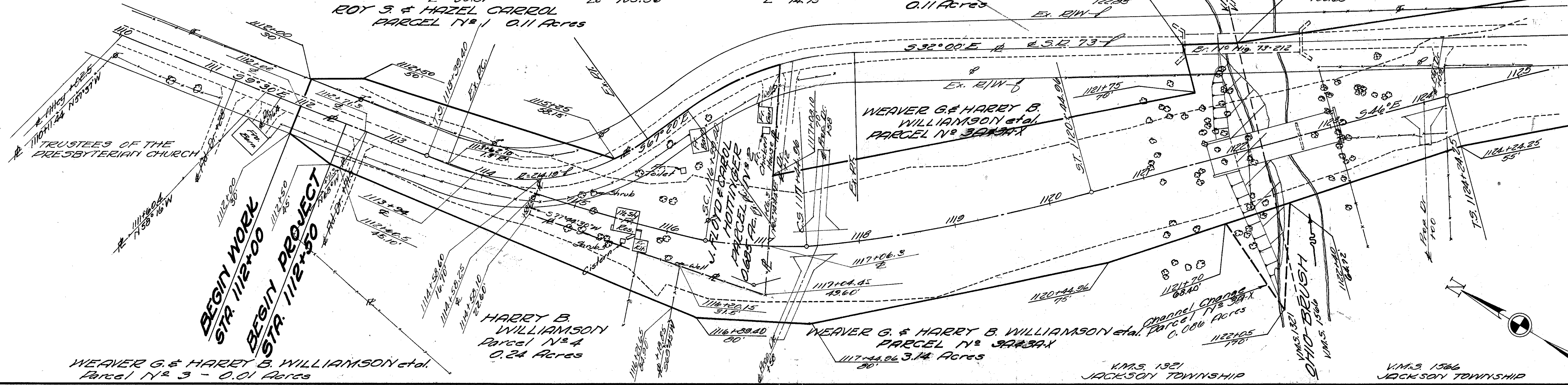
EXIST CURVE DATA
 Δ 35°20' Rt.
 R 19°15'
 T 24.80'
 L 183.53'
 E 14.73'

V.M.S. 1321
 JACKSON TOWNSHIP

V.M.S. 1566
 JACKSON TWP

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	S-553 (6)	1954

**R/W PLAN
 HIG. 73-21.07
 HIGHLAND COUNTY
 1954**



PROP SPIRAL CURVE
 P.I. 1128+01.38
 Δ 26°40' Rt.
 D_c 6°00'
 L_s 300'
 T_s 377.13'
 E_s 30.5'
 X_c 299.26'
 Y_c 15.68'
 θ_c 9°00'
 Δ_c 8°40'
 L_c 104.44'

EXIST. CURVE DATA
 Δ 12°40' Rt.
 R 1273.24'
 T 141.32'
 L 281.48'
 E 7.82'

WEAVER G & HARRY B WILLIAMSON et al.
 PARCEL No 3 3.14 Acres

V.M.S. 1566
 JACKSON TOWNSHIP

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 18 SAMPLES TESTED

DESCRIPTION	H. R. B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
GRAVEL & SILT-CLAY	A-2-6(a)	A-2-6	43	18	20	5	14	34	15	14	2
SANDY SILT	A-4(a)	A-4a	2	2	36	38	22	23	7	19	2
SILT	A-4(b)	A-4b	6	5	10	53	26	26	6	21	2
SILT & CLAY	A-6(a)	A-6a	18	5	6	26	45	33	13	18	3
CLAY	A-6(b)	A-6b	7	5	14	37	37	36	18	15	4
ORGANIC TOP SOIL	A-7-5(a)	A-7-5a	0	2	7	59	32	45	17	35	1
CLAY	A-7-6(a)	A-7-6	12	3	9	28	48	53	29	25	4

AUGER BORING. PLOTTED TO VERTICAL SCALE ONLY.
 AUGER BORING- PLAN VIEW.
 • MOISTURE CONTENT NEARLY EQUAL TO OR GREATER THAN THE LIQUID LIMIT.
 NOTE: FIGURES BESIDE BORINGS INDICATE MOISTURE CONTENT IN PERCENT.

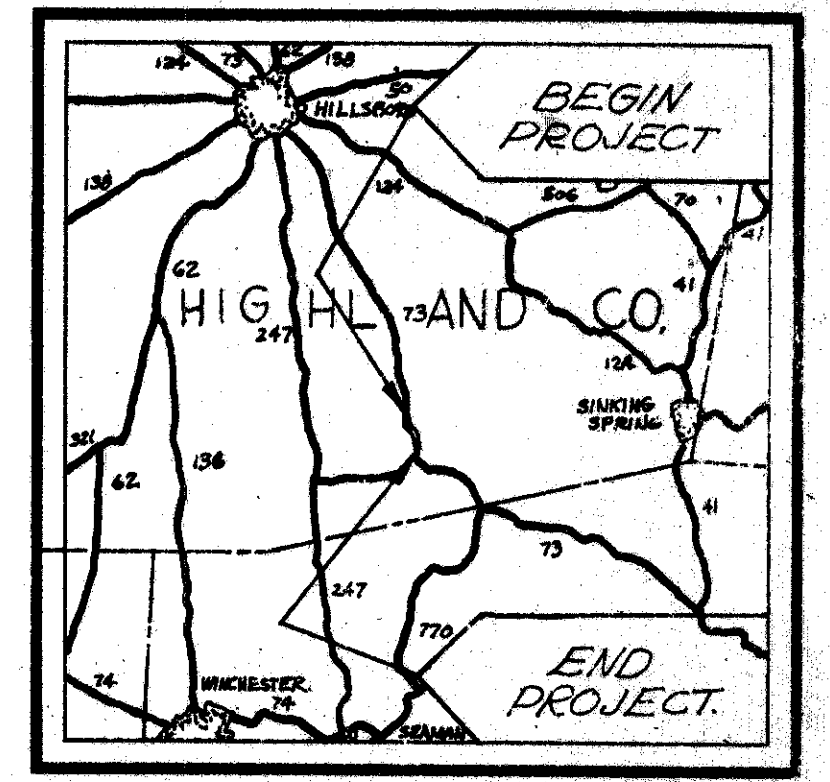
BERM MATERIAL.
 TOP SOIL. TS=X' = APPROX. DEPTH.

-SAMPLES TESTED-
 LAB. NOS. SO-1747-1763 INCL. & 1768.
 MOISTURE DENSITY SAMPLE-
 LAB. NO. SO-1768.

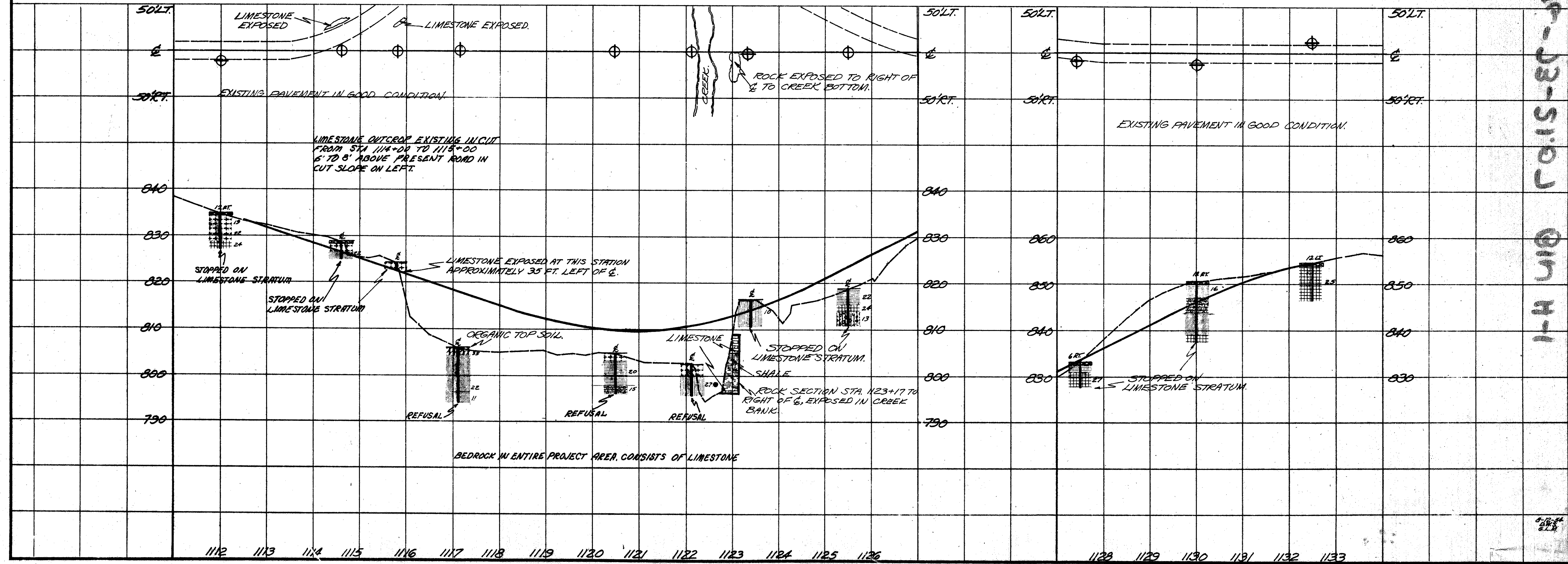
SOIL PROFILE
HIGHLAND COUNTY.
HIG-73-(21.07).
STATE HIGHWAY TESTING AND RESEARCH LABORATORY
 O. S. U. CAMPUS, COLUMBUS, OHIO

NOTE: THE INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS SECURED FOR THE USE OF THE STATE OF OHIO AND IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING THE CONSTRUCTION OF THE PROJECT.

FED. NO.-S:553-6



LOCATION MAP



HIG-73-5103 0114-1