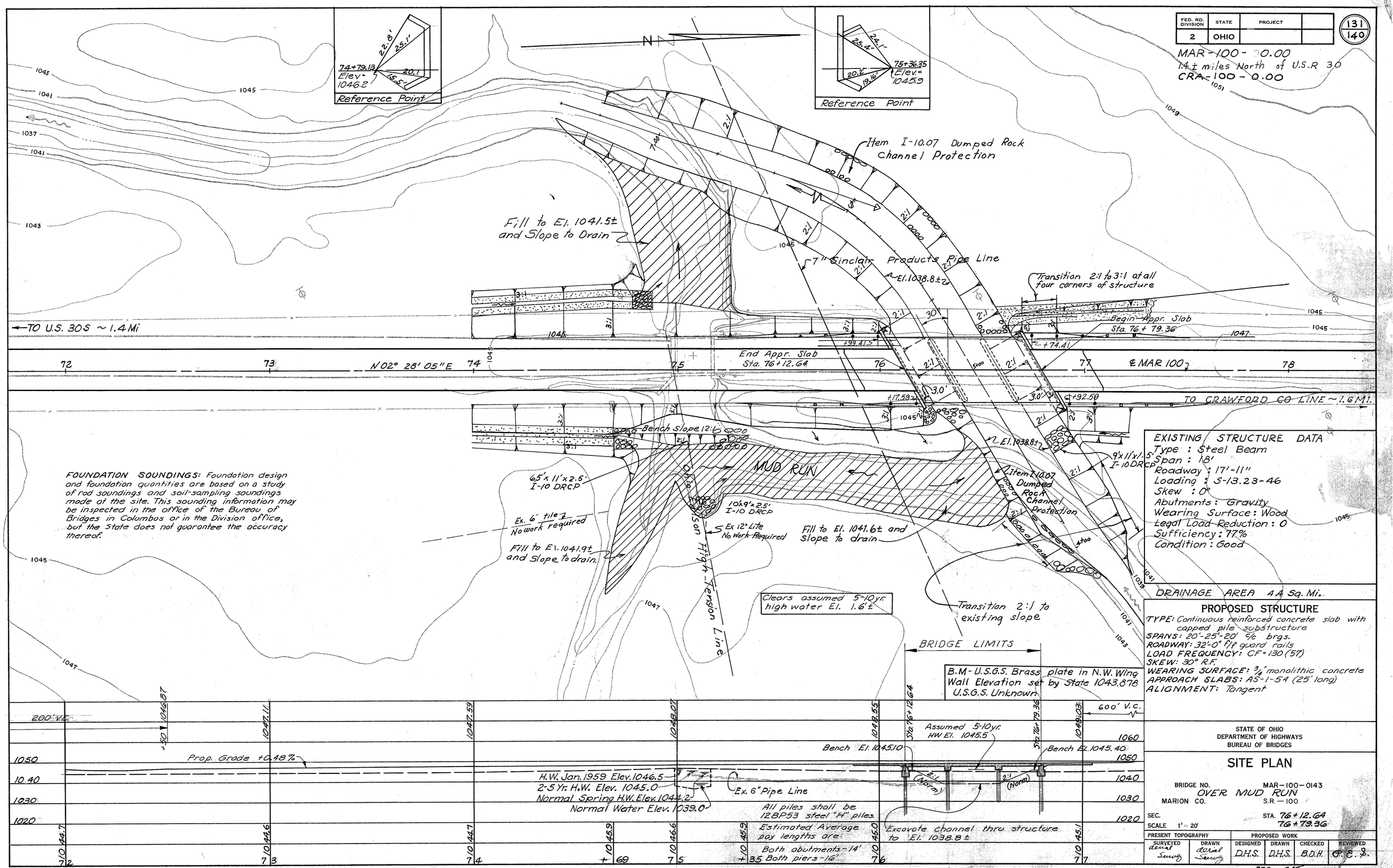
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

131
140

MAR-100-0.00
1.4± miles North of U.S.R 30
CRA-100-0.00



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 STRUCTURE DATA
Type : Steel Beam
Span : 18'
Roadway : 17'-11"
Loading : S-13.23-46
Skew : 0°
Abutments : Gravity
Wearing Surface : Wood
Legal Load Reduction : 0
Sufficiency : 77%
Condition : Good

DRAINAGE AREA 4.4 Sq. Mi.

PROPOSED STRUCTURE
TYPE: Continuous reinforced concrete slab with capped pile substructure
SPANS: 20'-25'-20' c/c brgs.
ROADWAY: 32'-0" F/F guard rails
LOAD FREQUENCY: CF-130 (57)
SKEW: 30° R.F.
WEARING SURFACE: 3/4" monolithic concrete
APPROACH SLABS: AS-1-54 (25' long)
ALIGNMENT: Tangent

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

SITE PLAN

BRIDGE NO. MAR-100-0143
OVER MUD RUN
MARION CO. S.R. — 100

SEC.
STA. 76+12.64 / 76+79.36
SCALE 1" = 20'

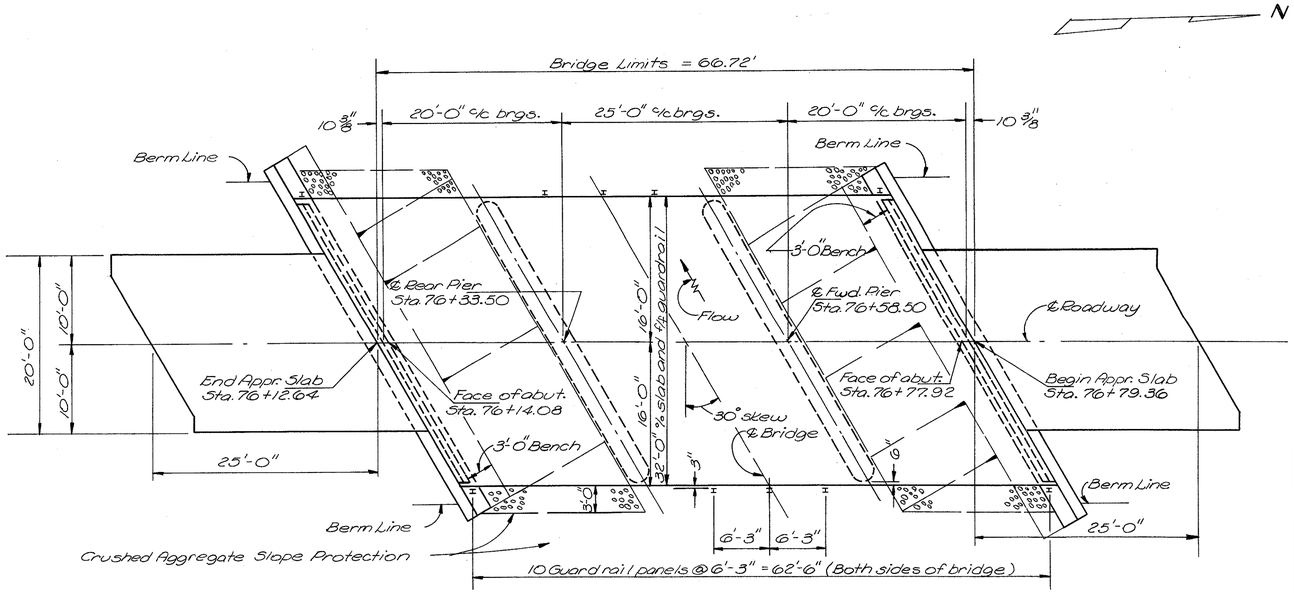
PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
Aerial Survey	Aerial Survey	D.H.S.	D.H.S.	B.D.H.	C.E.S.

BFG 3-16-61

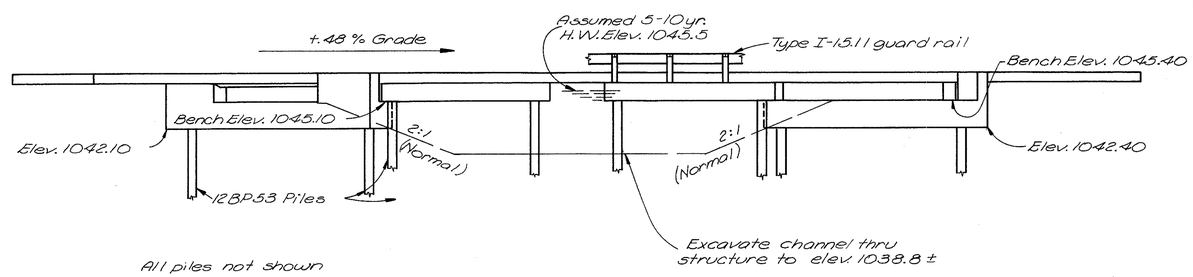
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

132
140

MAR-100-0.00
CRA-100-0.00



GENERAL PLAN



All piles not shown

ELEVATION

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Superst.	Abuts	Piers	Gen'l		
E-2	52	Cu. Yds.	Unclassified excavation		52				
E-3	2297	Cu. Yds.	Channel excavation				2297		
S-1	98	Cu. Yds.	Class "C" concrete, superstructure and pier	85		13			
			caps.						
S-1	44	Cu. Yds.	Class "E" concrete, abutments		44				
S-4	28,009	Lbs.	Reinforcing steel	20,313	4,932	2,764			
S-14	133.44	Lin. ft.	Railing (Type I-15.11 with galvanized steel	133.44					
			posts and bolts).						
S-16	Lump	Sum	First test pile				Lump		
S-18	430	Lin. ft.	Steel piles, 12 BP.53		200	230			
S-24	Lump	Sum	Removal of existing structure				Lump		
S-29	14	Cu. Yds.	Porous backfill		14				
I-10	165	Sq. Yds.	Crushed aggregate slope protection				165		
I-10	241	Cu. Yds.	Dumped rock channel protection				241		

GENERAL NOTES

REFERENCE shall be made to Standard Drawings A-1-54, P-1-54, and CS-1-54 sheets 1 & 2, revised 12-1-54, 2-2-59, and 7-16-56 respectively.

REMOVAL OF EXISTING STRUCTURE: When no longer needed to maintain traffic the existing structure shall be removed. Structural steel beams, steel beam guard rail and the 3" x 4" strip floor shall be carefully dismantled and piled along the right-of-way for disposal by the State's forces. Strip flooring shall be removed in units of not more than 3 ft. wide.

PILING shall be driven through the extremely weathered shale overburden to firm contact with an underlying medium firm shale bedrock. Therefore, the tip of each pile shall penetrate at least to elevation 1030.0 ±. The design load is 20 tons per pile.

PIER PILE ENCASEMENT as shown on Std. Dwg. P-1-54 is not required. The painting of the piles shall extend to low water elevation or, if the proposed surface of the ground is above low water, it shall extend to at least one foot below the proposed surface of the ground.

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

GENERAL PLAN, ELEVATION, NOTES & ESTIMATED QUANTITIES

BRIDGE No. MAR-100-0143
OVER MUD RUN
Sta. 76+12.64
76+79.36

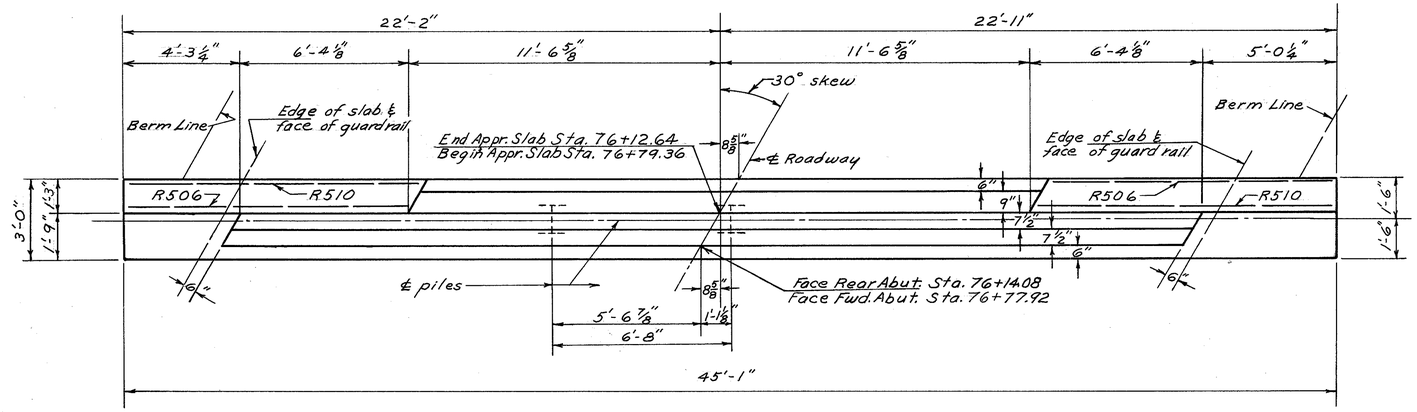
MARION COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
K.L.H.	K.L.H.	M.K.H.	D.C.H.	BFG afT	7-16-61	

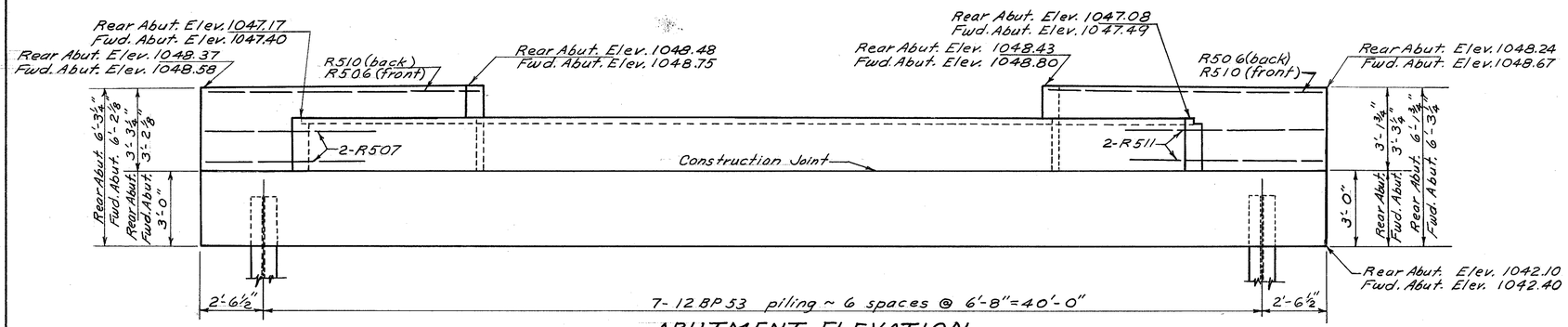
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

133
140

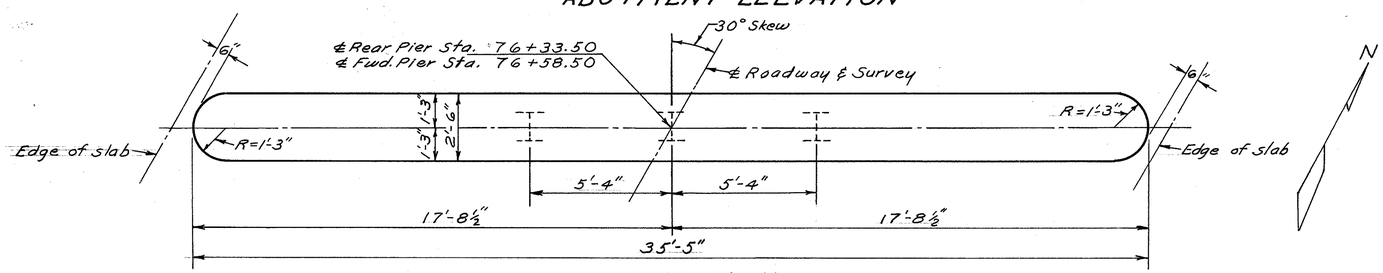
MAR-100-0.00
CRA-100-0.00



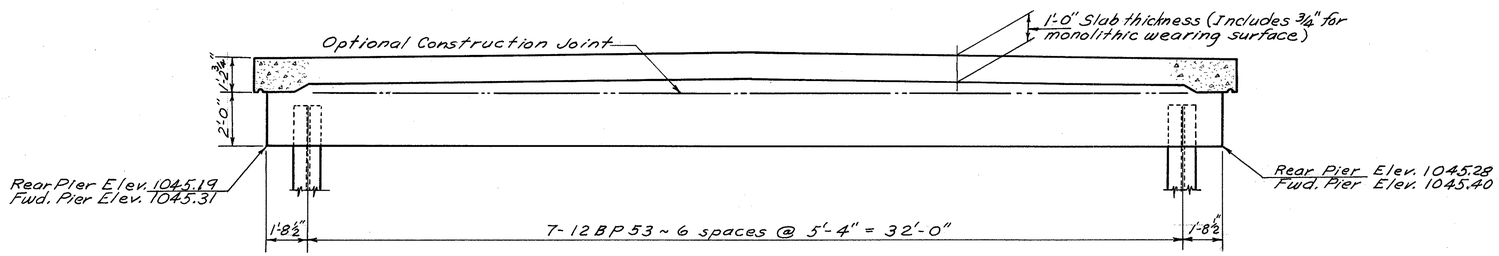
ABUTMENT PLAN



ABUTMENT ELEVATION



PIER PLAN

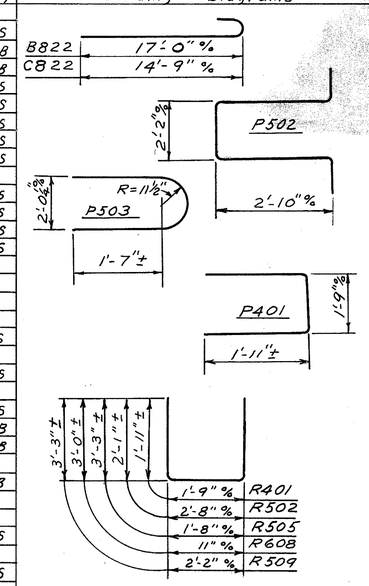


PIER ELEVATION

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shp.
Superstructure				
A822	78	23'-9"	4946	S
B822	26	18'-1"	1255	B
C822	24	15'-10"	1015	B
D822	13	17'-10"	619	S
E822	12	13'-4"	427	S
F822	62	20'-2"	3338	S
G822	30	11'-7"	928	S
H822	30	10'-7"	848	S
J601	32	13'-1"	629	S
K601	16	10'-5"	250	S
M601	64	36'-4"	3493	S
N601	47	36'-4"	2565	S
Piers				
P1001	8	36'-4"	1251	S
P901	8	32'-11"	895	S
P501	4	32'-11"	137	S
P502	24	9'-0"	225	B
P503	8	6'-4"	53	B
P401	56	5'-5'	203	B
Abutments				
R1001	16	19'-4"	1331	S
R801	16	23'-8"	1011	S
R501	16	23'-2"	387	S
R502	136	6'-7"	934	B
R503	8	18'-7"	155	S
R504	24	5'-4"	136	S
R505	32	7'-11"	264	B
R506	4	10'-4"	43	S
R507	8	5'-11"	49	S
R508	20	6'-8"	139	B
R509	20	8'-5"	176	B
R510	4	11'-0"	46	S
R511	8	7'-0"	58	S
R401	56	5'-5"	203	B
Replacement Bars				
RE1001	1	7'-2"	—	S
RE901	1	6'-10"	—	S
RE801	1	6'-6"	—	S
RE601	1	5'-11"	—	S
RE501	1	5'-7"	—	S
RE401	1	4'-0"	—	S

Bending Diagrams



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, A822 is a No. 8 size bar and RE1001 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. S-4.02 need not be furnished and replacement bars will not be required.

For additional details see Standard Drawings A-1-54 and P-1-54

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

PIER & ABUTMENT DETAILS & REINFORCING STEEL LIST

BRIDGE NO. MAR-100-0143
OVER MUD RUN
Sta. 76+12.64
76+79.36
MARION COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
K.L.H.	K.L.H.	N.L.D.	DGP	BFG GPG	3-16-61	