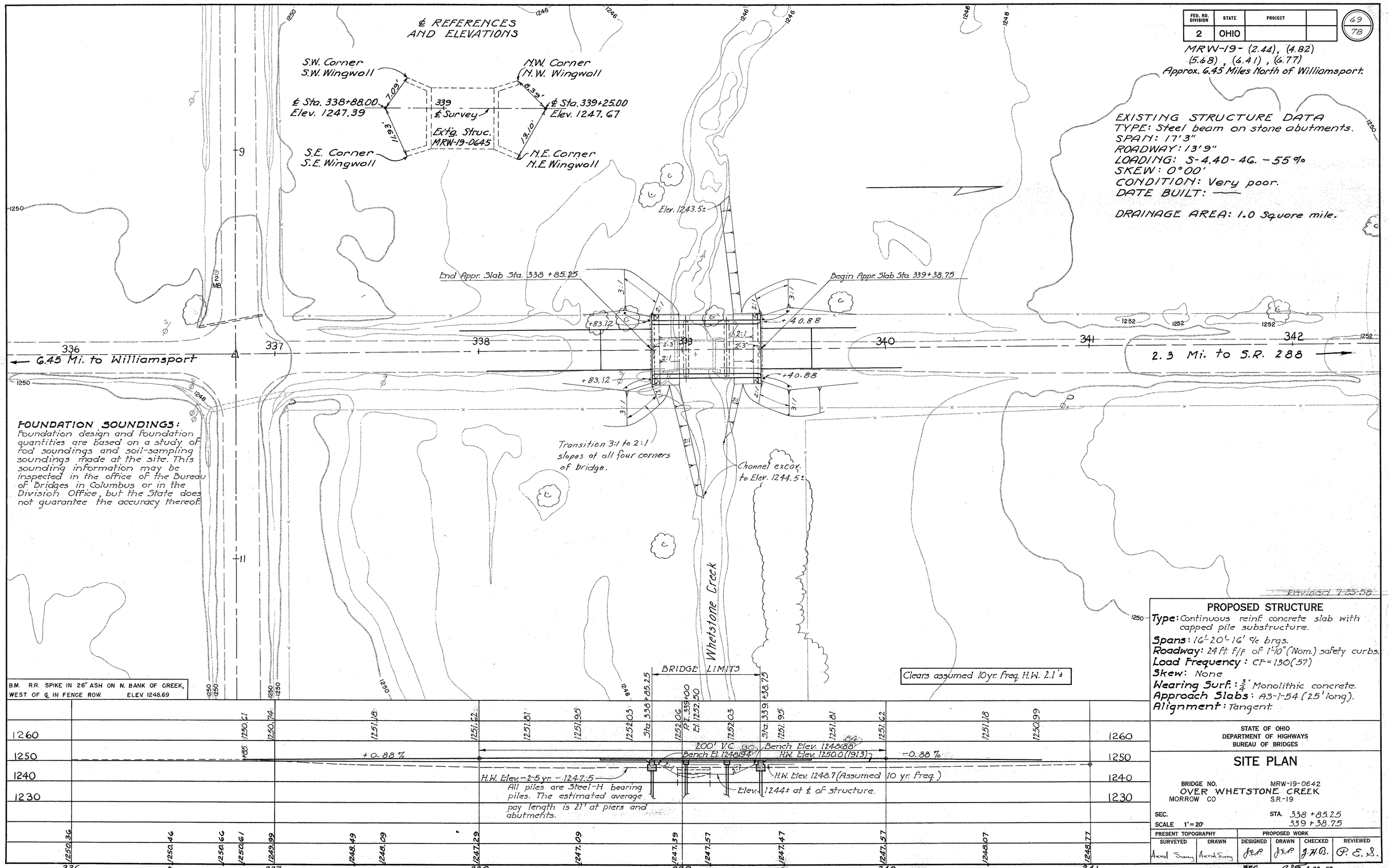
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

69
78

MRW-19- (2.44), (4.82)
(5.68), (6.41), (6.77)
Approx. 6.45 Miles North of Williamsport.



Revised 7-23-58

PROPOSED STRUCTURE

Type: Continuous reinf. concrete slab with capped pile substructure.
Spans: 16'-20'-16' ℄ brgs.
Roadway: 24 ft. f/f of 1'-10" (Nom.) safety curbs.
Load Frequency: CF = 130(.57)
Skew: None
Wearing Surf.: ¾" Monolithic concrete.
Approach Slabs: AS-1-54 (25' long).
Alignment: Tangent.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

SITE PLAN

BRIDGE NO. MRW-19-0642
OVER WHETSTONE CREEK
MORROW CO S.R.-19

SEC.
SCALE 1" = 20'
STA. 338+85.25
339+38.75

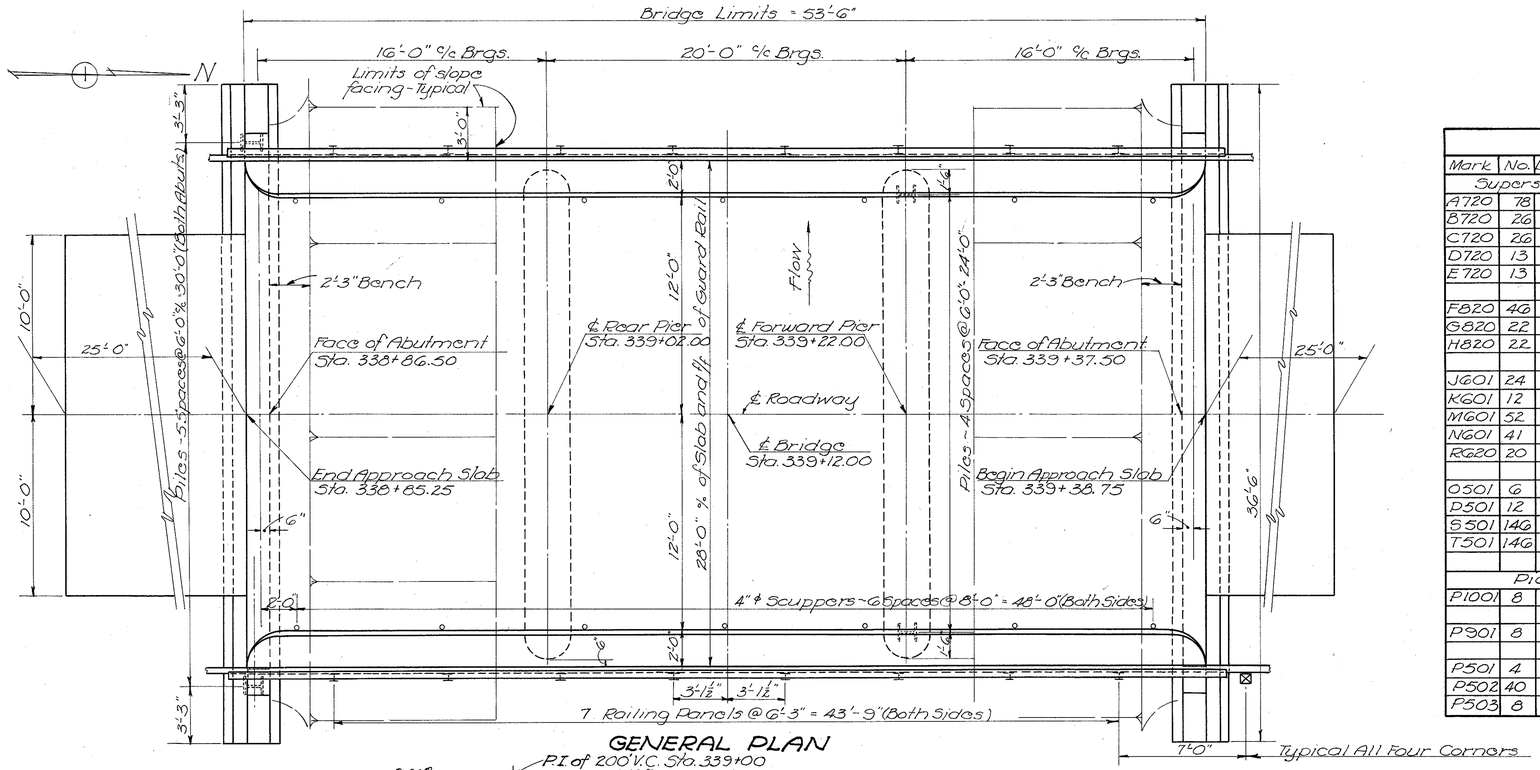
PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
Aerial Survey	Aerial Survey	J.E.P.	J.E.P.	J.H.B.	P.E.S.

BFG 9.J.K. 3-28-58

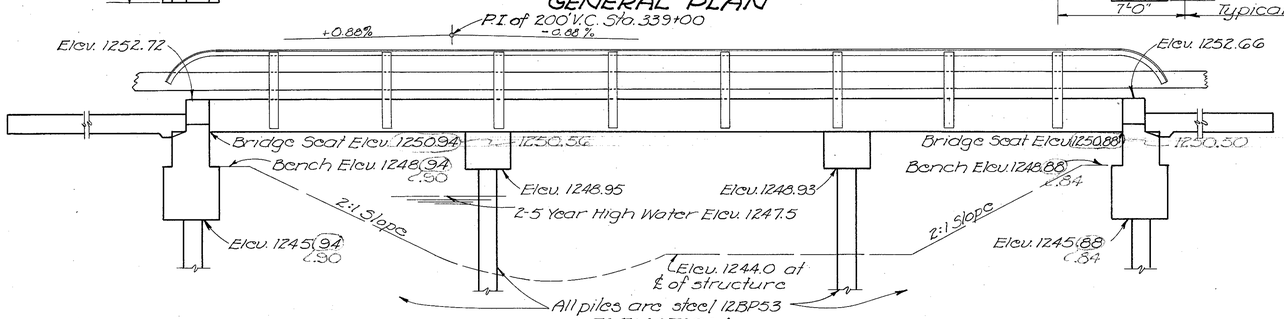
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

70 / 78

MRW-19- (2.44), (4.82) (5.68), (6.41), (6.77)



GENERAL PLAN

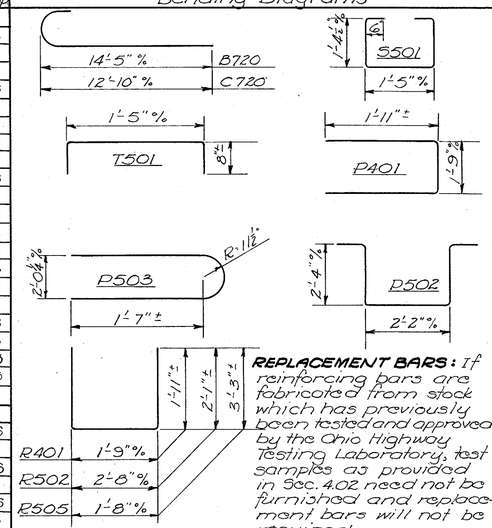


ELEVATION

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shp
Superstructure				
A720	78	19'-3"	3069	S
B720	26	15'-3"	810	B
C720	26	13'-8"	726	B
D720	13	15'-6"	412	S
E720	13	11'-0"	292	S
F820	46	14'-0"	1719	S
G820	22	8'-6"	499	S
H820	22	7'-6"	441	S
J601	24	11'-5"	412	S
K601	12	10'-0"	180	S
M601	52	27'-6"	2148	S
N601	41	27'-6"	1694	S
R620	20	11'-0"	330	S
O501	6	12'-2"	76	S
P501	12	12'-8"	159	S
S501	146	4'-7"	698	B
T501	146	2'-6"	381	B
Piers				
P1001	8	27'-6"	947	S
P901	8	24'-6"	666	S
P501	4	24'-6"	102	S
P502	40	8'-0"	334	B
P503	8	6'-4"	53	B

Bending Diagrams



Mark	No.	Length	Weight	Shp
Piers (cont'd)				
P401	40	5'-5"	145	B
Abutments				
R1001	8	36'-2"	1245	S
R801	8	36'-2"	773	S
R501	12	36'-2"	453	S
R502	116	6'-7"	796	B
R503	8	2'-3"	19	S
R504	8	2'-7"	22	S
R505	48	7'-11"	397	B
R506	16	3'-6"	58	S
R401	48	5'-5"	174	B
Replacement Bars				
RE1001	1	7'-2"	—	S
RE901	1	6'-10"	—	S
RE801	1	6'-6"	—	S
RE701	1	6'-2"	—	S
RE601	1	5'-11"	—	S
RE501	1	5'-7"	—	S
RE401	1	5'-5"	—	B

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. 4.02 need not be furnished and replacement bars will not be required.

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Sup'str	Abuts	Piers	Gen'l
E-2	43	Cu. Yds.	Unclassified Excavation		43		
E-3	200	Cu. Yds.	Channel Excavation				200
S-1	67	Cu. Yds.	Class "C" concrete, Superstructure & Pier Caps	57		10	
S-1	36	Cu. Yds.	Class "E" concrete, Abutments.		36		
S-4	20,230	Lbs.	Reinforcing Steel	14,046	3937	2247	
S-9	9	Sq. Ft.	½" Preformed expansion joint filler		9		
S-14	107	Lin. Ft.	Railing (Type 1-15.13, with handrail and galvanized steel posts and bolts).	107			
S-16	Lump	Sum	First test pile				Lump
S-18	460	Lin. Ft.	Steel piles (12BP53)		250	210	
S-24	Lump	Sum	Removal of existing structure				Lump
S-29	14	Cu. Yds.	Porous backfill		14		
S-29	36	Cu. Yds.	Slope facing, S-29.05 Type				36
S-29	14	each	4" ϕ Pipe scuppers (wrought iron or cast iron)	14			

GENERAL NOTES

REFERENCE shall be made to Standard Drawings A-2-54, P-1-54 both revised 12-1-54 and CS-2-54, dated 12-1-54, with the exception that the slope of the face of the curb shall be 2 inches instead of 3 inches.

REMOVAL OF EXISTING STRUCTURE: When no longer needed to maintain traffic the existing structure shall be removed. Abutments shall be removed to Elev. 1243.

PILES shall be driven to firm contact with rock. If the length of penetration is approximately equal to the depth to rock 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:

For the abutment piles:
27 tons per pile using a 7000 ft-lb hammer
18 tons per pile using a 11000 ft-lb hammer
18 tons per pile using a 15000 ft-lb or greater hammer

For the pier piles:
36 tons per pile using a 7000 ft-lb hammer
27 tons per pile using a 11000 ft-lb hammer
27 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 18 tons per pile for the abutment piles and 22 tons per pile for the pier piles.

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.

SLOPE FACING (S-29.05 TYPE) shall be provided under the structure at both abutments. The porous drain material shall be 12" thick and shall extend from the face of the abutment down to Elev. 1244.0 and transversely to 3 ft. outside the edge of the superstructure.

SLAB THICKNESS of 10¾ inches includes ¾ inches for monolithic wearing surface.

Revised 7-23-58

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

GENERAL PLAN, ELEVATION, NOTES, ESTIMATED QUANTITIES AND REINFORCING STEEL LIST
BRIDGE No. MRW-19-0642
over WHETSTONE CREEK
MORROW COUNTY STA. 338+85.25 339+38.75

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RVH	RVH	R.C.C.	E.B.L.	BFG	3-28-58	