FED. RD DIVISION	STATE	PROJECT	
2	OHIO	STATE	

1/404

MONTGOMERY-GREENE COUNTY
MOT-4-20.50
GRE-4-0.00

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

MOT-4-20.50 GRE-4-0.00
MONTGOMERY COUNTY-GREENE COUNTY

MAD RIVER TOWNSHIP — BATH TOWNSHIP
CITY OF DAYTON
GRADE SEPARATION WITH THE BALTIMORE AND OHIO RAILROAD COMPANY

Plans Prepared by ELMER S. BARRETT ASSOCIATES
Elmer S Barrett
249 S. Paint St — Chillicothe, Ohio

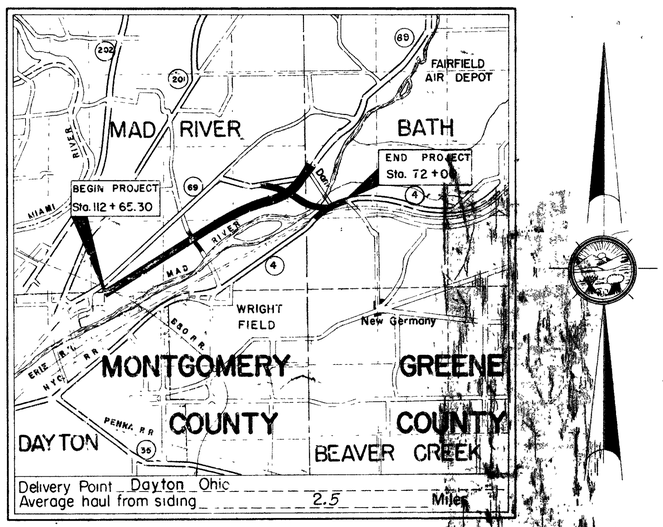
CONVENTIONAL SIGNS

State Line
County Line
Township Line
Section Line
Center Line
Corporation Line
Fence Line
Guard Rail (existing)
Guard Rail (proposed)
Steam Railroad
Power Poles
Telephone Poles
Trees & Stumps (Existing)
Trees & Stumps (To be removed)

INDEX OF SHEETS

LINE DATA

Project		112+65.30	
and S.R.69 Interchange Equation	Back	270+84.19	15,818.89 Lin. Ft.
and S.R.69 Interchange Equation	Ahead	24+80.52	
		72+00.00	4,719.48 Lin. Ft.
Gross Length of Project			20,538.37 Lin. Ft.
Equations			
2.95 Back = 168+37.50 Ahead			+15.45 Lin. Ft.
5.48 Back = 237+13.24 Ahead			+ 3.24 Lin. Ft.
Net Length of Project			20,557.06 Lin. Ft. or 3.893 Miles
Approaches: *Sta. 112+10 to Sta. 112+65.30*			*55.30 Lin. Ft.*
Main Road 13+00 to 42+40			+2,940.00 Lin. Ft.
Match Existing S.R. 69 - 5+00 to 24+80.52			+1,980.52 Lin. Ft.
Match Proposed S.R. 69 - 270+94.19 to 290+60.60			
Montgomery County		270+84.19 to 290+60.60	+1,976.41 Lin. Ft.
Greene County		0+00 to 4+50	450.00 Lin. Ft.
Net Length of Work			27,959.29 Lin. Ft. or 5.295 Miles



LOCATION MAP

SCALE OF MILES
0 1 2 3 4

Portion to be improved
Federal Roads
State Roads
Other Roads

SCALE

Plan 1" = 50'
Profile: Horizontal 1" = 50'
Profile: Vertical 1" = 5'

The standard specifications of the State of Ohio, Department of Highways, including changes and supplemental specifications listed in the proposal shall govern this improvement

The right of way necessary for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the highway and that provisions for maintenance and safety of traffic will be set forth on these plans and estimates.

Approved C.S. Patton
Date 10-25-56 Division Deputy Director

Approved Norbert Tiel
Date 11-8-56 Deputy Director of Planning and Programming

Approved D.H. Sherman
Date 11-8-56 Engineer of Bridges

Approved E.S. Barrett
Date 11-8-56 Engineer of Location and Design

Approved H.F. Gerwig
Date 11-8-56 Deputy Director of Design and Construction

Approved S.P. Shamblin
Date 11-15-56 First Ass't Director

Approved S.D. Swyft
Date 11-15-56 Director of Highways

Approved K.J. WAGONER
Date 11-29-56 Chief Engineer, Baltimore and Ohio Railroad

LIMITED ACCESS

This improvement is specially designed for through traffic and has been declared a limited access highway or freeway between Station 112+65.30 and Station 51+07.33 by action of the Director of Highway in accordance with the provisions of Section 5511.02 of the revised code of Ohio.

Supplemental Prints of Standard Construction Drawings											
I-8 M.H. NO.1	5-1-52	I-12348.5	2-20-45	I-15 NO.2-A	7-2-56	S-27 P.C.3	2-20-45	S-27 P.C.2	3-15-48		
I-8 M.H. NO.1A	1-3-55	I-8C3.22-A&B	7-2-56	I-12I-23	8-1-56	S-27 P.C.4	1-4-54	P-1-54	12-1-54		
B-T-71R	3-2-53	I-8 C.B. NO.3-A	5-1-52	L.J. NO.1	7-1-55	S-P 53	7-21-53	C.S.-1-54 (25 MPH)	7-16-56		
BT-SC-70-71EN-9-10-147		I-8 C.B. NO.3	5-1-52	L-3	4-1-50	T-35	1-2-56	A-1-54	12-1-54		
I-8 M.H. NO.2	5-1-52	T-12	7-1-54	3-A	4-1-50	T.J.	5-1-56	I-15 NB2	12-1-54		
D.R.-1	1-3-52	I-12	1-22-52	T-1							
G-707	5-1-52	I-15 NO.1	8-	B-							

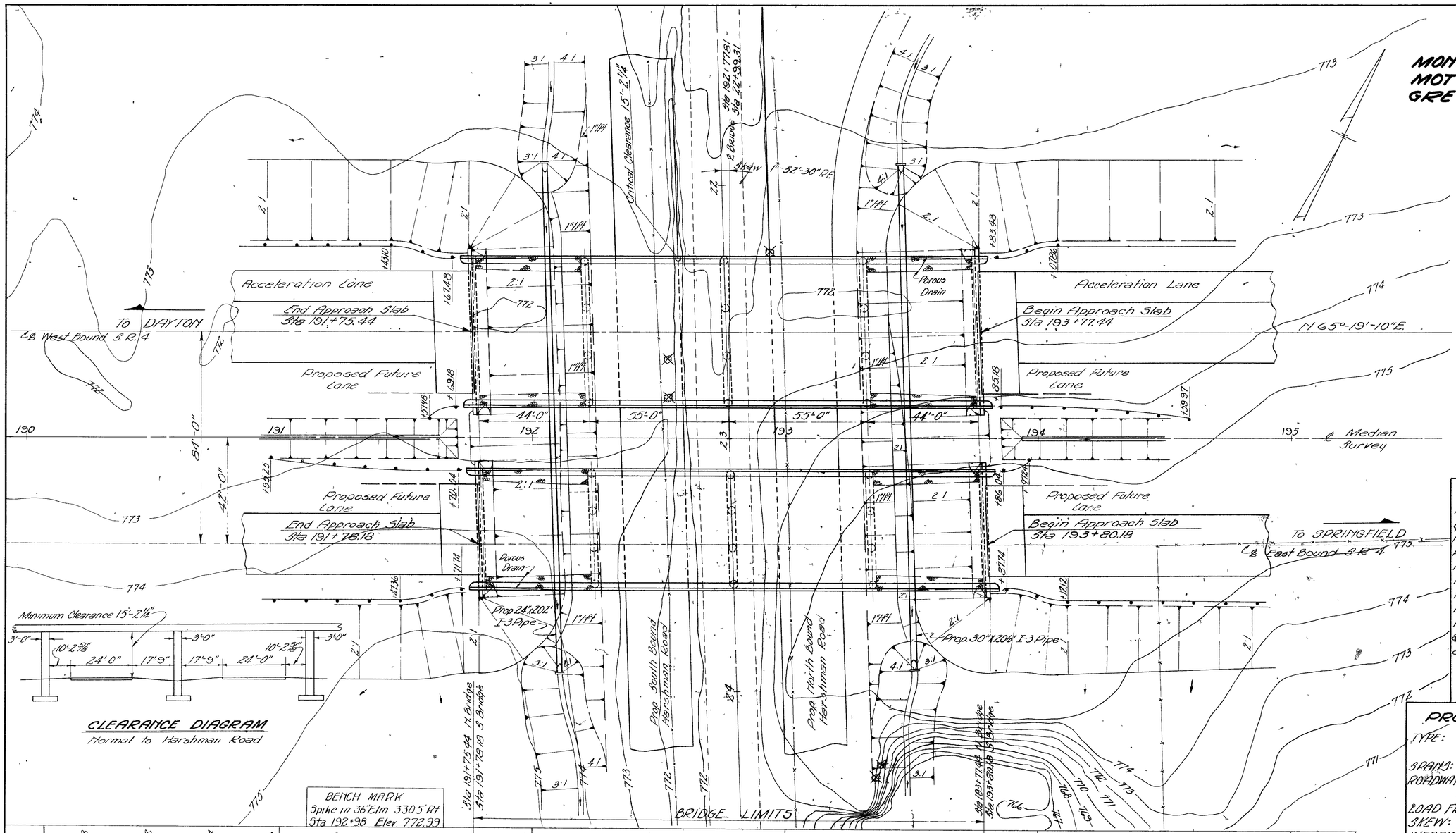
Supplemental Specifications			
S-114			8-30-55
M-109.23		Rev.	4-20-56
18		Rev.	9-7-55
S-207			4-28-55
5			6-9-55

MONTGOMERY COUNTY - MOT-4-20.50
GREENE COUNTY - GRE-4-0.00
Date of Letting 1956
Contract No.

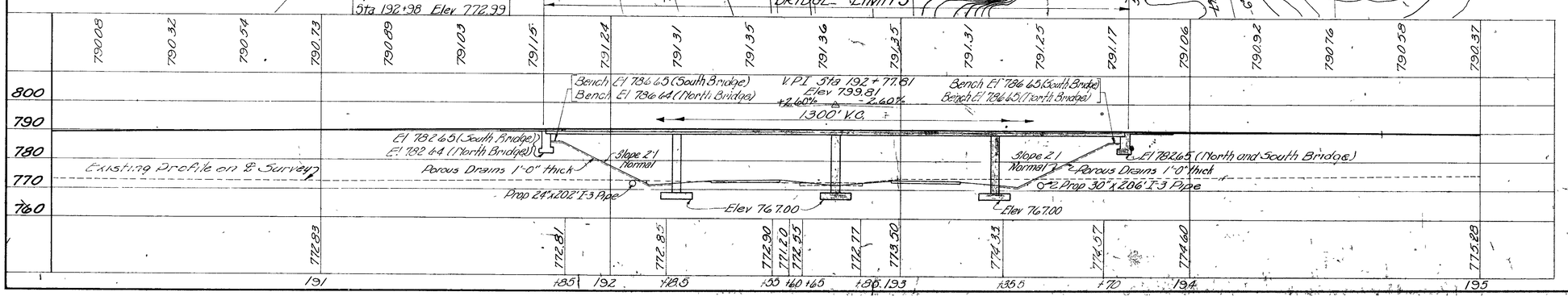
FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

298
383

MONTGOMERY-GREENE COUNTY
MOT-4-20.50
GRE-4-0.00



CLEARANCE DIAGRAM
Normal to Harshman Road



FOUNDATION SOUNDINGS
Foundation design and foundation quantities are based on a study made at the site using the "Standard Penetration Test" with 1½" spoon and 140 pound hammer. 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.

PROPOSED BRIDGE DATA
TYPE: Continuous Concrete Slab with Concrete Substructure ~ Separate Structures
SPANS: 44'-0" - 55'-0" - 55'-0" - 44'-0"
ROADWAY: North Bridge - 54'-0" Plf of 2'-0" Safety Curbs
South Bridge - 42'-0" Plf of 2'-0" Safety Curbs
LOAD FREQUENCY: C.F. 2000 (51)
SKEW: 1°-52'-30" R.F.
WEARING SURFACE: 1" Monolithic Concrete
APPROACH SLABS: A201-54, 15' Long
RAILING: Half Parapet Wall with Aluminum Rail and Supports
ALIGNMENT: Tangent

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

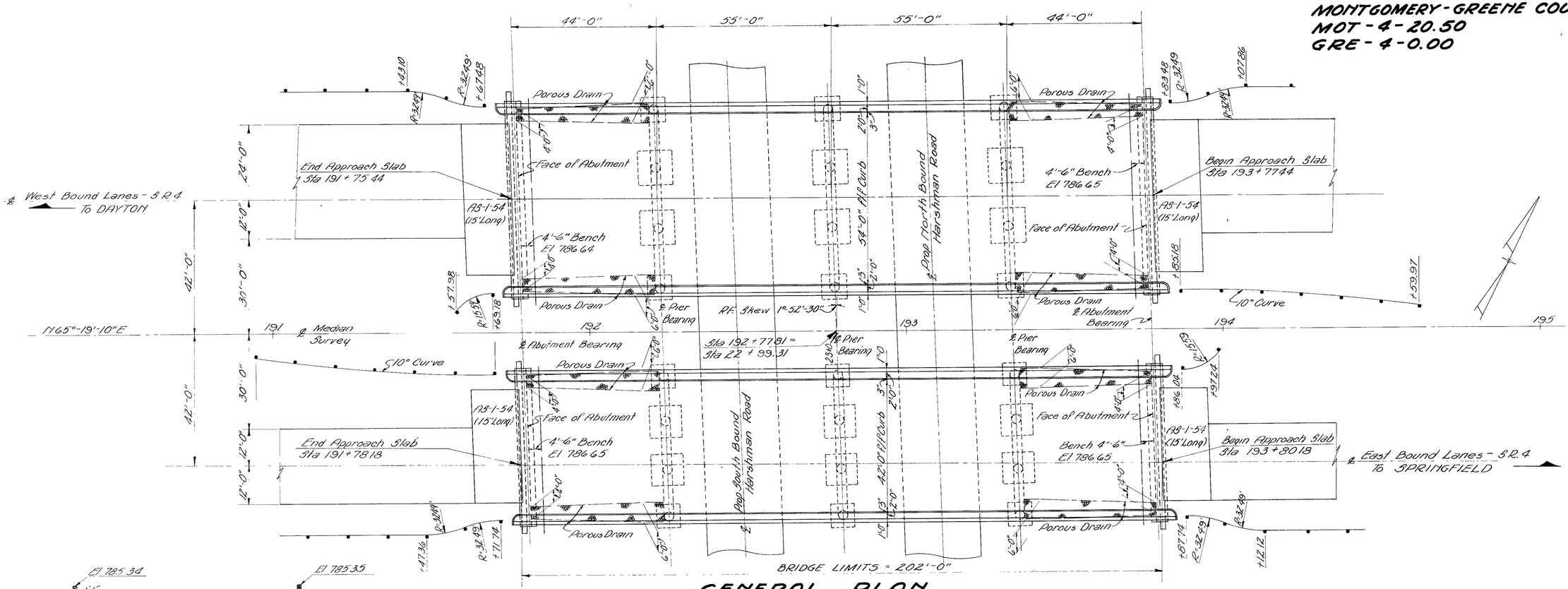
SITE PLAN
BRIDGE NO. MOT-4-2200
S.R. 4 OVER HARSHMAN ROAD
MONTGOMERY-GREENE COUNTY S.R. 4
SEC. MOT-4-20.50 STA. 192+77.81
SEC. GRE-4-0.00

SCALE			DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JWH	REB WDJ	W.D.J.	JWH	WJC	11/10/56	

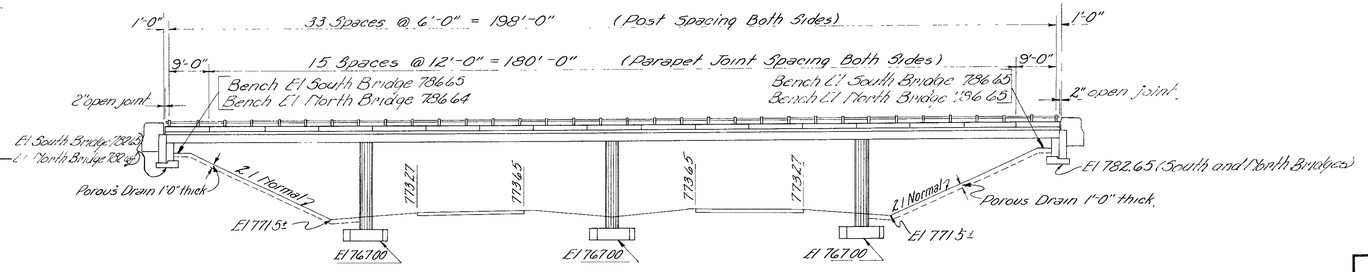
FED RD DIVISION	STATE	PROJECT	
2	OHIO		

299
385

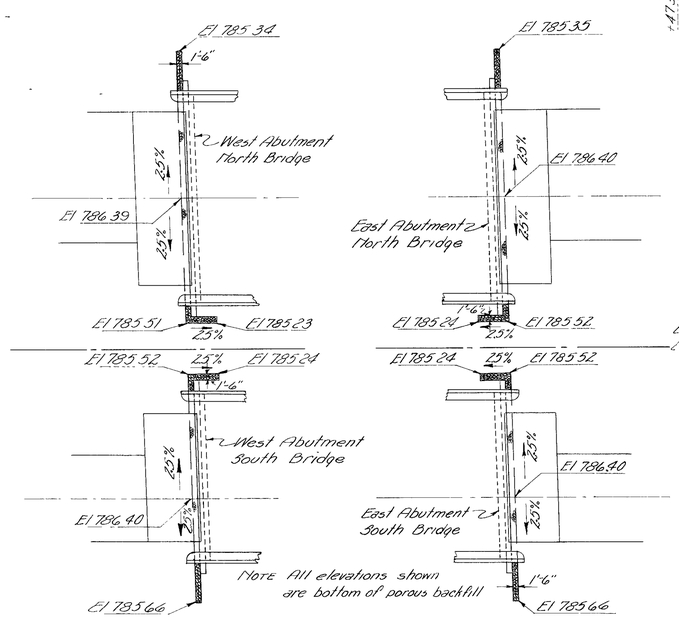
MONTGOMERY - GREENE COUNTY
MOT - 4 - 20.50
GRE - 4 - 0.00



GENERAL PLAN



GENERAL ELEVATION



DETAIL OF POROUS BACKFILL

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

GENERAL PLAN & ELEVATION

BRIDGE NO. MOT - 4 - 2200
S.R. 4 OVER HARSHMAN ROAD

MONTGOMERY - GREENE COUNTY S.R. 4
SEC. MOT - 4 - 20.50 STA. 192+77.81
SEC. GRE. - 4 - 0.00

SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
EER	PJM	WDJ	EHJ	WLC	11/10/86	

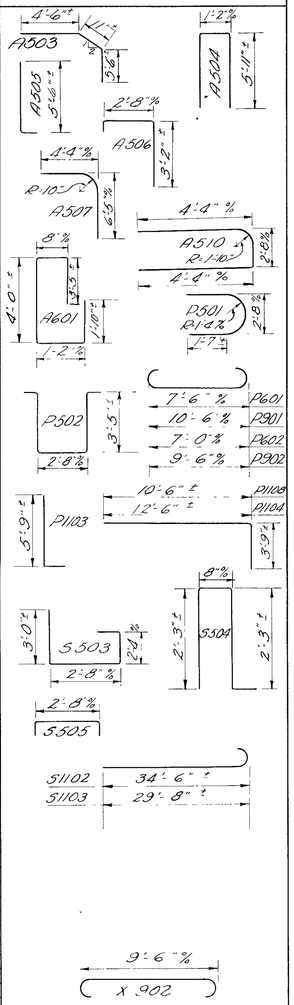
FED RD DIVISION	STATE	PROJECT	
2	OHIO		

300
385

MONTGOMERY-GREENE COUNTY
MOT-4-20.50
GRE-4-0.00

Bar No	Total No Required	No Required N Bridge	No Required S Bridge	Length	Shape	Weight
ABUTMENTS						
A501	60	60		30'-4"	Str.	1,898
A502	64	32	32	5'-6"	Str.	356
A503	16	8	8	13'-10"	Bent	181
A504	16	8	8	12'-9"	Bent	213
A505	144	80	64	6'-0"	Bent	900
A506	144	80	64	6'-3"	Bent	939
A507	16	8	8	10'-5"	Bent	174
A508	48	24	24	6'-5"	Str.	321
A509	32	16	16	4'-4"	Str.	140
A510	32	16	16	10'-5"	Bent	349
A511	32	16	16	3'-5"	Str.	114
A512	60		60	24'-4"	Str.	1,523
A601	216	120	96	10'-6"	Bent	3,407
TOTAL FOUR ABUTMENTS						10,320
PIERS						
P501	24	12	12	7'-4"	Bent	184
P502	279	162	117	10'-3"	Bent	2,953
P601	132	132		8'-10"	Bent	1,751
P602	108		108	8'-4"	Bent	1,352
P901	180	180		13'-0"	Bent	7,956
P902	132		132	12'-0"	Bent	5,356
P1101	160	80	80	20'-10"	Str.	17,110
P1102	320	160	160	20'-9"	Str.	33,278
P1103	480	240	240	6'-11"	Bent	17,639
P1104	30	30		13'-11"	Bent	2,537
P1105	48	18		46'-3"	Str.	4,423
P1106	18	18		16'-3"	Str.	1,510
P1107	12	12		31'-3"	Str.	1,992
P1108	30		30	13'-11"	Bent	2,218
P1109	18		18	36'-6"	Str.	3,475
P1110	18		18	14'-4"	Str.	1,371
P1111	12		12	25'-4"	Str.	1,610
TOTAL SIX PIERS						109,660
SUPERSTRUCTURE						
S501	32	16	16	31'-1"	Str.	1,037
S502	32	16	16	27'-11"	Str.	932
S503	892	446	446	3'-6"	Bent	7,909
S504	892	446	446	3'-5"	Bent	7,899
S505	892	446	446	3'-8"	Bent	3,411
S506	32	16	16	9'-6"	Str.	317
S507	240	120	120	11'-5"	Str.	2,920
S601	134	74	60	29'-11"	Str.	5,820
S602	134	74	60	23'-8"	Str.	4,563
S603	106	106		46'-0"	Str.	9,553
S604	102		106	28'-0"	Str.	7,642
S701	195	195		20'-0"	Str.	23,915
S702	195		195	28'-0"	Str.	19,132
S1101	412	228	184	52'-6"	Str.	114,920
S1102	94	52	42	35'-11"	Bent	17,933
S1103	92	52	40	31'-1"	Bent	15,193
S1104	94	52	42	32'-6"	Str.	16,231
S1105	92	52	40	24'-2"	Str.	11,813
S1106	396	219	177	35'-2"	Str.	73,989
S1107	195	108	87	16'-0"	Str.	16,577
S1108	198	108	90	10'-8"	Str.	11,221
S1109	84	42	42	30'-3"	Str.	13,500
S1110	12	12		60'-0"	Str.	3,825
S1111	15	15		41'-8"	Str.	3,321
S1112	12		12	48'-0"	Str.	3,060
S1113	15		15	33'-8"	Str.	2,683
TOTAL TWO SUPERSTRUCTURES						394,660
REPLACEMENT STEEL						
X401	1			5'-3"	Spiral	4
X501	2			5'-7"	Str.	12
X601	2			5'-11"	Str.	18
X701	2			6'-2"	Str.	25
X902	1			12'-0"	Bent	61
X1101	20			7'-6"	Str.	197
TOTAL REPLACEMENT STEEL						897
TOTAL SPIRAL STEEL						7,450
TOTAL REINFORCING STEEL						524,967

Bending Diagrams



GENERAL NOTES

REFERENCE: shall be made to Supplemental Specifications S-114, Aluminum for Railing, dated August 30, 1955.

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated October 1, 1951, together with revisions thereof dated July 15, 1952, April 1, 1954 and February 1, 1955.

PAINT, both shop and field, shall be applied by brushing. Spray application will not be permitted

CONCRETE AGGREGATE: Gravel if used as course aggregate shall be according to Sec M-3.93 instead of Sec M-3.91 for Class "C" concrete in the superstructure Gravel meeting the requirements of Sec M-3.93 may also be used for other concrete in this structure

SURFACE FINISH OF CONCRETE: Abutment railing posts, curb faces, parapet walls, deck fascia and exposed surfaces of piers, abutments and wing walls shall receive a rubbed surface finish All other surfaces shall be finished in accordance with the provisions of Item 5-1

POROUS BACKFILL: shall extend upward to the approach slab and 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 footing shall be considered as paid for in the bid price per cubic yard, paid for porous backfill

EXCAVATION: Earthwork required to construct the roadway under the bridge to finished grade is classified as E-1 and included in roadway quantities
EXCAVATION QUANTITY FOR ABUTMENTS includes the removal of fill material between the top of the earth bench and the bottom of the abutment
EXCAVATION QUANTITY FOR PIERS includes the removal of material from the top of finished grade or the existing ground line, which ever is lower, to the bottom of the footer

WELDING: of structural steel shall be class "A" except as otherwise shown Any welds shown as field welds, may at the option of the Contractor, be made in the shop Class "B" welds are shown thus B

BAR SIZE: is indicated in the bar mark The first digit where three digits are used, and the first two digits where four digits are used, indicates the bar size number For example A 501 is a No 5 bar and A 1001 is a No 10 bar

TRAFFIC: The Contractor shall provide platforms, nets or other suitable devices above the traveled lanes to protect the traveling public. Cost of this protection is included in the lump sum bid for maintaining traffic.

SPIRAL REINFORCING BARS

The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap
The "Number of Turns" shown in the steel list for the spiral bars is the "Length" divided by the pitch, plus 3 turns (total number of closed coils) expressed as the nearest whole number
Spiral reinforcing bars shall not have deformations but shall in other respects conform to Item 5-4
1½ closed coils shall be provided at the ends of each spiral unit
Four steel channel, tee or angle spacers, weighing approximately 0.68 lb per lin ft of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil The number of pounds of these spacers, based on 0.68 lb per lin ft, will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars

SPIRAL REINFORCING LIST

Bar Number	Number Required	Core Dia % Spiral	Length	Pitch	Number of Turns	Weight
P401	8	32	16'-10⅜"	4½"	48	2,484
P402	16	32	16'-9½"	4½"	48	4,966
TOTAL SIX PIERS						7,450

ESTIMATED QUANTITIES (TWO BRIDGES)

ITEM	QUANTITY	UNIT	DESCRIPTION	ABUTMENT	PIERS	SUPER	GENERAL	AS BUILT
E-2	918	Cu Yds	Unclassified Excavation	239	679			
5-1	1834	Cu Yds	Class C Concrete for Superstructure including End Posts & Pier Caps		88	1746		
5-1	106	Cu Yds	Class "C" Concrete for Pier Colums		106			
5-1	141	Cu Yds	Class "E" Concrete for Abutments	141				
5-1	265	Cu Yds	Class "E" Concrete for Abutment and Pier Footings	75	190			
5-4	524,967	Pounds	Reinforcing Steel	10,520	116,890	396,660	897	
5-7	16,210	Pounds	Structural Steel Expansion Joints			16,210		
5-8	16,210	Pounds	Field Painting of Structural Steel			16,210		
5-9	244	Sq Ft	½" Asbestos cooted with graphite	244				
5-14	798.67	Lin Ft	Railing (Aluminum rail and supports and Concrete Parapet)			798.67		
5-29	156	Lin Ft	4" Diameter Cast Iron or Wrought Iron Pipe			156		
5-29	65	Cu Yds	Porous Drains on Embankment Slopes				65	
5-29	47	Cu Yds	Porous Backfill	47				

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S PAINT ST CHILLICOTHE, OHIO

GENERAL NOTES, ESTIMATED QUANTITIES & REINFORCING STEEL
FOR BRIDGE NO. MOT-4-2200
S.R. 4 OVER HARSHMAN ROAD
MONTGOMERY-GREENE COUNTY S.R 4
SEC. MOT-4-20.50 STA 192+77.81
SEC. GRE-4-0.00
SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.C.P.	E.C.P. D.J.M.	G.H. D.J.M.	E.S.B. E.C.P.	W.L.	11/10/56	

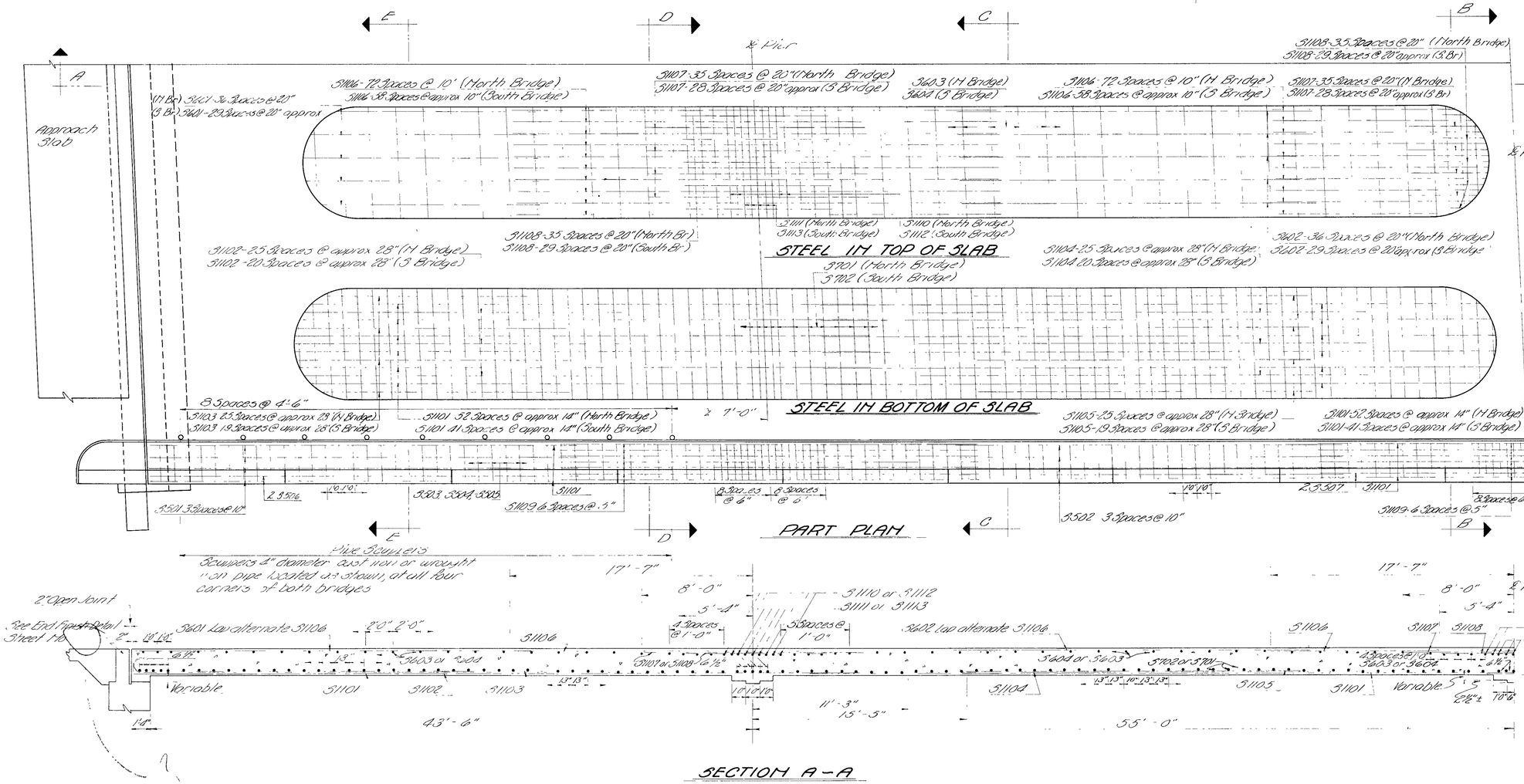
FED RD DIVISION	STATE	PROJECT	
2	OHIO		

301
388

MONTGOMERY-GREENE COUNTY

MOT-4-20.50

GRE-4-0.00



NOTES

CURBS shall be placed after the shoring under the slab has been released sufficiently to permit the slab spans to obtain full dead load deflection

CONSTRUCTION JOINTS Optional construction joints may be placed on the transverse centerline of the 55'-0" spans ± 1'-0" off the transverse centerline if necessary to miss transverse reinforcing bars. One longitudinal construction joint will be required on the centerline of roadway. A horizontal construction joint will be placed between each curb and the top of the slab

CONCRETE shall be Class "C"

REINFORCING STEEL 3603, 3604, 3701, 3702, 31110, 31112 and P1105 bars may be furnished in one length as shown or in pairs of equal length, lapped thirty diameters at the centerline of roadway, or they may be furnished in pairs of different length in order to place the lap beyond a longitudinal construction joint at the center line of the roadway, at the option of the contractor. Determination of the pay quantity will be according to the number and length of bars shown here on.

CAMBER of 2½ of the span shall be provided in each span (in addition to any required in conformance with the profile of the highway) to allow for dead load deflection. This is the amount of camber required before falsework is released. To obtain this proper allowance shall be made for the deflection of the falsework members.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S PAINT ST. CHILLICOTHE, OHIO

SUPERSTRUCTURE DETAILS

BRIDGE NO. MOT-4-2200
S.R. 4 OVER HARSHMAN ROAD

MONTGOMERY-GREENE COUNTY S.R. 4
SEC. MOT-4-20.50, STA. 192+77.81
SEC. GRE-4-0.00

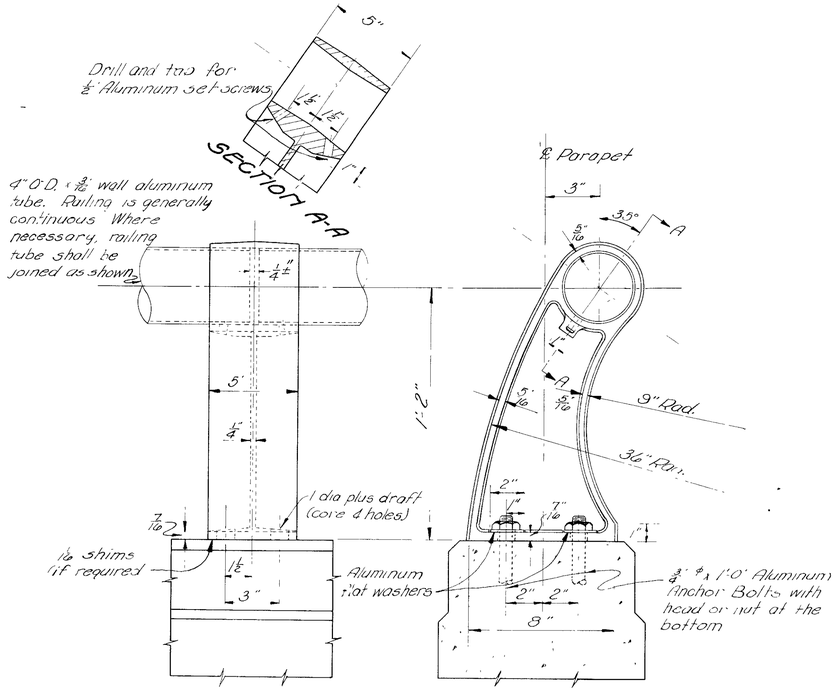
SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
EER	EER PJM	JCE	[illegible]	WK	11/10/76	1

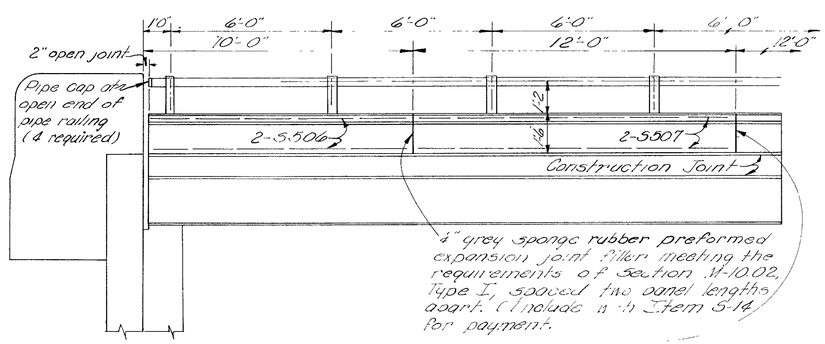
FED RD DIVISION	STATE	PROJECT	
2	OHIO		

302
385

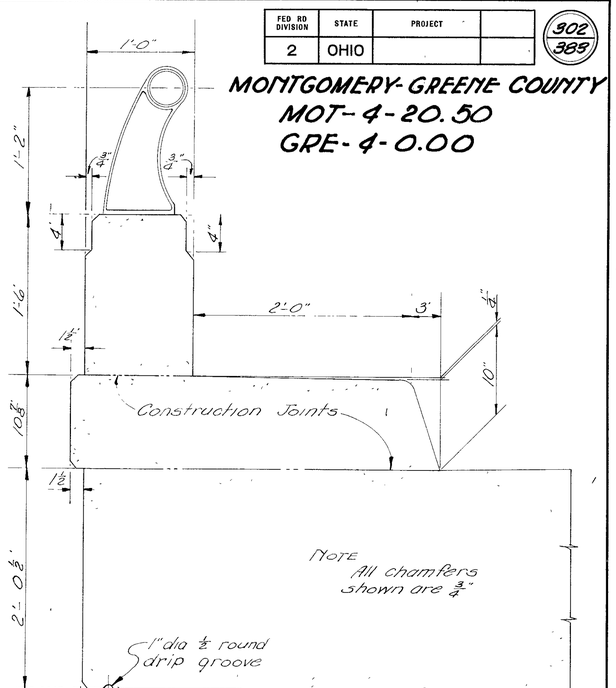
MONTGOMERY- GREENE COUNTY
MOT- 4 - 20.50
GRE- 4 - 0.00



ALUMINUM RAILING POST DETAILS



TREATMENT OF PARAPET AND FASCIA ELEVATION

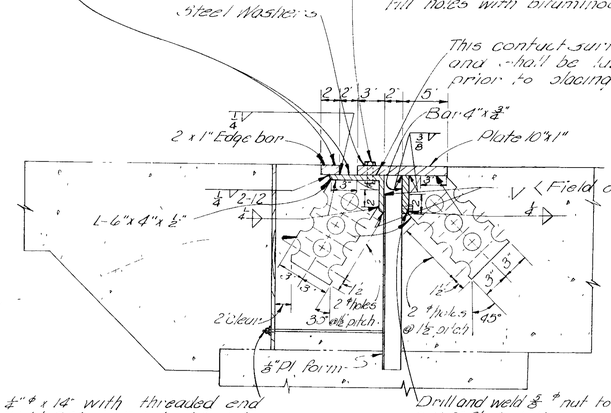


PART SECTION SHOWING TREATMENT OF PARAPET & FASCIA

Provide a joint in the edge bar and in the angle at the center line of the roadway. Additional joints may be provided in them at a minimum spacing of 6'-0". Joints shall not be welded.

⅞" x 2" bolts at not more than 2'-0" ℄ with nuts tack welded to underside of knee angle. "holes in 10"x1" plate Center ⅝" bolts in "holes. Apply thick graphite between washers and plate. Turn bolts snug and release one half turn. Remove bolts as soon as concrete has been reasonably set, preferably within two hours, to avoid effect of temperature expansion or contraction of the superstructure. Fill holes with bituminous material.

This contact surface shall not be painted and shall be lubricated with Plake unsalve prior to placing of backwall concrete.



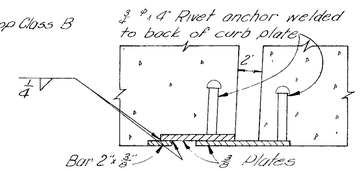
6" x ⅜" x 12" plates, spaced at approximately 15" ℄, except near joints in the angle, where the plates shall be placed within 6" of each side of the joint. The holes may be burned in the plates.

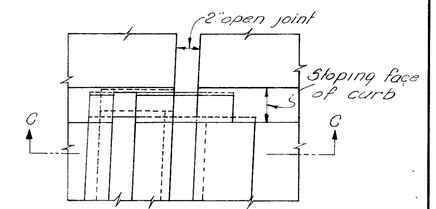
¾" ϕ x 14" with threaded end Weld (Class A) to ¾" plate @ 1'-6" ℄ and notch to break off 1" below surface of concrete after use.

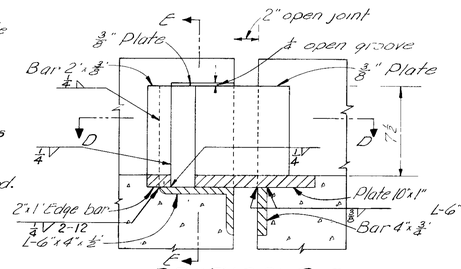
Drill and weld ⅝" ϕ nut to plate @ 1'-3" ℄ to bolt expansion devise to form during the placing of concrete on first side of expansion devise.

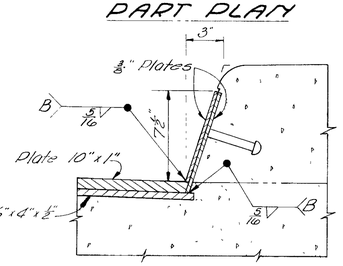
Omit shop coat on all portions of end finish. Portions in contact with steel or with concrete shall not be painted. All other portions shall be cleaned and given the shop coat in the field as well as the two field coats.

ROADWAY END FINISH

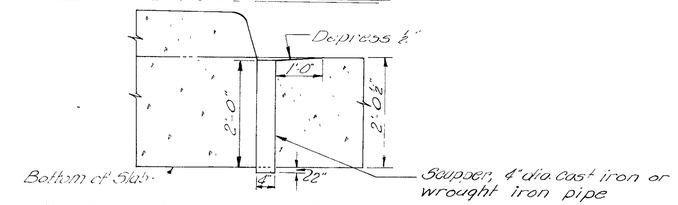








CURB PLATE DETAILS



TYPICAL PIPE SCUPPER DETAIL

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S PAINT ST. CHILLICOTHE, OHIO

SUPERSTRUCTURE DETAILS

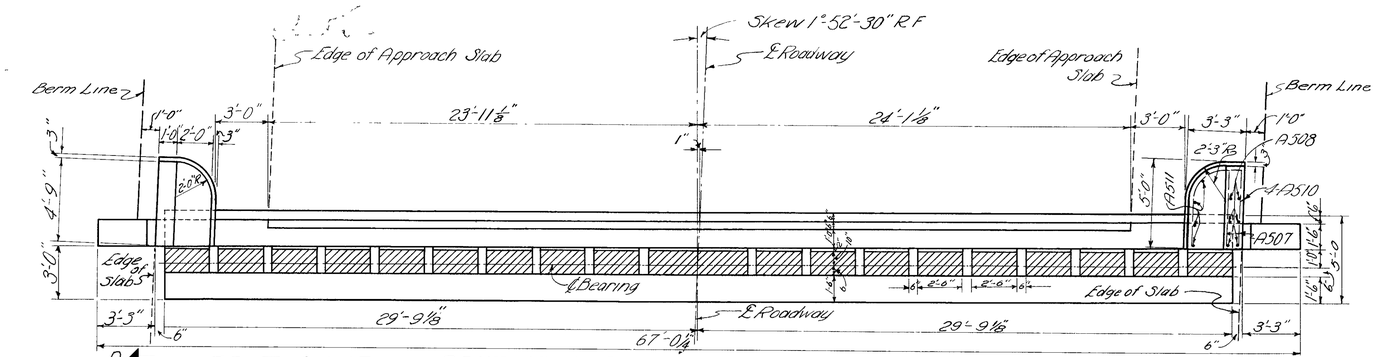
BRIDGE NO. MOT - 4 - 2200
S.R. 4 OVER HARSHMAN ROAD
MONTGOMERY- GREENE COUNTY S.R. 4
SEC. MOT - 4 - 20.50 STA. 192 + 77.81
SEC. GRE - 4 - 0.00

SCALE	DATE					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.E.R.	P.J.M.	P.J.M.	K.J.M.	WK	11/10/56	

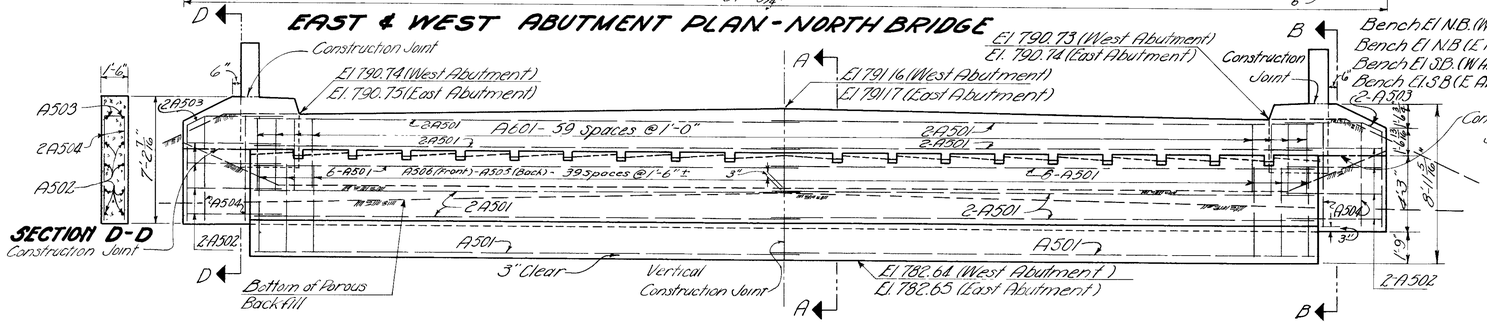
FED RD DIVISION	STATE	PROJECT	
2	OHIO		

309
388

MONTGOMERY-GREENE COUNTY
MOT-4-20.50
GRE-4-0.00

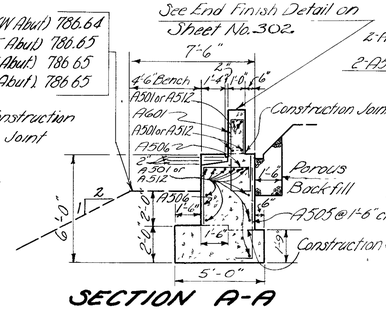


EAST & WEST ABUTMENT PLAN - NORTH BRIDGE

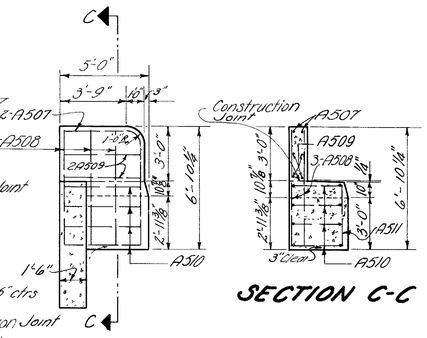


SECTION D-D
Construction Joint

EAST & WEST ABUTMENT ELEVATION - NORTH BRIDGE

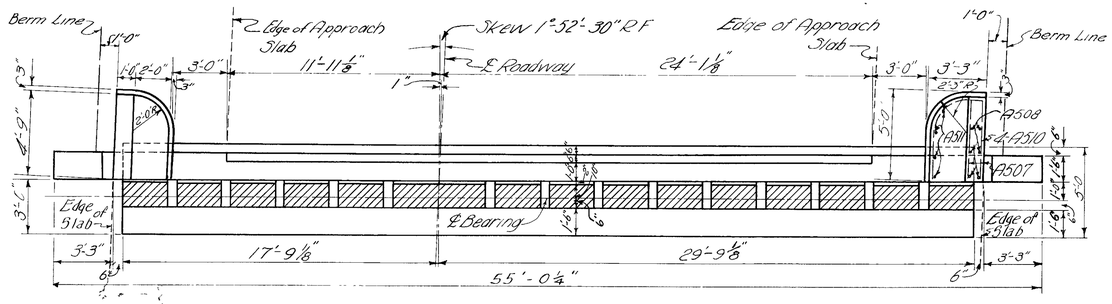


SECTION A-A

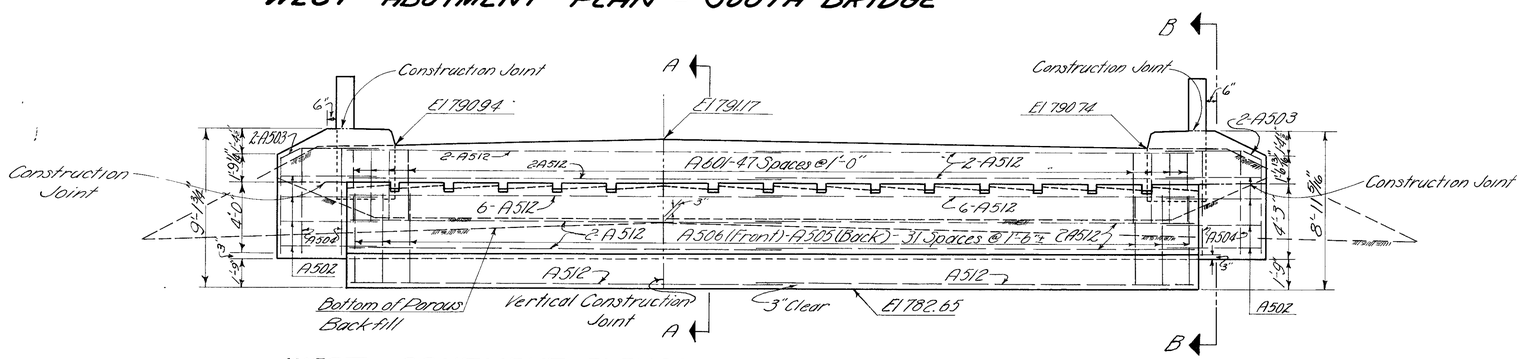


SECTION B-B

SECTION C-C



WEST ABUTMENT PLAN - SOUTH BRIDGE

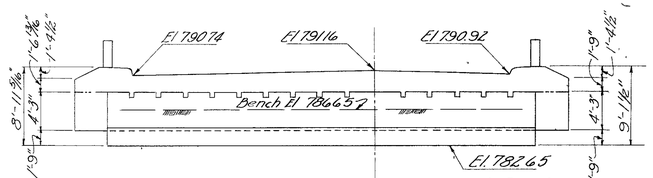


WEST ABUTMENT ELEVATION - SOUTH BRIDGE

NOTES

REINFORCING STEEL shall be two (2") inches clear except where otherwise shown.
CONCRETE shall be class "E".
CONCRETE for end posts above curb height is included in superstructure quantities for payment.
PROCEDURE. The embankment shall be placed and compacted to the height of the earth bench, after which excavation shall be made for the abutment.

CROSS HATCHED AREAS in plan views shall be finished with a steel trowel, and particular care shall be taken to provide plane surfaces for bearing areas. Provide two layers of 1/8" sheet asbestos on bearing areas



EAST ABUTMENT ELEVATION - SOUTH BRIDGE

Note Details not shown are similar to West Abutment South Bridge

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

ABUTMENT DETAILS

BRIDGE NO. MOT-4-2200
S.R. 4 OVER HARSHMAN ROAD

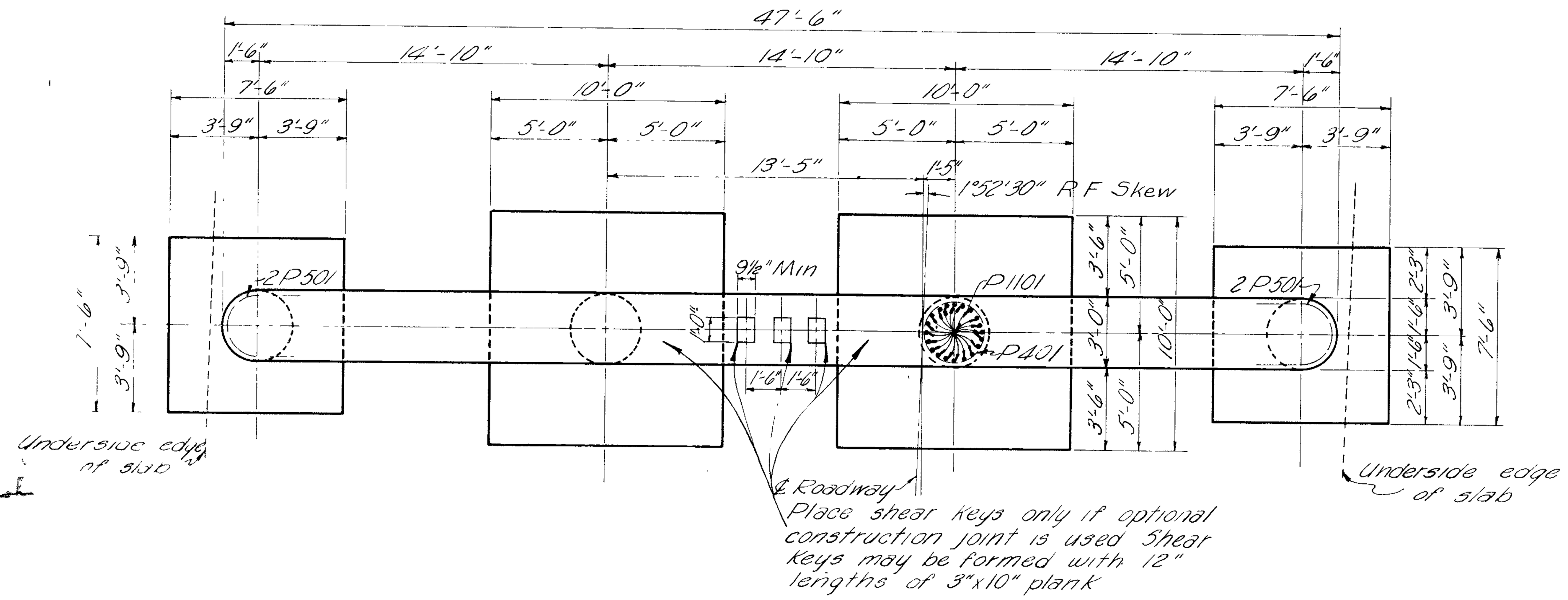
MONTGOMERY-GREENE COUNTY S.R. 4
SEC. MOT-4-20.50 STA. 192+77.81
SEC. GRE-4-0.00

SCALE DATE

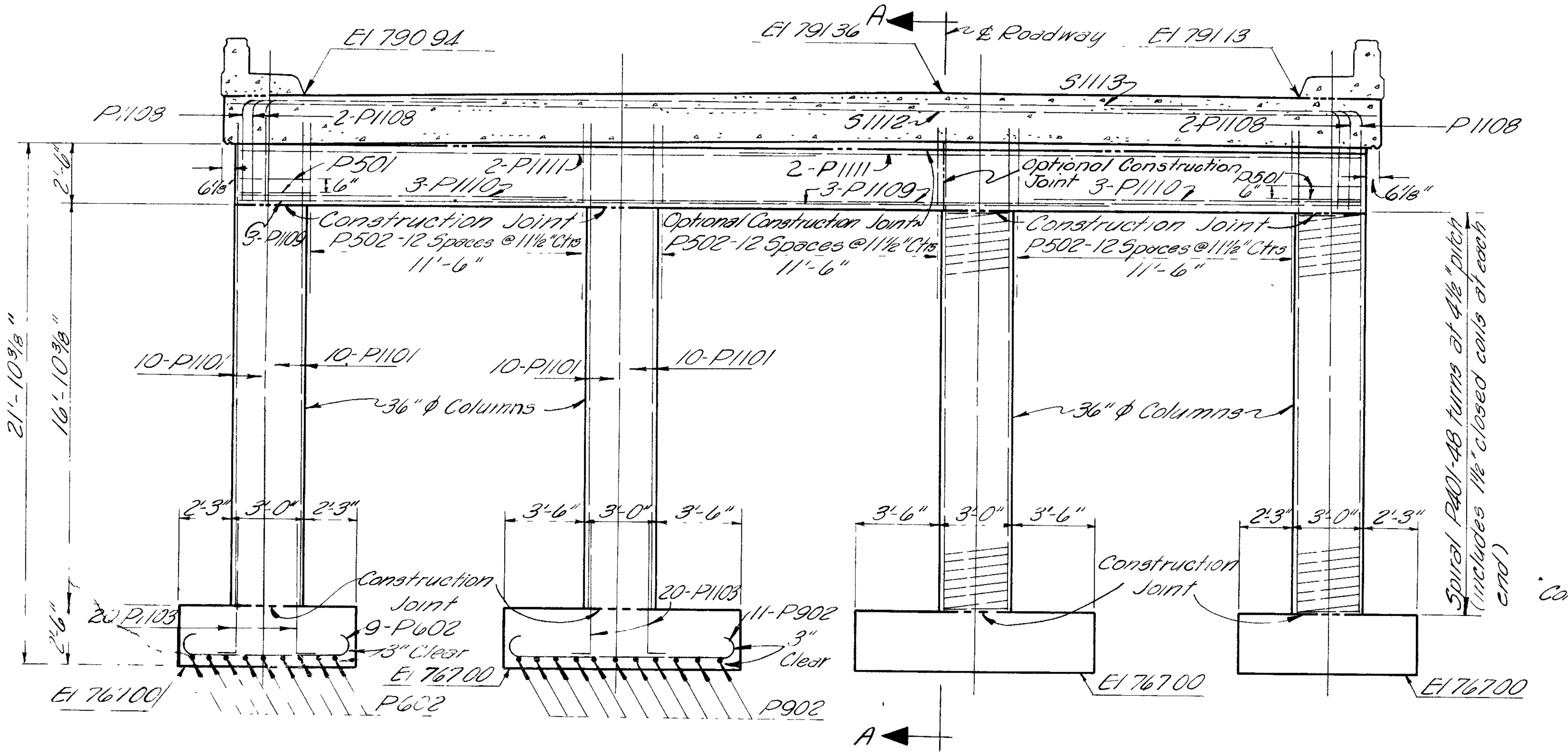
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.E.B.	R.J.M.	J.K.W.	[illegible]	W.K.S.	11/19/56	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		304/383

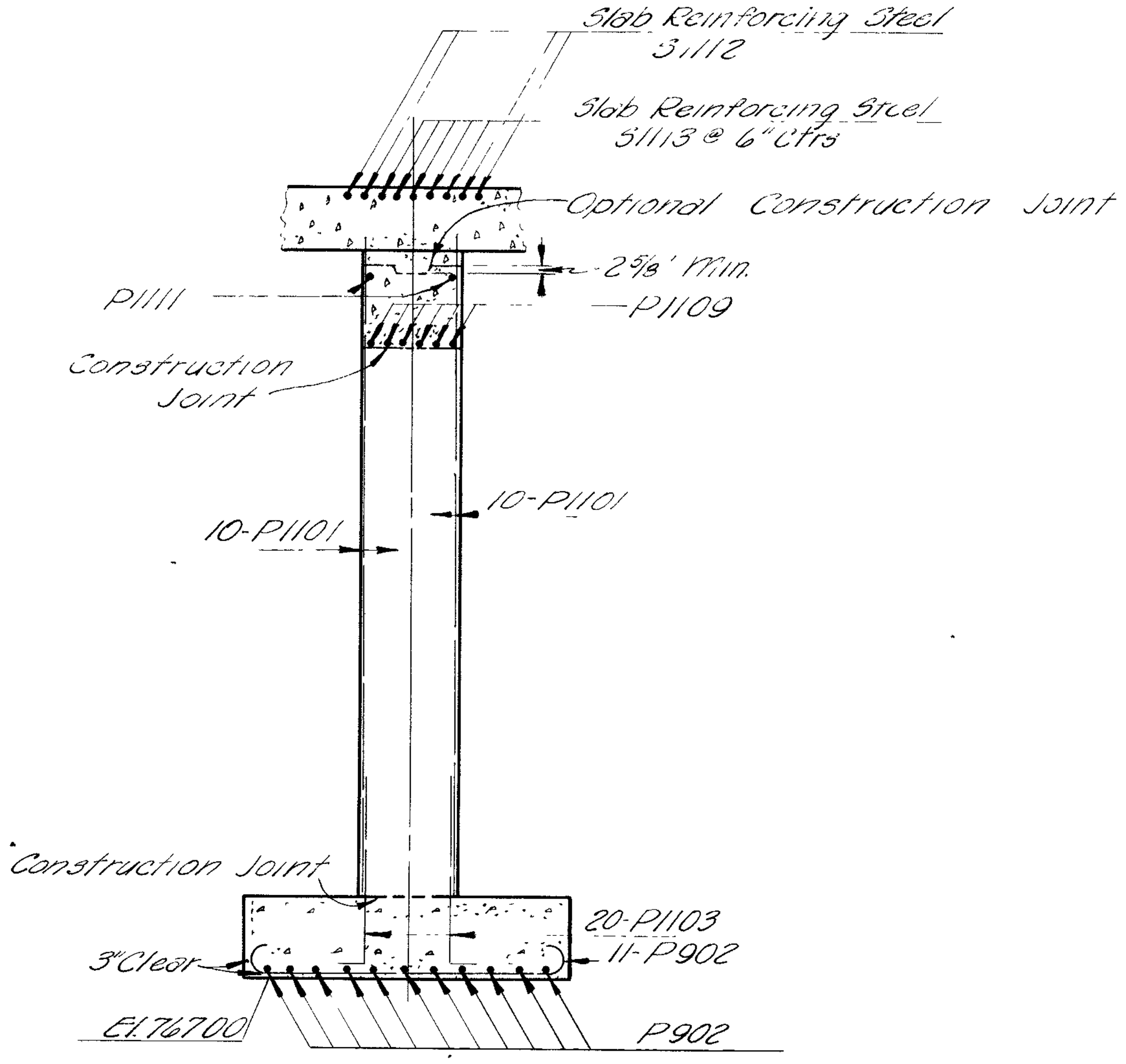
MONTGOMERY-GREENE COUNTY
MOT.-4-20.50
GRE.-4- 0.00



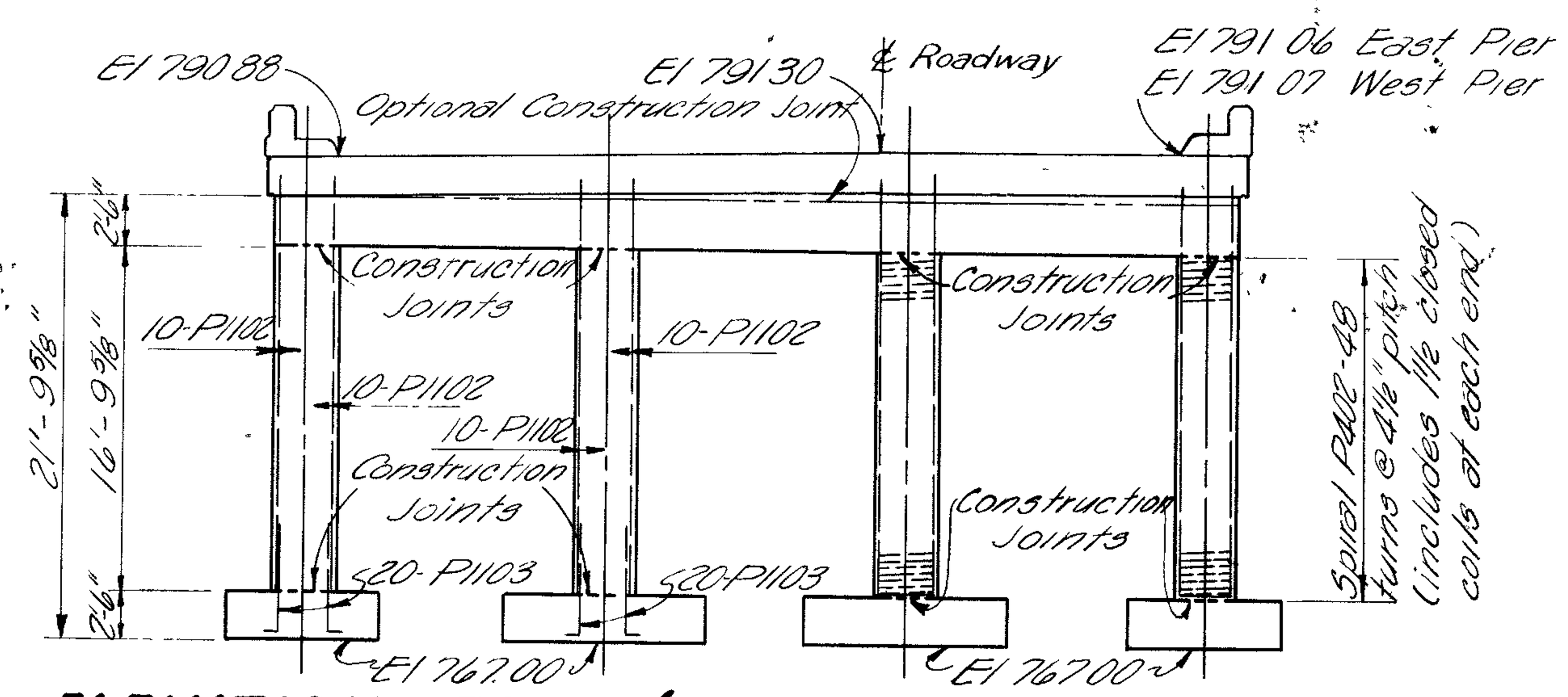
CENTER PIER PLAN - SOUTH BRIDGE



ELEVATION - CENTER PIER - SOUTH BRIDGE



SECTION A-A



ELEVATION - EAST & WEST PIER - SOUTH BRIDGE

NOTE:
All dimensions and reinforcing steel not shown on East & West Pier Elevations are identical to Center Pier.

-NOTES-

REINFORCING STEEL shall be two (2) inches clear except where otherwise shown

CONCRETE shall be Class "C" in caps and columns and Class "E" in footings

THE CAP BEAM shall not be used to support falsework for the deck slab

FOR PLACEMENT of cap and column steel, see detail for North Bridge.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

PIER DETAILS

BRIDGE NO. MOT-4-2200
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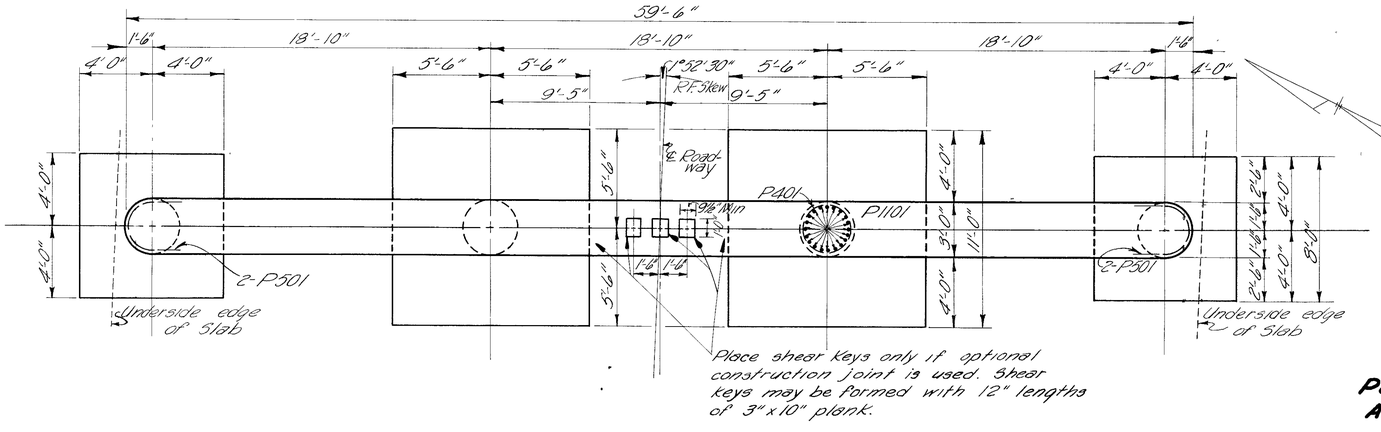
MONTGOMERY - GREENE COUNTY S.R. 4
SEC. MOT-4-20.50 STA. 192+77.81
SEC. GRE.-4-0.00
SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
EER	MEW	W.D.S. E.B.	THS	WLG		

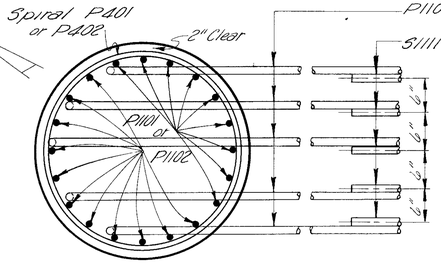
FED RD DIVISION	STATE	PROJECT	
2	OHIO		

305
383

MONTGOMERY-GREENE COUNTY
MOT.-4-20.50
GRE.-4-0.00



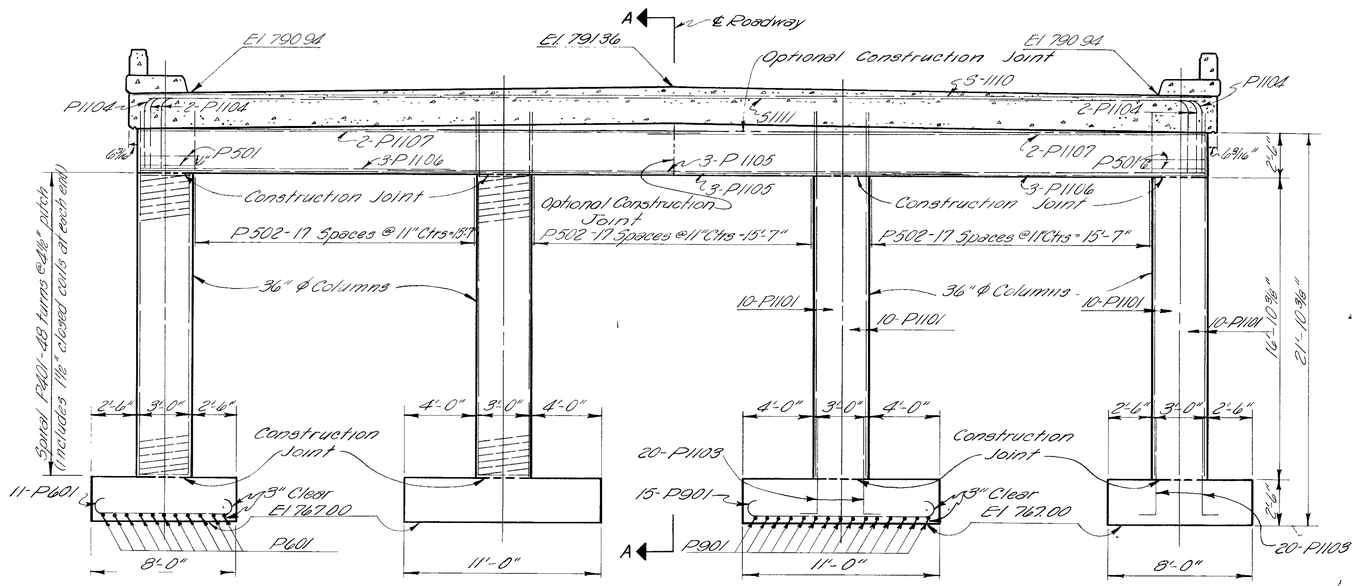
CENTER PIER PLAN NORTH BRIDGE



PLACEMENT OF CAP AND COLUMN STEEL

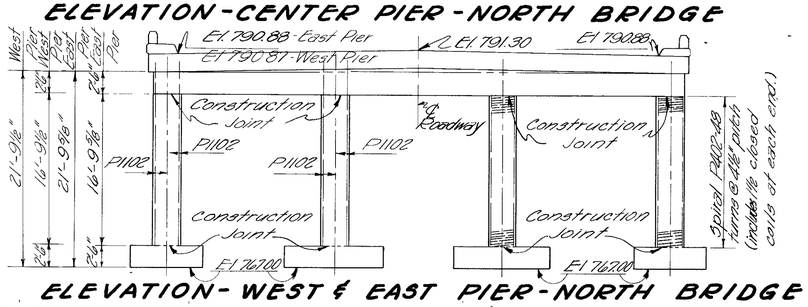
-NOTES-

See Pier Details for South Bridge



ELEVATION-CENTER PIER-NORTH BRIDGE

SECTION A-A



ELEVATION-WEST & EAST PIER-NORTH BRIDGE

NOTE:
All dimensions and reinforcing steel not shown on West & East Pier Elevations are identical to Center Pier

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

PIER DETAILS

BRIDGE NO. MOT-4-2200
S.R. 4 OVER HARSHMAN ROAD

MONTGOMERY-GREENE COUNTY S.R. 4
SEC. MOT-4-20.50 STA. 192+77.81
SEC. GRE.-4-0.00

SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.E.B.	MEW	E.D.K.	F.H.J.	W.L.	11/16/56	