FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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SCI-348-18.04

B.M. - Top R/W Mon. #4
E. Side S.R. 104 - 195' Rt. Sta. 953+01. Elev. 538.872

SCIOTO RIVER

NEAREST EXISTING STRUCTURE

LOCATION: 2400' Downstream at Existing S.R. 348.
TYPE: Through steel Warren truss on masonry substructure.
SPANS: 3 @ 150' (347' f/f Abutment walls).
ROADWAY: 15.5' f/f Railing (16' c/c trusses).
WATERWAY OPENING below 50-yr. H.W. El. = 11,600 Sq. ft.
DATE BUILT: 1894
COMMENTS: Water overflows roadway East of bridge regularly.

* This structure plus SCI-348-1906R together drain 58.19 sq. miles.

EARTHWORK limits shown are schematic. Actual slopes shall conform to plan cross-sections

PROPOSED STRUCTURE

TYPE: Continuous steel girder with reinforced concrete deck and substructure.
SPANS: 102.5'; 128'; 128'; 102.5' c/c Bearings
ROADWAY: 44'-0" f/f Parapets
LOADING: AASHO HS 20-44
SKEW: 0°
WEARING SURFACE: 1" Monolithic concrete
APPROACH SLABS: AS-1-67 (30' long)
ALIGNMENT: Tangent
AVERAGE DAILY TRAFFIC: P+A = 8,000; B+C = 790; Total = 8790 (1990)

FOUNDATION INVESTIGATION LEGEND

◕ - Indicates core boring location
● - Indicates rod sounding location

TRANSVERSE SECTION

46'-0" c/c Deck; 1'-0" | 21'-3" | 21'-3" | 1'-0"; 9" Profile Grade; ℄ S.R. 348 Slope 3/16"/ft.; 9"; 1'-9" | 5 Spaces @ 8'-6" = 42'-6" | 1'-9"

DRAINAGE AREA ✳
Q50 = 93,300 c.f.s.
A = 11,300 sq. ft
v = 8.3 ft/sec

BRIDGE LIMITS = 465.50'

Structure clears 50 yr. H.W. El. by 3.0'±

Profile Grade -0.16%

25-yr. H.W. El. 533.2

50-yr. H.W. El. 534.2

Normal water El. 513.0± (4-7-68)

Normal water El. 507.7 (3-5-68)

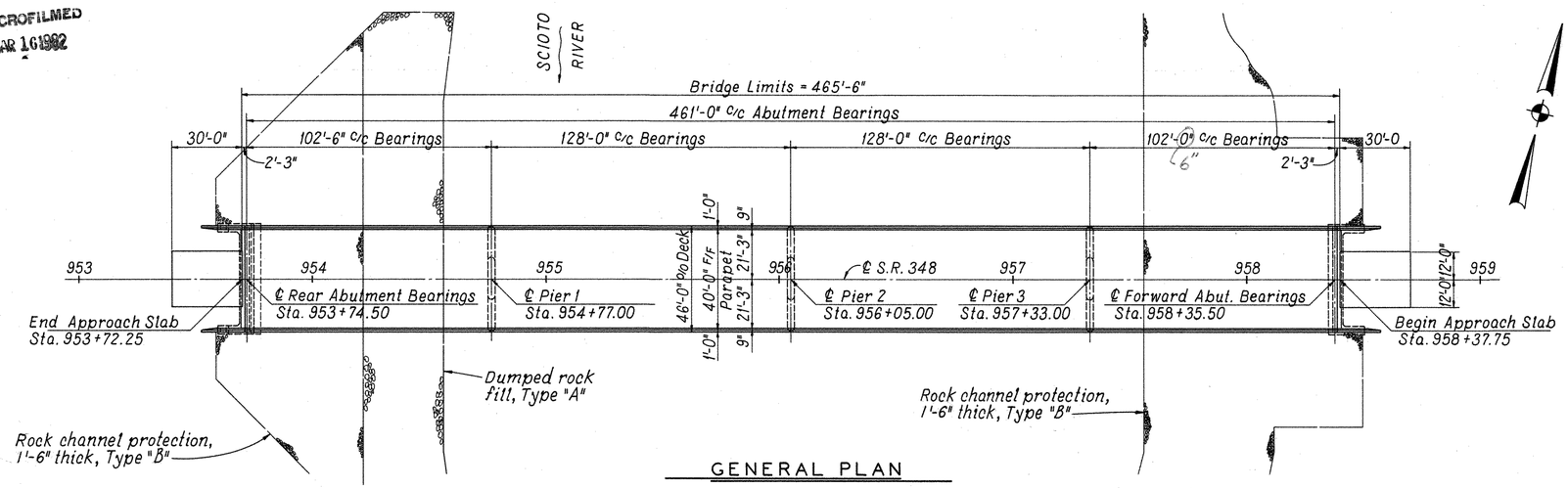
Existing ground

El. 533.56
El. 524.7
Approximate top of shale
3:1
+74.50
15'
El. 510.0
1½:1
El. 502.0
Rock Channel Protection, 1'-6" thick; Type "B"
El. 500.0
Dumped Rock Fill Type "A"
+77.00
El. 494.8
Approximate top of shale
El. 494.2
Steel "H" piles. The estimated average pay lengths are: Pier 1-17' (12BP53), Pier 2-25' (12BP53), Pier 3-32' (12BP53), Forward Abut.-68' (10BP42)
El. 502.0
El. 497.0
10'
El. 500.0
Rock Channel Protection, 1'-6" thick; Type "B"
+35.50
2:1
El. 529.29
Approximate top of sandstone

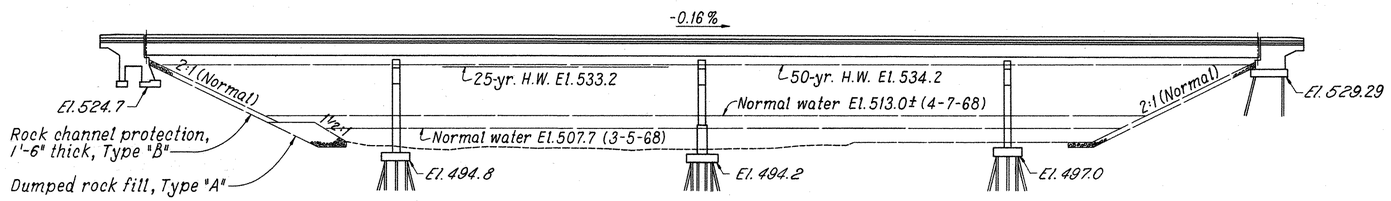
| | | |

FED. RD. DIVISION	STATE	PROJECT		104
2	OHIO			141

SCI-348-18.04



GENERAL PLAN



GENERAL ELEVATION

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER.	ABUTS.	PIERS	GEN'L		
503	553	Cu.Yds.	Unclassified excavation including shale		312	241			
503	Lump	Sum	Cofferdams, cribs and sheeting				Lump		
505	Lump	Sum	First test pile				Lump		
507	950	Lin.Ft.	Steel "H" piles (10 BP 42)		950				
507	2220	Lin.Ft.	Steel "H" piles (12 BP 53)			2220			
509	~~(231,038)~~ 231,225	Lbs.	Reinforcing steel	179,079	14,700	~~(37,259)~~ 37446			
511	676	Cu.Yds.	Class "C" concrete, superstructure	676					
511	308	Cu.Yds.	Class "C" concrete, piers above footings			308			
511	196	Cu.Yds.	Class "C" concrete, footings		64	132			
511	149	Cu.Yds.	Class "C" concrete, abutments above footings		149				
513	749,160	Lbs.	Structural steel	749,160					
514	749,160	Lbs.	Field painting of structural steel	749,160					
518	17	Each	Scuppers, including supports	17					
518	64	Cu.Yds.	Porous backfill		64				
518	86	Lin.Ft.	6" Helical perforated C.M.P., 707.01 including specials		86				
518	54	Lin.Ft.	6" Helical C.M.P., 707.01, Non-perforated		54				
808	676	Units	Chemical admixtures for concrete, Type A, B or D.	676					

GENERAL NOTES

REFERENCE shall be made to Standard Drawings AS-1-67, (revised 6-12-69); SD-1-69, sheets 1 thru 4 (dated 6-12-69); BR-1-67, sheet 1 of 3 (dated 2-1-68); RB-1-55, (revised 2-2-59); and to Supplemental Specifications 808 (dated 11-14-69); 811 (dated 1-1-69) and 836 (6-17-69).

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1965, including the Ohio "Supplement" to these specifications.

DESIGN DATA: Design Loading - HS 20-44

Concrete Class "C" - unit stress 1200 p.s.i. for superstructure
unit stress 1333 p.s.i. for substructure

Structural Steel - ASTM A36 - unit stress 20,000 p.s.i.
Reinforcing Steel - ASTM A615, A616 or A617 - unit stress 20,000 p.s.i.

WELDS on non-stress carrying members are shown thus: N 1/4

EMBANKMENT CONSTRUCTION: After the Rear Abutment pedestals have been built the embankments shall be constructed to the level of the subgrade for a minimum distance of 200 feet back of the Rear Abutment. Excavation shall then be made for the abutment cross beam. The embankment at the Forward Abutment shall be constructed to the level of the subgrade for a minimum distance of 200 feet back of the Forward Abutment. Excavation shall then be made for the Forward Abutment and piling driven.

ABUTMENT EXCAVATION QUANTITY, in addition to 503.10, includes the excavation for the Rear Abutment cross beam.

PILES shall be driven with a hammer of not less than 11,000 ft. lb. per blow to firm contact with bedrock. If the length of penetration is approximately equal to the depth to bedrock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in 507.05 is not less than the following value for a pile hammer of the indicated energy rating:
For the Forward Abutment piles:
45 tons per pile using an 11,000 ft. lb. hammer
40 tons per pile using a 15,000 ft. lb. or greater hammer
For the pier piles:
60 tons per pile using an 11,000 ft. lb. hammer
55 tons per pile using a 15,000 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 35 tons per pile for the abutment piles and 38 tons per pile for the pier piles.

FOUNDATION BEARING PRESSURE: Rear Abutment footings are designed for a maximum bearing pressure of 4.4 tons per sq. ft.

REAR ABUTMENT FOOTINGS shall extend a minimum of 3 inches into bedrock. If necessary, the footings should be lowered. However, if the low point of the surface of the bedrock occurs 2 feet or more above the plan elevation, the footings may be raised, after approval by the Director, but to an elevation not higher than Elev. 527.0. Stepping of individual footings will not be permitted unless shown on the plans.

SHAFFER, JOHNSTON, LICHTENWALTER AND ASSOCIATES, INC. 2/9
Consulting Engineers
MANSFIELD WOOSTER
OHIO

GENERAL PLAN, GENERAL NOTES AND ESTIMATED QUANTITIES

BRIDGE NO. SCI-348-1854 R OVER SCIOTO RIVER

SCIOTO COUNTY S.R. 348
STA. 953+72.25 TO STA. 958+37.75

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RAK	RWH	RWH		JM 4-4-69		10-9-70 4-2-71

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

SCI-348-18.04

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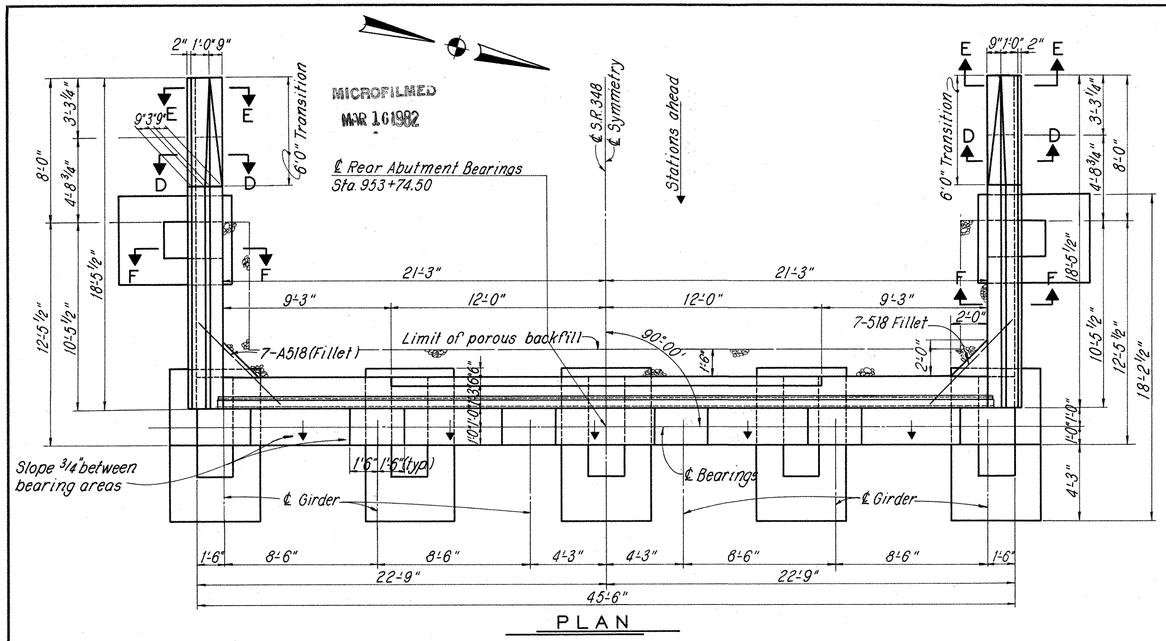
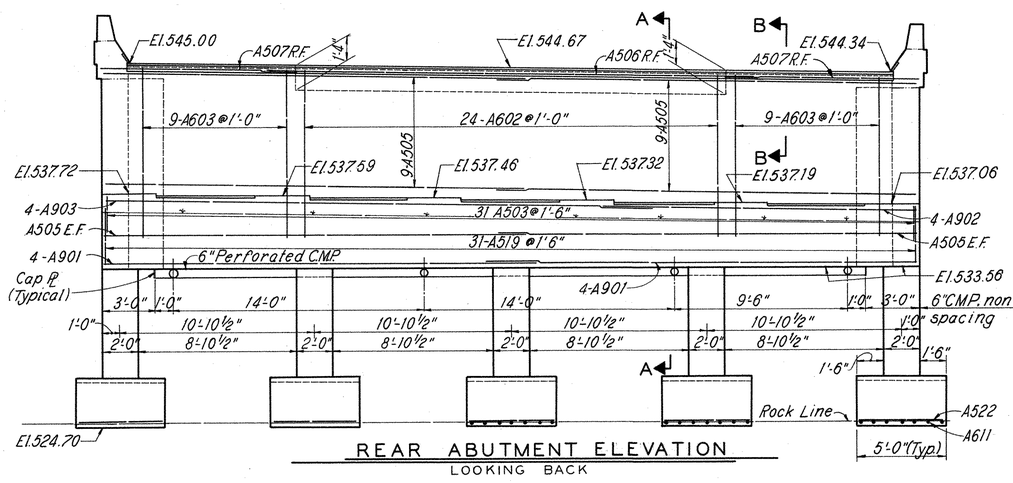
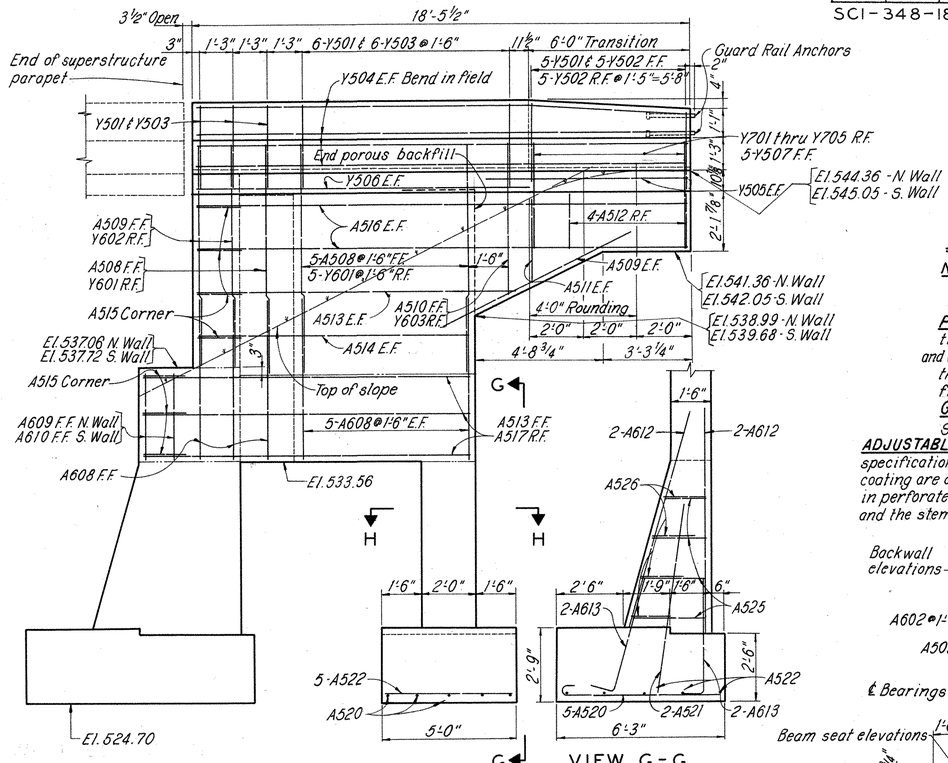


PLAN

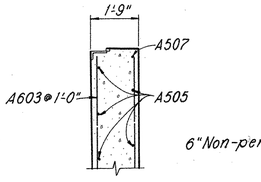


REAR ABUTMENT ELEVATION
LOOKING BACK

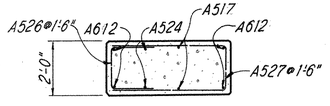


WALL ELEVATION

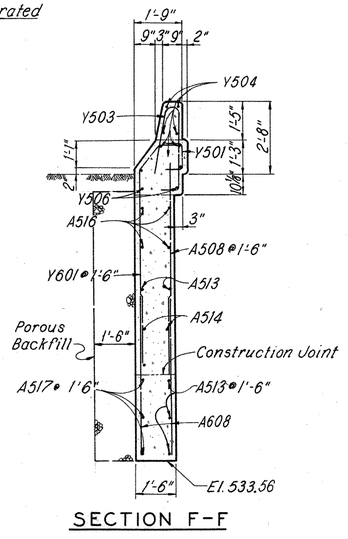
VIEW G-G



SECTION B-B



SECTION C-C



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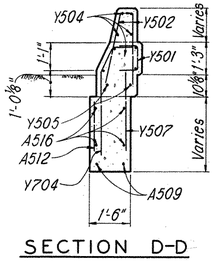
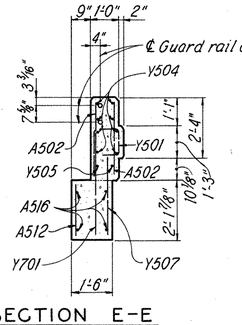


SECTION D-D



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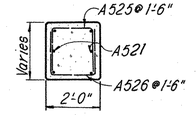


SECTION H-H

NOTES:

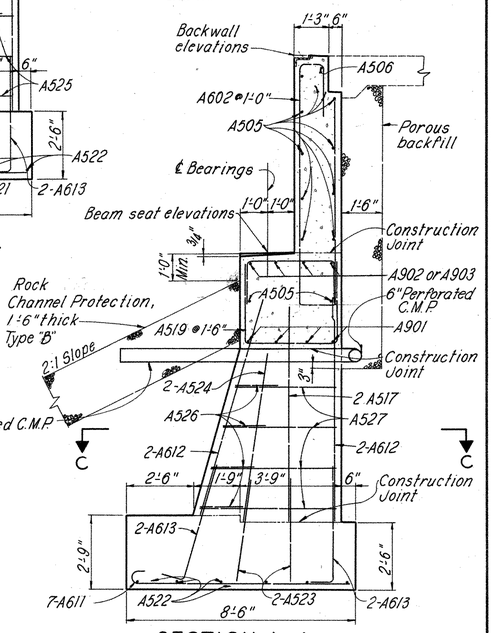
NOTATION: F.F. = Front Face
R.F. = Rear Face
E.F. = Each Face

POROUS BACKFILL: 1.5 ft. thick full length of abutment and wing walls, shall extend up to the subgrade or to the finished ground surface.

GENERAL NOTES:

See sheet 104

ADJUSTABLE TYPE ELBOWS meeting specifications requirements for gage and coating are acceptable for making bends in perforated corrugated metal pipe. Elbows and the stem of tees need not be perforated.



SECTION A-A

SHAFFER, JOHNSTON, LICHTENWALTER AND ASSOCIATES, INC.
Consulting Engineers
MANSFIELD WOOSTER OHIO

3/9

REAR ABUTMENT

BRIDGE NO. SCI-348-1854 R OVER SCIOTO RIVER

SCIOTO COUNTY S. R. 348

STA. 953+72.25 TO STA. 958+37.75

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RAK	RAK	EO		JM	4-4-69	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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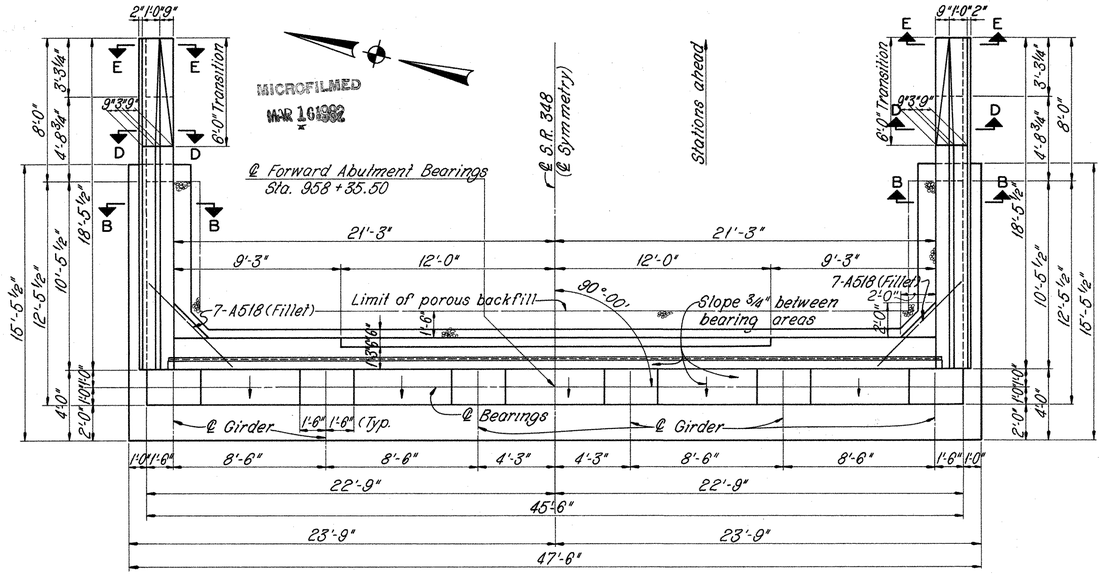
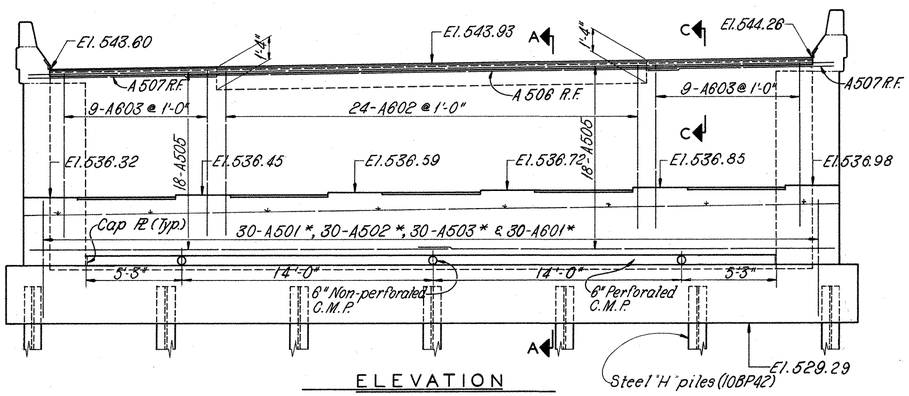
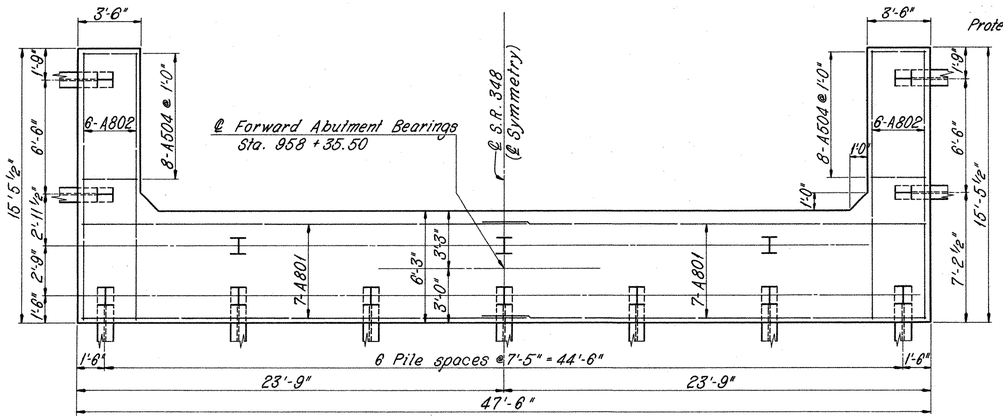


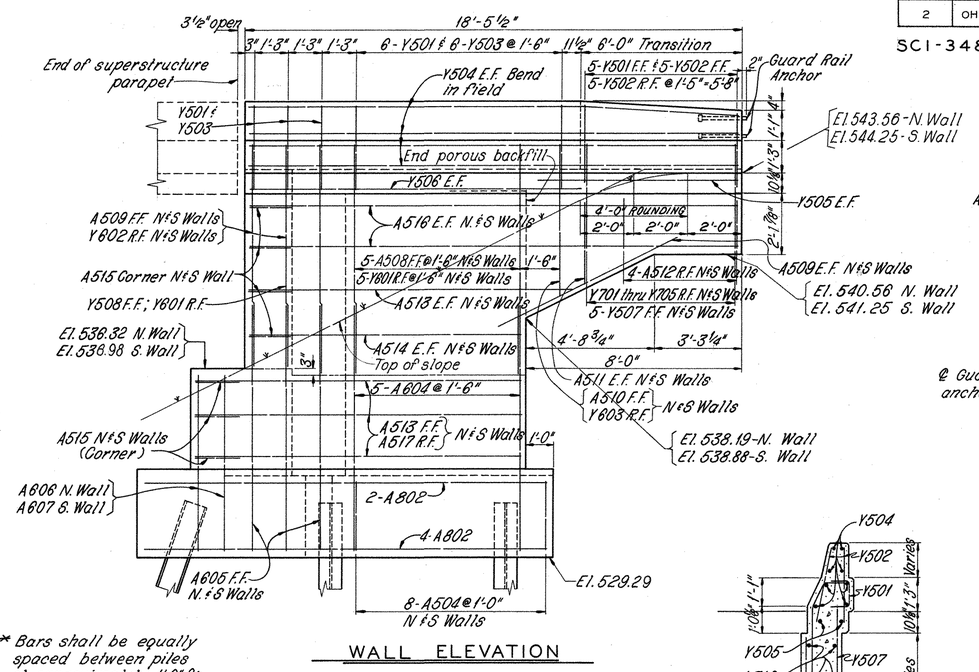
PLAN



ELEVATION

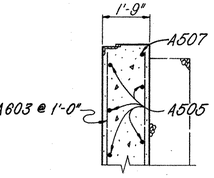


FOOTING PLAN

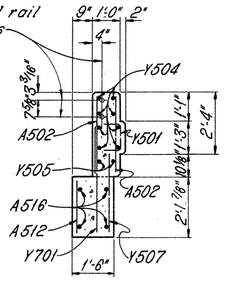


WALL ELEVATION

* Bars shall be equally spaced between piles at approximately 1'-6" ℄.



SECTION C-C



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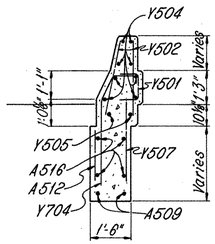
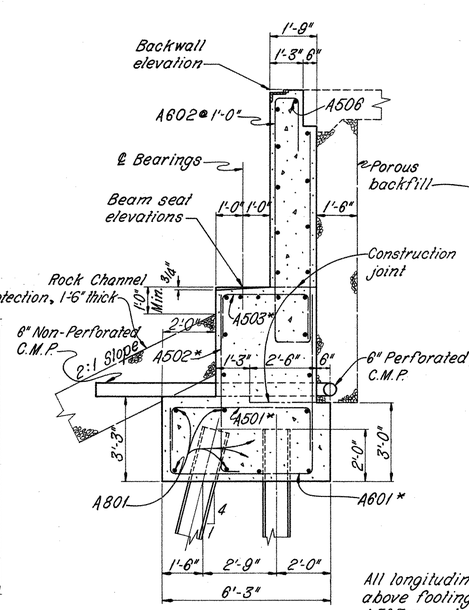
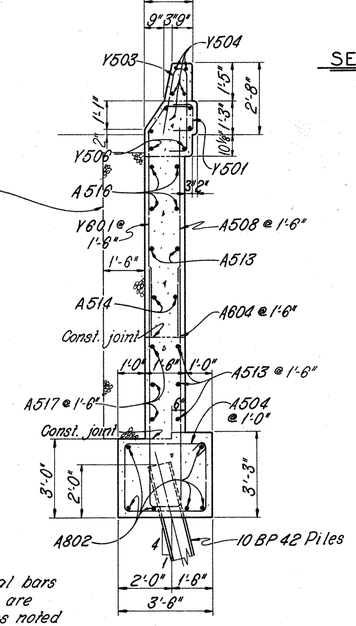


SECTION D-D



SECTION A-A



SECTION B-B

All longitudinal bars above footing are A505 except as noted

NOTES:

NOTATION: R.F. - Rear Face ; F.F. - Front Face and E.F. - Each Face.

POROUS BACKFILL : 1'-6" ft. thick full length of abutment and wings, shall extend up to the subgrade or to the finished ground surface.

GENERAL NOTES: See sheet 104

SHAFFER, JOHNSTON, LICHTENWALTER AND ASSOCIATES, INC.
Consulting Engineers
MANSFIELD WOOSTER OHIO

4 | 9

FORWARD ABUTMENT

BRIDGE NO. SCI-348-1854R OVER SCIOTO RIVER

SCIOTO COUNTY S.R. 348

STA. 953 + 72.25 TO STA. 958 + 37.75

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RAK	JPG	WH		JM	4-4-69	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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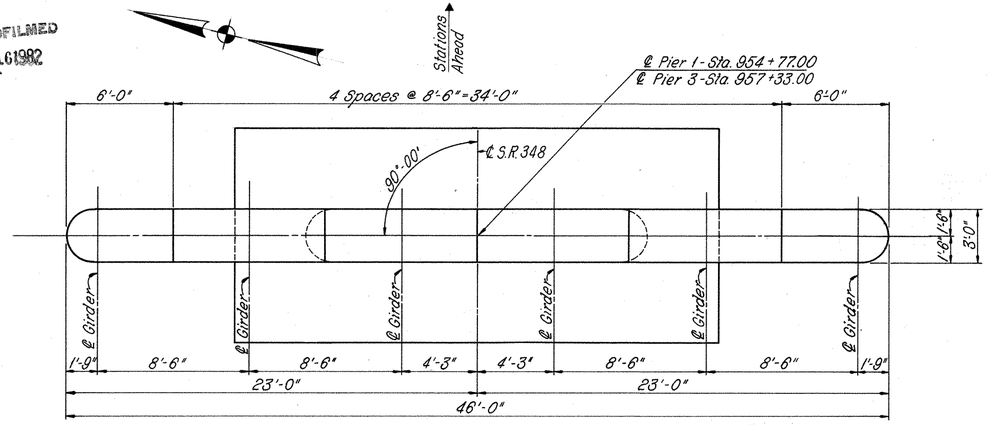
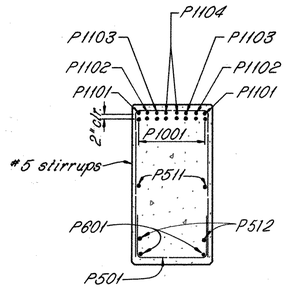
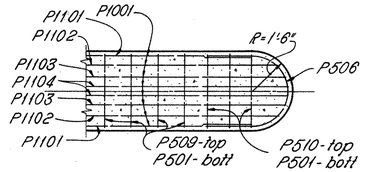
SCI-348-18.04



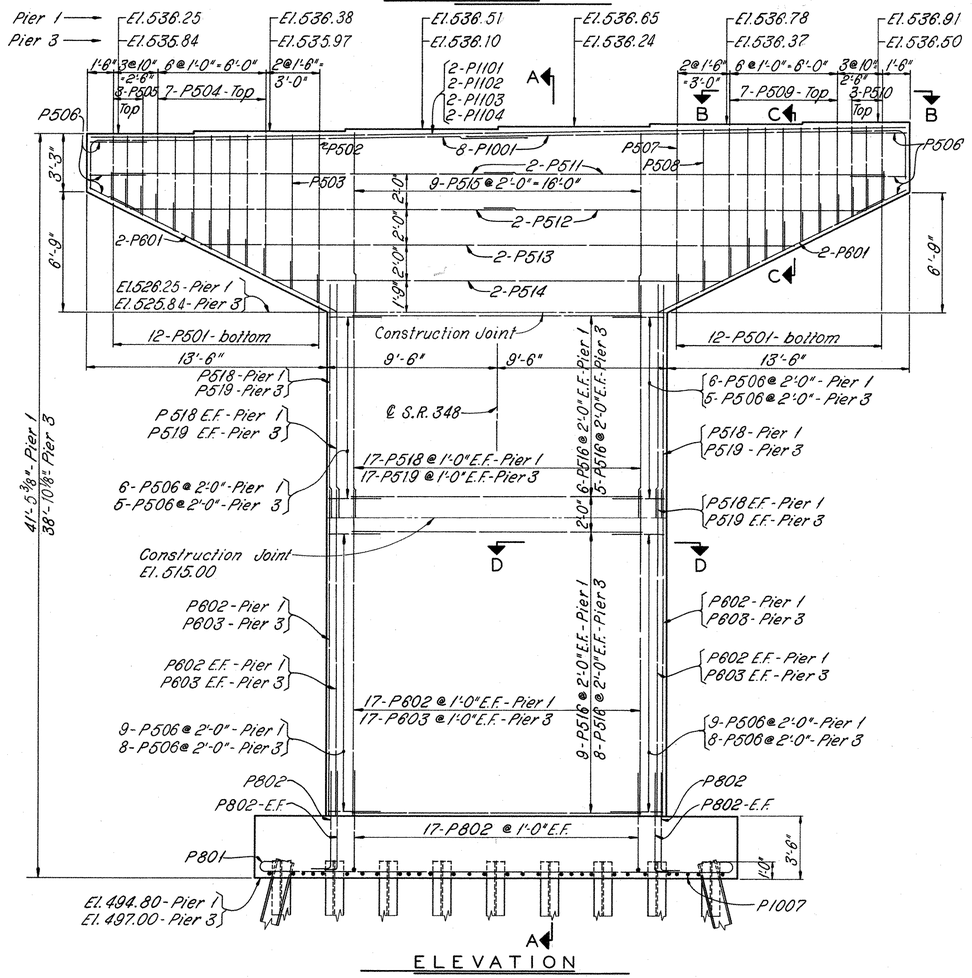
PLAN



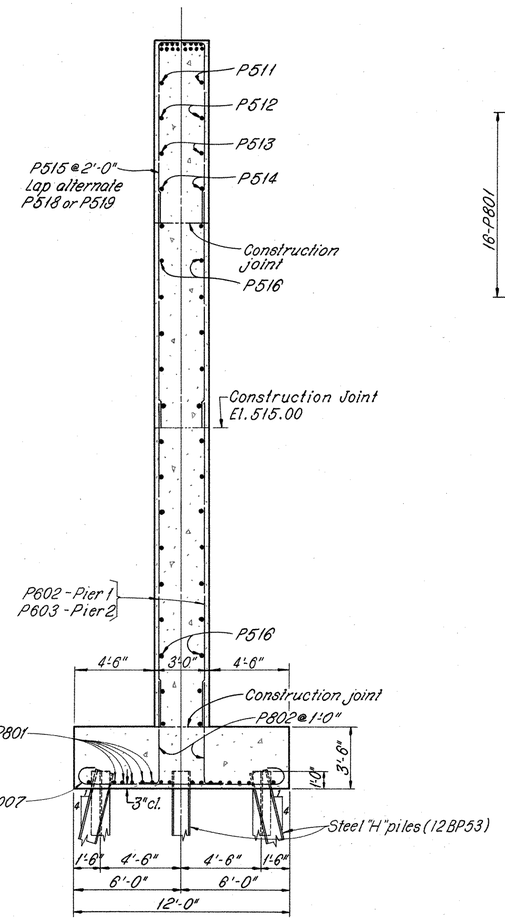
SECTION C-C



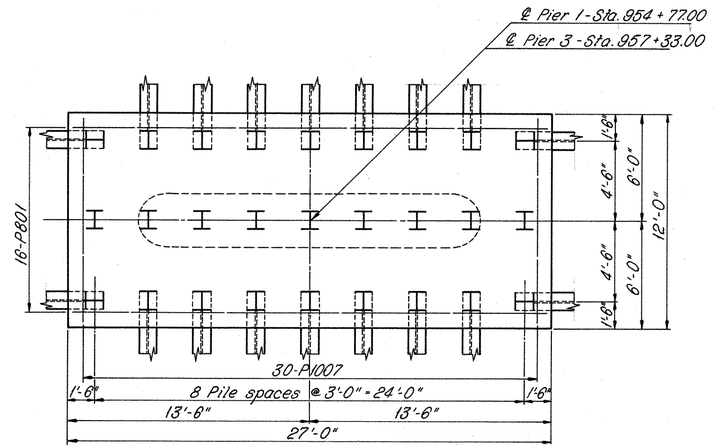
VIEW B-B



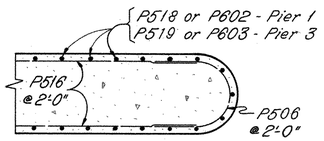
ELEVATION



SECTION A-A



FOOTING PLAN



SECTION D-D

SHAFFER, JOHNSTON, LICHTENWALTER AND ASSOCIATES, INC.
Consulting Engineers
MANSFIELD OHIO WOOSTER

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PIERS 1 & 3

BRIDGE NO. SCI-348-1854R OVER SCIOTO RIVER

SCIOTO COUNTY S.R. 348

STA. 953 + 72.25 TO STA. 958 + 37.75

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RAK	RAK	WH		JM	4-4-69	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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141

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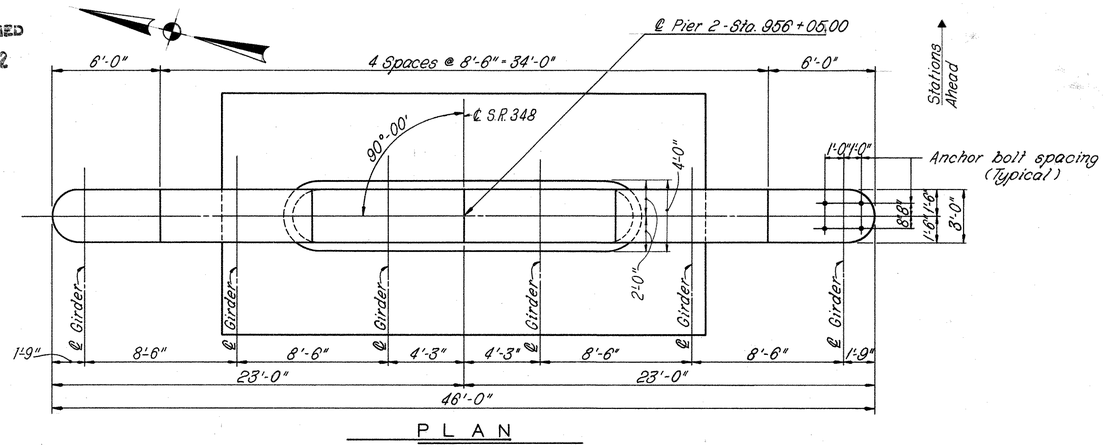

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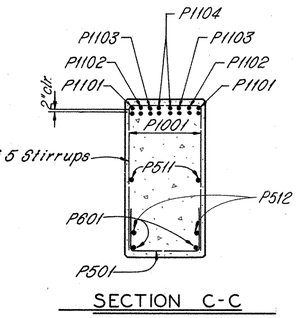
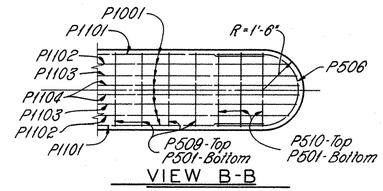
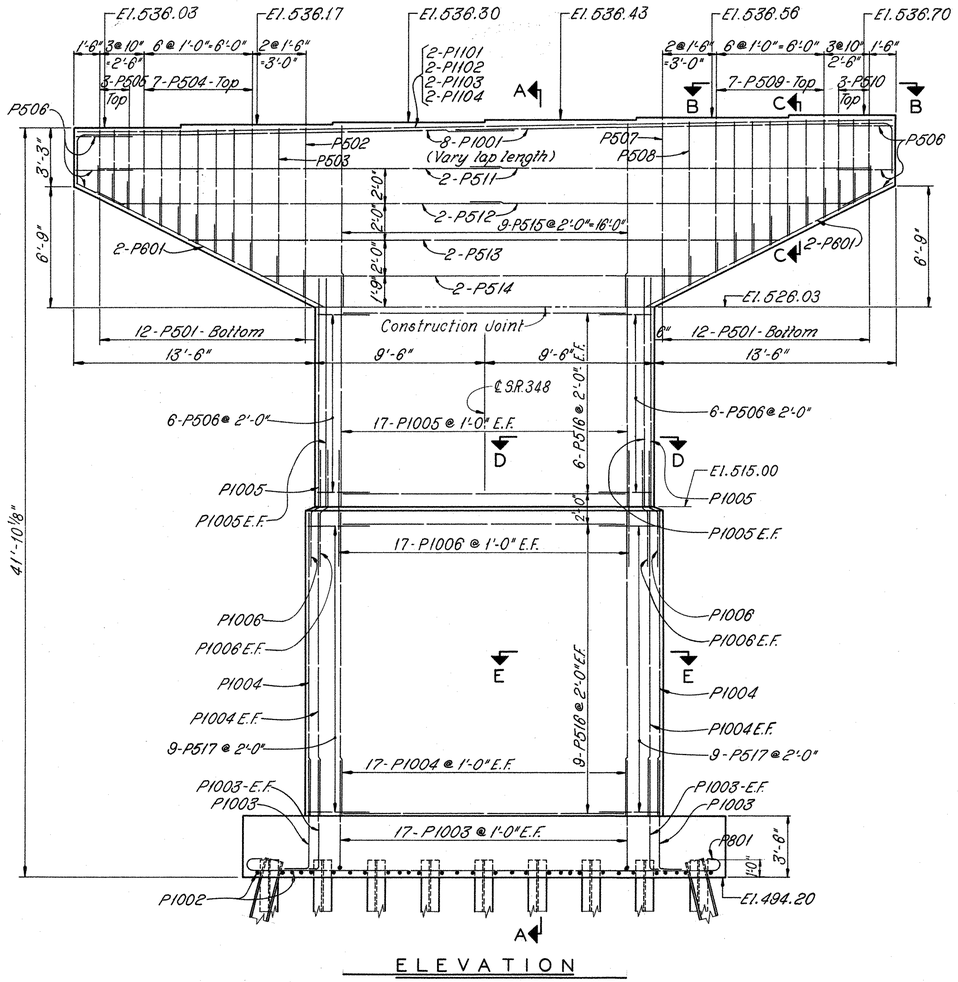


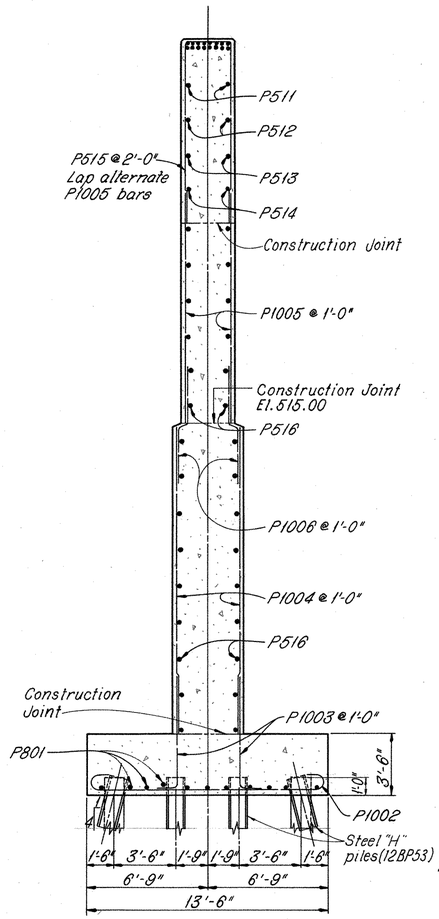
SECTION C-C



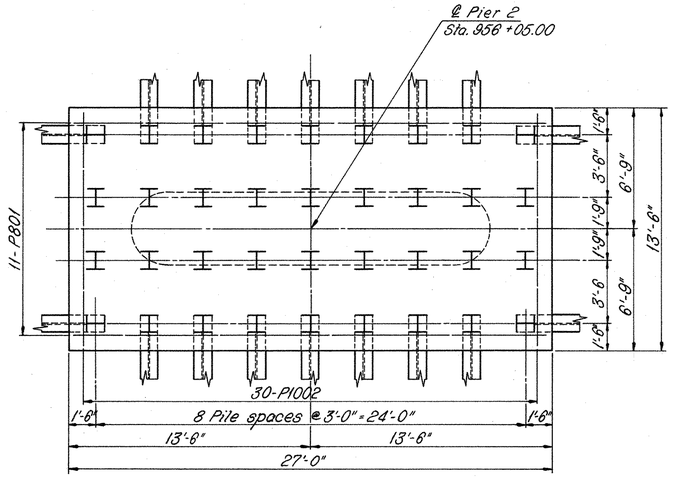
VIEW B-B



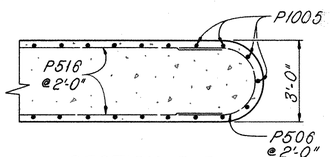
ELEVATION



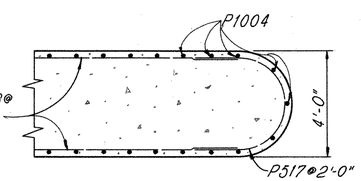
SECTION A-A



FOOTING PLAN



SECTION D-D



SECTION E-E

SHAFFER, JOHNSTON, LICHTENWALTER AND ASSOCIATES, INC.
Consulting Engineers
MANSFIELD WOOSTER OHIO

8 / 9

PIER 2

BRIDGE NO. SCI-348-1854R OVER SCIOTO RIVER

SCIOTO COUNTY S.R. 348

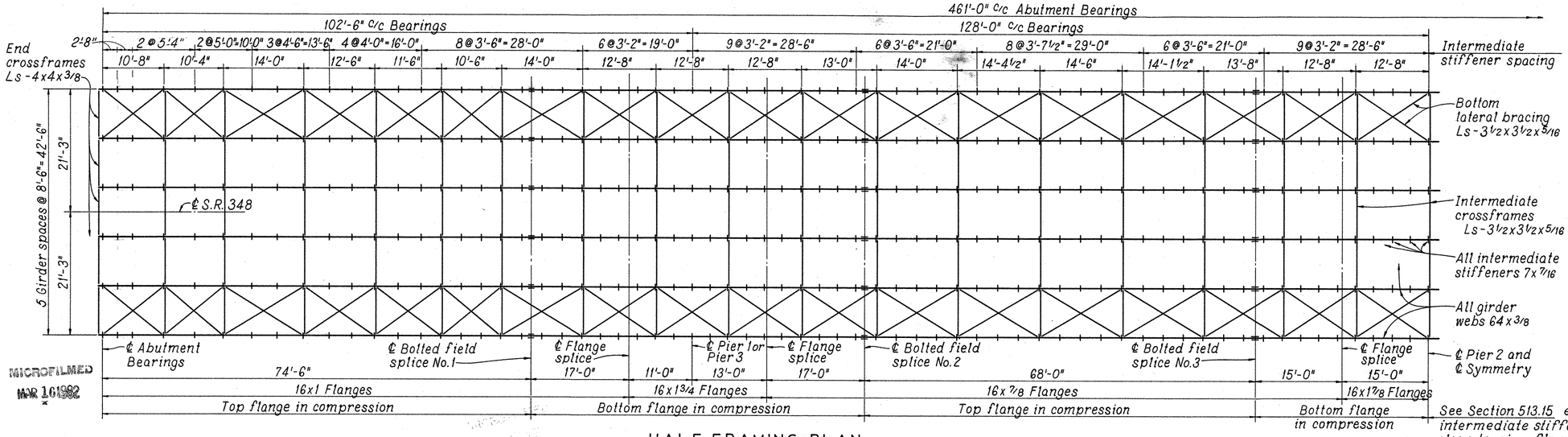
STA. 953+72.25 TO STA. 958+37.75

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RAK	RAK	WH		JM	4-4-69	

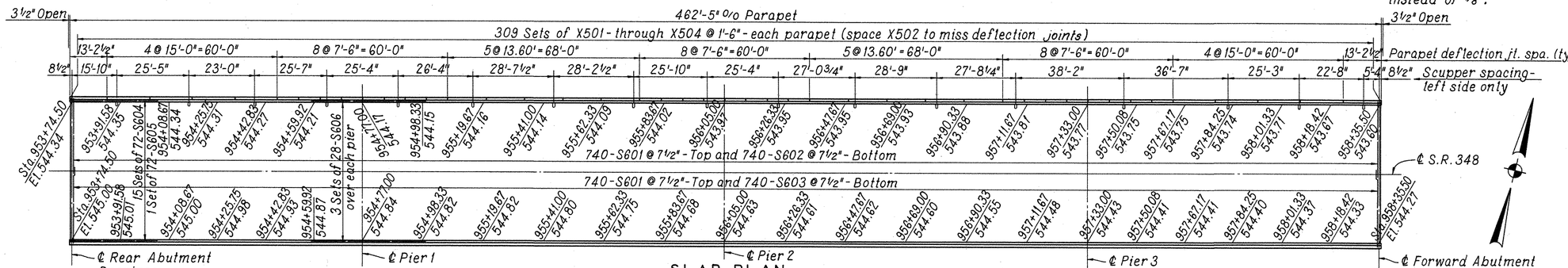
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

109 / 141

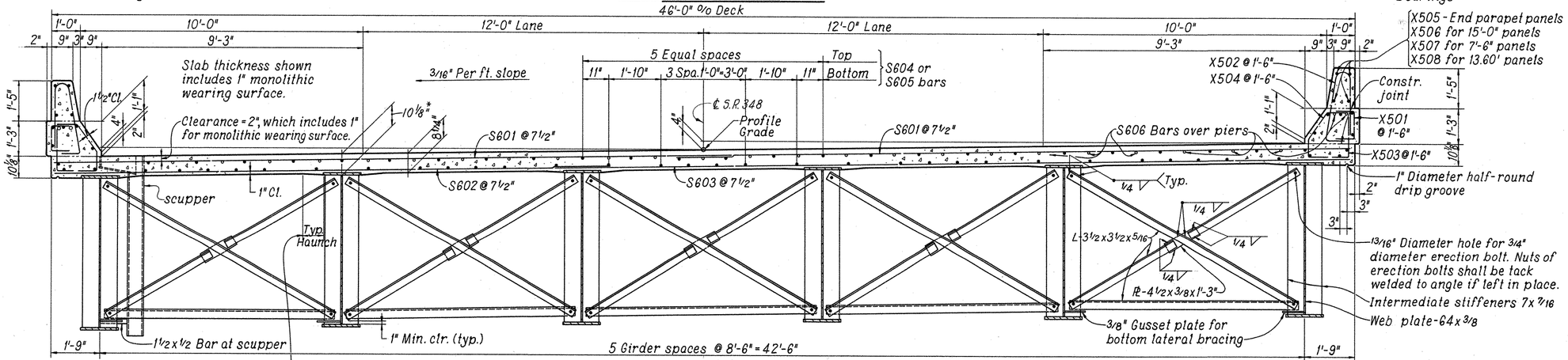
SCI-348-18.04



HALF FRAMING PLAN



SLAB PLAN



A typical haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.

*- This is the design dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Section 511.19 of the Construction and Material Specifications.

All longitudinal bars S604 or S605 except as otherwise shown. Lap 1'-11" minimum.

TRANSVERSE SECTION

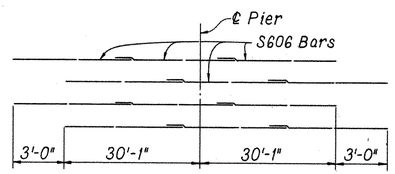


DIAGRAM SHOWING STAGGER OF S606 BARS OVER PIERS

Elevations shown on slab plan are at sixth points of spans where top of deck meets face of curb and are those which are required before the deck concrete is placed to allow for dead load deflection.

NOTES:

END CROSSFRAMES, END DAMS, CURB PLATES, SCUPPERS AND GIRDER BOLTED FIELD SPLICE NOTES: See Standard Drawings SD-1-69, sheets 1 thru 4. Use 4x4x3/8 angles in end crossframes instead of 4x4x5/16.

PARAPET: See Standard Drawing BR-1-67, sheet 1 of 3.

BEARINGS: See Standard Drawing RB-1-55 for the following: Abutments - R-125
Piers 1 and 3 - R-300
Pier 2 - B-300

SHAFFER, JOHNSTON, LICHTENWALTER AND ASSOCIATES, INC. 7 / 9
Consulting Engineers
MANSFIELD OHIO WOOSTER

SUPERSTRUCTURE - 1

BRIDGE NO. SCI-348-1854 R OVER SCIOTO RIVER

SCIOTO COUNTY S. R. 348

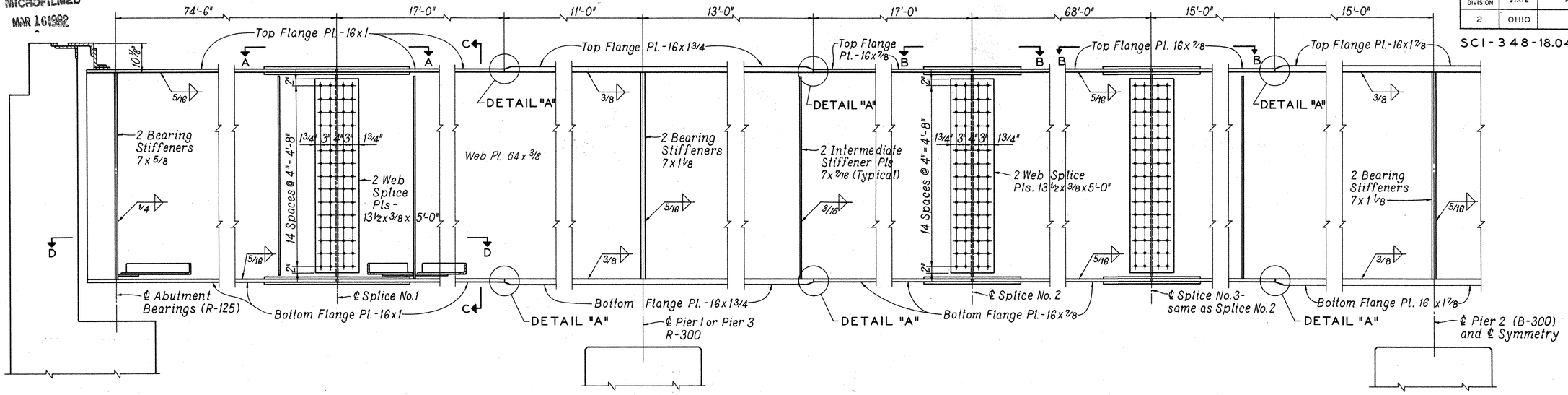
STA. 953+72.25 TO STA. 958+37.75

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RAK	RAK	RWH		JM 4-4-69		

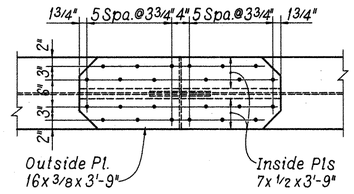
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

110
141

SCI-348-18.04

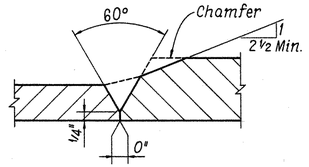


GIRDER ELEVATION



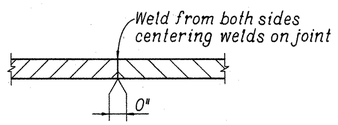
SPLICE NO. 1

SECTION A-A



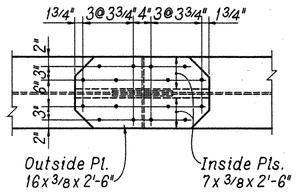
DETAIL "A"

Full penetration welds shall be back gouged and welded after welding far side. Butt welds on girder flange and web plates shall be ground flush, the finished grinding being parallel to the direction of stress.



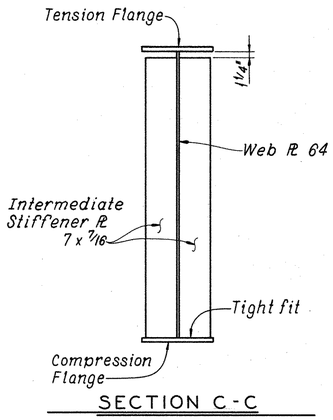
TYPICAL WEB WELDED SHOP SPLICE

Locate to make web plates in convenient lengths.

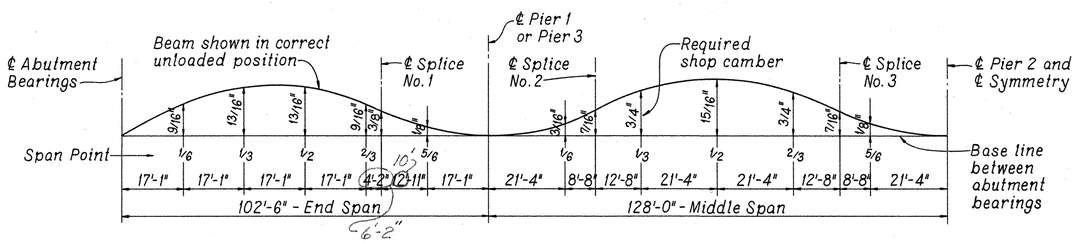


SPLICE NO. 2 AND 3

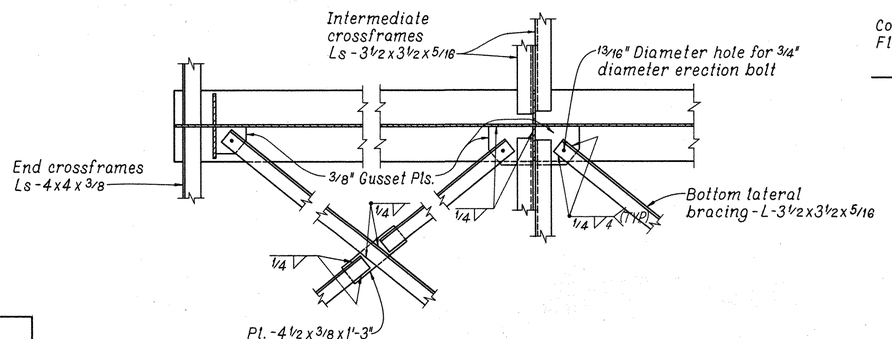
SECTION B-B



SECTION C-C



GIRDER LAYOUT DIAGRAM



SECTION D-D

HIGH STRENGTH BOLTS shall be 1" diameter unless otherwise noted.

CAMBERING of girders is required in accordance with the following table:

DEFLECTION AND CAMBER - ALL GIRDERS													
	END SPANS						MIDDLE SPANS						
SPAN POINT	1/6	1/3	1/2	2/3	SPLICE NO. 1	5/6	1/6	SPLICE NO. 2	1/3	1/2	2/3	SPLICE NO. 3	5/6
Deflection due to weight of steel	1/8"	3/16"	3/16"	1/16"	1/16"	0	0	1/8"	1/8"	3/16"	1/8"	1/8"	0
Deflection due to remaining dead load	7/16"	5/8"	5/8"	1/2"	5/16"	1/8"	3/16"	5/16"	5/8"	3/4"	5/8"	5/16"	1/8"
Adjustment required for vertical curve	0	0	0	0	0	0	0	0	0	0	0	0	0
Required shop camber	9/16"	13/16"	13/16"	9/16"	3/8"	1/8"	3/16"	7/16"	3/4"	15/16"	3/4"	7/16"	1/8"

SHAFFER, JOHNSTON, LICHTENWALTER AND ASSOCIATES, INC.
Consulting Engineers
MANSFIELD OHIO WOOSTER

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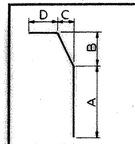
SUPERSTRUCTURE - 2

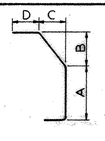
BRIDGE NO. SCI-348-1854 R
OVER SCIOTO RIVER

SCIOTO COUNTY S. R. 348
STA. 953 + 72.25 TO STA. 958 + 37.75

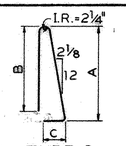
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RAK	RAK	RWH		JM	4-4-69	4-2-71



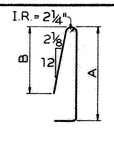
TYPE 1



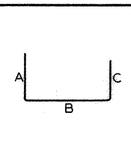
TYPE 2



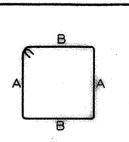
TYPE 3



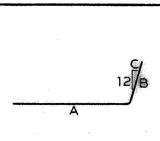
TYPE 4



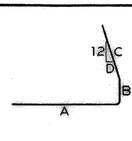
TYPE 5



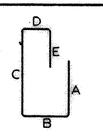
TYPE 6



TYPE 7



TYPE 8



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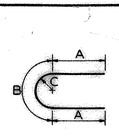

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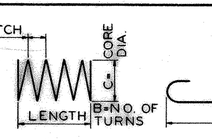
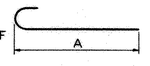
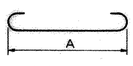


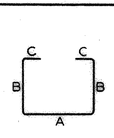
TYPE 11



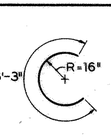
TYPE 12



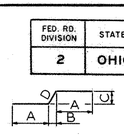
TYPE 13



TYPE 14



TYPE 15



TYPE 16

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

SCI - 348 - 18.04

REAR ABUTMENT

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	WEIGHT
Y501	28	2'-0"	5	7½"	1'-0"	7½"			59
Y502	20	2'-9"	Str.						57
Y503	18	6'-3"	4	3'-1"	2'-5"				118
Y504	16	18'-1"	Str.						302
Y505	4	7'-5"	Str.						31
Y506	4	12'-3"	Str.						51
Y507	10	2'-10"	Str.						29
A503	31	6'-4"	5	1'-7"	3'-5"	1'-7"			205
A505	22	23'-4"	Str.						535
A506	1	27'-2"	Str.						29
A507	2	10'-10"	Str.						22
A508	12	7'-7"	Str.						95
A509	8	8'-4"	Str.						61
A510	2	4'-10"	Str.						10
A511	4	3'-0"	Str.						13
A512	8	1'-11"	Str.						16
A513	10	12'-1"	Str.						126
A514	4	10'-1"	Str.						42
A515	14	3'-0"	5	1'-7"	1'-7"	0			44
A516	8	18'-1"	Str.						151
A517	16	8'-0"	Str.						134
A518	14	6'-8"	Str.						97
A519	31	9'-6"	5	3'-2"	3'-5"	3'-2"			307
A520	10	6'-6"	12	5'-11"					68
A521	4	7'-2"	Str.						30
A522	40	4'-8"	Str.						195
A523	20	3'-10"	Str.						80
A524	10	6'-4"	Str.						66
A525	8	④	5	③	1'-8"	②			49
A526	28	4'-7"	5	1'-7"	1'-8"	1'-7"			134
A527	20	②	5	①	1'-8"	①			212
Y601	12	9'-3"	1	7'-5"	11½"	9"	9"		167
Y602	2	9'-0"	1	7'-2"	11½"	9"	9"		27
Y603	2	6'-5"	1	4'-7"	11½"	9"	9"		19
A602	24	20'-7"	9	7'-10"	1'-5"	9'-1"	11"	2'-0"	742
A603	18	19'-3"	5	9'-1"	1'-5"	9'-1"			521
A608	26	5'-10"	Str.						228
A609	2	3'-3"	Str.						10
A610	2	3'-11"	Str.						12
A611	35	8'-10"	12	8'-2"					464
A612	28	8'-4"	Str.						350
A613	28	5'-2"	5	4'-6"	10"	0			217
Y701	2	3'-11"	Str.						16
Y702	2	4'-7"	1	3'-0"	11½"	2¼"	9"		19
Y703	2	4'-8"	1	3'-0"	11½"	4"	9"		19
Y704	2	4'-9"	1	3'-0"	11½"	6"	9"		19
Y705	2	4'-10"	1	3'-0"	11½"	9"	9"		20
A901	8	24'-0"	Str.						653
A902	4	17'-6"	Str.						238
A903	4	30'-11"	Str.						420
								TOTAL	7529

① Varies From 3'-9" to 5'-0". 5 Sets, Increment = 5".
② Varies From 8'-11" to 11'-5". 5 Sets, Increment = 10".
③ Varies From 1'-7" to 2'-10". 2 Sets, Increment = 5".
④ Varies From 4'-7" to 7'-1". 2 Sets, Increment = 10".

MICROFILMED MAR 16 1982

FORWARD ABUTMENT

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	WEIGHT
Y501	28	2'-0"	5	7½"	1'-0"	7½"			58
Y502	20	2'-9"	Str.						58
Y503	18	6'-3"	4	3'-1"	2'-5"				117
Y504	16	18'-1"	Str.						302
Y505	4	7'-5"	Str.						31
Y506	4	12'-3"	Str.						51
Y507	10	2'-10"	Str.						30
A501	30	8'-2"	5	1'-7"	5'-3"	1'-7"			256
A502	30	7'-0"	5	7½"	6'-6"	0			219
A503	30	6'-4"	5	1'-7"	3'-5"	1'-7"			198
A504	16	11'-4"	6	2'-6"	3'-0"				189
A505	36	23'-4"	Str.						877
A506	1	27'-2"	Str.						28
A507	2	10'-10"	Str.						23
A508	12	7'-7"	Str.						95
A509	8	8'-4"	Str.						61
A510	2	4'-10"	Str.						10
A511	4	3'-0"	Str.						12
A512	8	1'-11"	Str.						16
A513	10	12'-1"	Str.						126
A514	4	10'-1"	Str.						42
A515	14	3'-0"	5	1'-7"	1'-7"	0			44
A516	8	18'-1"	Str.						151
A517	6	8'-0"	Str.						50
A518	14	6'-8"	Str.						98
Y601	12	9'-3"	1	7'-5"	11½"	9"	9"		166
Y602	2	9'-0"	1	7'-2"	11½"	9"	9"		27
Y603	2	6'-5"	1	4'-7"	11½"	9"	9"		20
A601	30	14'-4"	5	2'-9"	5'-3"	6'-8"			646
A602	24	20'-7"	9	7'-10"	1'-5"	9'-1"	11"	2'-0"	742
A603	18	19'-3"	5	9'-1"	1'-5"	9'-1"			520
A604	10	19'-0"	5	9'-1"	1'-2"	9'-1"			285
A605	6	9'-1"	Str.						82
A606	2	6'-6"	Str.						20
A607	2	7'-2"	Str.						22
Y701	2	3'-11"	Str.						16
Y702	2	4'-7"	1	3'-0"	11½"	2¼"	9"		18
Y703	2	4'-8"	1	3'-0"	11½"	4"	9"		19
Y704	2	4'-9"	1	3'-0"	11½"	6"	9"		20
Y705	2	4'-10"	1	3'-0"	11½"	9"	9"		20
A801	14	24'-9"	Str.						925
A802	12	15'-0"	Str.						481
								TOTAL	7171

SUPERSTRUCTURE

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	WEIGHT
X501	618	2'-0"	5	7½"	1'-0"	7½"			1289
X502	618	5'-4"	3	2'-5"	2'-2"	7½"			3438
X503	618	2'-0"	5	7½"	1'-6"	0			1289
X504	618	2'-10"	2	8"	11½"	9"	9"		1826
X505	16	12'-10"	Str.						214
X506	64	14'-8"	Str.						979
X507	192	7'-2"	Str.						1435
X508	80	13'-3"	Str.						1106
S601	1480	23'-10"	Str.						52,980
S602	740	19'-7"	Str.						21,766
S603	740	28'-1"	Str.						31,214
S604	1080	30'-0"	Str.						48,665
S605	72	40'-11"	Str.						4425
S606	252	22'-4"	Str.						8453
								TOTAL	179,079

PIERS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	WEIGHT
P501	72	5'-7"	5	1'-7"	2'-8"	1'-7"			419
P502	3	21'-3"	5	9'-5"	2'-8"	9'-5"			66
P503	3	19'-7"	5	8'-7"	2'-8"	8'-7"			61
P504	21	⑥	5	⑤	2'-8"	⑥			330
P505	9	⑧	5	⑦	2'-8"	⑦			96
P506	84	7'-4"	10	1'-7"	4'-2"	1'-4"			642
P507	3	21'-11"	5	9'-9"	2'-8"	9'-9"			69
P508	3	20'-5"	5	9'-0"	2'-8"	9'-0"			64
P509	21	⑩	5	⑨	2'-8"	⑨			352
P510	9	⑫	5	⑪	2'-8"	⑪			109
P511	12	23'-4"	Str.						292
P512	12	21'-4"	Str.						267
P513	6	33'-0"	Str.						207
P514	6	25'-0"	Str.						156
P515	27	22'-7"	5	10'-1"	2'-8"	10'-1"			636
P516	86	16'-0"	Str.						1435
P517	18	8'-11"	10	1'-7"	5'-9"	1'-10"			167
P518	40	12'-11"	Str.						539
P519	40	12'-6"	Str.						522
P601	12	14'-0"	Str.						252
P602	40	18'-3"	Str.						1096
P603	40	16'-1"	Str.						966
P801	43	28'-8"	13	26'-6"					3291
P802	40	6'-1"	5	5'-2"	1'-1"	0			650
P1001	48	27'-2"	5	24'-5"	2'-9"	0			5611
P1002	30	15'-10"	13	13'-0"					2044
P1003	40	7'-6"	5	6'-5"	1'-4½"	0			1291
P1004	40	17'-1"	Str.						2940
P1005	40	12'-9"	Str.						2195
P1006	40	6'-4"	16	3'-2"	2"	6"	6½"		1090
P1007	60	14'-4"	13	11'-6"					3701
P1101	6	43'-0"	Str.						1371
P1102	6	44'-10"	Str.						1429
P1103	6	45'-6"	Str.						1450
P1104	6	45'-7"	Str.						1453
								TOTAL	37,259

⑤ Varies From 4'-10" to 7'-10". 3 Sets, Increment = 6".
⑥ Varies From 12'-1" to 18'-1". 3 Sets, Increment = 1'-0".
⑦ Varies From 3'-6" to 4'-4". 3 Sets, Increment = 5".
⑧ Varies From 9'-5" to 11'-1". 3 Sets, Increment = 10".
⑨ Varies From 5'-4" to 8'-4". 3 Sets, Increment = 6".
⑩ Varies From 13'-1" to 19'-1". 3 Sets, Increment = 1'-0".
⑪ Varies From 4'-2" to 5'-0". 3 Sets, Increment = 5".
⑫ Varies From 10'-9" to 12'-5". 3 Sets, Increment = 10".

NOTES:

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: A506 is a No. 5 size bar and P1002 is a No. 10 size bar.

REPLACEMENT BARS

MARK	NO.	LENGTH	TYPE
RE500	2	6'-7"	Str.
RE600	8	6'-11"	Str.
RE700	1	7'-2"	Str.
RE800	1	7'-6"	Str.
RE900	1	7'-10"	Str.
RE1000	1	8'-2"	Str.
RE1100	1	8'-6"	Str.

SHAFFER, JOHNSTON, LICHTENWALTER AND ASSOCIATES, INC.
Consulting Engineers
MANSFIELD WOOSTER
OHIO

REINFORCING STEEL

BRIDGE NO. SCI - 348 - 1854 R
OVER SCIOTO RIVER
SCIOTO COUNTY S.R. 348
STA. 953 + 72.25 TO STA. 958 + 37.75

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JPG	JM	JM		RAK	4-4-69	