

KENTUCKY DEPARTMENT OF HIGHWAYS
KNOX COUNTY
BARBOURVILLE - WILLIAMSBURG ROAD
KY-II BRIDGE OVER CUMBERLAND RIVER

REV. NO.	DATE	BY	CHK.	APP.	DATE	BY	CHK.	APP.
7								

REFERENCE AND ESTIMATE OF QUANTITIES														
ITEM LOCATION	SHEET No.	CLASS "A" CONCRETE Cu. Yd.	CLASS "AA" CONCRETE Cu. Yd.	REINF. STEEL Lb.	STRUCTURAL STEEL Lump Sum	HIGH STRENGTH CONCRETE HANDRAIL Lin. Ft.	LINSEED OIL PROT. COATING Sq. Yd.	CRUSHED AGGREGATE SLOPE PROTECTION Sq. Yd.	END BENT BACKFILL Cu. Yd.	STEEL PILES 14 BP 73 Lin. Ft.		STRUCTURE EXCAVATION Cu. Yd.		DRAIN PIPE 6" W. I. Lin. Ft.
										FURNISHING	DRIVING	COMMON	S. ROCK	
Title and Quantities	1													
General Notes	2													
Drain Details	3													
Layout	4													48
Soundings	5													
Pile Record	7, 11													
Abutment 1	6, 7, 8, 9	104.4	32.0	13,511				680	850	294	294	185	—	
Abutment 2	10, 11, 12	48.9	22.9	5,880				600	780	301	301	185	—	
Pier 1	13	194.8	—	34,062								5	40	
Pier 2	14	174.5	—	30,766								110	15	
Superstructure	15, 16, 17, 18	—	520.1	104,522	①	824	1,980							
Elevations	15													
Superstructure Total		—	520.1	104,522	①	824	1,980							
Substructure Total		522.6	54.9	84,229				1,280	1,630	595	595	485	55	48
Grand Total		522.6	575.0	188,751	①	824	1,980	1,280	1,630	595	595	485	55	48

① Approximately 755,831 Lbs. of Structural Steel is included in the Lump Sum Bid for Structural Steel.

SPECIAL PROVISIONS FOR:

Linseed Oil Protective Coating
(Rev. 4-14-64)
Joint Sealing Compound
(Rev. 6-24-65)
Class "AA" Concrete
(Appr. 7-15-66)

BILL OF INCIDENTAL MATERIAL		
ITEM	No.	SIZE & LOCATION
Joint Sealing Compound	1	1" x 3" x 37'-0" at Exp. Joint Abutment 1
Joint Sealing Compound	1	1" x 3" x 37'-0" at Exp. Dam Abutment 2

NOTE:

Quantities shown in Bill of Incidental Materials are approximate only and the Contractor is responsible for furnishing enough materials to complete the work according to plans and Specifications.
Joint Sealing Compound shall be furnished and applied in accordance with the Special Provisions.

STANDARD DRAWINGS:

AE1
AWS1C
H150B
SF2a
P18

VOID (See Sheet 1A)

KY-II BRIDGE OVER CUMBERLAND RIVER SHEET 1 OF 19	
COMMONWEALTH OF KENTUCKY	
DEPARTMENT OF HIGHWAYS	
FRANKFORT	
COUNTY OF	
KNOX	
BARBOURVILLE-WILLIAMSBURG	
ROAD	
STATION 8+34	S 308(8)
PROJECT NO. SP 61-170-7L	
BRIDGE NUMBER	DRAWING NO.
	16728

KENTUCKY DEPARTMENT OF HIGHWAYS
KNOX COUNTY
BARBOURVILLE - WILLIAMSBURG ROAD
KY-II BRIDGE OVER CUMBERLAND RIVER

REFERENCE AND ESTIMATE OF QUANTITIES														
ITEM LOCATION	SHEET No.	CLASS "A" CONCRETE Cu. Yd.	CLASS "AA" CONCRETE Cu. Yd.	REINF. STEEL Lb.	STRUCTURAL STEEL Lump Sum	HIGH STRENGTH CONCRETE HANDRAIL Lin.Ft.	LINSEED OIL PROT. COATING Sq. Yd.	CRUSHED AGGREGATE SLOPE PROTECTION Sq. Yd.	END BENT BACKFILL Cu. Yd.	STEEL PILES 14 BP 73 Lin. Ft.		STRUCTURE EXCAVATION Cu. Yd.		DRAIN PIPE 6" W.I Lin. Ft.
										FURNISHING	DRIVING	COMMON	S. ROCK	
Title and Quantities	1													
General Notes	2													
Drain Details	3													
Layout	4													48
Soundings	5													
Pile Record	7, 11													
Abutment 1	6, 7, 8, 9	104.4	32.0	13,303				680	230	294	294	185	—	
Abutment 2	10, 11, 12	44.7	52.0	6,392				600	135	301	301	185	—	
Pier 1	13	194.8	—	34,062								5	40	
Pier 2	14	174.5	—	30,766								110	15	
Superstructure	15, 16, 17, 18	—	520.1	104,505	①	824	1,980							
Elevations	19													
Superstructure Total		—	520.1	104,505	①	824	1,980							
Substructure Total		518.4	64.0	84,523				1280	365	595	595	485	55	48
Grand Total		518.4	584.1	191,028	①	824	1,980	1280	365	595	595	485	55	48

① Approximately 752,682 Lbs. of Structural Steel is included in the Lump Sum Bid for Structural Steel.

SPECIAL PROVISIONS FOR:

Linseed Oil Protective Coating
(Rev. 4-14-64)
Joint Sealing Compound
(Rev. 6-24-66)
Class "AA" Concrete
(Appr. 7-15-66)

BILL OF INCIDENTAL MATERIAL

ITEM	No.	SIZE & LOCATION
Joint Sealing Compound	1	1" x 3" x 1/2" at Exp. Joint Abutment 1
Joint Sealing Compound	1	1" x 3" x 1/2" at Exp. Dam Abutment 2

NOTE:

Quantities shown in Bill of Incidental Materials are approximate only and the Contractor is responsible for furnishing enough materials to complete the work according to plans and specifications.
Joint Sealing Compound shall be furnished and applied in accordance with the Special Provisions.

STANDARD DRAWINGS:

AEI
AWSIC
H 150 B
SF 2 a
P 18

KY-II BRIDGE OVER CUMBERLAND RIVER SHEET 1A

COMMONWEALTH OF KENTUCKY			
DEPARTMENT OF HIGHWAYS			
FRANKFORT			
COUNTY OF			
KNOX			
BARBOURVILLE - WILLIAMSBURG			
ROAD			
STATION 8+34		PROJECT NO. SP-6-170-71	
BRIDGE NUMBER		15728	

GENERAL NOTES:

SPECIFICATIONS:	Kentucky Department of Highways, Current Standard with Revisions.
DESIGN LOAD:	Bridge designed for H20-44 loading as specified in 1961 AASHTO Specifications.
DESIGN STRESSES:	For Class "AA" Reinforced Concrete $f_c = 20,000$ psi $f_t = 1,500$ psi $u = 200$ psi for embedment $u = 300$ psi for summation of perimeters $f'_c = 4,000$ psi $n = 8$ For Class "A" Reinforced Concrete $f_c = 20,000$ psi $f_t = 1,200$ psi $u = 200$ psi for embedment $u = 300$ psi for summation of perimeters $f'_c = 3,000$ psi $n = 10$
FOUNDATION PRESSURE:	Footings are designed for a maximum pressure of 20,000 p.s.f. The computed maximum design axial thrust is 95.0 tons per pile. The computed maximum design horizontal shear is 6.0 tons per pile. These maximums are for case 1 loadings with increases allowed for other cases.
CONCRETE:	Class "AA" Concrete is to be used throughout except in superstructure, portion of end bents above the construction joint at bridge seat elevation, piles and handrails. Class "D" Concrete is to be used in high strength concrete handrail. Class "AA" Concrete is to be used in roadway slab, curb, plinth and in the end bents above the construction joint at the bridge seat elevation.
REINFORCEMENT:	Dimensions shown from face of concrete to bars are clear distances. Spacing of bars is from center to center of bars.
BEVELED EDGES:	All exposed edges shall be beveled 7/8" unless otherwise shown.
JOINT MATERIAL, JOINT SEALING COMPOUND:	The cost of these items is to be included in the unit price bid for Class "AA" Concrete.
PILING:	Piles shall be driven to refusal or to solid rock. Test piles shall be driven where designated on the plans to determine the length required. All test piles shall be accurately located so that they may be used in the finished structure.
TYPE OF PILE:	The Contractor shall use the following type through-out: 148P73 Steel Piles, Std. Dwg. P18.
PLACING FILLS:	See Standard Dwg. No. SF2.
LINSEED OIL PROTECTIVE COATING:	Protective coating shall be furnished and applied in accordance with the Special Provisions.
WIND LOADS:	The structure is designed using wind loads based on a wind velocity of 84 m.p.h.
CRUSHED AGGREGATE SLOPE PROTECTION:	Crushed aggregate slope protection shall be in accordance with the Specifications.
TYPE OF HIGH STRENGTH HANDRAIL:	The Contractor shall provide High Strength Concrete Handrail in accordance with Standard Drawing H-150.
CONSTRUCTION IDENTIFICATION:	The names of the prime contractor and the sub-contractor shall be imprinted in the concrete with one inch letters at a location designated by the Engineer. The contractor shall furnish all plans, equipment and labor necessary to do the work for which no direct payment will be made.

STEEL NOTES:

WELDING SPECIFICATIONS:	See Std. Dwg. AWS1.
MATERIAL SPECIFICATIONS:	The following ASTM designations shall govern the materials furnished:
Material	ASTM Designation
Structural Steel	A36-63T
High Strength Bolts, Nuts & Plain Hardened Washers	A325-65 A325-64T
Mild Steel Arc-Welding Electrodes	E105-63
Magnetic Particle Inspection of Welds	B79-55
Shear Load and Pig Lead	
PAYMENT FOR STRUCTURAL STEEL:	For purposes of payment "lump sum bid" for structural steel includes structural steel, rivets, high strength bolts, steel plates, washers, welding and welding materials, molten lead, floor drains, load plates and anchor bolts, paint and all labor and materials necessary to erect the steel in accordance with the Plans and Specifications. Payment credits for changes in the steel quantities due to changes in the Plans ordered by the Engineer shall be at the unit price derived from the Contract lump sum bid divided by the estimated structural steel weight.
STEEL FINISH:	Steel bearing surfaces in contact shall be finished in accordance with Section 408.3.0 of the Specifications.
CAMBER:	Web plates shall be cut to provide for parabolic camber of the girder. Girders shall not conform to plan. Camber and grade in the erected position shall be considered as requiring at no additional cost to the State, either an adjustment in depth of the concrete slab haunch over the steel supporting members, or a reworking of the girder camber to meet the plan grade and slab thickness.
MILL TEST REPORTS:	Materiell mill test reports in triplicate shall be furnished the Kentucky Department of Highways that all materials furnished conform to the Specifications.
SHOP DETAIL DRAWINGS:	The Contractor shall submit shop detail drawings of all structural steel to the Bridge Engineer for approval in accordance with the Specifications. A set of linen tracings of approved shop details shall become the property of the Department of Highways when the Contract is completed and before final payment is made. No direct payment shall be made for record drawings but the cost shall be included in "lump sum bid" for structural steel. Any material ordered or work done by the Contractor before the shop drawings, including the welding procedures are approved, shall be at his risk. Qualification tests of all welding procedures shall be completed by the Contractor and approved by the Engineer prior to the final approval of shop drawings and start of the fabrication.
DIMENSIONS:	Dimensions shown on the design drawings are for a normal temperature of 60° Fahrenheit with dead load on the structure. Layout dimensions are horizontal measurements.
SHOP ASSEMBLY:	General reaming of holes for each field splice shall be required with all parts for each splice completely shop assembled with parts adjusted to lines and camber, fit for drilling or reaming. This applies to field splices in girders only. Girders shall remain assembled for inspection by the Department of Highways Inspector and are to be match-marked while assembled. Other field connections shall be drilled or reamed in the shop with connecting parts assembled, or shall be drilled or reamed to a metal template without assembly.
FIELD CONNECTIONS:	High strength steel bolts shall be used in all field connections in accordance with the Specifications except Assembly and Dimensions of High strength bolts, nuts and washers shall conform to "Specifications for Structural Joints using ASTM A325 Bolts", March 1960, approved by the Research Council on Riveted and Bolted Structural Joints of the Engineering Foundation. All joints are designed as friction-type connections. Installation shall be performed by using the turn-of-nut method. When the width of high strength bolt heads corresponds to that of the heavy semi-finished hexagon bolt only one washer per bolt is required.
Open holes shall be 15/16" diameter for 7/8" diameter bolts; 1 1/16" diameter for 1" diameter bolts; and 1 3/16" diameter for 1 1/8" diameter bolts.	
Where field welding is indicated, welding shall be performed in accordance with the Specifications for welding materials and welding. Welding procedures shall be submitted by the erector to the Department of Highways for approval.	
SHOP CONNECTIONS:	All welded shop splices in flanges and webs of girders or frames shall be shown on the shop drawings.

PAINT: All structural steel except finished bearing surfaces in contact, subject to movement shall be given one shop coat and one field coat of Type 1 Red lead paint and two field coats of Aluminum paint. Exposed surfaces of expansion dams, not accessible after erection, shall be given two field coats of Aluminum paint before erection. Finished bearing surfaces in contact, subject to movement, shall be coated in the shop with a hot mixture of white lead and tallow, in accordance with the Specifications. Shop paint shall not be applied within 3" of open holes where high strength bolts are to be used for field connections and shall not be applied to steel surfaces in contact with concrete. Cleaning of weld spatter from welded assemblies in accordance with AWS 413 (a) shall be required before assemblies are shop painted. Shop paint shall not be applied where field welding is to be done. Areas not painted in the shop shall be given one coat of Type 1 Red lead as touch up prior to application of the field coat of Red lead paint. Individual field coats shall be tinted to faithfully indicate the progress of field painting.

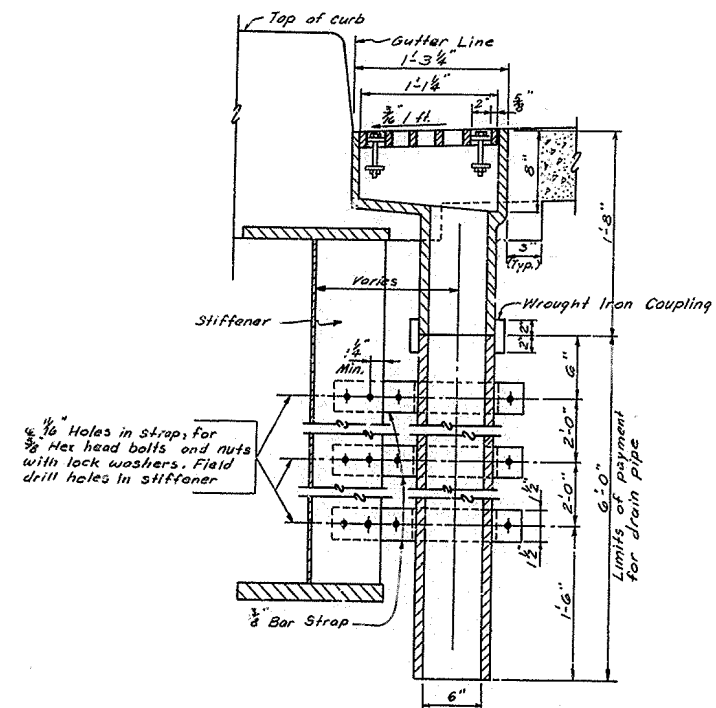
ADDITIONAL FIELD SPLICES: If additional splices are permitted they shall be at the Contractor's expense and shall be included in the "lump sum bid" for structural steel.

PROHIBITED FIELD WELDING: Except as shown on the plans, no welding of a any nature shall be performed on the load carrying members of the bridge without the written consent of the Director, Division of Bridges, or his authorized representative, and then only in the manner and at the locations designated in the authorization.

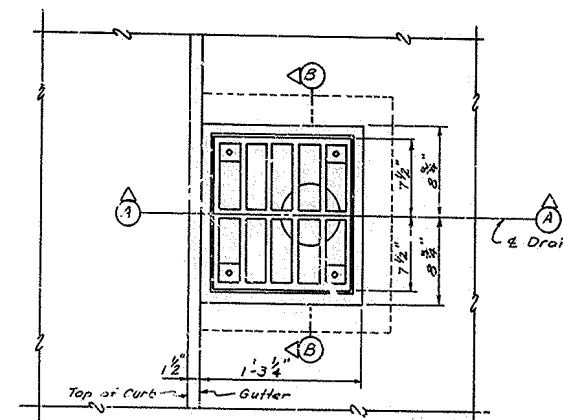
GENERAL NOTES

KY-11 BRIDGE OVER CUMBERLAND RIVER SHEET 2

COMMONWEALTH OF KENTUCKY	
DEPARTMENT OF HIGHWAYS	
FRANKFORT	
COUNTY OF	
KNOX	
BARBOURVILLE - WILLIAMSBURG	
ROAD	S 308 (G)
STATION 8+34	PROJECT NO. SP 61-170-7L
BRIDGE NUMBER	16728



SECTION A-A

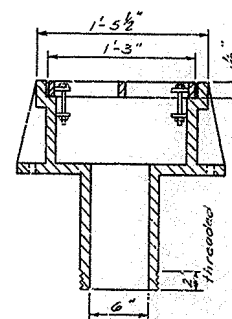


PLAN

NOTE: Drain pipe is to be C⁺ W.I. Standard Weight 19.0# per ft. in accordance with ASTM A72-C41 or C⁺ Volex pipe or equal.

FOUNDRY NOTE: All drains shall be gray iron casting, ASTM A48, class 20. Report of Field Inspection of castings, current form, shall be submitted to the Division of Materials.

Pipe fittings and connections shall be included in the unit price per linear foot of C⁺ drain pipe complete in place. Pipe and all fittings are to be given one coat of type 1 red lead paint and two coats of aluminum paint.



SECTION B-B

DRAIN DETAILS

Ky. 11 Bridge over Cumberland River SHEET 3A

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

FRANKFORT
COUNTY OF

KNOX

BARBOURVILLE - WILLIAMSBURG

ROAD S 308(2)

STATION 8+34

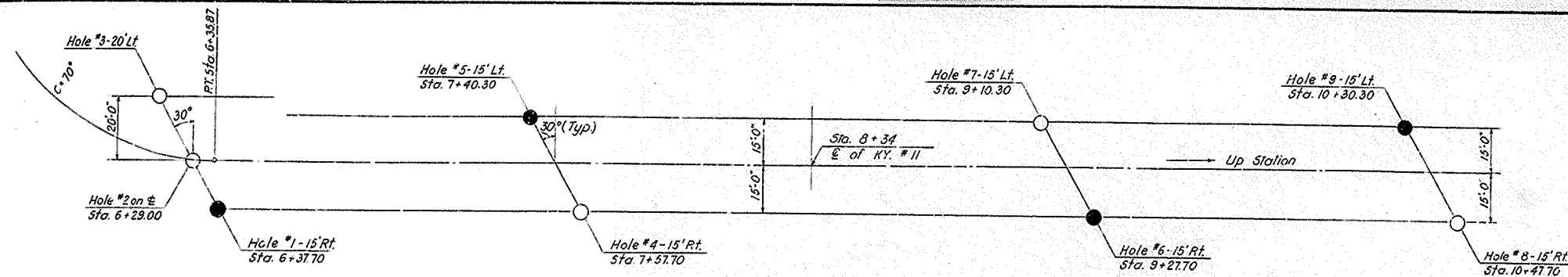
PROJECT NO. SP 61-170-71

BRIDGE
NUMBER

DRAWING NO.
16726

INDEX

PRO. NO.	STATE	PRO. NO.	PRO. NO.	PRO. NO.	PRO. NO.
7	KY.				



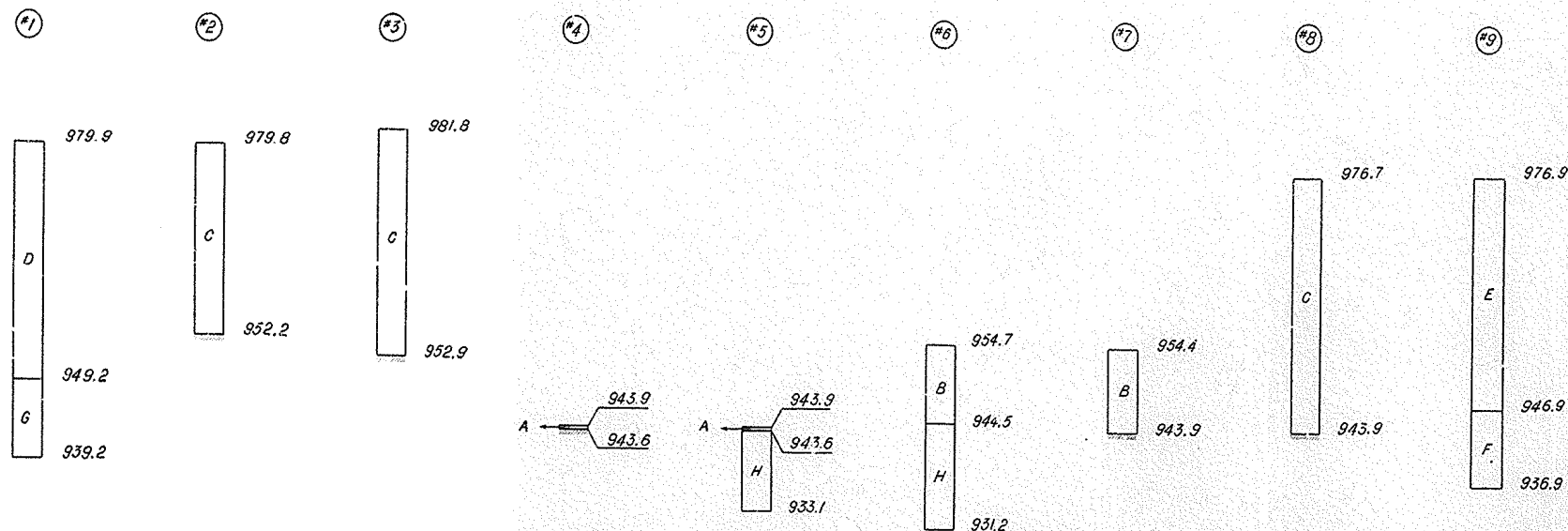
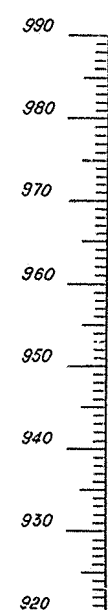
Legend:
○ Auger sounding to Solid Rock
● Cored holes 10' into Solid Rock

PLAN OF SOUNDING HOLES

LEGEND

- A Sand
- B Sandy Soil
- C Brown Sandy Soil
- D Gray Sandy Soil
- E Yellow Sand
- F Sand Stone
- G Hard Blue Shale
- H Solid Rock

Datum:



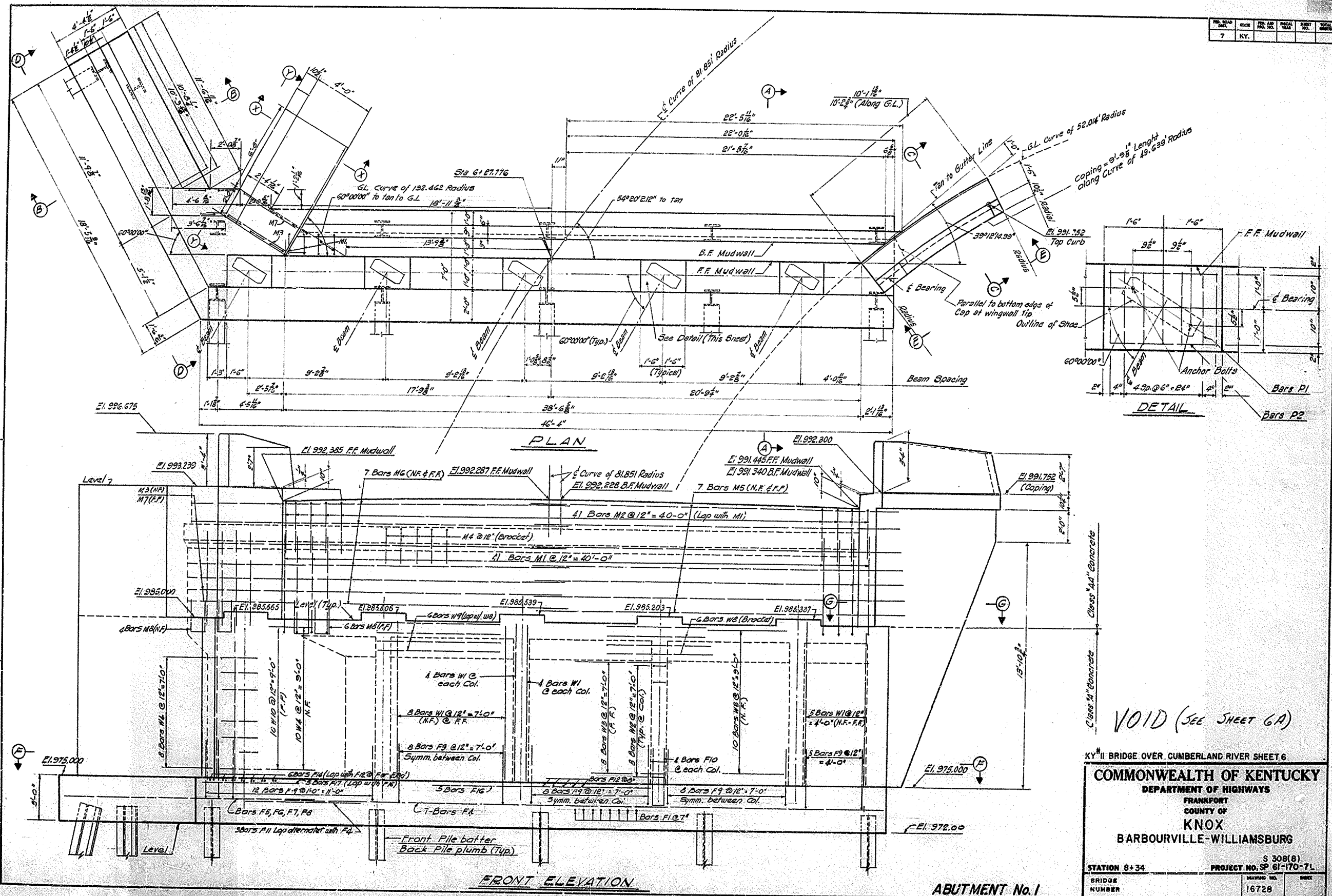
ELEVATION

SOUNDINGS

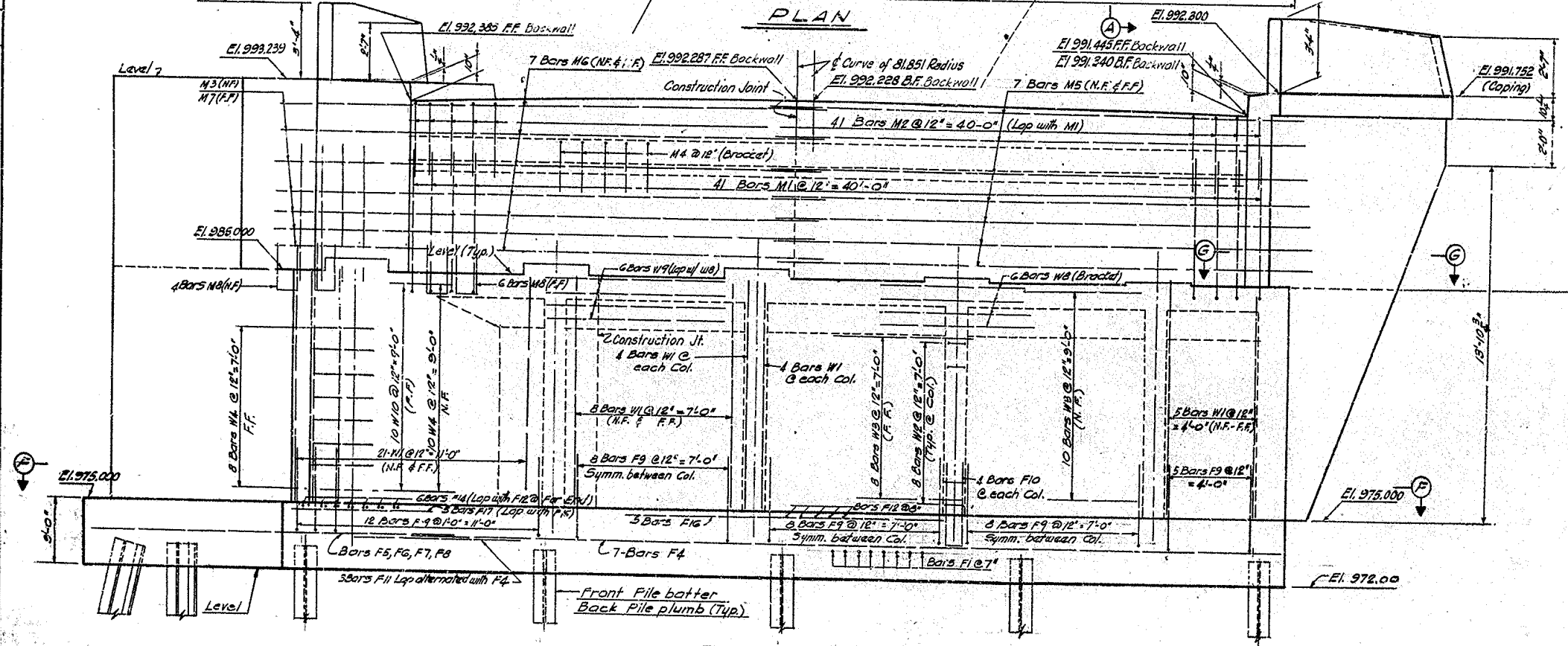
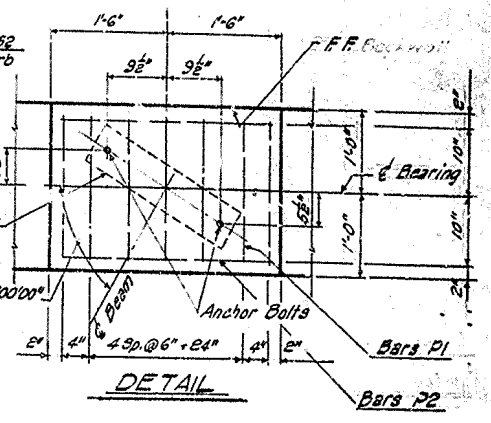
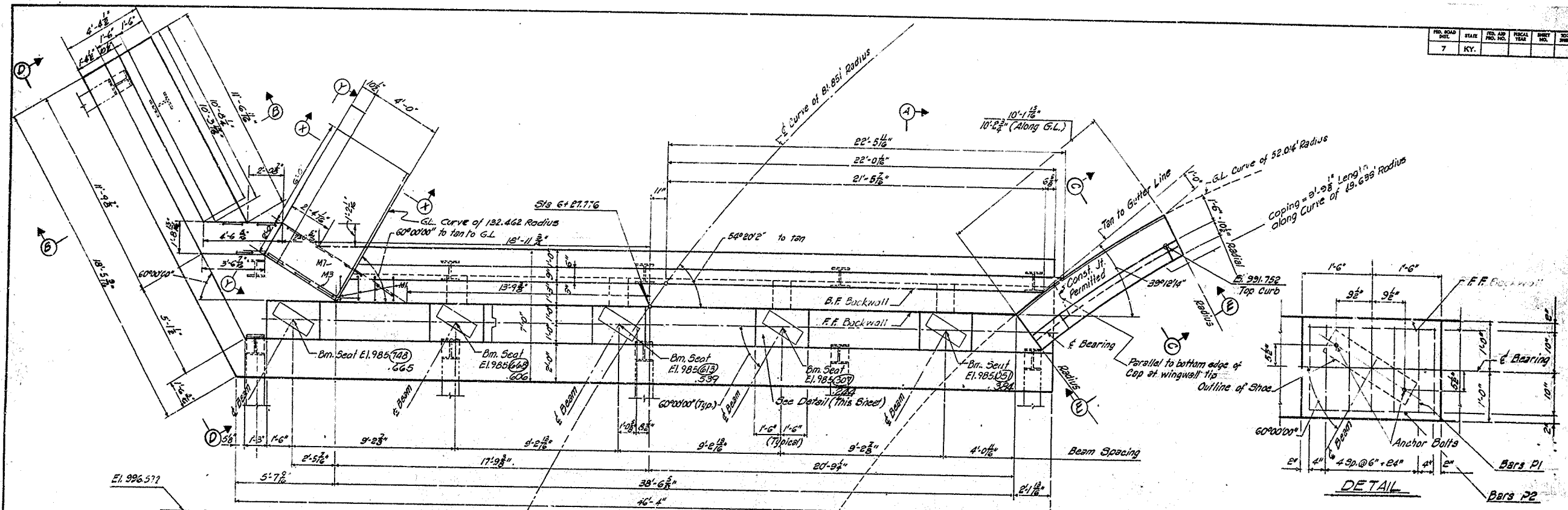
KY. #11 BRIDGE OVER CUMBERLAND RIVER SHEET 5

COMMONWEALTH OF KENTUCKY	
DEPARTMENT OF HIGHWAYS	
FRANKFORT	
COUNTY OF	
KNOX	
BARBOURVILLE - WILLIAMSBURG	
ROAD	S 308(8)
STATION 8+34	PROJECT NO. SP 61-170-71L
BRIDGE NUMBER	NO. 16728

ORDERED BY <u>P. E. G.</u>	ORDERED BY _____	DATE <u>2/26/67</u>	DATE _____
CREATED BY <u>P. E. G.</u>	CREATED BY _____	DATE <u>2/26/67</u>	DATE _____
TRACED BY <u>J. A. H.</u>	TRACED BY _____	DATE <u>2/26/67</u>	DATE _____



FILE NO.	DATE	STATE	DES. NO.	REV. NO.	SCALE	SHEET NO.	TOTAL SHEETS
7	KY.						



KY 11 BRIDGE OVER CUMBERLAND RIVER SHEET 6A

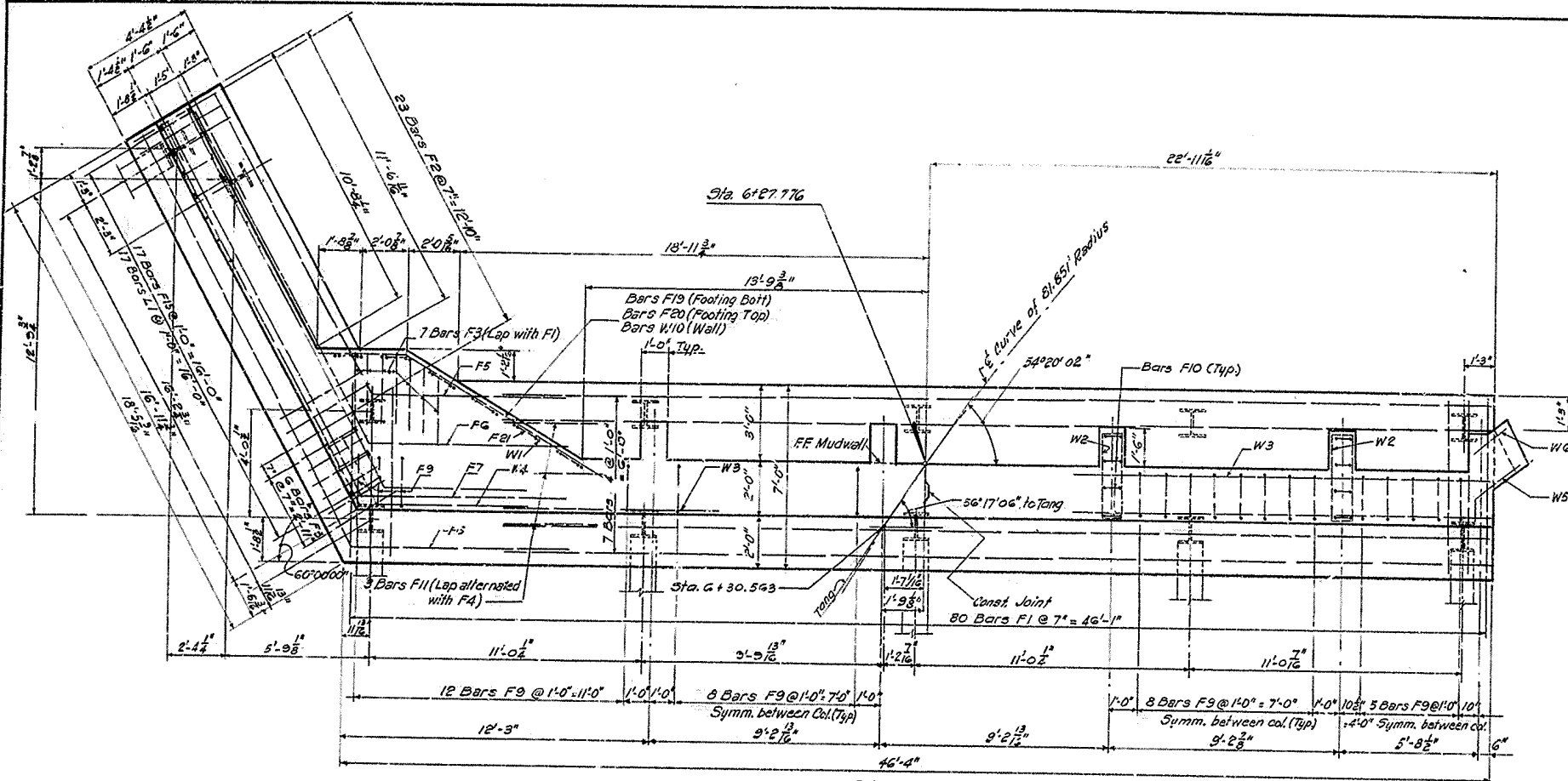
COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
 KNOX
 BARBOURVILLE-WILLIAMSBURG

STATION 8+34
 BRIDGE NUMBER

S 308(8)
 PROJECT NO. SP 61-170-7L
 SHEET NO. 15728

ABUTMENT No. 1

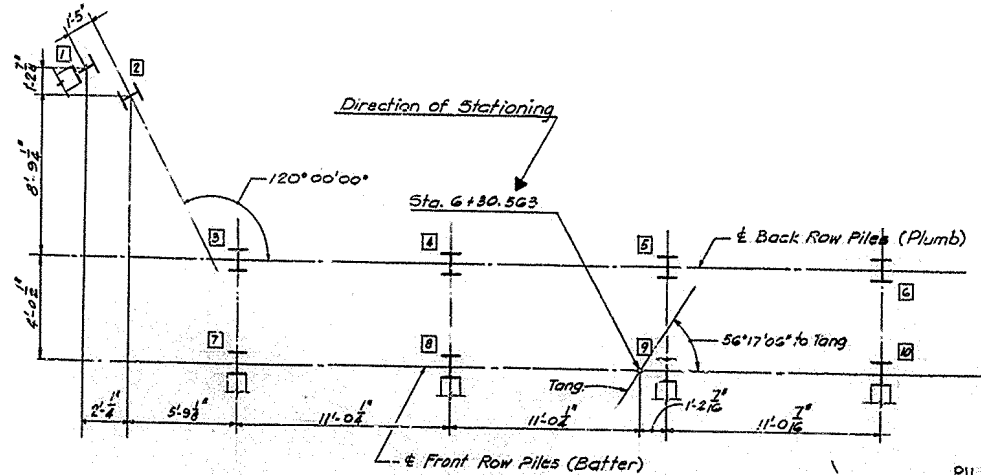
FILE NO.	DATE	BY	CHKD.	APPROVED	REMARKS
7	KY.				



SECTION F-F

NOTE: Points where elevations are given, see Front Elev. and Plan Sheet.
 Front Face Elev.
 Rear Face Elev.
 For Armored Edge details (See Std. Draw. AE-1)
 Pavement Ledge
 For Details of Expansion Dam (See Sheet 16)

DETAIL A



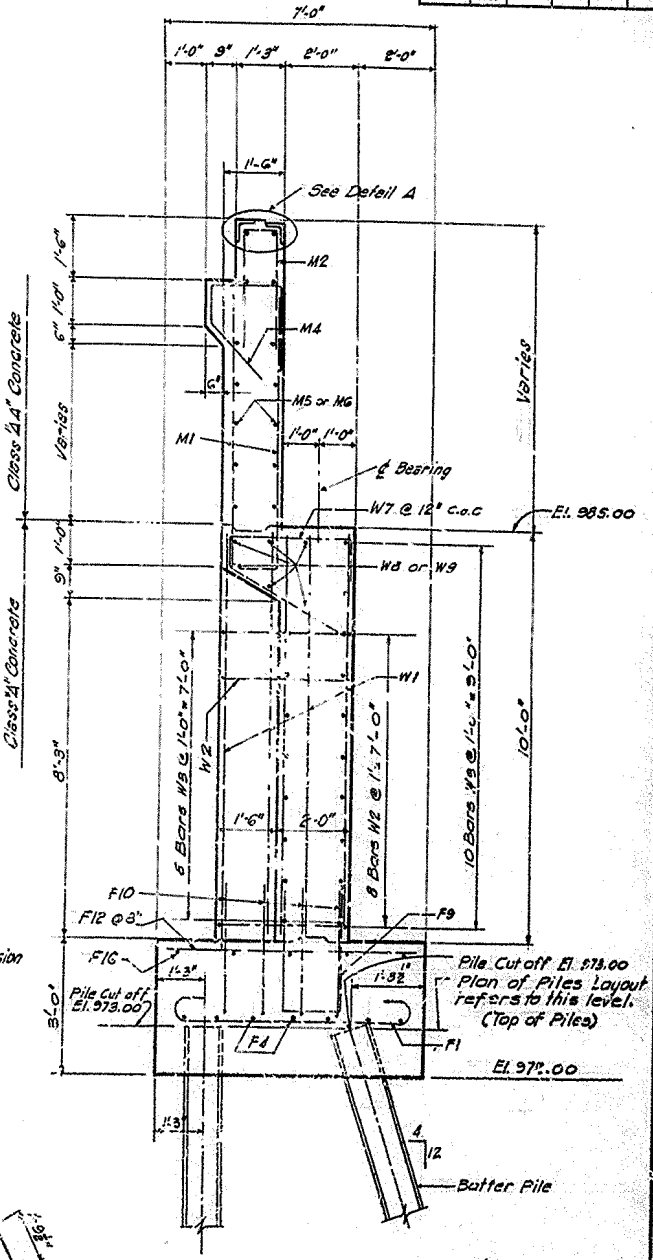
PILE LAYOUT
(Abutment No. 1)

ABUTMENT No. 1				
PILE NUMBER	CUTOFF ELEV. AS SHOWN ON PLANS	TIP PILE ELEV. AS DRIVEN	LENGTH PILE IN PLACE	CALC. BEARING CAPACITY
1	973.00			
2				
3				
4				
5				
6				
7				
8				
9				
10	973.00			

PILE RECORD NOTE:
 This pile record does not replace other records of piles required to be kept and submitted by the Resident Engineer. After all piles have been driven the Resident Engineer shall record the tip-of-pile elevation as driven, the length of pile in place, the calculated bearing capacity of each pile, and shall return one blue print copy of this sheet with this data to the Director of Bridges so that the data may be recorded on the original plans. Lengths of piles in place shown hereon are the actual lengths of piles in the finished structure below cut-off elevation and are not necessarily pay items.

PART SECTION G-G

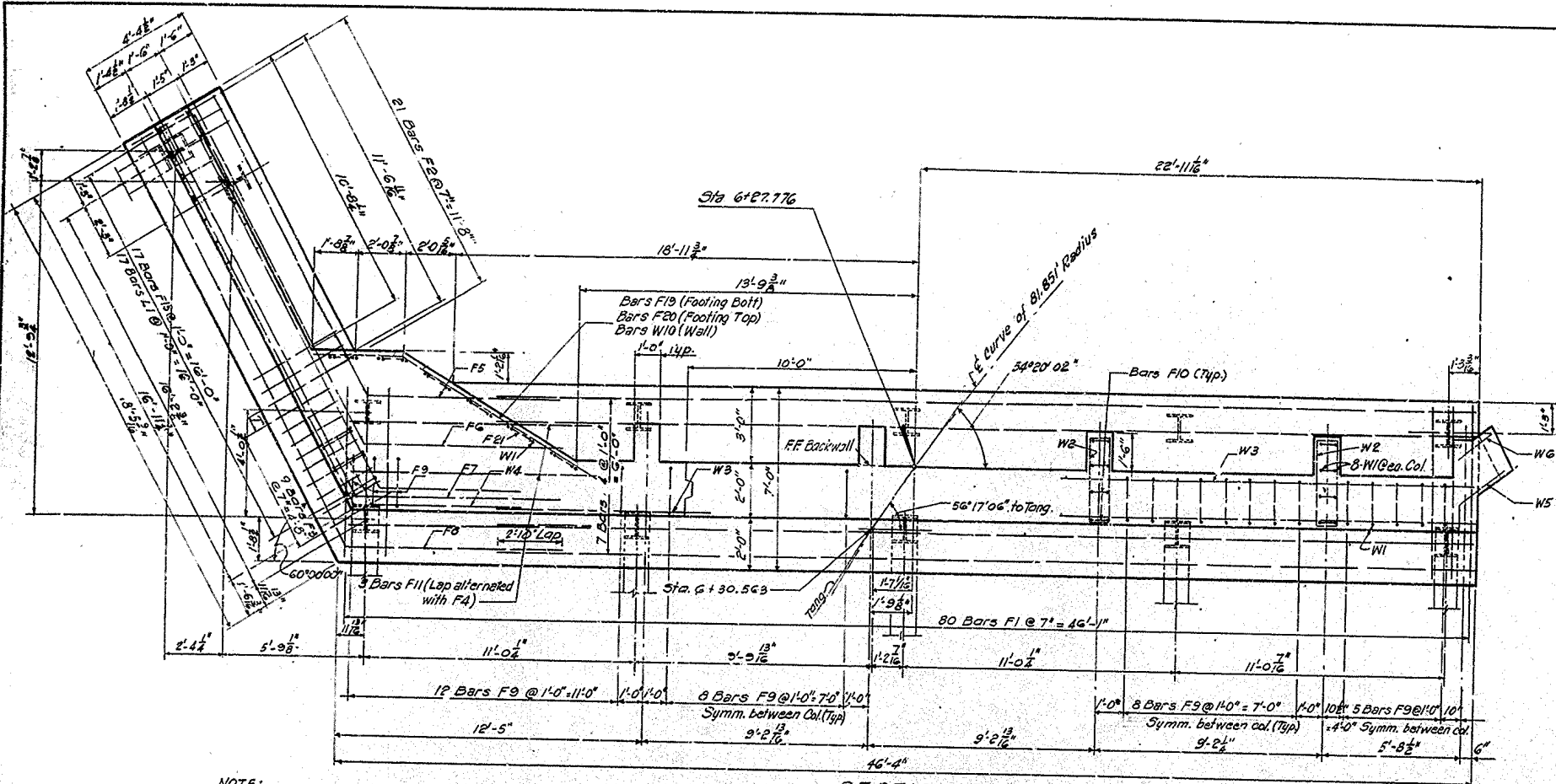
ABUTMENT No. 1



SECTION A-A

VOID
(SEE SHEET 7A)

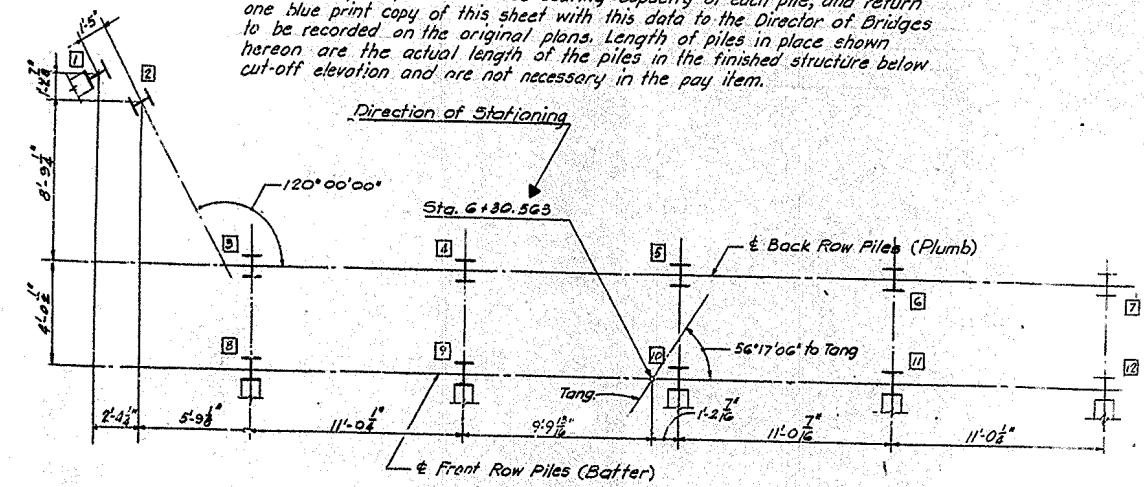
COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF KNOX
 BARBOURVILLE-WILLIAMSBURG
 ROAD S 308 (8)
 STATION 8+34 PROJECT NO. SP 61-170-7L
 BRIDGE NUMBER 16728 DRAWING NO. 16728



NOTE:
This pile record does not replace the other records of piles required to be kept and submitted by the Resident Engineer. After all piles have been driven the Resident Engineer shall record the tip of pile elevation as driven, length of piles in place, the calculated bearing capacity of each pile, and return one blue print copy of this sheet with this data to the Director of Bridges to be recorded on the original plans. Length of piles in place shown hereon are the actual length of the piles in the finished structure below cut-off elevation and are not necessary in the pay item.

NOTE: Points where elevations are given. See Front Elev. and Plan Sheet.
Front Face Elev.
Rear Face Elev.
For Armored Edge details (See Std. Drwg. AE-1)
Pavement Ledge
For Details of Expansion Dam (See Sheet 18)

DETAIL A



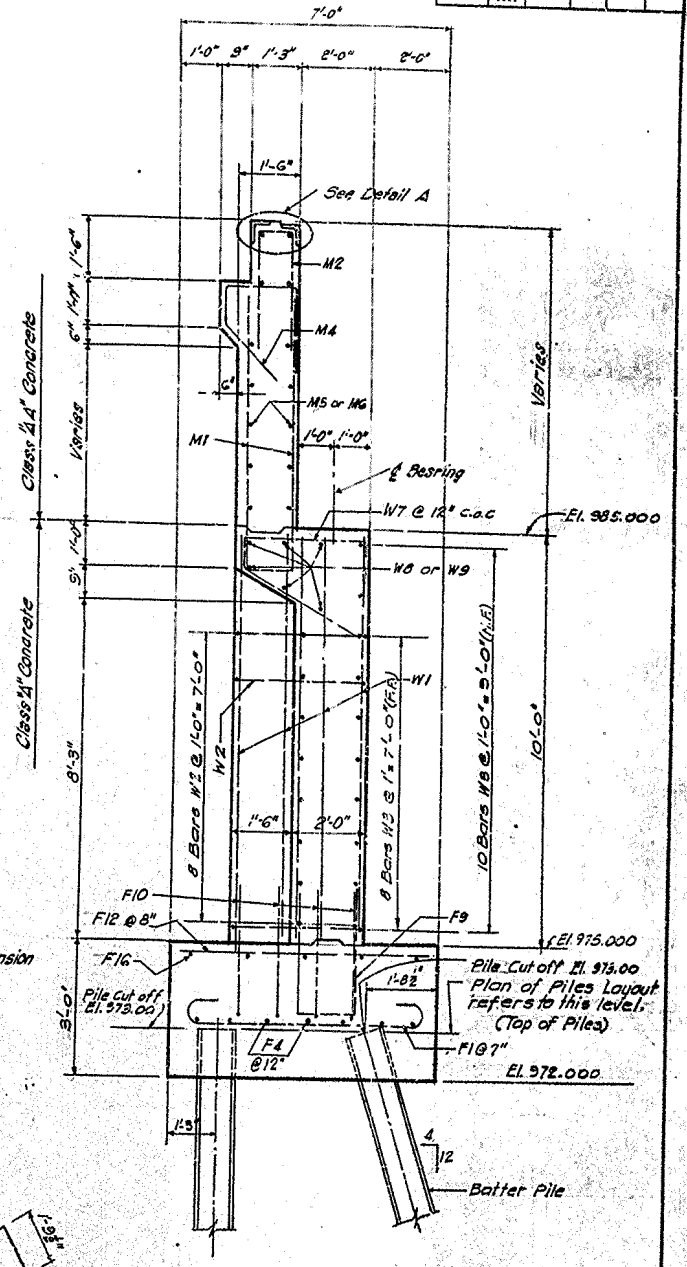
PILE LAYOUT
(Abutment No. 1)

ABUTMENT NO. 1				
PILE NUMBER	CUT OFF ELEV. AS SHOWN ON PLANS	TIP PILE ELEV. AS DRIVEN	PILE LENGTH IN PLACE L.F.	CALC. BEARING CAP. TONS
1 B	973.00	954.42	18.58	
2 V		954.88	18.12	
3 T		954.41	18.59	
4 V		954.70	18.30	
5 V		955.67	17.33	
6 V		955.89	17.11	
7 T		955.97	17.03	
8 B		954.35	19.66	
9 B		955.07	18.90	
10 B		955.50	18.45	
11 B		956.13	17.78	
12 B	973.00	955.88	18.05	

Top of Footing
Top of Backwall
Top of Cap
Top of Footing

PART SECTION G-G

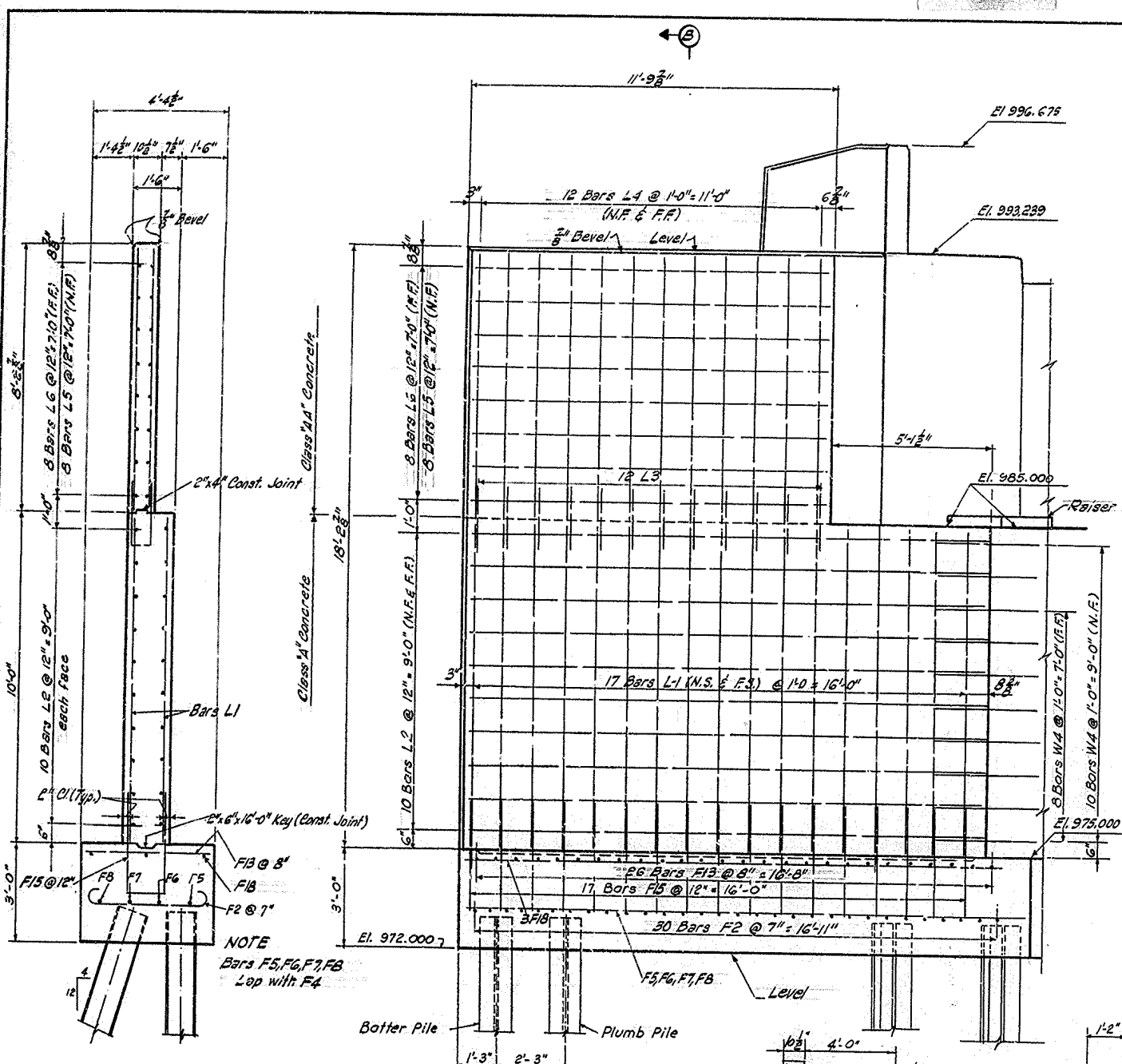
ABUTMENT No. 1



SECTION A-A

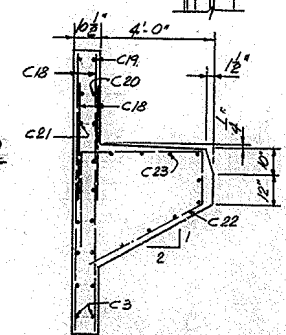
KY 11 BRIDGE OVER CUMBERLAND RIVER SHEET 7A
COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
KNOX
 BARBOURVILLE-WILLIAMSBURG
 ROAD S 308 (8)
 STATION 8+34 PROJECT NO. SP 61-170-7L
 BRIDGE NUMBER 16728

DESIGNED BY: R.E.G.
 CHECKED BY: J.M.G.
 DRAWN BY: J.M.G.
 DATE: 1-15-57
 SHEET: 7
 PROJECT: KY 11 BRIDGE OVER CUMBERLAND RIVER

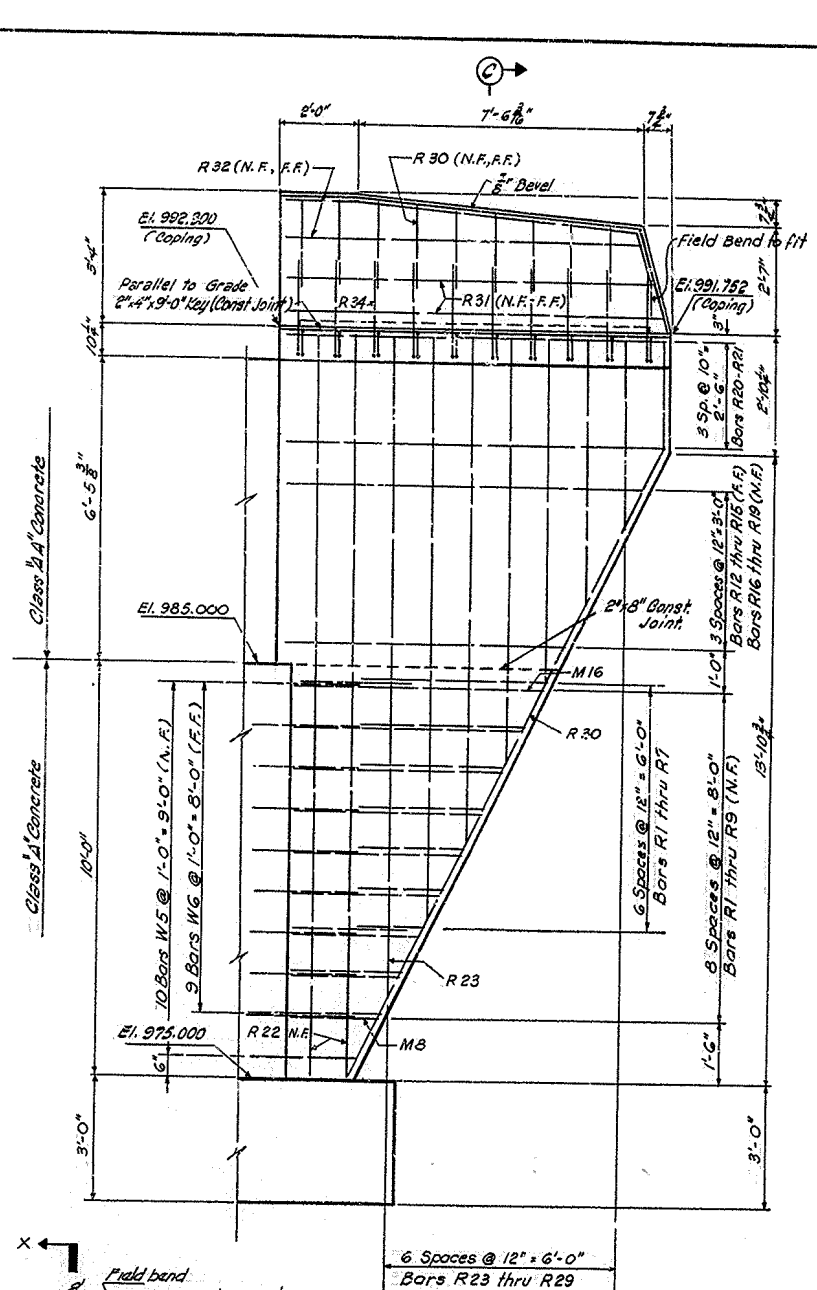


SECTION B-B

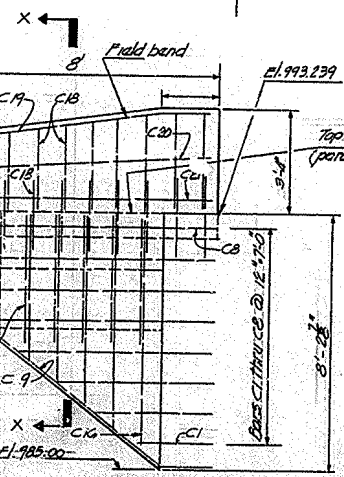
VIEW D-D



SECTION X-X



SECTION C-C



VIEW Y-Y

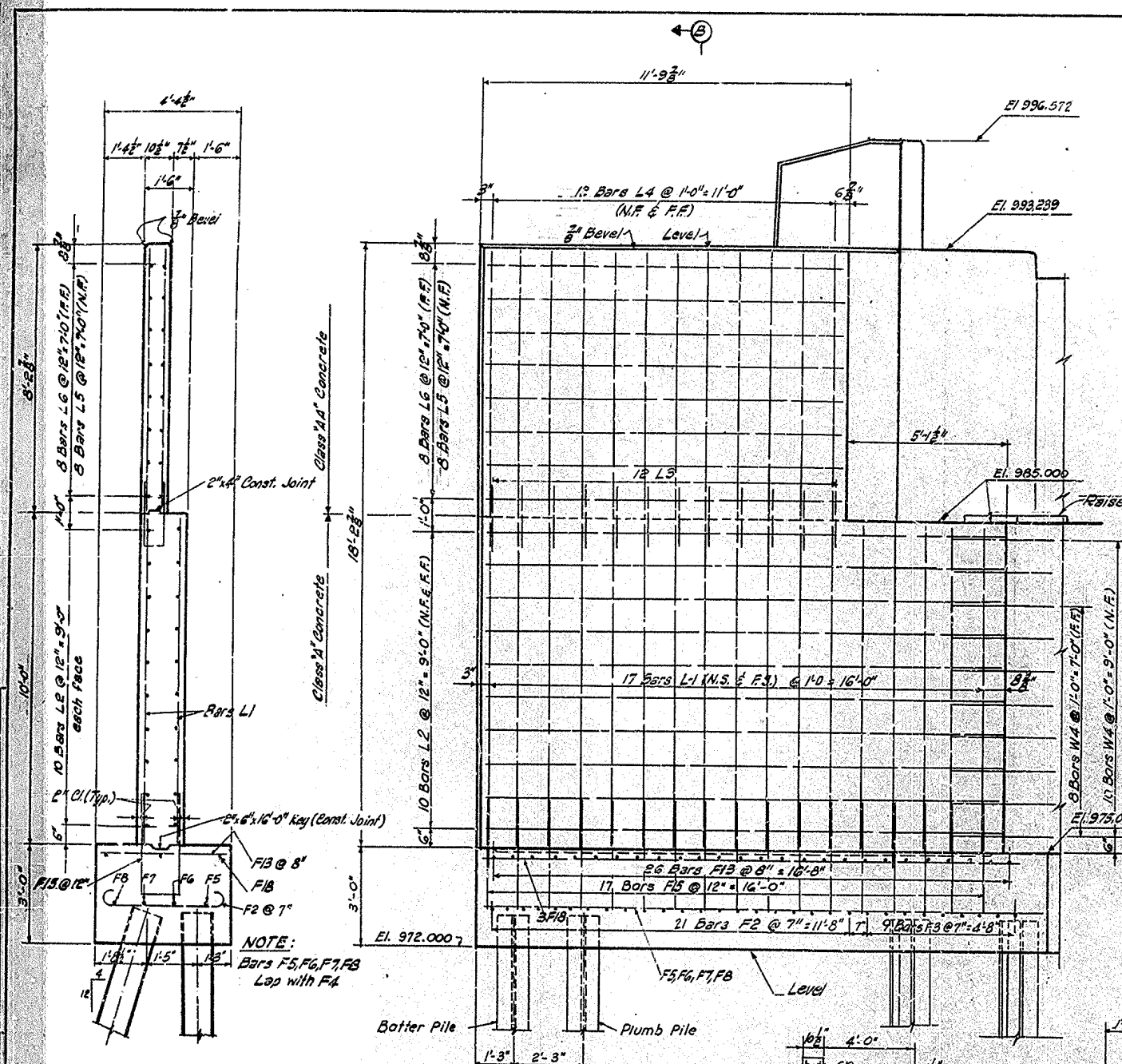
VIEW E-E

ABUTMENT No. 1

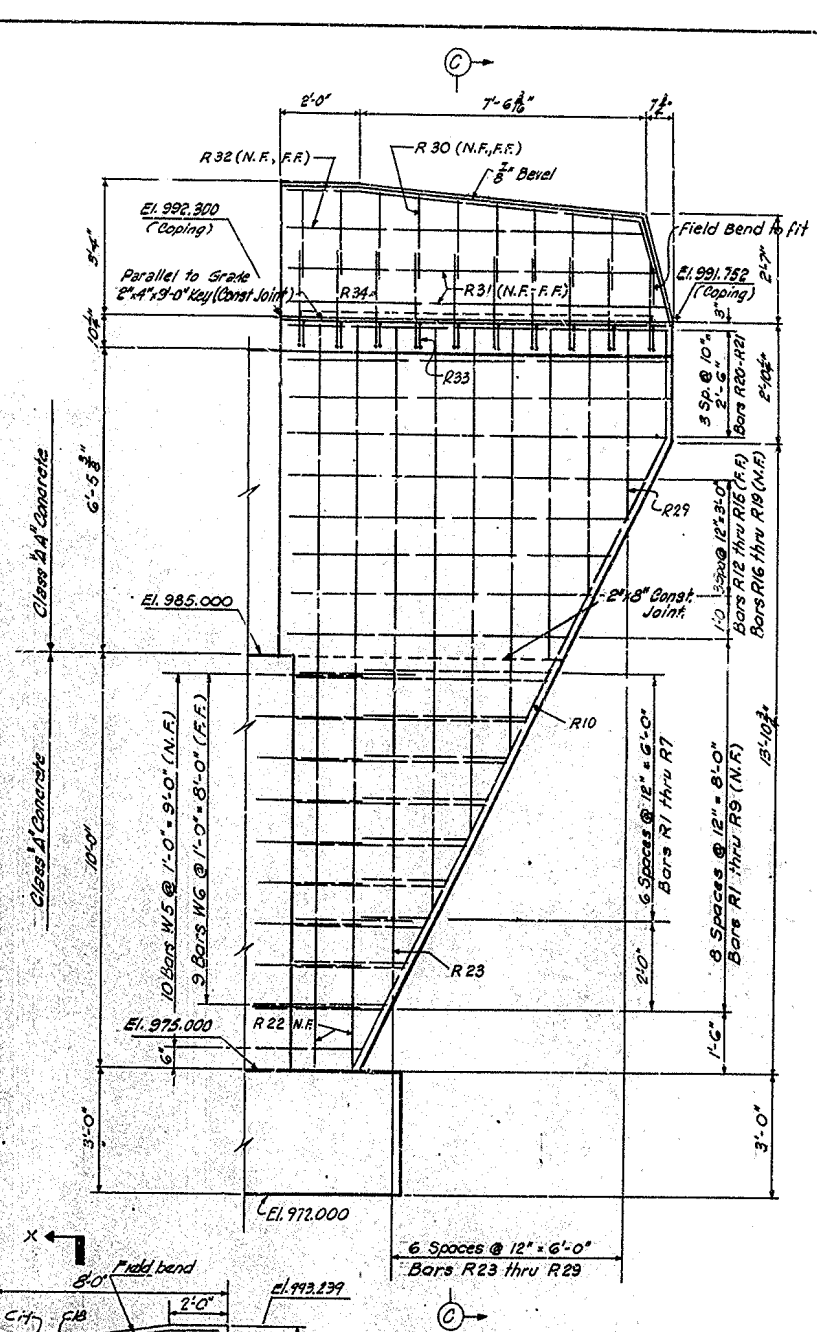
VOID (SEE SHEET 8A)

KY 11 BRIDGE OVER CUMBERLAND RIVER SHEET 8
COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
KNOX
 BARBOURVILLE-WILLIAMSBURG
 ROAD
 STATION 8+34
 PROJECT NO. SP 61-170-71
 BRIDGE NUMBER 16728

REV.	DATE	BY	CHK.	APP.	REMARKS
7	KY.				

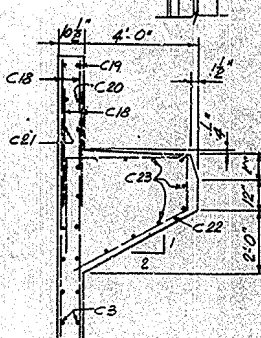


SECTION B-B



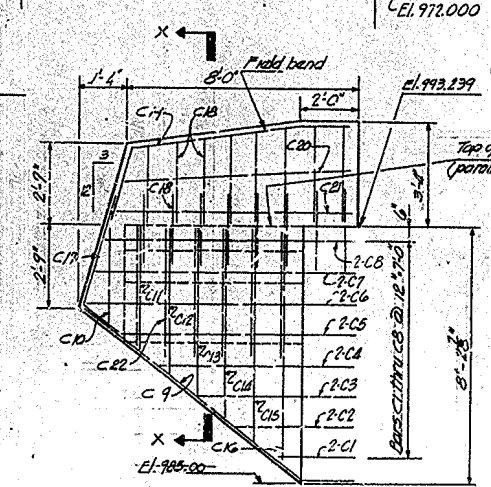
SECTION C-C

VIEW D-D



SECTION X-X

VIEW Y-Y



VIEW E-E

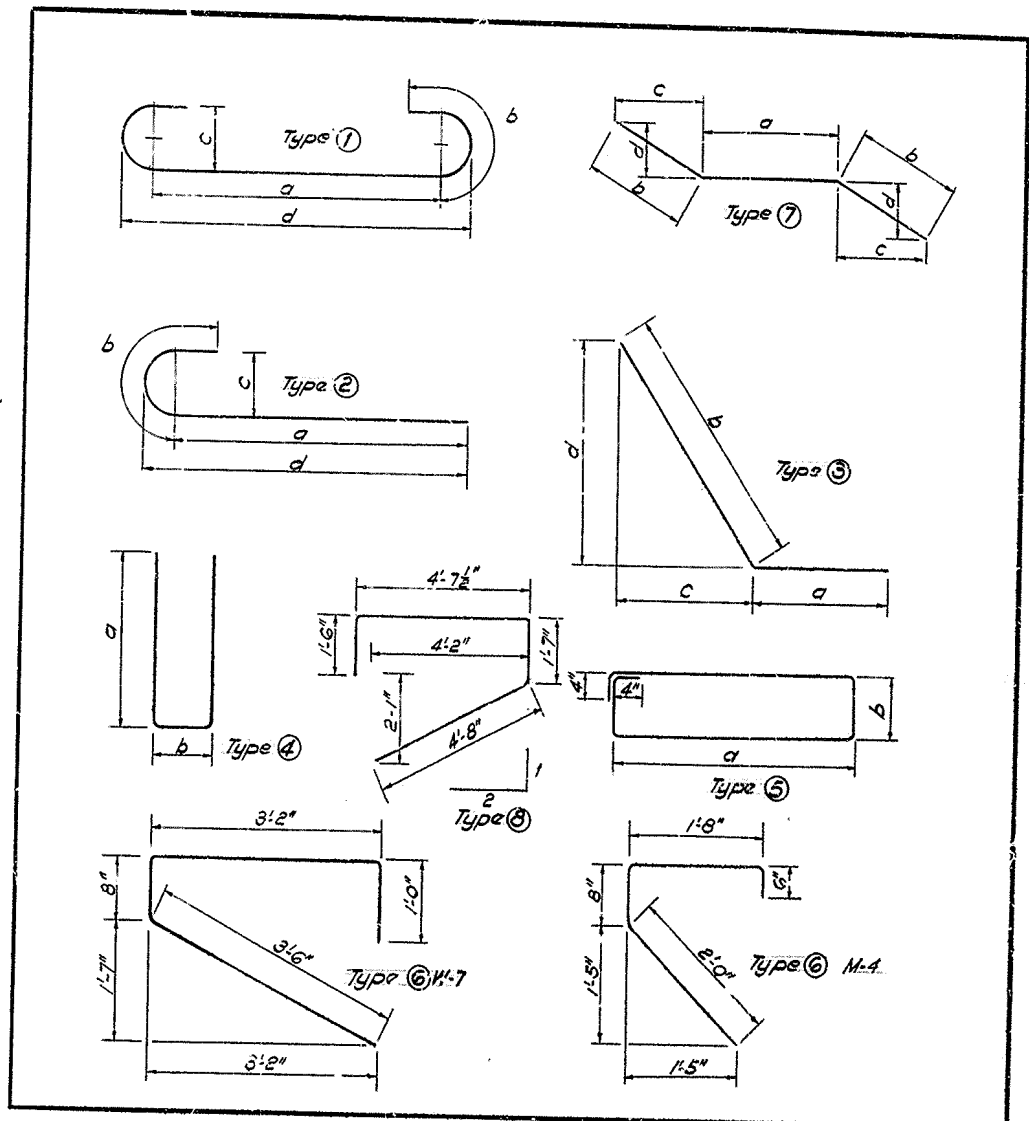
ABUTMENT No. 1

KY 11 BRIDGE OVER CUMBERLAND RIVER SHEET 8A
COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
KNOX
 BARBOURVILLE-WILLIAMSBURG
 ROAD S 308(8)
 STATION 8+34 PROJECT NO. SP 61-170-7L
 BRIDGE NUMBER 16728

BILL OF REINFORCEMENT									
MARK	TYPE	NO. OF BARS	SIZE	LENGTH Ft. In.	LOCATION	a Ft. In.	b Ft. In.	c Ft. In.	d Ft. In.
C-1	Str.	2	4	2 8	Centerline (Hor.)				
C-2	"	2	4	4 0	"				
C-3	"	2	4	5 3	"				
C-4	"	2	4	6 7	"				
C-5	"	2	4	7 10	"				
C-6	"	2	4	9 2	"				
C-7	"	2	4	8 11	"				
C-8	"	2	4	8 8	"				
C-9	(3)	2	4	11 2	" (Incl.)	9	4	10	6 1/8 1 0 1/8
C-10	Str.	2	4	3 2	" (Vert.)				
C-11	"	2	4	3 11	"				
C-12	"	2	4	4 8	"				
C-13	"	2	4	5 5	"				
C-14	"	2	4	6 2	"				
C-15	"	2	4	6 11	"				
C-16	"	2	4	7 8	"				
C-17	(3)	2	4	5 4	" (Tip Incl.)	3	10	1	6 0 5 1/2 1 5 1/8
C-18	Str.	34	4	2 6	" (Dowel & Vert. H.R.)				
C-19	"	2	4	7 8	" (Top H.R.)				
C-20	"	2	4	7 11	"				
C-21	"	2	4	8 4	"				
C-22	(4)	6	5	12 4 1/2	" (Vert.)				
C-23	Str.	9	4	7 8	" (Hor.)				
F-1	(1)	80	6	8 2	Large Footing (Trans.)	6	2	1	0 0 6 6 6 6
F-2	(1)	23	6	5 6	Small Footing (Trans.)	3	6	1	0 0 6 4 0 0
F-3	(2)	13	6	3 9	Mud. Str. & La. Footing Corner	3	1	0	0 6 3 0 0
F-4	Str.	7	9	40 0	Large Footing (Longit.)				
F-5	(3)	1	9	21 9	Small Footing	8	6	13	3 6 7 11 6
F-6	(3)	1	9	23 6	"	8	9	14	9 7 4 12 10
F-7	(3)	1	9	25 3	"	9	0	16	3 8 1 14 1
F-8	(3)	1	9	27 0	"	9	3	17	9 8 10 15 5
F-9	(4)	41	6	9 8	Large Footing Dowels	4	0	1	8 10 15 5
F-10	(4)	20	6	8 7	Column Dowels	4	0	0	7
F-11	Str.	3	9	9 3	Long Footing (H.R.)				
F-12	"	69	6	6 8	Trans. Top Long Footing				
F-13	"	26	6	4 0	Trans. Top Small Footing				
F-14	"	6	6	2 10	Trans. Top Long Footing				
F-15	(4)	17	6	9 2	Small Footing Dowels	4	0	1	2
F-16	Str.	5	5	40 0	Large Footing (Longit.)				
F-17	"	5	5	3 0	"				
F-18	"	3	5	17 0	"				
F-19	(3)	1	9	8 0	" Small "	4	0	4	0 3 5 1/2 2 0
F-20	(3)	1	5	6 0	" Bottom Footing "	3	0	3	0 3 7 1 6
F-21	(4)	6	6	9 0	" Top "	3	0	1	0
L-1	Str.	34	6	9 10	Left Wing (Vert.)				
L-2	"	20	5	17 0	" (Hor.)				
L-3	(4)	12	6	7 7	" " (Dowels)	3	6	0	7
L-4	Str.	24	6	9 0	" (Vert.)				
L-5	(3)	8	5	14 10	" " (Vert.)	11	7	3	6 1 9 3 0 3/8
L-6	(3)	8	5	14 7	" " " (Vert.)	10	1	4	6 2 3 3 10 3/4
M-1	(4)	41	5	14 0	Mudwall (Vert. Dowel)	6	2	1	2
M-2	(4)	41	5	6 11	" " at Top "	3	0	0	11
M-3	(7)	7	5	9 3	Corner under S.W. (H.R.)	4	11	1	8 1 3 1/2 0 10
M-4	(4)	41	5	4 15	Mudwall braced (Trans.)				
M-5	(4)	14	5	26 2	" (Longit.)	24	2	2	0 1 6 1/2 1 5 1/4
M-6	Str.	14	5	18 2	Mudwall				
M-7	(7)	7	5	8 8	Corner under S.W. (H.R.)	5	4	1	8 1 5 3/8 0 10
M-8	(4)	10	6	5 0	Dowel corner Corn. Mud. 2	0	1	0	
M-9	Str.	20	6	9 0	Vert. at Corner Mud.				
P-1	(4)	35	5	3 8	Raisers	1	0	1	8
P-2	(4)	15	5	4 8	"	1	0	2	8

BILL OF REINFORCEMENT									
MARK	TYPE	NO. OF BARS	SIZE	LENGTH Ft. In.	LOCATION	a	b	c	d
R-1	Str.	2	5	2 3	Right Wing (Hor.)				
R-2	"	2	5	3 0	"				
R-3	"	2	5	3 7	"				
R-4	"	2	5	4 2	"				
R-5	"	2	5	4 9	"				
R-6	"	2	5	5 4	"				
R-7	"	2	5	5 11	"				
R-8	"	1	5	6 6	"				
R-9	"	1	5	7 0	"				
R-10	(3)	2	5	17 10	" Incl. Hor.	15	3	2 7 2 2 3/8 1 4 1/4	
R-11	Str.	1	5	7 8	"				
R-12	"	1	5	8 2	"				
R-13	"	1	5	8 10	"				
R-14	"	1	5	9 5	"				
R-15	"	1	5	7 3	"				
R-16	"	1	5	7 9	"				
R-17	"	1	5	8 5	"				
R-18	"	1	5	9 0	"				
R-19	"	4	5	9 10	Right Wing (Hor.) F.F.				
R-20	"	6	5	9 5	" " " "				
R-21	Str.	2	5	16 3	" " (Vert.)				
R-22	(4)	1	5	31 9 1/2	" " " "	15	1	1 7 1/2	
R-23	(4)	1	5	29 1 1/2	" " " "	13	3	1 7 1/2	
R-24	(4)	1	5	24 7 1/2	" " " "	11	6	1 7 1/2	
R-25	(4)	1	5	21 1 1/2	" " " "	9	9	1 7 1/2	
R-26	(4)	1	5	17 7 1/2	" " " "	8	0	1 7 1/2	
R-27	(4)	1	5	14 1 1/2	" " " "	6	3	1 7 1/2	
R-28	(4)	1	5	10 7 1/2	" " " "	4	6	1 7 1/2	
R-29	Str.	20	5	2 0	" (H.R. Vert.)				
R-30	Str.	2	5	9 2	" " " "				
R-31	Str.	2	5	8 9	" " " "				
R-32	(3)	10	5	4 8	" " " " Curb (Hor.)	2	0 1/2 0 7		
R-33	(3)	10	5	6 11	" " " " Dowels H.R.	3	2 0 7		
W-1	Str.	134	6	9 10	Wall (Vert.)				
W-2	(3)	40	4	7 4	Tied @ Column	3	2	0 8	
W-3	Str.	18	5	40 0	Wall (Hor.)				
W-4	(3)	13	5	10 6	Wall 2 Sm. Wall Corner	8	6	2 0 1 0 1 9	
W-5	(3)	10	5	3 4	Wall 4 Corn. Wall Corn.	2	6	0 10 0 6 1/4 0 7 3/4	
W-6	Str.	9	5	3 0	" " " "				
W-7	(3)	40	6	8 4	Brack @ Top Wall				
W-8	(3)	6	5	25 6	" " " " (Longit.)	24	0	1 6 1 2 1/2 0 11	
W-9	Str.	6	5	19 0	" " " "				
W-10	(3)	10	5	12 6	Wall (Hor. at Corner)	9	0	3 6 3 0 3/4 1 9	

ESTIMATED QUANTITIES		
ITEM	UNIT	QUANTITY
Reinforcing Steel	Lb.	13,511
Concrete Class "A"	Cu. Yd.	104.4
Concrete Class "AA"	Cu. Yd.	32.0
Piles (14 B.P. 73)	Lin. Ft.	294
Struct. Excavation Common	Cu. Yd.	185
End Bent Back Fill	Cu. Yd.	850



VOID (SEE SHEET 9A)

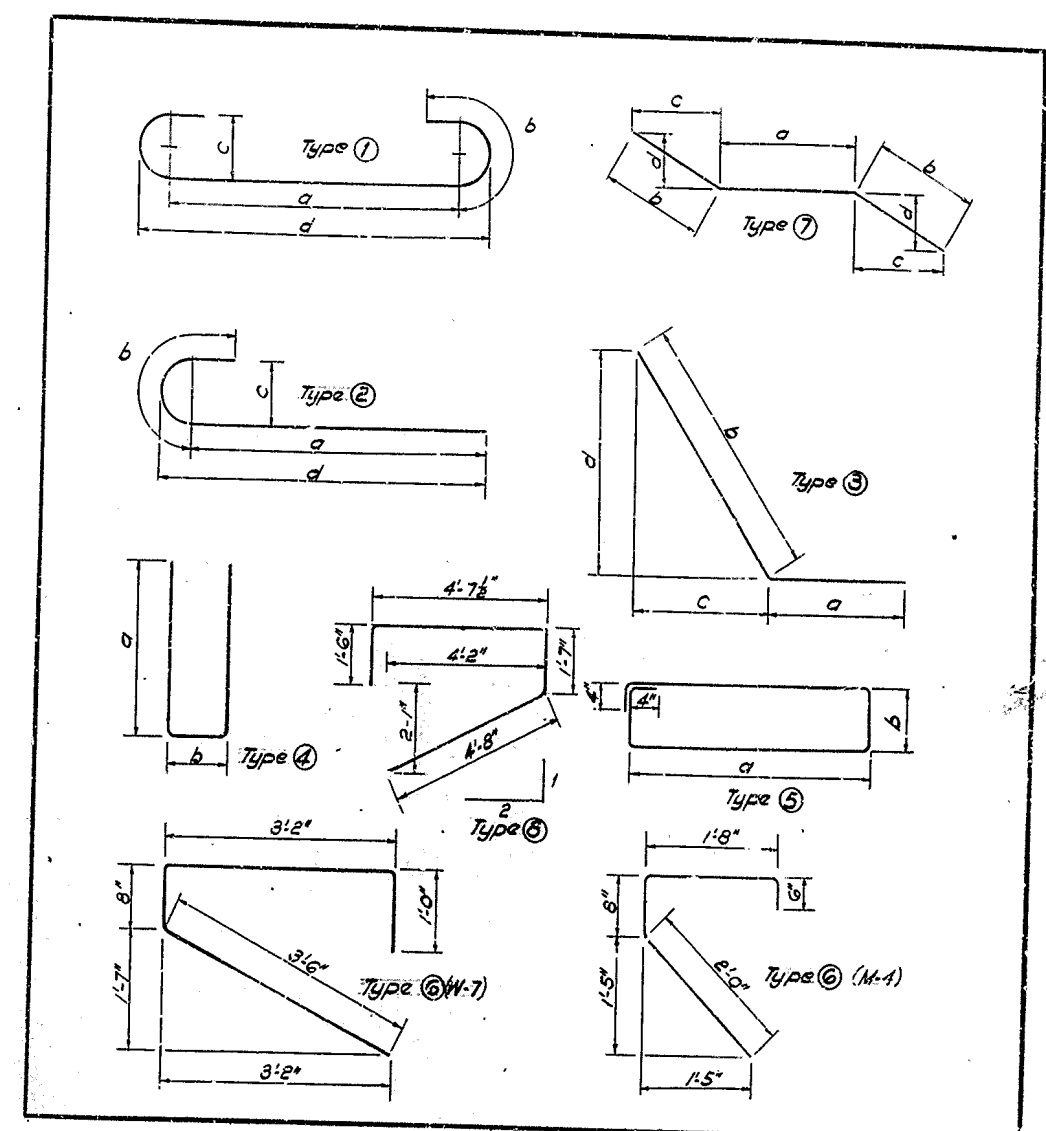
KY 11 BRIDGE OVER CUMBERLAND RIVER SHEET 9	
COMMONWEALTH OF KENTUCKY	
DEPARTMENT OF HIGHWAYS	
FRANKFORT	
COUNTY OF KNOX	
BARBOURVILLE - WILLIAMSBURG	
STATION 8+34	S 308 (8)
PROJECT NO. SP 61-170-7L	
BRIDGE NUMBER	16728

ABUTMENT No. 1

BILL OF REINFORCEMENT									
MARK	TYPE	NO. OF BARS	SIZE	LENGTH Ft. In.	LOCATION	a	b	c	d
						Ft. In.	Ft. In.	Ft. In.	Ft. In.
C-1	Str.	2	4	2 8	Centerline (Hor.)				
C-2	"	2	4	4 0	"				
C-3	"	2	4	5 3	"				
C-4	"	2	4	6 7	"				
C-5	"	2	4	7 10	"				
C-6	"	2	4	8 2	"				
C-7	"	2	4	9 5	"				
C-8	"	2	4	10 8	"				
C-9	"	2	4	11 1	"				
C-10	Str.	2	4	3 2	(Incl.)	9	4	10	1 6 1/8 1 0 1/8
C-11	"	2	4	3 11	"				
C-12	"	2	4	4 8	"				
C-13	"	2	4	5 3	"				
C-14	"	2	4	6 2	"				
C-15	"	2	4	6 11	"				
C-16	"	2	4	7 8	"				
C-17	"	2	4	5 4	" (Tip Incl.)	3	10	1	6 0 5 1/2 1 5 1/8
C-18	Str.	3	4	2 6	" (Dowel & Horiz. HR.)				
C-19	"	2	4	7 8	" (Top HR.)				
C-20	Str.	2	4	7 11	"				
C-21	"	2	4	8 4	"				
C-22	"	2	4	12 5	" (Vert.)				
C-23	Str.	9	4	7 8	" (Hor.)				
F-1	"	80	6	8 2	Large Footing (Trans.)	6	2	1	0 0 6 6 8
F-2	"	21	6	5 6	Small Footing (Trans.)	3	6	1	0 0 6 4 0
F-3	"	9	6	3 9	Small Footing (Trans.)	3	7	0	0 6 3 0
F-4	Str.	7	9	40 7	Large Footing (Long.)				
F-5	"	1	9	21 9	Small Footing	8	6	13	3 6 7 11 6
F-6	"	1	9	23 6	"	8	9	14	9 7 4 12 10
F-7	"	1	9	25 3	"	9	0	16	3 8 1 14 1
F-8	"	1	9	27 0	"	9	3	17	3 8 1 14 1
F-9	"	4	6	9 8	Large Footing Dowels	4	0	1	8 10 15 5
F-10	"	20	6	8 7	Column Dowels	4	0	0	7
F-11	Str.	3	9	9 3	Long Footing (Hor.)				
F-12	"	69	6	6 8	Transverse Long Foot.				
F-13	"	26	6	4 0	Transverse Small Foot.				
F-14	"	6	6	2 10	Transverse Long Foot.				
F-15	"	17	6	9 3	Small Footing Dowels	4	0	1	2
F-16	Str.	5	40	0	Large Footing Dowels				
F-17	"	5	40	0	"				
F-18	"	3	17	0	"				
F-19	"	7	3 8	0	" Bottom Footing	4	0	4	0 3 5 1/2 2 0
F-20	"	7	3 6	0	" Top	3	0	3	0 2 7 1 6
F-21	"	6	3 9	0	" Wall widening of corner	4	0	1	0
L-1	Str.	34	6	9 10	Left Wing (Vert.)				
L-2	"	20	5	17 0	" (Hor.)				
L-3	"	12	6	7 7	" (Dowel)	3	6	0	7
L-4	Str.	24	6	8 0	" (Vert.)				
L-5	"	8	5	15 1	" (Hor.)	11	7	3	6 1 9 3 0 3/4
L-6	"	8	5	14 7	"	10	1	4	6 2 3 3 10 3/4
M-1	"	41	5	14 0	Mudwall (Vert. Dowel)	6	3	1	2
M-2	"	41	5	6 11	" " of Top	3	0	0	11
M-3	"	7	5	8 3	Corner under SK (Hor.)	4	11	1	8 1 5 3 0 10
M-4	"	41	5	4 10	Mudwall bracket (Trans.)				
M-5	"	18	5	26 2	" (Long.)	24	2	2	0 1 6 1 5 1/2
M-6	Str.	72	5	18 2	Mudwall				
M-7	"	7	5	15 1	Corner under SK (Hor.)	3	0	3	6 3 0 3/4 1 9
M-8	"	10	6	5 0	Dowel central Corn. Mud 2	0	1	0	
M-9	Str.	20	6	2 0	Vert. of Corner Mudw.				
R-1	"	35	5	3 8	Raisers	1	0	1	8
R-2	"	78	5	4 8	"	1	0	2	8

BILL OF REINFORCEMENT									
MARK	TYPE	NO. OF BARS	SIZE	LENGTH Ft. In.	LOCATION	a	b	c	d
						Ft. In.	Ft. In.	Ft. In.	Ft. In.
R-1	Str.	2	5	2 8	Right Wing (Hor.)				
R-2	"	2	5	3 0	"				
R-3	"	2	5	3 7	"				
R-4	"	2	5	4 6	"				
R-5	"	2	5	4 9	"				
R-6	"	2	5	5 4	"				
R-7	"	2	5	5 11	"				
R-8	"	1	5	6 6	"				
R-9	"	1	5	7 0	"				
R-10	"	2	5	18 9	" Incl.	16	2	2	7 2 2 1/2 1 3 1/2
R-11	Str.	1	5	7 8	" Hor.				
R-12	"	1	5	8 2	"				
R-13	"	1	5	8 10	"				
R-14	"	1	5	9 5	"				
R-15	"	1	5	7 3	"				
R-16	"	1	5	7 9	"				
R-17	"	1	5	8 3	"				
R-18	"	1	5	9 0	"				
R-19	"	4	5	3 0	"				
R-20	"	4	5	3 10	Right Wing (Hor.)				
R-21	"	6	5	3 5	"				
R-22	Str.	2	5	17 0	" (Vert.)				
R-23	"	1	5	31 8	"	13	1	1	3 1/2
R-24	"	1	5	28 0	"	13	3	1	5 1/2
R-25	"	1	5	24 4	"	11	6	1	5 1/2
R-26	"	1	5	21 0	"	9	9	1	5 1/2
R-27	"	1	5	17 6	"	8	0	1	5 1/2
R-28	"	1	5	14 0	"	6	3	7	5 1/2
R-29	"	1	5	10 6	"	4	6	1	5 1/2
R-30	Str.	20	5	2 0	" (HR. Vert.)				
R-31	Str.	4	5	9 2	" (HR.)				
R-32	"	4	5	8 9	" (HR.)				
R-33	"	10	5	4 8	" (Curb)	2	0	0	7
R-34	"	10	5	6 11	Dowels HR.	3	2	0	7
W-1	Str.	134	6	9 10	Wall (Vert.)				
W-2	"	40	4	3 4	Tied @ Column	3	2	0	8
W-3	Str.	18	5	20 0	Wall (Hor.)				
W-4	"	18	5	10 6	Wall @ Small Wall Corner	8	6	2	0 1 0 1 9
W-5	"	10	5	3 3	Wall @ Centerline Corner	2	6	0	10 0 6 1/4 0 7 3/4
W-6	Str.	5	5	3 0	"				
W-7	"	20	6	8 4	Brack @ Top Wall				
W-8	"	6	5	15 6	" " (Long.)	24	0	1	6 1 2 1/2 0 11
W-9	Str.	6	5	19 0	"				
W-10	"	10	5	12 6	Wall (Hor. of Corner)	9	0	3	5 3 0 3/4 1 9

ESTIMATED QUANTITIES		
ITEM	UNIT	QUANTITY
Reinforcing Steel	Lb.	13,303
Concrete Class "A"	Cu. Yd.	104.4
Concrete Class "AA"	Cu. Yd.	32.0
Piles (14 BP 73)	Lin. Ft.	294
Struct. Excavation Common	Cu. Yd.	185
End Bent Back Fill	Cu. Yd.	230



ABUTMENT No. 1

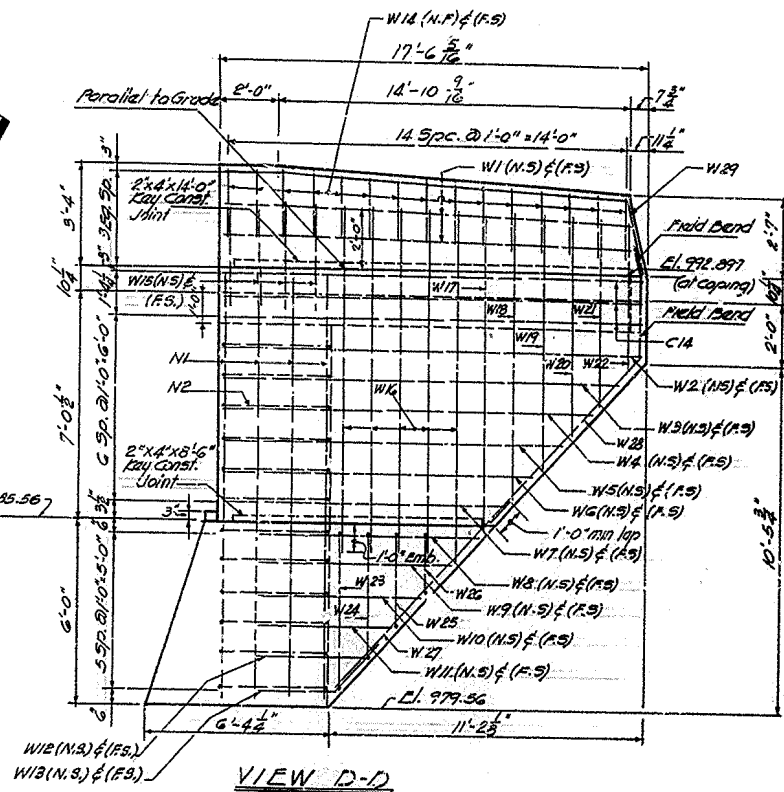
KY 11 BRIDGE OVER CUMBERLAND RIVER SHEET 9A

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF KNOX
BARBOURVILLE - WILLIAMSBURG

S 308 (8)
STATION 8+34 PROJECT NO. SP 61-170-71

BRIDGE NUMBER 16728

RECORDED BY <i>R.E.G.</i>	INDEXED BY <i>R.E.G.</i>	DATE <i>8-66</i>	EXTENSION <i>100</i>	DATE <i>8-66</i>
RECORDED BY <i>R.E.G.</i>	INDEXED BY <i>R.E.G.</i>	DATE <i>8-66</i>	EXTENSION	DATE
RECORDED BY <i>R.E.G.</i>	INDEXED BY <i>R.E.G.</i>	DATE <i>8-66</i>	EXTENSION	DATE



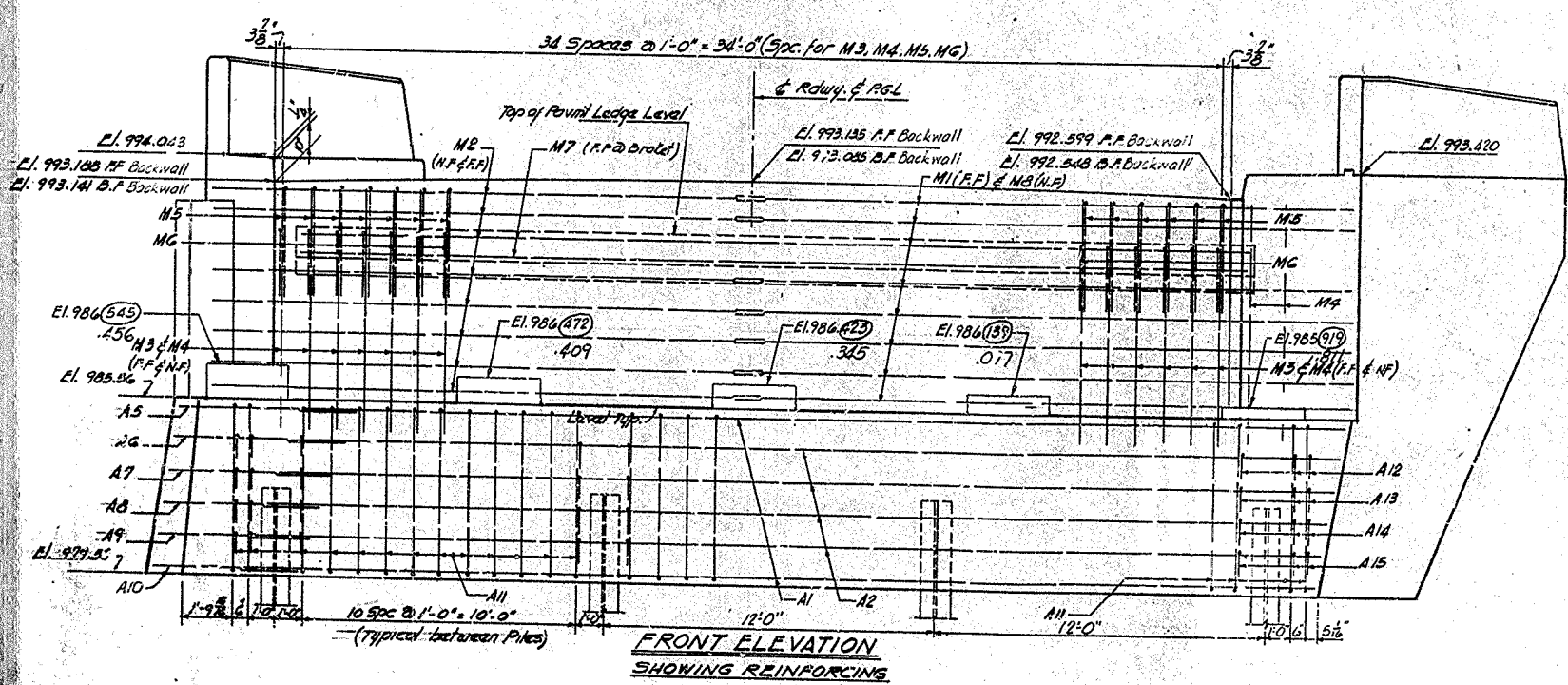
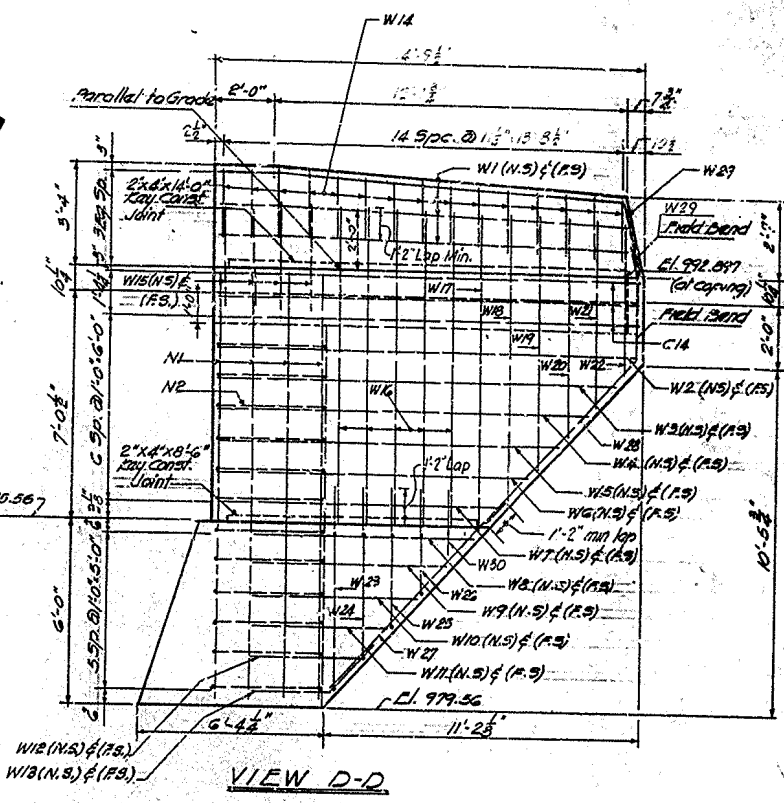
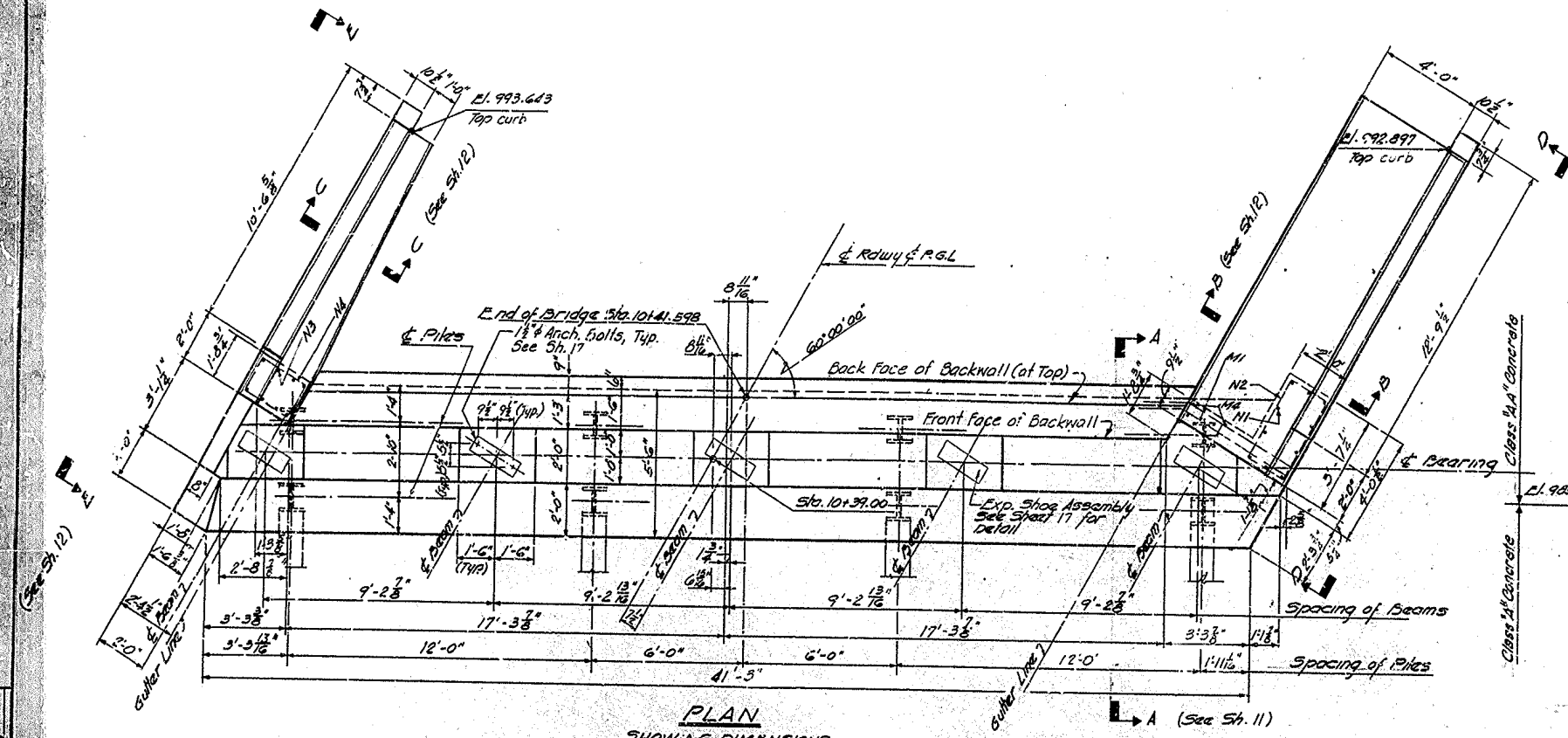
VOID (SEE SHEET 10A)

4
KY II BRIDGE OVER CUMBERLAND RIVER SHEET 10

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFOLT
COUNTY OF
KNOX
BARBOURVILLE - WILLIAMSBURG

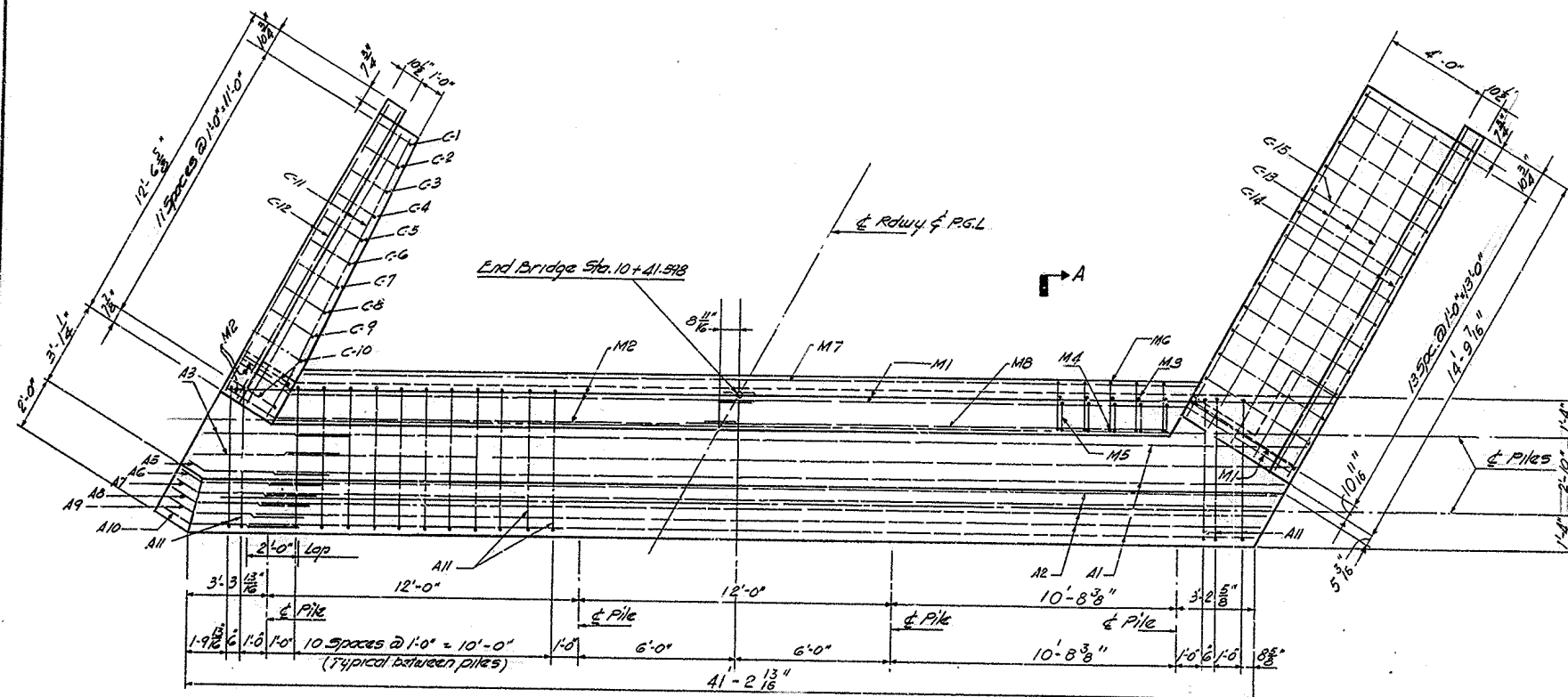
STATION 8+34		PROJECT NO. SP 61-170-7L	
BRIDGE NUMBER		DESIGN NO. 16728	DATE

NO.	DATE	BY	CHKD.	APP'D.	REVISION
7	KY.				

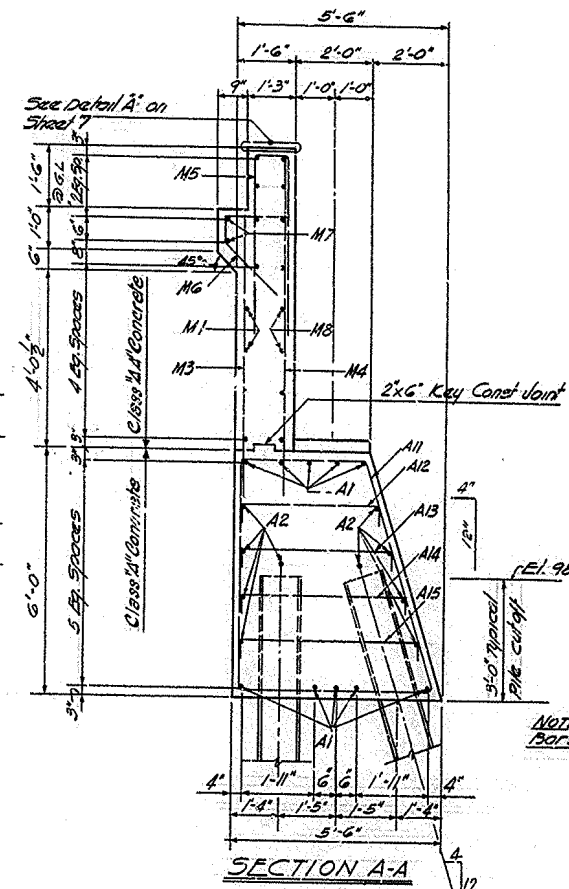


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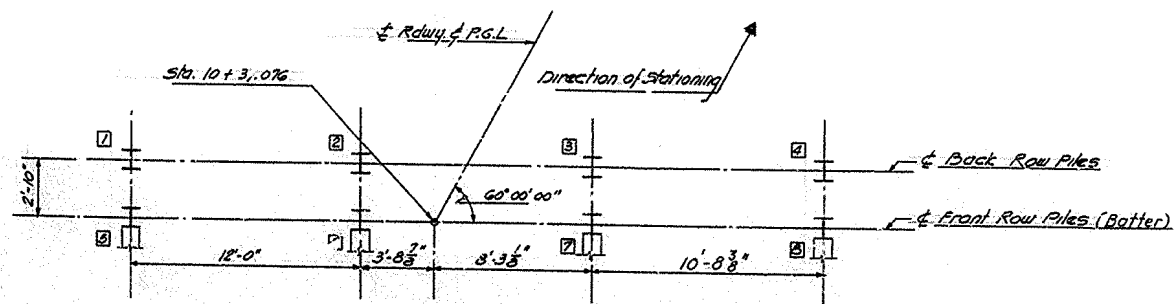
KY 11 BRIDGE OVER CUMBERLAND RIVER SHEET 10 A
COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
KNOX
 BARBOURVILLE-WILLIAMSBURG
 STATION 8+34
 PROJECT NO. SP 61-170-7L
 BRIDGE NUMBER 16728



PLAN
SHOWING REINFORCING



NOTE:
Bars A4 laps with bars A2



ABUTMENT No. 2

ABUTMENT No. 2				
PILE NUMBER	CUT OFF ELEV. AS SHOWN ON PLANS	TIP PILE ELEV. AS SHOWN ON PLANS	LENGTH PILE IN PLACE L.F.	CALC. BEARING CAP. TONS
1	952.50			
2				
3				
4				
5				
6				
7				
8	982.50			

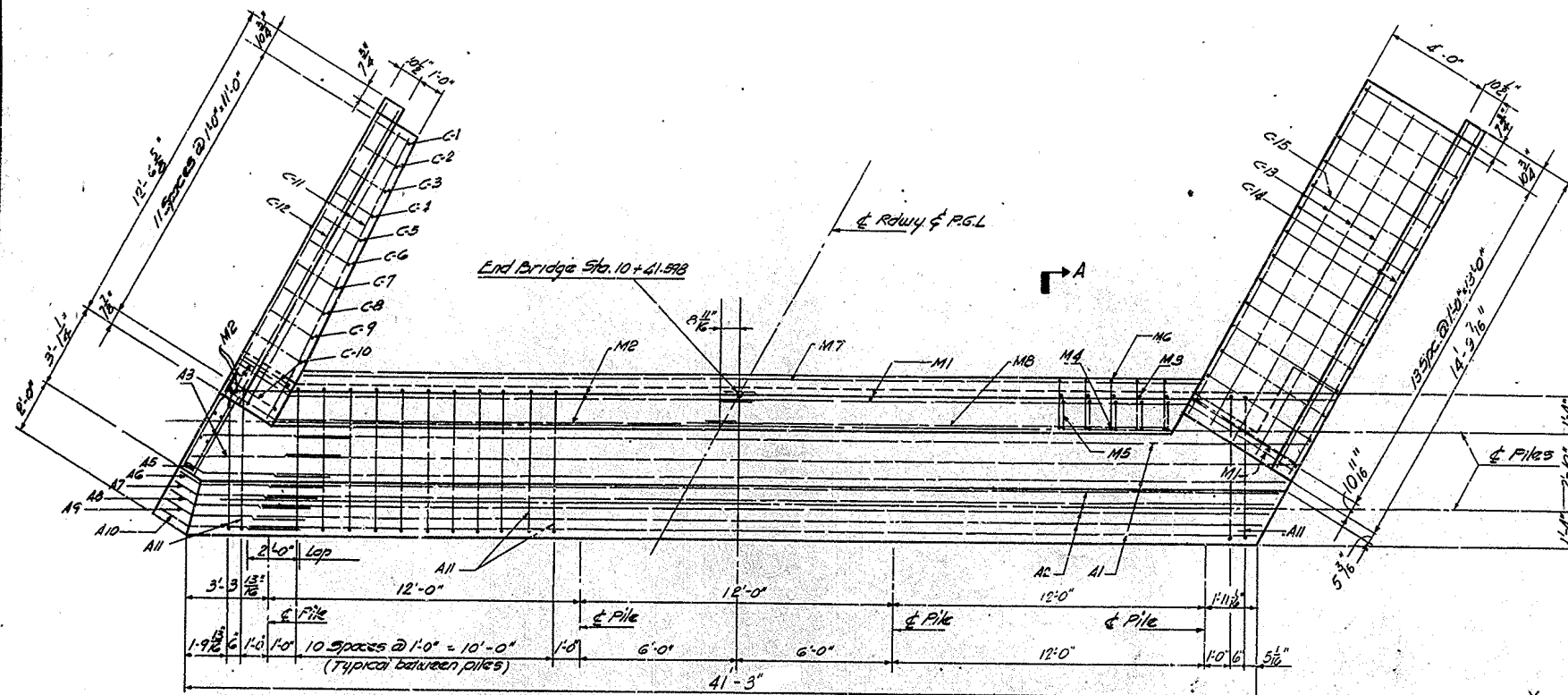
See Pile Record Note, Sheet 7

VOID (SEE SHEET 11A)

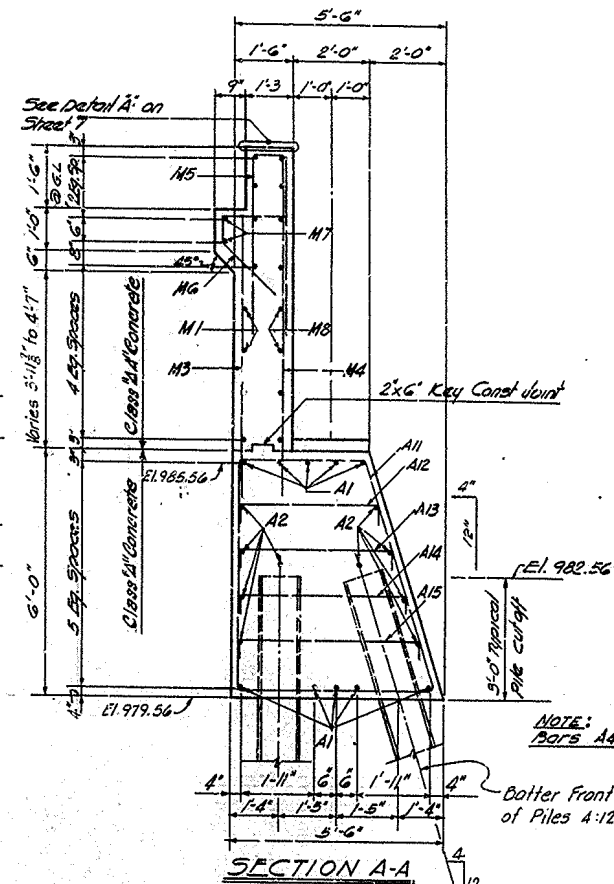
KY. II BRIDGE OVER CUMBERLAND RIVER SHEET II

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
KNOX
BARBOURVILLE - WILLIAMSBURG
ROAD S 308(8)
STATION 8+34 PROJECT NO. SP 61-170-7L
BRIDGE NUMBER 16728

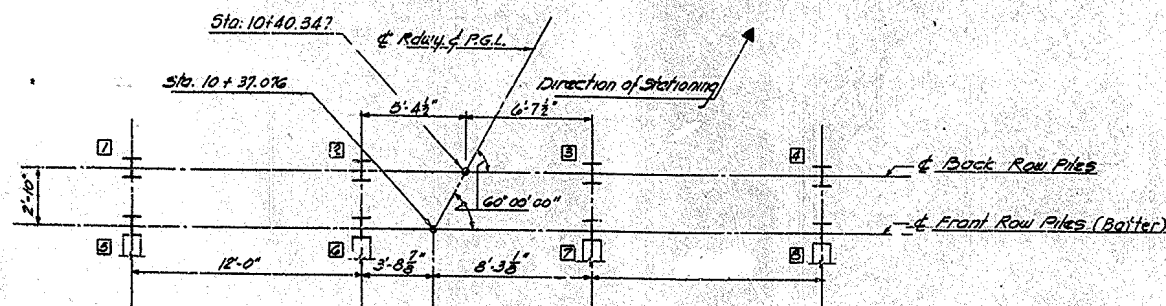
ABUTMENT No. 2



PLAN
SHOWING REINFORCING



SECTION A-A



ABUTMENT No. 2

ABUTMENT No. 2					
PILE NUMBER	CUT OFF ELEV. AS SHOWN ON PLANS	TIP PILE ELEV. AS DRIVEN	LENGTH PILE IN PLACE L.F.	CALC. BEARING CAP. TONS	
1 V	982.56	949.97	32.59		
2 V		948.45	34.11		
3 V		946.52	36.04		
4 T		943.78	38.78		
5 B		947.73	36.71		
6 B		947.84	36.60		
7 B		945.82	39.36		
8 B	982.56	944.53	40.03		

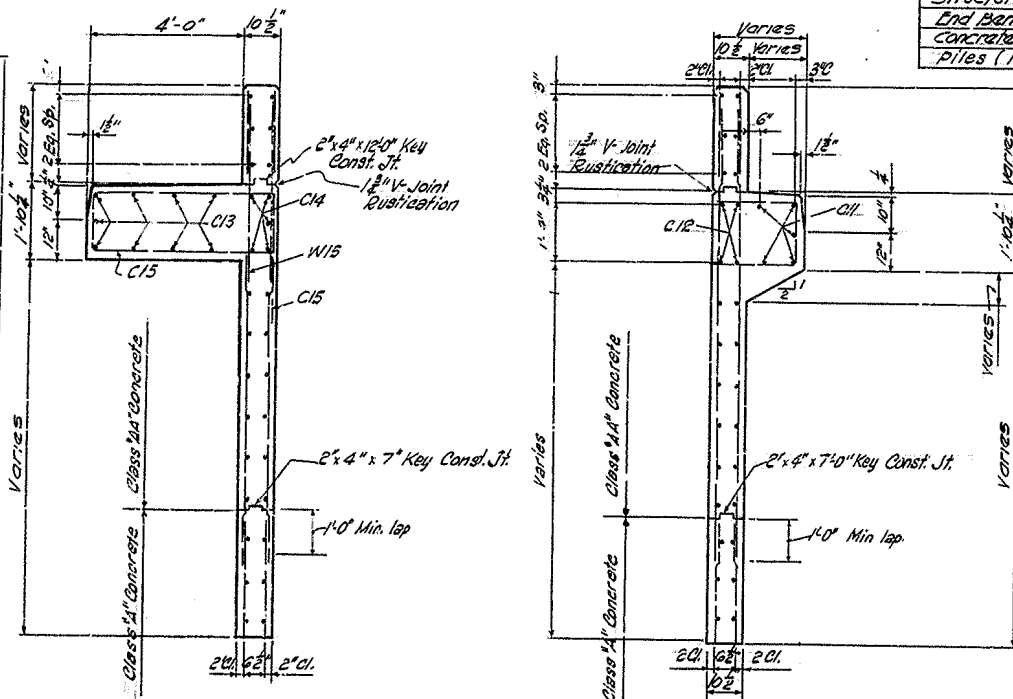
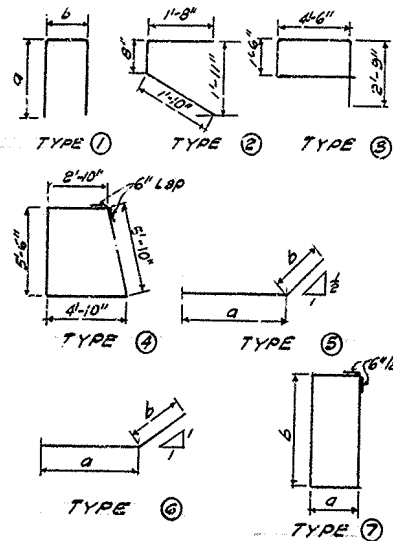
See Pile Record Note, Sheet 7

ABUTMENT No. 2

KY#11 BRIDGE OVER CUMBERLAND RIVER SHEET 11A

COMMONWEALTH OF KENTUCKY	
DEPARTMENT OF HIGHWAYS	
FRANKFORT	
COUNTY OF	
KNOX	
BARBOURVILLE - WILLIAMSBURG	
ROAD	S 308(B)
STATION 8+34	PROJECT NO. PP 61-170-71
BRIDGE NUMBER	16728

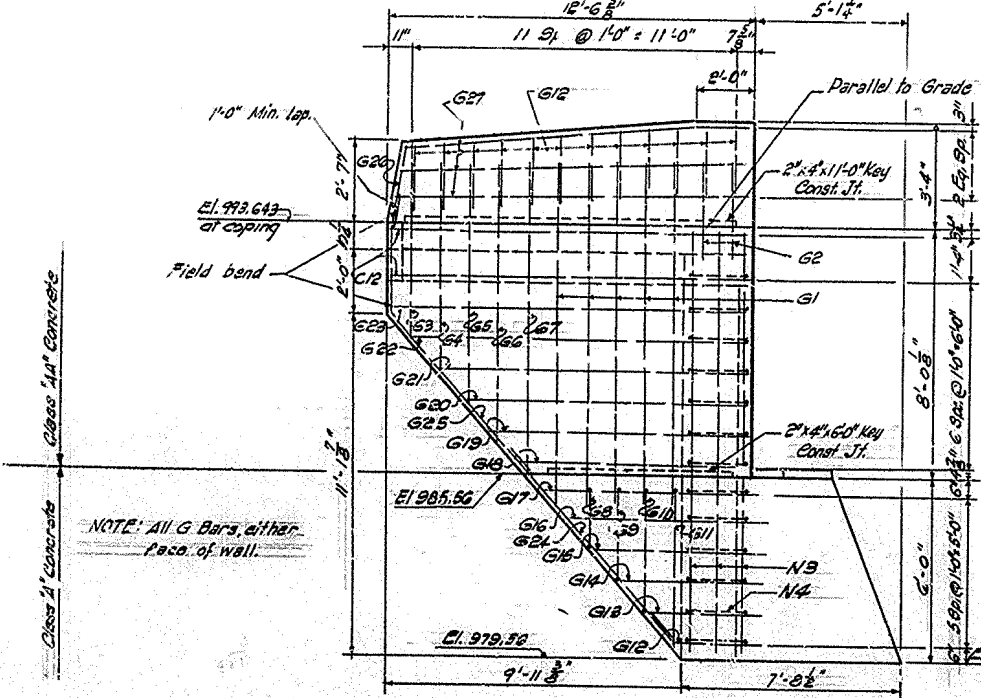
BENT BAR DETAILS



ESTIMATED QUANTITIES		
ITEM	QUANTITY	UNIT
Concrete Class 1/4"	48.3	Cu. Yd.
Reinforcing Steel	5,890	Lb.
Structure Excavation Common	185	Cu. Yd.
End Bent Back Fill	180	Cu. Yd.
Concrete Class 1/2"	22.9	Cu. Yd.
Piles (14BP73)	301	Lt. Ft.

BILL OF REINFORCEMENT											
MARK	TYPE	NO. OF BARS	SIZE	LENGTH FT. IN.	LOCATION	a	b	c	d	e	f
W1	5	8	4	22 6	MUDWALL	17	10	4	8		
W2	5	16	4	20 0		17	10	2	2		
W3	5	35	4	6 7							
W4	5	39	4	8 1							
W5	5	35	4	6 11							
W6	5	35	4	4 2							
W7	5	2	4	3 4							
W8	5	8	4	17 10							
C1	1	1	4	4 6	CURB	1	6	1	5		
C2	1	1	4	4 7 1/2		1	6 3/8	1	6		
C3	1	1	4	4 8 1/2		1	7 1/4	1	6		
C4	1	1	4	4 9 1/2		1	7 7/8	1	6		
C5	1	1	4	4 10 1/2		1	8 1/4	1	6		
C6	1	1	4	4 11 1/2		1	8 7/8	1	6		
C7	1	1	4	4 12 1/2		1	9 1/4	1	6		
C8	1	1	4	4 13 1/2		1	9 7/8	1	6		
C9	1	1	4	4 14 1/2		1	10 1/4	1	6		
C10	1	1	4	4 15 1/2		1	10 7/8	1	6		
C11	5	5	4	10 10		1	11 1/4	1	6		
C12	5	5	4	12 3							
C13	5	5	4	15 9							
C14	5	5	4	15 3							
C15	5	5	4	13 3							
A1	5	10	8	30 0	CAP						
A2	5	10	8	30 0							
A3	5	8	8	5 7							
A4	5	6	8	5 7							
A5	5	1	8	5 6							
A6	5	1	8	5 6							
A7	5	1	8	5 6							
A8	5	1	8	5 6							
A9	5	1	8	5 5							
A10	5	1	8	5 4							
A11	5	38	4	20 0							
A12	5	10	4	4 3							
A13	5	10	4	4 8							
A14	5	10	4	5 0							
A15	5	10	4	5 5							
W1	5	6	4	13 9	RIGHT WING						
W2	5	2	4	14 4							
W3	5	2	4	13 4							
W4	5	2	4	12 4							
W5	5	2	4	11 4							
W6	5	2	4	10 4							
W7	5	2	4	9 4							
W8	5	2	4	8 4							
W9	5	2	4	7 4							
W10	5	2	4	6 4							
W11	5	2	4	5 4							
W12	5	2	4	4 4							
W13	5	2	4	3 4							
W14	5	2	4	2 4							
W15	5	2	4	1 4							
W16	5	2	4	0 4							
W17	5	2	4	0 4							
W18	5	2	4	0 4							
W19	5	2	4	0 4							
W20	5	2	4	0 4							
W21	5	2	4	0 4							
W22	5	2	4	0 4							
W23	5	2	4	0 4							
W24	5	2	4	0 4							
W25	5	2	4	0 4							
W26	5	2	4	0 4							
W27	5	2	4	0 4							
W28	5	2	4	0 4							
W29	5	2	4	0 4							
W30	5	2	4	0 4							
W31	5	2	4	0 4							
W32	5	2	4	0 4							
W33	5	2	4	0 4							
W34	5	2	4	0 4							
W35	5	2	4	0 4							
W36	5	2	4	0 4							
W37	5	2	4	0 4							
W38	5	2	4	0 4							
W39	5	2	4	0 4							
W40	5	2	4	0 4							
W41	5	2	4	0 4							
W42	5	2	4	0 4							
W43	5	2	4	0 4							
W44	5	2	4	0 4							
W45	5	2	4	0 4							
W46	5	2	4	0 4							
W47	5	2	4	0 4							
W48	5	2	4	0 4							
W49	5	2	4	0 4							
W50	5	2	4	0 4							
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W53	5	2	4	0 4							
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W61	5	2	4	0 4							
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W63	5	2	4	0 4							
W64	5	2	4	0 4							
W65	5	2	4	0 4							
W66	5	2	4	0 4							
W67	5	2	4	0 4							
W68	5	2	4	0 4							
W69	5	2	4	0 4							
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W71	5	2	4	0 4							
W72	5	2	4	0 4							
W73	5	2	4	0 4							
W74	5	2	4	0 4							
W75	5	2	4	0 4							
W76	5	2	4	0 4							
W77	5	2	4	0 4							
W78	5	2	4	0 4							
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W80	5	2	4	0 4							
W81	5	2	4	0 4							
W82	5	2	4	0 4							
W83	5	2	4	0 4							
W84	5	2	4	0 4							
W85	5	2	4	0 4							
W86	5	2	4	0 4							
W87	5	2	4	0 4							
W88	5	2	4	0 4							
W89	5	2	4	0 4							
W90	5	2	4	0 4							
W91	5	2	4	0 4							
W92	5	2	4	0 4							
W93	5	2	4	0 4							
W94	5	2	4	0 4							
W95	5	2	4	0 4							
W96	5	2	4	0 4							
W97	5	2	4	0 4							
W98	5	2	4	0 4							
W99	5	2	4	0 4							
W100	5	2	4	0 4							

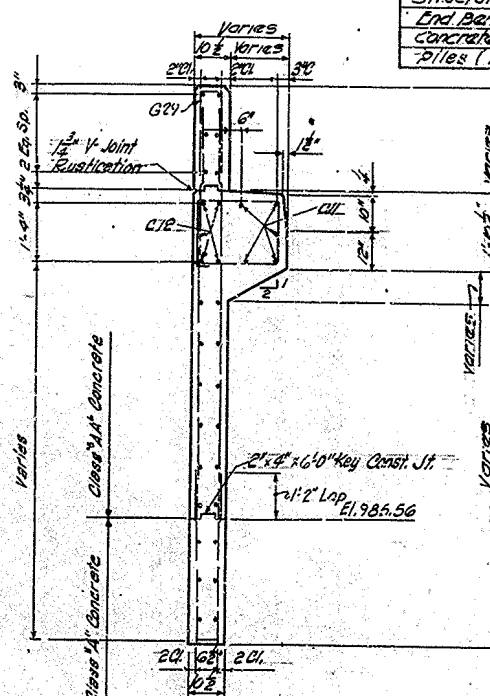
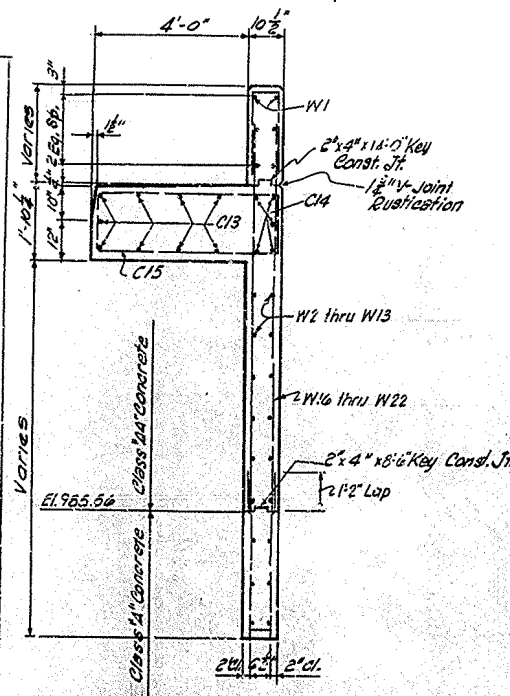
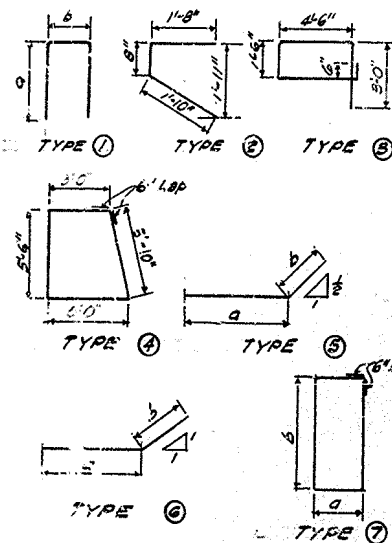
SECTION B-B



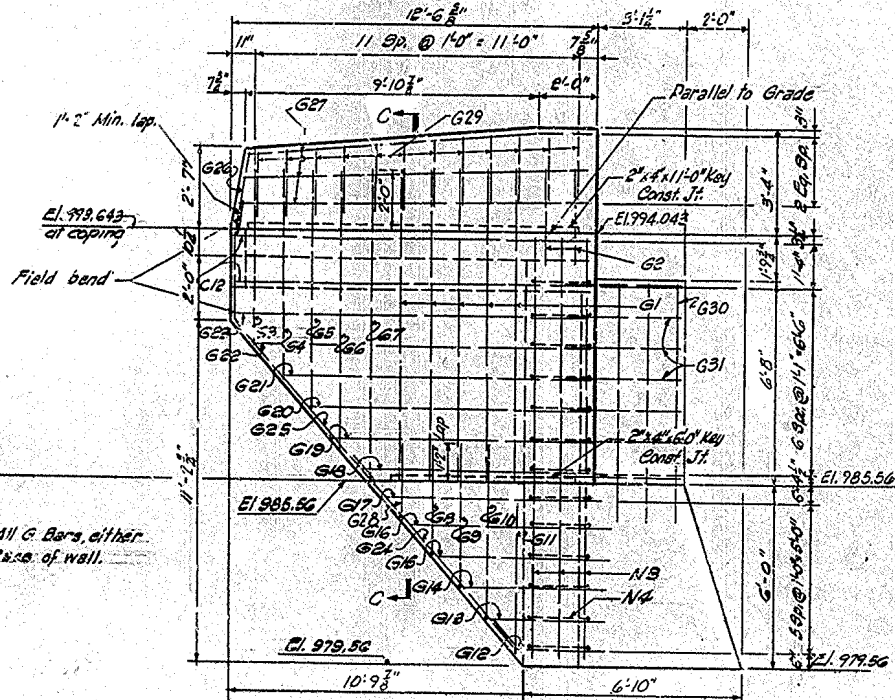
SECTION C-C

BILL OF REINFORCEMENT											
MARK	TYPE	NO OF BARS	SIZE	LENGTH	LOCATION	a		b		c	
				FT.		IN.	FT.	IN.	FT.	IN.	FT.
G1	5#	12	4	11	0	LEFT WING					
G2	5#	4	4	4	0	.					
G3	5#	2	4	5	9	.					
G4	5#	2	4	6	8	.					
G5	5#	2	4	7	7	.					
G6	5#	2	4	8	6	.					
G7	5#	2	4	9	5	.					
G8	(7)	1	4	6	4 1/2	2	1 3/4	0	6 1/2		
G9	(7)	1	4	8	6 1/2	3	2 3/4	0	6 1/2		
G10	(7)	1	4	10	8	4	3 1/2	0	6 1/2		
G11	(7)	1	4	12	9 1/4	5	4 1/2	0	6 1/2		
G12	(6)	2	4	4	0	3	0	1	0		
G12	5#	2	6	3	11	.					
G14	5#	2	6	4	9	.					
G15	5#	2	6	5	8	.					
G16	5#	2	6	6	8	.					
G17	5#	2	8	7	7	.					
G18	5#	2	4	4	8	.					
G19	5#	2	4	8	7	.					
G20	5#	2	4	9	6	.					
G21	5#	2	4	10	5	.					
G22	5#	2	4	11	4	.					
G23	5#	2	4	12	3	.					
G24	5#	2	4	9	1	.					
G25	5#	2	4	13	1	.					
G26	5#	2	4	2	2	.					
G27	5#	6	4	12	1	.					
N3	5#	10	8	13	6	LEFT COLUMN					
N4	(7)	13	4	8	6	2	0	1	9		
P1	(1)	35	5	3	3	RAISERS					
P2	(1)	13	5	4	3	1	0	1	3		
						1	0	2	8		

BENT BAR DETAILS



SECTION B-B (See Sh. 10)



VIEW C-C

SECTION C-C

MARK	TYPE	NO. OF BARS	SIZE	LENGTH	LOCATION	a	b	c	d
				FT. IN.		FT. IN.	FT. IN.	FT. IN.	FT. IN.
G1	St	10	4	10 6	LEFT WING				
G2	St	4	4	4 6					
G3	St	1	4	11 10		5 9	0 6 1/2		
G4	St	1	4	13 10		6 9	0 6 1/2		
G5	St	1	4	15 10		7 9	0 6 1/2		
G6	St	1	4	17 10		8 9	0 6 1/2		
G7	St	1	4	19 10		9 9	0 6 1/2		
G8	St	1	4	21 10		10 9	0 6 1/2		
G9	St	1	4	23 10		11 9	0 6 1/2		
G10	St	1	4	25 10		12 9	0 6 1/2		
G11	St	1	4	27 10		13 9	0 6 1/2		
G12	St	1	4	29 10		14 9	0 6 1/2		
G13	St	1	4	31 10		15 9	0 6 1/2		
G14	St	1	4	33 10		16 9	0 6 1/2		
G15	St	1	4	35 10		17 9	0 6 1/2		
G16	St	1	4	37 10		18 9	0 6 1/2		
G17	St	1	4	39 10		19 9	0 6 1/2		
G18	St	1	4	41 10		20 9	0 6 1/2		
G19	St	1	4	43 10		21 9	0 6 1/2		
G20	St	1	4	45 10		22 9	0 6 1/2		
G21	St	1	4	47 10		23 9	0 6 1/2		
G22	St	1	4	49 10		24 9	0 6 1/2		
G23	St	1	4	51 10		25 9	0 6 1/2		
G24	St	1	4	53 10		26 9	0 6 1/2		
G25	St	1	4	55 10		27 9	0 6 1/2		
G26	St	1	4	57 10		28 9	0 6 1/2		
G27	St	1	4	59 10		29 9	0 6 1/2		
G28	St	1	4	61 10		30 9	0 6 1/2		
G29	St	1	4	63 10		31 9	0 6 1/2		
G30	St	1	4	65 10		32 9	0 6 1/2		
G31	St	1	4	67 10		33 9	0 6 1/2		
G32	St	1	4	69 10		34 9	0 6 1/2		
G33	St	1	4	71 10		35 9	0 6 1/2		
G34	St	1	4	73 10		36 9	0 6 1/2		
G35	St	1	4	75 10		37 9	0 6 1/2		
G36	St	1	4	77 10		38 9	0 6 1/2		
G37	St	1	4	79 10		39 9	0 6 1/2		
G38	St	1	4	81 10		40 9	0 6 1/2		
G39	St	1	4	83 10		41 9	0 6 1/2		
G40	St	1	4	85 10		42 9	0 6 1/2		
G41	St	1	4	87 10		43 9	0 6 1/2		
G42	St	1	4	89 10		44 9	0 6 1/2		
G43	St	1	4	91 10		45 9	0 6 1/2		
G44	St	1	4	93 10		46 9	0 6 1/2		
G45	St	1	4	95 10		47 9	0 6 1/2		
G46	St	1	4	97 10		48 9	0 6 1/2		
G47	St	1	4	99 10		49 9	0 6 1/2		
G48	St	1	4	101 10		50 9	0 6 1/2		
G49	St	1	4	103 10		51 9	0 6 1/2		
G50	St	1	4	105 10		52 9	0 6 1/2		
G51	St	1	4	107 10		53 9	0 6 1/2		
G52	St	1	4	109 10		54 9	0 6 1/2		
G53	St	1	4	111 10		55 9	0 6 1/2		
G54	St	1	4	113 10		56 9	0 6 1/2		
G55	St	1	4	115 10		57 9	0 6 1/2		
G56	St	1	4	117 10		58 9	0 6 1/2		
G57	St	1	4	119 10		59 9	0 6 1/2		
G58	St	1	4	121 10		60 9	0 6 1/2		
G59	St	1	4	123 10		61 9	0 6 1/2		
G60	St	1	4	125 10		62 9	0 6 1/2		
G61	St	1	4	127 10		63 9	0 6 1/2		
G62	St	1	4	129 10		64 9	0 6 1/2		
G63	St	1	4	131 10		65 9	0 6 1/2		
G64	St	1	4	133 10		66 9	0 6 1/2		
G65	St	1	4	135 10		67 9	0 6 1/2		
G66	St	1	4	137 10		68 9	0 6 1/2		
G67	St	1	4	139 10		69 9	0 6 1/2		
G68	St	1	4	141 10		70 9	0 6 1/2		
G69	St	1	4	143 10		71 9	0 6 1/2		
G70	St	1	4	145 10		72 9	0 6 1/2		
G71	St	1	4	147 10		73 9	0 6 1/2		
G72	St	1	4	149 10		74 9	0 6 1/2		
G73	St	1	4	151 10		75 9	0 6 1/2		
G74	St	1	4	153 10		76 9	0 6 1/2		
G75	St	1	4	155 10		77 9	0 6 1/2		
G76	St	1	4	157 10		78 9	0 6 1/2		
G77	St	1	4	159 10		79 9	0 6 1/2		
G78	St	1	4	161 10		80 9	0 6 1/2		
G79	St	1	4	163 10		81 9	0 6 1/2		
G80	St	1	4	165 10		82 9	0 6 1/2		
G81	St	1	4	167 10		83 9	0 6 1/2		
G82	St	1	4	169 10		84 9	0 6 1/2		
G83	St	1	4	171 10		85 9	0 6 1/2		
G84	St	1	4	173 10		86 9	0 6 1/2		
G85	St	1	4	175 10		87 9	0 6 1/2		
G86	St	1	4	177 10		88 9	0 6 1/2		
G87	St	1	4	179 10		89 9	0 6 1/2		
G88	St	1	4	181 10		90 9	0 6 1/2		
G89	St	1	4	183 10		91 9	0 6 1/2		
G90	St	1	4	185 10		92 9	0 6 1/2		
G91	St	1	4	187 10		93 9	0 6 1/2		
G92	St	1	4	189 10		94 9	0 6 1/2		
G93	St	1	4	191 10		95 9	0 6 1/2		
G94	St	1	4	193 10		96 9	0 6 1/2		
G95	St	1	4	195 10		97 9	0 6 1/2		
G96	St	1	4	197 10		98 9	0 6 1/2		
G97	St	1	4	199 10		99 9	0 6 1/2		
G98	St	1	4	201 10		100 9	0 6 1/2		
G99	St	1	4	203 10		101 9	0 6 1/2		
G100	St	1	4	205 10		102 9	0 6 1/2		

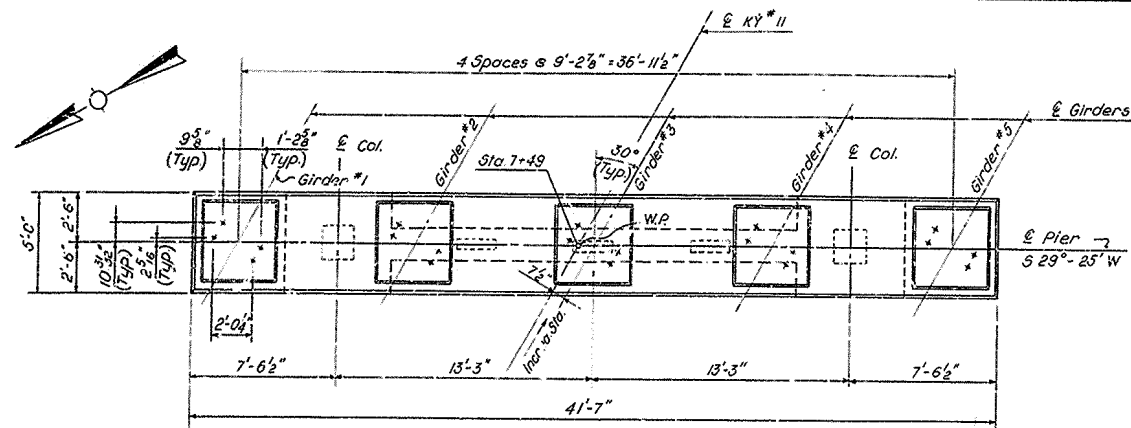
* See Detail on Sheet 6

ABUTMENT No. 2

ITEM	QUANTITY	UNIT
Concrete Class "A"	14.7	Cu. Yd.
Reinforcing Steel	6,592	Lb.
Structure Excavation Common	185	Cu. Yd.
End Bent Back Fill	135	Cu. Yd.
Concrete Class "A"	57.0	Cu. Yd.
Piles (14BP73)	301	Lt. Ft.

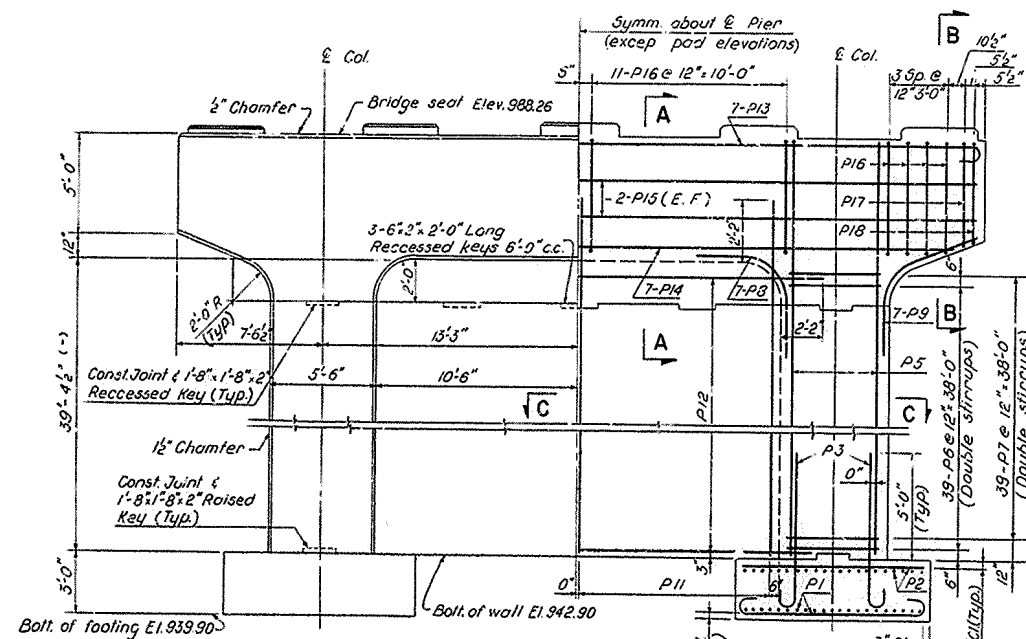
MARK	TYPE	NO. OF BARS	SIZE	LENGTH	LOCATION	a	b	c	d
				FT. IN.		FT. IN.	FT. IN.	FT. IN.	FT. IN.

NO.	DATE	BY	CHKD.	APP'D.	REVISION
7	KY.				



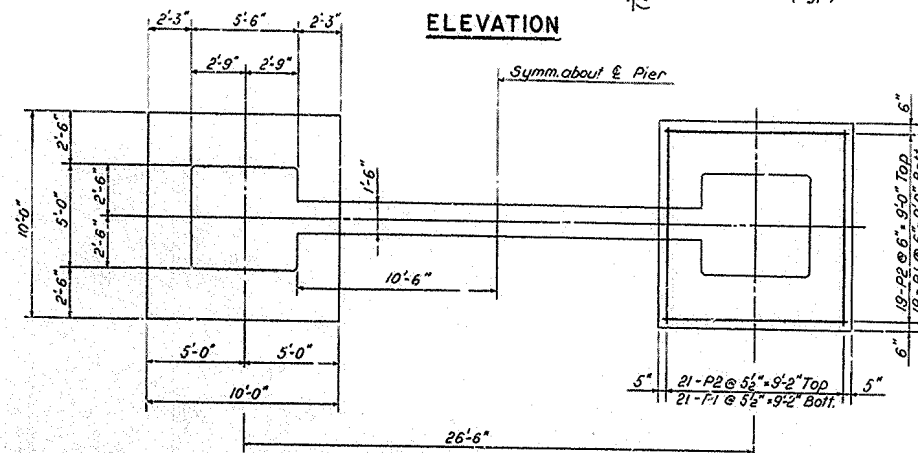
Note:
For fixed shoe assembly see sh. 17

PLAN OF CAP

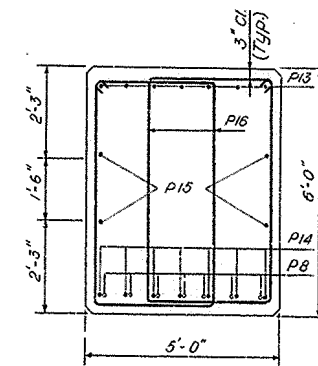


Bolt of footing E1.939.90

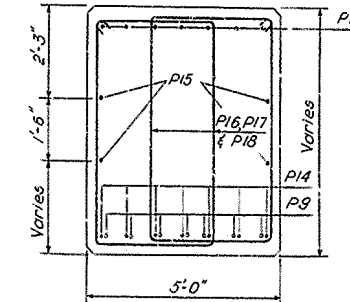
ELEVATION



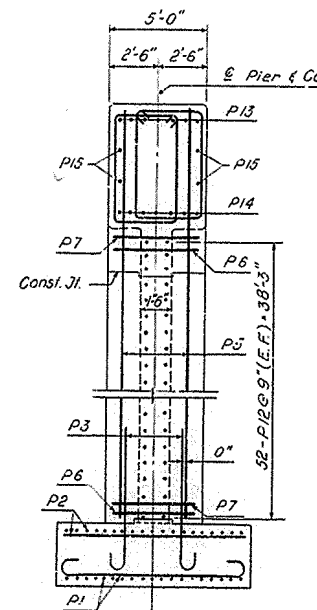
PLAN OF FOOTING



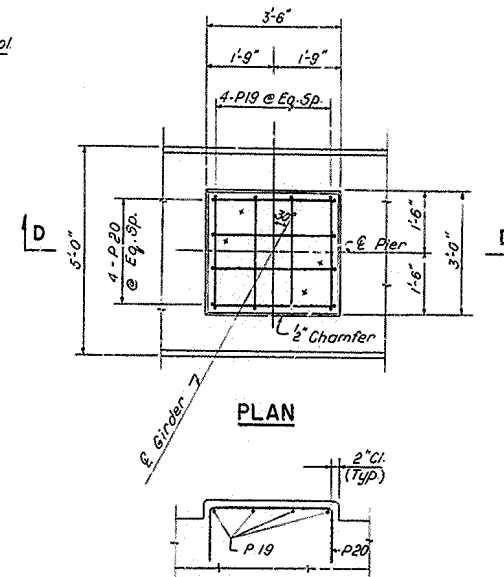
SECTION A-A



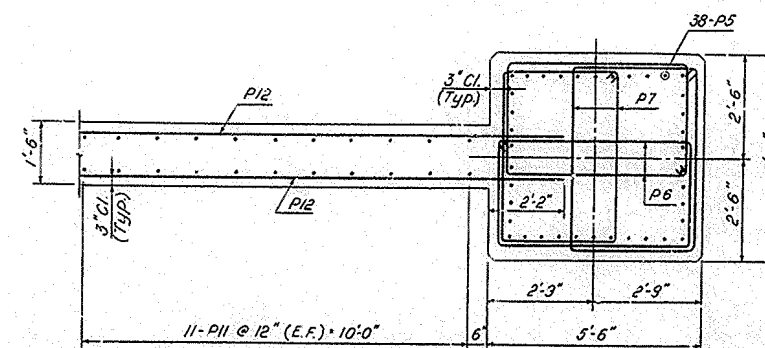
SECTION B-B



END ELEVATION



SECTION D-D
PAD REINFORCEMENT (PIER #1)



SECTION C-C

PIER 1

ANCHOR BOLT NOTES

Holes 2" x 1'-3" deep shall be drilled for Anchor Bolts by the Superstructure Contractor who shall be responsible for keeping holes dry in freezing weather. After base plates are properly set & anchor bolts are placed in drilled holes, molten lead shall be poured in holes & packed until holes are completely filled flush to top of base plates. The cost of drilling anchor bolt holes, turning lead, and filling holes with molten lead shall be incidental to and included in the lump sum bid for structural steel. Contractor shall exercise care in placing bars in cap so as not to interfere with the drilling of holes for the anchor bolts.

TOP OF PAD ELEVATIONS

Girder	Elevation
Girder #1	988.59
Girder #2	988.76
Girder #3	988.93
Girder #4	988.89
Girder #5	988.88

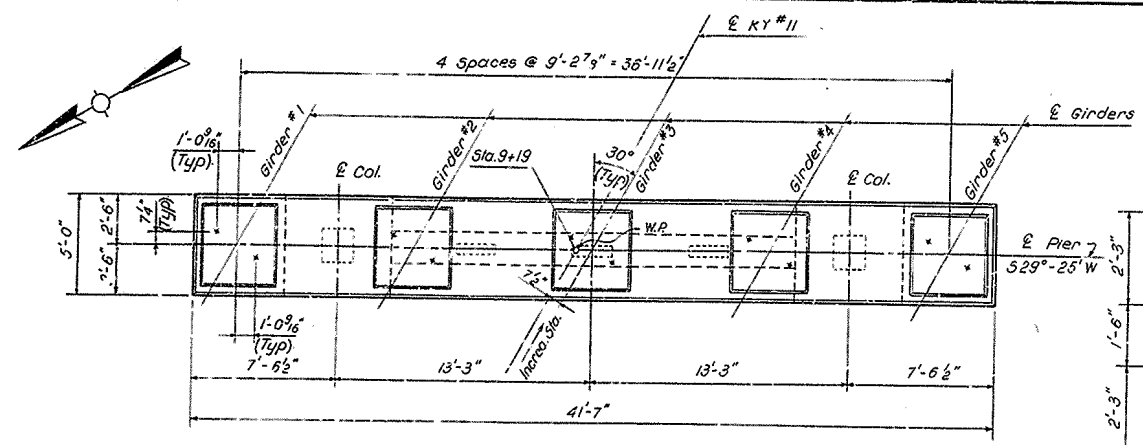
Note:
For reinforcement estimation details see sh. 14.

ESTIMATE OF QUANTITIES PIER #1

ITEM		
Concrete, Class "A"	194.8	Cu. Yds.
Reinforcement	34,062	Lbs.

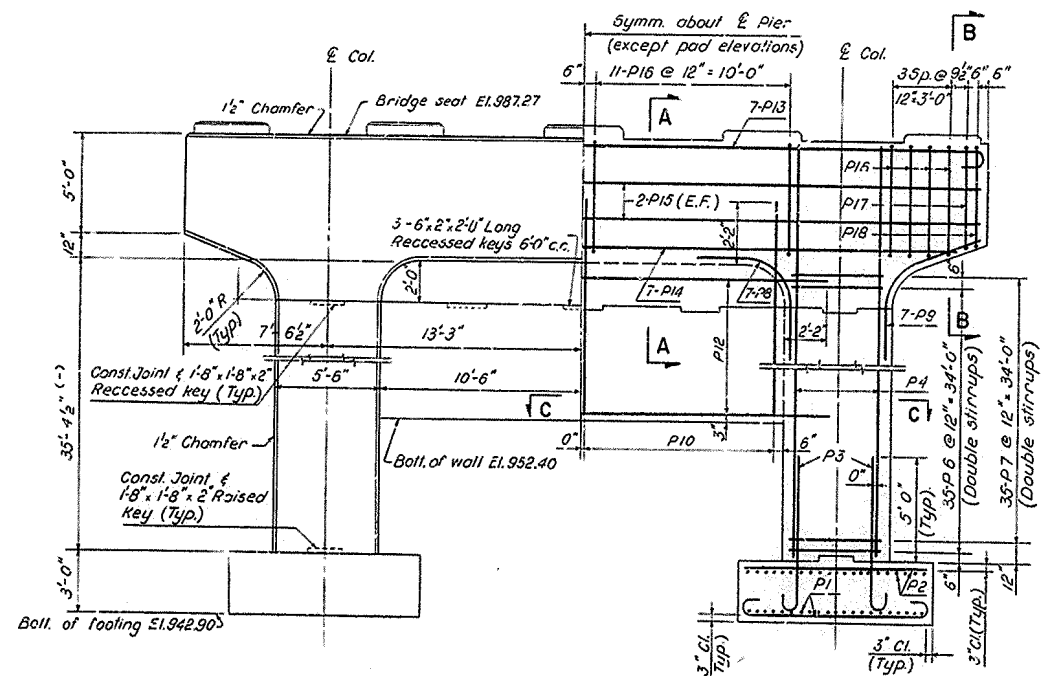
KY*11 BRIDGE OVER CUMBERLAND RIVER SHEET 13

COMMONWEALTH OF KENTUCKY	
DEPARTMENT OF HIGHWAYS	
FRANKFORT	
COUNTY OF	
KNOX	
BARBOURVILLE - WILLIAMSBURG	
ROAD S 308(8)	
STATION 8+34	PROJECT NO. SP 61-170-7L
BRIDGE NUMBER	16728

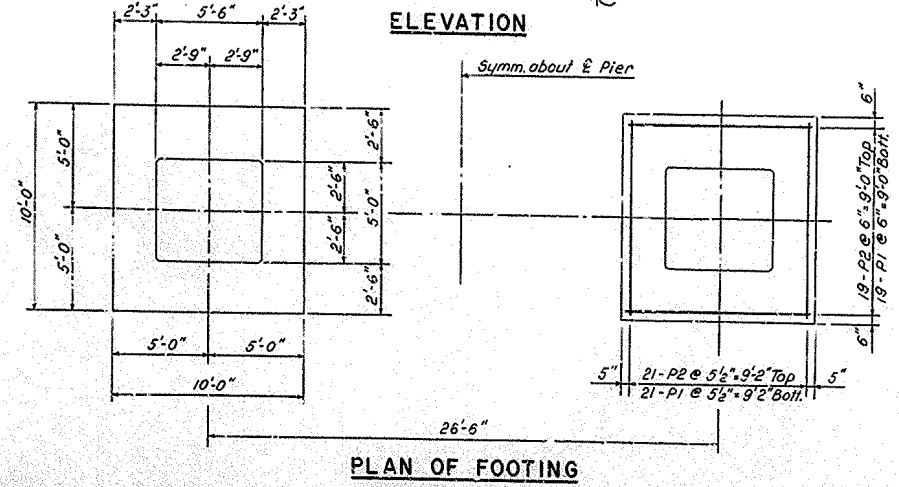


Note:
For expansion shoe assembly see sh. 17.

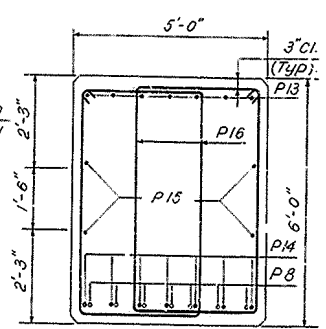
PLAN OF CAP



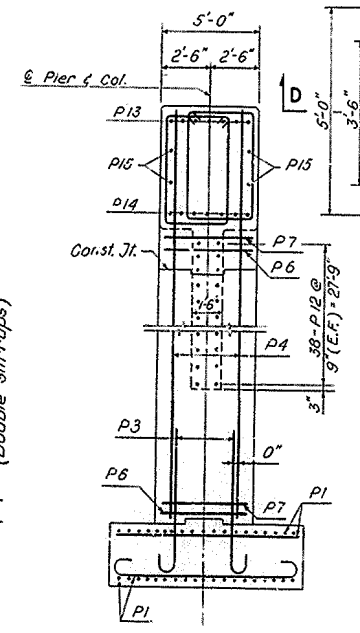
ELEVATION



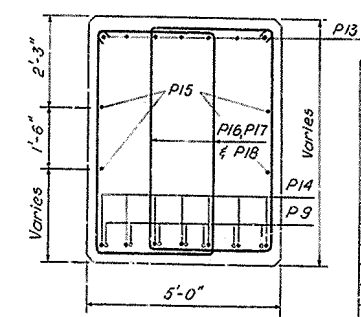
PLAN OF FOOTING



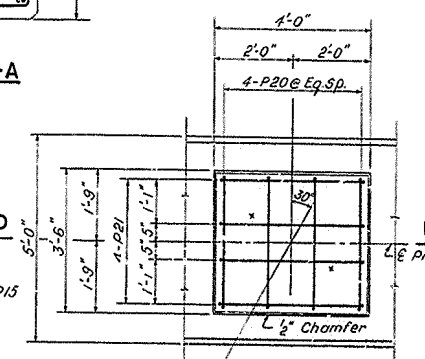
SECTION A-A



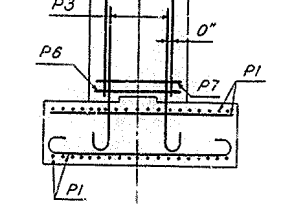
END ELEVATION



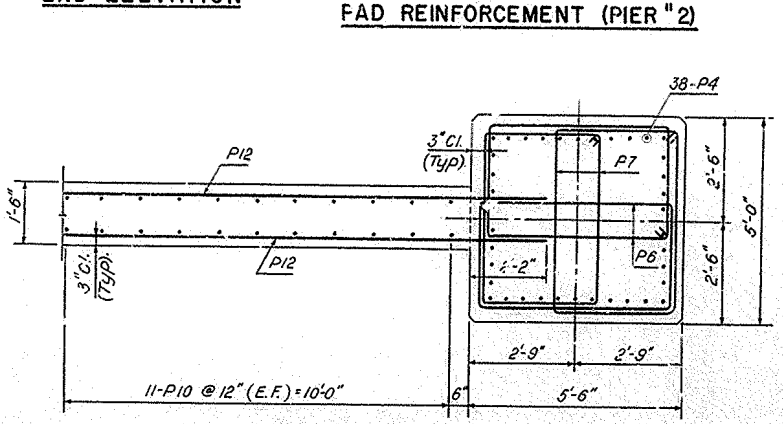
SECTION B-B



PLAN

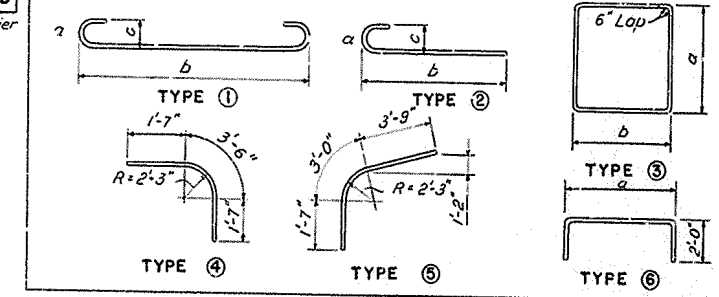


SECTION D-D



SECTION C-C

BILL OF REINFORCEMENT (PIERS 1 & 2)														
MARK	TYPE	No. of BARS	BAR SIZE	LENGTH	LOCATION	a	b	c						
		Pier 1	Pier 2	Total		Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.	
P1	(1)	80	80	160	9 12 0	Bolt. of footing								
P2	Str.	80	80	160	6 9 6	Top of footing								
P3	(2)	76	76	152	9 8 9	Column dowels								
P4	Str.	76	76	152	9 41 0	Columns								
P5	Str.	76	76	152	9 41 0	Columns								
P6	(3)	136	140	276	5 16 4	Column ties								
P7	(3)	156	140	296	5 17 0	Column ties								
P8	(4)	14	14	28	5 6 8	Column fillets								
P9	(5)	14	14	28	5 8 4	Column fillets								
P10	Str.	42	42	84	6 30 10	Wall								
P11	Str.	42	42	84	6 41 4	Wall								
P12	Str.	104	76	180	6 25 4	Wall								
P13	(1)	7	7	14	9 43 5	Cap								
P14	Str.	7	7	14	8 38 0	Cap								
P15	Str.	4	4	8	6 40 11	Cap								
P16	(3)	60	60	120	5 18 4	Cap								
P17	(3)	4	4	8	5 17 4	Cap								
P18	(3)	4	4	8	5 17 0	Cap								
P19	(6)	20	20	40	5 6 6	Pod								
P20	(6)	20	20	40	5 7 0	Pod								
P21	(6)	20	20	40	5 7 6	Pod								



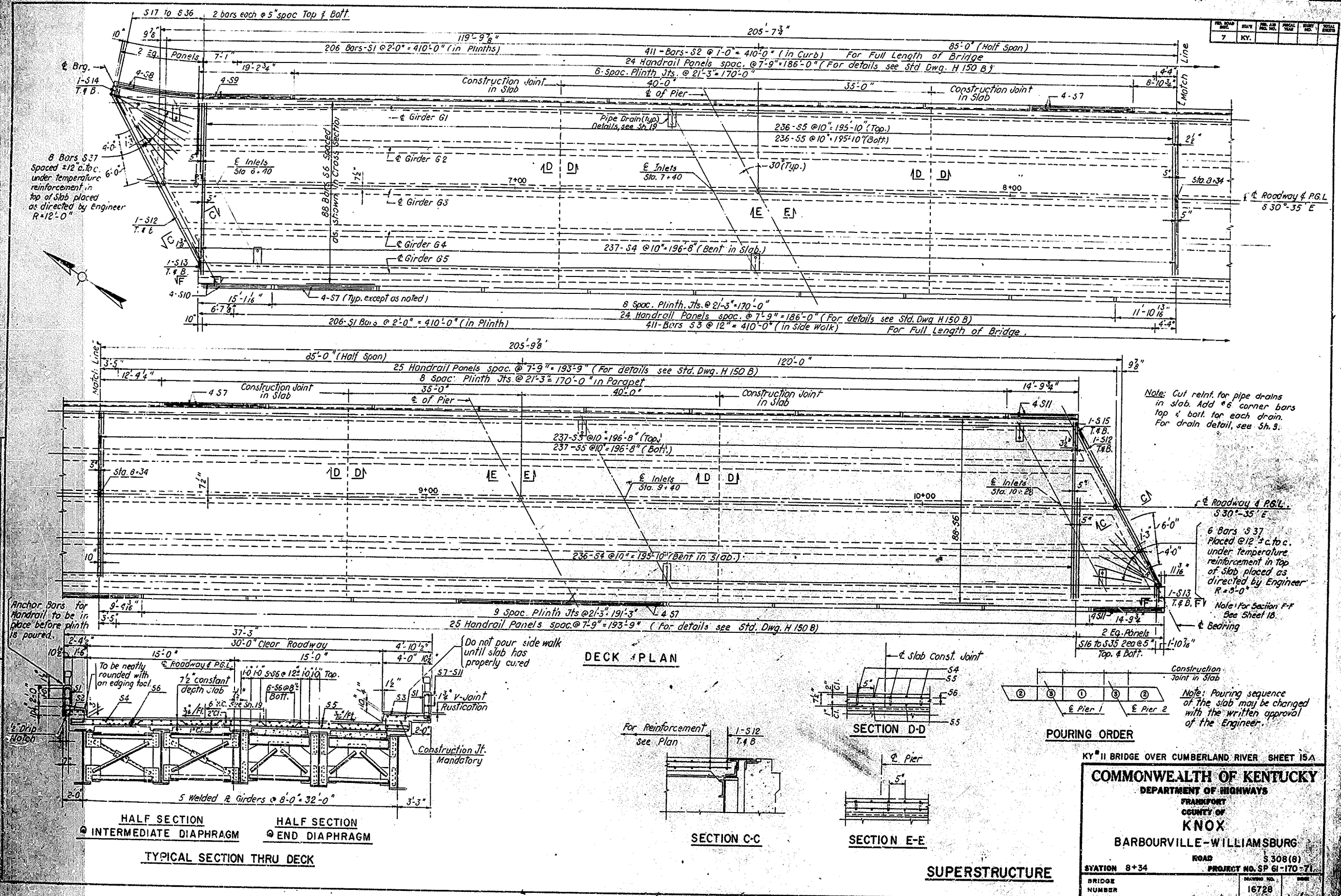
Note:
For anchor bolt notes, see sh. 13.
All dimensions in this table are out to out of bars.

TOP OF PAD EL.	
Girder	Elevation
Girder #1	987.86
Girder #2	987.89
Girder #3	987.92
Girder #4	987.75
Girder #5	987.60

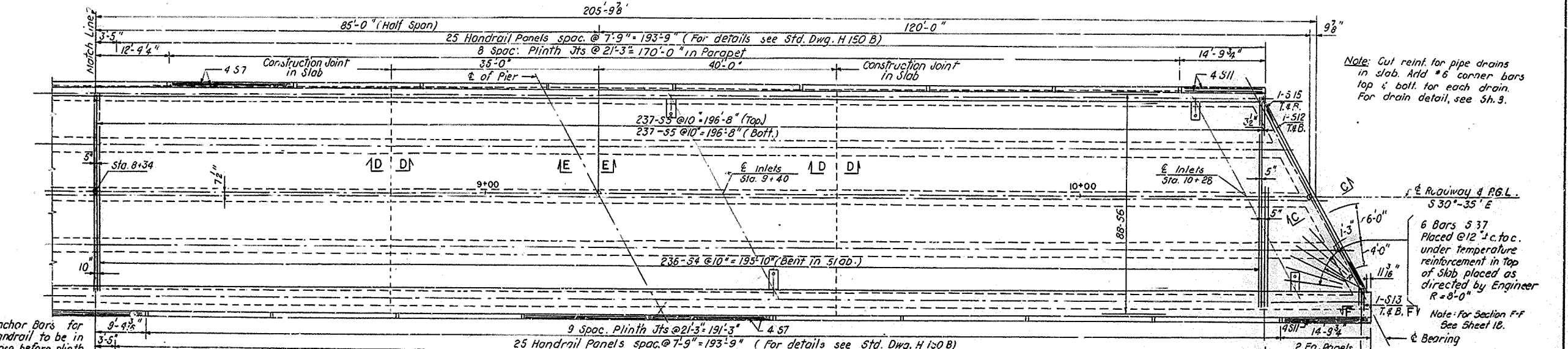
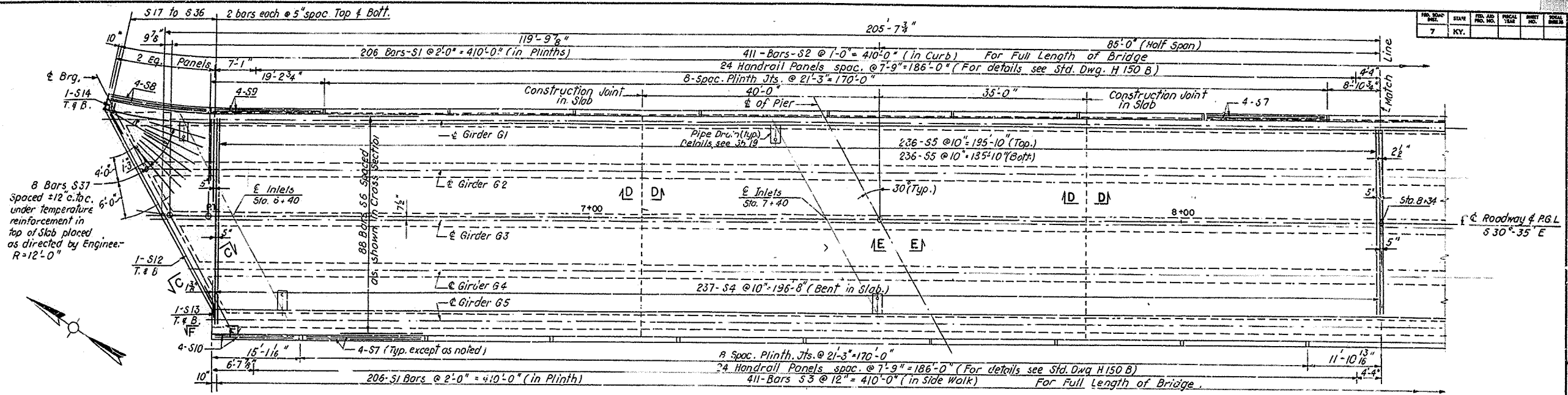
ESTIMATE OF QUANTITIES PIER #2

ITEM		
Concrete, Class "A"	174.50	Cu. Yds.
Reinforcement	30,766	Lbs.

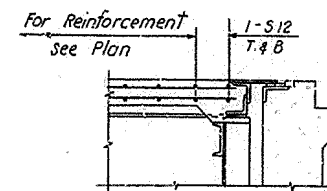
KY#11 BRIDGE OVER CUMBERLAND RIVER SHEET 14
COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
KNOX
 BARBOURVILLE - WILLIAMSBURG
 ROAD
 STATION 8+34
 PROJECT NO. SP 61-176-TL
 BRIDGE NUMBER 16728



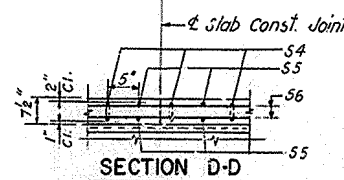
NO.	DATE	BY	CHKD.	APP'D.	REVISION
7	KY.				



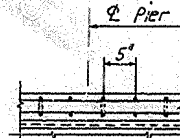
DECK PLAN



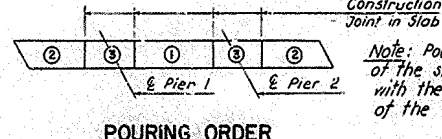
SECTION C-C



SECTION D-D



SECTION E-E



POURING ORDER

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
KNOX
BARBOURVILLE-WILLIAMSBURG
ROAD S 308(8)
STATION 8+34 PROJECT NO. SP 61-170-71
BRIDGE NUMBER 1672R

SUPERSTRUCTURE

VOID
(SEE SHEET 15A)

Note: Pouring sequence of the slab may be changed with the written approval of the Engineer.

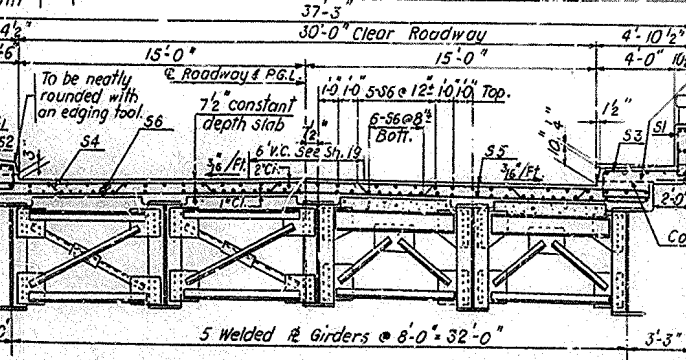
Note: Cut reinf. for pipe drains in slab. Add #6 corner bars top & bott. for each drain. For drain detail, see Sh. 3.

6 Bars S37 Placed @ 12" c.c. under temperature reinforcement in top of slab placed as directed by Engineer R=8'-0"

Note: For Section F-F See Sheet 16.

Do not pour side walk until slab has properly cured

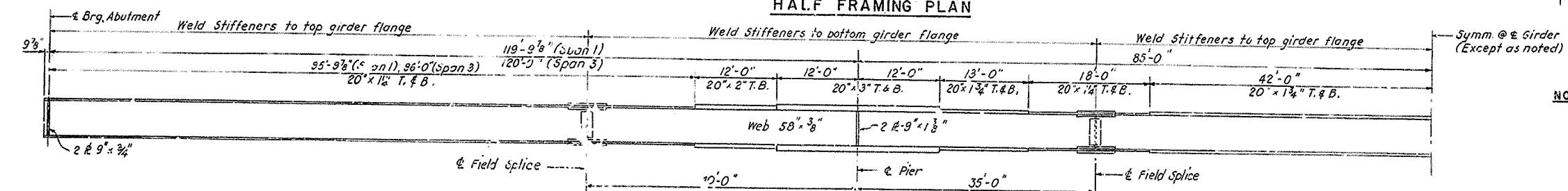
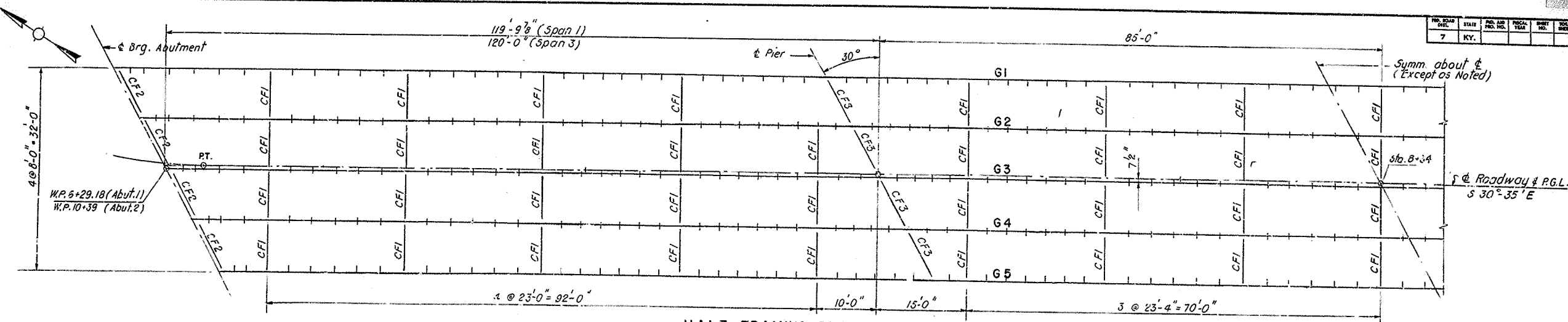
Anchor Bars for Handrail to be in place before plinth is poured.



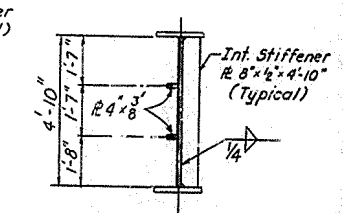
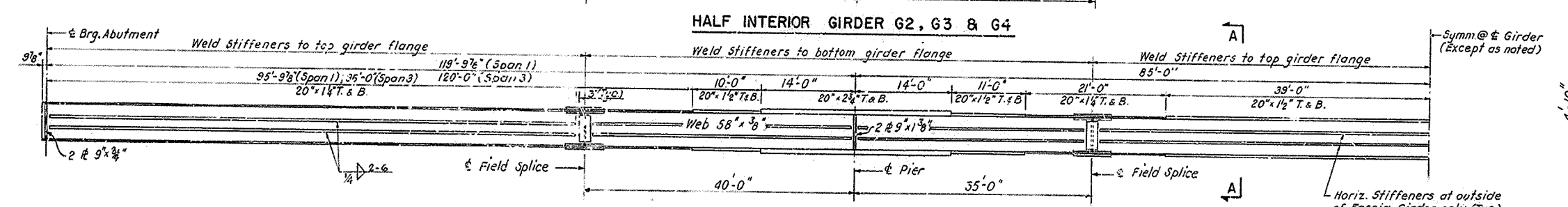
HALF SECTION INTERMEDIATE DIAPHRAGM HALF SECTION END DIAPHRAGM

TYPICAL SECTION THRU DECK

NO.	ROAD	STATE	PRO. NO.	PRO. YEAR	DATE	BY	CHKD.
7	KY.						

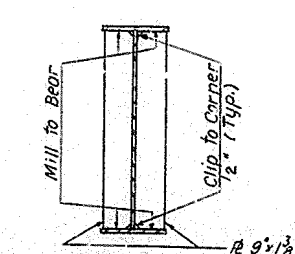
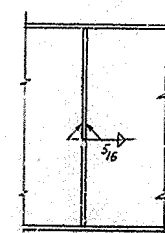
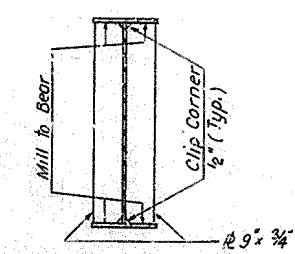
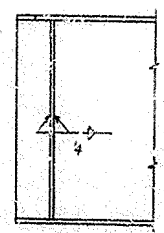
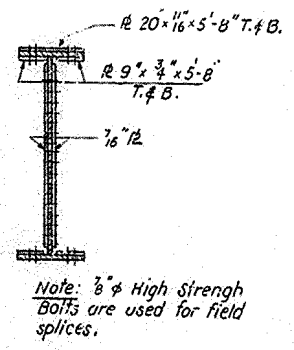
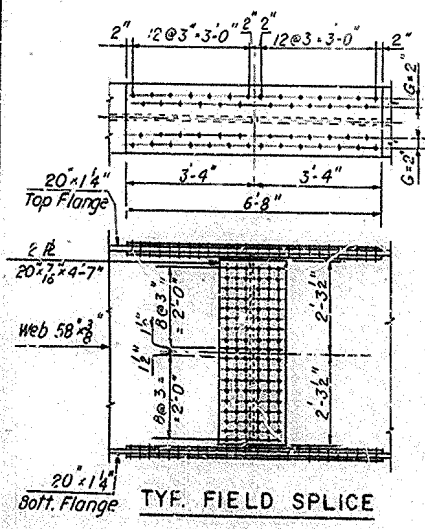


NOTE:
All Vertical Intermediate Stiffeners to be 2" x 1/2" x 4'-10".
Horizontal Fascia Stiffeners to be 2" x 3/8".



NOTE:
Location of Web shop splices shall be submitted to the Engineer for approval in accordance with the specifications.

NOTE:
Vertical Intermediate Stiffeners not shown. For locations see Half Framing Plan above.



SUPERSTRUCTURE

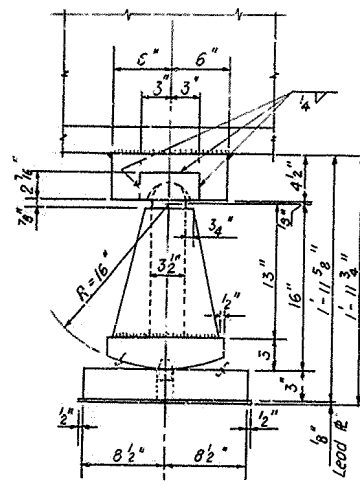
KY*11 BRIDGE OVER CUMBERLAND RIVER SHEET 16

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
KNOX
BARBOURVILLE-WILLIAMSBURG

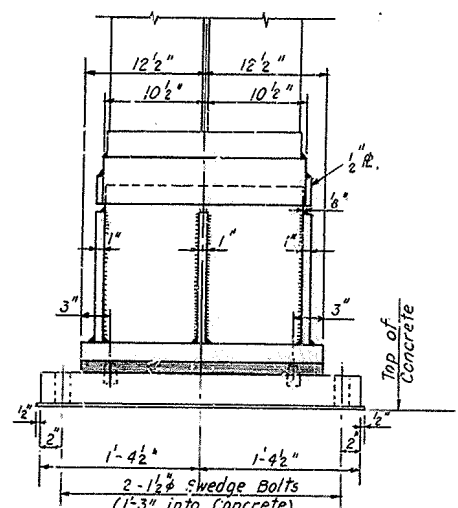
STATION 8+34 ROAD S 308(18)
PROJECT NO. SP 61-170-71

BRIDGE NUMBER NO. 16728

REV.	DATE	BY	CHKD.	APP.	DATE
7	KY.				

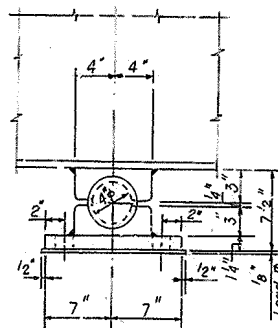


EXPANSION BEARING AT PIER #2

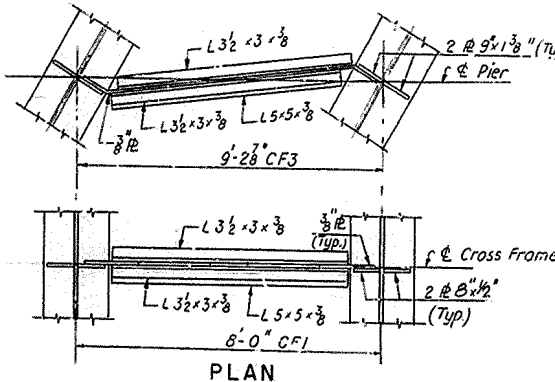
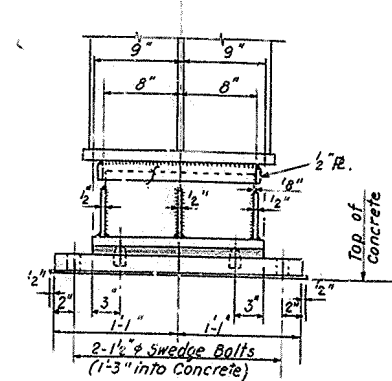
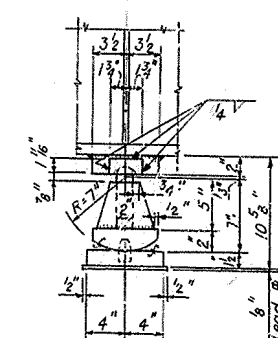


FIXED BEARING AT PIER #1

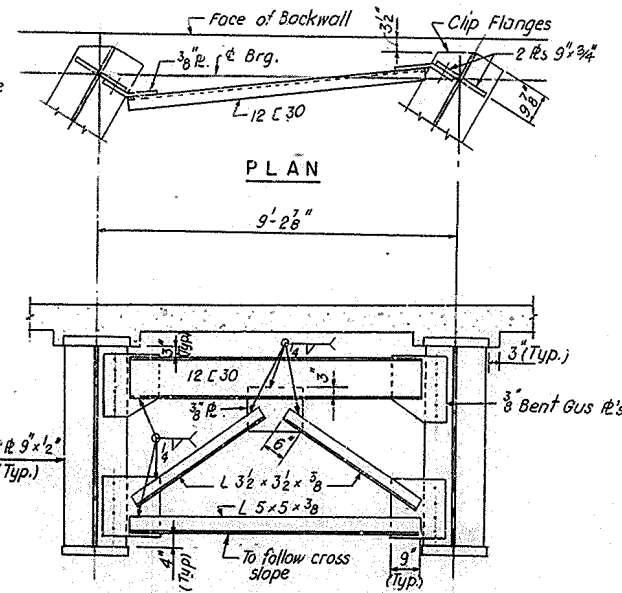
Note: All welds for bearing shoes to be 1/2" fillet except as noted.



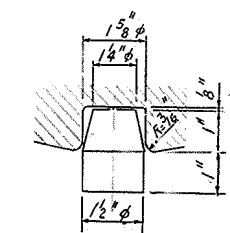
EXPANSION BEARING AT ABUTMENTS



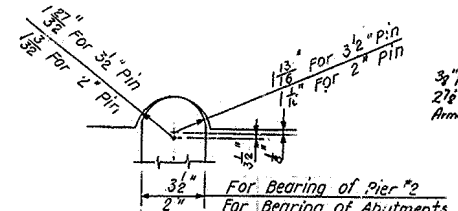
INT. CROSS FRAME CFI & CF3



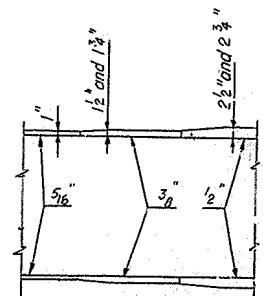
END CROSS FRAME CF2



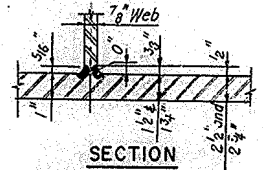
DETAIL OF PINTLE



DETAIL OF PIN

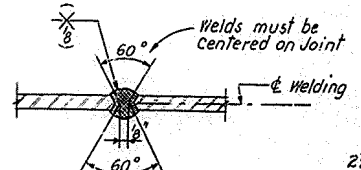


ELEVATION

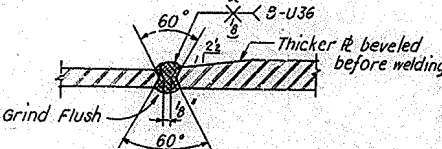


FLANGE TO WEB WELD (Submerged Arc-Weld.)

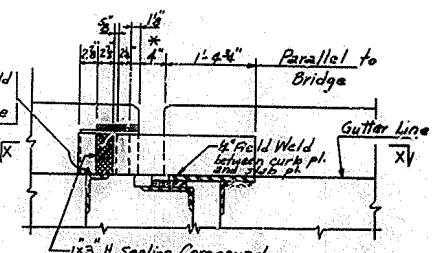
Note: Flange to web welds to be single pass Submerged Arc Fillet Welds in the flat position. Parts are to be assembled with edge of web plate tight against flange plate before welding.



SHOP WEB SPLICE (Manual Shielded Arc-Weld.)

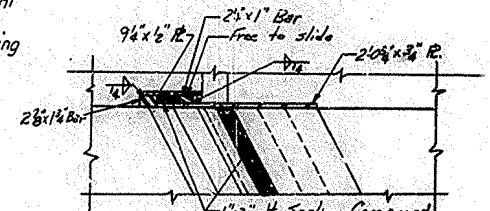


SHOP FLANGE SPLICE (Manual Shielded Arc-Weld.)



SECTION A-A

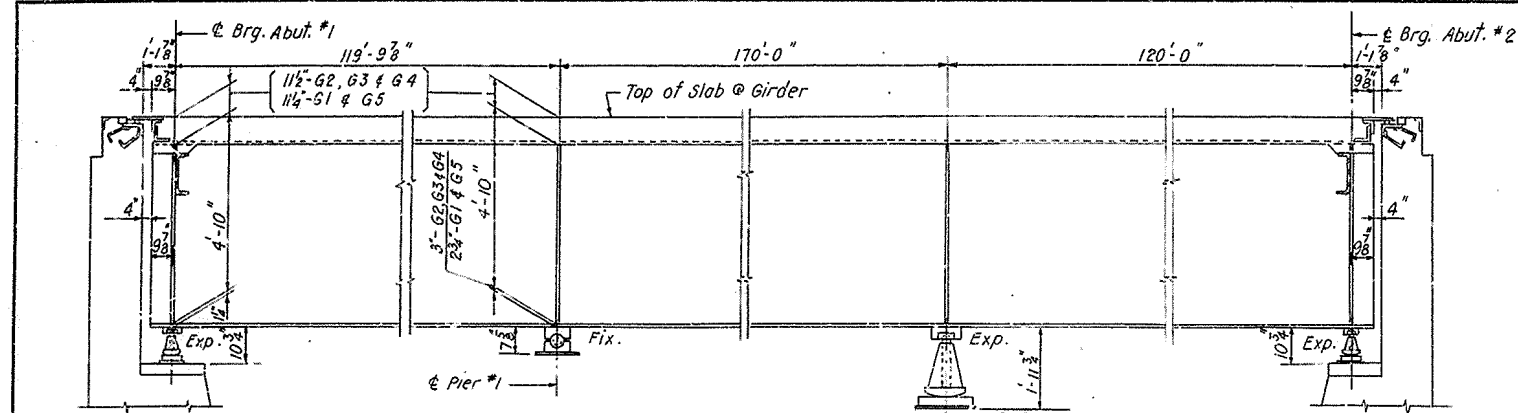
This section applies to the right side of Abut. 2 only. See Sheet 18 for location and details not shown.



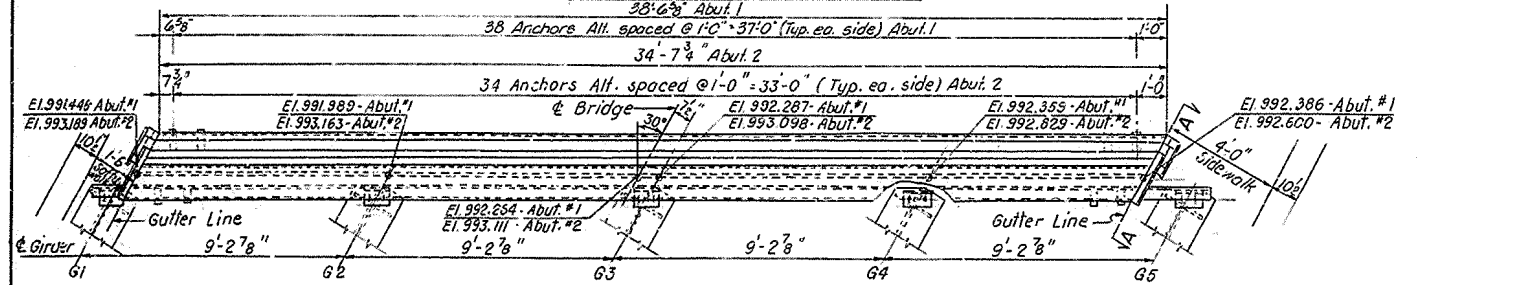
SECTION X-X

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
KNOX
BARBOURVILLE-WILLIAMSBURG
ROAD S 308(8)
STATION 8+34 PROJECT NO. SP 61-170-71
BRIDGE NUMBER 16728

SUPERSTRUCTURE



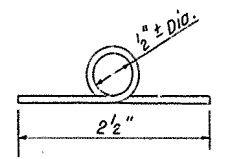
PART SECTION ON GIRDER



PLAN OF EXPANSION DAM

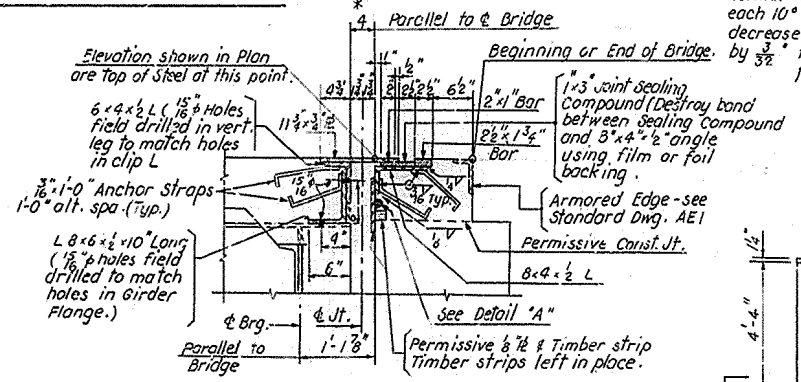
Note: Locations of Elevation Points for Exp. Joint of Abut. #1 are similar and opposite hand.

* This dimension to be maintained at normal temperature of 60°F. For each 10°F above or below 60°F, decrease or increase respectively by 3/32" for Abutment #1 and 1/32" for Abutment #2.

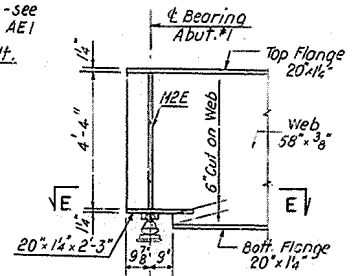


DETAIL "A"

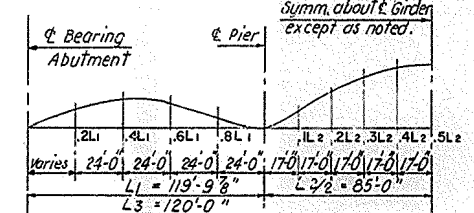
Note: No. 9 Black Iron or Equivalent Wire Eyelets @ 2'-0" Spacing, Tack Welded to 3/8" R. Eyelets are to be used in tying 1/2" R with wire so as to prevent leakage during construction.



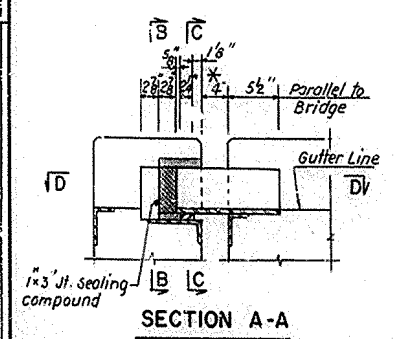
EXP. DAM DETAIL AT END ABUTMENTS



FASCIA GIRDER G1 END CUT DETAIL (At Abut. #1 only)

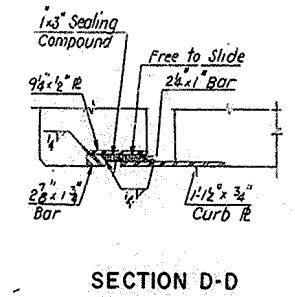


CAMBER DIAGRAM

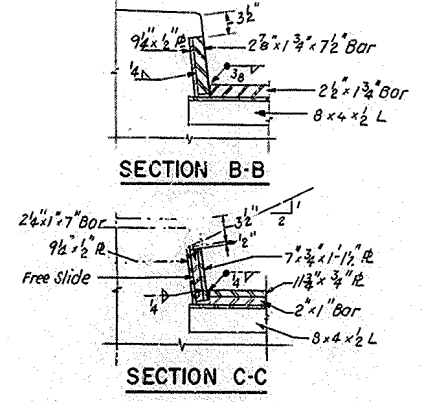


SECTION A-A

This section is applies to both curbs at Abut. #1 and the left side (safety curb side) of Abut. #2. See Section A-A and Section X-X on Sheet 17 for curb plate details of the right side of Abut. #2.

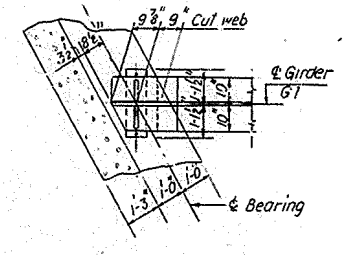


SECTION D-D

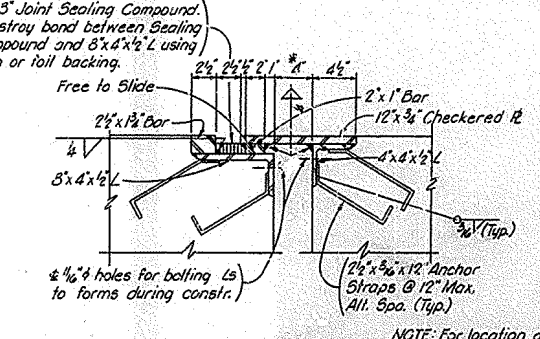


SECTION B-B

SECTION C-C



SECTION E-E

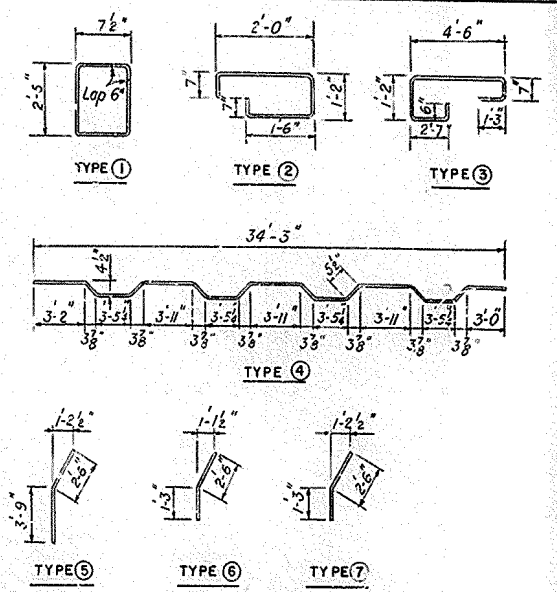


SECTION F-F

NOTE: For location of Section F-F See Sheet 1A

SUPERSTRUCTURE

BILL OF REINFORCEMENT						
MARK	TYPE	NO	BAR SIZE	LENGTH	LOCATION	
				FT.	IN.	
S1	①	412	#5	7	1	Parapet
S2	②	411		5	10	Curb
S3	③	411		10	7	Side Walk
S4	④	473		35	4	Slab - Transverse
S5	Str.	946		33	4	Slab - Transverse
S6		968	#5	39	5	Slab - Longitudinal
S7		140	#4	21	0	Parapet
S8				16	9	
S9				18	11	
S10				14	9	
S11				14	6	Parapet
S12	Str.	4	#5	17	2	Slab Ends
S13	⑤	4	#4	6	3	
S14	⑥	2	#4	3	9	
S15	⑦	2	#4	3	9	
S16	Str.	4	#5	31	2	
S17				29	8	
S18				28	3	
S19				26	9	
S20				25	4	
S21				23	10	
S22				22	5	
S23				20	11	
S24				19	5	
S25				18	0	
S26				16	7	
S27				15	1	
S28				13	8	
S29				12	2	
S30				10	9	
S31				9	3	
S32				7	10	
S33				6	4	
S34				4	11	
S35				3	5	
S36			#5	2	4	Slab Ends
S37	Str.	14	#6	10	0	Top Slab Acute Corners



INTERIOR GIRDER G2, G3 & G4

POINTS	2L1	4L1	6L1	8L1	1L2	2L2	3L2	4L2	5L2
Δ STEEL	3/16"	4"	3/16"	0"	8"	3/8"	2"	1/16"	1/16"
Δ CONCRETE	1/16"	1/16"	1/16"	8"	8"	1/8"	1/8"	2/16"	2/16"
Δ TOTAL	1"	1/16"	8"	8"	2"	1/16"	2/16"	3/16"	3/16"
VERT. CURVE	1/16"	1/16"	1/16"	1/16"	1/16"	2/16"	3/16"	3/16"	3/16"
CAMBER	2/16"	3/16"	2/16"	1/16"	1/16"	3/16"	5/16"	6/16"	7/16"

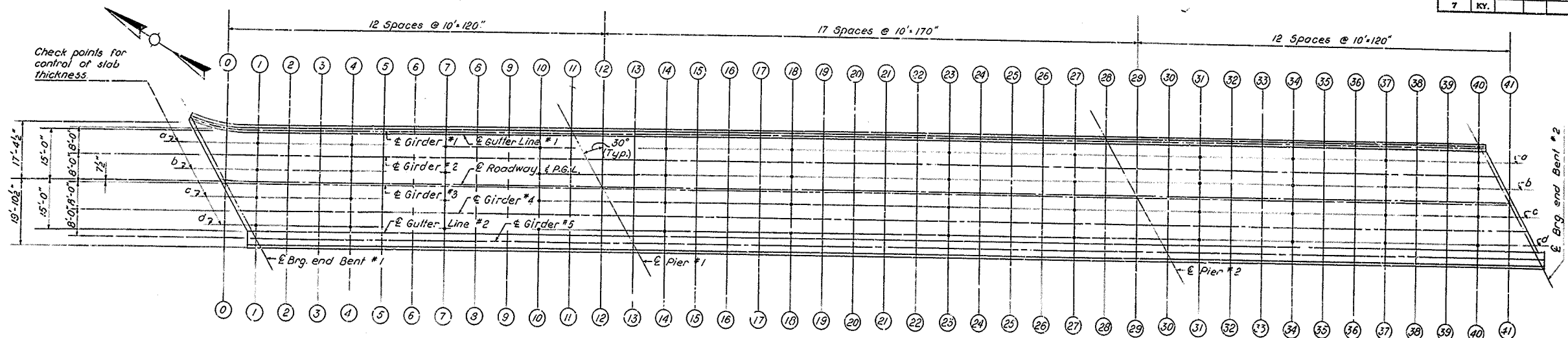
FASCIA GIRDER G1 & G5

POINTS	2L1	4L1	6L1	8L1	1L2	2L2	3L2	4L2	5L2
Δ STEEL	3/16"	4"	8"	0"	8"	5/16"	9/16"	3/4"	13/16"
Δ CONCRETE	9/16"	3/4"	2"	0"	8"	1"	1/16"	2/16"	2/16"
Δ TOTAL	3/4"	1"	5/8"	0"	2"	1/16"	2/16"	3/16"	3/16"
VERT. CURVE	1/16"	1/16"	1/16"	1/16"	1/16"	2/16"	3/16"	3/16"	3/16"
CAMBER	1/16"	2/16"	2/16"	1/16"	1/16"	3/16"	5/16"	6/16"	6/16"

VOID (SEE SHEET 18A)

KY #11 BRIDGE OVER CUMBERLAND RIVER SHEET 18
COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
KNOX
 BARBOURVILLE-WILLIAMSBURG
 ROAD S 308 (8)
 STATION 8+34 PROJECT NO. SP 61-170-71
 BRIDGE NUMBER 16728





PLAN OF SLAB

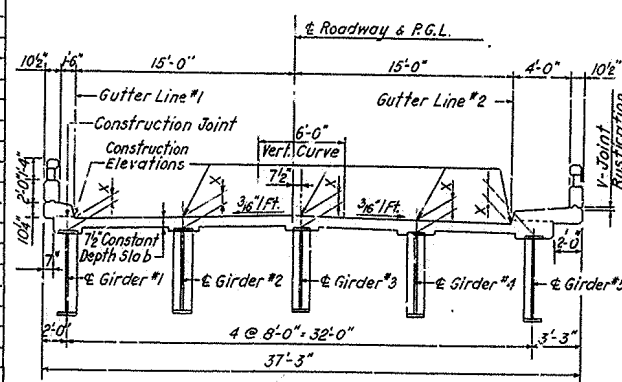
TABLE OF ELEVATIONS

Section	Gutter Line #1			Girder #2			Bridge			Girder #3			Girder #4			Gutter Line #2		
	Const. El.	Top of Steel	Dim. X	Const. El.	Top of Steel	Dim. X	Const. El.	Top of Steel	Dim. X	Const. El.	Top of Steel	Dim. X	Const. El.	Top of Steel	Dim. X	Const. El.	Top of Steel	Dim. X
0-0	992.067			992.212			992.310									992.472		
1-1	992.511			992.632			992.664			992.780			992.585			992.847		
2-2	992.878			993.008			993.091			993.090			993.326			993.201		
3-3	993.221			993.360			993.446			993.445			993.659			993.533		
4-4	993.539			993.683			993.774			993.773			994.004			993.841		
5-5	993.854			993.990			994.075			994.074			994.348			994.116		
6-6	994.103			994.242			994.349			994.348			994.622			994.436		
7-7	994.351			994.497			994.598			994.597			994.932			994.614		
8-8	994.582			994.723			994.823			994.822			995.126			994.827		
9-9	994.799			994.935			995.034			995.033			995.309			995.022		
10-10	995.009			995.134			995.230			995.229			995.516			995.206		
11-11	995.210			995.327			995.419			995.418			995.704			995.385		
12-12	995.403			995.515			995.601			995.600			995.887			995.561		
13-13	995.586			995.696			995.780			995.779			996.066			995.838		
14-14	995.760			995.867			995.947			995.945			996.228			996.104		
15-15	995.919			996.033			996.108			996.107			996.394			996.277		
16-16	996.106			996.172			996.254			996.253			996.540			996.423		
17-17	996.179			996.304			996.385			996.382			996.627			996.510		
18-18	996.272			996.406			996.487			996.486			996.772			996.657		
19-19	996.376			996.475			996.562			996.561			996.848			996.744		
20-20	996.376			996.519			996.610			996.609			996.894			996.831		
21-21	996.389			996.536			996.631			996.630			996.909			996.847		
22-22	996.375			996.538			996.624			996.623			996.927			996.867		
23-23	996.333			996.484			996.589			996.588			996.862			996.887		
24-24	996.269			996.417			996.526			996.525			996.797			996.804		
25-25	996.186			996.332			996.439			996.437			996.704			996.754		
26-26	996.087			996.226			996.334			996.333			996.594			996.647		
27-27	995.978			996.109			996.212			996.212			996.464			996.517		
28-28	995.859			995.986			996.086			996.086			996.335			996.387		
29-29	995.731			995.853			995.949			995.949			996.194			996.246		
30-30	995.536			995.719			995.809			995.808			995.944			996.000		
31-31	995.452			995.575			995.660			995.659			995.794			995.850		
32-32	995.297			995.420			995.505			995.504			995.639			995.695		
33-33	995.126			995.253			995.336			995.335			995.469			995.525		
34-34	994.933			995.068			995.151			995.151			995.284			995.340		
35-35	994.718			994.854			994.943			994.942			995.075			995.131		
36-36	994.476			994.619			994.710			994.709			994.841			994.897		
37-37	994.211			994.356			994.451			994.450			994.581			994.637		
38-38	993.920			994.066			994.164			994.163			994.294			994.350		
39-39	993.627			993.774			993.874			993.873			994.004			994.060		
40-40	993.273			993.407			993.509			993.509			993.640			993.696		
41-41							993.151			993.150			993.281			993.337		

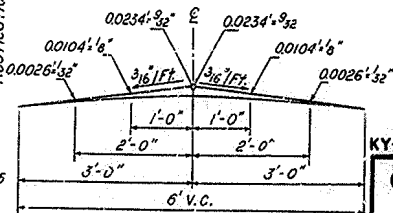
TABLE OF ELEVATIONS FOR CONTROL OF SLAB THICKNESS

Slab Check Point	a			b			c			d		
	Top of Slab El.	Bottom of Slab El.	Slab Thick*	Top of Slab El.	Bottom of Slab El.	Slab Thick*	Top of Slab El.	Bottom of Slab El.	Slab Thick*	Top of Slab El.	Bottom of Slab El.	Slab Thick*
1-1	992.568			992.688			992.653			992.516		
4-4	993.609			993.746			993.723			993.583		
7-7	994.422			994.565			994.554			994.425		
10-10	995.088			995.198			995.185			995.082		
14-14	995.781			995.924			995.891			995.734		
18-18	996.336			996.463			996.433			996.284		
23-23	996.408			996.554			996.549			996.422		
27-27	996.122			996.178			996.173			996.061		
31-31	995.511			995.635			995.608			995.480		
34-34	994.997			995.126			995.097			994.954		
37-37	994.280			994.420			994.403			994.266		
40-40	993.338			993.476			993.460			993.350		

* Slab Thickness Control: After the slab forms are erected and before the slab reinforcement is placed, the Resident Engineer shall take field elevations at the slab thickness check points and enter them in the table in the space provided. The slab thickness shall then be computed. If the computed slab thickness varies more than 1/4" from the plan thickness, allowing 1/360 of the slab span for deflection of the form work, the form shall be adjusted until the computed slab thickness is within the tolerance allowed.



TYPICAL SECTION



PARABOLIC CROWN

ELEVATIONS

CONSTRUCTION NOTES:

Layout Sections 0-0 to 41-41 as shown in plan on this sheet (Center punch marks on top of beams for elevation points).

Take elevations on top of steel at points indicated after cross frames and lateral bracing are in place and after all false work has been removed but before forms for concrete slabs have been put in place. Read elevations to three decimals using a target rod and enter readings in table under Top of Steel.

Compute Dimension 'X' as follows: Construction Elevation minus Top of Steel equals Dimension 'X'. Construction Elevations include camber due to weight of concrete slab, plinth, handrail and future surfacing.

For setting templates measure Dimension 'X' above Top of Steel for top of template. Do not set templates by elevations.

Construct handrail plinth to sidewalk grade. Do not add camber to handrail plinth. Slab elevation tolerances are based on delivery to the bridge site of fabricated steel having dimension and sweep tolerances meeting the requirements of A.W.S. Spec. par 507 for welded girders and are based on erection of the steel undamaged.

VOID (SEE SHEET 19A)

KY-II BRIDGE OVER CUMBERLAND RIVER, SHEET 19

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

FRANKFORT

COUNTY OF

KNOX

BARBOURVILLE - WILLIAMSBURG

ROAD S 309 (8)

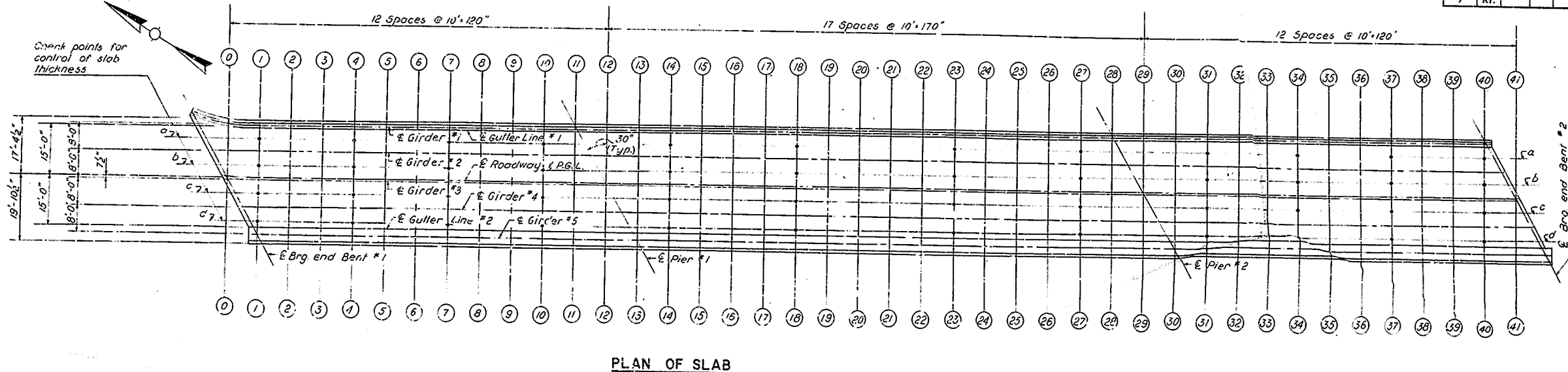
STATION 8+34

PROJECT NO. SP 61-170-7L

BRIDGE NUMBER

DRAWING NO. 1E 728

DATE

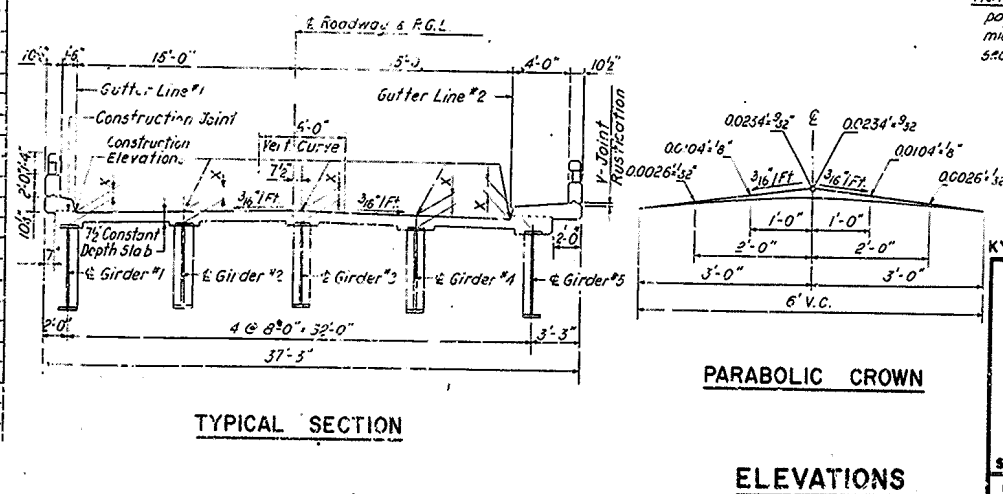


PLAN OF SLAB

TABLE OF ELEVATIONS																		
Section	Gutter Line #1			Girder #2			E Bridge			Girder #3			Girder #4			Gutter Line #2		
	Const. El.	Top of Steel	Dim. X	Const. El.	Top of Steel	Dim. X	Const. El.	Top of Steel	Dim. X	Const. El.	Top of Steel	Dim. X	Const. El.	Top of Steel	Dim. X	Const. El.	Top of Steel	Dim. X
0-0	992.067	91.216	.851	992.212	91.360	.852	992.310	91.450	.850									
1-1	992.351	91.644	.891	992.632	91.178	.854	992.271	91.852	.844	992.710	91.867	.848	992.585	91.768	.817	992.472	91.617	.853
2-2	992.878	91.999	.879	993.008	92.152	.856	993.091	92.257	.834	993.090	92.261	.831	992.967	92.149	.818	992.847	91.970	.851
3-3	993.221	92.359	.862	993.360	92.514	.846	993.333	92.605	.847	993.445	92.606	.843	993.326	92.500	.821	993.201	92.351	.851
4-4	993.339	92.671	.868	993.693	92.847	.836	993.774	93.090	.846	993.713	92.930	.840	993.659	92.811	.841	993.533	92.691	.851
5-5	993.834	92.765	.869	993.980	93.144	.834	993.975	93.236	.839	994.074	93.234	.838	994.064	93.115	.840	993.841	92.990	.851
6-6	994.103	93.231	.872	994.242	93.425	.817	994.349	93.591	.830	994.348	93.519	.829	994.242	93.380	.823	994.110	92.260	.856
7-7	994.351	93.554	.807	994.497	93.658	.839	994.596	93.754	.849	994.597	93.754	.848	994.496	93.638	.858	994.380	93.518	.866
8-8	994.582	93.711	.871	994.723	93.871	.852	994.823	94.032	.841	994.822	94.032	.840	994.723	93.860	.863	994.614	93.736	.873
9-9	994.739	93.976	.823	994.933	94.094	.841	995.034	94.156	.858	995.033	94.176	.857	994.933	94.071	.862	994.827	94.010	.871
10-10	995.009	94.515	.844	995.134	94.558	.776	995.230	94.434	.796	995.229	94.434	.795	995.126	94.271	.822	995.022	94.156	.868
11-11	995.210	94.520	.840	995.321	94.684	.693	995.419	94.718	.701	995.410	94.718	.700	995.309	94.531	.778	995.205	94.356	.841
12-12	995.403	94.717	.606	995.515	94.837	.678	995.601	94.900	.691	995.600	94.910	.690	995.487	94.797	.669	995.385	94.655	.721
13-13	995.586	94.808	.786	995.646	94.909	.787	995.780	95.035	.705	995.779	95.075	.704	995.676	94.960	.678	995.551	94.836	.715
14-14	995.760	94.953	.810	995.867	95.093	.774	995.957	95.175	.812	995.945	95.195	.810	995.821	95.013	.808	995.711	94.951	.782
15-15	995.919	95.092	.827	996.033	95.212	.761	996.108	95.258	.850	996.107	95.258	.849	995.979	95.127	.852	995.888	95.066	.824
16-16	995.060	95.264	.796	996.178	95.361	.817	996.254	95.397	.857	996.253	95.397	.856	996.127	95.333	.794	996.098	95.133	.866
17-17	995.779	95.362	.817	996.304	95.464	.838	996.383	95.544	.819	996.382	95.544	.818	996.253	95.437	.816	996.120	95.260	.864
18-18	995.272	95.464	.808	996.406	95.547	.859	996.487	95.633	.864	996.486	95.633	.863	996.364	95.530	.839	996.226	95.342	.844
19-19	996.336	95.517	.819	996.417	95.592	.893	996.562	95.714	.848	996.561	95.714	.847	996.448	95.714	.835	996.311	95.640	.825
20-20	996.376	95.565	.811	996.519	95.645	.854	996.610	95.744	.864	996.609	95.746	.863	996.501	95.655	.836	996.367	95.547	.866
21-21	996.389	95.580	.809	996.636	95.698	.836	996.631	95.743	.888	996.630	95.743	.887	996.527	95.674	.899	996.397	95.610	.877
22-22	996.373	95.565	.810	996.638	95.686	.852	996.624	95.743	.880	996.623	95.743	.879	996.524	95.655	.869	996.399	95.569	.834
23-23	996.333	95.545	.788	996.644	95.693	.831	996.639	95.707	.880	996.586	95.717	.831	996.493	95.624	.864	996.374	95.571	.836
24-24	996.269	95.439	.783	996.617	95.653	.822	996.526	95.642	.894	996.525	95.642	.893	996.435	95.584	.861	996.324	95.477	.827
25-25	996.106	95.350	.836	996.532	95.629	.803	996.439	95.495	.944	996.437	95.495	.946	996.350	95.489	.868	996.247	95.441	.896
26-26	996.087	95.266	.821	996.226	95.573	.851	996.334	95.400	.984	996.333	95.400	.983	996.244	95.406	.838	996.147	95.322	.821
27-27	993.978	95.266	.712	996.109	95.505	.506	996.103	95.486	.367	996.212	95.436	.866	996.120	95.286	.834	996.027	95.201	.823
28-28	995.859	95.174	.785	996.036	95.293	.691	996.087	95.344	.748	996.086	95.344	.742	996.016	95.164	.822	995.924	95.100	.864
29-29	995.731	95.033	.698	995.935	95.189	.762	995.930	95.223	.727	995.949	95.223	.726	995.846	95.133	.711	995.754	95.014	.740
30-30	995.596	94.788	.808	995.719	94.951	.768	995.809	95.094	.715	995.808	95.093	.714	995.704	94.988	.716	995.604	94.847	.753
31-31	995.452	94.636	.810	995.570	94.144	.835	995.560	94.257	.803	995.659	94.857	.802	995.544	94.725	.719	995.442	94.677	.765
32-32	995.297	94.550	.747	995.420	94.683	.837	995.505	94.834	.869	995.604	94.636	.866	995.573	94.625	.850	995.370	94.604	.866
33-33	995.126	94.308	.816	995.253	94.449	.835	995.336	94.635	.801	995.335	94.635	.800	995.214	94.547	.867	995.056	94.425	.881
34-34	994.933	94.112	.821	995.066	94.445	.773	995.151	94.315	.826	995.151	94.315	.826	995.028	94.167	.861	994.904	94.088	.881
35-35	994.716	93.900	.816	994.836	94.249	.807	994.894	94.107	.936	994.942	94.107	.935	994.825	93.993	.840	994.697	93.881	.876
36-36	994.476	93.654	.822	994.619	93.791	.820	994.710	93.882	.820	994.709	93.882	.827	994.595	93.744	.831	994.469	93.593	.871
37-37	994.211	93.384	.825	994.356	93.527	.823	994.451	93.616	.835	994.450	93.616	.834	994.341	93.520	.831	994.216	93.350	.865
38-38	994.020	93.092	.828	994.066	93.245	.821	994.164	93.334	.830	994.163	93.334	.829	994.076	93.422	.823	993.938	93.080	.869
39-39	993.901	92.779	.822	993.9374	92.925	.823	993.849	93.044	.825	993.848	93.044	.824	993.749	92.926	.823	993.637	92.720	.863
40-40	993.273	92.452	.822	993.407	92.614	.791	993.510	92.647	.843	993.509	92.647	.842	993.414	92.550	.832	993.311	92.441	.871
41-41							993.151	92.295	.856	993.150	92.295	.852	993.055	92.140	1.150	992.963	92.023	.872

Slab Check Point	a			b			c			d		
Section	Top of Slab El.	Bottom of Slab El.	Slab Thick*	Top of Slab El.	Bottom of Slab El.	Slab Thick*	Top of Slab El.	Bottom of Slab El.	Slab Thick*	Top of Slab El.	Bottom of Slab El.	Slab Thick*
1-1	992.563			992.569			992.653			992.516		
4-4	993.609			993.735			993.723			993.593		
7-7	994.225			994.355			994.554			994.423		
10-10	995.053			995.168			995.185			995.062		
14-14	995.811			995.924			995.891			995.751		
18-18	996.319			996.163			996.433			996.204		
23-23	996.405			996.524			996.549			996.422		
27-27	996.524			996.176			996.173			996.061		
31-31	995.511			995.635			995.609			995.490		
34-34	994.997			995.126			995.097			995.954		
37-37	994.280			994.420			994.403			994.266		
40-40	993.338			993.476			993.469			994.350		

* Slab Thickness Control . After the slab forms are erected and before the slab reinforcement is placed, the Resident Engineer shall take field elevations at the slab thickness check points and enter them in the table in the space provided. The slab thickness shall then be computed. If the computed slab thickness varies more than $\frac{1}{4}$ " from the plan thickness, allowing $\frac{1}{360}$ of the slab span for deflection of the form work, the form shall be adjusted until the computed slab thickness is within the tolerance allowed.



CONSTRUCTION NOTES.

Layout Sections 0-0 to 41-41 as shown in plan on this sheet (Center punch marks on top of beams for elevation points).

Take elevations on top of steel at points indicated after cross frames and lateral bracing are in place and after all false work has been removed but before forms for concrete slabs have been put in place. Read elevations to three decimals using a target rod and enter readings in table under Top of Steel.

Compute Dimension "X" as follows: Construction Elevation minus Top of Steel equals Dimension "X". Construction Elevations include camber due to weight of concrete slab, plinth, handrail and future surfacing.

For setting templates measure Dimension 'X' above Top of Steel for top of template. Do not set templates by elevations.

Construct handrail plinth to sidewalk grade. Do not add camber to handrail plinth.
Slab elevation tolerances are based on delivery to the bridge site of fabricated steel having dimension and sweep tolerances meeting the requirements of A.W.S. Spec. par 507 for welded girders and are based on erection of the steel undamaged

NOTE: The letters a, b, c & d designate selected check points for the control of slab thickness & are located midway between $\frac{L}{4}$ of beams measured along the section involved.

KY-II BRIDGE OVER CUMBERLAND RIVER, SHEET 19A

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

FRANKFORT
COUNTY OF
KNOX
BARBOURVILLE - WILLIAMSBURG

STATION 8 + 34		ROAD	S 308 (8)
		PROJECT NO. SP 61-170-7L	
BRIDGE NUMBER		DRAWING NO.	1572R

