FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

KENTUCKY DEPARTMENT OF HIGHWAYS
WOODFORD COUNTY
LOUISVILLE-LEXINGTON-CATLETTSBURG RD.
I-64 OVER ELKHORN CREEK

TECON ENGINEERS, INC.
PLANS BY ODELL, WRIGHT, MORGAN & BROWN, INC. 11-20-70

Revised for Drains by BK 11-71

DESIGNED BY ____ CHECKED BY ____ DATE ____	REVISED Revised Curbs to Bush Blocks S.H.E.A.	DATE
DETAILED BY CEB CHECKED BY JMM DATE 5-'65	REVISED Revised Lane Widths, Wm H. Phillips	DATE 2-68
TRACED BY ____ CHECKED BY ____ DATE ____	REVISED Revised Abut & End Posts, Expansion Dam Cub ENG.	DATE 7-70

REFERENCE AND ESTIMATE OF QUANTITIES - WESTBOUND

LOCATION \ ITEM	SHEET NO.	CONCRETE (C.Y.) CLASS "A"	CONCRETE (C.Y.) CLASS "AA" ITEM I	CONCRETE (C.Y.) CLASS "AA" ITEM II	REINF. STEEL (LBS.)	STRUCTURE EXCAVATION (C.Y.) COM.	STRUCTURE EXCAVATION (C.Y.) S.R.	END BENT BACKFILL (C.Y.)	HIGH STRENGTH HANDRAIL (L.F.)	DRY CYCLOPEAN STONE RIP-RAP (S.Y.)	STRUCT. STEEL (L.S.) ①	12BP53 STEEL PILES (L.F.) FURNISH	12BP53 STEEL PILES (L.F.) DRIVE	STYRENE BUTADIENE PROT. COAT. (GALS.)	LINSEED OIL PROTECTIVE COATING (S.Y.)	SHEAR CONNECTORS (L.S.) ②	6" ϕ * DRAIN PIPE LIN. FT.
QUANTITIES	1																
NOTES	2																
LAYOUT	3																
SOUNDINGS	4																
PILE RECORD	5																
ABUTMENT 1W	6&9	32.9		18.0	7,222	60	95							1.2			
END BENT 2W	7&9	40.3		19.0	8,350	120		60		480		286	286	1.3			
PIER 1W	8&9	73.7			8,623	10	35							2.1			
SUPERSTRUCTURE	10,11,12		184.2	18.1	49,971				367.5		①			7.4	707	②	26
ELEVATIONS	13																
SUPERSTRUCTURE TOTALS			184.2	18.1	49,971				367.5		①			7.4	707	②	26
SUBSTRUCTURE TOTALS		146.9		37.0	24,195	190	130	60		480		286	286	4.6			
TOTALS		146.9	184.2	55.1	74,166	190	130	60	367.5	480	①	286	286	12.0	707	②	26

① Approximate weight of Structural Steel is 212,790 Lb.
② Approximate weight of Stud Shear Connectors is 1,847 Lb.

* See General Notes, Sheet 2.

REFERENCE AND ESTIMATE OF QUANTITIES - EASTBOUND

LOCATION \ ITEM	SHEET NO.	CONCRETE (C.Y.) CLASS "A"	CONCRETE (C.Y.) CLASS "AA" ITEM I	CONCRETE (C.Y.) CLASS "AA" ITEM II	REINF. STEEL (LBS.)	STRUCTURE EXCAVATION (C.Y.) COM.	STRUCTURE EXCAVATION (C.Y.) S.R.	END BENT BACKFILL (C.Y.)	HIGH STRENGTH HANDRAIL (L.F.)	DRY CYCLOPEAN STONE RIP-RAP (S.Y.)	STRUCT. STEEL (L.S.) ③	12BP53 STEEL PILES (L.F.) FURNISH	12BP53 STEEL PILES (L.F.) DRIVE	STYRENE BUTADIENE PROT. COAT. (GALS.)	LINSEED OIL PROTECTIVE COATING (S.Y.)	SHEAR CONNECTORS (L.S.) ④
QUANTITIES	1															
NOTES	2															
LAYOUT	3															
SOUNDINGS	4															
PILE RECORD	5															
ABUTMENT 1E	6&9	32.9		18.0	7,222	25	60							1.2		
END BENT 2E	7&9	40.3		19.0	8,350	120		60		480		286	286	1.3		
PIER 1E	8&9	73.7			8,623	15	30							2.1		
SUPERSTRUCTURE	10,11,12		184.2	18.1	49,971				367.5		③			7.4	707	④
ELEVATIONS	14															
SUPERSTRUCTURE TOTALS			184.2	18.1	49,971				367.5		③			7.4	707	④
SUBSTRUCTURE TOTALS		146.9		37.0	24,195	160	90	60		480		286	286	4.6		
TOTALS		146.9	184.2	55.1	74,166	160	90	60	367.5	480	③	286	286	12.0	707	④

③ Approximate weight of Structural Steel is 212,790 Lb.
④ Approximate weight of Stud Shear Connectors is 1,847 Lb.

BILL OF INCIDENTAL MATERIAL

ITEM	NO	SIZE & LOCATION
Joint Sealing Compound	4	1"x3"x39'-0" @ Exp. Dams
4 Bolt Insert Assembly	6	Wings at End Bents

Quantities shown in 'Bill of Incidental Material' are approximate only and are for both bridges. The contractor is responsible for furnishing enough material to complete the work in accordance with plans and specifications

STANDARD DRAWINGS

AE1D
AE2D
P212A-A
1740A
H117E
H150B
SF2B

SPECIAL PROVISIONS

#12 Joint Sealing Compound
#8A Linseed Oil Protective Coating

#35 Class 'AA' concrete
#30-B - Membrane Curing of Concrete Structures.
#77 B - Styrene-Butadiene Protective Coating
#79 - Concrete Bridge Deck Finishing Machine
#80A - Blast Cleaning and Painting Structural Steel

SPECIAL NOTES

For Bridge Deck Construction for I64 Structures over Elkhorn Creek.

I64 OVER ELKHORN CREEK SHEET 1 OF 14

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
WOODFORD
LOUISVILLE-LEXINGTON-CATLETTSBURG
ROAD S.P. 120-455
STATION 3120+47.75 I64 **PROJECT NO.** I64-4 (15) 56

BRIDGE NUMBER	DRAWING NO. 16468	INDEX

DESIGNED BY	CHECKED BY	DATE	REVISED	DATE
DETAILED BY B K	CHECKED BY CEB	DATE 6-65	REVISED Allowable f_c Class "AA" from 1600 to 1200	7-68
TRACED BY	CHECKED BY	DATE	REVISED Added Drain Note 11-30-71 BK	DATE

Revised Gen. Notes ENC. ✓C.W.Q. 7-70

GENERAL NOTES

SPECIFICATIONS: Kentucky Department of Highways, current standard with revisions.

DESIGN LOAD: Bridge designed for HS20-44 or Alternate loading as specified in 1969 AASHO Specifications. Slab designed for a 16 kip wheel load.

DESIGN STRESSES: f_s = 20,000 psi, u = 300 psi for Σ_o, u = 200 psi for embedment. Class "A" Concrete: f'_c = 3,000 psi, f_c = 1,200 psi, n = 10
Class "AA" Concrete, items I and II: f'_c = 4,000 psi, f_c = 1,200 psi, n = 8

FOUNDATION PRESSURE: Footings are designed for a maximum pressure of 20,000 psf and piles are designed for a maximum load of 40 tons per pile. These maximums are for Group I loads with increases allowed for other loading groups.

CONCRETE: Class "A" concrete is to be used in the substructures throughout below the bearing seats. Class "AA" concrete, Item I, in accordance with the Special Notes is to be used throughout the superstructures below the top of curbs. Class "AA" concrete, Item II in accordance with the Special Provision 35, current edition is to be used in the plinths and in all substructures above the bearing seats. Class "D" concrete is to be used in the concrete handrail.

BEVELED EDGES: All exposed edges shall be beveled ⅞" unless otherwise shown.

BILL OF INCIDENTAL MATERIAL: These items are to be furnished and placed in accordance with their respective Special Provisions. The cost of these items is to be included in the unit price bid for class "AA" concrete, item II.

STRUCTURAL STEEL: "Lump Sum Bid" for structural steel shall be full payment for all structural steel, rivets, bolts, washers, steel pins, lead plates, molten lead, welding and welding materials, paint, linen tracings of shop detail and erection drawings, and all labor and materials necessary to erect the steel in accordance with the plans and specifications.

PILING: Piling 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.

CONNECTIONS: Unless otherwise provided on the plans, all connections shall be 7/8" diameter high strength bolts. Open holes shall be 15/16" diameter. All joints are designed as friction type connections. Tightening shall be done with properly calibrated wrenches or by the turn-of-nut method.

SLOPE PROTECTION: Slope protection shall be Dry Cyclopean Stone Riprap in accordance with the current specifications.

PAINT: All structural steel shall be cleaned and painted in accordance with the Special Provision for Blast Cleaning and Painting Structural Steel, current edition.

CAMBER: The beams of spans composed of wideflange members shall be cambered to mid-ordinates specified on the plans. If these beams do not conform to plan camber for the erected position, either an adjustment in depth of concrete haunch over the supporting members, or a reworking of the beam camber to meet plan camber and slab thickness will be required. If either type of adjustment is required, there will be no additional cost to the state. However, in no case shall the shear connectors be allowed to penetrate the slab less than two inches.

SHEAR CONNECTORS: "Lump Sum Bid" for shear connectors shall be full payment for all shear connectors, welding and welding materials, patent royalties and materials necessary to field weld or shop weld the shear connectors in place in accordance with the plans and spec's. If the contractor wishes to use other than the ⅞"x4" stud shear connectors shown on the plans, the proposed arrangement will be submitted for approval with the shop plans.

TEMPORARY SUPPORTS: For composite beams temporary supports or shoring will not be permitted under the steel girders when pouring the concrete floor slab or when taking "top of steel" elevations.

MATERIALS: A.S.T.M. Specifications herein after designated shall govern the materials furnished:

	A.S.T.M. designation
Structural steel	A36-69
High strength bolts, nuts and plain hardened washers	A325-66B
Low-Carbon steel machine bolts and nuts	A307-68
Structural rivet steel	A502-65
Mild steel Arc-Welding Electrodes	AWS A5.1-69
Stud shear connectors, Grade 1015	A108-69

MILL TEST REPORTS: Notorized test reports in triplicate shall be furnished the Kentucky Department of Highways showing that all materials furnished conform to the specifications.

STEEL FINISH: Steel bearing surfaces in contact shall be finished in accordance with the current specifications.

DIMENSIONS: Dimensions are for a normal temperature of 68°F.

SHOP ASSEMBLY AND REAMING: Connections for diaphragms, expansion joints and other minor members may be punched or drilled full size without assembly, subject to the requirements in the specifications for general reaming.

SHOP PLANS: The contractor shall submit shop detail plans in accordance with the specifications.

CHANGES IN STRUCTURAL STEEL QUANTITIES: In the event that changes in steel quantities are required due to changes by the Engineer in the plans, additional payments therefor shall be made at a unit price which will be equal to the contract lump sum price divided by the estimated total weight shown on the plans.

WIND LOADS: This structure is designed using wind loads based on a wind velocity of 84 mph.

OPTIONAL TYPES OF HIGH-STRENGTH HANDRAIL: The contractor shall provide throughout the project, at his option, either High-Strength Aluminum Handrail in accordance with std. Dwg. H117 or High-Strength Concrete Handrail in accordance with std. Dwg. H150.

WELDED STUDS: Studs used for composite shear developers shall be welded with approved welding equipment.

CONCRETE FINISH: Concrete is to finished in accordance with the current specifications.

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.

PROHIBITIED FIELD WELDING: Except as shown on the plans, no welding of 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.

ANCHOR BOLT HOLES: Holes of depth and dimensions shown shall be drilled for anchor bolts or dowels by the superstructure contractor who shall be responsible for keeping holes dry in freezing weather. After base plates are properly set and anchor bolts are placed in drilled holes, molten lead shall be poured in holes and packed until holes are completely filled flush to top of base plates. The cost of drilling anchor bolt holes, furnishing lead, and filling holes with molten lead shall be incidental to and included in the lump sum bid for structural steel.

MEMBRANE CURING COMPOUND: White pigmented curing compound shall be applied to the bridge deck in accordance with the special provision, except that the membrane compound used shall have a resinous base.

LINSEED OIL PROTECTIVE COATING: Linseed Oil Protective Coating shall be applied in accordance with the special provision, except that it shall only be applied to the bridge deck between the gutter lines and shall not be applied until after the styrene-butadiene protective coating has been applied to the curbs and plinths.

POURING SEQUENCE: The pouring sequence of the slab may be changed with the written approval of the Engineer.

DRAINS: The drain pipe shall be 6" standard weight in accordance with article 411.3.5 of the Specifications. Pipe fittings and connections shall be included in the unit price per linear foot of 6" Drain Pipe complete in place. Pipe and all fittings shall be painted in accordance with the special provision for blast cleaning and painting Structural Steel, current Edition.

GENERAL NOTES

I-64 OVER ELKHORN CREEK SHEET 2

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
WOODFORD
LOUISVILLE-LEXINGTON-CATLETTSBURG
ROAD
STATION 3120+47.75 I-64 **PROJECT NO.**
BRIDGE NUMBER DRAWING NO. 16468 INDEX

FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

I64 OVER ELKHORN CREEK — SHEET 3

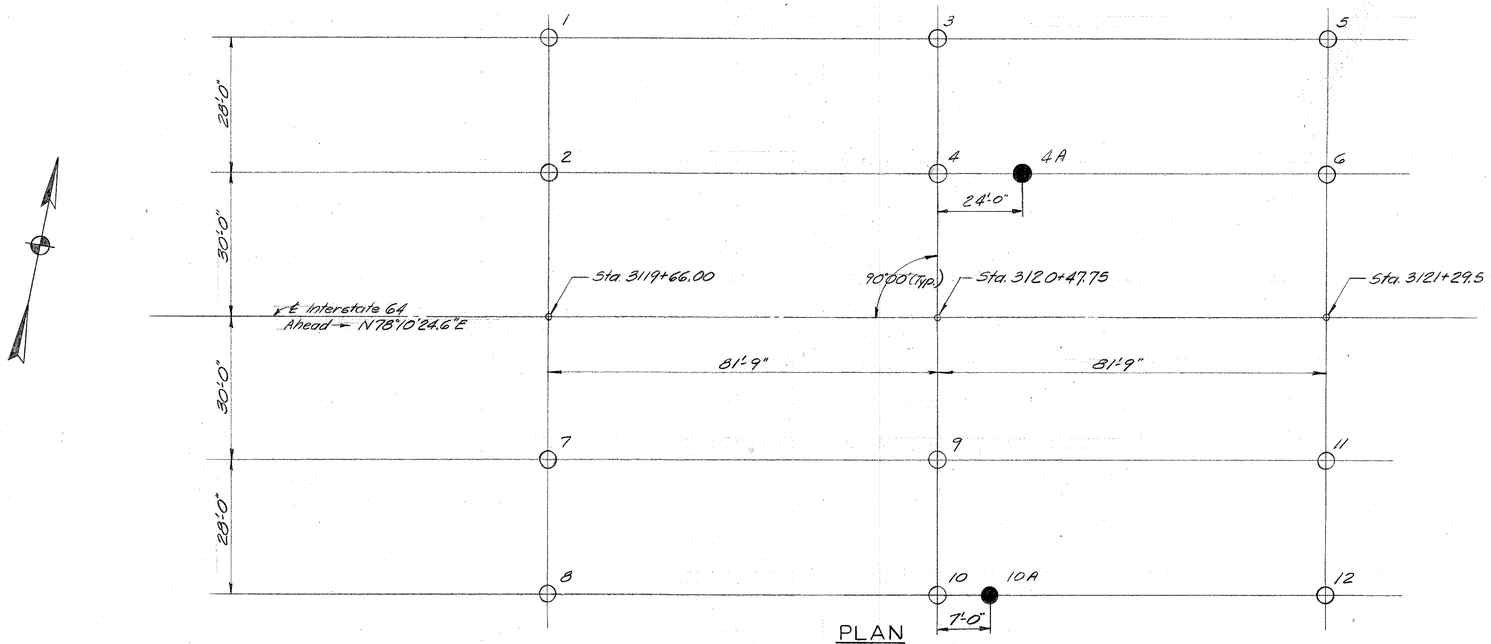
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
WOODFORD
LOUISVILLE-LEXINGTON-CATLETTSBURG
ROAD
STATION 3120+47.75 I64 **PROJECT NO.**
BRIDGE NUMBER — DRAWING NO. 16468 — INDEX

DESIGNED BY JMM CHECKED BY CEB DATE 2-65
DETAILED BY CHECKED BY DATE
TRACED BY CHECKED BY DATE

REVISED Revised Grades to Bearing Blocks S.H., F.E.P. DATE
REVISED Revised Lane Width, W.H. Phillips DATE 7-68
REVISED Guard Rail Attachments G.R.B. DATE 7-68

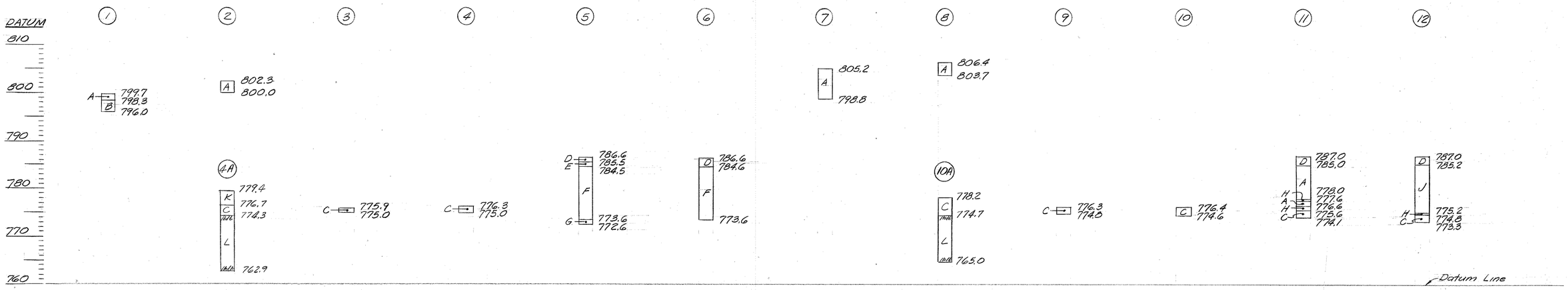
Revised Abut. & End Bent Parts ENC V.C.W.D. 7-70
Top of Cap & Bot. of Ftg. Elev. @ Pier "1E, P.C.W. 7/ann 2-23-71

FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



PLAN

○ Indicates Sounding to Solid Rock.
◉ Indicates Core 10' into Solid Rock.



ELEVATION

LEGEND

A Clay
B Clay & Thin Ledges Rock
C Sand & Gravel
D Flat Bed Rock
E Black Soil
F Soft Clay
G Hard Rock & Water
H Ledge Rock
J Clay & Loose Rock
K Sandy Loom
L Hard Rock

SOUNDINGS

DESIGNED BY ____ DATE ____ REVISED ____
DETAILED BY ____ DATE 2-66 REVISED ____
TRACED BY ____ CHECKED BY ____ DATE ____ REVISED ____
CHECKED BY ____ CHECKED BY ____ DATE ____ REVISED ____

I64 OVER ELKHORN CREEK SHEET 4

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
WOODFORD
LOUISVILLE-LEXINGTON-CATLETTSBURG
ROAD
STATION 3120+47.75 I64 **PROJECT NO.**

BRIDGE NUMBER	DRAWING NO.	INDEX
	16468	

PILE RECORD						
Location	Pile No.	Cutoff Elev. Shown		Tip of Pile Elevation as driven	Pile length in place (Lin. Ft.)	Calculated Bearing Capacity (Tons)
End Bent 2W	1	797.53				
"	2	"				
"	3	"				
"	4	"				
"	5	"				
"	6	"				
"	7	"				
"	8	"				
"	9	"				
"	10	"				
"	11	"				
End Bent 2E	12	"				
"	13	"				
"	14	"				
"	15	"				
"	16	"				
"	17	"				
"	18	"				
"	19	"				
"	20	"				
"	21	"				
"	22	"				

NOTE

This pile record does not replace other record 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 piles 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. Length 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.

See Sheet 7 for Batter.

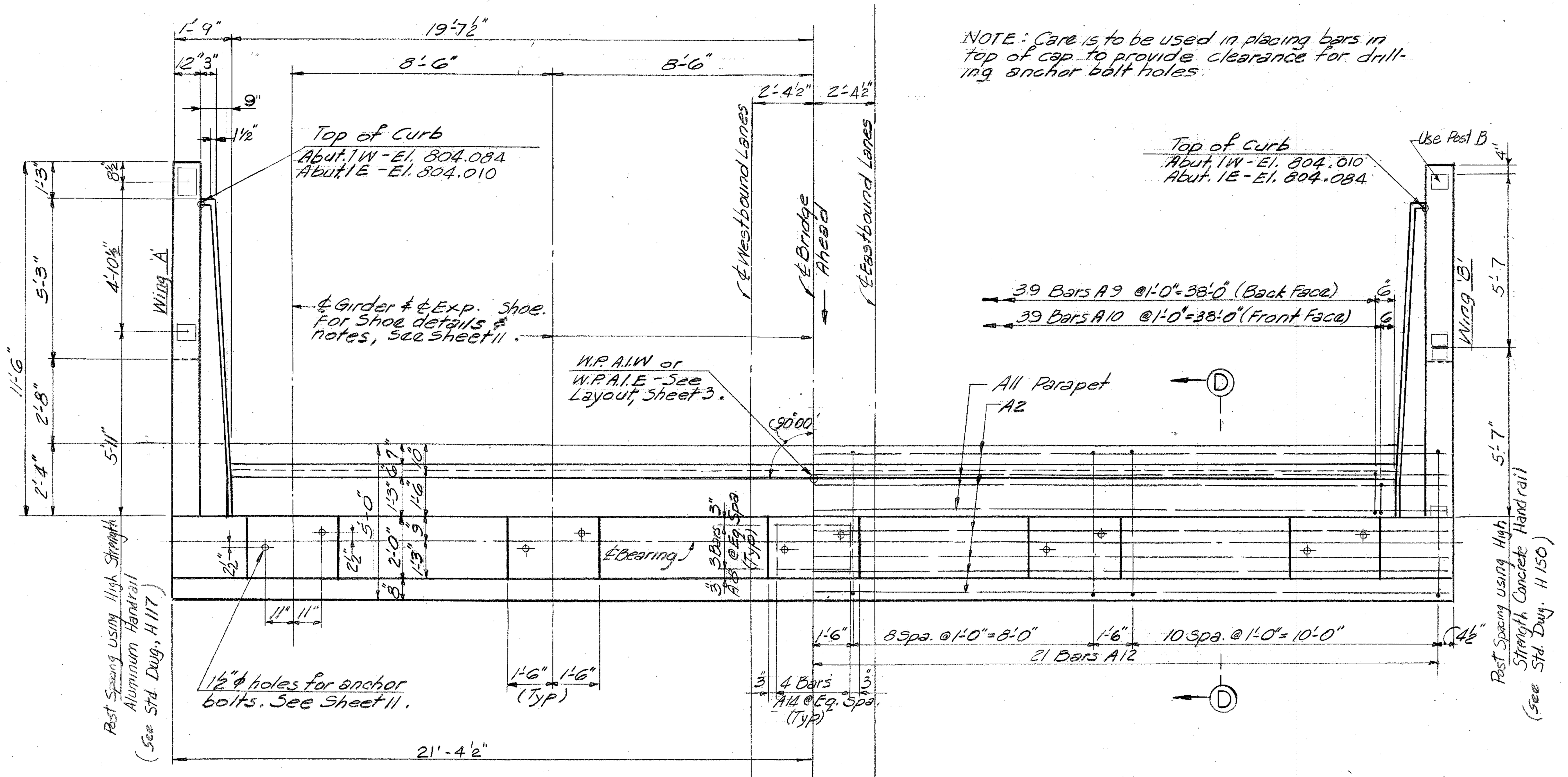
PILE RECORD

I 64 OVER ELKHORN CREEK SHEET 5

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
WOODFORD
LOUISVILLE-LEXINGTON-CATLETTSBURG
ROAD
STATION 3120 + 47.75 **PROJECT NO.**
BRIDGE NUMBER — DRAWING NO. 16468 — INDEX

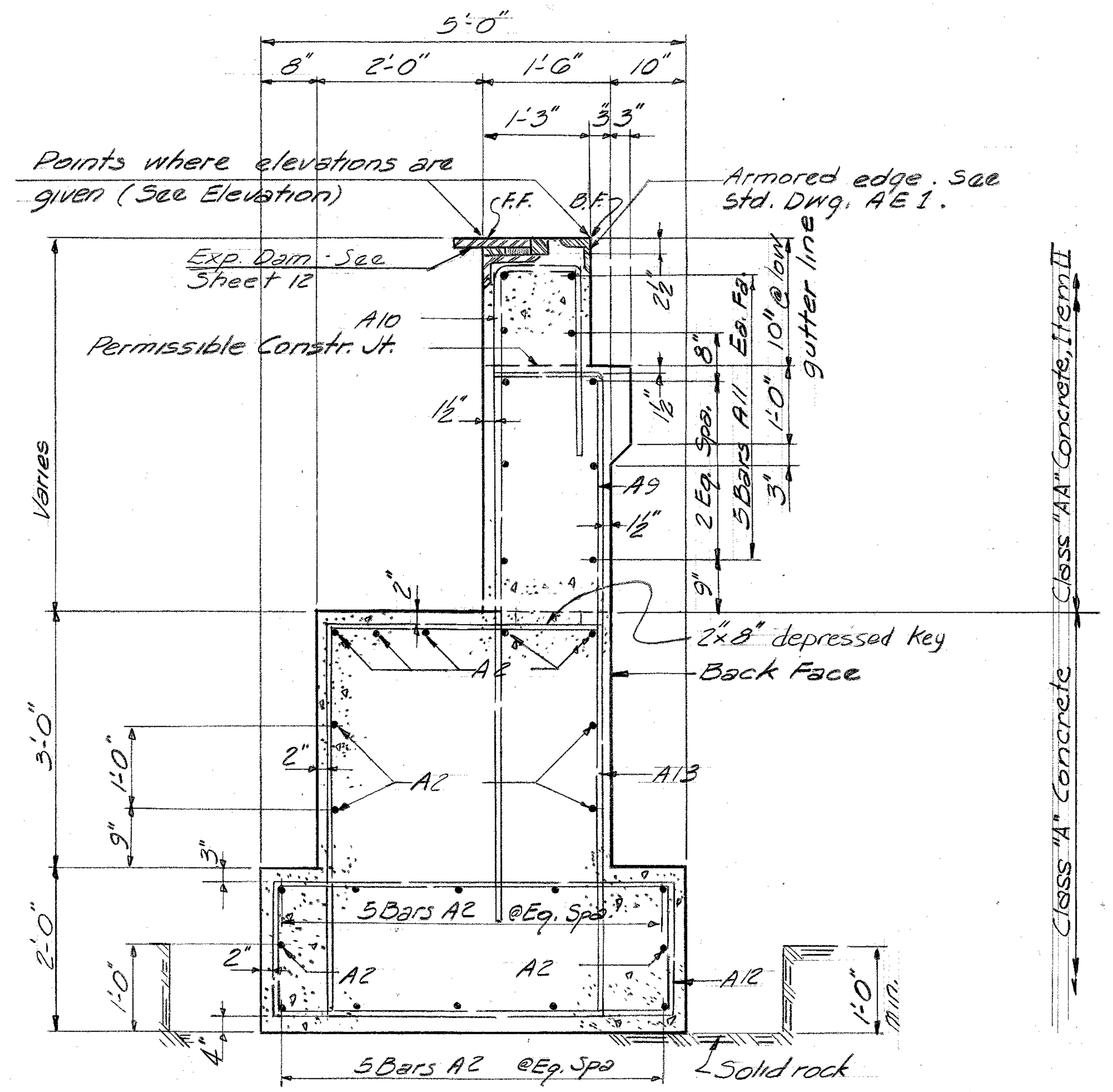
DESIGNED BY JRO — CHECKED BY RCW — DATE 5-65 — REVISED Revised Lane Widths W.H. Phillips DATE 7-68
DETAILED BY P.D.S. — CHECKED BY JRO — DATE 3/65 — REVISED — DATE
TRACED BY — CHECKED BY — DATE — REVISED — DATE

FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

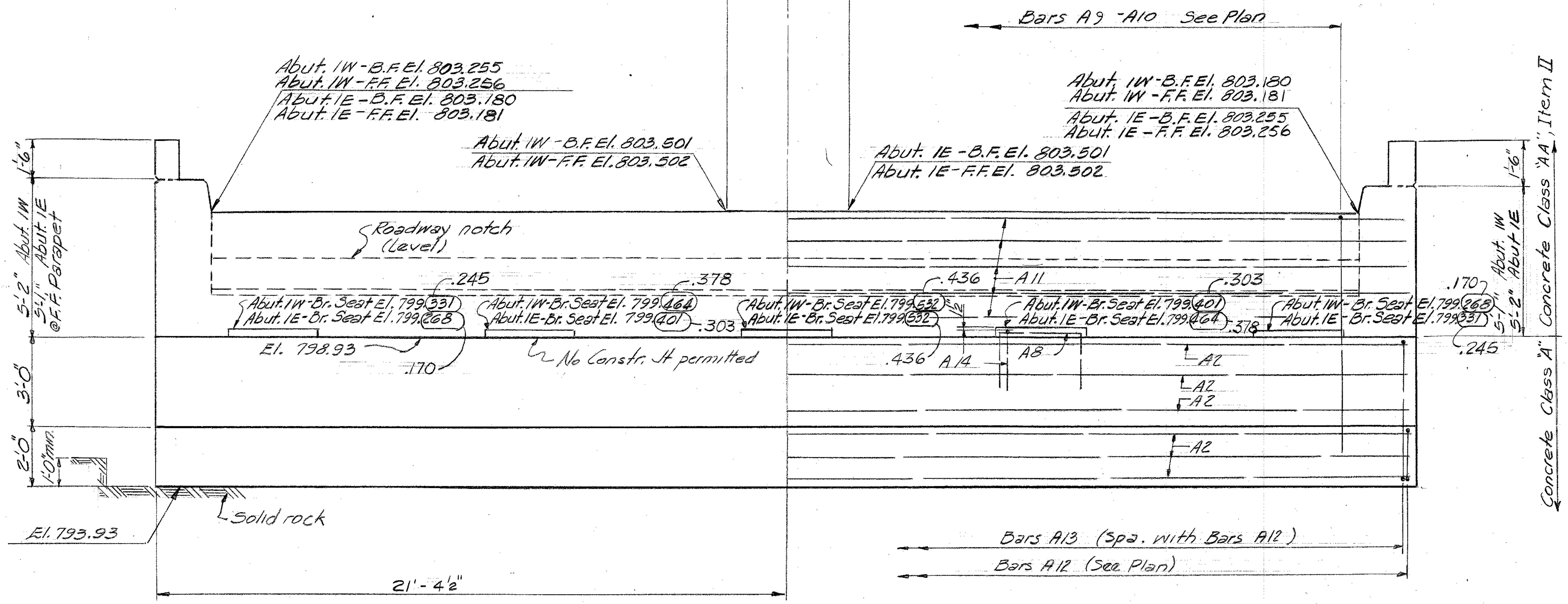


PLAN OF CAP

(Showing Dimensions) (Showing Reinforcement)



SECTION D-D



ELEVATION

ABUTMENTS 1W-1E

Revised Abut. Posts CWG J.E.N.C. 7-70

REVISED	Revised Curbs to Push Block Sheet 6 — DATE 7/67
REVISED	Including Guard Rail Attachment — DATE 7/68
REVISED	Bridge Seat Elev. P.C.W. — DATE 2-23-71
DESIGNED BY JRO	CHECKED BY PW — DATE 3/65
DETAILED BY CEB	CHECKED BY JRO — DATE 3/65
TRACED BY	CHECKED BY — DATE

I-64 OVER ELKHORN CREEK SHEET 6

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
WOODFORD
LOUISVILLE-LEXINGTON-CATLETTSBURG
ROAD
STATION 3120 + 47.75 **PROJECT NO.**
BRIDGE NUMBER — DRAWING NO. 16468 — INDEX

PLAN OF CAP
(Showing Dimensions)
(Showing Reinforcement)
NOTE: Care is to be used in placing bars in top of cap to provide clearance for drilling anchor bolt holes.
Top of Curb
End Bent 2W - El. 804.682
End Bent 2E - El. 804.756
Top of Curb
End Bent 2W-El. 804.756
End Bent 2E-El. 804.682
Use Post B
Post Spacing using High Strength Concrete Handrail See Std. Dwg. H150
℄ Girder & ℄ Exp. Shoe. For Shoe details & notes, see sheet 11.
W.P. E2W or W.P. E2E See Layout, Sheet 3.
℄ Eastbound Lanes
℄ Bridge Ahead
℄ Westbound Lanes
39 Bars A9 @1'-0"=38'-0" (Back Face)
39 Bars A10 @1'-0"=38'-0" (Front Face)
All Parapet
A1
℄ Brg.
3 Bars A8 @ Eq. Sps.
4 Bars A7 @ Eq. Sps. (Typ)
3 Bars A6 (Typ. between piles)
1½" ϕ holes for anchor bolts. See Sheet 11.
Post Spacing using High Strength Aluminum Handrail See Std. Dwg. H117
21'-4½"
19'-7½"
ELEVATION B-B
(Typical Wing Reinforcement)
12 Bars A26 @1'-0"=11'-0" Post
8 Bars A27-A30 @1'-0"=7'-0" Curb (2 of each)
For top of curb elev. see Plan of Cap.
Parallel to grade
A21-A23
Level
3 Bars A17 @1'-0"=2'-0"
6 Bars A18 @1'-0"=5'-0" Stem
3 Bars A20 @1'-0"=2'-0" (Ea. Face)
5 Bars A19 @1'-0"=4'-0" (Ea. Face)
2'-3⅞" Wing 'A' Abut. 1W
2'-3" Wing 'B' Abut. 1W
2'-3" Wing 'A' Abut. 1E
2'-3⅞" Wing 'B' Abut. 1E
2'-3⅞" Wing 'A' End Bent 2W
2'-4¾" Wing 'B' End Bent 2W
2'-4¾" Wing 'A' End Bent 2E
2'-3⅞" Wing 'B' End Bent 2E
Class "AA" Concrete, Item II
Class "A" Concrete
To be neatly rounded with an edging tool
SECTION C-C
2 Bars A25 E.F.
3 Bars A23
2"x4" raised key
3 Bars A20 E.F.
3 Bars A19 @1'-0"=4'-0" E.F.
A27-A30
NOTE: For Plan of Wing Reinf., see Sheet 9.
SECTION A-A
(Showing 12 BP 53. For notes & details see Std. Dwg. P212A)
Exp. Dam - See Sheet 12
Armored edge. See Std. Dwg. AE1.
Points where elevations are given (See Elevation)
Permissible Constr. Jt.
10" @ low gutter line
5 Bars A11 2 Eq. Sps.
2"x8" depressed Key
Back Face
3 Bars A2 @1'-2"=2'-4"
Pile cutoff
See Std. Dwg. S.F. 2
℄ 12 BP 53 Alt. 'A'
ELEVATION
Symmetrical about this ℄ except as shown
Bars A9 - A10 See Plan
End Bent 2W - B.F. El. 803.785
End Bent 2W - F.F. El. 803.777
End Bent 2E - B.F. El. 803.860
End Bent 2E - F.F. El. 803.852
End Bent 2E - B.F. El. 804.106
End Bent 2E - F.F. El. 804.098
End Bent 2W - B.F. El. 804.106
End Bent 2W - F.F. El. 804.098
End Bent 2W - B.F. El. 803.860
End Bent 2W - F.F. El. 803.852
End Bent 2E - B.F. El. 803.785
End Bent 2E - F.F. El. 803.777
Roadway notch (Level)
E.B. 2W - Br. Seat El. 799.861
E.B. 2E - Br. Seat El. 799.824
E.B. 2W - Br. Seat El. 799.994
E.B. 2E - Br. Seat El. 800.051
E.B. 2W - Br. Seat El. 800.125
E.B. 2E - Br. Seat El. 800.125
E.B. 2W - Br. Seat El. 800.051
E.B. 2E - Br. Seat El. 799.994
E.B. 2W - Br. Seat El. 799.824
E.B. 2E - Br. Seat El. 799.861
El. 799.328
No Constr. Jt. permitted
A3 Typ @ Piles
A4 Typ @ Piles
Bars A6 - A5 (See Plan)
El. 794.53
Back row piles
Front row piles
Pile Cutoff El. 797.33
Class "AA" Concrete, Item II
Class "A" Concrete

FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

Revised End Bent Posts Dwg. √ E.N.C. 7-70

REVISED Revised Curbs to Kurb Blocks S.Ht. E.R.	DATE	
REVISED Revised Lane Widths, Don Shoemaker	DATE	7-68
REVISED Bridge Seat Elev. R.C.W.	DATE	2-22-71
DESIGNED BY JRO	CHECKED BY PW	DATE 2-65
DETAILED BY CEB	CHECKED BY JRO	DATE 4-65
TRACED BY	CHECKED BY	DATE

I-64 OVER ELKHORN CREEK — SHEET 7

COMMONWEALTH OF KENTUCKY

DEPARTMENT OF HIGHWAYS

FRANKFORT

COUNTY OF

WOODFORD

LOUISVILLE-LEXINGTON-CATLETTSBURG

ROAD

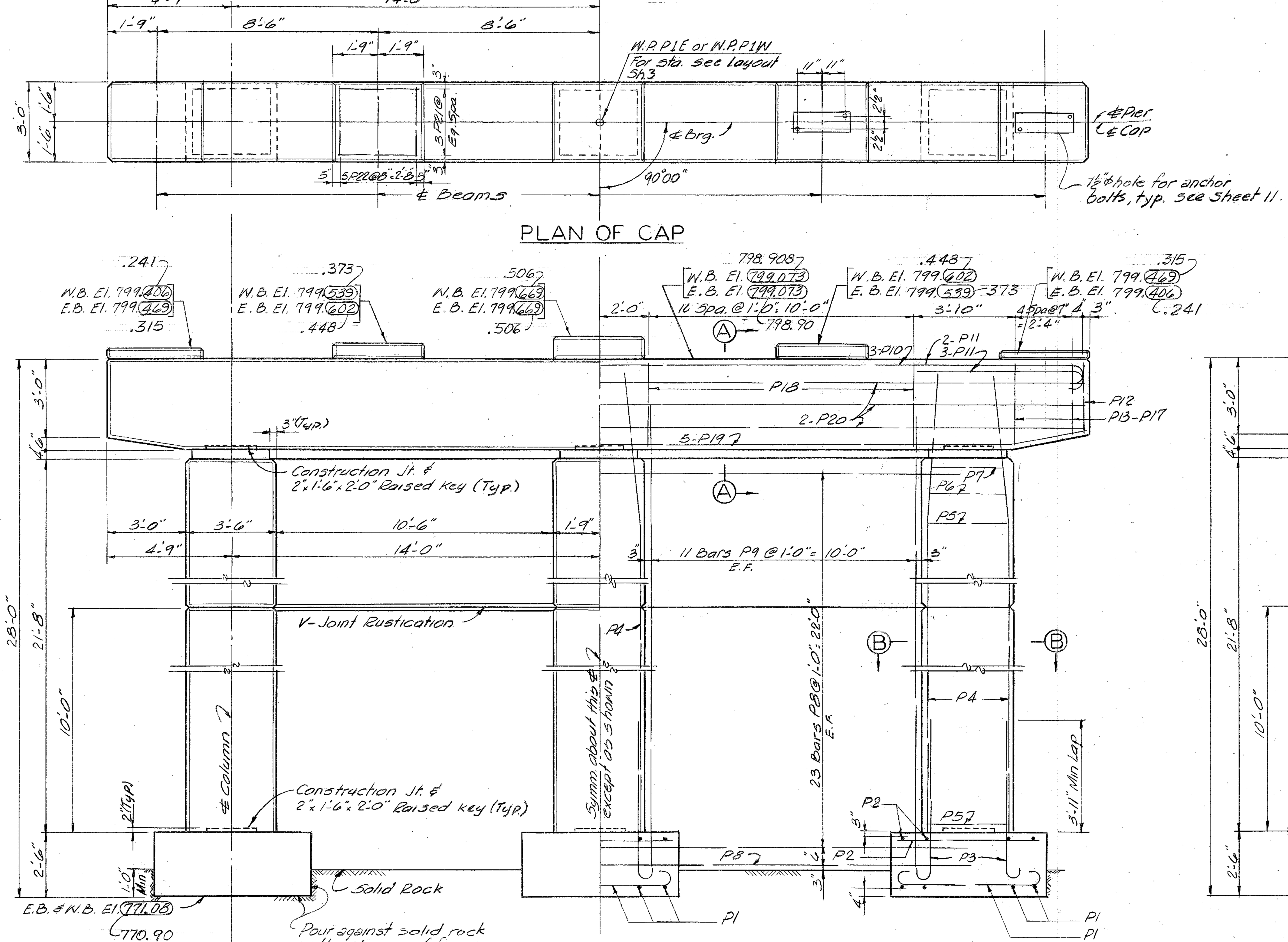
STATION 3120+47.75 — **PROJECT NO.**

END BENTS 2E-2W

BRIDGE NUMBER — DRAWING NO. 16468 — INDEX

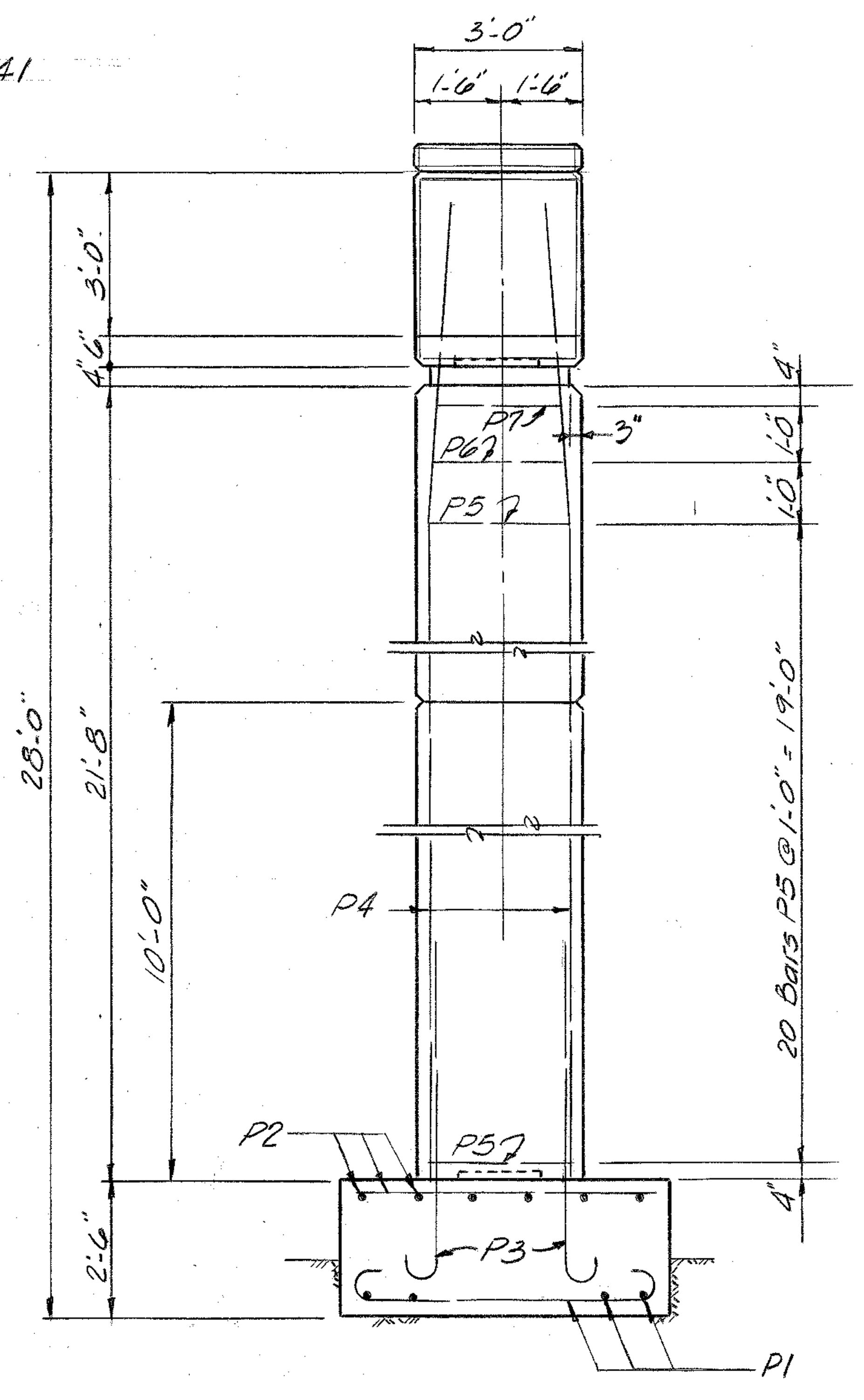
FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

NOTE: Care to be used in placing bars in top of cap to provide clearance for anchor dowels, see Anchor Bolt Note.

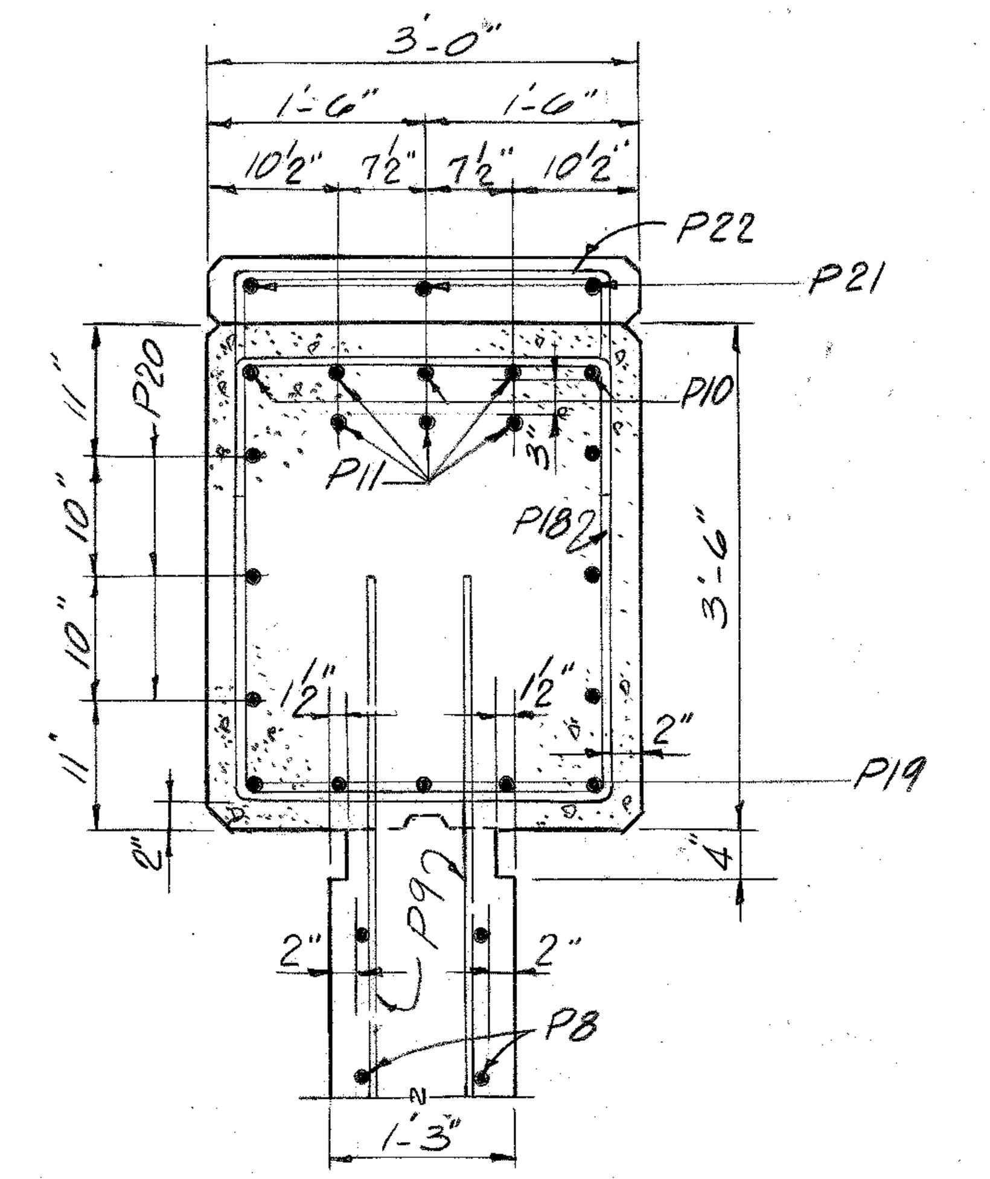


PLAN OF CAP

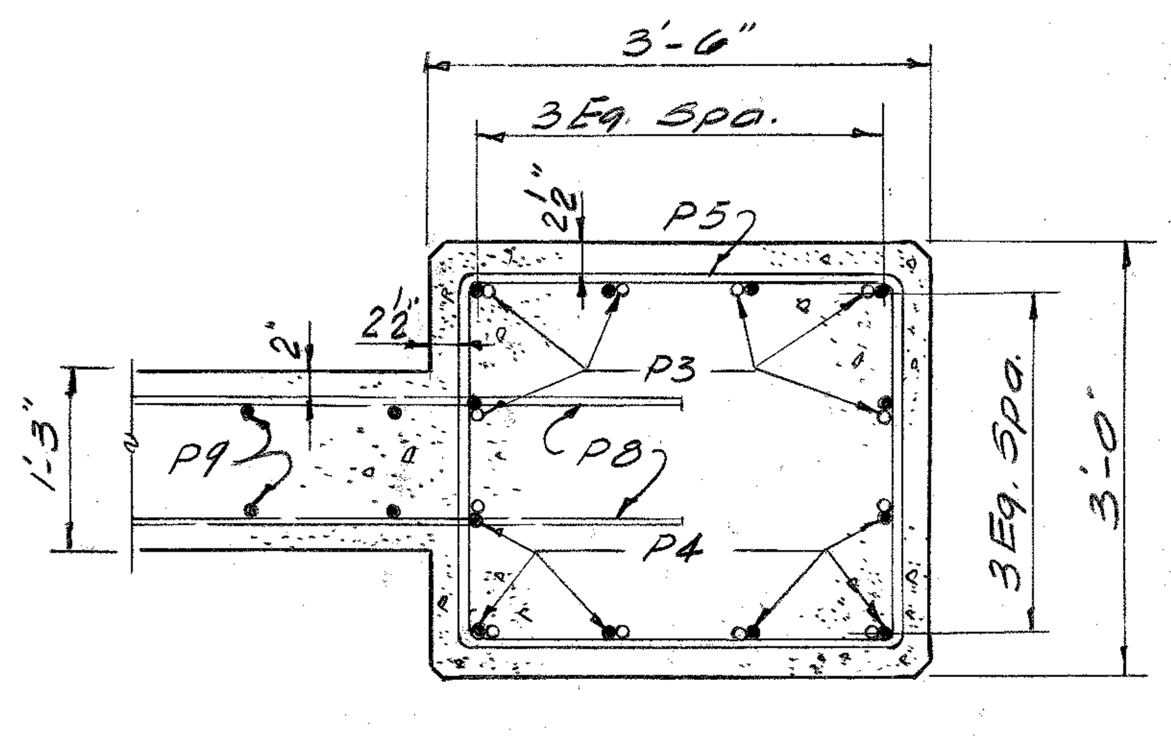
ELEVATION



END ELEVATION



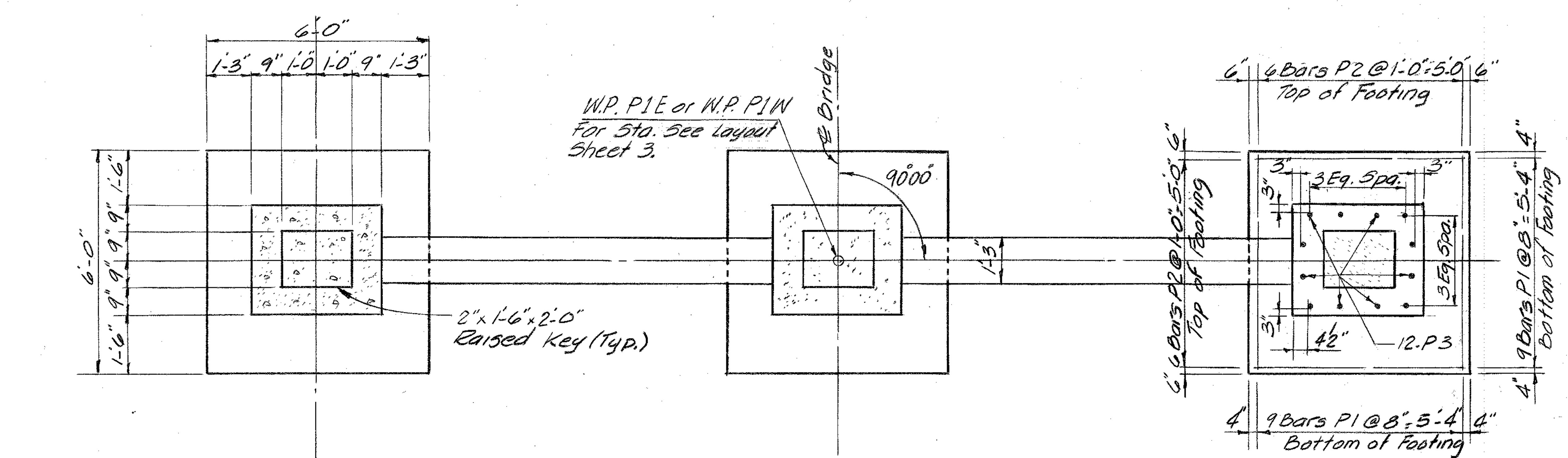
SECTION A-A



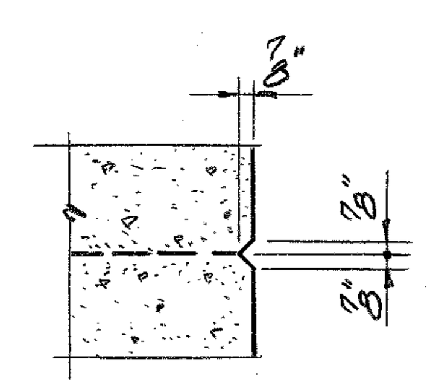
SECTION B-B

ESTIMATE OF QUANTITIES

	Pier 1W	Pier 1E	
Concrete, Class 'A'	73.7	73.7	C.Y.
Reinforcement	8623.	8623.	Lb.



PLAN OF FOOTING



RUSTICATION DETAIL

PIERS

I-64 OVER ELKHORN CREEK SHEET 8

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
WOODFORD
LOUISVILLE-LEXINGTON-CATLETTSBURG
ROAD
STATION 3120+47.75 I-64 **PROJECT NO.**

BRIDGE NUMBER	DRAWING NO. 16468	INDEX

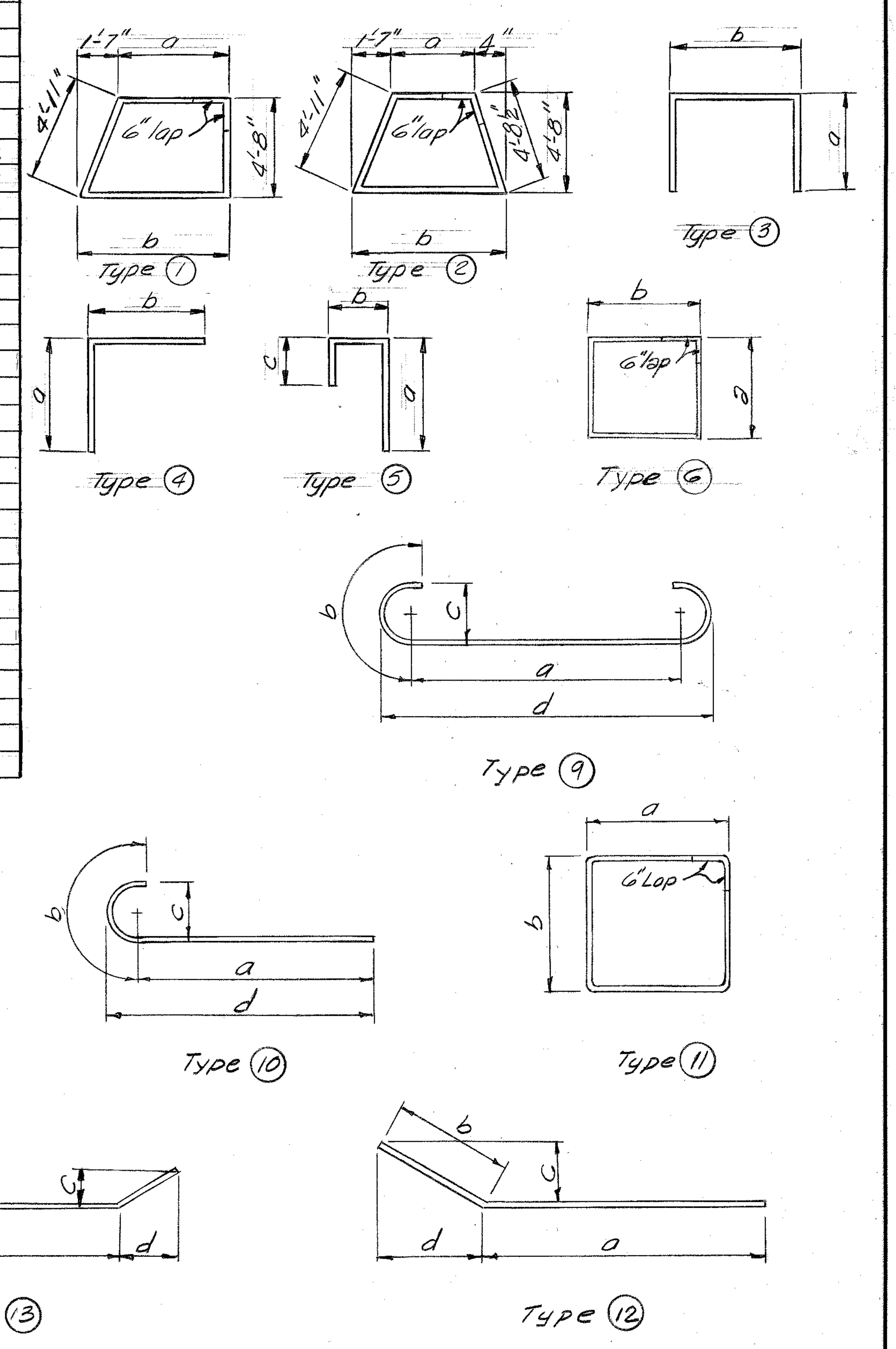
DESIGNED BY JRO	CHECKED BY PW DATE 3-65	REVISED Elev. Br. Seat, Cap & Ftg. P.C.W. DATE 2-23-71
DETAILED BY BK	CHECKED BY JRO DATE 3/65	REVISED DATE
TRACED BY	CHECKED BY DATE	REVISED DATE

FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

BILL OF REINFORCEMENT

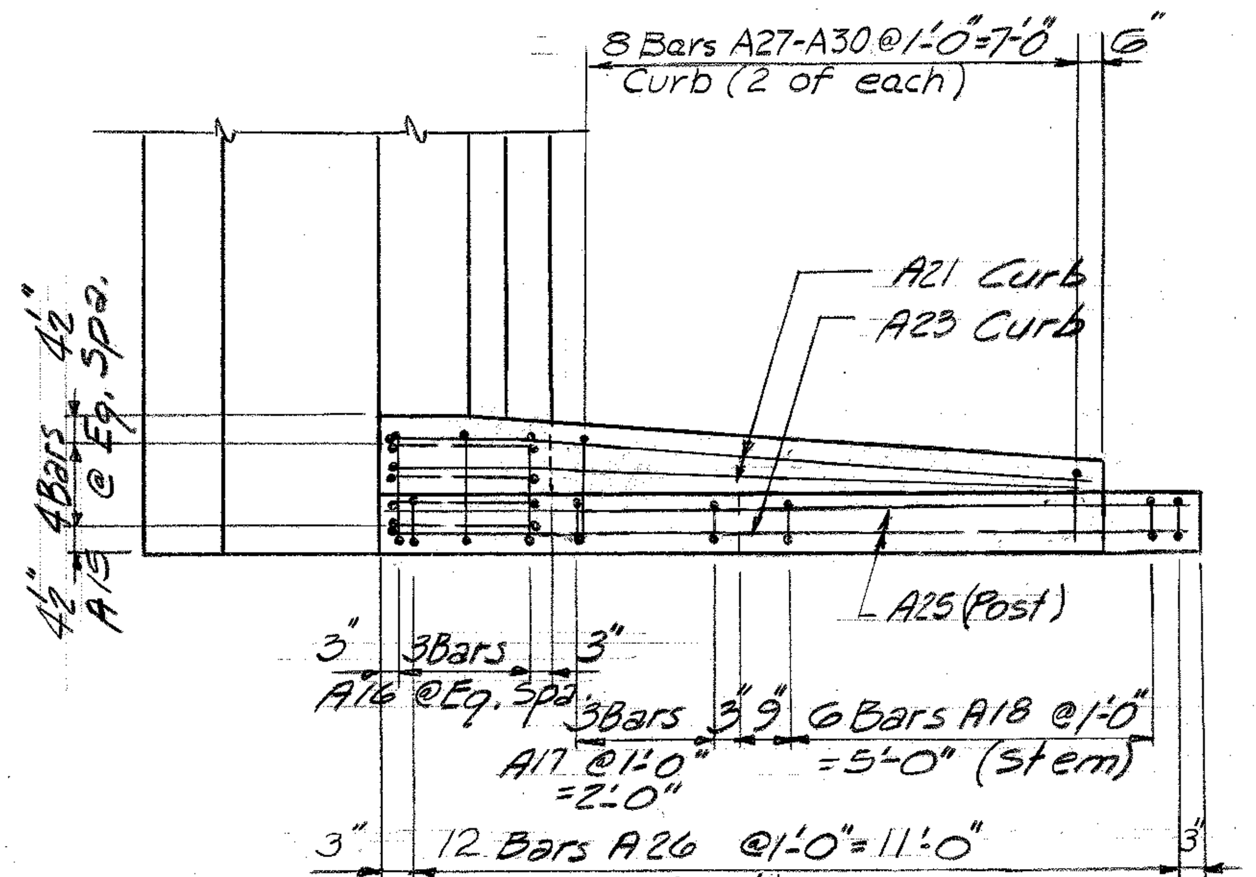
Mark	Type	Number Abut. 1W	Number Abut. 1E	Number End Bent 2W	Number End Bent 2E	Bar Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
A1	Str.	—	—	12	12	10	42	5	Cap								
A2	"	21	21	6	6	6	42	5	"								
A3	(3)	—	—	22	22	6	5	5	Cap @ Piles	0	6	4	8½				
A4	"	—	—	22	22	6	5	11	" "	0	6	5	2½				
A5	(1)	—	—	4	4	6	21	4	Cap hoops	4	6½	6	1½				
A6	(2)	—	—	30	30	5	19	9	" "	3	9	5	8				
A7	(3)	—	—	20	20	5	7	2	Pads	2	6	2	3				
A8	"	15	15	15	15	5	7	8	"	2	6	2	9				
A9	(4)	39	39	39	39	7	8	1	Parapet	6	11	1	3				
A10	(5)	39	39	39	39	6	10	0	"	7	3	1	0	2	0		
A11	Str	10	10	10	10	5	42	5	"								
A12	(6)	41	41	—	—	5	12	11	Footing	1	5	4	8				
A13	"	41	41	—	—	5	16	1	Cap	4	6	3	2				
A14	(3)	20	20	—	—	5	6	6	Pads	2	6	1	9				
A15	"	8	8	8	8	9	19	9	Parapet @ wings	9	0	2	0				
A16	"	6	6	6	6	7	17	2	" "	8	0	1	5				
A17	"	6	6	6	6	6	19	7	wings · Stem	9	6	0	9				
A18	"	12	12	12	12	6	9	7	" "	4	6	0	9				
A19	Str	20	20	20	20	6	4	0	" "								
A20	"	12	12	12	12	6	11	2	" "								
A21	(4)	8	8	8	8	10	12	8	" -Curb	3	0	9	10				
A22	Str	2	2	2	2	8	9	10	" "								
A23	(4)	6	6	6	6	10	14	1	" "	3	0	11	2				
A24					DO	NOT	USE - Substitute A27-A30										
A25	Str	8	8	8	8	5	11	2	" - Post								
A26	(3)	24	24	24	24	6	8	0	" "	3	8	0	9				
A27	"	4	4	4	4	5	4	1	" - Curb	1	3	1	7				
A28	"	4	4	4	4	5	3	10	" "	1	1½	1	7				
A29	"	4	4	4	4	5	3	7	" "	1	0	1	7				
A30	"	4	4	4	4	5	3	5	" "	0	11	1	7				

Mark	Type	Number Pier 1 W	Number Pier 1 E	Bar Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
P1	(9)	54	54	5	6	11	Bottom of Footing	5	3	0	10	0	5	5	8
P2	Str.	36	36	5	5	8	Top of Footing								
P3	(10)	36	36	7	6	10	Column Dowels	5	8	1	2	0	7	5	11½
P4	(12)	36	36	7	25	3	Column	19	4	5	11	0	7½	5	10½
P5	(11)	60	60	4	12	1	Column Hoops	3	1	2	7				
P6	"	3	3	4	11	3	" "	2	10½	2	4½				
P7	"	3	3	4	10	5	" "	2	8	2	2				
P8	Str.	48	48	5	28	0	Web Wall (Horz.)								
P9	Str.	44	44	5	25	3	Web Wall (Vert.)								
P10	(9)	3	3	10	39	10	Top of Cap	36	2	1	10	1	0½	37	2½
P11	(10)	10	10	10	8	4	" " "	6	6	1	10	1	0½	7	0¼
P12	(11)	2	2	6	11	6	Cap Stirrups	2	8	2	8½				
P13	"	2	2	6	11	8	" "	2	8	2	9¼				
P14	"	2	2	6	11	10	" "	2	8	2	10½				
P15	"	2	2	6	12	0	" "	2	8	2	11½				
P16	"	2	2	6	12	3	" "	2	8	3	0¾				
P17	"	2	2	6	12	5	" "	2	8	3	1¾				
P18	"	22	22	5	12	5	" "	2	8	3	2				
P19	(13)	5	5	9	36	11	Bottom of Cap	31	6	2	8½	0	5½	2	8
P20	Str.	6	6	6	37	2	Sides of Cap								
P21	Str.	15	15	5	3	2	Pads								
P22	(3)	25	25	5	6	6	Pads	2	0	2	8				



ESTIMATE OF QUANTITIES

	Abut. 1E	Abut. 1W	End Bent 2E	End Bent 2W	
Concrete, Class "AA", Item II	18.0	18.0	19.0	19.0	C.Y.
Concrete Class "A"	32.9	32.9	40.3	40.3	C.Y.
Reinforcement	7222	7222	8350	8350	LBS.



PLAN OF WING
(Showing Reinforcement)

DESIGNED BY JRO	CHECKED BY PCW	DATE 3-65	REVISED Revised Curbs to Bush Block SH. & EA DATE
DETAILED BY CEB	CHECKED BY JRO	DATE 3/65	REVISED Revised Abut. & End Bent Post for Handrail (curb) DATE 7-70
TRACED BY	CHECKED BY	DATE	REVISED DATE

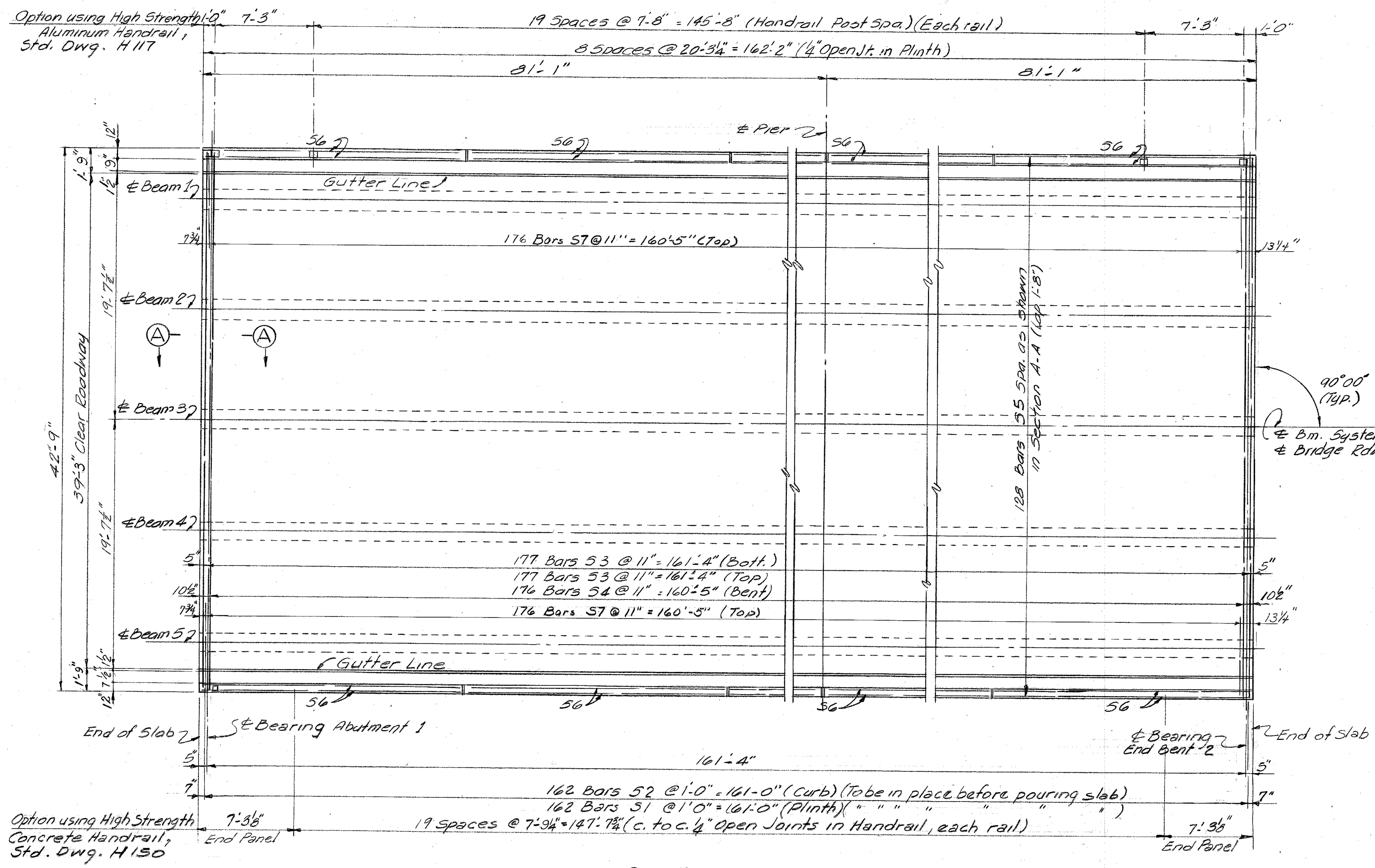
SUBSTRUCTURE

I-64 OVER ELKHORN CREEK SHEET 9

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
WOODFORD
LOUISVILLE-LEXINGTON-CATLETTSBURG
ROAD
STATION 3120+47.75 I-64 **PROJECT NO.**

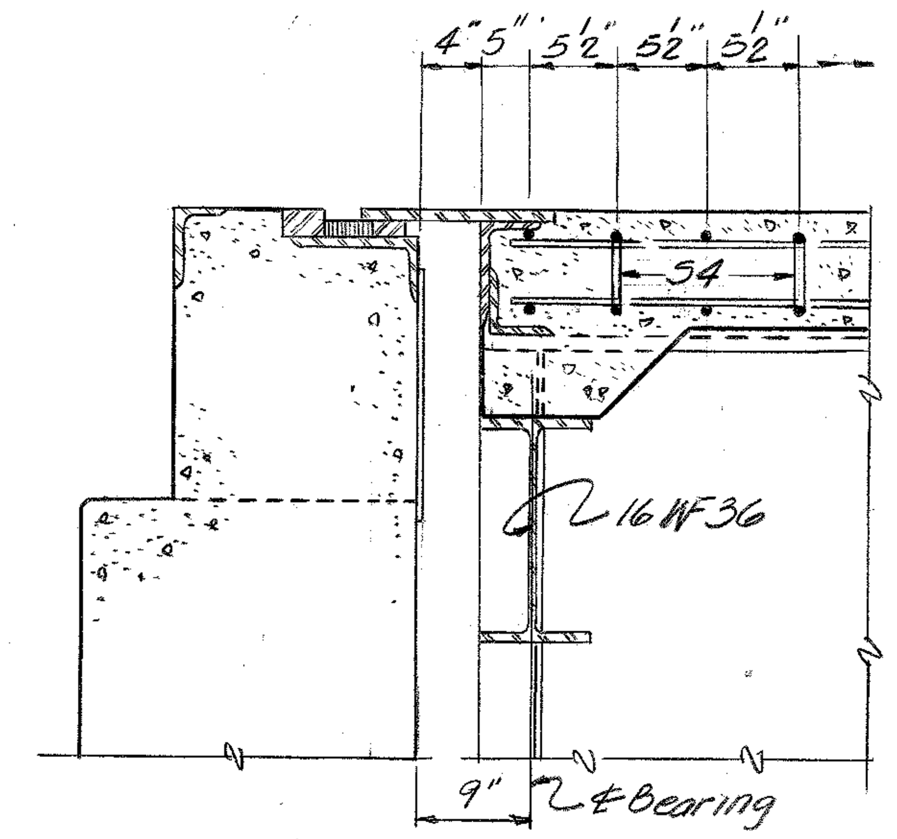
BRIDGE NUMBER	DRAWING NO. 16468	INDEX

FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

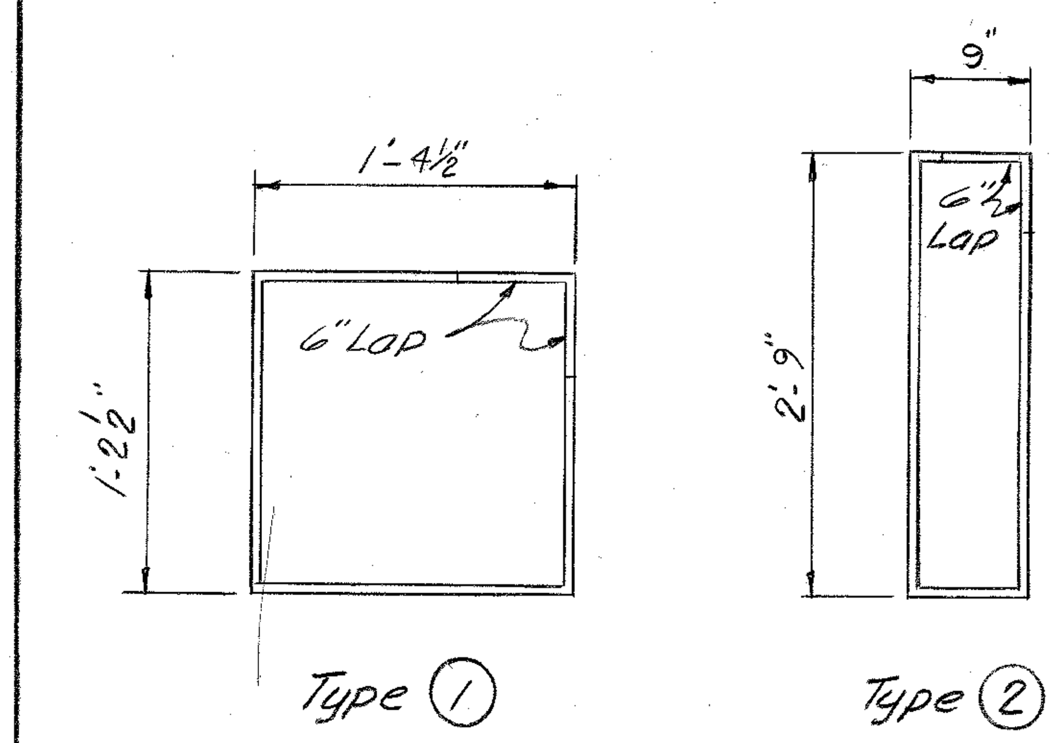


SLAB PLAN

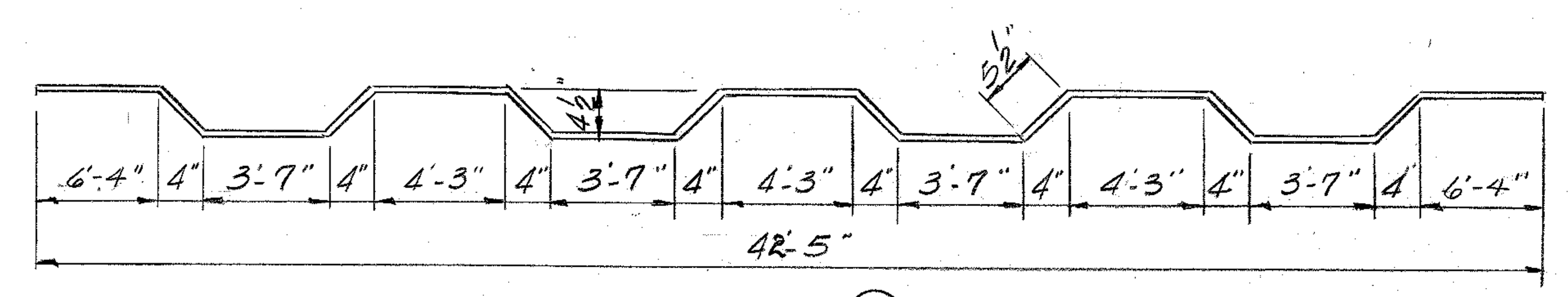
NOTE - For Drain locations and Drain details see Sheet 14. (Westbound only)



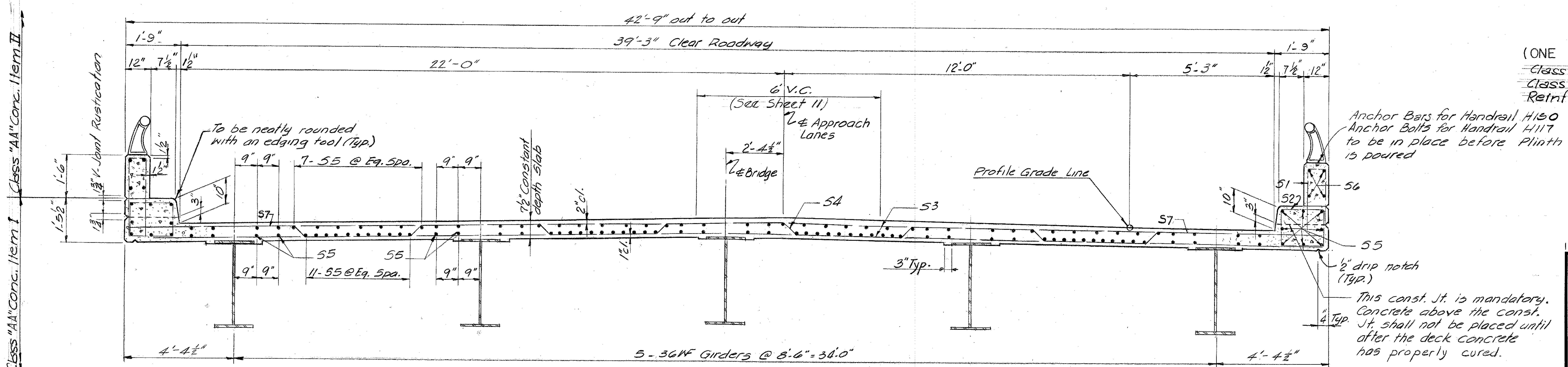
SECTION A-A



BILL OF REINFORCEMENT (ONE BRIDGE)						
Mark	Type	No	Bar Size	Length Ft.	Length In.	Location
S1	(2)	324	5	7	9	Plinth
S2	(1)	324	5	5	11	Curb
S3	Str.	354	5	41	5	Slab (Top & Bott.)
S4	(3)	176	6	43	5	Slab (Bent)
S5	Str.	640	4	33	9	Slab (Longitudinal)
S6	Str.	64	4	19	11	Plinth
S7	Str.	352	6	5	10"	Slab (Top)



Type (3)



SECTION THRU SLAB

(ONE BRIDGE) ESTIMATE OF QUANTITIES

Class "AA" Concrete, Item I	184.2 C.Y.
Class "AA" Concrete, Item II	18.1 C.Y.
Reinforcement	49,971 Lbs.

SUPERSTRUCTURE

Revised: Drains added to W.B.L. Br. 11-71
REVISED Revised Curbs to Bush Block Sh. & EA DATE 5-65
REVISED Revised Lane Width W. H. Phillips DATE 9-68
REVISED DATE
DESIGNED BY P.W. CHECKED BY J.R.O. DATE 5-65
DETAILED BY B.K. CHECKED BY J.R.O. DATE 5-65
TRACED BY CHECKED BY DATE

I-64 OVER ELKHORN CREEK SHEET 10

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
WOODFORD
LOUISVILLE-LEXINGTON-CATLETTSBURG
ROAD
STATION 3120+47.75 I-64 **PROJECT NO.**
BRIDGE NUMBER | DRAWING NO. 16468 | INDEX

SUPERSTRUCTURE

SHOE DETAILS

Fixed shoe as shown. Expansion shoe similar, except pintles and recesses to be omitted on Expansion Shoe. 10 Fixed Shoes req'd. 20 Expansion Shoes req'd.

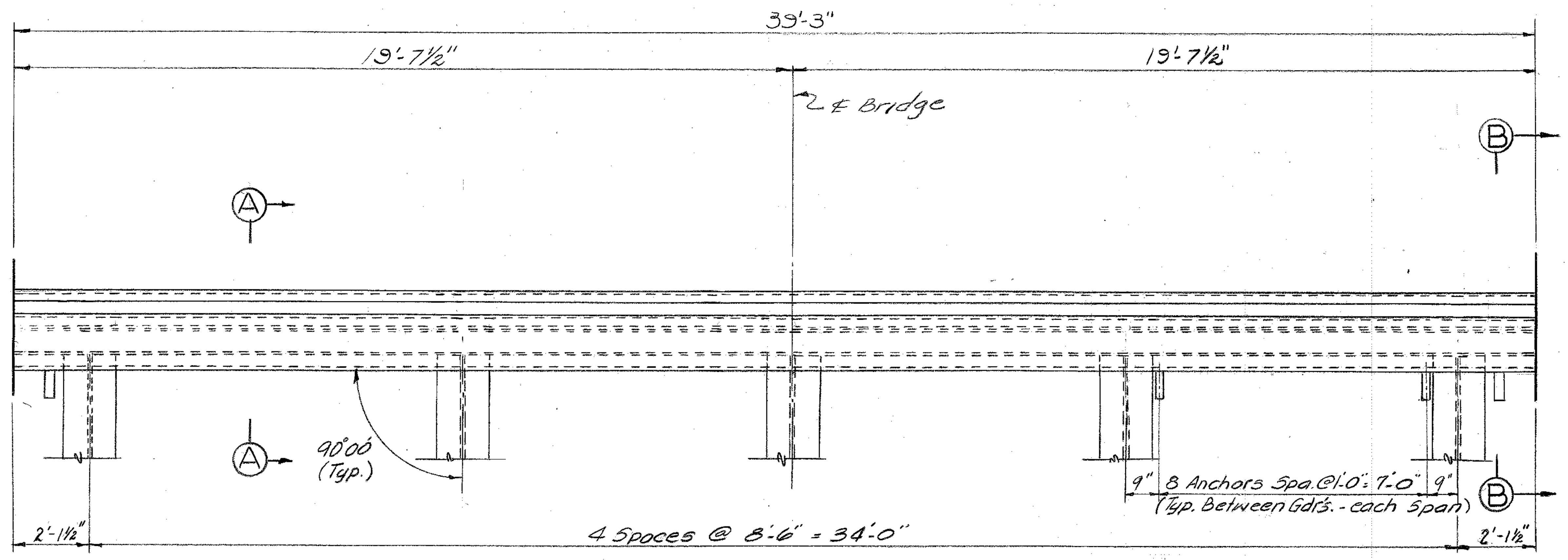
Structural Steel	@ Abut.	147 lb
Self Lubricating Plate	"	30 lb
Lead Plate	"	14 lb
Structural Steel	@ Piers	190 lb
Self Lubricating Plate	"	40 lb
Lead Plate	"	14 lb

DESIGNED BY	PCW	CHECKED BY	JRO	DATE	3-63
DETAILED BY	BK	CHECKED BY	JRO	DATE	3-63
TRACED BY		CHECKED BY		DATE	

I-64 OVER ELKHORN CREEK — SHEET 11

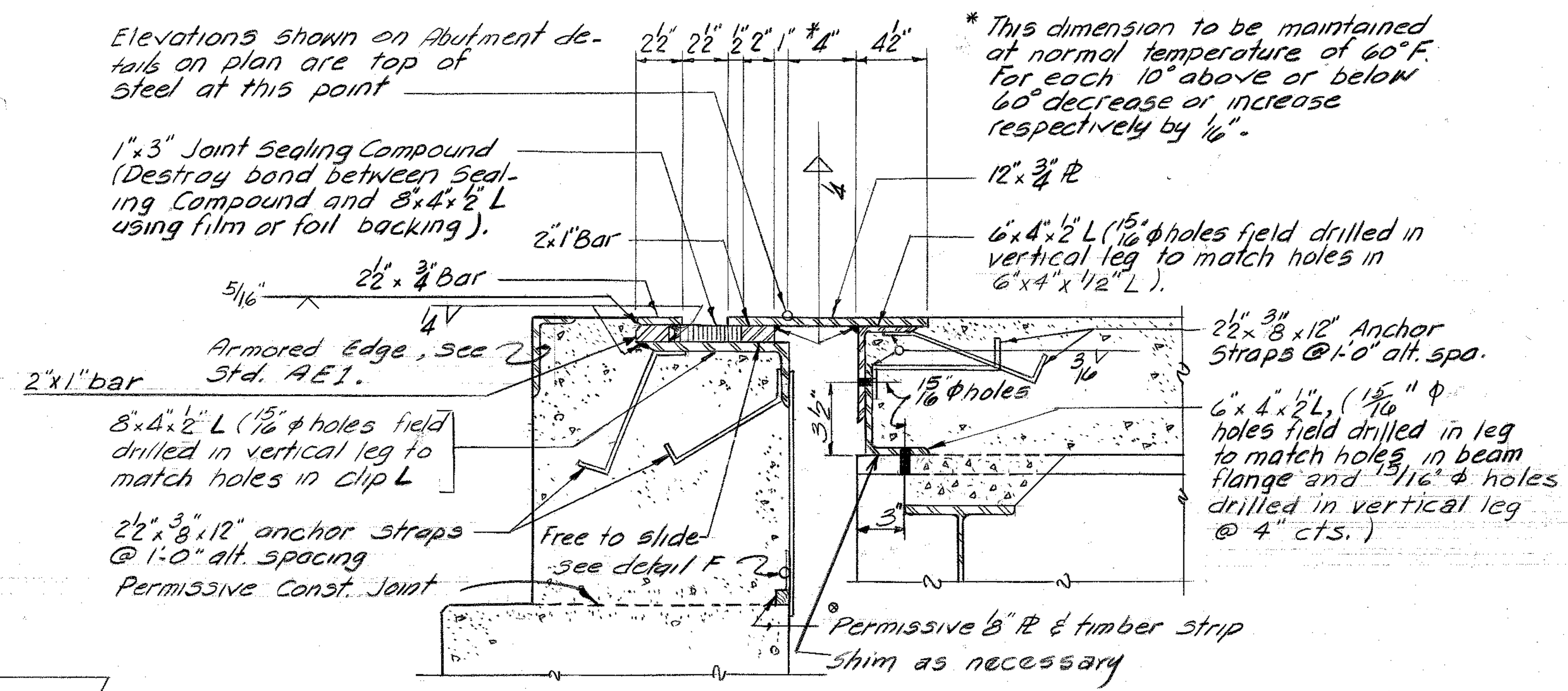
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
WOODFORD
LOUISVILLE-LEXINGTON-CATLETTSBURG
ROAD
STATION 3120+47.75 I-64 **PROJECT NO.**
BRIDGE NUMBER — DRAWING NO. 16468 — INDEX

FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



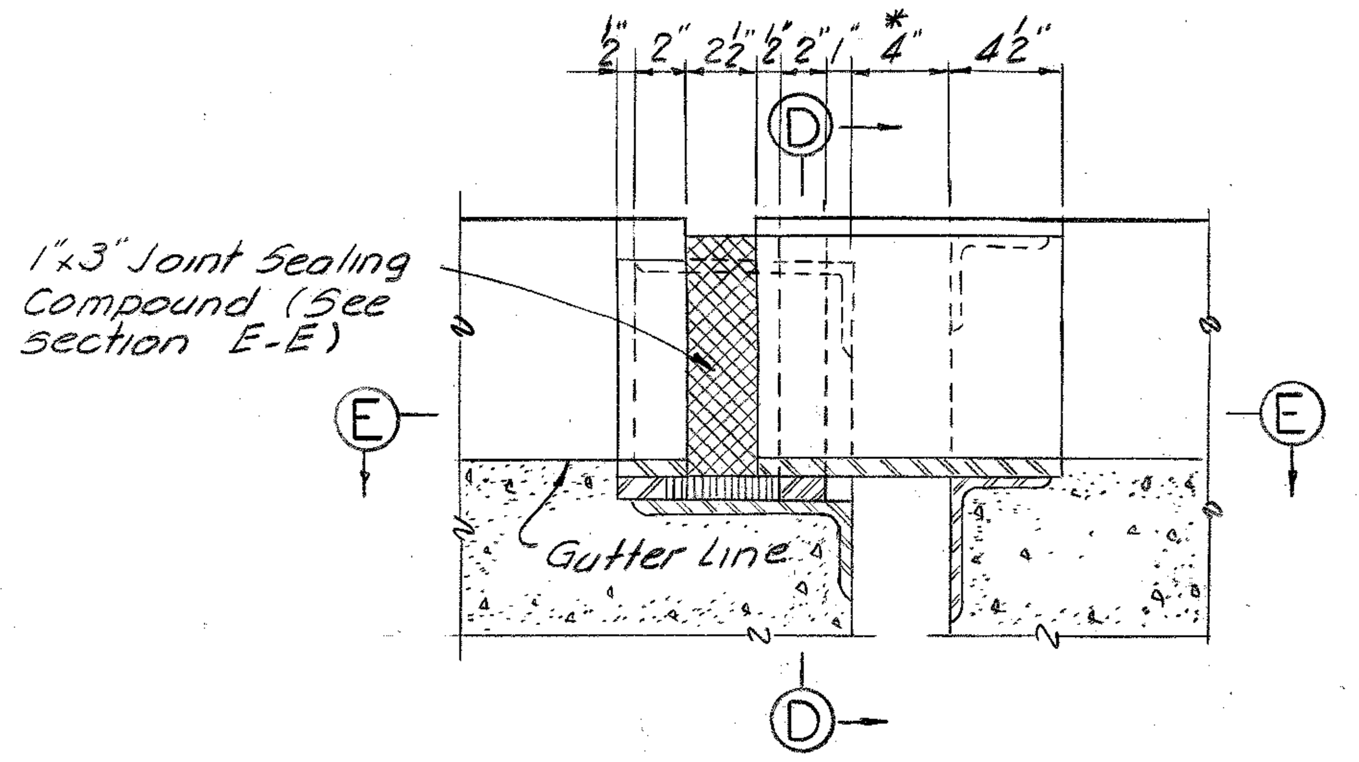
PLAN OF EXPANSION DAM
2 Required (Each Bridge)

NOTE: For elevations see abutment details on Sheet 6 & 7

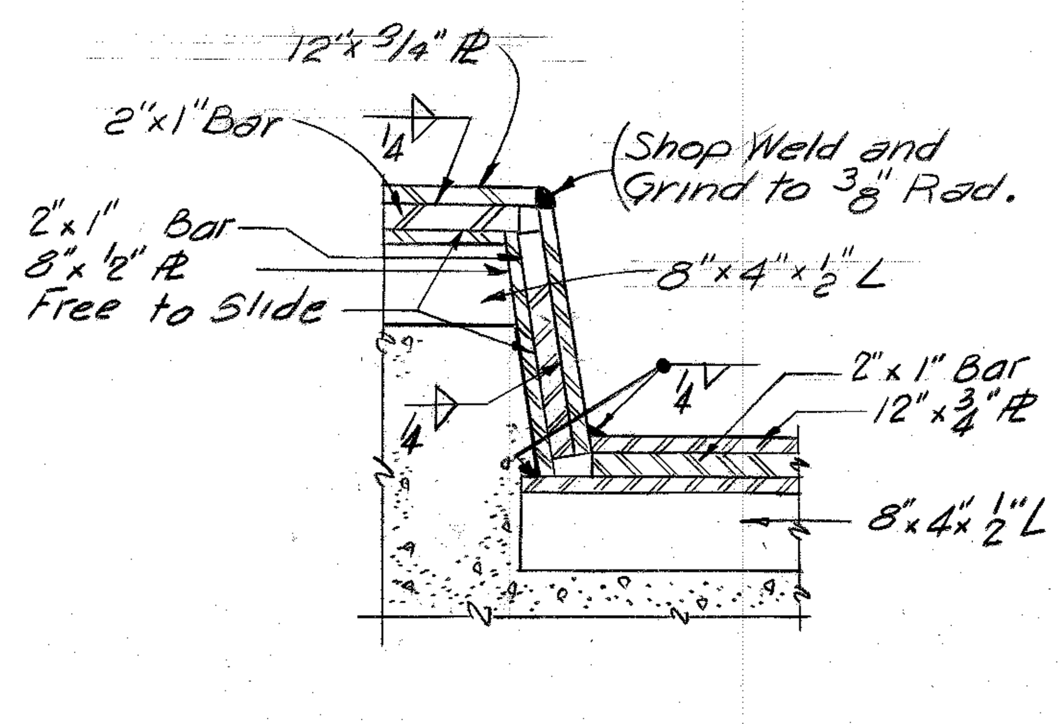


SECTION A-A

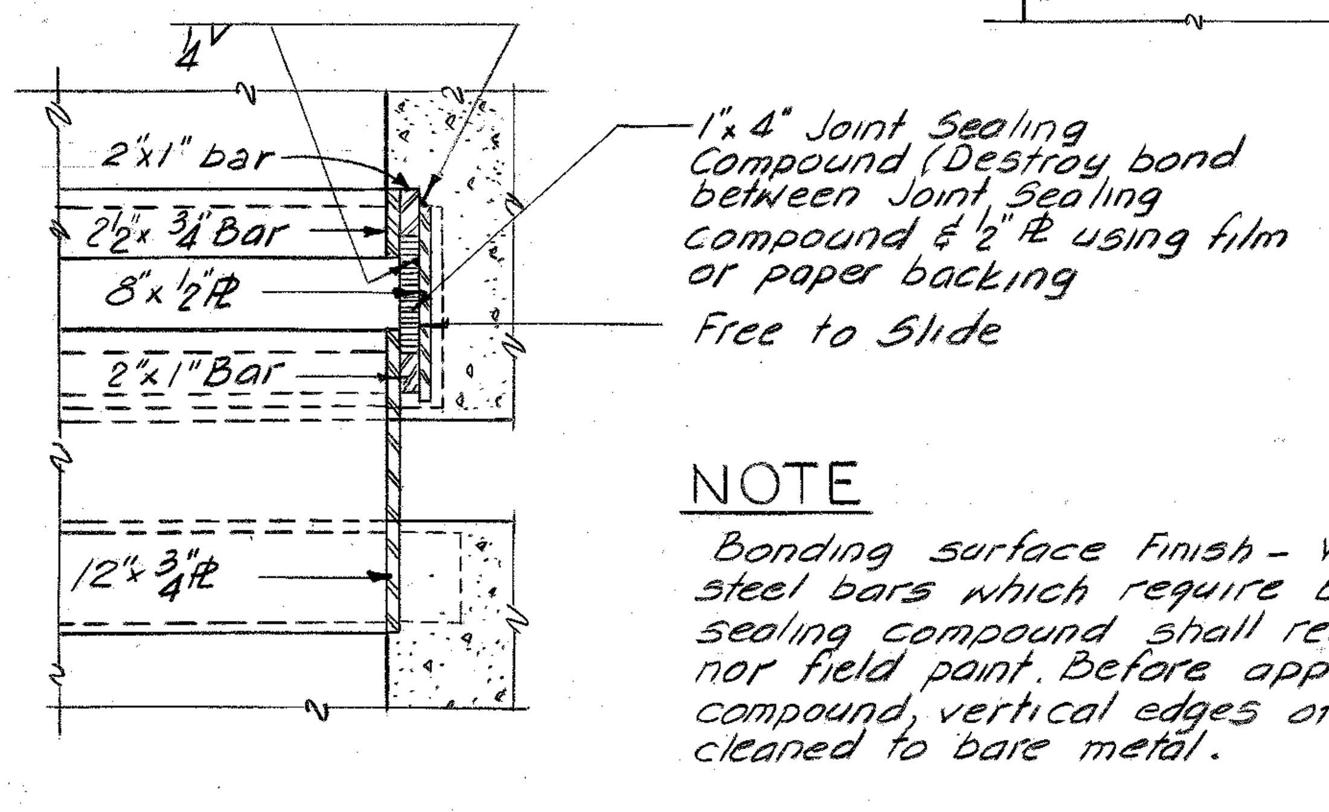
*Use of 16"x⅛" ℞ is optional. Weight of this plate is not included in approximate weight of structural steel shown and if used shall be included in the lump sum bid for structural steel. Details of plate, if used, shall be incorporated in shop plans submitted for approval.



SECTION B-B



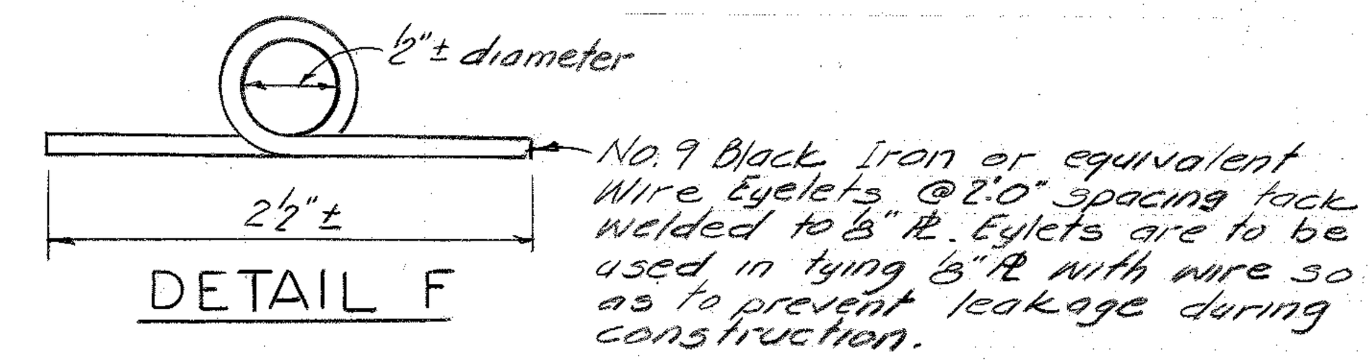
SECTION D-D



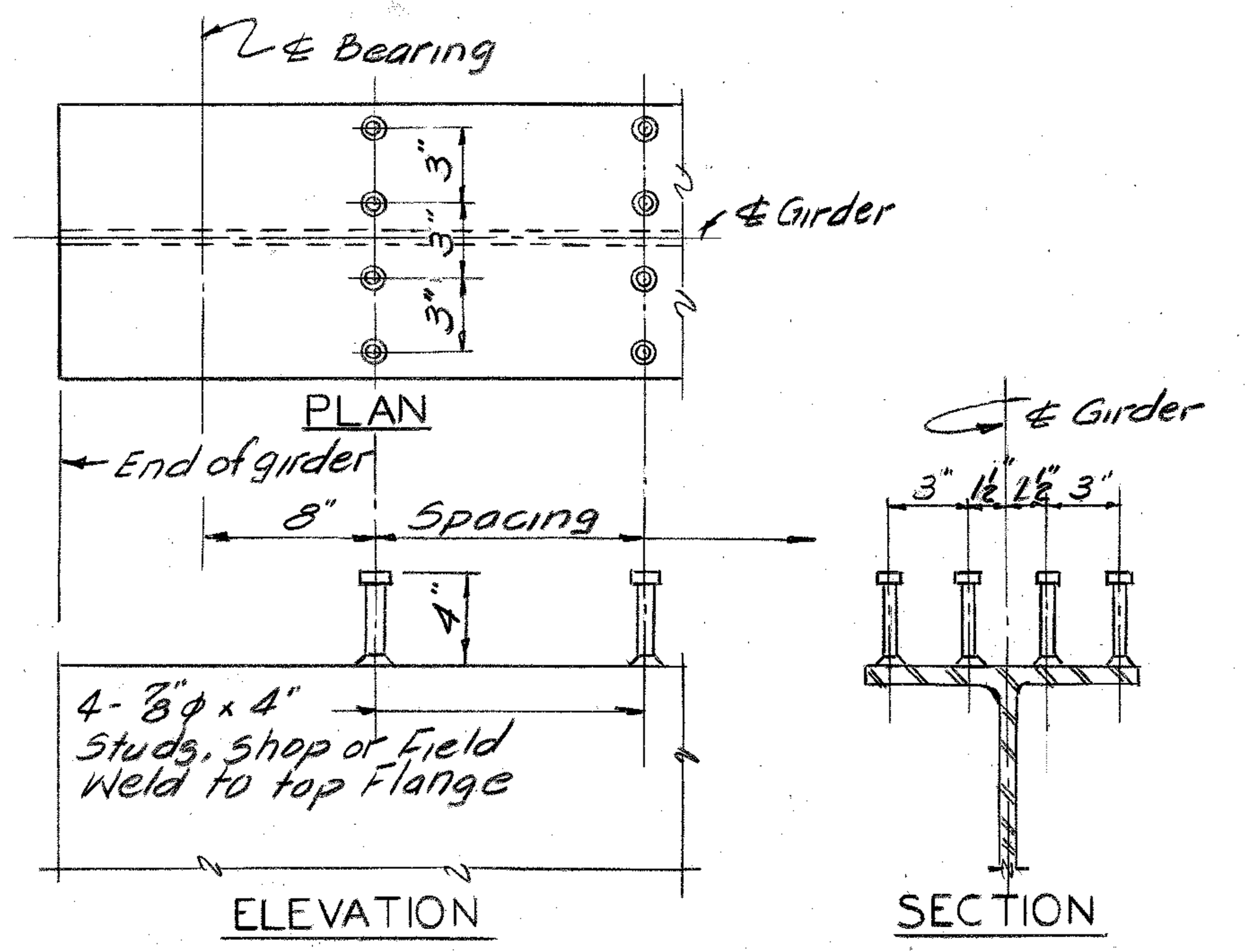
SECTION E-E

NOTE

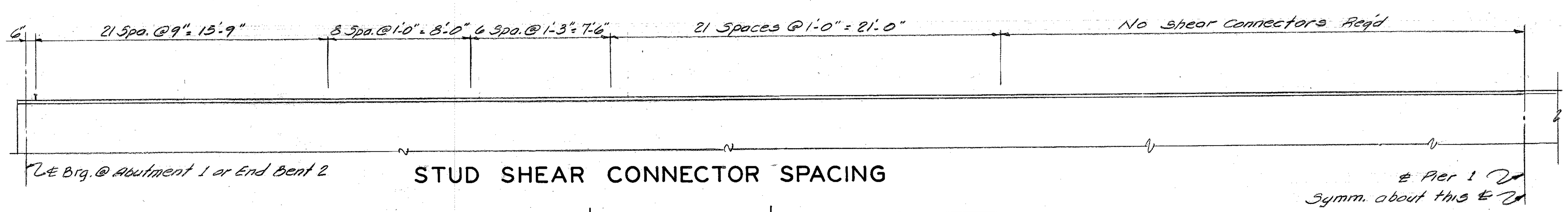
Bonding surface Finish - Vertical edges of steel bars which require bonding to joint sealing compound shall receive neither shop nor field paint. Before applying joint sealing compound, vertical edges of steel bars shall be cleaned to bare metal.



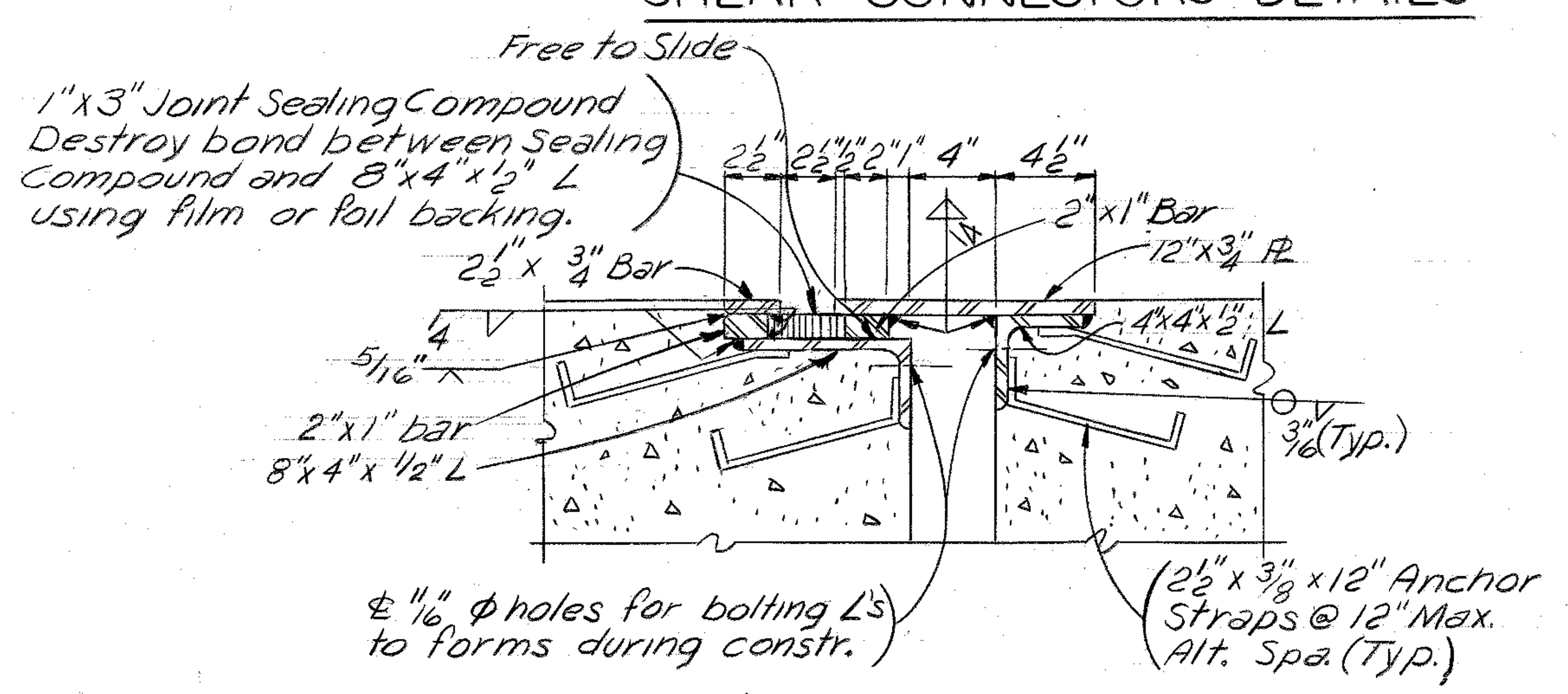
DETAIL F



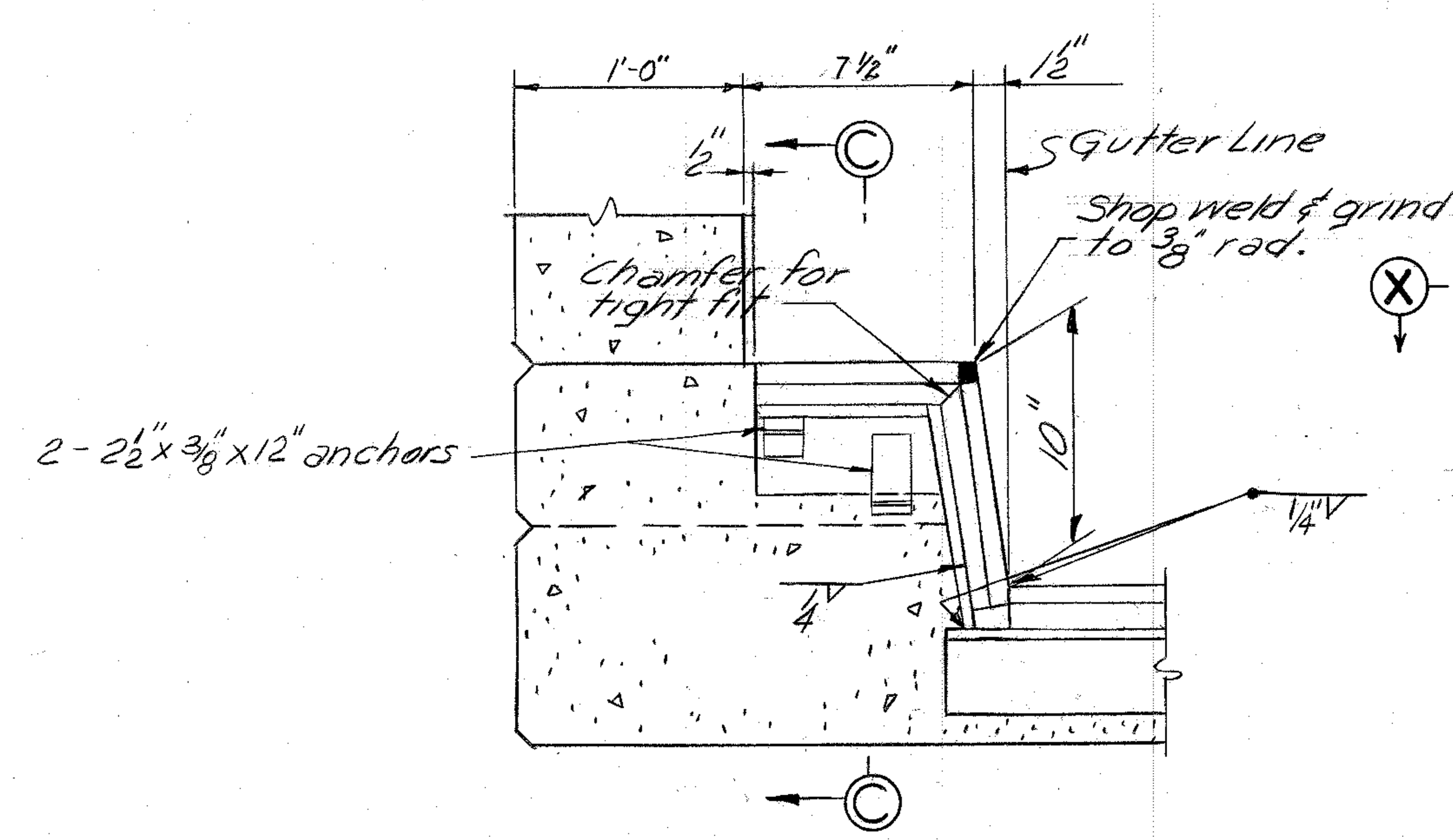
SHEAR CONNECTORS DETAILS



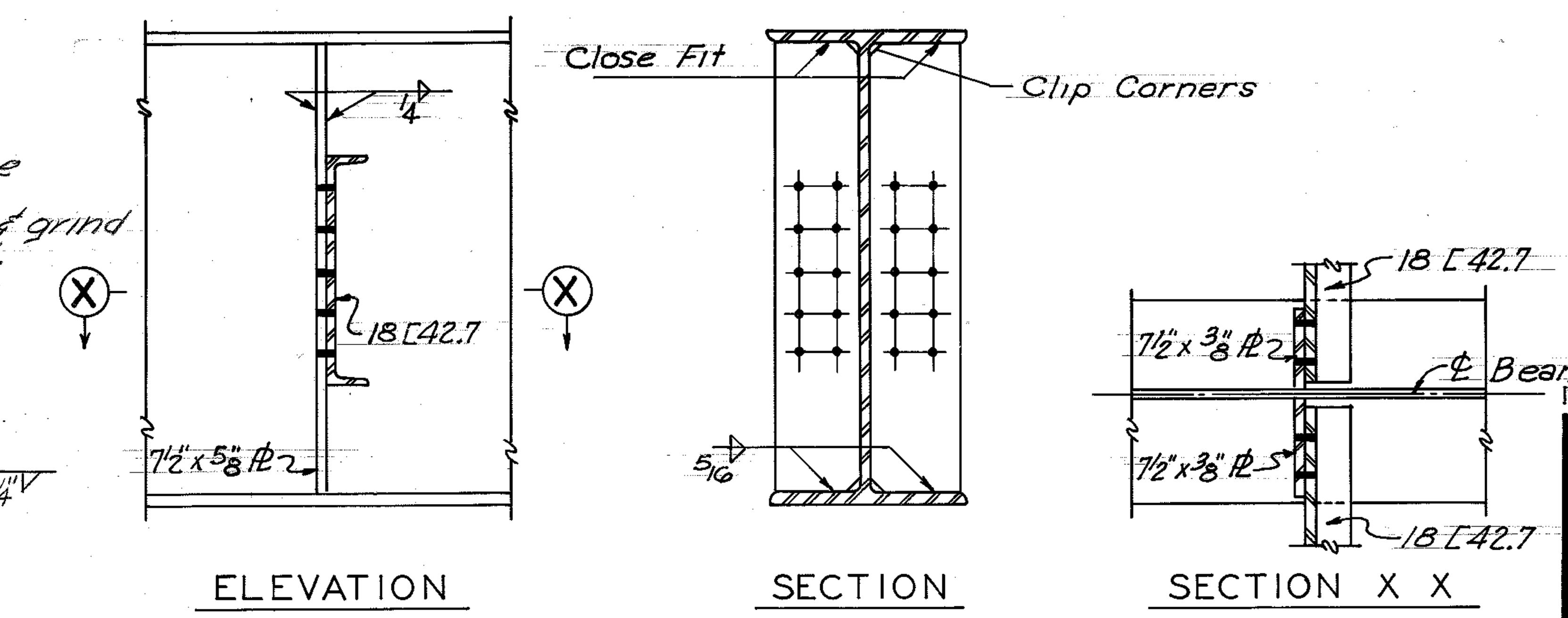
STUD SHEAR CONNECTOR SPACING



SECTION C-C



SECTION THRU CURB



BEARING STIFFENER DETAILS AT PIER 1

SUPERSTRUCTURE

I-64 OVER ELKHORN CREEK SHEET 12

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
WOODFORD
LOUISVILLE-LEXINGTON-CATLETTSBURG
ROAD

STATION 3120+47.75 I-64 PROJECT NO.

BRIDGE NUMBER | DRAWING NO. 16468 | INDEX

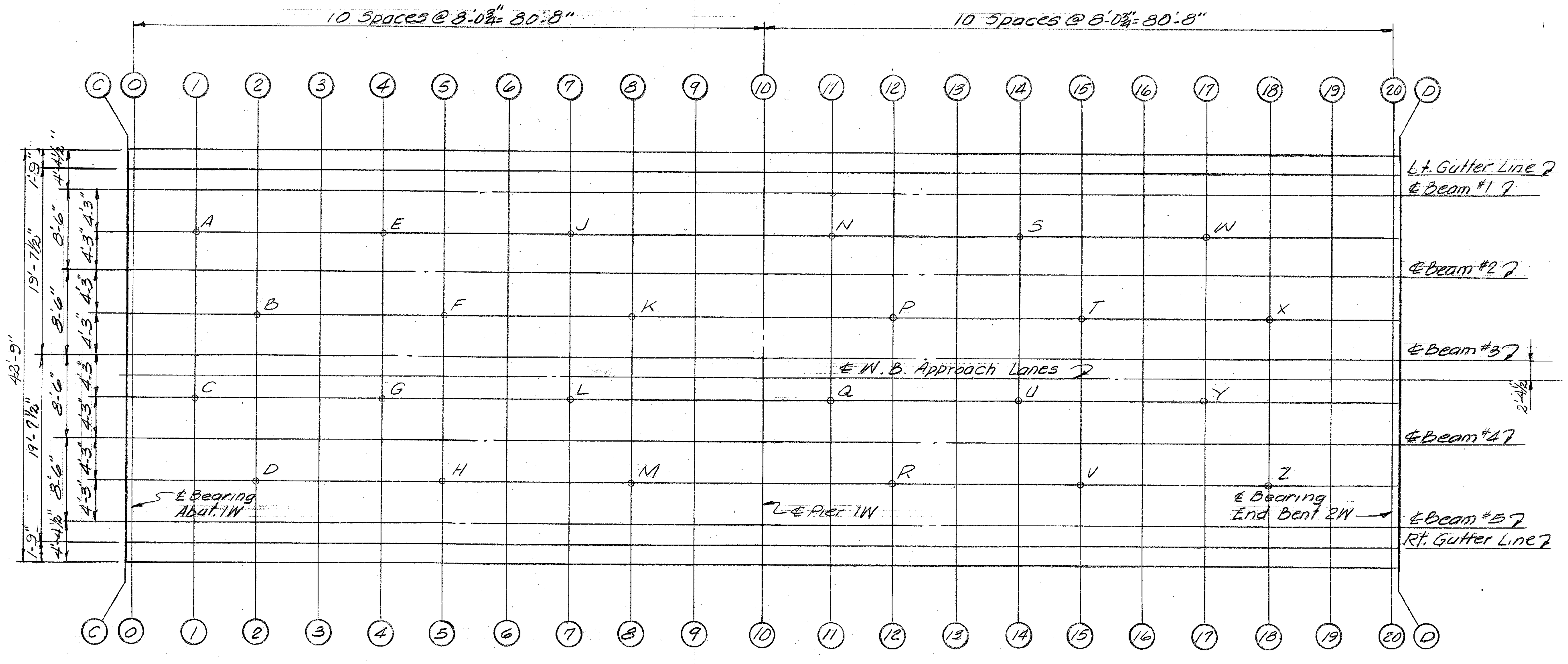
DESIGNED BY PCW	CHECKED BY JRO	DATE 3-65	REVISED Revised Curbs to Bush Back S.H. & E.T. DATE
DETAILED BY B.K.	CHECKED BY JRO	DATE 3-65	REVISED Revised Lane Widths, W.H. Phillips DATE 2-68
TRACED BY	CHECKED BY	DATE	REVISED DATE

Revised Expansion Dam ENC. / C.W.Q. 7-70

FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

TABLE OF ELEVATIONS FOR CONTROL OF SLAB THICKNESS

Check Points	Top of Slab Elev.	Bott. of Slab Elev.	Computed Slab Thick.
A	803.329		
B	.496		
C	.536		
D	.440		
E	.414		
F	.559		
G	.621		
H	.502		
J	.433		
K	.568		
L	.640		
M	.512		
N	.507		
P	.686		
Q	.714		
R	.629		
S	.668		
T	.853		
U	.815		
V	.796		
W	.808		
X	.970		
Y	804.015		
Z	803.913		



PLAN OF SLAB
WESTBOUND

CONSTRUCTION NOTES

Layout sections 0-0 to 21-21 as shown in Plan (center punch marks on top 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 falsework 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.

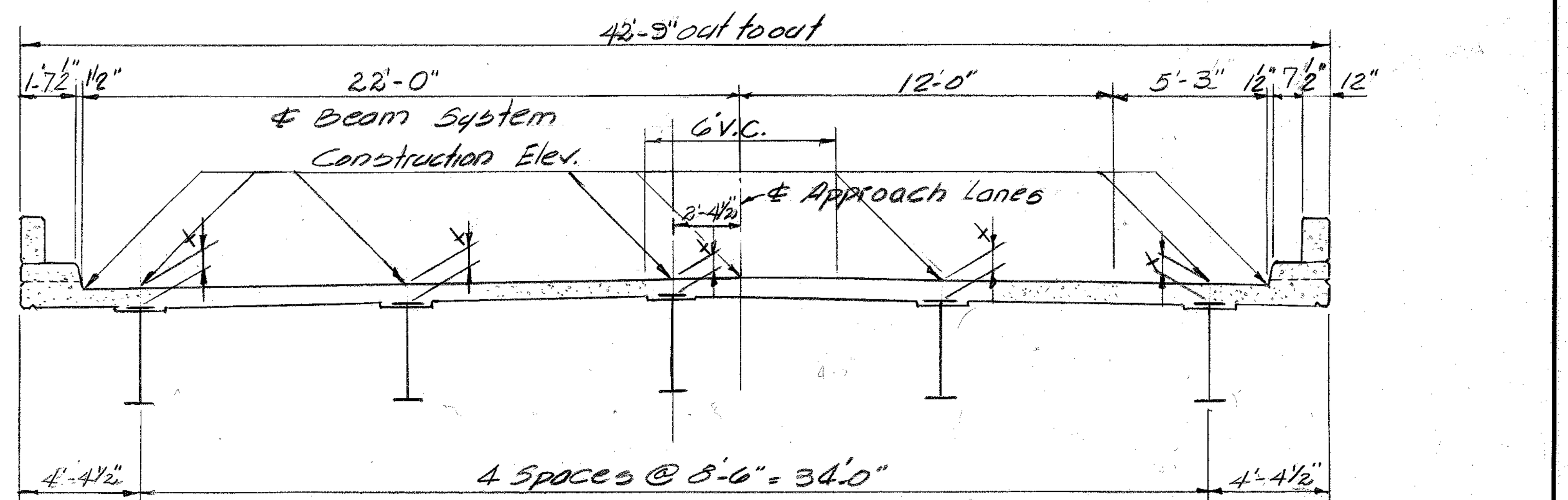
Compute dimension "x" as follows: Construction elevations minus top of steel equals Dim. "x". Construction elevations include camber due to weight of concrete slab, plinth, handrail and future surfacing.

For setting templates measure dimension "x" above top of steel for top of template. Do not set templets by elevations.

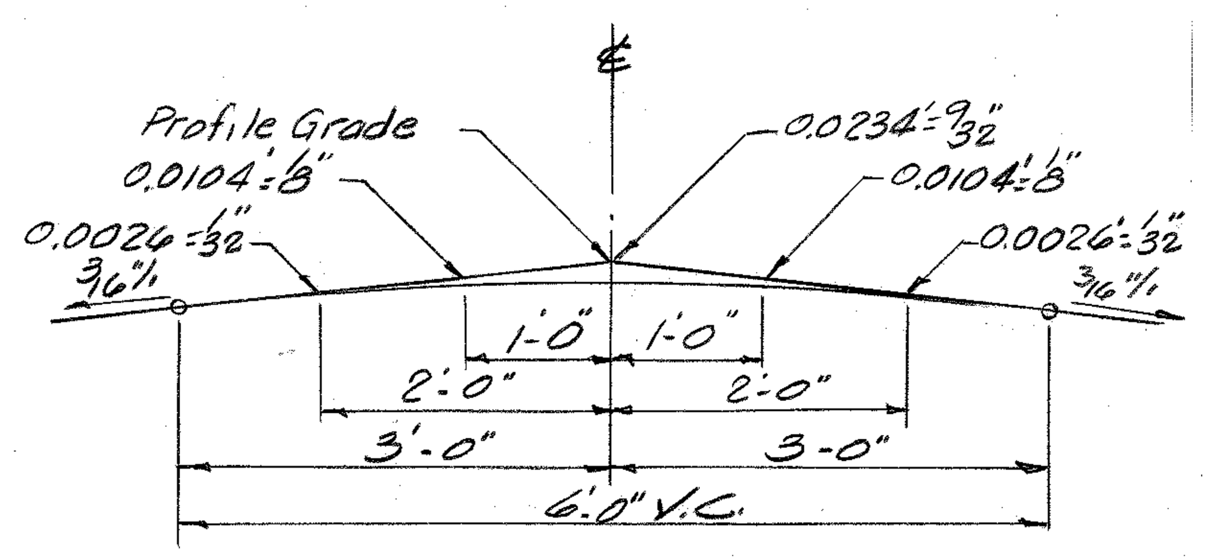
Construct handrail plinth to sidewalk grade. Do not add camber to handrail plinth.

Slab elevations 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: 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 thickness varies more than ¼" from the plan thickness, allowing 1/360 of the slab plan 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

TABLE OF ELEVATIONS - WESTBOUND

Section	Lt. G. L. Constr. El.	℄ Appr. Lanes Constr. El.	Rt. G. L. Constr. El.	Beam #1 Constr. El.	Beam #1 Top of Steel	Beam #1 Dim "X"	Beam #2 Constr. El.	Beam #2 Top of Steel	Beam #2 Dim "X"	Beam #3 Constr. El.	Beam #3 Top of Steel	Beam #3 Dim "X"	Beam #4 Constr. El.	Beam #4 Top of Steel	Beam #4 Dim "X"	Beam #5 Constr. El.	Beam #5 Top of Steel	Beam #5 Dim "X"
C	803.181	803.502	803.256															
D	803.776	804.097	803.850															
0—0	803.181	803.502	803.256	803.222			803.355			803.488			803.430			803.297		
1—1	.221	803.542	.296	.262			.395			.528			.470			.337		
2—2	.257	.578	.332	.298			.431			.564			.506			.373		
3—3	.286	.607	.361	.327			.460			.593			.535			.402		
4—4	.306	.627	.381	.341			.480			.613			.555			.422		
5—5	.319	.640	.394	.360			.493			.626			.568			.433		
6—6	.323	.644	.398	.364			.497			.630			.572			.439		
7—7	.325	.646	.400	.366			.499			.632			.574			.441		
8—8	.328	.649	.403	.369			.502			.635			.577			.444		
9—9	.340	.661	.415	.381			.514			.647			.589			.456		
10—10	.364	.685	.439	.406			.538			.671			.613			.480		
11—11	.399	.720	.474	.440			.573			.706			.648			.515		
12—12	.446	.767	.521	.487			.620			.753			.695			.562		
13—13	.502	.823	.577	.543			.676			.809			.751			.618		
14—14	.560	.881	.635	.601			.734			.867			.809			.676		
15—15	.613	.934	.688	.654			.787			.920			.862			.729		
16—16	.661	.982	.736	.702			.835			.968			.910			.777		
17—17	.700	804.021	.775	.741			.874			804.007			.949			.816		
18—18	.730	.051	.805	.771			.904			.037			.979			.846		
19—19	.753	.074	.828	.794			.927			.060			804.002			.869		
20—20	.772	.093	.897	.814			.946			.079			.021			.888		

ELEVATIONS

I-64 OVER ELKHORN CREEK — SHEET 13

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
WOODFORD
LOUISVILLE-LEXINGTON-CATLETTSBURG
ROAD
STATION 3120+47.75 I-64 **PROJECT NO.**
BRIDGE NUMBER — **DRAWING NO.** 16468 — **INDEX**

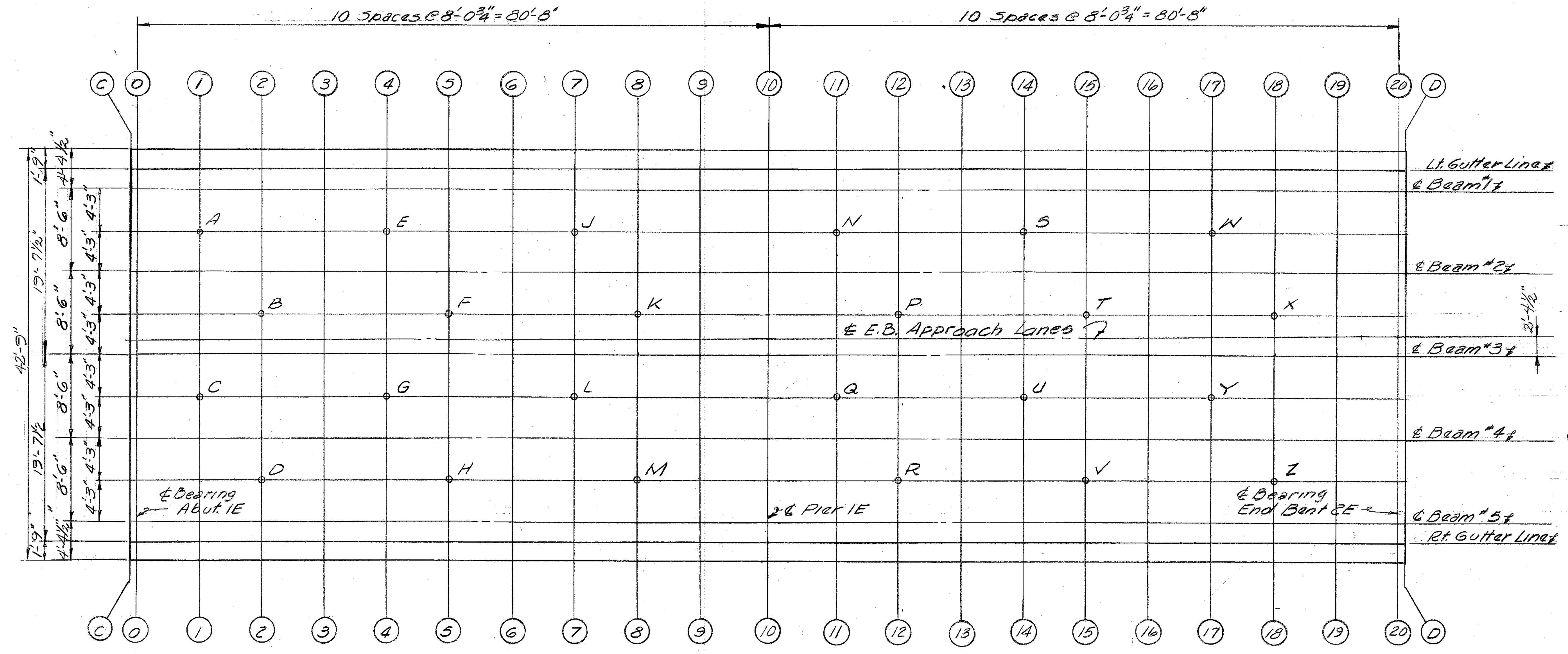
DESIGNED BY JRO — CHECKED BY PCW — DATE 5-'65
DETAILED BY BK — CHECKED BY PCW — DATE 5-'65
TRACED BY — CHECKED BY — DATE
REVISED Revised Curbs to Bush Block SH&EA DATE
REVISED Revised Lane Widths Wm. H. Phillips DATE 7-68
REVISED Add 804 on Line 17, Bm. 3, P.C.W. DATE 2-23-71

FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

TABLE OF ELEVATIONS FOR CONTROL OF SLAB THICKNESS

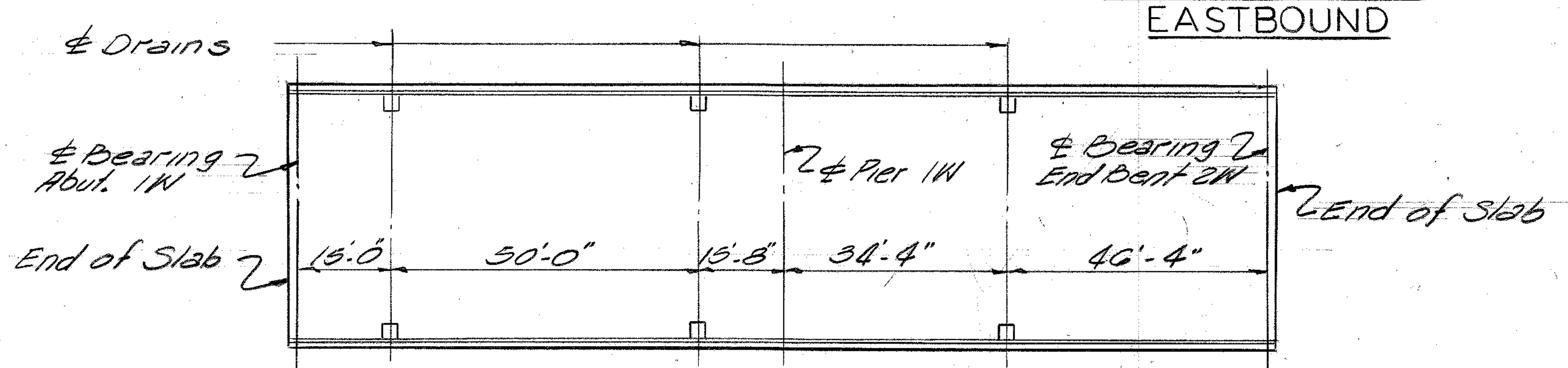
Check Points	Top of Slab Elev.	Bott. of Slab Elev.	Computed Slab Thick.
A	803.404		
B	.573		
C	.461		
D	.465		
E	.489		
F	.634		
G	.546		
H	.427		
J	.508		
K	.643		
L	.565		
M	.436		
N	.582		
P	.761		
Q	.639		
R	.554		
S	.743		
T	.928		
U	.800		
V	.721		
W	.883		
X	.045		
Y	.940		
Z	.838		

For note on control of slab thickness see sheet 13



PLAN OF SLAB EASTBOUND

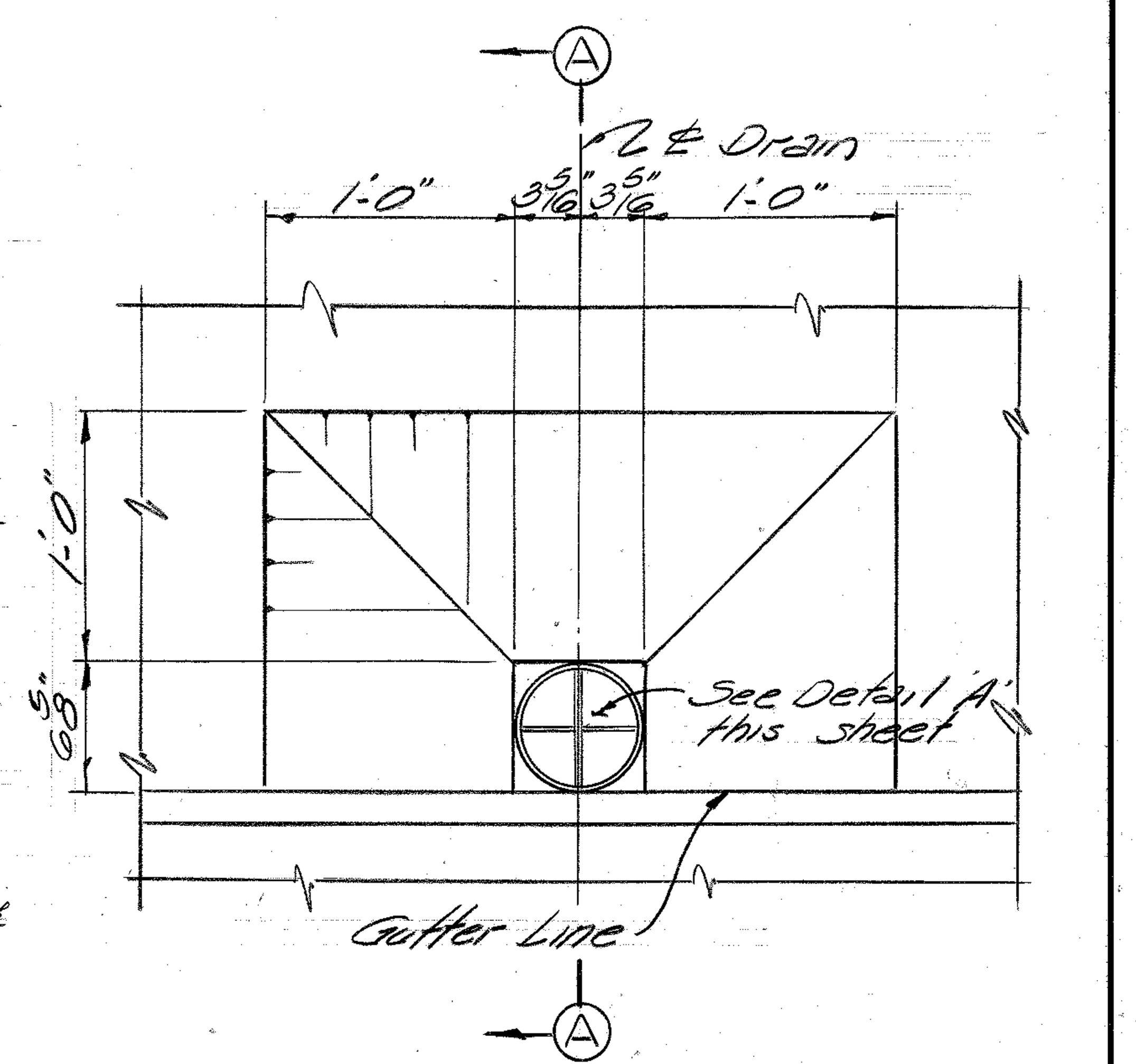
For typical Section see Sheet 13.



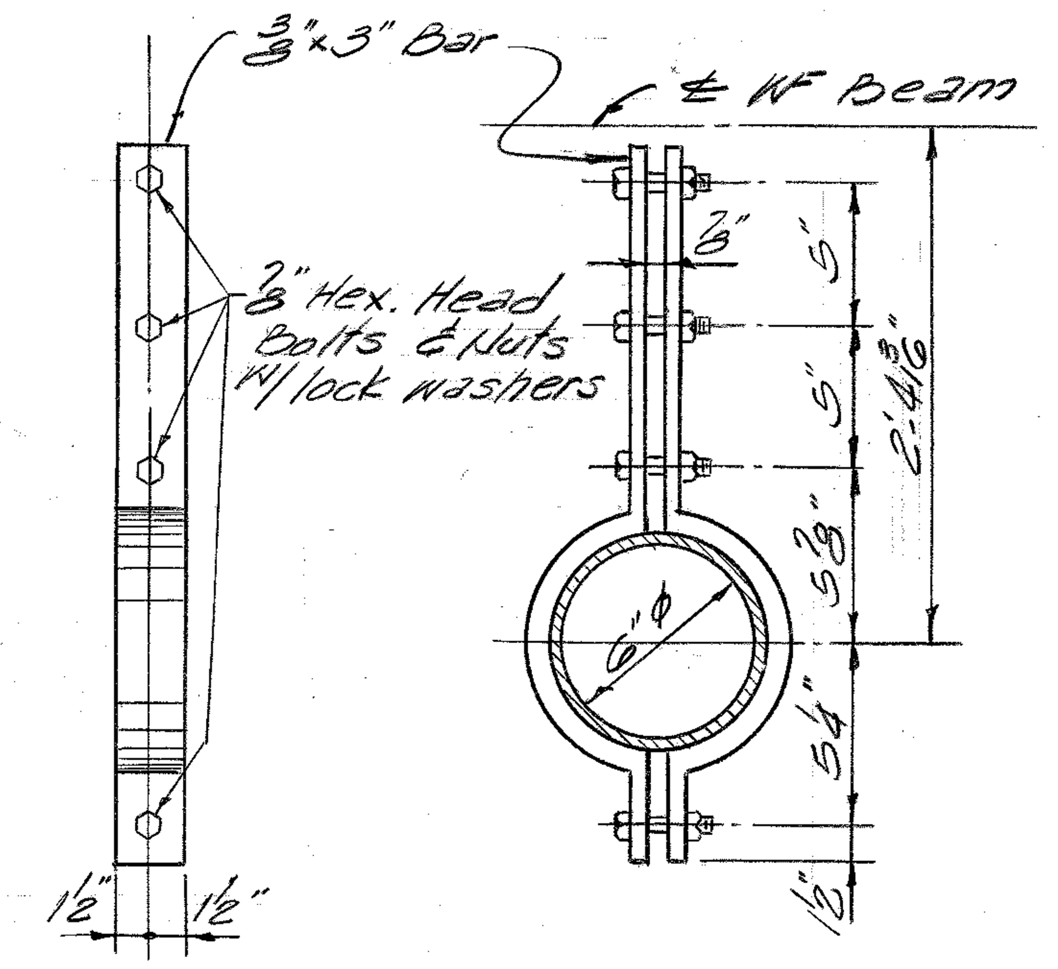
DRAIN LOCATION - W.B.L. ONLY

CONSTRUCTION NOTES

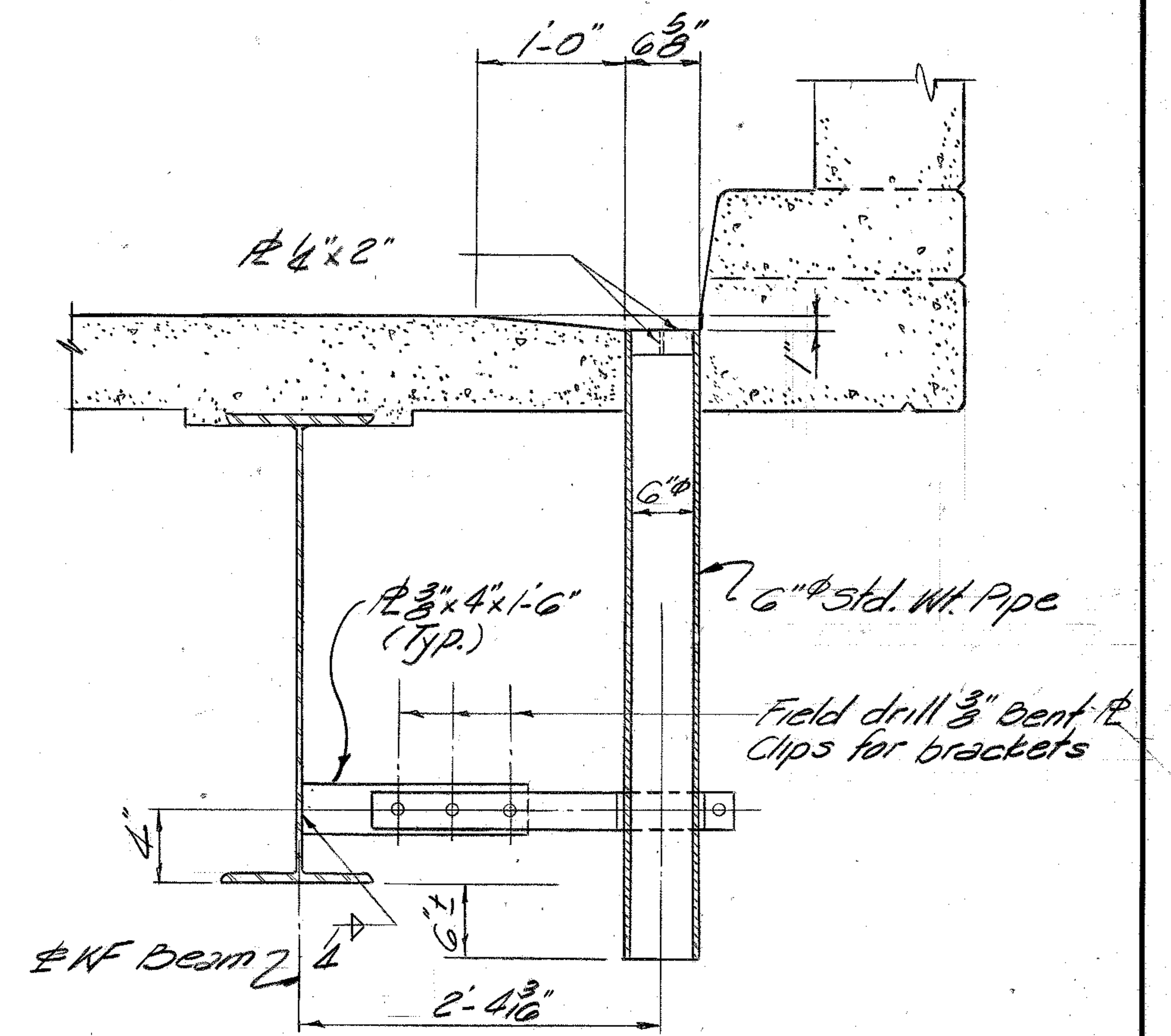
For Construction Notes see Sheet 13



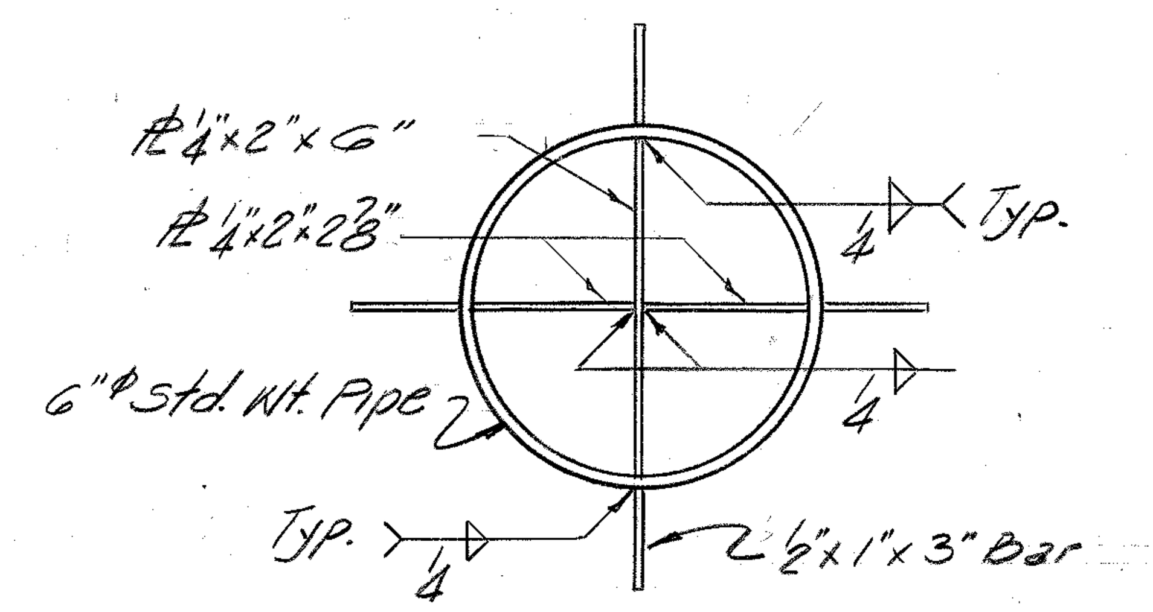
P L A N



DRAIN PIPE BRACKETS



SECTION A-A



DETAIL 'A'

DRAIN DETAILS

(6 Drains required, Westbound only)
Approx. Weight per drain = 105 Lbs.

TABLE OF ELEVATIONS - EASTBOUND

Section	Lt. G.L.	¢ Appr. Lanes	Rt. G.L.	Beam #1			Beam #2			Beam #3			Beam #4			Beam #5		
	Constr. El.	Constr. El.	Constr. El.	Const. El.	Top of Steel	Dim "X"	Constr. El.	Top of Steel	Dim X	Constr. El.	Top of Steel	Dim X	Constr. El.	Top of Steel	Dim X	Constr. El.	Top of Steel	Dim X
C	803.256	803.502	803.181															
D	803.850	804.097	803.776															
0—0	803.256	803.502	803.181	803.297			803.430			803.488			803.355			803.222		
1—1	.256	.542	.221	.337			.470			.528			.395			.262		
2—2	.332	.578	.257	.373			.506			.564			.431			.298		
3—3	.361	.607	.286	.402			.535			.593			.460			.327		
4—4	.381	.627	.306	.422			.555			.613			.480			.347		
5—5	.394	.640	.319	.435			.568			.626			.493			.360		
6—6	.398	.644	.323	.439			.572			.630			.497			.364		
7—7	.400	.646	.325	.441			.574			.632			.499			.366		
8—8	.403	.649	.328	.444			.577			.635			.502			.369		
9—9	.415	.661	.340	.456			.589			.647			.514			.381		
10—10	.439	.685	.364	.480			.613			.671			.538			.406		
11—11	.474	.720	.399	.515			.648			.706			.573			.440		
12—12	.521	.767	.446	.562			.695			.753			.620			.487		
13—13	.577	.823	.502	.618			.751			.809			.676			.543		
14—14	.635	.881	.560	.676			.809			.867			.734			.601		
15—15	.688	.934	.613	.729			.862			.920			.787			.654		
16—16	.736	.982	.661	.777			.910			.968			.835			.702		
17—17	.775	804.021	.700	.816			.949			804.007			.874			.741		
18—18	.805	.051	.730	.846			.979			.039			.904			.771		
19—19	.828	.074	.753	.869			804.002			.060			.927			.794		
20—20	.847	.093	.772	.888			.021			.079			.946			.814		

DESIGNED BY JRO	CHECKED BY PCW	DATE 5-65
DETAILED BY P.D.S.	CHECKED BY JRO	DATE 5-65
TRACED BY	CHECKED BY	DATE

REVISED Revised Curbs to Bush Black SH.&EA	DATE
REVISED Revised Lane Widths, Wm H. Phillips	DATE 7-68
REVISED Added Drains	DATE 11/30/71

ELEVATIONS

I-64 OVER ELKHORN CREEK SHEET 14

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