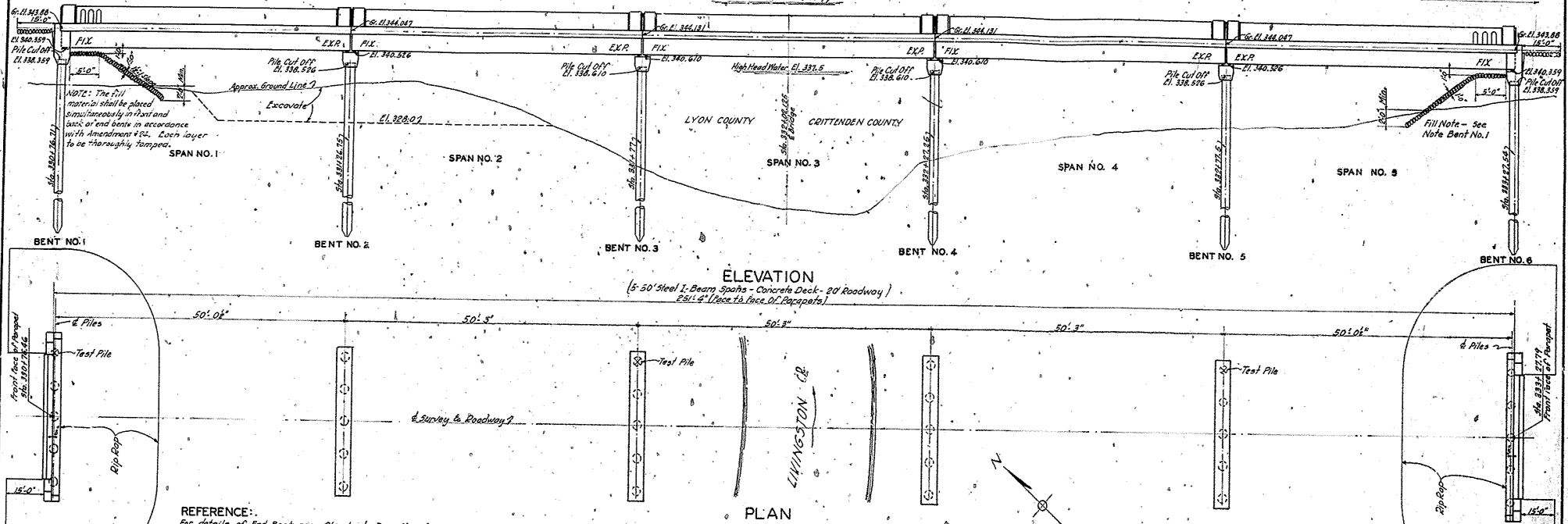


TO KUTTAWA SPRINGS

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

TO DYCUSBURG

Back Water - El. 348.8 (1894)



**ELEVATION**  
 (5'-50" Steel I-Beam Spans - Concrete Deck - 20' Roadway)  
 Pile 4" Loose to Face of Pilecaps

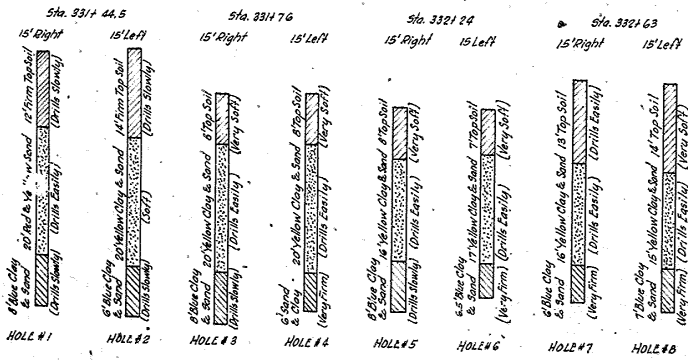
**PLAN**

- REFERENCE:**  
 For details of End Bent see Standard Dwg. No. A-150
- Intermediate Piles ..... P-1
  - 18" Concrete Piles ..... P-1
  - 50'-I-Beam Span ..... B-119
  - 50' Concrete Handrail ..... H-26
  - Coppe-Strap & Exp. Tr. Slot ..... G-251

- GENERAL NOTE:**  
**SPECIFICATIONS:** State Highway Department, Kentucky 1932 with amendments.  
**DESIGN LOAD:** Bridge designed for H-15 loading as specified in A.A.S.H.O. Specifications 1935  
**CONCRETE:** Class "A" concrete to be used thruout except in handrail and piles. Class "D" concrete to be used in handrail and piles.  
**REINFORCEMENT:** Dimension from face of concrete to steel in clear distance. Precast mortar or concrete blocks supporting reinforcement shall be spaced not farther apart than 50 diameters of the supported bar.  
**WEARING SURFACE:** Monolithic concrete wearing surface to be used and placed in accordance with specifications.  
**BEVELED EDGES:** All exposed edges shall be beveled 3" unless otherwise noted.  
**EXPANSION JOINT MATERIAL - COPPER STRIP:** Cost of these items to be included in the unit price bid for class "A" concrete.  
**PILE CAPS:** All pile caps to be gray iron castings A.S.T.M. Specifications A48-36 except that tensile and transverse tests are not required. Size 17-21, reason for field inspection of castings is to be submitted to the laboratory by the Resident Engineer.  
**CONNECTIONS:** All shop rivets to be 3/4" rivets. All field connections to be 3/4" bolts turned down as shown on details Dwg. No. B-119. All structural steel shall be given one shop coat of red lead or basic sulphate blue lead and two coats of white lead paint in accordance with the specifications.  
**PAINT:** Piles to be driven to refusal or to sustain a minimum load of 50 tons per pile. Concrete test piles to determine length of piling required shall be driven at locations shown on plans. Test piles shall be accurately located, so as to be used as bearing piles in the finished structure.  
**COPY:** A copy of certified mill test reports, mill orders, and mill shipping statements on all structural steel to be furnished the Kentucky Department of Highways.  
**DRY RIP RAP:** Bottom course of Rip Rap shall be embedded in undisturbed original soil. Cost of trench shall be included in the unit price for Rip Rap.  
**BORING DATA:** The subsurface data shown hereon was obtained by borings at the locations indicated and represents the best information available to the Department of Highways as to conditions existing at the site of the work. This data is furnished for information only and bidders must draw their own conclusions as to conditions to be encountered. The Department of Highways does not give any guarantee as to the accuracy of data furnished or as to conditions which will actually be found to exist when the work is being executed.

**TOTAL ESTIMATE OF QUANTITIES**

CONCRETE, CLASS "A"	200.4	CU. YDS.
CONCRETE, CLASS "D"	20	CU. YDS.
REINFORCEMENT	37,350	LBS.
STRUCTURAL STEEL	178,850	LBS.
30 RC. PILES, 18"	1,500	LIN. FT.
DRY RIP RAP	350	3q YDS.
CHANNEL CHANGE	(See Road Plans)	

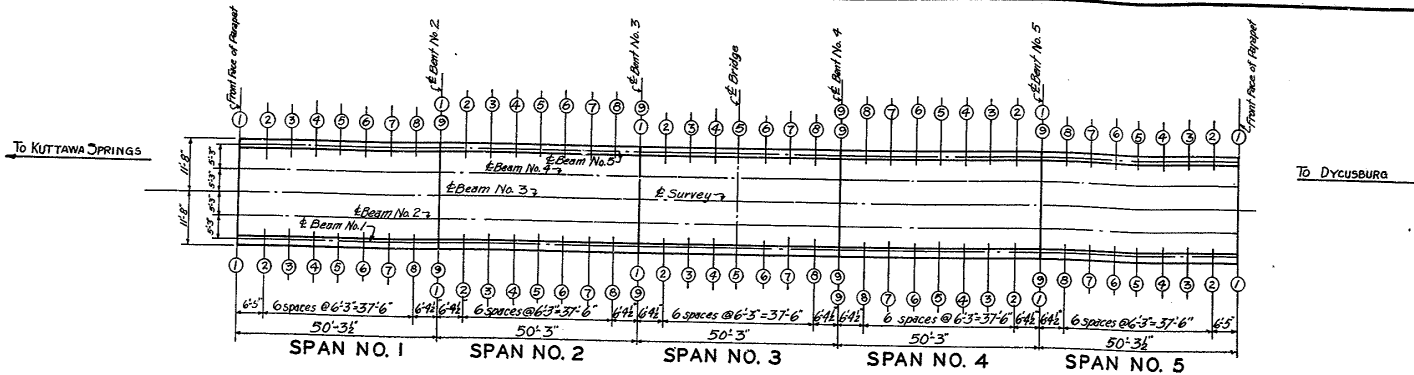


**BORING DATA**

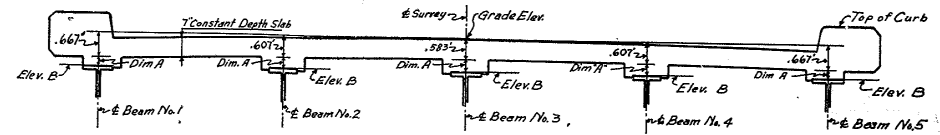
**BRIDGE OVER LIVINGSTON CREEK**

COMMONWEALTH OF KENTUCKY  
 DEPARTMENT OF HIGHWAYS  
 FRANKFORT  
 COUNTY OF  
**LYON-CRITTENDEN**  
 KUTTAWA SPRINGS-DYCUSBURG  
 ROAD  
 STATION 392+02.125 PROJECT NO.  
 DIVISION 72-131-1 DRAWING NO. 7035

DESIGNED BY: D.T.O.  
 CHECKED BY: E.T.O.  
 DRAWN BY: E.T.O.  
 DATE: 1-15-35  
 SHEET NO. 1 OF 2



**PLAN**



**TYPICAL CROSS SECTION**

**CONSTRUCTION NOTE**

Layout Sections 1-1 to 9-9 as shown.  
 Read Elevations on Tips of Beams as erected after bracing is in place and with falsework removed but before any Load is applied (Elev. B). Fill in Table below with Elevations B.  
 Compute dimensions A as indicated.  
 Always measure from Top of Beam to Top of Slab for setting Templates (Dim. A + 7")

TABLE OF ELEVATIONS B AND DIMENSIONS A		SPAN NO. 1		SPAN NO. 2		SPAN NO. 3		SPAN NO. 4		SPAN NO. 5	
SECTION	Elevations	Beam No. 1	Beam No. 2	Beam No. 3	Beam No. 4	Beam No. 5	Beam No. 6	Beam No. 7	Beam No. 8	Beam No. 9	Beam No. 10
1-1	343.89										
2-2	343.92										
3-3	343.94										
4-4	343.92										
5-5	344.01										
6-6	344.05										
7-7	344.04										
8-8	344.05										
9-9	344.04										
1-1	344.04										
2-2	344.02										
3-3	344.02										
4-4	344.08										
5-5	344.12										
6-6	344.09										
7-7	344.15										
8-8	344.14										
9-9	344.13										
1-1	344.07										
2-2	344.08										
3-3	344.10										
4-4	344.10										
5-5	344.18										
6-6	344.18										
7-7	344.17										
8-8	344.15										
9-9	344.13										
1-1	343.88										
2-2	343.92										
3-3	343.94										
4-4	343.92										
5-5	344.01										
6-6	344.03										
7-7	344.04										
8-8	344.05										
9-9	344.04										

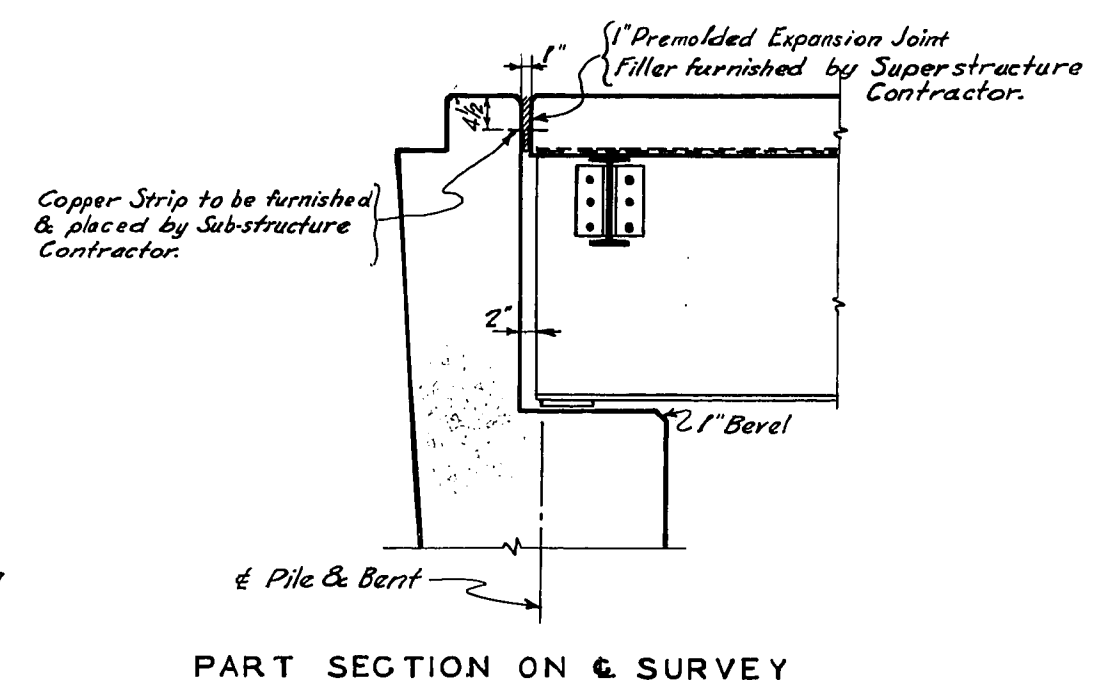
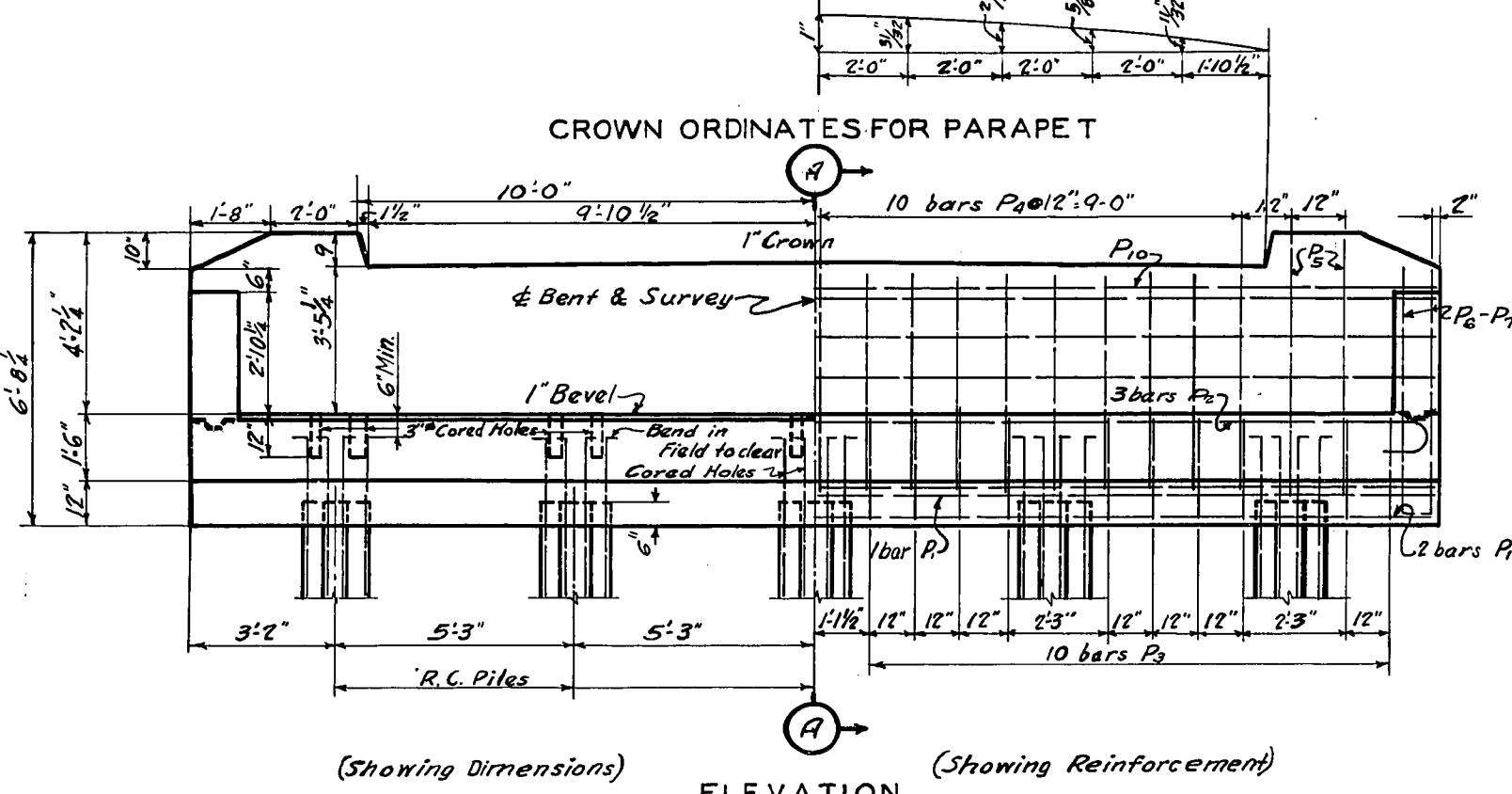
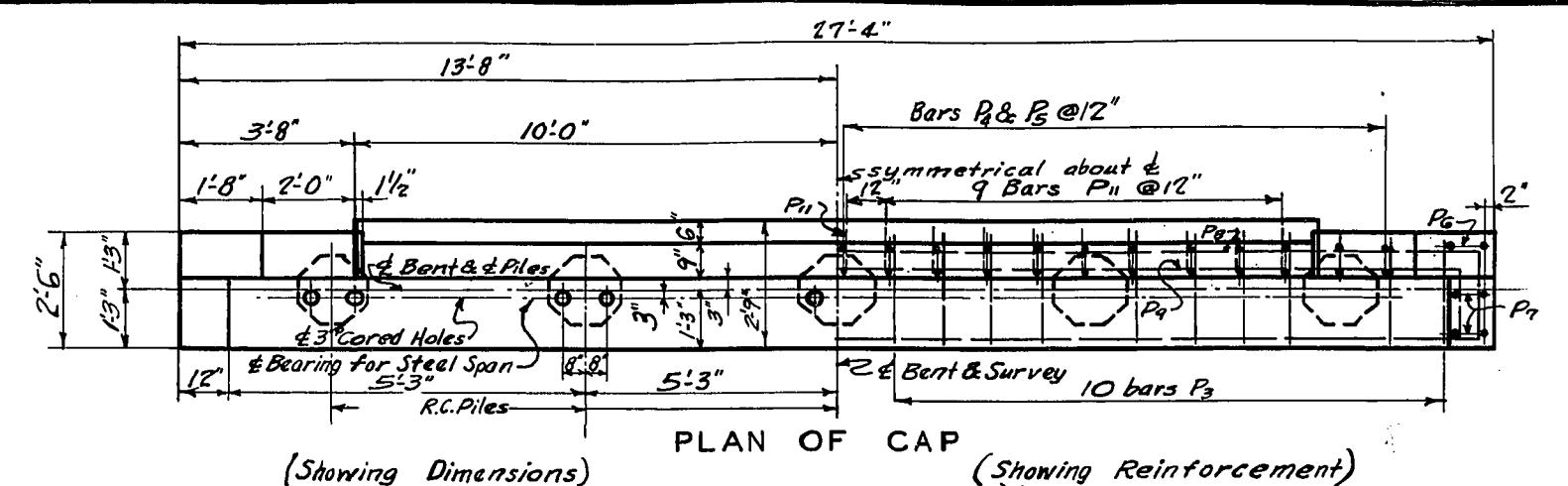
**TABLE OF ELEVATIONS**

Grade elevations shown include a camber equal to the deflection of the beams under the weight of the slab only.

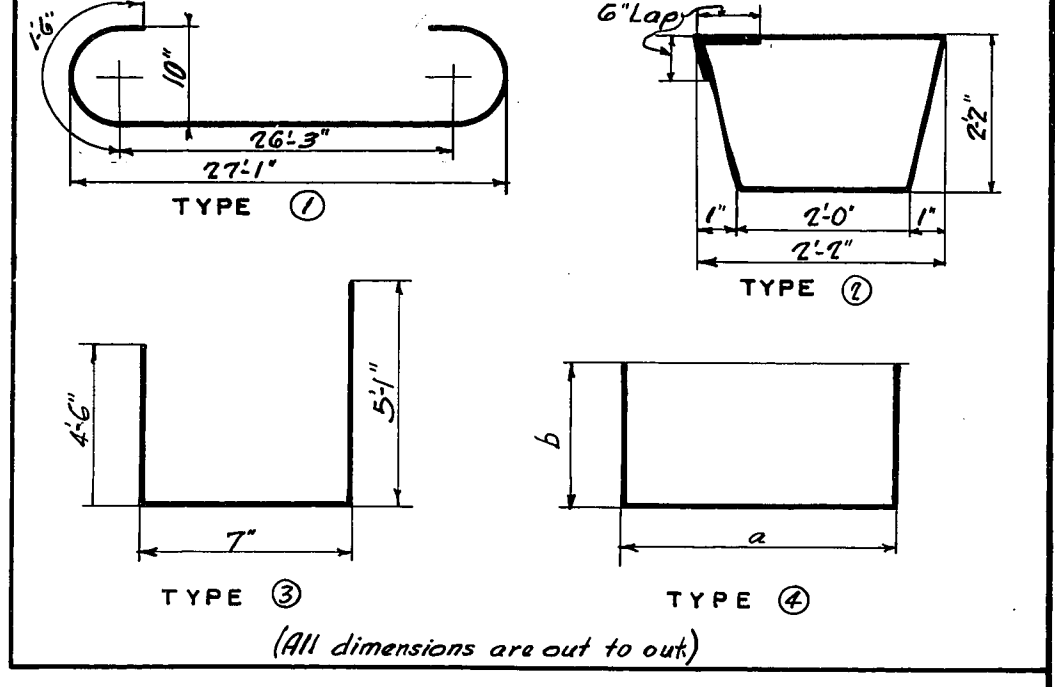
DRAWN BY E.C.C. DATE 5-26-26  
 CHECKED BY E.C.C. DATE 5-26-26  
 DESIGNED BY E.C.C. DATE 5-26-26

Bridge over Livingston Creek Sheet 2 of 2

**COMMONWEALTH OF KENTUCKY**  
 DEPARTMENT OF HIGHWAYS  
 FRANKFORT  
 COUNTY OF  
**LYON-CRITTENDEN**  
 KUTTAWA SPRINGS-DYCUSBURG ROAD  
 STATION 332+02.125 PROJECT NO.  
 7035



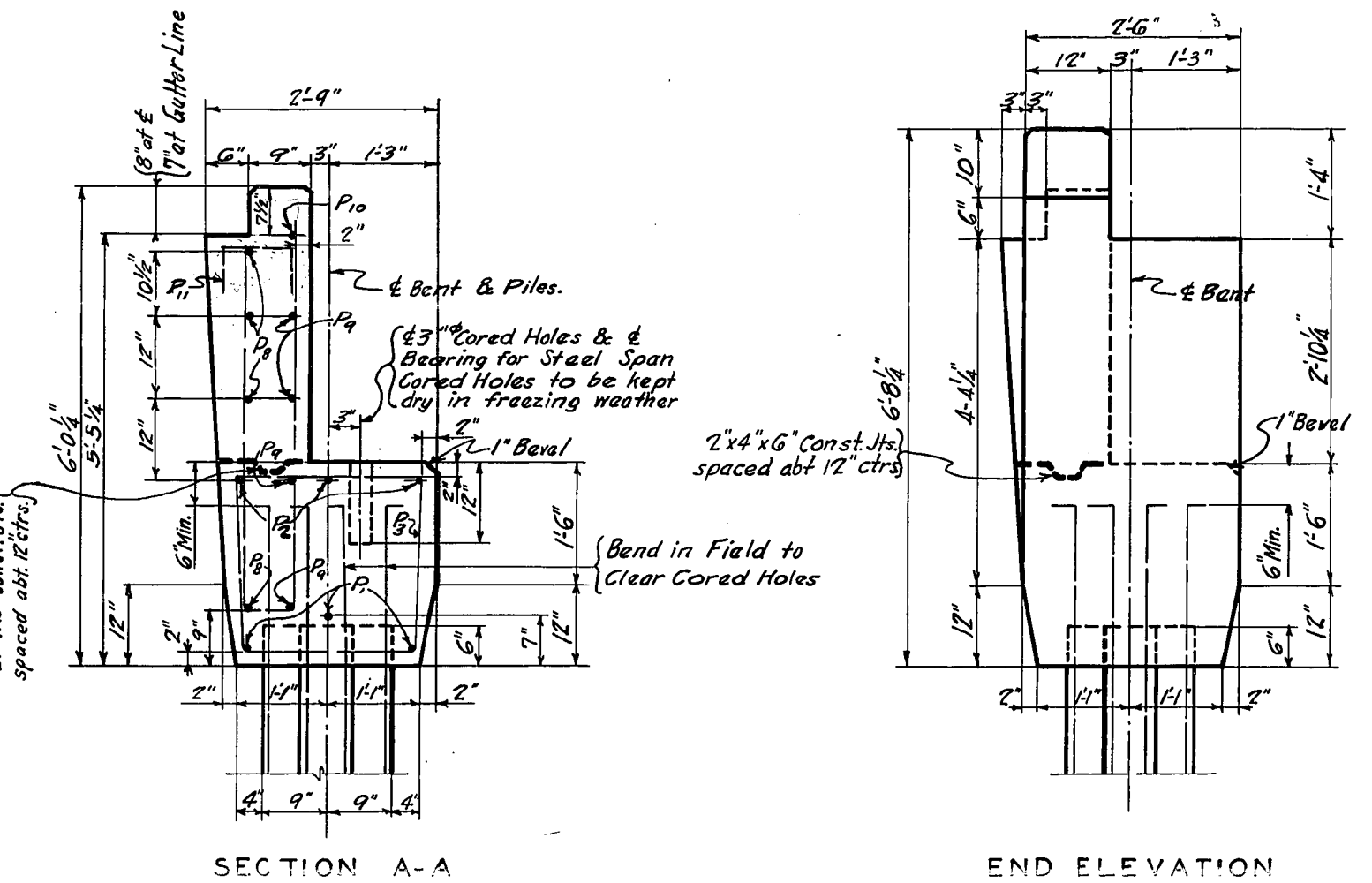
MARK	TYPE	No.	SIZE	LENGTH		LOCATION	a		b	
				Ft.	In.		Ft.	In.	Ft.	In.
P1	Str.	3	1" x 8"	27	1	Cap				
P2	①	3	"	29	3	"				
P3	②	20	1/2" dia	9	2	"				
P4	③	19	"	10	0	Parapet Wall				
P5	④	4	"	11	11	"	0	7	5	9
P6	"	2	"	11	6	End Wall	0	8	5	6
P7	"	4	"	10	8	"	0	8	5	1
P8	"	4	"	30	7	Parapet Wall into End Wall	26	11	1	11
P9	"	4	"	28	10	"	25	10	1	7
P10	Str.	1	"	27	1	Parapet Wall				
P11	④	19	"	10		"	1	0	0	6



**GENERAL NOTE**  
 Specifications - State Highway Department, Kentucky (1932 Standard with amendments).  
 Concrete - Class "A" throughout.  
 Reinforcement - Dimension shown from face of concrete to steel is the clear distance. Precast mortar or concrete blocks supporting reinforcement shall be spaced not further apart than 50 diameters of the supported bar.  
 Beveled Edges - All exposed edges shall be beveled 1/8" unless otherwise noted.

**ESTIMATE OF QUANTITIES**  
 FOR ONE CAP  
 Concrete Class "A" 12.3 Cu. Yds.  
 Reinforcement 1120 Lbs.

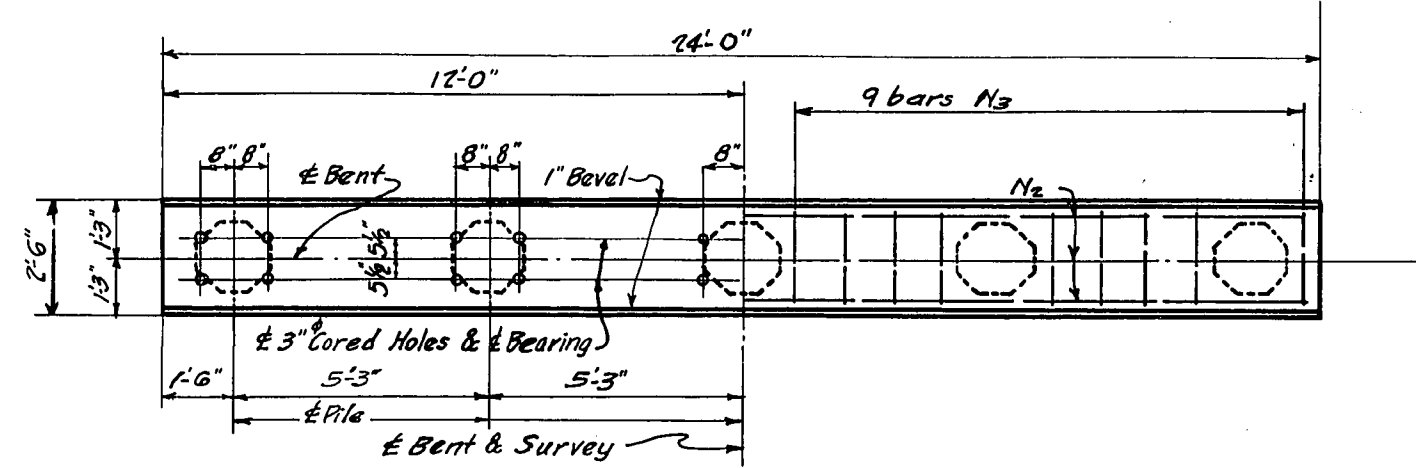
DESIGNED BY: J.L.L.  
 CHECKED BY: E.R.S.  
 DATE: 4/23/38



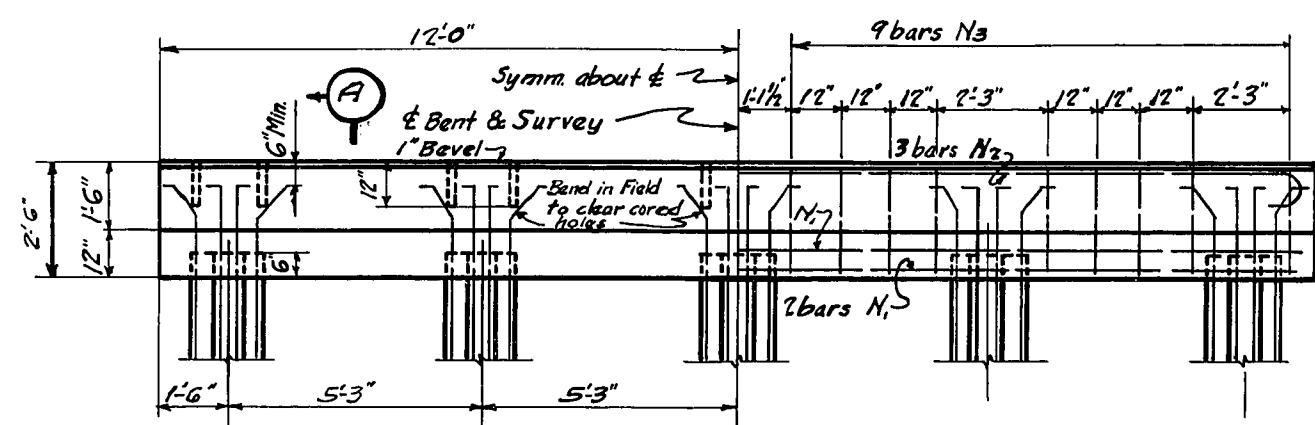
**COMMONWEALTH OF KENTUCKY**  
 DEPARTMENT OF HIGHWAYS  
**STANDARD REINFORCED CONCRETE**  
 END BENT CAP  
 24 FT SHOULDERS 1/2 TO 1 FILL SLOPES  
 FOR 50 FT. I-BEAM SPAN  
 20'-0" ROADWAY STRAIGHT

DRAWING INDEX  
 No. A-150.

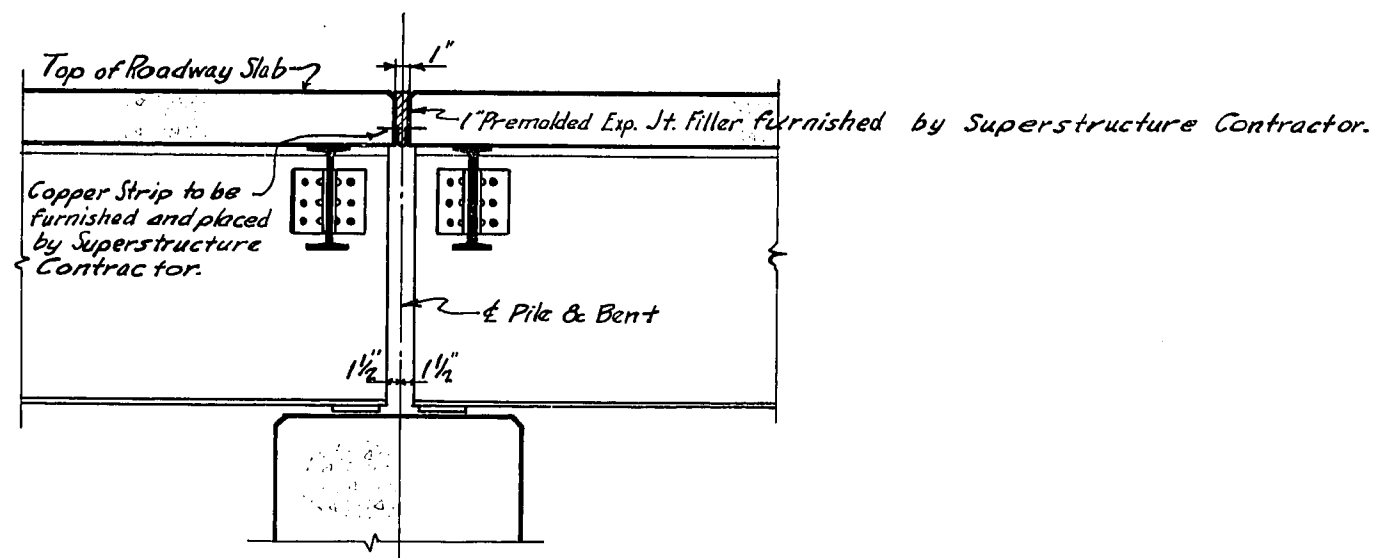
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



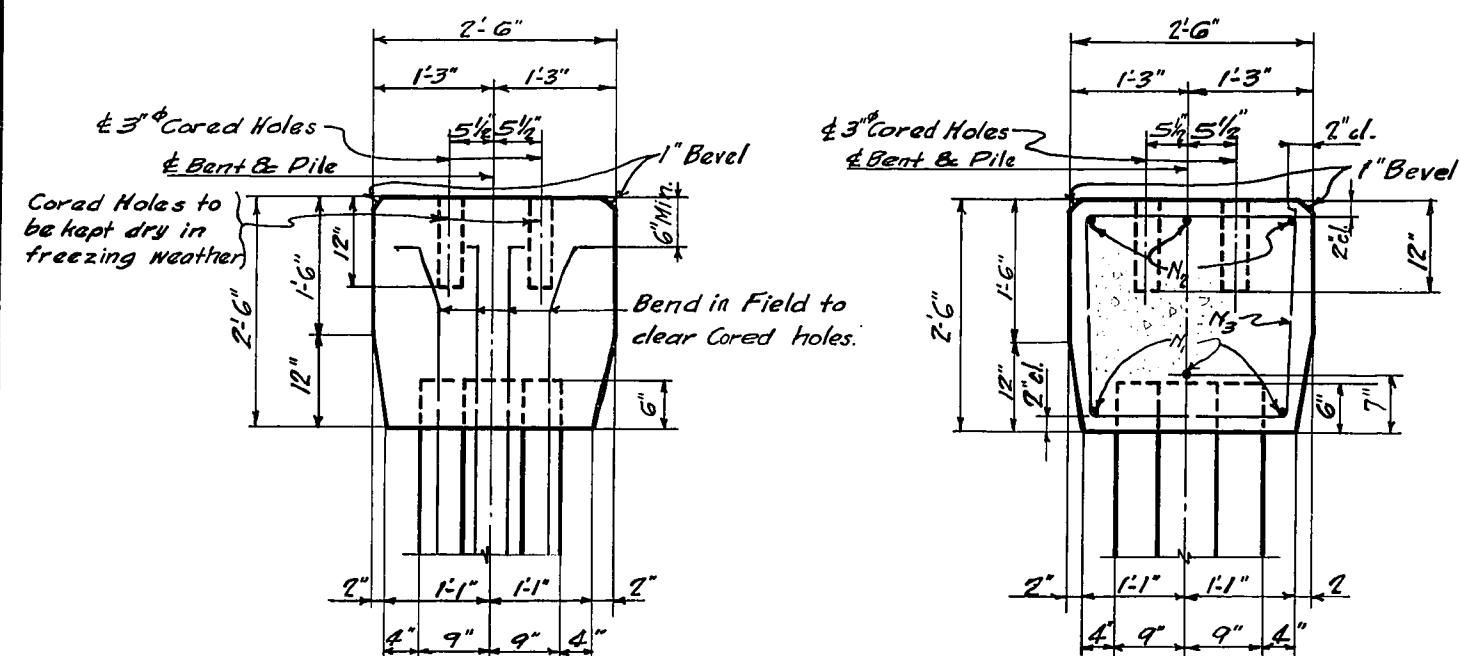
PLAN OF CAP (Showing Reinforcement)



ELEVATION (Showing Reinforcement)



PART SECTION ON & SURVEY



END ELEVATION

SECTION A-A

**GENERAL NOTE**

Specifications - State Highway Department, Kentucky (1932 Standard with amendments)

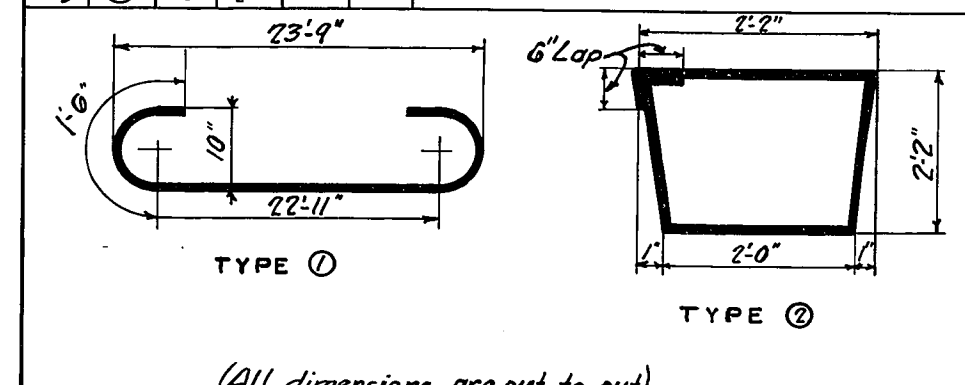
Concrete - Class "A" throughout.

Reinforcement - Dimension shown from face of concrete to steel is the clear distance. Precast mortar or concrete blocks supporting reinforcement shall be spaced not further apart than 50 diameters of the supported bar.

Beveled Edges - All exposed edges shall be beveled  $\frac{1}{8}$ " unless otherwise noted.

**BILL & TYPES OF REINFORCEMENT (FOR ONE CAP)**

MARK	TYPE	No.	SIZE	LENGTH	LOCATION	
				FT		
$N_1$	Str	3	1"	23	9	Cap
$N_2$	①	3	"	25	11	"
$N_3$	②	18	1/4"	9	2	"



(All dimensions are out to out)

**ESTIMATE OF QUANTITIES (FOR ONE CAP)**

Concrete Class "A" 52 Cu. Yds.

Reinforcement 540 Lbs.

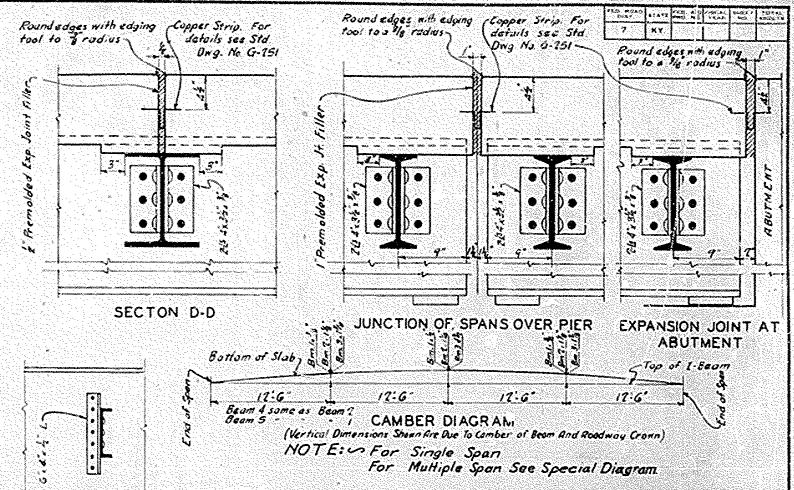
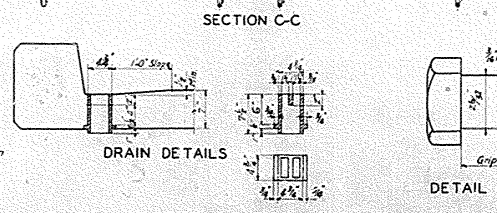
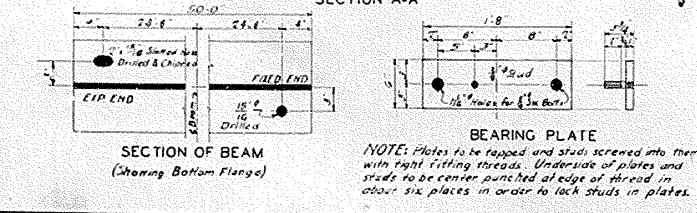
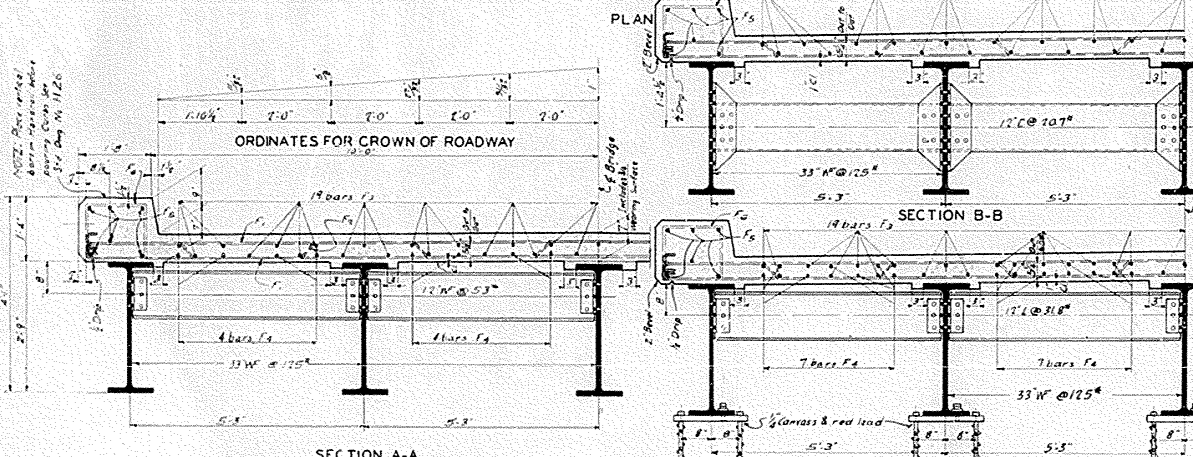
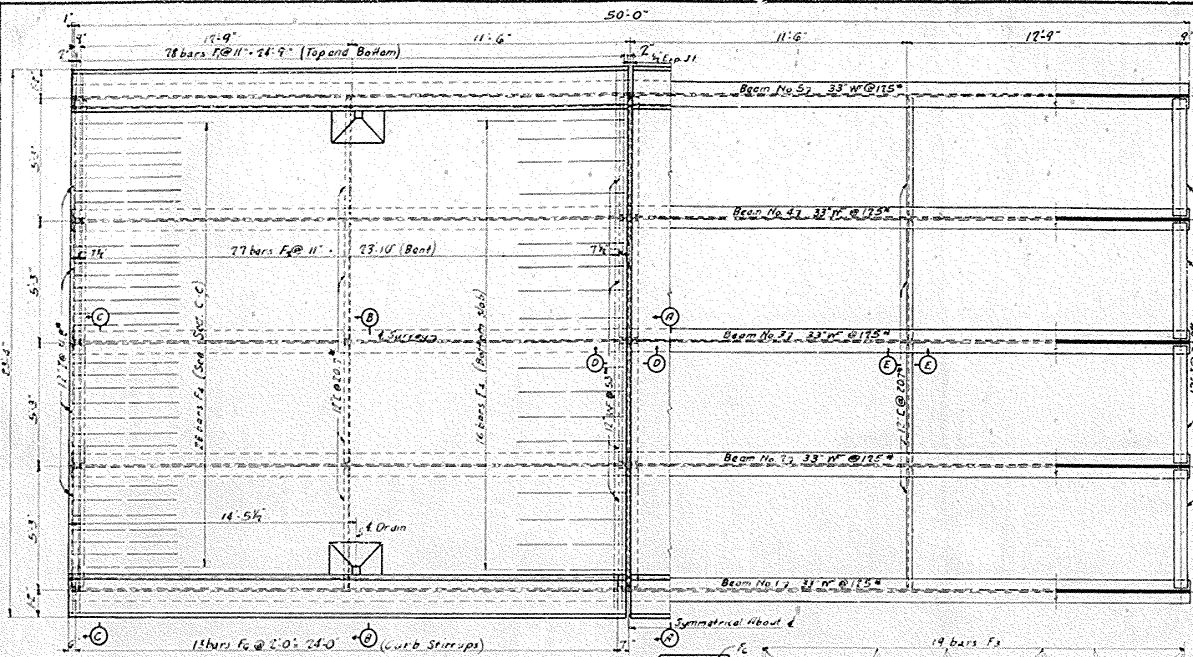
**COMMONWEALTH OF KENTUCKY**  
**DEPARTMENT OF HIGHWAYS**  
**STANDARD REINFORCED CONCRETE**  
**INTERMEDIATE BENT CAP**  
**FOR 50' I-BEAM SPANS**  
**20'-0" ROADWAY STRAIGHT**

DRAWING No. A-151 INDEX

DESIGNED BY: J.L.L. DATE: 1/10

CHECKED BY: E.R.S. DATE: 1/10

REVISIONS: 1. DATE: 1/10



**GENERAL NOTE**

SPECIFICATIONS - State Highway Department, Kentucky 1937 Standard with amendments.

DESIGN LOAD - Bridge designed for H-15 loading as specified in H-15, H-20 Specifications, 1935.

CONCRETE - Class "A" concrete to be used in slab and curb.

REINFORCEMENT - Dimension shown from face of concrete to steel is the clear distance. Precast mortar or concrete blocks supporting reinforcement shall be spaced not further apart than 50 diameters of the supported bar.

WEARING SURFACE - 1/4" monolithic concrete wearing surface to be used and placed in accordance with specifications.

BEVELED EDGES - All exposed edges shall be beveled 1/4" unless otherwise noted.

EXPANSION JOINT MATERIAL - COPPER STRIP - The cost of these items to be included in the unit price bid for class "A" concrete.

C.I. DRAINS - This item included in weight of structural steel.

FOUNDRY NOTE - All drains to be gray iron castings ASTM specifications A48-36 except that the tensile and transverse tests are not required. Form T-521, report of field inspection of castings, is to be submitted to the laboratory.

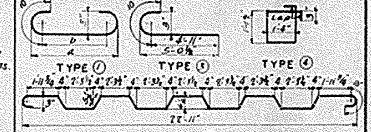
CONNECTIONS - All shop rivets are to be 3/4" rivets. All field connections are to be 1/2" rivets turned down to 3/8".

PAINT - All structural steel shall be given one shop coat of red lead or basic sulphate blue lead and two field coats of white lead paint in accordance with the specifications.

COPY - (In triplicate) of certified mill test reports, mill orders, and mill shipping statements on all structural steel (rivets, forgings, wrought iron etc.) to be furnished Kentucky Department of Highways.

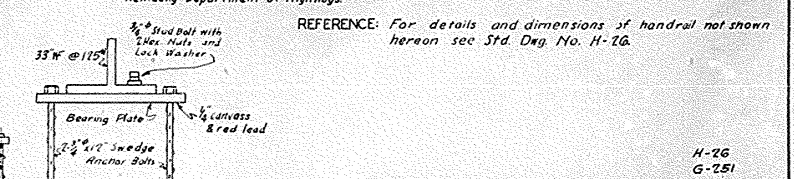
**BILL & TYPES OF REINFORCEMENT (ONE SPAN ONLY)**

Member	Type	No.	Size	Length	Location	FT	LBS
F1	Q	17	1/2"	24	Slab	27	21.8
F2	Q	54	1/2"	24	8	-	-
F3	Q	74	1/2"	26	2	74	28.6
F4	Q	28	1/2"	5	9	-	-
Fa Str	Q	24	1/2"	28	10	Curb	-
Fo	Q	52	1/2"	5	1	-	-



**ESTIMATE OF QUANTITIES (ONE SPAN ONLY)**

ITEM	Cu Yds	Lbs
Structural Steel		35,700
C.I. Drains		70
<b>TOTAL</b>		<b>35,770</b>
Concrete Class "A" Reinforcement	31.8	5800



REFERENCE: For details and dimensions of handrail not shown hereon see Std. Drg. No. H-16.

H-26  
G-251

**COMMONWEALTH OF KENTUCKY**  
DEPARTMENT OF HIGHWAYS

STANDARD 50 FT. I-BEAM SPAN  
CONCRETE DECK -  
CONCRETE HANDRAIL  
0° SKEW 20 FT. ROADWAY

DRAWING NO. B-119

**BRIDGE**

### SPECIFICATIONS FOR PREMOLDED FILLER

#### PREMOLDED RUBBER FILLER

Rubber expansion joint material shall consist of premolded strips cut to the required section and composed essentially of a durable elastic rubber compound reinforced on each side with a layer of asphalt treated felt. The strips shall be of such character that they will not be deformed by ordinary handling during the hot summer months, or become hard and brittle in cold weather.

Rubber expansion joint material shall also conform to the following requirements:

**RECOVERY TEST:** A specimen 4"x4" in size and the full thickness of the joint as received shall be compressed to (50) fifty per cent of its original thickness and so held for eight hours. It shall then be released and sixteen hours after releasing shall be at least ninety-five per cent of its original thickness.

**COMPRESSION TEST:** A specimen 4"x4" in size and the full thickness of the joint as received shall have a thickness of more than (50) fifty per cent of its original thickness under a load of one hundred (100) pounds per square inch and shall have a thickness of less than fifty (50) per cent of its original thickness under a load of five hundred (500) pounds per square inch.

**EXTRUSION TEST:** When a specimen 4"x4" in size and the full thickness of the joint as received is compressed between plates of the same size under a load of one thousand (1000) pounds per square inch, the average of the extrusion measured at the center of each side of the specimen after the load has been maintained for fifteen minutes, shall not exceed fifty (50) per cent of the original thickness of the joint. During the test the specimen shall not show appreciable continued extrusion under constant pressure. It shall not show any breaking or deterioration after the test.

#### PREMOLDED CORK FILLER

Cork expansion joint material shall consist of premolded strips of clean granulated cork bound together with phenol formaldehyde resin. Any flexible and insoluble cementing material may be substituted for phenol formaldehyde resin. The strips shall be cut to the required section and shall be of such character as not to be injured by ordinary handling.

Cork expansion joint material shall also conform to the following requirements:

Fillers shall withstand boiling for one-half hour in concentrated hydrochloric acid without showing indications of disintegration. Discoloration or a small amount of swelling will not be considered failure.

**RECOVERY TEST:** A specimen 4"x4" in size and the full thickness of the joint as received shall be compressed to fifty (50) per cent of its original thickness at a rate of one tenth (1/10) of an inch per minute. It shall then be released and one hour after releasing shall have returned to at least ninety (90) per cent of its original thickness.

**COMPRESSION TEST:** A specimen 4"x4" in size and the full thickness of the joint as received shall compress to (50) fifty per cent of its original thickness under a load not to exceed 350 pounds per square inch.

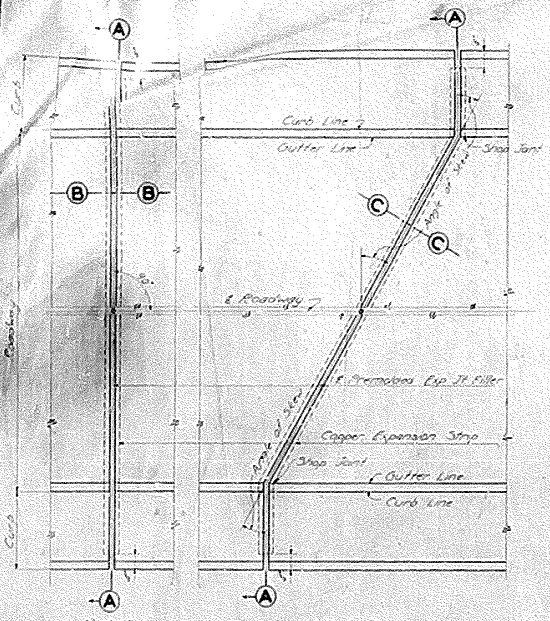
**EXTRUSION TEST:** When a specimen 4"x4" in size and the full thickness of the joint as received is confined on both ends and one side and compressed to fifty (50) per cent of its original thickness, the extrusion on the free side shall not exceed one-eighth (1/8) inch.

#### COMBINATION FILLERS

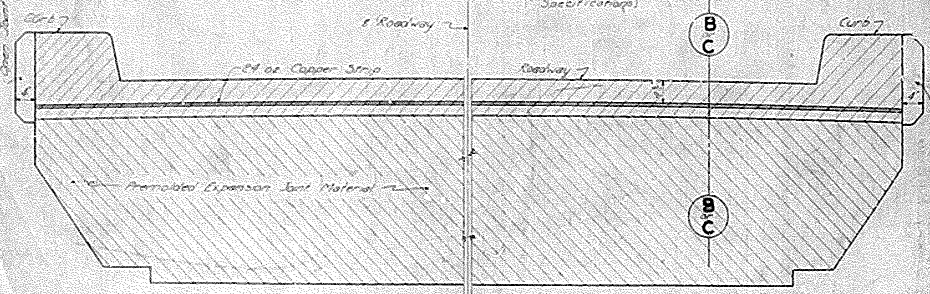
Combinations of cork and rubber or materials other than cork or rubber may be used provided the filler does not fall below the minimum requirements for Recovery, Compression and Extrusion test as shown herein. Fillers shall withstand boiling for one-half hour in concentrated hydrochloric acid without showing indications of disintegration. Discoloration or a small amount of swelling will not be considered failure.

#### PREMOLDED BITUMINOUS FILLER

For specifications and tests on Bituminous filler see State Highway Department, Kentucky, (1932 Standard Specifications).

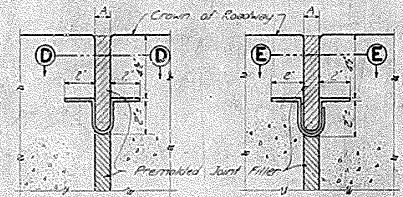


PART PLAN

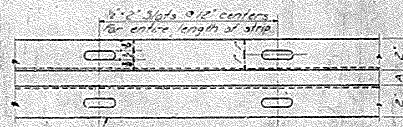


PART ELEVATION A-A

NOTE - Premolded Expansion Joint Material of the thickness shown on Plans to be used in Joint over Area shown as shaded above. Joint to be left open over unshaded Areas.



PART SECTION B-B Dimension A shown on Drawings (ON STRAIGHT SPANS)  
PART SECTION C-C Dimension A shown on Drawings (ON ALL SKEWED SPANS)



PART PLAN D-D

### GENERAL NOTE

This drawing is to be used in conjunction with Concrete Deck Girder Spans Drawings in construction of Expansion Joints between spans.

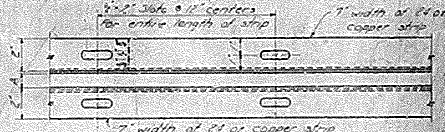
The joints between the spans shall have the copper strip and premolded joint filler so placed as to prevent contact of concrete between spans and to provide the full width of joint shown on plans. The copper strip and premolded joint filler shall be accurately placed and rigidly held in correct position.

No direct payment will be made for materials or installation of copper expansion strip and premolded expansion joint filler, the cost of which shall be included in the unit price bid for Class 1 concrete.

### SPECIFICATIONS FOR COPPER EXPANSION STRIP

The copper strips are to be 24 ounce 1/2" steel, cold-rolled sheet. A tolerance of 5 per cent variation in weight above or below that specified will be allowed. The strips are to be shop fabricated to the section and dimensions shown. Field bending and fabrication will not be permitted except as provided herein. Unless otherwise provided by plans the strips may be furnished in one or two pieces. If furnished in two pieces the field joint shall be at the center line of roadway. Shop joints shall not be spaced closer than 6 feet, unless otherwise shown on plans and shall be lock seams and soldered. The field joint at the center line of roadway may be a 2" iron width lap joint, soldered. All joints shall be water-tight.

On skewed spans the two copper strips are separate units and are not to be connected in any way that will prevent movement of the strips relative to each other. All joints are to be located to allow free movement of the individual strips.



PART PLAN E-E

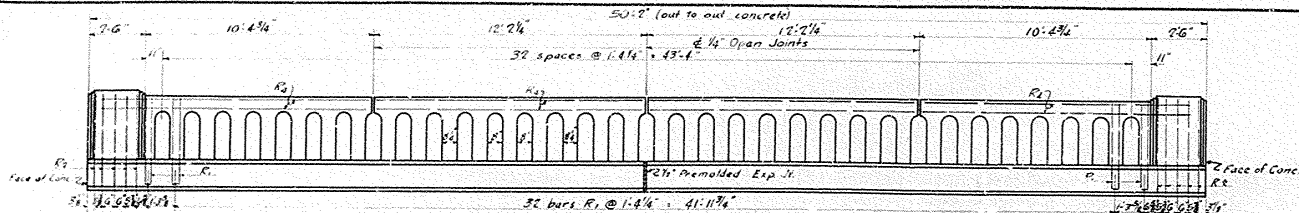
NOTE - Dimension A is inside dimension and is to be same as thickness shown on Drawings for Premolded Expansion Joint Filler.

COMMONWEALTH OF KENTUCKY  
STATE HIGHWAY DEPARTMENT  
EXPANSION JOINT DETAILS FOR  
CONCRETE DECK GIRDER SPANS

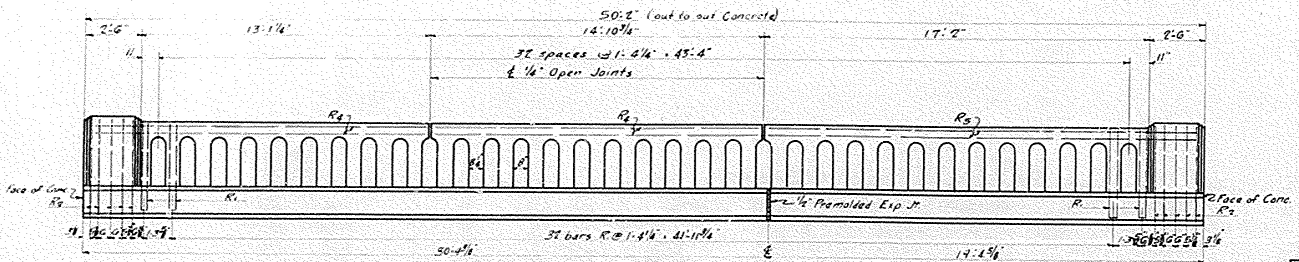
DESIGNED BY  
ISSUED 1932  
STATE HIGHWAY DEPT.  
REVISED 7-27-36

## TYPICAL EXPANSION JOINT DETAILS

BRIDGE



RAIL-OUTSIDE ELEVATION-STRAIGHT



RAIL-OUTSIDE ELEVATION-30° SKEW

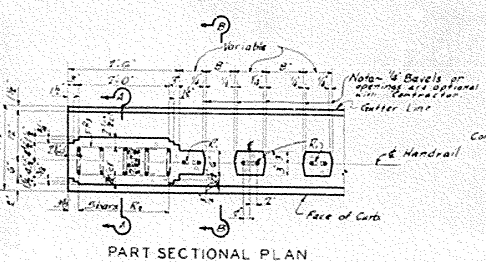
**BILL AND TYPES OF REINFORCEMENT**

MARK	TYPE	NO	SIZE	LENGTH		LOCATION	Q	
				FT	IN		FT	IN
R1	①		1/2"	7	10	Curb into Spindles	0	4 3/4
R2	-		1/2"	8	4	Post	0	6 1/4
R3	②		3/8"	5	G	-	-	-
R4	Str		1/2"			Rail	-	-
R5	Str		1/2"			See TABLE	-	-

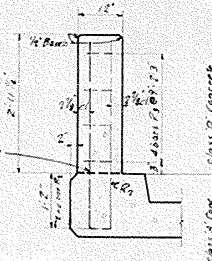
(All dimensions are out to out)

**TABLE OF REINFORCEMENT AND ESTIMATED QUANTITIES**

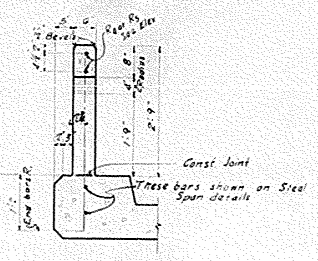
50 FT SPAN	R1	R2	R3	R4	WIDTH	R5	HEIGHT	CONCRETE CLASS 'D' CUBIC YD.	REINFORCEMENT LBs.
STRAIGHT TWO RAILS	68	20	16	16	11 1/2	-	-	4.0	790
30° SKEW TWO RAILS	68	20	16	8	14 8	4	19 2	4.0	790



PART SECTIONAL PLAN



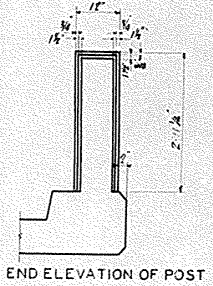
SECTION A-A



SECTION B-B

Note: Bars R1 & R2 to be in place before pouring curb.

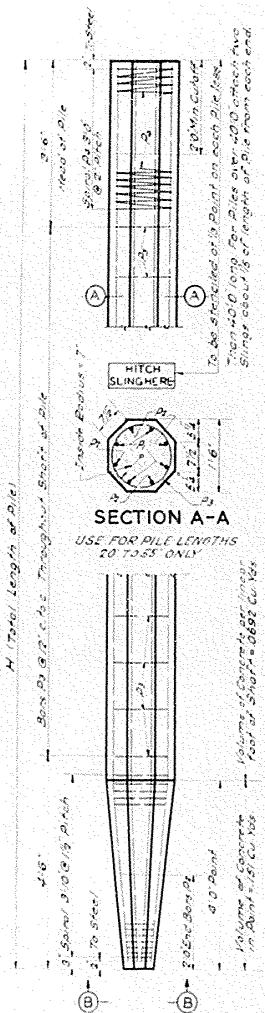
**GENERAL NOTE**  
 Specifications - Kentucky Department of Highways. (1939 Standard).  
 Concrete - Class 'D' concrete to be used in handrail.  
 Reinforcement - All bar dimensions are to  $\pm$  of bars except as noted.  
 Bevels - All corners of Handrail to be beveled  $\frac{1}{4}$ " unless otherwise noted hereon.  
 Construction Note - When bridge is on a plus or minus grade tops of all posts and rail to be parallel to the grade line. All sides of openings and posts to be vertical.



END ELEVATION OF POST

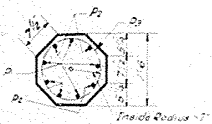
COMMONWEALTH OF KENTUCKY  
 DEPARTMENT OF HIGHWAYS  
 STANDARD CONCRETE HANDRAIL  
 FOR  
 50 FT. I-BEAM SPANS  
 0° - 30° SKEWS





**SECTION A-A**  
USE FOR PILE LENGTHS 20 TO 55' ONLY

**VIEW B-B**



**SECTION A-A**  
USE FOR PILE LENGTHS OVER 55' IN ORDER TO COMPLY WITH SPEC. ARTICLE 6.2.2.H.

TABLE OF DIMENSIONS AND QUANTITIES												
ESTIMATED QUANTITIES FOR ONE PILE			BILL AND TYPES OF REINFORCEMENT FOR ONE PILE ONLY									
H	CONCRETE CLASS	REINFORCEMENT	LENGTH $a$		LENGTH $a$		LENGTH $a$		NUMBER	1/4" EXTERIOR DIAM	3/8" BARS P2	1/4" EXTERIOR DIAM
			FT	IN	FT	IN	FT	IN				
20	126	420	19	8	15	10	17	10	15	10	19	
22	150	526	21	8	17	10	19	10	17	10	15	
24	153	573	23	8	19	10	21	10	19	10	17	
26	167	620	25	8	21	10	23	10	21	10	19	
28	181	666	27	8	23	10	25	10	23	10	21	
30	195	712	29	8	25	10	27	10	25	10	23	
32	208	759	31	8	27	10	29	10	27	10	25	
34	222	806	33	8	29	10	31	10	29	10	27	
36	236	852	35	8	31	10	33	10	31	10	29	
38	250	900	37	8	33	10	35	10	33	10	31	
40	264	946	39	8	35	10	37	10	35	10	33	
42	277	992	41	8	37	10	39	10	37	10	35	
44	291	1038	43	8	39	10	41	10	39	10	37	
46	305	1086	45	8	41	10	43	10	41	10	39	
48	319	1132	47	8	43	10	45	10	43	10	41	
50	333	1178	49	8	45	10	47	10	45	10	43	
52	347	1225	51	8	47	10	49	10	47	10	45	
54	361	1271	53	8	49	10	51	10	49	10	47	
56	375	1318	55	8	51	10	53	10	51	10	49	
58	389	1363	57	8	53	10	55	10	53	10	51	
60	403	1408	59	8	55	10	57	10	55	10	53	
62	417	1454	61	8	57	10	59	10	57	10	55	
64	431	1499	63	8	59	10	61	10	59	10	57	
66	445	1545	65	8	61	10	63	10	61	10	59	
68	459	1590	67	8	63	10	65	10	63	10	61	

**GENERAL NOTE**

**SPECIFICATIONS:** Kentucky Department of Highways.  
**CONCRETE:** Class D concrete shall be used in Piles.  
**REINFORCEMENT:** The cost of reinforcement shall be included in the price bid per linear foot of Piles. Concrete Piles must not be damaged below cutoff elevation. Concrete and Spiral above cutoff elevation to be removed. Bars P1 and P2 to remain and project into structure above. These Bars shall be bent in field if necessary to maintain clearance shown on Bridge details.

**PILING:** All Piles shall have a minimum penetration of 20' unless solid rock is encountered. Piles shall be driven to refusal or to support a minimum load of 50 Tons per pile.

**TEST PILES:** Test Piles shall be driven where designated on Bridge Plans to determine the length of Piles required. All Test Piles shall be located so they will act as a part of the piling system.

**PILE CUTOFF:** No payment will be made for pile cutoff except as provided for in Specifications. Deformation of reinforcing bars shall conform to A.S.T.M. A-305 Current Specifications.

COMMONWEALTH OF KENTUCKY  
 DEPARTMENT OF HIGHWAYS  
**STANDARD**  
**18" REINFORCED**  
**CONCRETE PILE**

**BRIDGE**