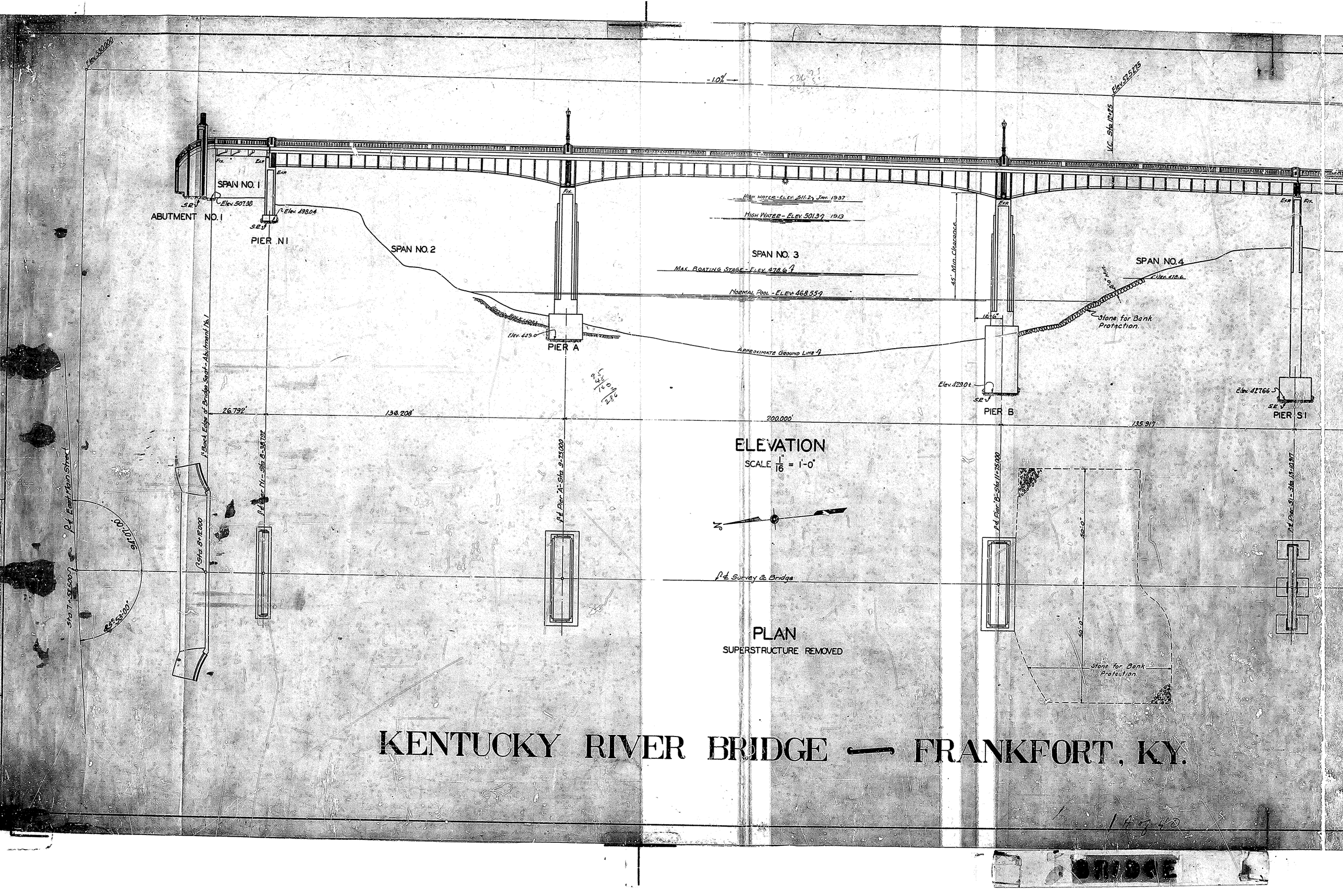


ELEVATION
SCALE $\frac{1}{16}$" = 1'-0"

PLAN
SUPERSTRUCTURE REMOVED

KENTUCKY RIVER BRIDGE — FRANKFORT, KY.

BRIDGE

FEDERAL AID DIST.	STATE	FED. AID PROJ. NO.	FEDERAL FUNDS	STATE FUNDS	TOTAL SHEETS
7	KY.	226			

1544

DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE

FRANKFORT, KY.

LIST OF DRAWINGS

A - LIST OF DRAWINGS
B - GENERAL NOTES & QUANTITIES

1 GENERAL ELEVATION
2 LAYOUT OF RETAINING WALL APPROACHES
3 BORING DATA
4 ANCHOR BOLT PLAN
5 ABUTMENT NO.1
6 RETAINING WALL SECTION - A
7 RETAINING WALL SECTION - A
8 RETAINING WALL SECTION - B
9 RETAINING WALL SECTION - B
10 PIER N1
11 PIERS A & B - BASES
12 PIERS A & B - SHAFTS
13 PIER S1
14 PIERS S_2 & S_3
15 ABUTMENT NO.2
16 ABUTMENT NO.2
17 RETAINING WALL SECTION - C
18 R.C. SPAN NO.1
19 R.C. SPAN NO.1
20 R.C. SPAN NO.1
21 SPAN NO.1
22 BRONZE TABLETS
23 470'-6" CONTINUOUS GIRDER SPAN
24 470'-6" CONTINUOUS GIRDER SPAN
25 470'-6" CONTINUOUS GIRDER SPAN
26 470'-6" CONTINUOUS GIRDER SPAN
27 470'-6" CONTINUOUS GIRDER SPAN
28 470'-6" CONTINUOUS GIRDER SPAN
29 LIGHT & LADDER
30 66'-7" GIRDER SPAN
31 ROADWAY ELEVATIONS FOR CAMBER
32 ROADWAY SLAB FOR 470'-6" CONTINUOUS GIRDER SPAN
33 ROADWAY SLAB FOR 470'-6" CONTINUOUS GIRDER SPAN
34 TRAP DOORS IN SIDEWALK
35 ROADWAY SLAB FOR 66'-7" GIRDER SPAN
36 HANDRAIL FOR 470'-6" SPAN
37 HANDRAIL FOR 66'-7" SPANS
38 HANDRAIL FOR 66'-7" SPANS
39 LIGHTING DETAILS
40 LIGHTING DETAILS

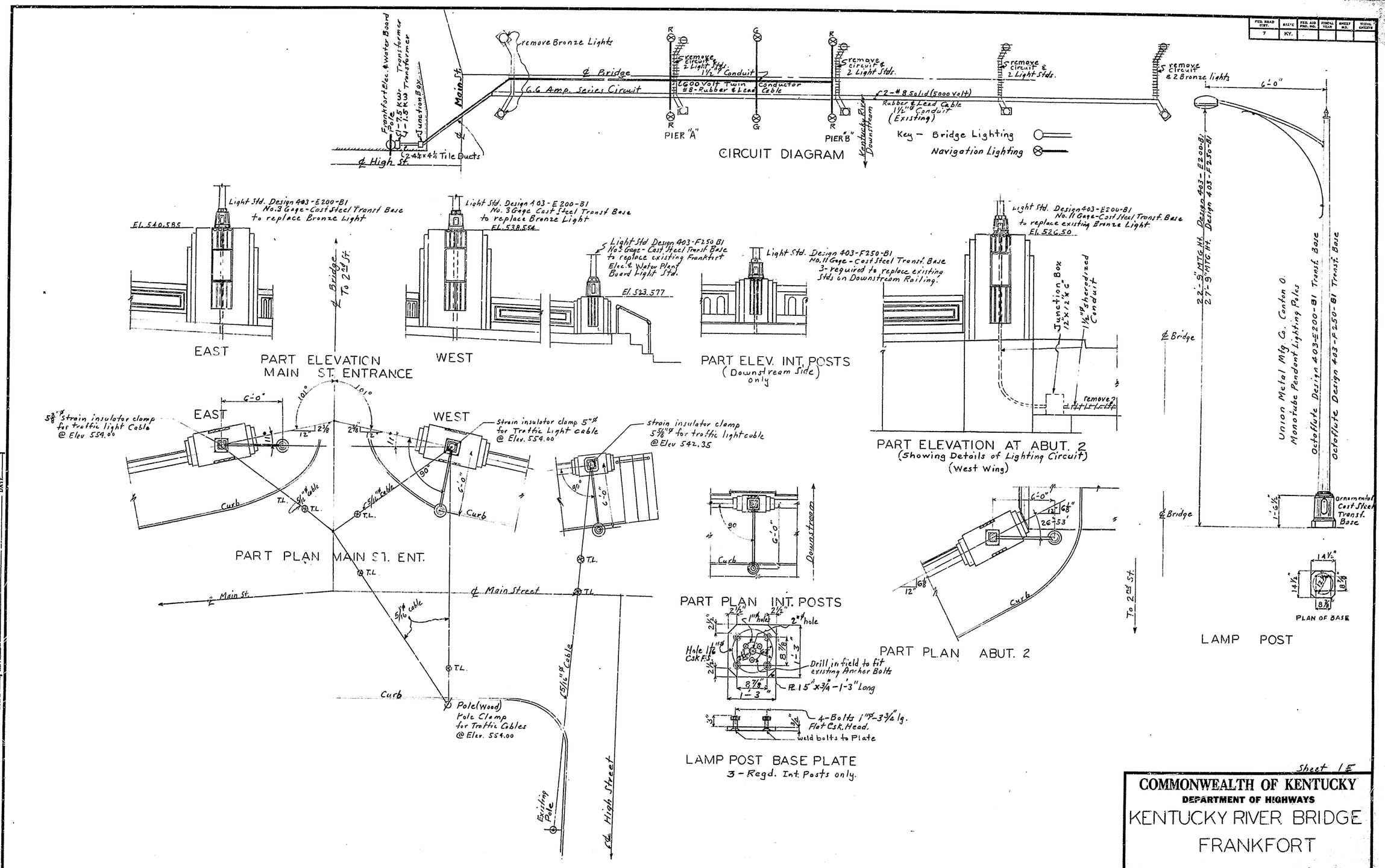
P-2 STANDARD 14" R.C. PILE

2-4 REVISIONS TO ABUT. 1, & RET. WALL SECTIONS A & B.

CONTRACT	SHEETS	TOTAL NO. OF SHEETS
SUBSTRUCTURE	A B G-251 1 TO 22 - INCLUSIVE P-2, 39-40	27
SUPERSTRUCTURE	A B G-251 1 TO 4 - INCLUSIVE 23 TO 38 - INCLUSIVE	22
LIGHTING	A B 39 40	4

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
KENTUCKY RIVER BRIDGE
FRANKFORT, KY.

BRIDGE



Sheet 1E

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

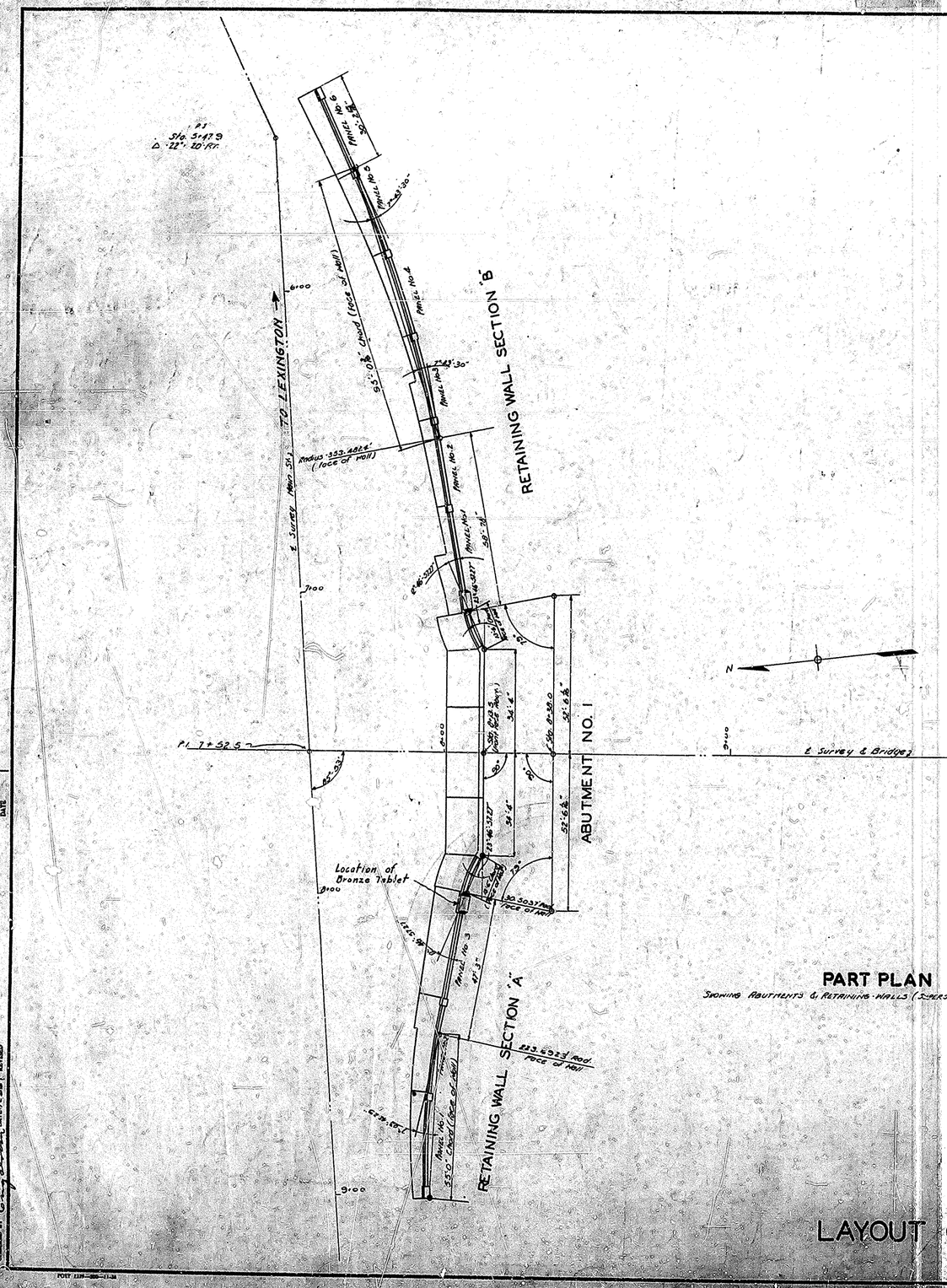
KENTUCKY RIVER BRIDGE
FRANKFORT

STATION | PROJECT NO.

BRIDGE NUMBER 37-5065-1 | DRAWING NO. 6742 | INDEX

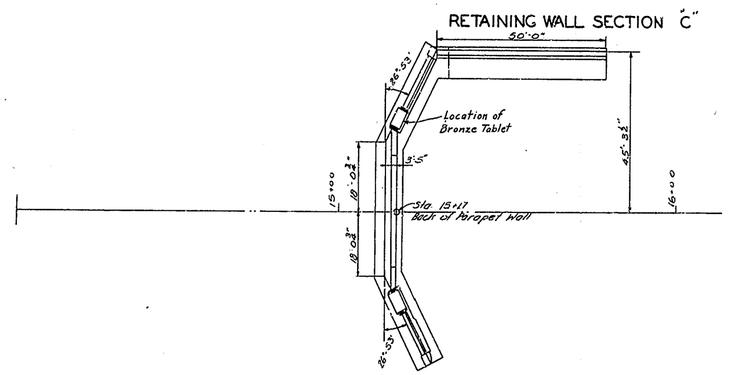
DESIGNED BY | CHECKED BY | DATE | REVISED
DETAILED BY AG | CHECKED BY | DATE | REVISED
TRACED BY | CHECKED BY | DATE | REVISED

FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



PART PLAN

SHOWING ABUTMENTS & RETAINING WALLS (SUPERSTRUCTURE REMOVED)



ABUTMENT NO. 2

Approved:

President of the American War Mothers of Kentucky

Governor - Commonwealth of Kentucky

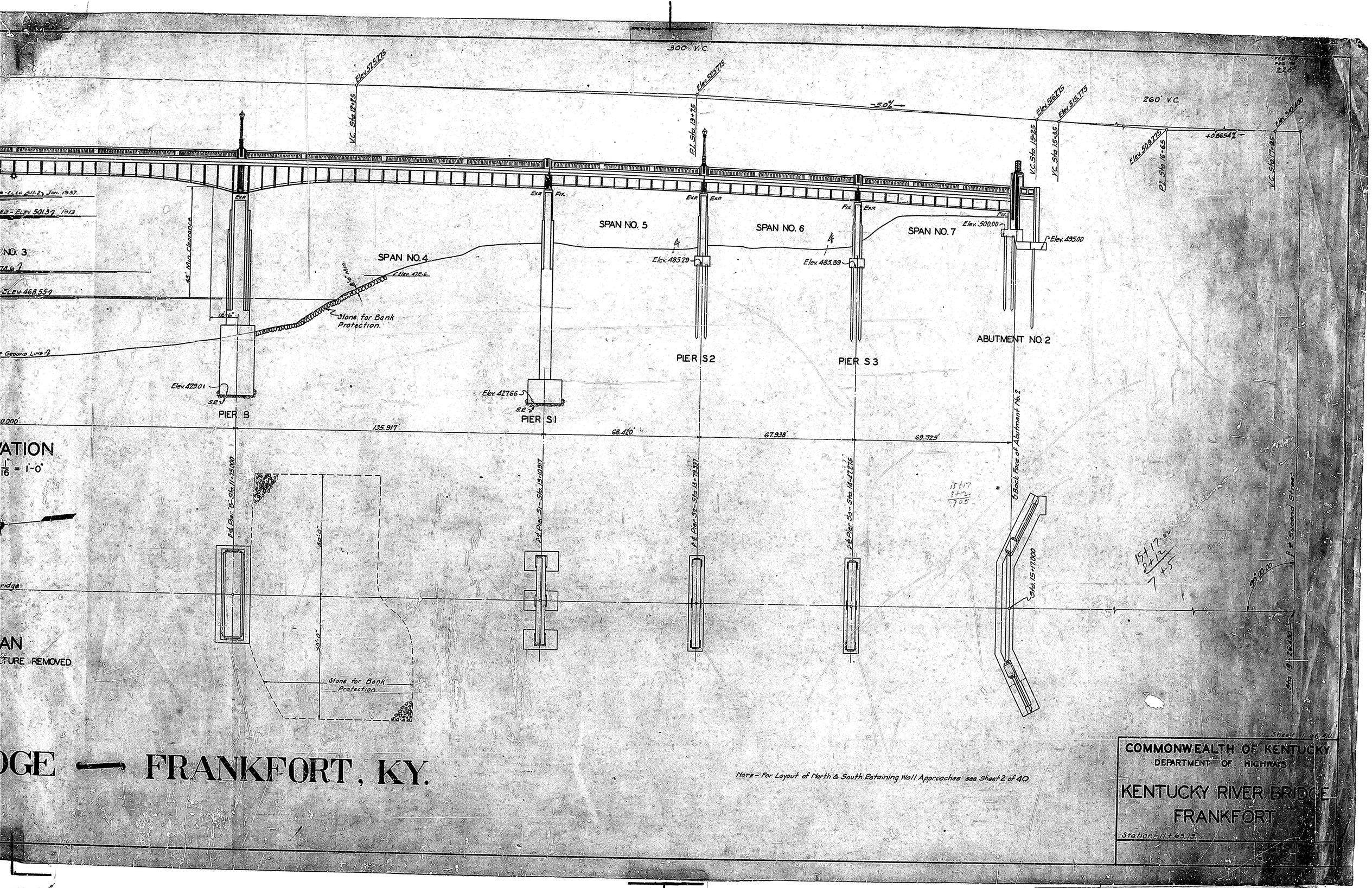
SHEET No. 2 of 10 Sheets

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

DRAWING No. 6742

LAYOUT OF RETAINING-WALL APPROACHES



...ATION
$\frac{1}{16}$" = 1'-0"

...AN
...TURE REMOVED

...OGE — FRANKFORT, KY.

Note - For Layout of North & South Retaining Wall Approaches see Sheet 2 of 40

Sheet 1 of 40

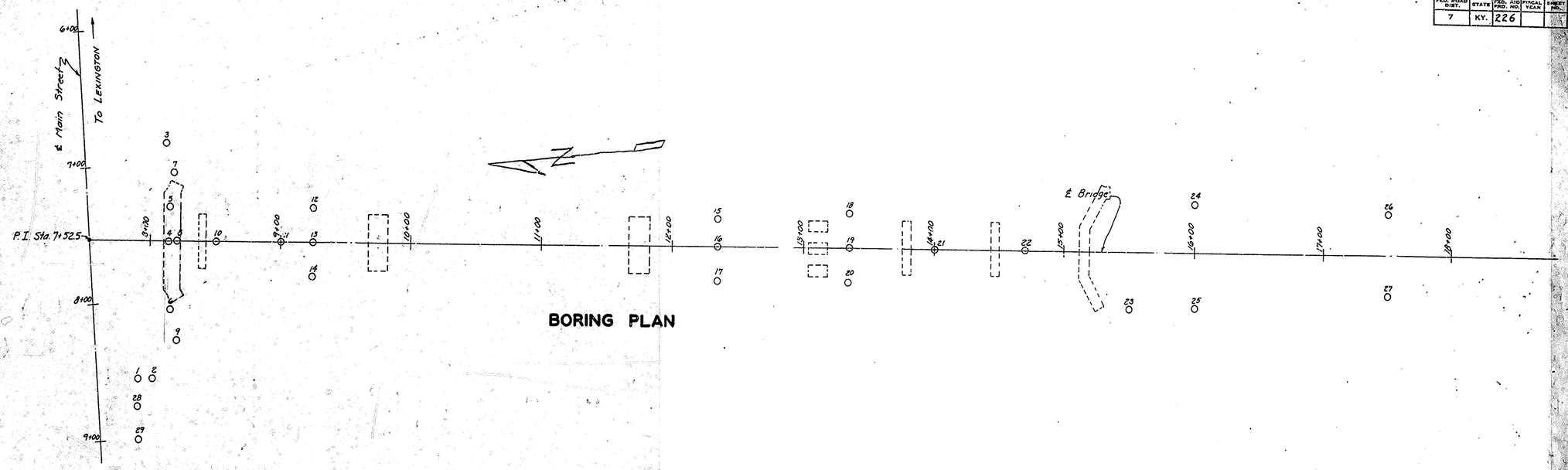
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

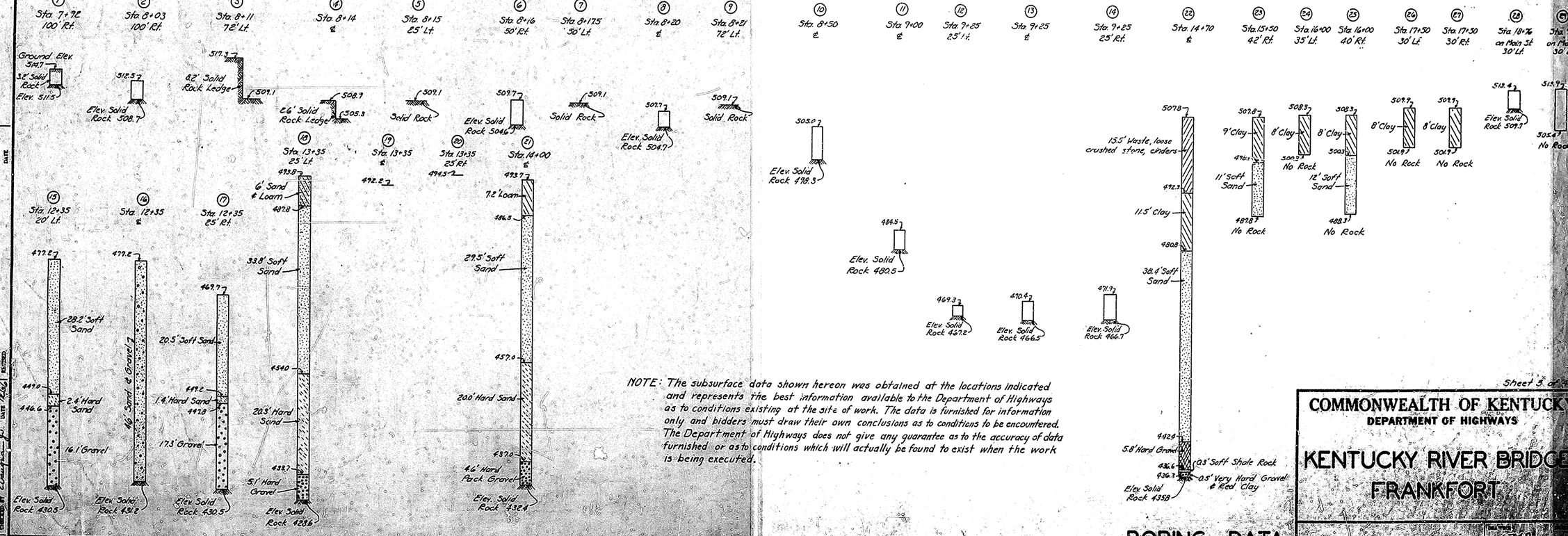
KENTUCKY RIVER BRIDGE
FRANKFORT

Station - 11+63.73

BRIDGE

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			





NOTE: The subsurface data shown hereon was obtained at the locations indicated and represents the best information available to the Department of Highways as to conditions existing at the site of work. The 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.

Sheet 3 of 40

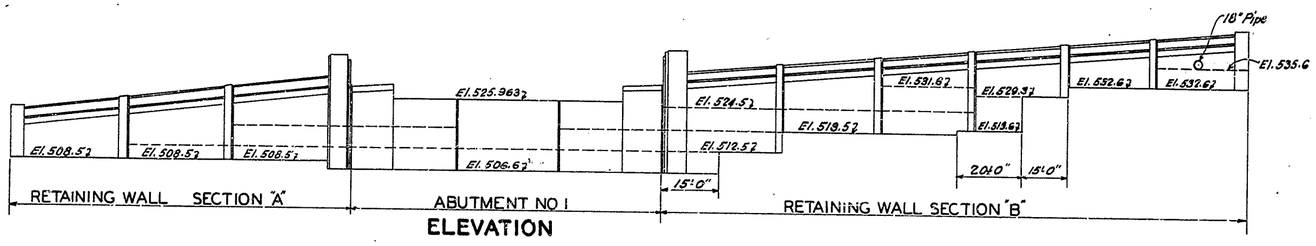
BORING DATA

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

6742

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



ELEVATION

ESTIMATE OF QUANTITIES

Class "A" Concrete (Original)	300.3 Cu.Yds.
Class "A" Concrete (Revised)	319.6 Cu.Yds.
Overrun	19.3 Cu.Yds.

ESTIMATE OF QUANTITIES

Class "A" Concrete (Original)	470.0 Cu.Yds.
Class "A" Concrete (Revised)	503.6 Cu.Yds.
Overrun	33.6 Cu.Yds.

ESTIMATE OF QUANTITIES

Class "A" Concrete (Original)	295.5 Cu.Yds.
Class "A" Concrete (Revised)	546.5 Cu.Yds.
Overrun	251.0 Cu.Yds.

TOTAL OVERRUN

SECTION "A"	Class "A" Concrete	19.3 Cu.Yds.
ABUTMENT NO.1	Class "A" Concrete	33.6 Cu.Yds.
SECTION "B"	Class "A" Concrete	251.0 Cu.Yds
	TOTAL OVERRUN =	303.9 Cu.Yds

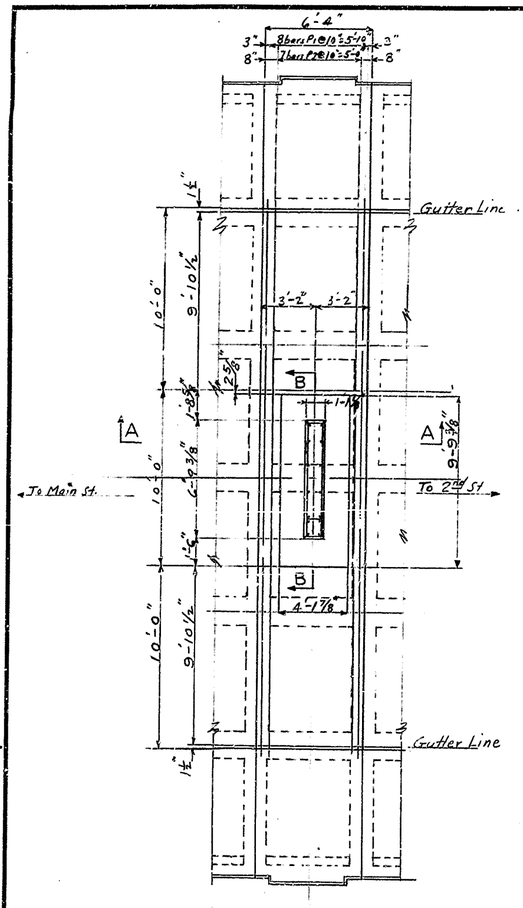
REVISIONS TO WALLS AND ABUTMENT NO.1

DESIGNED BY L.L. Shepherd Jr. DATE 9-32
PLACED BY G. Gibbs DATE 8-37
CHECKED BY Emory Brown DATE 9-37
REVISED DATE
REVISED DATE
REVISED DATE

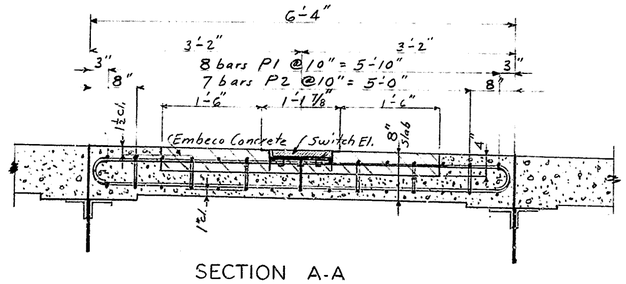
Sheet 2-A of 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
KENTUCKY RIVER BRIDGE
FRANKFORT
ROAD
STATION PROJECT NO.
BRIDGE NO. 6742

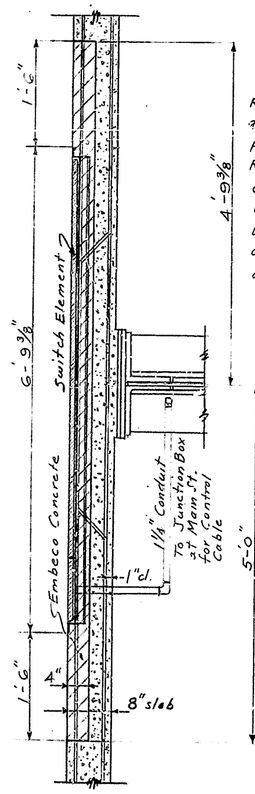
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



PLAN OF SWITCH ELEMENT ON BRIDGE AT "A"



SECTION A-A



SECTION B-B

NOTE

Remove Concrete from slab as shown on plans 4" deep Place Switch Element on Reinforcement, mark and cut anchor angles to notch over reinforcement, place Embeco Cement Concrete around Switch Element and set flush with concrete slab.

Reqd. Cu.yds Embeco Concrete = .50 Cu.yds
Excess 25% = .13 "
.63 "

Mix "B" More than 1" clearance

	Cu.ft.
1 sack Cement	.485
100# Embeco	.283
105# Sand 1 Cu.ft	.635
150# Pea Gravel 1 Cu.ft	.906
6 gal water	.799
Embeco Concrete	3.108 Cu.ft.

Amounts Reqd. .63 Cu.yd.

5.47 Sack Cement
547 # Embeco
5.24 Cu.ft Sand 550#
8.22 " ¼"-⅜" Pea Gravel 822#
32.8 gal. Water

GENERAL NOTE

BILL OF MATERIAL [Traffic Section]

2 - Octaflute Monotube Pendent Lighting Pole - Union Metal Mfg Co. Canton O. Design 403 - E 200-B; No. 3 gage - 7" bolt dia - Cast Steel Transf. Base
1 - Octaflute Monotube Pendent Lighting Pole - Union Metal Mfg Co Canton O. Design 403 - F250-B1 No. 3 gage - 8" bolt dia - Cast Steel Transf Base
3 - Octaflute Monotube Pendent Lighting Pole - Union Metal Mfg Co. Canton O. Design 403 - F250-B1 No. 11 Gage - Cast Steel Transf. Base
1 - Octaflute Monotube Pendent Light Pole - Union Metal Mfg Co Canton Ohio. Design 403 - E200B1 No. 11 Gage - Cast Steel Transf. Base.
3 - Lamp Post Base Plates - See detail Sheet 1
1 - 7.5 KW Pole Type C.S.P.H Transformer No 1609430 Westinghouse Mfg Co. Pittsburgh Pa. Hanger Iron Style No. 1511817 2400 Volt Primary - C.C amp. Secondary or Transformer to be furnished by Traffic Section Stock Ky Dept of Hways.
1 - Strain Insulator Clamp 5/16" Union Metal Mfg. Co. Canton, O.
1 - " " " 5⅜" " " " " " "
1 - " " " 5⅜" " " " " " "
200 ft. " 1¼" Conduit and Connections for Control Cable to switch Element @ Pier "A"
300 ft. Approx. Span Wire 5/16" (7 wire Galv. Strand.)
3 - Switch Elements. - 1 Bridge, 2 - Main St.
6 - Traffic Control Lights
Required length of Control Cable to Traffic Light System

BILL OF MATERIAL [Frankfort Electric & Water Plant Board.]

7 - Luminaires - Westinghouse Mfg. Co. Pittsburgh Pa. Type OV-20 E-H1 Mercury Lamp, 1¼" End Mounting, A.S.A-1.ES Type II 1568516
7 - Ballasts - Type H1 Style 890800 Pole Base Type
1 - Pole (Wood) Main St. for Traffic Light Cable & Control.
Wire, Hardware for Poles and other incidentals not listed in Bill of Material which are required to complete work as outlined below.

ORDER OF WORK [Frankfort Electric & Water Plant Board]

1. Remove 4 Bronze Lights on End Posts and 6 Intermediate Post Lights on Bridge - To be turned in to Traffic Section Ky. Dept. of Highways.
2. Remove circuits on up stream side of Bridge as shown on plans.
3. Cut Anchor Bolts for Bronze Lights flush on End Posts. Drill 2'-0" deep Anchor bolt Holes to templates as shown and set Light Poles. At West End Post on Main St. Control Cable to be pulled to Junction Box before Light Pole is set.
4. Cut Anchor Bolts flush on Upstream Int. Posts, plug Conduits flush with top of Post.
5. Set Pole (Wood) on Main St. opposite West Post.
6. Place 5/16" span Cable as shown on plans with with Strain insulator Clamps at elev. shown - sag approx. 5'-6"
7. Cut Anchor Bolts (5/8") on Intermediate Downstream Posts 3" above top Post. Rethread set Light Pole & Base Plates. as per plans.
8. Remove Transformer and replace with 7.5 KW or larger for new Lighting System.
9. Re wire Luminaires and Ballasts to existing wiring system
10. Inspect and Test system for Insulation Resistance, Voltage drop, grounds and operation.
11. Replace existing Frankfort Elec. & Water Plant Board Pendent Pole with Octaflute Monotube Pendent Lighting Pole - No 3 gage - F250-B1 in front of J.B. Blanton Co. - Place 5/16" Cable as shown with strain insulator clamp to wood Pole on High & Main St.

ORDER OF WORK [Traffic Dept-Kentucky Dept. of Highways.]

1. Install Switch Elements - Install switch element on Bridge as per plans - Also install Switch Elements in Main St. locations - See Embeco Cement & Aggregates required on Plans.
2. Install Conduit from Switch Element with Control wires on bridge as shown on plans. Install Control Wires to Switch element on Main St.
3. Install Traffic Signal Lights on Cable Suspension system and control cables
4. Install Control System for Traffic lights and Test system for operation.

— NOTE —

The Installation of Traffic Light System & Bridge Lighting System to be made by the Joint cooperation of Traffic Section Ky. Dept of Highways and Frankfort Electric & Water Plant Board, Frankfort Ky. The Purchase of Materials as per Bill of Materials shown. The Maintenance of Traffic Light System to be under Traffic Section, Ky. Dept of Highways. The Maintenance of Bridge Lighting System to be under the Frankfort Electric & Water Plant Board.

DESIGNED BY — CHECKED BY — DATE
DETAILED BY — CHECKED BY — DATE
TRACED BY — CHECKED BY — DATE
REVISED — REVISED — REVISED

Sheet 2 B

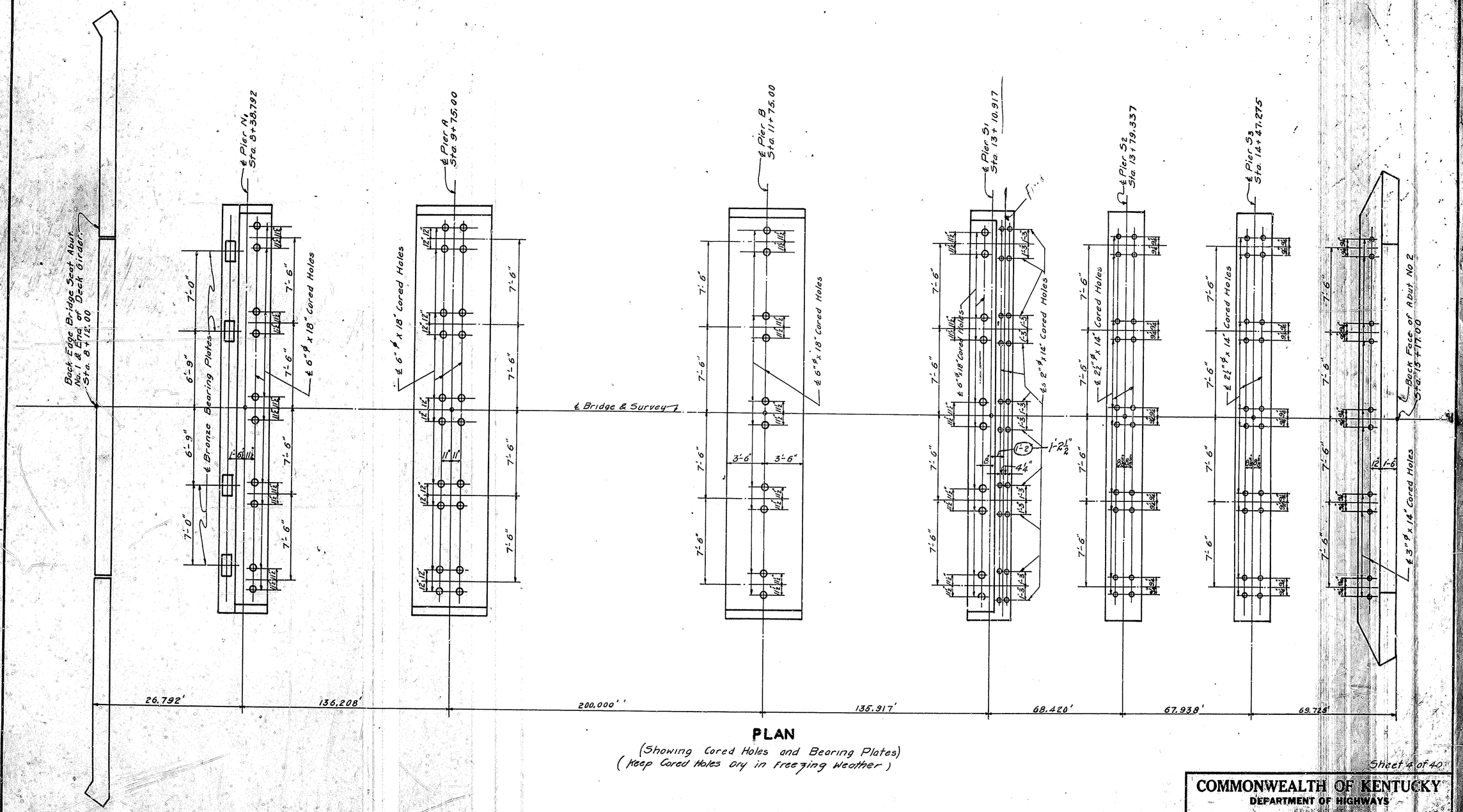
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE FRANKFORT

STATION — PROJECT NO.

BRIDGE NUMBER 37-5065-1 — DRAWING NO. 6742 — INDEX

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



PLAN

(Showing Cored Holes and Bearing Plates)
(Keep Cored Holes Dry in Freezing Weather)

Sheet 4 of 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
COUNTY OF
KENTUCKY RIVER BRIDGE
FRANKFORT

6742

ANCHOR BOLT PLAN

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

GENERAL NOTE

SPECIFICATIONS: 1932 Standard Specifications, Kentucky State Highway Department with subsequent adopted amendments and special provisions.

CONCRETE: Class "A" concrete shall be used thruout except in Piles and Handrail on Spans. Class "D" concrete shall be used in Piles and Handrail on Spans.

REINFORCEMENT: To be deformed bars. Dimensions from face of concrete to steel are clear distances. Dimensions for bar spacing are distances c. to c. of bars. All reinforcement shall be securely held in correct position by means of precast mortar or concrete blocks and wired at all intersections. Precast mortar or concrete blocks supporting reinforcement shall be spaced not farther apart than 50 diameters of the supported bar.

WEARING SURFACE: Top of concrete roadway slab and sidewalks shall be finished in accordance with the requirements for Monolithic Wearing Surface.

BEVELED EDGES: All exposed corners shall be beveled $\frac{7}{8}$" unless otherwise shown on plans for concrete structures.

EXPANSION JOINT FILLER: Expansion Joint Material shall meet the requirements for premolded filler as shown on Std. Dwg. No. G-251. Cost to be included in unit price bid for Class "A" concrete.

COPPER STRIP: Copper strips shall meet the requirements as shown on Std. Dwg. No. G-251. Cost to be included in unit price bid for class "A" concrete.

STEEL EXPANSION ANGLES: Expansion angles on the concrete span at junction with the steel span are to be furnished by the Contractor for steel spans and placed by the Contractor for concrete spans. Contractor for concrete spans shall notify the Department at least 60 days in advance of the need of expansion angles.

STRUCTURAL STEEL: To conform to A.S.T.M. specifications A7-34, having a minimum copper content of .2 per cent (0.2%)

SHOP PAINT: All steel shall be given one shop coat of Red Lead or Basic Sulphate Blue Lead.

FIELD PAINT All steel shall be given two field coats of Aluminum Paint in accordance with the special provisions.

PILING: Piles to be driven to refusal or to sustain a minimum load of 50 tons per pile. Concrete test piles to determine the 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.

DESIGN LOAD: Bridge is designed for H 20 loading as per A.A.S.H.O. Standard Specifications 1935. For loading diagrams for steel work see sheet Nos. 23 & 30.

RIVER NAVIGATION REQUIREMENTS: The work shall be so conducted at all times that the free navigation of the waterway shall not be impaired and falsework used shall conform to the clearances required by the United States District Engineer. Upon completion of the river piers and spans, the contractor shall secure from the United States District Engineer a letter of approval stating that the work has been constructed in accordance with his requirements and that the clearance and dimensions of the actual construction are satisfactory to him.

LIGHTING SYSTEM: The cost of all fixtures, materials, tools, labor and incidentals required to complete the Roadway Lighting System and the Navigation Lighting System as shown on the plans, shall be included in the lump sum bid price for Lighting System.

MEMORIAL TABLET: The cost of furnishing and placing the the Bronze Memorial Tablets as shown on the plans shall be included in the unit price bid for Bronze Memorial Tablets.

STRUCTURE EXCAVATION UNCLASSIFIED:

The method of excavation and volume to be paid for shall be as follows:
PIER A - PIER B and PIER S1 - in accordance with special provisions.
ABUTMENTS - RETAINING WALLS - PIER N1 - PIER S2 - PIER S3 in accordance with the 1932 Standard Specifications.

The bidders shall submit unit bid prices for each item of Structure excavation unclassified, shown hereon:
ITEM ① includes the excavation for Abutments Nos. 1 & 2; retaining walls A-B-C; and Piers N1-S2 and S3
ITEM ② includes the excavation for Pier A.
ITEM ③ includes the excavation for Pier B.
ITEM ④ includes the excavation for Pier S1

GENERAL NOTE CONT'D

CONSTRUCTION NOTE: The construction of Pier S1 shall be completed and backfill made before piles are driven or excavation started on Pier S2.

BANK PROTECTION STONE: That area on the south bank of the river shown and called for on plans shall be protected with rip rap in accordance with the special provisions.

REMOVING STONE MASONRY: Side of building foundations on the north approach as the Department may direct shall be removed, and that portion lying outside of the limits included in the structure excavation shall be paid for at the unit price bid per cubic yard for "removing masonry."

WATER PIPE: The materials and labor necessary to install the Water Company pipe on the bridge are not included in the contract but the contractor shall cooperate with the Water Company in order to facilitate the work.

LIGHTING SYSTEM: The lighting contract is to be included with the Substructure Contract. The contractors on the work shall cooperate, each with the other and the contractor for Lighting System shall arrange to install such conduits and other parts of the Lighting System that must be installed in the work of the steel Superstructure as it progresses.

ESTIMATED QUANTITIES

SUBSTRUCTURE CONTRACT

LOCATION	CONCRETE CLASS "A" CUBIC YARDS	CONCRETE CLASS "D" CUBIC YARDS	REINFORCEMENT POUNDS	CLASS "B" BRONZE EXPANSION PLATES POUNDS	MEMORIAL TABLETS EACH	DRY ROCK RIP RAP SQ. YDS.	REMOVE STONE MASONRY CU. YDS.	LIGHTING CONTRACT	14" R.C. PILES LIN. FT.	STRUCTURE EXCAVATION UNCLASSIFIED ITEM ①	ITEM ②	ITEM ③	ITEM ④	X	Y
ABUTMENT No. 1	470.0		590							780					
RETAINING WALL SECTION-A	300.3		1810		1		200			250					
RETAINING WALL SECTION-B	235.5		3040				260			260					
PIER N1	109.8		11860							130					
PIER A	904.1		19700								210				
PIER B	1304.0		19700									620			
PIER S1	364.1		44080										1830		
PIER S2	88.1		17340						1100	150					
PIER S3	84.4		16920						1100	200					
ABUTMENT No. 2	226.7		17890		1				2300	390					
RETAINING WALL SECTION-C	77.5		4470							170					
SPAN No. 1	88.8	5.7	23940	460											
TOTAL	4313.3	5.7	181340	460	2	690	460	LUMP SUM	4500	2330	210	620	1830		

SOUTH BANK OF RIVER

SUPERSTRUCTURE CONTRACT

LOCATION	⊕ STRUCTURAL STEEL POUNDS	CONCRETE CLASS "A" CU. YDS.	CONCRETE CLASS "D" CU. YDS.	REINFORCEMENT POUNDS	SIDEWALK TEMPLATES ON BRIDGE EACH	SELECT CREOSOTED SOUTHERN YELLOW PINE M.B.M.
470'-6" CONTINUOUS SPAN	1,769,570	648.3	68.0	117,010	6	6.3/4
3-66'-7" SPANS	324,660	233.9	29.7	49,850		
TOTAL	2,094,230	782.2	97.7	166,860	6	6.3/4

⊕ No allowance is contracted for the weight of Structural Steel Includes Structural Steel, Cast Iron, Rolled Steel, Double Annealed Common Steel Wire Strand and Lead Plates.

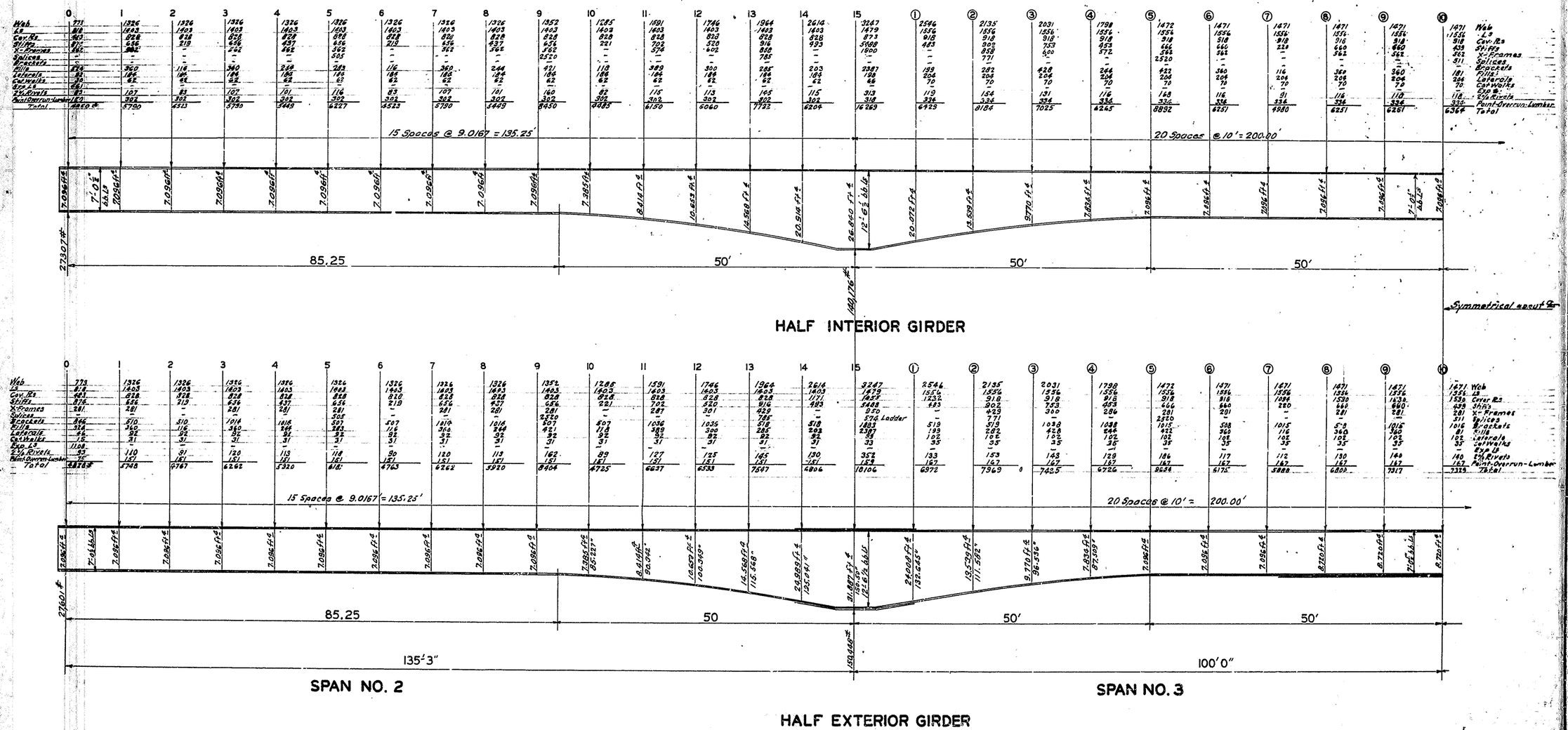
SHEET - 18

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

GENERAL NOTE AND QUANTITIES

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



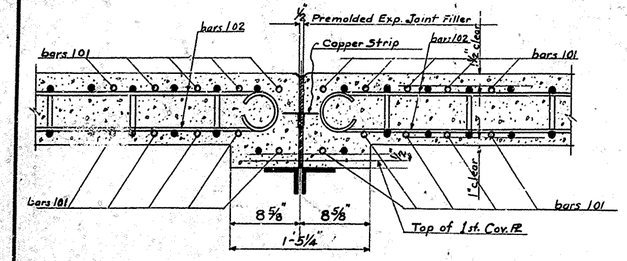
STEEL DEAD LOAD WEIGHTS AND REACTIONS

SCALE 1/8" = 1'-0"

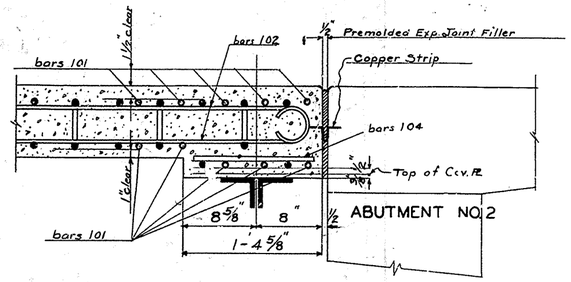
Sheet 4C

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
KENTUCKY RIVER BRIDGE
FRANKFORT
ROAD
STATION
PROJECT NO.

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



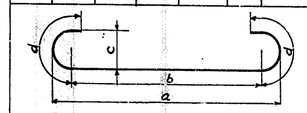
SECTION B-B Continuous Girder Span (Sheets 32-33)
SECTION A-A Simple Girder Span (Sheet 35)



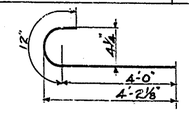
SECTION E-E Simple Girder Span No. 7 (Sheet 35)

BILL AND TYPES OF REINFORCEMENT

Mark	Type	No	Size	Length Feet	Length ins.	Location	a Ft.	a in	b Ft.	b in	c Ft.	c in	d Ft.	d in
101	①	350	5/8" ϕ	33	0	Transverse bars in slabs	31	5½	31	0	0	5½	1	0
102	②	620	5/8" ϕ	5	0	Longitudnal bars in slabs except "C"	—	—	—	—	—	—	—	—
103	①	40	½" ϕ	7	4	Longitudnal bars in slab "C"	6	0	5	8	0	4	0	10
104	Str.	8	½" ϕ	1	2	Ztie bars per panel								

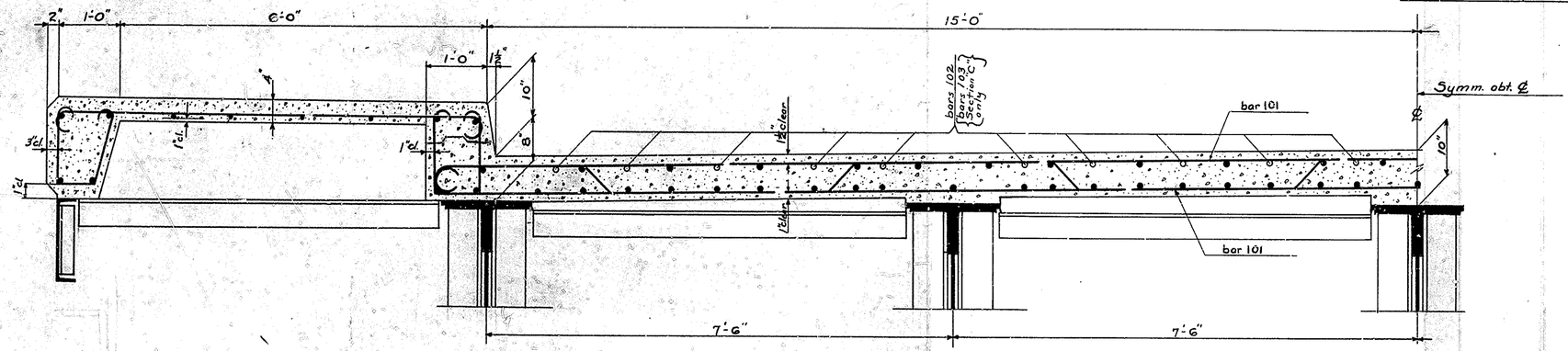


TYPE ①



TYPE ②

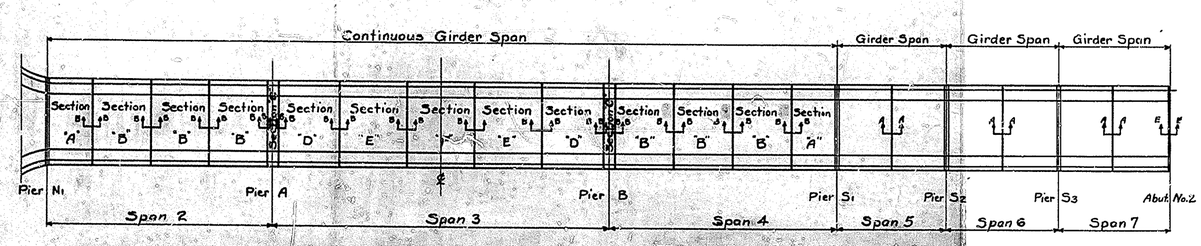
(Dimensions are out to out.)



Reinforcement 15,490 lbs.

TYPICAL SECTION THRU ROADWAY

Showing additional reinforcing in slabs to be used at expansion joints in the floor



LAYOUT SHOWING EXPANSION JOINTS TO BE ADDITIONALLY REINFORCED

DESIGNED BY Austin Griffith	DATE 10-27	REVISED	DATE
DRAWN BY "	DATE 10-27	REVISED	DATE
CHECKED BY W. S. Gray	DATE 10/27	REVISED	DATE

Sheet 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

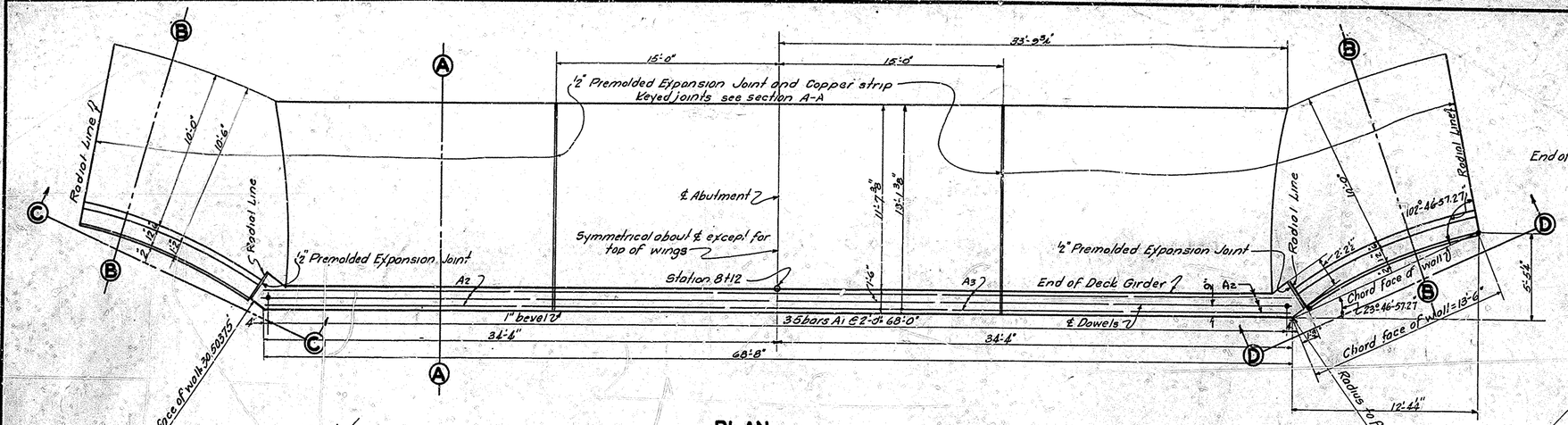
KENTUCKY RIVER BRIDGE
FRANKFORT

9742

REVISED DETAILS SHOWING ADDITIONAL STEEL REINFORCING AT EXPANSION JOINTS

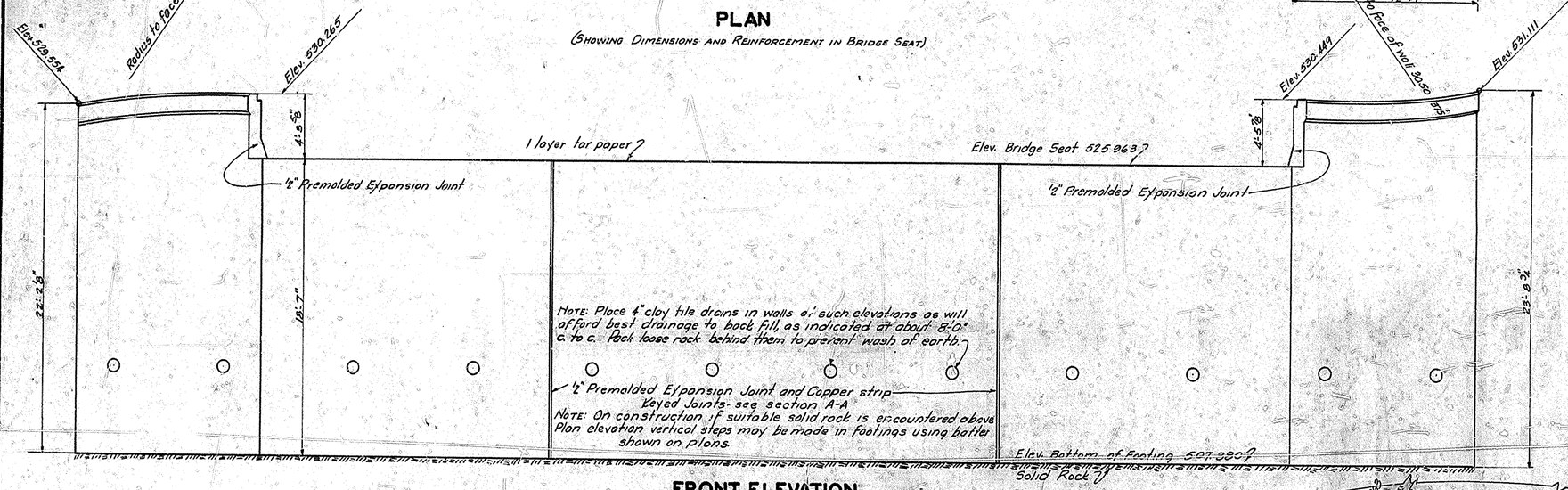
BRIDGE

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			

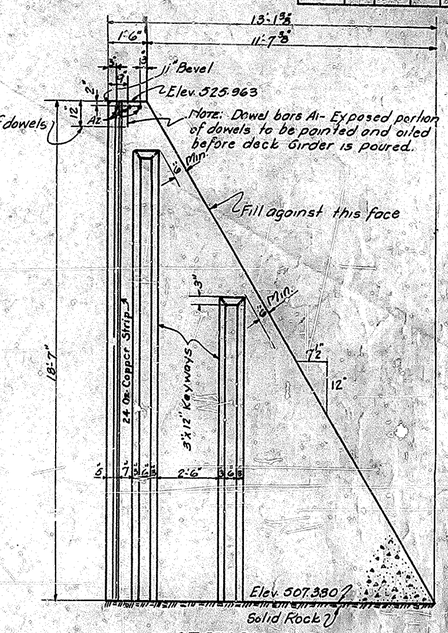


PLAN

(Showing Dimensions and Reinforcement in Bridge Seat)



FRONT ELEVATION



SECTION A-A

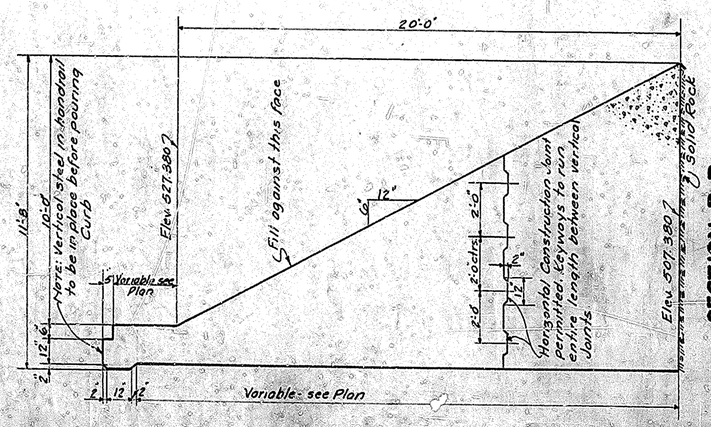
(Showing Vertical Keyways Located Only at ½" Expansion Joints and Copper Strip)

ESTIMATE OF QUANTITIES

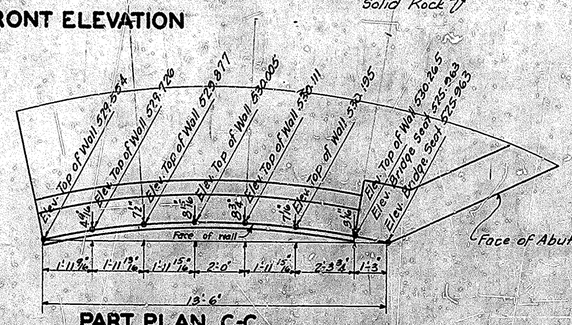
Concrete, Class "A"	470 Cu. Yds.
Reinforcement	590 Lbs.

BILL OF REINFORCEMENT

Mark	Type	No.	Size	Length Ft.	Length In.	Location
A1	Str.	35	2⅝	2	0	Dowels Into Endwall
A2	"	6	1⅝	19	0	Bridge Seat
A3	"	3	"	29	8	"

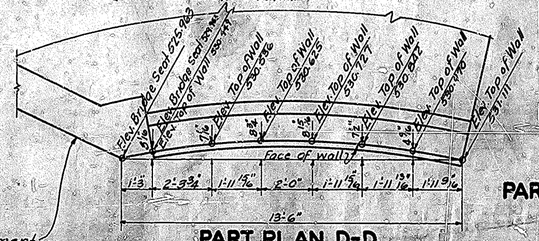


SECTION B-B



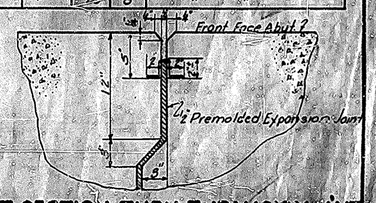
PART PLAN C-C

(Showing Offsets and Elevations at Top of Wall)



PART PLAN D-D

(Showing Offsets & Elevations Top of Wall)



PART SECTION THRU EXPANSION JNT

(Showing Location of Copper Strip and Keyway)

DETAIL OF COPPER STRIP

8" width of 24 Ga. Copper strip - (8.7) Long (2 required)
23.92 " (1 ")
22.23 " (1 ")

Note: For details of handrail see R.C. Deck Girder Span No. 1 - sheet No. 20 of 40.

For Revisions: See Sheet 2-A.

Sheet 5 of 40

ABUTMENT NO. 1

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

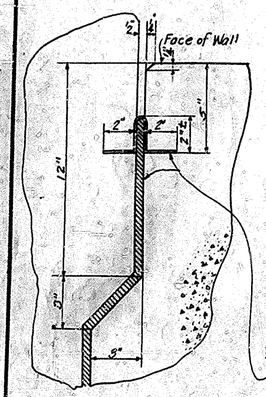
KENTUCKY RIVER BRIDGE
FRANKFORT

Designed by L.L.L.
Traced by Sandefur
Checked by Cooper

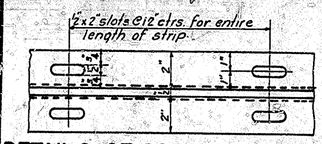
Revised
Revised
Revised

Bridge File No. 6742

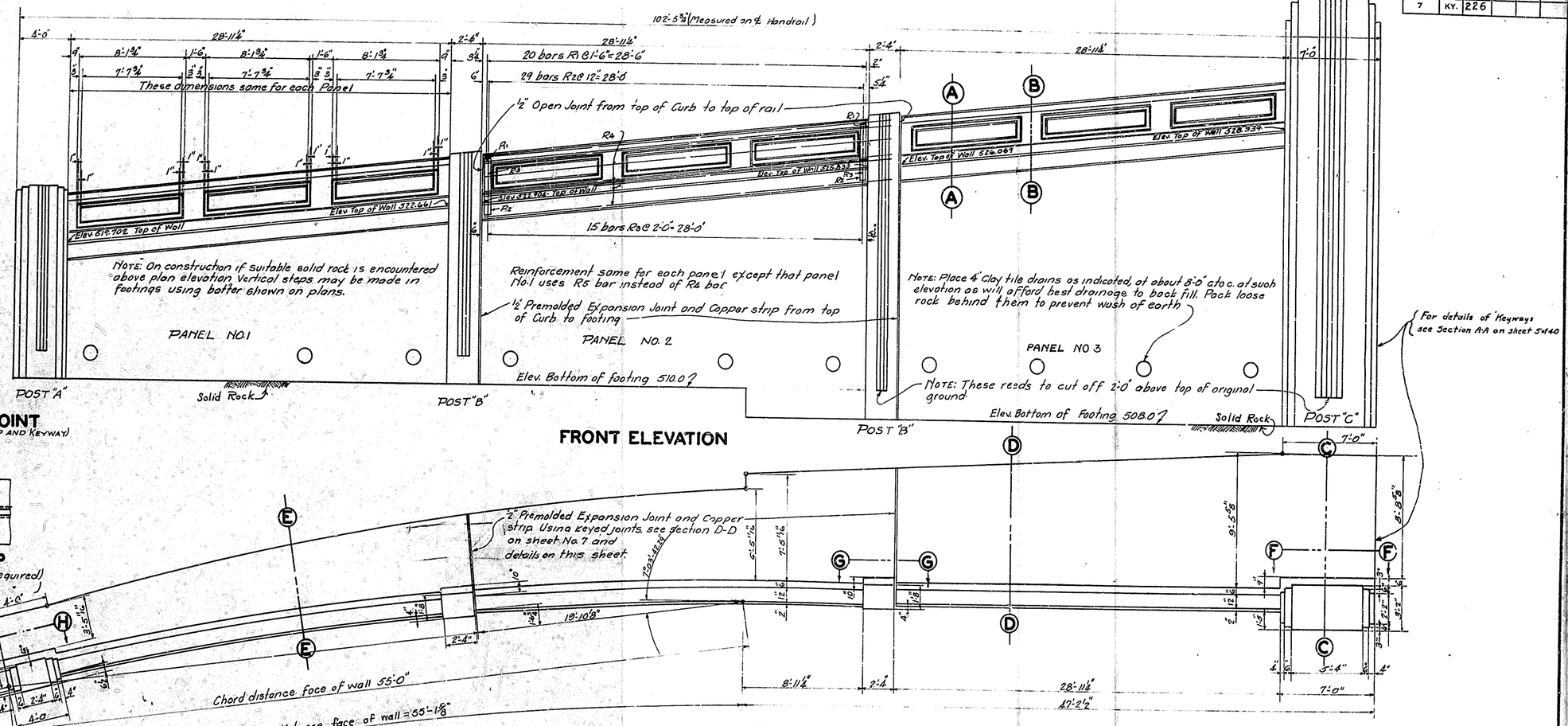
FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOT. NO. SHEETS
7	KY.	226			



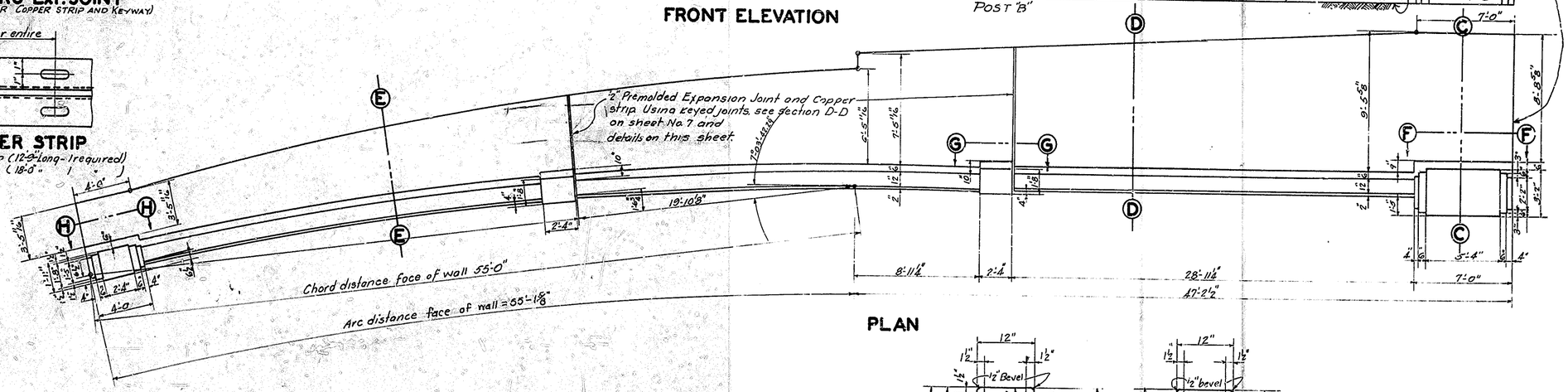
PART SECTION THRU EXP. JOINT
(SHOWING EXPANSION JOINT FILLER COPPER STRIP AND KEY-WAY)



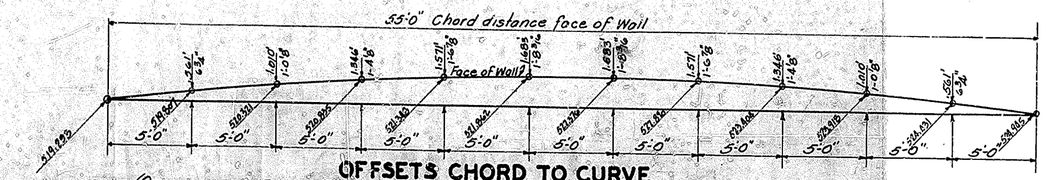
DETAILS OF COPPER STRIP
9" Width of 24 oz. Copper strip (12'-9" Long - 1 required)
(18'-0" " ")



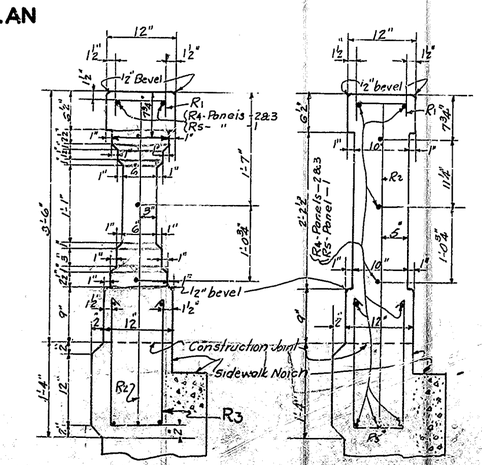
FRONT ELEVATION



PLAN



OFFSETS CHORD TO CURVE
(ORDINATES ARE IN FEET OR FEET AND INCHES) (ELEVATIONS GIVEN AT TOP OF WALL)



PART SECTION A-A PART SECTION B-B

RETAINING WALL SECTION "A" (2 SHEETS)

FOR REVISIONS: see sheet 2-A

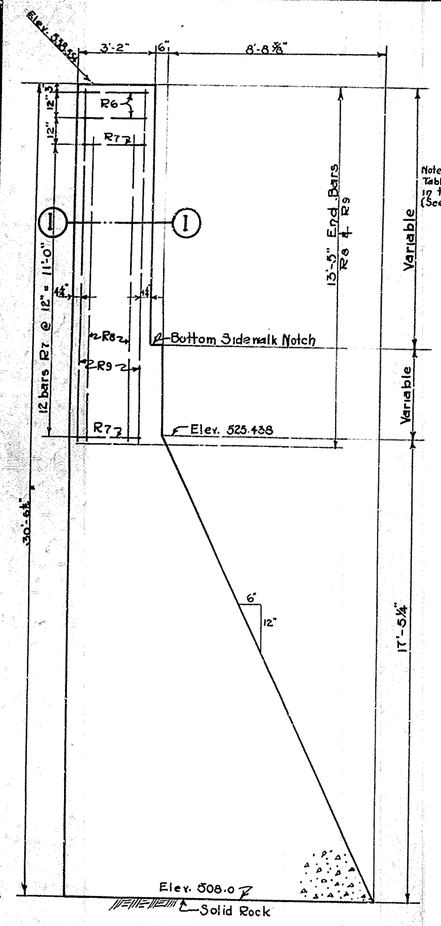
Sheet 6 of 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
KENTUCKY RIVER BRIDGE
FRANKFORT

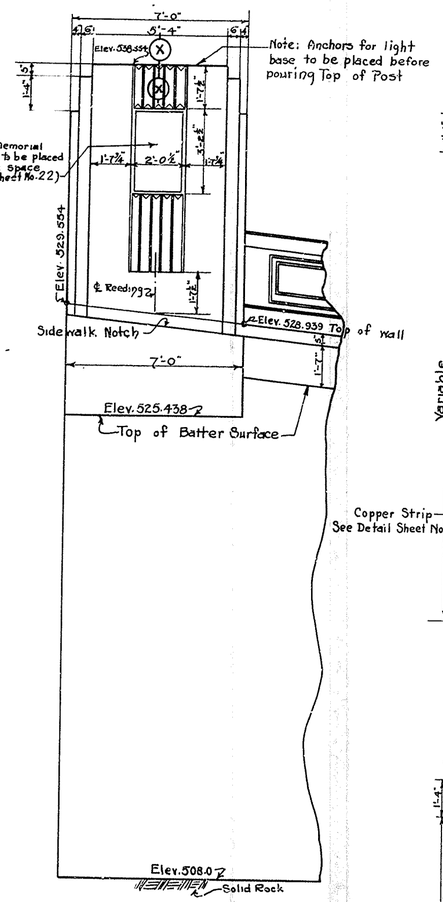
DRAWING 6742

BRIDGE

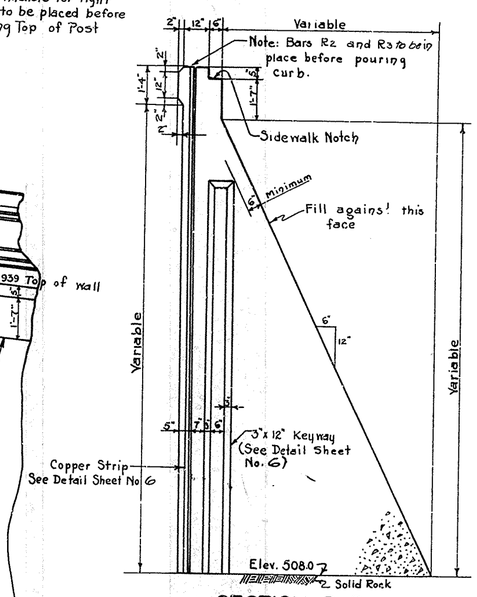
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			9



SECTION C-C

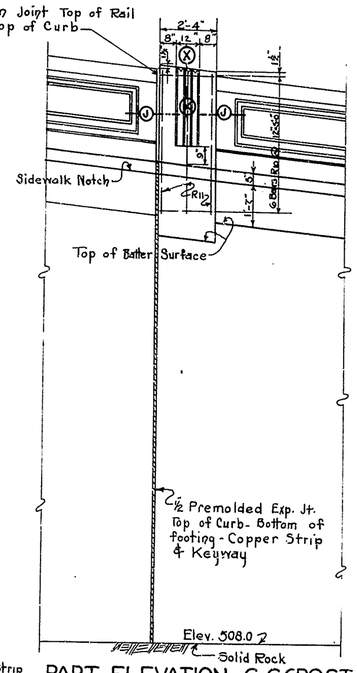


PART ELEVATION-F-F [POST-C]

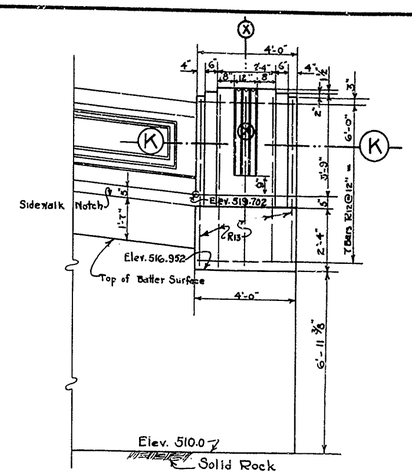


SECTION D-D

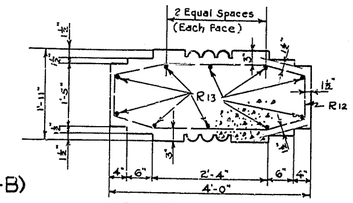
(Showing dimensions and location of Copper Strip & Keyway - Copper Strip & Keyway at Exp. Joint Only)



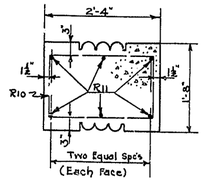
PART ELEVATION - G-G (POST-B)



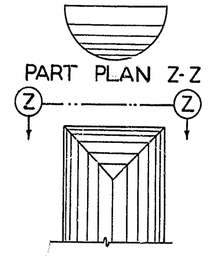
PART ELEVATION - H-H [POST - A]



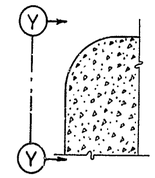
SECTION K-K



SECTION - J-J

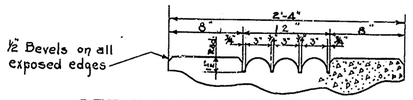


PART PLAN Z-Z

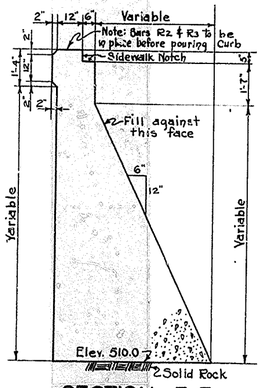


PART SECTION X-X
DETAILS OF REEDS

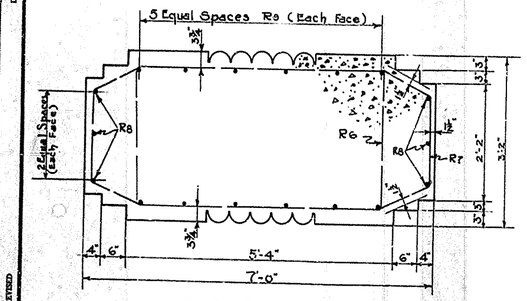
PART ELEV. Y-Y



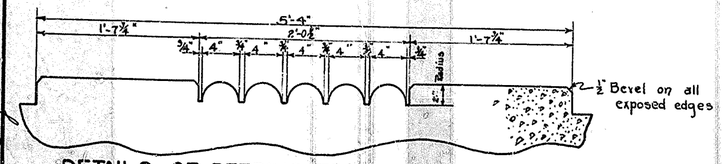
DETAILS OF REEDING FOR POSTS A & B



SECTION E-E



SECTION I-I



DETAILS OF REEDING FOR POST - C

ESTIMATE OF QUANTITIES

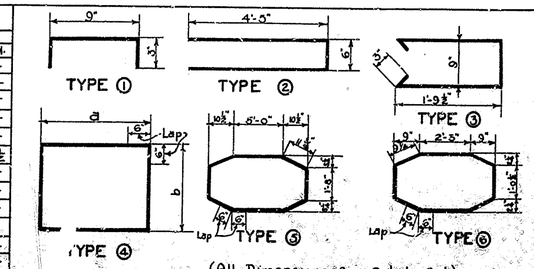
Concrete Class "A"	300.3	Cu.yds.
Reinforcement	(1810)	Lbs.
	1.9%	

DETAILS OF RETAINING WALL - SECTION -A-

(2-Sheets)

BILL AND TYPES OF REINFORCEMENT

MARK	TYPE	NO	SIZE	LENGTH FT.	LENGTH IN.	LOCATION	a FT.	a IN.	b FT.	b IN.
R1	1	60	½" ▫	1	1	Top of Rail	–	–	–	–
R2	2	87	½" φ	9	2	Curb into Rail	–	–	–	–
R3	3	45	"	4	8	" " Plinth	–	–	–	–
R4	Str.	(18) 20	"	31	0	Panels #2 & 3	–	–	–	–
R5	Str.	(9) 10	"	33	0	" #1	–	–	–	–
R6	4	2	"	15	9	Post "C"	5	0	2	6½
R7	5	12	"	(7) 17	11	" "	–	–	–	–
R8	Str.	6	"	11	5	" "	–	–	–	–
R9	"	12	"	13	3	" "	–	–	–	–
R10	4	12	"	7	2	" "B"	2	1	1	2
R11	Str.	12	"	5	6	" "	–	–	–	–
R12	6	7	"	10	4	" "A"	–	–	–	–
R13	Str.	10	"	6	4	" "	–	–	–	–



(All Dimensions Are Out to Out)

FOR REVISIONS: see sheet 2-A.

Sheet No. 7 of 10

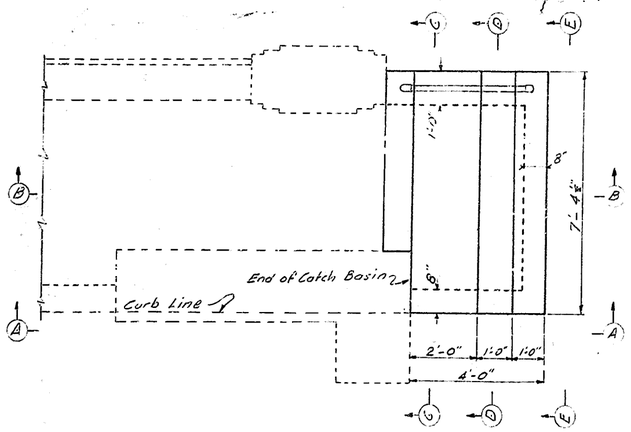
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

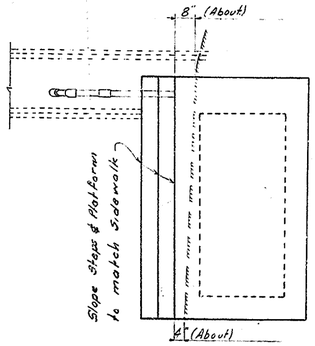
DRAWING No. 6742

DESIGNED BY C. Wilkinson DATE 1-7-36
TRACED BY T. McDaniel DATE 12-18-36
CHECKED BY Geo. Stevens DATE 12-36
REVISED DATE 2-4-37
REVISED DATE 2-4-37
REVISED DATE 2-4-37

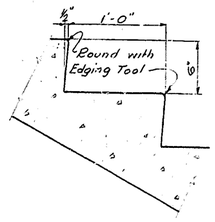
BRIDGE



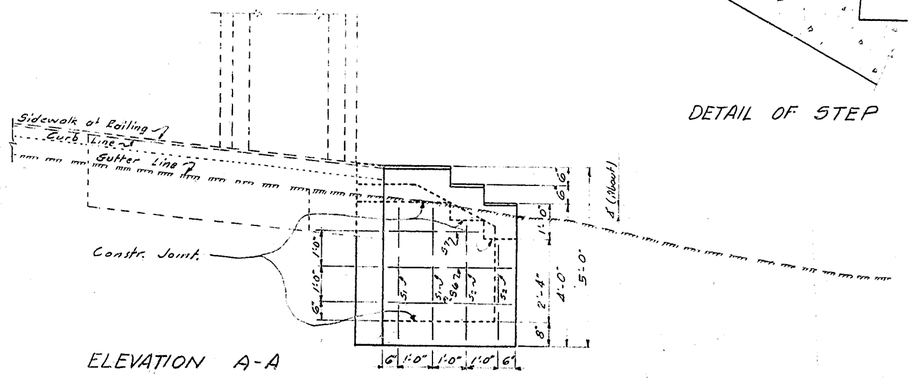
PLAN



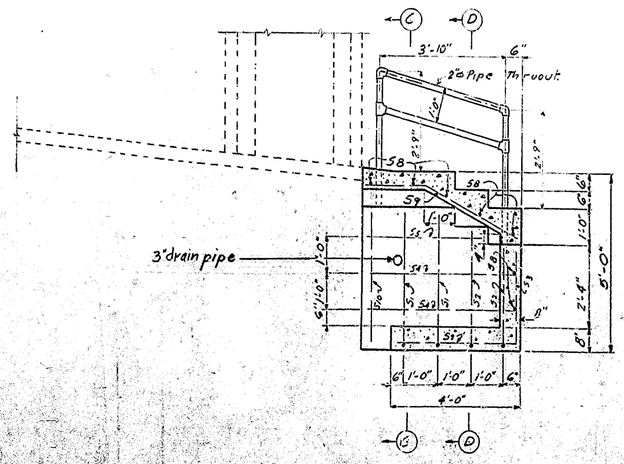
ELEVATION E-E



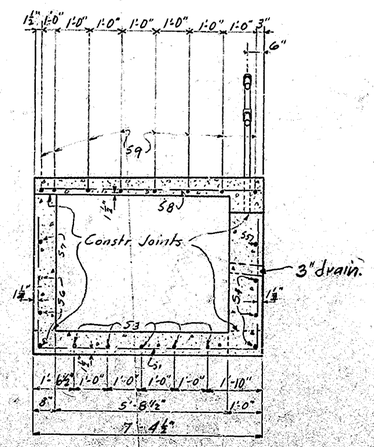
DETAIL OF STEP



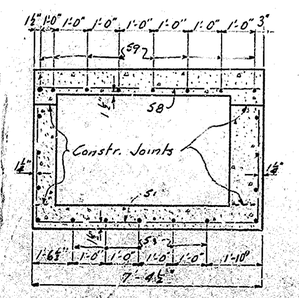
ELEVATION A-A



SECTION B-B



SECTION C-C



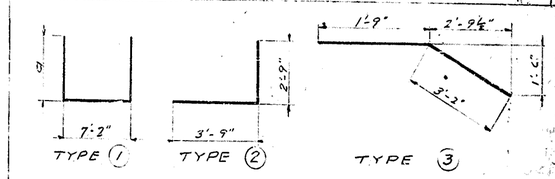
SECTION D-D

ESTIMATE OF QUANTITIES

Class A Conc.	2.9	Cu. Yds.
Reinforcement	140	lbs
Structure Excavation (Unci.)	5	Cu. Yds.
Pipe Railing	4	lin. Ft.

BILL & TYPES OF REINFORCEMENT

Mark	Type	No	Size	Length Ft	Length In	Location	a Ft	a In
S1	1	2	½" ø	14	4	Bottom Slab into Sidewalls	3	8
S2	1	2	"	13	4	" " " "	3	2
S3	2	5	"	6	5	" " " Front Wall		
S4	Str.	3	"	4	7	12" Sidewall (Hor.)		
S5	"	1	"	3	7	" " "		
S6	"	3	"	3	9	8" Sidewall "		
S7	"	1	"	2	9	" " "		
S8	"	7	"	7	1	Front Wall & Steps "		
S9	3	8	"	4	11	Steps "		
S10	Str	1	"	3	8	12" Sidewall (Vert)		



(All dimensions are out to out)

GENERAL NOTES

Specifications - State Highway Department, Kentucky (1932 with Amendments)

Concrete - Class "A" thruout.

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

Railing - Pipe railing shall be standard weight steel or wrought iron pipe commercially galvanized in accordance with standard practice.

Steps - - - - The unit price bid per cu. yd. for Class A concrete in steps shall include the cost of all reinforcement. See note on sheet 2 of roadway plans.

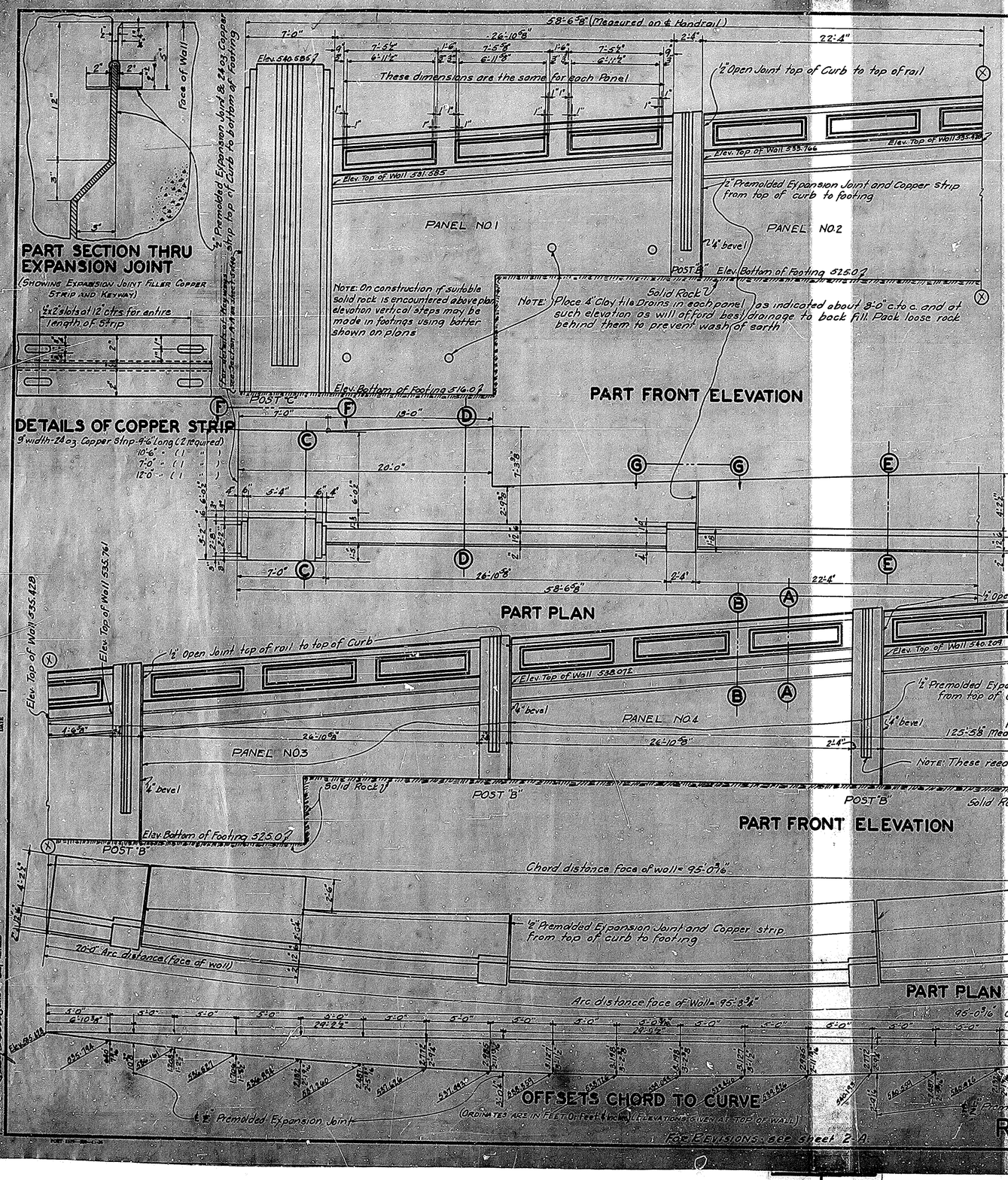
Sheet 7A of 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

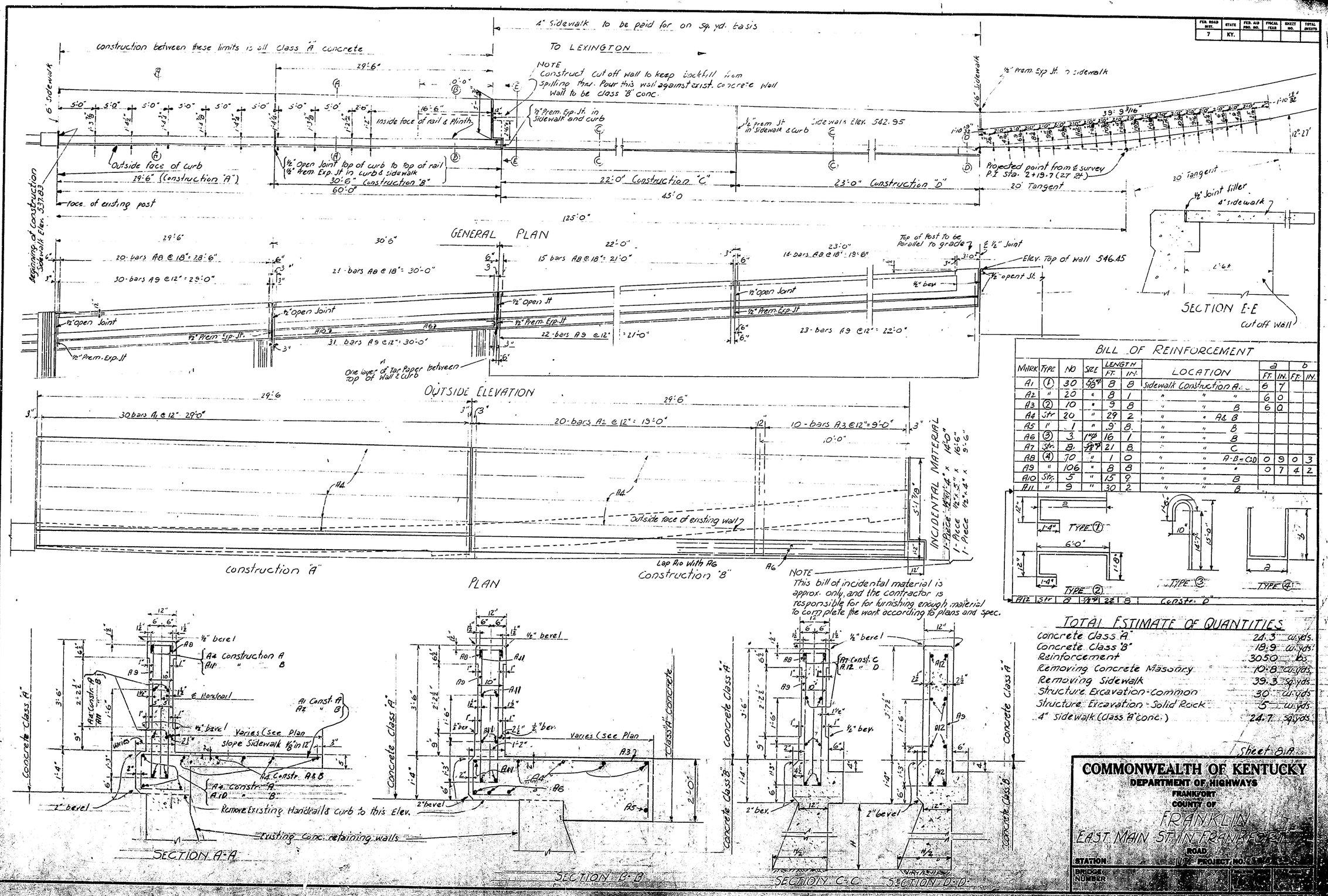
KENTUCKY RIVER BRIDGE
FRANKFORT

Revised Railing Note Revised 12-13-37
Revised Railing Note 1-26-37

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



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



BILL OF REINFORCEMENT

MARK	TYPE	NO	SIZE	LENGTH FT.	LENGTH IN.	LOCATION	a FT.	a IN.	b FT.	b IN.
A1	1	30	5/8"φ	8	8	Sidewalk Construction A	6	7		
A2	"	20	"	8	1	" " "	6	0		
A3	2	10	"	9	8	" " B	6	0		
A4	Str	20	"	29	2	" " A & B				
A5	"	1	"	9	8	" " B				
A6	3	3	1"φ	16	1	" " B				
A7	Str.	8	5/8"φ	21	8	" " C				
A8	4	70	"	1	0	" " A-B=C&D	0	9	0	3
A9	"	106	"	8	8	" " "	0	7	4	2
A10	Str.	5	"	15	9	" " B				
A11	"	9	"	30	2	" " B				
A12	Str	8	3/8"φ	22	8	Constr. "D"				

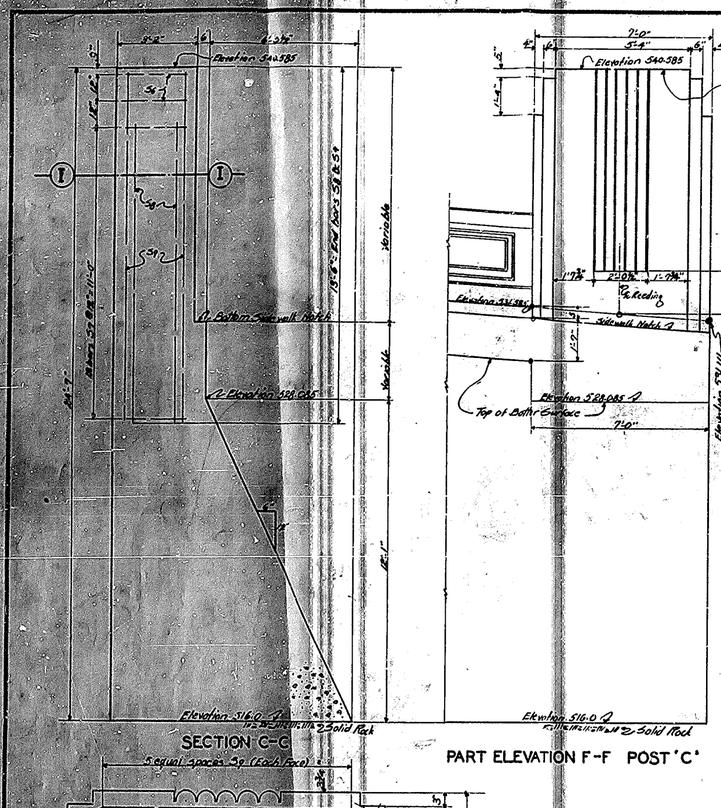
TOTAL ESTIMATE OF QUANTITIES

Concrete Class "A"	24.3 cu. yds.
Concrete Class "B"	18.9 cu. yds.
Reinforcement	3050 lbs.
Removing Concrete Masonry	10.8 cu. yds.
Removing Sidewalk	39.3 sq. yds.
Structure Excavation-Common	30 cu. yds.
Structure Excavation-Solid Rock	5 cu. yds.
4" Sidewalk (Class "A" conc.)	24.7 sq. yds.

Sheet 8A

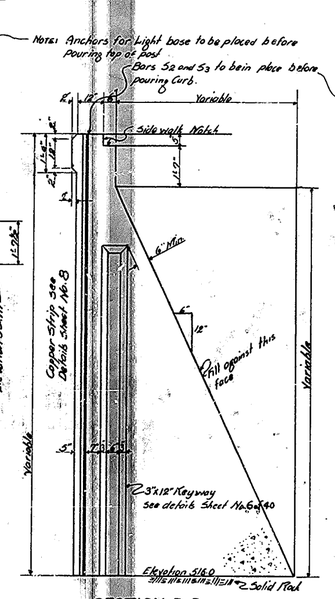
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
EAST MAIN ST. IN FRANKFORT
ROAD
STATION
PROJECT NO.
BRIDGE NUMBER

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
7	KY.	286		



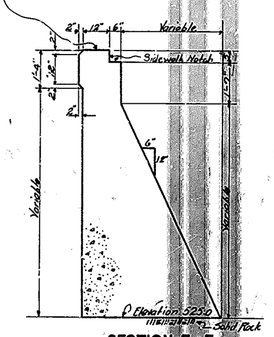
SECTION C-C

PART ELEVATION F-F POST 'C'

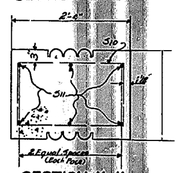


SECTION D-D

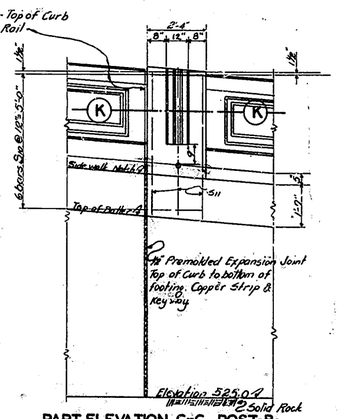
(SHOWING DIMENSIONS AND LOCATION OF COPPER STRIP AND KEYWAY) (COPPER STRIP AND KEYWAY BY EXPANSION JOINT ONLY)



SECTION E-E



SECTION K-K



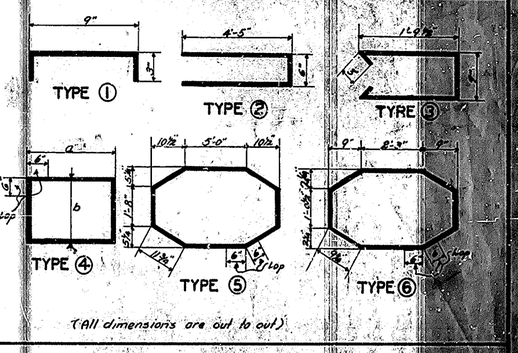
PART ELEVATION G-G POST 'B'

DETAILS OF REEDING FOR POSTS A & B

FOR ADDITIONAL DETAILS SEE SHEET 7 OF 40.

BILL AND TYPES OF REINFORCEMENT

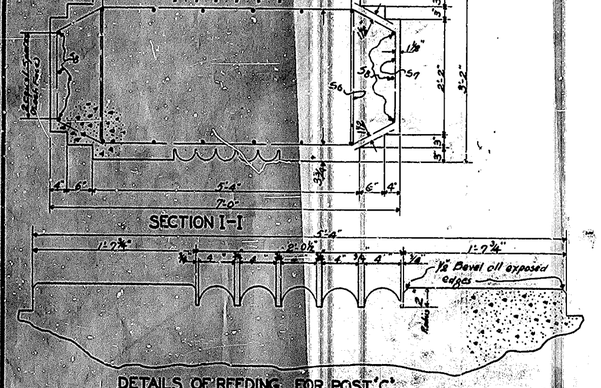
MARK	TYPE	NO.	SIZE	LENGTH FT.	LENGTH IN.	LOCATION	a FT.	a IN.	b FT.	b IN.
S1	1	108	1/2" ø	1	1	Top of Rail	—	—	—	—
S2	2	162	1/2" ø	9	2	Curb into Rail	—	—	—	—
S3	3	84	"	4	8	Curb into Plinth	—	—	—	—
S4	Str.	32 50	"	28	6	Points 2,3,4,5,1,6	—	—	—	—
S5	Str.	8 10	"	31	0	Panel No. 1	—	—	—	—
S6	4	2	"	15	9	Post 'C'	3'	0"	2'	6 1/2"
S7	5	12	"	17	"	" 'C'	—	—	—	—
S8	Str.	6	"	11	7	" 'C'	—	—	—	—
S9	Str.	12	"	13	4	" 'C'	—	—	—	—
S10	4	30	"	7	2	" 'B'	2'	9"	1'	8"
S11	Str.	30	"	5	4	" 'B'	—	—	—	—
S12	6	6	"	10	4	" 'A'	—	—	—	—
S13	Str.	10	"	5	4	" 'B'	—	—	—	—



ESTIMATE OF QUANTITIES

Concrete Class "A"	295.5	Cu. Yds.
Reinforcement	(30.40)	Lbs.

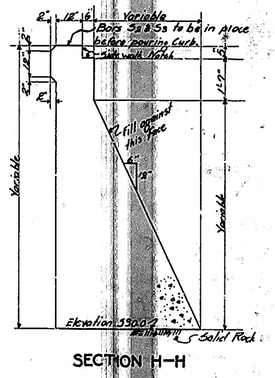
S/16.6



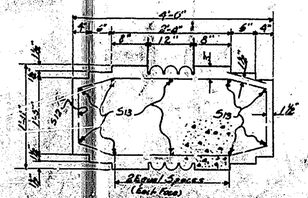
SECTION I-I

DETAILS OF REEDING FOR POST 'C'

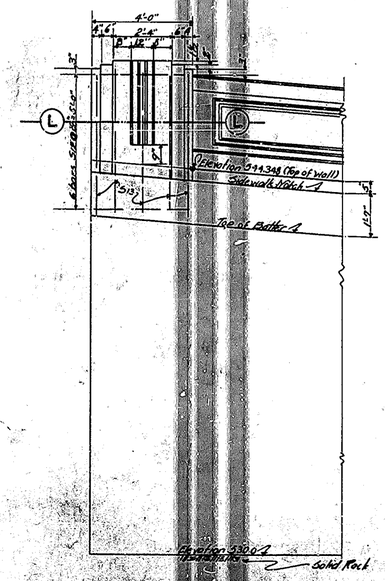
FOR ADDITIONAL DETAILS SEE SHEET 7 of 40.



SECTION H-H



SECTION L-L



PART ELEVATION J-J POST 'A'

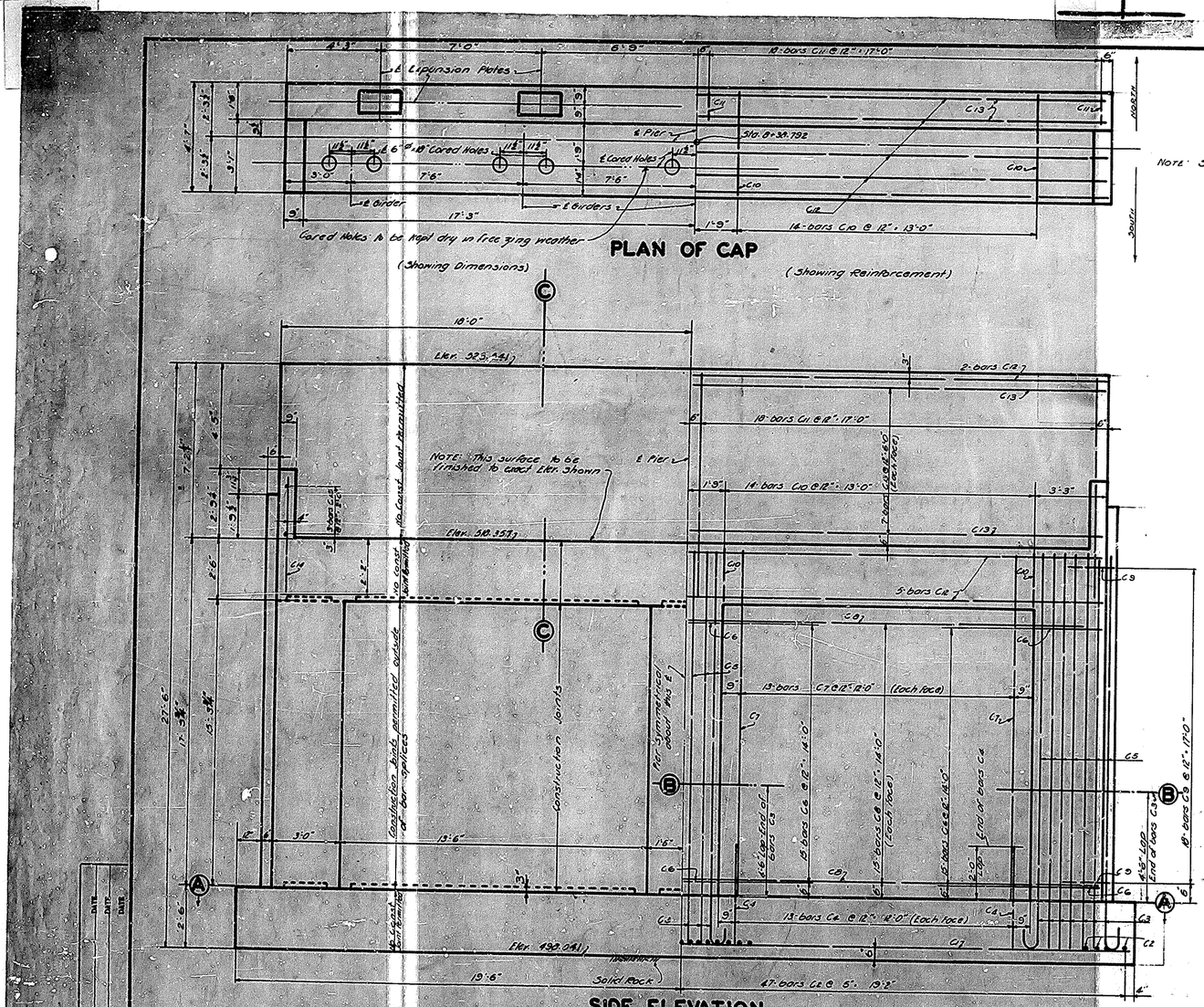
DETAILS OF RETAINING WALL SECTION-B- (2 SHEETS)

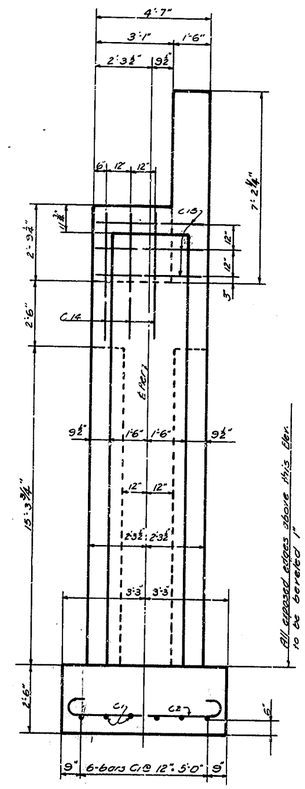
FOR REVISIONS SEE SHEET 2-A

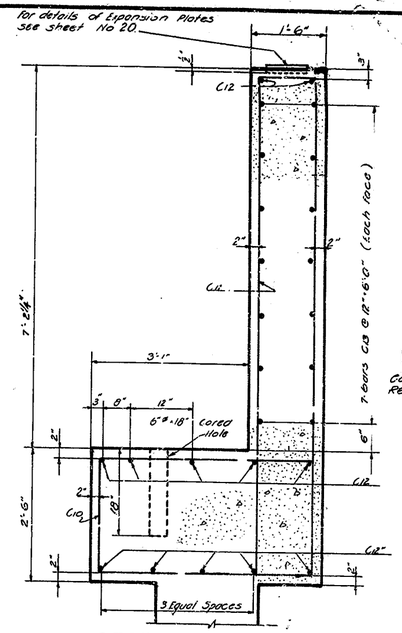
SHEET 9 OF 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
KENTUCKY RIVER BRIDGE
FRANKFORT

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			





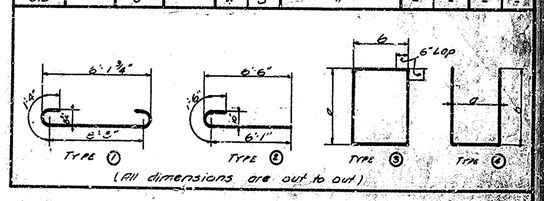


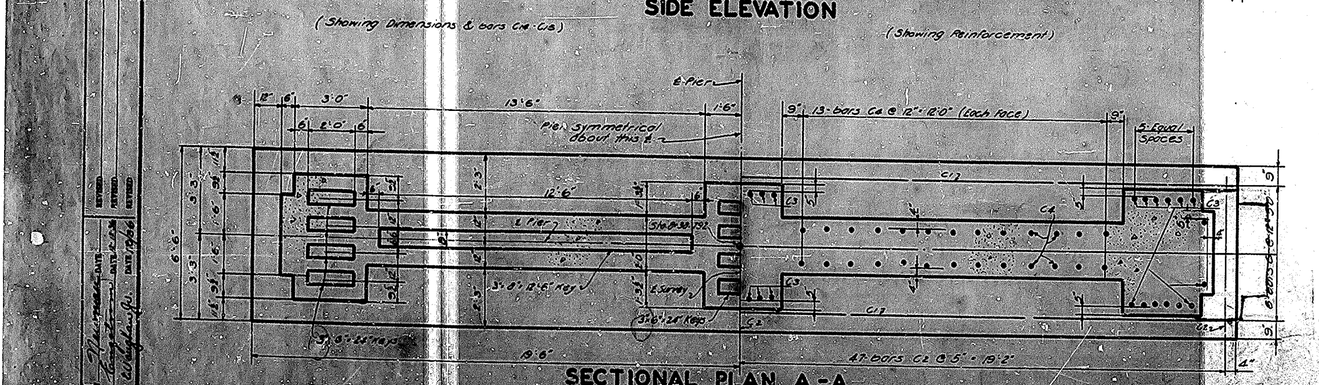
ESTIMATE OF QUANTITIES

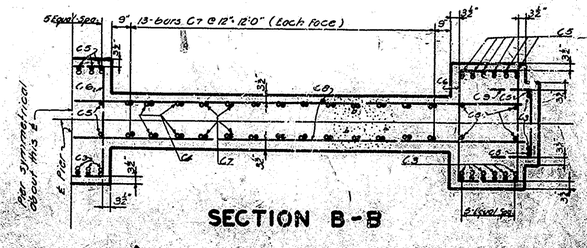
Concrete Class A	109.8	cu. yds.
Reinforcement	11660	lbs.

BILL AND TYPES OF REINFORCEMENT

MARK	TYPE	No.	SIZE	LENGTH FT.	LENGTH IN.	LOCATION	a FT.	a IN.	b FT.	b IN.
C1	Str	6	3/4"ø	38	8	Footing	—	—	—	—
C2	1	93	7/8"ø	8	1	"	—	—	—	—
C3	2	40	1"□	7	7	Dowels footing into Cols.	—	—	—	—
C4	Str	52	1/2"□	4	0	" " " Wall	—	—	—	—
C5	"	52	1"□	17	7	Column	—	—	—	—
C6	3	45	1/2"□	13	6	"	2	5	4	0
C7	Str	52	"	11	0	Web Wall	—	—	—	—
C8	"	30	"	36	0	"	—	—	—	—
C9	4	36	"	5	3	Column	2	5	1	10
C10	3	28	"	13	6	Cap	4	3	2	2
C11	4	36	3/4"ø	10	8	"	1	2	9	4
C12	Str	12	1"□	35	8	"	—	—	—	—
C13	"	14	1/2"□	35	8	"	—	—	—	—
C14	"	6	"	4	9	Curtain Wall	—	—	—	—
C15	"	6	"	4	3	"	—	—	—	—







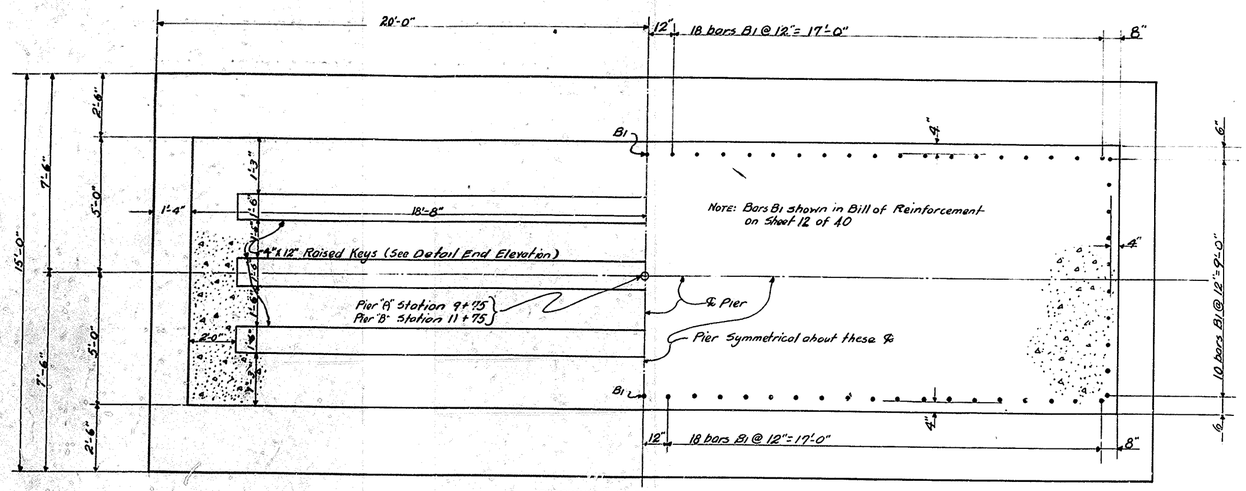
SHEET NO. 10 OF 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

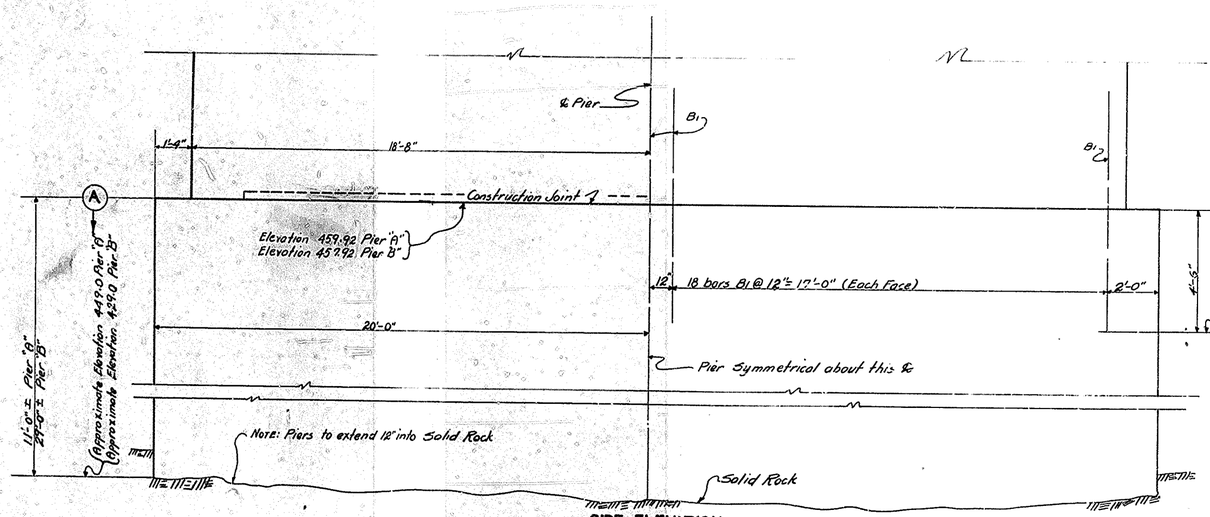
KENTUCKY RIVER BRIDGE
FRANKFORT

DETAILS OF PIER N1

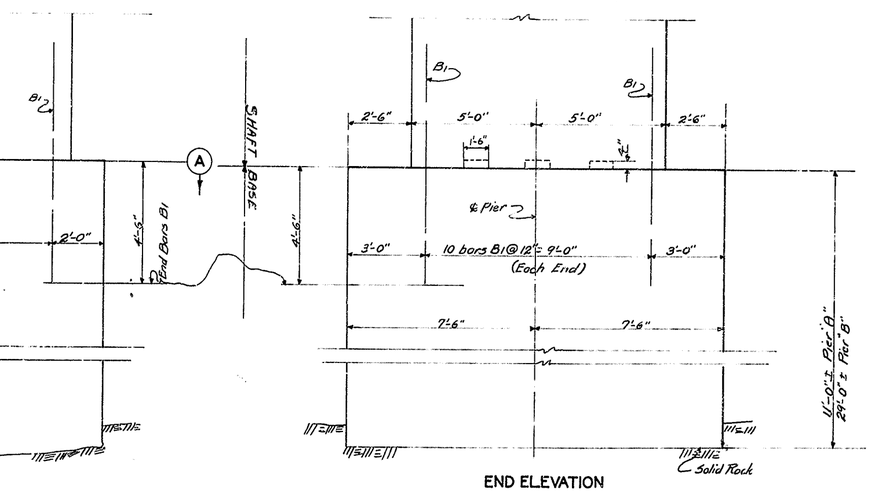
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



SECTIONAL PLAN A—A



SIDE ELEVATION



END ELEVATION

ESTIMATE OF QUANTITIES FOR BASES

	PIER "A"	PIER "B"	
Concrete Class "A"	244.5	644.4	Cu. Yds.

NOTE: Reinforcing steel shown on this sheet carried in Bill of bars and Estimate of Quantities on Sheet 12 of 40.

Sheet 11 of 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

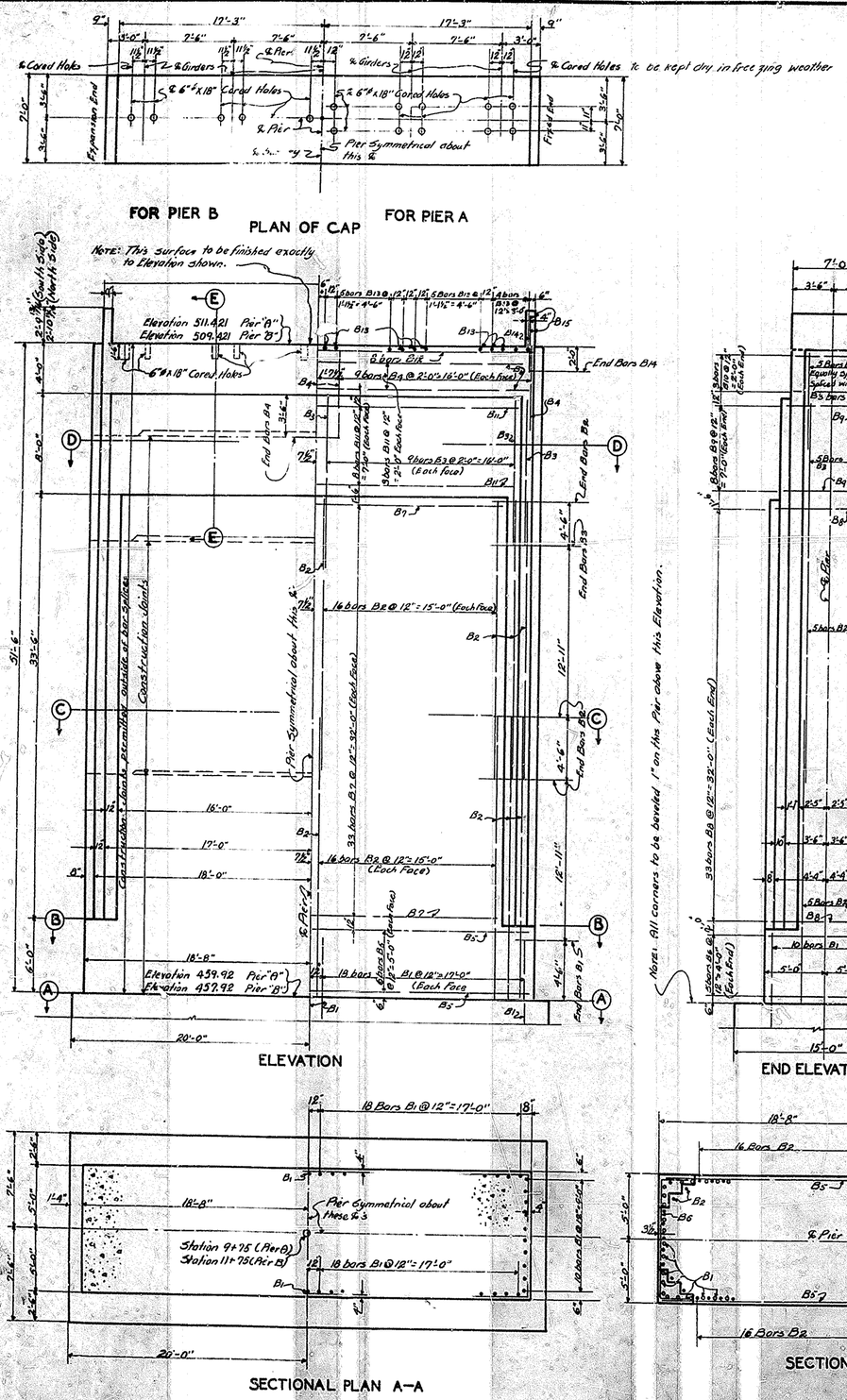
PIERS A AND B (BASES)

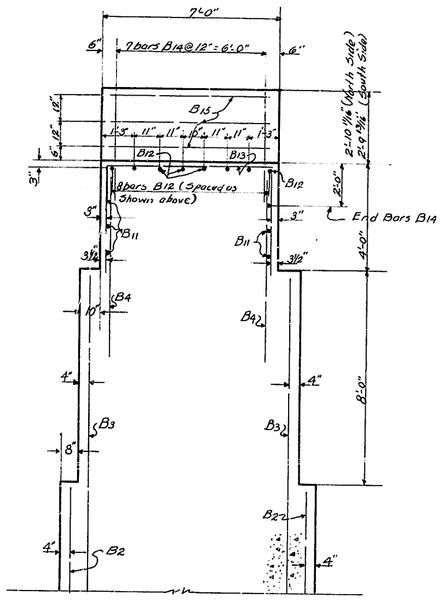
DWG. NO. 6742

DESIGNED BY Hayman DATE
TRACED BY Hance DATE 12-8-37
CHECKED BY Wingfield Jr. DATE 4-26-38
REVISED Footing Elev. Pier A DATE 2-4-37
REVISED DATE
REVISED DATE
REVISED DATE

PORT 3319—300—11-36

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



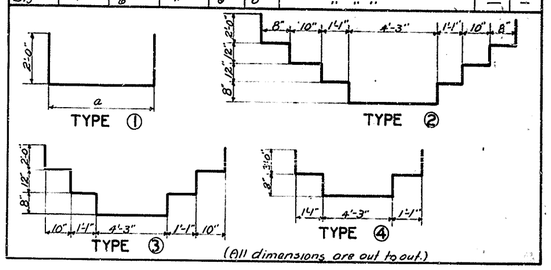


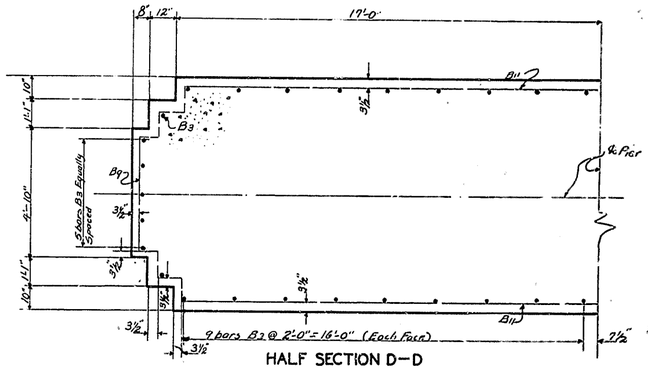
ESTIMATE OF QUANTITIES FOR SHAFTS

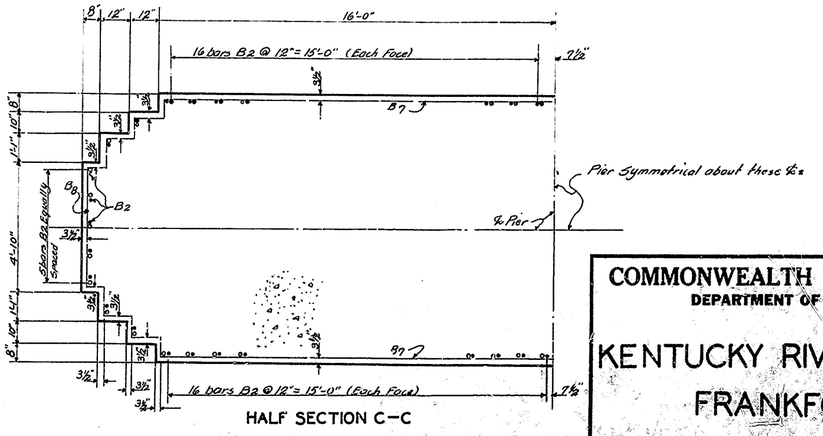
	PIER "A"	PIER "B"	
Concrete Class "A"	659.6	659.6	Cu.Yds.
Reinforcement	19700	19700	Lbs.

BILL AND TYPES OF REINFORCEMENT FOR ONE PIER

MARK	TYPE	NO.	SIZE	LENGTH FT.	LENGTH IN.	LOCATION	a FT.	a IN.
B1	Str.	94	1" ⌀	9	0	Pier Shaft	—	—
B2	"	164	"	21	11	"	—	—
B3	"	50	"	12	6	"	—	—
B4	"	48	"	7	0	"	—	—
B5	"	12	1/2" ⌀	36	9	"	—	—
B6	(1)	10	"	13	3	"	9	5
B7	Str.	66	"	31	5	"	—	—
B8	(2)	66	"	17	7	"	—	—
B9	(3)	16	"	14	7	"	—	—
B10	(4)	6	"	13	8	"	—	—
B11	Str.	22	"	33	5	"	—	—
B12	"	8	1" ⌀	35	8	Top of Pier	—	—
B13	(1)	34	1/2" ⌀	10	4	" " "	6	6
B14	Str.	14	"	4	7	" " "	—	—
B15	"	6	"	6	8	" " "	—	—







SHEET 12 OF 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

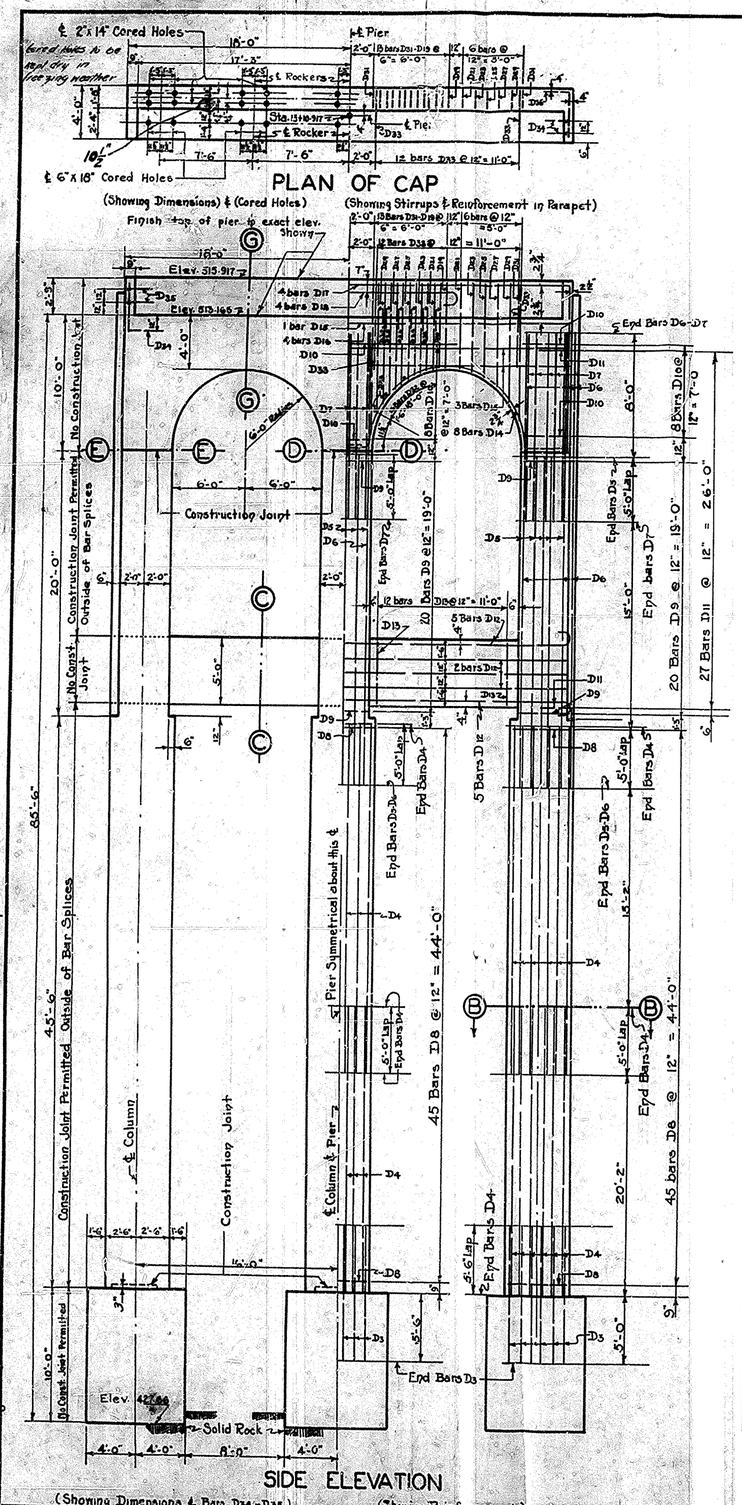
PIERS A AND B (SHAFTS)

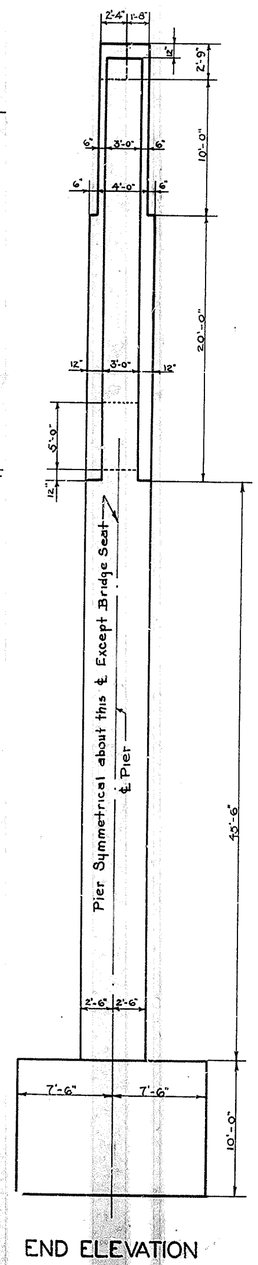
DRAWING No. 6742

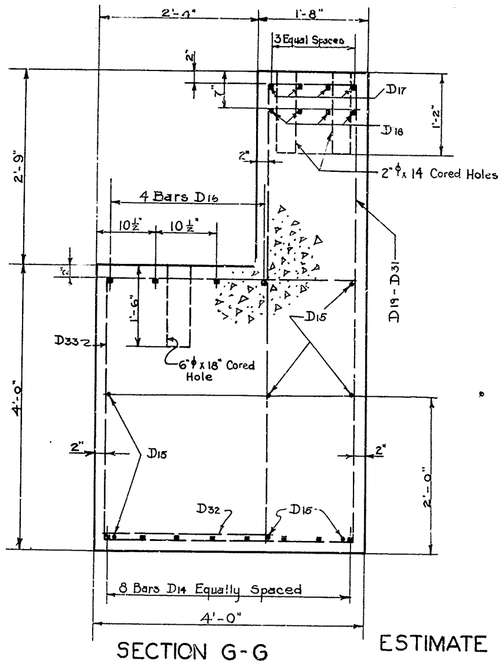
DESIGNED BY Thomas DATE
TRACED BY Mace DATE
CHECKED BY E. Vaughn DATE 10/46
REVISED
REVISED
REVISED
REVISED

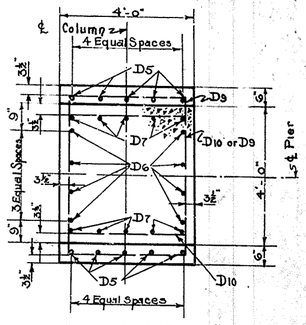
BRIDGE

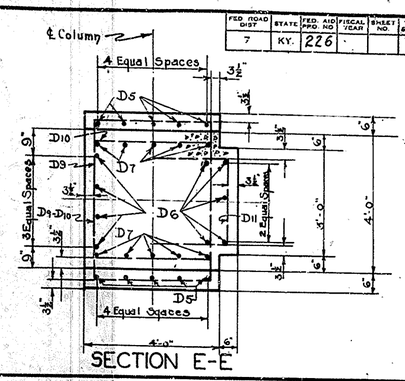
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			





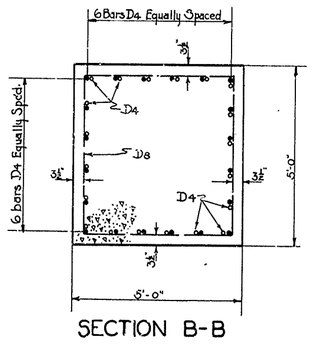


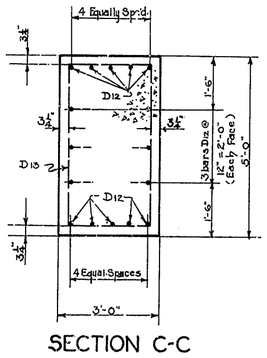


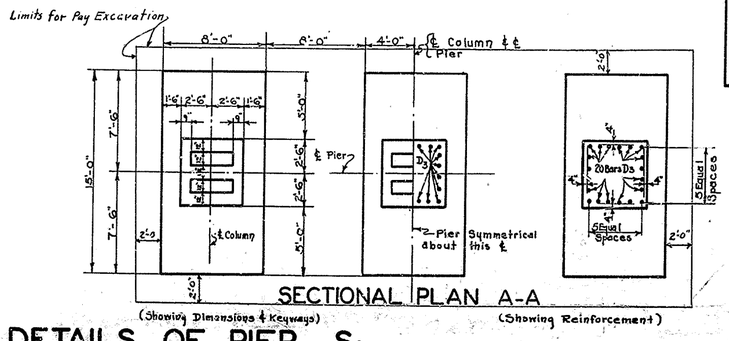


ESTIMATE OF QUANTITIES

Concrete Class "A" 364.1 Cu.yds
Reinforcement 44080 lbs.

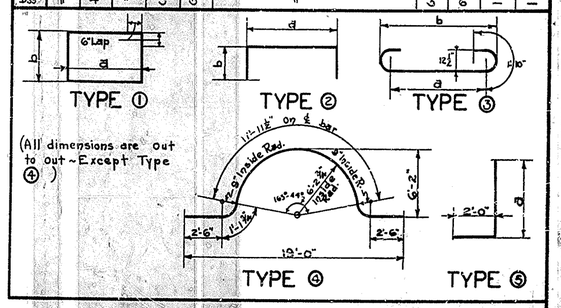






BILL AND TYPES OF REINFORCEMENT

MARK	TYPE	NO	SIZE	LENGTH Ft.	LENGTH In.	LOCATION	a Ft.	a In.	b Ft.	b In.
D1	①					NOT USED				
D2	"					"				
D3	Str.	60	1¼ □	11	0	DOWELS-FOOTING INTO COLUMNS	—	—	—	—
D4	"	120	"	25	2	COLUMNS	—	—	—	—
D5	"	30	"	25	0	"	—	—	—	—
D6	"	26	"	33	0	"	—	—	—	—
D7	"	30	"	13	0	"	—	—	—	—
D8	①	135	½ □	18	4	"	4	5	4	5
D9	"	60	"	16	4	"	4	5	3	5
D10	"	24	"	14	4	"	3	5	3	5
D11	②	81	"	6	3	"	2	5	2	0
D12	③	16	1¼ □	37	8	STRUT	34	0	35	0½
D13	①	24	⅝ ϕ	14	6	"	4	5½	2	5½
D14	④	16	1¼ □	25	3	CAP	—	—	—	—
D15	Str.	7	⅝ ϕ	35	0	"	—	—	—	—
D16	②	4	1¼ □	54	9	"	35	7	9	9
D17	"	4	1¼ □	60	3	"	35	7	12	6
D18	③	4	"	19	8	"	16	0	17	0½
D19	①	2	⅝ ϕ	16	2	"	6	5	1	4
D20	"	2	"	16	3	"	6	5¼	1	4
D21	"	4	"	16	5	"	6	6¼	1	4
D22	"	2	"	16	7	"	6	7¼	1	4
D23	"	4	"	16	11	"	6	9¼	1	4
D24	"	2	"	17	3	"	6	11¼	1	4
D25	"	4	"	17	9	"	7	2½	1	4
D26	"	2	"	18	5	"	7	6½	1	4
D27	"	4	"	19	2	"	7	10¾	1	4
D28	"	2	"	20	1	"	8	1½	1	4
D29	"	4	"	21	4	"	8	11¾	1	4
D30	"	2	"	22	11	"	9	9½	1	4
D31	"	4	"	26	3	"	11	5½	1	4
D32	Str.	26	"	2	8	"	—	—	—	—
D33	①	24	⅝ ϕ	15	4	"	3	8	3	8
D34	⑤	4	½ □	5	5	PARAPET	3	6	—	—
D35	"	4	"	5	5	"	3	6	—	—



Sheet 13 of 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

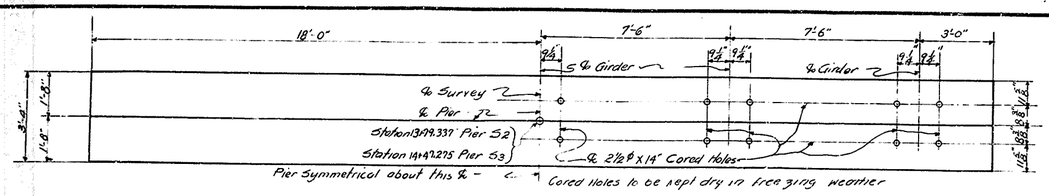
KENTUCKY RIVER BRIDGE
FRANKFORT

DRAWING 6742

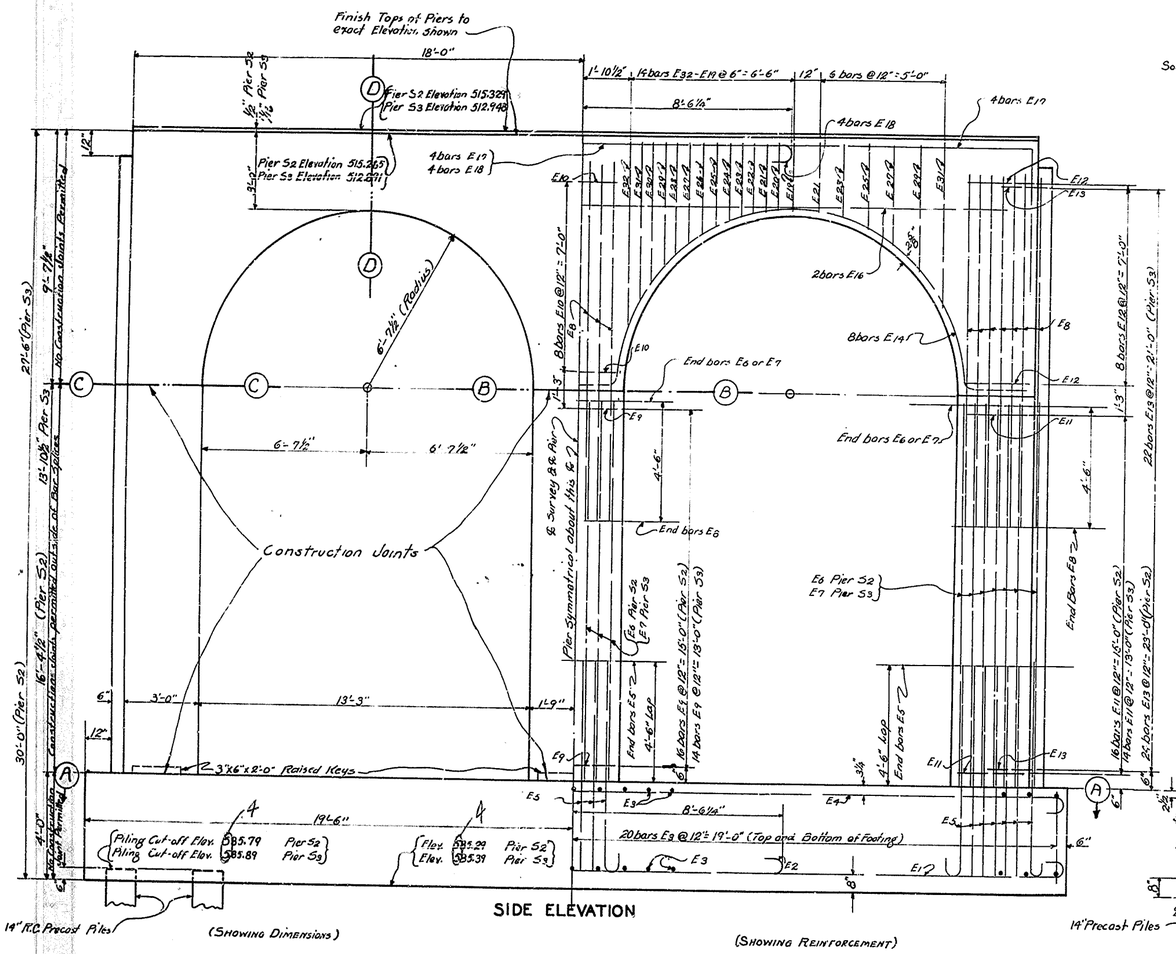
DETAILS OF PIER S1

BRIDGE

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



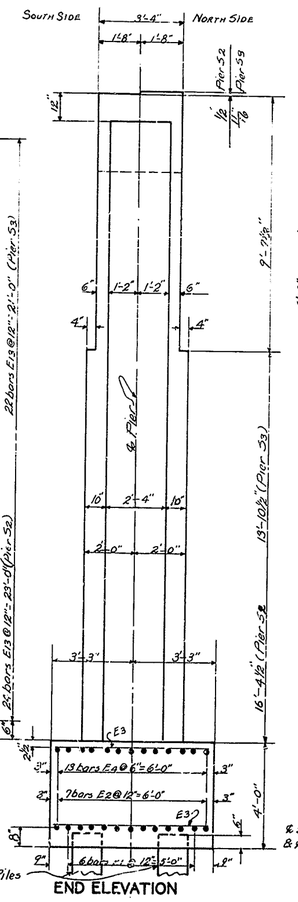
PLAN OF CAP



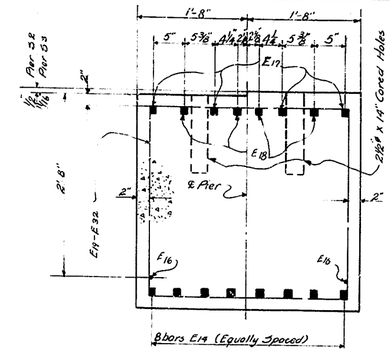
SIDE ELEVATION

(SHOWING DIMENSIONS)

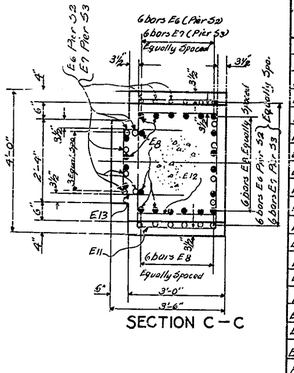
(SHOWING REINFORCEMENT)



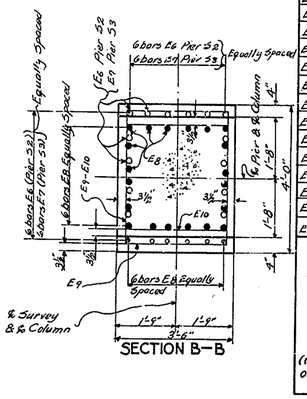
END ELEVATION



SECTION D-D



SECTION C-C



SECTION B-B

ESTIMATE OF QUANTITIES

FOR PIER S2

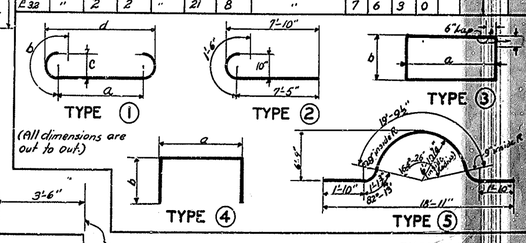
Concrete, Class "A"	88.1 Cu. Yds.
Reinforcement	19540 Lbs.
22-14" R.C. Precast Piles	1100 Lin. Ft.

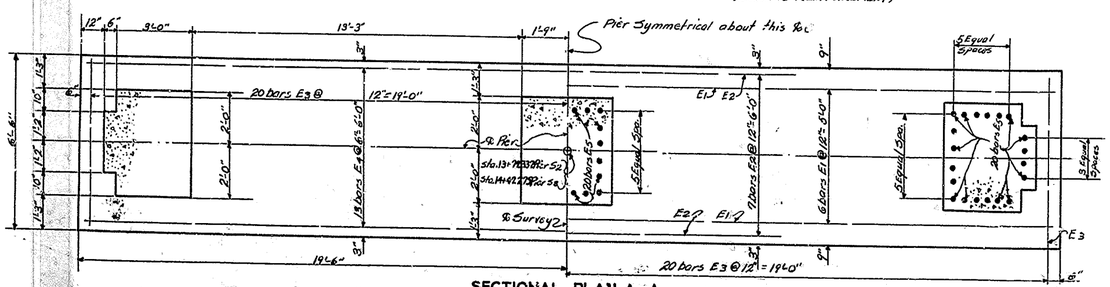
FOR PIER S3

Concrete Class "A"	84.9 Cu. Yds.
Reinforcement	16920 Lbs.
22-14" R.C. Precast Piles	1100 Lin. Ft.

BILL AND TYPES OF REINFORCEMENT

Mark	Type	No. Per S2	No. Per S3	Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
E1	1	6	6	1½"□	41	3	Footing	37	7	1	10	1	0½	38	7½
E2	"	7	7	"	19	8	"	16	0	1	10	1	0½	17	0½
E3	Str.	78	78	9/16"	6	2	"	—	—	—	—	—	—	—	—
E4	1	13	13	1"□	40	8	"	37	8	1	6	0	10	38	6
E5	2	60	60	"	8	11	Dowels Footing into Col.	—	—	—	—	—	—	—	—
E6	Str.	64	—	"	16	3	Column	—	—	—	—	—	—	—	—
E7	"	—	64	"	13	9	"	—	—	—	—	—	—	—	—
E8	"	64	64	"	19	0	"	—	—	—	—	—	—	—	—
E9	3	16	14	½"□	13	4	"	3	5	2	11	—	—	—	—
E10	"	8	8	"	12	0	"	2	9	2	11	—	—	—	—
E11	"	32	28	"	12	4	"	3	5	2	5	—	—	—	—
E12	"	16	16	"	11	0	"	2	9	2	5	—	—	—	—
E13	4	48	44	"	4	7	"	1	9	1	6	—	—	—	—
E14	5	16	16	1⅛"□	25	9	Cap	—	—	—	—	—	—	—	—
Not Used		—	—	—	—	—	—	—	—	—	—	—	—	—	—
E16	Str.	2	2	½"□	32	0	Cap	—	—	—	—	—	—	—	—
E17	4	4	4	1¼"□	47	0	"	35	4	6	0	—	—	—	—
E18	1	4	4	"	19	8	"	16	0	1	0	1	0½	17	0½
E19	3	2	2	5/8"ϕ	12	0	"	2	8	3	0	—	—	—	—
E20	"	2	2	"	12	1	"	2	8¼	3	0	—	—	—	—
E21	"	4	4	"	12	2	"	2	8¾	3	0	—	—	—	—
E22	"	2	2	"	12	4	"	2	9¾	3	0	—	—	—	—
E23	"	4	4	"	12	7	"	2	11½	3	0	—	—	—	—
E24	"	2	2	"	12	11	"	3	1½	3	0	—	—	—	—
E25	"	4	4	"	13	5	"	3	4½	3	0	—	—	—	—
E26	"	2	2	"	13	11	"	3	7½	3	0	—	—	—	—
E27	"	4	4	"	14	7	"	3	11½	3	0	—	—	—	—
E28	"	2	2	"	15	5	"	4	4½	3	0	—	—	—	—
E29	"	4	4	"	16	5	"	4	10½	3	0	—	—	—	—
E30	"	2	2	"	17	7	"	5	5½	3	0	—	—	—	—
E31	"	4	4	"	19	2	"	6	3	3	0				
E32	"	2	2	"	21	8	"	7	6	3	0				

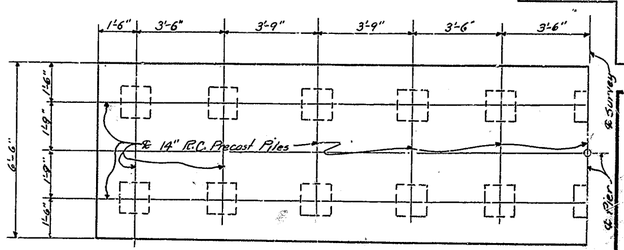




SECTIONAL PLAN A-A

(SHOWING DIMENSIONS AND STEEL IN TOP OF FOOTING)

(SHOWING STEEL IN BOTTOM OF FOOTING & DOWELS)



PILING PLAN

(22 PILES REQUIRED FOR EACH PIER)

PIERS S2 & S3

SHEET 14 OF 40

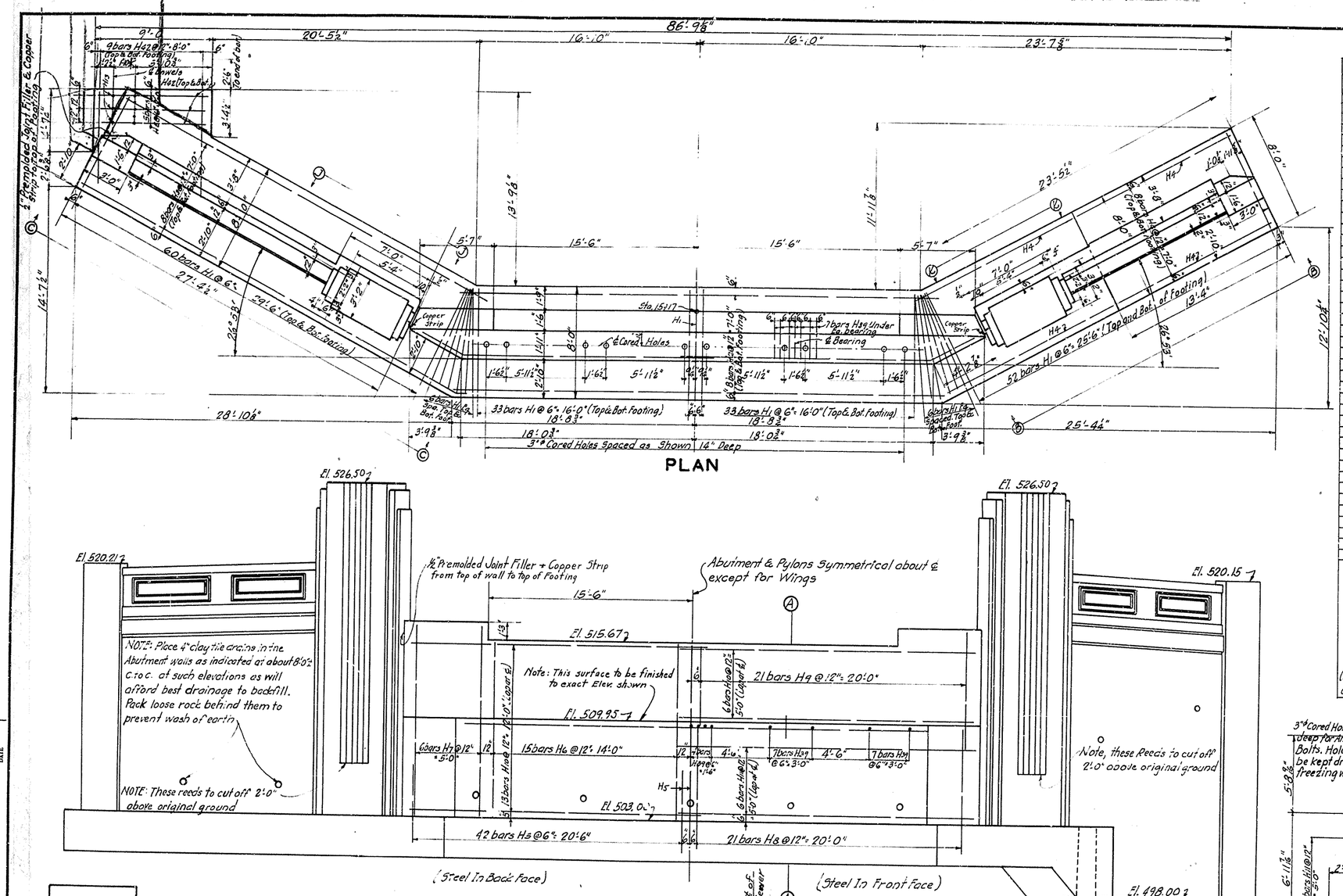
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

DRAWING No. 6742

DESIGNED BY Marmon DATE
TRACED BY Mac DATE 12-14-56
CHECKED BY Wallington DATE 12-26
REVISED DATE
REVISED DATE
REVISED DATE

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



BILL AND TYPES OF REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH Ft.	LENGTH In.	LOCATION	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
H1	①	382	⅝"⌀	8	7	Footing	7	5	1	2	0	7½	7	8½
H2	Str.	16	1"⌀	38	0	"	-	-	-	-	-	-	-	-
H3	"	16	"	32	0	"	-	-	-	-	-	-	-	-
H4	"	32	"	13	6	"	-	-	-	-	-	-	-	-
H5	①	189	⅝"⌀	6	8	Back Face Dowels	5	6	1	2	0	7½	6	9½
H6	Str.	31	"	12	6	End Wall (Back Face)	-	-	-	-	-	-	-	-
H7	"	12	"	13	9	" " " "	-	-	-	-	-	-	-	-
H8	"	42	½"⌀	9	0	" " (Front Face)	-	-	-	-	-	-	-	-
H9	"	42	"	8	0	Parapet Wall (Front Face)	-	-	-	-	-	-	-	-
H10	"	38	"	22	0	End Wall (Lap bars at ℄)	-	-	-	-	-	-	-	-
H11	②	12	"	23	0	" " " " " "	-	-	-	-	-	-	-	-
H12	Str.	4	⅝"⌀	35	0	" " Under Bridge Seat	-	-	-	-	-	-	-	-
H13	"	55	½"⌀	4	0	Front Face Dowels (Wings)	-	-	-	-	-	-	-	-
H14	"	12	"	23	3	" " Pylons	-	-	-	-	-	-	-	-
H15	"	4	"	21	6	" " "	-	-	-	-	-	-	-	-
H16	"	16	⅜"⌀	13	6	Back Face Pylons	-	-	-	-	-	-	-	-
H17	"	16	½"⌀	10	0	" " "	-	-	-	-	-	-	-	-
H18	③	28	"	20	0	Hoops in Pylons	-	-	-	-	-	-	-	-
H19	④	14	"	17	11	"	-	-	-	-	-	-	-	-
H20	⑤	4	"	15	9	"	7	6½	5	0	-	-	-	-
H21	Str.	17	⅜"⌀	12	9	East Wing Wall (Back Face)	-	-	-	-	-	-	-	-
H22	"	17	½"⌀	13	0	" " " (Front ")	-	-	-	-	-	-	-	-
H23	"	6	½"⌀	17	0	" " " (End Post)	-	-	-	-	-	-	-	-
H24	"	2	"	12	10	" " " "	-	-	-	-	-	-	-	-
H25	"	26	½"⌀	22	6	" " (Both Faces)	-	-	-	-	-	-	-	-
H26	"	10	⅜"⌀	17	9	West Wing Wall (Back Face)	-	-	-	-	-	-	-	-
H27	"	3	"	13	6	" " " "	-	-	-	-	-	-	-	-
H28	"	10	½"⌀	18	0	" " " (Front Face)	-	-	-	-	-	-	-	-
H29	"	3	"	13	9	" " " "	-	-	-	-	-	-	-	-
H30	"	6	⅜"⌀	22	0	West Wing (End Post)	-	-	-	-	-	-	-	-
H31	"	2	"	12	9	" " " "	-	-	-	-	-	-	-	-
H32	"	10	½"⌀	13	0	" " (Both Faces)	-	-	-	-	-	-	-	-
H33	"	24	"	18	6	" " " "	-	-	-	-	-	-	-	-
H34	"	7	"	17	0	East Wing (Handrail Panel)	-	-	-	-	-	-	-	-
H35	"	7	"	13	2	West " " "	-	-	-	-	-	-	-	-
H36	⑥	16	"	4	8	Curb into Plinth	-	-	-	-	-	-	-	-
H37	⑦	30	"	9	2	" " Rail	-	-	-	-	-	-	-	-
H38	⑧	21	"	1	1	Top of Rail	-	-	-	-	-	-	-	-
H39	Str.	35	¾"⌀	3	2	Under Bearing Plate	-	-	-	-	-	-	-	-
H40	⑨	29	½"⌀	9	7	Handrail Posts	-	-	-	-	-	-	-	-
H41	⑤	8	½"⌀	8	4	" "	1	2	2	8	-	-	-	-
H42	Str.	24	½"⌀	8	9	East Wing Body into Bot. Wall	-	-	-	-	-	-	-	-

ESTIMATE OF QUANTITIES

Concrete, Class "A"		226.7	Cu. Yds.
Reinforcement		17,890	Lbs.
46-14" Precast Con. Piles	(Appr.)	2,300	Lin. Ft.

DETAILS OF ABUTMENT NO. 2

(2 Sheets)

SHEET 15 OF 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

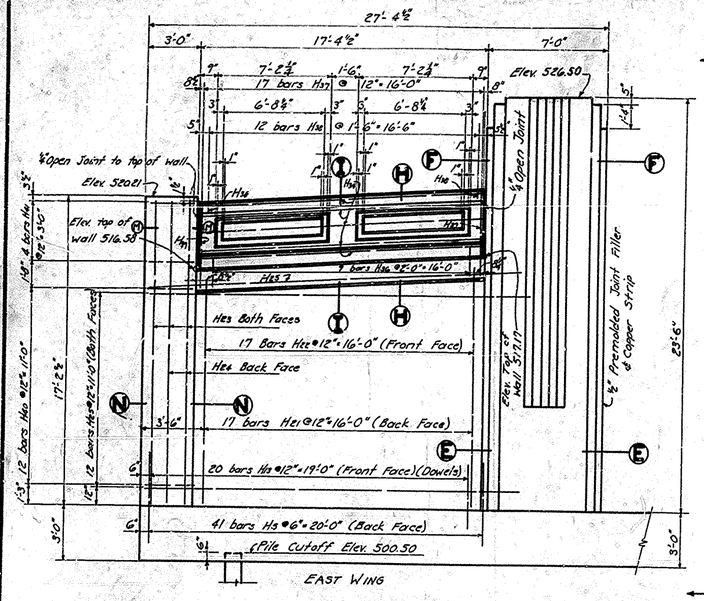
DRAWING No. 6742

REVISED	Piling Fit Side of Abut. No. 2 in order	DATE 12-26	DATE 2-6-37
REVISED	To clear 36" Sewer	DATE 12-26	DATE
REVISED		DATE 12-26	DATE
DESIGNED BY	E.R.S.		
TRACED BY	B.T.O.		
CHECKED BY	Eng. Staff		

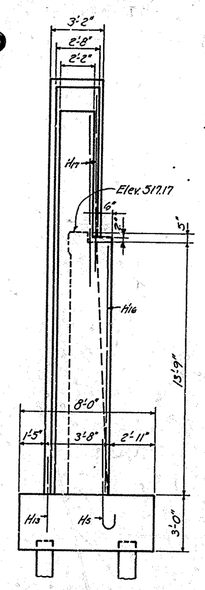
POST 1179—500—11-36

BRIDGE

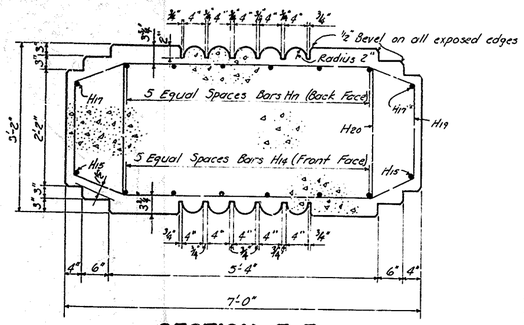
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



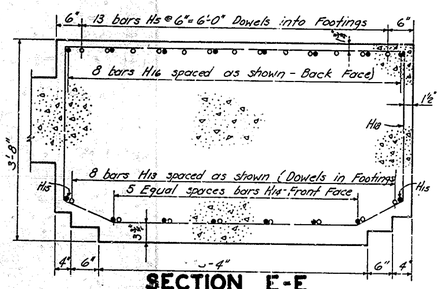
ELEVATION C-C



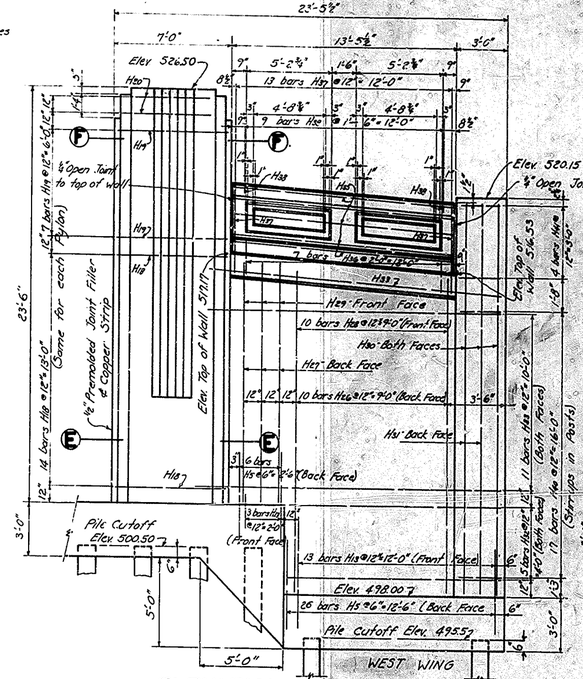
ELEVATION D-D



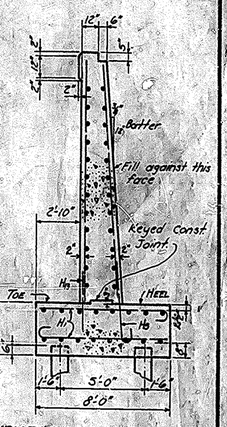
SECTION F-F
(Showing Reinforcement in Pylons)



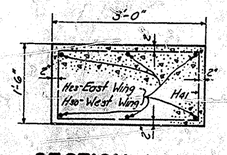
SECTION E-E
(Showing Reinforcement in Pylons)



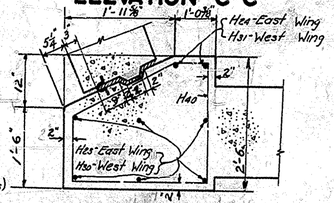
ELEVATION B-B



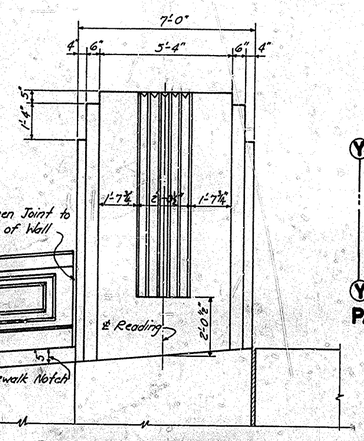
TYPICAL WING SECTION
(Handrail Removed)



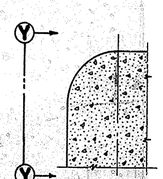
SECTION M-M
(Showing Reinforcement in Posts)



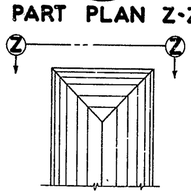
SECTION N-N
(Showing Reinforcement in Posts & Keyway in East Wing Post)



PART ELEVATION K-K

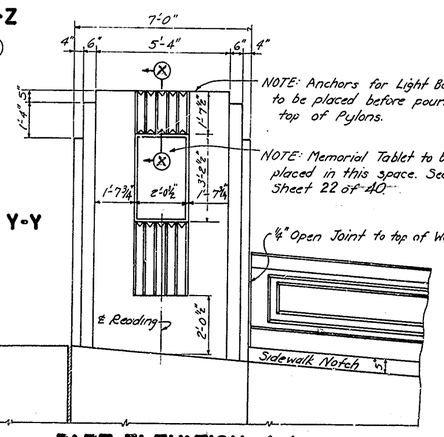


PART SECT. X-X

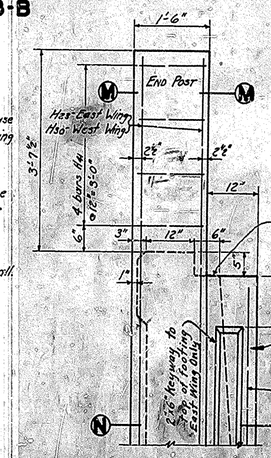


PART ELEV. Y-Y

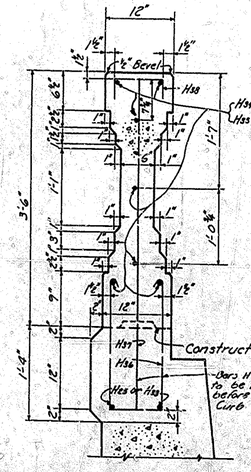
DETAILS OF REEDS



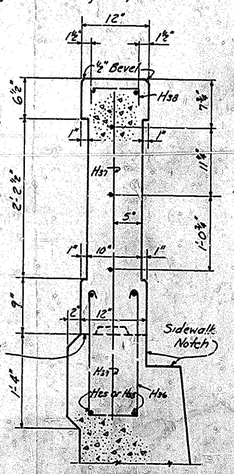
PART ELEVATION J-J



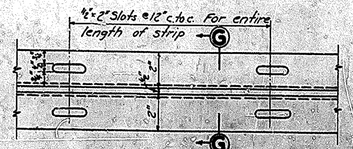
PART END ELEVATION
(Showing Reinforcement in Posts)



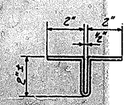
PART SECTION H-H



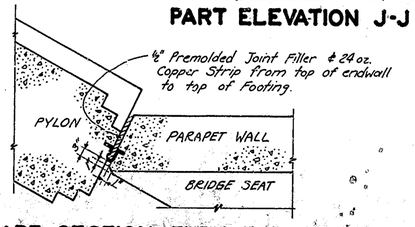
PART SECTION I-I



DETAILS OF COPPER STRIP
9" Width of 24 oz. Copper Strip 14'-0" long
(3 Required)



SECTION G-G



PART SECTION THRU EXP. JOINT
(Showing Copper Strip & Premolded Joint Filler)

PART PLAN Z-Z

DETAILS OF ABUTMENT NO. 2

Sheet 16 of 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

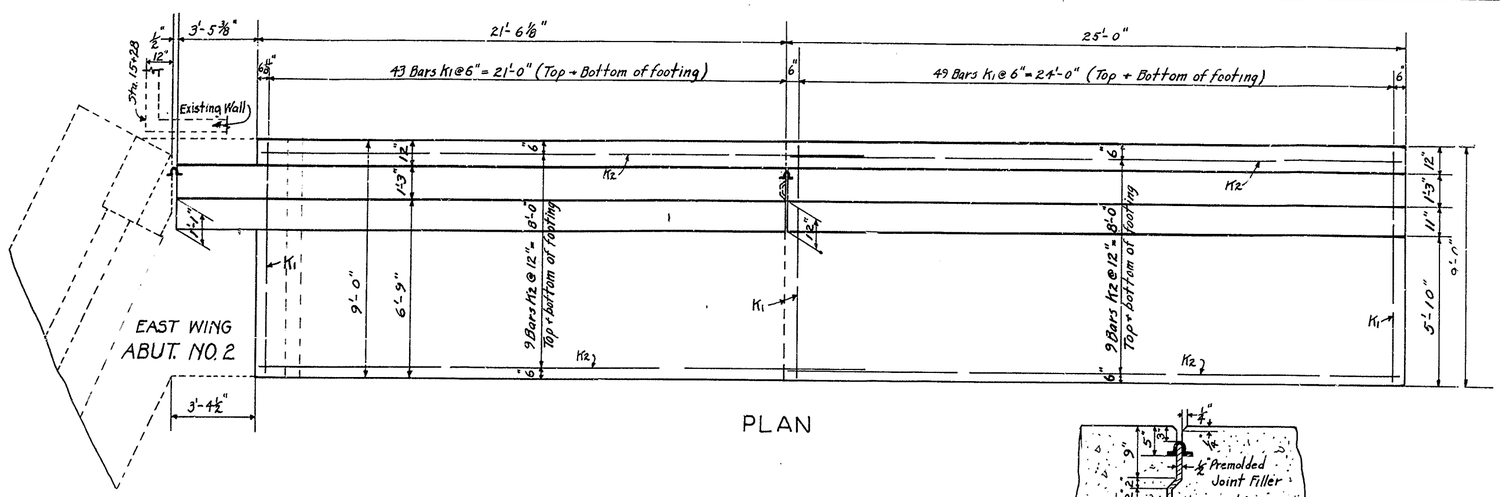
KENTUCKY RIVER BRIDGE
FRANKFORT

6142

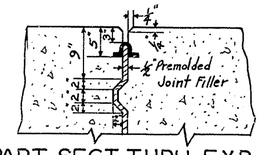
DESIGNED BY Ellis	DATE 12-36	ADDED	DATE
TRACED BY Stedeck Jr.	DATE 12-36	REVISED	DATE
CHECKED BY Conferson	DATE 12-36	REVISED	DATE

BRIDGE

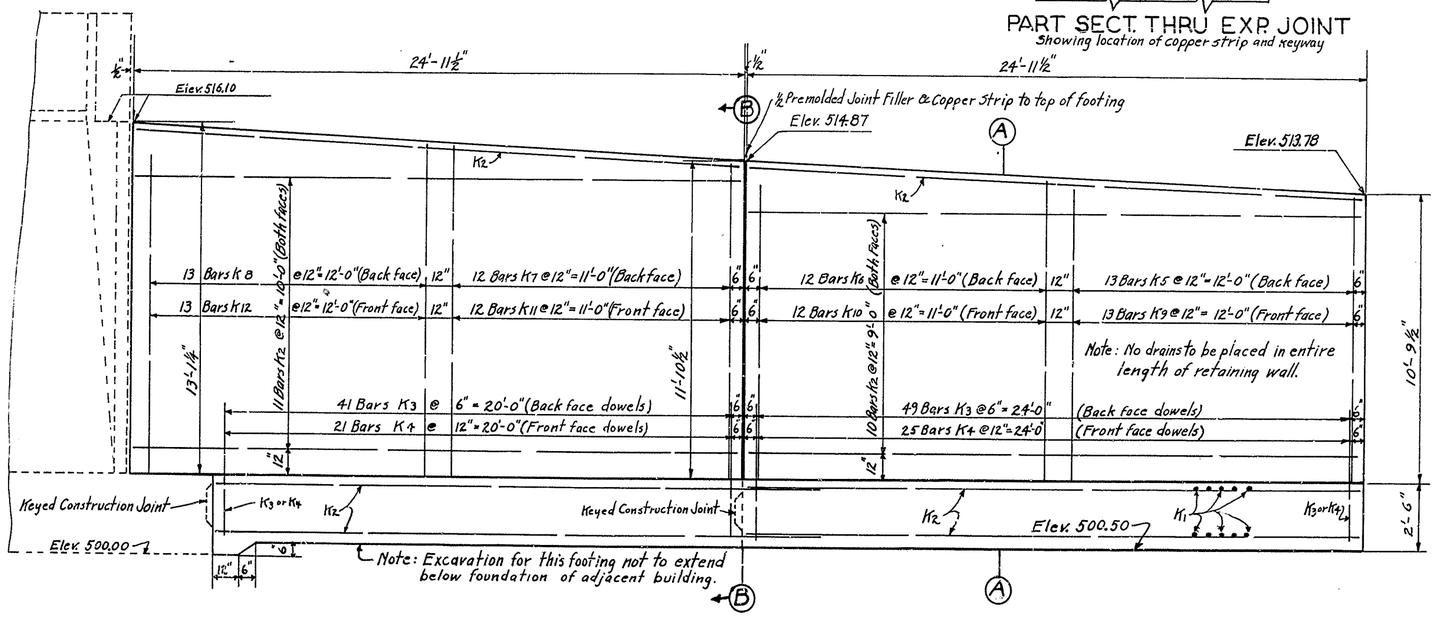
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



PLAN



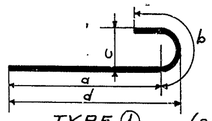
PART SECT. THRU EXP. JOINT
Showing location of copper strip and keyway



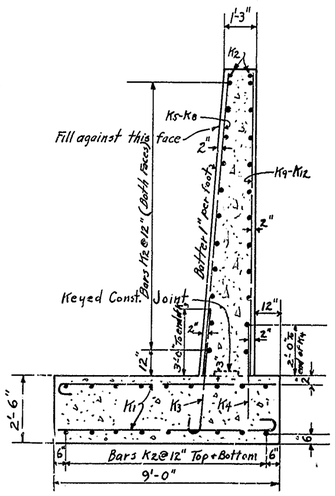
BACK ELEVATION

BILL AND TYPES OF REINFORCEMENT

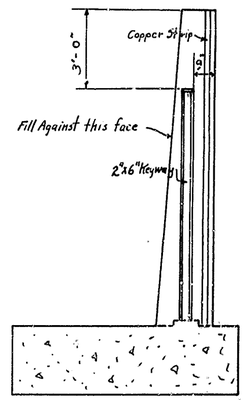
MARK	TYPE	NO	SIZE	LENGTH FT	LENGTH IN	LOCATION	a FT	a IN	b FT	b IN	c FT	c IN	d FT	d IN
K1		184	½" □	9	4	Footing	8	6	0	10	0	5	8	8½
K2		82	½" φ	24	9	Footing + Walls	–	–	–	–	–	–	–	–
K3	(1)	90	⅝" φ	5	10	Footing into Wall	4	10	1	0	0	6¼	5	7⅛
K4	Str	46	½" φ	4	0	" " "	–	–	–	–	–	–	–	–
K5	"	13	⅝" φ	10	7	Back Face of Wall	–	–	–	–	–	–	–	–
K6	"	12	"	11	4	"	–	–	–	–	–	–	–	–
K7	"	12	"	11	9	"	–	–	–	–	–	–	–	–
K8	"	13	"	12	4	"	–	–	–	–	–	–	–	–
K9	"	13	½" φ	10	7	Front Face of Wall	–	–	–	–	–	–	–	–
K10	"	12	"	11	4	"	–	–	–	–	–	–	–	–
K11	"	12	"	11	9	"	–	–	–	–	–	–	–	–
K12	"	13	"	12	4	"	–	–	–	–	–	–	–	–



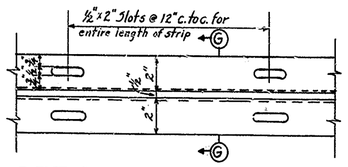
TYPE (1)
(Dimensions on type are out to out of bar)



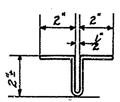
SECTION A-A
(Showing Reinforcement)



SECTION B-B
(Showing Keyway at Exp. Joint)



DETAILS OF COPPER STRIP
9" Width of 24 oz. Copper Strip 12'-0" Long (One required)



SECTION G-G

ESTIMATE OF QUANTITIES

Concrete Class "A"	77.5 Cu. Yds.
Reinforcement	4470 Lbs.

SHEET NO. 17 OF 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

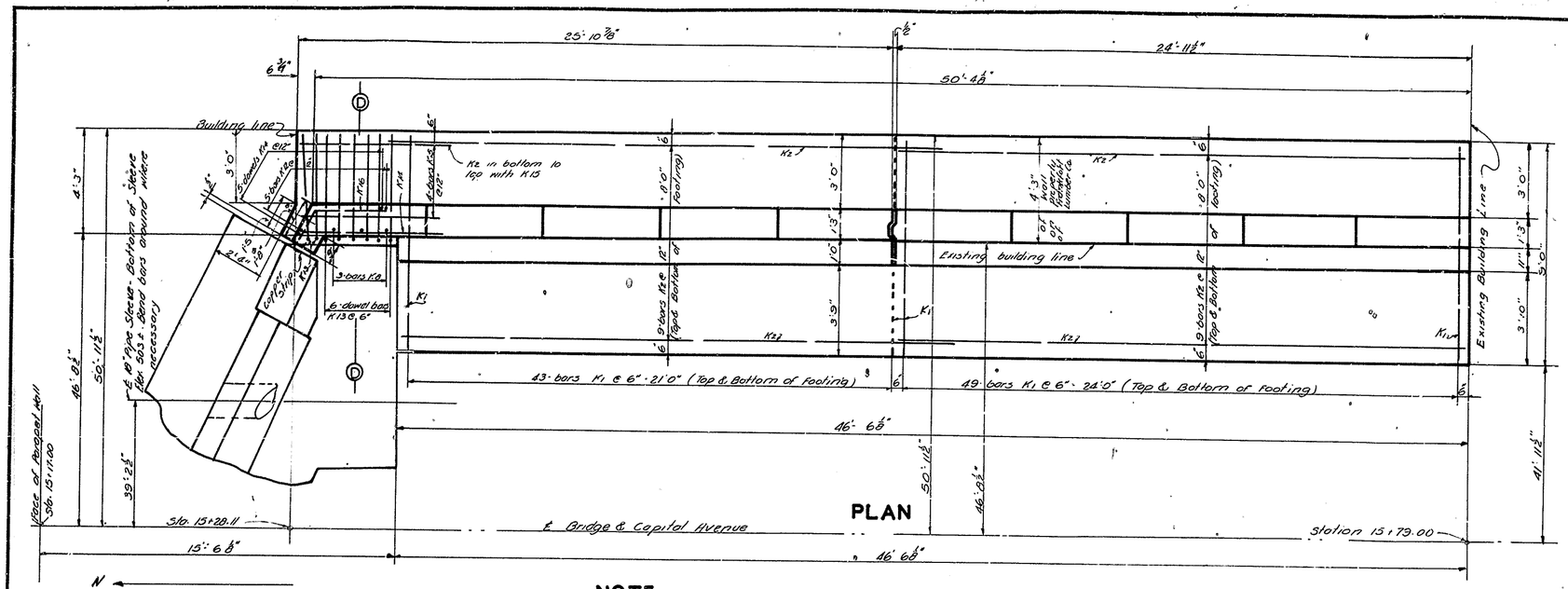
DRAWING No. 6742

DETAILS OF RETAINING WALL SECTION "C"

DESIGNED BY E.R.S. DATE 12/36 REVISED DATE
TRACED BY E.R.S. DATE REVISED DATE
CHECKED BY Geo. Stevens DATE 12-36 REVISED DATE

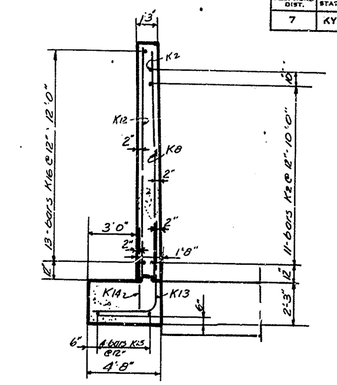
PGKY 3129—300—11-36

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

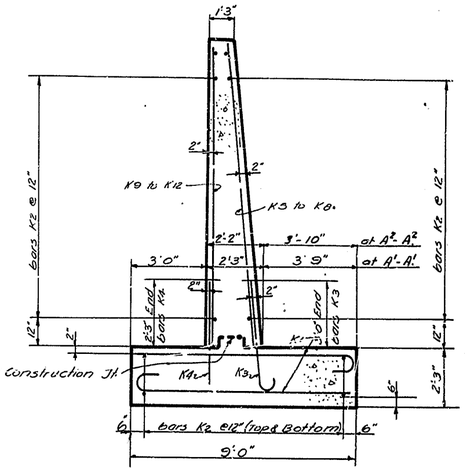


PLAN

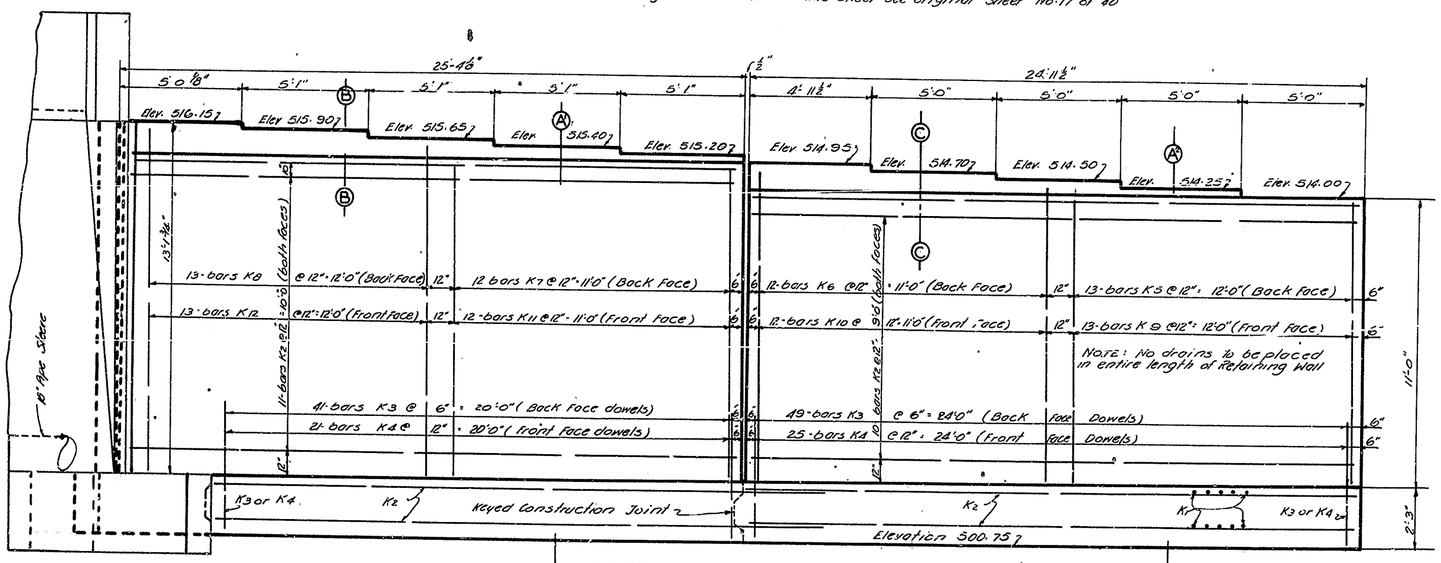
NOTE For details of Retaining Wall not shown on this sheet see original sheet No. 17 of 40



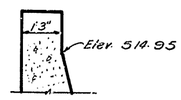
SECTION D-D



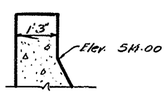
SECTION A-A



BACK ELEVATION



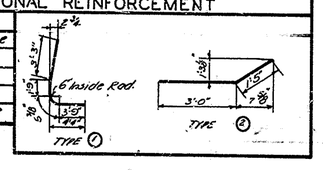
SECTION B-B



SECTION C-C
(Showing Point where batter begins)

BILL AND TYPES OF ADDITIONAL REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH FT.	LENGTH IN.	LOCATION
K12	Str.	2	1/2"ø	12	4	Wall. Front Face
K13	1	8	3/4"ø	9	2	Dowels Back "
K14	Str.	5	1/2"ø	4	0	" Front "
K15	"	4	"	6	6	Footing
K16	2	16	"	4	5	Wall Front Face



REVISED ESTIMATE OF QUANTITIES

Concrete Class "A"	74.5	cu yds
Reinforcement	4680	lbs

REVISION TO RETAINING WALL SECTION "C"

SHEET 17 A OF 40

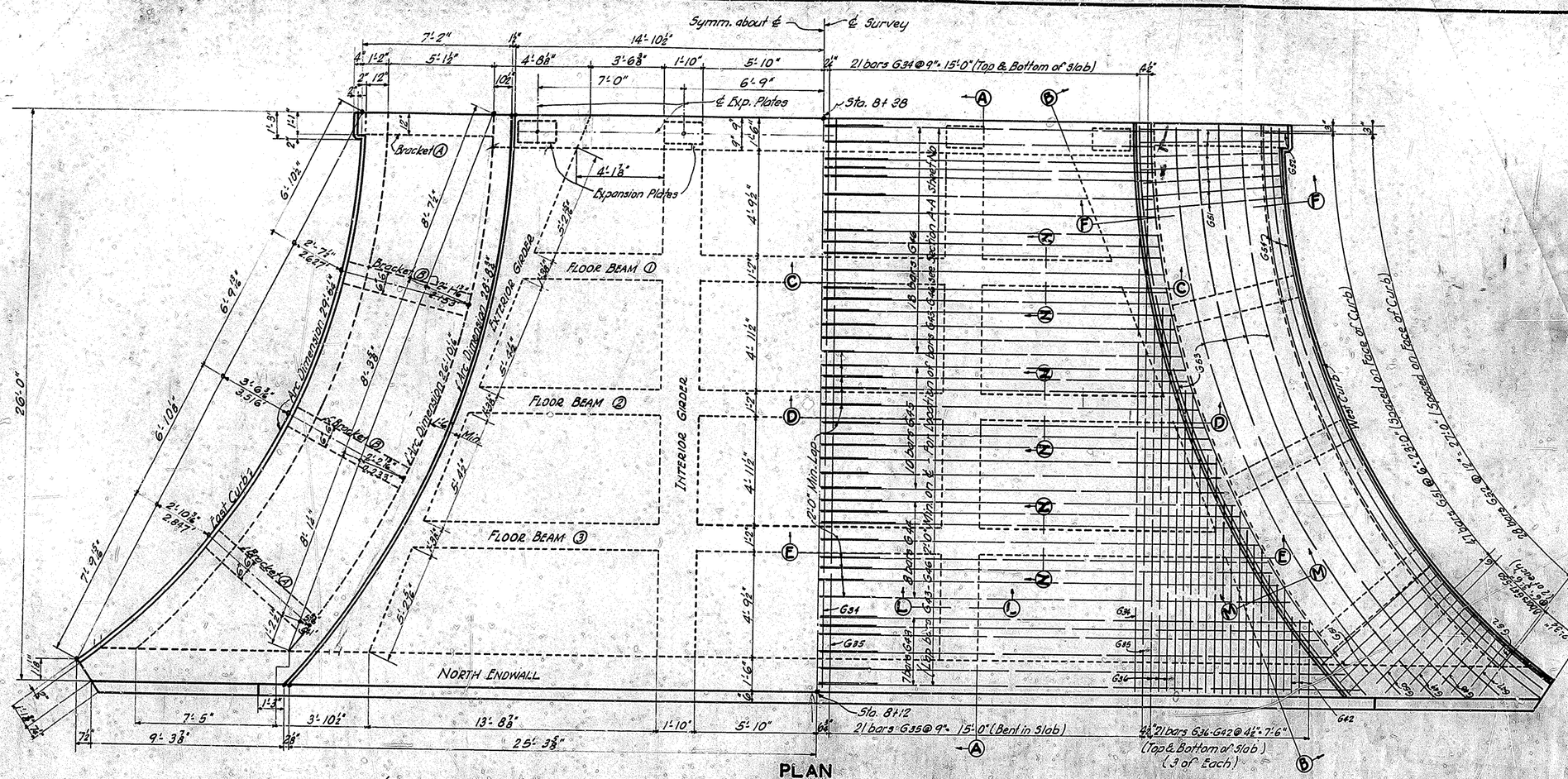
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

DRAWING 6742

DESIGNED BY
TRACED BY
CHECKED BY
REVISED DATE

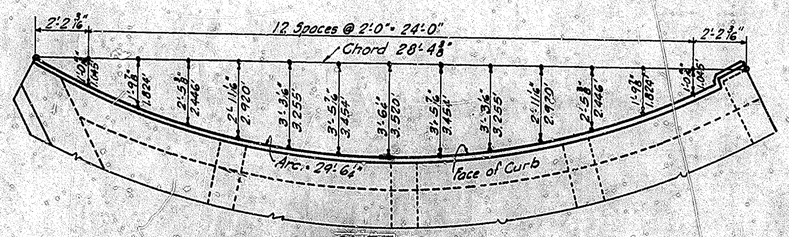
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



(Showing Dimensions)

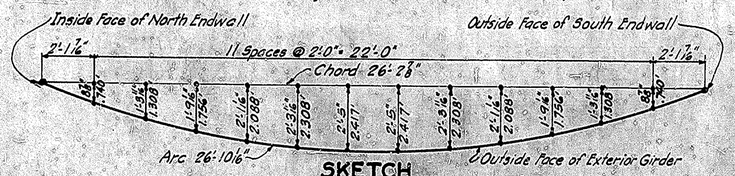
PLAN

(Showing Reinforcement in Slab & Sidewalk)



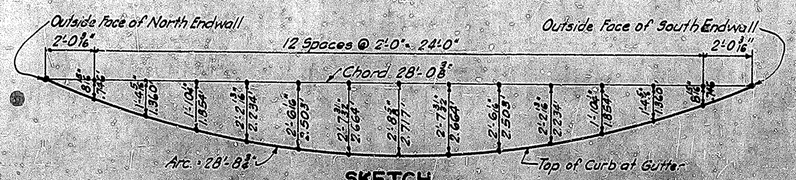
SKETCH

(Showing Offsets from Chord to Face of Curb)



SKETCH

(Showing Offsets from Chord to Outside Face of Exterior Girder)



SKETCH

(Showing Offsets from Chord to Top of Curb at Gutter)

ESTIMATE OF QUANTITIES

Concrete, Class "A"	88.8 Cu. Yds.
Reinforcement	22,650 Lbs.
8 Expansion Plates (Class "B" Bronze)	460 Lbs.

Scale: 1/8" = 1'-0"

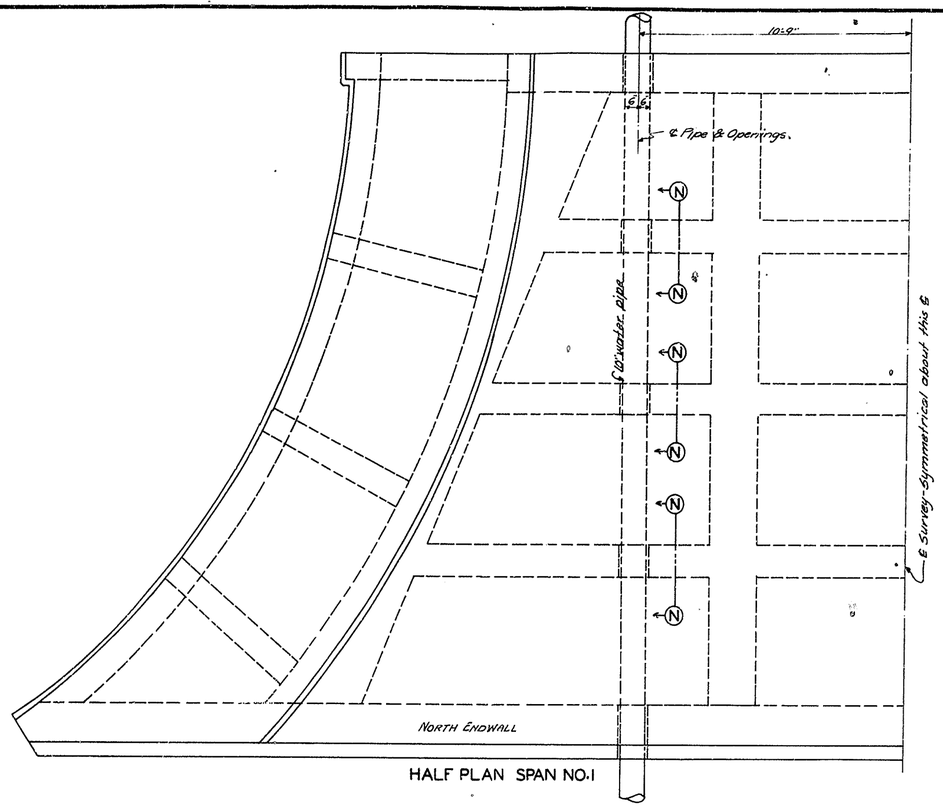
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

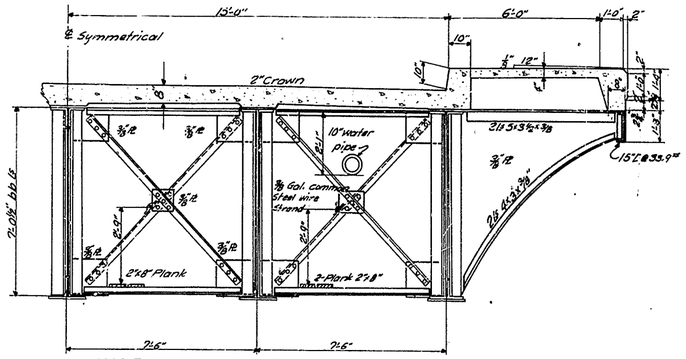
BRIDGE No. 674

DETAILS R.C. DECK GIRDER SPAN NO. 1 - 4 SHEETS

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

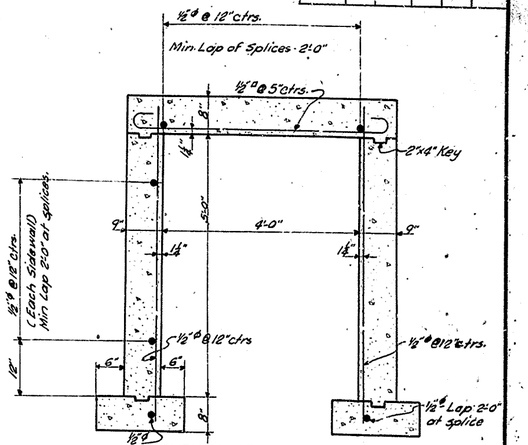


HALF PLAN SPAN NO.1

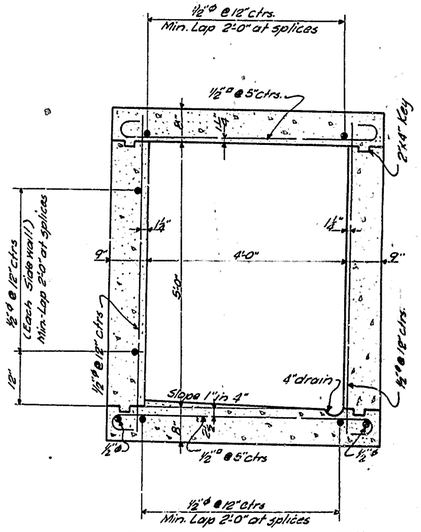


HALF SECTION THRU ROADWAY

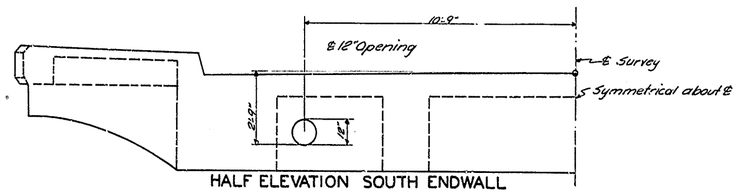
SCALE 3/8"=1'-0"



TYPICAL SECTION ON ROCK

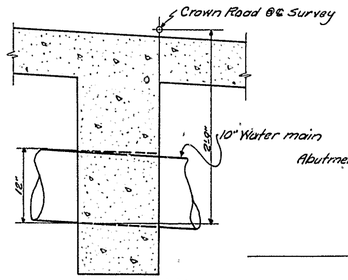


TYPICAL SECTION ON EARTH

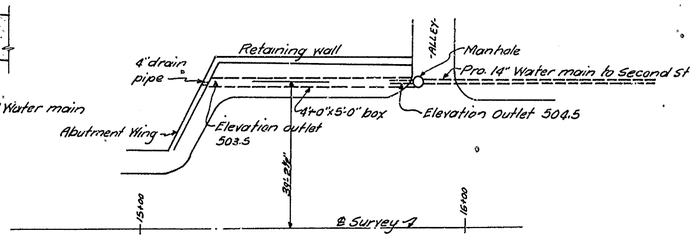


HALF ELEVATION SOUTH ENDWALL

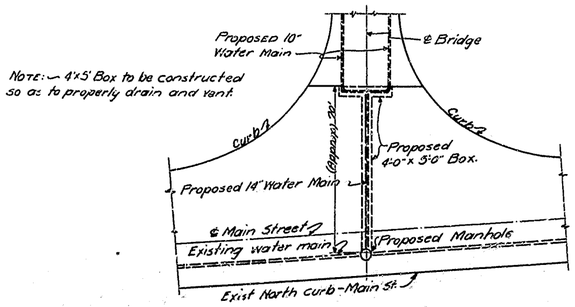
(SHOWING OPENING FOR 10" WATER MAIN)



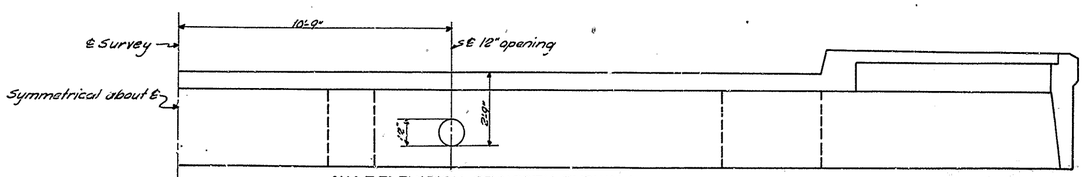
SECTION N-N



DETAILS OF TUNNELS FOR WATER MAIN



NOTE:— 4'x5' Box to be constructed so as to properly drain and vent.



HALF ELEVATION OF NORTH ENDWALL

(SHOWING OPENING FOR 10" WATER MAIN)

SKETCH SHOWING LOCATION FOR 2-LINES 10 WATER MAIN THRU SPAN NO.1

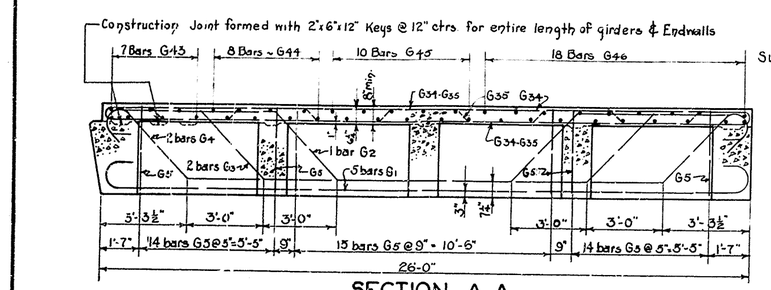
SHEET 18A of 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
KENTUCKY RIVER BRIDGE
FRANKFORT

DRAWING No. 6742

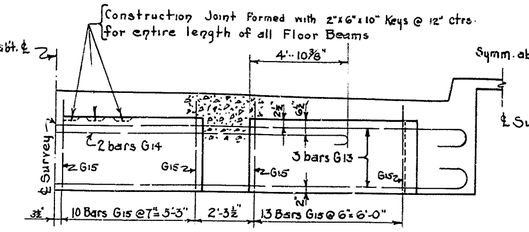
DESIGNED BY C. Moore DATE 6-37 REVISED DATE
TRACED BY T.E.E. DATE 6-25-37 REVISED DATE
CHECKED BY T.E.E. DATE 6-25-37 REVISED DATE

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



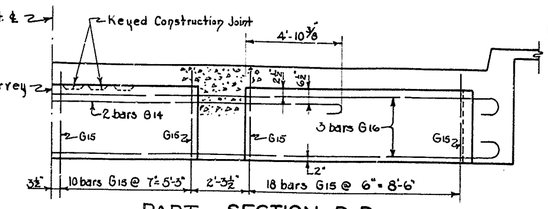
SECTION A-A

(Showing Reinforcement in Slab & Exterior Girder)



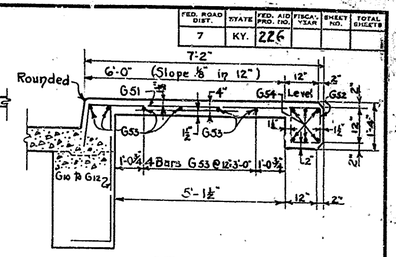
PART SECTION C-C

(For Floor Beam — ①)

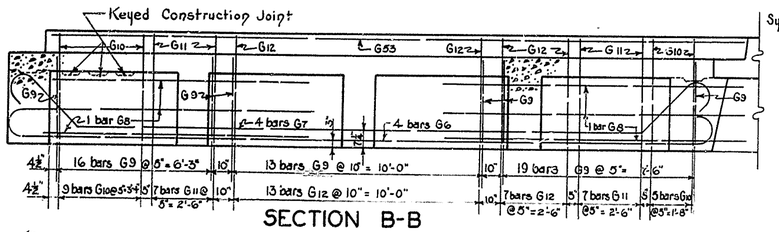


PART SECTION D-D

(For Floor Beam — ②)

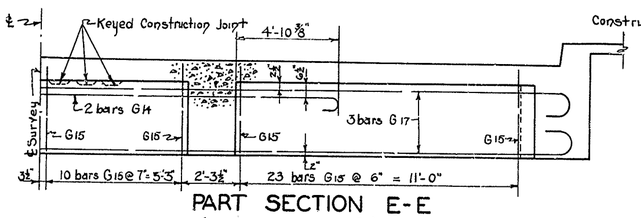


SECTION F-F



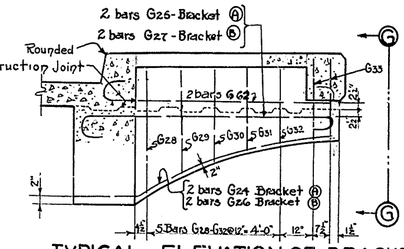
SECTION B-B

(Showing Reinforcement in Exterior Girder - Stirrup Spacing Given on Inside face of Girder)
(Stirrups to be Perpendicular to Inside Face of Girder)



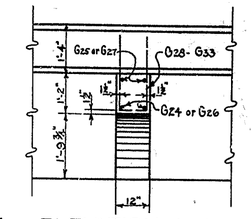
PART SECTION E-E

(For Floor Beam — ③)



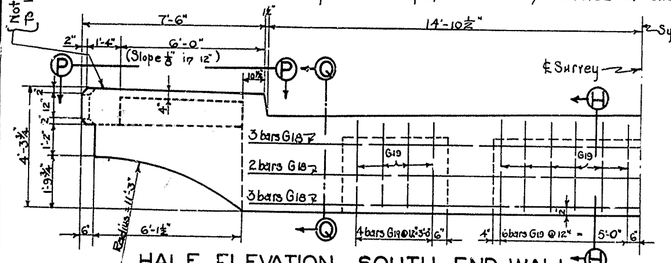
TYPICAL ELEVATION OF BRACKET

(Showing Reinforcement)



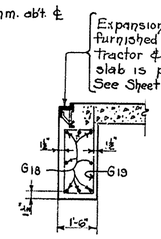
ELEVATION G-G

Note: Bars G35-G37 in Handrail to be placed before pouring Sidewalk



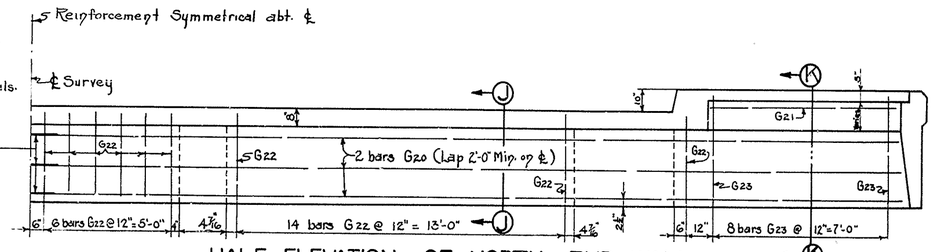
HALF ELEVATION SOUTH END WALL

(Showing Bracket Dimensions & Reinforcement in Endwall)



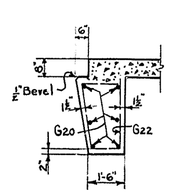
SECTION H-H

Expansion Angle to be furnished by Steel Contractor & placed when slab is poured. See Sheet 28 of 40 for details.

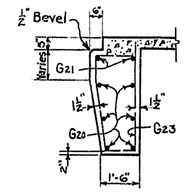


HALF ELEVATION OF NORTH END WALL

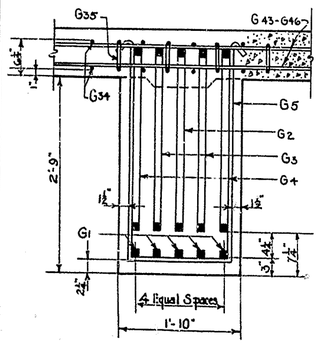
(Showing Reinforcement)



SECTION J-J

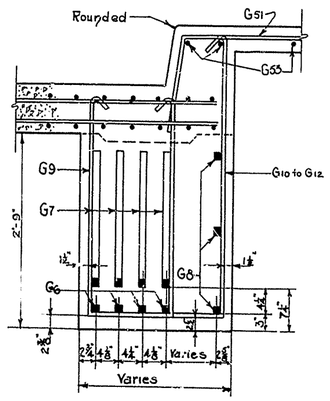


SECTION K-K



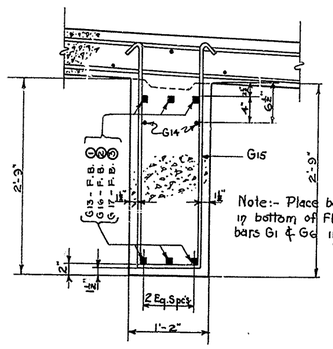
SECTION L-L

(For Interior Girder)



SECTION M-M

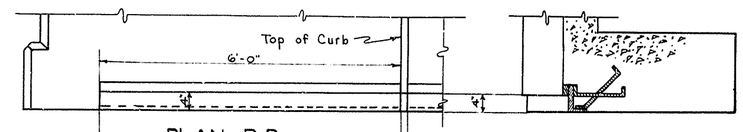
(For Exterior Girder)



Note:- Place bars G13, G16, & G17 in bottom of Floor Beams under bars G1 & G6 in Girders.

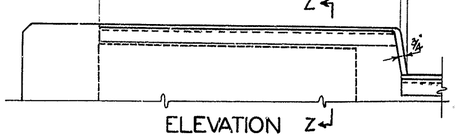
SECTION N-N

(For Floor Beams ①, ② & ③)

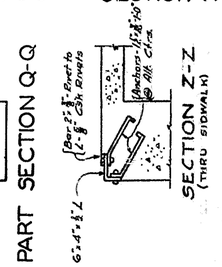


PLAN P-P

(Showing Notch in Sidewalk for Expansion Plate)



ELEVATION Z



PART SECTION Q-Q

SECTION Z-Z (THRU SIDEWALK)

DESIGNED BY G. M.S. DATE 12-26
TRACED BY M.S. Mark DATE 12-26
CHECKED BY Newport DATE 12-26
REVISED Exp. Det. @ Sidewalk
REVISED
REVISED
REVISED
TEE DATE 4-5-37
DATE
DATE

Sheet No. 19 of 28

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

DRAWING No. 6742

DETAILS OF R.C. DECK GIRDER – SPAN NO. 1

POST 1179—300—11-36

BRIDGE

FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			

BILL AND TYPES OF REINFORCEMENT

MARK	TYPE	NO	SIZE	LENGTH Ft.	LENGTH In	LOCATION	a Ft.	a In	b Ft.	b In	c Ft.	c In	d Ft.	d In
G1	1	10	1¼"□	28	4	Interior Girder	24	8	1	10	1	0½	25	8½
G2	2	2	"	30	1	" "	6	2½	2	5½	7	5	3	5½
G3	"	4	"	30	1	" "	3	2½	2	5½	3	5	3	5½
G4	3	4	"	29	5	" "	2	3½	19	5	3	3	2	5
G5	4	86	⅜"φ	8	1	" "	1	7	3	1	-	-	-	-
G6	1	8	1¼"□	30	6	Exterior "	26	10	1	10	1	0½	27	10½
G7	3	8	"	31	0	" "	1	7½	22	11	2	3½	1	9
G8	Str.	12	1"□	11	0	" "	-	-	-	-	-	-	-	-
G9	5	96	⅝"φ	7	9	" "	1	3	3	0½	-	-	-	-
G10	6	28	½"φ	6	9	" "	2	8	3	11	-	-	-	-
G11	"	28	"	6	1	" "	2	0	3	11	-	-	-	-
G12	"	40	"	5	4	" "	1	3	3	11	-	-	-	-
G13	1	6	1"□	34	9	Floor Beam ①	31	9	1	6	0	10	32	7
G14	1	6	⅞"φ	27	0	" " ①, ②, & ③	24	4	1	4	0	8½	25	0½
G15	4	168	½"φ	7	7	" " " " "	0	11	3	1½	-	-	-	-
G16	1	6	1"□	37	11	Floor Beam ②	34	11	1	6	0	10	35	9
G17	"	6	"	43	8	" " ③	40	8	1	6	0	10	41	6
G18	Str.	8	"	31	6	South Endwall	-	-	-	-	-	-	-	-
G19	7	20	½"φ	7	6	" "	-	-	-	-	-	-	-	-
G20	Str.	12	"	35	9	North "	-	-	-	-	-	-	-	-
G21	"	4	"	7	6	" "	-	-	-	-	-	-	-	-
G22	8	42	"	8	0	" "	-	-	-	-	-	-	-	-
G23	9	16	"	10	0	" "	-	-	-	-	-	-	-	-
G24	10	8	1"□	9	5	Bracket Ⓐ	3	2	-	-	-	-	-	-
G25	1	8	"	11	4	" "	8	4	1	6	0	10	9	2
G26	10	8	"	7	8	" Ⓑ	1	5	-	-	-	-	-	-
G27	1	8	"	9	7	" "	6	7	1	6	0	10	7	5
G28	11	8	½"□	7	7	Brackets Ⓐ & Ⓑ	0	9	3	6	-	-	-	-
G29	"	8	"	6	6	" " " "	0	9	2	11½	-	-	-	-
G30	"	8	"	5	9	" " " "	0	9	2	7	-	-	-	-
G31	"	8	"	5	1	" " " "	0	9	2	3	-	-	-	-
G32	"	8	"	4	7	" " " "	0	9	2	1	-	-	-	-
G33	"	16	"	5	1	" " " "	0	9	2	3	-	-	-	-
G34	1	84	⅝"φ	27	3	Roadway Slab	25	3	1	0	0	5½	25	8½
G35	12	42	"	27	9	" "	-	-	-	-	-	-	-	-
G36	1	12	"	19	2	" "	17	2	1	0	0	5½	17	7½
G37	"	12	"	15	5	" "	13	5	1	0	0	5½	13	10½
G38	"	12	"	12	7	" "	10	7	1	0	0	5½	11	0½
G39	"	12	"	10	3	" "	8	3	1	0	0	5½	8	8½
G40	"	12	"	8	3	" "	6	3	1	0	0	5½	6	8½
G41	"	12	"	6	7	" "	4	7	1	0	0	5½	5	0½
G42	"	12	"	5	0	" "	3	0	1	0	0	5½	3	5½
G43	Str.	14	½"φ	27	0	" "	-	-	-	-	-	-	-	-
G44	"	16	"	24	0	" "	-	-	-	-	-	-	-	-
G45	"	20	"	21	0	" "	-	-	-	-	-	-	-	-
G46	"	36	"	18	6	" "	-	-	-	-	-	-	-	-
G47	"	4	"	2	6	Sidewalk Slab	-	-	-	-	-	-	-	-
G48	"	4	"	3	6	" "	-	-	-	-	-	-	-	-
G49	"	4	"	4	6	" "	-	-	-	-	-	-	-	-
G50	"	4	"	5	6	" "	-	-	-	-	-	-	-	-
G51	13	94	"	8	9	" "	-	-	-	-	-	-	-	-
G52	5	56	½"φ	3	4	" Beam	0	11	1	0½	-	-	-	-
G53	Str.	12	½"φ	28	6	" Slab	-	-	-	-	-	-	-	-
G54	1	12	½"φ	30	6	" Beam	28	10	0	10	0	5	29	3
G55	11	24	½"φ	9	0	Curb into Handrail	0	4½	4	5	-	-	-	-
G56	"	66	"	8	11	" " "	0	3	4	5	-	-	-	-
G57	5	60	"	4	2	" " "	0	6	1	8	-	-	-	-
G58	Str.	22	"	12	2	Top & Bottom Rail	-	-	-	-	-	-	-	-
G59	"	4	"	28	0	Bottom Rail	-	-	-	-	-	-	-	-
G60	11	60	"	0	11	Top Rail	0	7	0	3	-	-	-	-
G61	14	16	⅝"φ	4	6	Post "B"	-	-	-	-	-	-	-	-
G62	1	16	½"φ	8	11	Over Brackets	6	7	1	2	0	7½	7	2½

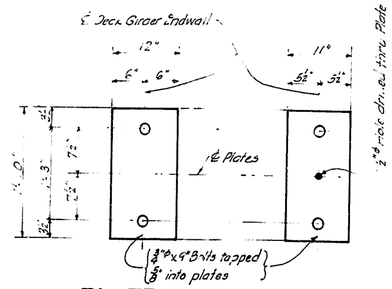
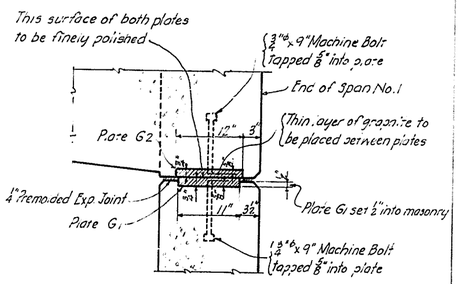
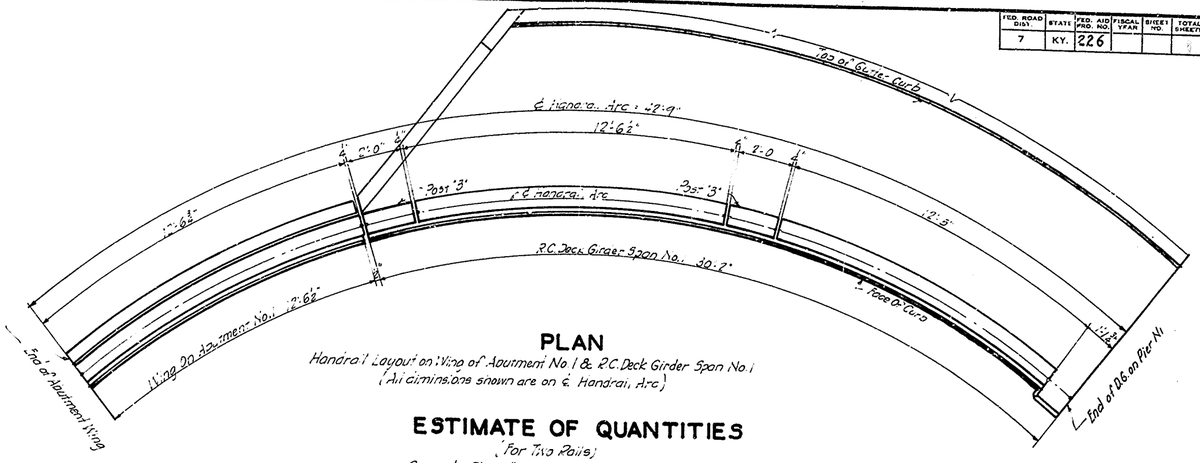


PLATE G2 (Weight - 60 Lbs.) **PLATE G1** (Weight - 55 Lbs.)



TYPICAL SECTION THRU PLATES



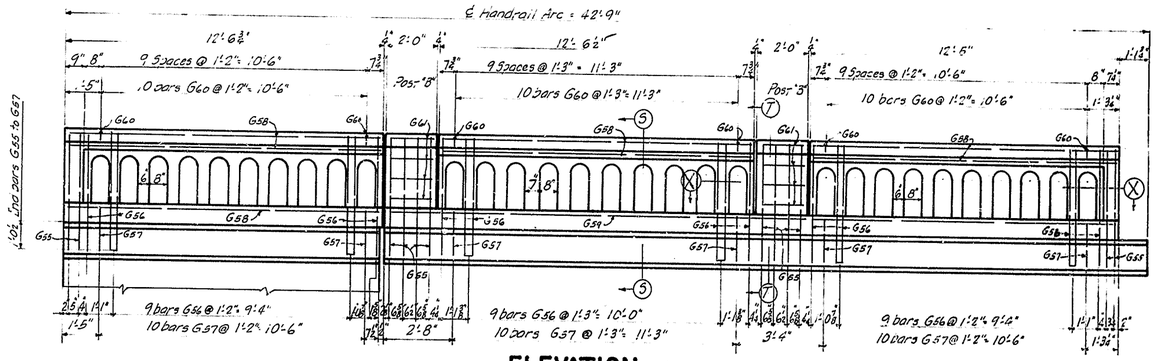
PLAN

Handrail Layout on Wing of Abutment No. 1 & R.C. Deck Girder Span No. 1
(All dimensions shown are on ℄ Handrail Arc)

ESTIMATE OF QUANTITIES

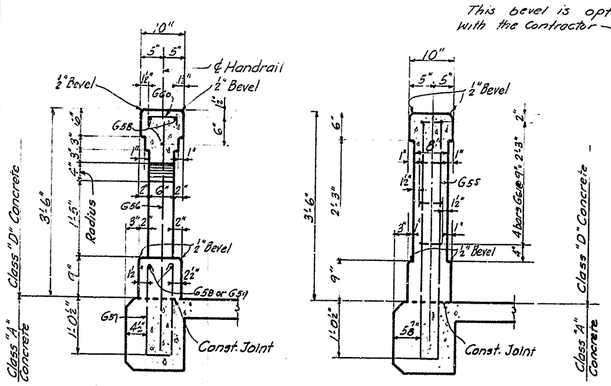
(For Two Rails)

Concrete, Class "D"	5.7	Cu. Yds.
Reinforcement	1290	Lbs.



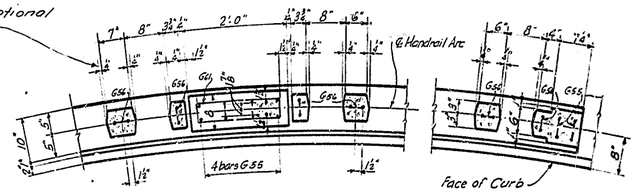
ELEVATION

(All dimensions shown are on ℄ Handrail Arc)



SECTION S-S

SECTION T-T

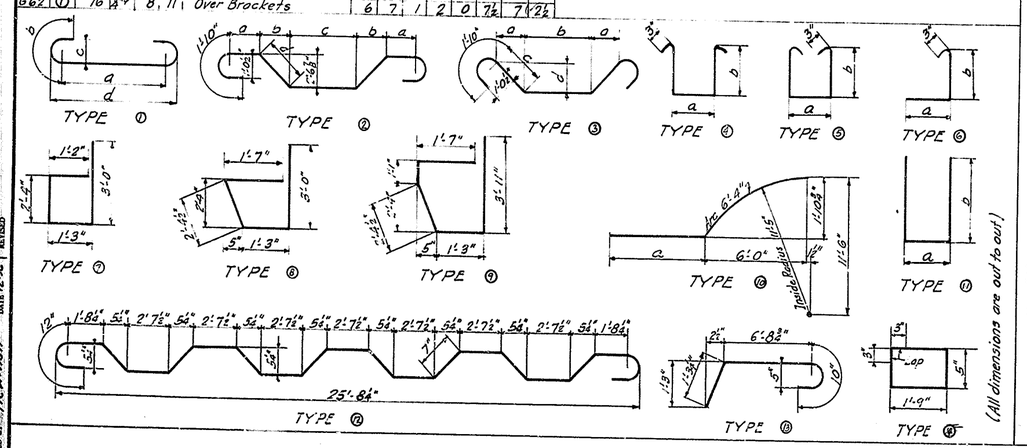


PART SECTION X-X

(All Dimensions Shown are on ℄ Handrail Arc)

DETAILS OF HANDRAIL FOR ABUTMENT NO. 1 AND R.C. DECK GIRDER SPAN NO. 1

DETAILS OF EXPANSION PLATES



DESIGNED BY G. M. S. DATE 12-36
TRACED BY D.T.O. DATE 12-36
CHECKED BY Newman DATE 12-36
REVISED DATE
REVISED DATE
REVISED DATE

POST 1179—300—11-38

SHEET 20 OF 40

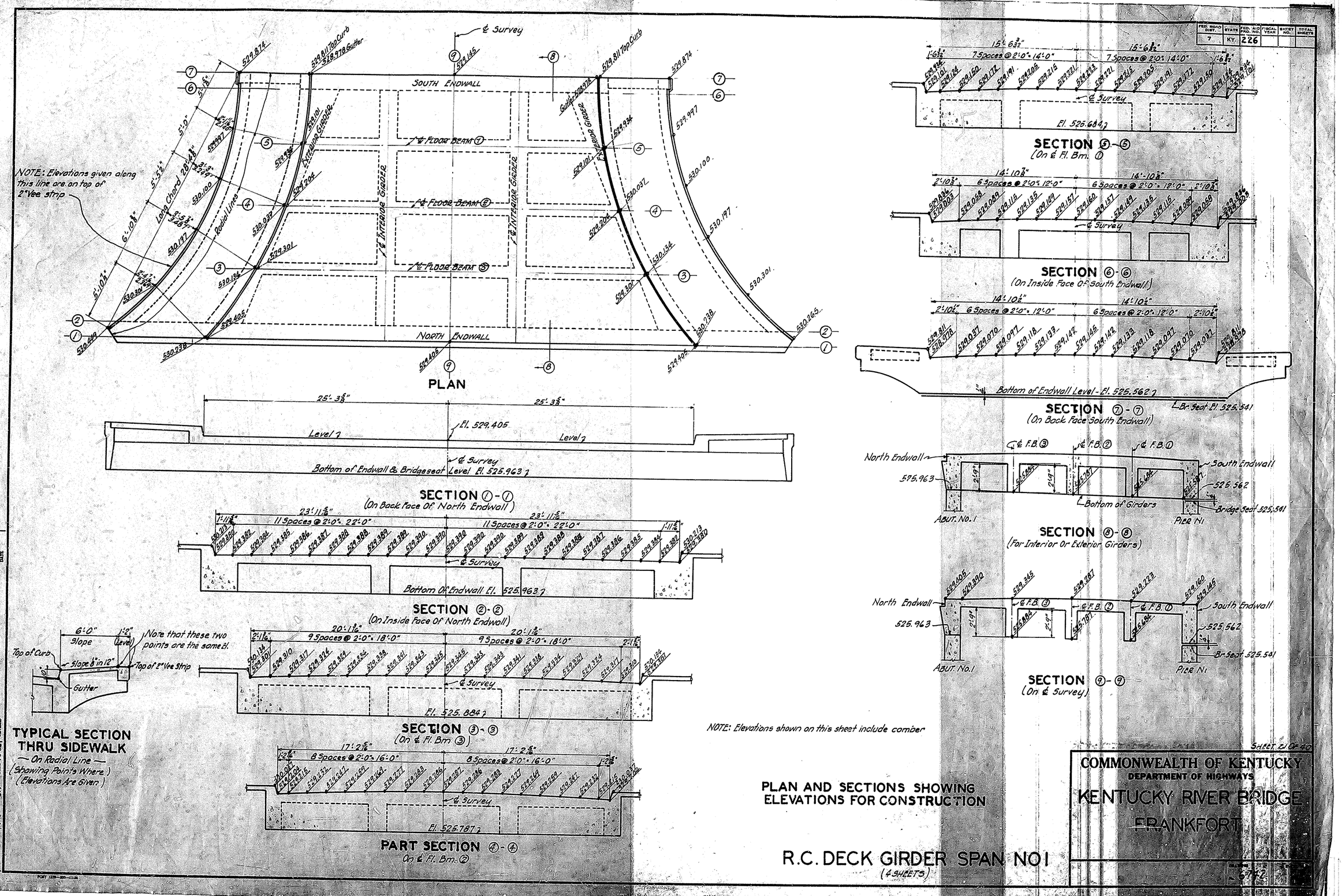
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

R.C. DECK GIRDER SPAN NO. 1
(4 SHEETS)

DRAWING 6742

BRIDGE



FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			

PLAN AND SECTIONS SHOWING ELEVATIONS FOR CONSTRUCTION

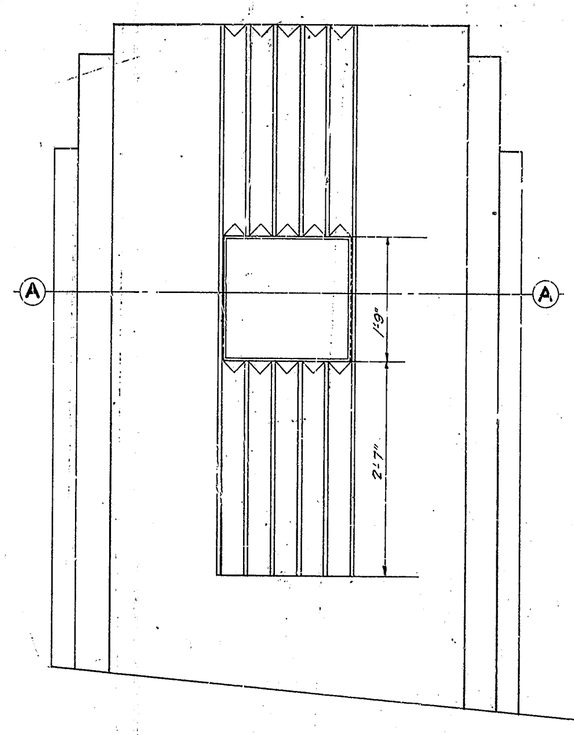
R.C. DECK GIRDER SPAN NO 1
(4 SHEETS)

SHEET 21 OF 40

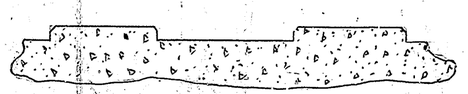
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
KENTUCKY RIVER BRIDGE
FRANKFORT

DESIGNED BY G.W.S. DATE 12-36
TRACED BY D.T.O. DATE 12-36
CHECKED BY Newman DATE 12-36

BRIDGE

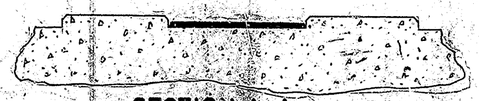


ELEVATION



SECTION A-A

(Showing Plate removed)



SECTION A-A

(Showing Plate in place)

GENERAL NOTE

TWO PLATES ARE TO BE PLACED AS SHOWN HEREON, ONE AT THE SOUTH ENTRANCE AND ONE AT THE NORTH ENTRANCE TO THE FRANKFORT BRIDGE.

ONE FOOT AND NINE INCHES OF REEDS SHALL BE REMOVED FROM EACH POST AS SHOWN IN SECTION A-A.

HOLES SHALL BE DRILLED FOR EXPANSION BOLTS.

THE WORKMANSHIP ON THE CUTTING, CHIPPING AND GRINDING AT THE CONCRETE REEDS SHALL BE FIRST CLASS

THE LUMP SUM BID PRICE SHALL INCLUDE ALL LABOR AND TOOLS NECESSARY FOR GRINDING AWAY THE REEDS AND THE SETTING OF THE BRONZE PLATES SATISFACTORY TO THE DEPARTMENT OF HIGHWAYS.

THE DEPARTMENT OF HIGHWAYS WILL FURNISH THE BRONZE PLATES AND EXPANSION BOLTS.

SETTING
AMERICAN WAR MOTHERS
NAME PLATE

Sheet 22

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

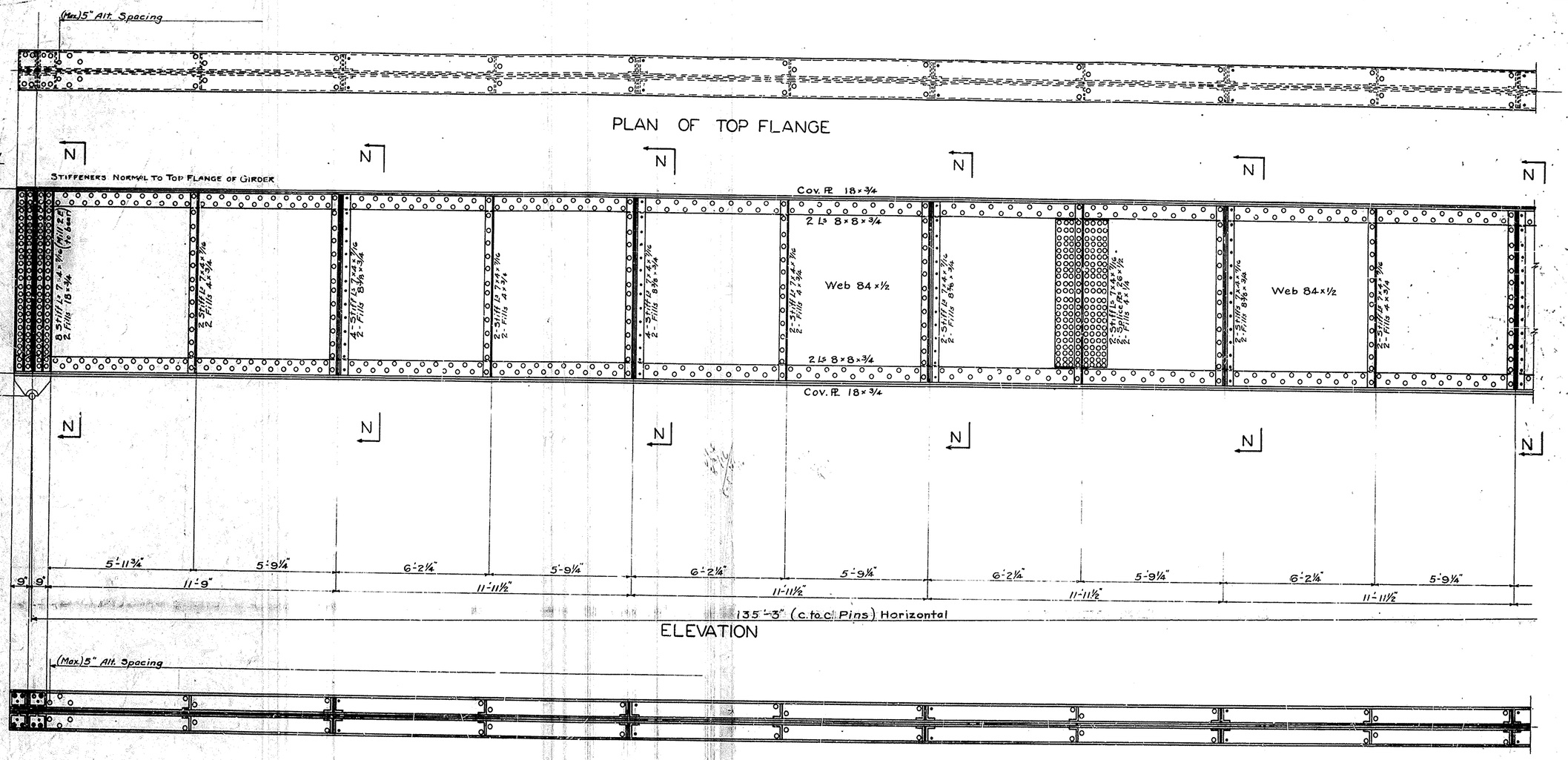
KENTUCKY RIVER BRIDGE
AT FRANKFORT

STATION

PROJECT NO. FA 226

DRAWING NUMBER
6742 - N.P.

FED. ROAD DIST	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



LIVE AND IMPACT LOADS.

Roadway Loading ~ Load on Girder as shown in Diagram, placed to produce maximum stress.

15000#
534# lin. ft. — Interior Girder

7500#
268# lin. ft. — Exterior Girder

Sidewalk Loading ~ (see A.A. of S.H.O. Specifications)
Impact on Roadway ~ 18% of Liveload
Impact on Sidewalk ~ None
A Concentrated load shall be applied to each such span if maximum stresses are produced by loading two or more spans simultaneously.

7/8" Rivets
15/16" Holes

Expansion Dimensions Based on Temperature of 60°F
Max. Stress - Net Section - 18000#/□"
Tight fit for all Stiffeners and fills except where otherwise noted.

ESTIMATE OF QUANTITIES

Structural Steel	1,721,590	lbs.
Cast Steel	43,290	lbs.
Forged Steel	970	lbs.
Cast Iron	1,955	lbs.
Sheet Lead	1,765	lbs.
Creosoted Select Grade Southern Yellow Pine	6,314	M.B.M.

Sheet 23 of 40

DETAILS OF 470'-6" CONTINUOUS SPAN

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

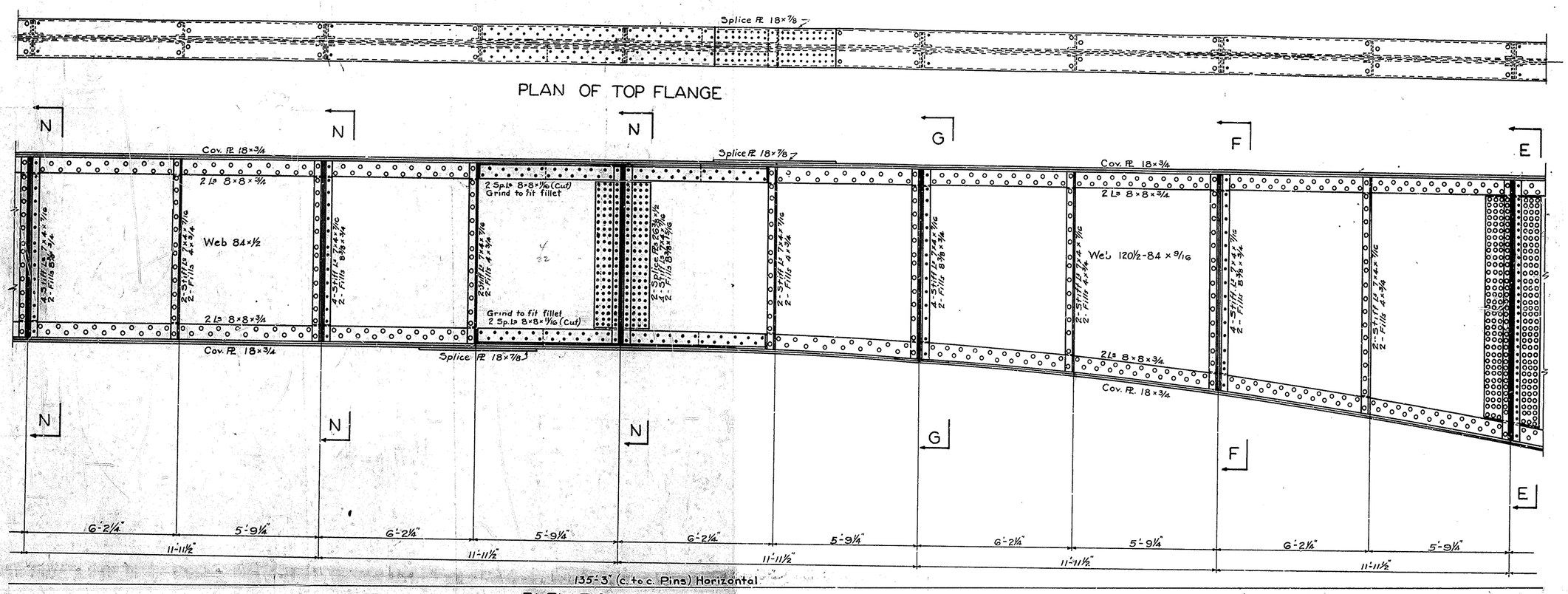
KENTUCKY RIVER BRIDGE
FRANKFORT

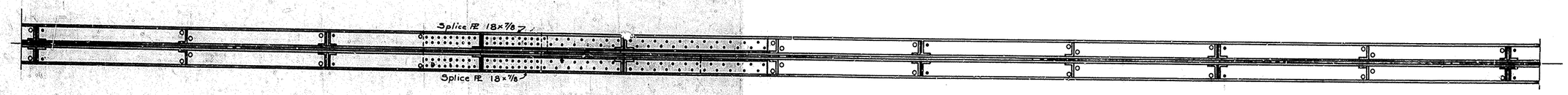
DRAWING K-6742

DESIGNED BY — A. Griffith — DATE 1-37
TRACED BY — " " — DATE 1-37
CHECKED BY — W.D.S. — DATE 1/37
REVISED — Note on Cover Plate - Stiffener Nos. — DATE 2-39
REVISED — DATE
REVISED — DATE

BRIDGE

FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			





DESIGNED BY A. Griffith	DATE 1-37	REVISED	DATE
TRACED BY "	DATE 1-37	REVISED	DATE
CHECKED BY	DATE 1/37	REVISED	DATE

Sheet 24 of 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

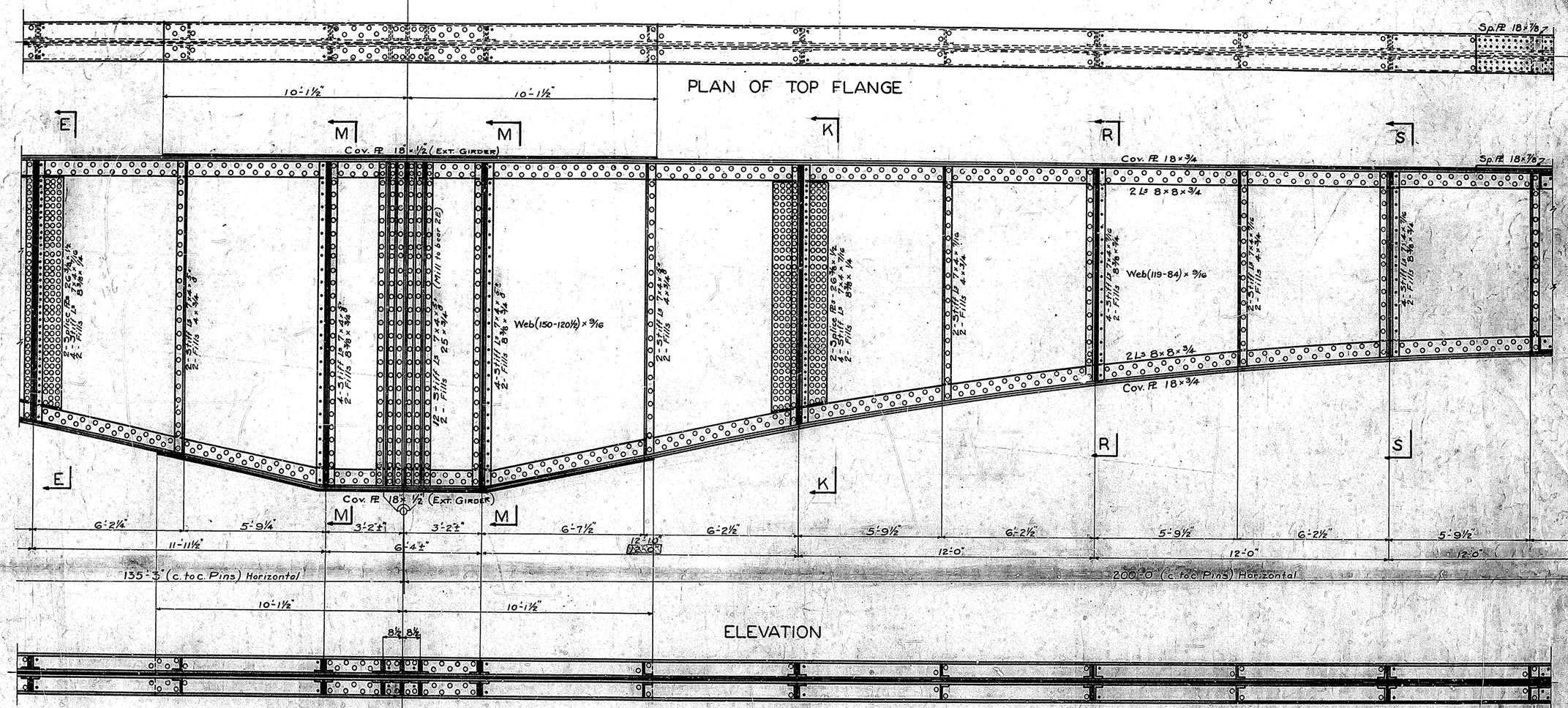
KENTUCKY RIVER BRIDGE
FRANKFORT

DETAILS OF 470'-6" CONTINUOUS SPAN

DRAWING No. 6742

BRIDGE

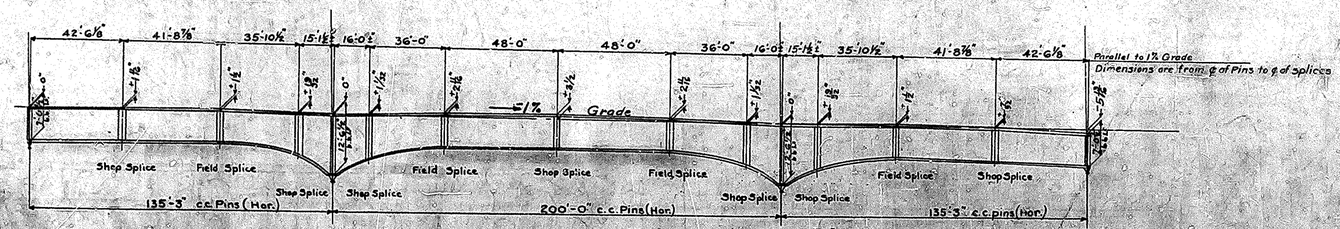
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



PLAN OF TOP FLANGE

ELEVATION

PLAN OF BOTTOM FLANGE



CAMBER DIAGRAM OF CONTINOUS GIRDER SPAN

Sheet 25 of 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

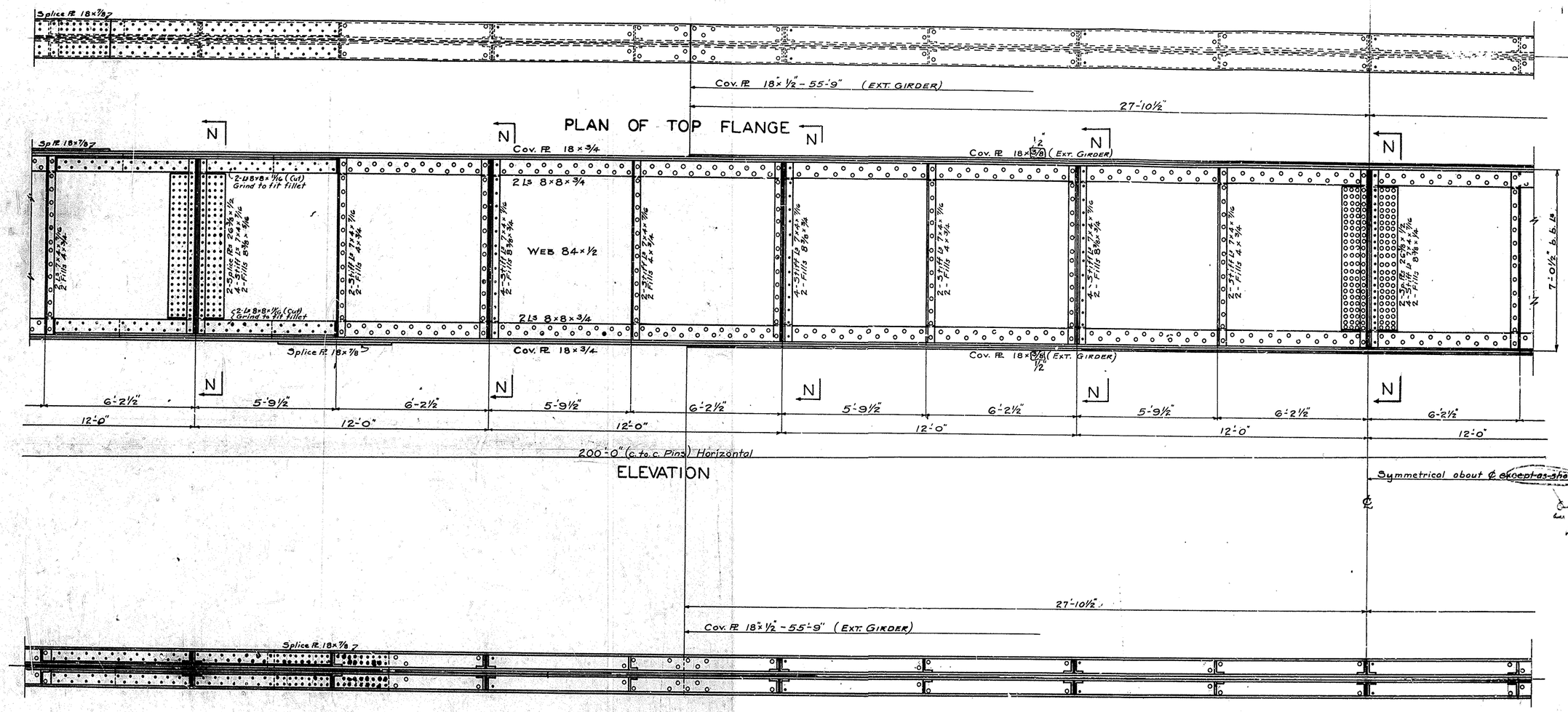
KENTUCKY RIVER BRIDGE
FRANKFORT

DETAILS OF 470'-6" CONTINUOUS SPAN

6742

BRIDGE

FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



Sheet 26 of 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

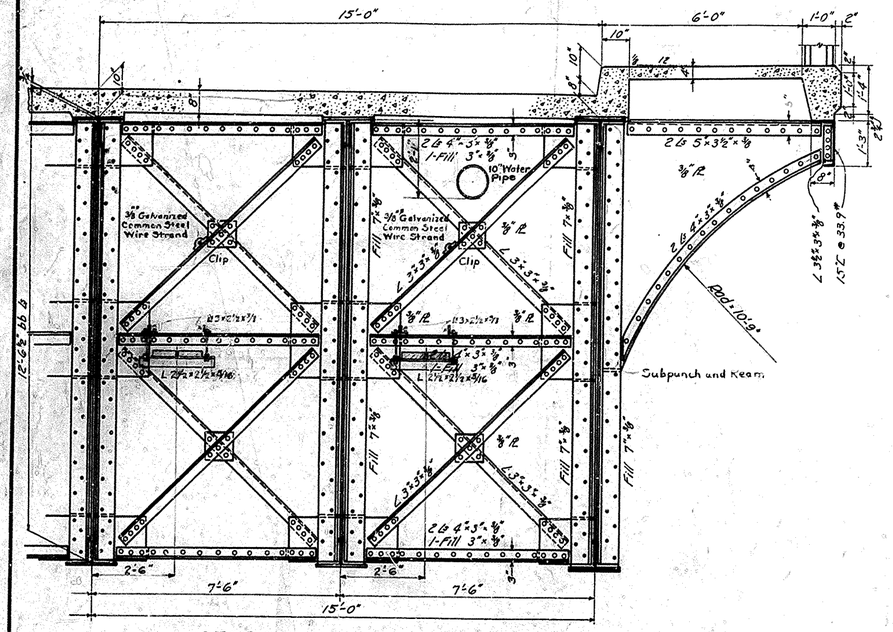
DRAWING 6742

DETAILS OF 470'-6" CONTINUOUS SPAN

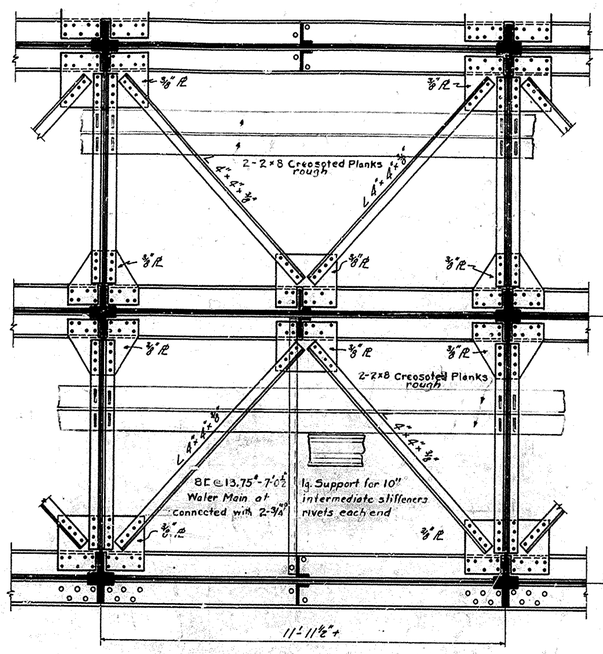
DESIGNED BY A. Griffith DATE 1-37
TRACED BY " " DATE 1-37
CHECKED BY W. D. Jones DATE 1/37
REVISED (over Pls. Extended) DATE 3-37
REVISED DATE
REVISED DATE

BRIDGE

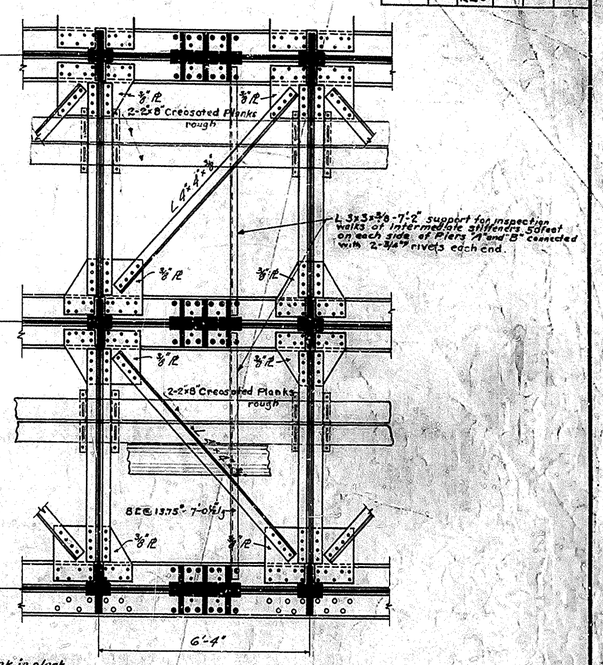
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



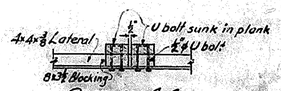
SECTION M-M - PIERS A & B



TYPICAL PANEL OF LATERALS



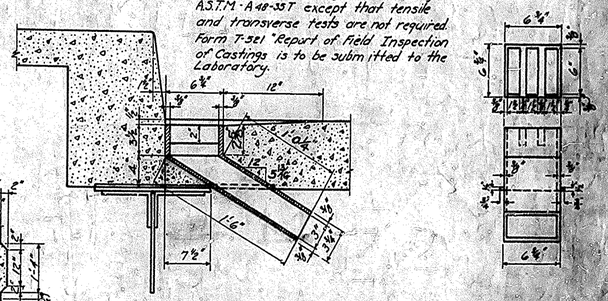
LATERALS OVER PIER



SECTION A-A

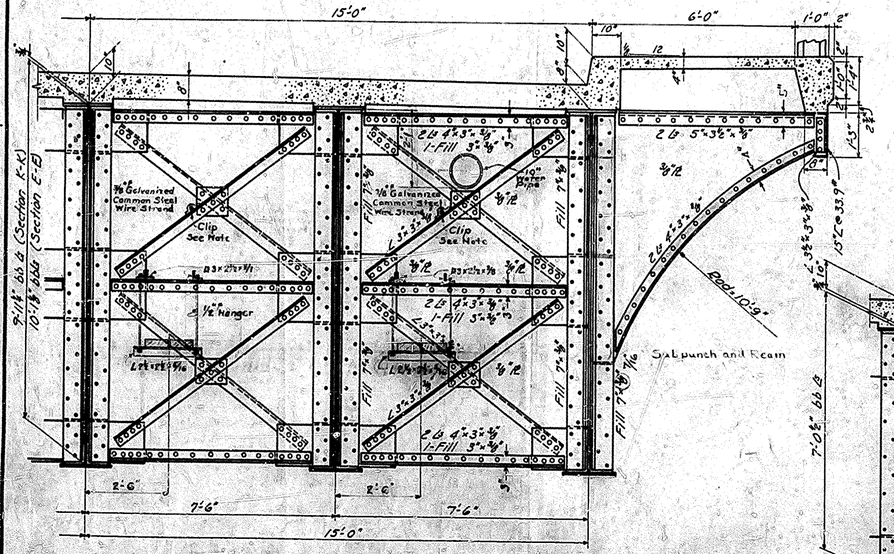
NOTE - Approximately 2000 linft. of seven wire ⅜" double galv. common steel wire strand and galv. clips for attaching same to steel angles shall be paid for at the same price as bid per pound for Structural Steel. The steel wire shall conform to A.S.T.M. Spec. A122-33

NOTE: All drains to be Gray Iron Castings A.S.T.M. - A48-33T except that tensile and transverse tests are not required. Form T-321 "Report of Field Inspection of Castings" is to be submitted to the Laboratory.



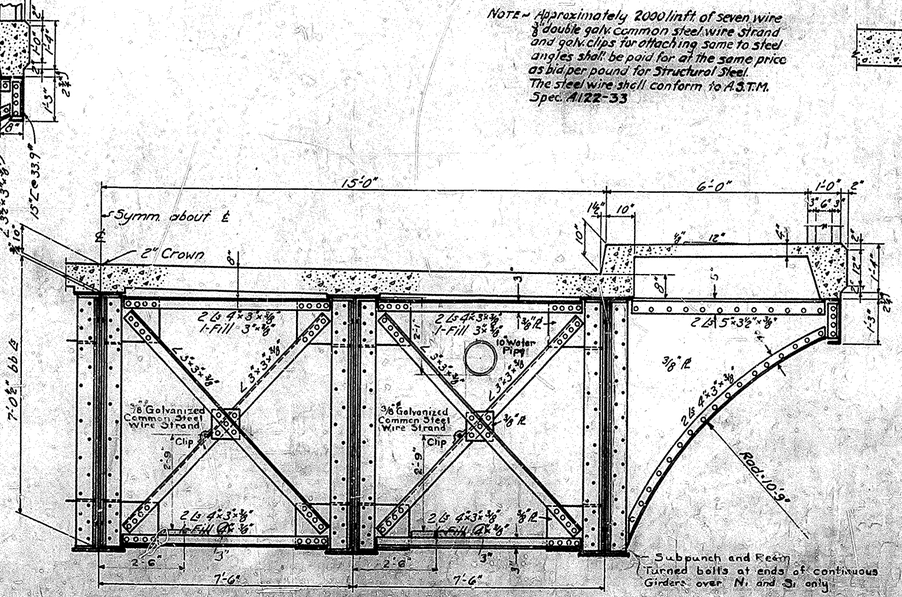
DETAILS OF CAST IRON DRAINS

66 Req'd.



SECTION K-K

(Section E-E similar)



SECTION N-N

(Sections F-F, G-G, R-R, & S-S Similar)

DETAILS OF 470'-6" CONTINUOUS SPAN

Sheet 27 of 40

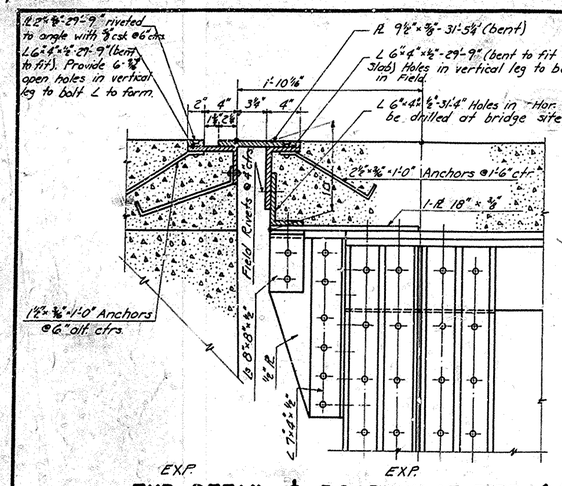
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

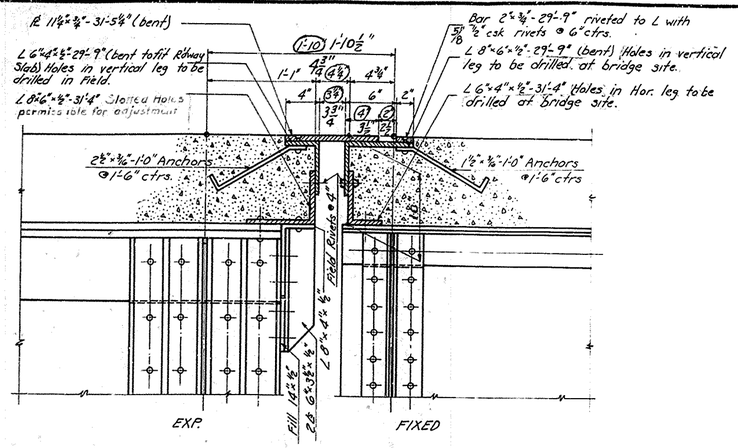
6742

BRIDGE

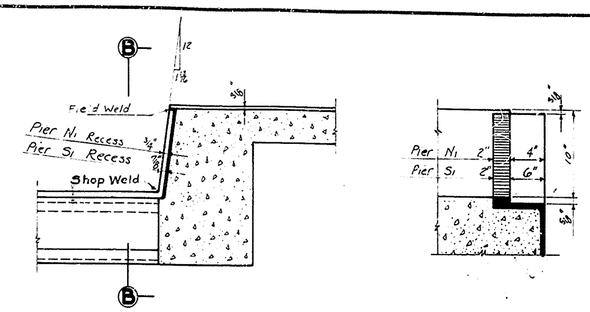
FED. RD. DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



EXP. DETAIL ℄ ROADWAY AT PIER (N)



EXP. DETAIL ℄ ROADWAY AT PIER (S_1)

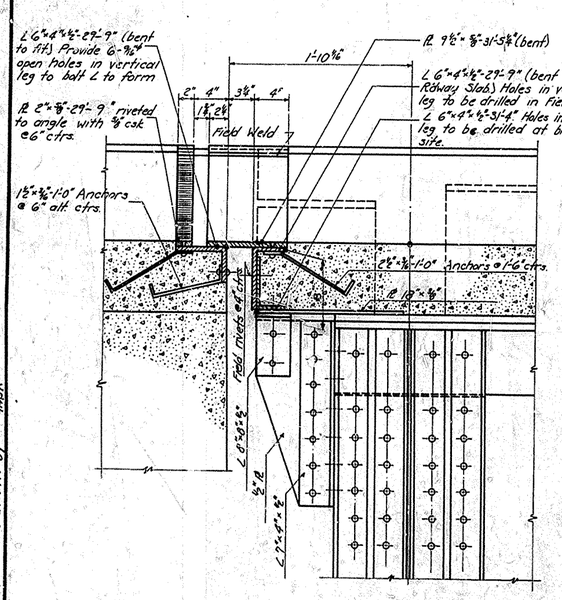


SECTION AT CURB

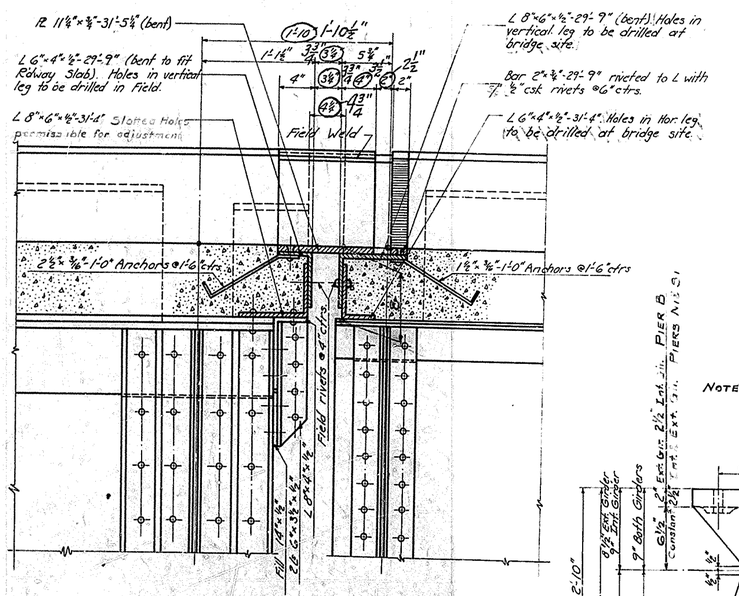
SECTION B-B

DETAIL OF RECESSES IN CURBS

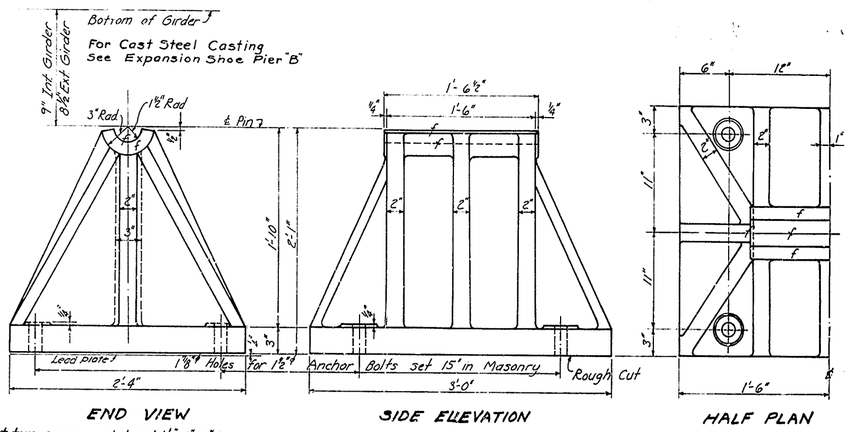
(To receive lip of 9½"×⅜" Plate) - Pier N1
(To receive lip of 11⅝"×⅜" Plate) - Pier S1



EXP. DETAIL AT CURB AT PIER (N)



EXP. DETAIL CURB AT PIER (S_1)



END VIEW

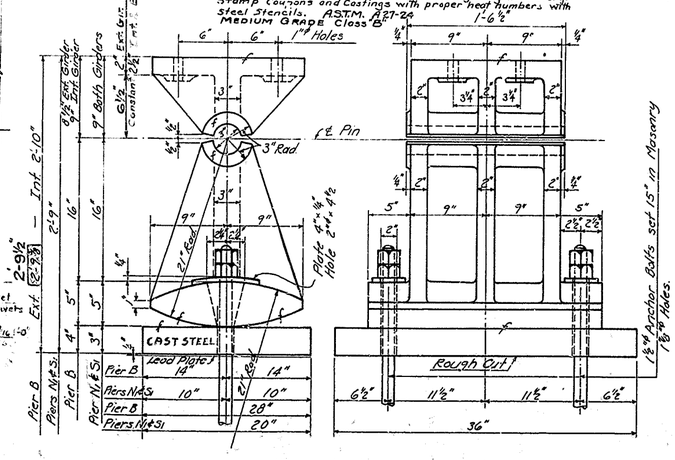
SIDE ELEVATION

HALF PLAN

FIXED SHOES

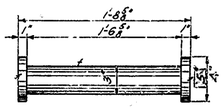
(5 Required)

NOTE - Cast two coupons at least 1½"×2"×6" long on castings from each heat to make one bending and one tensile test. Coupons to be removed by the Department Inspector and forwarded to the Department of Highway Laboratory. Stamp Coupons and Castings with proper heat numbers with steel stencils. ASTM. A27-24 MEDIUM GRADE Class "B"

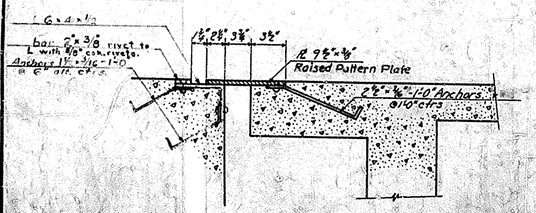


EXPANSION SHOES

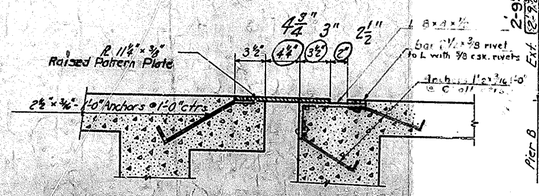
(15 Required)



FORGED STEEL PIN
(FINISHED ALL OVER)
(20 Required)
A.S.T.M. A20-31T



EXP. DETAIL SIDEWALK AT PIER (N)



EXP. DETAIL SIDEWALK AT PIER (S_1)

DETAILS OF 470'-6" CONTINUOUS SPAN

Sheet 28 of 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

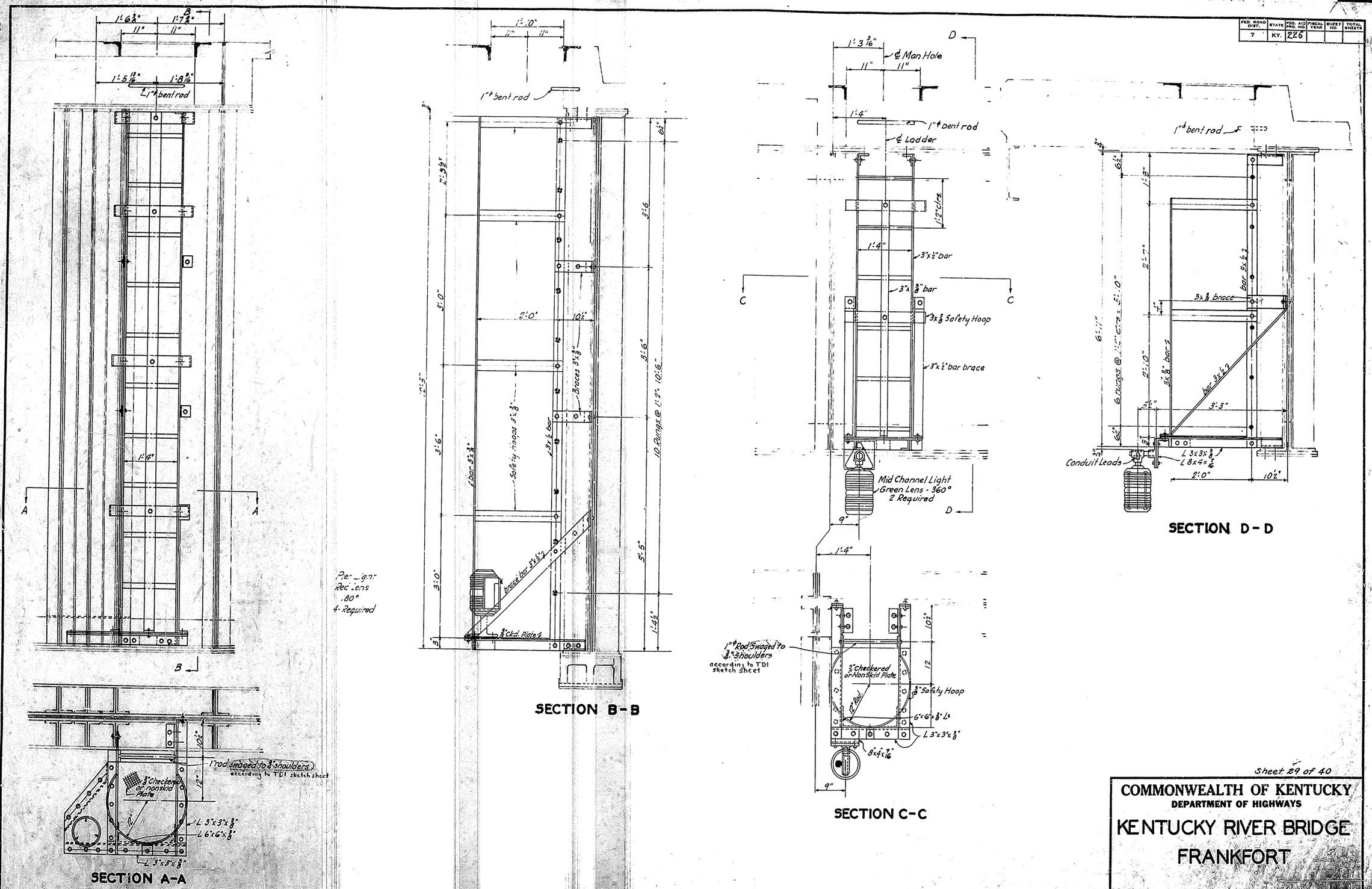
KENTUCKY RIVER BRIDGE
FRANKFORT

DRAWING 6742

DESIGNED BY: A.G. Little DATE 11/36
DETAILED BY: J. Gilbert DATE 12-36
CHECKED BY: W.C.S. DATE 1/37
REVISED: Fin. Pl. Pier S1 - Front Line Lev. DATE 3-37
REVISED: Fin. Pl. Pier S1 - Rear Line Lev. DATE 3-37
REVISED: Horiz. clearance dimensions at Pier S1 - Forged Steel. DATE 7-37

BRIDGE

FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



SECTION A-A

SECTION B-B

SECTION C-C

SECTION D-D

Sheet 29 of 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

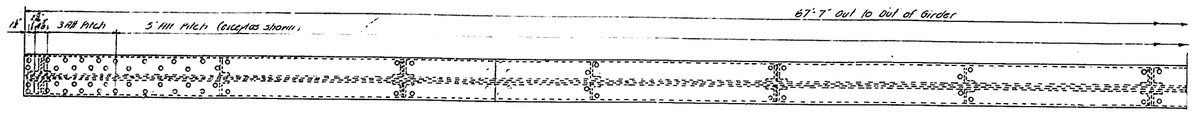
KENTUCKY RIVER BRIDGE
FRANKFORT

DRAWING No. 6742

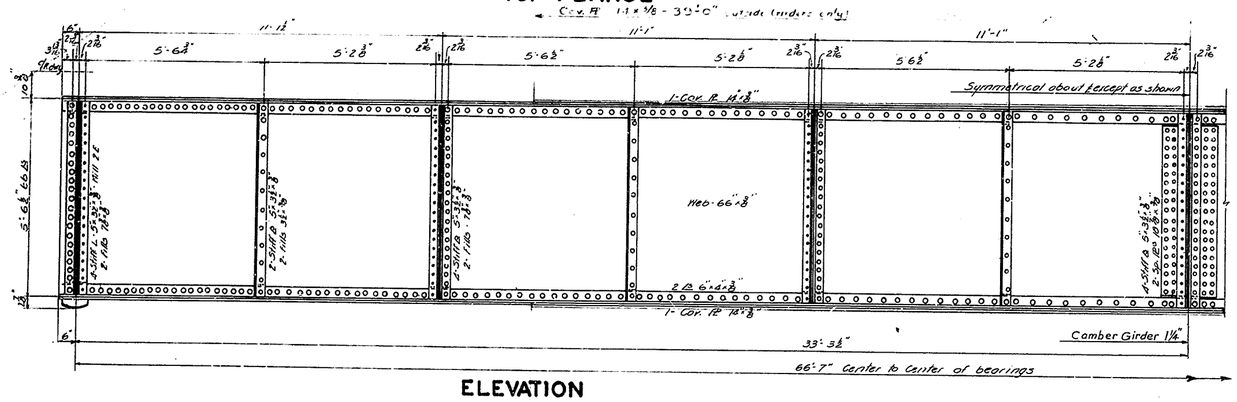
DETAILS OF LIGHT AND LADDER

BRIDGE

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			

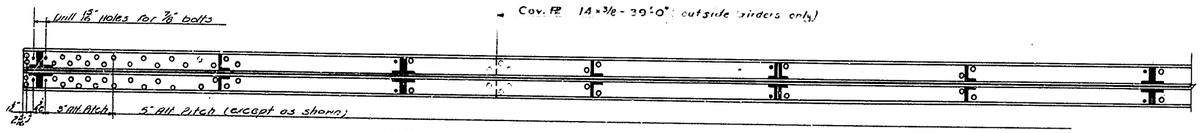


TOP FLANGE

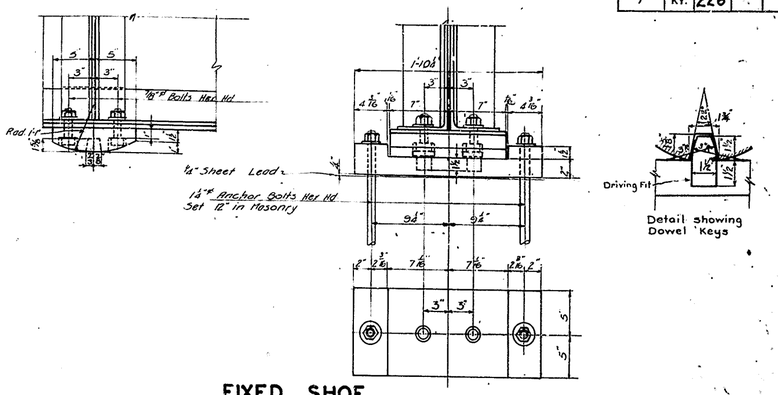


ELEVATION

Note: Tight fit for stiffener angles and fills

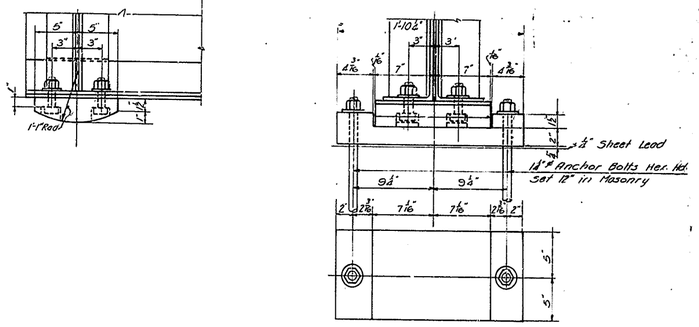


BOTTOM FLANGE



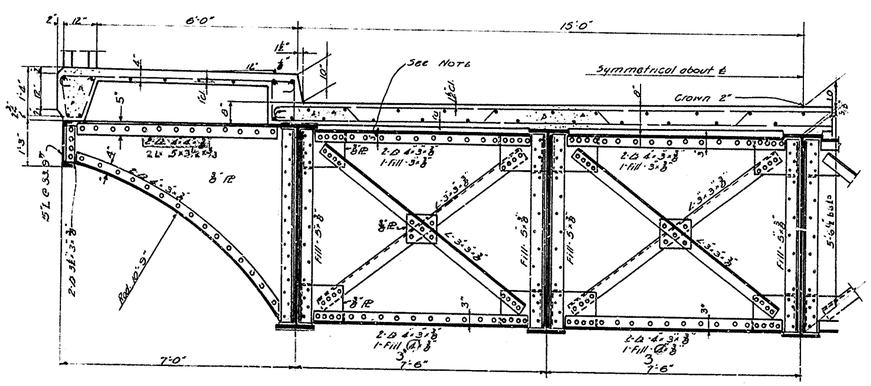
FIXED SHOE

(Cast Steel - 10 Required)



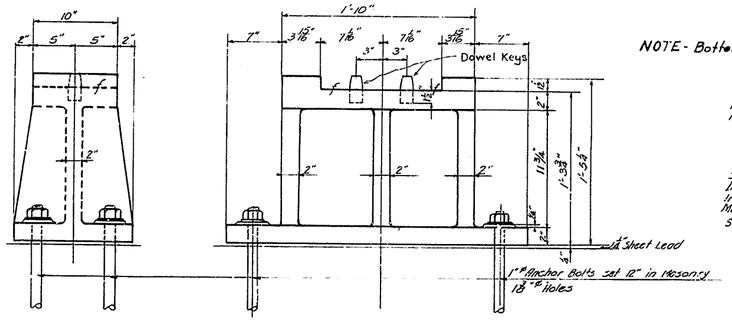
EXPANSION SHOE

(Cast Steel - 15 Required)



Note: Outstanding leg of top member of cross frame to be 4"

HALF SECTION OF ROADWAY AT ℄ OF SPAN



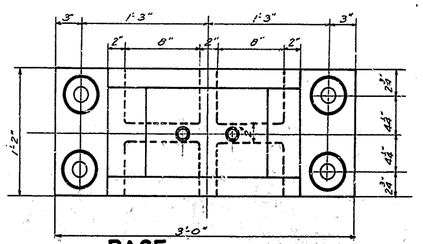
NOTE - Bottom laterals not to be used on 66'-7" spans.

Roadway Loading - Load on Girders as shown in diagram placed to produce maximum stress
Load 24'-533# Lin. Ft. — INTERIOR GIRDERS.
Load 24'-266# Lin. Ft. — EXTERIOR GIRDERS

Sidewalk Loading - 245# per Lin. Ft. of Girder
Impact on Roadway - 26.1 % of Live Load
Impact on Sidewalk - None
Maximum Stresses - Net Section - 18000 #/□"
Steel cambered for D.L. + 1/2 L.L. = 1 1/4"
3/4" Rivets
13/16" Holes

ESTIMATE OF QUANTITIES

Structural Steel for 3 Spans	313795 lbs.
Cast Steel for 3 Spans	8925 lbs.
Cast Iron for 3 Spans	1115 lbs.
Sheet Lead for 3 Spans	825 lbs.



BASE

FIXED SHOE OVER PIER S1

(Cast Steel - 5 Required)

DETAILS OF 66'-7" GIRDERS

SHEET 30 OF 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

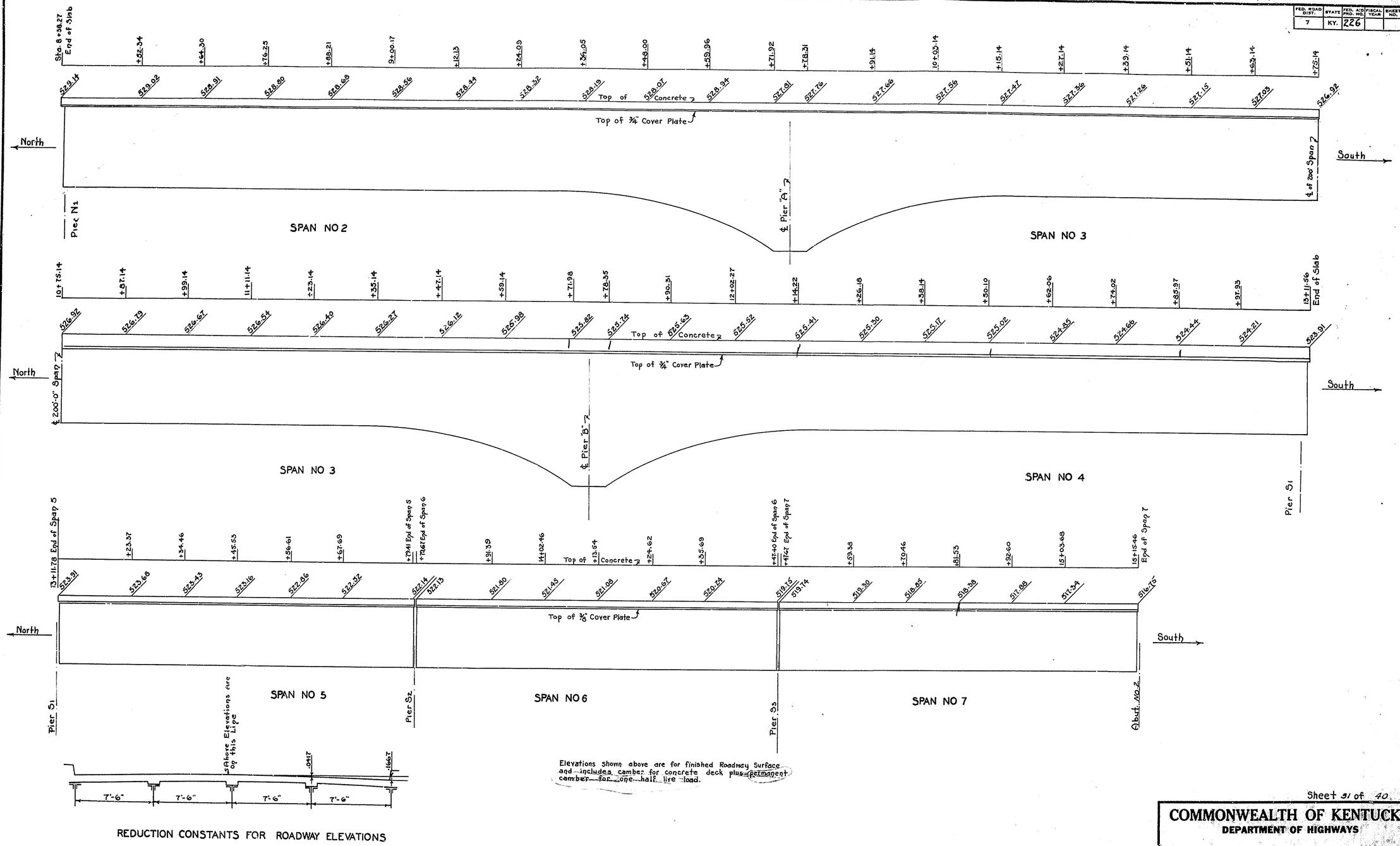
PROJECT NO.	SHEET
6742	

DESIGNED BY — DATE 12/26
TRACED BY — DATE 12/26
CHECKED BY — DATE 12/27
REVISED — DATE 2-17
REVISED — DATE 6-29
REVISED — DATE 10/29

POST 1219—200—11-56

BRIDGE

FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



Elevations shown above are for finished Roadway Surface and includes camber for concrete deck plus permanent camber for one half live load.

REDUCTION CONSTANTS FOR ROADWAY ELEVATIONS

Sheet 31 of 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

DRAWING No. 6742

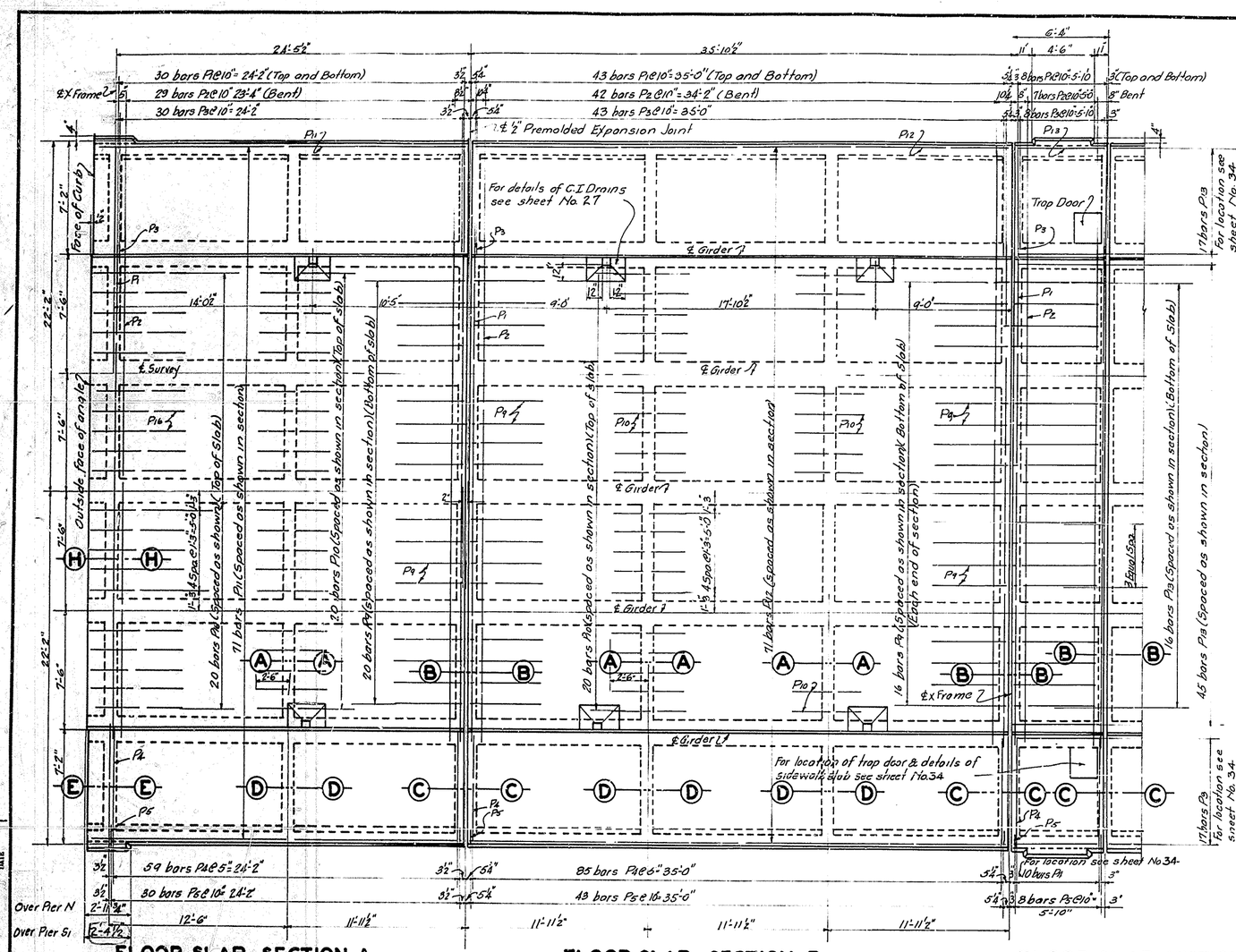
DESIGNED BY W.D. GRAY DATE 11/36
TRACED BY McMakin DATE 12-30-36
CHECKED BY A. Griffith DATE 1-37
REVISED DATE
REVISED DATE
REVISED DATE

DIAGRAM SHOWING ELEVATIONS OF TOP OF SLAB ALONG ℄ OF ROADWAY FOR CAMBER

POST 1112—520—11-34

BRIDGE

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			

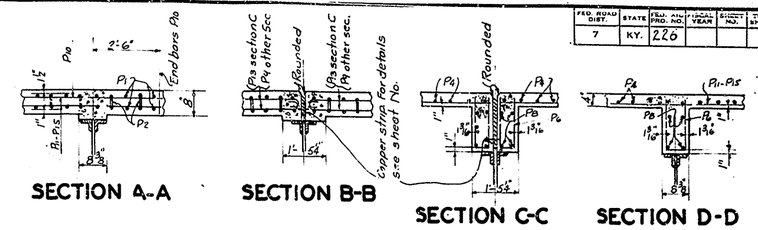


FLOOR SLAB SECTION A

FLOOR SLAB SECTION B

FLOOR SLAB SECTION C

PLAN

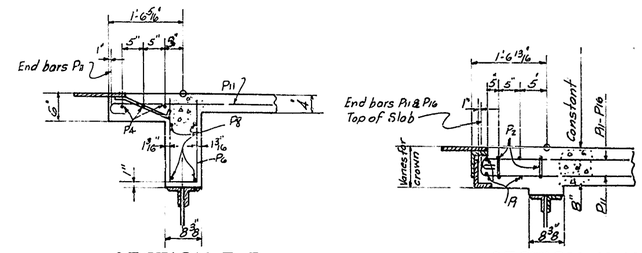


SECTION A-A

SECTION B-B

SECTION C-C

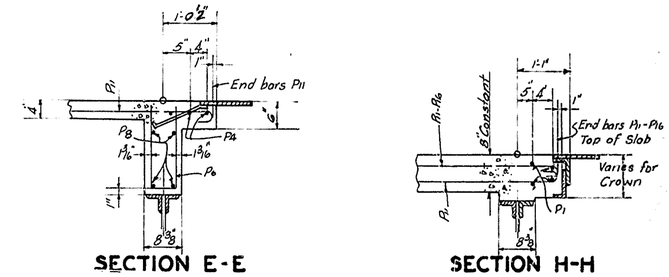
SECTION D-D



SECTION E-E

SECTION H-H

END OF SLAB OVER PIER N1



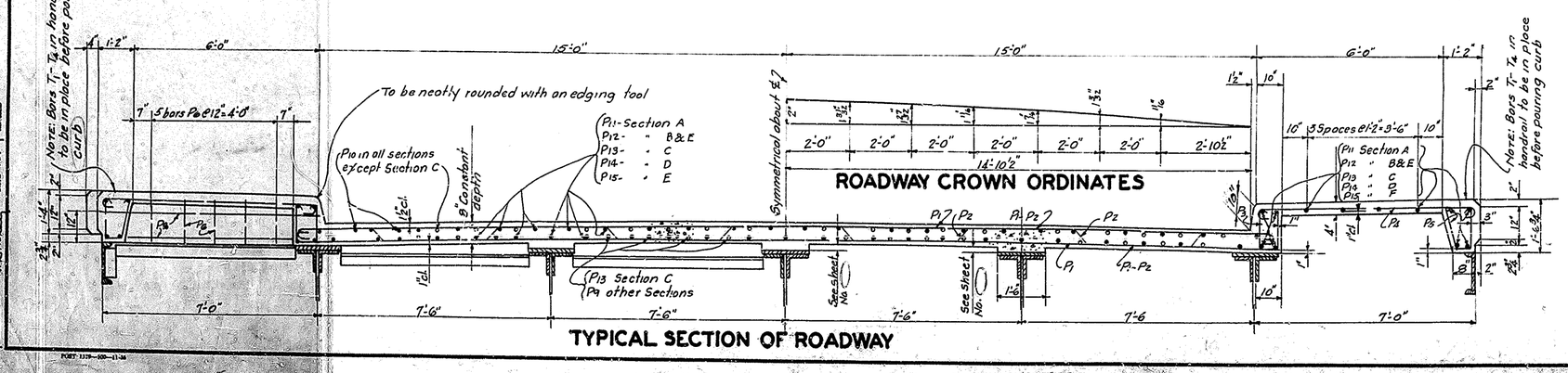
SECTION E-E

SECTION H-H

END OF SLAB OVER PIER S1

DETAILS OF FLOOR SLAB FOR 470'-6" CONTINUOUS PLATE GIRDER SPAN (3 SHEETS)

(FOR DETAILS NOT SHOWN HEREON SEE SHEET No. 34)



ROADWAY CROWN ORDINATES

TYPICAL SECTION OF ROADWAY

SHEET 32 OF 40

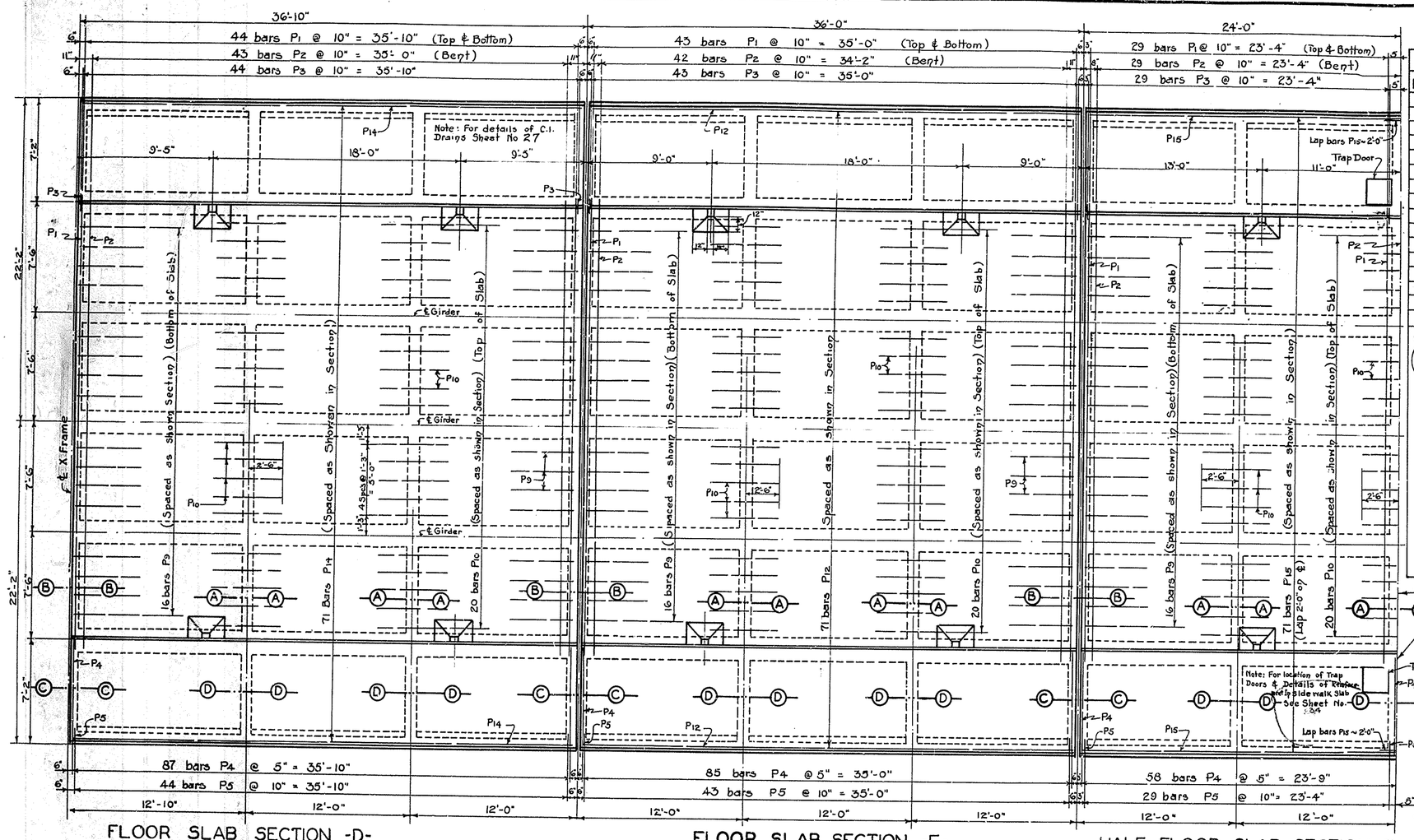
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

DRAWING No. 6742

BRIDGE

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



FLOOR SLAB SECTION -D-

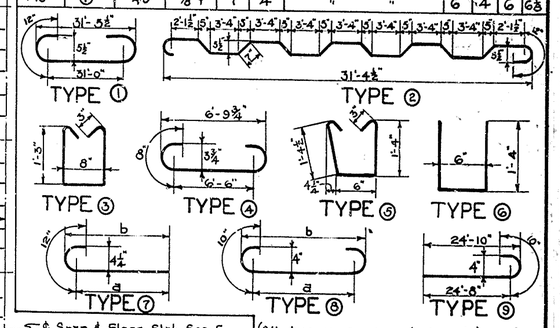
PLAN

FLOOR SLAB SECTION -E-
(For Cross-Section and all Sections cut on this Plan See Sheet No. 33

HALF FLOOR SLAB SECTION -F-

BILL AND TYPES OF REINFORCEMENT

MARK	TYPE	NO	SIZE	LENGTH FT.	LENGTH IN.	LOCATION	a FT.	a IN.	b FT.	b IN.
P1	①	1140	5/8" ϕ	33	0	Roadway Slab	—	—	—	—
P2	②	552	" "	33	7	" "	—	—	—	—
P3	③	1132	1/2" □	3	6	Curb	—	—	—	—
P4	④	2222	5/8" ϕ	7	10	Sidewalk Slab	—	—	—	—
P5	⑤	1132	1/2" □	3	6	Curb	—	—	—	—
P6	⑥	550	1/2" ϕ	3	0	Under Sidewalk Slab	—	—	—	—
P7	Str.	8	5/8" ϕ	8	0	Floor Slab Sec. F	—	—	—	—
P8	"	440	1/2" ϕ	6	9	Under Sidewalk Slab	—	—	—	—
P9	⑦	384	5/8" ϕ	5	0	Roadway Slab	4	0	4	2 1/8
P10	Str.	500	"	5	0	" "	—	—	—	—
P11	⑥	142	1/2" ϕ	26	7	" "	24	11	25	3
P12	"	568	"	36	11	" "	35	3	35	7
P13	"	190	"	7	4	" "	5	8	6	0
P14	"	142	"	37	10	" "	36	2	36	6
P15	⑨	142	"	25	6	" "	—	—	—	—
P16	⑦	40	5/8" ϕ	7	4	" "	6	4	6	6 3/8



℄ Span ℄ Floor Slab Sec. F

Floor Slab Section F Symmetrical about this ℄ except for Trap Door.

ESTIMATE OF QUANTITIES

Concrete Class "A"	548.3 Cu.yds.
Reinforcement	103,390 lbs.
Trap Door	6 Required.

Note: The order of pouring to be either 1 then 1-A; then 2; then 2-A; then 3; then 4; then 4-A; etc., or 1-A; then 1; then 2-A; then 2; then 3; then 4-A; then 4, etc.

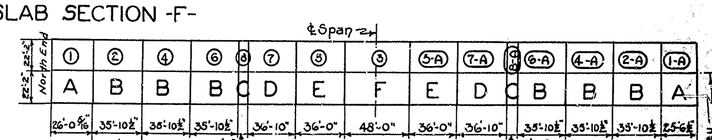
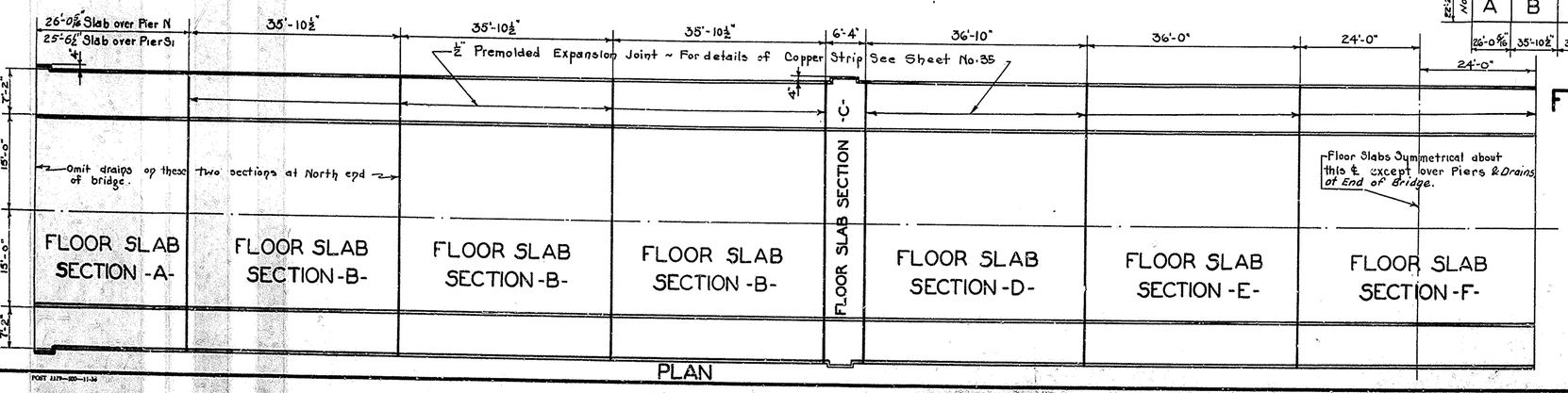


Diagram Showing Order of Pouring

FLOOR SLAB FOR 470'-6" SPAN (3 Sheets)

For Details not shown hereon see Sheet No 32 & 34



PLAN

Sheet 33 of 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

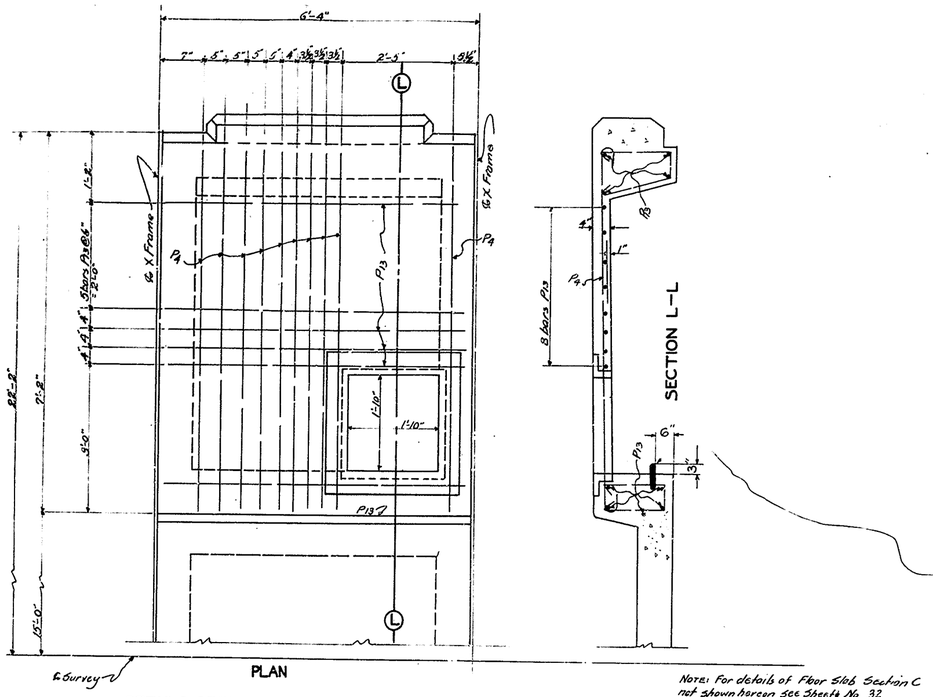
DRAWING 6742

DESIGNED BY Newman DATE 1/32
TRACED BY McNaughton DATE 12-15-36
CHECKED BY W.S.B. DATE 1/37
REVISED DATE
REVISED DATE
REVISED DATE

POST 3379—300—11-36

BRIDGE

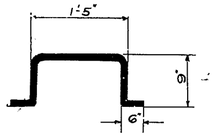
FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



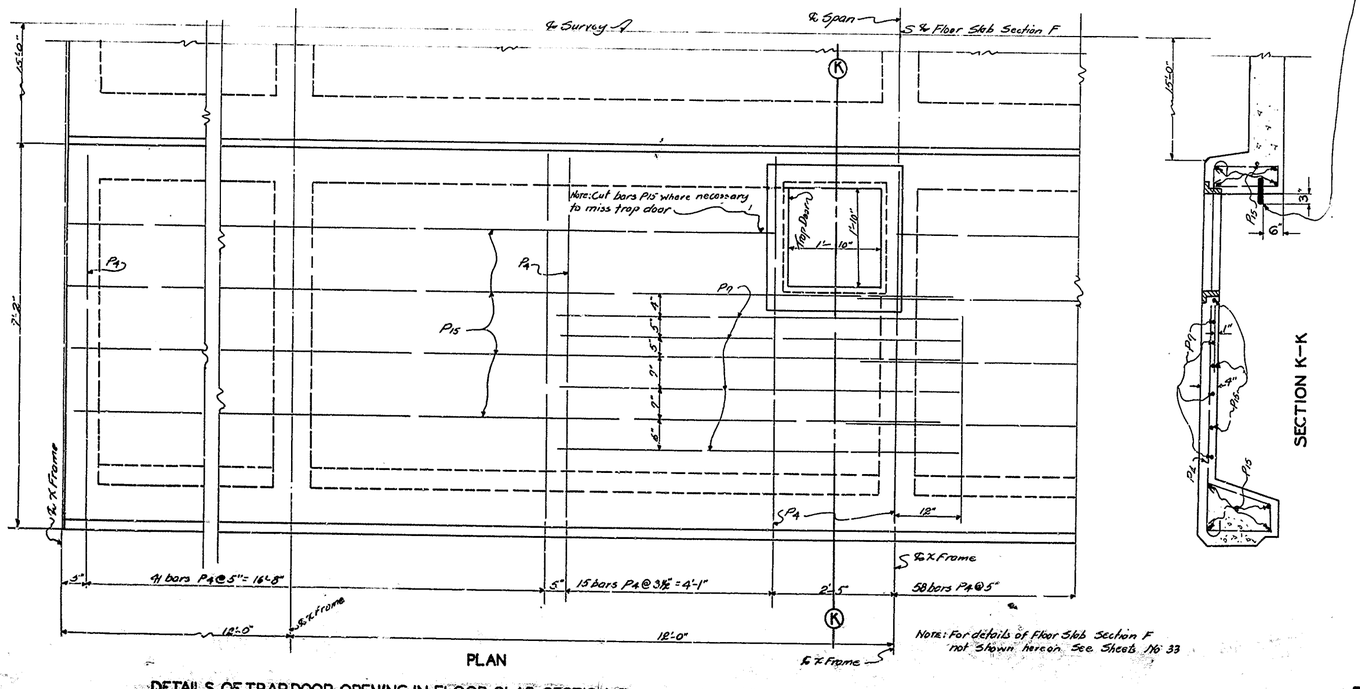
DETAILS OF TRAP DOOR OPENING IN FLOOR SLAB SECTION-C

NOTE: For details of Floor Slab Section C not shown hereon see Sheet No 32

NOTE Two trap doors to be placed in Each Fl Slab Section C- one on each side of ℄ Survey. Trap doors to be located above ladders built on Girders. Trap doors to be similar to those shown in "Clow-National Catalogue" No. A-1833. Locking devices to be provided, & top of door to have checker or other Non-skid surface. Trap doors of other manufacture meeting these requirements may be used with permission of Department.



1"ϕ Bent Rod - 3'-7" long - 6-Required
(All dimensions are out to out)



DETAILS OF TRAP DOOR OPENING IN FLOOR SLAB SECTION-F

NOTE: For details of Floor Slab Section F not shown hereon See Sheets No 33

NOTE: Two Trap Doors to be placed in Floor Slab Section F, one on each side of ℄ Survey. Trap Doors to be located above ladders built on Girders. Trap Doors to be same as specified above.

SHEET 34 OF 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

DRAWING No. 6742

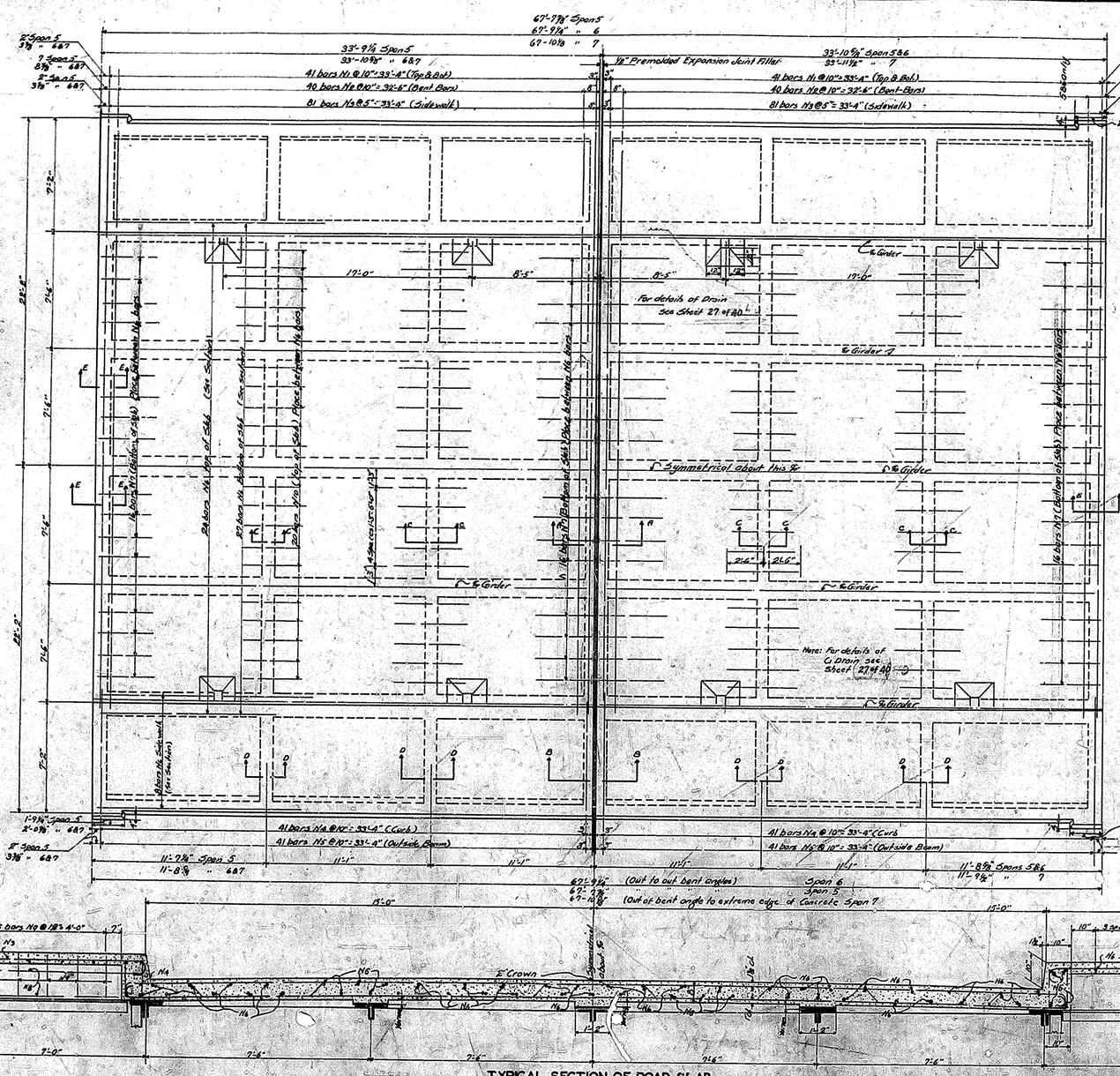
TRAP DOORS IN SIDEWALK

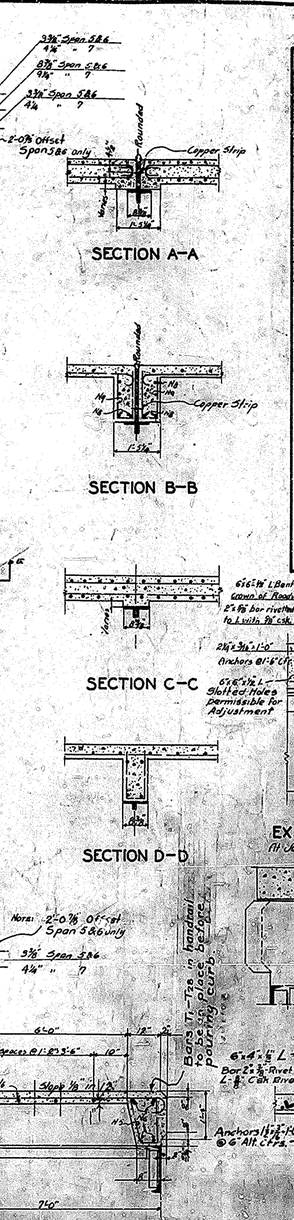
DESIGNED BY Newman DATE 12/36
TRACED BY [illegible] DATE 12-12-36
CHECKED BY W.R.[illegible] DATE 1/1/37
REVISED DATE
REVISED DATE
REVISED DATE

POST 2379—500—11-36

BRIDGE

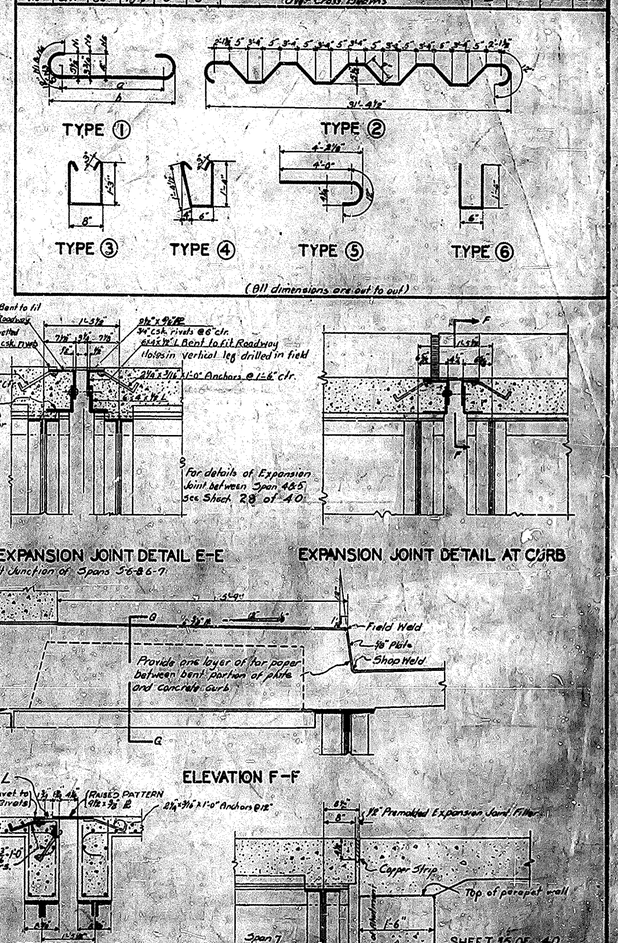
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			





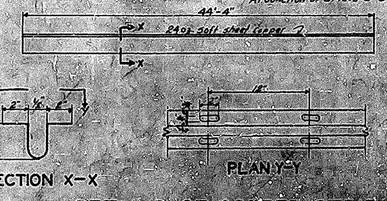
BILL AND TYPES OF REINFORCEMENT FOR ONE SPAN

Mark	Type	No.	Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.
N1	1	164	5/8" ⌀	33	0	Road Slab	31	0	31	5½
N2	2	80	"	33	7	" "	—	—	—	—
N3	1	324	3/8" ⌀	7	10	Sidewalk Slab	6	6	6	9¾
N4	3	164	½" "	3	6	Curb	—	—	—	—
N5	4	164	"	3	6	Outside beam	—	—	—	—
N6	1	142	½" ⌀	35	2	Longitudinal	33	2	33	6
N7	3	64	5/8" ⌀	3	0	At Expansion Joints	—	—	—	—
N8	Str.	64	½" ⌀	6	9	Beam over Bracket	—	—	—	—
N9	6	80	"	3	0	Stirrups	—	—	—	—
N10	Str.	80	5/8" ⌀	5	0	Diag. Cross Beams	—	—	—	—



ESTIMATE OF QUANTITIES 3 SPANS

Concrete Class "B"	233.9	Cu. Yds.
Reinforcement	44,740	Lbs.



DETAILS OF R.C. ROADWAY SLAB 66'-7" SPAN

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

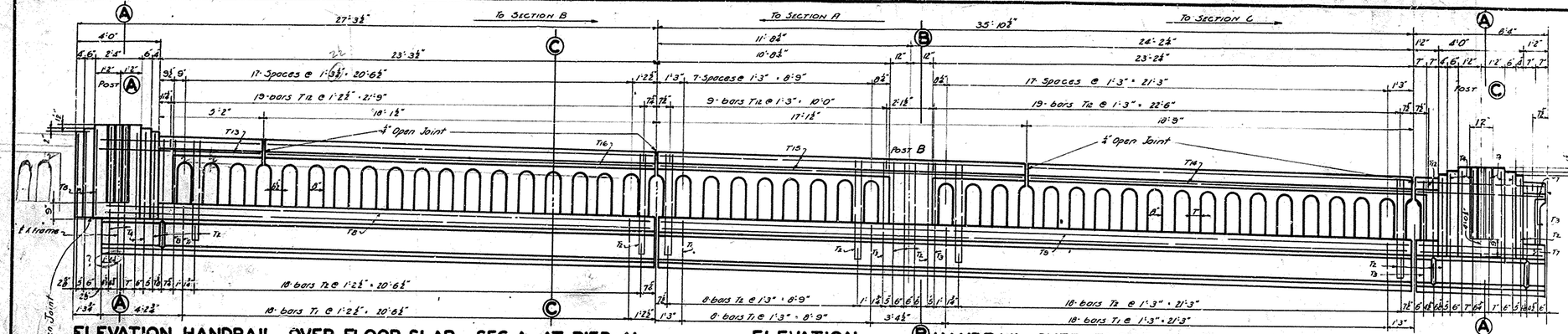
SHEET 26 OF 40

DESIGNED BY W.D. Gray DATE 7/36
DRAWN BY N.Gray DATE 7/36
TRACED BY A.C. Griffith DATE 7/36
CHECKED BY T.E.L. Witt DATE 8/36
APPROVED A.G. DATE 8-25-36
DATE 1-1-37

Sidewalk Plans
Revised Expansion Jt. Details E-E
Revised Exp. Joint Detail E-E
Revised

BRIDGE

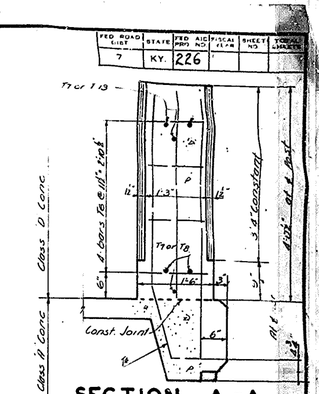
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	226			



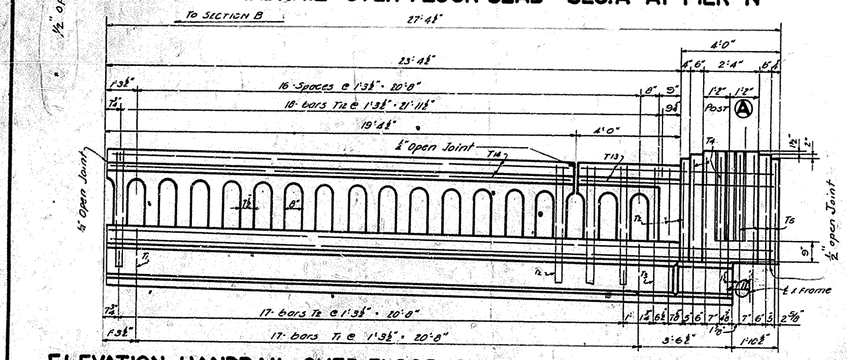
ELEVATION HANDRAIL OVER FLOOR SLAB SEC. A AT PIER N

ELEVATION HANDRAIL OVER FLOOR SLAB SEC. B

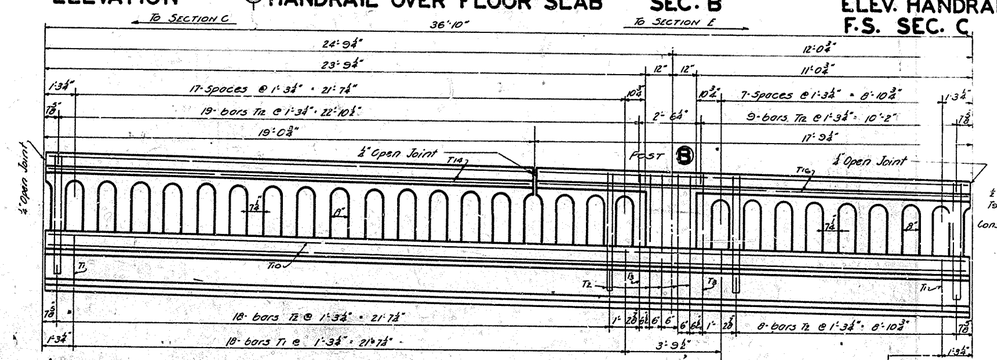
ELEV. HANDRAIL F.S. SEC. C



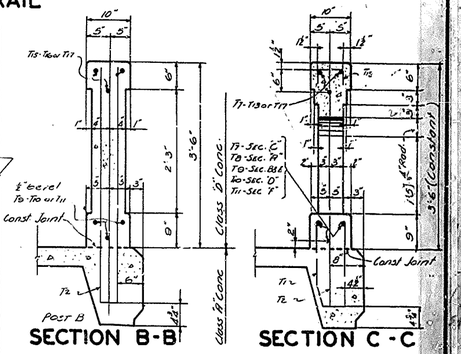
SECTION A-A
(This section same for Posts A & C)



ELEVATION HANDRAIL OVER FLOOR SLAB SEC. A AT PIER S1

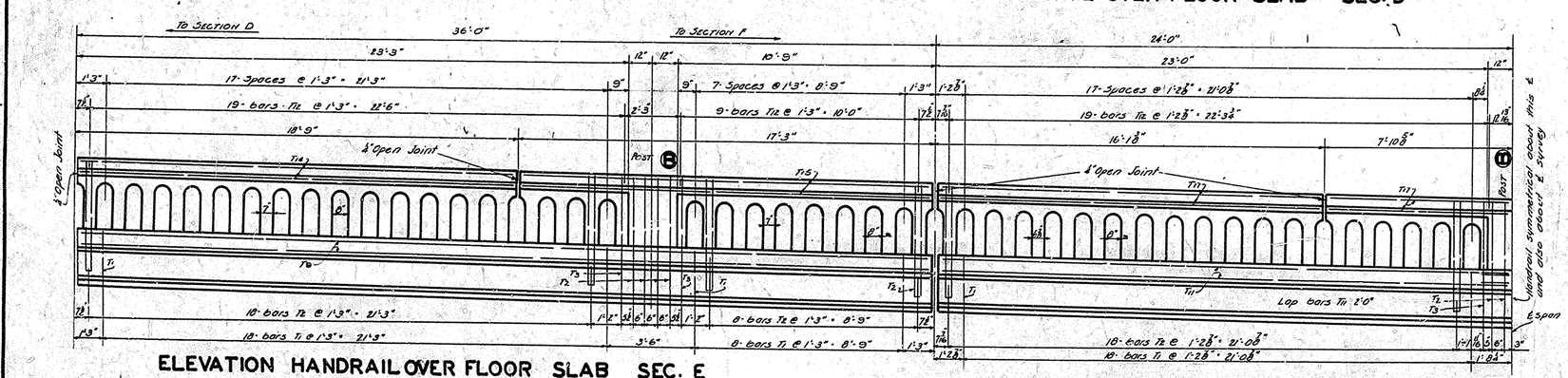


ELEVATION HANDRAIL OVER FLOOR SLAB SEC. D



SECTION B-B

SECTION C-C



ELEVATION HANDRAIL OVER FLOOR SLAB SEC. E

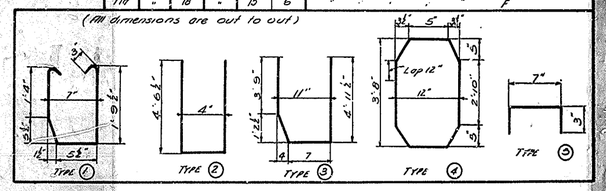
ELEVATION HANDRAIL OVER FLOOR SLAB SEC. F

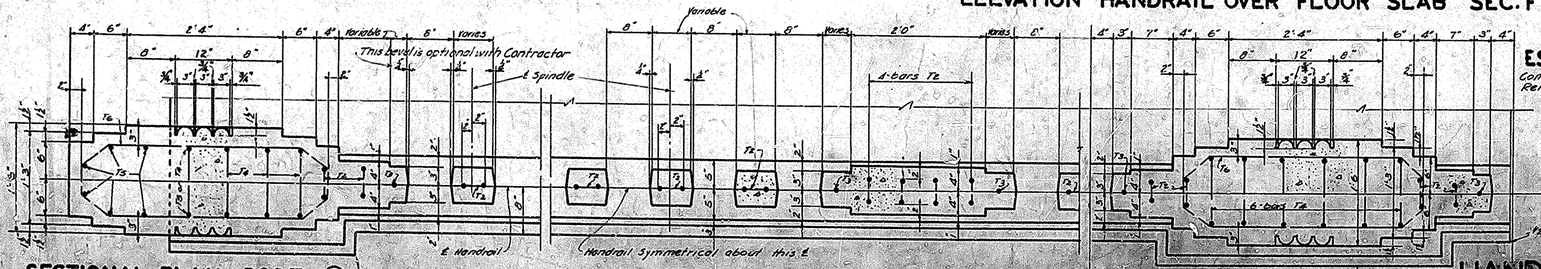
NOTE: Bend all corners of Handrail ℄ unless otherwise shown

BILL AND TYPES OF REINFORCEMENT

MARK	TYPE	No	SIZE	LENGTH FT.	LENGTH IN.	LOCATION
T1	1	662	½" ⊡	4	5	Curb into Plinth
T2	2	774	"	9	3	" " Spindles & Posts C
T3	Str.	56	"	4	6	" " Rail adjoining Posts
T4	3	38	"	10	4	" " Posts A & C
T5	Str.	28	"	3	6	Post A
T6	4	32	1/2" ⊡	9	3	Posts A & C
T7	Str.	24	1/2" ⊡	6	0	Top Rail and Plinth over F.S. Sec. C
T8	"	12	"	26	6	Plinth " " " A
T9	"	40	"	35	7	" " " " " B & E
T10	"	12	"	36	6	" " " " " D
T11	"	12	"	24	10	" " " " " F
T12	5	710	1/2" ⊡	0	11	Top Rail
T13	Str.	12	1/2" ⊡	7	8	Top Rail over F.S. Sec. A
T14	"	66	"	18	5	" " " " A-B-D & E
T15	"	48	"	16	10	" " " " B & E
T16	"	18	"	17	5	" " " " D & A
T17	"	18	"	15	6	" " " " F

(All dimensions are out to out)





SECTIONAL PLAN POST A

SECTIONAL PLAN POST B

SECTIONAL PLAN POST C

HANDRAIL 470'-6" SPAN

ESTIMATE OF QUANTITIES

Concrete Class D	68.0	cu yds
Reinforcement	13620	lbs.

SHEET No 36 OF 40

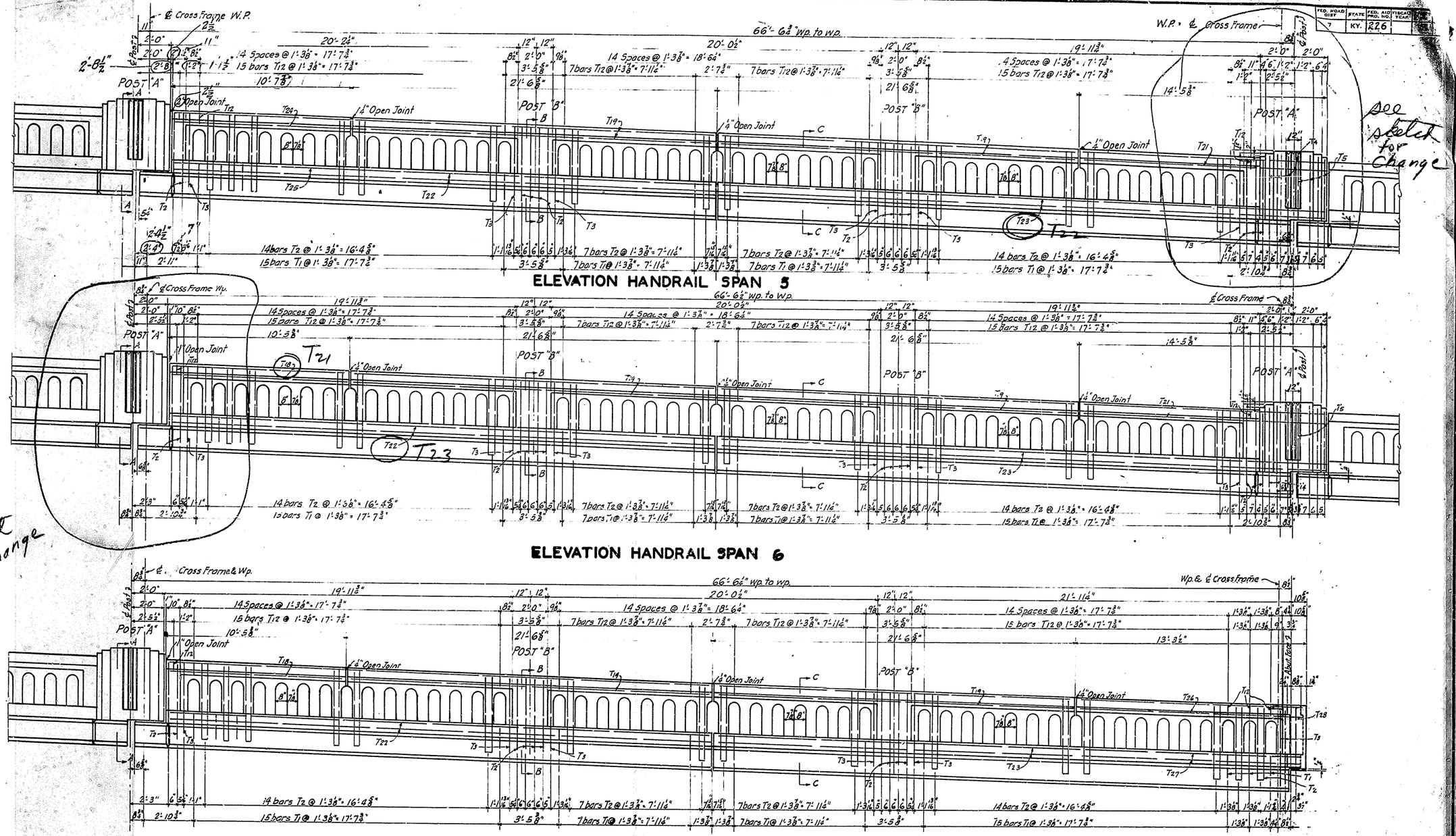
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

DRAWING K-6742

BRIDGE

DESIGNED BY Hammack DATE
TRACED BY Langford DATE 12-12-36
CHECKED BY N.B.Gibson DATE 11-16-37
REVISED
REVISED
REVISED ℄ Post to ℄ X Frame. Finish at N.S.F. (¼" to ½" opening) at Pier S1 DATE 3-10-37
REVISED DATE



ELEVATION HANDRAIL SPAN 5

ELEVATION HANDRAIL SPAN 6

ELEVATION HANDRAIL SPAN 7

see sketch for change

see sketch of change

SHEET 37 OF 40

NOTE: For sections thru Handrail See Sheet 38

HANDRAIL SPANS 5, 6, & 7
SPAN 66'-7"

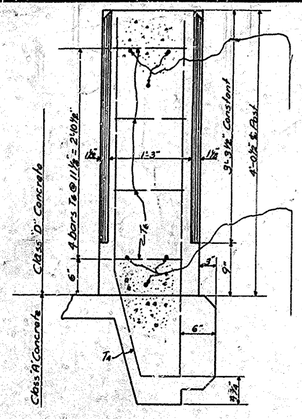
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
KENTUCKY RIVER BRIDGE
FRANKFORT

DRAWING No. 6742

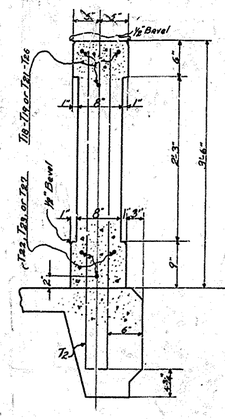
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR
7	KY.	226	

DESIGNED BY A. Griffith DATE 12/36
TRACED BY D.T.D. DATE 12/36
CHECKED BY W.D.S. DATE 1/37
REVISED Horiz. clearance dimensions at Pier S1
REVISED
REVISED
REVISED

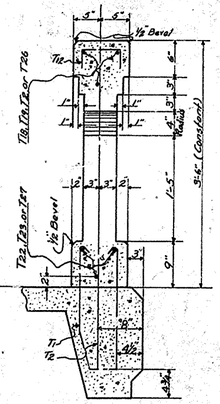
FED. ROAD DIST.	STATE	FED. AID PRO. NO.	FISCAL YEARS	SHEET NO.	TOTAL SHEETS
7	KY.	226			



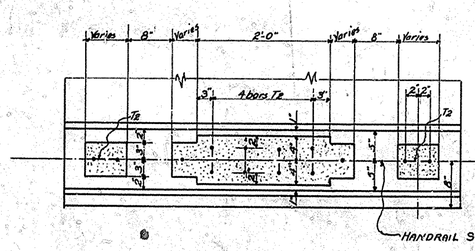
SECTION A-A



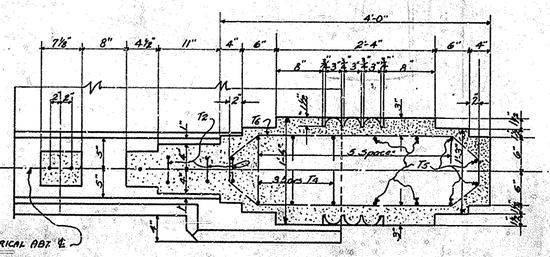
SECTION B-B



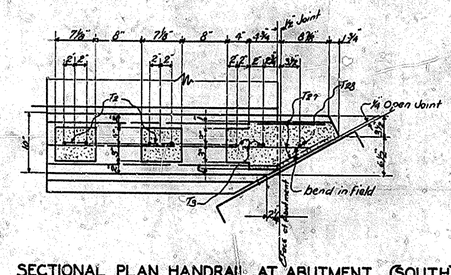
SECTION C-C



SECTIONAL PLAN POST-B-



SECTIONAL PLAN POST-A-



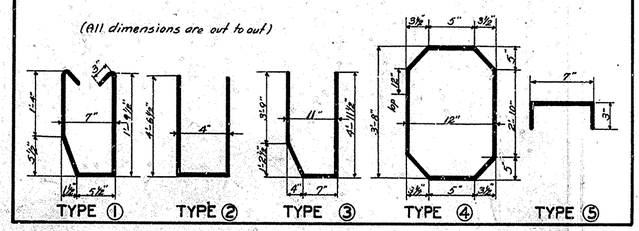
SECTIONAL PLAN HANDRAIL AT ABUTMENT (SOUTH)

NOTE: For location of Sections See Sheet 37

BILL AND TYPES OF REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH FT.	LENGTH IN.	LOCATION
T1	1	268	½" ▫	4	5	Curb into Plinith
T2	2	244	½" ▫	9	3	" " Spindles & Posts (B)
T3	Str.	38	"	4	6	" " Rail adjoining Posts
T4	3	12	"	10	4	" " Posts (A)
T5	Str.	16	"	3	6	Posts (A)
T6	4	16	⅜" ⌀	9	3	Posts (A)
T12	5	280	½" ▫	0	11	Top Rail
T18	Str.	12	½" ⌀	10	2	Top Rail Span 6-7
T19	"	36	"	21	4	" " " 5-6-7
T21	"	12	"	14	3	" " " 6-5
T22	"	12	"	31	10	Plinith Span 6-7
T23	"	12	"	35	9	" " 5-6
T24	"	6	"	10	4	Top Rail Span 5
T25	"	6	"	31	10	Plinith Span 5
T26	"	6	"	13	0	Top Rail Span 7
T27	"	6	"	34	5	Plinith Span 7
T28	"	2	"	3	3	Rail Span 7

(All dimensions are out to out)



ESTIMATE OF QUANTITIES

Concrete Class "D"	29.7 Cu.yds.
Reinforcement	5110 Lbs.
	5770

SHEET 38 OF 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

HANDRAIL SPANS 5-6-7
SPAN 66'-7"

DRAWING No. 6742

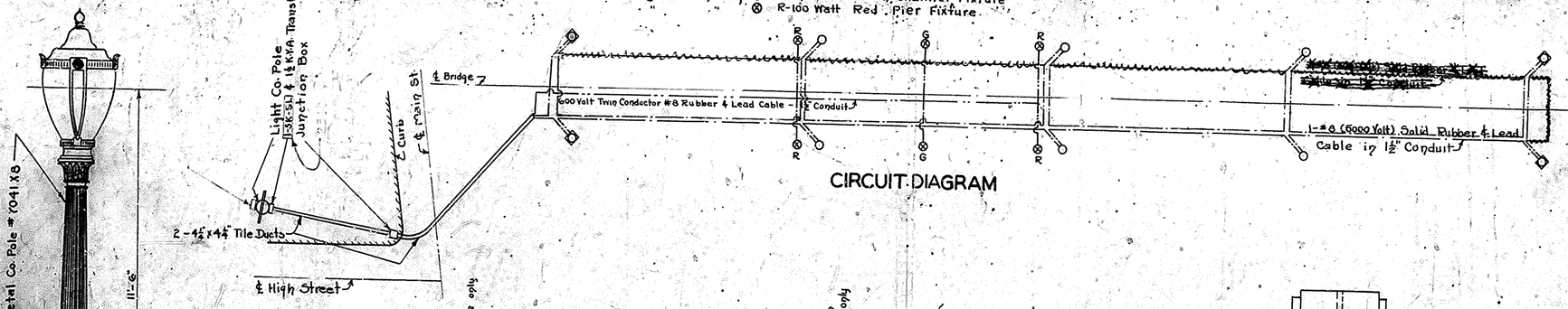
DESIGNED BY Bowlin DATE 1-20-36
TRACED BY [illegible] DATE 2-3-36
CHECKED BY [illegible] DATE 11-4-37
ENTERED [illegible] DATE 11-20-36
REVISED DATE
REVISED DATE
REVISED DATE

POST 129-300-11-36

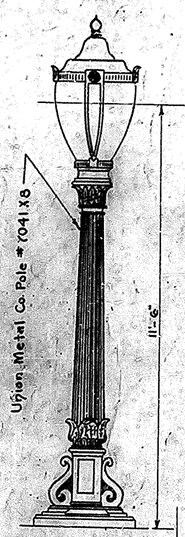
BRIDGE

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	SHEET NO.
7	KY.	226	

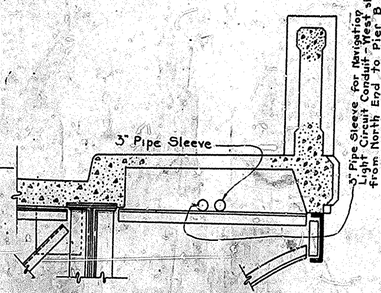
Key - Bridge Lighting - ○ - 6000 Lumen, Standard Fixture
" " - □ - 6000 Lumen, Special Fixture
Navigation Lighting ⊗ G-100 Watt Green, Channel Fixture
" " ⊗ R-100 Watt Red, Pier Fixture



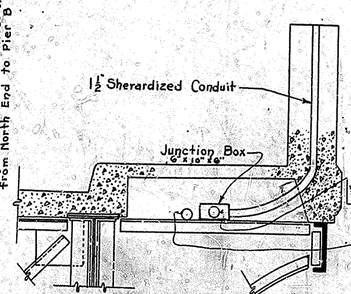
CIRCUIT DIAGRAM



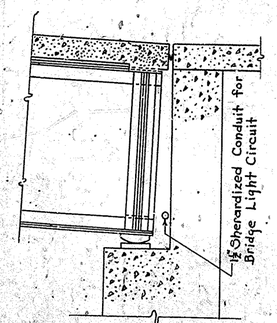
LAMP POST
(124 Globe, No. 1124 Canopy)
(Type M Casing)



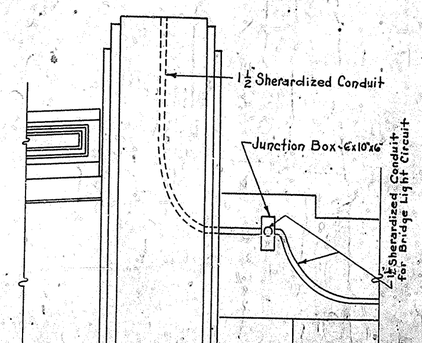
PART SECTION THRU STEEL SPANS
(Showing Location of Pipe Sleeves for Conduits)



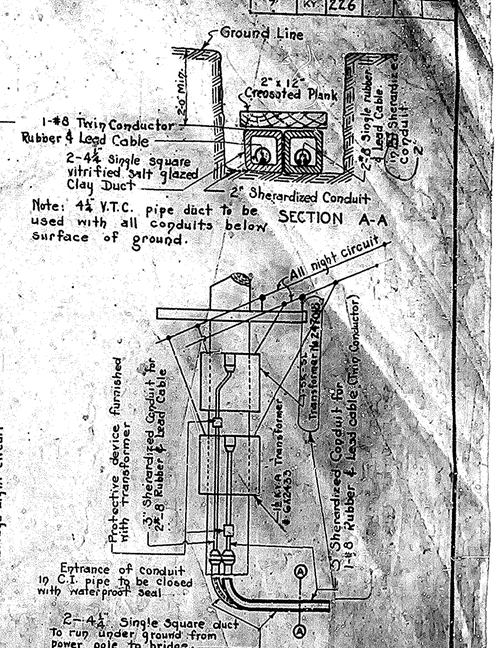
TYPICAL PART SECTION THRU BRACKETS ON STEEL SPANS
(Showing Details of Bridge Light Circuit)



PART SECTION AT ABUT. NO. 2
(Showing Location of Bridge Light Circuit Conduit)



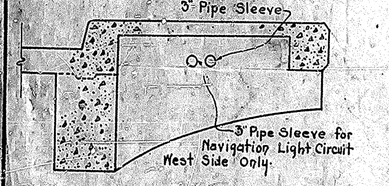
PART ELEVATION AT ABUT. NO. 2
(Showing Details of Bridge Light Circuit)



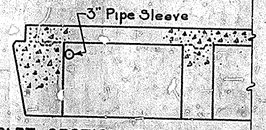
Note: 4¼" V.T.C. pipe duct to be used with all conduits below surface of ground.

SECTION A-A

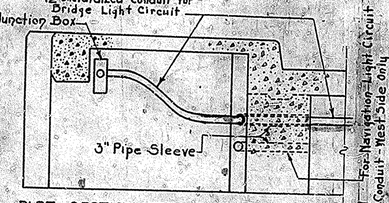
SERVICE WIRES FOR LIGHT CIRCUITS



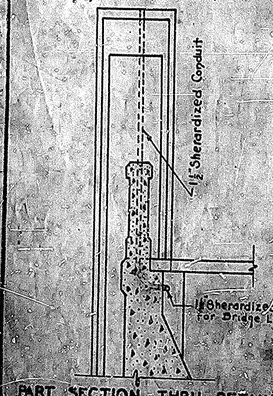
PART SECTION THRU SPAN NO. 1
(Showing Location of Pipe Sleeves for Conduits)



PART SECTION THRU SPAN NO. 1 AT NORTH ENDWALL
(Showing Location of 3" Pipe Sleeve for Bridge Light Circuit Conduit)



PART SECTION THRU SPAN NO. 1 AT NORT ENDWALL
(Showing Details of Bridge Light Circuit & Location of pipe sleeve for Navigation Light Circuit Conduit)



PART SECTION THRU RETAINING WALL AT POST - C -
(Showing Details of Bridge Light Circuit)

ITEMS FOR STREET LIGHTING CIRCUIT

4 - Special light fixtures - See details on Sheet No. 40.
6 - G.E. Form 12 Novalux lighting units consisting of:
#124 - #1124 light alabaster rippled Glassware; Form M Casing; External Ornamental Ribs; "B" Symmetric Dome Refractor; Socket for 6000 Lumen Lamp.
All to operate on 6.6 amperes straight Series Circuit.
6 - Union Metal Co. - Poles Design 7041X8; Pressed Steel fluted shafts; Base to center of light to be 11'-6". Contractor to furnish anchor bolts and template for setting same.
1 - 5K-SD Aerial type Transformer with protective device similar to General Electric Catalogue #24-7018 for operating on a 6.6 Ampere primary and secondary street lighting Circuit.
10 - G.E. Junction boxes No. 2277 - 6"x10"x6"
900 ft. (Approx.) 1½" Sherardized or Galvanized Conduit & Couplings, clamps, bolts, etc. for fastening Conduits & junction boxes to Concrete & steel work.
1400 ft. (Approx.) - No. 8 B&S gauge single conductor solid copper wire, 5000 Volt rubber & lead insulation.
400 ft. (Approx.) Ornamental Pole & Bracket cable - #8 Stranded - 5000 Volt for use in Standards, junction box to lighting unit.
14 - 6000 Lumen Mazda lamps to be operated on 6.6 Amperes straight Series Circuit.
[illegible]

ITEMS FOR POWER CONNECTION

500 Ft. 4¼"x4¼" Single Square Vitrified Salt glazed Clay Duct.
250 Ft. - 2"x12" Creosoted Plank.
250 Ft. - 1½" Conduit for lighting Circuit
250 Ft. - 2" Conduit for Navigation Circuit
1 - Junction Box " " G.E. Catalogue #

NOTES:-

Included: This work includes the furnishing of all materials and the installation of a complete series roadway lighting system on the Bridge and Retaining walls, and a complete system for Navigation Lights on the Bridge, in strict accordance with the 1933 National Electric Code. Both systems shall begin with provisions for connections to the Power Companys nearest point of delivery and extended to the lighting fixtures, embracing the light fixtures, supports, poles, lamps, wiring, transformers, protective devices, junction boxes, conduits and all other parts necessary for complete lighting systems ready for service. The Lighting Contractor shall Cooperate with the power company in arranging the connection to the point of delivery, and shall cooperate with the other contractors of the bridge in arranging to install such conduits and other parts of the lighting system that must be installed in the work of the other contractor.

Materials: All Fixtures and materials shall be of the design shown. Where specific makes or brands of equipment or materials are called for, it is intended that these shall be descriptive of the kind and quality of equipment or materials to be furnished. Any other make or brand of equipment or materials of similar design and equal in quality will be acceptable when approved by the Department.

Conduits: Conduits shall be rigid cold rolled steel sherardized or galvanized with perfectly smooth bore and shall be placed as shown hereon. All Conduits shall be cut straight with hack saws and reamed, threads shall be cut clean and perfect oil lubricant being used while cutting, and shall be painted with red lead and linseed oil before turning into couplings. All conduits during installation shall be protected by metal caps, to prevent debris from entering them. They shall be bonded and grounded throughout. At each expansion joint in the structure provision shall be made for expansion. All conduits and junctions boxes shall be installed in such a manner as to provide for the draining off of moisture or condensation.

Test & Inspection: The entire system after completion shall be tested for insulation resistance, grounds and operation in the presence of the engineer and all test shall prove entirely satisfactory for the final acceptance of the lighting system. An underwriters inspection certificate shall be delivered to the Department by the contractor.

Drawings: These specifications shall be used in connection with the set of detailed drawings, and what is called for by either shall be as binding as called for by both.

Contractors shall furnish such additional working drawings as maybe required for the proposed lighting system. Contractor shall list all fixtures and materials by make and catalogue numbers for approval.

ITEMS FOR NAVIGATION LIGHTING CIRCUIT

4 - 180° Red - #888407 - "Westinghouse"
2 - 360° Green #888418 - "Westinghouse" Fixtures have all metal parts Cadmium plated.
2 - Sockets & water tight conduit for 3 wire system.
Power - 6" Dia. pressed Fresnel Lens with 6¾" clear height bare 100 Watt clear bulb. All lamps to meet the requirements of U.S. Gov't Lighthouse Service.
1 - Transformer - 1½ KVA (Pole type) with Cut out - Two 5% taps - G.E. Catalogue No. 6A2433.
4 - G.E. Junction Boxes - G.E. No. 2277 - 6"x10"x6"
600 Ft. (Approx.) 1½" Sherardized or Galvanized conduit and couplings, clamps, bolts etc. for fastening conduit & junction boxes.
600 Ft. (Approx.) #8 Twin Conductor stranded 600 Volt Rubber & Lead Cable
#12 - 100 Watt Mazda lamps to be operated on 110 Volt - 60 cycle AC.

Sheet No. 39 of 40

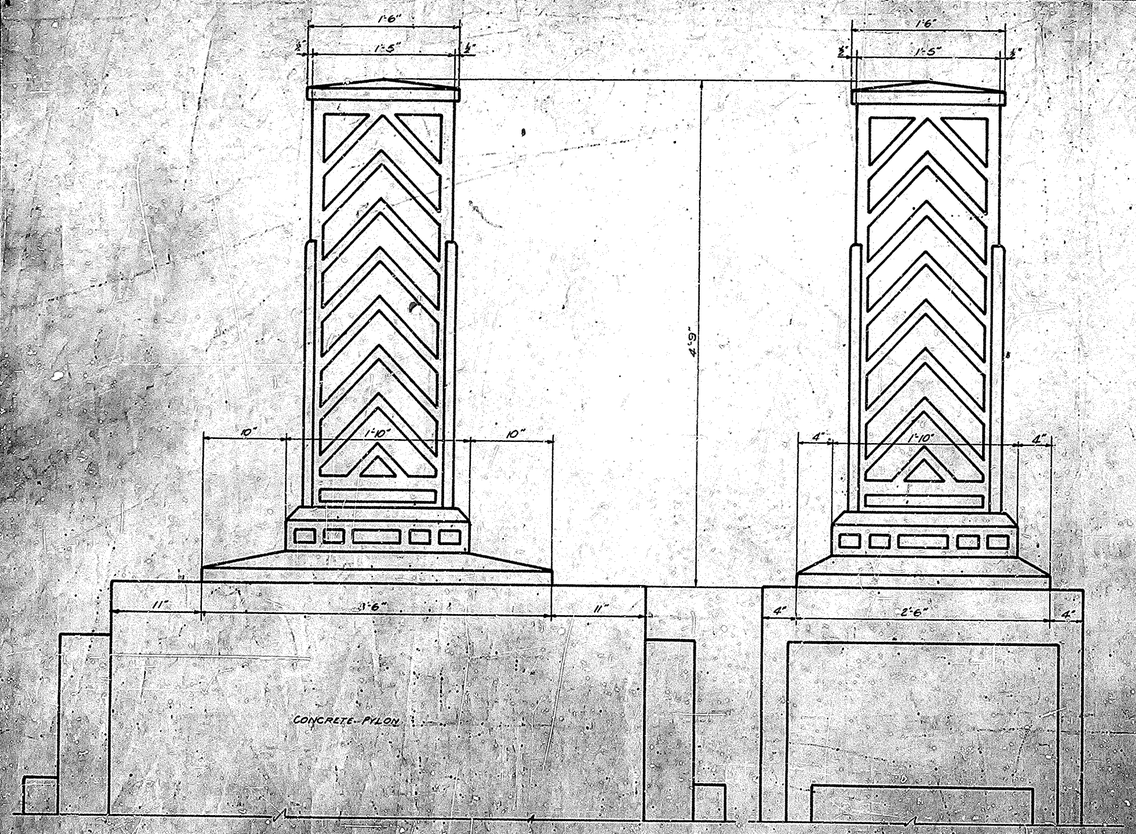
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

LIGHTING DETAILS

PURDUE

FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
7	KY.	226		



SIDE ELEVATION

END ELEVATION

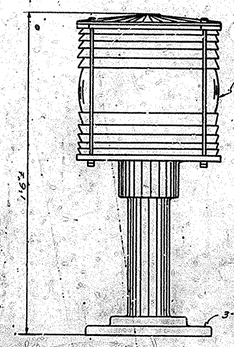
SKETCH OF LUMINAIRE AT ENDS OF BRIDGE (4 REQUIRED)

NOTE

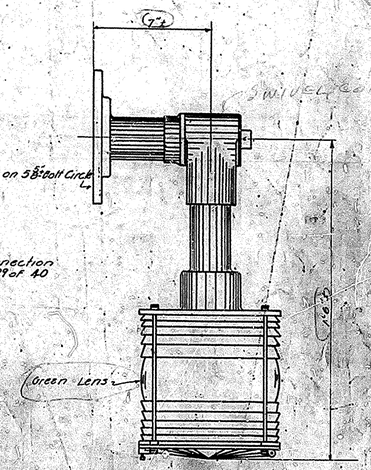
Luminaires to be of cast bronze construction and medium density diffusing glass panels. Two lamps of 6000 lumen size to be used in each luminaire, one located near the bottom and one near the top.

Lighting contractor to submit plans for the above special luminaire for the approval of the Department.

Bronze for special lighting fixture to conform to A.S.T.M. Spec. B 62-28



PIER LIGHT
(4 REQUIRED)



MID CHANNEL LIGHT
(2 REQUIRED)

For details of light connection to Bridge, see sheet No. 27 of 40

DETAIL OF NAVIGATION LIGHTS FOR BRIDGE

NOTE

All Pier Lights shall be storm proof, a Ruby Red 180 degree lens, the lights to be of power not less than that furnished by U. Pressey Fresnel lens 6 inches inside diameter, 6 1/2 inches clear height of opening within bore 100 watt Daylight Lamp with a clear bulb. Each lamp shall be fitted with two base sockets and water tight cocoum for phase-wire system. All metal parts of lamps to be cadmium plated.

Above specifications apply to the Channel Lights except lens which shall be a green 360 degree lens. Lamps shall meet the requirements of U.S. Government Lighthouse Service.

For circuit diagram of navigation lights, see sheet No. 39 of 40

Lamps shall be so constructed that parts may be replaced without soldering.

SHEET NO. 40 OF 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY RIVER BRIDGE
FRANKFORT

LIGHTING DETAILS

BRIDGE