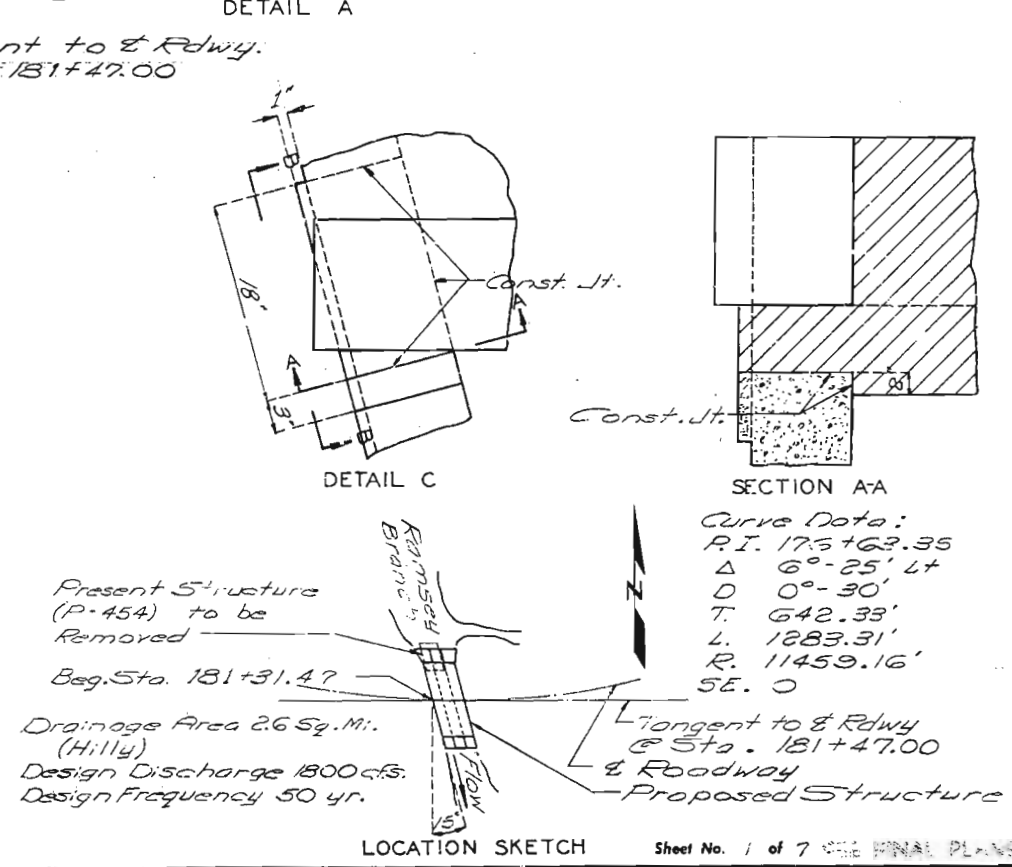
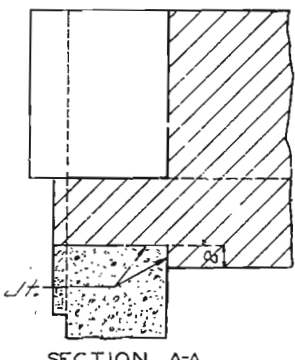
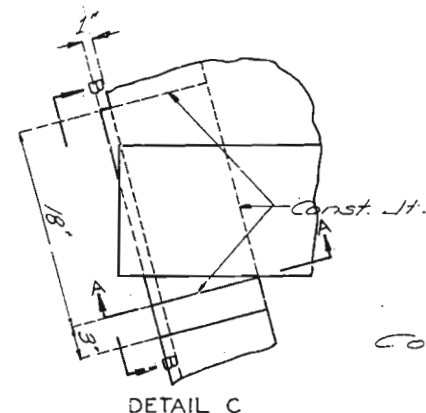
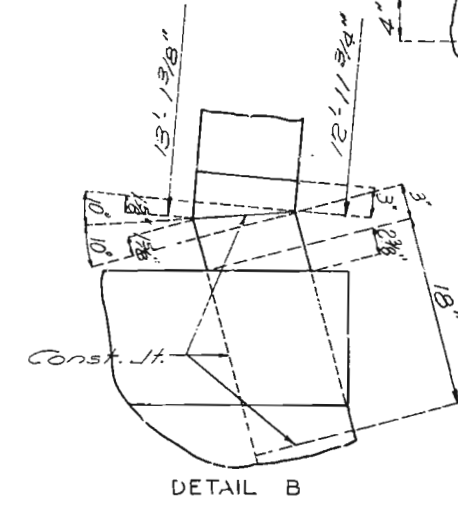
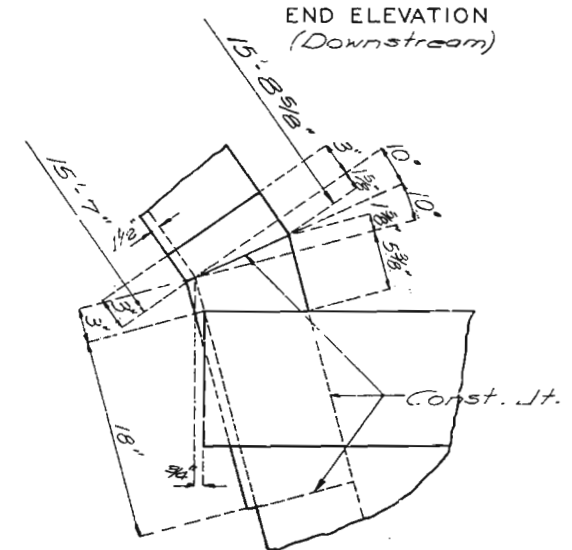
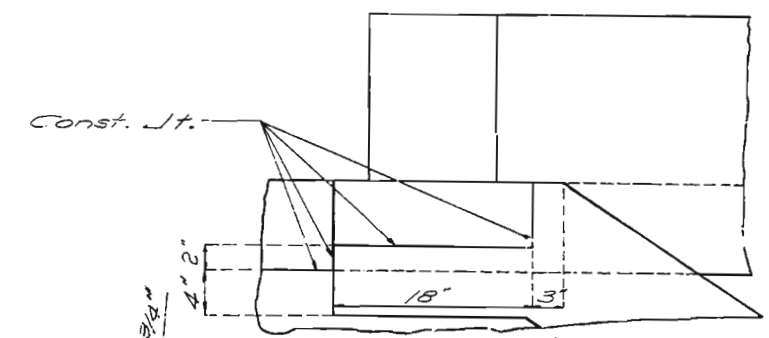
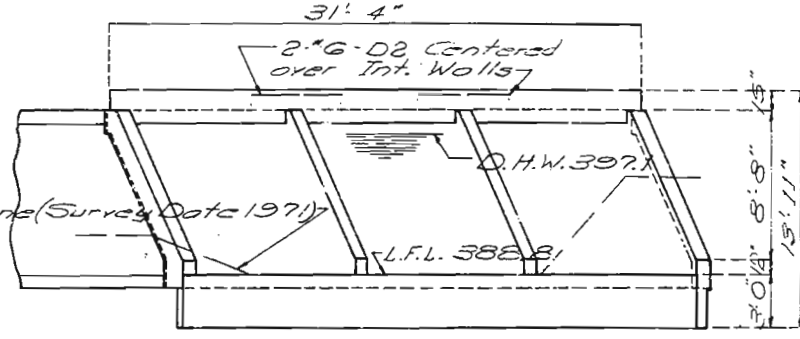
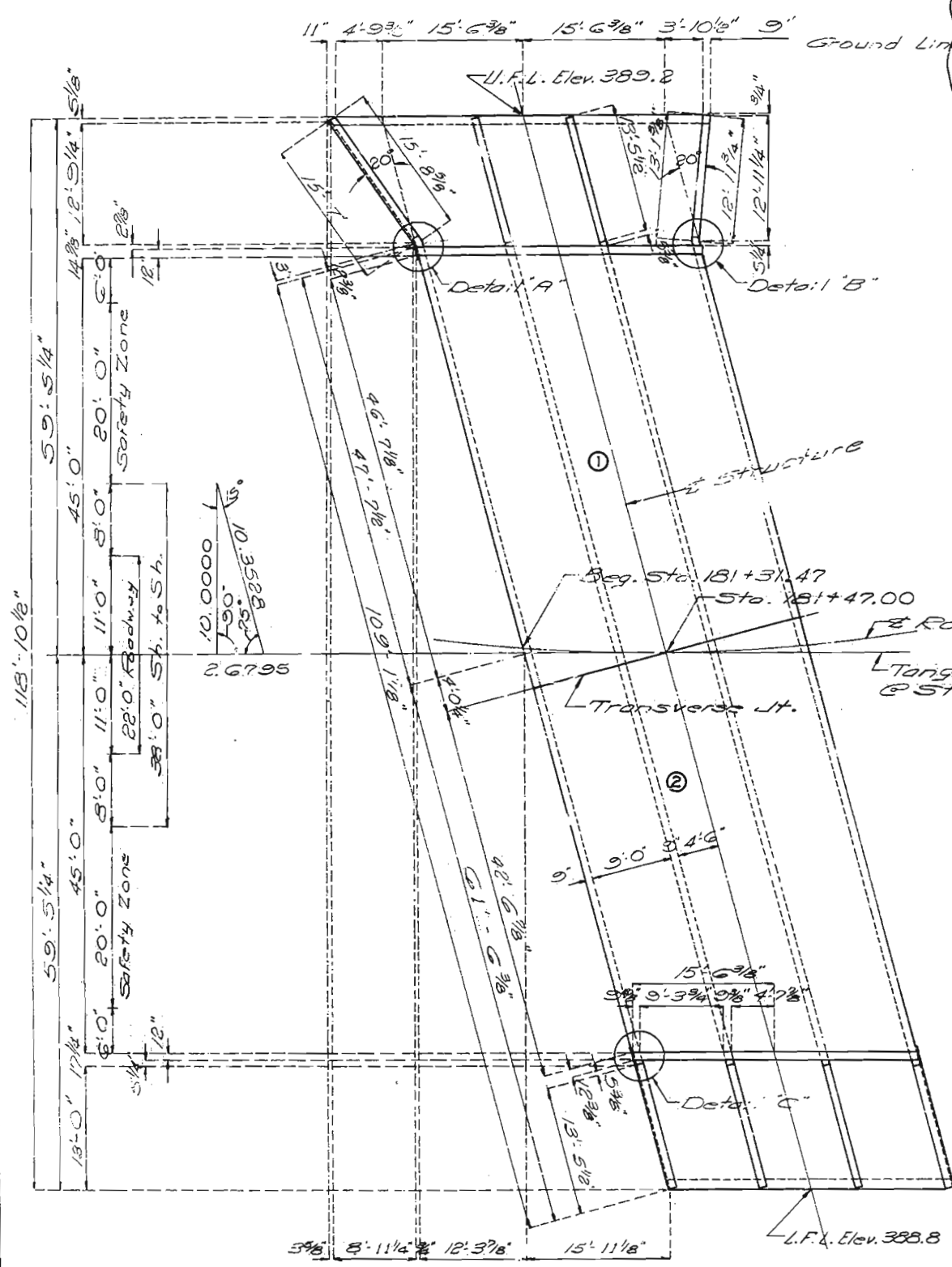


# MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	34	

Sta. 181+47.00  
Gr. Elev. 404.29 @ G  
Fill @ 5.62'



**GENERAL NOTES**  
 Design Specifications - A.A.S.H.O. 1973  
 Design Loading - H20-44  
 Earth 120 Equivalent Fluid Pressure 30"  
 Design Unit Stresses  
 Reinforcing Steel  $f_s = 20,000$  psi  
 Class B Concrete  $f_c = 1,200$  psi  
 Minimum clearance to reinforcing steel shall be  $1/4$ " unless otherwise shown.

ESTIMATED QUANTITIES		FINAL QUANT.
Removal of Bridge Each	1	
Class B Excavation Cu.Yd.	440	
Class B Concrete Cu.Yd.	2949	
Reinforcing Steel Lb.	42090	

B.M. #20 Elev. 398.58 "a" on N.E. Cor. S. Hdwil. Culv. 24' Lt. Sta. 181+46.

**BRIDGE OVER RAMSEY BRANCH**  
 STATE ROAD FROM GORDONVILLE TO CAPE GIRARDEAU  
 ABOUT 2.1 MILES W. OF CAPE GIRARDEAU  
 PROJECT NO. RS-746(8) STA. 181+31.47  
 JOB NO. 10-S-K-53 RTE. K  
 CAPE GIRARDEAU COUNTY

Curve Data:  
 P.I. 175+63.35  
 $\Delta$  6°-25' Lt  
 D 0°-30'  
 T. 642.33'  
 L. 1283.31'  
 R. 11459.16'  
 SE. 0

Present Structure (P-454) to be Removed  
 Beg. Sta. 181+31.47  
 Drainage Area 2.6 Sq. Mi. (Hilly)  
 Design Discharge 1800 cfs.  
 Design Frequency 50 yr.

Tangent to Rdwy. @ Sta. 181+47.00  
 Roadway  
 Proposed Structure

200

DESIGNED DEC. 1973  
 DETAILED Dec 1973  
 CHECKED APR. 1974

PLAN  
 Note: This drawing is not to scale. Follow dimensions.

STD. 706.30A  
 A-3250

MISSOURI STATE HIGHWAY DEPARTMENT

COMPLETE BILL OF REINFORCING STEEL

Table with columns: FED. ROAD DIST. NO., STATE, FED. AID PROJ. NO., FISCAL YEAR, SHEET NO., TOTAL SHEETS. Values: 5, MO, 19, 35.

Main table with columns: NO. REQD., MARK NO., LOCATION, SHAPE NO., STIRRUP(S), SUBSTR.(X), VARIES.(V), NO. EA., DIMENSIONS (B, C, D, E, F, H, K), NOMINAL LENGTH, ACTUAL LENGTH, WEIGHT. Includes SECTION 1 and SECTION 2.

STANDARD HOOKS and STIRRUP HOOKS diagrams. Includes END HOOK DIMENSIONS table for GRADE 40 and ALL GRADES, and STIRRUP HOOK DIMENSIONS table for GRADES 40-50-60 K57.

Notes: All Standard Hooks and Bends other than 180 DEG. to be bent with same procedure as for 90 DEG. Standard Hooks. Hooks and bends shall be in accordance with the procedures as shown on this sheet. Nominal Lengths are based on out to out dimensions shown in bending diagrams and are listed for Fabricators use. Dayweights are based on Actual Lengths.

BENDING DIAGRAMS showing various bar shapes (SHAPE 5 through SHAPE 30) with dimensions and labels.

REVISIONS: JULY 1969, MAR. 1974, APR. 1974

DETAILED APR. 1974, CHECKED APR. 1974

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 2 of 7

CAPE GIRARDEAU COUNTY A-3250

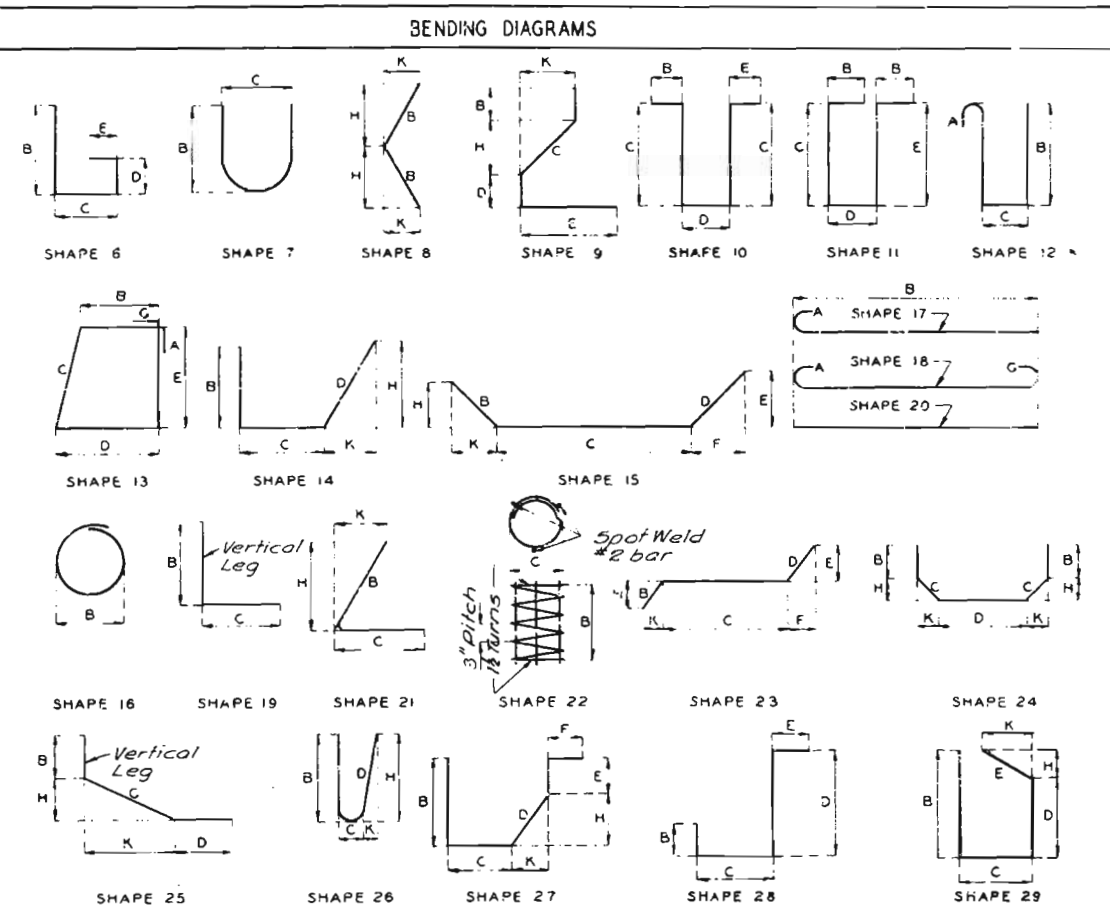
# MISSOURI STATE HIGHWAY DEPARTMENT

ROAD DIST. NO. STATE PROJ. NO. FISCAL YEAR SHEET NO. TOTAL SHEETS  
 MO 19 36

## COMPLETE BILL OF REINFORCING STEEL

NO. REQD.	MARK NO.	LOCATION	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	DIMENSIONS							NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT			
							B	C	D	E	F	H	K						
SIZE	MARK						FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	LBS.		
10	4F11	WALL	20				2	10	6.000						10	6	10	6	
		INCR. = 27.750 IN.						19	9.000						19	9	19	9	101
10	4F12	WALL	20				2	13	2.000						13	2	13	2	
		INCR. = 27.750 IN.						22	5.000						22	5	22	5	119
5	4F13	WALL	20				1	15	9.000						15	9	15	9	
		INCR. = 27.750 IN.						25	0.000						25	0	25	0	68
2	4F31	TOP SLAB	20					12	5.000						12	5	12	5	17
3	4F32	TOP SLAB	20					9	9.000						9	9	9	9	20
3	4F33	TOP SLAB	20					7	5.000						7	5	7	5	15
2	4F34	TOP SLAB	20					5	0.000						5	0	5	0	7
5	4F40	WALLS	20					4	9.000						4	9	4	9	16
2	4F41	WALLS	20					13	1.000						13	1	13	1	17
5	4F42	WALLS	20					12	8.000						12	8	12	8	42
13	5G1	WING	20				1	2	4.000						2	4	2	4	
		INCR. = 7.625 IN.						10	0.000						10	0	10	0	84
26	5G2	WING	20				2	2	2.000						2	2	2	2	
		INCR. = 7.625 IN.						9	9.000						9	9	9	9	162
26	5G3	WING	20				2	2	3.000						2	3	2	3	
		INCR. = 7.625 IN.						9	11.000						9	11	9	11	165
13	5G4	WING	20				1	2	5.000						2	5	2	5	
		INCR. = 7.625 IN.						10	1.000						10	1	10	1	85
93	6H1	TOP SLAB	20					6	8.000						6	8	6	8	931
91	6H2	TOP SLAB	20					4	9.000						4	9	4	9	592
208	6H3	BOTT. SLAB	20					6	9.000						6	9	6	9	2100
3	6H4	HEAD WALL	20					30	10.000						30	10	30	10	139
14	5J1	WING *	20					17	6.000						17	6	17	6	256
109	6J2	BOTT. SLAB	19					9	7.500	2	9.000				12	5	12	3	2006
132	5J3	WALL	19					22	11.000	2	11.000				4	9	4	8	642
15	6J4	BOTT. SLAB	19					2	3.000	2	9.000				5	0	4	10	109
15	6J5	BOTT. SLAB	19					2	4.000	2	9.000				5	1	4	11	111
6	5J6	WING *	20					5	0.000						5	0	5	0	31
31	4R1	HEADWALL	10	S					9.000		20.000				3	2	3	0	62

\* Bend in field



Note: Hooks and bends shall be in accordance with the procedures as shown on this sheet.  
 Nominal Lengths are based on out to out dimensions shown in bending diagrams and are listed for Fabricators use.  
 Payweights are based on Actual Lengths.  
 S-stirrup X-bar is included in substructure quantities.  
 Length - Total lengths are measured along centerline bar to the nearest inch.  
 V-bar dimensions vary in equal increments between dimensions shown on this line and the following line.  
 No. Ea. - Number of bars of each length.

#### STANDARD HOOKS

BAR SIZE	180° HOOKS		90° HOOKS	
	GRADE 40	ALL GRADES	GRADE 40	ALL GRADES
#3	5"	2 1/2"	4"	3"
#4	6"	3 1/2"	5"	4"
#5	7"	4 1/2"	6"	5"
#6	8"	5 1/2"	7"	6"
#7	9"	6 1/2"	8"	7"
#8	10"	7 1/2"	9"	8"
#9	12"	9"	11"	10"
#10	13"	10"	12"	11"
#11	14"	11"	13"	12"
#14	2'-2"	20 1/2"	2'-7"	20 1/2"
#18	2'-11"	2'-3"	3'-5"	2'-11"

#### STIRRUP HOOKS

BAR SIZE	STIRRUP HOOK DIMENSIONS		
	90° HOOK	135° HOOK	APPROX H
#3	4"	4"	2 1/2"
#4	5"	5"	3"
#5	6"	6"	3 1/2"
#6	7"	7"	4"

\* Note: All hooks and bends for Shape No. 12 (only) are based on D = 5d.  
 All Standard Hooks and Bends other than 180 DEG. to be bent with same procedure as for 90 DEG. Standard Hooks.  
 Unless otherwise noted diameter D is the same for all bends and hooks on a bar.  
 R bars shall be bent as shown with ±0" tolerance for dimension "C" (Shape 12) and dimension "D" (Shape 10).

202  
 STD. 90.6  
 JULY 1969  
 REVISION  
 MAR. 1974

DETAILED April 1974  
 CHECKED APR. 1974

Note: This drawing is not to scale. Follow dimensions.

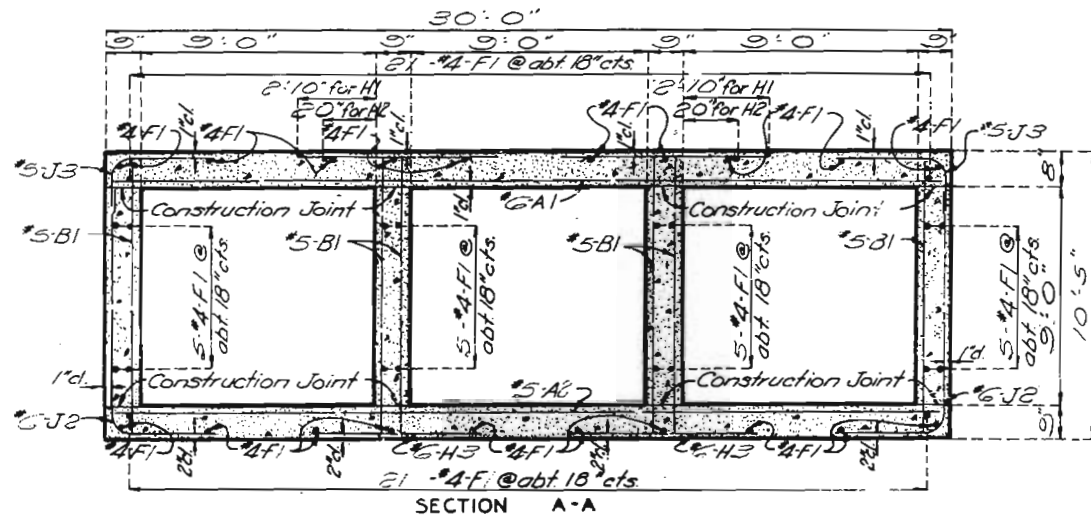
Sheet No. 3 of 7

CAPE GIRARDEAU COUNTY

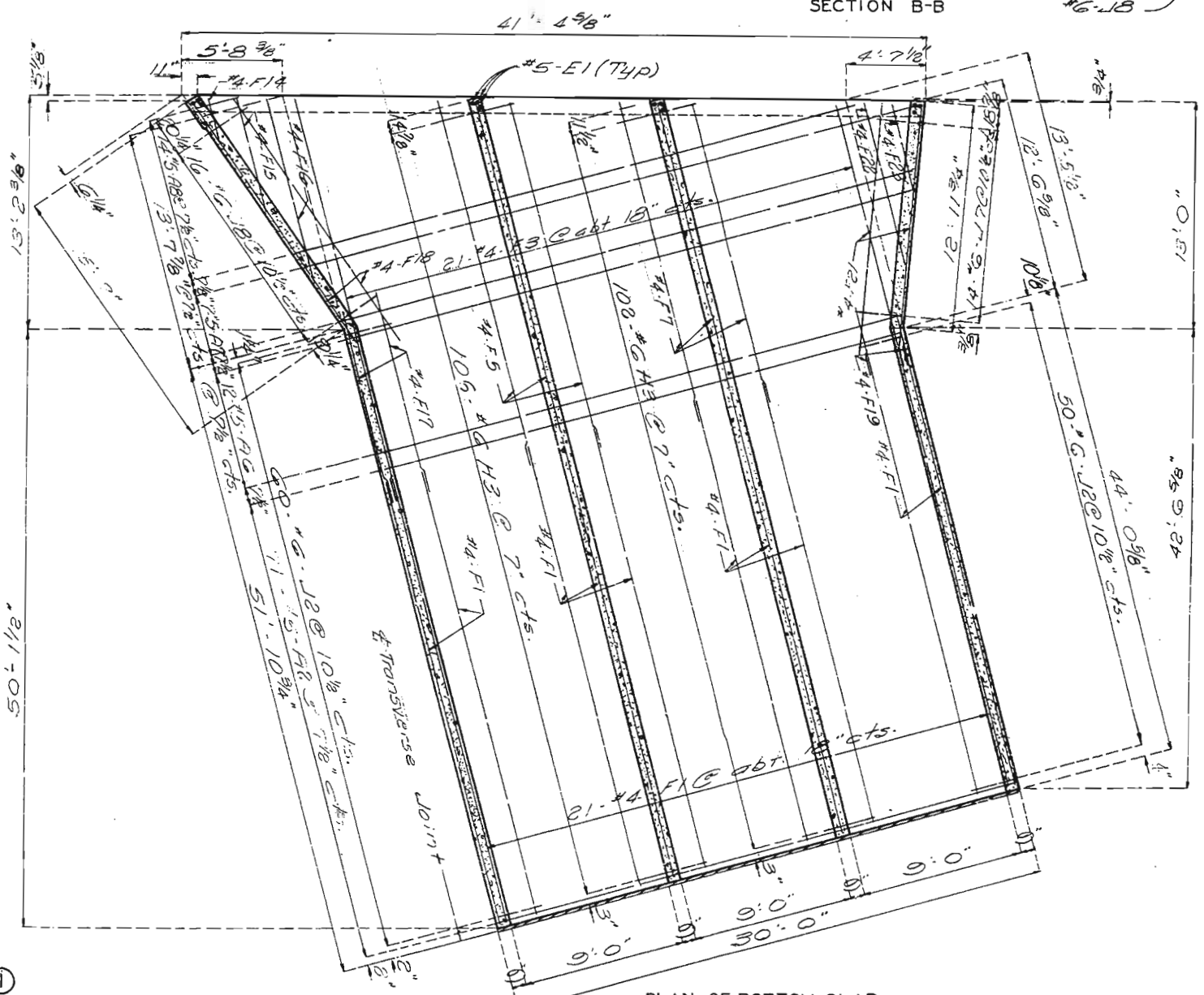
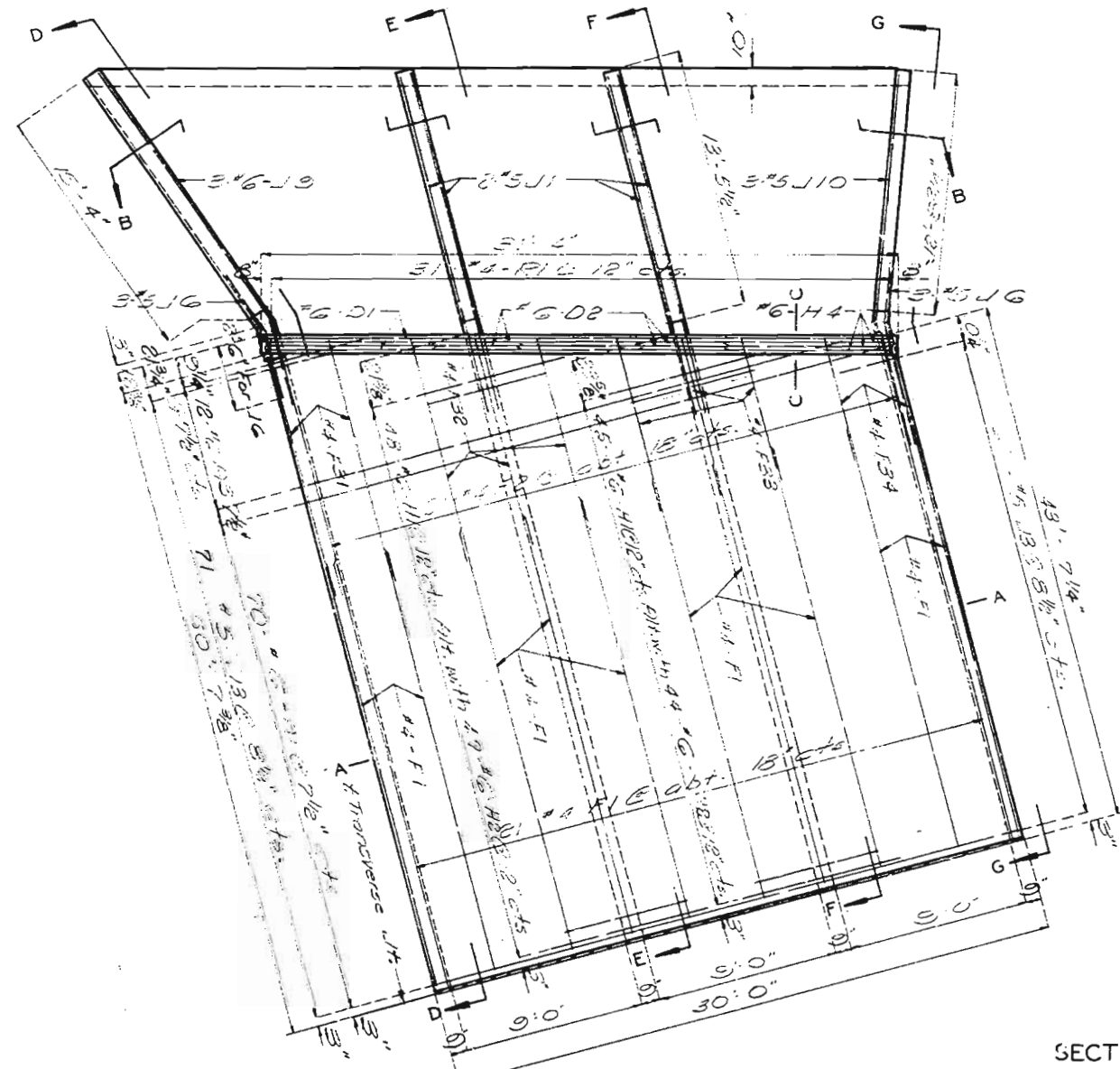
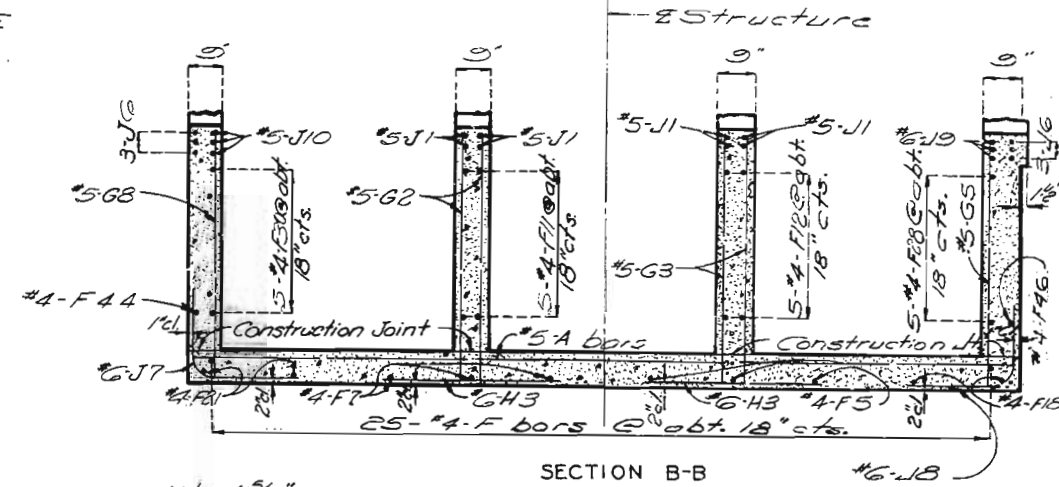
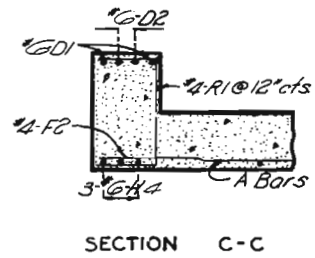
A-3250

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	37	



Note: For Sections D-D, E-E & F-F and Elevation G-G see sheet No 5.



203

DETAILED Jan 1974  
CHECKED APR. 1974

Note: This drawing is not to scale. Follow dimensions.

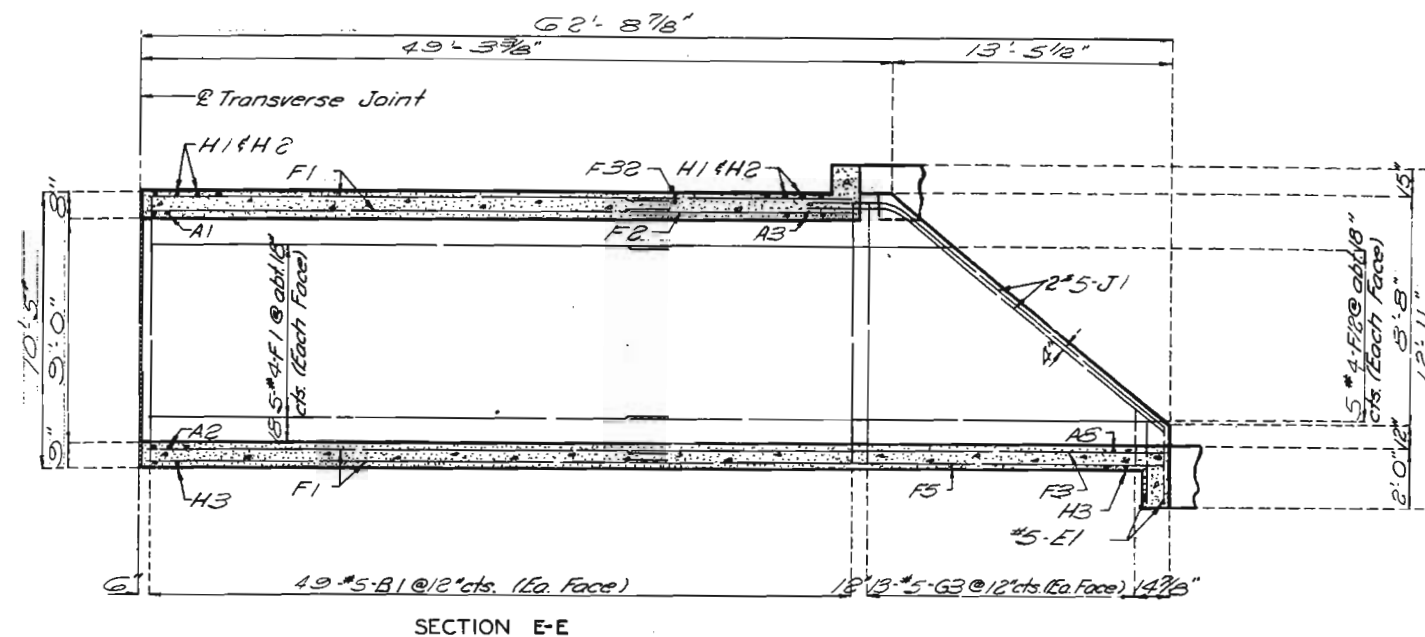
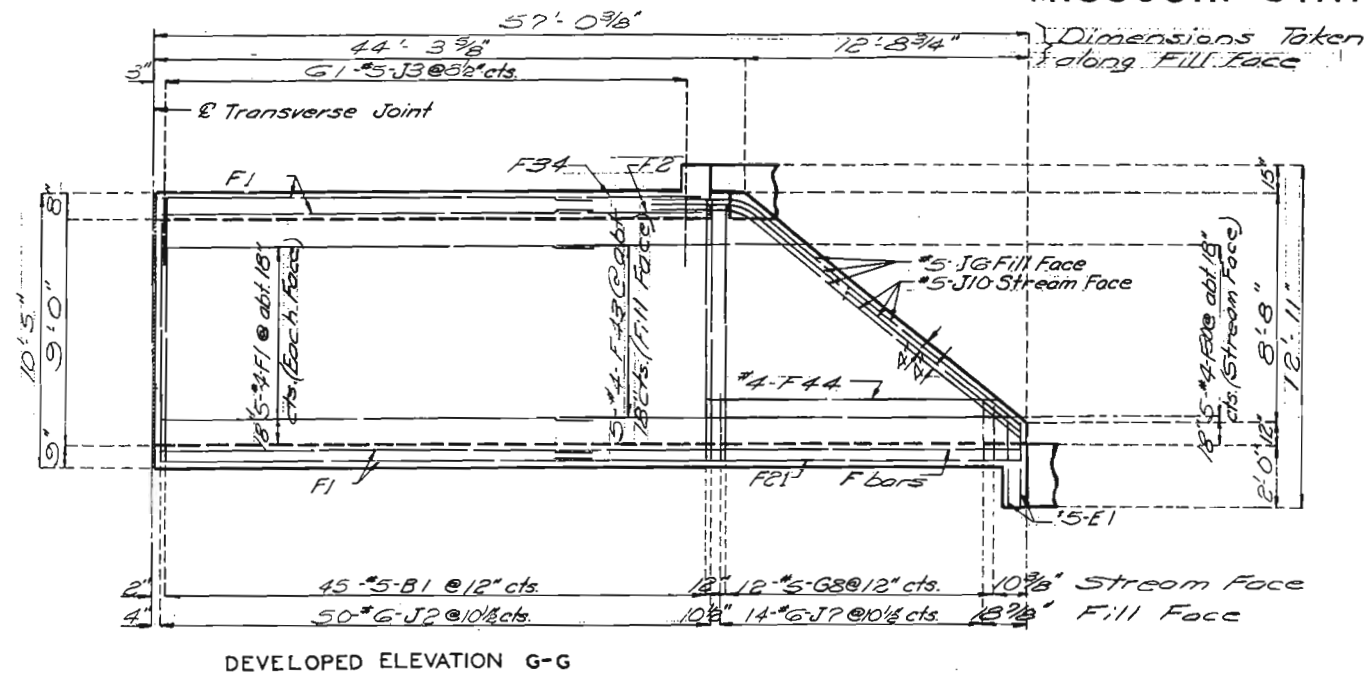
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CAPE GIRARDEAU COUNTY

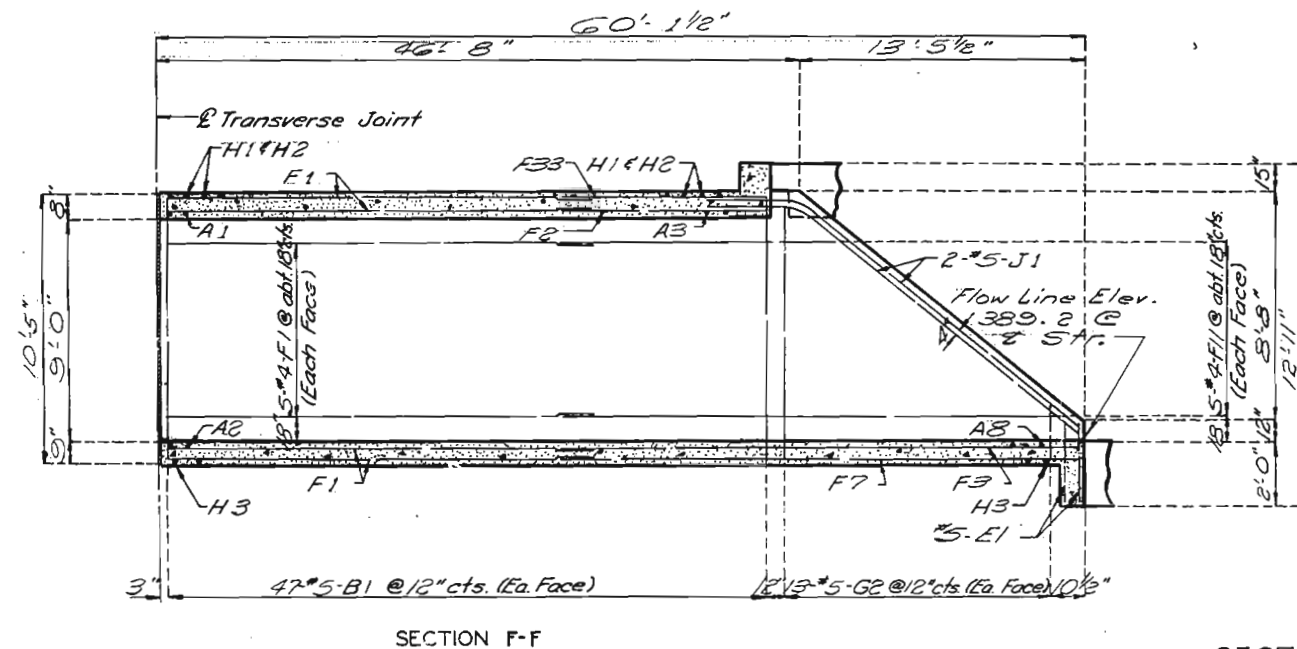
A-3250

MISSOURI STATE HIGHWAY DEPARTMENT

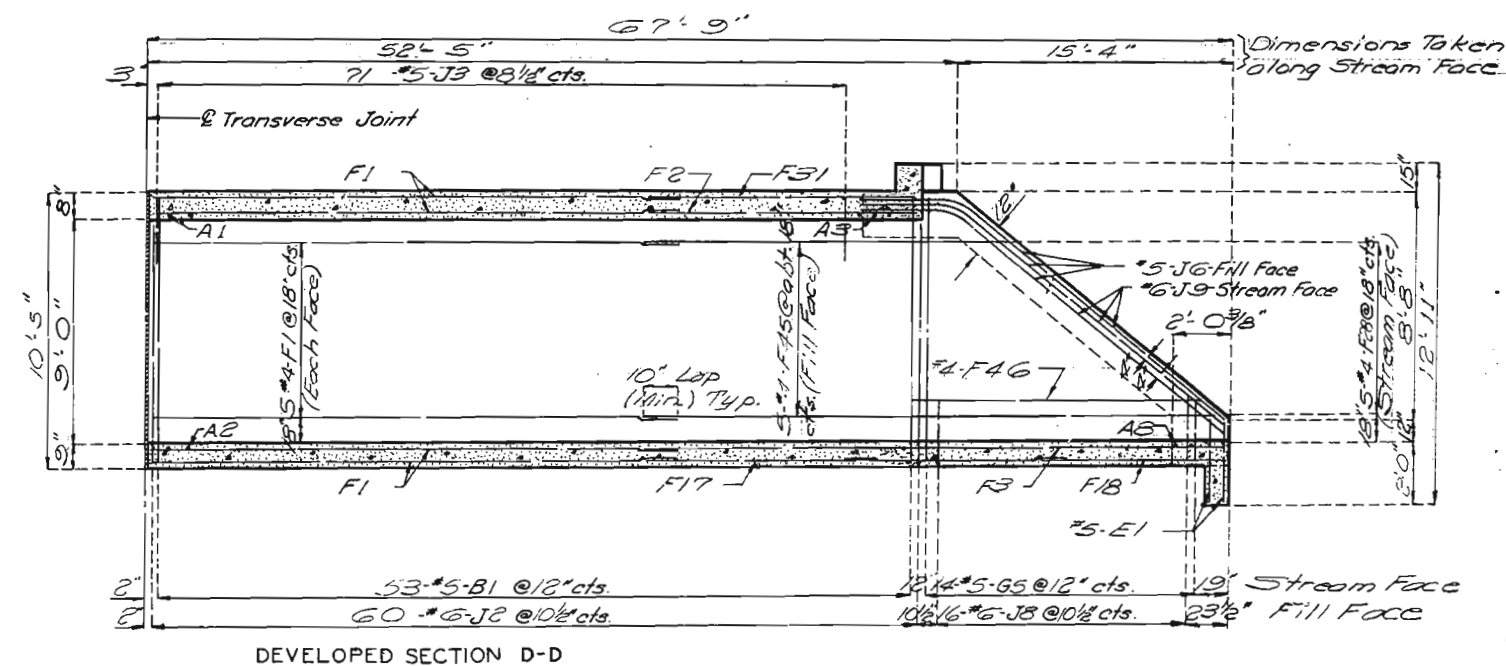
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	38	



Note: For location of Elevation G-G, Sections D-D, E-E & F-F see sheet No. 4.



SECTION ①



104

STD. 23.2.3  
FEB. 1971

REVISOR  
CHECKED  
APR. 1974

Note: This drawing is not to scale. Follow dimensions.

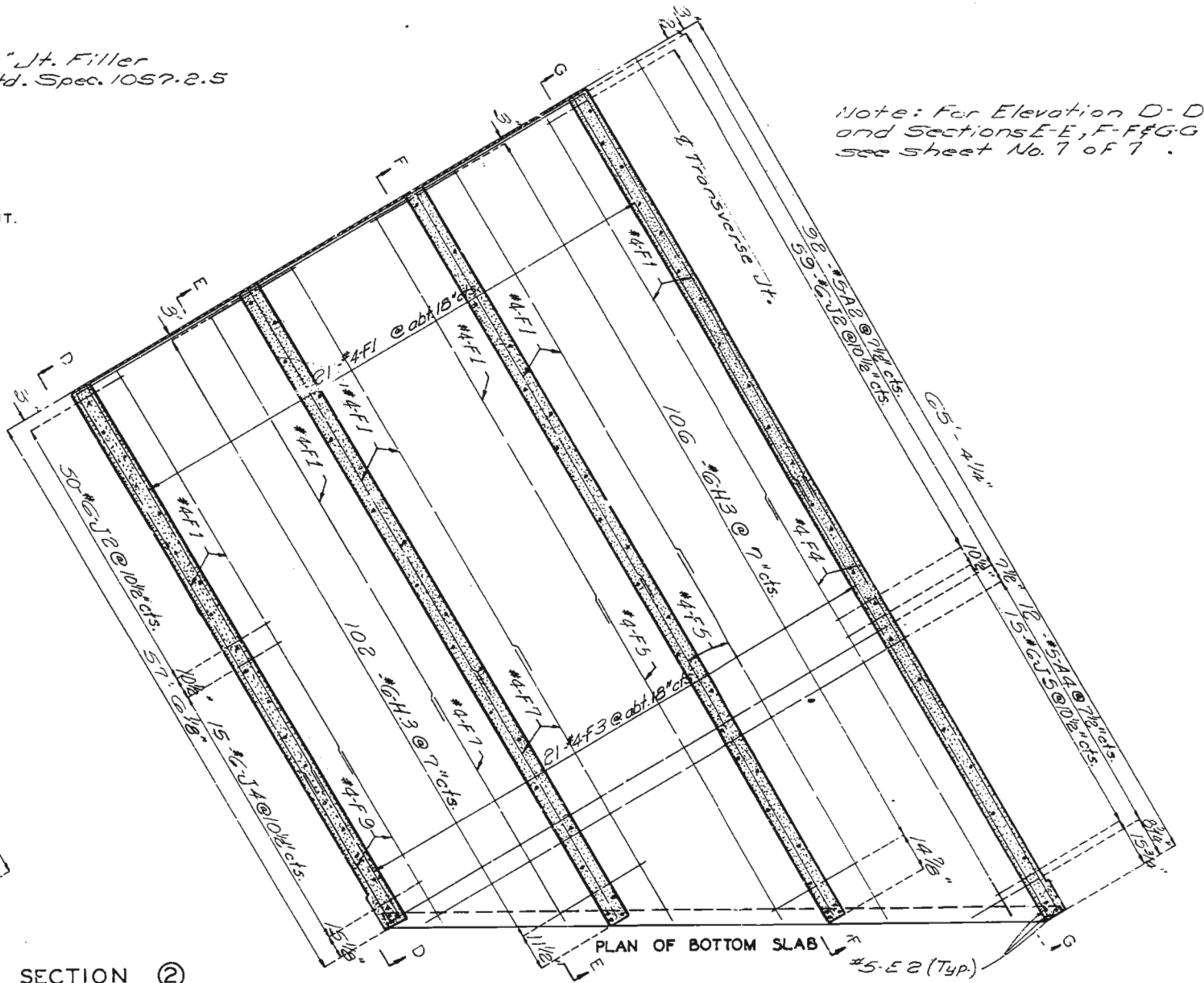
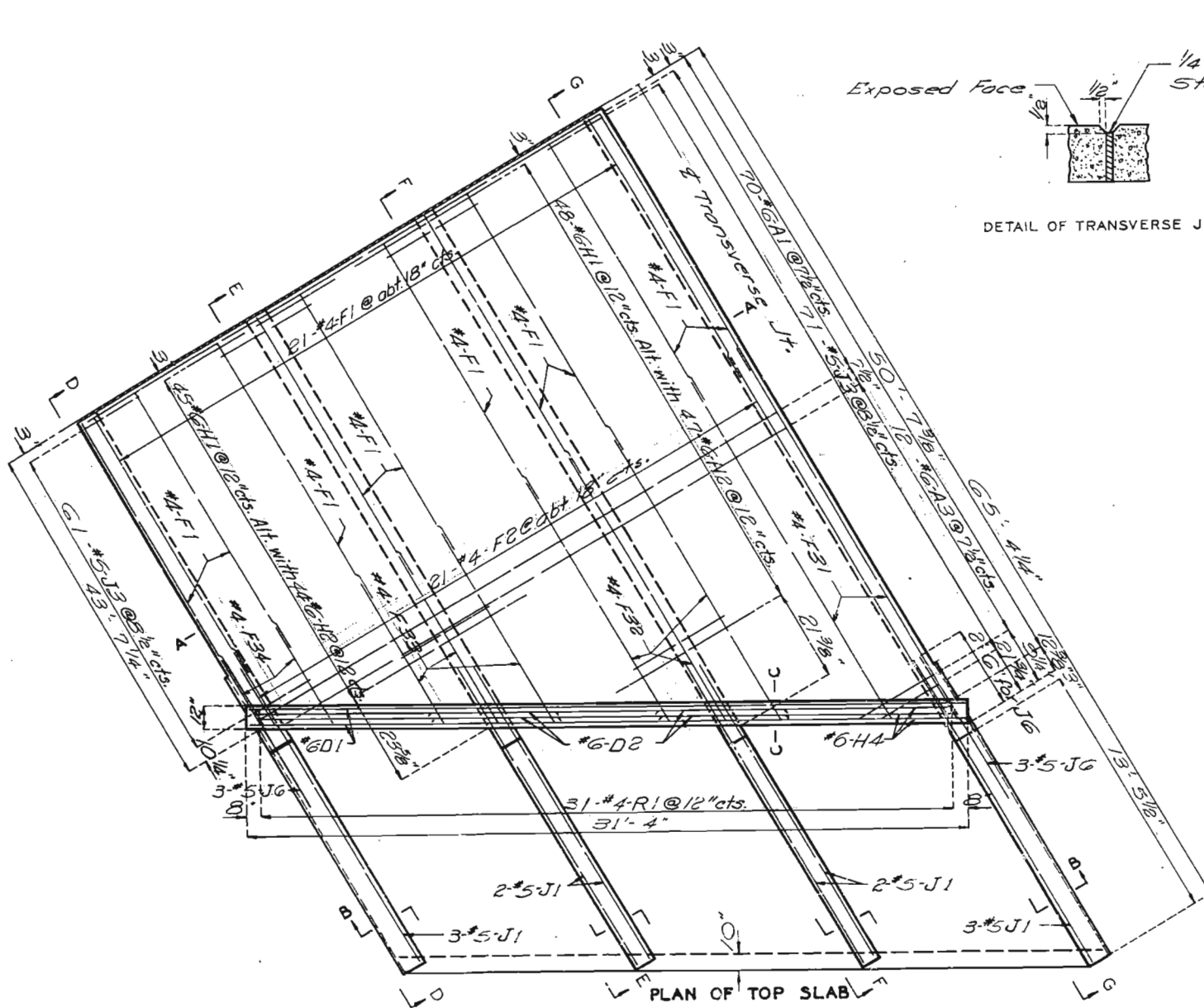
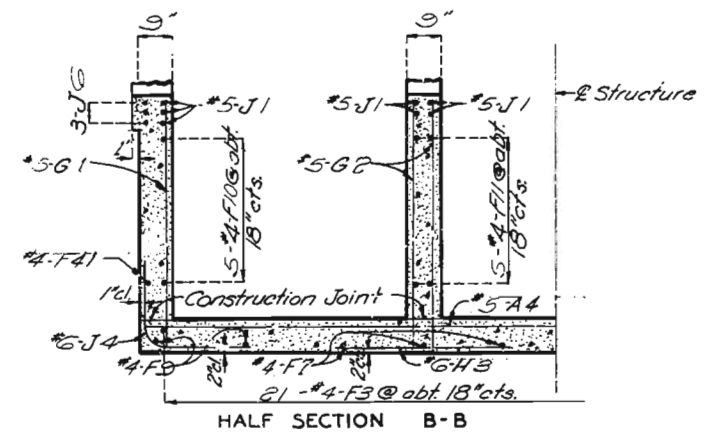
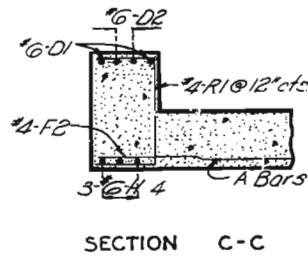
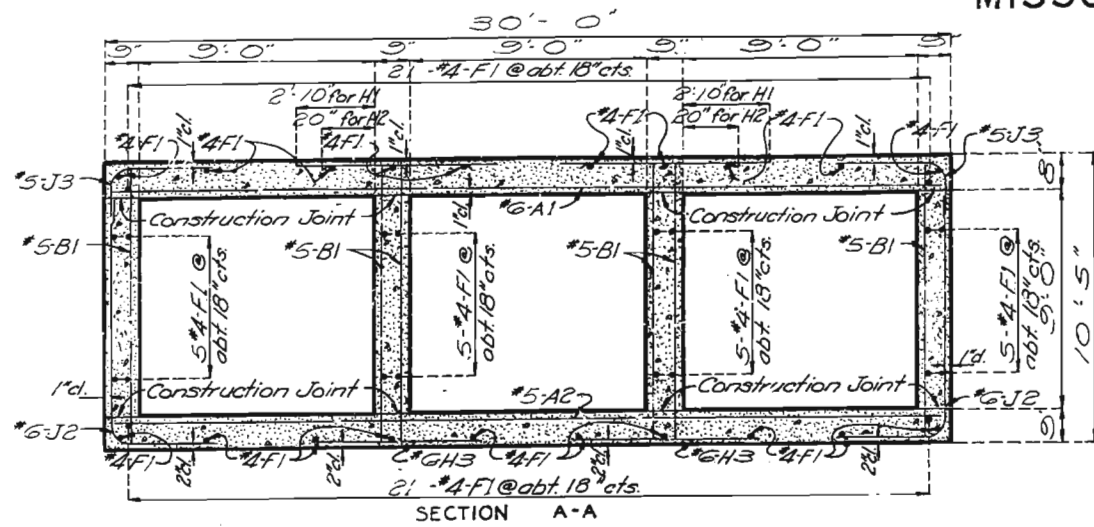
Sheet No. 5 of 7.

CAPE GIRARDEAU COUNTY

A-3250

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	39	



Note: For Elevation D-D and Sections E-E, F-F, G-G see sheet No. 7 of 7.

205

STD 23.2.2 REVISED FEB. 1971  
 DETAILED Dec. 1973  
 CHECKED APR. 1974

Note: This drawing is not to scale. Follow dimensions.

SECTION ②

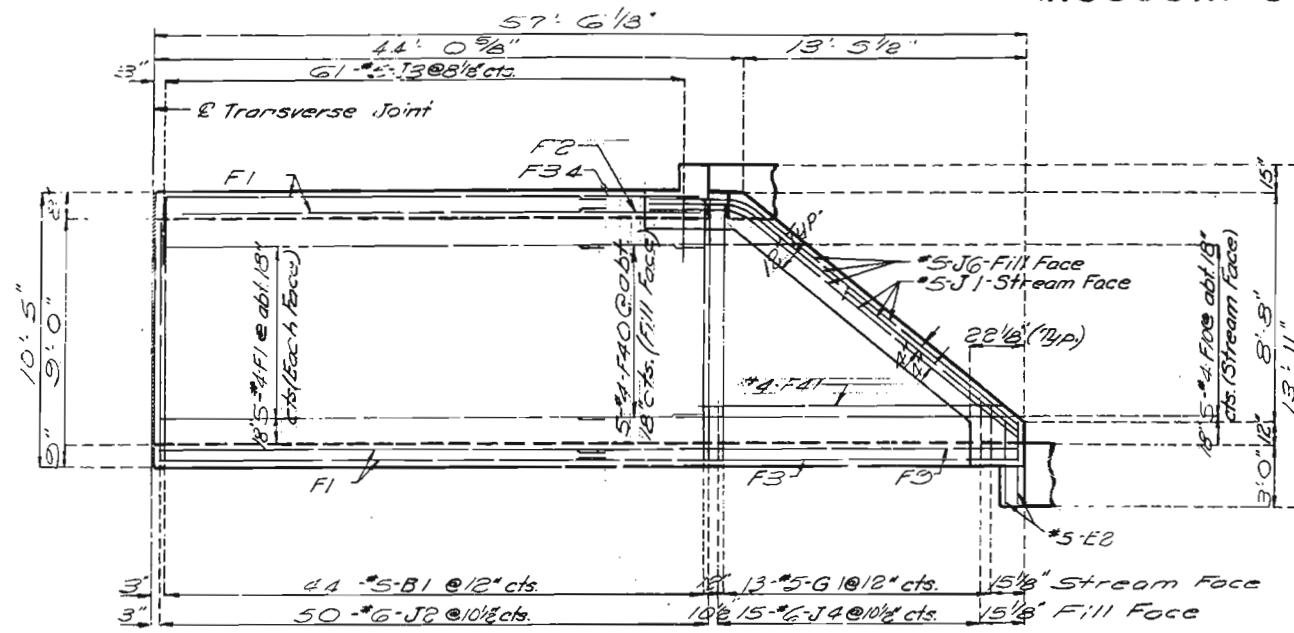
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CAPE GIRARDEAU COUNTY

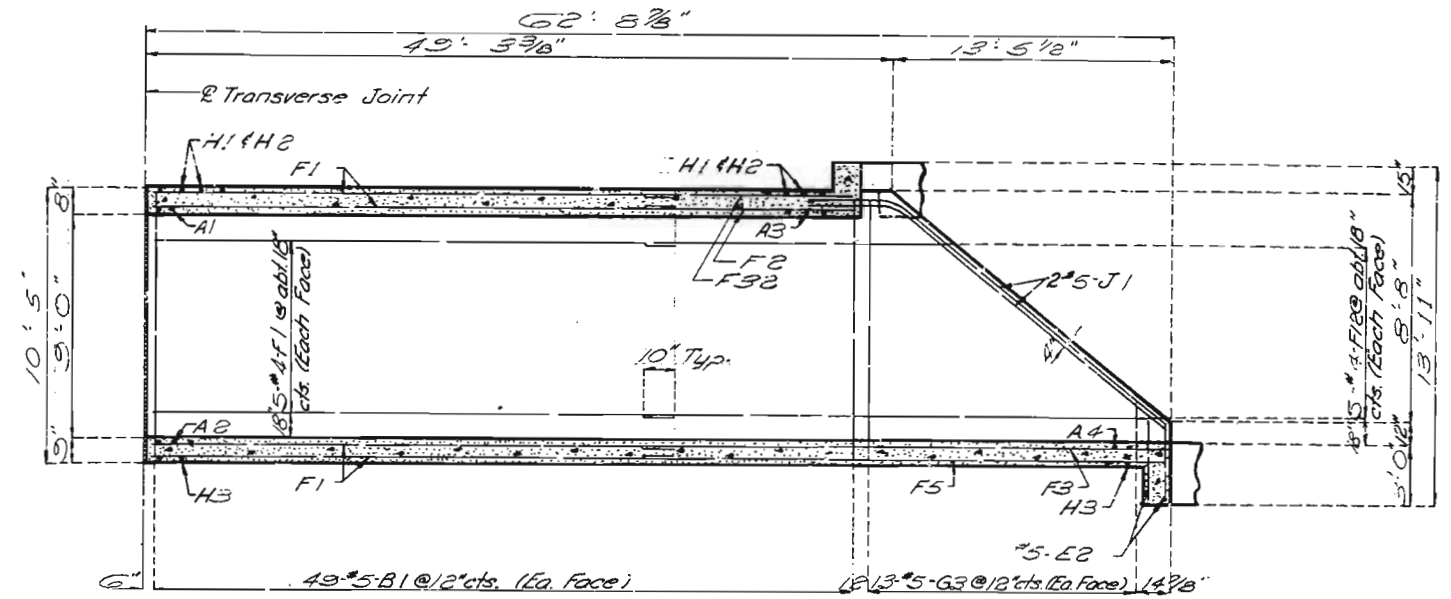
A-3250

MISSOURI STATE HIGHWAY DEPARTMENT

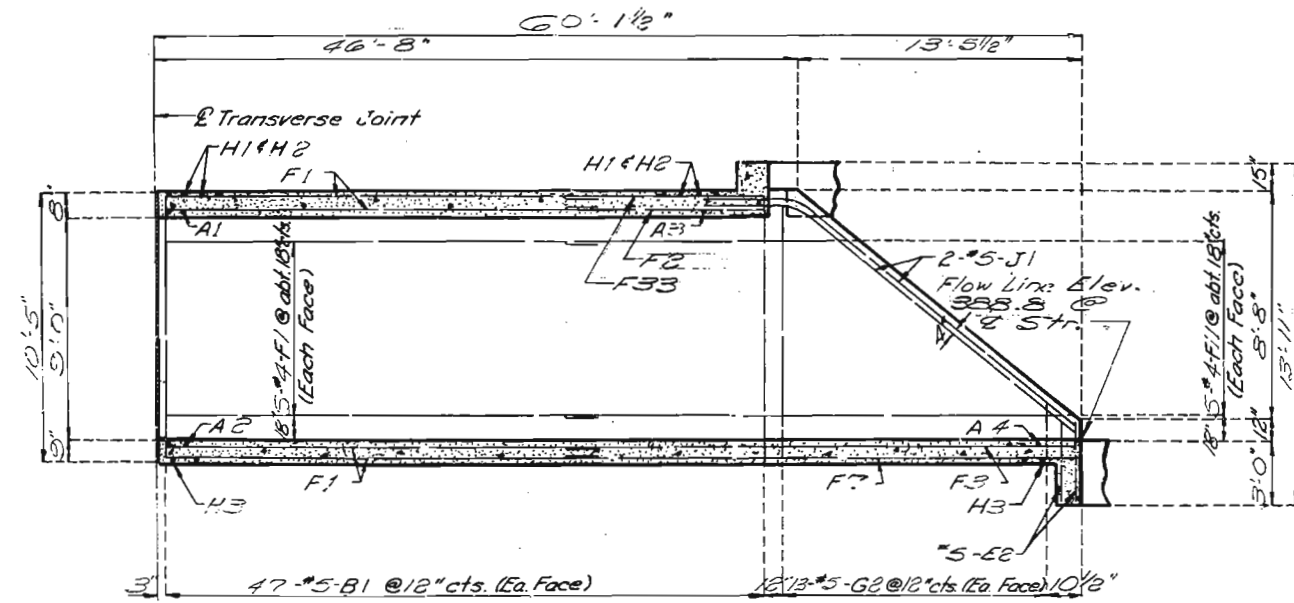
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5	MO.		19	40	



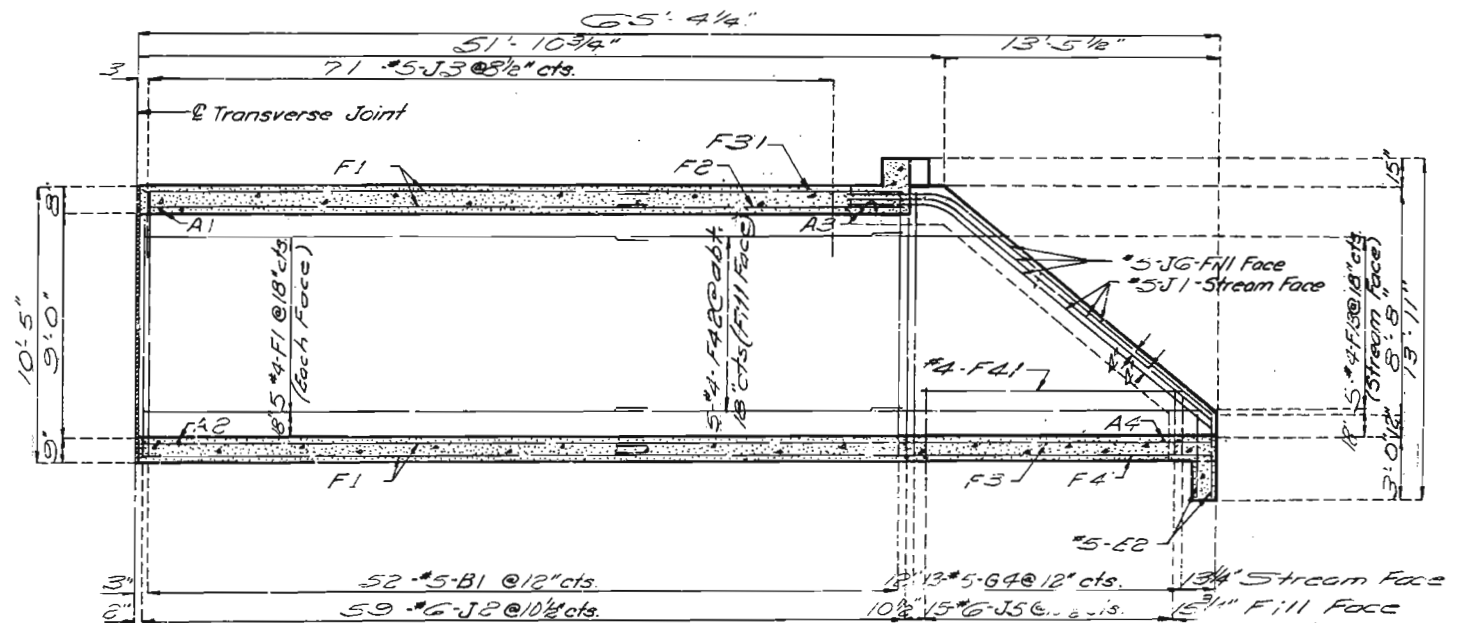
ELEVATION D-D



SECTION F-F



SECTION E-E



SECTION G-G

SECTION ②

206  
 STD. 23.2.3  
 FEB. 1971  
 REVISED

DETAILED Jan 1974  
 CHECKED APR. 1974

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 7 of 7.

CAPE GIRARDEAU COUNTY

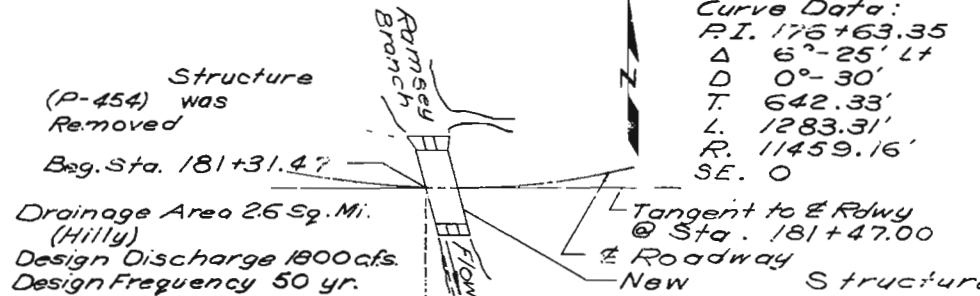
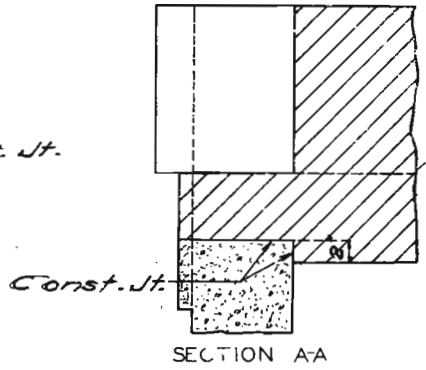
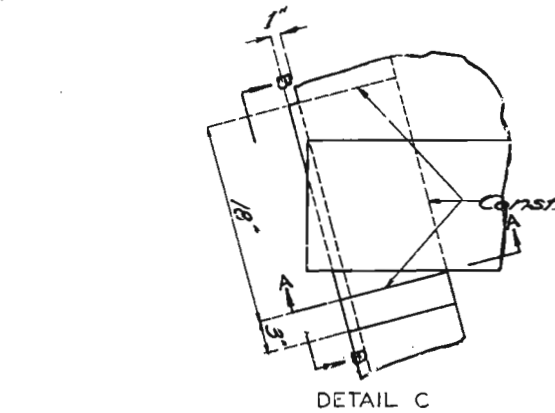
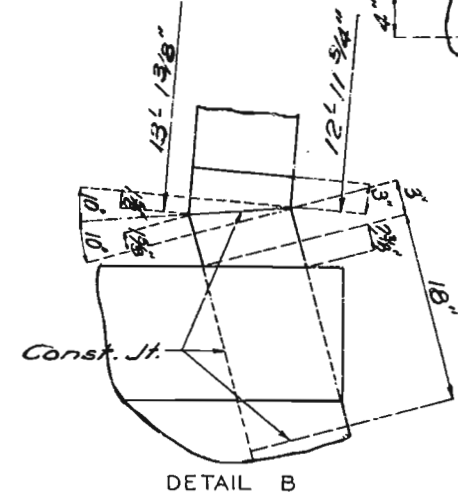
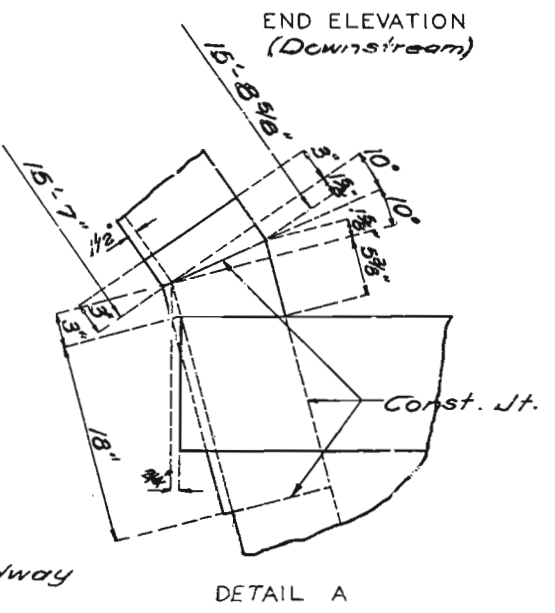
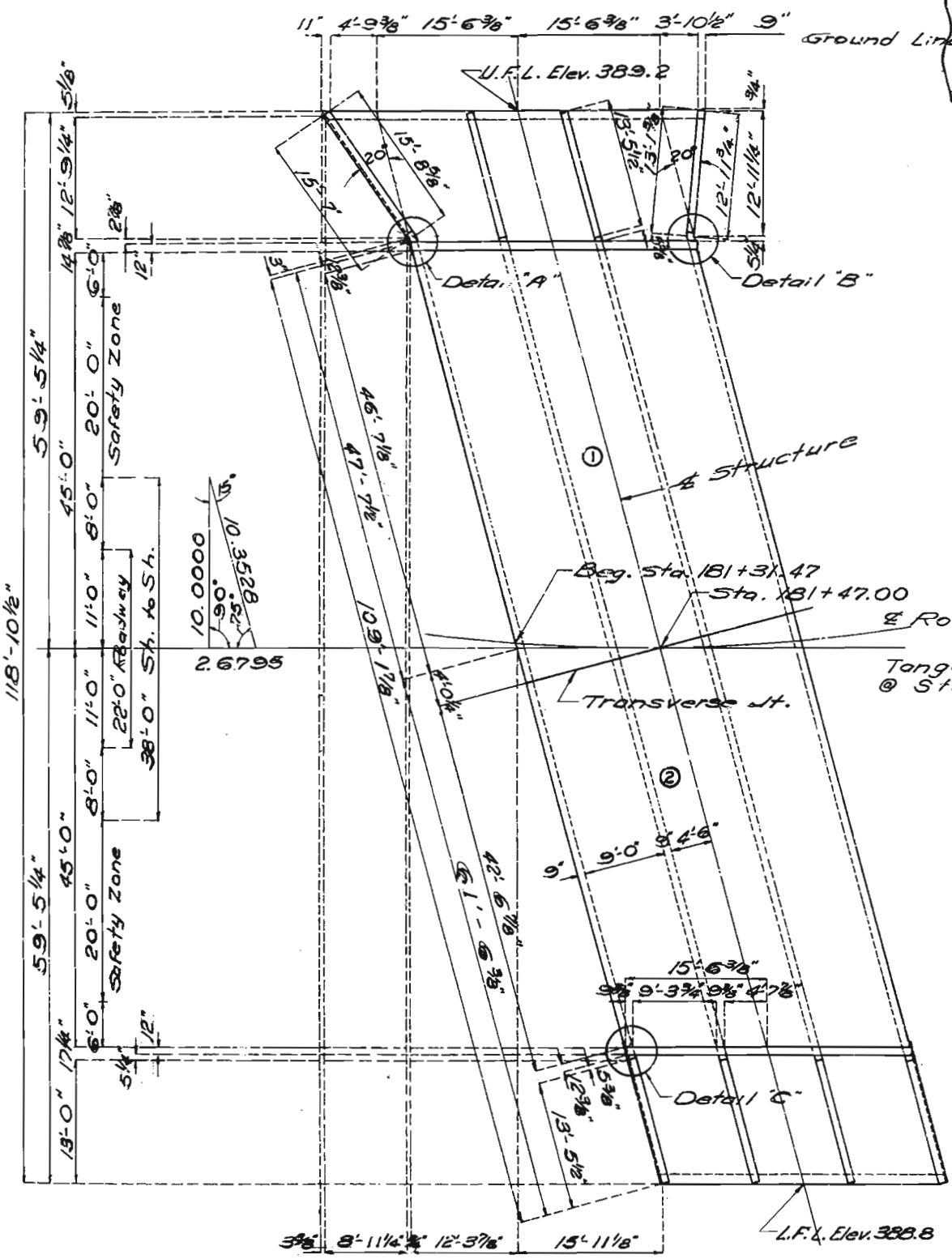
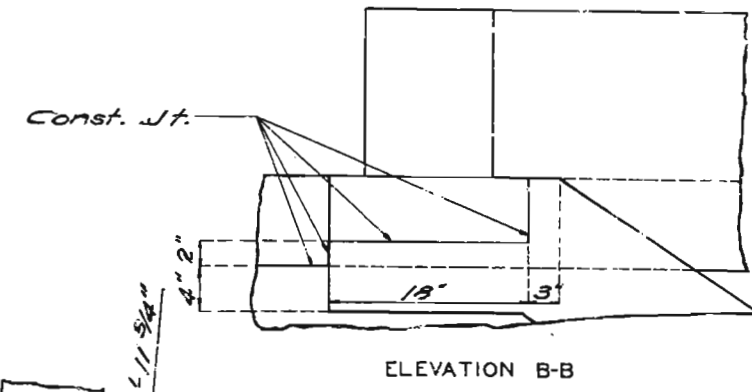
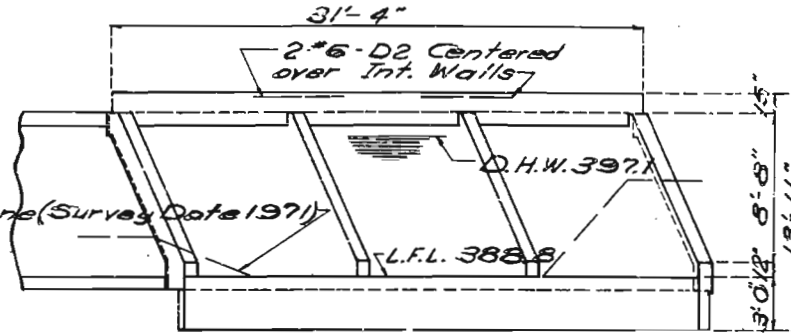
A-3250

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	34	

FINAL PLANS

± Sta. 181+47.00  
Gr. Elev. 404.29 @ ±  
Fill @ 5.62'



GENERAL NOTES  
Design Specifications - A.A.S.H.O. 1973  
Design Loading - H20-44  
Earth 120' Equivalent Fluid Pressure 30'  
Design Unit Stresses  
Reinforcing Steel  $f_s = 20,000$  psi  
Class B Concrete  $f_c = 1,200$  psi  
Minimum clearance to reinforcing steel was 1/2" unless otherwise shown.

FINAL QUANTITIES	FINAL QUANT.
Removal of Bridge Each	1 *
Class 3 Excavation Cu.Yd.	432 *
Class B Concrete Cu.Yd.	234.90 *
Reinforcing Steel Lb.	52,000 *

B.M. D ON S.E. COR. SOUTH RD. W. CULV. 95' RT. STA. 181+75 ELEV. 399.79

**BRIDGE OVER RAMSEY BRANCH**  
STATE ROAD FROM GORDONVILLE TO CAPE GIRARDEAU  
ABOUT 2.1 MILES W. OF CAPE GIRARDEAU  
PROJECT NO. RS-746(8) STA. 181+31.47  
JOB NO. 10-S-K-53 RTE. K  
CAPE GIRARDEAU COUNTY

207

DESIGNED DEC. 1973  
DETAILED DEC. 1973  
CHECKED APR. 1974

PLAN  
Note: This drawing is not to scale. Follow dimensions.

LOF JN SKETCH Sheet No. 1A of 7

DATE 7-22-74

STD. 706.30A  
A-3250