KENTUCKY DEPARTMENT OF HIGHWAYS
LOGAN COUNTY
KY. 79 RELOC.
RUSSELLVILLE - MORGANTOWN RD.
BRIDGE OVER MUD RIVER

PLANS PREPARED BY
L.M. MAHONEY'S DESIGN SECTION

LETTING DATE

REFERENCES & ESTIMATE OF QUANTITIES

ITEM	SHEET NO.	CONCRETE (C.Y.) CLASS "A"	CONCRETE (C.Y.) CLASS "AA"	REINFORCEMENT (LBS.)	HIGH STRENGTH HANDRAIL (L.F.)	STRUCTURAL STEEL (L.S.) ①	STRUCTURE EXCAVATION (C.Y.) COMMON	STRUCTURE EXCAVATION (C.Y.) SOLID ROCK	TYPE II PRESTRESSED I BEAMS (L.F.)	STYRENE BUTADIENE PROTECTIVE COATING (GAL.)	LINSEED OIL PROTECT. COATING (S.Y.)	DRY CYCLOPEAN STONE SLOPE PROTECT. (S.Y.)
COVER	1											
GENERAL NOTES	2											
LAYOUT	3											
SUBSTRUCTURE												
ABUTMENT 1	4	138.1	21.3	20,257			455	205		2		120
ABUTMENT 2	5	71.8	22.3	12,739			170	30		2		142
ABUT. DETS. & BILL OF REIN.	6											
PIER 1	7	78.6		11,723			65	20		3		
PIER 2	7	81.6		12,099			80	20		3		
PIER, DETS. & BILL OF REIN.	8											
SOUNDINGS	13											
SUBSTRUCTURE TOTALS		370.1	43.6	56,818		①	770	275		10		262
SUPERSTRUCTURE												
SUPERSTRUCTURE	9		292.6	80,457	369.0					8	788	
SUPER. DET. & BILL OF REINF.	10											
BEAM SHEET & TABLES	11								958.5			
CONSTRUCTION ELEVATIONS	12											
SUPERSTRUCTURE TOTAL			292.6	80,457	369.0	①			958.5	8	788	
TOTAL		370.1	336.2	137,275	369.0	①	770	275	958.5	18	788	262

① Approximate Weight of Structural Steel = 3,603 lbs.

STANDARD DRAWINGS

AE1-D	G353F
AE2-D	G354C
EBP-1E	17.40a
H116-C	H150B

Reference listed in the Standard Drawings and the Special Provisions are the current edition and are to be used with these plans.

SPECIAL PROVISIONS

No 8A For Linseed Oil Protective Coating.
No 30B For Membrane Curing of Concrete Structures.
No 35B For Class "AA" Concrete.
No 37B For Preformed Compression Joint Seals.
No 77B For Styrene - Butadiene Protective Coating.
No 79 For Concrete Bridge Deck Finishing Machine.
No 80A For Blast Cleaning and Painting Structural Steel.

BILL OF INCIDENTAL MATERIAL

ITEM	NO.	SIZE
Premolded Cork Exp. Jt. Material	2	1⅝" x 9'-9" x 49'-5" (Abutments)
Premolded Cork Exp Jt. Material	4	1⅝" x 10" x 1'-9" (Abutments)
Premolded Cork Exp Jt. Material	1	1¼" x 2'-6" x 44'-8" (Pier 1)
" " " " "	1	1¼" x 2'-6" x 44'-8" (Pier 2)
Preformed Joint Seals	2	55'-10" Long for 1⅝" Jt. (G353F)
4-Bolt Insert Assembly	4	(Abut. Wings, Std Dwg 17.40 Current Edition)

Ky. 79 Reloc. over Mud River Sheet 1 of 13

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
LOGAN
RUSSELLVILLE-MORGANTOWN
ROAD S251 (5)
STATION 121+33.50 **P.E. PROJECT NO.** 71-41-GL

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		18298

BRIDGE

GENERAL NOTES

SPECIFICATIONS: The Kentucky Department of Highways Standard Specifications for Road and Bridge Construction, current edition with revisions, shall apply to this project.

DESIGN LOAD: Bridge designed for HS-20-44 loading as specified in 1969 AASHO Specifications, including Interim Specifications. This bridge is designed for a wind load based on a wind velocity of 84 mph.

DESIGN STRESSES:

For Class "AA" Reinforced Concrete

f_s = 20,000 psi	f'_c = 4,000 psi	f_c = 1,200 psi for deck slabs
f_c = 1,600 psi for other than slab design	u = 300 psi Σo	
u = 200 psi for embedment	n = 8	

For Class "A" Reinforced Concrete

f_s = 20,000 psi	f'_c = 3,000 psi
f_c = 1,200 psi	u = 300 psi Σo
u = 200 psi for embedment	n = 10

For Prestressed Beam Concrete

f_s = 20,000 psi	f'_c = 6,000 psi
f_s = 270,000 psi for Prestressed Strands	u = 300 psi Σo
f_c = 2,000 psi	n = 6
u = 200 psi for embedment	

CONCRETE: Class "A" Concrete is to be used in the Piers and in the Abutments below the bearing seats as noted on the drawings. Class "AA" Concrete is to be used in roadway slab and curb, and is to be used in portions of the substructure above the bearing seats and as noted on the drawings. Prestressed beam concrete shall be in accordance with the Plans and Section 405 of the Specifications.

SUPERSTRUCTURE SLAB: The superstructure slab shall be poured continuously from out to out before the concrete is allowed to set.

REINFORCEMENT: Dimensions shown from face of concrete to bars are clear distances. Spacing of bars is from center to center of bars.

BEVELED EDGES: All exposed concrete edges shall be beveled $\frac{3}{8}$" unless otherwise shown.

PAYMENT FOR STRUCTURAL STEEL: Lump Sum Bid for structural steel shall be full payment for all structural steel, prestressed beam tie angles, floor drains, welding and welding materials, paint and all labor necessary to erect the steel in accordance with the Plans and Specifications.

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

CONSTRUCTION IDENTIFICATION: The names of the Prime Contractor and the Sub-Contractor shall be imprinted in the concrete with one inch letters at a location designated by the Engineer. The Contractor shall furnish all plans, equipment and labor necessary to do the work for which no direct payment will be made.

HANDRAIL TYPES: The contractor shall provide throughout the project, at his option, either High Strength Aluminum Handrail according to Standard Drawing H116, current edition, or High Strength Concrete Handrail according to Standard Drawing H150, current edition.

FOUNDRY NOTE: All drains shall be gray iron castings, ASTM A48, current edition, Class 30A. Report of Field Inspection of Castings, current form, shall be submitted to the Division of Materials.

SHOP PLANS: Shop plans shall be in accordance with Article 408.3.1A of the Specifications. Additionally, shop plans shall include an outline of the proposed prestressing procedure for the draped strands and of the detensioning procedure. Shop plans shall include a diagram of casting bed layout. When the pull down method is used, the jacking force for draped strands together with appropiate computations shall also be submitted by the Fabricator.

TEMPORARY SUPPORTS: Temporary supports or shoring will not be permitted under the beams when pouring the concrete floor slab or when taking top of beam elevations.

BILL OF INCIDENTAL MATERIAL: The quantities shown in the Bill of Incidental Material are approximate only and the Contractor is responsible for furnishing enough material to complete the work in accordance with the Plans and Specifications. The cost of these items is to be included in the unit price bid for Class "AA" Concrete.

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

LINSEED OIL PROTECTIVE COATING: Linseed Oil Protective Coating shall be applied in accordance with the Special Provision, except that it shall only be applied to the bridge deck between gutter lines and shall not be applied until after the Styrene-Butadiene Protective Coating has been applied to curb and plinths.

PRESTRESSING REINFORCEMENT: Prestressing reinforcement shall be $\frac{1}{2}$" nominal diameter, uncoated, 7 wire stress relieved strand conforming to the requirements of Grade 270, ASTM Designation A416, current edition.

TENSIONING METHOD: Beams shall be pretensioned.

PAYMENT FOR PRECAST CONCRETE BEAMS: The basis of payment for the Prestressed Concrete Beams shall be at the contract unit price per linear foot of beam, in accordance with the specifications.

FOUNDATION PRESSURE: Footings are designed for a maximum pressure of 11,640 psf.

WELDING: The welding of the dowels in the end of the prestressed beams to the angles over the piers and weld material shall conform to the "Recommended Practices for Welding Reinforcing Steel," American Welding Society Specifications, current edition. No direct payment shall be made for welding or weld material, but the cost of these items shall be included in the unit price bid for the Precast Prestressed Concrete Beams.

ELASTOMERIC BEARING PADS: In lieu of the requirements of Section 672 of the Department's Standard Specifications, Elastomeric Bearing Pads shall meet the requirements of the AASHO Standard Specifications for Highway Bridges, including current interim specifications, except as modified on Std Dwg. EBP1, current edition. The cost of this item is to be included in the price per linear foot for precast prestressed concrete beams.

CONSTRUCTION METHODS: An initial force shall be applied to each strand such as to develop a stress of 189,000 psi. Beams with honeycomb of such extent as to affect the strength or resistance to deterioration will not be accepted. An allowance of .0005L shall be made for shortening of the beams due to shrinkage and elastic change.

LETTING DATE

REVISED	DATE
REVISED	DATE
REVISED	DATE

DESIGNED BY: [illegible] DATE: [illegible]
DETAILED BY: [illegible] CHECKED BY: [illegible] DATE: 2-77
CHECKED BY: [illegible] CHECKED BY: [illegible] DATE: [illegible]

Ky 79 Reloc. over Mud River — Sheet 2 of 13

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
LOGAN

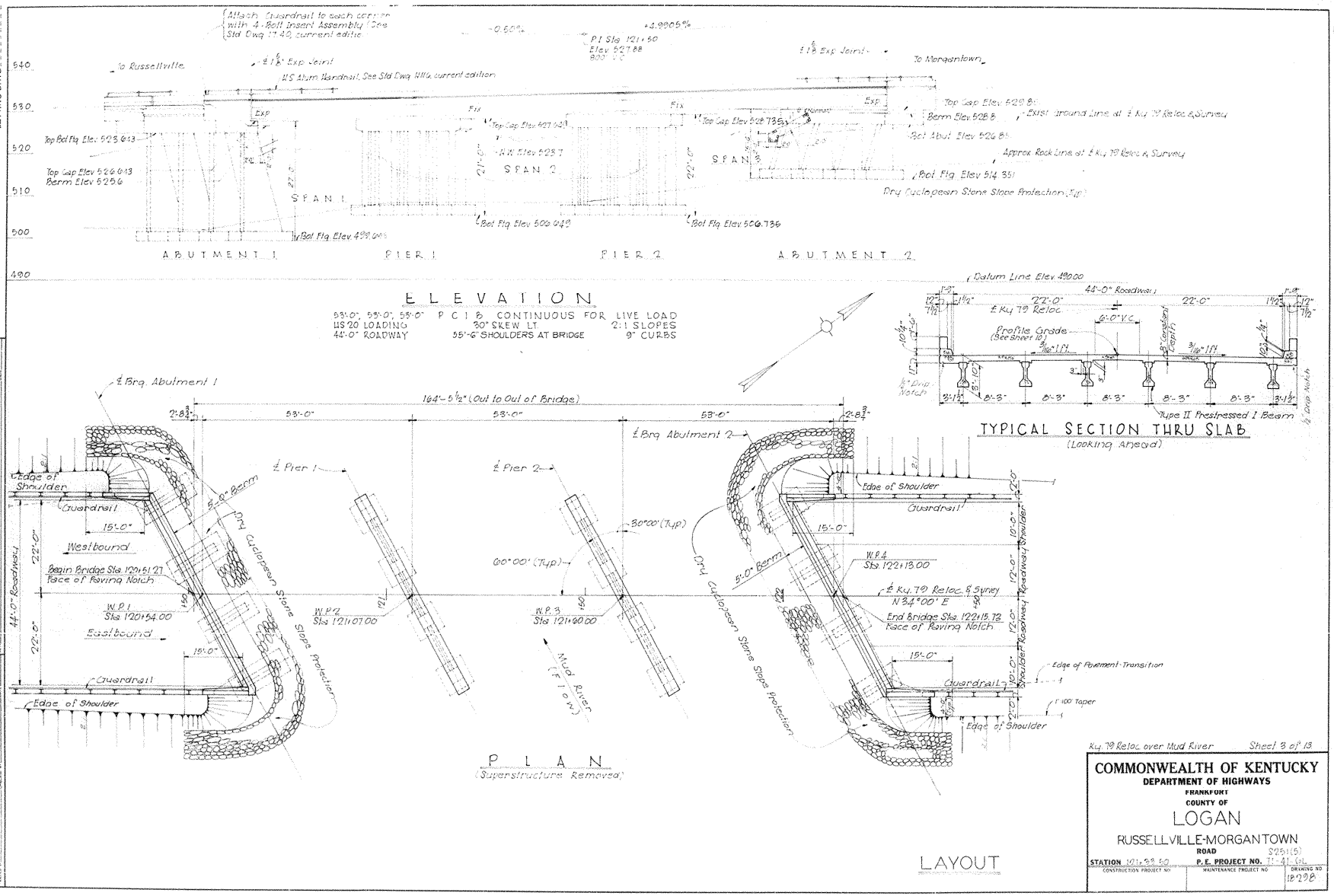
RUSSELLVILLE-MORGANTOWN ROAD S251(5)

STATION 121+23.50 F. E. PROJECT NO. 11-41-01L

CONSTRUCTION PROJECT NO | MAINTENANCE PROJECT NO | DRAWING NO. 18298

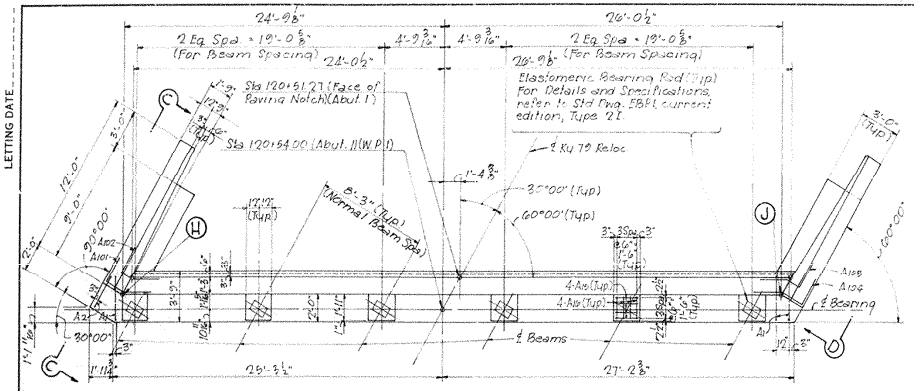
GENERAL NOTES

BRIDGE

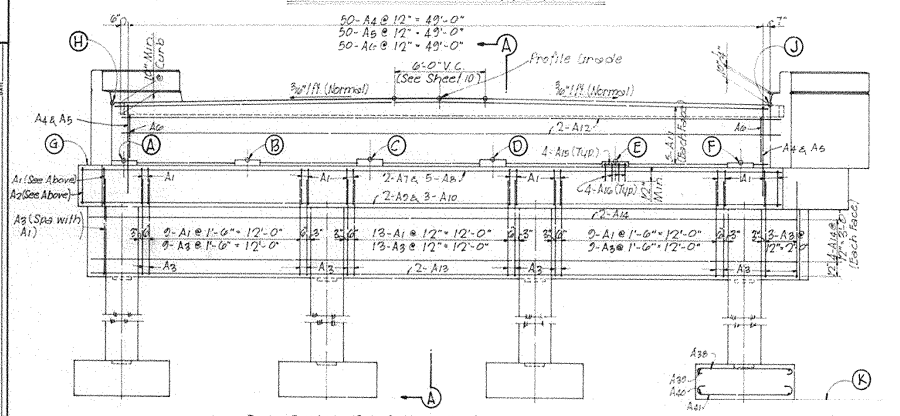


LETTING DATE
Attach Guardrail to each corner with 4-Bolt Insert Assembly (See Std Dwg 17.40, current edition)
-0.50%
+4.9905%
P.I. Sta 121+50
Elev 527.88
To Russellville
To Morgantown
Exp Joint
U.S. Alum Handrail, See Std Dwg HHG, current edition
Top Bot Flg Elev 523.643
Top Cap Elev 526.643
Berm Elev 525.6
Top Cap Elev 527.649
N.W. Elev 523.7
Top Cap Elev 528.735
Top Cap Elev 529.85
Berm Elev 528.8
Exist Ground Line at ℄ Ky 79 Reloc & Survey
Bot Abut Elev 526.85
Approx Rock Line at ℄ Ky 79 Reloc & Survey
Bot Flg Elev 514.351
Dry Cyclopean Stone Slope Protection (Typ)
SPAN 1
SPAN 2
SPAN 3
Bot Flg Elev 499.645
Bot Flg Elev 506.649
Bot Flg Elev 506.736
ABUTMENT 1
PIER 1
PIER 2
ABUTMENT 2
ELEVATION
53'-0", 53'-0", 53'-0" P C I B CONTINUOUS FOR LIVE LOAD
HS 20 LOADING 30° SKEW LT. 2:1 SLOPES
44'-0" ROADWAY 55'-6" SHOULDERS AT BRIDGE 9" CURBS
Datum Line Elev 490.00
44'-0" Roadway
℄ Ky 79 Reloc
Profile Grade (See Sheet 10)
Type II Prestressed I Beam
TYPICAL SECTION THRU SLAB
(Looking Ahead)
℄ Brg. Abutment 1
164'-5½" (Out to Out of Bridge)
53'-0"
℄ Brg Abutment 2
℄ Pier 1
℄ Pier 2
Edge of Shoulder
Guardrail
Westbound
Eastbound
Begin Bridge Sta. 120+51.27
Face of Paving Notch
W.P.1 Sta 120+54.00
W.P.2 Sta 121+07.00
W.P.3 Sta 121+60.00
W.P.4 Sta. 122+13.00
℄ Ky. 79 Reloc. & Survey N 34°00' E
End Bridge Sta. 122+15.73
Face of Paving Notch
5'-0" Berm
Dry Cyclopean Stone Slope Protection
30°00' (Typ)
60°00' (Typ)
Mud River (Flow)
44'-0" Roadway
Shoulder Roadway
Edge of Pavement Transition
1:100 Taper
PLAN
(Superstructure Removed)
LAYOUT
Ky. 79 Reloc over Mud River
Sheet 3 of 13
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
LOGAN
RUSSELLVILLE-MORGANTOWN
ROAD
STATION 101+33.50
P.E. PROJECT NO. S251(5) T1-41-GL
CONSTRUCTION PROJECT NO
MAINTENANCE PROJECT NO
DRAWING NO 18298

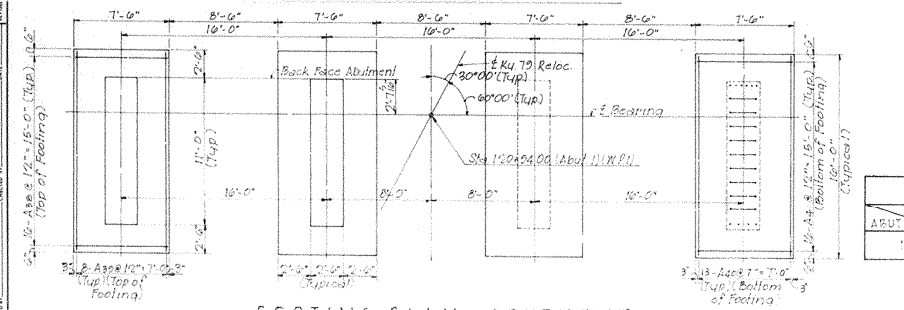
BRIDGE



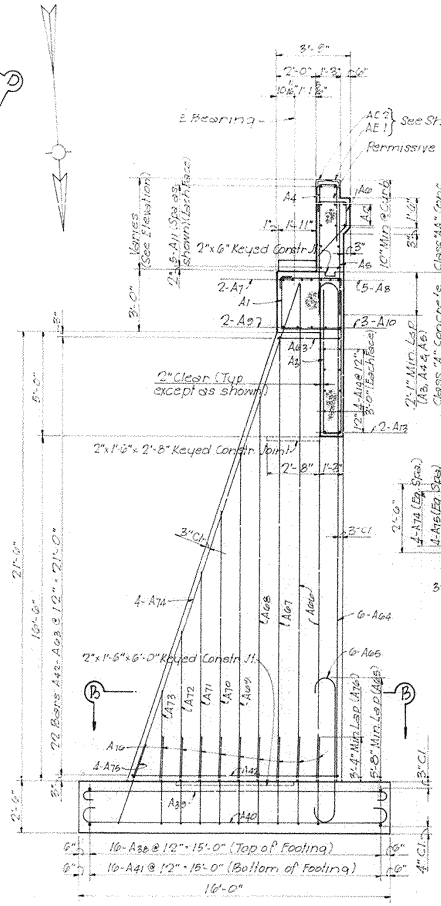
PLAN · ABUTMENT 1



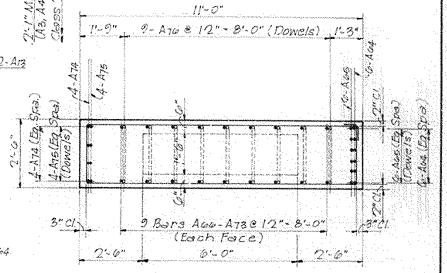
ELEVATION · ABUTMENT 1



FOOTING PLAN · ABUTMENT 1



SECTION A · A



SECTION B · B

Work this sheet with Sheet 6

ESTIMATE OF QUANTITIES		
ITEM	UNIT	QUANTITY
CONCRETE, CLASS "A"	C.Y.	138.1
CONCRETE, CLASS "AA"	C.Y.	21.3
REINFORCEMENT	LBS.	20,257

Note— For Elevations C-C and D-D, see Sheet 6

TABLE OF ELEVATIONS

ABUT \ ELEV	A	B	C	D	E	F	G	H	J	K
1	527.398	527.405	527.456	527.380	527.177	526.976	526.643	531.374	530.973	490.643

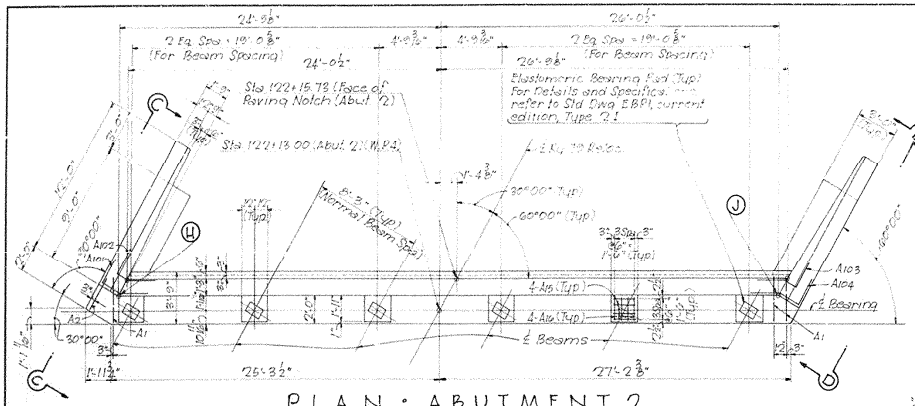
ABUTMENT 1

Ky. 79 Reloc. over Mud River — Sheet 4 of 13

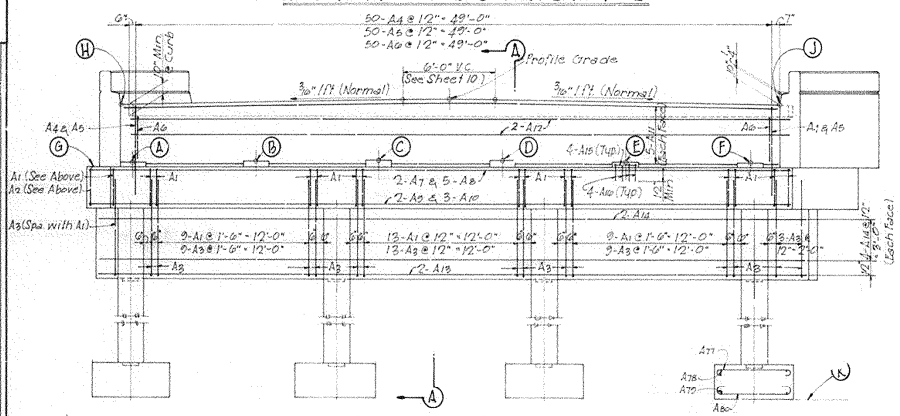
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
LOGAN
RUSSELLVILLE-MORGANTOWN
ROAD — S251(6)
STATION 121+32.50 — P.E. PROJECT NO. 71-41-01
CONSTRUCTION PROJECT NO. — MAINTENANCE PROJECT NO. — DRAWING NO. 18-29B

LETTING DATE

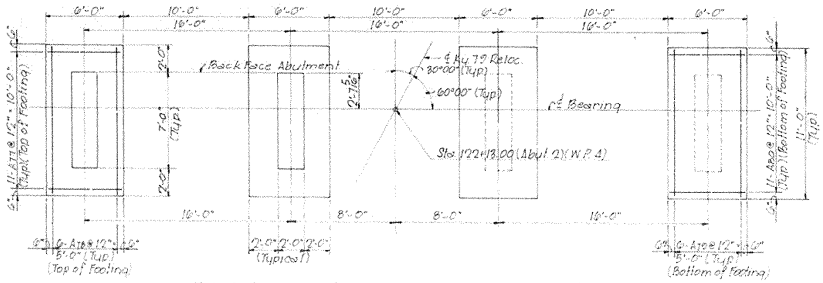
BRIDGE



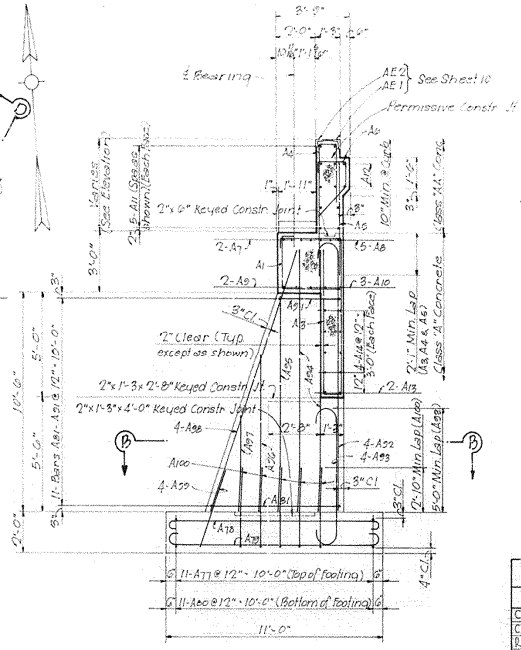
PLAN • ABUTMENT 2



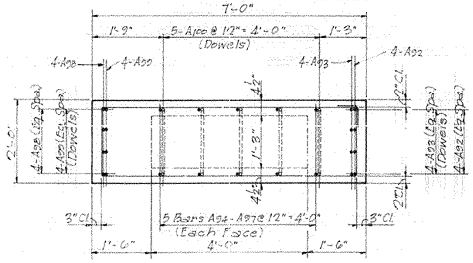
ELEVATION • ABUTMENT 2



FOOTING PLAN • ABUTMENT 2



SECTION A•A



SECTION B•B

ESTIMATE OF QUANTITIES		
ITEM	UNIT	QUANTITY
CONCRETE, CLASS "A"	C.Y.	71.8
CONCRETE, CLASS "AA"	C.Y.	22.3
REINFORCEMENT	LBS	12,739

Note —
For Elevations C-C and D-D, see Sheet 6.

Work this sheet with Sheet 6.

TABLE OF ELEVATIONS										
ABUT. \ ELEV.	A	B	C	D	E	F	G	H	J	K
2	530.184	530.436	530.691	530.818	530.818	530.819	529.851	534.275	534.559	514.351

ABUTMENT 2

Ky. 79 Reloc. over Mud River — Sheet 5 of 19

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
LOGAN
RUSSELLVILLE-MORGANTOWN
ROAD S261 (5)
STATION 121+33.50 F. C. PROJECT NO. 71 41 GL
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO. 18/208

LETTING DATE

DESIGNED BY: [illegible] CHECKED BY: EGA & R.B.B. DATE 1/2/
DETAILED BY: [illegible] CHECKED BY: R.B.B. DATE 1/2/
TRACED BY: [illegible] CHECKED BY: DATE
REVISED DATE REVISED DATE REVISED DATE

BRIDGE

BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NUMBER ABUT 1	NUMBER ABUT 2	LENGTH FT	LENGTH IN	LOCATION	a FT	a IN	b FT	b IN	c FT	c IN	d FT	d IN
A1	2					4									
A2															
A3	1	13	2												
A4															
A5	13	1	2												
A6															
A7															
A8															
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A80															

MARK	TYPE	SIZE	NUMBER ABUT 1	NUMBER ABUT 2	LENGTH FT	LENGTH IN	LOCATION	a FT	a IN	b FT	b IN	c FT	c IN	d FT	d IN
A81															
A82															
A83															
A84															
A85															
A86															
A87															
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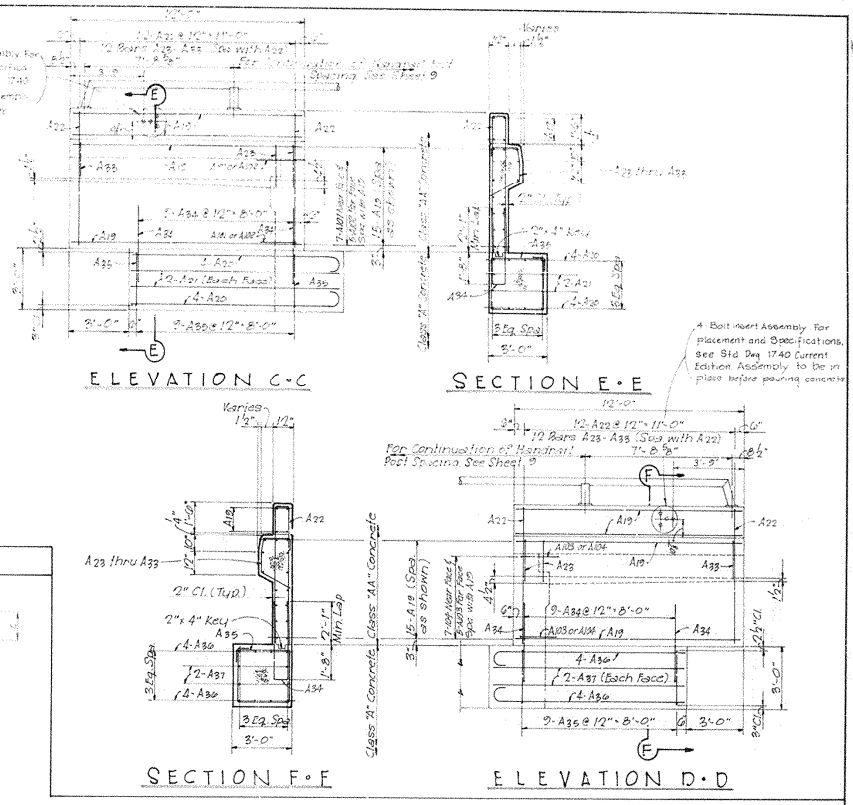
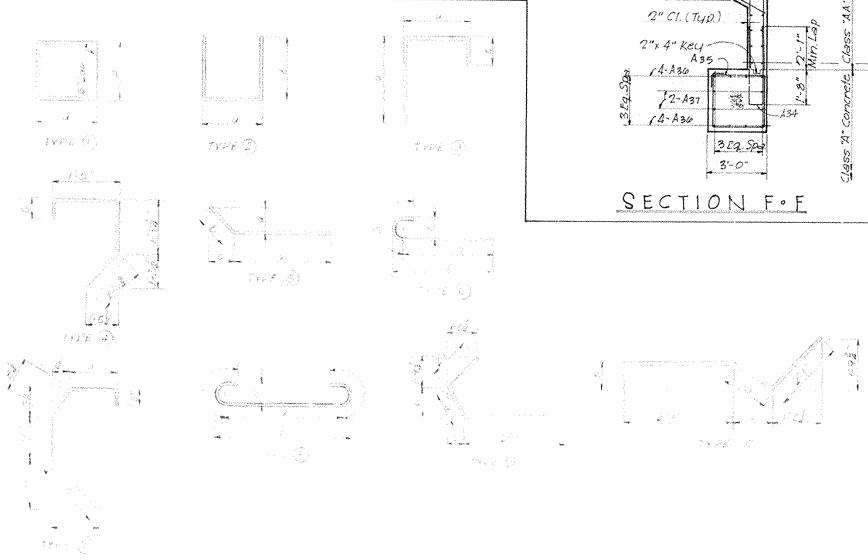
A119															
A120															

LETTING DATE



Note - Bar dimensions are out to out unless otherwise noted. Work this sheet with Sheets 4 & 9.

BAR TYPES



ABUT. DETS., BILL OF REINF. & BAR TYPES

Ky. 79 Reloc. over Mud River — Sheet 6 of 19

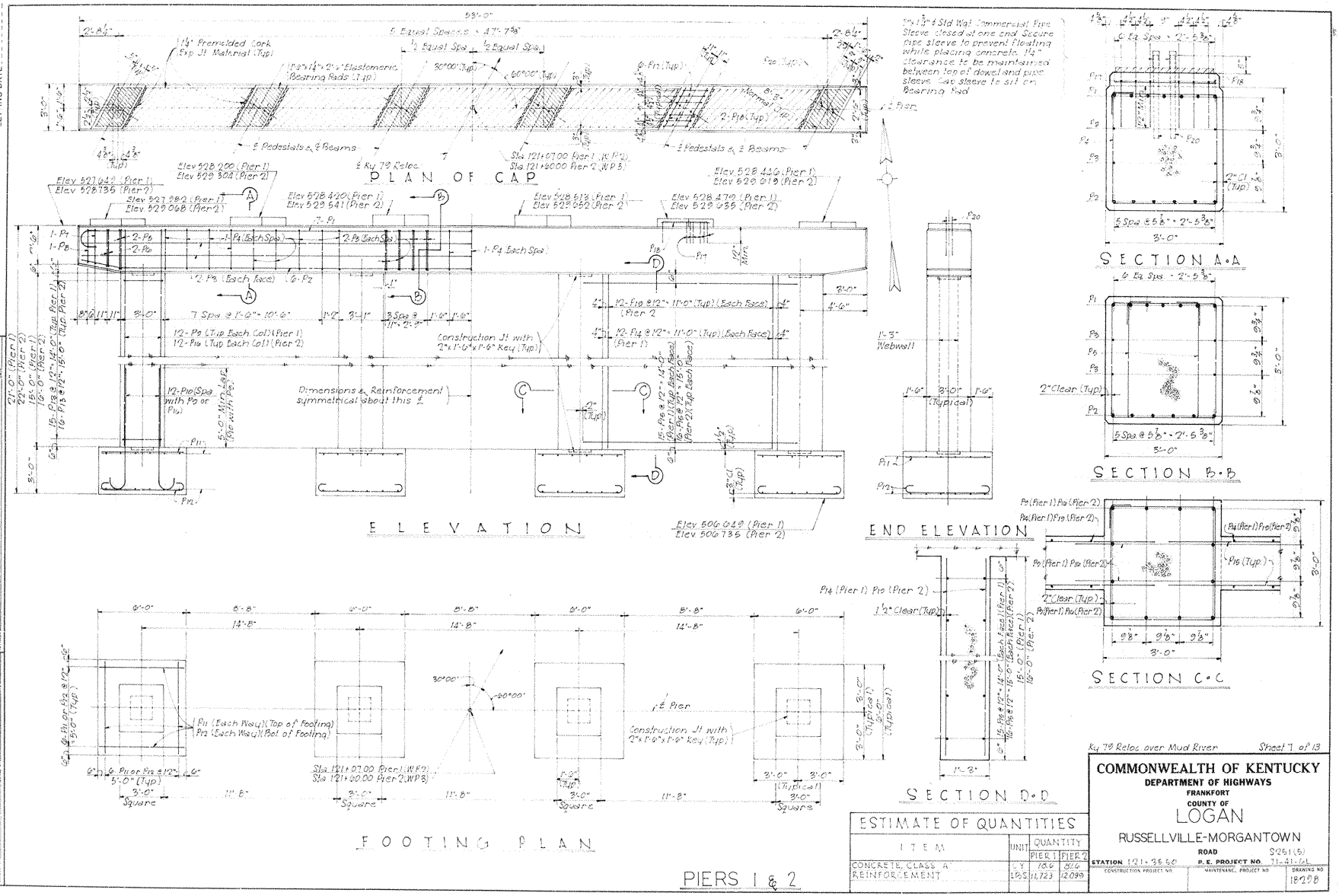
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
LOGAN

RUSSELLVILLE-MORGANTOWN

ROAD S251(5)
STATION 121+33.50 P. E. PROJECT NO. 71-41-01

CONSTRUCTION PROJECT NO. | MAINTENANCE PROJECT NO. | DRAWING NO. 18298

BRIDGE



PIERS 1 & 2

ESTIMATE OF QUANTITIES			
ITEM	UNIT	QUANTITY PIER 1	QUANTITY PIER 2
CONCRETE, CLASS "A"	C.Y.	78.6	81.6
REINFORCEMENT	LBS.	11,723	12,039

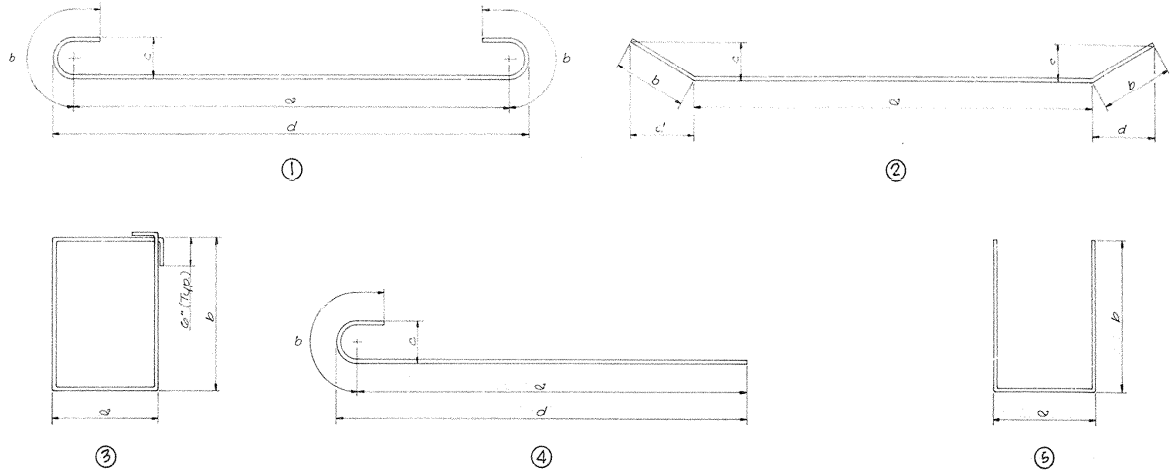
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
LOGAN
RUSSELLVILLE-MORGANTOWN
ROAD S251(5)
STATION 121+35.50 P.E. PROJECT NO. 71-41-6L
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO. 18298

BRIDGE

BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NUMBER PIER 1	NUMBER PIER 2	LENGTH FT	LENGTH IN	LOCATION	a FT	a IN	b FT	b IN	c FT	c IN	d FT	d IN
P1	1	9	7	7	55	1	Cap	51	9	1	8	0	11¼	52	8¼
P2	2	9	6	6	52	4	-	47	0	2	8½	0	5⅝	2	8
P3	Str	5	4	4	52	8	-								
P4	3	6	21	21	11	5	-	2	8	2	8				
P5	-	6	20	20	10	7	-	2	3⅜	2	8				
P6	-	6	4	4	10	6	-	2	3⅜	2	7⅜				
P7	-	6	2	2	11	2	-	2	8	2	6¼				
P8	-	6	2	2	11	1	-	2	8	2	5⅝				
P9	Str	9	48		17	10	Column								
P10	4	9	48	48	8	11	-	7	3⅜	1	8	0	11¼	7	9
P11	Str	5	48	48	5	8	Footing								
P12	1	5	48	48	8	11	-	5	3	0	10	0	5	5	8
P13	3	5	60	64	11	5	Column	2	8	2	8				
P14	Str	5	72		14	9	Webwall								
P15	-	5	90	96	14	4	-								
P16	-	9		48	10	10	Column								
P17	5	4	36	36	5	4	Pad	1	11⅜	1	9				
P18	Str	4	12	12	3	2	-								
P19	-	5		72	15	9	Webwall								
P20	-	*	12	12	2	0	-								

BAR TYPES



Note—

Bar dimensions are out to out unless otherwise shown.
* 1½" ϕ Smooth Round Pins Pipe may be commercial grade steel. Cost of 5" x 1¾" ϕ Std Wgt Pipe Sleeve to be included in unit price bid for Substructure Concrete.

Ky 79 Reloc. over Mud River — Sheet 8 of 13

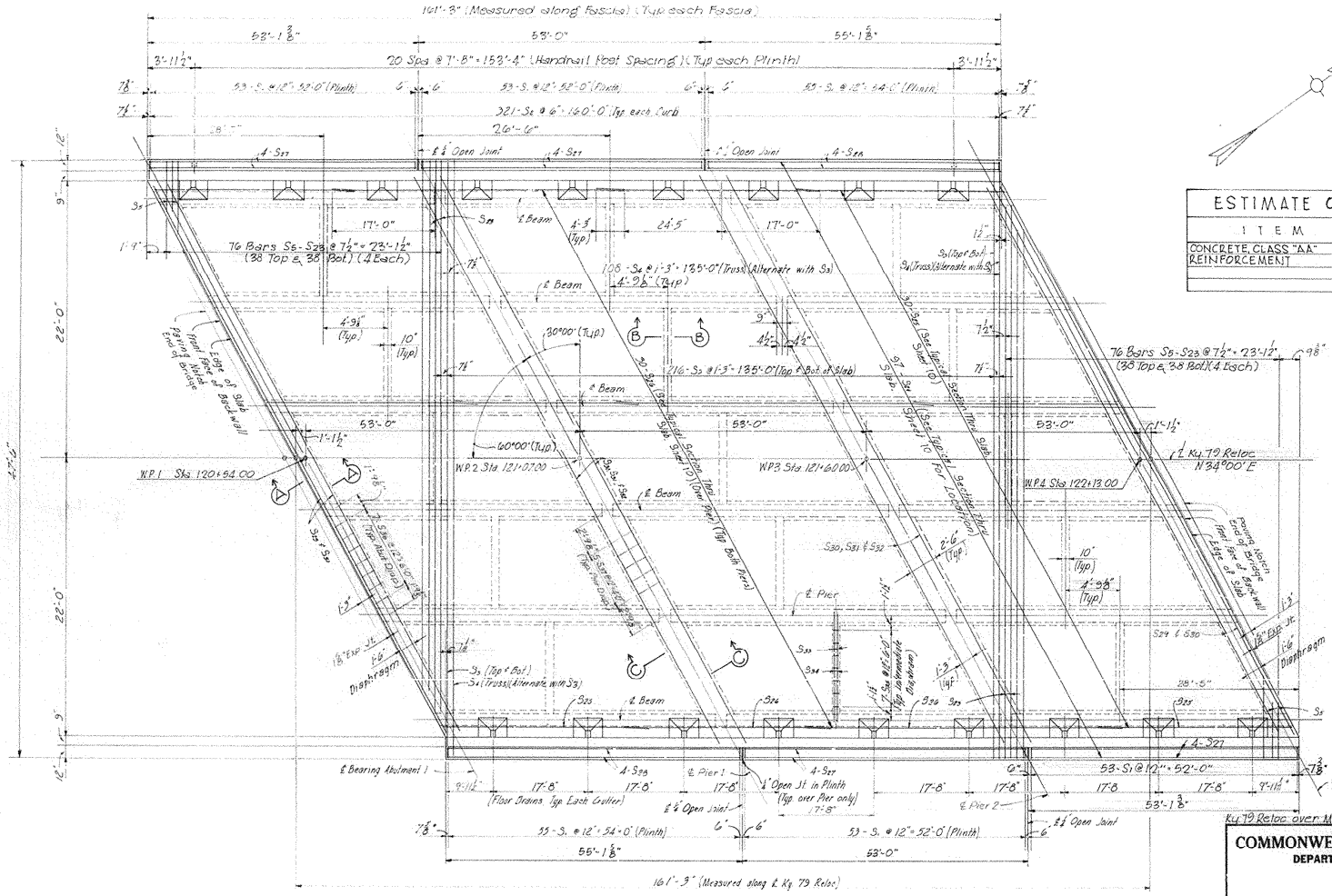
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
LOGAN
RUSSELLVILLE-MORGANTOWN
ROAD S251(5)
STATION 101+33.60 P.E. PROJECT NO. 71-41-GL
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO. 18208

PIERS 1 & 2 BILL OF REINFORCEMENT & BAR TYPES

LETTING DATE

DESIGNED BY J.T.P. DATE 1/71
DETAILED BY J.T.P. CHECKED BY A.D.C.
TRACED BY CHECKED BY R.B.B.
REVISED DATE REVISED DATE REVISED DATE

BRIDGE



SLAB PLAN

SUPERSTRUCTURE

ESTIMATE OF QUANTITIES		
ITEM	UNIT	QUANTITY
CONCRETE, CLASS "AA"	C.Y.	292.6
REINFORCEMENT	LBS.	80,457

Ky 79 Reloc over Mud River — Sheet 9 of 13

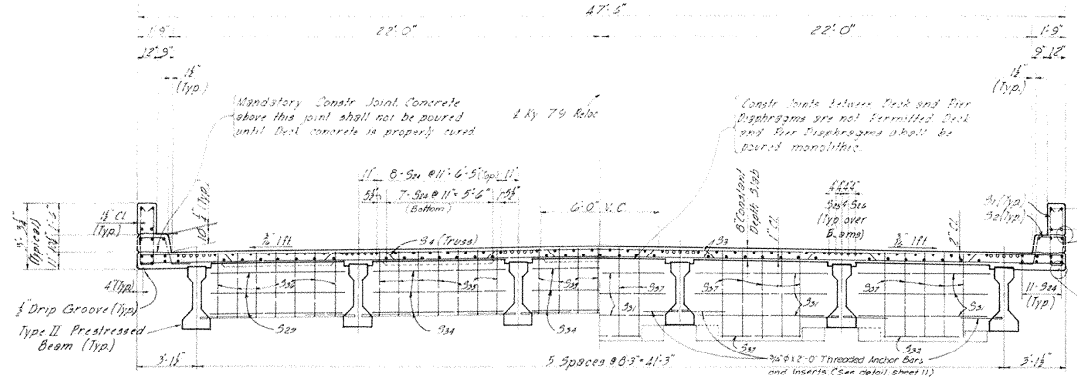
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
LOGAN
RUSSELLVILLE-MORGANTOWN
ROAD S261(5)
STATION 121+33.60 **P.E. PROJECT NO.** 71-41-61

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		18298

LETTING DATE

DESIGNED BY: [illegible] CHECKED BY: R.B.B. DATE: 1/71
DRAWN BY: [illegible] CHECKED BY: DATE:
TRACED BY: DATE:

BRIDGE

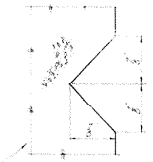


SECTION AT END DIAPHRAGM

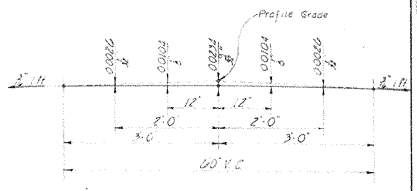
SECTION AT INTERMEDIATE DIAPHRAGM

SECTION AT PIER DIAPHRAGM

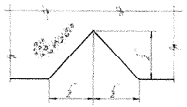
TYPICAL SECTION THRU SLAB



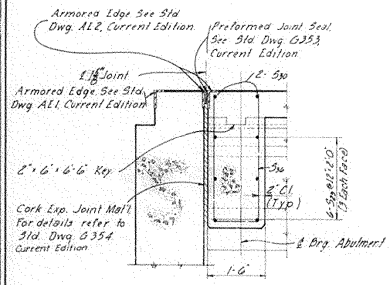
TYPICAL RUSTICATION DETAIL



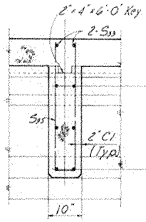
PARABOLIC CROWN



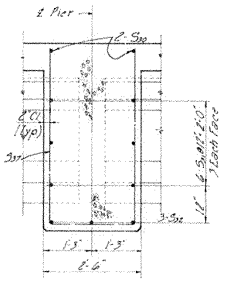
TYPICAL DRIP GROOVE



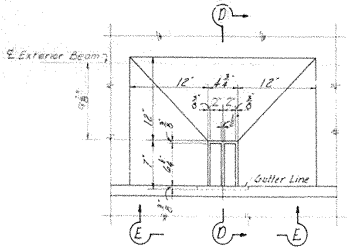
SECTION A-A



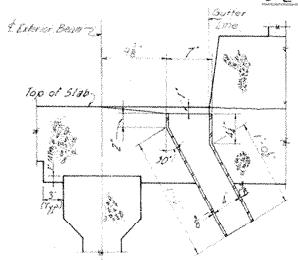
SECTION B-B



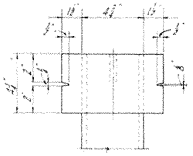
SECTION C-C



PLAN



SECTION D-D



SECTION E-E

(Showing Details of Lug on Floor Drains)

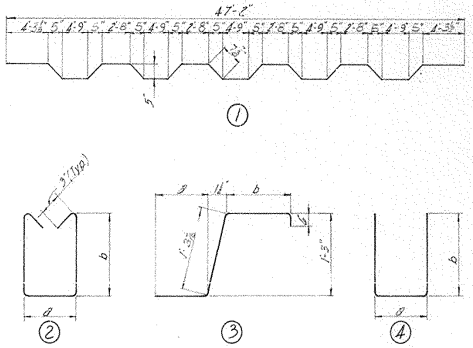
FLOOR DRAIN DETAILS

(Approx. Weight of Drain - 36 lbs) (18 Required)

BILL OF REINFORCEMENT

MARK	TYPE	SIZE	No	Length Ft	Length In	Location	a Ft	a In	b Ft	b In	c Ft	c In	d Ft	d In
S1	(2)	5	322	7	1	Plinth	0	9	3	0				
S2	(3)	5	642	5	1	Curb	2	10	1	1				
S3	S1r	6	816	47	2	Slab								
S4	(1)	6	105	29	7	"								
S5	S1r	6	8	4	10	"								
S6	"	6	8	7	0	"								
S7	"	6	8	9	2	"								
S8	"	6	8	11	3	"								
S9	"	6	8	13	5	"								
S10	"	6	8	15	8	"								
S11	"	6	8	17	9	"								
S12	"	6	8	19	11	"								
S13	"	6	8	22	1	"								
S14	"	6	8	24	3	"								
S15	"	6	8	26	5	"								
S16	"	6	8	28	7	"								
S17	"	6	8	30	9	"								
S18	"	6	8	32	11	"								
S19	"	6	8	35	1	"								
S20	"	6	8	37	3	"								
S21	"	6	8	39	5	"								
S22	"	6	8	41	7	"								
S23	"	6	8	43	9	"								
S24	"	6	308	47	0	"								
S25	"	6	60	41	2	"								
S26	"	10	60	49	8	"								
S27	"	5	10	52	6	Plinth								
S28	"	5	8	54	8	"								
S29	"	5	60	6	9	Abut. Diaph.								
S30	"	7	8	30	6	"								
S31	"	5	60	6	9	Pier Diaph.								
S32	"	5	30	5	0	"								
S33	"	5	30	8	7	"								
S34	"	5	90	6	9	Inter. Diaph.								
S35	(4)	5	104	6	7	"	0	6	3	1				
S36	(4)	7	10	7	3	Abut. Diaph.	1	5	2	1				
S37	(4)	5	50	9	7	Pier Diaph.	2	2	3	9				

BAR TYPES



Note: Bar dimensions are out to out unless otherwise noted.

Ky 79 Reloc. over Mud River

Sheet 10 of 13

SUPERSTRUCTURE DETAILS & BILL OF REINF.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
LOGAN
RUSSELLVILLE-MORGANTOWN
ROAD S251(5)
STATION 101+22.5.0 P.E. PROJECT NO. 71-41-06
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO. 18298

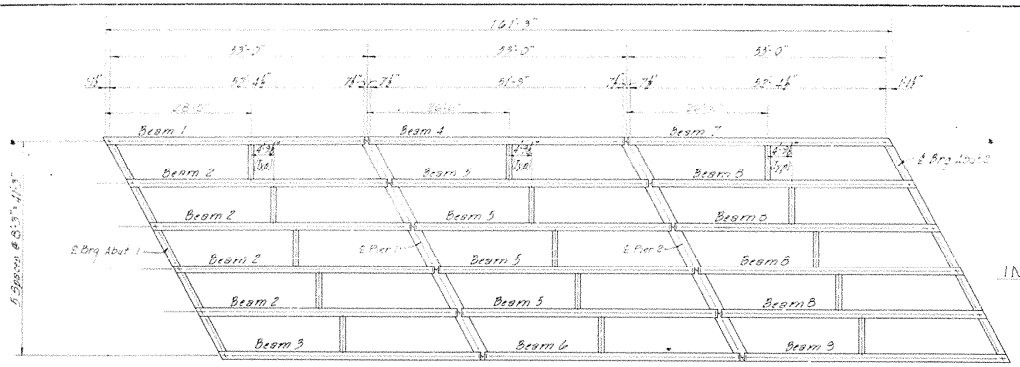
LETTING DATE

DESIGNED BY: DETAILED BY: S. HUGHES CHECKED BY: S.B.B. CHECKED BY: CHECKED BY: PLACED BY:

REVISED: REVISED: REVISED: DATE: 1/71 DATE: DATE: DATE: DATE:

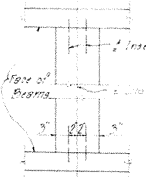
BRIDGE

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

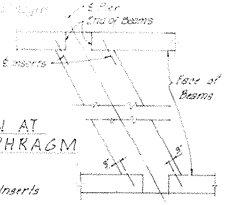


Note: No Inserts required in outside faces of Beams 1, 3, 4, 6, 7, 9.

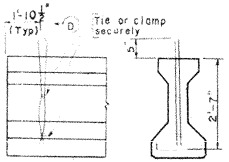
FRAMING PLAN



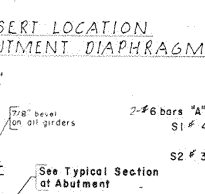
INSERT LOCATION AT INTERMEDIATE DIAPHRAGM



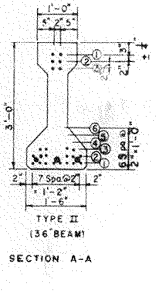
INSERT LOCATION AT PIER DIAPHRAGM



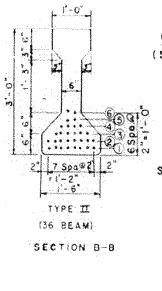
DETAIL "L"



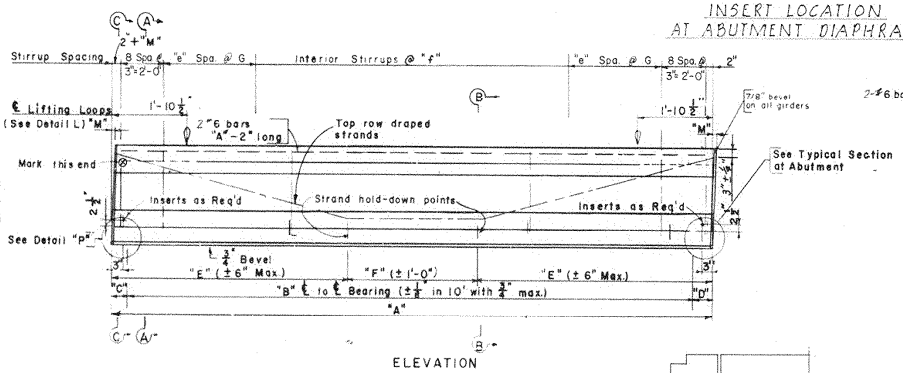
INSERT LOCATION AT ABUTMENT DIAPHRAGM



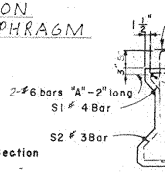
SECTION A-A



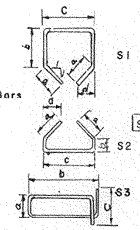
SECTION B-B



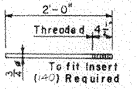
ELEVATION



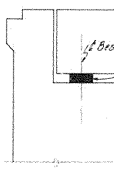
SECTION C-C
Typical Section showing Steel Reinforcement



STIRRUP	DIMENSIONS	
BAR	DIM.	BEAM II
S1 #4	a	3 1/2"
	b	3"
	c	9"
	d	2 1/2"
S2 #3	a	7 1/2"
	b	3"
	c	1'-3"
	d	3 1/4"
S3 #4	a	3 1/2"
	b	3'-2"
	c	8"



Incidental to Prestressed Concrete I Beams
THREADED ANCHOR BAR DETAIL



For Details and Specifications of Elastomeric Bearing Pads, see Std. Drwg. E.B.P.1, current edition. Elastomeric Bearing Pads are incidental to Prestressed Beams.

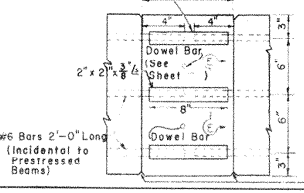
SECTION AT ABUTMENT

BEAM DIMENSIONS													
MARK	No. Req'd	Dimensions											Approx. Wgt. Ea.
		A	B	C	D	E	F	e	f	M	G		
Beam 1	1	53'-9"	37'-11½"	1'-1½"	3"	21'-10½"	10'-0"	23"	8"	—	2"		20,674
Beam 2	1	53'-9"	37'-11½"	1'-1½"	3"	21'-10½"	10'-0"	23"	8"	—	2"		20,674
Beam 3	1	53'-9"	37'-11½"	1'-1½"	3"	21'-10½"	10'-0"	23"	8"	—	2"		20,674
Beam 4	1	53'-9"	37'-9"	9"	3"	21'-1½"	10'-0"	23"	8"	—	2"		20,674
Beam 5	1	53'-9"	37'-9"	9"	3"	21'-1½"	10'-0"	23"	8"	—	2"		20,116
Beam 6	1	53'-9"	37'-9"	9"	3"	21'-1½"	10'-0"	23"	8"	—	2"		20,116
Beam 7	1	53'-9"	37'-11½"	3"	1'-1½"	21'-10½"	10'-0"	23"	8"	—	2"		20,674
Beam 8	1	53'-9"	37'-11½"	3"	1'-1½"	21'-10½"	10'-0"	23"	8"	—	2"		20,674
Beam 9	1	53'-9"	37'-11½"	3"	1'-1½"	21'-10½"	10'-0"	23"	8"	—	2"		20,674

NUMBER of 120-7 WIRE STRANDS IN INDICATED ROW																			
MARK	MIDSPAN (Section B-B)							END (Section A-A)										Tot. No.	Initial Prestress Force / Strand (Lbs.)
	Bottom							Bottom						Top					
	①	②	③					①	②	③				①	②	③			
Beam 1	1	0	3					2	0	1				2	2	2		18	29,106
Beam 2	1	0	3					2	0	1				2	2	2		18	29,106
Beam 3	1	0	3					2	0	1				2	2	2		18	29,106
Beam 4	1	0	3					2	0	1				2	2	2		18	29,106
Beam 5	1	0	3					2	0	1				2	2	2		18	29,106
Beam 6	1	0	3					2	0	1				2	2	2		18	29,106
Beam 7	1	0	3					2	0	1				2	2	2		18	29,106
Beam 8	1	0	3					2	0	1				2	2	2		18	29,106
Beam 9	1	0	3					2	0	1				2	2	2		18	29,106

THESE #5 INCLUDED IN THE LUMP SUM BID FOR STRUCTURAL STEEL.

DETAIL "P"
(Typical At Piers)



SECTION E-E

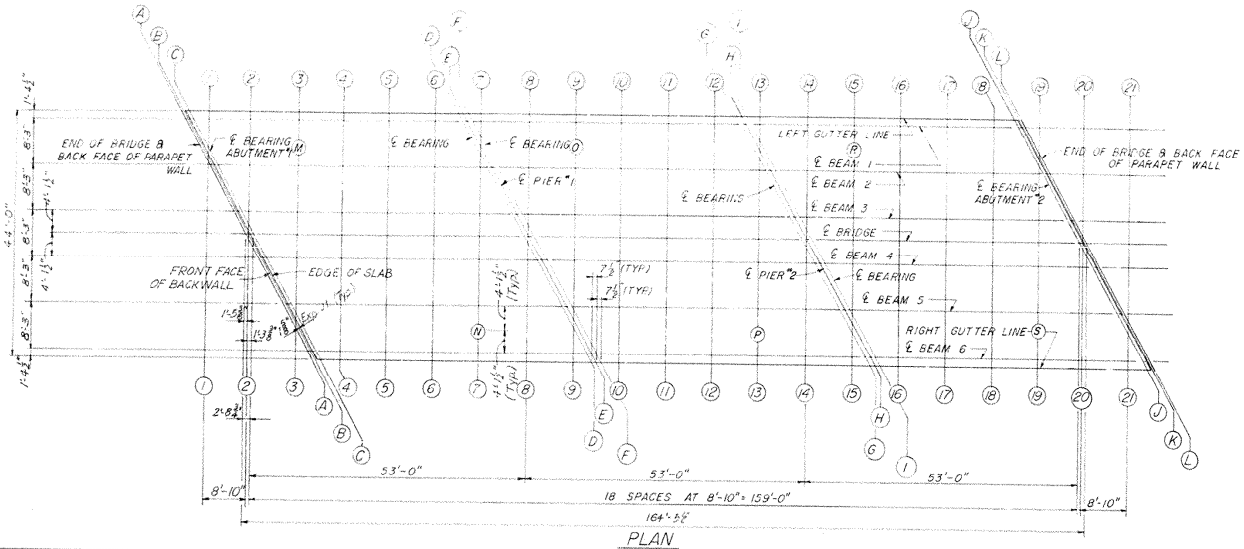
PRESTRESSED-CONCRETE I BEAM
TYPE II DETAILS

Ky 79 Relpc. over Mud River — Sheet 11 of 13

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
LOGAN
RUSSELLVILLE-MORGANTOWN
ROAD S251(5)
STATION 121+33.60 PROJECT NO. 11-41-GL
BRIDGE NUMBER
DRAWING NO. 18/29B
INDEX

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

BRIDGE



PLAN

NOTE

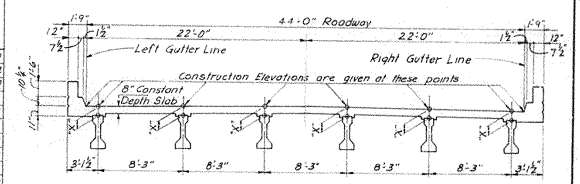
1. To be worked in the field and a copy sent to the Division of Bridges.
2. After the slab forms are erected and before the slab reinforcement is placed, the Resident Engineer shall take field elevations at the slab thickness check points, and enter them in the table provided. The slab thickness shall then be computed. If the computed slab thickness varies more than ¼ from the plan thickness, allowing 1:200 of the slab span for sag correction of the form, the form shall be adjusted until the computed slab thickness is within the tolerance allowed.

CHECK POINT ELEVATIONS FOR SLAB THICKNESS

CHECK POINT	PLAN ELEV. TOP OF SLAB	FIELD ELEV. TOP OF FORM	COMPUTED SLAB THICKNESS
M	531.485	530.797	.688
N	532.110	531.423	.687
O	532.454	531.788	.666
P	533.208	532.518	.690
R	533.616	532.920	.696
S	534.498	533.800	.698

CONSTRUCTION ELEVATIONS

LOCATION	LEFT GUTTER LINE	℄ BEAM NO 1 CONSTR ELEV	℄ BEAM NO 1 TOP OF GIRDER ELEV	℄ BEAM NO 1 DIM. "X"	℄ BEAM NO 2 CONSTR. ELEV	℄ BEAM NO 2 TOP OF GIRDER ELEV	℄ BEAM NO 2 DIM "X"	℄ BEAM NO 3 CONSTR ELEV	℄ BEAM NO 3 TOP OF GIRDER ELEV	℄ BEAM NO 3 DIM "X"	℄ BRIDGE	℄ BEAM NO 4 CONSTR ELEV	℄ BEAM NO 4 TOP OF GIRDER ELEV	℄ BEAM NO 4 DIM "X"	℄ BEAM NO 5 CONSTR ELEV	℄ BEAM NO 5 TOP OF GIRDER ELEV	℄ BEAM NO 5 DIM "X"	℄ BEAM NO 6 CONSTR ELEV	℄ BEAM NO 6 TOP OF GIRDER ELEV	℄ BEAM NO 6 DIM "X"	RIGHT GUTTER LINE
Skew Ln. A Top	530.952	530.985			531.185			531.387			531.466	531.462			531.409			531.358			531.350
Skew Ln. B Top	530.973	531.006	530.192	.814	531.207	530.391	.816	531.409	530.613	.796	531.511	531.484	530.608	.876	531.432	530.658	.774	531.381	530.605	.776	531.374
Skew Ln. C Top	531.016	531.049	530.237	.812	531.250	530.423	.827	531.453	530.578	.875	531.532	531.533	530.707	.922	531.478	530.663	.815	531.429	530.608	.821	531.420
Skew Ln. D Top	531.875	531.911	531.100	.811	532.130	531.293	.837	532.349	531.548	.801	532.437	532.442	531.620	.822	532.408	531.605	.803	532.375	531.536	.839	532.369
Skew Ln. E Top	531.883	531.920			532.138			532.358			532.445	532.451			532.417			532.384			532.379
Skew Ln. F Top	531.895	531.931	531.091	.840	532.150	531.284	.866	532.370	531.530	.840	532.457	532.463	531.616	.847	532.429	531.580	.849	532.397	531.550	.847	532.391
Skew Ln. G Top	532.957	532.996	532.172	.824	533.231	532.440	.791	533.468	532.678	.790	533.564	533.579	532.763	.816	533.561	532.778	.783	533.546	532.736	.810	533.543
Skew Ln. H Top	532.967	533.006			533.242			533.479			533.575	533.590			533.573			533.557			533.555
Skew Ln. I Top	532.981	533.020	532.192	.828	533.256	532.416	.840	533.494	532.622	.872	533.590	533.604	532.768	.836	533.587	532.758	.829	533.572	532.768	.804	533.570
Skew Ln. J Top	534.214	534.257	533.473	.784	534.509	533.673	.836	534.764	533.968	.796	534.868	534.891	534.098	.793	534.891	534.066	.825	534.892	534.083	.809	534.893
Skew Ln. K Top	534.275	534.317	533.480	.837	534.671	533.675	.896	534.826	533.967	.899	534.954	534.952	534.071	.881	534.958	534.072	.886	534.958	534.092	.866	534.959
Skew Ln. L Top	534.314	534.357			534.611			534.866			534.971	534.995			534.996			534.999			534.999
Grid Ln. 1 Top	531.070	531.089	530.220	.869																	
Grid Ln. 2 Top	531.243	531.263	530.501	.762	531.374	530.585	.789	531.480	530.665	.815	531.508										
Grid Ln. 3 Top	531.404	531.425	530.660	.765	531.545	530.760	.785	531.661	530.880	.781	531.693	531.642	530.861	.781	531.491	530.675	.816				
Grid Ln. 4 Top	531.553	531.575	530.804	.771	531.705	530.938	.767	531.829	531.077	.752	531.866	531.820	531.072	.748	531.678	530.920	.758	531.530	530.770	.760	531.505
Grid Ln. 5 Top	531.690	531.715	530.929	.786	531.853	531.082	.771	531.987	531.220	.767	532.027	531.987	531.228	.759	531.853	531.100	.753	531.715	530.934	.781	531.691
Grid Ln. 6 Top	531.817	531.842	531.041	.801	531.990	531.192	.798	532.133	531.341	.792	532.178	532.142	531.380	.762	532.017	531.245	.772	531.888	531.130	.758	531.866
Grid Ln. 7 Top	531.975	531.994	531.157	.837	532.115	531.289	.826	532.267	531.460	.807	532.317	532.285	531.505	.780	532.170	531.398	.772	532.049	531.300	.749	532.029
Grid Ln. 8 Top	532.180	532.200	531.390	.810	532.311	531.470	.841	532.417	531.589	.828	532.446	532.417	531.600	.817	532.311	531.522	.789	532.200	531.405	.795	532.181
Grid Ln. 9 Top	532.373	532.394	531.610	.784	532.514	531.699	.815	532.630	531.823	.807	532.662	532.612	531.780	.852	532.460	531.620	.840	532.338	531.536	.802	532.321
Grid Ln. 10 Top	532.554	532.577	531.810	.767	532.706	531.910	.796	532.831	532.062	.769	532.867	532.822	532.010	.812	532.679	531.872	.807	532.532	531.697	.835	532.506
Grid Ln. 11 Top	532.724	532.748	531.966	.782	532.887	532.101	.786	533.020	532.248	.772	533.061	533.020	532.228	.792	532.887	532.098	.789	532.746	531.943	.805	532.725
Grid Ln. 12 Top	532.883	532.908	532.079	.829	533.056	532.270	.786	533.198	532.411	.787	533.244	533.207	532.418	.789	533.083	532.312	.771	532.964	532.158	.796	532.937
Grid Ln. 13 Top	533.073	533.092	532.278	.814	533.213	532.433	.780	533.365	532.548	.817	533.415	533.383	532.596	.787	533.268	532.492	.776	533.147	532.380	.767	533.127
Grid Ln. 14 Top	533.310	533.330	532.536	.794	533.441	532.652	.789	533.547	532.740	.807	533.575	533.547	532.732	.815	533.441	532.661	.780	533.330	532.550	.780	533.311
Grid Ln. 15 Top	533.535	533.556	532.779	.757	533.676	532.880	.796	533.792	532.989	.803	533.824	533.774	532.970	.804	533.622	532.798	.824	533.501	532.730	.771	533.483
Grid Ln. 16 Top	533.749	533.771	532.998	.773	533.901	533.049	.853	534.025	533.222	.803	534.062	534.016	533.216	.800	533.873	533.059	.814	533.726	532.922	.804	533.701
Grid Ln. 17 Top	533.950	533.975	533.200	.775	534.113	533.340	.873	534.247	533.456	.791	534.287	534.247	533.468	.779	534.113	533.329	.784	533.975	533.197	.778	533.951
Grid Ln. 18 Top	534.141	534.167	533.368	.799	534.314	533.479	.835	534.457	533.645	.812	534.502	534.466	533.663	.803	534.341	533.540	.801	534.212	533.441	.771	534.190
Grid Ln. 19 Top					534.504	533.658	.846	534.656	533.830	.826	534.706	534.674	533.867	.807	534.558	533.750	.808	534.438	533.662	.776	534.417
Grid Ln. 20 Top											534.898	534.870	534.022	.848	534.764	533.934	.830	534.652	533.842	.810	534.633
Grid Ln. 21 Top																		534.885	534.021	.834	534.838



TYPICAL SECTION THRU SLAB

CONSTRUCTION NOTE

1. Take elevations on top of girders at points indicated before forms for concrete slab have been put in place.
2. Compute dimensions "X" as follows: Construction Elevation minus top of girder elevation equals Dimension "X". Construction Elevations include camber due to weight of concrete slab, plinth, curb, handrail and future surfacing.
3. For setting templates, measure Dimension "X" above top of girder for top of template. Do not set template by elevations.
4. Construct handrail plinth to curb grade. Do not add camber to handrail plinth.

KY. 79 RELOC. OVER MUD RIVER — SHEET 12 OF 13

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
LOGAN

RUSSELLVILLE - MORGANTOWN
ROAD S 251 (5)
STATION 121 + 55.50 P.E. PROJECT NO. 71-41-6L

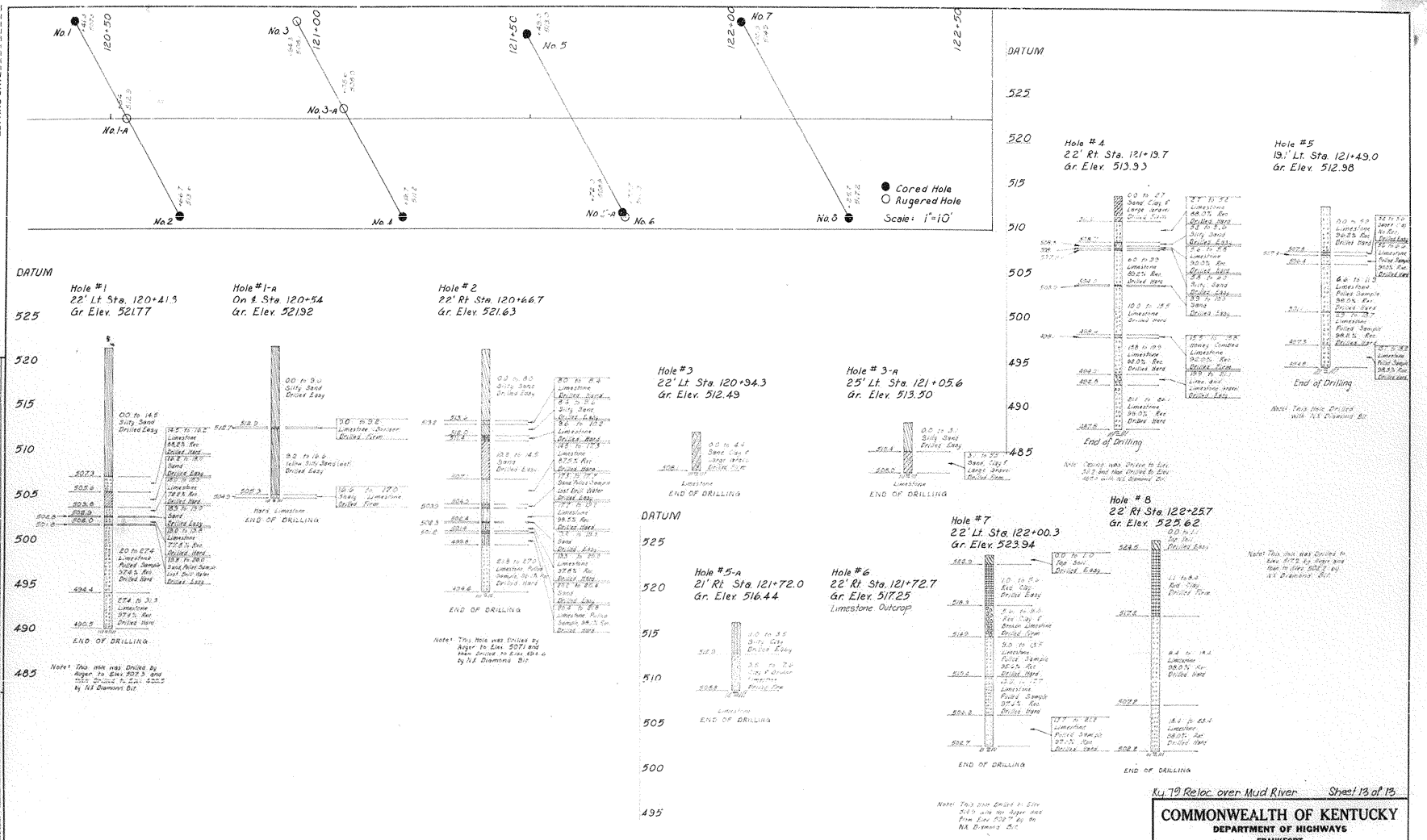
CONSTRUCTION PROJECT NO | MAINTENANCE PROJECT NO | DRAWING NO 18298

LETTING DATE

DESIGNED BY S. Holman — CHECKED BY
DETAILED BY — CHECKED BY
TRACED BY — CHECKED BY

REVISED Field Elevations Added S.D. — DATE 4-8-72
REVISED — DATE
REVISED — DATE
REVISED — DATE

BRIDGE



LOG OF SOUNDINGS

SOUNDINGS

Ky. 79 Reloc. over Mud River Sheet 13 of 13

COMMONWEALTH OF KENTUCKY
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