DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

GREENUP COUNTY

ASHLAND-GREENUP-SO.PORTSMOUTH (U.S.23)

OVER TYGARTS CREEK

LETTING DATE Updated June '73

PLANS PREPARED BY ENG. & ARCH. SERVICES DIV. CONTROL DATA CORPORATION

SPECIAL PROVISIONS

No. 12 For Joint Sealing Compound.
No. 30B For Membrane Curing of Concrete Structures.
No. 35B For Class "A A" Concrete.
No. 36A For Set-Retarding Admixtures for Concrete.
No. 79 For Concrete Bridge Deck Finishing Machine.
No. 80B For Blast Cleaning and Painting Structural Steel.
No. 99A For Concrete Surface Finish.
No. 101 For Welding Steel Bridges.
No. 102 For Coarse Aggregates.
No. 104 For Sampling and Testing of Steel Reinforcing Bars.
No. 110 For Sheet Type Membrane Waterproofing System.

Added 8 Inch Bituminous Concrete Surface Course Over Deck, Shims to girders

REFERENCE AND ESTIMATE OF QUANTITIES

LOCATION \ ITEM	SHEET NO.	CONCRETE CU. YDS. CLASS "AA"	CONCRETE CU. YDS. CLASS "A"	REINF. STEEL LBS.	STRUCT. STEEL LUMP SUM (1)	STRUCTURE EXCAVATION CU. YDS. COMMON	STRUCTURE EXCAVATION CU. YDS. ROCK	END BENT BACK-FILL CU. YDS.	HIGH STRENGTH HAND RAIL LIN. FT.	PILING (12"x53) LIN. FT. FURN.	PILING (12"x53) LIN. FT. DRIVE	DRY CYCLOPEAN STONE PROTECTION SQ. YDS.	SHEET TYPE WATER-PROOFING MEMBRANE SQ. YDS.	REMOVE EXIST. STRUCT. TYPE LUMP SUM	SHEAR CONN. LUMP SUM (2)	BITUMINOUS CONCRETE SURFACE MIXTURE TONS	SUBDRAINAGE FOR WEARING COURSE EACH
TITLE & QUANTITIES	1																
NOTES	2																
PLAN LAYOUT	3																
ELEVATION LAYOUT	4																
SOUNDINGS	5																
PILE RECORD	6	112.6															
END BENT 1 & 2	7.12	111.4	166.8	28,488		780		230		4982	4982	3850					
END BENT DETAILS	8.12		408.7														
PIER 1	9.12		339.0		55557	170				1358	1358						
PIER 2	10.12		283.7	6,062	6,003	170				1405	1405						
SUPERSTRUCTURE	11-17	1008.1	395.5		(1)				779.0				2850	(3)	(2)	190	114
CONSTRUCTION ELEVATIONS	18.19	1039.8		268,004													
SUB TOTAL SUBSTRUCTURE		112.6		155248		1120		230		7745	7745	3850					
SUB TOTAL SUPERSTRUCTURE	1039.8	1008.1	971.0		(1)				779.0				2850	(3)	(2)	190	114
TOTAL		1119.5	971.0		(1)	1120		230	779.0	7745	7745	3850	2850	(3)	(2)	190	114
		1152.4		423,252													

SHEET 1A OF 19

BILL OF INCIDENTAL MATERIAL

ITEM	UNIT	SIZE	LOCATION
Joint Sealing Compound	4	1" x 3" x 44'-0"	Expansion joints
Bolt Insert Assembly	4	[illegible]	[illegible]
Preformed Joint Seal	1	1½" x 2" x 151'-0"	Joint at E.B. Pier [illegible]

(1) Approximate Weight of Structural Steel is (1,052,677) 1,059,057 Lbs.
(2) Approximate Weight of Shear Connectors: 1,055,601
Option 1: 3,339 Lbs.
Option 2: 4,887 Lbs.
(3) See General Notes

This weight change was due to the addition of deck drains and support straps which Construction will negotiate directly with the Contractor by a Change Order, therefore erroneously added.

The Standard Drawings listed below are the current edition and are to be used with these plans.

STANDARD DRAWINGS

BUE-001-01, BGX-006, BJJ-003, BHA-009-01, BHA-010-01, BHC-001, BHC-002, RBC-001-01, BPS-003, SF-2B

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD APD 537(32)
STATION 230+35.00 P.E. PROJECT NO. AP 45-2[illegible]
CONSTRUCTION PROJECT NO. APD-537(67) MAINTENANCE PROJECT NO. DRAWING NO. 18501

BRIDGE

DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

GREENUP COUNTY

ASHLAND-GREENUP-SO.PORTSMOUTH (U.S.23)

OVER TYGARTS CREEK

LETTING DATE: Updating June 75

PLANS PREPARED BY: ENG. & APPR. SERVICES DIV.

Added

Changed Bars 8" to 9" Concrete Overlay

SPECIAL PROVISIONS

No. 12 For Joint Sealing Compound.
No. 30B For Membrane Curing of Concrete Structures.
No. 35B For Class "AA" Concrete.
No. 36A For Set-Retarding Admixtures for Concrete.
No. 79 For Concrete Bridge Deck Finishing Machine.
No. 80B For Blast Cleaning and Painting Structural Steel.
No. 99A For Concrete Surface Finish.
No. 101 For Welding Steel Bridges.
No. 102 For Coarse Aggregates.
No. 104 For Sampling and Testing of Steel Reinforcing Bars.
No. 110 For Sheet Type Membrane Waterproofing System.

REFERENCE AND ESTIMATE OF QUANTITIES

ITEM / LOCATION	SHEET NO.	CONCRETE CU. YDS. CLASS "A"	CONCRETE CU. YDS. CLASS "AA"	REINF. STEEL LBS.	STRUCT. STEEL LUMP SUM (1)	STRUCTURE EXCAVATION CU. YDS. COMMON	STRUCTURE EXCAVATION CU. YDS. ROCK	END BENT FILL CU. YDS.	HIGH STRENGTH HAND RAIL LIN. FT.	PILING (HP 12 x 53) LIN. FT. FURN.	PILING (HP 12 x 53) LIN. FT. DRIVE	DRY COLOR-FREE STONE PROTECTION SQ. YDS.	SHEET TYPE WATER-PROOFING MEMBRANE SQ. YDS.	REMOVE EXIST. STRUCT. LUMP SUM	SHEAR CONN. LUMP SUM (2)	BITUMINOUS CONCRETE SURFACE MIXTURE TONS	SUBDRAINAGE FOR WEARING COURSE EACH
TITLE & QUANTITIES	1																
NOTES	2																
PLAN LAYOUT	3																
ELEVATION LAYOUT	4																
SOUNDINGS	5																
PILE RECORD	6	112.6															
END BENT 1 & 2	7,12	111.4	166.0	28,488		780		230		4982	4982	3850					
END BENT DETAILS	8,12		408.7														
PIER 1	9,12		337.0		25557	170				1358	1358						
PIER 2	10,12		283.7		26723	170				405	1405						
SUPERSTRUCTURE	11-17	1008.1	395.5		(1)				779.0				2850	(3)	(2)	190	114
CONSTRUCTION ELEVATIONS	18/19	1039.8		168,004													
SUB TOTAL SUBSTRUCTURE		112.6 / 111.4		155248		1120		230		7745	7745	3850					
SUB TOTAL SUPERSTRUCTURE	1039.8	1008.1	971.0						779.0				2850	(3)	(2)	190	114
TOTAL		1119.5	971.0		(1)	1120		230	779.0	7745	7745	3850	2850	(3)	(2)	190	114
		1152.4		423,252		268,004											

SHEET 1A OF 19

BILL OF INCIDENTAL MATERIAL

ITEM	UNIT	SIZE	LOCATION
Joint Sealing Compound	4	[illegible]	[illegible]
Bolt Insert Assembly	4	[illegible]	[illegible]
Preformed Joint Seal	1	[illegible]	[illegible]

(1) Approximate Weight of Structural Steel is 1,652,677 (1,059,057) Lbs.
(2) Approximate Weight of Shear Connectors:
Option 1: [illegible] Lbs.
Option 2 4,887 Lbs.

(3) See General Notes

The Standard Drawings listed below are the current edition and are to be used with these plans.

STANDARD DRAWINGS

BJE-001-01, BGX-006, BJJ-003, BHA-009-01, BHA-010-01, BHC-001, BHC-002, RBC 001-01, BPS-003, SF-2B

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00
APD 537(32)
P.E. PROJECT NO. AP 45 2101
CONSTRUCTION PROJECT NO. 4PD-537(67)
MAINTENANCE PROJECT NO.
DRAWING NO. 18501

BRIDGE

updated June '79
LETTING DATE

PLANS PREPARED BY:
ENG. & ARCH. SERVICES DIV.
CONTROL DATA CORPORATION

REVISED Changed 5/16 to 3/8 web & struct steel wt. — JAL DATE Jun '79
REVISED [illegible] reinforcement quantities — J.I.R DATE 2-5-7[illegible]

DESIGNED BY BTM — CHECKED BY DMD — DATE 4/70
DRAWN BY BTM — CHECKED BY BMP — DATE 4/70

DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

GREENUP COUNTY
ASHLAND-GREENUP-SO.PORTSMOUTH (U.S.23)
OVER TYGARTS CREEK

REFERENCE AND ESTIMATE OF QUANTITIES

ITEM / LOCATION	SHEET NO.	CONCRETE CU. YDS. CLASS "AA"	CONCRETE CU. YDS. CLASS "A"	REINF. STEEL LBS.	STRUCT STEEL LUMP SUM ①	STRUCTURE EXCAVATION CU YDS. COMMON	STRUCTURE EXCAVATION CU YDS. ROCK	END BENT BACK-FILL CU. YDS.	HIGH STRENGTH HAND RAIL LIN. FT.	PILING HP12x53 LIN FT FURN	PILING HP12x53 LIN FT DRIVE	DRY CYCLOPEAN STONE SLOPE PROTECTION SQ. YDS.	LINSEED OIL PROTEC COATING SQ. YDS.	REMOVE EXIST. STRUCTURE Lump Sum	SHEAR CONN LUMP SUM ②
TITLE & QUANTITIES	1														
NOTES	2														
PLAN LAYOUT	3														
ELEVATION LAYOUT	4														
SOUNDINGS	5														
PILE RECORD	6														
END BENT 1 & 2	7.12	111.4	166.8	28,488		780		230		4982	4982	3850			
END BENT DETAILS	8.12														
PIER 1	9.12		397.0	(61176)–65057		170				1358	1358				
PIER 2	10.12		383.7	(60822)–61703		170				1405	1405				
SUPERSTRUCTURE	11-17	1008.1		265158	①				779.0				3461	③	②
CONSTRUCTION ELEVATIONS	18,19														
				155248											
SUB TOTAL SUBSTRUCTURE		111.4	947.5	[illegible]		1120		230		7745	7745	3850			
SUB TOTAL SUPERSTRUCTURE		1002.1		265158	①				779.0				3461	③	②
TOTAL		1113.5	947.5	[illegible] 420,406	①	1120		230	779.0	7745	7745	3850	3461	③	②

SPECIAL PROVISIONS

No. 8B, Linseed Oil Protective Coating.
No. 12, Joint Sealing Compound.
No. 30 B, Membrame Curing of Concrete Structures.
No. 35-B, Class "AA" Concrete.
No. 36-A, Set-Retarding Admixtures for Concrete
No. 79, Concrete Bridge Deck Finishing Machine.
No. 80B, Blast Cleaning and Painting Structural Steel.
No. 99A, Concrete Surface Finish
No. 101, Welding Steel Bridges
No. 102, Coarse Aggregates
No. 104, Sampling & Testing of Steel Reinf. Bars

BILL OF INCIDENTAL MATERIAL

ITEM	UNIT	SIZE	LOCATION
Joint Sealing Compound	4	1" x 3" x 44'-0"	Expansion Dams
Bolt Insert Assembly	4	See Std RBC-001, Current Edition	End Bent Wings
Preformed Joint Seal	1	1 3/8" x 2" x 351'-0"	Slab At ℄ Bridge, Long.

① Approximate Weight of Structural Steel is 1,052,677 Lbs.
② Approximate Weight of Shear Connectors:
Option 1: 3,339 Lbs.
Option 2: 4,887 Lbs.
③ See General Notes

The Standard Drawings listed below are the current edition and are to be used with these plans.

STANDARD DRAWINGS

BJE-001-01, BGX-006, BJJ-003, BHA-009-01, BHA-010-01, BHC-001, BHC-002, RBC-001-01, BPS-003, SF-28

SHEET 1 OF 19

ASHLAND-GREENUP-SO. PORTSMOUTH (US 23) OVER TYGARTS CREEK

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD APD-537(32)
STATION [illegible]+35.00 P.E. PROJECT NO. AP 45-21(11)
CONSTRUCTION PROJECT NO. APD-537(67) | MAINTENANCE PROJECT NO. | DRAWING NO. 18501

BRIDGE

Updated June '73
LETTING DATE

PLANS PREPARED BY:
ENG. & ARCH. SERVICES DIV.
CONTROL DATA CORPORATION

DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

VOID THIS SHEET
REPLACE WITH SHEET 1A

GREENUP COUNTY

ASHLAND-GREENUP-SO. PORTSMOUTH (U.S. 23)

OVER TYGARTS CREEK

REFERENCE AND ESTIMATE OF QUANTITIES

ITEM / LOCATION	SHEET NO.	CONCRETE CU. YDS. CLASS "AA"	CONCRETE CU. YDS. CLASS "A"	REINF. STEEL LBS.	STRUCT. STEEL LUMP SUM (1)	STRUCTURE EXCAVATION CU. YDS. COMMON	STRUCTURE EXCAVATION CU. YDS. ROCK	END BENT BACK-FILL CU. YDS.	HIGH STRENGTH HAND RAIL LIN. FT.	PILING HP12x53 LIN. FT. FURN.	PILING HP12x53 LIN. FT. DRIVE	DRY CYCLOPEAN STONE SLOPE PROTECTION SQ. YDS.	LINSEED OIL PROTEC. COATING SQ. YDS.	REMOVE EXIST. STRUCTURE Lump Sum	SHEAR CONN. LUMP SUM (2)
TITLE & QUANTITIES	1														
NOTES	2														
PLAN LAYOUT	3														
ELEVATION LAYOUT	4														
SOUNDINGS	5														
PILE RECORD	6														
END BENT 1 & 2	7.12	[illegible]	166.8	28483		780		230		4982	4982	3850			
END BENT DETAILS	8.12														
PIER 1	9.12		1397.0	[illegible]	65057	170				1358	1358				
PIER 2	10.12		1383.7	[illegible]	61703	170				1405	1405				
SUPERSTRUCTURE	11-17	1009.1		[illegible]	(1)				779.0				3461	(3)	(2)
CONSTRUCTION ELEVATIONS	18,19			268,004											
				155248											
SUB TOTAL SUBSTRUCTURE		[illegible]	947.5	[illegible]		1120		230		7745	7745	3850			
SUB TOTAL SUPERSTRUCTURE		[illegible]		[illegible]	(1)				779.0				3461	(3)	(2)
TOTAL		[illegible]	947.5	[illegible]	(1)	1120		230	779.0	7745	7745	3850	3461	(3)	(2)

420,406
423,252
268,004

BILL OF INCIDENTAL MATERIAL

ITEM	UNIT	SIZE	LOCATION
Joint Sealing Compound	4	1" × 3" × 44'-0"	Expansion Dams
Bolt Insert Assembly	4	See Std. RBC-001, Current Edition	End Bent Wings
Preformed Joint Seal	1	1¾ × 2" × 351'-0"	Deck At & Bridge, Long

(1) Approximate Weight of Structural Steel is 1,052,677 Lbs.
(2) Approximate Weight of Shear Connectors:
Option 1: 3,339 Lbs.
Option 2: 4,887 Lbs.
(3) See General Notes

The Standard Drawings listed below are the current edition and are to be used with these plans.

STANDARD DRAWINGS

BJE-001-01, BGX-006, BJJ-003, BHA-009-01, BHA-010-01, BHC-001, BHC-002, RBC-001-01, BPS-003, SF-28

SPECIAL PROVISIONS

No. 8B, Linseed Oil Protective Coating.
No. 12, Joint Sealing Compound.
No. 30 B, Membrane Curing of Concrete Structures.
No. 35-B, Class "AA" Concrete.
No. 36-A, Set Retarding Admixtures for Concrete
No. 79, Concrete Bridge Deck Finishing Machine.
No. 80B, Blast Cleaning and Painting Structural Steel.
No. 99A, Concrete Surface Finish
No. 101, Welding Steel Bridges
No. 102, Coarse Aggregates
No. 104, Sampling & Testing of Steel Reinf. Bars

Void this sheet
Replace with sheet 1A

SHEET 1 OF 19

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD APD-537(32)
STATION [illegible] P.E. PROJECT NO. AP 45-211-11

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
APD-537(67)		18501

BRIDGE

Updated June '75
LETTING DATE

DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

GREENUP COUNTY

ASHLAND-GREENUP-SO. PORTSMOUTH (U.S. 23)

OVER TYGARTS CREEK

REFERENCE AND ESTIMATE OF QUANTITIES															
ITEM / LOCATION	SHEET NO.	CONCRETE CU. YDS. CLASS "AA"	CONCRETE CU. YDS. CLASS "A"	REINF. STEEL LBS.	STRUCT STEEL LUMP SUM ①	STRUCTURE EXCAVATION CU. YDS. COMMON	STRUCTURE EXCAVATION CU. YDS. ROCK	END BENT BACK-FILL CU. YDS.	HIGH STRENGTH HAND RAIL LIN. FT.	PILING HP12x53 LIN FT FURN	PILING HP12x53 LIN FT DRIVE	DRY CYCLOPEAN STONE SLOPE PROTECTION SQ. YDS.	LINSEED OIL PROTEC. COATING SQ. YDS.	REMOVE EXIST. STRUCTURE Lump Sum.	SHEAR CONN LUMP SUM ②
TITLE & QUANTITIES	1														
NOTES	2														
PLAN LAYOUT	3														
ELEVATION LAYOUT	4														
SOUNDINGS	5														
PILE RECORD	6														
END BENT 1 & 2	7.12	111.4	166.8	28482		780		230		4982	4982	3850			
END BENT DETAILS	8.12														
PIER 1	9.12		397.0	11176	65057	170				358	358				
PIER 2	10.12		383.7	69822	61703	170				405	405				
SUPERSTRUCTURE	11-17	1002.1		[illegible]	①				779.0				3461	③	②
CONSTRUCTION ELEVATIONS	18,19			268,004											
				155248											
SUB TOTAL SUBSTRUCTURE		111.4	947.5	[illegible]		1120		230		7745	7745	3850			
SUB TOTAL SUPERSTRUCTURE		1002.1		[illegible]	①				779.0				3461	③	②
TOTAL		1113.5	947.5	[illegible]	①	1120		230	779.0	7745	7745	3850	3461	③	②

420,406 — 268,004
423,252

BILL OF INCIDENTAL MATERIAL			
ITEM	UNIT	SIZE	LOCATION
Joint Sealing Compound	4	1" × 3" × 44'-0"	Expansion Dams
Bolt Insert Assembly	4	See Std. RBC-001, Current Edition	End Bent Wings
Preformed Joint Seal	1	1¾ × 2" × 351'-0"	Stab Mt & Bridge, Long.

① Approximate Weight of Structural Steel is 1,052,677 Lbs.
② Approximate Weight of Shear Connectors:
Option 1: 3,339 Lbs.
Option 2: 4,887 Lbs.

③ See General Notes

The Standard Drawings listed below are the current edition and are to be used with these plans.

STANDARD DRAWINGS

BJE-001-01, BGX-006, BJJ-003, BHA-009-01, BHA-010-01, BHC-001, BHC-002, RBC-001-01, BPS-003, SF-2B

SPECIAL PROVISIONS

No. 8B, Linseed Oil Protective Coating.
No. 12, Joint Sealing Compound.
No. 30 B, Membrame Curing of Concrete Structures.
No. 35-B, Class "AA" Concrete.
No. 36-A, Set-Retarding Admixtures for Concrete
No. 79, Concrete Bridge Deck Finishing Machine.
No. 80B Blast Cleaning and Painting Structural Steel.
No. 99A, Concrete Surface Finish
No. 101, Welding Steel Bridges
No. 102, Coarse Aggregates
No. 104, Sampling & Testing of Steel Reinf. Bars

SHEET 1 OF 19

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD APD-537(32)
STATION 70+75.00 P.E. PROJECT NO. AP 45-211-111

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
APD-537(67)		18501

BRIDGE

PLANS PREPARED BY: ENG. & ARCH. SERVICES DIV. CONTROL DATA CORPORATION

Updated June '73
LETTING DATE

PLANS PREPARED BY:
ENG. & ARCH. SERVICES DIV.
CONTROL DATA CORPORATION

DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

GREENUP COUNTY

ASHLAND-GREENUP-SO. PORTSMOUTH (U.S. 23)

OVER TYGARTS CREEK

REFERENCE AND ESTIMATE OF QUANTITIES

ITEM / LOCATION	SHEET NO.	CONCRETE CU. YDS. CLASS "AA"	CONCRETE CU. YDS. CLASS "A"	REINF. STEEL LBS.	STRUCT. STEEL LUMP SUM (1)	STRUCTURE EXCAVATION CU. YDS. COMMON	STRUCTURE EXCAVATION CU. YDS. ROCK	END BENT BACK-FILL CU. YDS.	HIGH STRENGTH HAND RAIL LIN. FT.	PILING HP12x53 LIN. FT. FURN	PILING HP12x53 LIN. FT. DRIVE	DRY CYCLOPEAN STONE SLOPE PROTECTION SQ. YDS.	LINSEED OIL PROTEC. COATING SQ. YDS.	REMOVE EXIST. STRUCTURE Lump Sum.	SHEAR CONN. LUMP SUM (2)
TITLE & QUANTITIES	1														
NOTES	2														
PLAN LAYOUT	3														
ELEVATION LAYOUT	4														
SOUNDINGS	5														
PILE RECORD	6														
END BENT 1 & 2	7.12	111.4	166.8	28,48[illegible]		780		230		4982	4982	3850			
END BENT DETAILS	8.12														
PIER 1	9.12		397.0	64,176		170				1358	1358				
PIER 2	10.12		383.7	60822		170				405	405				
SUPERSTRUCTURE	11-17	100[illegible].1		265,158	(1)				779.0				3461	(3)	(2)
CONSTRUCTION ELEVATIONS	18,19														
SUB TOTAL SUBSTRUCTURE		111.4	947.5	153,4[illegible]		1120		230		7745	7745	3850			
SUB TOTAL SUPERSTRUCTURE		100[illegible].1		265,158	(1)				779.0				3461	(3)	(2)
TOTAL		111.[illegible]	947.5	418,6[illegible]	(1)	1120		230	779.0	7745	7745	3850	3461	(3)	(2)

SPECIAL PROVISIONS

No. 8B, Linseed Oil Protective Coating.
No. 12, Joint Sealing Compound.
No. 30 B, Membrane Curing of Concrete Structures.
No. 35-B, Class "AA" Concrete.
No. 36-A, Set-Retarding Admixtures for Concrete
No. 79, Concrete Bridge Deck Finishing Machine.
No. 80B, Blast Cleaning and Painting Structural Steel.
No. 99A, Concrete Surface Finish
No. 101, Welding Steel Bridges
No. 102, Coarse Aggregates
No. 104, Sampling & Testing of Steel Reinf. Bars

SHEET 1 OF 19

BILL OF INCIDENTAL MATERIAL

ITEM	UNIT	SIZE	LOCATION
Joint Sealing Compound	4	1" × 3" × 44'-0"	Expansion Dams
Bolt Insert Assembly	4	See Std RBC-001, Current Edition	End Bent Wings
Preformed Joint Seal	1	1¾" × 2" × 351'-0"	Slab At & Bridge, Long.

(1) Approximate Weight of Structural Steel is 1,052,677 Lbs.
(2) Approximate Weight of Shear Connectors:
Option 1: 3,339 Lbs.
Option 2: 4,887 Lbs.

(3) See General Notes

The Standard Drawings listed below are the current edition and are to be used with these plans.

STANDARD DRAWINGS

BJE-001-01, BGX-006, BJJ-003, BHA-009-01, BHA-010-01, BHC-001, BHC-002, RBC-001-01, BPS-003, SF-2B

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD APD-537(32)
STATION 230+35.00 P.E. PROJECT NO. AP 45-211-111

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
APD-537(67)		18501

BRIDGE

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

GENERAL NOTES

All references to the former Department of Highways and any of its divisions or agents which are mentioned in the plans, specifications, special provisions, special notes, etc, shall apply to the current Kentucky Department of Transportation, Bureau of Highways, and any of its divisions or agents.

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

DESIGN LOAD ~ This bridge is designed for HS20-44 live load as specified in 1969 AASHO Specifications or alternate loading of two 24-Kip axles spaced four feet apart, whichever produces the greater stress. This Bridge is designed for a wind load based on a wind velocity of 84 m.p.h.

DESIGN STRESSES ~ For reinforced concrete class "A" fs = 20,000 psi, fc = 1,200 psi, fc' = 3,000 psi, u = 200 psi for embedment, u = 300 psi for Eo, n = 10 for reinforced concrete class "AA" fs = 20,000 psi, fc = 1,600 psi for other than slabs fc = 1200 psi for deck slabs, fc' = 4,000 psi, u = 200 psi for embedment, u = 300 psi to Eo, n = 8. For Structural Steel fs = 20,000 (A-36)

FOUNDATION PRESSURE ~ Piles are designed for a maximum axial load of 68.5 tons per pile and a maximum horizontal shear of 1.08 tons per pile.

CONCRETE ~ Class "AA" concrete is to be used throughout the superstructure, except in the concrete handrail, and is to be used in the portion of the substructure above the bearing seats. Class "A" concrete is to be used in the substructure below the bearing seats. Class "D" concrete is to be used in the concrete handrail.

REINFORCEMENT ~ Dimensions shown from the face of concrete to bars are clear distances unless otherwise shown. Spacing of bars is from center to center of bars.

BEVELED EDGES ~ All Exposed edges shall be beveled 7/8" unless otherwise shown.

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.

PAYMENT FOR STRUCTURAL STEEL ~ The Lump Sum Bid for Structural Steel shall be full payment for all Structural Steel, bolts, washers, steel pins, cast iron, lead plates, molten lead, welding and welding materials, paint and all labor and materials necessary to erect the steel in accordance with the Plans and Specifications. The approximate weight of structural steel shown in the Estimate of Quantities does not include overrun or weld material.

PILING ~ Piling shall be driven to refusal or to solid rock. Test piles shall be driven where designated on the plans to determine the length of pile required. All test piles shall be accurately located so that they may be used in the finished structure.

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

TYPES OF PILES ~ The contractor shall use Standard 12" Structural Steel Bearing Piles at 53 lbs See Standard Drawing, BP-003, current edition.

PAYMENT FOR SHEAR CONNECTORS ~ The "Lump Sum Bid" for shear connectors shall be full payment for all shear connectors, welding and welding material and materials necessary to field weld or shop weld the shear connectors in place according to the plans and specifications.

OPTIONAL TYPES OF SHEAR CONNECTORS ~ The contractor shall use one of the following options throughout this structure:

OPTION 1 - 3/4" - 4" studs
OPTION 2 - 4" Channel @ 5.4#

WELDING ~ All welding and welding materials shall conform to Special Provision #101.

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

TEMPORARY SUPPORTS ~ Temporary Supports or shoring will not be permitted under the girders when pouring the concrete floor slab or when taking "Top of Steel" elevations.

STUD WELDING ~ Studs shall be welded with approved welding equipment.

VOID ~ LINSEED OIL PROTECTIVE COATING ~ Linseed Oil Protective Coating shall be applied in accordance with the special provision.

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

MATERIALS - ASTM Specifications, current edition, as designated below shall govern the materials furnished

MATERIALS	ASTM DESIGNATION
Structural Steel, 36,000 psi Minimum Yield	A 36 - 70a
High Strength Bolts, Nuts & Plain Hardened Washers	A325 - 70a
Stud Shear Connectors, Grade 1015	A108 - 69 Grade 1015
Sheet Lead	B 29-55 (1966)
Mild Steel Covered Arc-Welding Electrodes	AWS Specification A5-69.

CAMBER ~ Web plates shall be cut to provide for the camber of the girder. Provide for possible warpage due to extra heat in top flange by virtue of shear connectors. Girders which do not conform to plan camber and grade in the erected position shall be considered as requiring, at no additional cost to the state, either an adjustment in depth of the concrete slab haunch over the steel supporting members or a reworking of the girder camber to meet the plan grade and slab thickness. However, in no case shall the shear connectors be allowed to penetrate the slab less than two inches.

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

EXISTING STRUCTURE ~ Traffic is to be maintained over the existing bridge until such time that the bridge can be opened to traffic.

REMOVE EXISTING STEEL STRUCTURE ~ The existing bridge shall be removed after the new structure is opened to traffic, in accordance with Sect 502 of the spec except that matchmarking is not required. Steel floor beam and stringers shall be removed with care. The remainder of the steel members may be removed in any manner the contractor desires but shall be cut into lengths which can be readily transported. All steel then shall be carefully stockpiled at an accessible location above high water.

DIMENSIONS ~ Dimensions are for a normal temperature of 60 degrees Fahrenheit. Layout dimensions are horizontal measurements.

SHOP ASSEMBLY ~ General reaming of holes for each bolted splice shall be required with all parts for each splice completely shop assembled with parts adjusted to line elevation and camber, fit for drilling or reaming. This applies to field splices in girders only. Girder shall remain assembled for inspection by Department of Highways Inspector and are to be matched marked while assembled. Other field connections shall be drilled or reamed in the shop with connecting parts assembled, or shall be drilled or reamed to a metal template without assembly.

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 Drawings BHA-009, BHA-010, current editions, or High Strength Concrete Handrail Standard Drawings BHC-001, BHC-002, current editions.

PROHIBITED FIELD WELDING ~ Except as shown on the plans, no welding of any nature shall be performed on the load carrying members of the bridge without the written consent of the Director, Division of Bridges, or his authorized representative, and then only in the manner and at the locations designated in the authorization.

SHEET 2

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

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

SHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00 PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 19501

BRIDGE

UPDATE DATE
LETTING DATE

GENERAL NOTE

SURFACE FINISH OF CONCRETE DECK: The deck of this structure is to receive a Bituminous Concrete overlay, therefore the burlap drag finish specified by Article 411.3.3-H5 of the Standard Specifications of Road and Bridge Construction, 1965 Edition, is eliminated, nor will any surface texturing beyond 10-ft. straightedge (Article 411.3.3-H4) be permitted.

The Contractor is cautioned that the proposed deck overlays are very sensitive to oils, grease, paints, waxes and similar substances and if for any reason these substances are deposited on the deck, he will be responsible for their complete removal which may include removal and replacement of the affected concrete to the depth the substances have penetrated. Any expense of this removal will be borne by the Contractor.

CURING OF CONCRETE IN THE BRIDGE DECK: The deck of this structure is to receive a Bituminous Concrete overlay, therefore, membrane curing as specified in Special Provision No. 30-B is not to be applied to the bridge deck. The concrete deck, including portions of the curbs must be cured in conformity with Article 403.3.7 of the Standard Specifications for Road and Bridge Construction, 1965 Edition, with the following additional requirements.

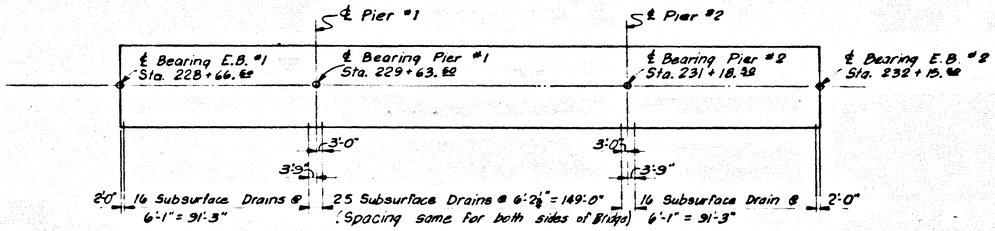
1. No curing compound, Styrene Butadiene, linseed oil, masonry coating, form oil or similar substances will be permitted on the Class "AA" Concrete deck surface nor for 6" vertically above the Class "AA" Concrete gutter line of the interior faces of Curbs.

2. As soon after final finish of the concrete as possible one thickness of pre-wetted burlap must be applied and kept moist by a fog spray application of water. This one thickness of burlap must be followed, as soon as is possible, without damaging the surface of the concrete, with an additional layer of wet burlap, cotton mats, etc., as required by Article 403.3.7.

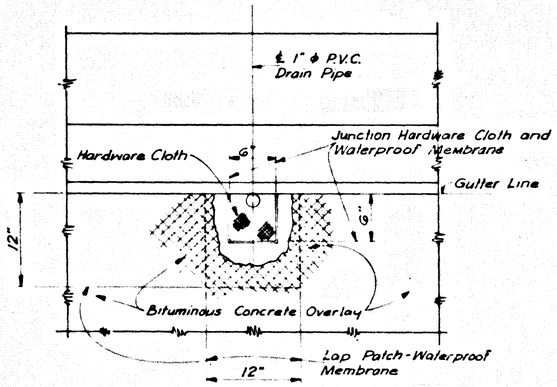
3. The required layer of burlap shall be pre-wetted by complete saturation with water except that it shall be squeezed free of excess water that will damage the concrete surface by dripping. The pre-wetted burlap must be applied from work bridges and walkways in a manner that will preclude workmen or tools damaging the fresh concrete surface. The pre-wetted burlap must be applied in a manner that will prevent it from being dragged, untangled, or unrolled on the fresh concrete surface and damaging it.

SHEET-TYPE WATERPROOF MEMBRANE: The sheet-type membrane for the waterproofing shall be Royston Bridge Membrane No. 10, Royston Laboratories, Inc..

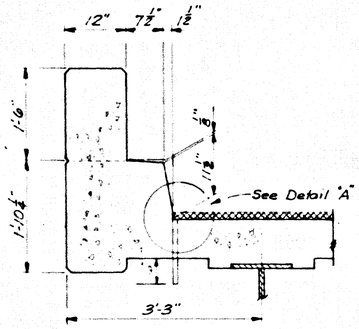
SUBDRAINAGE FOR WEARING COURSE: The price bid for each drain shall include the 1"φ PVC pipe and fittings, hardware cloth and all necessary labor to complete the item.



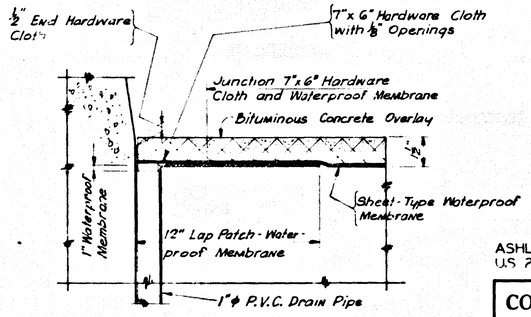
SUBSURFACE DRAINS SPACING



PLAN VIEW-SUBSURFACE DRAINS



ELEVATION



DETAIL "A"

GENERAL NOTE AND SUBSURFACE DRAIN DETAILS

SHEET 2A

ASHLAND-GREENUP-SOUTH PORTSMOUTH
U.S. 23 OVER TYGARTS CREEK.

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

ASHLAND-GREENUP-SOUTH PORTSMOUTH (U.S. 23)
ROAD
STATION 230+35.00
P.E. PROJECT NO.

CONSTRUCTION PROJECT NO	MAINTENANCE PROJECT NO	DRAWING NO
		18501

BRIDGE

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

GENERAL NOTES

All references to the Kentucky Department of Highways and any of its divisions or agents which are mentioned in the plans, specifications, special provisions, special notes, etc, shall apply to the current Kentucky Department of Transportation, Bureau of Highways, and any of its divisions or agents.

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

DESIGN LOAD ~ This bridge is designed for HS20-44 live load as specified in 1969 AASHO Specifications or alternate loading of two 24-Kip axles spaced four feet apart, whichever produces the greater stress. This Bridge is designed for a wind load based on a wind velocity of 84 mph.

DESIGN STRESSES ~ For reinforced concrete class "A" fs = 20,000 psi, fc = 1,200 psi, fc' = 3,000 psi, μ = 200 psi for embedment, μ = 300 psi for Eo, n = 10. For reinforced concrete class "AA" fs = 20,000 psi, fc = 1,600 psi for other than slabs, fc = 1,900 psi for deck slabs, fc' = 4,000 psi, μ = 200 psi for embedment, μ = 300 psi fo Eo, n = 8. For Structural Steel fs = 20,000 (A-36)

FOUNDATION PRESSURE - Piles are designed for a maximum axial load of 68.6 tons per pile and a maximum horizontal shear of 1.08 tons per pile.

CONCRETE ~ Class "AA" concrete is to be used throughout the superstructure, except in the concrete handrail, and is to be used in the portion of the substructure above the bearing seats. Class "A" concrete is to be used in the substructure below the bearing seats. Class "D" concrete is to be used in the concrete handrail.

REINFORCEMENT ~ Dimensions shown from the face of concrete to bars are clear distances unless otherwise shown. Spacing of bars is from center to center of bars.

BEVELED EDGES ~ All Exposed edges shall be beveled 1/8" unless otherwise shown.

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.

PAYMENT FOR STRUCTURAL STEEL ~ The Lump Sum Bid for Structural Steel shall be full payment for all Structural Steel, bolts, washers, steel pins, cast iron, lead plates, molten lead, welding and welding materials, paint and all labor and materials necessary to erect the steel in accordance with the Plans and Specifications. The approximate weight of structural steel shown in the Estimate of Quantities does not include overrun or weld material.

PILING ~ Piling shall be driven to refusal or to solid rock. Test piles shall be driven where designated on the plans to determine the length of pile required. All test piles shall be accurately located so that they may be used in the finished structure.

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

TYPES OF PILES ~ The contractor shall use Standard 12" Structural Steel Bearing Piles at 53 lbs See Standard Drawing, BRS-003, current edition.

PAYMENT FOR SHEAR CONNECTORS ~ The "Lump Sum Bid" for shear connectors, shall be full payment for all shear connectors, welding and welding material and materials necessary to field weld or shop weld the shear connectors in place according to the plans and specifications.

OPTIONAL TYPES OF SHEAR CONNECTORS ~ The contractor shall use one of the following options throughout this structure:

OPTION 1 - 3/4" x 4" studs
OPTION 2 - 4" Channel @ 5.4#

WELDING ~ All welding and welding materials shall conform to Special Provision #101.

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

TEMPORARY SUPPORTS ~ Temporary Supports or shoring will not be permitted under the girders when pouring the concrete floor slab or when taking "Top of Steel" elevations.

STUD WELDING ~ Studs shall be welded with approved welding equipment.

LINSEED OIL PROTECTIVE COATING ~ Linseed Oil Protective Coating shall be applied in accordance with the special provision.

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

MATERIALS - ASTM Specifications, current edition, as designated below shall govern the materials furnished

MATERIALS	ASTM DESIGNATION
Structural Steel, 36,000 psi Minimum Yield	A36 - 70a
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Stud Shear Connectors, Grade 1015	A108 - 69 Grade 1015
Sheet Lead	B29-55 (1966)
Mild Steel Covered Arc-Welding Electrodes	AWS Specification A5-69.

CAMBER ~ Web plates shall be cut to provide for the camber of the girder. Provide for possible warpage due to extra heat in top flange by virtue of shear connectors. Girders which do not conform to plan camber and grade in the erected position shall be considered as requiring, at no additional cost to the state, either an adjustment in depth of the concrete slab haunch over the steel supporting members or a reworking of the girder camber to meet the plan grade and slab thickness. However, in no case shall the shear connectors be allowed to penetrate the slab less than two inches.

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

EXISTING STRUCTURE ~ Traffic is to be maintained over the existing bridge until such time that the bridge can be opened to traff-

REMOVE EXISTING STEEL STRUCTURE ~ The existing bridge shall be removed after the new structure is opened to traffic, in accordance with Sec 502 of the spec except that matchmarking is not required. Steel floor beam and stringers shall be removed with care. The remainder of the steel members may be removed in any manner the contractor desires but shall be cut into lengths which can be readily transported. All steel then shall be carefully stockpiled at an accessible location above high water.

DIMENSIONS ~ Dimensions are for a normal temperature of 60 degrees Fahrenheit Layout dimensions are horizontal measurements.

SHOP ASSEMBLY ~ General reaming of holes for each bolted splice shall be required with all parts for each splice completely shop assembled with parts adjusted to line elevation and camber, fit for drilling or reaming. This applies to field splices in girders only. Girders shall remain assembled for inspection by Department of Highways Inspector and are to be matched-marked while assembled. Other field connections shall be drilled or reamed in the shop with connecting parts assembled, or shall be drilled or reamed to a metal template without assembly.

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 Drawings BHA-009, BHA-010, current editions, or High Strength Concrete Handrail Standard Drawings BHC-001, BHC-002, current editions.

PROHIBITED FIELD WELDING ~ Except as shown on the plans, no welding of any nature shall be performed on the load carrying members of the bridge without the written consent of the Director, Division of Bridges, or his authorized representative, and then only in the manner and at the locations designated in the authorization.

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

SHEET 2

ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23) OVER TOLLETTS CREEK

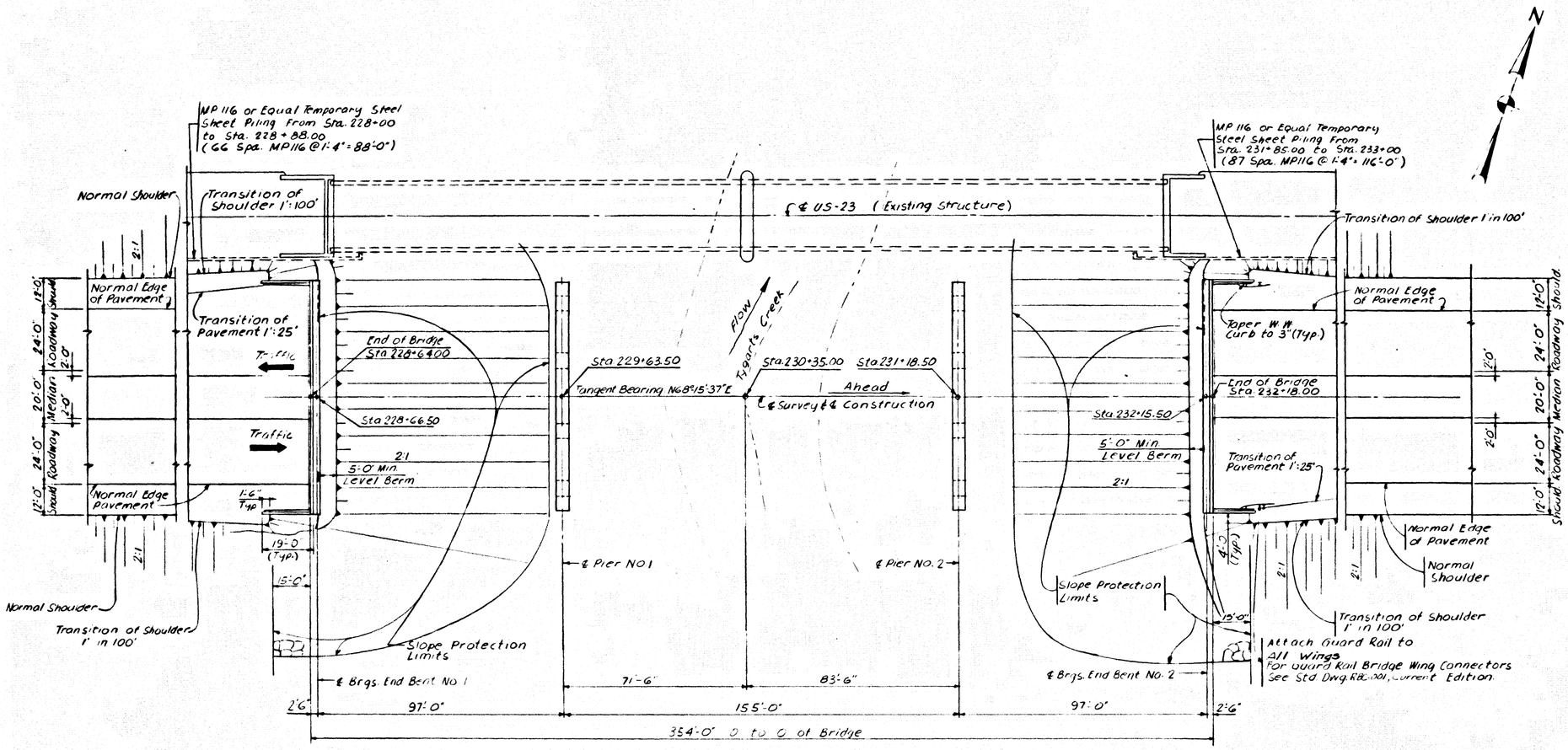
COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00 PROJECT NO.

BRIDGE NUMBER | DRAWING NO. 18501 | SHEET

BRIDGE

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



PLAN
(Deck Removed)

SHEET 3

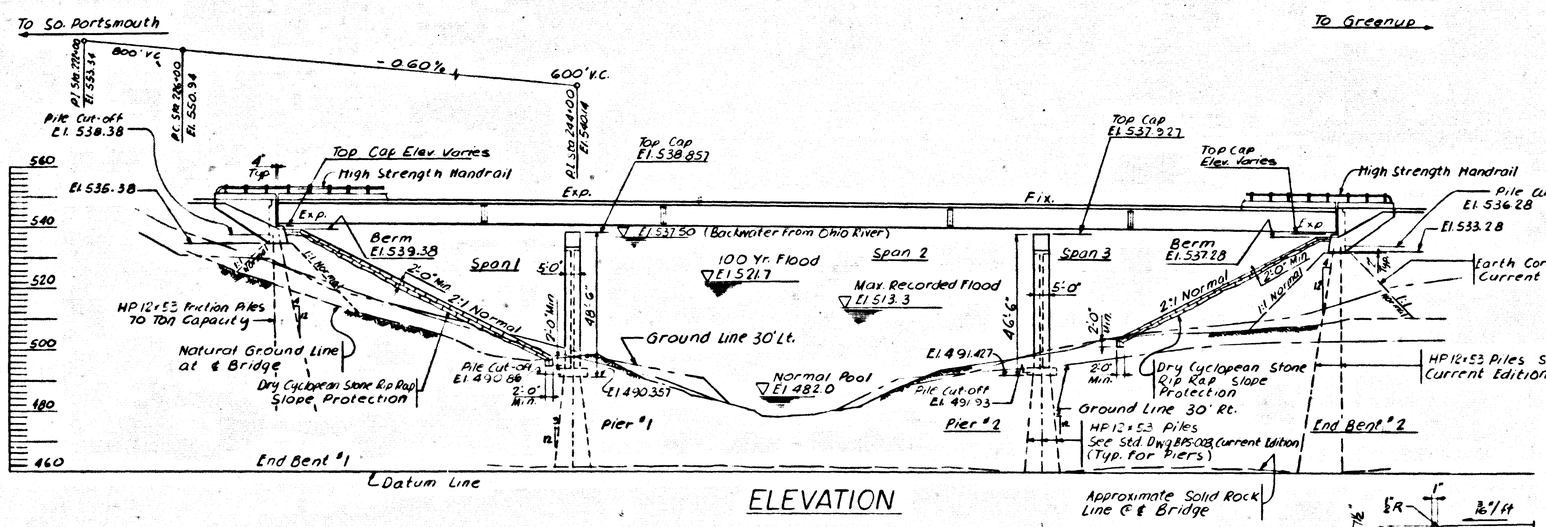
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23) OVER TYGARTS CREEK

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00 PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 16501

PLAN LAYOUT

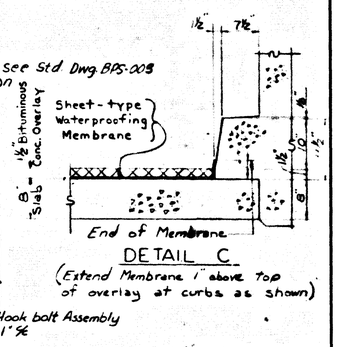
BRIDGE

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

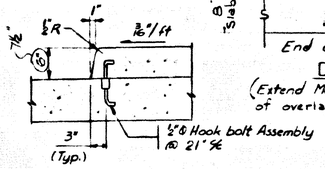


ELEVATION

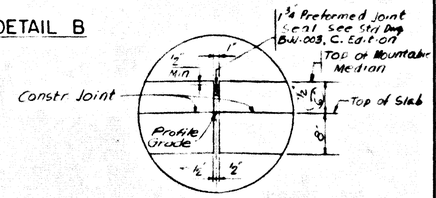
97'-0", 155'-0", 97'-0" Continuous Composite Welded Steel Plate Girder Span, HS20-44 A Loading, 88'-0" Roadway, Two 0'-9" Safety Curbs, 16'-0" Mountable Median 0°-00' Skew, 99'-6" Shoulder at Bridge, 2:1 Fill Slopes. 1½" Bituminous Concrete Overlay with Waterproof Membrane



DETAIL C
(Extend Membrane 1" above top of overlay at curbs as shown)

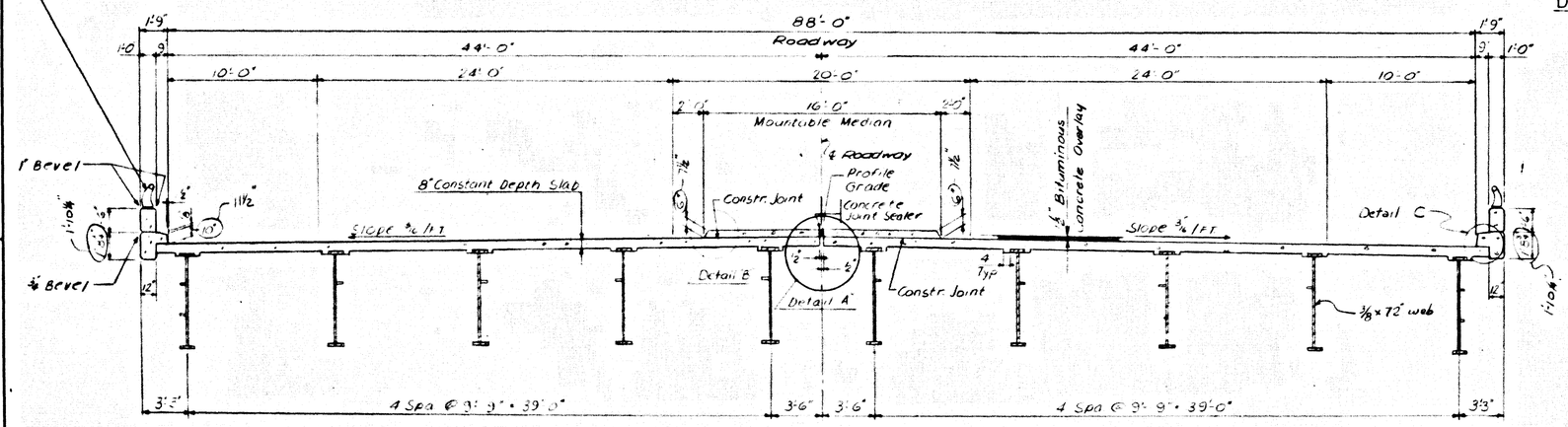


DETAIL B



DETAIL A

High Strength Aluminum Handrail see Std Dwg. BHA-009,010 C. Edition or High Strength Concrete Handrail See Std Dwg. BHC-001,002 Current Edition.



TYPICAL SECTION THRU DECK
(Looking Ahead)

ELEVATION LAYOUT

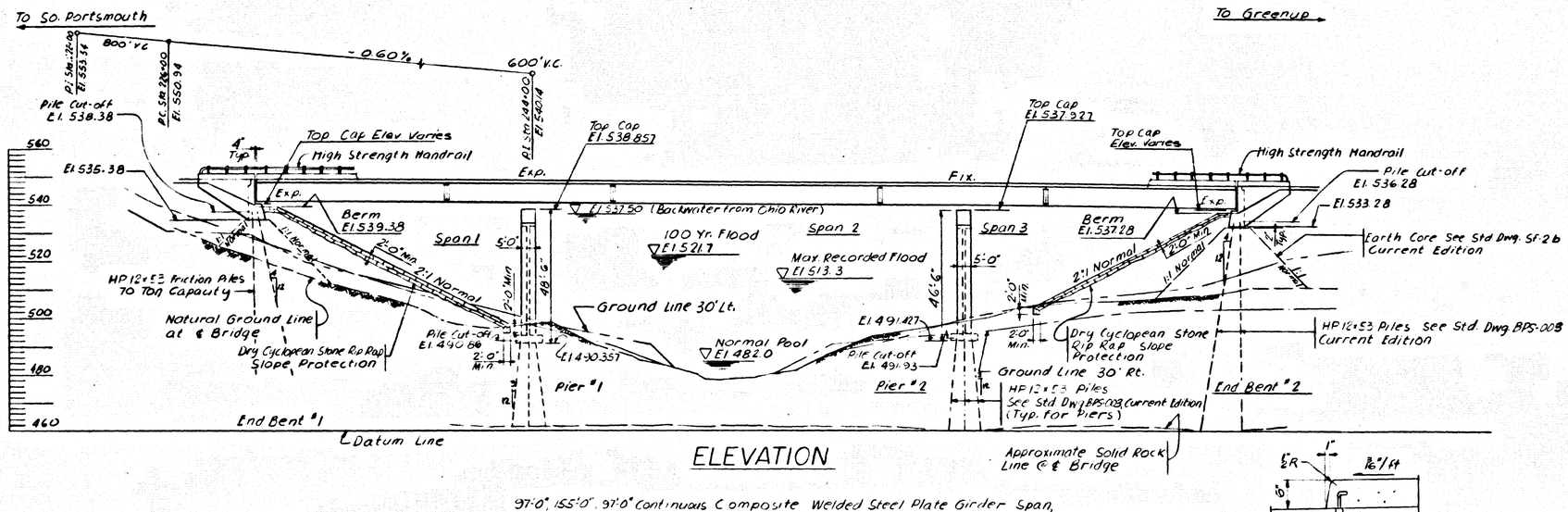
SHEET 4

ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 232+35.00 PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 8501

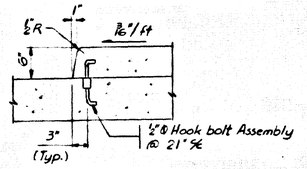
BRIDGE

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

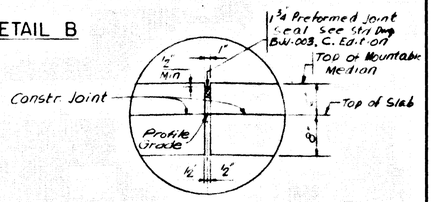


ELEVATION

97'-0", 155'-0", 97'-0" Continuous Composite Welded Steel Plate Girder Span, HS20-44 A Loading, 88'-0" Roadway, Two 0'-9" Safety Curbs, 16'-0" Mountable Median 0°-00' Skew, 9'9-6" Shoulder at Bridge, 2:1 Fill Slopes.

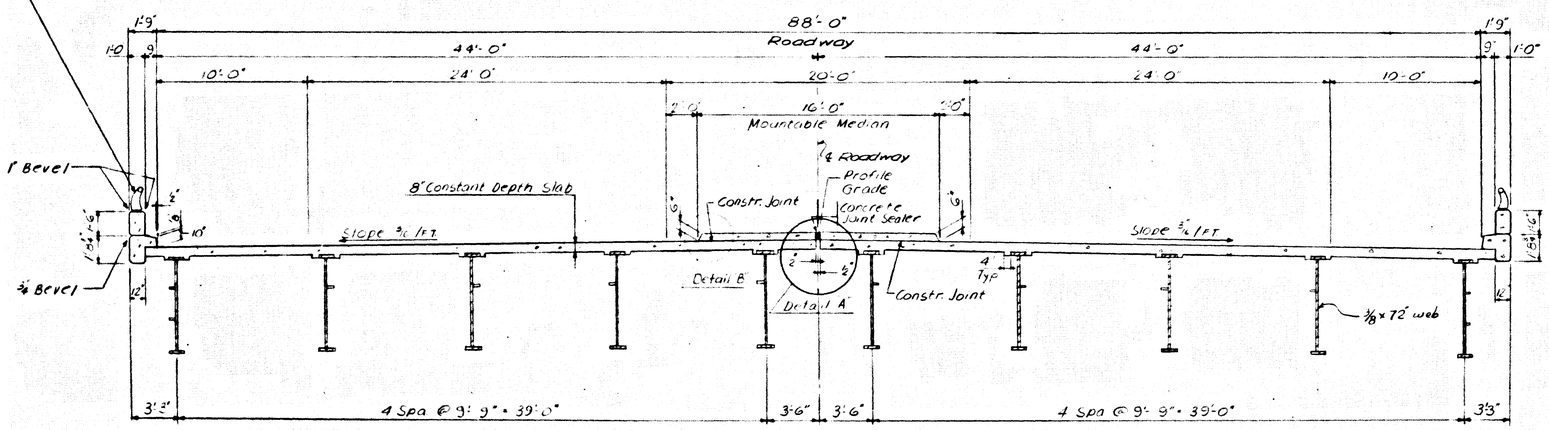


DETAIL B



DETAIL A

High Strength Aluminum Handrail See Std. Dwg. BHA-009, 010 C. Edition or High Strength Concrete Handrail See Std. Dwg. BHC-001, 002 Current Edition.



TYPICAL SECTION THRU DECK
(Looking Ahead)

ELEVATION LAYOUT

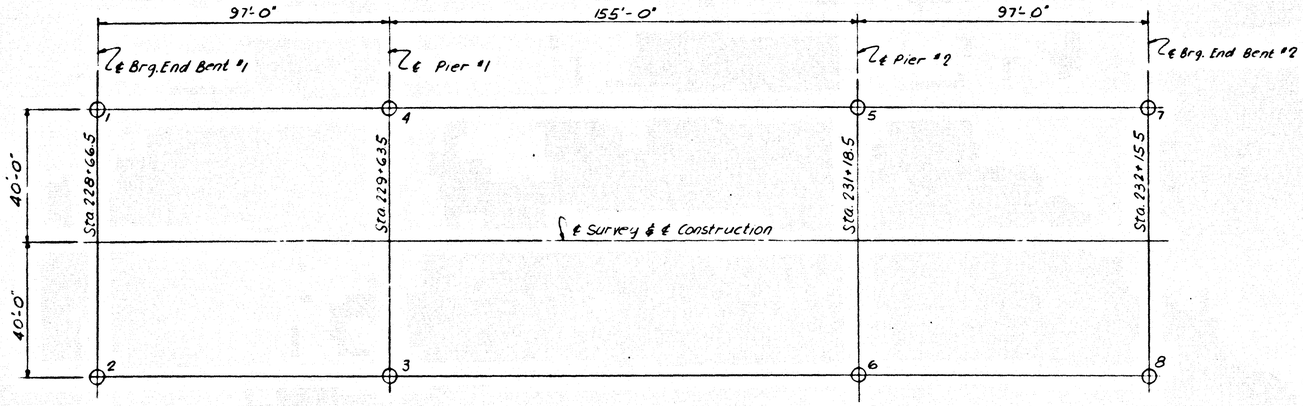
SHEET 4

ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23) OVER TUTTLE CREEK

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00 PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 18501

BRIDGE

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

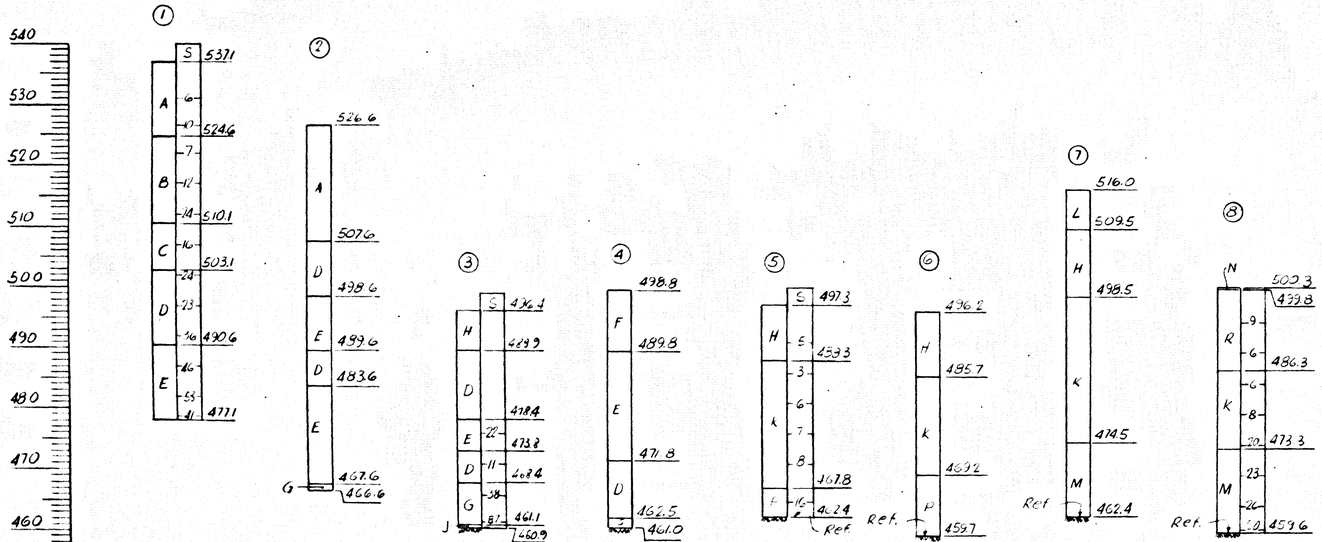


PLAN

Note:

Soundings marked thus ○ are auger holes to the surface of the rock, or 20'-0" min. into strata showing a standard split-spoon blow count of 20, or a min. penetration of 60".

Hole #1 was offset 8.0' due to water line.



SOUNDING ELEVATION

SOUNDINGS

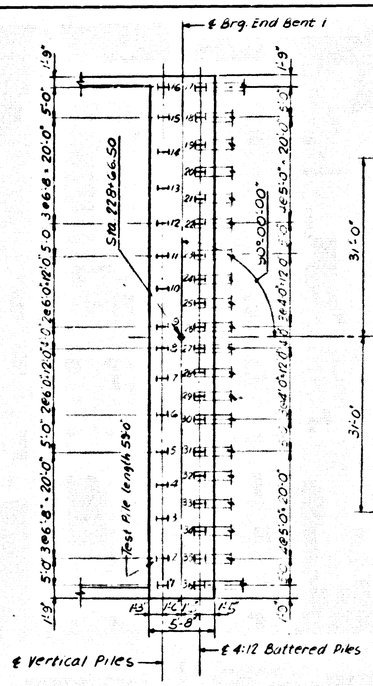
LEGEND

A- Medium Firm, Moist Brown Sandy Clay with Rock Fragments.
B- Damp Loose Brown Fine Grain Sand.
C- Brown Fine Grain Sand, Trace Clay.
D- Stiff and Damp Gray Silty Clay.
E- Medium Firm Moist Fine Gray Sand.
F- Medium Soft Brown Sandy Clay.
G- Firm Compacted Gray Sand and Gravel.
H- Moist Brown Sandy Clay.
J- Gray Shale
K- Firm and Moist Gray Sandy Clay.
L- Firm and Dry Mixed Fill Material
M- Gray Sand and Gravel with Coal Fragments.
N- Top Soil.
P- Firm and Moist Gray Sand and Gravel with Boulders.
R- Firm and Moist Brown and Gray Sandy Clay.

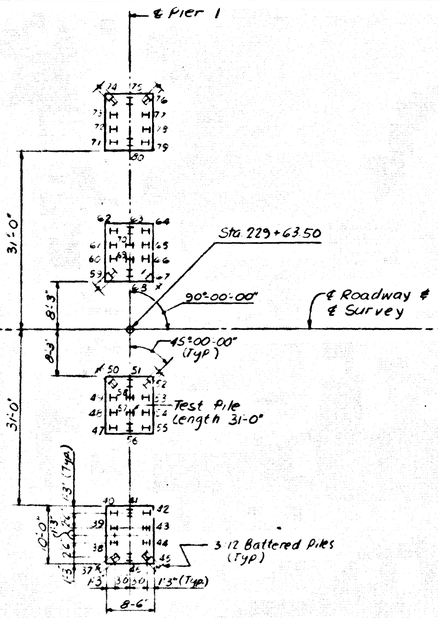
SHEET 5

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ROAD
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
STATION 230+35.00
PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 15501

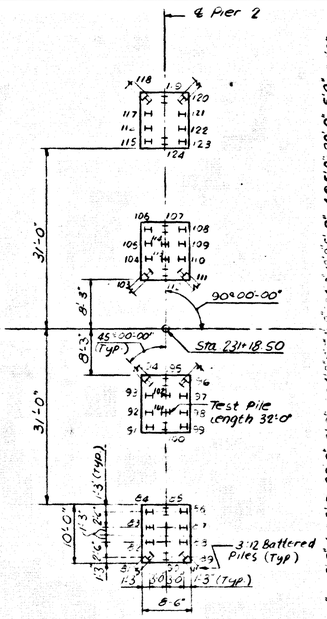
BRIDGE



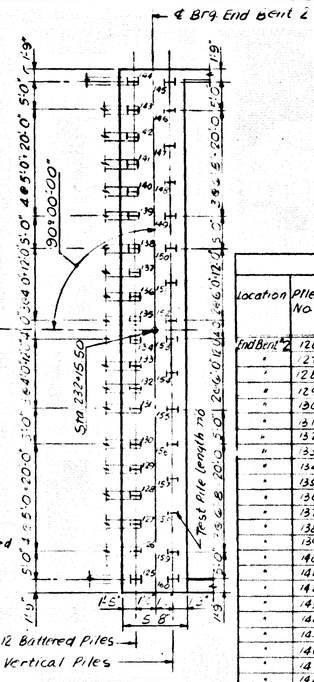
END BENT 1



PIER 1



PIER 2



END BENT 2

NOTES

This pile record does not replace the other records of piles required to be kept and submitted by the Resident Engineer.

After all piles have been driven, the Resident Engineer shall record for each pile the tip of pile elevation as driven, length of piles in place, and calculate the bearing capacity of each pile and return one blue print copy of this sheet with this data to the Director of Bridges to be recorded on the original plans. Lengths of piles in place shown hereon are the actual length of piles in the finished structure below cut-off elevation and are not necessarily the pay item.

PILE RECORD CONT

Location	Pile No.	Cut-off Elevation Shown	Tip of Pile Elevation As Driven	Pile Length In Place (Lin. Ft.)	Calculated Bearing Capacity (Tons)	Location	Pile No.	Cut-off Elevation Shown	Tip of Pile Elevation As Driven	Pile Length In Place (Lin. Ft.)	Calculated Bearing Capacity (Tons)
End Bent #2	126	536.28				End Bent 2	153	536.28			
"	127	"				"	154	"			
"	128	"				"	155	"			
"	129	"				"	156	"			
"	130	"				"	157	"			
"	131	"				"	158	"			
"	132	"				"	159	"			
"	133	"				End Bent #2	160	563.28			
"	134	"									
"	135	"									
"	136	"									
"	137	"									
"	138	"									
"	139	"									
"	140	"									
"	141	"									
"	142	"									
"	143	"									
"	144	"									
"	145	"									
"	146	"									
"	147	"									
"	148	"									
"	149	"									
"	150	"									
"	151	"									
End Bent 2	152	536.28									

PILE RECORD

Location	Pile No.	Cut-off Elevation Shown	Tip of Pile Elevation As Driven	Pile Length In Place (Lin. Ft.)	Calculated Bearing Capacity (Tons)	Location	Pile No.	Cut-off Elevation Shown	Tip of Pile Elevation As Driven	Pile Length In Place (Lin. Ft.)	Calculated Bearing Capacity (Tons)
End Bent 1	1	538.38				End Bent 1	28	538.38			
"	2	"				"	29	"			
"	3	"				"	30	"			
"	4	"				"	31	"			
"	5	"				"	32	"			
"	6	"				"	33	"			
"	7	"				"	34	"			
"	8	"				"	35	"			
"	9	"				End Bent 1	36	538.38			
"	10	"				Pier #1	37	490.86			
"	11	"				"	38	"			
"	12	"				"	39	"			
"	13	"				"	40	"			
"	14	"				"	41	"			
"	15	"				"	42	"			
"	16	"				"	43	"			
"	17	"				"	44				
"	18	"				"	45	"			
"	19	"				"	46	"			
"	20	"				"	47	"			
"	21	"				"	48	"			
"	22	"				"	49	"			
"	23	"				"	50	"			
"	24	"				"	51	"			
"	25	"				"	52	"			
"	26	"				"	53	"			
End Bent 1	27	538.38				Pier #1	54	490.86			

Location	Pile No.	Cut-off Elevation Shown	Tip of Pile Elevation As Driven	Pile Length In Place (Lin. Ft.)	Calculated Bearing Capacity (Tons)	Location	Pile No.	Cut-off Elevation Shown	Tip of Pile Elevation As Driven	Pile Length In Place (Lin. Ft.)	Calculated Bearing Capacity (Tons)
Pier #1	55	490.86				Pier #2	82	491.93			
"	56	"				"	83	"			
"	57	"				"	84	"			
"	58	"				"	85	"			
"	59	"				"	86	"			
"	60	"				"	87	"			
"	61	"				"	88	"			
"	62	"				"	89	"			
"	63	"				"	90	"			
"	64	"				"	91	"			
"	65	"				"	92	"			
"	66	"				"	93	"			
"	67	"				"	94	"			
"	68	"				"	95	"			
"	69	"				"	96	"			
"	70	"				"	97	"			
"	71	"				"	98	"			
"	72	"				"	99	"			
"	73	"				"	100	"			
"	74	"				"	101	"			
"	75	"				"	102	"			
"	76	"				"	103	"			
"	77	"				"	104	"			
"	78	"				"	105	"			
"	79					"	106	"			
Pier #1	80	490.80				"	107	"			
Pier #2	81	491.93				Pier #2	108	491.93			

Location	Pile No.	Cut-off Elevation Shown	Tip of Pile Elevation As Driven	Pile Length In Place (Lin. Ft.)	Calculated Bearing Capacity (Tons)
Pier #2	109	491.93			
"	110	"			
"	111	"			
"	112	"			
"	113	"			
"	114	"			
"	115	"			
"	116	"			
"	117	"			
"	118	"			
"	119	"			
"	120	"			
"	121	"			
"	122	"			
"	123	"			
Pier #2	124	491.93			
End Bent #2	125	536.28			

PILE RECORD

SHEET 6

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)

STATION 230+35.00 ROAD

P.E. PROJECT NO.

CONSTRUCTION PROJECT NO | MAINTENANCE PROJECT NO. | DRAWING NO. 18501

LETTING DATE

DESIGNED BY: A.I.M. CHECKED BY: D.I.P. H.K. DATE 1/16
DETAILED BY: A.I.M. CHECKED BY: DATE
TRACED BY: CHECKED BY: DATE

BRIDGE

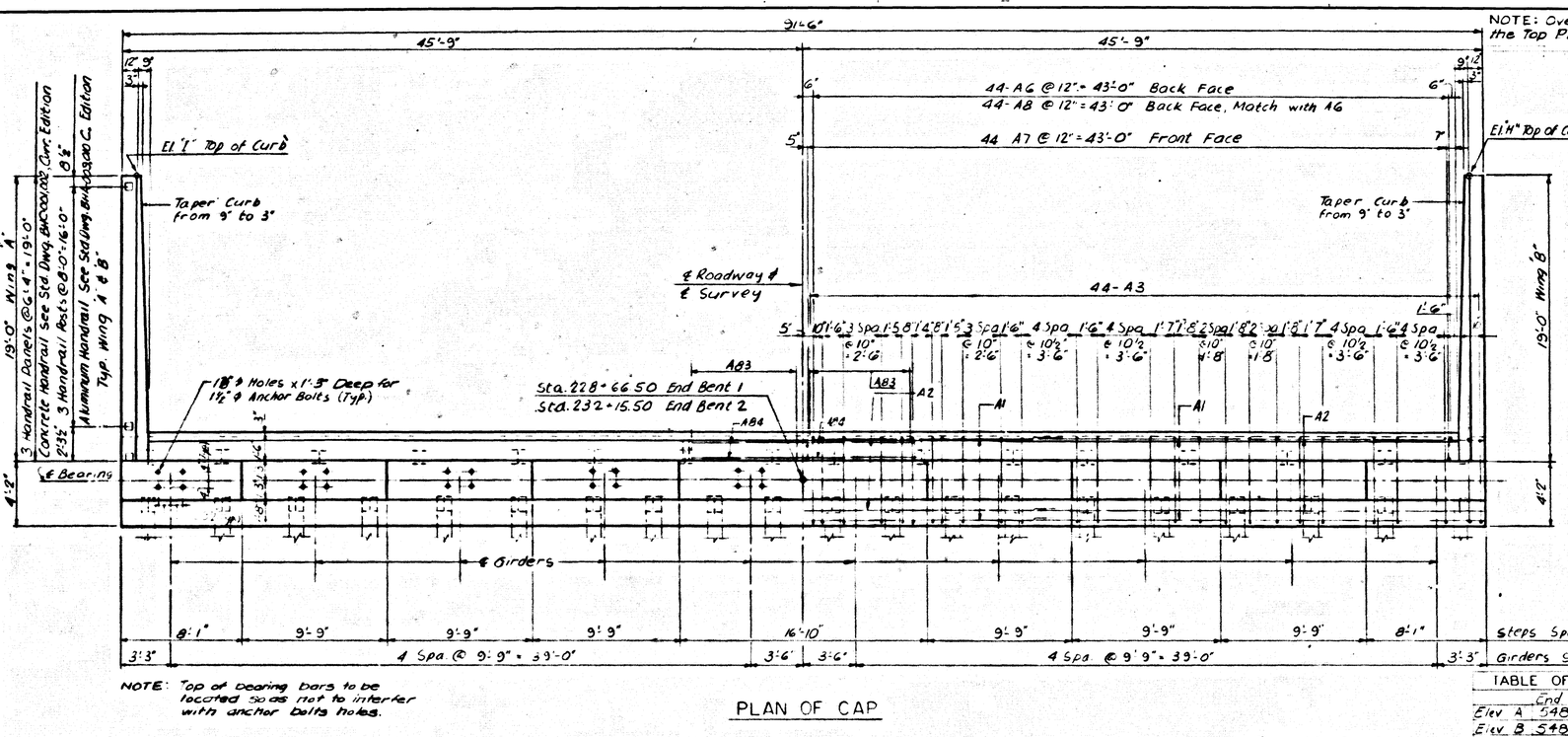


TABLE VOID

TABLE OF ELEVATIONS	End Bent 1	End Bent 2
Elev. A	548.671	546.545
Elev. "B"	548.663	546.553
Elev. "C"	548.671	546.545
Elev. "D"	548.663	546.553
Elev. "E"	549.357	547.231
Elev. "F"	549.349	547.239
Elev. "G"	535.376	533.282
Elev. "H"	549.621	547.683
Elev. "I"	549.621	547.283

ESTIMATE OF QUANTITIES 563		
Items	Quantity	
	End Bent 1	End Bent 2
Concrete Class AA (cu. yds.) 56.3	[illegible]	[illegible]
Concrete Class A (cu. yds.)	83.4	53.4
Reinforcement (lbs.)	14244	14244
P.R.S. (lin. ft.)	2160	2822

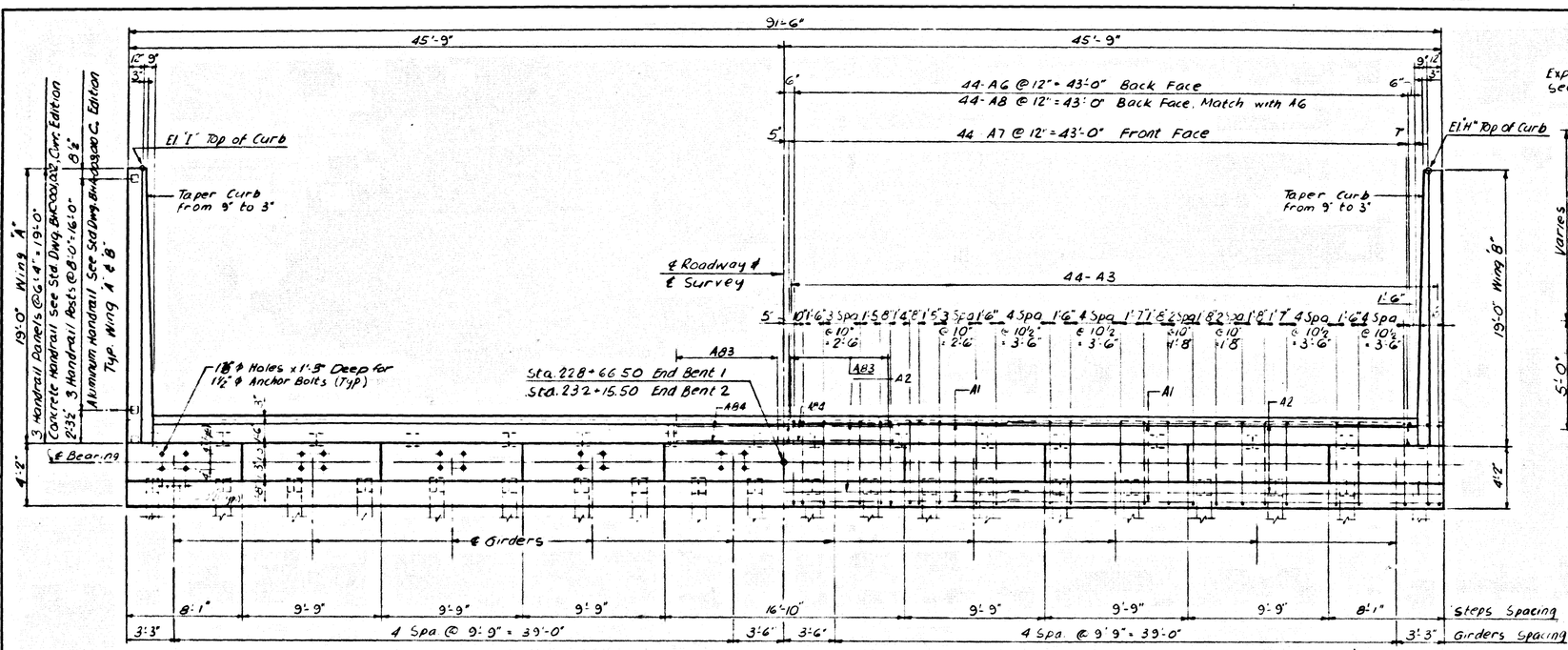
SHEET 7

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00
P.E. PROJECT NO.
CONSTRUCTION PROJECT NO. | MAINTENANCE PROJECT NO. | DRAWING NO. 19501

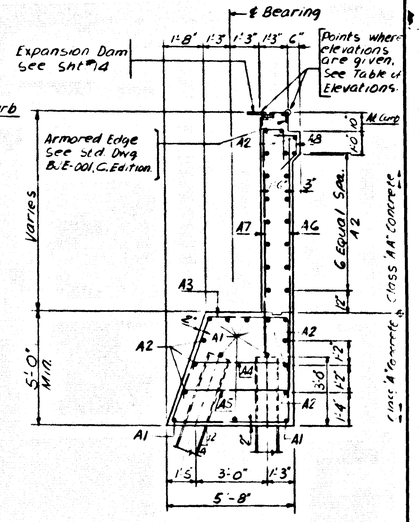
LETTING DATE

BRIDGE

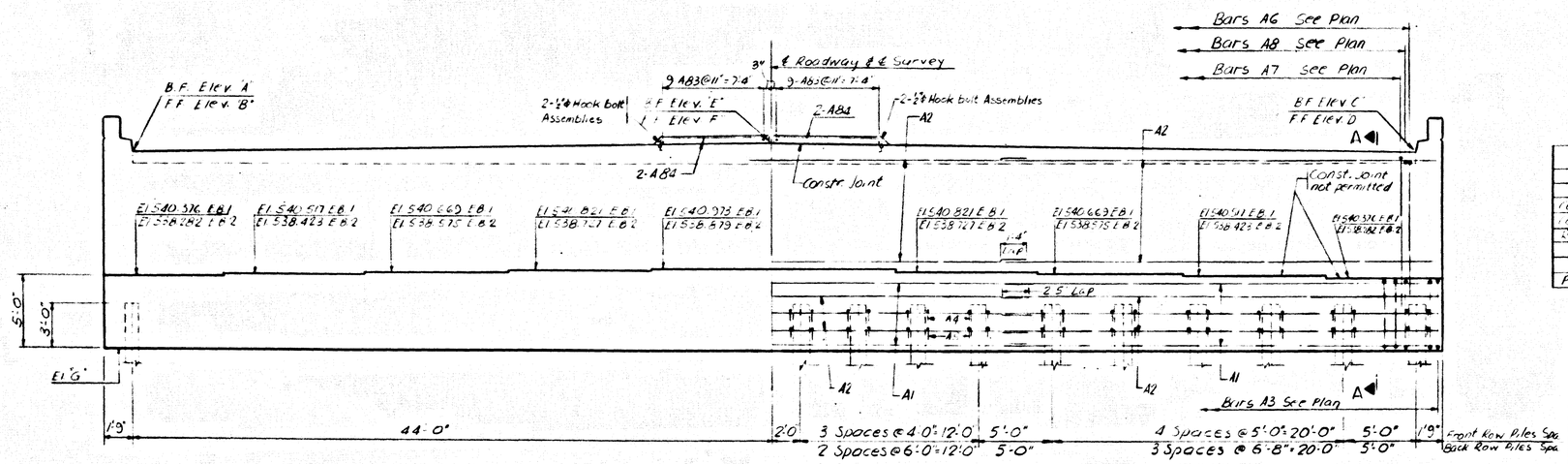


NOTE: Top of bearing bars to be located so as not to interfer with anchor bolts holes.

PLAN OF CAP



SECTION A-A



ELEVATION

END BENT "B" 2

TABLE OF ELEVATIONS		
	End Bent 1	End Bent 2
Elev "A"	548.671	546.545
Elev "B"	548.663	546.553
Elev "C"	548.671	546.545
Elev "D"	548.663	546.553
Elev "E"	549.357	547.231
Elev "F"	549.349	547.239
Elev "G"	535.376	533.282
Elev "H"	549.621	547.283
Elev "I"	549.621	547.283

ESTIMATE OF QUANTITIES		
Items	Quantity	
	End Bent 1	End Bent 2
Concrete Class AA (Cu. Yds.)	55.7	55.7
Concrete Class A (Cu. Yds.)	83.4	83.4
Reinforcement (Lbs.)	14244	14244
Piles (Lin. Ft.)	2160	2822

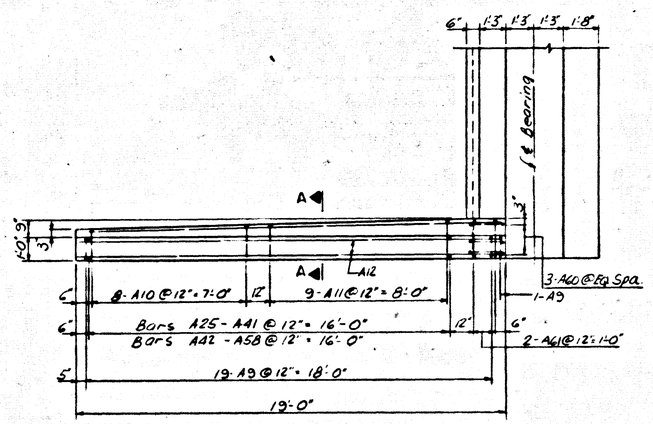
SHEET 7

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

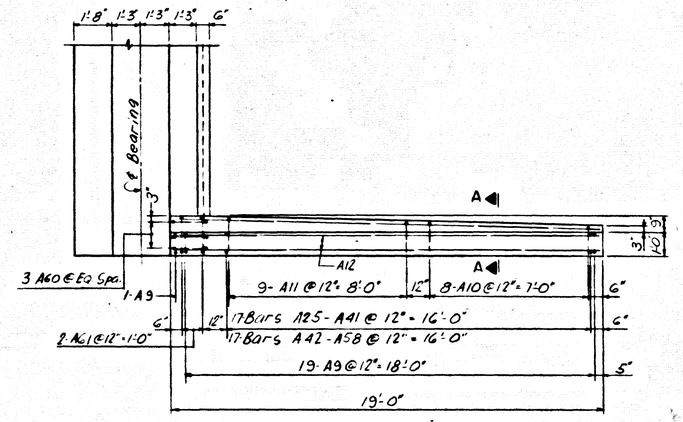
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00
P.E. PROJECT NO.
CONSTRUCTION PROJECT NO.
MAINTENANCE PROJECT NO.
DRAWING NO. 18501

BRIDGE

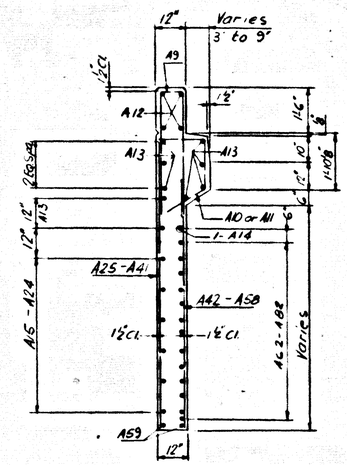
LETTING DATE



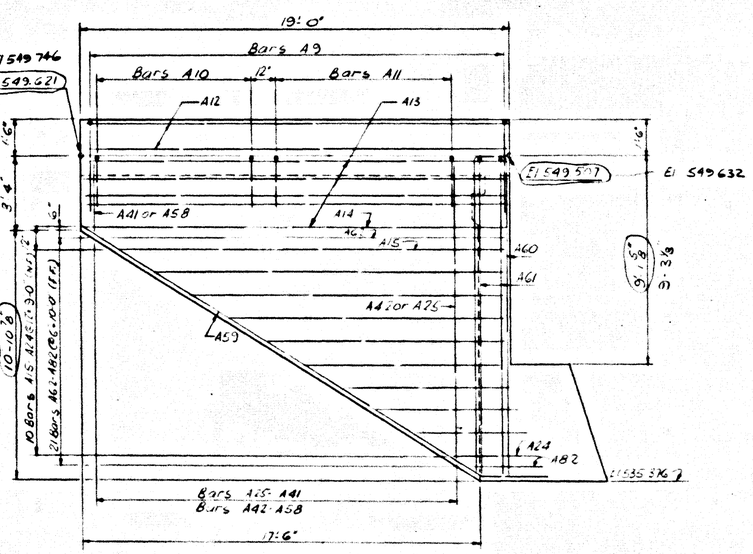
PLAN WING 'A' & 'B'
(End Bent #1)



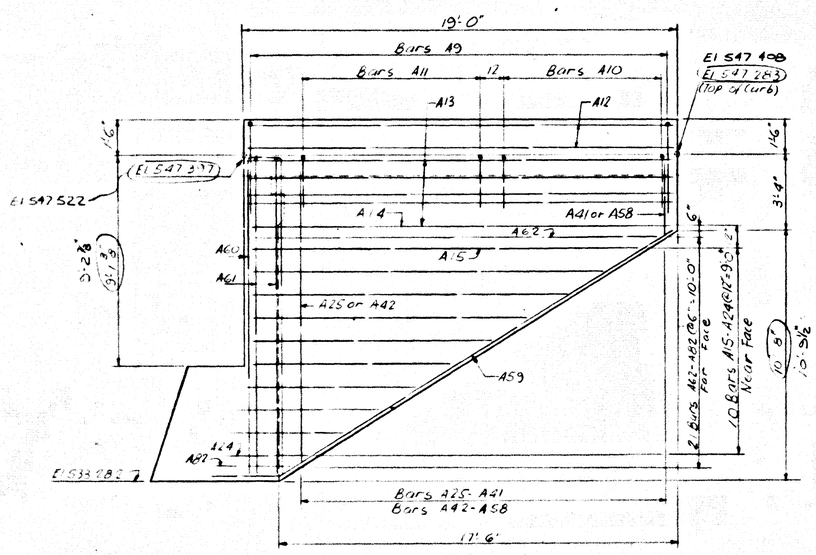
PLAN WING 'A' & 'B'
(End Bent # 2)



SECTION A-A



ELEVATION WING 'A' & 'B'
(End Bent #1)



ELEVATION WING 'A' & 'B'
(End Bent # 2)

END BENT DETAILS

SHEET 8

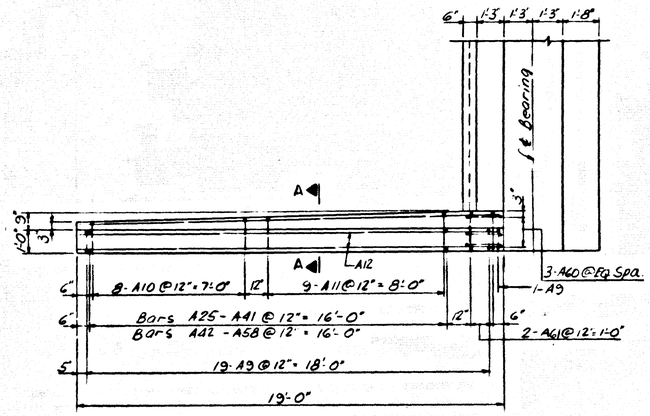
COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

HIGHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 220+75.00 F. E. PROJECT NO.

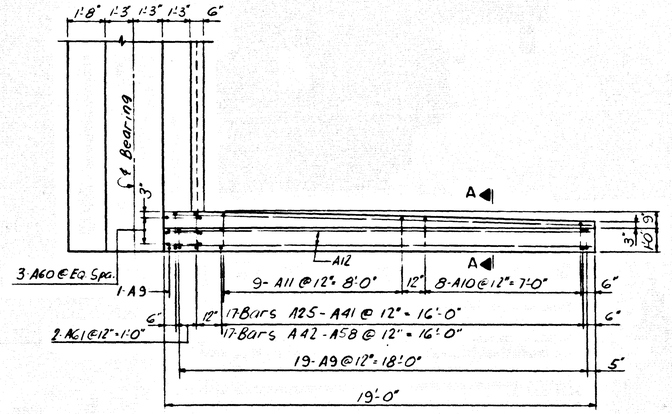
CONSTRUCTION PROJECT NO	MAINTENANCE PROJECT NO.	DRAWING NO
		18501

BRIDGE

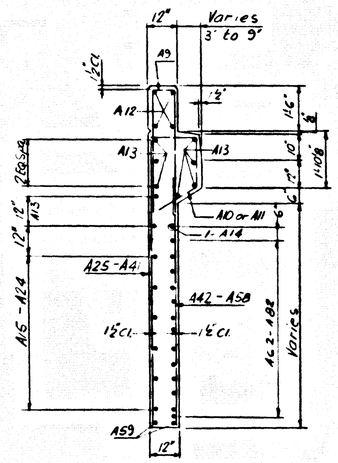
LETTING DATE



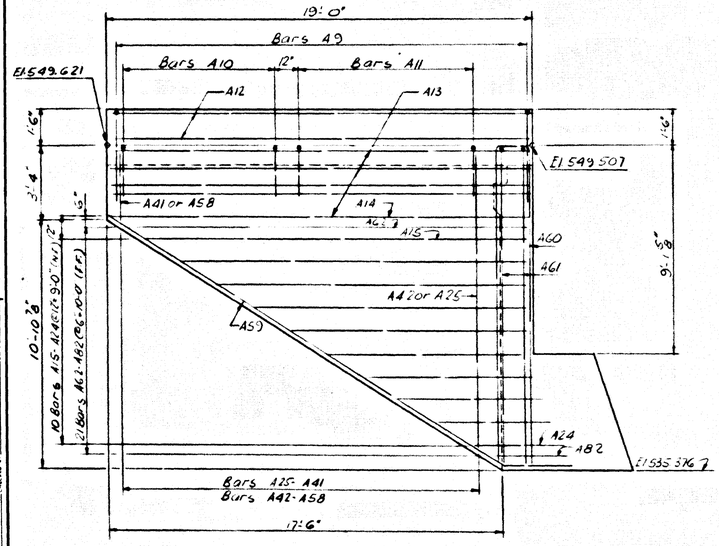
PLAN WING 'A' & 'B'
(End Bent #1)



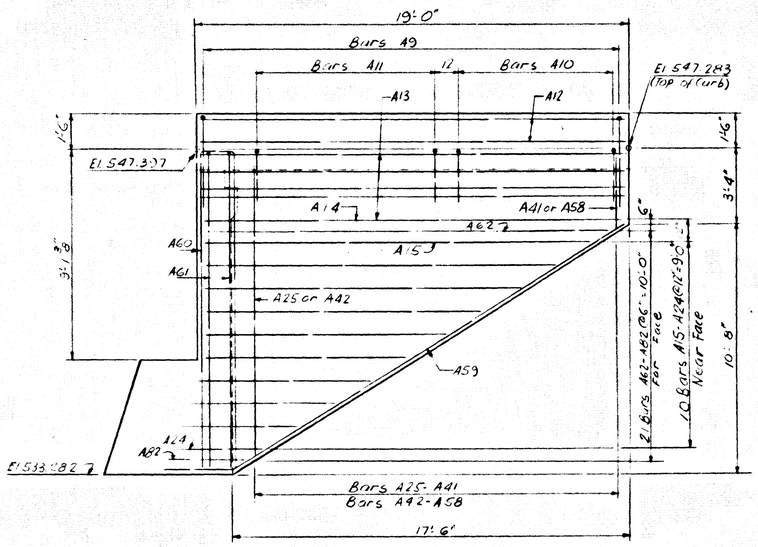
PLAN WING 'A' & 'B'
(End Bent #2)



SECTION A-A



ELEVATION WING 'A' & 'B'
(End Bent #1)



ELEVATION WING 'A' & 'B'
(End Bent #2)

END BENT DETAILS

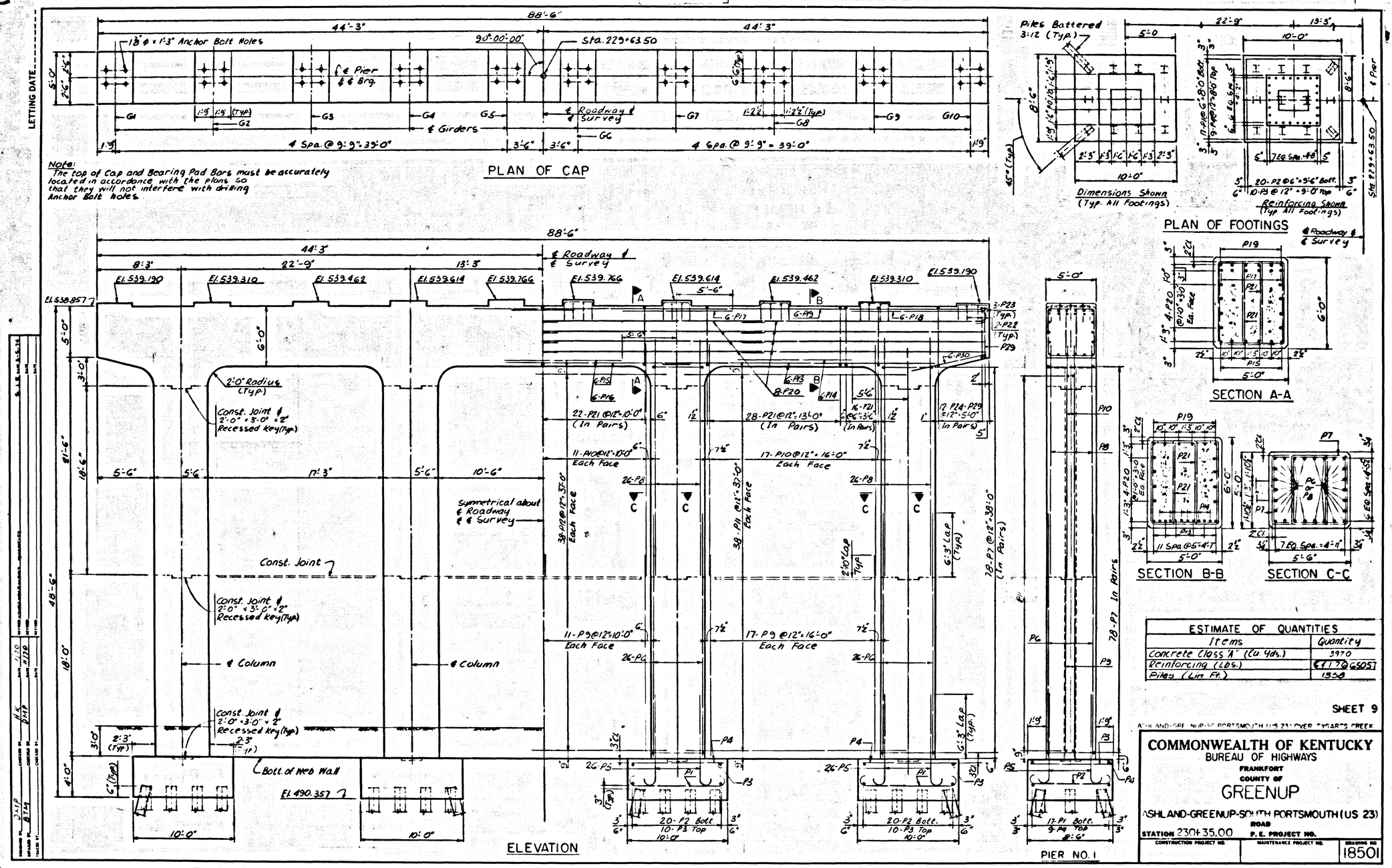
SHEET 8

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO	MAINTENANCE PROJECT NO.	DRAWING NO
		18501

BRIDGE



ESTIMATE OF QUANTITIES	
Items	Quantity
Concrete Class "A" (Cu. Yds.)	3970
Reinforcing (Lbs.)	℄ 17 @ 65057
Piles (Lin. Ft.)	1358

SHEET 9

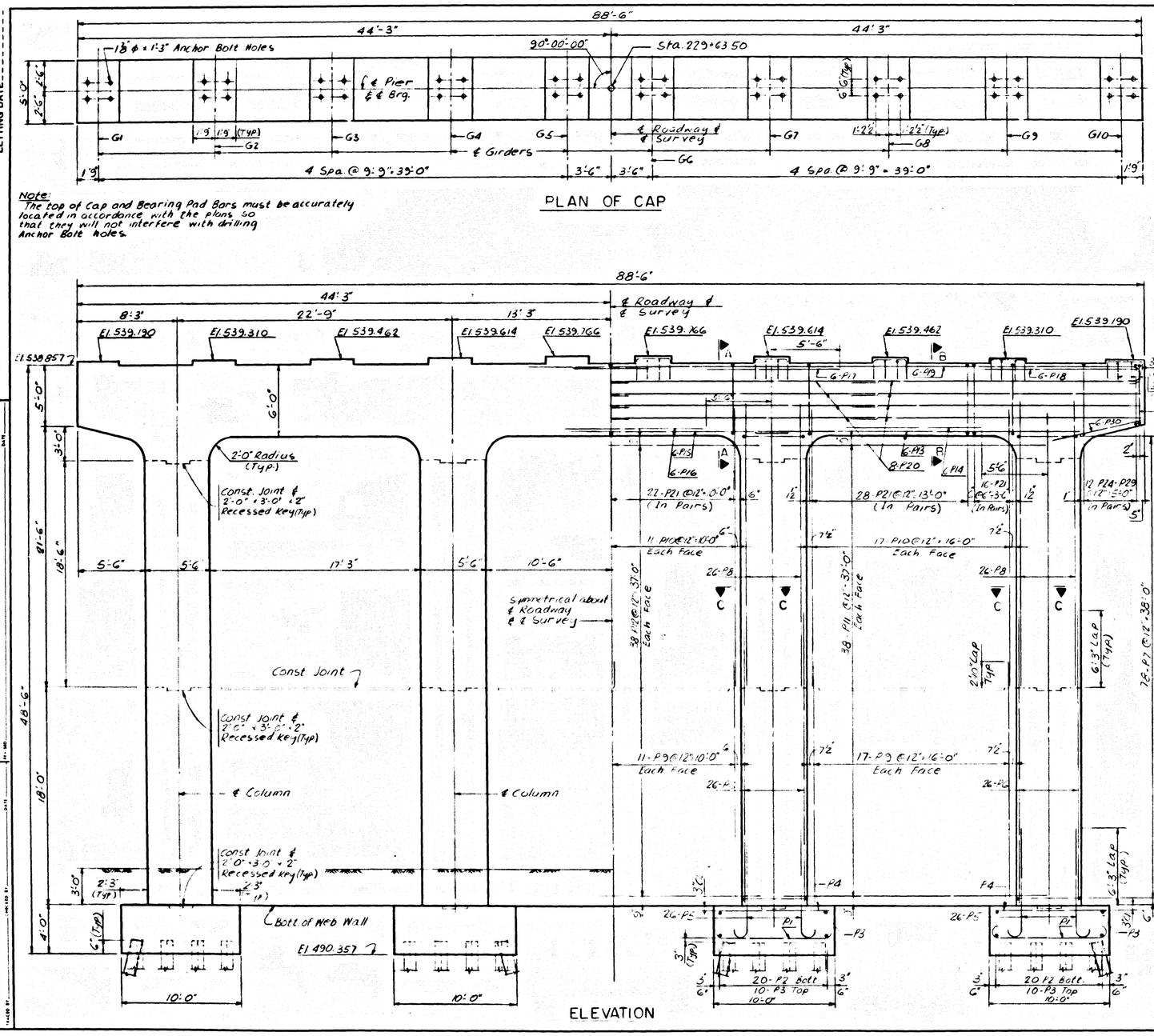
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23) OVER TYGARTS CREEK

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		18501

BRIDGE



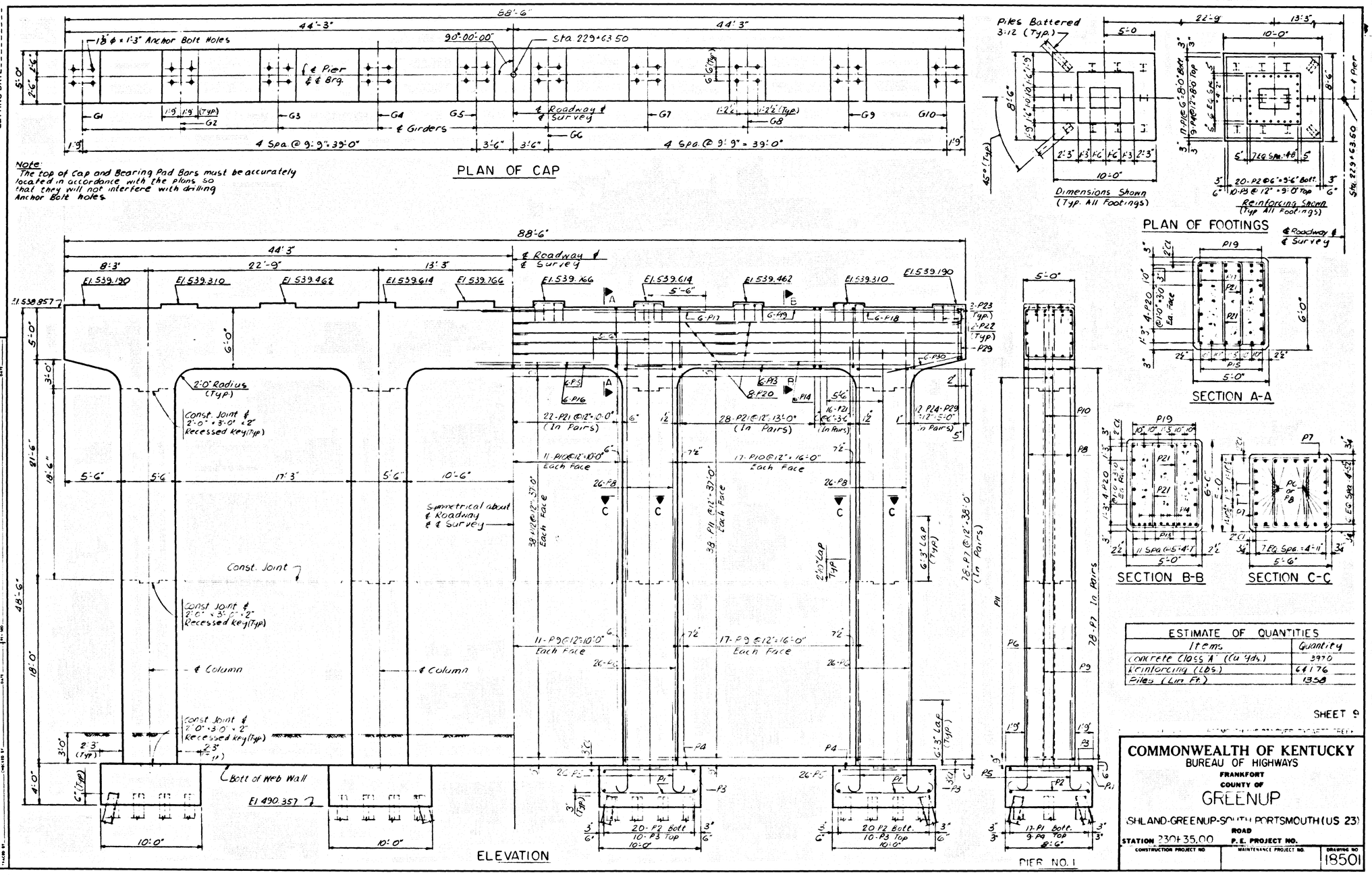
ESTIMATE OF QUANTITIES	
Items	Quantity
Concrete Class A (Cu. Yds.)	3370
Reinforcing (LBS)	65051
Piles (Lin Ft.)	1350

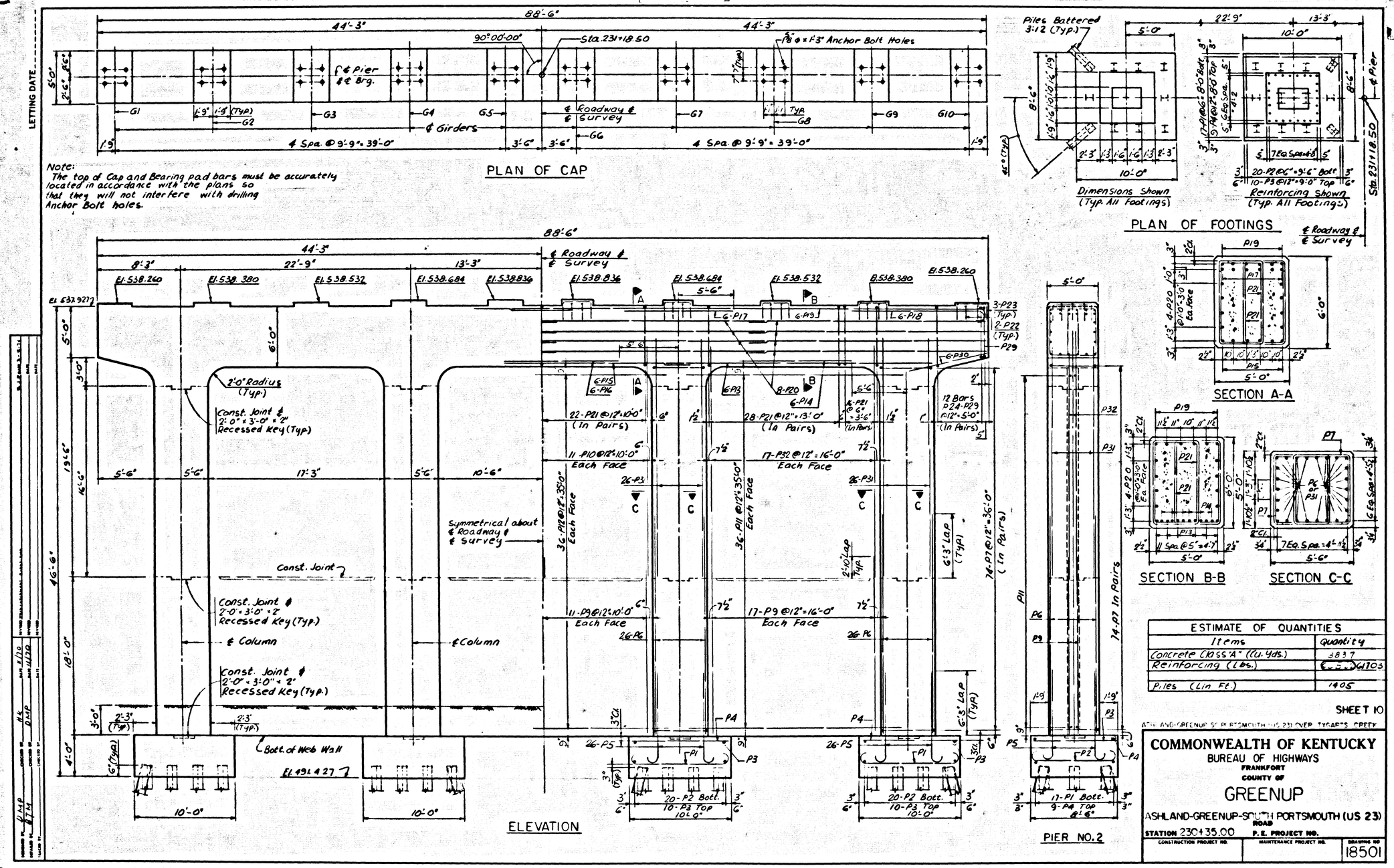
SHEET 9

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00
P. E. PROJECT NO.
CONSTRUCTION PROJECT NO.
MAINTENANCE PROJECT NO.
DRAWING NO. 18501

BRIDGE


88'-6"
44'-3"
44'-3"
1 3/8" ϕ x 1'-3" Anchor Bolt Holes
90°-00'-00"
Sta. 229+63.50
℄ Pier & ℄ Brg.
℄ Roadway & ℄ Survey
℄ Girders
G1
G2
G3
G4
G5
G6
G7
G8
G9
G10
4 Spa. @ 9'-9" = 39'-0"
4 Spa. @ 9'-9" = 39'-0"
PLAN OF CAP
Note:
The top of cap and Bearing Pad Bars must be accurately located in accordance with the plans so that they will not interfere with drilling Anchor Bolt holes.
Piles Battered 3:12 (Typ.)
Dimensions Shown (Typ. All Footings)
Reinforcing Shown (Typ. All Footings)
PLAN OF FOOTINGS
SECTION A-A
SECTION B-B
SECTION C-C
El. 539.190
El. 539.310
El. 539.462
El. 539.614
El. 539.766
El. 538.857
2'-0" Radius (Typ.)
Const. Joint & 2'-0" x 3'-0" x 2" Recessed Key (Typ.)
Symmetrical about ℄ Roadway & ℄ Survey
Const. Joint
℄ Column
Bott. of Web Wall
El. 490.357
ELEVATION
PIER NO. 1
ESTIMATE OF QUANTITIES
Items | Quantity
Concrete Class "A" (Cu. Yds.) | 397.0
Reinforcing (Lbs.) | 64176
Piles (Lin. Ft.) | 1358
SHEET 9
COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
SHILAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00
P. E. PROJECT NO.
CONSTRUCTION PROJECT NO.
MAINTENANCE PROJECT NO.
DRAWING NO. 18501
LETTING DATE
BRIDGE



ESTIMATE OF QUANTITIES	
Items	Quantity
Concrete Class "A" (Cu. Yds.)	3837
Reinforcing (Lbs.)	[illegible]61703
Piles (Lin Ft.)	1405

SHEET 10

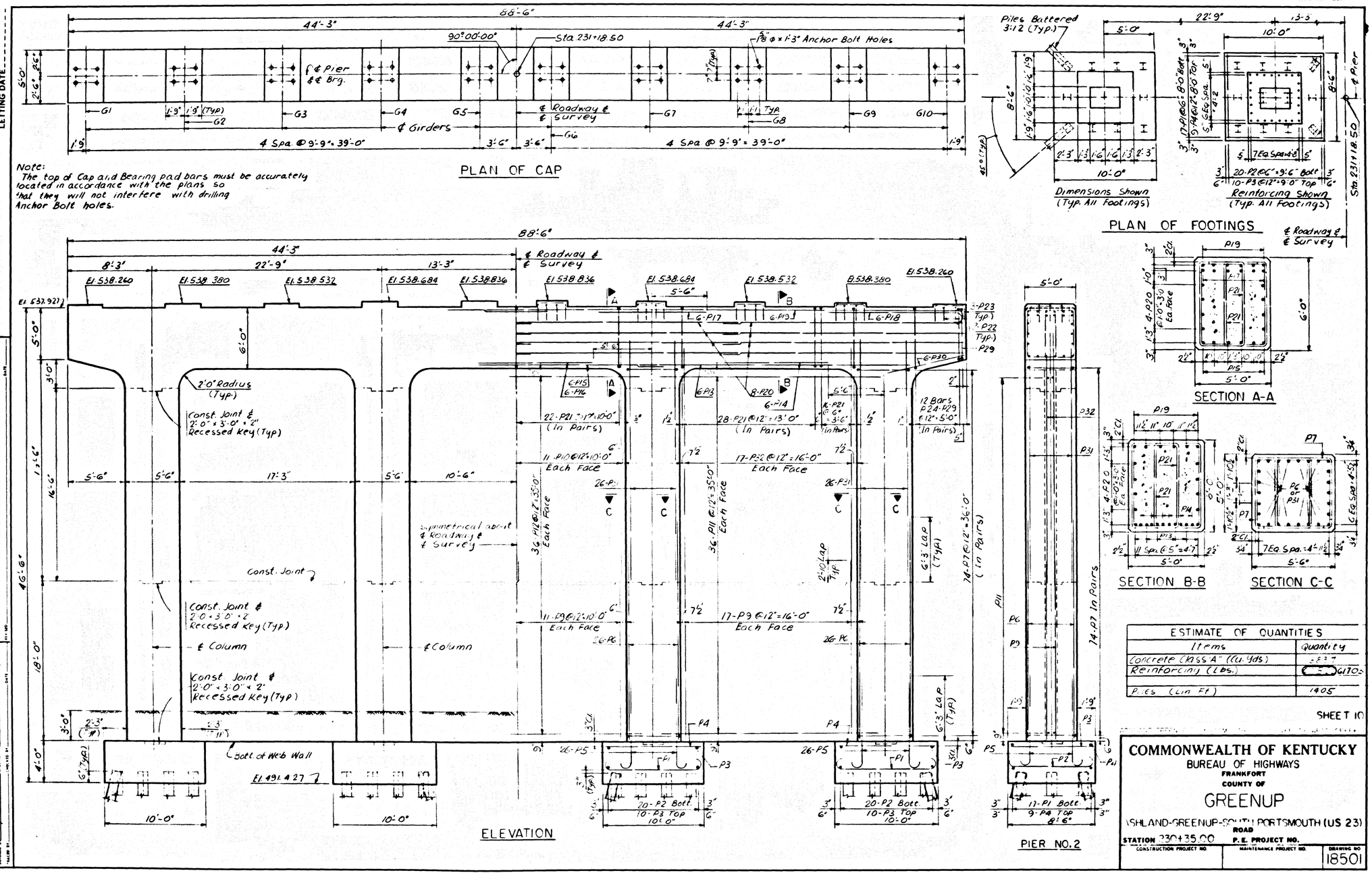
ASHLAND-GREENUP-SC PORTSMOUTH (US 23) OVER TYGARTS CREEK

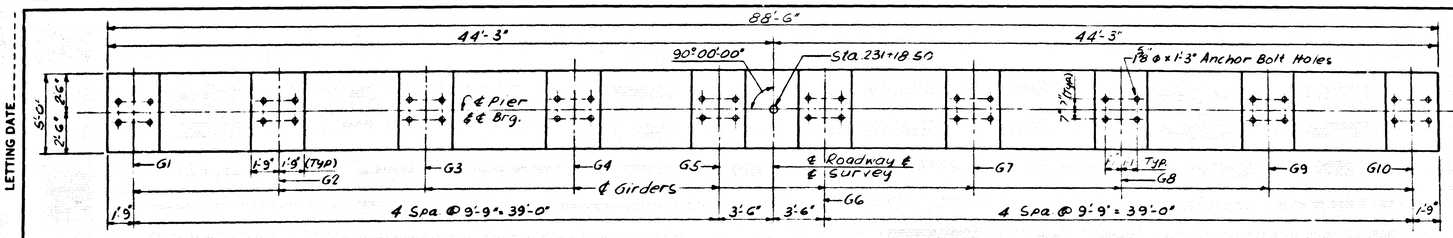
COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00 P.E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		18501

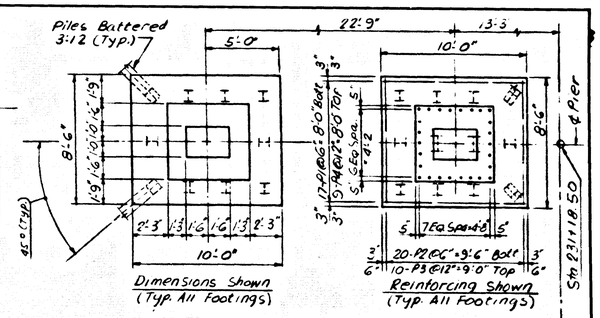
BRIDGE


PLAN OF CAP
Note:
The top of Cap and Bearing pad bars must be accurately located in accordance with the plans so that they will not interfere with drilling Anchor Bolt holes.
PLAN OF FOOTINGS
Dimensions Shown (Typ. All Footings)
Reinforcing Shown (Typ. All Footings)
SECTION A-A
SECTION B-B
SECTION C-C
ELEVATION
PIER NO. 2
ESTIMATE OF QUANTITIES
Items | Quantity
Concrete Class "A" (Cu. Yds.)
Reinforcing (Lbs.)
Piles (Lin. Ft.)
1405
SHEET 10
COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00
P.E. PROJECT NO.
CONSTRUCTION PROJECT NO.
MAINTENANCE PROJECT NO.
DRAWING NO.
18501
BRIDGE

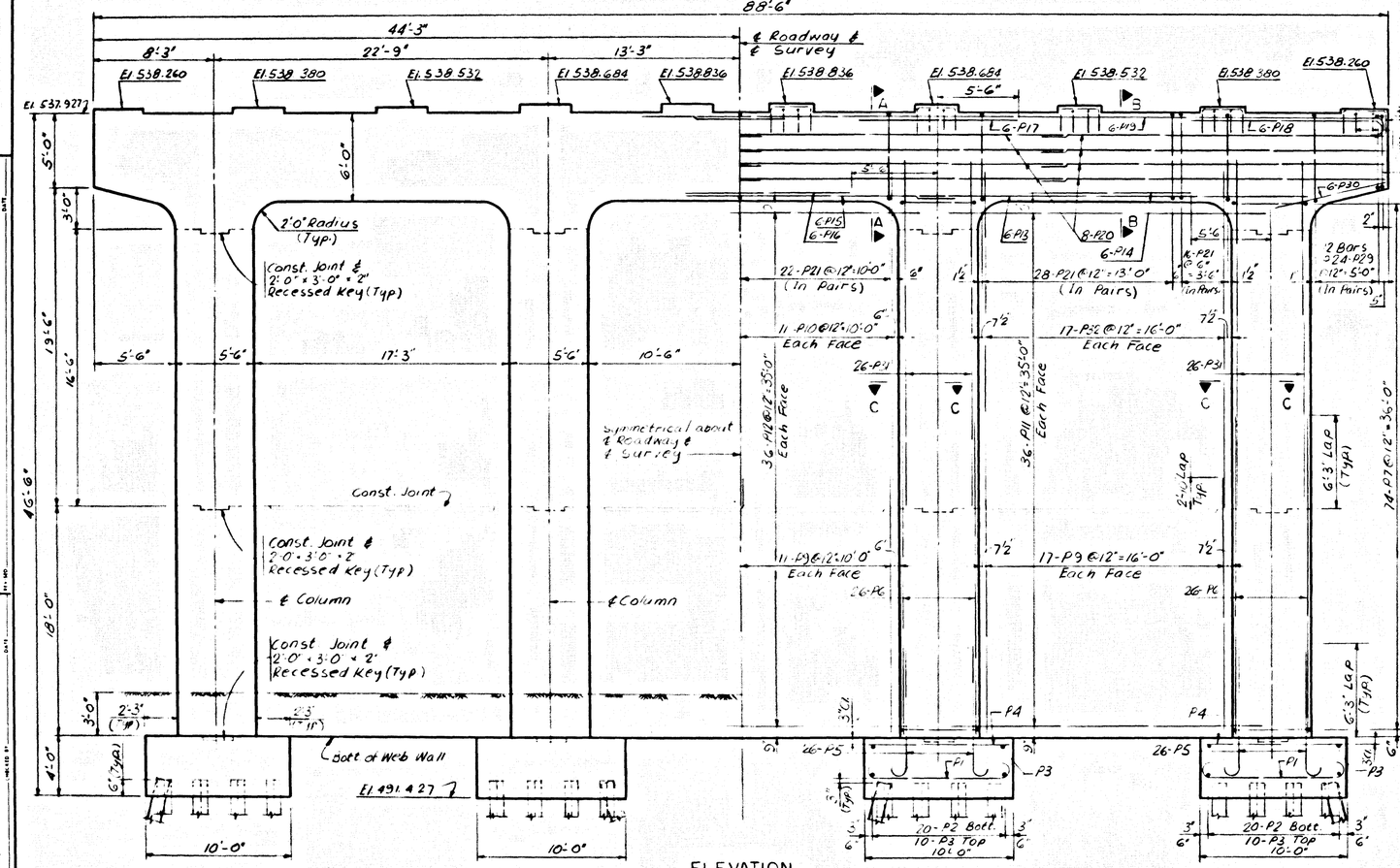


PLAN OF CAP

Note:
The top of Cap and Bearing pad bars must be accurately located in accordance with the plans so that they will not interfere with drilling Anchor Bolt holes.

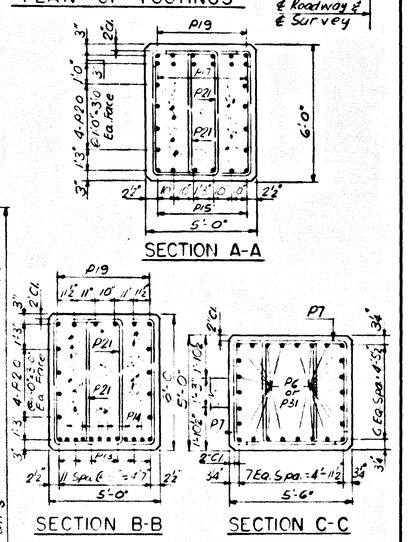


PLAN OF FOOTINGS



ELEVATION

PIER NO. 2



ESTIMATE OF QUANTITIES	
Items	Quantity
Concrete Class A (Cu. yds)	383.7
Reinforcing (Lbs.)	60822
Piles (Lin. Ft.)	1405

SHEET 10

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

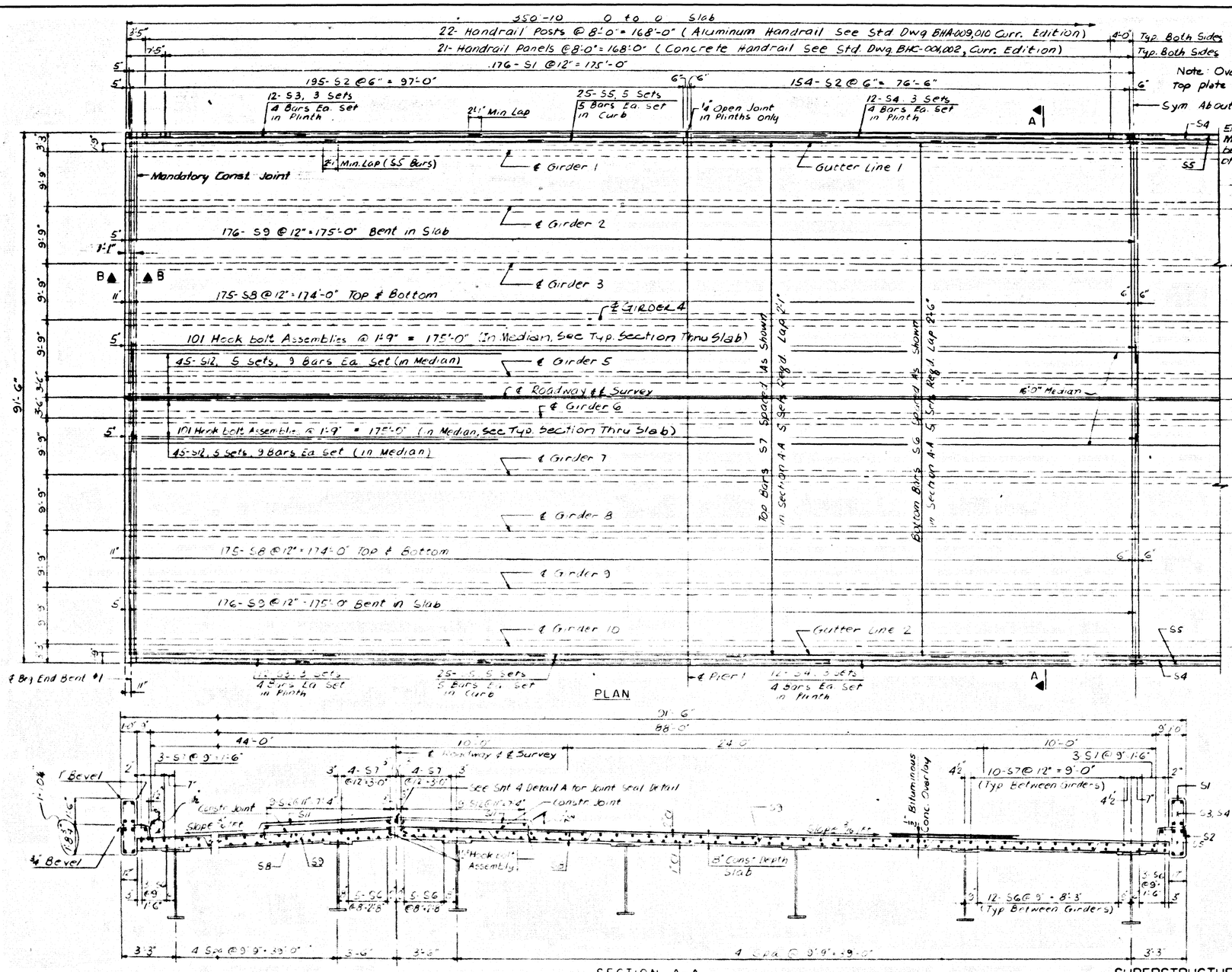
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD

STATION 230+35.00 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO. | MAINTENANCE PROJECT NO. | DRAWING NO. 18501

LETTING DATE

BRIDGE



ESTIMATE OF QUANTITIES	
Concrete (Class AA) (Cu. Yds.)	1039.8
Reinforcement (Lbs.)	268,004

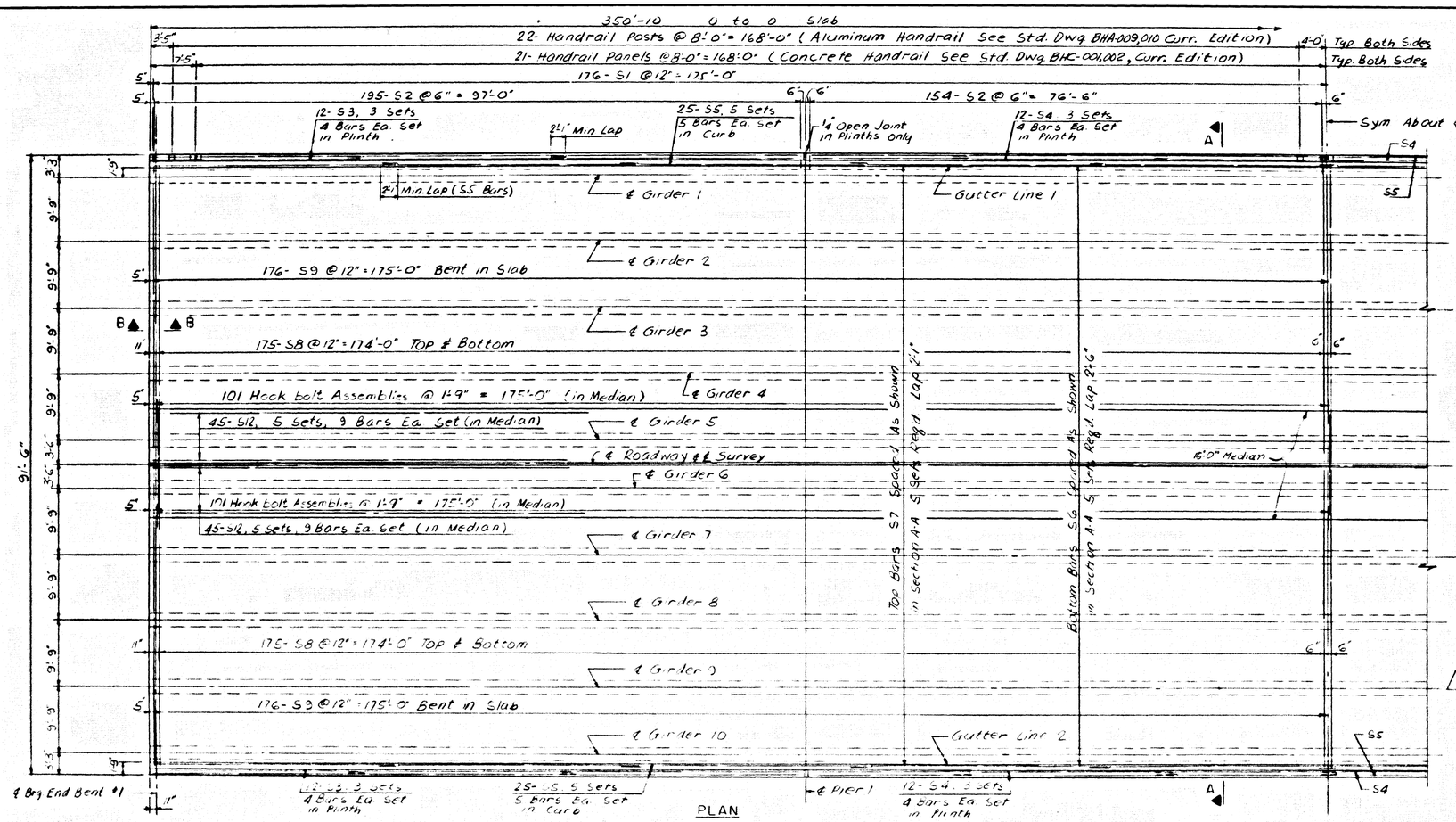
SHEET 11

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

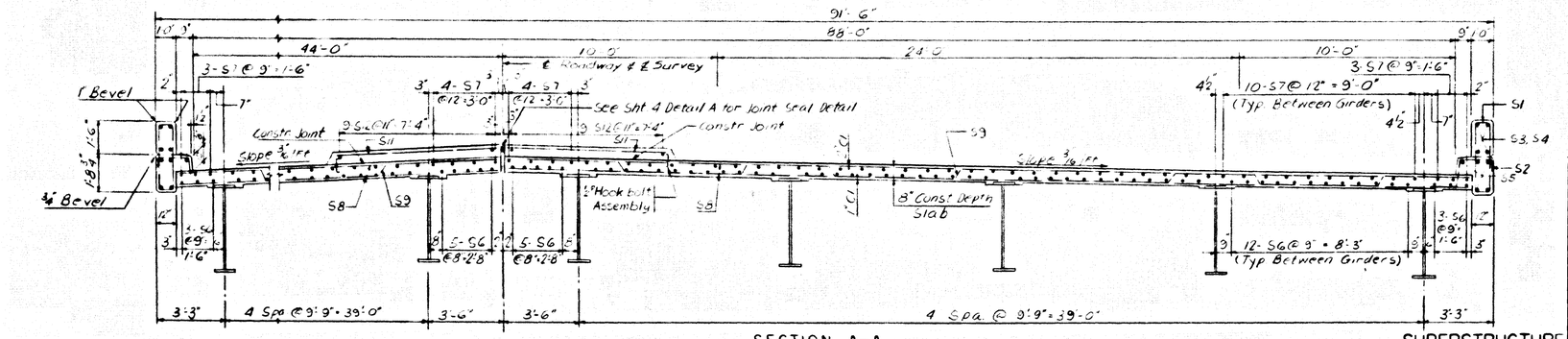
GHENT-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00 P.E. PROJECT NO.
CONSTRUCTION PROJECT NO | MAINTENANCE PROJECT NO | DRAWING NO 18501

LETTING DATE

BRIDGE

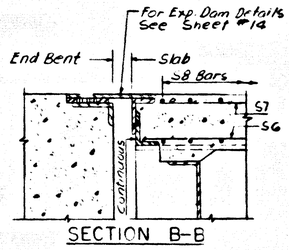


PLAN

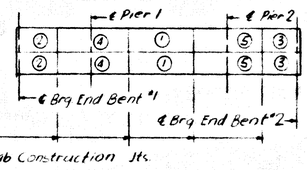


SECTION A-A

SUPERSTRUCTURE



SECTION B-B



POURING ORDER

ESTIMATE OF QUANTITIES	
Item	Quantity
Concrete Class AA (Cu Yds)	008.1
Reinforcement (lbs)	265,158

SHEET 11

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00 P.E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		18501

BRIDGE

LETTING DATE

BILL OF REINFORCEMENT

END BENTS

Mark	Type	Number End Bent 1	Number End Bent 2	Bar Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
A1	Str.	30	30	9	33	0	Cap								
A2	Str.	72	72	5	31	3	" & Backwall								
A3	②	88	88	5	18	5	"								
A4	③	40	58	6	5	5	"	4	6	0	6				
A5	③	40	58	6	5	10	Cap	4	11	0	6				
A6	Str.	88	88	5	10	3	Backwall								
A7	④	88	88	5	12	9	"	10	3	1	0	1	6		
A8	⑫	88	88	5	2	9	Backwall	1	0	0	9	1	0	0	8
A9	③	38	38	5	8	8	Plinth	0	9	4	0				
A10	⑫	16	16	5	3	6	Curb	1	0	1	6	1	0	0	8
A11	⑫	18	18	5	3	9	Curb	1	3	1	6	1	0	0	8
A12	Str.	8	8	5	18	6	Plinth								
A13	Str.	18	18	6	18	6	Curb								
A14	Str.	2	2	5	18	6	Wing Wall "A & B"								
A15	Str.	2	2	5	17	3	" " "								
A16	Str.	2	2	5	15	6	" " "								
A17	Str.	2	2	5	13	9	" " "								
A18	Str.	2	2	5	12	3	" " "								
A19	Str.	2	2	5	10	6	" " "								
A20	Str.	2	2	5	8	10	" " "								
A21	Str.	2	2	5	7	5	" " "								
A22	Str.	2	2	5	6	5	" " "								
A23	Str.	2	2	5	5	2	" " "								
A24	Str.	2	2	5	4	2	" " "								
A25	Str.	2	2	5	12	11	" " "								
A26	Str.	2	2	5	12	6	" " "								
A27	Str.	2	2	5	11	9	" " "								
A28	Str.	2	2	5	11	3	" " "								
A29	Str.	2	2	5	10	6	" " "								
A30	Str.	2	2	5	9	9	" " "								
A31	Str.	2	2	5	9	0	" " "								
A32	Str.	2	2	5	8	6	" " "								
A33	Str.	2	2	5	8	0	" " "								
A34	Str.	2	2	5	7	6	" " "								
A35	Str.	2	2	5	6	9	" " "								
A36	Str.	2	2	5	6	0	" " "								
A37	Str.	2	2	5	5	5	" " "								
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A39	Str.	2	2	5	4	3	" " "								
A40	Str.	2	2	5	3	7	" " "								
A41	Str.	2	2	5	3	0	" " "								
A42	Str.	2	2	5	11	8	" " "								
A43	Str.	2	2	5	11	3	" " "								
A44	Str.	2	2	5	10	6	" " "								
A45	Str.	2	2	5	10	0	" " "								
A46	Str.	2	2	5	9	3	" " "								
A47	Str.	2	2	5	8	6	" " "								
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A50	Str.	2	2	5	6	8	" " "								
A51	Str.	2	2	5	6	3	" " "								
A52	Str.	2	2	5	5	6	" " "								
A53	Str.	2	2	5	4	9	" " "								
A54	Str.	2	2	5	4	2	" " "								
A55	Str.	2	2	5	3	8	" " "								
A56	Str.	2	2	5	3	0	" " "								
A57	Str.	2	2	5	2	4	" " "								
A58	Str.	2	2	5	1	9	" " "								
A59	①	4	4	5	23	9	" " "	20	9	3	0	1	6		
A60	③	6	6	5	28	11	" " "	1	4	13	10				
A61	③	4	4	5	28	11	" " "	1	6	13	9				
A62	Str.	2	2	8	17	9	" " "								
A63	Str.	2	2	8	17	3	" " "								
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A66	Str.	2	2	8	14	9	" " "								
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A68	Str.	2	2	8	13	1	" " "								
A69	Str.	2	2	8	12	3	" " "								
A70	Str.	2	2	8	11	6	" " "								
A71	Str.	2	2	8	10	6	" " "								
A72	Str.	2	2	8	10	0	" " "								
A73	Str.	2	2	8	8	10	" " "								
A74	Str.	2	2	8	8	2	" " "								
A75	Str.	2	2	8	7	5	" " "								
A76	Str.	2	2	8	7	0	" " "								
A77	Str.	2	2	8	6	3	" " "								
A78	Str.	2	2	8	6	0	" " "								
A79	Str.	2	2	8	5	2	" " "								
A80	Str.	2	2	8	4	9	" " "								
A81	Str.	2	2	8	4	2	" " "								
A82	Str.	2	2	8	3	5	Wing Wall "A & B"								
A83	Str.	18	18	4	1	0	Median								
A84	Str.	4	4	4	7	7	Median								
Hook bolt Ass.		4	4	½			Median								

Designed by BTM — Date 11/70
Detailed by BTM — Checked by DMP — Date 11/70
Checked by DMP
Traced by
Revised: Deleted P1 bars and added P2 bars 3-5-74

PIERS

Mark	Type	Number Pier 1	Number Pier 2	Bar Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.	
~~P1~~	~~⑦~~	~~68~~	~~68~~	~~6~~	~~9~~	~~6~~	~~Footing~~	~~7~~	~~6~~	~~1~~	~~0~~	~~0~~	~~6~~	~~8~~	~~0~~	Delete P1
P2	⑦	80	80	8	11	8	"	8	8	1	6	0	10	9	6	12 bars P2 each pier not used.
P3	Str.	40	40	5	8	0	"									
P4	Str.	36	36	5	9	6	"									
P5	⑧	104	104	11	11	3	Footing Dowels	9	3	2	0	1	0	9	9	
P6	Str.	104	104	11	24	3	Column									
P7	⑪	312	296	4	16	10	" Ties	3	9	4	8					
P8	Str.	104		11	23	6	Column									
P9	Str.	110	110	5	20	10	Web Wall									
P10	Str.	110		5	23	4	" "									
P11	Str.	152	144	5	19	11	" "									
P12	Str.	152	144	5	23	8	Web Wall									
P13	Str.	12	12	10	27	9	Cap									
P14	Str.	12	12	9	11	9	"									
P15	Str.	6	6	10	25	6	"									
P16	Str.	6	6	10	15	6	"									
P17	Str.	12	12	10	11	0	"									
P18	⑧	12	12	10	14	10	"	13	0	1	10	1	0	13	6	
P19	⑧	12	12	11	47	0	"	45	0	2	0	1	0	45	6	
P20	Str.	32	32	6	24	3	"									
P21	⑪	130	130	5	18	3	Cap	3	1	5	8					
P22	③	20	20	5	8	8	Pedestal	4	6	2	1					
P23	③	30	30	5	7	1	Pedestal	3	0	2	1					
P24	⑪	4	4	5	18	3	Cap	3	1	5	8					
P25	⑪	4	4	5	17	9	"	3	1	5	5					
P26	⑪	4	4	5	17	3	"	3	1	5	2					
P27	⑪	4	4	5	16	9	"	3	1	4	11					
P28	⑪	4	4	5	16	3	"	3	1	4	8					
P29	⑪	8	8	5	15	11	"	3	1	4	6					
P30	Str.	12	12	5	8	0	Cap									
P31	Str.		104	11	18	10	Column									
P32	Str.		110	6	21	4	Web Wall									
P2	7	80	80	8	10	5	Footing	7	5	1	6	0	10	8	3	New bars required

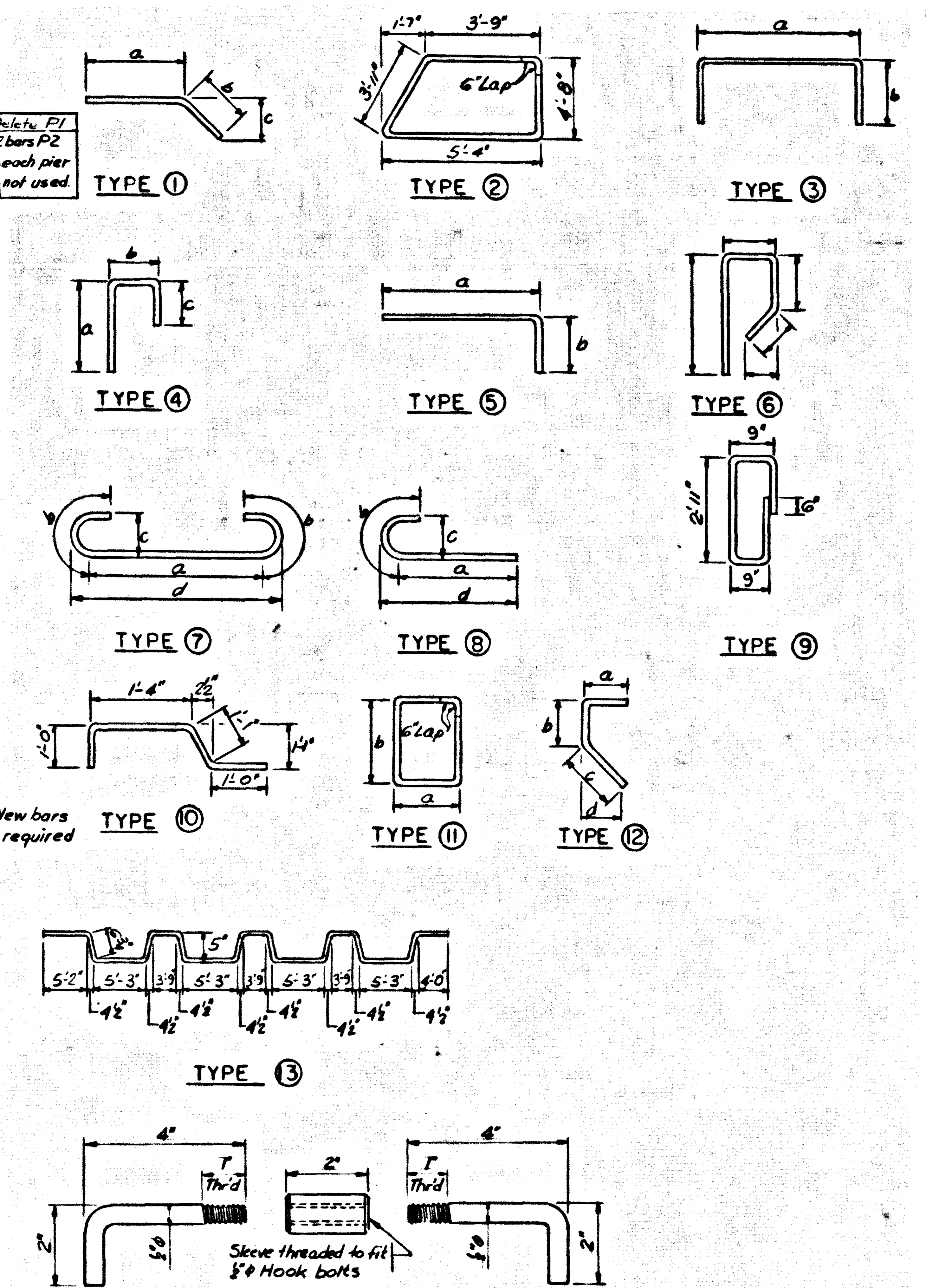
3-5-74
Delete P1 bars.

Substitute existing P2 (11'-8" long) for deleted P1 bars. Twelve (12) existing P2 bars per pier will not be used.

Order 160 new P2 (10'-5" long) and place them in the bottom of the pier footings as shown on sheets 9 and 10.

SUPERSTRUCTURE

Mark	Type	Number	Bar Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
S1	⑨	702	5	7	7	Plinth								
S2	⑩	1396	5	4	5	Curb								
S3	Str.	48	5	33	10	Plinth								
S4	Str.	48	5	27	6	Plinth								
S5	Str.	100	5	36	9	Curb								
S6	Str.	1120	6	37	2	Slab - Long.								
S7	Str.	940	5	36	9	Slab - Long.								
S8	Str.	1400	6	44	6	Slab - Trans.								
S9	⑬	702	6	45	11	Slab - Bent								
Hook bolt	Assembly	202	½"φ			Median								
S11	Str.	702	4	7	7	Median								
S12	Str.	90	4	36	3	Median								



HOOK BOLT ASSEMBLY

SHEET 12

ASHLAND-GREENUP-SO. PORTSMOUTH (US 23) OVER TYGARTS CREEK

SUPERSTRUCTURE & SUBSTRUCTURE

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23) ROAD
STATION 230+35.00
P. E. PROJECT NO.
CONSTRUCTION PROJECT NO. | MAINTENANCE PROJECT NO. | DRAWING NO. 18501

BRIDGE

BILL OF REINFORCEMENT

END BENTS

Mark	Type	Number End Bent 1	Number End Bent 2	Bar Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
A1	Str	30	30	9	33	0	Cap								
A2	Str	72	72	5	31	3	" & Backwall								
A3	②	88	88	5	18	5	"								
A4	③	46	58	6	5	5	"	4	6	0	6				
A5	③	40	58	6	5	10	Cap	4	11	0	6				
A6	Str	88	88	5	10	3	Backwall								
A7	④	88	88	5	12	9	"	10	3	1	0	1	6		
A8	②	88	88	5	2	9	Backwall	1	0	0	9	1	0	0	8
A9	③	38	38	5	8	8	Plinth	0	9	4	0				
A10	②	16	16	5	3	6	Curb	1	0	1	6	1	0	0	8
A11	②	18	18	5	3	9	Curb	1	3	1	6	1	0	0	8
A12	Str	8	8	5	18	6	Plinth								
A13	Str	18	18	6	18	6	Curb								
A14	Str	2	2	5	18	6	Wing Wall A & B								
A15	Str	2	2	5	17	3	" " "								
A16	Str	2	2	5	15	6	" " "								
A17	Str	2	2	5	13	9	" " "								
A18	Str	2	2	5	12	3	" " "								
A19	Str	2	2	5	10	6	" " "								
A20	Str	2	2	5	8	10	" " "								
A21	Str	2	2	5	7	5	" " "								
A22	Str	2	2	5	6	5	" " "								
A23	Str	2	2	5	5	2	" " "								
A24	Str	2	2	5	4	2	" " "								
A25	Str	2	2	5	12	11	" " "								
A26	Str	2	2	5	12	6	" " "								
A27	Str	2	2	5	11	9	" " "								
A28	Str	2	2	5	11	3	" " "								
A29	Str	2	2	5	10	6	" " "								
A30	Str	2	2	5	9	9	" " "								
A31	Str	2	2	5	9	0	" " "								
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A39	Str	2	2	5	4	5	" " "								
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A41	Str	2	2	5	3	0	" " "								
A42	Str	2	2	5	11	8	" " "								
A43	Str		2	5	11	3	" " "								
A44	Str		2	5	10	6	" " "								
A45	Str		2	5	10	0	" " "								
A46	Str		2	5	9	3	" " "								
A47	Str		2	5	8	9	" " "								
A48	Str		2	5	7	6	" " "								
A49	Str		2	5	7	3	" " "								
A50	Str		2	5	6	9	" " "								
A51	Str		2	5	6	6	" " "								
A52	Str		2	5	6	2	" " "								
A53	Str		2	5	5	9	" " "								
A54	Str		2	5	5	4	" " "								
A55	Str		2	5	5	0	" " "								
A56	Str		2	5	4	8	" " "								
A57	Str		2	5	4	4	" " "								
A58	Str		2	5	4	1	" " "								
A59	⑨	4	4	5	23	3	" " "	20	9	3	0	1	6		
A60	⑩	6	6	5	22	11	" " "	1	3	1	10				
A61	⑩	4	4	5	28	11	" " "	1	6	2	3				
A62	Str	2	2	5	17	9	" " "								
A63	Str	2	2	5	17	3	" " "								
A64	Str	2	2	5	16	6	" " "								
A65	Str	2	2	5	15	0	" " "								
A66	Str	2	2	5	14	3	" " "								
A67	Str	2	2	5	13	9	" " "								
A68	Str	2	2	5	13	3	" " "								
A69	Str	2	2	5	12	6	" " "								
A70	Str	2	2	5	11	6	" " "								
A71	Str	2	2	5	10	10	" " "								
A72	Str	2	2	5	10	3	" " "								
A73	Str	2	2	5	9	8	" " "								
A74	Str	2	2	5	9	2	" " "								
A75	Str	2	2	5	8	7	" " "								
A76	Str	2	2	5	8	2	" " "								
A77	Str	2	2	5	7	6	" " "								
A78	Str	2	2	5	7	0	" " "								
A79	Str	2	2	5	6	6	" " "								
A80	Str	2	2	5	6	0	" " "								
A81	Str	2	2	5	5	6	" " "								
A82	Str	2	2	5	5	0	" " "								
A83	Str	18	18	5	4	7	Wing Wall A & B								
A84	"	4	4	4	7	4	Median								
Hook Bolt Assy.		4	4	7/8			Median								

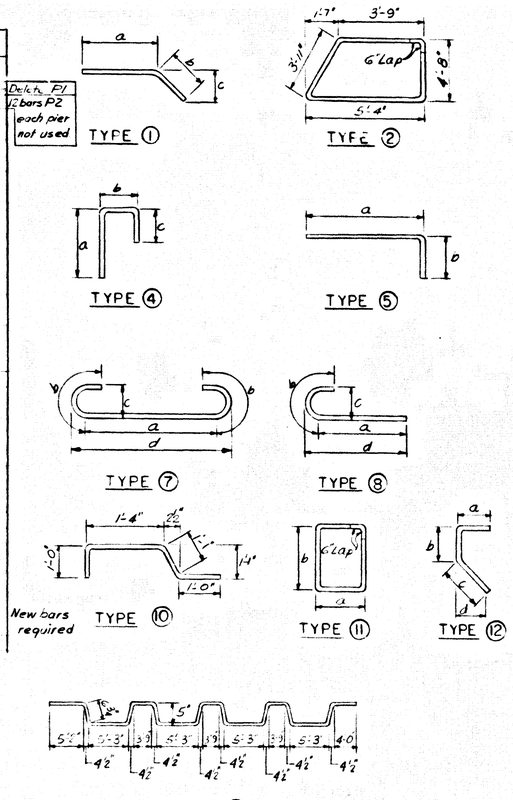
PIERS

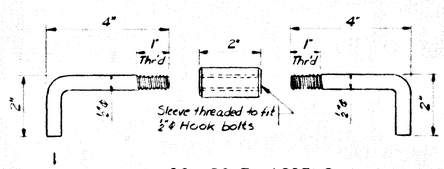
Mark	Type	Number Pier 1	Number Pier 2	Bar Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.	
~~P1~~	~~⑦~~	~~68~~	~~68~~	~~8~~	~~9~~	~~6~~	~~Footing~~	~~7~~	~~6~~	~~1~~	~~0~~	~~6~~	~~6~~	~~8~~	~~0~~	Delete P1 12 bars P2 each pier not used
P2	⑦	50	80	8	11	8	"	8	8	1	6	0	10	9	6	
P3	Str	40	40	5	8	0	"									
P4	Str	36	36	5	9	6	"									
P5	⑧	104	104	11	11	3	Footing Dowels	9	3	2	0	1	0	9	9	
P6	Str	104	104	11	24	3	Column									
P7	⑪	312	296	4	16	10	" Ties	3	9	4						
P8	Str	104		11	23	6	Column									
P9	Str	110	110	5	20	10	Web Wall									
P10	Str	110		5	23	4	" "									
P11	Str	152	144	5	19	11	" "									
P12	Str	152	144	5	23	8	Web Wall									
P13	Str	12	12	10	27	9	Cap									
P14	Str	12	12	9	11	9	"									
P15	Str	6	6	10	25	6	"									
P16	Str	6	6	10	15	6	"									
P17	Str	12	12	10	11	0	"									
P18	⑧	12	12	10	14	10	"	13	0	1	10	1	0	13	6	
P19	⑧	12	12	11	47	0	"	45	0	2	0	1	0	45	6	
P20	Str	32	32	6	24	3	"									
P21	⑪	130	130	5	18	3	Cap	3	1	5	8					
P22	③	20	20	5	8	8	Pedestal	4	6	2	1					
P23	③	30	30	5	7	1	Pedestal	3	0	2	1					
P24	⑪	4	4	5	18	3	Cap	3	1	5	8					
P25	⑪	4	4	5	17	9	"	3	1	5	5					
P26	⑪	4	4	5	17	3	"	3	1	5	2					
P27	⑪	4	4	5	16	9	"	3	1	4	11					
P28	⑪	4	4	5	16	3	"	3	1	4	8					
P29	⑪	8	8	5	15	11	"	3	1	4	6					
P30	Str	12	12	5	8	0	Cap									
P31	Str		104	11	18	10	Column									
P32	Str		110	5	21	4	Web Wall									
P2	7	80	80	8	10	5	Footing	7	5	1	6	0	10	8	3	New bars required

3-5-74
Delete P1 bars.
Substitute existing P2 (11'-8" long) for deleted P1 bars. Twelve (12) existing P2 bars per pier will not be used.
Order 160 new P2 (10'-5" long) and place them in the bottom of the pier footings as shown on sheets 9 and 10.

SUPERSTRUCTURE

Mark	Type	Number	Bar Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
S	②	192	5	7	1	Plinth								
S2	②	159	5	4	5	Curb								
S3	Str	48	5	33	10	Plinth								
S4	Str	48	5	27	6	Plinth								
S5	Str	100	5	36	9	Curb								
S6	Str	1120	5	37	2	Slab - Long								
S7	Str	940	5	36	9	Slab - Long								
S8	Str	147	6	44	6	Slab - Trans.								
S9	②	109	6	45	1	Slab - Bent								
Hook Bolt Assy.		180	3/4			Median								
S1	Str		4	7	7	Median								
S2	Str	804	4	36	7	Median								





HOOK BOLT ASSEMBLY

SHEET 12

SUPERSTRUCTURE & SUBSTRUCTURE

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

HIGHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00
P.E. PROJECT NO.
CONSTRUCTION PROJECT NO | MAINTENANCE PROJECT NO | DRAWING NO 18501

LETTING DATE

BRIDGE

BILL OF REINFORCEMENT

END BENTS

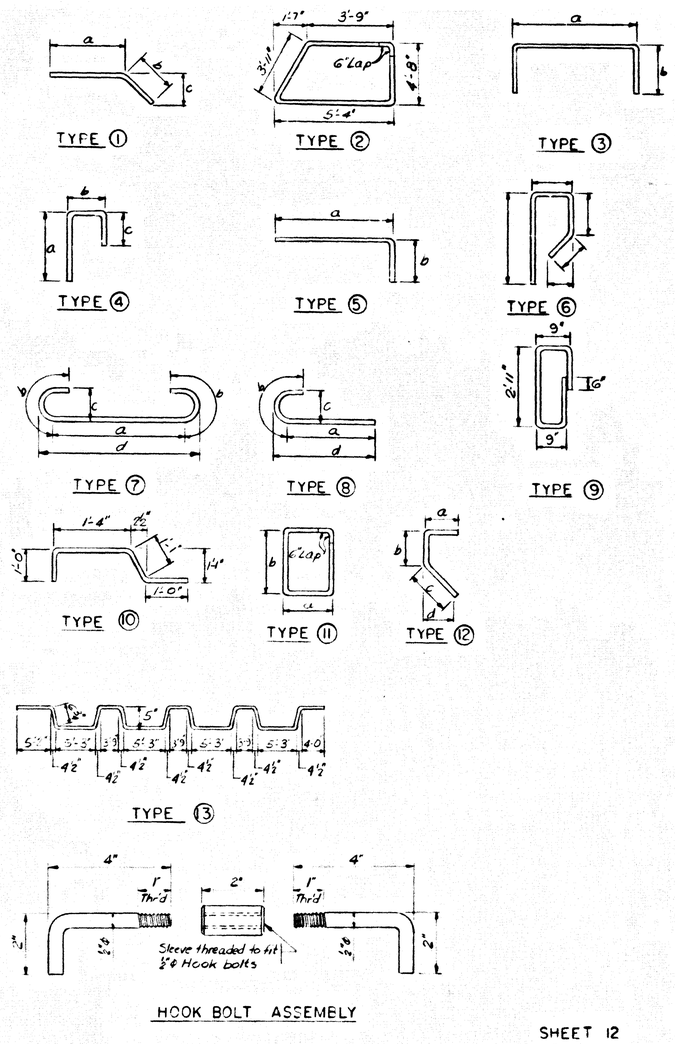
Mark	Type	Number End Bent 1	Number End Bent 2	Bar Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
A1	Str.	30	30	9	33	0	Cap								
A2	Str	72	72	5	31	3	" & Backwall								
A3	(2)	88	88	5	18	5	"								
A4	(3)	40	58	6	5	5	"	4	6	0	6				
A5	(3)	40	58	6	5	10	Cap	4	11	0	6				
A6	Str	88	88	5	10	3	Backwall								
A7	(4)	88	88	5	12	9	"	10	3	1	0	1	6		
A8	(4)	88	88	5	2	9	Backwall	1	0	0	9	1	0	0	8
A9	(3)	38	38	5	8	8	Plinth	0	9	4	0				
A10	(2)	16	16	5	3	6	Curb	1	0	1	6	1	0	0	8
A11	(2)	18	18	5	3	9	Curb	1	3	1	6	1	0	0	8
A12	Str.	8	8	5	18	6	Plinth								
A13	Str.	18	18	6	18	6	Curb								
A14	Str	2	2	5	18	6	Wing Wall A & B								
A15	Str.	2	2	5	17	3	" " "								
A16	Str.	2	2	5	15	6	" " "								
A17	Str	2	2	5	13	9	" " "								
A18	Str.	2	2	5	12	3	" " "								
A19	Str.	2	2	5	10	6	" " "								
A20	Str.	2	2	5	8	10	" " "								
A21	Str.	2	2	5	7	5	" " "								
A22	Str	2	2	5	6	5	" " "								
A23	Str	2	2	5	5	2	" " "								
A24	Str	2	2	5	4	2	" " "								
A25	Str	2	2	5	12	11	" " "								
A26	Str	2	2	5	12	6	" " "								
A27	Str	2	2	5	11	9	" " "								
A28	Str	2	2	5	11	3	" " "								
A29	Str	2	2	5	10	6	" " "								
A30	Str	2	2	5	9	9	" " "								
A31	Str	2	2	5	9	0	" " "								
A32	Str	2	2	5	8	6	" " "								
A33	Str	2	2	5	8	0	" " "								
A34	Str	2	2	5	7	6	" " "								
A35	Str	2	2	5	6	9	" " "								
A36	Str	2	2	5	6	0	" " "								
A37	Str	2	2	5	5	5	" " "								
A38	Str.	2	2	5	4	11	" " "								
A39	Str	2	2	5	4	5	" " "								
A40	Str	2	2	5	3	7	" " "								
A41	Str	2	2	5	3	0	" " "								
A42	Str	2	2	5	11	4	" " "								
A43	Str	2	2	5	11	3	" " "								
A44	Str	2	2	5	10	6	" " "								
A45	Str	2	2	5	10	0	" " "								
A46	Str	2	2	5	9	3	" " "								
A47	Str	2	2	5	8	6	" " "								
A48	Str	2	2	5	7	9	" " "								
A49	Str	2	2	5	7	3	" " "								
A50	Str	2	2	5	6	6	" " "								
A51	Str	2	2	5	6	0	" " "								
A52	Str	2	2	5	5	6	" " "								
A53	Str	2	2	5	5	0	" " "								
A54	Str	2	2	5	4	6	" " "								
A55	Str	2	2	5	3	8	" " "								
A56	Str	2	2	5	3	0	" " "								
A57	Str	2	2	5	2	4	" " "								
A58	Str	2	2	5	1	9	" " "								
A59	(1)	4	4	5	23	3	" " "	20	3	3	0	1	6		
A60	(1)	6	6	5	25	11	" " "	1	9	3	0				
A61	(1)	4	4	5	28	11	" " "	1	6	3	0				
A62	(1)	2	2	8	17	9	" " "								
A63	Str	2	2	8	17	3	" " "								
A64	Str	2	2	8	16	6	" " "								
A65	Str	2	2	8	15	6	" " "								
A66	Str	2	2	8	14	3	" " "								
A67	Str	2	2	8	13	9	" " "								
A68	Str	2	2	8	13	3	" " "								
A69	Str	2	2	8	12	3	" " "								
A70	Str	2	2	8	11	6	" " "								
A71	Str	2	2	8	10	6	" " "								
A72	Str	2	2	8	9	0	" " "								
A73	Str	2	2	8	8	2	" " "								
A74	Str	2	2	8	7	5	" " "								
A75	Str	2	2	8	7	1	" " "								
A76	Str	2	2	8	6	0	" " "								
A77	Str	2	2	8	6	0	" " "								
A78	Str	2	2	8	5	6	" " "								
A79	Str	2	2	8	4	9	" " "								
A80	Str	2	2	8	4	2	" " "								
A81	Str	2	2	8	3	5	" " "								
A82	Str	2	2	8	3	5	Wing Wall A & B								
A83	Str	14	14	4	7	1	Wing Wall								
A84	"	4	4	4	7	5	Median								
Hook Bolt Assy.		4	4	4			Median								

PIERS

Mark	Type	Number Pier 1	Number Pier 2	Bar Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
P1	(7)	68	68	6	9	6	Footing	7	6	1	0	0	6	8	0
P2	(7)	80	80	8	11	8	"	8	8	1	6	0	10	9	6
P3	Str	40	40	5	8	0	"								
P4	Str	36	36	5	9	6	"								
P5	(8)	104	104	11	11	3	Footing Dowels	9	3	2	0	1	0	9	9
P6	Str	104	104	11	24	3	Column								
P7	(11)	312	296	4	16	10	" Ties	3	9	4	8				
P8	Str	104		11	23	6	Column								
P9	Str	110	110	5	20	10	Web Wall								
P10	Str	110		5	23	4	" "								
P11	Str	152	144	5	19	11	" "								
P12	Str	152	144	5	23	8	Web Wall								
P13	Str	12	12	10	27	9	Cap								
P14	Str.	12	12	9	11	9	"								
P15	Str.	6	6	10	25	6	"								
P16	Str.	6	6	10	15	6	"								
P17	Str	12	12	10	11	0	"								
P18	(8)	12	12	10	14	10	"	13	0	1	10	1	0	13	6
P19	(8)	12	12	11	47	0	"	45	0	2	0	1	0	45	6
P20	Str	32	32	6	24	3	"								
P21	(11)	130	130	5	18	3	Cap	3	1	5	8				
P22	(3)	20	20	5	8	8	Pedestal	4	6	2	1				
P23	(3)	30	30	5	7	1	Pedestal	3	0	2	1				
P24	(11)	4	4	5	18	3	Cap	3	1	5	8				
P25	(4)	4	4	5	17	9	"	3	1	5	5				
P26	(4)	4	4	5	17	3	"	3	1	5	2				
P27	(4)	4	4	5	16	9	"	3	1	4	11				
P28	(4)	4	4	5	16	3	"	3	1	4	8				
P29	(4)	8	8	5	15	11	"	3	1	4	6				
P30	Str.	12	12	5	8	0	Cap								
P31	Str		104	11	18	10	Column								
P32	Str.		110	5	21	4	Web Wall								

SUPERSTRUCTURE

Mark	Type	Number	Bar Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
S1	(3)	702	5	7	7	Plinth								
S2	(2)	150	5	4	5	Curb								
S3	Str	48	5	33	10	Plinth								
S4	Str	48	5	27	6	Plinth								
S5	Str	[illegible]	5	36	3	Curb								
S6	Str	1120	5	37	2	Slab - Long								
S7	Str	940	5	36	9	Slab - Long								
S8	Str	14[illegible]	6	44	6	Slab - Trans.								
S9	(5)	702	6	45	11	Slab - Bent								
Hook Bolt Assembly		202	4			Median								
S1	Str	702	4	7	7	Median								
S2	Str	90	4	36	3	Median								



SHEET 12

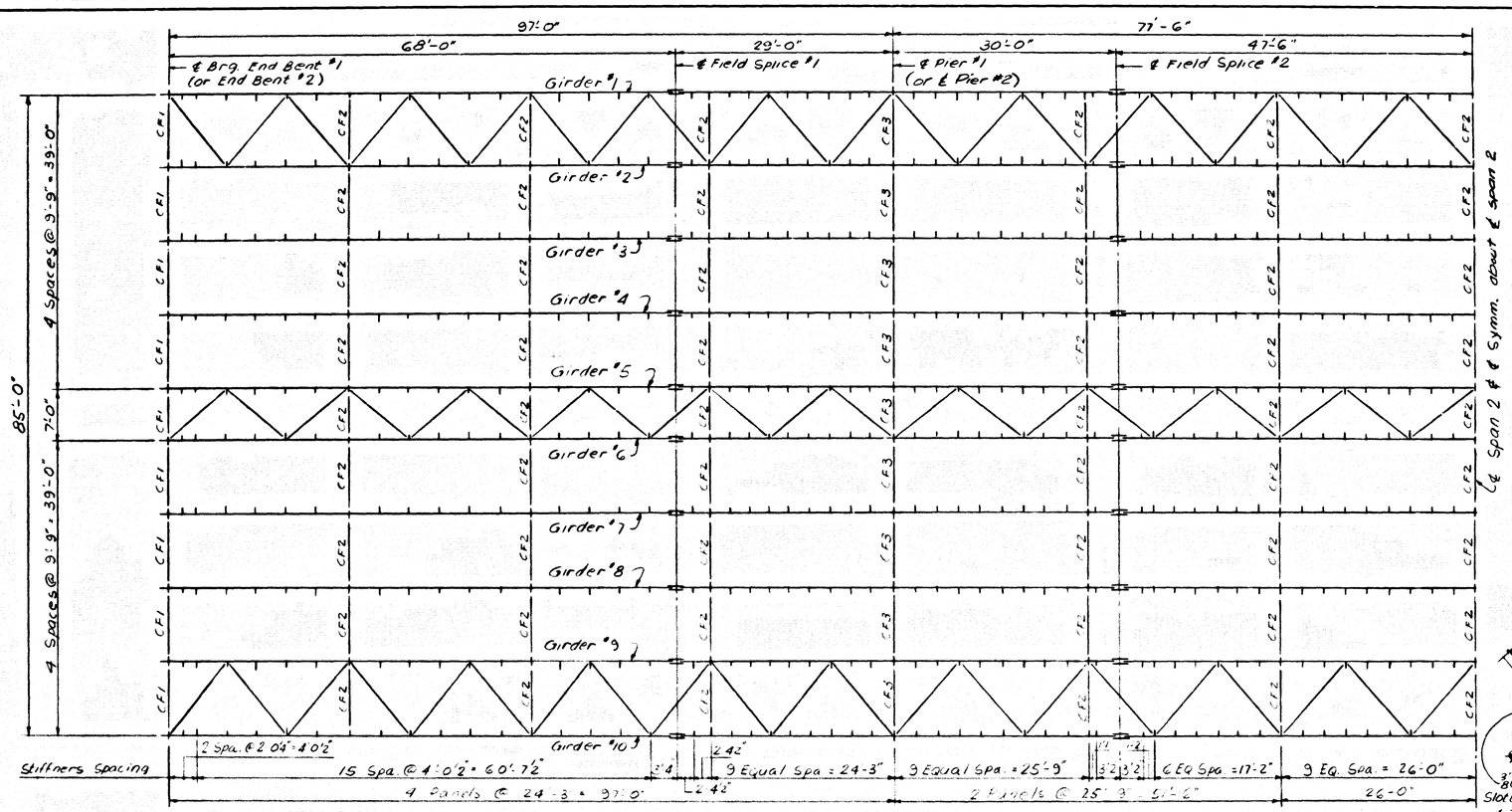
SUPERSTRUCTURE & SUBSTRUCTURE

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

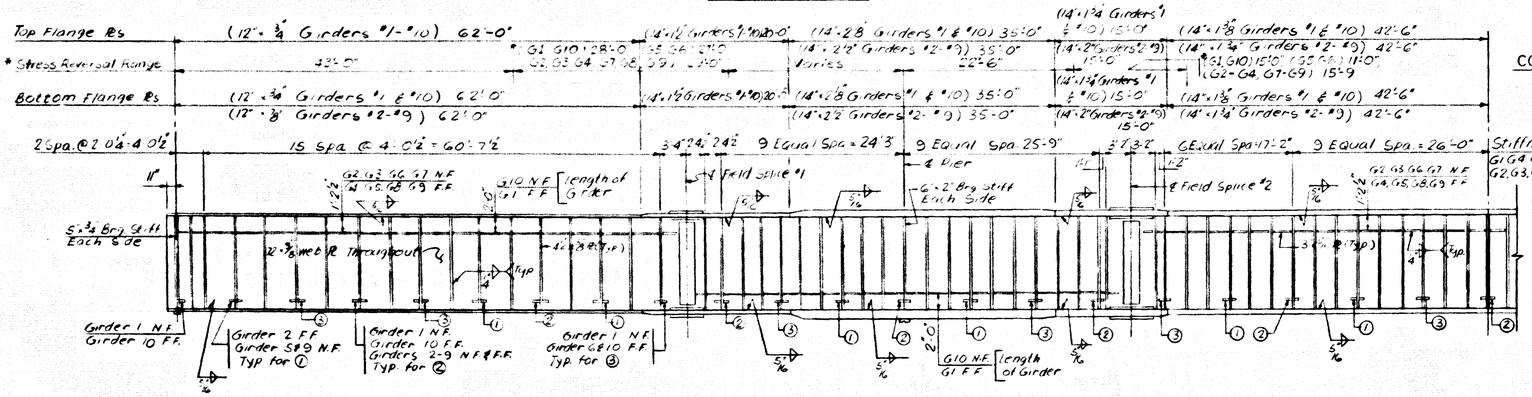
ROAD: SHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
STATION: 230+35.00
P.E. PROJECT NO.
CONSTRUCTION PROJECT NO.
MAINTENANCE PROJECT NO.
DRAWING NO. 18501

LETTING DATE

BRIDGE

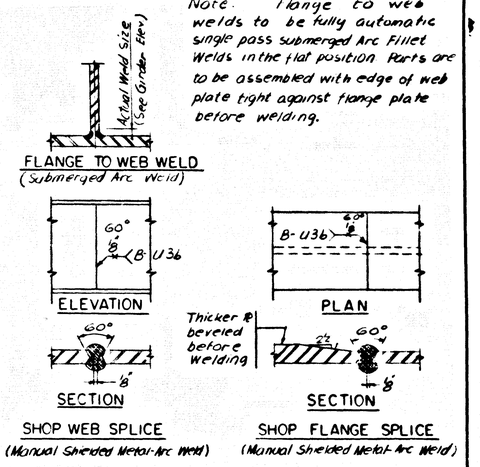


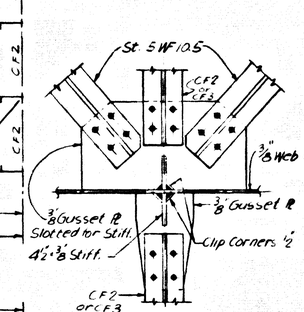
FRAMING PLAN



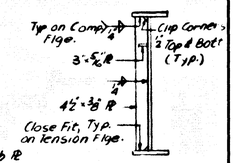
HALF GIRDER ELEVATION

Note: Flange to web welds to be fully automatic single pass submerged Arc Fillet Welds in the flat position. Parts are to be assembled with edge of web plate tight against flange plate before welding.

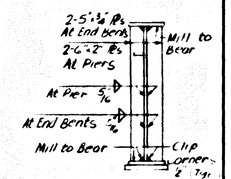




CONNECTION AT INT. DIAPH.



TYP. INTERMEDIATE STIFF.

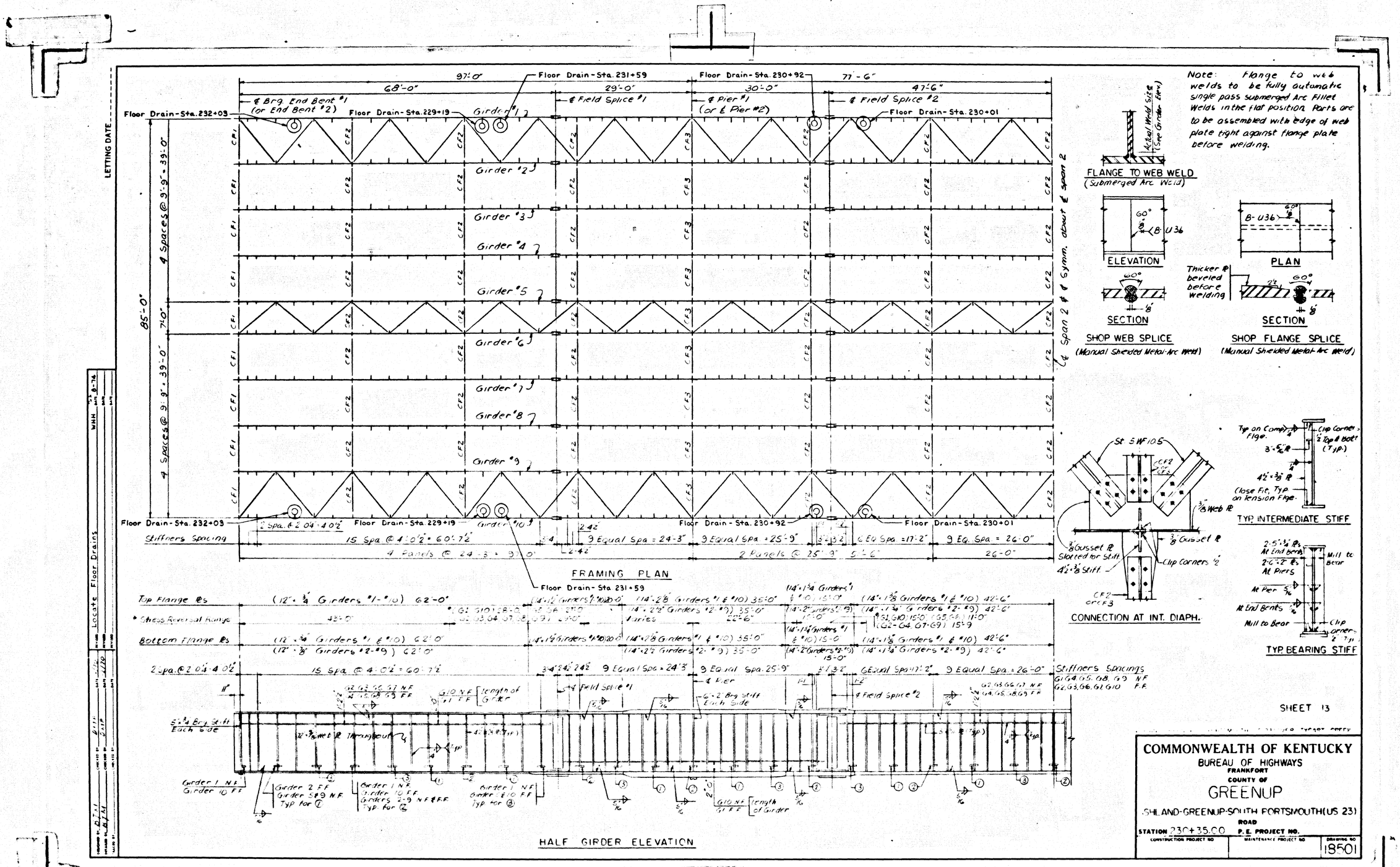


TYP. BEARING STIFF

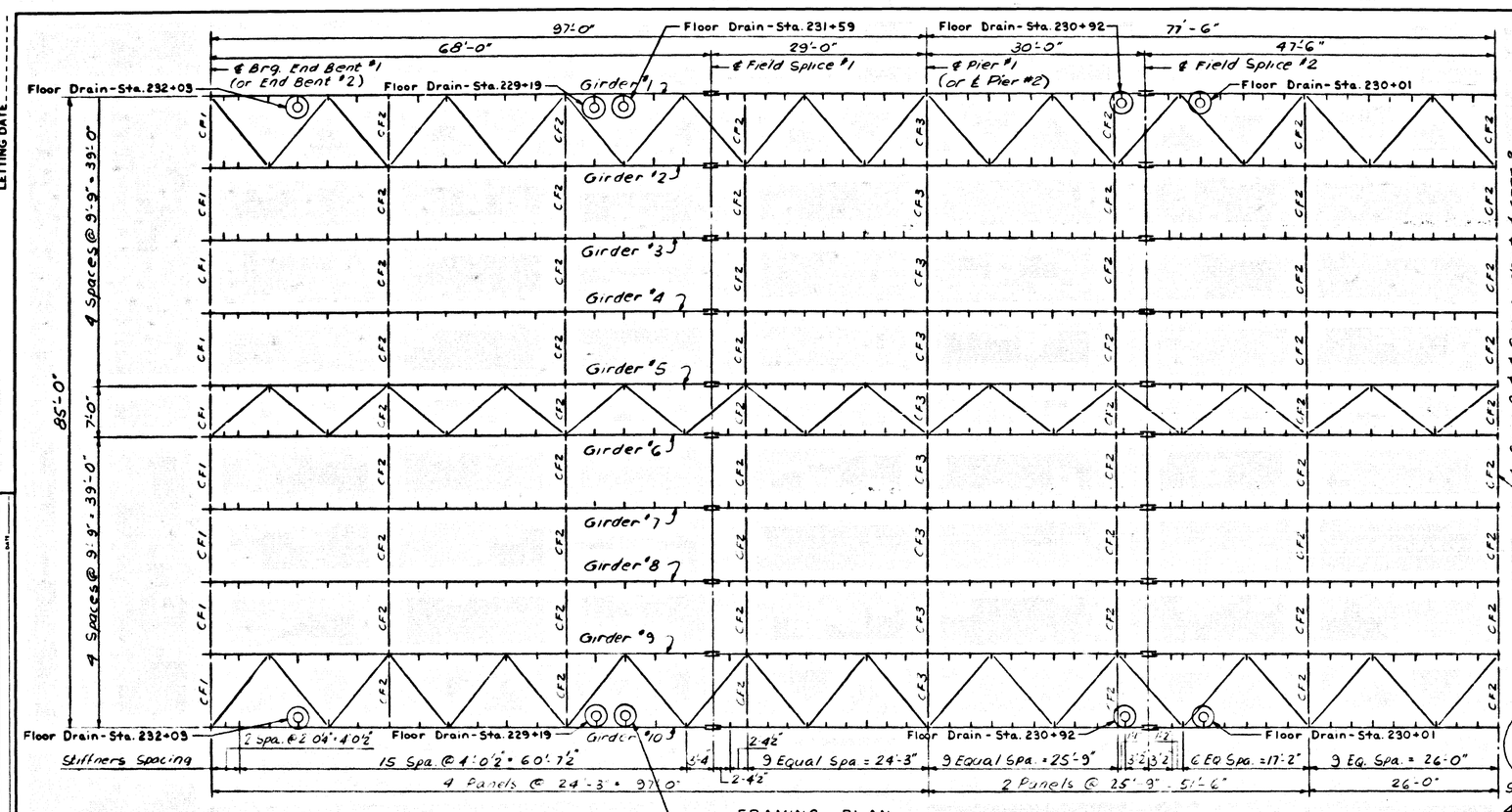
SHEET 13

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00
P.E. PROJECT NO.
CONSTRUCTION PROJECT NO.
MAINTENANCE PROJECT NO.
DRAWING NO. 18501

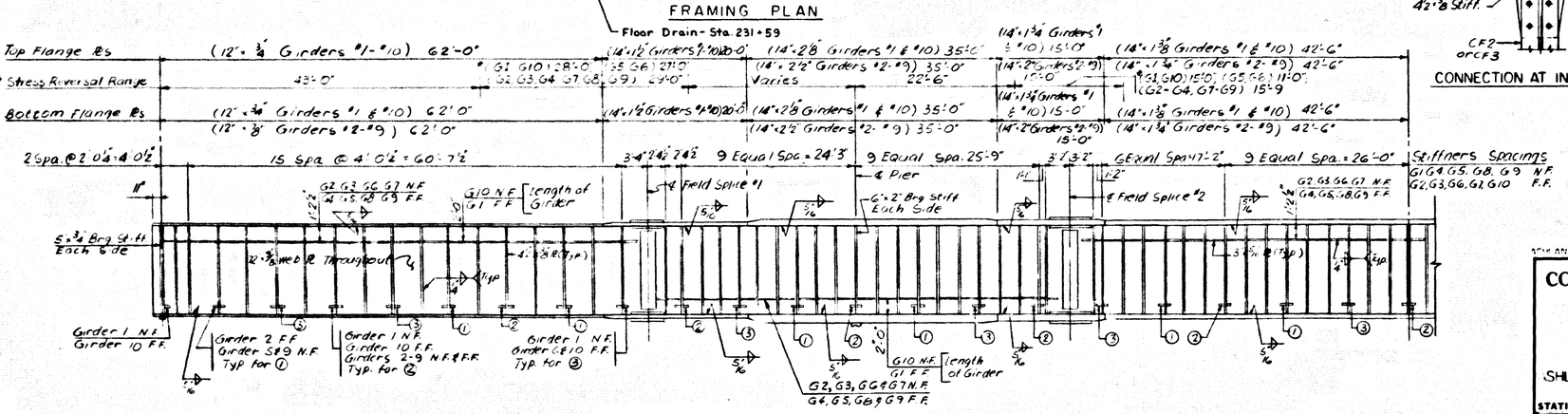
BRIDGE



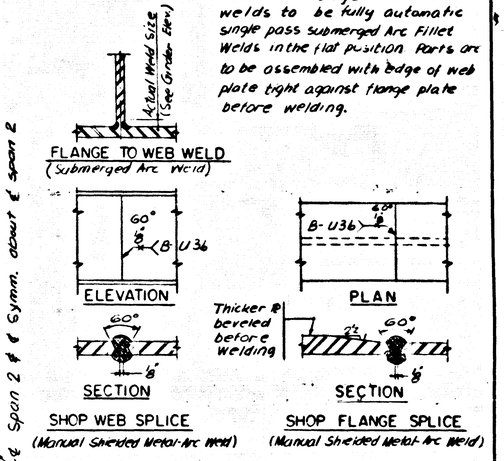
Note: Flange to web welds to be fully automatic single pass submerged Arc Fillet Welds in the flat position. Parts are to be assembled with edge of web plate tight against flange plate before welding.
FLANGE TO WEB WELD
(Submerged Arc Weld)
ELEVATION
PLAN
SECTION
SHOP WEB SPLICE
(Manual Shielded Metal-Arc Weld)
SHOP FLANGE SPLICE
(Manual Shielded Metal-Arc Weld)
CONNECTION AT INT. DIAPH.
TYP. INTERMEDIATE STIFF
TYP. BEARING STIFF
FRAMING PLAN
HALF GIRDER ELEVATION
Floor Drain-Sta. 232+03
Floor Drain-Sta. 229+19
Floor Drain-Sta. 231+59
Floor Drain-Sta. 230+92
Floor Drain-Sta. 230+01
Stiffners Spacing
Top Flange Pls
Bottom Flange Pls
Locate Floor Drains
LETTING DATE
SHEET 13
COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
SHILAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00
P.E. PROJECT NO.
CONSTRUCTION PROJECT NO
MAINTENANCE PROJECT NO
DRAWING NO
18501
BRIDGE



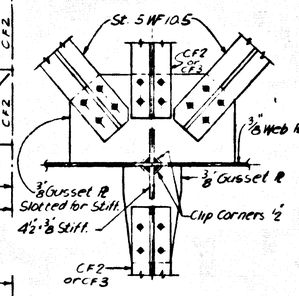
FRAMING PLAN



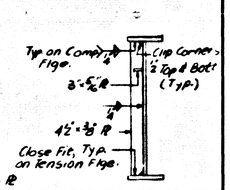
HALF GIRDER ELEVATION



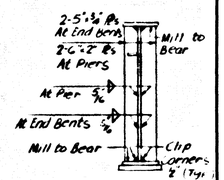
Note: Flange to web welds to be fully automatic single pass submerged Arc Fillet Welds in the flat position. Parts are to be assembled with edge of web plate tight against flange plate before welding.



CONNECTION AT INT. DIAPH.



TYP. INTERMEDIATE STIFF



TYP. BEARING STIFF

SHEET 13

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

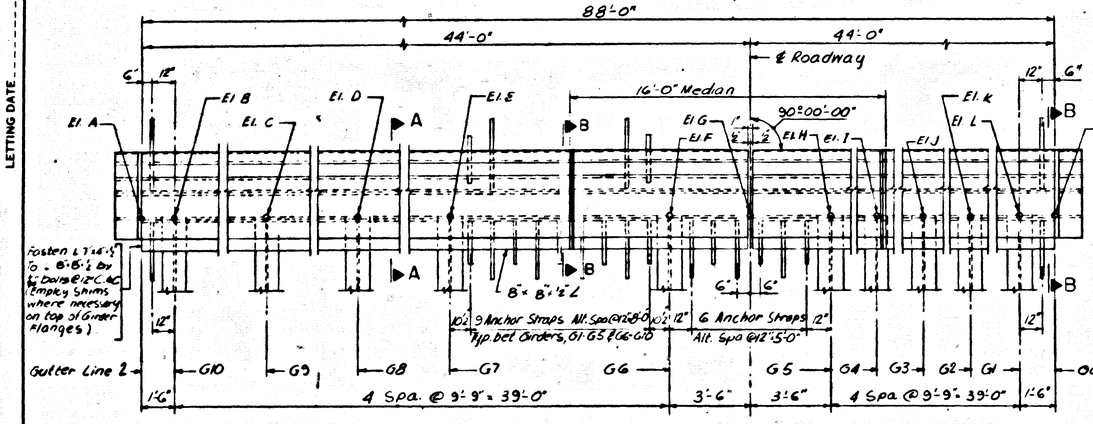
SHILAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD

STATION 230+35.00 | P.E. PROJECT NO.
CONSTRUCTION PROJECT NO. | MAINTENANCE PROJECT NO. | DRAWING NO. 18501

LETTING DATE

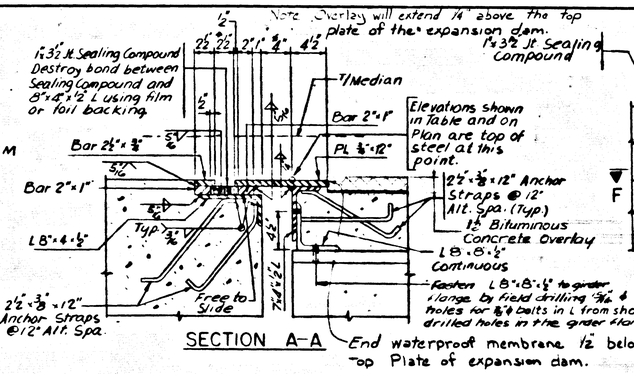
Locate Floor Drains
Added bar seats & stiffners on ℄ Piers to girders G2 & G3 on G9 & J. Bunn 2-75

BRIDGE

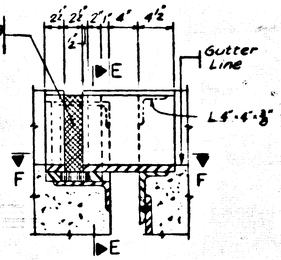


PLAN FOR EXPANSION DAM

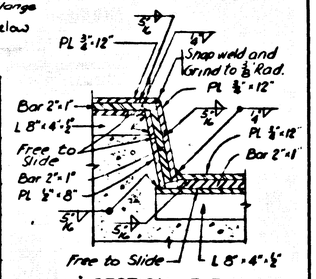
(End Bent 1 Shown, End Bent 2 Opposite Hand)



SECTION A-A



SECTION B-B

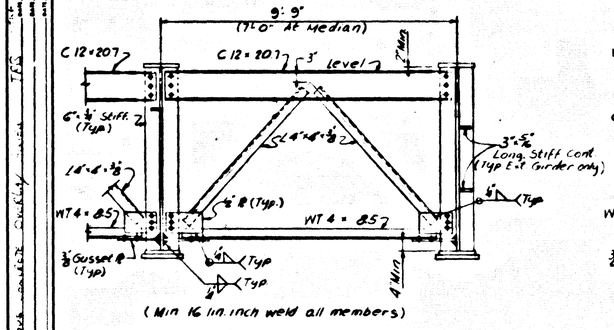


SECTION E-E

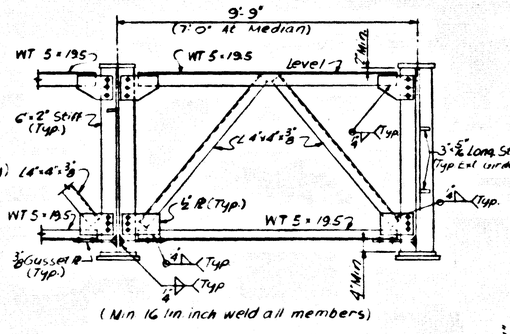
* This dimension to be maintained at normal temperature of 60° Fahrenheit. For each 10° above or below 60°, decrease or increase respectively by increment shown in table.

TABLE	
Item	Increment For Each 10° change in Temperature
End Bent 1	3/16"
End Bent 2	1/16"

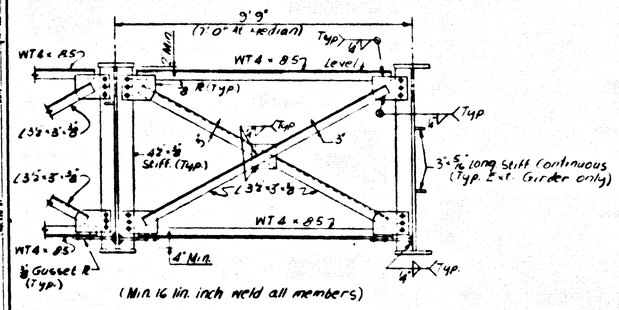
ELEVATIONS		
Points	End Bent 1	End Bent 2
A	548.765	546.660
B	548.788	546.683
C	548.840	546.735
D	548.892	546.787
E	548.944	546.839
F	548.996	546.891
G	549.051	546.946
H	549.096	546.991
I	549.144	547.039
J	549.092	546.987
K	548.840	546.735
L	548.788	546.683
M	548.765	546.660



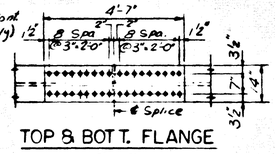
CROSS FRAME AT END BENTS CF 1



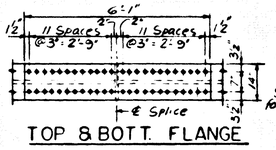
CROSS FRAME AT PIERS CF 3



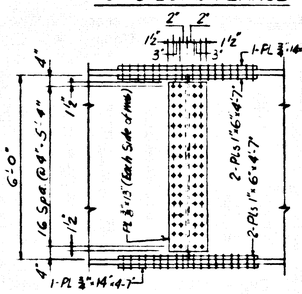
INTERMEDIATE CROSS FRAME CF 2



TOP & BOTT. FLANGE

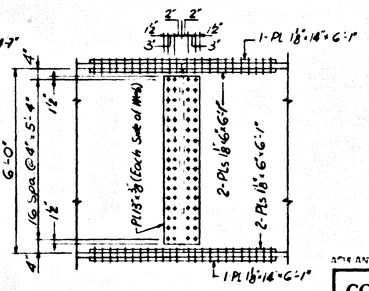


TOP & BOTT. FLANGE



ELEVATION

FIELD SPLICE 1



ELEVATION

FIELD SPLICE 2

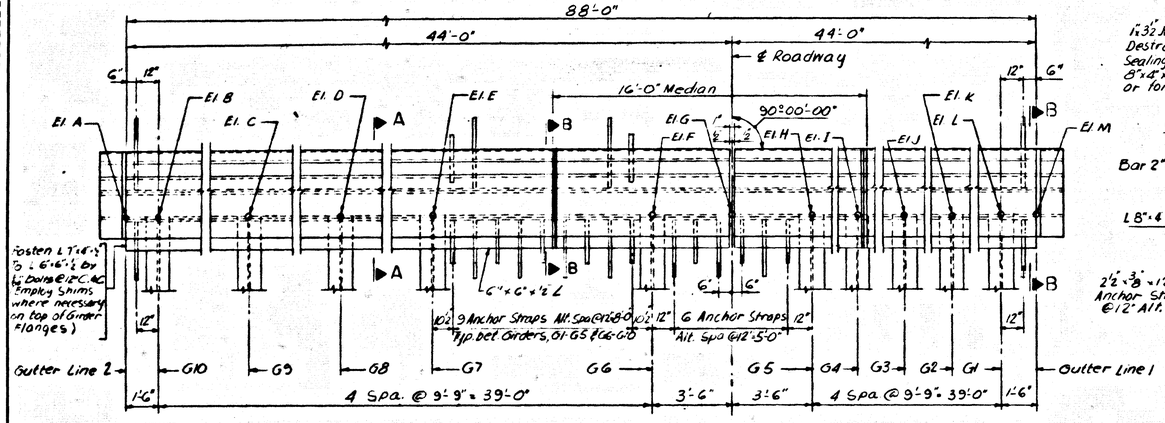
SHEET 14A

ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23) OVER TYGARTS CREEK

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00
P.E. PROJECT NO.
CONSTRUCTION PROJECT NO. | MAINTENANCE PROJECT NO. | DRAWING NO. 18501

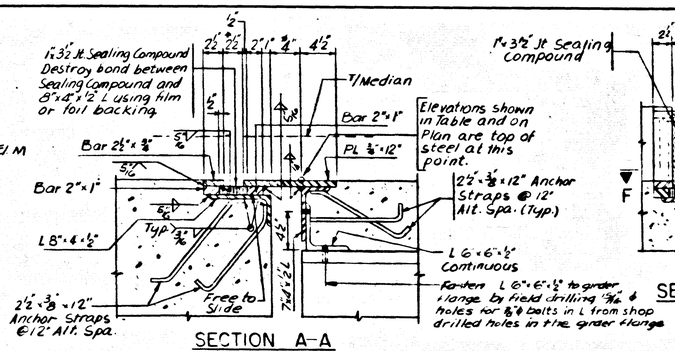
LETTING DATE

BRIDGE

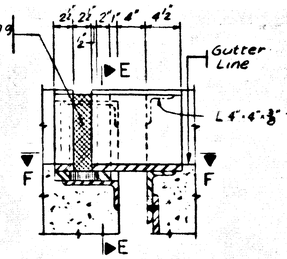


PLAN FOR EXPANSION DAM

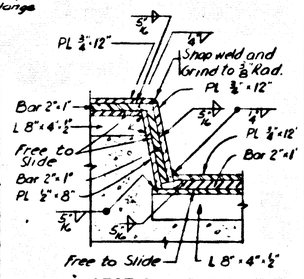
(End Bent 1 Shown, End Bent 2 Opposite Hand)



SECTION A-A



SECTION B-B

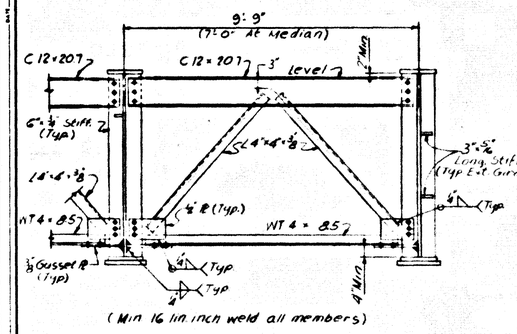


SECTION E-E

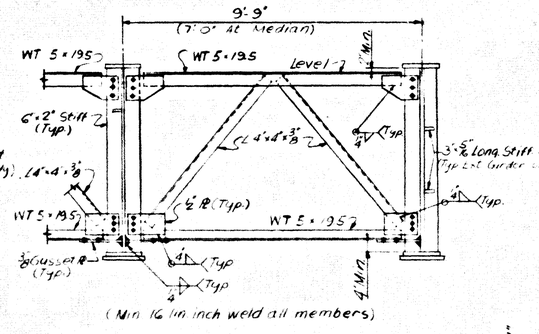
* This dimension to be maintained at normal temperature of 60° Fahrenheit. For each 10° above or below 60°, decrease or increase respectively by increment shown in table.

TABLE	
Item	Increment For Each 10° change in Temperature
End Bent 1	3/16"
End Bent 2	1/16"

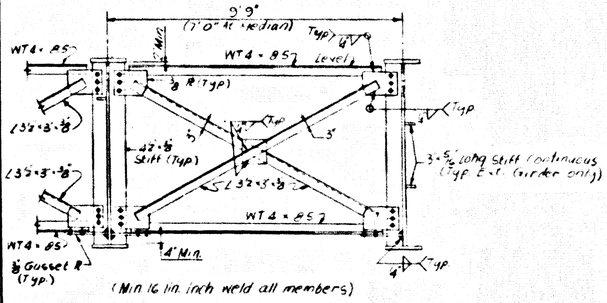
ELEVATIONS		
Points	End Bent 1	End Bent 2
A	548.661	546.556
B	548.684	546.579
C	548.836	546.731
D	548.988	546.883
E	549.140	547.035
F	549.292	547.187
G	549.347	547.242
H	549.292	547.187
I	549.140	547.035
J	548.988	546.883
K	548.836	546.731
L	548.684	546.579
M	548.661	546.556



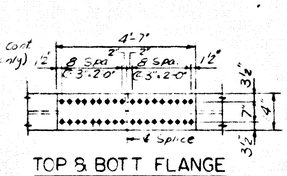
CROSS FRAME AT END BENTS CF 1



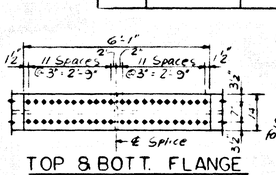
CROSS FRAME AT PIERS CF 3



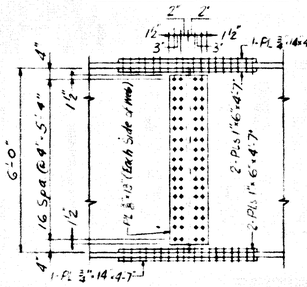
INTERMEDIATE CROSS FRAME CF 2



TOP & BOTT. FLANGE

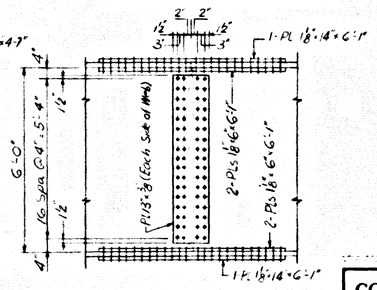


TOP & BOTT. FLANGE



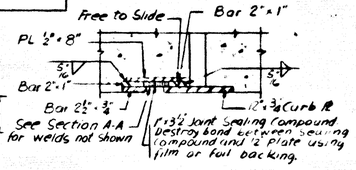
ELEVATION

FIELD SPLICE 1



ELEVATION

FIELD SPLICE 2



SECTION F-F

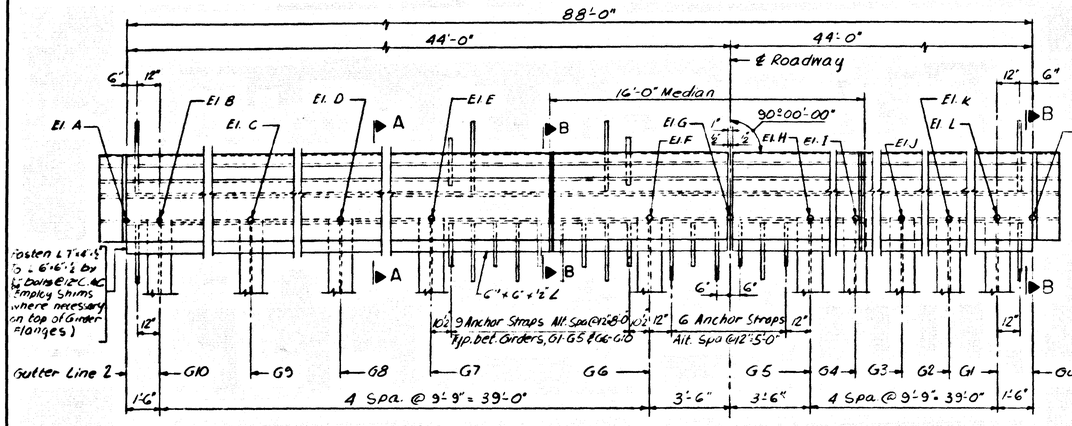
SHEET 14

VOID THIS SHEET
REPLACE WITH SHEET 14A

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 130+35.00
P.E. PROJECT NO.
CONSTRUCTION PROJECT NO
MAINTENANCE PROJECT NO.
DRAWING NO
18501

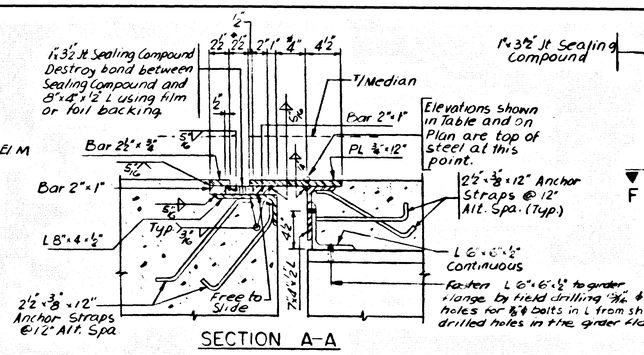
LETTING DATE

BRIDGE

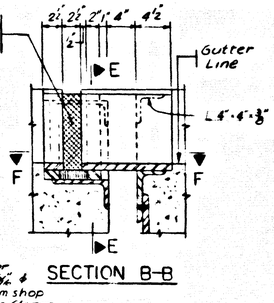


PLAN FOR EXPANSION DAM

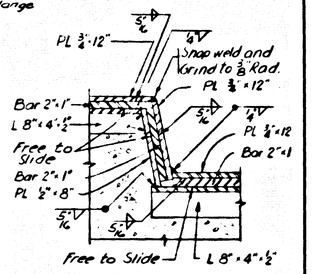
(End Bent 1 Shown, End Bent 2 Opposite Hand)



SECTION A-A



SECTION B-B

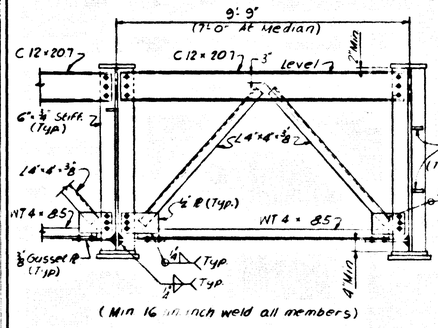


SECTION E-E

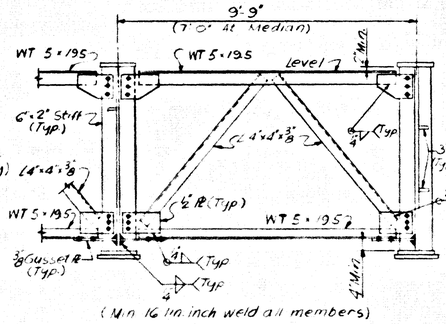
* This dimension to be maintained at normal temperature of 60° Fahrenheit. For each 10° above or below 60°, decrease or increase respectively by increment shown in table.

TABLE	
Item	Increment For Each 10° Change in Temperature
End Bent 1	3/16"
End Bent 2	7/16"

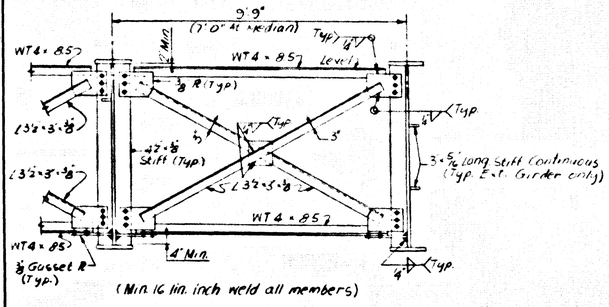
ELEVATIONS		
Points	End Bent 1	End Bent 2
A	548.661	546.556
B	548.684	546.579
C	548.836	546.731
D	548.988	546.883
E	549.140	547.035
F	549.292	547.187
G	549.347	547.242
H	549.292	547.187
I	549.140	547.035
J	548.988	546.883
K	548.836	546.731
L	548.684	546.579
M	548.661	546.556



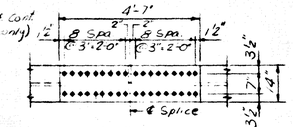
CROSS FRAME AT END BENTS CF 1



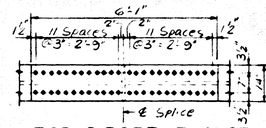
CROSS FRAME AT PIERS CF 3



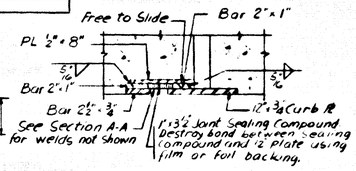
INTERMEDIATE CROSS FRAME CF 2



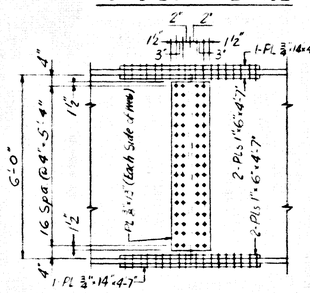
TOP & BOTT. FLANGE



TOP & BOTT. FLANGE

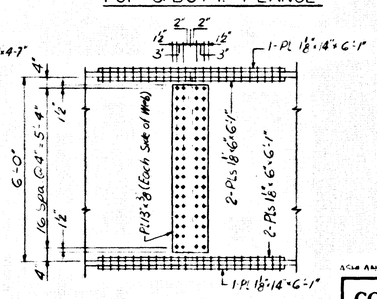


SECTION F-F



ELEVATION

FIELD SPLICE 1



ELEVATION

FIELD SPLICE 2

SHEET 14

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

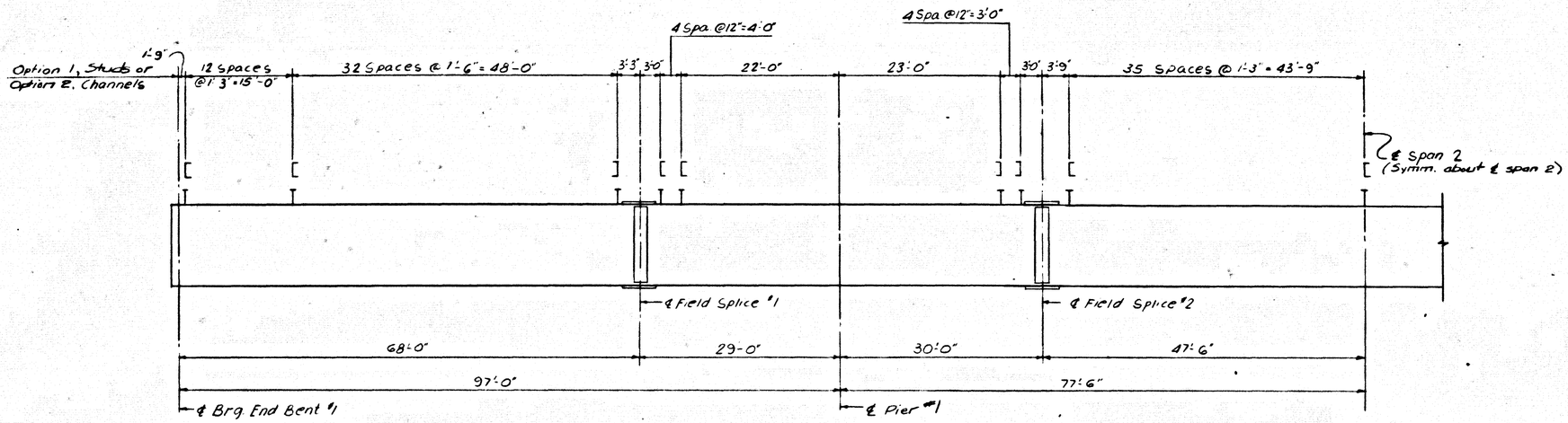
SHL AND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 130+35.00 P.E. PROJECT NO.

CONSTRUCTION PROJECT NO | MAINTENANCE PROJECT NO. | DRAWING NO. 18501

LETTING DATE

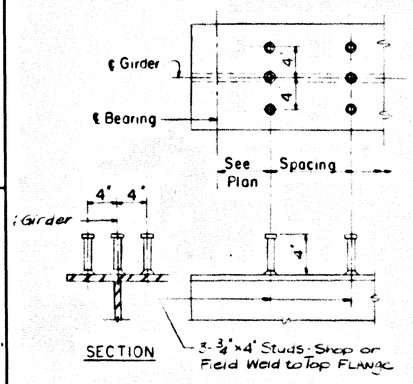
BRIDGE

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



SHEAR CONNECTOR SPACING ALL GIRDERS

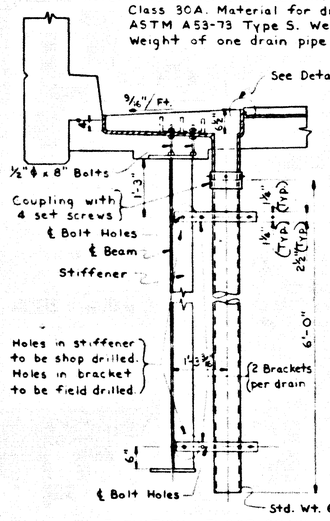
Note: Material for drain casting shall conform to ASTM A48-64 Class 30A. Material for drain pipe shall conform to ASTM A53-73 Type S. Weight of one casting is 380 Lbs. Weight of one drain pipe with coupling & brackets is 138 Lbs.



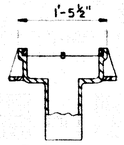
SECTION

ELEVATION

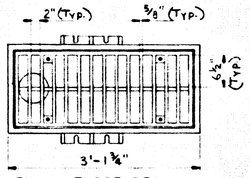
OPTION 1



ELEVATION – FLOOR DRAIN

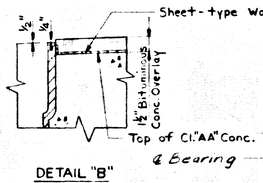


SECTION THRU FLOOR DRAIN

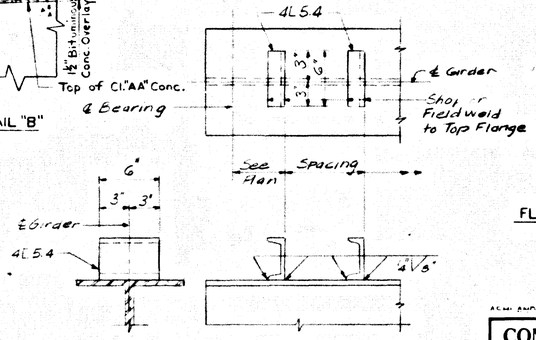


PLAN – FLOOR DRAIN

(10 Required)



DETAIL "B"

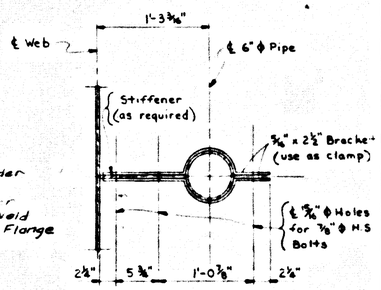


SECTION

ELEVATION

OPTION 2

SUPERSTRUCTURE



FLOOR DRAIN BRACKET DETAIL

SHEET 15

DRAWN BY	WMH	DATE	8-74
TRACED BY		DATE	
DESIGNED BY		DATE	
CHECKED BY		DATE	
ISSUED BY		DATE	
ISSUED BY		DATE	
ISSUED BY		DATE	

Add Floor Drain details

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

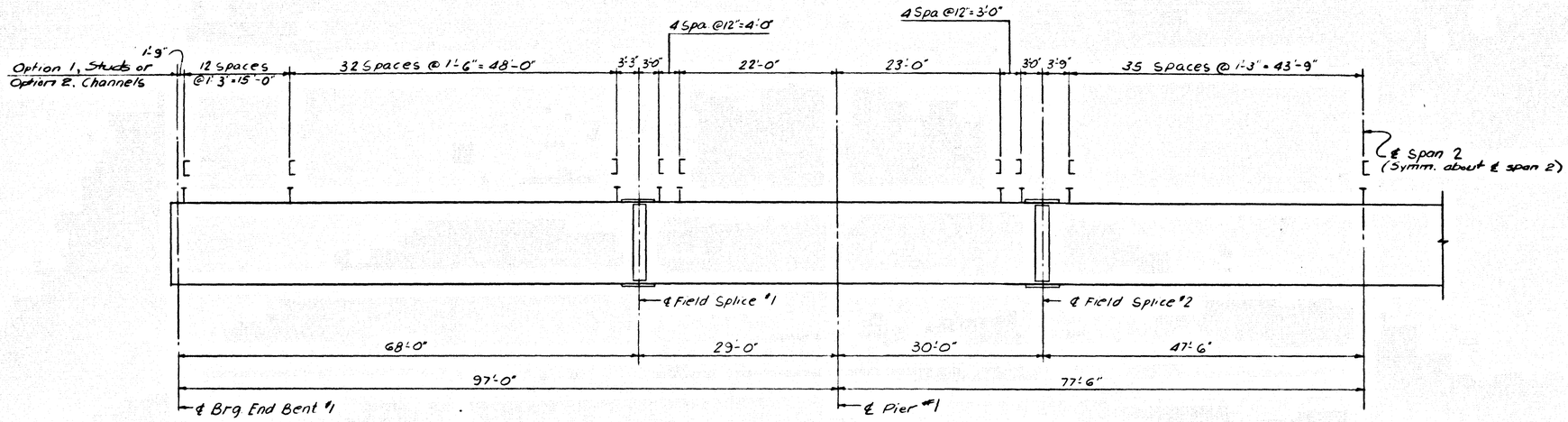
SHILAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD

STATION 230+35.00 PROJECT NO.

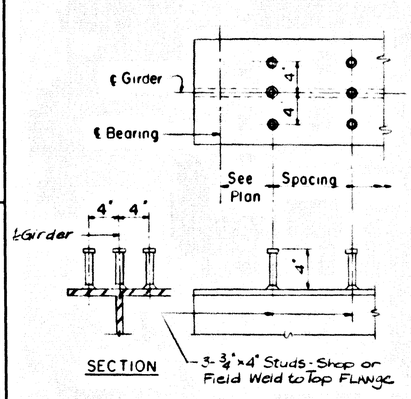
BRIDGE NUMBER 15-01

BRIDGE

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



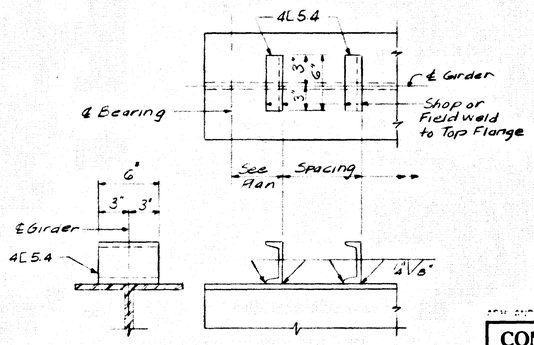
SHEAR CONNECTOR SPACING ALL GIRDERS



SECTION

ELEVATION

OPTION 1



SECTION

ELEVATION

OPTION 2

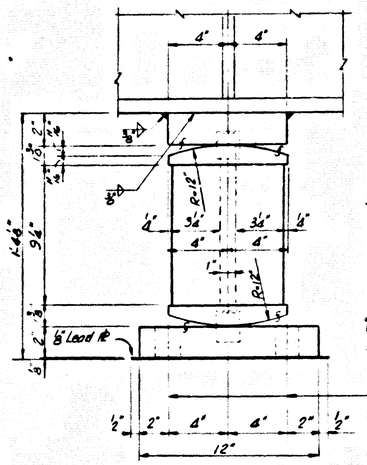
SUPERSTRUCTURE

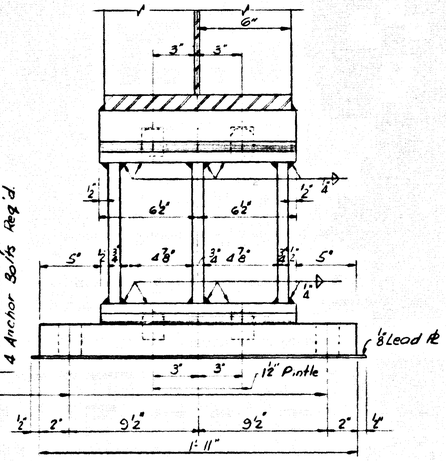
SHEET 15

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00
PROJECT NO.
BRIDGE NUMBER
13501

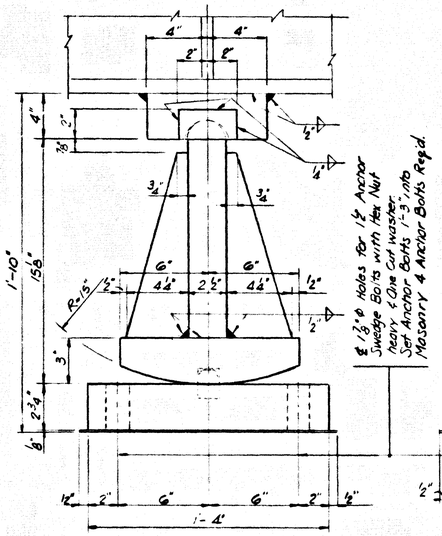
BRIDGE

LETTING DATE

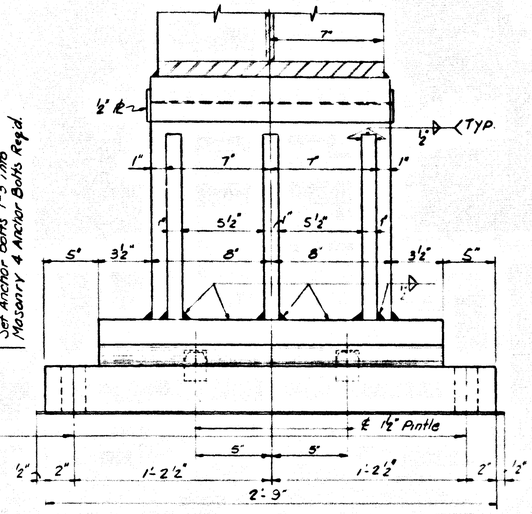




℄ 1⅛" ø Holes for 1¼" Anchor Swedge Bolts with Hex Nut heavy & One Cut Washer. Set Anchor Bolts 1'-3" into Masonry. 4 Anchor Bolts Req'd.



℄ 1⅛" ø Holes for 1¼" Anchor Swedge Bolts with Hex Nut heavy & One Cut washer. Set Anchor Bolts 1'-3" into Masonry. 4 Anchor Bolts Req'd.



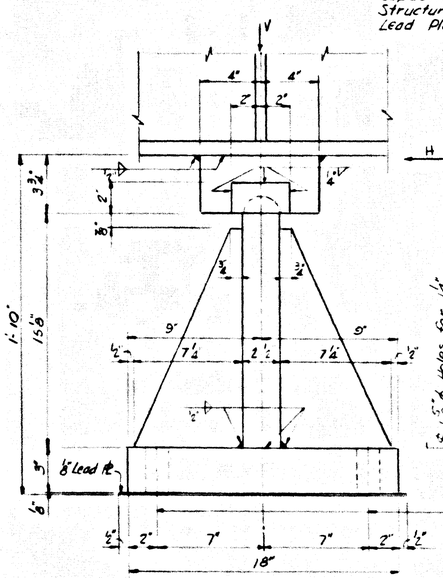
EXPANSION BEARING AT END BENTS

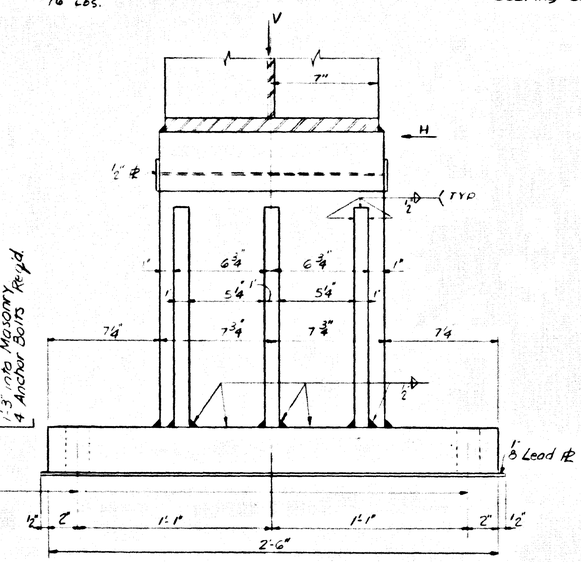
Capacity	120 Kips
Structural Steel	366 Lbs.
Lead Plates	16 Lbs.

NOTE: Detail all sole plates with Bevel to fit profile grade and keep ℄ bearing and bearing stiffeners vertical.

EXPANSION BEARING AT PIER 1

Capacity	360 Kips
Structural Steel	987 Lbs.
Lead Plates	30 Lbs.

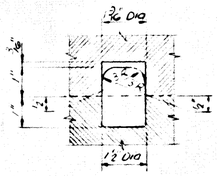




℄ 1⅛" ø Holes for 1¼" Anchor Swedge Bolts with Hex Nut heavy & One Cut Washer. Set Anchor Bolts 1'-3" into Masonry. 4 Anchor Bolts Req'd.

FIXED BEARING AT PIER 2

Capacity	360 Kips	H = 10 Kips
Structural Steel	856 Lbs.	
Lead Plates	30 Lbs.	



DETAIL OF PINTLE AND RECESS

SHEET 16

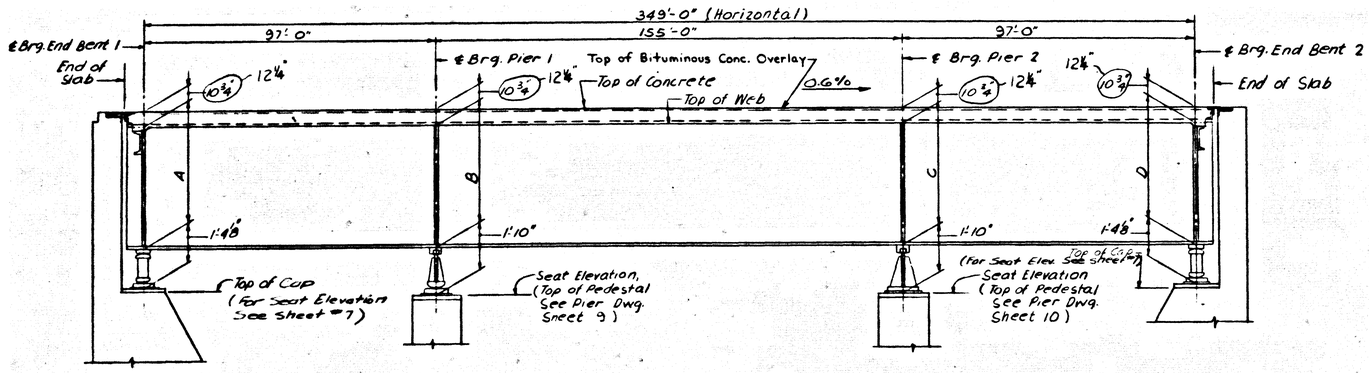
SUPERSTRUCTURE

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP

SHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00
P.E. PROJECT NO.

CONSTRUCTION PROJECT NO	MAINTENANCE PROJECT NO.	DRAWING NO
		18501

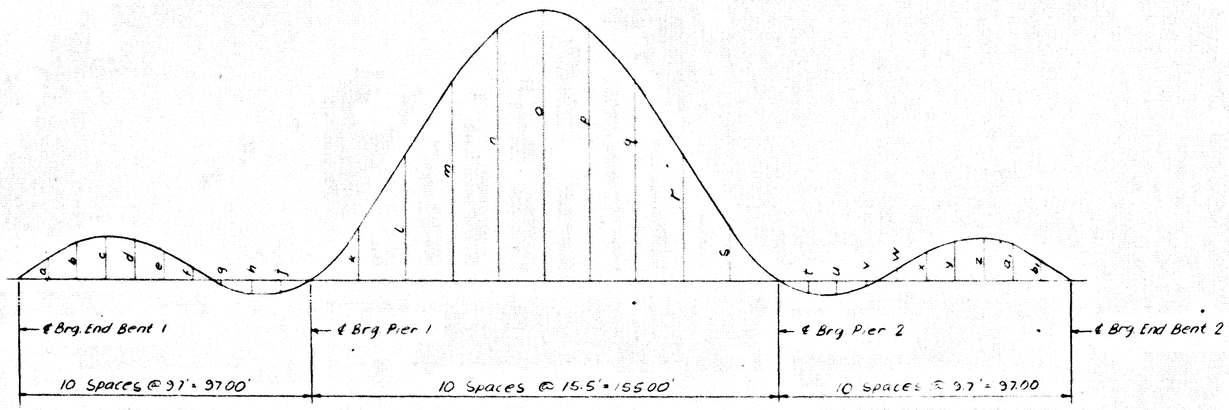
BRIDGE



ELEVATION SHOWING DIMENSIONS ON ℄ GIRDER

TABLE OF DIMENSIONS			
Dims.	Girders 1 & 10	Girders 5 & 6	Girders 2-4 & 7-9
A	6'-0¾"	6'-0⅛"	6'-0⅛"
B	6'-2⅛"	6'-2½"	6'-2½"
C	6'-2⅛"	6'-2½"	6'-2½"
D	6'-0¾"	6'-0⅛"	6'-0⅞"

DEAD LOAD CAMBER IN FT.									
Points	Girder 1 or 10			Girder 2 3 4 7 8 or 9			Girder 5 or 6		
	Steel Δ	Conc Δ	Total Δ	Steel Δ	Conc. Δ	Total Δ	Steel Δ	Conc. Δ	Total Δ
a	0.003	0.009	0.012	0.003	0.011	0.014	0.004	0.012	0.016
b	0.006	0.014	0.020	0.006	0.019	0.025	0.007	0.022	0.029
c	0.007	0.017	0.024	0.007	0.022	0.029	0.008	0.026	0.034
d	0.006	0.016	0.022	0.006	0.021	0.027	0.008	0.024	0.032
e	0.004	0.011	0.015	0.004	0.015	0.019	0.005	0.017	0.022
f	0.001	0.005	0.006	0.001	0.006	0.007	0.002	0.008	0.010
g	-0.001	-0.002	-0.003	-0.001	-0.002	-0.003	-0.001	-0.001	-0.002
h	-0.003	-0.005	-0.008	-0.002	-0.007	-0.009	-0.003	-0.008	-0.011
i	-0.003	-0.005	-0.008	-0.002	-0.007	-0.009	-0.003	-0.009	-0.012
k	0.010	0.024	0.034	0.008	0.029	0.037	0.011	0.036	0.047
l	0.024	0.056	0.080	0.020	0.067	0.087	0.027	0.086	0.113
m	0.038	0.088	0.126	0.031	0.106	0.137	0.042	0.134	0.176
n	0.048	0.110	0.158	0.039	0.132	0.171	0.053	0.168	0.221
o	0.051	0.119	0.170	0.042	0.142	0.184	0.058	0.179	0.237
p	0.048	0.110	0.158	0.039	0.132	0.171	0.053	0.168	0.221
q	0.038	0.088	0.126	0.031	0.106	0.137	0.042	0.134	0.176
r	0.024	0.056	0.080	0.020	0.067	0.087	0.027	0.086	0.113
s	0.010	0.024	0.034	0.008	0.029	0.037	0.011	0.036	0.047
t	-0.003	-0.005	-0.008	-0.002	-0.007	-0.009	-0.003	-0.009	-0.012
u	-0.003	-0.005	-0.008	-0.002	-0.007	-0.009	-0.003	-0.008	-0.011
v	-0.001	-0.002	-0.003	-0.001	-0.002	-0.003	-0.001	-0.001	-0.002
w	0.001	0.005	0.006	0.001	0.006	0.007	0.002	0.008	0.010
x	0.004	0.011	0.015	0.004	0.015	0.019	0.005	0.017	0.022
y	0.006	0.016	0.022	0.006	0.021	0.027	0.008	0.024	0.032
z	0.007	0.017	0.024	0.007	0.022	0.029	0.008	0.026	0.034
a1	0.006	0.014	0.020	0.006	0.019	0.025	0.007	0.022	0.029
b1	0.003	0.009	0.012	0.003	0.011	0.014	0.004	0.012	0.016



DEAD LOAD CAMBER

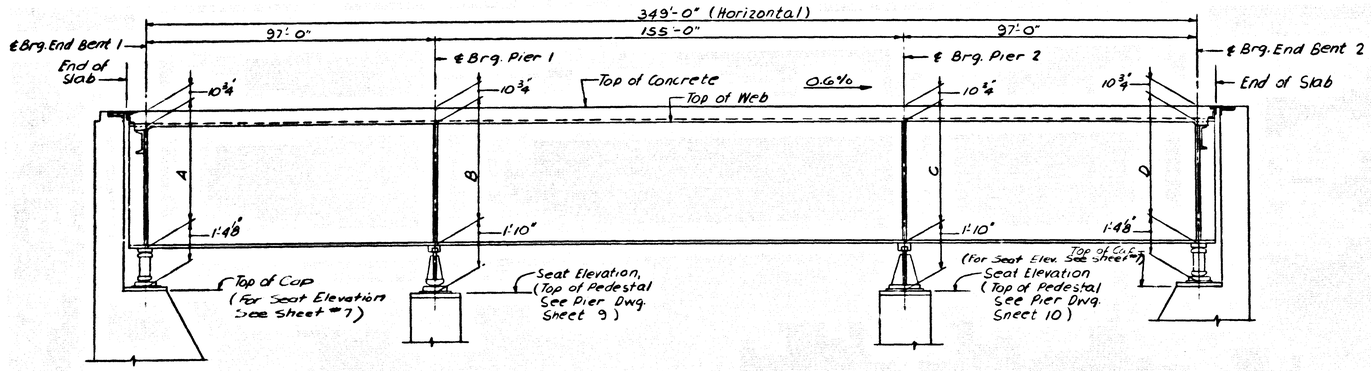
SUPERSTRUCTURE

SHEET 17

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00
P.E. PROJECT NO.
CONSTRUCTION PROJECT NO
MAINTENANCE PROJECT NO
DRAWING NO
18501

LETTING DATE

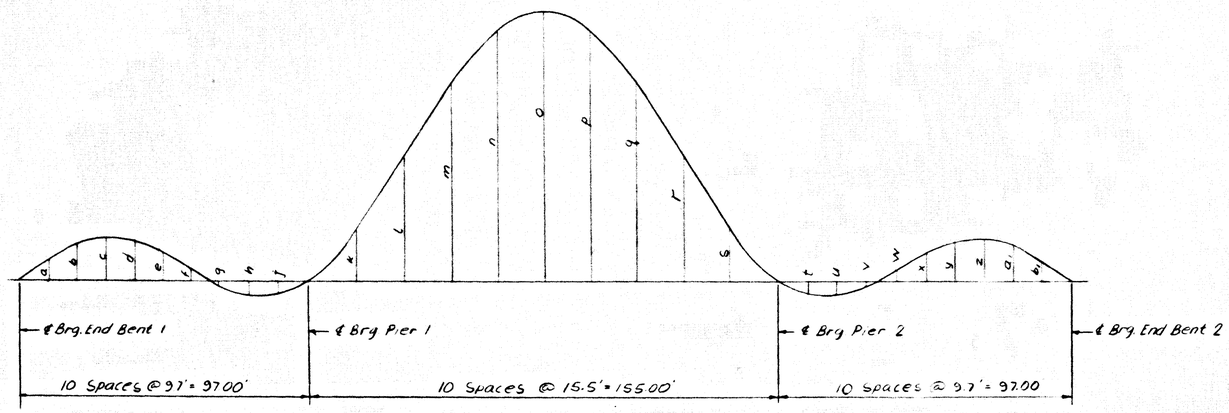
BRIDGE



ELEVATION SHOWING DIMENSIONS ON ℄ GIRDER

TABLE OF DIMENSIONS			
Dim.	Girders 1 & 10	Girders 5 & 6	Girders 2-4 & 7-9
A	6'-0¼"	6'-0⅛"	6'-0⅛"
B	6'-2⅛"	6'-2½"	6'-2½"
C	6'-2⅛"	6'-2½"	6'-2½"
D	6'-0¾"	6'-0⅞"	6'-0⅞"

DEAD LOAD CAMBER IN FT.									
Points	Girder 1 or 10			Girder 2 3 4 7 8 or 9			Girder 5 or 6		
	Steel Δ	Conc. Δ	Total Δ	Steel Δ	Conc. Δ	Total Δ	Steel Δ	Conc. Δ	Total Δ
a	0.003	0.009	0.012	0.003	0.011	0.014	0.004	0.012	0.016
b	0.006	0.014	0.020	0.006	0.019	0.025	0.007	0.022	0.029
c	0.007	0.017	0.024	0.007	0.022	0.029	0.008	0.026	0.034
d	0.006	0.016	0.022	0.006	0.021	0.027	0.008	0.024	0.032
e	0.004	0.011	0.015	0.004	0.015	0.019	0.005	0.017	0.022
f	0.001	0.005	0.006	0.001	0.006	0.007	0.002	0.008	0.010
g	-0.001	-0.002	-0.003	-0.001	-0.002	-0.003	-0.001	-0.001	-0.002
h	-0.003	-0.005	-0.008	-0.002	-0.007	-0.009	-0.003	-0.008	-0.011
i	-0.003	-0.005	-0.008	-0.002	-0.007	-0.009	-0.003	-0.009	-0.012
k	0.010	0.024	0.034	0.008	0.029	0.037	0.011	0.036	0.047
l	0.024	0.056	0.080	0.020	0.067	0.087	0.027	0.086	0.113
m	0.038	0.088	0.126	0.031	0.106	0.137	0.042	0.134	0.176
n	0.048	0.110	0.158	0.039	0.132	0.171	0.053	0.168	0.221
o	0.051	0.119	0.170	0.042	0.142	0.184	0.058	0.179	0.237
p	0.048	0.110	0.158	0.039	0.132	0.171	0.053	0.168	0.221
q	0.038	0.088	0.126	0.031	0.106	0.137	0.042	0.134	0.176
r	0.024	0.056	0.080	0.020	0.067	0.087	0.027	0.086	0.113
s	0.010	0.024	0.034	0.008	0.029	0.037	0.011	0.036	0.047
t	-0.003	-0.005	-0.008	-0.002	-0.007	-0.009	-0.003	-0.009	-0.012
u	-0.003	-0.005	-0.008	-0.002	-0.007	-0.009	-0.003	-0.008	-0.011
v	-0.001	-0.002	-0.003	-0.001	-0.002	-0.003	-0.001	-0.001	-0.002
w	0.001	0.005	0.006	0.001	0.006	0.007	0.002	0.008	0.010
x	0.004	0.011	0.015	0.004	0.015	0.019	0.005	0.017	0.022
y	0.006	0.016	0.022	0.006	0.021	0.027	0.008	0.024	0.032
z	0.007	0.017	0.024	0.007	0.022	0.029	0.008	0.026	0.034
a1	0.006	0.014	0.020	0.006	0.019	0.025	0.007	0.022	0.029
b1	0.003	0.009	0.012	0.003	0.011	0.014	0.004	0.012	0.016



DEAD LOAD CAMBER

SUPERSTRUCTURE

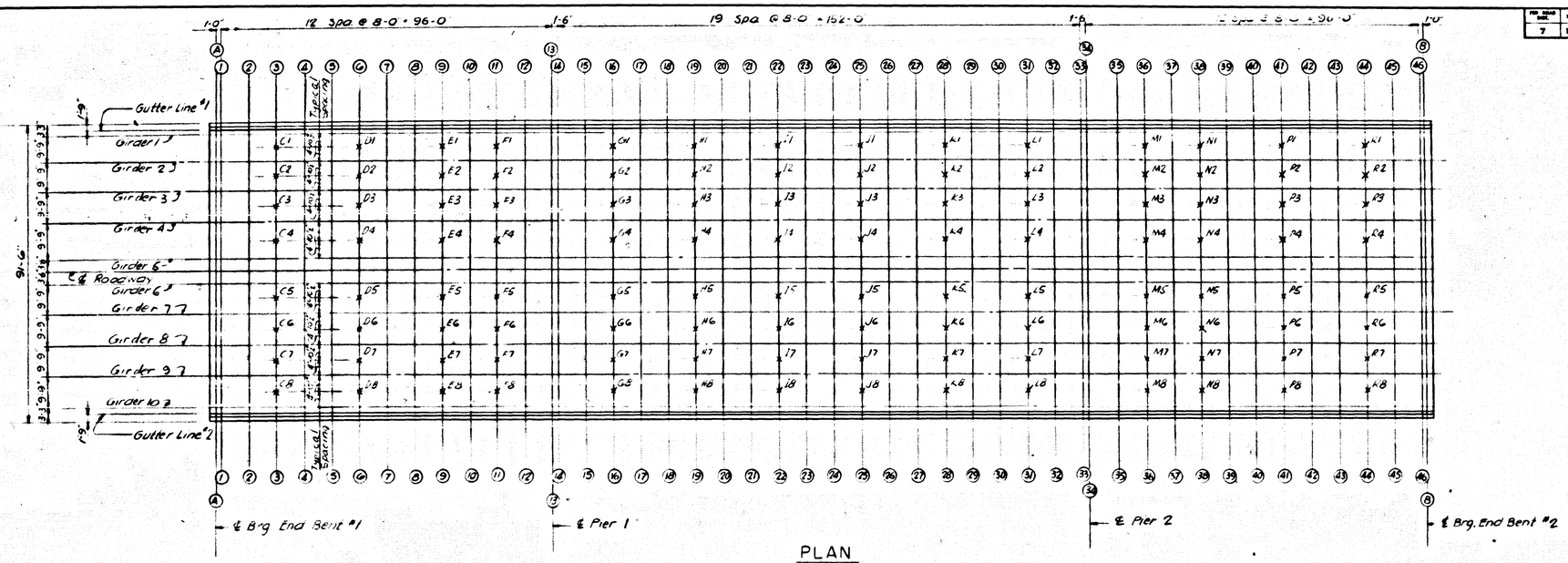
SHEET 17

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00
P. E. PROJECT NO.
CONSTRUCTION PROJECT NO | MAINTENANCE PROJECT NO. | DRAWING NO 18501

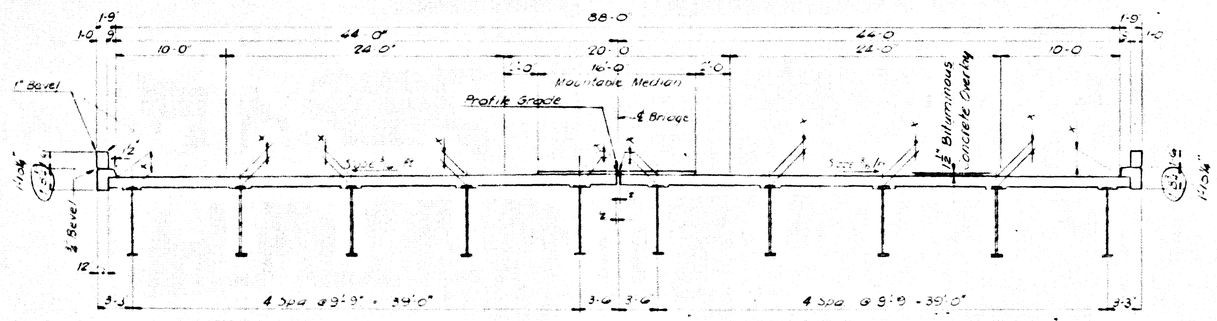
LETTING DATE

BRIDGE

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



PLAN



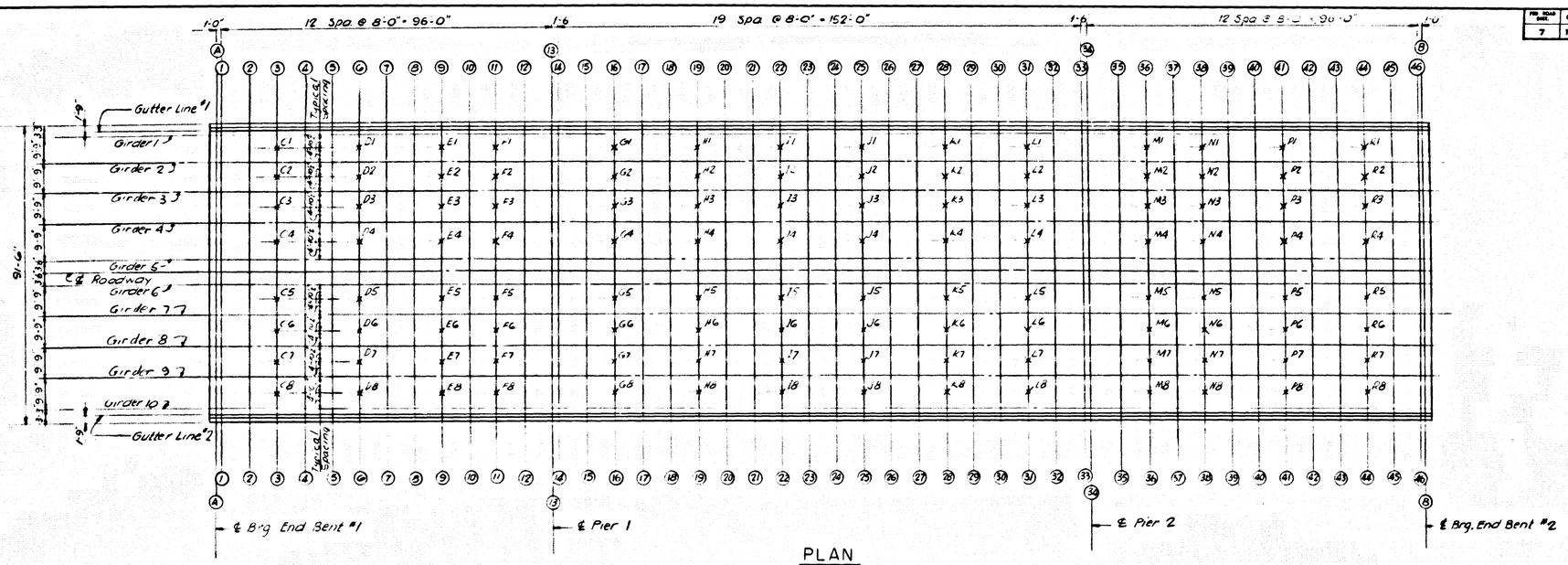
TYPICAL CROSS SECTION

CONSTRUCTION ELEVATIONS

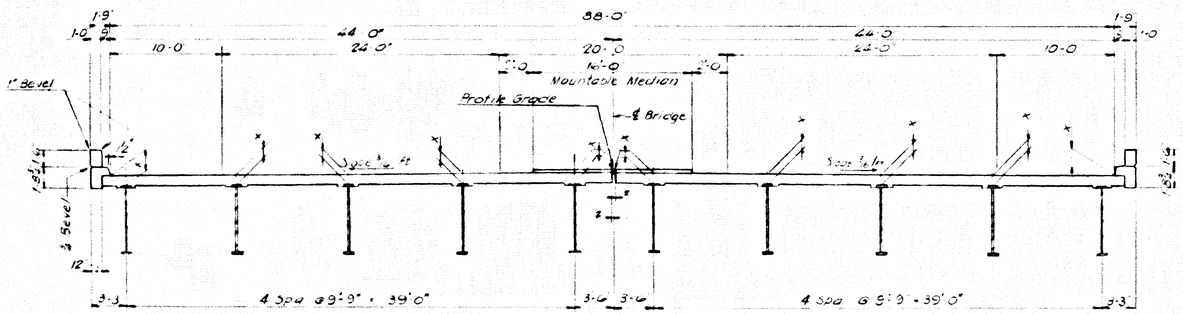
SHEET 18

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00 PROJECT NO.
BRIDGE NUMBER 18501

BRIDGE



PLAN



TYPICAL CROSS SECTION

SHEET 18

CONSTRUCTION ELEVATIONS

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00 PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 18501

BRIDGE

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

TABLE OF ELEVATIONS

Section	Gutter Line #1 Constr El	Top of Steel on ⊈ Gir. #1	Dim. X	Girder #2 Constr El	Top of Steel	Dim X	Girder #3 Constr El	Top of Steel	Dim X
A-A	548.655			548.830			548.982		
1-1	548.650			548.825			548.977		
2-2	548.611			548.787			548.939		
3-3	548.571			548.750			548.902		
4-4	548.528			548.708			548.860		
5-5	548.481			548.661			548.813		
6-6	548.429			548.610			548.762		
7-7	548.376			548.555			548.707		
8-8	548.320			548.498			548.650		
9-9	548.264			548.441			548.593		
10-10	548.211			548.385			548.537		
11-11	548.157			548.334			548.486		
12-12	548.113			548.288			548.440		
13-13	548.073			548.248			548.400		
14-14	548.067			548.242			548.394		
15-15	548.036			548.210			548.362		
16-16	548.007			548.185			548.337		
17-17	547.983			548.163			548.315		
18-18	547.961			548.143			548.295		
19-19	547.937			548.120			548.272		
20-20	547.910			548.095			548.247		
21-21	547.880			548.066			548.218		
22-22	547.842			548.030			548.182		
23-23	547.800			547.989			548.141		
24-24	547.752			547.941			548.093		
25-25	547.698			547.886			548.038		
26-26	547.640			547.826			547.978		
27-27	547.574			547.759			547.911		
28-28	547.505			547.688			547.840		
29-29	547.433			547.615			547.767		
30-30	547.359			547.539			547.691		
31-31	547.287			547.465			547.617		
32-32	547.220			547.394			547.546		
33-33	547.155			547.330			547.482		
34-34	547.143			547.318			547.470		
35-35	547.087			547.262			547.414		
36-36	547.036			547.212			547.364		
37-37	546.993			547.167			547.319		
38-38	546.950			547.127			547.279		
39-39	546.910			547.088			547.240		
40-40	546.870			547.049			547.201		
41-41	546.827			547.008			547.160		
42-42	546.783			546.963			547.115		
43-43	546.734			546.914			547.066		
44-44	546.681			546.860			547.012		
45-45	546.625			546.801			546.953		
46-46	546.568			546.743			546.895		
B-B	546.561			546.736			546.888		

Section	Girder #4 Constr El	Top of Steel	Dim X	Girder #5 Constr El	Top of Steel	Dim X	⊈ Bridge Constr El	Top of Steel	Dim X	Girder #6 Constr El	Top of Steel	Dim X
A-A	549.134			549.286			549.341			549.286		
1-1	549.129			549.281			549.336			549.281		
2-2	549.091			549.246			549.301			549.246		
3-3	549.054			549.211			549.266			549.211		
4-4	549.012			549.169			549.224			549.169		
5-5	548.965			549.122			549.177			549.122		
6-6	548.914			549.070			549.125			549.070		
7-7	548.859			549.013			549.068			549.013		
8-8	548.802			548.955			549.010			548.955		
9-9	548.745			548.896			548.951			548.896		
10-10	548.689			548.840			548.895			548.840		
11-11	548.638			548.788			548.843			548.788		
12-12	548.592			548.741			548.796			548.741		
13-13	548.552			548.704			548.759			548.704		
14-14	548.546			548.698			548.753			548.698		
15-15	548.514			548.672			548.727			548.672		
16-16	548.489			548.654			548.709			548.654		
17-17	548.467			548.640			548.695			548.640		
18-18	548.447			548.627			548.682			548.627		
19-19	548.424			548.612			548.667			548.612		
20-20	548.399			548.593			548.648			548.593		
21-21	548.370			548.570			548.625			548.570		
22-22	548.334			548.537			548.592			548.537		
23-23	548.293			548.497			548.552			548.497		
24-24	548.245			548.449			548.504			548.449		
25-25	548.190			548.393			548.448			548.393		
26-26	548.130			548.330			548.385			548.330		
27-27	548.063			548.257			548.312			548.257		
28-28	547.992			548.180			548.235			548.180		
29-29	547.919			548.099			548.154			548.099		
30-30	547.843			548.016			548.071			548.016		
31-31	547.769			547.934			547.989			547.934		
32-32	547.698			547.856			547.911			547.856		
33-33	547.634			547.786			547.841			547.786		
34-34	547.622			547.774			547.829			547.774		
35-35	547.566			547.715			547.770			547.715		
36-36	547.516			547.666			547.721			547.666		
37-37	547.471			547.622			547.677			547.622		
38-38	547.431			547.582			547.637			547.582		
39-39	547.392			547.545			547.600			547.545		
40-40	547.353			547.507			547.562			547.507		
41-41	547.312			547.465			547.523			547.468		
42-42	547.267			547.424			547.479			547.424		
43-43	547.218			547.375			547.430			547.375		
44-44	547.164			547.321			547.376			547.321		
45-45	547.105			547.260			547.315			547.260		
46-46	547.047			547.199			547.254			547.199		
B-B	547.040			547.192			547.247			547.192		

Section	Girder #7 Constr El	Top of Steel	Dim X	Girder #8 Constr El	Top of Steel	Dim X	Girder #9 Constr El	Top of Steel	Dim X	Gutter Line #2 Constr El	Top of Steel on ⊈ Gir. #10	Dim X
A-A	549.134			548.982			548.830			548.655		
1-1	549.129			548.977			548.825			548.650		
2-2	549.091			548.939			548.787			548.611		
3-3	549.054			548.902			548.750			548.571		
4-4	549.012			548.860			548.708			548.528		
5-5	548.965			548.813			548.661			548.481		
6-6	548.914			548.762			548.610			548.429		
7-7	548.859			548.707			548.555			548.376		
8-8	548.802			548.650			548.498			548.320		
9-9	548.745			548.593			548.441			548.264		
10-10	548.689			548.537			548.385			548.211		
11-11	548.638			548.486			548.334			548.157		
12-12	548.592			548.440			548.288			548.113		
13-13	548.552			548.400			548.248			548.073		
14-14	548.546			548.394			548.242			548.067		
15-15	548.514			548.362			548.210			548.036		
16-16	548.489			548.337			548.185			548.007		
17-17	548.467			548.315			548.163			547.983		
18-18	548.447			548.295			548.143			547.961		
19-19	548.424			548.272			548.120			547.937		
20-20	548.399			548.247			548.095			547.910		
21-21	548.370			548.218			548.066			547.880		
22-22	548.334			548.182			548.030			547.842		
23-23	548.293			548.141			547.989			547.800		
24-24	548.245			548.093			547.941			547.752		
25-25	548.190			548.038			547.886			547.698		
26-26	548.130			547.978			547.826			547.640		
27-27	548.063			547.911			547.759			547.574		
28-28	547.992			547.840			547.688			547.505		
29-29	547.919			547.767			547.615			547.433		
30-30	547.843			547.691			547.539			547.359		
31-31	547.769			547.617			547.465			547.287		
32-32	547.698			547.546			547.394			547.220		
33-33	547.634			547.482			547.330			547.155		
34-34	547.622			547.470			547.318			547.143		
35-35	547.566			547.414			547.262			547.087		
36-36	547.516			547.364			547.212			547.036		
37-37	547.471			547.319			547.167			546.993		
38-38	547.431			547.279			547.127			546.950		
39-39	547.392			547.240			547.088			546.910		
40-40	547.353			547.201			547.049			546.870		
41-41	547.312			547.160			547.008			546.827		
42-42	547.267			547.115			546.963			546.783		
43-43	547.218			547.066			546.914			546.734		
44-44	547.164			547.012			546.860			546.681		
45-45	547.105			546.953			546.801			546.625		
46-46	547.047			546.895			546.743			546.568		
B-B	547.040			546.888			546.736			546.561		

TABLE OF ELEVATIONS FOR CONTROL OF SLAB THICKNESS

Slab Check Point	Top of Slab Elev.	Bott. of Slab Elev.	Computed Slab Thickness	Slab Check Point	Top of Slab Elev.	Bott. of Slab Elev.	Computed Slab Thickness
C1	548.672			J1	547.803		
C2	548.826			J2	547.962		
C3	548.978			J3	548.114		
C4	549.132			J4	548.291		
C5	549.132			J5	548.291		
C6	548.978			J6	548.114		
C7	548.826			J7	547.962		
C8	548.672			J8	547.803		
D1	548.531			K1	547.608		
D2	548.686			K2	547.764		
D3	548.838			K3	547.916		
D4	548.992			K4	548.086		
D5	548.992			K5	548.086		
D6	548.838			K6	547.916		
D7	548.686			K7	547.764		
D8	548.531			K8	547.608		
E1	548.364			L1	547.388		
E2	548.517			L2	547.541		
E3	548.669			L3	547.693		
E4	548.821			L4	547.851		
E5	548.821			L5	547.851		
E6	548.669			L6	547.693		
E7	548.517			L7	547.541		
E8	548.364			L8	547.388		
F1	548.257			M1	547.135		
F2	548.410			M2	547.288		
F3	548.562			M3	547.440		
F4	548.713			M4	547.591		
F5	548.713			M5	547.591		
F6	548.562			M6	547.440		
F7	548.410			M7	547.288		
F8	548.257			M8	547.135		
G1	548.108			N1	547.050		
G2	548.261			N2	547.203		
G3	548.413			N3	547.355		
G4	548.571			N4	547.507		
G5	548.571			N5	547.507		
G6	548.413			N6	547.355		
G7	548.261			N7	547.203		
G8	548.108			N8	547.050		
H1	548.040			P1	546.929		
H2	548.196			P2	547.084		
H3	548.348			P3	547.236		
H4	548.518			P4	547.390		
H5	548.518			P5	547.390		
H6	548.348			P6	547.236		
H7	548.196			P7	547.084		
H8	548.040			P8	546.929		
I1	547.941			R1	546.782		
I2	548.106			R2	546.936		
I3	548.258			R3	547.088		
I4	548.435			R4	547.242		
I5	548.435			R5	547.242		
I6	548.258			R6	547.088		
I7	548.106			R7	546.936		
I8	547.941			R8	546.782		

NOTE:

After the slab forms are erected and before the slab reinforcement is placed, the Resident Engineer shall take field elevations at the slab thickness check points and enter them in the table in the space provided. The slab thickness shall then be computed. If the computed slab thickness varies more than ¼" from the plan thickness, allowing 1/360 of the slab span for deflection of the form work, the form shall be adjusted until the computed slab thickness is within the tolerance allowed.

CONSTRUCTION NOTES

Layout sections A-A to B-B as shown in plan on sheet 18 (Center punch marks on top of beams for elevation points.)

Take elevations on top of Steel at points indicated after the cross frames and lateral bracings are in place, and after all falsework has been removed, but before forms for concrete slabs have been put in place. Read elevations to three decimals using a target rod and enter readings in tables under "Top of Steel."

Compute Dimension "X" as follows: Construction Elevations minus Top of Steel Elevation equals Dimension "X". Construction Elevations include camber due to weight of Concrete slab, plinth, handrail and future surfacing. Measuring of dimension "X" gives the final check on girder tolerances for sweep, camber, girder damage and errors in erection that produce reverse cambers, sags and unsightly fascia girders.

For setting templates measure Dimension "X" above the Top of Steel for top of template. Do not set templates by elevations.

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

SHEET 19

CONSTRUCTION ELEVATIONS

DESIGNED BY ___ DATE ___
DETAILED BY BJM DATE ___
CHECKED BY DMP DATE ___
TRACED BY ___ CHECKED BY ___ DATE ___

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
ASHLAND-GREENUP-SOUTH PORTSMOUTH (US 23)
ROAD
STATION 230+35.00 PROJECT NO.
BRIDGE NUMBER | DRAWING NO. 18501 | INDEX

BRIDGE