

THE LONGITUDINAL CHARPY V-NOTCH
TOUGHNESS TEST DIFFERS FROM THAT
SPECIFIED IN 1983 AASHTO SPECS.
SEE GENERAL NOTE SHEET 2.

REFERENCE AND ESTIMATE OF QUANTITIES															
ITEM LOCATION	SHEET NUMBER	CLASS "A" CONCRETE	CLASS "AA" CONCRETE	REINF. STEEL	REINF. STEEL EPOXY COATED	NEOPRENE EXPANSION JOINT 4"	STRUCTURAL STEEL	PILE POINTS	HP 12 x 53 STEEL PILES		CYCLOPEAN STONE SLOPE PROTECTION	STRUCTURE EXCAVATION		COFFERDAM PIER 1	COFFERDAM PIER 2
		SQ. YD.	CU. YD.	LBS.	LBS.	LIN. FT.	LUMP SUM	EACH	TEST PILES LIN. FT.	LIN. FT.		TONS	COMMON CU. YD.	SOLID CU. YD.	LUMP SUM
TITLE AND QUANTITIES	1														
GENERAL NOTES	2														
SUBSURFACE DATA	3														
LAYOUT	4														
SUBSTRUCTURE, PILE LAYOUT & RECORD	5, 6														
END BENT 1 & 2	7, 8	254.6	140.7	27,690	2,919			66	242	3,738	1,920				
END BENT DETAILS	9														
PIER 1	10	629.2	350.2	81,150	87246						1051	1,324	87.75		
PIER 2	11	640.8	351.6	81,076	87152						1189	1,579	172.125		
PIER DETAILS	12														
STRUCTURAL STEEL	13, 14, 15						①								
SUPERSTRUCTURE	16, 17		1,290.3		347,618										
SUPERSTRUCTURE DETAILS	18, 19														
NEOPRENE EXPANSION JOINT 4"	20					239									
CONSTRUCTION ELEVATIONS	21, 22														
SUB-TOTAL SUPERSTRUCTURE			1,290.3		347,618	239	①								
SUB-TOTAL SUBSTRUCTURE	950.4	1,524.6	140.7	189,916	2,919			66	242	3,738	1,920	2,903	269		
TOTAL		1,524.6	1,431.0	189,916	350,537	239	①	66	242	3,738	1,920	2,903	269	1	1

① APPROX. TOTAL WEIGHT OF STRUCTURAL
STEEL IS: 1,000.073 LBS

WEIGHT INCLUDES:

A588/A572 STEEL: 899,037 LBS.
A36 & MISC. STEEL: 101,036 LBS.

REFERENCES:

STANDARD DRAWINGS AND SPECIAL PROVISIONS LISTED BELOW ARE THE CURRENT EDITIONS, AND ARE TO BE USED WITH THESE PLANS.

STANDARD DRAWINGS:

STANDARD DRAWINGS:
B6X-006-04, STENCIL CONSTRUCTION DATE FOR BRIDGES.
BJE-001-05, ARMORED EDGE FOR CONCRETE.
BPS-003-03, 12" STRUCTURAL STEEL BEARING PILE AT 53 POUNDS.
RBC-001-04, GUARDRAIL CONNECTOR TO BRIDGE END TYPE A & A-1.

SPECIAL PROVISIONS:

4G (85) WELDING STEEL BRIDGES
35A (85) NEOPRENE EXPANSION JOINTS
38F (85) BUY AMERICA AND CARGO PREFERENCE
53 (85) PRICE ADJUSTMENT FOR PORTLAND CEMENT
54A (85) CONCRETE PLANT QUALITY CONTROLS
69C (85) SELECT GRANULAR EMBANKMENT AND EARTH CORE AT
END BENT STRUCTURES

SPECIAL NOTES:

SPECIAL NOTE FOR MASONRY COATING CONCRETE FINISH
SPECIAL NOTE FOR EPOXY COATED REINF. BARS
INSTALLATION MATERIALS.

* FSP-037-0127-006-009-020-D
CF 01271 005

Capital Plaza - West Frankfort
Connector Over Benson Creek

SHEET 1 OF 22

BILL OF INCIDENTAL MATERIALS

ITEM	NO.	DESCRIPTION	LOCATION
PLASTIC PIPE	16	1" ID x 1'-1" LONG	WINGWALLS *
ELASTOMERIC BEARING PADS	16	12" x 18" x 7 7/32"	END BENTS ***
ELASTOMERIC BEARING PADS	16	26" x 26" x 3 21/32"	PIERS ***
DECK DRAIN, FITTINGS	14	See sheet 18 for details	SUPERSTRUCTURE ***

AMERICAN ENGINEERING CO.
CONSULTING ENGINEERS
LEXINGTON, KENTUCKY



Signed: William S. Cleveland Date: 5/25/07

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR

STATION 134+40.00		P. E. PROJECT NO. *
CONSTRUCTION PROJECT NO. F 127-1(50)	MAINTENANCE PROJECT NO.	DRAWING NO. 2146E

UPDATE DATE
LETTING DATE

SPECIFICATIONS

THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION SHALL APPLY TO THIS PROJECT.

DESIGN LOAD

THIS BRIDGE IS DESIGNED FOR HS20-44 LIVE LOAD, AS SPECIFIED IN 1993 AASHTO 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 METHOD

ALL REINFORCED CONCRETE MEMBERS AND STRUCTURAL STEEL ARE DESIGNED BY THE LOAD FACTOR METHOD AS SPECIFIED IN THE CURRENT AASHTO SPECIFICATIONS.

MATERIAL DESIGN SPECIFICATIONS

FOR CLASS "A" REINFORCED CONCRETE
F'C = 3500 PSI

FOR CLASS "AA" REINFORCED CONCRETE
F'C = 4000 PSI

FOR STEEL REINFORCEMENT
FY = 60000 PSI

FOR STRUCTURAL STEEL
FY = 50000 PSI FOR ASTM A588 OR ASTM A572 STEEL

FOUNDATION PRESSURE

PIER 1 FOOTING IS DESIGNED FOR A MAXIMUM PRESSURE OF 7.0 TSF. PIER 2 FOOTING IS DESIGNED FOR A MAXIMUM PRESSURE OF 7.3 TSF. PILES ARE DESIGNED FOR A MAXIMUM AXIAL LOAD OF 33.4 TONS PER PILE AND A MAXIMUM HORIZONTAL SHEAR OF 1.2 TONS PER PILE.

CONCRETE

CLASS "AA" CONCRETE IS TO BE USED THROUGHOUT THE SUPERSTRUCTURE AND IN THE PORTIONS OF THE SUBSTRUCTURE ABOVE THE TOP OF THE CAPS EXCEPT IN THE PEDESTALS. CLASS "A" CONCRETE IS TO BE USED IN THE PEDESTALS AND IN THE SUBSTRUCTURE BELOW THE TOP OF THE CAPS.

SLUMP OF CLASS "AA" CONCRETE FOR BRIDGE DECKS

AT THE CONTRACTOR'S OPTION, THE SLUMP OF CLASS "AA" CONCRETE MAY BE INCREASED PROVIDED THE WATER/CEMENT RATIO IS MAINTAINED AT 4.75 GALLONS/BAG OR LESS BY USE OF AN ADEQUATE AMOUNT OF WATER REDUCING ADMIXTURE. THE AMOUNT OF WATER REDUCING ADMIXTURE TO BE USED SHALL BE DETERMINED BY TRIAL MIXTURES OR FROM THE ADMIXTURE MANUFACTURER'S LITERATURE, BUT IN NO CASE SHALL THE AMOUNT BE LESS THAN 3 OUNCES/100 POUNDS OF CEMENT. SLUMP PERMITTED WHEN THIS PROCEDURE IS USED WILL BE 3 INCHES +/- 1/2 INCH FOR CLASS "AA" CONCRETE PLACED IN BRIDGE SLABS, OR 4 INCHES MAXIMUM FOR CLASS "AA" CONCRETE PLACED IN BARRIERS, PLINTHS, CURBS, WALKS, OR OTHER APPURTENANT PARTS OF THE SUPERSTRUCTURES.

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.

EPOXY COATED REINFORCING STEEL

ALL REINFORCING BARS DESIGNATED BY SUFFIX (E) IN THE PLANS SHALL BE EPOXY COATED IN ACCORDANCE WITH SECTION 811.10 OF THE STANDARD SPECIFICATIONS.

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 MATERIALS 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 THE ITEM SPECIFIED.

PAYMENT FOR STRUCTURAL STEEL

THE LUMP SUM BID FOR STRUCTURAL STEEL SHALL BE FULL PAYMENT FOR ALL STRUCTURAL STEEL, BOLTS, WASHERS, CAST IRON, LEAD PLATES, MOLTEN LEAD, WELDING AND WELDING MATERIALS, FLOOR DRAINS, 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.

SLOPE INCLINOMETERS

SLOPE INCLINOMETER CASINGS HAVE BEEN INSTALLED BY THE DEPARTMENT AT STATIONS 133+00, 18' LEFT AND 135+50, 10.5' RIGHT TO MONITOR EMBANKMENT PERFORMANCE. IF THE CONTRACTOR DESTROYS THE SLOPE INCLINOMETER CASING HE WILL BE RESPONSIBLE FOR REPLACING THEM AT HIS OWN EXPENSE.

PILE POINTS

MATERIAL:
POINTS SHALL BE MADE IN ONE PIECE OF ASTM A27 65/35 OR ASTM 148 CAST STEEL.

DESIGN OF CAST POINTS:
POINTS SHALL BE OF AN APPROVED SIZE AND SHAPE FOR THE PILING THEY ARE TO REINFORCE. THE POINTS SHALL BE ATTACHED TO THE PILING WITH A PARTIAL PENETRATION GROOVE WELD ALONG THE OUTER EDGES OF THE FLANGES OR IN THE CASE OF SHELL OR TUBULAR PILING, THEY SHALL BE ATTACHED WITH A PARTIAL PENETRATION GROOVE WELD FOR THE FULL CIRCUMFERENCE OF THE PILE.

DETAILS OF THE POINT FOR H-PILING:
THE PILE POINTS USED SHALL BE DESIGNED FOR BOULDER PENETRATION. MINIMUM HEIGHT OF THE PILE POINT SHALL BE 29 POUNDS.

ALL WELDING SHALL BE IN ACCORDANCE WITH THE AWS SPECIFICATIONS.

NOTARIZED MILL TEST REPORTS, IN ACCORDANCE WITH SECTION 607.15 (D) OF THE SPECIFICATIONS, SHALL BE FURNISHED TO THE DEPARTMENT.

THE BASIS OF PAYMENT FOR PILE POINTS SHALL BE AT THE CONTRACT UNIT PRICE "EACH" AND SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY TO INSTALL THE PILE POINTS. THE PILE POINTS MAY BE INSTALLED IN THE SHOP OR IN THE FIELD.

PILE POINTS MAY BE FURNISHED BY ANY OF THE FOLLOWING APPROVED SUPPLIERS:

ASSOCIATED PILE AND FITTING CORPORATION
BOX 1043, 262 RUTHERFORD BOULEVARD
CLIFTON, NEW JERSEY 07014

DOUGHERTY FOUNDATION PRODUCTS, INCORPORATED
P. O. BOX 680
FRANKLIN LAKES, NEW JERSEY 07417

INTERNATION CONSTRUCTION EQUIPMENT, INCORPORATED
301 WAREHOUSE DRIVE
MATTHEWS, NORTH CAROLINA 28105

J. C. MACELROY COMPANY, INCORPORATED
74 TRINITY PLACE
NEW YORK, NEW YORK 10005

MISSISSIPPI VALLEY EQUIPMENT
1198 PERSHALL ROAD
ST. LOUIS, MISSOURI 63137

VERSA-STEEL, INC.
3501 N. W. YEON
PORTLAND, OR. 97210

PLAN ELEVATION FOR FOOTINGS

WHEN SUITABLE ROCK IS ENCOUNTERED AT A DATUM ELEVATION HIGHER THAN THE PLAN ELEVATION, THE HIGHER ELEVATION MAY BE UTILIZED FOR BEARING AS OUTLINED IN THE SPECIFICATIONS.

SPIRAL COLUMN TIES

SPLICES FOR SPIRALS WHERE DESIRED BY THE CONTRACTOR SHALL BE MADE WITH A MINIMUM OF ONE AND ONE-HALF TURNS OF SPIRAL. NO ADDITIONAL PAYMENT WILL BE MADE FOR THESE SPLICES, AND THE COST WILL BE CONSIDERED INCIDENTAL TO THE COST OF THE DEVELOPED LENGTH OF SPIRAL SHOWN ON THE PLANS. SPIRAL REINFORCEMENT SHALL MEET THE REQUIREMENTS OF SUB-SECTION 811.02.01 OF THE SPECIFICATIONS.

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.

COFFERDAMS FOR PIERS ON ROCK

COFFERDAMS ARE REQUIRED FOR PIERS 1 AND 2 AND ALL PROVISIONS OF THE 1983 STANDARD SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO, SECTIONS 206.06 AND 105.02 SHALL APPLY.

PIERS ON ROCK: THE SHEETING SHALL BE DRIVEN TO REFUSAL INTO HARD FOUNDATION MATERIAL.

CONTRARY TO SECTION 206.10.02, COFFERDAM FOR PIERS 1 AND 2 WILL BE PAID FOR AT THE LUMP SUM BID FOR "COFFERDAMS". PAYMENT SHALL INCLUDE AND BE FULL COMPENSATION FOR FURNISHING, HAULING AND PLACING ALL NECESSARY MATERIALS, CONSTRUCTION AND MAINTENANCE, DEMATERING, REMOVAL OF BRACING AND REMOVAL OR CUTTING OFF OF SHEETING AND FOR ALL LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THIS PART OF THE WORK. PARTIAL PAYMENTS MAY BE MADE AS WORK PROGRESSES BASED UPON A PAY SCHEDULE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. PAY LIMITS FOR STRUCTURE EXCAVATION SHALL BE AS INDICATED ON THE PLANS AND SECTION 206 OF THE STANDARD SPECIFICATIONS.

COFFERDAMS, SHEETING OR SHORING THAT MAY BE NECESSARY FOR CONSTRUCTION OF ANY PHASE OF WORK BUT WHICH NO PAY ITEM IS INCLUDED IN THE CONTRACT FOR THAT PHASE, SHALL BE INCIDENTAL TO STRUCTURE EXCAVATION, COMMON.

ANCHOR BOLT HOLES

HOLES OF DEPTH AND DIMENSIONS SHOWN SHALL BE DRILLED FOR ANCHOR BOLTS OR DWELS. 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 AND ANCHOR BOLT HOLES DRILLED, THE ANCHOR BOLTS SHALL BE GROUTED INTO THE HOLES USING AN EPOXY GROUT IN ACCORDANCE WITH SECTION 736 OF THE SPECIFICATIONS. THE COST OF DRILLING ANCHOR BOLT HOLES, EPOXY GROUT, AND GROUTING OF THE ANCHOR BOLTS SHALL BE INCIDENTAL TO AND INCLUDED IN THE LUMP SUM BID FOR STRUCTURAL STEEL.

BONDING CONCRETE TO PREVIOUSLY POURED CONCRETE

CONCRETE SHALL BE BONDED TO PREVIOUSLY POURED CONCRETE WHERE SHOWN ON THE PLANS WITH A TWO COMPONENT EPOXY RESIN SYSTEM CONFORMING TO SECTION 838 OF THE SPECIFICATIONS. THE COST OF THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIALS, IS TO BE INCIDENTAL TO THE UNIT PRICE BID FOR CLASS "AA" CONCRETE.

DRAIN DETAILS

FOUNDRY NOTE - ALL DRAINS SHALL BE GRAY IRON CASTINGS, ASTM A48, CURRENT EDITION, CLASS 30A. FOUNDRIES SHALL CAST AT LEAST TWO TEST BARS FROM EACH DAY'S PRODUCTION. THESE TEST BARS SHALL BE TESTED EITHER BY THE DIVISION OF MATERIALS OR BY THE FOUNDRIES' QUALITY CONTROL UNIT WHO SHALL FURNISH ACTUAL TEST RESULTS FOR EACH DATE OF MANUFACTURE OR LOT NUMBER.

THE 6" DRAIN PIPE AND FITTINGS SHALL BE FILAMENT WOUND REINFORCED FIBERGLASS CONFORMING TO THE REQUIREMENTS OF ASTM-D2995 DESIGNATION: CODE RTRP-11AE-5112. PIPE AND FITTINGS WITH CLASS C OR CLASS F LINERS ARE ALSO ACCEPTABLE.

COST OF DRAINS, PIPE AND FITTINGS ARE TO BE INCLUDED IN THE LUMP SUM BID FOR STRUCTURAL STEEL.

SLOPE PROTECTION

SLOPE PROTECTION SHALL BE DRY CYCLOPEAN STONE SLOPE PROTECTION IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

CLEANING AND PAINTING

SECTION 607.25 OF THE SPECIFICATIONS APPLIES TO THIS PROJECT AND CONTRACTORS ARE HEREBY REMINDED THAT IN ACCORDANCE WITH THAT SECTION ALL STEEL SURFACES TO BE PAINTED, INCLUDING EXPOSED SURFACES OF SPLICE PLATES, NUTS, BOLTS, AND WASHERS, SHALL BE BLAST CLEANED TO A NEAR-WHITE CONDITION IN ACCORDANCE WITH SSPC-SP10 IMMEDIATELY PRIOR TO BEING PAINTED WITH THE FIRST COAT OF PAINT. REGARDLESS OF WHETHER THE FIRST COAT IS APPLIED IN THE SHOP OR IN THE FIELD.

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 - 7/8" STUDS
- OPTION 2 - 5" CHANNEL AT 6.7 LBS./FT.

THE MINIMUM LENGTH OF STUDS IS 5". PROVIDE THE NECESSARY LENGTH TO PENETRATE AT LEAST 2" ABOVE BOTTOM OF SLAB.

IF THE CONTRACTOR WISHES TO USE OTHER THAN 7/8" STUD SHEAR CONNECTORS SHOWN ON THE PLANS, THE PROPOSED ARRANGEMENT SHALL BE SUBMITTED FOR APPROVAL WITH THE SHOP PLANS.

TEMPORARY SUPPORTS

TEMPORARY SUPPORTS OR SHORING WILL NOT BE PERMITTED UNDER THE GIRDERS WHEN POURING THE CONCRETE FLOOR SLAB OR WHEN TAKING "TOP OF BEAM" ELEVATIONS.

STUD WELDING

STUDS SHALL BE WELDED WITH APPROVED WELDING EQUIPMENT.

HIGH STRENGTH BOLT CONNECTIONS

UNLESS OTHERWISE PROVIDED ON THE PLANS, ALL FIELD 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.

DIMENSIONS

DIMENSIONS ARE FOR A NORMAL TEMPERATURE OF 60 DEGREES FAHRENHEIT. LAYOUT DIMENSIONS ARE HORIZONTAL MEASUREMENTS.

MATERIALS

ASTM SPECIFICATIONS, CURRENT EDITION, AS DESIGNATED BELOW SHALL GOVERN THE MATERIALS FURNISHED.

MATERIAL	A.S.T.M.	AASHTO
STRUCTURAL STEEL	A36-A1A	M-183
STRUCTURAL STEEL FOR WEBS, FLANGE TO 2" THICK	A572-GRADE 50	M-223
STRUCTURAL STEEL FOR FLANGES OVER 2" UP TO 4"	A588	M-222
PINTLES AND STUD SHEAR CONNECTORS, UN* 6 1015	A108-81	M-169
HIGH STRENGTH BOLTS, NUTS, AND WASHERS	A325-82	M-164
SHEET LEAD AND PIG LEAD	B29-79	
DRAINS	A48	
ANCHOR BOLTS	A588	

CONTRARY TO CURRENT AASHTO SPECIFICATIONS, ALL FLANGE AND WEB MATERIAL, INCLUDING SPLICE PLATES, IN LONGITUDINAL PLATE GIRDERS SHALL MEET THE LONGITUDINAL CHARTY V-NOTCH TOUGHNESS TEST (APPLICABLE TO 2 INCH 2 INCH SERVICE TEMPERATURE FROM -1 DEG. F. TO -30 DEG. F. IN ACCORDANCE WITH AASHTO M-183 STEEL (UP TO 4" THICKNESS INCLUSIVE) OF 25 FT. LB. AT 40 DEG. F. SAWING AND TESTING PROCEDURES SHALL BE IN ACCORDANCE WITH ASTM A673 CURRENT EDITION, UTILIZING (N) FREQUENCY TESTING. WHEN PLATE THICKNESS EXCEEDS 1-1/2", FREQUENCY OF TESTING SHALL BE (P).

PROHIBITED FIELD WELDING

EXCEPT AS SHOWN ON THE PLANS, NO WELDING OF ANY NATURE SHALL BE PERFORMED BY LOAD CARRYING MEMBERS OF THE BRIDGE WITHOUT THE WRITTEN CONSENT OF DIRECTOR, DIVISION OF BRIDGES, OR HIS AUTHORIZED REPRESENTATIVE. AND ONLY IN THE MANNER AND AT THE LOCATIONS DESIGNATED IN THE AUTHORIZATION.

NAVIGATION CLEARANCES

ALL WORK SHALL BE CONDUCTED WITHOUT UNREASONABLE INTERFERENCE TO THE FREE NAVIGATION OF THE WATERWAY AND WITHOUT IMPAIRMENT TO THE PRESENT NAVIGATIONAL DEPTHS.

THE CHANNEL OR CHANNELS CROSSED BY THE STRUCTURE SHALL PROMPTLY BE CLEARED OF ALL FALSEWORK, PILING OR OTHER OBSTRUCTIONS PLACED THEREIN OR CAUSED BY THE CONSTRUCTION OF THE BRIDGE. THIS CLEARING OF THE CHANNEL SHALL BE DONE TO THE SATISFACTION OF THE U. S. COAST GUARD COMMANDANT AND THE DEPARTMENT OF HIGHWAYS AT SUCH TIME, WHEN IN THE ENGINEERS' JUDGEMENT, THE WORK HAS REACHED A POINT WHERE SUCH ACTION CAN BE TAKEN, BUT IN ANY CASE NOT LATER THAN 45 DAYS AFTER THE BRIDGE HAS BEEN OPEN TO TRAFFIC.

POURING SEQUENCE

THE POURING SEQUENCE OF THE SLAB MAY BE CHANGED WITH THE WRITTEN APPROVAL OF THE ENGINEER.

HIGH STRENGTH LOW ALLOY STRUCTURAL STEEL

HIGH STRENGTH LOW ALLOY STRUCTURAL STEEL SHALL CONFORM TO AASHTO M-222 CURRENT EDITION, FOR GRADES A THRU G AND SHALL MEET SUPPLEMENTARY REQUIREMENTS S1 & S5 EXCEPT WHEN PLATE THICKNESS EXCEEDS 1-1/2", FREQUENCY OF TESTING SHALL THEN BE (P).

WHEN FURNISHING GRADES D AND E, ACCEPTANCE APPROVAL WILL NOT BE GRANTED UNTIL ADEQUATE DATA HAS BEEN SUPPLIED SHOWING THAT THE MATERIAL PRODUCED UNDER PRODUCTION CONTROL PROCEDURES FULLY MEETS THE CHARTY V-NOTCH REQUIREMENTS, MINIMUM ELONGATION REQUIREMENTS, AND WELDABILITY PROPERTIES. FREQUENCY OF TESTING AS SPECIFIED IN SUPPLEMENTARY REQUIREMENTS S1 SHALL BE (P) WHEN PLATE THICKNESS EXCEEDS 1-1/2".

WELDING SPECIFICATIONS

ALL WELDING AND WELDING MATERIALS EXCEPT FOR REINFORCEMENT, SHALL CONFORM TO AWS D.1.1-80 "STRUCTURAL WELDING CODE". MODIFICATION AND ADDITIONS AS STATED ON THE PLANS, AASHTO 1993 STANDARD SPECIFICATIONS FOR WELDING OF STRUCTURAL STEEL, HIGHWAY BRIDGES, AND SPECIAL PROVISIONS 4 (85), CURRENT EDITION, SHALL SUPERSEDE THE AWS SPECIFICATIONS.

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 MAINCH OVER THE STEEL SUPPORTING MEMBERS OR A REMARKING 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.

WELDING PROCEDURE

QUALIFICATION TESTS OF ALL WELDING PROCEDURES WHICH ARE NOT AWS PREQUALIFIED SHALL BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO THE FINAL APPROVAL OF THE SHOP DRAWINGS AND WELDING PROCEDURE AND THE START OF THE FABRICATION.

ELASTOMERIC BEARING PADS

THE MATERIAL SPECIFICATIONS FOR ELASTOMERIC BEARING PADS SHALL CONFORM TO THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES EXCEPT THAT THE REQUIREMENT OF THE LOW TEMPERATURE TEST IS WAIVED AND A DUROMETER HARDNESS OF 50 OR 60 IS REQUIRED. THE COST OF THIS ITEM IS TO BE INCLUDED IN THE LUMP SUM PRICE FOR STRUCTURAL STEEL.

SHOP DRAWINGS

THE CONTRACTOR SHALL SUBMIT FULL SETS OF PRINTS OF THE DETAILED SHOP DRAWINGS FOR ALL STRUCTURAL STEEL TO THE DEPARTMENT FOR REVIEW IN ACCORDANCE WITH SECTION 607.04 OF THE SPECIFICATIONS.

MILL TEST REPORTS

NOTARIZED MILL TEST REPORTS SHALL BE FURNISHED IN TRIPPLICATE TO THE DEPARTMENT SHOWING THAT ALL THE MATERIALS USED IN THE STRUCTURAL STEEL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATIONS.

CONSTRUCTION SCHEDULE

CONSTRUCTION OF END BENT 1, STATION 132+25 AND PIER 1, STATION 133+50 OF THE BRIDGE OVER BENSON CREEK SHALL NOT BEGIN UNTIL AFTER MAY 1, 1988 IN ORDER TO ALLOW TIME FOR SETTLEMENT OF THE FOUNDATION SOILS TO TAKE PLACE.

Capital Plaza - West Frankfort
Connector Over Benson Creek

SHEET 2

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR
ROAD

STATION 134+40.00 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.

MAINTENANCE PROJECT NO.

DRAWING NO.

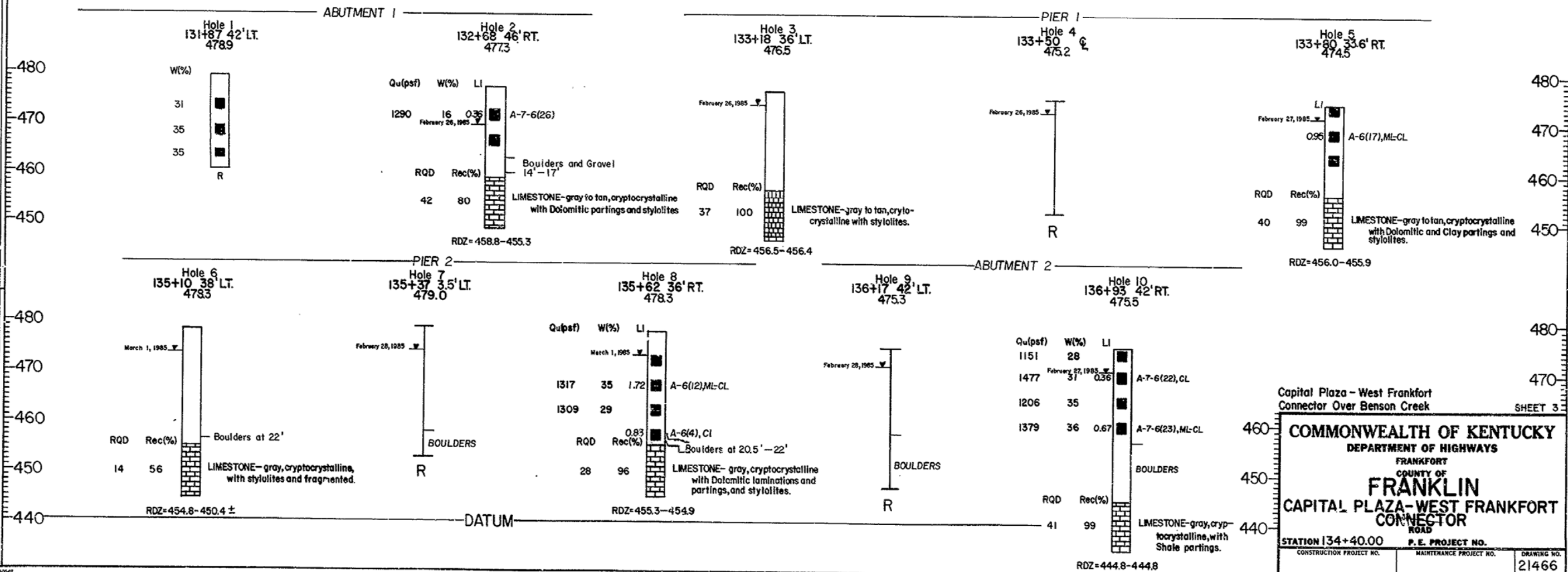
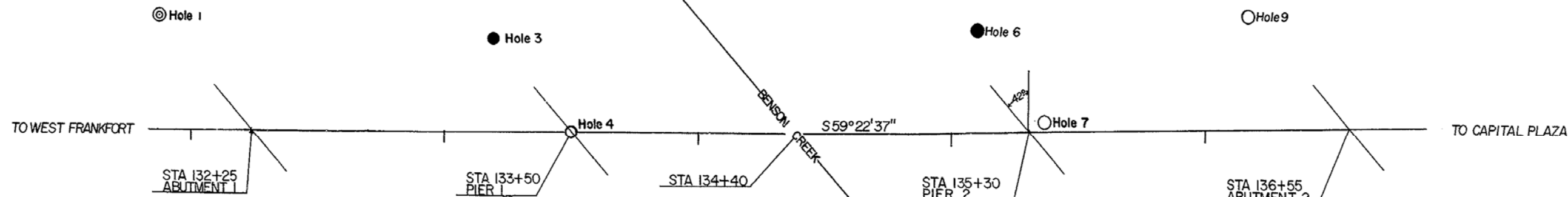
21466

GENERAL NOTES

UPDATE DATE
LETTERING DATE

DESIGNED BY:
 CHECKED BY:
 DATE:
 DIVISION OF MATERIALS
 GEOTECHNICAL SECTION
 8742255
 12-1-85

SUBSURFACE DATA



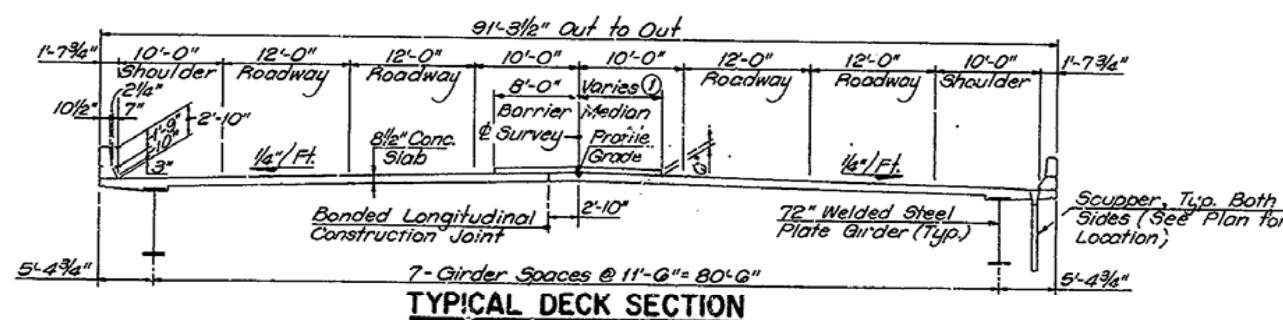
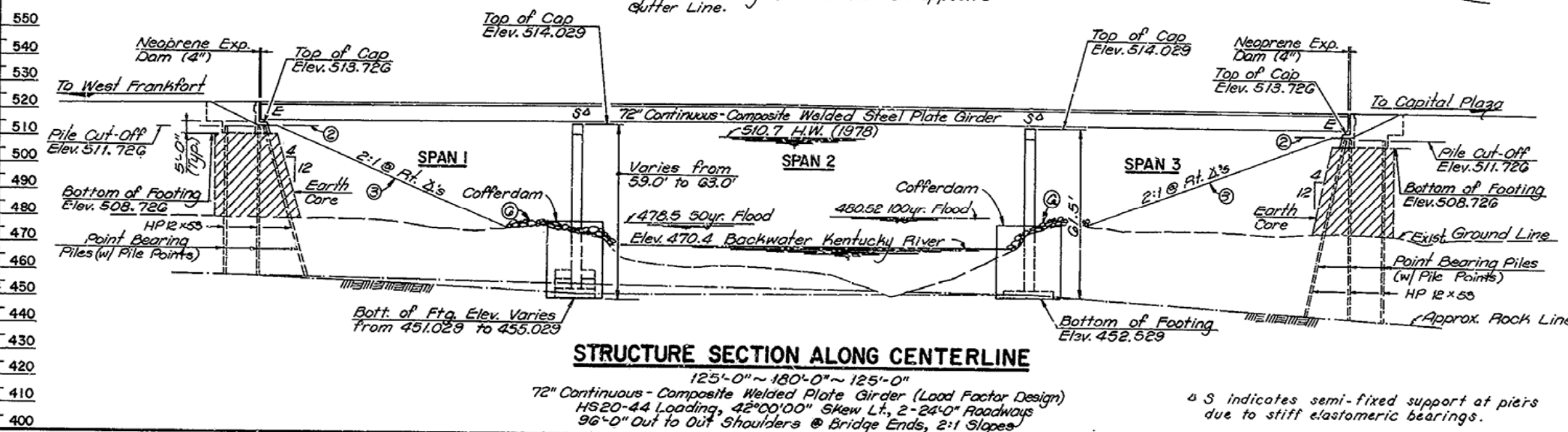
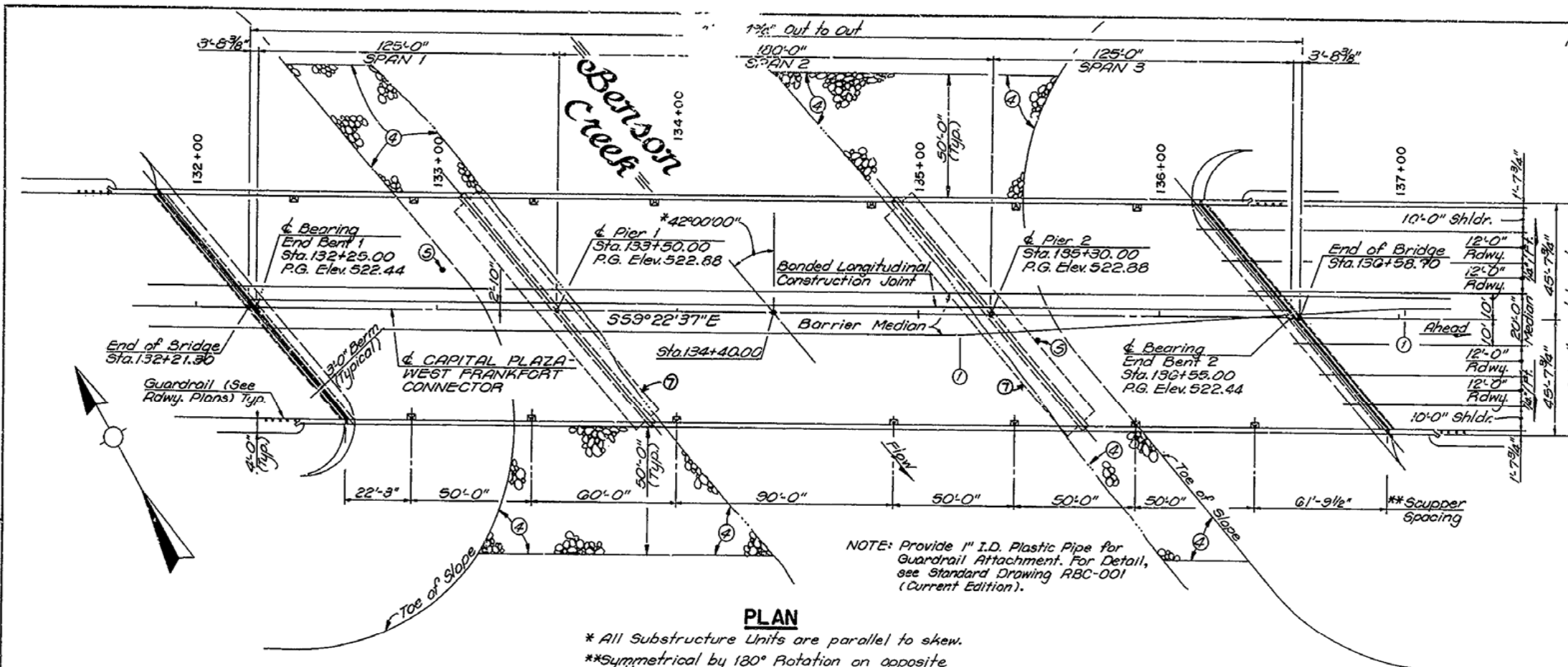
Capital Plaza - West Frankfort
Connector Over Benson Creek

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR
ROAD

STATION 134+40.00

P.E. PROJECT NO.
CONSTRUCTION PROJECT NO.
MAINTENANCE PROJECT NO.
DRAWING NO.
21466

UPDATE DATE
LETTING DATE



- NOTES:
- Barrier Median Transition from Sta. 135+17.35 to Sta. 137+02.35 (185'), 0.0648649'/Ft. Transition.
 - Berm Elev. 512.7
 - Rock Fill (by others)
 - Limit of Slope Protection
 - Slope Inclinator Casing; by Others, see General Notes.
 - Cyclopean Stone Rip Rap Slope Protection

NOTE
Any temporary fill pads utilized for this project shall be built downstream and will be left in place at the end of construction.

⑦ For Revised Details of Pier Footings, See Sheets 10A & 11A.

Capital Plaza - West Frankfort
Connector Over Benson Creek

SHEET 4

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR

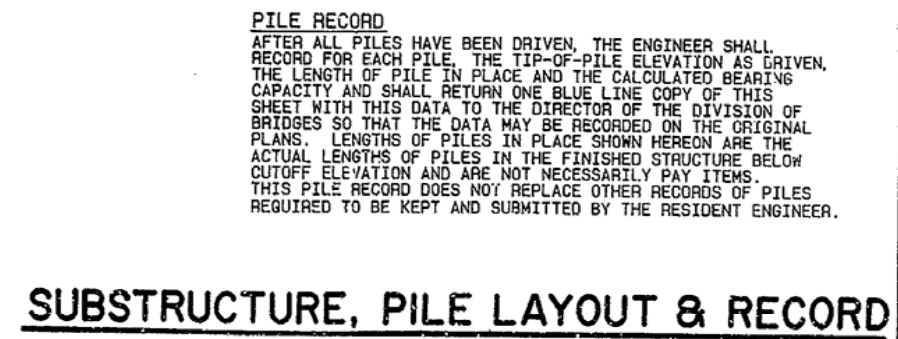
STATION 134+40.00
CONSTRUCTION PROJECT NO.
P.E. PROJECT NO.
MAINTENANCE PROJECT NO.
DRAWING NO.
21466

LAYOUT

ORDERED BY	DATE	ORDERED BY	DATE
DCD	8/85	SLM	8/85
SHIPPED BY	DATE	SHIPPED BY	DATE
ALF	8/85	SLM	8/85

Added Note for Piss Ely Details.

DATE 4-1-88



* INDICATES A TEST PILE

NOTE: All Substructure Units are parallel to skew.

Capital Plaza - West Frankfort
Connector Over Benson Creek

SHEET 5

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR
ROAD

STATION 134+40.00

P. E. PROJECT NO.

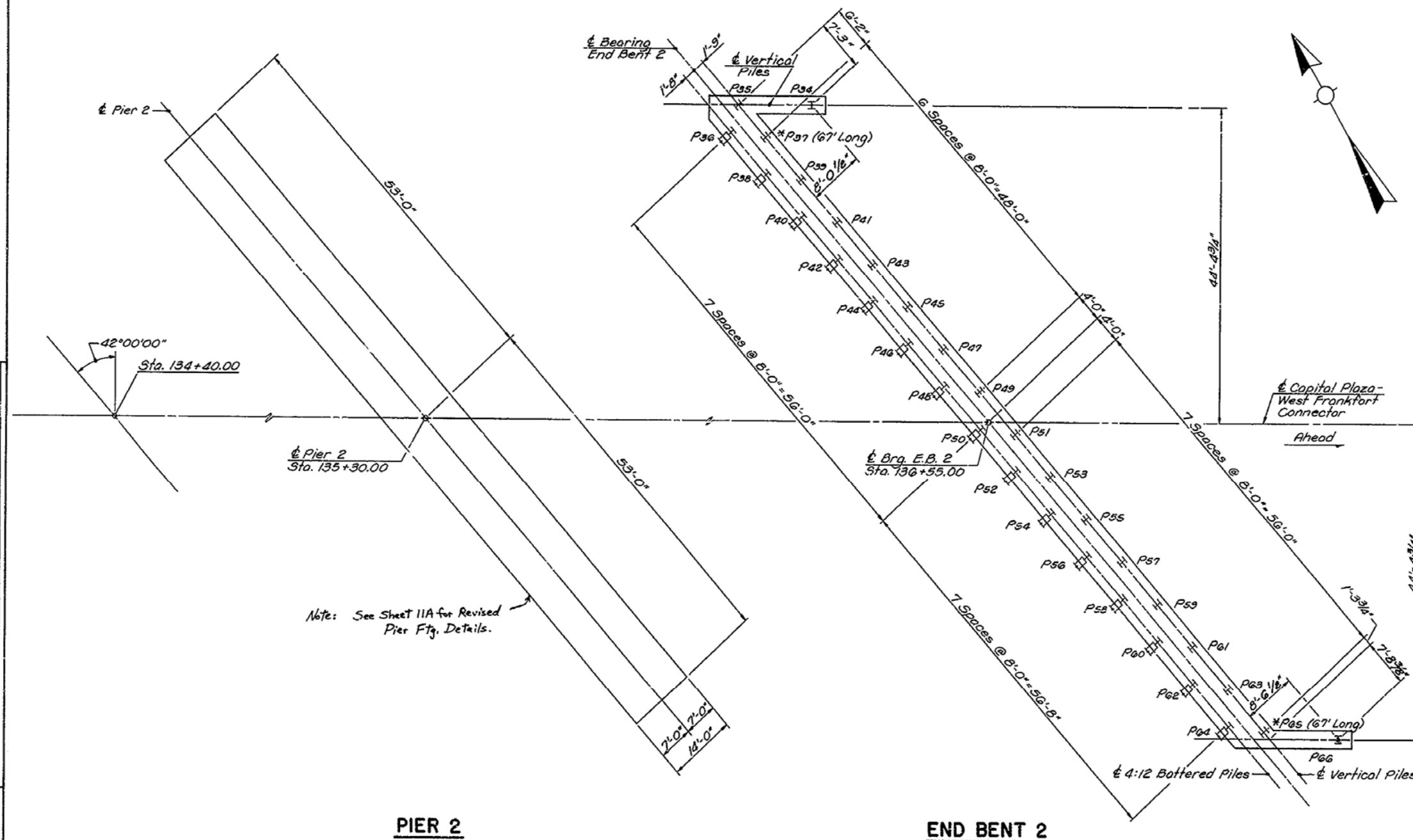
CONSTRUCTION PROJECT NO.

MAINTENANCE PROJECT NO.

DRAWING NO.
21466

UPDATE DATE
LETTING DATE

DESIGNED BY: SLM
CHECKED BY: SLM
DATE: 8/85
DATE: 8/85
PROJECT: Capital Plaza - West Frankfort Connector Over Benson Creek
SHEET 6



PILE RECORD

END BENT 2

PILE NUMBER	CUTOFF ELEVATION AS SHOWN	TIP-OF-PILE AS DRIVEN	LENGTH OF PILE IN PLACE (LIN. FT.)	CALCULATED BEARING CAPACITY (TONS)
P34	511.726			
P35				
P36				
*P37				
P38				
P39				
P40				
P41				
P42				
P43				
P44				
P45				
P46				
P47				
P48				
P49				
P50				
P51				
P52				
P53				
P54				
P55				
P56				
P57				
P58				
P59				
P60				
P61				
P62				
P63				
P64				
*P65				
P66	511.726			

* INDICATES A TEST PILE

PILE RECORD

AFTER ALL PILES HAVE BEEN DRIVEN, THE ENGINEER SHALL RECORD FOR EACH PILE, THE TIP-OF-PILE ELEVATION AS DRIVEN, THE LENGTH OF PILE IN PLACE AND THE CALCULATED BEARING CAPACITY AND SHALL RETURN ONE BLUE LINE COPY OF THIS SHEET WITH THIS DATA TO THE DIRECTOR OF THE DIVISION OF BRIDGES SO THAT THE DATA MAY BE RECORDED ON THE ORIGINAL PLANS. LENGTHS OF PILES IN PLACE SHOWN HEREON ARE THE ACTUAL LENGTHS OF PILES IN THE FINISHED STRUCTURE BELOW CUTOFF ELEVATION AND ARE NOT NECESSARILY PAY ITEMS. THIS PILE RECORD DOES NOT REPLACE OTHER RECORDS OF PILES REQUIRED TO BE KEPT AND SUBMITTED BY THE RESIDENT ENGINEER.

Capital Plaza - West Frankfort
Connector Over Benson Creek

SHEET 6

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR
ROAD

STATION 134+40.00

P.E. PROJECT NO.

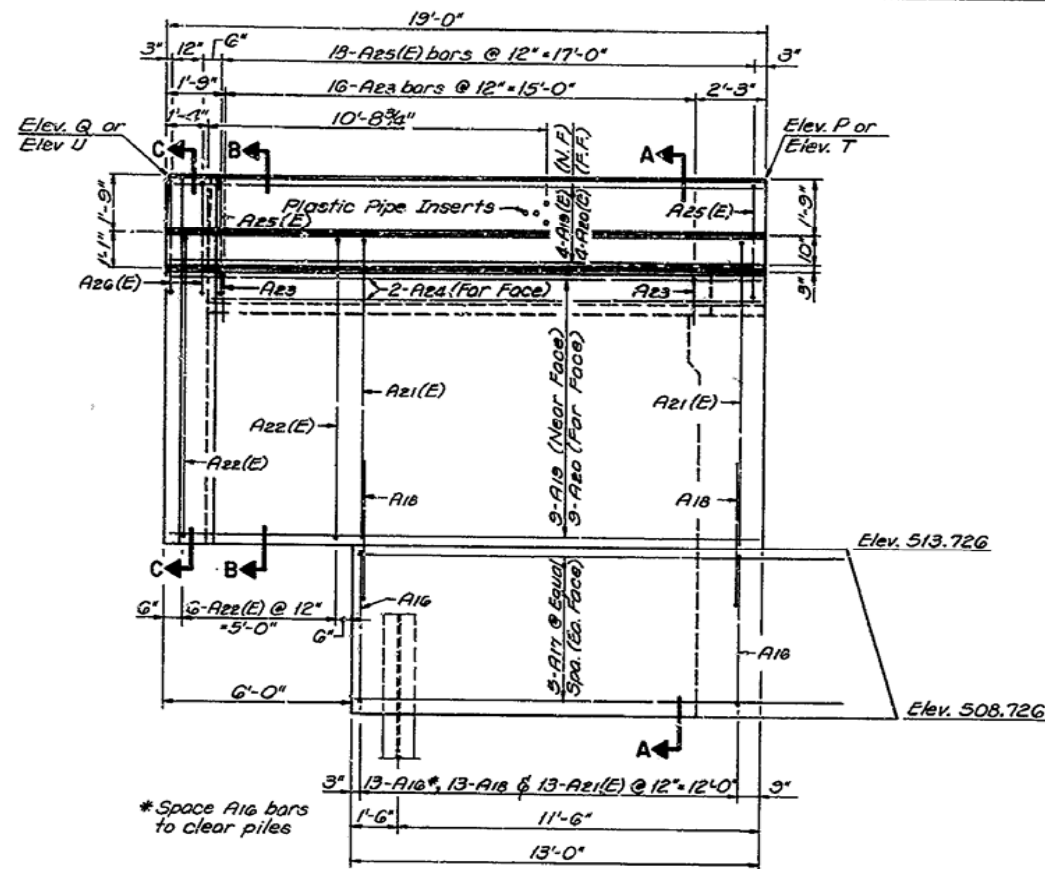
CONSTRUCTION PROJECT NO.

MAINTENANCE PROJECT NO.

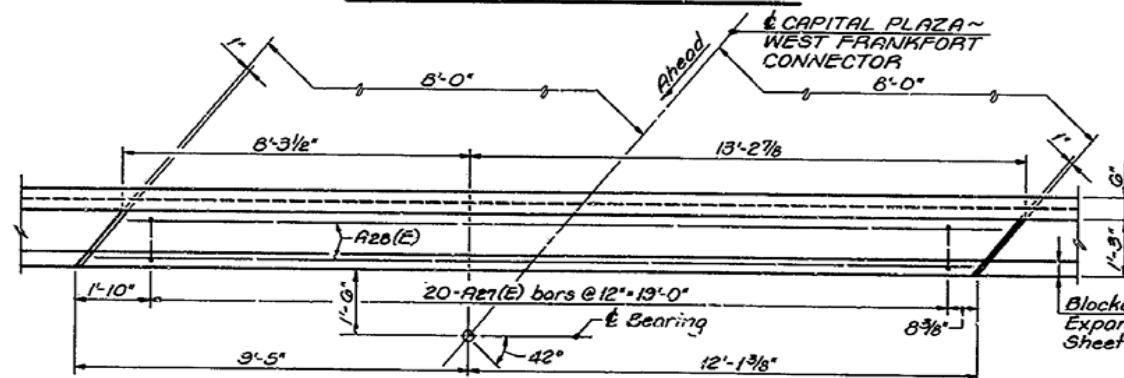
DRAWING NO.
21466

SUBSTRUCTURE, PILE LAYOUT & RECORD

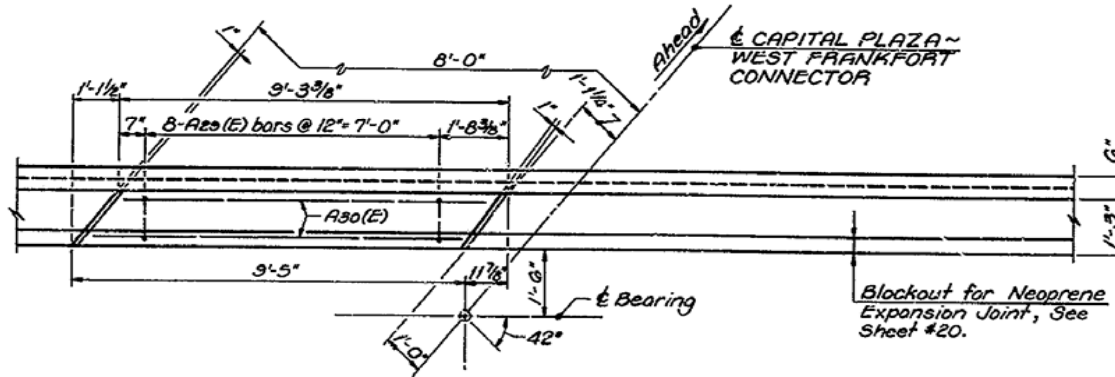
UPDATE DATE
LETTING DATE



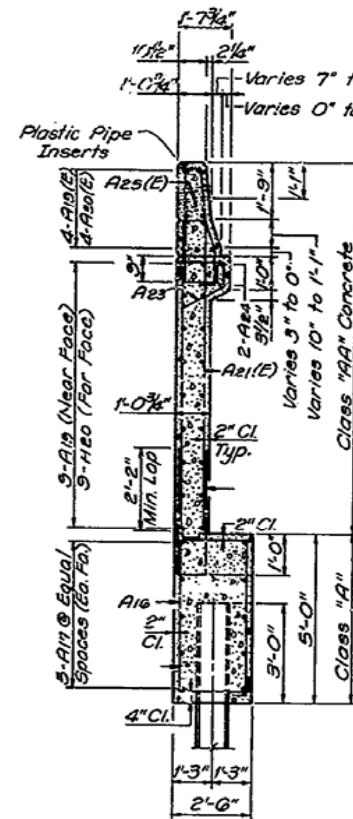
TYPICAL WINGWALL ELEVATION



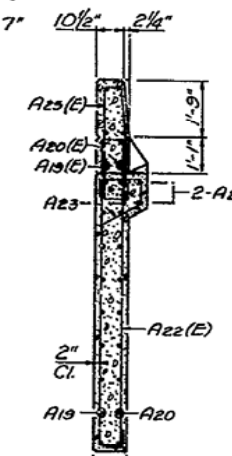
BARRIER MEDIAN-END BENT 1



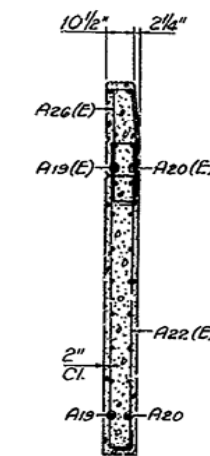
BARRIER MEDIAN-END BENT 2



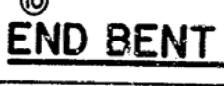
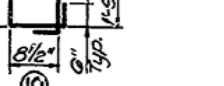
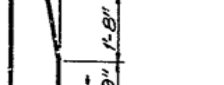
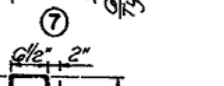
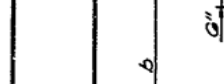
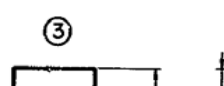
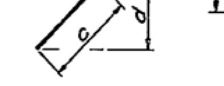
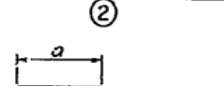
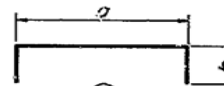
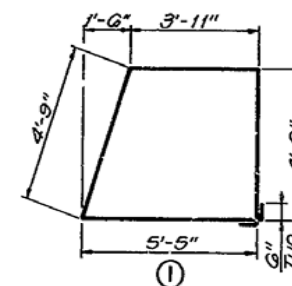
SECTION A-A



SECTION B-B



SECTION C-C



BILL OF REINFORCEMENT*

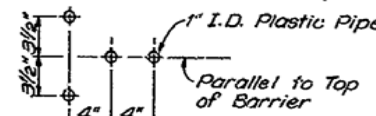
MARK	TYPE	SIZE	NUMBER	LENGTH Ft. In.	LOCATION	a Ft. In.	b Ft. In.	c Ft. In.	d Ft. In.
A1	(1)	#5	119	19 4	Cap				
A2	(2)	#5	119	5 4		4 5	0 6		
A3	(2)	#5	119	5 10		4 11	0 6		
A4	Str.	#6	38	42 8					
A5	(6)	#4	4	41 10	Cap	39 0	2 10	1 10 1/2	2 1/4
A6	(2)	#4	32	6 4	Riser	2 5	2 0		
A7	Str.	#4	32	3 2	Riser				
A8	(2)	#5	118	16 7	Backwall	1 2	7 9		
A9	(3)	#5	118	4 2		1 5	1 3	1 6	1 0 1/2
A10	(2)	#5	118	9 4		0 11	4 3		
A11	Str.	#4	54	41 2					
A12	(3)	#5	9	4 11		2 2	0 7	2 2	1 7 1/2
A13	(4)	#5	9	4 8					
A14	(5)	#5	9	5 1					
A15	(6)	#5	9	4 8	Backwall	2 6	2 2	1 5 1/2	1 7 1/2
A16	(7)	#5	26	14 1	Wings	2 2	4 6		
A17	Str.	#5	20	15 0					
A18	(2)	#5	26	7 4		0 8 1/2	3 4		
A19	(6)	#5	18	19 6		17 4	1 2	0 7	1 0 1/2
A20	(6)	#5	18	18 10		17 6	1 4	0 8	1 1 1/2
A21(E)	(6)	#5	8	18 10		17 6	1 4	0 8	1 1 1/2
A22(E)	(2)	#5	26	17 6		0 8 1/2	8 5		
A23	(7)	#5	12	17 2		0 8 1/2	8 3		
A24	Str.	#5	4	17 5					
A25(E)	(9)	#5	36	9 10					
A26(E)	(10)	#5	4	8 10	Wings				
A27(E)	(2)	#4	20	3 6	Median	0 11	1 4	E.B. 1 only	
A28(E)	Str.	#4	2	21 0				E.B. 1 only	
A29(E)	(2)	#4	8	3 6		0 11	1 4	E.B. 2 only	
A30(E)	Str.	#4	2	8 10	Median			E.B. 2 only	

*BILL OF REINFORCEMENT IS FOR END BENT 1, END BENT 2 SIMILAR, EXCEPT AS NOTED.

ESTIMATE OF QUANTITIES

ITEM	UNIT	QUANTITY
CLASS "A" CONCRETE	CU. YD.	127.3
CLASS "AA" CONCRETE	CU. YD.	70.5
STEEL REINFORCEMENT	LBS.	13,845
STEEL REINFORCEMENT, EPOXY COATED	LBS.	1,482

Holes to be formed thru Barrier with 1" I.D. Plastic Pipe. The Pipe shall remain in place. Plastic Pipe and cast of forming to be incidental to Class "AA" Concrete. (See Rdwy. Plans)



PLASTIC PIPE INSERT LAYOUT

(Reference Ky. Std. Dwg. RBC-001 Current Edition)

Field Bend as required to fit wing taper

**Dimensions altered by Field Bending

Capital Plaza - West Frankfort Connector Over Benson Creek

SHEET 9

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR
ROAD

STATION 134+40.00

P.E. PROJECT NO.

CONSTRUCTION PROJECT NO.

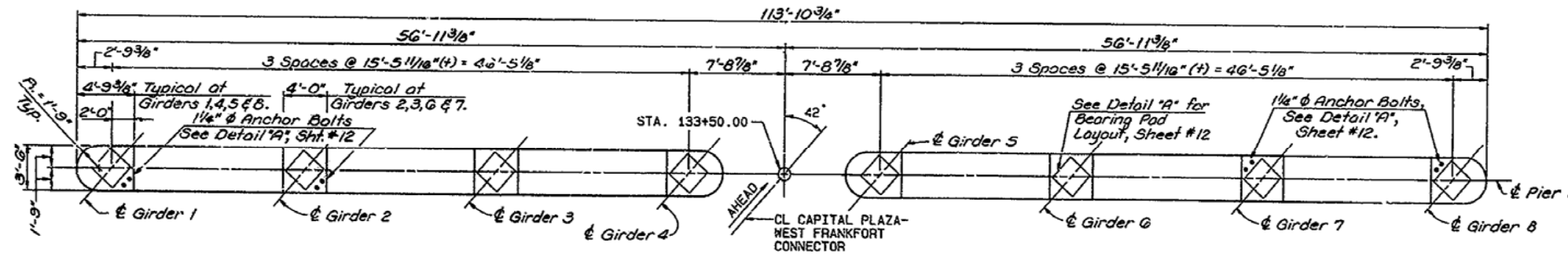
MAINTENANCE PROJECT NO.

DRAWING NO.

21466

END BENT DETAILS

UPDATE DATE
LETTING DATE



NOTE:
For Cap and Column
Reinforcement, see Pier 2.

PLAN OF CAP

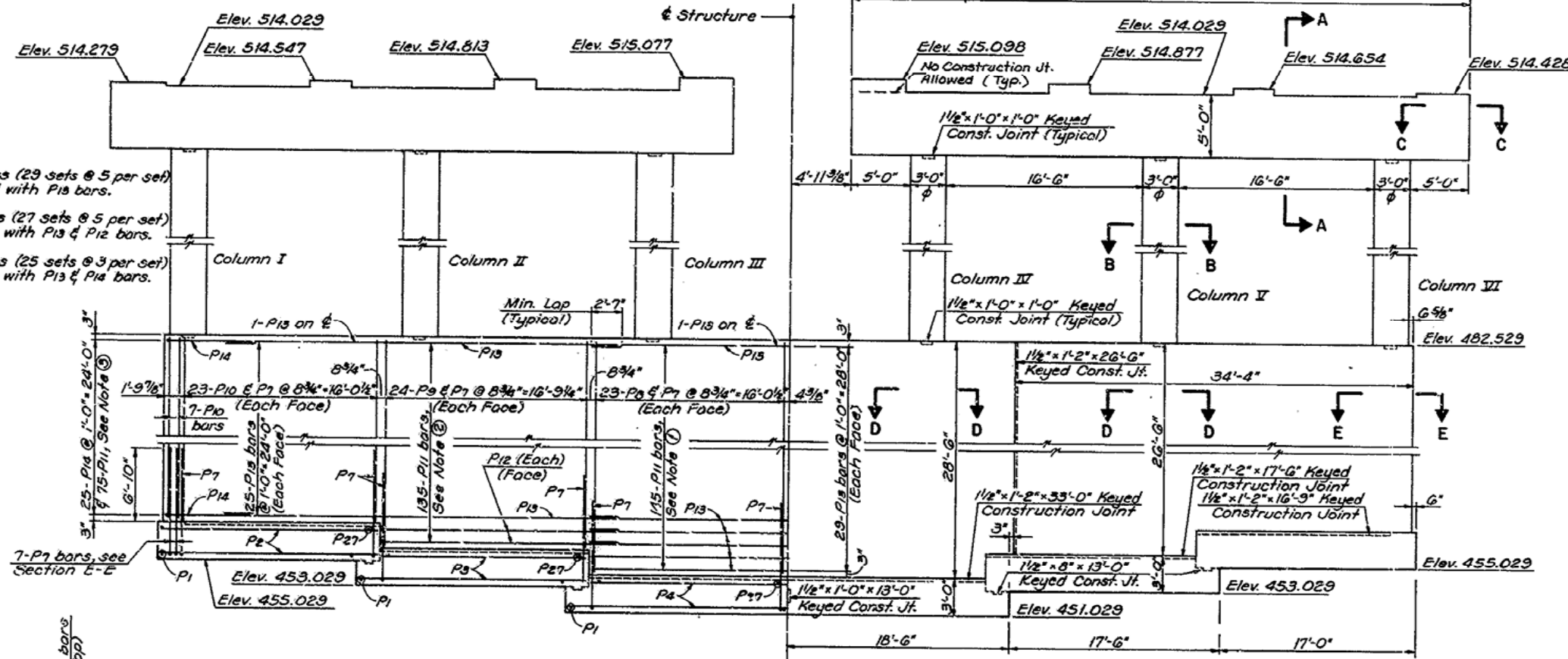
NOTE: For Section A-A thru E-E,
see Sheet #12.

NOTE: In order to avoid high shrinkage stresses,
the contractor shall wait a minimum of 3 days
between adjacent pier column-wall section pours.

NOTE: SEE SHEET 10A
FOR REVISED COLUMNS
AND FOOTINGS.

NOTES:

- ① P11 bars (29 sets @ 5 per set)
spaced with P13 bars.
- ② P11 bars (27 sets @ 5 per set)
spaced with P13 & P12 bars.
- ③ P11 bars (25 sets @ 3 per set)
spaced with P13 & P14 bars.

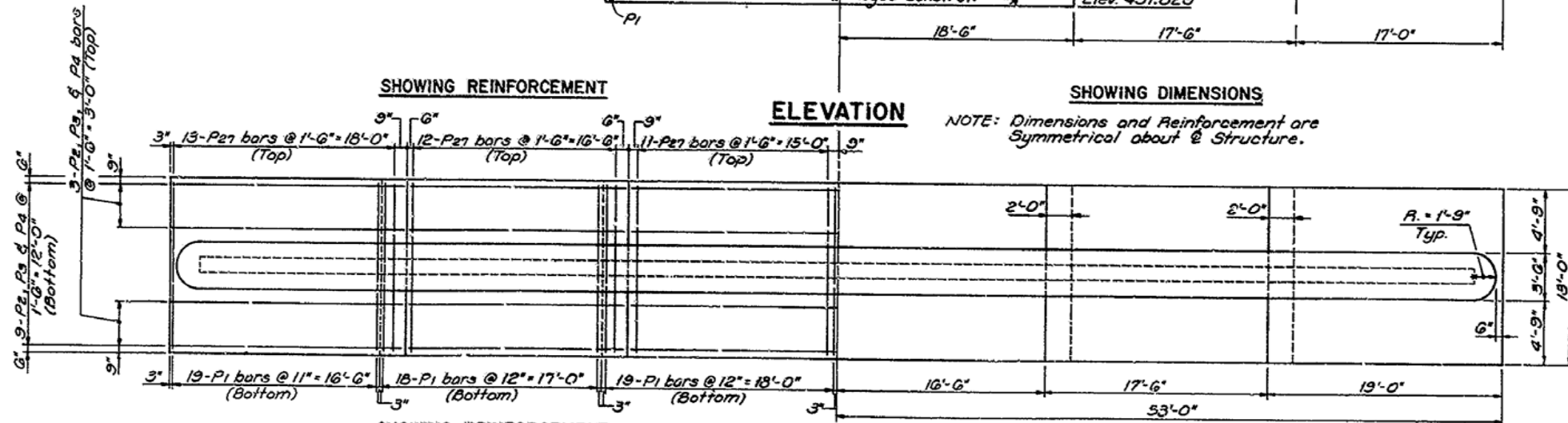


SHOWING REINFORCEMENT

ELEVATION

SHOWING DIMENSIONS

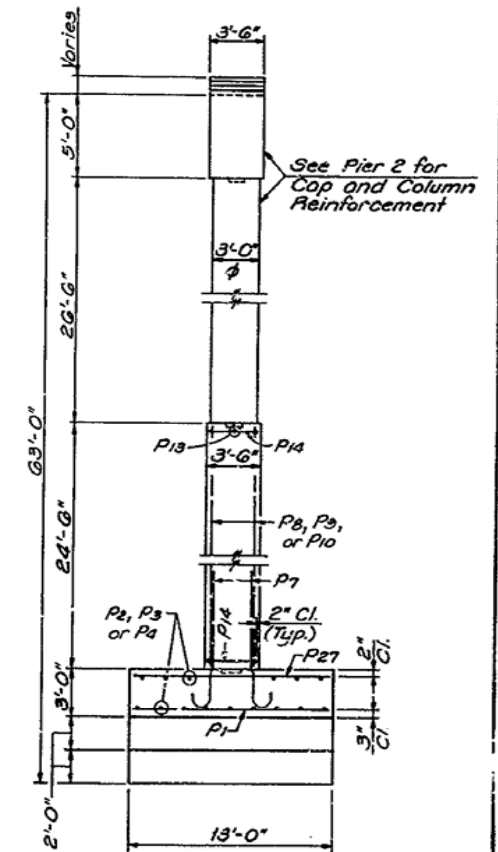
NOTE: Dimensions and Reinforcement are
Symmetrical about & Structure.



SHOWING REINFORCEMENT

PLAN OF FOOTING

SHOWING DIMENSIONS



END ELEVATION

Capital Plaza - West Frankfort
Connector Over Benson Creek

SHEET 10

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR
ROAD

STATION 134+40.00

P.E. PROJECT NO.

CONSTRUCTION PROJECT NO.

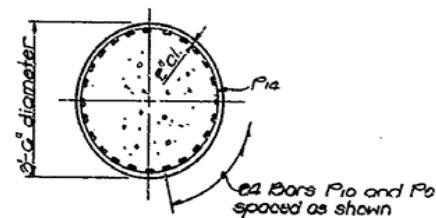
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LETTING NO.

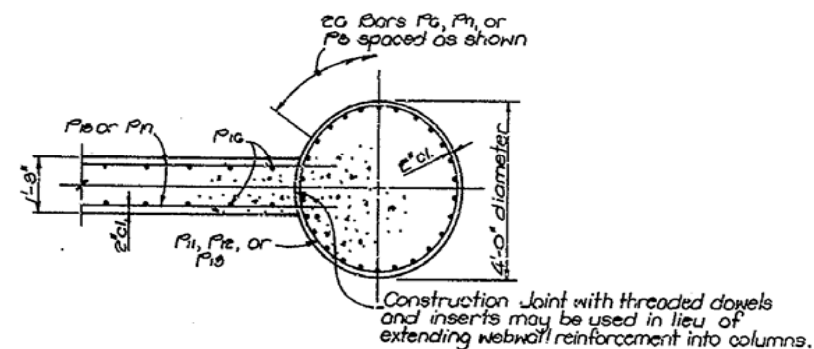
21466

PIER 1

ISSUED BY Boz CHECKED BY YCP DATE 3/88
 REPAIRED BY Boz CHECKED BY AMM DATE 3/88
 TRACKED BY Boz CHECKED BY Boz DATE 3/88



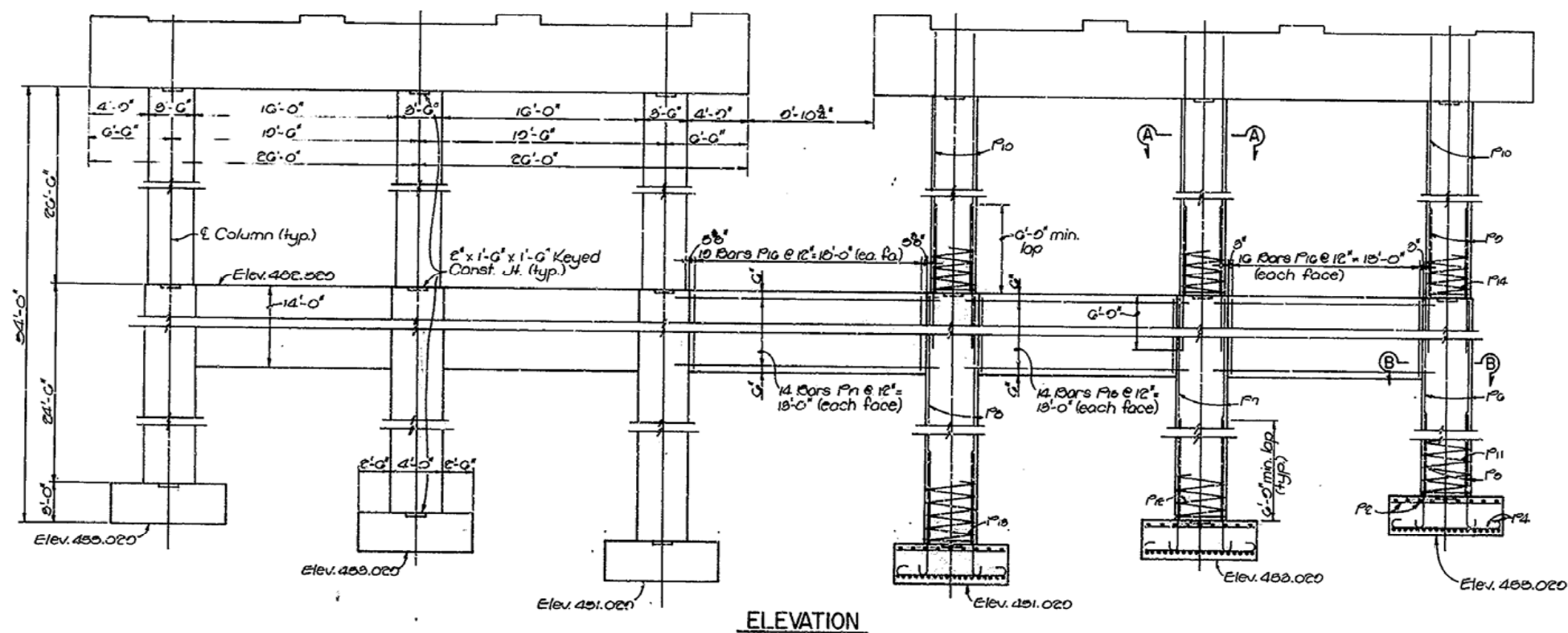
SECTION A-A



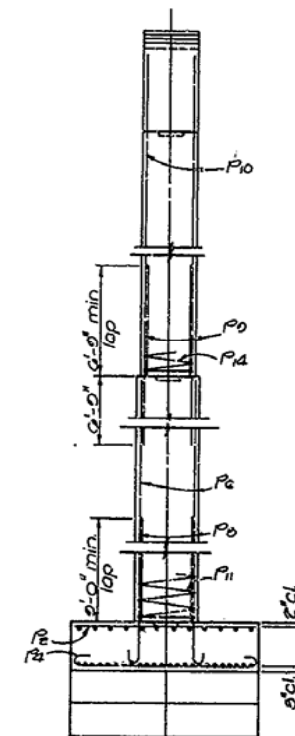
SECTION B-B

REINFORCEMENT MODIFICATIONS FOR PIER 1													
MARK	TYPE	NO.	SIZE	LENGTH		LOCATION	a		b		c		d
				ft.	in.		ft.	in.	ft.	in.	ft.	in.	
P ₁						NOT USED							
P ₂	str.	144	#5	11	0	Top of Footing							
P ₃						NOT USED							
P ₄	(4)	200	#7	13	7	Bottom of Footing	11	1	1	2	0	7	11
P ₅	(1)	50	#11	14	7	Footing Detail	12	1 1/2	2	0	1	2 1/2	12
P ₆	str.	02	#11	04	4	Column							
P ₇	str.	02	#11	00	4	Column							
P ₈	str.	02	#11	00	4	Column							
P ₉	str.	144	#5	13	0	Column							
P ₁₀	str.	144	#5	31	4	Column							
P ₁₁	(0)	2	#4	24	4	Column	2	0	(64 Turns)				
P ₁₂	(0)	2	#4	20	4	Column	2	0	(22 Turns)				
P ₁₃	(0)	2	#4	20	4	Column	2	0	(100 Turns)				
P ₁₄	(0)	2	#4	20	0	Column	2	2	(104 Turns)				
P ₁₅	str.	112	#4	17	0	Webwall							
P ₁₆	str.	100	#4	13	0	Webwall							
P ₁₇	str.	00	#4	20	11	Webwall							

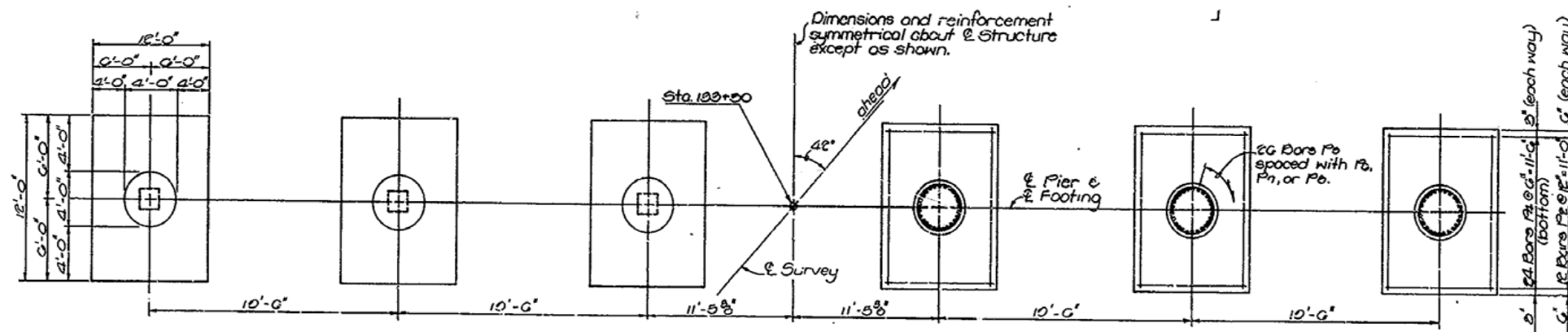
Note: See Sheet 12 for Bar Types and remainder of reinforcement.



ELEVATION



END ELEVATION



PLAN OF FOOTING

PIER 1



PIERS REDESIGNED BY
HAWORTH, MEYER, & BOLEYN
CONSULTING ENGINEERS

Bryan G. Stopper
BRYAN G. STOPPER, P.E.
KY. NO. 12531

Capital Plaza-West Frankfort Connector Over Benson Creek

SHEET 10 A

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR
ROAD

STATION 134+40.00

P. E. PROJECT NO.

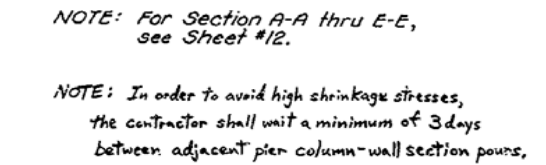
CONSTRUCTION PROJECT NO.

MAINTENANCE PROJECT NO.

GRADING: 50

21466

APPROVED BY	WBC	CHECKED BY	AHC	DATE	12/85	REVISION	Added Nite sign - "this 3 day unit left off - sent col - wall section position 232-20"
DRAWN BY	ALF	CHECKED BY	AHC	DATE	12/85	REVISION	Revised column and footing on Street 1/A



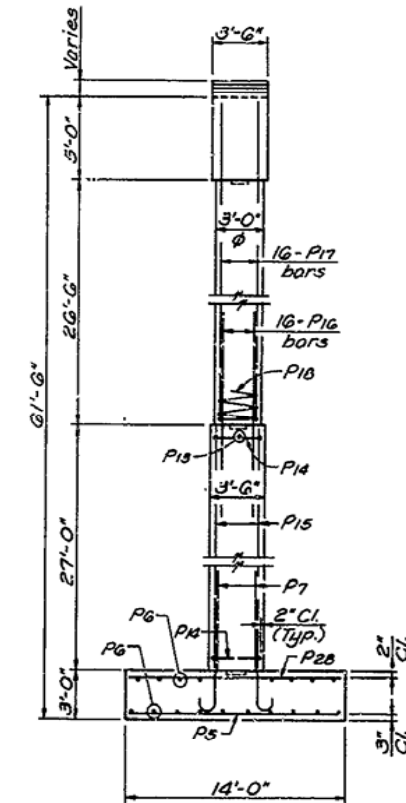
NOTE: SEE SHEET IIA
FOR REVISED COLUMNS
AND FOOTINGS.

[illegible]

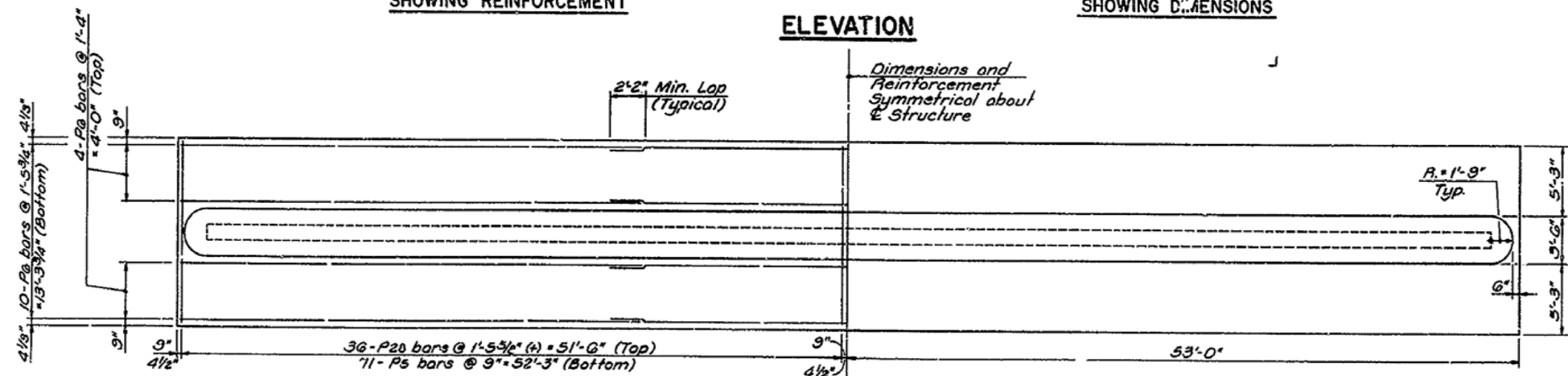
NOTES:

- ① P11 bars (27 sets @ 5 per set) spaced with P13 & P14 bars.
- ② P11 bars (27 sets @ 3 per set) spaced with P13 bars.

SHOWING DIMENSIONS



END ELEVATION



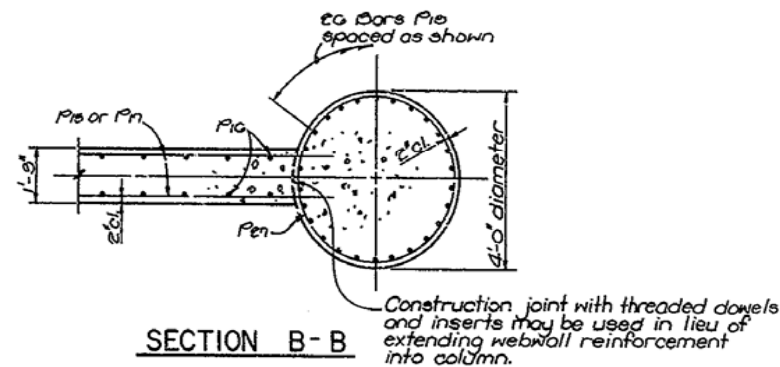
SHOWING DIMENSIONS

PIER 2

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR

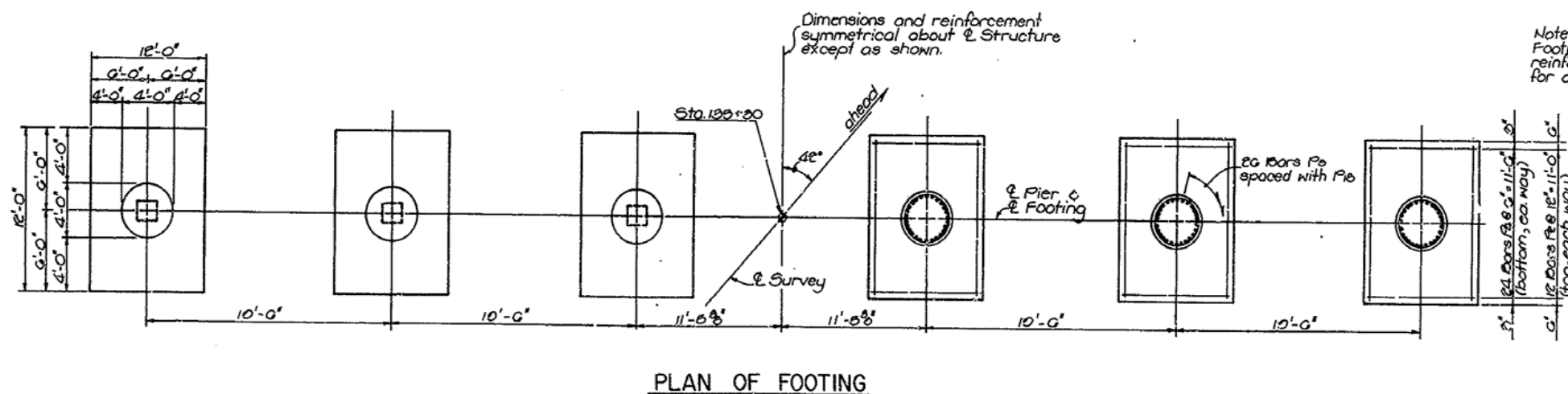
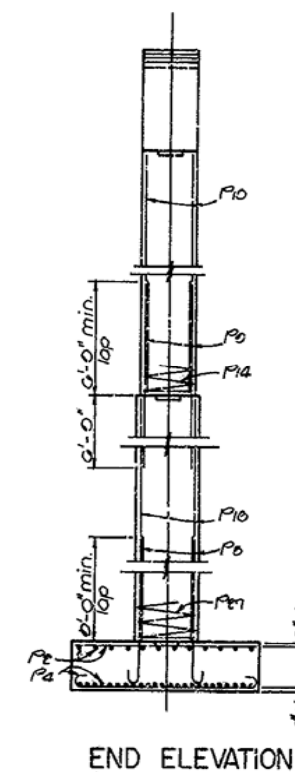
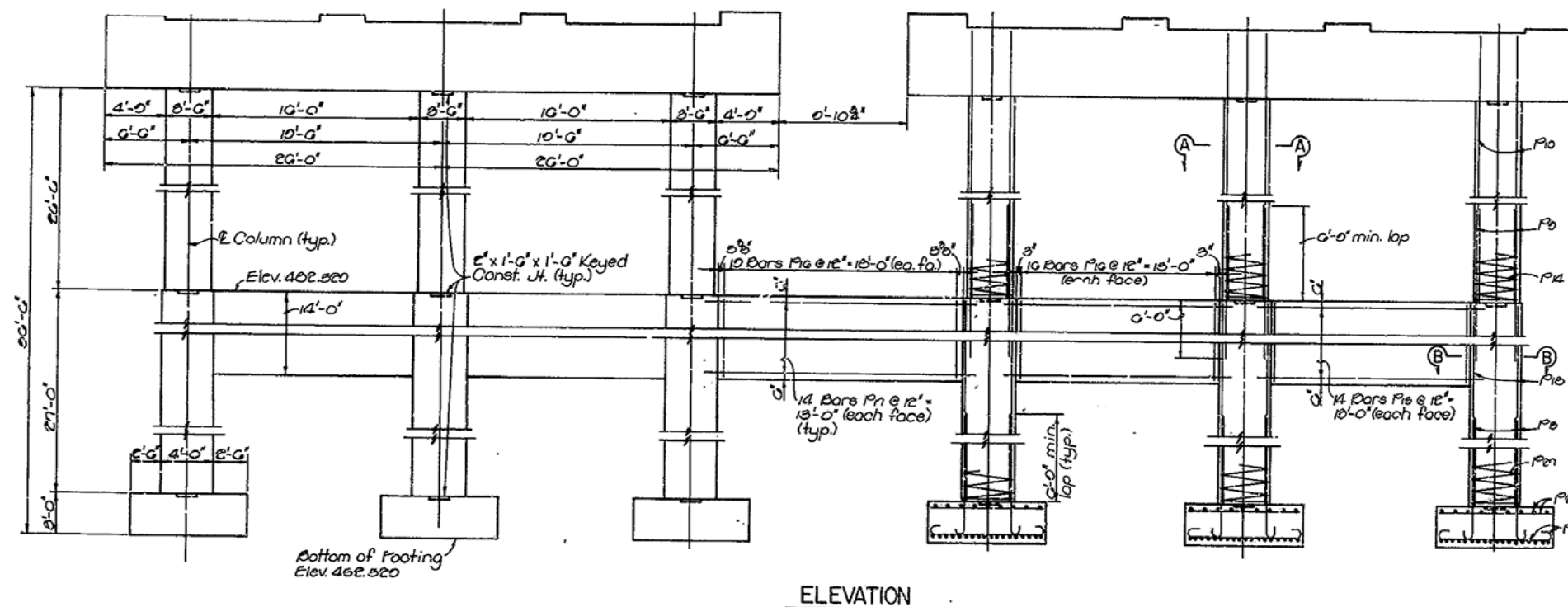
P.E. PROJECT NO.

DRAWING NO.
21466



MARK	TYPE	NO	SIZE	LENGTH		LOCATION	a		b		c		d	
				ft.	in.		ft.	in.	ft.	in.	ft.	in.		
P ₁						NOT USED								
P ₂	str.	144	*8	11	0	Top of Footing								
P ₃						NOT USED								
P ₄	④	200	*7	12	7	Bottom of Footing	11	1	1	2	0	7	11	0
P ₅	①	100	*11	14	7	Footing Dowel	12	1	2	0	1	2	12	0
P ₆	str.	144	*8	13	0	Column								
P ₇	str.	144	*8	21	4	Column								
P ₈	③	0	*4	20	0	Column	0	2	(64 Turns)					
P ₉	str.	112	*4	17	0	Webwall								
P ₁₀	str.	100	*4	13	0	Webwall								
P ₁₁	str.	20	*4	20	11	Webwall								
P ₁₂	str.	100	*11	20	10	Column								
P ₁₃	⑥	0	*4	20	10	Column	2	0	(20 Turns)					

Note: See Sheet 12 for Bar Types and remainder of reinforcement.



Note:
Footings size and reinforcement same for all footings.



PIERS REDESIGNED BY
HAWORTH, MEYER, & BOLEYN
CONSULTING ENGINEERS

BRYAN G. STOPPER, P.E.
KY. NO. 12531

Capital Plaza - West Frankfort
Connector Over Benson Creek

SHEET 11 A

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

FRANKFORD
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR
RD 10

STATION 134 + 40.00

P. E. PROJECT NO.

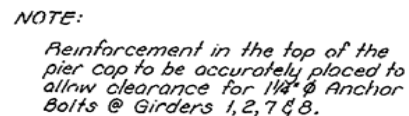
CONSTRUCTION PROJECT NO.

MAINTENANCE PROJECT NO.

DRAWING (33)

PIER 2

21466



The image contains two technical drawings showing the layout of anchor bolts for a pier and girders.

Left Drawing (Pier): Shows a square layout with dimensions:

- Top: $2'-9\frac{3}{8}"$ and $2'-0"$
- Bottom: $1'-7\frac{3}{8}"$ and $1'-5\frac{3}{8}"$
- Right: $1'-9"$
- Internal dimensions: $1'-1\frac{1}{2}"$ (multiple), $1"$ (multiple), and $3\frac{21}{32}"$ (labeled "Metric Brg. (coll), See for Details").
- Labels: "Pier" and "Girder".

Right Drawing (Girder): Shows a rectangular layout with dimensions:

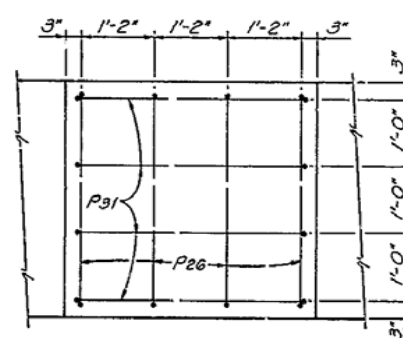
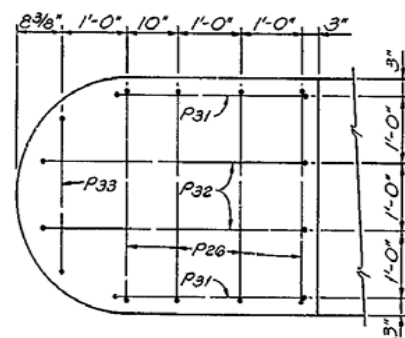
- Top: $2'-0"$ and $2'-0"$
- Right: $1'-9"$
- Bottom: $1'-9"$
- Internal dimensions: $3\frac{1}{2}"$ (multiple), $9"$, $4\frac{7}{8}"$, $1'-5\frac{3}{8}"$, $10\frac{1}{2}"$, and $4\frac{3}{8}"$.
- Labels: "Pier" and "Girder".

Common Label: "2 - 1/4" ϕ x 2'-0" Anchor Bolts Located on the Interior Side of Girders 1, 2, 7 & 8. (1'-9" Embedment, Typical).

AT GIRDERS 2,3,6 & 7
Showing Anchor Bolt Layout

SECTION B-B

SECTION B-B

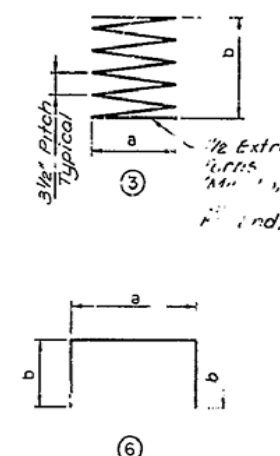
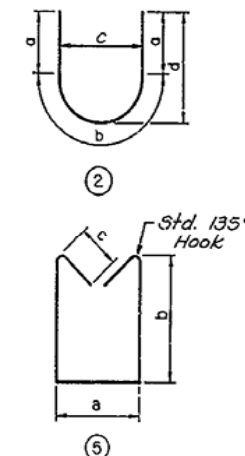
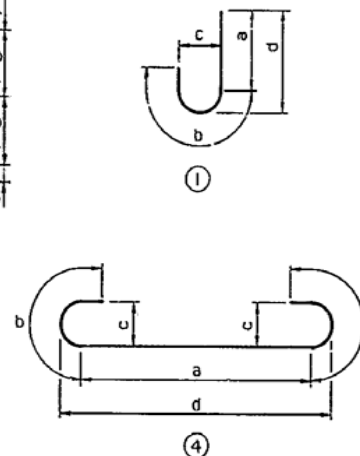


DETAIL "B"

NOTE: Reinforcement in Risers to be accurately placed to allow clearance for 1/4" ϕ Anchor Bolts @ Girders 1, 2, 7 & 8.

AT GIRDERS 1,4,5 & 8

AT GIRDERS 2,3,6 & 7



NOTE FOR SPIRAL REINFORCEMENT:

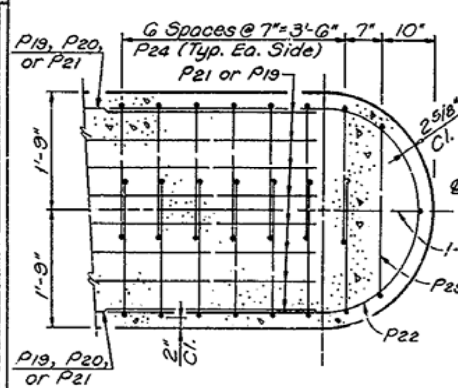
THE LENGTH SHOWN IS THE DISTANCE FROM TOP OF FOOTING TO THE BOTTOM OF THE STEEL IN THE PIER CAP. THE NUMBER OF TURNS SHOWN IS THE LENGTH DIVIDED BY THE PITCH, PLUS 3 TURNS (TOTAL NUMBER OF CLOSED TURNS) EXPRESSED TO THE NEAREST WHOLE NUMBER, 1 1/2 CLOSED COILS SHALL BE PROVIDED AT THE END OF EACH SPIRAL UNIT.

FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS, WEIGHING APPROXIMATELY 1.01 LBS. PER LIN. FT. OF SPACER, SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. SPIRAL REINFORCEMENT IS INCLUDED IN THE ESTIMATE OF QUANTITIES. WEIGHT OF SPACERS IS INCIDENTAL TO SPIRAL. SPIRAL REINFORCEMENTS SHALL HAVE DEFORMATIONS. SEE THE GENERAL NOTES.

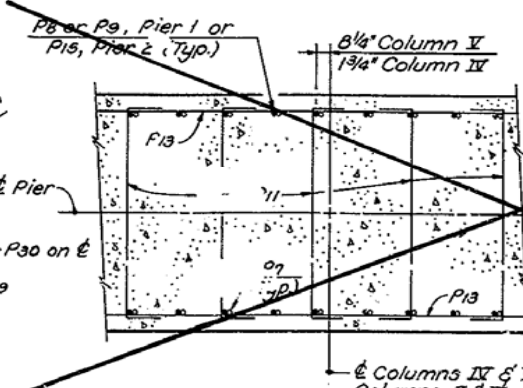
NOTE: SHADED AREAS OF BAR
BILL HAVE BEEN MODIFIED.
SEE SHEETS 10A & 11A.

PIER DETAILS

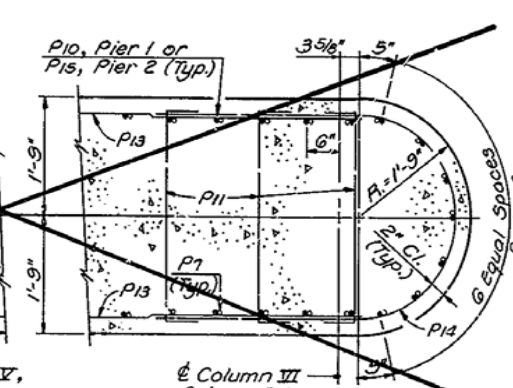
BILL OF REINFORCEMENT															
MARK	TYPE	SIZE	NUMBER		LENGTH		LOCATION	a		b		c		d	
			PIER 1	PIER 2	Ft.	In.		Ft.	In.	Ft.	In.	Ft.	In.		
P ₁	Str.	#9	112	—	12	6	Footing								
P ₂		#5	30	—	18	6									
P ₃		#5	30	—	17	0									
P ₄		#5	15	—	36	6									
P ₅		#9	—	142	13	6									
P ₆	Str.	#5	—	54	36	8	Footing								
P ₇	①	#9	294	294	10	8	Ftg.-Shaf	3	0 3/4	1	8	0	11 1/4	9	6
P ₈	Str.	#9	32	—	28	3	Shaf								
P ₉	Str.	#9	36	—	26	3									
P ₁₀	Str.	#9	106	—	24	3									
P ₁₁	⑥	#4	710	702	4	1		3	2	0	6				
P ₁₂	Str.	#6	6	—	19	1									
P ₁₃	Str.	#6	161	111	32	7									
P ₁₄	②	#6	50	36	11	8		2	7	4	11 3/4	3	2	4	11
P ₁₅	Str.	#9	—	294	26	9	Shaf								
P ₁₆	Str.	#9	36	36	13	8	Shaf-Col.								
P ₁₇	Str.	#9	36	36	30	6	Column-Cap								
P ₁₈	③	#4	6	6	179	7	Column	2	8	26	0	(93 Turns)			
P ₁₉	Str.	#8	16	16	50	0	Cap								
P ₂₀	Str.	#5	8 1/2	8 1/2	48	6									
P ₂₁	④	#9	(16)	(16)	51	11		48	6	1	8	0	11 1/4	49	6
P ₂₂	②	#5	16 1/2	16 1/2	11	7		3	4 3/8	4	9 3/4	3	0 3/4	4	11
P ₂₃	⑤	#5	9 1/2	9 1/2	13	4		3	2	4	8	0	3 3/4		
P ₂₄	⑤	#5 2 1/2	56	56	12	2		2	0	4	8	0	3 3/4		
P ₂₅	⑥	#5	(30)	(30)	4	1		3	2	0	6				
P ₂₆	⑥	#4	32	32 1/2	6	9	Cap	3	2	1	10				
P ₂₇	Str.	#5	72	—	12	6	Footing								
P ₂₈	Str.	#5	—	72	13	6	Footing								
P ₂₉	⑦	#5	4	4	15	1	Cap								
P ₃₀	⑥	#5	4	4	5	7		4	8	0	6				
P ₃₁	⑥	#4	24	24	7	3		3	8	1	10				
P ₃₂	⑥	#4	8	8	7	7		4	0	1	10				
P ₃₃	⑥	#4	4	4	5	1	Cap	1	6	1	10				



SECTION C-C



SECTION D-D



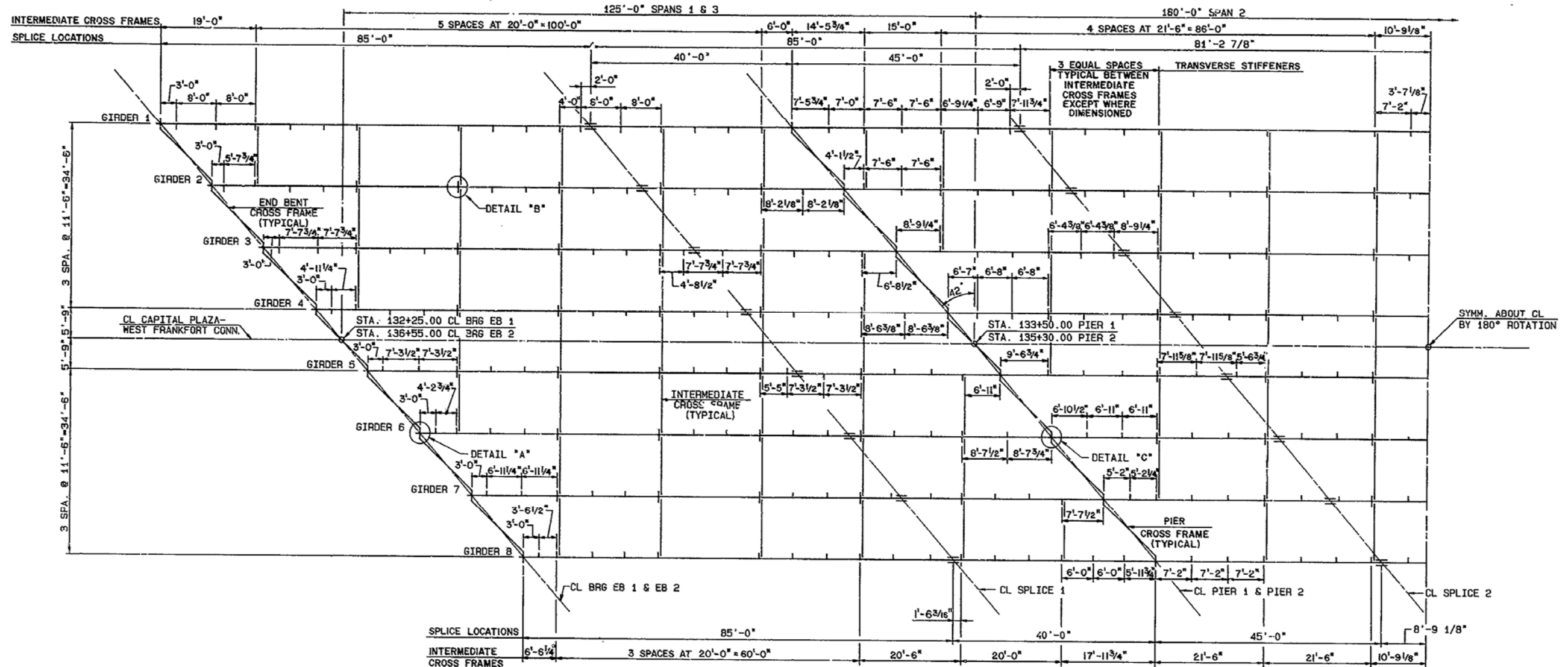
SECTION E-E

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR

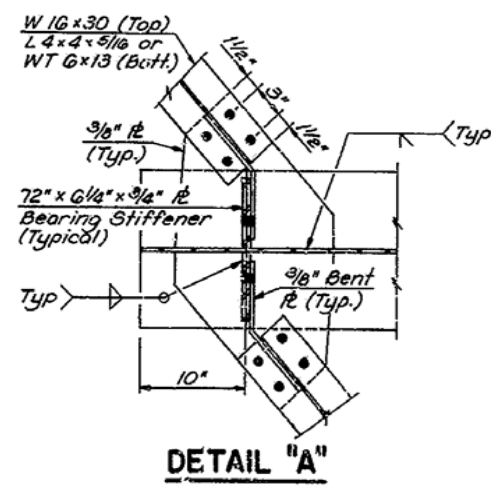
STATION 34+40.00		P. E. PROJECT NO.	
CONSTRUCTION PROJECT NO.		MAINTENANCE PROJECT NO.	

UPDATE DATE
LETTING DATE

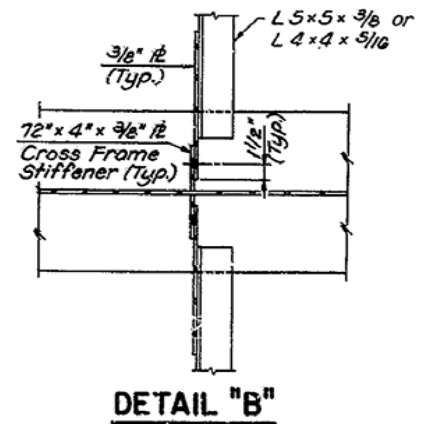
DESIGNED BY: SLM DATE: 1/8/88 CHECKED BY: RHC DATE: 1/8/88
 TRACED BY: ALF DATE: 1/8/88 CHECKED BY: ALF DATE: 1/8/88



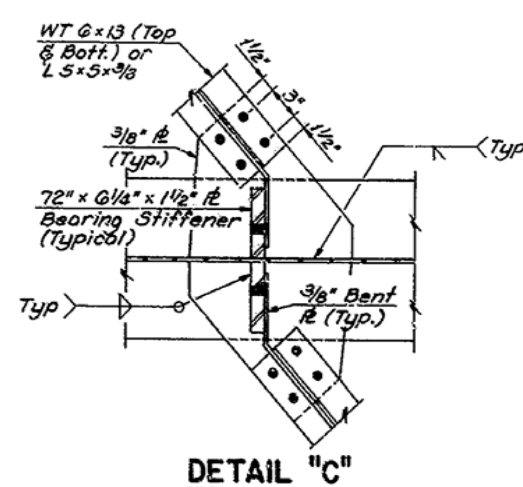
PART FRAMING PLAN



DETAIL "A"



DETAIL "B"



DETAIL "C"

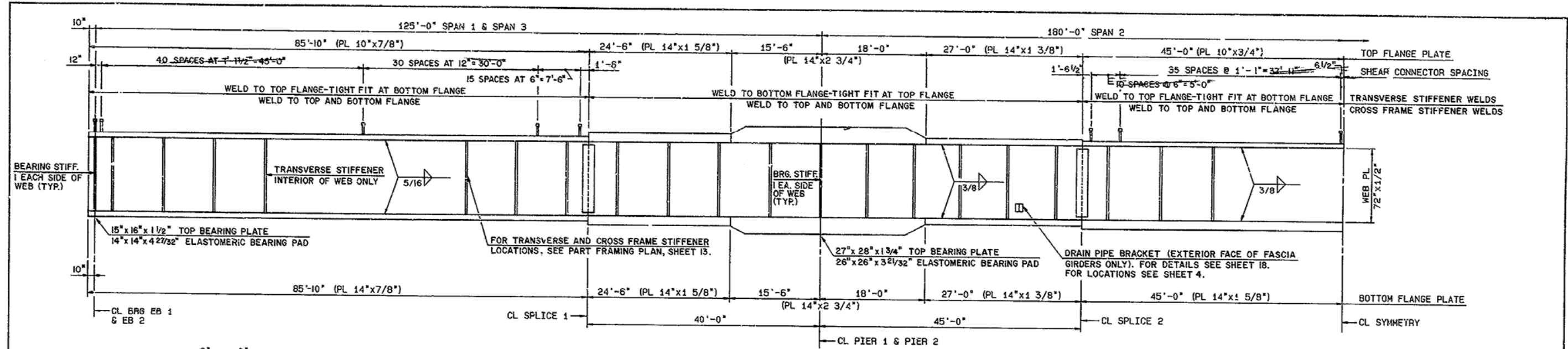
STRUCTURAL STEEL

Capital Plaza - West Frankfort Connector Over Benson Creek SHEET 13

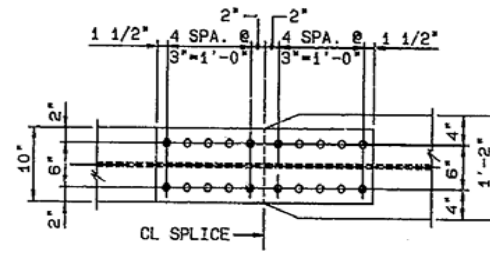
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR ROAD
STATION 134+40.00 P. E. PROJECT NO.
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO. 21466

UPDATE DATE
LETTING DATE

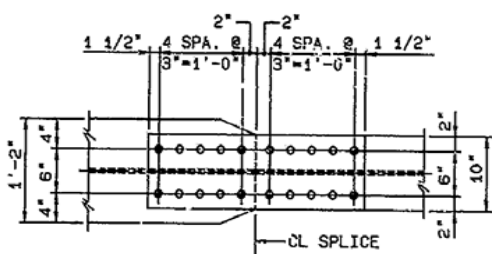
REVISIONS
DATE
BY
CHECKED BY
DATE
BY
DATE
BY
DATE
BY



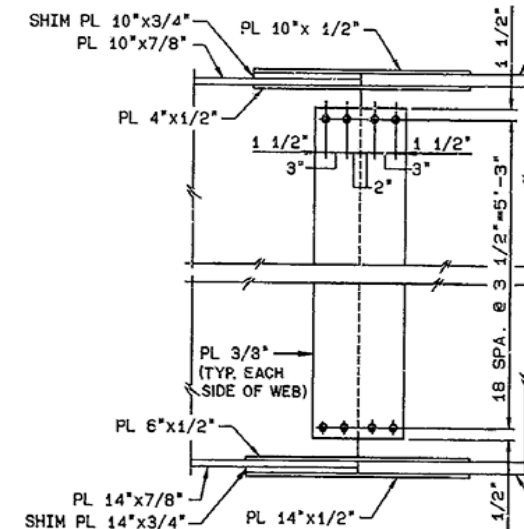
PART GIRDER ELEVATION



PLAN - TOP FLANGE SPLICE PLATE

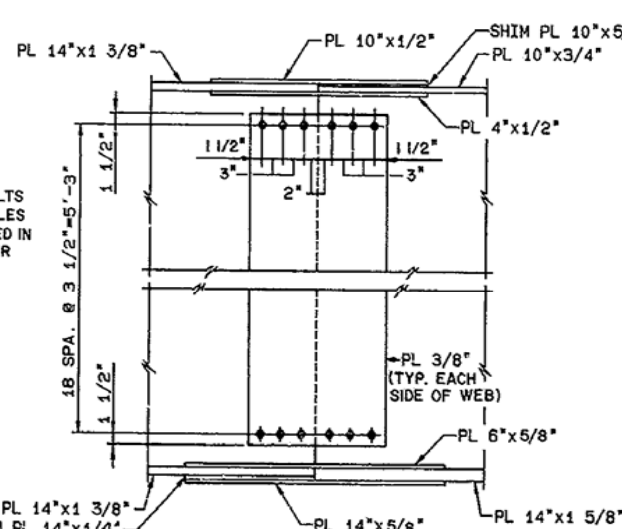


PLAN - TOP FLANGE SPLICE PLATE

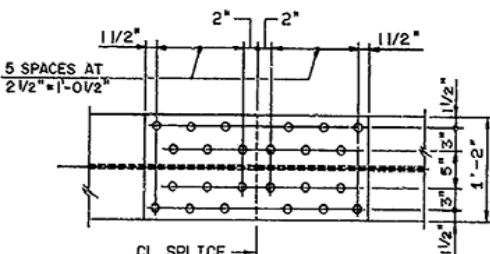


ELEVATION

NOTE: 7/8" Ø H.S. BOLTS & 15/16" Ø HOLES SHALL BE USED IN BOLTED GIRDER SPLICES.

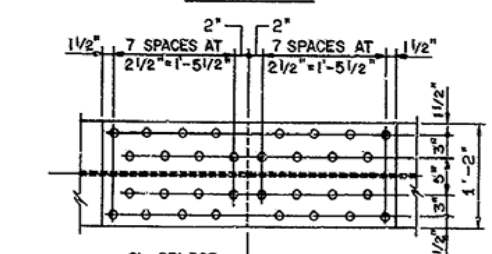


ELEVATION



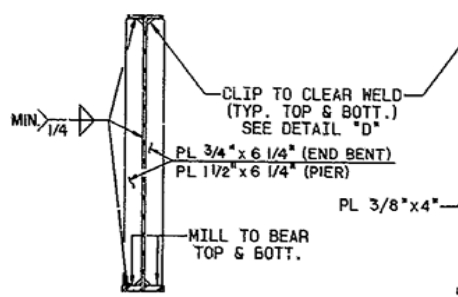
PLAN - BOTTOM FLANGE SPLICE PLATE

SPLICE 1 DETAILS

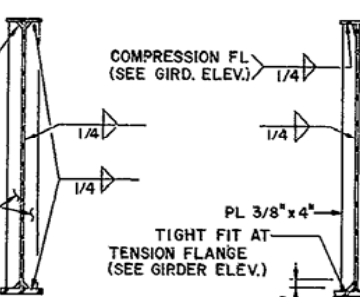


PLAN - BOTTOM FLANGE SPLICE PLATE

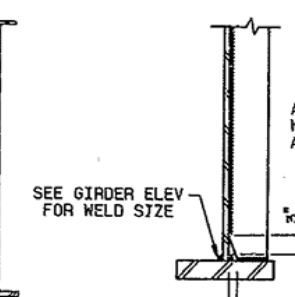
SPLICE 2 DETAILS



BEARING STIFFENERS



CROSS FRAME STIFF.

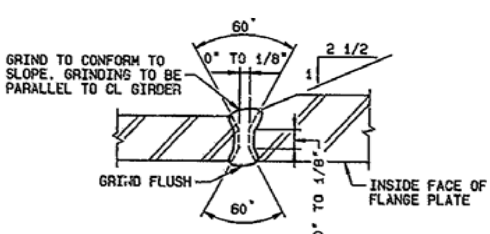


TRANSVERSE STIFF.

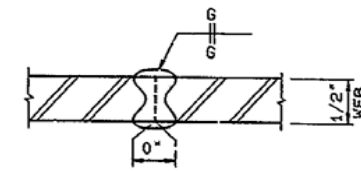
NOTE: FLANGE TO WEB WELDS TO BE SINGLE PASS SUBMERGED ARC FILLET WELDS IN THE FLAT POSITION.

ALL STIFFENER PLATE WELDS TO BE TERMINATED AS SHOWN.

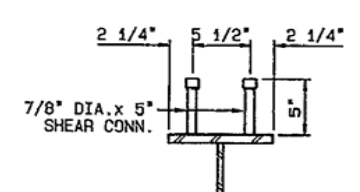
DETAIL "D"



FLANGE SPLICE



WEB SPLICE



SHEAR CONNECTOR DETAIL

NOTE: FLANGE SPLICE WELD AND WEB SPLICE WELD SHALL NOT OCCUR AT THE SAME LOCATION.

ALL GIRDER COMPONENTS (WEB, FLANGES, TRANSVERSE STIFFENERS, CROSS FRAME STIFFENERS, BEARING STIFFENERS, AND SPLICE PLATES) SHALL BE A588 OR A572 STEEL. ALL STRUCTURAL STEEL SHALL BE PAINTED, SEE GENERAL NOTES, SHEET #2.

ALL BEARING STIFFENERS AND ENDS OF GIRDERS SHALL BE VERTICAL, AND INTERMEDIATE STIFFENERS SHALL BE NORMAL TO THE FLANGE.

STRUCTURAL STEEL

Capital Plaza - West Frankfort
Connector Over Benson Creek

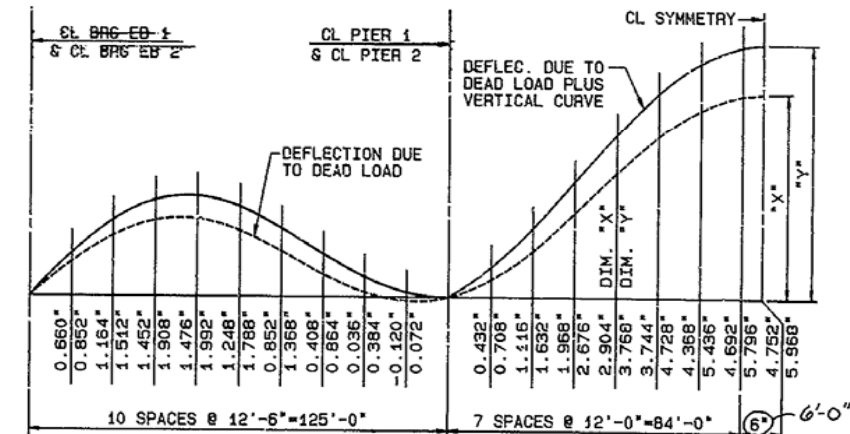
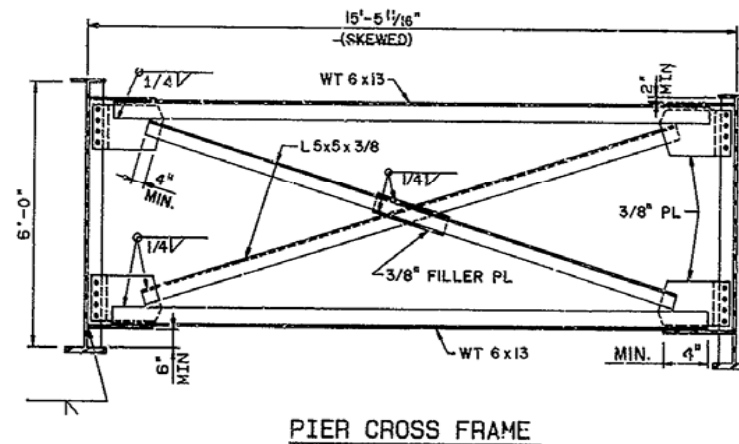
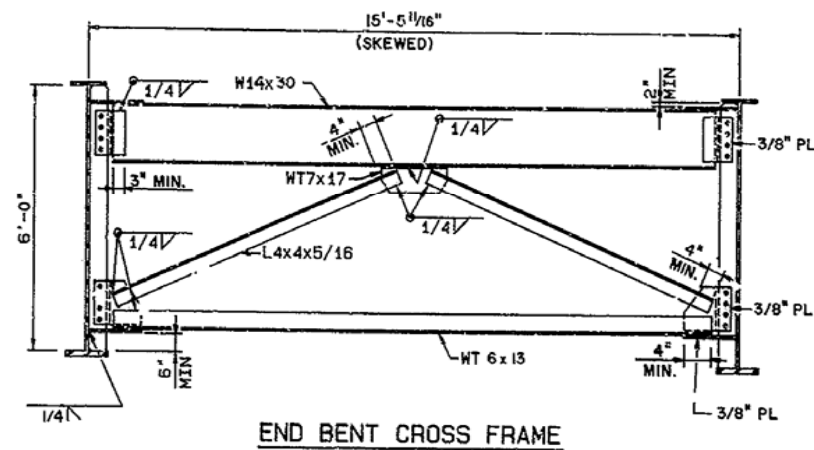
SHEET 14

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA-WEST FRANKFORT
CONNECTOR
ROAD

STATION 134+40.00
CONSTRUCTION PROJECT NO.

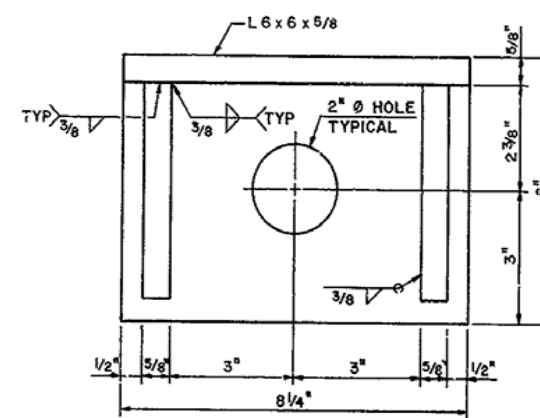
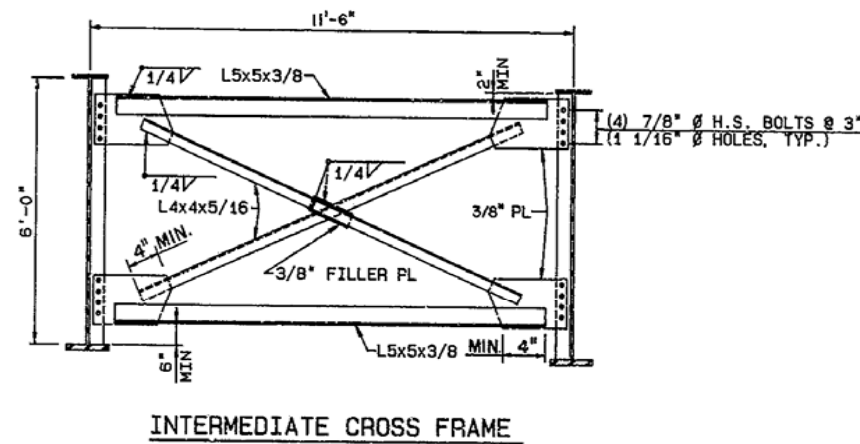
P. E. PROJECT NO.
MAINTENANCE PROJECT NO.

DRAWING NO.
21466

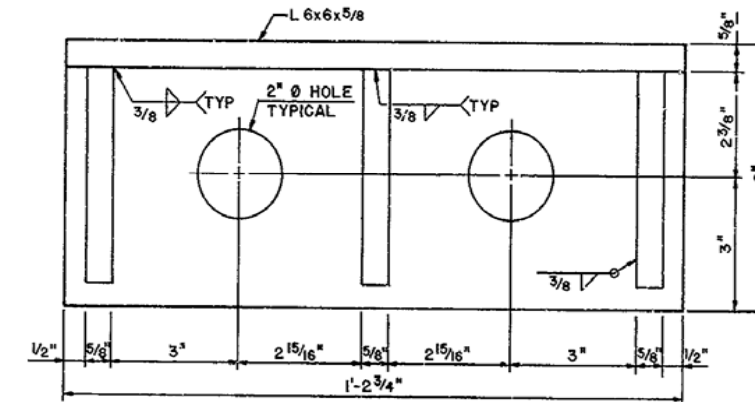


"X" = DEFLECTION DUE TO STEEL & CONCRETE DEAD LOAD
"Y" = DEFLECTION DUE TO DEAD LOAD + VERTICAL CURVE ORDINATE.

NOTE:
GIRDERS SHALL BE CAMBERED SO THAT A 1/2" MINIMUM DECK FILLET
IS MAINTAINED ALONG THE GIRDER LENGTH WHEREVER POSSIBLE.

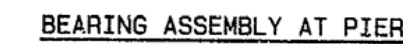
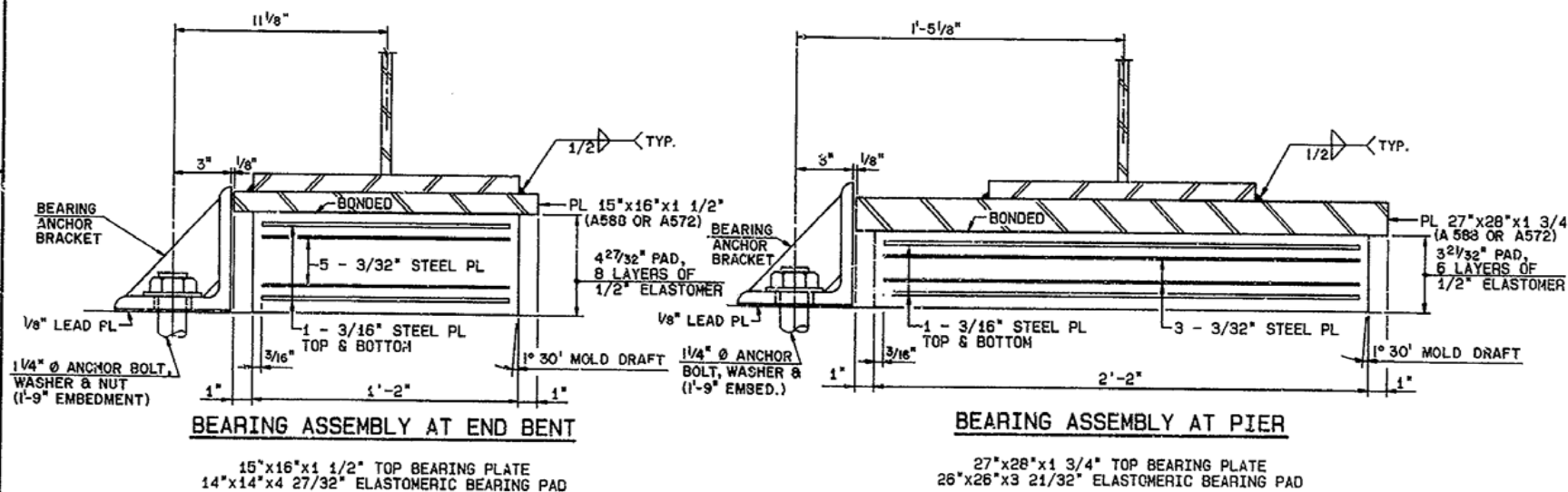


BEARING ANCHOR BRACKET AT END BENTS
TYPICAL AT INTERIOR SIDE OF GIRDERS 1,2,7 & 8



BEARING ANCHOR BRACKET AT PIERS
TYPICAL AT INTERIOR SIDE OF GIRDERS 1,2,7 & 8

NOTE:
ALL STRUCTURAL STEEL (EXCEPT GIRDERS) SHALL BE
A36 UNLESS NOTED.
FOR GIRDER STEEL SEE SHEET 14.
FOR DETAIL OF DRAIN BRACKET SEE SHEET 18.



TOP OF SPLICE ELEVATIONS				
GIRDER	SPLICE 1	SPLICE 2	SPLICE 3	SPLICE
1	521.057	521.400	521.475	521.2
2	521.335	521.658	521.711	521.4
3	521.610	521.913	521.945	521.7
4	521.883	522.166	522.176	521.9
5	521.314	522.176	521.166	521.8
6	521.703	521.945	521.913	521.6
7	521.489	521.711	521.658	521.3
8	521.273	521.475	521.400	521.0

Capital Plaza - West Frankfort
Connector Over Benson Creek

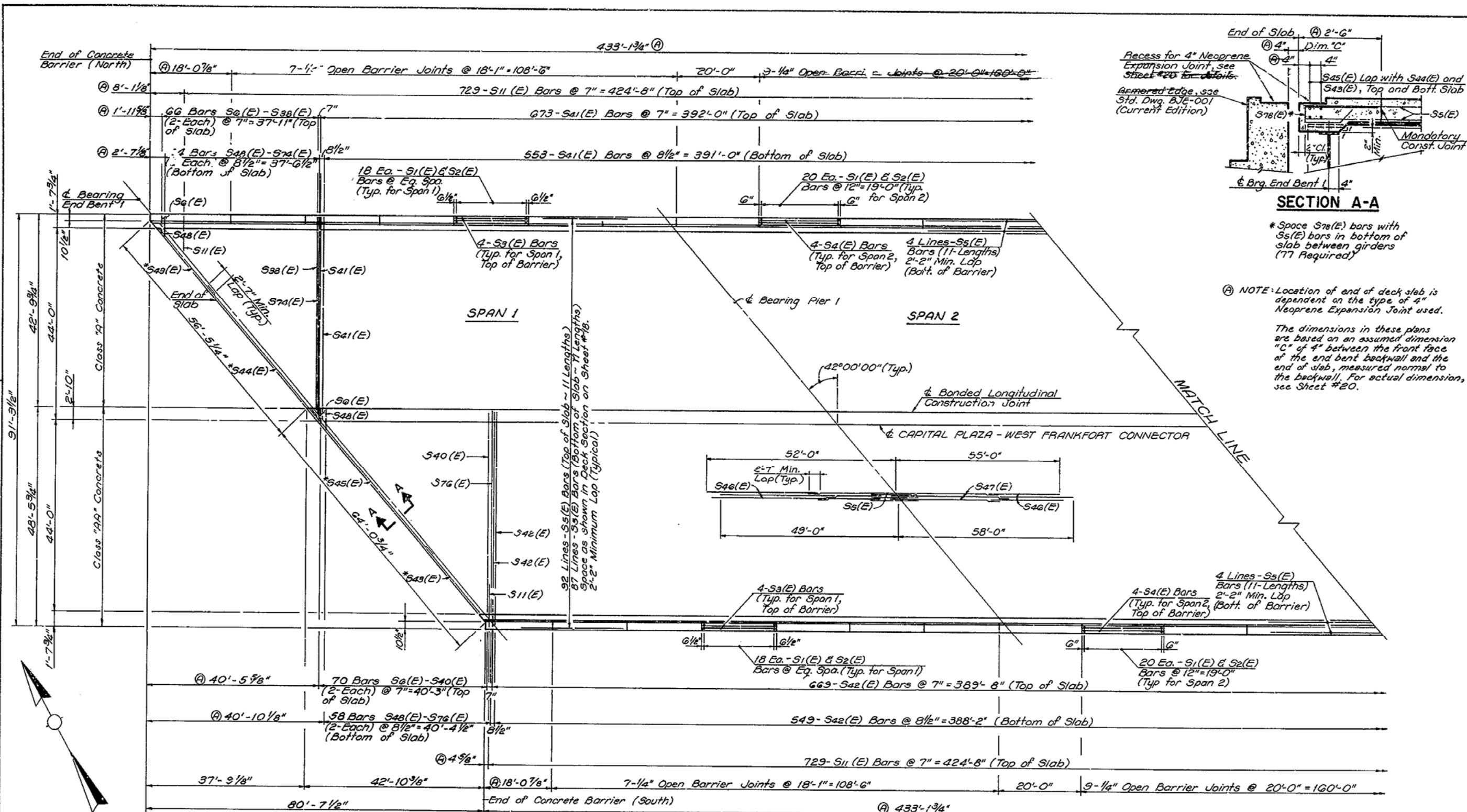
SHEET 15

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR
ROAD
STATION 134+40.00 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO. 21466
--------------------------	-------------------------	----------------------

UPDATE DATE
LETTING DATE

DESIGNED BY: WBC
CHECKED BY: RAY
DATE: 12/85
REVISED BY: SLM
CHECKED BY: RAY
DATE: 8/23/85
REVISED BY: SLM
CHECKED BY: RAY
DATE: 8/23/85



HALF PLAN

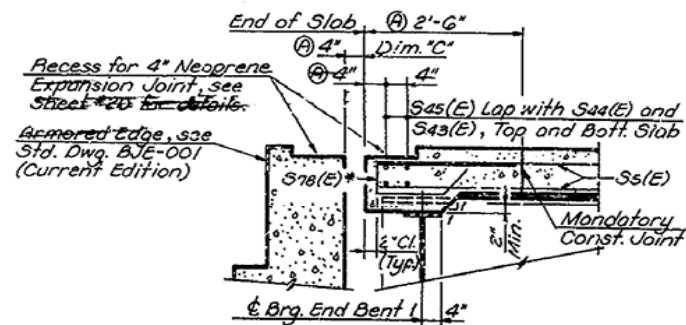
Barrier Median, Deck Drains & Recess for 4" Neoprene Expansion Joints are not shown

* 2 Bars Each (Top & Bottom of Slab)
See Section A-A.

NOTE:

For Barrier Median Layout see Sheet #18.
For Deck Drain Layout see Sheet #4.
For Recess for 4" Neoprene Expansion Joints see Sheet #20.
For Barrier Joint Detail see Sheet #18.
For Deck Slab Pouring Sequence see Sheet #19

SUPERSTRUCTURE



SECTION A-A

* Space S78(E) bars with S5(E) bars in bottom of slab between girders (77 Required)

(A) NOTE: Location of end of deck slab is dependent on the type of 4" Neoprene Expansion Joint used.

The dimensions in these plans are based on an assumed dimension "C" of 4" between the front face of the end bent backwall and the end of slab, measured normal to the backwall. For actual dimension, see Sheet #20.

Capital Plaza - West Frankfort Connector Over Benson Creek

SHEET 16

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
ROAD

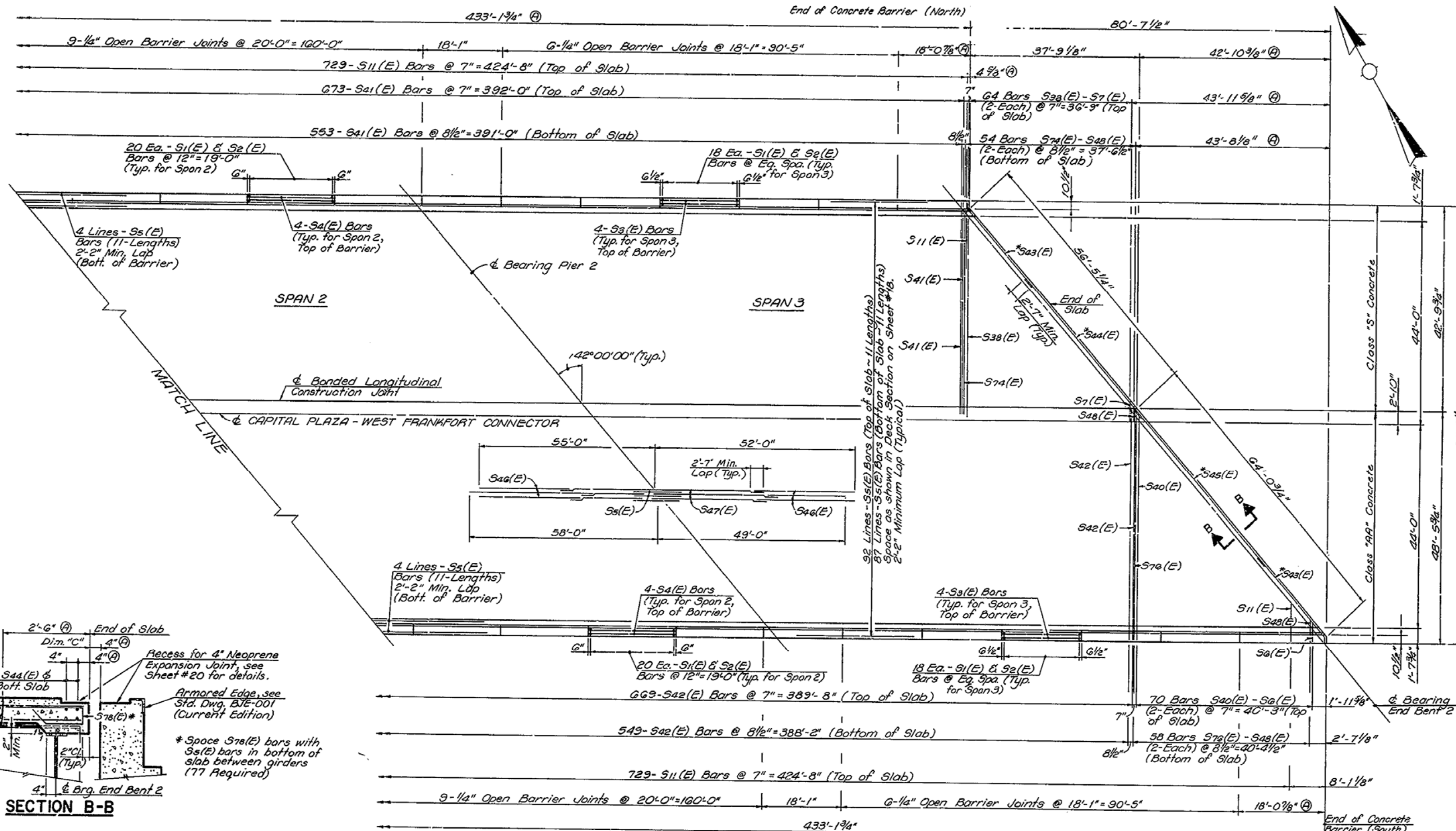
STATION 134+40.00
CONSTRUCTION PROJECT NO.

P.L. PROJECT NO.
MAIN/NAME PROJECT NO.

DRAWING NO.
21466

UPDATE DATE
LETTING DATE

REVISIONS BY: WBC, DATE: 12/16/85, CHECKED BY: SLM, DATE: 12/16/85, DESIGNED BY: HRY, DATE: 12/16/85, DRAWN BY: HRY, DATE: 12/16/85



SECTION B-B

See Note (A) on Sheet #16.

HALF PLAN

Barrier Median, Deck Drains & Recess for 4" Neoprene Expansion Joints are not shown

* 2 Bars Each (Top & Bottom of Slab) See Section B-B.

NOTE:
For Barrier Median Layout see Sheet #18.
For Deck Drain Layout see Sheet #4.
For Recess for 4" Neoprene Expansion Joints see Sheet #20.
For Barrier Joint Detail see Sheet #18.
For Deck Slab Pouring Sequence see Sheet #18.

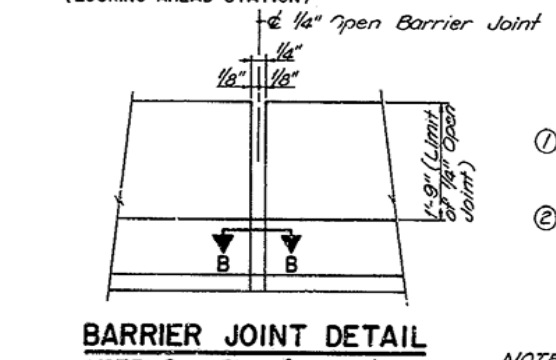
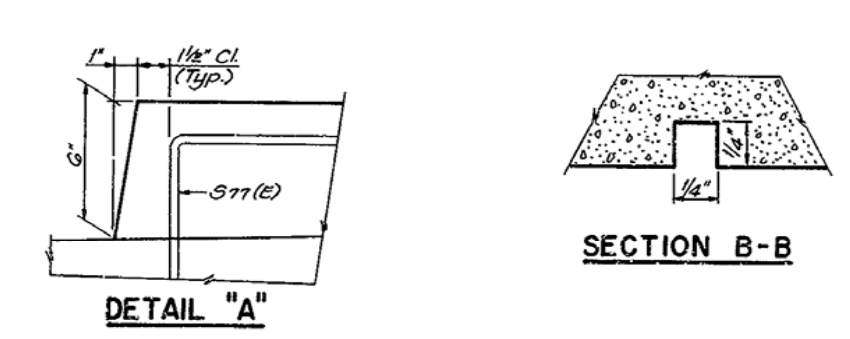
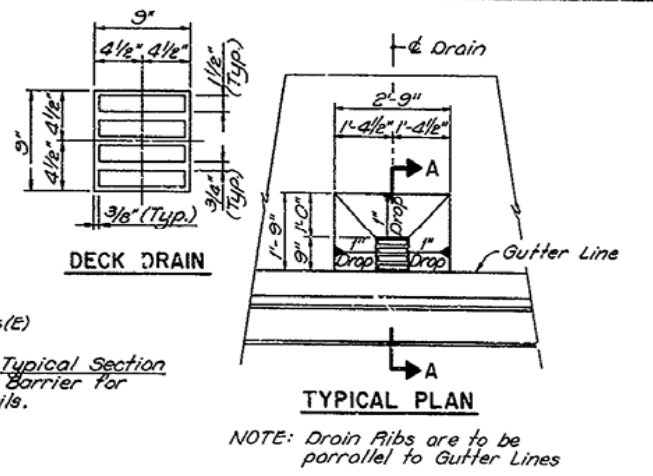
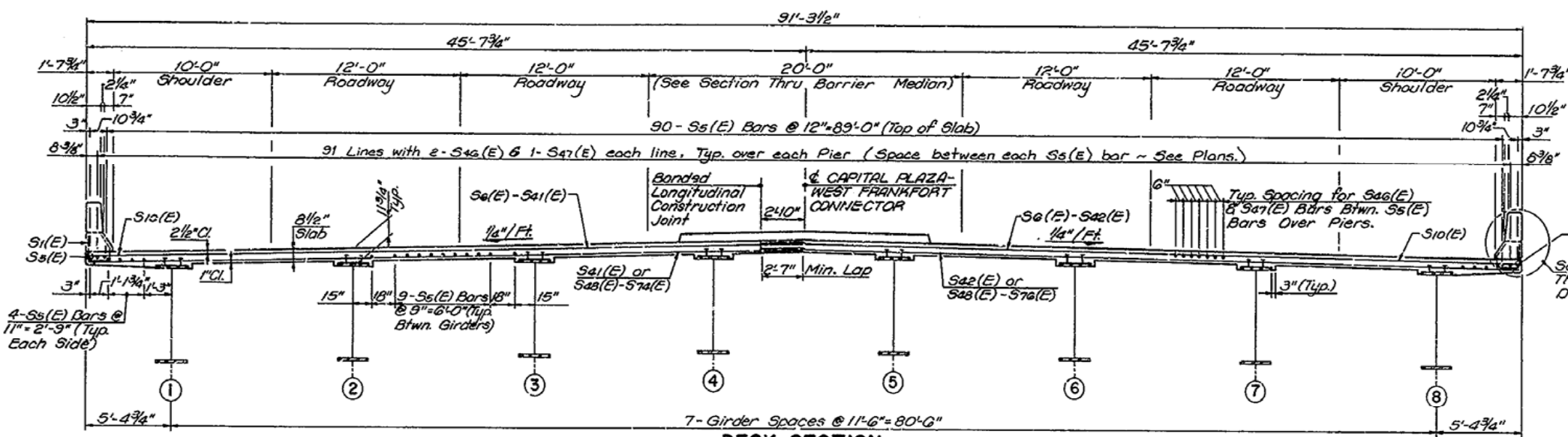
SUPERSTRUCTURE

Capital Plaza - West Frankfort Connector Over Benson Creek SHEET 17

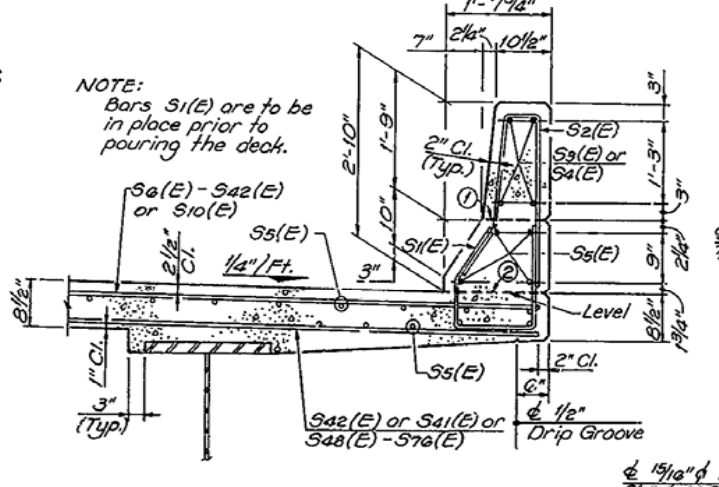
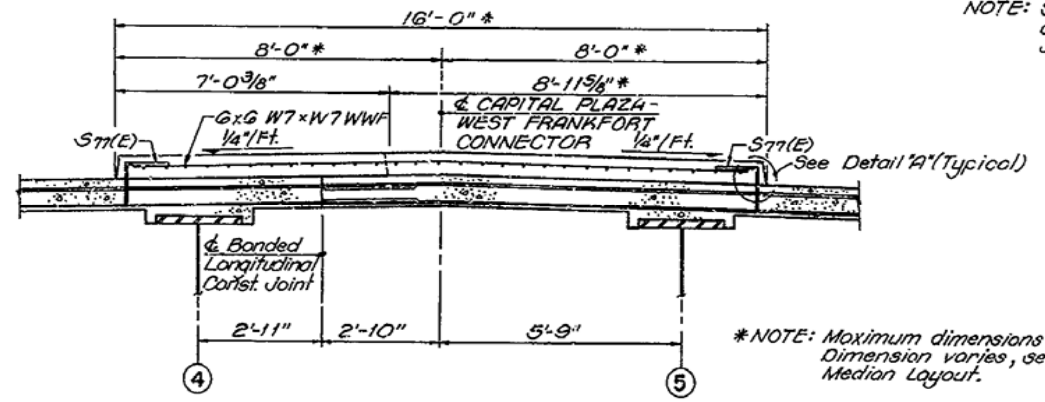
COMMONWEALTH OF KENTUCKY		
DEPARTMENT OF HIGHWAYS		
FRANKFORT		
COUNTY OF		
FRANKLIN		
CAPITAL PLAZA - WEST FRANKFORT CONNECTOR		
ROAD		
STATION 134+40.00	P.E. PROJECT NO.	DRAWING NO.
CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	21466

UPDATE DATE
LETTING DATE

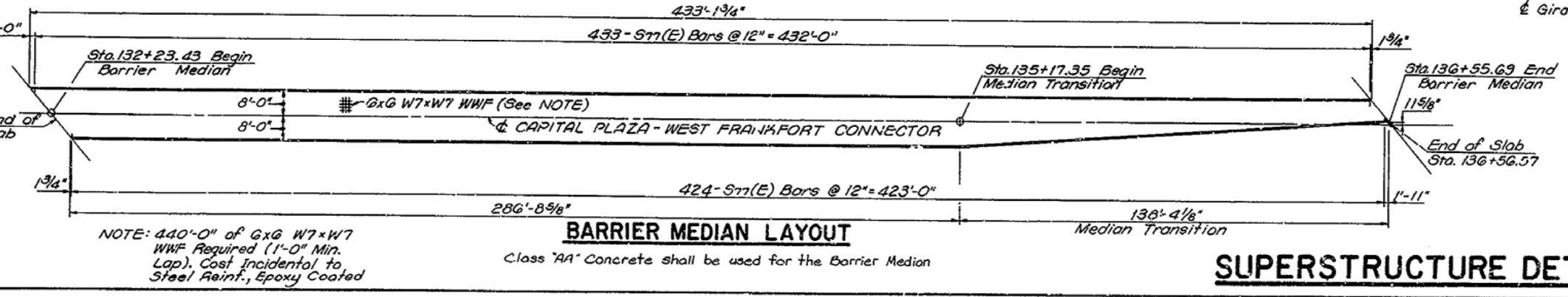
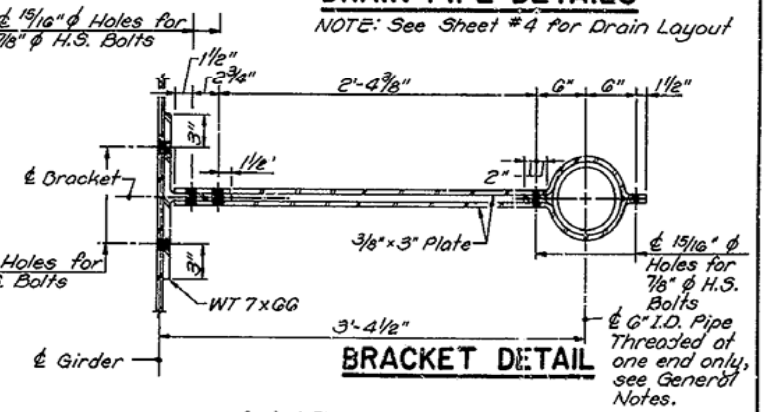
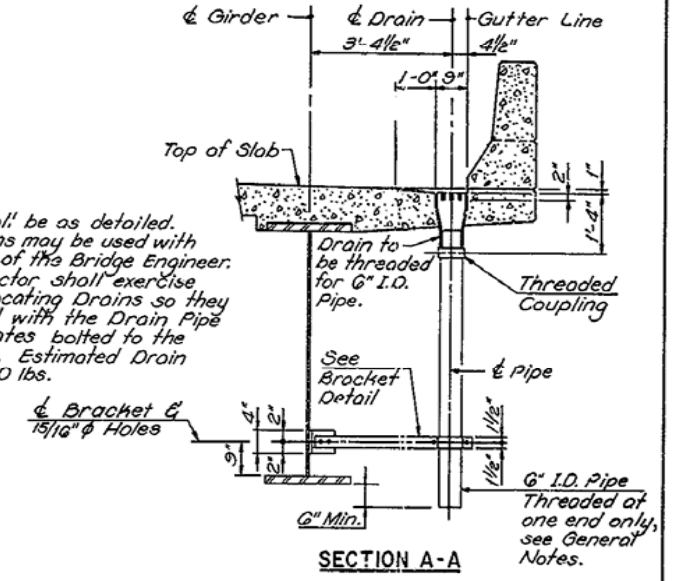
REVISION NO. 1
DATE 12/15/95
BY SLM
CHECKED BY SLM
DESIGNED BY SLM
DRAWN BY SLM
PLANNED BY SLM
REVIEWED BY SLM



- ① Optional Const. Jt. & Rustication Groove at bottom of 1/4" Open Joint. Rustication Groove required only when Construction Joint is used.
- ② Mandatory Construction Joint & Mandatory Rustication Groove.



NOTE: Drains shall be as detailed. Other Drains may be used with permission of the Bridge Engineer. The Contractor shall exercise caution in locating Drains so they are aligned with the Drain Pipe Bracket Plates bolted to the Girder Web. Estimated Drain weight is 60 lbs.



SUPERSTRUCTURE DETAILS

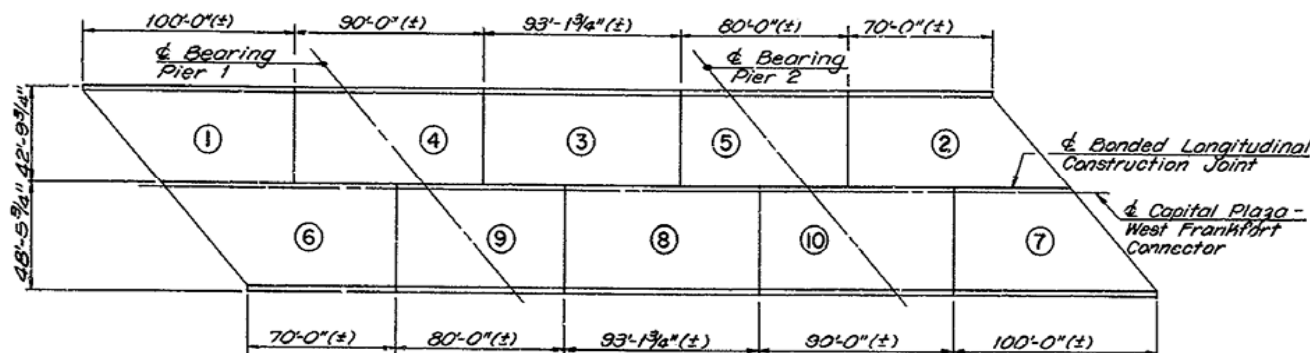
Capital Plaza - West Frankfort
Connector Over Benson Creek

SHEET 18

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR
ROAD

STATION 134+40.00 P.E. PROJECT NO.
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO.
21466

UPDATE DATE
LETTING DATE

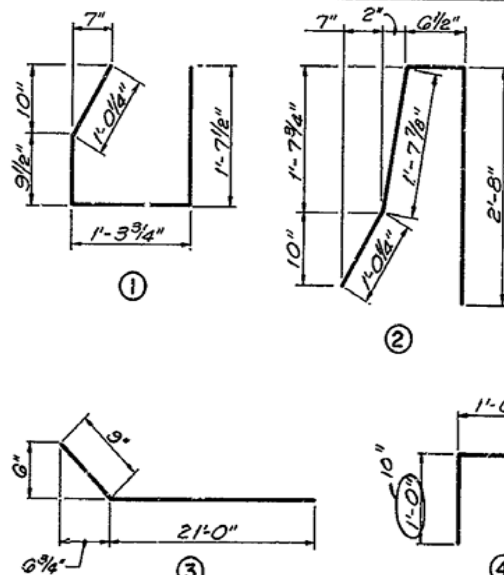
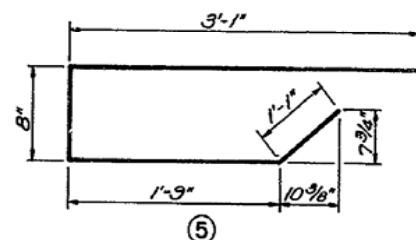


DECK SLAB POURING SEQUENCE

The Contractor shall pour the deck slab in the order shown above. The Pouring Sequence may be changed with the written approval of the Engineer.

BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NUMBER	LENGTH	LOCATION	a	b	c	d	MAP	TYPE	SIZE	NUMBER	LENGTH	LOCATION	a	b	c	d	
				Ft. In.		Ft. In.	Ft. In.	Ft. In.	Ft. In.					Ft. In.		Ft. In.	Ft. In.	Ft. In.	Ft. In.	
S1 (E)	(1)	5	904	4 8	Barrier & Slab						S48 (E)	Str.	6	8	3 5	Bott. of Slab				
S2 (E)	(2)	5	904	5 9	Barrier						S49 (E)	Str.	6	8	5 0					
S3 (E)	Str.	5	112	17 9	Barrier						S50 (E)	Str.	6	8	6 7					
S4 (E)	Str.	5	144	19 9	Barrier						S51 (E)	Str.	6	8	8 2					
S5 (E)	Str.	5	2057	41 4	Barrier & Slab						S52 (E)	Str.	6	8	9 9					
S6 (E)	Str.	6	6	2 10	Top of Slab						S53 (E)	Str.	6	8	11 3					
S7 (E)	Str.	6	8	4 1							S54 (E)	Str.	6	8	12 10					
S8 (E)	Str.	6	8	5 5							S55 (E)	Str.	6	8	14 5					
S9 (E)	Str.	6	8	6 8							S56 (E)	Str.	6	8	16 0					
S10 (E)	Str.	6	8	8 0							S57 (E)	Str.	6	8	17 7					
S11 (E)	Str.	6	1466	9 3							S58 (E)	Str.	6	8	19 2					
S12 (E)	Str.	6	8	10 7							S59 (E)	Str.	6	8	20 9					
S13 (E)	Str.	6	8	11 10							S60 (E)	Str.	6	8	22 4					
S14 (E)	Str.	6	8	13 2							S61 (E)	Str.	6	8	23 10					
S15 (E)	Str.	6	8	14 5							S62 (E)	Str.	6	8	25 5					
S16 (E)	Str.	6	8	15 9							S63 (E)	Str.	6	8	27 0					
S17 (E)	Str.	6	8	17 0							S64 (E)	Str.	6	8	28 7					
S18 (E)	Str.	6	8	18 4							S65 (E)	Str.	6	8	30 2					
S19 (E)	Str.	6	8	19 7							S66 (E)	Str.	6	8	31 9					
S20 (E)	Str.	6	8	20 11							S67 (E)	Str.	6	8	33 4					
S21 (E)	Str.	6	8	22 2							S68 (E)	Str.	6	8	34 11					
S22 (E)	Str.	6	8	23 6							S69 (E)	Str.	6	8	36 5					
S23 (E)	Str.	6	8	24 10							S70 (E)	Str.	6	8	38 0					
S24 (E)	Str.	6	8	26 1							S71 (E)	Str.	6	8	39 7					
S25 (E)	Str.	6	8	27 5							S72 (E)	Str.	6	8	41 2					
S26 (E)	Str.	6	8	28 8							S73 (E)	Str.	6	8	42 9					
S27 (E)	Str.	6	8	30 0							S74 (E)	Str.	6	8	44 4					
S28 (E)	Str.	6	8	31 3							S75 (E)	Str.	6	4	45 11					
S29 (E)	Str.	6	8	32 7							S76 (E)	Str.	6	4	47 6	Bott. of Slab				
S30 (E)	Str.	6	8	33 10							S77 (E)	(4)	5	857	(2 0)	Median	1	10		
S31 (E)	Str.	6	8	35 2							S78 (E)	(5)	5	154	6 6	End of Slab				
S32 (E)	Str.	6	8	36 5																
S33 (E)	Str.	6	8	37 9																
S34 (E)	Str.	6	8	39 0																
S35 (E)	Str.	6	8	40 4																
S36 (E)	Str.	6	8	41 7																
S37 (E)	Str.	6	8	42 11																
S38 (E)	Str.	6	8	44 2																
S39 (E)	Str.	6	4	45 6																
S40 (E)	Str.	6	4	46 10	Top of Slab															
S41 (E)	Str.	6	1226	45 3	Top & Bott. Slab															
S42 (E)	Str.	6	1218	48 4																
S43 (E)	(3)	6	16	21 9																
S44 (E)	Str.	6	8	41 4																
S45 (E)	Str.	6	8	44 10	Top & Bott. Slab															
S46 (E)	Str.	6	364	33 7	Top of Slab															
S47 (E)	Str.	6	182	45 0	Top of Slab															



ESTIMATE OF QUANTITIES

ITEM	UNIT	QUANTITY
CLASS "AA" CONCRETE	CU. YD.	1,290.3
STEEL REINFORCEMENT, EPOXY CTD.	LBS.	347,618

Capital Plaza - West Frankfort
Connector Over Benson Creek

SHEET 19

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR
ROAD

STATION 134+40.00

P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.

MAINTENANCE PROJECT NO.

DRAWING NO.

21466

SUPERSTRUCTURE DETAILS

~ ALTERNATE NEOPRENE EXPANSION DAMS ~

TYPE	MODEL	SUPPLIER	T	A	B	C *
A	FEL-SPAN, MODEL T-40 A-CS	Fel-Pro Construction Products	2 3/8"	1 5/8"	2 7/8"	2 1/4"
A	ONFLEX, MODEL 40 with elastomeric hold down panels	Structural Accessories Inc.	1 7/8"	1 5/8"	2 5/8"	3"
A	WABO ELASTOFLEX with elastomeric hold down panels	Watson Bowman Associates Inc.	1 5/8"	1 3/8"	2 7/8"	2 1/2"
B	WABO STRIP SEAL Type A extrusions with S-400 seal	Watson Bowman Associates Inc.				2"
B	STEELFLEX Type RS3 with 400 seal	D.S. Brown Co.				2 1/2"
B	GEN STRIP CD Profile A steel extrusion with Gen Strip CD seal	General Tire Co.				2 1/4"

GENERAL NOTES * JOINT OPENING AT 60°F

SPECIFICATIONS: The Kentucky Dept. of Highway Standard Specifications for Road and Bridge Construction, current edition with Revisions and Special Provision No. 35 C.E.

WELDING SPECIFICATION: All Welding Materials, Welding Techniques and Welding Procedure shall comply with American Welding Society D11-80 Structural Welding Code with Revisions.

MILL TEST REPORTS: Notarized Statements in triplicate shall be furnished to the Dept. of Highways showing that all structural steel conform to the Specifications.

BASIS OF PAYMENT: The accepted quantities of Expansion Dam will be paid for at the contract unit price per Lin. Ft. for each size, measured along the centerline of joint. This payment shall be full compensation for all materials (including armored edges, anchor straps, anchor bolts, curb plates, welding and welding materials and installing hardware) and installation. Payment will be made under:

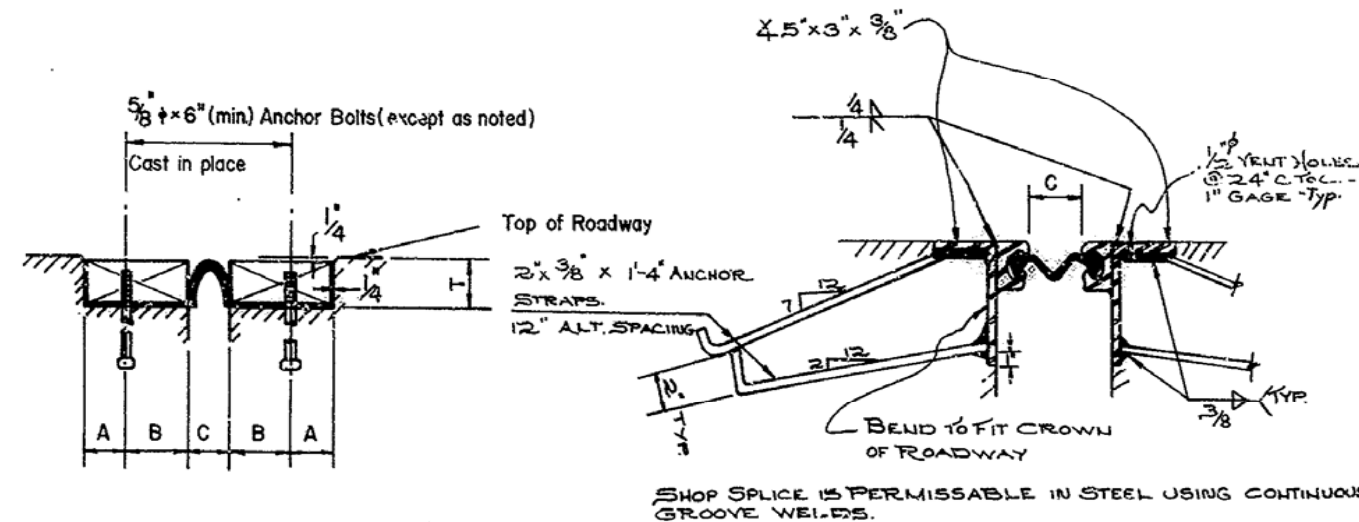
PAY ITEM	PAY UNIT
Expansion Dam 4" Neoprene	Linear Foot

MATERIAL SPECIFICATIONS: Steel material shall conform to A.S.T.M. designation A-36. Joint Sealing Material shall be in accordance with Special Provision No. 35 C.E.

LOCATION: The location of Expansion Dams shall be as shown on the Detail Plans.

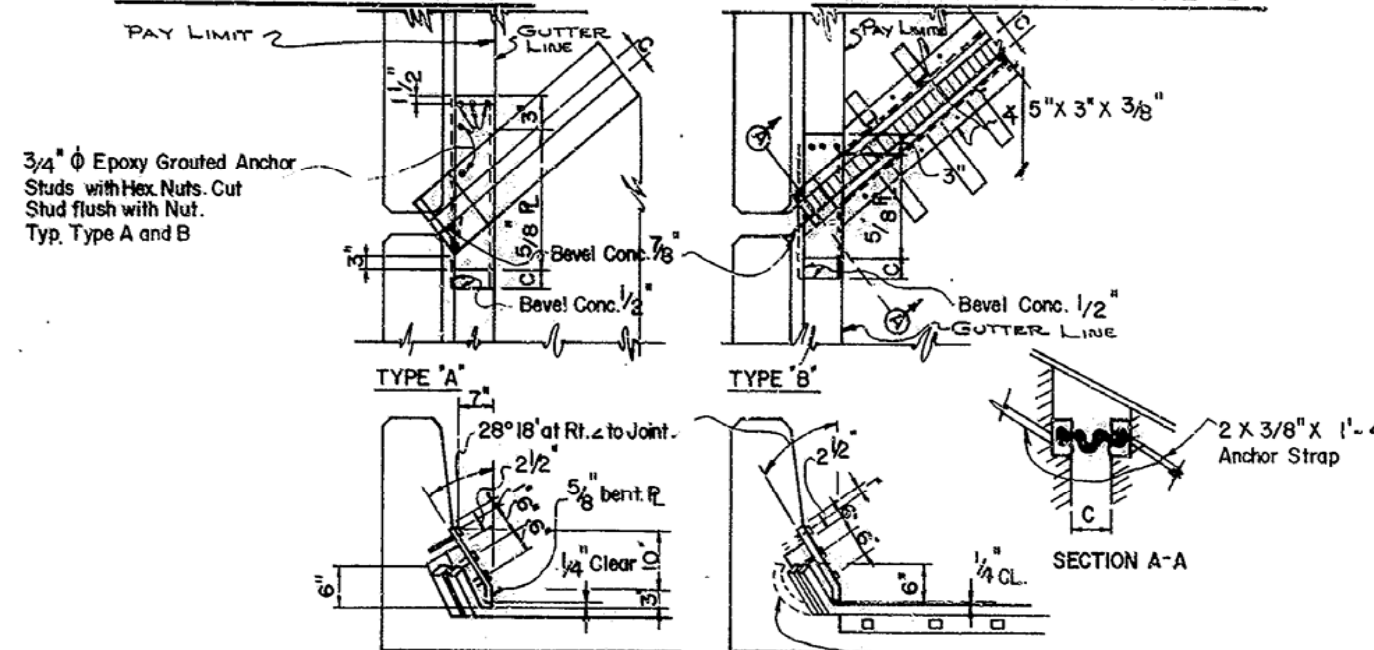
PAINT: All structural steel shall be cleaned and painted in accordance with the Specifications.

PAY LIMIT: The pay limit shall be gutter line to gutter line.

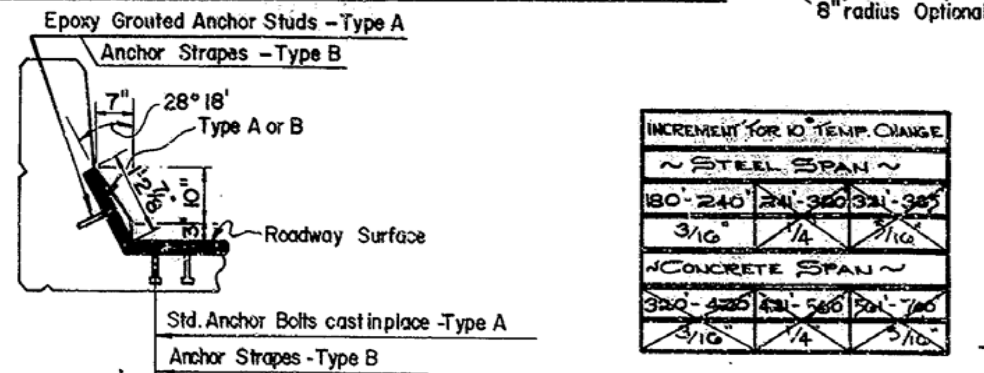


~ CROSS SECTION - TYPE "A" ~

~ CROSS SECTION - TYPE "B" ~

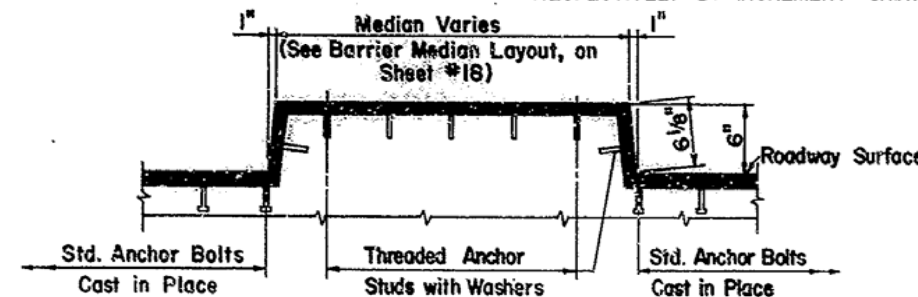


~ TYPICAL END TREATMENT - SKEWED BRIDGE ~



INCREMENT FOR 10° TEMP. CHANGE			
~ STEEL SPAN ~			
180°-210°	21°-30°	31°-38°	
3/16"	1/4"	7/16"	
~ CONCRETE SPAN ~			
320°-420°	43°-58°	59°-70°	
3/16"	1/4"	5/16"	

NOTE: JOINT OPENINGS SHALL BE ADJUSTED FOR EACH 10° ABOVE OR BELOW 60°F, DECREASE OR INCREASE RESPECTIVELY BY INCREMENT SHOWN.



NEOPRENE EXPANSION DAM (4")

Capital Plaza - West Frankfort
Connector Over Benson Creek

SHEET 20

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
FRANKLIN
CAPITAL PLAZA - WEST FRANKFORT
CONNECTOR

STATION 134+40.00

P.E. PROJECT NO.

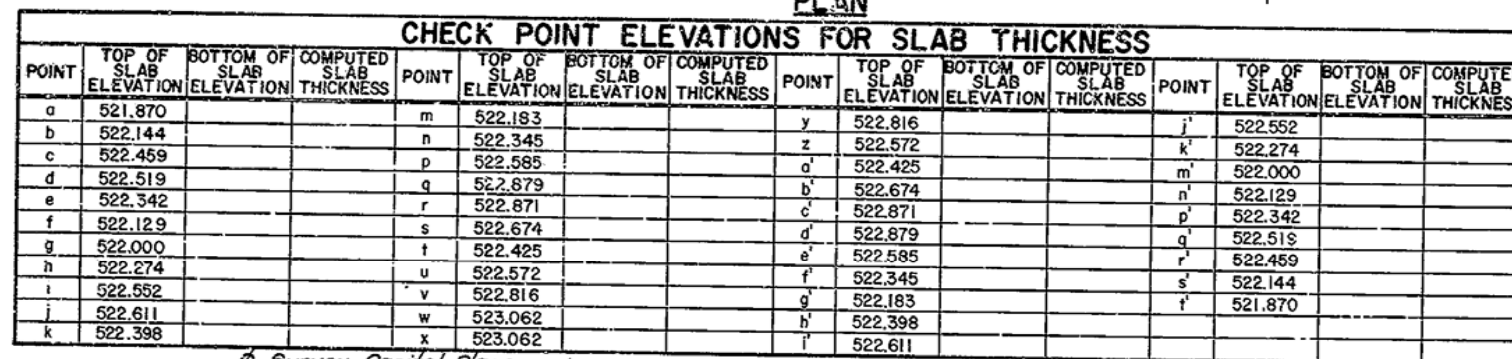
CONSTRUCTION PROJECT NO.

MAINTENANCE PROJECT NO.

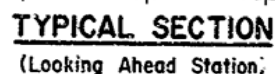
DRAWING NO.

21466

ORDERED BY	DCO	ORDERED BY	SLM	DATE	8/85	ENTERED	
ORDERED BY	RAY	ORDERED BY	SLM	DATE	8/85	ENTERED	
ORDERED BY	RAY	ORDERED BY	SLM	DATE	8/85	ENTERED	



* See Note (A) on Sheet #16.



CONSTRUCTION ELEVATIONS

SHEET 21

DRAFTING NO.

121466

RECEIVED BY	DATE	REVIEWED	DATE
DDO	3/1/82	DDO	3/1/82
INITIALED BY	DATE	INITIALED	DATE
ALF	3/1/82		
TRACED BY	DATE	TRACED	DATE

CONSTRUCTION ELEVATIONS

SHEET 22

STATION 134+40.00
CONSTRUCTION PROJECT NO.

P. E. PROJECT NO.

DRAWING NO
21466