

TRANSPORTATION CABINET

DEPARTMENT OF HIGHWAYS

LETCHER COUNTY

U.S. 119 OVER

POOR FORK CUMBERLAND RIVER

& CSX RAILROAD

STATION 1457 + 60.75

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ESTIMATE OF QUANTITIES																						
BID ITEM		CONCRETE CLASS "A"	CONCRETE CLASS "AA"	STEEL REINF.	STEEL REINF. EPOXY COATED	① STRUCT-URAL STEEL	STRUCTURE EXCAVATION SOLID ROCK	STRUCTURE GRANULAR BACKFILL	MASONRY COATING	PILES-STEEL HP 12 x 53	TEST PILES	PILE POINTS 12 IN.	CYCLOPEAN STONE RIP RAP	PCI BEAMS TYPE 7	2½IN. NEOPRENE EXPANSION DAM	4 IN. NEOPRENE EXPANSION DAM		ARMORED EDGE	FOUNDATION PREPARATION	COFFERDAM	6" CONCRETE SLOPEWALL	GEOTEXTILE FABRIC TYPE IV
UNIT		CY	CY	LBS	LBS	LUMP SUM	CY	CY	SY	LF	LF	EACH	TONS	LF	LF	LF		LF	LUMP SUM	PIER 12 LUMP SUM	SQ. YDS.	SQ. YDS.
SUBSTRUCTURE	END BENT 1	122.2	3.3		11406			250	63	922	54	18	818		66			63				210
	PIER 1	169.0		35728	120		67		70													
	PIER 2	175.8		36458	120		69		85													
	PIER 3	138.1		36033	120		124		73													
	PIER 4	169.8		37669			147		253													
	PIER 5	164.9		36678	120		78		242													
	PIER 6	163.9		36107	120		67		73													
	PIER 7	171.6		36808	120		131		73													
	PIER 8	166.1		36565	120		190		64													
	PIER 9	163.2		36512			196		80													
	PIER 10	151.7		33845	120		82		60													
	PIER 11	166.3		32025	120		60		63													
	PIER 12	177.9		33317	120		274		66													
	PIER 13	140.4		20731	180				95	1234	57	45										
	ABUTMENT 2	131.4	3.3		10118		471	265	75						73			67			355	230
SUPERSTRUCTURE UNIT 1			1035.6		311661				421					3178		51						
SUPERSTRUCTURE UNIT 2			1296.5		322068				819					4144		51						
SUPERSTRUCTURE UNIT 3			1285.1		376422				99					3961								
BRIDGE TOTALS		2372.3	3623.8	448476	1033055	①	1956	515	2774	2156	111	63	818	11283	139	102		130	1	LUMP SUM	355	440

BILL OF INCIDENTAL MATERIALS	
Material	Location
② 1"Ø Plastic Pipe Sleeve	Barrier Transitions
① 2"Ø Commercial Pipe Sleeve	Piers
③ Elastomeric Bearing Pad	Piers, End Bent 1 & Abutment 2
① 3" Styrofoam	Expansion Piers
① ½" Cork or Styrofoam	Piers, End Bent 1 & Abutment 2
① 1¼" Cork or Styrofoam	Piers
③ Steel Intermediate Diaphragm	Approx. Wt. 108, 109 lbs (53621 Kg)
③ Threaded Anchor Bars	Diaphragms
③ ¾" Ø Threaded Inserts	PCI Beams
③ ⅞" Ø Threaded Inserts	Intermediate Diaphragms

- ① Incidental to Class 'A' Concrete.
- ② Incidental to Class 'AA' Concrete.
- ③ Incidental to PCI Beams Type 7.

① Estimated Weight of Structural Steel = 8960 lbs (Includes Deck Drains).

ENGLISH QUANTITIES

ITEM NUMBER
12-311.10

SPECIAL NOTES

For Stone Masonry Veneer

SPECIAL PROVISIONS

69 Embankment @ Bridge End Bent Structures

STANDARD DRAWINGS

BBP-001-11

Elastomeric Bearing Pads for Prestressed Beams

BBP-002-04

Bearing Details

BGX-006-08

Stencil Construction Date for Bridges

BGX-011-04

Barrier Transition End Drainage

BGX-012-02

Geotechnical Legend

BGX-004-09

Concrete Slopewalls for Grade Separation Bridges

BGX-005-09

Concrete Slopewalls for Grade Separation Bridges

BGX-015-02

Bridge Drains

BJE-001-11

Neoprene Expansion Dam and Armored Edges

BPS-003-08

HP 12x53 Steel Pile

SPECIFICATIONS

2004 Standard Specifications for Road and Bridge Construction with Current Supplemental Specifications

2002 AASHTO Standard Specifications for Highway Bridges 17th Edition.

REVISION

DATE

DATE : 09 - 2003

CHECKED BY

DESIGNED BY: P.A.P.

W.T.B.

DETAILED BY: D.W.S.

P.F.H.

Commonwealth of Kentucky

DEPARTMENT OF HIGHWAYS

COUNTY

LETCHER

ROUTE

U.S. 119

CROSSING

POOR FORK CUMBERLAND RIVER

COVER SHEET

PREPARED BY

T.H.E. ENGINEERS, INC.

SHEET NO.

SI of SI 111

DRAWING NO.

25296

TRANSPORTATION CABINET

DEPARTMENT OF HIGHWAYS

LETCHER COUNTY

U.S. 119 OVER

POOR FORK CUMBERLAND RIVER

& CSX RAILROAD

STATION 1457 + 60.75

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S43-S44	Pier 8	SI12	Rail System Type 3

SPECIAL NOTES

For Stone Masonry Veneer

SPECIAL PROVISIONS

69 Embankment @ Bridge End Bent Structures

STANDARD DRAWINGS

BBP-001-12	Elastomeric Bearing Pads for Prestressed Beams
BBP-002-04	Bearing Details
BGX-006-09	Stencils for Structures
BGX-012-02	Geotechnical Legend
BGX-004-09	Concrete Slopewalls for Grade Separation Bridges
BGX-005-09	Concrete Slopewalls for Grade Separation Bridges
BGX-015-02	Bridge Drains
BJE-001-12	Neoprene Expansion Dam and Armored Edges
BPS-003-09	HP 12x53 Steel Pile

SPECIFICATIONS

2012 Standard Specifications for Road and Bridge Construction with Current Supplemental Specifications
2002 AASHTO Standard Specifications for Highway Bridges 17th Edition.

REVISION	DATE
DATE : 09 - 2003	CHECKED BY
DESIGNED BY: P.A.P.	W.T.B.
DETAILED BY: D.W.S.	P.F.H.

Commonwealth of Kentucky	
DEPARTMENT OF HIGHWAYS	
COUNTY	
LETCHER	
ROUTE	CROSSING
U.S. 119	POOR FORK CUMBERLAND RIVER
COVER SHEET	
PREPARED BY	SHEET NO.
T.H.E. ENGINEERS, INC.	SIA of SI12
	DRAWING NO.
	25296

ESTIMATE OF QUANTITIES

BID ITEM	CONCRETE CLASS "A"	CONCRETE CLASS "AA"	STEEL REINF.	STEEL REINF. EPOXY COATED	① STRUCT-URAL STEEL	STRUCTURE EXCAVATION SOLID ROCK	STRUCTURE GRANULAR BACKFILL	CONCRETE MASONRY COATING	PILES-STEEL HP 12 x 53	TEST PILES	PILE POINTS 12 IN.	CYCLOPEAN STONE RIP RAP	PCI BEAMS TYPE 7	2 1/2 IN. NEOPRENE EXPANSION DAM	4 IN. NEOPRENE EXPANSION DAM		ARMORED EDGE	FOUNDATION PREPARATION	COFFERDAM	6" CONCRETE SLOPEWALL	GEOTEXTILE FABRIC TYPE IV
UNIT	CM	CM	KG	KG	LUMP SUM	CM	CM	SM	M	M	EACH	M.TONS	M	M	M		M	LUMP SUM	LUMP SUM	SM	SM
SUBSTRUCTURE	END BENT 1	93.5	2.5		5178		191	53	281	17	18	742		20.1			19.2				176
	PIER 1	129.3		16206	55	51		59													
	PIER 2	134.5		16537	55	53		71													
	PIER 3	105.6		16344	55	95		61													
	PIER 4	129.9		17087		112		212													
	PIER 5	126.1		16637	55	60		202													
	PIER 6	125.4		16378	55	51		61													
	PIER 7	131.3		16696	55	100		61													
	PIER 8	127.1		16586	55	145		54													
	PIER 9	124.8		16562		150		67													
	PIER 10	116.1		15352	55	63		50													
	PIER 11	127.2		14527	55	46		53													
	PIER 12	136.1		15113	55	210		55													
	PIER 13	107.4		9404	82			79	376	18	45										
	ABUTMENT 2	100.5	2.5	4594		360	203	63						22.3			20.4			296	192
SUPERSTRUCTURE UNIT 1		792.2		141494				352					969		15.5						
SUPERSTRUCTURE UNIT 2		991.8		146219				685					1263		15.5						
SUPERSTRUCTURE UNIT 3		983.1		170896				83					1207								
BRIDGE TOTALS	1814.8	2772.1	203429	469013	①	1496	394	2321	657	35	63	742	3439	42.4	31.0		39.6	1	LUMP SUM	296	368

BILL OF INCIDENTAL MATERIALS

Material	Location
② 1"Ø Plastic Pipe Sleeve	Barrier Transitions
① 2"Ø Commercial Pipe Sleeve	Piers
③ Elastomeric Bearing Pad	Piers, End Bent 1 & Abutment 2
① 3" Styrofoam	Expansion Piers
① 1/2" Cork or Styrofoam	Piers, End Bent 1 & Abutment 2
① 1 1/4" Cork or Styrofoam	Piers
③ Steel Intermediate Diaphragm	Approx. Wt. 108, 109 lbs (53621 Kg)
③ Threaded Anchor Bars	Diaphragms
③ 3/4" Ø Threaded Inserts	PCI Beams
③ 7/8" Ø Threaded Inserts	Intermediate Diaphragms

- ① Incidental to Class 'A' Concrete.
- ② Incidental to Class 'AA' Concrete.
- ③ Incidental to PCI Beams Type 7.

METRIC QUANTITIES

① Estimated Weight of Structural Steel = 4068 kg (Includes Deck Drains).

ITEM NUMBER

12-311.35

\$\$\$\$design\$file\$specification\$\$\$\$

\$\$\$\$plotted\$\$\$\$

\$\$\$\$DATE\$\$\$\$

GENERAL NOTES

REVISED 12-07-12

SPECIFICATIONS

REFERENCES TO THE SPECIFICATIONS ARE TO THE 2012 EDITION EDITION OF THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION INCLUDING SUPPLEMENTAL SPECIFICATIONS ALL REFERENCES TO THE AASHTO SPECIFICATIONS ARE TO THE 1996 EDITION OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAYS BRIDGES, WITH INTERIMS THROUGH 2000.

DESIGN LOAD AND METHOD

THIS BRIDGE IS DESIGNED FOR HS25 LIVE LOAD OR ALTERNATE MILITARY LOADING, WHICHEVER PRODUCES THE GREATER STRESS. THE HS25 LIVE LOAD IS ARRIVED AT BY INCREASING THE STANDARD HS20-44 TRUCK AND LANE LOADS AS SPECIFIED IN THE AASHTO SPECIFICATIONS BY 25%. ALL REINFORCED CONCRETE MEMBERS ARE DESIGNED BY THE LOAD FACTOR METHOD AS SPECIFIED IN THE CURRENT AASHTO SPECIFICATIONS.

WIND LOAD

THIS BRIDGE IS DESIGNED FOR A WIND LOAD BASED ON A WIND VELOCITY OF 100 MPH.

MATERIALS DESIGN SPECIFICATIONS

FOR CLASS "A" REINFORCED CONCRETE
F'C = 3500 PSI
FOR CLASS "AA" REINFORCED CONCRETE
F'C = 4000 PSI
FOR STRUCTURAL STEEL
FY = 36000 PSI FOR A36 STEEL
FOR STEEL REINFORCEMENT
FY = 60000 PSI

FOUNDATION PRESSURE

SEE FOUNDATION LAYOUT SHEET. PILES ARE DESIGNED FOR LOADS AS SHOWN IN THE PILE RECORD. SPREAD FOOTING FOUNDATIONS ARE DESIGNED FOR PRESSURES AS SHOWN IN SPREAD FOOTING RECORD.

CONCRETE

CLASS "AA" CONCRETE IS TO BE USED THROUGHOUT THE SUPERSTRUCTURE AND BARRIER FOR SUBSTRUCTURE.
CLASS "A" CONCRETE IS TO BE USED IN THE SUBSTRUCTURE EXCEPT FOR BARRIER.

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. CLEAR DISTANCE TO FACE OF CONCRETE IS 2", UNLESS OTHERWISE NOTED. EPOXY COAT BARS ARE DESIGNATED BY THE SUFFIX (E) IN ACCORDANCE WITH SECTION 811.10 OF THE STANDARD SPECIFICATIONS. USE STIRRUP BEND DIAMETERS FOR BARS DESIGNATED BY SUFFIX (S) IN A BILL OF REINFORCEMENT.

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 CLASS "A" CONCRETE, CLASS "AA" CONCRETE OR PRESTRESSED CONCRETE I-BEAMS AS NOTED.

PILE DATA

PILES SHALL BE DRIVEN TO THE "REQUIRED FIELD BEARING" AS SHOWN IN THE PILE RECORD. 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.

A HAMMER ENERGY BETWEEN 16 AND 24 KIP-FT. WILL BE NECESSARY TO DRIVE THE PILES TO BEDROCK WITHOUT ENCOUNTERING EXCESSIVE BLOW COUNTS AND OVER-STRESSING THE PILES. THE CONTRACTOR SHALL SUBMIT HIS PILE DRIVING SYSTEM TO THE DEPARTMENT FOR APPROVAL PRIOR TO THE INSTALLATION OF THE FIRST PILE. APPROVAL OF THE PILE DRIVING SYSTEM BY THE ENGINEER WILL BE SUBJECT TO SATISFACTORY FIELD PERFORMANCE OF THE PILE DRIVING PROCEDURES.

PILE POINTS

PILE POINTS ARE REQUIRED AT END BENT 1 AND PIER 13. THE PILE POINTS SHALL BE THE TYPE FOR KEYING INTO A SLOPING ROCK SURFACE. PILE POINTS SHALL BE IN ACCORDANCE WITH SUBSECTION 604.03.04c) OF THE STANDARD SPECIFICATIONS.

PLAN ELEVATION FOR FOOTINGS

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

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.

SLOPE PROTECTION

USE CYCLOPEAN STONE SLOPE PROTECTION IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, UNLESS OTHERWISE NOTED.

DIMENSIONS

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

SHOP DRAWINGS

SUBMIT SHOP DRAWINGS THAT ARE REQUIRED BY THE PLANS AND SPECIFICATIONS DIRECTLY TO THE CONSULTANT. IF ANY CHANGES IN THE DESIGN PLANS ARE PROPOSED BY A FABRICATOR OR SUPPLIER, SUBMIT THOSE CHANGES TO THE CONSULTANT THROUGH THE CONTRACTOR. THE CONSULTANT SHALL PROVIDE THE DIVISION OF BRIDGES WITH ONE COPY OF THE APPROVED SHOP PLANS.

MATERIALS

ASTM OR AASHTO SPECIFICATIONS AS DESIGNATED BELOW SHALL GOVERN THE MATERIALS FURNISHED.

MATERIAL	A.S.T.M.	AASHTO
STRUCTURAL STEEL		M-183
SHEET LEAD AND PIG LEAD	B29-79	
STEEL REINFORCEMENT, GRADE 60	A-615	
STEEL PIPE	A-500	

SLAB POURING SEQUENCE

THE SLAB POURING SEQUENCE SHALL NOT BE CHANGED WITHOUT THE WRITTEN PERMISSION OF THE DESIGNER.

BEVELED EDGES

BEVEL ALL EXPOSED EDGES 7/8" UNLESS OTHERWISE NOTED.

COFFERDAMS

COFFERDAM WILL BE REQUIRED FOR THE CONSTRUCTION OF PIER 13. PAYMENT FOR COFFERDAM WILL BE LUMP SUM. SHOULD ADDITIONAL COFFERDAMS BE REQUIRED PAYMENT SHALL BE INCIDENTAL TO THE LUMP SUM BID FOR FOUNDATION PERPARATION.

ARMORED EDGE

STEEL MATERIAL SHOULD BE NEW, COMMERCIAL GRADE STEEL SUITABLE FOR WELDING. ACCEPTANCE WILL BE BASED ON VISUAL INSPECTION BY THE ENGINEER. STUD SHEAR CONNECTORS SHALL CONFORM TO ASTM A108, GRADE 1015. TECHNIQUES AND WELDING PROCEDURE SHALL COMPLY WITH CURRENT JOINT SPECIFICATION ANSI/ AASHTO/ AWS D1.5 BRIDGE WELDING CODE. CONTARY TO THE SPECIFICATIONS, ALL METAL SURFACES SHALL HAVE ONE SHOP COAT OF ORGANIC ZINC PRIMER APPLIED PRIOR TO SHIPPING THE STEEL FROM THE PLANT. NO FIELD COATING IS REQUIRED. THE COST OF FURNISHING AND PLACING THE ARMORED EDGE IN THE LOCATIONS SHOWN ON THESE PLANS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ARMORED EDGE.

PAYMENT FOR STRUCTURAL STEEL

THE LUMP SUM BID FOR STRUCTURAL STEEL SHALL BE FULL PAYMENT FOR ALL STRUCTURAL STEEL, WELDING AND WELDING MATERIALS, FLOOR DRAINS, PAINT AND 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.

RAIL SYSTEM TYPE 3 (NEW JERSEY BARRIER)

CONTRARY TO SHEET SH2 'MEASUREMENT', THE QUANTITIES FOR RAIL SYSYEM TYPE 3 ARE INCLUDED IN THE SUPERSTRUCTURES CONCRETE CLASS 'AA' AND STEEL REINFORCEMENT EPOXY COATED.

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 SUBSECTION 811.02.01 OF THE SPECIFICATIONS.

ENSURE SPIRAL REINFORCEMENT IS GRADE 60 DEFORMED OR PLAIN REINFORCEMENT. THE LENGTH SHOWN IN THE BILL OF REINFORCEMENT IS THE LENGTH FROM THE TOP OF FOOTING TO 2" BELOW CONSTRUCTION JOINT OR 1'-0" BELOW CONSTRUCTION JOINT TO THE BOTTOM LAYER OF CAP REINFORCEMENT. PROVIDE ONE AND ONE-HALF CLOSED COILS AT THE ENDS OF EACH SPIRAL UNIT. PROVIDE, FOR EACH COIL, FOUR CHANNEL, TEE, OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.8 POUNDS PER LINEAR FOOT, SPACING THEM EQUALLY ALONG THE INSIDE PERIPHERY OF THE COIL. INCLUDE THE COST OF SPLICES AND SPACERS IN THE BID FOR STEEL REINFORCEMENT.

ELASTOMERIC BEARING PADS

ELASTOMERIC BEARING PADS SHALL CONFORM TO THE DIMENSIONS SHOWN IN THESE PLANS AND SHALL CONFORM TO THE REQUIREMENTS OF DIVISION II, SECTION 18 OF THE AASHTO SPECIFICATIONS. THE ELASTOMER COMPOUND SHALL BE LOW TEMPERATURE GRADE 3 WITH A DUROMETER HARDNESS OF 50. BEARING PADS ARE DESIGNED ACCORDING TO DIVISION I, ARTICLE 14.6 OF THE AASHTO SPECIFICATIONS. TESTING IN ACCORDANCE WITH DIVISION II, ARTICLE 18.7 REQUIRED. SHOP DRAWINGS ARE REQUIRED FOR ALL BEARING PADS. PAYMENT FOR BEARING PADS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PCI BEAMS.

CONTARY TO AASHTO SPECIFICATIONS DIVISION II SECTION 18.4.5. THE LOW ELASTOMER MATERIAL SHALL BE VIRGIN NEOPRENE (POLYCHLOROPRENE) NATURAL RUBBER (POLYISOPRENE) WILL NOT BE ALLOWED.

CLEARANCE

ALL FALSEWORK, BRACING OR FORMS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 22 FEET ABOVE THE TOP OF THE HIGHEST RAIL, AND A MINIMUM HORIZONTAL CLEARANCE OF 25 FEET MEASURED PERPENDICULAR TO THE CENTERLINE OF THE NEAREST TRACK UNLESS APPROVED BY CSX TRANSPORATION.

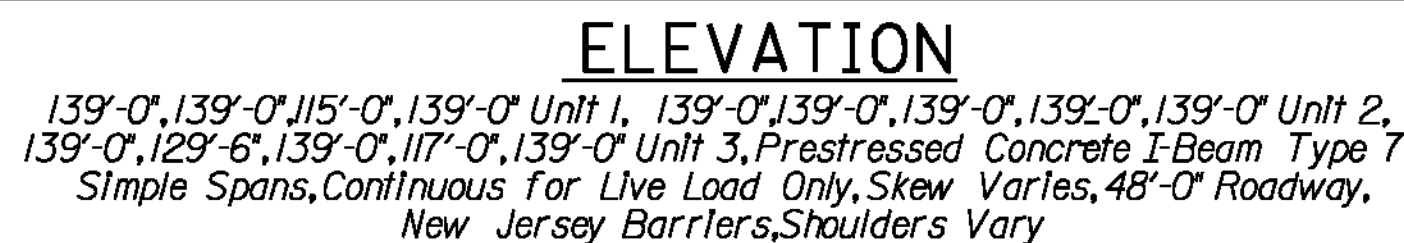
CONSTRUCTION NOTE

THE CONTRACTOR SHALL ARRANGE TO DO THE WORK IN ACCORDANCE WITH THE SPECIAL NOTES RELATIVE TO FLAGGING AND OTHER PROTECTION TO THE CSX TRANSPORATION DURING CONSTRUCTION OF THIS PROJECT.



ITEM NUMBER
12-311.35

REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY		
LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
GENERAL NOTES		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S2
		DRAWING NO. 25296



NOTE

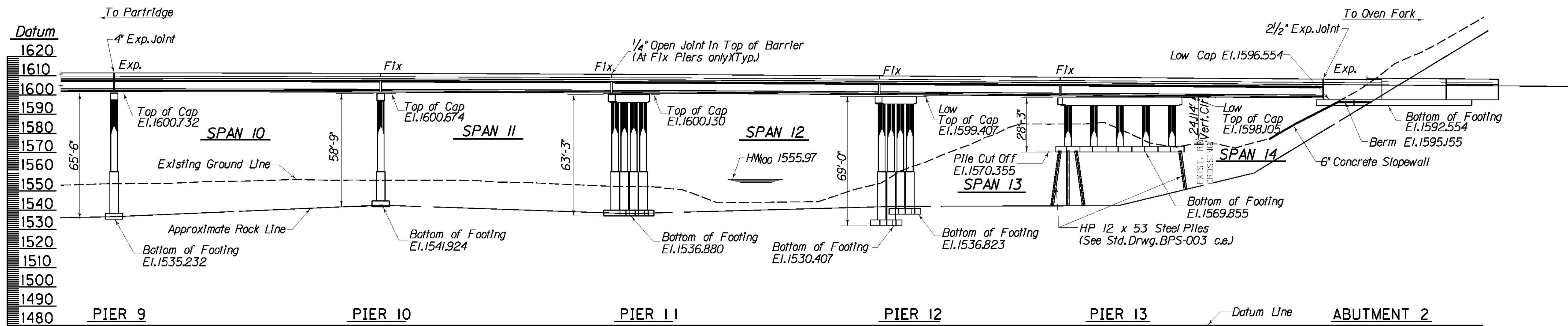
*See Sheet S6 for Typical Sections.
See Stakeout Diagram Sheet S20
for layout of substructure.*

REVISION		DATE	
DATE: 09-2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE US 119	CROSSING POOR FORK CUMBERLAND RIVER		
LAYOUT			
PREPARED BY			SHEET NO.
THE ENGINEERS, INC.			S3
			DRAWING NO.
			25296

ITEM NUMBER

12-311.10

FILE NAME: \$\$\$\$\$\$designs\$file\$specification\$\$\$\$\$
USER NAME: \$\$\$\$\$\$plottedby\$\$\$\$\$
DATE: \$\$\$\$\$\$DATE\$\$\$\$\$
SHEET LOCATION: \$\$\$\$\$\$



ELEVATION

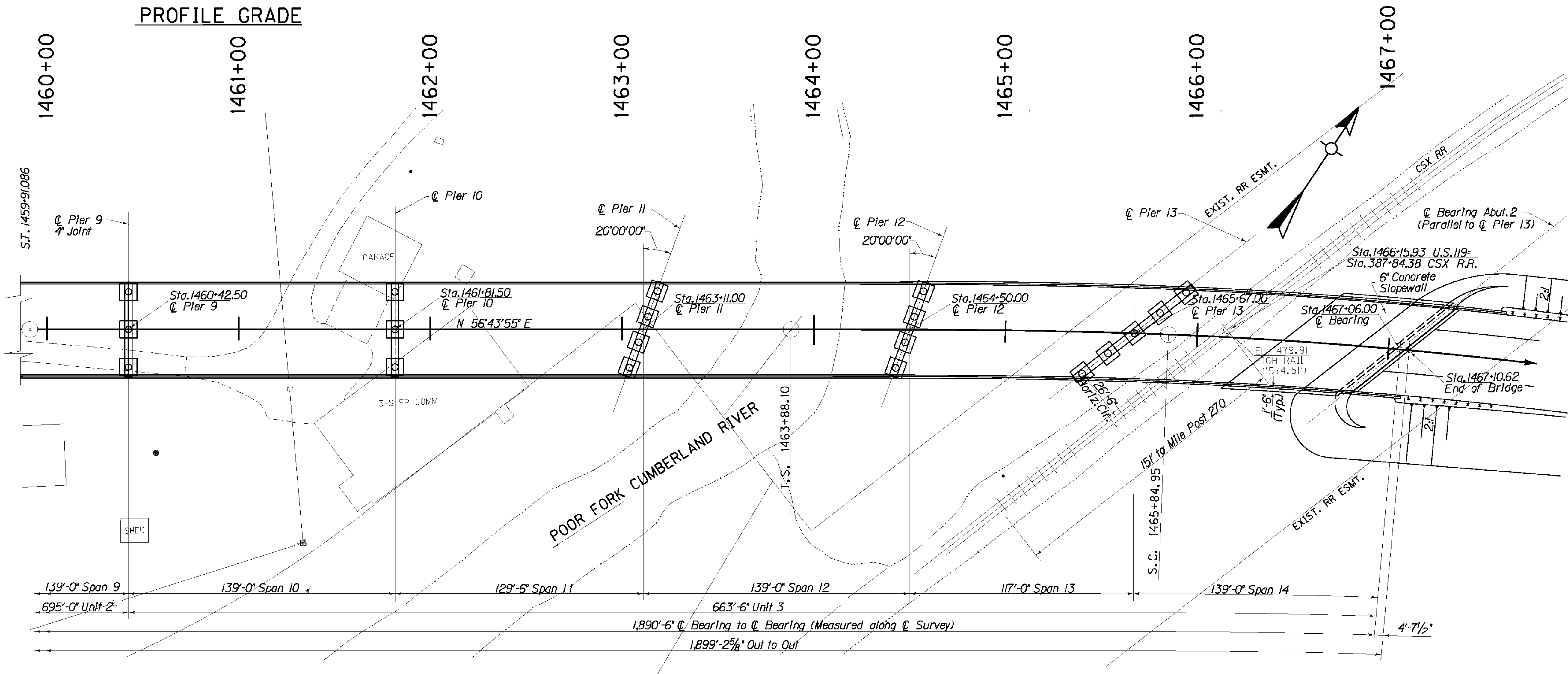
139'-0", 139'-0" J15'-0", 139'-0" Unit 1, 139'-0" J39'-0", 139'-0", 139'-0", 139'-0" Unit 2,
139'-0", 129'-6", 139'-0", 117'-0", 139'-0" Unit 3, Prestressed Concrete I-Beam Type 7
Simple Spans, Continuous for Live Load Only, Skew Varies, 48'-0" Roadway,
New Jersey Barriers, Shoulders Vary

+3.108%

-0.747%

2,624.67 V.C.

PROFILE GRADE



PLAN

NOTE

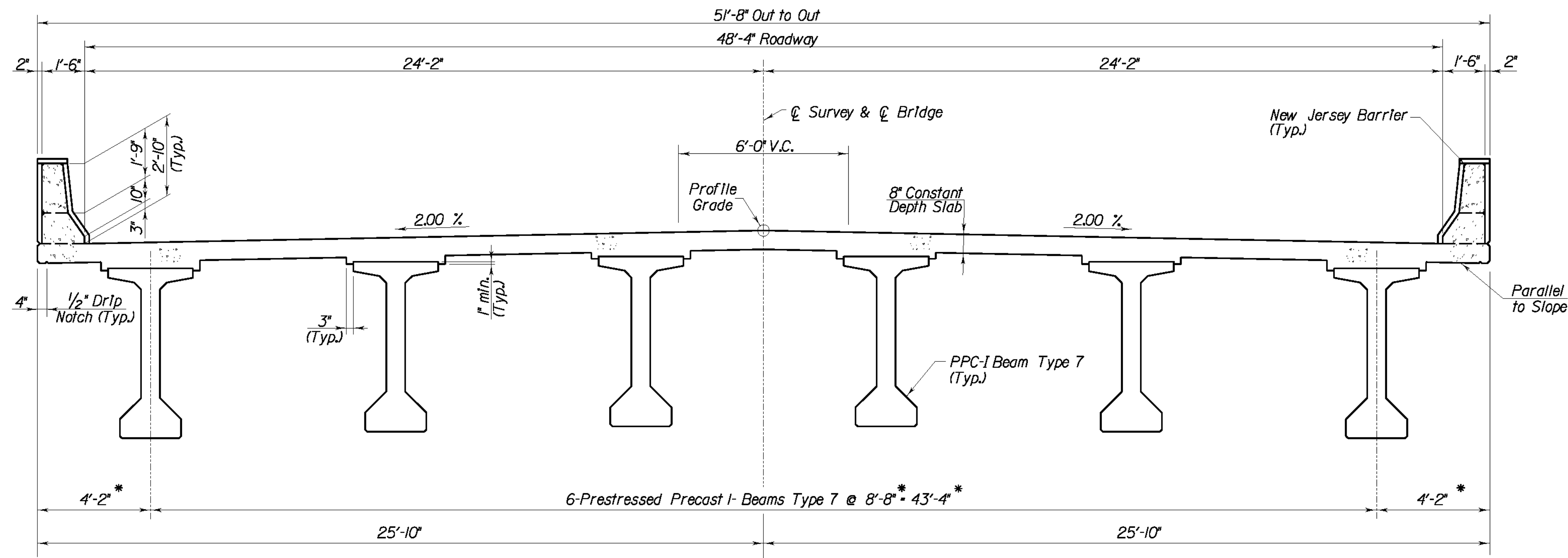
See Sheet S6 for Typical Sections.
See Stakeout Diagram Sheet S20
for layout of substructure.

P.I. 1470+78.35
 $\Delta = 27^\circ 02' 27''$ R+.
R = 2,460.630'
Ts = 690.22'
Ls = 196.850'
Lc = 964.45'
 $\theta = 2^\circ 17' 31''$
L.T. = 131.243'
S.T. = 65.627'
Es = 70.81'
e = 6.0%
Runoff = 196.850'
Runout = 65.617'

REVISION		DATE	
DATE: 09-2003		CHECKED BY	
DESIGNED BY: P.A.P.		W.T.B.	
DETAILED BY: D.W.S.		P.F.H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE US 119		CROSSING POOR FORK CUMBERLAND RIVER	
LAYOUT			
PREPARED BY		SHEET NO. S5	
THE ENGINEERS, INC.		DRAWING NO. 25296	

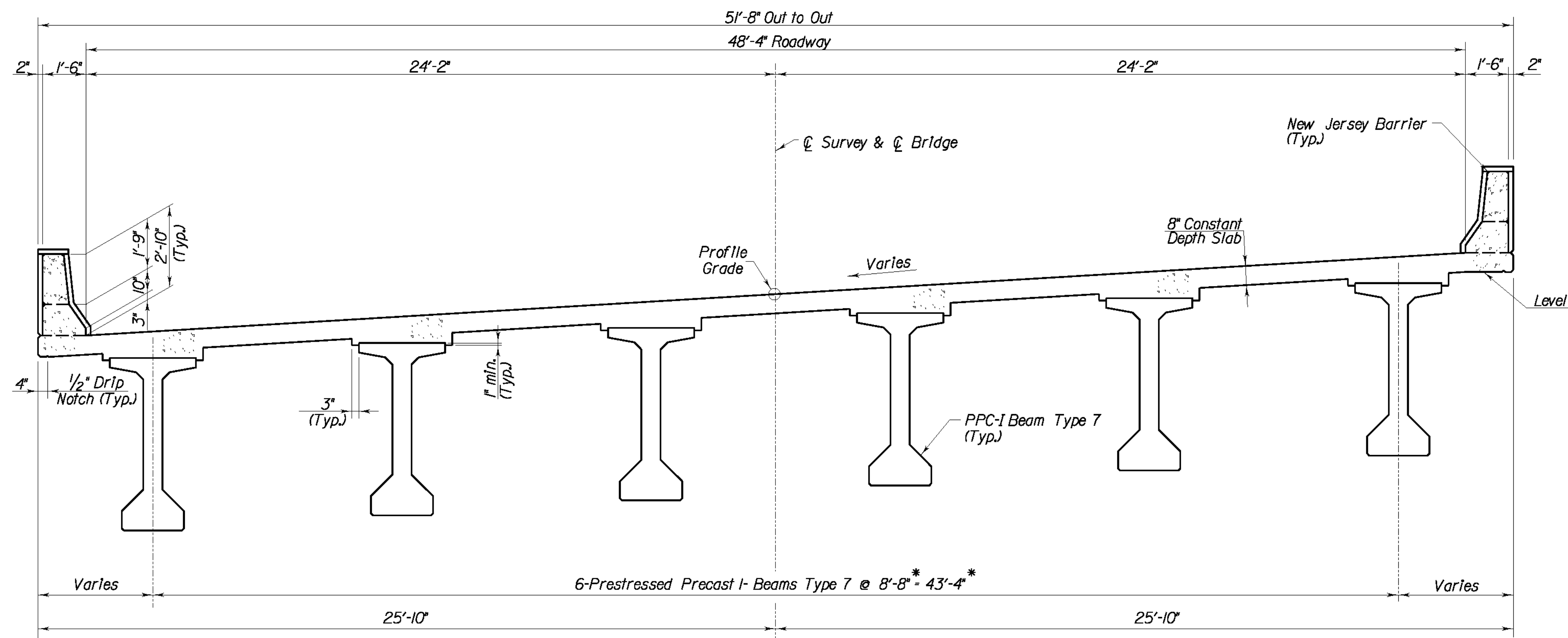
ITEM NUMBER

12-311.10



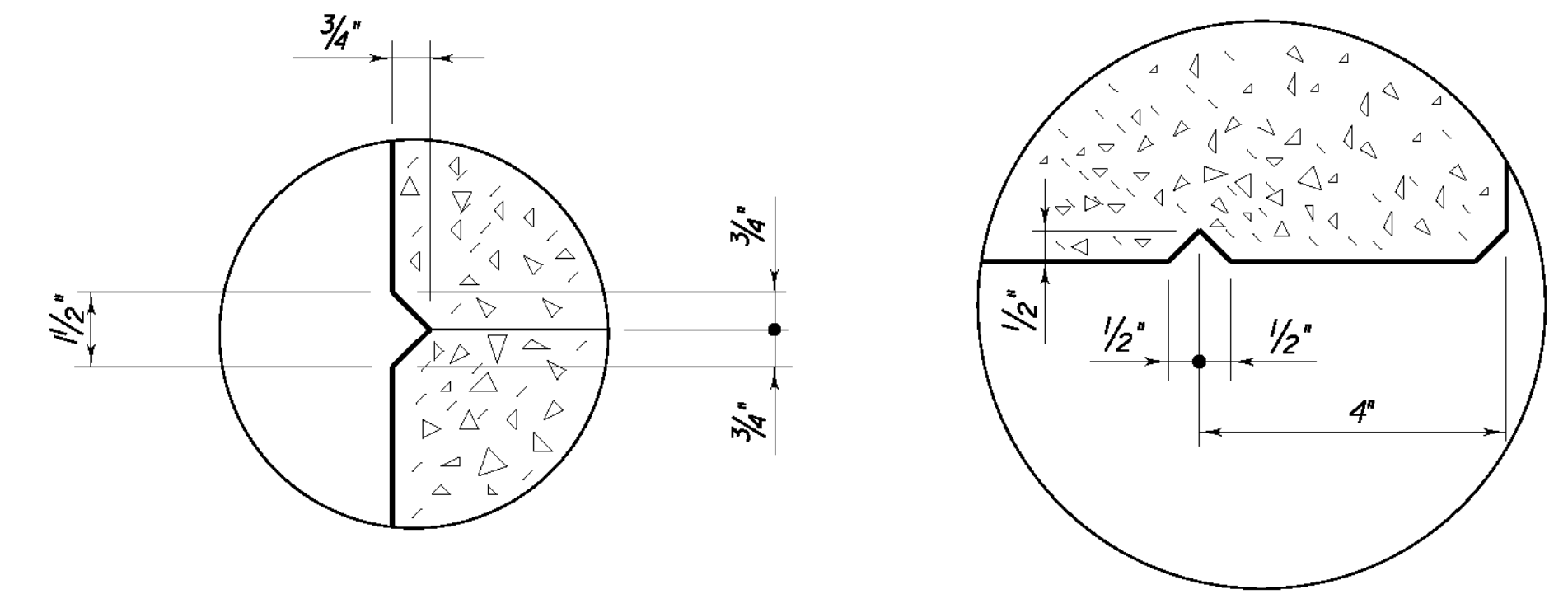
NORMAL TYPICAL SECTION

* Dimension varies depending on section location. See Framing Plan Sheets S60-S62.



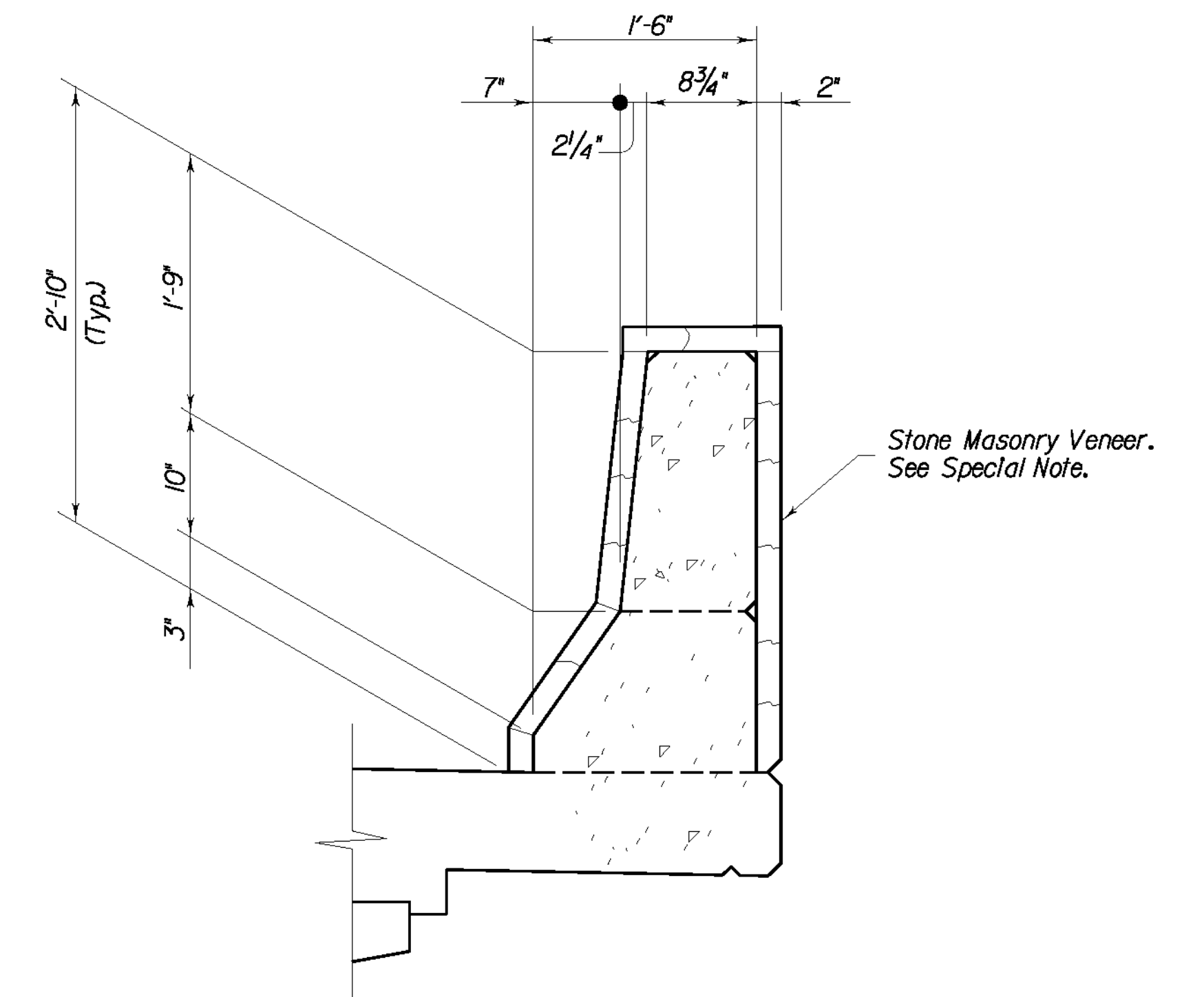
SUPERELEVATED TYPICAL SECTION

(Showing Curve to Left)



RUSTICATION GROOVE

DRIP NOTCH DETAIL

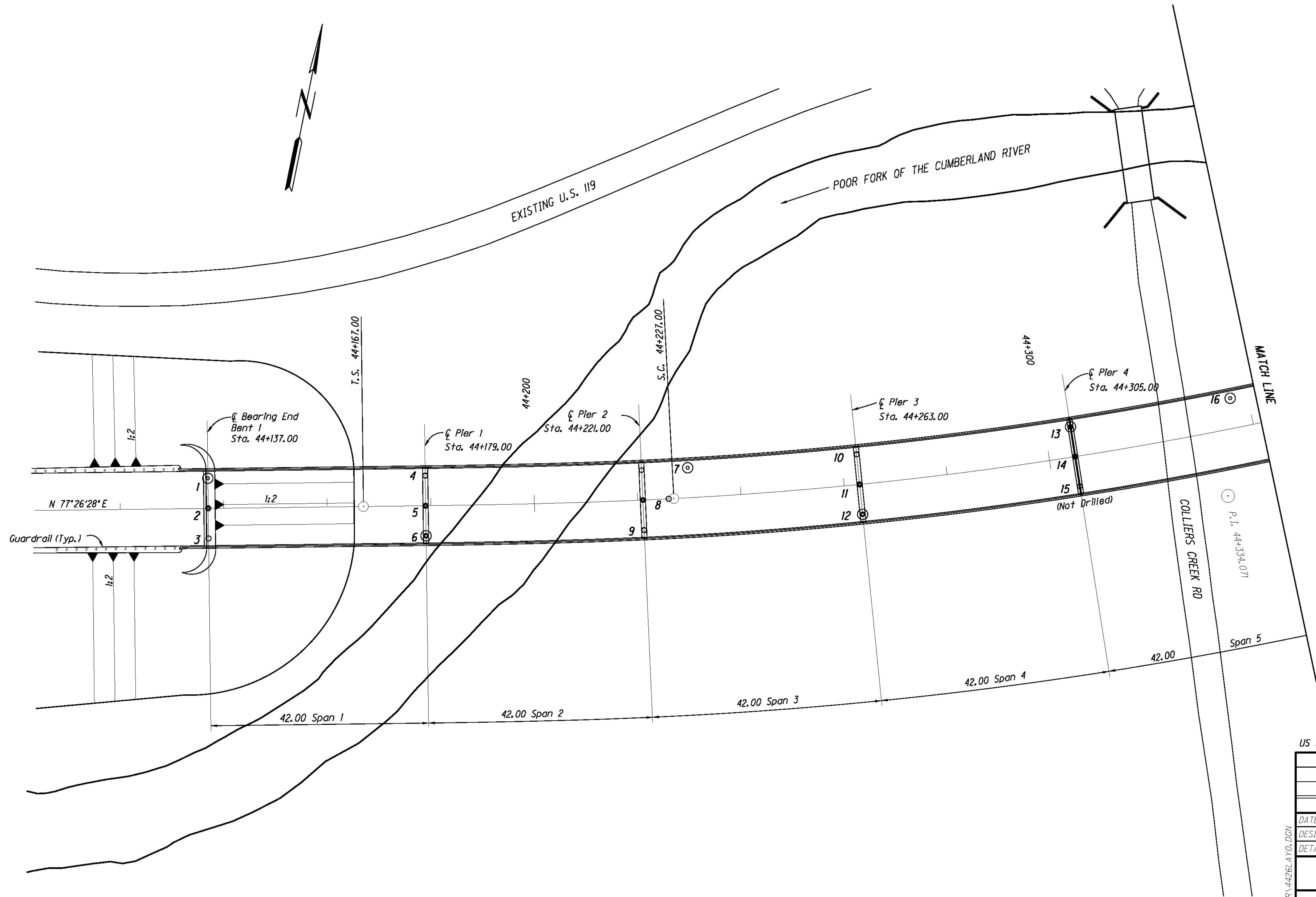


BARRIER SECTION

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky			
DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE		CROSSING	
U.S. 119		POOR FORK CUMBERLAND RIVER	
TYPICAL SECTIONS			
PREPARED BY			SHEET NO.
T.H.E. ENGINEERS, INC.			S6
			DRAWING NO.
			25296

ITEM NUMBER
12-311.10

SUBSURFACE DATA



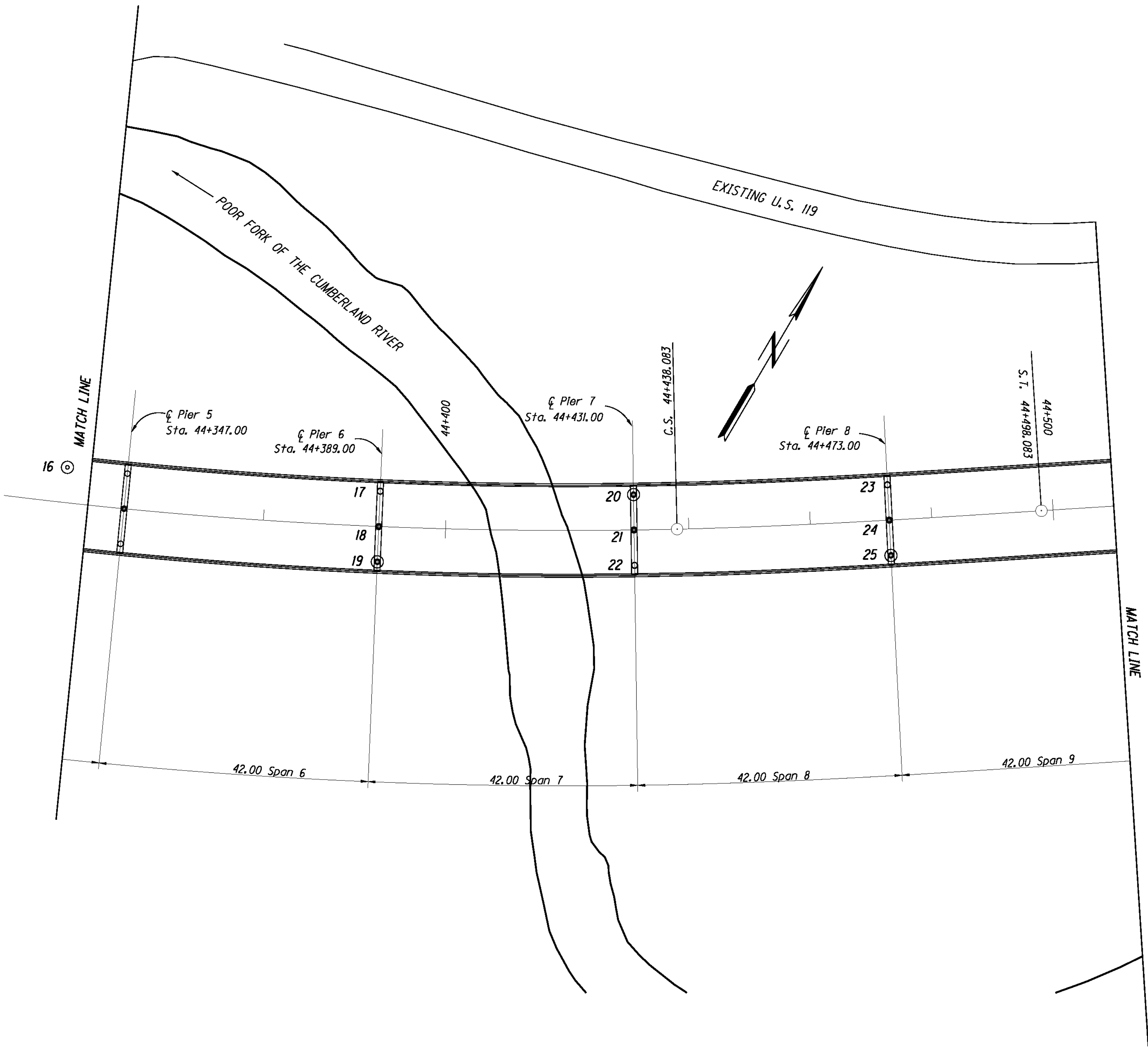
NOTE:
This sheet presents geotechnical data and recommendations. Refer to project plans, profiles, and cross sections for final alignment and grade.

US 119		Bridge at Sta. 44+426.5	
REVISION		DATE	
DATE:	AUGUST, 2001	CHECKED BY	
DESIGNED BY:			
DETAILED BY:	TJ	MAL/BF	
Commonwealth of Kentucky			
DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE	US 119	CROSSING	Poor Fork of Cumberland River
BORING LAYOUT			
PREPARED BY		SHEET NO.	
12-311.10		S7	
METRIC		DRAWING NO.	
		25296	

Sheet 1 of 13
ITEM NO.
12-311.10
METRIC

Scale: 1:400

SUBSURFACE DATA

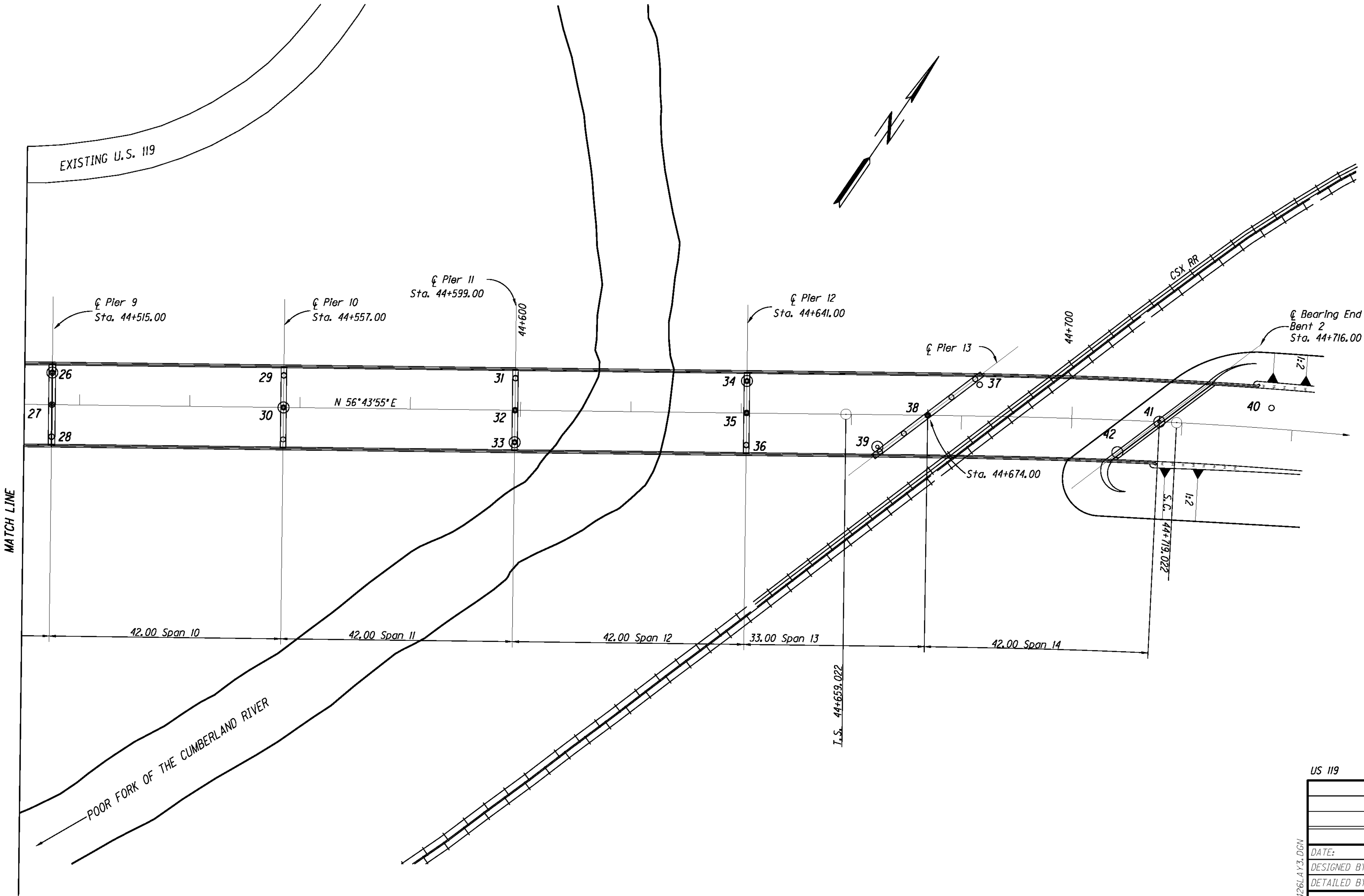


NOTE:
This sheet presents geotechnical data and recommendations. Refer to project plans, profiles, and cross sections for final alignment and grade.

US 119		Bridge at Sta. 44+426.5	
REVISION		DATE	
DATE:	AUGUST, 2001	CHECKED BY	
DESIGNED BY:			
DETAILED BY:	TJ	MAL/BF	
Commonwealth of Kentucky			
DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE	US 119	CROSSING	Poor Fork of Cumberland River
BORING LAYOUT			
PREPARED BY		SHEET NO.	
12-311.10		S8	
METRIC		DRAWING NO.	
		25296	

Scale: 1:400

SUBSURFACE DATA



NOTE:
This sheet presents geotechnical data and recommendations. Refer to project plans, profiles, and cross sections for final alignment and grade.

US 119 Bridge at Sta. 44+426.5

REVISION		DATE	
DATE:	AUGUST, 2001	CHECKED BY	
DESIGNED BY:			
DETAILED BY:	TJ	MAL/BF	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE	CROSSING		
US 119	Poor Fork of Cumberland River		
BORING LAYOUT			
PREPARED BY			
		SHEET NO. S9	
		DRAWING NO. 25296	

Sheet 3 of 13

ITEM NO.
12-311.10

Scale: 1:400

METRIC

PREPARED BY

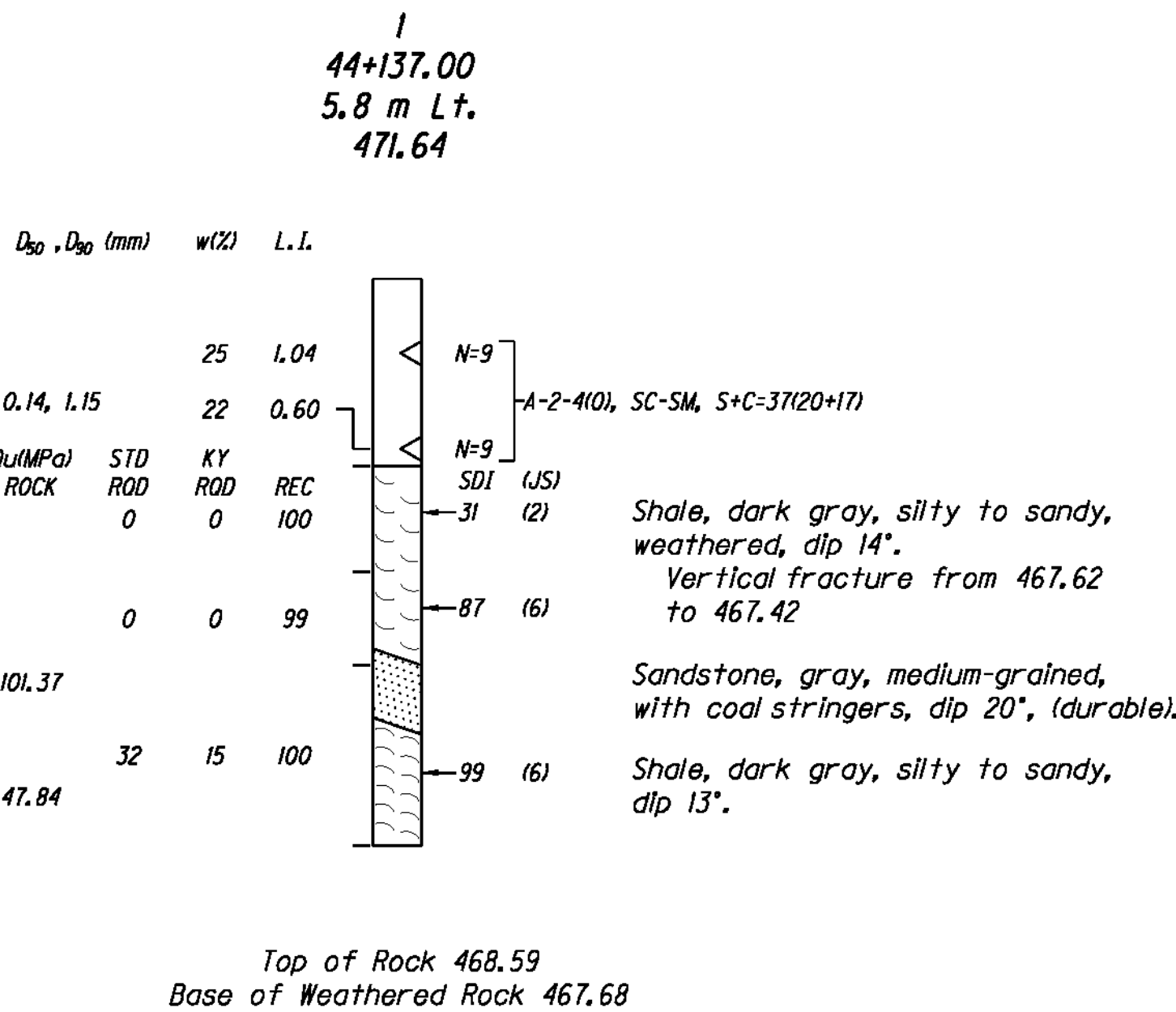
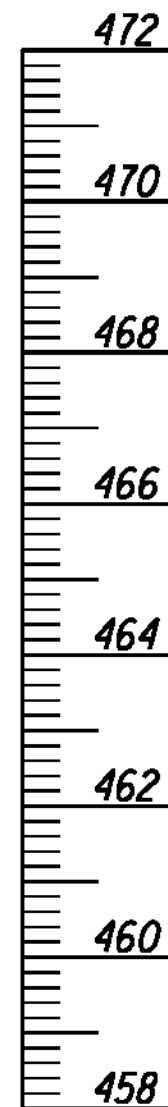
 **MSM**
ENGINEERS

SHEET NO.
 S9
 DRAWING NO.
 5296

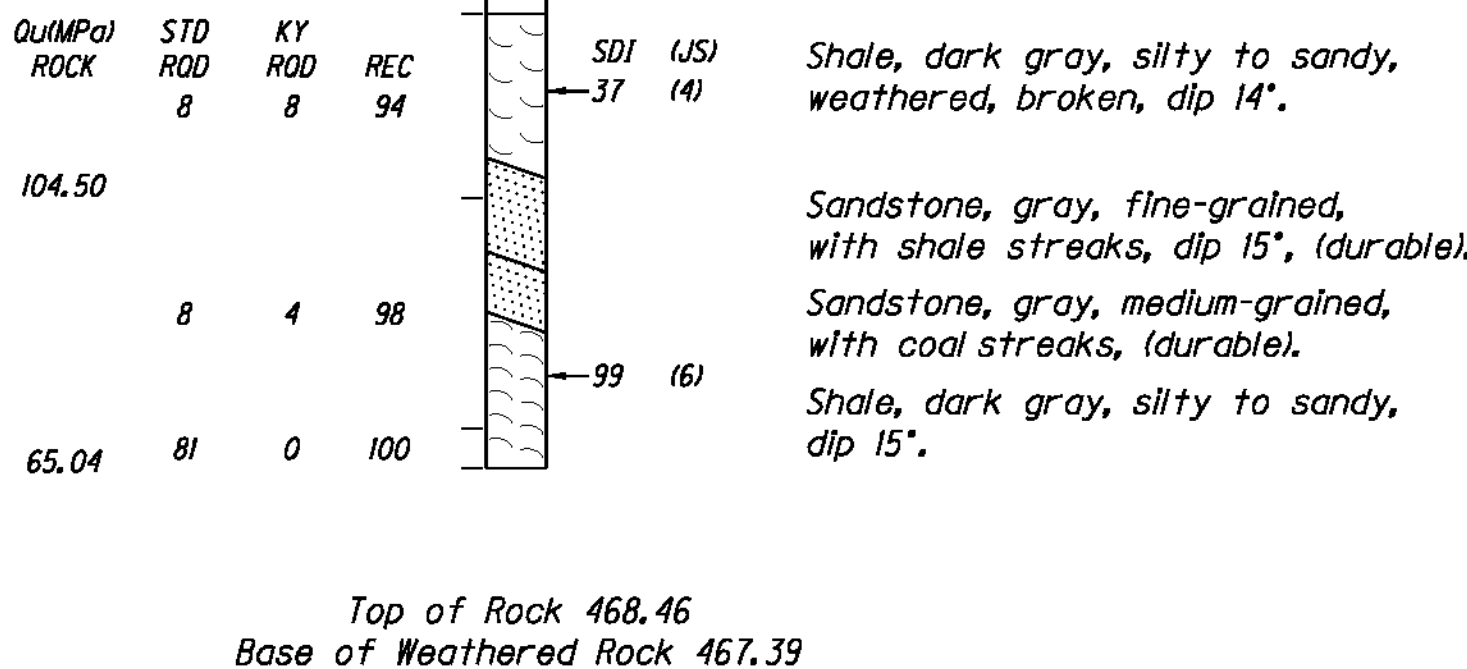
SUBSURFACE DATA

End Bent No. 1
Approximate Roadway Elevation = 487.40

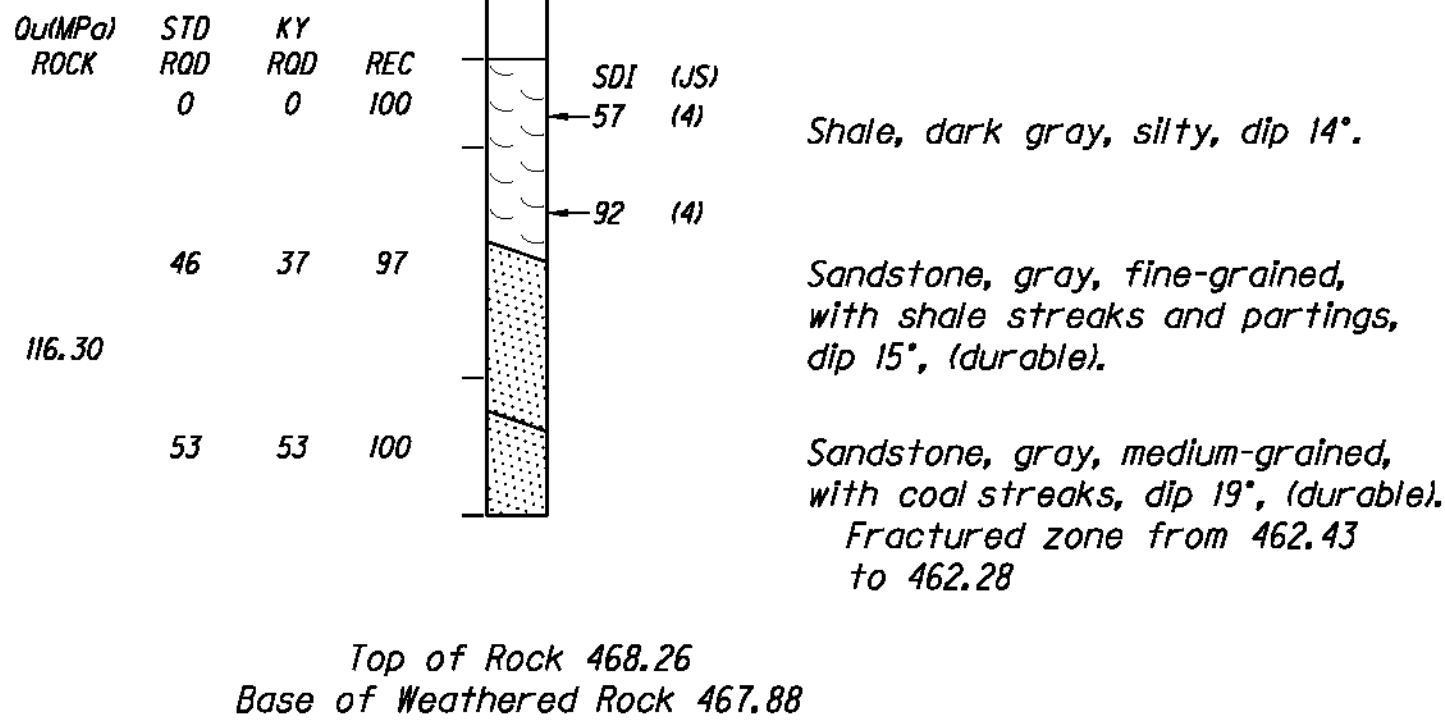
Hole No.
Location
Offset
Elev.



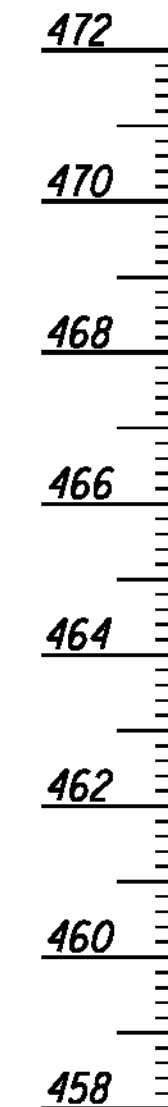
2
44+137.00
Centerline
471.51



3
44+137.00
5.8 m Rt.
471.31

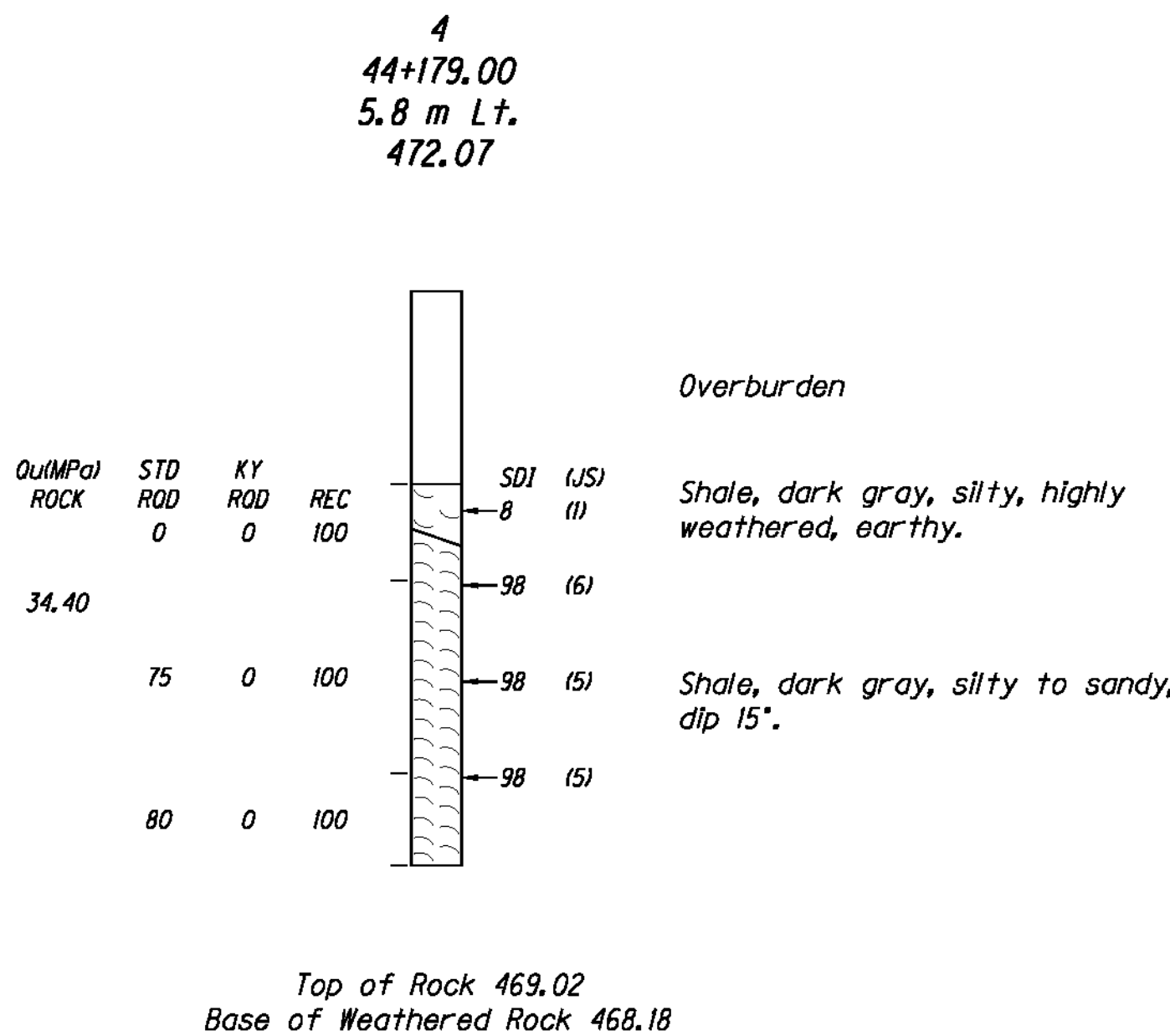
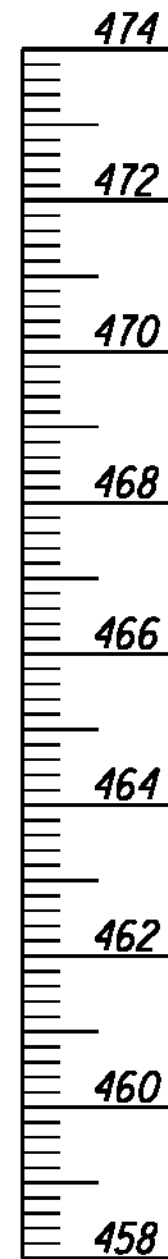


Hole No.
Location
Offset
Elev.

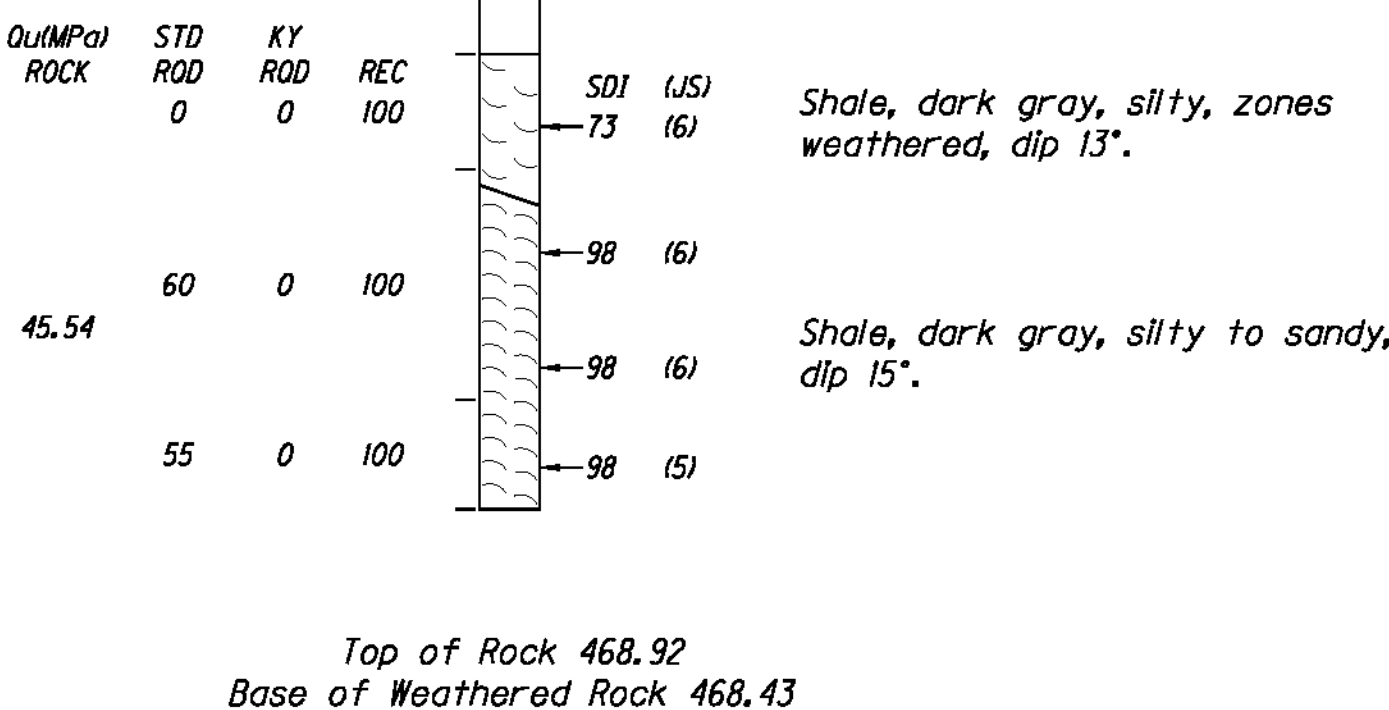


Pier 1

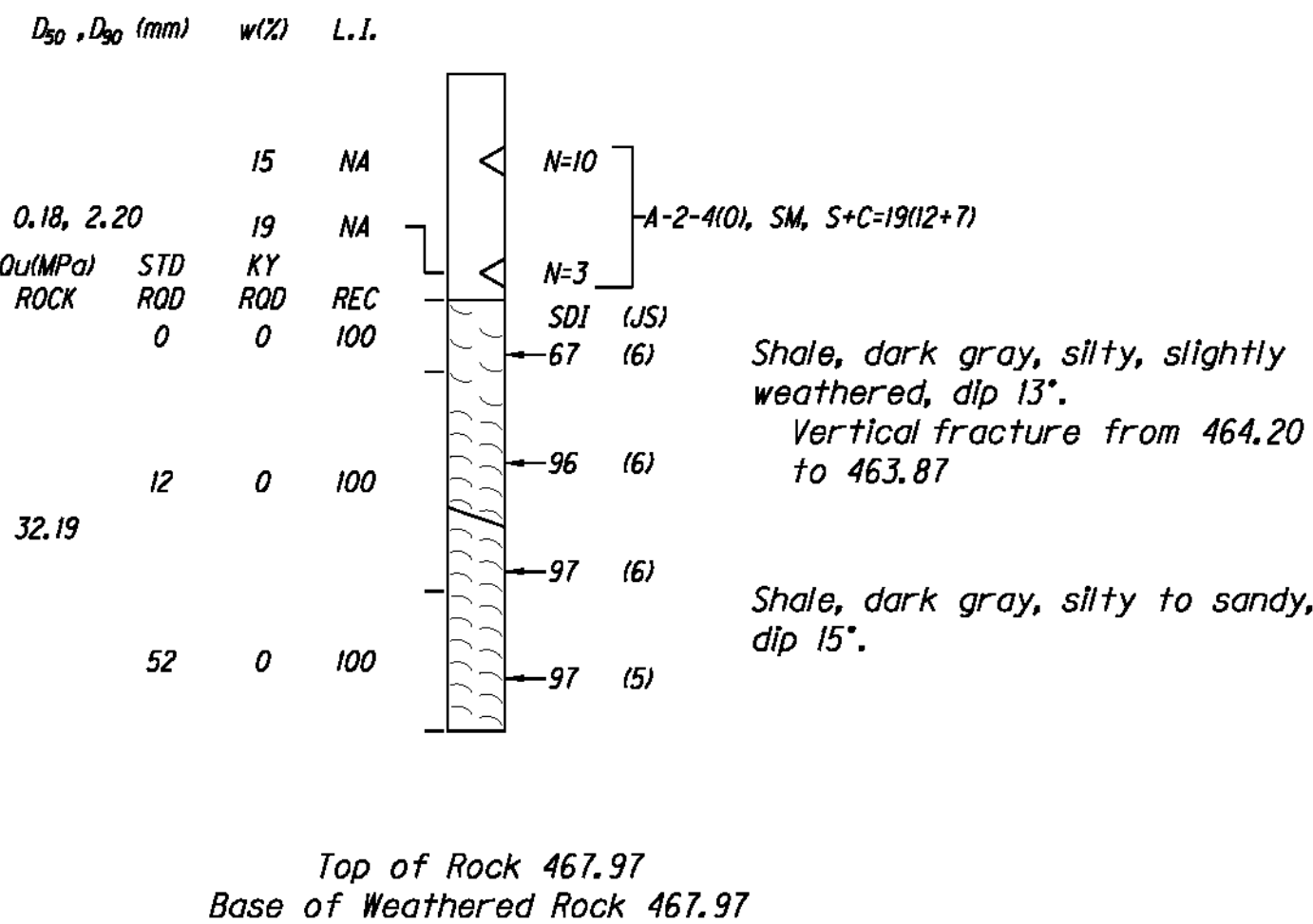
Hole No.
Location
Offset
Elev.



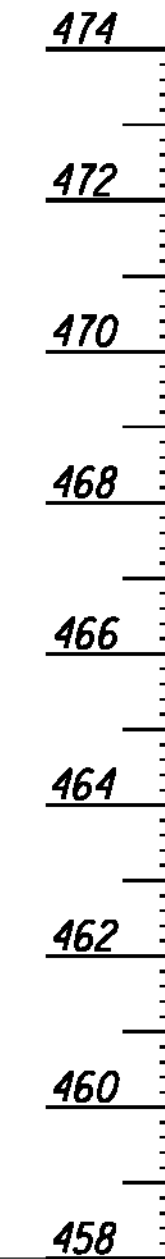
5
44+179.00
Centerline
471.97



6
44+179.00
5.8 m Rt.
471.12



Hole No.
Location
Offset
Elev.



NOTE:
Station 44+240
Centerline Bearing = N74°E
Strike of Bedding = N65°E
True Dip = 19°SE
Apparent Dip X-Section = 19°SE
Apparent Dip Centerline = -3°

NOTES:
1. This sheet presents geotechnical data and recommendations. Refer to project plans, profiles, and cross sections for final alignment and grade.
2. Surface elevations are referenced to mean sea level.

US 119 Bridge at Sta. 44+426.5

REVISION		DATE
DATE:	AUGUST, 2001	CHECKED BY
DESIGNED BY:		
DETAILED BY:	TJ	MAL/BF

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
LETCHER

ROUTE CROSSING
US 119 Poor Fork of the Cumberland River

LOGS OF BORINGS

PREPARED BY

Sheet 4 of 13
ITEM NO.
12-311.10
METRIC

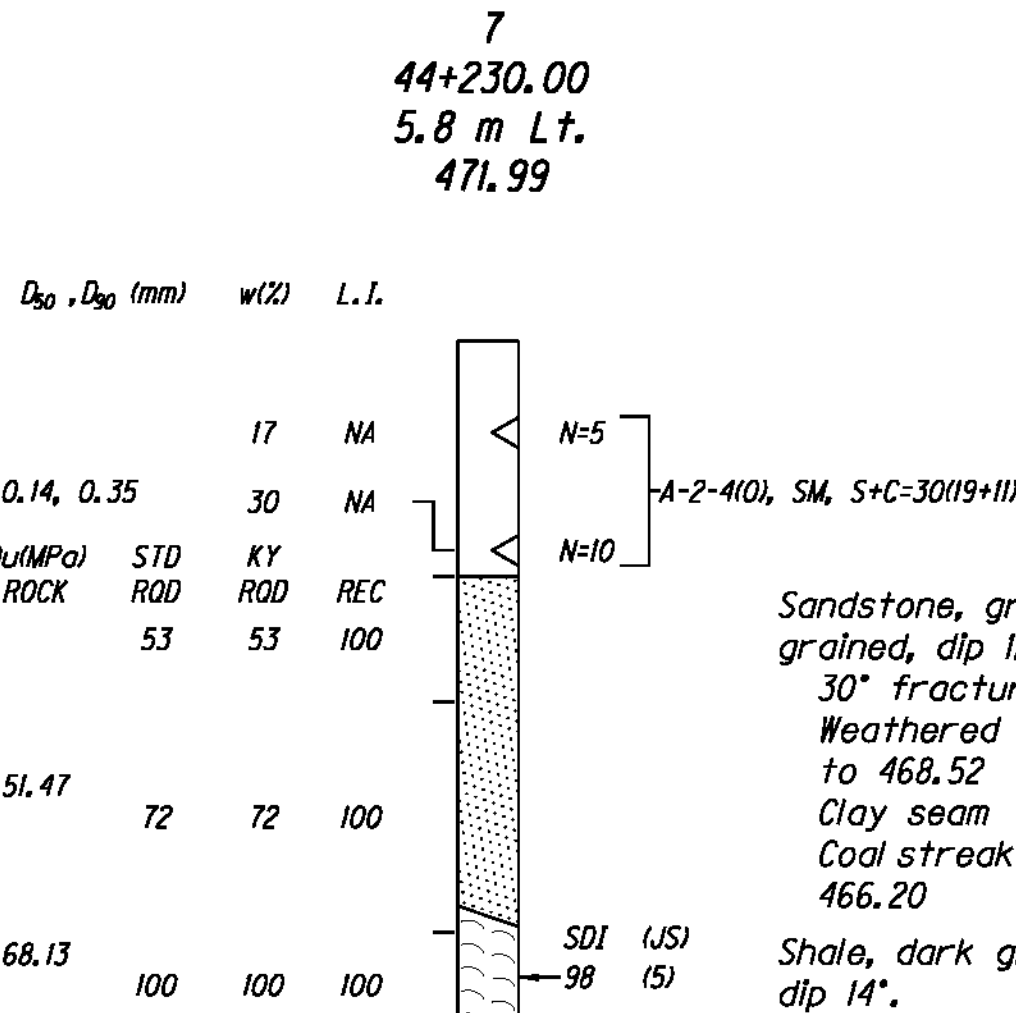
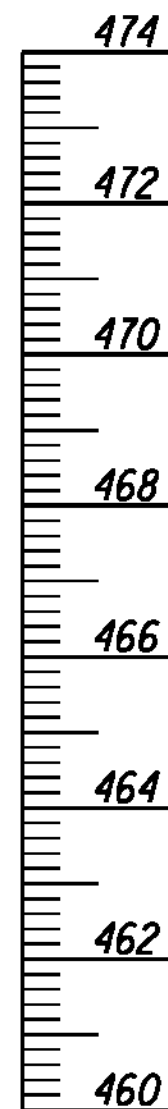
Scale: 1:100
(Vertical Only)

SHEET NO.
S10
DRAWING NO.
25296

SUBSURFACE DATA

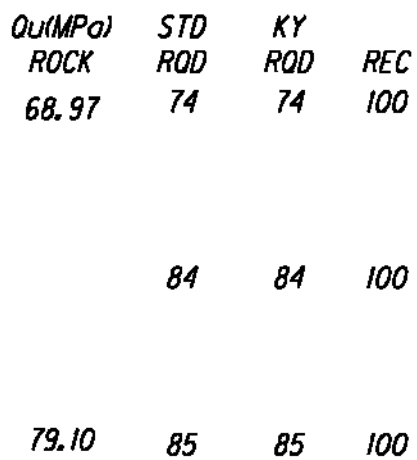
Pier 2

Hole No.
Location
Offset
Elev.



Top of Rock 468.88
Base of Weathered Rock 468.88

8
44+226.00
Centerline
471.96



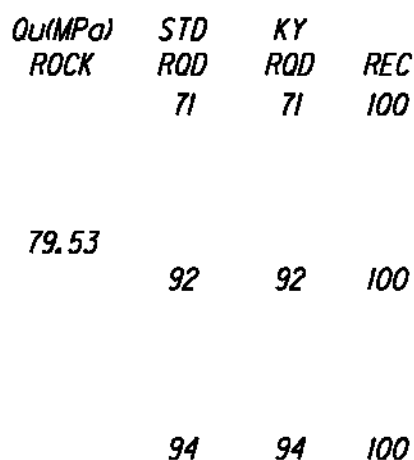
Overburden

Sandstone, gray, fine- to medium-grained, dip 12", (durable).
Water stained along bedding planes to 468.32
47" fracture from 468.44 to 468.40
Coal streaks from 465.97 to 465.69

Shale, dark gray, silty to sandy, dip 14".
70" fracture from 463.97 to 463.89

Top of Rock 468.92
Base of Weathered Rock 468.88

9
44+221.00
5.8 m Rt.
472.02



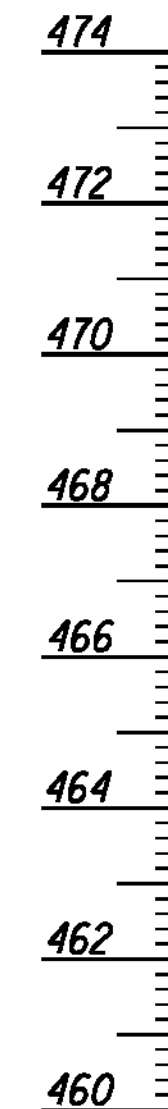
Overburden

Sandstone, gray, fine- to medium-grained, with coal streaks, dip 12", (durable).
Core water return at 468.35
Water staining along bedding planes to 468.24

Shale, dark gray, silty to sandy, dip 14".

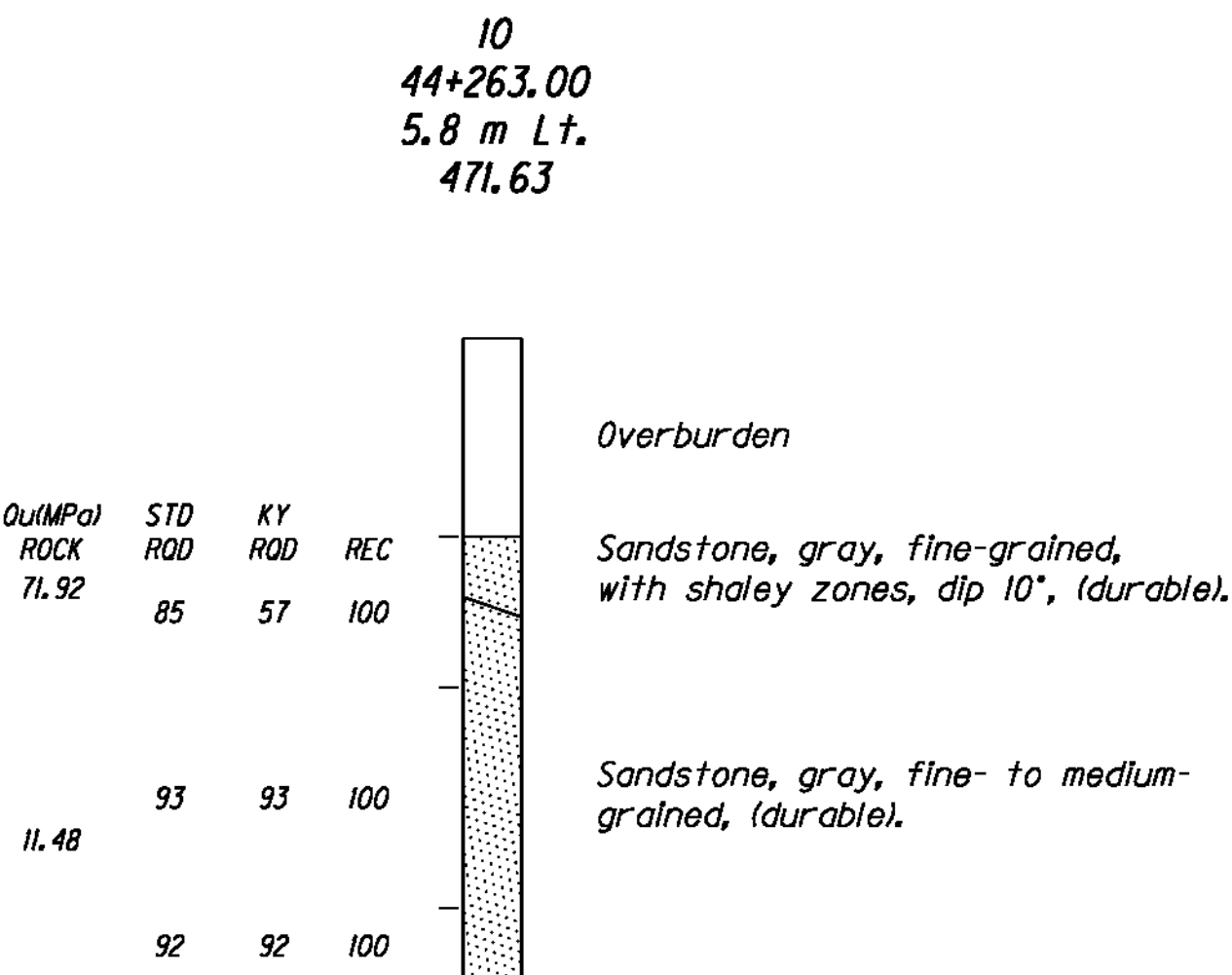
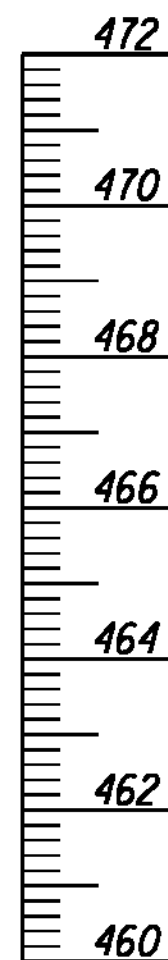
Top of Rock 468.87
Base of Weathered Rock 468.56

Hole No.
Location
Offset
Elev.



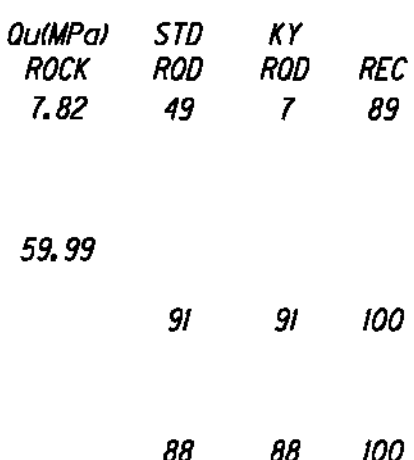
Pier 3

Hole No.
Location
Offset
Elev.



Top of Rock 468.94
Base of Weathered Rock 468.94

11
44+263.00
Centerline
471.56



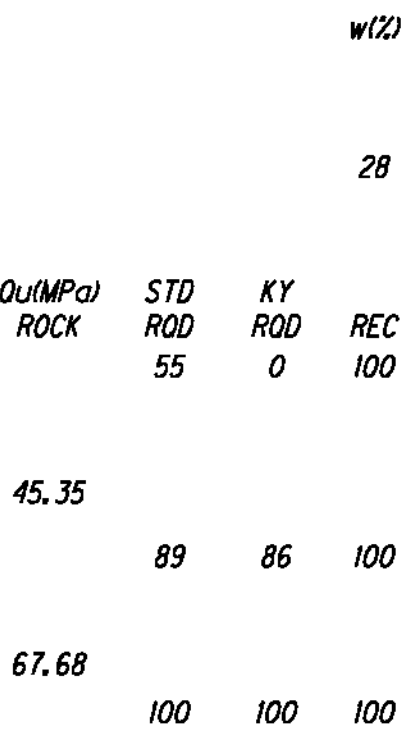
Overburden

Shale, dark gray, silty to sandy, dip 10".
Very soft zone (loss) from 468.75 to 468.40
72" fracture from 467.63 to 467.53

Sandstone, gray, fine- to medium-grained, dip 12", (durable).

Top of Rock 469.29
Base of Weathered Rock 469.29

12
44+263.00
5.8 m Rt.
471.50

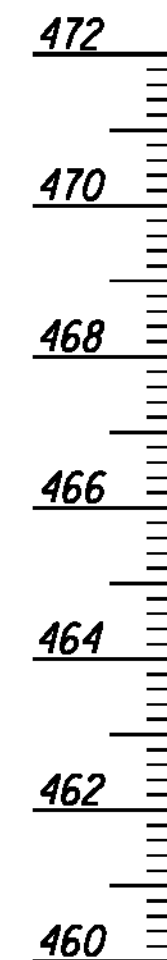


Shale, dark gray, silty to sandy, dip 10".
Coal, black.
Shale, dark gray, silty to sandy, dip 10".

Sandstone, gray, fine- to medium-grained, dip 12", (durable).

Top of Rock 468.64
Base of Weathered Rock 467.76

Hole No.
Location
Offset
Elev.



NOTE:

Station 44+240
Centerline Bearing = N74°E
Strike of Bedding = N65°E
True Dip = 19°SE
Apparent Dip X-Section = 19°SE
Apparent Dip Centerline = -3°

NOTES:

- This sheet presents geotechnical data and recommendations. Refer to project plans, profiles, and cross sections for final alignment and grade.
- Surface elevations are referenced to mean sea level.

US 119 Bridge at Sta. 44+426.5

REVISION		DATE
DATE: AUGUST, 2001	CHECKED BY	
DESIGNED BY:		
DETAILED BY: TJ	MAL/BF	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY		
LETCHER		
ROUTE	CROSSING	
US 119	Poor Fork of the Cumberland River	
LOGS OF BORINGS		
PREPARED BY		
JSM ENGINEERS		
SHEET NO. S11		DRAWING NO. 25296

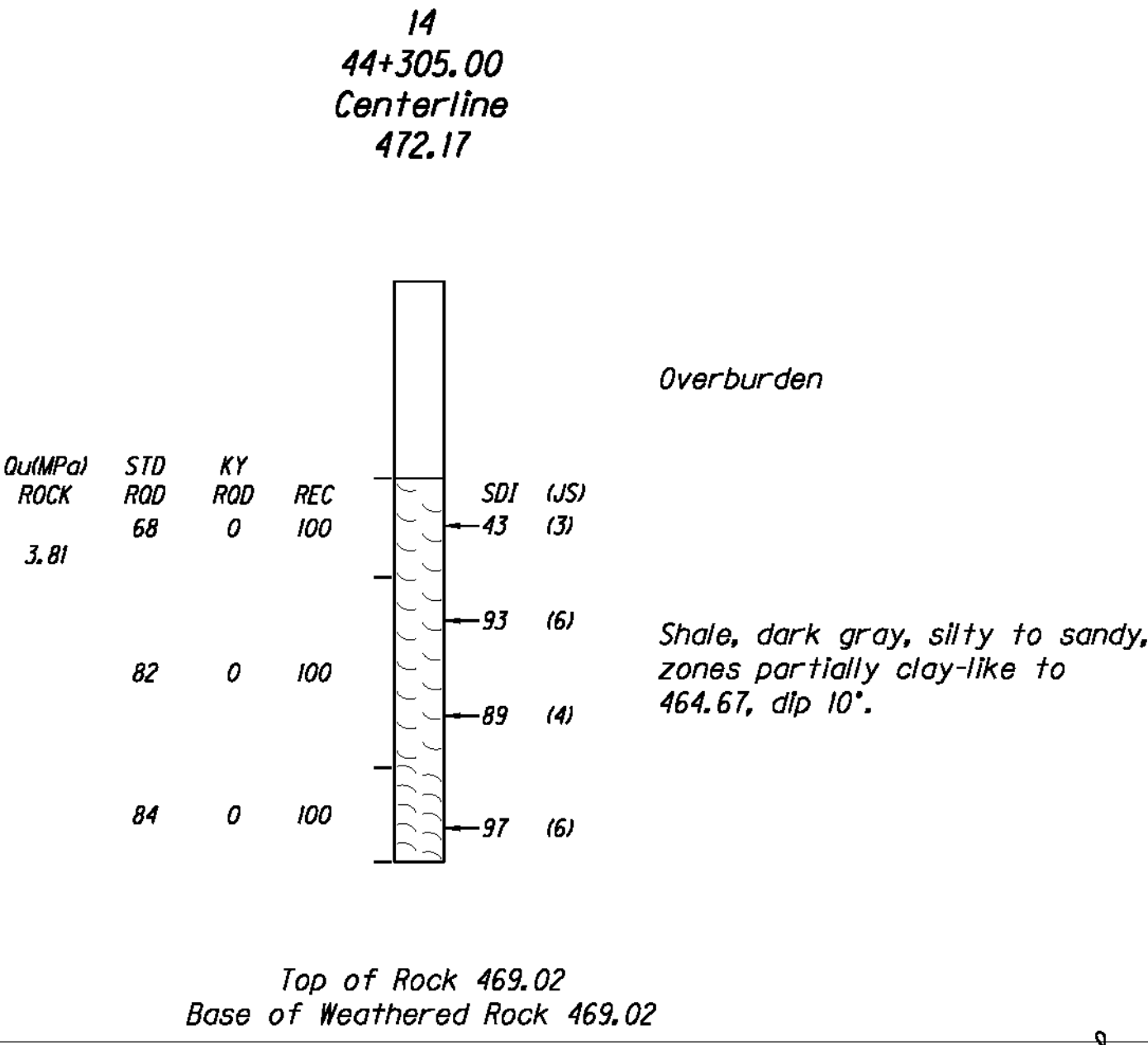
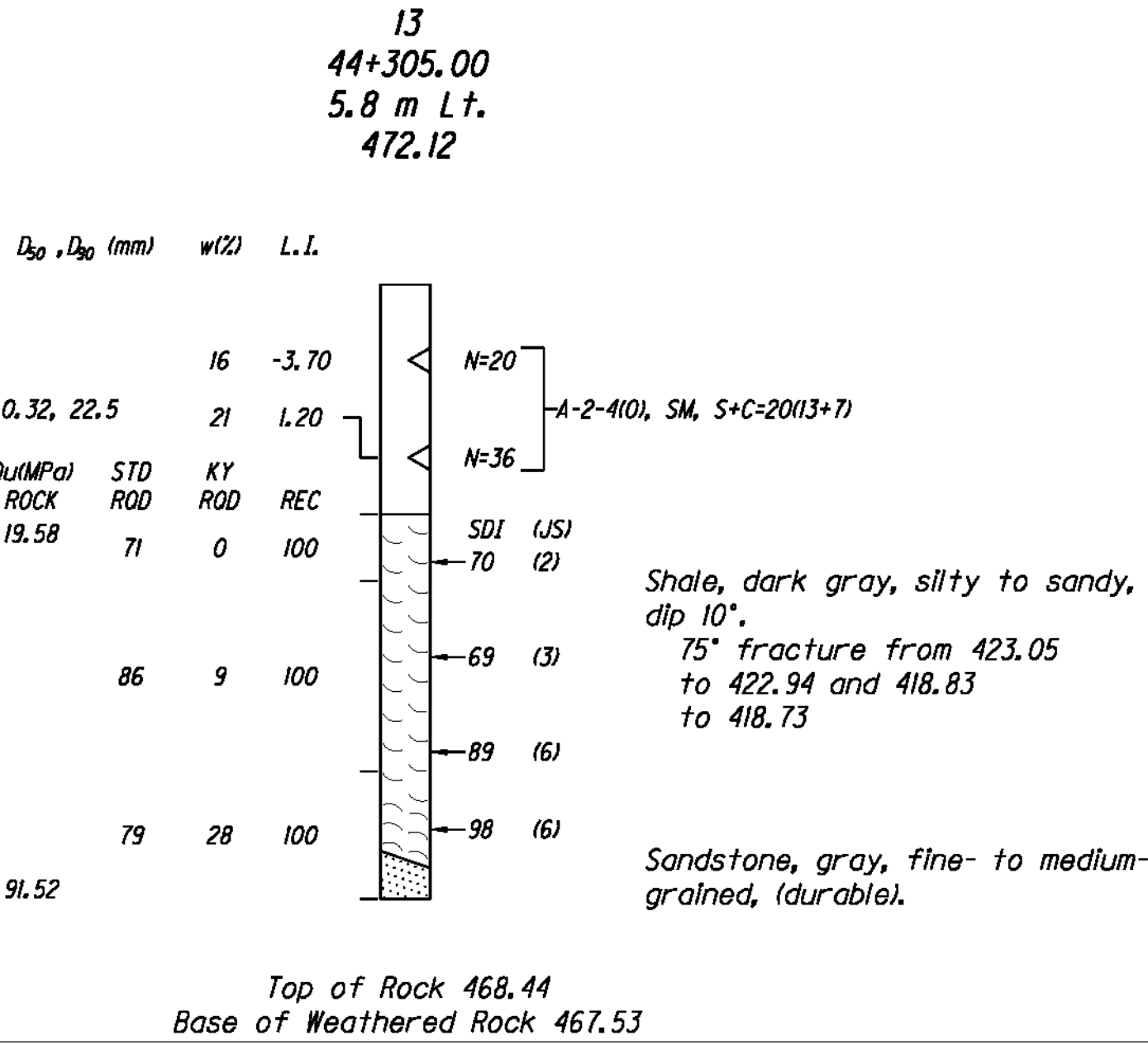
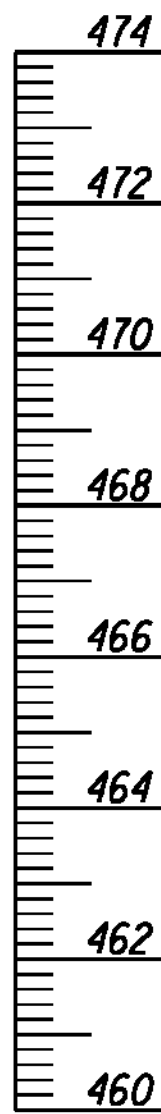
Sheet 5 of 13
ITEM NO.
12-311.10
METRIC

Scale: 1:100
(Vertical Only)

SUBSURFACE DATA

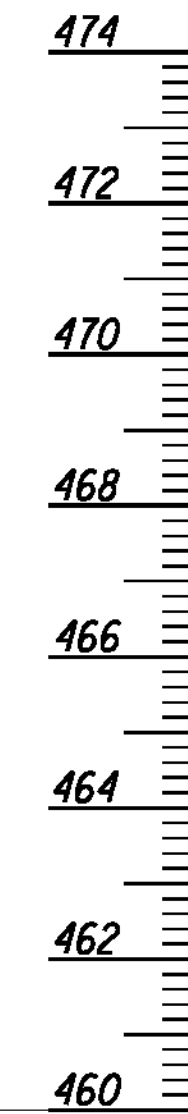
Pier 4

Hole No.
Location
Offset
Elev.



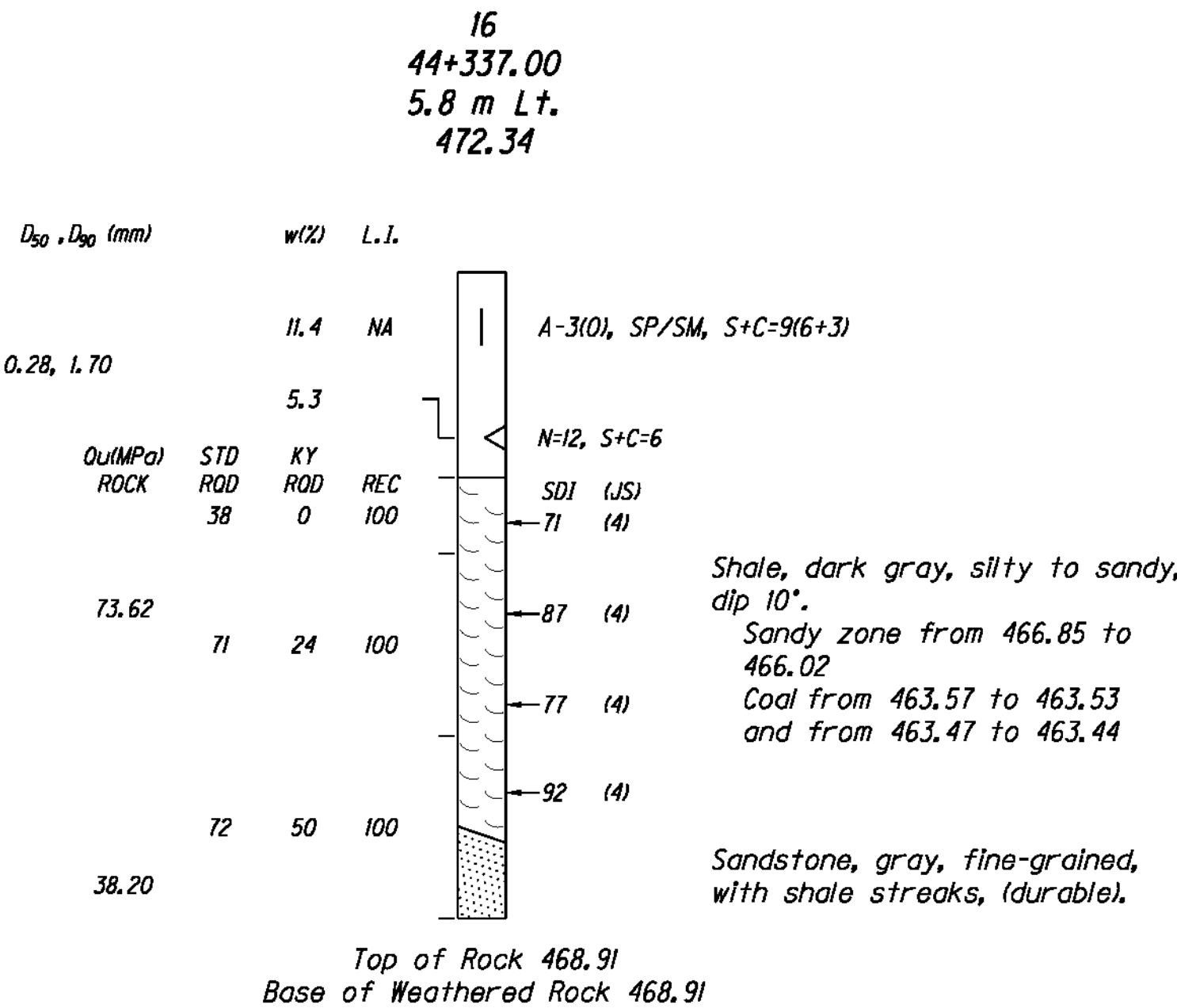
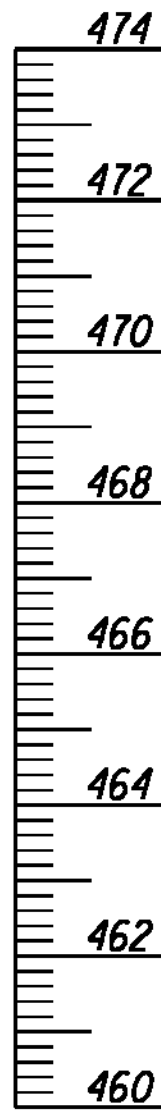
15
44+305.00
5.8 m Rt.
Not Drilled at property owners request.

Hole No.
Location
Offset
Elev.

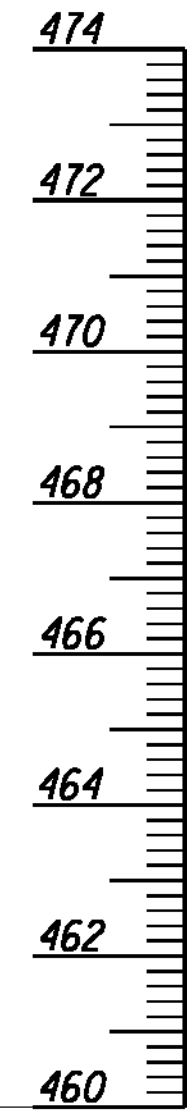


Pier 5

Hole No.
Location
Offset
Elev.



Hole No.
Location
Offset
Elev.



NOTE:
Station 44+240
Centerline Bearing = N74°E
Strike of Bedding = N65°E
True Dip = 19°SE
Apparent Dip X-Section = 19°SE
Apparent Dip Centerline = -3°

NOTES:
1. This sheet presents geotechnical data and recommendations. Refer to project plans, profiles, and cross sections for final alignment and grade.
2. Surface elevations are referenced to mean sea level.

US 119 Bridge at Sta. 44+426.5

REVISION		DATE
DATE:	AUGUST, 2001	CHECKED BY
DESIGNED BY:		
DETAILED BY:	TJ	MAL/BF

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
LETCHER

ROUTE CROSSING
US 119 Poor Fork of the Cumberland River

LOGS OF BORINGS

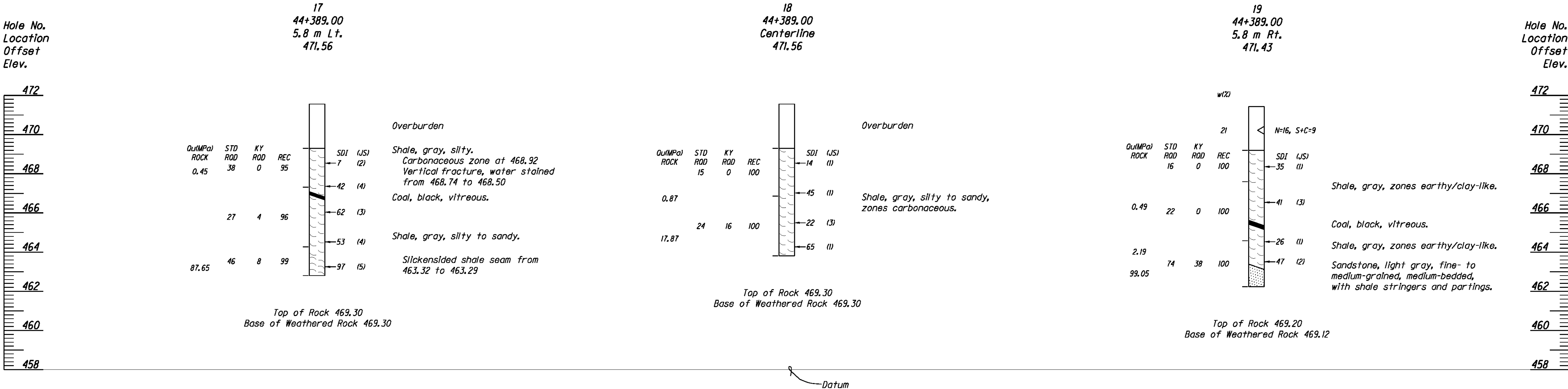
PREPARED BY
METRIC ENGINEERS

SHEET NO.
S12
DRAWING NO.
25296

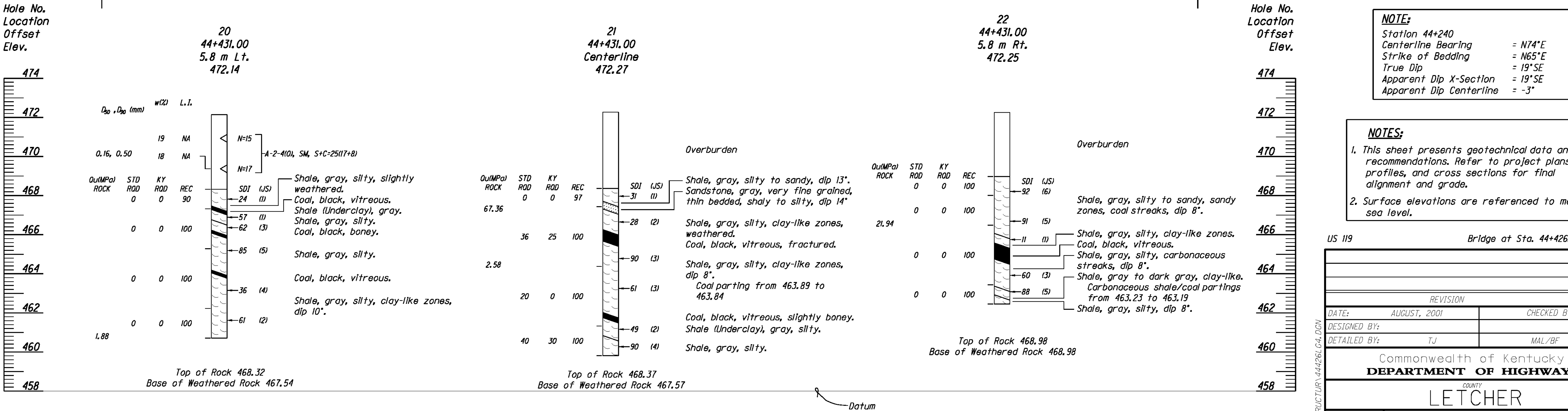
Scale: 1:100
(Vertical Only)

SUBSURFACE DATA

Pier 6



Pier 7



NOTE:

Station 44+240
Centerline Bearing = N74°E
Strike of Bedding = N65°E
True Dip = 19°SE
Apparent Dip X-Section = 19°SE
Apparent Dip Centerline = -3°

NOTES:

1. This sheet presents geotechnical data and recommendations. Refer to project plans, profiles, and cross sections for final alignment and grade.

2. Surface elevations are referenced to mean sea level.

US 119 Bridge at Sta. 44+426.5

REVISION		DATE
DATE: AUGUST, 2001	CHECKED BY	
DESIGNED BY:		
DETAILED BY: TJ	MAL/BF	

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
LETCHER

ROUTE CROSSING
US 119 Poor Fork of the Cumberland River

LOGS OF BORINGS

PREPARED BY

SHEET NO. 13
DRAWING NO. 25296

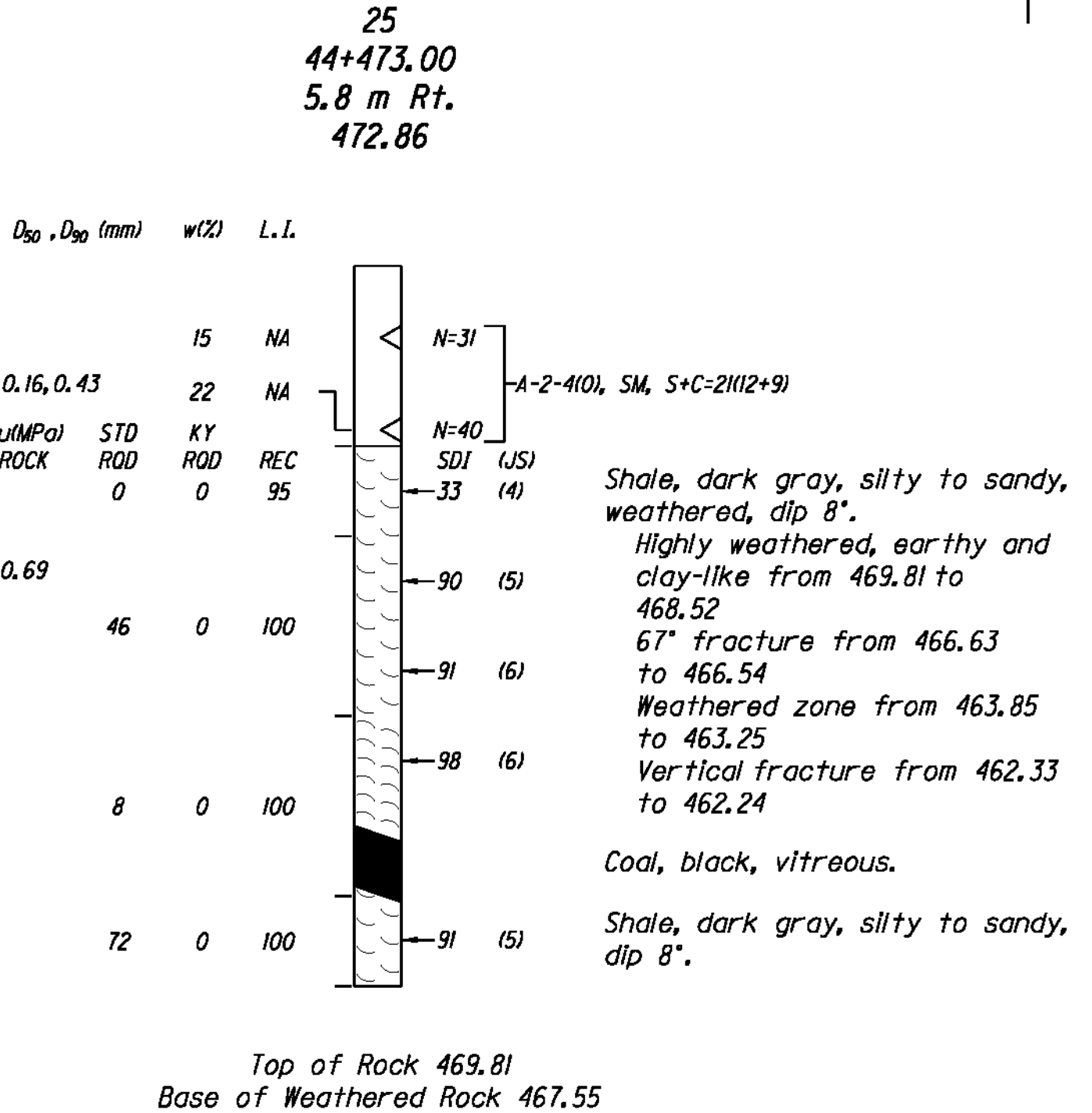
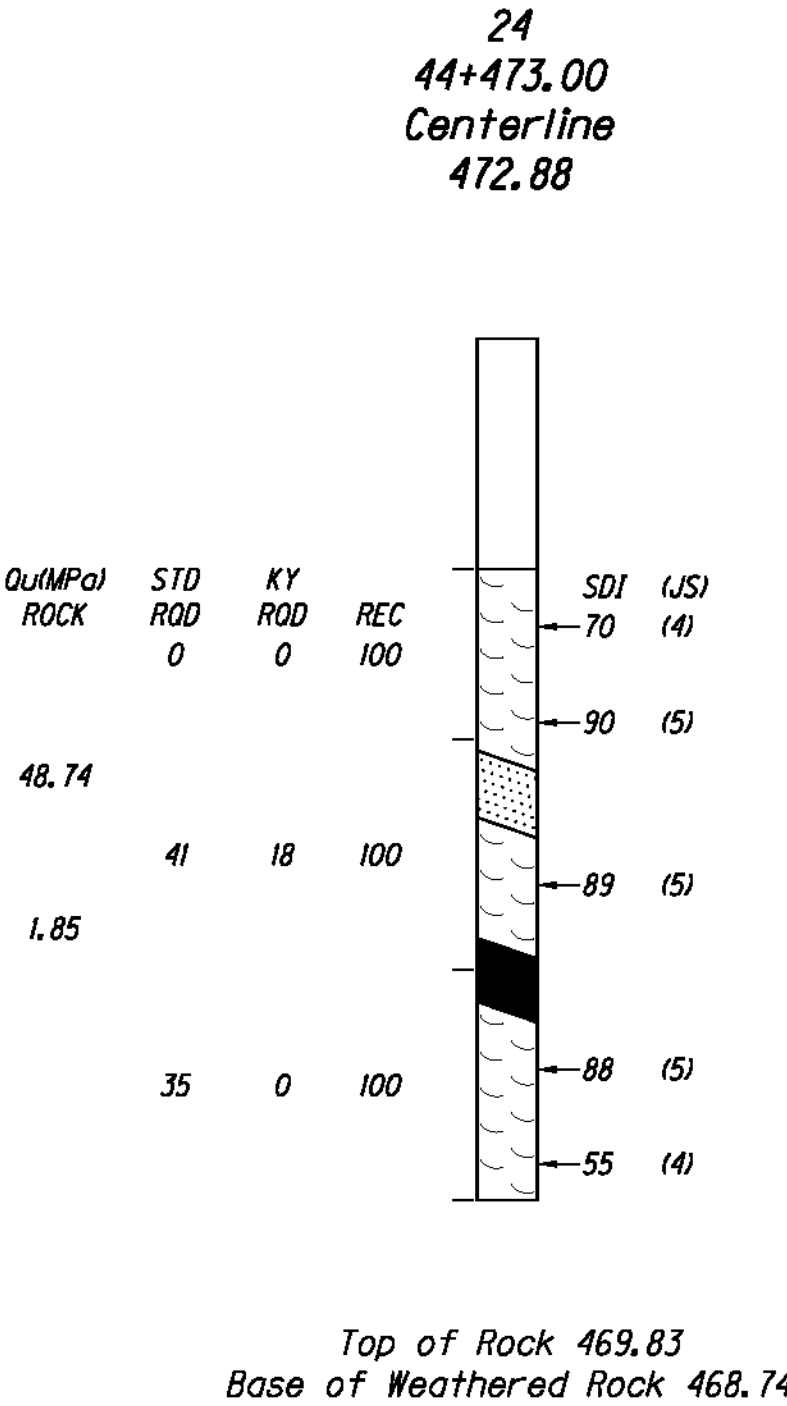
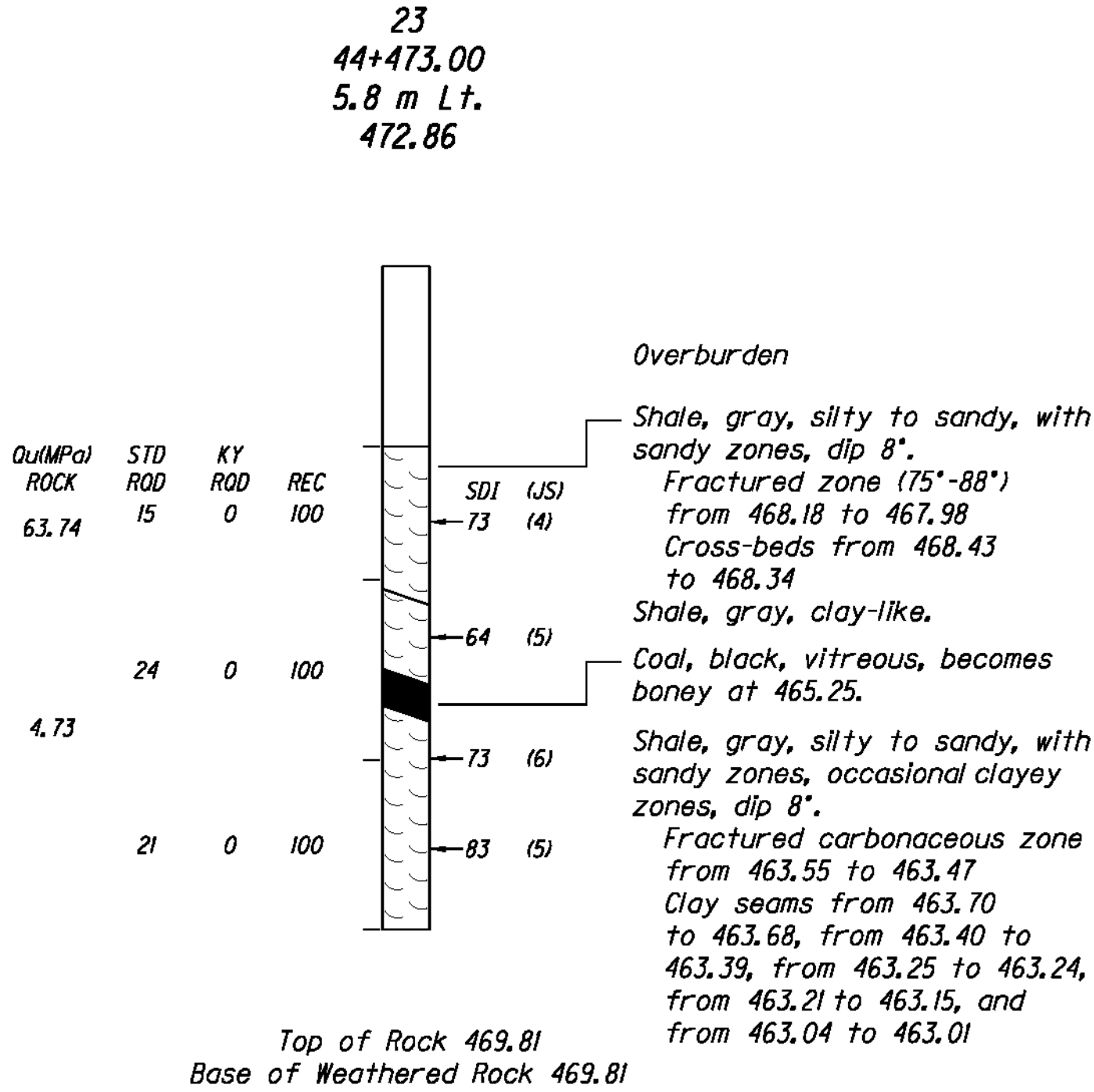
Sheet 7 of 13
ITEM NO.
12-311.10
METRIC

Scale: 1:100
(Vertical Only)

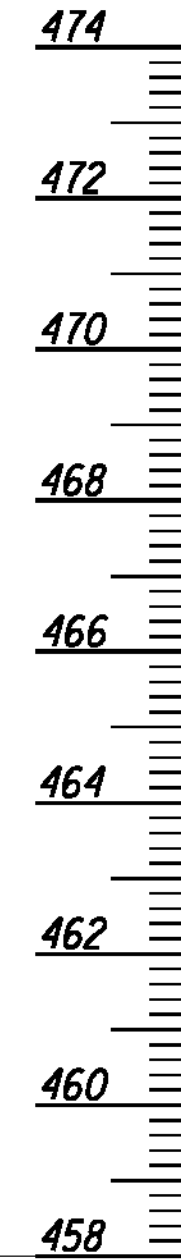
SUBSURFACE DATA

Pier 8

Hole No.
Location
Offset
Elev.

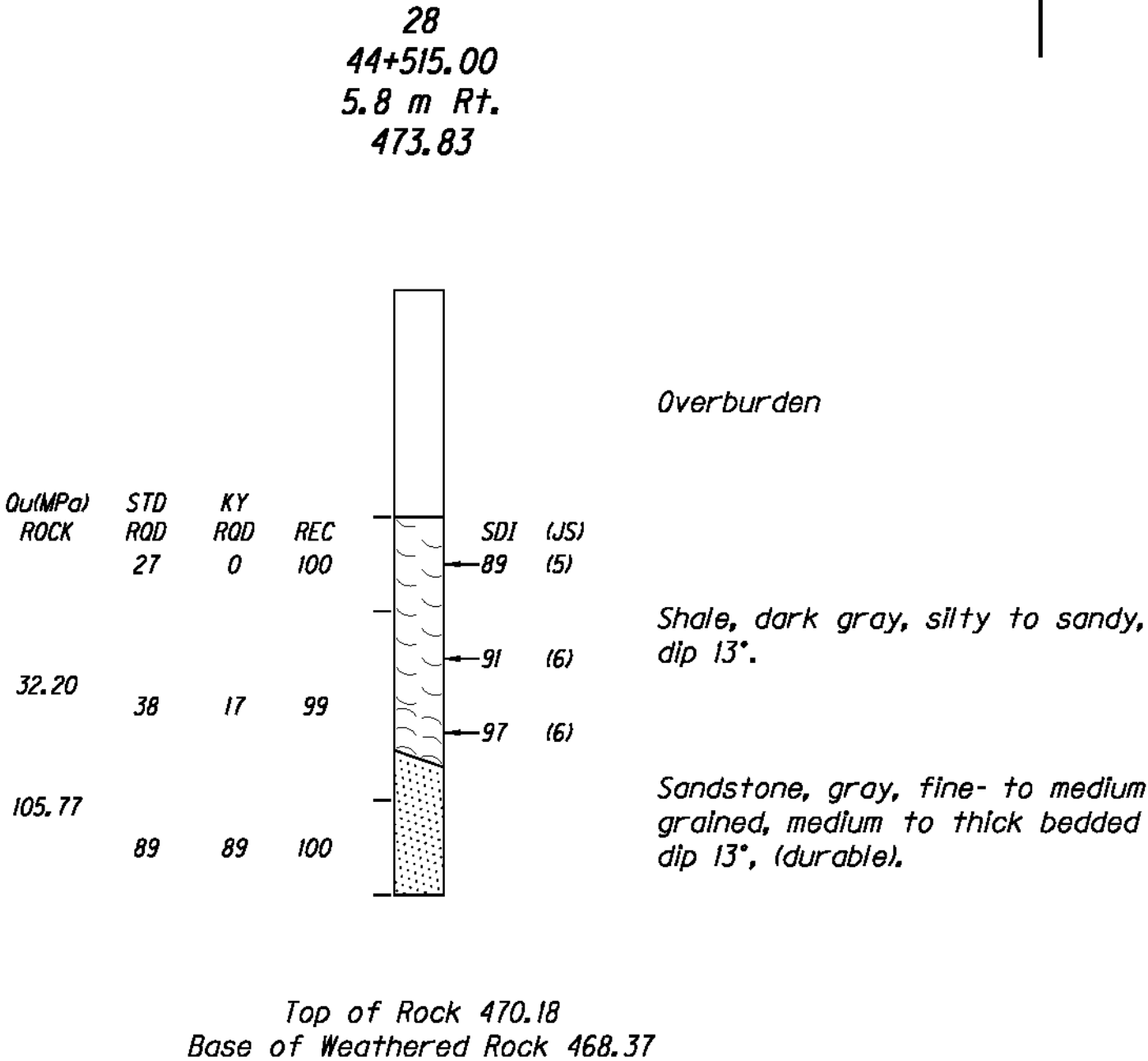
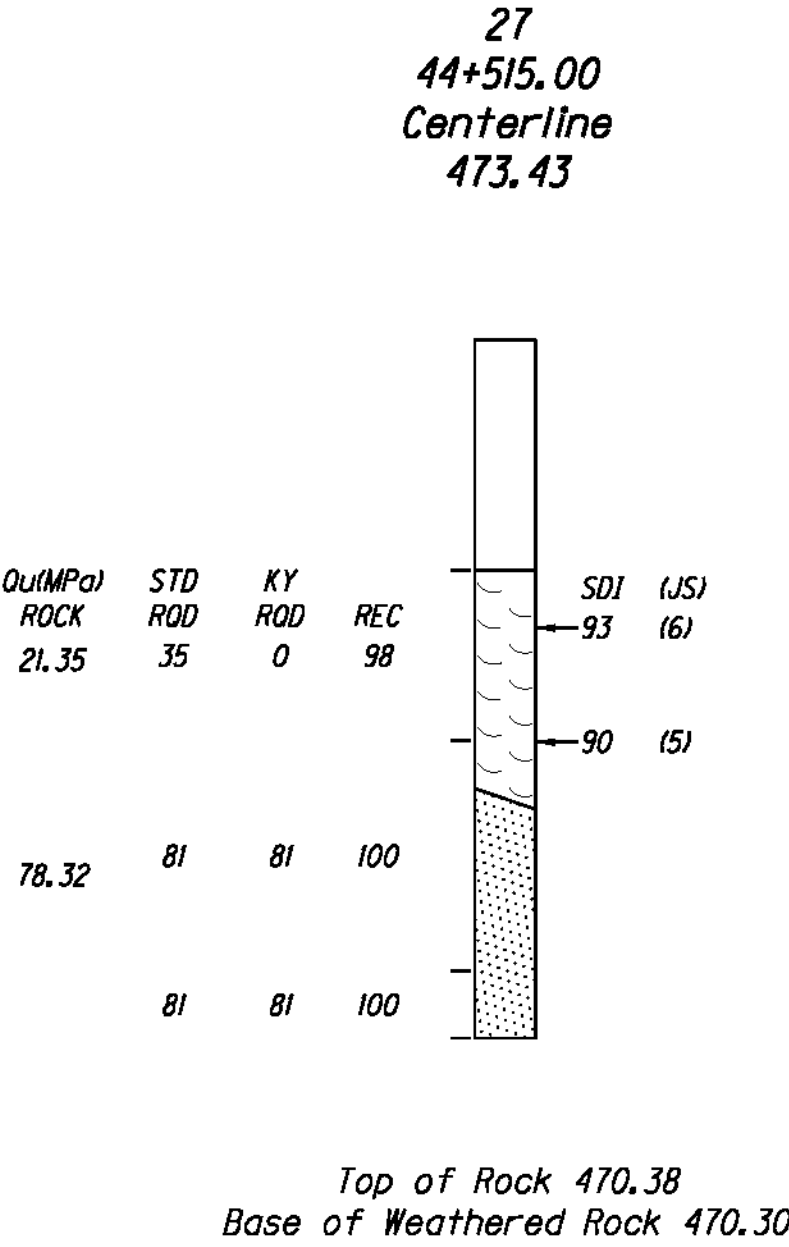
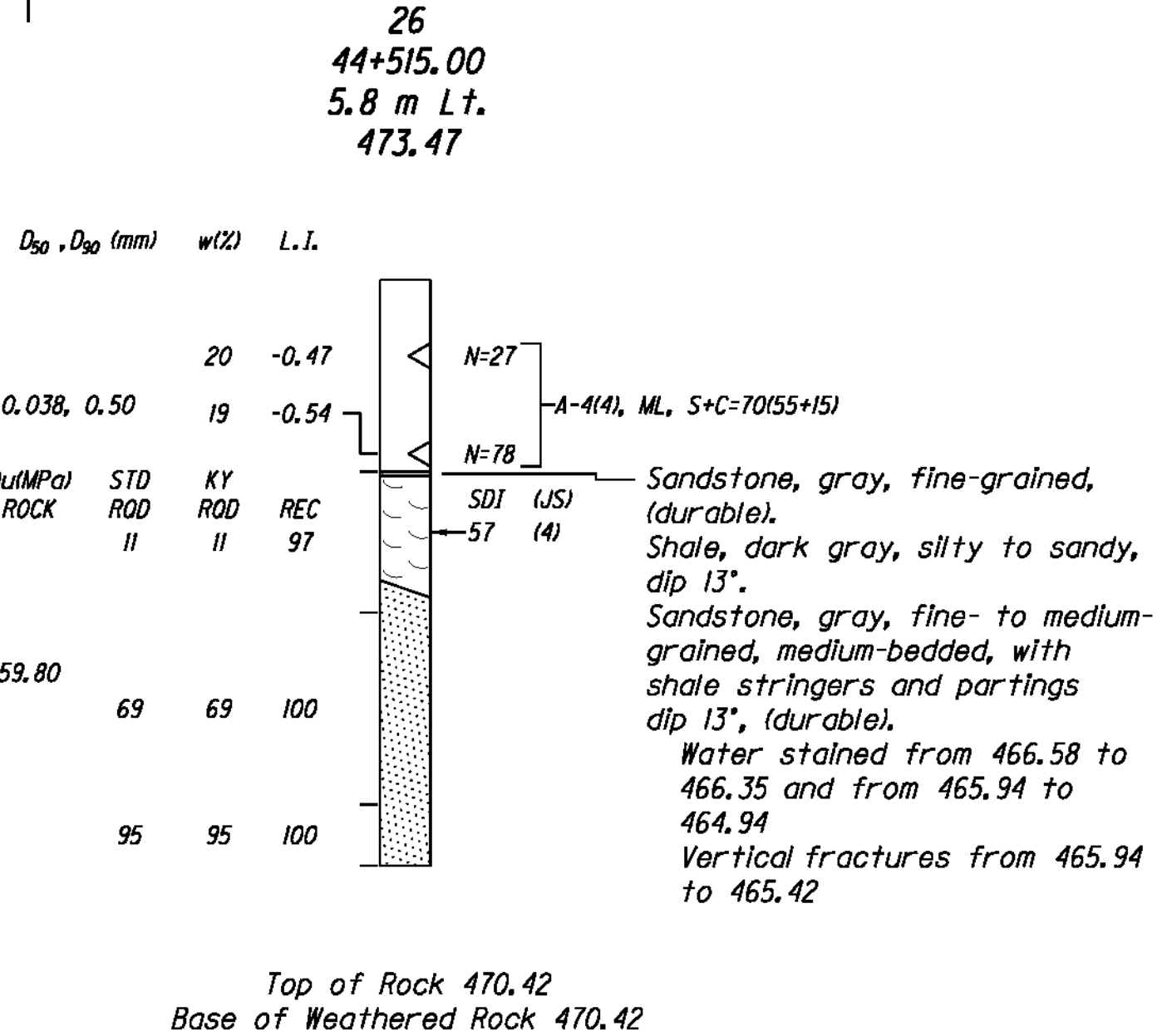
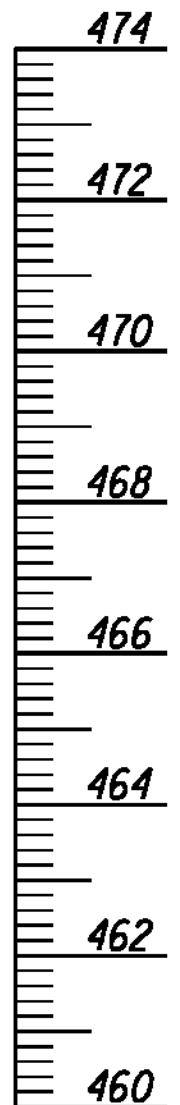


Hole No.
Location
Offset
Elev.



Pier 9

Hole No.
Location
Offset
Elev.



NOTE:

	Station 44+240	Station 44+610
Centerline Bearing	= N74°E	= N57°E
Strike of Bedding	= N65°E	= N65°E
True Dip	= 19°SE	= 19°SE
Apparent Dip X-Section	= 19°SE	= 15°SE
Apparent Dip Centerline	= -3°	= +3°

NOTES:

1. This sheet presents geotechnical data and recommendations. Refer to project plans, profiles, and cross sections for final alignment and grade.

2. Surface elevations are referenced to mean sea level.

US 119 Bridge at Sta. 44+426.5

REVISION		DATE
DATE: AUGUST, 2001	CHECKED BY	
DESIGNED BY:		
DETAILED BY: TJ	MAL/BF	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY		
LETCHER		
ROUTE	CROSSING	
US 119	Poor Fork of the Cumberland River	
LOGS OF BORINGS		
PREPARED BY		
JSM ENGINEERS		
SHEET NO. S14		
DRAWING NO. 25296		

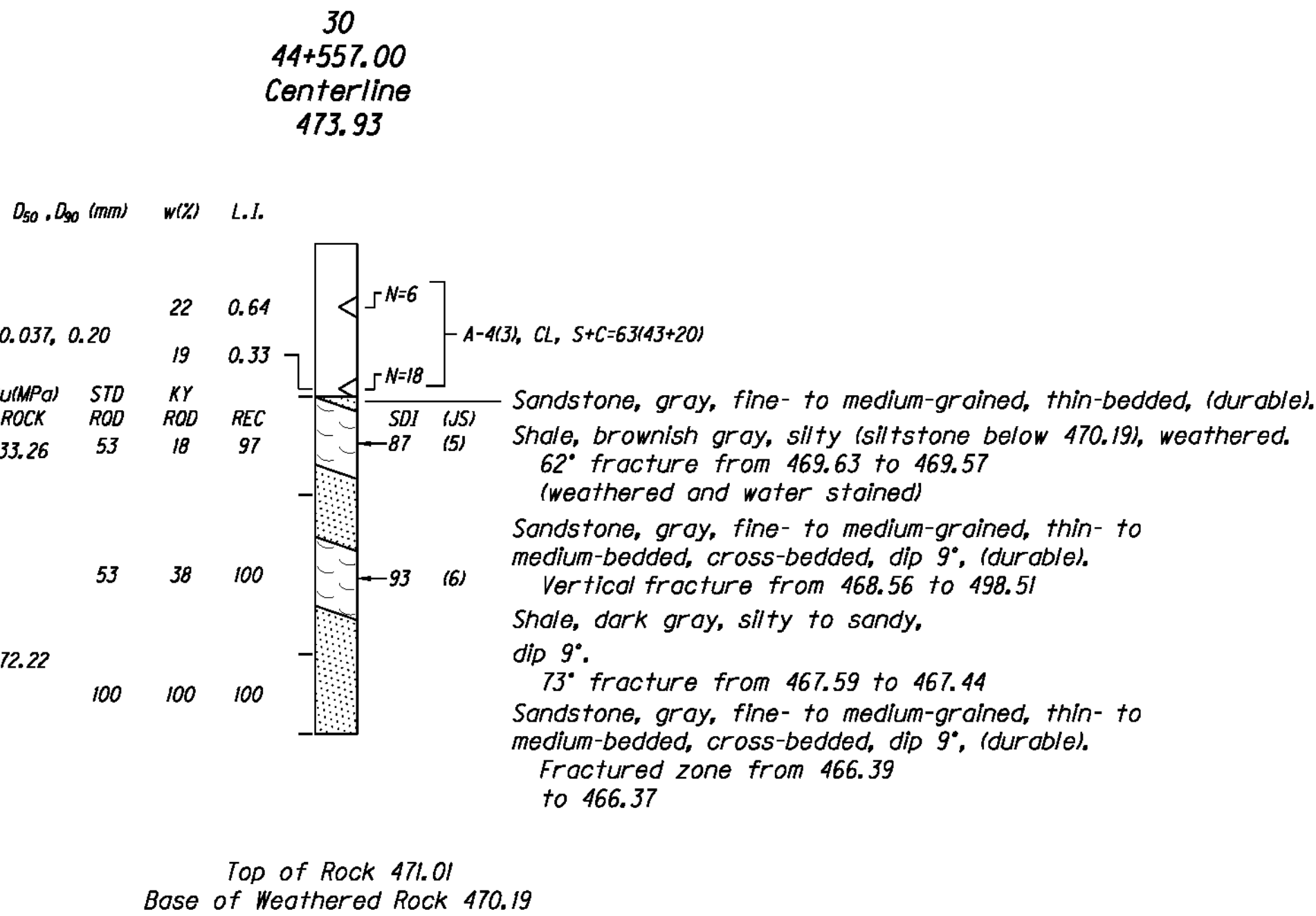
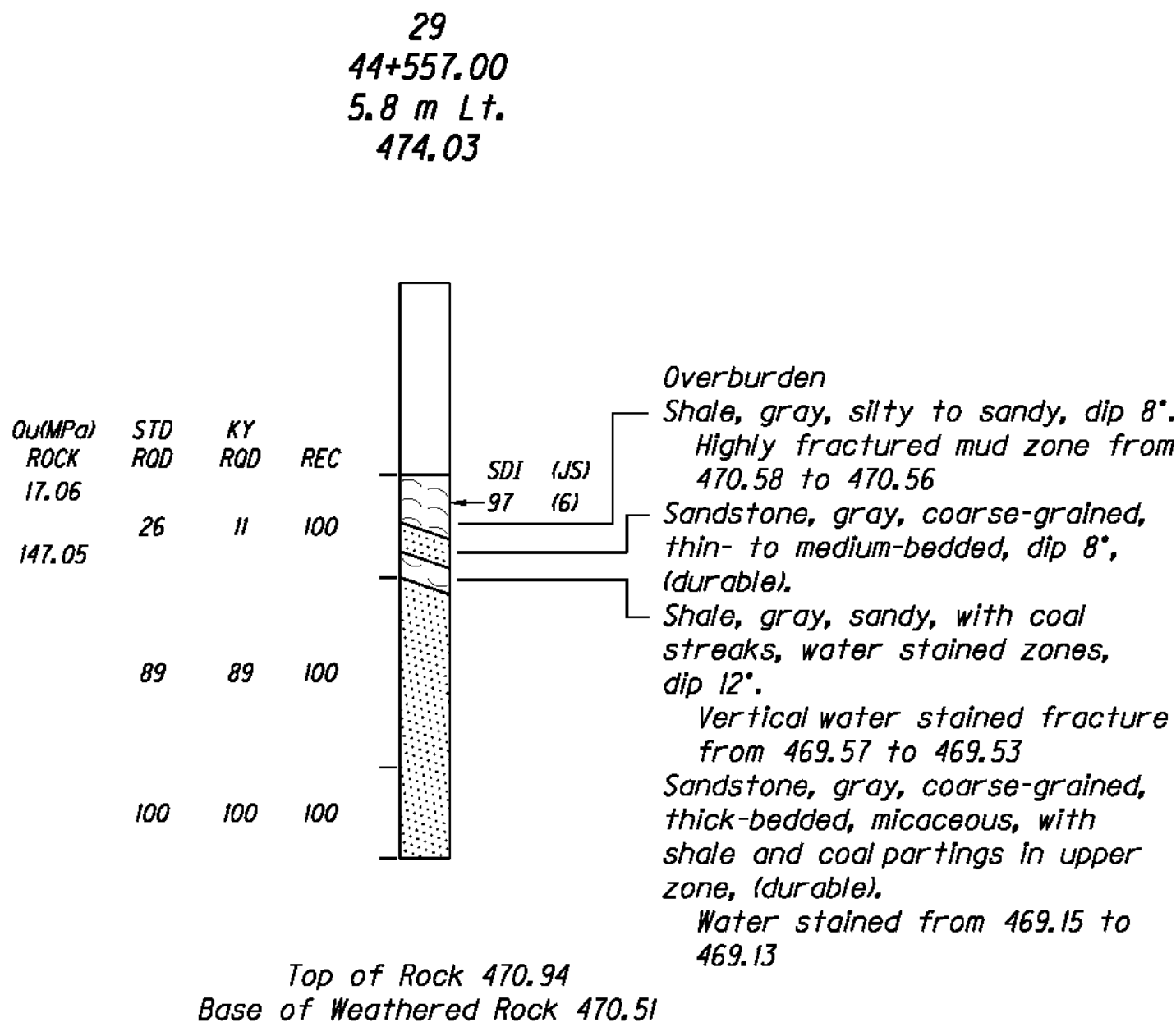
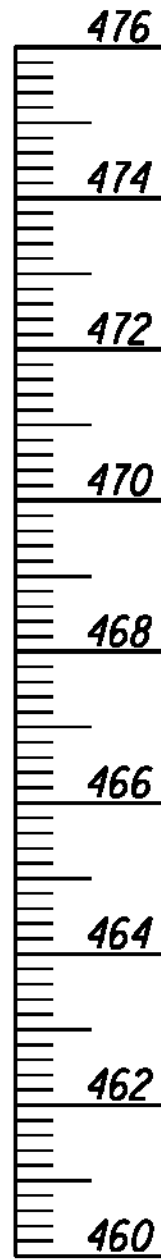
Scale: 1:100
(Vertical Only)

Sheet 8 of 13
ITEM NO.
12-311.10
METRIC

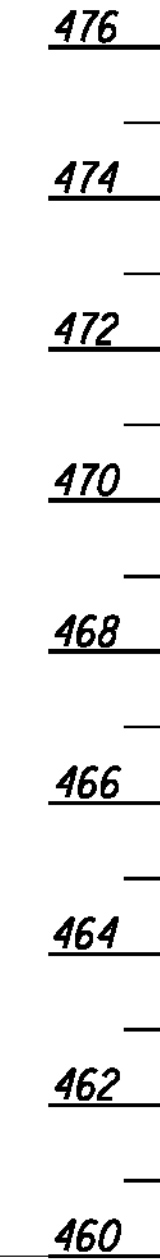
SUBSURFACE DATA

Pier 10

Hole No.
Location
Offset
Elev.

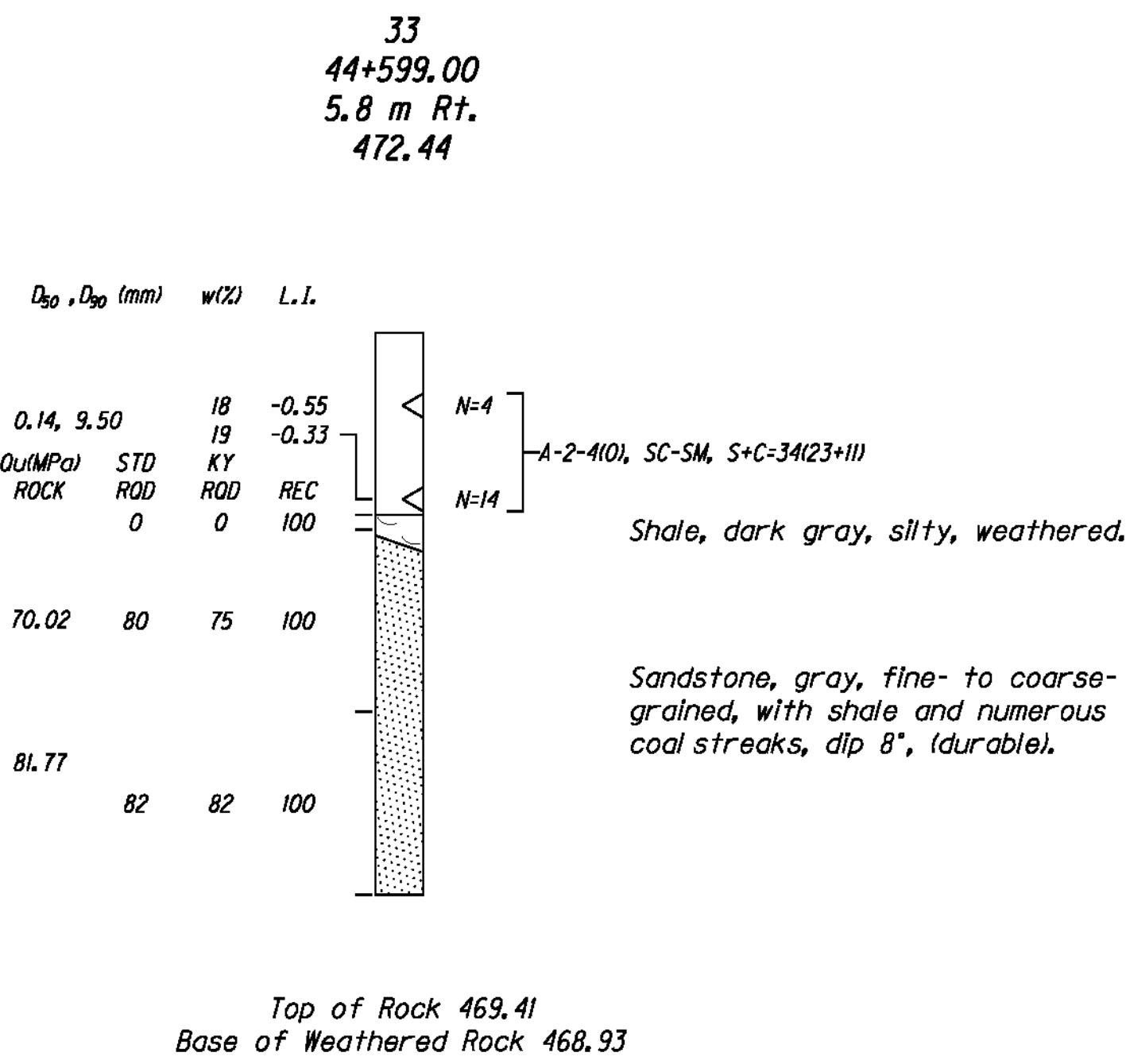
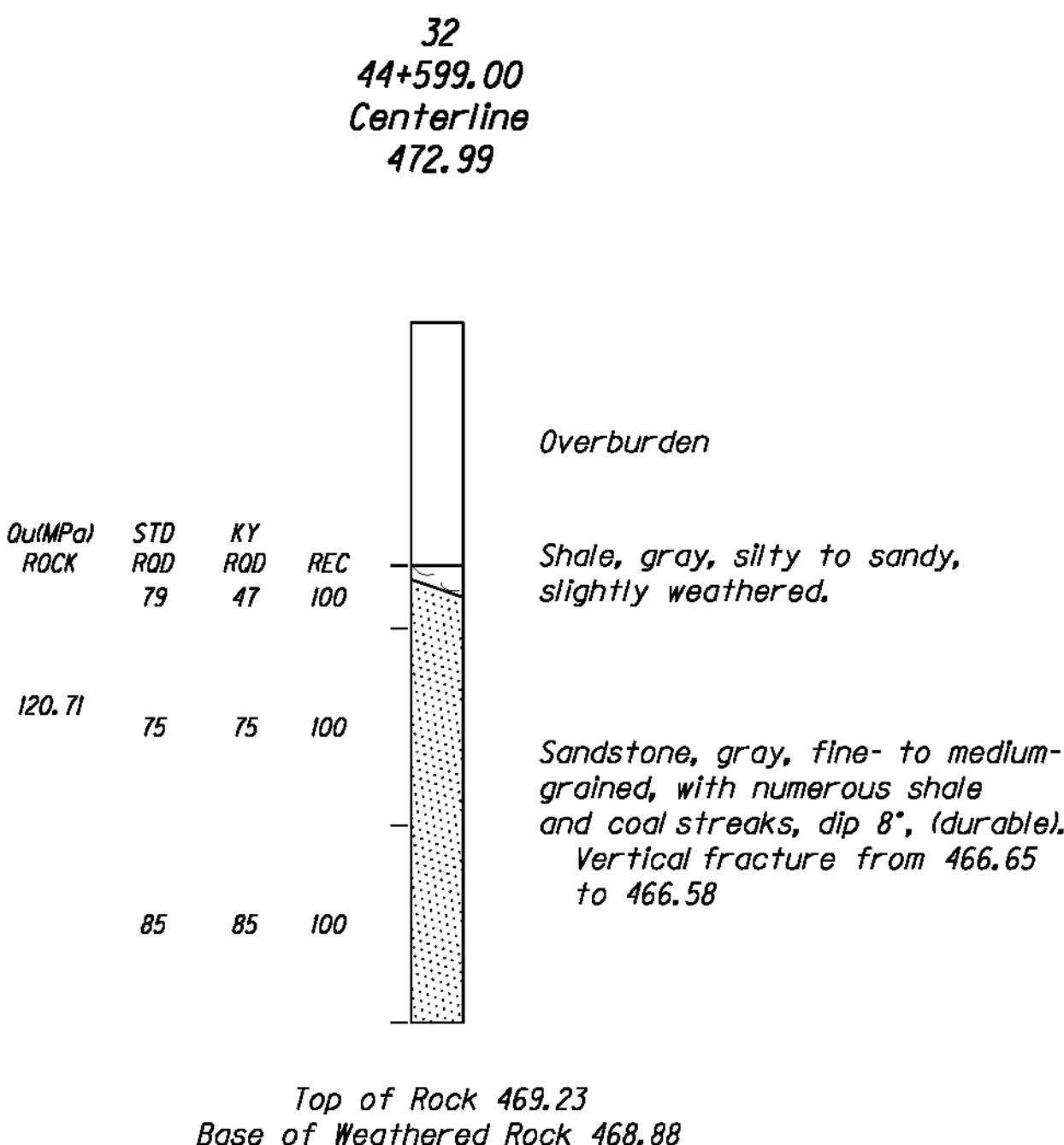
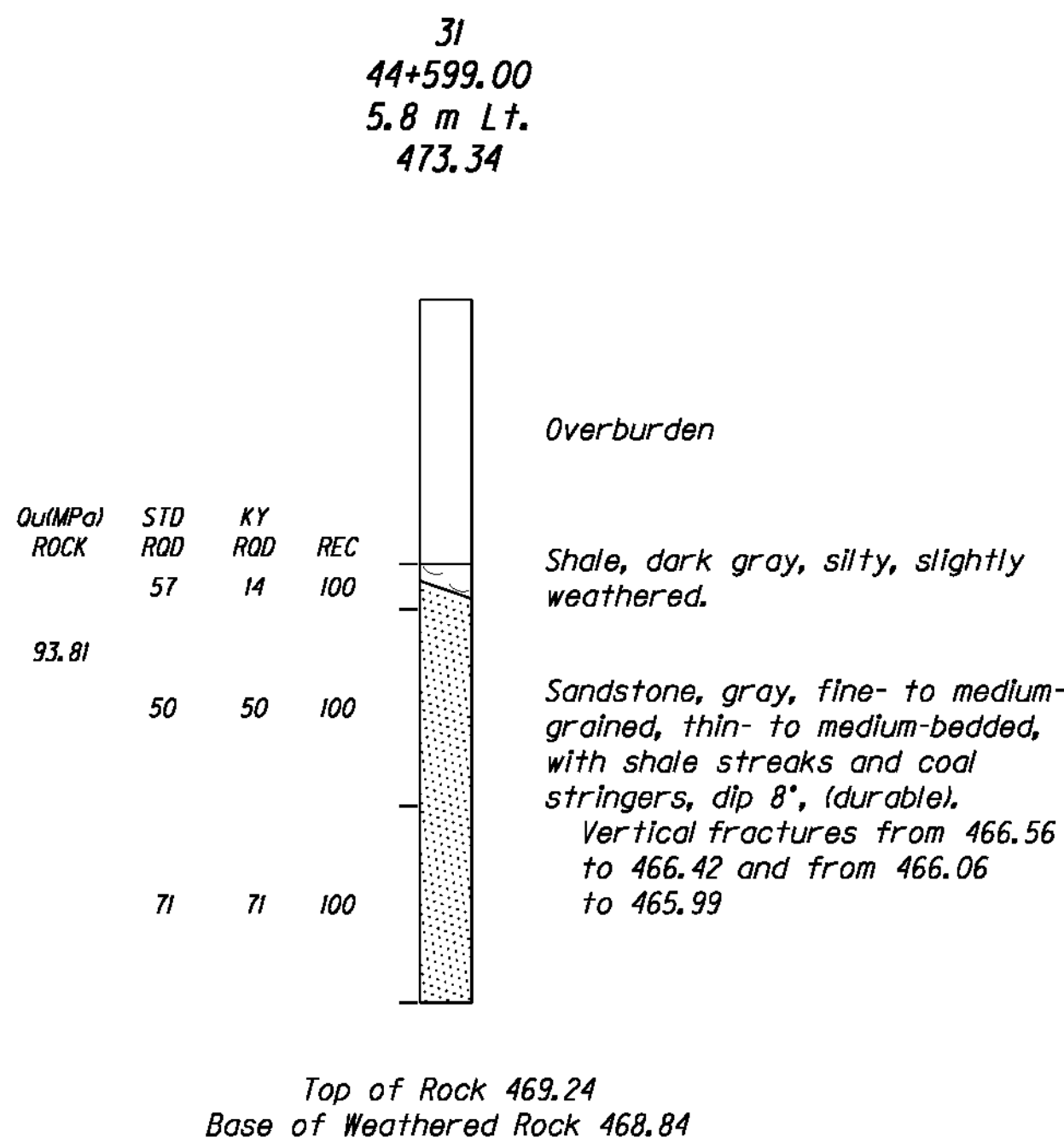
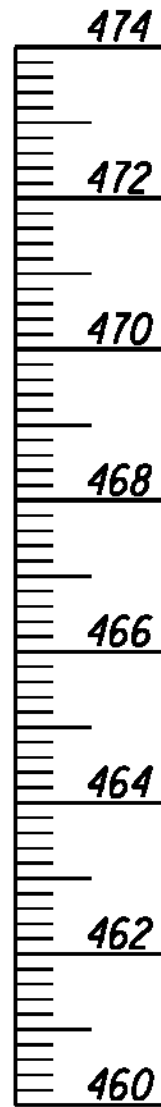


Hole No.
Location
Offset
Elev.

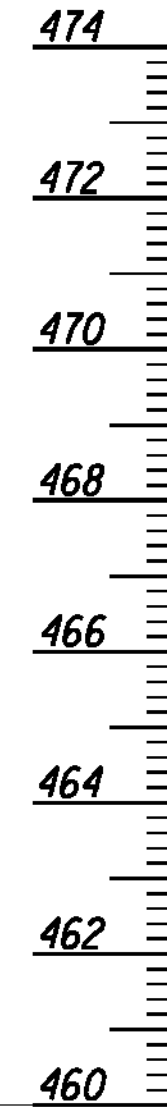


Pier 11

Hole No.
Location
Offset
Elev.



Hole No.
Location
Offset
Elev.



NOTE:
Station 44+610
Centerline Bearing = N57°E
Strike of Bedding = N65°E
True Dip = 19°SE
Apparent Dip X-Section = 15°SE
Apparent Dip Centerline = +3°

NOTES:
1. This sheet presents geotechnical data and recommendations. Refer to project plans, profiles, and cross sections for final alignment and grade.
2. Surface elevations are referenced to mean sea level.

US 119 Bridge at Sta. 44+426.5

REVISION		DATE
DATE:	AUGUST, 2001	CHECKED BY
DESIGNED BY:		
DETAILED BY:	TJ	MAL/BF

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY
LETCHER
ROUTE US 119 CROSSING Poor Fork of Cumberland River
LOGS OF BORINGS
PREPARED BY
METRIC ENGINEERS
SHEET NO. S15
DRAWING NO. 25296

Scale: 1:100
(Vertical Only)

SUBSURFACE DATA

Pier 12

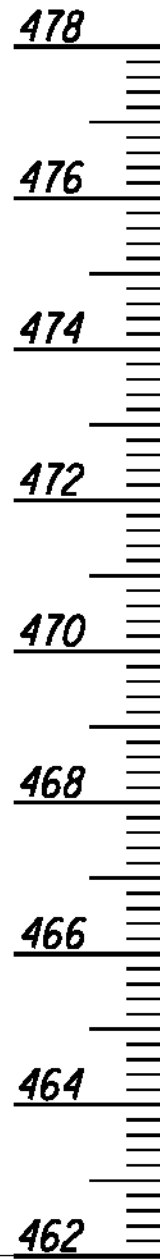
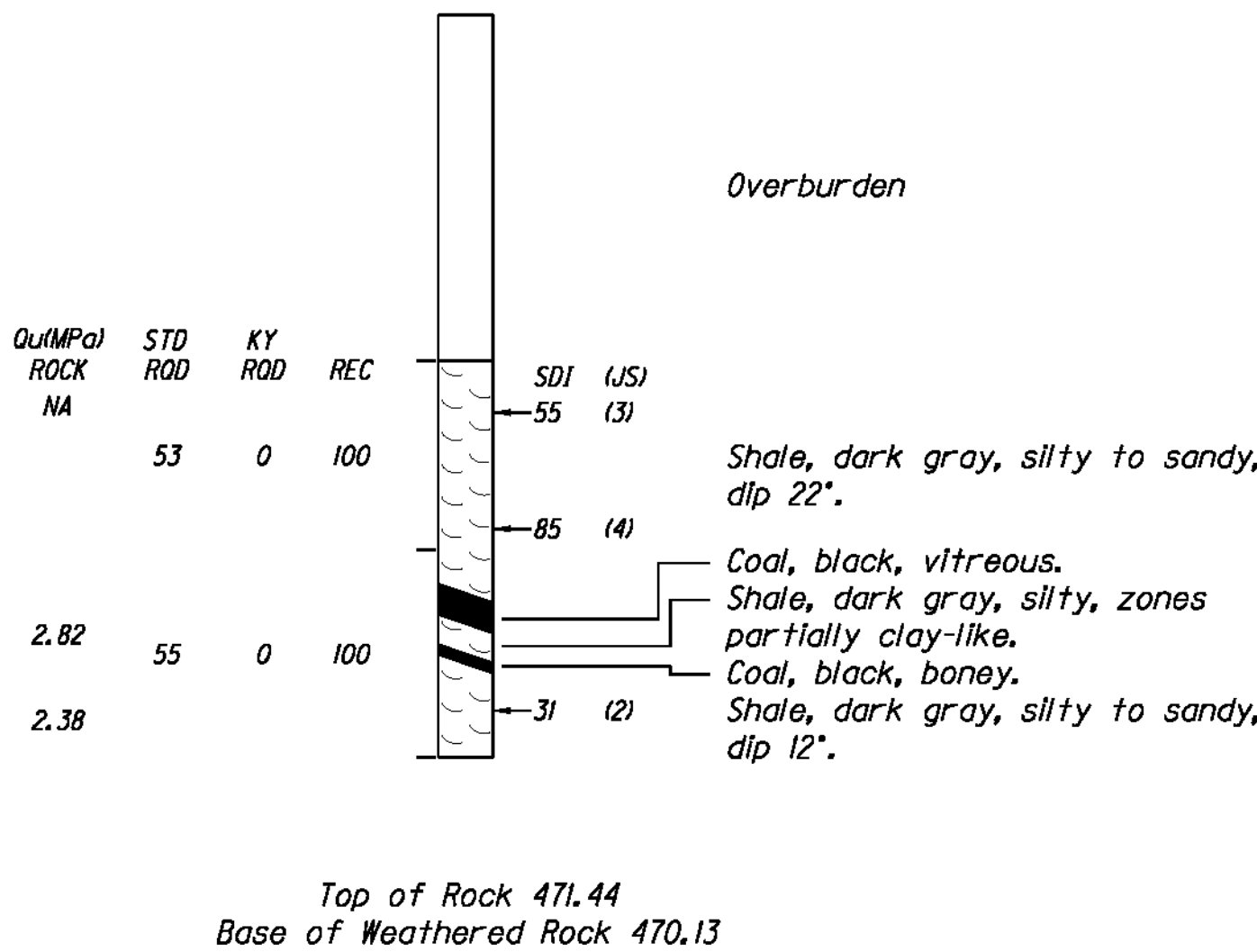
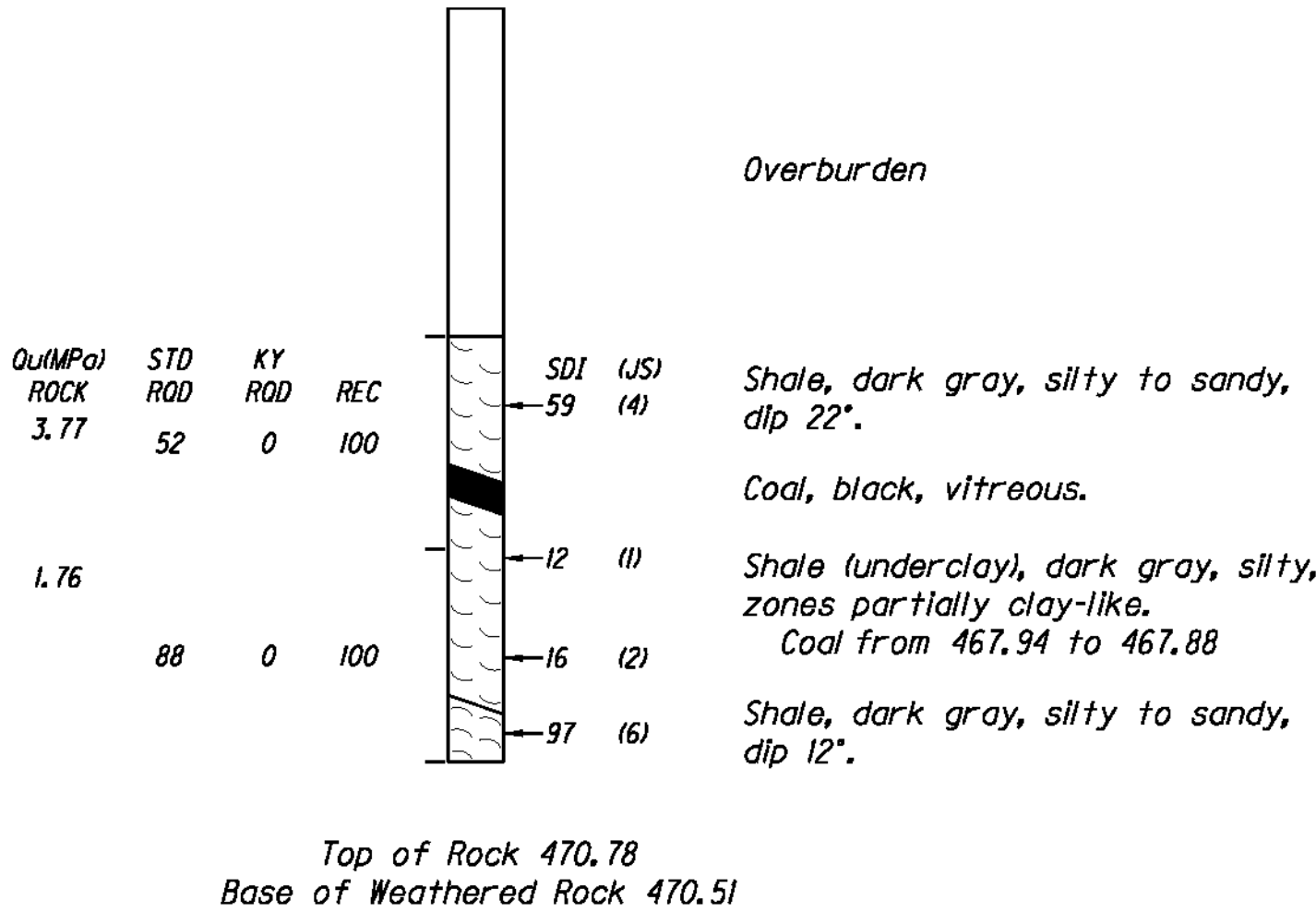
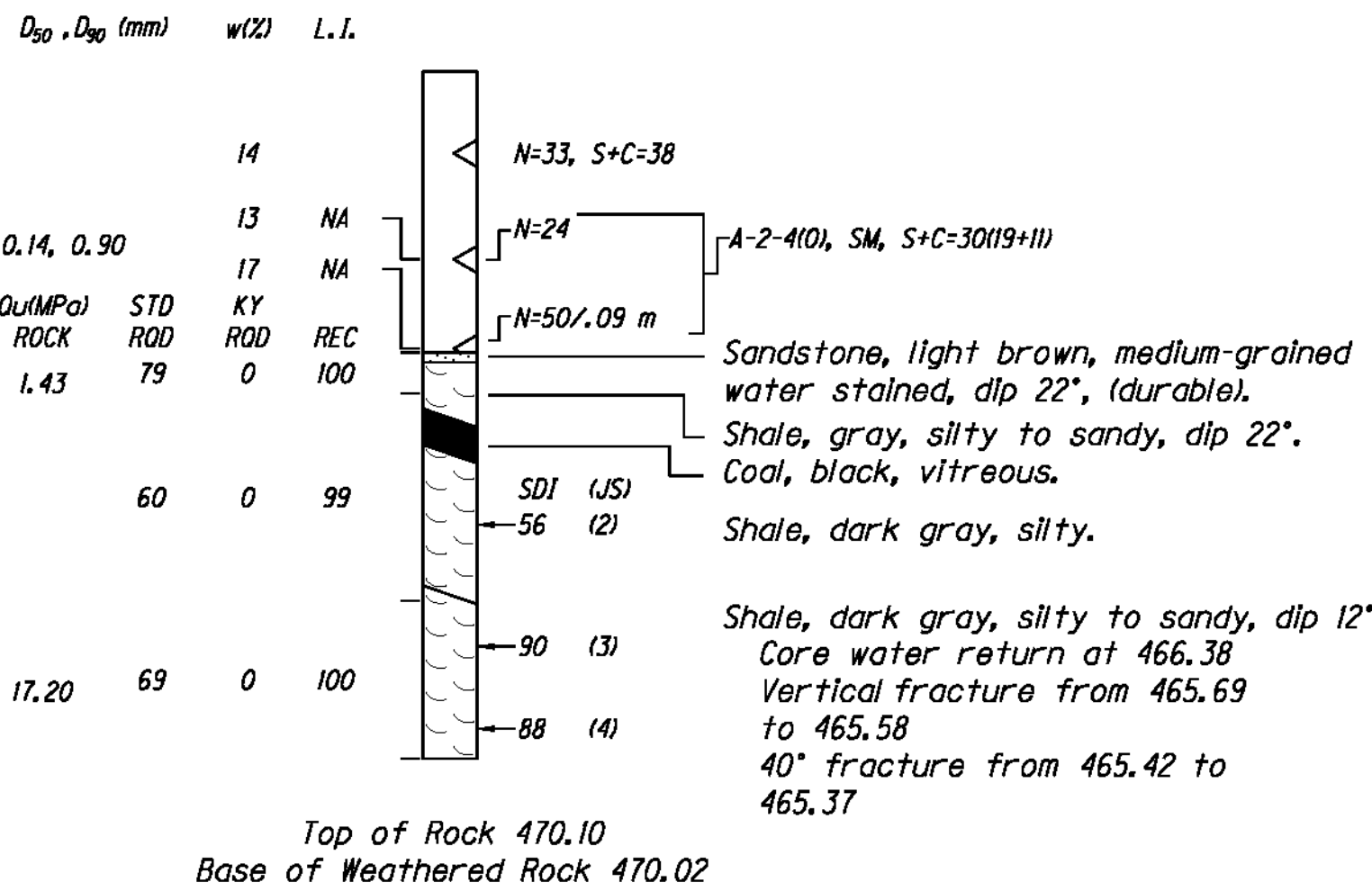
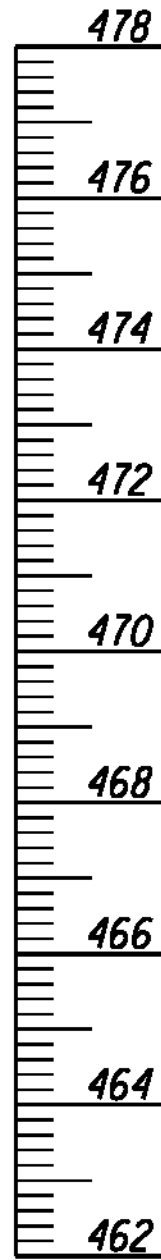
Hole No.
Location
Offset
Elev.

34
44+641.00
5.8 m Lt.
474.24

35
44+641.00
Centerline
475.48

36
44+641.00
5.8 m Rt.
476.52

Hole No.
Location
Offset
Elev.



Datum

NOTE:
Station 44+610
Centerline Bearing = N57°E
Strike of Bedding = N65°E
True Dip = 19°SE
Apparent Dip X-Section = 15°SE
Apparent Dip Centerline = +3°

NOTES:
1. This sheet presents geotechnical data and recommendations. Refer to project plans, profiles, and cross sections for final alignment and grade.
2. Surface elevations are referenced to mean sea level.

US 119 Bridge at Sta. 44+426.5

REVISION		DATE
DATE:	AUGUST, 2001	CHECKED BY
DESIGNED BY:		
DETAILED BY:	TJ	MAL/BF
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE US 119	CROSSING Poor Fork of the Cumberland River	
LOGS OF BORINGS		
PREPARED BY METRIC ENGINEERS		SHEET NO. S16 DRAWING NO. 25296

Sheet 10 of 13
ITEM NO.
12-311.10
METRIC

Scale: 1:100
(Vertical Only)

SUBSURFACE DATA

Pier 13

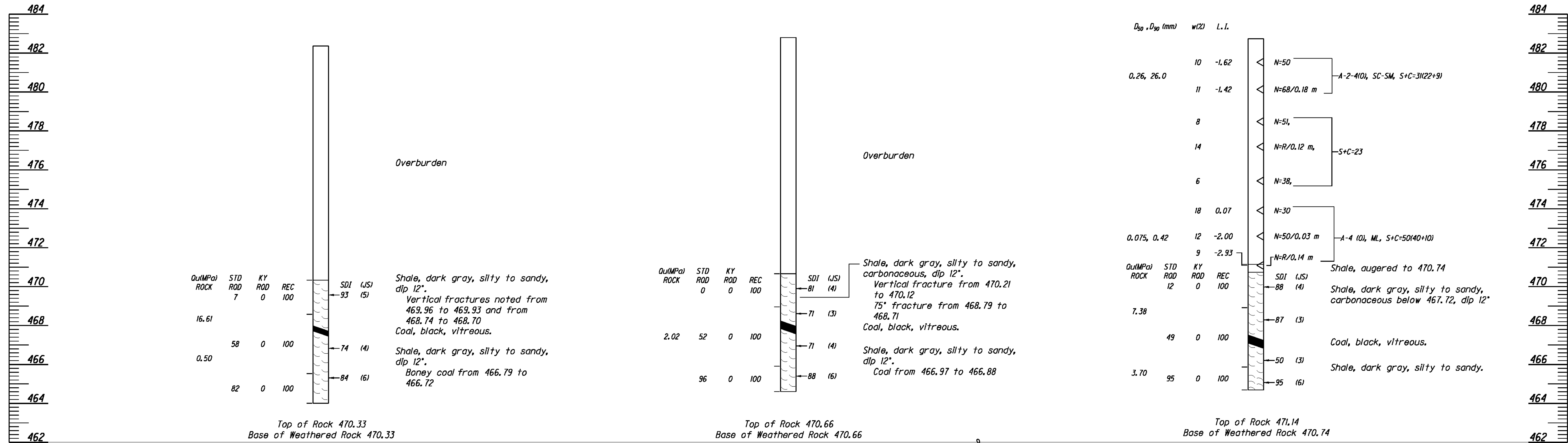
Hole No.	Location	Offset	Elev.
----------	----------	--------	-------

37
44+683.17
5.8 m Lt.
482.37

38
44+674.00
Centerline
482.80

39
44+664.83
5.8 m Rt.
482.74

Hole No.	Location	Offset	Elev.
----------	----------	--------	-------



—Datum

NOTE:

Station 44+610
Centerline Bearing = N57°E
Strike of Bedding = N65°E
True Dip = 19°SE
Apparent Dip X-Section = 15°SE
Apparent Dip Centerline = +3°

NOTES:

1. This sheet presents geotechnical data and recommendations. Refer to project plans, profiles, and cross sections for final alignment and grade.
2. Surface elevations are referenced to mean sea level.

US 119 Bridge at Sta. 44+426.5

REVISION		DATE	
DATE:	AUGUST, 2001	CHECKED BY	
DESIGNED BY:			
DETAILED BY:	TJ	MAL/BF	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE	CROSSING		
US 119	Poor Fork of the Cumberland River		
LOGS OF BORINGS			
PREPARED BY			
		SHEET NO.	
		S17	
		DRAWING NO.	
		25296	

Sheet 11 of 13

ITEM NO.
12-311.10

METRIC

Scale: 1:100
(Vertical Only)

ENGINEERS

SUBSURFACE DATA

End Bent No. 2
Approximate Roadway Elevation = 489.10

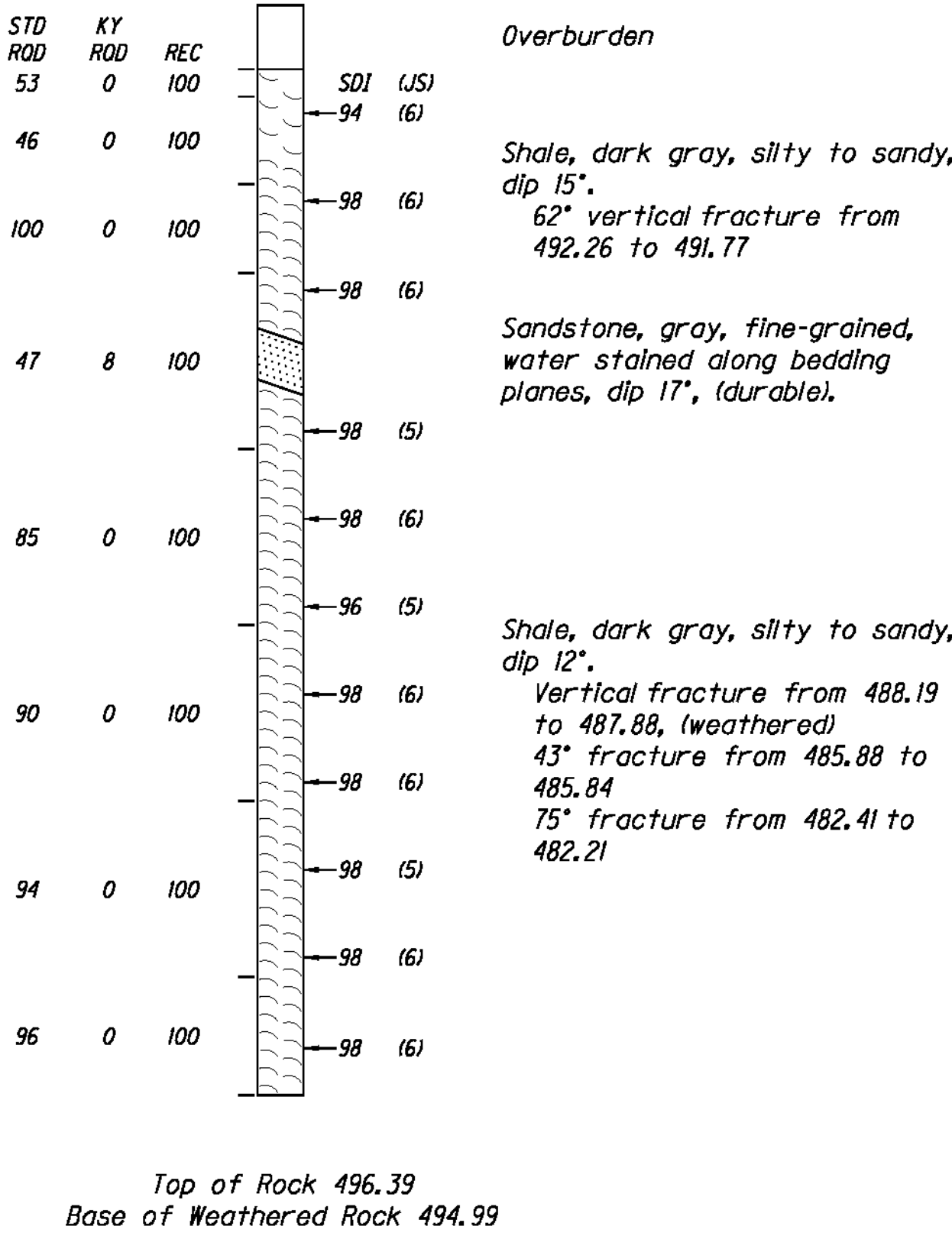
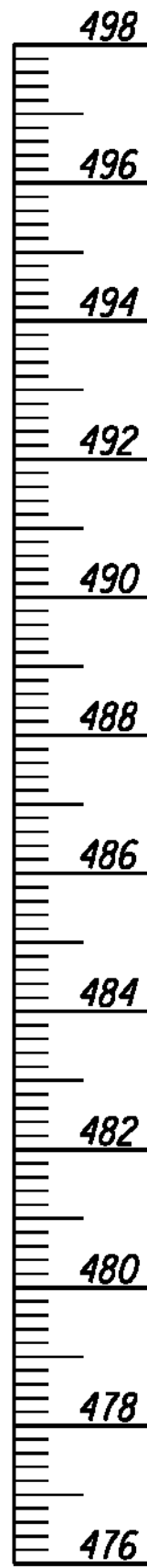
Hole No.
Location
Offset
Elev.

40
44+736.50
5.8 m Lt.
497.50

41
44+716.00
Centerline
490.58

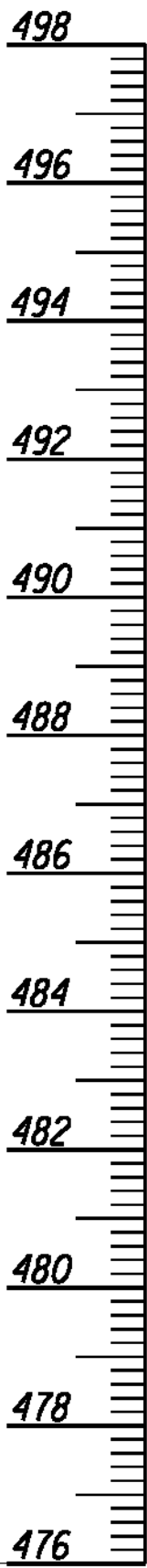
42
44+708.50
5.8 m Rt.
490.36

Hole No.
Location
Offset
Elev.



R(490, 28)

R(489, 99)



Datum

NOTE:
Station 44+610
Centerline Bearing = N57°E
Strike of Bedding = N65°E
True Dip = 19°SE
Apparent Dip X-Section = 15°SE
Apparent Dip Centerline = +3°

NOTES:
1. This sheet presents geotechnical data and recommendations. Refer to project plans, profiles, and cross sections for final alignment and grade.
2. Surface elevations are referenced to mean sea level.

US 119 Bridge at Sta. 44+426.5

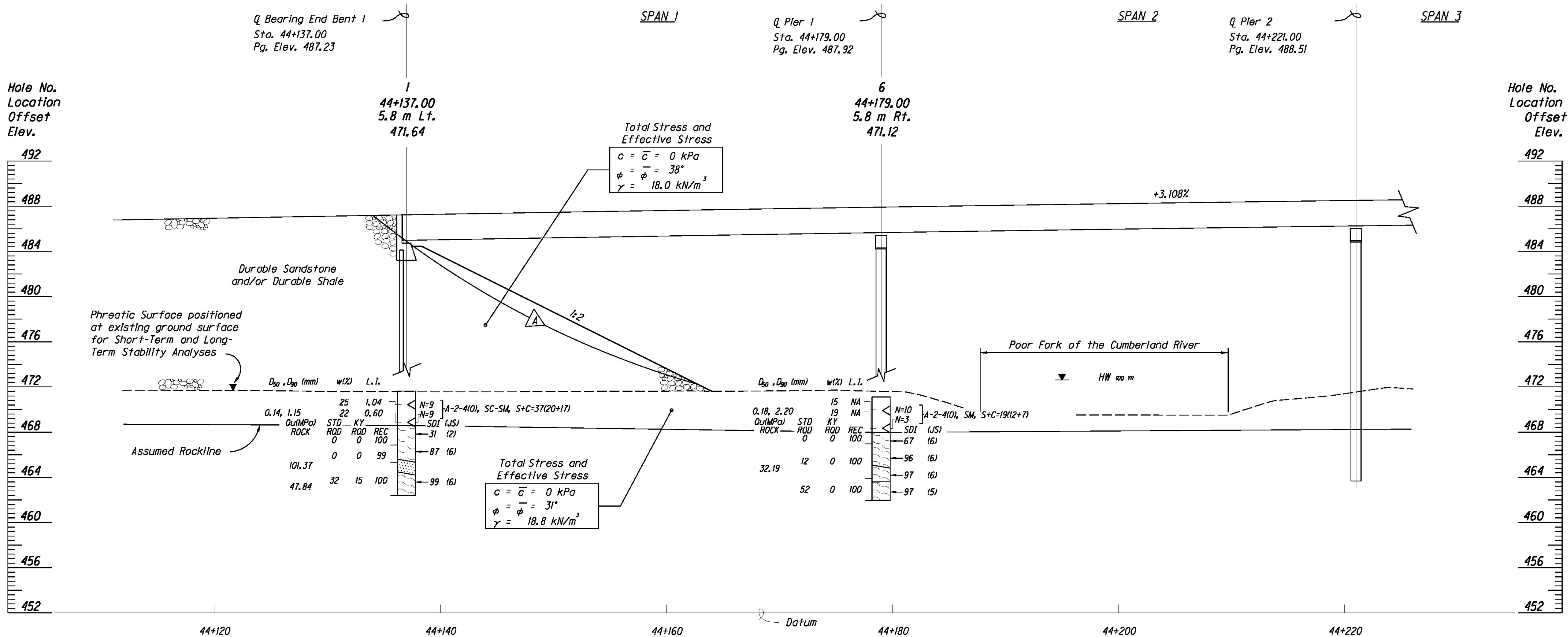
REVISION		DATE	
DATE:	AUGUST, 2001	CHECKED BY	
DESIGNED BY:			
DETAILED BY:	TJ	MAL/BF	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE US 119	CROSSING Poor Fork of the Cumberland River		
LOGS OF BORINGS			
PREPARED BY		SHEET NO.	
12-311.10		S18	
METRIC		DRAWING NO. 25296	

Sheet 12 of 13
ITEM NO.
12-311.10
METRIC

Scale: 1:100
(Vertical Only)

SUBSURFACE DATA

FACTORS OF SAFETY		
Δ	Short-Term and Long-Term (Rotational)	1.6



NOTES:

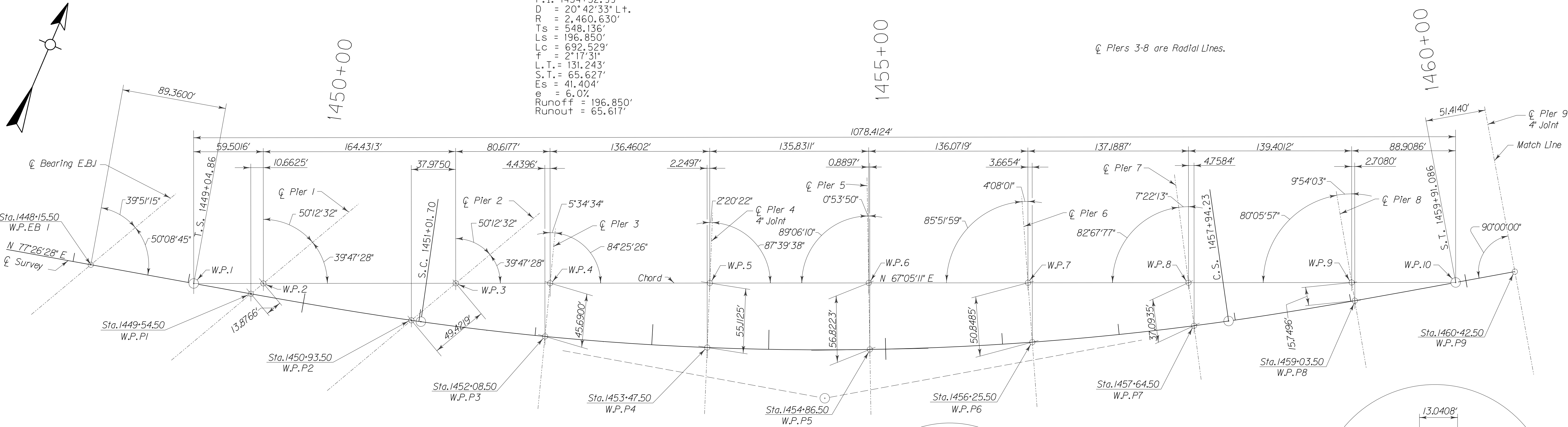
1. This sheet presents geotechnical data and recommendations. Refer to project plans, profiles, and cross sections for final alignment and grade.
2. Surface elevations are referenced to mean sea level.

US 119		Bridge at Station 44+426.5	
DATE: AUGUST, 2001		CHECKED BY:	
DESIGNED BY: BFS		MAL/BF	
DETAILED BY: BFS		MAL/BF	
Commonwealth of Kentucky			
DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE		CROSSING	
US 119		POOR FORK OF CUMBERLAND RIVER	
APPROACH EMBANKMENT STABILITY ANALYSIS			
PREPARED BY:		SHEET NO.	
METRIC		S19	
DRAWING NO.		25296	

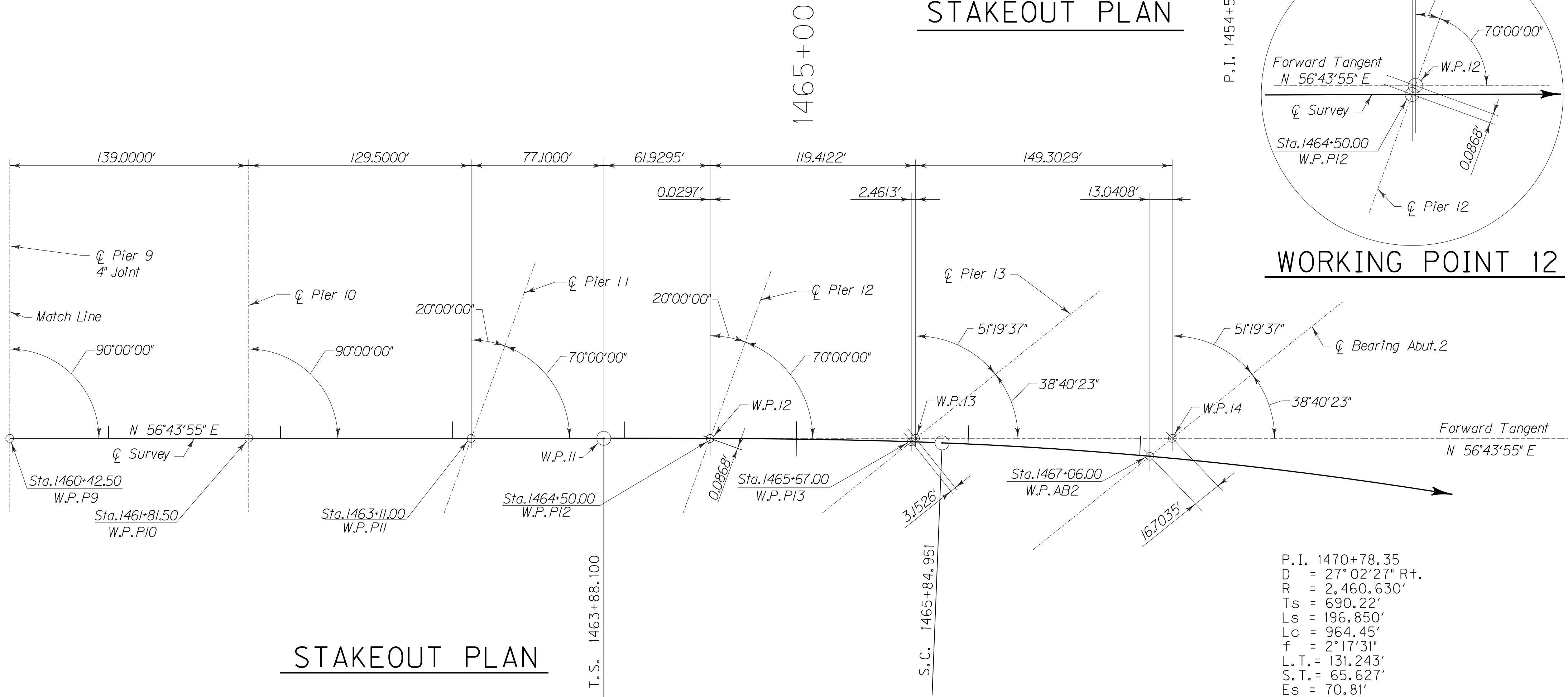
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\$\$\$\$plotted\$by\$\$\$\$

\$\$\$\$DATE\$\$\$\$

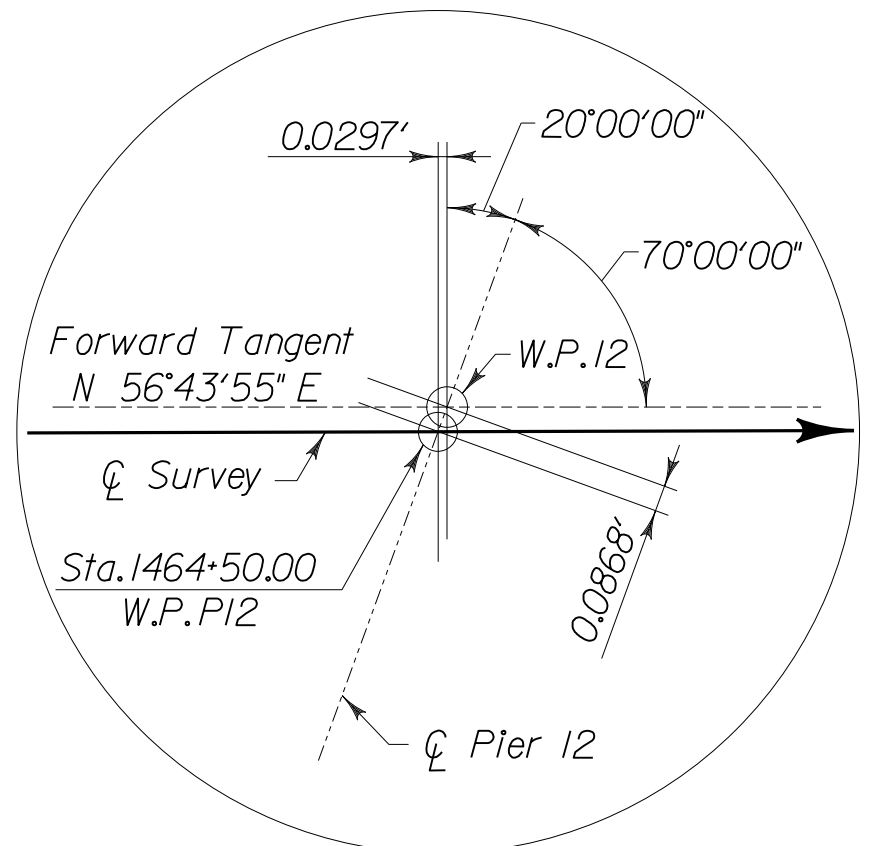


STAKEOUT PLAN

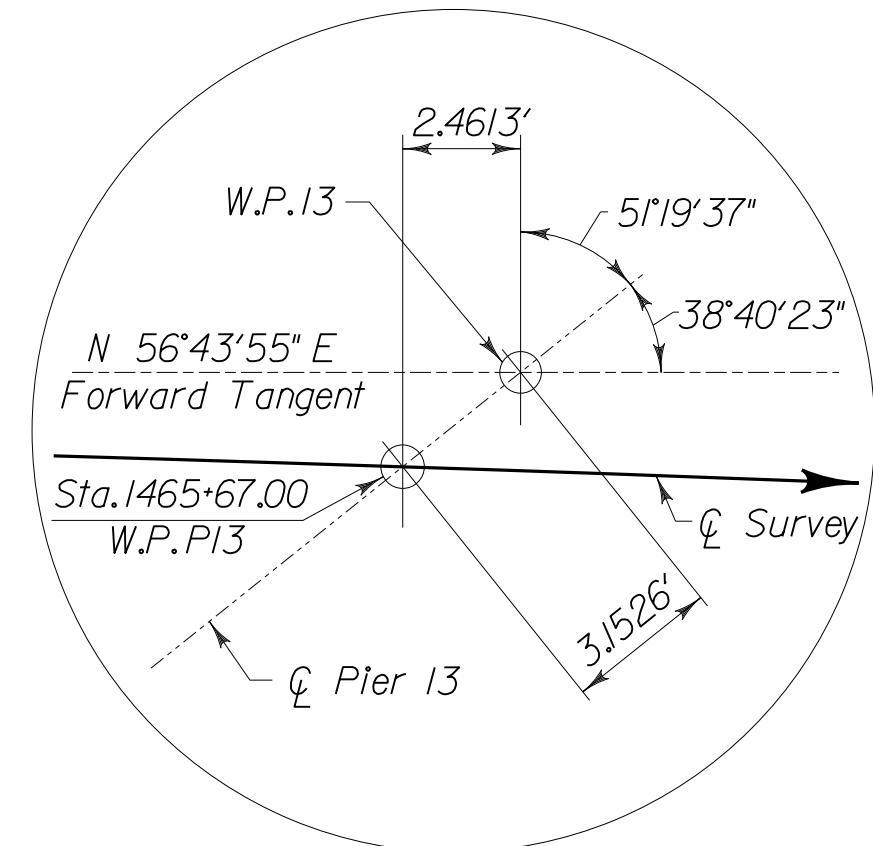


STAKEOUT PLAN

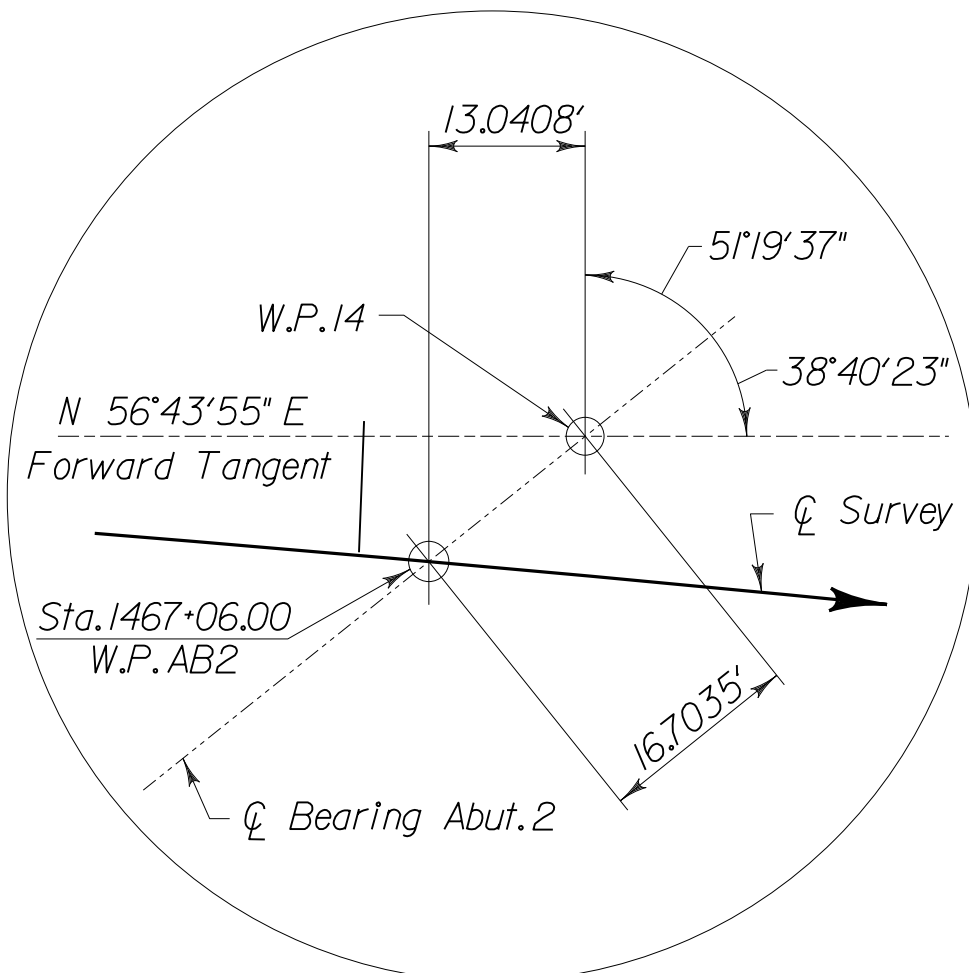
WORKING POINT 12



WORKING POINT 13



WORKING POINT 14



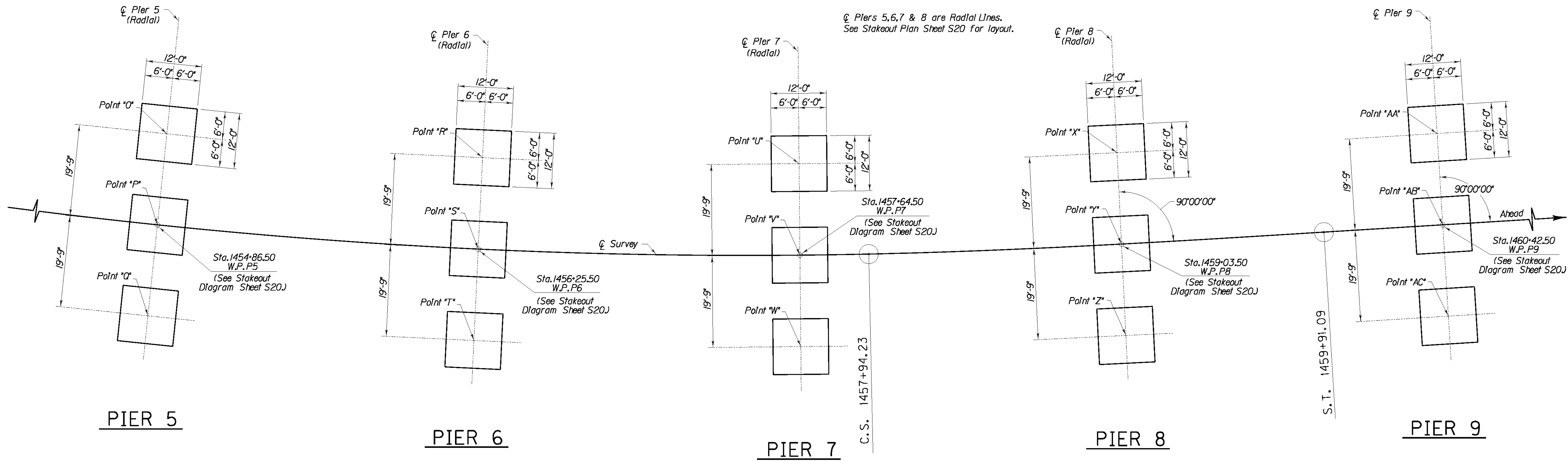
ITEM NUMBER
12-311.35

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U.S. 119		CROSSING POOR FORK CUMBERLAND RIVER	
STAKEOUT DIAGRAM			
PREPARED BY		SHEET NO.	
T.H.E. ENGINEERS, INC.		S20	
		DRAWING NO.	
		25296	

\$\$\$\$designsfile\$specification\$\$\$\$

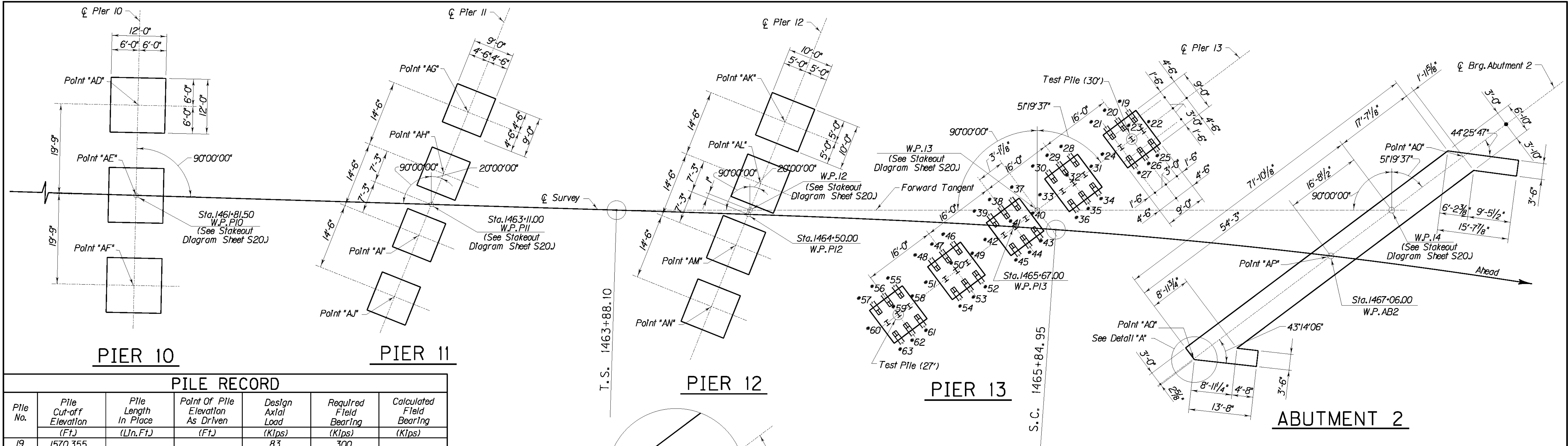
\$\$\$\$plottedby\$\$\$\$

\$\$\$\$DATE\$\$\$\$

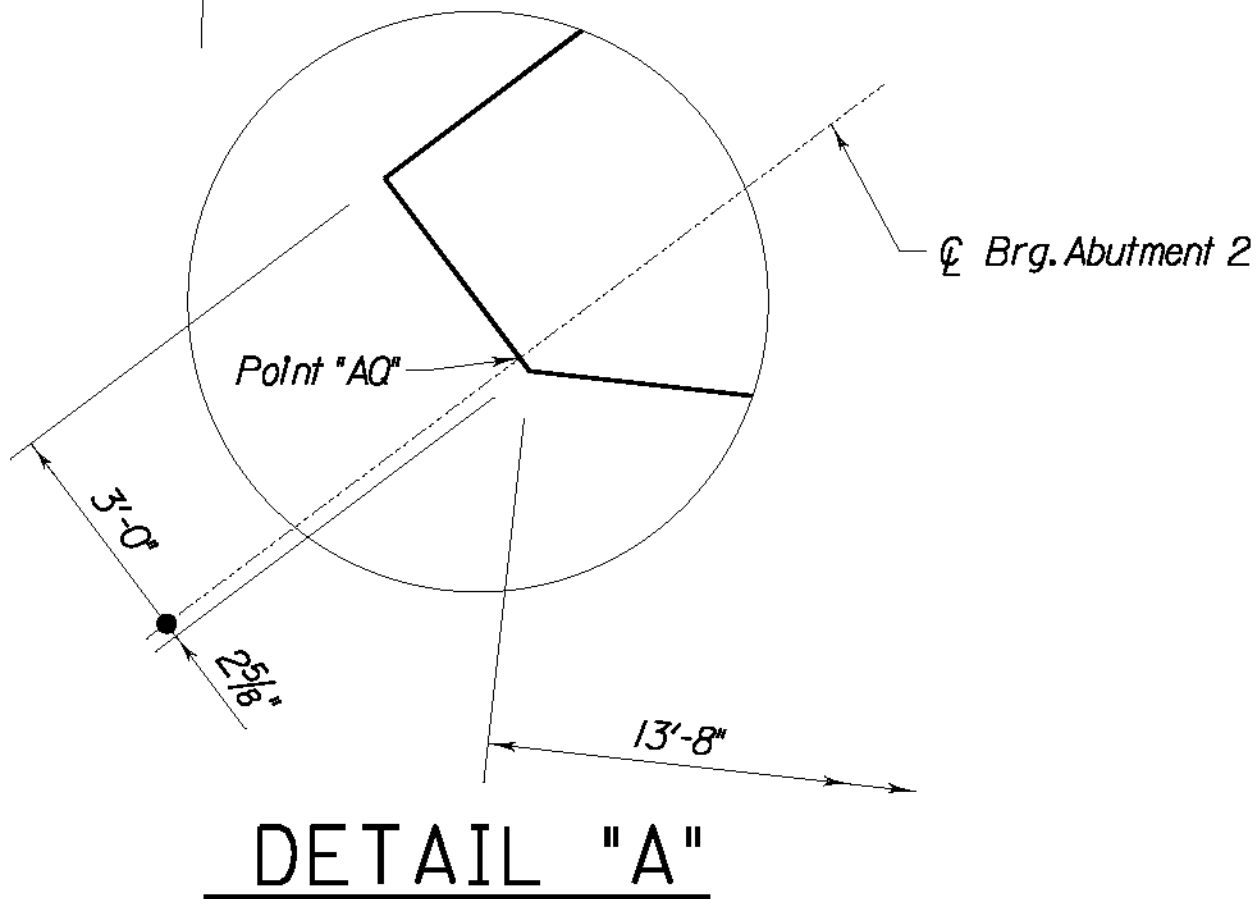


SPREAD FOOTING RECORD PIER #5			SPREAD FOOTING RECORD PIER #7			SPREAD FOOTING RECORD PIER #9		
POINT	PLAN FOOTING ELEVATION	AS-BUILT FOOTING ELEVATION	POINT	PLAN FOOTING ELEVATION	AS-BUILT FOOTING ELEVATION	POINT	PLAN FOOTING ELEVATION	AS-BUILT FOOTING ELEVATION
O	1535.310		U	1532.010		AA	1535.232	
P	1535.310		V	1532.010		AB	1535.232	
Q	1535.310		W	1532.010		AC	1535.232	
Footing Is Designed for a Maximum Pressure of 13650 psf. The Allowable Bearing Capacity is 20000 psf.			Footing Is Designed for a Maximum Pressure of 13650 psf. The Allowable Bearing Capacity is 15000 psf.			Footing Is Designed for a Maximum Pressure of 13650 psf. The Allowable Bearing Capacity is 20000 psf.		
SPREAD FOOTING RECORD PIER #6			SPREAD FOOTING RECORD PIER #8			NOTE: After all Foundations have been placed, the Project Resident Engineer shall Record the Bottom of Footing Elevation "As-Built" and shall submit one copy of this Sheet with this Data to: Director, Division of Bridge Design 200 Mero Street 3rd. Floor Frankfort, KY. 40622-0001 NOTE: If the Spread Footing Foundation is stepped due to Unsuitable Material found at the given Elevation, the Location and Elevation of the step shall be shown on this Sheet and submitted along with As-Built Elevations.		
POINT	PLAN FOOTING ELEVATION	AS-BUILT FOOTING ELEVATION	POINT	PLAN FOOTING ELEVATION	AS-BUILT FOOTING ELEVATION			
R	1536.927		X	1533.781				
S	1536.927		Y	1533.781				
T	1536.927		Z	1533.781				
Footing Is Designed for a Maximum Pressure of 13650 psf. The Allowable Bearing Capacity is 15000 psf.			Footing Is Designed for a Maximum Pressure of 13650 psf. The Allowable Bearing Capacity is 20000 psf.					

REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U. S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
FOUNDATION LAYOUT UNIT 2		
PREPARED BY		SHEET NO. S22
T.H.E. ENGINEERS, INC.		DRAWING NO. 25296



PILE RECORD						
Pile No.	Pile Cut-off Elevation (Ft.)	Pile Length In Place (Lin.Ft.)	Point Of Pile Elevation As Driven (Ft.)	Design Axial Load (Kips)	Required Field Bearing (Kips)	Calculated Field Bearing (Kips)
19	1570.355			83	300	
20	1570.355			83	300	
21	1570.355			83	300	
22	1570.355			83	300	
23	1570.355			83	300	
24	1570.355			83	300	
25	1570.355			83	300	
26	1570.355			83	300	
27	1570.355			83	300	
28	1570.355			83	300	
29	1570.355			83	300	
30	1570.355			83	300	
31	1570.355			83	300	
32	1570.355			83	300	
33	1570.355			83	300	
34	1570.355			83	300	
35	1570.355			83	300	
36	1570.355			83	300	
37	1570.355			83	300	
38	1570.355			83	300	
39	1570.355			83	300	
40	1570.355			83	300	
41	1570.355			83	300	
42	1570.355			83	300	
43	1570.355			83	300	
44	1570.355			83	300	
45	1570.355			83	300	
46	1570.355			83	300	
47	1570.355			83	300	
48	1570.355			83	300	
49	1570.355			83	300	
50	1570.355			83	300	
51	1570.355			83	300	
52	1570.355			83	300	
53	1570.355			83	300	
54	1570.355			83	300	
55	1570.355			83	300	
56	1570.355			83	300	
57	1570.355			83	300	
58	1570.355			83	300	
59	1570.355			83	300	
60	1570.355			83	300	
61	1570.355			83	300	
62	1570.355			83	300	
63	1570.355			83	300	



Definitions of Terms

PILE CUT-OFF ELEVATION: Elevation of the Top of Pile in the finished Structure.

PILE LENGTH IN PLACE: Actual Pile Length below the Pile Cut-Off Elevation in the finished Structure.

POINT OF PILE ELEVATION AS DRIVEN: Actual point of Pile Elevation in the finished Structure.

DESIGN AXIAL LOAD: Service load carried by each pile as estimated from structural design calculations.

REQUIRED FIELD BEARING: Pile bearing value required to achieve "refusal" for the size of pile used. According to the Division of Construction Guidance Manual, this value is taken as 300 Kips for 12 in. steel H-Piles and 360 Kips for 14 in. steel H-Piles.

CALCULATED FIELD BEARING: Pile bearing value in place calculated using the appropriate pile driving formula in Section 604.03.07(8) of the Standard Specifications.

Driving Criteria

DRIVING CRITERIA: Drive point bearing piles to refusal and verify that the Calculated Field Bearing equals or exceeds the Required Field Bearing.

Field Data

For each pile, the Project Engineer shall record the following on this sheet: Pile Length In Place, Point of Pile Elevation as Driven, and the Calculated Field Bearing. Submit this record to:

Director, Division of Bridge Design
200 Mero Street
3rd. Floor
Frankfort, KY. 40622-0001

This Pile Record does not replace other Pile Records the Project Engineer is required to keep and submit.

Contrary to the Standard Drawings, Piles shall conform to the Material Requirements of AASHTO M270 Grade 50.

Use HP 12 x 53 in accordance with BPS-003, c.e.

SPREAD FOOTING RECORD PIER #10		
POINT	PLAN FOOTING ELEVATION	AS-BUILT FOOTING ELEVATION
AD	1541.924	
AE	1541.924	
AF	1541.924	
Footing Is Designed for a Maximum Pressure of 12600 psf. The Allowable Bearing Capacity is 20000 psf.		

SPREAD FOOTING RECORD PIER #11		
POINT	PLAN FOOTING ELEVATION	AS-BUILT FOOTING ELEVATION
AG	1536.880	
AH	1536.880	
AI	1536.880	
AJ	1536.880	
Footing Is Designed for a Maximum Pressure of 20080 psf. The Allowable Bearing Capacity is 30000 psf.		

SPREAD FOOTING RECORD PIER #12		
POINT	PLAN FOOTING ELEVATION	AS-BUILT FOOTING ELEVATION
AK	1536.823	
AL	1536.823	
AM	1530.407	
AN	1530.407	
Footing Is Designed for a Maximum Pressure of 15310 psf. The Allowable Bearing Capacity is 15000 psf.		

SPREAD FOOTING RECORD ABUTMENT 2		
POINT	PLAN FOOTING ELEVATION	AS-BUILT FOOTING ELEVATION
AQ	1592.554	
AP	1592.554	
AQ	1592.554	
Footing Is Designed for a Maximum Pressure of 6100 psf. The Allowable Bearing Capacity is 20000 psf.		

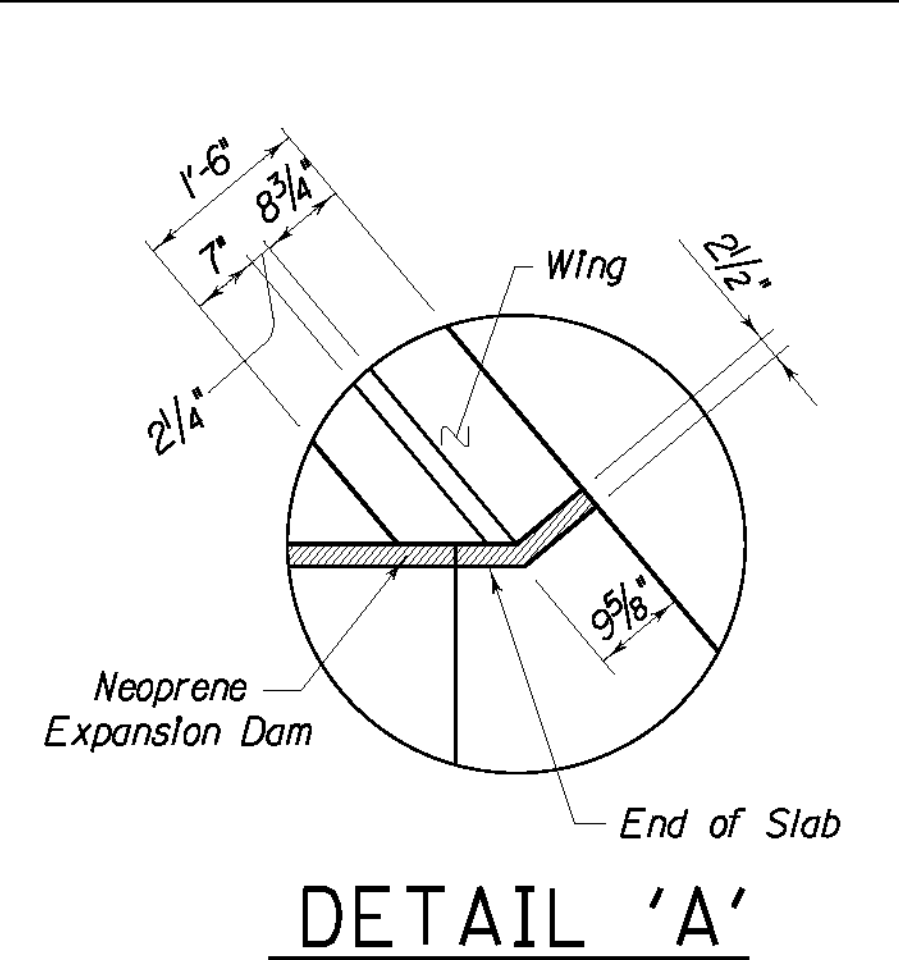
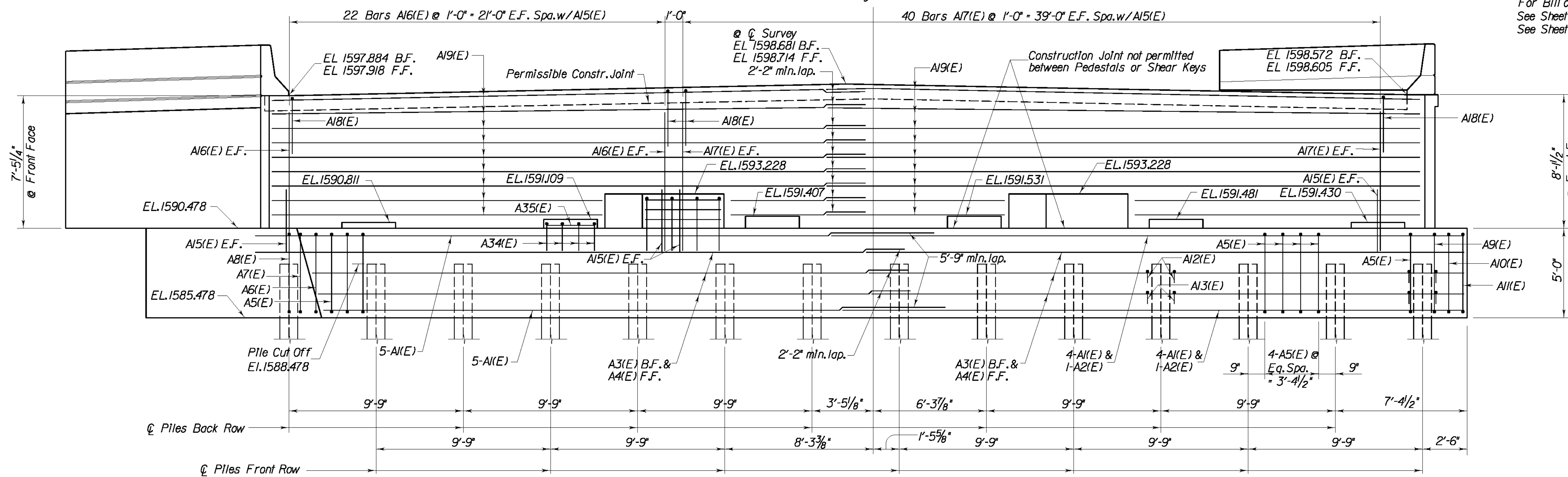
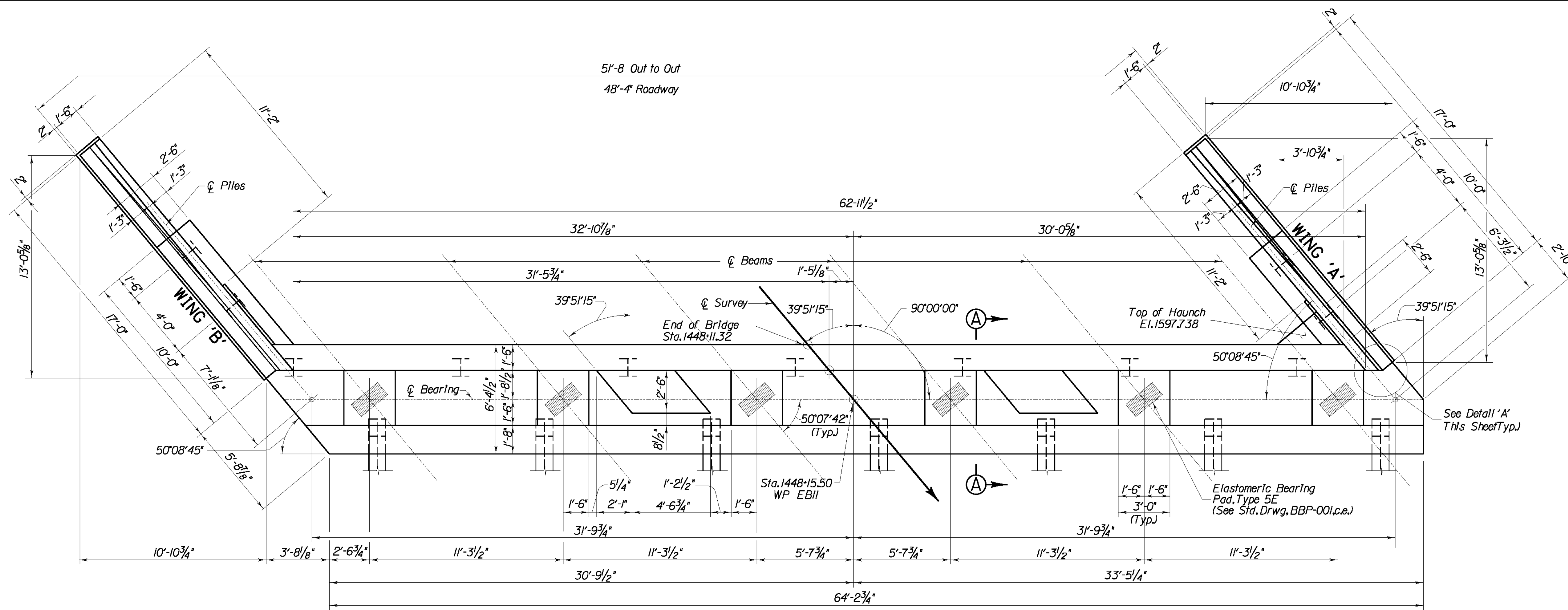
ITEM NUMBER
12-311.10

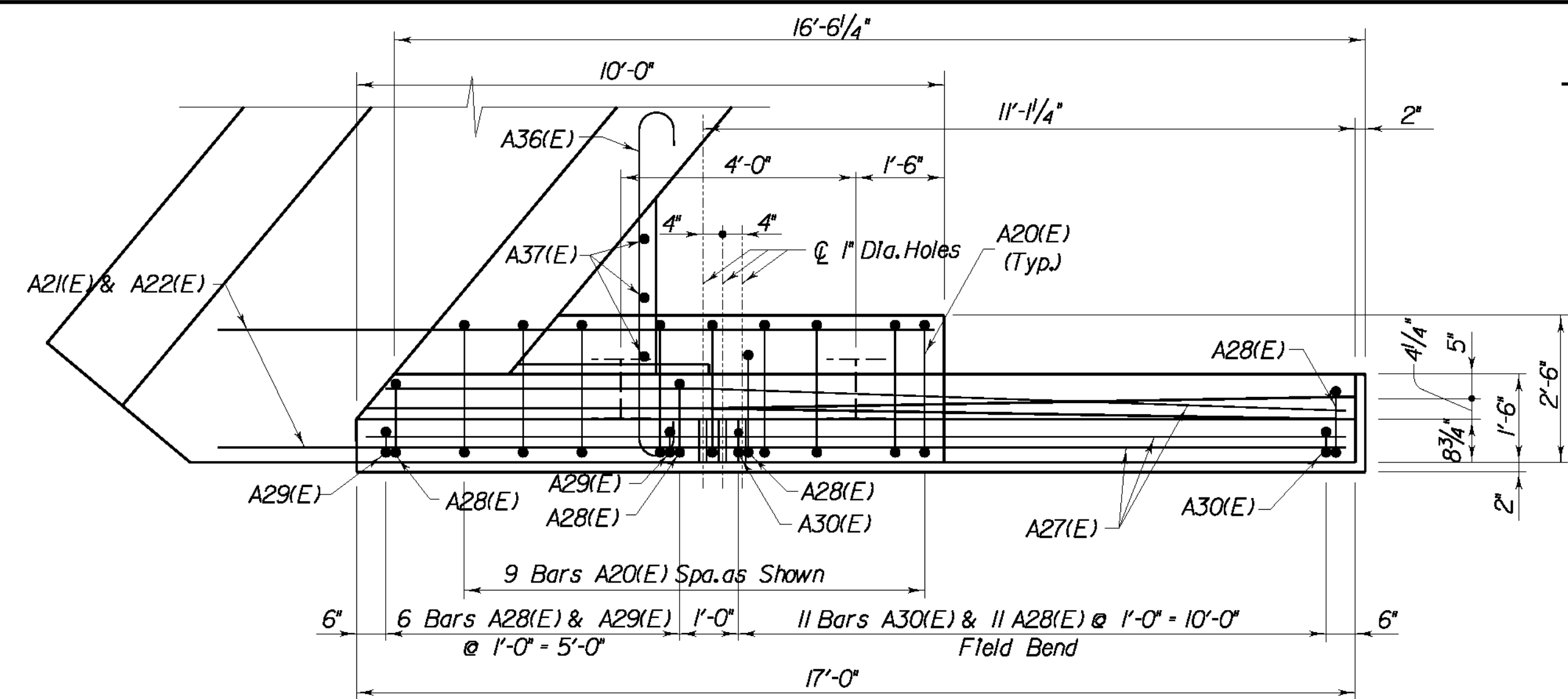
NOTE: After all Foundations have been placed, the Project Resident Engineer shall Record the Bottom of Footing Elevation "As-Built" and shall submit one copy of this Sheet with this Data to:

Director, Division of Bridge Design
200 Mero Street
3rd. Floor
Frankfort, KY. 40622-0001

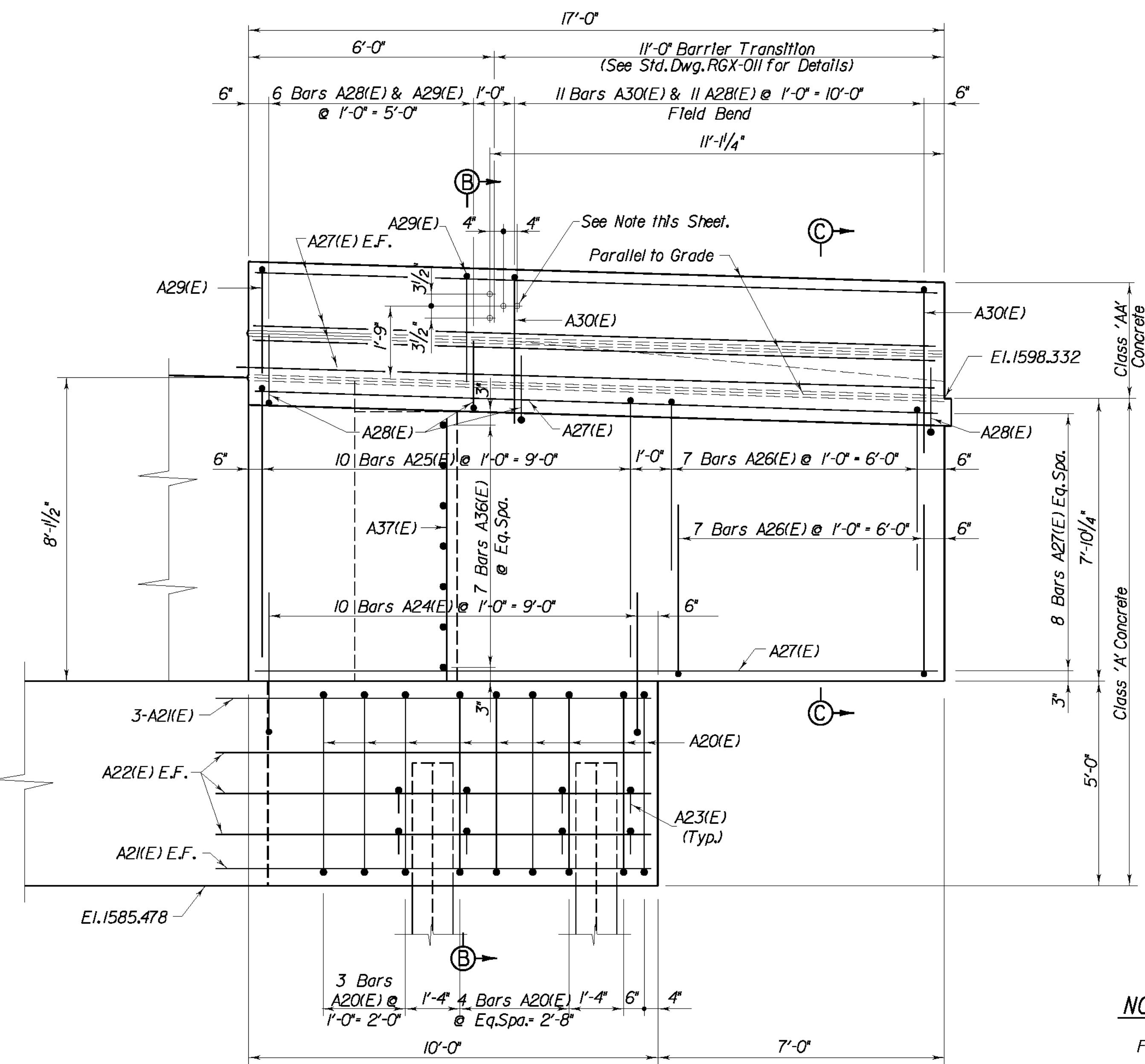
NOTE: If the Spread Footing Foundation is stepped due to Unsuitable Material found at the given Elevation, the Location and Elevation of the step shall be shown on this Sheet and submitted along with As-Built Elevations.

REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
FOUNDATION LAYOUT UNIT 3		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S23
		DRAWING NO. 25296





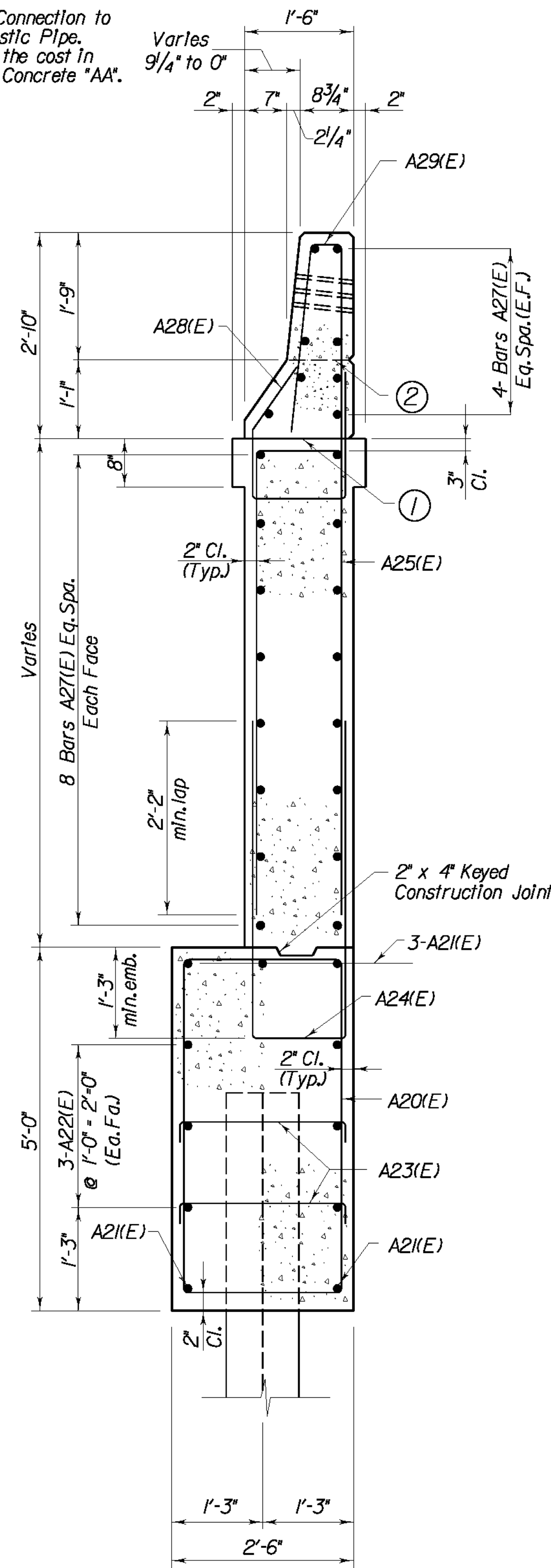
PLAN - WING 'A'



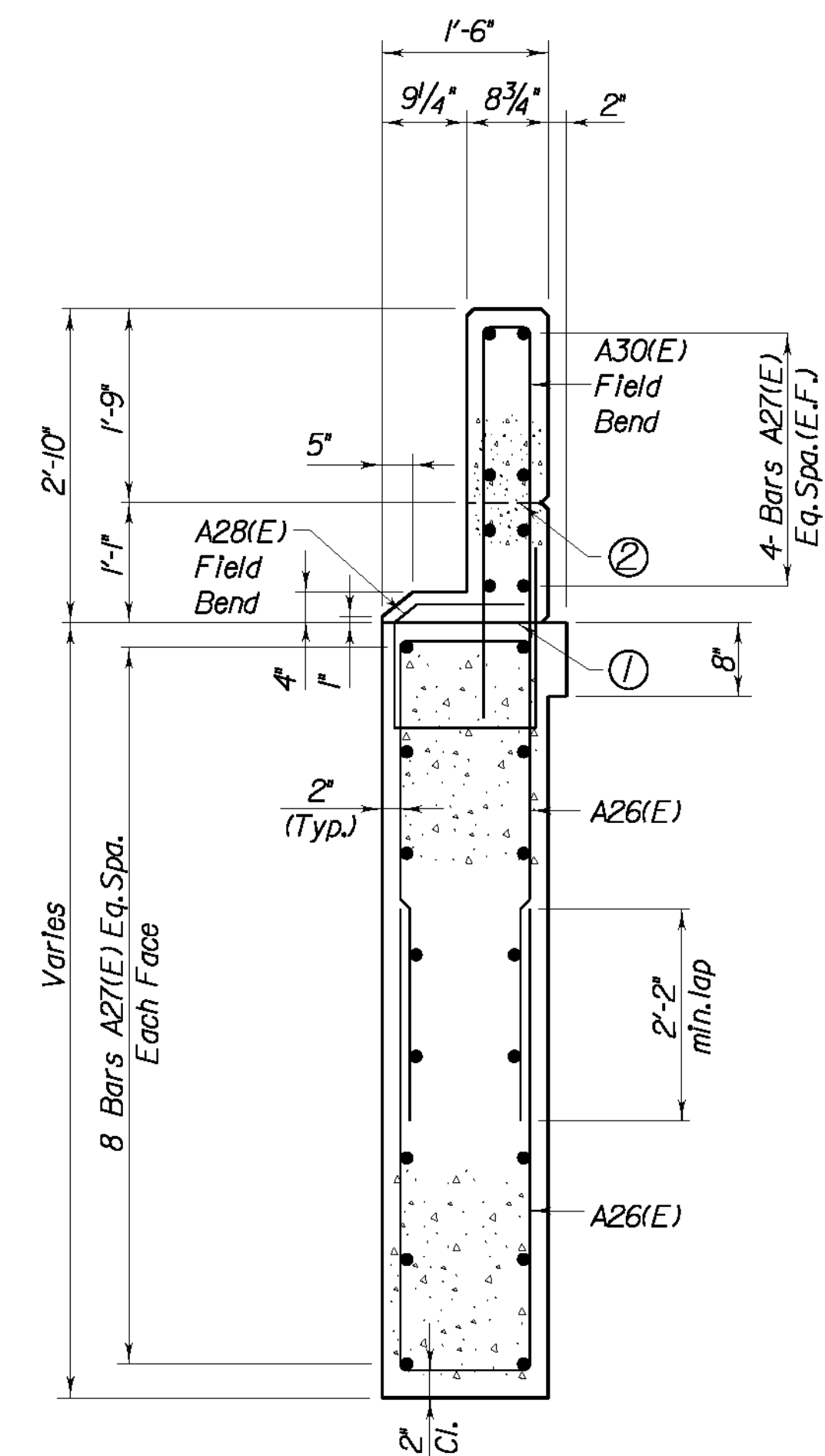
ELEVATION - WING 'A'

NOTE:

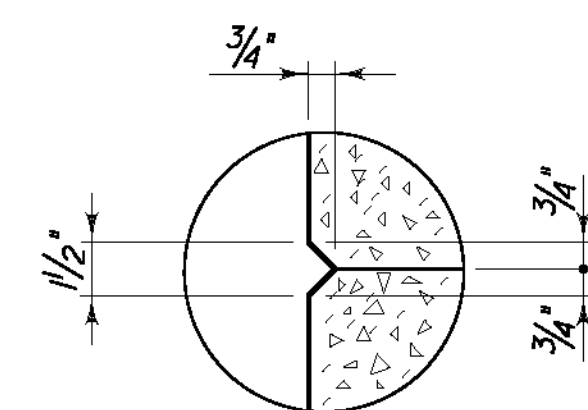
Form Holes for Guardrail Connection to Bridge with 4" I.D. x 1" Plastic Pipe. Leave Pipe in place. Include the cost in the bid for Superstructure Concrete "AA".



SECTION B-B



SECTION C-C



RUSTICATION GROOVE

LEGEND

- ① Mandatory Roughened Construction Joint and Rustication Groove, for Rustication Groove, see Detail this Sheet.
- ② Optional Construction Joint. Rustication Groove not needed if Barrier cast complete.

NOTE:

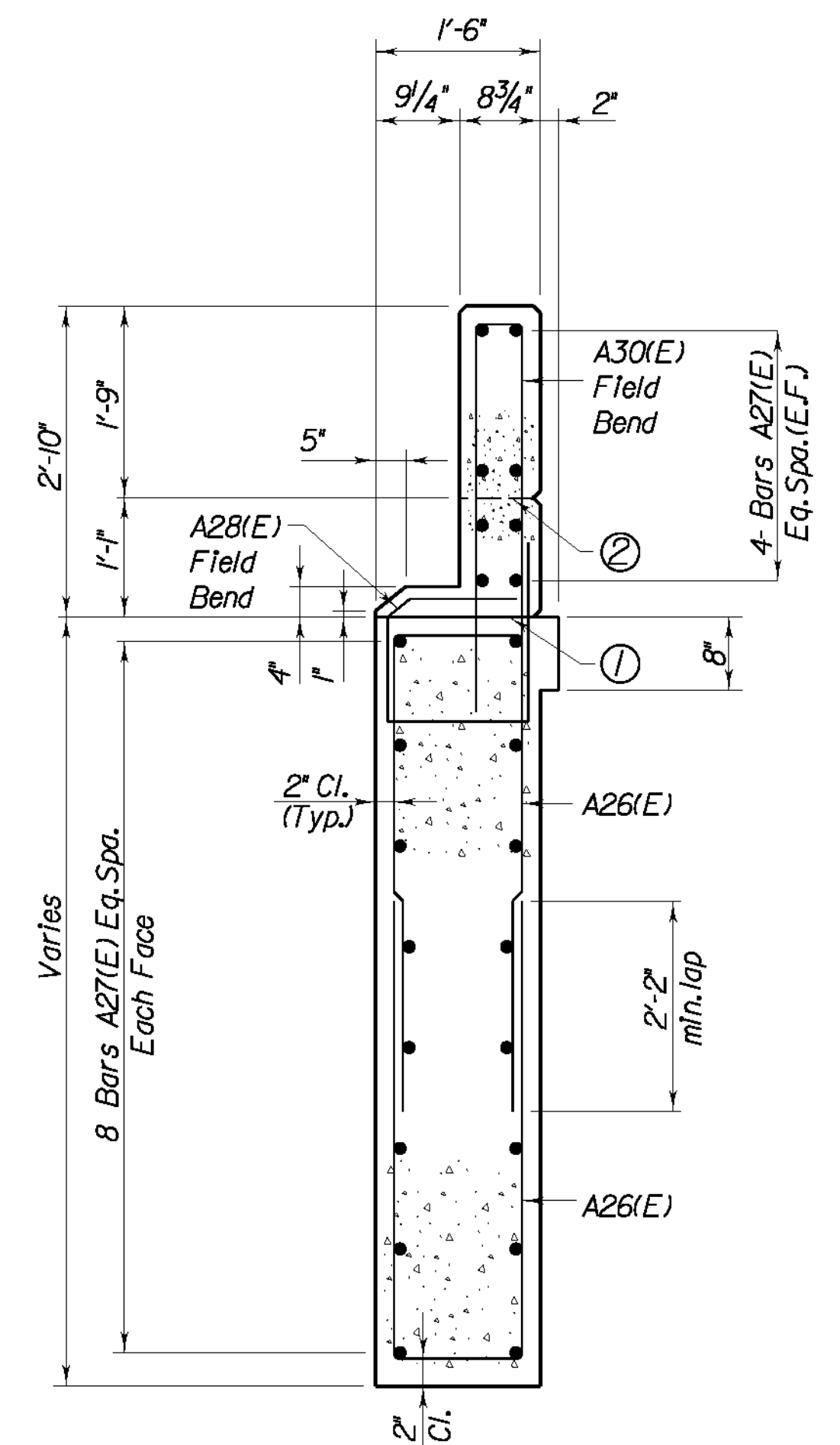
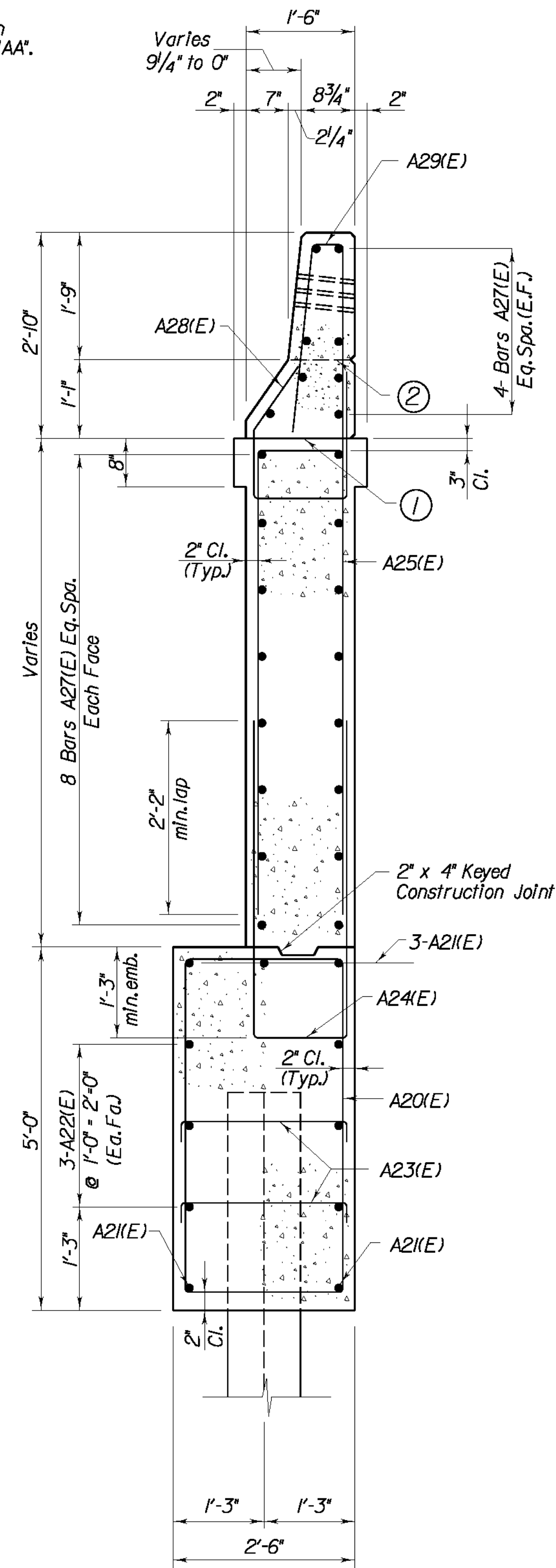
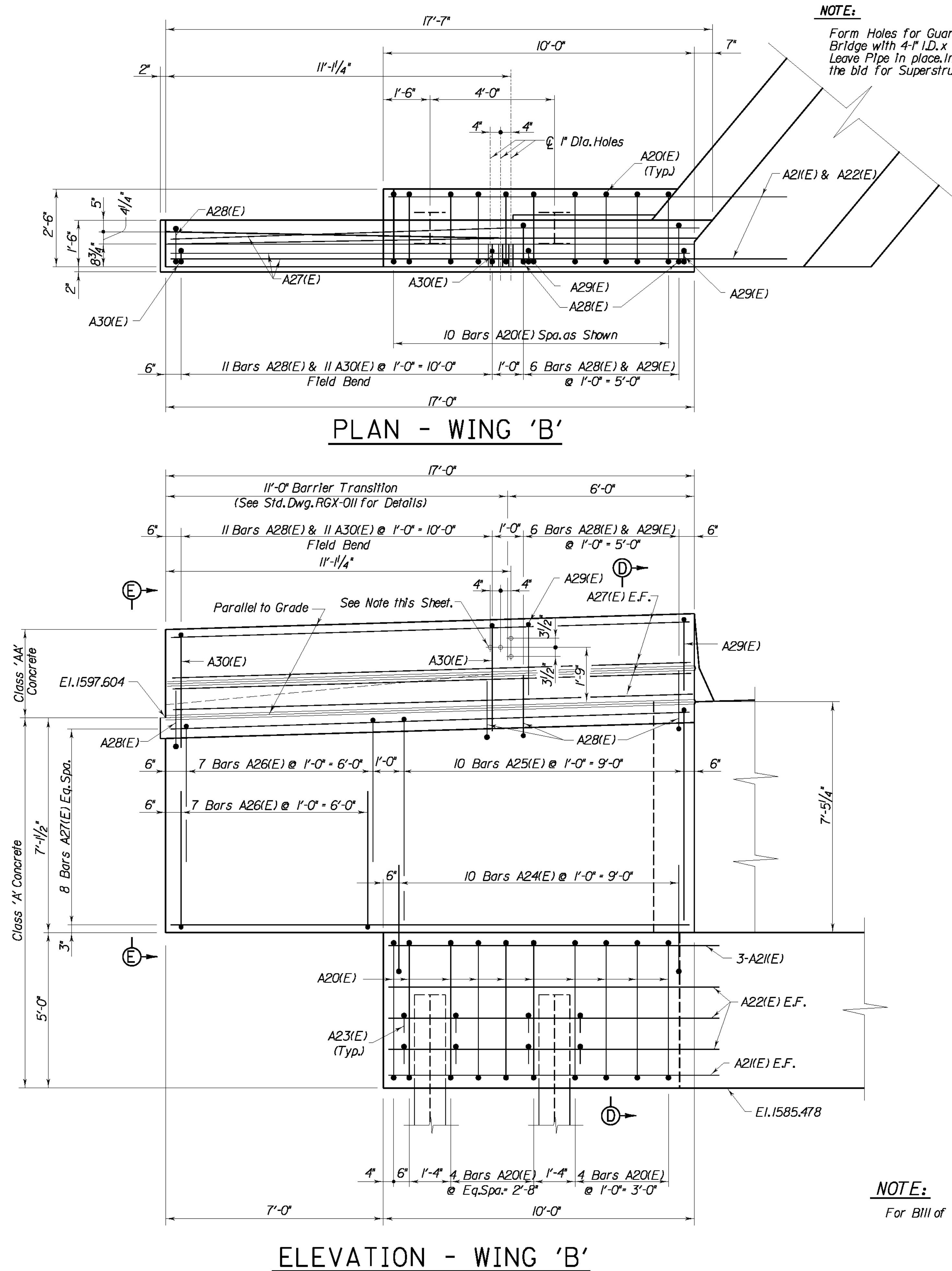
For Bill of Reinforcement see sheet S28. See sheet S6 for Barrier Stone Veneer.

REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
END BENT 1		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S26
		DRAWING NO. 25296

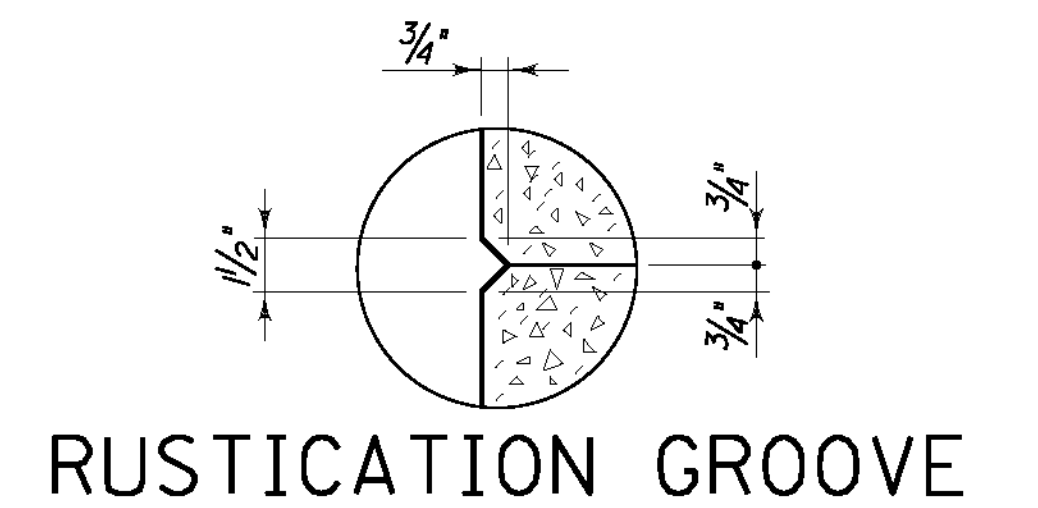
\$\$\$\$designsfile\$specification\$\$\$\$

\$\$\$\$DATE\$\$\$\$

\$\$\$\$DATE\$\$\$\$



SECTION E-E



SECTION D-D

LEGEND

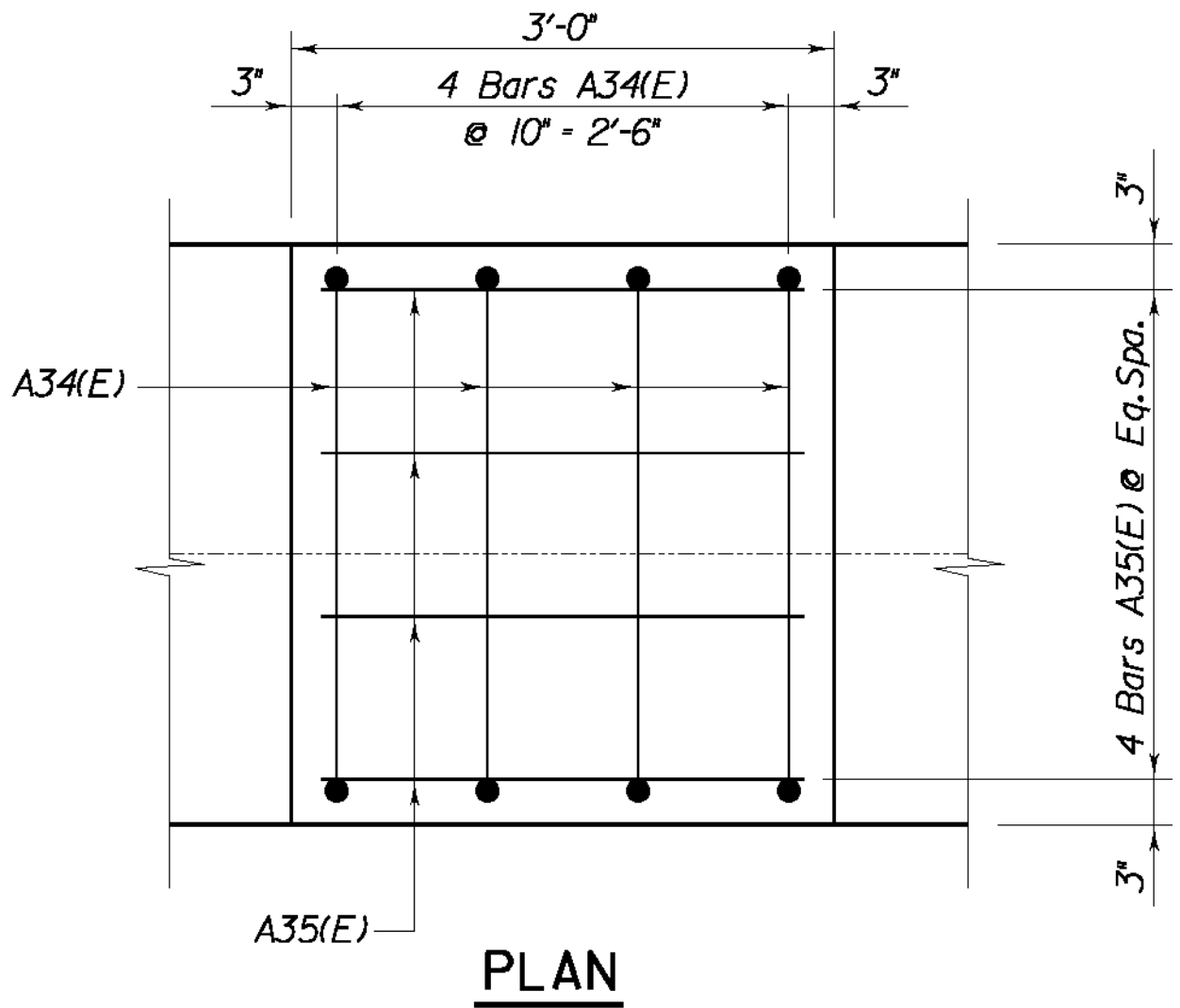
- ① Mandatory Roughened Construction Joint and Rustication Groove, for Rustication Groove, see Detail this Sheet.
- ② Optional Construction Joint. Rustication Groove not needed if Barrier cast complete.

ITEM NUMBER
12-311.10

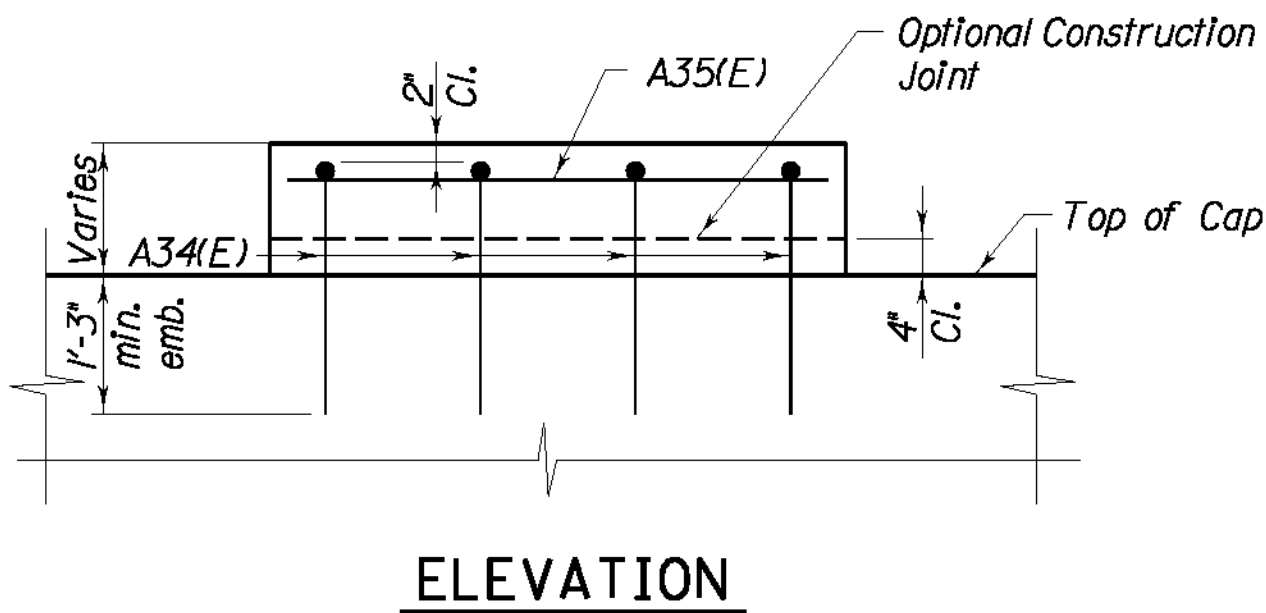
REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky			
DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE		CROSSING	
U.S. 119		POOR FORK CUMBERLAND RIVER	
END BENT 1			
PREPARED BY			SHEET NO.
T.H.E. ENGINEERS, INC.			S27
			DRAWING NO.
			25296

BILL OF REINFORCEMENT														
Mark	Type	Number	Size	Length		LOCATION	a		b		c		d	
				Ft.	In.		Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
A1(E)	Str.	18	9	36	0	Cap								
A2(E)	Str.	2	9	34	10	Cap								
A3(E)	Str.	8	5	34	2	Cap								
A4(E)	Str.	8	5	33	8	Cap								
A5(E)s	(27)	51	5	20	8	Cap								
A6(E)s	(28)	1	5	19	9	Cap	4	4 1/2	5	2	4	8 3/4	0	9 1/2
A7(E)s	(14)	1	5	18	5	Cap	4	8	4	2				
A8(E)s	(14)	1	5	15	5	Cap	4	8	2	8				
A9(E)s	(28)	1	5	19	6	Cap	3	4 3/8	4	11	5	9	1	6 5/8
A10(E)s	(28)	1	5	17	3	Cap	2	5 7/8	4	0 1/2	5	3 1/2	1	6 5/8
A11(E)s	(28)	1	5	15	1	Cap	1	6 7/8	3	1 1/2	4	11 1/8	1	6 5/8
A12(E)	(2)	25	5	6	1	Cap	0	6	5	2				
A13(E)	(2)	25	5	6	6	Cap	0	6	5	7				
A14(E)	(5)	6	5	6	1	Cap	0	6	5	7				
A15(E)	Str.	124	5	3	6	Backwall								
A16(E)	Str.	44	5	7	2	Backwall								
A17(E)	Str.	80	5	7	8	Backwall								
A18(E)	(2)	62	5	7	1	Backwall	3	0	1	2				
A19(E)	Str.	40	5	34	1	Backwall								
A20(E)	(14)	19	5	14	5	Wing Cap	4	8	2	2				
A21(E)	Str.	10	9	12	0	Wing Cap								
A22(E)	Str.	12	5	12	0	Wing Cap								
A23(E)	(2)	16	5	3	1	Wing Cap	0	6	2	2				
A24(E)	(2)	20	5	8	3	Wing Cap	3	7	1	2				
A25(E)	(2)	20	5	16	7	Wing Cap	7	9	1	2				
A26(E)	(2)	28	5	10	11	Wing Cap	4	11	1	2				
A27(E)	Str.	48	5	16	10	Wing Cap & Barrier								
A28(E)	(17)	34	5	4	5	Barrier								
A29(E)	(16)	12	5	5	7	Barrier	2	8	0	3 1/4	2	8 1/4	0	4 3/4
A30(E)	(16)	22	5	8	2	Barrier	3	11	0	5	3	11 1/4	0	4 3/4
A31(E)	(5)	8	5	8	2	Shear Key	3	10	4	4				
A32(E)	(2)	6	5	11	8	Shear Key	3	10	4	1				
A33(E)	(29)	4	5	12	6	Shear Key								
A34(E)	(2)	24	5	7	1	Pedestal	2	2	2	10				
A35(E)	Str.	24	5	2	8	Pedestal								
A36(E)	(1)	7	6	7	2	Haunch	5	2	1	0	0	6	5	8
A37(E)	Str.	3	5	6	11	Haunch								

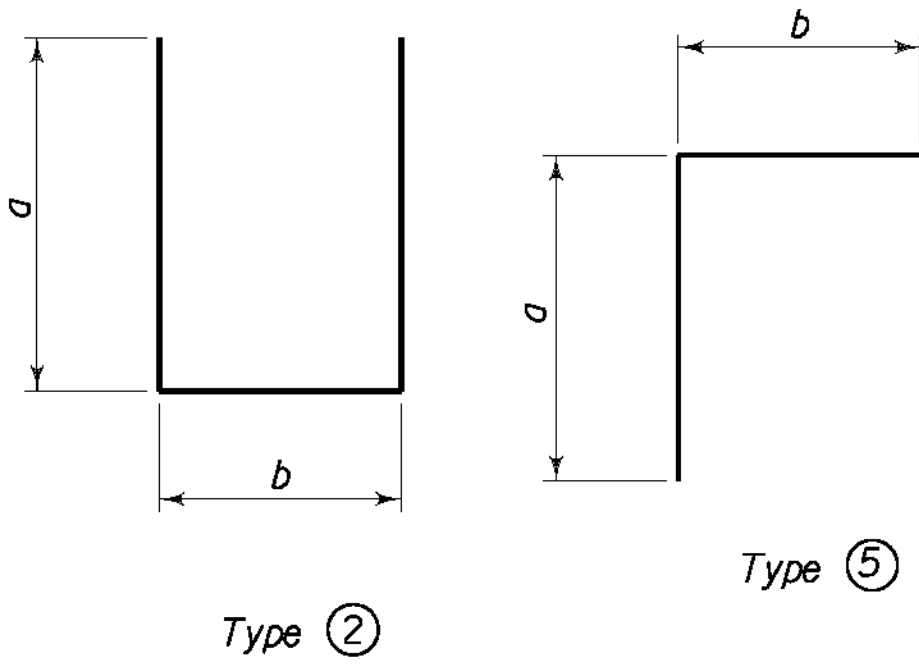
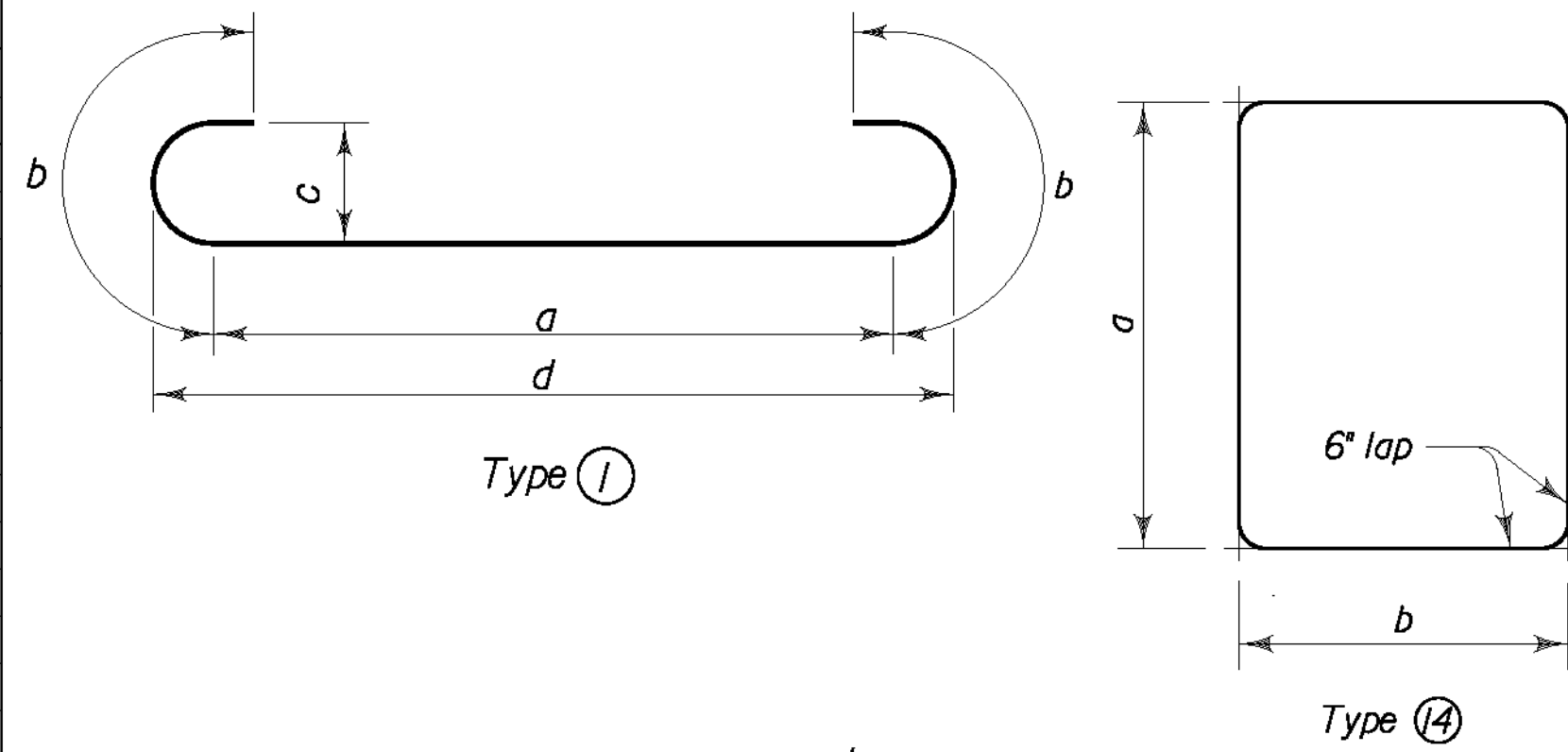
NOTE:
Reinforcing Bars designated by the suffix (E) in the Plans shall be Epoxy Coated In Accordance with the current Specifications.
Reinforcing Bars designated by the suffix (s) in the Plans shall be Considered Stirrups for the Purposes of Bend Diameters.



PEDESTAL DETAIL

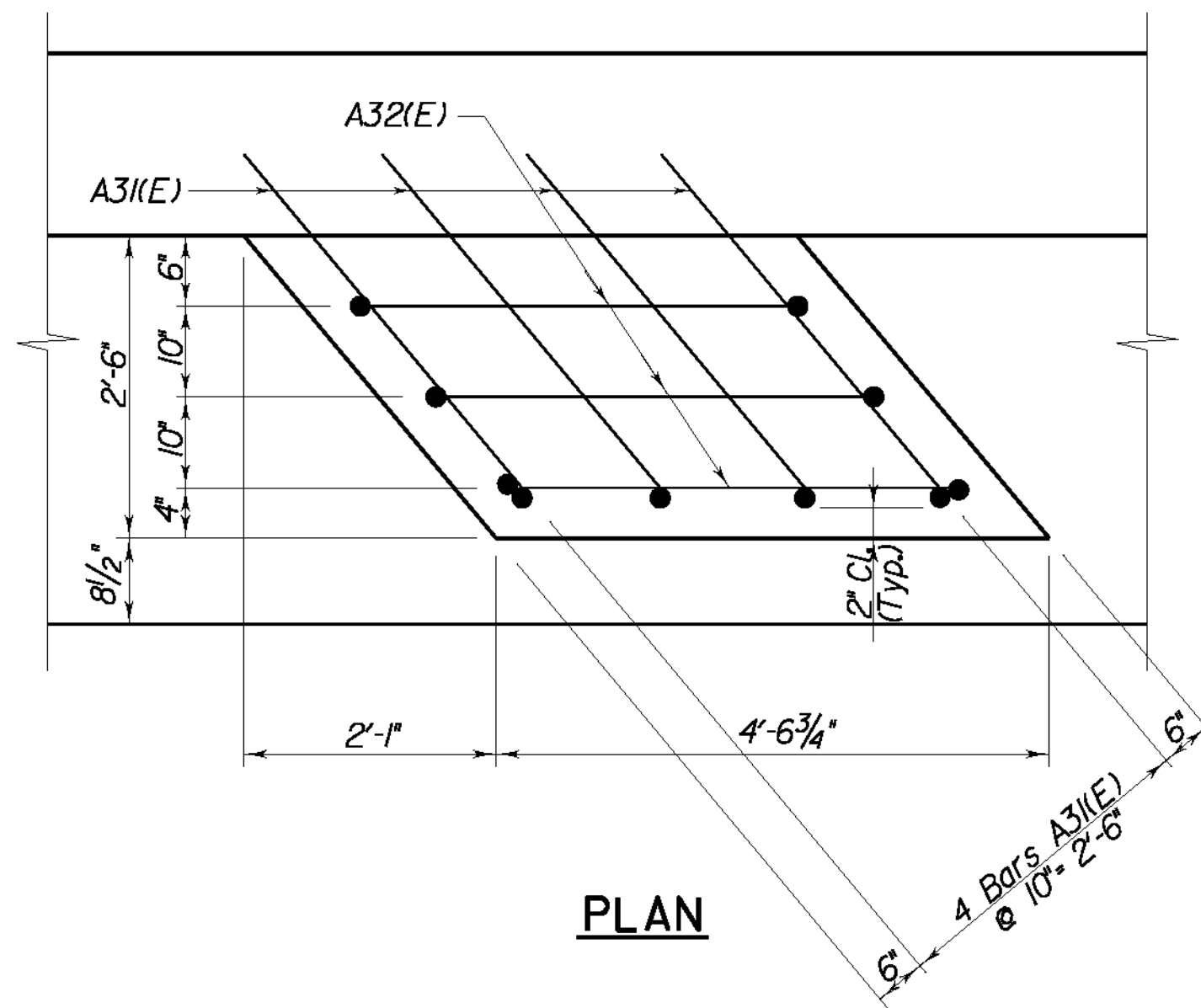


ELEVATION

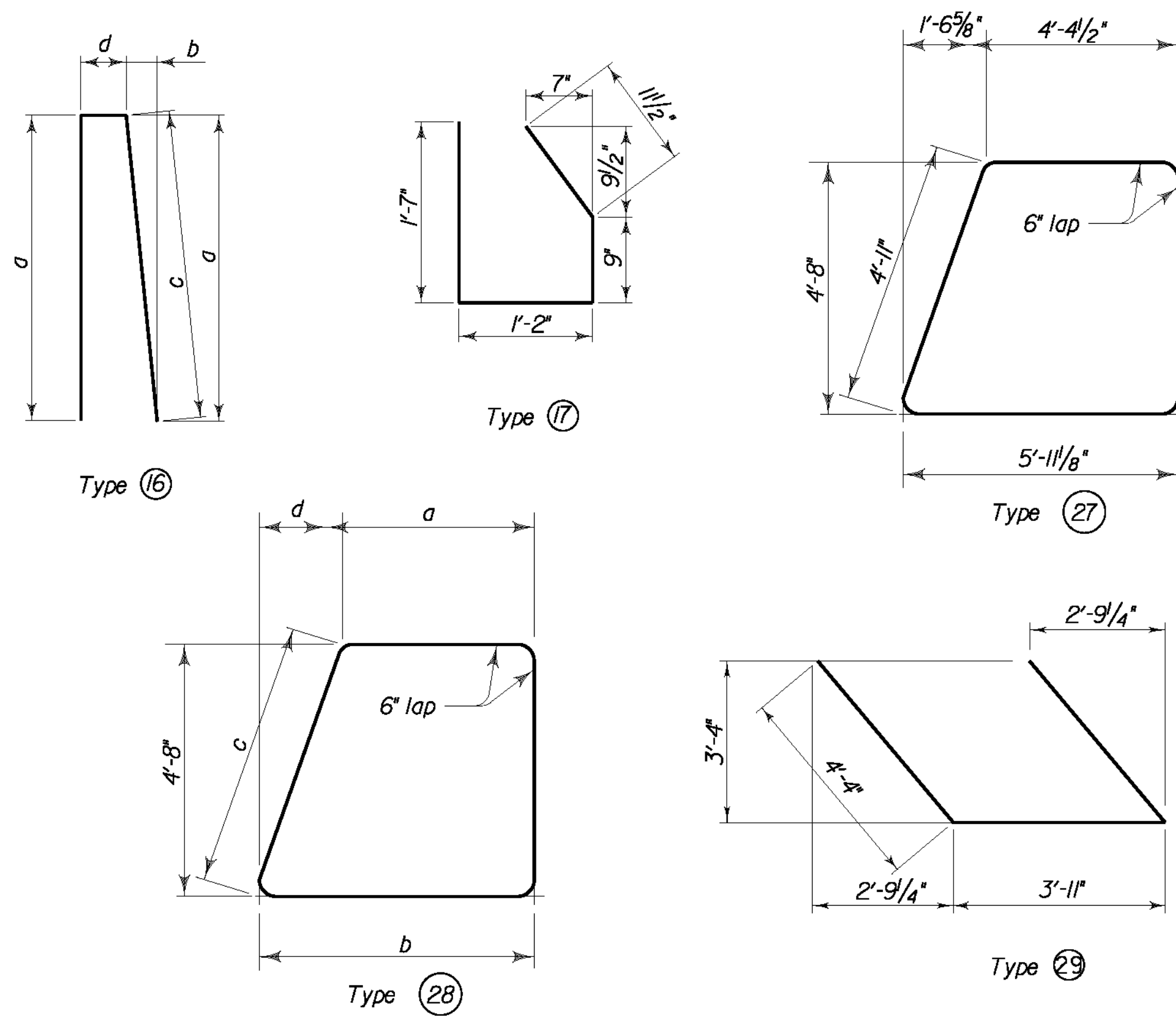


Type 2

Type 5



PLAN



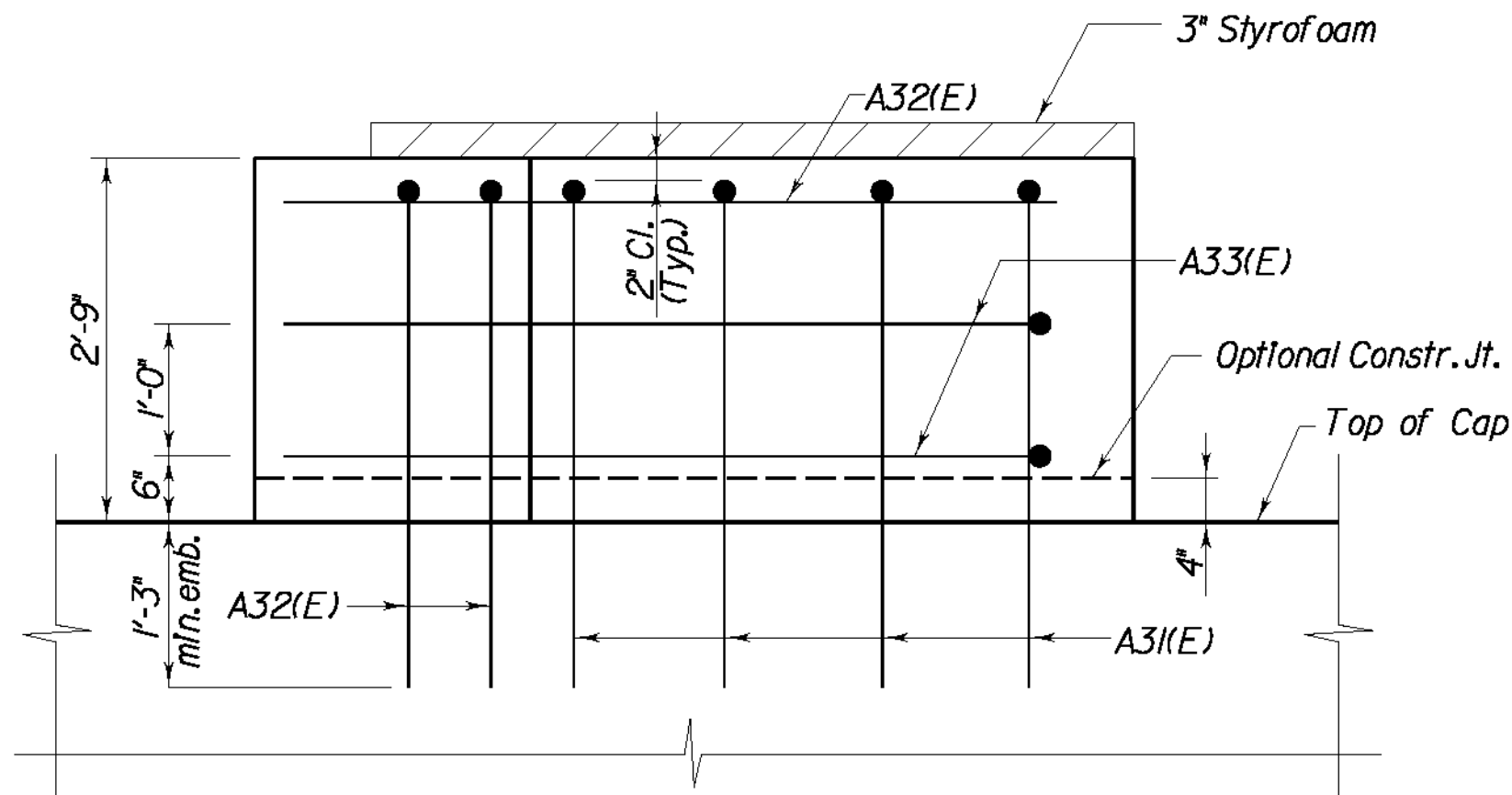
Type 16

Type 17

Type 27

Type 28

Type 29

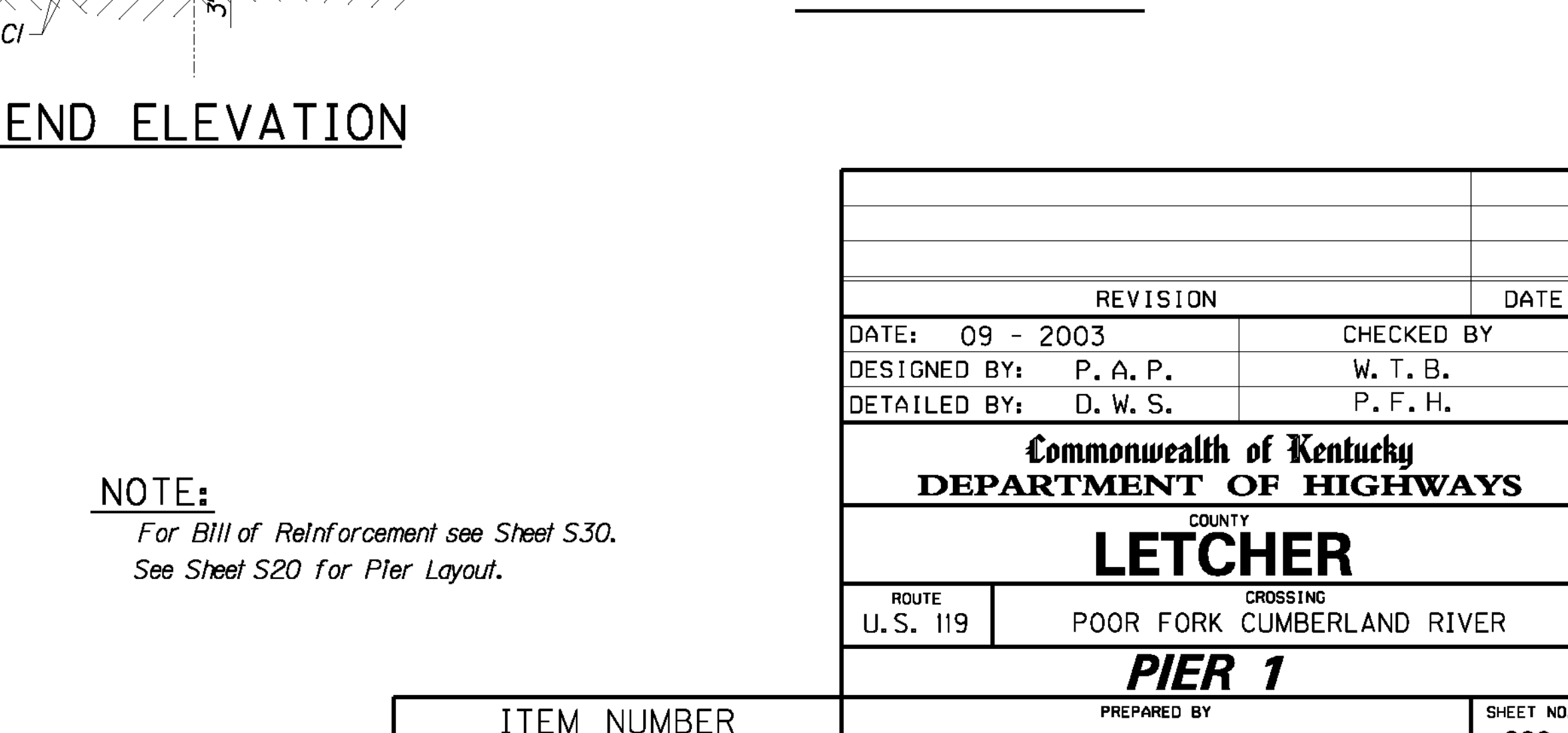
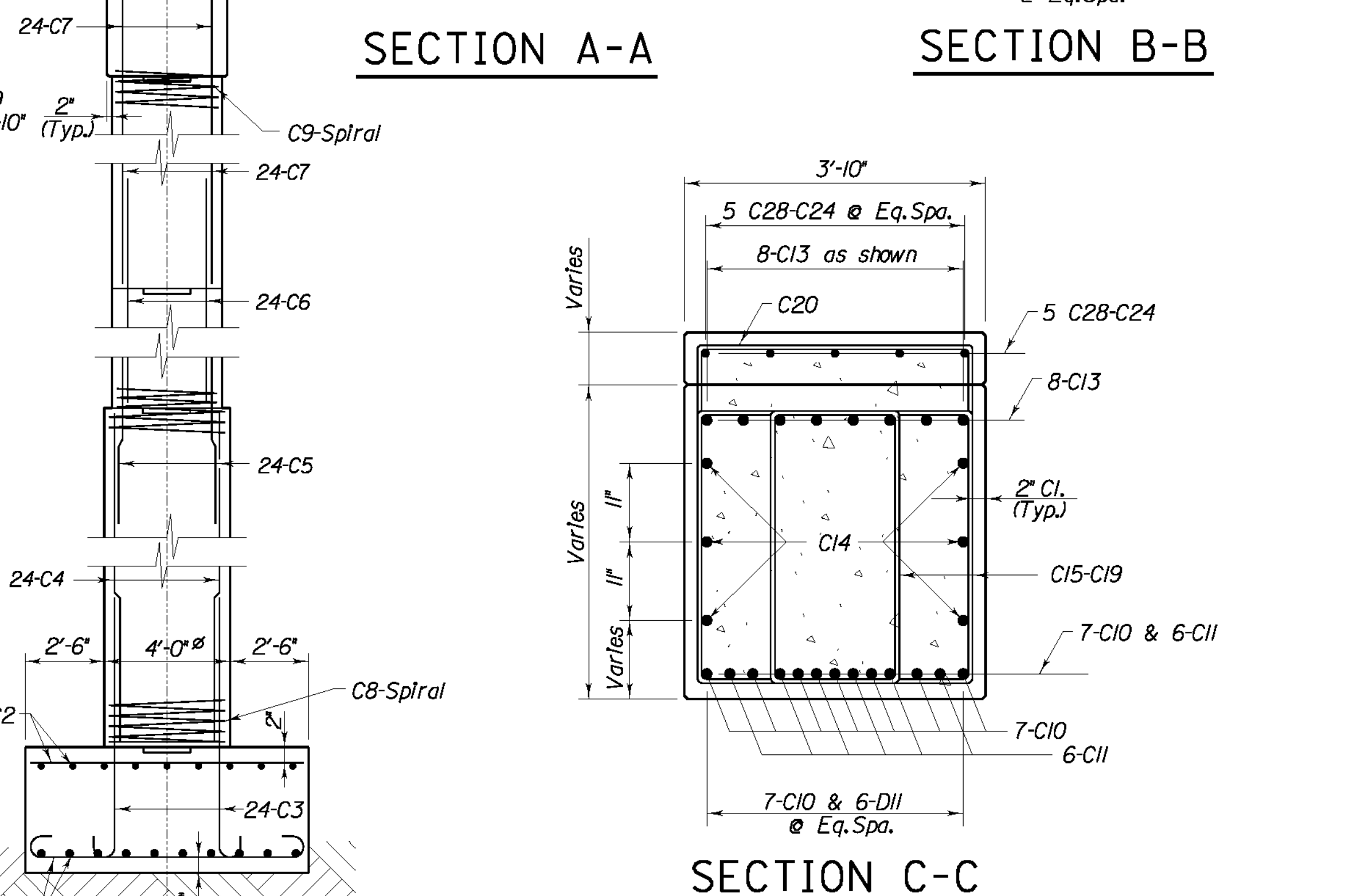
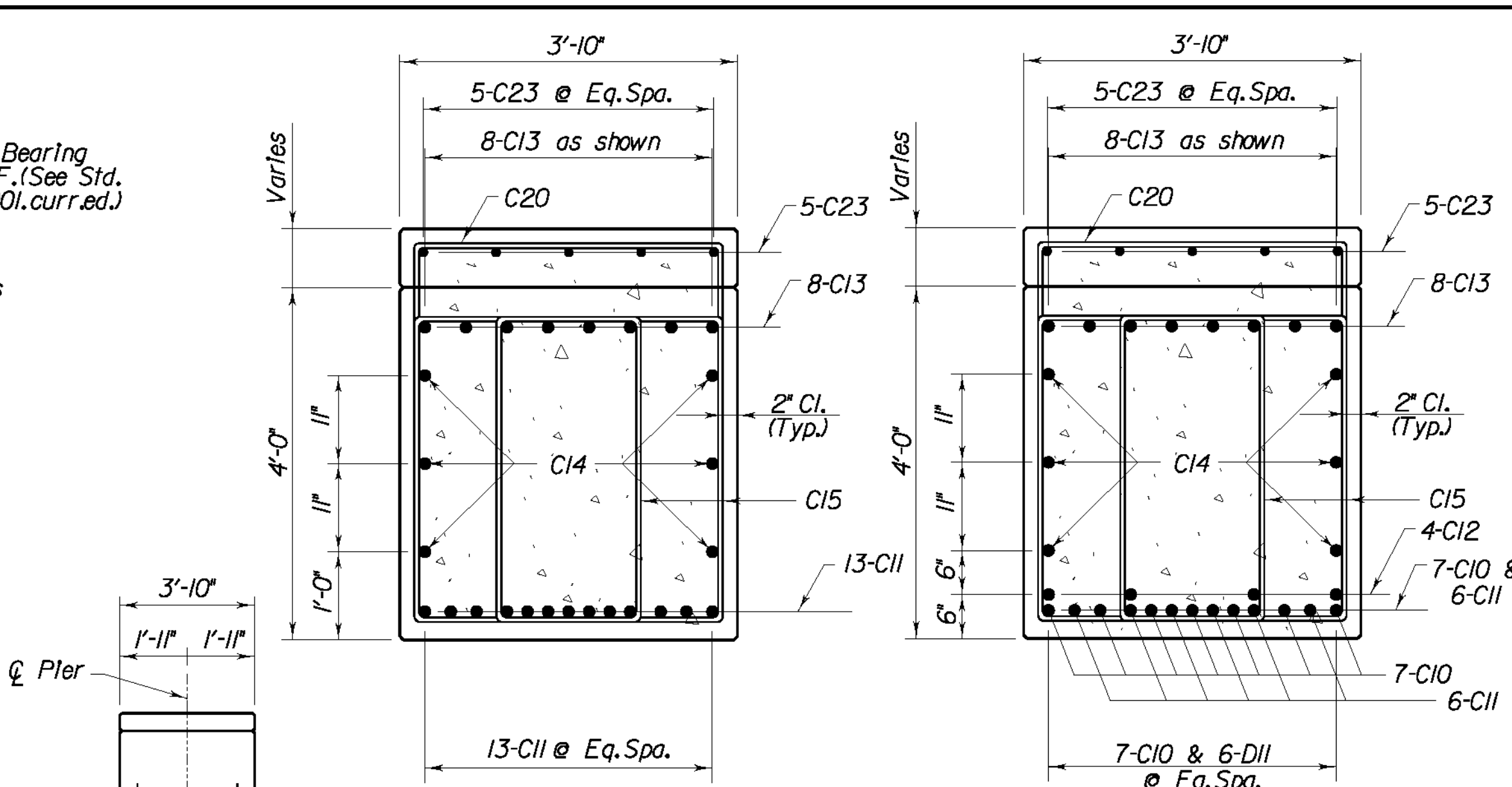
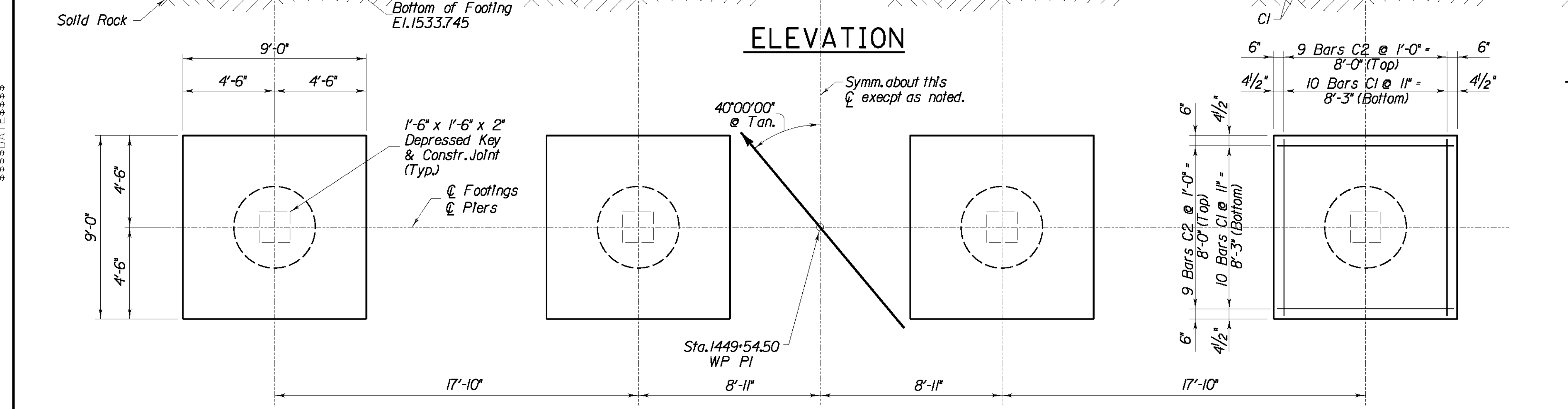
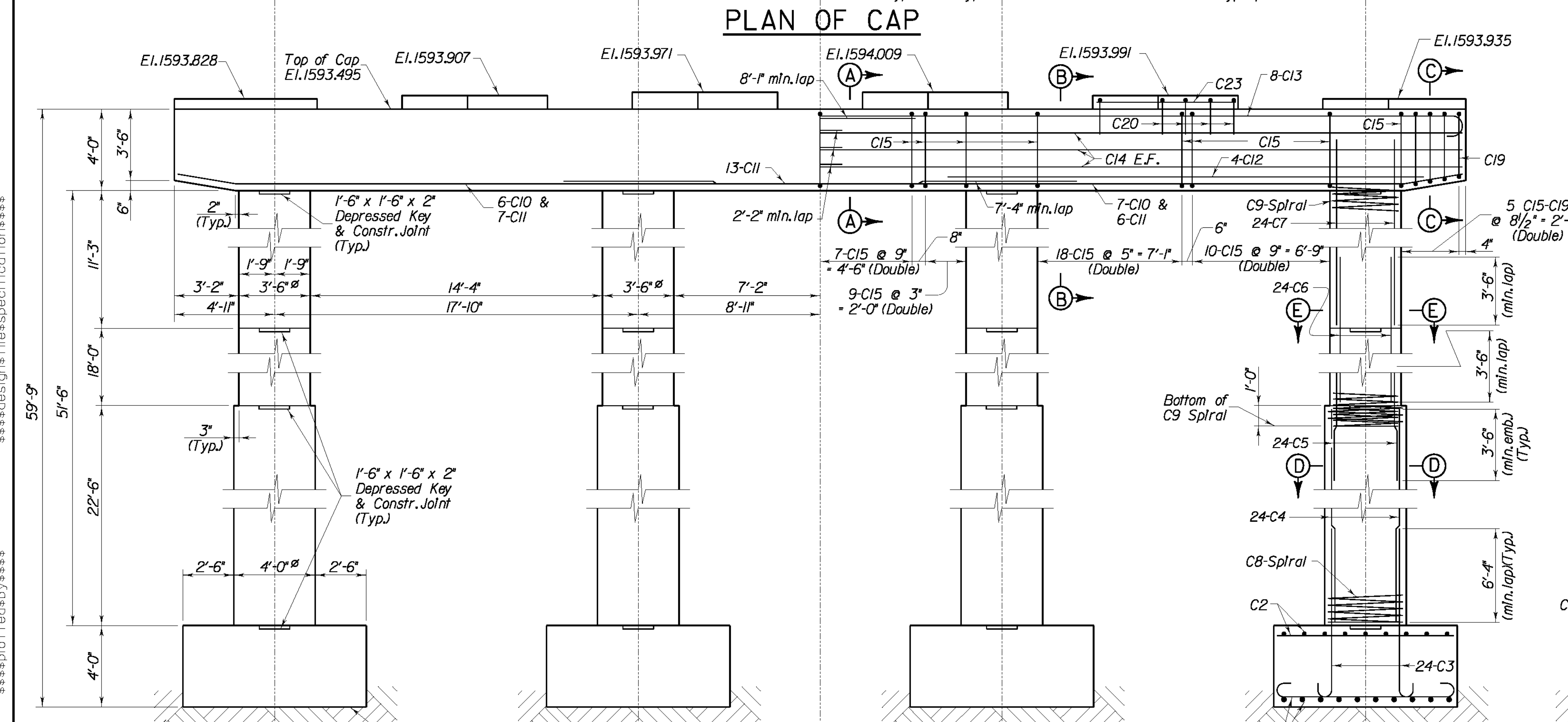
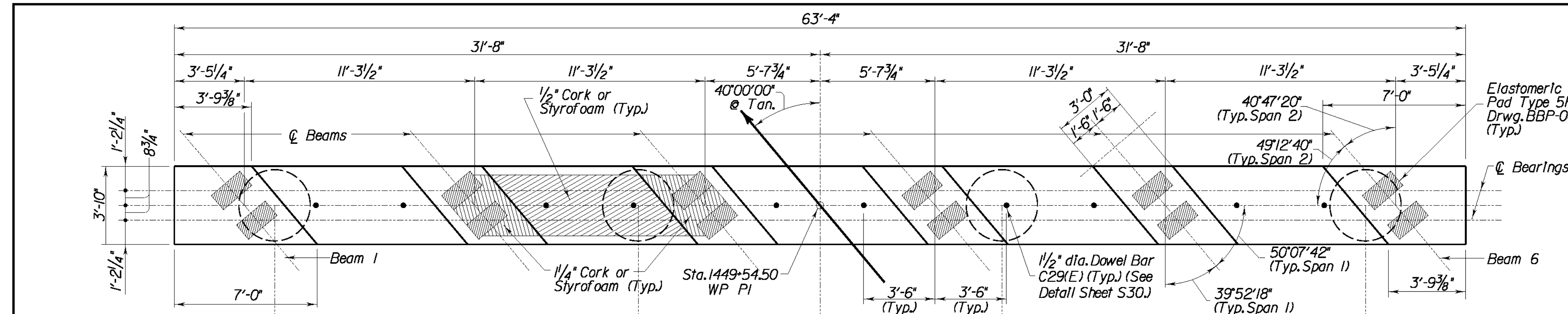


ELEVATION

SHEAR KEY DETAIL

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U.S. 119		CROSSING POOR FORK CUMBERLAND RIVER	
END BENT 1			
PREPARED BY		SHEET NO. S28	
T.H.E. ENGINEERS, INC.		DRAWING NO. 25296	

\$\$\$\$\$DESIGN\$\$\$\$\$
\$\$\$\$\$DATE\$\$\$\$\$
\$\$\$\$\$PLOT\$\$\$\$\$



NOTE:
For Bill of Reinforcement see Sheet S30.
See Sheet S20 for Pier Layout.

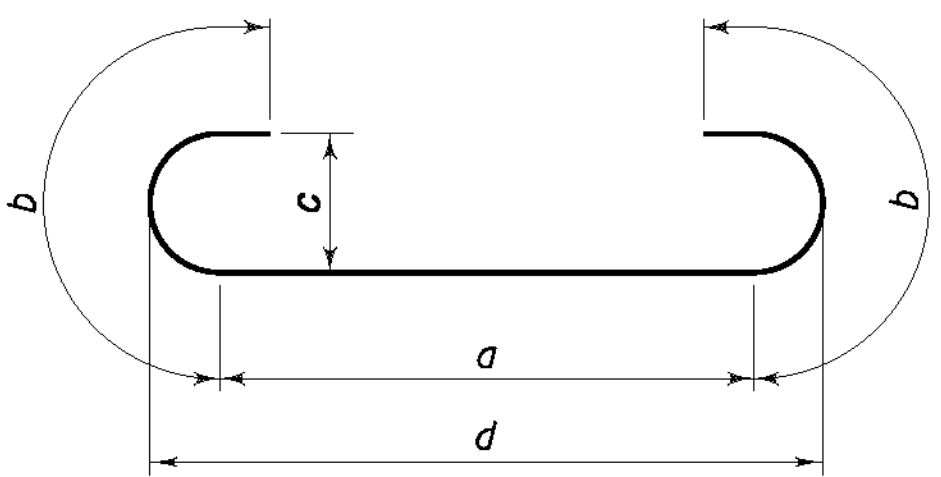
REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY		
LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
PIER 1		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S29
		DRAWING NO. 25296

BILL OF REINFORCEMENT

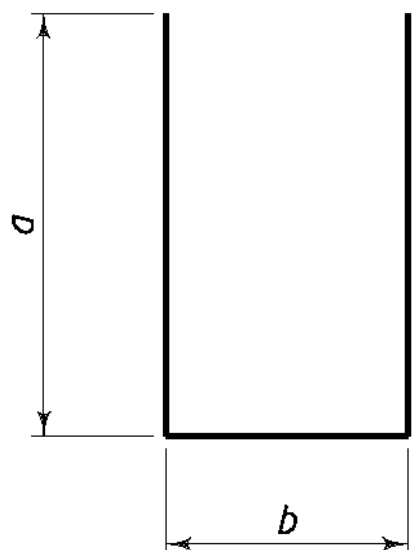
Mark	Type	Number	Size	Length		Location	a		b		c		d	
				Ft.	In.		Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
C1	(1)	80	8	10	10	Footng	8	0	1	5	0	8	8	8
C2	Str.	72	5	8	8	Footng								
C3	(4)	96	8	11	1	Column Dowels	9	8	1	5	0	8	10	0
C4	Str.	96	8	22	4	Columns								
C5	(7)	96	7	7	1	Column Dowels	2	4	0	2 3/4	0	2	4	6
C6	Str.	96	7	21	6	Column								
C7	Str.	96	7	13	4	Column								
C8	(8)	4	4	22	4	Spiral	80 turns						3	9
C9	(8)	4	4	30	7	Spiral	108 turns						3	3
C10	(8)	13	10	26	4	Cap	23	5 1/2	2	10 1/2	0	5 3/4	2	10
C11	(8)	13	10	44	2	Cap	41	3 1/2	2	10 1/2	0	5 3/4	2	10
C12	Str.	8	8	21	2	Cap								
C13	(4)	16	9	37	0	Cap	35	1	1	11	0	11 3/4	35	7
C14	Str.	12	6	32	7	Cap								
C15s	(4)	178	5	12	7	Cap	3	8	2	3				
C16s	(4)	4	5	12	5	Cap	3	7	2	3				
C17s	(4)	4	5	12	2	Cap	3	5 1/2	2	3				
C18s	(4)	4	5	11	11	Cap	3	4	2	3				
C19s	(4)	4	5	11	8	Cap	3	2 1/2	2	3				
C20s	(2)	24	5	8	3	Pedestal	1	11	4	6				
C21s	(2)	2	5	7	9	Pedestal	1	11	4	0				
C22s	(2)	2	5	7	3	Pedestal	1	11	3	6				
C23	Str.	20	5	3	5	Pedestal								
C24	Str.	2	5	3	6	Pedestal								
C25	Str.	2	5	4	3	Pedestal								
C26	Str.	2	5	5	0	Pedestal								
C27	Str.	2	5	5	9	Pedestal								
C28	Str.	2	5	6	6	Pedestal								
C29(E)	Str.	10	*	2	0	Dowels								

NOTE: Reinforcing Bars Designated By The Suffix (E) In The Plans Shall Be Epoxy Coated In Accordance With The Current Specifications.
Reinforcing bars designated by the suffix (s) in the Bill of Reinforcement shall be considered stirrups for purposes of bend diameters.

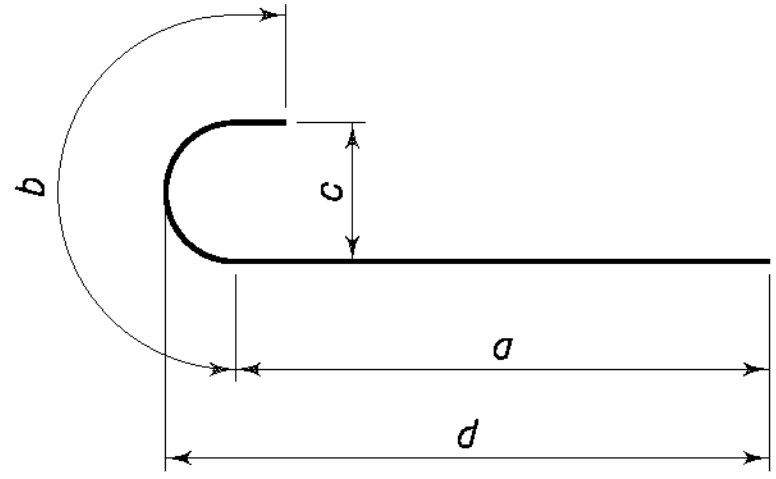
* 1/2" Diameter Round Smooth Pin, Epoxy Coated



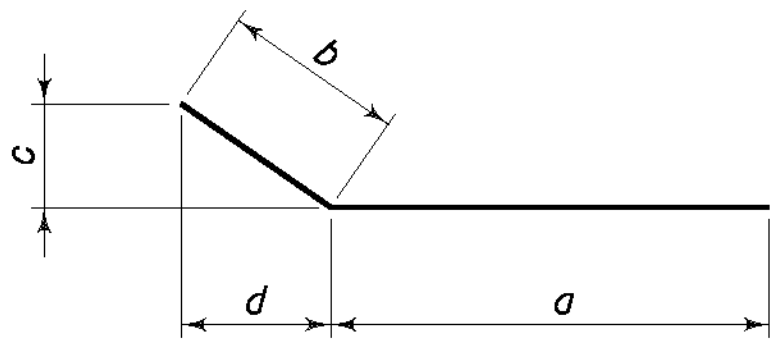
Type ①



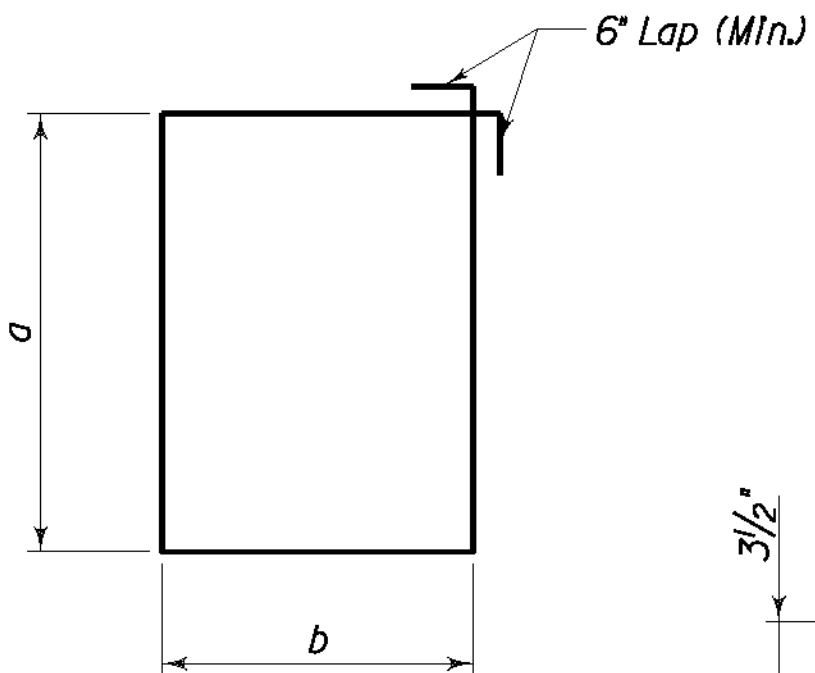
Type ②



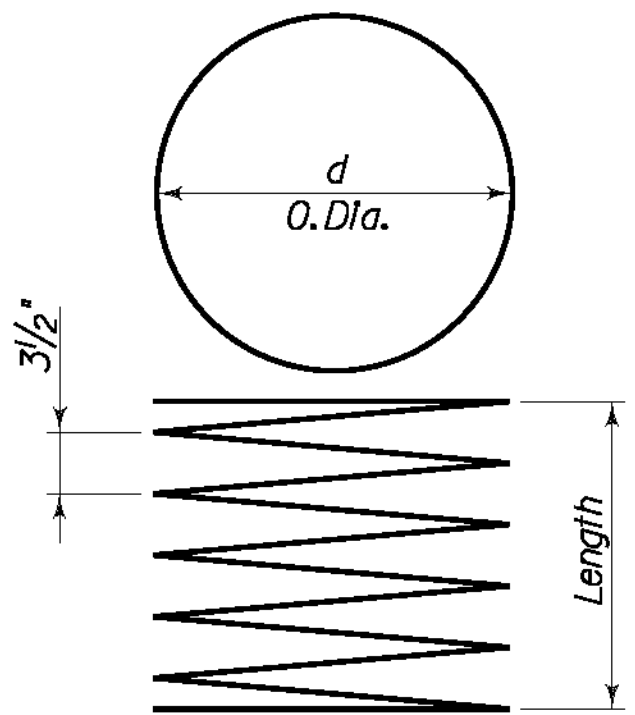
Type ④



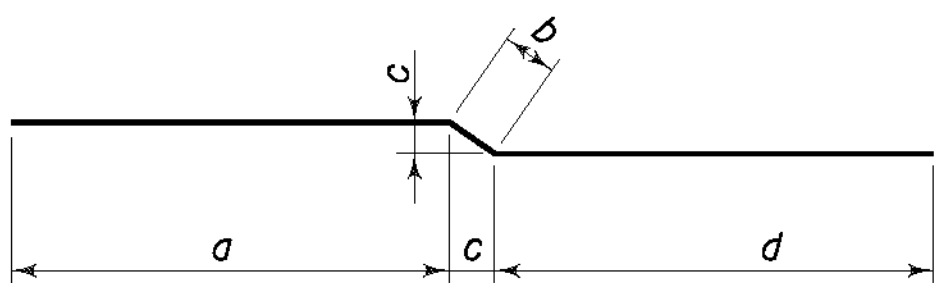
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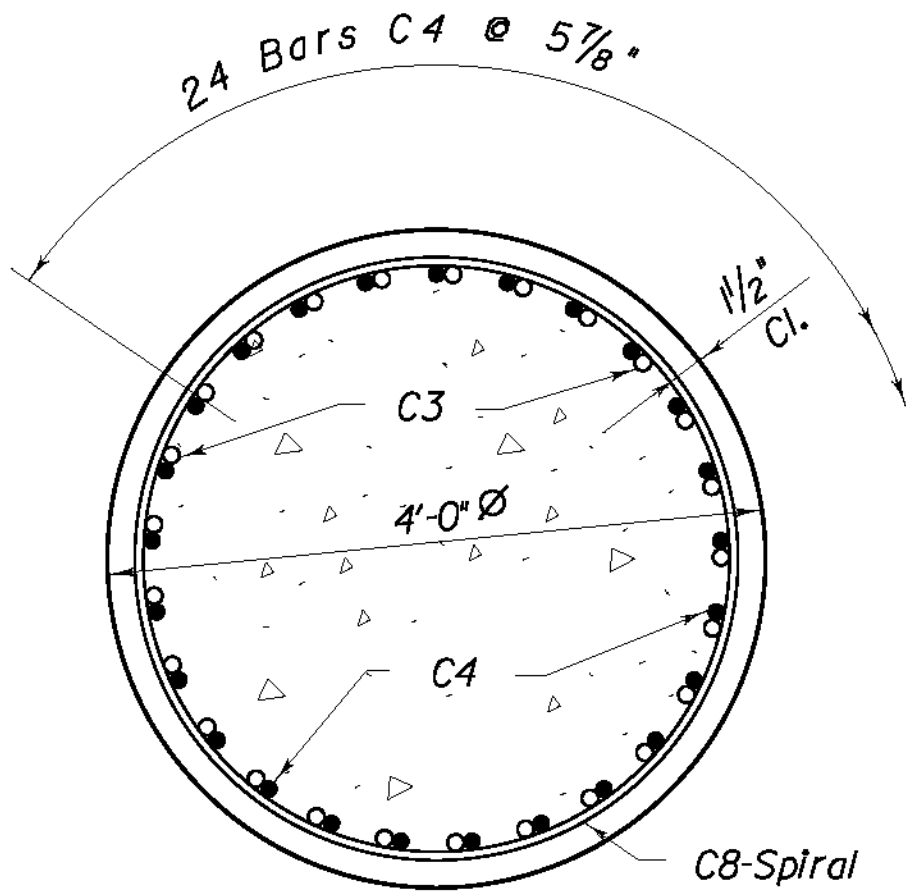
Type ⑭



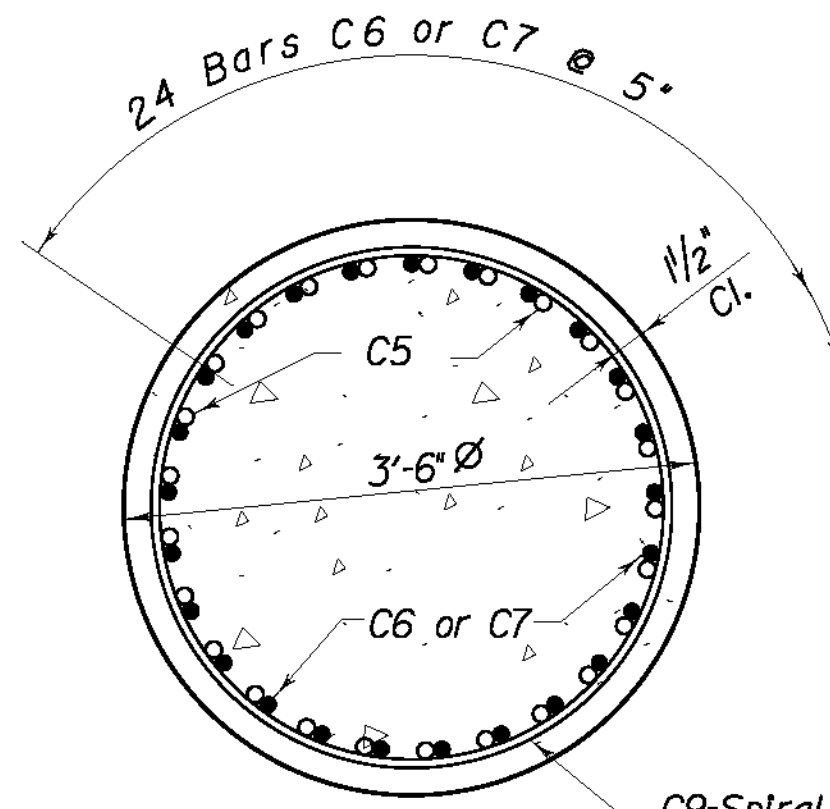
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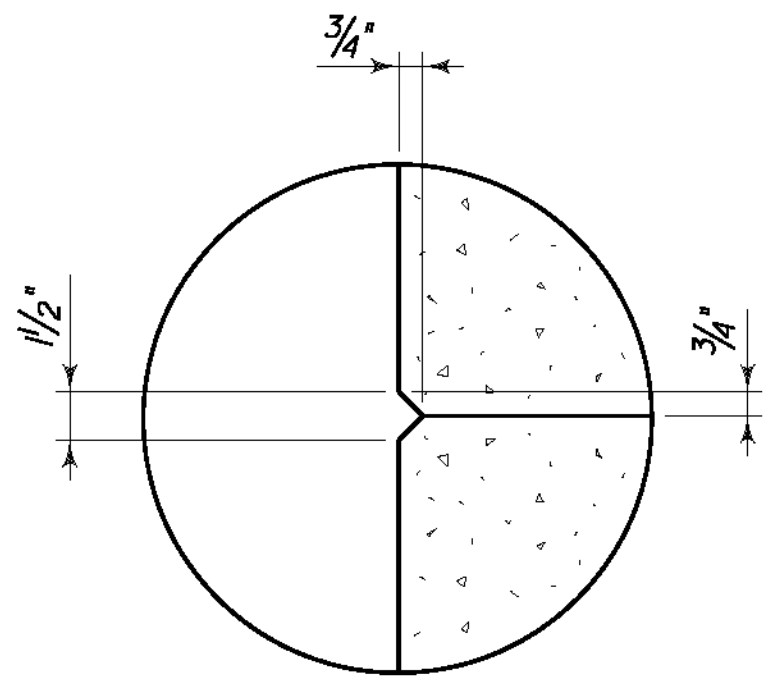
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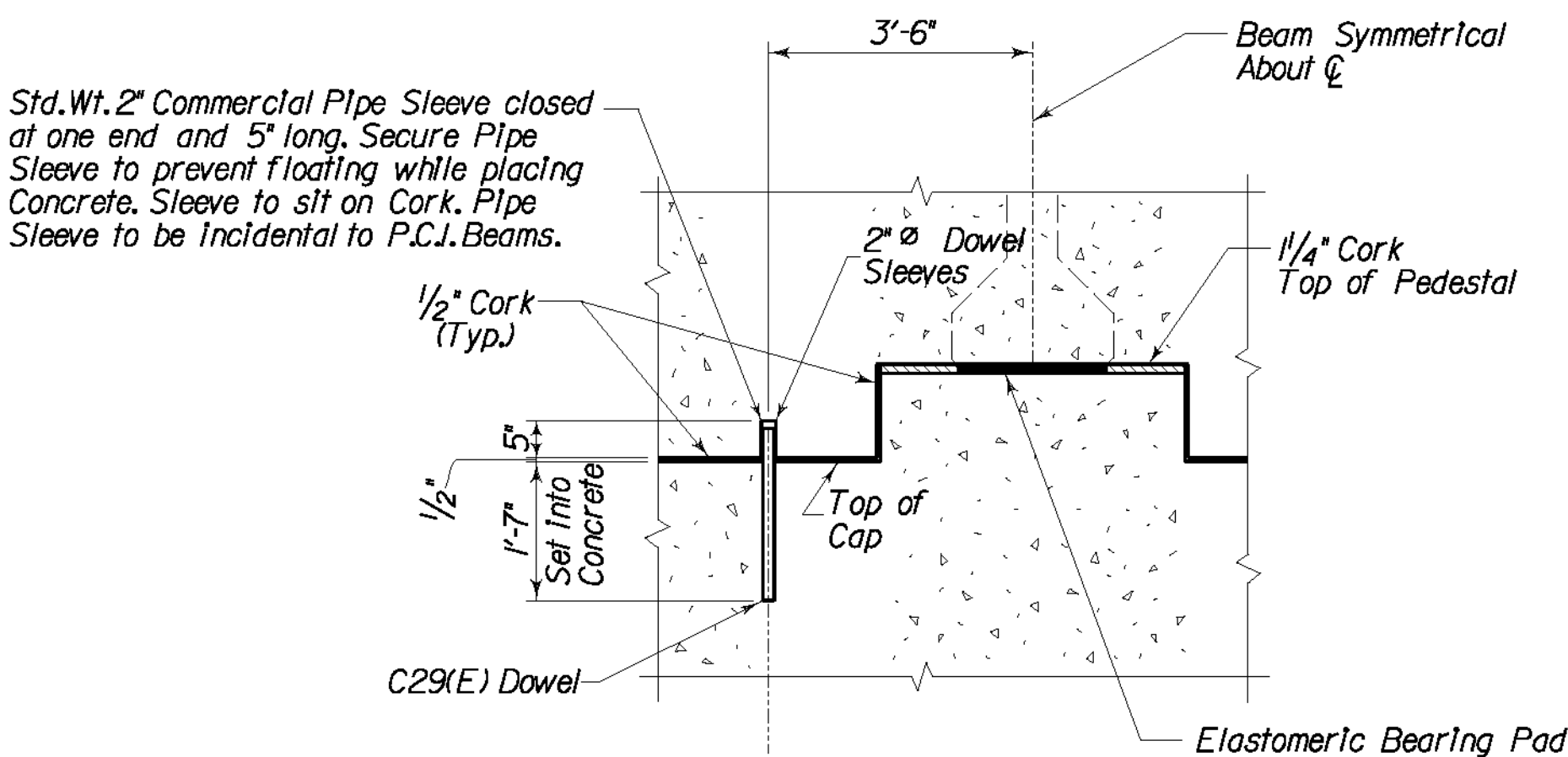
SECTION D-D



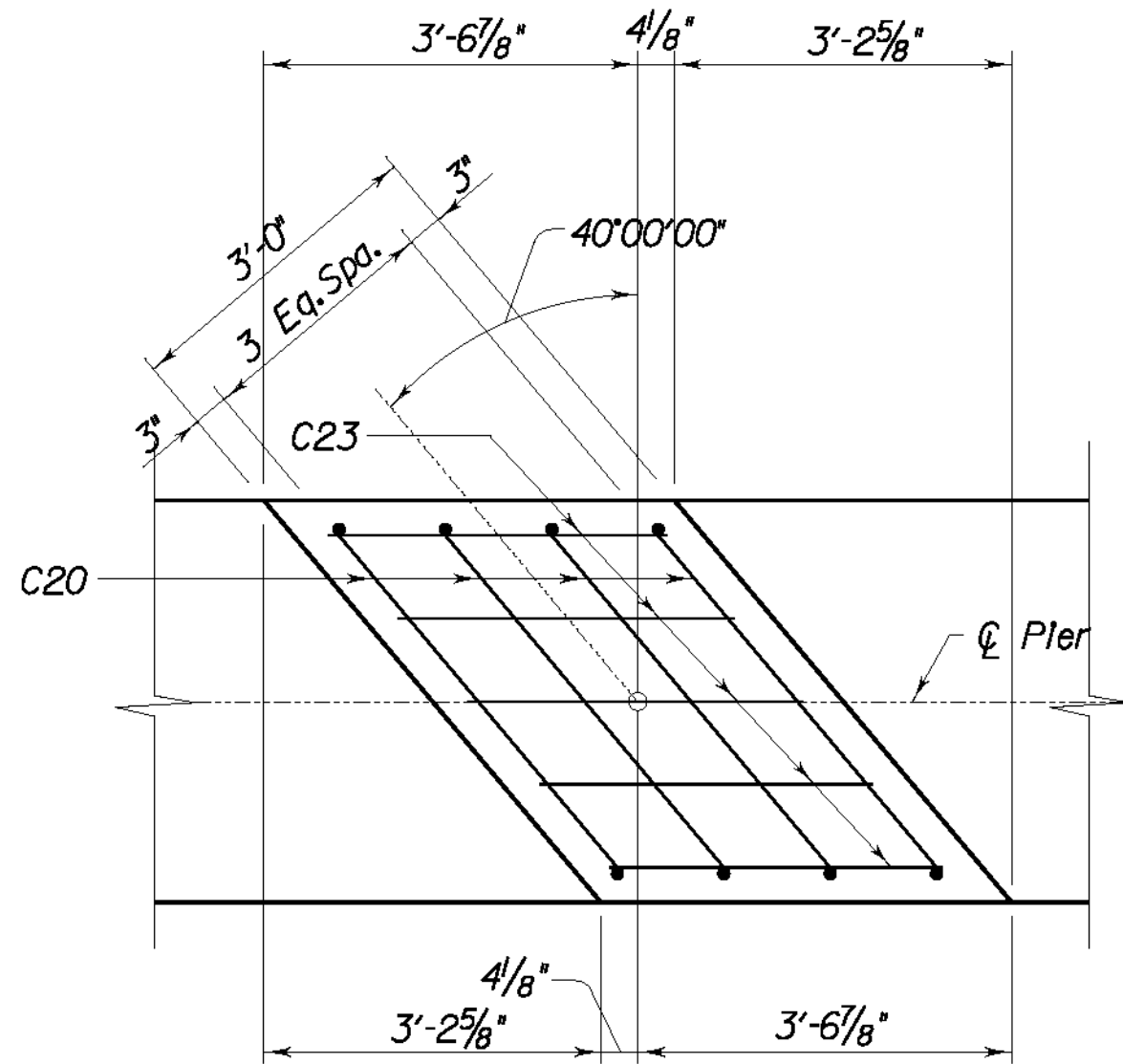
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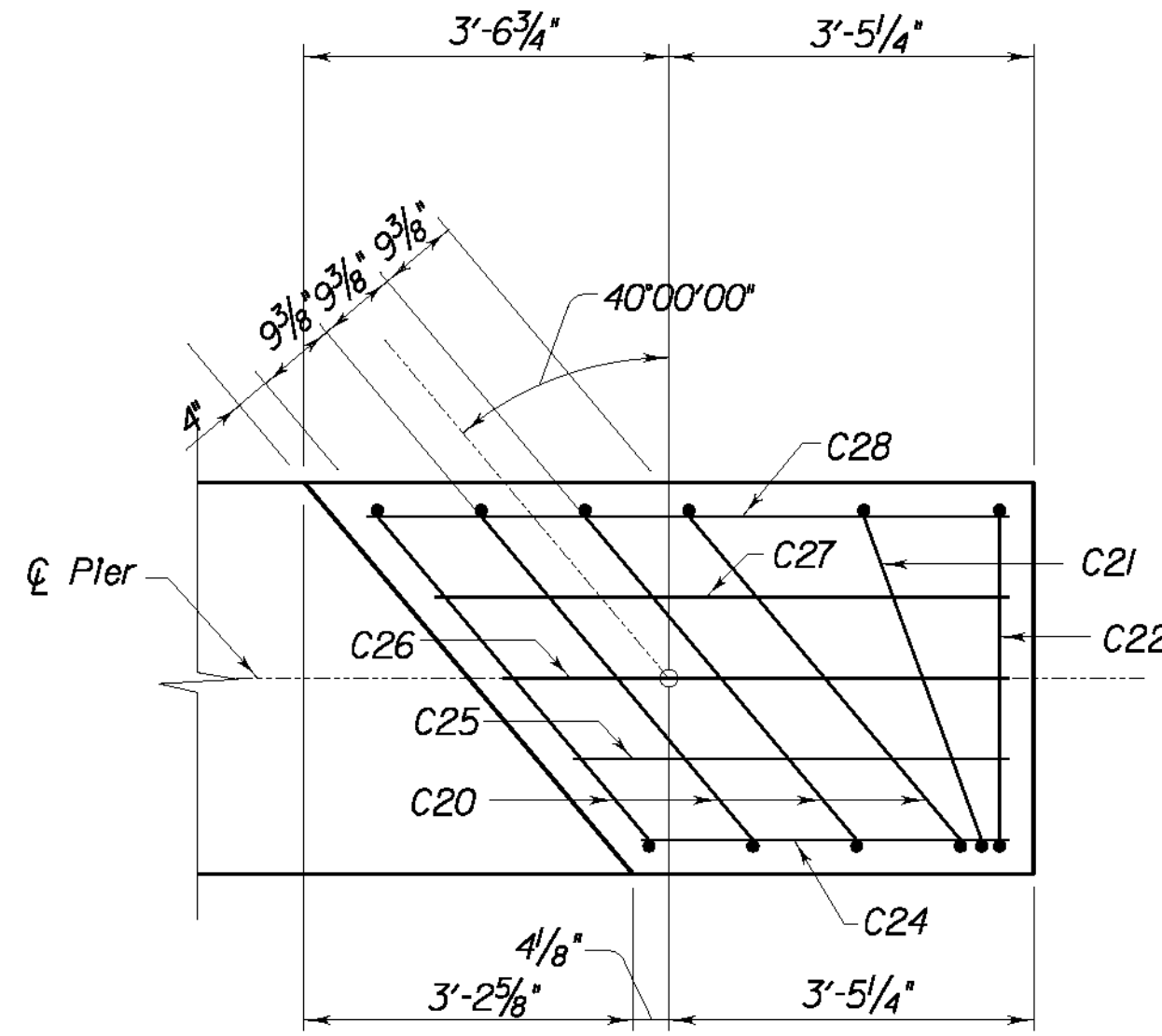
RUSTICATION GROOVE



DOWEL DETAIL



PEDESTAL DETAIL



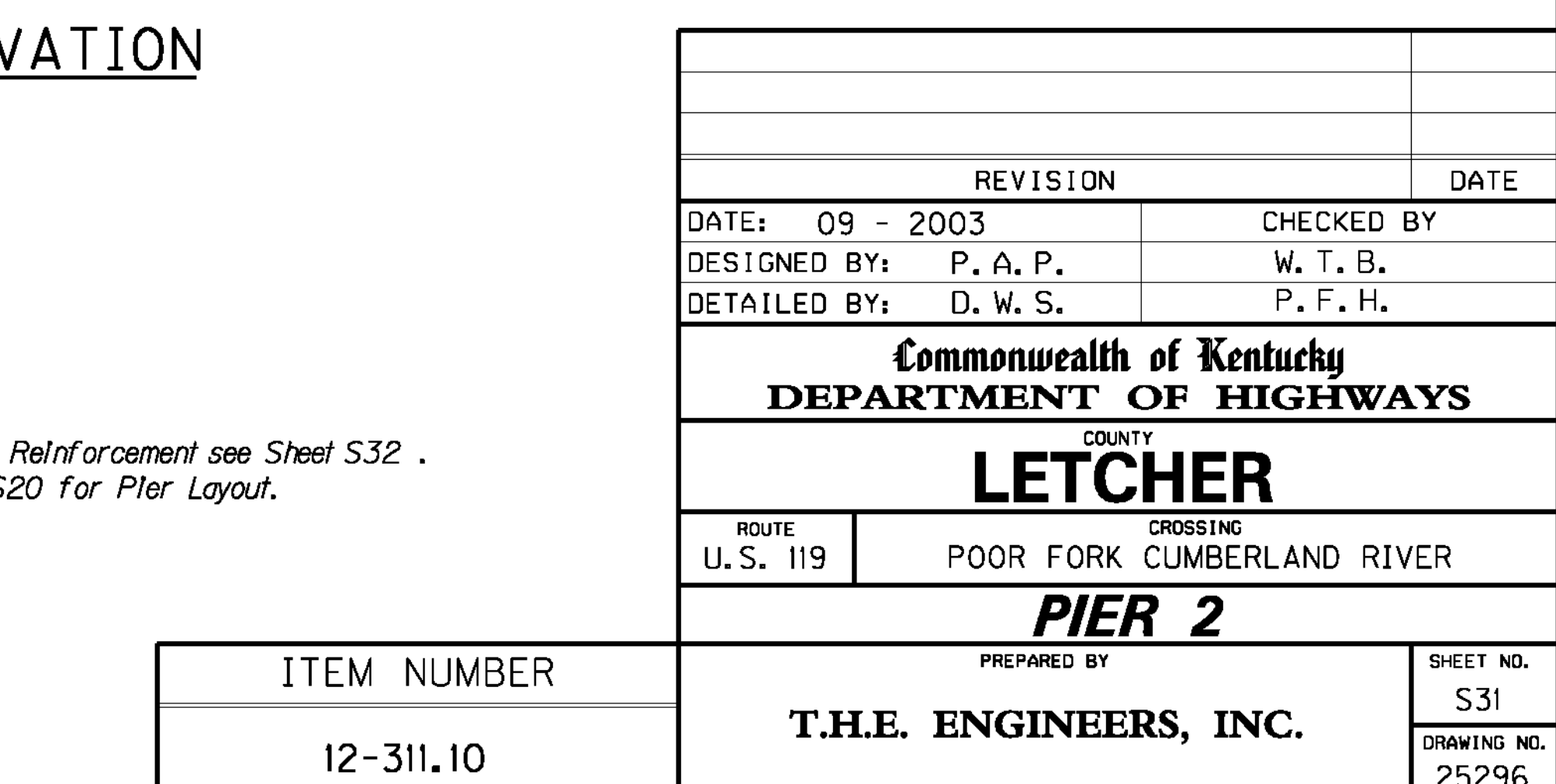
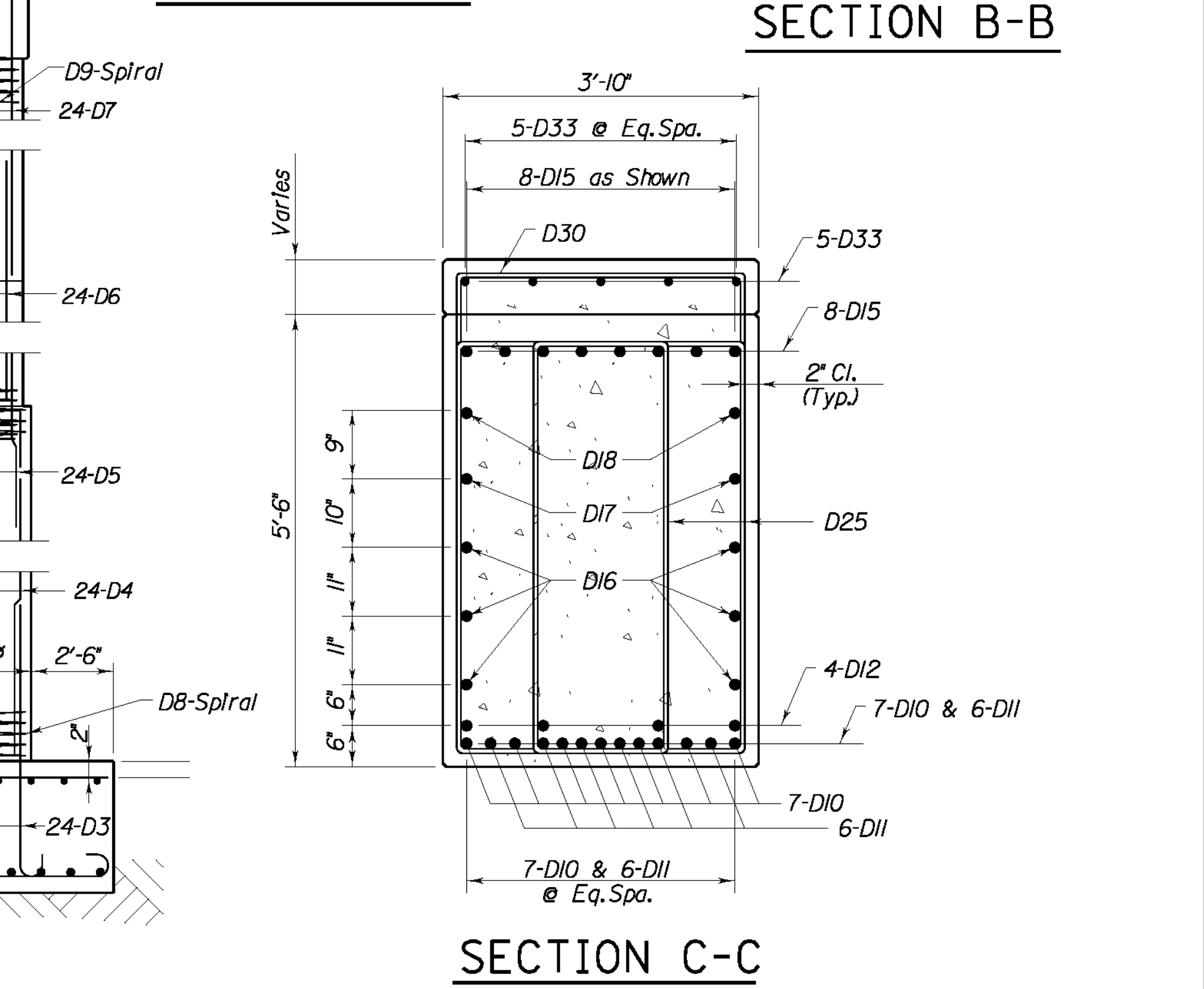
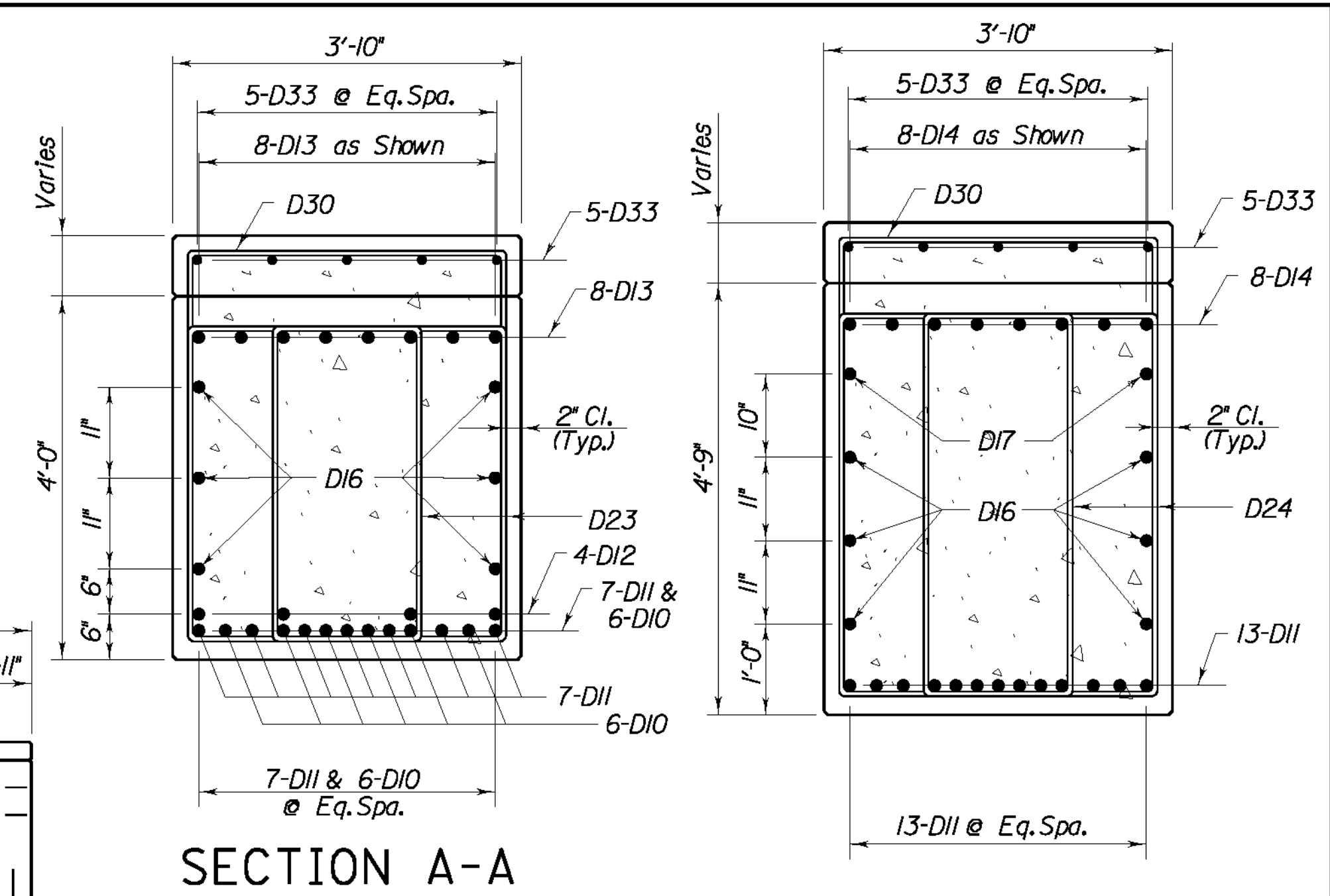
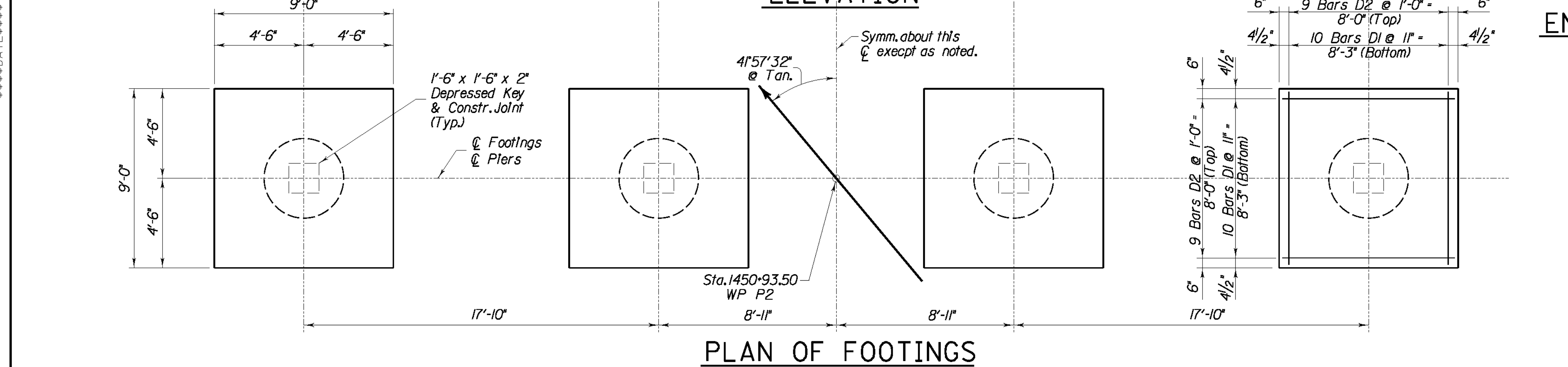
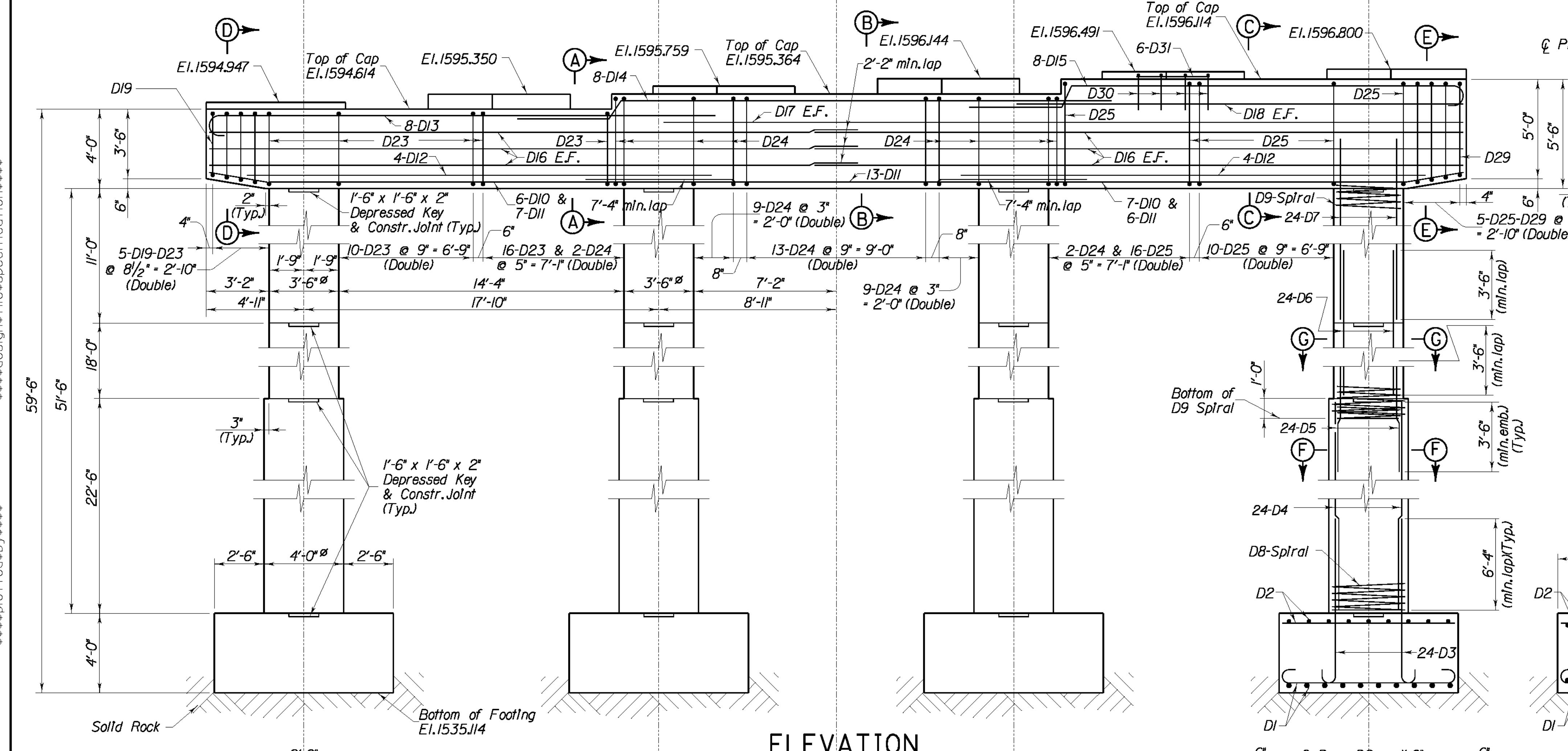
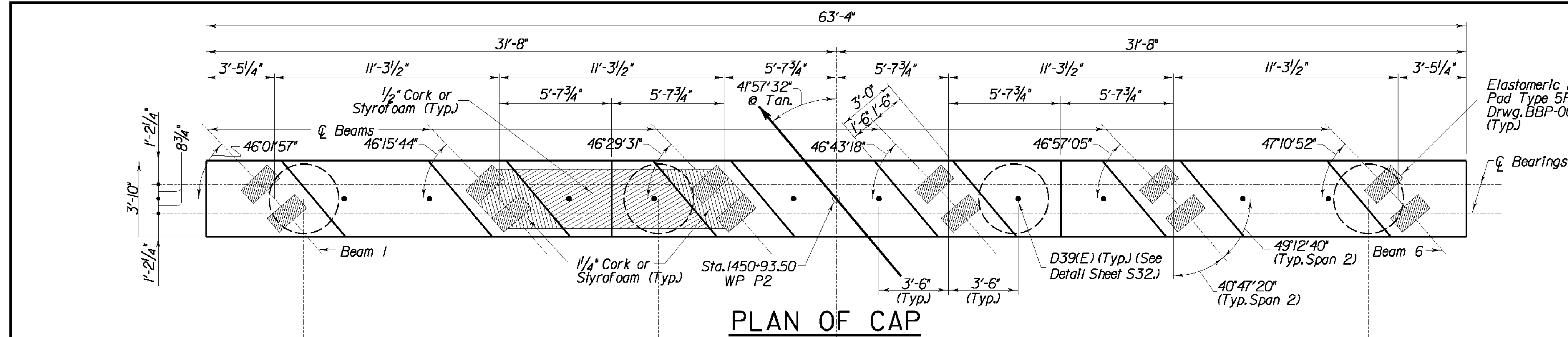
PEDESTAL DETAIL

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE US 119		CROSSING POOR FORK CUMBERLAND RIVER	
PIER 1			
PREPARED BY		SHEET NO.	
T.H.E. ENGINEERS, INC.		S30	
		DRAWING NO.	
		25296	

\\s01\designs\files\specification\\$\$\$\$\$

\$\$\$\$\$PLOTED BY\$\$\$\$\$

\$\$\$\$\$DATE\$\$\$\$\$



END ELEVATION

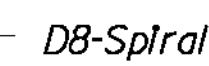
NOTE:
For Bill of Reinforcement see Sheet S32 .
See Sheet S20 for Pier Layout.

ITEM NUMBER
12-311.10

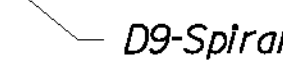
REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky			
DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE		CROSSING	
U.S. 119		POOR FORK CUMBERLAND RIVER	
PIER 2			
PREPARED BY			SHEET NO.
T.H.E. ENGINEERS, INC.			S31
			DRAWING NO.
			25296

BILL OF REINFORCEMENT														
Mark	Type	Number Pier 2	Size	Length		Location	a		b		c		d	
				Ft.	In.		Ft.	In.	Ft.	In.	Ft.	In.		
D1	(1)	80	8	10	10	Footing	8	0	1	5	0	8	8	8
D2	Str.	72	5	8	8	Footing								
D3	(4)	96	8	11	1	Column Dowels	9	8	1	5	0	8	10	0
D4	Str.	96	8	22	4	Column								
D5	(2)	96	7	7	1	Column	2	4	0	2 3/4	0	2	4	6
D6	Str.	96	7	21	6	Column								
D7	Str.	96	7	13	1	Column								
D8	(8)	4	4	22	4	Spiral	80	turns					3	9
D9	(8)	4	4	30	3	Spiral	107	turns					3	3
D10	(8)	13	10	26	4	Cap	23	5 1/2	2	10 1/2	0	5 3/4	2	10
D11	(8)	13	10	44	2	Cap	41	3 1/2	2	10 1/2	0	5 3/4	2	10
D12	Str.	8	8	21	2	Cap								
D13	(4)	8	9	25	10	Cap	23	11	1	11	0	11 3/4	24	5
D14	(2)	8	9	32	8	Cap	5	7	1	0 3/4	0	9	26	0 1/4
D15	(2)	8	9	27	2	Cap								
D16	Str.	12	6	32	7	Cap								
D17	Str.	2	6	41	2	Cap								
D18	Str.	2	6	18	8	Cap								
D19s	(4)	2	5	11	8	Cap	3	2 1/2	2	3				
D20s	(4)	2	5	11	11	Cap	3	4	2	3				
D21s	(4)	2	5	12	2	Cap	3	5 1/2	2	3				
D22s	(4)	2	5	12	5	Cap	3	7	2	3				
D23s	(4)	54	5	12	7	Cap	3	8	2	3				
D24s	(4)	70	5	14	1	Cap	4	5	2	3				
D25s	(4)	54	5	15	7	Cap	5	2	2	3				
D26s	(4)	2	5	15	5	Cap	5	1	2	3				
D27s	(4)	2	5	15	2	Cap	4	11 1/2	2	3				
D28s	(4)	2	5	14	11	Cap	4	10	2	3				
D29s	(4)	2	5	14	8	Cap	4	8 1/2	2	3				
D30s	(2)	24	5	8	5	Pedestal	1	11	4	8				
D31s	(2)	2	5	7	10	Pedestal	1	11	4	1				
D32s	(2)	2	5	7	3	Pedestal	1	11	3	6				
D33	Str.	20	5	3	8	Pedestal								
D34	Str.	2	5	3	5	Pedestal								
D35	Str.	2	5	4	2	Pedestal								
D36	Str.	2	5	5	0	Pedestal								
D37														

* 1/2" Diameter Round Smooth Pin. Epoxy Coated



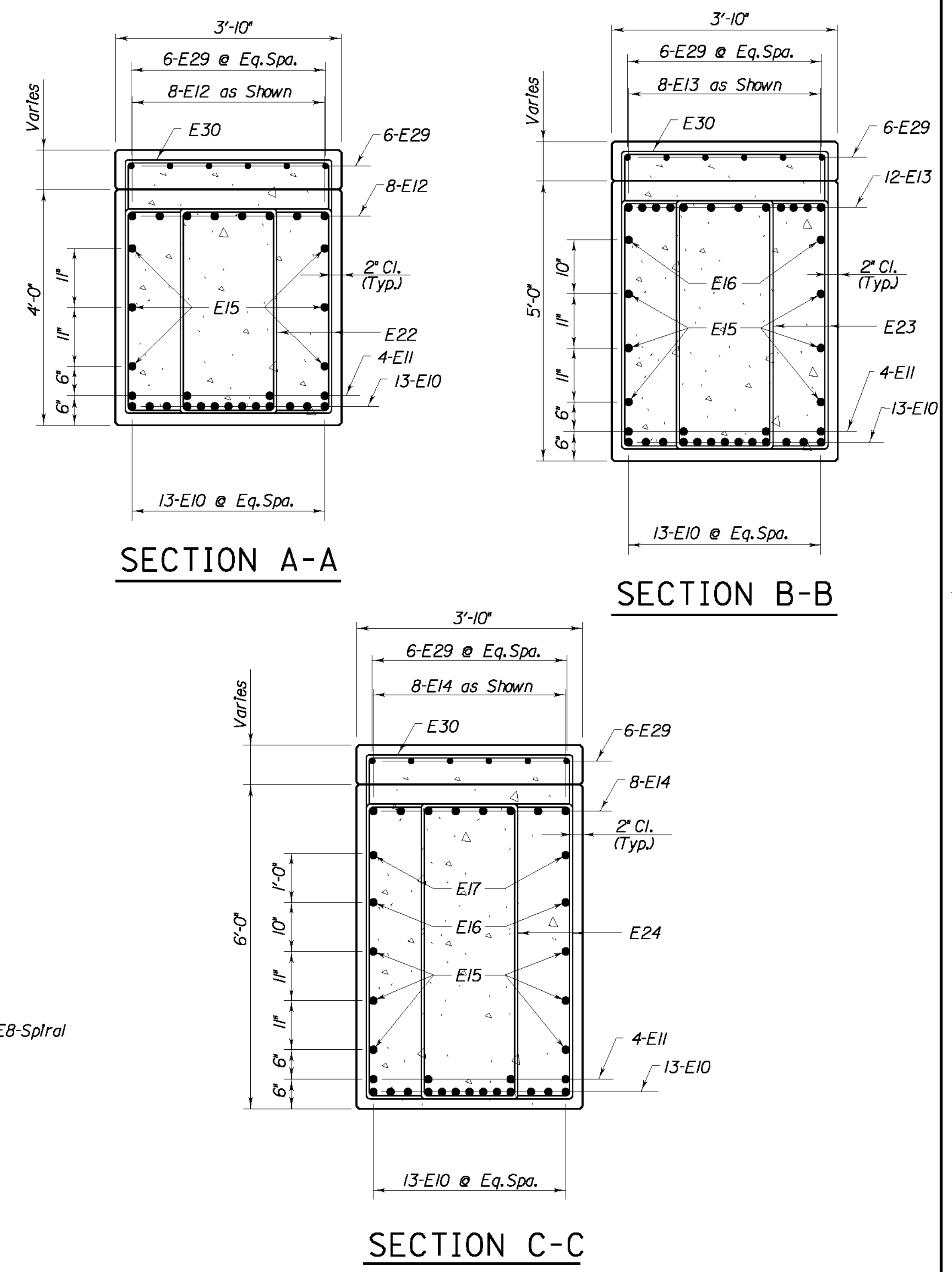
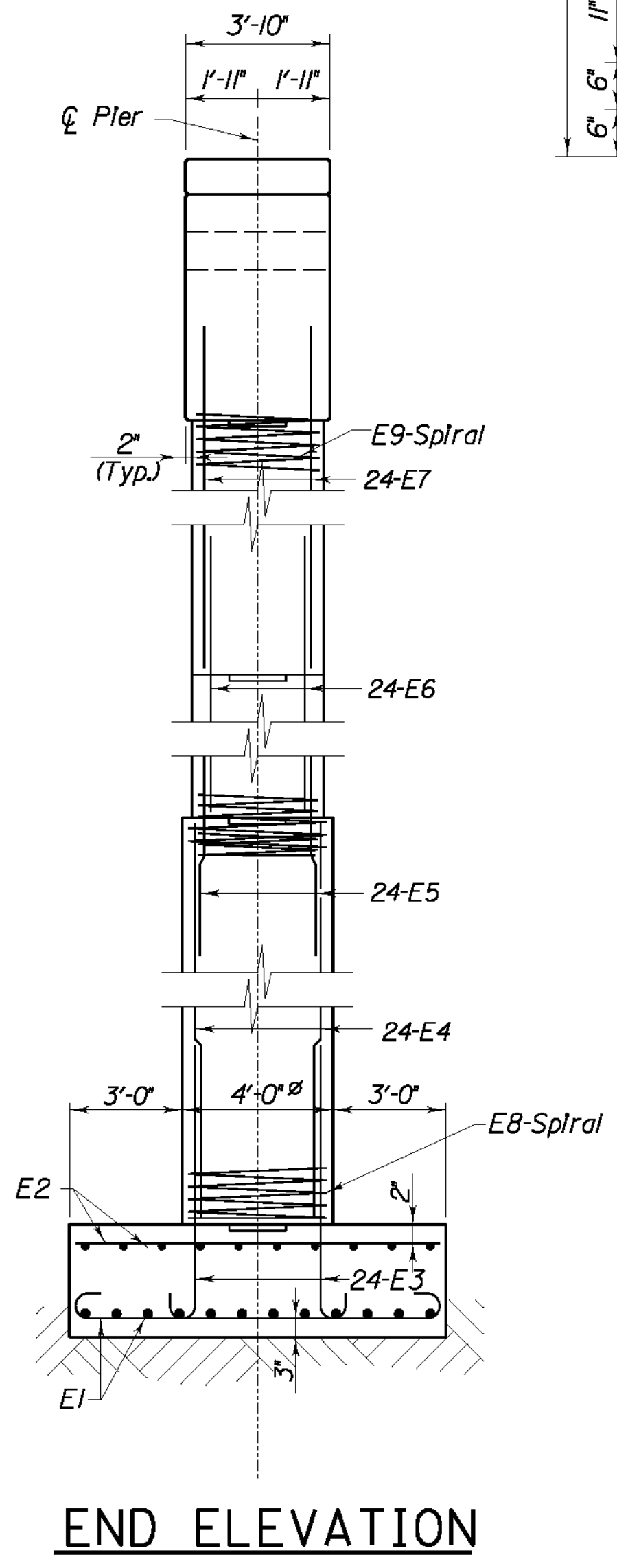
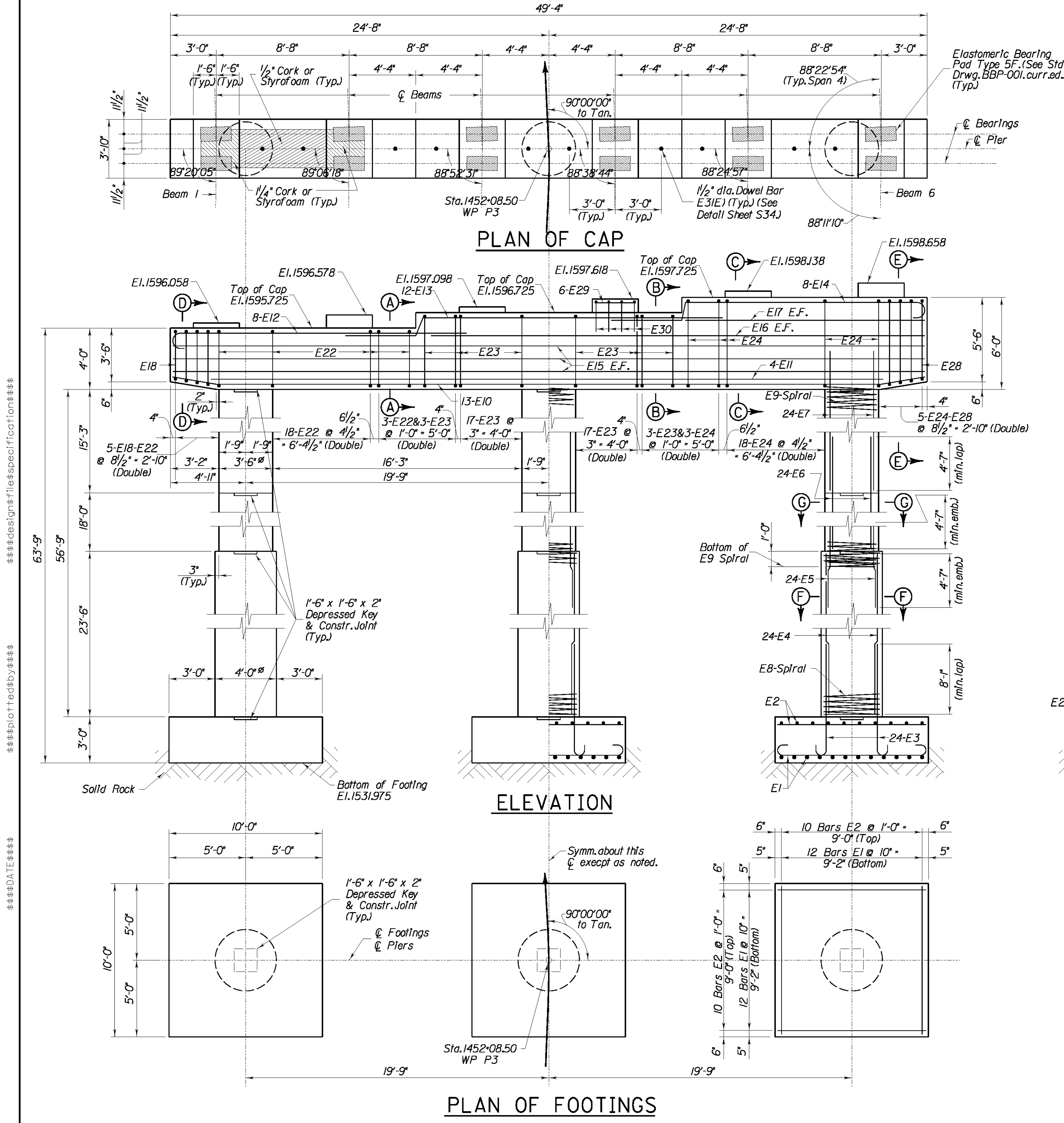
SECTION F-F



SECTION G-G



REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE	CROSSING		
US 119	POOR FORK CUMBERLAND RIVER		
PIER 2			
PREPARED BY			SHEET NO.
T.H.E. ENGINEERS, INC.			S32
			DRAWING NO.
			25296



NOTE:
For Bill of Reinforcement see Sheet S34.
See Sheet S20 for Pier Layout.

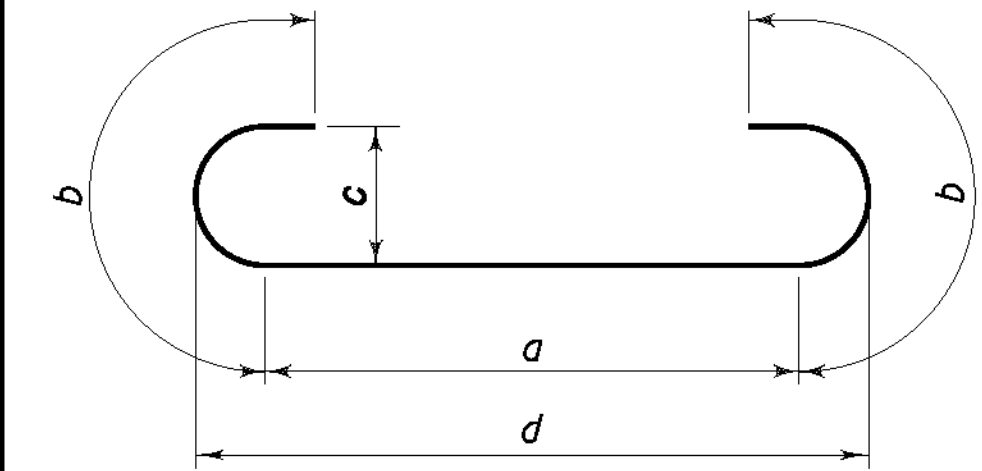
ITEM NUMBER
12-311.10

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
PIER 3			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S33
			DRAWING NO. 25296

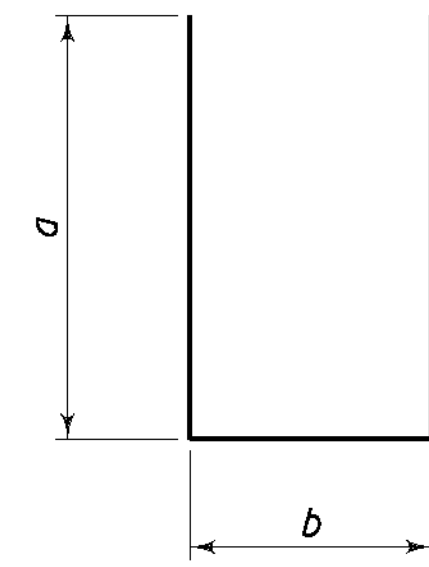
BILL OF REINFORCEMENT

Mark	Type	Number	Size	Length		Location	a		b		c		d	
				Ft.	In.		Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
E1	(1)	72	8	11	10	Footng	9	0	1	5	0	8	9	8
E2	Str.	60	5	9	8	Footng								
E3	(4)	72	9	12	2	Column Dowels	10	3	1	11	0	11 3/4	10	9
E4	Str.	72	9	23	4	Column								
E5	(2)	72	8	9	3	Column	3	5	0	2 3/4	0	2	5	7
E6	Str.	72	8	22	7	Column								
E7	Str.	72	8	17	11	Column								
E8	(8)	3	4	23	4	Spral	84 turns						3	9
E9	(8)	3	4	34	6	Spral	123 turns						3	3
E10	(6)	13	10	49	1	Cap	43	4	2	10 1/2	0	5 3/4	2	10
E11	Str.	4	8	44	10	Cap								
E12	(4)	8	10	22	8	Cap	20	6	2	2	1	1 1/4	21	0
E13	(2)	12	10	28	1	Cap	5	2	1	5	1	0	21	6
E14	(2)	8	10	23	0	Cap								
E15	Str.	6	6	49	0	Cap								
E16	Str.	2	6	30	7	Cap								
E17	Str.	2	6	13	3	Cap								
E18s	(4)	2	5	11	8	Cap	3	2 1/2	2	3				
E19s	(4)	2	5	11	11	Cap	3	4	2	3				
E20s	(4)	2	5	12	2	Cap	3	5 1/2	2	3				
E21s	(4)	2	5	12	5	Cap	3	7	2	3				
E22s	(4)	44	5	12	7	Cap	3	8	2	3				
E23s	(4)	80	5	14	7	Cap	4	8	2	3				
E24s	(4)	44	5	16	7	Cap	5	8	2	3				
E25s	(4)	2	5	16	5	Cap	5	7	2	3				
E26s	(4)	2	5	16	2	Cap	5	5 1/2	2	3				
E27s	(4)	2	5	15	11	Cap	5	4	2	3				
E28s	(4)	2	5	15	8	Cap	5	2 1/2	2	3				
E29	Str.	36	5	2	8	Pedestal								
E30s	(2)	24	5	7	5	Pedestal	2	0	3	6				
E3(E)	Str.	10	*	2	0	Dowels								

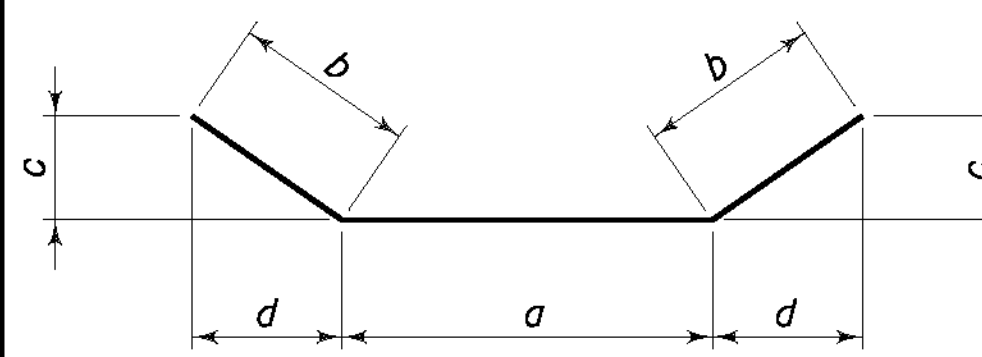
NOTE: Reinforcing Bars Designated By The Suffix (E) In The Plans Shall Be Epoxy Coated In Accordance With The Current Specifications.
Reinforcing bars designated by the suffix (s) in the Bill of Reinforcement shall be considered stirrups for purposes of bend diameters.
* 1/2" Diameter Round Smooth Pin, Epoxy Coated



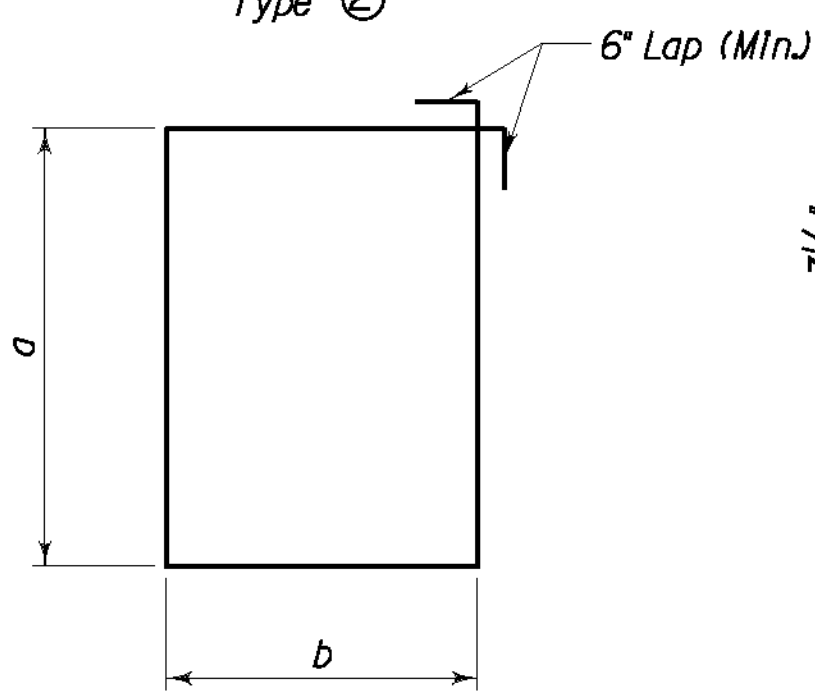
Type ①



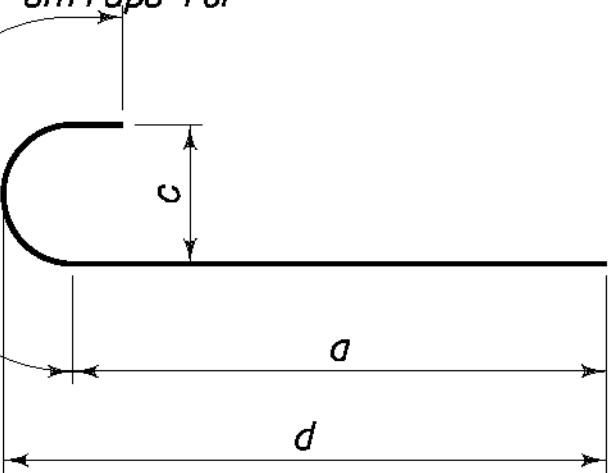
Type ②



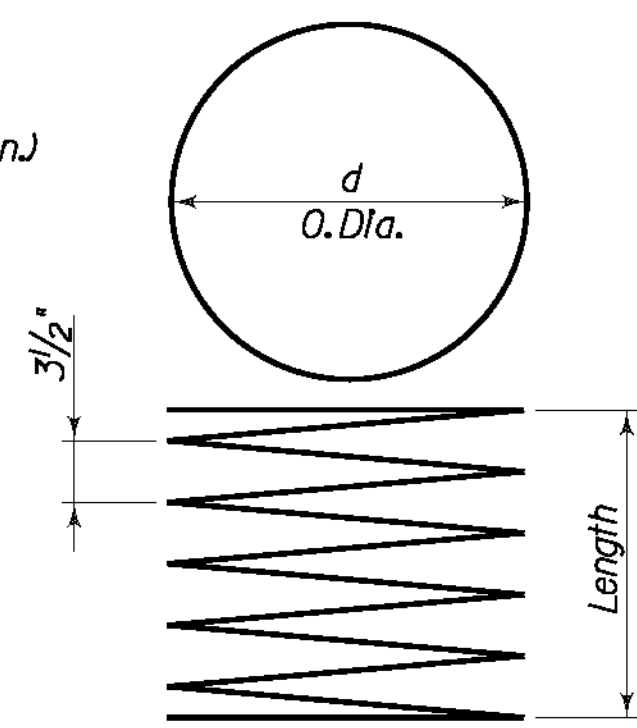
Type ③



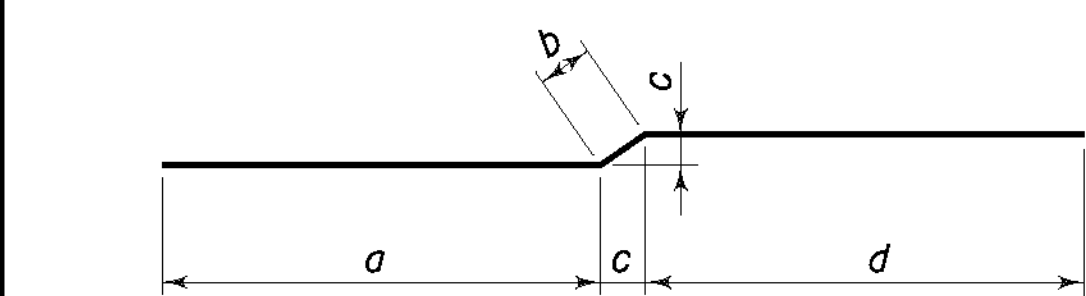
Type ④



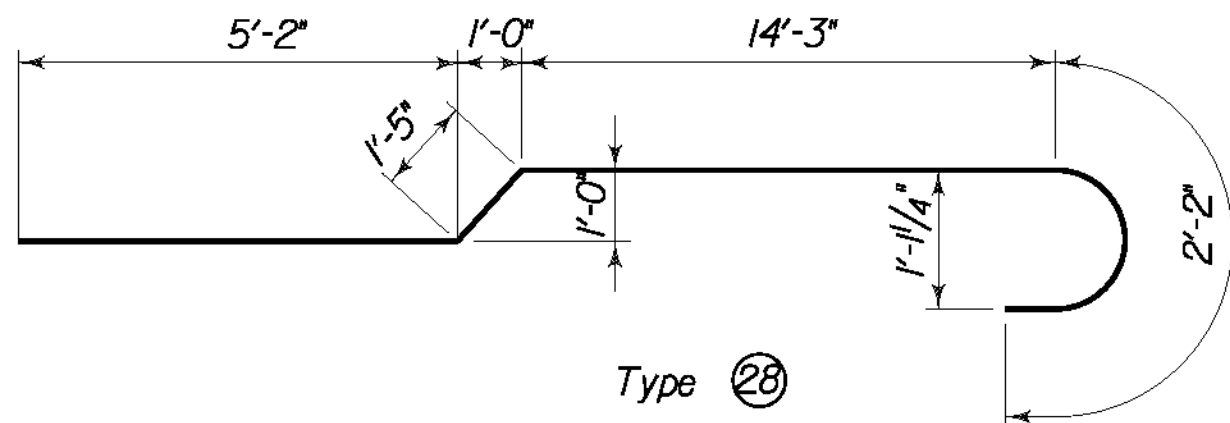
Type ⑤



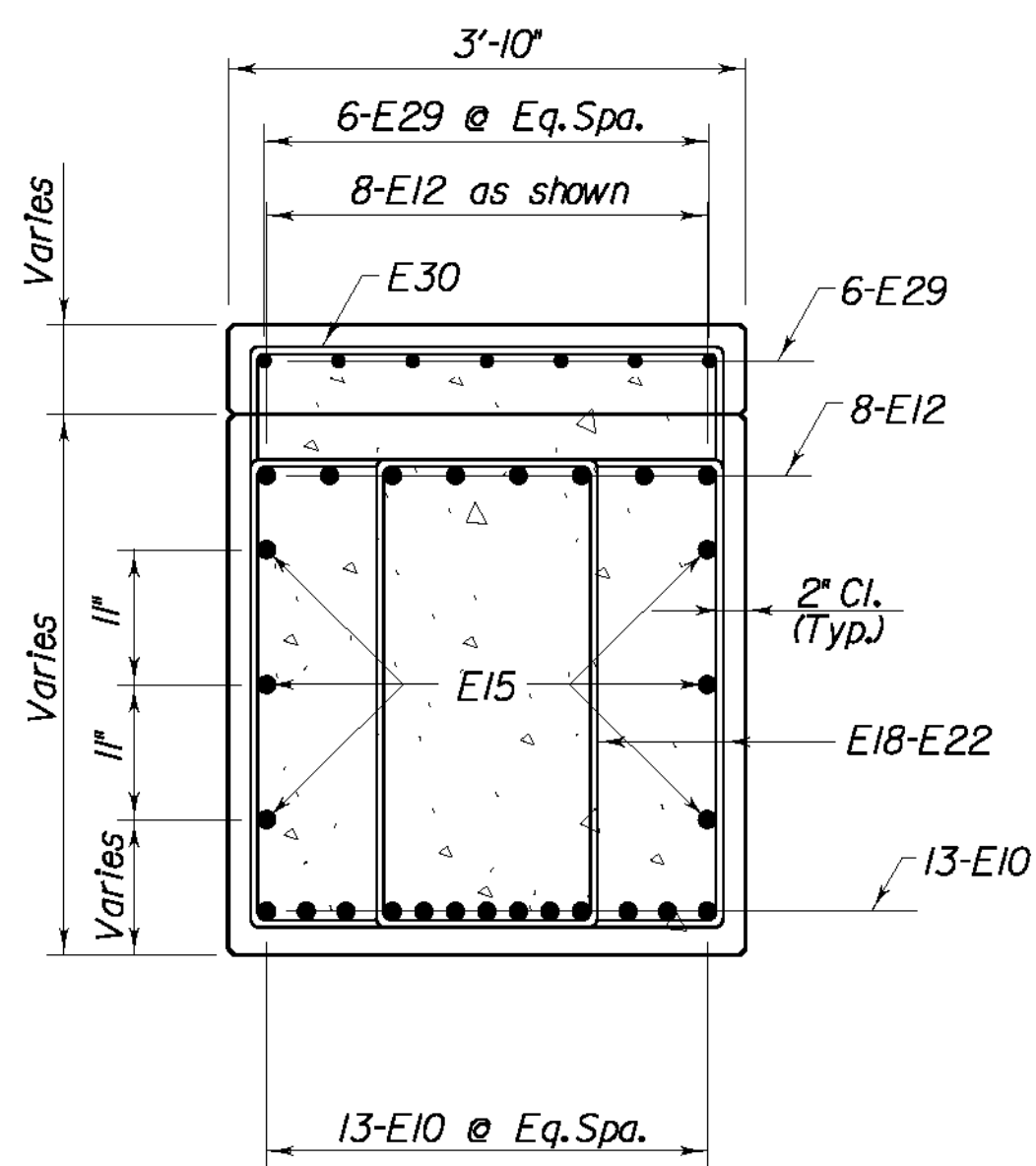
Type ⑥



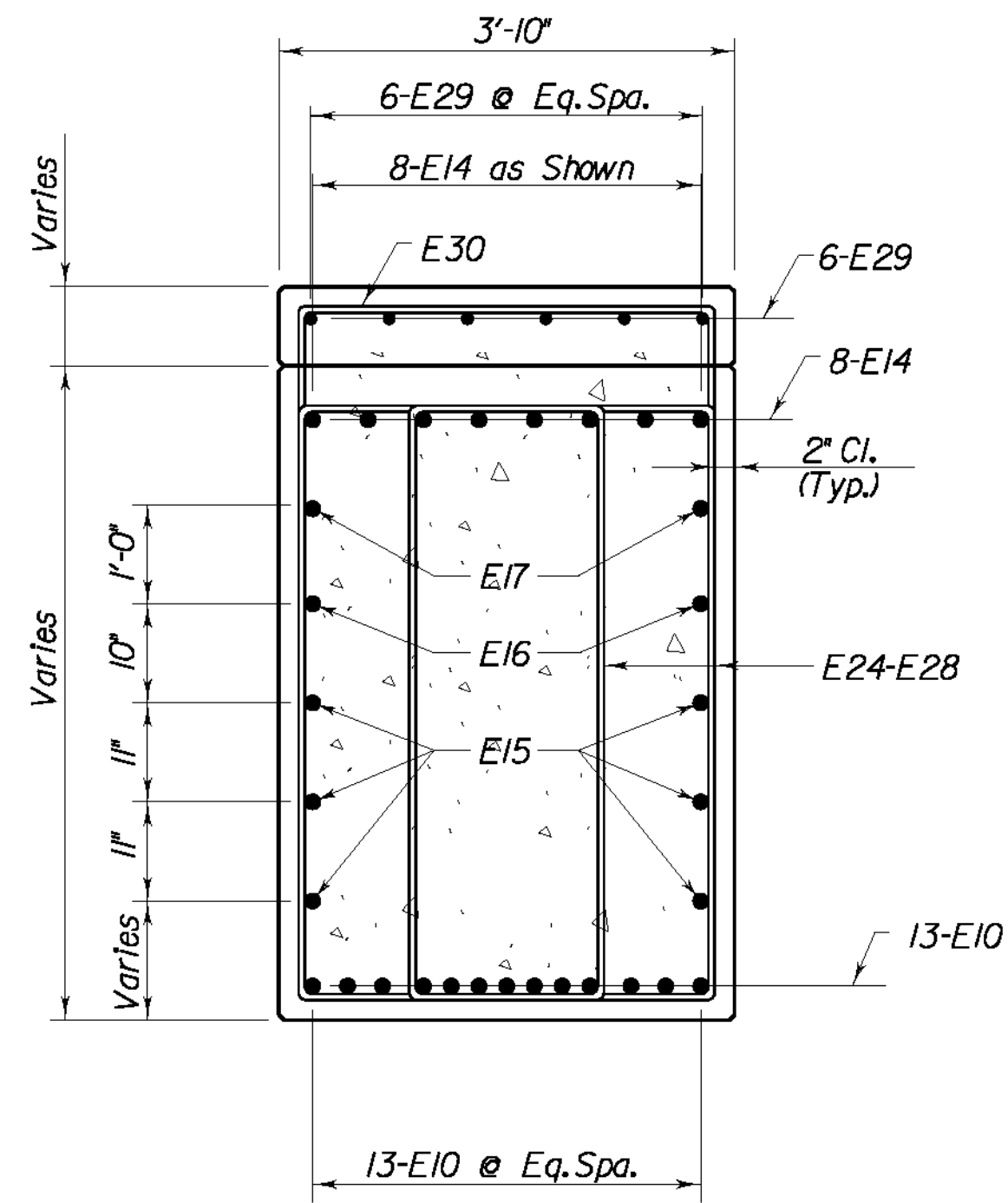
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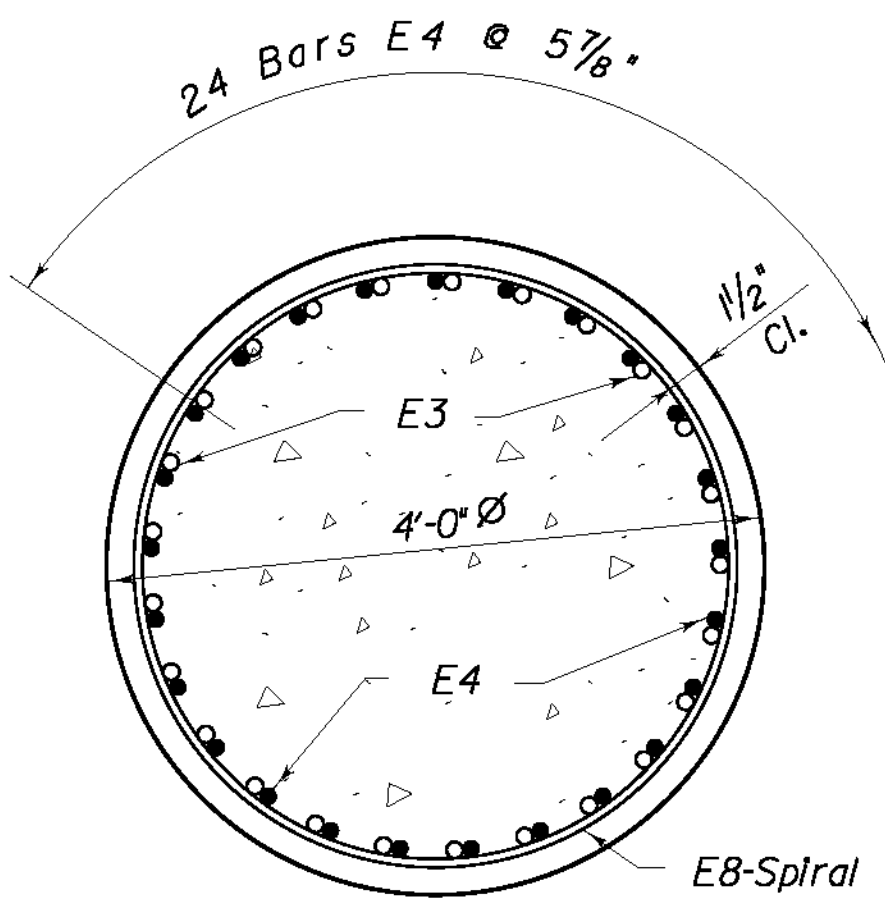
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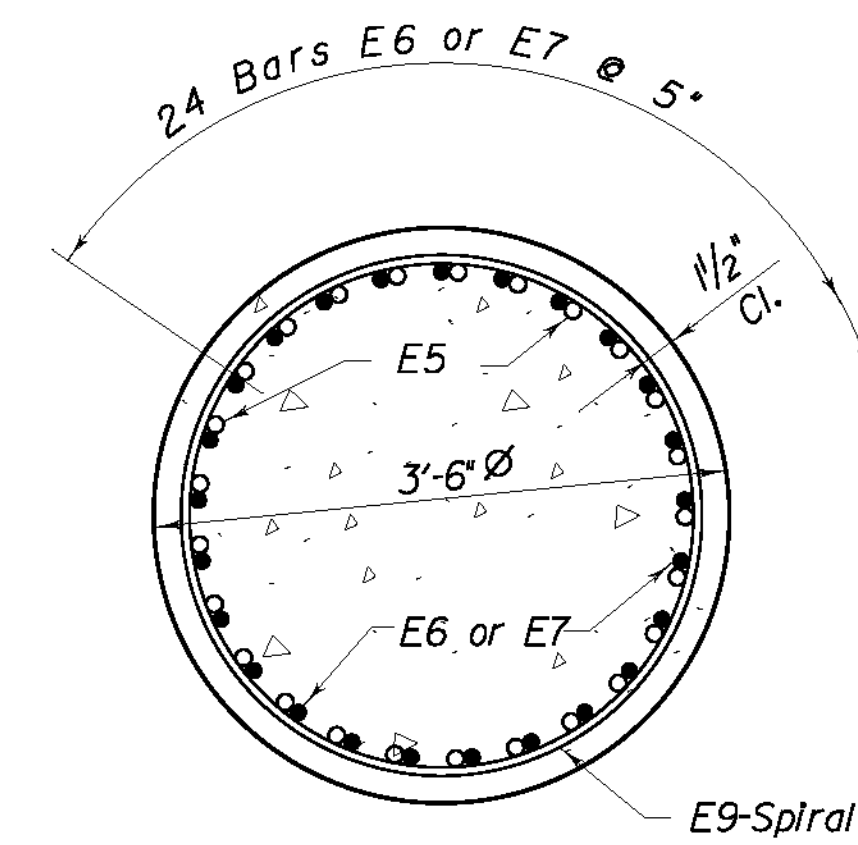
SECTION D-D



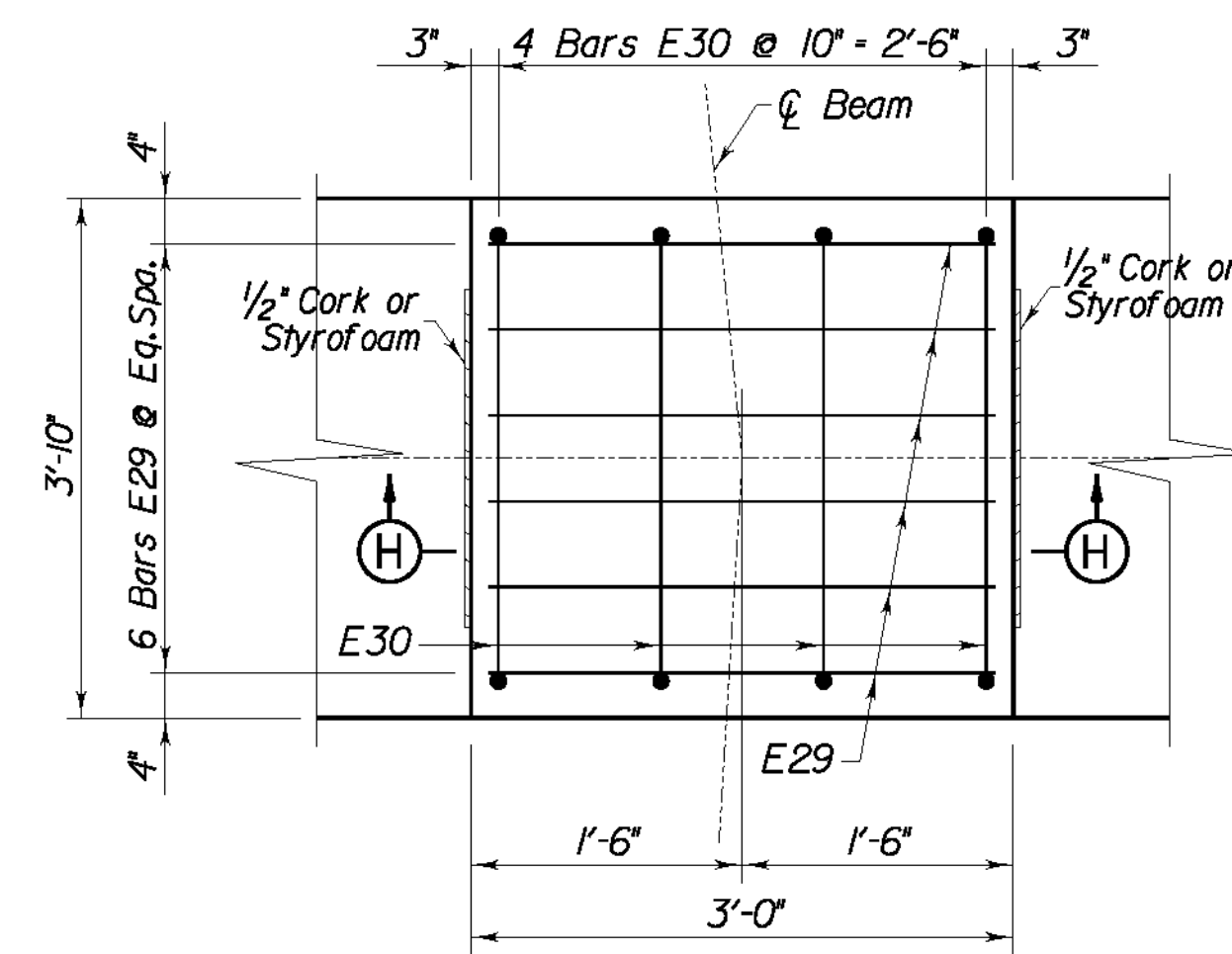
SECTION E-E



SECTION F-F



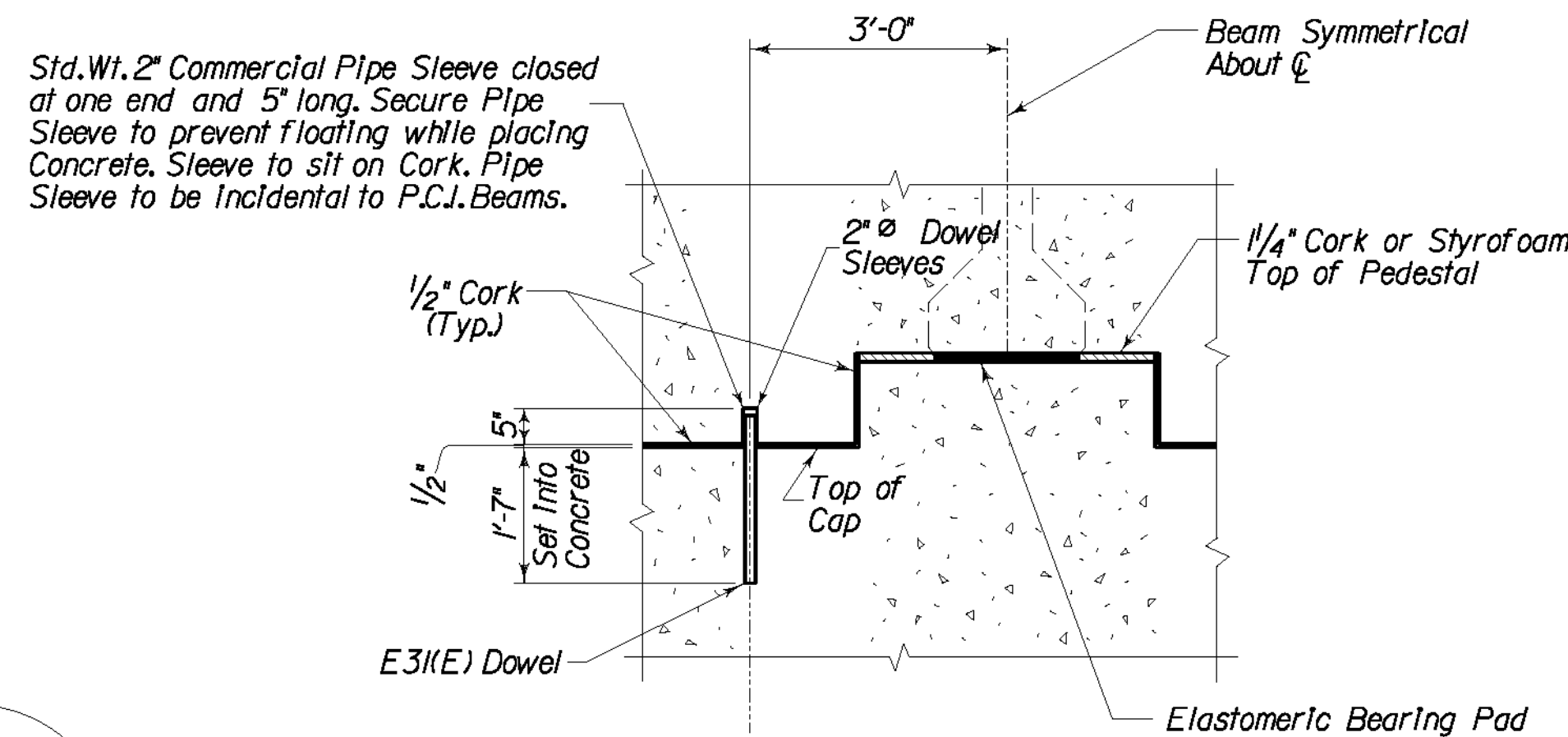
SECTION G-G



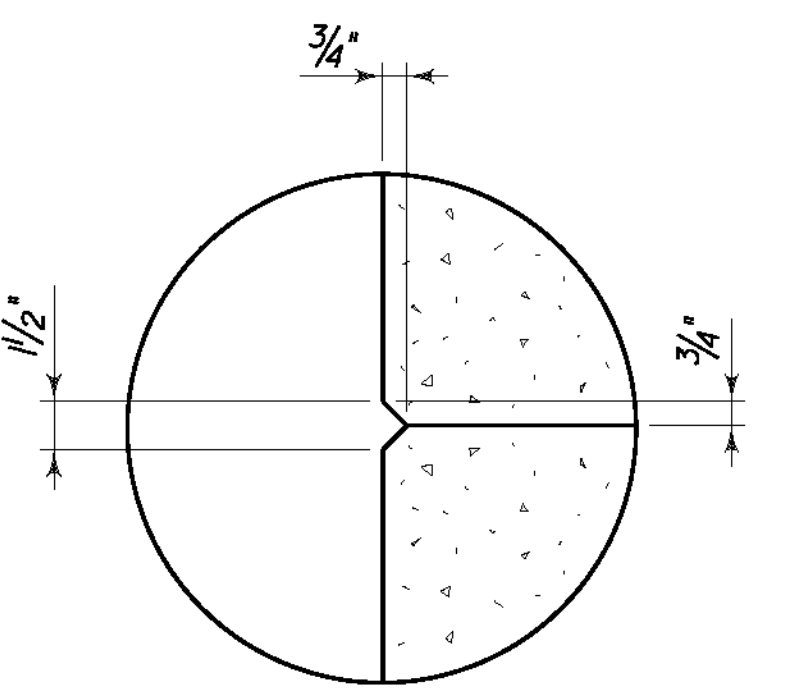
PEDESTAL DETAIL



SECTION H-H



DOWEL DETAIL

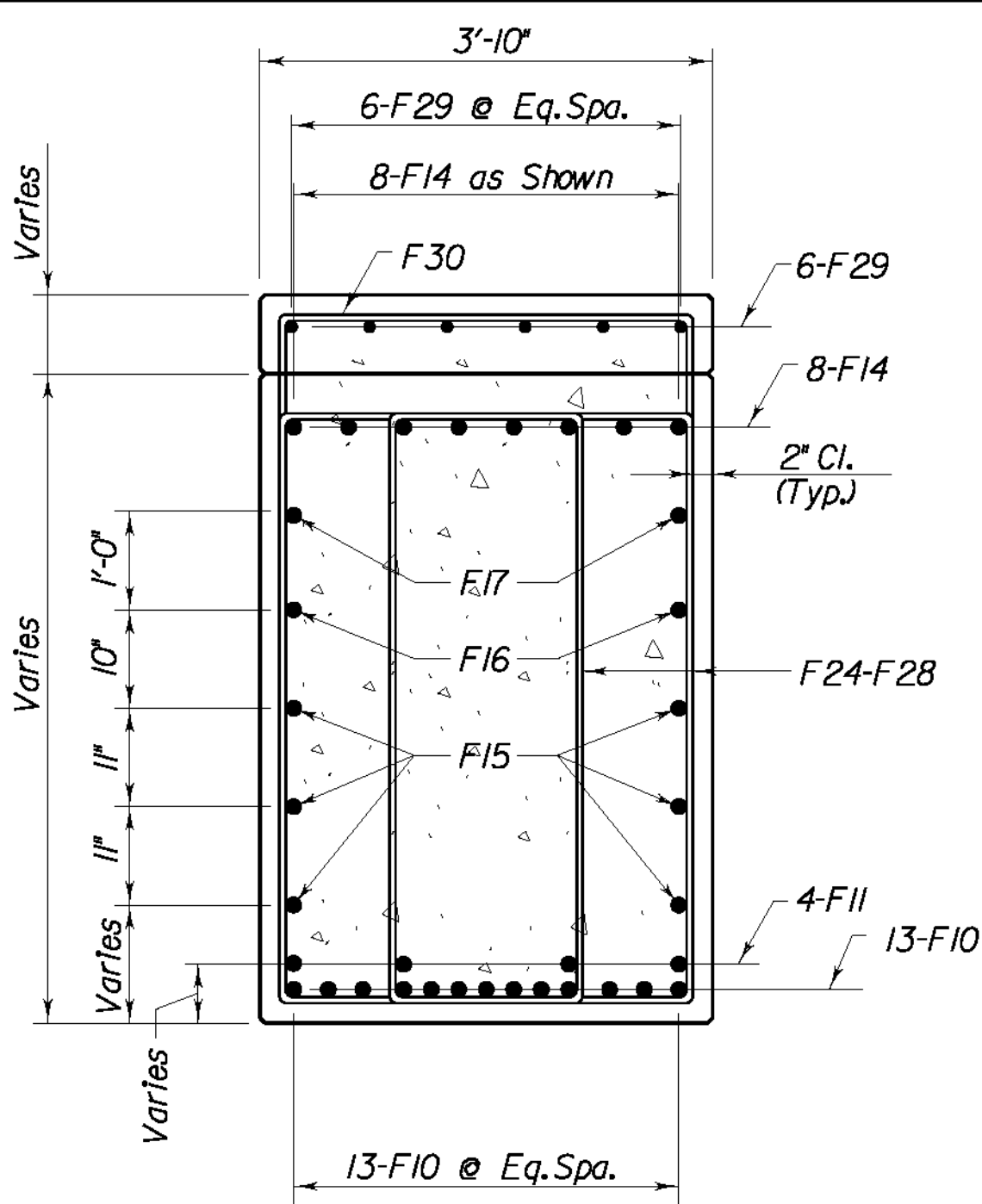
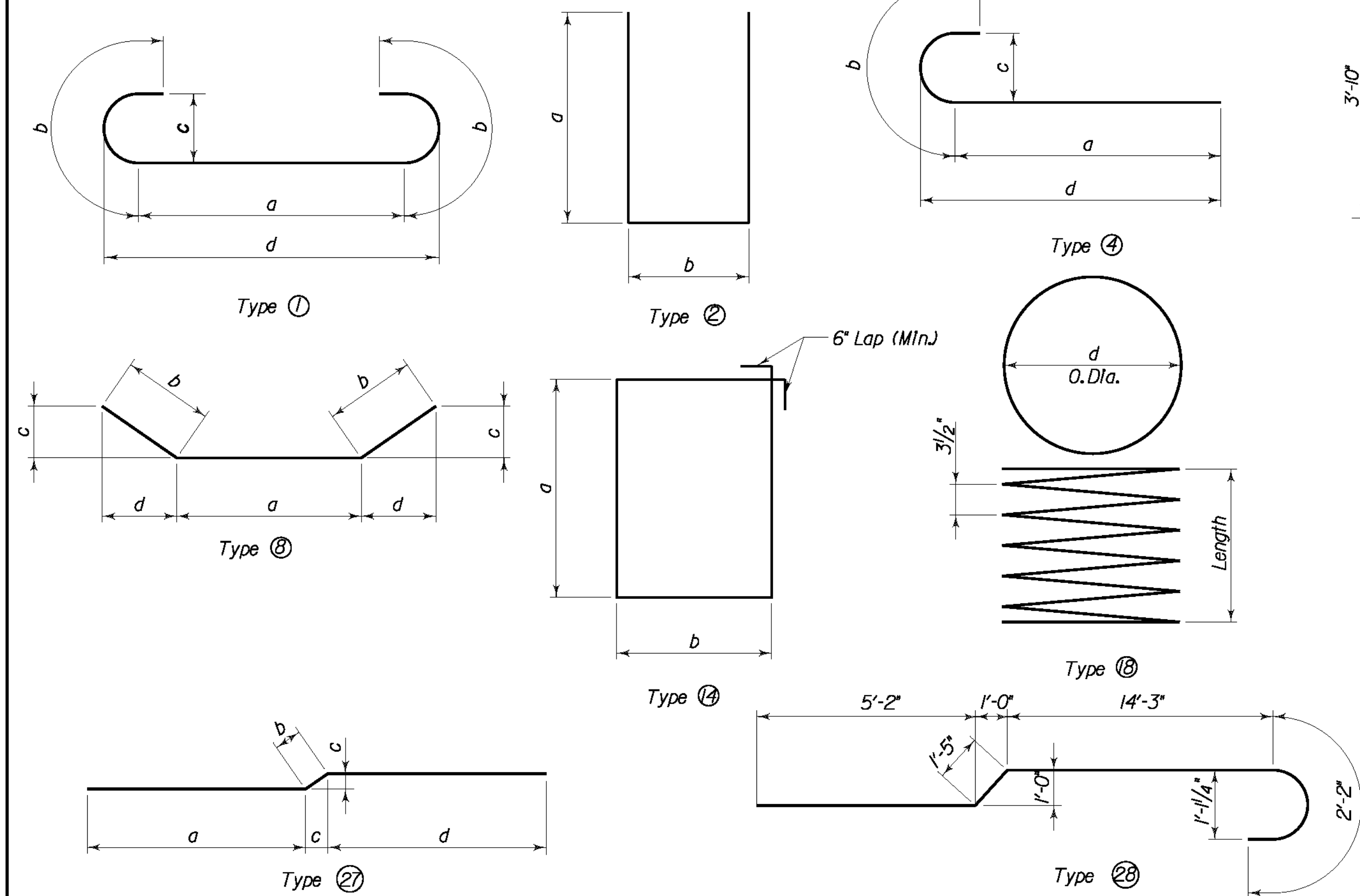


RUSTICATION GROOVE

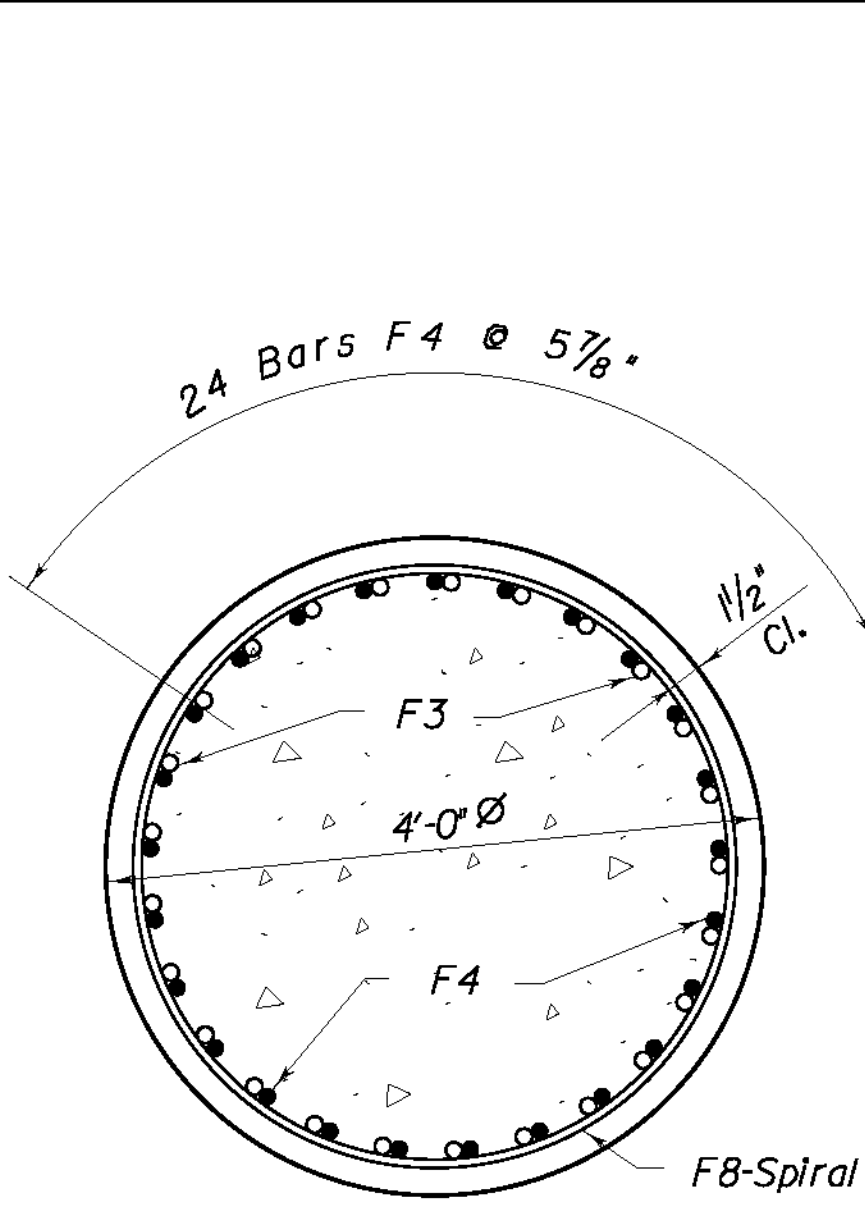
REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE US 119	CROSSING POOR FORK CUMBERLAND RIVER		
PIER 3			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S34
			DRAWING NO. 25296

BILL OF REINFORCEMENT														
Mark	Type	Number Pier 4	Size	Length		Location	a		b		c		d	
				Ft.	In.		Ft.	In.	Ft.	In.	Ft.	In.		
F1	(1)	96	8	13	10	Footng	11	0	1	5	0	8	11	8
F2	Str.	72	5	11	8	Footng								
F3	(4)	72	9	12	2	Column Dowels	10	3	1	11	0	11¾	10	9
F4	Str.	72	9	19	4	Column								
F5	(2)	72	8	9	3	Column	3	5	0	2¾	0	2	5	7
F6	Str.	72	8	22	7	Column								
F7	Str.	72	8	22	2	Column								
F8	(8)	6	4	19	4	Spral	70	turns					3	9
F9	(8)	3	4	38	9	Spral	136	turns					3	3
F10	(6)	13	10	49	1	Cap	43	4	2	10½	0	5¾	2	10
F11	Str.	4	8	44	10	Cap								
F12	(4)	8	10	22	8	Cap	20	6	2	2	1	1¼	21	0
F13	(2)	12	10	28	1	Cap	5	2	1	5	1	0	21	6
F14	(2)	8	10	23	0	Cap								
F15	Str.	6	6	49	0	Cap								
F16	Str.	2	6	30	7	Cap								
F17	Str.	2	6	13	3	Cap								
F18s	(4)	2	5	11	8	Cap	3	2½	2	3				
F19s	(4)	2	5	11	11	Cap	3	4	2	3				
F20s	(4)	2	5	12	2	Cap	3	5½	2	3				
F21s	(4)	2	5	12	5	Cap	3	7	2	3				
F22s	(4)	44	5	12	7	Cap	3	8	2	3				
F23s	(4)	80	5	14	7	Cap	4	8	2	3				
F24s	(4)	44	5	16	7	Cap	5	8	2	3				
F25s	(4)	2	5	16	5	Cap	5	7	2	3				
F26s	(4)	2	5	16	2	Cap	5	5½	2	3				
F27s	(4)	2	5	15	11	Cap	5	4	2	3				
F28s	(4)	2	5	15	8	Cap	5	2½	2	3				
F29	Str.	36	5	2	8	Pedestal								
F30s	(2)	24	5	7	5	Pedestal	2	0	3	6				
F31	-	-	-	-	-	Not Used								
F32	Str.	4	6	3	6	Shear Key								
F33s	(2)	10	6	11	4	Shear Key	4	5¼	2	6½				
F34s	(2)	4	6	12	2	Shear Key	4	5¼	3	4½				
F35s	(4)	4	5	13	1	Shear Key	3	6	2	8				

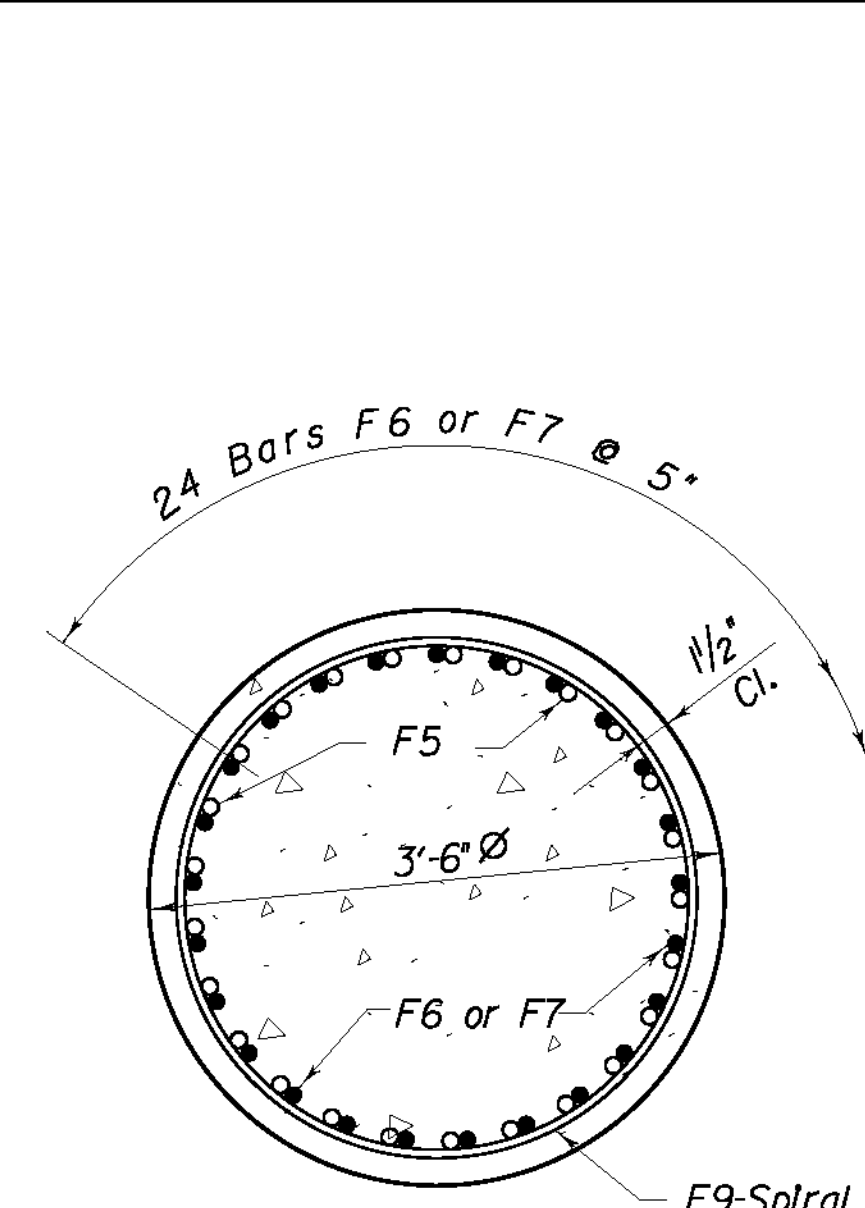
NOTE: Reinforcing Bars Designated By The Suffix (E) In The Plans Shall Be Epoxy Coated In Accordance With The Current Specifications.
Reinforcing bars designated by the suffix (s) in the Bill of Reinforcement shall be considered stirrups for purposes of bend diameters.



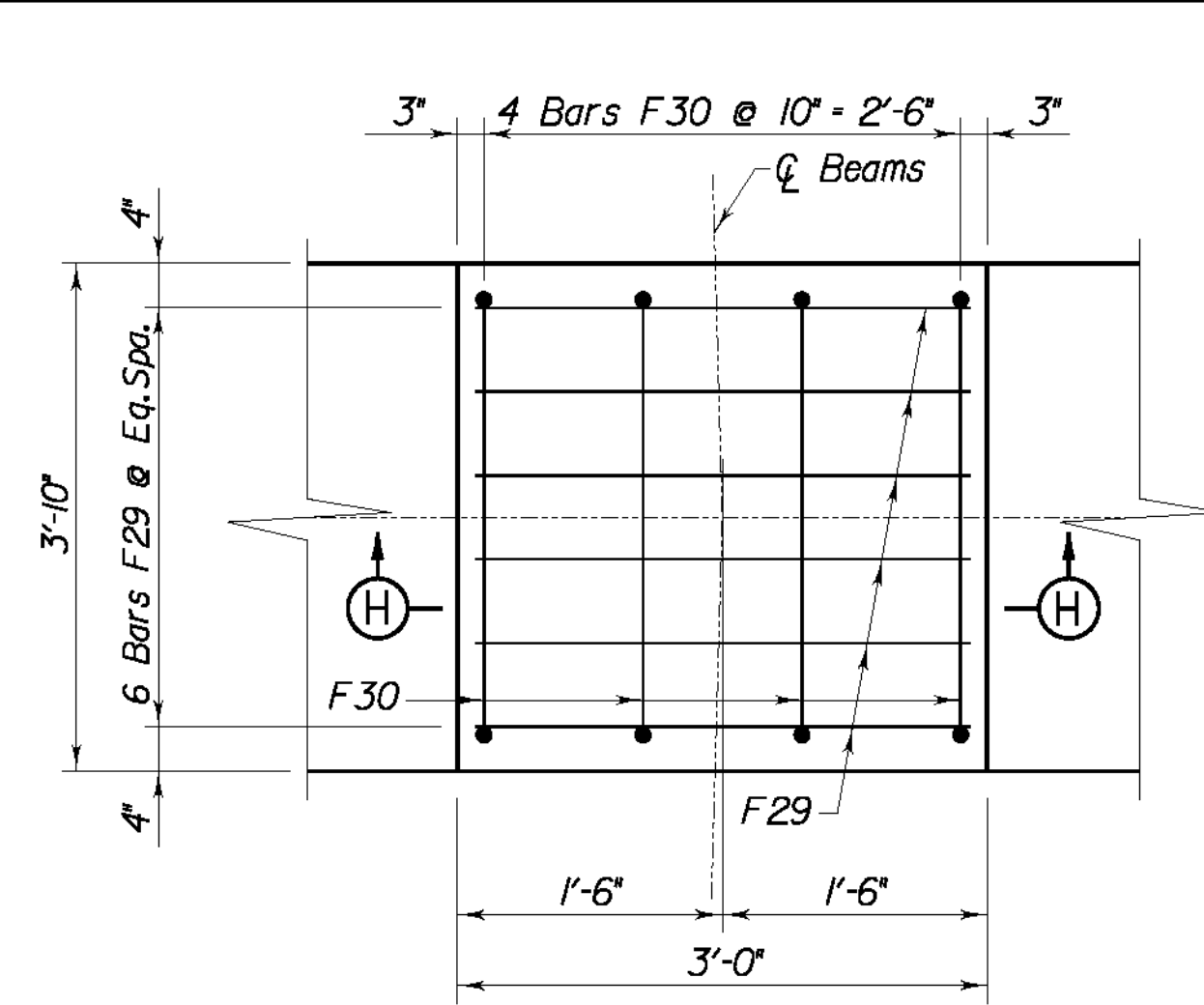
SECTION E-E



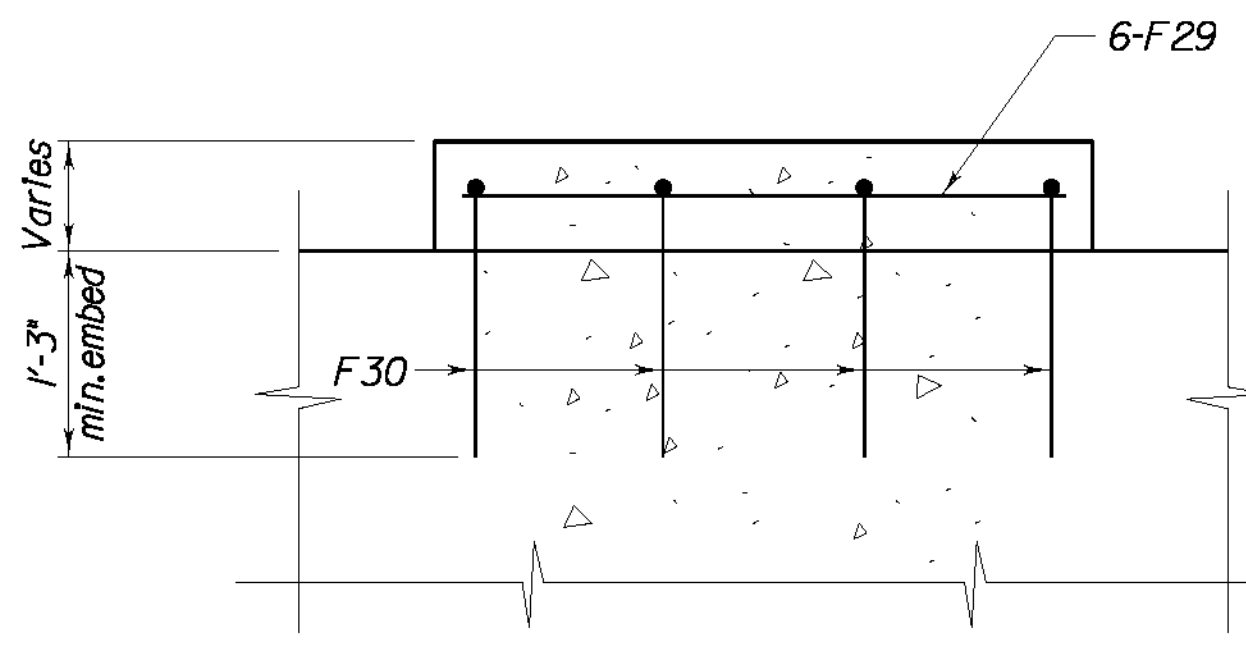
SECTION F-F



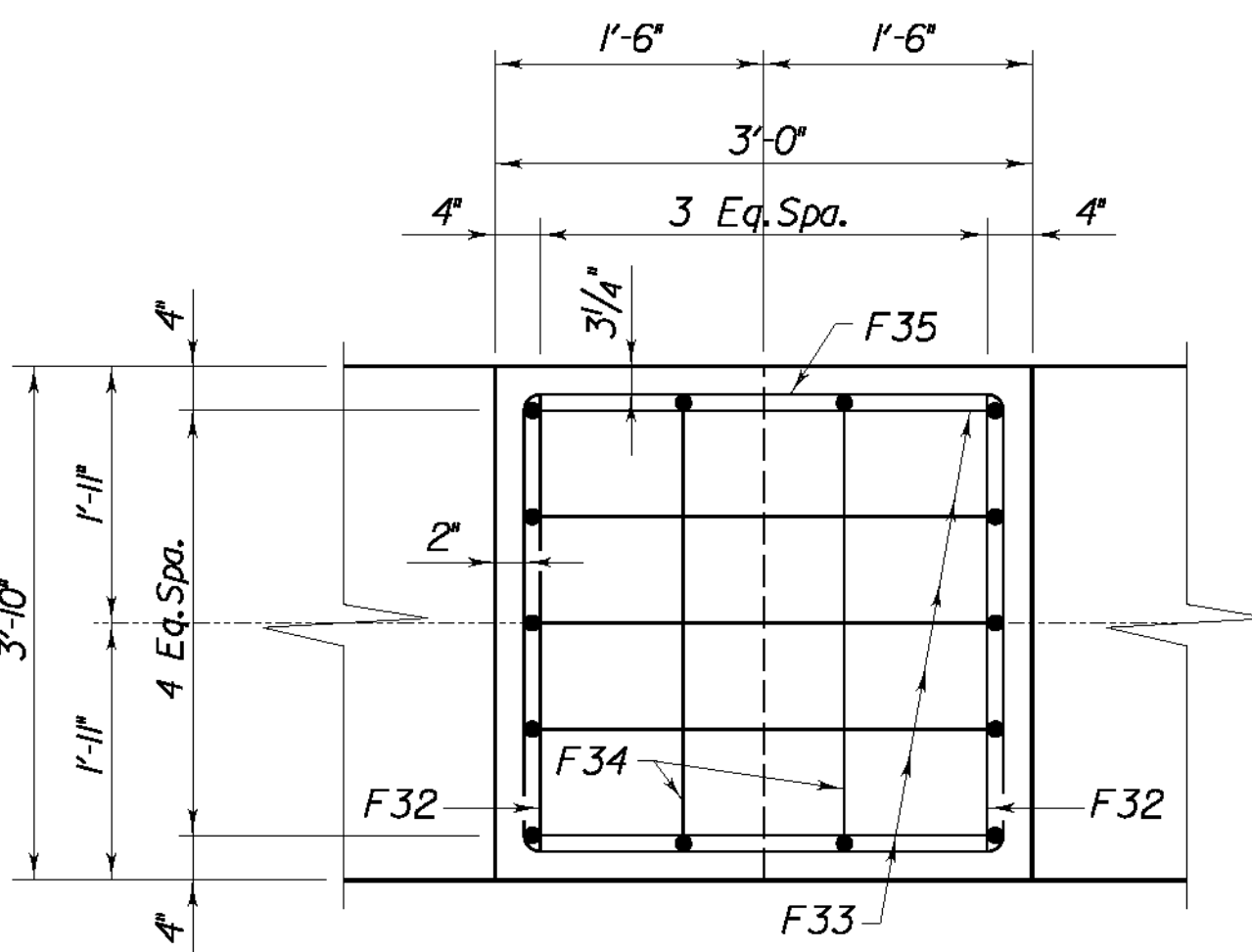
SECTION G-G



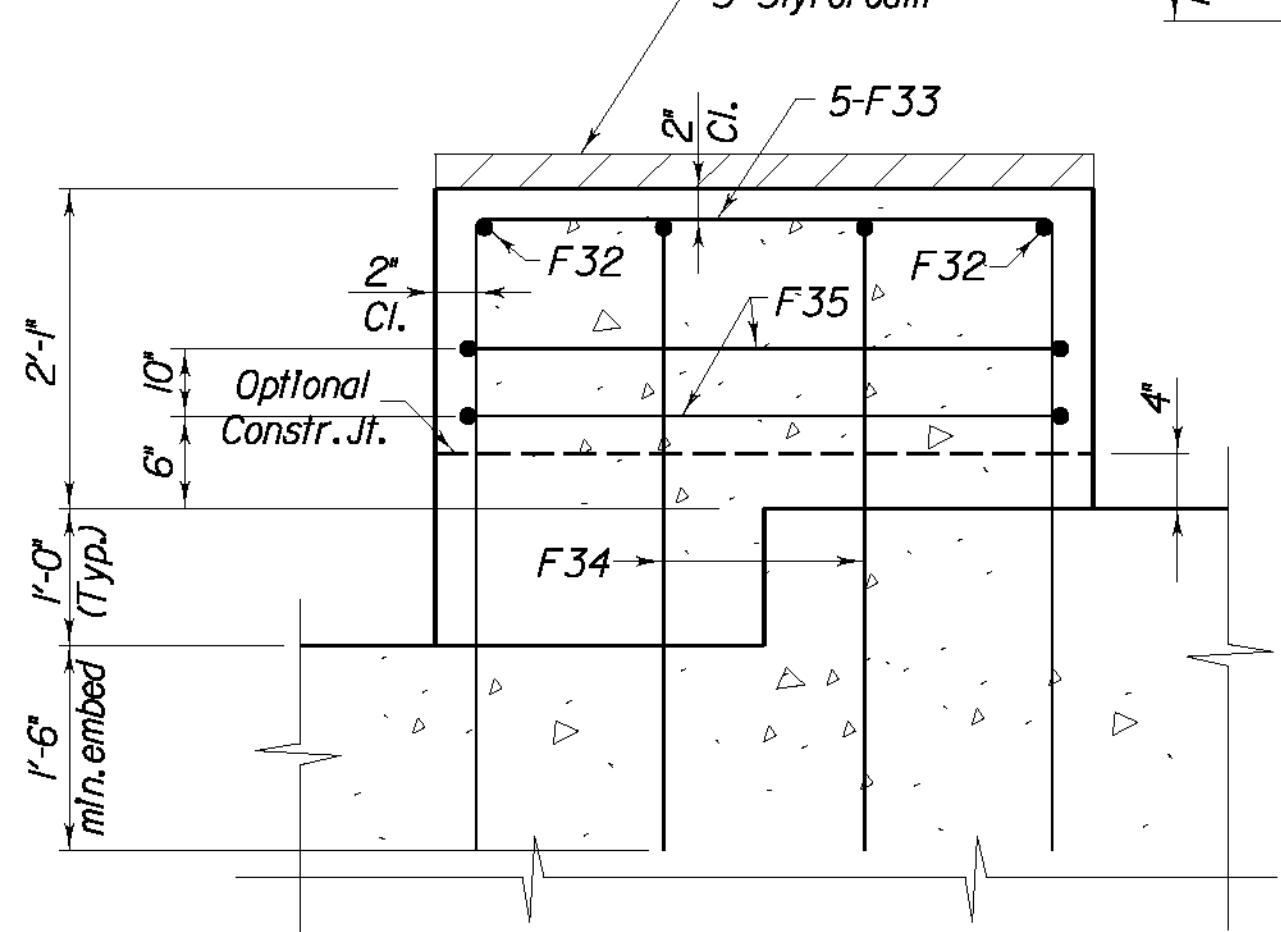
PEDESTAL DETAIL



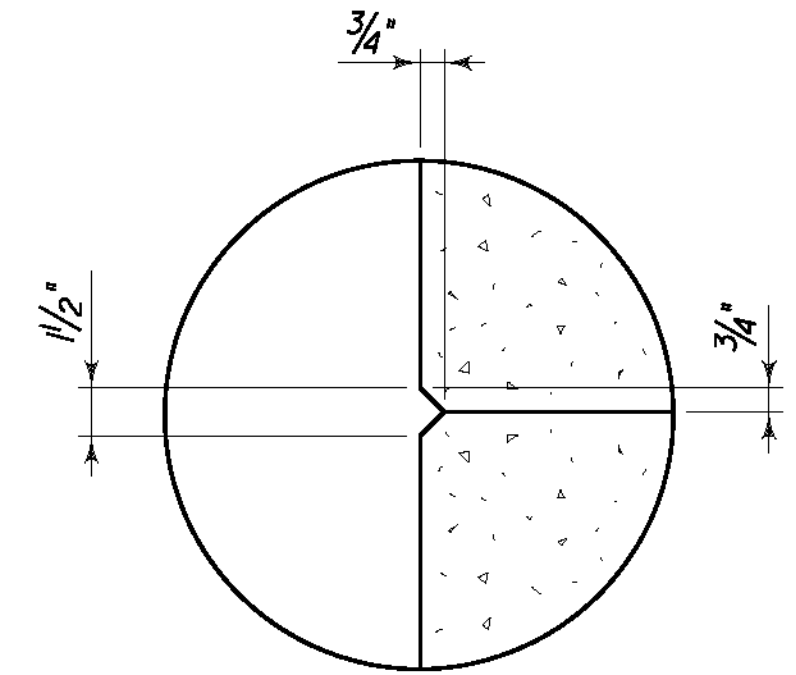
SECTION H-H



PLAN

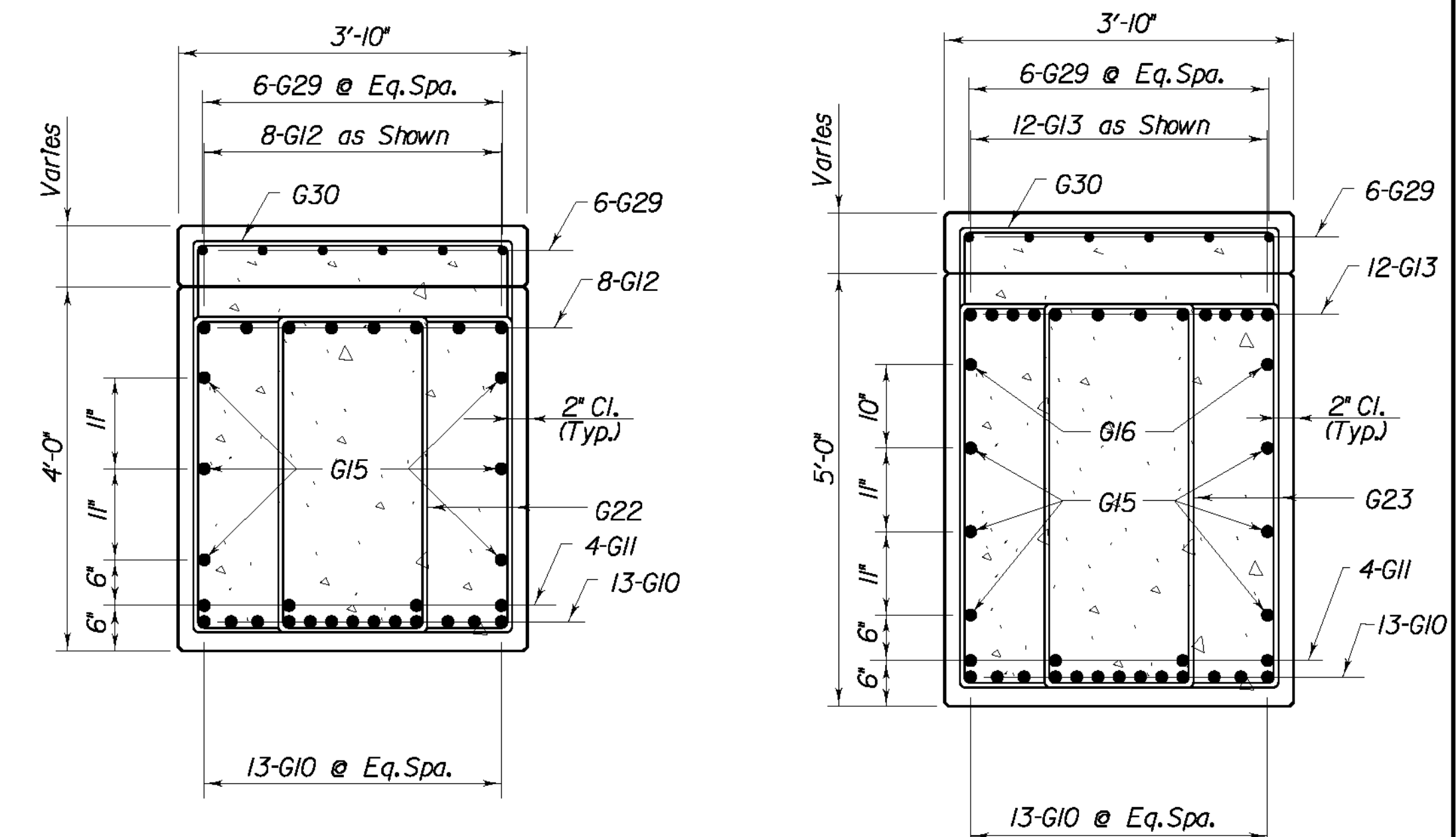


SHEAR KEY DETAIL

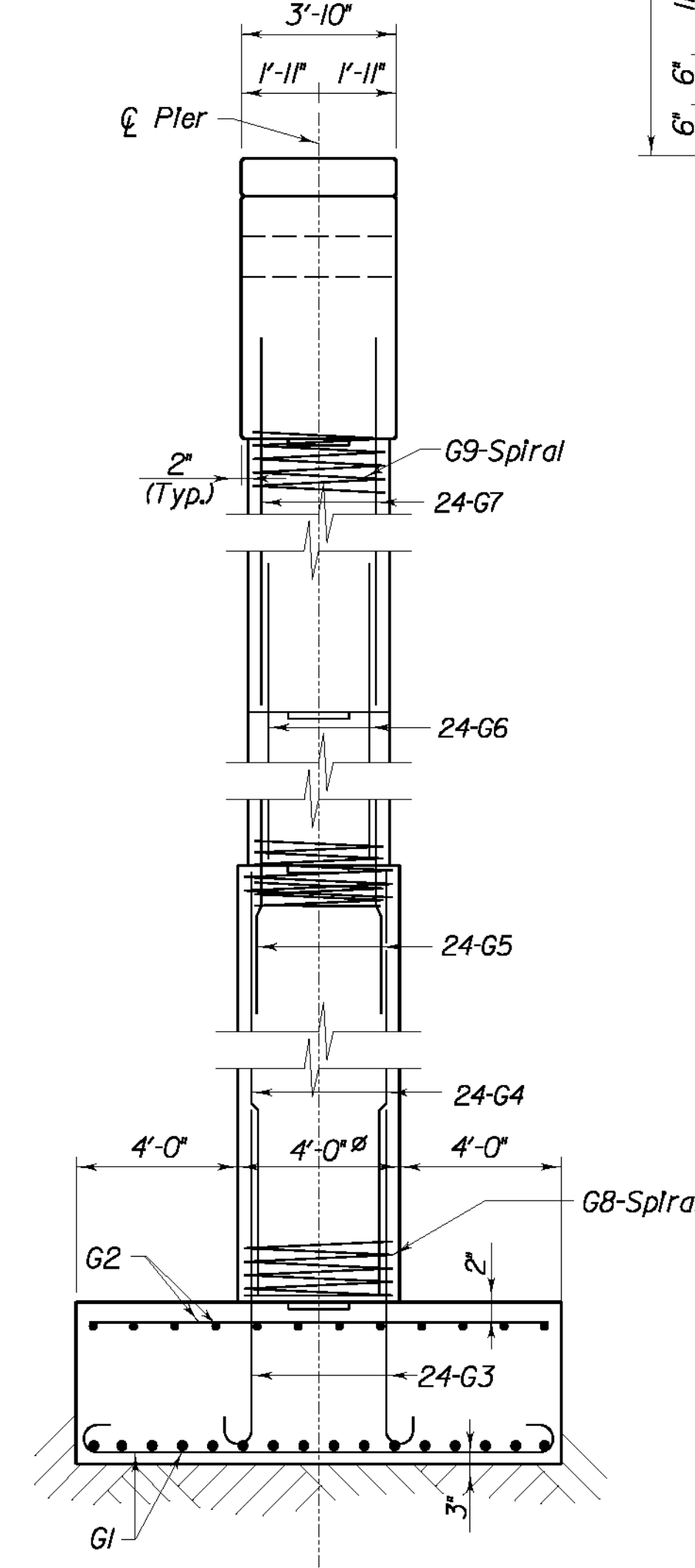


RUSTICATION GROOVE

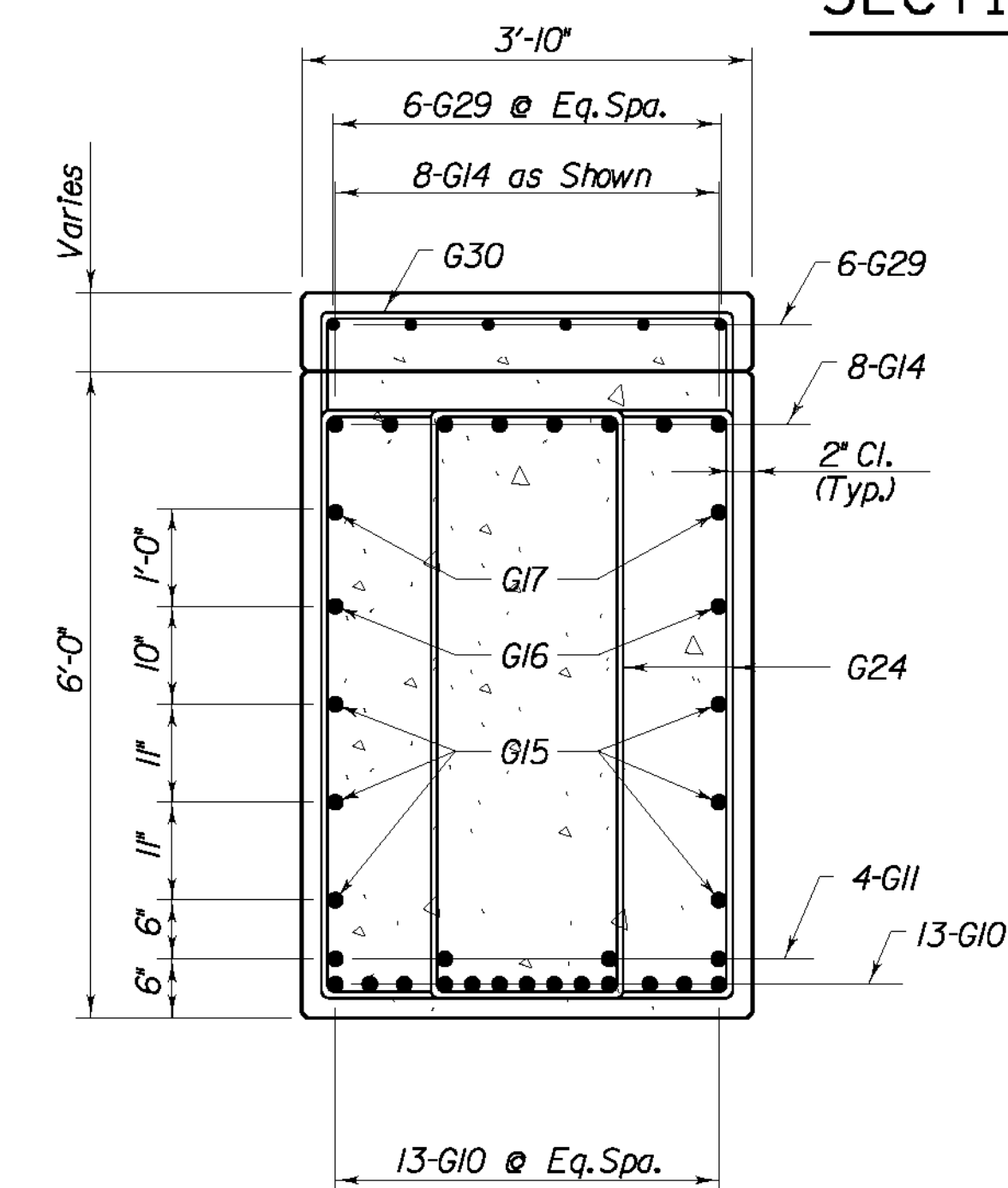
REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY		
LETCHER		
ROUTE	CROSSING	
US 119	POOR FORK CUMBERLAND RIVER	
PIER 4		
PREPARED BY		
T.H.E. ENGINEERS, INC.		
		SHEET NO. S36
		DRAWING NO. 25296



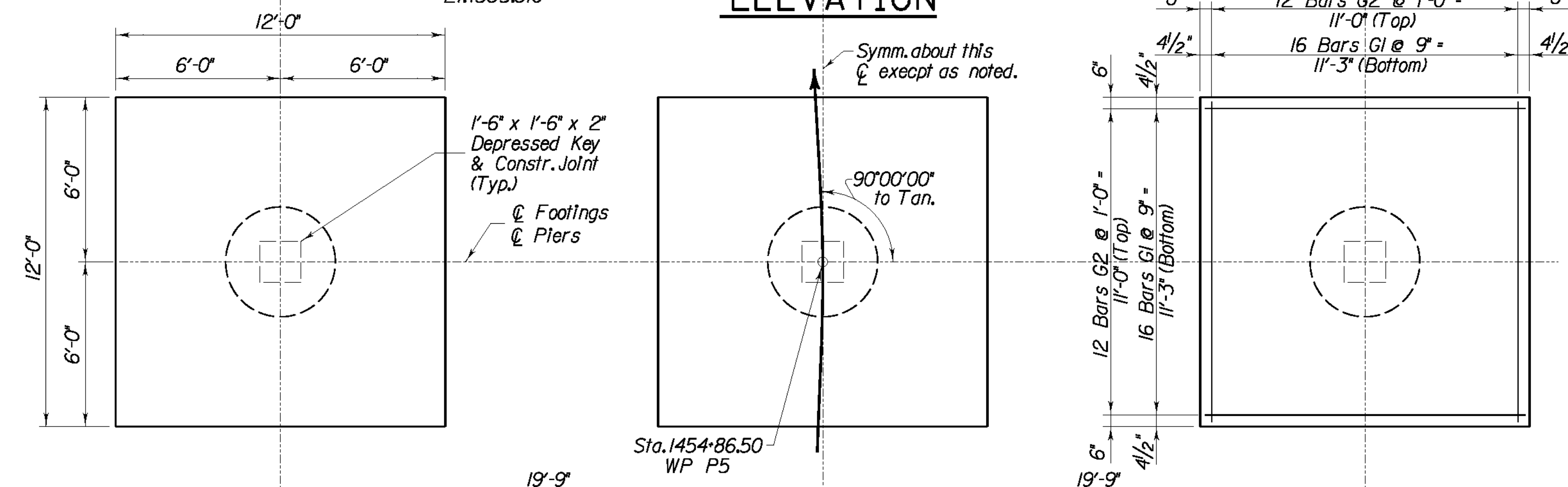
SECTION B-B



END ELEVATION



SECTION C-C



PLAN OF FOOTINGS

For Bill of Reinforcement see Sheet S38.
See Sheet S20 for Pier Layout.

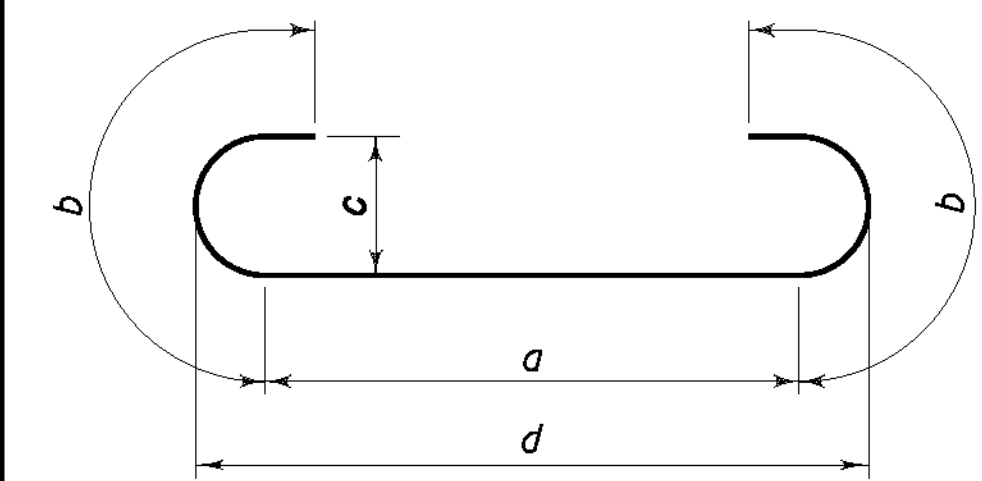
REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U. S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
PIER 5			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S37 DRAWING NO. 25296

12-311.10

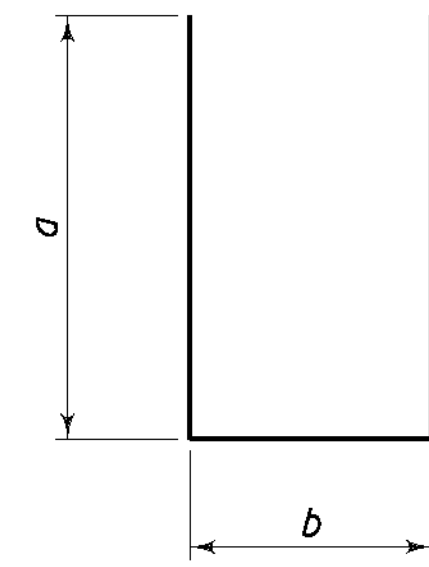
BILL OF REINFORCEMENT

Mark	Type	Number	Size	Length		Location	a		b		c		d	
				Ft.	In.		Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
G1	(1)	96	8	13	10	Footng	11	0	1	5	0	8	11	8
G2	Str.	72	5	11	8	Footng								
G3	(4)	72	9	12	2	Column Dowels	10	3	1	11	0	11 3/4	10	9
G4	Str.	72	9	17	4	Column								
G5	(7)	72	8	9	3	Column	3	5	0	2 3/4	0	2	5	7
G6	Str.	72	8	22	7	Column								
G7	Str.	72	8	22	2	Column								
G8	(8)	3	4	17	4	Spral	63 turns						3	9
G9	(8)	3	4	38	9	Spral	136 turns						3	3
G10	(6)	13	10	49	1	Cap	43	4	2	10 1/2	0	5 3/4	2	10
G11	Str.	4	8	44	10	Cap								
G12	(4)	8	10	22	8	Cap	20	6	2	2	1	1 1/4	21	0
G13	(7)	12	10	28	1	Cap	5	2	1	5	1	0	21	6
G14	(8)	8	10	23	0	Cap								
G15	Str.	6	6	49	0	Cap								
G16	Str.	2	6	30	7	Cap								
G17	Str.	2	6	13	3	Cap								
G18s	(4)	2	5	11	8	Cap	3	2 1/2	2	3				
G19s	(4)	2	5	11	11	Cap	3	4	2	3				
G20s	(4)	2	5	12	2	Cap	3	5 1/2	2	3				
G21s	(4)	2	5	12	5	Cap	3	7	2	3				
G22s	(4)	44	5	12	7	Cap	3	8	2	3				
G23s	(4)	80	5	14	7	Cap	4	8	2	3				
G24s	(4)	44	5	16	7	Cap	5	8	2	3				
G25s	(4)	2	5	16	5	Cap	5	7	2	3				
G26s	(4)	2	5	16	2	Cap	5	5 1/2	2	3				
G27s	(4)	2	5	15	11	Cap	5	4	2	3				
G28s	(4)	2	5	15	8	Cap	5	2 1/2	2	3				
G29	Str.	36	5	2	8	Pedestal								
G30s	(2)	24	5	7	5	Pedestal	2	0	3	6				
G31(E)	Str.	10	*	2	0	Dowels								

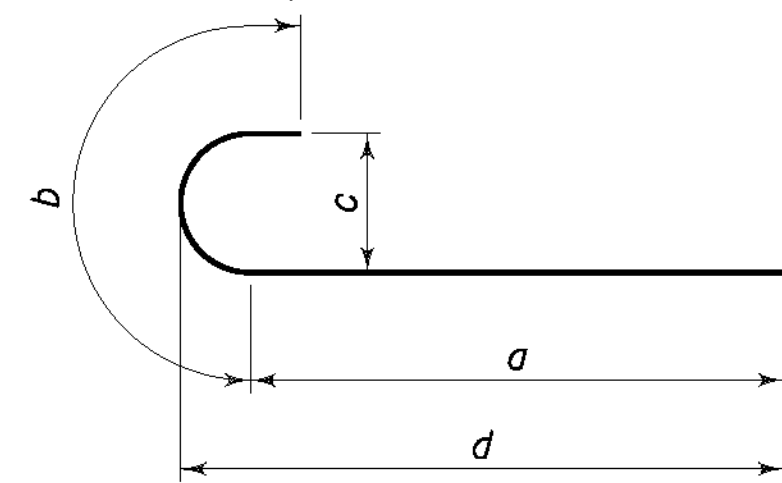
NOTE: Reinforcing Bars Designated By The Suffix (E) In The Plans Shall Be Epoxy Coated In Accordance With The Current Specifications.
Reinforcing bars designated by the suffix (s) in the Bill of Reinforcement shall be considered stirrups for purposes of bend diameters.
* 1/2" Diameter Round Smooth Pin. Epoxy Coated



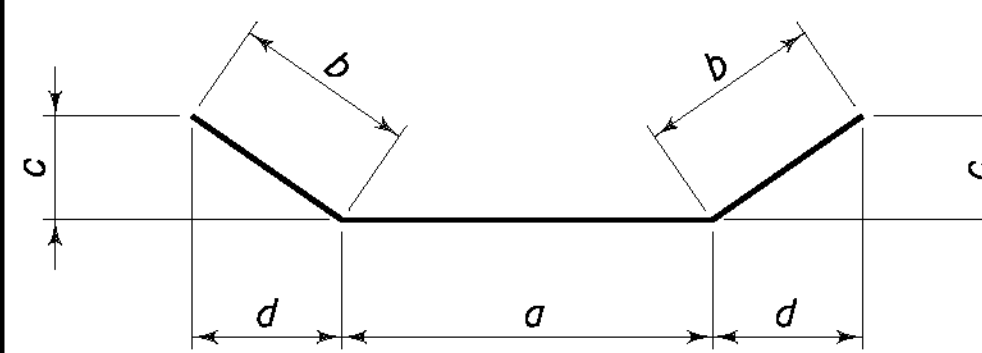
Type ①



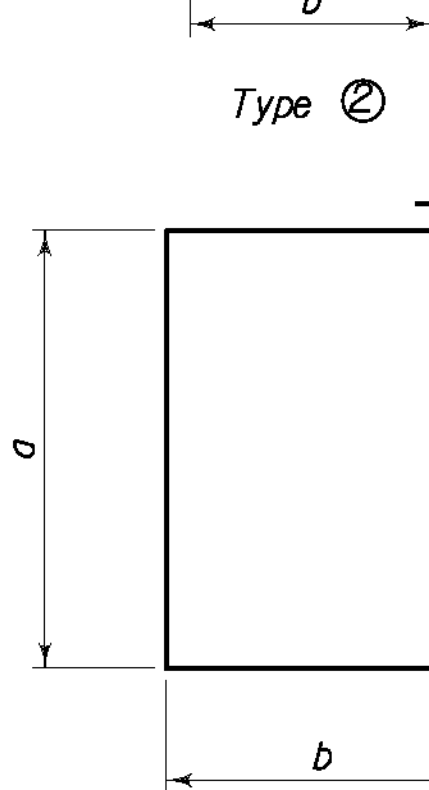
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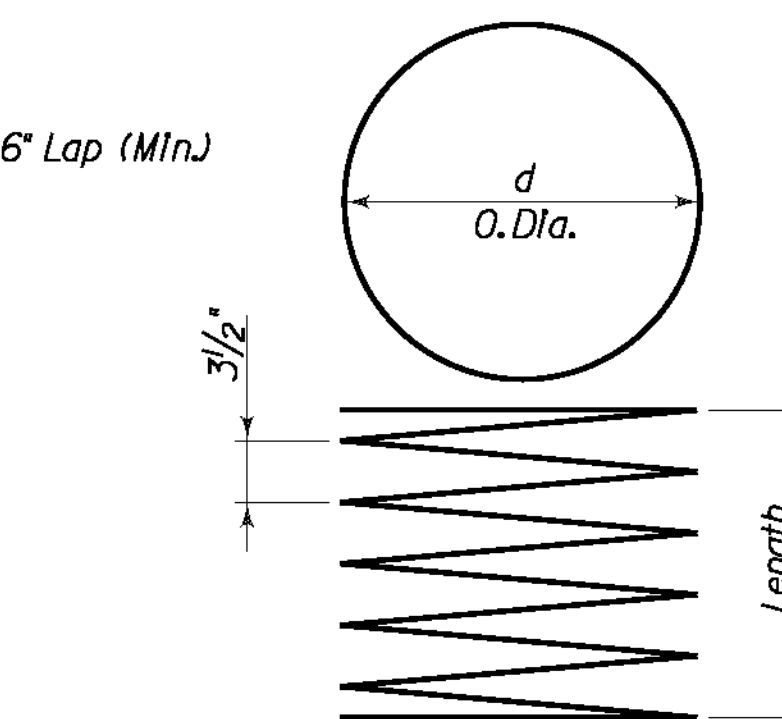
Type ③



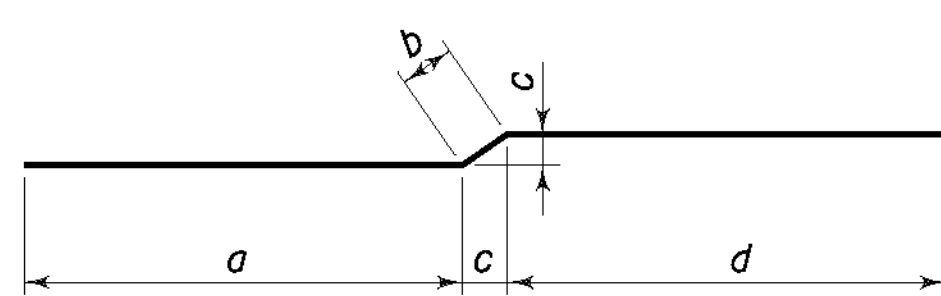
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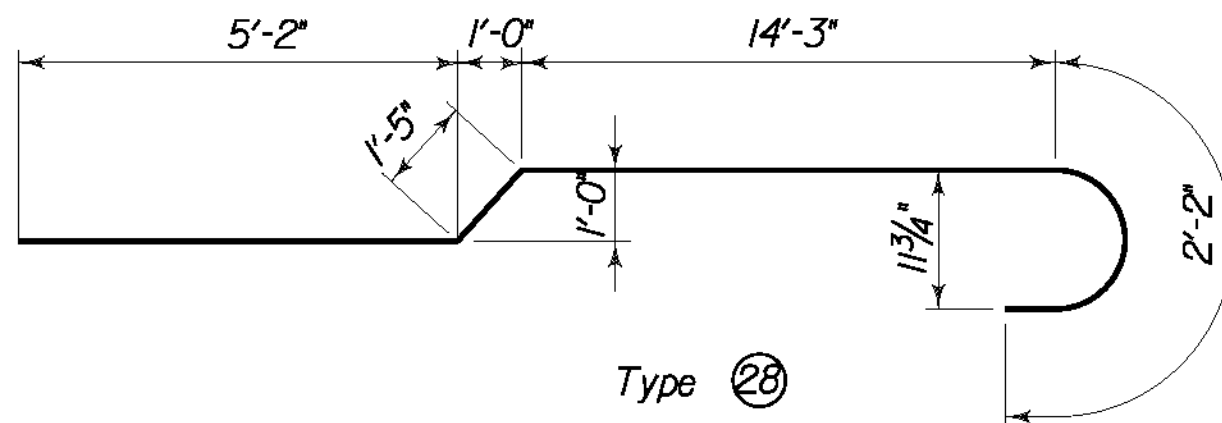
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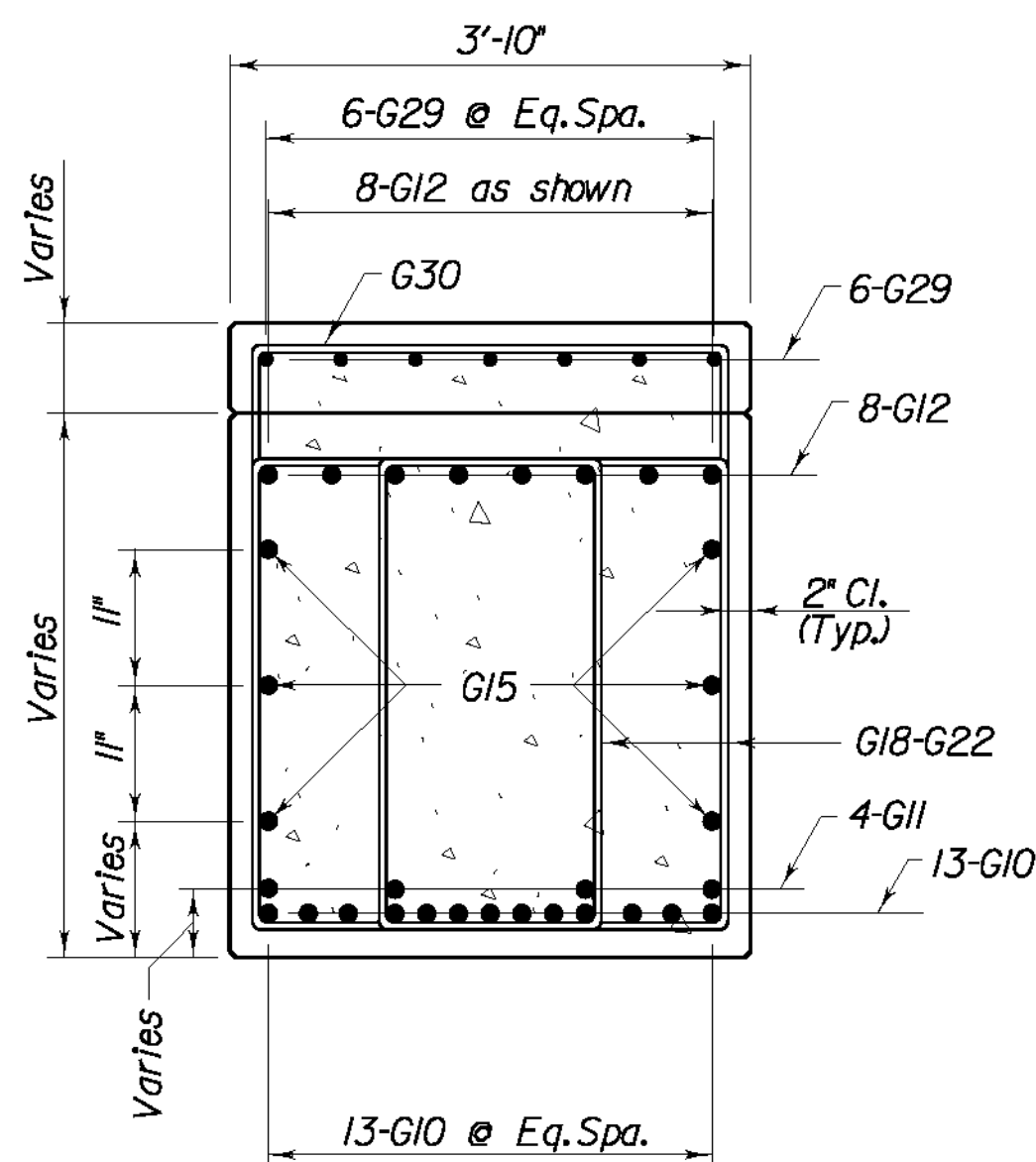
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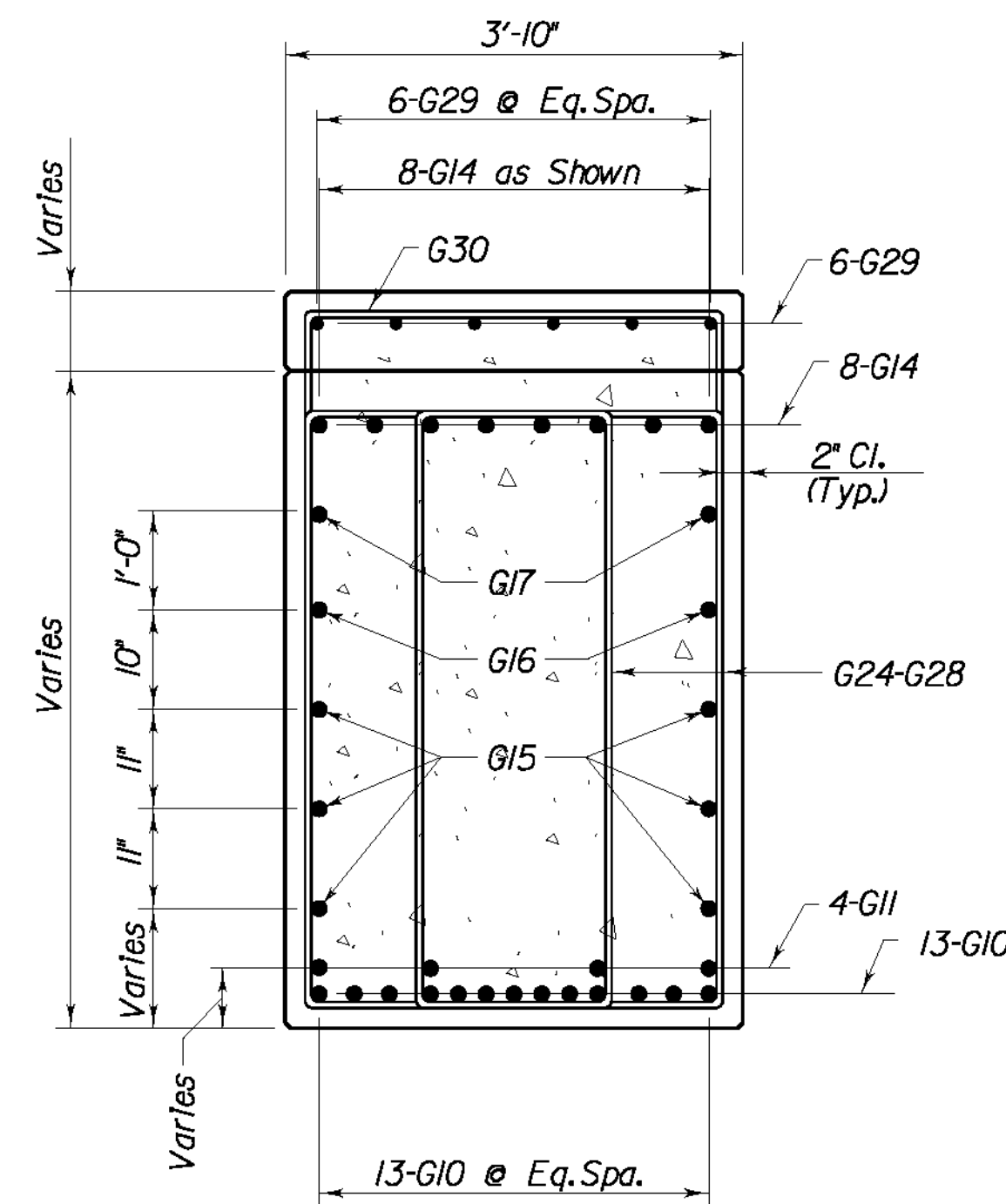
Type ⑦



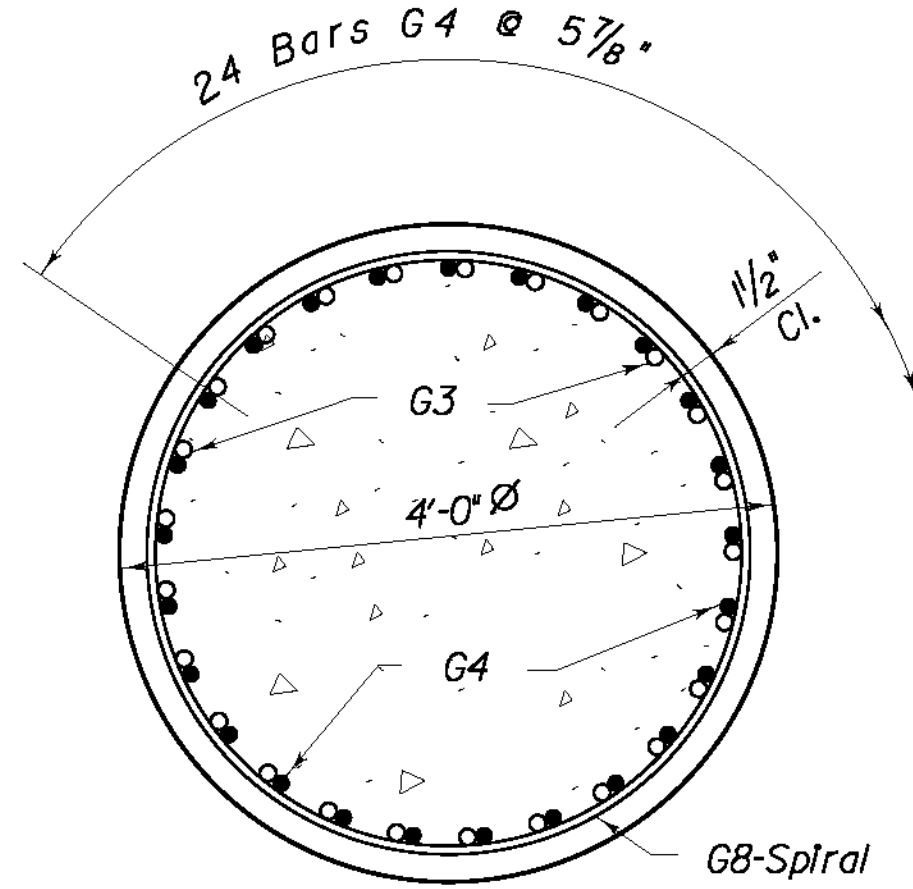
Type ⑧



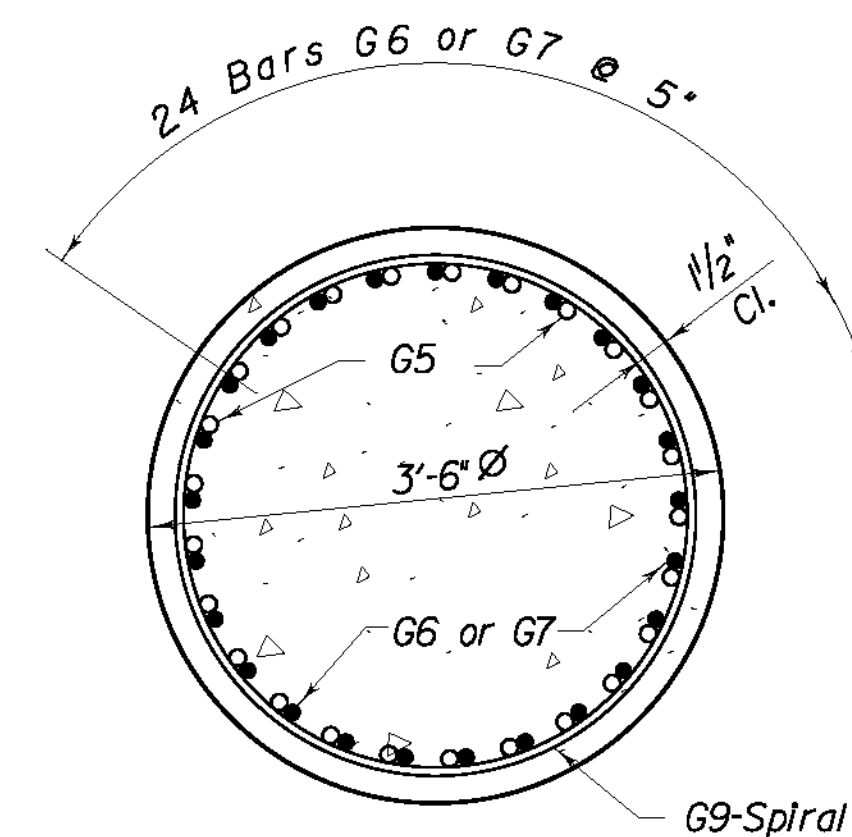
SECTION D-D



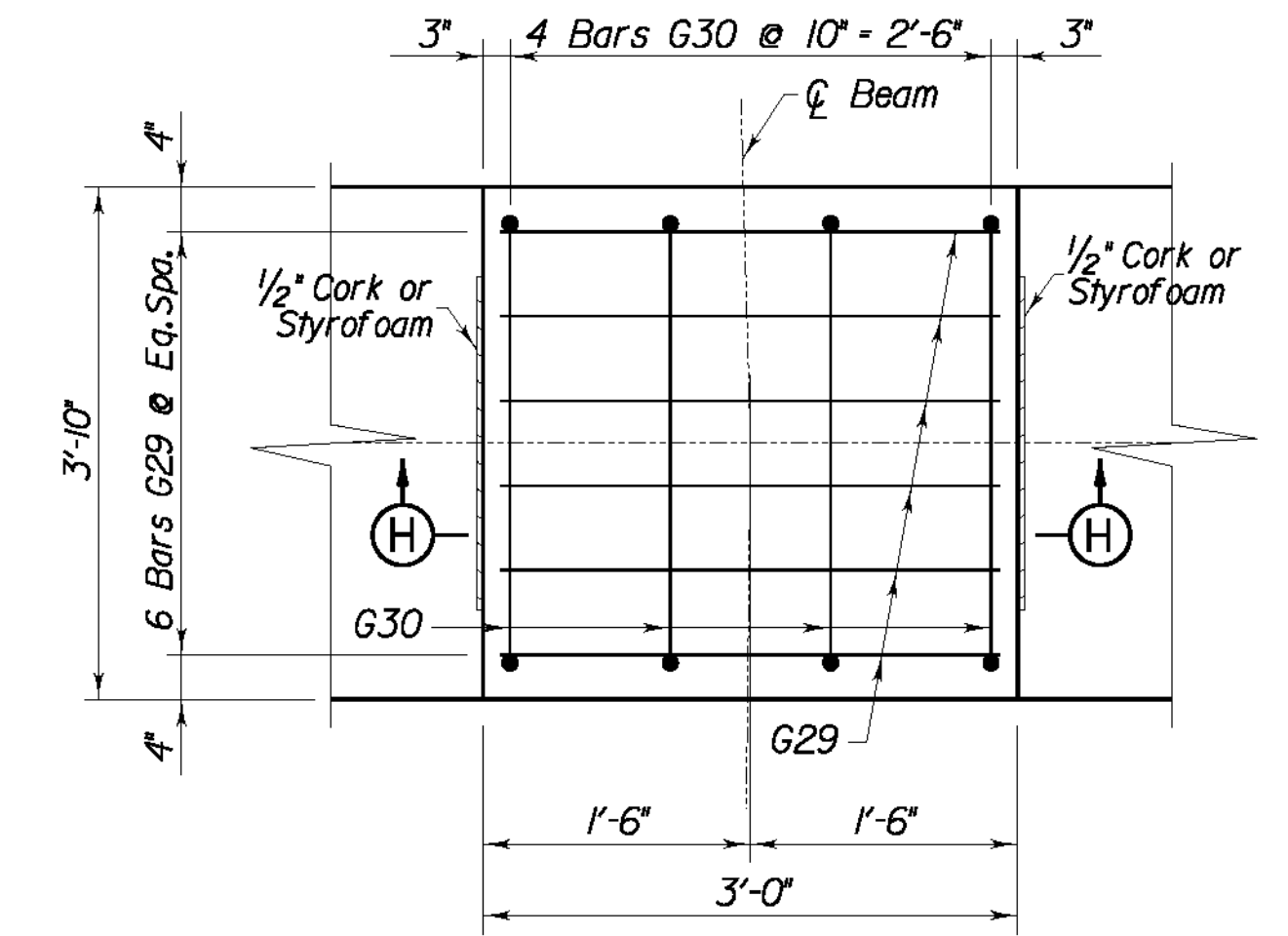
SECTION E-E



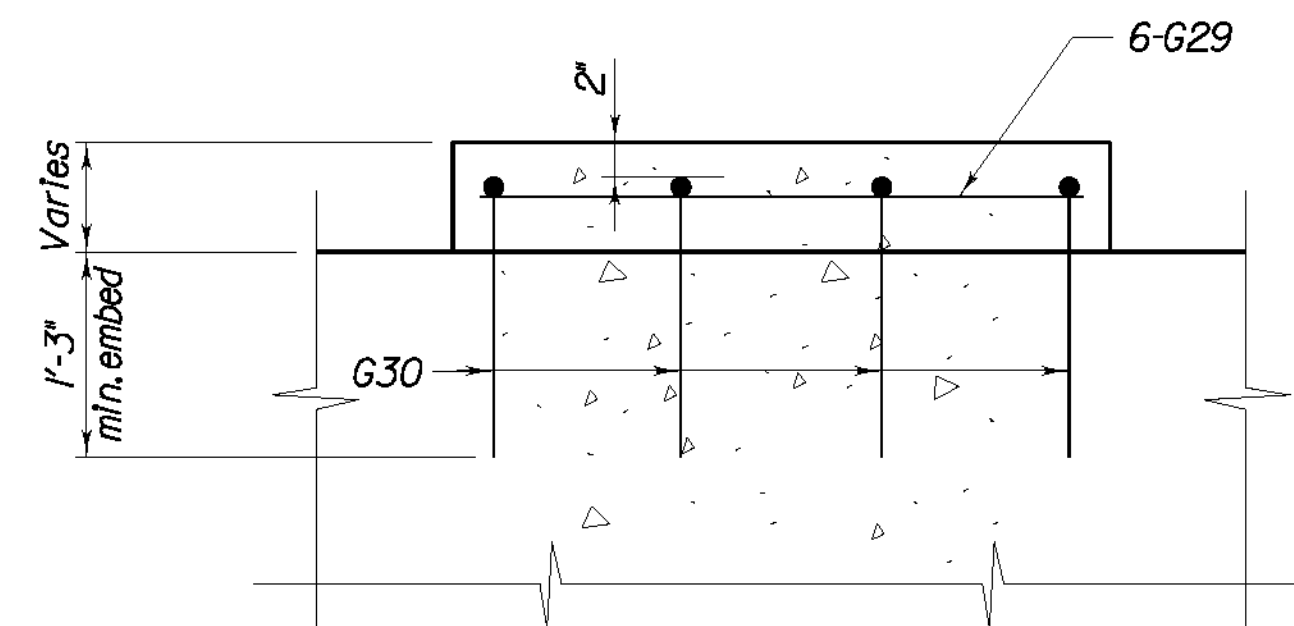
SECTION F-F



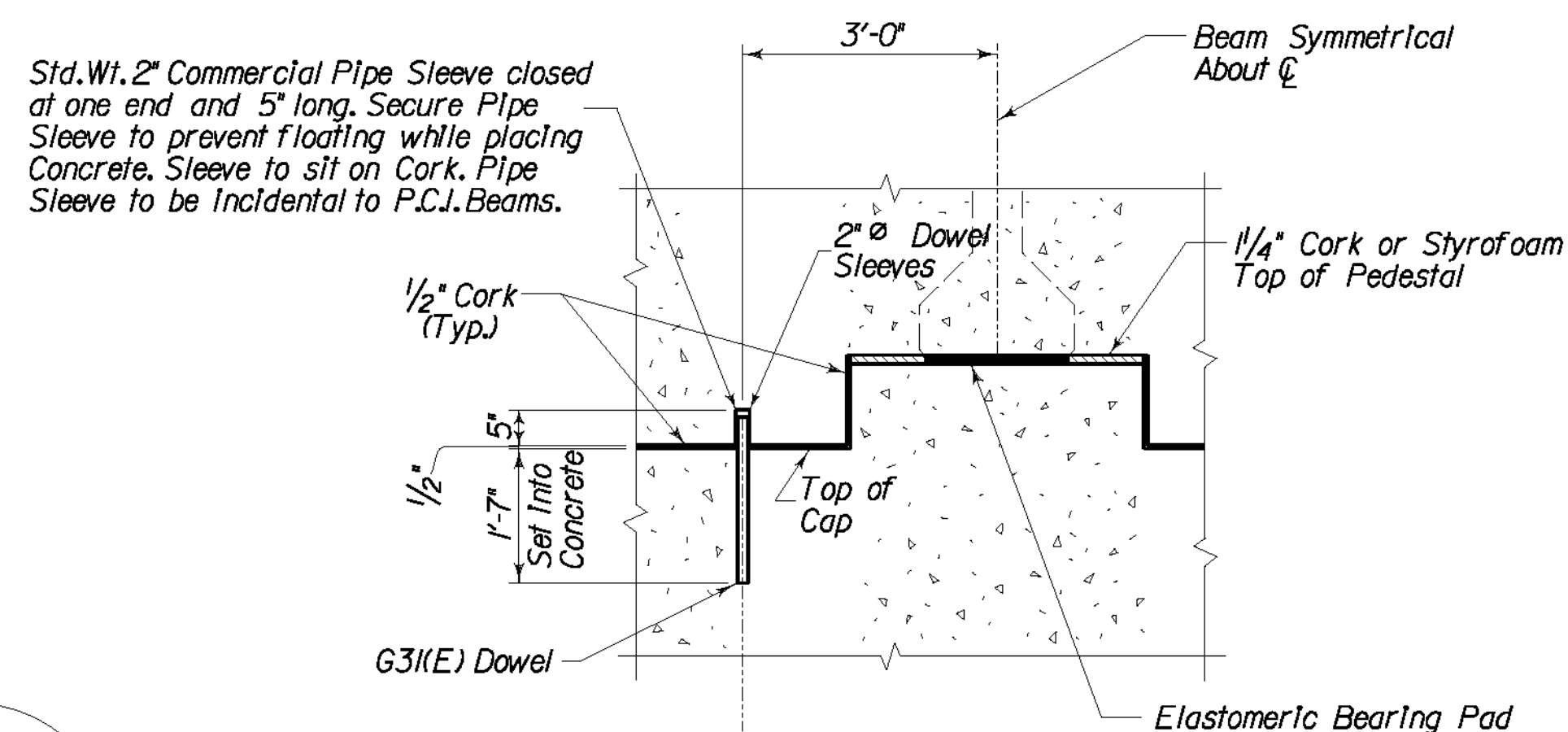
SECTION G-G



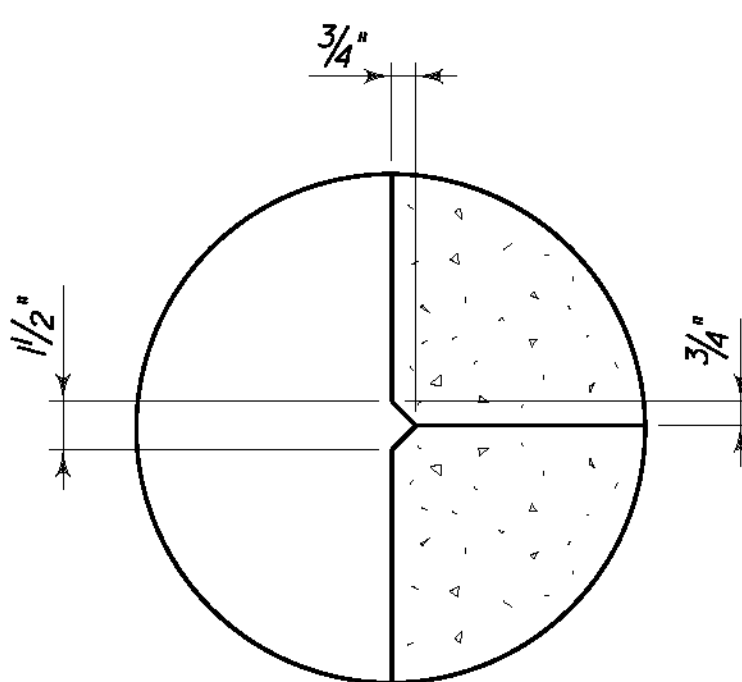
PEDESTAL DETAIL



SECTION H-H



DOWEL DETAIL

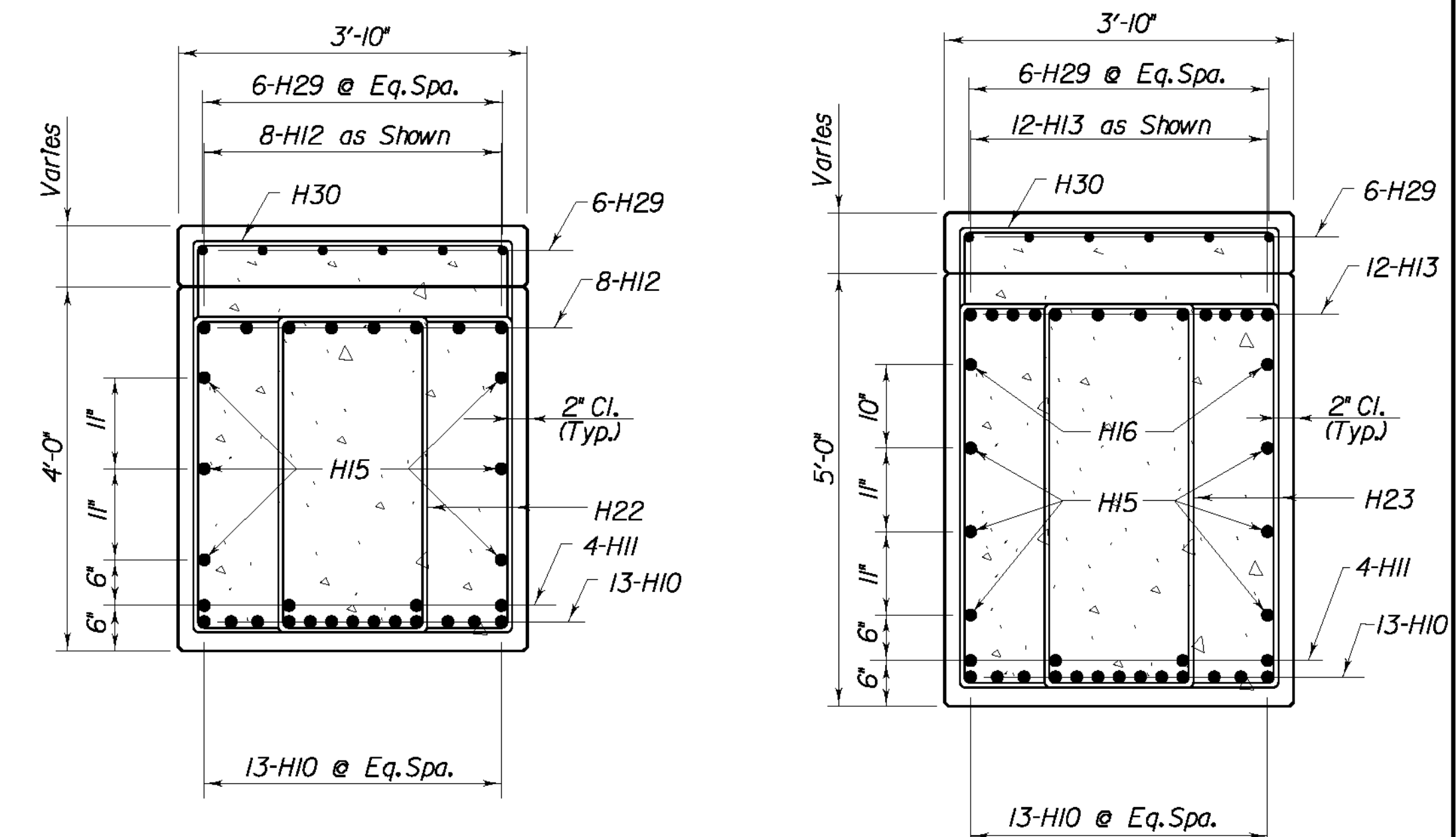


RUSTICATION GROOVE

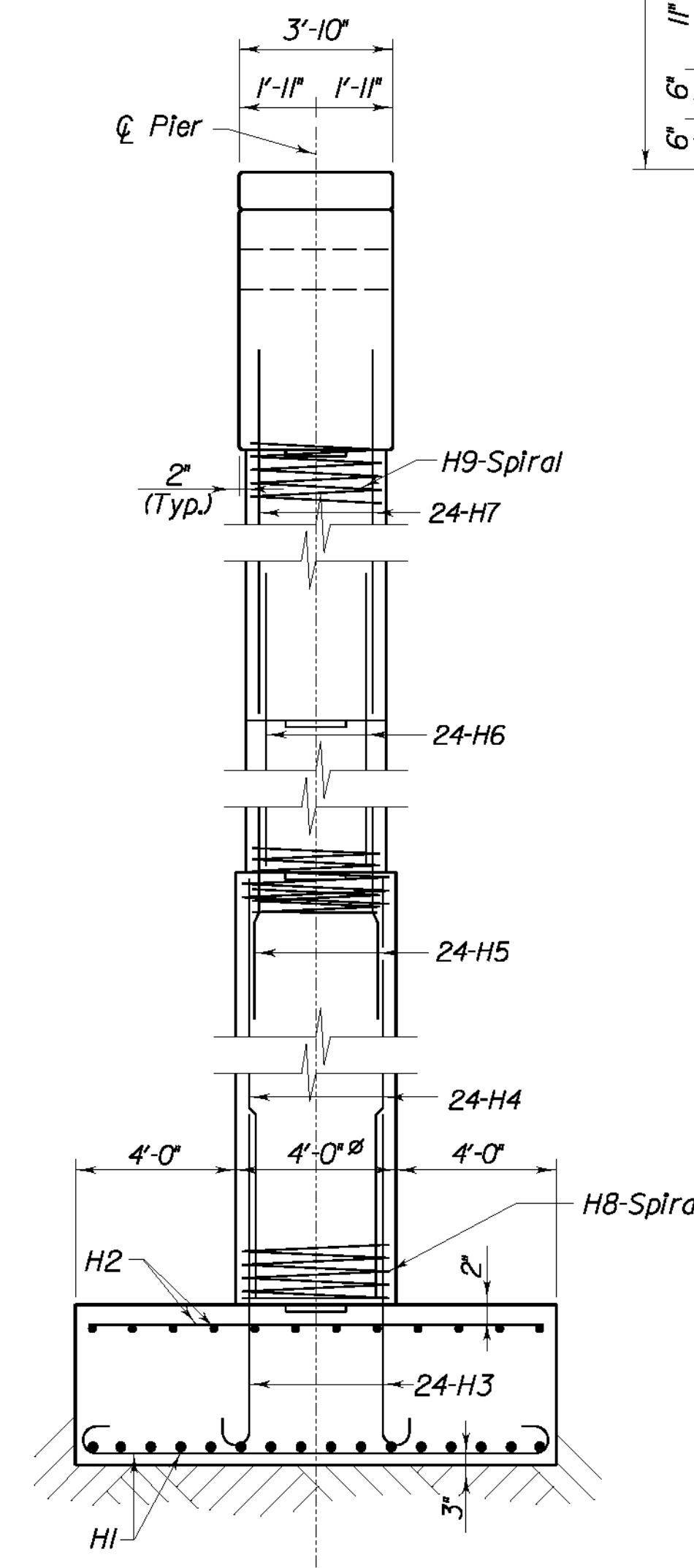
ITEM NUMBER

12-311.10

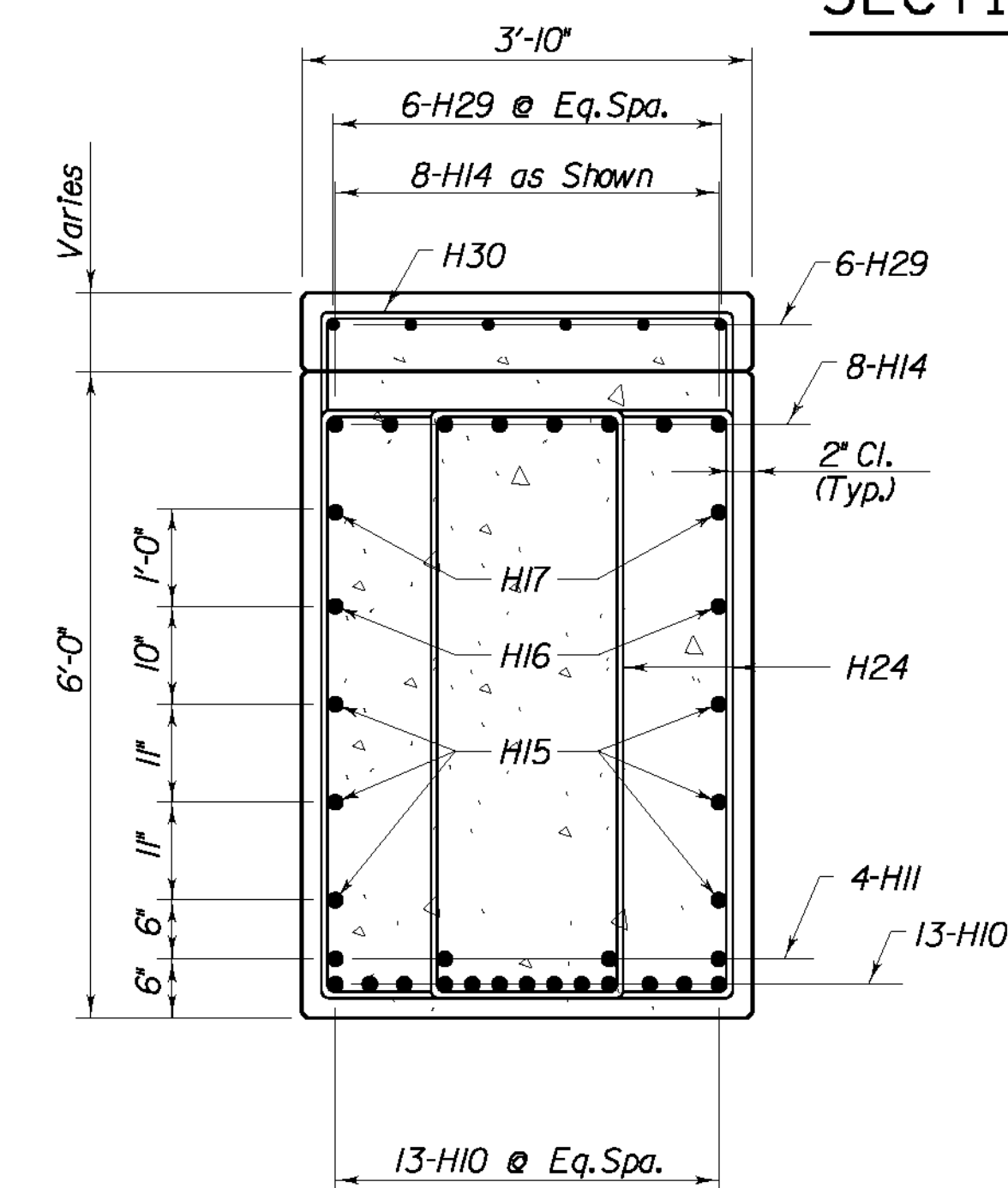
REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE US 119	CROSSING POOR FORK CUMBERLAND RIVER	
PIER 5		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S38
		DRIVING NO. 25296



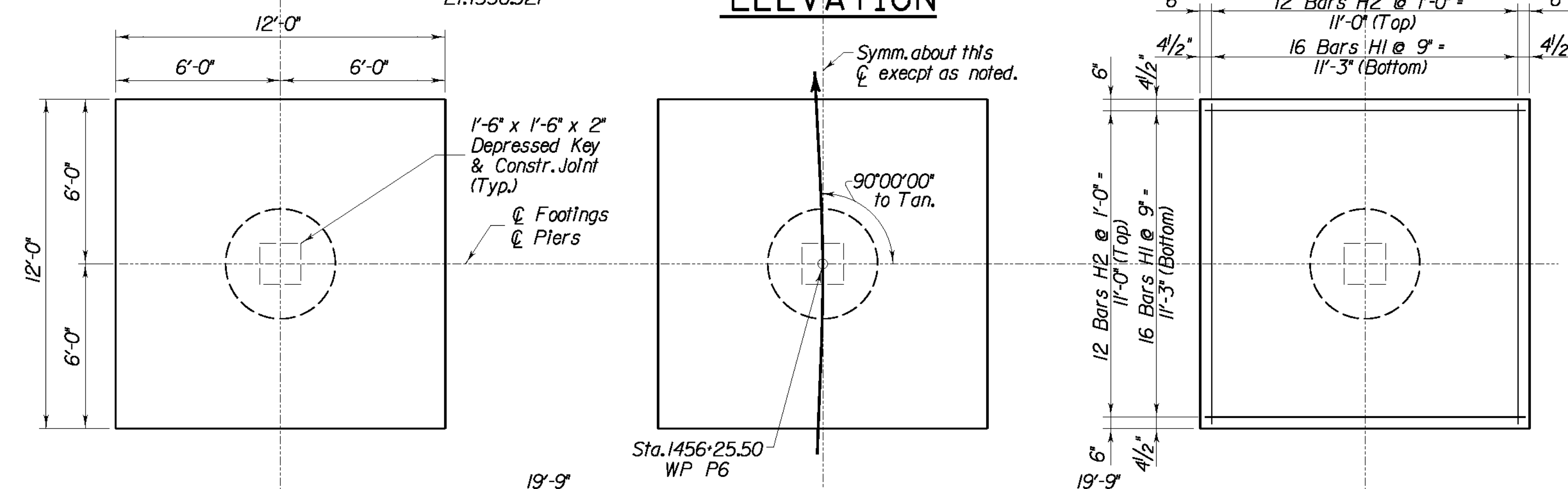
SECTION B-B



END ELEVATION



SECTION C-C



PLAN OF FOOTINGS

For Bill of Reinforcement see Sheet S40.
See Sheet S20 for Pier Layout.

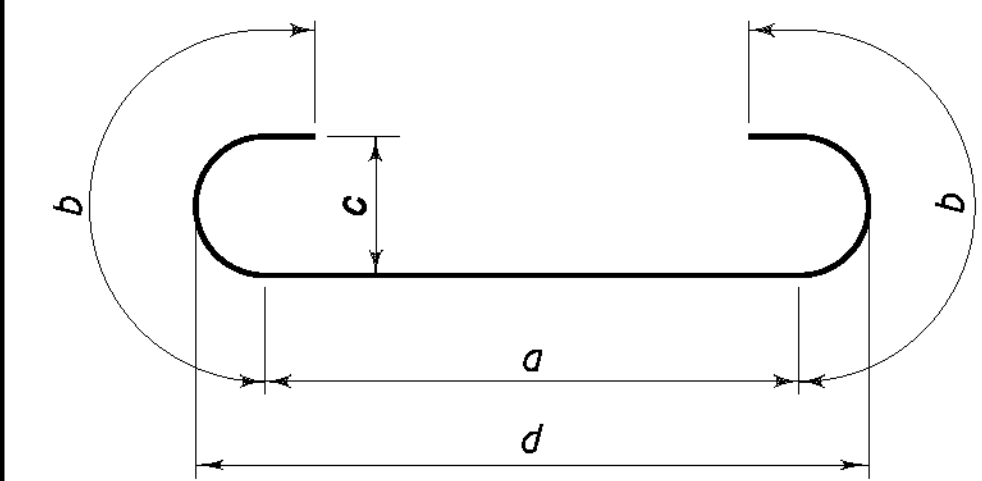
REVISION		DATE	
DATE: April 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
PIER 6			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S39 DRAWING NO. 25296

12-311.10

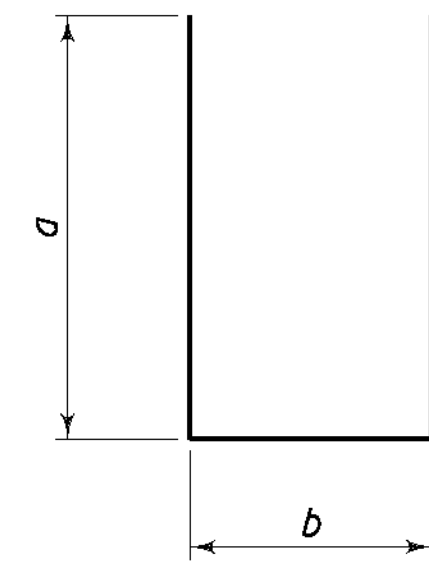
BILL OF REINFORCEMENT

Mark	Type	Number	Size	Length		Location	a		b		c		d	
				Ft.	In.		Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
H1	(1)	96	8	13	10	Footng	11	0	1	5	0	8	11	8
H2	Str.	72	5	11	8	Footng								
H3	(4)	72	9	12	2	Column Dowels	10	3	1	11	0	11 3/4	10	9
H4	Str.	72	9	16	7	Column								
H5	(2)	72	8	9	3	Column	3	5	0	2 3/4	0	2	5	7
H6	Str.	72	8	22	7	Column								
H7	Str.	72	8	22	2	Column								
H8	(8)	3	4	16	7	Spral	60 turns						3	9
H9	(8)	3	4	38	9	Spral	136 turns						3	3
H10	(6)	13	10	49	1	Cap	43	4	2	10 1/2	0	5 3/4	2	10
H11	Str.	4	8	44	10	Cap								
H12	(4)	8	10	22	8	Cap	20	6	2	2	1	1 1/4	21	0
H13	(2)	12	10	22	1	Cap	5	2	1	5	1	0	21	6
H14	(2)	8	10	23	0	Cap								
H15	Str.	6	6	49	0	Cap								
H16	Str.	2	6	30	7	Cap								
H17	Str.	2	6	13	3	Cap								
H18s	(4)	2	5	11	8	Cap	3	2 1/2	2	3				
H19s	(4)	2	5	11	11	Cap	3	4	2	3				
H20s	(4)	2	5	12	2	Cap	3	5 1/2	2	3				
H21s	(4)	2	5	12	5	Cap	3	7	2	3				
H22s	(4)	44	5	12	7	Cap	3	8	2	3				
H23s	(4)	80	5	14	7	Cap	4	8	2	3				
H24s	(4)	44	5	16	7	Cap	5	8	2	3				
H25s	(4)	2	5	16	5	Cap	5	7	2	3				
H26s	(4)	2	5	16	2	Cap	5	5 1/2	2	3				
H27s	(4)	2	5	15	11	Cap	5	4	2	3				
H28s	(4)	2	5	15	8	Cap	5	2 1/2	2	3				
H29	Str.	36	5	2	8	Pedestal								
H30s	(2)	24	5	7	5	Pedestal	2	0	3	6				
H3(E)	Str.	10	*	2	0	Dowels								

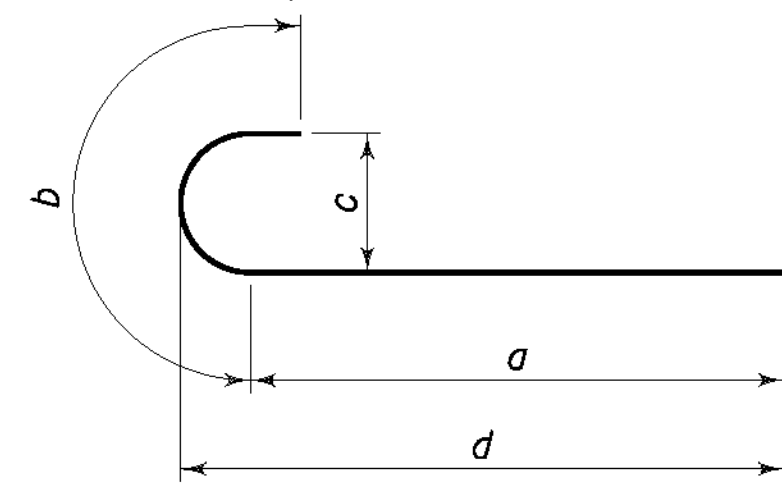
NOTE: Reinforcing Bars Designated By The Suffix (E) In The Plans Shall Be Epoxy Coated In Accordance With The Current Specifications.
Reinforcing bars designated by the suffix (s) in the Bill of Reinforcement shall be considered stirrups for purposes of bend diameters.
* 1/2" Diameter Round Smooth Pin. Epoxy Coated



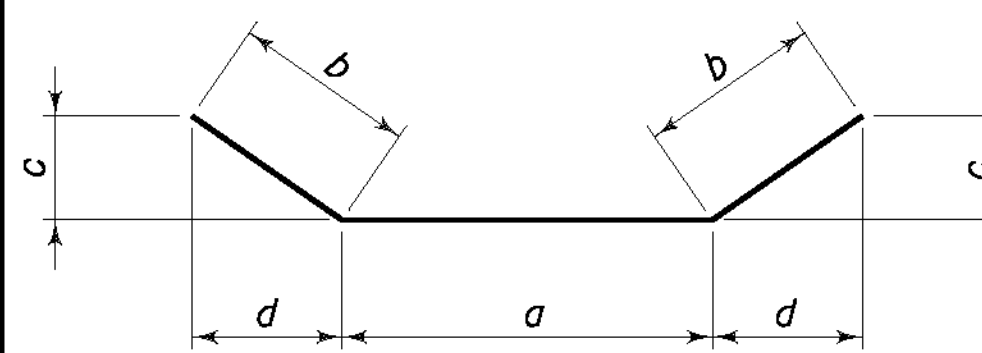
Type ①



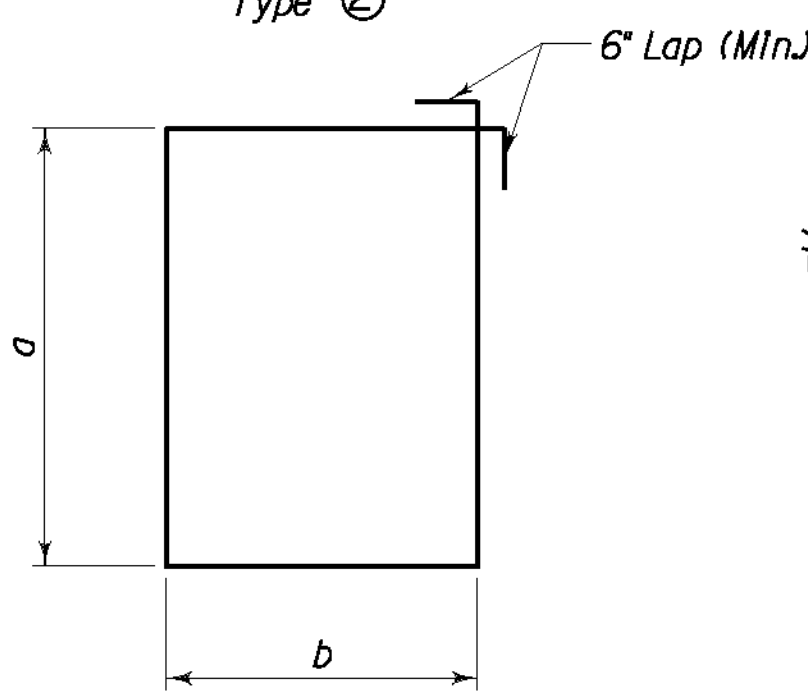
Type ②



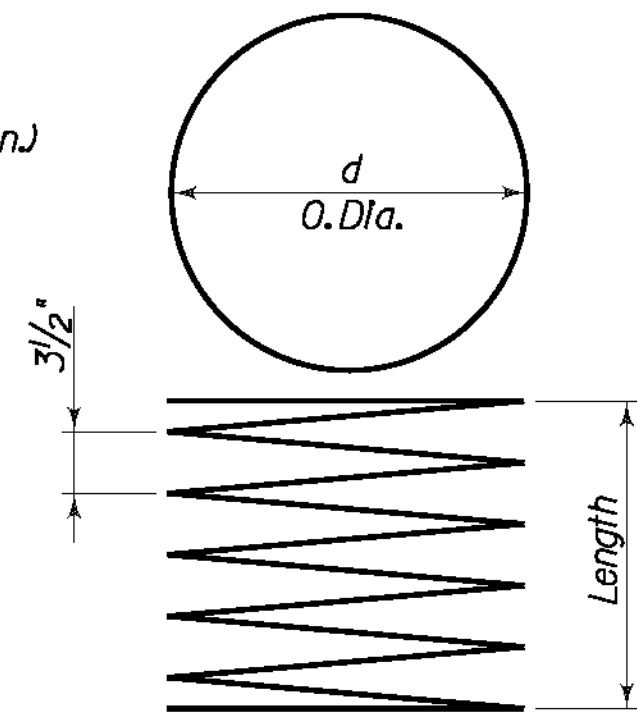
Type ③



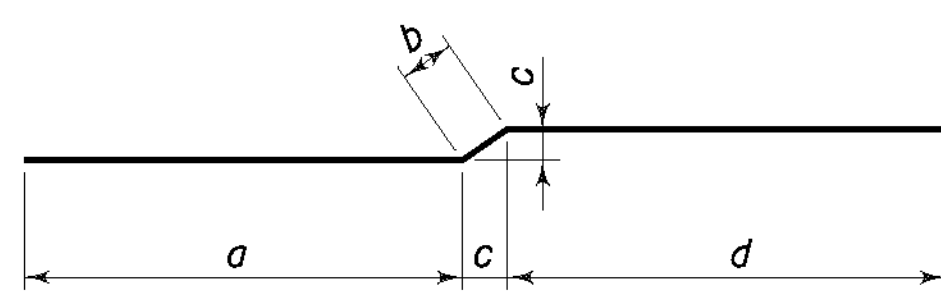
Type ④



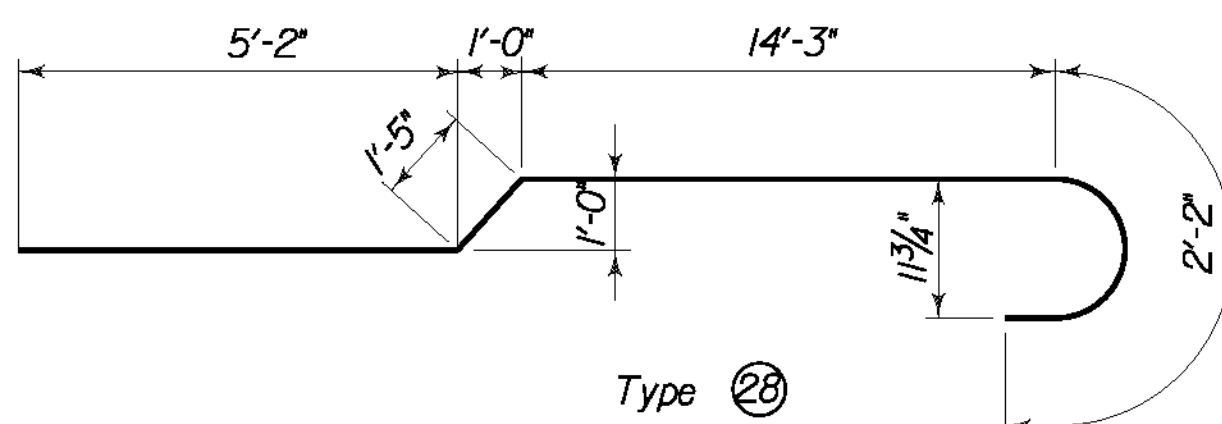
Type ⑤



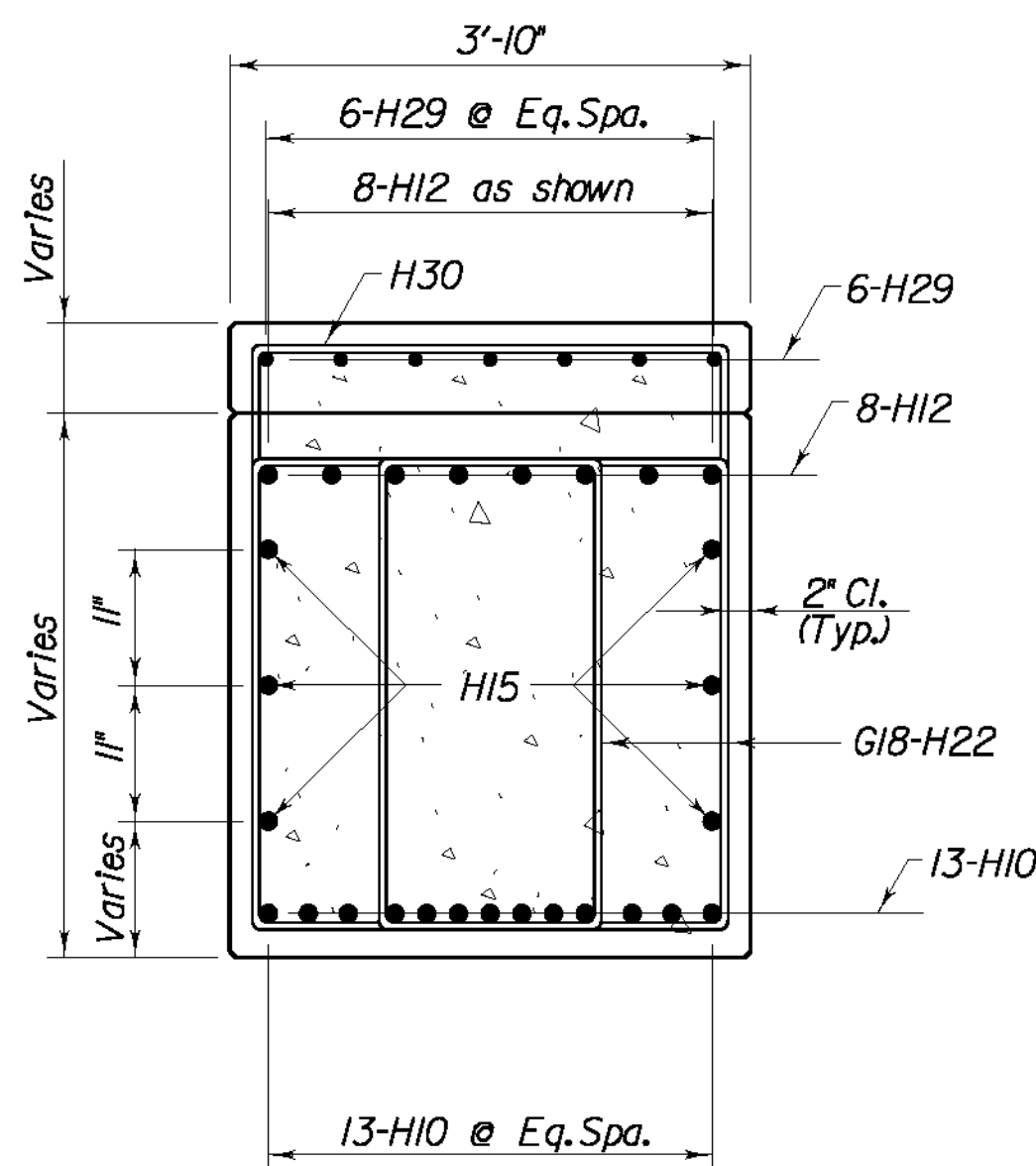
Type ⑥



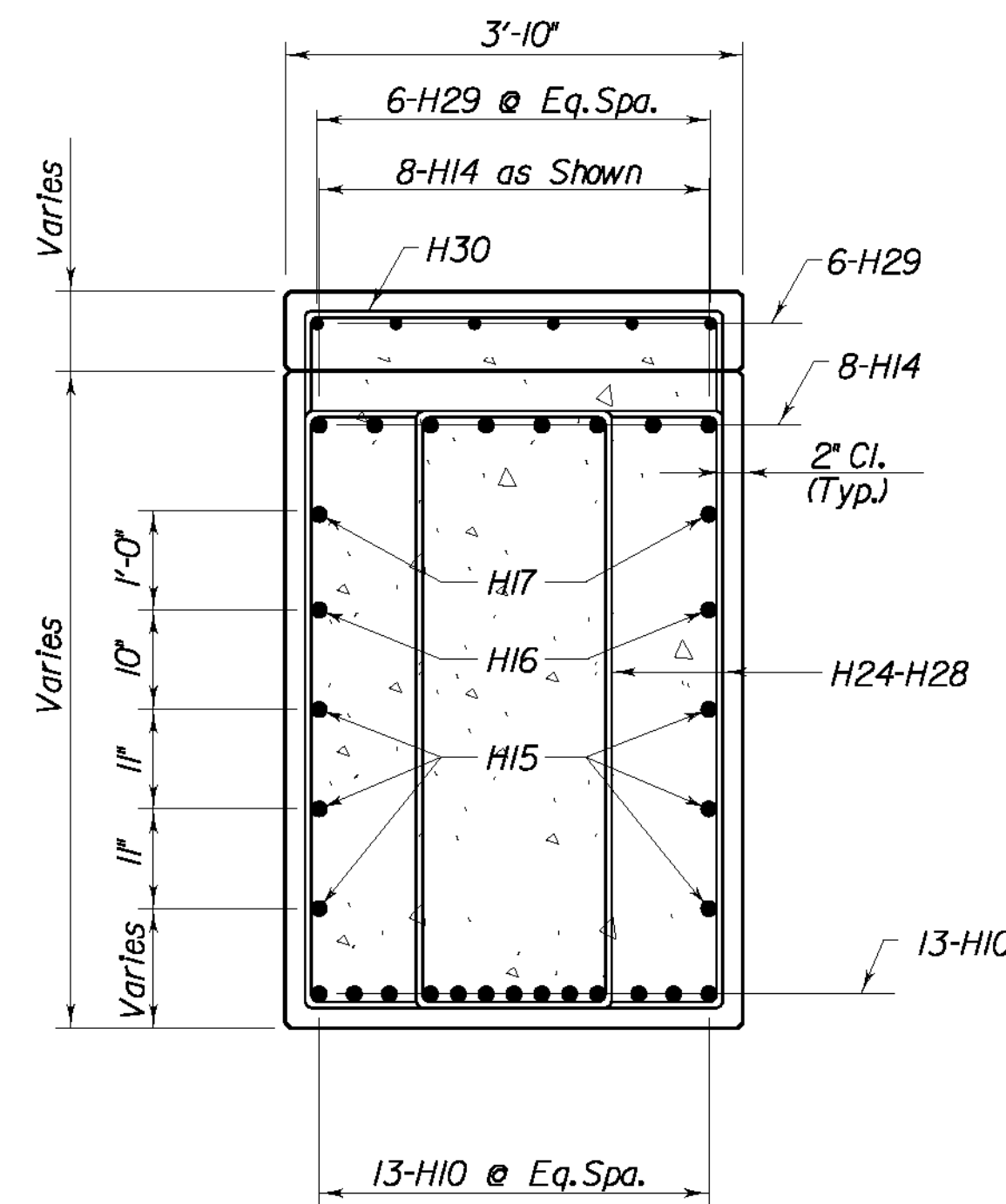
Type ⑦



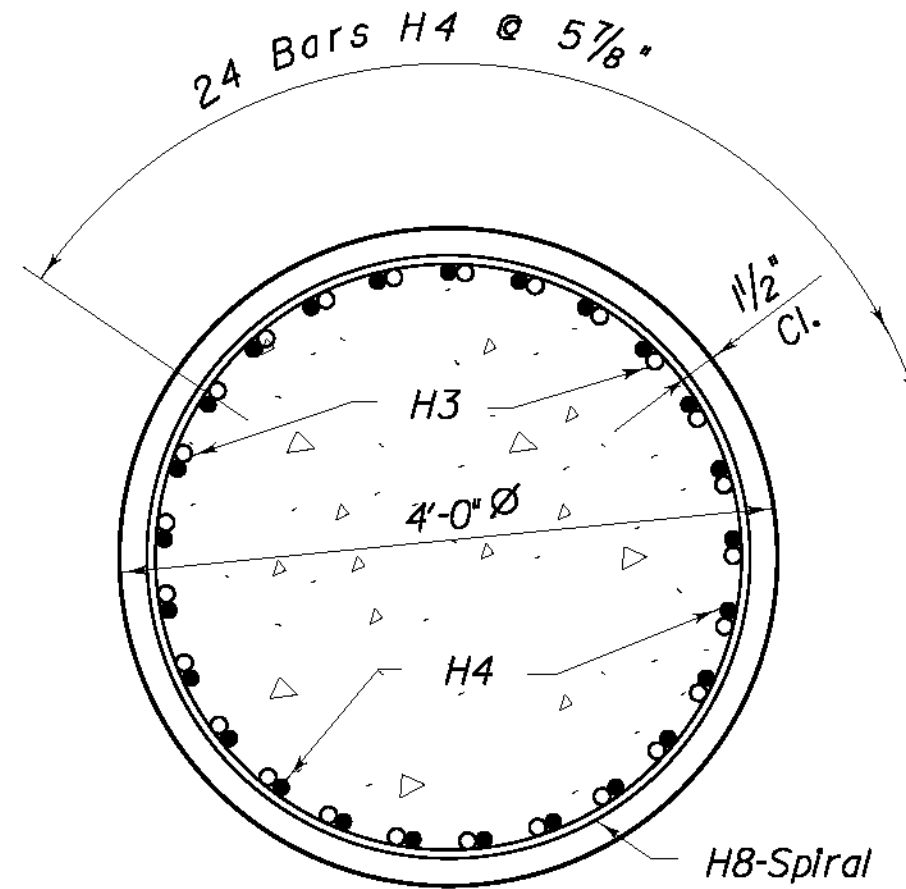
Type ⑧



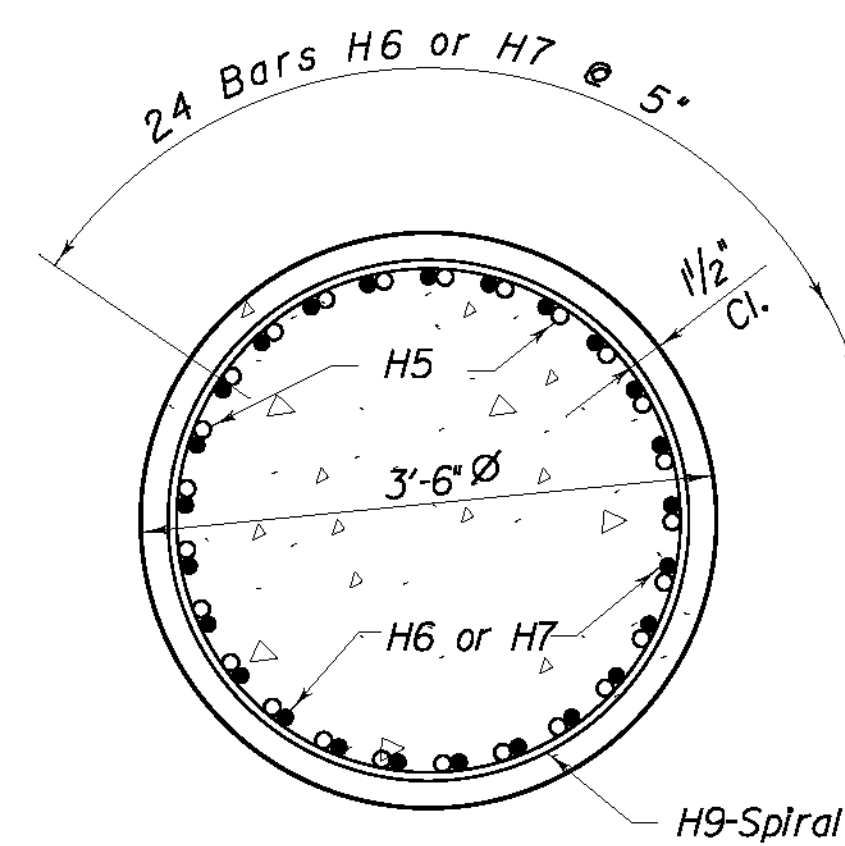
SECTION D-D



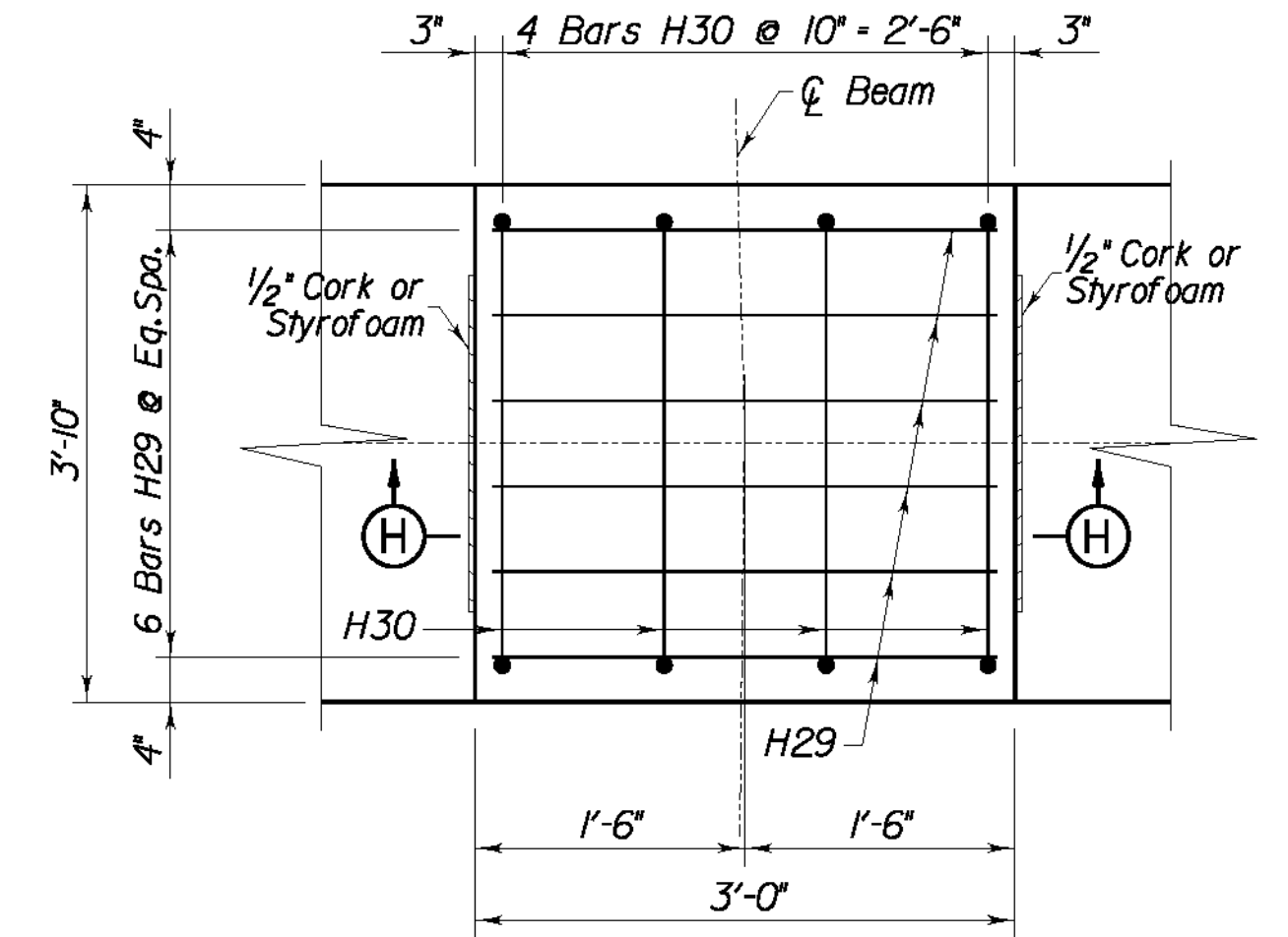
SECTION E-E



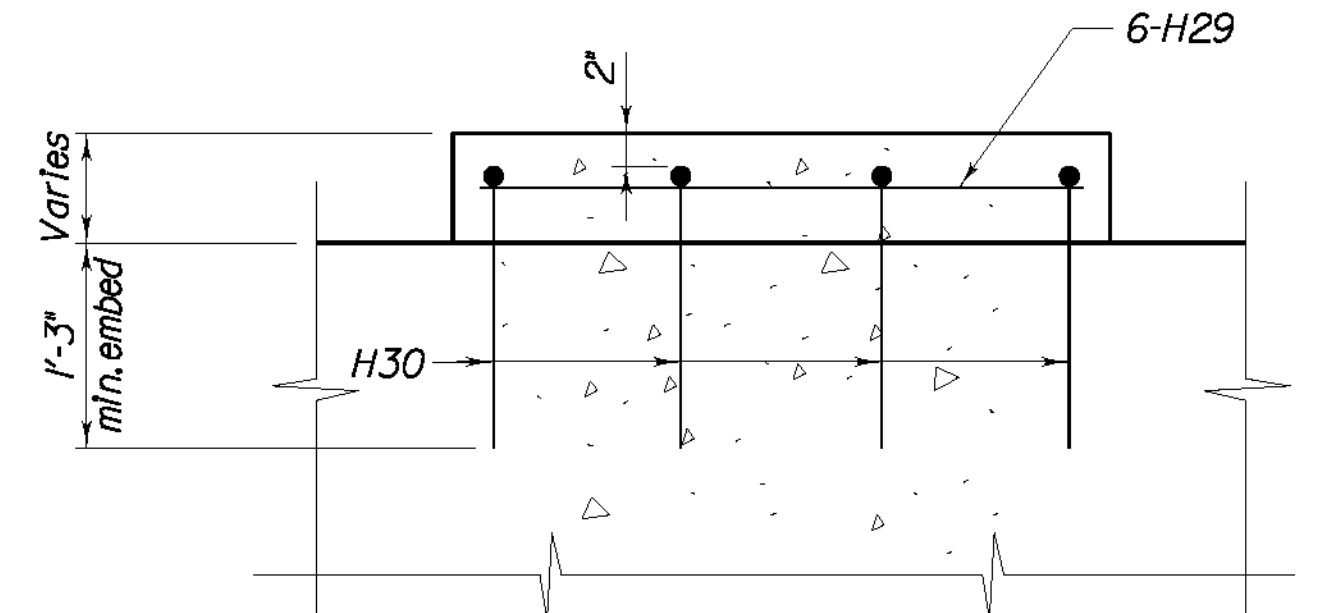
SECTION F-F



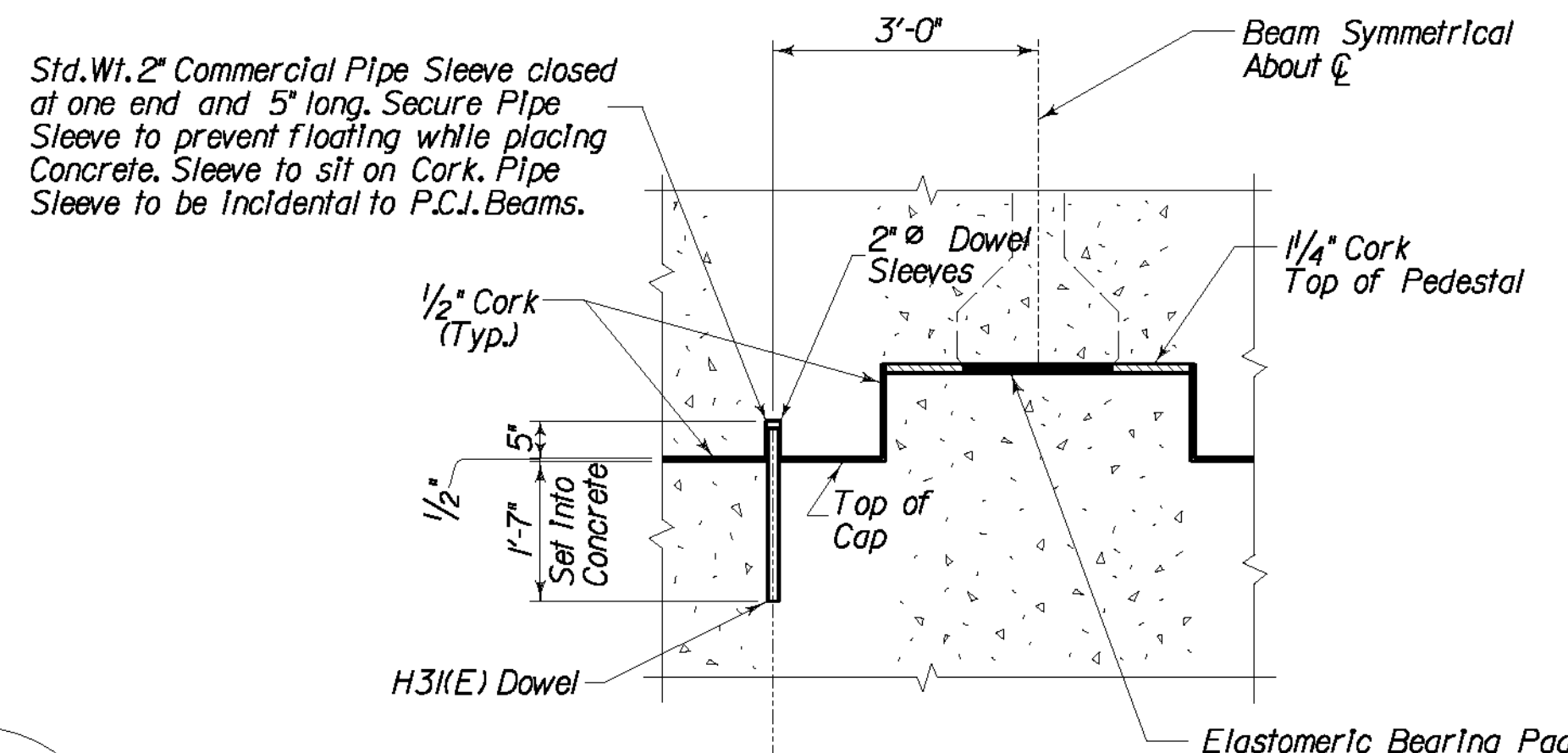
SECTION G-G



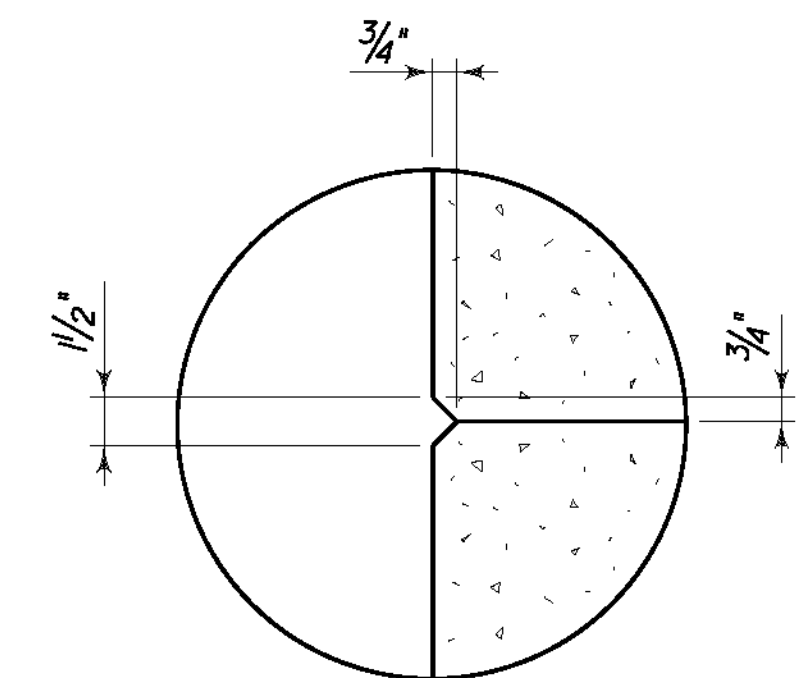
PEDESTAL DETAIL



SECTION H-H

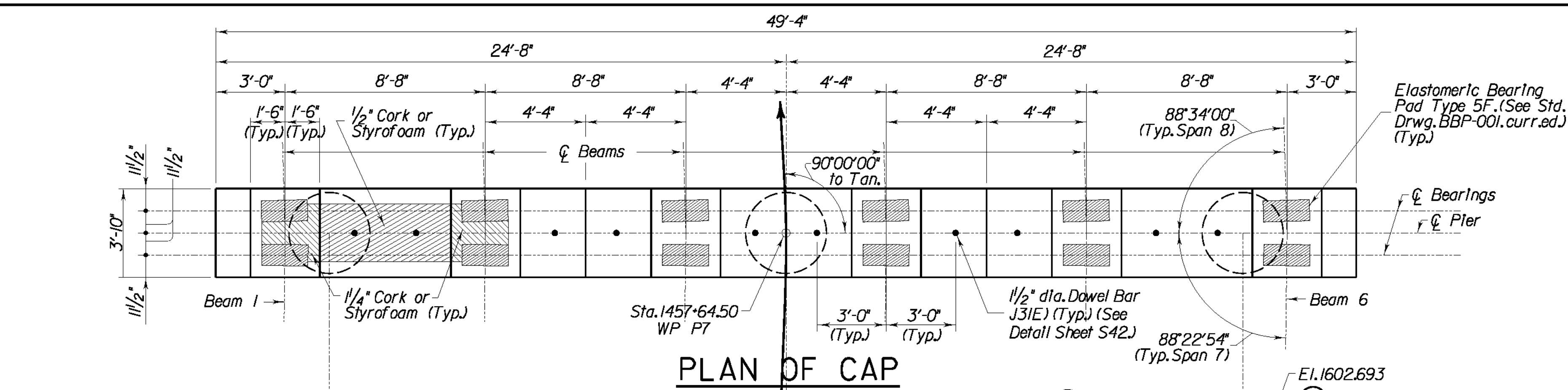


DOWEL DETAIL

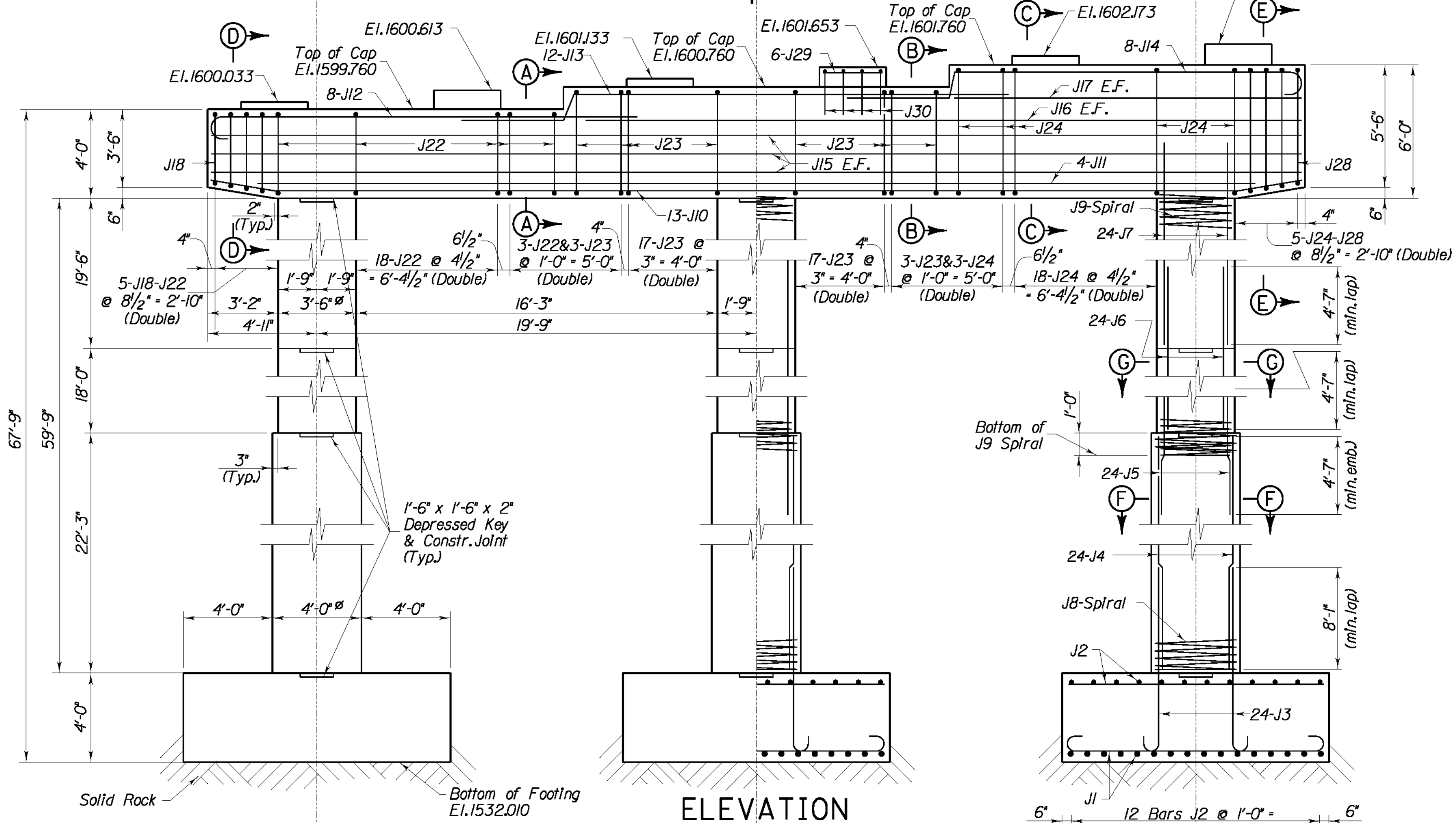


RUSTICATION GROOVE

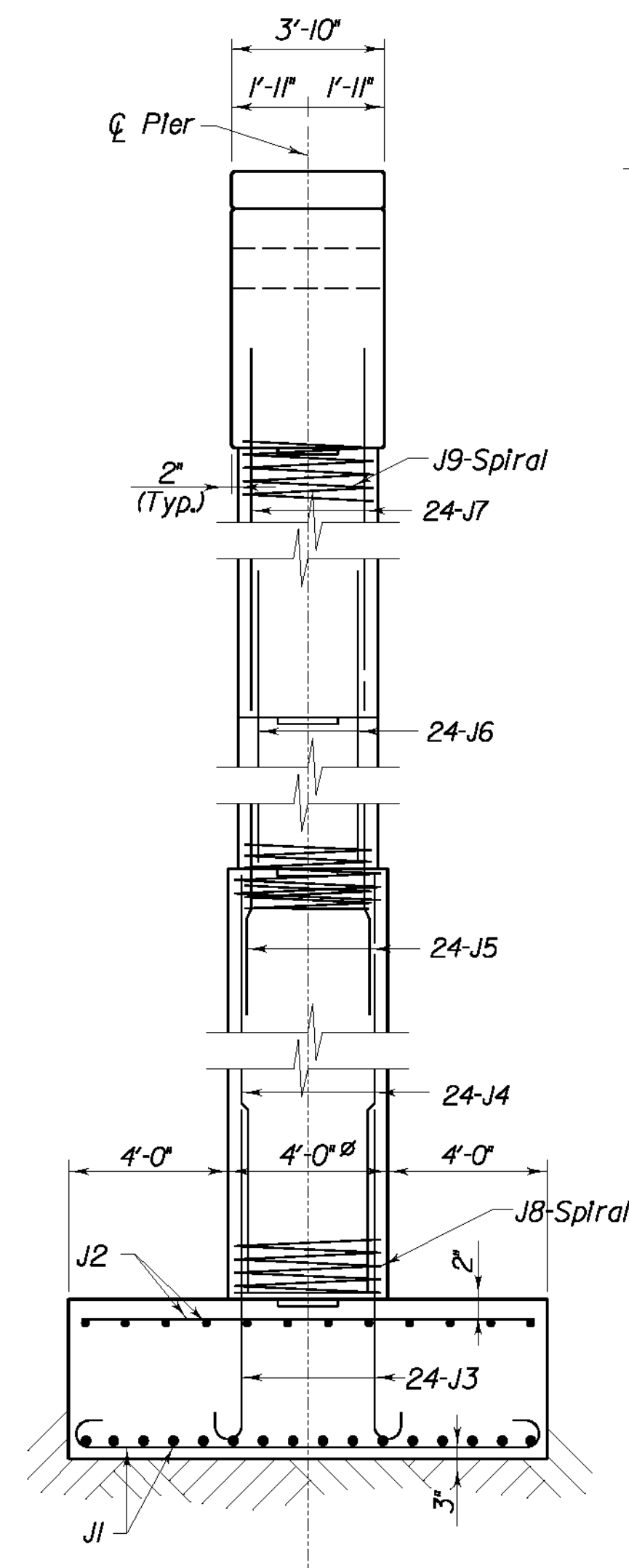
REVISION		DATE
DATE: 09 - 2003	DESIGNED BY: P. A. P.	CHECKED BY: W. T. B.
	DETAILED BY: D. W. S.	P. F. H.
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE US 119	CROSSING POOR FORK CUMBERLAND RIVER	
PIER 6		
ITEM NUMBER 12-311.10		PREPARED BY T.H.E. ENGINEERS, INC.
		SHEET NO. S40 DRAWING NO. 25296



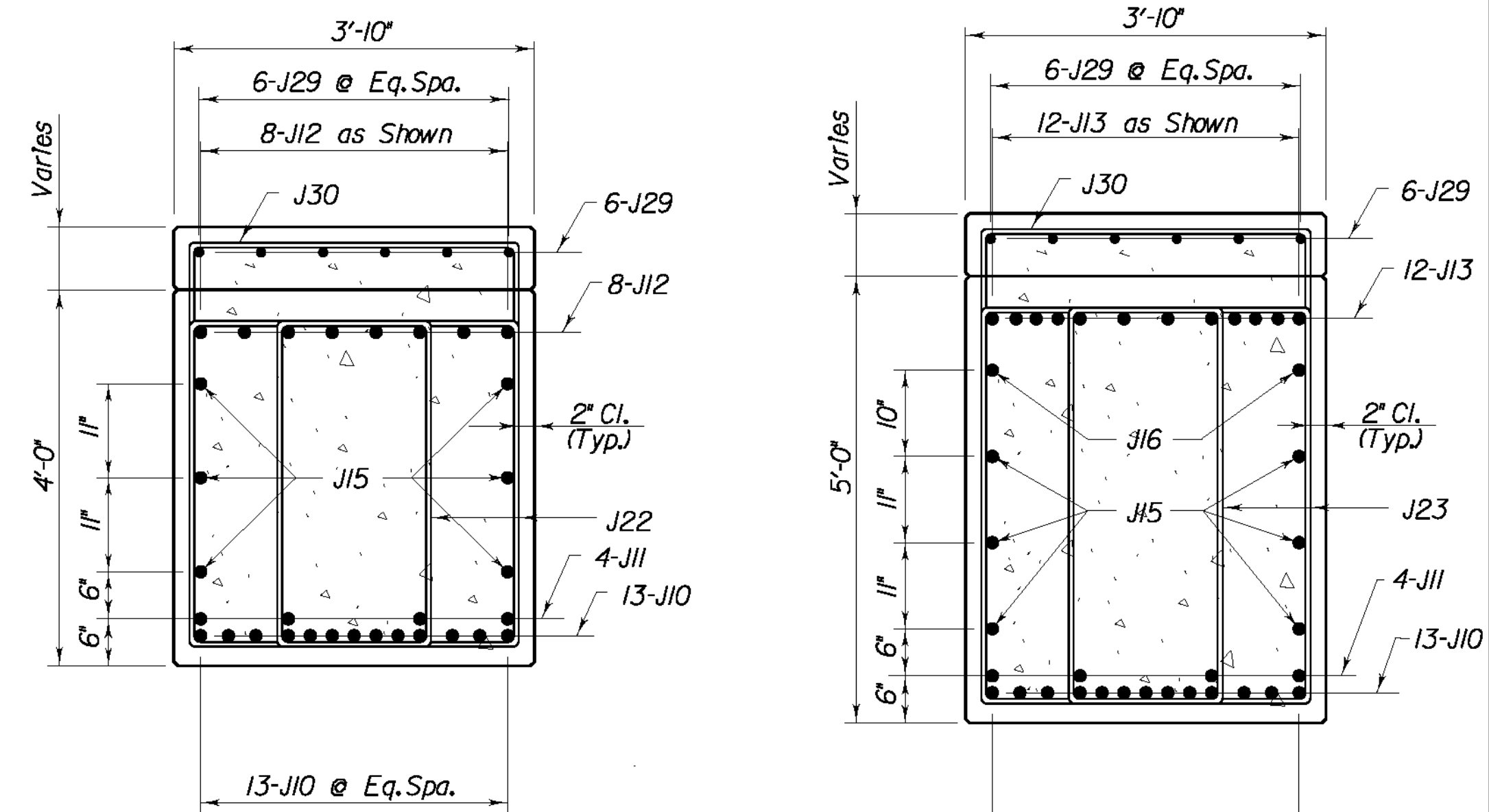
PLAN OF CAP



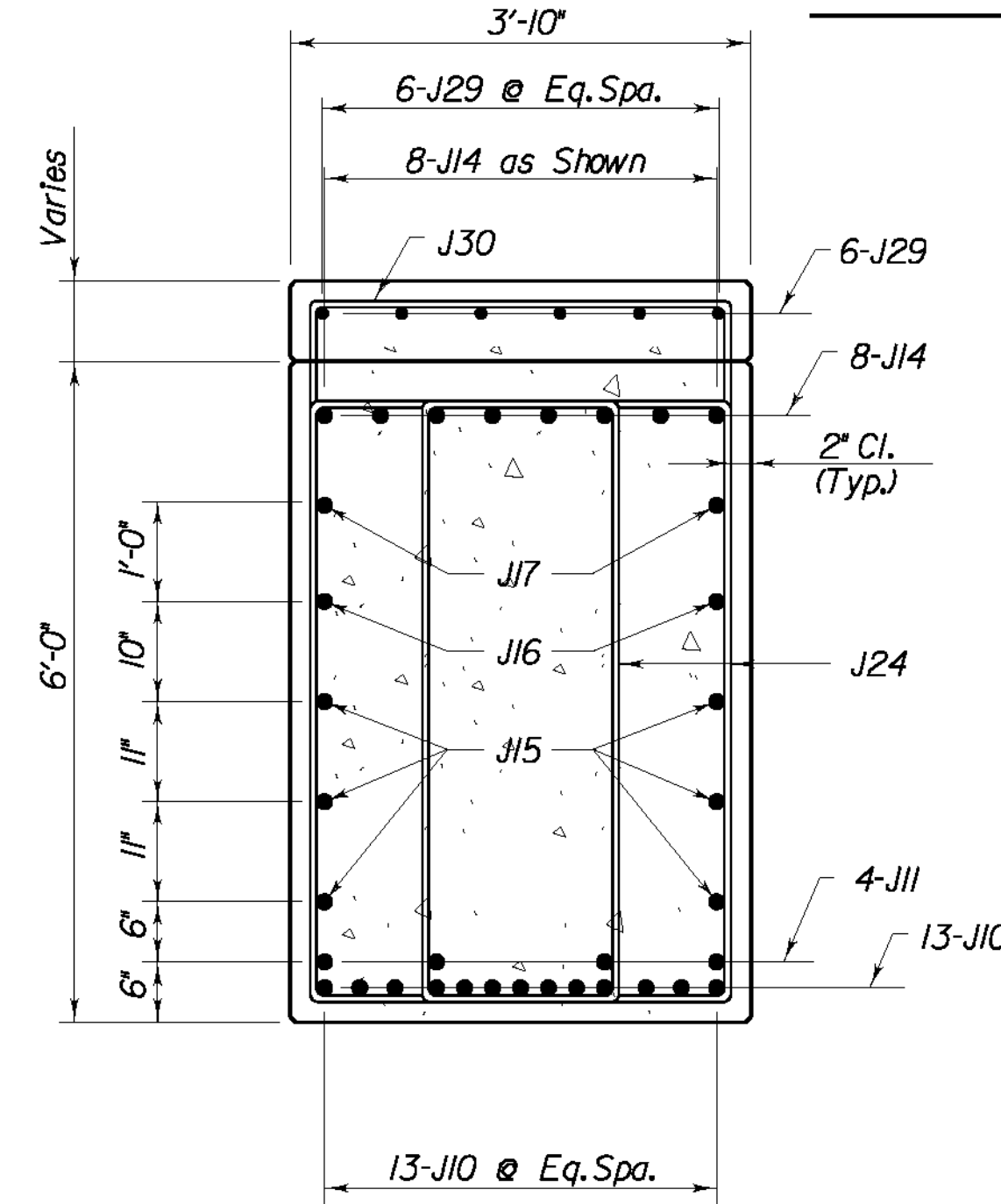
ELEVATION



END ELEVATION



SECTION A-A



SECTION C-C

NOTE:
For Bill of Reinforcement see Sheet S42.
See Sheet S20 for Pier Layout.

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE	CROSSING		
U.S. 119	POOR FORK CUMBERLAND RIVER		
PIER 7			
PREPARED BY			SHEET NO.
T.H.E. ENGINEERS, INC.			S41
			DRAWING NO.
			25296

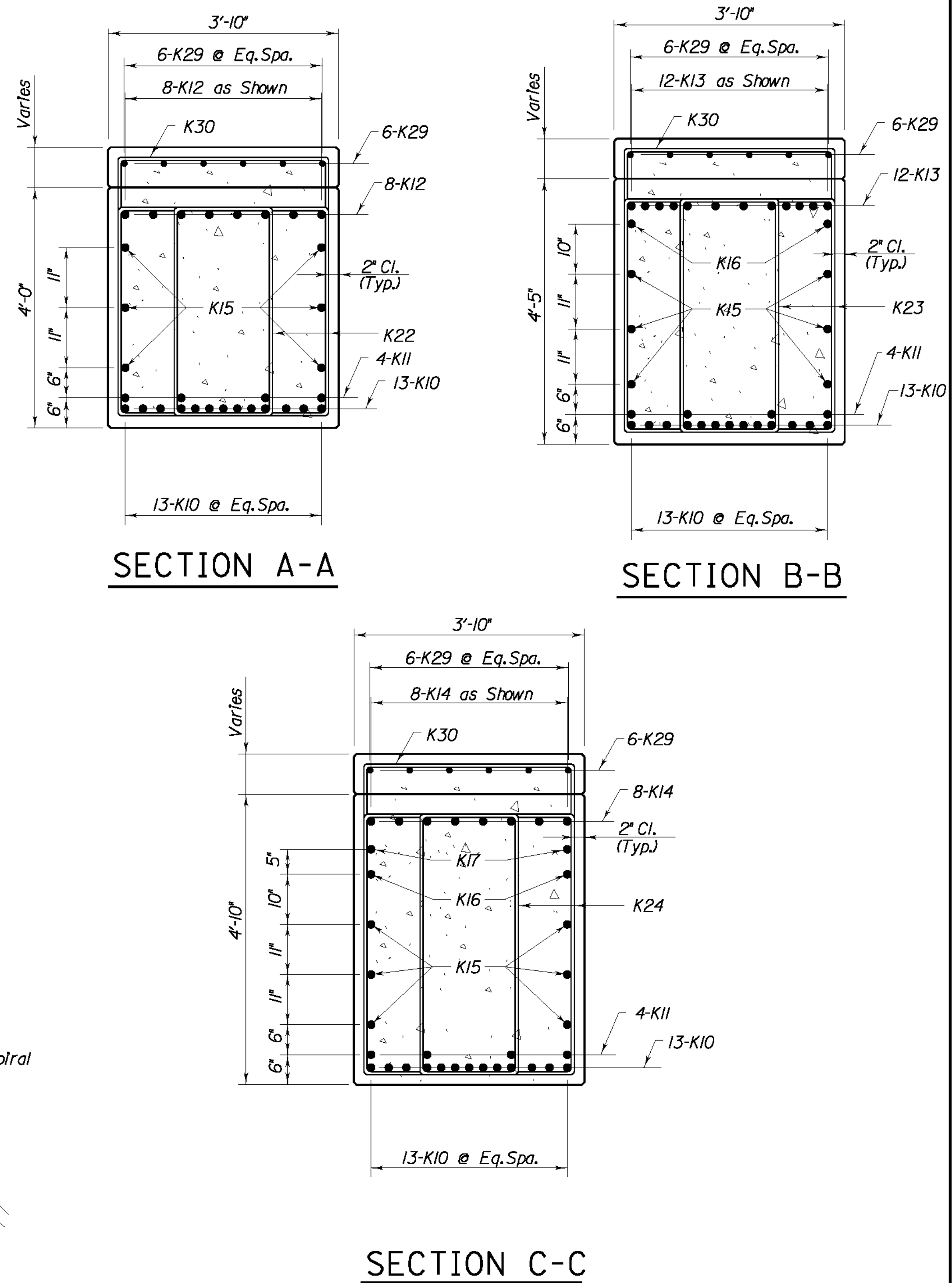
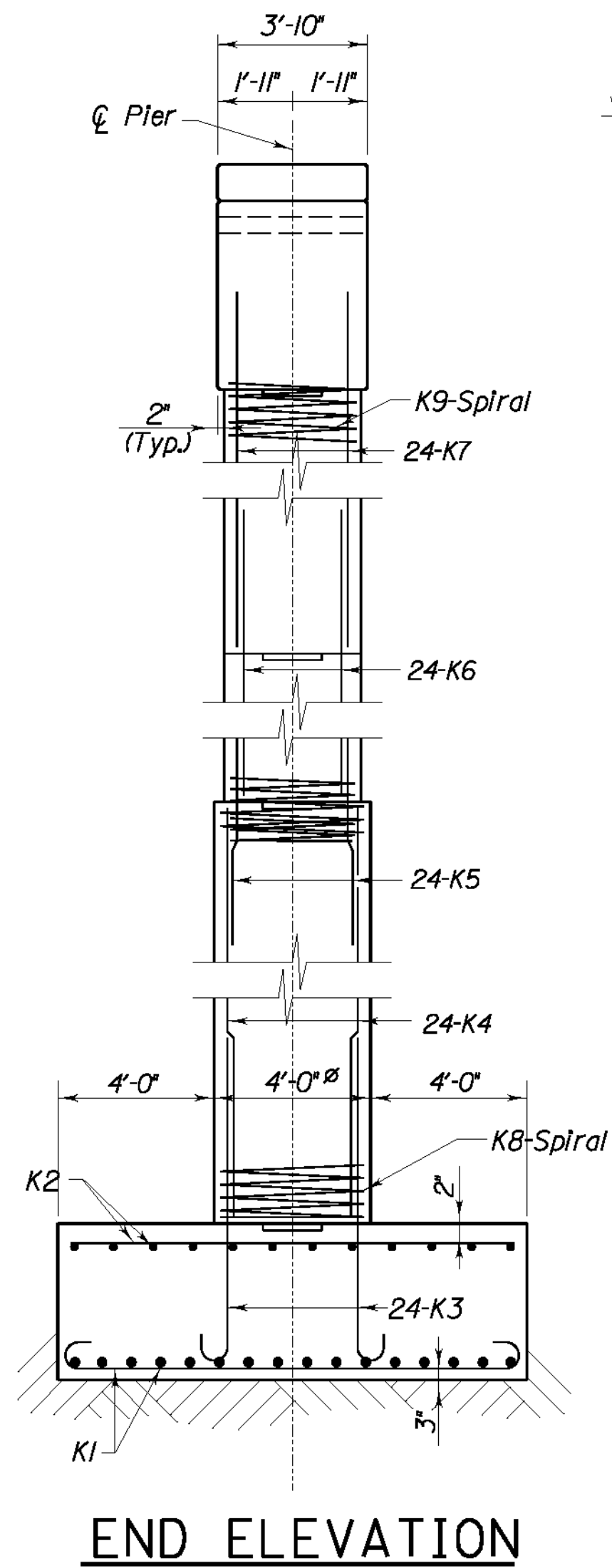
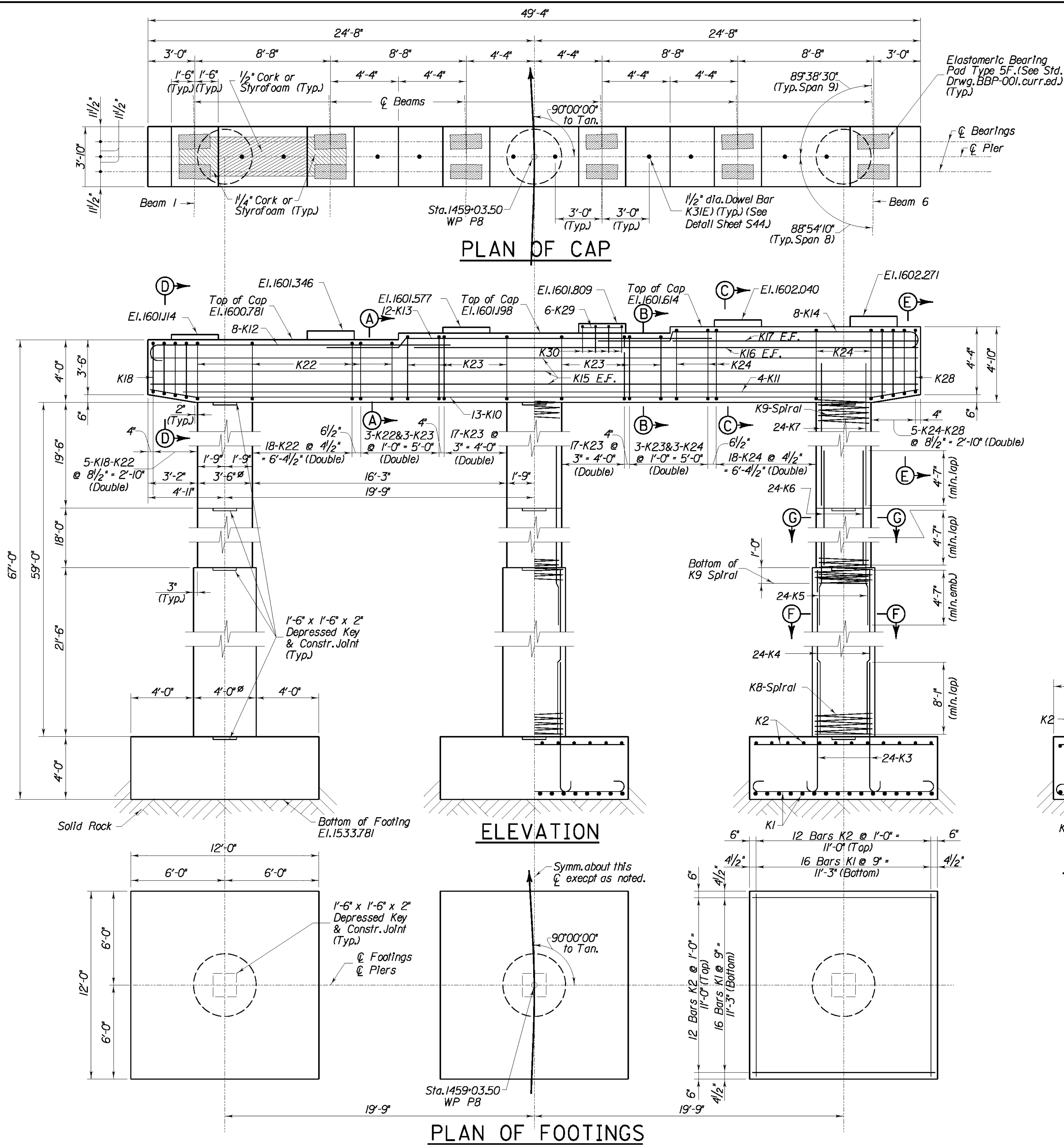
[illegible]

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE US 119	CROSSING POOR FORK CUMBERLAND RIVER		
<i>PIER 7</i>			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S42
			DRAWING NO. 25296

\$\$\$\$designsfile\$specification\$\$\$\$

\$\$\$\$DATE\$\$\$\$

\$\$\$\$DATE\$\$\$\$



NOTE:
For Bill of Reinforcement see Sheet S44.
See Sheet S20 for Pier Layout.

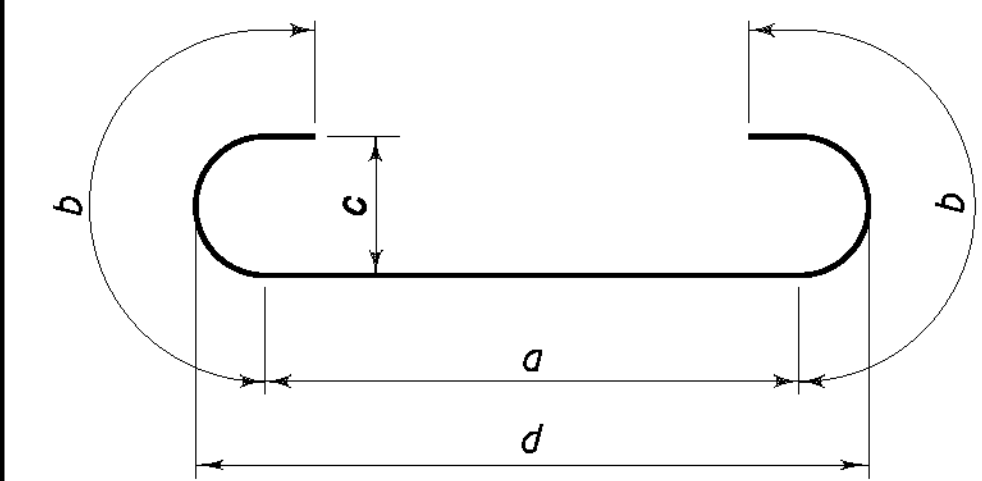
ITEM NUMBER
12-311.10

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U. S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
PIER 8			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S43
			DRAWING NO. 25296

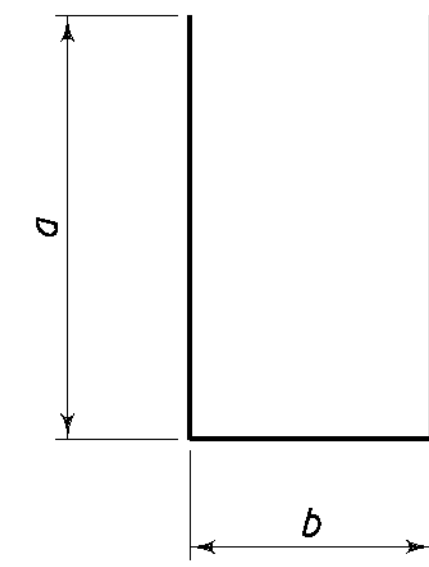
BILL OF REINFORCEMENT

Mark	Type	Number	Size	Length		Location	a		b		c		d	
				Ft.	In.		Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
K1	(1)	96	8	13	10	Footng	11	0	1	5	0	8	11	8
K2	Str.	72	5	11	8	Footng								
K3	(4)	72	9	12	2	Column Dowels	10	3	1	11	0	11 3/4	10	9
K4	Str.	72	9	21	4	Column								
K5	(2)	72	8	9	3	Column	3	5	0	2 3/4	0	2	5	7
K6	Str.	72	8	22	7	Column								
K7	Str.	72	8	22	2	Column								
K8	(8)	3	4	21	4	Spral	77 turns						3	9
K9	(8)	3	4	38	9	Spral	136 turns						3	3
K10	(6)	13	10	49	1	Cap	43	4	2	10 1/2	0	5 3/4	2	10
K11	Str.	4	8	44	10	Cap								
K12	(4)	8	8	22	8	Cap	20	6	2	2	1	11/4	21	0
K13	(2)	8	8	27	10	Cap	5	2	0	7	0	5	22	1
K14	(2)	8	8	22	9	Cap								
K15	Str.	6	6	49	0	Cap								
K16	Str.	2	6	30	7	Cap								
K17	Str.	2	6	13	3	Cap								
K18s	(4)	2	5	11	8	Cap	3	2 1/2	2	3				
K19s	(4)	2	5	11	11	Cap	3	4	2	3				
K20s	(4)	2	5	12	2	Cap	3	5 1/2	2	3				
K21s	(4)	2	5	12	5	Cap	3	7	2	3				
K22s	(4)	44	5	12	7	Cap	3	8	2	3				
K23s	(4)	80	5	14	7	Cap	4	8	2	3				
K24s	(4)	44	5	16	7	Cap	5	8	2	3				
K25s	(4)	2	5	16	5	Cap	5	7	2	3				
K26s	(4)	2	5	16	2	Cap	5	5 1/2	2	3				
K27s	(4)	2	5	15	11	Cap	5	4	2	3				
K28s	(4)	2	5	15	8	Cap	5	2 1/2	2	3				
K29	Str.	36	5	2	8	Pedestal								
K30s	(2)	24	5	7	5	Pedestal	2	0	3	6				
K3(E)	Str.	10	*	2	0	Dowels								

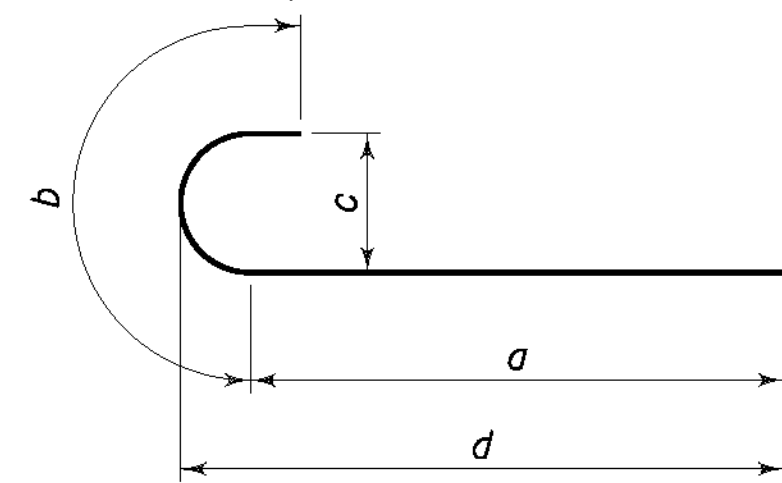
NOTE: Reinforcing Bars Designated By The Suffix (E) In The Plans Shall Be Epoxy Coated In Accordance With The Current Specifications.
Reinforcing bars designated by the suffix (s) in the Bill of Reinforcement shall be considered stirrups for purposes of bend diameters.
* 1/2" Diameter Round Smooth Pin. Epoxy Coated



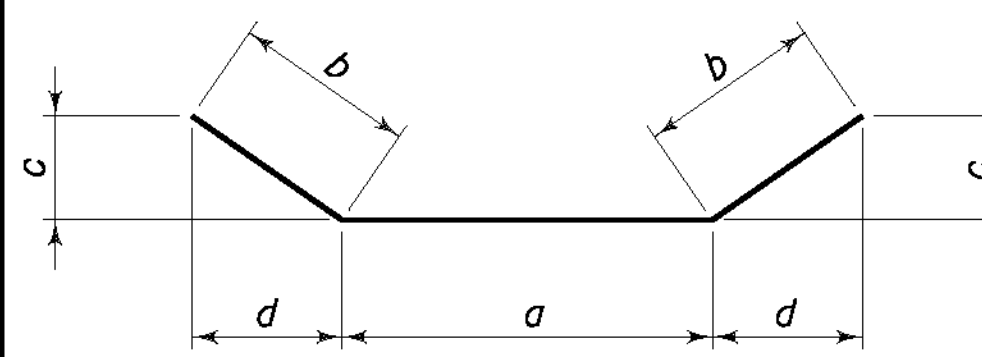
Type ①



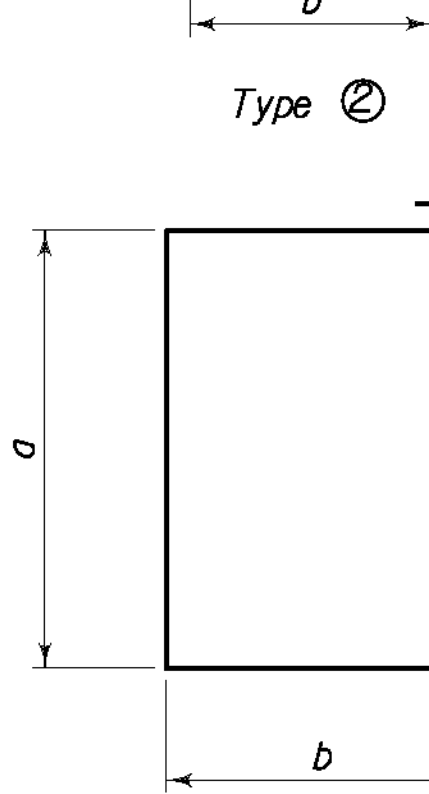
Type ②



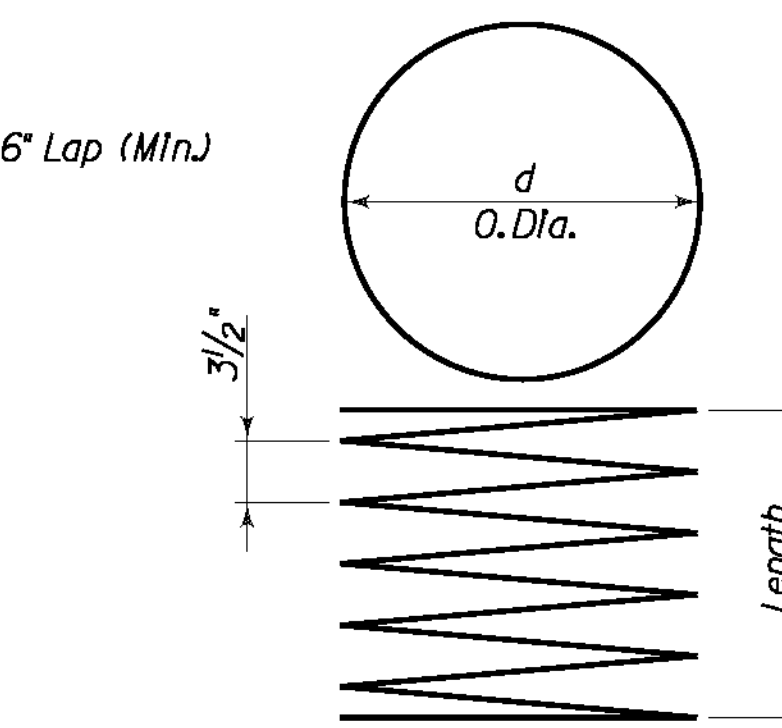
Type ③



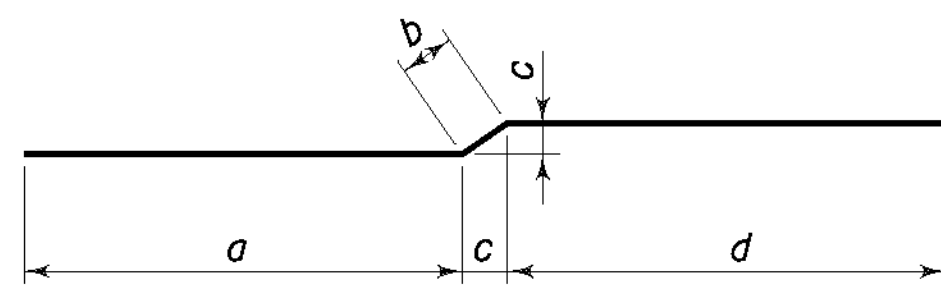
Type ④



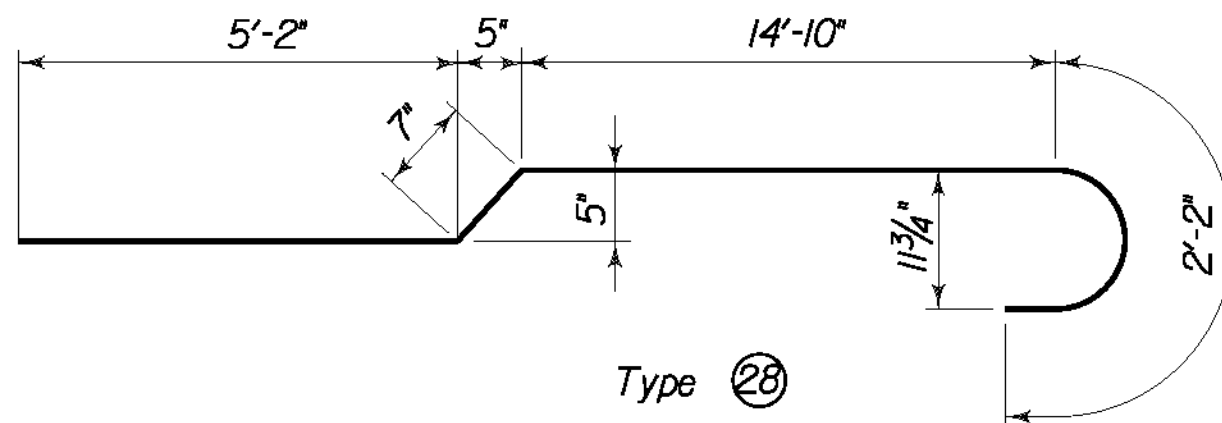
Type ⑤



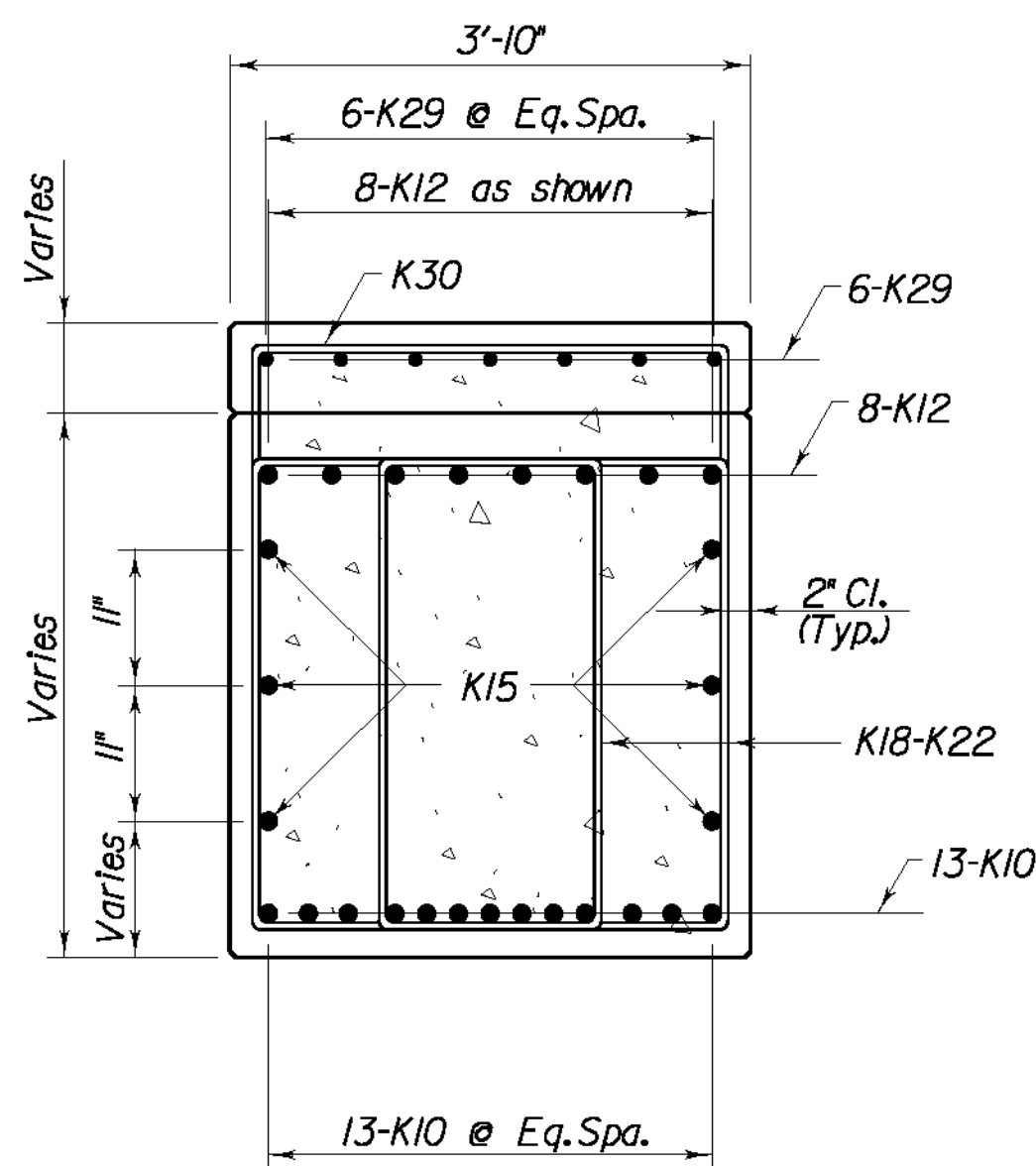
Type ⑥



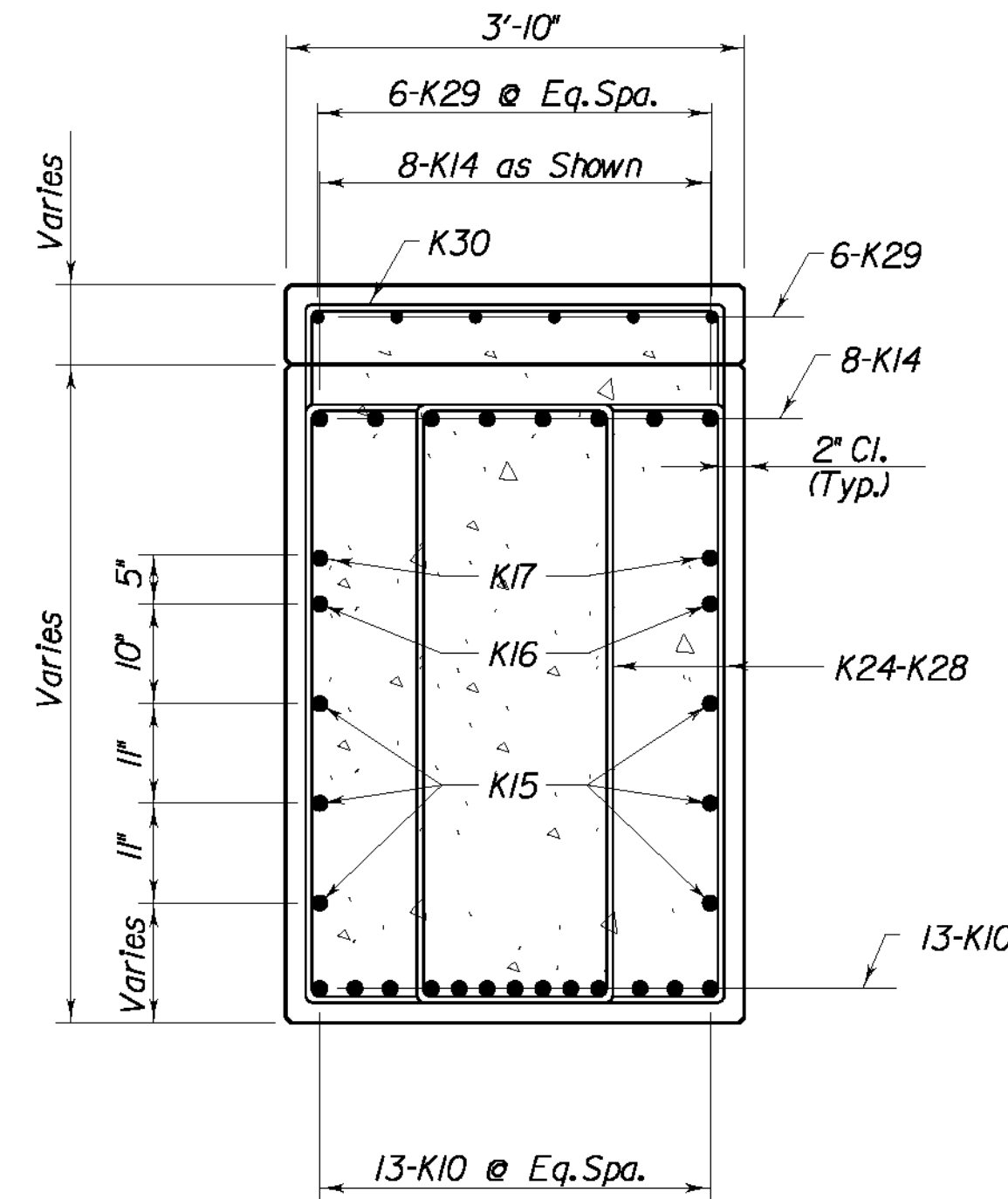
Type ⑦



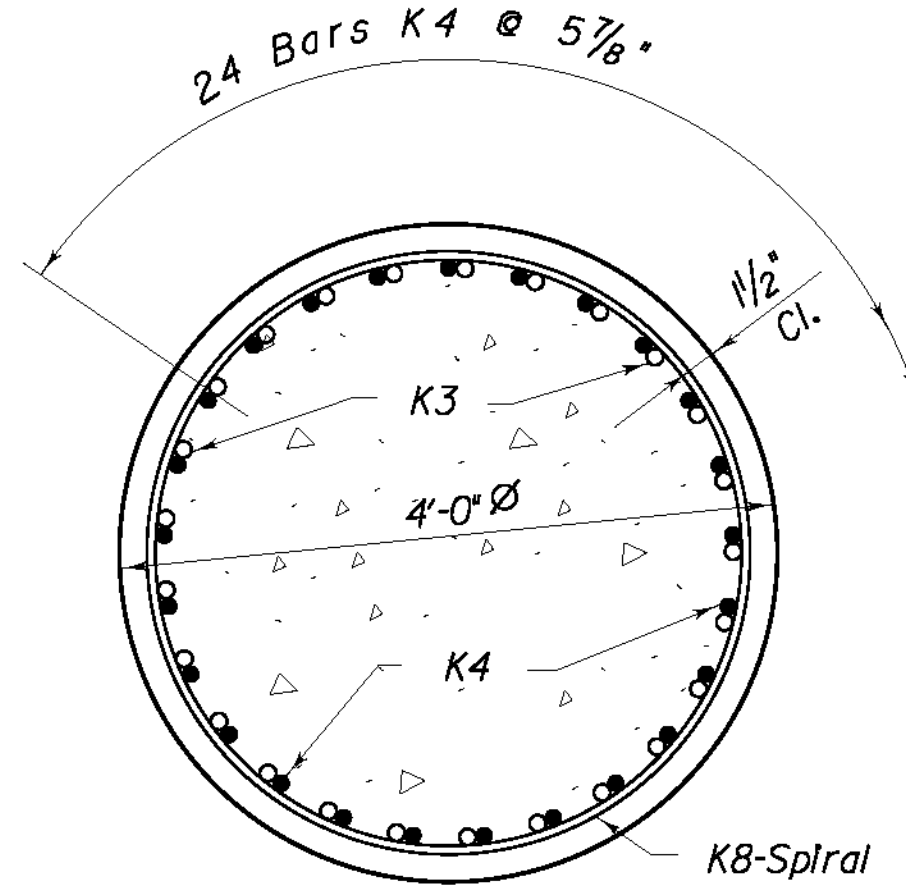
Type ⑧



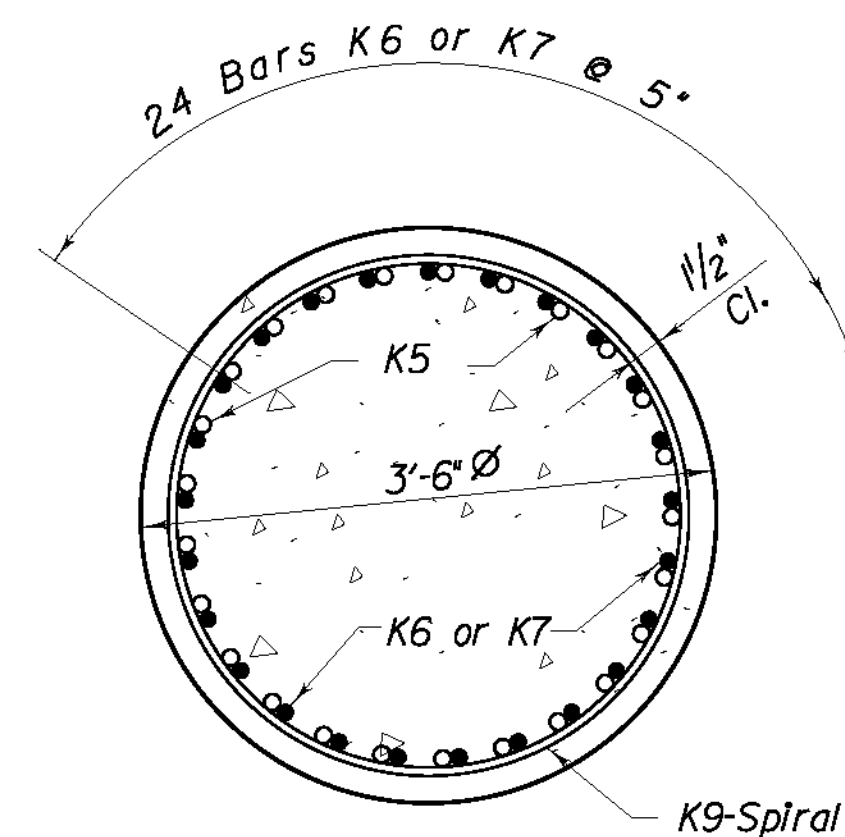
SECTION D-D



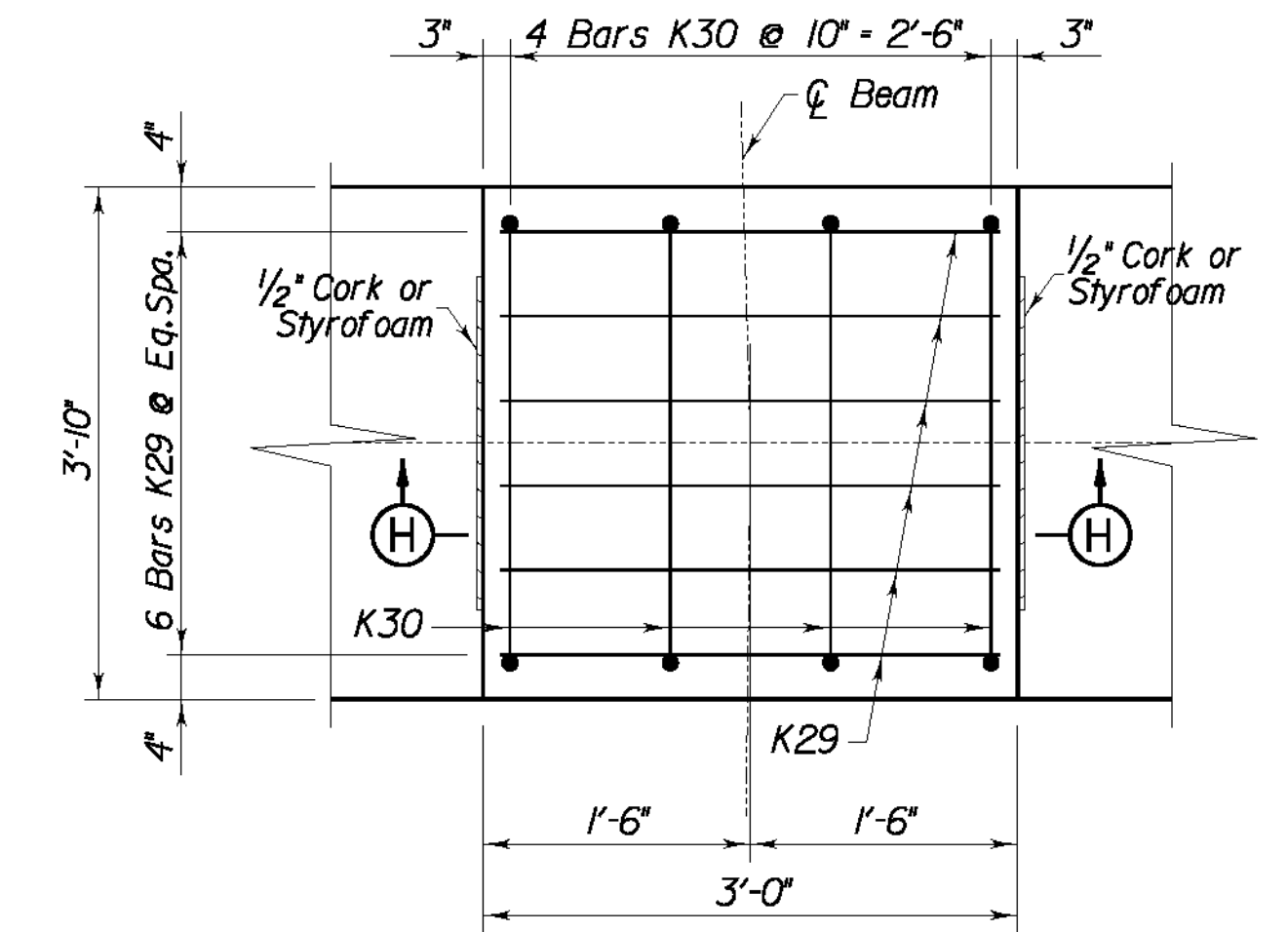
SECTION E-E



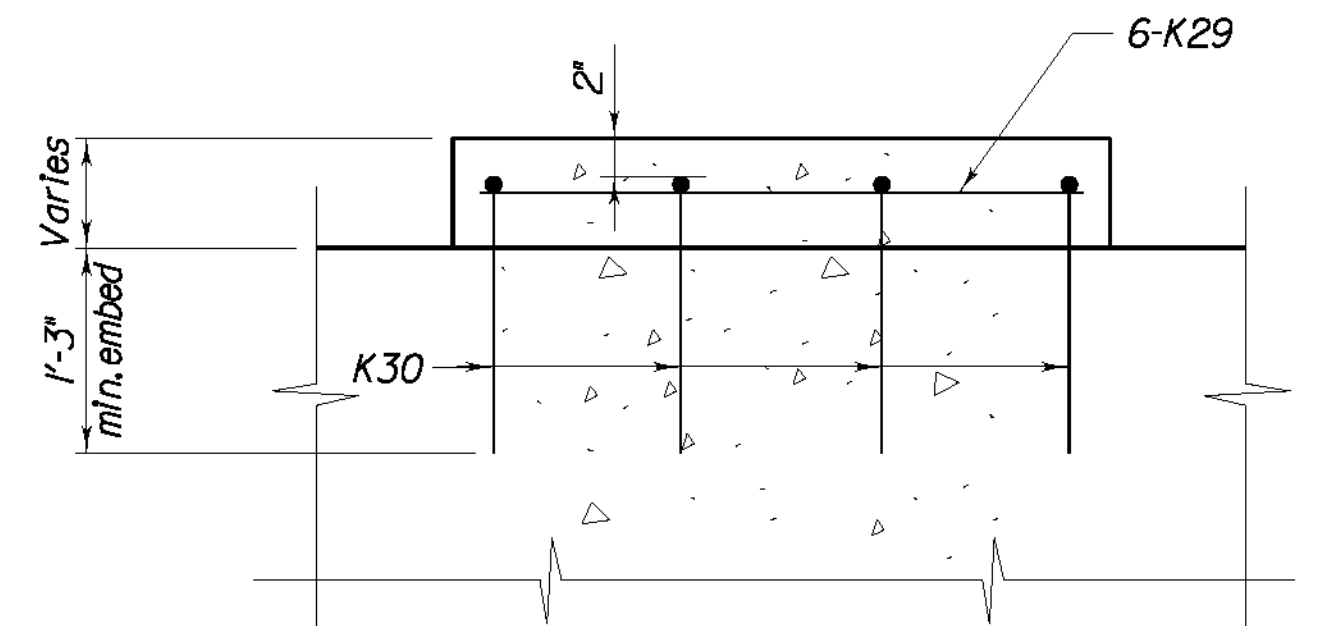
SECTION F-F



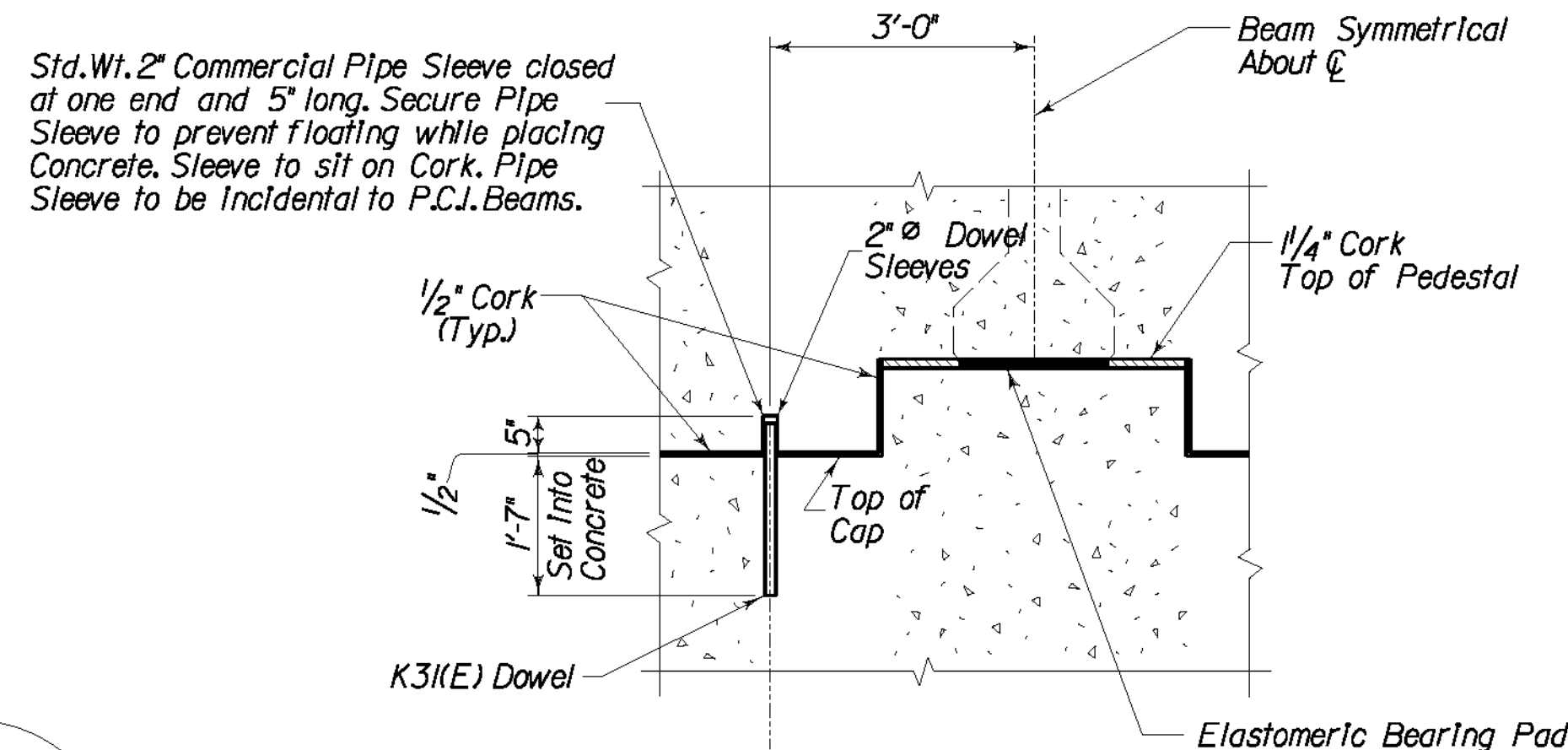
SECTION G-G



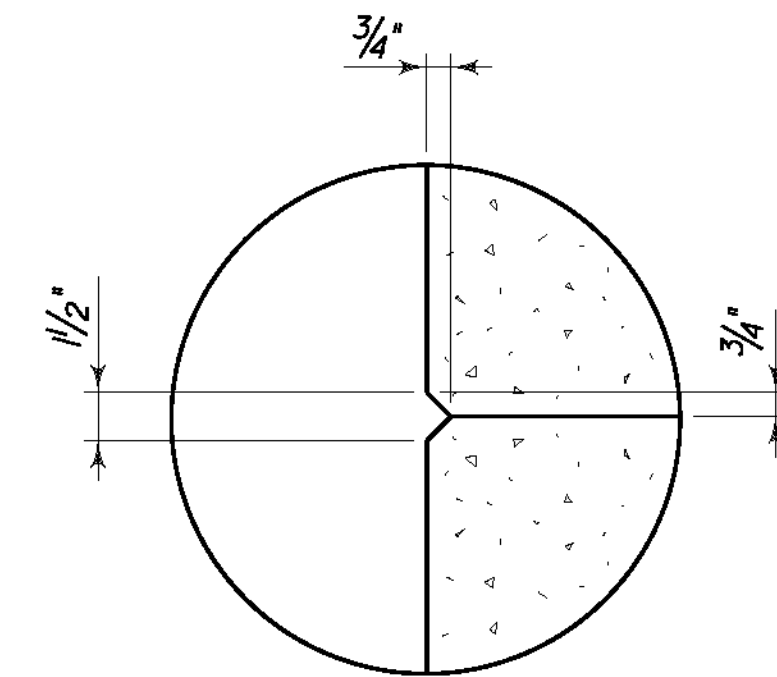
PEDESTAL DETAIL



SECTION H-H

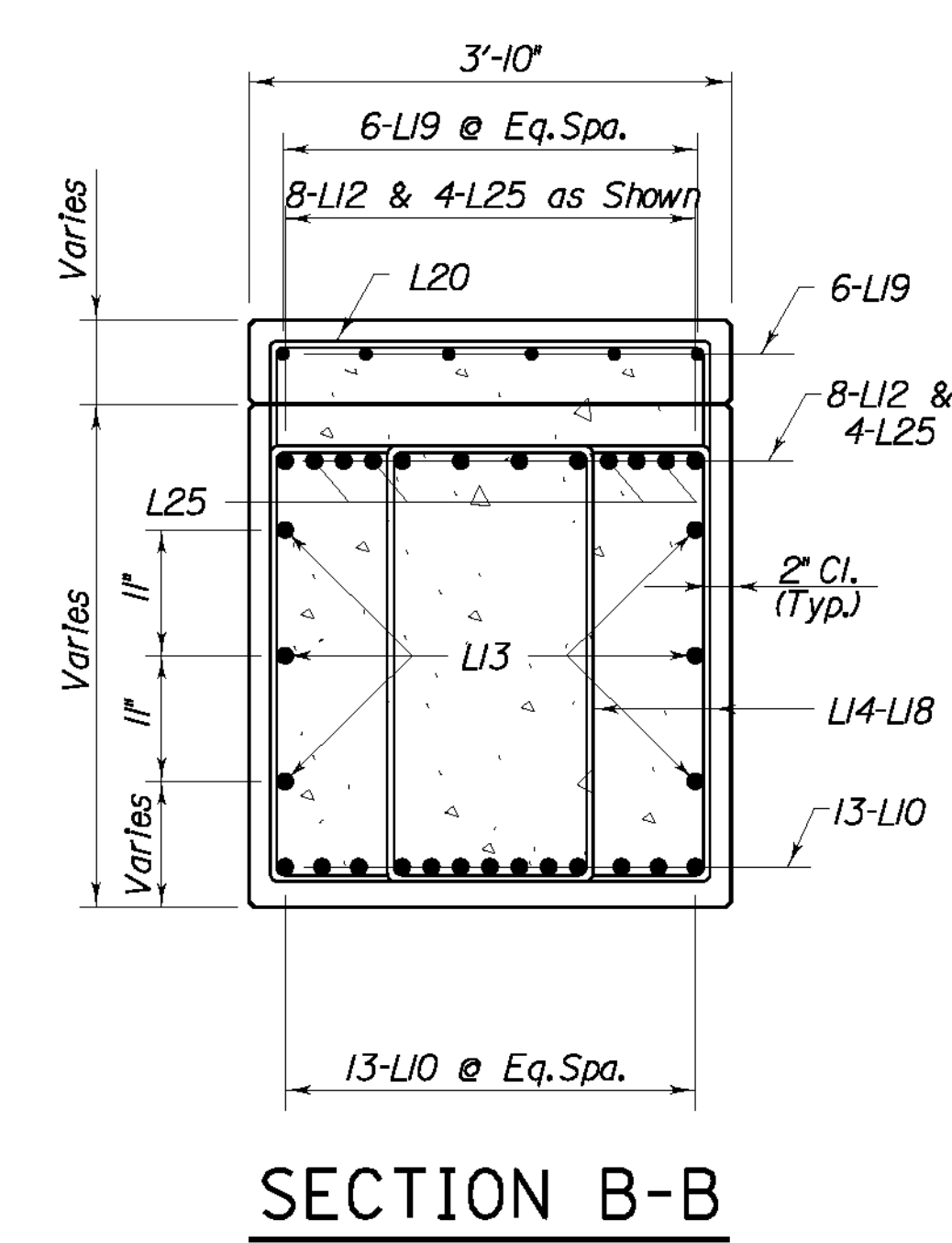
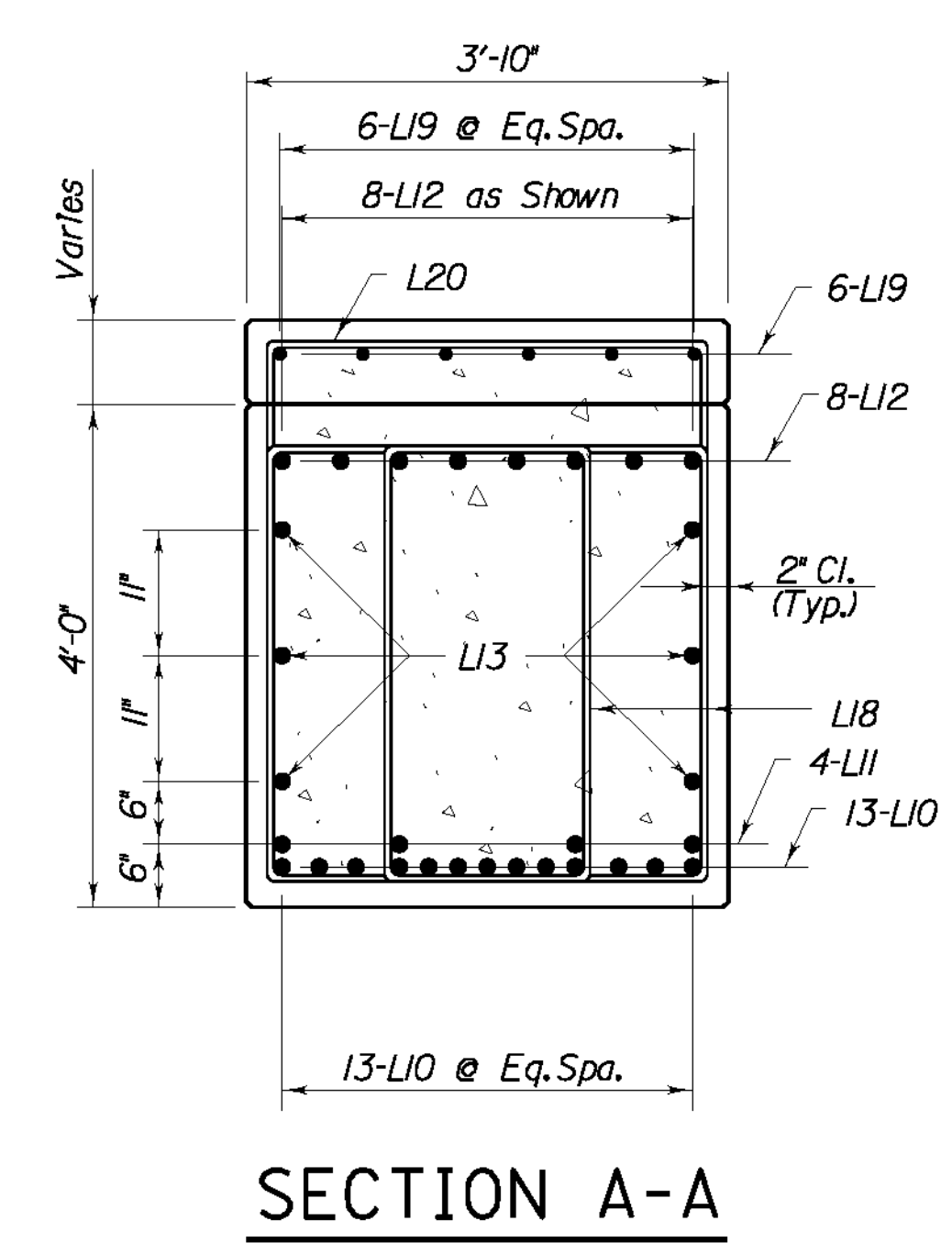
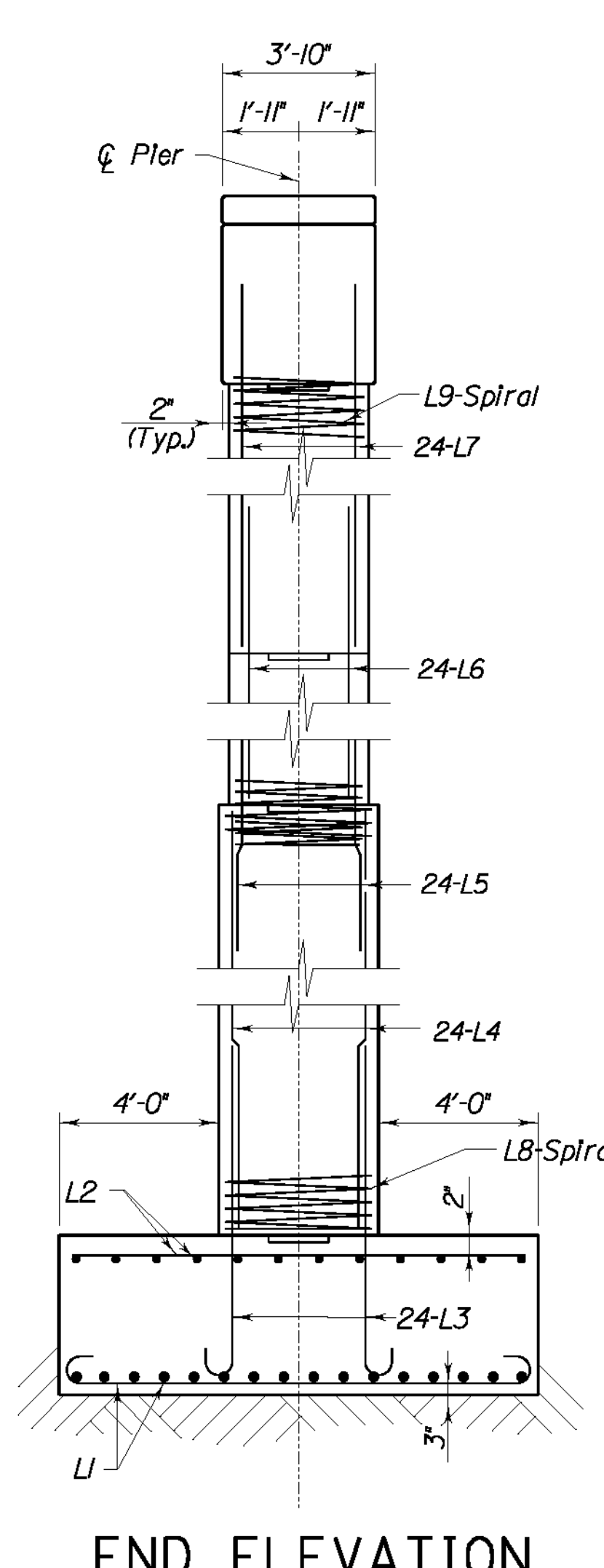
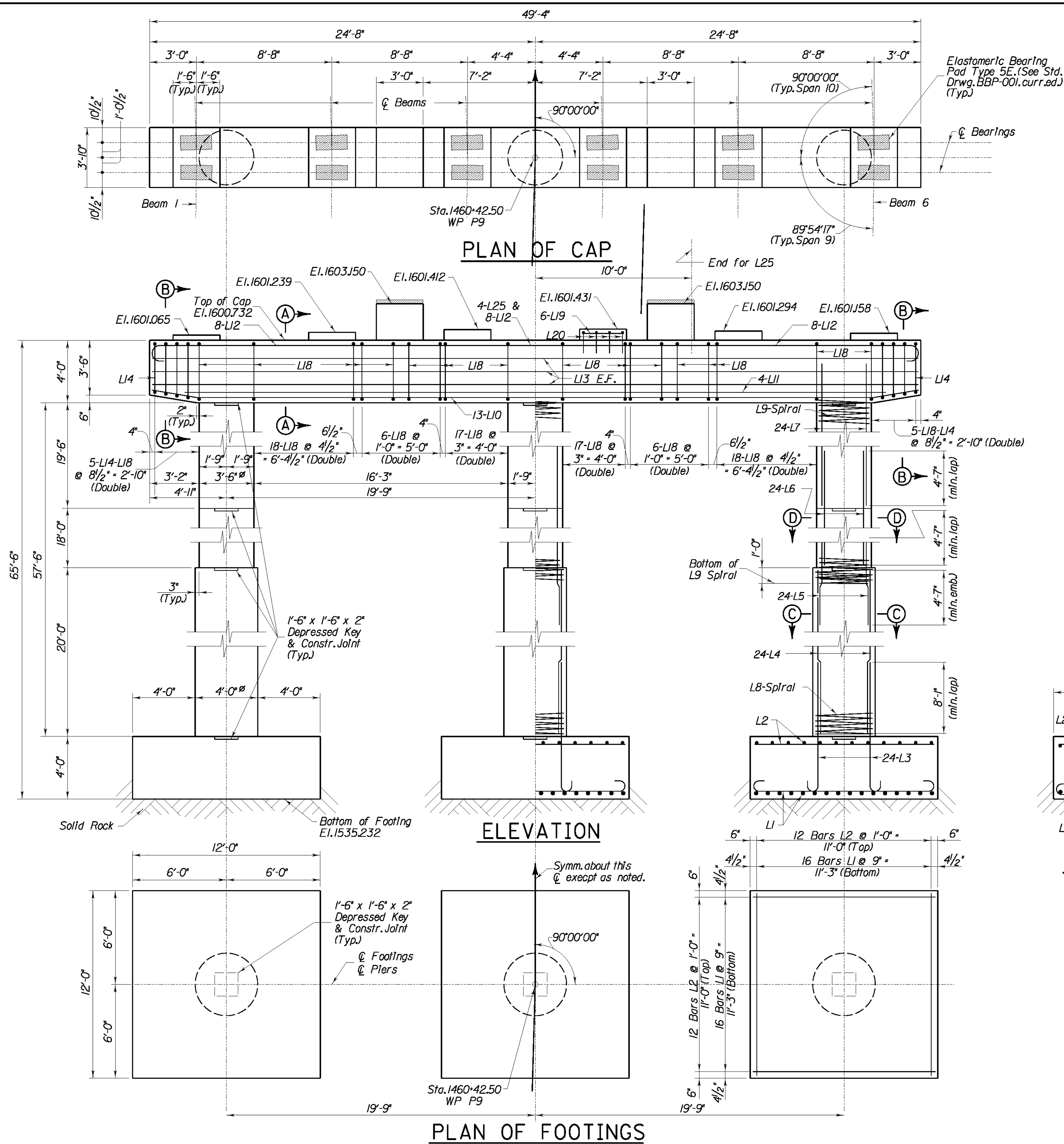


DOWEL DETAIL



RUSTICATION GROOVE

REVISION		DATE
DATE: 09 - 2003	DESIGNED BY: P. A. P.	CHECKED BY: W. T. B.
DESIGNED BY: P. A. P.	DETAILED BY: D. W. S.	CHECKED BY: P. F. H.
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE US 119	CROSSING POOR FORK CUMBERLAND RIVER	
PIER 8		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S44
ITEM NUMBER 12-311.10		DRIVING NO. 25296

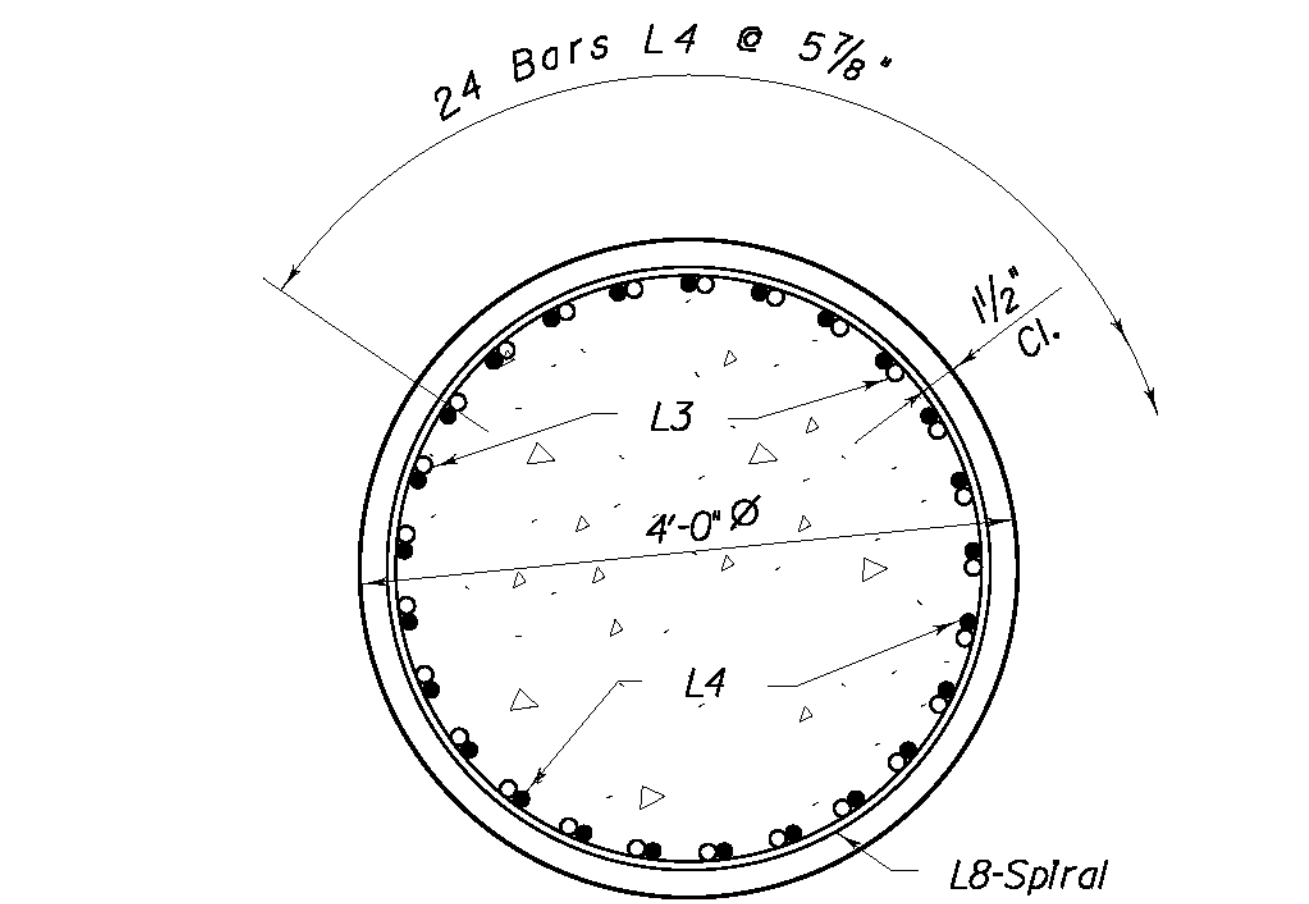
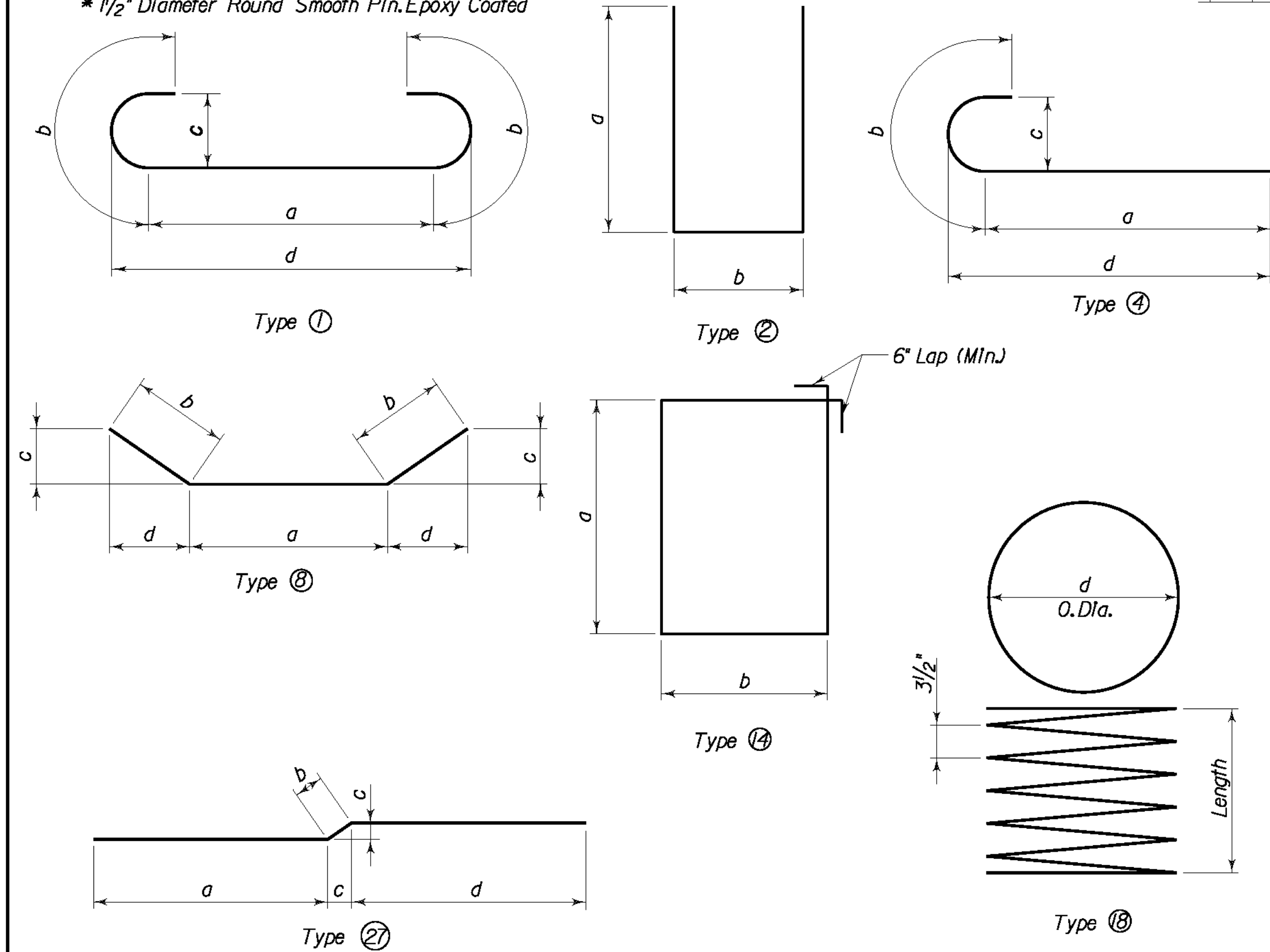


REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
PIER 9			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S45 DRAWING NO. 25296

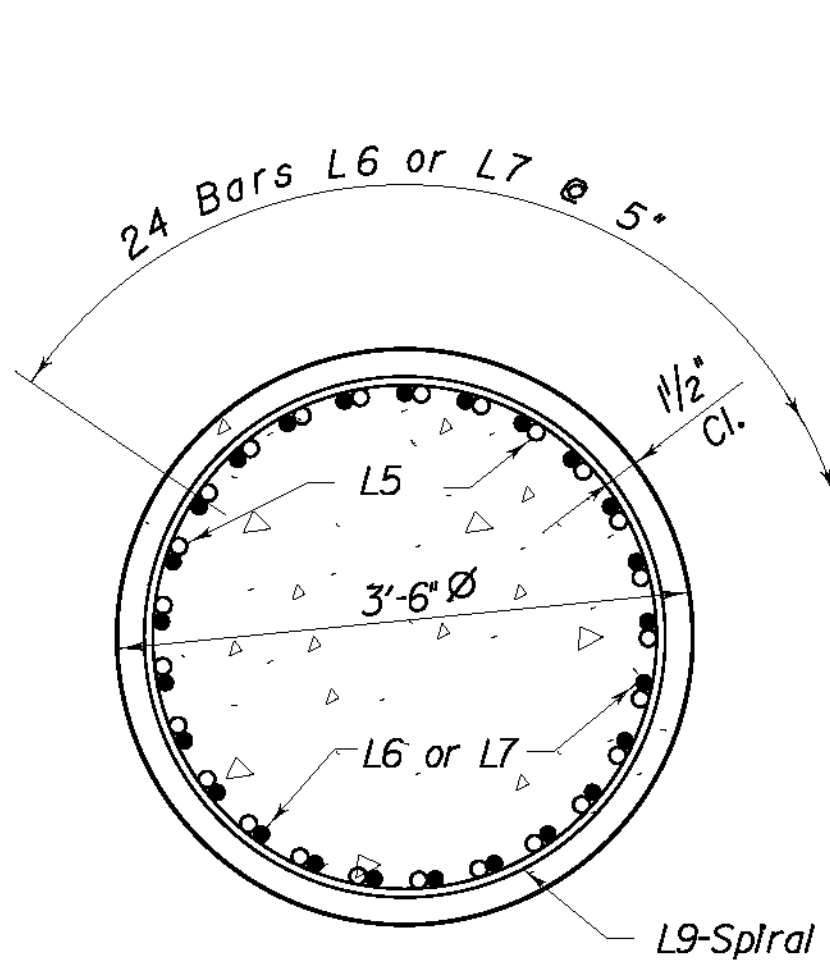
NOTE:
For Bill of Reinforcement see Sheet S46.
See Sheet S20 for Pier Layout.

BILL OF REINFORCEMENT															
Mark	Type	Number	Size	Length		Location	a		b		c		d		
				Ft.	In.		Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.	
L1	(1)	96	8	13	10	Footng	11	0	1	5	0	8	11	8	
L2	Str.	72	5	11	8	Footng									
L3	(4)	72	9	12	2	Column Dowels	10	3	1	11	0	11 3/4	10	9	
L4	Str.	72	9	19	10	Column									
L5	(2)	72	8	9	3	Column	3	5	0	2 3/4	0	2	5	7	
L6	Str.	72	8	22	7	Column									
L7	Str.	72	8	22	2	Column									
L8	(8)	3	4	19	10	Spiral	71 turns						3	9	
L9	(8)	3	4	38	9	Spiral	136 turns						3	3	
L10	(6)	13	10	49	1	Cap	43	4	2	10 1/2	0	5 3/4	2	10	
L11	Str.	4	8	44	10	Cap									
L12	(1)	8	10	52	3	Cap	47	11	2	2	1	1 1/4	49	0 1/4	
L13	Str.	6	6	49	0	Cap									
L14s	(4)	4	5	11	8	Cap	3	2 1/2	2	3					
L15s	(4)	4	5	11	11	Cap	3	4	2	3					
L16s	(4)	4	5	12	2	Cap	3	5 1/2	2	3					
L17s	(4)	4	5	12	5	Cap	3	7	2	3					
L18s	(4)	168	5	12	7	Cap	3	8	2	3					
L19	Str.	36	5	2	8	Pedestal									
L20s	(2)	24	5	7	5	Pedestal	2	0	3	6					
L21	Str.	4	6	3	6	Shear Key									
L22s	(2)	10	6	9	10	Shear Key	3	8	2	7					
L23s	(2)	4	6	10	6	Shear Key	3	8	3	3					
L24s	(4)	4	4	12	8	Shear Key	3	3 1/2	2	8					
L25	Str.	4	10	20	0	Cap									

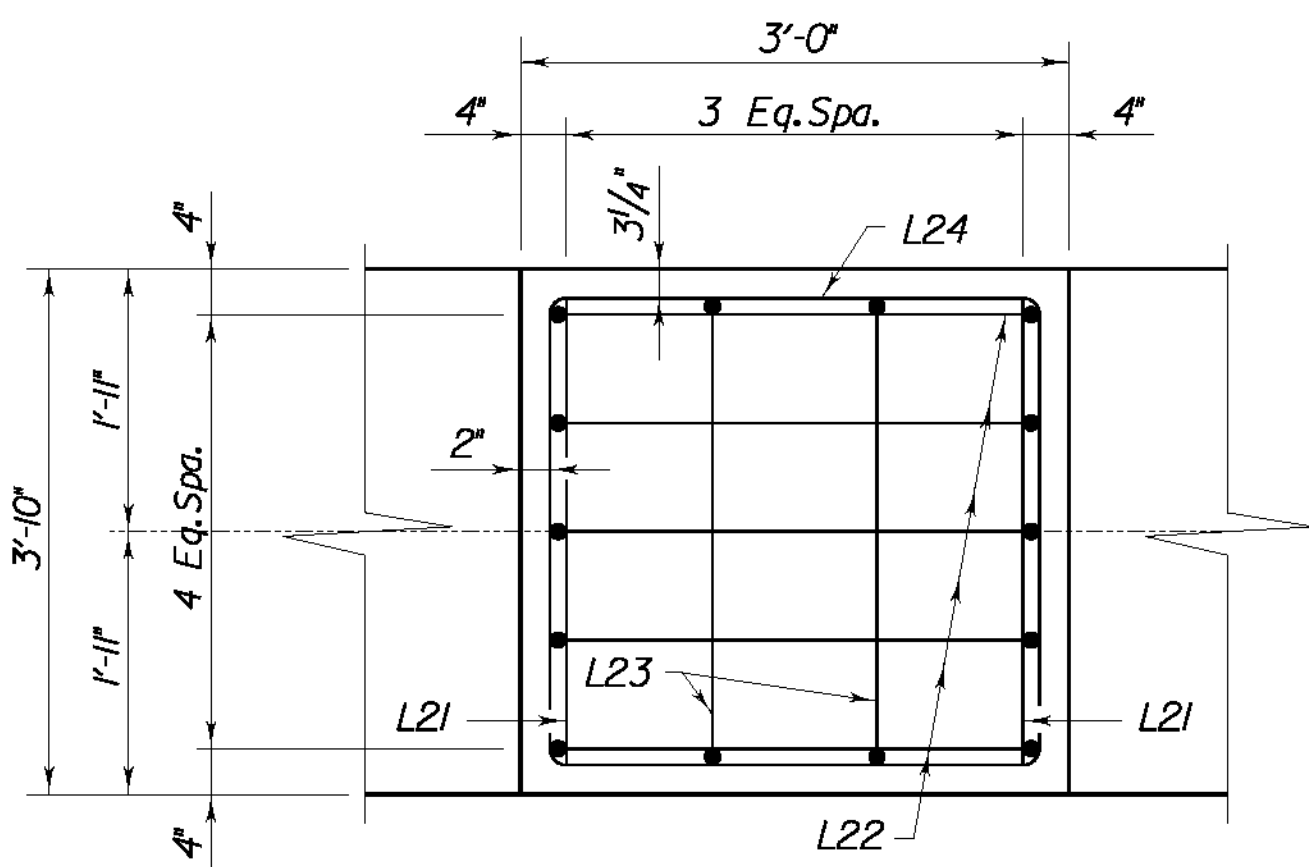
NOTE: Reinforcing Bars Designated By The Suffix (E) In The Plans Shall Be Epoxy Coated In Accordance With The Current Specifications.
Reinforcing bars designated by the suffix (s) in the Bill of Reinforcement shall be considered stirrups for purposes of bend diameters.
* 1/2" Diameter Round Smooth Pin.Epoxy Coated



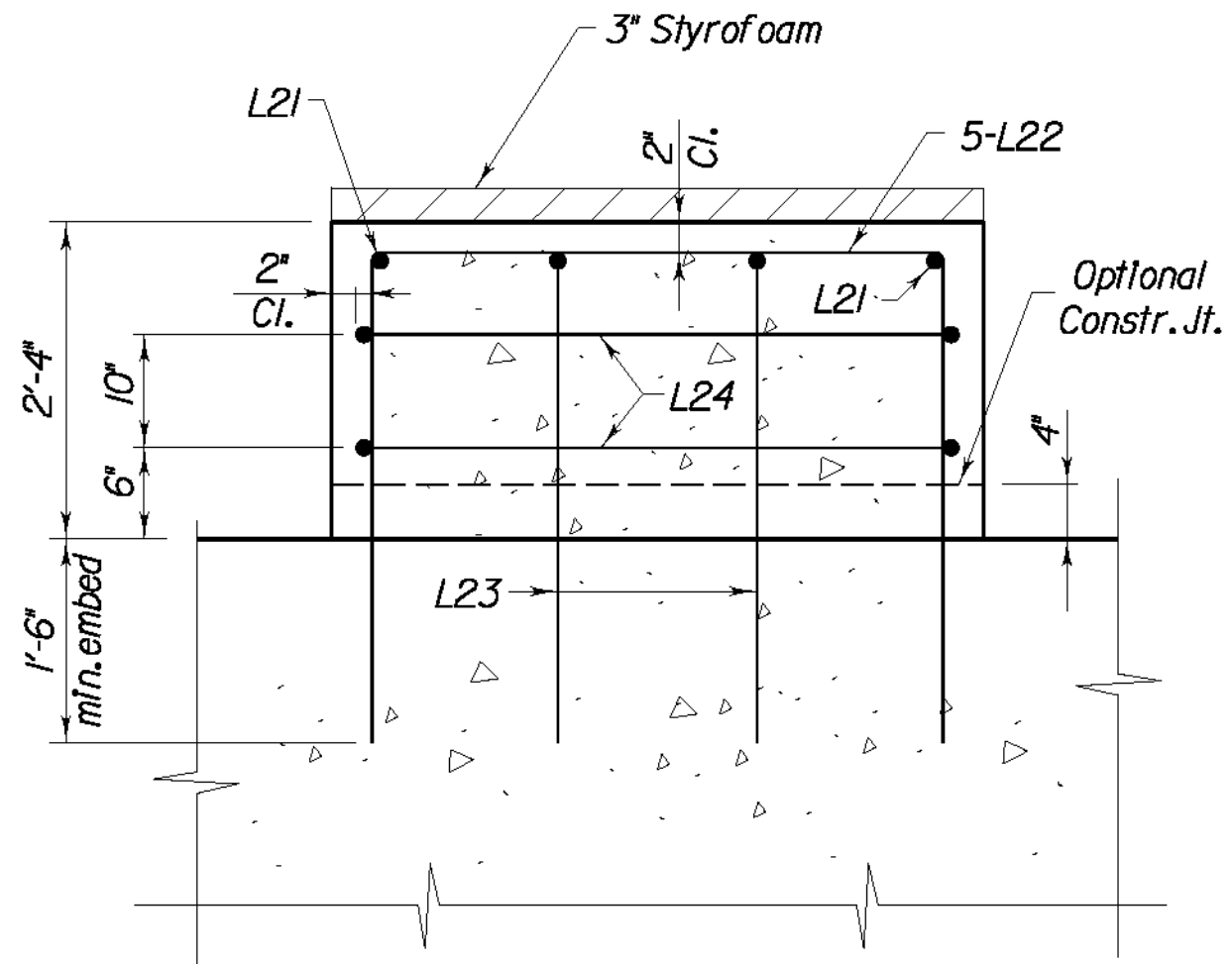
SECTION C-C



SECTION D-D

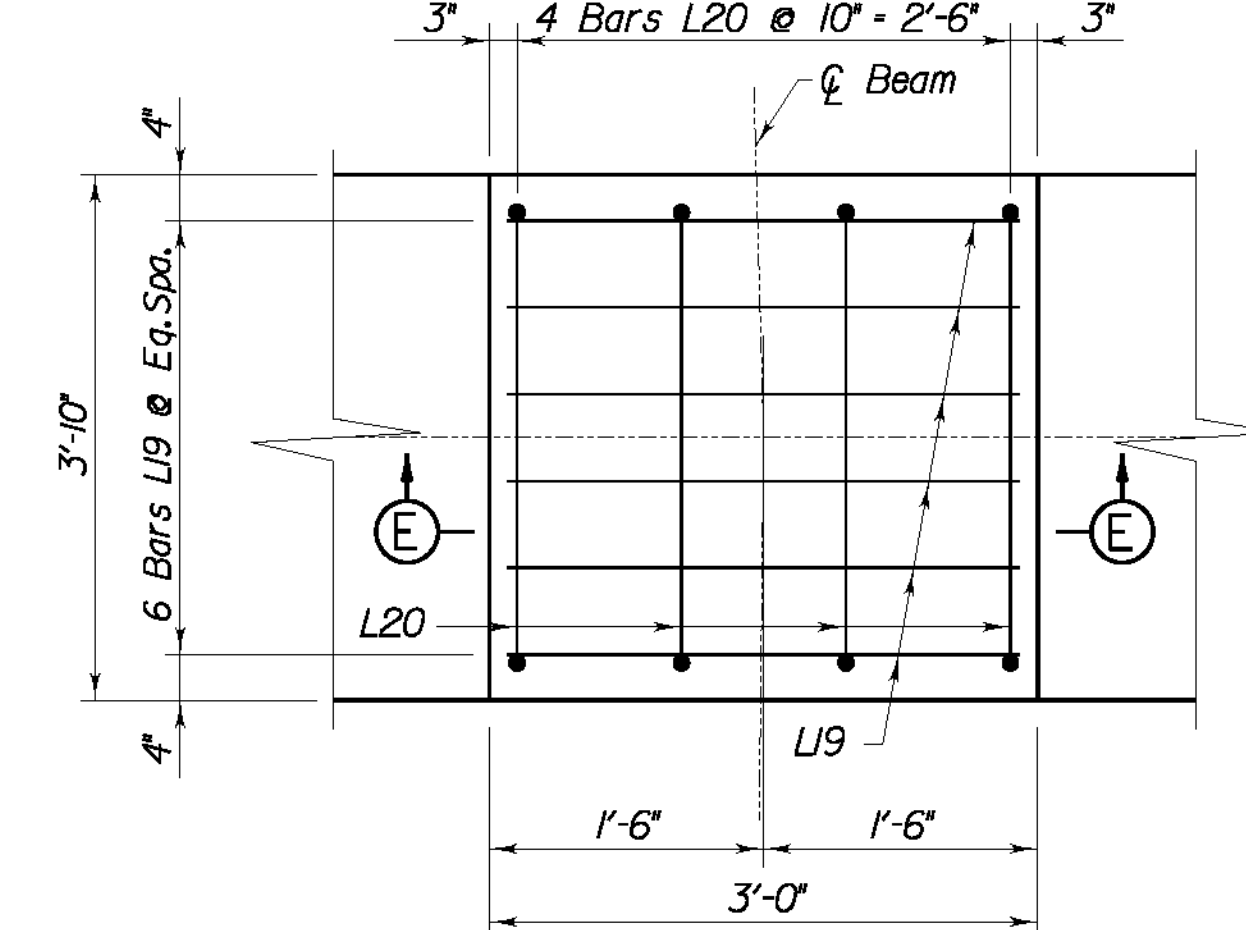


PLAN

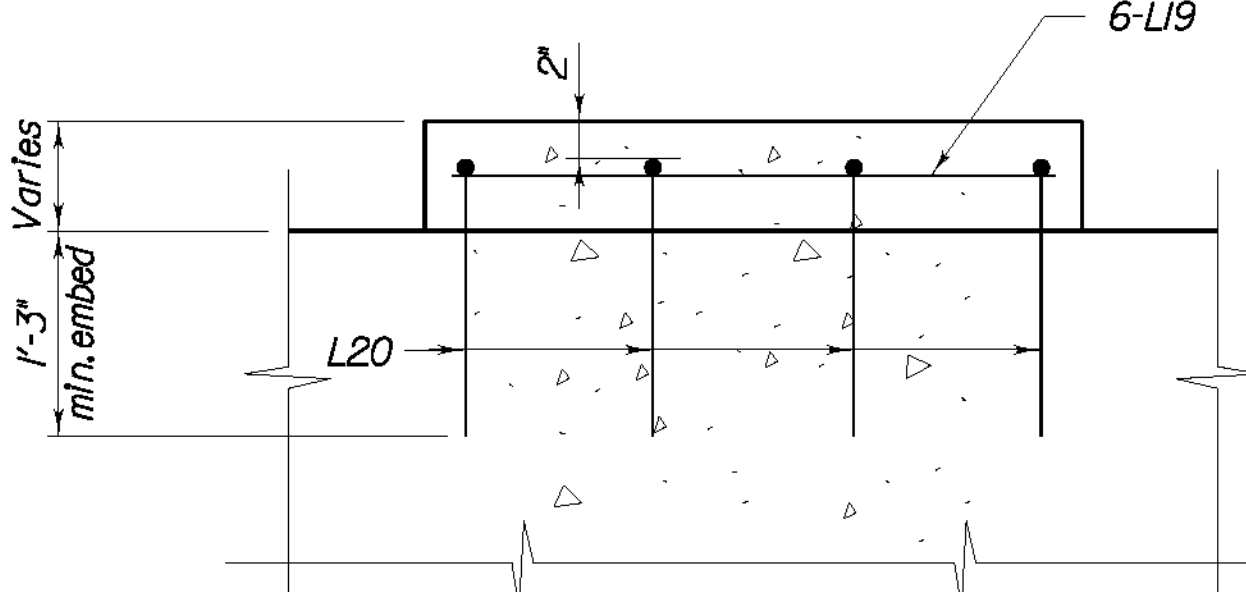


ELEVATION

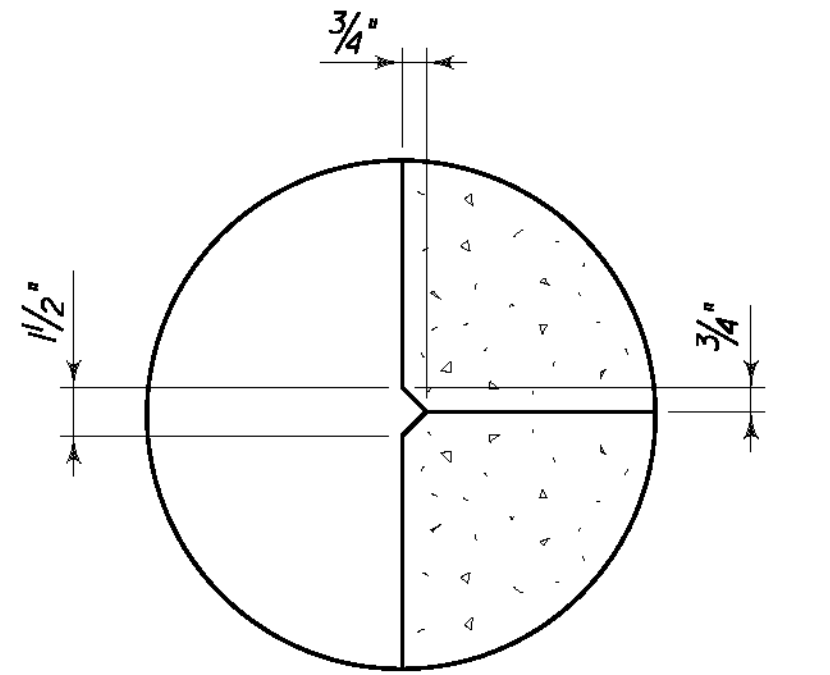
SHEAR KEY DETAIL



PEDESTAL DETAIL



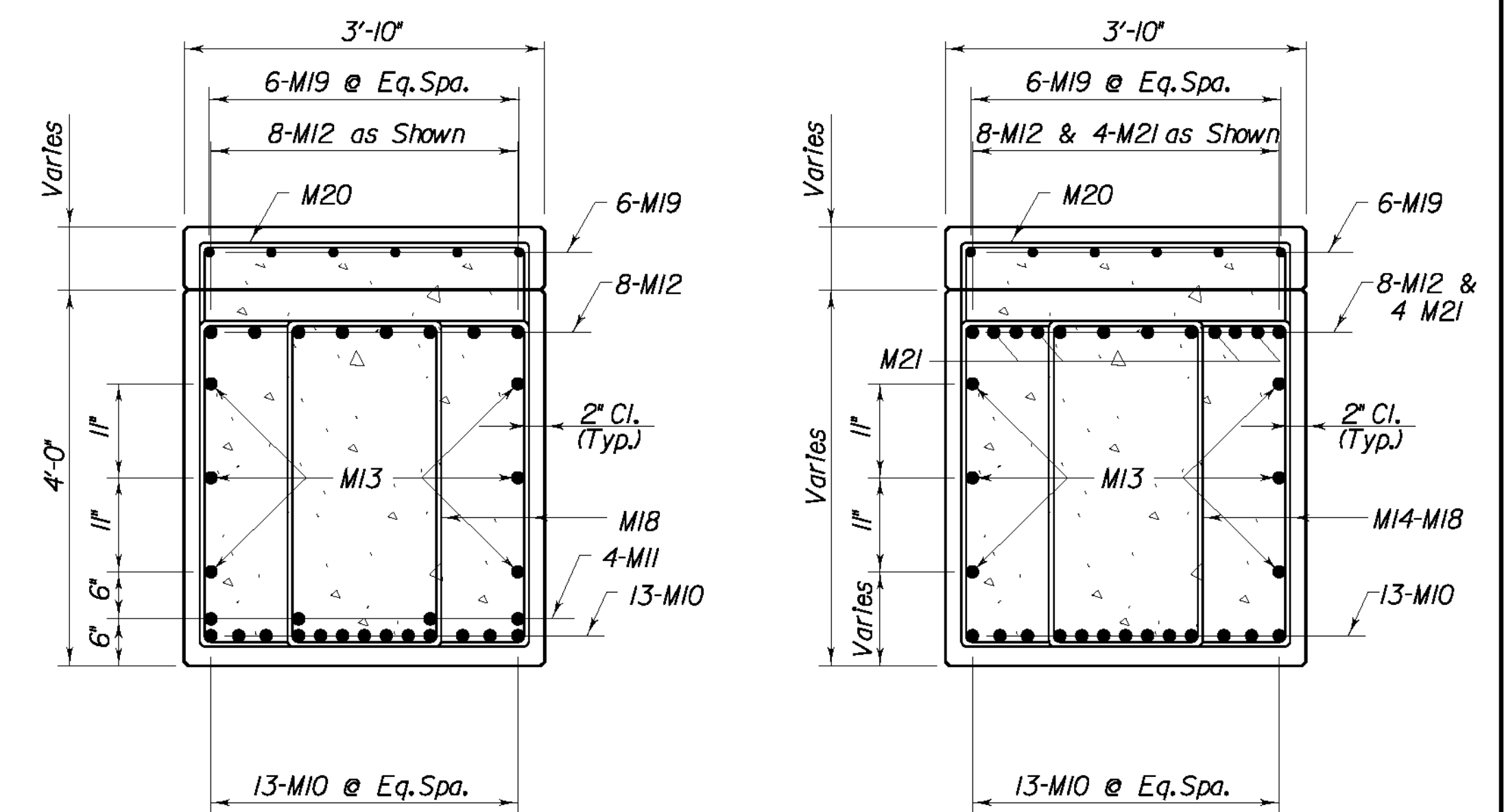
SECTION E-E



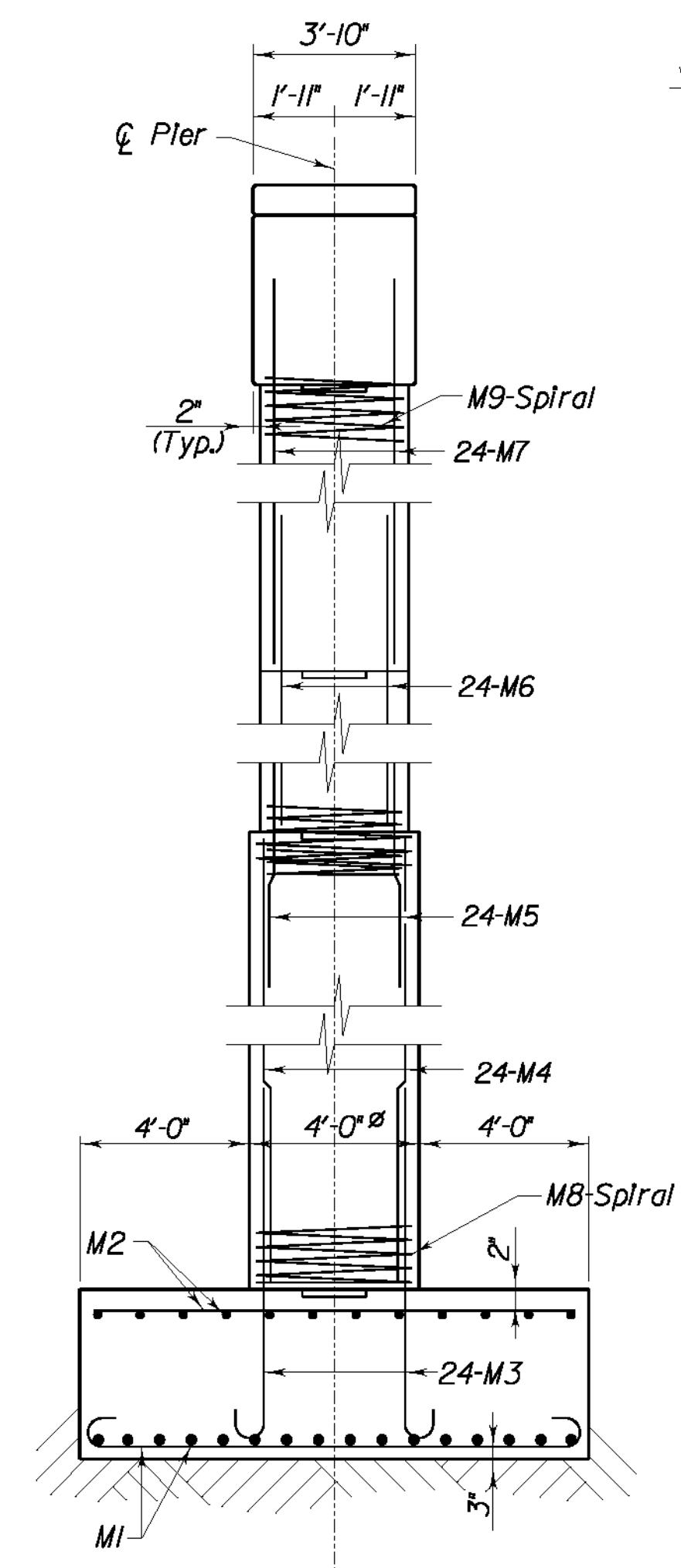
RUSTICATION GROOVE

ITEM NUMBER
12-311.10

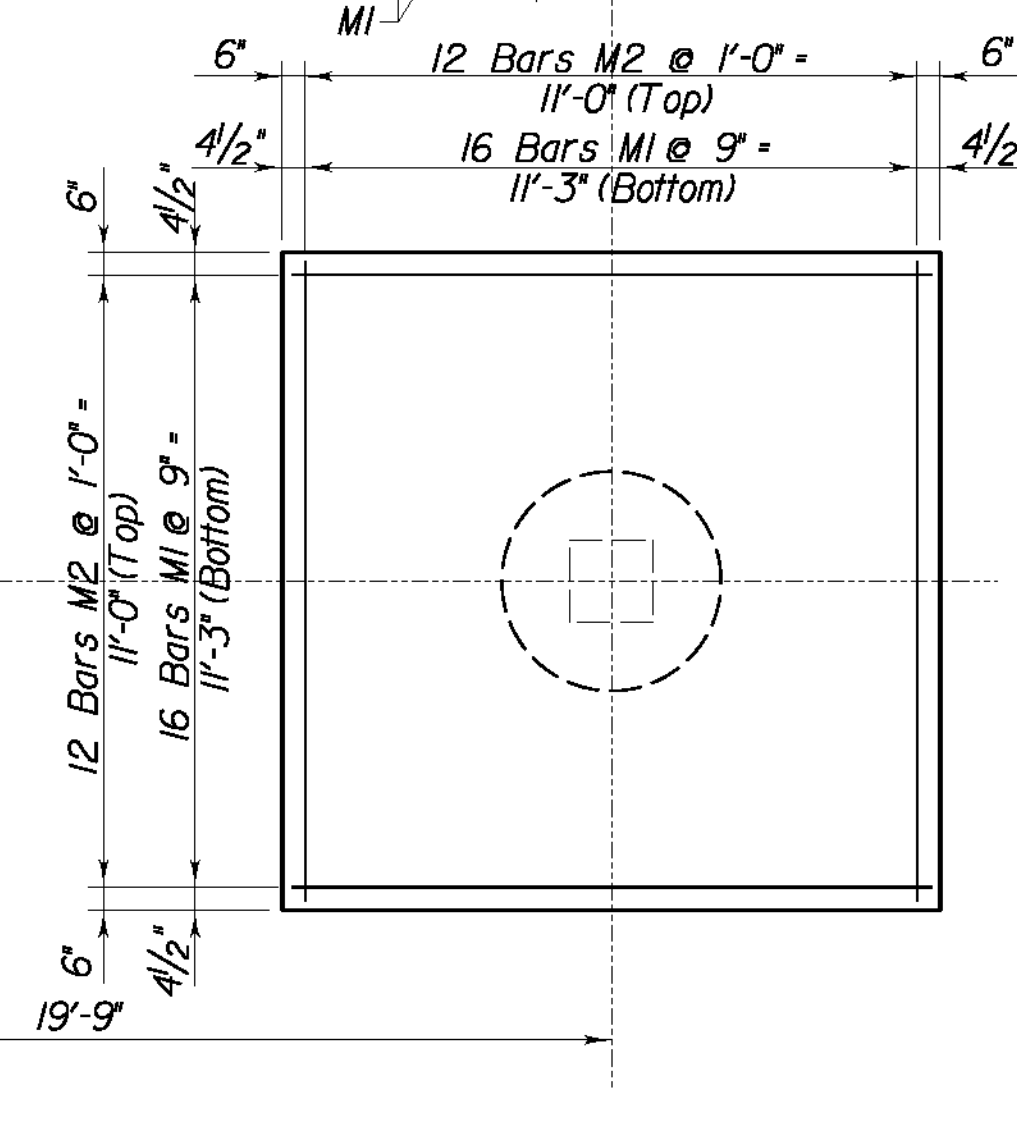
REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY		
LETCHER		
ROUTE	CROSSING	
US 119	POOR FORK CUMBERLAND RIVER	
PIER 9		
PREPARED BY		SHEET NO.
T.H.E. ENGINEERS, INC.		S46
		DRIVING NO.
		25296



SECTION B-B



ELEVATION



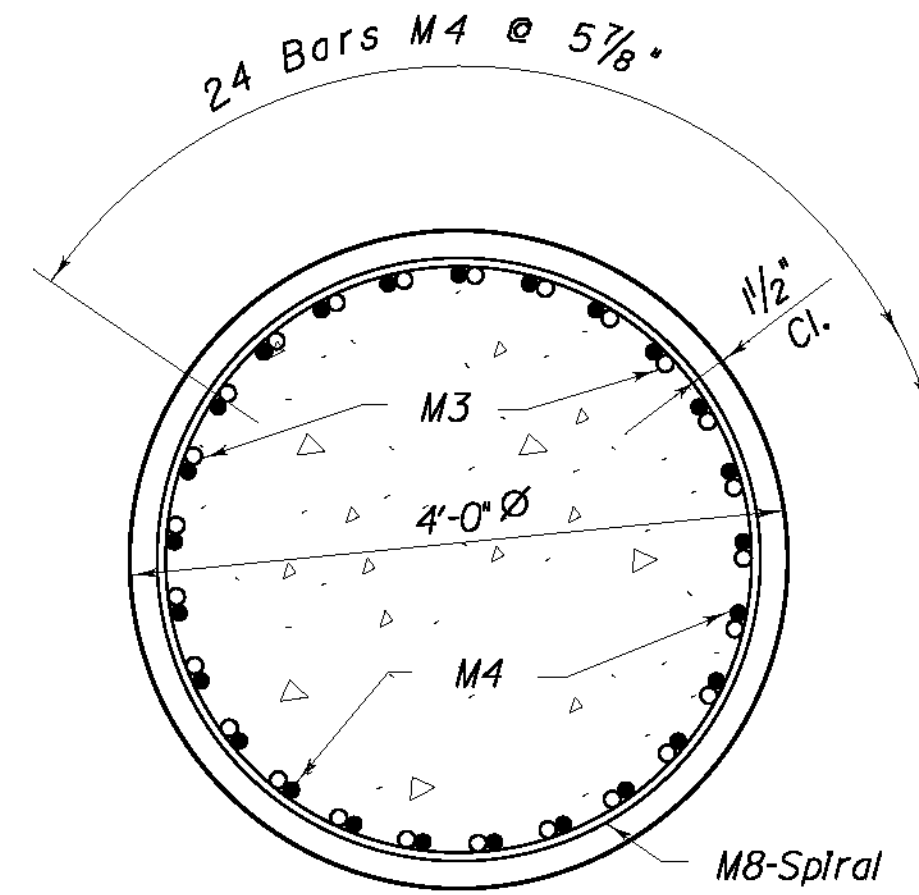
PLAN OF FOOTINGS

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U. S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
PIER 10			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S47 DRAWING NO. 25296

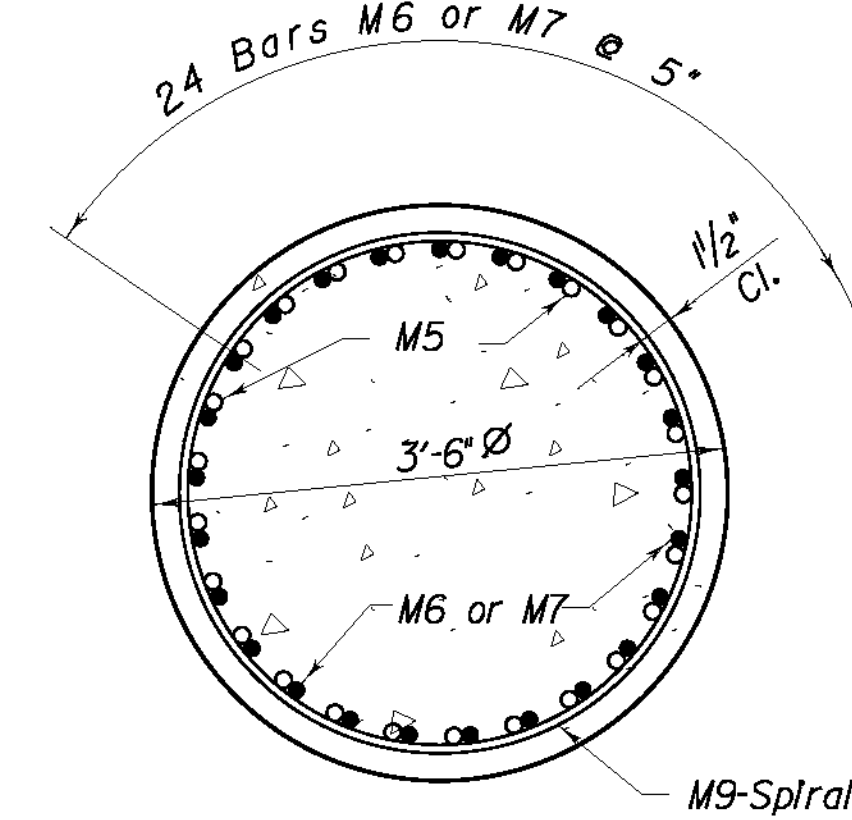
ITEM NUMBER
12-311.10

[illegible]

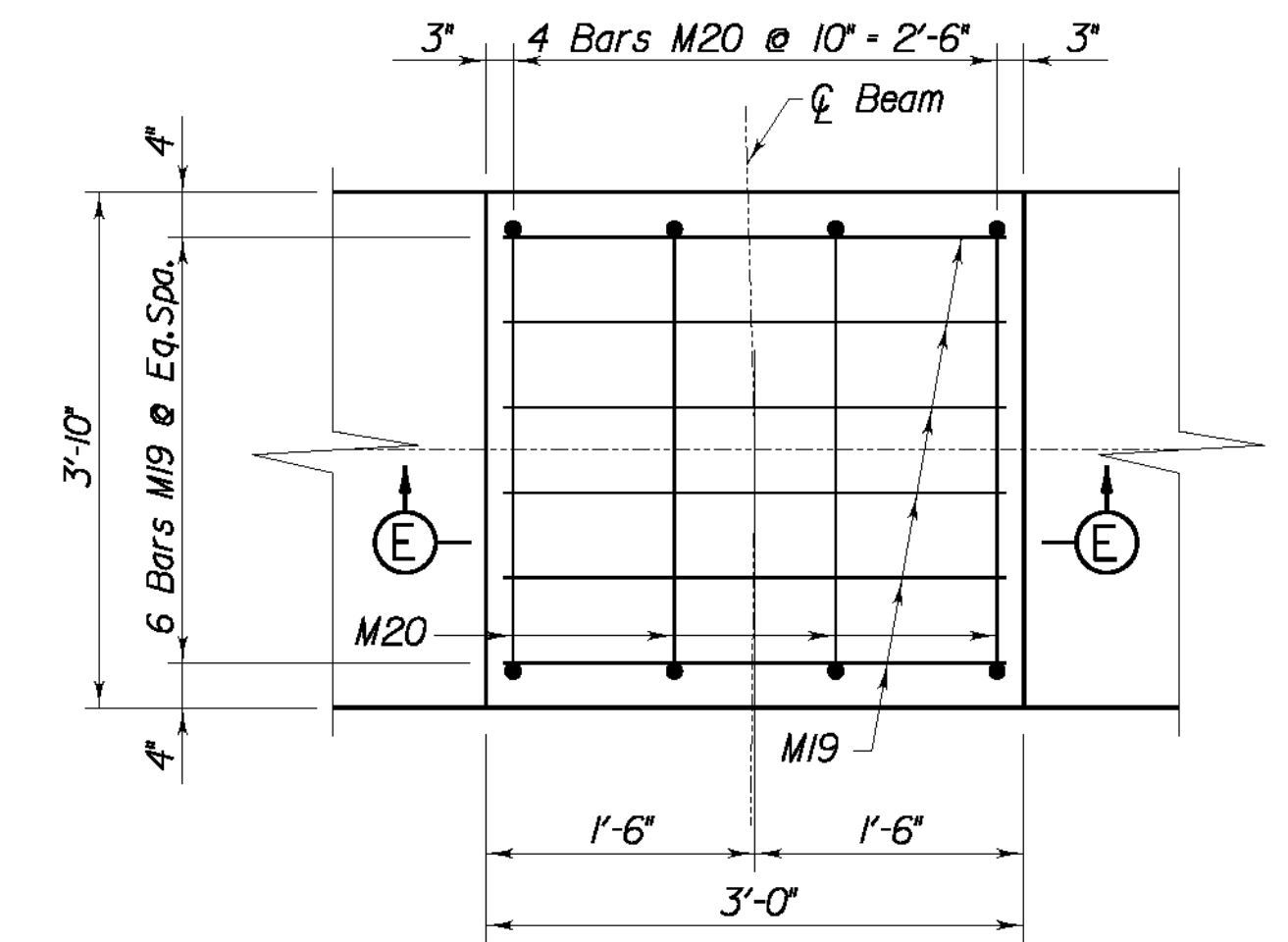
* 1 1/2" Diameter Round Smooth Pin. Epoxy Coated



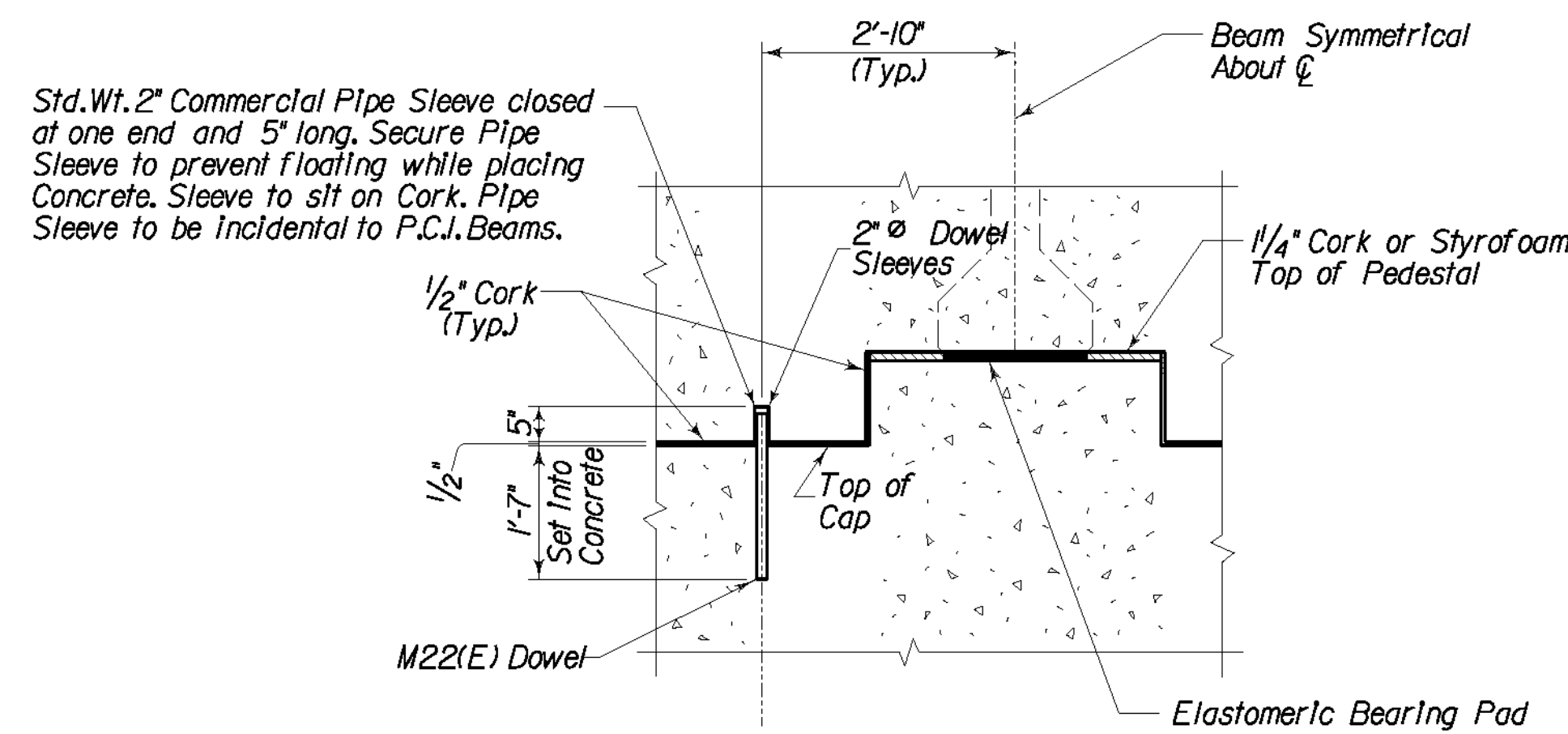
SECTION C-C



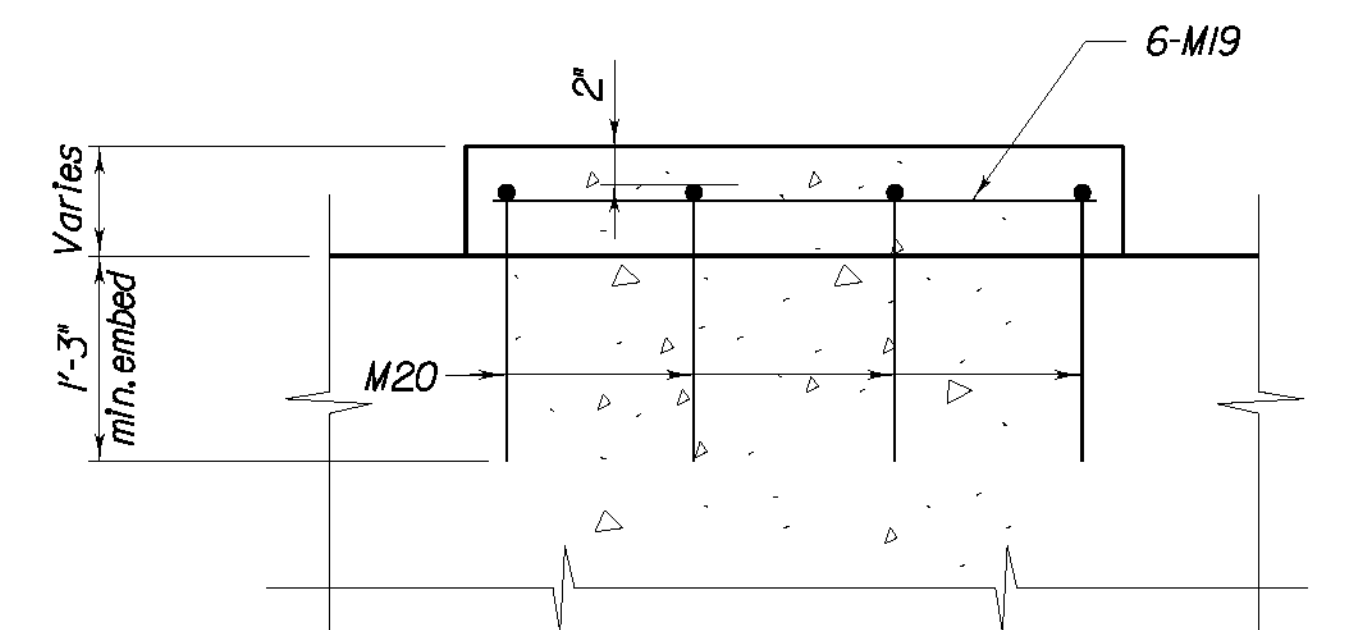
SECTION D-D



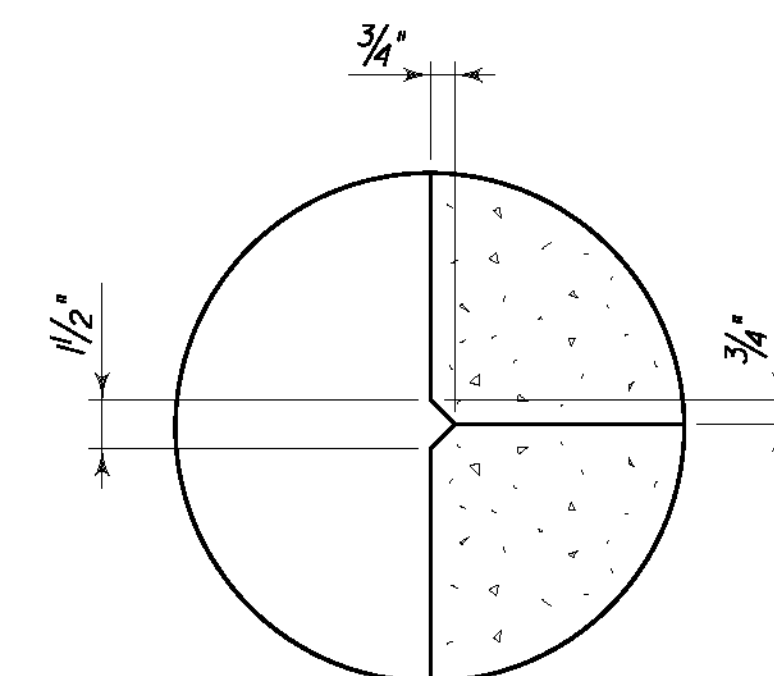
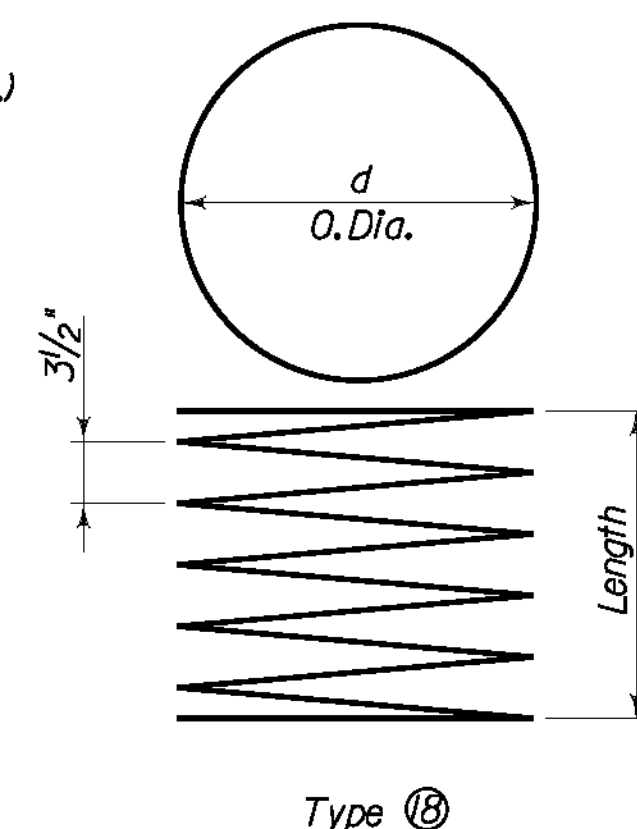
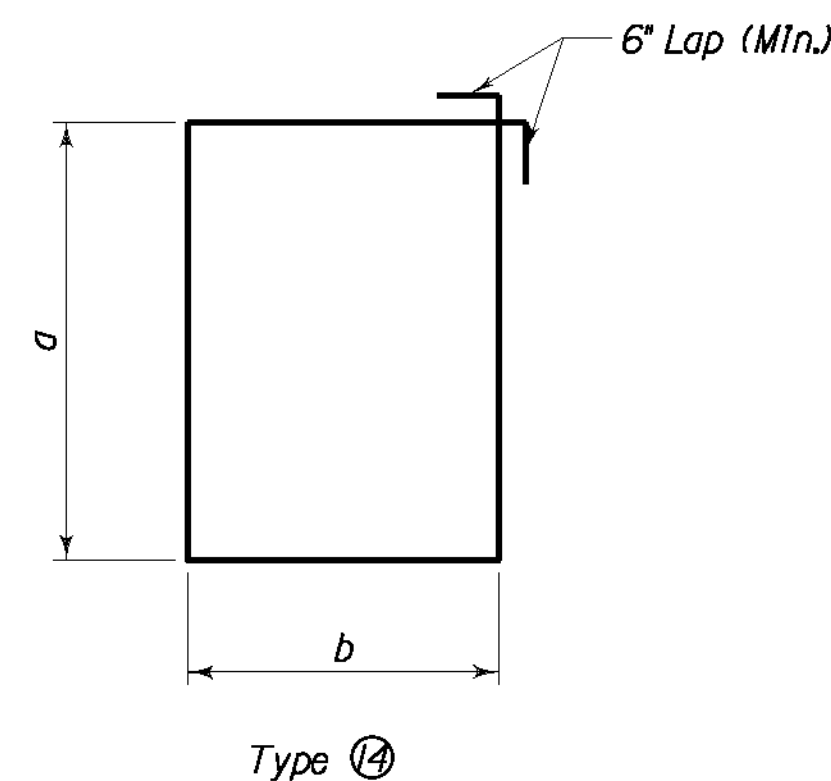
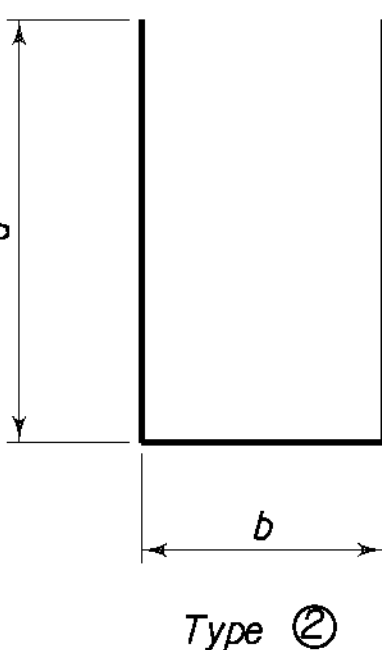
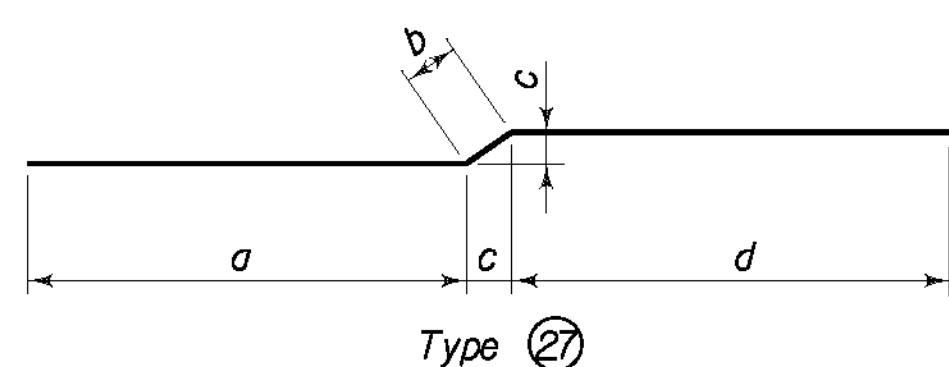
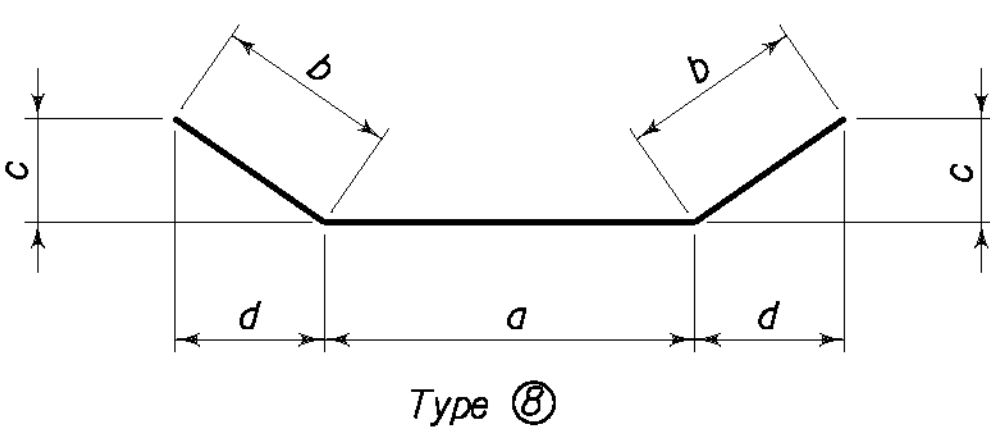
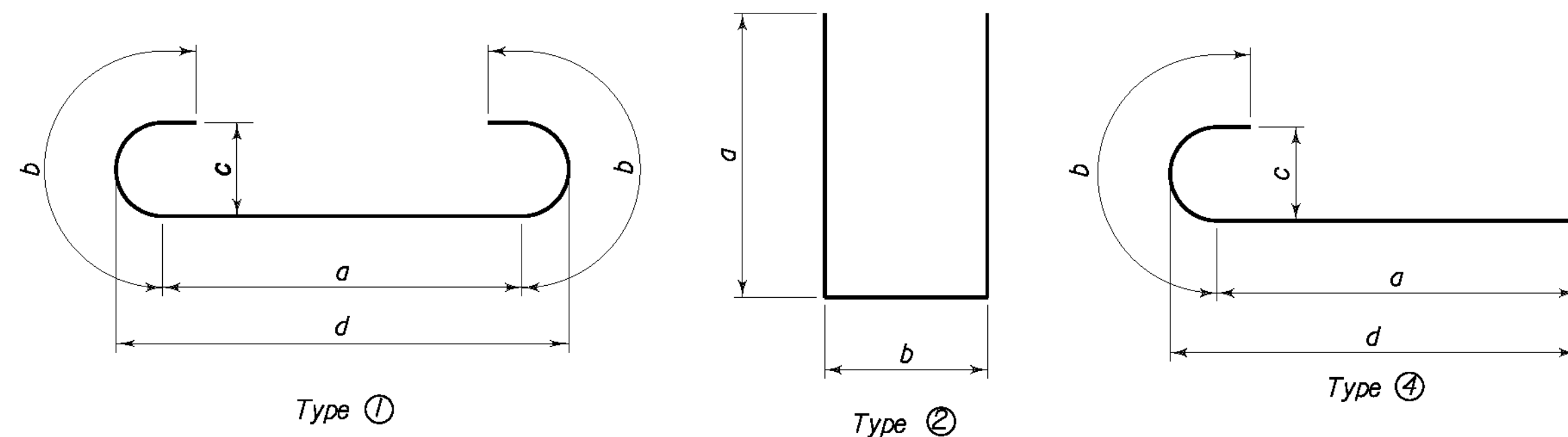
PEDESTAL DETAIL



DOWEL DETAIL



SECTION E-E

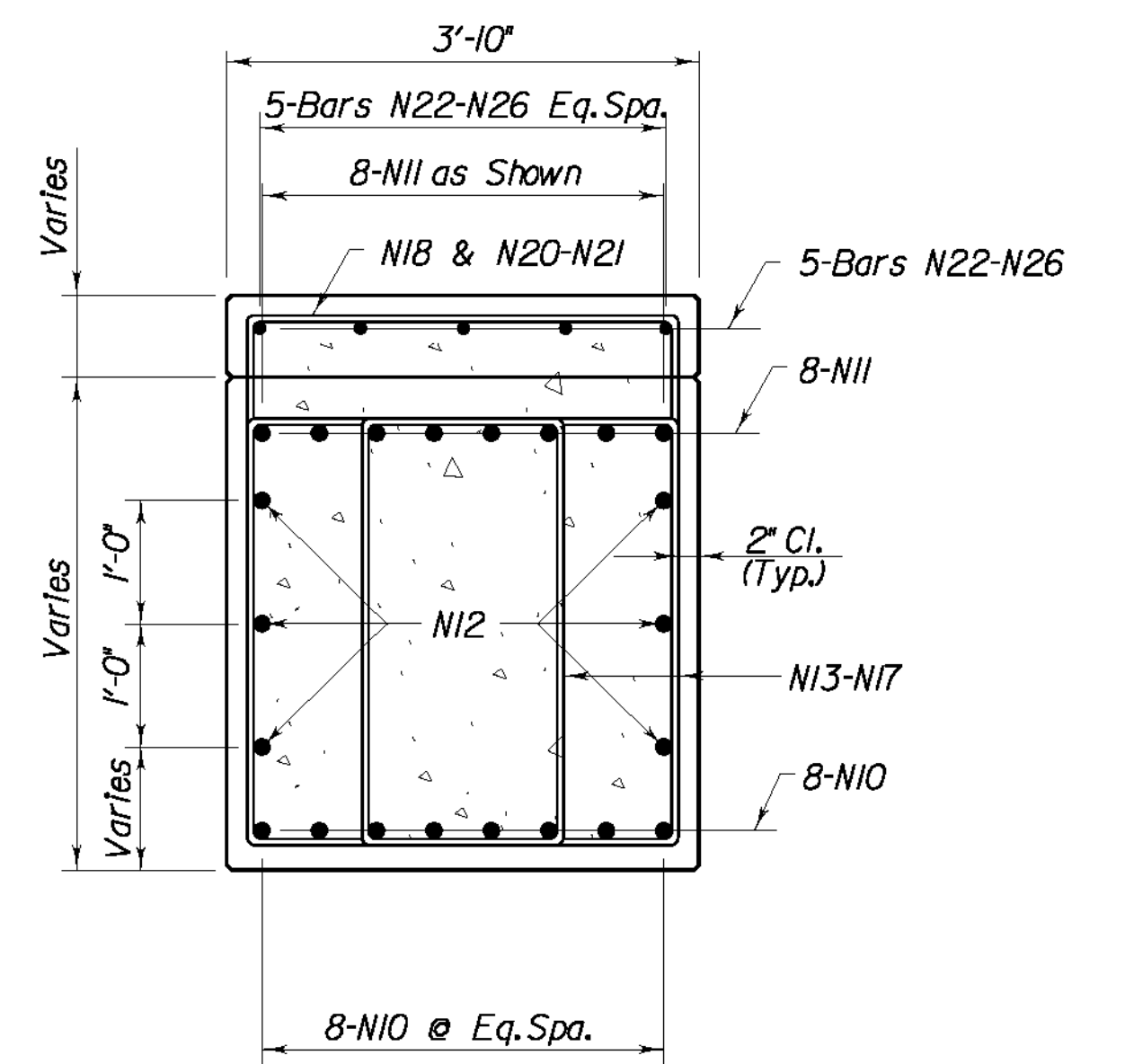
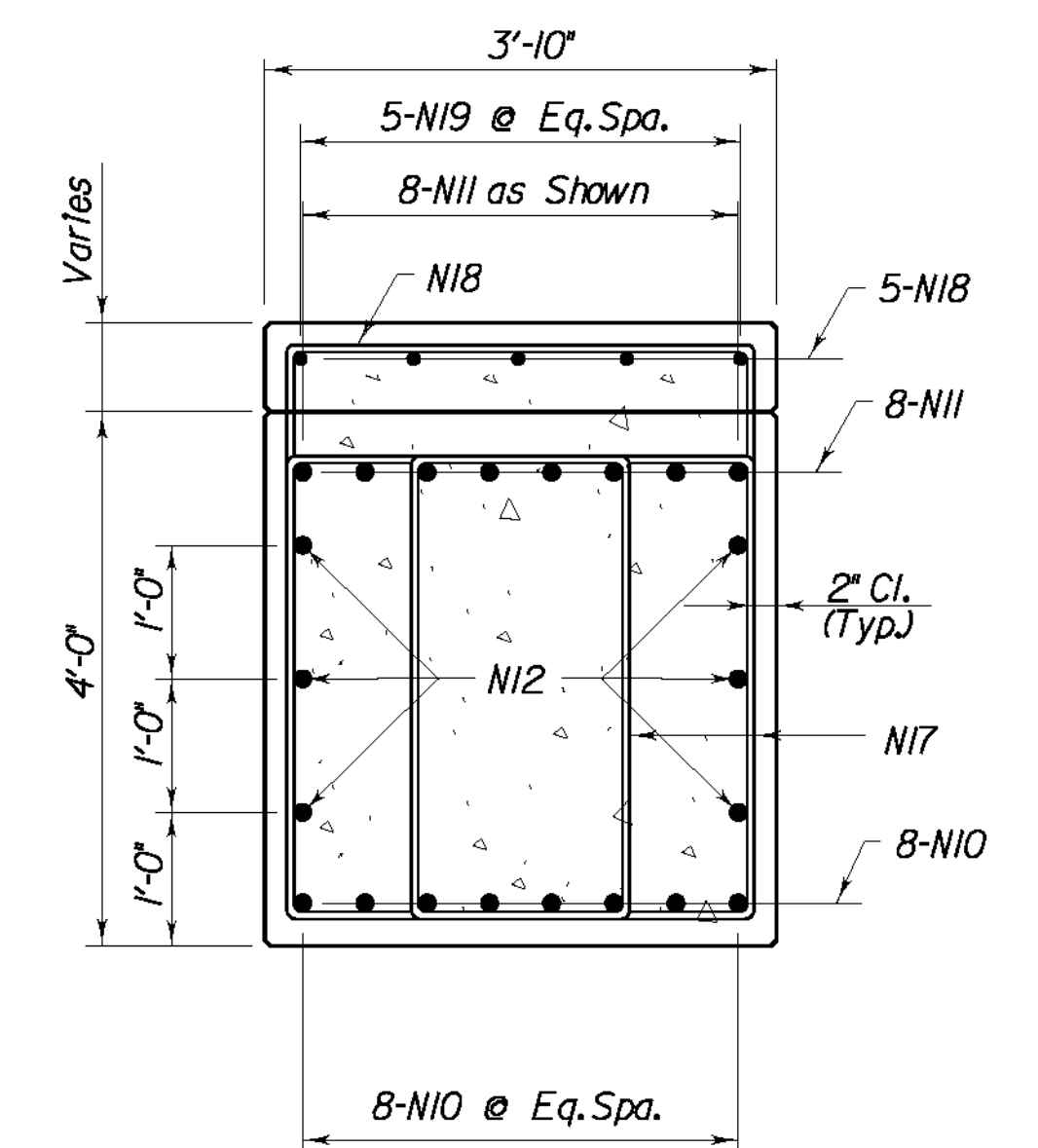
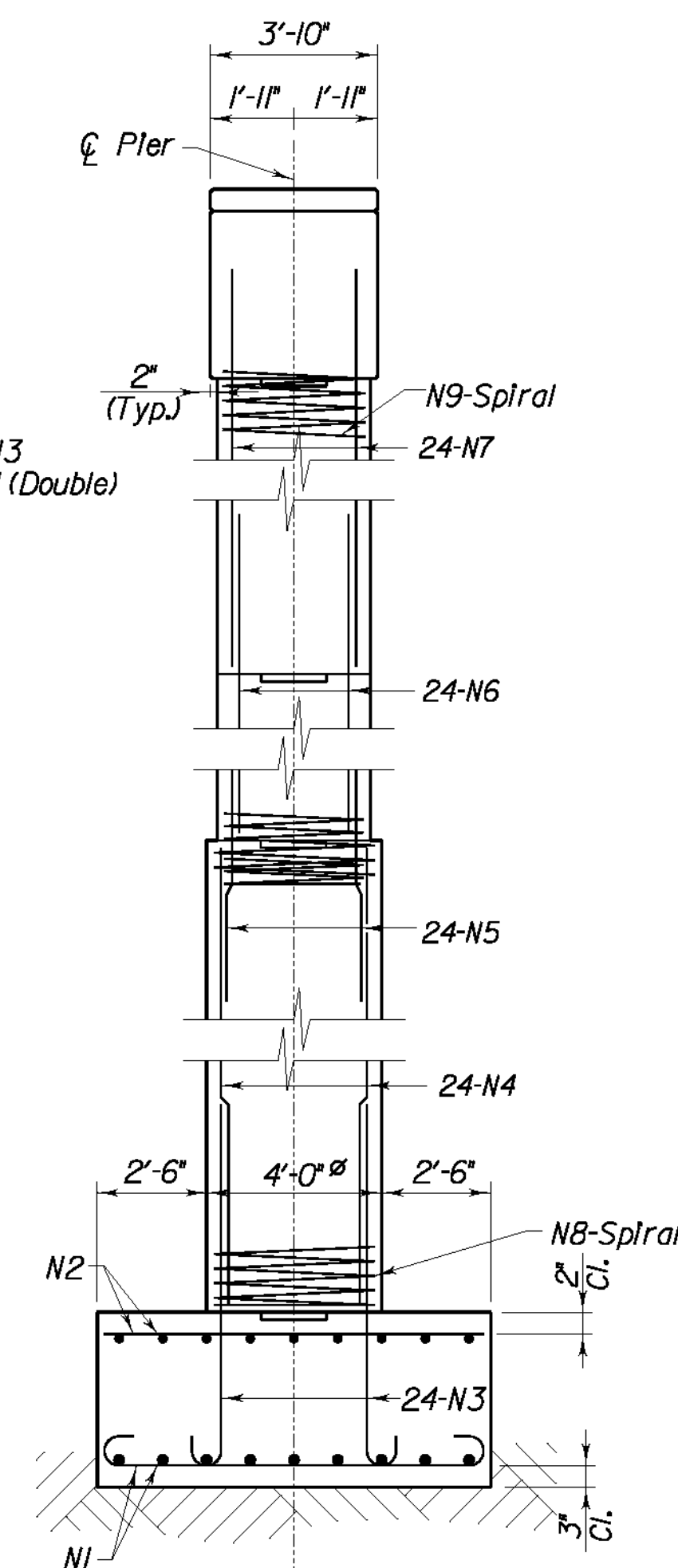
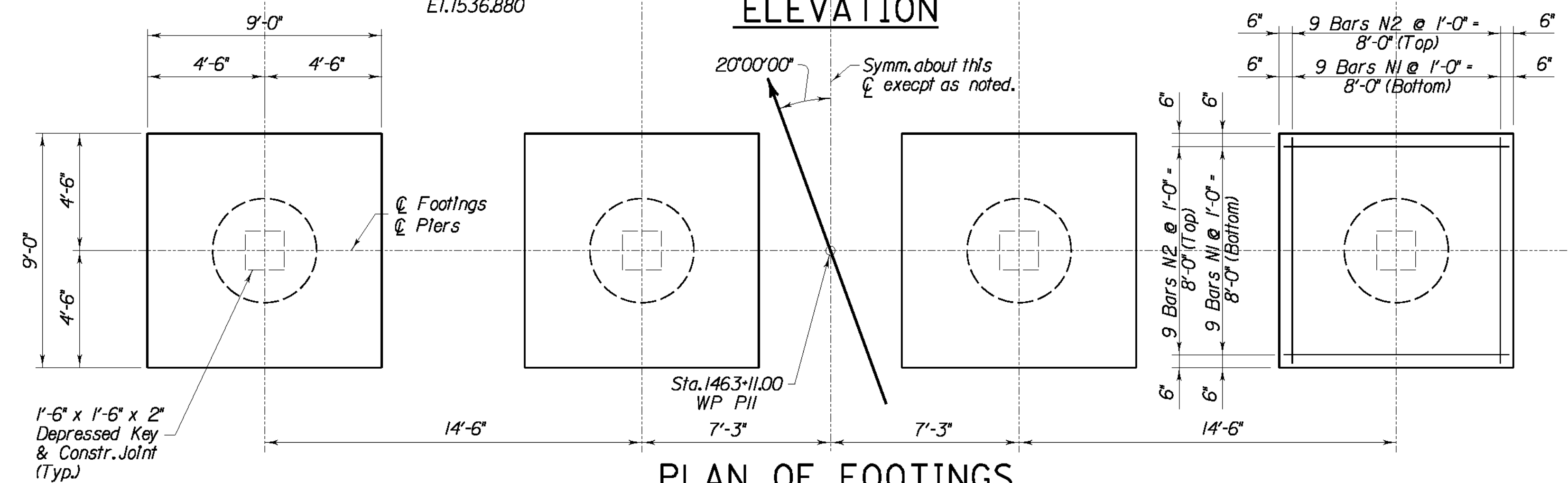
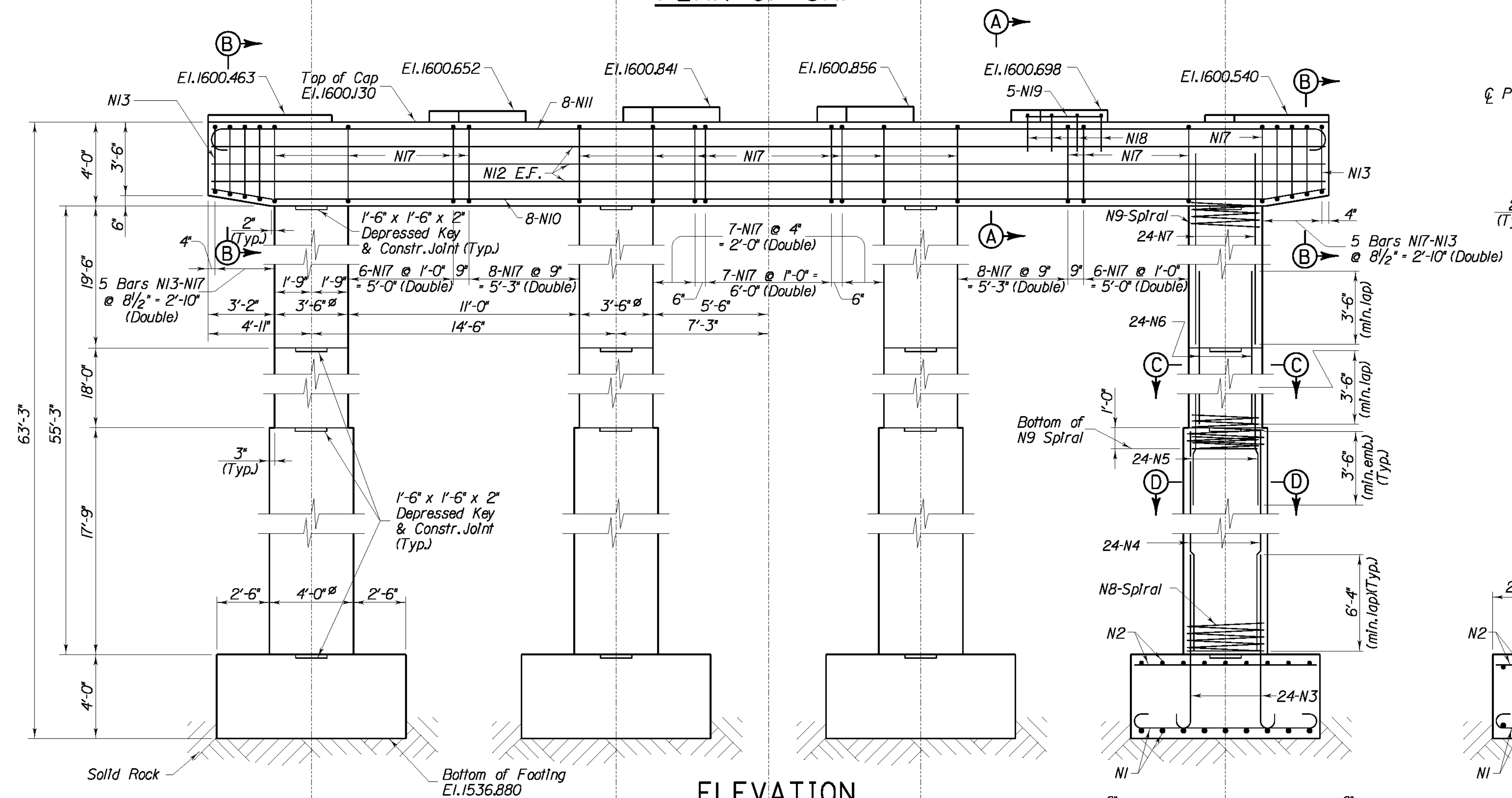
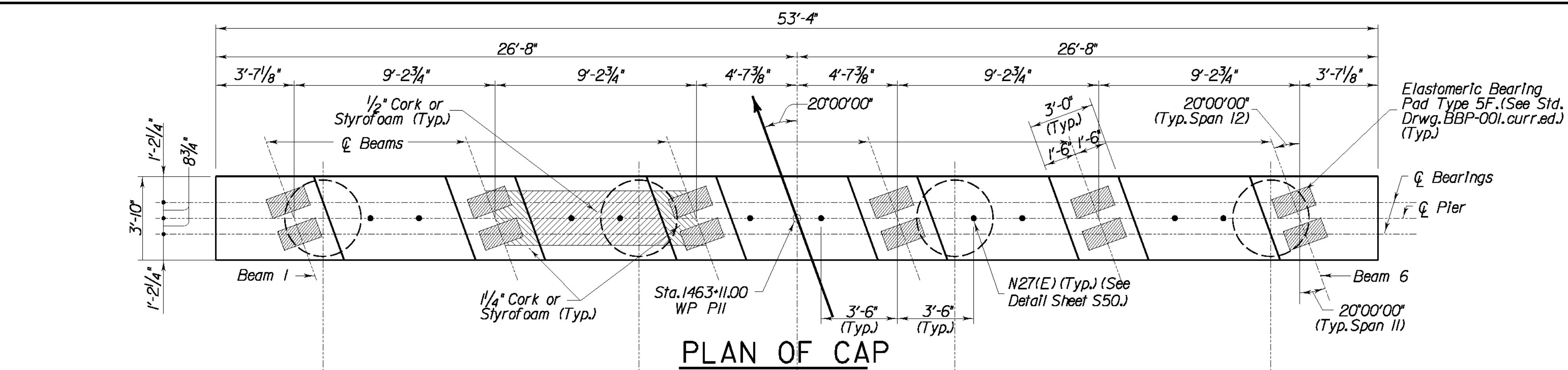


RUSTICATION GROOVE

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE US 119	CROSSING POOR FORK CUMBERLAND RIVER		
PIER 10			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S48 DRAWING NO. 25296

ITEM NUMBER

12-311.10



END ELEVATION

NOTE:

*For Bill of Reinforcement see Sheet S50.
See Sheet S20 for Pier Layout.*

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U. S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
PIER 11			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S49 DRAWING NO. 25296

\$\$\$\$design\$file\$specification\$\$\$\$

\$\$\$\$\$plotted\$\$\$\$\$

\$\$\$\$DATE\$\$\$\$

A diagram of a U-shaped cross-section. The horizontal base has a total width of d . The vertical side walls have a height of b . The top horizontal edges of the side walls have a width of a . The inner radius of the U-shape is c .

A diagram of a rectangular plate. The vertical dimension is labeled a and the horizontal dimension is labeled b .

Diagram of a square plate with dimensions a and b . A 6" Lap (Min.) joint is indicated at the top right corner.

A diagram of a stepped profile. The profile consists of a horizontal segment of length a , followed by a sloped segment with a vertical rise of b and a horizontal run of c , and finally a horizontal segment of length d . The total horizontal length is $a + c + d$. The vertical height of the profile is b . The dimensions a , b , c , and d are labeled with arrows indicating their respective directions.

Type ④

The diagram illustrates the geometry of a helical spring. The top part shows a circular cross-section with diameter d and mean diameter $0. \text{Dia.}$. The bottom part shows a side view of the spring with a vertical dimension of $3/2 \cdot s$ and a total vertical dimension of Length .

24 Bars N4 @ 5 7/8".

N3

4'-0" Ø

N4

1/2" Cl.

N8-Spr...

Technical drawing of a reinforced concrete slab section showing reinforcement details. The drawing includes dimensions for the slab thickness (3'-10"), reinforcement spacing (3'-2"), and reinforcement layout (5 Bars @ 3'-2"). It also shows the location of reinforcement bars N18 and N19, and the location of a pier (Pier). The drawing is oriented with a 20°00'00" angle.

Figure 10: Reinforcement details for the deck of a pier. The diagram shows a cross-section of a pier deck with various reinforcement bars. Key dimensions include a total width of 5'-11 3/4", a deck thickness of 4", and a pier width of 3'-10". Reinforcement includes 5 bars of size N8 at the top and bottom, and 4 bars of size N22 at the top and bottom. The deck is supported by a pier, and the reinforcement is detailed with N18, N20, N21, N23, N24, N25, and N26 bars. The deck is labeled "Eq. Spa. = 3'-2\"" and the pier is labeled "Pier".

Std. Wt. 2" Commercial Pipe Sleeve closed at one end and 5" long. Secure Pipe Sleeve to prevent floating while placing Concrete. Sleeve to sit on Cork. Pipe Sleeve to be incidental to P.C.I. Beams.

3'-6"

Beam Symmetrical About $\bar{C}$

2" $\varnothing$ Dowel Sleeves

1/4" Cork or Styrofoam Top of Pedestal

1/2" Cork (Typ.)

5"

1-7/8" Set Into Concrete

Top of Cap

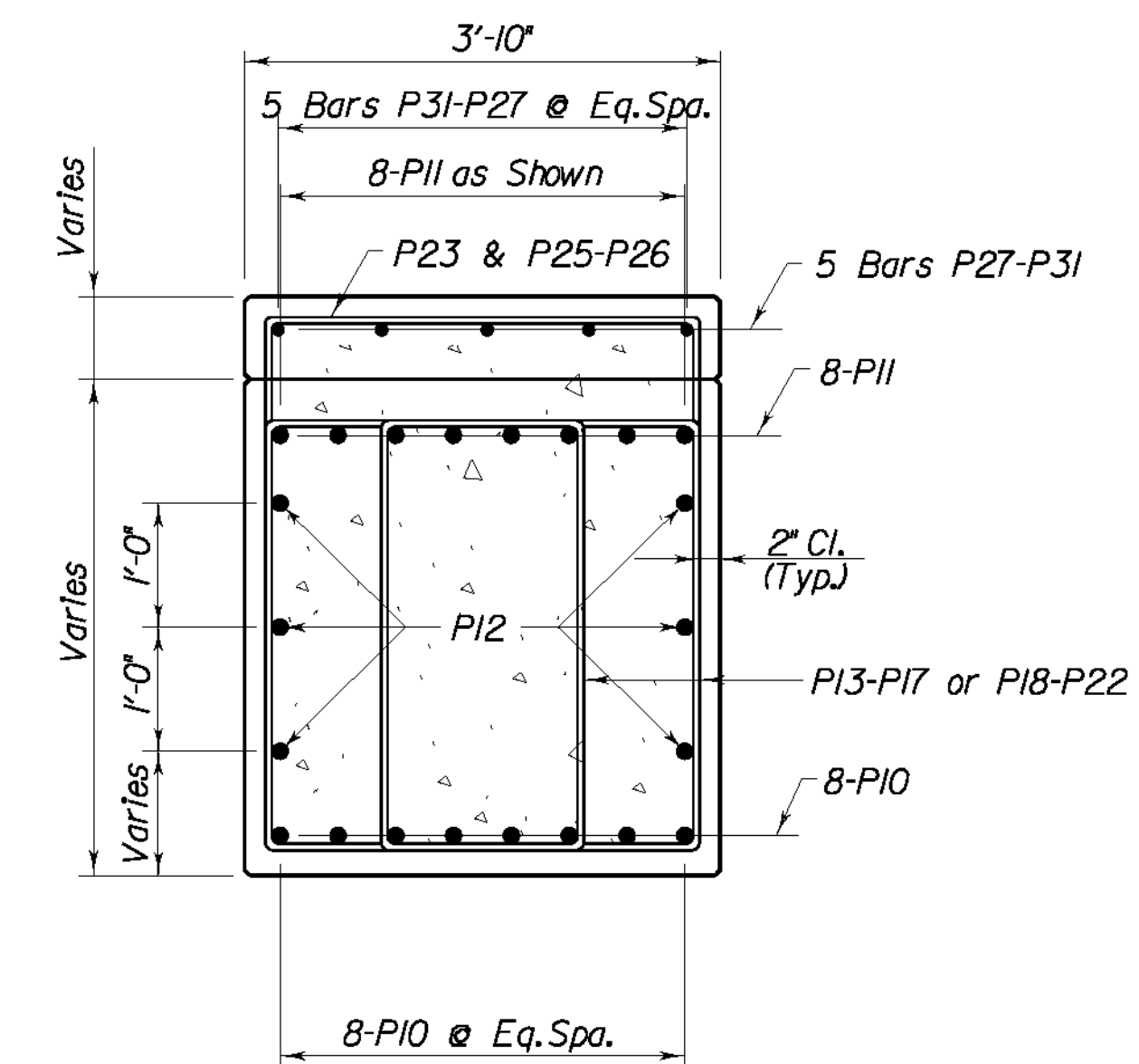
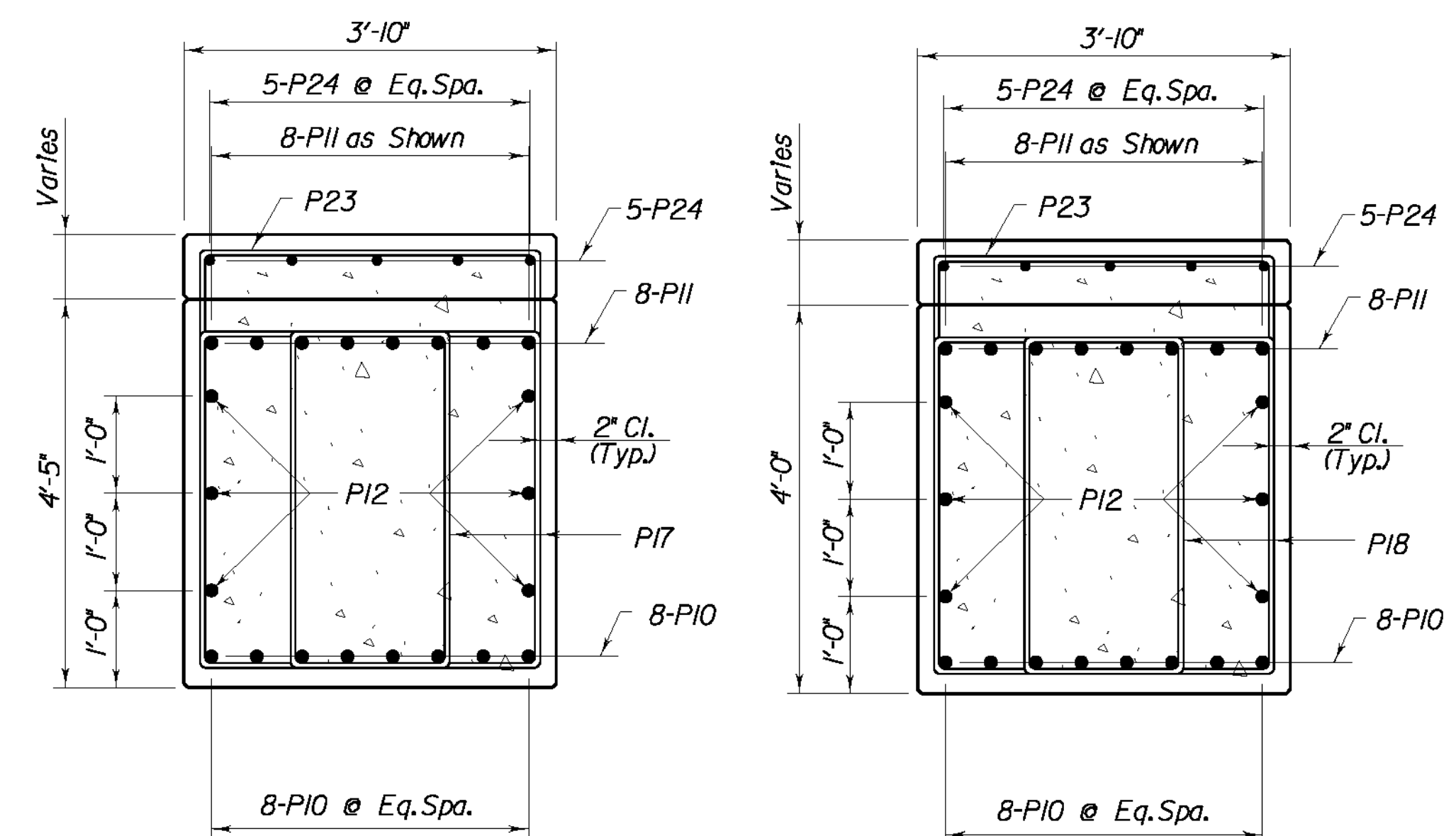
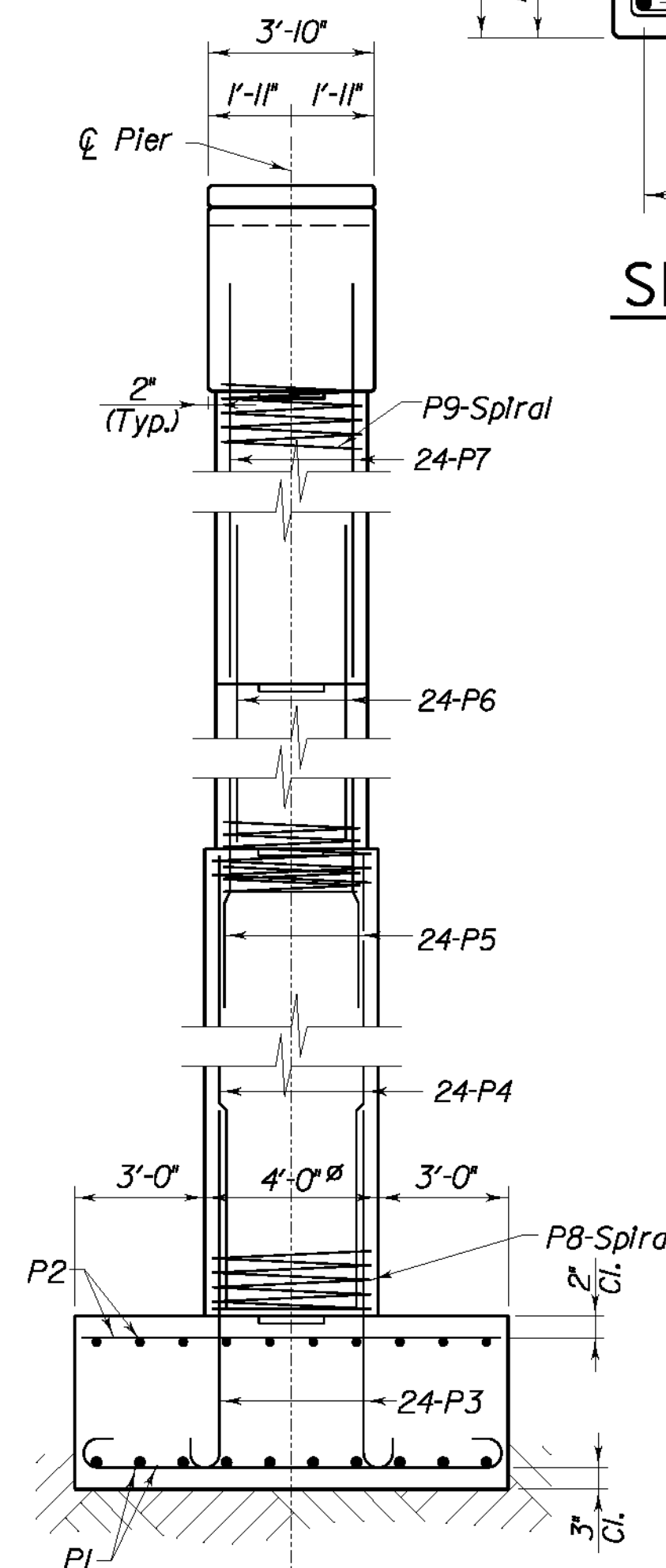
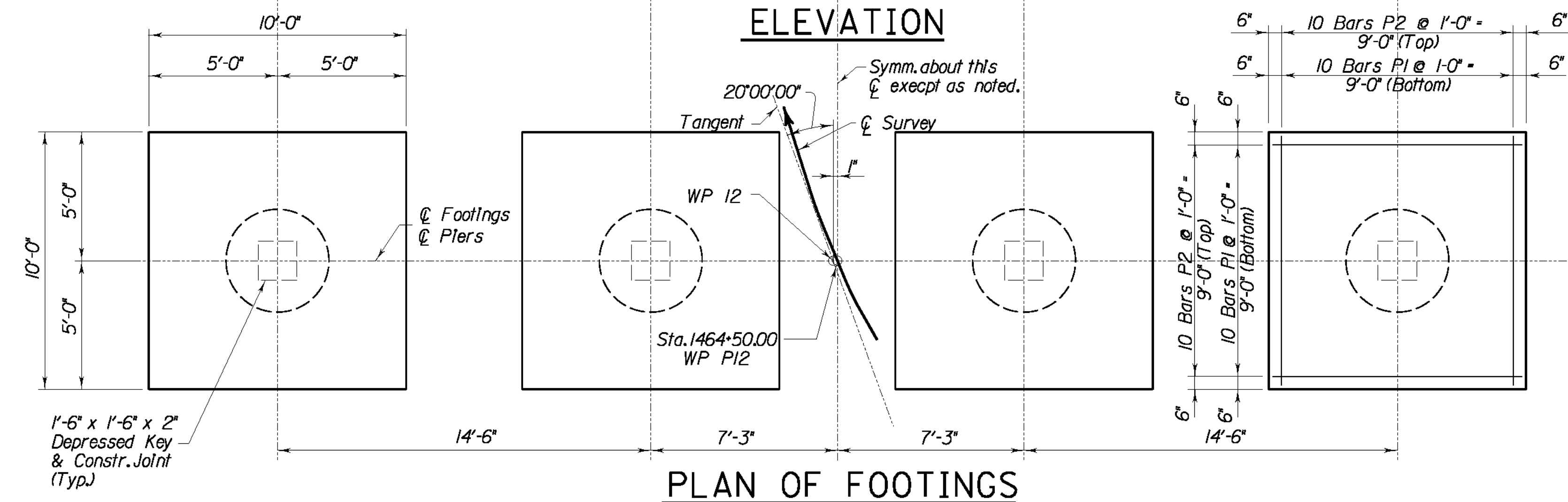
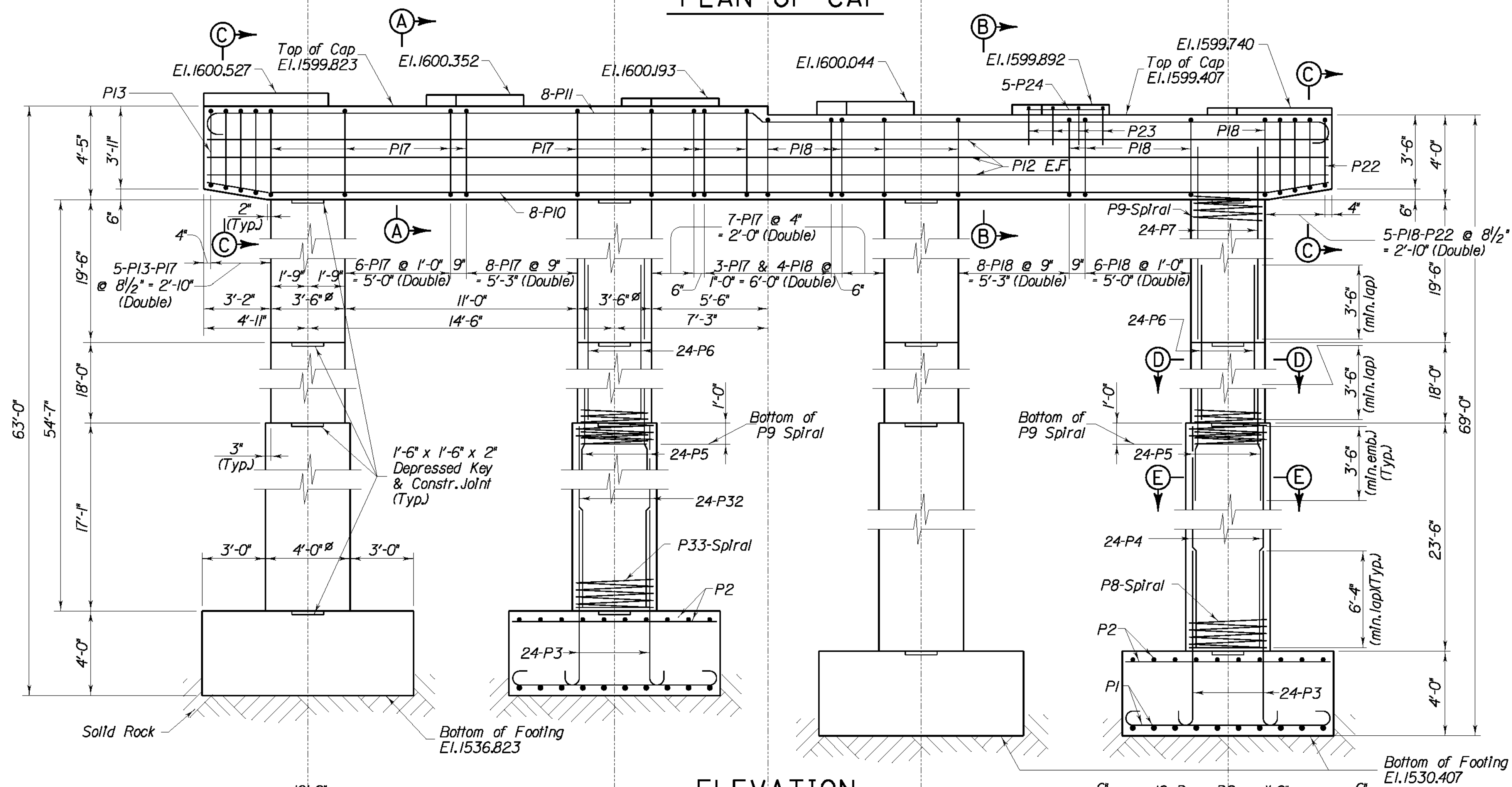
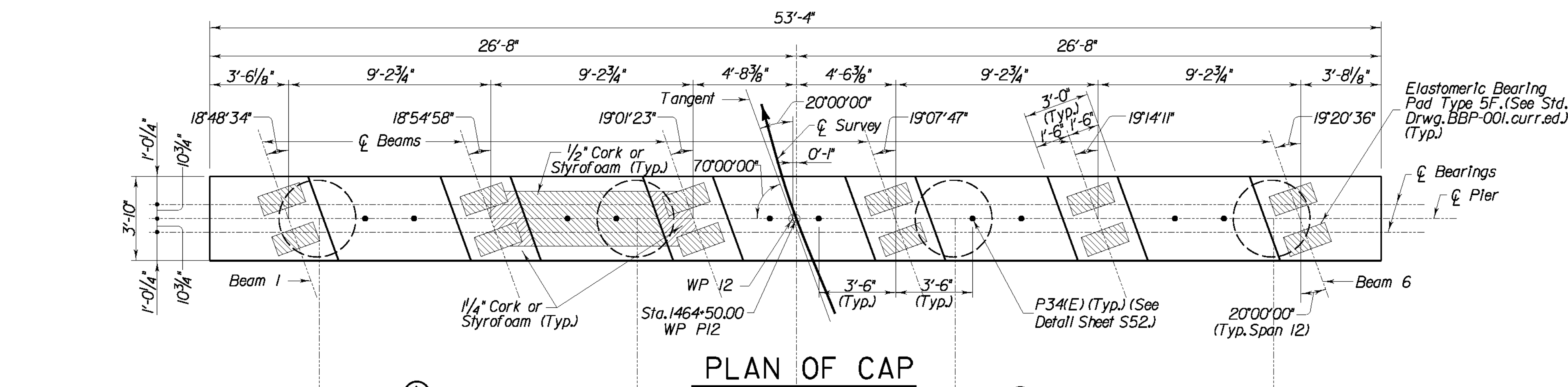
N27(E) Dowel

Elastomeric Bearing Pad

a

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE US 119	CROSSING POOR FORK CUMBERLAND RIVER		
PIER 11			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S50 DRAWING NO. 25296

12-311.10



NOTE:

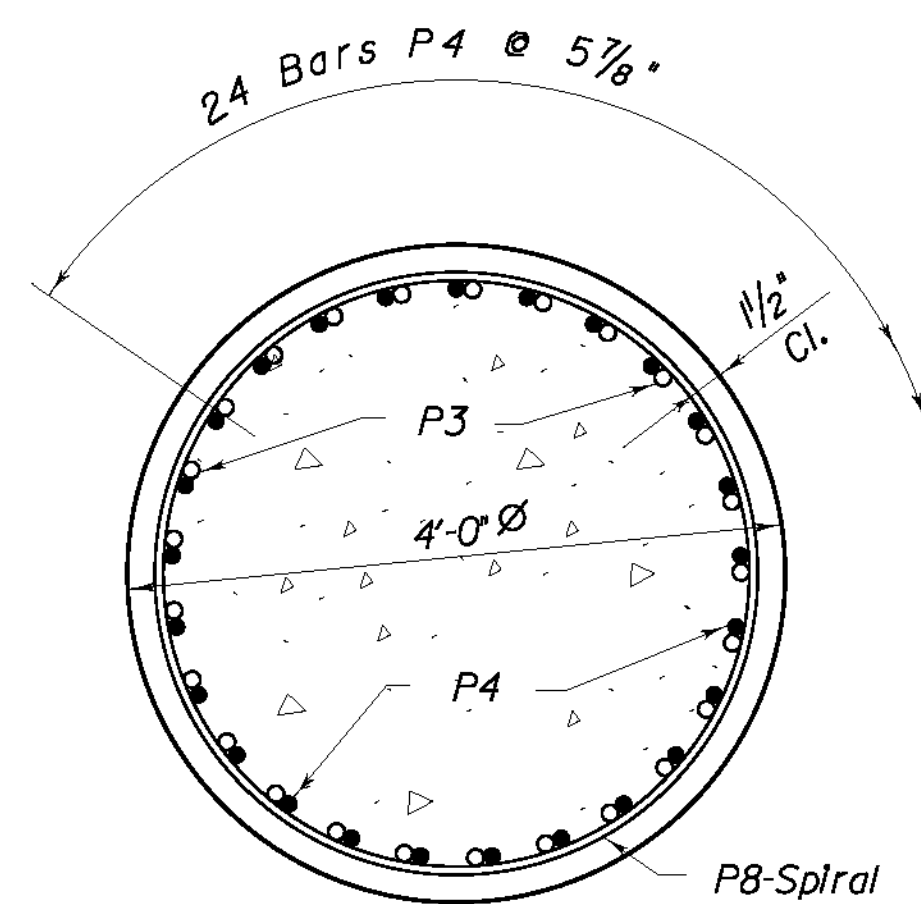
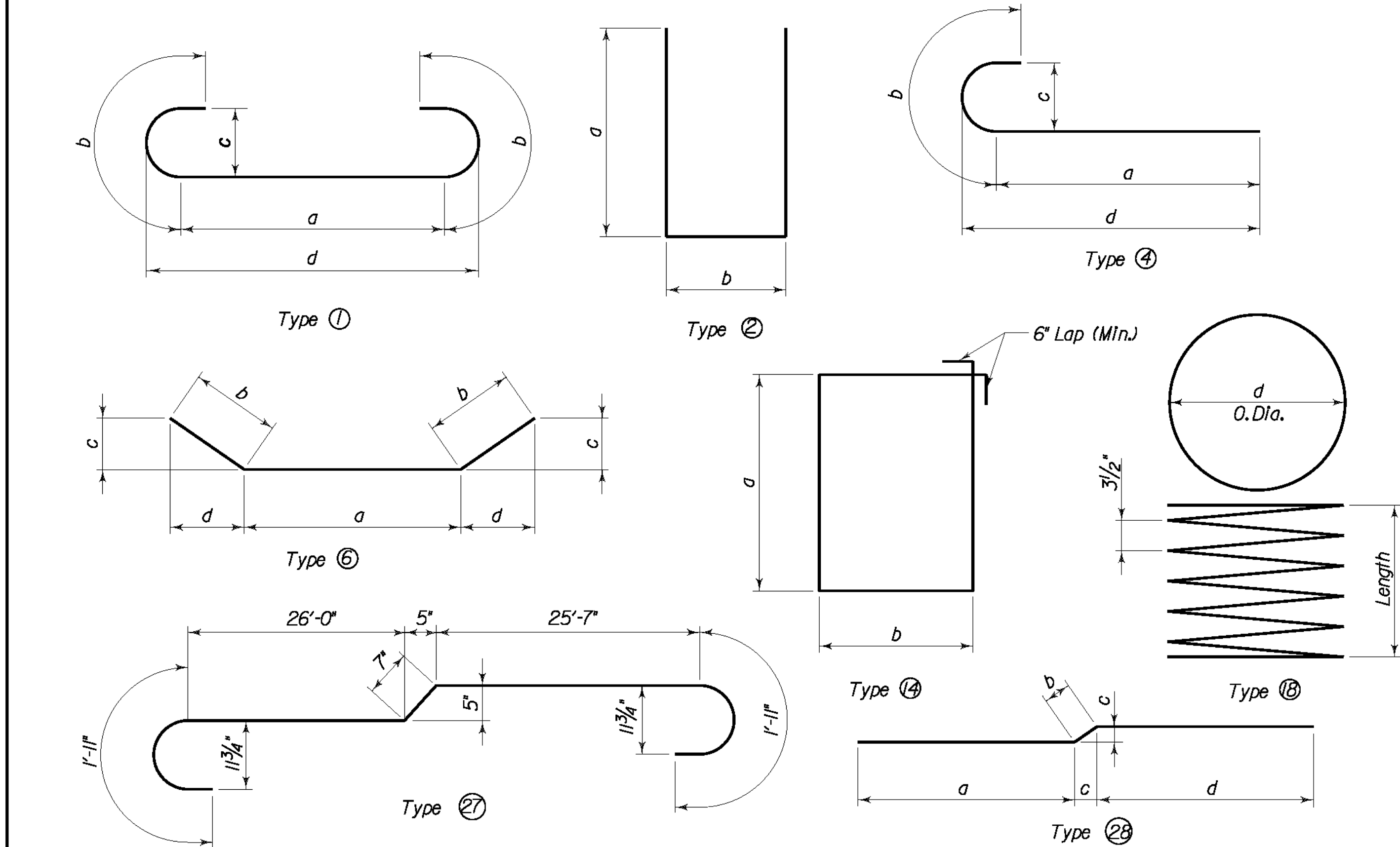
For Bill of Reinforcement see Sheet S52.
See Sheet S20 for Pier Layout.

Confirm that Pier 12 footings are below the coal seams by drilling in accordance with Section 603.03.03 of the Standard Specifications and the Division of Construction Guidance Manual. Footings may be raised up to 2.5 ft. if such drilling indicates they are below the coal seams.

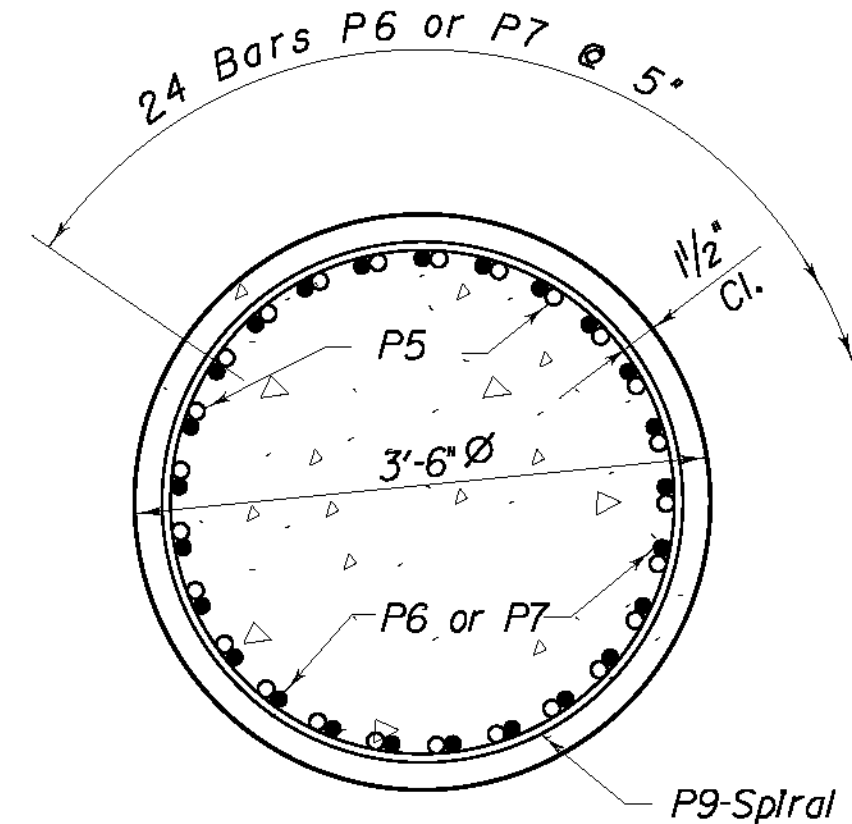
REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE	CROSSING		
U. S. 119	POOR FORK CUMBERLAND RIVER		
PIER 12			
PREPARED BY			SHEET NO.
T.H.E. ENGINEERS, INC.			S51
			DRAWING NO.
			25295

BILL OF REINFORCEMENT														
Mark	Type	Number Pier 12	Size	Length		Location	a		b		c		d	
				Ft.	In.		Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
P1	(1)	80	8	10	10	Footing	8	0	1	5	0	8	8	8
P2	Str.	80	5	8	8	Footing								
P3	(4)	96	8	11	2	Column Dowels	9	9	1	5	0	8	10	1
P4	Str.	48	8	23	4	Column	2	4	0	2 3/4	0	2	4	6
P5	(8)	96	7	7	1	Column								
P6	Str.	96	7	21	6	Column								
P7	Str.	96	7	21	7	Column								
P8	(8)	2	4	23	4	Spiral	8 3/4	Turns					3	9
P9	(8)	4	4	38	9	Spiral	136	Turns					3	3
P10	(6)	8	10	53	1	Cap	47	5	2	10	0	5 5/8	2	9 1/2
P11	(27)	8	9	56	0	Cap								
P12	Str.	6	6	53	0	Cap								
P13s	(4)	2	5	12	6	Cap	3	7 1/2	2	3				
P14s	(4)	2	5	12	9	Cap	3	9	2	3				
P15s	(4)	2	5	13	0	Cap	3	10 1/2	2	3				
P16s	(4)	2	5	13	3	Cap	4	0	2	3				
P17s	(4)	50	5	13	5	Cap	4	1	2	3				
P18s	(4)	52	5	12	7	Cap	3	8	2	3				
P19s	(4)	2	5	12	5	Cap	3	7	2	3				
P20s	(4)	2	5	12	2	Cap	3	5 1/2	2	3				
P21s	(4)	2	5	11	11	Cap	3	4	2	3				
P22s	(4)	2	5	11	8	Cap	3	2 1/2	2	3				
P23	(2)	26	5	7	3	Pedestal	1	10	3	8				
P24	Str.	20	5	2	10	Pedestal								
P25	(2)	2	5	7	2	Pedestal	1	10	3	7				
P26	(2)	2	5	7	1	Pedestal	1	10	3	6				
P27	Str.	2	5	4	4	Pedestal								
P28	Str.	2	5	4	8	Pedestal								
P29	Str.	2	5	4	11	Pedestal								
P30	Str.	2	5	5	3	Pedestal								
P31	Str.	2	5	5	6	Pedestal								
P32	Str.	48	8	16	11	Column								
P33	(8)	2	4	16	11	Spiral	61	Turns					3	9
P34(E)	Str.	10	*	2	0	Dowels								

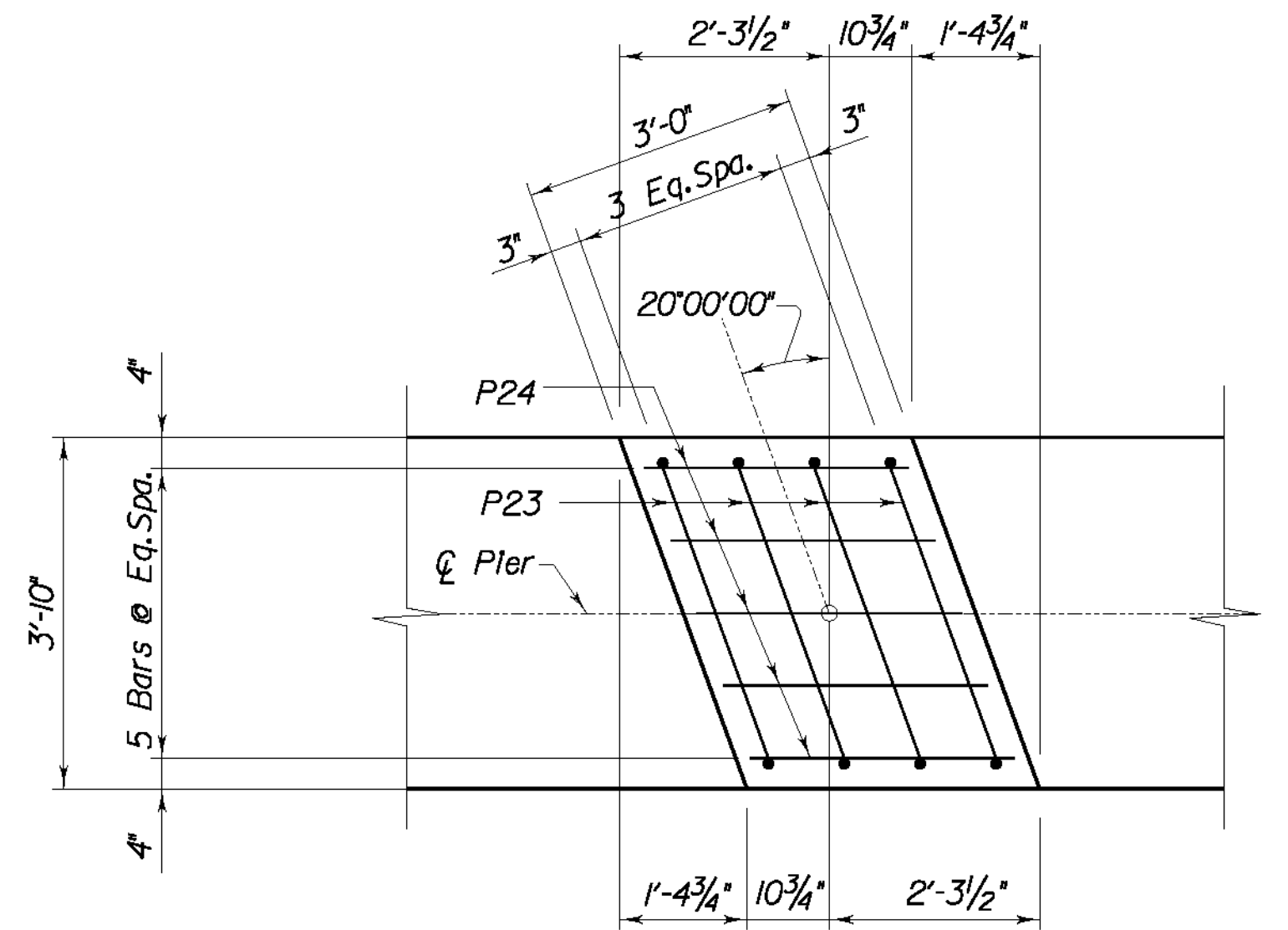
NOTE: Reinforcing Bars Designated By The Suffix (E) In The Plans Shall Be Epoxy Coated In Accordance With The Current Specifications.
Reinforcing bars designated by the suffix (s) in the Bill of Reinforcement shall be considered stirrups for purposes of bend diameters.
* 1 1/2" Diameter Round Smooth Pln. Epoxy Coated



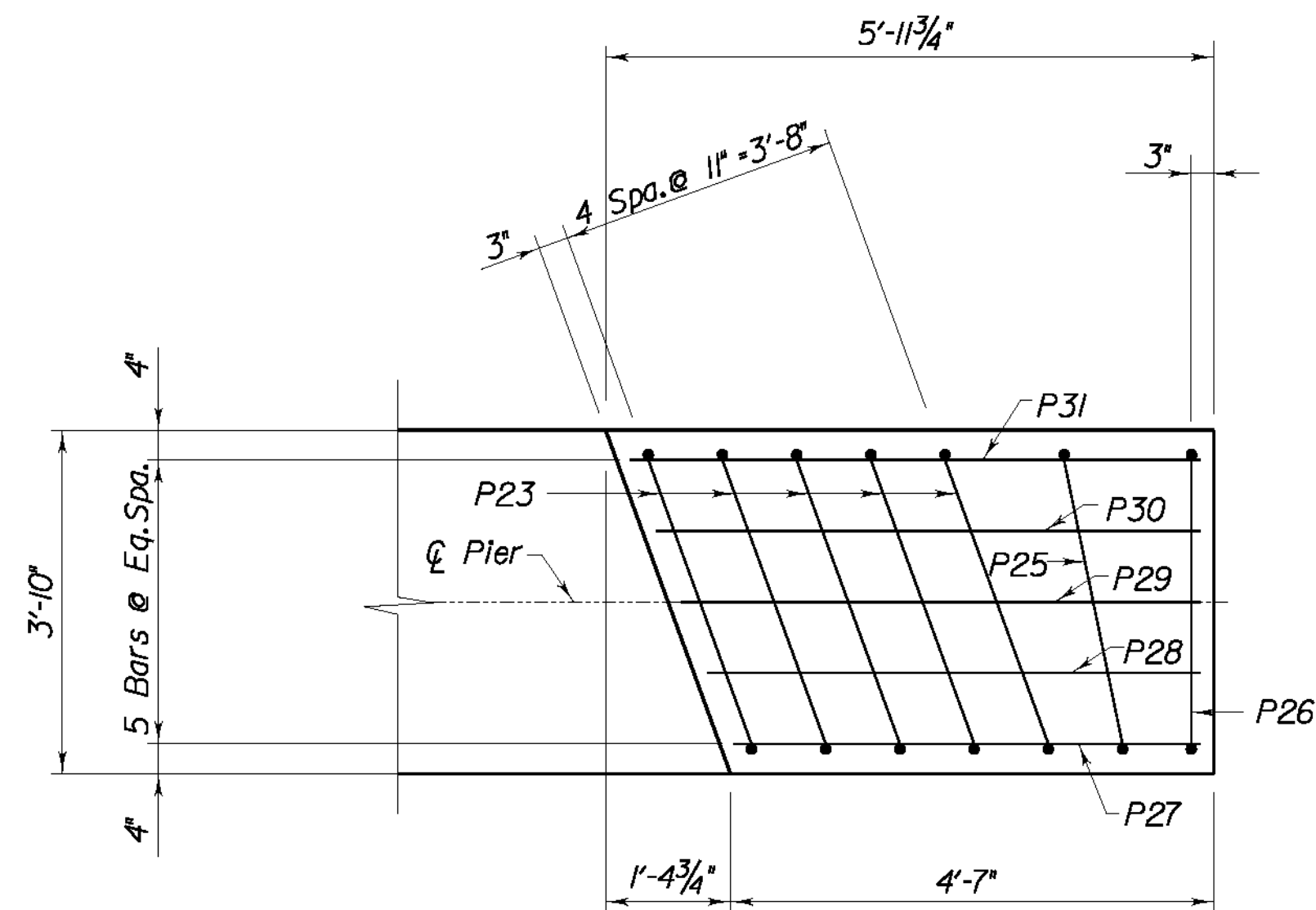
SECTION E-E



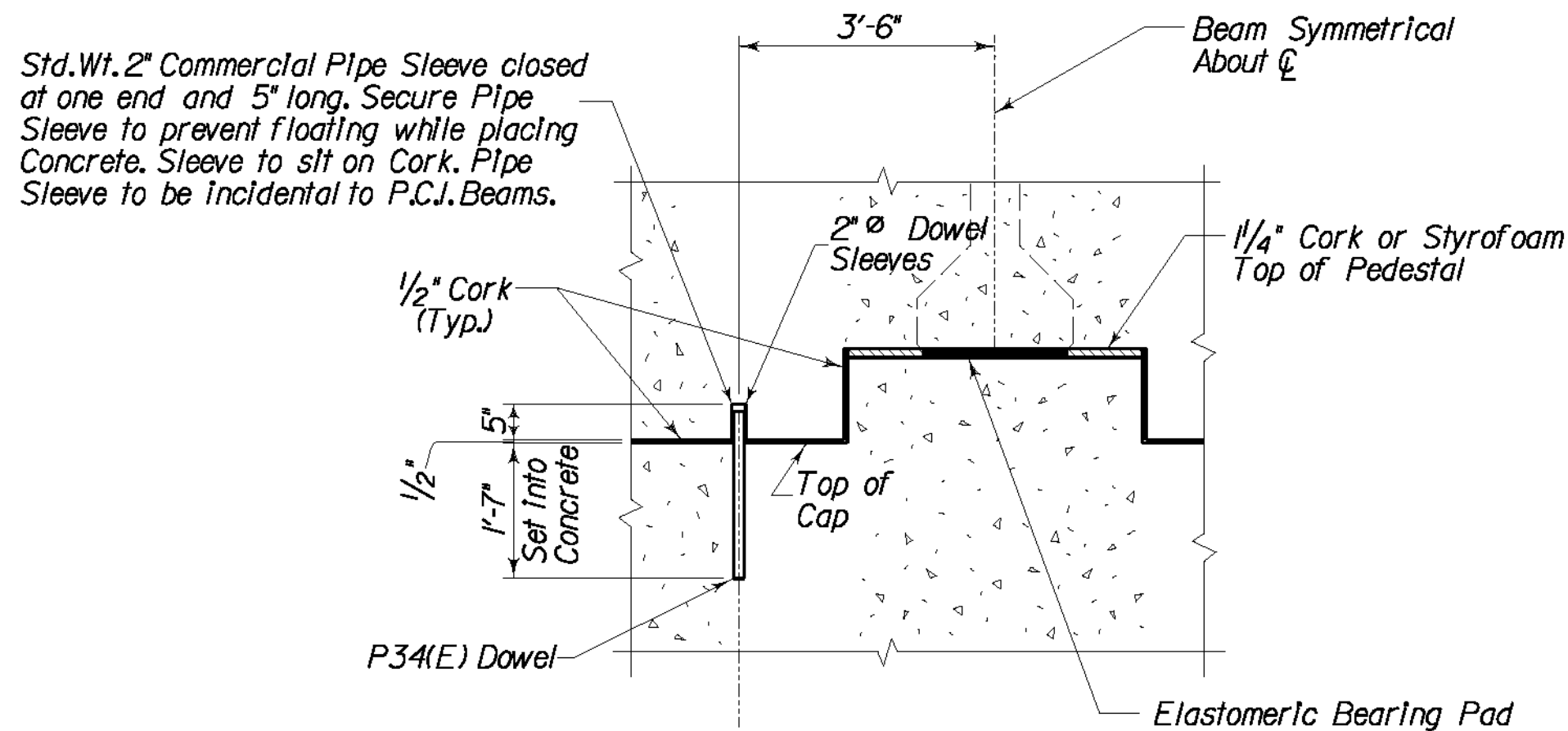
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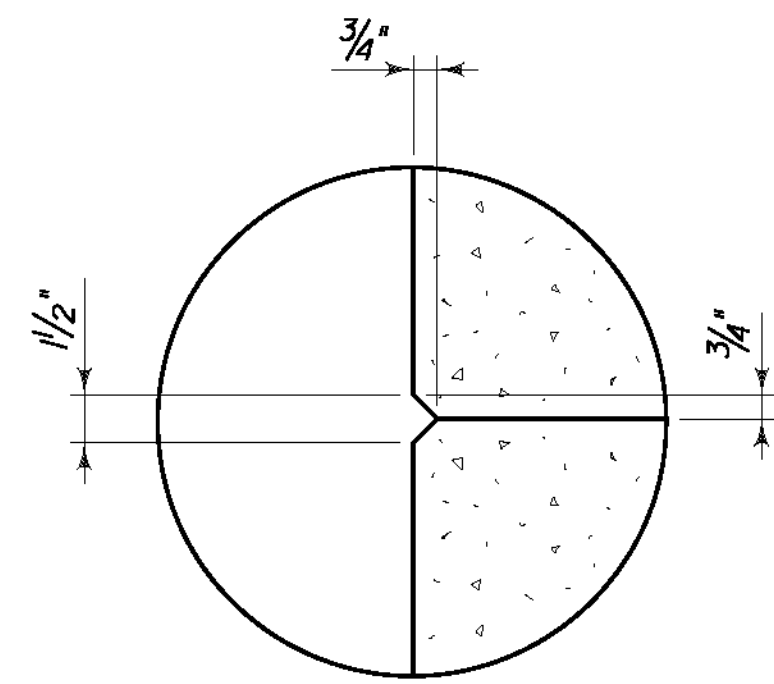
PEDESTAL DETAIL



PEDESTAL DETAIL

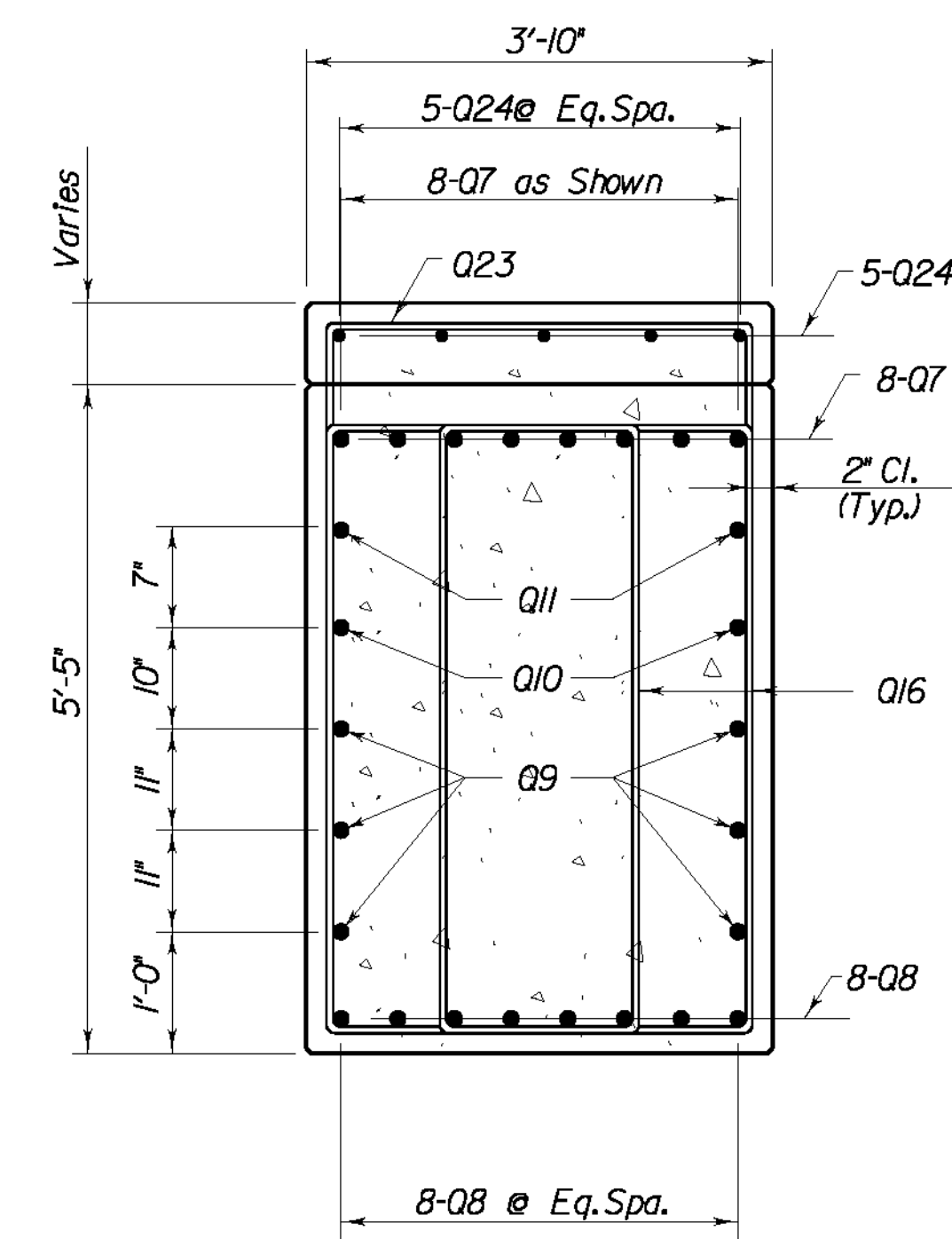


DOWEL DETAIL



RUSTICATION GROOVE

REVISION		DATE
DATE: 09 - 2003	DESIGNED BY: P. A. P.	CHECKED BY: W. T. B.
DESIGNED BY: P. A. P.	DETAILED BY: D. W. S.	CHECKED BY: P. F. H.
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE US 119	CROSSING POOR FORK CUMBERLAND RIVER	
PIER 12		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S52
ITEM NUMBER 12-311.10		DRAWING NO. 25296



END ELEVATION

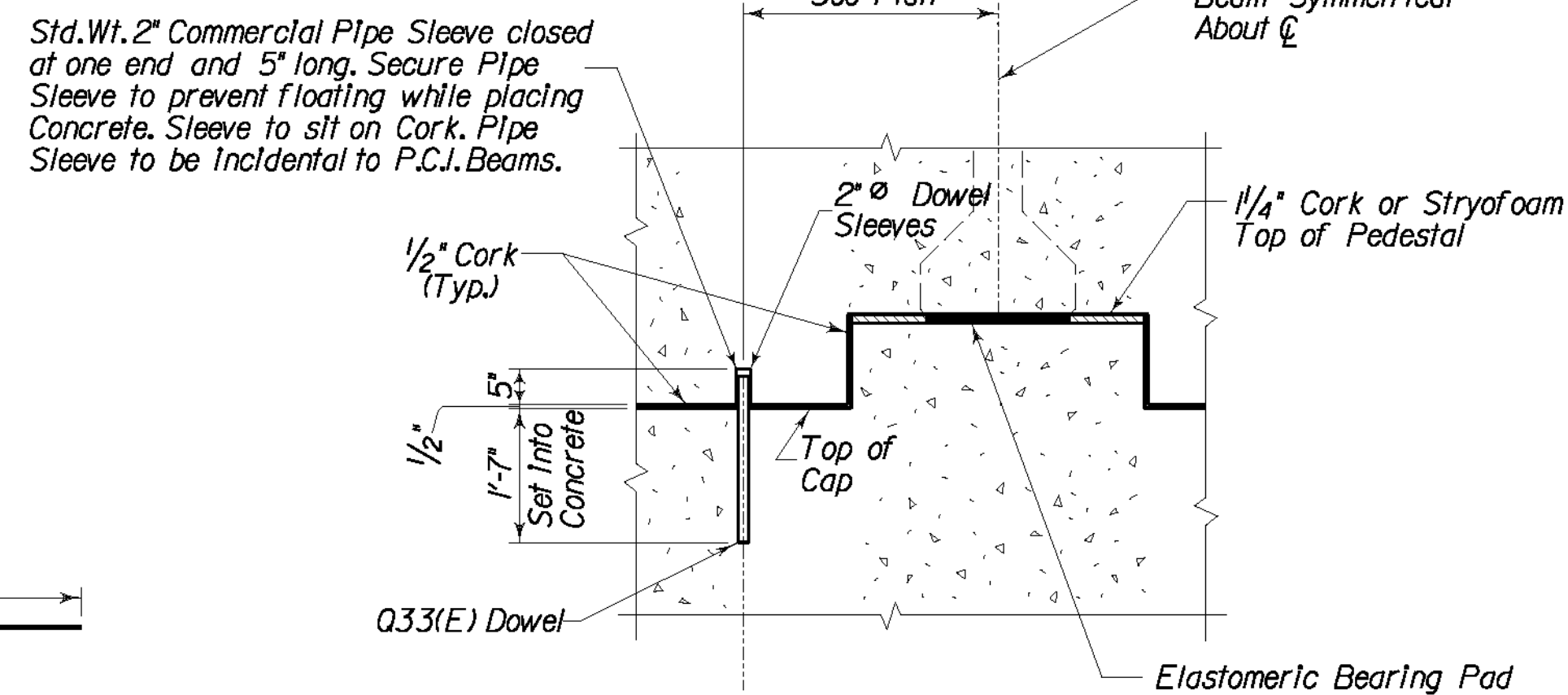
PLAN OF FOOTINGS

ITEM NUMBER
12-311.10

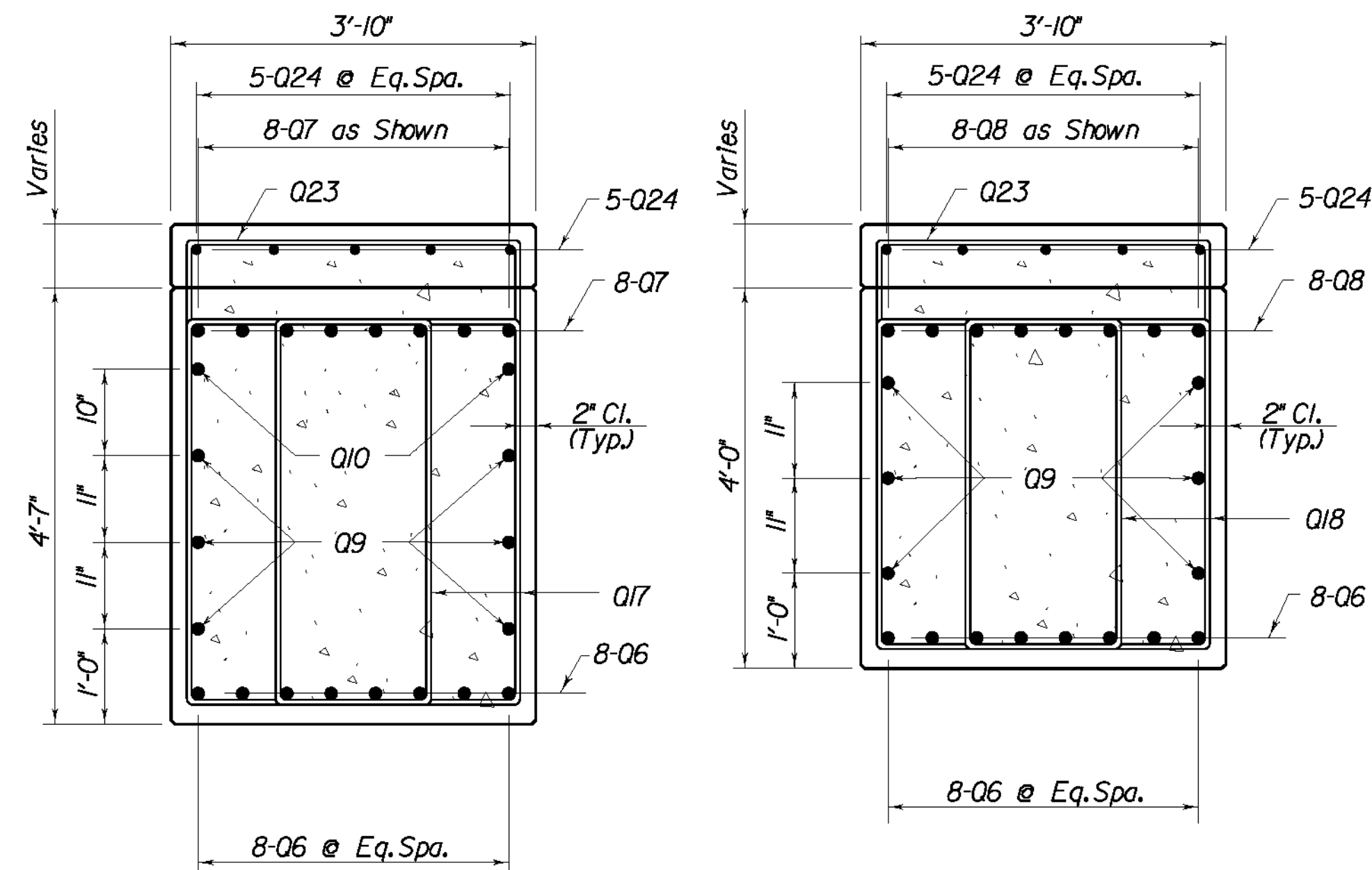
REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE	CROSSING		
U.S. 119	POOR FORK CUMBERLAND RIVER		
PIER 13			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S53
			DRAWING NO. 25296

[illegible]

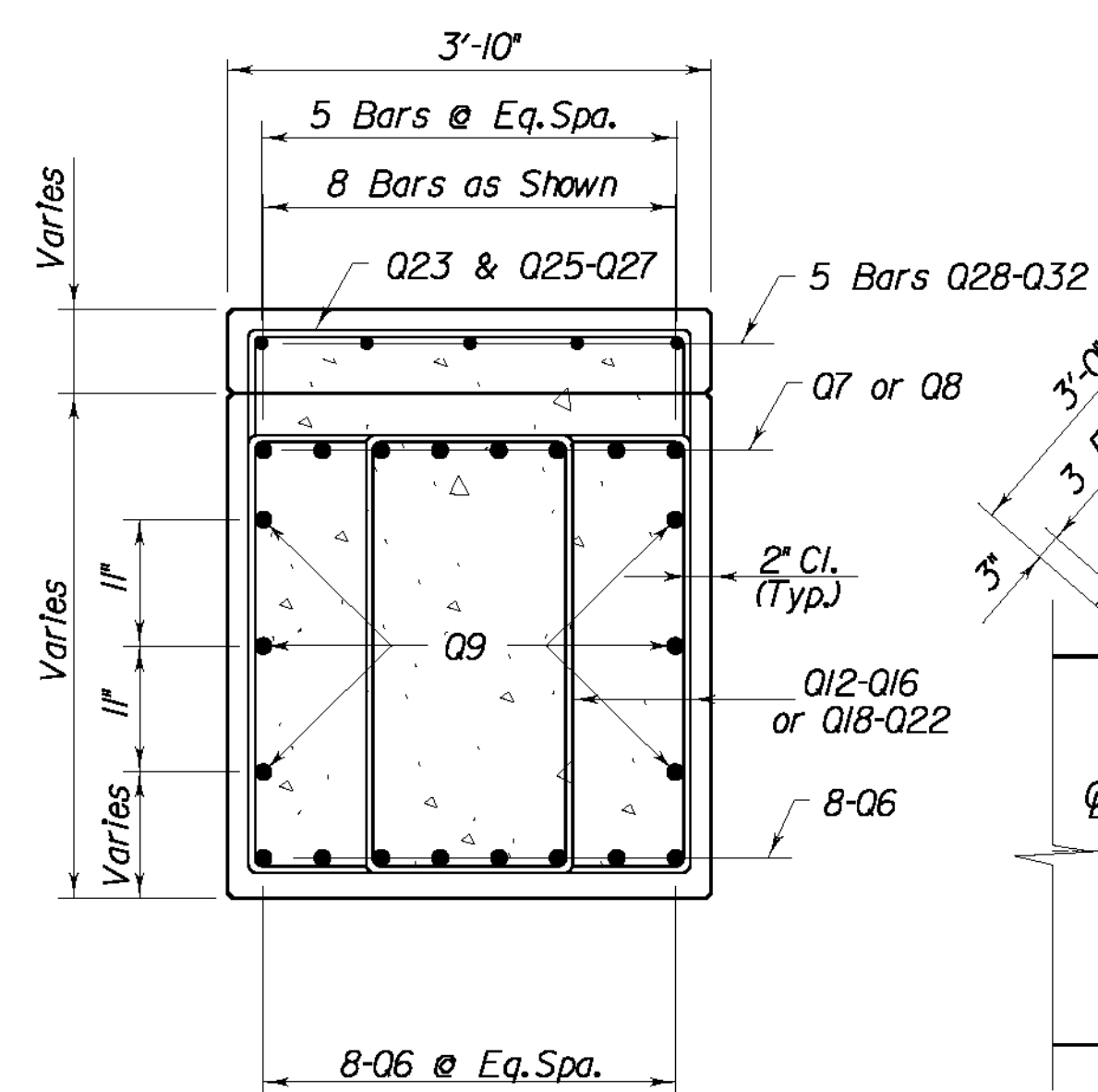
* 1 1/2" Diameter Round Smooth Pin. Epoxy Coated



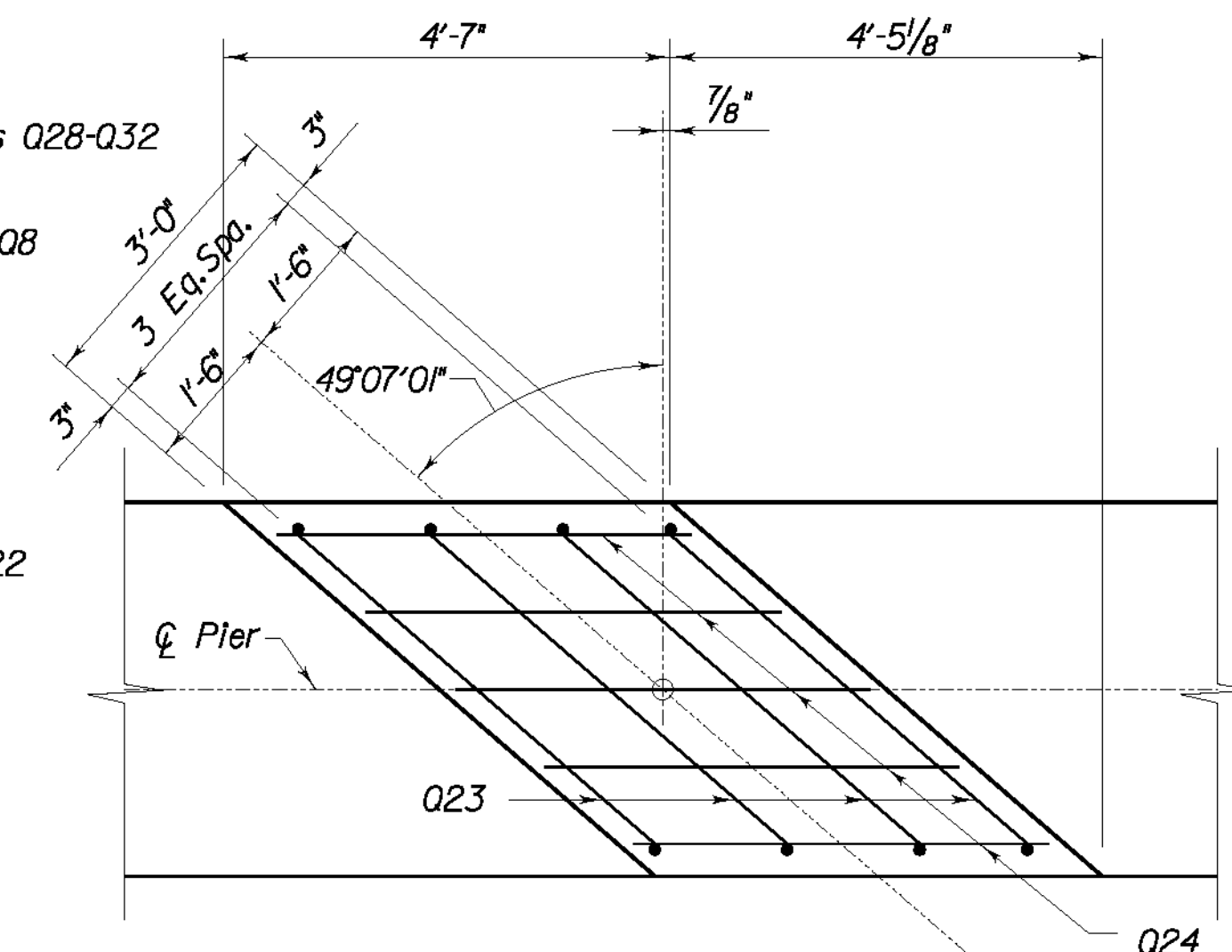
DOWEL DETAIL



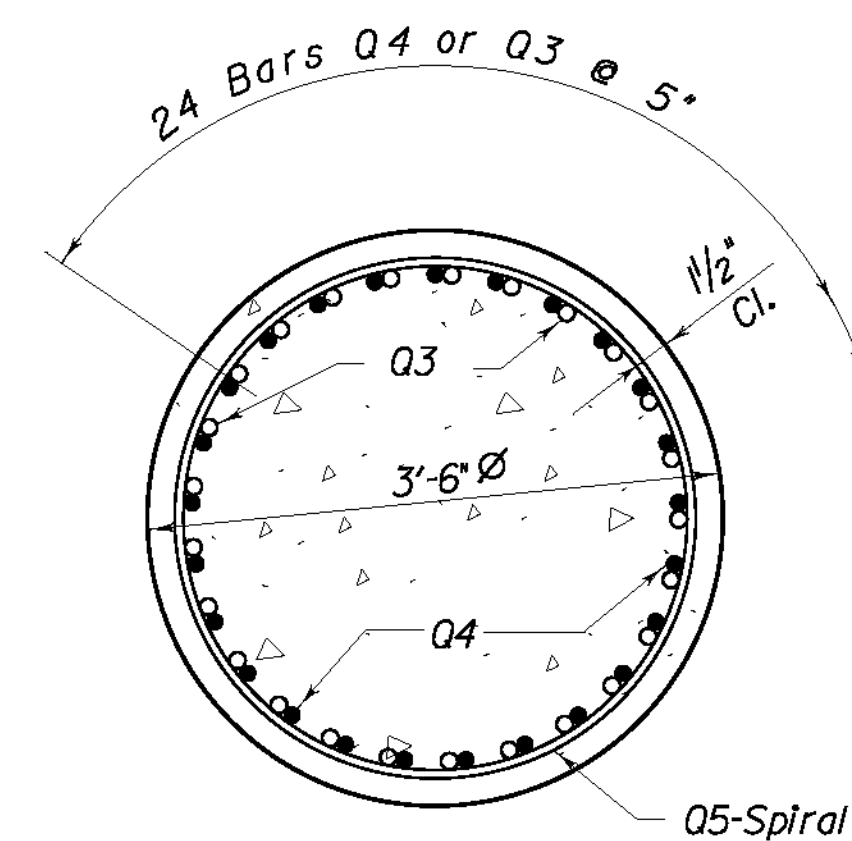
SECTION C-C



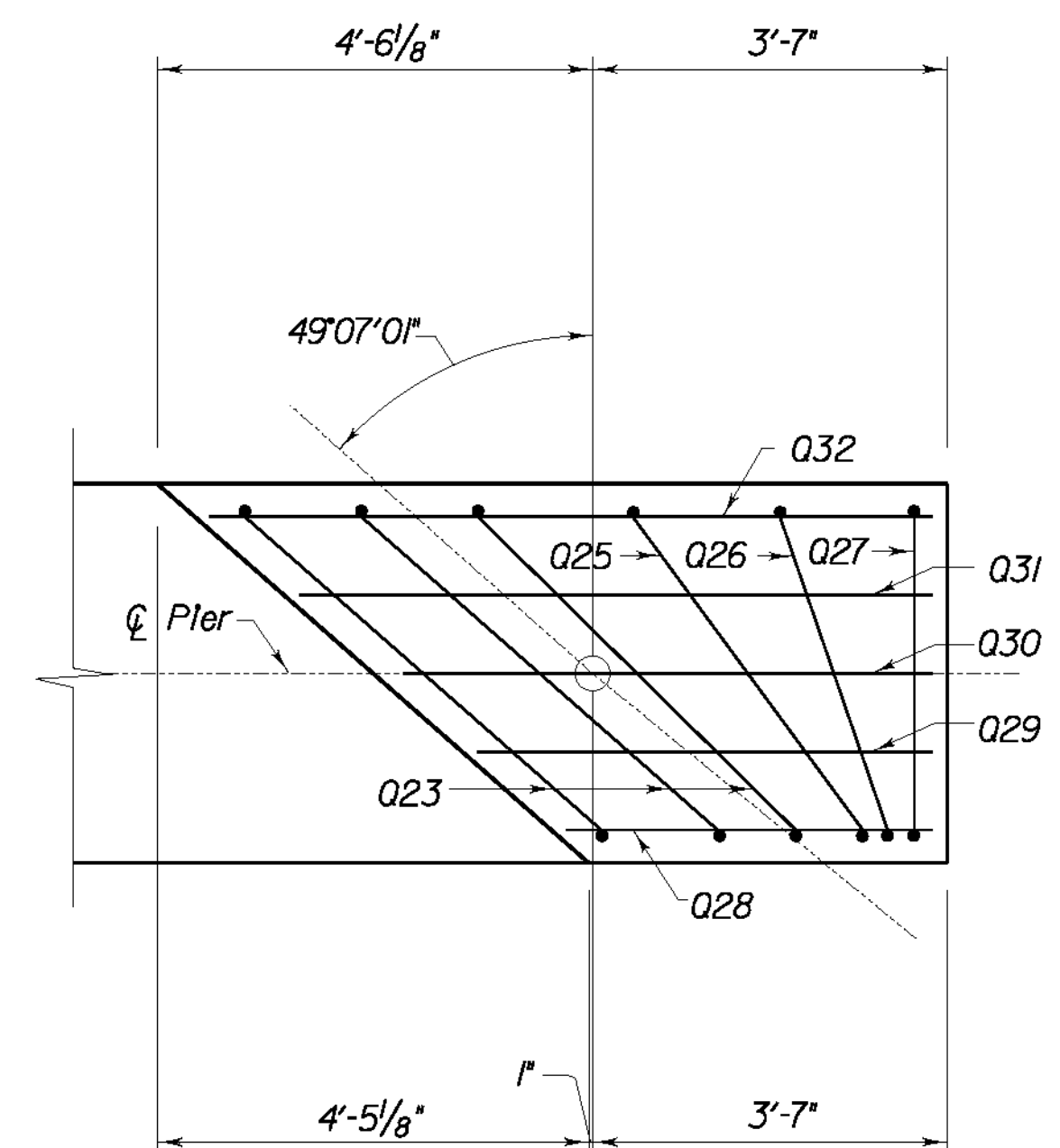
SECTION D-D



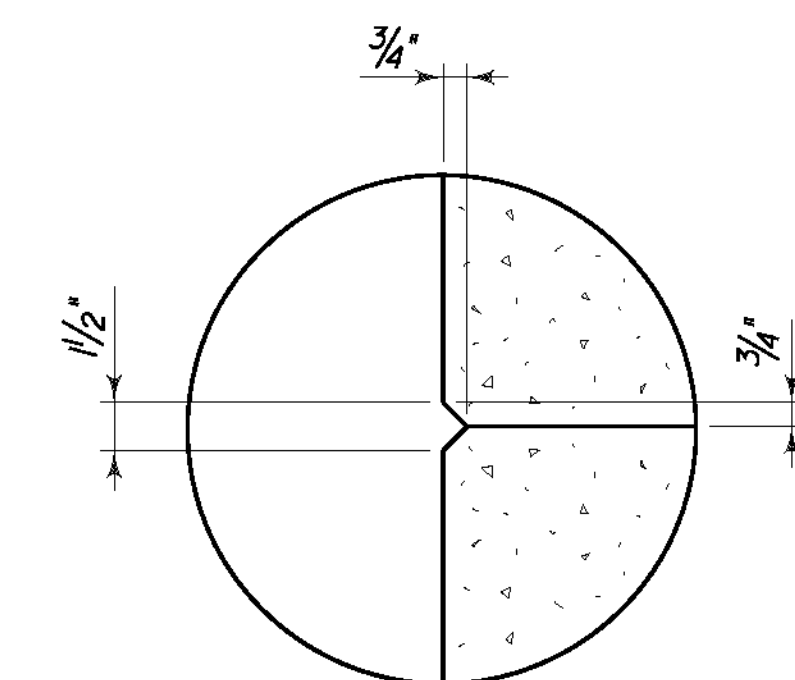
PEDESTAL DETAIL



SECTION E-E



PEDESTAL DETAIL



RUSTICATION GROOVE

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE	CROSSING		
US 119	POOR FORK CUMBERLAND RIVER		
PIER 13			
PREPARED BY			SHEET NO.
T.H.E. ENGINEERS, INC.			S54
			DRAWING NO.
			25296

\$\$\$design\$file\$specification\$\$\$

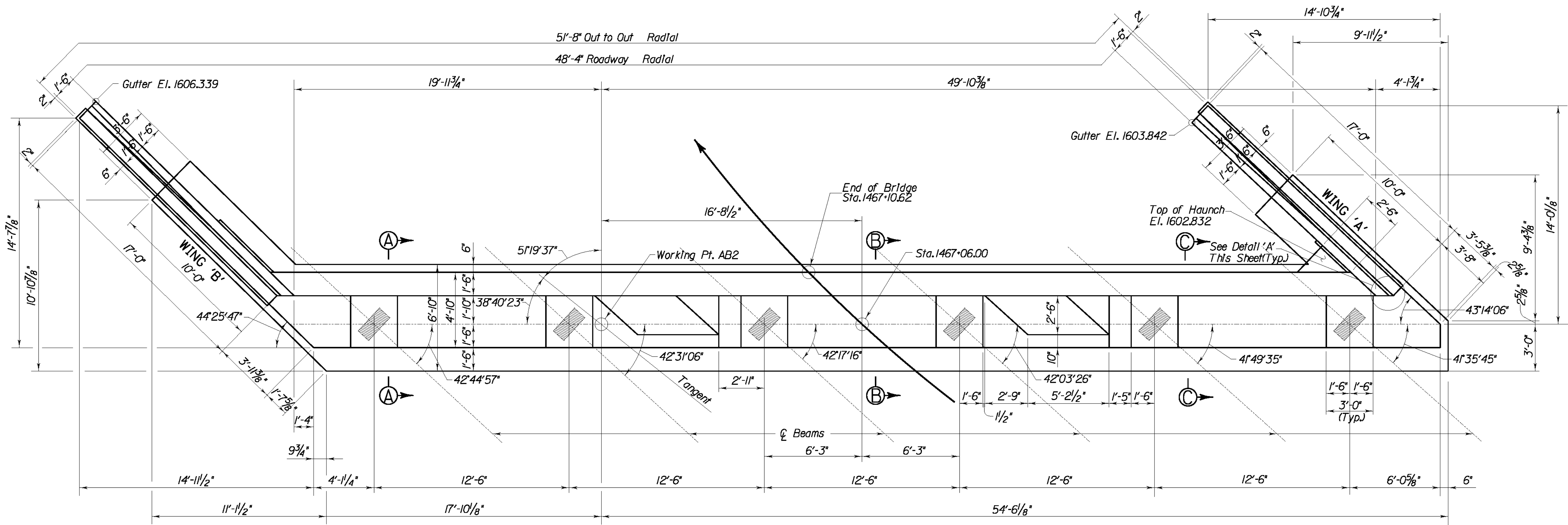
\$\$\$\$\$plotted\$\$\$\$\$

\$\$\$DATE\$\$\$

\$\$\$\$designsfile\$specification\$\$\$\$

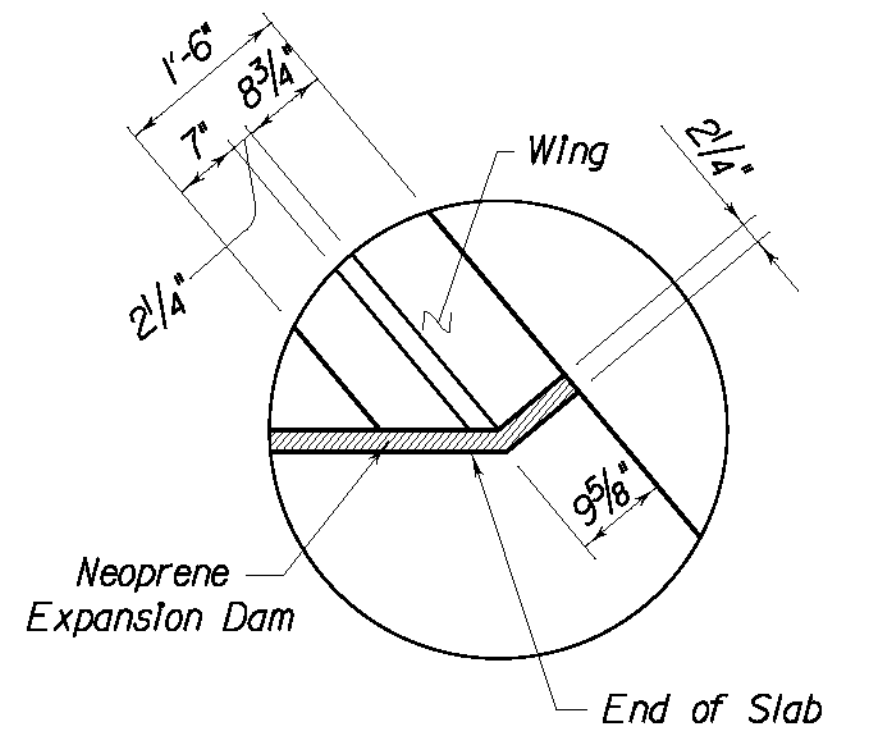
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\$\$\$\$DATE\$\$\$\$

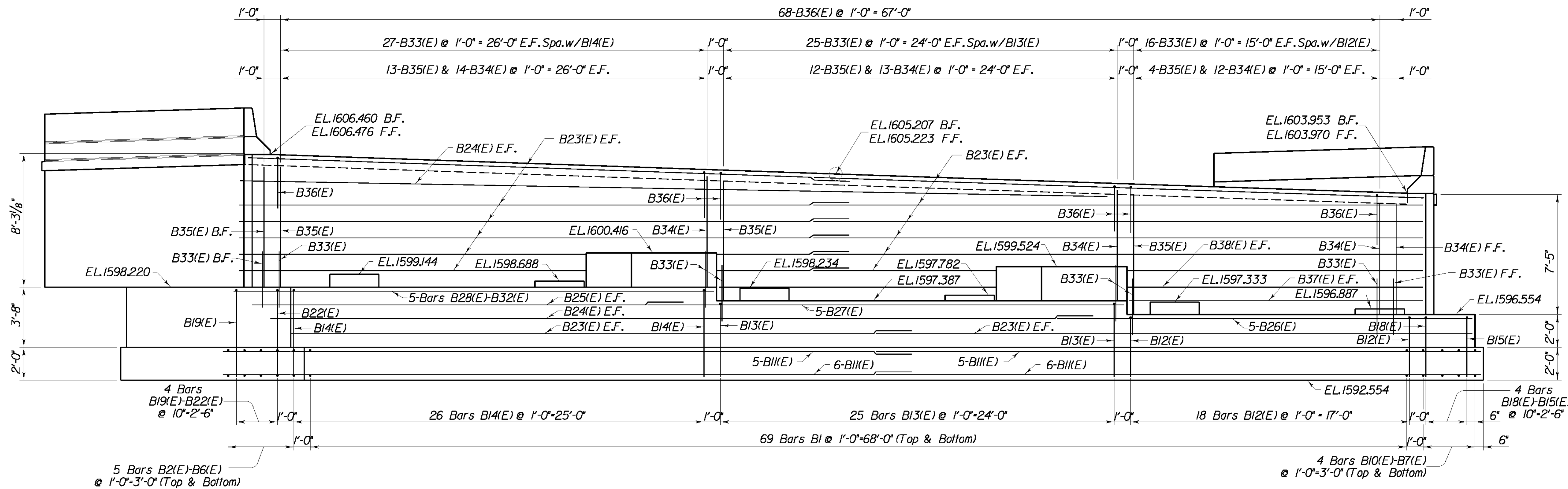


PLAN
(Showing Dimensions)

F.F. Denotes Front Face
B.F. Denotes Back Face
E.F. Denotes Each Face



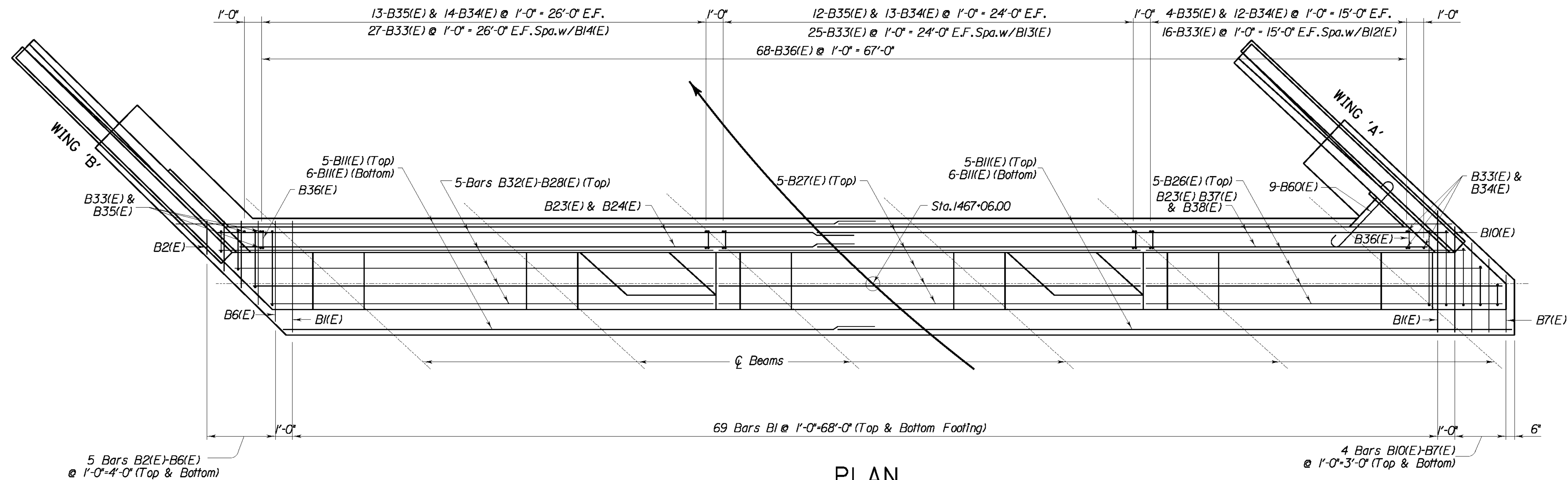
DETAIL 'A'



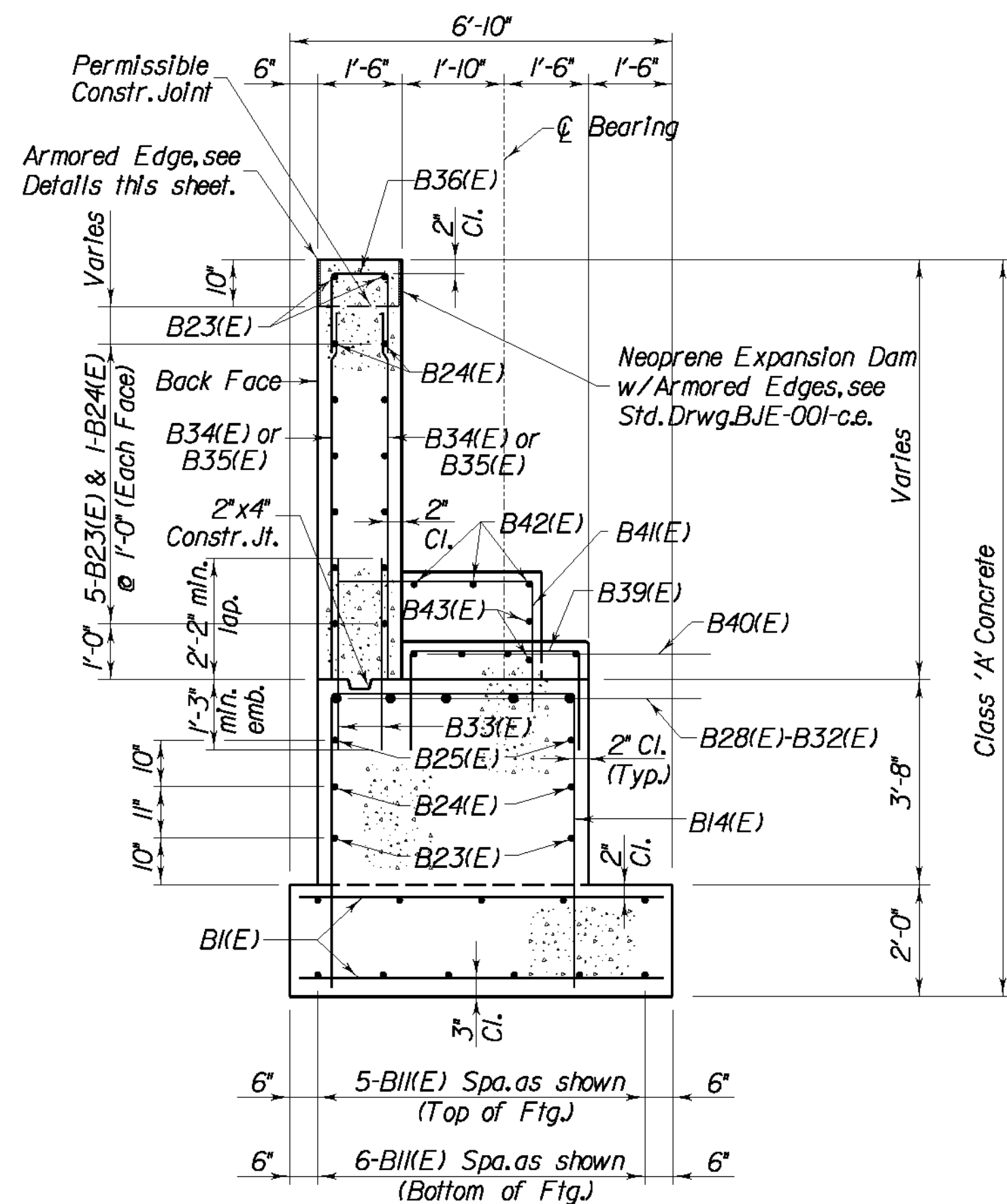
ELEVATION

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U. S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
ABUTMENT 2			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S55
			DRAWING NO. 25296

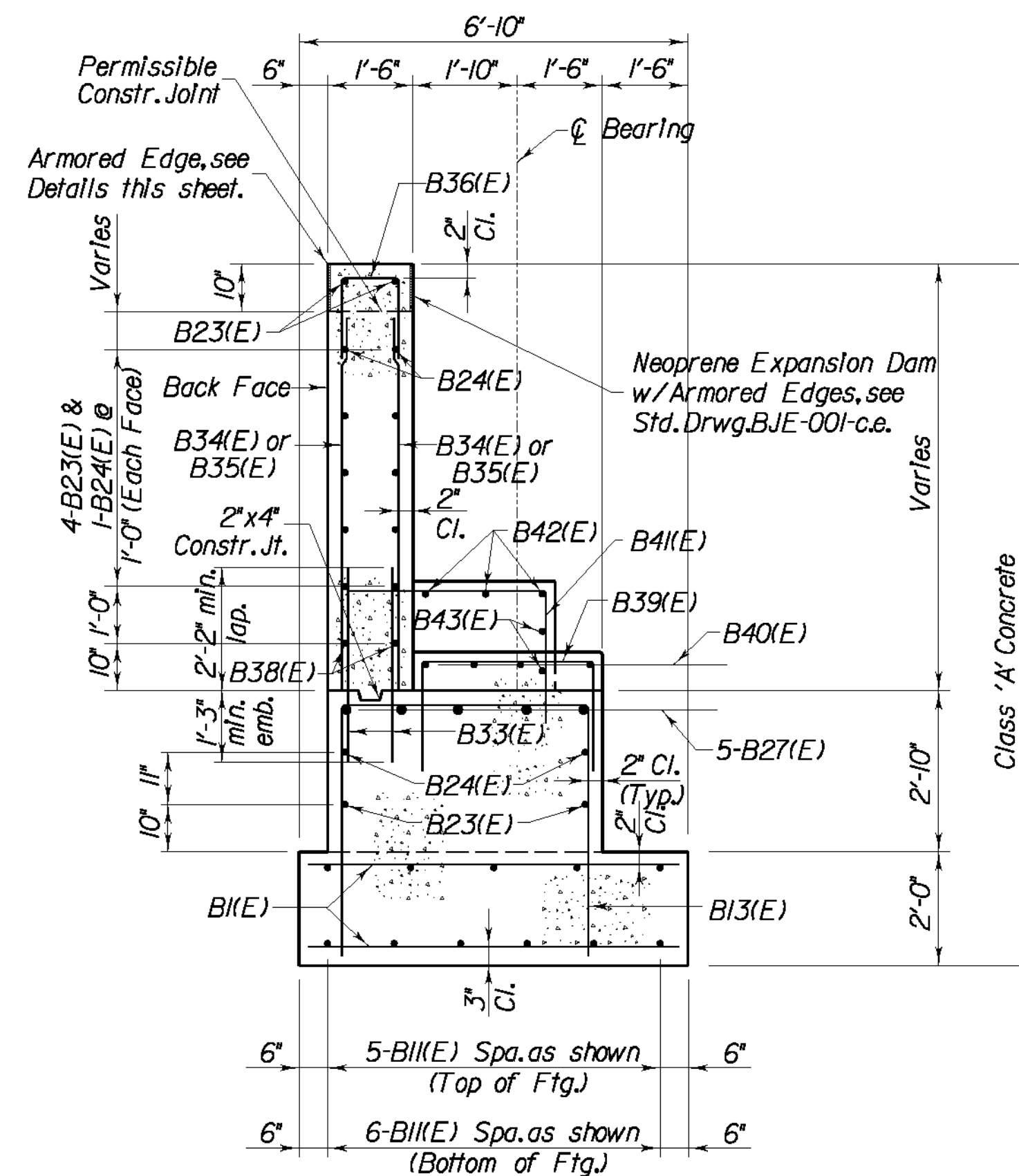
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\$\$\$\$DATE\$\$\$\$
\$\$\$\$DATE\$\$\$\$



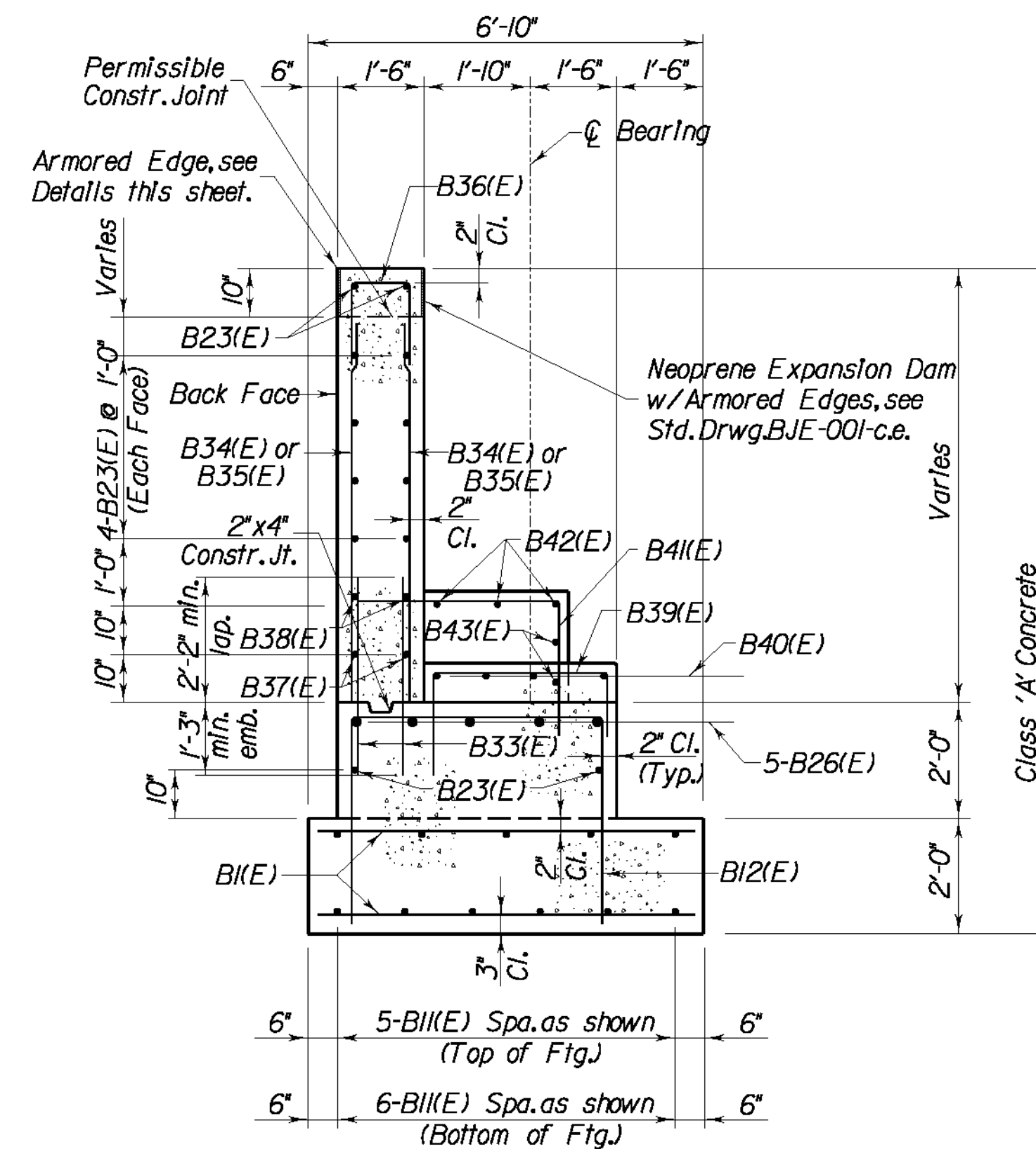
PLAN
(Showing Reinforcement)



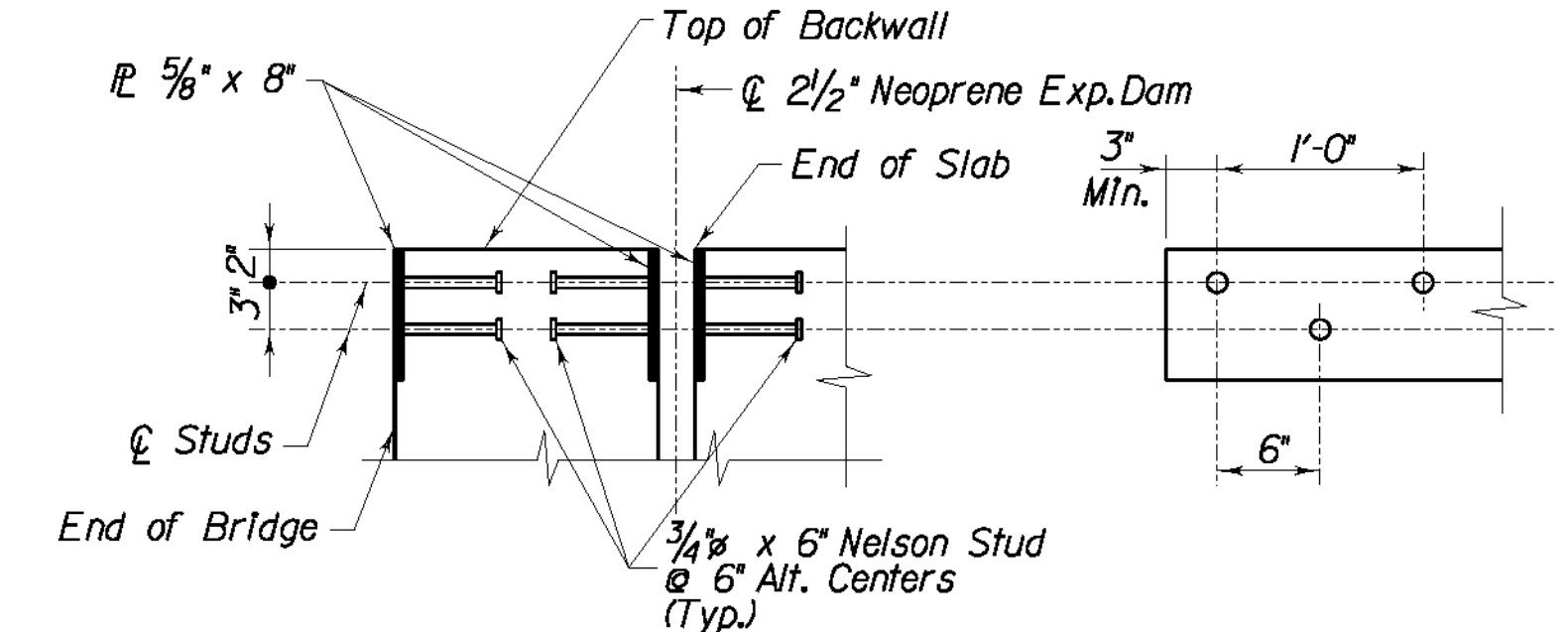
SECTION 'A-A'



SECTION 'B-B'



SECTION 'C-C'



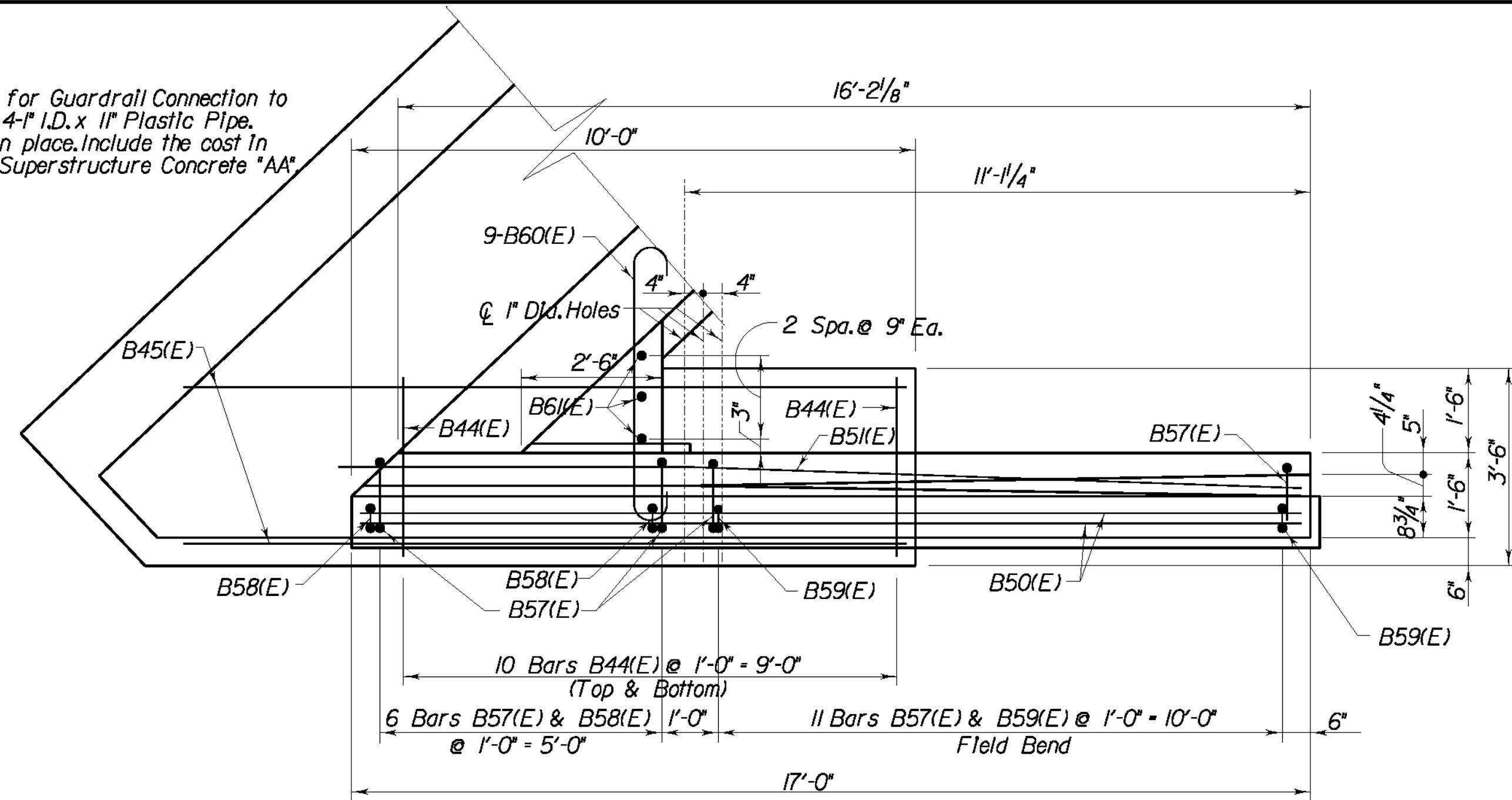
ARMORED EDGE DETAILS

(See Std. Drwg. BJE-001-c.e.)
(Armored Edge shall extend from Left Gutter Line to Right Gutter Line at each face of Backwall and at End of Slab.)
(End of Bridge Armored Edge Paid In Armored Edge)
(Armored Edges at Expansion Jt. paid w/ 2 1/2" Neoprene Expansion Dam.)

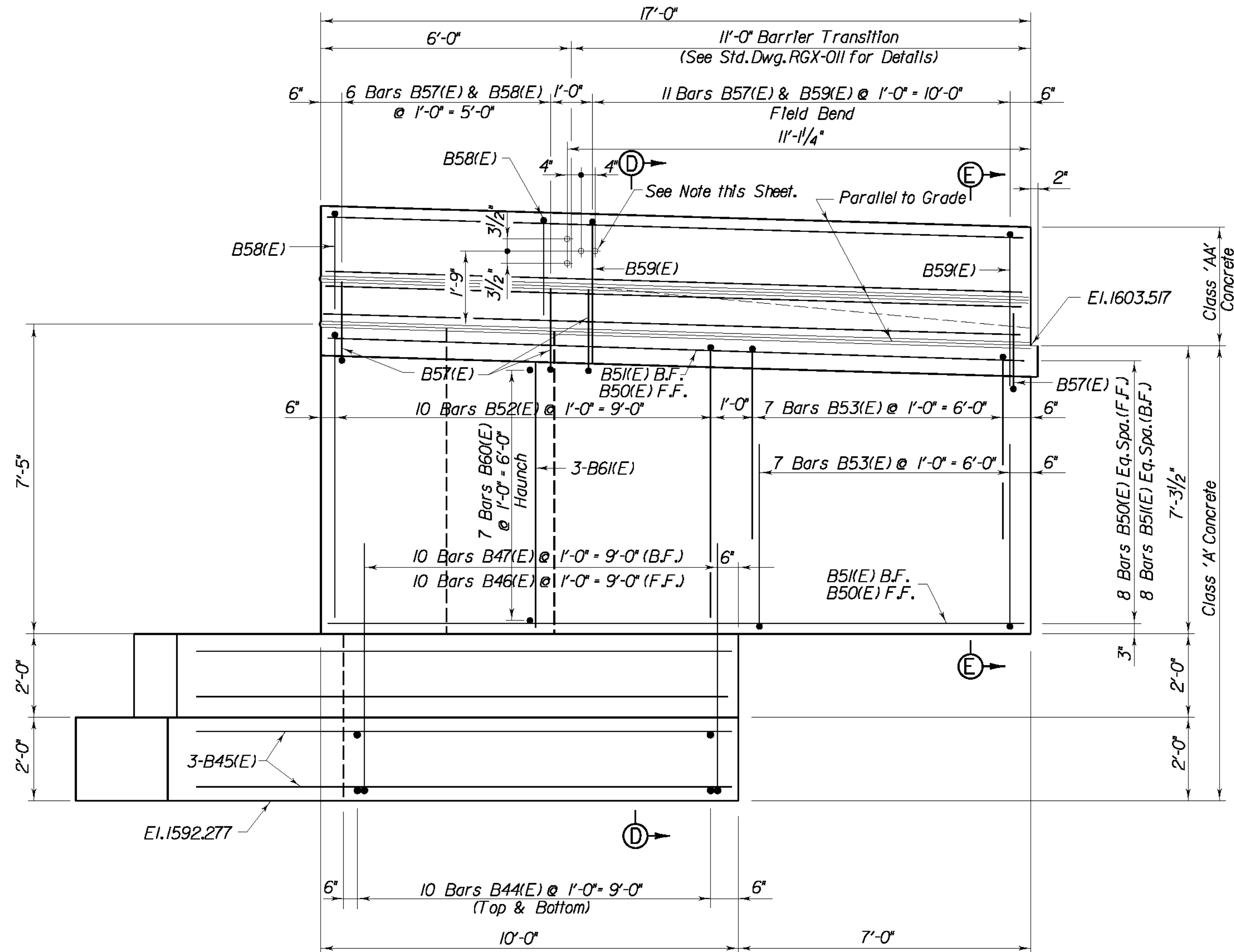
REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
ABUTMENT 2			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S56
			DRAWING NO. 25296

NOTE:

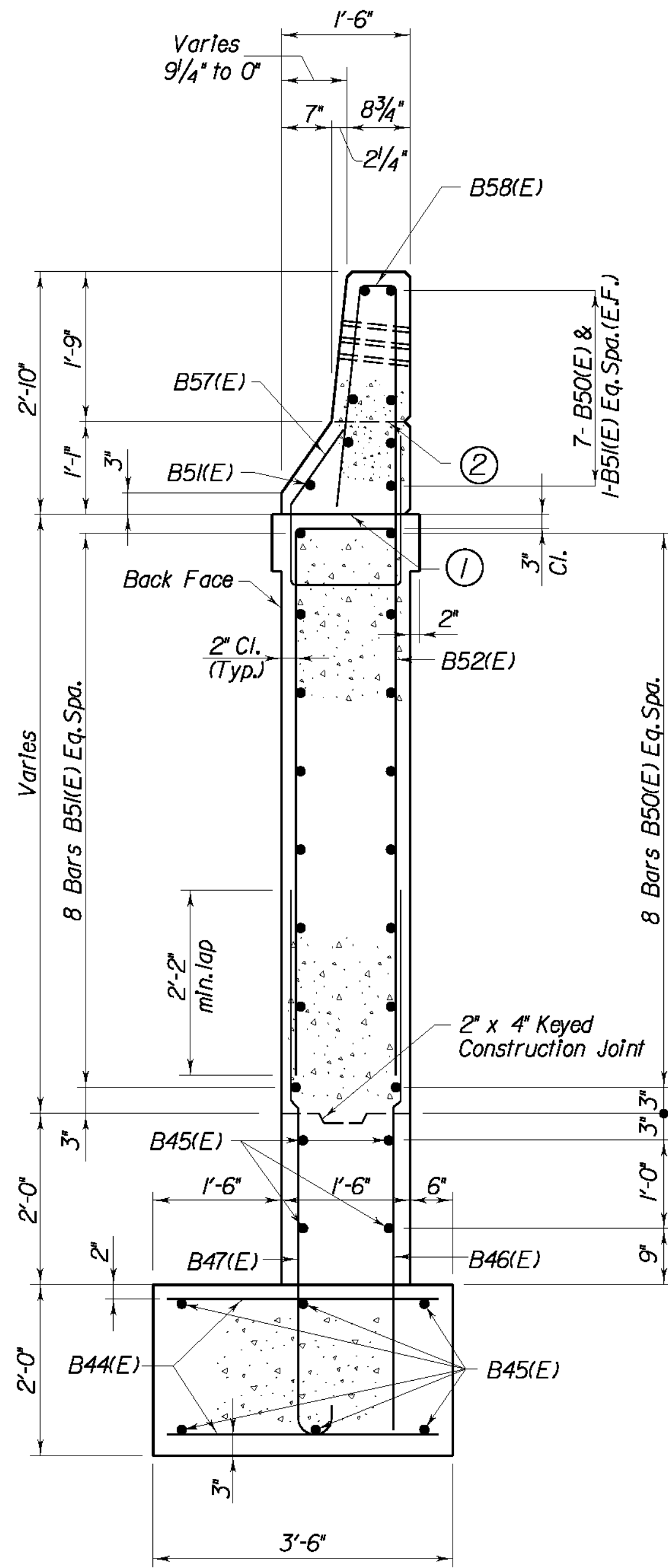
Form Holes for Guardrail Connection to Bridge with 4" I.D. x 11" Plastic Pipe. Leave Pipe in place. Include the cost in the bid for Superstructure Concrete "AA".



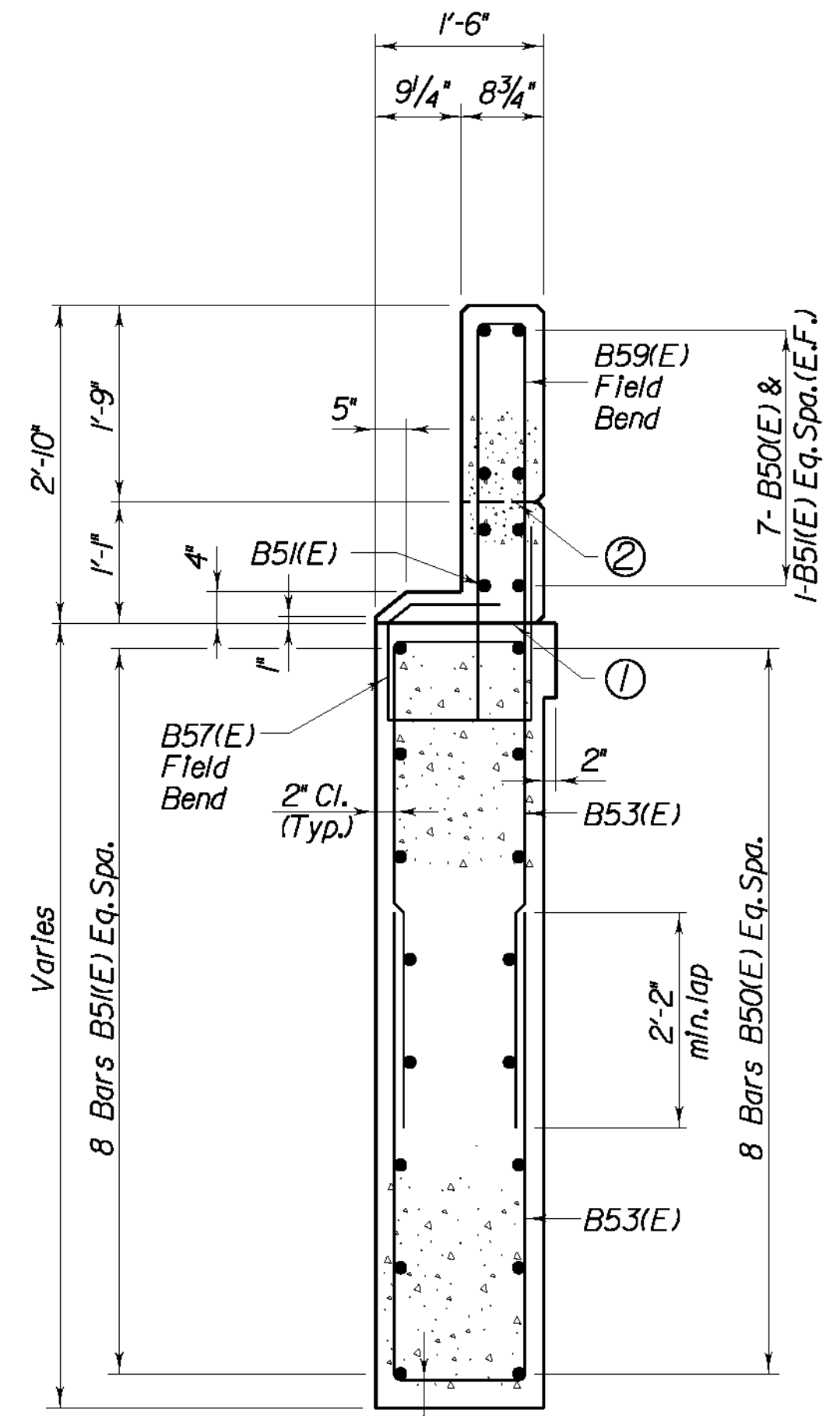
PLAN - WING 'A'



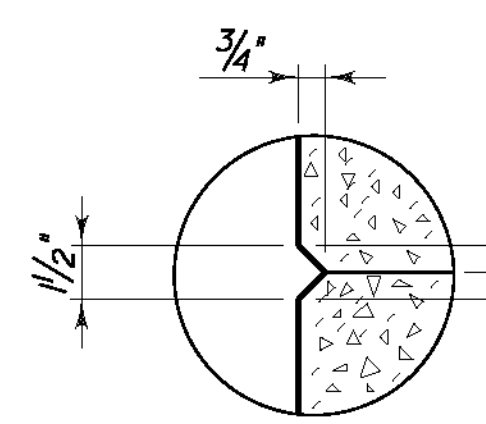
ELEVATION - WING 'A'



SECTION D-D



SECTION E-E



RUSTICATION GROOVE

LEGEND

- ① Mandatory Roughened Construction Joint and Rustication Groove, for Rustication Groove, see Detail this Sheet.
- ② Optional Construction Joint, Rustication Groove not needed if Barrier cast complete.

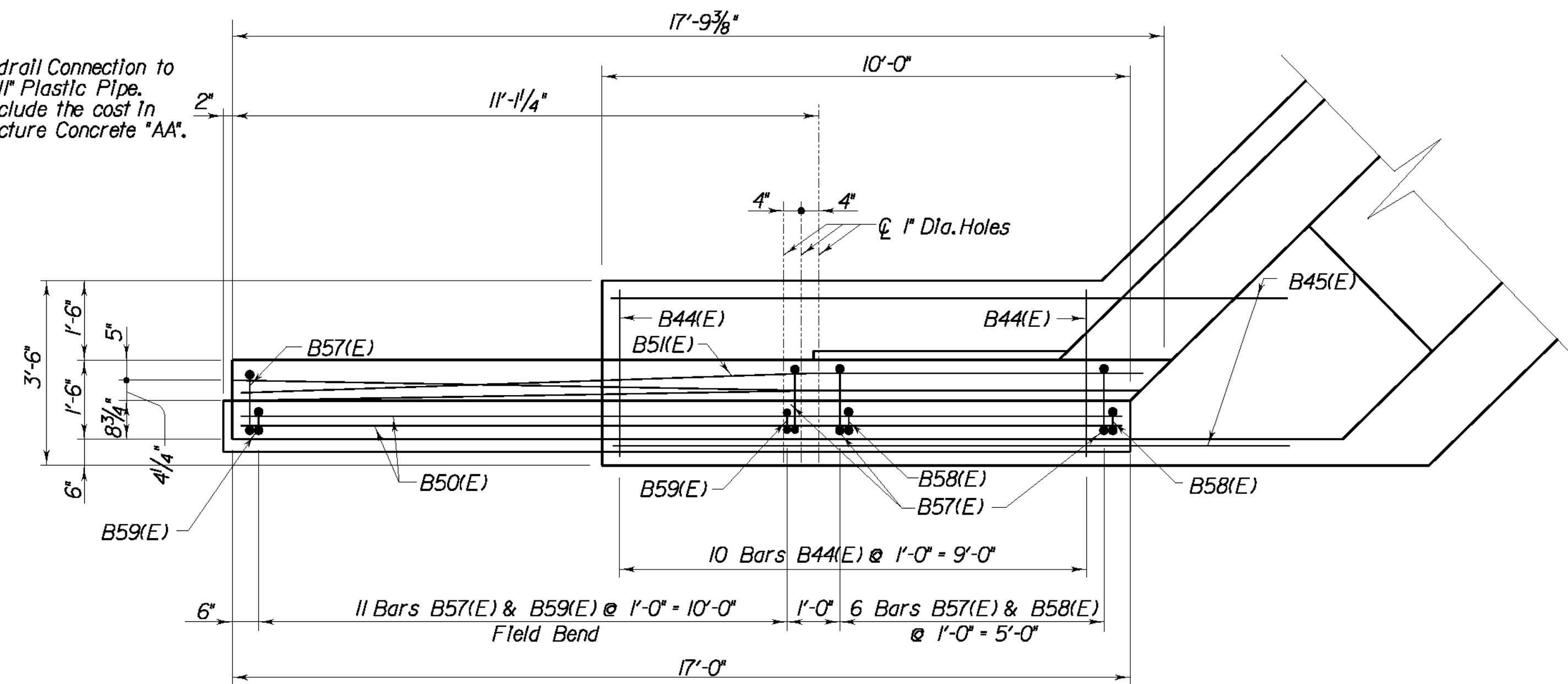
NOTE:

For Bill of Reinforcement see sheet S59. See Sheet S6 for barrier stone veneer.

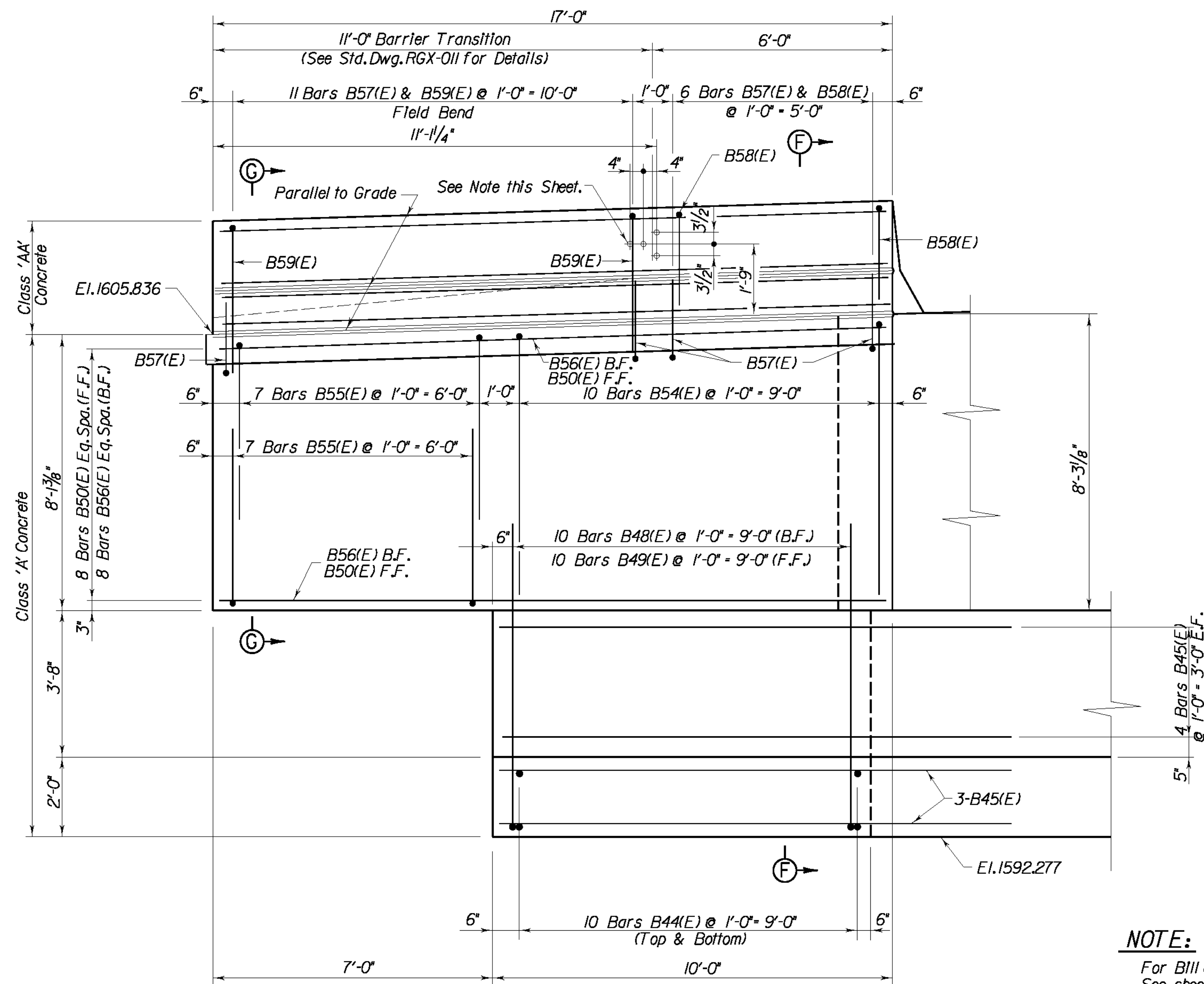
REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
ABUTMENT 2		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S57
		DRAWING NO. 25296

NOTE:

Form Holes for Guardrail Connection to Bridge with 4" I.D. x 11" Plastic Pipe. Leave Pipe in place. Include the cost in the bid for Superstructure Concrete "AA".



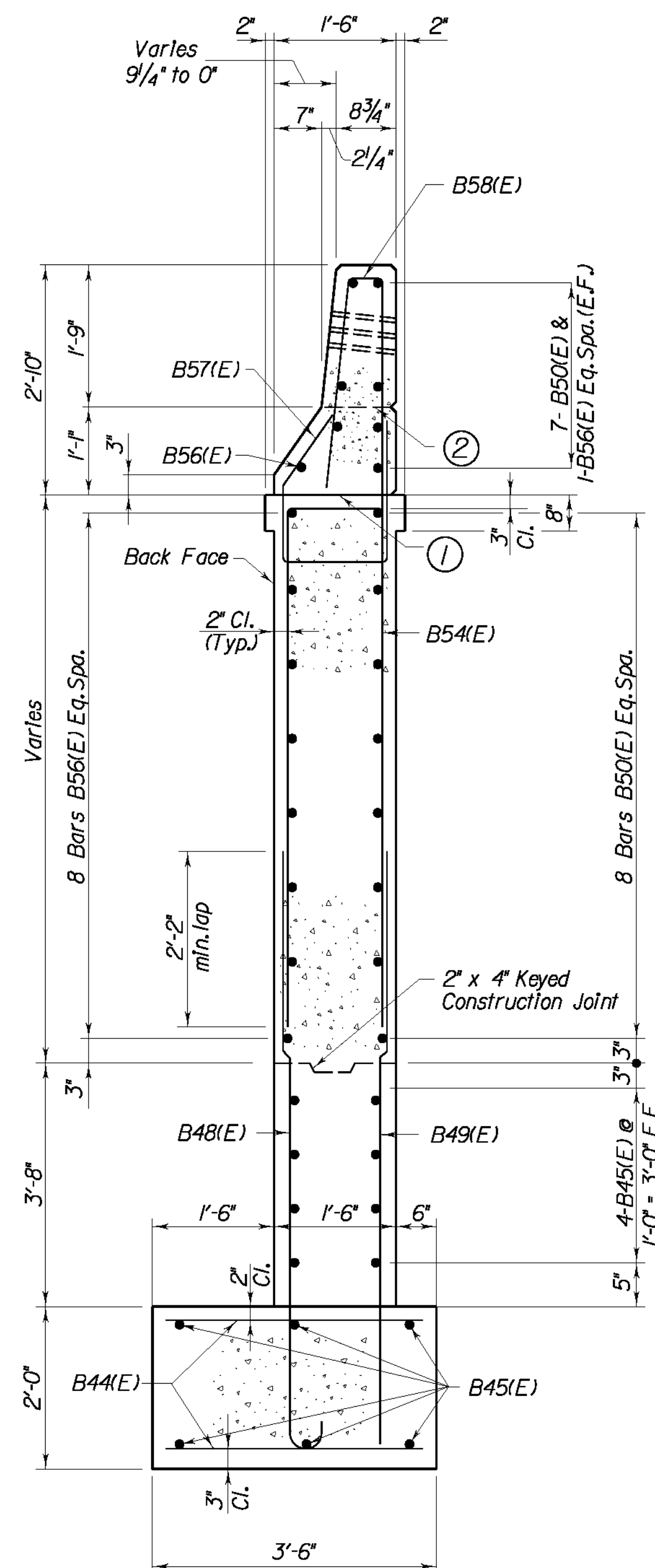
PLAN - WING 'B'



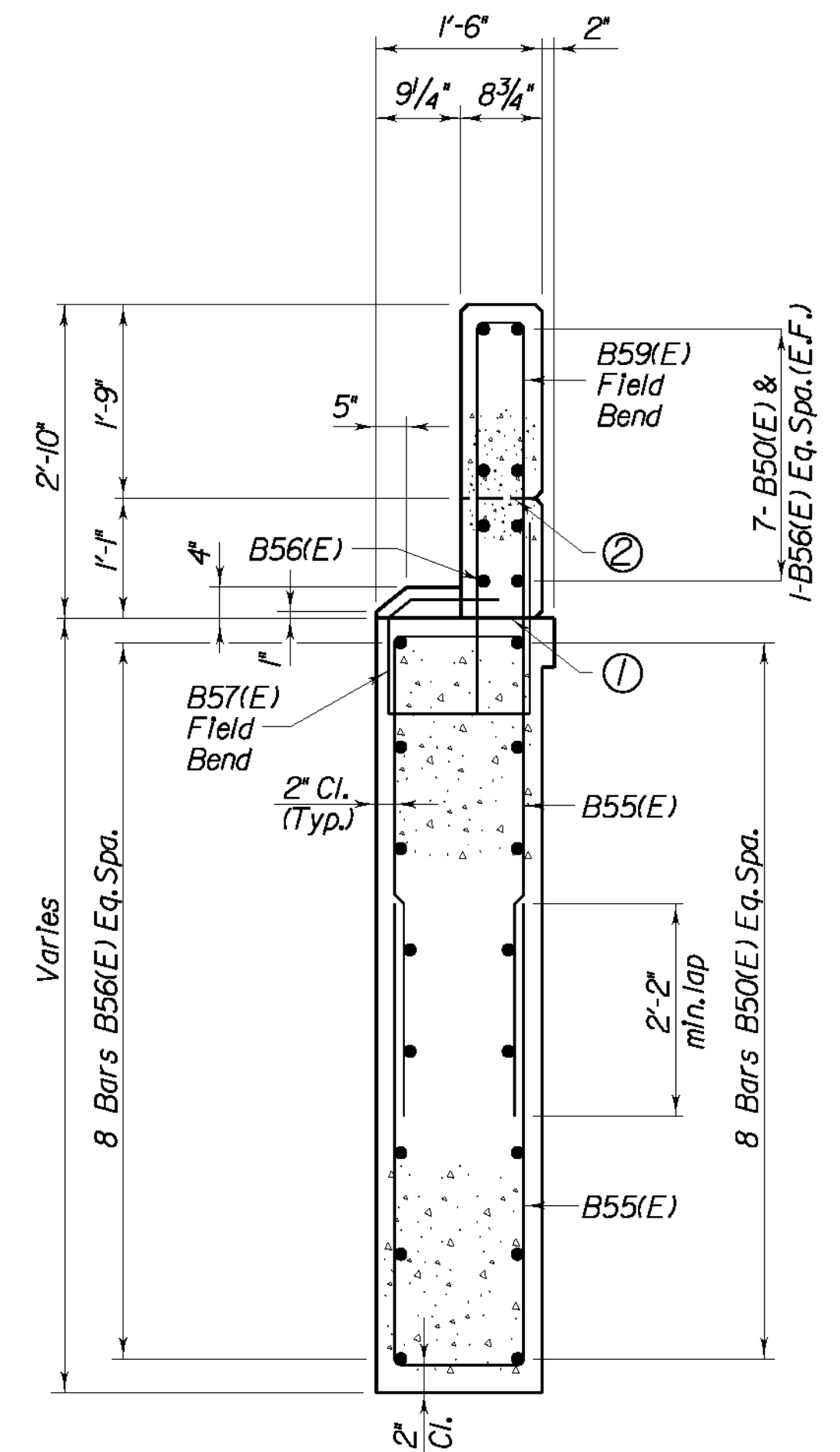
ELEVATION - WING 'B'

NOTE:

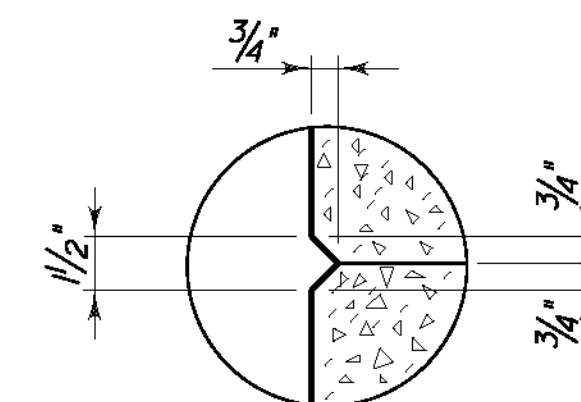
For Bill of Reinforcement see sheet S59. See sheet S6 for barrier stone veneer.



SECTION F-F



SECTION G-G



RUSTICATION GROOVE

LEGEND

- ① Mandatory Roughened Construction Joint and Rustication Groove, for Rustication Groove, see Detail this Sheet.
- ② Optional Construction Joint. Rustication Groove not needed if Barrier cast complete.

ITEM NUMBER
12-311.10

REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
ABUTMENT 2		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S58
		DRAWING NO. 25296

\$\$\$\$designs\$file\$specification\$\$\$\$

\$\$\$\$plotted\$by\$\$\$\$

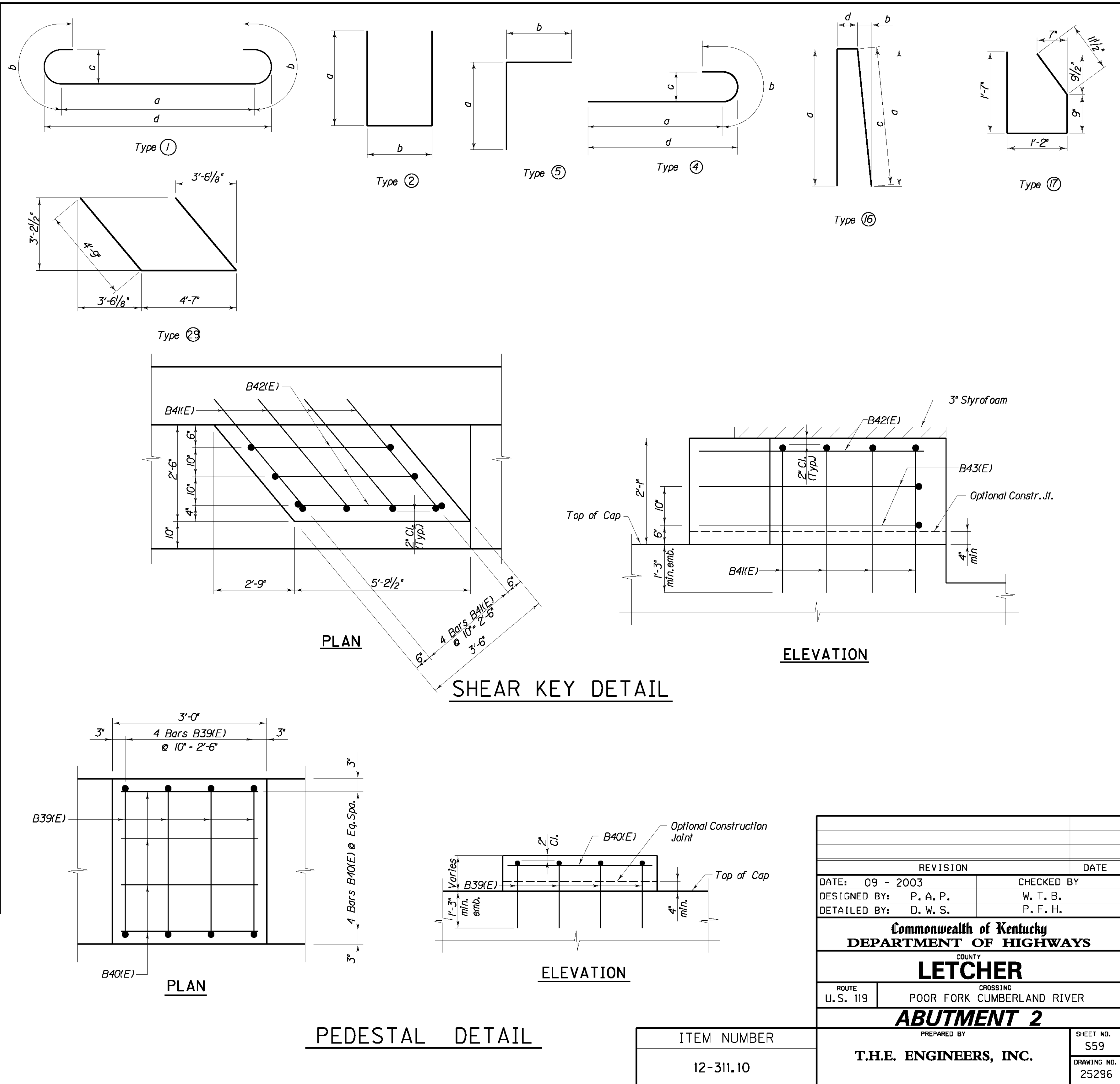
\$\$\$\$DATE\$\$\$\$

BILL OF REINFORCEMENT														
Mark	Type	Number	Size	Length		LOCATION	a		b		c		d	
				Ft.	In.		Ft.	In.	Ft.	In.	Ft.	In.		
B1(E)	Str.	138	5	6	6	Footing								
B2(E)	Str.	2	5	1	9	Footing								
B3(E)	Str.	2	5	2	9	Footing								
B4(E)	Str.	2	5	3	9	Footing								
B5(E)	Str.	2	5	4	9	Footing								
B6(E)	Str.	2	5	5	9	Footing								
B7(E)	Str.	2	5	3	2	Footing								
B8(E)	Str.	2	5	4	2	Footing								
B9(E)	Str.	2	5	5	2	Footing								
B10(E)	Str.	2	5	6	1	Footing								
B11(E)	Str.	22	5	38	6	Cap								
B12(E)s	(2)	18	5	11	7	Cap	3	7	4	6				
B13(E)s	(2)	25	5	13	3	Cap	4	5	4	6				
B14(E)s	(2)	26	5	14	11	Cap	5	3	4	6				
B15(E)s	(2)	1	5	8	7	Cap	3	7	1	6				
B16(E)s	(2)	1	5	9	4	Cap	3	7	2	3				
B17(E)s	(2)	1	5	10	1	Cap	3	7	3	0				
B18(E)s	(2)	1	5	10	11	Cap	3	7	3	10				
B19(E)s	(2)	1	5	11	11	Cap	5	3	1	6				
B20(E)s	(2)	1	5	12	8	Cap	5	3	2	3				
B21(E)s	(2)	1	5	13	5	Cap	5	3	3	0				
B22(E)s	(2)	1	5	14	3	Cap	5	3	3	10				
B23(E)	Str.	26	5	37	8	Cap								
B24(E)	Str.	4	5	52	2	Cap								
B25(E)	Str.	2	5	27	2	Cap								
B26(E)	Str.	5	8	25	10	Cap								
B27(E)	Str.	5	8	29	7	Cap								
B28(E)	Str.	1	8	25	0	Cap								
B29(E)	Str.	1	8	26	1	Cap								
B30(E)	Str.	1	8	27	3	Cap								
B31(E)	Str.	1	8	28	4	Cap								
B32(E)	Str.	1	8	29	6	Cap								
B33(E)	Str.	70	5	3	5	Cap & Backwall								
B34(E)	Str.	40	5	6	9	Backwall								
B35(E)	Str.	30	5	7	4	Backwall								
B36(E)s	(2)	68	5	7	1	Backwall	3	0	1	2				
B37(E)	Str.	2	5	20	10	Backwall								
B38(E)	Str.	2	5	45	10	Backwall								
B39(E)s	(2)	24	5	6	11	Pedestal	2	0	3	0				
B40(E)	Str.	24	5	2	8	Pedestal								
B41(E)s	(5)	8	5	7	11	Shear Key	3	2	4	9				
B42(E)s	(2)	6	5	11	0	Shear Key	3	2	4	9				
B43(E)s	(29)	4	5	14	0	Shear Key								
B44(E)	Str.	40	5	3	2	Wing Footing								
B45(E)	Str.	24	5	13	0	Wing Footing								
B46(E)	Str.	10	5	6	8	Wing Wall								
B47(E)	(4)	10	7	7	8	Wing Wall	6	5	1	3	0	7	6	8 1/2
B48(E)	(4)	10	7	9	4	Wing Wall	8	1	1	3	0	7	8	4 1/2
B49(E)	Str.	10	5	8	4	Wing Wall								
B50(E)	Str.	30	5	16	8	Wing Wall								
B51(E)	Str.	9	5	16	1	Wing Wall								
B52(E)s	(2)	10	5	15	3	Wing Wall	7	1	1	2				
B53(E)s	(2)	14	5	10	5	Wing Wall	4	8	1	2				
B54(E)s	(2)	10	5	16	7	Wing Wall	7	9	1	2				
B55(E)s	(2)	14	5	11	1	Wing Wall	5	0	1	2				
B56(E)	Str.	9	5	17	2	Wing Wall								
B57(E)s	(17)	34	5	4	5	Barrier								
B58(E)s	(16)	12	5	5	7	Barrier	2	8	0	3 1/4	2	8 1/4	0	4 3/4
B59(E)s	(16)	22	5	8	2	Barrier	3	11	0	5	3	11 1/4	0	4 3/4
B60(E)	(1)	7	5	6	10	Haunch	5	2	0	10	0	5	5	7
B61(E)	Str.	3	5	6	4	Haunch								

NOTE:

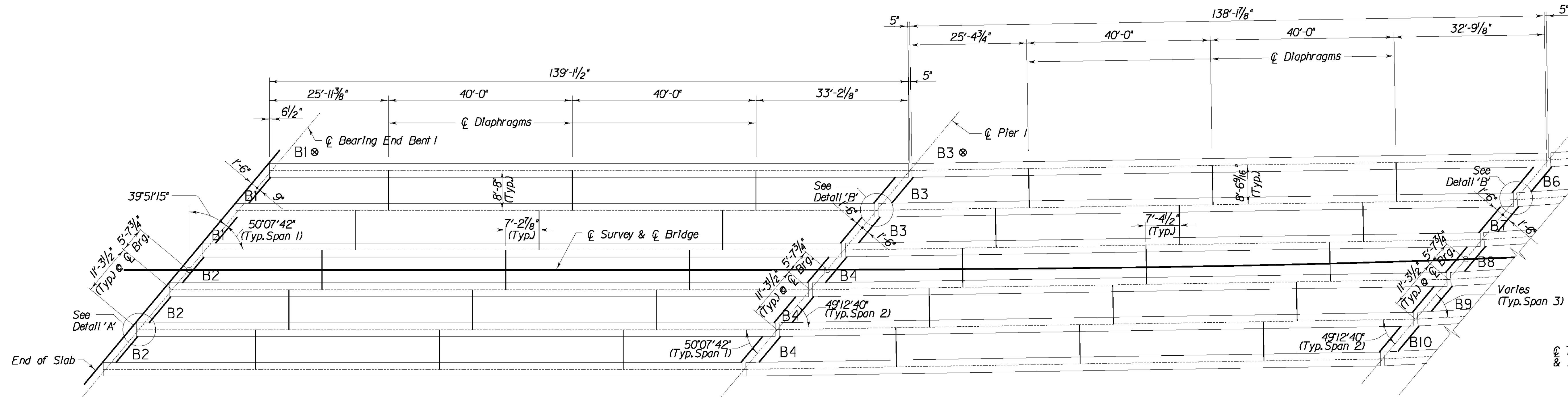
Reinforcing Bars designated by the suffix (E) in the Plans shall be Epoxy Coated
In Accordance with the current Specifications.

Reinforcing Bars designated by the suffix (s) in the Plans shall be Considered Stirrups for the
Purposes of Bend Diameters.

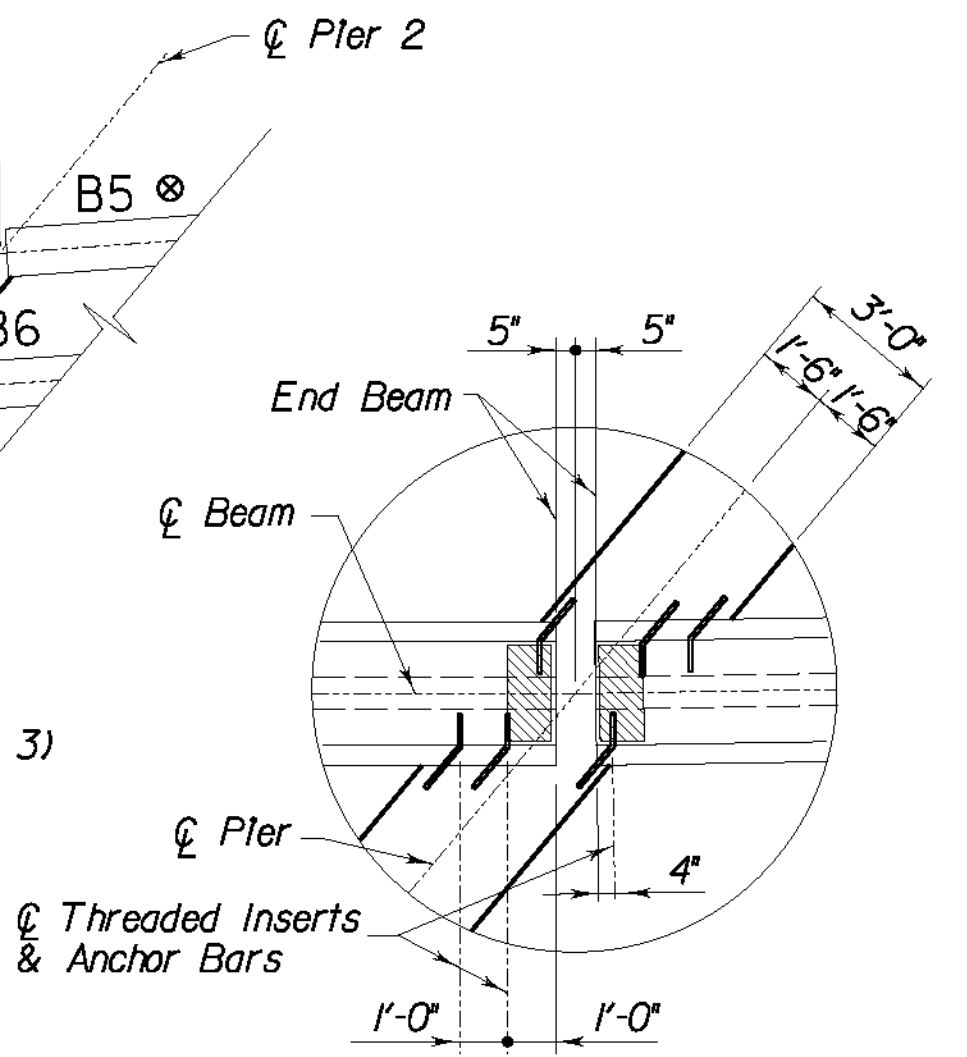


ITEM NUMBER
12-311.10

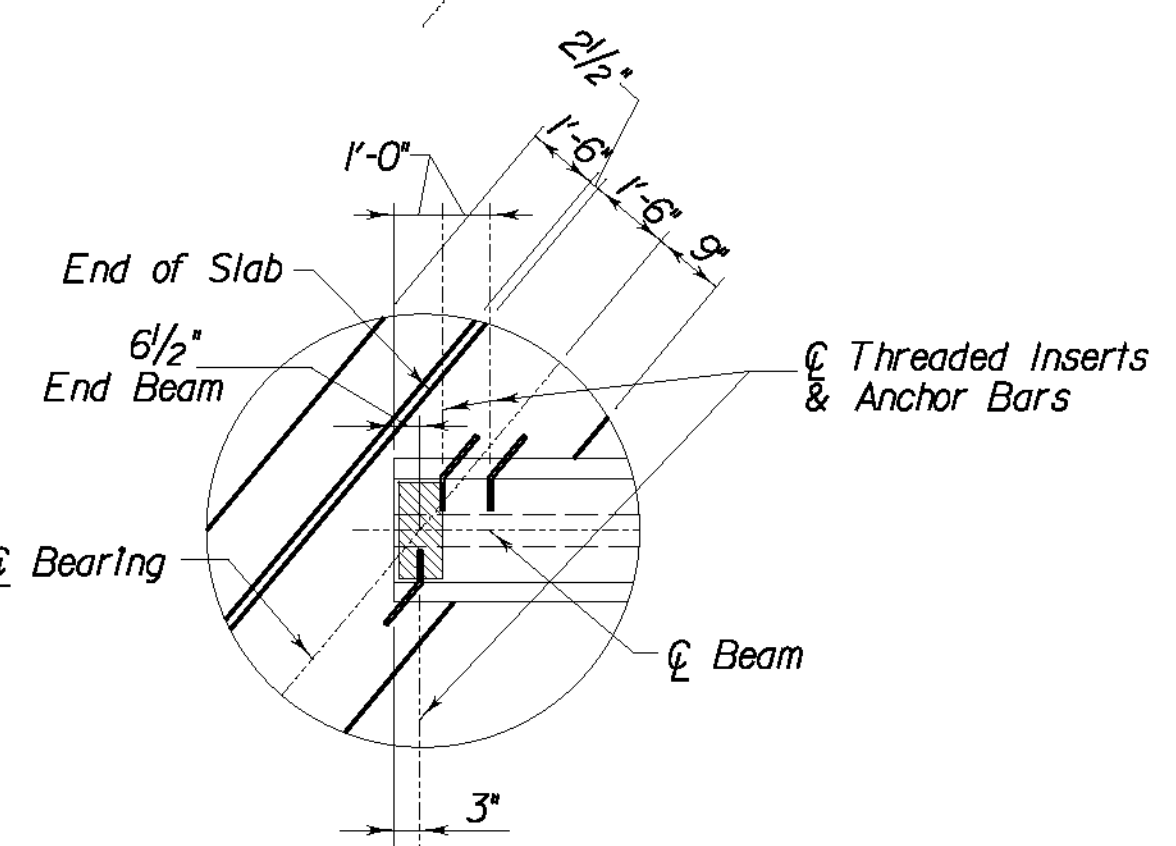
REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
ABUTMENT 2		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S59
		DRAWING NO. 25296



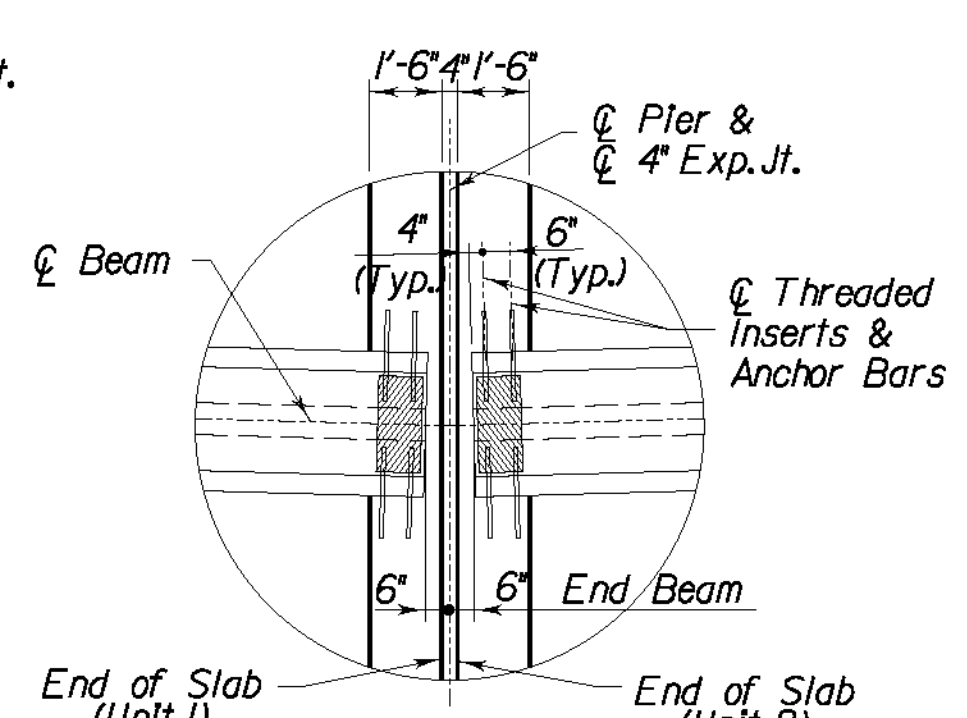
FRAMING PLAN SPANS 1 & 2



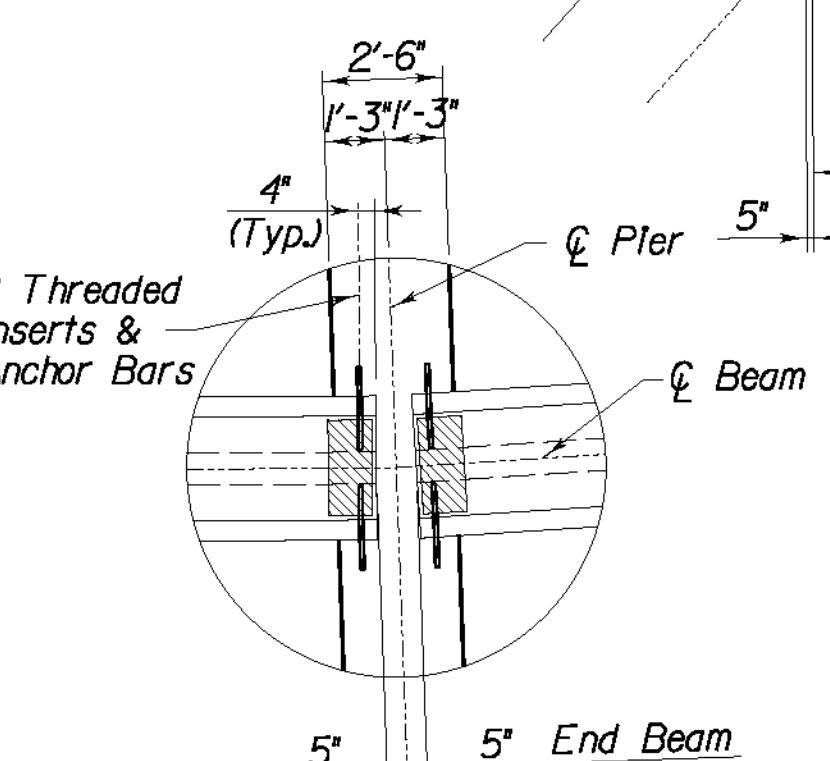
DETAIL 'B'
(Inserts @ Pier Diaphragm)



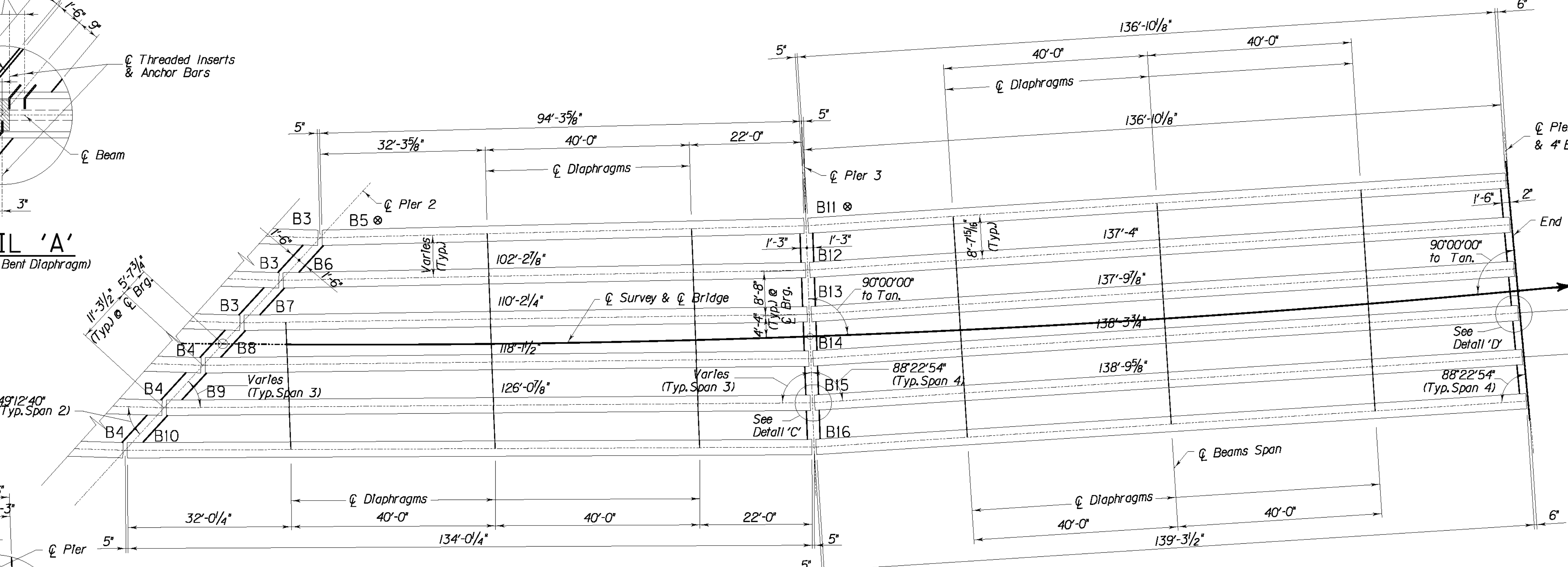
DETAIL 'A'
(Inserts @ End Bent Diaphragm)



DETAIL 'D'
(Inserts @ Pier Diaphragm)



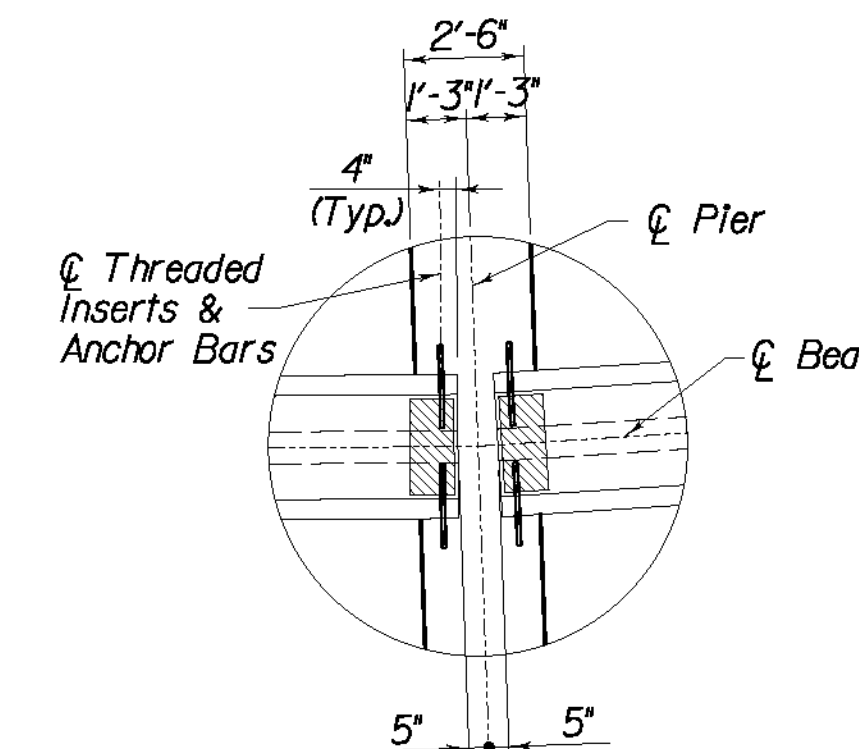
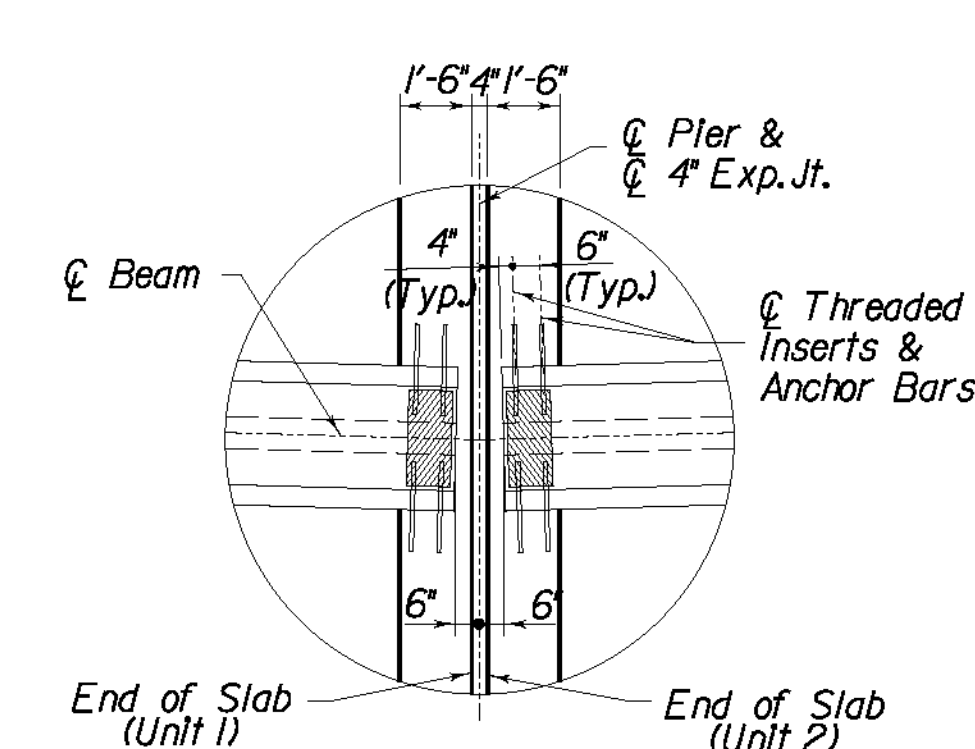
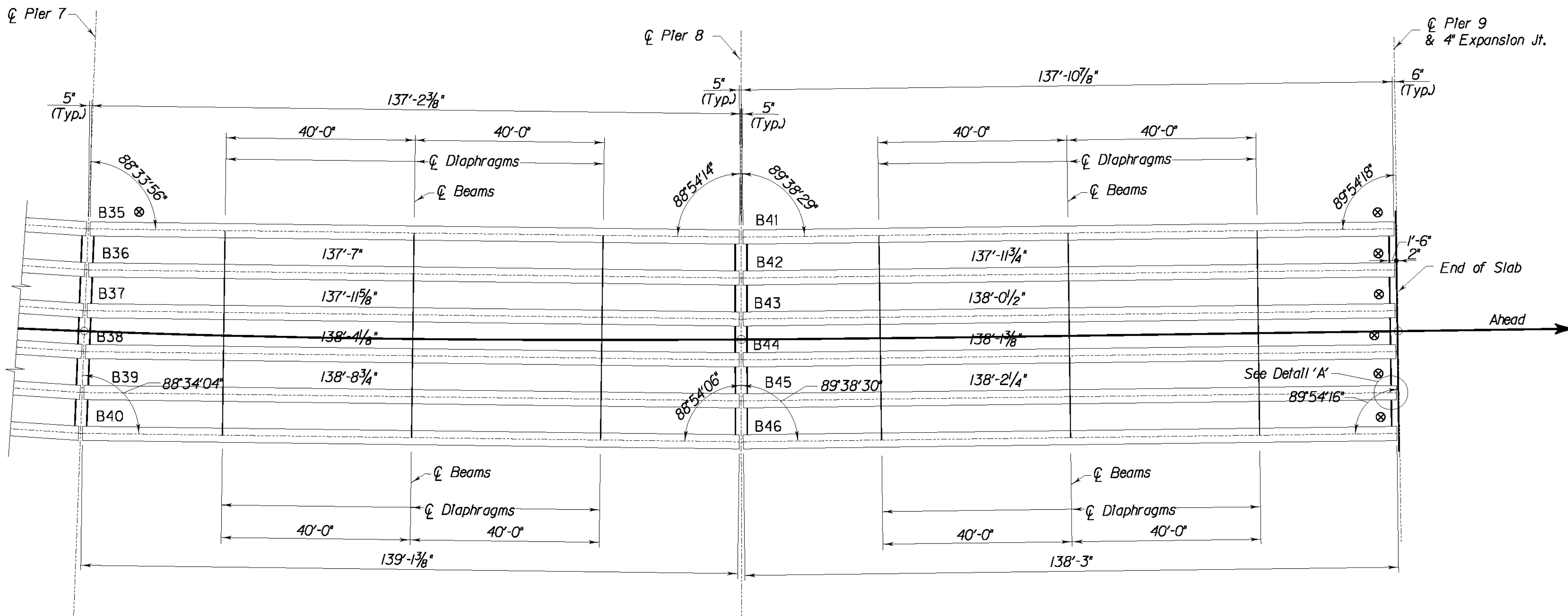
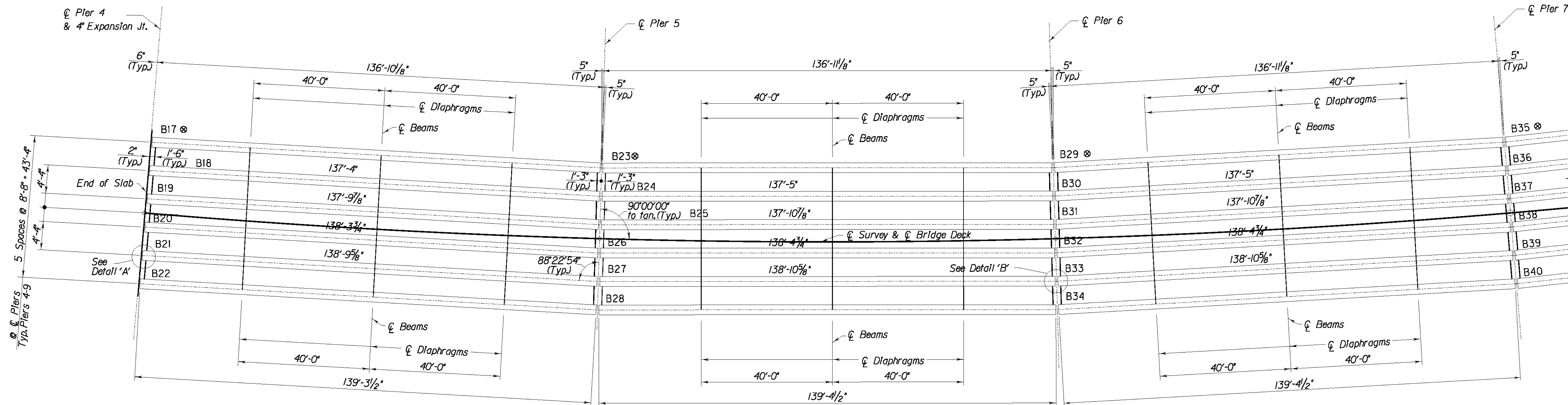
DETAIL 'C'
(Inserts @ Pier Diaphragm)



FRAMING PLAN SPANS 3 & 4

Note:
 ☉ Mark End of Beams see Sheet S63.
 See Substructure plans for location of
 ☉ Survey at ☉ of Bearings.

REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
FRAMING PLAN UNIT 1		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S60
		DRAWING NO. 25295



DETAIL 'A'

(Inserts @ Pier Diaphragm w/ Exp. Jt.)

Typical Piers 4 & 9

DETAIL 'B'

(Inserts @ Pier Diaphragm)

Typical Piers 5-8

Note:

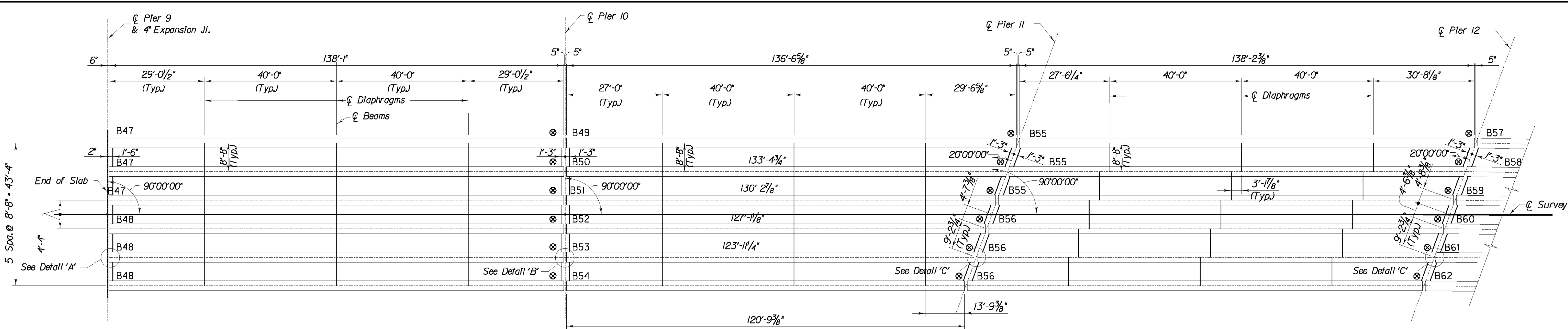
Angles between $\odot$ Piers and $\odot$ Beams for spans 8 & 9 vary uniform between Beams 1 & 6

$\odot$ Mark End of Beams. See Sheet S63.

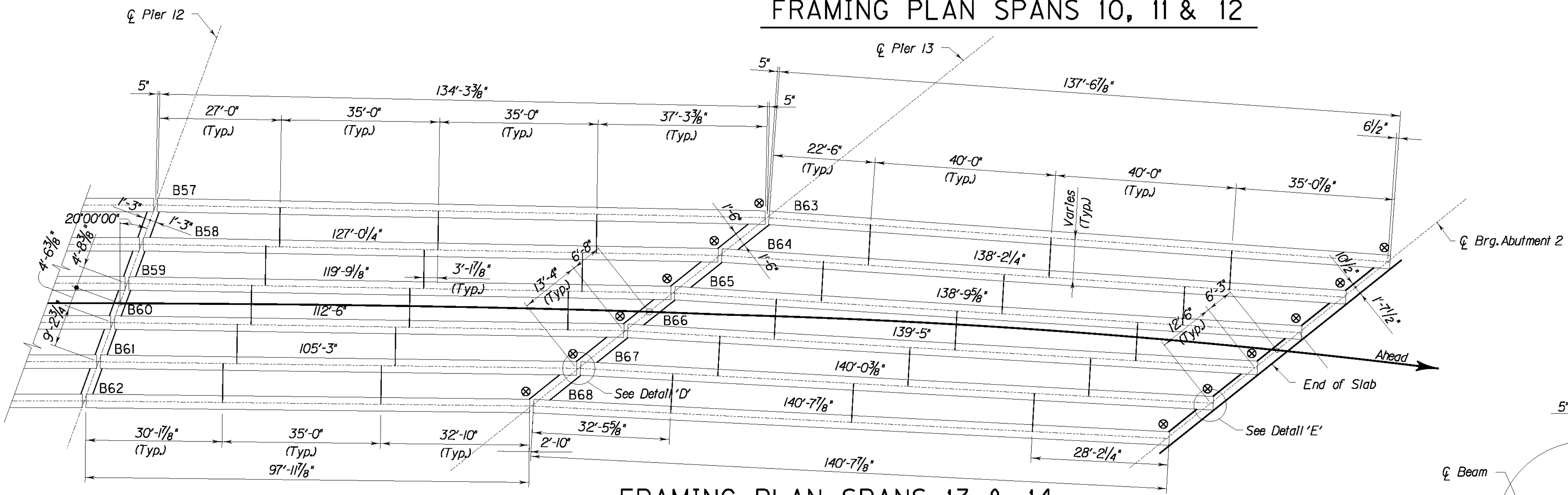
See Substructure plans for location of $\odot$ Survey at $\odot$ Bearings

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DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky		
DEPARTMENT OF HIGHWAYS		
COUNTY		
LETCHER		
ROUTE	CROSSING	
U.S. 119	POOR FORK CUMBERLAND RIVER	
FRAMING PLAN UNIT 2		
PREPARED BY		SHEET NO.
T.H.E. ENGINEERS, INC.		S61
		DRAWING NO.
		25296

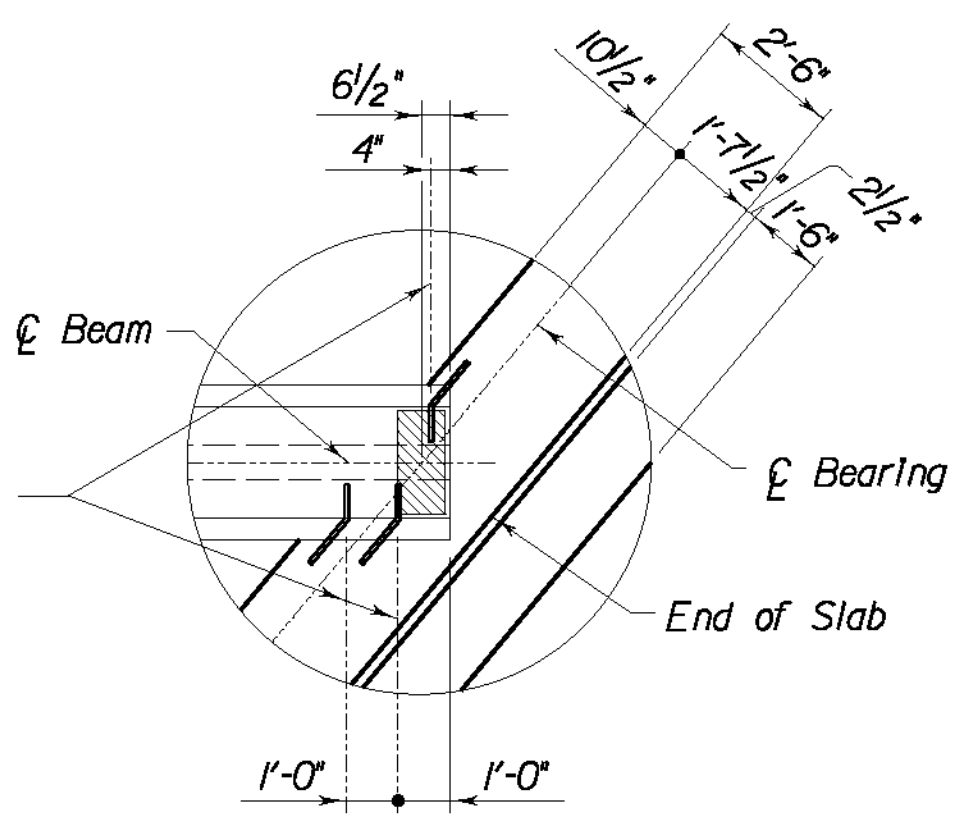
ITEM NUMBER
12-311.10



FRAMING PLAN SPANS 10, 11 & 12

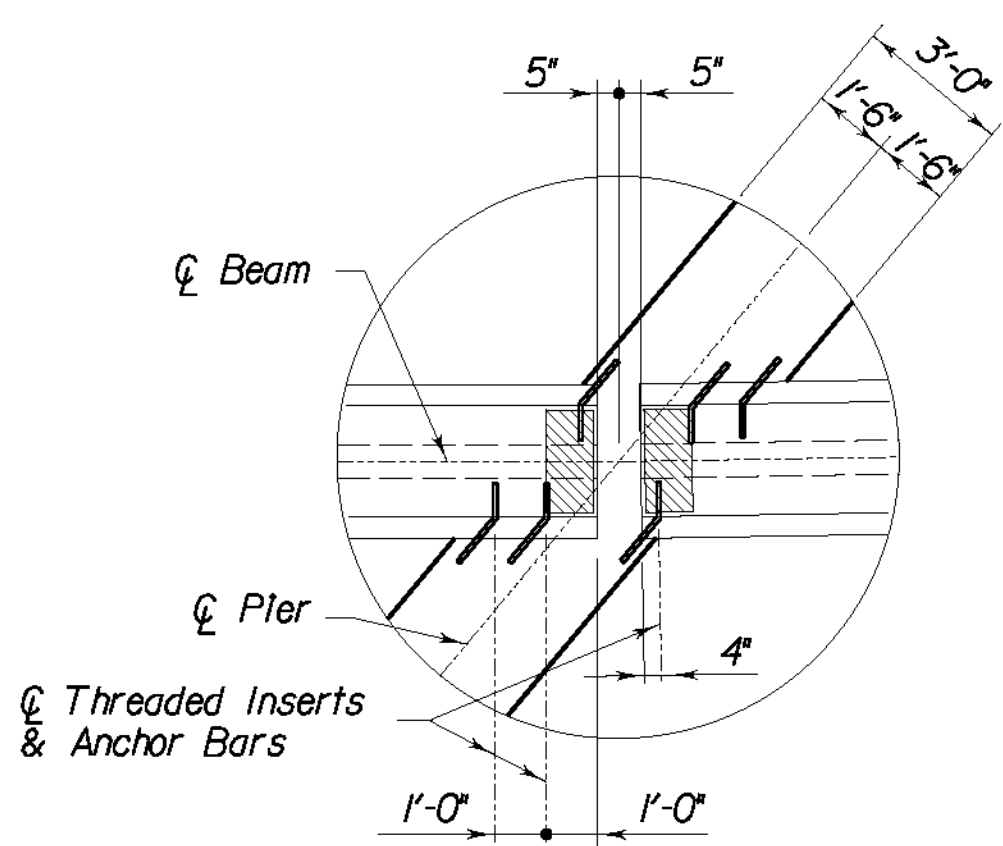


FRAMING PLAN SPANS 13 & 14

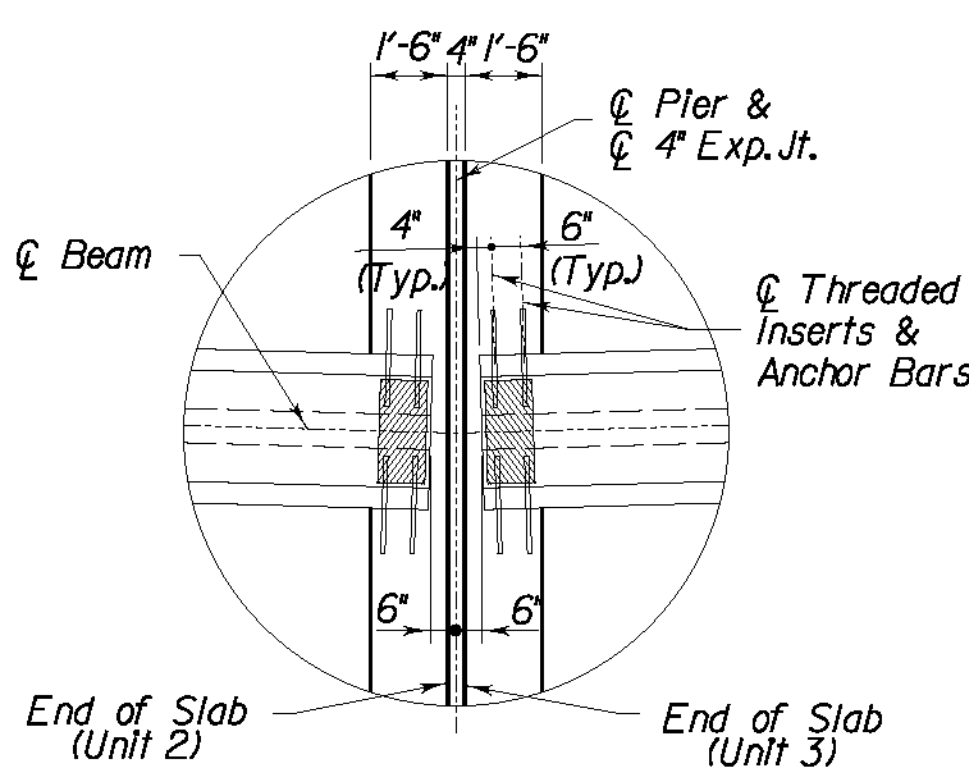


DETAIL 'E'
(Abutment 2 Diaphragm)

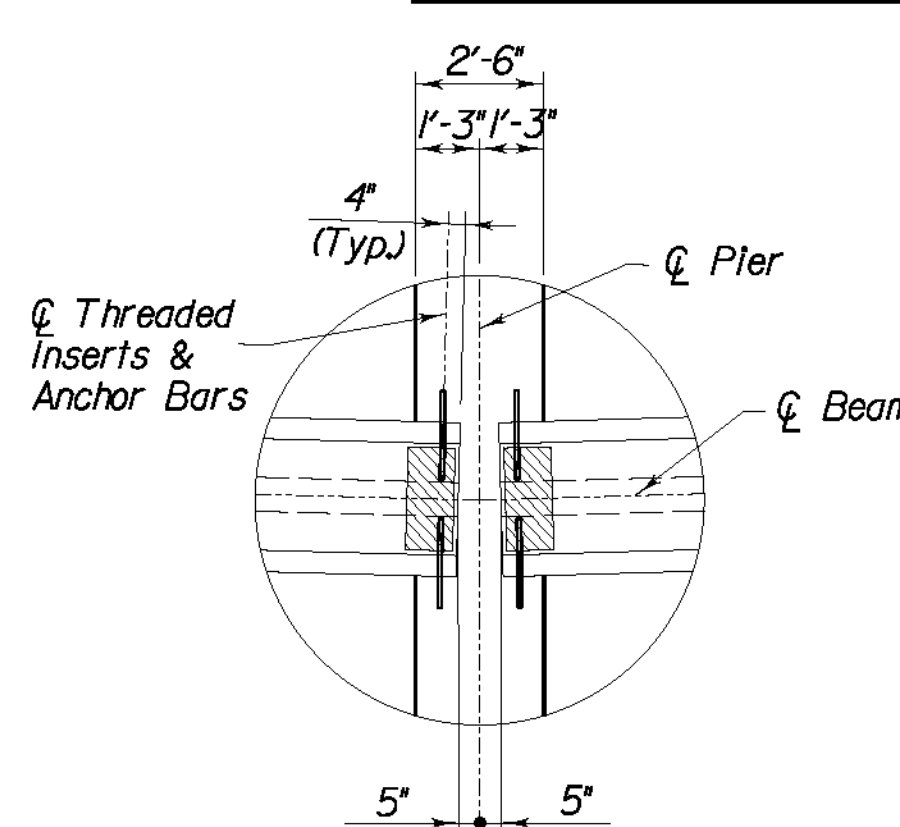
Note:
 ⊗ Marks End of Beams. See Sheet S63.
 See Substructure plans for location of ϕ Survey at ϕ Bearings.



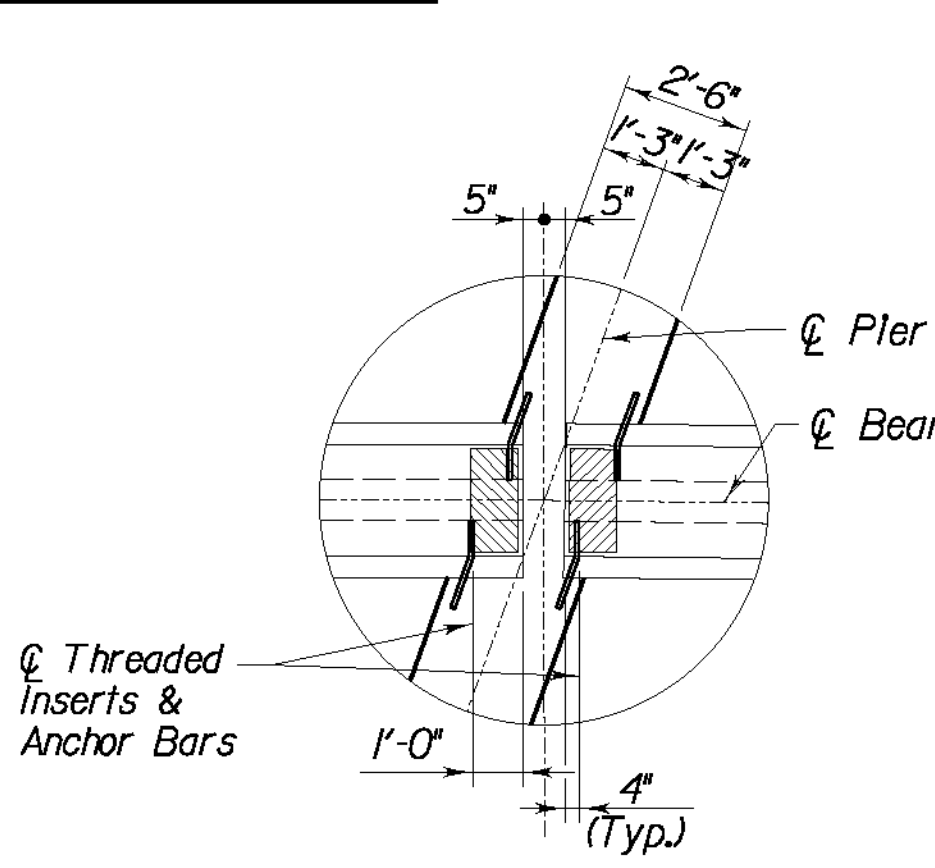
DETAIL 'D'
(Pier 13 Diaphragm)



DETAIL 'A'
(Pier 9 Diaphragm)



DETAIL 'B'
(Pier 10 Diaphragm)



DETAIL 'C'
(Pier 11 & 12 Diaphragm)

ITEM NUMBER
12-311.10

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DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
FRAMING PLAN UNIT 3		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S62
		DRAWING NO. 25296



BEARING DEVICES: Include the price for lead plates and/or bearing pads in the bid for precast beams.

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U. S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
<i>PPC I-BEAM, 72", DETAILS</i>			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S63 DRAWING NO. 25296

designs\file\specification

plot\td

DATE

UNIT 1

UNIT 2

UNIT 3

Strand Data with number indicated in rows																				Concrete Stress (psi)	No. of S Bars	Hold- Down Capacity	Beam Data (measured along centerline)																								
Mark	Midspan (SECTION B-B)								End (SECTION A-A)										Total No.				Dimensions										Approximate Weight	Maximum Allowable Camber													
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(17)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	A	B			C	D	E	F	G	H	I	Z	M				
B1	11	11	11	11	9	7	5	3		2	8	8	8	8	6	4	2		3	3	3	3	3	3	3	2	70	5500	7000	129	16	54360	3	139'-1 1/2"	55'-9"	27'-7 1/2"	15	9 1/2"	1'-2"	99	0'-9 3/4"		2"	1"	138548	4 3/4"	
B2	11	11	11	11	9	7	5			2	8	8	8	8	6	4	2				3	3	3	3	3	3	2	67	5500	7000	129	16	51420	3	139'-1 1/2"	55'-9"	27'-7 1/2"	15	9 1/2"	1'-3"	99	0'-9 3/4"		2"	1"	138548	4 3/4"
B3	11	11	11	11	9	5	3			2	11	11	8	8	6	2							3	3	3	3	2	63	5500	7000	121	16	37060	3	138'-1 1/8"	55'-3"	27'-7 7/8"	15	9 1/2"	1'-3"	91	1'-1 5/16"		2"	1 1/8"	137583	4 1/2"
B4	11	11	11	11	9	7	5	3		2	8	8	8	8	6	4	2		3	3	3	3	3	3	3	2	70	5500	7000	91	16	57070	3	138'-1 1/8"	55'-3"	27'-7 7/8"	15	9 1/2"	1'-3"	91	1'-1 5/16"		2"	1 1/8"	137583	4 1/2"	
B5	11	11	5							2	11	8	2													29	5500	7000	78	16	24830	1	94'-3 3/8"	37'-9"	18'-9 3/8"	15	1'-0"	1'-4"	48	1'-3 13/16"		2"	7/8"	93911	2 1/2"		
B6	11	11	5							2	11	8	2													29	5500	7000	84	16	22940	1	102'-2 1/8"	40'-11"	20'-4 1/8"	15	1'-0"	1'-4"	54	1'-3 1/16"		2"	7/8"	101815	2 1/2"		
B7	11	11	5							2	11	8	2													29	5500	7000	90	16	21310	1	110'-2 1/4"	44'-1"	22'-0 1/4"	15	1'-0"	1'-4"	60	1'-3 1/8"		2"	7/8"	109730	2 1/2"		
B8	11	11	11	11	3					2	11	8	8	8									3	3	3	3	2	49	5500	7000	104	16	37220	1	118'-1 1/2"	47'-3"	23'-7 1/2"	15	10"	1'-3"	74	1'-3 1/4"		2"	1"	117635	3 5/8"
B9	11	11	11	11	3					2	11	8	8	8									3	3	3	3	2	49	5500	7000	111	16	34840	1	126'-0 7/8"	50'-6"	25'-0 7/8"	15	10"	1'-3"	81	0'-10 11/16"		2"	1"	125550	3 5/8"
B10	11	11	11	11	3					2	11	8	8	8									3	3	3	3	2	49	5500	7000	117	16	32860	1	134'-0 1/4"	53'-7"	26'-10 1/4"	15	10"	1'-3"	87	1'-1 1/8"		2"	1"	133465	3 5/8"
B11	11	11	11	11	9	7	5	3		2	8	8	8	8	6	4	2		3	3	3	3	3	3	3	2	70	5500	7000	114	16	57590	1	136'-10 1/8"	54'-9"	27'-4 1/8"	15	10"	1'-4"	84	0'-11 1/16"		2"	3/4"	136276	4 5/8"	
B12	11	11	11	11	9	7	5	3		2	8	8	8	8	6	4	2		3	3	3	3	3	3	3	2	70	5500	7000	114	16	57330	1	137'-4"	55'-0"	27'-4"	15	10"	1'-4"	84	1'-2"		2"	3/4"	136763	4 5/8"	
B13	11	11	11	11	9	7	5	3		2	8	8	8	8	6	4	2		3	3	3	3	3	3	3	2	70	5500	7000	115	16	57240	1	137'-9 7/8"	55'-1"	27'-7 7/8"	15	10"	1'-4"	85	0'-8 5/16"		2"	3/4"	137251	4 5/8"	
B14	11	11	11	11	9	7	5	3		2	8	8	8	8	6	4	2		3	3	3	3	3	3	3	2	70	5500	7000	121	16	56990	1	138'-3 3/4"	55'-4"	27'-7 3/4"	15	10"	1'-3"	91	0'-8 7/8"		2"	3/4"	137739	4 5/8"	
B15	11	11	11	11	9	7	5	3		2	8	8	8	8	6	4	2		3	3	3	3	3	3	3	2	70	5500	7000	121	16	56820	1	138'-9 5/8"	55'-6"	27'-9 5/8"	15	10"	1'-3"	91	0'-11 9/16"		2"	3/4"	138226	4 5/8"	
B16	11	11	11	11	9	7	5	3		2	8	8	8	8	6	4	2		3	3	3	3	3	3	3	2	70	5500	7000	121	16	56560	1	139'-3 1/2"	55'-9"	27'-9 1/2"	15	10"	1'-3"	91	1'-2 3/4"		2"	3/4"	138714	4 5/8"	

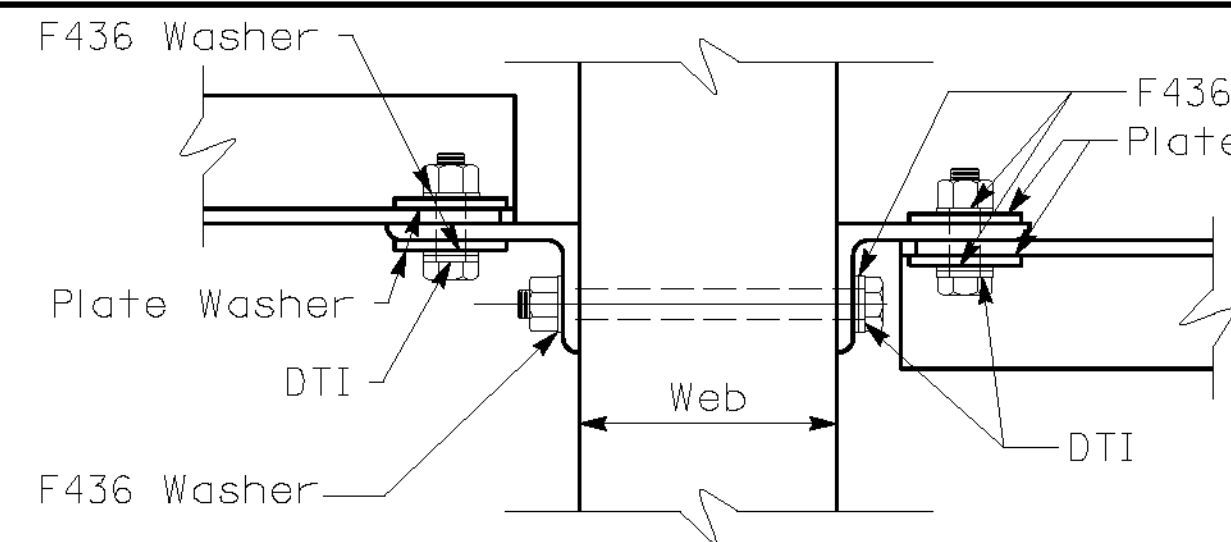
B17	11	11	11	11	9	7	5	3		2	11	8	8	8	6	4	2			3	3	3	3	3	3	3	2	70	5500	7000	119	16	50400	1	136'-10 ¹ / ₈ "	54'-9"	27'-4 ¹ / ₈ "	15	10"	1'-3"	89	1'-3 ¹ / ₁₆ "		2"	5 ⁸ / ₈ "	136276	4 ⁵ / ₈ "
B18	11	11	11	11	9	7	5	3		2	11	8	8	8	6	4	2										70	5500	7000	120	16	50400	1	137'-4"	55'-0"	27'-4"	15	10"	1'-3"	90	0'-10 ¹ / ₂ "		2"	5 ⁸ / ₈ "	136763	4 ⁵ / ₈ "	
B19	11	11	11	11	9	7	5	3		2	11	8	8	8	6	4	2									70	5500	7000	120	16	50400	1	137'-9 ¹ / ₈ "	55'-1"	27'-7 ¹ / ₈ "	15	10"	1'-3"	90	1'-1 ¹ / ₁₆ "		2"	5 ⁸ / ₈ "	137251	4 ⁵ / ₈ "		
B20	11	11	11	11	9	7	5	3		2	11	8	8	8	6	4	2									70	5500	7000	121	16	50400	1	138'-3 ³ / ₄ "	55'-4"	27'-7 ³ / ₄ "	15	10"	1'-3"	91	0'-8 ¹ / ₈ "		2"	5 ⁸ / ₈ "	137739	4 ⁵ / ₈ "		
B21	11	11	11	11	9	7	5	3		2	11	8	8	8	6	4	2									70	5500	7000	121	16	50400	1	138'-9 ¹ / ₈ "	55'-6"	27'-9 ¹ / ₈ "	15	10"	1'-3"	91	0'-11 ¹ / ₁₆ "		2"	5 ⁸ / ₈ "	138226	4 ⁵ / ₈ "		
B22	11	11	11	11	9	7	5	3		2	11	8	8	8	6	4	2									70	5500	7000	121	16	50400	1	139'-3 ¹ / ₂ "	55'-9"	27'-9 ¹ / ₂ "	15	10"	1'-3"	91	1'-2 ³ / ₄ "		2"	5 ⁸ / ₈ "	138714	4 ⁵ / ₈ "		
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B24	11	11	11	11	9	7				2	11	8	8	8	6	4										62	5500	7000	120	16	38800	1	137'-5"	55'-0"	27'-5"	15	10"	1'-3"	90	0'-11"		2"	3 ⁸ / ₈ "	136846	4 ¹ / ₂ "		
B25	11	11	11	11	9	7				2	11	8	8	8	6	4										62	5500	7000	120	16	38800	1	137'-10 ¹ / ₈ "	55'-1"	27'-8 ¹ / ₈ "	15	10"	1'-3"	90	1'-1 ¹⁵ / ₁₆ "		2"	3 ⁸ / ₈ "	137334	4 ¹ / ₂ "		
B26	11	11	11	11	9	7				2	11	8	8	8	6	4										62	5500	7000	121	16	38800	1	138'-4 ³ / ₄ "	55'-4"	27'-8 ³ / ₄ "	15	10"	1'-3"	91	0'-9 ³ / ₈ "		2"	3 ⁸ / ₈ "	137821	4 ¹ / ₂ "		
B27	11	11	11	11	9	7				2	11	8	8	8	6	4										62	5500	7000	121	16	38800	1	138'-10 ¹ / ₈ "	55'-6"	27'-10 ¹ / ₈ "	15	10"	1'-3"	91	1'-0 ⁵ / ₁₆ "		2"	3 ⁸ / ₈ "	138309	4 ¹ / ₂ "		
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B29	11	11	11	11	9	7				2	11	8	8	8	6	4										62	5500	7000	120	16	38800	1	136'-11 ¹ / ₈ "	54'-9"	27'-5 ¹ / ₈ "	15	10"	1'-6"	90	0'-8 ¹ / ₁₆ "		2"	1 ⁴ / ₄ "	136359	4 ⁵ / ₈ "		
B30	11	11	11	11	9	7				2	11	8	8	8	6	4										62	5500	7000	120	16	38800	1	137'-5"	55'-0"	27'-5"	15	10"	1'-6"	90	0'-11"		2"	1 ⁴ / ₄ "	136846	4 ⁵ / ₈ "		
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B35	11	11	11	11	9	7				2	11	8	8	8	6	4										62	5500	7000	120	16	38800	1	137'-2 ³ / ₈ "	54'-9"	27'-8 ³ / ₈ "	15	10"	1'-3"	90	0'-9 ¹ / ₁₆ "		2"	0"	136629	5"		
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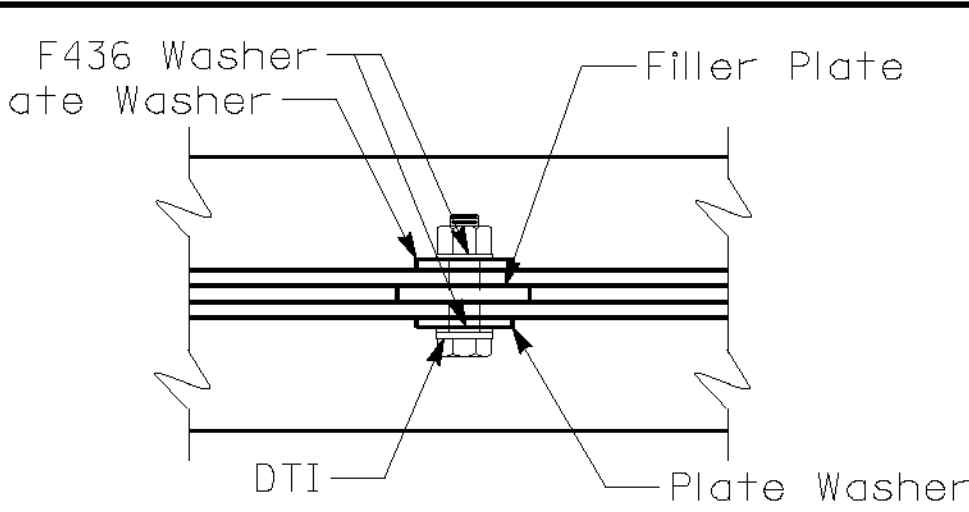
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DATE:

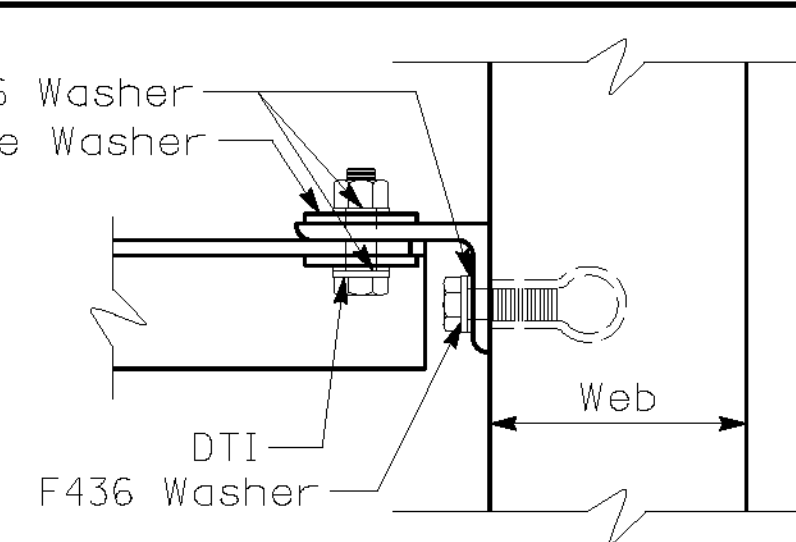
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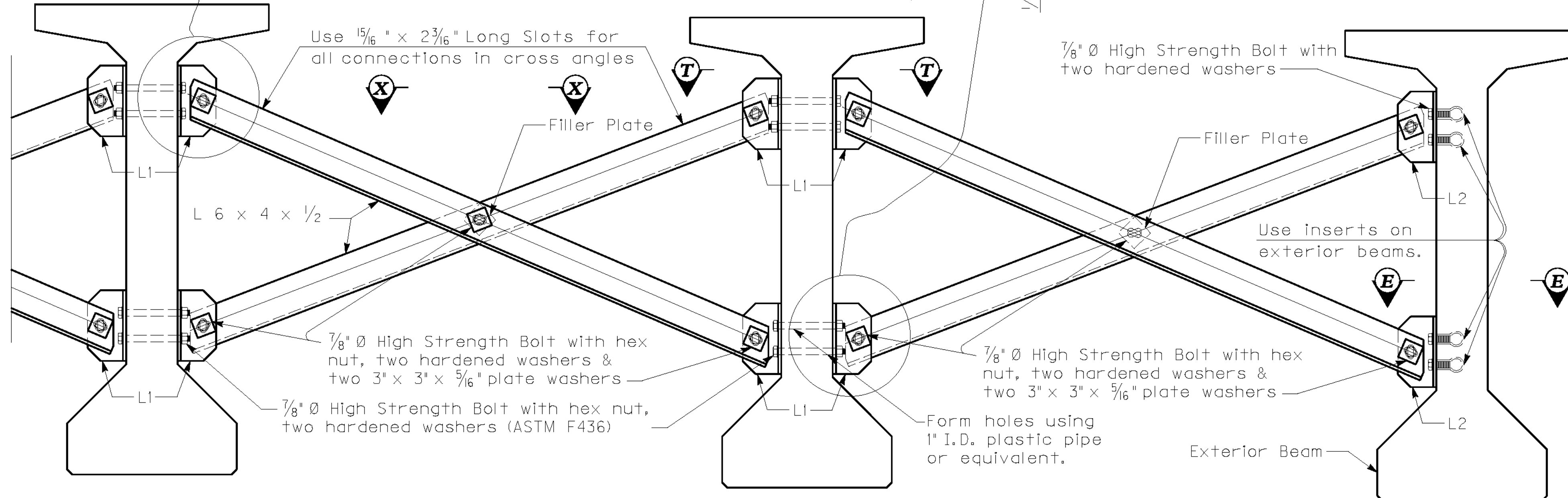
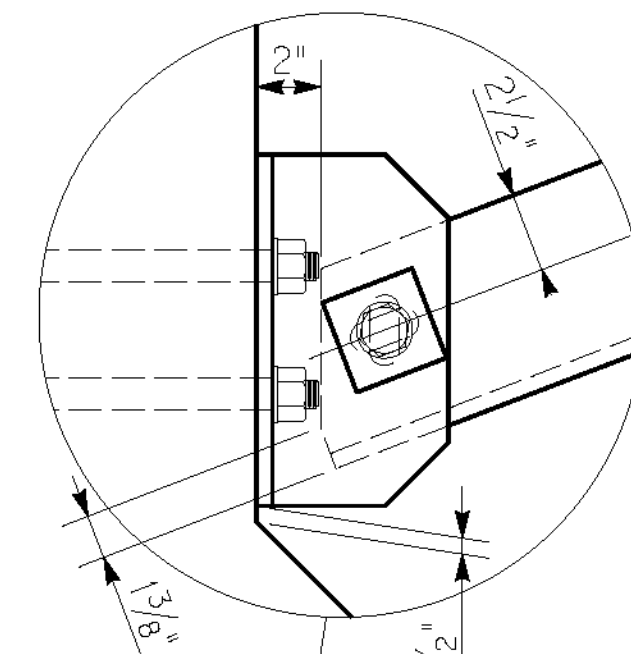
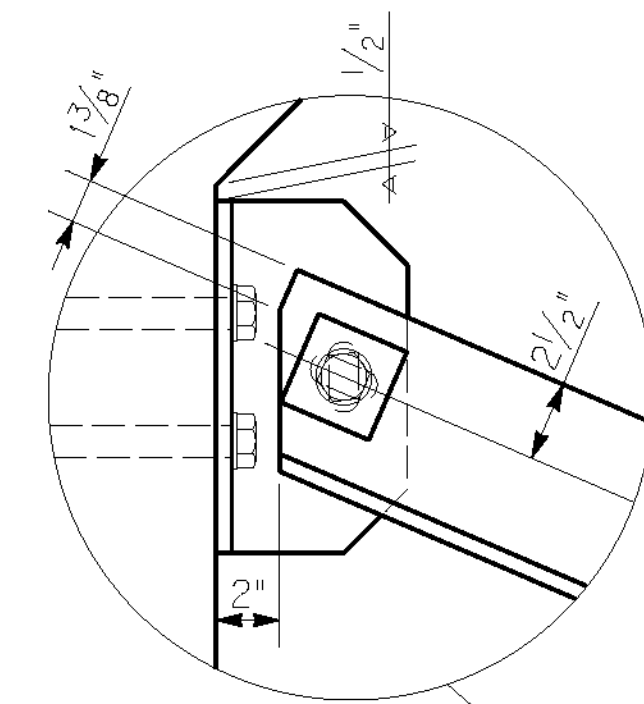
SECTION T-T



SECTION X-X



SECTION E-E



INTERMEDIATE DIAPHRAGM DETAILS

~Typical for 0° Skew Bridges~

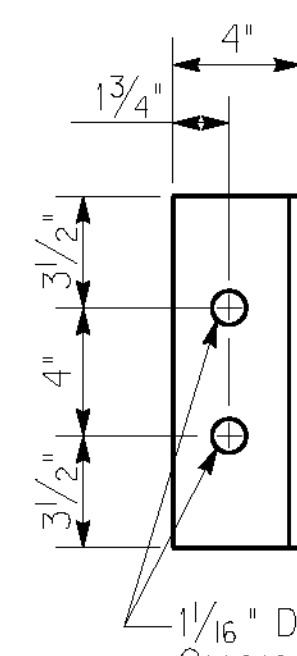
Diaphragm Notes

CONNECTIONS: Ensure all bolted connections are ASTM A325, 7/8 inch diameter high strength bolts, nuts, and washers, mechanically zinc coated in accordance with AASHTO M298, for Class 50. Install all high strength bolted field connections using "direct tension indicators" (DTI's) in accordance with the Standard Specifications and ASTM F959. Ensure all DTI's are mechanically zinc coated. Show installation details of the DTI's on the shop plans. Place DTI's under the bolt head.

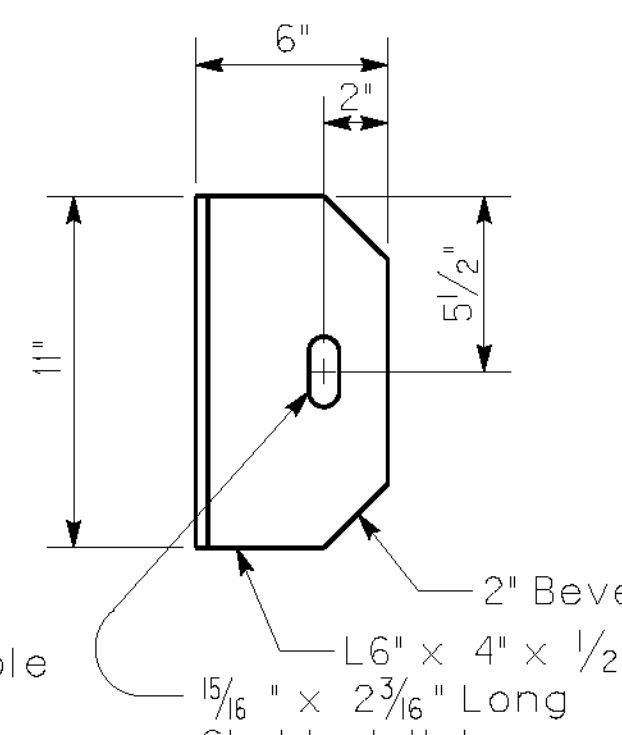
STRUCTURAL STEEL: Ensure plates and angles conform to AASHTO M 183 and galvanized after fabrication.

SHOP DRAWINGS: Show the location of all inserts and holes on the precast beam shop drawings. Submit shop drawings for the steel diaphragms to the Division of Bridge Design for approval.

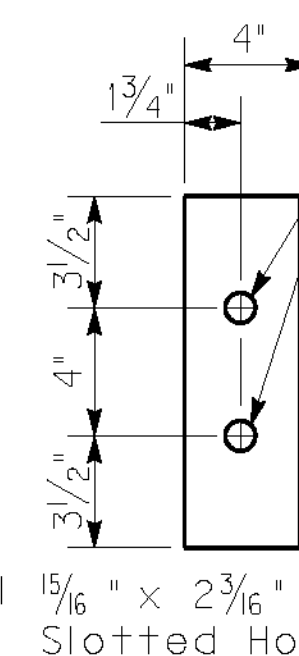
DIAPHRAGMS: Erect the diaphragms the same day that the precast beams are placed on the substructure. Include the cost of all materials and labor required to fabricate and erect the diaphragms in the bid for Precast Beams.



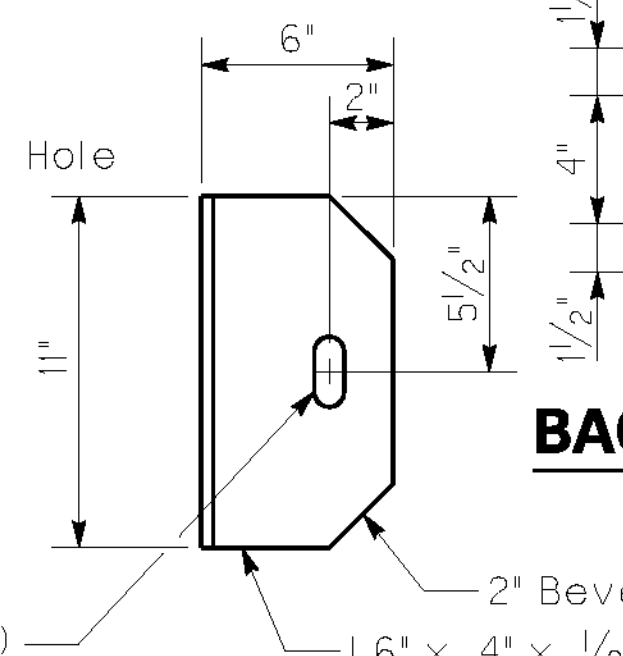
Beam Face



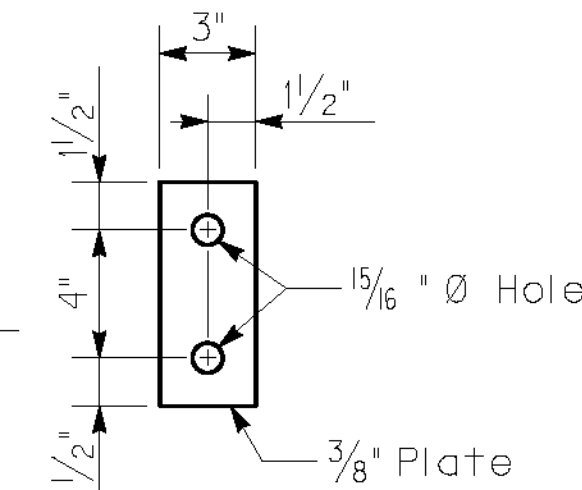
Diaphragm Face



Beam Face



Diaphragm Face



BACKING PLATE

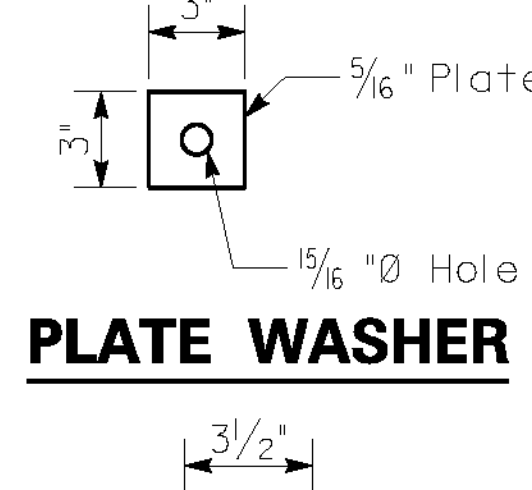
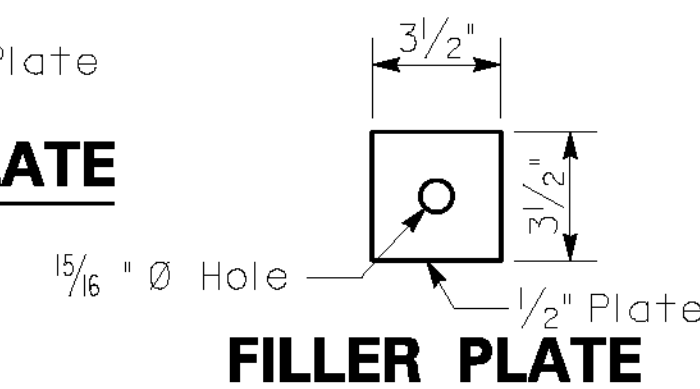


PLATE WASHER



FILLER PLATE

ITEM NUMBER

12-311.10

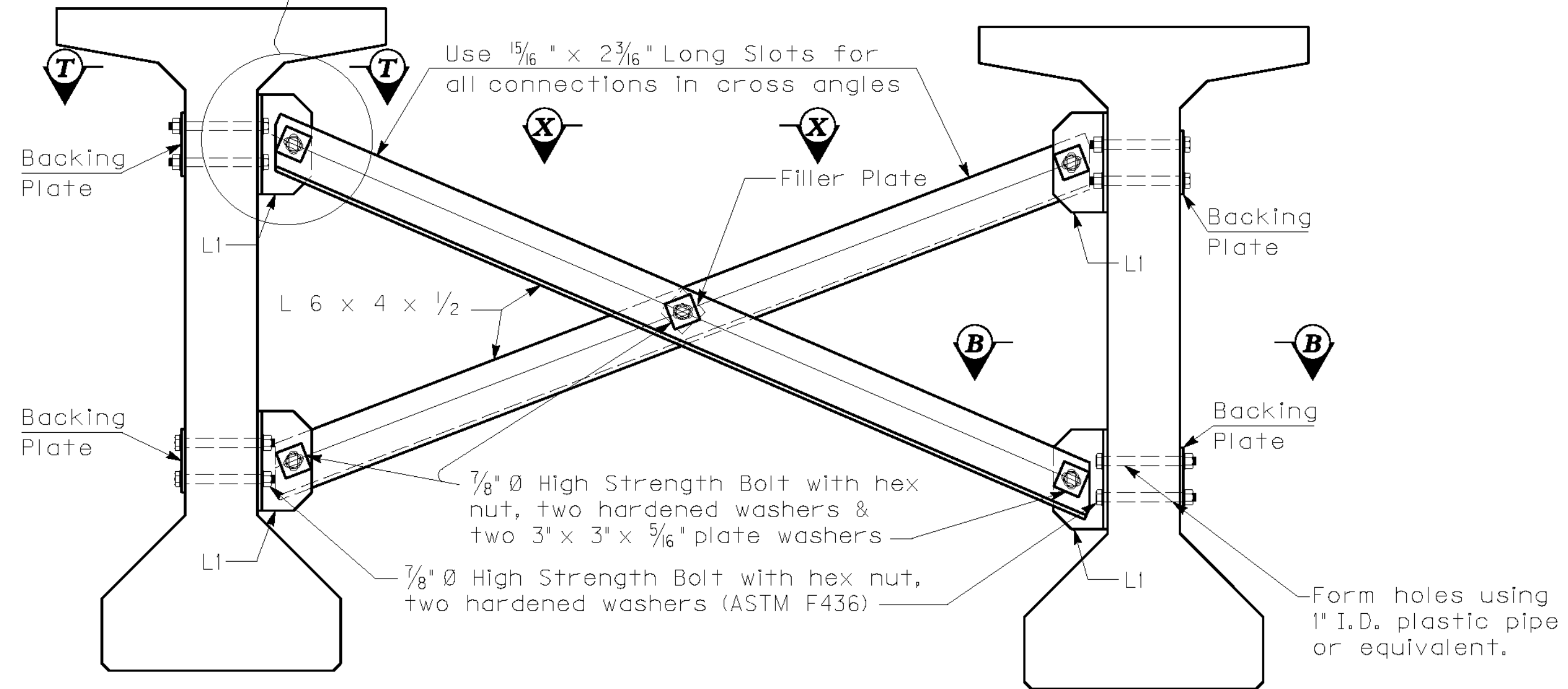
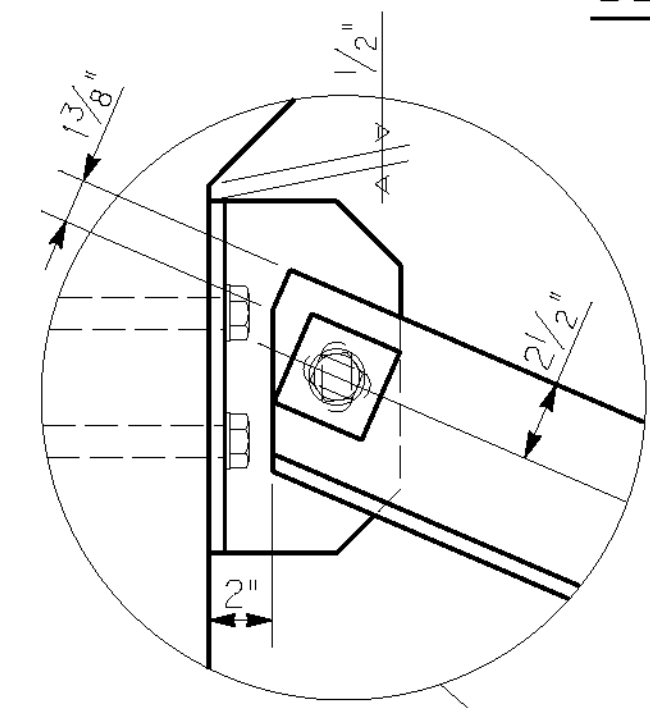
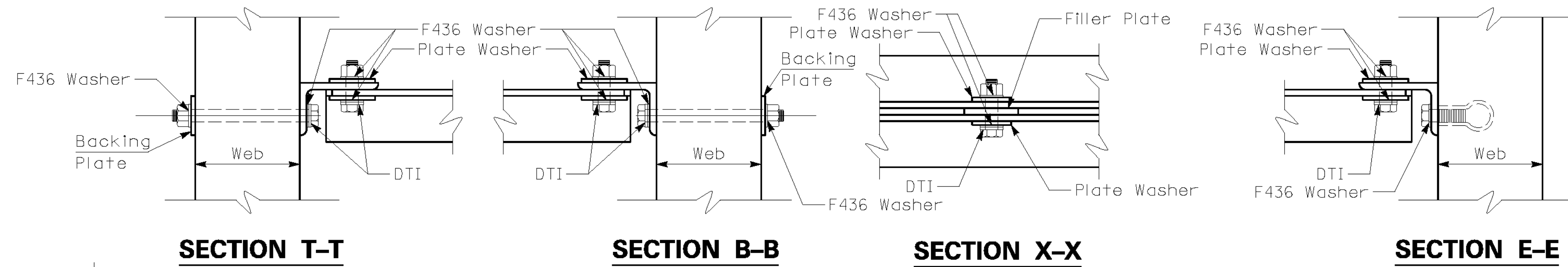
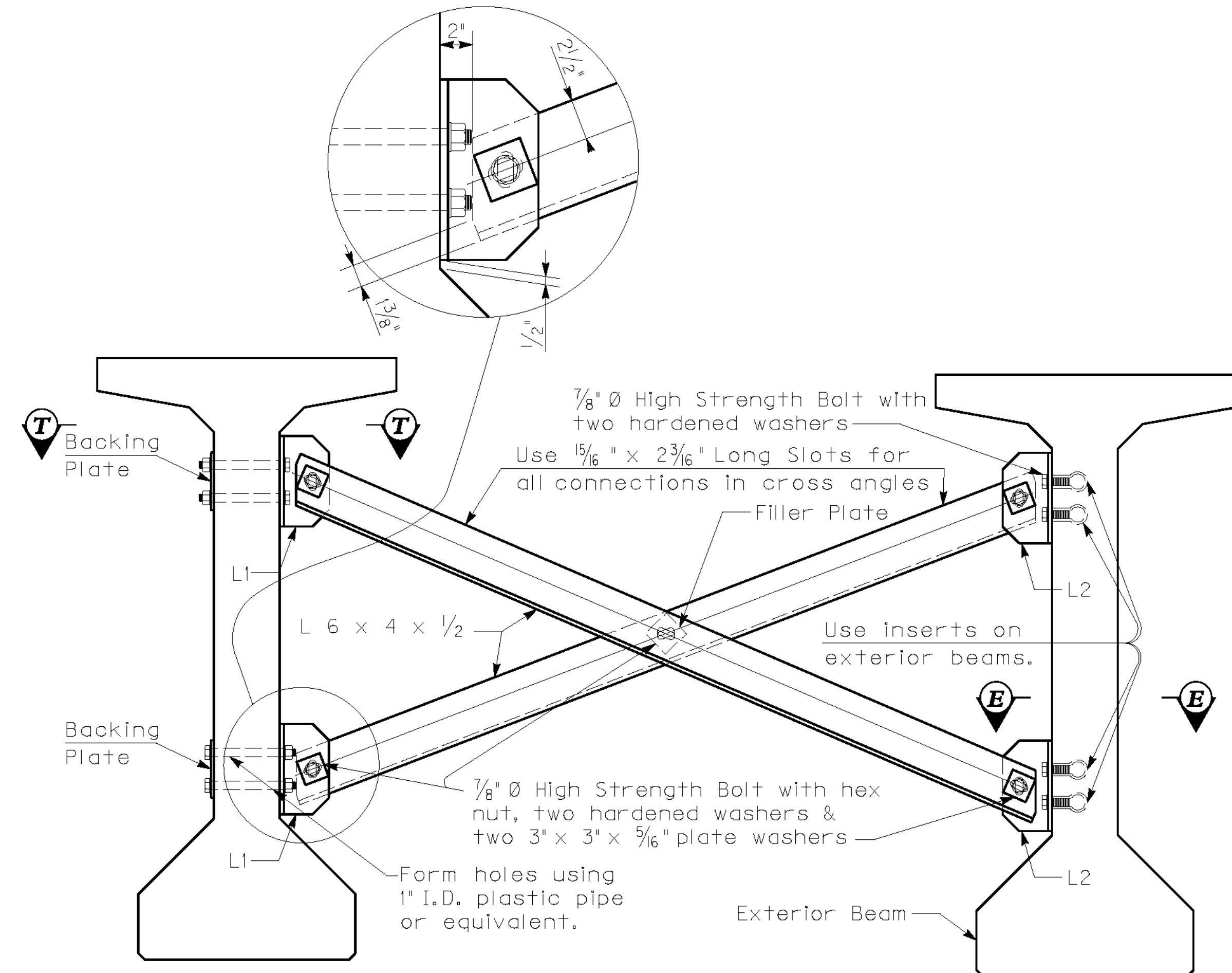
REVISION		DATE
DATE: 09 - 2003	DESIGNED BY: P. A. P.	CHECKED BY: W. T. B.
DESIGNED BY: P. A. P.	DETAILED BY: D. W. S.	CHECKED BY: P. F. H.
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
INTERMEDIATE DIAPHRAGM		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S65
		DRAWING NO. 25296

FILE NAME:

USERNAME:

DATE:

SHEET LOCATION:

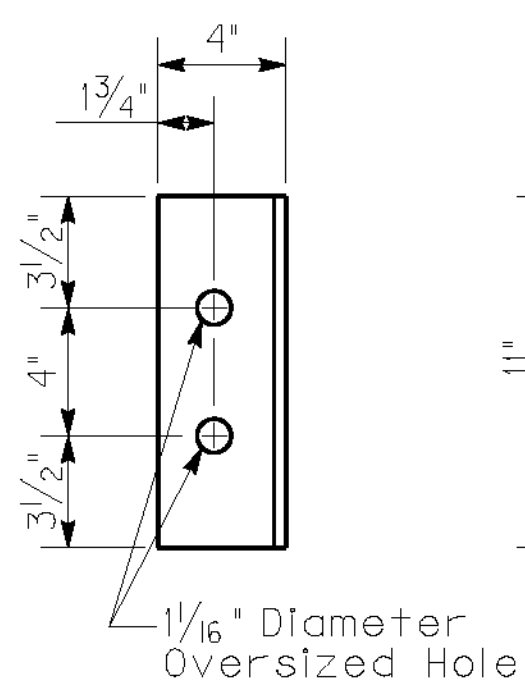
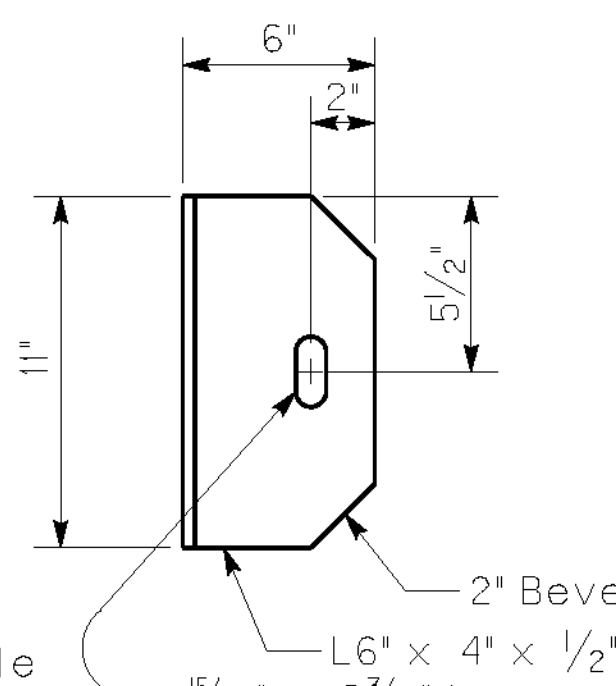
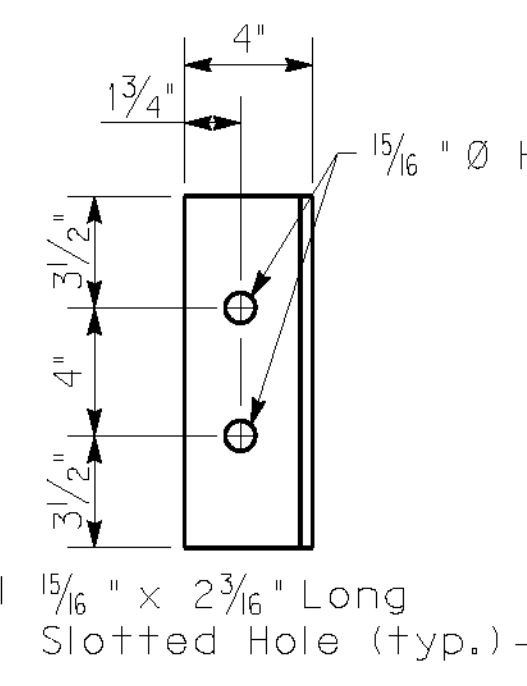
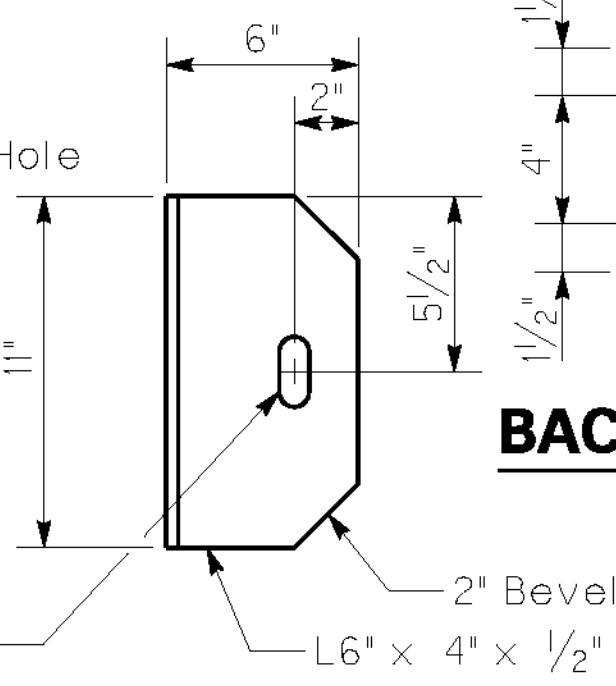
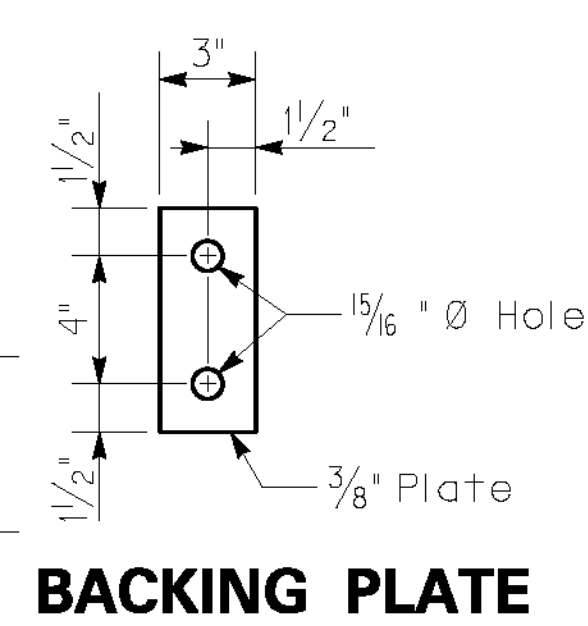
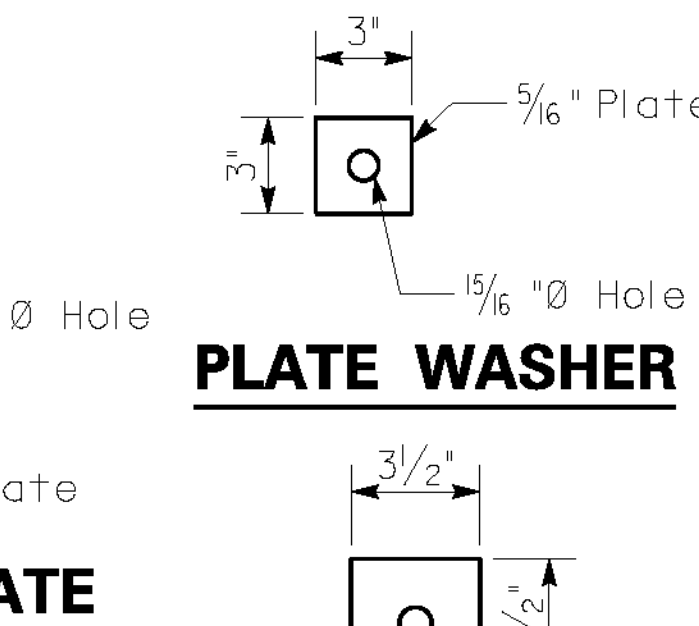
**INTERMEDIATE DIAPHRAGM DETAILS BETWEEN INTERIOR BEAMS***~Typical for Skewed Bridges~***INTERMEDIATE DIAPHRAGM DETAILS BETWEEN OUTMOST BEAMS***~Typical for Skewed Bridges~***Diaphragm Notes**

CONNECTIONS: Ensure all bolted connections are ASTM A325, 7/8 inch diameter high strength bolts, nuts, and washers, mechanically zinc coated in accordance with AASHTO M298, for Class 50. Install all high strength bolted field connections using "direct tension indicators" (DTI's) in accordance with the Standard Specifications and ASTM F959. Ensure all DTI's are mechanically zinc coated. Show installation details of the DTI's on the shop plans. Place DTI's under the bolt head.

STRUCTURAL STEEL: Ensure plates and angles conform to AASHTO M 183 and galvanized after fabrication.

SHOP DRAWINGS: Show the location of all inserts and holes on the precast beam shop drawings. Submit shop drawings for the steel diaphragms to the Division of Bridge Design for approval.

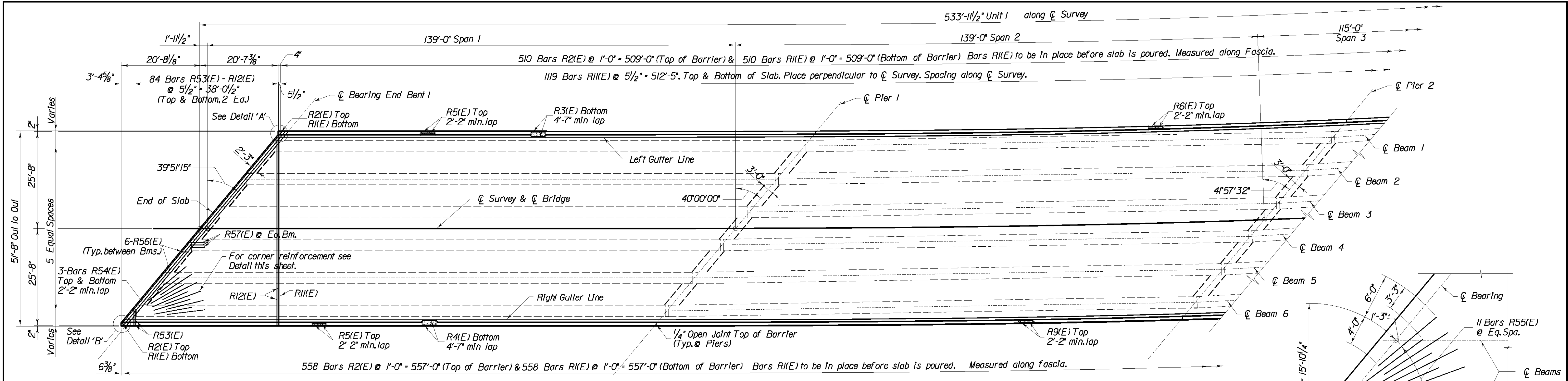
DIAPHRAGMS: Erect the diaphragms the same day that the precast beams are placed on the substructure. Include the cost of all materials and labor required to fabricate and erect the diaphragms in the bid for Precast Beams.

*Beam Face**Diaphragm Face**Beam Face**Diaphragm Face***BACKING PLATE****FILLER PLATE****PLATE WASHER**

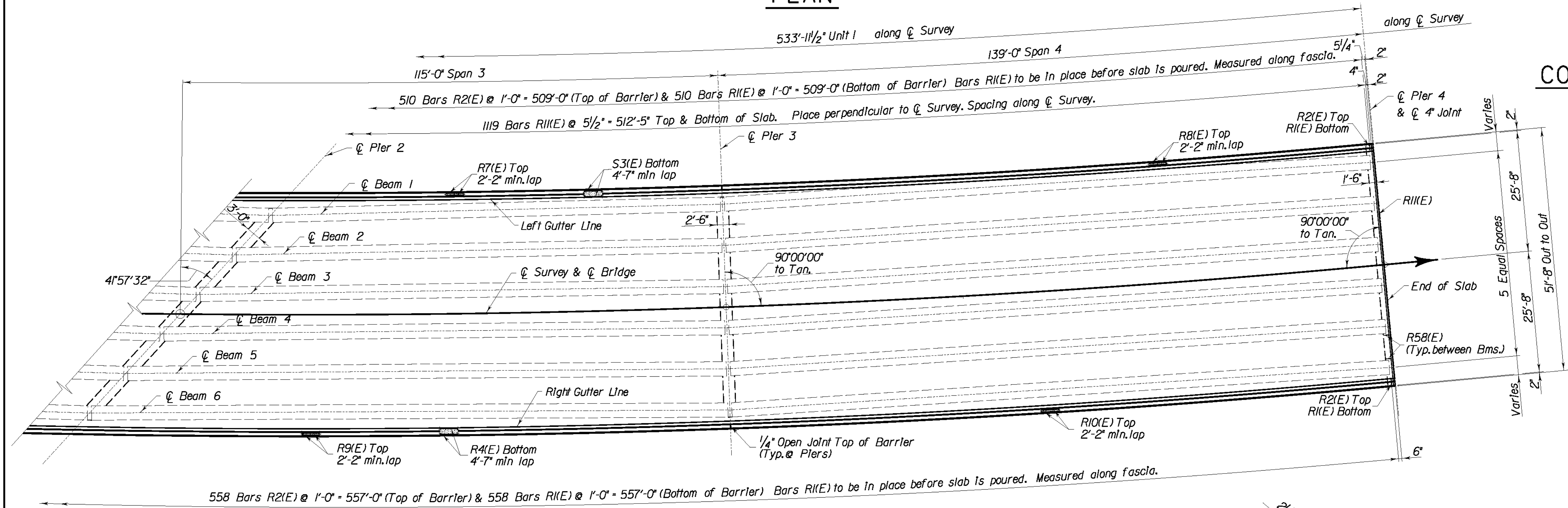
ITEM NUMBER

12-311.10

REVISION		DATE
DATE:	09 - 2003	CHECKED BY:
DESIGNED BY:	P. A. P.	W. T. B.
DETAILED BY:	D. W. S.	P. F. H.
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
INTERMEDIATE DIAPHRAGM		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S65A
		DRAWING NO. 25296



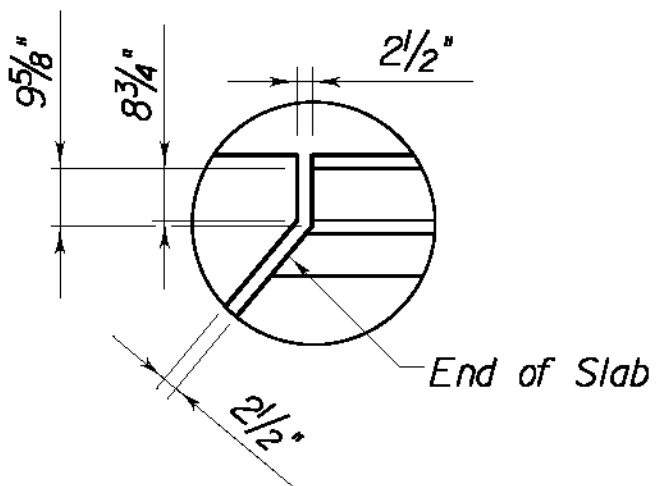
PLAN



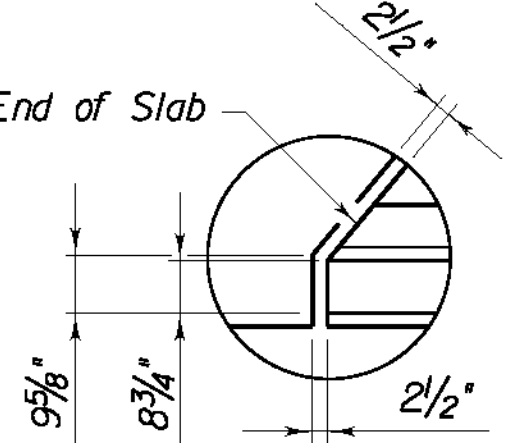
PLAN

CORNER REINFORCEMENT DETAIL

NOTE: Corner reinforcement shall be placed beneath the longitudinal and transverse reinforcement in the top of the slab.

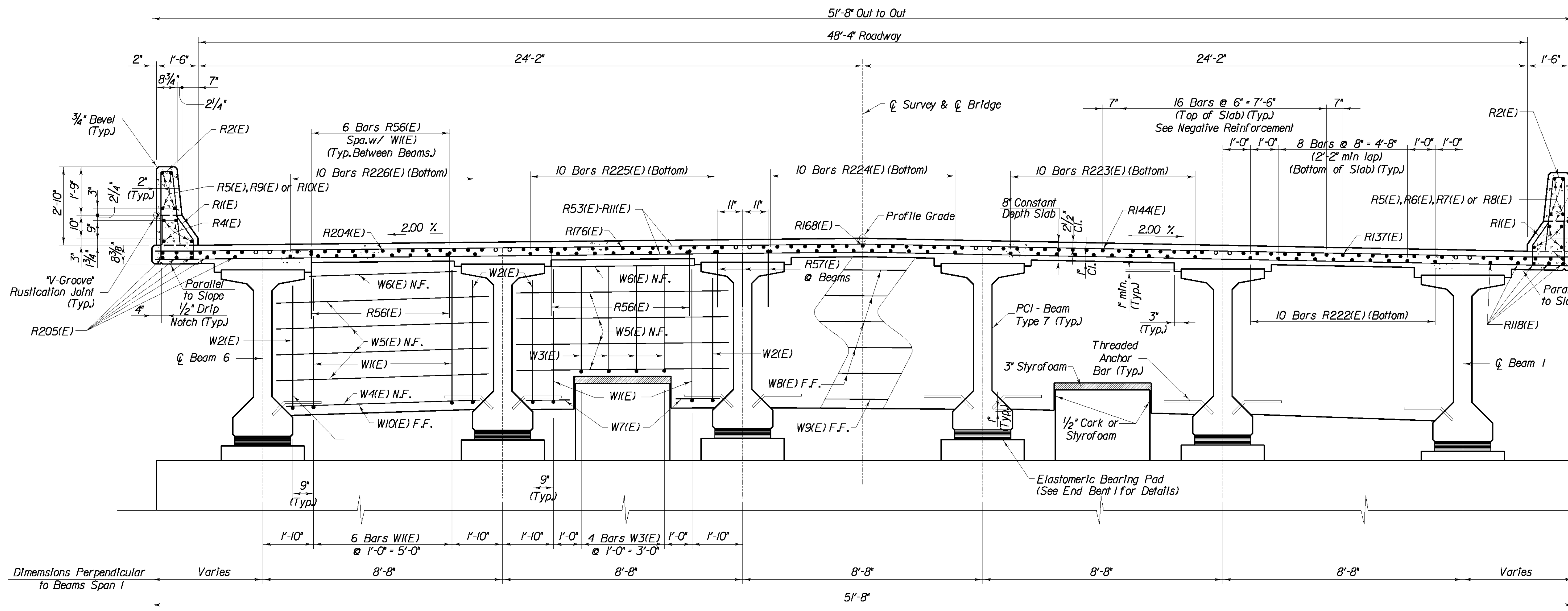


DETAIL 'A'



DETAIL 'B'

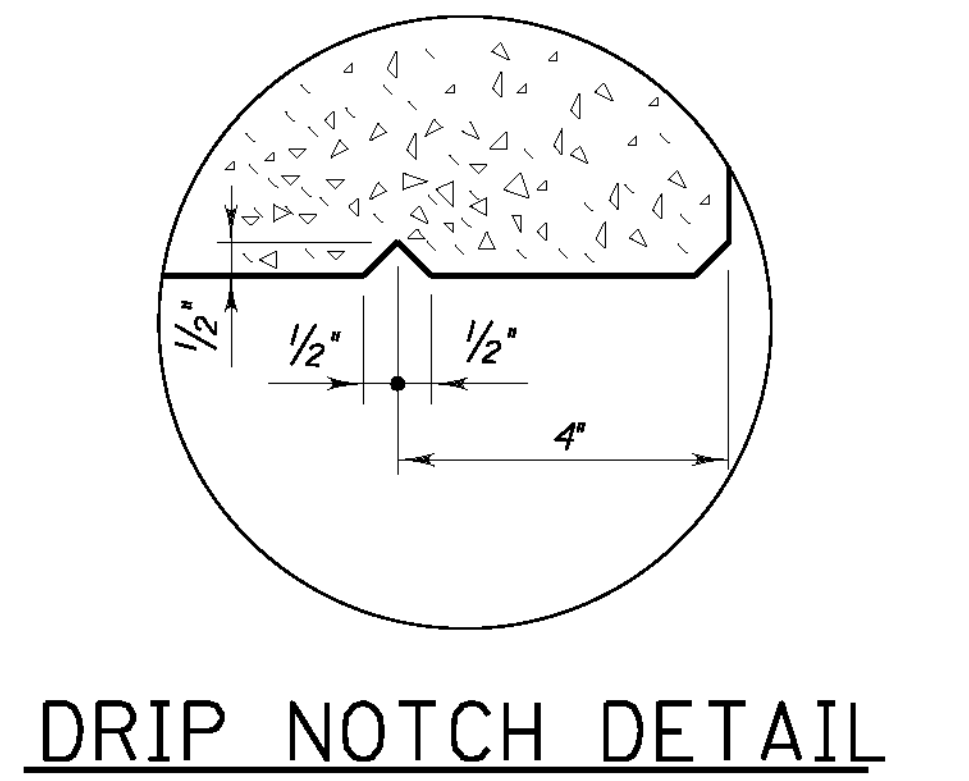
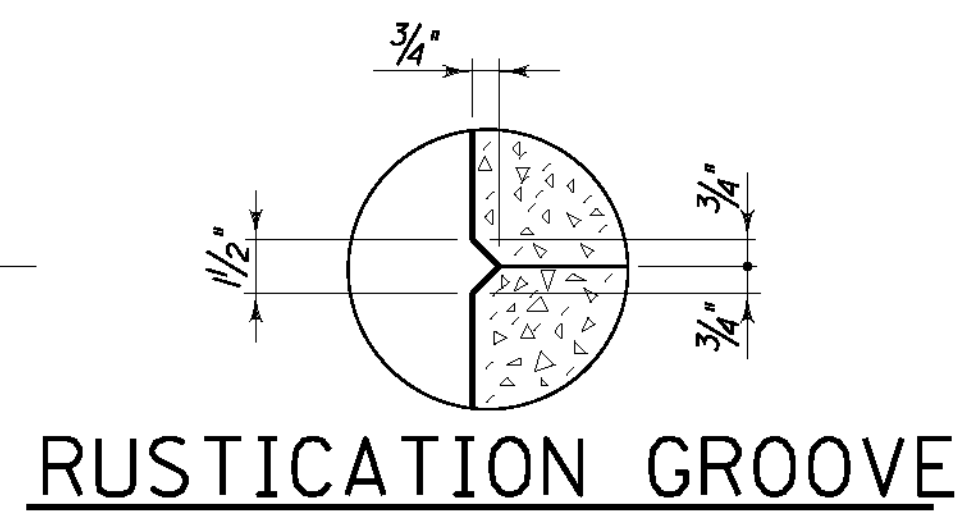
REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U. S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
SUPERSTRUCTURE UNIT 1		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S66
		DRAWING NO. 25296



Optional Constr. Joint.
Rustication Groove not
needed if Barrier is
cast complete.(Typ.)

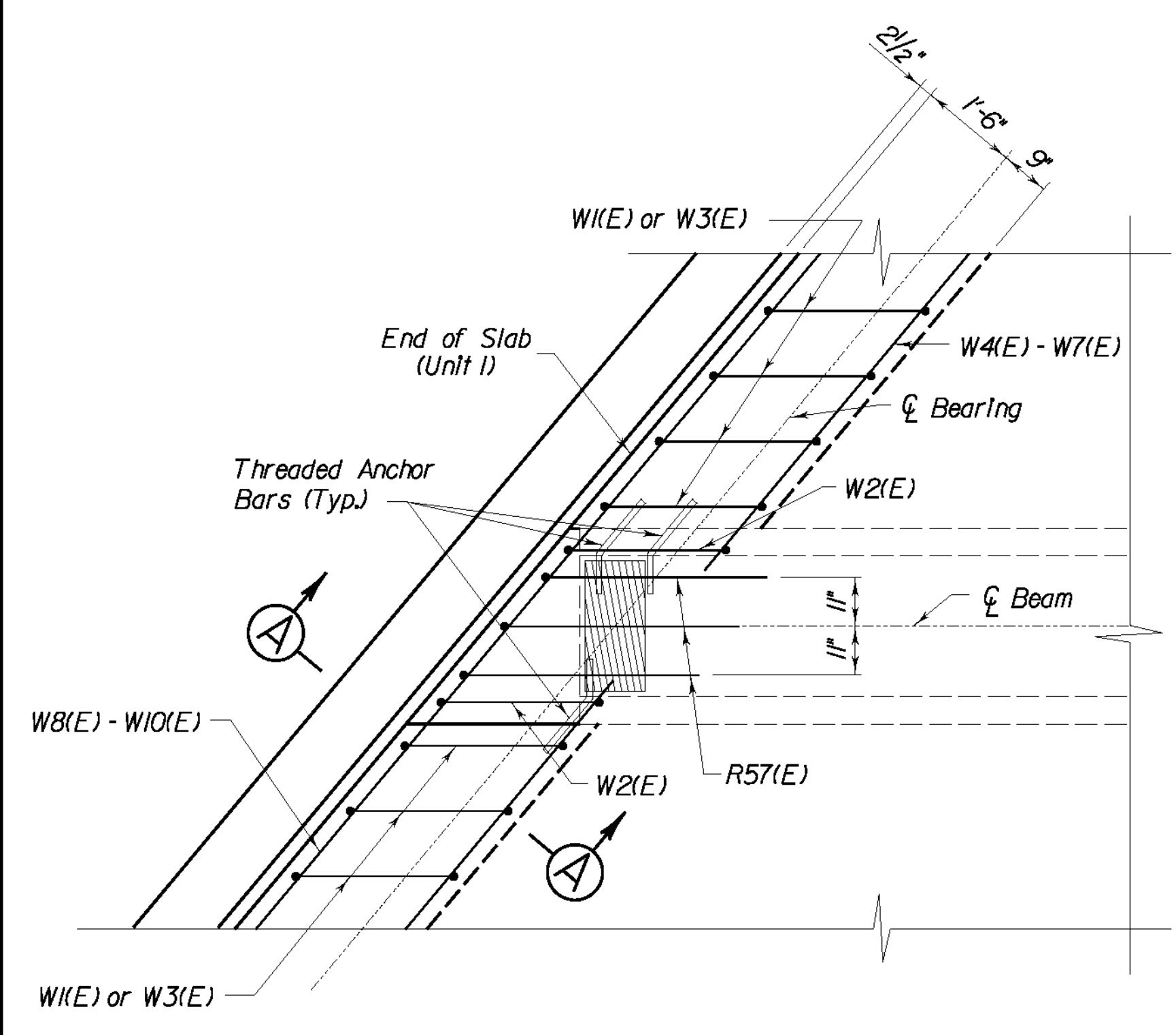
See Sheet S6 for Barrier
Stone Masonry Veneer.

Mandatory Const. Joint
(Level) Pour Barrier only
after deck concrete has
properly cured.(Typ.)

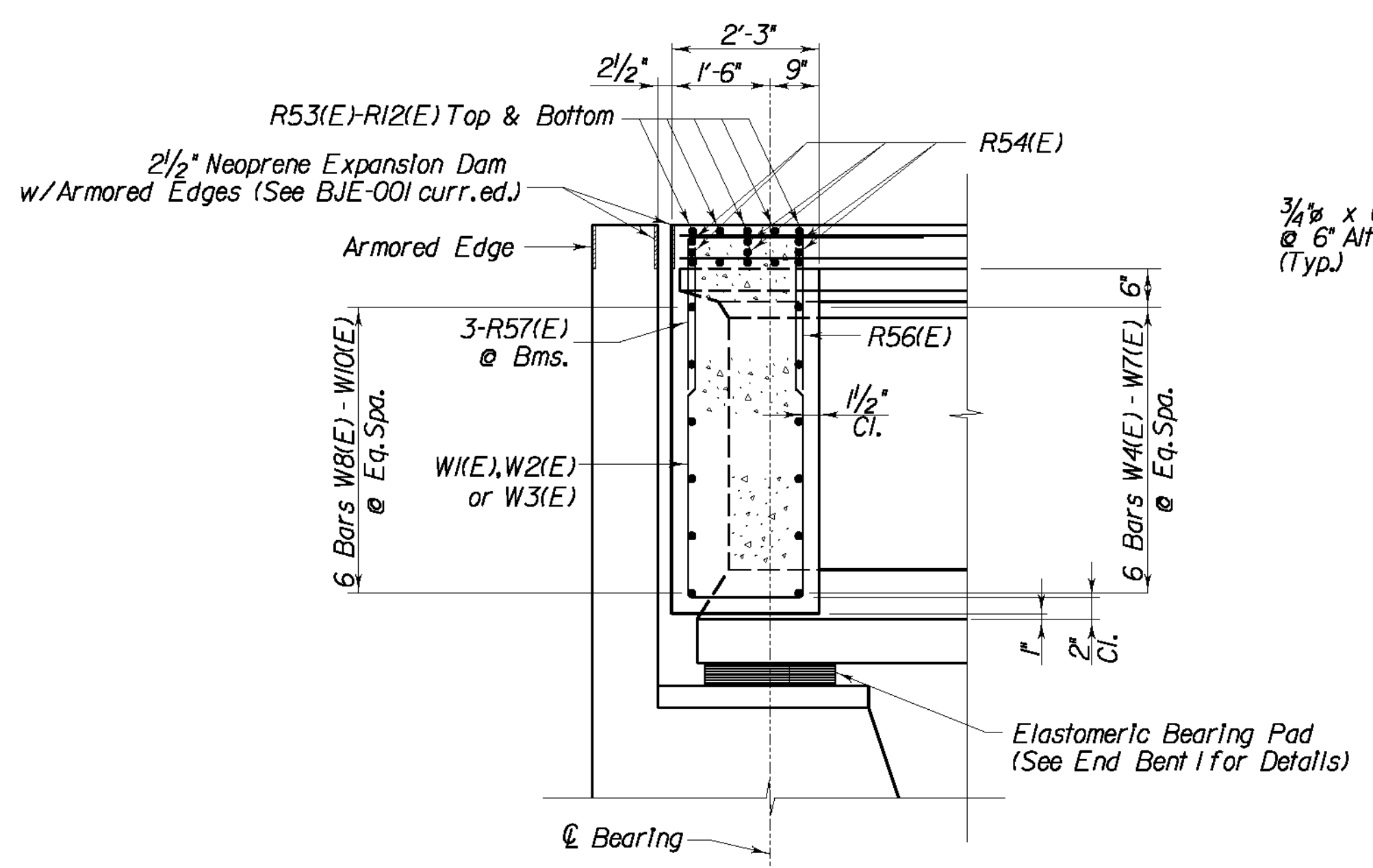


TYPICAL SECTION END BENT 1
(Looking Back)
(Dimensions perpendicular to ϕ Survey except as noted)

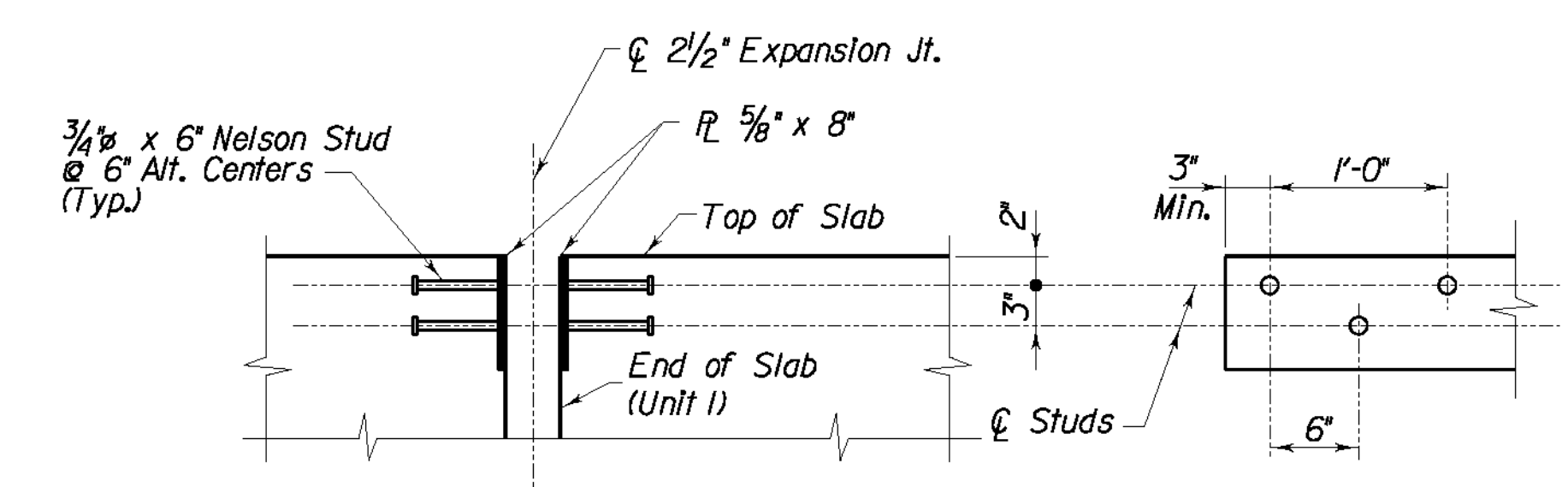
N.F. denotes Near Face
F.F. denotes Far Face



PART PLAN END BENT 1

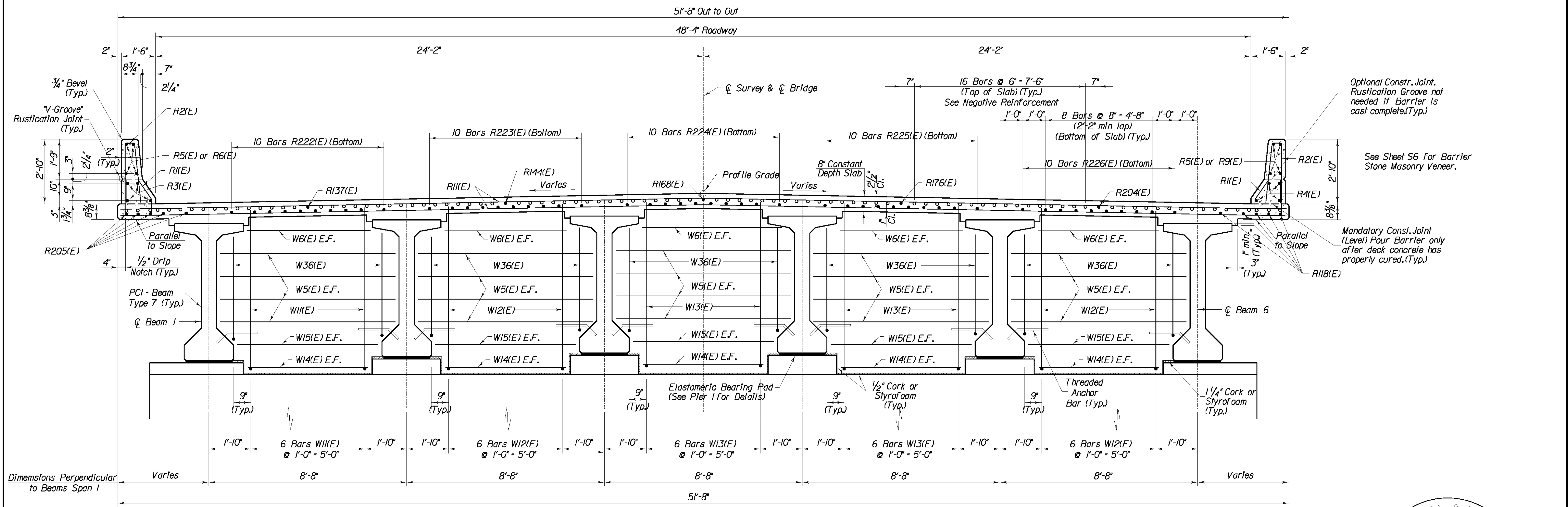


SECTION A-A



ARMORED EDGE DETAILS
(See Std. Drwg. BJE-001-c.e.)
(Armored Edge shall extend from Left Gutter
Line to Right Gutter Line at End of Slab.
(Included in 2 1/2" Neoprene Expansion Dam)

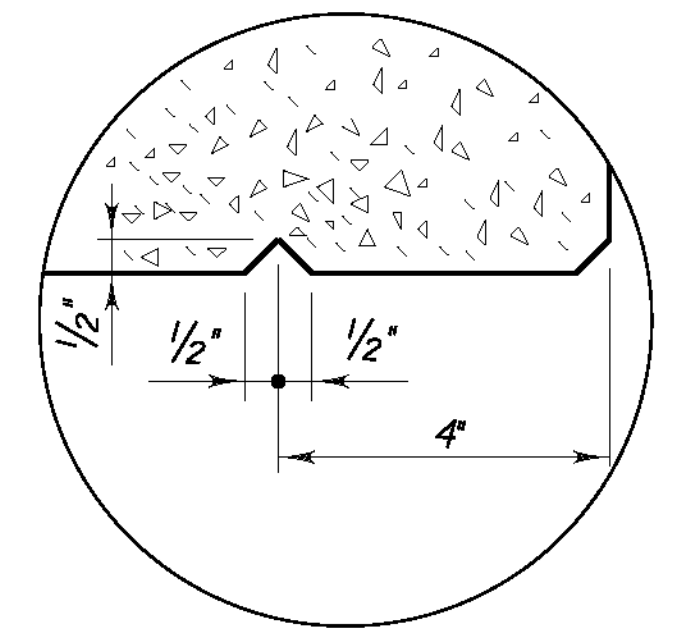
REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky			
DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE		CROSSING	
U.S. 119		POOR FORK CUMBERLAND RIVER	
SUPERSTRUCTURE UNIT 1			
PREPARED BY		SHEET NO.	
T.H.E. ENGINEERS, INC.		S67	
		DRAWING NO.	
		25296	



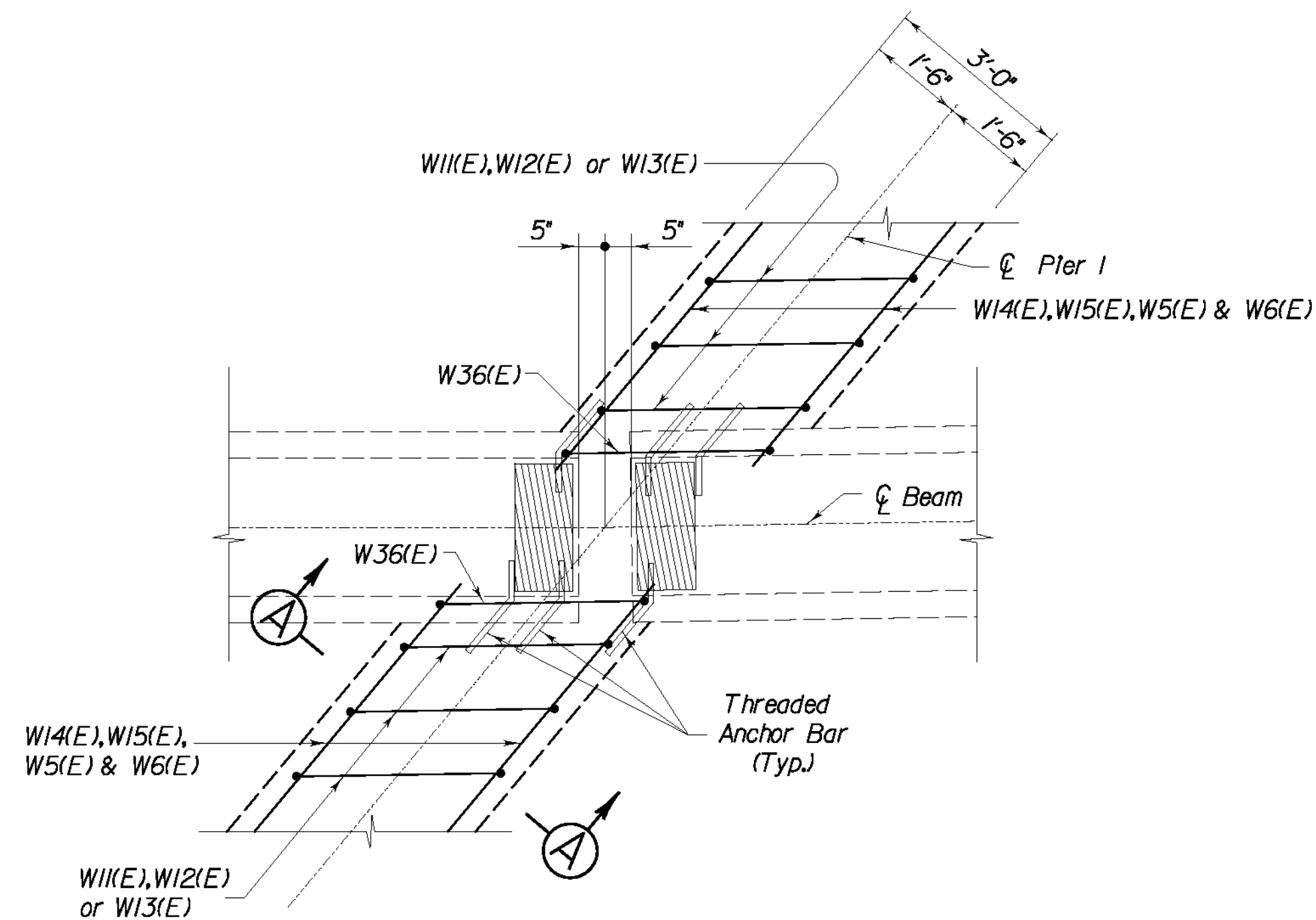
TYPICAL SECTION PIER 1

(Dimensions perpendicular to ϕ Survey except as noted)

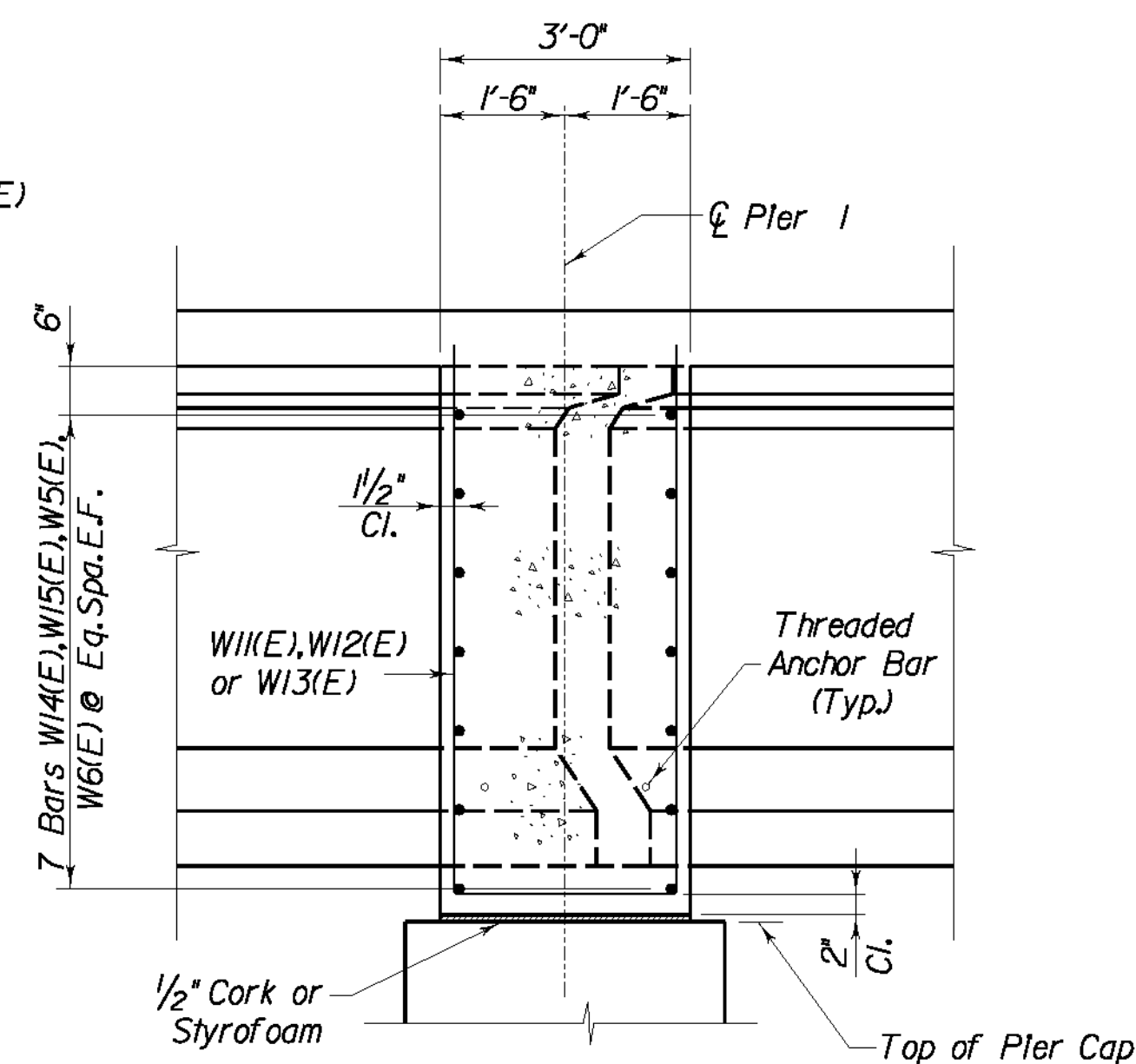
E.F. denotes Each Face



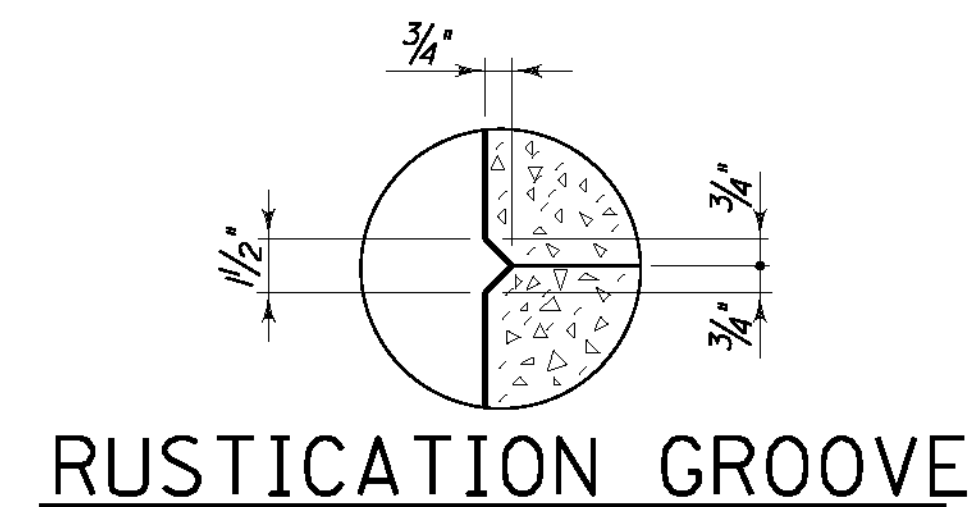
DRIP NOTCH DETAIL



PART PLAN PIER 1

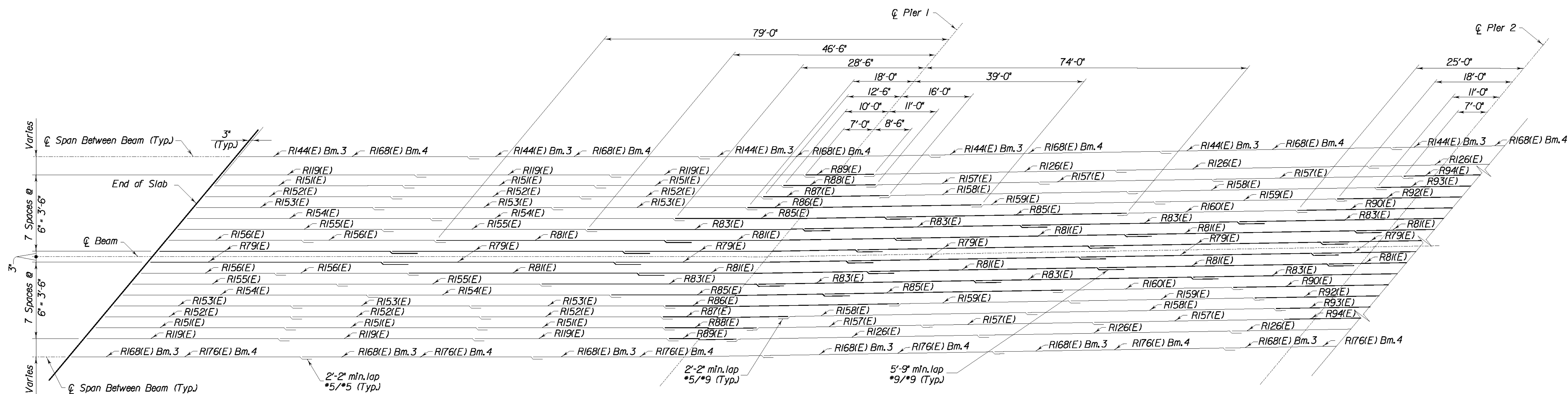


SECTION A-A

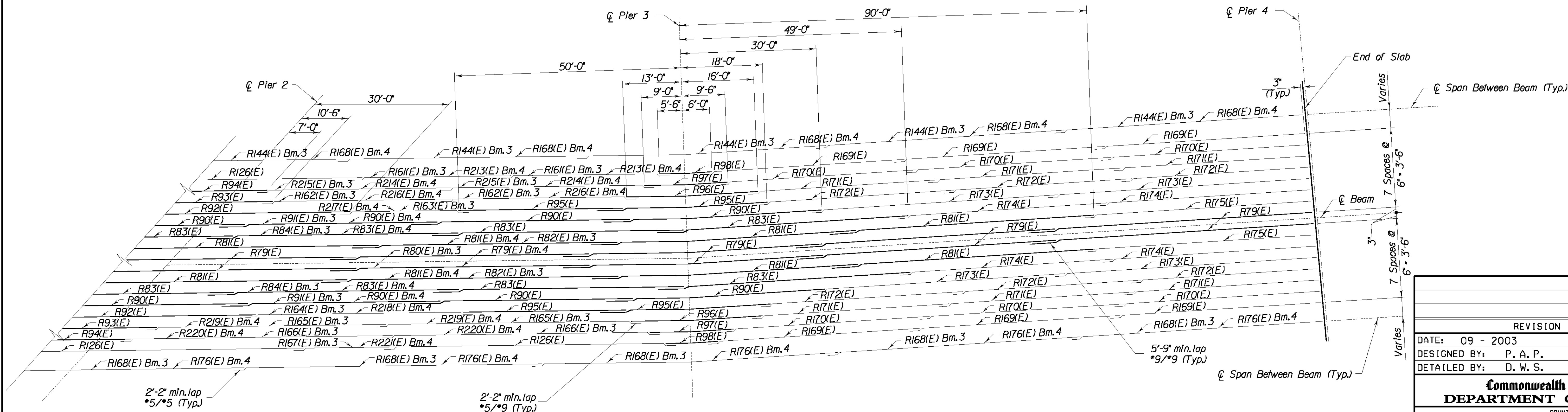


RUSTICATION GROOVE

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DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE U.S. 119		CROSSING POOR FORK CUMBERLAND RIVER	
SUPERSTRUCTURE UNIT 1			
PREPARED BY			SHEET NO. S68
T.H.E. ENGINEERS, INC.			DRAWING NO. 25296

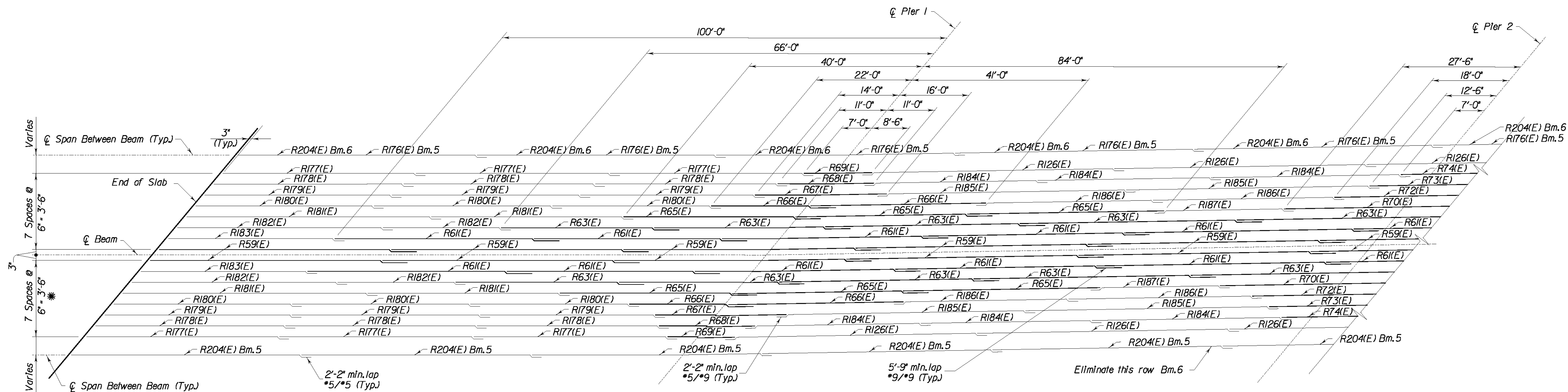


SCHEMATIC DIAGRAM NEGATIVE MOMENT REINFORCEMENT
BEAMS 3 & 4, SPANS 1 & 2



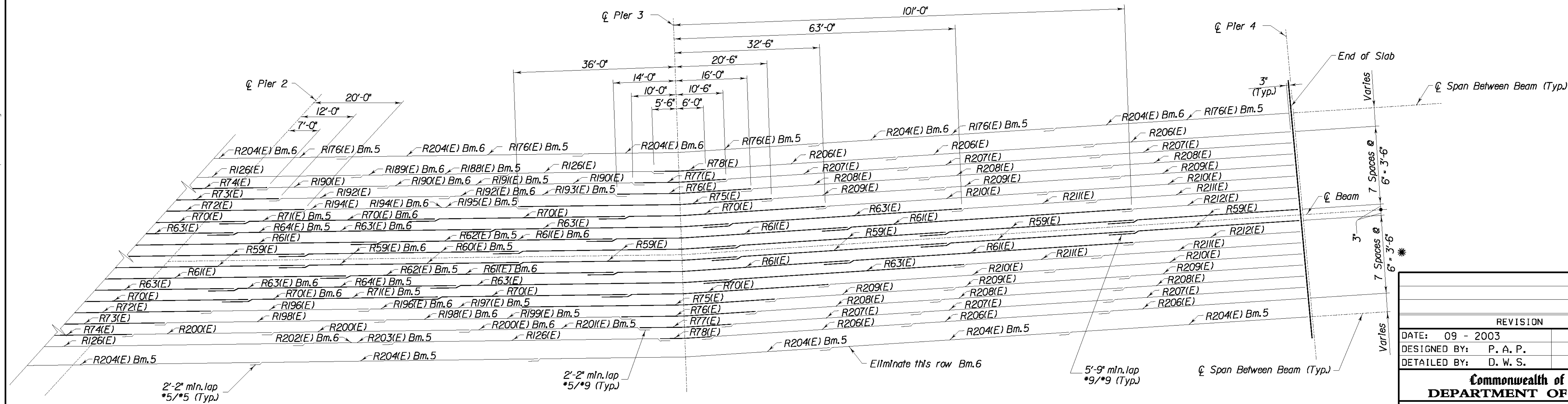
SCHEMATIC DIAGRAM NEGATIVE MOMENT REINFORCEMENT
BEAMS 3 & 4, SPANS 3 & 4

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DATE: 09 - 2003	CHECKED BY	
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DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky		
DEPARTMENT OF HIGHWAYS		
COUNTY		
LETCHER		
ROUTE	CROSSING	
U.S. 119	POOR FORK CUMBERLAND RIVER	
SUPERSTRUCTURE UNIT 1		
PREPARED BY		SHEET NO.
T.H.E. ENGINEERS, INC.		S73
		DRAWING NO.
		25296



SCHEMATIC DIAGRAM NEGATIVE MOMENT REINFORCEMENT
BEAMS 5 & 6, SPANS 1 & 2

* See Typ. Section for spacing Bm.2



SCHEMATIC DIAGRAM NEGATIVE MOMENT REINFORCEMENT
BEAMS 5 & 6, SPANS 3 & 4

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DATE: 09 - 2003		CHECKED BY	
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DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U. S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
<i>SUPERSTRUCTURE UNIT 1</i>			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S74
			DRAWING NO. 25296

\$\$\$\$designs\$file\$specification\$\$\$\$

\$\$\$\$Plot\$ed\$by\$\$\$\$

\$\$\$\$DATE\$\$\$\$

BILL OF REINFORCEMENT UNIT 1														
Mark	Type	Number	Size	Length		Location	a		b		c		d	
				Ft.	In.		Ft.	In.	Ft.	In.	Ft.	In.		
R1(E)	(17)	1068	5	4	5	Barrier								
R2(E)	(16)	1068	5	5	8	Barrier								
R3(E)	Str.	40	8	55	1	Barrier								
R4(E)	Str.	40	8	59	11	Barrier								
R5(E)	Str.	24	5	48	5	Barrier								
R6(E)	Str.	12	5	48	0	Barrier								
R7(E)	Str.	8	5	46	11	Barrier								
R8(E)	Str.	12	5	47	4	Barrier								
R9(E)	Str.	24	5	47	7	Barrier								
R10(E)	Str.	12	5	48	3	Barrier								
R11(E)	Str.	2238	5	51	0	Slab								
R12(E)	Str.	4	5	49	6	Slab								
R13(E)	Str.	4	5	48	5	Slab								
R14(E)	Str.	4	5	47	3	Slab								
R15(E)	Str.	4	5	46	2	Slab								
R16(E)	Str.	4	5	45	1	Slab								
R17(E)	Str.	4	5	44	0	Slab								
R18(E)	Str.	4	5	42	11	Slab								
R19(E)	Str.	4	5	41	9	Slab								
R20(E)	Str.	4	5	40	8	Slab								
R21(E)	Str.	4	5	39	7	Slab								
R22(E)	Str.	4	5	38	6	Slab								
R23(E)	Str.	4	5	37	5	Slab								
R24(E)	Str.	4	5	36	4	Slab								
R25(E)	Str.	4	5	35	2	Slab								
R26(E)	Str.	4	5	34	1	Slab								
R27(E)	Str.	4	5	33	0	Slab								
R28(E)	Str.	4	5	31	11	Slab								
R29(E)	Str.	4	5	30	10	Slab								
R30(E)	Str.	4	5	29	8	Slab								
R31(E)	Str.	4	5	28	7	Slab								
R32(E)	Str.	4	5	27	6	Slab								
R33(E)	Str.	4	5	26	5	Slab								
R34(E)	Str.	4	5	25	4	Slab								
R35(E)	Str.	4	5	24	3	Slab								
R36(E)	Str.	4	5	23	1	Slab								
R37(E)	Str.	4	5	22	0	Slab								
R38(E)	Str.	4	5	20	11	Slab								
R39(E)	Str.	4	5	19	10	Slab								
R40(E)	Str.	4	5	18	9	Slab								
R41(E)	Str.	4	5	17	8	Slab								
R42(E)	Str.	4	5	16	6	Slab								
R43(E)	Str.	4	5	15	5	Slab								
R44(E)	Str.	4	5	14	4	Slab								
R45(E)	Str.	4	5	13	3	Slab								
R46(E)	Str.	4	5	12	2	Slab								
R47(E)	Str.	4	5	11	0	Slab								
R48(E)	Str.	4	5	9	11	Slab								
R49(E)	Str.	4	5	8	10	Slab								
R50(E)	Str.	4	5	7	9	Slab								
R51(E)	Str.	4	5	6	8	Slab								
R52(E)	Str.	4	5	5	7	Slab								
R53(E)	Str.	4	5	4	5	Slab								
R54(E)	Str.	12	5	34	1	End of Slab								
R55(E)	Str.	22	6	10	0	Corner								
R56(E)	(2)	30	5	7	5	Diaphragms	2	6	2	6				
R57(E)	(5)	18	5	7	10	Diaphragms	5	8	2	2				
R58(E)	(2)	32	5	6	2	Diaphragms	2	6 1/4	1	2 1/2				
R59(E)	Str.	42	9	55	8	Negative Reinforcement								
R60(E)	Str.	2	9	46	9	Negative Reinforcement								
R61(E)	Str.	34	9	58	0	Negative Reinforcement								
R62(E)	Str.	2	9	57	0	Negative Reinforcement								
R63(E)	Str.	30	9	55	7	Negative Reinforcement								
R64(E)	Str.	2	9	54	7	Negative Reinforcement								
R65(E)	Str.	12	9	45	2	Negative Reinforcement								
R66(E)	Str.	8	9	34	5	Negative Reinforcement								
R67(E)	Str.	4	9	30	0	Negative Reinforcement								
R68(E)	Str.	4	9	22	0	Negative Reinforcement								
R69(E)	Str.	4	9	15	6	Negative Reinforcement								
R70(E)	Str.	14	9	53	5	Negative Reinforcement								
R71(E)	Str.	2	9	51	1	Negative Reinforcement								
R72(E)	Str.	4	9	38	0	Negative Reinforcement								
R73(E)	Str.	4	9	24	6	Negative Reinforcement								
R74(E)	Str.	4	9	14	0	Negative Reinforcement								
R75(E)	Str.	4	9	56	6	Negative Reinforcement								

NOTE: Reinforcing Bars Designated By The Suffix (E) In The Plans Shall Be Epoxy Coated In Accordance With The Current Specifications.

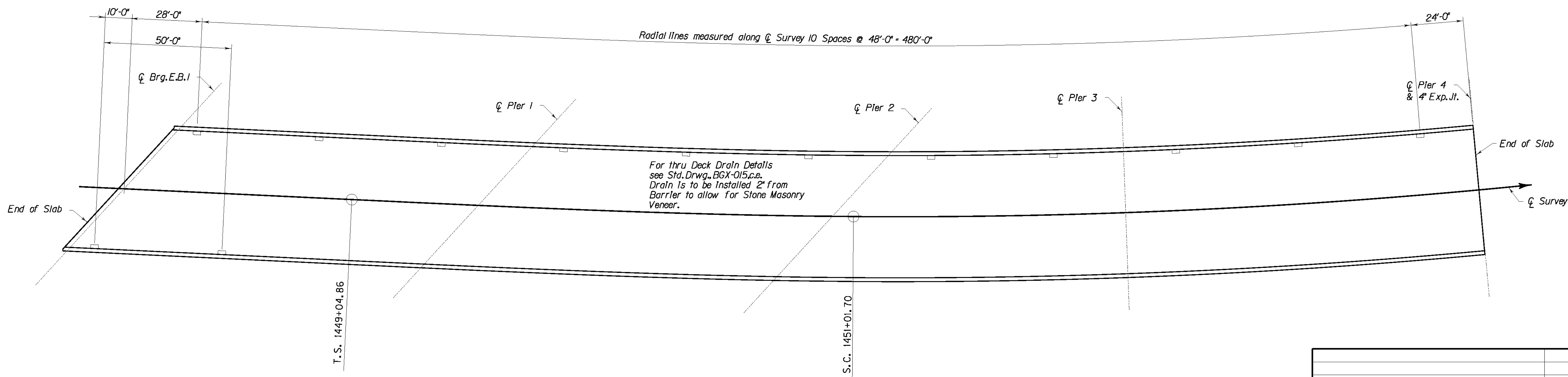
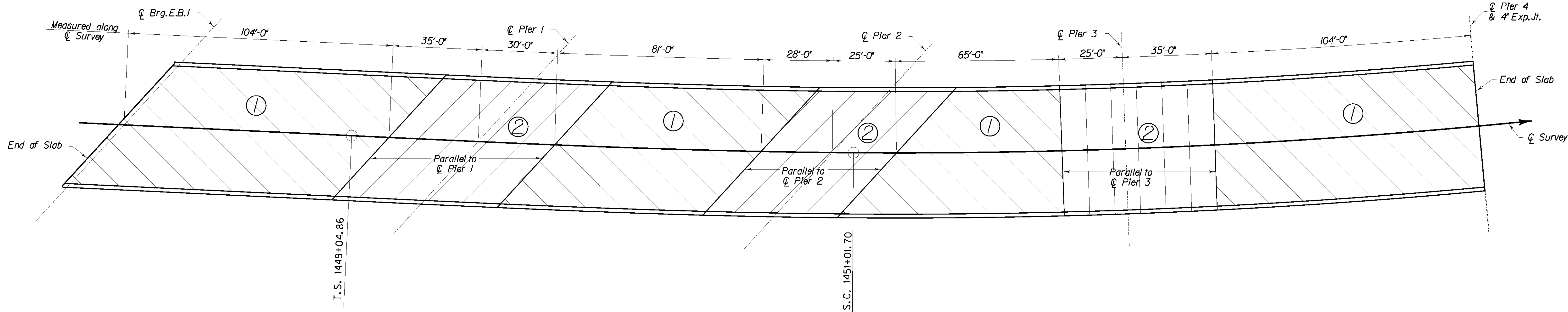
BILL OF REINFORCEMENT UNIT 1														
Mark	Type	Number	Size	Length		Location	a		b		c		d	
				Ft.	In.		Ft.	In.	Ft.	In.	Ft.	In.		
R76(E)	Str.	4	9	30	0	Negative Reinforcement								
R77(E)	Str.	4	9	20	6	Negative Reinforcement								
R78(E)	Str.	4	9	11	6	Negative Reinforcement								
R79(E)	Str.	38	9	59	0	Negative Reinforcement								
R80(E)	Str.	2	9	49	10	Negative Reinforcement								
R81(E)	Str.	30	9	58	5	Negative Reinforcement								
R82(E)	Str.	2	9	50	5	Negative Reinforcement								
R83(E)	Str.	26	9	55	6	Negative Reinforcement								
R84(E)	Str.	2	9	47	1	Negative Reinforcement								
R85(E)	Str.	8	9	54	2	Negative Reinforcement								
R86(E)	Str.	4	9	57	0	Negative Reinforcement								
R87(E)	Str.	4	9	28	6	Negative Reinforcement								
R88(E)	Str.	4	9	21	0	Negative Reinforcement								
R89(E)	Str.	4	9	15	6	Negative Reinforcement								
R90(E)	Str.	14	9	48	3	Negative Reinforcement								
R91(E)	Str.	2	9	40	4	Negative Reinforcement								
R92(E)	Str.	4	9	48	0	Negative Reinforcement								
R93(E)	Str.	4	9	21	6	Negative Reinforcement								
R94(E)	Str.	4	9	14	0	Negative Reinforcement								
R95(E)	Str.	4	9	36	11	Negative Reinforcement								
R96(E)	Str.	4	9	29	0	Negative Reinforcement								
R97(E)	Str.	4	9	18	6	Negative Reinforcement								
R98(E)	Str.	4	9	11	6	Negative Reinforcement								
R99(E)	Str.	38	9	57	3	Negative Reinforcement								
R100(E)	Str.	2	9	56	5	Negative Reinforcement								
R101(E)	Str.	26	9	58	9	Negative Reinforcement								
R102(E)	Str.	2	9	51	8	Negative Reinforcement								
R103(E)	Str.	12	9	43	4	Negative Reinforcement								
R104(E)	Str.	8	9	42	8	Negative Reinforcement								
R105(E)	Str.	4	9	50	0	Negative Reinforcement								
R106(E)	Str.	4	9	26	0	Negative Reinforcement								
R107(E)	Str.	4	9	19	0	Negative Reinforcement								
R108(E)	Str.	4	9	15	6	Negative Reinforcement								
R109(E)	Str.	14	9	46	8	Negative Reinforcement								
R110(E)	Str.	2	9	38	6	Negative Reinforcement								
R111(E)	Str.	10	9	55	1	Negative Reinforcement								
R112(E)	Str.	2	9	47	0	Negative Reinforcement								
R113(E)	Str.	10	9	51	0	Negative Reinforcement								
R114(E)	Str.	2	9	43	1	Negative Reinforcement								
R115(E)	Str.	4	9	18	6	Negative Reinforcement								
R116(E)	Str.	4	9	27	0	Negative Reinforcement								
R117(E)	Str.	4	9	16	6	Negative Reinforcement								
R118(E)	Str.	50	5	54	1	Slab								
R119(E)	Str.	24	5	46	9	Slab								
R120(E)	Str.	12	5	46	1	Slab								
R121(E)	Str.	12	5	45	5	Slab								
R122(E)	Str.	12	5	44	5	Slab								
R123(E)	Str.	12	5	43	7	Slab								
R124(E)	Str.	8	5	59	4	Slab								
R125(E)	Str.	8	5	43	10	Slab								
R126(E)	Str.	66	5	60	0	Slab								
R127(E)	Str.	12	5	41	1	Slab								
R128(E)	Str.	8	5	46	6	Slab								
R129(E)	Str.	4	5	57	4	Slab								
R130(E)	Str.	4	5	20	4	Slab								
R131(E)	Str.	1	5	15	0	Slab								
R132(E)	Str.	1	5	44	3	Slab								
R133(E)	Str.	2	5	39	2	Slab								
R134(E)	Str.	2	5	41	6	Slab								
R135(E)	Str.	1	5	49	9	Slab								
R136(E)	Str.	1	5	21	4	Slab								
R137(E)	Str.	10	5	53	8	Slab								
R138(E)	Str.	1	5	23	5	Slab								
R139(E)	Str.	1	5	52	3	Slab								
R140(E)	Str.	2	5	43	2	Slab								
R141(E)	Str.	2	5	45	6	Slab								
R142(E)	Str.	1	5	57	8	Slab								
R143(E)	Str.	1	5	29	9	Slab								
R144(E)	Str.	10	5	54	6	Slab								
R145(E)	Str.	12	5	45	4	Slab								
R146(E)	Str.	12	5	43	2	Slab								
R147(E)	Str.	12	5	41	6	Slab								
R148(E)	Str.	8	5	58	1	Slab								
R149(E)	Str.	8	5	54	4	Slab								
R150(E)	Str.	4	5	32	1	Slab								

\$\$\$\$design\$\$\$\$file\$\$\$\$specification\$\$\$\$

\$\$\$\$plot\$\$\$\$by\$\$\$\$

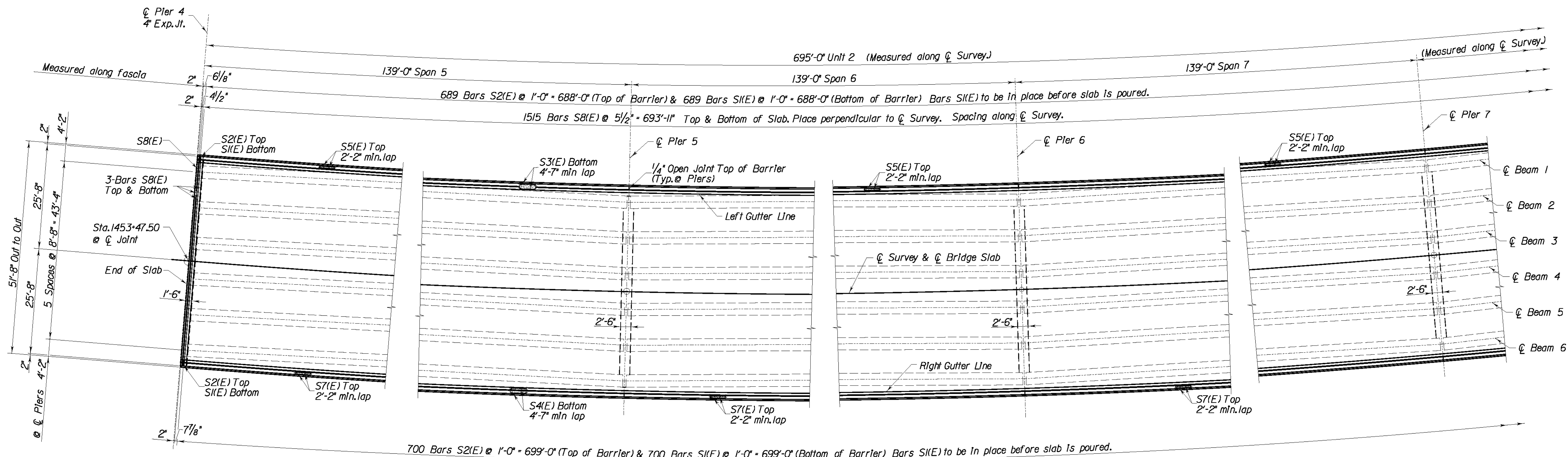
\$\$\$\$DATE\$\$\$\$

BILL OF REINFORCEMENT UNIT 1														BILL OF REINFORCEMENT UNIT 1															
Mark	Type	Number	Size	Length		Location	a		b		c		d		Mark	Type	Number	Size	Length		Location	a		b		c		d	
				Ft.	In.		Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.					Ft.	In.		Ft.	In.	Ft.	In.	Ft.	In.		
R151(E)	Str.	12	5	45	9	Slab								W1(E)	(2)	22	5	13	9	Diaphragm	5	8	2	6					
R152(E)	Str.	12	5	44	11	Slab								W2(E)	(2)	10	5	11	5	Diaphragm	4	6	2	6					
R153(E)	Str.	12	5	43	1	Slab								W3(E)	(2)	8	5	11	11	Diaphragm	4	9	2	6					
R154(E)	Str.	8	5	58	4	Slab								W4(E)	Str.	3	5	8	8	Diaphragm									
R155(E)	Str.	8	5	49	4	Slab								W5(E)	Str.	100	5	10	0	Diaphragm									
R156(E)	Str.	8	5	33	1	Slab								W6(E)	Str.	25	5	7	0	Diaphragm									
R157(E)	Str.	12	5	41	11	Slab								W7(E)	Str.	4	5	1	10	Diaphragm									
R158(E)	Str.	8	5	59	3	Slab								W8(E)	Str.	5	5	56	11	Diaphragm									
R159(E)	Str.	8	5	44	3	Slab								W9(E)	Str.	1	5	17	7	Diaphragm									
R160(E)	Str.	4	5	44	4	Slab								W10(E)	Str.	2	5	14	8	Diaphragm									
R161(E)	Str.	2	5	33	0	Slab								W11(E)	(2)	18	5	16	11	Diaphragm	6	9	3	6					
R162(E)	Str.	2	5	45	11	Slab								W12(E)	(2)	12	5	17	3	Diaphragm	6	11	3	6					
R163(E)	Str.	1	5	33	6	Slab								W13(E)	(2)	24	5	17	7	Diaphragm	7	1	3	6					
R164(E)	Str.	1	5	37	3	Slab								W14(E)	Str.	16	5	6	11	Diaphragm									
R165(E)	Str.	2	5	48	3	Slab								W15(E)	Str.	20	5	8	0	Diaphragm									
R166(E)	Str.	2	5	52	2	Slab								W16(E)	Str.	4	5	7	3	Diaphragm									
R167(E)	Str.	1	5	12	2	Slab								W17(E)	Str.	4	5	3	2	Diaphragm									
R168(E)	Str.	10	5	55	4	Slab								W18(E)	(2)	6	5	18	1	Diaphragm	7	4	3	6					
R169(E)	Str.	12	5	46	6	Slab								W19(E)	(2)	18	5	16	2	Diaphragm	7	0	2	3					
R170(E)	Str.	12	5	45	4	Slab								W20(E)	(2)	6	5	17	2	Diaphragm	7	6	2	3					
R171(E)	Str.	12	5	43	2	Slab								W21(E)	(2)	6	5	15	6	Diaphragm	6	8	2	3					
R172(E)	Str.	12	5	42	6	Slab								W22(E)	Str.	6	5	5	4	Diaphragm									
R173(E)	Str.	8	5	56	7	Slab								W23(E)	Str.	10	5	6	2	Diaphragm									
R174(E)	Str.	8	5	47	1	Slab								W24(E)	Str.	60	5	7	8	Diaphragm									
R175(E)	Str.	4	5	51	0	Slab								W25(E)	Str.	15	5	5	4	Diaphragm									
R176(E)	Str.	10	5	56	3	Slab								W26(E)	Str.	4	5	2	6	Diaphragm									
R177(E)	Str.	12	5	46	9	Slab								W27(E)	Str.	4	5	5	9	Diaphragm									
R178(E)	Str.	12	5	45	5	Slab								W28(E)	(2)	30	5	12	6	Diaphragm	5	8¼	1	2½					
R179(E)	Str.	12	5	44	5	Slab								W29(E)	(2)	10	5	10	2	Diaphragm	4	6¼	1	2½					
R180(E)	Str.	12	5	41	9	Slab								W30(E)	(2)	6	5	10	8	Diaphragm	4	9¼	1	2½					
R181(E)	Str.	8	5	57	7	Slab								W31(E)	Str.	3	5	6	6	Diaphragm									
R182(E)	Str.	8	5	39	7	Slab								W32(E)	Str.	4	5	1	7	Diaphragm									
R183(E)	Str.	4	5	42	11	Slab								W33(E)	Str.	5	5	43	8	Diaphragm									
R184(E)	Str.	12	5	43	3	Slab								W34(E)	Str.	2	5	11	6	Diaphragm									
R185(E)	Str.	8	5	58	6	Slab								W35(E)	Str.	1	5	14	0	Diaphragm									
R186(E)	Str.	8	5	42	4	Slab								W36(E)	(2)	20	5	12	5	Diaphragm	4	6	3	6					
R187(E)	Str.	4	5	31	10	Slab								W37(E)	(2)	10	5	11	2	Diaphragm	4	6	2	3					
R188(E)	Str.	1	5	21	9	Slab																							
R189(E)	Str.	1	5	29	9	Slab																							
R190(E)	Str.	5	5	41	4	Slab																							
R191(E)	Str.	1	5	33	4	Slab																							
R192(E)	Str.	3	5	56	7	Slab																							
R193(E)	Str.	1	5	48	7	Slab																							
R194(E)	Str.	3	5	41	9	Slab																							
R195(E)	Str.	1	5	33	10	Slab																							
R196(E)	Str.	3	5	43	8	Slab																							
R197(E)	Str.	1	5	35	8	Slab																							
R198(E)	Str.	3	5	58	10	Slab																							
R199(E)	Str.	1	5	50	11	Slab																							
R200(E)	Str.	5	5	43	1	Slab																							
R201(E)	Str.	1	5	35	2	Slab																							
R202(E)	Str.	1	5	36	0	Slab																							
R203(E)	Str.	1	5	28	1	Slab																							
R204(E)	Str.	10	5	57	1	Slab																							
R205(E)	Str.	50	5	57	9	Slab																							
R206(E)	Str.	12	5	46	10	Slab																							
R207(E)	Str.	12	5	45	4	Slab																							

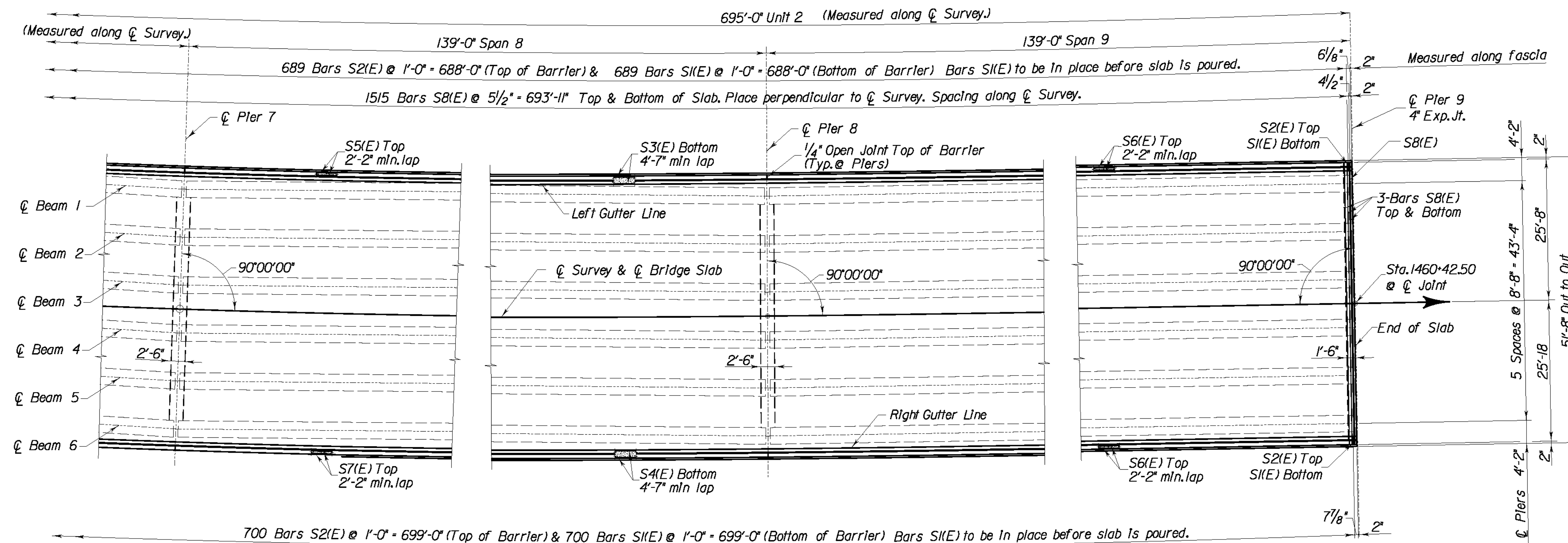


REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky			
DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE		CROSSING	
U. S. 119		POOR FORK CUMBERLAND RIVER	
SUPERSTRUCTURE UNIT 1			
PREPARED BY		SHEET NO.	
T.H.E. ENGINEERS, INC.		S77	
		DRAWING NO.	
		25296	

ITEM NUMBER
12-311.10

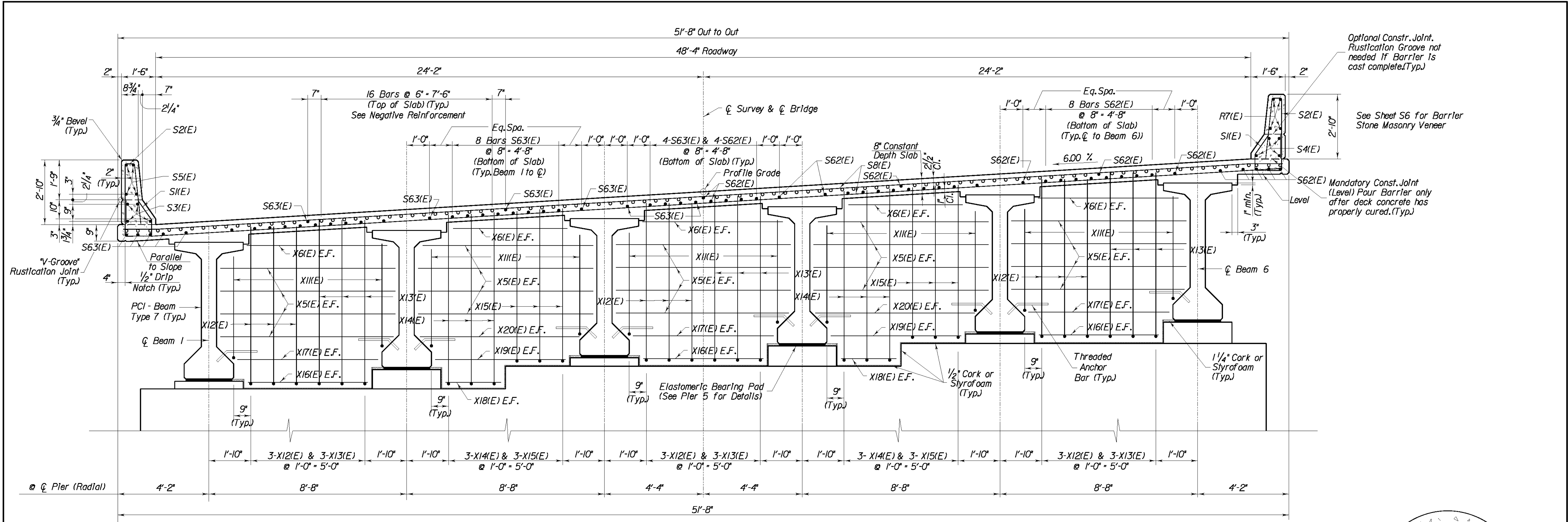


PLAN



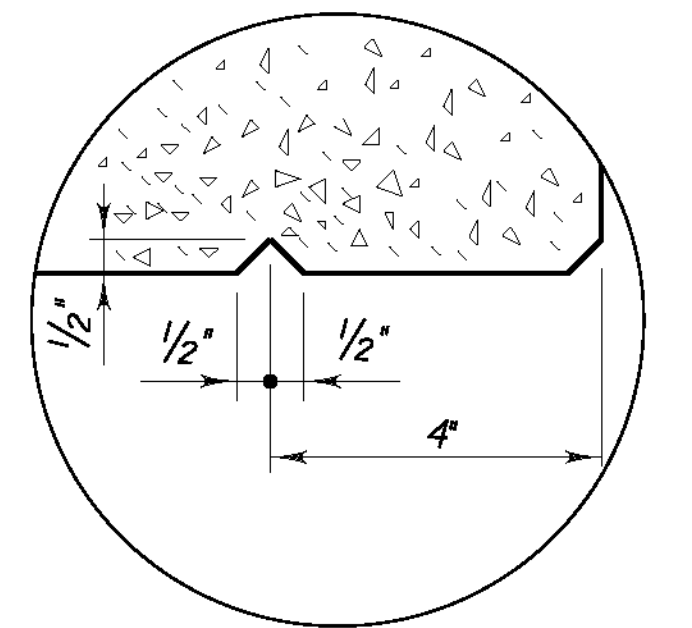
PLAN

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
SUPERSTRUCTURE UNIT 2			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S78
			DRAWING NO. 25296

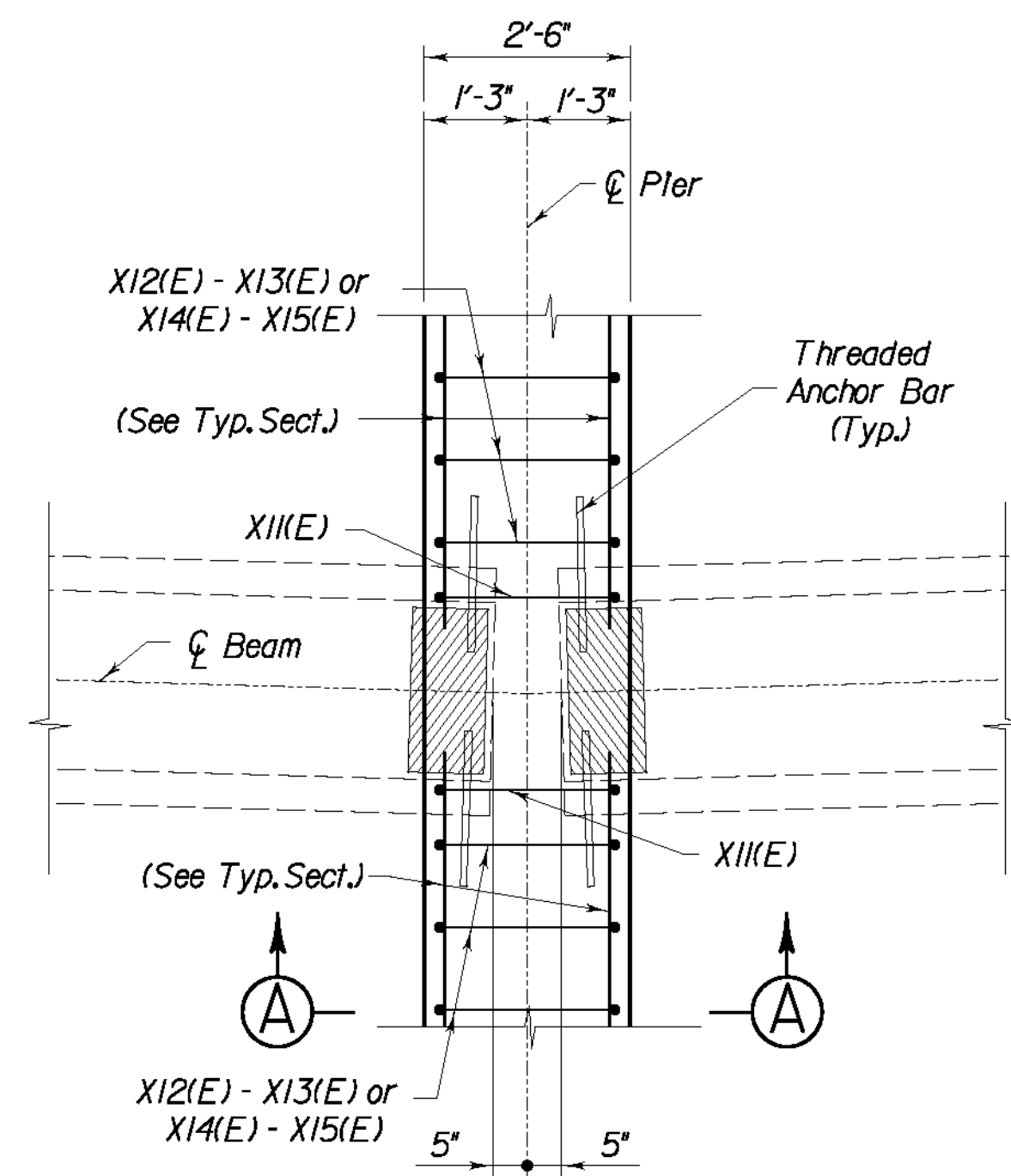


TYPICAL SECTION PIER 5

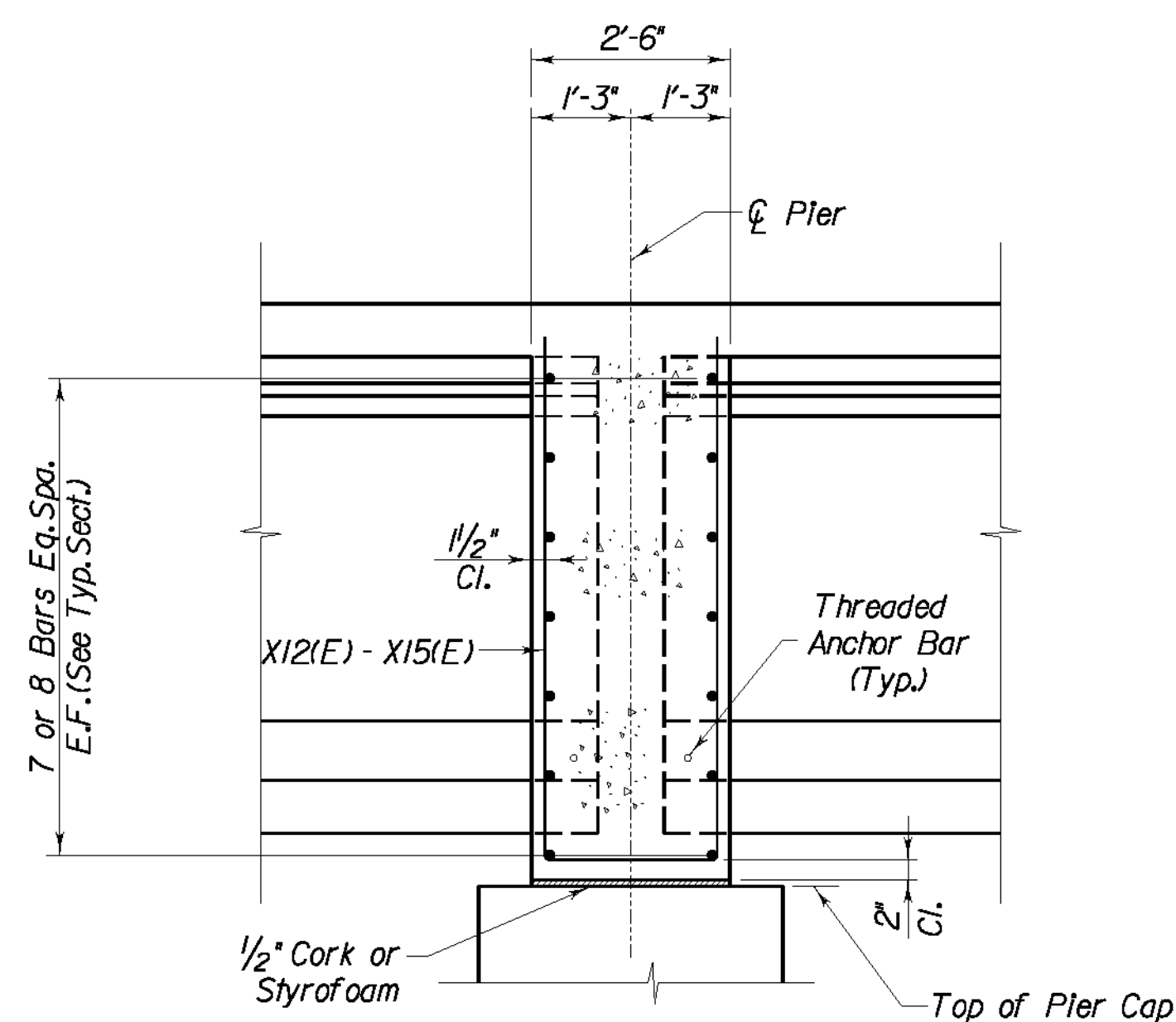
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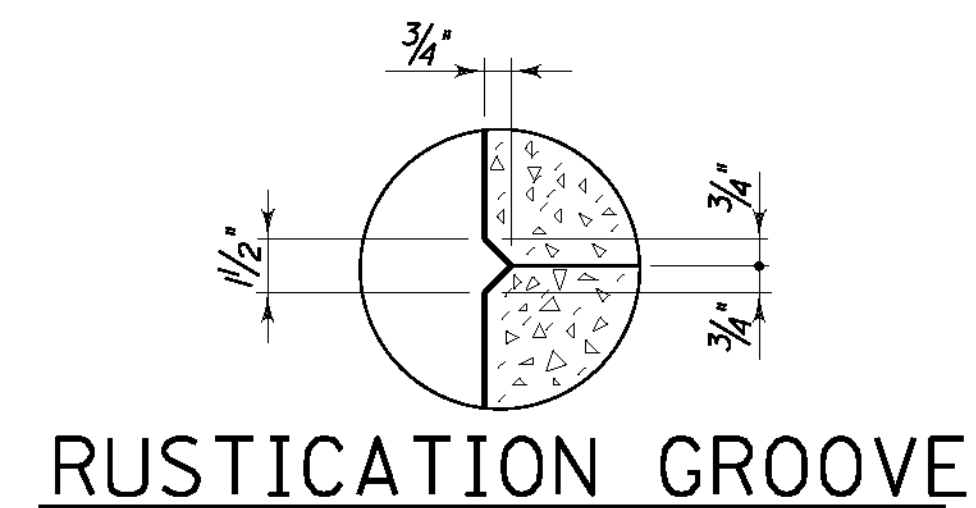
DRIP NOTCH DETAIL



PART PLAN PIER 5

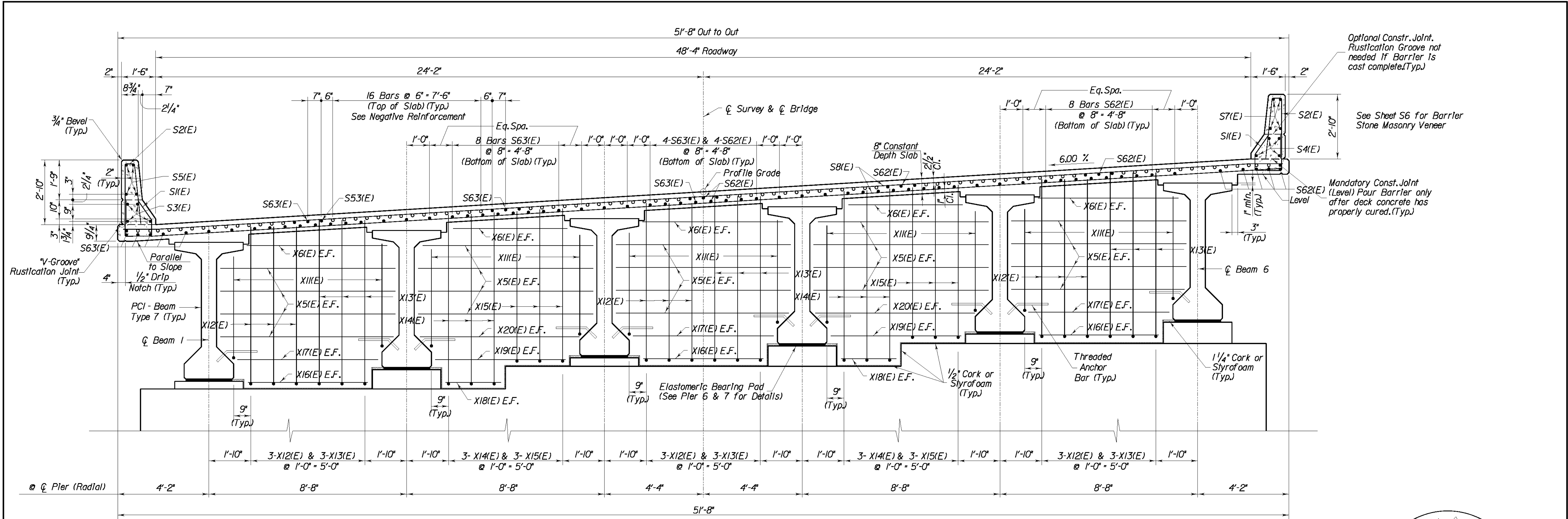


SECTION A-A



RUSTICATION GROOVE

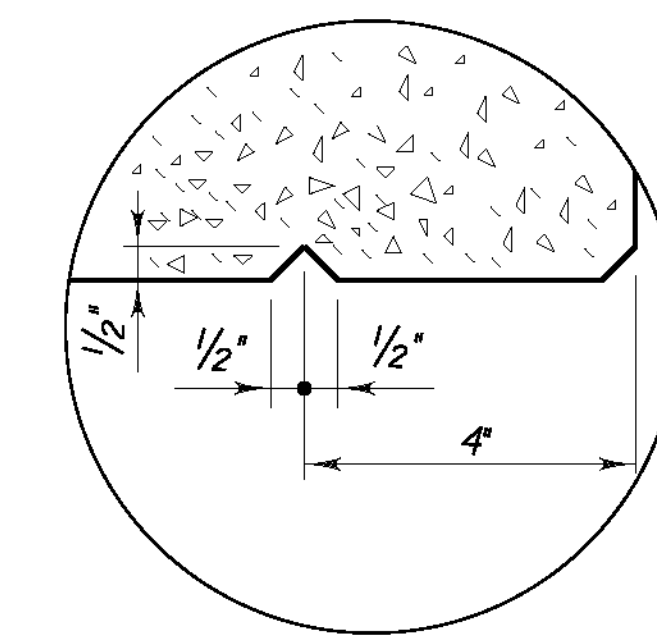
REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U.S. 119		CROSSING POOR FORK CUMBERLAND RIVER	
SUPERSTRUCTURE UNIT 2			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S80
			DRAWING NO. 25296



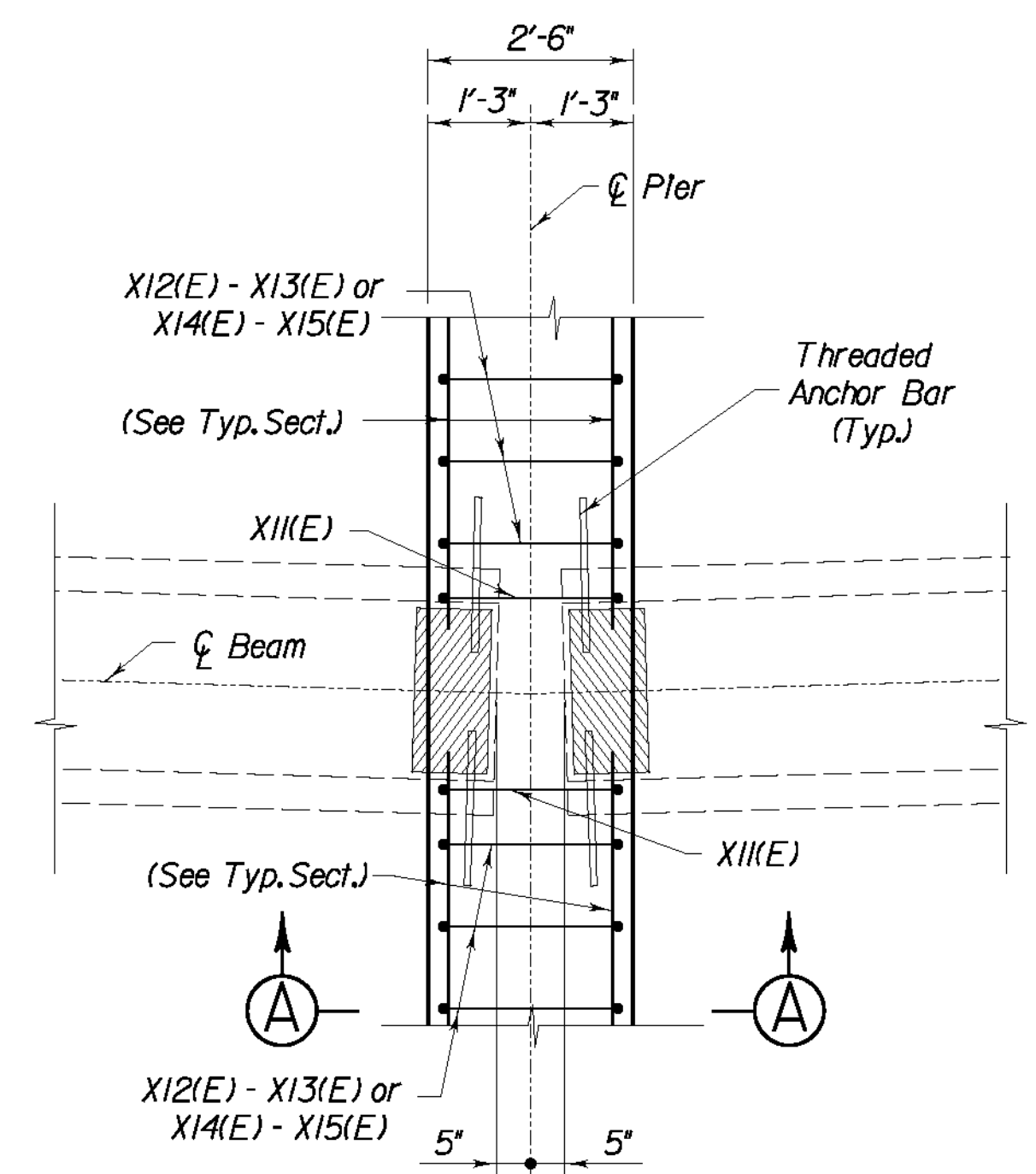
Optional Constr. Joint.
Rustication Groove not
needed if Barrier is
cast complete.(Typ.)

See Sheet S6 for Barrier
Stone Masonry Veneer

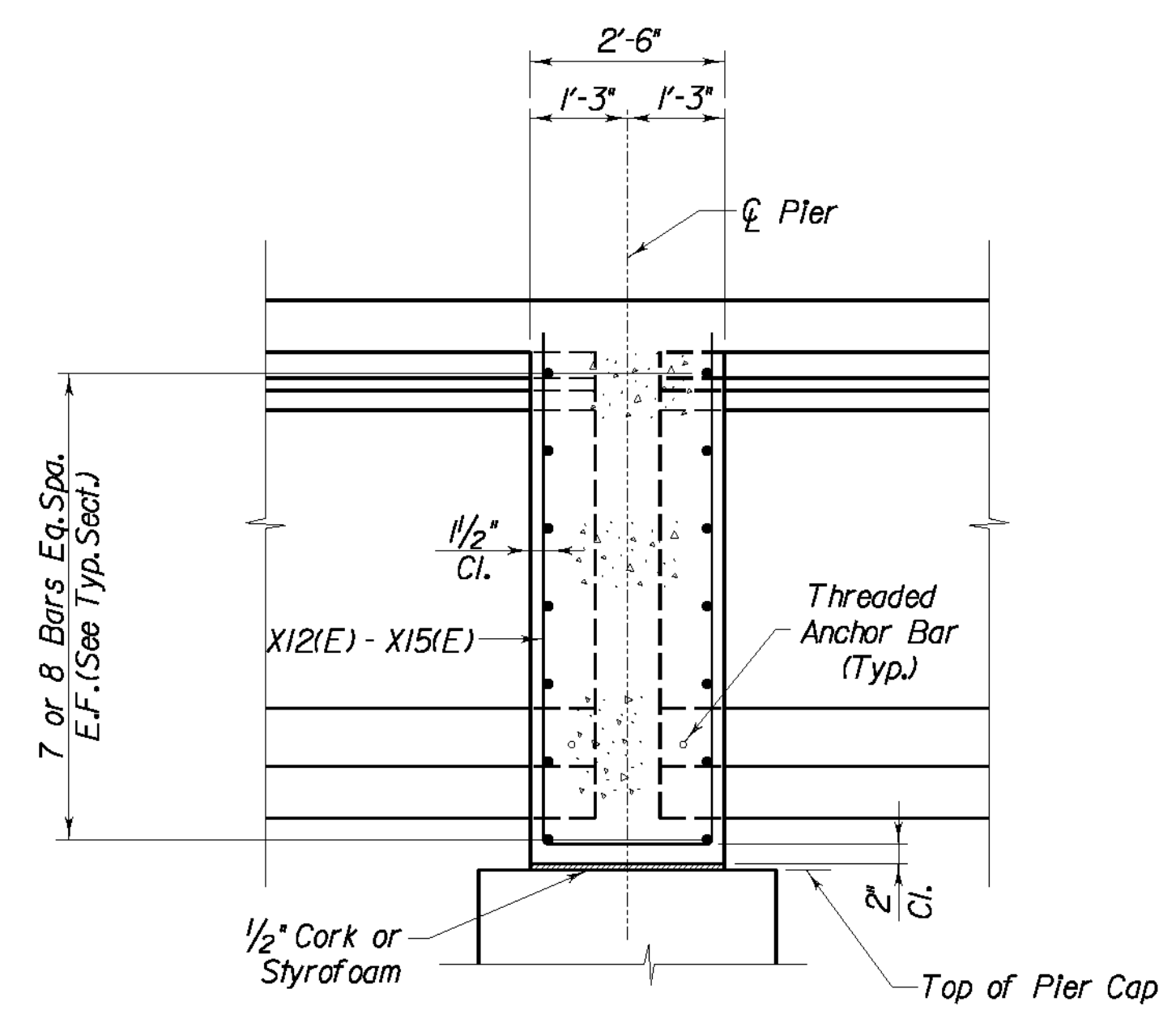
Mandatory Const. Joint
(Level) Pour Barrier only
after deck concrete has
properly cured.(Typ.)



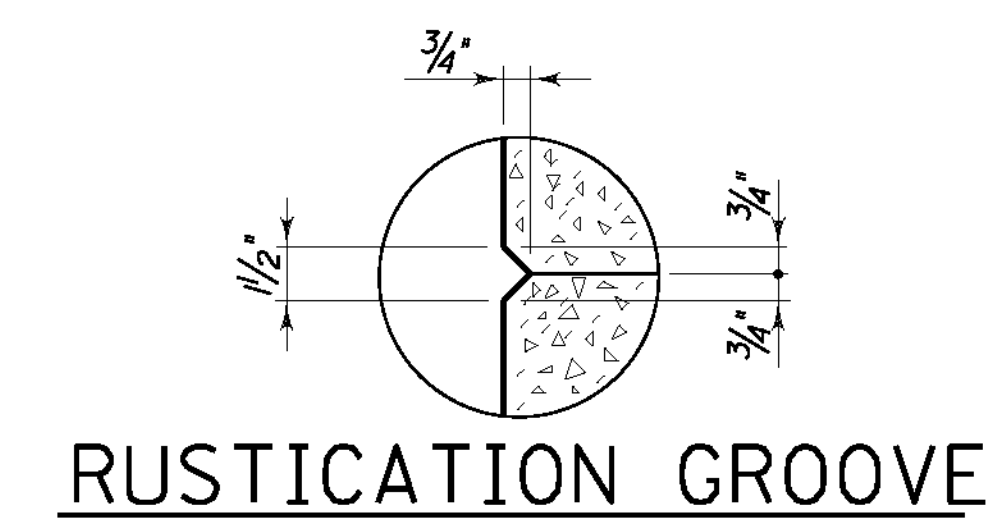
DRIP NOTCH DETAIL



PART PLAN PIER 6 & 7

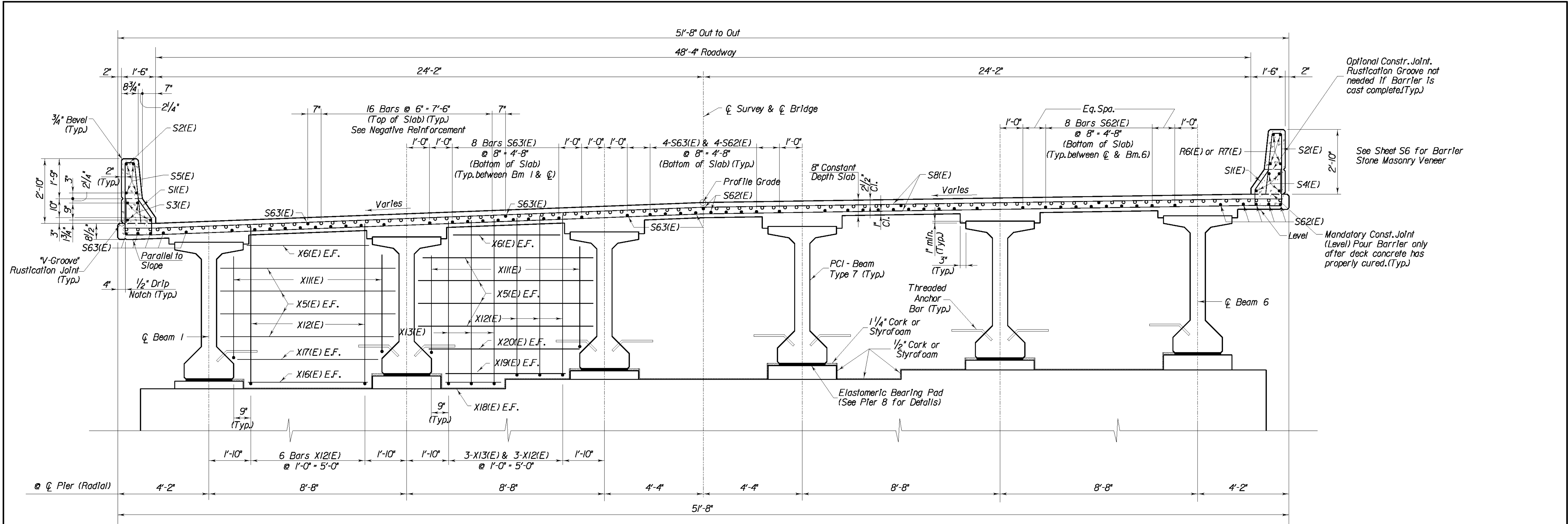


SECTION A-A



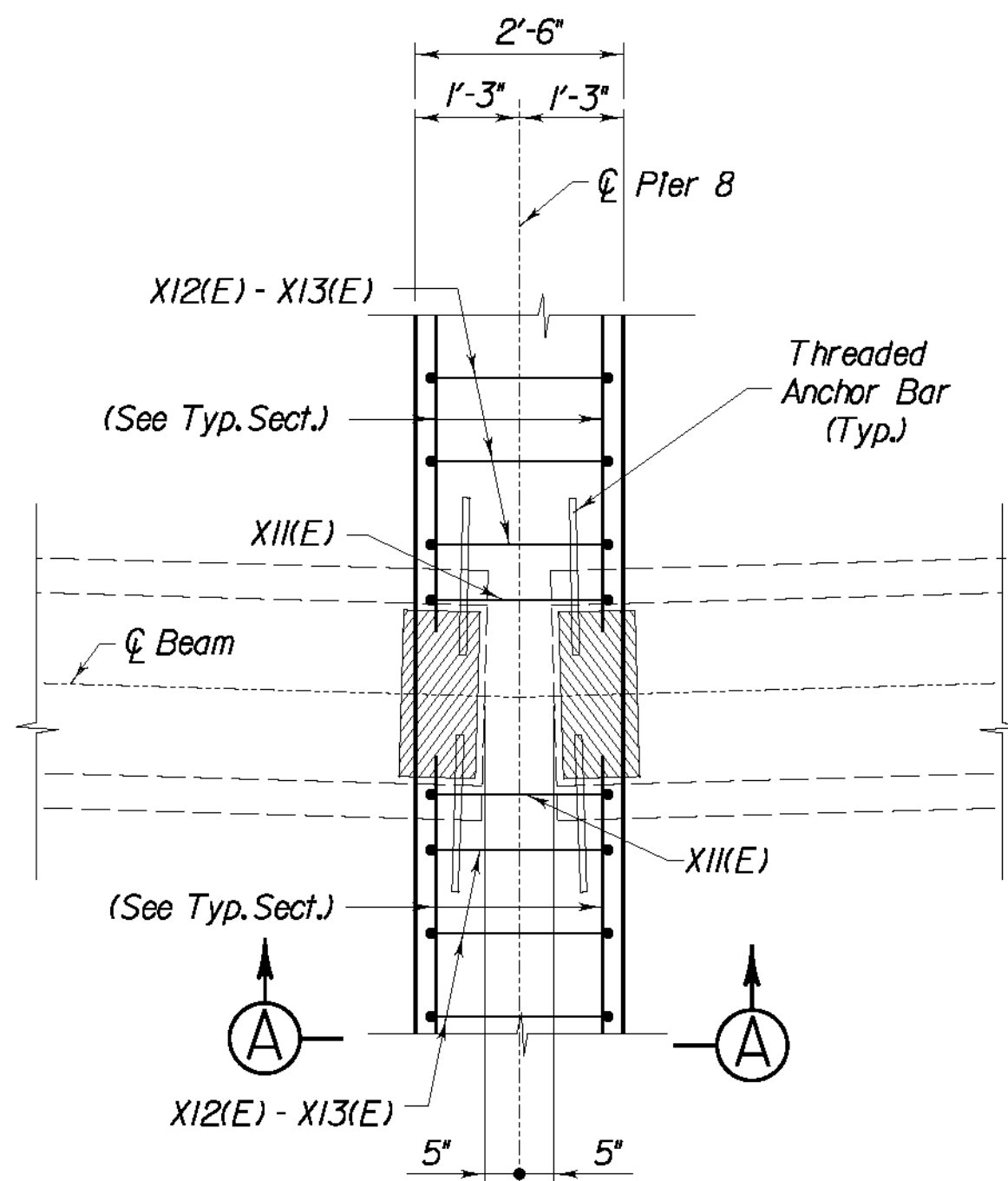
RUSTICATION GROOVE

REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
SUPERSTRUCTURE UNIT 2		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S81
		DRAWING NO. 25296

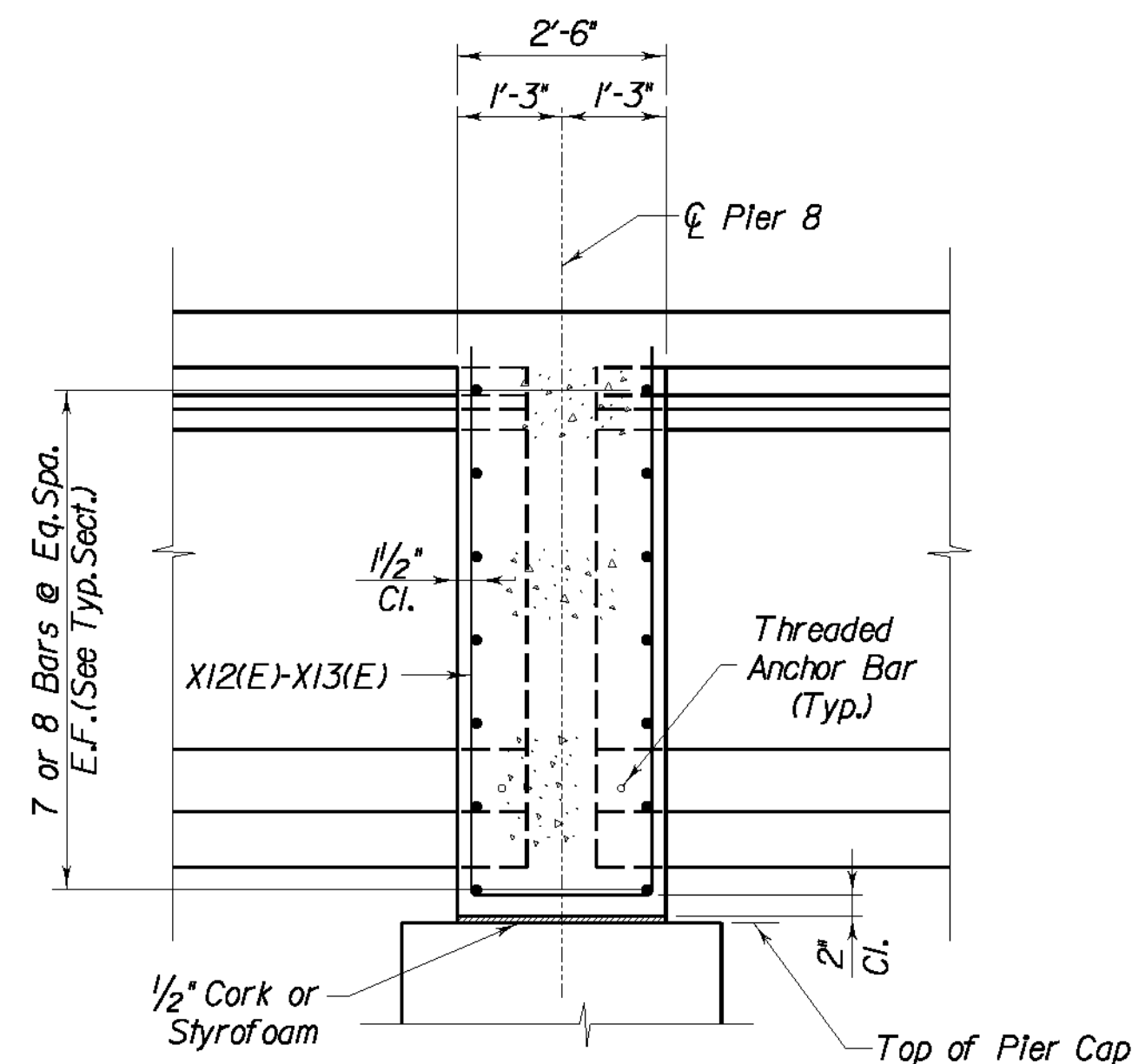


TYPICAL SECTION PIER 8

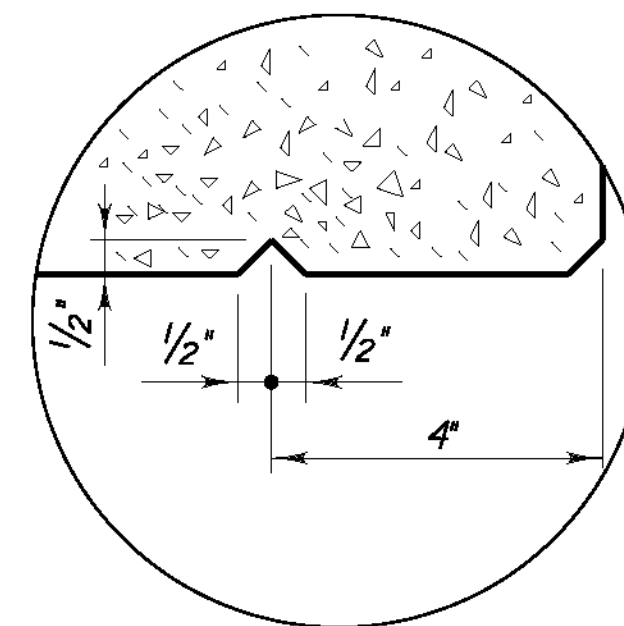
(Looking Ahead)



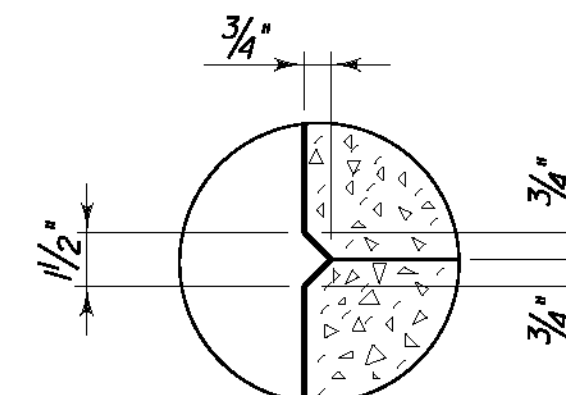
PART PLAN PIER 8



SECTION A-A



DRIP NOTCH DETAIL



RUSTICATION GROOVE

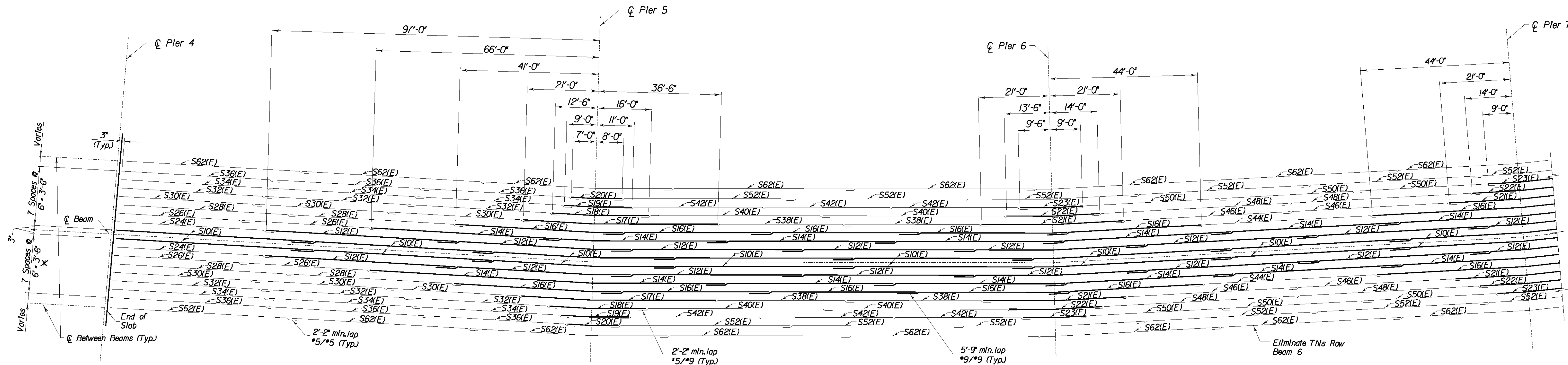
REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U. S. 119		CROSSING POOR FORK CUMBERLAND RIVER	
SUPERSTRUCTURE UNIT 2			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S82
			DRAWING NO. 25296



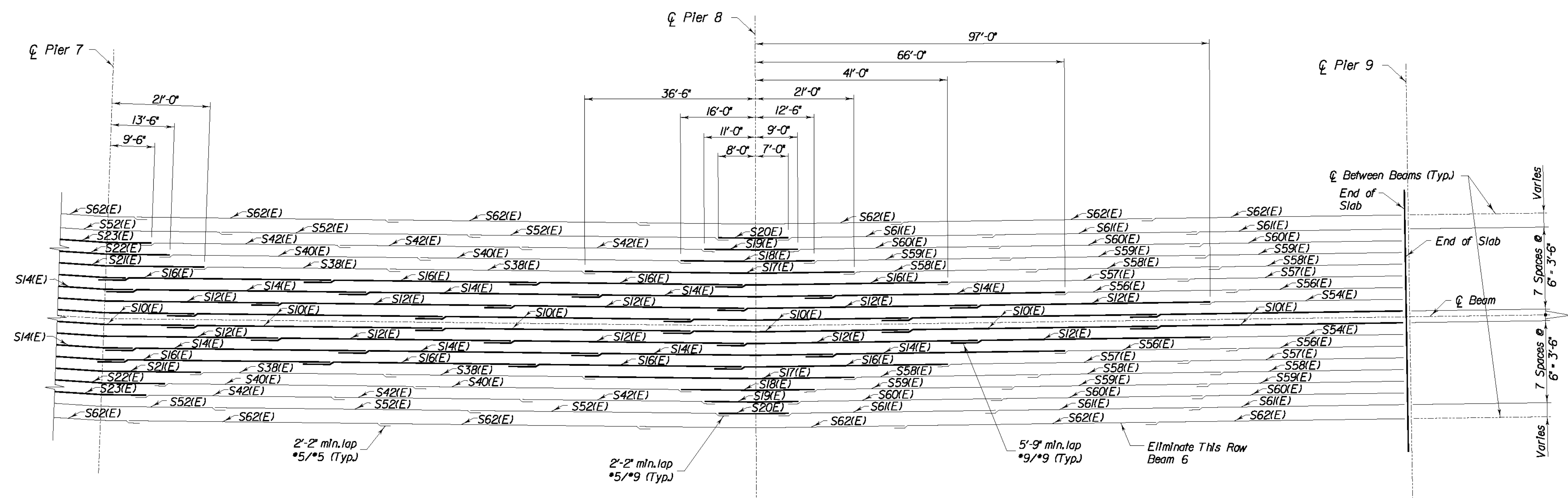
ITEM NUMBER
11-311.9

SHEET NO.
S84

DRAWING NO.
25396

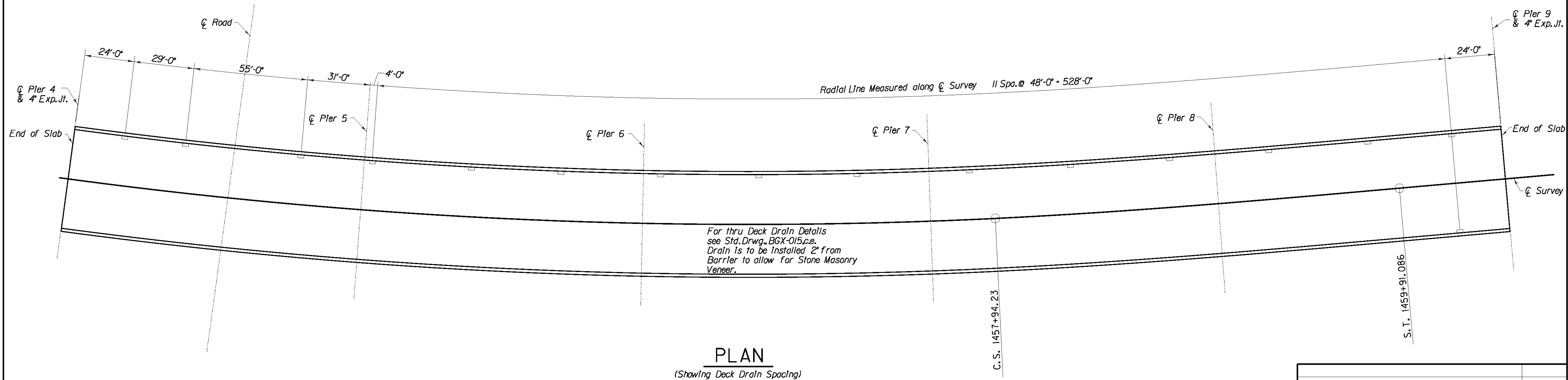
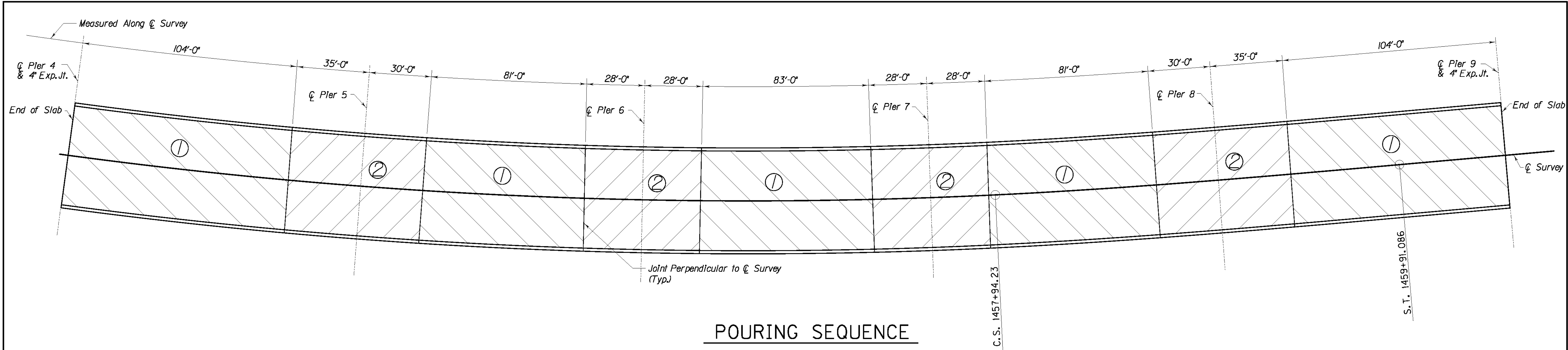


**SCHEMATIC DIAGRAM NEGATIVE MOMENT REINFORCEMENT
BEAMS 4, 5 & 6, SPANS 5, 6 & 7**



**SCHEMATIC DIAGRAM NEGATIVE MOMENT REINFORCEMENT
BEAMS 4, 5 & 6, SPANS 8 & 9**

REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
<i>SUPERSTRUCTURE UNIT 2</i>		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S85
		DRAWING NO. 25296



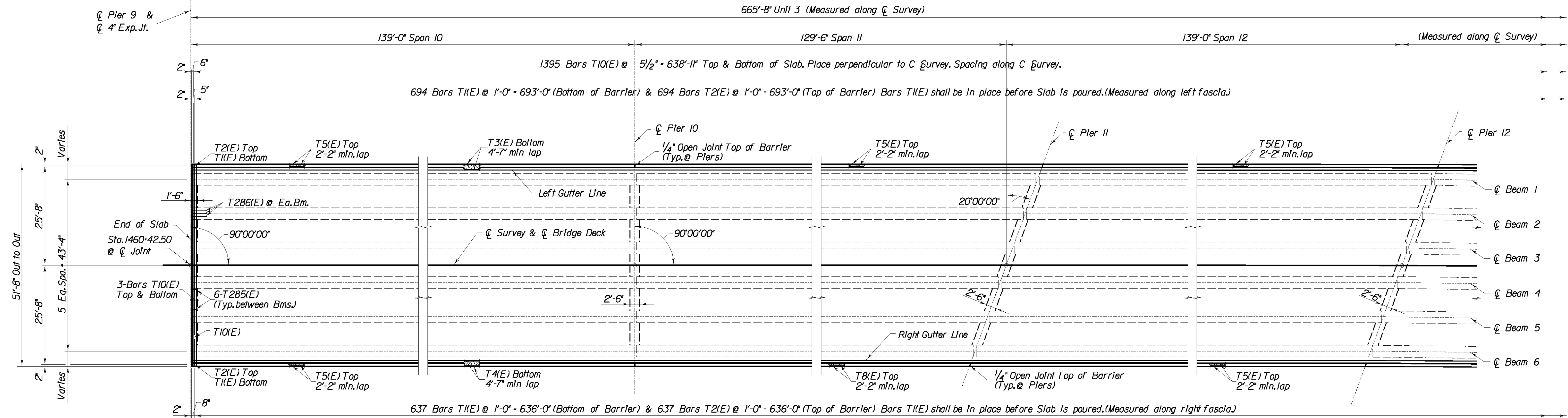
REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky			
DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE		CROSSING	
U. S. 119		POOR FORK CUMBERLAND RIVER	
<i>SUPERSTRUCTURE UNIT 2</i>			
PREPARED BY			SHEET NO.
T.H.E. ENGINEERS, INC.			S87
			DRAWING NO.
			25296

ITEM NUMBER
12-311.10

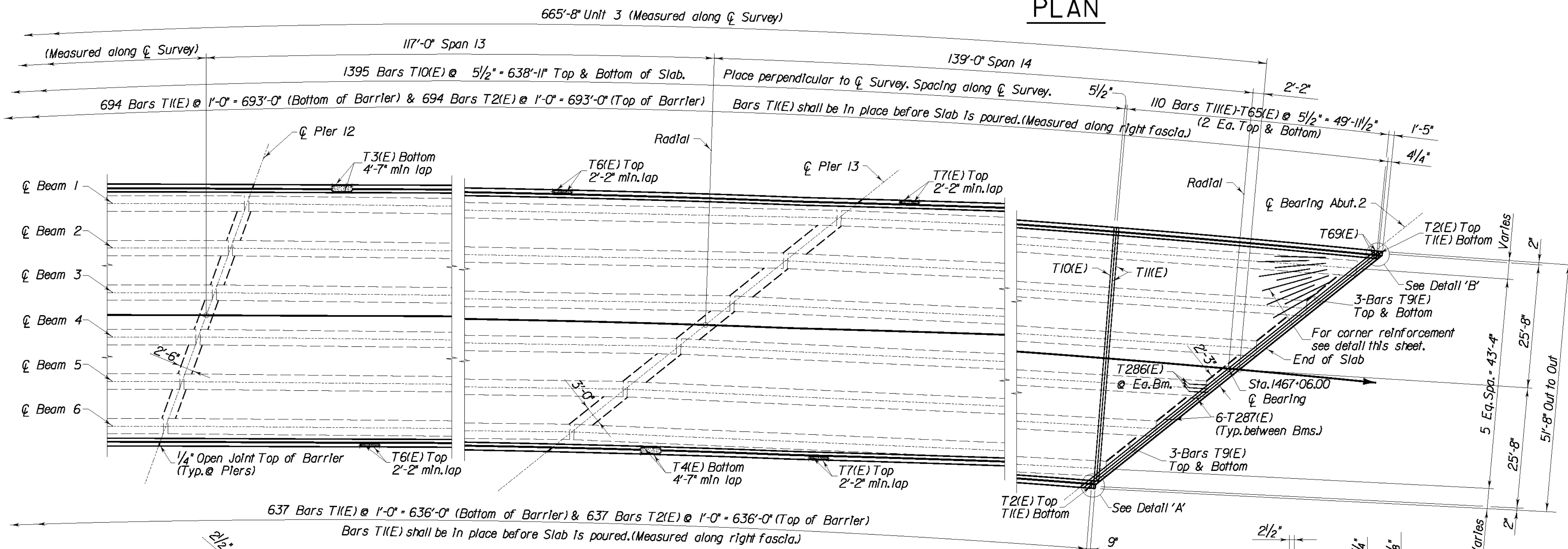
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\$\$\$\$plotted\$\$\$\$

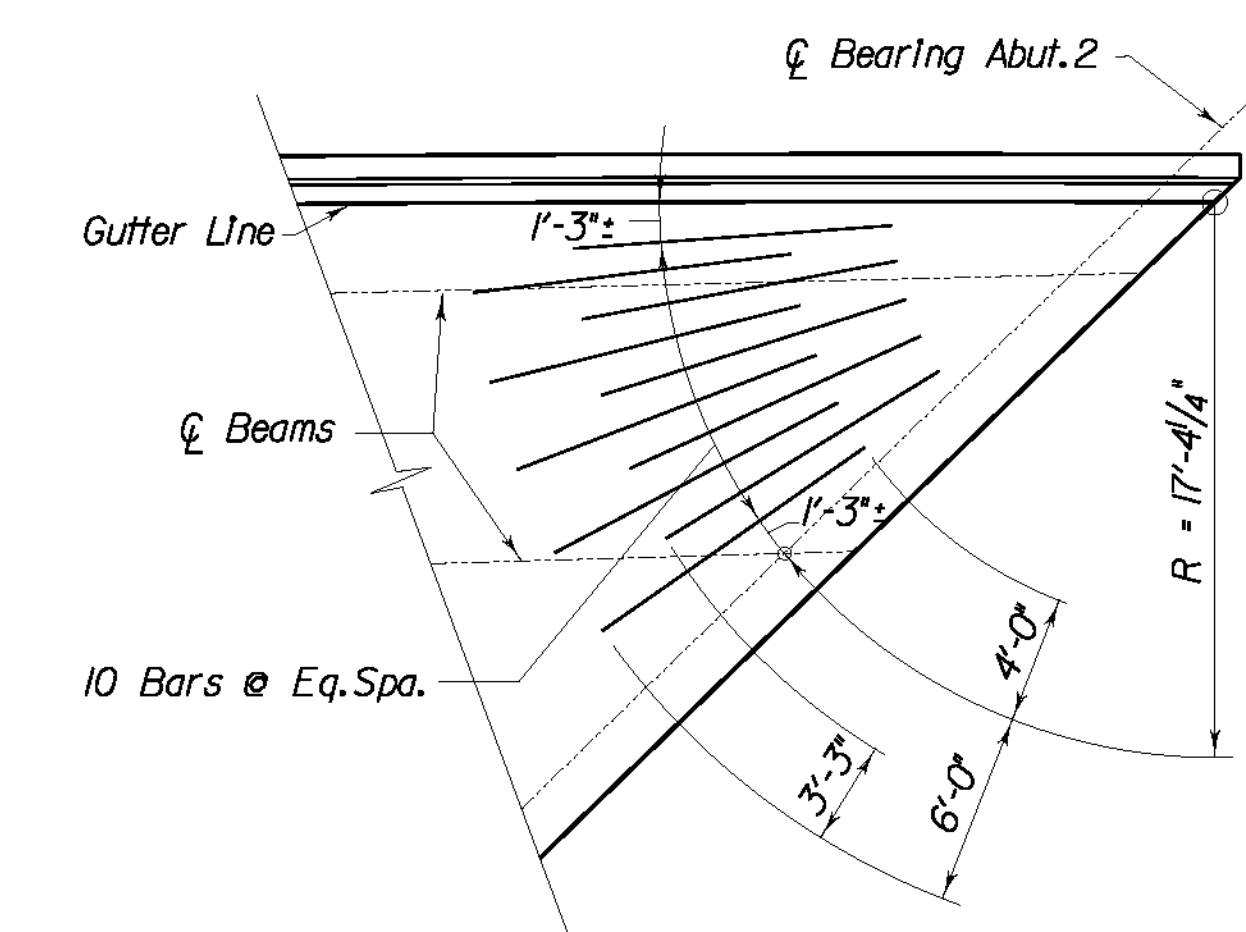
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PLAN

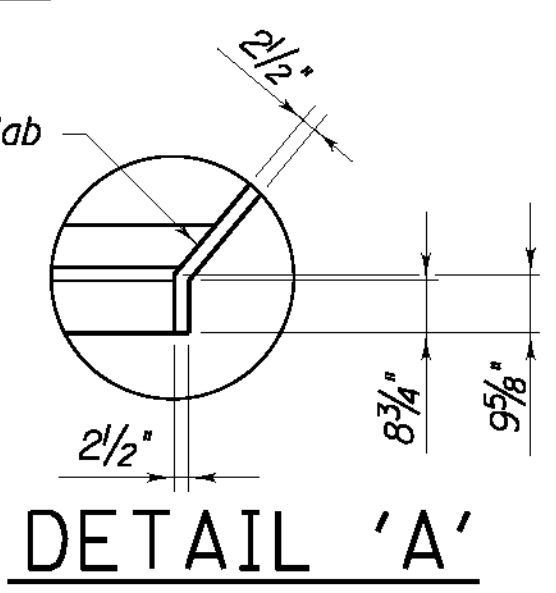


PLAN

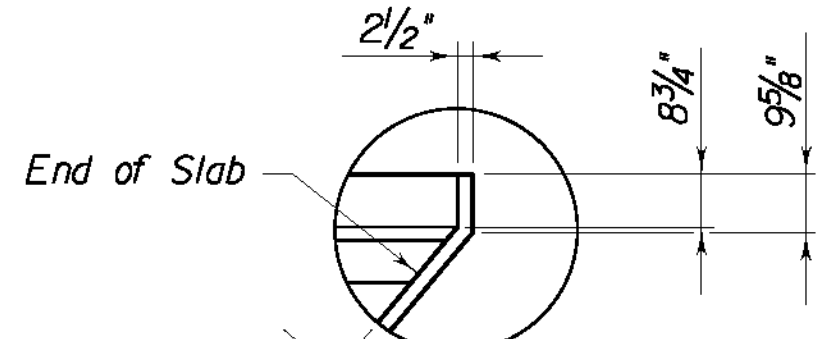


CORNER REINFORCEMENT DETAIL

NOTE:
Corner reinforcement shall be placed beneath the longitudinal and transverse reinforcement in the top of the slab.



DETAIL 'A'



DETAIL 'B'

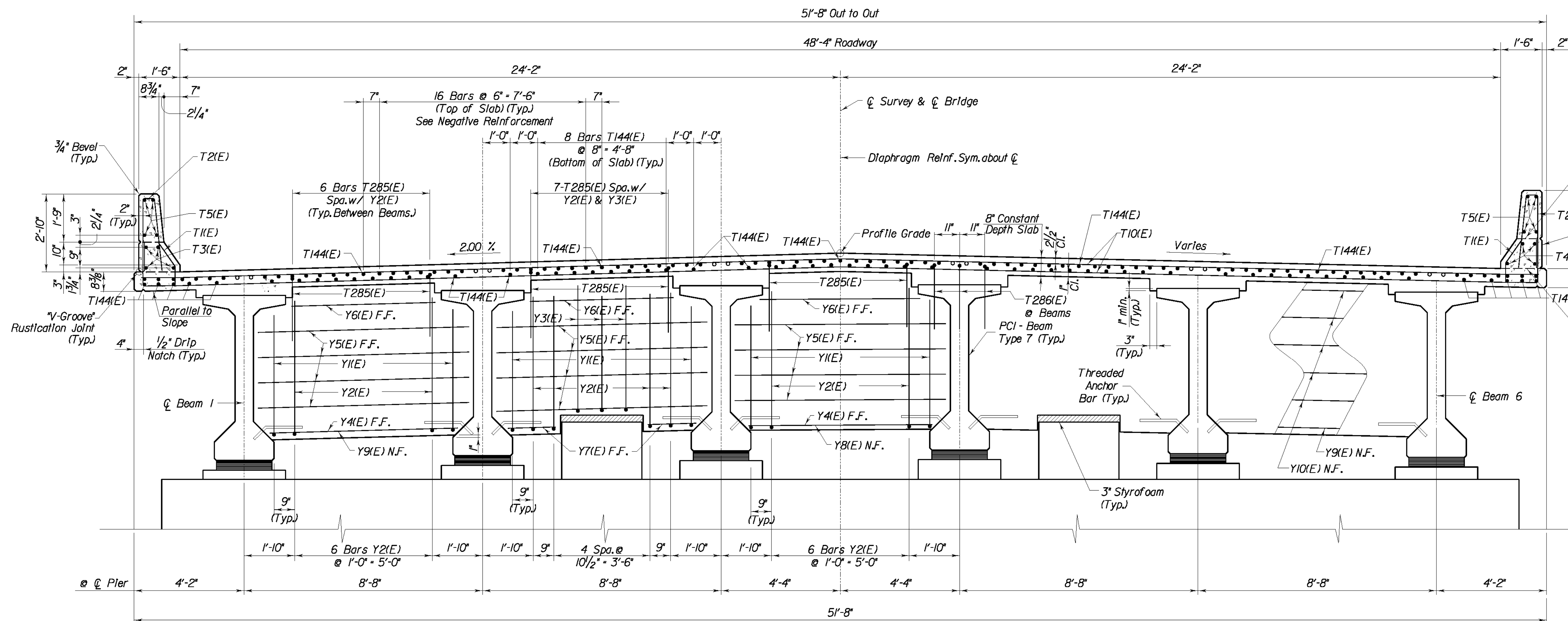
ITEM NUMBER
12-311.10

REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U. S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
SUPERSTRUCTURE UNIT 3		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S88
		DRAWING NO. 25296

\$\$\$\$designsfile\$specification\$\$\$\$

\$\$\$\$DATE\$\$\$\$

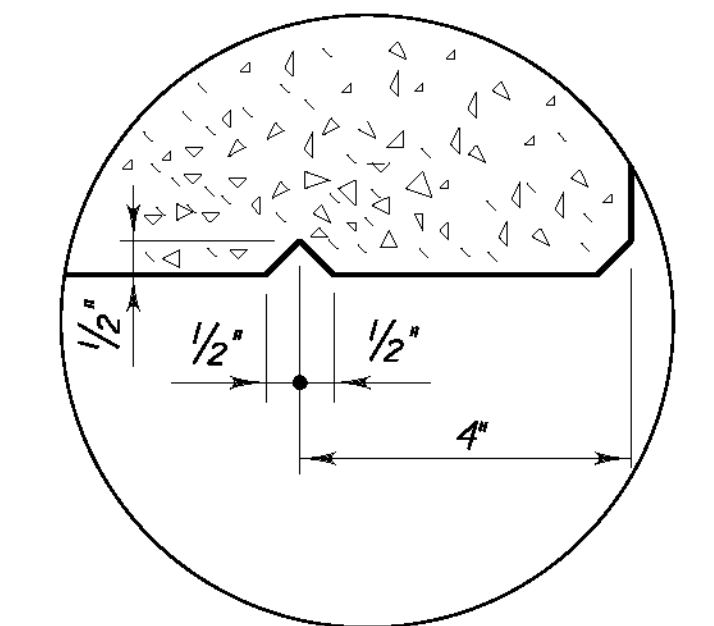
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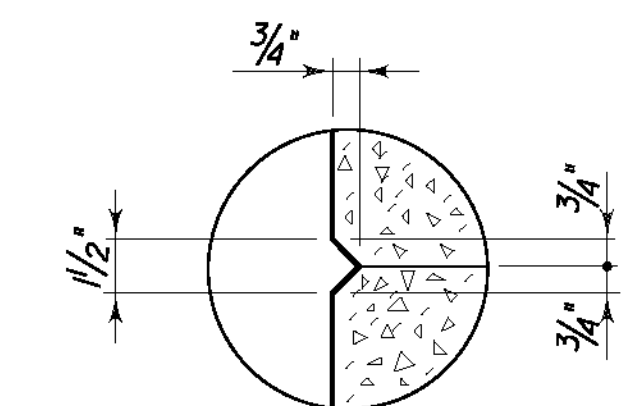
Optional Constr. Joint.
Rustication Groove not
needed if Barrier is
cast complete. (Typ.)

See Sht. S6 for
Barrier Stone
Masonry Veneer
(Typ.)

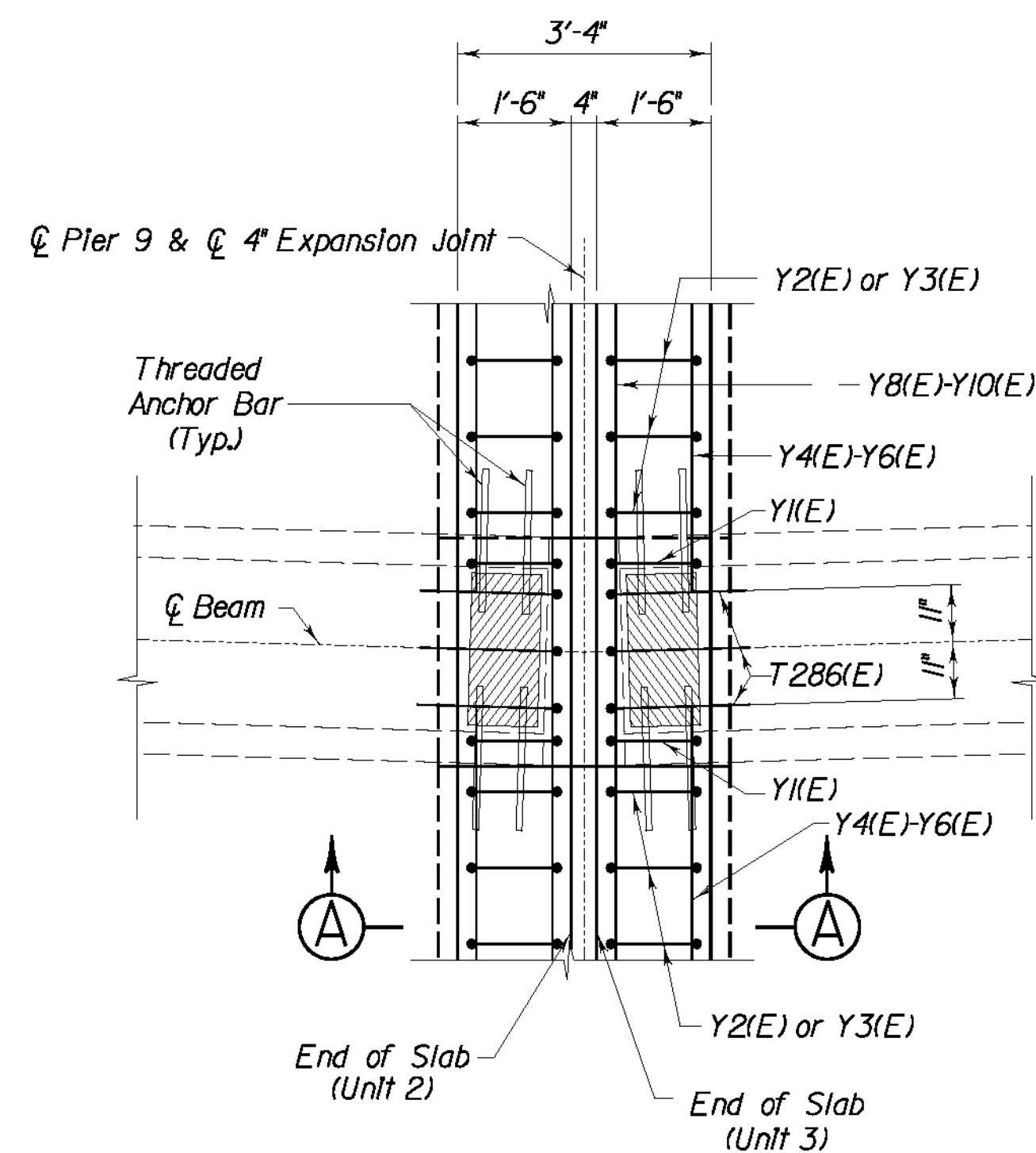
Mandatory Const. Joint
(Level) Pour Barrier only
after deck concrete has
properly cured. (Typ.)



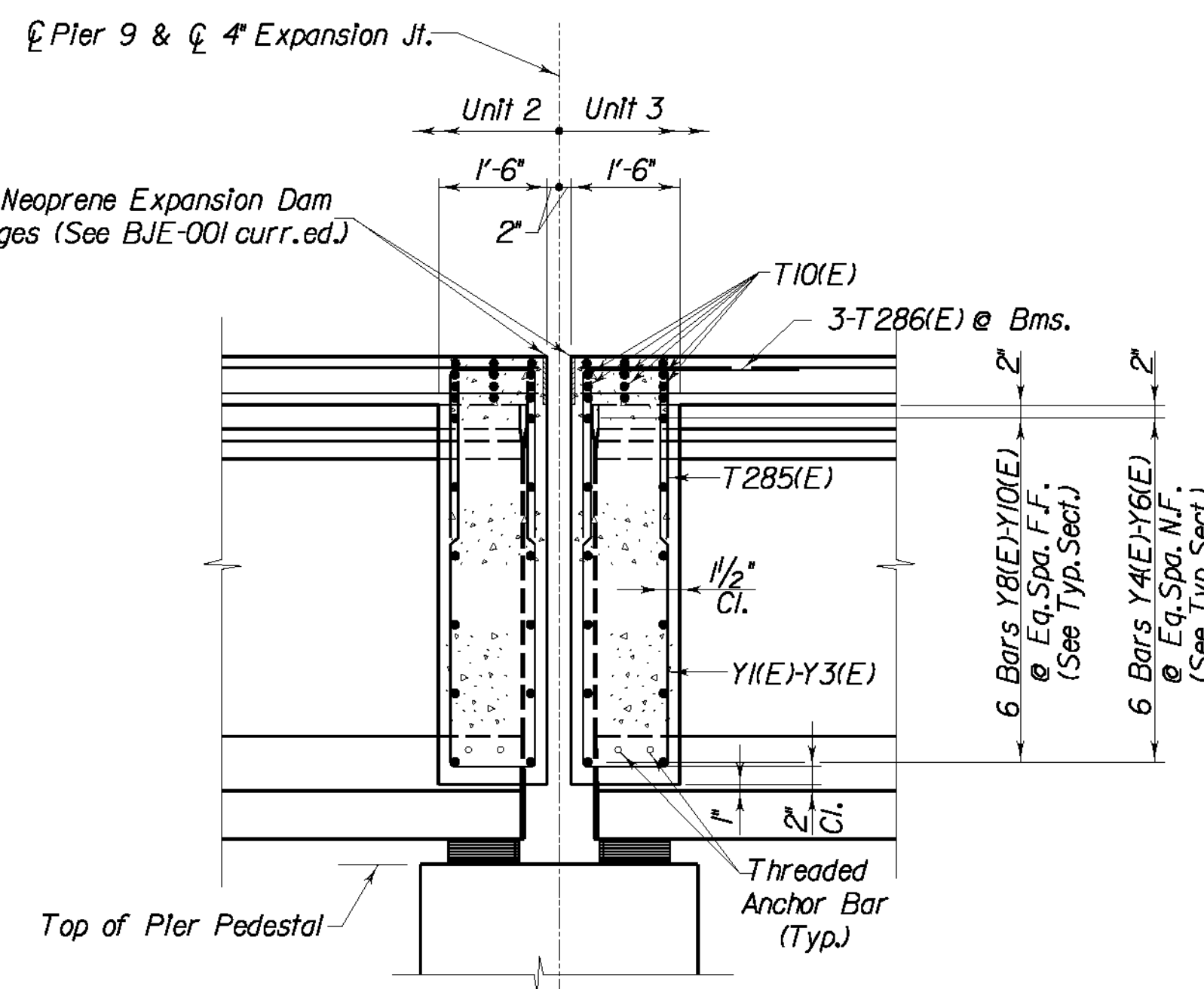
DRIP NOTCH DETAIL



RUSTICATION GROOVE

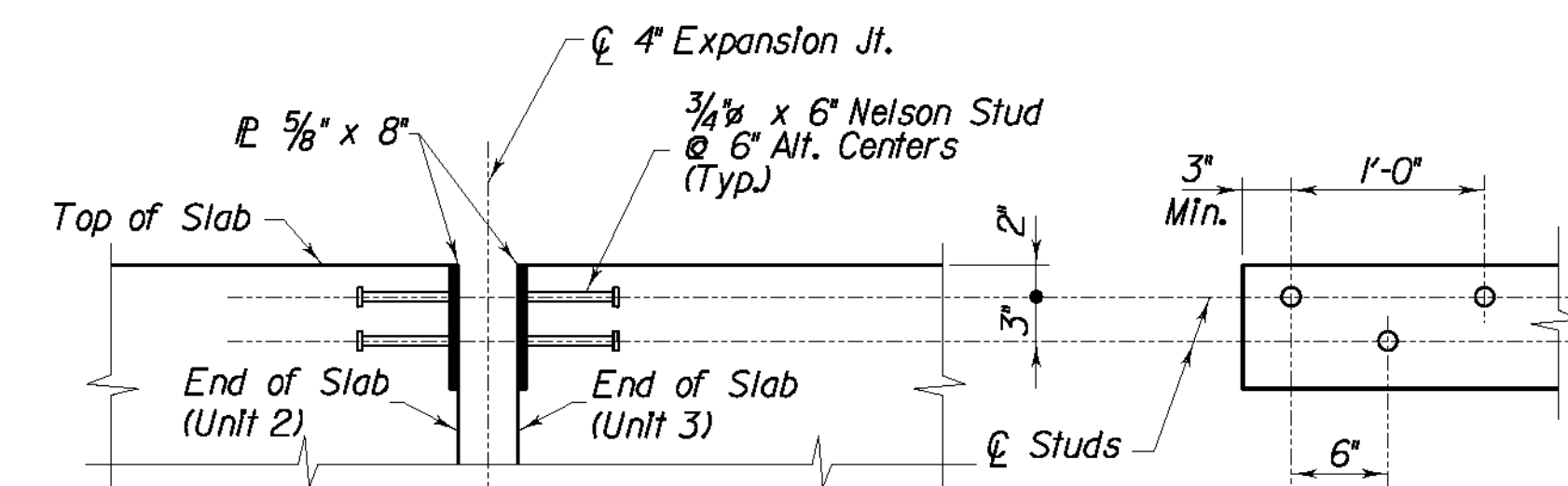


PART PLAN PIER 9



SECTION A-A

N.F. denotes Near Face
F.F. denotes Far Face



ARMORED EDGE DETAILS

(See Std. Drwg. BJE-001-c.e.)
(Armored Edge shall extend from Left Gutter
Line to Right Gutter Line at End of Slab.
(Included in 4" Neoprene Expansion Dam)

ITEM NUMBER
12-311.10

REVISION		DATE
DATE:	09 - 2003	CHECKED BY:
DESIGNED BY:	P. A. P.	W. T. B.
DETAILED BY:	D. W. S.	P. F. H.
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
SUPERSTRUCTURE UNIT 3		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S89
		DRAWING NO. 25296

\$\$\$\$designsfile\$specification\$\$\$\$

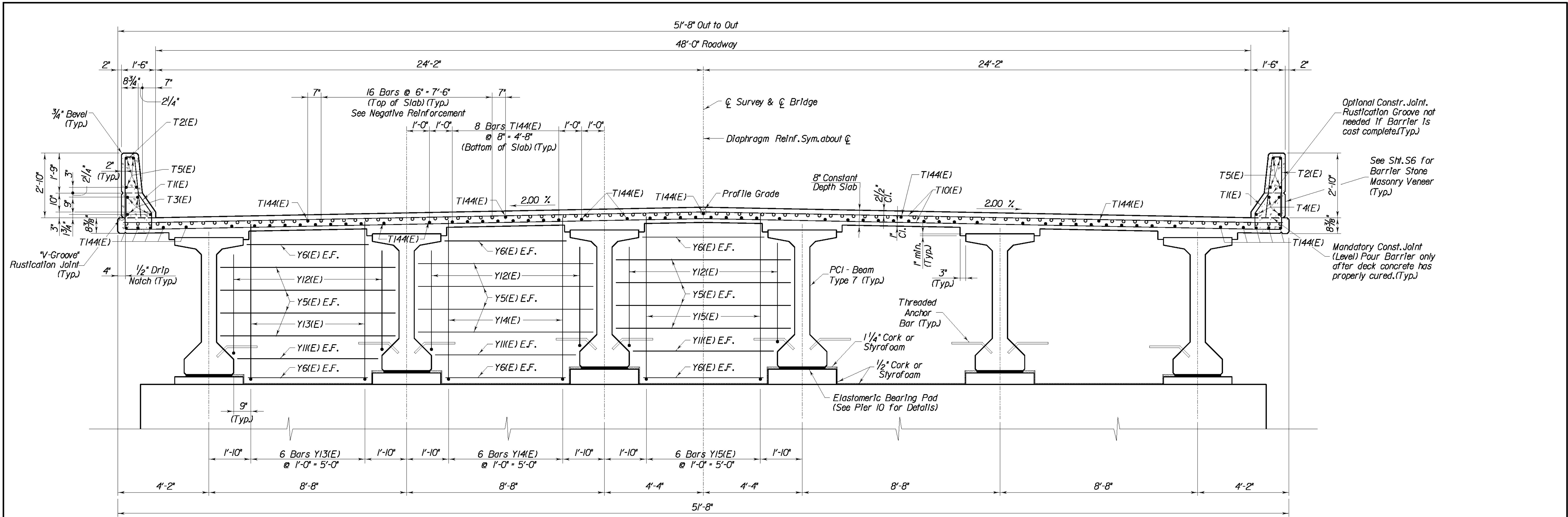
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\$\$\$\$DATE\$\$\$\$

\$\$\$\$DATE\$\$\$\$

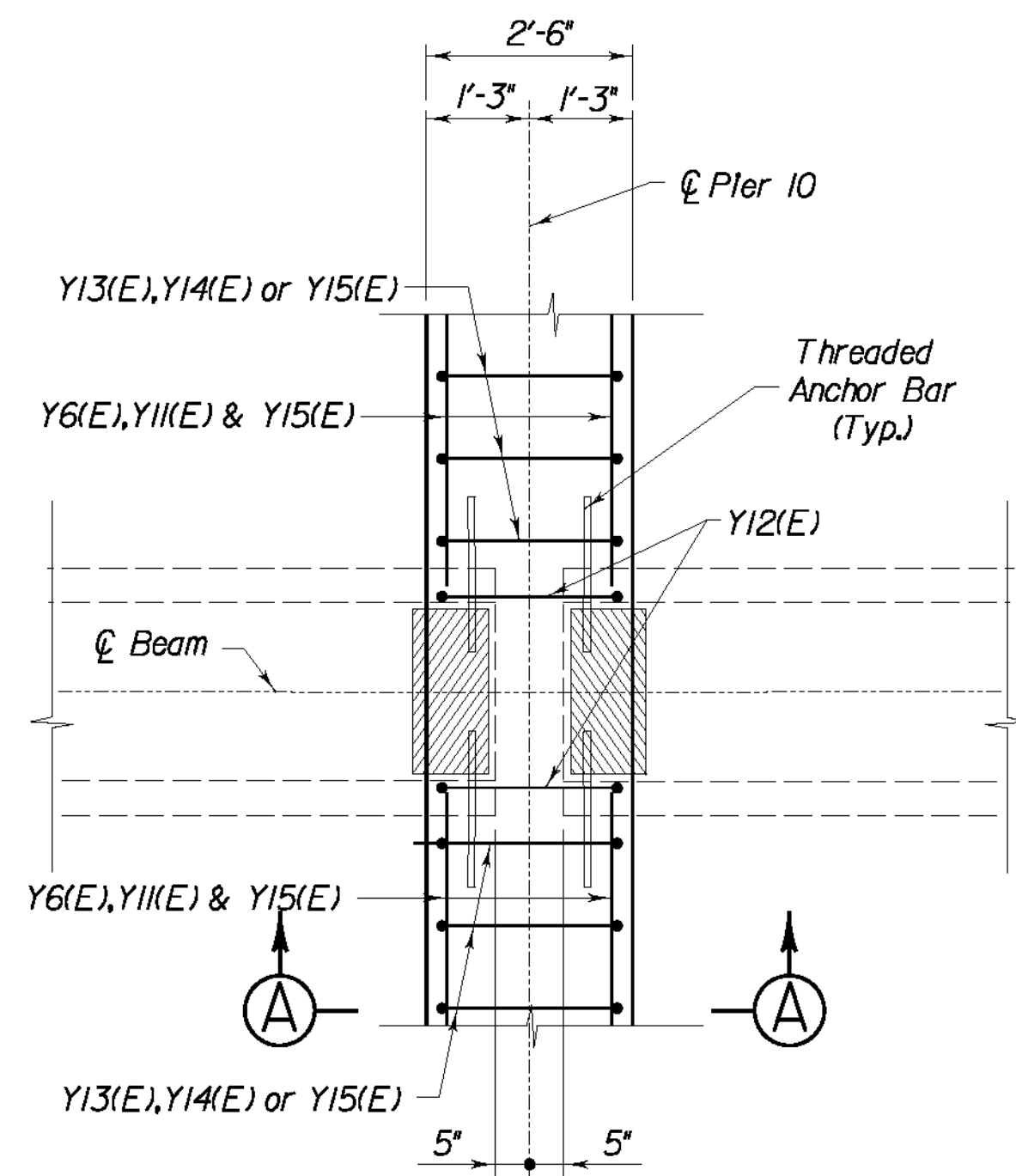
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\$\$\$\$DATE\$\$\$\$

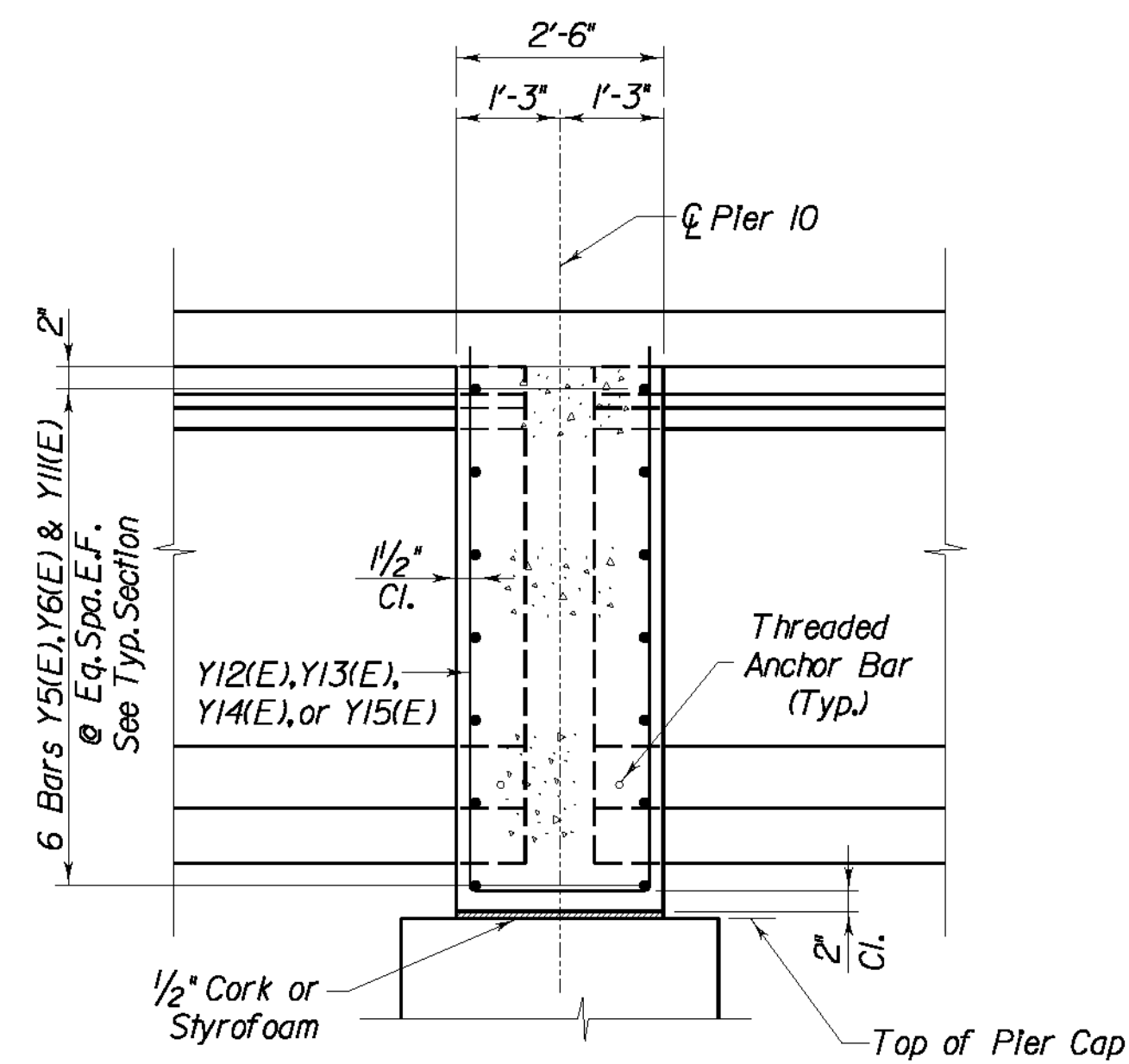


TYPICAL SECTION PIER 10

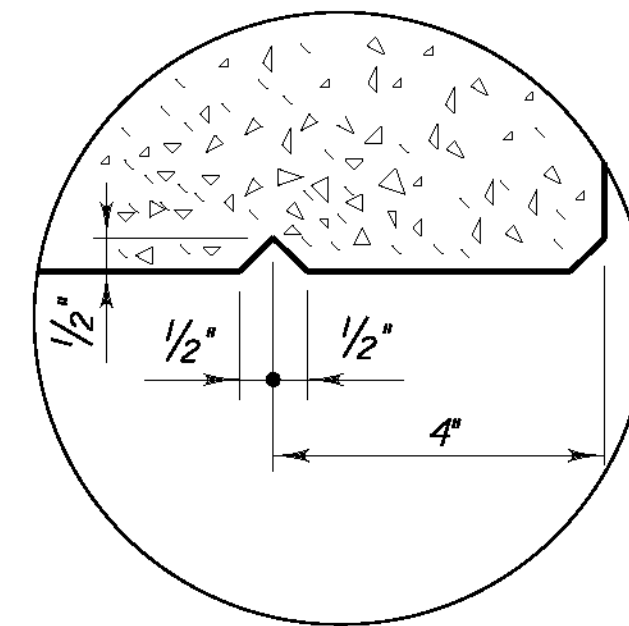
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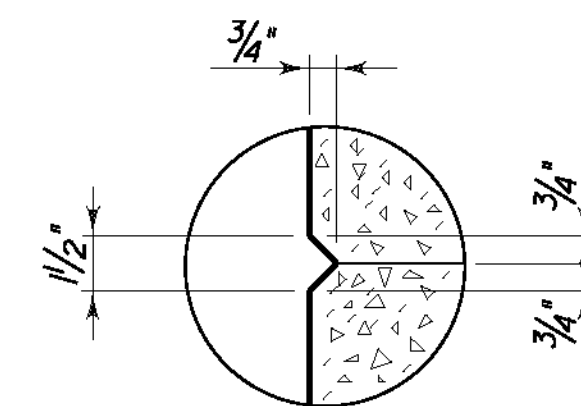
PART PLAN PIER 10



SECTION A-A

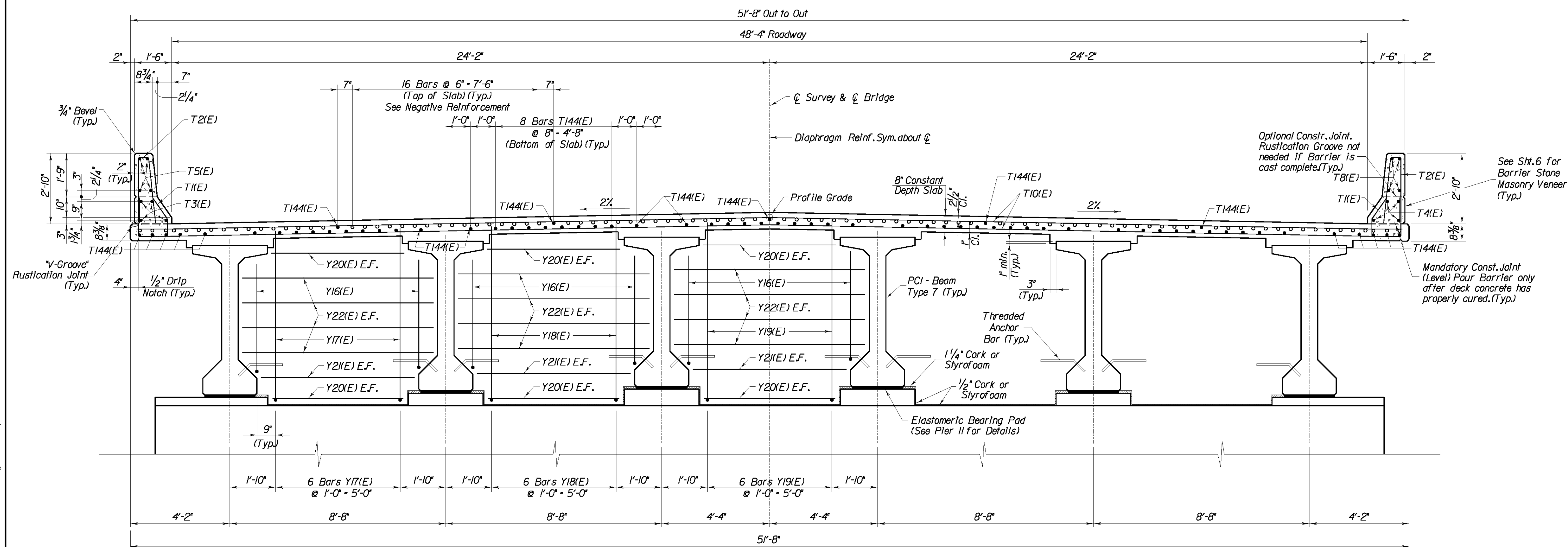


DRIP NOTCH DETAIL

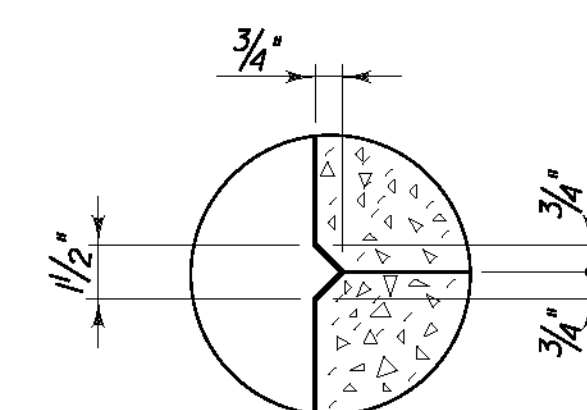
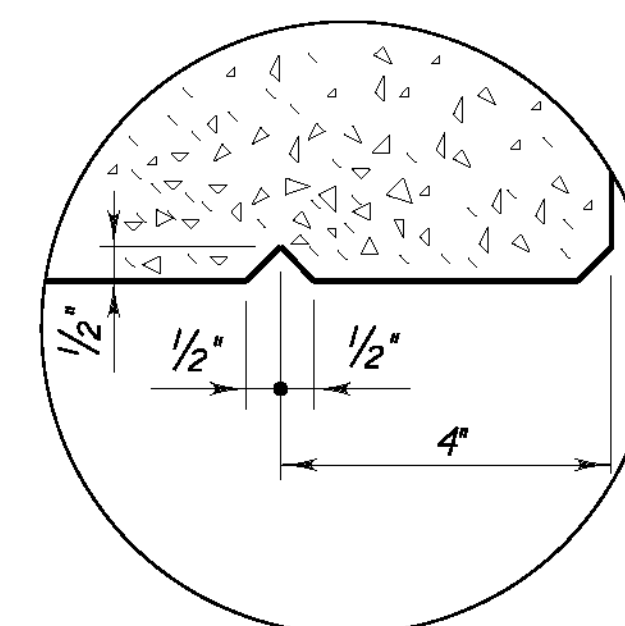
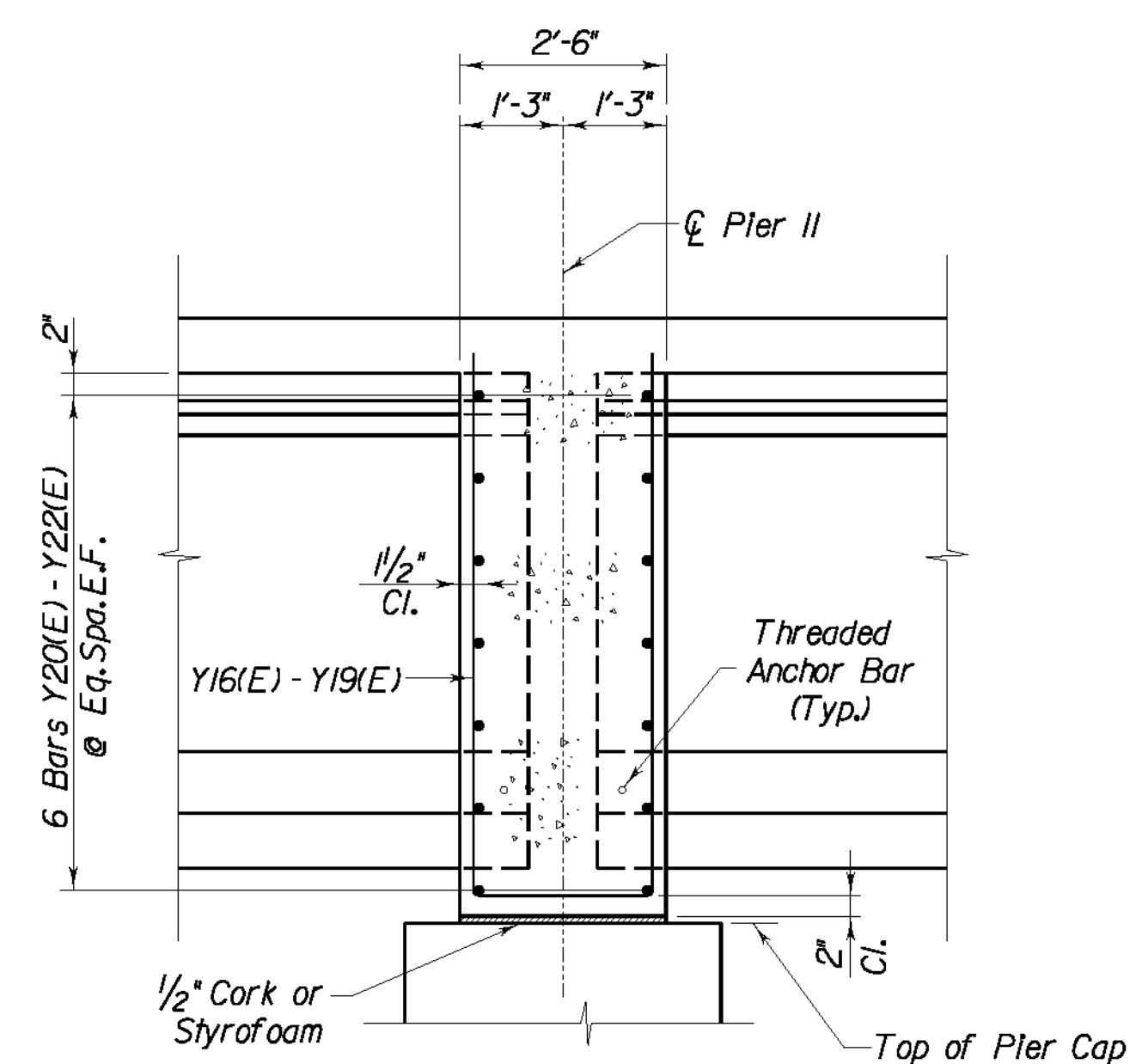
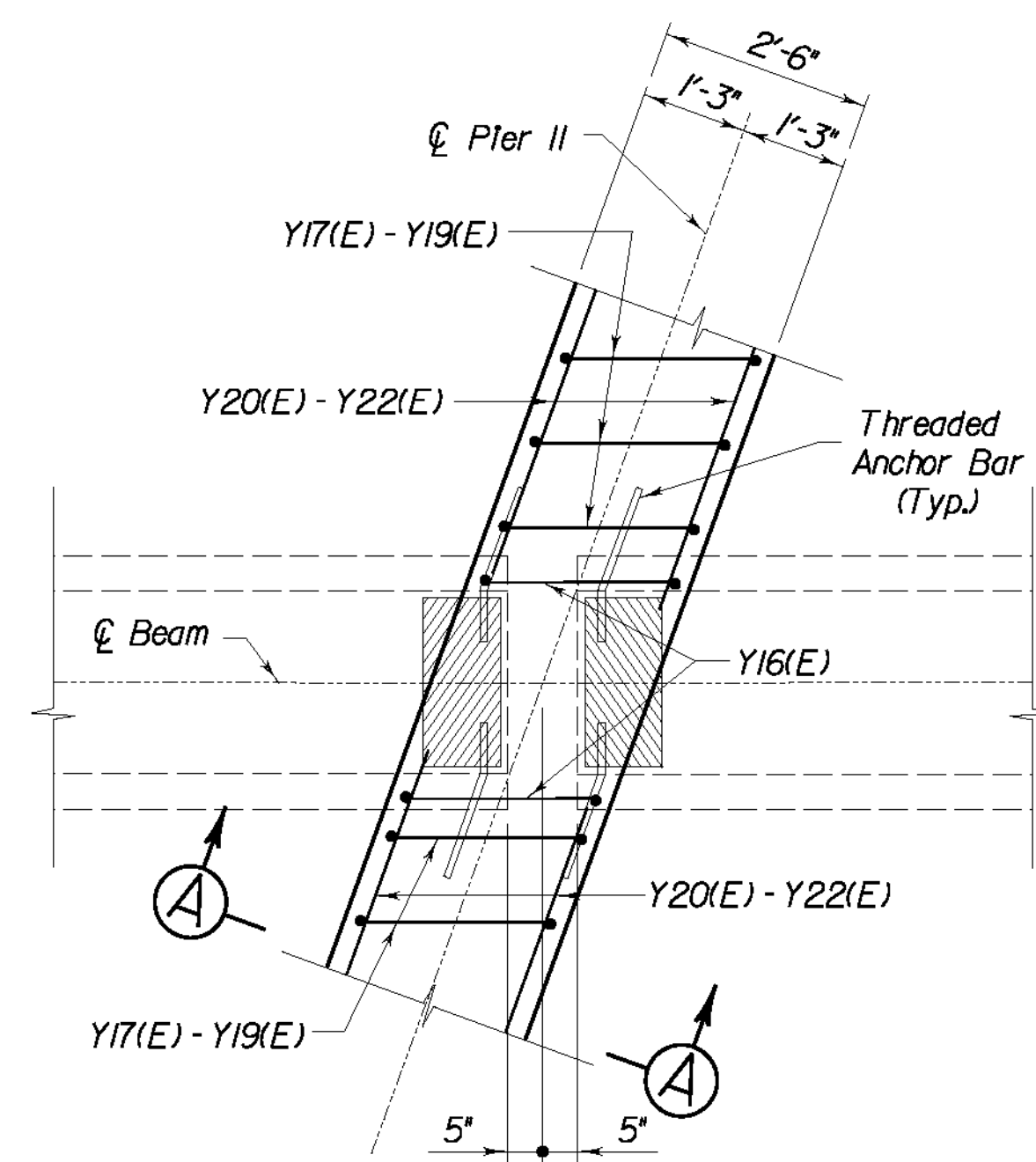


RUSTICATION GROOVE

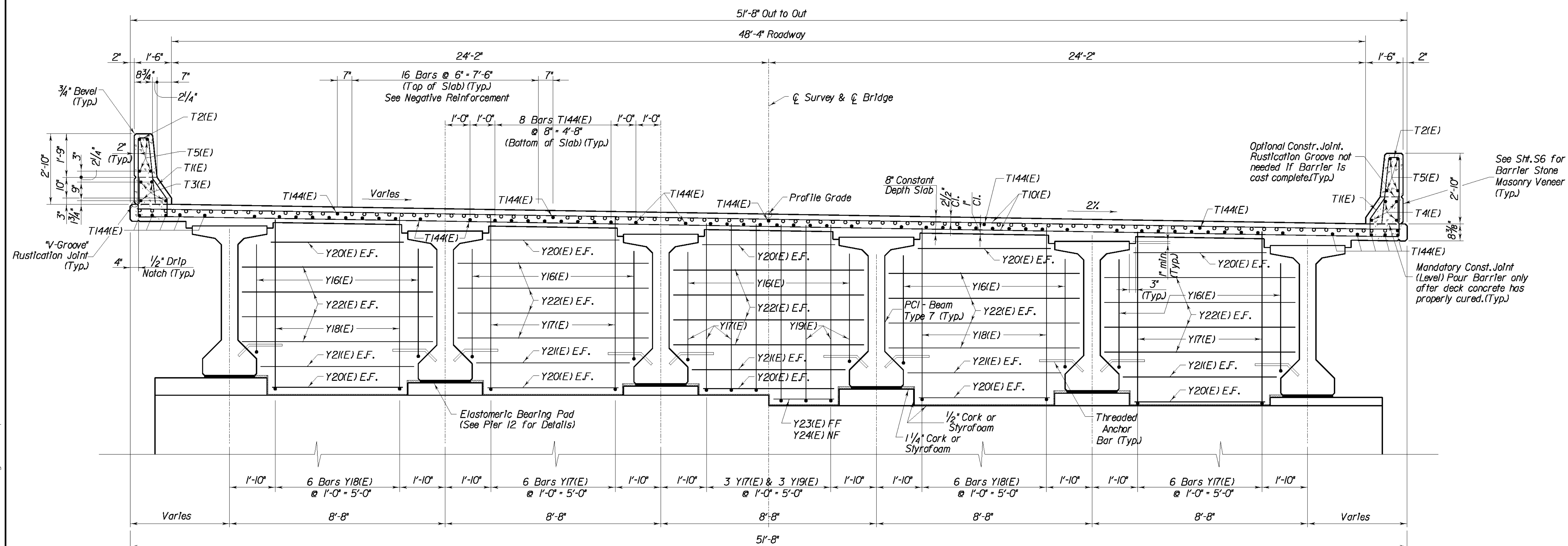
REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U. S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
SUPERSTRUCTURE UNIT 3			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S90
			DRAWING NO. 25296



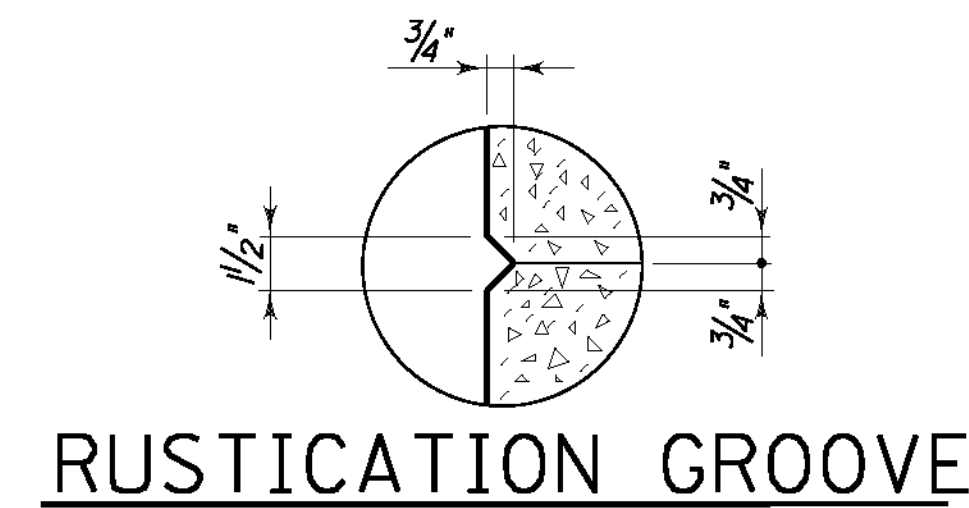
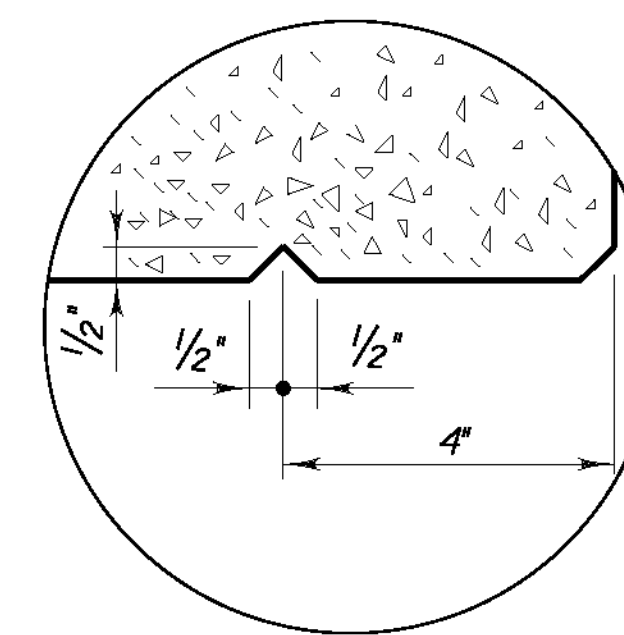
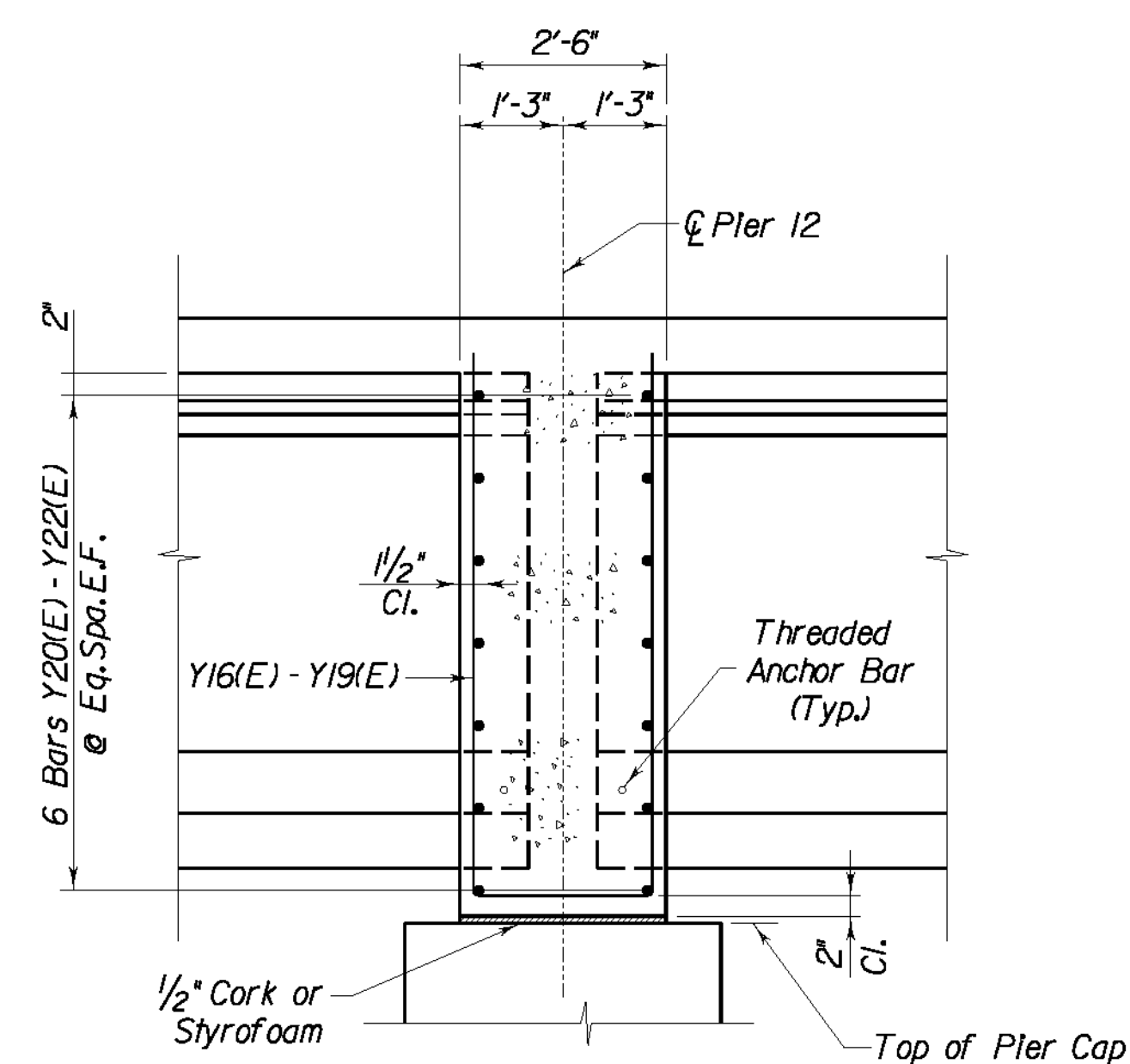
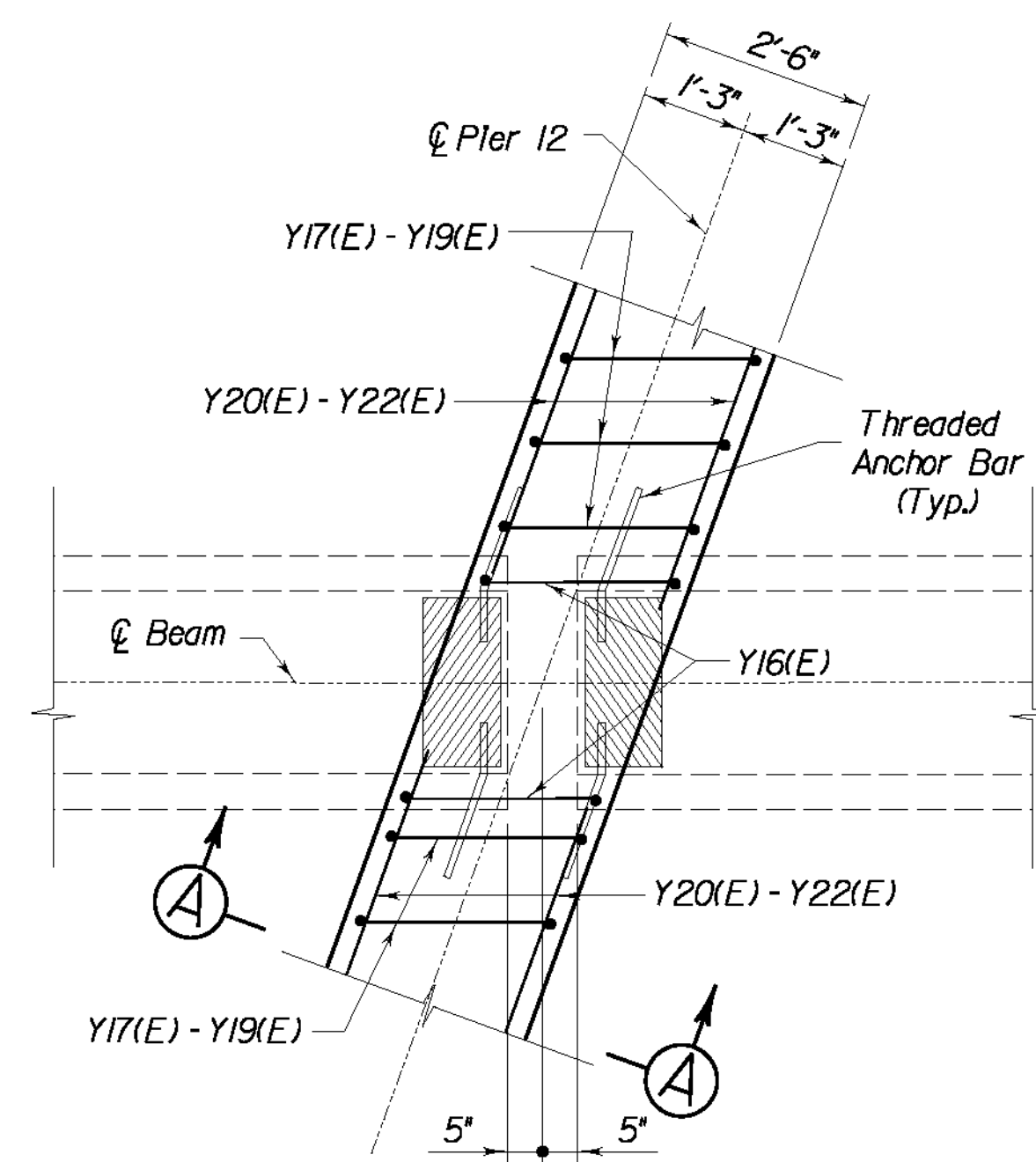
TYPICAL SECTION PIER 11



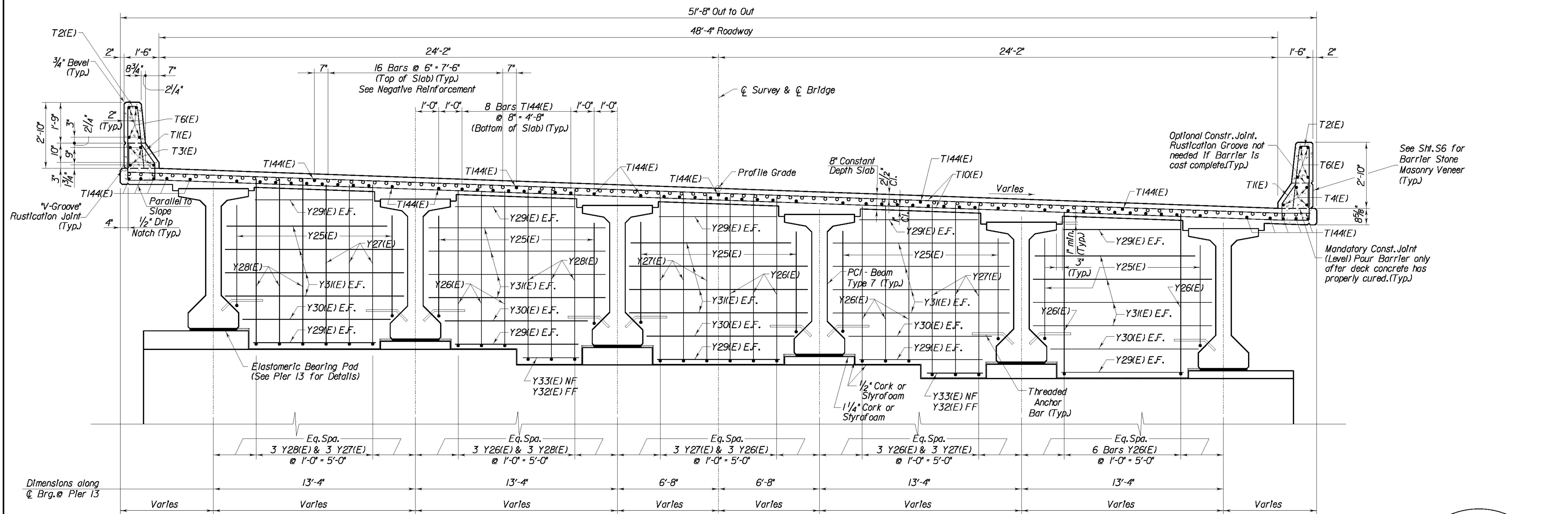
REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
<i>SUPERSTRUCTURE UNIT 3</i>			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S91
			DRAWING NO. 25296



TYPICAL SECTION PIER 12

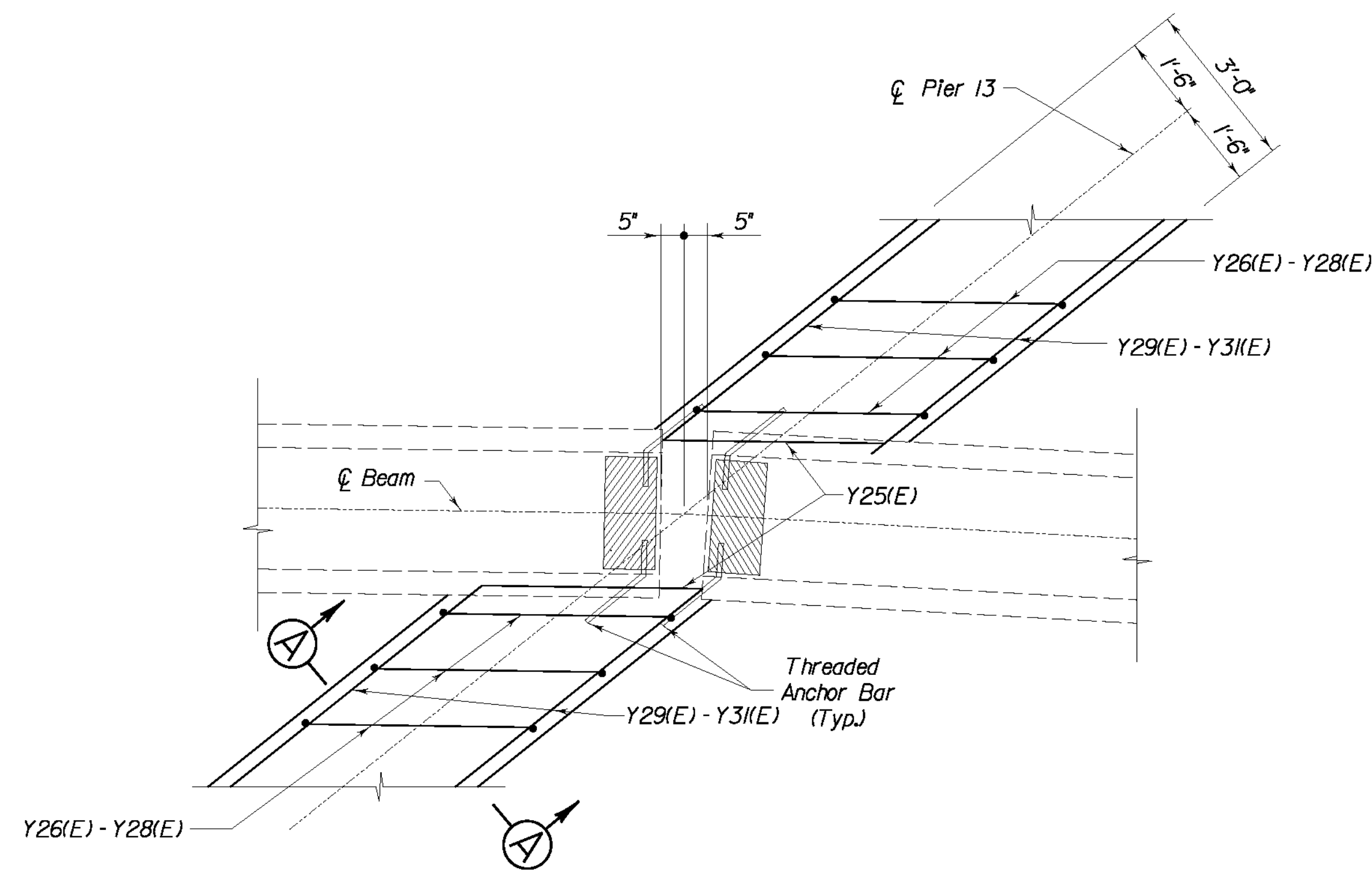


REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
<i>SUPERSTRUCTURE UNIT 3</i>			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S92 DRAWING NO. 25296

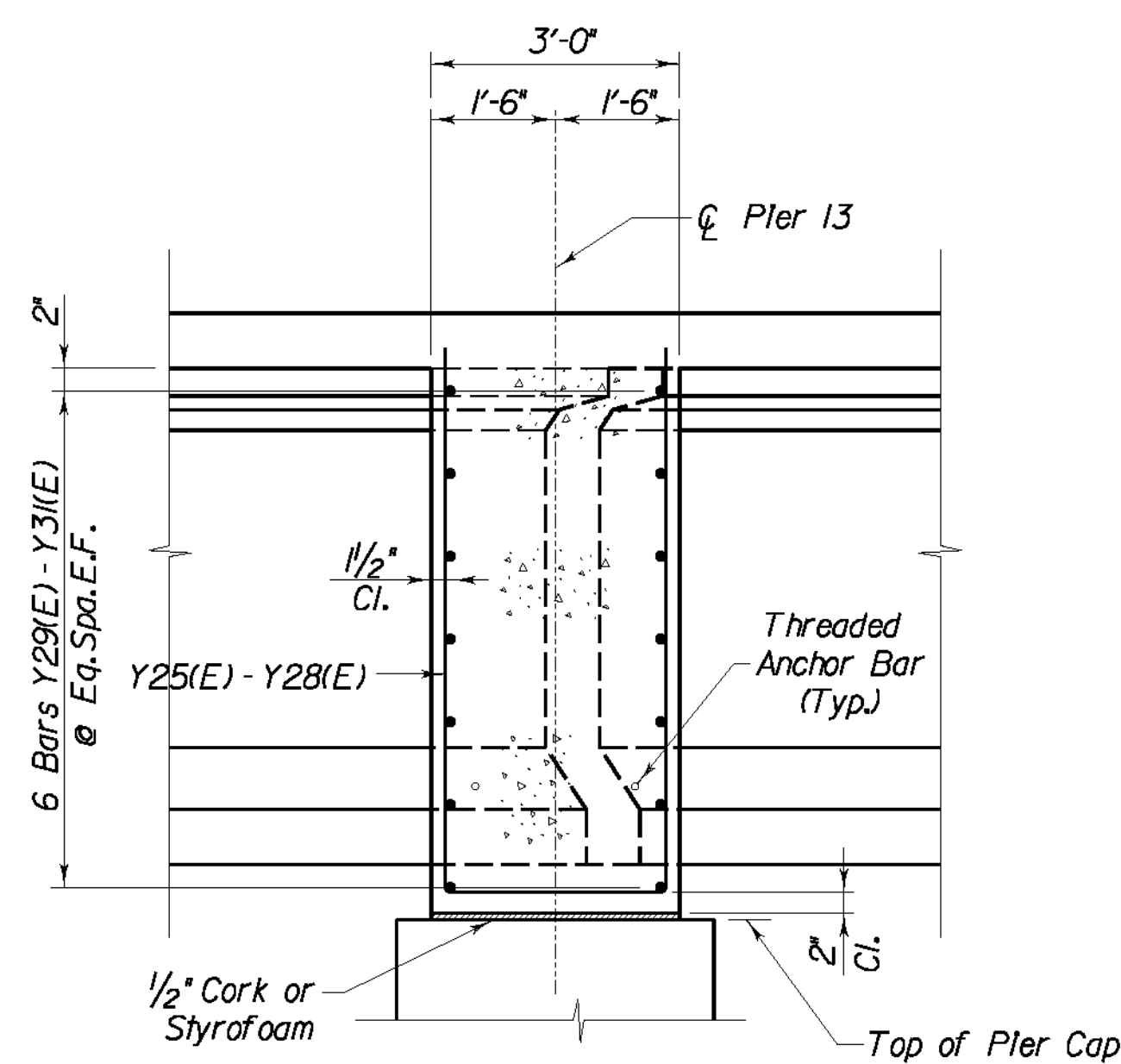


TYPICAL SECTION PIER 13

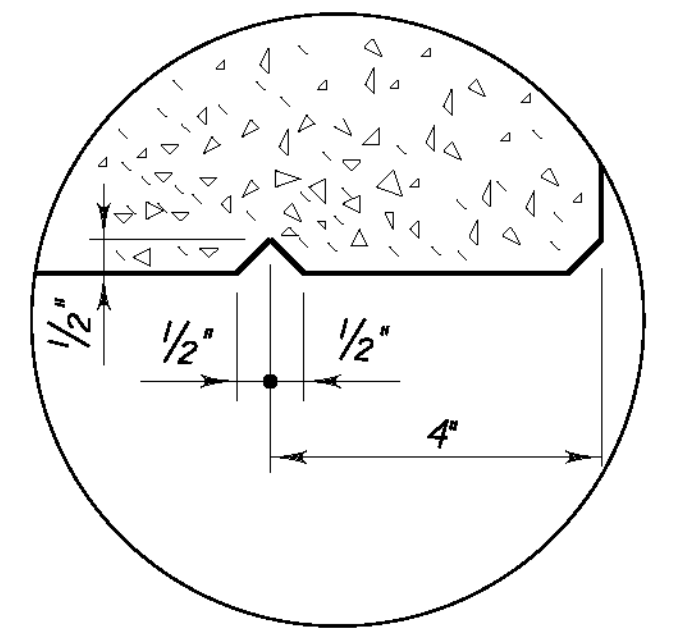
(Looking Ahead)
Dimensions perpendicular to ϕ Survey except as noted.



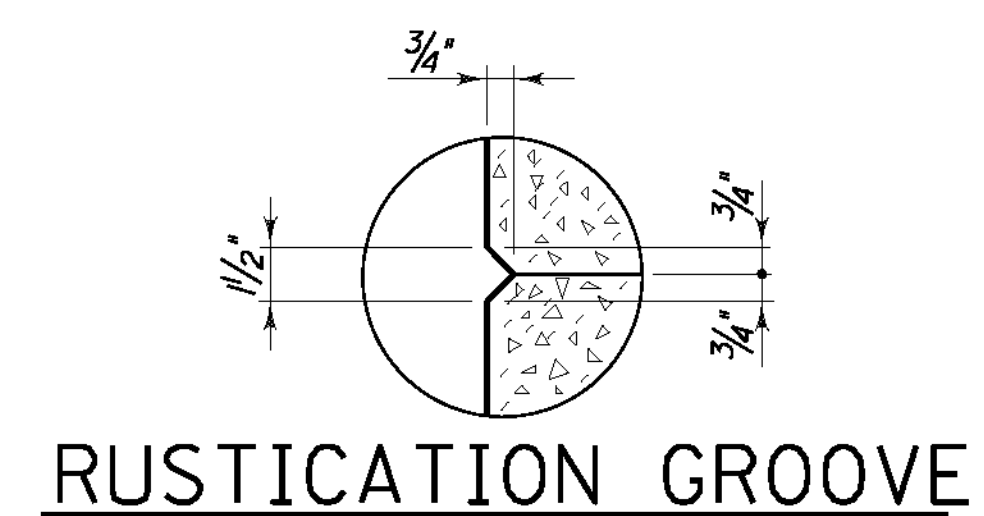
PART PLAN PIER 13



SECTION A-A

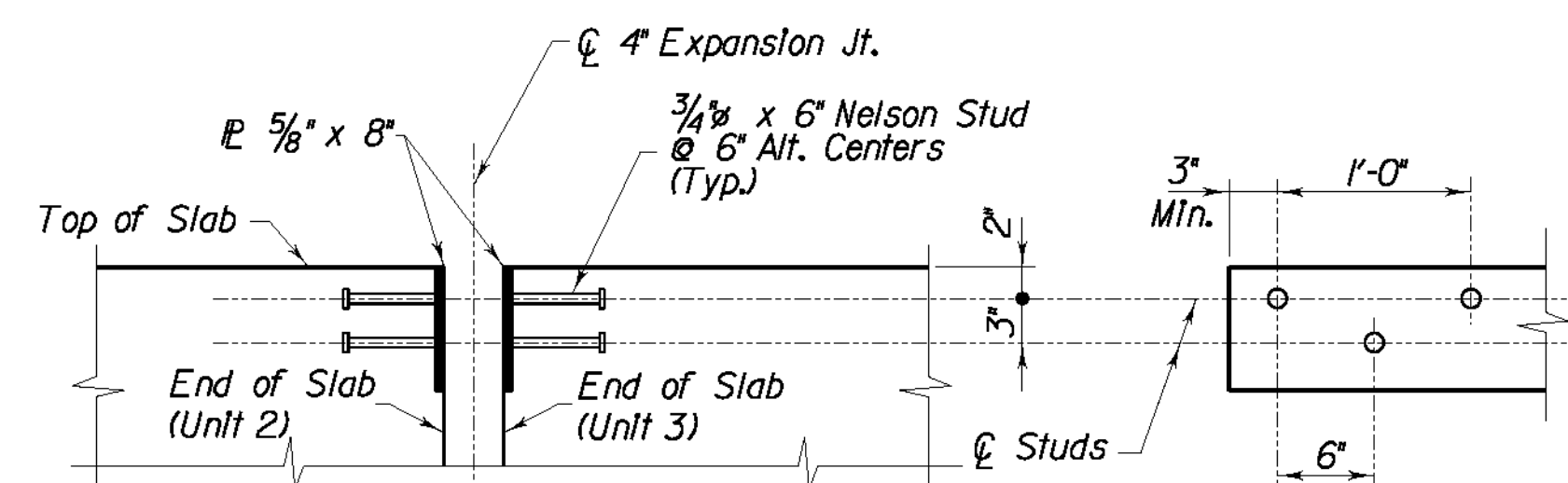
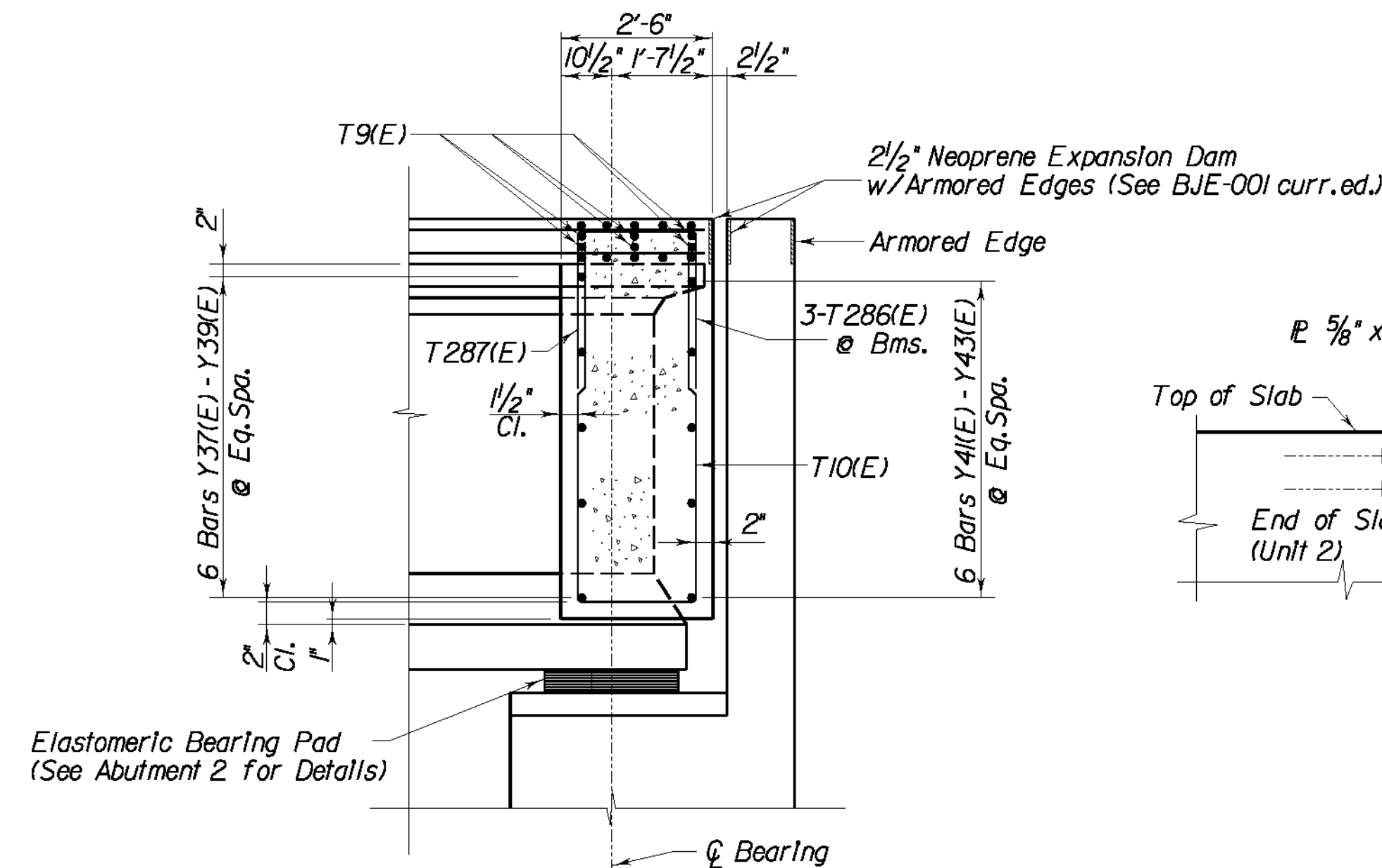
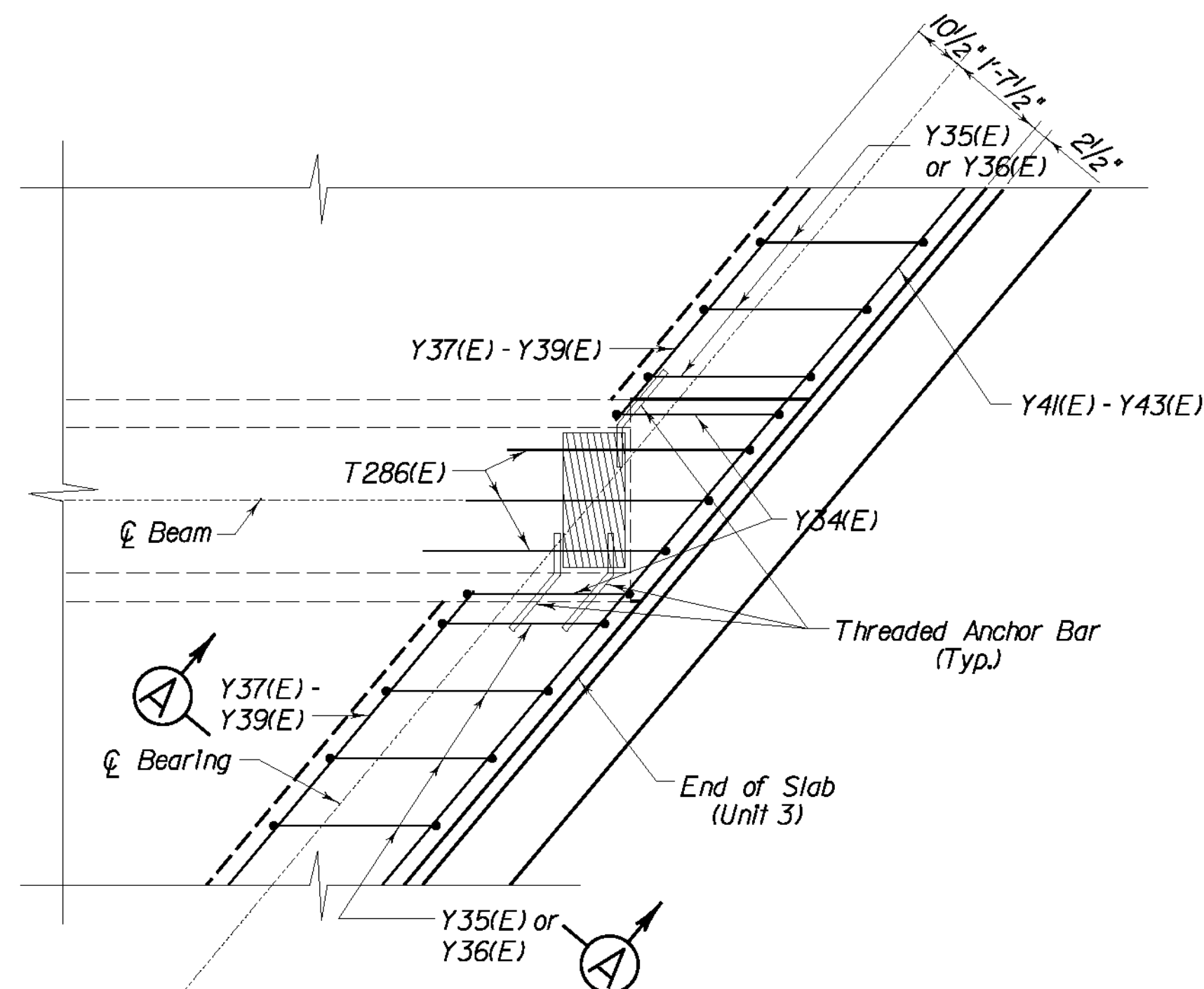
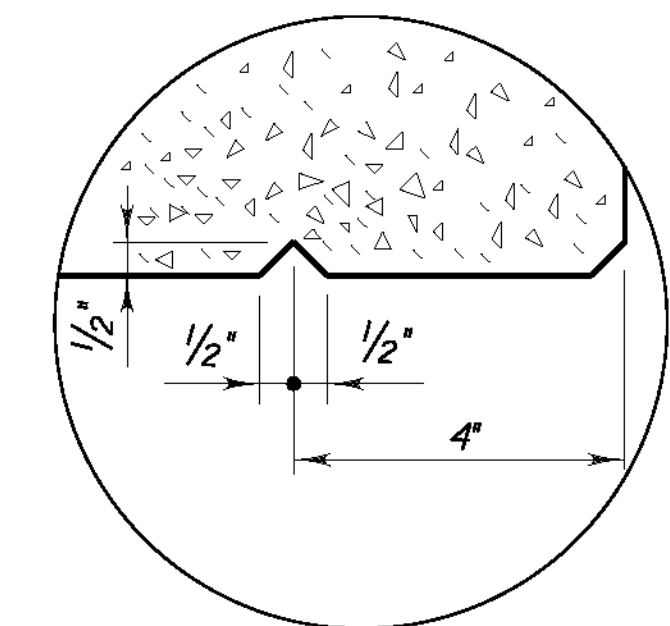
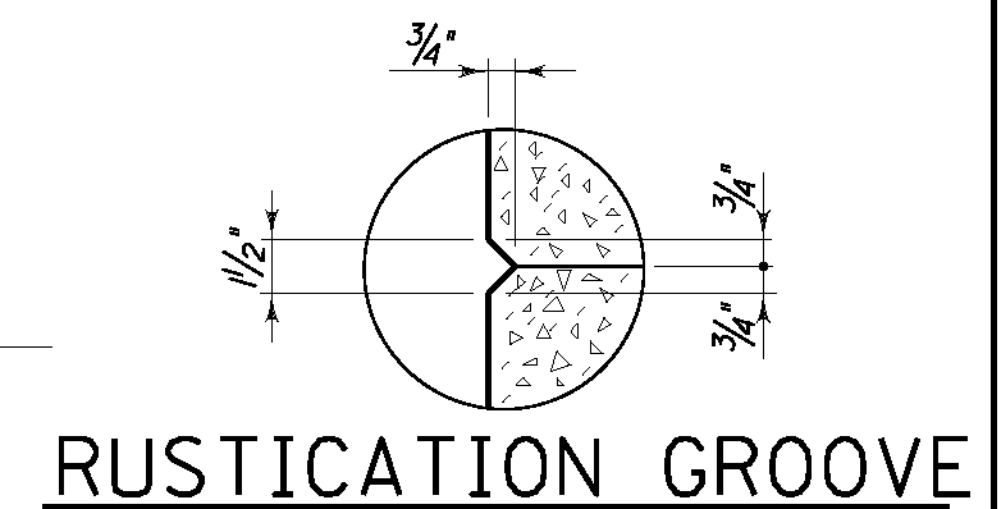
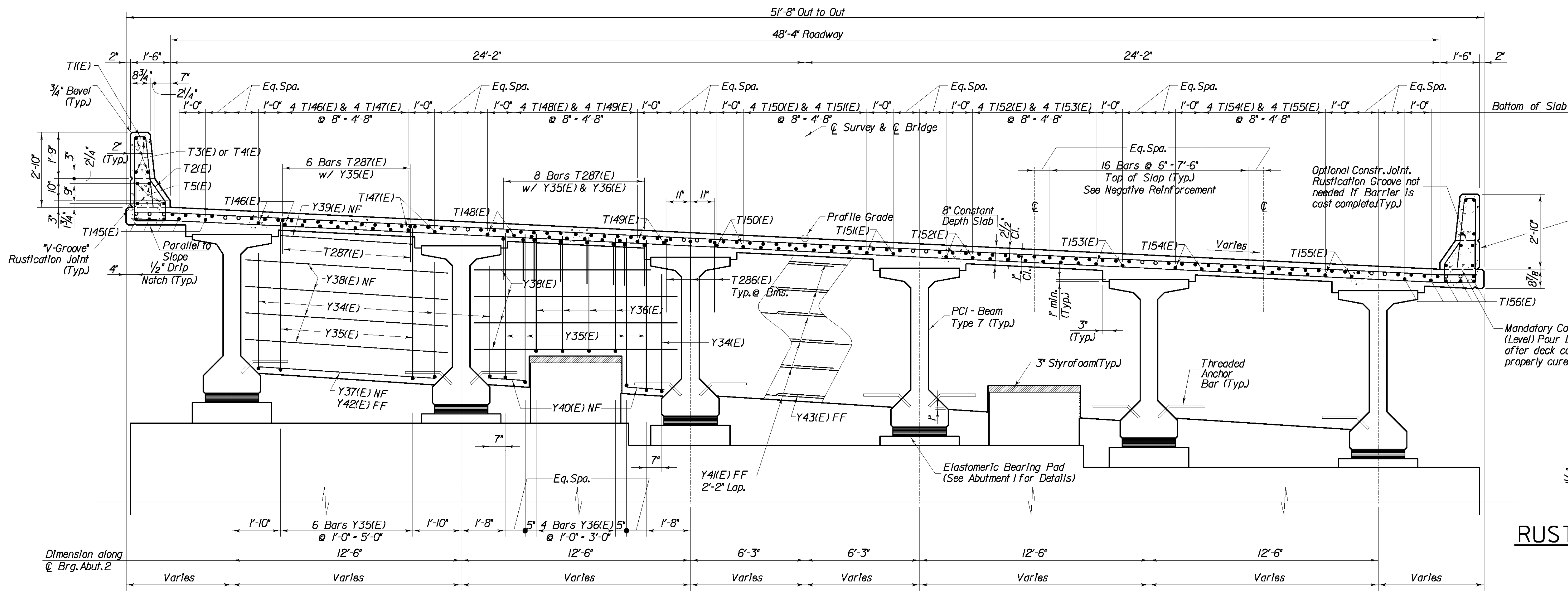


DRIP NOTCH DETAIL



RUSTICATION GROOVE

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky			
DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE		CROSSING	
U. S. 119		POOR FORK CUMBERLAND RIVER	
SUPERSTRUCTURE UNIT 3			
PREPARED BY			SHEET NO.
T.H.E. ENGINEERS, INC.			S93
			DRAWING NO.
			25296



ARMORED EDGE DETAILS

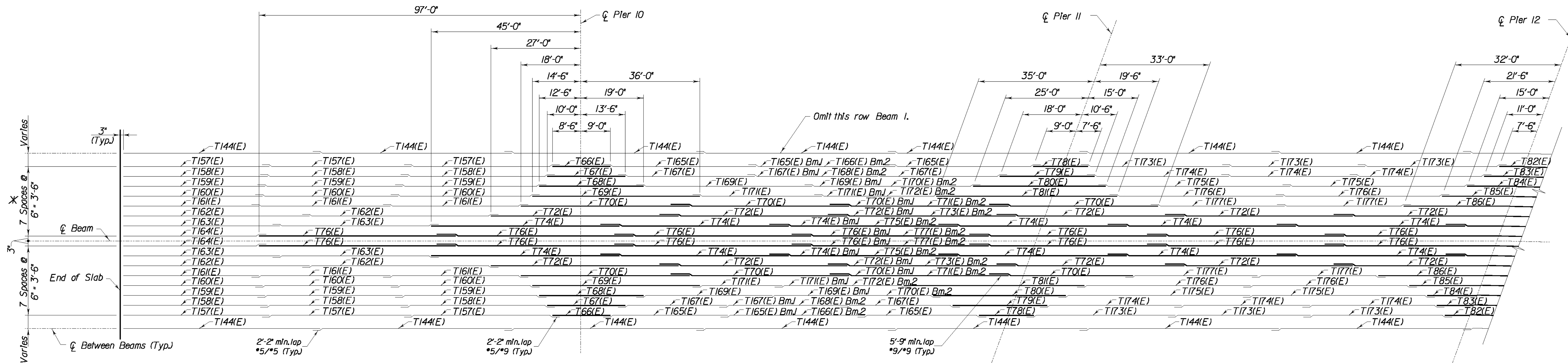
(See Std. Drwg. BJE-001-c.e.)
(Armored Edge shall extend from Left Gutter Line to Right Gutter Line at End of Slab. Included in 4" Neoprene Expansion Dam)

PART PLAN ABUTMENT 2

SECTION A-A

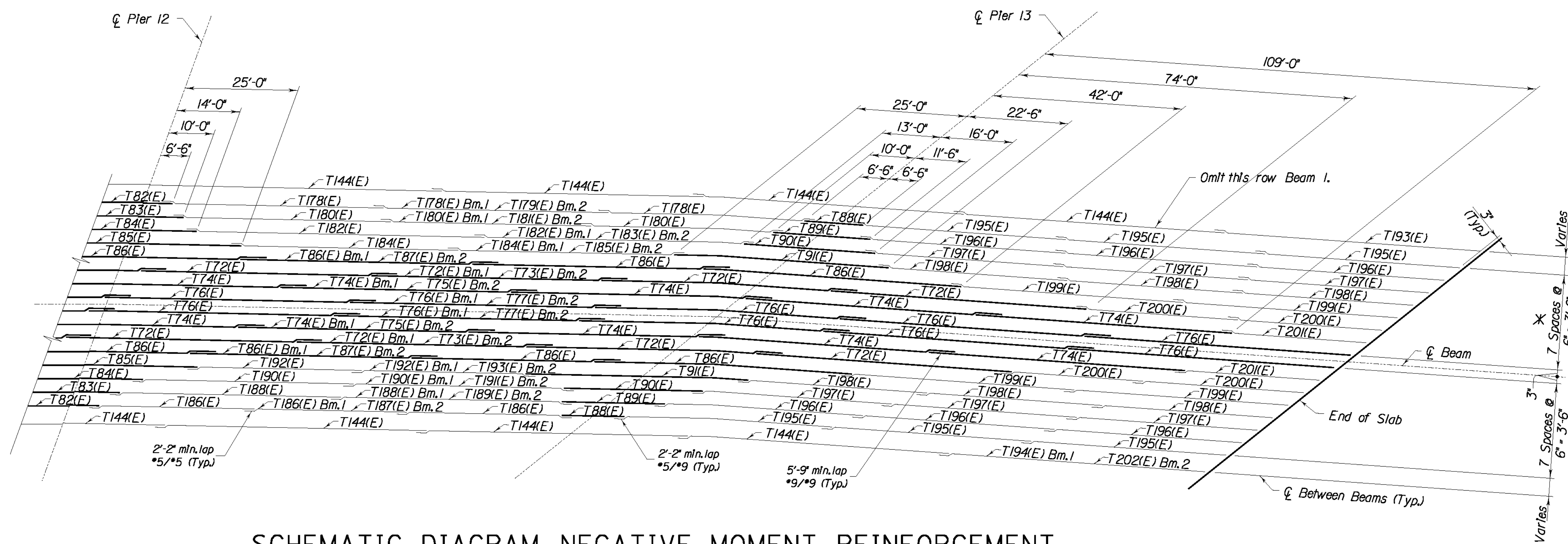
DRIP NOTCH DETAIL

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE		CROSSING	
U.S. 119		POOR FORK CUMBERLAND RIVER	
<i>SUPERSTRUCTURE UNIT 3</i>			
PREPARED BY			SHEET NO.
T.H.E. ENGINEERS, INC.			S94
			DRAWING NO.
			25296



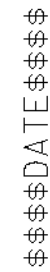
SCHEMATIC DIAGRAM NEGATIVE MOMENT REINFORCEMENT
BEAMS 1 & 2, SPANS 10, 11 & 12

* See Typ. Section for Spacing
Adjustments for Beam 1.

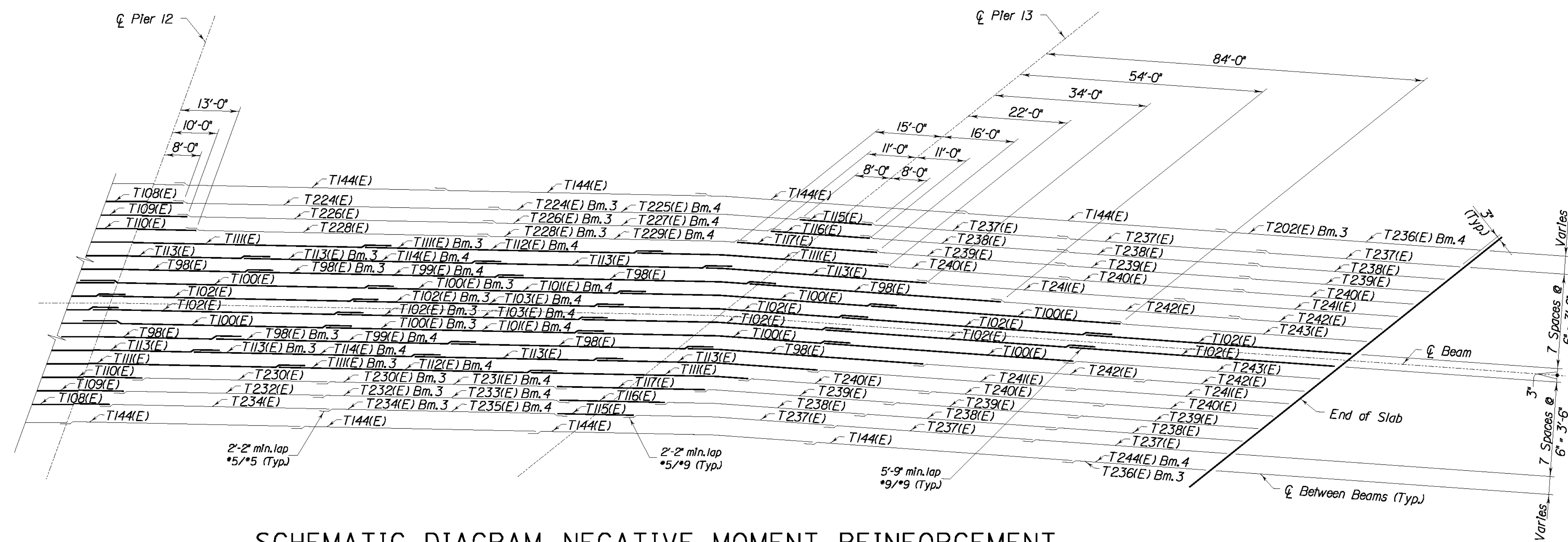


SCHEMATIC DIAGRAM NEGATIVE MOMENT REINFORCEMENT
BEAMS 1 & 2, SPANS 13 & 14

REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
<i>SUPERSTRUCTURE UNIT 3</i>		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S95
		DRAWING NO. 25296



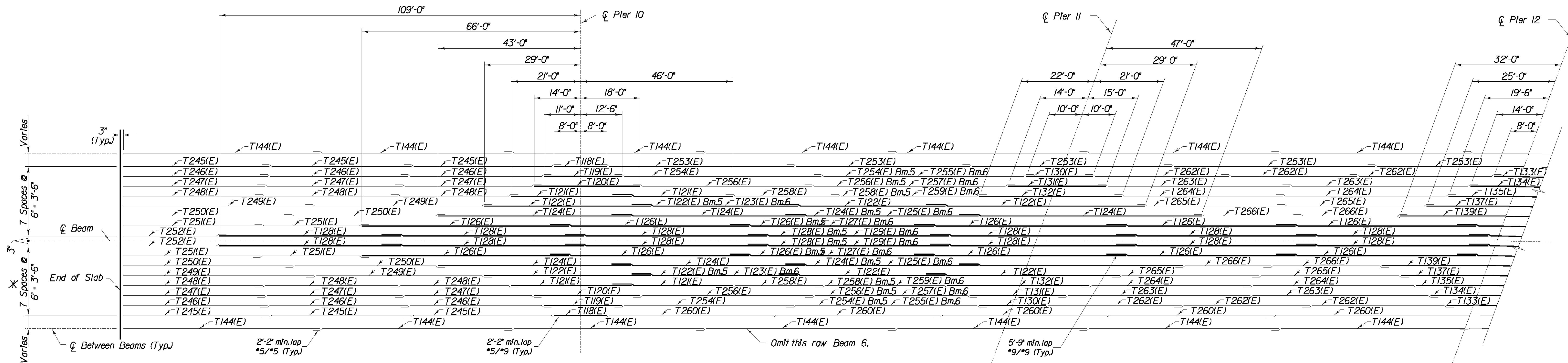
SCHEMATIC DIAGRAM NEGATIVE MOMENT REINFORCEMENT
BEAMS 3 & 4, SPANS 10, 11 & 12



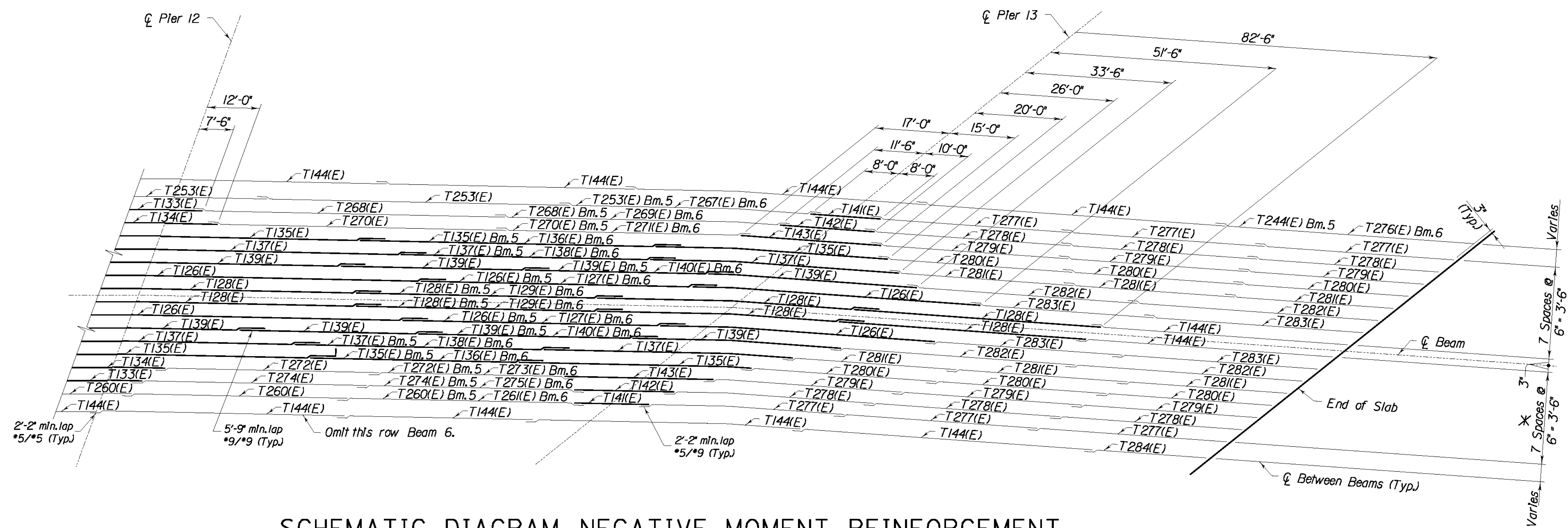
SCHEMATIC DIAGRAM NEGATIVE MOMENT REINFORCEMENT
BEAMS 3 & 4, SPANS 13 & 14

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
<i>SUPERSTRUCTURE UNIT 3</i>			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S96 DRAWING NO. 25296

ITEM NUMBER
12-311.10



SCHEMATIC DIAGRAM NEGATIVE MOMENT REINFORCEMENT
BEAMS 5 & 6, SPANS 10, 11 & 12



* See Typ. Section for Spacing
Adjustments for Beam 6.

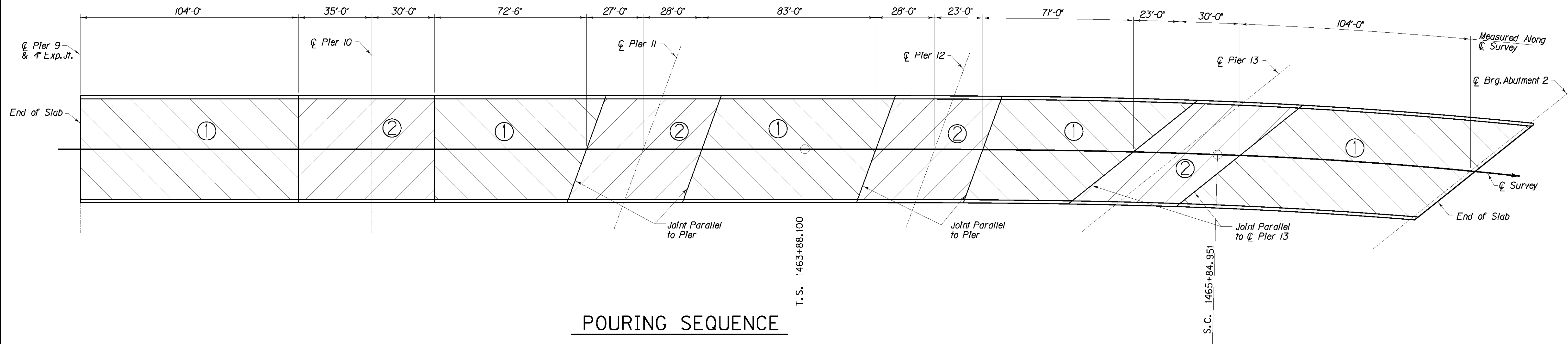
SCHEMATIC DIAGRAM NEGATIVE MOMENT REINFORCEMENT
BEAMS 5 & 6, SPANS 13 & 14

REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY		
LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
SUPERSTRUCTURE UNIT 3		
PREPARED BY		SHEET NO. S97
T.H.E. ENGINEERS, INC.		DRAWING NO. 25296

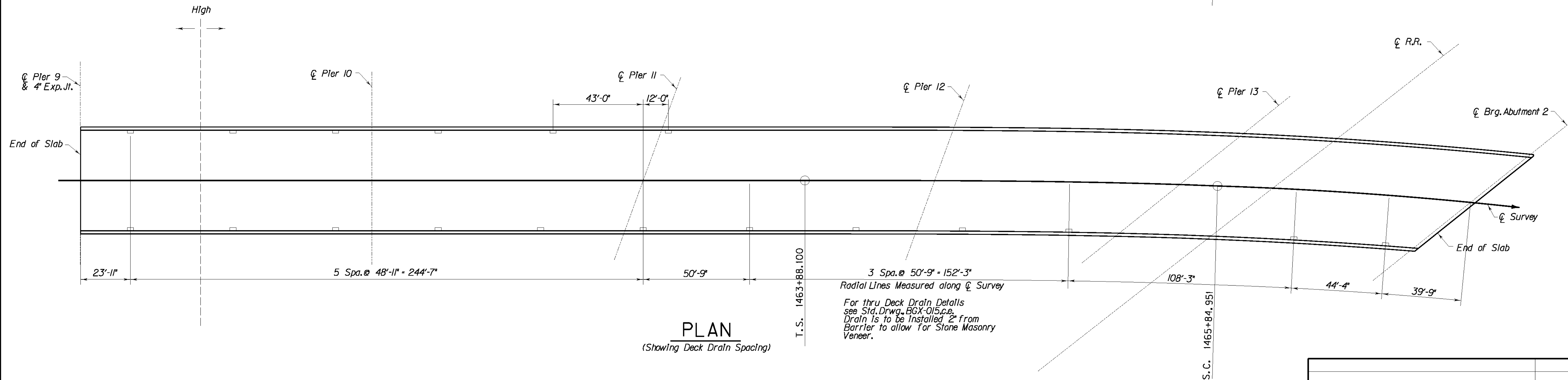
\$\$\$DATE\$\$\$

Type ⑪

REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS COUNTY LETCHER		
ROUTE U. S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
SUPERSTRUCTURE UNIT 3		
PREPARED BY		SHEET NO. S98
T.H.E. ENGINEERS, INC.		DRAWING NO. 25296



POURING SEQUENCE

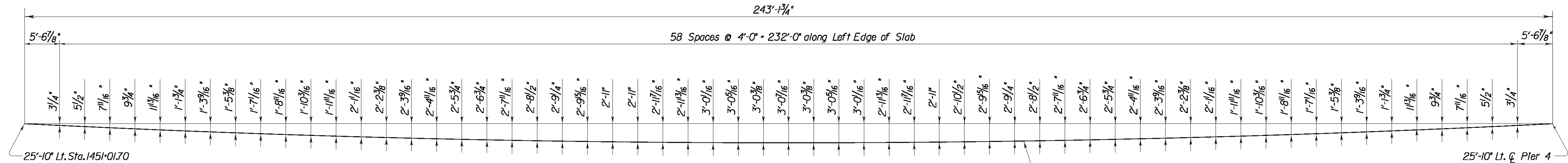


REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
<i>SUPERSTRUCTURE UNIT 3</i>			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO S100
			DRAWING NO 25296

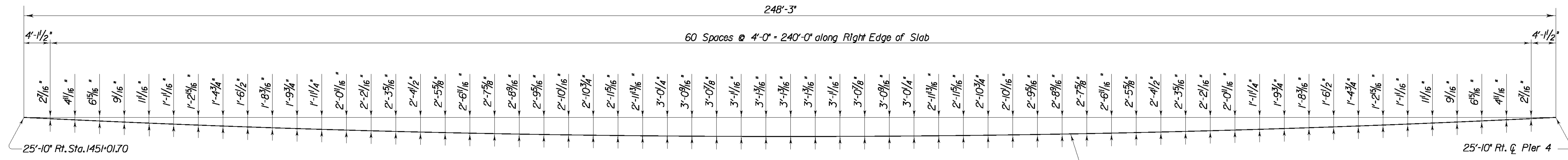
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\$\$\$\$Plotted by\$\$\$\$

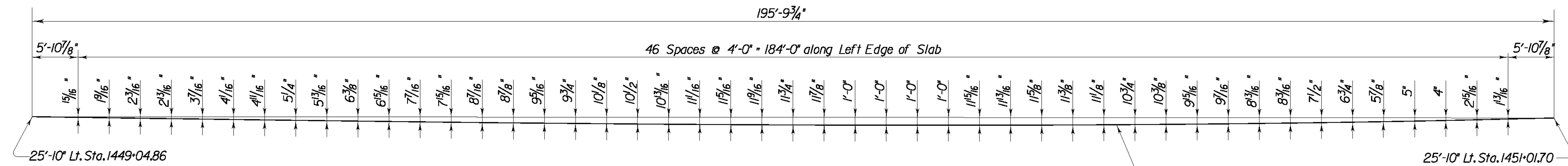
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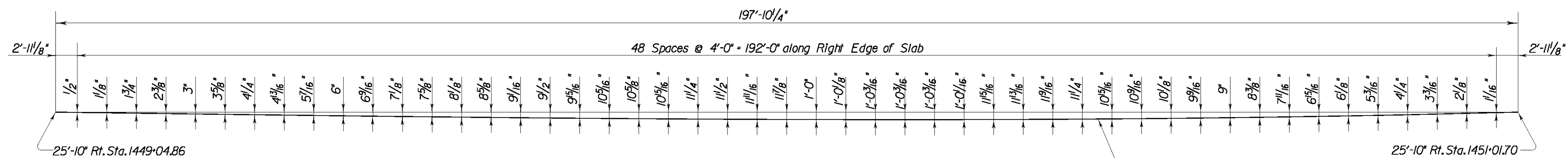
OFFSETS UNIT 1 CURVE LEFT EDGE OF SLAB



OFFSETS UNIT 1 CURVE RIGHT EDGE OF SLAB



OFFSETS UNIT 1 SPIRAL LEFT EDGE OF SLAB



OFFSETS UNIT 1 SPIRAL RIGHT EDGE OF SLAB

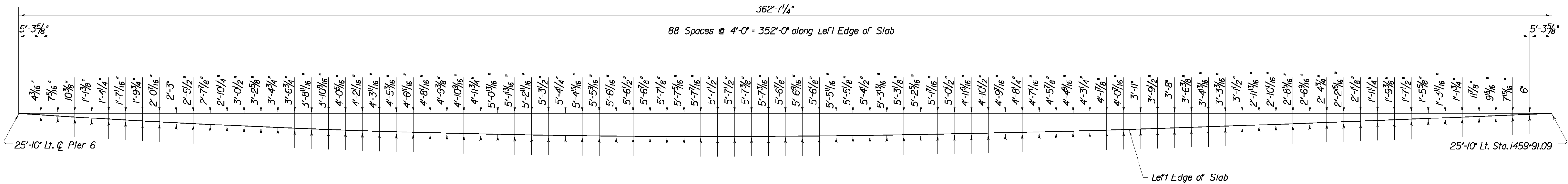
ITEM NUMBER
12-311.10

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky			
DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE		CROSSING	
U.S. 119		POOR FORK CUMBERLAND RIVER	
<i>CURVE OFFSETS UNIT 1</i>			
PREPARED BY		SHEET NO.	
T.H.E. ENGINEERS, INC.		S101	
		DRAWING NO.	
		25296	

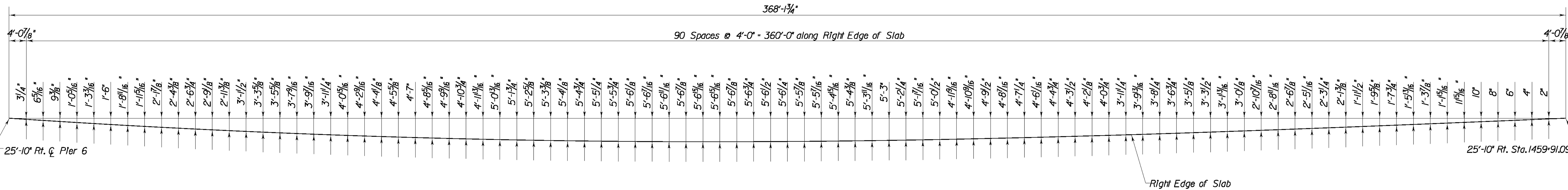
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\$\$\$\$plot\$by\$\$\$\$

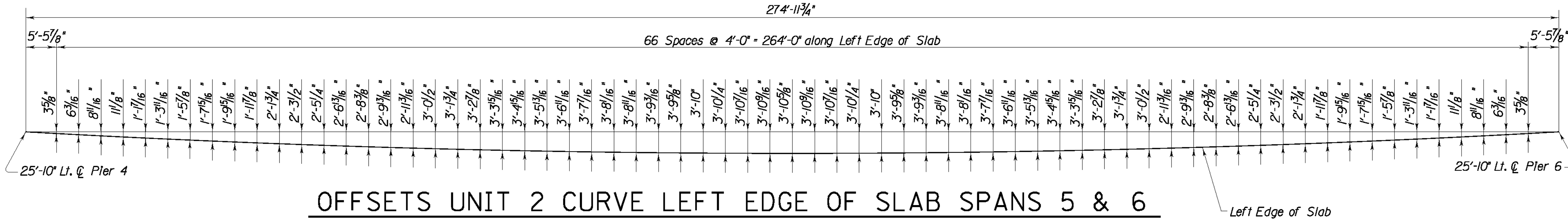
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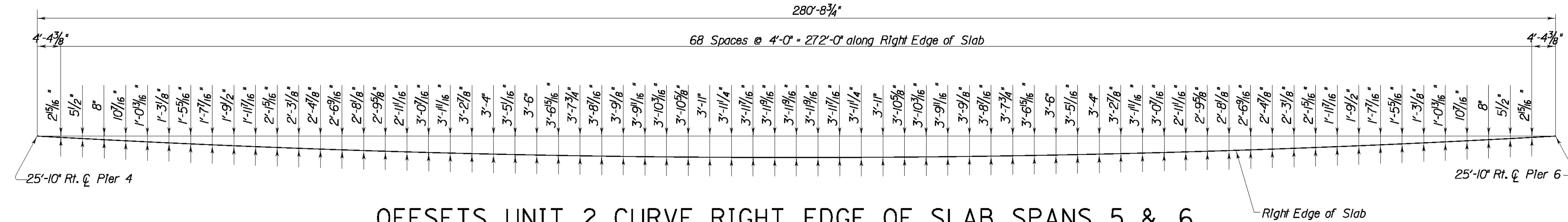
OFFSETS UNIT 2 CURVE LEFT EDGE OF SLAB SPANS 7, 8 & 9



OFFSETS UNIT 2 CURVE RIGHT EDGE OF SLAB SPANS 7, 8 & 9



OFFSETS UNIT 2 CURVE LEFT EDGE OF SLAB SPANS 5 & 6



OFFSETS UNIT 2 CURVE RIGHT EDGE OF SLAB SPANS 5 & 6

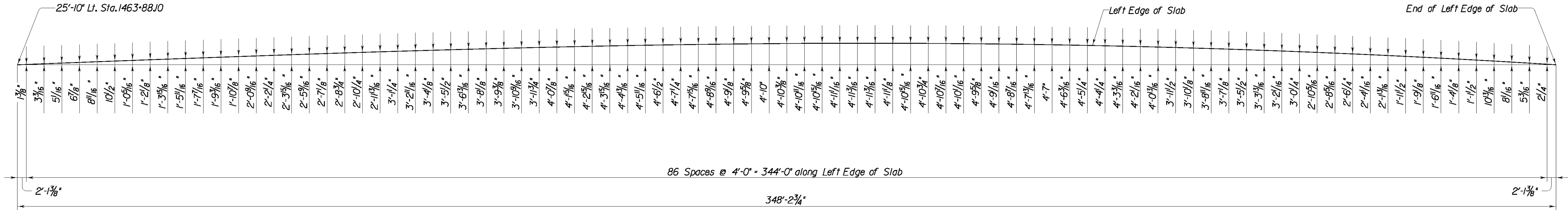
ITEM NUMBER
12-311.10

REVISION	
DATE	
DATE: 09 - 2003	CHECKED BY:
DESIGNED BY: P. A. P.	W. T. B.
DETAILED BY: D. W. S.	P. F. H.
Commonwealth of Kentucky	
DEPARTMENT OF HIGHWAYS	
COUNTY	
LETCHER	
ROUTE	CROSSING
U. S. 119	POOR FORK CUMBERLAND RIVER
CURVE OFFSETS UNIT 2	
PREPARED BY	
T.H.E. ENGINEERS, INC.	
SHEET NO.	
S102	
DRAWING NO.	
25296	

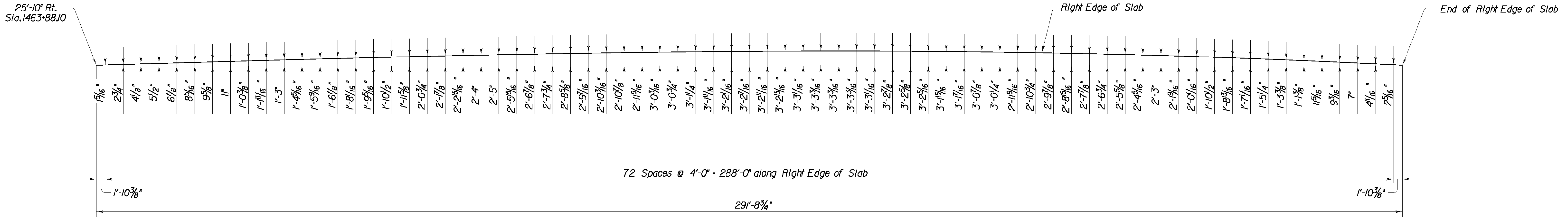
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\$\$\$\$Plottedby\$\$\$\$

\$\$\$\$DATE\$\$\$\$



OFFSETS UNIT 3 CURVE LEFT EDGE OF SLAB

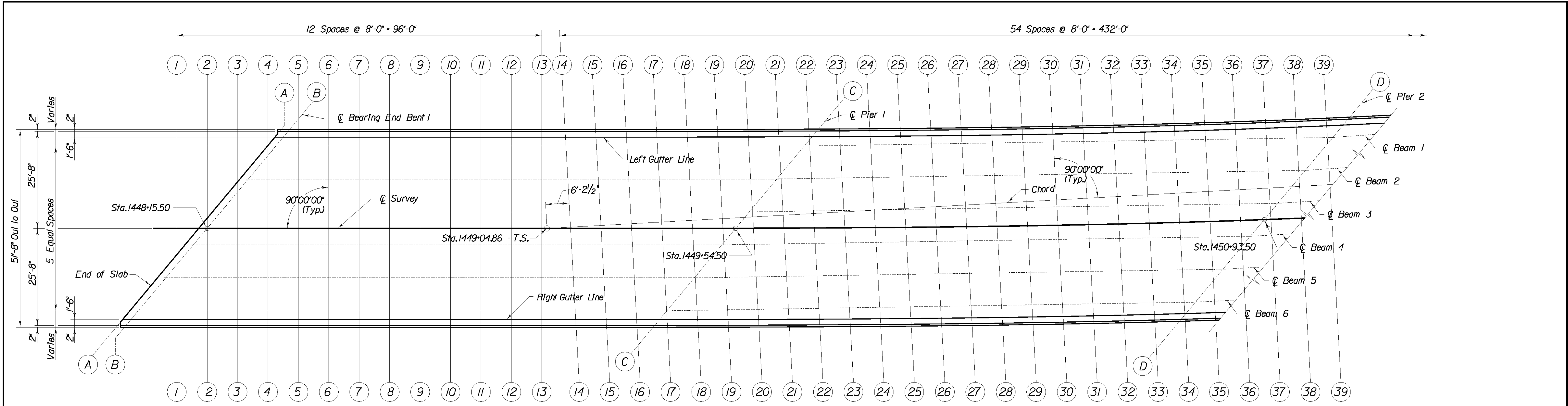


OFFSETS UNIT 3 CURVE RIGHT EDGE OF SLAB

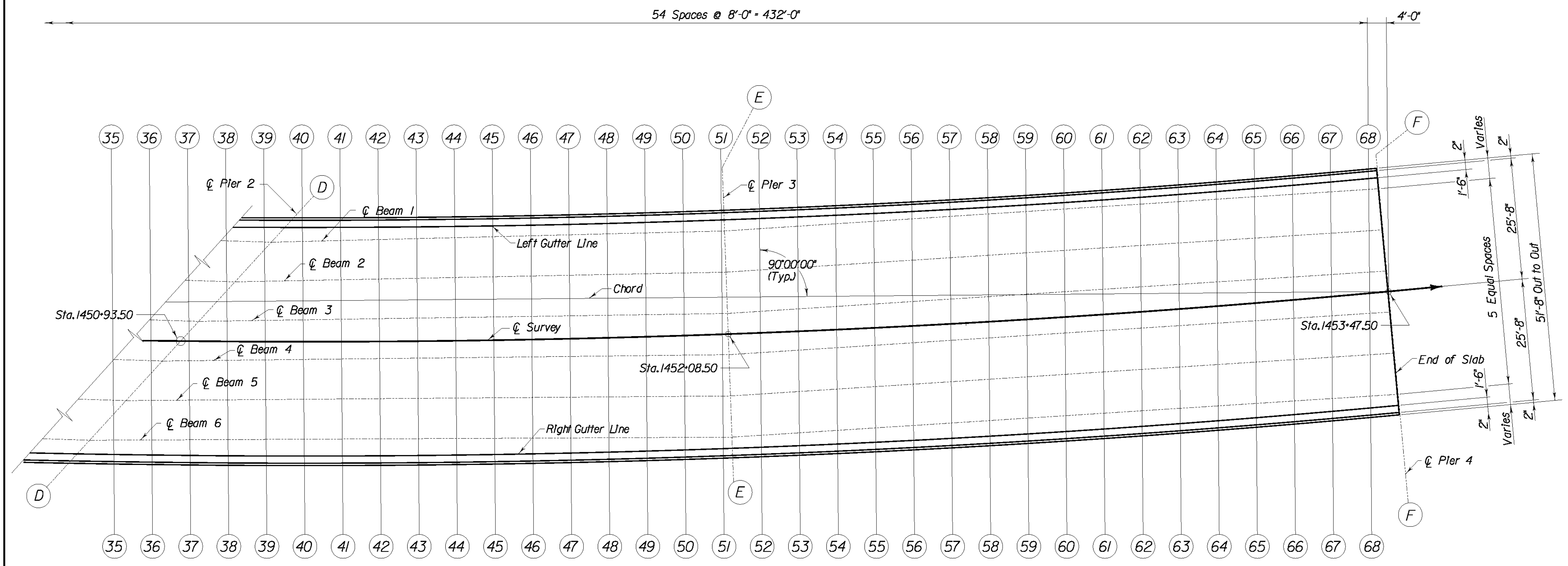
ITEM NUMBER

12-311.10

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky			
DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE		CROSSING	
U.S. 119		POOR FORK CUMBERLAND RIVER	
<i>CURVE OFFSETS UNIT 3</i>			
PREPARED BY		SHEET NO.	
T.H.E. ENGINEERS, INC.		S103	
		DRAWING NO.	
		25296	



PLAN



PLAN

REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky			
DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE		CROSSING	
U.S. 119		POOR FORK CUMBERLAND RIVER	
<i>CONSTRUCTION ELEVATIONS UNIT 1</i>			
PREPARED BY			SHEET NO.
T.H.E. ENGINEERS, INC.			S104
			DRAWING NO.
			25296

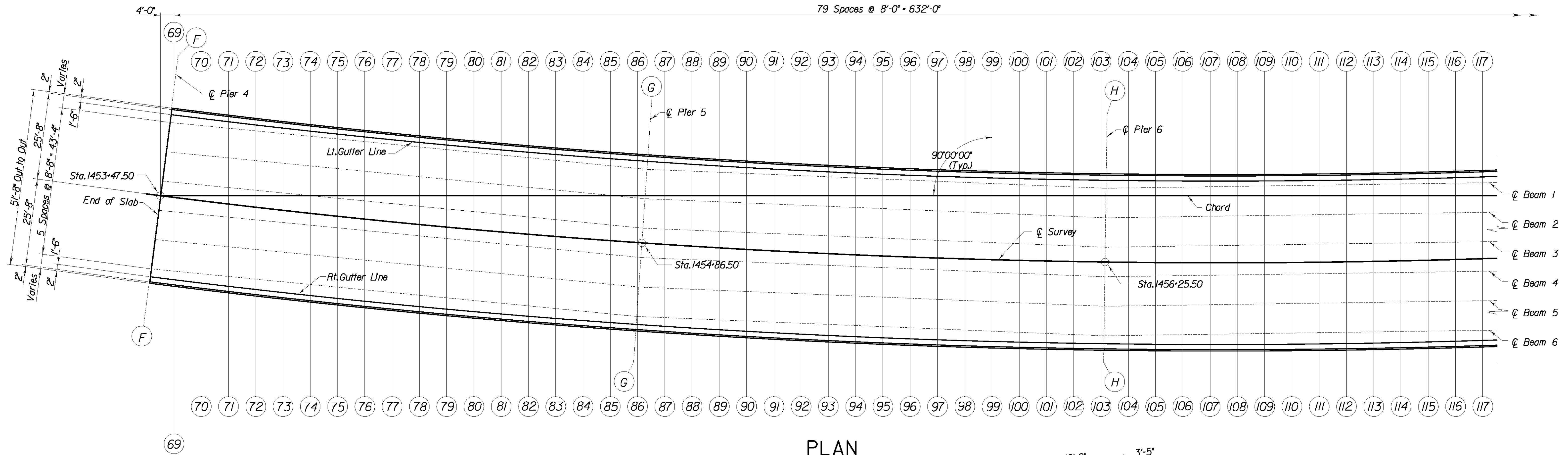
ITEM NUMBER
12-311.10

TABLE OF ELEVATIONS UNIT 1																					
Line	Left Gutter Line	Beam *1			Beam *2			Beam *3			C Bridge	Beam *4			Beam *5			Beam *6			Right Gutter Line
		Constr. Elev.	Top of Beam	Dim. "X"	Constr. Elev.	Top of Beam	Dim. "X"	Constr. Elev.	Top of Beam	Dim. "X"		Constr. Elev.	Top of Beam	Dim. "X"	Constr. Elev.	Top of Beam	Dim. "X"	Constr. Elev.	Top of Beam	Dim. "X"	
A - A	1598.607	1598.622			1598.672			1598.722			1598.807	1598.598			1598.300			1598.002			1597.915
B - B	1598.640	1598.655			1598.706			1598.756			1598.781	1598.632			1598.334			1598.036			1597.949
C - C	1600.807	1600.844			1600.923			1600.986			1601.018	1601.024			1601.007			1600.951			1600.927
D - D	1601.806	1601.963			1602.366			1602.775			1602.972	1603.160			1603.506			1603.816			1603.921
E - E	1602.924	1603.074			1603.594			1604.114			1604.374	1604.634			1605.154			1605.674			1605.824
F - F	1604.359	1604.509			1605.029			1605.549			1605.809	1606.069			1606.589			1607.109			1607.259
H-I															1598.403			1598.277			1598.239
2-2											1598.781	1598.719			1598.593			1598.461			1598.420
3-3								1598.861			1598.971	1598.908			1598.774			1598.636			1598.595
4-4					1598.829			1599.047			1599.155	1599.087			1598.949			1598.805			1598.761
5-5	1598.732	1598.795			1599.013			1599.226			1599.330	1599.260			1599.117			1598.967			1598.922
6-6	1598.917	1598.978			1599.190			1599.397			1599.498	1599.436			1599.307			1599.173			1599.132
7-7	1599.093	1599.153			1599.360			1599.560			1599.659	1599.604			1599.490			1599.371			1599.335
8-8	1599.263	1599.321			1599.521			1599.716			1599.811	1599.764			1599.666			1599.562			1599.531
9-9	1599.425	1599.481			1599.675			1599.864			1599.957	1599.917			1599.834			1599.745			1604.719
10-10	1599.579	1599.634			1599.822			1600.005			1600.094	1600.063			1599.995			1599.921			1599.898
11-11	1599.726	1599.779			1599.961			1600.138			1600.225	1600.200			1600.148			1600.089			1600.071
12-12	1599.865	1599.917			1600.093			1600.264			1600.347	1600.331			1600.292			1600.250			1600.236
13-13	1599.995	1600.049			1600.226			1600.398			1600.565	1600.477			1600.465			1600.450			1600.360
14-14	1600.094	1600.145			1600.317			1600.483			1600.565	1600.566			1600.565			1600.562			1600.560
15-15	1600.213	1600.262			1600.427			1600.587			1600.665	1600.673			1600.687			1600.699			1600.702
16-16	1600.324	1600.370			1600.530			1600.683			1600.758	1600.774			1600.802			1600.828			1600.835
17-17	1600.426	1600.472			1600.625			1600.771			1600.843	1600.866			1600.909			1600.950			1600.990
18-18	1600.522	1600.566			1600.713			1600.853			1600.921	1600.951			1601.012			1601.173			1601.221
19-19	1600.610	1600.653			1600.793			1600.926			1600.991	1601.035			1601.215			1601.391			1601.445
20-20	1600.692	1600.732			1600.865			1601.003			1601.119	1601.216			1601.411			1601.601			1601.663
21-21	1600.765	1600.804			1600.945			1601.173			1601.287	1601.389			1601.598			1601.804			1601.873
22-22	1600.805	1600.864			1601.099			1601.329			1601.449	1601.555			1601.779			1601.998			1602.075
23-23	1600.906	1600.978			1601.228			1601.472			1601.602	1601.713			1601.951			1602.185			1602.269
24-24	1601.011	1601.085			1601.349			1601.608			1601.748	1601.864			1602.117			1602.364			1602.457
25-25	1601.109	1601.185			1601.463			1601.737			1601.887	1602.007			1602.273			1602.536			1602.636
26-26	1601.198	1601.277			1601.570			1601.859			1602.019	1602.144			1602.425			1602.701			1602.809
27-27	1601.282	1601.363			1601.670			1601.973			1602.143	1602.273			1602.568			1602.859			1602.974
28-28	1601.356	1601.441			1601.762			1602.081			1602.260	1602.395			1602.704			1603.009			1603.132
29-29	1601.425	1601.513			1601.849			1602.181			1602.369	1602.509			1602.834			1603.153			1603.282
30-30	1601.485	1601.577			1601.928			1602.276			1602.471	1602.618			1602.956			1603.290			1603.425
31-31	1601.539	1601.635			1602.001			1602.362			1602.566	1602.720			1603.073			1603.421			1603.561
32-32	1601.585	1601.688			1602.068			1602.444			1602.655	1602.816			1603.183			1603.545			1603.689
33-33	1601.624	1601.733			1602.129			1602.519			1602.734	1602.905			1603.287			1603.663			1603.810
34-34	1601.656	1601.773			1602.184			1602.589			1602.807	1602.988			1603.384			1603.775			1603.924
35-35	1601.680	1601.808			1602.232			1602.652			1602.873	1603.067			1603.476			1604.011			1604.123
36-36	1601.697	1601.837			1602.275			1602.710			1602.931	1603.139			1603.616			1604.123			1604.324
37-37	1601.707	1601.860			1602.314			1602.762			1603.002	1603.257			1603.777			1604.305			1604.518
38-38	1601.718	1601.886			1602.352			1602.874			1603.135	1603.388			1603.926			1604.468			1604.692
39-39	1601.773	1601.951			1602.472			1602.976			1603.262	1603.508			1604.048			1604.5			

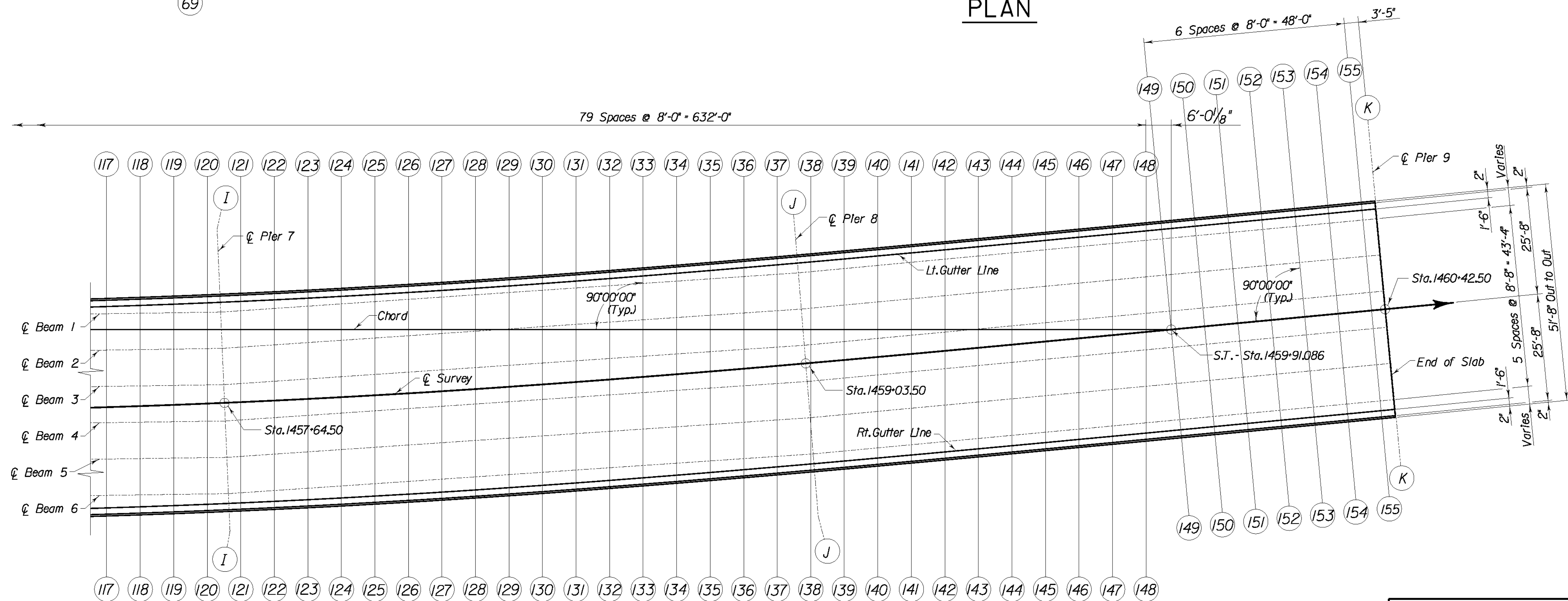
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\$\$\$\$DATE\$\$\$\$\$\$\$\$

\$\$\$\$DATE\$\$\$\$\$\$\$\$



PLAN



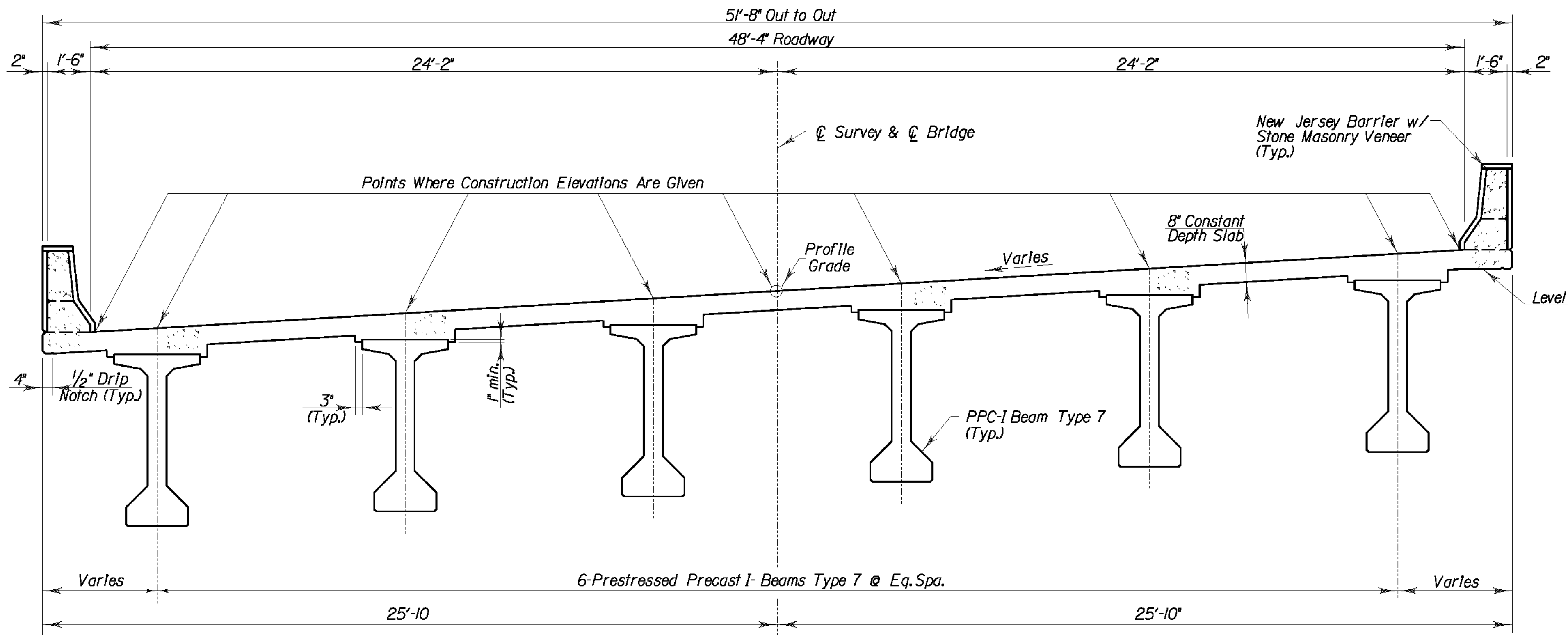
PLAN

ITEM NUMBER
12-311.10

REVISION		DATE
DATE: 09 - 2003	CHECKED BY	
DESIGNED BY: P. A. P.	W. T. B.	
DETAILED BY: D. W. S.	P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY LETCHER		
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER	
CONSTRUCTION ELEVATIONS UNIT 2		
PREPARED BY T.H.E. ENGINEERS, INC.		SHEET NO. S106
		DRAWING NO. 25296

TABLE OF ELEVATIONS UNIT 2																					
Line	Left Gutter Line	Beam *1			Beam *2			Beam *3			C Bridge	Beam *4			Beam *5			Beam *6			Right Gutter Line
		Constr. Elev.	Top of Beam	Dim. "X"	Constr. Elev.	Top of Beam	Dim. "X"	Constr. Elev.	Top of Beam	Dim. "X"		Constr. Elev.	Top of Beam	Dim. "X"	Constr. Elev.	Top of Beam	Dim. "X"	Constr. Elev.	Top of Beam	Dim. "X"	
F - F	1604.369	1604.509			1605.029			1605.549			1605.809	1606.069			1606.589			1607.109			1607.249
G - G	1605.511	1605.661			1606.181			1606.701			1606.961	1607.221			1607.741			1608.261			1608.411
H - H	1606.378	1606.528			1607.048			1607.568			1607.834	1608.088			1608.608			1609.128			1609.278
I - I	1606.962	1607.112			1607.632			1608.152			1608.412	1608.672			1609.192			1609.712			1609.862
J - J	1608.067	1608.134			1608.365			1608.597			1608.712	1608.828			1609.059			1609.291			1609.357
69-69	1604.375	1604.528			1605.065			1605.600			1605.875	1606.136			1606.671			1607.207			1607.373
70-70	1604.503	1604.643			1605.179			1605.713			1606.000	1606.248			1606.782			1607.316			1607.493
71-71	1604.625	1604.752			1605.286			1605.820			1606.117	1606.353			1606.887			1607.420			1607.607
72-72	1604.73	1604.856			1605.389			1605.921			1606.226	1606.453			1606.986			1607.518			1607.714
73-73	1604.843	1604.953			1605.485			1606.016			1606.328	1606.548			1607.078			1607.610			1607.812
74-74	1604.941	1605.045			1605.575			1606.106			1606.422	1606.636			1607.165			1607.696			1607.903
75-75	1605.031	1605.129			1605.659			1606.189			1606.509	1606.718			1607.247			1607.775			1607.986
76-76	1605.113	1605.209			1605.737			1606.265			1606.589	1606.793			1607.321			1607.849			1608.061
77-77	1605.189	1605.282			1605.810			1606.337			1607.015	1606.864			1607.390			1607.917			1608.129
78-78	1605.256	1605.349			1605.876			1606.402			1606.658	1606.927			1607.453			1607.979			1608.190
79-79	1605.316	1605.410			1605.935			1606.460			1606.779	1606.986			1607.510			1608.035			1608.242
80-80	1605.367	1605.465			1605.990			1606.513			1606.829	1607.038			1607.561			1608.084			1608.288
81-81	1605.412	1605.514			1606.038			1606.560			1606.869	1607.083			1607.606			1608.129			1608.325
82-82	1605.449	1605.557			1606.079			1606.601			1606.869	1607.124			1607.645			1608.166			1608.355
83-83	1605.478	1605.595			1606.116			1606.637			1606.903	1607.157			1607.677			1608.198			1608.378
84-84	1605.500	1605.626			1606.145			1606.665			1606.929	1607.185			1607.705			1608.223			1608.393
85-85	1605.513	1605.651			1606.170			1606.688			1606.947	1607.207			1607.725			1608.243			1608.400
86-86	1605.511	1605.663			1606.190			1606.718			1606.958	1607.245			1607.773			1608.301			1608.458
87-87	1605.621	1605.760			1606.286			1606.814			1606.984	1607.341			1607.867			1608.394			1608.564
88-88	1605.723	1605.851			1606.377			1606.903			1607.093	1607.429			1607.955			1608.481			1608.662
89-89	1605.819	1605.937			1606.463			1606.988			1607.193	1607.514			1608.038			1608.564			1608.754
90-90	1605.907	1606.016			1606.542			1607.067			1607.287	1607.591			1608.116			1608.641			1608.828
91-91	1605.988	1606.091			1606.615			1607.139			1607.373	1607.664			1608.187			1608.712			1608.915
92-92	1606.061	1606.160			1606.683			1607.207			1607.451	1607.730			1608.253			1608.778			1609.937
93-93	1606.128	1606.222			1606.745			1607.268			1607.523	1607.792			1608.314			1608.837			1609.035
94-94	1606.187	1606.280			1606.802			1607.324			1607.587	1607.846			1608.369			1608.891			1609.101
95-95	1606.239	1606.331			1606.852			1607.374			1607.644	1607.896			1608.418			1608.939			1609.149
96-96	1606.282	1606.376			1606.898			1607.419			1607.694	1607.940			1608.460			1608.982			1609.189
97-97	1606.320	1606.417			1606.937			1607.457			1607.737	1607.978			1608.498			1609.019			1609.223
98-98	1606.350	1606.451			1606.970			1607.490			1607.772	1608.011			1608.530			1609.050			1609.249
99-99	1606.372	1606.479			1606.998			1607.518			1607.799	1608.037			1608.556			1609.076			1609.268
100-100	1606.387	1606.502			1607.020			1607.540			1607.820	160									

TABLE OF ELEVATIONS UNIT 2																					
Line	Left Gutter Line	Beam #1			Beam #2			Beam #3			C Bridge	Beam #4			Beam #5			Beam #6			Right Gutter Line
		Constr. Elev.	Top of Beam	Dim. "X"	Constr. Elev.	Top of Beam	Dim. "X"	Constr. Elev.	Top of Beam	Dim. "X"		Constr. Elev.	Top of Beam	Dim. "X"	Constr. Elev.	Top of Beam	Dim. "X"	Constr. Elev.	Top of Beam	Dim. "X"	
138-138	1608.117	1608.178			1608.393			1608.611			1608.722	1608.834			1609.059			1609.300			1609.363
139-139	1608.234	1608.288			1608.482			1608.679			1608.781	1608.926			1609.087			1609.297			1609.359
140-140	1608.344	1608.391			1608.564			1608.742			1608.834	1608.923			1609.108			1609.298			1609.355
141-141	1608.406	1608.452			1608.622			1608.791			1608.878	1608.957			1609.122			1609.290			1609.342
142-142	1608.441	1608.488			1608.658			1608.828			1608.916	1608.984			1609.128			1609.277			1609.323
143-143	1608.470	1608.516			1608.687			1608.858			1608.946	1609.004			1609.128			1609.256			1608.296
144-144	1608.490	1608.538			1608.709			1608.881			1608.969	1609.017			1609.121			1609.228			1609.262
145-145	1608.504	1608.551			1608.723			1608.895			1608.984	1609.022			1609.105			1609.192			1609.220
146-146	1608.510	1608.558			1608.731			1608.903			1608.992	1609.021			1609.084			1609.150			1609.171
147-147	1608.509	1608.557			1608.731			1608.904			1608.993	1609.012			1609.054			1609.100			1609.115
148-148	1608.501	1608.549			1608.723			1608.898			1608.987	1609.996			1609.017			1609.043			1609.051
149-149	1608.494	1608.539			1608.716			1608.889			1608.978	1608.978			1608.978			1608.978			1608.978
150-150	1608.476	1608.524			1608.698			1608.871			1608.958	1608.948			1608.926			1608.905			1608.899
151-151	1608.449	1608.498			1608.671			1608.845			1608.932	1608.912			1608.868			1608.826			1608.813
152-152	1608.416	1608.465			1608.638			1608.811			1608.899	1608.867			1608.803			1608.740			1608.721
153-153	1608.375	1608.424			1608.598			1608.771			1608.857	1608.815			1608.731			1608.646			1608.621
154-154	1608.328	1608.377			1608.550			1608.723			1608.810	1608.757			1608.651			1608.545			1608.514
155-155	1608.272	1608.322			1608.494			1608.668			1608.755	1608.691			1608.563			1608.437			1608.400



SUPERELEVATED TYPICAL SECTION

(Showing Curve to Left)

NOTES FOR ELEVATIONS TAKEN ON PCI-BEAMS

Take elevations on top of beams at points indicated by the grid layout. The beam elevations are to be read to three decimals, and entered in the tables under "Top of Beam" elevations.

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

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

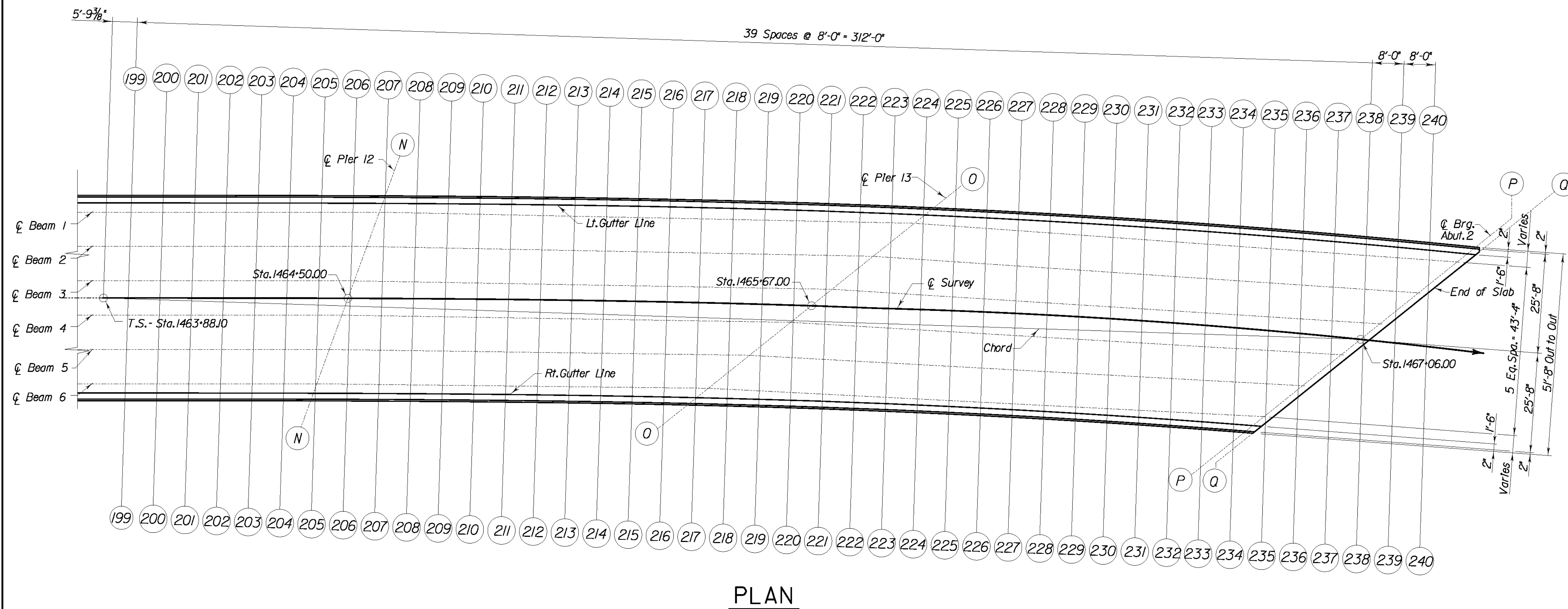
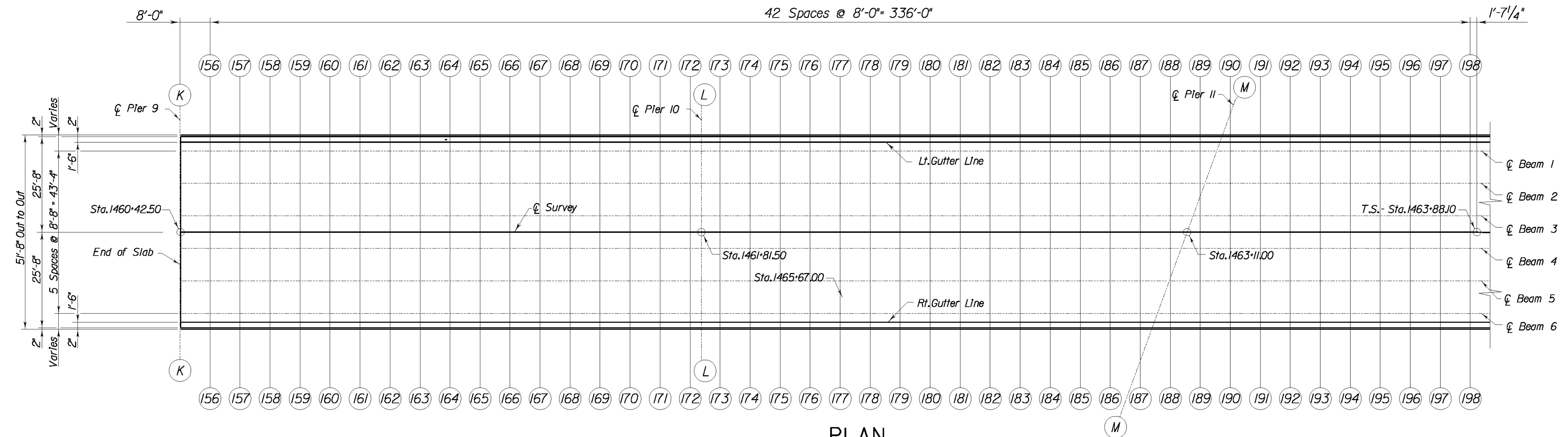
Temporary supports or shoring will not be permitted under the beams when pouring the concrete floor slab or when taking "Top of Beam" elevations.

Construct barrier to roadway grade. Do not add camber to barrier.

NOTE TO RESIDENT

The "Maximum Allowable Camber" shown on the beam sheet is the amount of camber, measured prior to casting the deck, above which the beam will begin to encroach into the slab.

REVISION		DATE	
DATE: 09 - 2003	CHECKED BY		
DESIGNED BY: P. A. P.	W. T. B.		
DETAILED BY: K. B. M.	P. F. H.		
Commonwealth of Kentucky			
DEPARTMENT OF HIGHWAYS			
COUNTY			
LETCHER			
ROUTE	CROSSING		
U. S. 119	POOR FORK CUMBERLAND RIVER		
CONSTRUCTION ELEVATIONS UNIT 2			
PREPARED BY			SHEET NO.
T.H.E. ENGINEERS, INC.			S108
			DRAWING NO.
			25296



REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: D. W. S.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
CONSTRUCTION ELEVATIONS UNIT 3			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S109 DRAWING NO. 25296

TABLE OF ELEVATIONS UNIT 3																					
Line	Left Gutter Line	Beam *1			Beam *2			Beam *3			C Bridge	Beam *4			Beam *5			Beam *6			Right Gutter Line
		Constr. Elev.	Top of Beam	Dim. "X"	Constr. Elev.	Top of Beam	Dim. "X"	Constr. Elev.	Top of Beam	Dim. "X"		Constr. Elev.	Top of Beam	Dim. "X"	Constr. Elev.	Top of Beam	Dim. "X"	Constr. Elev.	Top of Beam	Dim. "X"	
K - K	1608.242	1608.295			1608.469			1608.642			1608.729	1608.661			1608.525			1608.389			1608.346
L - L	1607.974	1608.028			1608.201			1608.374			1608.461	1608.374			1608.201			1608.028			1607.974
M - M	1607.428	1607.485			1607.673			1607.862			1607.956	1607.878			1607.720			1607.562			1607.512
N - N	1607.560	1607.547			1607.372			1607.141			1607.141	1607.065			1606.913			1606.761			1606.714
O - O	1607.504	1607.398			1606.937			1606.484			1606.278	1606.087			1605.746			1605.461			1605.385
P - P	1606.468	1606.376			1605.920			1605.466			1605.240	1605.014			1604.565			1604.119			1603.961
Q - Q	1606.452	1606.360			1605.904			1605.450			1605.201	1604.999			1604.550			1604.103			1603.944
156-156	1608.288	1608.342			1608.515			1608.688			1608.775	1608.696			1608.539			1608.382			1608.334
157-157	1608.327	1608.380			1608.553			1608.727			1608.813	1608.727			1608.553			1608.380			1608.327
158-158	1608.358	1608.411			1608.585			1608.758			1608.845	1608.758			1608.585			1608.411			1608.358
159-159	1608.381	1608.435			1608.608			1608.781			1608.868	1608.781			1608.608			1608.435			1608.381
160-160	1608.397	1608.450			1608.624			1608.797			1608.884	1608.797			1608.624			1608.450			1608.397
161-161	1608.406	1608.459			1608.632			1608.806			1608.892	1608.806			1608.632			1608.459			1608.406
162-162	1608.407	1608.461			1608.634			1608.807			1608.894	1608.807			1608.634			1608.461			1608.407
163-163	1608.400	1608.453			1608.627			1608.800			1608.887	1608.800			1608.627			1608.453			1608.400
164-164	1608.387	1608.440			1608.613			1608.787			1608.873	1608.787			1608.613			1608.440			1608.387
165-165	1608.365	1608.418			1608.591			1608.765			1608.851	1608.765			1608.591			1608.418			1608.365
166-166	1608.335	1608.389			1608.562			1608.735			1608.822	1608.735			1608.562			1608.389			1608.335
167-167	1608.299	1608.353			1608.526			1608.699			1608.786	1608.699			1608.526			1608.353			1608.299
168-168	1608.255	1608.309			1608.482			1608.655			1608.742	1608.654			1608.481			1608.309			1608.255
169-169	1608.204	1608.257			1608.430			1608.604			1608.690	1608.604			1608.430			1608.257			1608.204
170-170	1608.145	1608.198			1608.371			1608.545			1608.631	1608.545			1608.371			1608.198			1608.145
171-171	1608.078	1608.131			1608.305			1608.478			1608.565	1608.478			1608.305			1608.131			1608.078
172-172	1608.004	1608.057			1608.231			1608.404			1608.491	1608.404			1608.231			1608.057			1608.004
173-173	1608.988	1608.042			1608.216			1608.387			1608.473	1608.385			1608.209			1608.037			1607.983
174-174	1608.006	1608.060			1608.234			1608.403			1608.486	1608.398			1608.218			1608.046			1607.994
175-175	1608.017	1608.071			1608.246			1608.411			1608.494	1608.403			1608.221			1608.050			1607.997
176-176	1608.022	1608.075			1608.251			1608.414			1608.494	1608.403			1608.218			1608.047			1607.994
177-177	1608.019	1608.074			1608.249			1608.409			1608.489	1608.396			1608.209			1608.038			1607.985
178-178	1608.011	1608.065			1608.241			1608.399			1608.478	1608.384			1608.195			1608.022			1607.970
179-179	1607.996	1608.050			1608.224			1608.382			1608.459	1608.365			1608.173			1608.001			1607.949
180-180	1607.974	1608.028			1608.202			1608.357			1608.434	1608.339			1608.147			1607.974			1607.920
181-181	1607.946	1607.999			1608.173			1608.327			1608.403	1608.307			1608.114			1607.939			1607.886
182-182	1607.911	1607.964			1608.137			1608.289			1608.366	1608.269			1608.076			1607.899			1607.846
183-183	1607.870	1607.923			1608.094			1608.246			1608.322	1608.225			1608.031			1607.853			1607.799
184-184	1607.823	1607.875			1608.044			1608.195			1608.271	1608.174			1607.981						

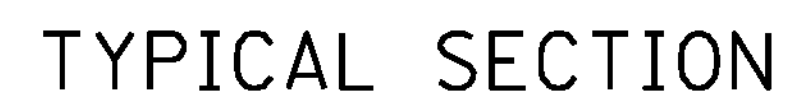
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Take elevations on top of beams at points indicated by the grid layout. The beam elevations are to be read to three decimals, and entered in the tables under "Top of Beam" elevations.

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

Construct barrier to roadway grade. Do not add camber to barrier.

The "Maximum Allowable Camber" shown on the beam sheet is the amount of camber, measured prior to casting the deck, above which the beam will begin to encroach into the slab.



REVISION		DATE	
DATE: 09 - 2003		CHECKED BY	
DESIGNED BY: P. A. P.		W. T. B.	
DETAILED BY: K. B. M.		P. F. H.	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY LETCHER			
ROUTE U.S. 119	CROSSING POOR FORK CUMBERLAND RIVER		
CONSTRUCTION ELEVATIONS UNIT 3			
PREPARED BY T.H.E. ENGINEERS, INC.			SHEET NO. S111 DRAWING NO. 25296

ITEM NUMBER
12-311.10

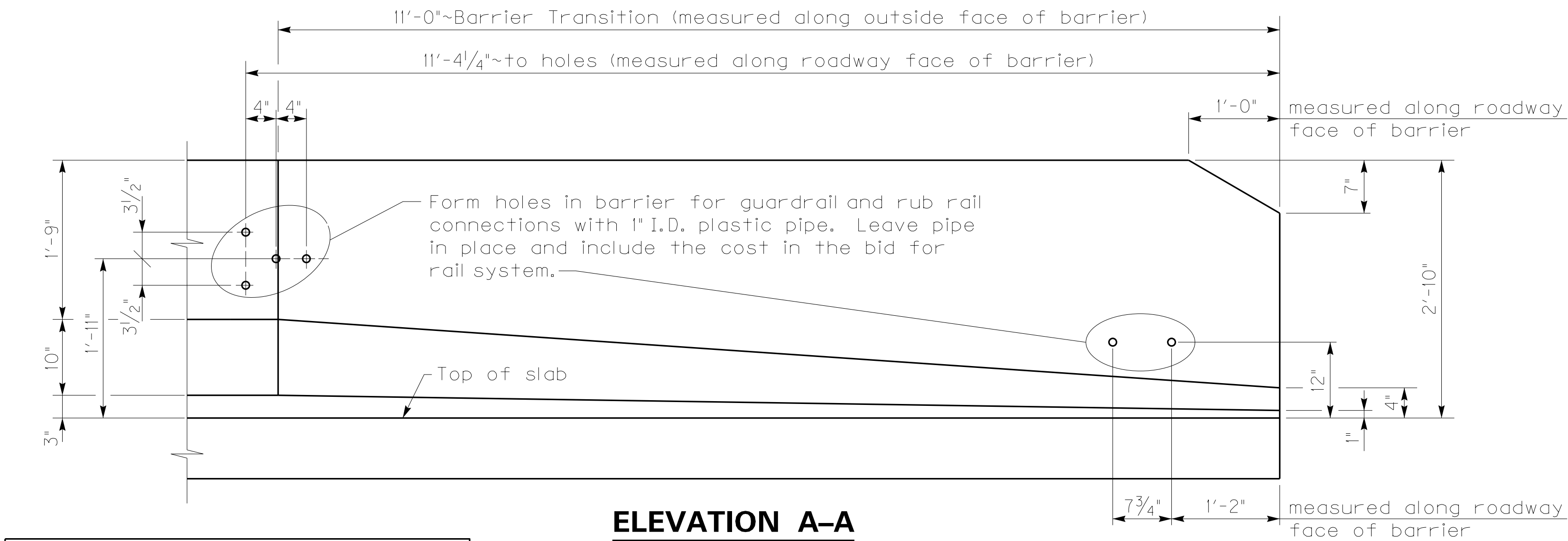
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USER: David
DATE PLOTTED: October 9, 2012

E-SHEET NAME:

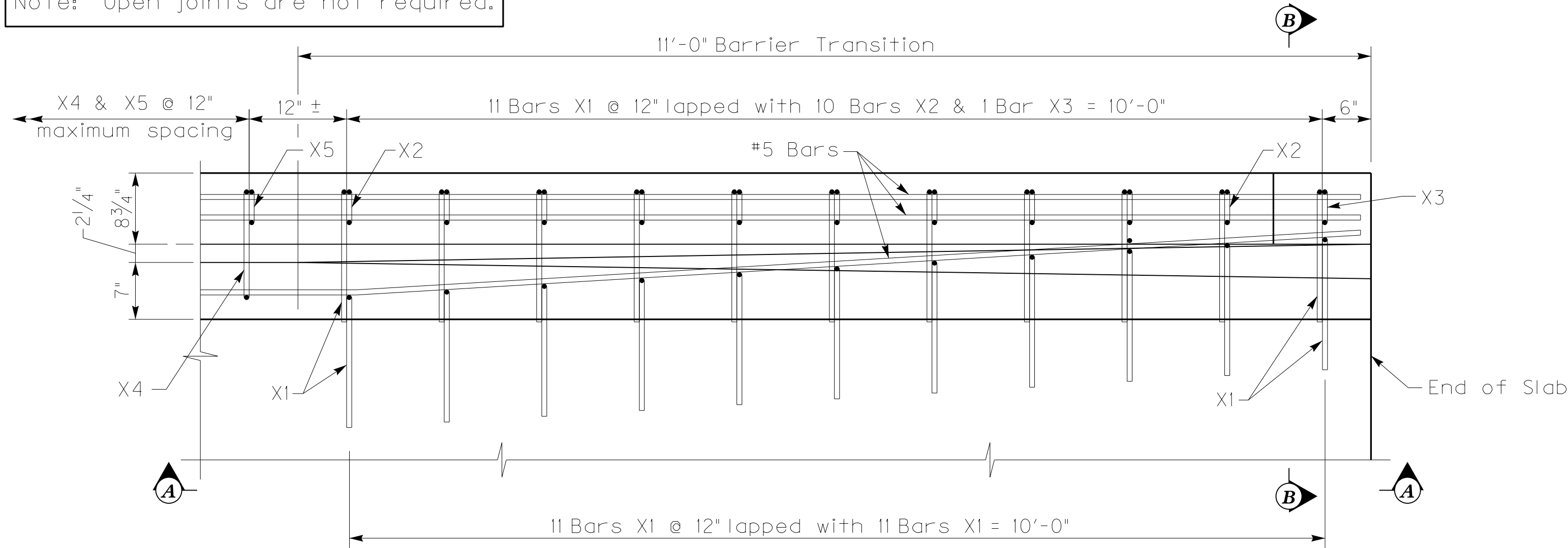
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COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-311.35	SI12

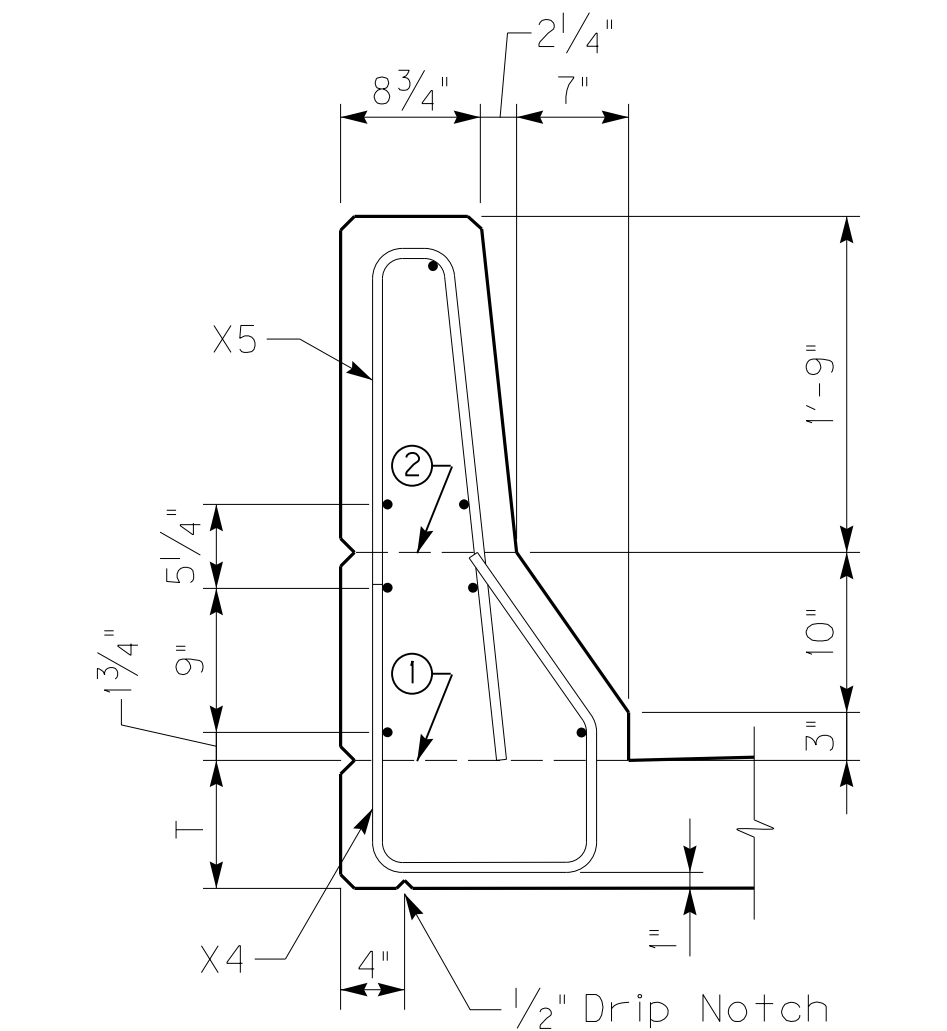


ELEVATION A-A

Note: Open joints are not required.

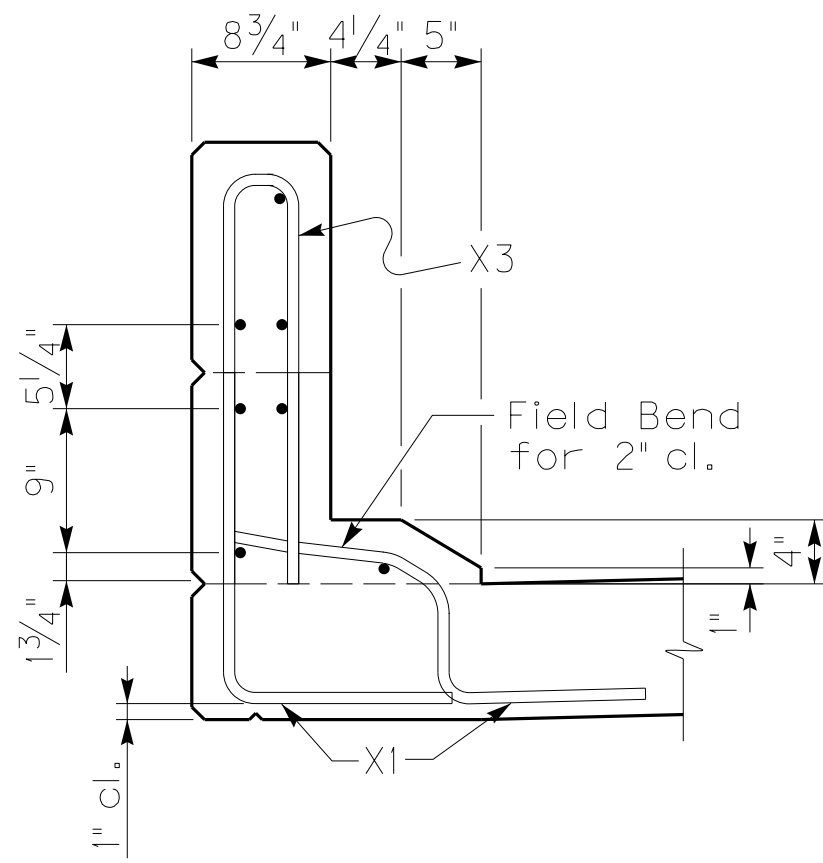


PLAN OF BARRIER TRANSITION

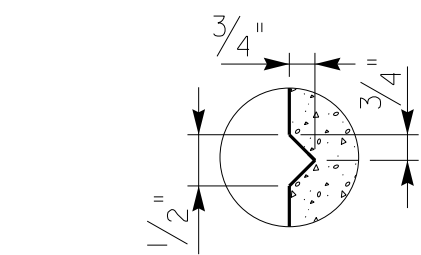


TYPICAL BARRIER SECTION

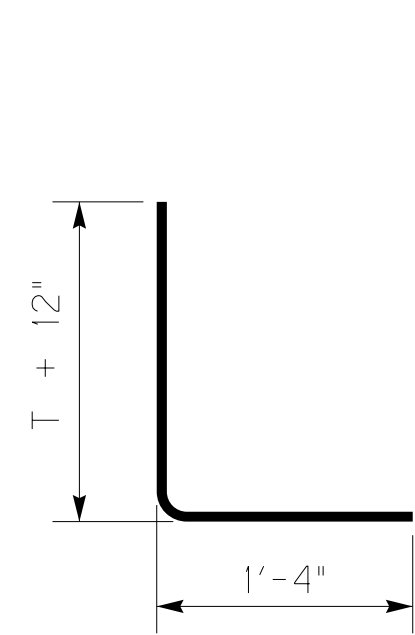
- ① Mandatory roughened construction joint. Concrete above this joint is to be placed after slab has been properly cured and included in the bid for Rail System, Type 3.
- ② Permissible construction joint. "V-Groove" rustication joint is required if construction joint is used. 1/4" Open Joints are not required.



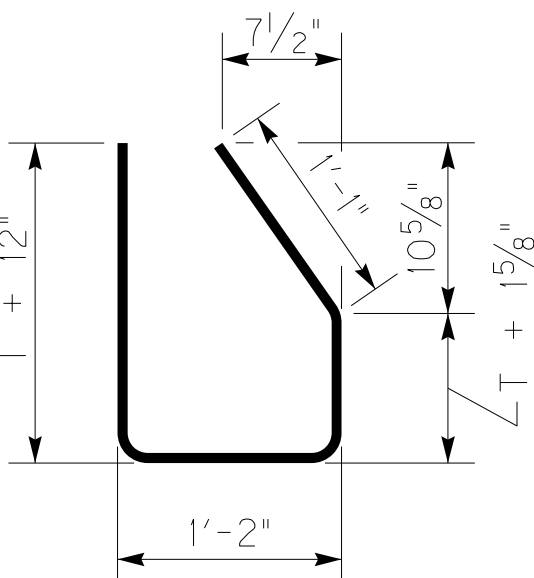
SECTION B-B



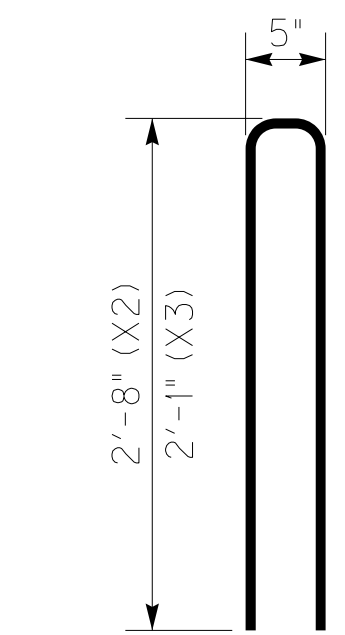
"V-Groove" Rustication



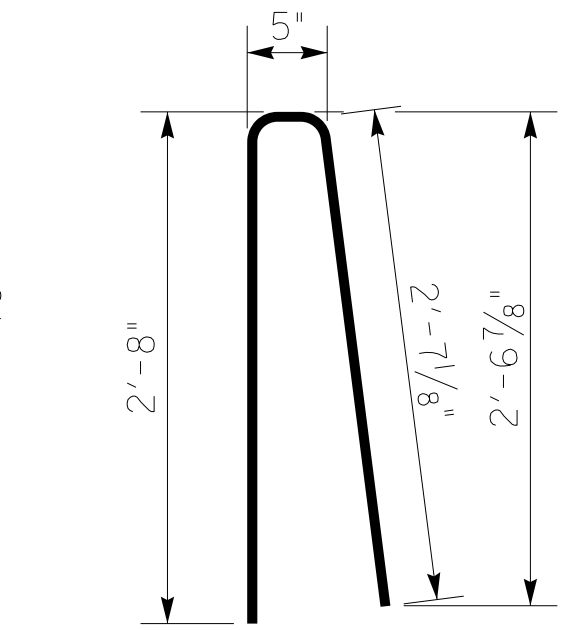
X1(e) Bars
#5 Bar



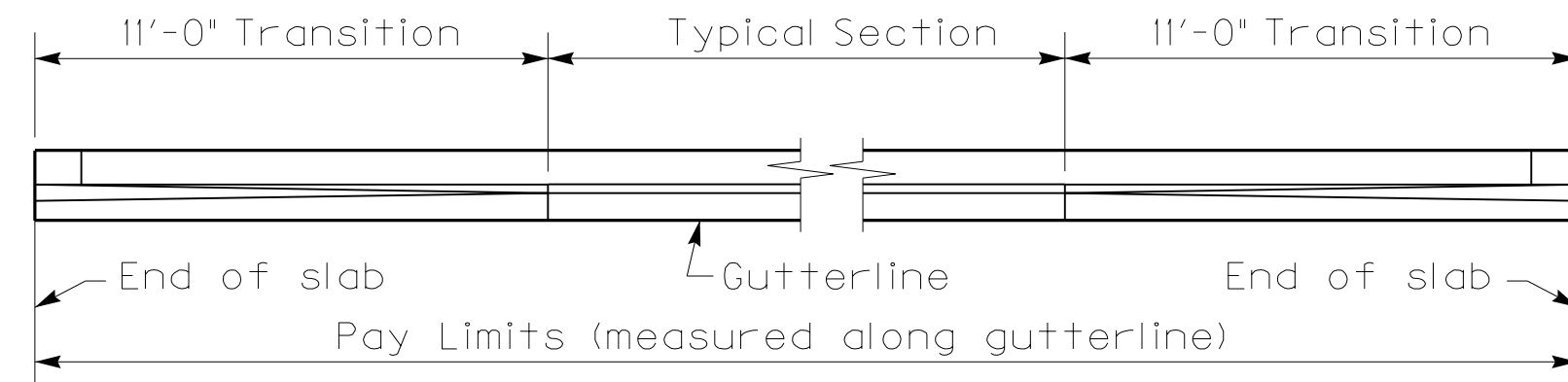
X4(e) Bars
#5 Bar



X2(e) & X3(e) Bars
#5 Bar

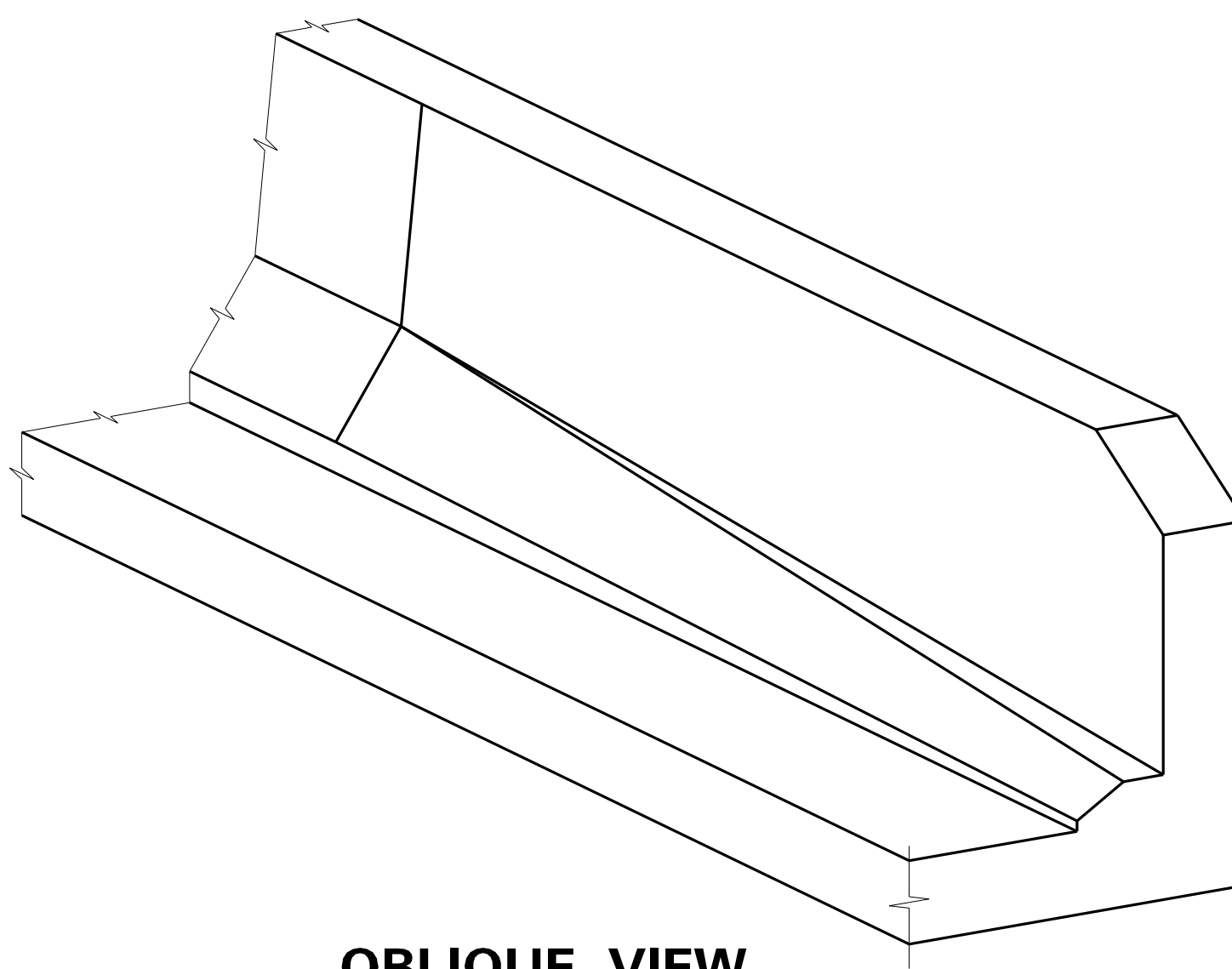


X5(e) Bars
#5 Bar



PLAN OF BARRIER

Note: X1 & X3 Bars at end of slab may be adjusted to maintain 2" minimum clearance on curved and skewed end bridges.



General Notes

CONCRETE: Use Class AA Concrete throughout.

OPTIONAL WELDED WIRE REINFORCEMENT:

As the contractor's option, deformed welded wire reinforcement (WWR) in accordance with ASTM A497 and epoxy coated in accordance with ASTM A884 may be used in place of stirrup bars X2, X3, and X5 as well as the straight or longitudinal reinforcement attached to these stirrups. Use size D31 wire for both stirrups and straight reinforcement. Locate and space the wire reinforcement the same as the conventional reinforcement except lower the top straight bar at least 2 1/2" away from the bend in the stirrup. Use a minimum 2'-8" lap for the straight reinforcement between sheets of WWR.

MEASUREMENT: The linear foot bid for the barrier is measured along the roadway gutterline. Include all reinforcement shown and all concrete above the top of slab in the bid item for Rail Sytem Type 3.

REINFORCEMENT: All reinforcement shown on this sheet is to be epoxy coated. Use stirrup bend diameters for all bent bars. Straight reinforcement is to be Size #5 and lapped 2'-2" when necessary.

KENTUCKY
DEPARTMENT OF HIGHWAYS

RAIL SYSTEM TYPE 3

SUBMITTED: _____
DIRECTOR DIVISION OF STRUCTURAL DESIGN

6-15-2012
DATE