

TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

WOLFE-MORGAN COUNTIES

MOUNTAIN PARKWAY (KY 9009) OVER KY 205 STA. 138 + 21.50

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SPECIAL NOTES

SPECIAL PROVISIONS

69 Embankment at Bridge End Bent Structures

STANDARD DRAWINGS

BBP-002-04	Bearing Details
BCX-006-10	Stencils for Structures
BCX-012-02	Geotechnical Legend
RGX-100-06	Treatment of Embankment at End Bents
RGX-105-08	Treatment of Embankment at End Bents
BJE-001-13	Neoprene Expansion Dams and Armored Edges
BPS-003-09	HP12x53 Steel Pile

SPECIFICATIONS

2012 Standard Specifications for Road and Bridge Construction.

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

ESTIMATE OF QUANTITIES																
BID ITEM CODE	08100	08104	08150	08151	08001	08020	02231	02998	08046	08033	08094	24098EC	03299	21532ED		
BID ITEM	Concrete Class "A"	Concrete Class "AA"	Steel Reinforcement	Steel Reinforcement, Epoxy Coated	Structure Excavation, Common	Crushed Aggregate Slope Protection	Structure Granular Backfill	Masonry Coating	Piles - Steel HP 12 x 53	Test Piles	Pile Points 12 Inch	Precast PC I-Beam Type HN 66-49	Armored Edge for Concrete	Railing System Type 3		
UNIT	C.Y.	C.Y.	LBS.	LBS.	C.Y.	Tons	C.Y.	S.Y.	L.F.	L.F.	EA.	L.F.	L.F.	L.F.		
EASTBOUND Substructure	Int End Bent #1)	23.4	34.7		4471		99	120	32	334	66	7				
	Pier #1	136.3	24.1	24972	96	101		239	598	33	27					
	Pier #2	138.1	24.1	23660	96	80		218	780	40	27					
	Int End Bent #2	23.8	35.1		4369		155	121	32	345	68	7				
	Superstructure		291.9		89397				1129				1197.0	82	487	
Eastbound Totals	321.6	409.8	48632	98429	181	254	241	1650	2057	207	68	1197.0	82	487		
WESTBOUND Substructure	Int End Bent #1	23.4	34.8		4470		95	120	32	339	67	7				
	Pier #1	137.9	24.1	25354	96	122		236	598	33	27					
	Pier #2	132.8	24.1	24104	96	99		215	780	40	27					
	Int End Bent #2	23.8	35.0		4367		155	121	32	363	71	7				
	Superstructure		291.9		89397				1128				1196.5	82	486	
Westbound Totals	317.9	409.9	49458	98426	221	250	241	1643	2080	211	68	1196.5	82	486		
BRIDGE TOTALS	639.5	819.7	98090	196855	402	504	482	3293	4137	418	136	2393.5	164	973		

Plans Prepared By:
H. W. LOCHNER, INC.



Bryan C. Reid, P.E.
KY. No. 27998

REVISION	DATE

DATE: June, 2016	CHECKED BY
DESIGNED BY: B.C. REID	W.D. BURTON
DETAILED BY: W.R. ABBOTT	B.C. REID

**Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS**

COUNTY
WOLFE-MORGAN

ROUTE KY 9009 CROSSING KY 205

TITLE SHEET

PREPARED BY
LOCHNER

H.W. LOCHNER, INC.
LEXINGTON, KENTUCKY

SHEET NO.
S1
DRAWING NO.
27077

ITEM NUMBER
10-126.70

FILE NAME: I:\LEX\PRJ\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL - REV 10-11-16\S27077_001.DGN
 CONSTRUCTION PROJECT NO.
 LETTING DATE
 USER: breid
 DATE PLOTTED: July 1, 2016
 E-SHEET NAME:
 MicroStation v8.11.9.714

GENERAL NOTES

SPECIFICATIONS: References to the Specifications are to the current edition of the Kentucky Department of Highways Standard Specification for Road and Bridge Construction including any current Supplemental Specification. All references to the AASHTO Specifications are to the sixth edition of the AASHTO LRFD Bridge Design Specifications for Highway Bridges.

DESIGN LOAD AND METHOD: This bridge is designed for KY HL-93 live load. The KY HL-93 live load is arrived at by increasing the Standard KY HL-93 truck and lane loads as specified in the AASHTO Specifications by 25%. All reinforced concrete members are designed by the load and resistance factor method as specified in the current AASHTO Specification.

WIND LOAD: This bridge is designed for a wind load based on a wind velocity of 100 mph.

FUTURE WEARING SURFACE: This bridge is designed for a 60 psf future wearing surface.

MATERIALS DESIGN SPECIFICATION:

FOR CLASS "A" REINFORCED CONCRETE	F'C = 3500 PSI
FOR CLASS "AA" REINFORCED CONCRETE	F'C = 4000 PSI
FOR STEEL REINFORCEMENT	FY = 60000 PSI
FOR STEEL PILING	FY = 50000 PSI

CONCRETE: Use Class "AA" concrete in the superstructure deck, parapet, and diaphragms. Class "A" Concrete is to be used in substructure. Prestressed girder concrete shall be in accordance with the plans and specifications.

REINFORCEMENT: Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing is from center to center of bars. Clear distance to face of concrete is 2", unless otherwise noted. Epoxy coat bars designated by 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.

BEVELED EDGES: Bevel all exposed edges $\frac{3}{4}$ ", unless otherwise noted.

SHOP DRAWINGS: Submit shop drawings that are required by the plans and specifications directly to the Bridge Consultant. If any changes in the design plans are proposed by a fabricator of supplier, submit those changes to the Bridge Consultant through the Contractor. The Bridge Consultant shall provide a copy of the final approved shop plans to the Division of Structural Design.

Fahrenheit. Layout dimensions are horizontal dimensions.

DIMENSIONS: Dimensions are for a normal temperature of 60 degrees

SLOPE PROTECTION: Use dry cyclopean stone in accordance with the plans and Specifications. Geotextile Fabric is to be incidental to this item.

PILE POINTS: Provide pile points for all point bearing piles. Ensure pile points are in accordance with Section 604 of the Specifications and of the type shown on the Foundation Layout Sheet.

PILING: Piling shall be driven to refusal. 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 they may be used in the structure.

COMPLETION OF THE STRUCTURE: The Contractor is required to complete the structure in accordance with the plans and specifications. Material, labor or construction operations, not otherwise specified, are to be included in the bid item most appropriate to the work involved. This may include cofferdams, shoring, excavations, backfilling, removal of all or parts of existing structures, phase construction, incidental materials, labor or anything else required to complete the structure.

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.

The length shown in the bill of reinforcement for spirals is the distance from top of footing to bottom layer of reinforcement in the pier cap. The number of turns shown is the length divided by the pitch, plus 3 turns (total number of closed coils) expressed to the nearest whole number. One and one-half closed coils shall be provided at the ends of each spiral unit. 4 channel, tee or angle spacers, weighing approximately 0.8 lbs. per linear foot of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. Weight of spiral reinforcement is included in the estimate of quantities for each pier.

POURING SEQUENCE: The pouring sequence of the slab may not be changed without the written approval of the Engineer.

MASONRY COATING: Apply masonry coating to the concrete surfaces as specified in Section 601.03.18 (B).

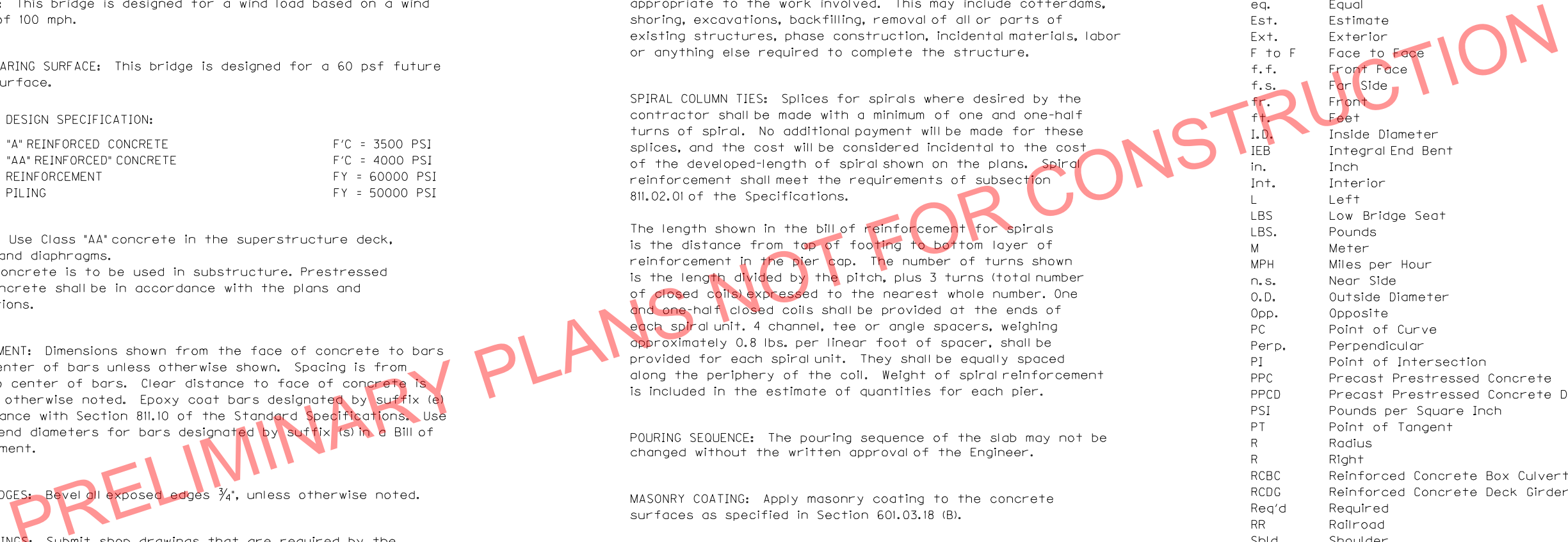
END BENT CONSTRUCTION: Geotextile fabric and perforated pipe installed in accordance to Special Provision 69 shall be considered incidental to unit price bid for Structure Granular Backfill.

GEOTECHNICAL INFORMATION: Additional information can be found in geotechnical report S-021-2014.

CONSTRUCTION IDENTIFICATION: The names of the prime contractor and any sub-contractors shall be imprinted in the concrete with Standard Drawing BGX-006 c.e. at a location designated by the Engineer. The contractor shall furnish all plans, equipment, and labor necessary to do the work for which no direct payment will be made.

The following abbreviations may have been used in the preparation of these plans:

- bet. Between
- b.f. Back Face
- B0F Bottom of Footing
- bot. Bottom
- Brg. Bearing
- C to C Center to Center
- c.e. Current Edition
- C.Y. Cubic Yard
- Chd. Chord
- CL Center Line
- Cl. Clear
- Conc. Concrete
- Cu. Cubic
- Dwg. Drawing
- e.f. Each Face
- El. Elevation
- eq. Equal
- Est. Estimate
- Ext. Exterior
- F to F Face to Face
- f.f. Front Face
- f.s. Far Side
- ft. Feet
- I.D. Inside Diameter
- IEB Integral End Bent
- in. Inch
- Int. Interior
- L Left
- LBS Low Bridge Seat
- LBS. Pounds
- M Meter
- MPH Miles per Hour
- n.s. Near Side
- O.D. Outside Diameter
- Opp. Opposite
- PC Point of Curve
- Perp. Perpendicular
- PI Point of Intersection
- PPC Precast Prestressed Concrete
- PPCD Precast Prestressed Concrete Deck Unit
- PSI Pounds per Square Inch
- PT Point of Tangent
- R Radius
- R Right
- RCBC Reinforced Concrete Box Culvert
- RCDG Reinforced Concrete Deck Girder
- Req'd Required
- RR Railroad
- Shld Shoulder
- spa. Spaces
- Sta. Station
- Std. Standard
- Str. Straight
- Tan. Tangent
- Thru Through
- TOF Top of Footing
- Tot. Total
- Typ. Typical
- Vert. Vertical
- W.P. Working Point
- Yd. Yard



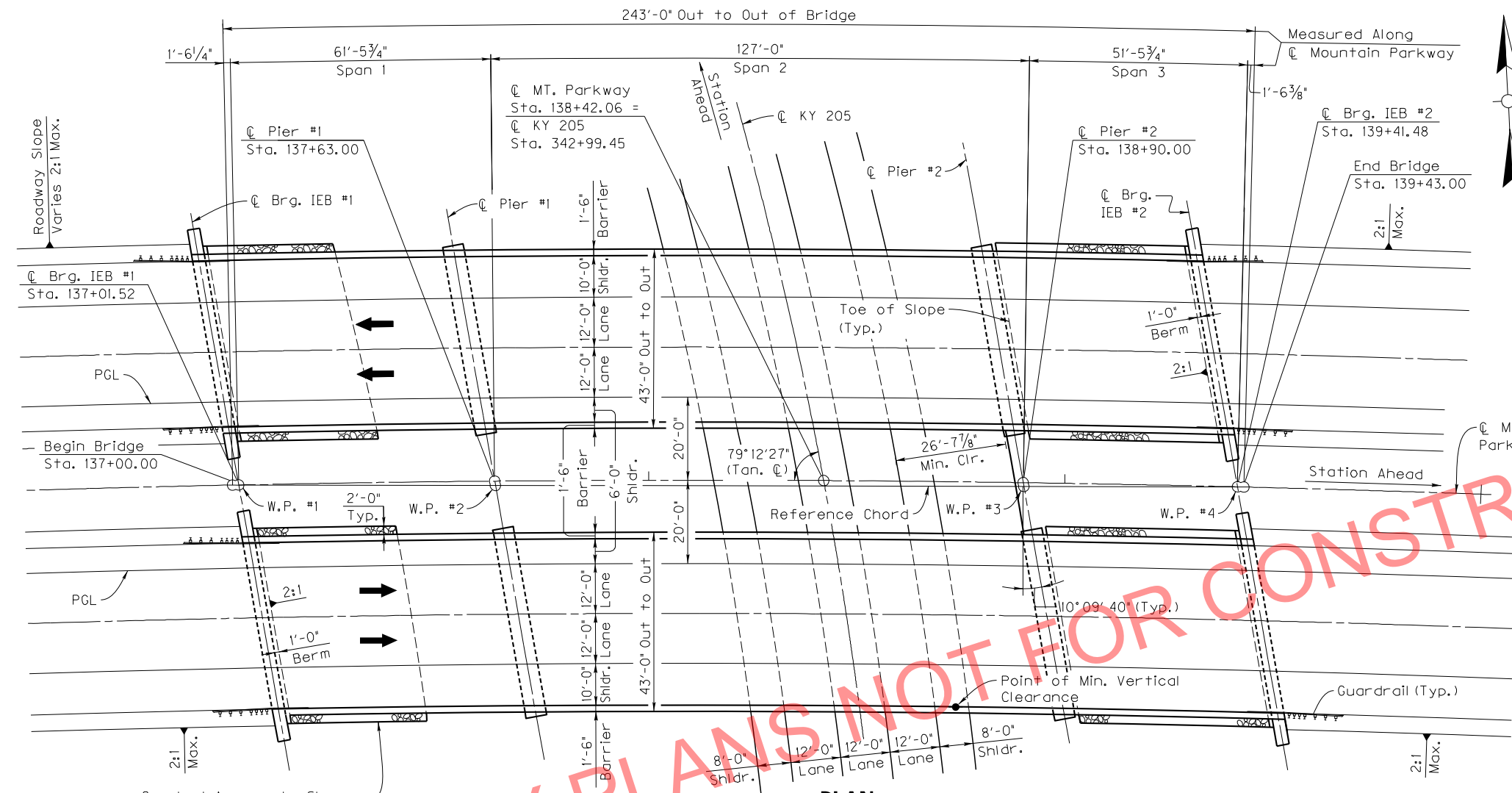
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 USER: demitson
 DATE PLOTTED: October 11, 2016
 E-SHEET NAME:
 MicroStation v8.11.9.459

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: D.M. SMITHSON	W.D. BURTON	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
GENERAL NOTES		
ITEM NUMBER	PREPARED BY	SHEET NO.
10-126.70	LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	S2 27077

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USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:
MicroStation v8.11.9.714

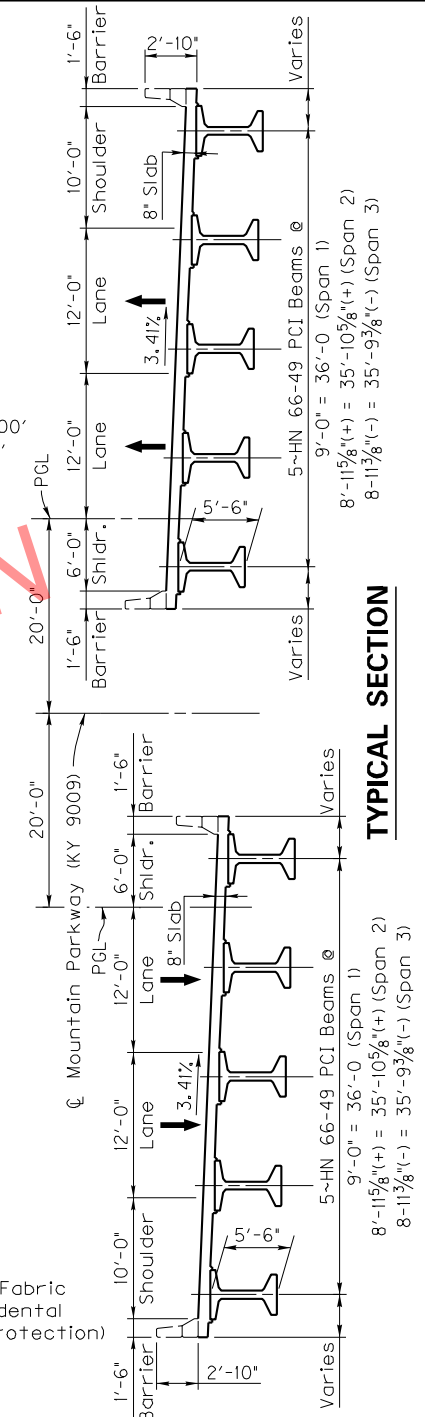


KY 205 CURVE DATA

PI Sta 346+82.63
 $\Delta = 92^\circ 57' 48''$ LT
 Ts = 1194.95' 1218.78'
 Ls = 154.00' 203.00'
 Lc = 1541.37'
 Os = $4^\circ 09' 43''$ $5^\circ 29' 11''$
 LT = 102.70' 135.40'
 ST = 51.36' 67.73'
 R = 1060.00
 e = 481.24
 e = 6.00%
 Runoff = 154.00' 203.00'
 Runout = 52.00' 67.67'

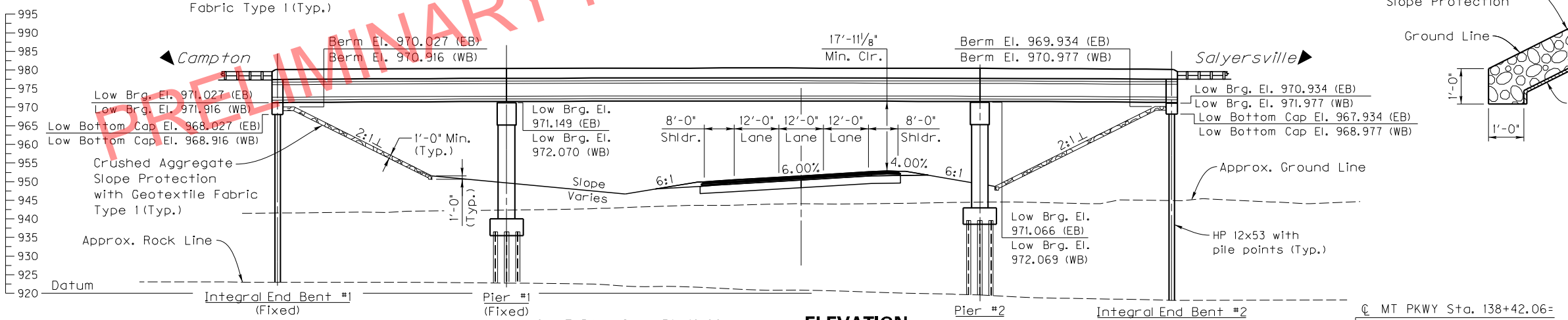
MOUNTAIN PKWY CURVE DATA

PI STA 135+24.21
 $\Delta = 37^\circ 17' 00''$ RT
 T = 1798.06'
 L = 3468.32'
 R = 5330.00'
 E = 295.12'
 e = 3.41%
 Runoff = 192.00'
 Runout = 113.00'



PLAN

TYPICAL SECTION



ELEVATION

61'-5 3/4" ~ 127'-0" ~ 51'-5 3/4"
 HN 66-49 PPC I-Beam
 KY HL-93 Live Load
 Continuous for Live Load
 48'-0" Shoulder Width @ Bridge
 40'-0" Roadway Width @ Bridge
 Skew Varies ~ Variable Fill Slopes

KY 205 CURVE DATA

PVC Sta. 342+18.03 Elev. 952.22
 PVT Sta. 343+58.03 Elev. 951.41
 VC = 140.00'
 VPI Sta. 342+88.03 Elev. 951.41
 -1.15%
 0.00%

MOUNTAIN PKWY CURVE DATA

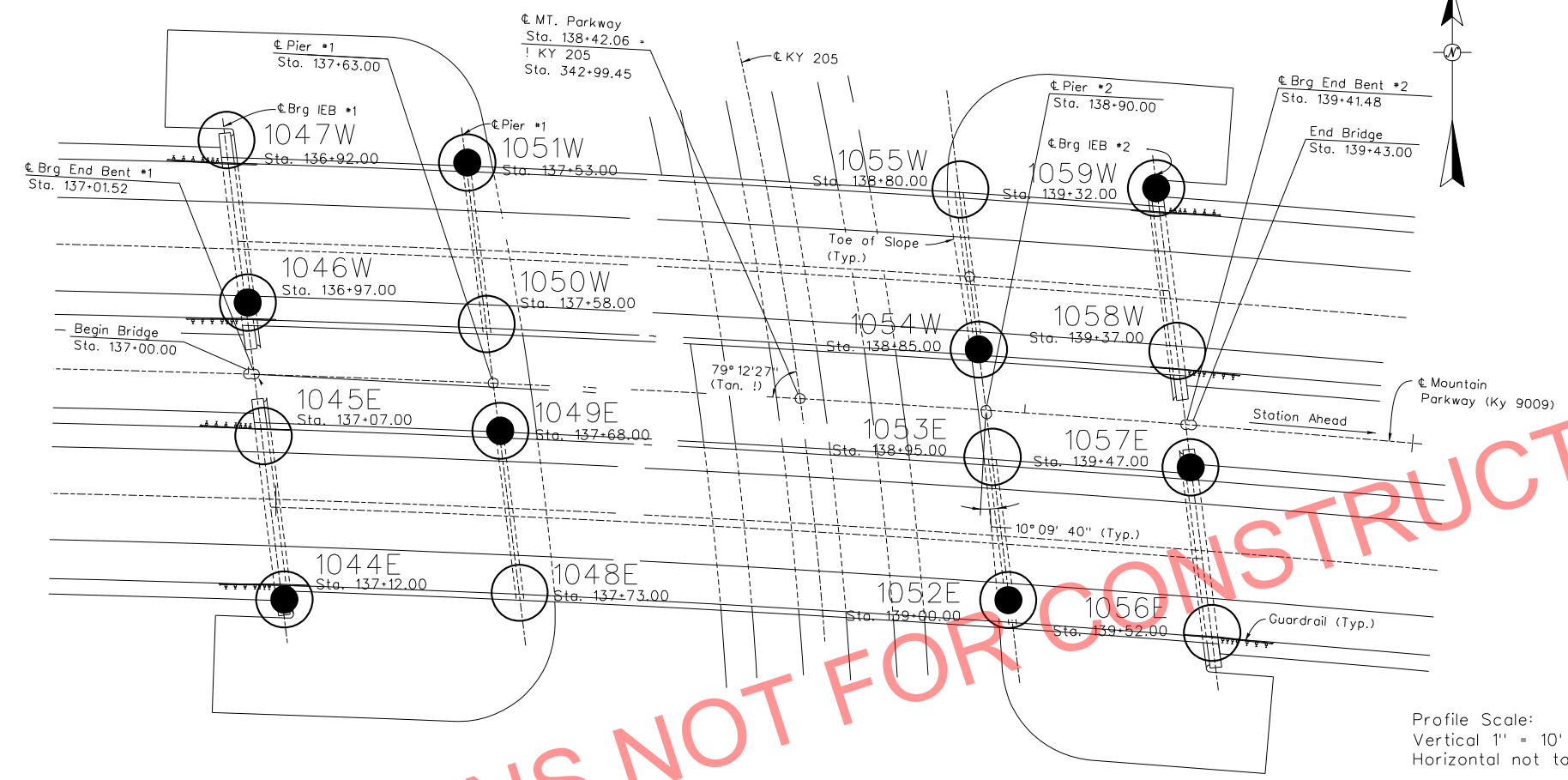
VPI 138+00.00 Elev. 980.00
 1.21%
 -0.97%
 VC = 420.00'
 PVT Sta. 140+10.00 Elev. 977.96
 Structure Limits
 PVC Sta. 135+90.00 El. 977.47

- NOTES:**
- 1.) Roadway guardrail is to attach to bridge barriers, see Roadway Plans.
 - 2.) For end bent backfill and method of construction, see Special Provision 69. All geotextile fabric, if required, shall be incidental to structure granular backfill.

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: D.M. SMITHSON		
B.C. REID		
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
LAYOUT		
PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY		SHEET NO. S3 DRAWING NO. 27077

SUBSURFACE DATA

Plan Scale 1" = 20'



○ SOUNDING
 ● CORE BORING

Profile Scale:
Vertical 1" = 10'
Horizontal not to scale

END BENT ONE
APPROXIMATE ROADWAY GRADE ELEV. = 978.48

Hole No.	Station Offset	Elev.	Qu (psf)	W%	LI	D50	D95	SDI (JS)	Notes
1047W	136+92.00	56.0' Lt.	970	25	0.63	0.006	0.058	A-4(2), ML, S+C=75(47+28)	Top of rock elev. = 921.91 Base of weathered rock elev. = 920.51
				28	1.86	0.149	0.397	N=1, A-2-4(0), SC-SM, S+C=19(9+10)	
				31	3.50	0.025	0.396	N=1, A-4(0), CL-ML, S+C=62(32+30)	
				25		0.033	0.915	N=0, A-4(0), ML, S+C=59(39+20)	
				16				N=56/0.90', A-2-4(0), SM, S+C=33(25+8)	
1046W	136+97.00	20.0' Lt.						(921.91 - 920.51) Weathered shale, micaceous minerals, gray, planar partings	Top of rock elev. = 922.17 Base of weathered rock elev. = 919.57
								(920.51 - 911.91) Shale, micaceous minerals, gray, planar partings	

PRELIMINARY PLANS NOT FOR CONSTRUCTION

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SHEET 1 OF 4

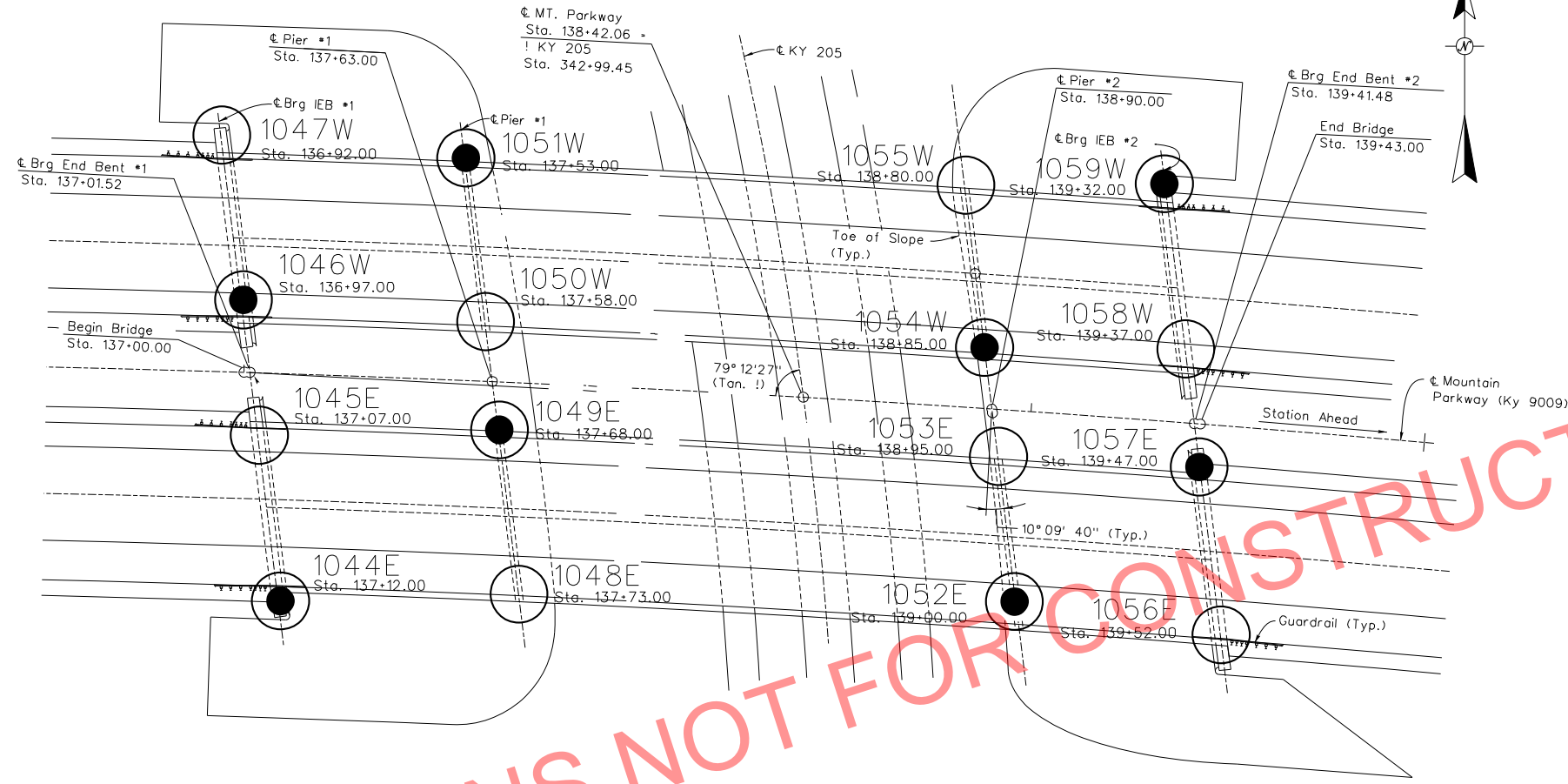
S-021-2014

ITEM NUMBER	10-126.70
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REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY:		
DETAILED BY: S. ANDREWS		J. GODFREY
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
SUBSURFACE DATA		
PREPARED BY K.S. WARE & ASSOCIATES, LLC		SHEET NO. S4 DRAWING NO. 27077

SUBSURFACE DATA

Plan Scale 1" = 20'



- SOUNDING
- CORE BORING

Profile Scale:
Vertical 1" = 10'
Horizontal not to scale

PRELIMINARY PLANS NOT FOR CONSTRUCTION

PIER 1

Hole No.	Station	Offset	Elev.	Notes
1051W	137+53.00	56.0' Lt.	943.18	
1050W	137+58.00	20.0' Lt.	942.97	
1049E	137+68.00	20.0' Rt.	942.17	
1048W	137+73.00	56.0' Rt.	941.59	

W%	LI	D50	D95	SDI (JS)	Notes
24	0.90	0.024	0.341		A-4(3), CL, S+C=65(49+16)
25		0.103	0.398		N=0, A-4(0), SM, S+C=40(28+12)
29		-	-		N=3
24		-	-		N=1, A-3(0), SP, S+C=4(2+2)
19		0.410	1.708		N=54/0.80', A-2-4(0), SM, S+C=31(25+6)
KY RQD REC 0.172 7.713					(922.88 - 920.58) Weathered shale, micaceous minerals, light gray to tan
98	100				(920.58 - 912.88) Shale, micaceous minerals, gray, planar partings
97	100				
98	100				

W%	LI	D50	D95	SDI (JS)	Notes
30	1.58	0.036	0.498		N=2, A-4(2), CL, S+C=56(32+24)
29		0.098	0.407		N=2, A-4(0), SM, S+C=42(24+18)
25		0.037	0.404		N=0, A-4(0), ML, S+C=58(41+17)
17		0.025	0.719		N=57/0.90', A-4(0), ML, S+C=67(54+13)
KY RQD REC 0.025 0.719					(922.78 - 920.78) Weathered shale, sandy layers, light gray to tan, planar partings
95	100				(920.78 - 917.78) Shale, micaceous minerals, gray, planar partings
98	100				(917.78 - 912.78) Shale, micaceous minerals, gray, crushed 914.98 - 914.58
80	100				

Top of rock elev. = 922.88
Base of weathered rock elev. = 920.58

Top of rock elev. = 922.78
Base of weathered rock elev. = 920.78

Datum

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USER: dsmitthson
DATE PLOTTED: October 11, 2016
E-SHEET NAME:
MicroStation v8.11.9.459

S-021-2014

SHEET 2 OF 4

ITEM NUMBER	10-126.70
PREPARED BY	K.S. WARE & ASSOCIATES, LLC
SHEET NO.	S5
DRAWING NO.	27077

REVISION	DATE

DATE: June, 2016
DESIGNED BY:
CHECKED BY:
DETAILED BY: S. ANDREWS J. GODFREY

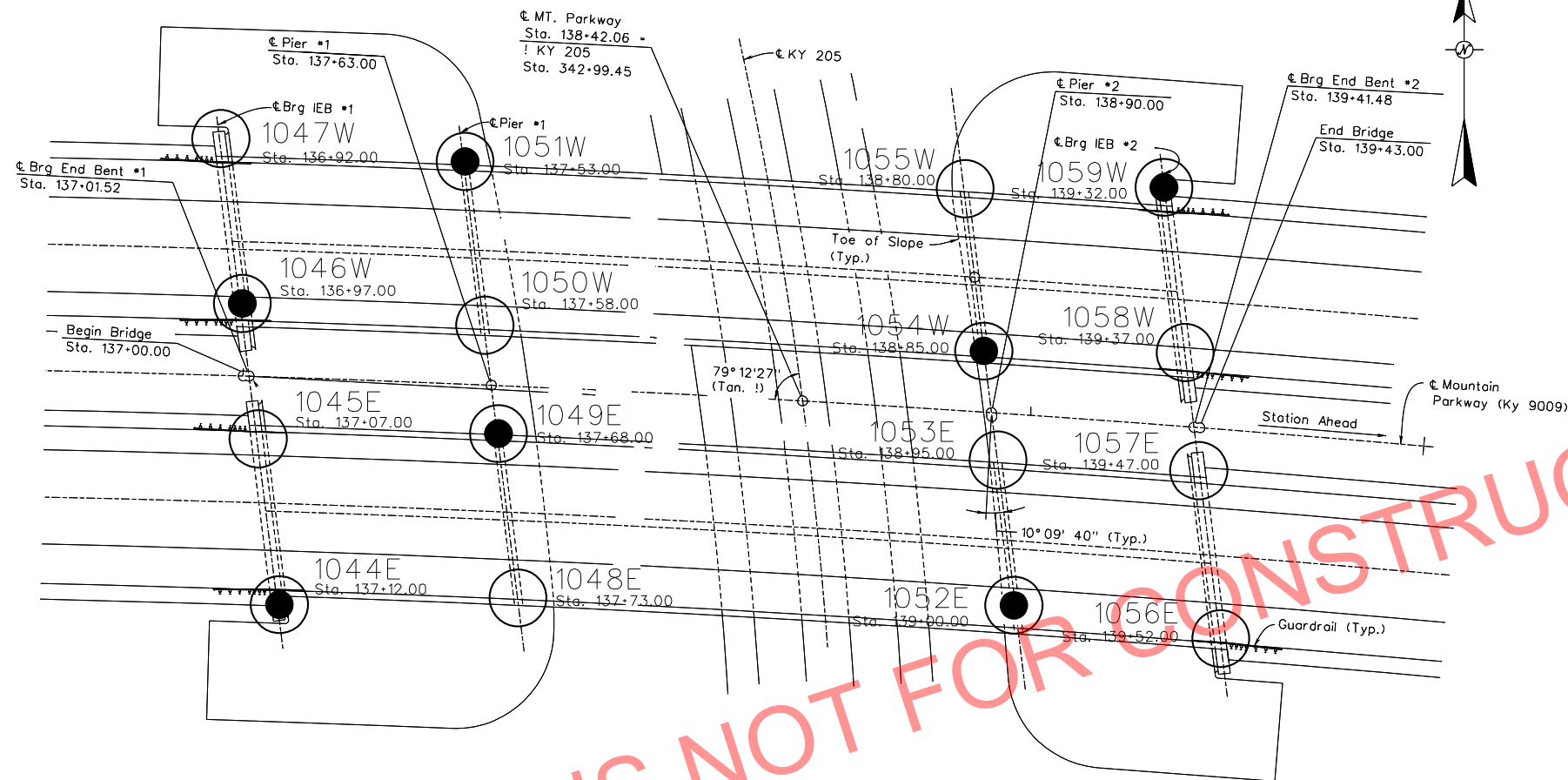
Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

ROUTE KY 9009 CROSSING KY 205

WOLFE-MORGAN
SUBSURFACE DATA

SUBSURFACE DATA

Plan Scale 1" = 20'



- SOUNDING
- CORE BORING

Profile Scale:
Vertical 1" = 10'
Horizontal not to scale

PRELIMINARY PLANS NOT FOR CONSTRUCTION

Hole No.
Station
Offset
Elev.
(NAVD 88 datum)

1055W
138+80.00
56.0' Lt.
944.64

1054W
138+85.00
20.0' Lt.
944.66

1053E
138+95.00
20.0' Rt.
943.34

1052E
139+00.00
56.0' Rt.
943.59

WZ	LI	D50	D95	SDI (JS)
21		0.034	0.363	A-4(0), ML, S+C=59(41+18)
30		0.016	0.355	N=2, A-4(2), CL-ML, S+C=67(40+27)
26		0.233	1.483	N=3, SP, S+C=4(2+2)
38				N=3
29				N=1
	KY RQD	REC		N=R/0.20'
	67	100		(919.96 - 918.66) Weathered shale, micaceous minerals, gray, planar partings
	98	100		(918.66 - 909.66) Shale, micaceous minerals, gray, planar partings
	100	100		

Top of rock elev. = 919.96
Base of weathered rock elev. = 918.66

WZ	LI	D50	D95	SDI (JS)
24	0.55	0.018	0.331	A-6(5), CL, S+C=68(45+23)
25		0.112	0.376	N=5, A-2-4(0), SM, S+C=35(20+15)
32		0.131	0.382	N=2, A-2-4(0), SM, S+C=27(20+7)
24		0.164	1.309	N=2, A-2-4(0), SM, S+C=24(16+8)
24		0.159	0.413	N=2, A-2-4(0), SM, S+C=14(9+5)
24		0.150	0.692	N=8, A-2-4(0), SM, S+C=22(13+9)
	KY RQD	REC		(916.59 - 916.09) Weathered shale, micaceous minerals, gray
	75	100		(916.09 - 906.59) Shale, micaceous minerals, gray, planar partings
	90	100		
	100	100		

Top of rock elev. = 916.59
Base of weathered rock elev. = 916.09

REVISION	DATE

DATE: 08-SEPTEMBER-2014
DESIGNED BY: S. ANDREWS
CHECKED BY: J. GODFREY
DETAILED BY: S. ANDREWS

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY
WOLFE-MORGAN
ROUTE
KY 9009
CROSSING
KY 205
SUBSURFACE DATA
PREPARED BY
K.S. WARE & ASSOCIATES, LLC
SHEET NO.
S6
DRAWING NO.
27077

S-021-2014

ITEM NUMBER

10-126.70

SHEET 3 OF 4

FILE NAME: I:\LEX\PR\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\S27077_006.DGN

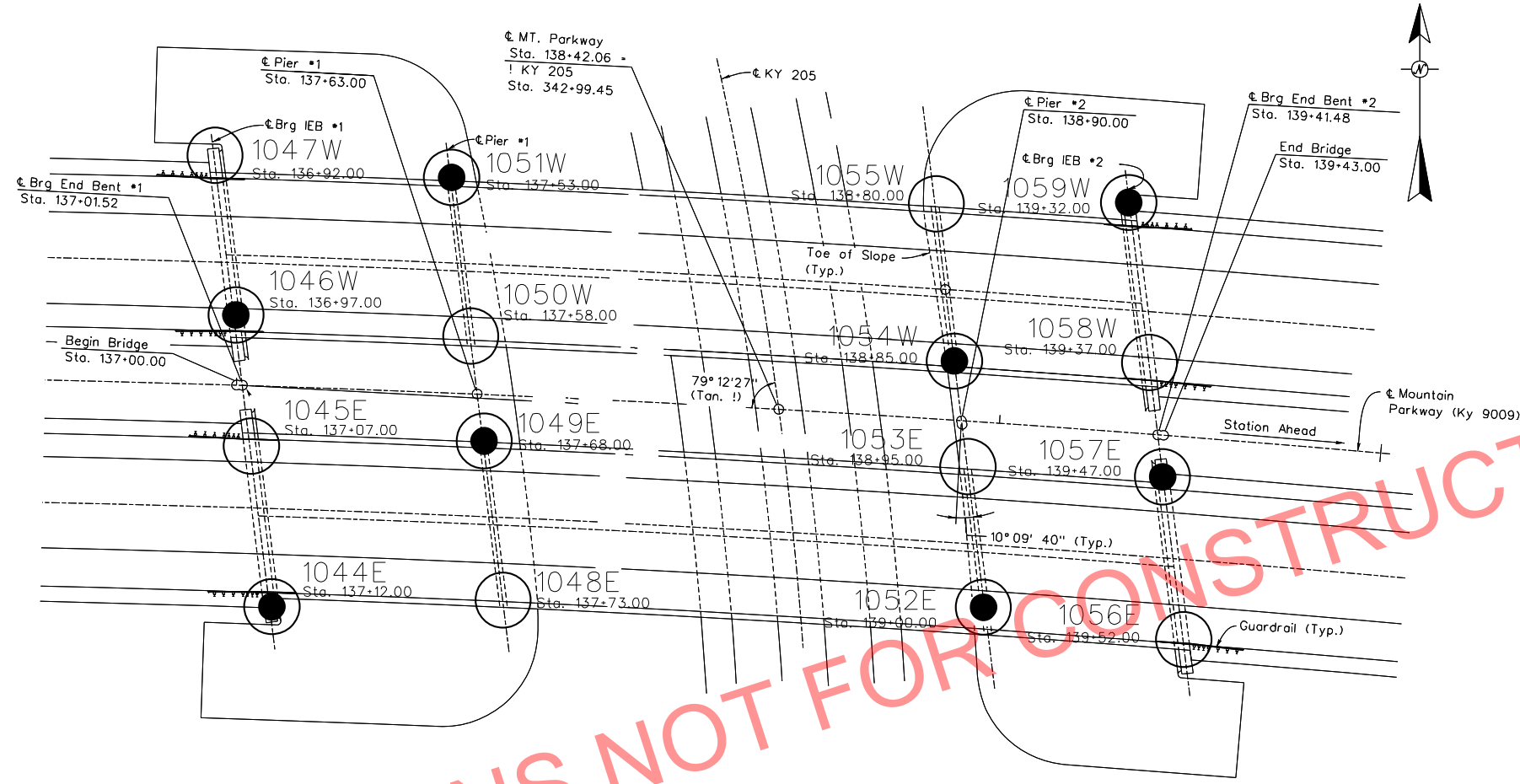
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DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.655

SUBSURFACE DATA

Plan Scale 1" = 20'



- SOUNDING
- CORE BORING

Profile Scale:
Vertical 1" = 10'
Horizontal not to scale

ENDBENT 2
APPROXIMATE ROADWAY GRADE ELEV. = 978.45

Hole No.	Station	Offset	Elev.	Qu (psf)	W%	LI	D50	D95	SDI (JS)	Notes
1059W	139+32.00	56.0' Lt.	945.47	1700	21	0.84	0.028	0.359	A-4(1), CL-ML, S+C=61(41+20)	
					29	1.53	0.024	0.380	N=3, A-4(2), CL-ML, S+C=62(37+25)	
					29		0.790	1.823	N=2, A-1-b(0), SP-SM, S+C=10(4+6)	
					28		0.140	0.957	N=2, A-2-4(0), SM, S+C=27(21+6)	
					31					
					17		0.276	1.688	N=6, A-2-4(0), SM, S+C=13(8+5)	
1058W	139+37.00	20.0' Lt.	942.10							
					410	26	0.054	0.383	A-4(0), ML, S+C=53(38+15)	
					27	1.00	0.021	0.502	N=4, A-4(2), CL-ML, S+C=65(42+23)	
					30		0.153	0.418	N=5, A-2-4(0), SM, S+C=20(9+11)	
					32		0.114	1.333	N=6, A-4(0), SM, S+C=38(22+16)	
					24					
					31		0.089	0.398	N=3, A-4(0), SM, S+C=45(33+12)	
1057E	139+47.00	20.0' Rt.	942.53							
					410	26	0.054	0.383	A-4(0), ML, S+C=53(38+15)	
					27	1.00	0.021	0.502	N=4, A-4(2), CL-ML, S+C=65(42+23)	
					30		0.153	0.418	N=5, A-2-4(0), SM, S+C=20(9+11)	
					32		0.114	1.333	N=6, A-4(0), SM, S+C=38(22+16)	
					24					
					31		0.089	0.398	N=3, A-4(0), SM, S+C=45(33+12)	
1056E	139+52.00	56.0' Rt.	944.32							
					410	26	0.054	0.383	A-4(0), ML, S+C=53(38+15)	
					27	1.00	0.021	0.502	N=4, A-4(2), CL-ML, S+C=65(42+23)	
					30		0.153	0.418	N=5, A-2-4(0), SM, S+C=20(9+11)	
					32		0.114	1.333	N=6, A-4(0), SM, S+C=38(22+16)	
					24					
					31		0.089	0.398	N=3, A-4(0), SM, S+C=45(33+12)	

Top of rock elev. = 919.67
Base of weathered rock elev. = 918.57

Top of rock elev. = 918.03
Base of weathered rock elev. = 917.23
Datum

PRELIMINARY PLANS NOT FOR CONSTRUCTION

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USER: dsmitthson
DATE PLOTTED: October 11, 2016
E-SHEET NAME:
MicroStation v8.11.9.459

SHEET 4 OF 4

S-021-2014
ITEM NUMBER
10-126.70

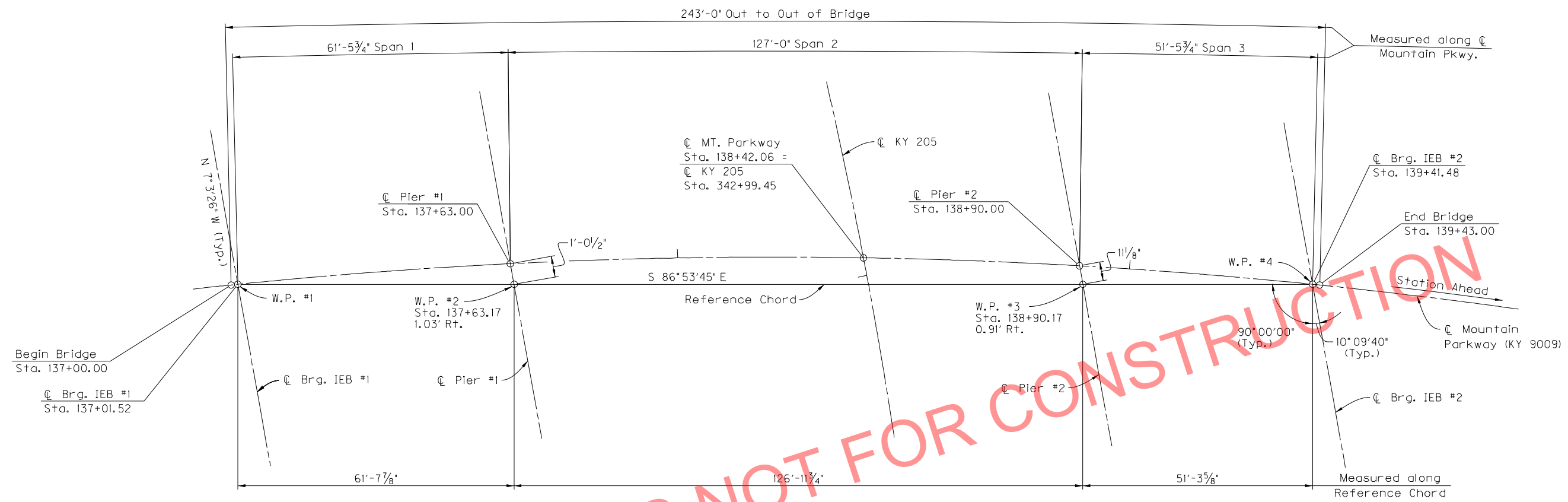
REVISION	DATE
DATE: June, 2016	CHECKED BY
DESIGNED BY:	
DETAILED BY: S. ANDREWS	J. GODFREY
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
WOLFE-MORGAN	
ROUTE KY 9009	CROSSING KY 205
SUBSURFACE DATA	
PREPARED BY	SHEET NO.
K.S. WARE & ASSOCIATES, LLC	S7
	DRAWING NO.
	27077

FILE NAME: I:\LEX\PRJ\000008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\27077-008.DGN

USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.714

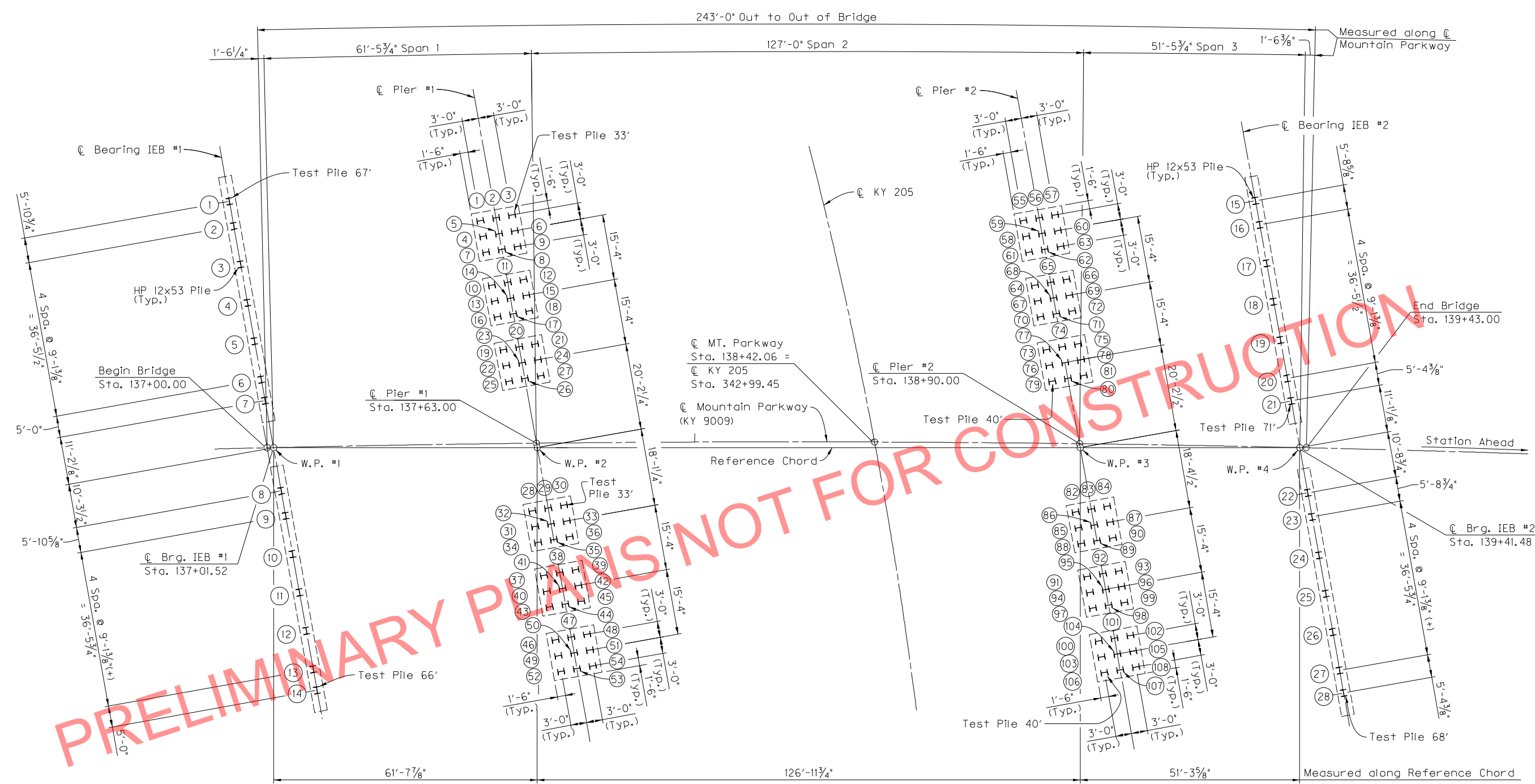


GEOMETRIC LAYOUT
(Curve exaggerated for clarity)

PRELIMINARY PLANS NOT FOR CONSTRUCTION

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: D.M. SMITHSON	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
GEOMETRIC LAYOUT		
ITEM NUMBER	PREPARED BY LOCHNER H. W. LOCHNER, INC. LEXINGTON, KENTUCKY	SHEET NO. S8 DRAWING NO. 27077
10-126.70		

FILE NAME: I:\LEX\PRJ\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\27077_009.DGN
 USER: breid
 DATE PLOTTED: October 11, 2016
 E-SHEET NAME:
 MicroStation v8.11.9.714



PRELIMINARY PLANS NOT FOR CONSTRUCTION

PLAN

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: D.M. SMITHSON	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
FOUNDATION LAYOUT (1 of 2)		
ITEM NUMBER	PREPARED BY	SHEET NO.
10-126.70	LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	S9 DRAWING NO. 27077

FILE NAME: I:\LEX\PR\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\S27077_010.DGN

USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.714

Pile Record for Point Bearing Piles - PIER #1 (WB) & (EB)

Pile No.	Pile Cut-off Elevation (Feet)	Pile Length in Place (Feet)	Point of Pile Elevation as Driven (Feet)	Design Axial Load (Tons)
1	937.500			141
2	937.500			141
3	937.500			141
4	937.500			141
5	937.500			141
6	937.500			141
7	937.500			141
8	937.500			141
9	937.500			141
10	937.500			141
11	937.500			141
12	937.500			141
13	937.500			141
14	937.500			141
15	937.500			141
16	937.500			141
17	937.500			141
18	937.500			141
19	937.500			141
20	937.500			141
21	937.500			141
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26	937.500			141
27	937.500			141
28	937.500			141
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30	937.500			141
31	937.500			141
32	937.500			141
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37	937.500			141
38	937.500			141
39	937.500			141
40	937.500			141
41	937.500			141
42	937.500			141
43	937.500			141
45	937.500			141
46	937.500			141
47	937.500			141
48	937.500			141
49	937.500			141
50	937.500			141
51	937.500			141
52	937.500			141
53	937.500			141
54	937.500			141

Pile Record for Point Bearing Piles - PIER #2 (WB) & (EB)

Pile No.	Pile Cut-off Elevation (Feet)	Pile Length in Place (Feet)	Point of Pile Elevation as Driven (Feet)	Design Axial Load (Tons)
55	940.500			141
56	940.500			141
57	940.500			141
58	940.500			141
59	940.500			141
60	940.500			141
61	940.500			141
62	940.500			141
63	940.500			141
64	940.500			141
65	940.500			141
66	940.500			141
67	940.500			141
68	940.500			141
69	940.500			141
70	940.500			141
71	940.500			141
72	940.500			141
73	940.500			141
74	940.500			141
75	940.500			141
76	940.500			141
77	940.500			141
78	940.500			141
79	940.500			141
80	940.500			141
81	940.500			141
82	940.500			141
83	940.500			141
84	940.500			141
85	940.500			141
86	940.500			141
87	940.500			141
88	940.500			141
89	940.500			141
90	940.500			141
91	940.500			141
92	940.500			141
93	940.500			141
94	940.500			141
95	940.500			141
96	940.500			141
97	940.500			141
98	940.500			141
100	940.500			141
101	940.500			141
102	940.500			141
103	940.500			141
104	940.500			141
105	940.500			141
106	940.500			141
107	940.500			141
108	940.500			141

Pile Record for Point Bearing Piles - IEB #1 (WB) & (EB)

Pile No.	Pile Cut-off Elevation (Feet)	Pile Length in Place (Feet)	Point of Pile Elevation as Driven (Feet)	Design Axial Load (Tons)
1	970.916			80
2	970.916			80
3	970.916			80
4	970.916			80
5	970.916			80
6	970.916			80
7	970.916			80
8	970.027			80
9	970.027			80
10	970.027			80
11	970.027			80
12	970.027			80
13	970.027			80
14	970.027			80

Pile Record for Point Bearing Piles - IEB #2 (WB) & (EB)

Pile No.	Pile Cut-off Elevation (Feet)	Pile Length in Place (Feet)	Point of Pile Elevation as Driven (Feet)	Design Axial Load (Tons)
15	970.977			80
16	970.977			80
17	970.977			80
18	970.977			80
19	970.977			80
20	970.977			80
21	970.977			80
22	969.934			80
23	969.934			80
24	969.934			80
25	969.934			80
26	969.934			80
27	969.934			80
28	969.934			80

Driving Criteria

DRIVING CRITERIA: Drive point bearing piles to practical refusal.

PRACTICAL REFUSAL: For this project minimum blow requirements are reached after total penetration becomes 1/2' or less for 10 consecutive blows, practical refusal is obtained after the pile is struck an additional 10 blows with total penetration of 1/2' or less. Advance the production piling to the driving resistances specified above and to depths determined by test pile(s) and subsurface data sheet(s). Immediately cease driving operations if the pile visibly yields or becomes damaged during driving. If hard driving is encountered because of dense strata or an obstruction, such as a boulder before the pile is advanced to the depth anticipated, the Engineer will determine if more blows than the average driving resistances specified for practical refusal is required to further advance the pile. Drive additional production and test piles if directed by the Engineer.

Hammer Criteria

Single-acting diesel hammers with rated energies between 23 kip-ft and 40 kip-ft are recommended to adequately drive the H-piles to practical refusal without encountering excessive blow counts or overstressing the piles. The use of hammers other than single-acting diesel may require different energies. The contractor shall submit the proposed 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.

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: Load carried by each pile as estimated from structural design calculations for Factored LRFD Loadings.

CALCULATED FIELD BEARING: Contrary to Section 604.03.07 of the Standard Specifications, in place bearing values are not required for piles bearing on rock when driven to practical refusal.

Field Data

For each pile, the Project Engineer shall record the following on this sheet: Pile Length in Place and Point of Pile Elevation as Driven.

Submit this record to: Kentucky Transportation Cabinet
Director, Division of Structural Design
Room #322
200 Mero Street
Frankfort, KY 40622

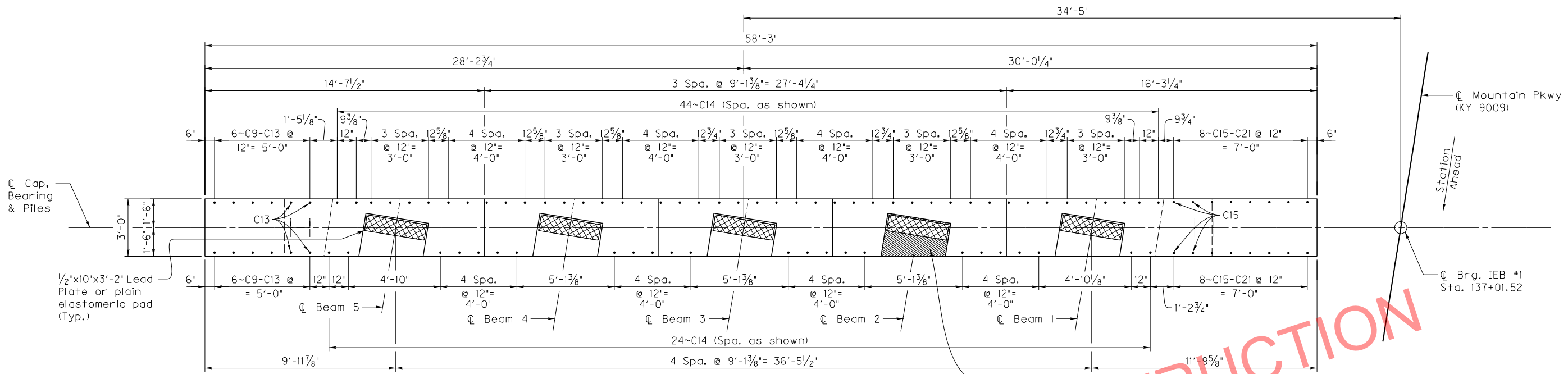
This pile record does not replace other pile records the Project Engineer is required to keep and submit.

Use HP 12x53 in accordance with BPS-003, c.e.

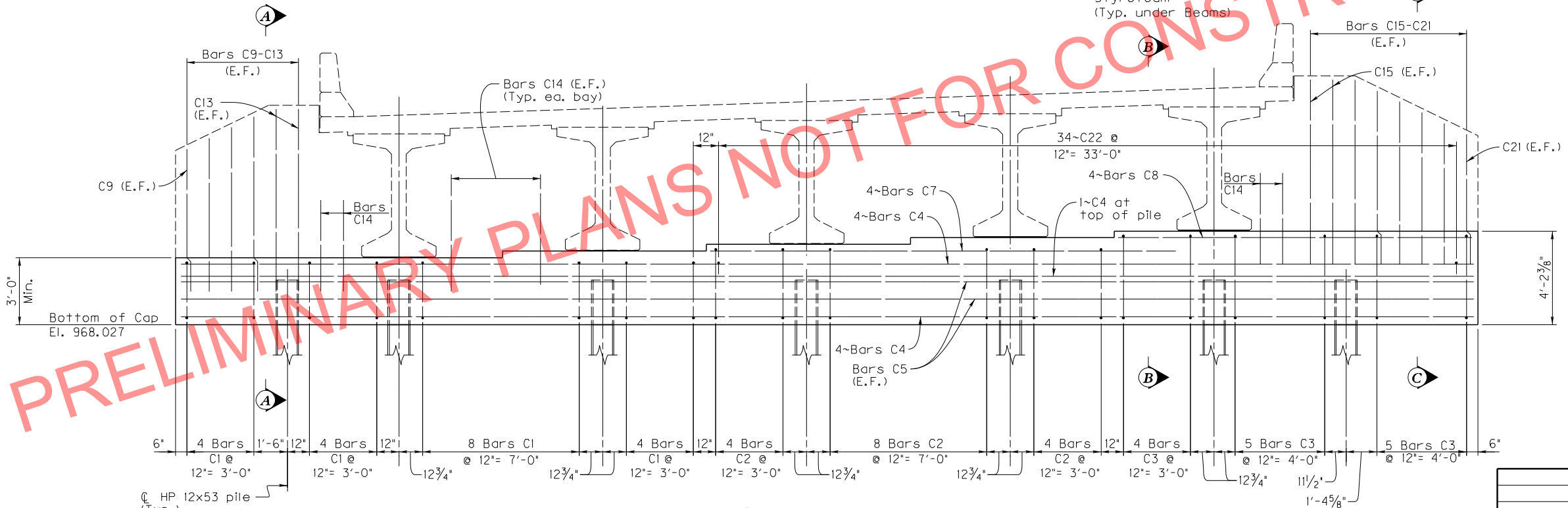
Use Grade 50 Steel H-Piles with reinforced pile points as end-bearing piles.

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: D.M. SMITHSON	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
FOUNDATION LAYOUT (2 of 2)		
ITEM NUMBER	PREPARED BY	SHEET NO.
10-126.70	LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	\$10 DRAWING NO. 27077

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 USER: breid
 DATE PLOTTED: October 11, 2016
 E-SHEET NAME:
 MicroStation v8.11.9.714



CAP PLAN



ELEVATION - SHOWING CAP REINFORCEMENT
(Looking Back Station)

NOTES:

1. For pile spacing, see Foundation Layout, sheet S9.
2. Construction joint is not roughened under cork or bearing pads.
3. Bearing elevations are given at the top of concrete.
4. All cap concrete shall be Class "A".
5. For Sections A, B & C, see sheet S13.

TABLE OF BEARING ELEVATIONS	
Point	Elevation
Beam 1	972.222
Beam 2	971.923
Beam 3	971.625
Beam 4	971.326
Beam 5	971.027

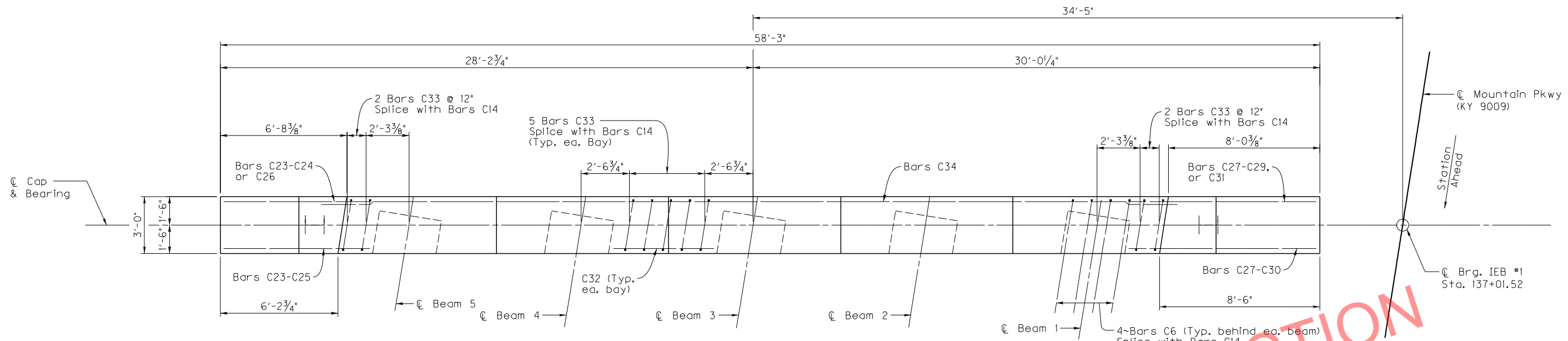
REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: W.D. BURTON	B.C. REID	
DETAILED BY: W.R. ABBOTT	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
INTEGRAL END BENT 1 - EB		
ITEM NUMBER	PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	SHEET NO. S11 DRAWING NO. 27077
10-126.70		

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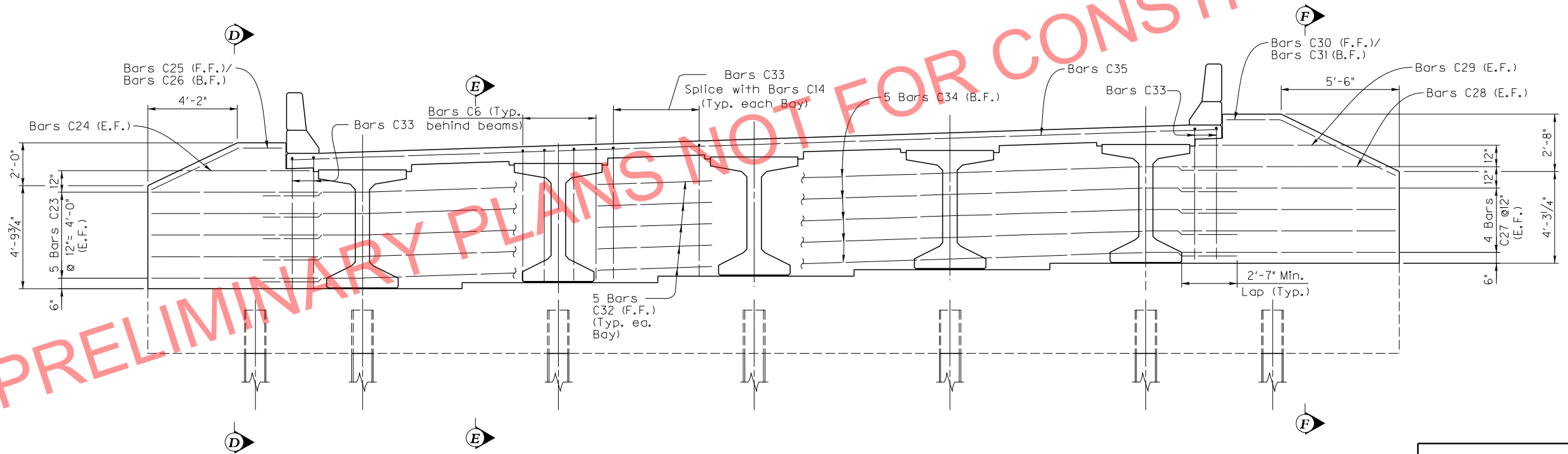
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DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.714



PLAN - SHOWING DIAPHRAGM AND WING REINFORCEMENT



ELEVATION - SHOWING DIAPHRAGM AND WING REINFORCEMENT
(Looking Back Station)

NOTES:

1. For Sections D, E and F, see Sheet S13.
2. All diaphragm concrete shall be Class "AA".

PRELIMINARY PLANS NOT FOR CONSTRUCTION

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: W.D. BURTON	B.C. REID	
DETAILED BY: W.R. ABBOTT	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
INTEGRAL END BENT 1 - EB		
ITEM NUMBER	PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	SHEET NO. S12 DRAWING NO. 27077
10-126.70		

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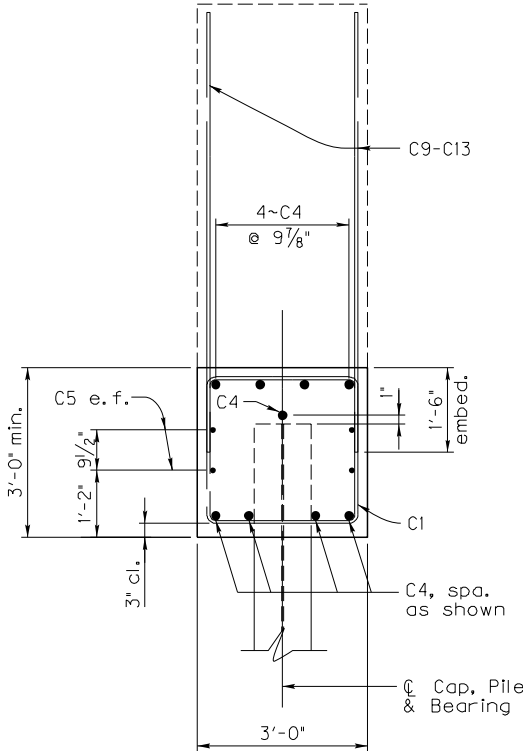
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DATE PLOTTED: October 11, 2016

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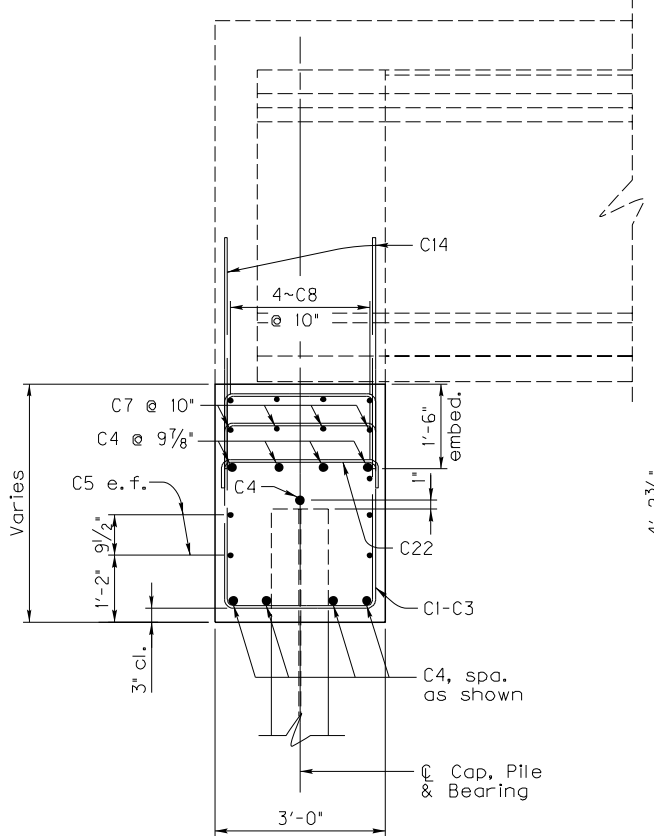
MicroStation v8.11.9.714

BILL OF REINFORCEMENT

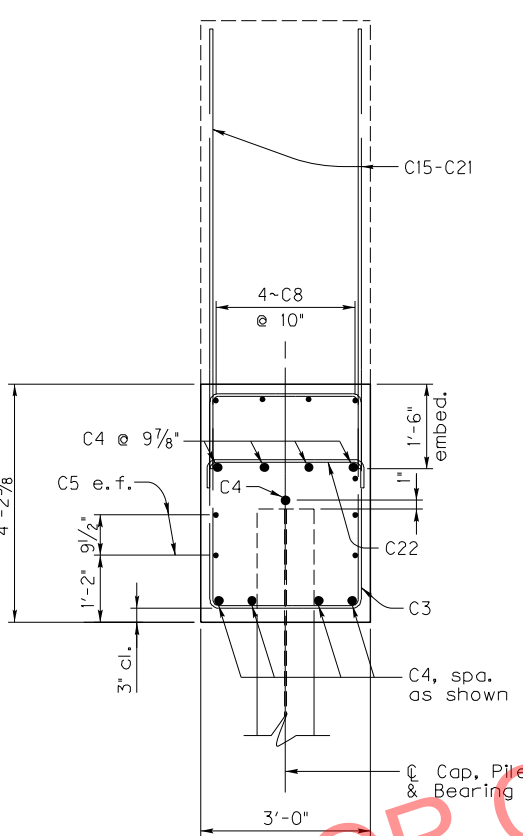
MARK	TYPE	SIZE	NO.	LENGTH	LOCATION	A	B	C	D
C1e	14s	5	20	11-6	Cap	2-7	2-8		
C2e	14s	5	16	12-8	Cap	3-2	2-8		
C3e	14s	5	14	13-10	Cap	3-9	2-8		
C4e	Str.	8	9	57-11	Cap				
C5e	Str.	5	4	57-11	Cap				
C6e	5s	5	20	16-0	Diaphragm/Slab	6-0	10-0		
C7e	Str.	5	4	18-8	Cap				
C8e	Str.	5	4	15-11	Cap				
C9e	Str.	5	2	6-4	Cap/Wing				
C10e	Str.	5	2	6-10	Cap/Wing				
C11e	Str.	5	2	7-4	Cap/Wing				
C12e	Str.	5	2	7-10	Cap/Wing				
C13e	Str.	5	4	8-2	Cap/Wing				
C14e	Str.	5	68	4-5	Cap/Diaphragm				
C15e	Str.	5	4	8-3	Cap/Wing				
C16e	Str.	5	2	8-2	Cap/Wing				
C17e	Str.	5	2	7-9	Cap/Wing				
C18e	Str.	5	2	7-3	Cap/Wing				
C19e	Str.	5	2	6-10	Cap/Wing				
C20e	Str.	5	2	6-4	Cap/Wing				
C21e	Str.	5	2	5-10	Cap/Wing				
C22e	2s	5	34	3-8	Cap	0-6	2-8		
C23e	Str.	5	10	7-9	Wing				
C24e	Str.	5	2	5-8	Wing				
C25e	8	5	1	6-4	Wing	4-6	1-10	0-9 1/2	1-7 7/8
C26e	8	5	1	6-9	Wing	4-6	2-3	0-11 5/8	2-0 3/8
C27e	Str.	5	8	10-0	Wing				
C28e	Str.	5	2	9-4	Wing				
C29e	Str.	5	2	6-5	Wing				
C30e	8	5	1	8-9	Wing	6-0	2-9	1-2 3/8	2-5 3/4
C31e	8	5	1	8-4	Wing	6-0	2-4	1-0 1/4	2-1 1/4
C32e	Str.	5	20	5-5	Diaphragm				
C33e	2s	5	24	14-8	Diaphragm	6-0	2-8		
C34e	Str.	5	5	45-4	Diaphragm				
C35e	Str.	5	2	43-3	Diaphragm				



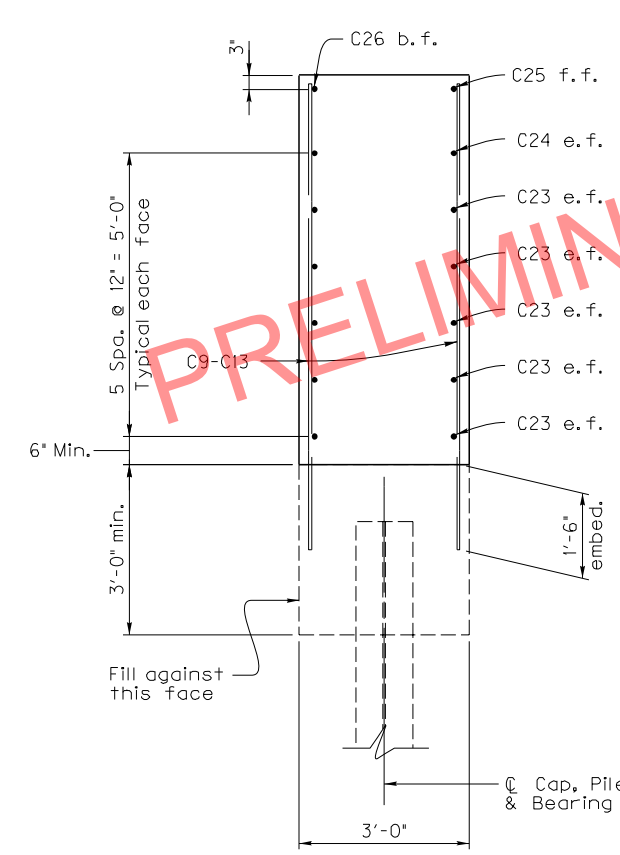
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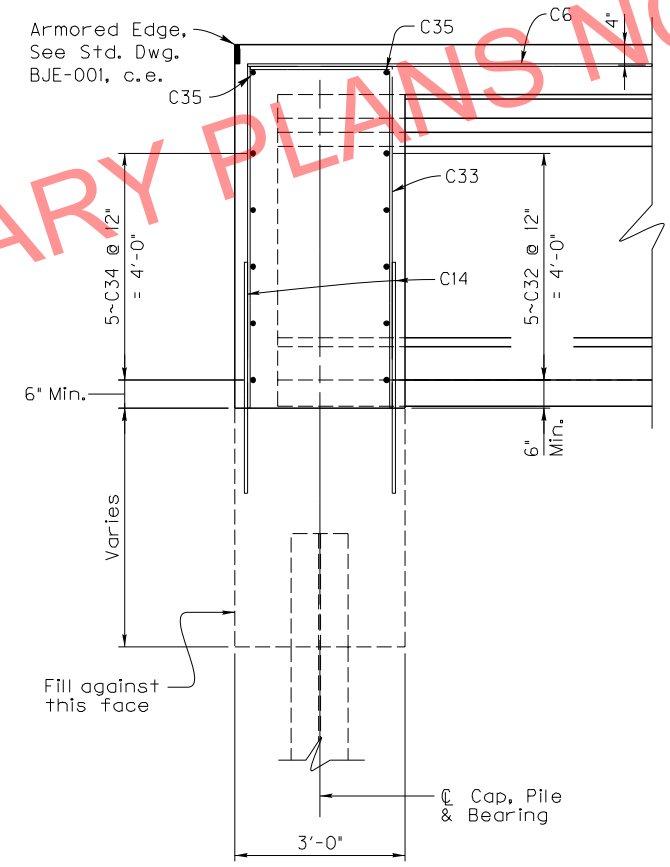
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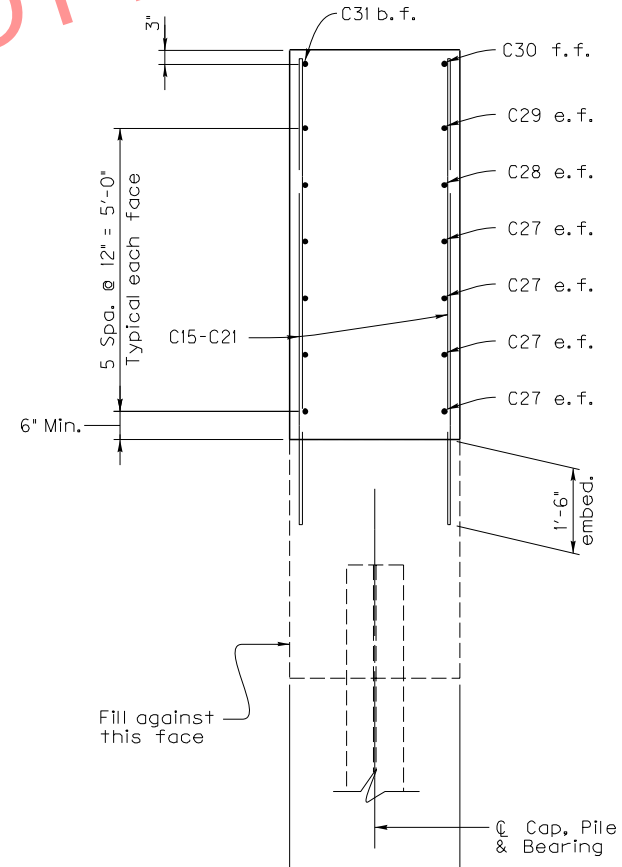
SECTION C-C



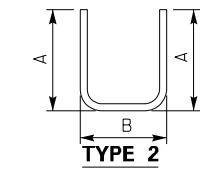
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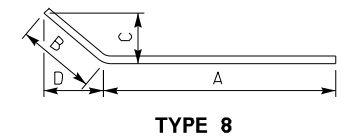
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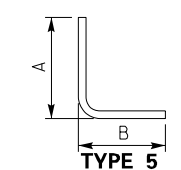
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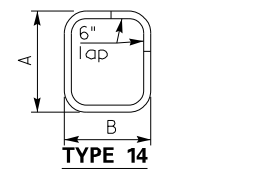
TYPE 2



TYPE 8



TYPE 5



TYPE 14

REVISION	DATE

DATE: June, 2016
DESIGNED BY: W.D. BURTON
CHECKED BY: B.C. REID
DETAILED BY: W.R. ABBOTT

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
WOLFE-MORGAN

ROUTE
KY 9009

CROSSING
KY 205

INTEGRAL END BENT 1 - EB

PREPARED BY
LOCHNER
H. W. LOCHNER, INC.
LEXINGTON, KENTUCKY

SHEET NO.
S13

DRAWING NO.
27077

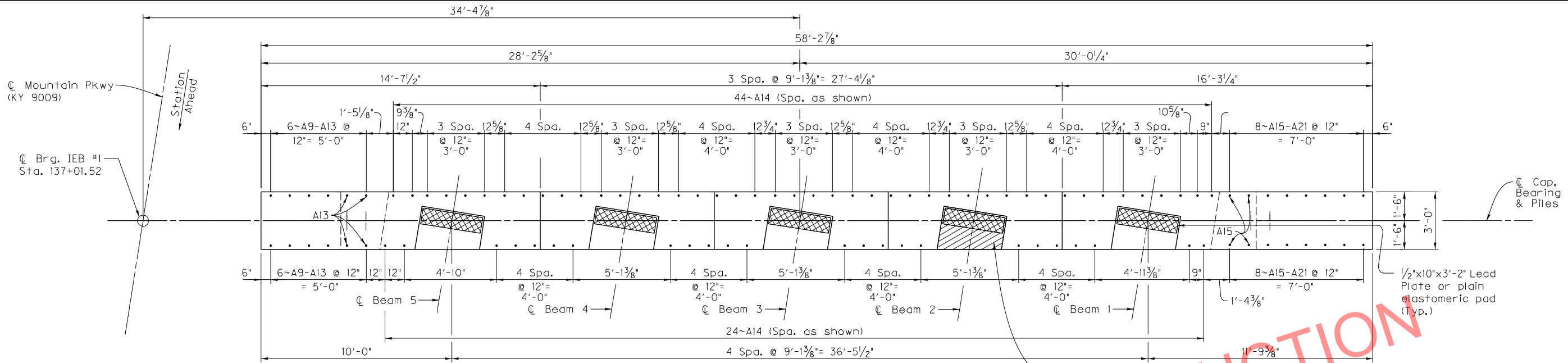
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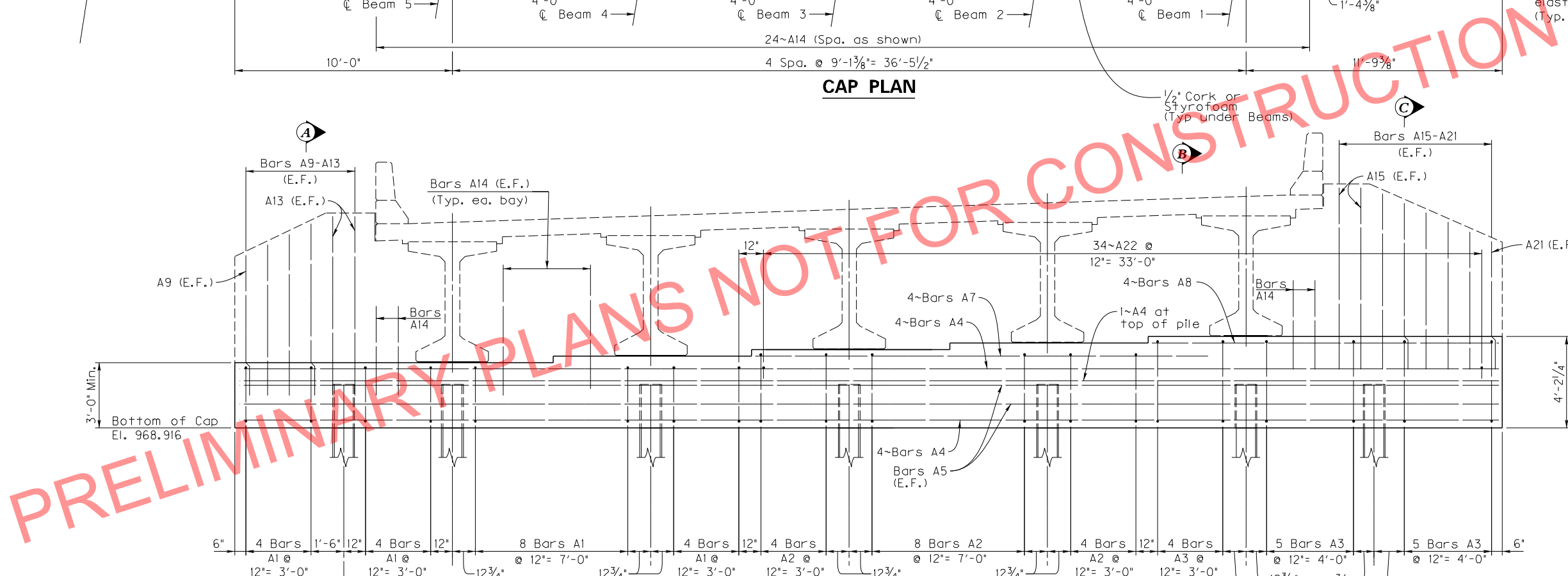
USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.714



CAP PLAN



ELEVATION - SHOWING CAP REINFORCEMENT

(Looking Back Station)

NOTES:

1. For pile spacing, see Foundation Layout, sheet S9.
2. Construction joint is not roughened under cork or bearing pads.
3. Bearing elevations are given at the top of concrete.
4. All cap concrete shall be Class "A".
5. For Sections A, B & C, see sheet S16.

TABLE OF BEARING ELEVATIONS

Point	Elevation
Beam 1	973.108
Beam 2	972.810
Beam 3	972.512
Beam 4	972.214
Beam 5	971.916

PRELIMINARY PLANS NOT FOR CONSTRUCTION

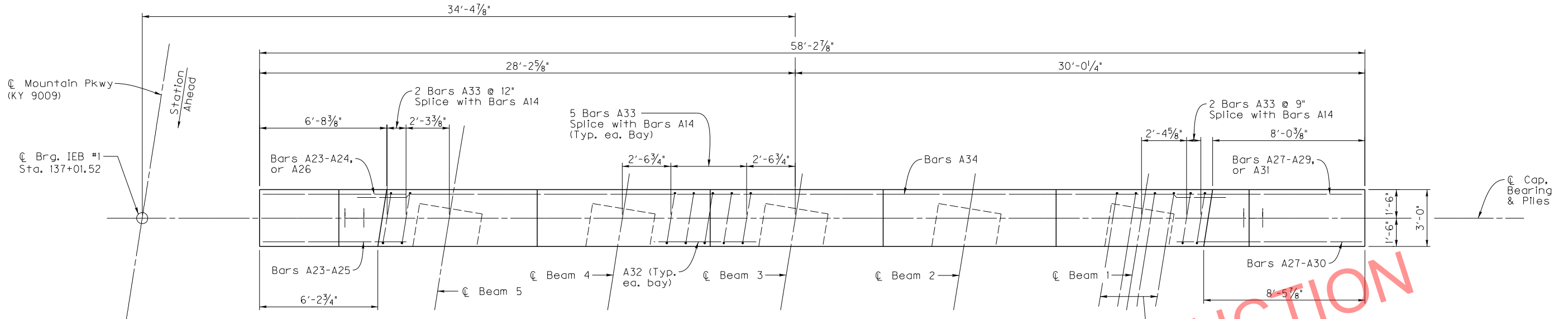
REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: W.D. BURTON	B.C. REID	
DETAILED BY: W.R. ABBOTT	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
INTEGRAL END BENT 1 - WB		
ITEM NUMBER		SHEET NO.
10-126.70		S14
PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY		DRAWING NO. 27077

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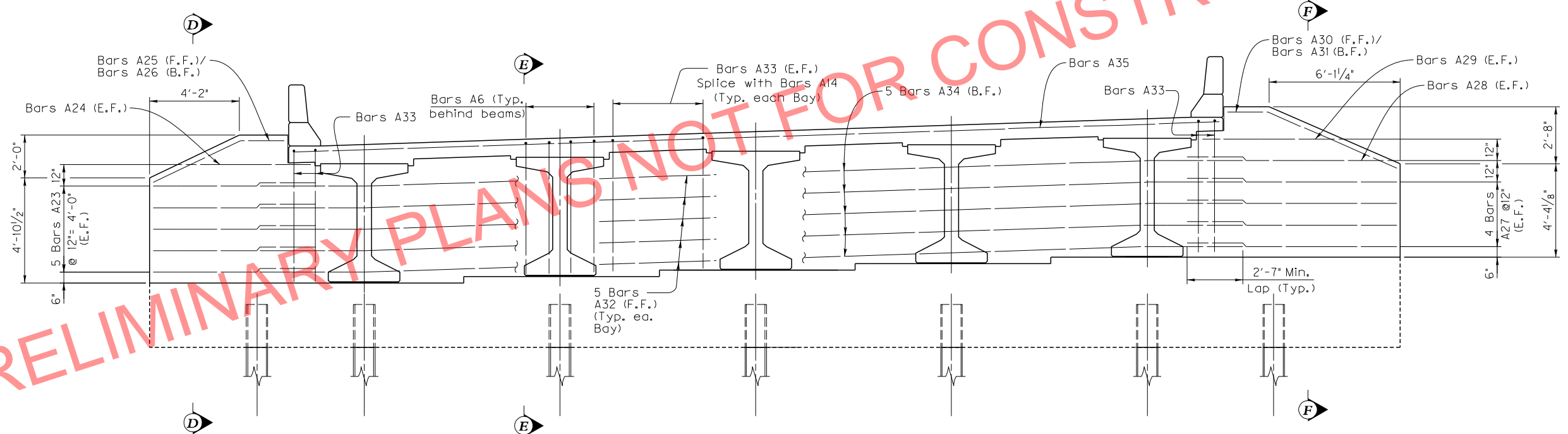
USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.714



PLAN - SHOWING DIAPHRAGM AND WING REINFORCEMENT



ELEVATION - SHOWING DIAPHRAGM AND WING REINFORCEMENT

(Looking Back Station)

PRELIMINARY PLANS NOT FOR CONSTRUCTION

NOTES:

1. For Sections D, E and F, see Sheet S16.
2. All diaphragm concrete shall be Class "AA".

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: W.D. BURTON	B.C. REID	
DETAILED BY: W.R. ABBOTT	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
INTEGRAL END BENT 1 - WB		
ITEM NUMBER	PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	SHEET NO. S15 DRAWING NO. 27077
10-126.70		

FILE NAME: I:\LEX\PROJ\0008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\527077_016.DGN

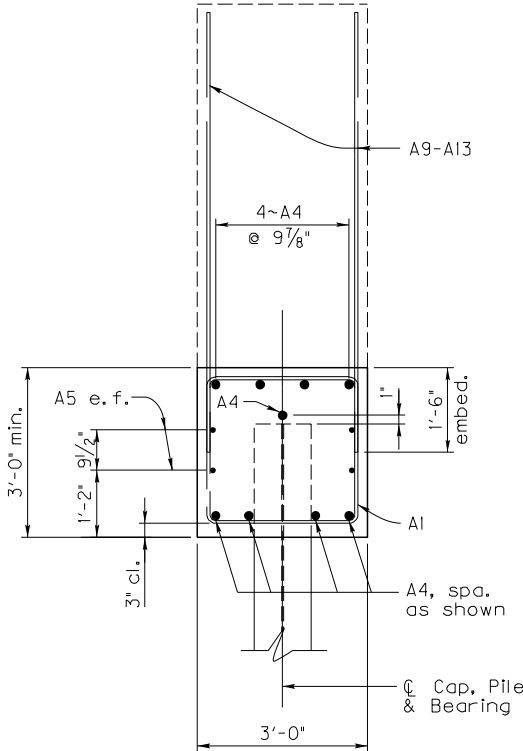
USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

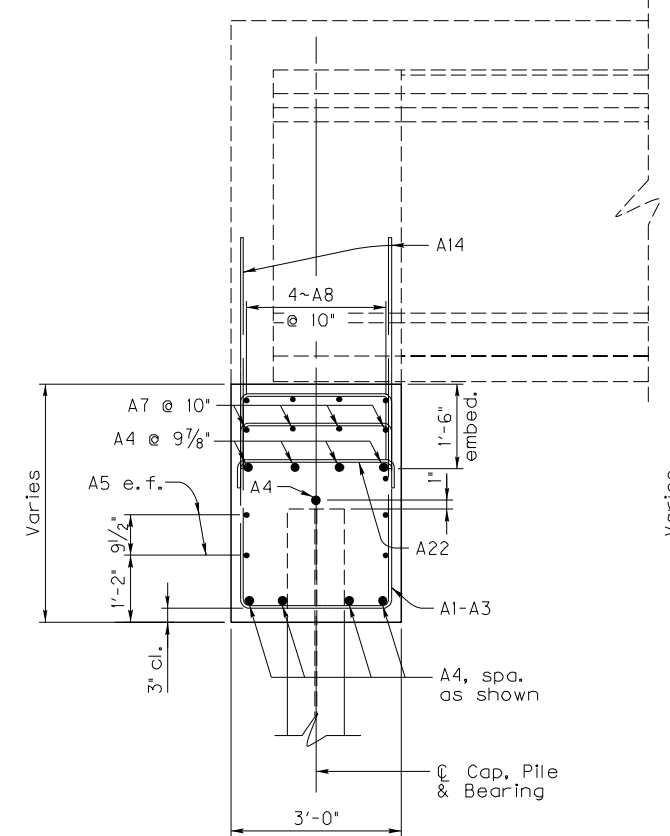
MicroStation v8.11.9.714

BILL OF REINFORCEMENT

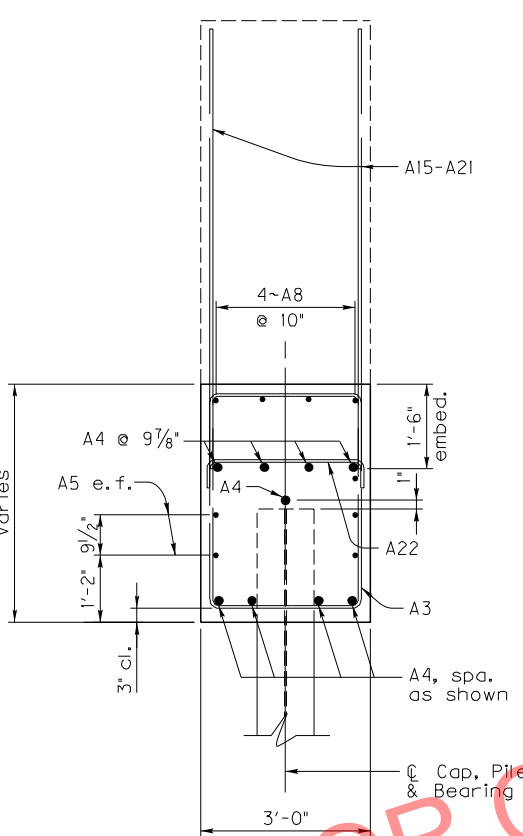
MARK	TYPE	SIZE	NO.	LENGTH	LOCATION	A	B	C	D
A1e	14s	5	20	11-6	Cap	2-7	2-8		
A2e	14s	5	16	12-8	Cap	3-2	2-8		
A3e	14s	5	14	13-10	Cap	3-9	2-8		
A4e	Str.	8	9	57-11	Cap				
A5e	Str.	5	4	57-11	Cap				
A6e	5s	5	20	16-0	Diaphragm/Slab	6-0	10-0		
A7e	Str.	5	4	18-8	Cap				
A8e	Str.	5	4	16-0	Cap				
A9e	Str.	5	2	6-5	Cap/Wing				
A10e	Str.	5	2	6-11	Cap/Wing				
A11e	Str.	5	2	7-5	Cap/Wing				
A12e	Str.	5	2	7-11	Cap/Wing				
A13e	Str.	5	4	8-3	Cap/Wing				
A14e	Str.	5	68	4-5	Cap/Diaphragm				
A15e	Str.	5	4	8-4	Cap/Wing				
A16e	Str.	5	2	8-1	Cap/Wing				
A17e	Str.	5	2	7-8	Cap/Wing				
A18e	Str.	5	2	7-2	Cap/Wing				
A19e	Str.	5	2	6-9	Cap/Wing				
A20e	Str.	5	2	6-4	Cap/Wing				
A21e	Str.	5	2	5-11	Cap/Wing				
A22e	2s	5	34	3-8	Cap	0-6	2-8		
A23e	Str.	5	10	7-7	Wing				
A24e	Str.	5	2	5-10	Wing				
A25e	8	5	1	6-4	Wing	4-6	1-10	0-9 1/2	1-7 7/8
A26e	8	5	1	7-0	Wing	4-6	2-6	1-1	2-3
A27e	Str.	5	8	9-9	Wing				
A28e	Str.	5	2	9-2	Wing				
A29e	Str.	5	2	6-2	Wing				
A30e	8	5	1	8-8	Wing	6-6	2-2	0-10 3/8	1-11 7/8
A31e	8	5	1	8-3	Wing	6-6	1-9	0-8 3/8	1-7 1/4
A32e	Str.	5	20	5-5	Diaphragm				
A33e	2s	5	24	14-8	Diaphragm	6-0	2-8		
A34e	Str.	5	5	45-9	Diaphragm				
A35e	Str.	5	2	43-2	Diaphragm				



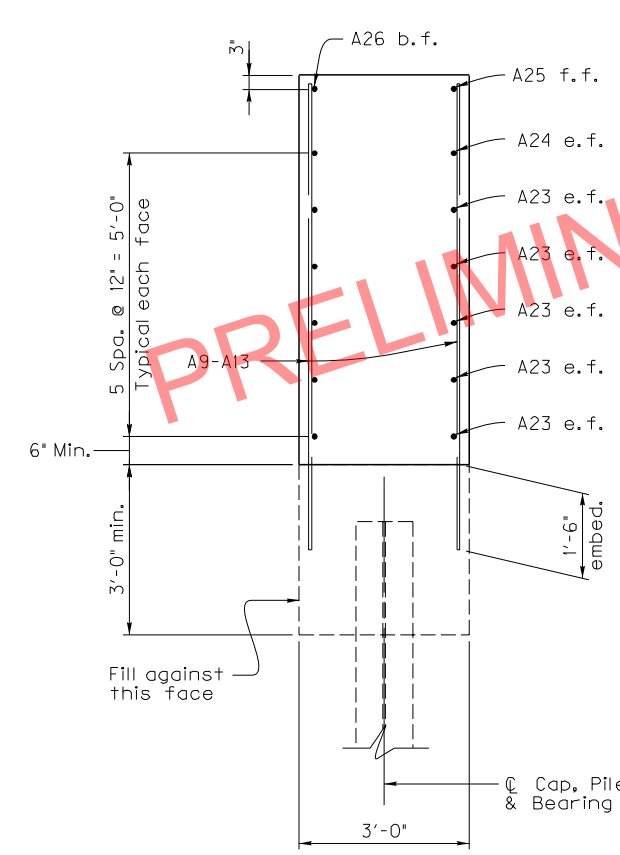
SECTION A-A



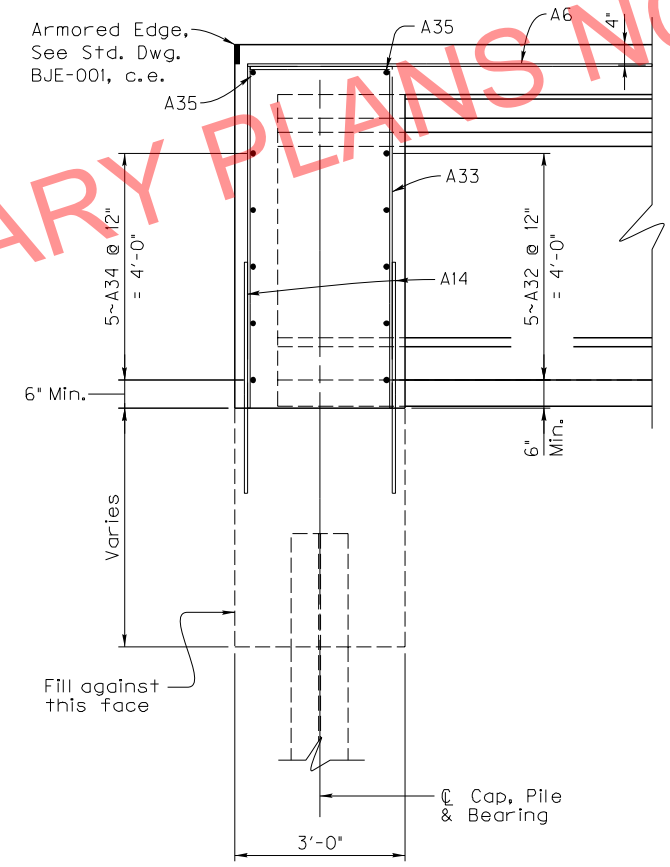
SECTION B-B



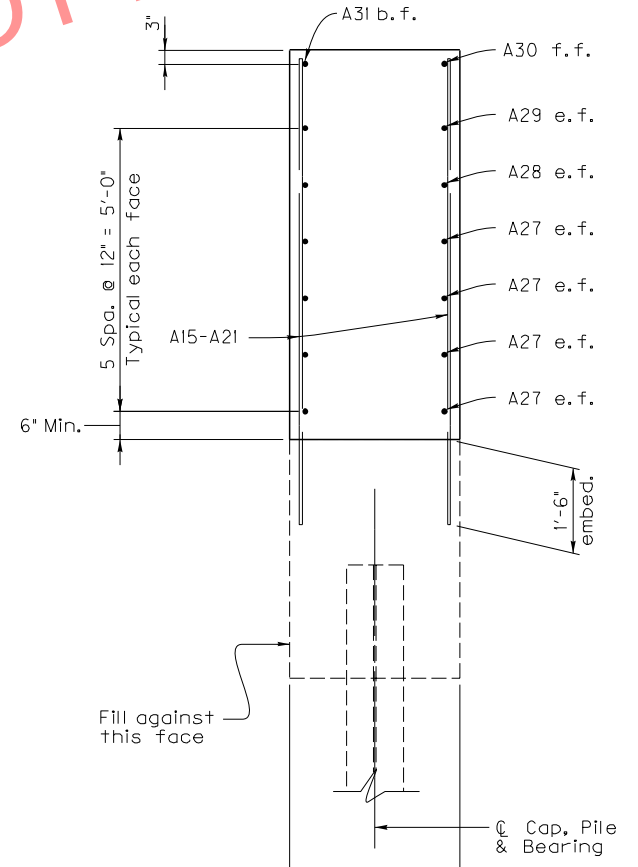
SECTION C-C



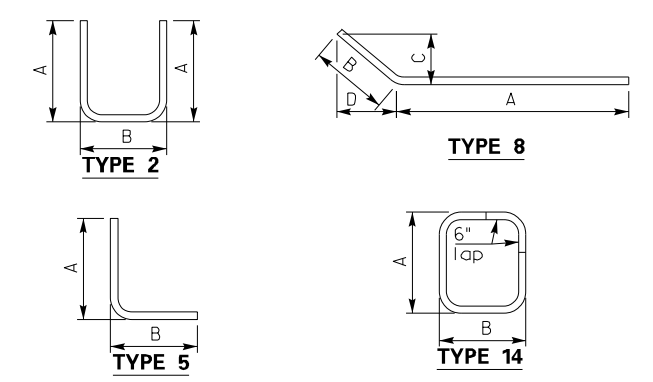
SECTION D-D



SECTION E-E



SECTION F-F



REVISION	DATE

DATE: June, 2016
DESIGNED BY: W.D. BURTON
CHECKED BY: B.C. REID
DETAILED BY: W.R. ABBOTT

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY
WOLFE-MORGAN

ROUTE: KY 9009
CROSSING: KY 205
INTEGRAL END BENT 1 - WB
PREPARED BY: **LOCHNER**
H.W. LOCHNER, INC.
LEXINGTON, KENTUCKY
SHEET NO. **S16**
DRAWING NO. **27077**

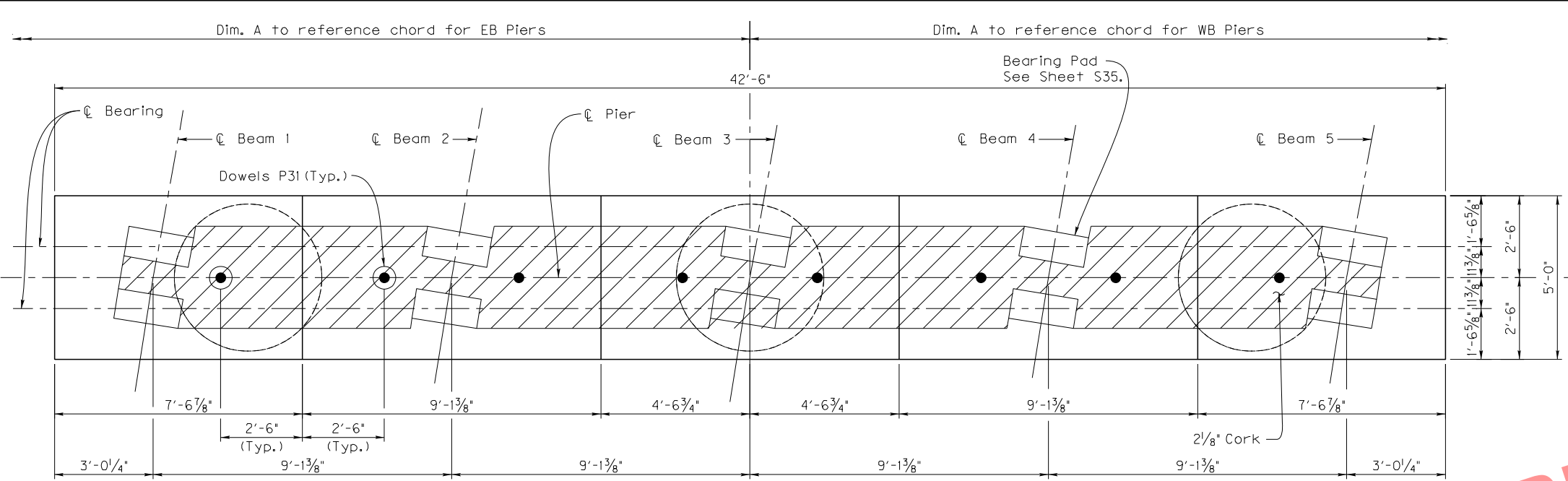
ITEM NUMBER
10-126.70

FILE NAME: I:\LEX\PRJ\0008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\S27077_017.DGN

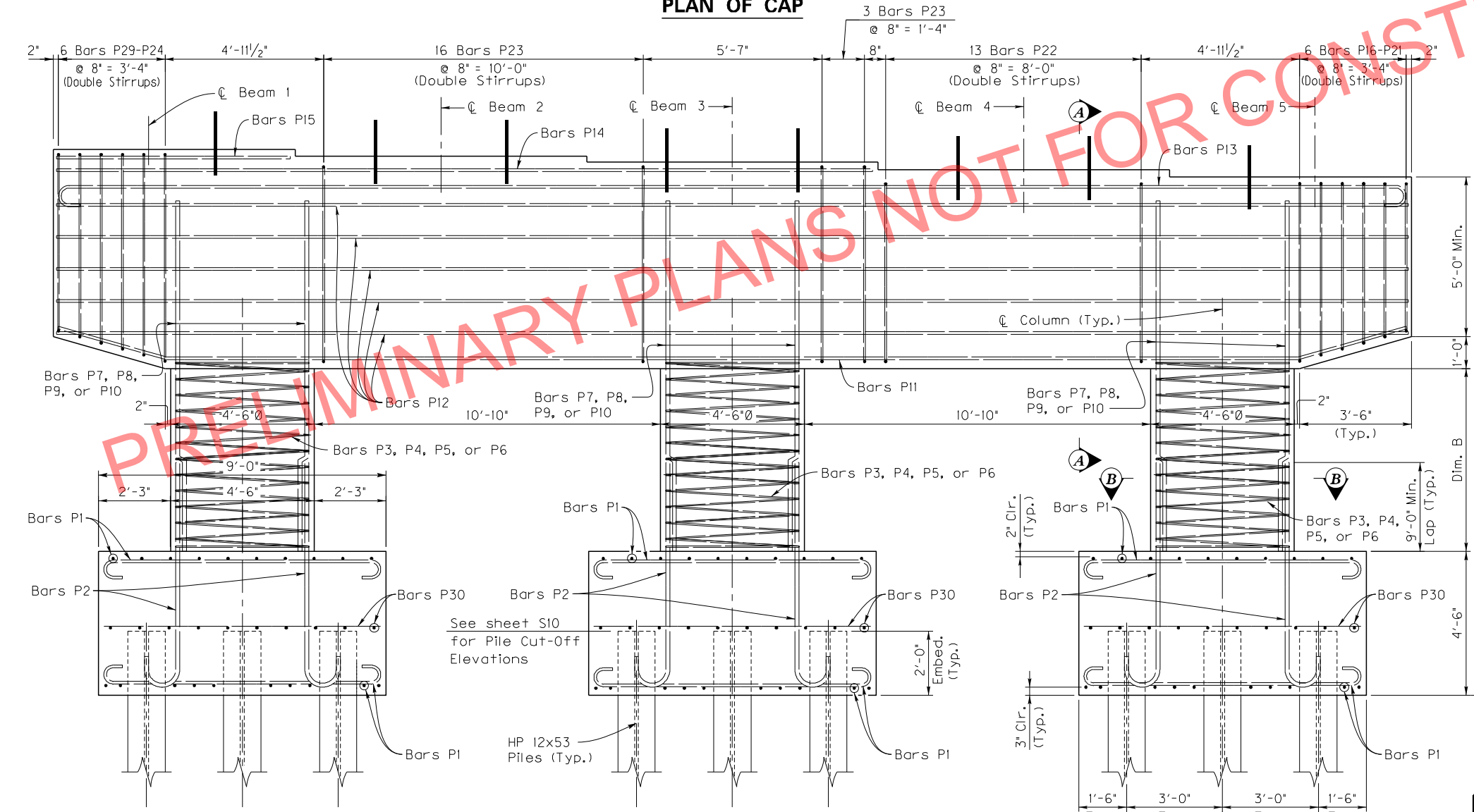
USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

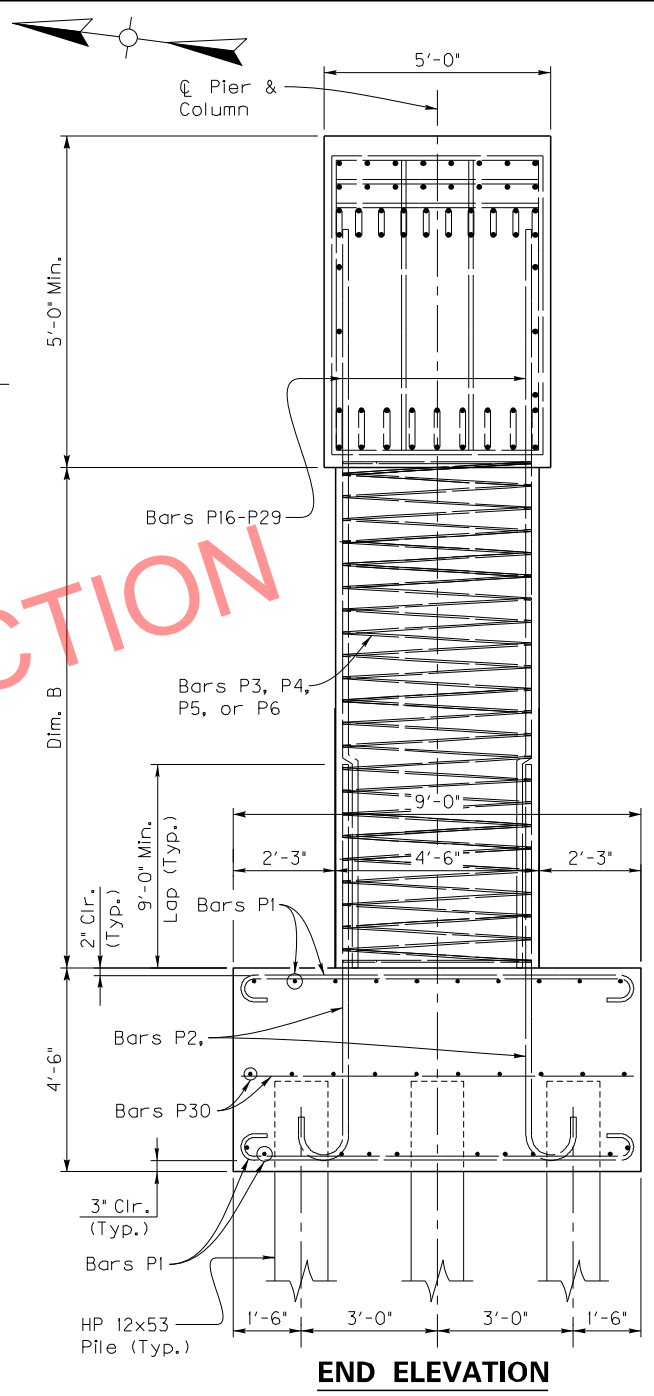
MicroStation v8.11.9.714



PLAN OF CAP



ELEVATION
(Not to Scale)



END ELEVATION

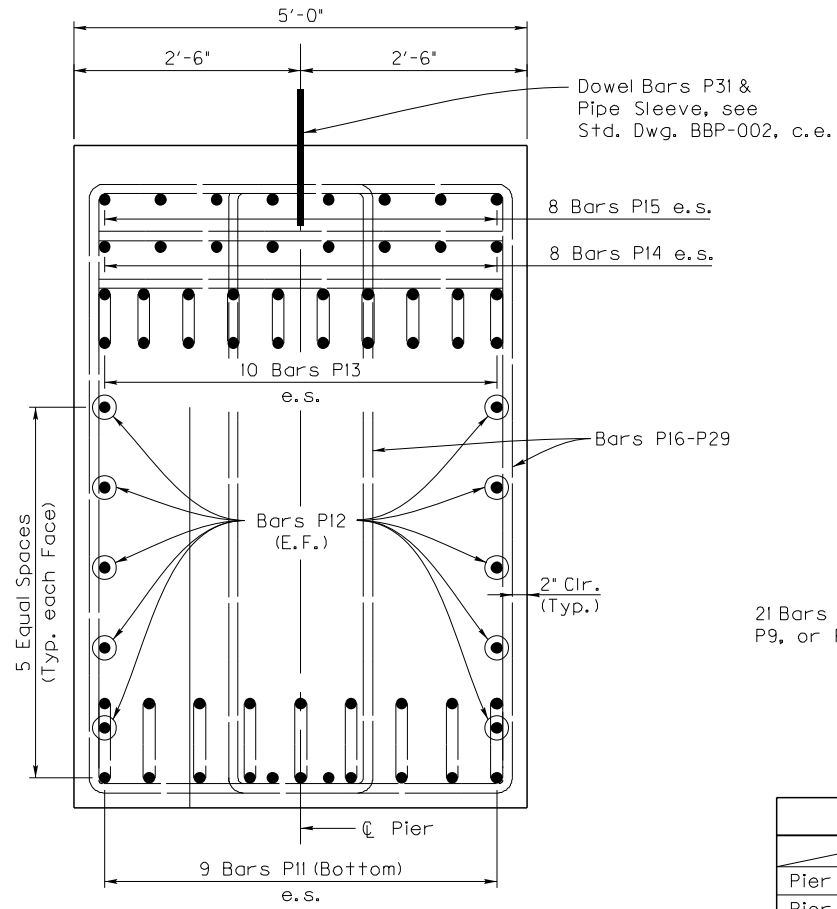
- NOTES:
- 1.) See Sheet S18 for Pier Dimensions.
 - 2.) See Sheet S18 for Pier Cap Elevations.
- El. 935.500 (Pier 1)
El. 938.500 (Pier 2)

REVISION		DATE
DATE: June, 2016		CHECKED BY
DESIGNED BY: B.C. REID		W.D. BURTON
DETAILED BY: D.M. SMITHSON		B.C. REID
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
PIER DETAILS (1 of 2)		
ITEM NUMBER		SHEET NO.
10-126.70		S17
PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY		DRAWING NO. 27077

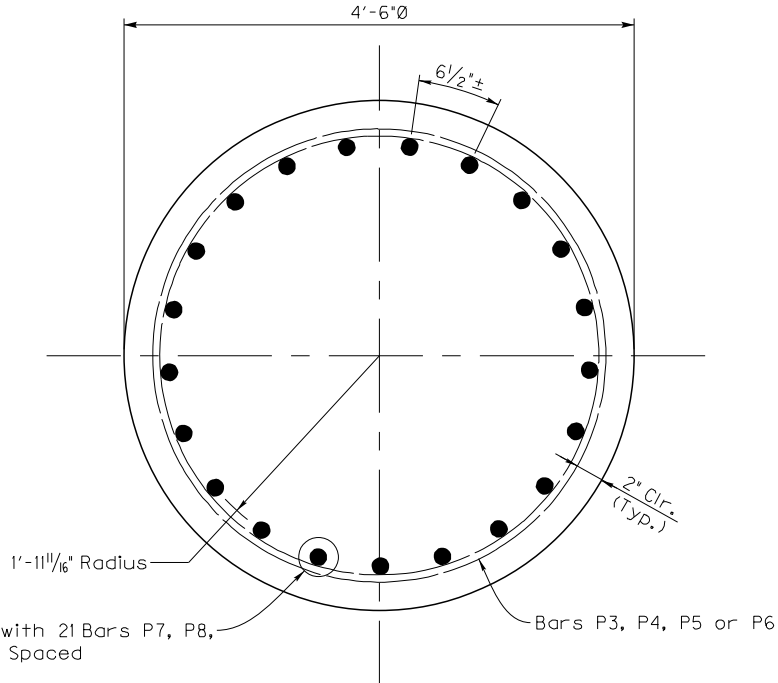
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USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:
MicroStation v8.11.9.714



SECTION A-A



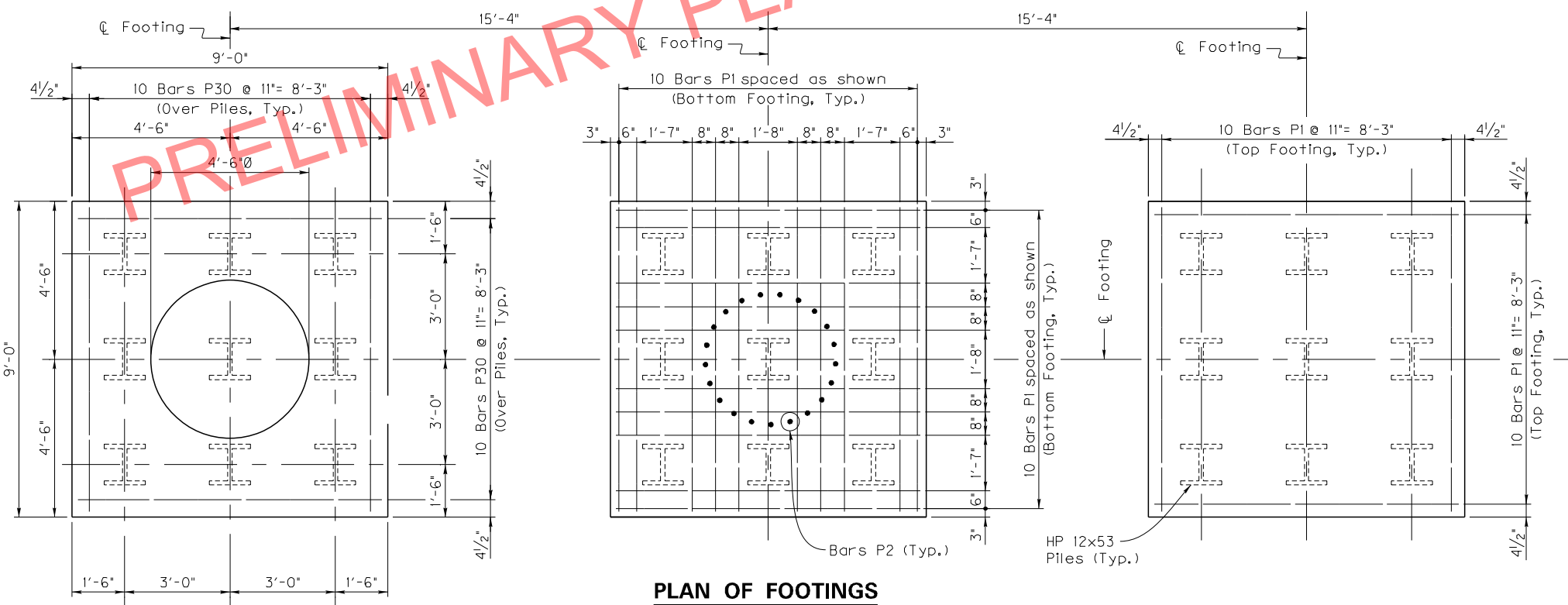
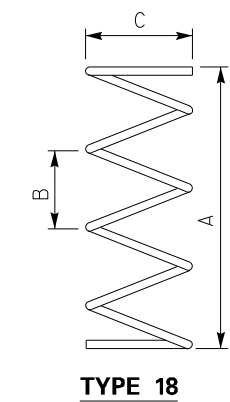
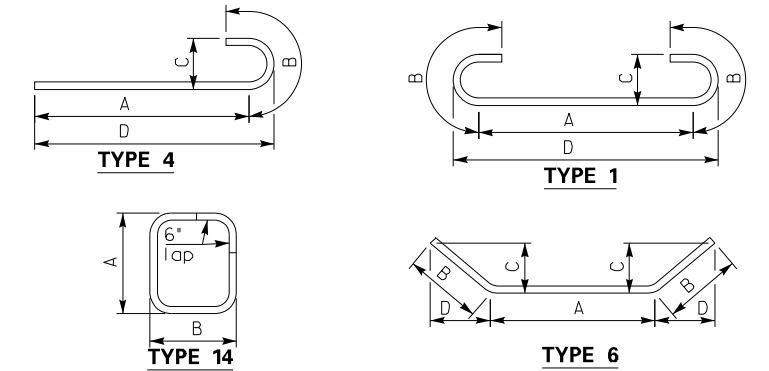
SECTION B-B

	TOP OF PIER CAP ELEVATIONS					PIER DIMENSIONS	
	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Dim. A	Dim. B
Pier 1 (EB.)	972.358	972.056	971.754	971.451	971.149	Pier 1 (EB.) 33'-5 1/4"	25'-1 3/4"
Pier 2 (EB.)	972.314	972.002	971.690	971.378	971.066	Pier 2 (EB.) 33'-8 1/2"	22'-0 3/4"
Pier 1 (WB.)	973.276	972.974	972.673	972.371	972.070	Pier 1 (WB.) 35'-6 1/4"	26'-0 7/8"
Pier 2 (WB.)	973.312	973.001	972.690	972.380	972.069	Pier 2 (WB.) 35'-6 1/2"	23'-0 7/8"

BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NUMBER				LENGTH	LOCATION	A	B	C	D
			1-EB	2-EB	1-WB	2-WB						
P1	1	7	120	120	120	120	10-7	Footing	8-1	1-3	0-7	8-8
P2	4	11	63	63	63	63	15-2	Footing/Column	12-9	2-5	1-2 3/4	13-4
P3	18	5	3	-	-	-	702-6	Pier 1 EB Column	25-4	0-6	4-2	
P4	18	5	-	3	-	-	621-9	Pier 2 EB Column	22-3	0-6	4-2	
P5	18	5	-	-	3	-	726-6	Pier 1 WB Column	26-3	0-6	4-2	
P6	18	5	-	-	-	3	648-0	Pier 2 WB Column	23-3	0-6	4-2	
P7	Str.	11	63	-	-	-	30-8	Pier 1 EB Column/Cap				
P8	Str.	11	-	63	-	-	27-6	Pier 2 EB Column/Cap				
P9	Str.	11	-	-	63	-	31-7	Pier 1 WB Column/Cap				
P10	Str.	11	-	-	-	63	28-7	Pier 2 WB Column/Cap				
P11	6	7	9	9	9	9	42-5	Cap	35-5	3-6	0-11 1/2	3-4 3/8
P12	Str.	5	10	10	10	10	42-2	Cap				
P13	1	7	10	10	10	10	44-1	Cap	41-7	1-3	0-7	42-2
P14	Str.	5	8	8	8	8	25-6	Cap				
P15	Str.	5	8	8	8	8	7-3	Cap				
P16	14s	5	2	2	2	2	17-2	Cap	4-7	3-6		
P17	14s	5	2	2	2	2	17-8	Cap	4-10	3-6		
P18	14s	5	2	2	2	2	18-0	Cap	5-0	3-6		
P19	14s	5	2	2	2	2	18-4	Cap	5-2	3-6		
P20	14s	5	2	2	2	2	18-8	Cap	5-4	3-6		
P21	14s	5	2	2	2	2	19-0	Cap	5-6	3-6		
P22	14s	5	26	26	26	26	19-2	Cap	5-7	3-6		
P23	14s	5	38	38	38	38	20-2	Cap	6-1	3-6		
P24	14s	5	2	2	2	2	21-6	Cap	6-9	3-6		
P25	14s	5	2	2	2	2	21-2	Cap	6-7	3-6		
P26	14s	5	2	2	2	2	20-10	Cap	6-5	3-6		
P27	14s	5	2	2	2	2	20-4	Cap	6-2	3-6		
P28	14s	5	2	2	2	2	20-0	Cap	6-0	3-6		
P29	14s	5	2	2	2	2	19-8	Cap	5-10	3-6		
P30	Str.	5	60	60	60	60	8-8	Footing				
P31	Str.	*	8	8	8	8	2-0	Cap Dowel				

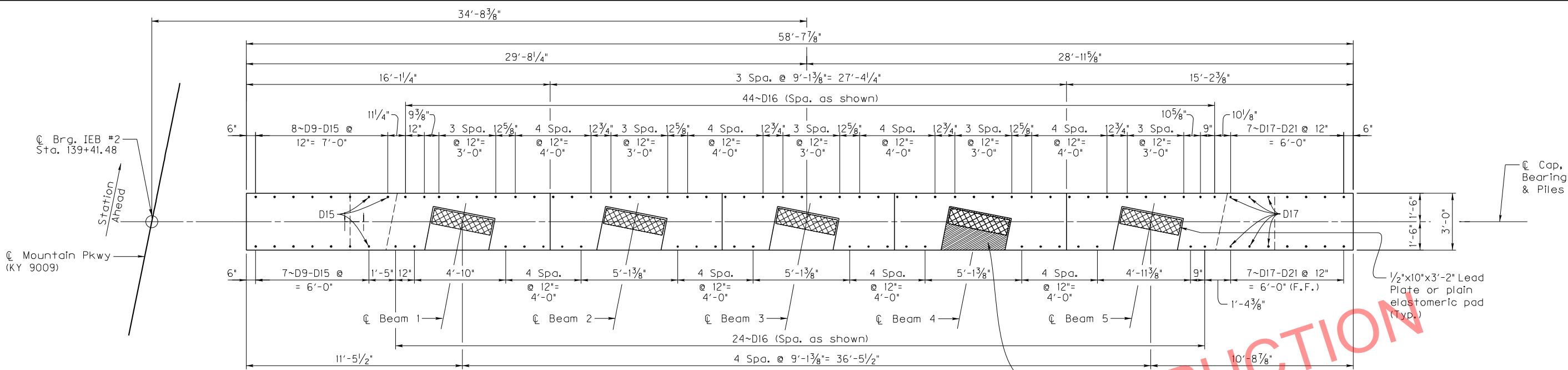
* 1/2" Ø Smooth Round Pin May Be Commercial Grade Steel



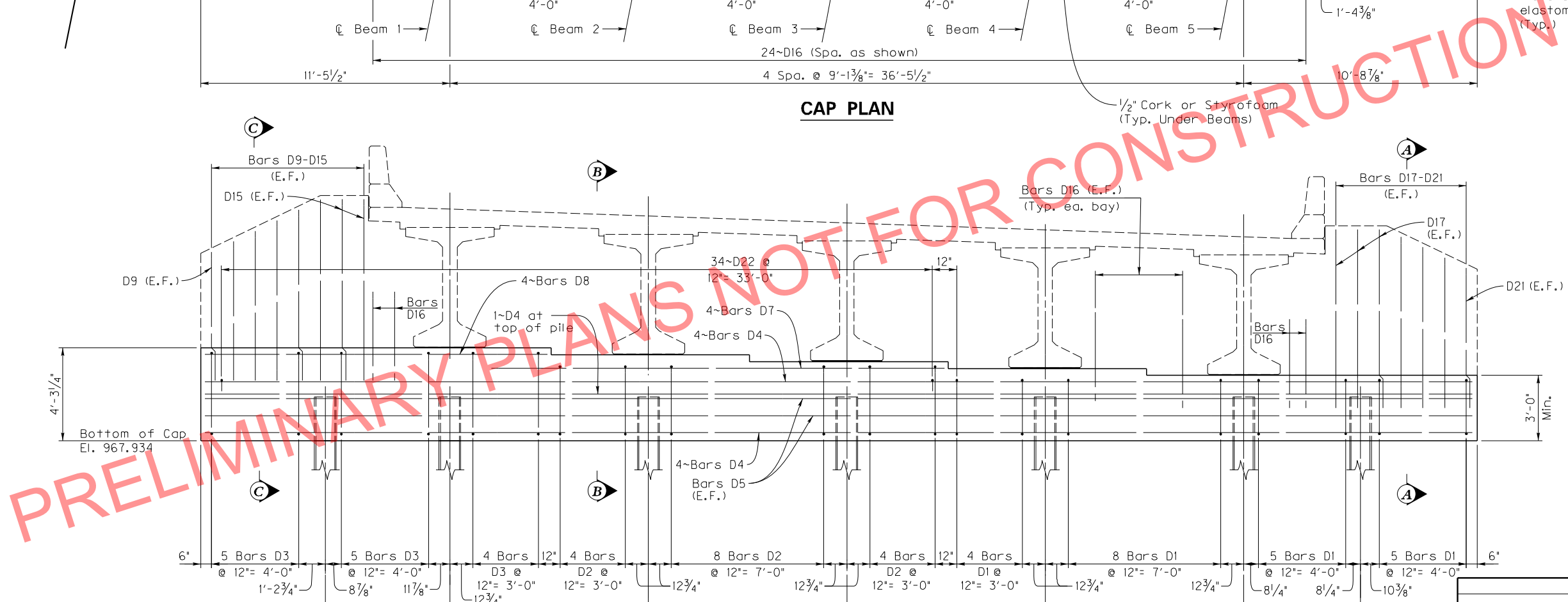
PLAN OF FOOTINGS

ITEM NUMBER
10-126.70

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: D.M. SMITHSON B.C. REID		
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
PIER DETAILS (2 of 2)		
PREPARED BY		SHEET NO.
LOCHNER		S18
H.W. LOCHNER, INC. LEXINGTON, KENTUCKY		DRAWING NO. 27077



CAP PLAN



ELEVATION - SHOWING CAP REINFORCEMENT
(Looking Ahead Station)

- NOTES:**
1. For pile spacing, see Foundation Layout, sheet S9.
 2. Construction joint is not roughened under cork or bearing pads.
 3. Bearing elevations are given at the top of concrete.
 4. All cap concrete shall be Class "A".
 5. For Sections A, B & C, see sheet S21.

TABLE OF BEARING ELEVATIONS	
Point	Elevation
Beam 1	972.201
Beam 2	971.884
Beam 3	971.568
Beam 4	971.251
Beam 5	970.934

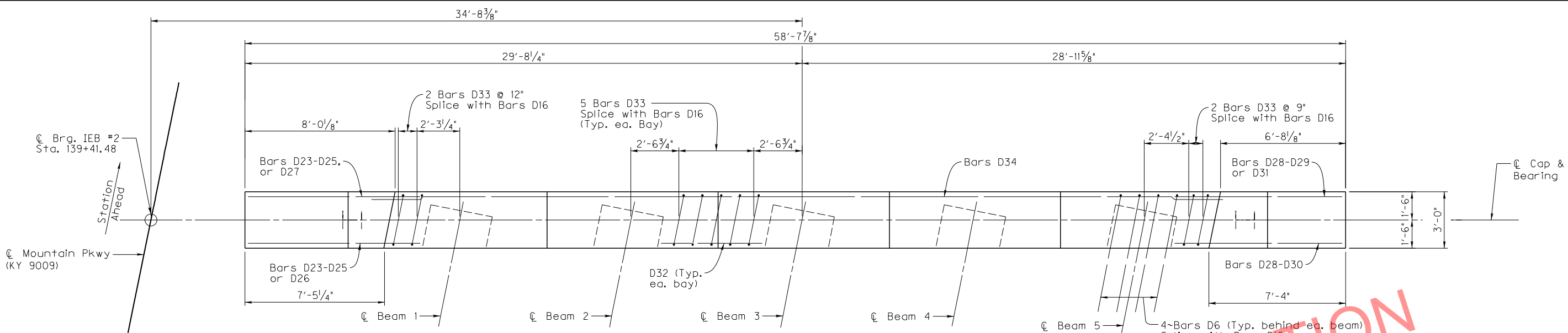
REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: W.D. BURTON	B.C. REID	
DETAILED BY: W.R. ABBOTT	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
INTEGRAL END BENT 2 - EB		
ITEM NUMBER	PREPARED BY LOCHNER H. W. LOCHNER, INC. LEXINGTON, KENTUCKY	SHEET NO. S19 DRAWING NO. 27077
10-126.70		

FILE NAME: I:\LEX\PRJ\0008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\S27077_020.DGN

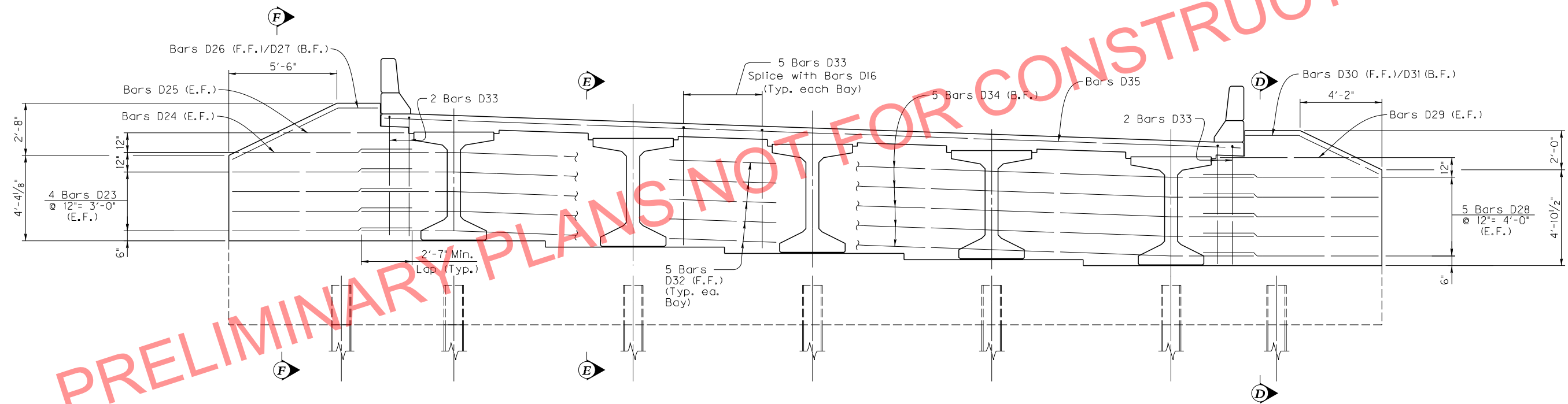
USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.714



PLAN - SHOWING DIAPHRAGM AND WING REINFORCEMENT



ELEVATION - SHOWING DIAPHRAGM AND WING REINFORCEMENT

NOTES:

1. For Sections D, E and F, see Sheet S21.
2. All diaphragm concrete shall be Class "AA".

REVISION		DATE
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
<small>COUNTY</small> WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
INTEGRAL END BENT 2 - EB		
ITEM NUMBER	PREPARED BY LOCHNER H. W. LOCHNER, INC. LEXINGTON, KENTUCKY	SHEET NO. S20 DRAWING NO. 27077
10-126.70		

FILE NAME: I:\LEX\PRJ\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\S27077_021.DGN

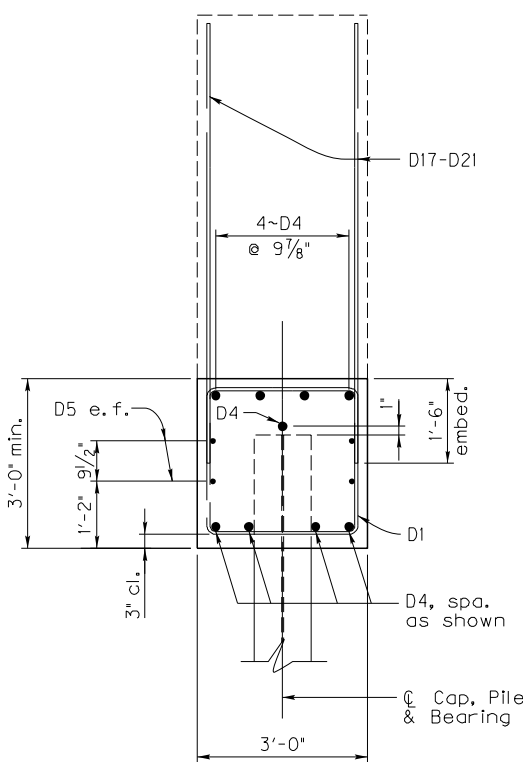
USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

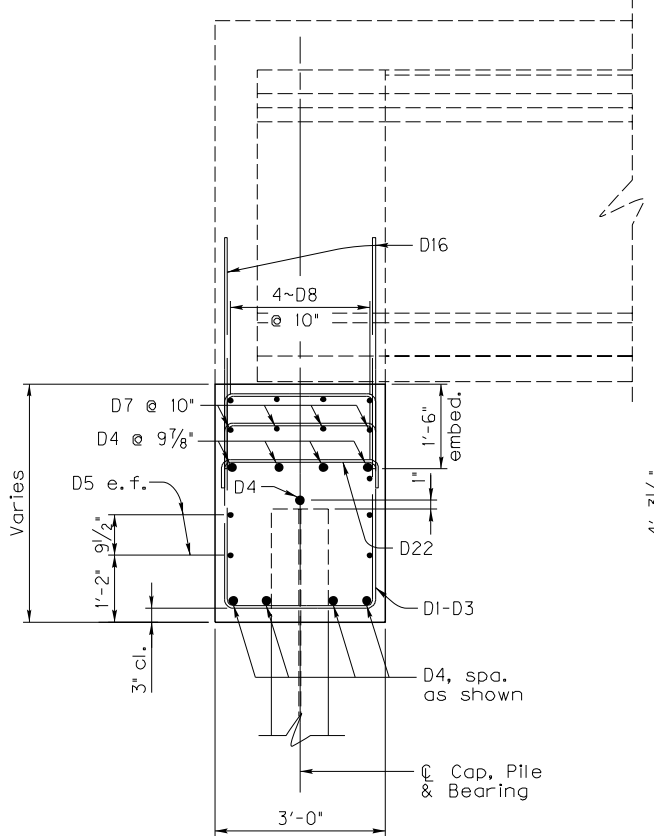
MicroStation v8.11.9.714

BILL OF REINFORCEMENT

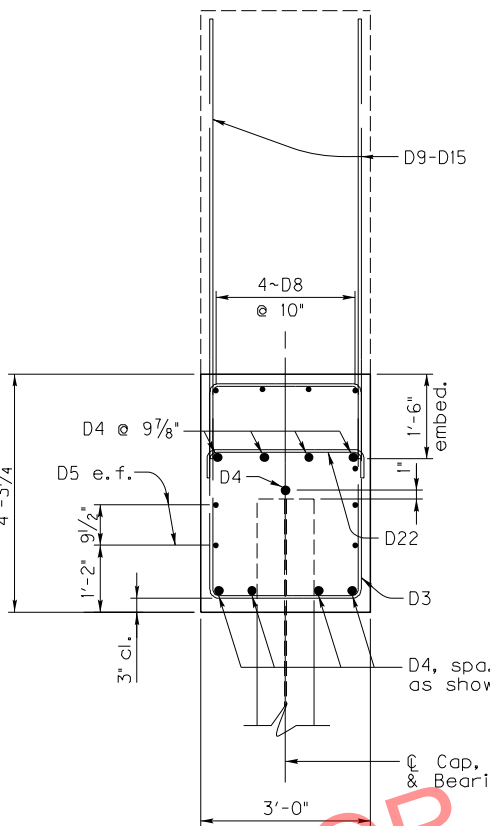
MARK	TYPE	SIZE	NO.	LENGTH	LOCATION	A	B	C	D
D1e	14s	5	22	11-6	Cap	2-7	2-8		
D2e	14s	5	16	12-8	Cap	3-2	2-8		
D3e	14s	5	14	14-0	Cap	3-10	2-8		
D4e	Str.	8	8	58-4	Cap				
D5e	Str.	5	4	58-4	Cap				
D6e	5s	5	20	16-0	Diaphragm/Slab	6-0	10-0		
D7e	Str.	5	4	18-10	Cap				
D8e	Str.	5	4	15-9	Cap				
D9e	Str.	5	2	5-11	Cap/Wing				
D10e	Str.	5	2	6-5	Cap/Wing				
D11e	Str.	5	2	6-11	Cap/Wing				
D12e	Str.	5	2	7-4	Cap/Wing				
D13e	Str.	5	2	7-10	Cap/Wing				
D14e	Str.	5	2	8-3	Cap/Wing				
D15e	Str.	5	3	8-4	Cap/Wing				
D16e	Str.	5	68	4-5	Cap/Diaphragm				
D17e	Str.	5	6	8-3	Cap/Wing				
D18e	Str.	5	2	7-11	Cap/Wing				
D19e	Str.	5	2	7-5	Cap/Wing				
D20e	Str.	5	2	6-11	Cap/Wing				
D21e	Str.	5	2	6-5	Cap/Wing				
D22e	2s	5	34	3-8	Cap	0-6	2-8		
D23e	Str.	5	8	9-2	Wing				
D24e	Str.	5	2	8-8	Wing				
D25e	Str.	5	2	6-2	Wing				
D26e	8	5	1	7-9	Wing	6-0	1-9	0-9 ¹ / ₈	1-6 ⁷ / ₈
D27e	8	5	1	8-3	Wing	6-0	2-3	0-11 ³ / ₄	2-0 ¹ / ₄
D28e	Str.	5	10	8-11	Wing				
D29e	Str.	5	2	6-7	Wing				
D30e	8	5	1	7-4	Wing	4-6	2-10	1-2 ³ / ₄	2-6 ⁵ / ₈
D31e	8	5	1	6-4	Wing	4-6	1-10	0-9 ¹ / ₂	1-7 ⁷ / ₈
D32e	Str.	5	20	5-4	Diaphragm				
D33e	2s	5	24	14-8	Diaphragm	6-0	2-8		
D34e	Str.	5	5	45-6	Diaphragm				
D35e	Str.	5	2	43-7	Diaphragm				



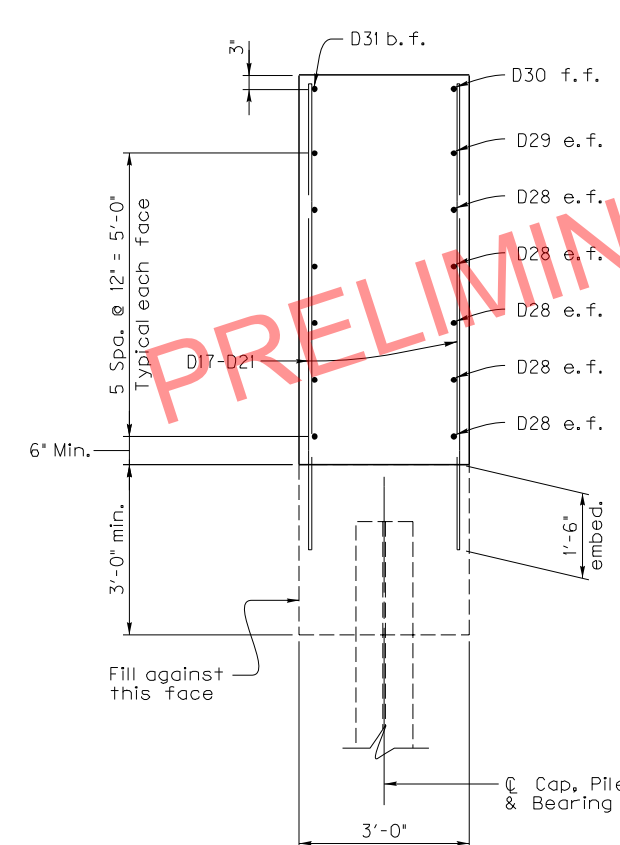
SECTION A-A



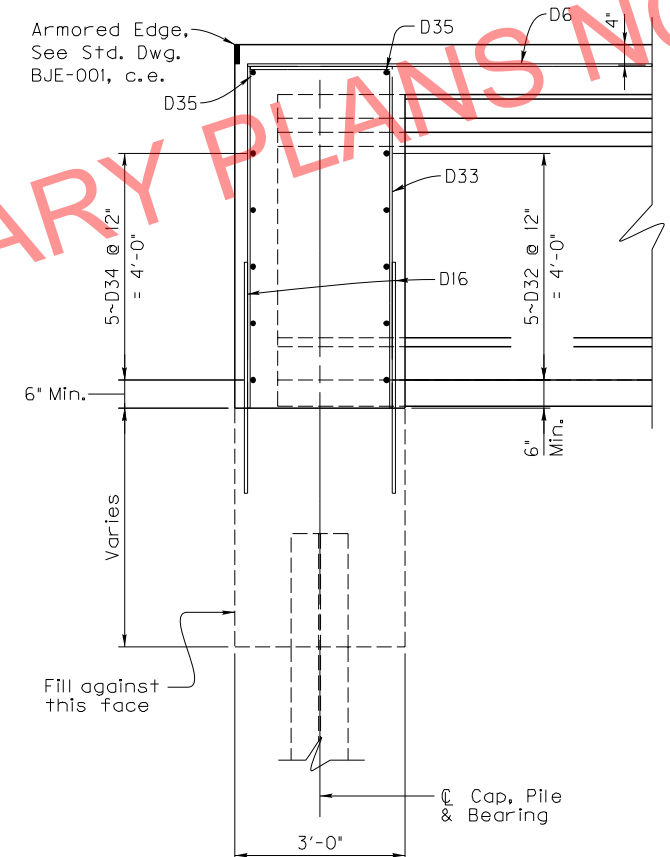
SECTION B-B



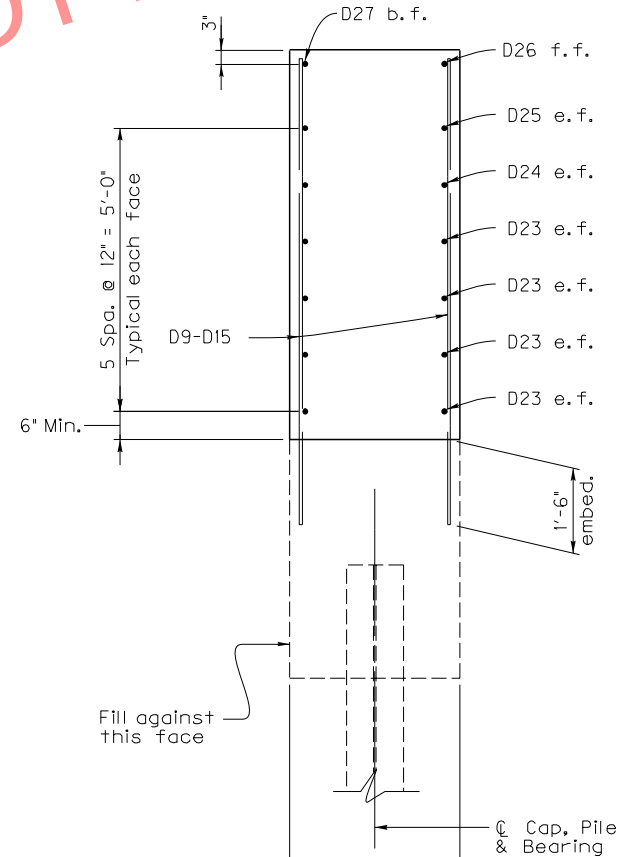
SECTION C-C



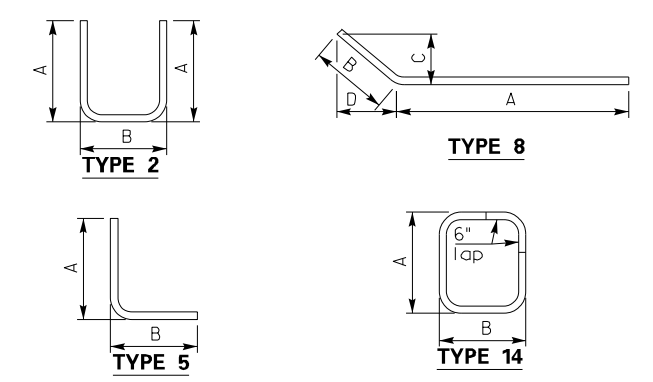
SECTION D-D



SECTION E-E



SECTION F-F



REVISION	DATE

DATE: June, 2016
DESIGNED BY: W.D. BURTON
CHECKED BY: B.C. REID
DETAILED BY: W.R. ABBOTT

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

WOLFE-MORGAN

ROUTE **KY 9009** CROSSING **KY 205**

INTEGRAL END BENT 2 - EB

ITEM NUMBER
10-126.70

PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
LEXINGTON, KENTUCKY

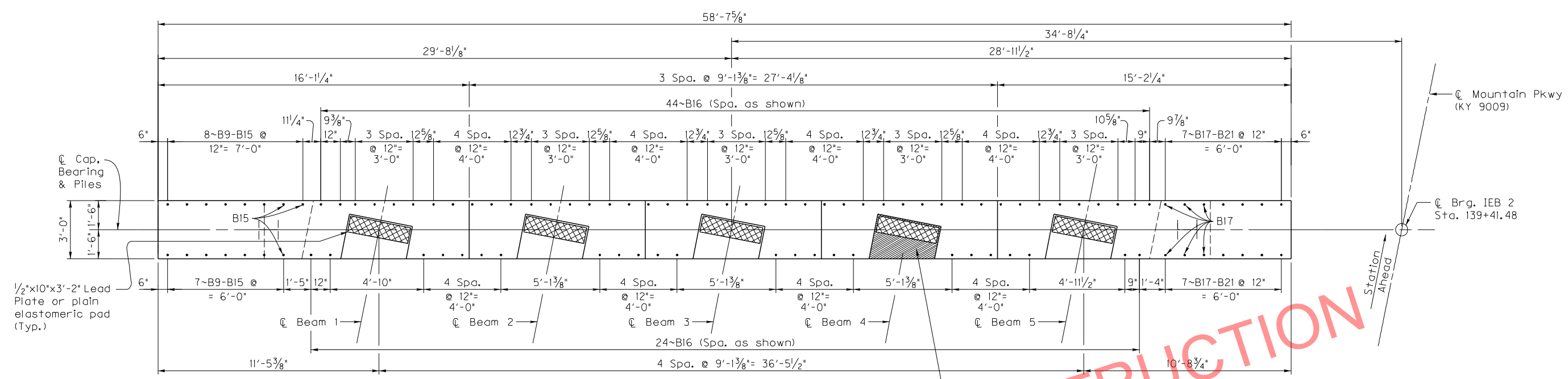
SHEET NO.
S21
DRAWING NO.
27077

FILE NAME: I:\LEX\PRJ\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077.S27077.022.DGN

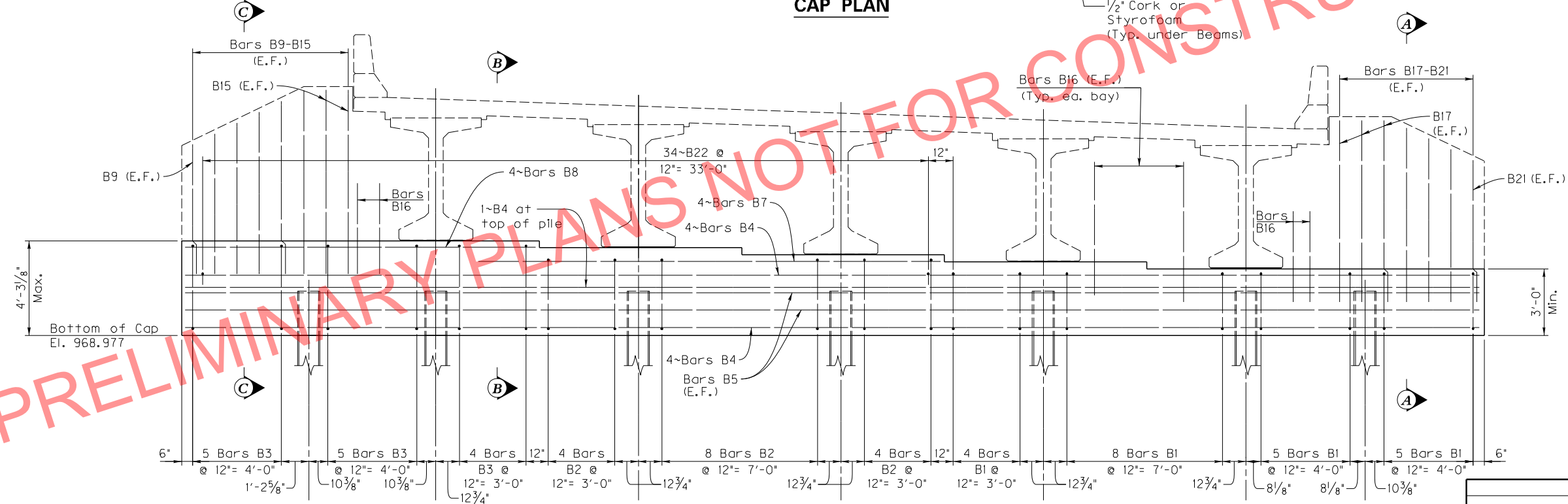
USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.714



CAP PLAN



ELEVATION - SHOWING CAP REINFORCEMENT

NOTES:

1. For pile spacing, see Foundation Layout, sheet S9.
2. Construction joint is not roughened under cork or bearing pads.
3. Bearing elevations are given at the top of concrete.
4. All cap concrete shall be Class "A".
5. For Sections A, B & C, see sheet S24.

TABLE OF BEARING ELEVATIONS

Point	Elevation
Beam 1	973.237
Beam 2	972.922
Beam 3	972.607
Beam 4	972.292
Beam 5	971.977

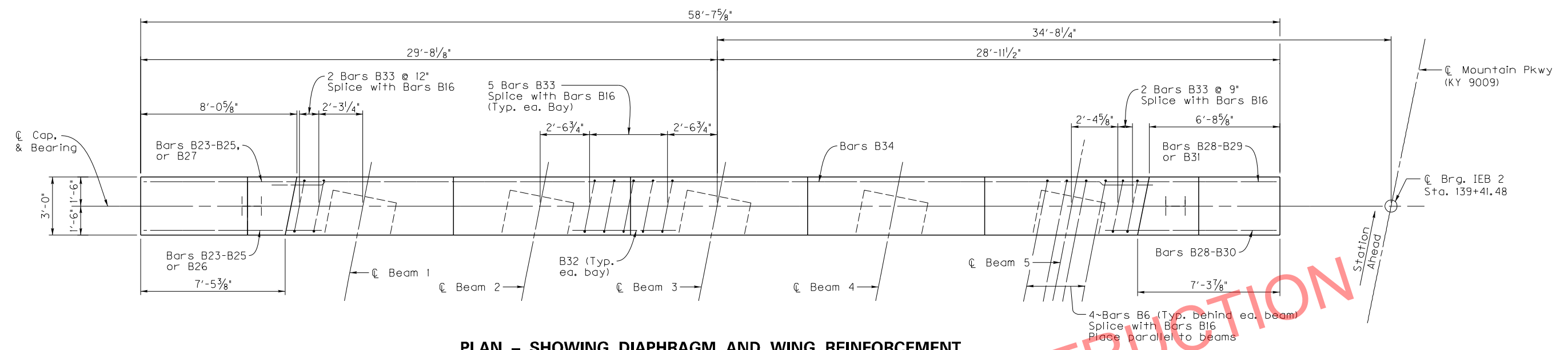
REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: W.D. BURTON	B.C. REID	
DETAILED BY: W.R. ABBOTT	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
INTEGRAL END BENT 2 - WB		
ITEM NUMBER	PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	SHEET NO. S22 DRAWING NO. 27077
10-126.70		

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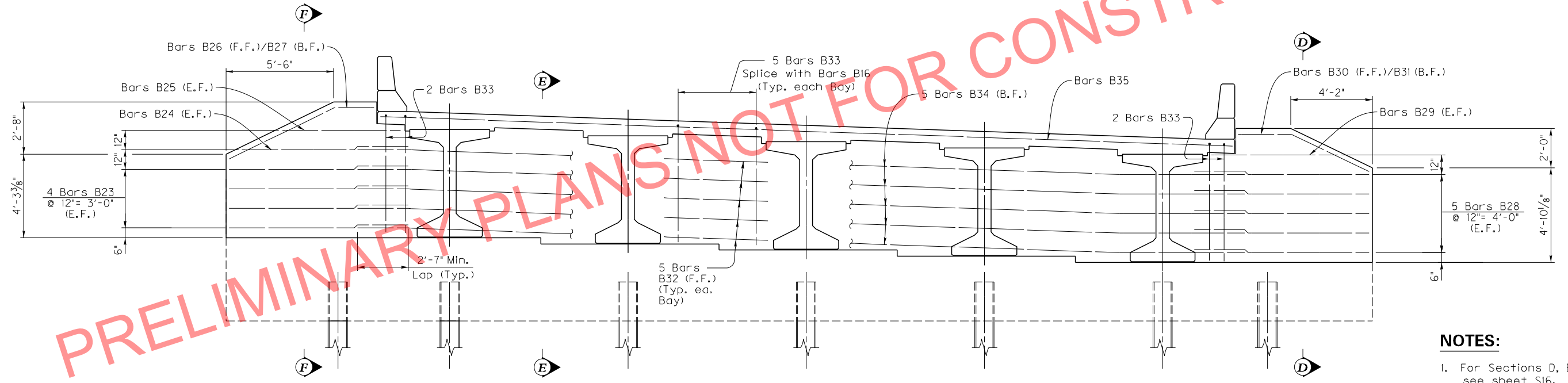
USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.714



PLAN - SHOWING DIAPHRAGM AND WING REINFORCEMENT



ELEVATION - SHOWING DIAPHRAGM AND WING REINFORCEMENT

- NOTES:**
1. For Sections D, E and F, see Sheet S24.
 2. All diaphragm concrete shall be Class "AA".

- NOTES:**
1. For Sections D, E and F, see sheet S16.

PRELIMINARY PLANS NOT FOR CONSTRUCTION

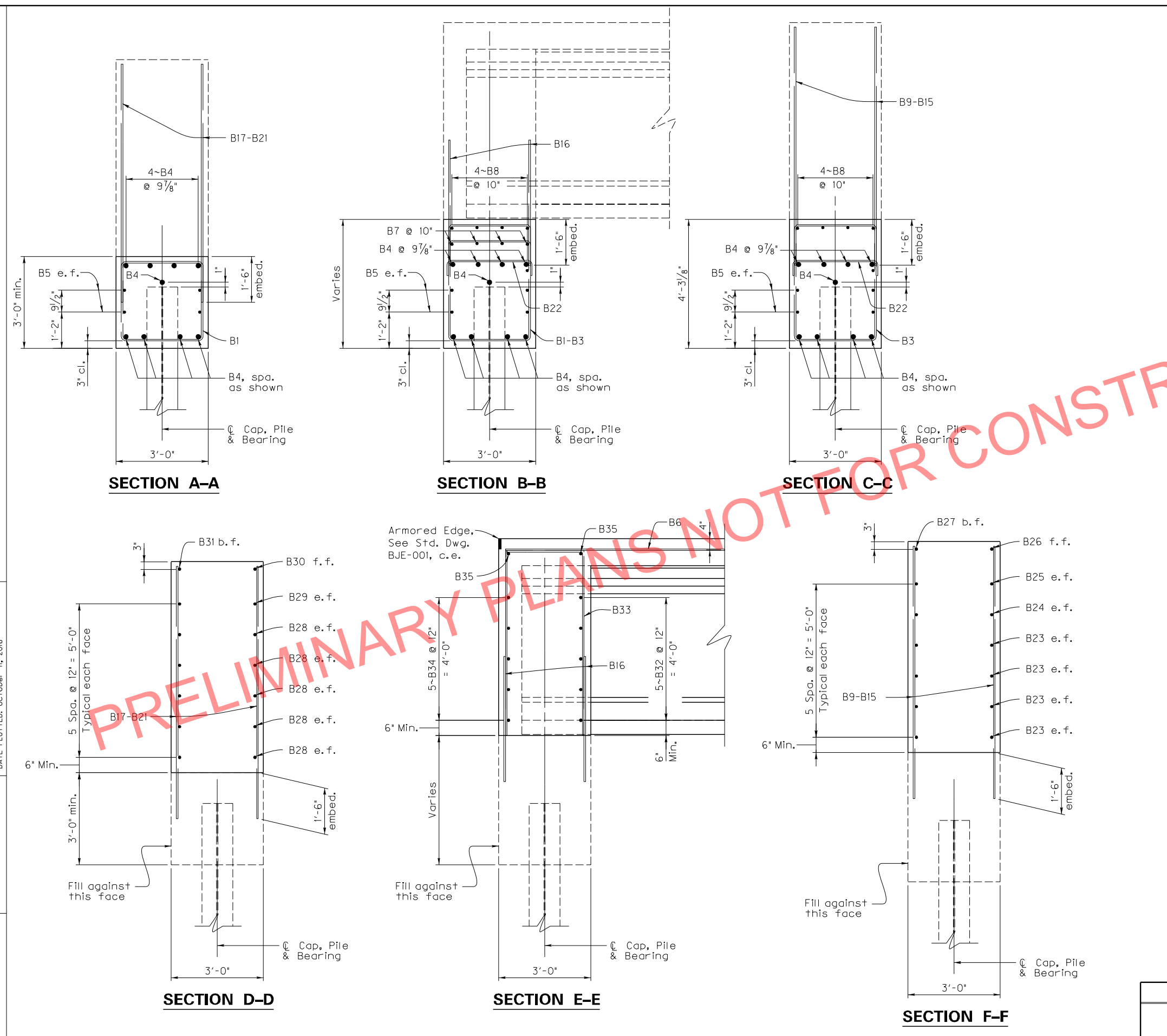
REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: W.D. BURTON	B.C. REID	
DETAILED BY: W.R. ABBOTT	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
INTEGRAL END BENT 2 - WB		
ITEM NUMBER	PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	SHEET NO. S23 DRAWING NO. 27077
10-126.70		

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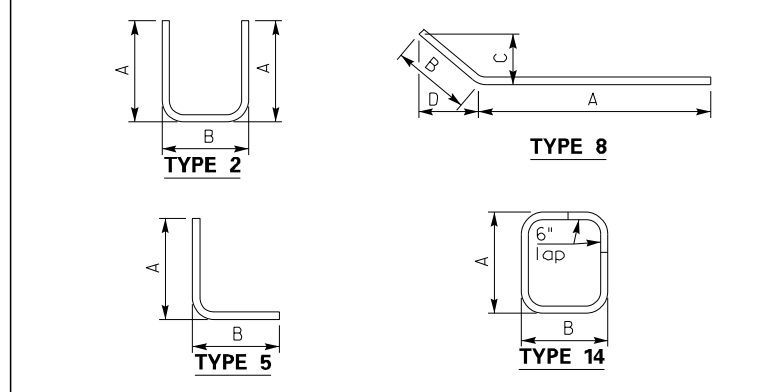
USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.714



BILL OF REINFORCEMENT									
MARK	TYPE	SIZE	NO.	LENGTH	LOCATION	A	B	C	D
B1e	14s	5	22	11-6	Cap	2-7	2-8		
B2e	14s	5	16	12-10	Cap	3-3	2-8		
B3e	14s	5	14	14-0	Cap	3-10	2-8		
B4e	Str.	8	8	58-3	Cap				
B5e	Str.	5	4	58-3	Cap				
B6e	5s	5	20	16-0	Diaphragm/Slab	6-0	10-0		
B7e	Str.	5	4	18-10	Cap				
B8e	Str.	5	4	15-8	Cap				
B9e	Str.	5	2	5-10	Cap/Wing				
B10e	Str.	5	2	6-4	Cap/Wing				
B11e	Str.	5	2	6-10	Cap/Wing				
B12e	Str.	5	2	7-4	Cap/Wing				
B13e	Str.	5	2	7-9	Cap/Wing				
B14e	Str.	5	2	8-3	Cap/Wing				
B15e	Str.	5	3	8-4	Cap/Wing				
B16e	Str.	5	68	4-5	Cap/Diaphragm				
B17e	Str.	5	6	8-2	Cap/Wing				
B18e	Str.	5	2	7-10	Cap/Wing				
B19e	Str.	5	2	7-4	Cap/Wing				
B20e	Str.	5	2	6-10	Cap/Wing				
B21e	Str.	5	2	6-5	Cap/Wing				
B22e	2s	5	34	3-8	Cap	0-6	2-8		
B23e	Str.	5	8	9-2	Wing				
B24e	Str.	5	2	8-6	Wing				
B25e	Str.	5	2	6-1	Wing				
B26e	8	5	1	7-9	Wing	6-0	1-9	0-9 7/8	1-6 7/8
B27e	8	5	1	8-3	Wing	6-0	2-3	0-11 3/4	2-0 1/4
B28e	Str.	5	10	8-11	Wing				
B29e	Str.	5	2	6-6	Wing				
B30e	8	5	1	7-5	Wing	4-5	3-0	1-3 5/8	2-8 1/2
B31e	8	5	1	6-11	Wing	4-5	2-6	1-1	2-3
B32e	Str.	5	20	5-4	Diaphragm				
B33e	2s	5	24	14-8	Diaphragm	6-0	2-8		
B34e	Str.	5	5	45-5	Diaphragm				
B35e	Str.	5	2	43-7	Diaphragm				



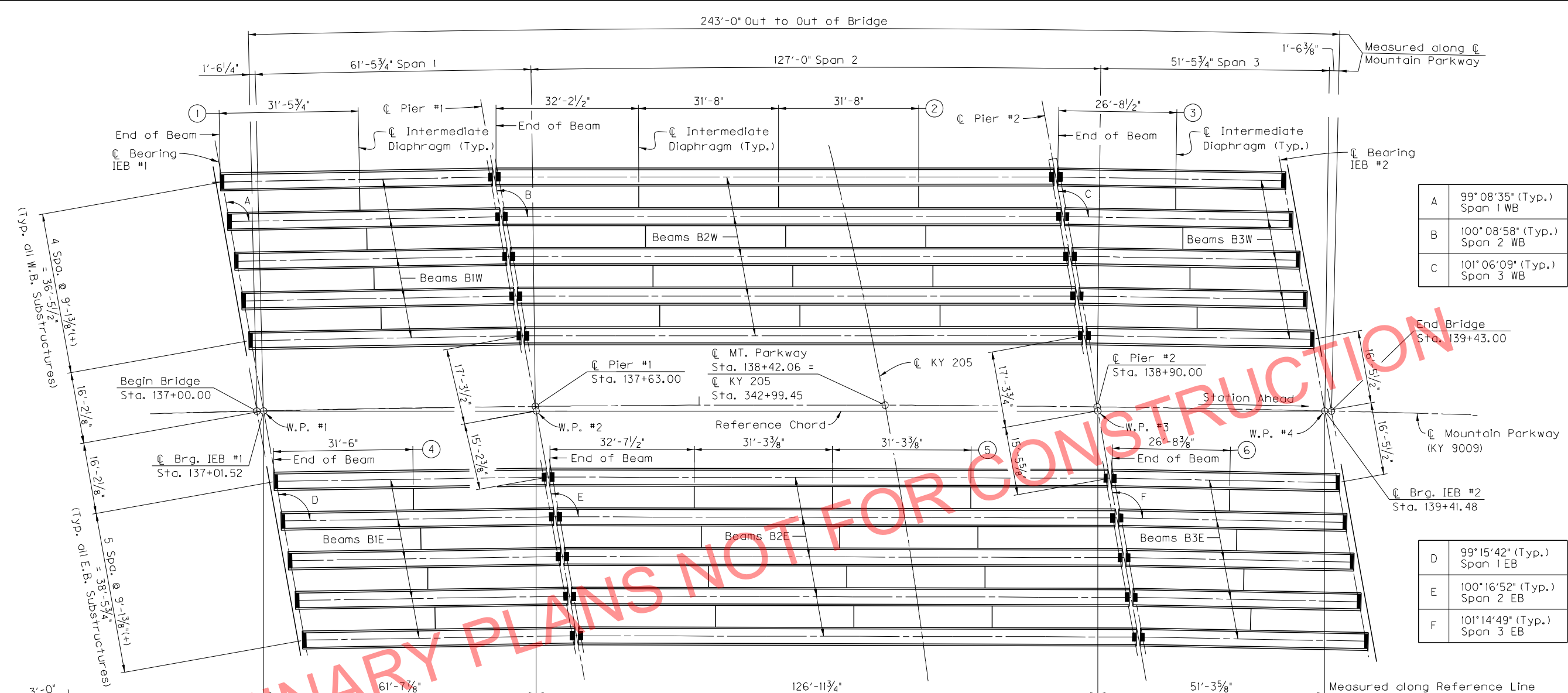
REVISION		DATE
DATE: June, 2016		CHECKED BY
DESIGNED BY: W.D. BURTON		B.C. REID
DETAILED BY: W.R. ABBOTT		B.C. REID
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
INTEGRAL END BENT 2 - WB		
ITEM NUMBER	PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	
10-126.70	SHEET NO. S24 DRAWING NO. 27077	

FILE NAME: I:\LEX\PR\A00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\S27077.025.DGN

USER: breid
DATE PLOTTED: October 11, 2016

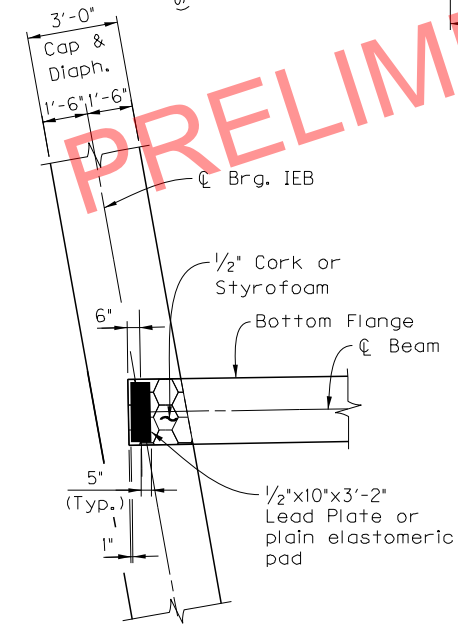
E-SHEET NAME:

MicroStation v8.11.9.714

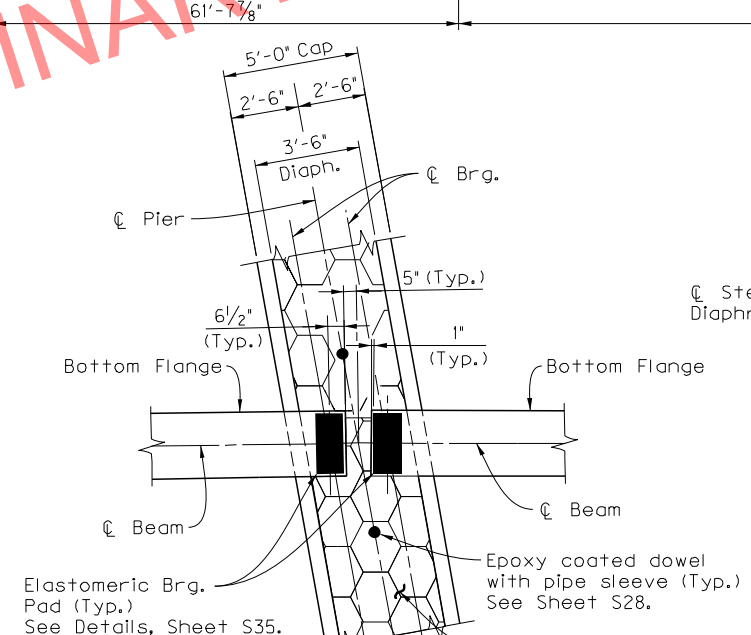


A	99° 08' 35" (Typ.) Span 1 WB
B	100° 08' 58" (Typ.) Span 2 WB
C	101° 06' 09" (Typ.) Span 3 WB

D	99° 15' 42" (Typ.) Span 1 EB
E	100° 16' 52" (Typ.) Span 2 EB
F	101° 14' 49" (Typ.) Span 3 EB

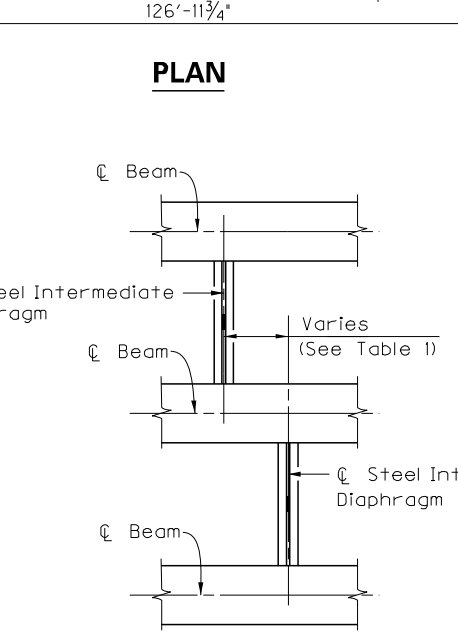


END BENTS



BEARING DETAILS

PIERS



INTERMEDIATE DIAPHRAGM DETAIL

Span 1		Span 2		Span 3	
EB	WB	EB	WB	EB	WB
1'-5 5/8"	1'-5 3/8"	1'-7 1/2"	1'-7 1/4"	1'-9 3/8"	1'-7 1/4"

NOTE:
For Steel Diaphragm
Details, see Sheet S34.

- ① - Typical along Beams BIW
- ② - Typical along Beams B2W
- ③ - Typical along Beams B3W
- ④ - Typical along Beams BIE
- ⑤ - Typical along Beams B2E
- ⑥ - Typical along Beams B3E

PRELIMINARY PLANS NOT FOR CONSTRUCTION

ITEM NUMBER	10-126.70
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REVISION		DATE

DATE: June, 2016
DESIGNED BY: B.C. REID
CHECKED BY: W.D. BURTON
DETAILED BY: W.R. ABBOTT

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
WOLFE-MORGAN

ROUTE **KY 9009** CROSSING **KY 205**

FRAMING PLAN

PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
LEXINGTON, KENTUCKY

SHEET NO.
S25
DRAWING NO.
27077

FILE NAME: I:\LEX\PR\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\S27077_026.DGN
 USER: breid
 DATE PLOTTED: October 11, 2016
 E-SHEET NAME: MicroStation v8.11.9.714

Strand Data with number indicated in rows																				Concrete Stress (psi)	No. of S Bars	Hold-Down Capacity lbs.	Beam Data (measured along centerline)											Maximum Allowable Camber											
Mark	Midspan (SECTION B-B)								End (SECTION A-A)								Total No.	Dimensions																											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	A	B	C	D	E	F	G	H	I	M							
B1E	11				3	3	3	2	11											3						2	22	5,000	8,000	41	8	31,205	5	61'-6 7/8"	28'-3 1/2"	5'-0"	18	9"	18"	23	1'-0 1/2"	16 1/2"	0"	74,814 lbs	2 3/8"
B2E	17	19	5	3	3			2	17	16	2								3						2	49	5,000	8,000	103	16	27,875	5	126'-2 1/4"	58'-1 1/8"	10'-0"	59	6"	18"	44	1'-4 1/8"	16 1/2"	0"	153,321 lbs	3 5/8"	
B3E	11				3	3	3	2	11										3						2	22	5,000	8,000	35	8	35,702	5	51'-6 7/8"	23'-3 3/8"	5'-0"	17	9"	18"	18	0'-6 1/2"	16 1/2"	0"	62,660 lbs	2 7/8"	
B1W	11				3	3	3	2	11										3						2	22	5,000	8,000	41	8	31,223	5	61'-6 7/8"	28'-3 3/8"	5'-0"	18	9"	18"	23	1'-0 3/8"	16 1/2"	0"	74,789 lbs	2 3/8"	
B2W	17	19	5	3	3			2	17	16	2								3						2	49	5,000	8,000	103	16	27,885	5	126'-1 7/8"	58'-0 7/8"	10'-0"	59	6"	18"	44	1'-3 3/8"	16 1/2"	0"	153,258 lbs	3 5/8"	
B3W	11				3	3	3	2	11										3						2	22	5,000	8,000	35	8	35,719	5	51'-6 7/8"	23'-3 1/4"	5'-0"	17	9"	18"	18	0'-6 3/8"	16 1/2"	0"	62,630 lbs	2 7/8"	

General Notes

CONCRETE: Ensure prestressed girder concrete is in accordance with these plans and the specifications.

MATERIALS DESIGN SPECIFICATIONS: For prestressed beams: FY = 60,000 psi F'S = 270,000 psi

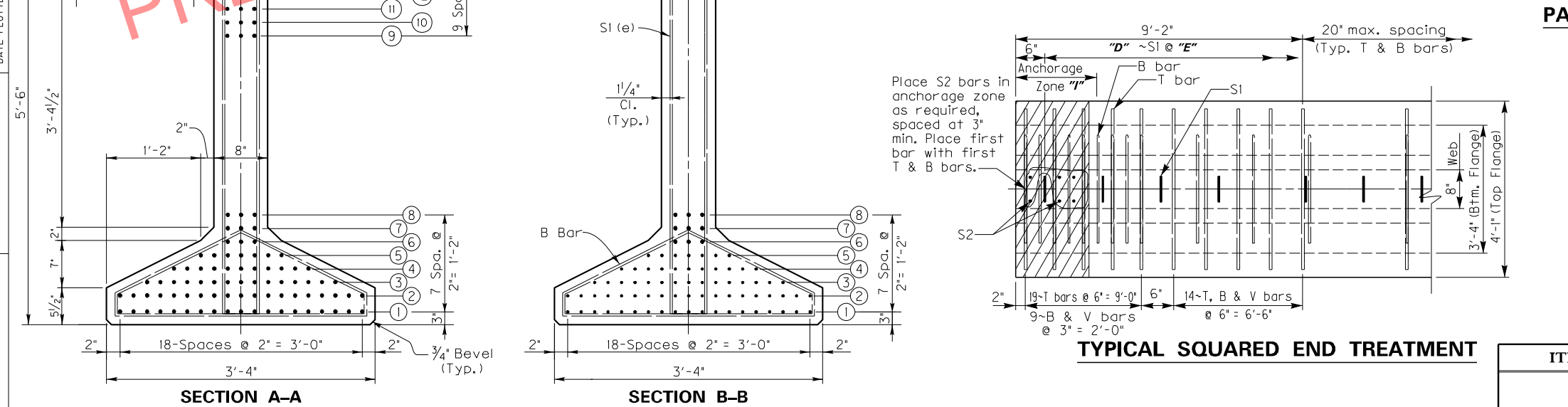
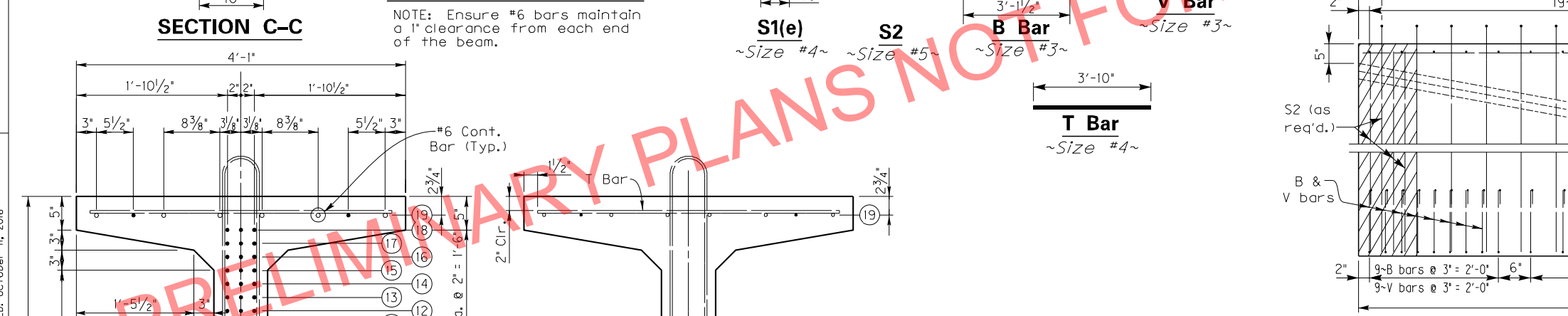
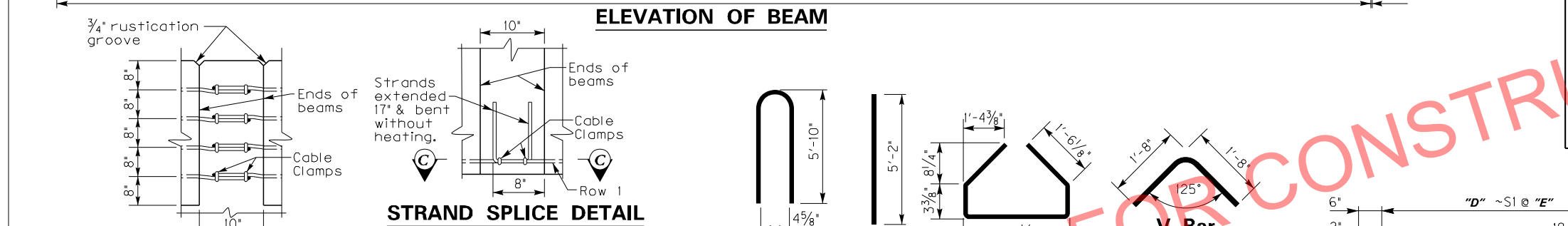
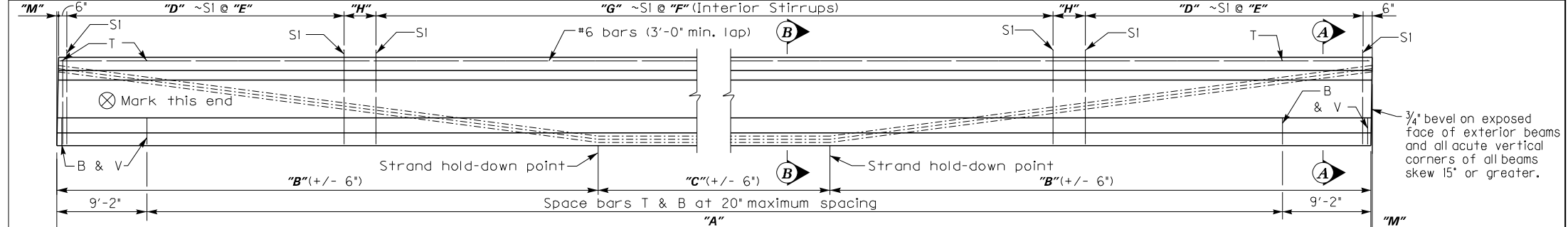
PRESTRESSING REINFORCEMENT: Ensure that strands are 0.6' nominal diameter, 0.217 sq. in., uncoated seven-wire low-relaxation conforming to AASHTO M 203, Grade 270. Billing of the cost for redesign of beam and subsequent plan modifications will be made for any request of alternate strand type or arrangement. The designer of the original plan is responsible for the billing and work.

CONSTRUCTION METHOD: Pretension all beams. Ensure concrete has attained f'ci (shown in the table) in standard test cylinders that are made and cured identically with the beams without bond stresses being transferred to the concrete or releasing the end anchors. Attain f'c (shown in the table) at or prior to 28 days. Apply an initial force of 43,943 lbs. per low-relaxation strand to develop a stress of 202,500 psi. No beam will be accepted that is honeycombed to the extent that strength of the beam or resistance to deterioration has been affected. An allowance of 0.0005L is made for shortening of beams due to shrinkage and elastic change. Show a detensioning plan by sequential numbering of the strand pattern in the shop plans.

LIFTING DEVICES: Detail lifting devices on the shop plans. Loads are to be distributed equally to each device.

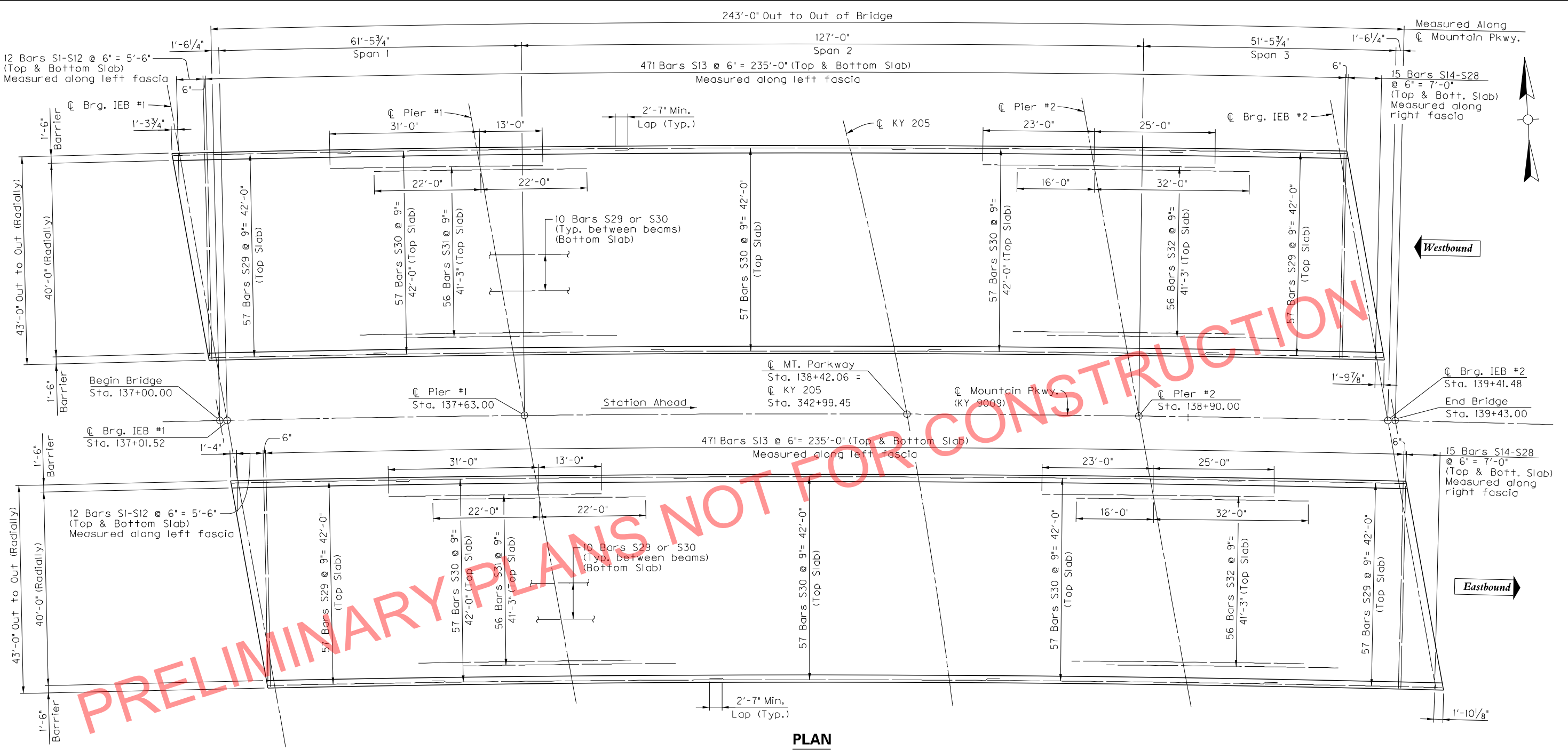
BEARING DEVICES: Include the price for lead plates and/or bearing pads in the bid for precast beams.

FABRICATION: 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. If the measured camber is greater than the "Maximum Allowable Camber" the contractor will be responsible for any necessary adjustments to assure a minimum slab thickness as shown in the plans. This work will be considered incidental to the completion of the structure and have the approval of the Engineer.



REVISION		DATE
DATE: June, 2016		CHECKED BY
DESIGNED BY: B.C. REID		W.D. BURTON
DETAILED BY: D.M. SMITHSON		B.C. REID
Commonwealth of Kentucky		
DEPARTMENT OF HIGHWAYS		
COUNTY WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
PPC I-BEAM TYPE HN 66-49		
ITEM NUMBER		SHEET NO.
10-126.70		S26
PREPARED BY LOCHNER		DRAWING NO. 27077
H.W. LOCHNER, INC. LEXINGTON, KENTUCKY		

MicroStation v8.11.9.714 E-SHEET NAME: USER: breid DATE PLOTTED: October 11, 2016 FILE NAME: I:\LEX\PRJ\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\S27077.027.DGN



PLAN

PRELIMINARY PLANS NOT FOR CONSTRUCTION

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: W.R. ABBOTT	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
SUPERSTRUCTURE (1 OF 3)		
ITEM NUMBER	PREPARED BY	
10-126.70	LOCHNER H. W. LOCHNER, INC. LEXINGTON, KENTUCKY	
	SHEET NO. S27	DRAWING NO. 27077

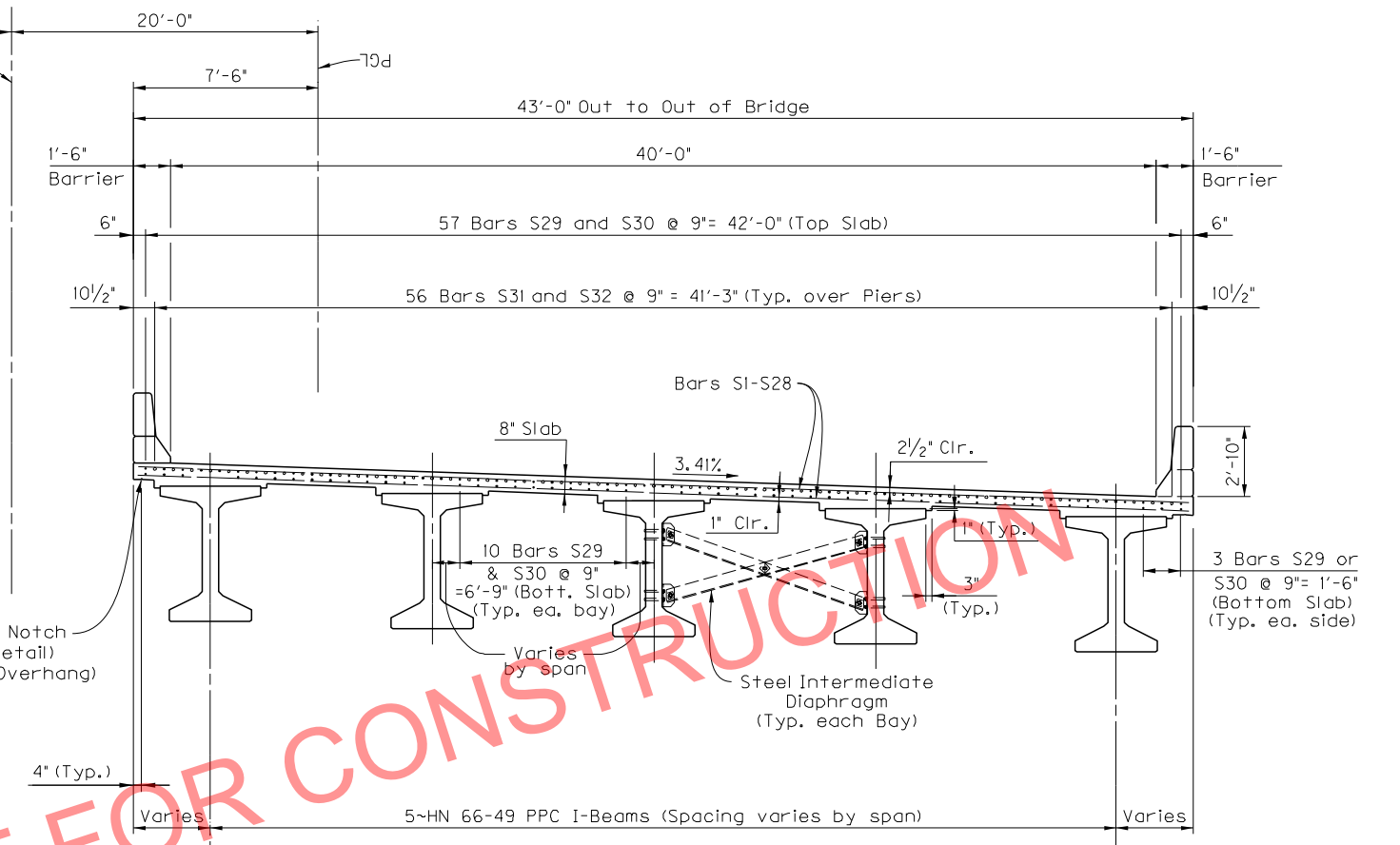
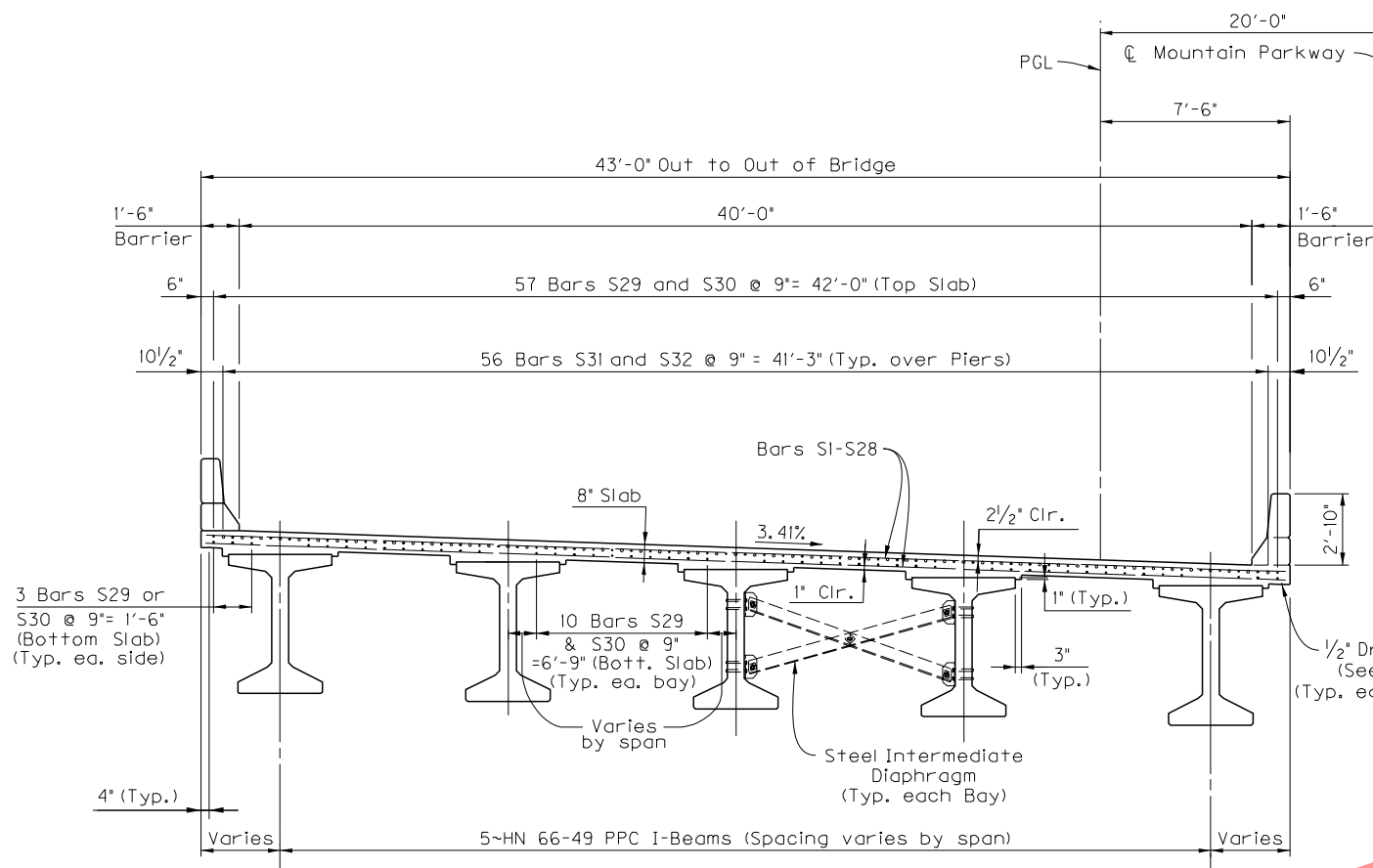
ITEM NUMBER
10-126.70

FILE NAME: I:\LEX\PRJ\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\S27077_028.DGN

USER: breid
DATE PLOTTED: October 11, 2016

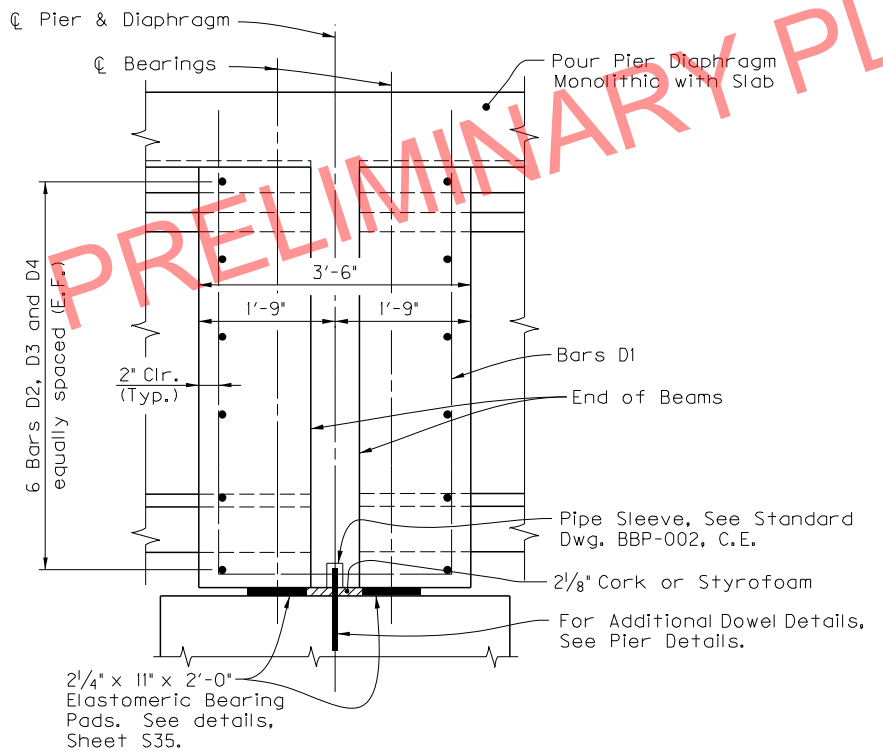
E-SHEET NAME:

MicroStation v8.11.9.714

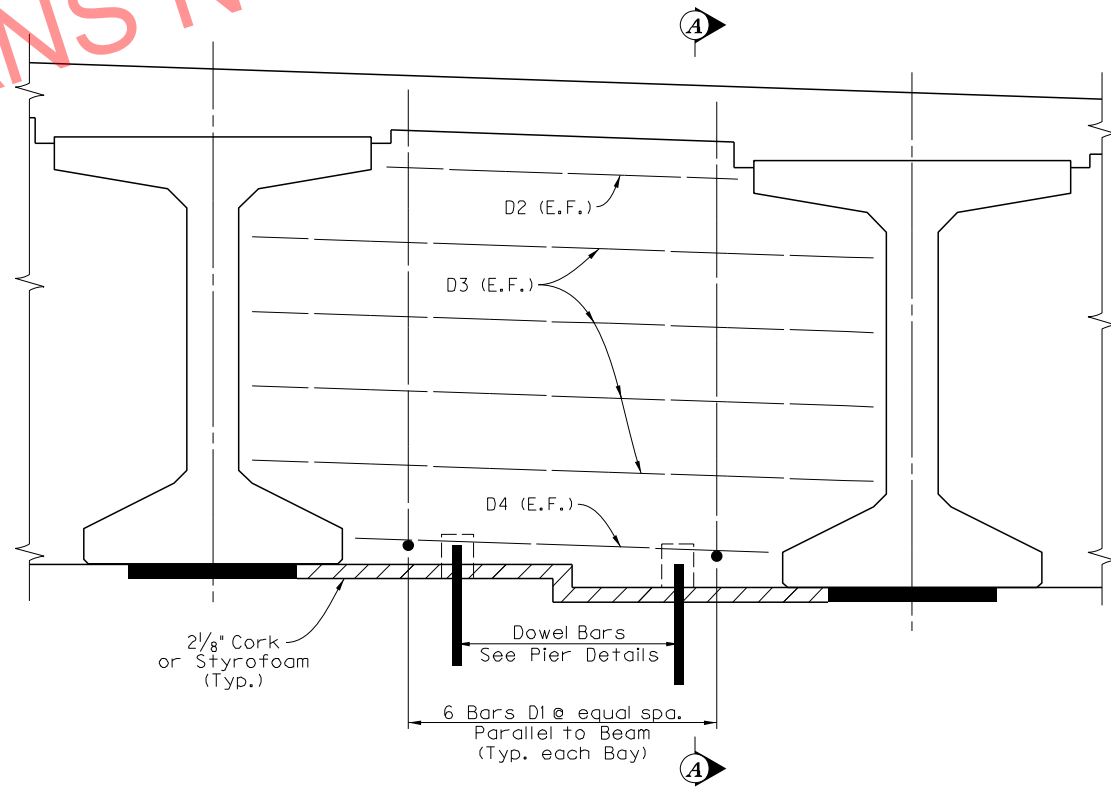


NOTES:
1.) Regardless of slab pouring method, diaphragm stirrup bars shall project into the slab.

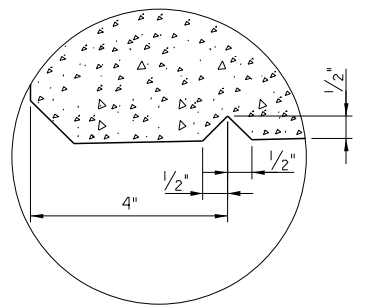
TYPICAL SECTION



SECTION A-A



TYPICAL PIER DIAPHRAGM DETAIL
~Viewed Perpendicular to Diaphragm~



DRIP NOTCH

ITEM NUMBER	10-126.70
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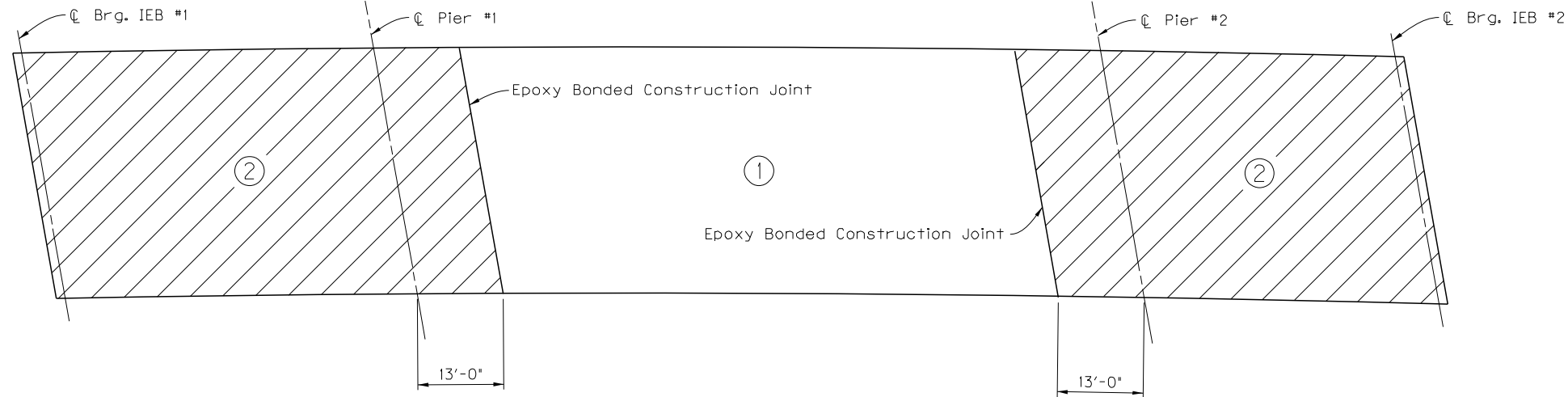
REVISION		DATE
DATE: June, 2016	DESIGNED BY: B.C. REID	CHECKED BY: W.D. BURTON
DETAILED BY: W.R. ABBOTT		B.C. REID
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
SUPERSTRUCTURE (2 OF 3)		
PREPARED BY LOCHNER H. W. LOCHNER, INC. LEXINGTON, KENTUCKY		SHEET NO. S28 DRAWING NO. 27077

FILE NAME: I:\LEX\PRJ\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\27077_029.DGN

USER: dsmitthson
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.459



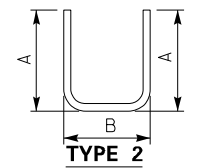
SLAB POURING SEQUENCE (EB & WB)

If entire superstructure is not poured out-to-out, prior to allowing any superstructure concrete to set, then pour according to the above pouring sequence. Pouring Sequence may be changed with approval of the Designer.

PRELIMINARY PLANS NOT FOR CONSTRUCTION

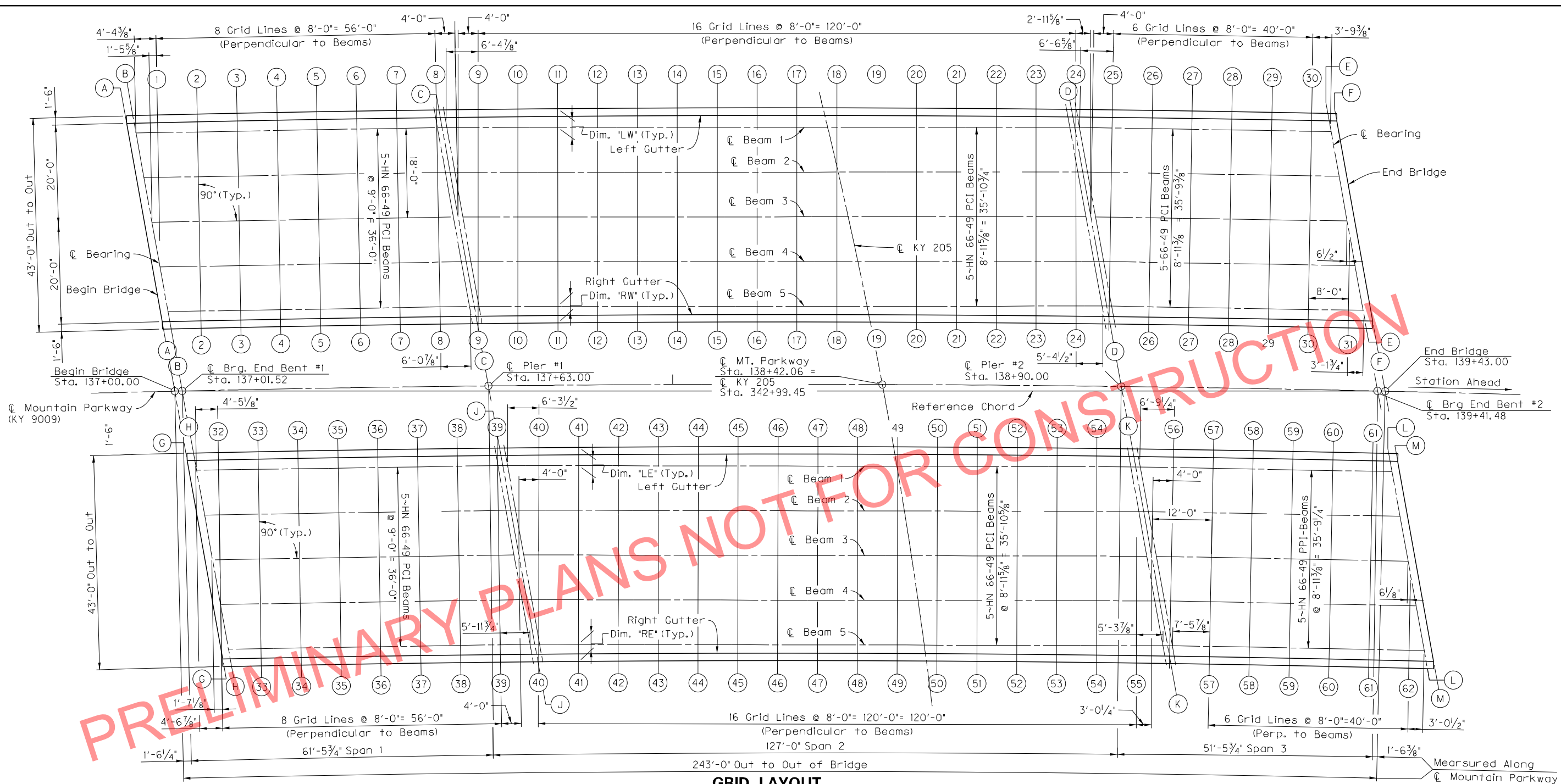
BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NO.	LENGTH	LOCATION	A	B	C	D
S1e	Str.	5	4	6-8	Top & Bottom Slab				
S2e	Str.	5	4	9-11	Top & Bottom Slab				
S3e	Str.	5	4	13-2	Top & Bottom Slab				
S4e	Str.	5	4	16-4	Top & Bottom Slab				
S5e	Str.	5	4	19-6	Top & Bottom Slab				
S6e	Str.	5	4	22-8	Top & Bottom Slab				
S7e	Str.	5	4	25-11	Top & Bottom Slab				
S8e	Str.	5	4	29-0	Top & Bottom Slab				
S9e	Str.	5	4	32-2	Top & Bottom Slab				
S10e	Str.	5	4	35-4	Top & Bottom Slab				
S11e	Str.	5	4	38-6	Top & Bottom Slab				
S12e	Str.	5	4	41-8	Top & Bottom Slab				
S13e	Str.	5	1884	42-8	Top & Bottom Slab				
S14e	Str.	5	4	7-7	Top & Bottom Slab				
S15e	Str.	5	4	10-0	Top & Bottom Slab				
S16e	Str.	5	4	12-6	Top & Bottom Slab				
S17e	Str.	5	4	14-11	Top & Bottom Slab				
S18e	Str.	5	4	17-5	Top & Bottom Slab				
S19e	Str.	5	4	19-10	Top & Bottom Slab				
S20e	Str.	5	4	22-3	Top & Bottom Slab				
S21e	Str.	5	4	24-9	Top & Bottom Slab				
S22e	Str.	5	4	27-2	Top & Bottom Slab				
S23e	Str.	5	4	29-7	Top & Bottom Slab				
S24e	Str.	5	4	32-1	Top & Bottom Slab				
S25e	Str.	5	4	34-6	Top & Bottom Slab				
S26e	Str.	5	4	37-0	Top & Bottom Slab				
S27e	Str.	5	4	39-6	Top & Bottom Slab				
S28e	Str.	5	4	41-11	Top & Bottom Slab				
S29e	Str.	5	412	36-6	Top & Bottom Slab				
S30e	Str.	5	618	60-0	Top & Bottom Slab				
S31e	Str.	9	112	44-0	Top Slab				
S32e	Str.	9	112	48-0	Top Slab				
D1e	2s.	5	96	14-0	Pier Diaphragms	5-5	3-2		
D2e	Str.	5	32	4-6	Pier Diaphragms				
D3e	Str.	5	128	8-0	Pier Diaphragms				
D4e	Str.	5	32	5-4	Pier Diaphragms				

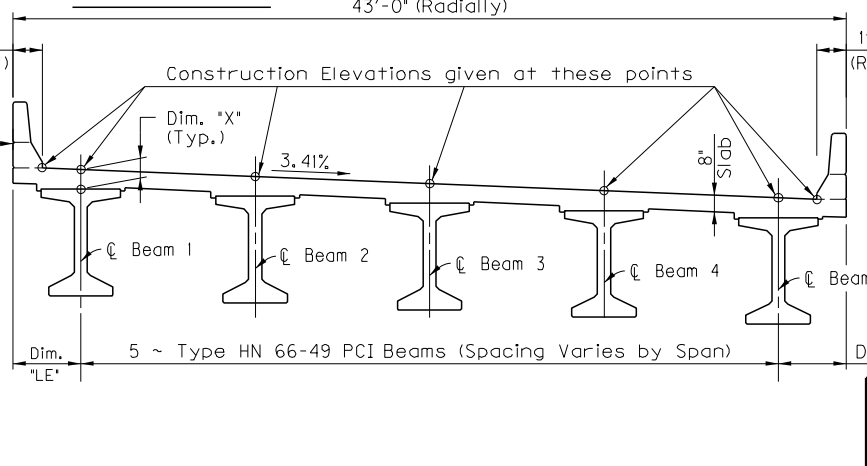
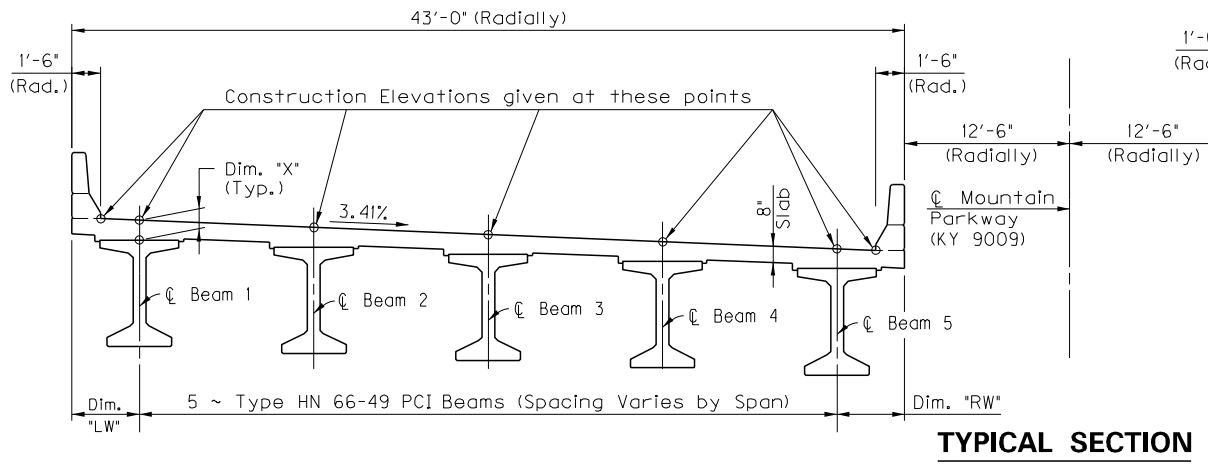


REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: W.R. ABBOTT	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
SUPERSTRUCTURE (3 OF 3)		
ITEM NUMBER	PREPARED BY	SHEET NO.
10-126.70	LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	S29 DRAWING NO. 27077

FILE NAME: I:\LEX\PR\A00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\S27077.030.DGN
 USER: dsmitthson
 DATE PLOTTED: October 11, 2016
 E-SHEET NAME: MicroStation v8.11.9.459



PRELIMINARY PLANS NOT FOR CONSTRUCTION



ITEM NUMBER	10-126.70
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REVISION		DATE
DATE: June, 2016	CHECKED BY: W.D. BURTON	
DESIGNED BY: B.C. REID	DETAILED BY: W.R. ABBOTT	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
CONSTRUCTION ELEVATIONS (1 OF 3)		
PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY		SHEET NO. S30 DRAWING NO. 27077

FILE NAME: I:\LEX\PRJ\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\S27077_031.DGN

USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.714

CONSTRUCTION ELEVATIONS - WESTBOUND BRIDGE

LOCATION	Dim. "LW" (Ft.)	Left Gutter	☉ Beam 1			☉ Beam 2			☉ Beam 3			☉ Beam 4			☉ Beam 5			Right Gutter	Dim. "RW" (Ft.)
			Const. Elev.	Top of Beam	Dim. "X"	Const. Elev.	Top of Beam	Dim. "X"	Const. Elev.	Top of Beam	Dim. "X"	Const. Elev.	Top of Beam	Dim. "X"	Const. Elev.	Top of Beam	Dim. "X"		
Skew Line AA		979.580	979.515			979.217			978.919			978.621			978.323			978.257	
Skew Line BB		979.591	979.525			979.227			978.929			978.631			978.333			978.267	
Skew Line CC		979.905	979.837			979.536			979.234			978.933			978.631			978.564	
Skew Line DD		979.946	979.873			979.563			979.252			978.941			978.631			978.558	
Skew Line EE		979.729	979.654			979.339			979.024			978.709			978.393			978.318	
Skew Line FF		979.720	979.646			979.331			979.015			978.700			978.385			978.309	
Grid Line 1	3.509	979.623	979.554			979.247			978.939			-			-			-	
Grid Line 2	3.546	979.675	979.605			979.298			978.990			978.683			978.375		978.308	3.454	
Grid Line 3	3.572	979.723	979.652			979.346			979.038			978.731			978.423		978.358	3.428	
Grid Line 4	3.586	979.767	979.696			979.390			979.083			978.776			978.468		978.403	3.415	
Grid Line 5	3.587	979.807	979.736			979.430			979.123			978.816			978.509		978.444	3.413	
Grid Line 6	3.577	979.843	979.772			979.466			979.160			978.853			978.546		978.480	3.423	
Grid Line 7	3.556	979.874	979.804			979.498			979.192			978.886			978.579		978.513	3.445	
Grid Line 8	3.522	-	-			979.527			979.221			978.915			978.608		978.541	3.479	
Grid Line 9	3.601	979.948	979.876			979.567			979.256			978.945			-		-	3.509	
Grid Line 10	3.683	979.992	979.917			979.611			979.301			978.990			978.677		978.612	3.426	
Grid Line 11	3.754	980.031	979.954			979.651			979.340			979.030			978.717		978.653	3.355	
Grid Line 12	3.813	980.065	979.986			979.685			979.376			979.066			978.752		978.691	3.296	
Grid Line 13	3.859	980.093	980.012			979.714			979.405			979.095			978.781		978.721	3.249	
Grid Line 14	3.894	980.113	980.031			979.735			979.427			979.118			978.804		978.746	3.214	
Grid Line 15	3.917	980.126	980.043			979.749			979.443			979.135			978.820		978.763	3.190	
Grid Line 16	3.928	980.133	980.050			979.756			979.450			979.143			978.829		978.772	3.179	
Grid Line 17	3.928	980.131	980.048			979.755			979.450			979.145			978.832		978.775	3.178	
Grid Line 18	3.915	980.123	980.041			979.749			979.445			979.140			978.827		978.769	3.193	
Grid Line 19	3.890	980.109	980.027			979.734			979.430			979.126			978.815		978.757	3.217	
Grid Line 20	3.854	980.086	980.006			979.712			979.409			979.107			978.798		978.738	3.254	
Grid Line 21	3.806	980.058	979.979			979.685			979.382			979.079			978.772		978.710	3.303	
Grid Line 22	3.745	980.023	979.947			979.650			979.348			979.046			978.740		978.677	3.363	
Grid Line 23	3.673	979.985	979.910			979.611			979.310			979.008			978.704		978.638	3.436	
Grid Line 24	--	-	-			979.569			979.267			978.966			978.663		978.594	3.521	
Grid Line 25	3.628	979.922	979.850			979.545			979.240			978.934			-		-	--	
Grid Line 26	3.654	979.895	979.822			979.517			979.212			978.918			978.601		978.531	3.566	
Grid Line 27	3.668	979.865	979.791			979.486			979.181			978.876			978.571		978.501	3.551	
Grid Line 28	3.671	979.830	979.756			979.451			979.146			978.841			978.536		978.466	3.548	
Grid Line 29	3.662	979.791	979.717			979.413			979.108			978.803			978.498		978.428	3.558	
Grid Line 30	3.640	979.749	979.676			979.371			979.066			978.761			978.456		978.385	3.579	
Grid Line 31		-	--			-			--			978.716			978.411		978.339	3.612	

NOTES FOR ELEVATIONS TAKEN ON PRESTRESSED CONCRETE BEAMS

Take elevations on top of beam at points indicated by the grid layout. The beam elevations are to be read to three decimals and entered into table 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 and barrier. Measuring of Dimension "X" gives the final check on beam tolerances for camber, beam damage and errors in erection that produce reverse cambers, sags and unsightly fascia beams.

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 girders when pouring the concrete floor or slab or when taking the "Top of Beam" elevations.

Construct barriers to roadway grade. Do NOT add camber to the barrier.

Note to Engineer: 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. If the measured camber is greater than the "Maximum Allowable Camber" the Contractor will be responsible for any necessary adjustments to assure a minimum slab thickness of 8 inches as shown in the plans. This work will be considered incidental to the completion of the structure and must have the approval of the Engineer.

PRELIMINARY PLANS NOT FOR CONSTRUCTION

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: W.R. ABBOTT	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
CONSTRUCTION ELEVATIONS (2 OF 3)		
ITEM NUMBER	PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	SHEET NO. S31 DRAWING NO. 27077
10-126.70		

FILE NAME: I:\LEX\PR\A00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\S27077.032.DGN
 USER: breid
 DATE PLOTTED: October 11, 2016
 E-SHEET NAME:
 MicroStation v8.11.9.714

CONSTRUCTION ELEVATIONS - EASTBOUND BRIDGE																			
LOCATION	Dim. "LE" (Ft.)	Left Gutter	C Beam 1			C Beam 2			C Beam 3			C Beam 4			C Beam 5			Right Gutter	Dim. "RE" (Ft.)
			Const. Elev.	Top of Beam	Dim. "X"	Const. Elev.	Top of Beam	Dim. "X"	Const. Elev.	Top of Beam	Dim. "X"	Const. Elev.	Top of Beam	Dim. "X"	Const. Elev.	Top of Beam	Dim. "X"		
Grid Line GG		978.694	978.629			978.331			978.032			977.734			977.435			977.369	
Grid Line HH		978.704	978.638			978.340			978.041			977.743			977.444			977.378	
Grid Line JJ		978.987	978.920			978.617			978.315			978.013			977.710			977.643	
Grid Line KK		978.948	978.875			978.564			978.252			977.940			977.628			977.555	
Grid Line LL		978.693	978.617			978.301			977.985			977.668			977.351			977.275	
Grid Line MM		978.683	978.608			978.291			977.975			977.658			977.341			977.265	
Grid Line 32	3.509	978.734	978.666			978.358			978.051			--			--			--	
Grid Line 33	3.547	978.782	978.713			978.406			978.098			977.791			977.483			977.416	3.454
Grid Line 34	3.573	978.827	978.756			978.450			978.142			977.835			977.527			977.461	3.427
Grid Line 35	3.587	978.867	978.796			978.490			978.183			977.876			977.568			977.503	3.413
Grid Line 36	3.589	978.903	978.832			978.526			978.219			977.912			977.605			977.540	3.412
Grid Line 37	3.578	978.934	978.864			978.558			978.251			977.945			977.638			977.572	3.422
Grid Line 38	3.556	978.962	978.892			978.586			978.279			977.973			977.666			977.600	3.444
Grid Line 39	3.522	978.985	978.916			978.610			978.304			977.998			977.691			977.624	3.479
Grid Line 40	3.603	979.026	978.955			978.646			978.335			978.024			--			--	3.5+0
Grid Line 41	3.686	979.066	978.991			978.685			978.375			978.064			977.751			977.686	3.456
Grid Line 42	3.758	979.101	979.024			978.720			978.410			978.099			977.786			977.723	3.354
Grid Line 43	3.817	979.129	979.050			978.750			978.440			978.131			977.817			977.756	3.294
Grid Line 44	3.865	979.153	979.072			978.774			978.465			978.155			977.841			977.781	3.246
Grid Line 45	3.900	979.168	979.086			978.790			978.482			978.173			977.859			977.801	3.210
Grid Line 46	3.924	979.176	979.093			978.799			978.493			978.186			977.870			977.813	3.187
Grid Line 47	3.935	979.178	979.095			978.801			978.495			978.188			977.874			977.817	3.175
Grid Line 48	3.934	979.171	979.088			978.795			978.490			978.185			977.872			977.815	3.176
Grid Line 49	3.921	979.158	979.076			978.784			978.480			978.174			977.862			977.804	3.189
Grid Line 50	3.897	979.138	979.057			978.763			978.459			978.156			977.845			977.786	3.214
Grid Line 51	3.860	979.110	979.030			978.736			978.434			978.131			977.822			977.762	3.251
Grid Line 52	3.811	979.077	978.998			978.703			978.401			978.098			977.790			977.729	3.301
Grid Line 53	3.750	979.037	978.960			978.663			978.361			978.059			977.754			977.690	3.362
Grid Line 54	3.677	978.993	978.918			978.619			978.317			978.016			977.712			977.646	3.435
Grid Line 55	--	--	--			--			978.270			977.968			977.665			977.596	3.521
Grid Line 56	3.631	978.919	978.847			978.542			978.236			977.931			--			--	--
Grid Line 57	3.657	978.886	978.813			978.508			978.203			977.898			977.592			977.522	3.568
Grid Line 58	3.672	978.850	978.775			978.471			978.166			977.861			977.556			977.486	3.553
Grid Line 59	3.675	978.809	978.735			978.430			978.125			977.820			977.515			977.445	3.550
Grid Line 60	3.665	978.764	978.690			978.386			978.081			977.776			977.471			977.401	3.560
Grid Line 61	3.644	978.715	978.642			978.338			978.033			977.728			977.423			977.352	3.582
Grid Line 62	--	--	--			--			--			977.676			977.371			977.299	3.615

PRELIMINARY PLANS NOT FOR CONSTRUCTION

NOTES FOR ELEVATIONS TAKEN ON PRESTRESSED CONCRETE BEAMS

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

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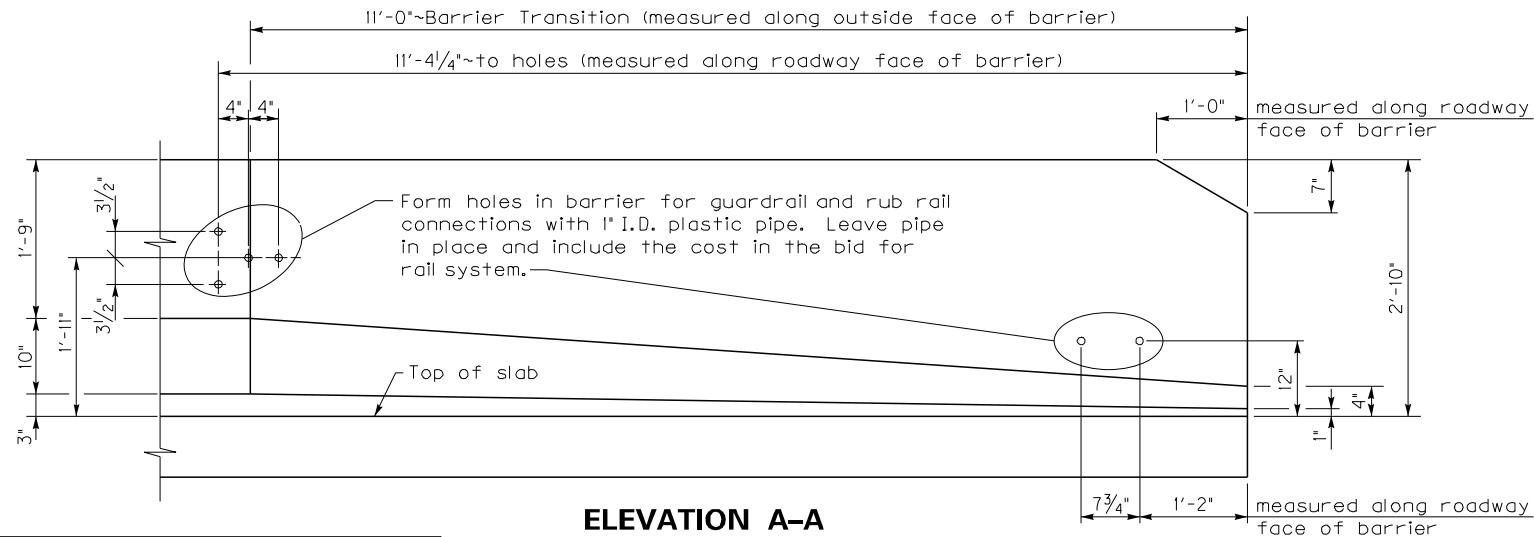
For setting templates, measure Dimension "X" above top of beam for top of template. Do NOT set template by elevations.

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Construct barriers to roadway grade. Do NOT add camber to the barrier.

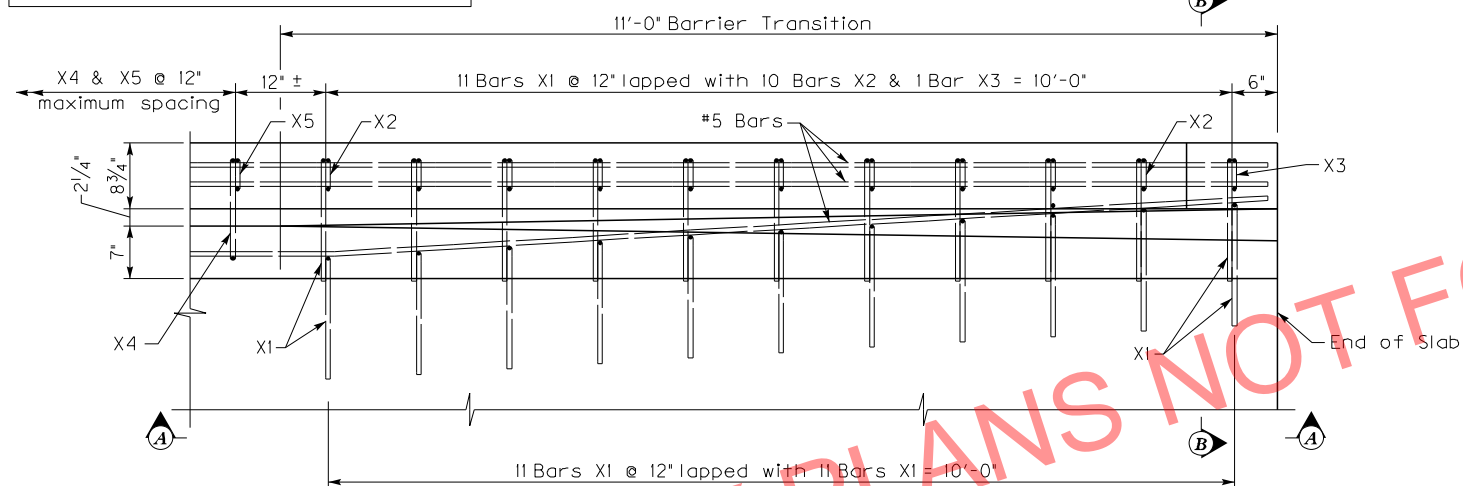
Note to Engineer: The "Maximum Allowable Camber" shown on the beam sheet is the amount of camber, measured prior to casting the deck, above which the beam will begin to encroach into the slab. If the measured camber is greater than the "Maximum Allowable Camber" the Contractor will be responsible for any necessary adjustments to assure a minimum slab thickness of 8 inches as shown in the plans. This work will be considered incidental to the completion of the structure and must have the approval of the Engineer.

REVISION	DATE
DATE: June, 2016	CHECKED BY
DESIGNED BY: B.C. REID	W.D. BURTON
DETAILED BY: W.R. ABBOTT	B.C. REID
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
WOLFE-MORGAN	
ROUTE KY 9009	CROSSING KY 205
CONSTRUCTION ELEVATIONS (3 OF 3)	
ITEM NUMBER	PREPARED BY
10-126.70	LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY
	SHEET NO. S32 DRAWING NO. 27077

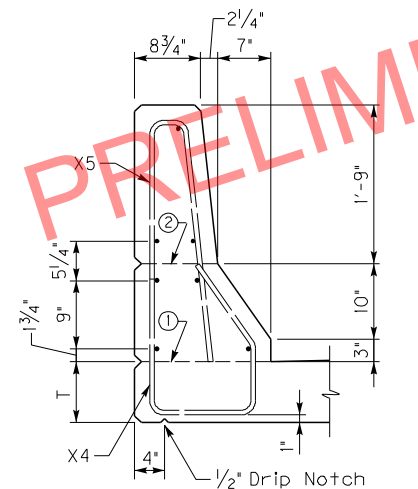


ELEVATION A-A

Note: Open joints are not required.

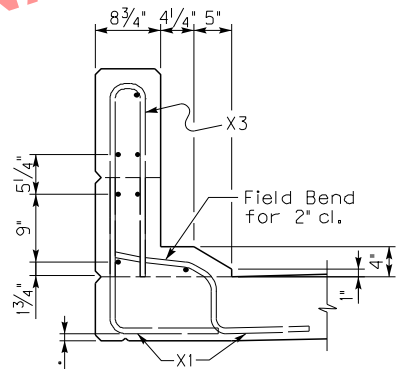


PLAN OF BARRIER TRANSITION

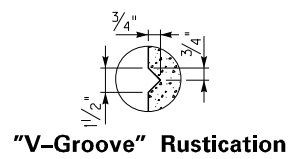


TYPICAL BARRIER SECTION

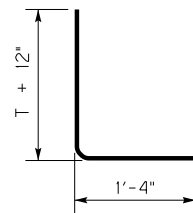
- Mandatory roughened construction joint. Concrete above this joint is to be placed after slab has been properly cured and included in the bid for Rail System, Type 3.
- Permissible construction joint. "V-Groove" rustication joint is required if construction joint is used. 1/4" Open Joints are not required.



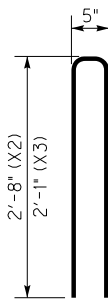
SECTION B-B



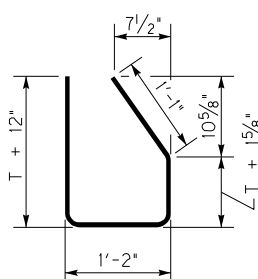
"V-Groove" Rustication



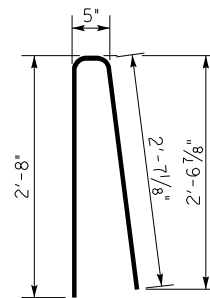
X1(e) Bars
#5 Bar



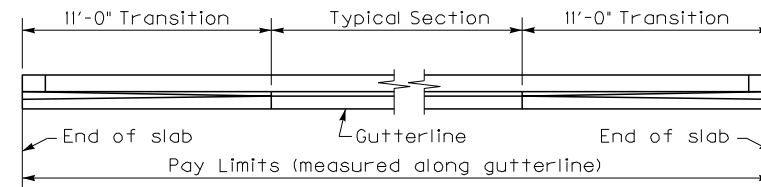
X2(e) & X3(e) Bars
#5 Bar



X4(e) Bars
#5 Bar

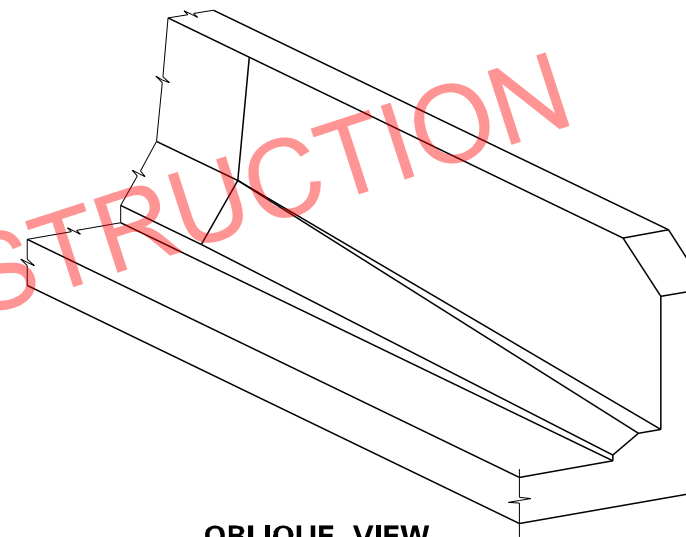


X5(e) Bars
#5 Bar



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.



OBLIQUE VIEW

General Notes

CONCRETE: Use Class AA Concrete throughout.

OPTIONAL WELDED WIRE REINFORCEMENT:

At 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 System 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.

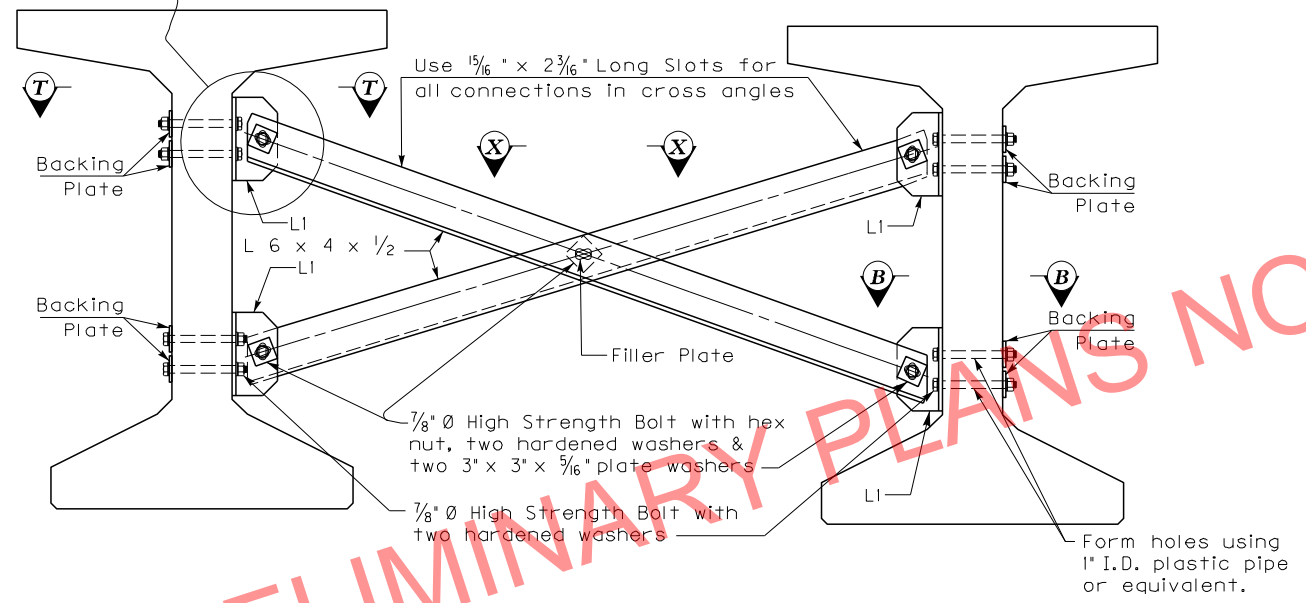
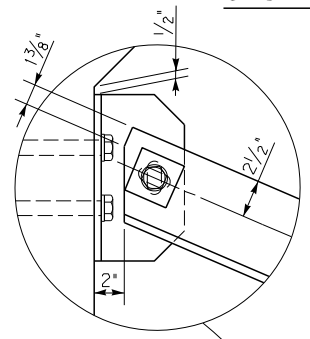
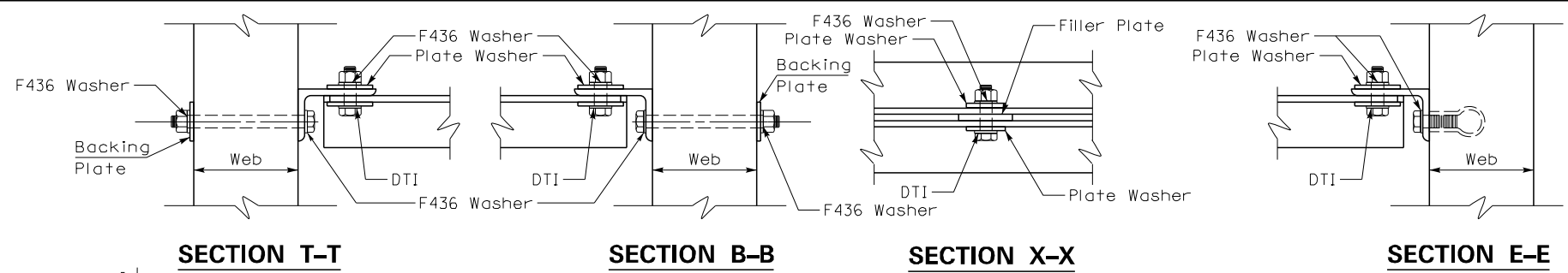
REVISION		DATE
DATE: June, 2016		CHECKED BY:
DESIGNED BY: B.C. REID		W.D. BURTON
DETAILED BY: W.R. ABBOTT		B.C. REID
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
RAIL SYSTEM TYPE 3		
ITEM NUMBER 10-126.70		PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY
SHEET NO. S33		DRAWING NO. 27077

FILE NAME: I:\LEX\PRJ\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\S27077.034.DGN

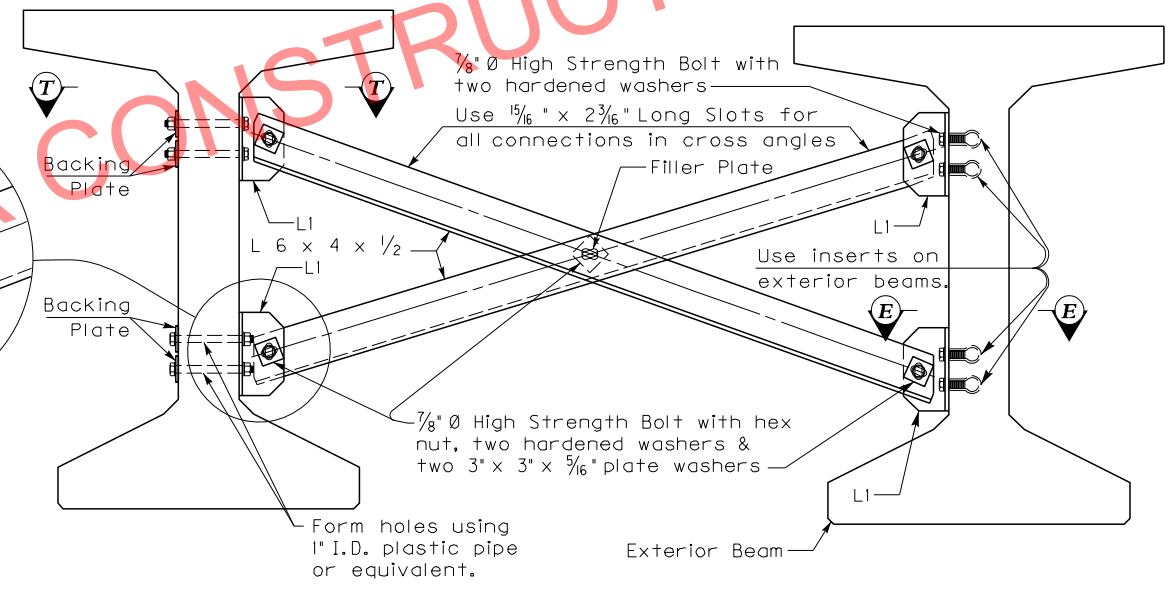
USER: dsmitthson
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.459



INTERMEDIATE DIAPHRAGM DETAILS BETWEEN INTERIOR BEAMS
~Typical for Skewed Bridges~



INTERMEDIATE DIAPHRAGM DETAILS BETWEEN OUTMOST BEAMS
~Typical for Skewed Bridges~

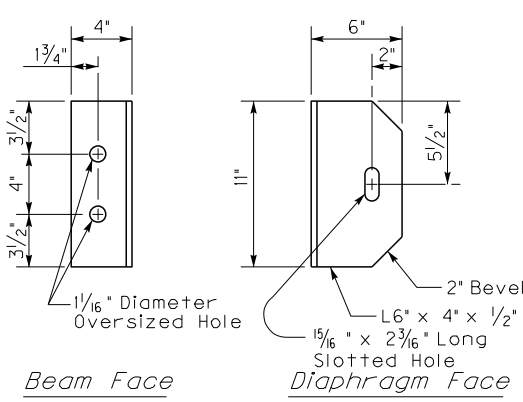
Diaphragm Notes

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. ASTM A449 bolts may be used in lieu of A325 for the bolts carried through the girder webs only.

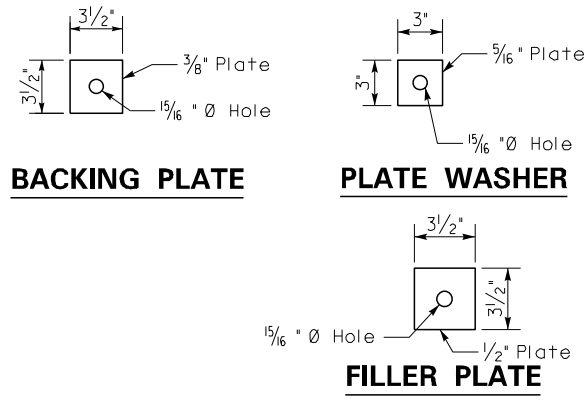
STRUCTURAL STEEL: Ensure plates and angles conform to ASTM A36 or A572 and galvanized after fabrication.

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 Bridge Consultant 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.



CLIP ANGLE - L1



ITEM NUMBER	10-126.70
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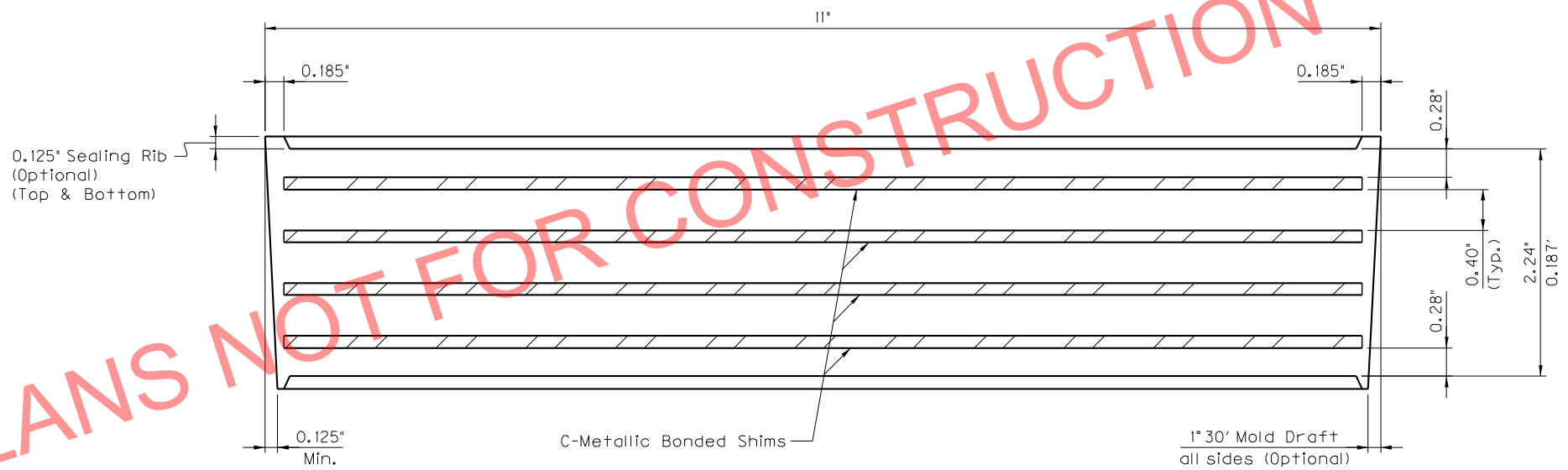
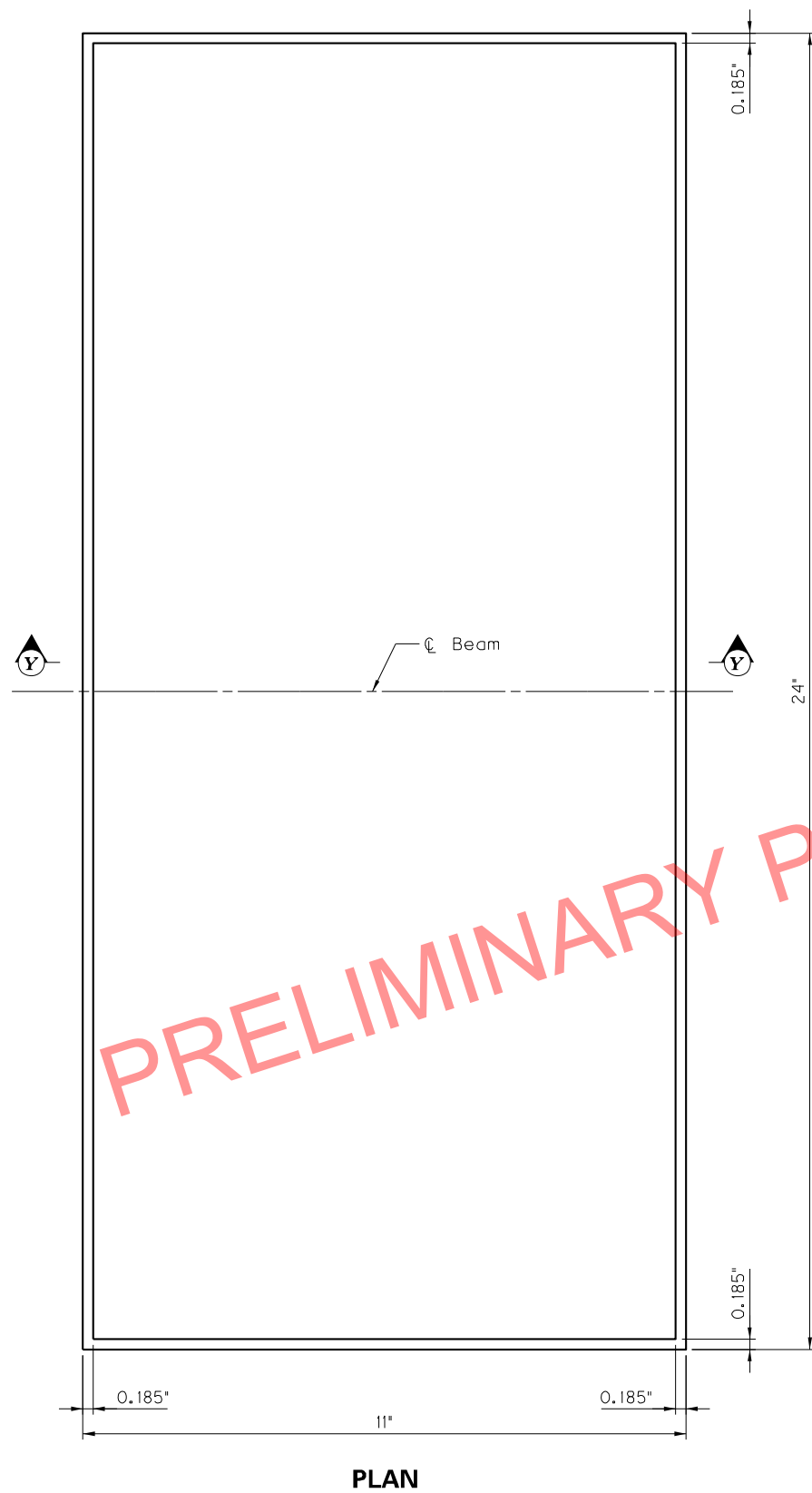
REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: D.M. SMITHSON B.C. REID		
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
STEEL DIAPHRAGMS		
PREPARED BY LOCHNER		SHEET NO. S34
H.W. LOCHNER, INC. LEXINGTON, KENTUCKY		DRAWING NO. 27077

FILE NAME: I:\LEX\PRJ\0008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27077\S27077_035.DGN

USER: dsmitthson
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.459



PRELIMINARY PLANS NOT FOR CONSTRUCTION

GENERAL NOTES

SPECIFICATIONS: Fabricate the Elastomeric Bearing Pads to the design and dimensions as shown on these drawings and to AASHTO LRFD Bridge Construction Specifications, Section 18.

Ensure bearings are low temperature Grade 3 with durometer hardness of 50 and subjected to the load testing requirements corresponding to Design Method A.

Include the price of bearing pads in the bid for the beams.

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: W.R. ABBOTT	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING KY 205	
ELASTOMERIC BEARING PADS		
ITEM NUMBER	PREPARED BY	SHEET NO.
10-126.70	LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	S35 DRAWING NO. 27077