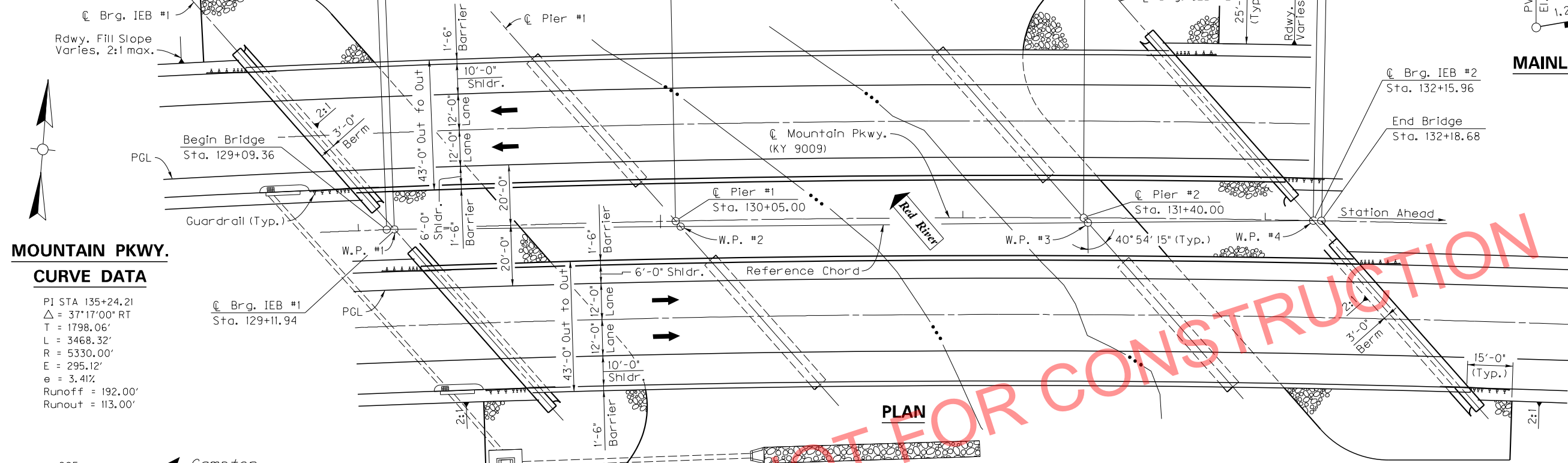


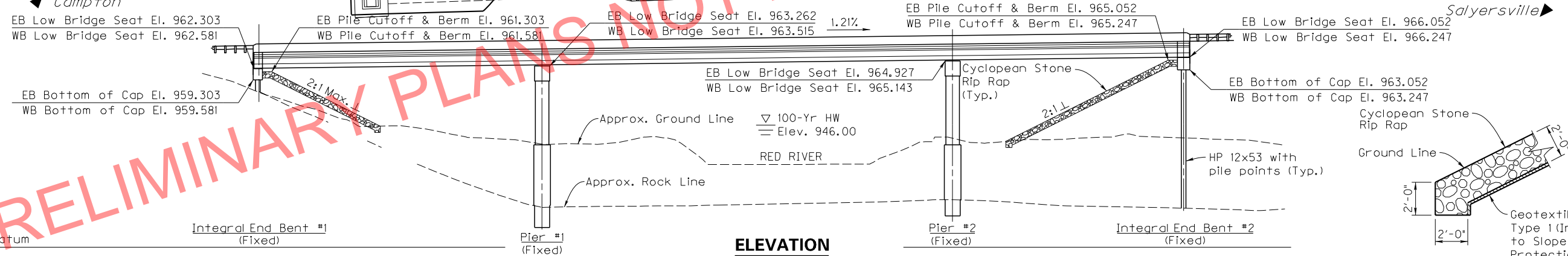
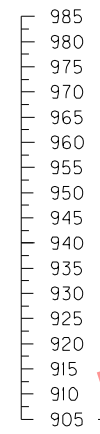
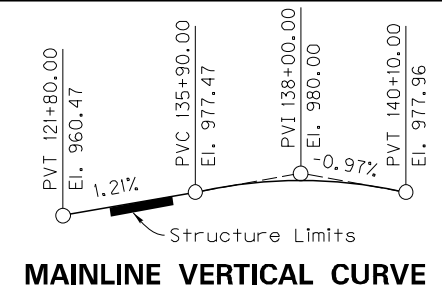
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 USER: breid
 DATE PLOTTED: October 11, 2016
 E-SHEET NAME: MicroStation v8.11.9.714

Cyclopean Stone Rip Rap with Type I Geotextile Fabric (Typ.)
 Rdwy. Fill Slope Varies, 2:1 max.
 Brg. IEB #1



MOUNTAIN PKWY. CURVE DATA

PI STA 135+24.21
 Δ = 37°17'00" RT
 T = 1798.06'
 L = 3468.32'
 R = 5330.00'
 E = 295.12'
 e = 3.41%
 Runoff = 192.00'
 Runout = 113.00'

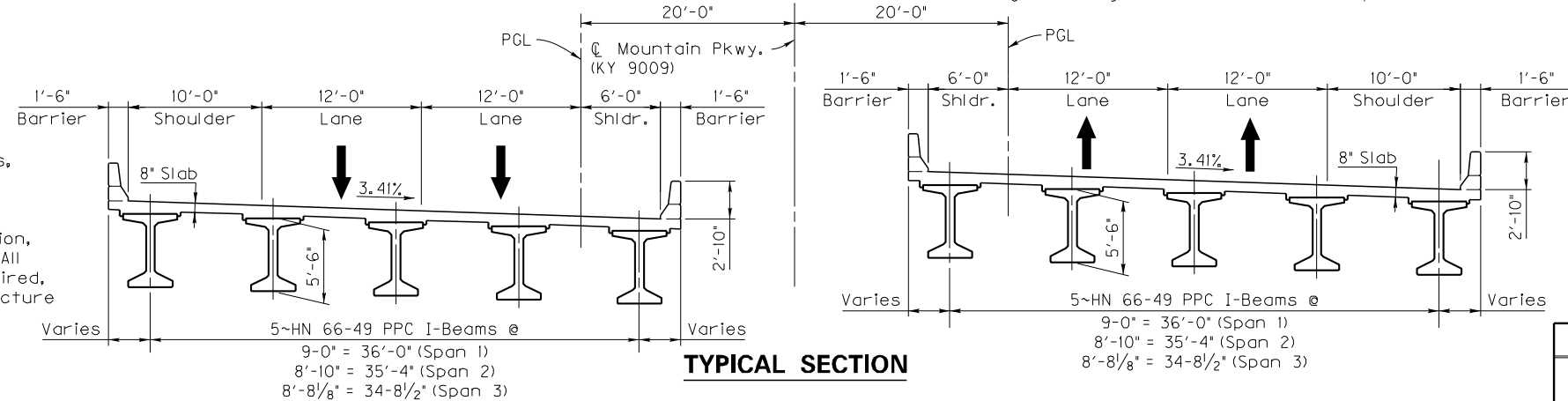


TOE OF SLOPE DETAIL

REVISION	DATE

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

- 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.

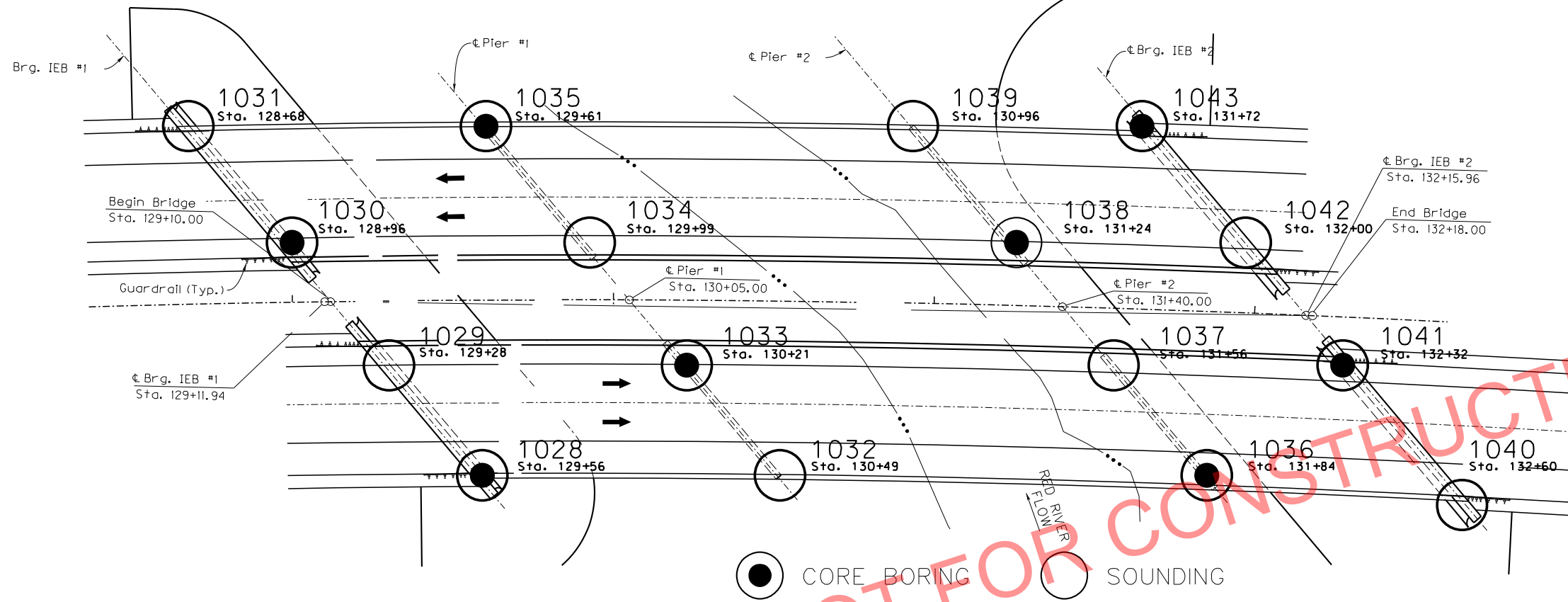


ITEM NUMBER
10-126.70

Commonwealth of Kentucky
 DEPARTMENT OF HIGHWAYS
 COUNTY
WOLFE-MORGAN
 ROUTE
 KY 9009
 CROSSING
 RED RIVER
LAYOUT
 PREPARED BY
LOCHNER
 H.W. LOCHNER, INC.
 LEXINGTON, KENTUCKY
 SHEET NO.
S3
 DRAWING NO.
27079

SUBSURFACE DATA

Plan Scale 1" = 10'



● CORE BORING ○ SOUNDING

END BENT #1
APPROXIMATE ROADWAY GRADE ELEV. = 969.29

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

1031
128+68.00
56.0' Lt.
947.57

1030
128+96.00
20.0' Lt.
948.97

1029
129+28.00
20.0' Rt.
960.5

1028
129+56.00
56.0' Rt.
962.00

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

PRELIMINARY PLANS NOT FOR CONSTRUCTION

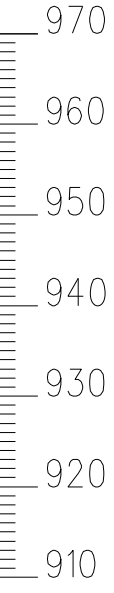
Hole No.	Station	Offset	Elev.	W%	LI	D50	D95	SDI (JS)	Description
942.8				12		0.121	1.933		N-60/0.60', A-4(0), SM, S+C-41(28+13)
				15	75			82 (6)	(944.47 - 942.47) Weathered siltstone, red to gray, planar partings
				87	100			99 (6)	(942.47 - 939.5) Siltstone, fine grains, mica, gray, planar partings, angled parting at 939.9
				86	94				(939.5 - 934.9) Siltstone, fine grains, mica, gray (934.9 - 934.5) Shale, dark gray

Top of rock elev. = 944.47
Base of weathered rock elev. = 942.47

W%	LI	D50	D95	SDI (JS)	Description
14		0.172	1.742		N=31, A-2-4(0), SM, S+C=35(18+17)
90	REC			16 (1)	(957.5 - 953.5) Weathered siltstone, red to gray
				98 (6)	(953.5 - 947.5) Siltstone, fine to medium grains, mica, iron staining 949.9 - 948.7, gray, planar partings

Top of rock elev. = 957.5
Base of weathered rock elev. = 953.5

FILE NAME: I:\LEX\PR\A00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL - REV 10-11-16\S27079_004.DGN
USER: breid
DATE PLOTTED: October 11, 2016
E-SHEET NAME:
MicroStation v8.11.9.714



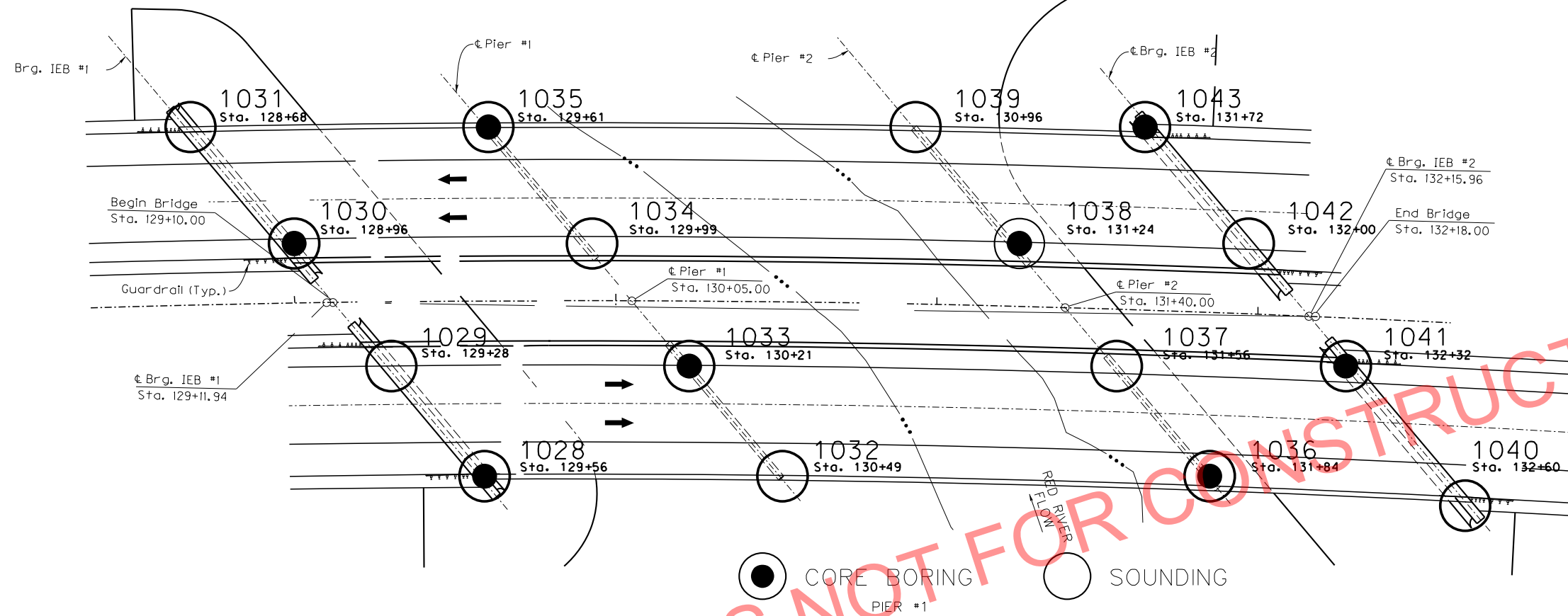
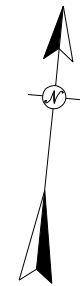
REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY:		
DETAILED BY: S. ANDREWS	J. GODFREY	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY WOLFEMORGAN		
ROUTE KY 9009	CROSSING Red River	
SUBSURFACE DATA		
PREPARED BY		SHEET NO.
K.S. WARE & ASSOCIATES, LLC		S4
DRAWING NO.		27079

SHEET 1 OF 4

S-020-2014
ITEM NUMBER
10-126.70

SUBSURFACE DATA

Plan Scale 1" = 10'



APPROXIMATE ROADWAY GRADE ELEV. = 970.38

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

1035
129+61.00
56.0' Lt.
939.10

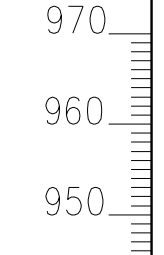
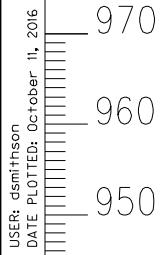
1034
129+99.00
20.0' Lt.
939.36

1033
130+21.00
20.0' Rt.
940.09

1032
130+49.00
56.0' Rt.
940.68

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

PRELIMINARY PLANS NOT FOR CONSTRUCTION



W%	LI	D50	D95	SDI (JS)	DESCRIPTION
28		0.117	1.362		A-4(0), SM, S+C=39(26+13)
31		0.022	0.352		N=4, A-4(0), ML, S+C=65(46+19)
29	1.10	0.179	1.762		N=3, A-2-4(0), SC, S+C=16(9+7)
30					N=4
70	95			52 (6)	(922.10 - 920.10) Weathered shale, silty with mica, light gray, planar partings
73	100			96 (6)	(920.10 - 917.10) Shale, silty with mica, gray, planar partings
82	100				(917.10 - 912.10) Shale, silty with mica, light to dark gray, planar partings, mechanical break at 915.8

Top of rock elev. = 922.1
Base of weathered rock elev. = 920.1

W%	LI	D50	D95	SDI (JS)	DESCRIPTION
21		0.090	0.419		A-4(0), SM, S+C=45(26+18)
27		0.158	0.388		N=2, A-2-4(0), SM, S+C=13(6+6)
22		0.120	1.784		N=9, A-4(0), SM, S+C=36
26		0.094	0.398		N=1, A-4(0), SM, S+C=43(27+16)
70	100			92 (4)	(921.29 - 919.29) Weathered shale, mica, light gray, planar partings
70	100			94 (6)	(919.29 - 918.09) Weathered shale, mica, iron staining at 918.39, light gray, planar partings
60	100				(918.09 - 911.29) Shale, mica, sandy intervals, gray

Top of rock elev. = 921.29
Base of weathered rock elev. = 918.09

MicroStation v8.11.9.459

USER: dsmitthson
DATE PLOTTED: October 11, 2016

FILE NAME: I:\LEX\PR\A00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27079\S27079_005.DGN

SHEET 2 OF 4

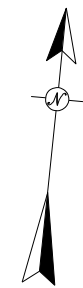
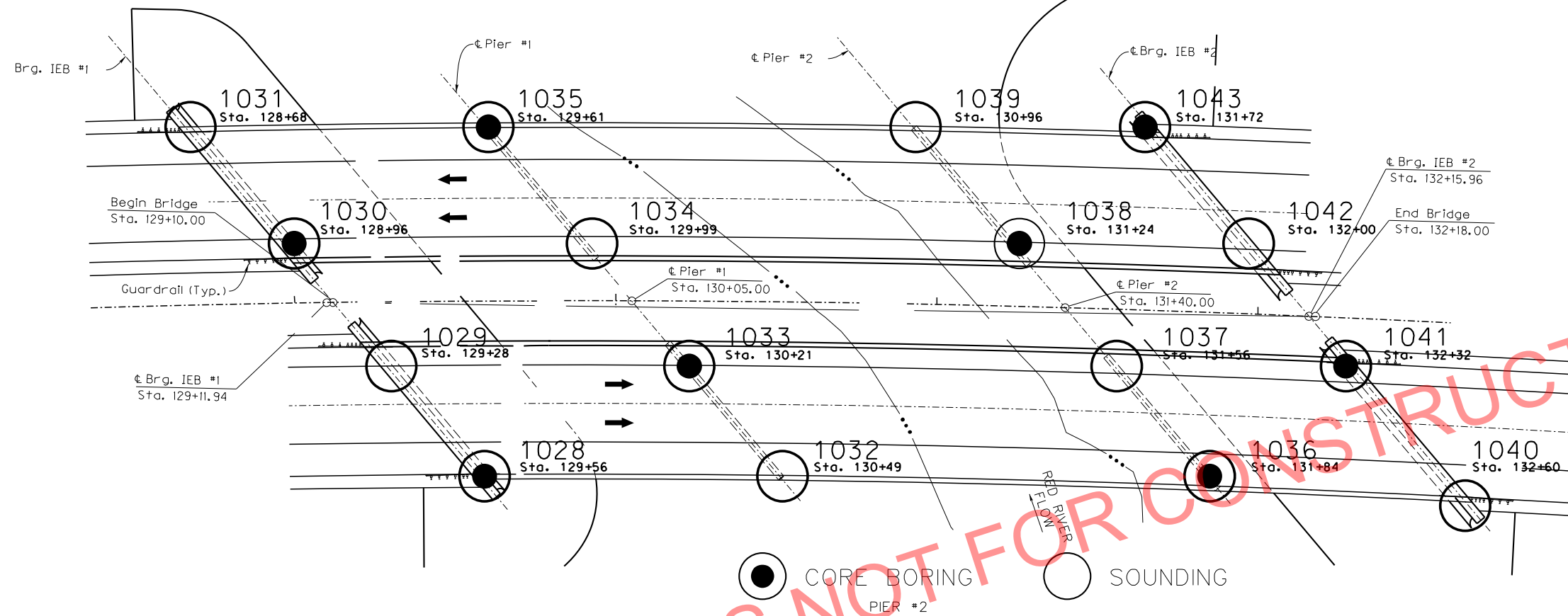
S-020-2014

ITEM NUMBER	10-126.70
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REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY:	J. GODFREY	
DETAILED BY: S. ANDREWS	J. GODFREY	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFEMORGAN		
ROUTE KY 9009	CROSSING Red River	
SUBSURFACE DATA		
PREPARED BY		SHEET NO.
K.S. WARE & ASSOCIATES, LLC		S5
		DRAWING NO.
		27079

SUBSURFACE DATA

Plan Scale 1" = 10'



PRELIMINARY PLANS NOT FOR CONSTRUCTION

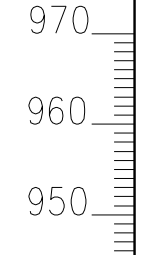
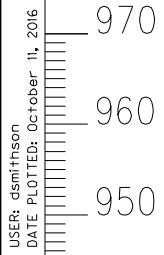
Hole No. 1039
Station 130+96.00
Offset 56.0' Lt.
Elev. 939.81
(NAVD 88 datum)

1038
131+24.00
20.0' Lt.
940.14

1037
131+56.00
20.0' Rt.
939.12

1036
131+84.00
56.0' Rt.
938.49

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



W%	LI	D50	D95	SDI (JS)
17				N=2, S+C=19(13+6)
21				N=3, A-2-4(0), SM, S+C=17(11+6)
30	0.147	0.385		
27	0.173	1.299		N=2 (921.44 - 920.24) Weathered shale, silt and mica, tan to gray (920.24 - 919.44) Weathered shale, fine grains, mica (919.44 - 916.44) Shale, sandy, mica, 96 (6) gray, planar partings, fossils (916.44 - 911.44) Shale, silty, mica, gray, planar partings, mechanical break at 911.64

W%	LI	D50	D95	SDI (JS)
42	0.009	0.246		A-4(0), ML, S+C=85(60+25)
42	2.71	0.011	0.353	N=2, A-4(5), ML, S+C=79(55+24)
36	0.094	1.595		N=5, A-4(0), SM, S+C=48(35+13)
63	0.152	2.498		N=5, S+C=37
36	1.95	0.025	1.248	N=57/0.90', A-4(3), ML, S+C=66(52+14)
96 (6)				(917.59 - 916.89) Weathered shale, tan to light gray (916.89 - 915.59) Shale, mica, gray, planar partings (915.59 - 907.59) Shale, fine grains, mica, gray to dark gray, planar partings, mechanical break at 907.79

Top of rock elev. = 921.44
Base of weathered rock elev. = 919.44

Top of rock elev. = 917.59
Base of weathered rock elev. = 915.59

MicroStation v8.11.9.459

E-SHEET NAME:
DATE PLOTTED: October 11, 2016
USER: dsmitthson

FILE NAME: I:\LEX\PRJ\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27079\S27079_006.DGN

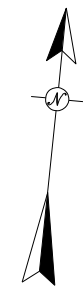
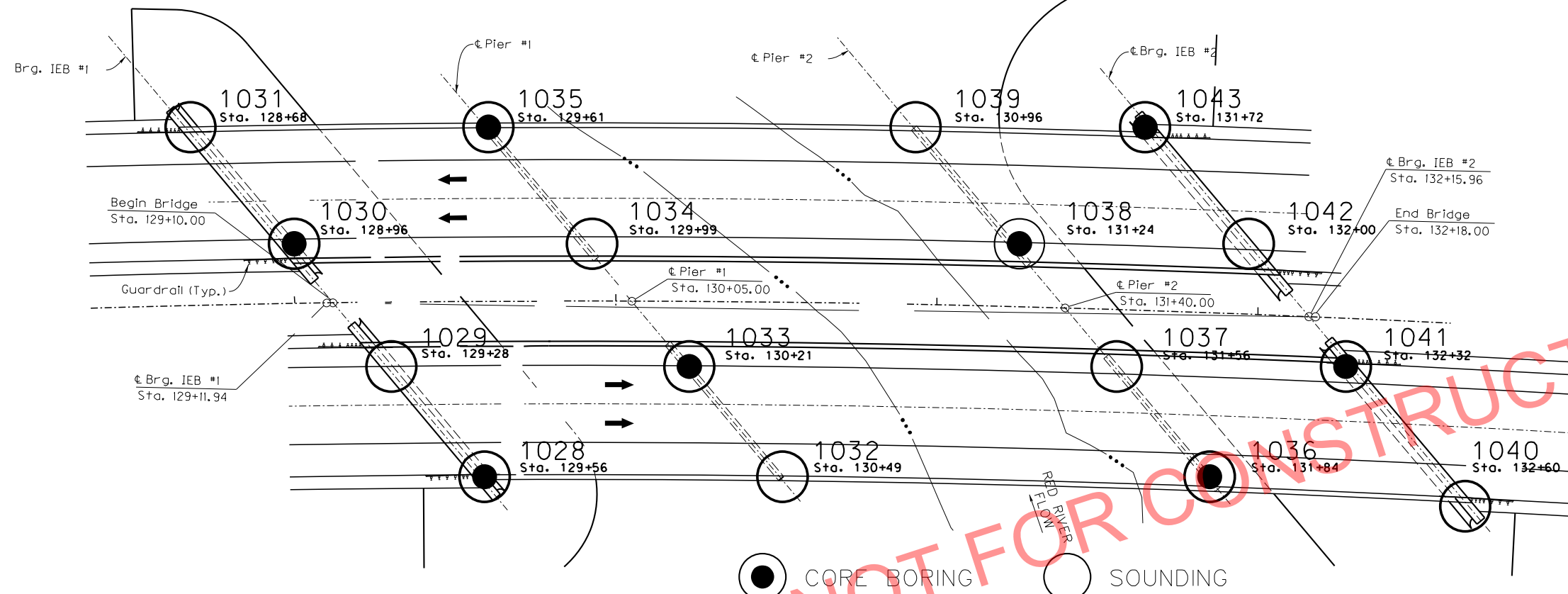
SHEET 3 OF 4

S-020-2014
ITEM NUMBER
10-126.70

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY:	J. GODFREY	
DETAILED BY: S. ANDREWS	J. GODFREY	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFEMORGAN		
ROUTE KY 9009	CROSSING Red River	
SUBSURFACE DATA		
PREPARED BY		SHEET NO.
K.S. WARE & ASSOCIATES, LLC		56
		DRAWING NO.
		27079

SUBSURFACE DATA

Plan Scale 1" = 10'



PRELIMINARY PLANS NOT FOR CONSTRUCTION

END BENT #2
APPROXIMATE ROADWAY GRADE ELEV. = 973.14

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

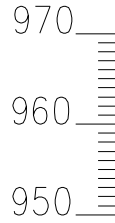
Hole No.
Station
Offset
Elev.
(NAVD 88
datum)

1043
131+72.00
56.0' Lt.
941.74

1042
132+00
20.0' Lt.
942.0

1041
132+32.00
20.0' Rt.
936.81

1040
132+60.00
56.0' Rt.
939.81



W%	LI	D50	D95	SDI (JS)	Notes
24		0.120	12.344		S+C=40(40+0)
25		0.164	0.457		N=3, A-2-4(0), SM, S+C=13(6+7)
27		-	-		N=0
25	1.03	0.014	0.320		N=5, A-4(1), ML, S+C=74(51+23)
21		0.121	1.438		N=17, A-4(0), SM, S+C=37(26+11)
0	75				(920.24 - 918.24) Weathered shale, fine grains, mica, light gray
40	100				(918.24 - 915.24) Shale, fine grains, mica, gray to dark gray, planar partings
62	100				(915.24 - 910.24) Shale, fine grains, sandy intervals, mica, gray to dark gray, planar partings

Top of rock elev. = 920.24
Base of weathered rock elev. = 918.24

W%	LI	D50	D95	SDI (JS)	Notes
59		0.146	1.389		N=0, A-2-4(0), SM, S+C=32(22+10)
32		0.094	1.314		N=3, A-4(0), SM, S+C=44(30+14)
24		0.229	13.183		N=7, A-2-4(0), SM, S+C=26(19+7)
16					(919.81 - 917.81) Weathered shale, fine grains, mica, light gray
0	93				95 (5) (917.81 - 916.81) Shale, silty, mica, fine gravel, light to dark gray
35	100				96 (6) (916.81 - 914.81) Shale, mica, fine gravel, gray, planar partings
72	100				(914.81 - 909.81) Shale, fine grained, mica, gray, planar partings

Top of rock elev. = 919.81
Base of weathered rock elev. = 917.81

REVISION	DATE

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

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY
WOLFEMORGAN

ROUTE
KY 9009
CROSSING
Red River
SUBSURFACE DATA
PREPARED BY
K.S. WARE & ASSOCIATES, LLC
SHEET NO.
S7
DRAWING NO.
27079

S-020-2014
ITEM NUMBER
10-126.70

SHEET 4 OF 4

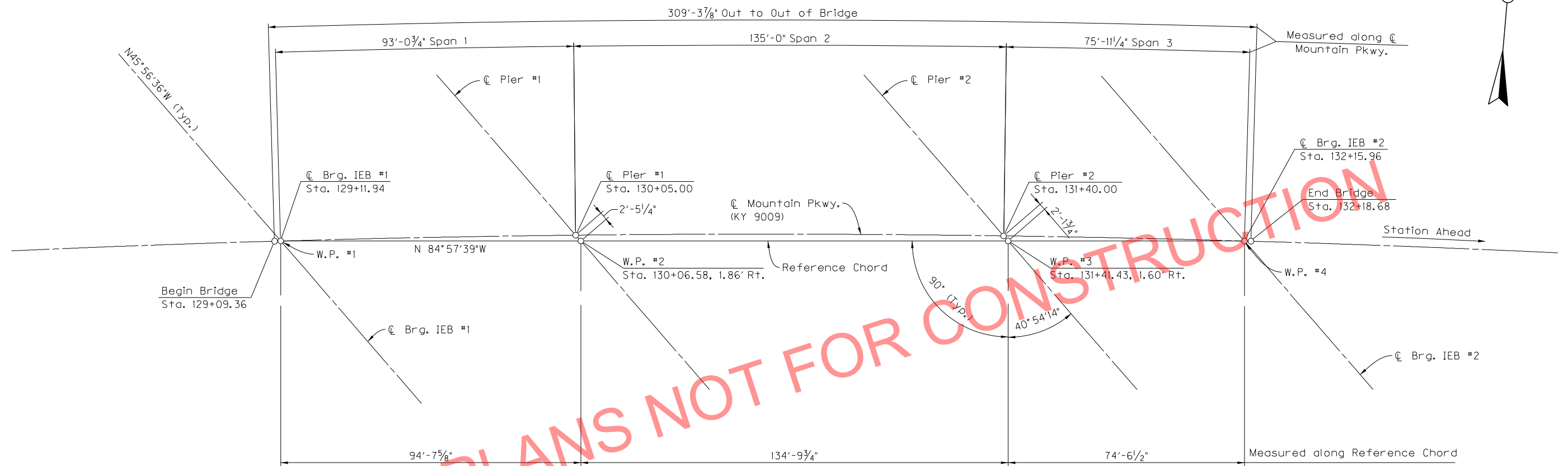
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USER: dsmitthson
DATE PLOTTED: October 11, 2016
E-SHEET NAME:
MicroStation v8.11.9.459

FILE NAME: I:\LEX\PRJ\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27079\S27079_008.DGN

USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.714



PRELIMINARY PLANS NOT FOR CONSTRUCTION

GEOMETRIC LAYOUT

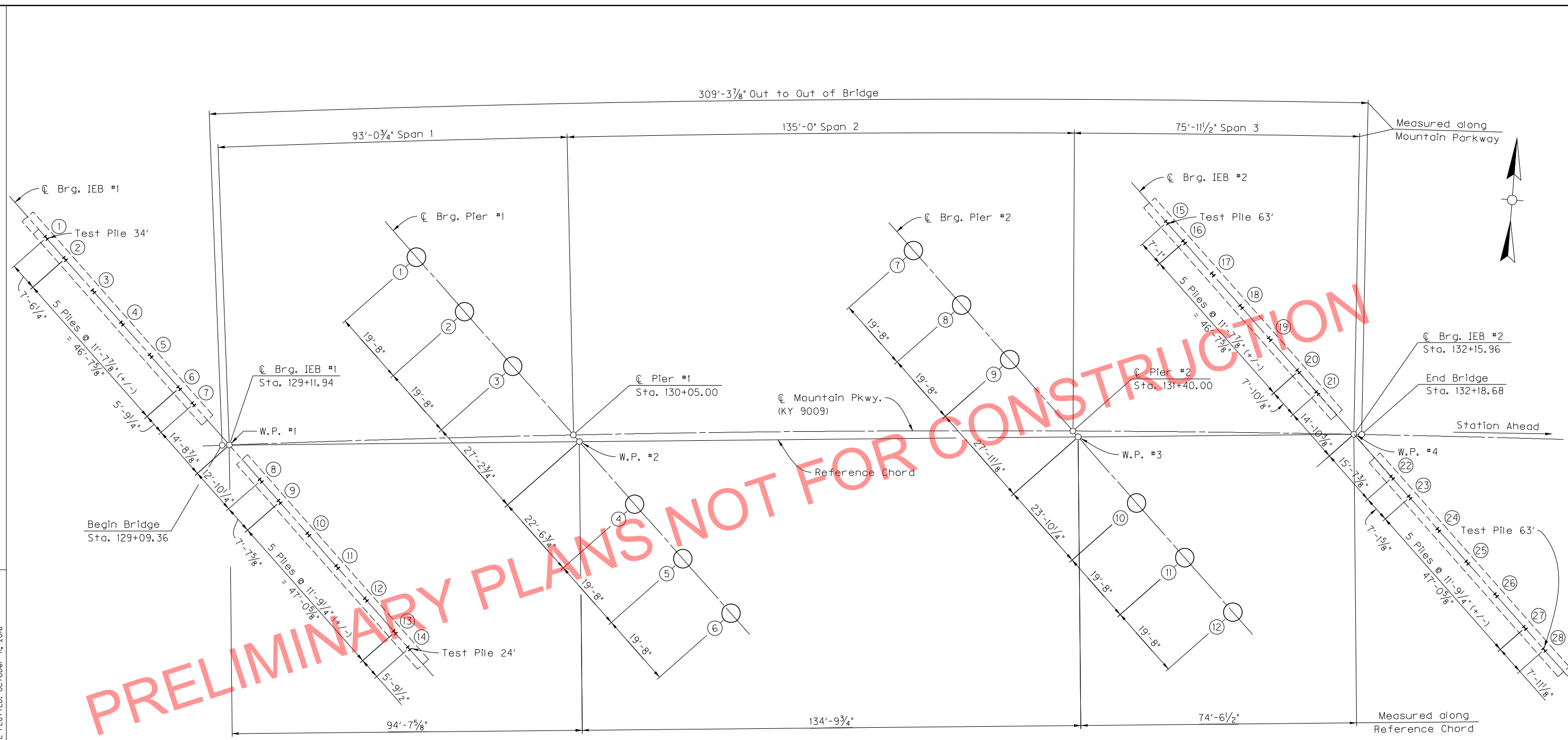
REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: D.M. SMITHSON	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY WOLFE-MORGAN		
ROUTE KY 9009	CROSSING RED RIVER	
GEOMETRIC LAYOUT		
ITEM NUMBER	PREPARED BY	SHEET NO.
10-126.70	LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	S8 DRAWING NO. 27079

FILE NAME: I:\LEX\PRJ\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27079\S27079_009.DGN

USER: dsmitthson
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.459



PRELIMINARY PLANS NOT FOR CONSTRUCTION

PLAN

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: W.D. BURTON	B.C. REID	
DETAILED BY: D.M. SMITHSON	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING RED RIVER	
FOUNDATION LAYOUT (1 of 2)		
PREPARED BY	SHEET NO.	
LOCHNER	S9	
H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	DRAWING NO. 27079	

ITEM NUMBER
10-126.70

FILE NAME: I:\LEX\PRJ\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27079\S27079_010.DGN

USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.714

Pile Record for Point Bearing Piles - IEB #1				
Pile No.	Pile Cut-off Elevation (Feet)	Pile Length in Place (Feet)	Point of Pile Elevation as Driven (Feet)	Design Axial Load (Tons)
1	961.581			121
2	961.581			121
3	961.581			121
4	961.581			121
5	961.581			121
6	961.581			121
7	961.581			121
8	961.303			121
9	961.303			121
10	961.303			121
11	961.303			121
12	961.303			121
13	961.303			121
14	961.303			121

Pile Record for Point Bearing Piles - IEB #2				
Pile No.	Pile Cut-off Elevation (Feet)	Pile Length in Place (Feet)	Point of Pile Elevation as Driven (Feet)	Design Axial Load (Tons)
15	965.247			121
16	965.247			121
17	965.247			121
18	965.247			121
19	965.247			121
20	965.247			121
21	965.247			121
22	965.052			121
23	965.052			121
24	965.052			121
25	965.052			121
26	965.052			121
27	965.052			121
28	965.052			121

Drilled Shaft Record										
Drill Shaft No.	Top of Drilled Shaft Common Elevation (Design)	Top of Drilled Shaft Common Elevation (Actual)	Top of Drilled Shaft Solid Rock Elevation (Design)	Top of Drilled Shaft Solid Rock Elevation (Actual)	Bottom of 66" Steel Casing Elevation (Design)	Bottom of 66" Steel Casing Elevation (Actual)	Bottom of Drilled Shaft Solid Rock Elevation (Design)	Bottom of Drilled Shaft Solid Rock Elevation (Actual)	Total Length of Drilled Shaft Common	Total Length of Drilled Shaft Solid Rock
PIER #1										
1	938.600		919.00		919.00		911.00			
2	938.600		919.00		919.00		911.00			
3	938.600		919.00		919.00		911.00			
4	938.600		919.00		919.00		911.00			
5	938.600		919.00		919.00		911.00			
6	938.600		919.00		919.00		911.00			
PIER #2										
7	938.600		917.000		917.000		909.000			
8	938.600		917.000		917.000		909.000			
9	938.600		917.000		917.000		909.000			
10	938.600		917.000		917.000		909.000			
11	938.600		917.000		917.000		909.000			
12	938.600		917.000		917.000		909.000			

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

At End Bent 1, a hammer with rated energy of about 23 kips-ft will be required to drive the H-piles to practical refusal without encountering excessive blow counts or overstressing the piles. At End Bent 2, a hammer with rated energy between 23 and 40 kips-ft will be required to 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 Merca 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.

Pre-drilling for Piles

Due to the presence of a sloping rock line, pre-drilling will be necessary for pile installation at the east bound End Bent 1 (Station 129+56, 56 ft RT and Station 129+28, 20 ft RT). Holes will need to be drilled into solid rock in order to ensure minimum embedment. The holes shall be drilled to an elevation of 952 feet at east bound End Bent 1. If the rock line is encountered below these elevations then predrilling shall continue until the pile bears on solid rock but drilling into bedrock will not be required. Backfill the holes with sand or pea gravel after the pile is placed in the hole. A temporary casing will be required to prevent collapse of the hole. Remove the casing as the hole is being backfilled. Drive piles to practical refusal after backfill operations are complete. Include the cost of all materials, labor, and equipment needed to pre-drill, backfill the holes, and drive the piles to refusal in the price per linear foot "Pre-drilling for Piles."

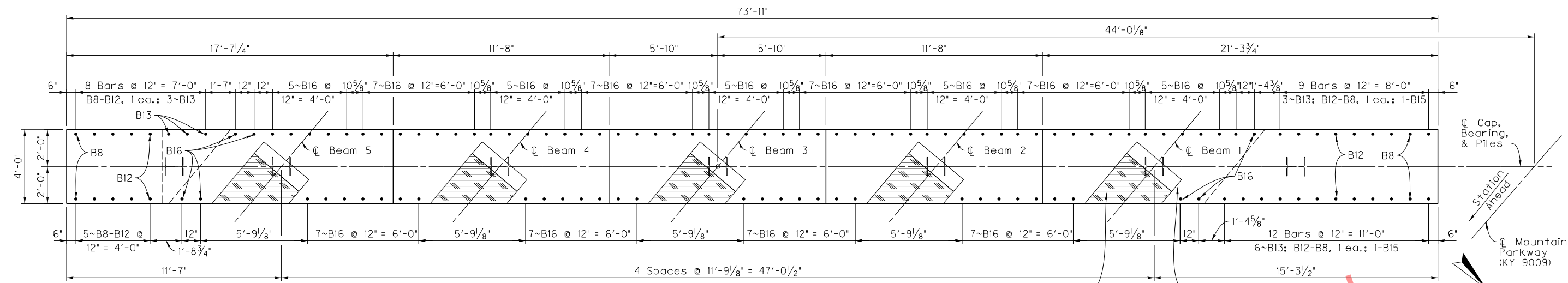
Slope Protection

Slope protection will be required at the bridge meeting the requirements of sections 703 and 805 of the Standard Specifications of Road and Bridge Construction, current edition. The limits, size, and thickness of the slope protection shall be as specified in HEC 23. Place a Type I Geotextile Fabric, in accordance with Sections 214 and 843 of the Standard Specifications of Road and Bridge Construction, current edition, between the embankment and the slope protection.

Drilled Shaft Foundations For Piers
 See Sheets S16-S18 for Drilled Shaft Notes.

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: W.D. BURTON	B.C. REID	
DETAILED BY: D.M. SMITHSON	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING RED RIVER	
FOUNDATION LAYOUT (2 of 2)		
ITEM NUMBER		SHEET NO.
10-126.70		\$10
PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY		DRAWING NO. 27079

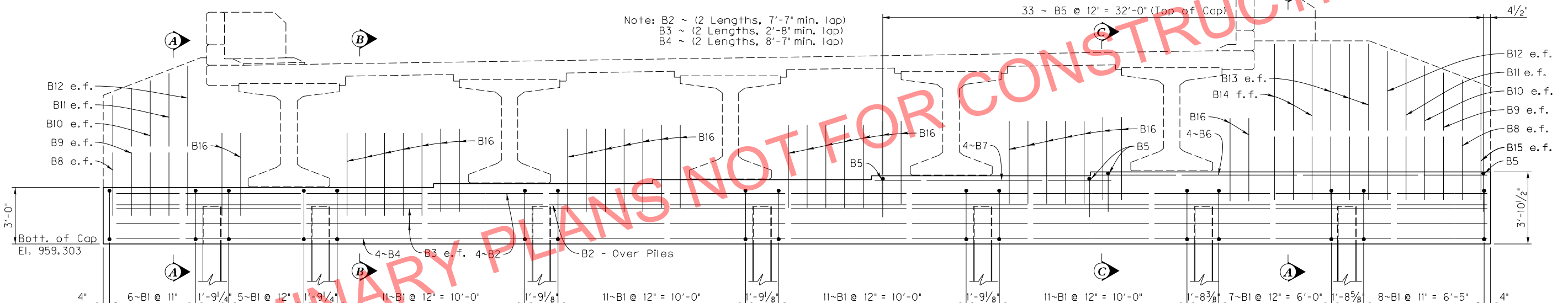
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 DATE PLOTTED: October 11, 2016
 E-SHEET NAME: MicroStation v8.11.9.714



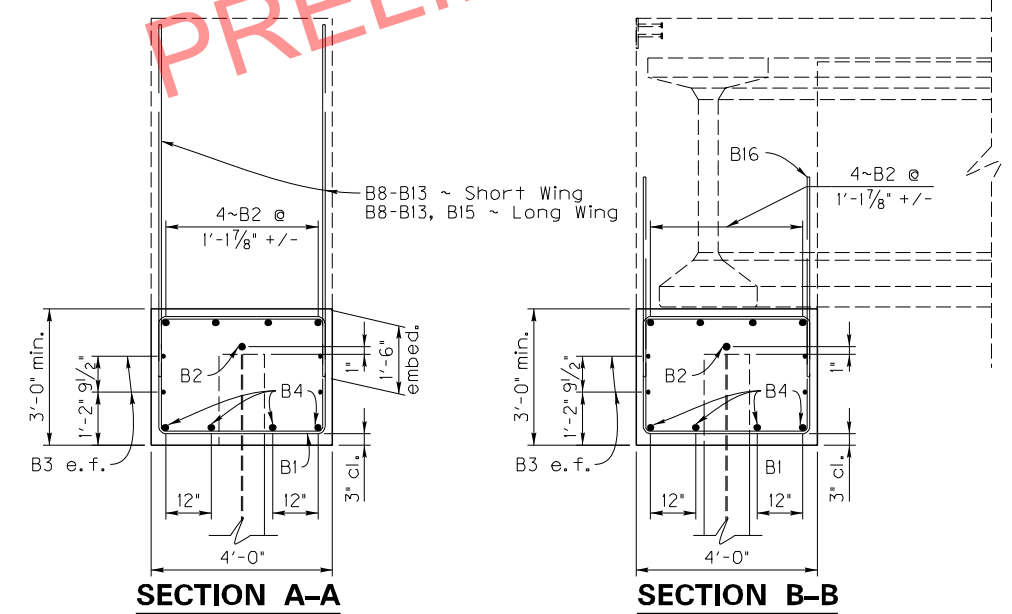
CAP PLAN

1/2" x 3'-2" Cork or Styrofoam (Typ. each Beam)
 1/2"x10"x3'-2" Lead Plate (Typ. each Beam)
 33 ~ B5 @ 12" = 32'-0" (Top of Cap)

Note: B2 ~ (2 Lengths, 7'-7" min. lap)
 B3 ~ (2 Lengths, 2'-8" min. lap)
 B4 ~ (2 Lengths, 8'-7" min. lap)



ELEVATION - Showing Cap and Dowel Reinforcement
 (Looking Back Station)

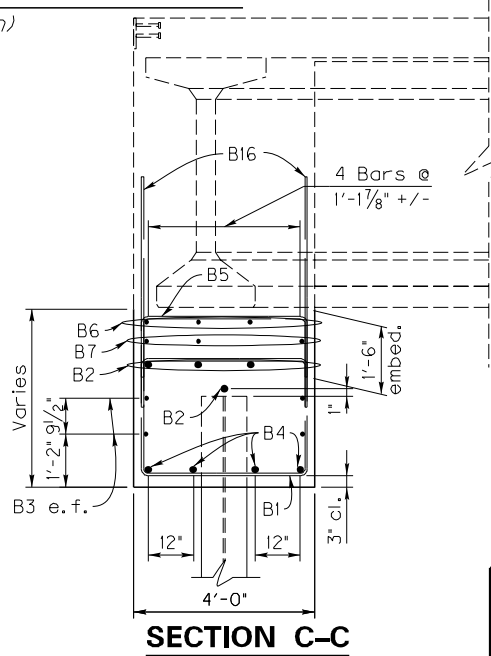


SECTION A-A

SECTION B-B

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".



SECTION C-C

TABLE OF BEARINGS	
Point	Elevation
Beam 1	963.176
Beam 2	962.956
Beam 3	962.738
Beam 4	962.520
Beam 5	962.303

ITEM NUMBER	10-126.70
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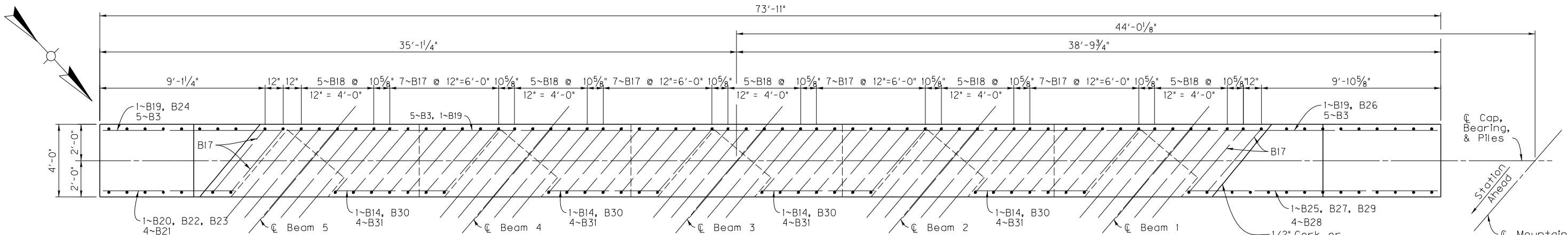
REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: W.D. BURTON	B.C. REID	
DETAILED BY: L.T. GRAVES	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING RED RIVER	
INTEGRAL END BENT 1-EB		
PREPARED BY LOCHNER H. W. LOCHNER, INC. LEXINGTON, KENTUCKY		SHEET NO. S11 DRAWING NO. 27079

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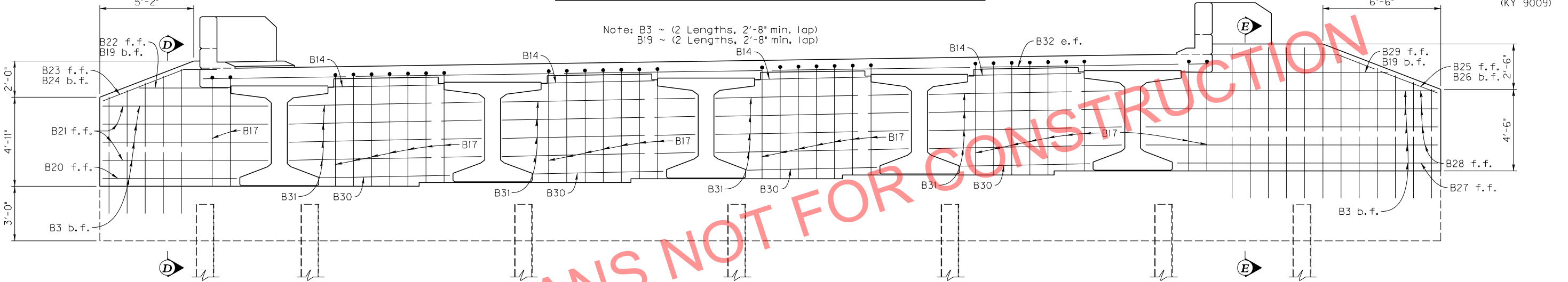
USER: LGRAVES
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.655

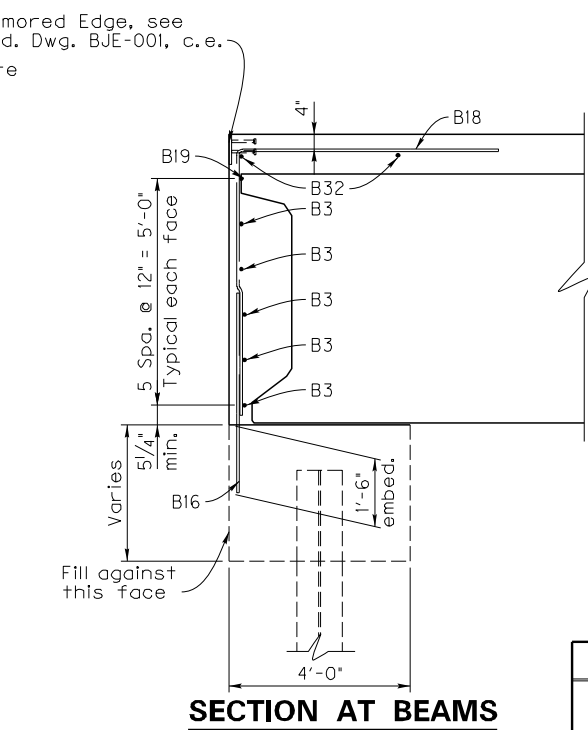
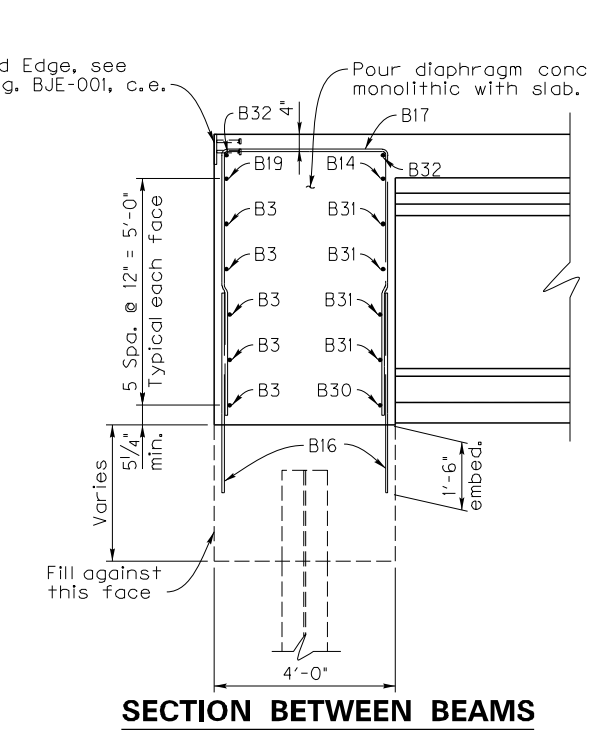
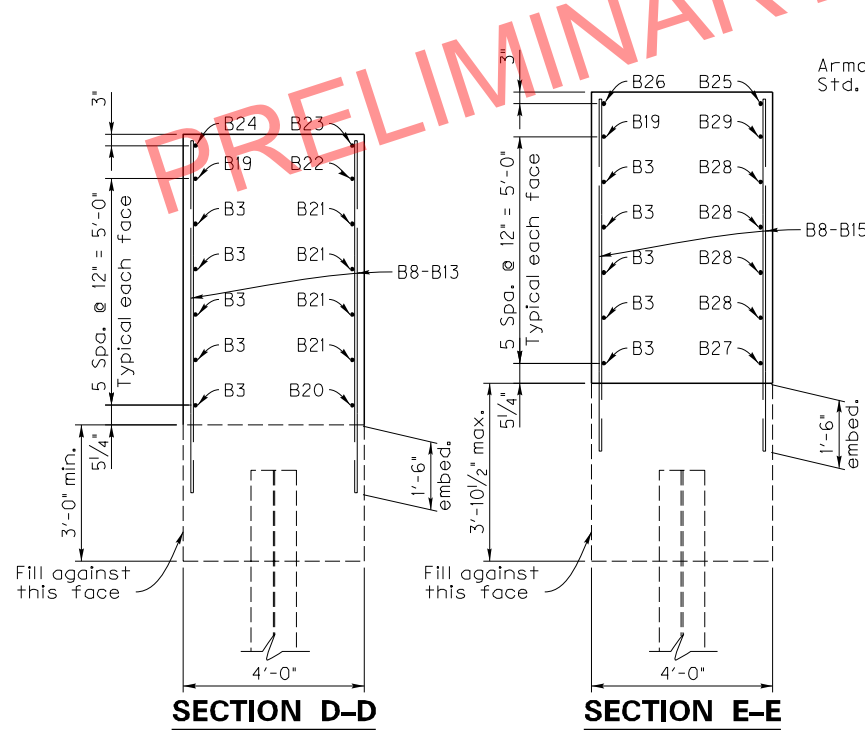


PLAN - Showing Diaphragm and Wing Reinforcement



ELEVATION - Showing Diaphragm and Wing Reinforcement

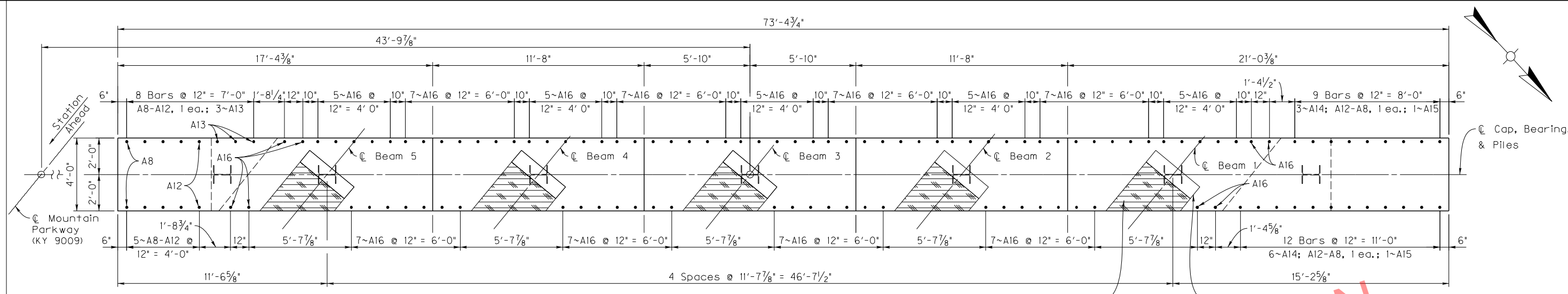
(Looking Back Station)



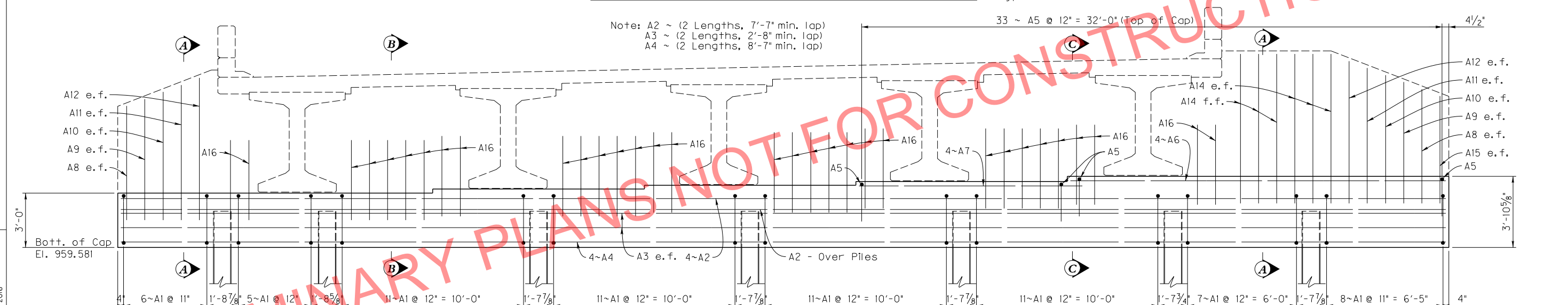
NOTE:
1. All diaphragm concrete shall be Class "AA".

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: W.D. BURTON	B.C. REID	
DETAILED BY: L.T. GRAVES	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING RED RIVER	
INTEGRAL END BENT 1-EB		
ITEM NUMBER	PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	SHEET NO. S12 DRAWING NO. 27079
10-126.70		

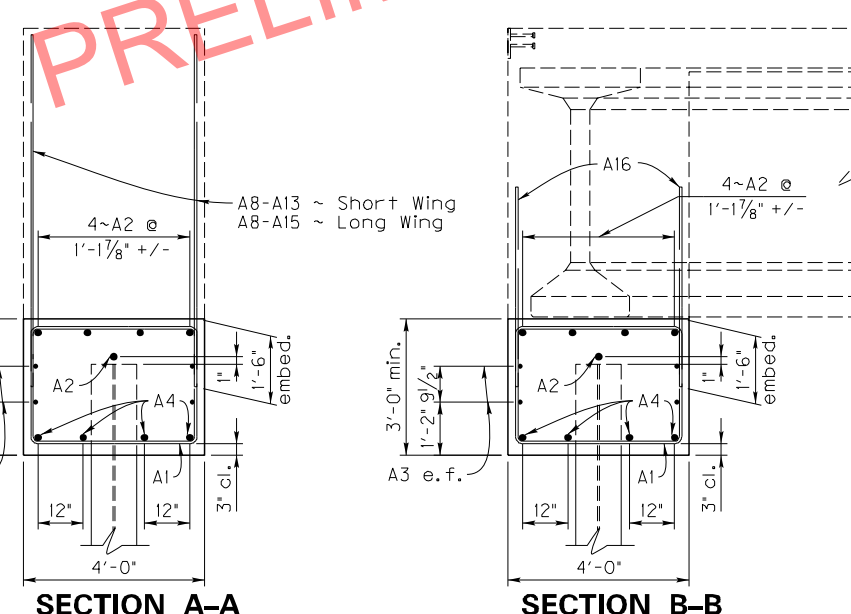
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 USER: breid
 DATE PLOTTED: October 11, 2016
 E-SHEET NAME: E-11.9.714
 MicroStation v8.11.9.714



PLAN - Showing Cap and Dowel Reinforcement



ELEVATION - Showing Cap and Dowel 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".

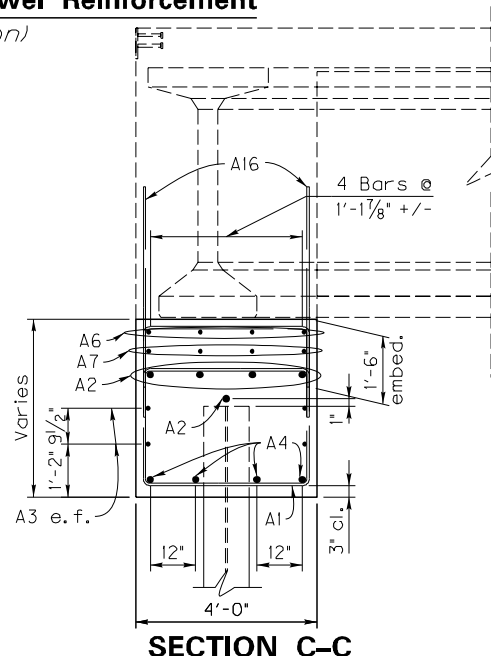


TABLE OF BEARINGS	
Point	Elevation
Beam 1	963.466
Beam 2	963.244
Beam 3	963.022
Beam 4	962.801
Beam 5	962.581

ITEM NUMBER
10-126.70

REVISION		DATE

DATE: June, 2016
 DESIGNED BY: W.D. BURTON
 CHECKED BY: B.C. REID
 DETAILED BY: L.T. GRAVES

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
 COUNTY
WOLFE-MORGAN

ROUTE **KY 9009** CROSSING **RED RIVER**

INTEGRAL END BENT 1-WB

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

SHEET NO. **S13**
 DRAWING NO. **27079**

FILE NAME: I:\LEX\PR\A00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27079\S27079_015.DGN

USER: LGRAVES
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.655

Westbound

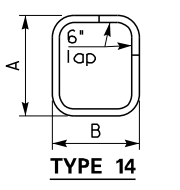
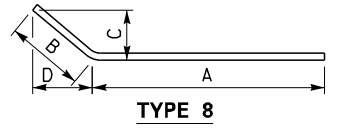
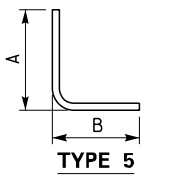
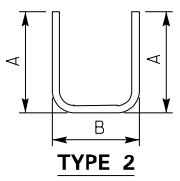
BILL OF REINFORCEMENT - Int. Bent #1

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B	C	D
A1e	14s	70	5	13- 6	Cap	2- 7	3- 8		
A2e	Str.	10	8	40- 4	Cap				
A3e	Str.	18	5	37-11	Cap and Diaphragm				
A4e	Str.	8	9	40-10	Cap				
A5e	2s	33	5	7- 8	Cap	2- 0	3- 8		
A6e	Str.	4	5	20- 9	Cap				
A7e	Str.	4	5	12- 3	Cap				
A8e	Str.	4	5	6- 3	Cap into Wing				
A9e	Str.	4	5	6- 8	Cap into Wing				
A10e	Str.	4	5	7- 0	Cap into Wing				
A11e	Str.	4	5	7- 5	Cap into Wing				
A12e	Str.	4	5	7-10	Cap into Wing				
A13e	Str.	3	5	8- 1	Cap into Wing				
A14e	Str.	9	5	8- 2	Cap into Wing				
A15e	Str.	2	5	5-11	Cap into Wing				
A16e	Str.	89	5	4- 5	Cap into Diaphragms				
A17e	2s	32	5	16-10	Diaphragm	6- 1	4- 8		
A18e	5s	25	5	12- 6	Diaphragm over Beams	6- 1	6- 5		
A19e	Str.	2	5	35- 3	Diaphragm				
A20e	Str.	1	5	7- 8	Short Wing				
A21e	Str.	4	5	9- 4	Short Wing				
A22e	Str.	1	5	5- 1	Short Wing				
A23e	8	1	6	6- 8	Short Wing	5- 1	1- 7	0- 6 7/8	1- 5 3/4
A24e	8	1	6	9- 5	Short Wing	5- 1	4- 4	1- 6 3/4	4- 0 1/2
A25e	8	1	6	13- 3	Long Wing	6- 3	7- 0	2- 6 1/8	6- 6 3/8
A26e	8	1	6	10- 6	Long Wing	6- 3	4- 3	1- 6 1/4	3-11 5/8
A27e	Str.	1	5	14- 2	Long Wing				
A28e	Str.	4	5	15-11	Long Wing				
A29e	Str.	1	5	10- 8	Long Wing				
A30e	Str.	4	5	7- 2	Diaphragm				
A31e	Str.	16	5	10- 7	Diaphragm				
A32e	Str.	4	5	6- 2	Diaphragm				
A33e	Str.	2	5	55- 3	Diaphragm				

Eastbound

BILL OF REINFORCEMENT - Int. Bent #1

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B	C	D
B1e	14s	70	5	13- 6	Cap	2- 7	3- 8		
B2e	Str.	10	8	40- 7	Cap				
B3e	Str.	18	5	38- 2	Cap and Diaphragm				
B4e	Str.	8	9	41- 1	Cap				
B5e	2s	33	5	7- 8	Cap	2- 0	3- 8		
B6e	Str.	4	5	21- 0	Cap				
B7e	Str.	4	5	12- 8	Cap				
B8e	Str.	4	5	6- 5	Cap into Wing				
B9e	Str.	4	5	6- 9	Cap into Wing				
B10e	Str.	4	5	7- 2	Cap into Wing				
B11e	Str.	4	5	7- 7	Cap into Wing				
B12e	Str.	4	5	7-11	Cap into Wing				
B13e	Str.	12	5	8- 3	Cap into Wing				
B14e	Str.	4	5	6- 2	Diaphragm				
B15e	Str.	2	5	6- 0	Cap into Wing				
B16e	Str.	89	5	4- 5	Cap into Diaphragms				
B17e	2s	32	5	16-11	Diaphragm	6- 1	4- 9		
B18e	5s	25	5	12- 7	Diaphragm over Beams	6- 1	6- 6		
B19e	Str.	2	5	35- 8	Diaphragm				
B20e	Str.	1	5	7- 7	Short Wing				
B21e	Str.	4	5	9- 4	Short Wing				
B22e	Str.	1	5	5- 2	Short Wing				
B23e	8	1	6	6- 7	Short Wing	4- 9	1-10	0- 8	1- 8 1/2
B24e	8	1	6	9- 6	Short Wing	4- 9	4- 9	1- 8 1/2	4- 5
B25e	8	1	6	13- 4	Long Wing	5-11 1/2	7- 4 1/2	2- 7 1/8	6-10 3/4
B26e	8	1	6	10- 6	Long Wing	5-11 1/2	4- 6 1/2	1- 7 1/2	4- 2 5/8
B27e	Str.	1	5	14- 3	Long Wing				
B28e	Str.	4	5	16- 0	Long Wing				
B29e	Str.	1	5	11- 1	Long Wing				
B30e	Str.	4	5	7- 2	Diaphragm				
B31e	Str.	16	5	10- 8	Diaphragm				
B32e	Str.	2	5	55- 9	Diaphragm				



PRELIMINARY PLANS NOT FOR CONSTRUCTION

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: W.D. BURTON	B.C. REID	
DETAILED BY: D.M. SMITHSON	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING RED RIVER	
INTEGRAL END BENT 1		
ITEM NUMBER	PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	SHEET NO. S15 DRAWING NO. 27079
10-126.70		

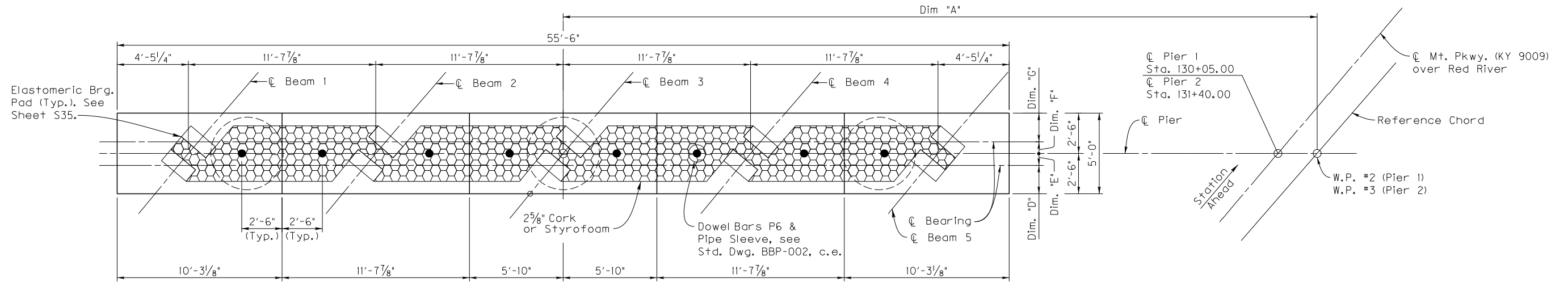
ITEM NUMBER	10-126.70
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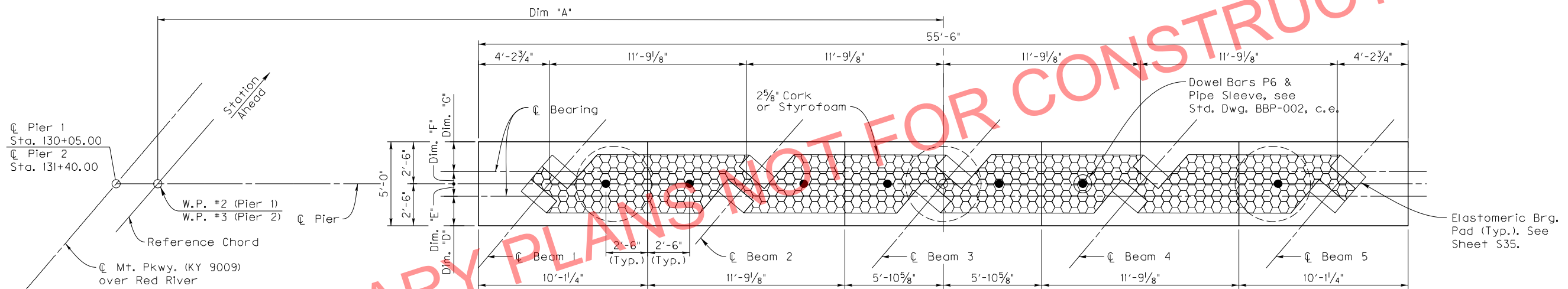
USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.714



PLAN OF CAP
Westbound Piers



PLAN OF CAP
Eastbound Piers

DRILLED SHAFT NOTES

1. Drilled shafts shall be constructed in accordance with the Special Note for Drilled Shafts, current edition. Include all costs (materials including spiral and longitudinal reinforcement, reinforcement splices and mechanical couplers, concrete and temporary or permanent casing, labor and equipment) associated with the drilled shafts in the unit price bid for Drilled Shaft, Common or Solid Rock, as applicable.
2. Permanent casing is required in the overburden. Permanent casing is incidental to the unit bid price for Drilled Shaft 66 in (Common).
3. The Contractor shall provide subsurface exploration borings at each drilled shaft location in accordance with the Special Note for Drilled Shafts, current edition. Rock Sounding and Rock Coring will be required at each shaft location. Payment will be based on actual sounding and coring lengths.
4. Elevations for the Bottom of Drilled Shaft-Common, Bottom of Casing, Top of Drilled Shaft-Solid Rock and Bottom of Drilled Shaft-Solid Rock will be determined by the Division of Structural Design, Geotechnical Branch, based on the results of the Rock Sounding and Rock Coring. Quantities for the Drilled Shafts shown on the title sheet are estimates and the actual installed and paid quantities will be determined after the Rock Sounding and Rock Coring is complete in accordance with the Special Note for Drilled Shafts, current edition.
5. Reinforcement cages shall be held centered in the rock socket and adjusted as necessary to match plan location at the bottom at the pier column.

PIER DIMENSIONS		
	Dim. "A"	Dim. "B"
Pier 1 (EB)	42'-2 3/4"	18'-8"
Pier 2 (EB)	43'-6 1/4"	20'-3 3/8"
Pier 1 (WB)	46'-10 3/4"	18'-11 3/8"
Pier 2 (WB)	47'-7 1/8"	20'-6 1/2"

PIER CAP DIMENSIONS				
	Dim. "D"	Dim. "E"	Dim. "F"	Dim. "G"
Pier 1 (EB)	1'-9 1/4"	0'-8 3/4"	0'-8 5/8"	1'-9 3/8"
Pier 2 (EB)	1'-9 3/8"	0'-8 5/8"	0'-8 1/2"	1'-9 1/2"
Pier 1 (WB)	1'-9 1/8"	0'-8 7/8"	0'-8 3/4"	1'-9 1/4"
Pier 2 (WB)	1'-9 1/4"	0'-8 3/4"	0'-8 5/8"	1'-9 3/8"

TOP OF PIER CAP ELEVATIONS					
	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5
Pier 1 (EB)	964.109	963.895	963.684	963.472	963.262
Pier 2 (EB)	965.736	965.539	965.330	965.128	964.927
Pier 1 (WB)	964.375	964.159	963.980	963.729	963.515
Pier 2 (WB)	965.967	965.760	965.553	965.348	965.143

ITEM NUMBER	10-126.70
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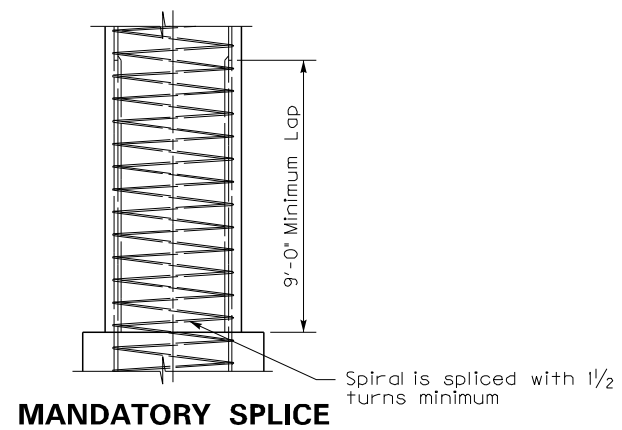
REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: D.M. SMITHSON	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING RED RIVER	
PIER DETAILS (2 OF 3)		
PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY		SHEET NO. S17 DRAWING NO. 27079

FILE NAME: I:\LEX\PR\A00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27079\S27079_018.DGN

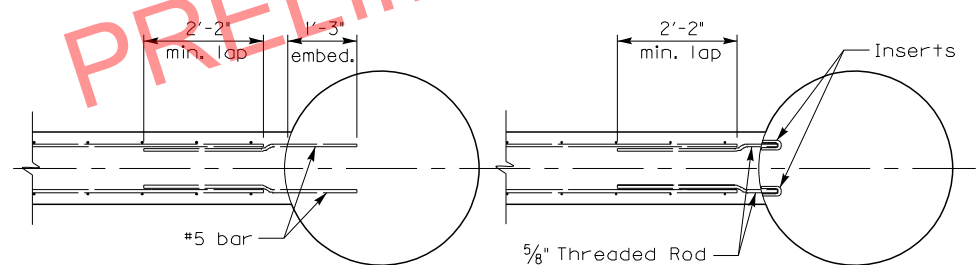
USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.714



Drilled shaft reinforcement must project into columns to be spliced as shown. Projecting shaft reinforcement is incidental to the total cost of the drilled shafts.



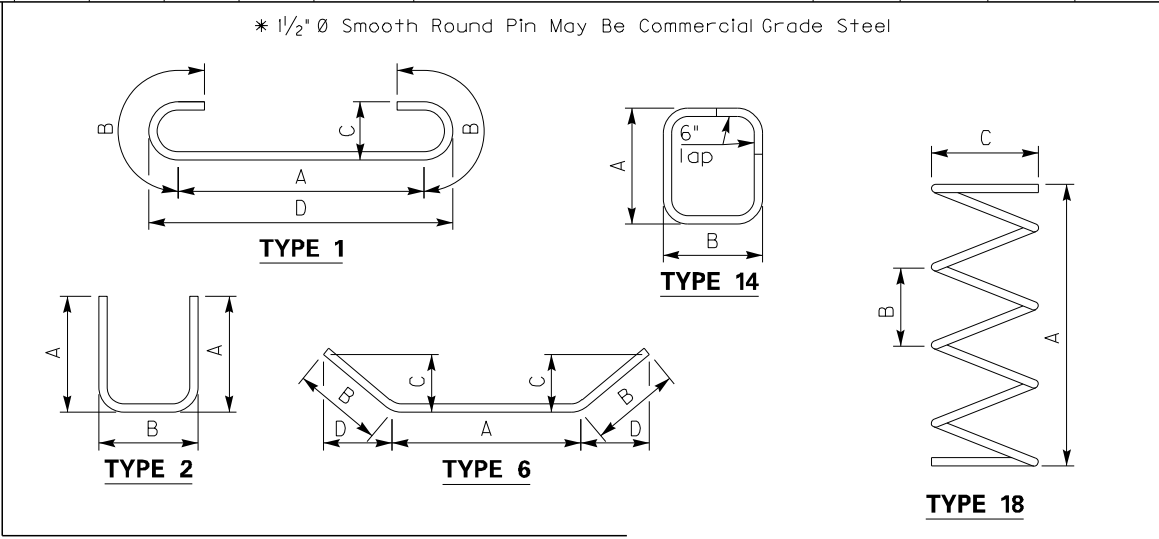
Embedded Bar Option **Threaded Rod - Insert Option**
Permissible Webwall Reinforcement Options (Column Portion)

These options may be used in lieu of detailed webwall reinforcement, however, payment will be based on the Steel Reinforcement quantity shown on the Title Sheet. Threaded inserts are to develop a safe load, in tension, of 9.3 kips with a safety factor of 3. Ensure threaded rods have a minimum 60 ksi yield strength, threaded to fit inserts, and have an effective tensile stress area equal to or greater than that of the reinforcing bars.

BILL OF REINFORCEMENT

MARK	TYPE	NUMBER				SIZE	LENGTH	LOCATION	A	B	C	D
		1-EB	2-EB	1-WB	2-WB							
P1	Str.	72	-	72	-	11	24-8	Column, Pier 1, EB & WB				
P2	18	3	-	-	-	5	532-4	Column Spiral Pier 1, EB	18-10	0-6	4-2	
P3	18	-	3	-	-	5	576-0	Column Spiral Pier 2, EB	20-6	0-6	4-2	
P4	18	-	-	3	-	5	538-11	Column Spiral Pier 1, WB	19-1	0-6	4-2	
P5	18	-	-	-	3	5	581-5	Column Spiral Pier 2, WB	20-8	0-6	4-2	
P6	Str.	8	8	8	8	*	2-0	Cap Dowel				
P7	Str.	-	72	-	72	11	27-0	Column, Pier 2, EB & WB				
P8	Str.	56	-	-	-	5	20-1	Webwall Vertical Pier 1, EB				
P9	Str.	-	56	-	-	5	21-10	Webwall Vertical Pier 2, EB				
P10	Str.	-	-	56	-	5	20-5	Webwall Vertical Pier 1, WB				
P11	Str.	-	-	-	56	5	22-0	Webwall Vertical Pier 2 WB				
P12	Str.	79	79	79	79	5	17-8	Webwall				
P13	14s	4	4	4	4	6	17-4	Cap Stirrup	4-8	3-6		
P14	14s	4	4	4	4	6	17-8	Cap Stirrup	4-10	3-6		
P15	14s	4	4	4	4	6	18-0	Cap Stirrup	5-0	3-6		
P16	14s	4	4	4	4	6	18-6	Cap Stirrup	5-3	3-6		
P17	14s	4	4	4	4	6	18-10	Cap Stirrup	5-5	3-6		
P18	14s	66	66	66	66	6	19-2	Cap Stirrup	5-7	3-6		
P19	14s	66	66	66	66	6	20-0	Cap Stirrup	6-0	3-6		
P20	14s	4	4	4	4	6	19-8	Cap Stirrup	5-10	3-6		
P21	14s	4	4	4	4	6	19-4	Cap Stirrup	5-8	3-6		
P22	14s	4	4	4	4	6	19-0	Cap Stirrup	5-6	3-6		
P23	14s	4	4	4	4	6	18-8	Cap Stirrup	5-4	3-6		
P24	14s	4	4	4	4	6	18-4	Cap Stirrup	5-2	3-6		
P25	6	8	8	8	8	10	55-3	Cap Bottom Bars	44-1	5-7	0-11 5/8	5-6
P26	Str.	10	10	10	10	5	55-2	Cap Side Bars				
P27	1	8	8	8	8	10	58-4	Cap Top Bars	54-0	2-2	1-2	55-2
P28	Str.	8	8	8	8	5	27-5	Cap Top Bars				
P29	2s	26	26	26	26	5	5-8	Cap	0-6	4-8		

PRELIMINARY PLANS NOT FOR CONSTRUCTION

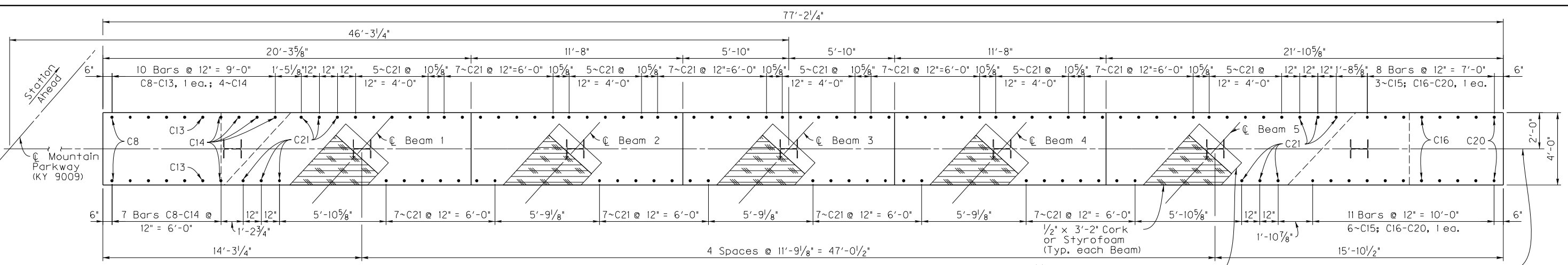


REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: D.M. SMITHSON	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING RED RIVER	
PIER DETAILS (3 OF 3)		
ITEM NUMBER	PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	SHEET NO. S18 DRAWING NO. 27079
10-126.70		

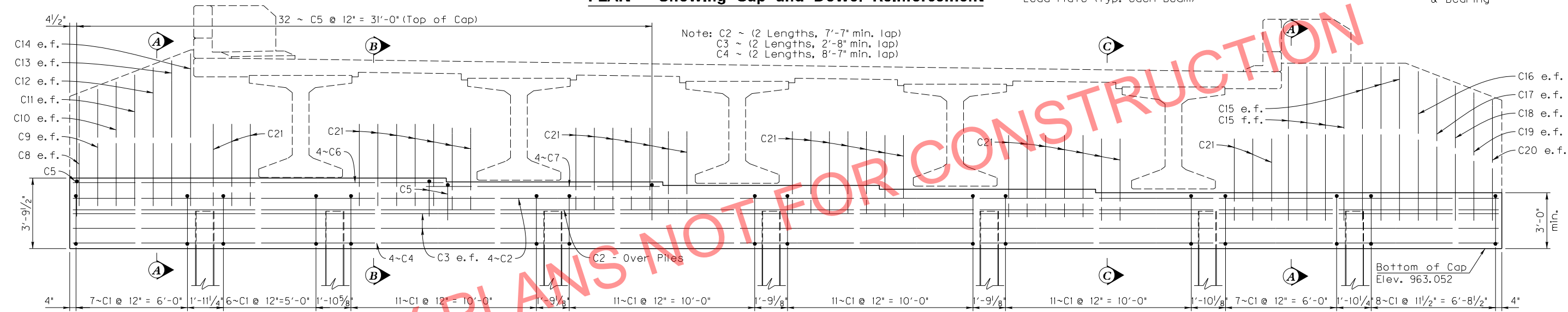
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USER: breid
DATE PLOTTED: October 11, 2016

E-SHEET NAME:
MicroStation v8.11.9.714

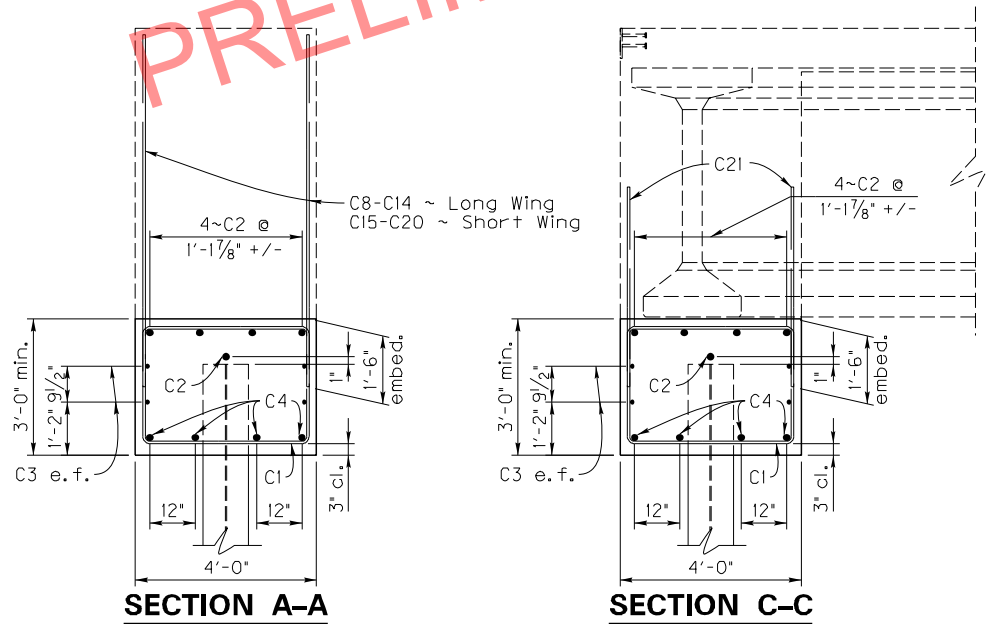


PLAN - Showing Cap and Dowel Reinforcement



ELEVATION - Showing Cap and Dowel Reinforcement
(Looking Ahead Station)

PRELIMINARY PLANS NOT FOR CONSTRUCTION

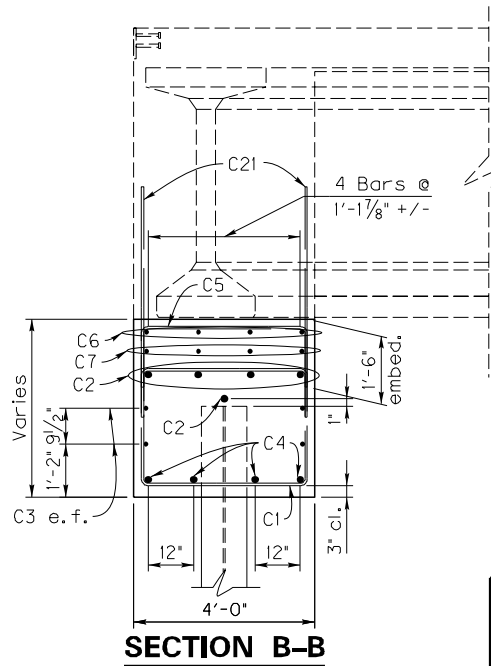


SECTION A-A

SECTION C-C

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".



SECTION B-B

TABLE OF BEARINGS	
Point	Elevation
Beam 1	966.840
Beam 2	966.642
Beam 3	966.445
Beam 4	966.248
Beam 5	966.052

ITEM NUMBER	10-126.70
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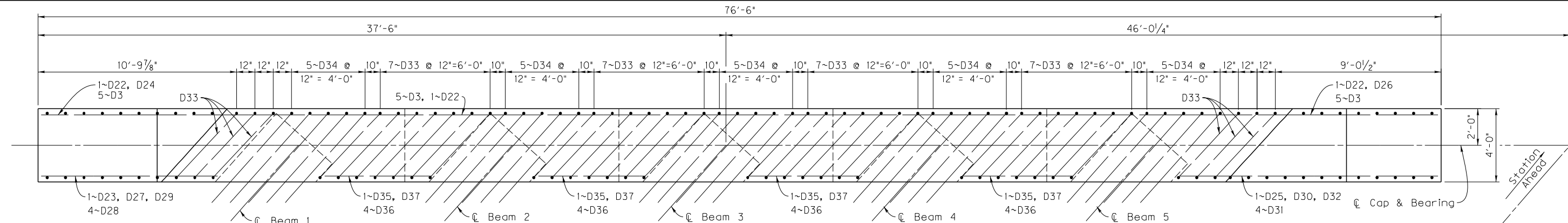
REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: W.D. BURTON	B.C. REID	
DETAILED BY: L.T. GRAVES	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING RED RIVER	
INTEGRAL END BENT 2 - EB		
PREPARED BY LOCHNER H. W. LOCHNER, INC. LEXINGTON, KENTUCKY		SHEET NO. S19 DRAWING NO. 27079

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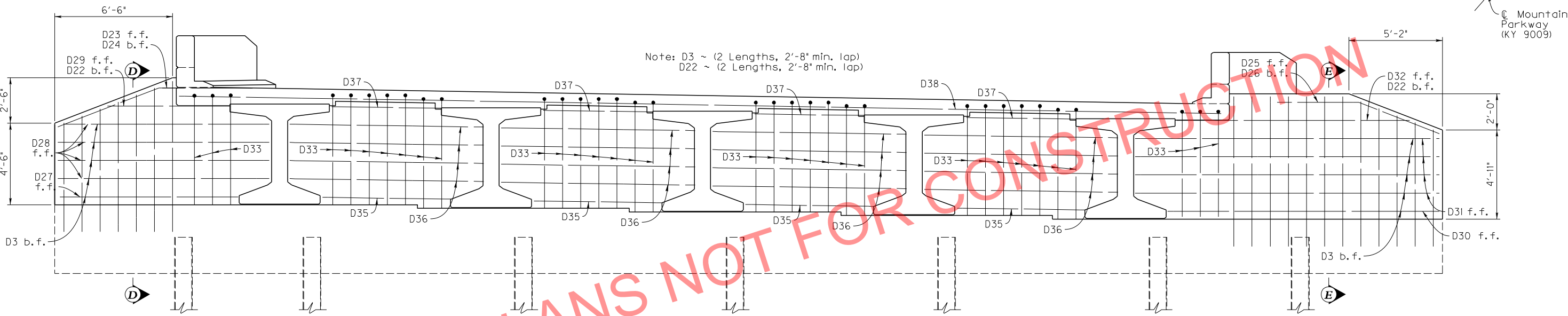
USER: L.GRAVES
DATE PLOTTED: October 11, 2016

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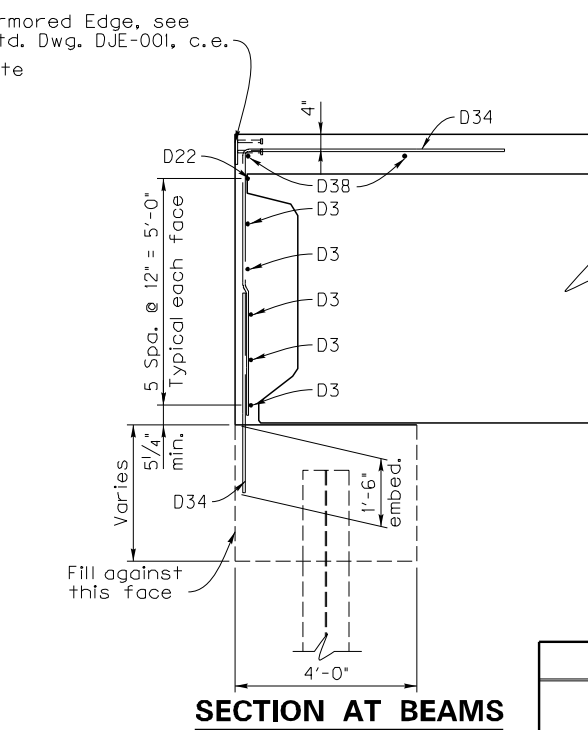
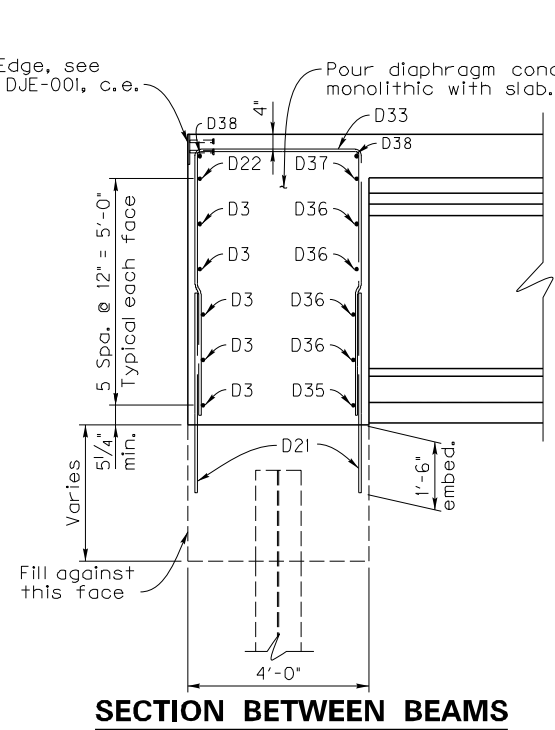
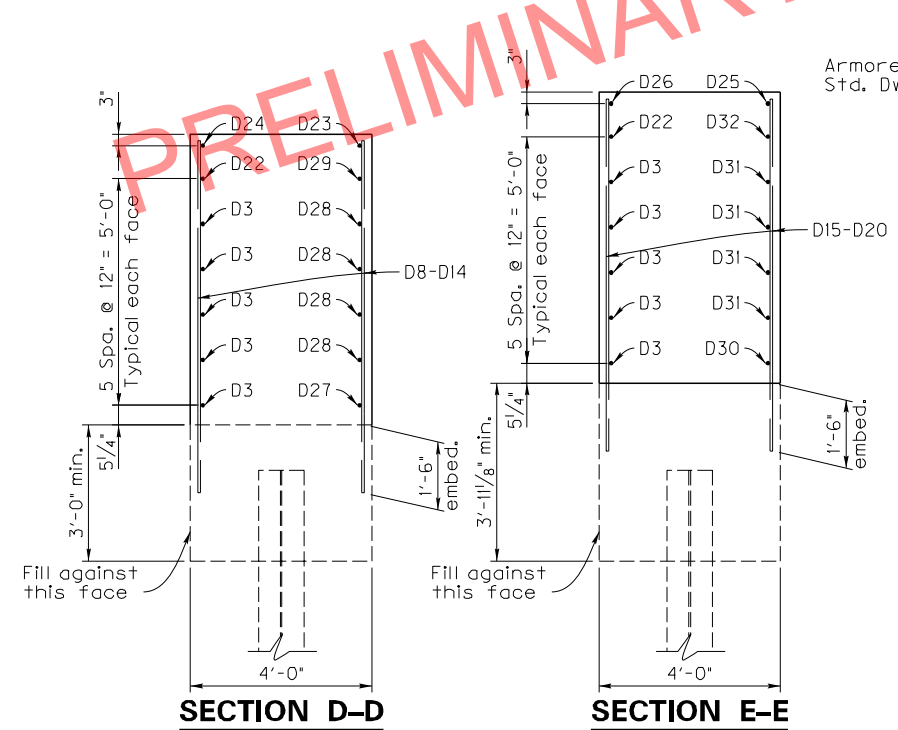
MicroStation v8.11.9.655



PLAN - Showing Diaphragm and Wing Reinforcement



ELEVATION - Showing Diaphragm and Wing Reinforcement
(Looking Ahead Station)



NOTE:
1. All diaphragm concrete shall be Class "AA".

REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: W.D. BURTON	B.C. REID	
DETAILED BY: L.T. GRAVES	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING RED RIVER	
INTEGRAL END BENT 2-WB		
ITEM NUMBER	10-126.70	PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY
		SHEET NO. S22 DRAWING NO. 27079

FILE NAME: I:\LEX\PR\A00008288\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27079\S27079_023.DGN

USER: LGRAVES
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.655

Westbound

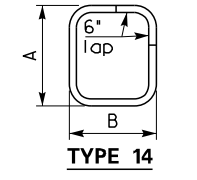
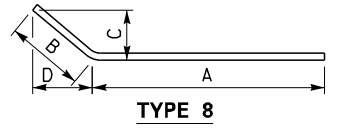
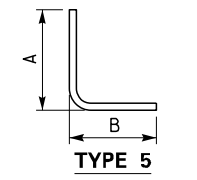
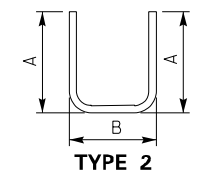
BILL OF REINFORCEMENT - Int. Bent #2

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B	C	D
D1e	14s	72	5	13- 6	Cap	2- 7	3- 8		
D2e	Str.	10	8	41-11	Cap				
D3e	Str.	18	5	39-6	Cap and Diaphragm				
D4e	Str.	8	9	42- 5	Cap				
D5e	2s	32	5	7- 8	Cap	2- 0	3- 8		
D6e	Str.	4	5	19- 8	Cap				
D7e	Str.	4	5	12-4	Cap				
D8e	Str.	2	5	6- 0	Cap into Wing				
D9e	Str.	2	5	6- 4	Cap into Wing				
D10e	Str.	2	5	6- 9	Cap into Wing				
D11e	Str.	2	5	7- 2	Cap into Wing				
D12e	Str.	2	5	7- 6	Cap into Wing				
D13e	Str.	2	5	7-11	Cap into Wing				
D14e	Str.	5	5	8- 4	Cap into Wing				
D15e	Str.	10	5	8- 3	Cap into Wing				
D16e	Str.	2	5	8- 0	Cap into Wing				
D17e	Str.	2	5	7- 7	Cap into Wing				
D18e	Str.	2	5	7- 2	Cap into Wing				
D19e	Str.	2	5	6-10	Cap into Wing				
D20e	Str.	2	5	6- 5	Cap into Wing				
D21e	Str.	93	5	4- 5	Cap into Diaphragms				
D22e	Str.	2	5	37- 3	Diaphragm				
D23e	8	1	6	8- 0	Long Wing	6- 0	2- 0	0- 8 1/2	1-11
D24e	8	1	6	11- 2	Long Wing	6- 0	5- 2	1-10 1/8	4- 9 7/8
D25e	8	1	6	12- 6	Short Wing	4- 9	7- 9	2- 9 3/8	7- 2 3/4
D26e	8	1	6	9- 3	Short Wing	4- 9	4- 6	1- 7 1/2	4- 2 3/8
D27e	Str.	1	5	10- 1	Long Wing				
D28e	Str.	4	5	11-10	Long Wing				
D29e	Str.	1	5	6-10	Long Wing				
D30e	Str.	1	5	14- 8	Short Wing				
D31e	Str.	4	5	16- 4	Short Wing				
D32e	Str.	1	5	12- 5	Short Wing				
D33e	2s	34	5	16-11	Diaphragm	6- 0	4-11		
D34e	5s	25	5	12- 7	Diaphragm over Beams	6- 0	6- 7		
D35e	Str.	4	5	6-11	Diaphragm				
D36e	Str.	16	5	10- 6	Diaphragm				
D37e	Str.	4	5	5-11	Diaphragm				
D38e	Str.	2	5	57-10	Diaphragm				

Eastbound

BILL OF REINFORCEMENT - Int. Bent 2

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B	C	D
C1e	14s	72	5	13- 6	Cap	2- 7	3- 8		
C2e	Str.	10	8	42- 3	Cap				
C3e	Str.	18	5	39-10	Cap and Diaphragm				
C4e	Str.	8	9	42- 9	Cap				
C5e	2s	32	5	7- 8	Cap	2- 0	3- 8		
C6e	Str.	4	5	19-11	Cap				
C7e	Str.	4	5	12- 8	Cap				
C8e	Str.	2	5	5-11	Cap into Wing				
C9e	Str.	2	5	6- 3	Cap into Wing				
C10e	Str.	2	5	6- 8	Cap into Wing				
C11e	Str.	2	5	7- 1	Cap into Wing				
C12e	Str.	2	5	7- 5	Cap into Wing				
C13e	Str.	2	5	7-10	Cap into Wing				
C14e	Str.	5	5	8- 3	Cap into Wing				
C15e	Str.	9	5	8- 4	Cap into Wing				
C16e	Str.	2	5	8- 1	Cap into Wing				
C17e	Str.	2	5	7- 8	Cap into Wing				
C18e	Str.	2	5	7- 3	Cap into Wing				
C19e	Str.	2	5	6-11	Cap into Wing				
C20e	Str.	2	5	6- 6	Cap into Wing				
C21e	Str.	93	5	4- 5	Cap into Diaphragms				
C22e	Str.	2	5	37- 5	Diaphragm				
C23e	8	1	6	7-11	Long Wing	6- 2	1- 9	0- 7 3/8	1- 7 1/4
C24e	8	1	6	11- 2	Long Wing	6- 2	5- 0	1- 9 1/4	4- 8
C25e	8	1	6	12- 6	Short Wing	4- 6	8- 0	2-10 3/8	7- 5 1/2
C26e	8	1	6	9- 2	Short Wing	4- 6	4- 8	1- 8 1/4	4- 4 1/4
C27e	Str.	1	5	10- 1	Long Wing				
C28e	Str.	4	5	11-11	Long Wing				
C29e	Str.	1	5	6- 8	Long Wing				
C30e	Str.	1	5	14- 8	Short Wing				
C31e	Str.	4	5	16- 4	Short Wing				
C32e	Str.	1	5	12-10	Short Wing				
C33e	2s	34	5	16-11	Diaphragm	6- 0	4-11		
C34e	5s	25	5	12- 7	Diaphragm over Beams	6- 0	6- 7		
C35e	Str.	4	5	7- 0	Diaphragm				
C36e	Str.	16	5	10- 7	Diaphragm				
C37e	Str.	4	5	6- 1	Diaphragm				
C38e	Str.	2	5	58- 6	Diaphragm				



PRELIMINARY PLANS NOT FOR CONSTRUCTION

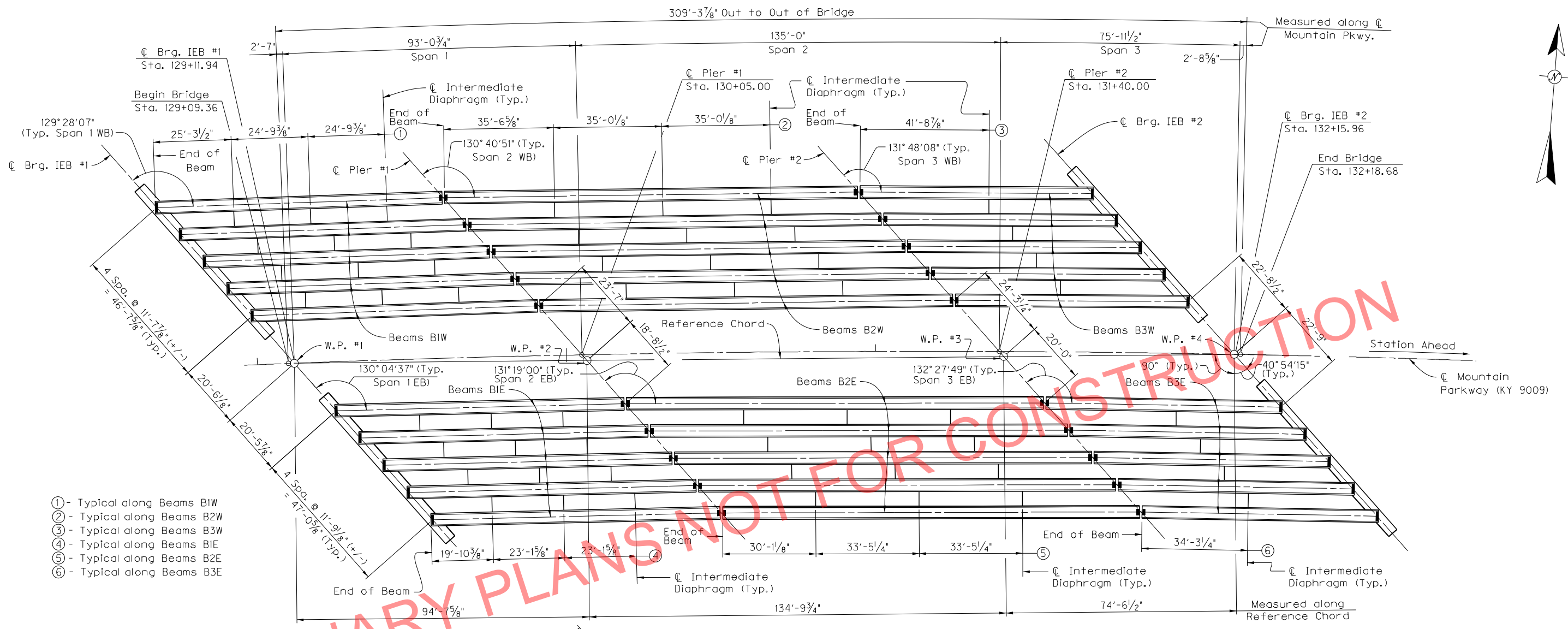
REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: W.D. BURTON	B.C. REID	
DETAILED BY: L.T. GRAVES	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING RED RIVER	
INTEGRAL END BENT 2		
ITEM NUMBER	PREPARED BY LOCHNER H. W. LOCHNER, INC. LEXINGTON, KENTUCKY	SHEET NO. S23 DRAWING NO. 27079
10-126.70		

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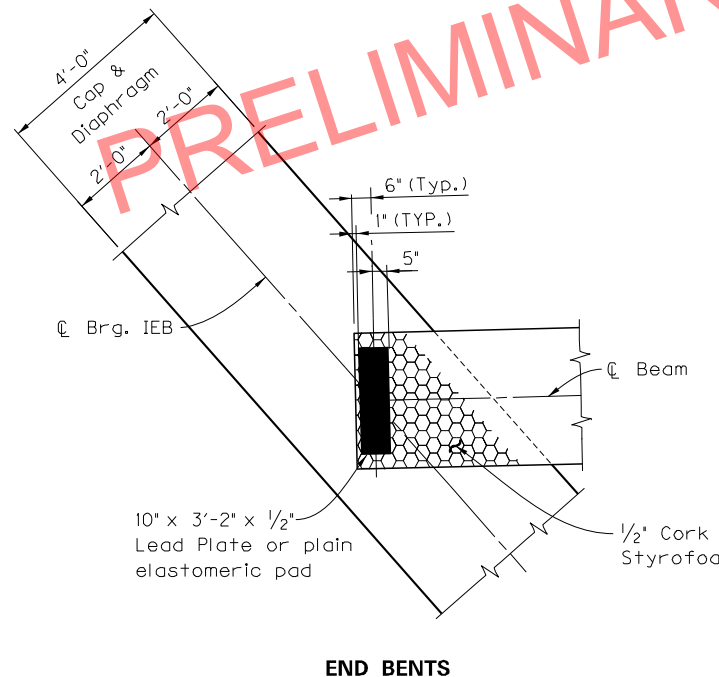
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DATE PLOTTED: October 11, 2016

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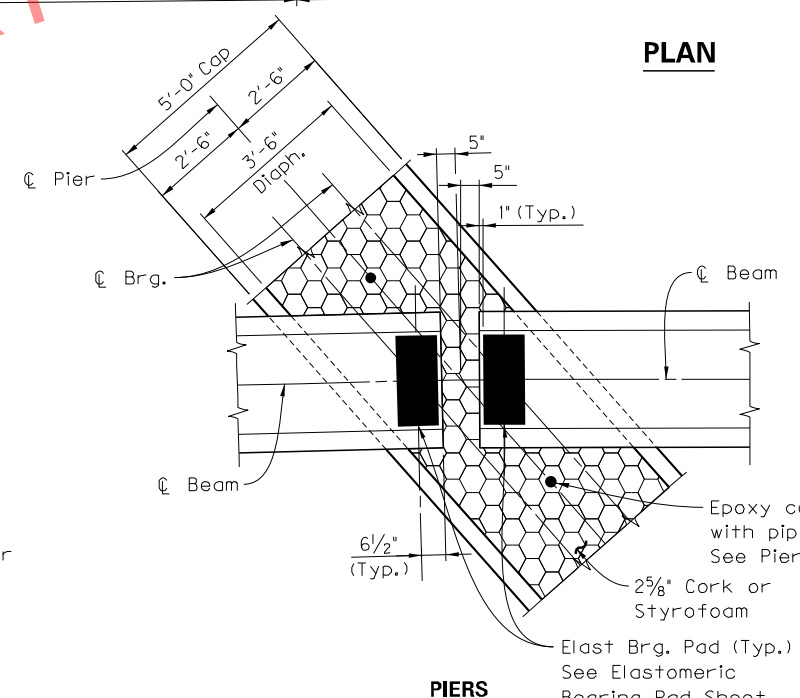
MicroStation v8.11.9.459



- ① - Typical along Beams B1W
- ② - Typical along Beams B2W
- ③ - Typical along Beams B3W
- ④ - Typical along Beams B1E
- ⑤ - Typical along Beams B2E
- ⑥ - Typical along Beams B3E



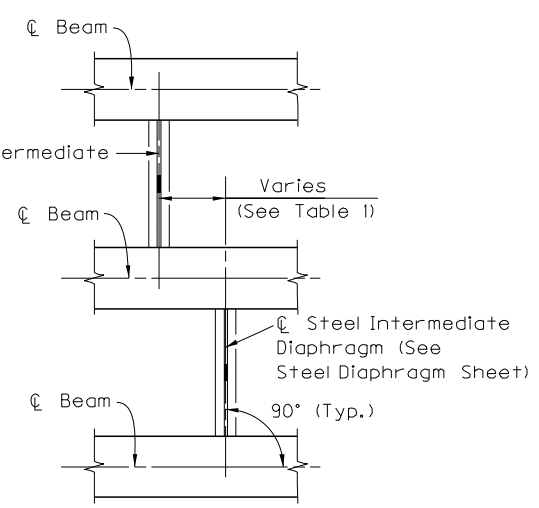
END BENTS



BEARING DETAILS

PIERS

PLAN



INTERMEDIATE DIAPHRAGM DETAIL

TABLE 1					
Span 1		Span 2		Span 3	
EB	WB	EB	WB	EB	WB
7'-6 7/8"	7'-4 7/8"	7'-9 7/8"	7'-7 1/4"	7'-11 1/4"	7'-9 1/4"

REVISION		DATE

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

CHECKED BY: W.D. BURTON
B.C. REID

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

WOLFE-MORGAN

ROUTE KY 9009 CROSSING RED RIVER

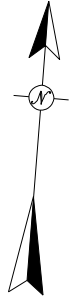
FRAMING PLAN

ITEM NUMBER
10-126.70

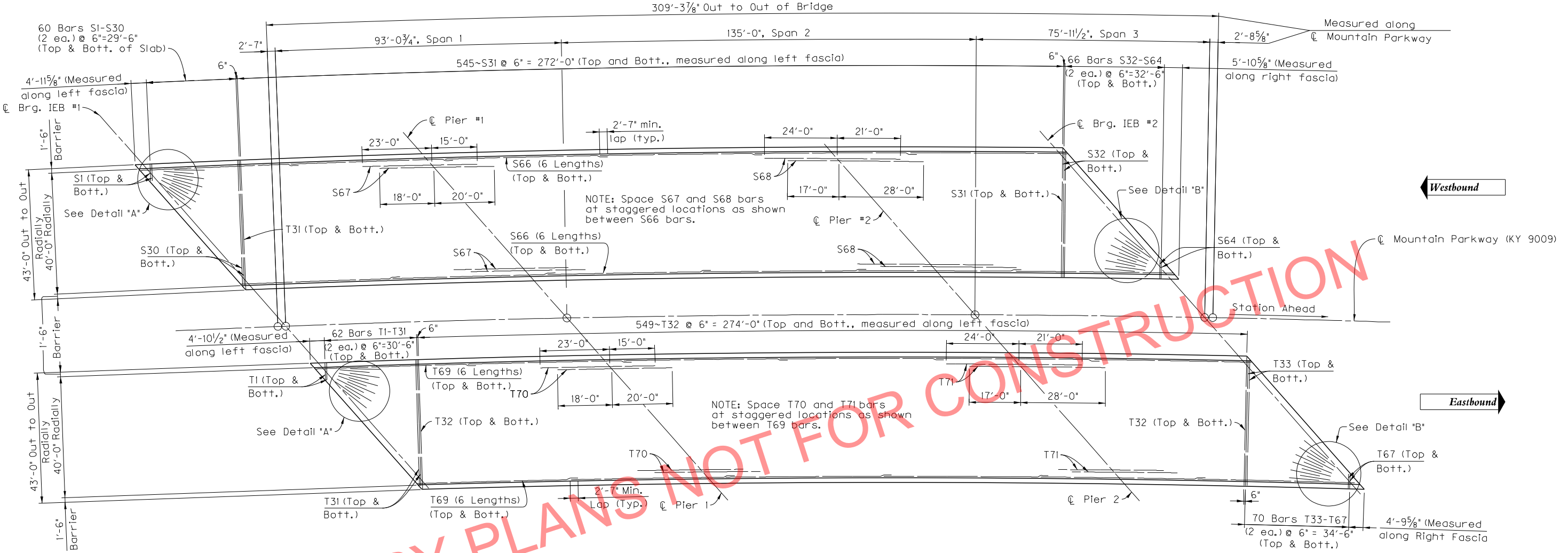
PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
LEXINGTON, KENTUCKY

SHEET NO.
S24
DRAWING NO.
27079

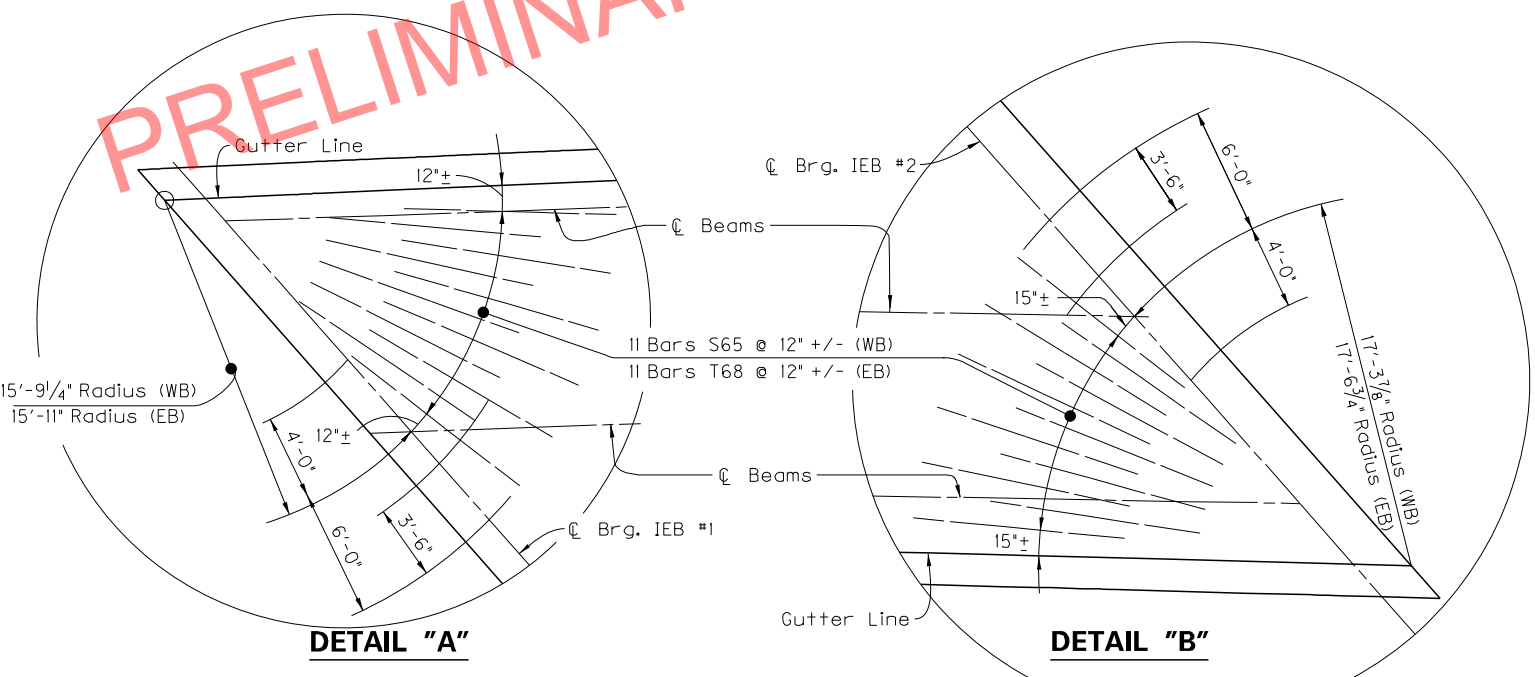
PRELIMINARY PLANS NOT FOR CONSTRUCTION



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 MicroStation v8.11.9.459



PLAN



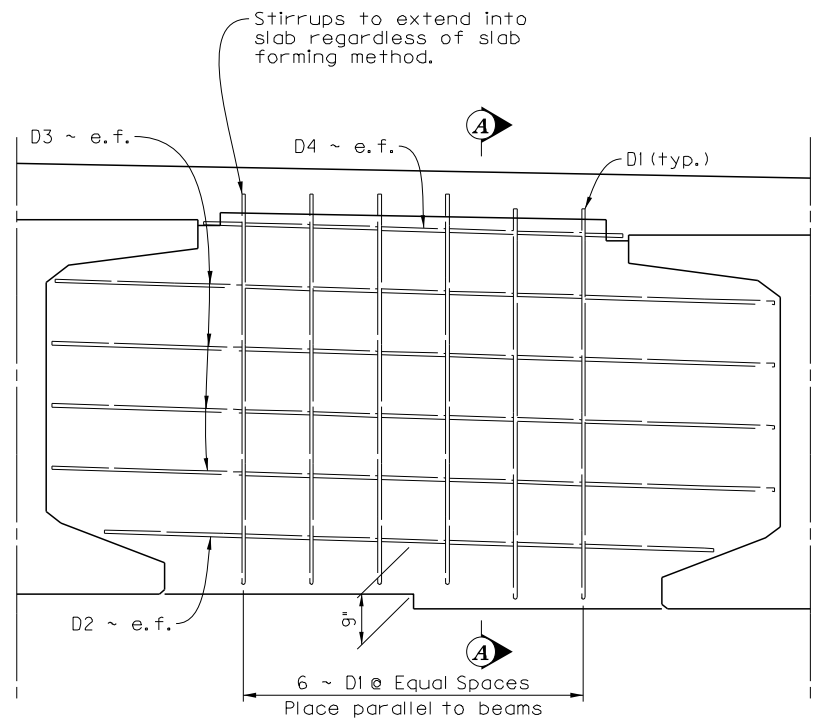
ITEM NUMBER	10-126.70
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REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: D.M. SMITHSON	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING RED RIVER	
SUPERSTRUCTURE (1 OF 3)		
PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY		SHEET NO. S26 DRAWING NO. 27079

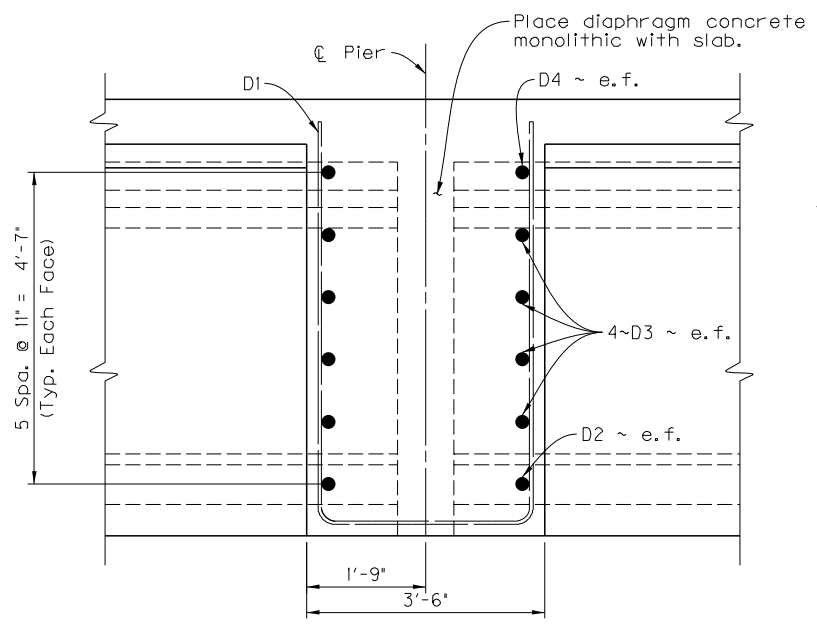
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USER: dsmitthson
DATE PLOTTED: October 11, 2016

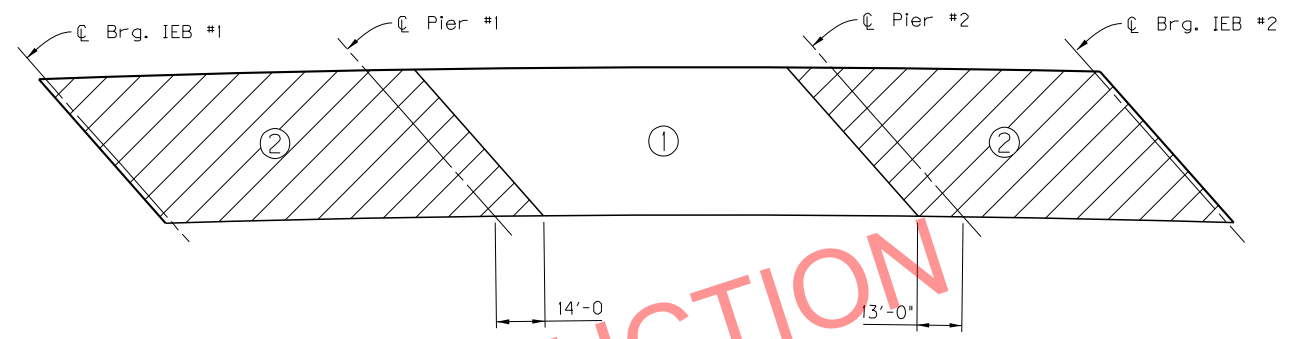
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MicroStation v8.11.9.459



TYPICAL PIER DIAPHRAGM DETAIL
~Viewed perpendicular to Diaphragm~

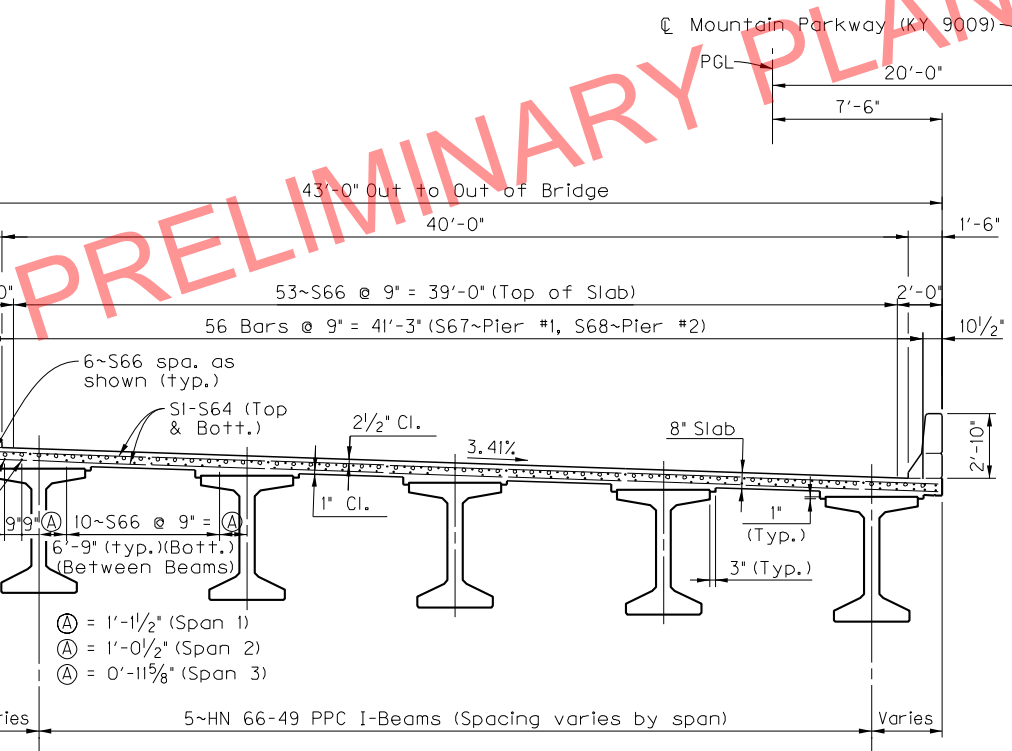


SECTION A-A

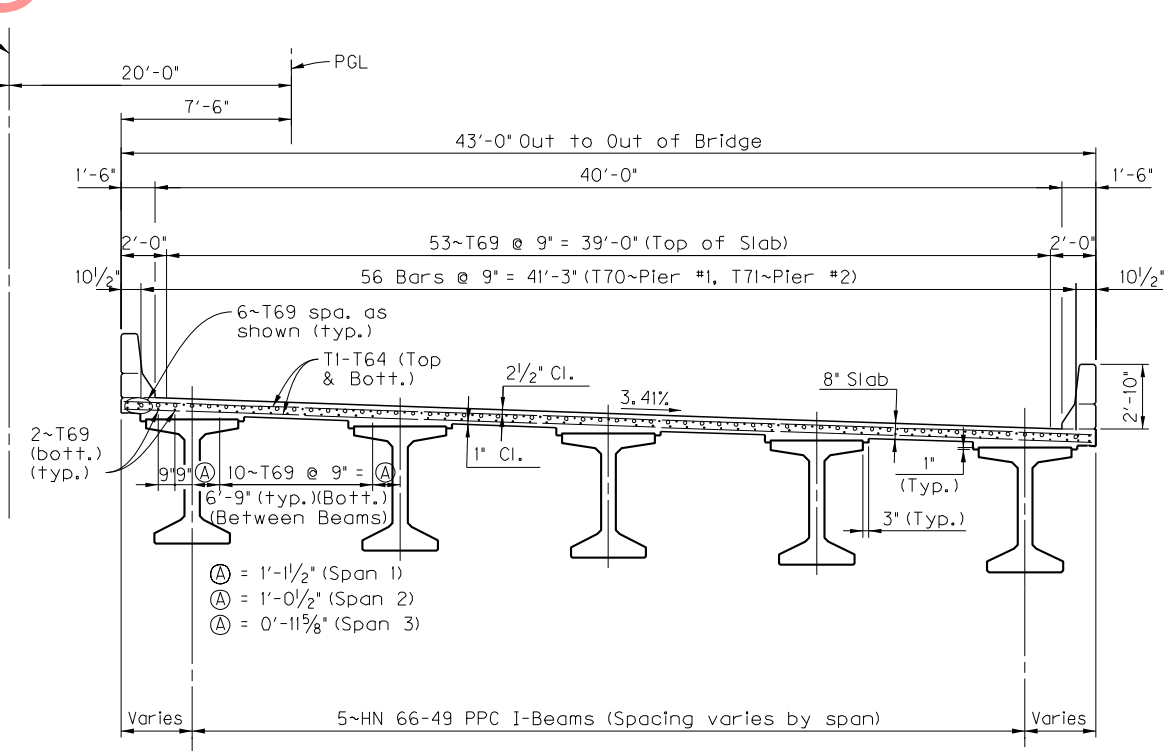


SLAB POURING SEQUENCE (EB & WB)

~Sequence may be change with approval of Designer~
If entire superstructure is not poured continuously, out-to-out, prior to allowing any superstructure concrete to set, then pour according to the above sequence (Area 1 before Areas 2).



WEST BOUND



EAST BOUND

TYPICAL SECTION
(Station Ahead)

PRELIMINARY PLANS NOT FOR CONSTRUCTION

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 RED RIVER	
SUPERSTRUCTURE (2 OF 3)		
PREPARED BY LOCHNER		SHEET NO. S27
H.W. LOCHNER, INC. LEXINGTON, KENTUCKY		DRAWING NO. 27079

FILE NAME: I:\LEX\PRJ\000008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II\FINAL SUBMITTAL\27079\27079.028.DGN
 USER: breid
 DATE PLOTTED: October 11, 2016
 E-SHEET NAME:
 MicroStation v8.11.9.714

Westbound

BILL OF REINFORCEMENT

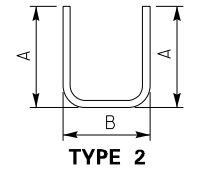
MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B
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S2e	Str.	4	5	6- 9	Transverse - Top & Bottom Slab		
S3e	Str.	4	5	8- 0	Transverse - Top & Bottom Slab		
S4e	Str.	4	5	9- 2	Transverse - Top & Bottom Slab		
S5e	Str.	4	5	10- 5	Transverse - Top & Bottom Slab		
S6e	Str.	4	5	11- 8	Transverse - Top & Bottom Slab		
S7e	Str.	4	5	12- 11	Transverse - Top & Bottom Slab		
S8e	Str.	4	5	14- 2	Transverse - Top & Bottom Slab		
S9e	Str.	4	5	15- 5	Transverse - Top & Bottom Slab		
S10e	Str.	4	5	16- 8	Transverse - Top & Bottom Slab		
S11e	Str.	4	5	17- 10	Transverse - Top & Bottom Slab		
S12e	Str.	4	5	19- 1	Transverse - Top & Bottom Slab		
S13e	Str.	4	5	20- 4	Transverse - Top & Bottom Slab		
S14e	Str.	4	5	21- 7	Transverse - Top & Bottom Slab		
S15e	Str.	4	5	22- 10	Transverse - Top & Bottom Slab		
S16e	Str.	4	5	24- 0	Transverse - Top & Bottom Slab		
S17e	Str.	4	5	25- 3	Transverse - Top & Bottom Slab		
S18e	Str.	4	5	26- 6	Transverse - Top & Bottom Slab		
S19e	Str.	4	5	27- 9	Transverse - Top & Bottom Slab		
S20e	Str.	4	5	28- 11	Transverse - Top & Bottom Slab		
S21e	Str.	4	5	30- 2	Transverse - Top & Bottom Slab		
S22e	Str.	4	5	31- 5	Transverse - Top & Bottom Slab		
S23e	Str.	4	5	32- 7	Transverse - Top & Bottom Slab		
S24e	Str.	4	5	33- 10	Transverse - Top & Bottom Slab		
S25e	Str.	4	5	35- 1	Transverse - Top & Bottom Slab		
S26e	Str.	4	5	36- 4	Transverse - Top & Bottom Slab		
S27e	Str.	4	5	37- 6	Transverse - Top & Bottom Slab		
S28e	Str.	4	5	38- 8	Transverse - Top & Bottom Slab		
S29e	Str.	4	5	40- 0	Transverse - Top & Bottom Slab		
S30e	Str.	4	5	41- 2	Transverse - Top & Bottom Slab		
S31e	Str.	1090	5	42- 8	Transverse - Top & Bottom Slab		
S32e	Str.	4	5	41- 6	Transverse - Top & Bottom Slab		
S33e	Str.	4	5	40- 4	Transverse - Top & Bottom Slab		
S34e	Str.	4	5	39- 3	Transverse - Top & Bottom Slab		
S35e	Str.	4	5	38- 1	Transverse - Top & Bottom Slab		
S36e	Str.	4	5	37- 0	Transverse - Top & Bottom Slab		
S37e	Str.	4	5	35- 11	Transverse - Top & Bottom Slab		
S38e	Str.	4	5	34- 9	Transverse - Top & Bottom Slab		
S39e	Str.	4	5	33- 8	Transverse - Top & Bottom Slab		
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S52e	Str.	4	5	19- 3	Transverse - Top & Bottom Slab		
S53e	Str.	4	5	18- 2	Transverse - Top & Bottom Slab		
S54e	Str.	4	5	17- 0	Transverse - Top & Bottom Slab		
S55e	Str.	4	5	15- 11	Transverse - Top & Bottom Slab		
S56e	Str.	4	5	14- 10	Transverse - Top & Bottom Slab		
S57e	Str.	4	5	13- 9	Transverse - Top & Bottom Slab		
S58e	Str.	4	5	12- 8	Transverse - Top & Bottom Slab		
S59e	Str.	4	5	11- 6	Transverse - Top & Bottom Slab		
S60e	Str.	4	5	10- 5	Transverse - Top & Bottom Slab		
S61e	Str.	4	5	9- 4	Transverse - Top & Bottom Slab		
S62e	Str.	4	5	8- 3	Transverse - Top & Bottom Slab		
S63e	Str.	4	5	7- 2	Transverse - Top & Bottom Slab		
S64e	Str.	4	5	6- 0	Transverse - Top & Bottom Slab		
S65e	Str.	22	6	10- 0	Corner Reinforcement		
S66e	Str.	654	5	53- 8	Longitudinal		
S67e	Str.	56	9	38- 0	Negative Reinforcement		
S68e	Str.	56	9	45- 0	Negative Reinforcement		
D1e	Str.	2	48	5	15- 6	Pier Diaphragm	5- 8 4- 2
D2e	Str.	16	5	8- 11	Pier Diaphragm		
D3e	Str.	64	5	10- 7	Pier Diaphragm		
D4e	Str.	16	5	6- 1	Pier Diaphragm		

Eastbound

BILL OF REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B
T1e	Str.	4	5	5- 6	Transverse - Top & Bottom Slab		
T2e	Str.	4	5	6- 9	Transverse - Top & Bottom Slab		
T3e	Str.	4	5	7- 11	Transverse - Top & Bottom Slab		
T4e	Str.	4	5	9- 2	Transverse - Top & Bottom Slab		
T5e	Str.	4	5	10- 4	Transverse - Top & Bottom Slab		
T6e	Str.	4	5	11- 7	Transverse - Top & Bottom Slab		
T7e	Str.	4	5	12- 10	Transverse - Top & Bottom Slab		
T8e	Str.	4	5	14- 0	Transverse - Top & Bottom Slab		
T9e	Str.	4	5	15- 3	Transverse - Top & Bottom Slab		
T10e	Str.	4	5	16- 5	Transverse - Top & Bottom Slab		
T11e	Str.	4	5	17- 8	Transverse - Top & Bottom Slab		
T12e	Str.	4	5	18- 10	Transverse - Top & Bottom Slab		
T13e	Str.	4	5	20- 1	Transverse - Top & Bottom Slab		
T14e	Str.	4	5	21- 3	Transverse - Top & Bottom Slab		
T15e	Str.	4	5	22- 6	Transverse - Top & Bottom Slab		
T16e	Str.	4	5	23- 8	Transverse - Top & Bottom Slab		
T17e	Str.	4	5	24- 10	Transverse - Top & Bottom Slab		
T18e	Str.	4	5	26- 1	Transverse - Top & Bottom Slab		
T19e	Str.	4	5	27- 3	Transverse - Top & Bottom Slab		
T20e	Str.	4	5	28- 6	Transverse - Top & Bottom Slab		
T21e	Str.	4	5	29- 8	Transverse - Top & Bottom Slab		
T22e	Str.	4	5	30- 11	Transverse - Top & Bottom Slab		
T23e	Str.	4	5	32- 1	Transverse - Top & Bottom Slab		
T24e	Str.	4	5	33- 3	Transverse - Top & Bottom Slab		
T25e	Str.	4	5	34- 6	Transverse - Top & Bottom Slab		
T26e	Str.	4	5	35- 8	Transverse - Top & Bottom Slab		
T27e	Str.	4	5	36- 10	Transverse - Top & Bottom Slab		
T28e	Str.	4	5	38- 1	Transverse - Top & Bottom Slab		
T29e	Str.	4	5	39- 3	Transverse - Top & Bottom Slab		
T30e	Str.	4	5	40- 6	Transverse - Top & Bottom Slab		
T31e	Str.	4	5	41- 8	Transverse - Top & Bottom Slab		
T32e	Str.	1098	5	42- 8	Transverse - Top & Bottom Slab		
T33e	Str.	4	5	41- 6	Transverse - Top & Bottom Slab		
T34e	Str.	4	5	40- 5	Transverse - Top & Bottom Slab		
T35e	Str.	4	5	39- 4	Transverse - Top & Bottom Slab		
T36e	Str.	4	5	38- 3	Transverse - Top & Bottom Slab		
T37e	Str.	4	5	37- 2	Transverse - Top & Bottom Slab		
T38e	Str.	4	5	36- 1	Transverse - Top & Bottom Slab		
T39e	Str.	4	5	35- 0	Transverse - Top & Bottom Slab		
T40e	Str.	4	5	33- 10	Transverse - Top & Bottom Slab		
T41e	Str.	4	5	32- 9	Transverse - Top & Bottom Slab		
T42e	Str.	4	5	31- 8	Transverse - Top & Bottom Slab		
T43e	Str.	4	5	30- 7	Transverse - Top & Bottom Slab		
T44e	Str.	4	5	29- 6	Transverse - Top & Bottom Slab		
T45e	Str.	4	5	28- 5	Transverse - Top & Bottom Slab		
T46e	Str.	4	5	27- 4	Transverse - Top & Bottom Slab		
T47e	Str.	4	5	26- 3	Transverse - Top & Bottom Slab		
T48e	Str.	4	5	25- 2	Transverse - Top & Bottom Slab		
T49e	Str.	4	5	24- 1	Transverse - Top & Bottom Slab		
T50e	Str.	4	5	23- 0	Transverse - Top & Bottom Slab		
T51e	Str.	4	5	21- 11	Transverse - Top & Bottom Slab		
T52e	Str.	4	5	20- 10	Transverse - Top & Bottom Slab		
T53e	Str.	4	5	19- 9	Transverse - Top & Bottom Slab		
T54e	Str.	4	5	18- 8	Transverse - Top & Bottom Slab		
T55e	Str.	4	5	17- 8	Transverse - Top & Bottom Slab		
T56e	Str.	4	5	16- 7	Transverse - Top & Bottom Slab		
T57e	Str.	4	5	15- 6	Transverse - Top & Bottom Slab		
T58e	Str.	4	5	14- 5	Transverse - Top & Bottom Slab		
T59e	Str.	4	5	13- 4	Transverse - Top & Bottom Slab		
T60e	Str.	4	5	12- 3	Transverse - Top & Bottom Slab		
T61e	Str.	4	5	11- 2	Transverse - Top & Bottom Slab		
T62e	Str.	4	5	10- 1	Transverse - Top & Bottom Slab		
T63e	Str.	4	5	9- 0	Transverse - Top & Bottom Slab		
T64e	Str.	4	5	7- 11	Transverse - Top & Bottom Slab		
T65e	Str.	4	5	6- 11	Transverse - Top & Bottom Slab		
T66e	Str.	4	5	5- 10	Transverse - Top & Bottom Slab		
T67e	Str.	4	5	4- 9	Transverse - Top & Bottom Slab		
T68e	Str.	22	6	10- 0	Corner Reinforcement		
T69e	Str.	654	5	54- 1	Longitudinal		
T70e	Str.	56	9	38- 0	Negative Reinforcement		
T71e	Str.	56	9	45- 0	Negative Reinforcement		
D1e	Str.	2	48	5	15- 6	Pier Diaphragm	5- 8 4- 2
D2e	Str.	16	5	8- 11	Pier Diaphragm		
D3e	Str.	64	5	10- 7	Pier Diaphragm		
D4e	Str.	16	5	6- 1	Pier Diaphragm		

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 RED RIVER	
SUPERSTRUCTURE (3 OF 3)		
PREPARED BY LOCHNER		SHEET NO. S28
H.W. LOCHNER, INC. LEXINGTON, KENTUCKY		DRAWING NO. 27079

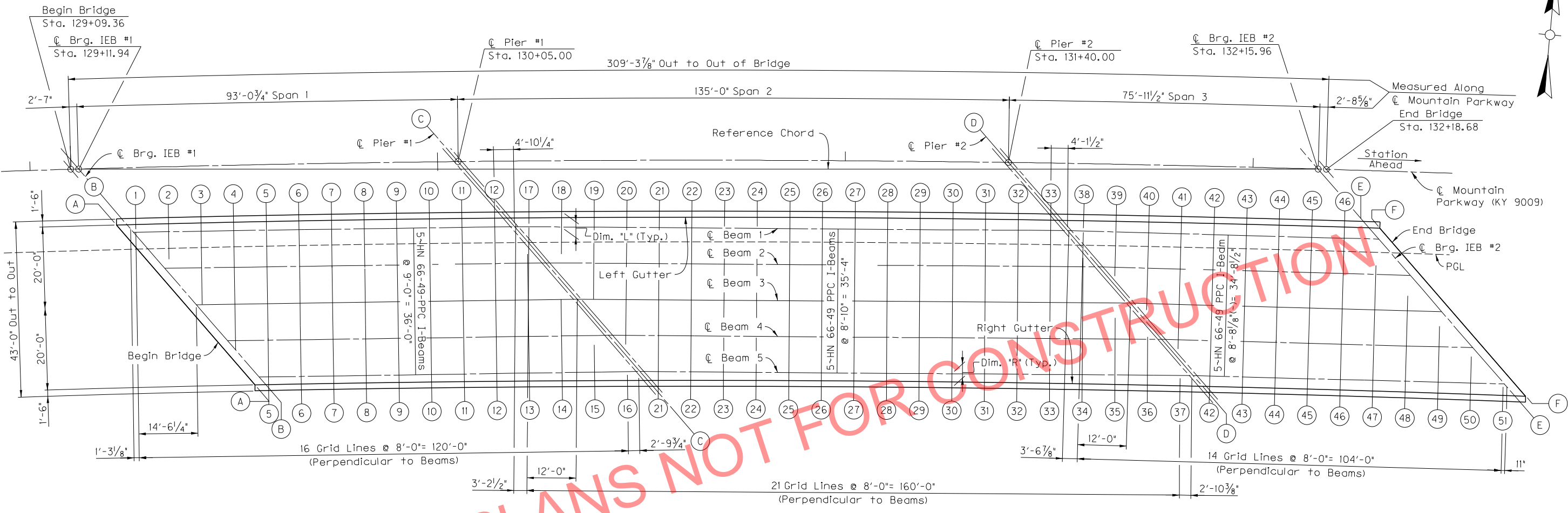
ITEM NUMBER
10-126.70

FILE NAME: I:\LEX\PRJ\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27079\S27079_029.DGN

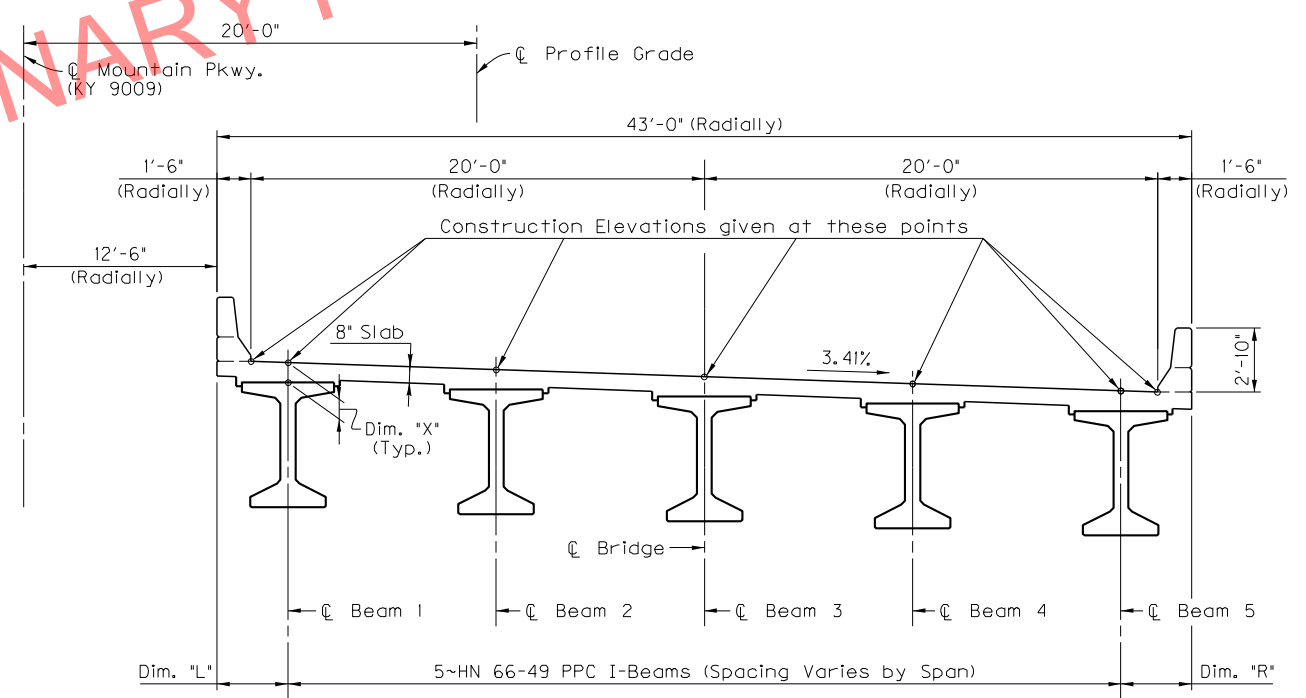
USER: dsmitthson
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.459



PRELIMINARY PLANS NOT FOR CONSTRUCTION



TYPICAL SECTION

REVISION	DATE

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

CHECKED BY: W.D. BURTON
 B.C. REID

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
 COUNTY
WOLFE-MORGAN
 ROUTE
KY 9009
 CROSSING
RED RIVER
CONSTRUCTION ELEVATIONS-EB

ITEM NUMBER
10-126.70

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

SHEET NO.
S29
 DRAWING NO.
27079

FILE NAME: I:\LEX\PRJ\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27079\S27079.030.DGN
 USER: breid
 DATE PLOTTED: October 11, 2016
 E-SHEET NAME:
 MicroStation v8.11.9.714

CONSTRUCTION ELEVATIONS - EASTBOUND BRIDGE																			
LOCATION	Dim. "L" (Ft.)	Left Gutter	☉ Beam 1			☉ Beam 2			☉ Beam 3			☉ Beam 4			☉ Beam 5			Right Gutter	Dim. "R" (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	--	969.606	969.562			969.342			969.124			968.906			968.688			968.642	--
Skew Line BB	--	969.637	969.592			969.373			969.155			968.937			968.719			968.674	--
Skew Line CC	--	970.764	970.714			970.501			970.289			970.077			969.867			969.816	--
Skew Line DD	--	972.399	972.341			972.137			971.935			971.733			971.532			971.473	--
Skew Line EE	--	973.319	973.256			973.058			972.861			972.665			972.469			972.406	--
Skew Line FF	--	973.352	973.290			973.092			972.895			972.699			972.503			972.439	--
Grid Line 1	3.347	969.664	969.601			--			--			--			--			--	--
Grid Line 2	3.440	969.771	969.704			969.387			--			--			--			--	--
Grid Line 3	3.514	969.876	969.807			969.491			969.174			--			--			--	--
Grid Line 4	3.576	969.980	969.909			969.595			969.279			968.962			--			--	--
Grid Line 5	3.626	970.082	970.009			969.697			969.383			969.067			968.751			968.687	3.375
Grid Line 6	3.664	970.181	970.107			969.797			969.485			969.172			968.856			968.793	3.337
Grid Line 7	3.690	970.278	970.203			969.896			969.586			969.275			968.961			968.899	3.310
Grid Line 8	3.704	970.373	970.298			969.992			969.685			969.376			969.065			969.004	3.296
Grid Line 9	3.706	970.465	970.390			970.087			969.782			969.476			969.167			969.105	3.296
Grid Line 10	3.695	970.555	970.481			970.180			969.878			969.573			969.266			969.205	3.305
Grid Line 11	3.673	970.644	970.570			970.271			969.971			969.669			969.364			969.302	3.327
Grid Line 12	3.639	970.732	970.659			970.361			970.063			969.763			969.461			969.397	3.362
Grid Line 13	--	--	--			970.451			970.153			969.855			969.555			969.490	3.408
Grid Line 14	--	--	--			--			970.243			969.946			969.648			969.581	3.467
Grid Line 15	--	--	--			--			--			970.036			969.739			969.670	3.538
Grid Line 16	--	--	--			--			--			--			969.830			969.758	3.621
Grid Line 17	3.667	970.839	970.765			--			--			--			--			--	--
Grid Line 18	3.781	970.964	970.885			970.556			--			--			--			--	--
Grid Line 19	3.883	971.086	971.005			970.677			970.348			--			--			--	--
Grid Line 20	3.973	971.208	971.124			970.797			970.469			970.140			--			--	--
Grid Line 21	4.051	971.325	971.237			970.916			970.590			970.262			969.933			969.861	3.614
Grid Line 22	4.117	971.438	971.349			971.030			970.709			970.383			970.056			969.986	3.548
Grid Line 23	4.171	971.547	971.456			971.142			970.824			970.503			970.177			970.109	3.494
Grid Line 24	4.213	971.650	971.558			971.250			970.936			970.619			970.298			970.231	3.451
Grid Line 25	4.243	971.751	971.657			971.352			971.044			970.731			970.414			970.348	3.421
Grid Line 26	4.260	971.844	971.750			971.452			971.147			970.840			970.527			970.462	3.403
Grid Line 27	4.266	971.935	971.840			971.545			971.247			970.943			970.636			970.571	3.397
Grid Line 28	4.260	972.020	971.926			971.636			971.341			971.043			970.739			970.674	3.404
Grid Line 29	4.242	972.100	972.006			971.722			971.432			971.138			970.840			970.775	3.422
Grid Line 30	4.211	972.177	972.085			971.803			971.518			971.229			970.935			970.869	3.453
Grid Line 31	4.169	972.249	972.158			971.882			971.600			971.316			971.027			970.959	3.496
Grid Line 32	4.115	972.320	972.231			971.955			971.679			971.398			971.114			971.045	3.550
Grid Line 33	4.048	972.389	972.302			972.029			971.754			971.478			971.197			971.125	3.617
Grid Line 34	--	--	--			972.101			971.827			971.552			971.277			971.202	3.697
Grid Line 35	--	--	--			--			971.900			971.627			971.352			971.274	3.788
Grid Line 36	--	--	--			--			--			971.700			971.427			971.346	3.891
Grid Line 37	--	--	--			--			--			--			971.501			971.416	4.007
Grid Line 38	4.047	972.476	972.388			--			--			--			--			--	--
Grid Line 39	4.117	972.578	972.487			972.186			--			--			--			--	--
Grid Line 40	4.174	972.678	972.586			972.286			971.985			--			--			--	--
Grid Line 41	4.219	972.777	972.684			972.385			972.085			971.784			--			--	--
Grid Line 42	4.253	972.875	972.781			972.483			972.185			971.885			971.584			971.497	4.040
Grid Line 43	4.274	972.971	972.877			972.581			972.284			971.985			971.685			971.599	4.018
Grid Line 44	4.283	973.066	972.971			972.677			972.381			972.084			971.786			971.700	4.009
Grid Line 45	4.281	973.160	973.065			972.772			972.478			972.183			971.886			971.800	4.012
Grid Line 46	4.266	973.252	973.158			972.867			972.574			972.280			971.985			971.899	4.027
Grid Line 47	--	--	--			972.960			972.669			972.377			972.083			971.996	4.054
Grid Line 48	--	--	--			--			972.763			972.472			972.180			972.092	4.093
Grid Line 49	--	--	--			--			--			972.567			972.276			972.186	4.144
Grid Line 50	--	--	--			--			--			972.661			972.371			972.279	4.208
Grid Line 51	--	--	--			--			--			--			--			--	4.286

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.

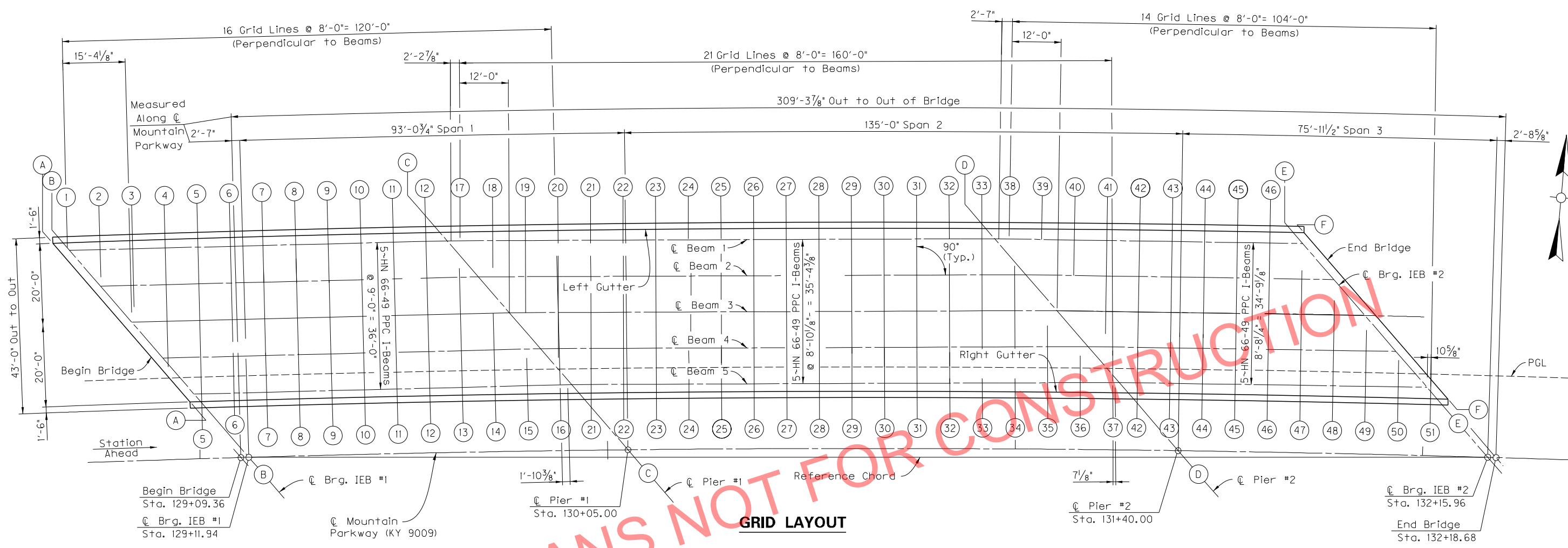
REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: W.R. ABBOTT	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING RED RIVER	
CONSTRUCTION ELEVATIONS-EB		
ITEM NUMBER	PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	SHEET NO. S30 DRAWING NO. 27079
10-126.70		

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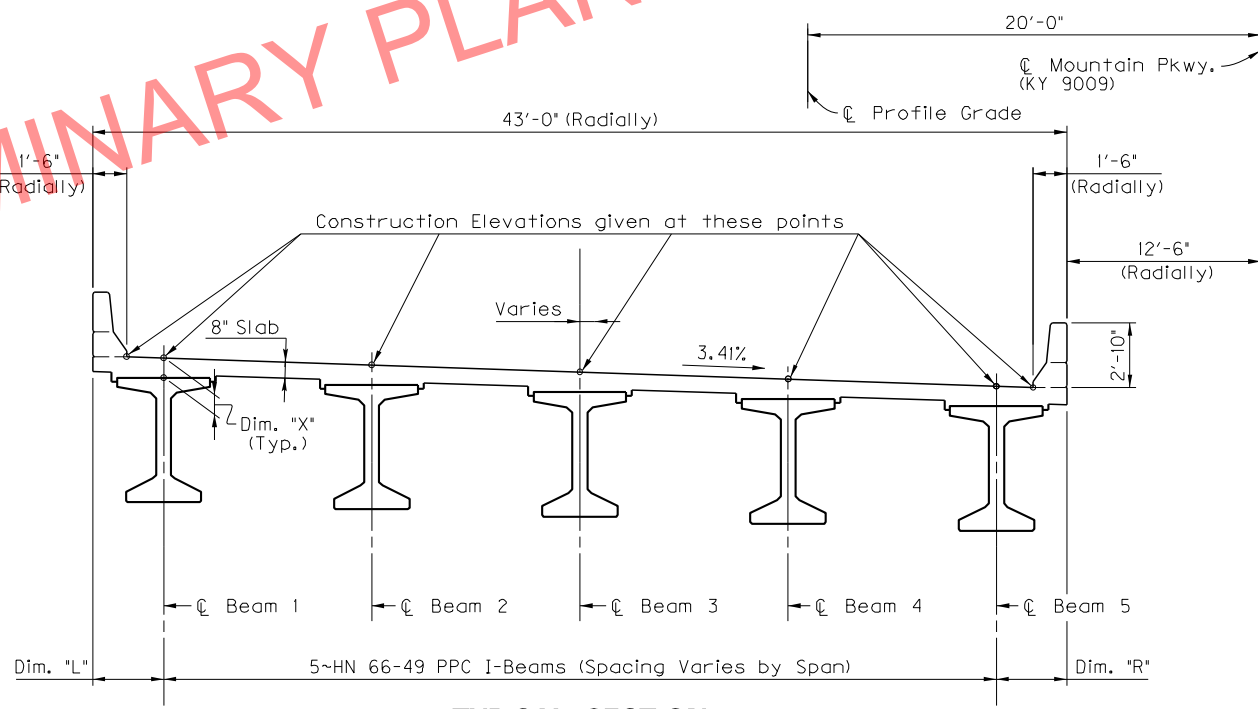
USER: dsmitthson
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.459



PRELIMINARY PLANS NOT FOR CONSTRUCTION



TYPICAL SECTION

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 RED RIVER	
CONSTRUCTION ELEVATIONS-WB		
ITEM NUMBER	PREPARED BY LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	SHEET NO. S31 DRAWING NO. 27079
10-126.70		

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

CONSTRUCTION ELEVATIONS - WESTBOUND BRIDGE																			
LOCATION	Dim. "L" (Ft.)	Left Gutter	☉ Beam 1			☉ Beam 2			☉ Beam 3			☉ Beam 4			☉ Beam 5			Right Gutter	Dim. "R" (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	--	969.898	969.853			969.631			969.409			969.188			968.967			968.921	--
Skew Line BB	--	969.928	969.883			969.661			969.439			969.218			968.998			968.952	--
Skew Line CC	--	971.031	970.980			970.764			970.549			970.334			970.120			970.069	--
Skew Line DD	--	972.630	972.572			972.365			972.158			971.953			971.748			971.689	--
Skew Line EE	--	973.530	973.466			973.265			973.064			972.863			972.664			972.600	--
Skew Line FF	--	973.562	973.499			973.297			973.097			972.896			972.697			972.633	--
Grid Line 1	3.347	--	--			--			--			--			--			--	--
Grid Line 2	3.433	970.045	969.979			--			--			--			--			--	--
Grid Line 3	3.506	970.149	970.081			969.765			--			--			--			--	--
Grid Line 4	3.568	970.252	970.181			969.867			969.551			969.235			--			--	--
Grid Line 5	3.618	970.353	970.281			969.968			969.654			969.339			969.022			--	3.382
Grid Line 6	3.657	970.452	970.378			970.068			969.756			969.442			969.127			969.064	3.344
Grid Line 7	3.683	970.548	970.473			970.165			969.856			969.544			969.231			969.169	3.317
Grid Line 8	3.697	970.642	970.567			970.261			969.954			969.644			969.333			969.272	3.303
Grid Line 9	3.700	970.733	970.658			970.355			970.050			969.743			969.434			969.372	3.300
Grid Line 10	3.690	970.822	970.747			970.447			970.144			969.839			969.532			969.471	3.310
Grid Line 11	3.669	970.909	970.835			970.536			970.236			969.934			969.629			969.567	3.331
Grid Line 12	3.636	970.996	970.923			970.625			970.326			970.026			969.724			969.661	3.365
Grid Line 13	--	--	--			970.713			970.415			969.117			969.817			969.752	3.410
Grid Line 14	--	--	--			--			970.504			970.206			969.908			969.841	3.468
Grid Line 15	--	--	--			--			--			970.296			969.998			969.929	3.537
Grid Line 16	--	--	--			--			--			--			970.088			970.016	3.618
Grid Line 17	3.656	971.091	971.017			--			--			--			--			--	--
Grid Line 18	3.768	971.223	971.146			970.817			--			--			--			--	--
Grid Line 19	3.868	971.345	971.264			970.937			970.608			--			--			--	--
Grid Line 20	3.956	971.466	971.382			971.056			970.728			970.399			--			--	--
Grid Line 21	4.032	971.582	971.495			971.174			970.847			970.520			970.192			970.120	3.605
Grid Line 22	4.096	971.694	971.606			971.287			970.966			970.640			970.313			970.243	3.541
Grid Line 23	4.148	971.802	971.711			971.398			971.080			970.759			970.434			970.366	3.488
Grid Line 24	4.189	971.904	971.812			971.505			971.192			970.873			970.553			970.486	3.447
Grid Line 25	4.217	972.003	971.910			971.605			971.298			970.984			970.668			970.602	3.419
Grid Line 26	4.234	972.095	972.002			971.703			971.399			971.092			970.779			970.714	3.402
Grid Line 27	4.238	972.184	972.090			971.795			971.497			971.193			970.887			970.822	3.397
Grid Line 28	4.231	972.267	972.174			971.884			971.590			971.292			970.988			970.923	3.404
Grid Line 29	4.212	972.346	972.253			971.969			971.679			971.385			971.087			971.022	3.423
Grid Line 30	4.181	972.421	972.330			972.048			971.764			971.474			971.181			971.114	3.455
Grid Line 31	4.138	972.491	972.401			972.125			971.843			971.560			971.270			971.202	3.498
Grid Line 32	4.084	972.560	972.472			972.197			971.921			971.639			971.356			971.286	3.553
Grid Line 33	4.017	972.628	972.542			972.268			971.993			971.717			971.436			971.364	3.620
Grid Line 34	--	--	--			972.339			972.065			971.790			971.514			971.439	3.699
Grid Line 35	--	--	--			--			972.136			971.862			971.587			971.510	3.790
Grid Line 36	--	--	--			--			--			971.934			971.660			971.579	3.893
Grid Line 37	--	--	--			--			--			--			971.733			971.648	4.008
Grid Line 38	4.021	972.701	972.615			--			--			--			--			--	--
Grid Line 39	4.089	972.801	972.713			972.411			--			--			--			--	--
Grid Line 40	4.146	972.901	972.810			972.509			972.208			--			--			--	--
Grid Line 41	4.190	972.999	972.907			972.608			972.307			972.005			--			--	--
Grid Line 42	4.222	973.095	973.003			972.705			972.405			972.105			971.804			971.718	4.015
Grid Line 43	4.243	973.191	973.097			972.801			972.503			972.204			971.904			971.819	3.994
Grid Line 44	4.251	973.284	973.191			972.896			972.600			972.302			972.004			971.919	3.986
Grid Line 45	4.248	973.377	973.283			972.990			972.695			972.400			972.102			972.018	3.989
Grid Line 46	4.233	973.468	973.375			973.083			972.790			972.496			972.200			972.115	4.004
Grid Line 47	--	--	--			973.175			972.884			972.591			972.297			972.210	4.032
Grid Line 48	--	--	--			--			972.976			972.685			972.392			972.305	4.071
Grid Line 49	--	--	--			--			--			972.778			972.487			972.398	4.122
Grid Line 50	--	--	--			--			--			--			972.581			972.489	4.185
Grid Line 51	--	--	--			--			--			--			--			--	4.260

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.

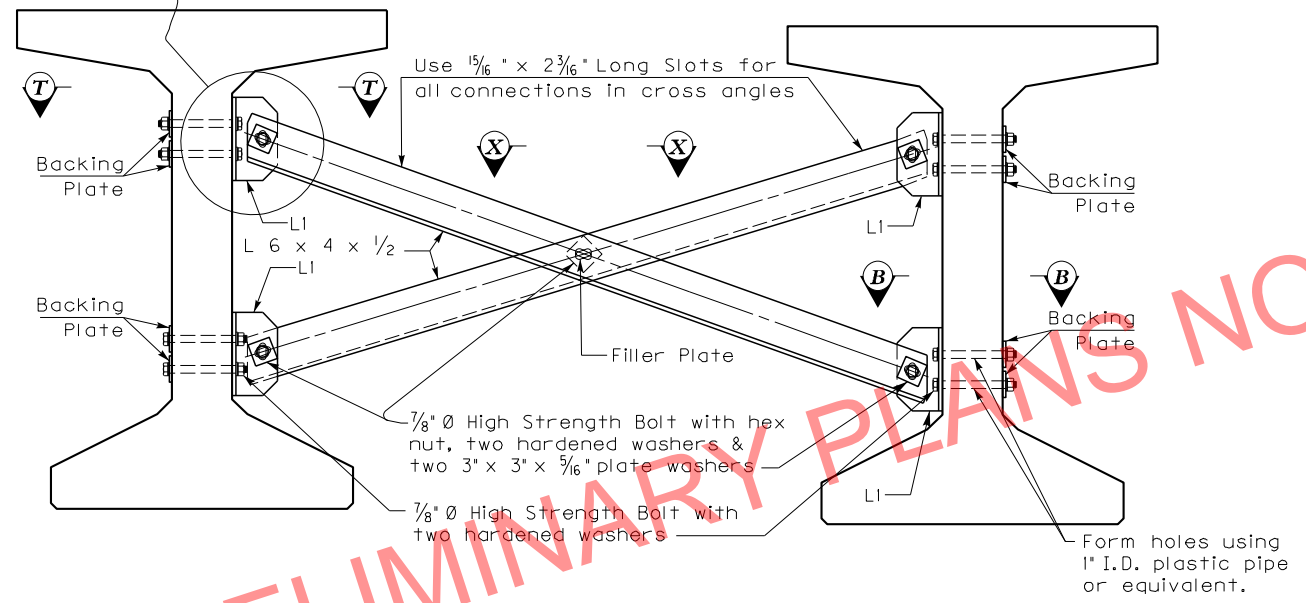
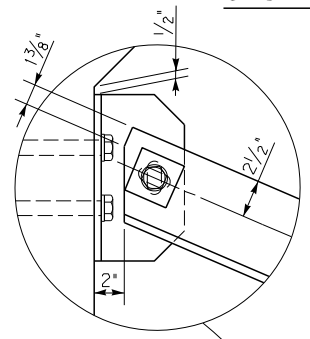
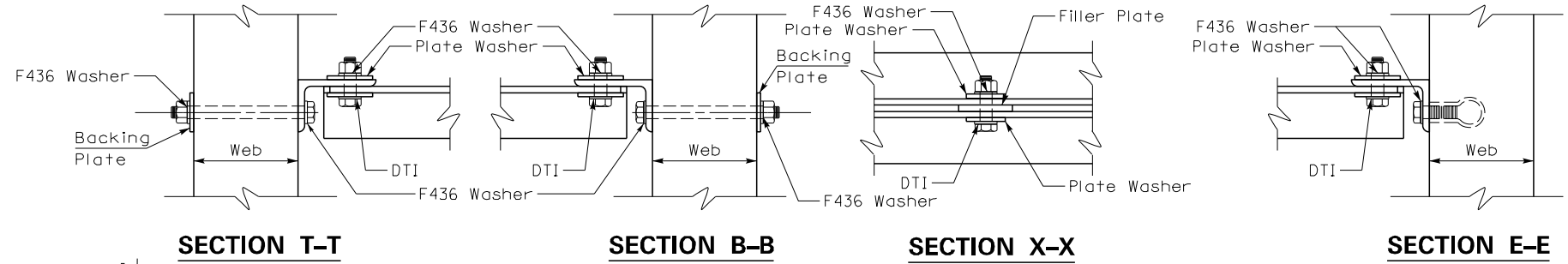
REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: W.R. ABBOTT	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY WOLFE-MORGAN		
ROUTE KY 9009	CROSSING RED RIVER	
CONSTRUCTION ELEVATIONS-WB		
ITEM NUMBER		PREPARED BY
10-126.70		LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY
		SHEET NO. S32 DRAWING NO. 27079

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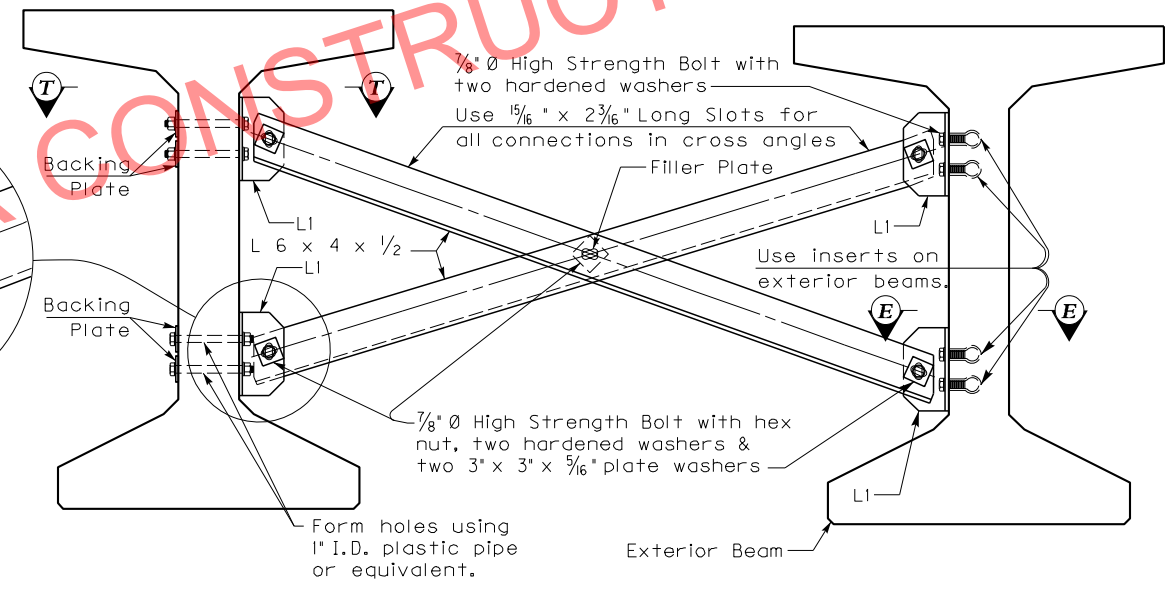
USER: dsmitthson
DATE PLOTTED: October 11, 2016

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~

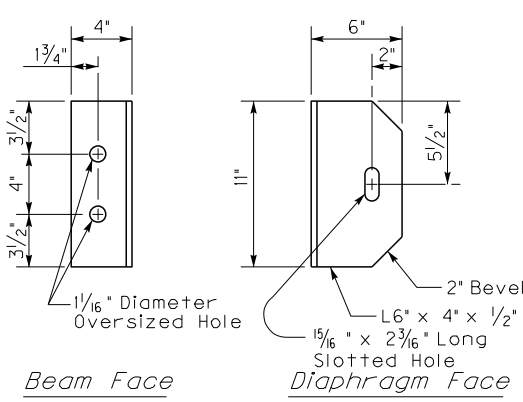
Diaphragm Notes

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.

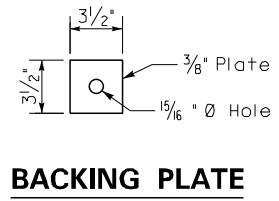
STRUCTURAL STEEL: Ensure plates and angles conform to ASTM A36 or A572 and galvanized after fabrication.

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



BACKING PLATE

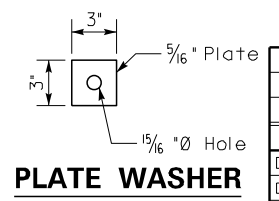
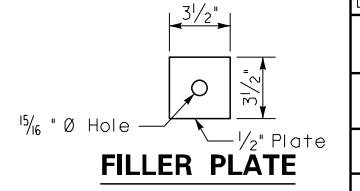


PLATE WASHER



FILLER PLATE

ITEM NUMBER	10-126.70
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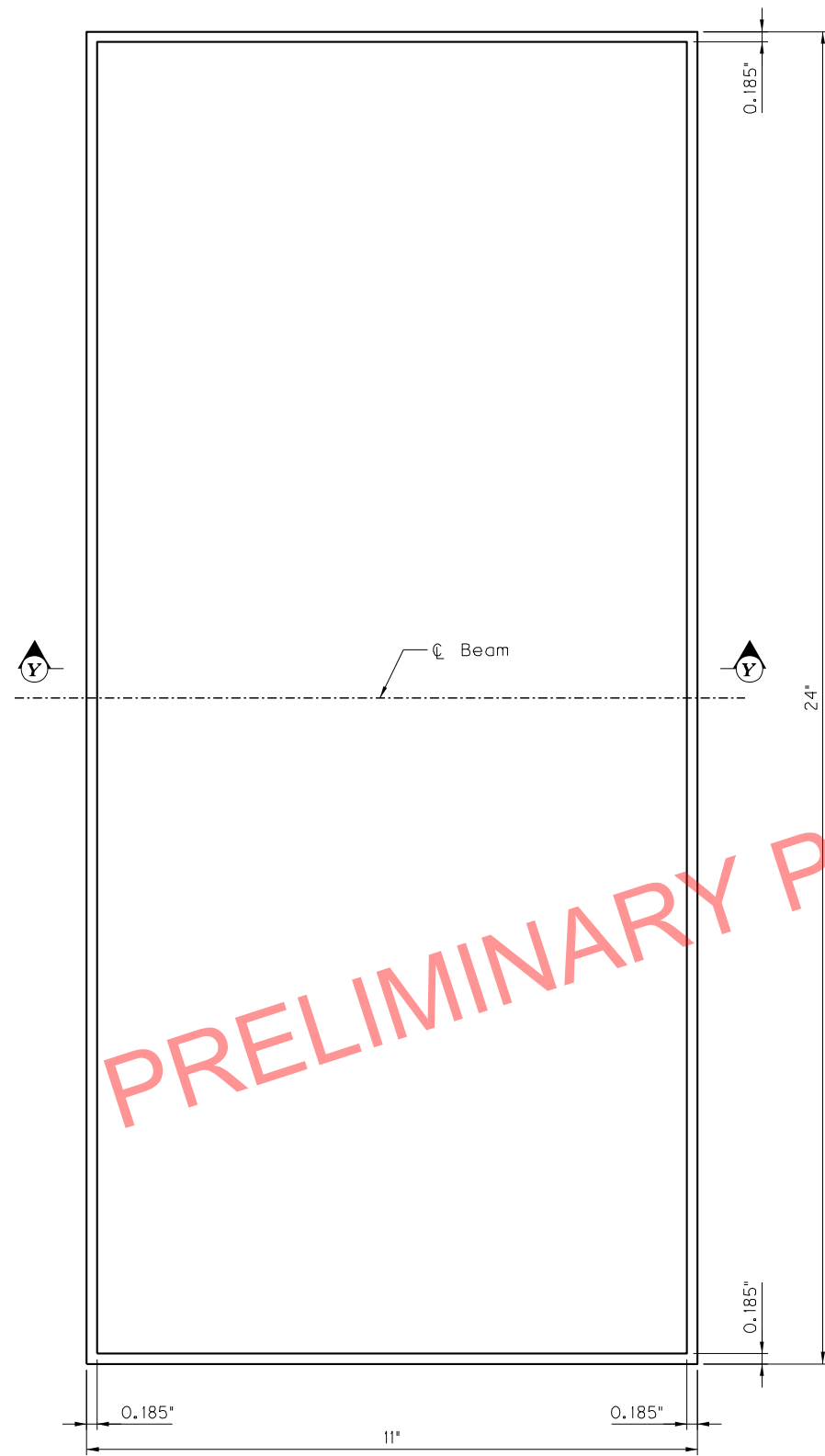
REVISION		DATE
DATE: June, 2016	CHECKED BY	
DESIGNED BY: B.C. REID	W.D. BURTON	
DETAILED BY: D.M. SMITHSON	B.C. REID	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
WOLFE-MORGAN		
ROUTE KY 9009	CROSSING RED RIVER	
STEEL DIAPHRAGMS		
PREPARED BY LOCHNER		SHEET NO. S34
H.W. LOCHNER, INC. LEXINGTON, KENTUCKY		DRAWING NO. 27079

FILE NAME: I:\LEX\PRJ\00008298\DESIGN\STRUCTURES\FINAL DESIGN\STAGE II FINAL SUBMITTAL\27079\27079_035.DGN

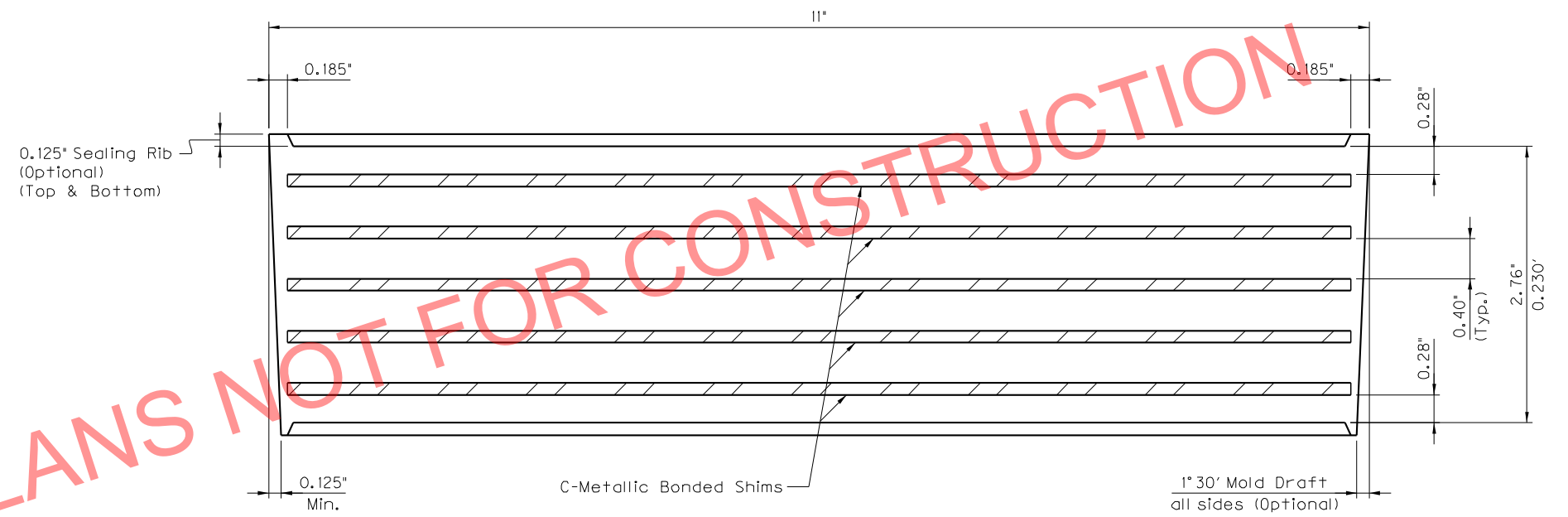
USER: dsmitthson
DATE PLOTTED: October 11, 2016

E-SHEET NAME:

MicroStation v8.11.9.459



PLAN



SECTION Y-Y

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 RED RIVER	
ELASTOMERIC BEARING PADS		
ITEM NUMBER	PREPARED BY	SHEET NO.
10-126.70	LOCHNER H.W. LOCHNER, INC. LEXINGTON, KENTUCKY	S35 DRAWING NO. 27079

ITEM NUMBER
10-126.70