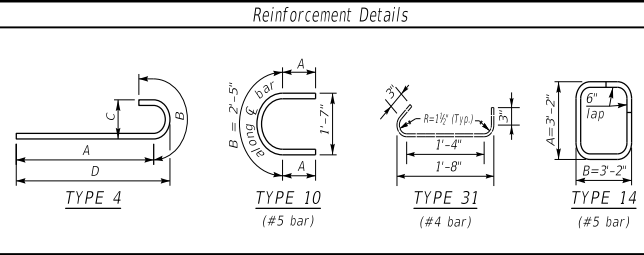
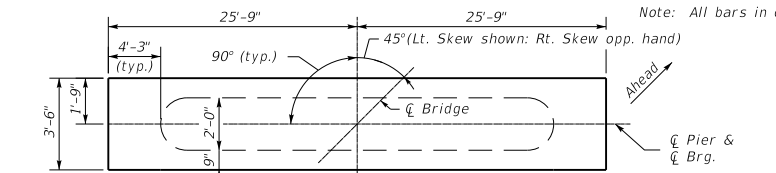


45° SKEW 32'-0" - 33'-6" BRIDGE WIDTH (No Seismic Load)

MARK		P1		P2		P3		P4				P5		P6		P7		P8		P9(e)		P10(e)		P11(e)																												
TYPE		Str.		Str.		Str.		Type 4				Type 10		Str.		Type 31		Str.		Str.		Type 14		Str.																												
SIZE		No.		No.		No.		No.				No.		No.		No.		No.		No.		No.		No.																												
10-11	72	7	12	8	8	26	5	47	8	12	72	5	12	8	8	126	8	10	8	7	9	10	5	7	5	12	2	6	10	5	41	0	12	109	2	5	126	8	10	8	8	5	1	2	4	5	1	2	5	1	2	2
12-13	72	7	12	8	8	26	5	47	8	12	72	5	12	8	8	126	8	10	8	7	9	10	5	7	5	12	2	6	14	5	41	0	12	147	2	5	126	8	10	8	8	5	1	2	4	5	1	2	5	1	2	2
14-15	72	7	12	8	8	26	5	47	8	12	72	5	12	8	8	126	8	10	8	7	9	10	5	7	5	12	2	6	18	5	41	0	12	189	2	5	126	8	10	8	8	5	1	2	4	5	1	2	5	1	2	2
16-17	72	7	12	8	8	26	5	47	8	12	72	5	12	8	8	126	8	10	8	7	9	10	5	7	5	12	2	6	22	5	41	0	12	231	2	5	126	8	10	8	8	5	1	2	4	5	1	2	5	1	2	2
18-19	72	7	12	8	8	26	5	47	8	12	72	5	12	8	8	126	8	10	8	7	9	10	5	7	5	12	2	6	26	5	41	0	12	273	2	5	126	8	10	8	8	5	1	2	4	5	1	2	5	1	2	2
20-21	72	7	12	8	8	26	5	47	8	12	72	5	12	8	8	126	8	10	8	7	9	10	5	7	5	12	2	6	30	5	41	0	12	315	2	5	126	8	10	8	8	5	1	2	4	5	1	2	5	1	2	2
22-23	72	7	12	8	8	26	5	47	8	12	72	5	12	8	8	126	8	10	8	7	9	10	5	7	5	12	2	6	34	5	41	0	12	357	2	5	126	8	10	8	8	5	1	2	4	5	1	2	5	1	2	2
24-25	72	7	12	8	8	26	5	47	8	12	72	5	12	8	8	126	8	10	8	7	9	10	5	7	5	12	2	6	38	5	41	0	12	399	2	5	126	8	10	8	8	5	1	2	4	5	1	2	5	1	2	2

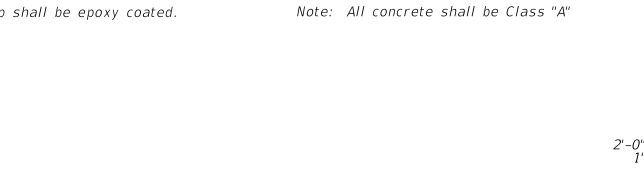


DIMENSIONS TABLE												QUANTITIES						
H	A				B				C				H	CONCRETE CLASS "A"	STEEL REINFORCEMENT EPOXY COATED	STEEL REINFORCEMENT		
	H	A	B	C	H	A	B	C	H	A	B	C		CU. YDS. (1)	LBS.	LBS.		
10-11	2	6	2	6	2	6	2	6	2	6	2	6	2	6	10-11	98.1	2013	10477
12-13	2	6	2	6	2	6	2	6	2	6	2	6	2	6	12-13	104.4	2013	11422
14-15	2	6	2	6	2	6	2	6	2	6	2	6	2	6	14-15	110.7	2013	12367
16-17	2	6	2	6	2	6	2	6	2	6	2	6	2	6	16-17	117	2013	13313
18-19	2	6	2	6	2	6	2	6	2	6	2	6	2	6	18-19	123.4	2013	14278
20-21	2	6	2	6	2	6	2	6	2	6	2	6	2	6	20-21	129.7	2013	15204
22-23	2	6	2	6	2	6	2	6	2	6	2	6	2	6	22-23	136	2013	16149
24-25	2	6	2	6	2	6	2	6	2	6	2	6	2	6	24-25	142.3	2013	17094

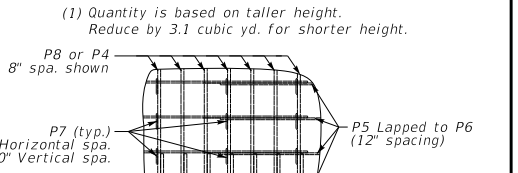


Note: All bars in cap shall be epoxy coated.

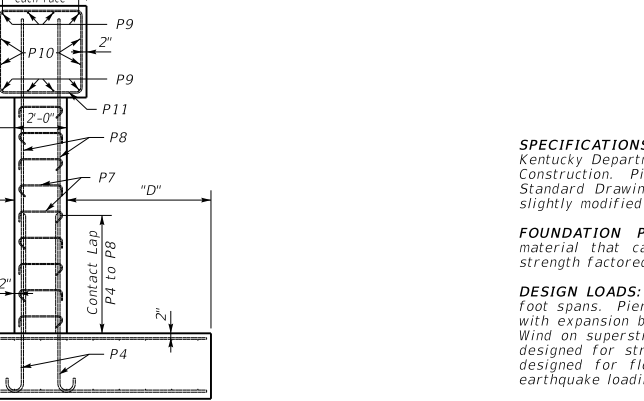
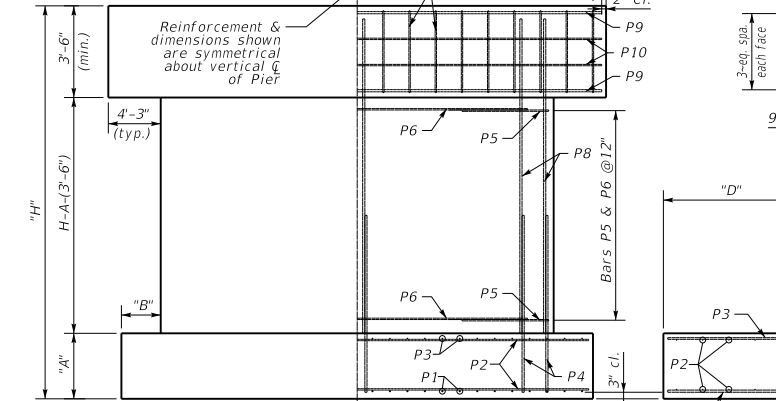
Note: Grade cap to roadway grade for box beams. Step cap if necessary for steel beams.



Note: All concrete shall be Class "A"

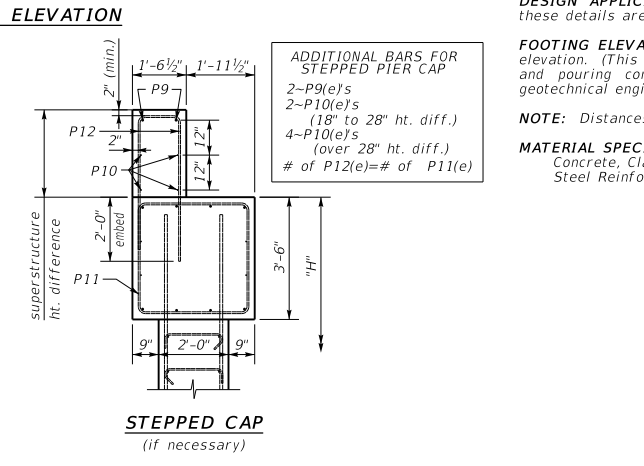
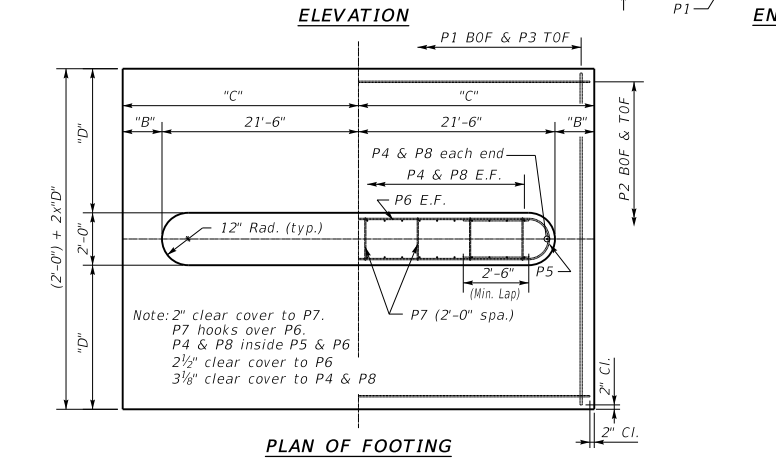


(1) Quantity is based on taller height. Reduce by 3.1 cubic yd. for shorter height.



GENERAL NOTES

- SPECIFICATIONS:** Construct piers according to the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction. Piers are designed for side box beams as detailed in Standard Drawings BDP-001 through BDP-012, current edition. They may be slightly modified to allow for 33'-6" rolled steel beam bridge width.
- FOUNDATION PRESSURE:** Construct pier footings on solid rock bearing material that can support a pressure of 8000 psf service or 10,800 psf strength factored as recommended by a geotechnical engineer.
- DESIGN LOADS:** Pier is designed for the CB42 beam superstructure with 3-97 foot spans. Pier is designed to handle a half a 97 foot span for thermal load with expansion bearings under the beams. Pier is designed for 100 mph wind. Wind on superstructure is for 1-97' span longitudinal and transverse. Pier is designed for stream flow of 10 ft./sec. up to the top of the pier. It is not designed for flow acting on the superstructure. Pier is not designed for earthquake loading.
- DESIGN APPLICABILITY:** Consult with a structural engineer to determine if these details are applicable for any particular project.
- FOOTING ELEVATION:** Construct bottom of footing below the anticipated scour elevation. (This typically entails embedding the footings 1'-0" to 2'-0" into rock and pouring concrete directly against cut rock faces as recommended by geotechnical engineer.)
- NOTE:** Distances to bars shown are clear dimensions unless otherwise noted.
- MATERIAL SPECIFICATIONS:**
 Concrete, Class "A" = 3500 psi
 Steel Reinforcement = Grade 60



- ADDITIONAL BARS FOR STEPPED PIER CAP**
 2-P9(e)s
 2-P10(e)s
 (18" to 28" ht. diff.)
 4-P10(e)s
 (over 28" ht. diff.)
 # of P12(e) = # of P11(e)

KENTUCKY DEPARTMENT OF HIGHWAYS

Standard Pier

45° Skew

32'-0"-33'-6" Bridge Width

STANDARD DRAWING NO. **BSP-012**

SUBMITTED: *[Signature]* DATE: **02-26-20**

DIRECTOR DIVISION OF STRUCTURAL DESIGN

APPROVED: *[Signature]* DATE: **02-26-20**

STATE PROFESSIONAL ENGINEER