

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

Bill of Reinforcement																								Reinforcement Details										QUANTITIES									
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.	Str.	Type 14																										
SIZE													#4		#8	#5	#5																										
H	No.	Length	Area	No.	Length	Area	No.	Length	Area	No.	Length	Area	No.	Length	Area	No.	Length	Area	No.	Length	Area	No.	Length	Area	No.	Length	Area	No.	Length	Area													
10-11	52	8	12	8	26	6	34	2	12	52	5	12	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8													
12-13	52	8	12	8	26	6	34	2	12	52	5	12	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8													
14-15	52	8	12	8	26	6	34	2	12	52	5	12	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8													
16-17	52	8	12	8	26	6	34	2	12	52	5	12	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8													
18-19	52	8	12	8	26	6	34	2	12	52	5	12	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8													
20-21	52	8	12	8	26	6	34	2	12	52	5	12	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8													
22-23	52	8	12	8	26	6	34	2	12	52	5	12	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8													
24-25	52	8	12	8	26	6	34	2	12	52	5	12	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8													

TYPE 4

TYPE 10

$B = 2 \cdot S$

TYPE 31

TYPE 14

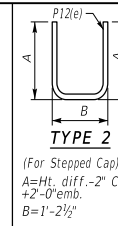
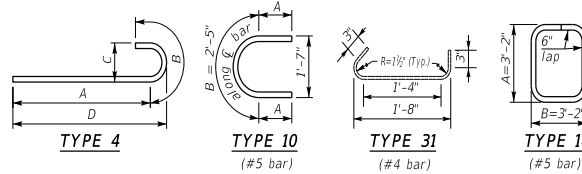
$A = 3 \cdot 2$

TYPE 2

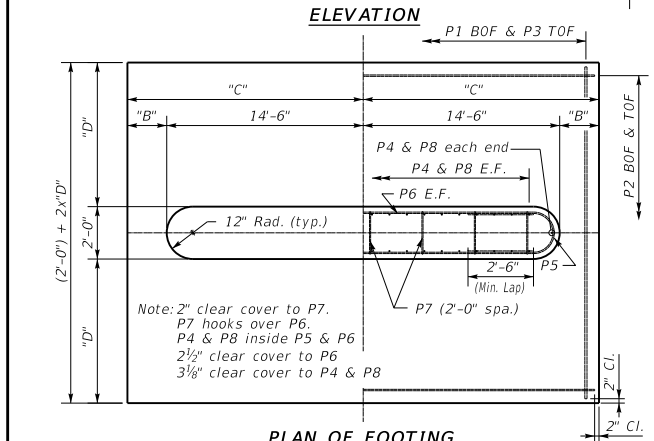
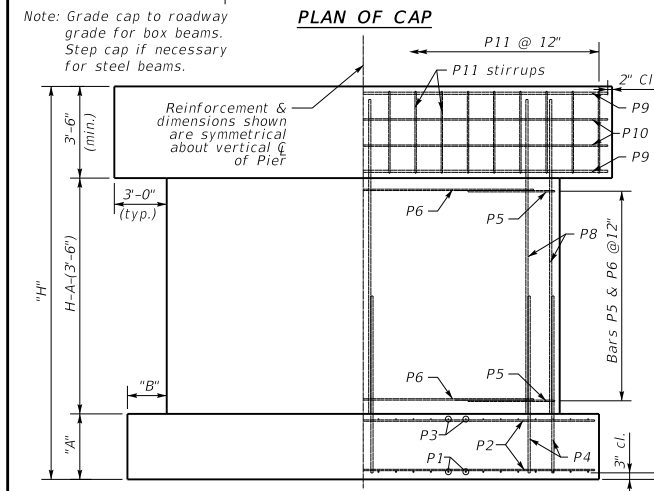
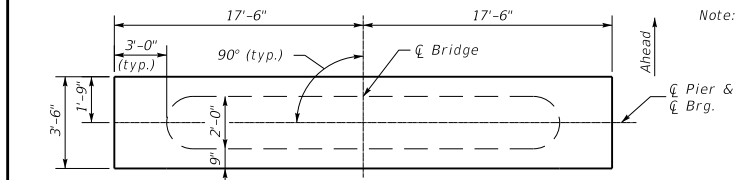
$P12(e)$

(For Stepped Cap)
A=Ht. diff. -2" Cl.
+2-0"emb.
B=1'-2 1/2"

DIMENSIONS TABLE										CONCRETE CLASS "A"						STEEL REINFORCEMENT EPOXY COATED						STEEL REINFORCEMENT								
H	A	B	C	D	H	A	B	C	D	H	A	B	C	D	H	A	B	C	D	H	A	B	C	D	H	A	B	C	D	
10-11	2	6	2	9	7	3	5	6	10-11	68	1370	8051	1370	8051	1370	8051	1370	8051	1370	8051	1370	8051	1370	8051	1370	8051	1370	8051	1370	8051
12-13	2	6	2	9	7	3	5	6	12-13	77.2	1370	8691	1415	77.2	1370	8691	1415	77.2	1370	8691	1415	77.2	1370	8691	1415	77.2	1370	8691	1415	77.2
14-15	2	6	2	9	7	3	5	6	14-15	85.7	1370	9969	1617	85.7	1370	9969	1617	85.7	1370	9969	1617	85.7	1370	9969	1617	85.7	1370	9969	1617	85.7
16-17	2	6	2	9	7	3	5	6	16-17	89.9	1370	11247	1725	89.9	1370	11247	1725	89.9	1370	11247	1725	89.9	1370	11247	1725	89.9	1370	11247	1725	89.9
18-19	2	6	2	9	7	3	5	6	18-19	94.2	1370	11887	1845	94.2	1370	11887	1845	94.2	1370	11887	1845	94.2	1370	11887	1845	94.2	1370	11887	1845	94.2
20-21	2	6	2	9	7	3	5	6	20-21	98.4	1370	12526	1965	98.4	1370	12526	1965	98.4	1370	12526	1965	98.4	1370	12526	1965	98.4	1370	12526	1965	98.4



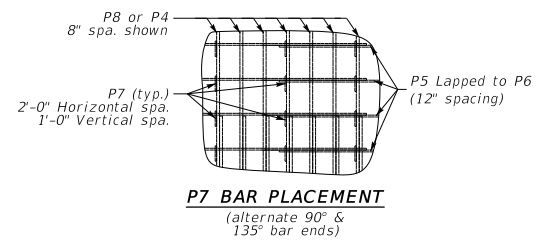
DIMENSIONS TABLE															
H	A	B	C	D	H	A	B	C	D	H	A				
10-11	2	6	2	9	17	3	5	6	10	11	68.8	CONCRETE CLASS "A"		STEEL REINFORCEMENT EPOXY COATED	
12-13	2	6	2	9	17	3	5	6	12	13	73	CU. YDS. (1)		LBS.	
14-15	2	6	2	9	17	3	5	6	14	15	77.2				
16-17	2	6	2	9	17	3	5	6	16	17	81.5				
18-19	2	6	2	9	17	3	5	6	18	19	85.7				
20-21	2	6	2	9	17	3	5	6	20	21	89.9				
22-23	2	6	2	9	17	3	5	6	22	23	94.2				
24-25	2	6	2	9	17	3	5	6	24	25	98.4				



Note: All bars in cap shall be epoxy coated.

Note: All concrete shall be Class "A"

(1) Quantity is based on taller height. Reduce by 2.1 cubic yard 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 by 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.

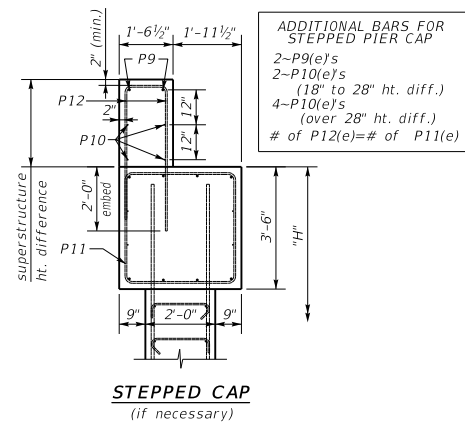
DESIGN LOADS: Pier is designed for the CB42 beam superstructure with 3-97 foot spans. Pier is designed to handle a half a 97 foot span for thermal load with expansion bearings under the beams. Pier is designed for 100 mph wind. Wind on superstructure is for 1-97' span longitudinal and transverse. Pier 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



KENTUCKY DEPARTMENT OF HIGHWAYS	
Standard Pier 0° Skew 32'-0"-33'-6" Bridge Width	
STANDARD DRAWING NO. BSP-003	
SUBMITTED	DATE 02-26-20
DIRECTOR DIVISION OF STRUCTURAL DESIGN	
APPROVED	DATE 02-26-20
STATE ENGINEER	