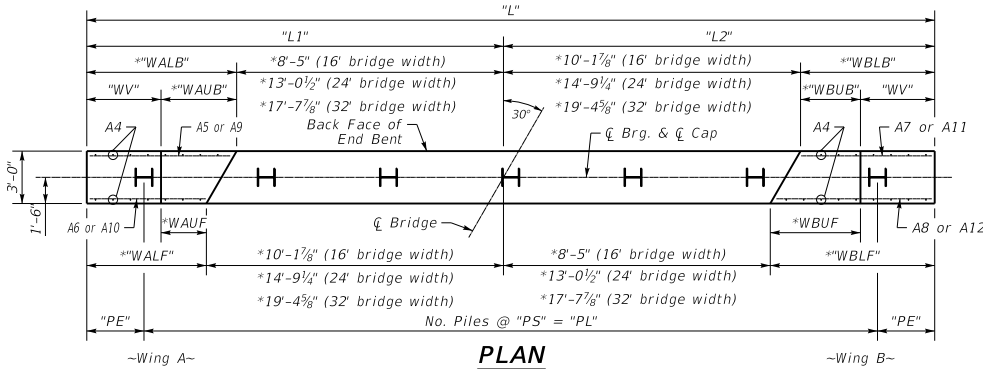


SUPERSTRUCTURE HEIGHT SDH=Beam Height +pad height (+haunch+slab) (if applicable)		CAP BILL OF REINFORCEMENT												WING BILL OF REINFORCEMENT																																																																													
		16'-0" BRIDGE WIDTH				24'-0" BRIDGE WIDTH				32'-0" BRIDGE WIDTH				WING A				WING B																																																																									
		MARK	TYPE	NO.	SIZE	LENGTH	MARK	TYPE	NO.	SIZE	LENGTH	MARK	TYPE	NO.	SIZE	LENGTH	MARK	TYPE	NO.	SIZE	LENGTH	MARK	TYPE	NO.	SIZE	LENGTH	MARK	TYPE	NO.	SIZE	LENGTH																																																												
H1	17" $\leq$ SDH $\leq$ 27"	A1e	14s	24	5	11-0	A1e	14s	34	5	11-0	A1e	14s	41	5	11-0	A4e	Str.	15	5	4-0	A7e	Str.	2	5	3-9	A10e	Str.	1	6	2-0	A2e	Str.	9	8	26-3	A2e	Str.	9	8	35-6	A2e	Str.	9	8	44-9	A5e	Str.	2	5	3-6	A8e	Str.	2	5	5-3	A11e	Str.	1	6	3-9	A3e	Str.	4	5	26-3	A3e	Str.	4	5	35-6	A3e	Str.	4	5	44-9	A6e	Str.	2	5	2-0	A9e	Str.	1	6	3-6	A12e	Str.	1	6	5-3
		A1e	14s	27	5	11-0	A1e	14s	36	5	11-0	A1e	14s	43	5	11-0	A4e	Str.	22	5	4-8	A7e	Str.	3	5	5-4	A10e	Str.	1	6	3-7	A2e	Str.	9	8	29-5	A2e	Str.	9	8	38-8	A2e	Str.	9	8	47-11	A5e	Str.	3	5	5-1	A8e	Str.	3	5	6-10	A11e	Str.	1	6	5-4	A3e	Str.	4	5	29-5	A3e	Str.	4	5	38-8	A3e	Str.	4	5	47-11	A6e	Str.	3	5	3-7	A9e	Str.	1	6	5-1	A12e	Str.	1	6	6-10
		A1e	14s	34	5	11-0	A1e	14s	41	5	11-0	A1e	14s	48	5	11-0	A4e	Str.	33	5	5-11	A7e	Str.	4	5	8-3	A10e	Str.	1	6	6-11	A2e	Str.	9	8	35-3	A2e	Str.	9	8	44-6	A2e	Str.	9	8	53-9	A5e	Str.	4	5	8-0	A8e	Str.	4	5	9-9	A11e	Str.	1	6	8-9	A3e	Str.	4	5	35-3	A3e	Str.	4	5	44-6	A3e	Str.	4	5	53-9	A6e	Str.	4	5	6-6	A9e	Str.	1	6	8-5	A12e	Str.	1	6	10-2

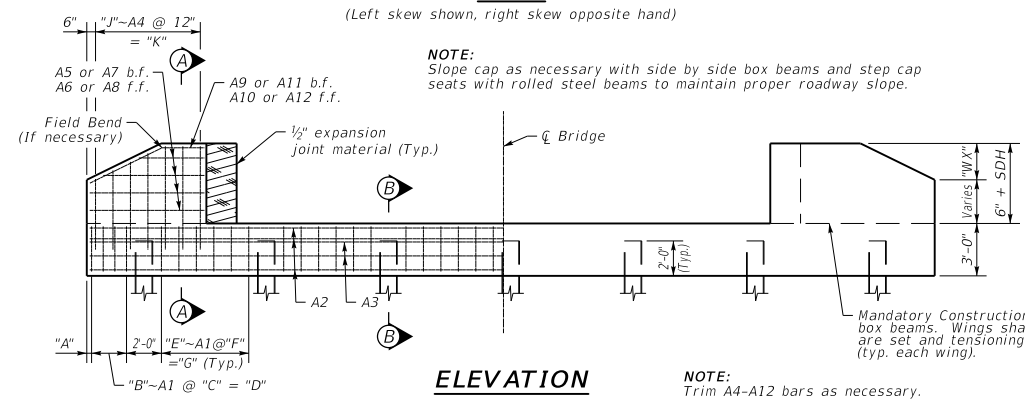
BRIDGE WIDTH	PILE LOAD	PILES	DIMENSIONS												WING A												WING B												QUANTITIES																																																
			Geometry						Reinforcement						Back Face						Front Face						Back Face						Front Face						CONC. (C.Y.)	STEEL (LBS.)																																															
			L	L1	L2	A	B	C	D	E	F	G	H	WALB	WAUB	WV	WX	J	K	WALF	WAUF	WV	WX	J	K	WBLB	WBUB	WV	WX	J	K	WBLF	WBUF	WV	WX	J	K																																																		
16	H1	73	4	2-9 1/8"	7'-0"	21'-0"	26'-7 1/8"	12'-5 1/8"	14'-2 3/8"	3 3/8"	3	9"	1'-6"	6	12"	5'-0"	2	4'-0 3/8"	0	0	0	4	3'-0"	2'-3 3/8"	0	0	0	2	1'-0"	4'-0 3/8"	0	0	0	0	4	3'-0"	5'-9 3/8"	0	0	0	5	4'-0"	11.3	1132																																											
																																													H2	87	4	2-10 1/8"	8'-0"	24'-0"	29'-9 1/8"	14'-0 1/8"	15'-9 1/8"	2 1/2"	3	10"	1'-8"	7	12"	6'-0"	3	5'-7 1/8"	0	0	0	5	4'-0"	3'-10 1/8"	0	0	0	4	3'-0"	5'-7 1/8"	0	0	0	6	5'-0"	7'-4 3/8"	0	0	0	7	6'-0"	14.1	1345
																																													H3	88	5	2-9 1/8"	7'-6"	30'-0"	35'-7 1/8"	16'-11 1/8"	18'-8 1/8"	3 3/8"	3	9"	1'-6"	7	11"	5'-6"	4	8'-6 3/8"	3'-9 1/8"	4'-9"	2'-1"	8	7'-0"	6'-9 1/8"	2'-0 3/8"	4'-9"	2'-1"	7	6'-0"	8'-6 3/8"	3'-9 1/8"	4'-9"	2'-1"	8	7'-0"	10'-3 3/8"	5'-6 3/8"	4'-9"	2'-1"	10	9'-0"	19.5	1777
24	H1	80	5	2-11 1/8"	7'-6"	30'-0"	35'-10 1/8"	17'-0 1/8"	18'-9 1/8"	3 3/8"	3	10"	1'-8"	7	11"	5'-6"	2	4'-0 3/8"	0	0	0	4	3'-0"	2'-3 3/8"	0	0	0	2	1'-0"	4'-0 3/8"	0	0	0	0	4	3'-0"	5'-9 1/8"	0	0	0	5	4'-0"	14.4	1508																																											
																																													H2	99	5	3'-6 3/8"	8'-0"	32'-0"	39'-0 1/8"	18'-7 1/8"	20'-4 1/8"	3 3/8"	4	9"	2'-3"	7	12"	6'-0"	3	5'-7 1/8"	0	0	0	5	4'-0"	3'-10 1/8"	0	0	0	4	3'-0"	5'-7 1/8"	0	0	0	6	5'-0"	7'-4 3/8"	0	0	0	7	6'-0"	17.4	1709
																																													H3	103	6	2-5 1/8"	8'-0"	40'-0"	44'-10 1/8"	21'-6 1/8"	23'-3 1/8"	3 3/8"	3	7"	1'-2"	7	12"	6'-0"	4	8'-6 3/8"	3'-9 1/8"	4'-9"	2'-1"	8	7'-0"	6'-9 1/8"	2'-0 3/8"	4'-9"	2'-1"	7	6'-0"	8'-6 3/8"	3'-9 1/8"	4'-9"	2'-1"	8	7'-0"	10'-3 3/8"	5'-6 3/8"	4'-9"	2'-1"	10	9'-0"	22.6	2119
32	H1	88	6	2'-6 3/8"	8'-0"	40'-0"	45'-1 1/8"	21'-8 1/8"	23'-5 1/8"	2 1/2"	3	8"	1'-4"	7	12"	6'-0"	2	4'-0 3/8"	0	0	0	4	3'-0"	2'-3 3/8"	0	0	0	2	1'-0"	4'-0 3/8"	0	0	0	0	4	3'-0"	5'-9 1/8"	0	0	0	5	4'-0"	17.4	1850																																											
																																													H2	109	6	4'-13 1/8"	8'-0"	40'-0"	48'-3 1/8"	23'-3 1/8"	25'-0 1/8"	4 3/8"	4	11"	2'-9"	7	12"	6'-0"	3	5'-7 1/8"	0	0	0	5	4'-0"	3'-10 1/8"	0	0	0	4	3'-0"	5'-7 1/8"	0	0	0	6	5'-0"	7'-4 3/8"	0	0	0	7	6'-0"	20.3	2051
																																													H3	116	7	3'-3 3/8"	8'-0"	48'-0"	54'-1 1/8"	26'-2 1/8"	27'-11 1/8"	2 1/2"	3	11"	1'-10"	7	12"	6'-0"	4	8'-6 3/8"	3'-9 1/8"	4'-9"	2'-1"	8	7'-0"	6'-9 1/8"	2'-0 3/8"	4'-9"	2'-1"	7	6'-0"	8'-6 3/8"	3'-9 1/8"	4'-9"	2'-1"	8	7'-0"	10'-3 3/8"	5'-6 3/8"	4'-9"	2'-1"	10	9'-0"	25.6	2460

- NOTES:**  
1) Conform to KYTC, Standard Specifications, Current Edition.  
2) Concrete to be Class "A", 3500 psi.  
3) Rebar to be epoxy coated A615, Grade 60.  
4) Maintain 2" clear cover to reinforcement unless otherwise noted.  
5) End Bents are designed for the maximum span of the following steel and concrete beams as shown in the current standards:  
H1 - B12, CB12, B17, CB17, B21 or rolled steel beams up to 16" nominal depth.  
H2 - CB21, B27, CB27, B33 or rolled steel beams up to 24" nominal depth.  
H3 - CB33, B42, CB42 or rolled steel beams up to 36" nominal depth.  
6) Piles may be HP12x53 or 16" Steel Pipes with 1/2" wall thickness.

- 7) Piles driven to rock must be driven to Refusal. Friction Piles must be driven to (Pile Load/0.4) using the Gates Method.  
8) Pile load given is Factored Strength Load.  
9) Piles must be driven 10' into existing ground or to refusal on bedrock. Piles at wet crossings must be driven to 10' below stream bed or to refusal on bedrock. A minimum pile length of 10' is required in all circumstances.  
10) Contractor shall provide a hammer capable of driving the piling to refusal or capacity without encountering excessive blow counts or damaging the pile. Contractor shall be responsible for all damaged piling.

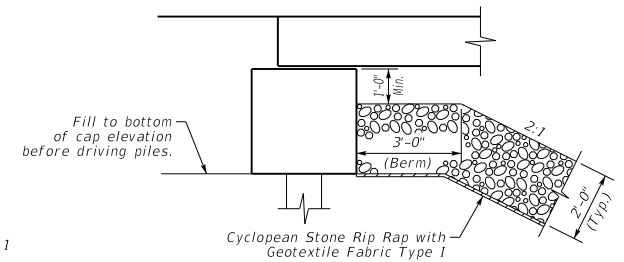


**PLAN**



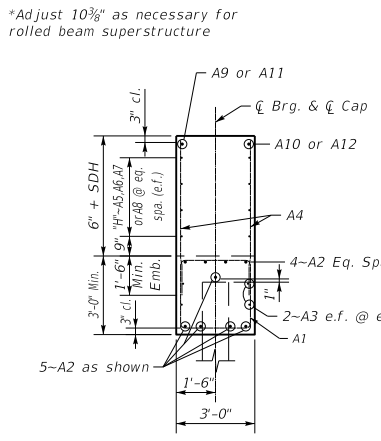
**ELEVATION**

**NOTE:**  
Trim A4-A12 bars as necessary.

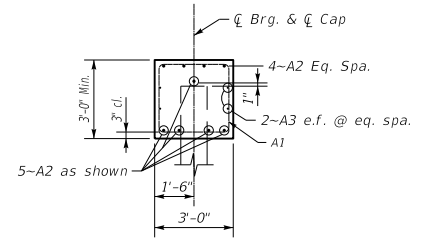


**SECTION THRU END BENT**

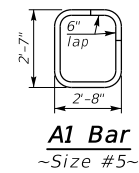
(Showing berm and fill slope)



**SECTION A-A**



**SECTION B-B**



**A1 Bar**  
~Size #5~

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**PILE END BENT  
30° SKEW**

STANDARD DRAWING NO. BSE-003

SUBMITTED: *[Signature]* 02-26-20  
DIRECTOR DIVISION OF STRUCTURAL DESIGN DATE

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