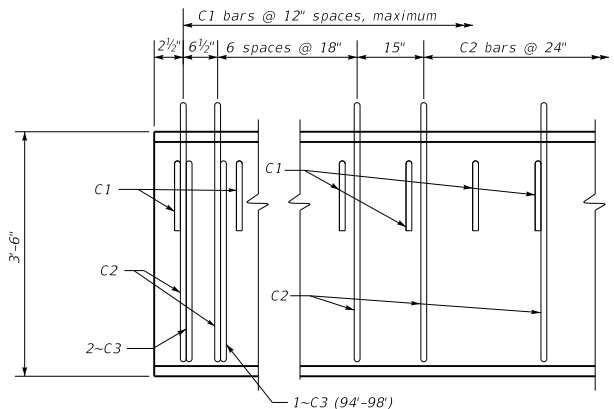


CB42 BEAM



CB42 ELEVATION OF 0° SKEW
(Refer to BDP-003,c.e. for skewed details)



C1(e) Bar



C2(e)-C3(e) Bars

TABLE OF STRAND DATA

Beam Type	Beam Length (feet)	Number of Strands Required		
		Row ①	Row ②	Row ③
CB42	86	17	9	
	88	17	10	
	90	17	12	
	92	17	13	
	94	17	14	2
	96	17	15	2
	98	17	16	2

BAR QUANTITIES TABLE

Beam Type	Beam Length (feet)	C1	C2	C3			
CB42	86	87	49	4			
	88	89	50	4			
	90	91	51	4			
	92	93	52	4			
	94	95	53	6			
	96	97	54	6			
	98	99	55	6			

DESIGN DATA

Beam Type	Beam Length (feet)	DC kips	DW kips	LL kips	LL+I kips	Δd (in.)	Δc (in.)
CB42	86	52.1	2.4	57.1	70.3	0.4	1.0
	88	53.3	2.5	57.6	70.9	0.5	1.1
	90	54.6	2.6	58.1	71.4	0.5	1.2
	92	55.8	2.6	58.6	72.0	0.5	1.3
	94	57.0	2.7	59.1	72.5	0.6	1.2
	96	58.2	2.7	59.6	73.0	0.6	1.3
	98	59.4	2.8	60.1	73.5	0.7	1.3

Straight Reinforcement

Mark	Size	Length
A2(E)	#4	Beam Length Minus 3"
D(E)	#8	2'-0"

NOTE: A2 bars are to be lapped 2'-2" when necessary.

Bent Reinforcement

Mark	Size	a	b
C1(e)	#5	3'-9"	6"
C2(e)	#4	3'-9"	3'-7 1/4"
C3(e)	#5	11 3/8"	3'-2 3/8"

KENTUCKY
DEPARTMENT OF HIGHWAYS
BOX BEAM
CB42
DETAILS

STANDARD DRAWING NO. **BDP-012-04**
 SUBMITTED *[Signature]* **02-26-20**
 DIRECTOR DIVISION OF STRUCTURAL DESIGN DATE
 APPROVED *[Signature]* **02-26-20**
 STATE ENGINEER DATE