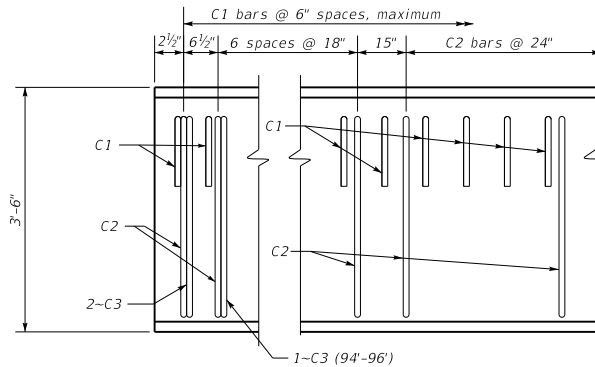
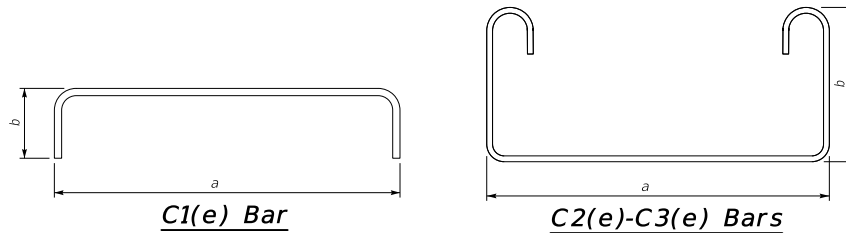


**B42 BEAM**



**B42 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
B42	80	17	6	
	82	17	7	
	84	17	8	
	86	17	10	
	88	17	11	
	90	17	12	
	92	17	13	
	94	17	14	2
96	17	15	2	

**BAR QUANTITIES TABLE**

Beam Type	Beam Length (feet)	C1	C2	C3			
B42	80	161	46	4			
	82	165	47	4			
	84	169	48	4			
	86	173	49	4			
	88	177	50	4			
	90	181	51	4			
	92	185	52	4			
	94	189	53	6			
96	193	54	6				

**DESIGN DATA**

Beam Type	Beam Length (feet)	DC kips	DW kips	LL kips	LL+I kips		
B42	80	38.5	2.3	55.5	68.6		
	82	39.5	2.3	56.1	69.2		
	84	40.4	2.4	56.6	69.8		
	86	41.4	2.4	57.1	70.3		
	88	42.4	2.5	57.6	70.9		
	90	43.3	2.6	58.1	71.4		
	92	44.3	2.6	58.6	72.0		
	94	45.3	2.7	59.1	72.5		
96	46.2	2.7	59.6	73.0			

**Straight Reinforcement**

Mark	Size	Length
A1(E)	#5	Beam Length Minus 3"
D(E)	#8	2'-0"

NOTE: A1 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'-2 1/4"	
C3(e)	#5	11 3/8"	3'-2 3/8"	

KENTUCKY  
DEPARTMENT OF HIGHWAYS

BOX BEAM  
B42  
DETAILS

STANDARD DRAWING NO. BDP-011-04  
SUBMITTED BY *Bob Adams* DATE 02-26-20  
DIRECTOR DIVISION OF STRUCTURAL DESIGN  
APPROVED BY *Bob Adams* DATE 02-26-20  
STATE ENGINEER