

**PROCEDURE FOR CASTING DIFFERENT LENGTH PRECAST/PRESTRESS  
CONCRETE BRIDGE UNITS (Combined Beam Pours)**

**SCOPE:**

To establish procedures for the fabrication of beams with different lengths on one casting bed set-up. Any deviation from the beam design standard or the Combination Pour Charts is not allowed.

This procedure allows the casting of two different length beams together in the same line in accordance with Combination Pour Charts. For example, a D95 beam may be cast with a D100 beam with the following modifications made to the D95 beam: deflection strands are raised by 4 in. and compressive strength at release and at 28 days are increased to 6000 psi and 7500 psi respectively.

Use of the next longer beam strand pattern may result in camber increase in the modified beams. For example, the calculated camber at the time of erection for an D90 beam (with D95 strand pattern) will increase by approximately 0.25 inch. Whenever such beam modifications are used, the contractor shall have prior approval of the combinations. A copy of the contractor's written approval of the beam modification shall be forwarded to the District Materials Engineer prior to fabrication. The contractor shall acknowledge responsibility for any construction changes and additional cost resulting from increase camber in modified beams.





### Combination Pour Chart for C Beams

		C 30	C 34	C 38	C 42	C 46	C 50	C 55	C 59	C 63	C 67	C 71	C 75	C 80
C 30	Straight Strands	8	8	8	10	10	12							
	Deflected Strands	0	0	0	0	0	0							
	Distance Adjustable Strands Raised	-	-	-	-	-	-							
	Release Strength	4500	4500	4500	4500	4500	4500							
	28 Day Strength	5000	5000	5000	5000	5000	5000							
	Design Camber @ Release (Plan)	0.06	0.06	0.06	0.06	0.06	0.06							
	Design Camber @ Release (Modified)	0.06	0.06	0.06	0.11	0.11	0.16							
	Absolute Difference in Camber @ Release	0.00	0.00	0.00	0.05	0.05	0.10							
C 34	Straight Strands		8	8	10	10	12							
	Deflected Strands		0	0	0	0	0							
	Distance Adjustable Strands Raised		-	-	-	-	-							
	Release Strength		4500	4500	4500	4500	4500							
	28 Day Strength		5000	5000	5000	5000	5000							
	Design Camber @ Release (Plan)		0.07	0.07	0.07	0.07	0.07							
	Design Camber @ Release (Modified)		0.07	0.07	0.13	0.13	0.20							
	Absolute Difference in Camber @ Release		0.00	0.00	0.06	0.06	0.13							
C 38	Straight Strands			8	10	10	12							
	Deflected Strands			0	0	0	0							
	Distance Adjustable Strands Raised			-	-	-	-							
	Release Strength			4500	4500	4500	4500							
	28 Day Strength			5000	5000	5000	5000							
	Design Camber @ Release (Plan)			0.07	0.07	0.07	0.07							
	Design Camber @ Release (Modified)			0.07	0.15	0.15	0.24							
	Absolute Difference in Camber @ Release			0.00	0.08	0.08	0.17							
C 42	Straight Strands				10	10	12	14	14	16				
	Deflected Strands				0	0	0	0	0	0				
	Distance Adjustable Strands Raised				-	-	-	-	-	-				
	Release Strength				4500	4500	4500	4500	4500	4500				
	28 Day Strength				5000	5000	5000	5000	5000	5000				
	Design Camber @ Release (Plan)				0.17	0.17	0.17	0.17	0.17	0.17				
	Design Camber @ Release (Modified)				0.17	0.17	0.27	0.35	0.35	0.44				
	Absolute Difference in Camber @ Release				0.00	0.00	0.10	0.18	0.18	0.27				
C 46	Straight Strands					10	12	14	14	16				
	Deflected Strands					0	0	0	0	0				
	Distance Adjustable Strands Raised					-	-	-	-	-				
	Release Strength					4500	4500	4500	4500	4500				
	28 Day Strength					5000	5000	5000	5000	5000				
	Design Camber @ Release (Plan)					0.17	0.17	0.17	0.17	0.17				
	Design Camber @ Release (Modified)					0.17	0.30	0.40	0.40	0.51				
	Absolute Difference in Camber @ Release					0.00	0.13	0.23	0.23	0.34				
C 50	Straight Strands						12	14	14	16	18			
	Deflected Strands						0	0	0	0	0			
	Distance Adjustable Strands Raised						-	-	-	-	-			
	Release Strength						4500	4500	4500	4500	4500			
	28 Day Strength						5000	5000	5000	5000	5000			
	Design Camber @ Release (Plan)						0.32	0.32	0.32	0.32	0.32			
	Design Camber @ Release (Modified)						0.32	0.44	0.44	0.57	0.68			
	Absolute Difference in Camber @ Release						0.00	0.12	0.12	0.25	0.36			
C 54	Straight Strands							14	14	16	18	14		
	Deflected Strands							0	0	0	0	4		
	Distance Adjustable Strands Raised							-	-	-	-	16		
	Release Strength							4500	4500	4500	4500	5000		
	28 Day Strength							5000	5000	5000	5000	6000		
	Design Camber @ Release (Plan)							0.47	0.47	0.47	0.47	0.47		
	Design Camber @ Release (Modified)							0.47	0.47	0.63	0.75	0.70		
	Absolute Difference in Camber @ Release							0.00	0.00	0.16	0.28	0.23		
C 58	Straight Strands								14	16	18	14		
	Deflected Strands								0	0	0	4		
	Distance Adjustable Strands Raised								-	-	-	20		
	Release Strength								4500	4500	4500	5000		
	28 Day Strength								5000	5000	5000	6000		
	Design Camber @ Release (Plan)								0.47	0.47	0.47	0.47		
	Design Camber @ Release (Modified)								0.47	0.68	0.82	0.69		
	Absolute Difference in Camber @ Release								0.00	0.21	0.35	0.22		
C 62	Straight Strands									16	18	16	16	16
	Deflected Strands									0	0	2	4	6
	Distance Adjustable Strands Raised									-	-	-	-	16
	Release Strength									4500	4500	5000	5000	5000
	28 Day Strength									5000	5000	6000	6000	6000
	Design Camber @ Release (Plan)									0.7	0.7	0.7	0.7	0.7
	Design Camber @ Release (Modified)									0.70	0.88	0.80	0.88	0.92
	Absolute Difference in Camber @ Release									0.00	0.18	0.10	0.18	0.22



### Combination Pour Chart for D Beams

		D35	D40	D45	D50	D55	D60	D65	D70	D75	D80	D85	D90	D95	D100	D105	D110
D 3 5	Straight Strands	10	10	10	12	12	14										
	Deflected Strands	0	0	0	0	0	0										
	Distance Deflected Strands Raised	-	-	-	-	-	-										
	Release Strength	4500	4500	4500	4500	4500	4500										
	28 Day Strength	5000	5000	5000	5000	5000	5000										
	Design Camber @ Release (Plan)	0.09	0.09	0.09	0.09	0.09	0.09										
	Design Camber @ Release (Modified)	0.09	0.08	0.08	0.13	0.13	0.17										
	Absolute Difference in Camber @ Release	0.00	0.01	0.01	0.04	0.04	0.08										
D 4 0	Straight Strands		10	10	12	12	14										
	Deflected Strands		0	0	0	0	0										
	Distance Deflected Strands Raised		-	-	-	-	-										
	Release Strength		4500	4500	4500	4500	4500										
	28 Day Strength		5000	5000	5000	5000	5000										
	Design Camber @ Release (Plan)		0.10	0.10	0.10	0.10	0.10										
	Design Camber @ Release (Modified)		0.10	0.10	0.16	0.17	0.21										
	Absolute Difference in Camber @ Release		0.00	0.01	0.06	0.07	0.11										
D 4 5	Straight Strands			10	12	12	14										
	Deflected Strands			0	0	0	0										
	Distance Deflected Strands Raised			-	-	-	-										
	Release Strength			4500	4500	4500	4500										
	28 Day Strength			5000	5000	5000	5000										
	Design Camber @ Release (Plan)			0.11	0.11	0.11	0.11										
	Design Camber @ Release (Modified)			0.11	0.18	0.19	0.25										
	Absolute Difference in Camber @ Release			0.00	0.07	0.08	0.14										
D 5 0	Straight Strands				12	12	14	12	12								
	Deflected Strands				0	0	0	0	2								
	Distance Deflected Strands Raised				-	-	-	-	-								
	Release Strength				4500	4500	4500	4500	4500								
	28 Day Strength				5000	5000	5000	5000	5000								
	Design Camber @ Release (Plan)				0.21	0.21	0.21	0.21	0.21								
	Design Camber @ Release (Modified)				0.21	0.21	0.28	0.21	0.23								
	Absolute Difference in Camber @ Release				0.00	0.00	0.07	0.00	0.02								
D 5 5	Straight Strands					12	14	12	12								
	Deflected Strands					0	0	0	2								
	Distance Deflected Strands Raised					-	-	-	-								
	Release Strength					4500	4500	4500	4500								
	28 Day Strength					5000	5000	5000	5000								
	Design Camber @ Release (Plan)					0.24	0.24	0.24	0.24								
	Design Camber @ Release (Modified)					0.24	0.31	0.24	0.27								
	Absolute Difference in Camber @ Release					0.00	0.07	0.00	0.03								
D 6 0	Straight Strands						14		14	14							
	Deflected Strands						0		0	2							
	Distance Deflected Strands Raised						-		-	-							
	Release Strength						4500		4500	4500							
	28 Day Strength						5000		5000	5000							
	Design Camber @ Release (Plan)						0.35		0.35	0.35							
	Design Camber @ Release (Modified)						0.35		0.35	0.38							
	Absolute Difference in Camber @ Release						0.00		0.00	0.03							

### Combination Pour Chart for D Beams

		D35	D40	D45	D50	D55	D60	D65	D70	D75	D80	D85	D90	D95	D100	D105	D110
D 6 5	Straight Strands							8	8	10	12						
	Deflected Strands							4	6	6	6						
	Distance Deflected Strands Raised							0	0	0	6						
	Release Strength							4500	4500	4500	4500						
	28 Day Strength							5000	5000	5000	5000						
	Design Camber @ Release (Plan)							0.46	0.46	0.46	0.46						
	Design Camber @ Release (Modified)							0.46	0.53	0.65	0.71						
	Absolute Difference in Camber @ Release							0.00	0.07	0.19	0.25						
D 7 0	Straight Strands								8	10	12	14					
	Deflected Strands								6	6	6	6					
	Distance Deflected Strands Raised								0	0	6	16					
	Release Strength							4500	4500	4500	4500						
	28 Day Strength							5000	5000	5000	5000						
	Design Camber @ Release (Plan)							0.52	0.52	0.52	0.52						
	Design Camber @ Release (Modified)							0.52	0.69	0.77	0.77						
	Absolute Difference in Camber @ Release							0.00	0.17	0.25	0.25						
D 7 5	Straight Strands									10	12	14	16				
	Deflected Strands									6	6	6	6				
	Distance Deflected Strands Raised									0	0	10	18				
	Release Strength								4500	4500	4500	4500					
	28 Day Strength								5000	5000	5000	5000					
	Design Camber @ Release (Plan)								0.69	0.69	0.69	0.69					
	Design Camber @ Release (Modified)								0.69	0.94	0.94	0.93					
	Absolute Difference in Camber @ Release								0.00	0.25	0.25	0.24					
D 8 0	Straight Strands										12	14	16	18			
	Deflected Strands										6	6	6	6			
	Distance Deflected Strands Raised										0	0	8	16			
	Release Strength										4500	4500	4500	4500			
	28 Day Strength										5000	5000	5000	5000			
	Design Camber @ Release (Plan)										1.00	1.00	1.00	1.00			
	Design Camber @ Release (Modified)										1.00	1.24	1.22	1.24			
	Absolute Difference in Camber @ Release										0.00	0.24	0.22	0.24			
D 8 5	Straight Strands											14	16	18	22		
	Deflected Strands											6	6	6	6		
	Distance Deflected Strands Raised											0	0	8	12		
	Release Strength											4500	4500	4500	6000		
	28 Day Strength											5000	5000	5000	7500		
	Design Camber @ Release (Plan)											1.27	1.27	1.27	1.27		
	Design Camber @ Release (Modified)											1.27	1.49	1.52	1.50		
	Absolute Difference in Camber @ Release											0.00	0.22	0.25	0.23		
D 9 0	Straight Strands												16	18	22	26	
	Deflected Strands												6	6	6	6	
	Distance Deflected Strands Raised												0	6	10	28	
	Release Strength												4500	4500	6000	6000	
	28 Day Strength												5000	5000	7500	7500	
	Design Camber @ Release (Plan)												1.40	1.40	1.40	1.40	
	Design Camber @ Release (Modified)												1.40	1.65	1.62	1.61	
	Absolute Difference in Camber @ Release												0.00	0.25	0.22	0.21	

### Combination Pour Chart for D Beams

		D35	D40	D45	D50	D55	D60	D65	D70	D75	D80	D85	D90	D95	D100	D105	D110
D 9 5	Straight Strands													18	22	26	
	Deflected Strands													6	6	6	
	Distance Deflected Strands Raised													0	4	22	
	Release Strength													4500	6000	6000	
	28 Day Strength													5000	7500	7500	
	Design Camber @ Release (Plan)													1.64	1.64	1.64	
	Design Camber @ Release (Modified)													1.64	1.86	1.85	
	Absolute Difference in Camber @ Release													0.00	0.22	0.21	
D 1 0 0	Straight Strands														22	26	28
	Deflected Strands														6	6	6
	Distance Deflected Strands Raised														0	10	14
	Release Strength														6000	6000	6000
	28 Day Strength														7500	7500	7500
	Design Camber @ Release (Plan)														2.08	2.08	2.08
	Design Camber @ Release (Modified)														2.08	2.30	2.30
	Absolute Difference in Camber @ Release														0.00	0.22	0.22
D 1 0 5	Straight Strands															26	28
	Deflected Strands															6	6
	Distance Deflected Strands Raised															0	6
	Release Strength															6000	6500
	28 Day Strength															7500	7500
	Design Camber @ Release (Plan)															2.42	2.42
	Design Camber @ Release (Modified)															2.42	2.65
	Absolute Difference in Camber @ Release															0.00	0.23
D 1 1 0	Straight Strands																28
	Deflected Strands																6
	Distance Deflected Strands Raised																0
	Release Strength																6500
	28 Day Strength																7500
	Design Camber @ Release (Plan)																2.63
	Design Camber @ Release (Modified)																2.63
	Absolute Difference in Camber @ Release																0.00



### Combination Pour Chart for BTB Beams

		BTB 30	BTB 35	BTB 40	BTB 45	BTB 50	BTB 55	BTB 60	BTB 65	BTB 70	BTB 75	BTB 80	BTB 85	BTB 90	BTB 95	BTB 100	BTB 105
<b>B</b> <b>T</b> <b>B</b> <b>3</b> <b>0</b>	Straight Strands	8	8	10	12												
	Deflected Strands	0	0	0	0												
	Distance Adjustable Strands Raised	-	-	-	-												
	Release Strength	4500	4500	4500	4500												
	28 Day Strength	5000	5000	5000	5000												
	Design Camber @ Release (Plan)	0.15	0.15	0.15	0.15												
	Design Camber @ Release (Modified)	0.15	0.15	0.20	0.25												
Absolute Difference in Camber @ Release	0.00	0.00	0.05	0.10													
<b>B</b> <b>T</b> <b>B</b> <b>3</b> <b>5</b>	Straight Strands		8	10	12												
	Deflected Strands		0	0	0												
	Distance Adjustable Strands Raised		-	-	-												
	Release Strength		4500	4500	4500												
	28 Day Strength		5000	5000	5000												
	Design Camber @ Release (Plan)		0.19	0.19	0.19												
	Design Camber @ Release (Modified)		0.19	0.26	0.33												
Absolute Difference in Camber @ Release		0.00	0.07	0.14													
<b>B</b> <b>T</b> <b>B</b> <b>4</b> <b>0</b>	Straight Strands			10	12	14											
	Deflected Strands			0	0	0											
	Distance Adjustable Strands Raised			-	-	-											
	Release Strength			4500	4500	4500											
	28 Day Strength			5000	5000	5000											
	Design Camber @ Release (Plan)			0.31	0.31	0.31											
	Design Camber @ Release (Modified)			0.31	0.40	0.47											
Absolute Difference in Camber @ Release			0.00	0.09	0.16												
<b>B</b> <b>T</b> <b>B</b> <b>4</b> <b>5</b>	Straight Strands				12	14	16	16									
	Deflected Strands				0	0	0	2									
	Distance Adjustable Strands Raised				-	-	-	-									
	Release Strength				4500	4500	4500	4500									
	28 Day Strength				5000	5000	5000	5000									
	Design Camber @ Release (Plan)				0.47	0.47	0.47	0.47									
	Design Camber @ Release (Modified)				0.47	0.56	0.64	0.71									
Absolute Difference in Camber @ Release				0.00	0.09	0.17	0.24										
<b>B</b> <b>T</b> <b>B</b> <b>5</b> <b>0</b>	Straight Strands					14	16	16	18								
	Deflected Strands					0	0	2	2								
	Distance Adjustable Strands Raised					-	-	-	8								
	Release Strength					4500	4500	4500	4500								
	28 Day Strength					5000	5000	5000	5000								
	Design Camber @ Release (Plan)					0.65	0.65	0.65	0.65								
	Design Camber @ Release (Modified)					0.65	0.75	0.83	0.90								
Absolute Difference in Camber @ Release					0.00	0.10	0.18	0.25									
<b>B</b> <b>T</b> <b>B</b> <b>5</b> <b>5</b>	Straight Strands						16	16	18	20							
	Deflected Strands						0	2	2	2							
	Distance Adjustable Strands Raised						-	-	0	10							
	Release Strength						4500	4500	4500	4500	5000						
	28 Day Strength						5000	5000	5000	5500							
	Design Camber @ Release (Plan)						0.84	0.84	0.84	0.84							
	Design Camber @ Release (Modified)						0.84	0.94	1.09	1.09							
Absolute Difference in Camber @ Release						0.00	0.10	0.25	0.25								

## Combination Pour Chart for BTB Beams

		BTB 30	BTB 35	BTB 40	BTB 45	BTB 50	BTB 55	BTB 60	BTB 65	BTB 70	BTB 75	BTB 80	BTB 85	BTB 90	BTB 95	BTB 100	BTB 105
<b>B T B 6 0</b>	Straight Strands							16	18	20	22						
	Deflected Strands							2	2	2	4						
	Distance Adjustable Strands Raised							-	0	6	14						
	Release Strength							4500	4500	5000	5500						
	28 Day Strength							5000	5000	5500	6500						
	Design Camber @ Release (Plan)							1.02	1.02	1.02	1.02						
	Design Camber @ Release (Modified)							1.02	1.22	1.26	1.24						
	Absolute Difference in Camber @ Release							0.00	0.20	0.24	0.22						
<b>B T B 6 5</b>	Straight Strands								18	20	22	24					
	Deflected Strands								2	2	4	6					
	Distance Adjustable Strands Raised								0	0	6	10					
	Release Strength								4500	5000	5500	6000					
	28 Day Strength								5000	5500	6500	7000					
	Design Camber @ Release (Plan)								1.31	1.31	1.31	1.31					
	Design Camber @ Release (Modified)								1.31	1.45	1.53	1.53					
	Absolute Difference in Camber @ Release								0.00	0.14	0.22	0.22					
<b>B T B 7 0</b>	Straight Strands									20	22	24					
	Deflected Strands									2	4	6					
	Distance Adjustable Strands Raised									0	2	8					
	Release Strength									5000	5500	6000					
	28 Day Strength									5500	6500	7000					
	Design Camber @ Release (Plan)									1.53	1.53	1.53					
	Design Camber @ Release (Modified)									1.53	1.76	1.72					
	Absolute Difference in Camber @ Release									0.00	0.23	0.19					
<b>B T B 7 5</b>	Straight Strands										22	24	26	28			
	Deflected Strands										4	6	8	8			
	Distance Adjustable Strands Raised										0	2	6	8			
	Release Strength										5500	6000	6500	7500			
	28 Day Strength										6500	7000	7500	8500			
	Design Camber @ Release (Plan)										1.89	1.89	1.89	1.89			
	Design Camber @ Release (Modified)										1.89	2.07	2.09	2.06			
	Absolute Difference in Camber @ Release										0.00	0.18	0.20	0.17			
<b>B T B 8 0</b>	Straight Strands											24	26	28	32		
	Deflected Strands											6	8	8	8		
	Distance Adjustable Strands Raised											0	2	4	10		
	Release Strength											6000	6500	7500	8000		
	28 Day Strength											7000	7500	8500	9000		
	Design Camber @ Release (Plan)											2.21	2.21	2.21	2.21		
	Design Camber @ Release (Modified)											2.21	2.46	2.42	2.45		
	Absolute Difference in Camber @ Release											0.00	0.25	0.21	0.24		
<b>B T B 8 5</b>	Straight Strands												26	28	32		
	Deflected Strands												8	8	8		
	Distance Adjustable Strands Raised												0	0	6		
	Release Strength												6500	7500	8000		
	28 Day Strength												7500	8500	9000		
	Design Camber @ Release (Plan)												2.61	2.61	2.61		
	Design Camber @ Release (Modified)												2.61	2.79	2.83		
	Absolute Difference in Camber @ Release												0.00	0.18	0.22		





### Combination Pour Chart for BTC Beams

		BTC 30	BTC 35	BTC 40	BTC 45	BTC 50	BTC 55	BTC 60	BTC 65	BTC 70	BTC 75	BTC 80	BTC 85	BTC 90	BTC 95	BTC 100	BTC 105	BTC 110	BTC 115	BTC 120	
<b>B</b> <b>T</b> <b>C</b> <b>6</b> <b>0</b>	Straight Strands							14	14	16	16										
	Deflected Strands							0	2	2	4										
	Distance Adjustable Strands Raised							-	0	0	0										
	Release Strength							4500	5000	5000	5000										
	28 Day Strength							5000	6000	6000	6000										
	Design Camber @ Release (Plan)							0.57	0.57	0.57	0.57										
	Design Camber @ Release (Modified)							0.57	0.62	0.74	0.82										
Absolute Difference in Camber @ Release							0.00	0.05	0.17	0.25											
<b>B</b> <b>T</b> <b>C</b> <b>6</b> <b>5</b>	Straight Strands								14	16	16	20									
	Deflected Strands								2	2	4	4									
	Distance Adjustable Strands Raised								0	0	0	14									
	Release Strength								5000	5000	5000	6000									
	28 Day Strength								6000	6000	6000	7000									
	Design Camber @ Release (Plan)								0.65	0.65	0.65	0.65									
	Design Camber @ Release (Modified)								0.65	0.80	0.89	0.89									
Absolute Difference in Camber @ Release								0.00	0.15	0.24	0.24										
<b>B</b> <b>T</b> <b>C</b> <b>7</b> <b>0</b>	Straight Strands									16	16	20	22								
	Deflected Strands									2	4	4	4								
	Distance Adjustable Strands Raised									0	0	6	16								
	Release Strength									5000	5000	6000	6000								
	28 Day Strength									6000	6000	7000	7000								
	Design Camber @ Release (Plan)									0.86	0.86	0.86	0.86								
	Design Camber @ Release (Modified)									0.86	0.98	1.09	1.09								
Absolute Difference in Camber @ Release									0.00	0.12	0.23	0.23									
<b>B</b> <b>T</b> <b>C</b> <b>7</b> <b>5</b>	Straight Strands										16	20	22	24							
	Deflected Strands										4	4	4	6							
	Distance Adjustable Strands Raised										0	0	10	18							
	Release Strength										5000	6000	6000	6000							
	28 Day Strength										6000	7000	7000	7000							
	Design Camber @ Release (Plan)										1.02	1.02	1.02	1.02							
	Design Camber @ Release (Modified)										1.02	1.26	1.26	1.27							
Absolute Difference in Camber @ Release										0.00	0.24	0.24	0.25								
<b>B</b> <b>T</b> <b>C</b> <b>8</b> <b>0</b>	Straight Strands											20	22	24	28						
	Deflected Strands											4	4	6	6						
	Distance Adjustable Strands Raised											0	0	10	20						
	Release Strength											6000	6000	6000	6500						
	28 Day Strength											7000	7000	7000	7500						
	Design Camber @ Release (Plan)											1.32	1.32	1.32	1.32						
	Design Camber @ Release (Modified)											1.32	1.31	1.54	1.57						
Absolute Difference in Camber @ Release											0.00	0.01	0.22	0.25							
<b>B</b> <b>T</b> <b>C</b> <b>8</b> <b>5</b>	Straight Strands												22	24	28	32					
	Deflected Strands												4	6	6	6					
	Distance Adjustable Strands Raised												0	4	16	18					
	Release Strength												6000	6000	6500	7000					
	28 Day Strength												7000	7000	7500	7500					
	Design Camber @ Release (Plan)												1.57	1.57	1.57	1.57					
	Design Camber @ Release (Modified)												1.57	1.79	1.77	1.78					
Absolute Difference in Camber @ Release												0.00	0.22	0.20	0.21						

# Combination Pour Chart for BTC Beams

		BTC 30	BTC 35	BTC 40	BTC 45	BTC 50	BTC 55	BTC 60	BTC 65	BTC 70	BTC 75	BTC 80	BTC 85	BTC 90	BTC 95	BTC 100	BTC 105	BTC 110	BTC 115	BTC 120	
<b>B T C 9 0</b>	Straight Strands													24	28	32	36				
	Deflected Strands													6	6	6	8				
	Distance Adjustable Strands Raised													0	4	16	20				
	Release Strength													6000	6500	7000	8000				
	28 Day Strength													7000	7500	7500	8500				
	Design Camber @ Release (Plan)													1.97	1.97	1.97	1.97				
	Design Camber @ Release (Modified)													1.97	2.22	2.17	2.16				
	Absolute Difference in Camber @ Release													0.00	0.25	0.20	0.19				
<b>B T C 9 5</b>	Straight Strands														28	32	36	38			
	Deflected Strands														6	6	8	10			
	Distance Adjustable Strands Raised														0	4	10	12			
	Release Strength														6500	7000	8000	8500			
	28 Day Strength														7500	7500	8500	9000			
	Design Camber @ Release (Plan)														2.42	2.42	2.42	2.42			
	Design Camber @ Release (Modified)														2.42	2.65	2.67	2.63			
	Absolute Difference in Camber @ Release														0.00	0.23	0.25	0.21			
<b>B T C 1 0 0</b>	Straight Strands															32	36	38	38	38	
	Deflected Strands															6	8	10	12	12	
	Distance Adjustable Strands Raised															0	6	8	8	8	
	Release Strength															7000	8000	8500	8500	8000	
	28 Day Strength															7500	8500	9000	9000	9000	
	Design Camber @ Release (Plan)															2.77	2.77	2.77	2.77	2.77	
	Design Camber @ Release (Modified)															2.77	2.98	2.97	2.94	3.02	
	Absolute Difference in Camber @ Release															0.00	0.21	0.20	0.17	0.25	
<b>B T C 1 0 5</b>	Straight Strands																36	38	38	38	
	Deflected Strands																8	10	12	12	
	Distance Adjustable Strands Raised																0	2	2	4	
	Release Strength																7500	8500	8500	8000	
	28 Day Strength																8000	9000	9000	9000	
	Design Camber @ Release (Plan)																3.29	3.29	3.29	3.29	
	Design Camber @ Release (Modified)																3.29	3.45	3.49	3.43	
	Absolute Difference in Camber @ Release																0.00	0.16	0.20	0.14	
<b>B T C 1 1 0</b>	Straight Strands																	38	38	38	
	Deflected Strands																	10	12	12	
	Distance Adjustable Strands Raised																	0	0	2	
	Release Strength																	8000	8500	8000	
	28 Day Strength																	8500	9000	9000	
	Design Camber @ Release (Plan)																	3.57	3.57	3.57	
	Design Camber @ Release (Modified)																	3.57	3.77	3.71	
	Absolute Difference in Camber @ Release																	0.00	0.20	0.14	
<b>B T C 1 1 5</b>	Straight Strands																		38	38	
	Deflected Strands																		12	12	
	Distance Adjustable Strands Raised																		0	0	
	Release Strength																		8000	8000	
	28 Day Strength																		8500	9000	
	Design Camber @ Release (Plan)																		3.74	3.74	
	Design Camber @ Release (Modified)																		3.74	3.98	
	Absolute Difference in Camber @ Release																		0.00	0.24	







### Combination Pour Chart for BTD Beams

		BTD 50	BTD 55	BTD 60	BTD 65	BTD 70	BTD 75	BTD 80	BTD 85	BTD 90	BTD 95	BTD 100	BTD 105	BTD 110	BTD 115	BTD 120	BTD 125	BTD 130	BTD 135	
<b>B</b> <b>T</b> <b>D</b> <b>8</b> <b>0</b>	Straight Strands							18	18	20	22									
	Deflected Strands							2	4	4	4									
	Distance Adjustable Strands Raised							0	0	0	12									
	Release Strength							5000	5000	5500	5500									
	28 Day Strength							6000	6000	6500	6500									
	Design Camber @ Release (Plan)							0.92	0.92	0.92	0.92									
	Design Camber @ Release (Modified)							0.92	1.05	1.16	1.16									
Absolute Difference in Camber @ Release							0.00	0.13	0.24	0.24										
<b>B</b> <b>T</b> <b>D</b> <b>8</b> <b>5</b>	Straight Strands							18	20	22	26									
	Deflected Strands							4	4	4	4									
	Distance Adjustable Strands Raised							0	0	4	26									
	Release Strength							5000	5500	5500	6000									
	28 Day Strength							6000	6500	6500	7000									
	Design Camber @ Release (Plan)							1.08	1.08	1.08	1.08									
	Design Camber @ Release (Modified)							1.08	1.22	1.33	1.33									
Absolute Difference in Camber @ Release							0.00	0.14	0.25	0.25										
<b>B</b> <b>T</b> <b>D</b> <b>9</b> <b>0</b>	Straight Strands								20	22	26	28								
	Deflected Strands								4	4	4	6								
	Distance Adjustable Strands Raised								0	0	20	38								
	Release Strength								5500	5500	6000	6000								
	28 Day Strength								6500	6500	7000	7000								
	Design Camber @ Release (Plan)								1.25	1.25	1.25	1.25								
	Design Camber @ Release (Modified)								1.25	1.45	1.48	1.23								
Absolute Difference in Camber @ Release								0.00	0.20	0.23	0.02									
<b>B</b> <b>T</b> <b>D</b> <b>9</b> <b>5</b>	Straight Strands									22	26	28	32							
	Deflected Strands									4	4	6	6							
	Distance Adjustable Strands Raised									0	8	18	32							
	Release Strength									5500	6000	6000	6500							
	28 Day Strength									6500	7000	7000	7500							
	Design Camber @ Release (Plan)									1.48	1.48	1.48	1.48							
	Design Camber @ Release (Modified)									1.48	1.72	1.72	1.70							
Absolute Difference in Camber @ Release									0.00	0.24	0.24	0.22								
<b>B</b> <b>T</b> <b>D</b> <b>1</b> <b>0</b> <b>0</b>	Straight Strands										26	28	32	36						
	Deflected Strands										4	6	6	6						
	Distance Adjustable Strands Raised										0	4	18	30						
	Release Strength										6000	6000	6500	7000						
	28 Day Strength										7000	7000	7500	7500						
	Design Camber @ Release (Plan)										1.88	1.88	1.88	1.88						
	Design Camber @ Release (Modified)										1.88	2.12	2.09	2.09						
Absolute Difference in Camber @ Release										0.00	0.24	0.21	0.21							
<b>B</b> <b>T</b> <b>D</b> <b>1</b> <b>0</b> <b>5</b>	Straight Strands											28	32	36	38					
	Deflected Strands											6	6	6	8					
	Distance Adjustable Strands Raised											0	6	16	18					
	Release Strength											6000	6500	7500	8000					
	28 Day Strength											7000	7500	8000	8500					
	Design Camber @ Release (Plan)											2.23	2.23	2.23	2.23					
	Design Camber @ Release (Modified)											2.23	2.47	2.45	2.44					
Absolute Difference in Camber @ Release											0.00	0.24	0.22	0.21						

### Combination Pour Chart for BTD Beams

		BTD 50	BTD 55	BTD 60	BTD 65	BTD 70	BTD 75	BTD 80	BTD 85	BTD 90	BTD 95	BTD 100	BTD 105	BTD 110	BTD 115	BTD 120	BTD 125	BTD 130	BTD 135	
<b>B T D 1 1 0</b>	Straight Strands														32	36	38	42		
	Deflected Strands														6	6	8	12		
	Distance Adjustable Strands Raised														0	4	10	16		
	Release Strength														6500	7500	8000	8500		
	28 Day Strength														7500	8000	8500	9000		
	Design Camber @ Release (Plan)														2.6	2.6	2.6	2.6		
	Design Camber @ Release (Modified)														2.60	2.85	2.80	2.75		
	Absolute Difference in Camber @ Release														0.00	0.25	0.20	0.15		
<b>B T D 1 1 5</b>	Straight Strands															36	38	42	42	42
	Deflected Strands															6	8	12	14	14
	Distance Adjustable Strands Raised															0	4	16	12	12
	Release Strength															7000	8000	8500	8000	8000
	28 Day Strength															7500	8500	9000	9000	9000
	Design Camber @ Release (Plan)															2.89	2.89	2.89	2.89	2.89
	Design Camber @ Release (Modified)															2.89	3.12	2.84	3.09	3.09
	Absolute Difference in Camber @ Release															0.00	0.23	0.05	0.20	0.20
<b>B T D 1 2 0</b>	Straight Strands																38	42	42	42
	Deflected Strands																8	12	14	14
	Distance Adjustable Strands Raised																0	8	8	8
	Release Strength																7500	8500	8000	8000
	28 Day Strength																8000	9000	9000	9000
	Design Camber @ Release (Plan)																3.27	3.27	3.27	3.27
	Design Camber @ Release (Modified)																3.27	3.38	3.45	3.45
	Absolute Difference in Camber @ Release																0.00	0.11	0.18	0.18
<b>B T D 1 2 5</b>	Straight Strands																	42	42	42
	Deflected Strands																	12	14	14
	Distance Adjustable Strands Raised																	0	6	6
	Release Strength																	8000	8500	8500
	28 Day Strength																	8500	9000	9000
	Design Camber @ Release (Plan)																	3.81	3.81	3.81
	Design Camber @ Release (Modified)																	3.81	3.59	3.59
	Absolute Difference in Camber @ Release																	0.00	0.22	0.22
<b>B T D 1 3 0</b>	Straight Strands																		42	42
	Deflected Strands																		14	14
	Distance Adjustable Strands Raised																		0	2
	Release Strength																		8000	8000
	28 Day Strength																		9000	9000
	Design Camber @ Release (Plan)																		3.95	3.95
	Design Camber @ Release (Modified)																		3.95	4.06
	Absolute Difference in Camber @ Release																		0.00	0.11
<b>B T D 1 3 5</b>	Straight Strands																			42
	Deflected Strands																			14
	Distance Adjustable Strands Raised																			0
	Release Strength																			8000
	28 Day Strength																			9000
	Design Camber @ Release (Plan)																			4.02
	Design Camber @ Release (Modified)																			4.02
	Absolute Difference in Camber @ Release																			0.00



### Combination Pour Chart for BTE Beams

		BTE 60	BTE 65	BTE 70	BTE 75	BTE 80	BTE 85	BTE 90	BTE 95	BTE 100	BTE 105	BTE 110	BTE 115	BTE 120	BTE 125	BTE 130	BTE 135	BTE 140	BTE 145	BTE 150	BTE 155	
B T E 9 0	Straight Strands							18	20	20	24											
	Deflected Strands							2	2	4	4											
	Distance Adjustable Strands Raised							0	0	0	26											
	Release Strength							4500	4500	5000	5000											
	28 Day Strength							5000	5000	5500	5500											
	Design Camber @ Release (Plan)							0.94	0.94	0.94	0.94											
	Design Camber @ Release (Modified)							0.94	1.11	1.15	1.19											
	Absolute Difference in Camber @ Release							0.00	0.17	0.21	0.25											
B T E 9 5	Straight Strands								20	20	24	26										
	Deflected Strands								2	4	4	4										
	Distance Adjustable Strands Raised								0	0	12	28										
	Release Strength								4500	5000	5000	5000										
	28 Day Strength								5000	5500	5500	5500										
	Design Camber @ Release (Plan)								1.14	1.14	1.14	1.14										
	Design Camber @ Release (Modified)								1.14	1.19	1.39	1.38										
	Absolute Difference in Camber @ Release								0.00	0.05	0.25	0.24										
B T E 1 0 0	Straight Strands									20	24	26	28									
	Deflected Strands									4	4	4	4									
	Distance Adjustable Strands Raised									0	12	28	38									
	Release Strength									5000	5000	5000	5500									
	28 Day Strength									5500	5500	5500	6000									
	Design Camber @ Release (Plan)									1.19	1.19	1.19	1.19									
	Design Camber @ Release (Modified)									1.19	1.44	1.43	1.43									
	Absolute Difference in Camber @ Release									0.00	0.25	0.24	0.24									
B T E 1 0 5	Straight Strands										24	26	28	30								
	Deflected Strands										4	4	4	6								
	Distance Adjustable Strands Raised										0	0	10	20								
	Release Strength										5000	5000	5500	5500								
	28 Day Strength										5500	5500	6000	6000								
	Design Camber @ Release (Plan)										1.60	1.60	1.60	1.60								
	Design Camber @ Release (Modified)										1.60	1.83	1.82	1.85								
	Absolute Difference in Camber @ Release										0.00	0.23	0.22	0.25								
B T E 1 1 0	Straight Strands											26	28	30	32							
	Deflected Strands											4	4	6	6							
	Distance Adjustable Strands Raised											0	0	12	18							
	Release Strength											5000	5500	5500	6000							
	28 Day Strength											5500	6000	6000	7000							
	Design Camber @ Release (Plan)											1.84	1.84	1.84	1.84							
	Design Camber @ Release (Modified)											1.84	2.01	2.06	2.07							
	Absolute Difference in Camber @ Release											0.00	0.17	0.22	0.23							
B T E 1 1 5	Straight Strands												28	30	32	36						
	Deflected Strands												4	6	6	6						
	Distance Adjustable Strands Raised												0	6	12	28						
	Release Strength												5500	5500	6000	6500						
	28 Day Strength												6000	6000	7000	7500						
	Design Camber @ Release (Plan)												2.00	2.00	2.00	2.00						
	Design Camber @ Release (Modified)												2.00	2.24	2.25	2.24						
	Absolute Difference in Camber @ Release												0.00	0.24	0.25	0.24						

### Combination Pour Chart for BTE Beams

		BTE 60	BTE 65	BTE 70	BTE 75	BTE 80	BTE 85	BTE 90	BTE 95	BTE 100	BTE 105	BTE 110	BTE 115	BTE 120	BTE 125	BTE 130	BTE 135	BTE 140	BTE 145	BTE 150	BTE 155
BTE 120	Straight Strands													30	32	36	38				
	Deflected Strands													6	6	6	8				
	Distance Adjustable Strands Raised													0	0	16	18				
	Release Strength													5500	6000	6500	7000				
	28 Day Strength													6000	7000	7500	8000				
	Design Camber @ Release (Plan)													2.34	2.34	2.34	2.34				
	Design Camber @ Release (Modified)													2.34	2.57	2.56	2.59				
	Absolute Difference in Camber @ Release													0.00	0.23	0.22	0.25				
BTE 125	Straight Strands														32	36	38	40			
	Deflected Strands														6	6	8	8			
	Distance Adjustable Strands Raised														0	10	14	18			
	Release Strength														6000	6500	7000	7500			
	28 Day Strength														7000	7500	8000	8500			
	Design Camber @ Release (Plan)														2.54	2.54	2.54	2.54			
	Design Camber @ Release (Modified)														2.54	2.75	2.77	2.76			
	Absolute Difference in Camber @ Release														0.00	0.21	0.23	0.22			
BTE 130	Straight Strands															36	38	40	42		
	Deflected Strands															6	8	8	10		
	Distance Adjustable Strands Raised															0	4	6	14		
	Release Strength															6500	7000	7500	7500		
	28 Day Strength															7500	8000	8500	8500		
	Design Camber @ Release (Plan)															2.95	2.95	2.95	2.95		
	Design Camber @ Release (Modified)															2.95	3.15	3.20	3.13		
	Absolute Difference in Camber @ Release															0.00	0.20	0.25	0.18		
BTE 135	Straight Strands																38	40	42	44	
	Deflected Strands																8	8	10	12	
	Distance Adjustable Strands Raised																0	2	8	12	
	Release Strength																7000	7500	7500	8000	
	28 Day Strength																8000	8500	8500	9000	
	Design Camber @ Release (Plan)																3.20	3.20	3.20	3.20	
	Design Camber @ Release (Modified)																3.20	3.39	3.43	3.377	
	Absolute Difference in Camber @ Release																0.00	0.19	0.23	0.18	
BTE 140	Straight Strands																	40	42	44	46
	Deflected Strands																	8	10	12	12
	Distance Adjustable Strands Raised																	0	6	10	14
	Release Strength																	7500	7500	8000	8000
	28 Day Strength																	8500	8500	9000	9000
	Design Camber @ Release (Plan)																	3.36	3.36	3.36	3.36
	Design Camber @ Release (Modified)																	3.36	3.56	3.52	3.51
	Absolute Difference in Camber @ Release																	0.00	0.20	0.16	0.15
BTE 145	Straight Strands																		42	44	46
	Deflected Strands																		10	12	12
	Distance Adjustable Strands Raised																		0	4	8
	Release Strength																		7500	8000	8000
	28 Day Strength																		8500	9000	9000
	Design Camber @ Release (Plan)																		3.70	3.70	3.70
	Design Camber @ Release (Modified)																		3.70	3.885	3.867
	Absolute Difference in Camber @ Release																		0.00	0.19	0.17

