Attachment 3

To be used to review joint movement calculations

Sample Calculation: Post tensioned, 100°, MR = 3"
Contributory Length = (3) / [100° (0.0000060 × 1,200) + 0.63] / 100' = 222' say 220'

TOTAL JOINT MOVEMENT (MR) (Inches)	MAXIMUM CONTRIBUTORY STRUCTURE LENGTH											
	80° RANGE				100° RANGE				120° RANGE			
	Steel	Reinforced Concrete	Pretension Concrete	Post Tension Concrete	Steel	Reinforced Concrete	Pretension Concrete	Post Tension Concrete	Steel	Reinforced Concrete	Pretension Concrete	Post Tension Concrete
½"	80.	80.	70.	40.	65.	65.	60.	40.	55.	55.	50.	35.
1"	160.	160.	145.	85.	130.	130.	120.	75.	105.	110.	100.	65.
1½"	240.	235.	215.	125.	195.	190.	180.	110.	160.	160.	150.	100.
2"	320.	315.	285.	165.	255.	255.	240.	150.	215.	215.	200.	135.
2½"	400.	395.	360.	210.	320.	320.	300.	185.	265.	270.	255.	170.
3"	480.	470.	430.	250.	385.	385.	360.	220.	320.	325.	305.	200.
3½"	560.	550.	505.	290.	450.	450.	415.	260.	375.	380.	355.	235.
4"	640.	630.	575.	330.	515.	515.	475.	300.	425.	430.	405.	270.

FACTORS USED		
Type of Structure	Coefficient of Expansion	Anticipated Shortening (in./100 ft.)
Steel	0.0000065	0.00
Concrete (Conventional)	0.0000060	0.06
Concrete (Pretensioned)	0.0000060	0.12
Concrete (Post Tensioned)	0.0000060	0.63*

*Note: Anticipated shortening and remaining approximately 11 weeks after stressing.