

PERMANENT WAY
NOTES.

OFFSETS (I)

141'-190'
RADIUS.

<p>ACCURATE FORMULAE.</p> $O = R - \sqrt{(R+T)(R-T)}$ $T = \sqrt{2R.O - O^2}$ $R = \frac{T^2 + O^2}{2.O}$ $O = \frac{C^2}{2R} \quad R = \frac{C^2}{2.O}$ $C = \sqrt{2R.O}$ $V = R - \frac{1}{2}\sqrt{(2R+C)(2R-C)}$	<p style="text-align: center;">$t = \frac{T}{2} + \frac{O^2}{2T}$</p>	<p>APPROXIMATE FORMULAE.</p> $O = \frac{T^2}{2R}$ $T = \sqrt{2R.O}$ $R = \frac{T^2}{2.O}$ $V = \frac{C^2}{8R}$
---	--	--

RADIUS R	T A N G E N T L E N G T H (T)										RAD F
	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'	
141'	4 1/4"	1'-5 1/4"	3'-2 3/4"	5'-9 1/2"	9'-2"	13'-4 3/4"	18'-7 1/4"	24'-10 3/4"	32'-5 1/2"	41'-7 1/4"	14
142'	4 1/4"	1'-5"	3'-2 1/2"	5'-9"	9'-1 1/4"	13'-3 1/2"	18'-5 1/2"	24'-8 1/4"	32'-2"	41'-2 1/4"	14
143'	4 1/4"	1'-5"	3'-2 1/4"	5'-8 1/2"	9'-0 1/4"	13'-2 1/2"	18'-3 3/4"	24'-5 3/4"	31'-10 1/2"	40'-9 1/4"	14
144'	4 1/4"	1'-4 3/4"	3'-2"	5'-8"	8'-11 1/2"	13'-1 1/4"	18'-2"	24'-3 1/4"	31'-7"	40'-4 3/4"	14
145'	4 1/4"	1'-4 3/4"	3'-1 3/4"	5'-7 1/2"	8'-10 3/4"	13'-0"	18'-0 1/4"	24'-1"	31'-3 3/4"	40'-0"	14
146'	4"	1'-4 1/2"	3'-1 1/4"	5'-7"	8'-10"	12'-10 3/4"	17'-10 1/2"	23'-10 1/2"	31'-0 1/2"	39'-7 1/2"	14
147'	4"	1'-4 1/2"	3'-1"	5'-6 1/2"	8'-9 1/4"	12'-9 1/2"	17'-9"	23'-8"	30'-9 1/4"	39'-3"	14
148'	4"	1'-4 1/4"	3'-0 3/4"	5'-6"	8'-8 1/2"	12'-8 1/2"	17'-7 1/4"	23'-5 3/4"	30'-6 1/4"	38'-10 3/4"	14
149'	4"	1'-4 1/4"	3'-0 1/2"	5'-5 3/4"	8'-7 3/4"	12'-7 1/4"	17'-5 3/4"	23'-3 1/2"	30'-3"	38'-6 1/2"	14
150'	4"	1'-4"	3'-0 1/4"	5'-5 1/4"	8'-7"	12'-6"	17'-4"	23'-1 1/2"	30'-0"	38'-2 1/2"	15
152'	4"	1'-3 3/4"	3'-0"	5'-4 1/4"	8'-5 1/2"	12'-4"	17'-1"	22'-9"	29'-6"	37'-6 1/2"	15
154'	4"	1'-3 1/2"	2'-11 1/2"	5'-3 1/2"	8'-4"	12'-2"	16'-10"	22'-5"	29'-0 1/2"	36'-10 3/4"	15
156'	3 3/4"	1'-3 1/2"	2'-11"	5'-2 3/4"	8'-2 3/4"	12'-0"	16'-7 1/2"	22'-1"	28'-7"	36'-3 1/4"	15
158'	3 3/4"	1'-3 1/4"	2'-10 1/2"	5'-1 3/4"	8'-1 1/2"	11'-10"	16'-4 1/4"	21'-9"	28'-1 3/4"	35'-8"	15
160'	3 3/4"	1'-3 1/4"	2'-10"	5'-1"	8'-0"	11'-8 1/4"	16'-1 1/2"	21'-5 1/4"	27'-8 1/2"	35'-1 1/4"	16
162'	3 3/4"	1'-3"	2'-9 1/2"	5'-0 1/4"	7'-11"	11'-6 1/4"	15'-11"	21'-1 1/4"	27'-3 1/2"	34'-6 1/2"	16
164'	3 1/2"	1'-2 3/4"	2'-9 1/4"	4'-11 1/2"	7'-9 3/4"	11'-4 1/2"	15'-8 1/4"	20'-10"	26'-10 3/4"	34'-0 1/4"	16
166'	3 1/2"	1'-2 1/2"	2'-8 3/4"	4'-10 3/4"	7'-8 1/2"	11'-2 3/4"	15'-5 3/4"	20'-6 1/2"	26'-6 1/4"	33'-6"	16
168'	3 1/2"	1'-2 1/4"	2'-8 1/2"	4'-10"	7'-7 1/4"	11'-1"	15'-3 1/4"	20'-3 1/4"	26'-1 3/4"	33'-0"	16
170'	3 1/2"	1'-2 1/4"	2'-8"	4'-9 1/4"	7'-6 1/4"	10'-11 1/4"	15'-1"	20'-0"	25'-9 1/4"	32'-6 1/4"	17
172'	3 1/2"	1'-2"	2'-7 3/4"	4'-8 3/4"	7'-5 1/4"	10'-9 3/4"	14'-10 3/4"	19'-9"	25'-5 1/4"	32'-0 3/4"	17
174'	3 1/2"	1'-1 3/4"	2'-7 1/4"	4'-8"	7'-4"	10'-8"	14'-8 1/2"	19'-5 3/4"	25'-1"	31'-7 1/4"	17
176'	3 1/2"	1'-1 3/4"	2'-7"	4'-7 1/4"	7'-3"	10'-6 1/2"	14'-6 1/4"	19'-2 3/4"	24'-9"	31'-2"	17
178'	3 1/4"	1'-1 1/2"	2'-6 1/2"	4'-6 1/2"	7'-2"	10'-5"	14'-4"	19'-0"	24'-5 1/4"	30'-9"	17
180'	3 1/4"	1'-1 1/2"	2'-6 1/4"	4'-6"	7'-1"	10'-3 1/2"	14'-2"	18'-9"	24'-1 1/2"	30'-4"	18
182'	3 1/4"	1'-1 1/4"	2'-6"	4'-5 1/2"	7'-0"	10'-2"	14'-0"	18'-6 1/4"	23'-9 3/4"	29'-11 1/4"	18
184'	3 1/4"	1'-1"	2'-5 1/2"	4'-4 3/4"	6'-11"	10'-0 3/4"	13'-10"	18'-3 1/2"	23'-6 1/4"	29'-6 1/2"	18
186'	3 1/4"	1'-1"	2'-5 1/4"	4'-4 1/4"	6'-10"	9'-11 1/4"	13'-8"	18'-1"	23'-2 3/4"	29'-2"	18
188'	3 1/4"	1'-0 3/4"	2'-5"	4'-3 1/2"	6'-9 1/4"	9'-10"	13'-6 1/4"	17'-10 1/2"	22'-11 1/4"	28'-9 1/2"	18
190'	3 1/4"	1'-0 3/4"	2'-4 3/4"	4'-3"	6'-8 1/2"	9'-8 3/4"	13'-4 1/2"	17'-8"	22'-8"	28'-5 1/2"	19