

# APPENDIX

INCHES AND FRACTIONS OF AN INCH IN DECIMALS OF A FOOT

INCHES	0	1/16	1/8	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	11/16	3/4	13/16	7/8	15/16
0	.0000	.0052	.0104	.0156	.0208	.0260	.0313	.0365	.0417	.0469	.0521	.0573	.0625	.0677	.0729	.0781
1	.0833	.0885	.0938	.0990	.1042	.1094	.1146	.1198	.1250	.1302	.1354	.1406	.1458	.1510	.1563	.1615
2	.1667	.1719	.1771	.1823	.1875	.1927	.1979	.2031	.2083	.2135	.2188	.2240	.2292	.2344	.2396	.2448
3	.2500	.2552	.2604	.2656	.2708	.2760	.2813	.2865	.2917	.2969	.3021	.3073	.3125	.3177	.3229	.3281
4	.3333	.3385	.3438	.3490	.3542	.3594	.3646	.3698	.3750	.3803	.3854	.3906	.3958	.4010	.4063	.4115
5	.4167	.4219	.4271	.4323	.4375	.4427	.4479	.4531	.4583	.4635	.4688	.4740	.4792	.4844	.4896	.4948
6	.5000	.5052	.5104	.5156	.5208	.5260	.5313	.5365	.5417	.5469	.5521	.5573	.5625	.5677	.5729	.5781
7	.5833	.5885	.5938	.5990	.6042	.6094	.6146	.6198	.6250	.6302	.6354	.6406	.6458	.6510	.6563	.6615
8	.6667	.6719	.6771	.6823	.6875	.6927	.6979	.7031	.7083	.7135	.7188	.7240	.7292	.7344	.7396	.7448
9	.7500	.7552	.7604	.7656	.7708	.7760	.7813	.7865	.7917	.7969	.8021	.8073	.8125	.8177	.8229	.8281
10	.8333	.8385	.8438	.8490	.8542	.8594	.8646	.8698	.8750	.8802	.8854	.8906	.8958	.9010	.9063	.9115
11	.9167	.9219	.9271	.9323	.9375	.9427	.9479	.9531	.9583	.9635	.9688	.9740	.9792	.9844	.9896	.9948

SPECIFICATION  
REFERENCE

CONVERSION TABLE

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BAR SIZES		WEIGHT	NOMINAL DIMENSIONS ROUND SECTIONS			
DIAMETER	DESIGNATION	POUNDS PER FOOT	DIAMETER INCHES	CROSS SECTIONAL SQ. INCHES	AREA	PERIMETER INCHES
$\frac{1}{4}$	2	.167	.250	.05		.786
$\frac{3}{8}$	3	.376	.375	.11		1.178
$\frac{1}{2}$	4	.668	.500	.20		1.571
$\frac{5}{8}$	5	1.043	.625	.31		1.963
$\frac{3}{4}$	6	1.502	.750	.44		2.356
$\frac{13}{16}$	7	2.044	.875	.60		2.749
1	8	2.670	1.000	.79		3.142
$1\frac{1}{8}$	9	3.400	1.128	1.00		3.544
$1\frac{17}{64}$	10	4.303	1.270	1.27		3.990
$1\frac{13}{32}$	11	5.313	1.410	1.56		4.430

NOTE:

BAR NUMBERS ARE BASED ON THE NUMBER OF  $\frac{1}{8}$  INCHES INCLUDED IN THE NOMINAL DIAMETER OF THE BAR.

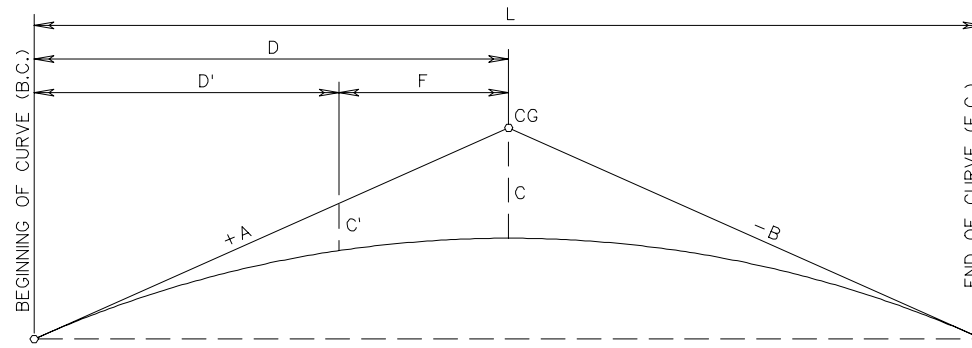
BAR NO. 2 IN PLAIN ROUNDS ONLY.

## STANDARD REINFORCING BARS

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SPECIFICATION  
REFERENCE

## PARABOLIC VERTICAL CURVE



C.G. = POINT OF CHANGE OF GRADIENT

C = CENTER CORRECTION

C' = CORRECTION AT ANY GIVEN POINT ON CURVE

D = L/2 = HALF LENGTH OF VERTICAL CURVE

D' = DISTANCE TO POINT WHERE CORRECTION IS REQUIRED FROM BEGINNING OR END OF CURVE

$C = \frac{\text{ALG. DIFF. X LENGTH OF CURVE IN STATIONS}}{8}$

$$C' = C \left( \frac{D'}{D} \right)^2$$

SPECIFICATION  
REFERENCE

## PARABOLIC VERTICAL CURVE COMPUTATIONS

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TO CONVERT FROM	TO	MULTIPLY BY	TO CONVERT FROM	TO	MULTIPLY BY
<u>LENGTH</u>			<u>VELOCITY</u>		
INCH (in)	METER (m)	.0254	FOOT/SECOND	METER/SECOND (m/s)	.3048
FOOT (ft)	METER (m)	.3048	MILE/HOUR (U.S. STATUTE)	METER/SECOND (m/s)	.4470
YARD (yd)	METER (m)	.9144	MILE/HOUR (U.S. STATUTE)	KILOMETER/HOUR	1.6093
MILE (U.S. STATUTE)	METER (m)	1609.3440	<u>TEMPERATURE</u>		
<u>AREA</u>			DEGREE FAHRENHEIT	DEGREE CELSIUS	$t^{\circ}c = (t^{\circ}F - 32)/1.8$
INCH <sup>2</sup> (in <sup>2</sup> )	METER <sup>2</sup> (m <sup>2</sup> )	.0006	<u>OTHER COMMONLY USED UNITS</u>		
FOOT <sup>2</sup> (ft <sup>2</sup> )	METER <sup>2</sup> (m <sup>2</sup> )	.0929	MILLIMETER	=	0.001 METER
YARD <sup>2</sup> (yd <sup>2</sup> )	METER <sup>2</sup> (m <sup>2</sup> )	.8361	CENTIMETER	=	0.01 METER
MILE <sup>2</sup> (U.S. STATUTE)	METER <sup>2</sup> (m <sup>2</sup> )	2589988.0000	KILOMETER	=	1000 METER
ACRES	METER <sup>2</sup> (m <sup>2</sup> )	4046.8560	KILOGRAM	=	1000 GRAMS
<u>MASS</u>			MILLILITER	=	0.001 LITER
TON (SHORT=2000 lbs)	KILOGRAM (kg)	907.1847			
<u>VOLUME</u>					
FOOT <sup>3</sup> (ft <sup>3</sup> )	METER <sup>3</sup> (m <sup>3</sup> )	.0283			
YARD <sup>3</sup> (yd <sup>3</sup> )	METER <sup>3</sup> (m <sup>3</sup> )	.7645			
ACRE-FOOT	METER <sup>3</sup> (m <sup>3</sup> )	1233.4820			
OUNCE (U.S. LIQUID)	LITER (l)	.0296			
PINT (U.S. LIQUID)	LITER (l)	.4732			
QUART (U.S. LIQUID)	LITER (l)	.9463			
GALLON (U.S. LIQUID)	LITER (l)	3.7853			

# METRIC CONVERSION FACTORS

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SPECIFICATION  
REFERENCE