

PROJECT : SLVHCS REPLACEMENT MEDICAL CENTER DATE: 2/4/2015

8 FT FENCE HEIGHT, LINE POST CALCULATIONS

FENCE POST FOOTING AND SPACING CALCULATIONS
CHAIN LINK FENCE WIND LOAD GUIDE WLG 2445 - 1/2014

"CF1"	Coefficient for Fence Mesh Size	(Table 9)	7.26
"CF2"	Coefficient for Wind Exposure	(Table 10)	1
"CF3"	Coefficient of icing effect	(Table 11)	1
	Line Post Selection	(Table 1 thru 8)	1.7
"S1"	Allowable Lateral Soil Pressure (Imbedded in 6" thick, concrete slab)	(1806.2, pg 32)	1200 psf
"WF"	Wind Force	(Table 13)	26.860 lbs/sqft
"d"	Diameter of Fence Post Footing		8 ft
"pd"	Fence Post Diameter		2.875 in
" H "	Fence Post Height above Footing		8 ft
"NA"	Net Area of Fence Force Acts Upon		80 sqft
" c "	Distance of Applied Force Above Footing	*****	4.4 ft
"P"	Applied Force on Net Area	*****:	295.98 lbf
"A"	Intermediate Area for Depth Calculation	*****	0.072
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"FS"	Recommended Maximum Fence Spacing	*****	12.342 ft
"D"	Minimum Depth of Footing (Concrete Slab 6" Thick)		0.829 ft
	Therefore remaining support required:		0.329 ft
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Additional Footing Required from Remainder of Concrete Slab			
	Ratio of remainder		0.397
H'	Adjusted fence height for remainder		3.18 ft
S1'	Allowable Lateral Soil Pressure	(1806.2, pg 32)	200.00 psf
d'	Diameter of Fence Post Footing		1.00 ft
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c'	Distance of Applied Force Above Footing	*****	1.747 ft
P'	Applied Force on Net Area	*****	117.513 lbf
A'	Intermediate Area for Depth Calculation	*****	1.375
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D'	Remainder footing required to be supported by soil		2.869 ft
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Group 1A	ASTM F1043 SCH 40	ASTM F1083 Regular Grade 30K psi yield	2.875" dia
Fence Post	Table 4		



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8 FT FENCE HEIGHT, TERMINAL POST CALCULATIONS

FENCE POST FOOTING AND SPACING CALCULATIONS
CHAIN LINK FENCE WIND LOAD GUIDE WLG 2445 - 1/2014

"CF1"	Coefficient for Fence Mesh Size	(Table 9)	7.26
"CF2"	Coefficient for Wind Exposure	(Table 10)	1
"CF3"	Coefficient of icing effect	(Table 11)	1
	Line Post Selection	(Table 1 thru 8)	2.8
"S1"	Allowable Lateral Soil Pressure (Imbedded in 6" thick, concrete slab)	(1806.2, pg 32)	1200 psf
"WF"	Wind Force	(Table 13)	26.860 lbs/sqft
"d"	Diameter of Fence Post Footing		5 ft
"pd"	Fence Post Diameter		3.5 in
" H "	Fence Post Height above Footing		8 ft
"NA"	Net Area of Fence Force Acts Upon (*.707)		56 sqft
" c "	Distance of Applied Force Above Footing	*****	4.4 ft
"P"	Applied Force on Net Area	*****	207.18 lbf
"A"	Intermediate Area for Depth Calculation	*****	0.081
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"FS"	Recommended Maximum Fence Spacing	*****	20.328 ft
"D"	Minimum Depth of Footing (Concrete Slab 6" Thick)		0.880 ft
	Therefore remaining support required:		0.380 ft
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Additional Footing Required from Remainder of Concrete Slab			
	Ratio of remainder		0.432
H'	Adjusted fence height for remainder		3.45 ft
S1'	Allowable Lateral Soil Pressure	(1806.2, pg 32)	200.00 psf
d'	Diameter of Fence Post Footing		1.00 ft
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c'	Distance of Applied Force Above Footing	*****	1.899 ft
P'	Applied Force on Net Area	*****	127.771 lbf
A'	Intermediate Area for Depth Calculation	*****	1.495
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D'	Remainder footing required to be supported by soil		3.120 ft
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Group 1A ASTM F1043 SCH 40 ASTM F1083 Regular Grade 30K psi yield 3-1/2" dia
Fence Post Table 4; Corner Post



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