Cantilevered Retaining Wall

Lic. # : KW-06010584

Description : R	etaining Wall - 4'-8" Tall
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Footing Dimensions &	Strength	IS
Toe Width	=	0.67 ft
Heel Width Total Footing Width	=	<u>2.67</u> 3.34
Footing Thickness	=	10.00 in
Key Width	=	0.00 in
Key Depth Key Distance from Toe	=	0.00 in 2.00 ft
f'c = 4,000 psi Footing Concrete Density	Fy_=	60,000 psi 150.00 pcf
Min. As % Cover @ Top 2.00	= @ Bt	0.0018

Footing Design Res	ults		
		<u>Toe</u>	Heel
Factored Pressure	=	1,565	42 psf
Mu' : Upward	=	328	0 ft-lb
Mu' : Downward	=	83	0 ft-lb
Mu: Design	=	245	1,682 ft-lb
Actual 1-Way Shear	=	1.80	20.62 psi
Allow 1-Way Shear	=	94.87	94.87 psi
Toe Reinforcing	=	None Spec'd	
Heel Reinforcing	=	# 5 @ 12.00 in	
Key Reinforcing	=	None Spec'd	
Other Acceptable Sizes	885	Spacings	
Toe: Not req'd, Mu	< \$	s*Fr	

Heel: Not req'd, Mu < S * Fr Key: No key defined

Summary of Overturning & Resisting Forces & Moments

Item	_	۰۰۰۰۵ Force اbs	VERTURNING Distance ft	 Moment ft-lb
Heel Active Pressure	=	530.0	1.83	972.3
Surcharge over Heel	=	175.1	2.75	481.8
Toe Active Pressure	=	-93.8	0.83	-78.1
Surcharge Over Toe	=			
Adjacent Footing Load	=			
Added Lateral Load	=			
Load @ Stem Above Soil	=	20.0	7.50	150.1
Total	=	631.4	0.T.M. =	1,526.1
Resisting/Overturning F Vertical Loads used		oil Pressure	= = 2,236.8	2.67 3 lbs

		RE Force Ibs	SISTING Distance ft	Moment ft-lb
Soil Over Heel	=	1,029.1	2.34	2,406.4
Sloped Soil Over Heel	=			
Surcharge Over Heel	=	200.3	2.34	468.4
Adjacent Footing Load	=			
Axial Dead Load on Stem	I =			
* Axial Live Load on Stem	=			
Soil Over Toe	=	122.8	0.34	41.1
Surcharge Over Toe	=			
Stem Weight(s)	=	467.0	1.00	468.6
Earth @ Stem Transitions	5 =			
Footing Weight	=	417.5	1.67	697.2
Key Weight	=		2.00	
Vert. Component	=		-	
То	tal =	2,236.8 lb	os R.M. =	4,081.8
* Axial live load NOT includ	led in to	tal displayed, o	r used for over	turnina

Axial live load INU I included in total displayed, or used for overturning resistance, but is included for soil pressure calculation.

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