

John Shively PE

Name	F <sub>hor</sub> [lbf/ft]	App.Pt. z [ft]	F <sub>vert</sub> [lbf/ft]	App.Pt. x [ft]	Design coefficient
Active pressure	692.2	-2.01	530.3	3.05	1.000

**Verification of block No. 1****Check for overturning stability**Resisting moment  $M_{res} = 4786.1$  lbf/ftOverturning moment  $M_{ovr} = 1387.2$  lbf/ft

Safety factor = 3.45 &gt; 1.50

**Joint for overturning stability is SATISFACTORY****Check for slip**Resisting horizontal force  $H_{res} = 1456.59$  lbf/ftActive horizontal force  $H_{act} = 684.43$  lbf/ft

Safety factor = 2.13 &gt; 1.50

**Joint for verification is SATISFACTORY****Bearing capacity of foundation soil (Stage of construction 1)****Design load acting at the center of footing bottom**

No.	Moment [lbf/ft]	Norm. force [lbf/ft]	Shear Force [lbf/ft]	Eccentricity [-]	Stress [psf]
1	752.5	3396.37	767.97	0.052	892.2

**Service load acting at the center of footing bottom**

No.	Moment [lbf/ft]	Norm. force [lbf/ft]	Shear Force [lbf/ft]
1	752.5	3396.37	767.97

**Verification of foundation soil**

Stress in the footing bottom : rectangle

**Eccentricity verification**Max. eccentricity of normal force  $e = 0.052$ Maximum allowable eccentricity  $e_{alw} = 0.333$ **Eccentricity of the normal force is SATISFACTORY****Verification of bearing capacity**Max. stress at footing bottom  $\sigma = 892.2$  psfBearing capacity of foundation soil  $R_d = 6000.0$  psf

Safety factor = 6.73 &gt; 2.00

**Bearing capacity of foundation soil is SATISFACTORY****Overall verification - bearing capacity of found. soil is SATISFACTORY**