

**Terrain profile**

Terrain behind construction has the slope 1: 4.01 (slope angle is 14.00 °).  
Embankment height is 0.75 ft, embankment length is 3.00 ft.

**Water influence**

Ground water table is located below the structure.

**Resistance on front face of the structure**

Resistance on front face of the structure: at rest  
Soil on front face of the structure - Lean Clay  
Soil thickness in front of structure  $h = 2.50$  ft

Terrain in front of structure is flat.

**Settings of the stage of construction**

Design situation : permanent  
Reduction of soil/soil friction angle : do not reduce

**Verification No. 1 (Stage of construction 1)****Forces acting on construction**

Name	$F_{hor}$ [lbf/ft]	App.Pt. z [ft]	$F_{vert}$ [lbf/ft]	App.Pt. x [ft]	Design coefficient
Weight - wall	0.0	-2.90	2328.1	2.04	1.000
FF resistance	-193.1	-0.83	0.2	-0.25	1.000
Weight - earth wedge	0.0	-1.24	16.5	4.00	1.000
Weight - earth wedge	0.0	-3.02	84.1	3.32	1.000
Weight - earth wedge	0.0	-6.90	132.9	2.30	1.000
Active pressure	961.1	-2.34	834.5	3.77	1.000

**Verification of complete wall****Check for overturning stability**

Resisting moment  $M_{res} = 8548.9$  lbfft/ft  
Overturning moment  $M_{ovr} = 2084.1$  lbfft/ft

Safety factor = 4.10 > 1.50

**Wall for overturning is SATISFACTORY**

**Check for slip**

Resisting horizontal force  $H_{res} = 1977.81$  lbf/ft  
Active horizontal force  $H_{act} = 767.97$  lbf/ft

Safety factor = 2.58 > 1.50

**Wall for slip is SATISFACTORY**

**Overall check - WALL is SATISFACTORY**

**Dimensioning No. 1 (Stage of construction 1)****Forces acting on construction**

Name	$F_{hor}$ [lbf/ft]	App.Pt. z [ft]	$F_{vert}$ [lbf/ft]	App.Pt. x [ft]	Design coefficient
Weight - wall	0.0	-2.65	1775.6	1.52	1.000
FF resistance	-7.7	-0.17	0.0	0.00	1.000
Weight - earth wedge	0.0	-2.02	84.1	2.82	1.000
Weight - earth wedge	0.0	-5.90	132.9	1.80	1.000