

**Temporary Shoring 2 at Southwest Wingwall**

**Soil Properties Based off of Boring B-002-O-24**

Top of Wall Elevation = **942.81** ft  
 Bottom of Wall Elevation = **931.28** ft  
 Water Table Elevation = **935.2** ft  
 H (design) = **11.53** ft  
 Su = **0** psf (Conservative)  
 Gamma = **124** pcf  
 Saturated Gamma = **145** pcf  
 Backslope Angle = **0**  
 Sheet Pile Width = **1.640833** ft  
 ka1 = **0.42173**  
 ka2 = **0.42173**  
 Water Density = **62.4** pcf  
 Surcharge Load Equivalent Height = **0**

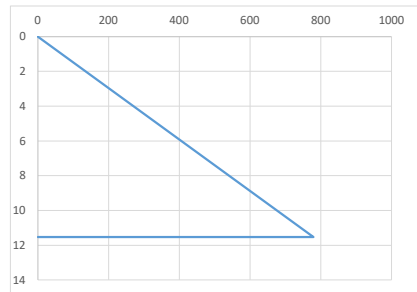
**AASHTO LRFD Load Factors**

Reference Tbl. 3.4.1-1 & 3.4.1-2

Limit State	EH	LL	WA
Service I	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>
Strength I	<b>1.50</b>	<b>1.75</b>	<b>1.00</b>

**Load Pressure Calculations**

Limit State	Depth Below Head (ft)	EH	LL	WA
Top of Wall	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Water Table	<b>7.61</b>	<b>397.96</b>	<b>0.00</b>	<b>0.00</b>
Bottom of Wall	<b>11.53</b>	<b>534.51</b>	<b>0.00</b>	<b>244.61</b>



**PYWALL Unifromly Distributed Load (LL Surcharge) Inputs**

Location	Service I Min (lbs/in)	Strength I Max (lbs/in)
Top of Wall	<b>0.00</b>	<b>0.00</b>
Bottom of Wall	<b>0.00</b>	<b>0.00</b>

Note: Pywall uses a active earth modification factor, for service case it is 1 but for strength case it is 1.5 and it multiplies surcharge load by 1.5 by default so to get around this in strength case surcharge load needs to be multiplied by 1.75/1.5.

**SOIL LAYER SETUP FOR PYWALL**

No	Type	Depth at Top of the Layer	Depth at Bottom of Layer	Friction angle $\Phi$	Unit Weight	Cohesive Strength	E50	K (py) (pci)	Pressure coefficient
1	Stiff Clay W/O Free	-0.89	2.61	24.00	124.00	750	0.015	80	0.421730222
2	Stiff Clay W/O Free	2.61	7.61	-	124.00	750	0.015	80	0.421730222
3	Stiff Clay W/O Free	7.61	10.61	-	122.00	250	0.030	15	0.421730222
4	Sand (Reese)	10.61	11.53	28.00	110.00	-	-	20	0.421730222
5	Sand (Reese)	11.53	13.61	28.00	110.00	-	-	20	0.421730222
6	Sand (Reese)	13.61	18.11	28.00	110.00	-	-	20.00	
7	Stiff Clay W/O Free	18.11	22.61	-	124.00	750.00	0.015	80.000	
8	Stiff Clay W/O Free	22.61	32.61	-	126.00	1500.00	0.010	350.000	
9	Stiff Clay W/O Free	32.61	49.11	-	131.00	4500.00	0.004	1500.000	
10									

**PYWALL results**

**SECTION = PZ 40**  
**Depth = 40.00** ft  
**Service Level Deflection = 1.520** in  
**Strength Level Deflection = 3.514** in

< OK **2.7672** "

**Max Strength I Moment Above Excavation Line = 30.94167** kip-ft  
**Max Strength I Moment Below Excavation Line = 133** kip-ft  
**Max Strength I Shear = 17.200** kips

< OK **373.49** k-ft  
 < OK **373.49** k-ft  
 < OK **127.2524** kips (LRFD Section 6.10.9.2)