HOUTCHEN RESIDENCE

"DETAIL K"

7'-0" MAX DEPTH):

Depth (ft) =		7	
Equivalent Fluid Density (pcf) =		40	
OTM=1/6 x (w) x H^3 (lb ft) =		2286.666667	
Moment Resistance (lb ft) =	ϕMn		
Shear Resistance (lbs) =	ϕVc		
As (#4 @ 6" OC)=		0.3927	in^2
Fs =		60	ksi
Fc =		4	ksi
a (in) =		0.5775	in
D (in) =		4	
Dt (in) =		8	
Cover (in) =		3.75	
Bar Diameter (in) =		0.5	
Moment Reduction Factor (ϕ) =		0.9	
Shear Reduction Factor (ϕ) =		0.75	
Tensile Strain		0.014662338	
ϕMn (ft lbs) =		6558.335438	
ϕVc (lbs) =		9107.359661	
Failure State	TENSION CONTROLLED		
Moment Resistance FOS		2.868076722	

"DETAIL L"

5'-0" MAX DEPTH):

Depth (ft) =		5
Equivalent Fluid Density (pcf) =		40
OTM=1/6 x (w) x H^3 (lb ft) =		833.3333333
Moment Resistance (lb ft) =	ϕMn	
Shear Resistance (lbs) =	ϕVc	
As (#4 @ 12" OC)=		0.19625
Fs =		60
Fc =		4
a (in) =		0.288602941
D (in) =		4
Dt (in) =		8
Cover (in) =		3.75
Bar Diameter (in) =		0.5
Moment Reduction Factor (ϕ) =		0.9
Shear Reduction Factor (ϕ) =		0.75
Tensile Strain		0.032342675
ϕMn (ft lbs) =		3405.063764
ϕVc (lbs) =		9107.359661
Failure State	TENSION CONTROLLED	
Moment Resistance FOS		4.086076517