

# APPENDIX D

## Area 1

Seismic Loads (ASCE 7-05)		
Occupancy Category	III	(Table 1-1)
Importance Factor(I)	1.25	(Table 11.5-1)
$S_s$	0.154	g
$S_1$	0.05	g
Site Class	C	Dense Soil/Soft Rock
$F_a$	1.2	(Table 11.4-1)
$F_v$	1.7	(Table 11.4-1)
$S_{MS}=F_a*S_s$	0.185	
$S_{M1}=F_v*S_1$	0.085	
$S_{DS}=2S_{MS}/3$	0.123	Category A
$S_{D1}=2S_{M1}/3$	0.057	Category A
$T_s$	0.460	
$T_a=C_dh^x$	0.311	
$x$	0.9	(Table 12.8-2)
$h$	27	ft
$C_t$	0.016	(Table 12.8-2)
$T=C_u*T_a$	0.528	
$C_u$	1.7	(Table 12.8-1)
$T_L$	8	(Table 22-15)
$C_s=S_{D1}/(T(R/I))$	0.0268	
$S_{DS}/(R/I)$	0.0308	
$R$	5	(Table 12.2-1)
$k$	1.014	
$V$	51.91	kip

Area 2

Seismic Loads (ASCE 7-05)		
Occupancy Category	III	(Table 1-1)
Importance Factor(I)	1.25	(Table 11.5-1)
$S_s$	0.154	g
$S_1$	0.05	g
Site Class	C	Dense Soil/Soft Rock
$F_a$	1.2	(Table 11.4-1)
$F_v$	1.7	(Table 11.4-1)
$S_{MS}=F_a*S_s$	0.185	
$S_{M1}=F_v*S_1$	0.085	
$S_{DS}=2S_{MS}/3$	0.123	Category A
$S_{D1}=2S_{M1}/3$	0.057	Category A
$T_s$	0.460	
$T_a=C_h*h^x$	0.311	
$x$	0.9	(Table 12.8-2)
$h$	27	ft
$C_t$	0.016	(Table 12.8-2)
$T=C_u*T_a$	0.528	
$C_u$	1.7	(Table 12.8-1)
$T_L$	8	(Table 22-15)
$C_s=S_{D1}/(T(R/I))$	0.0268	
$S_{DS}/(R/I)$	0.0308	
$R$	5	(Table 12.2-1)
$k$	1.014	
$V$	129.3	kip