

Iterate shear capacity to obtain same overall deflection

ANCHOR SLIP NOT SCALED

$h =$	8	8 (ft)
$b =$	8	4 (ft)
$v_n =$	640	353 (plf)
$\phi v =$	512	282 (plf)
$\Delta_a =$	0.108	0.108 (in)
$E =$	1,300,000	1,300,000 (psi)
$G_a =$	15	15
$A_{chord} =$	16.5	16.5 (in ²)
$T_u \leq \phi v h =$	4096	2259 (lbs)
$\Delta_{bending} =$	0.147	0.162 (in)
$\Delta_{shear} =$	0.273	0.151 (in)
$\Delta_{anchor} =$	0.108	0.216 (in)
$\delta_{sw} =$	0.528	0.528 (in)
$\phi V = \phi v b =$	4096	1130 (lbs)
$\phi V =$	5226	(lbs)
$\phi v_{max} \Sigma b =$	6144	(lbs)
$\phi V / (\phi v_{max} \Sigma b) =$	0.85	

ANCHOR SLIP REDUCED PROPORTIONAL TO DEMAND

$h =$	8	8 (ft)
$b =$	8	4 (ft)
$v_n =$	640	433 (plf)
$\phi v =$	512	346 (plf)
$\Delta_a =$	0.108	0.073 (in)
$E =$	1,300,000	1,300,000 (psi)
$G_a =$	15	15
$A_{chord} =$	16.5	16.5 (in ²)
$T_u \leq \phi v h =$	4096	2771 (lbs)
$\Delta_{bending} =$	0.147	0.198 (in)
$\Delta_{shear} =$	0.273	0.185 (in)
$\Delta_{anchor} =$	0.108	0.146 (in)
$\delta_{sw} =$	0.528	0.529 (in)
$\phi V = \phi v b =$	4096	1386 (lbs)
$\phi V =$	5482	(lbs)
$\phi v_{max} \Sigma b =$	6144	(lbs)
$\phi V / (\phi v_{max} \Sigma b) =$	0.89	