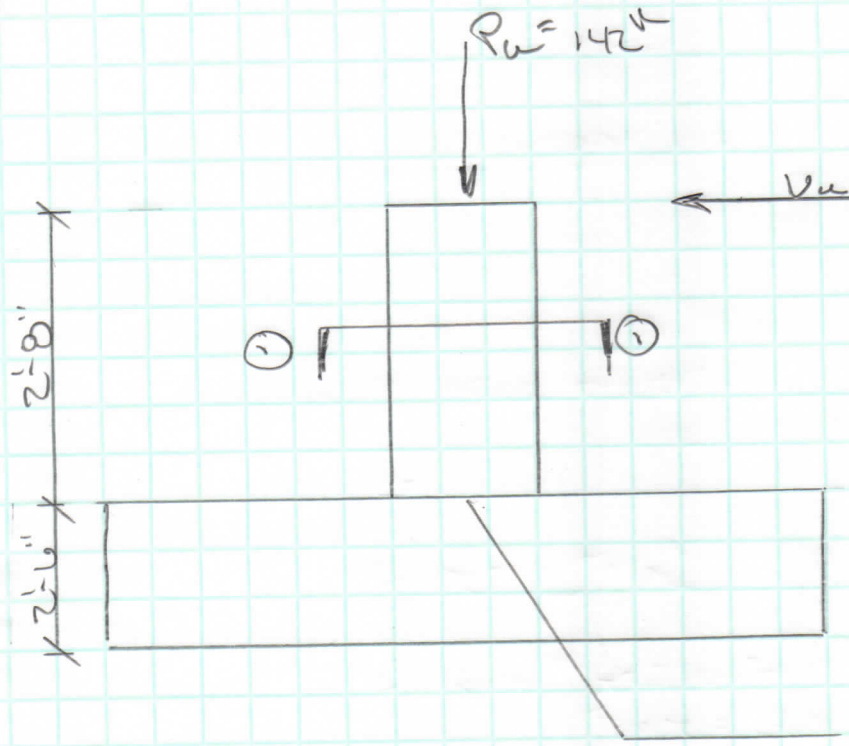

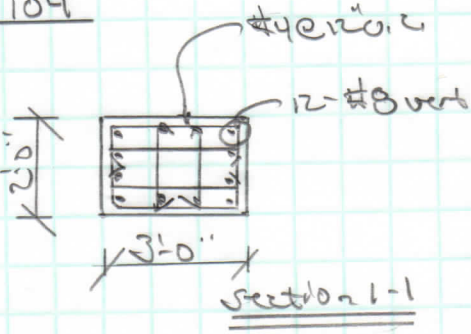

How to transfer shear @ top of footing?

option #1: rely on bars to transfer shear by shear friction

$\phi V_n = (.75)(4)(.79)(60) = 142.2^k$

↑ 4 "middle" bars

option #2: recess pier into footing

Required bearing area = $104^k / (.65)(.85)(3)$

$= 62 in^2 / 24 in = 3 in$