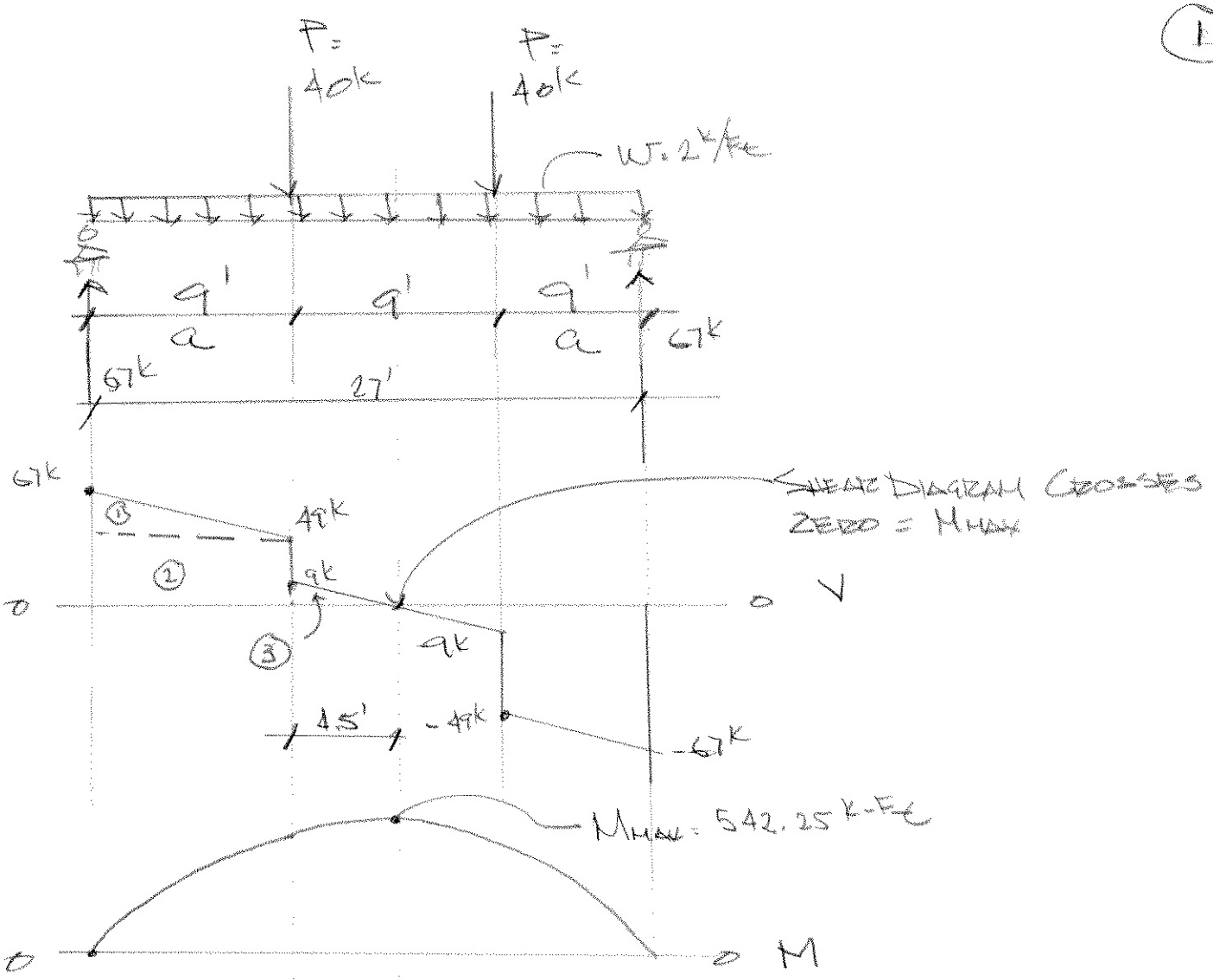


M_{MAX} = Area of Part ① + ② + ③

$A_① = (67^k - 49^k)(9')/2 = 81^{k\text{-ft}}$

$+ A_② = (49^k)(9') = 441^{k\text{-ft}}$

$+ A_③ = (9^k)(4.5')/2 = 20.25^{k\text{-ft}}$

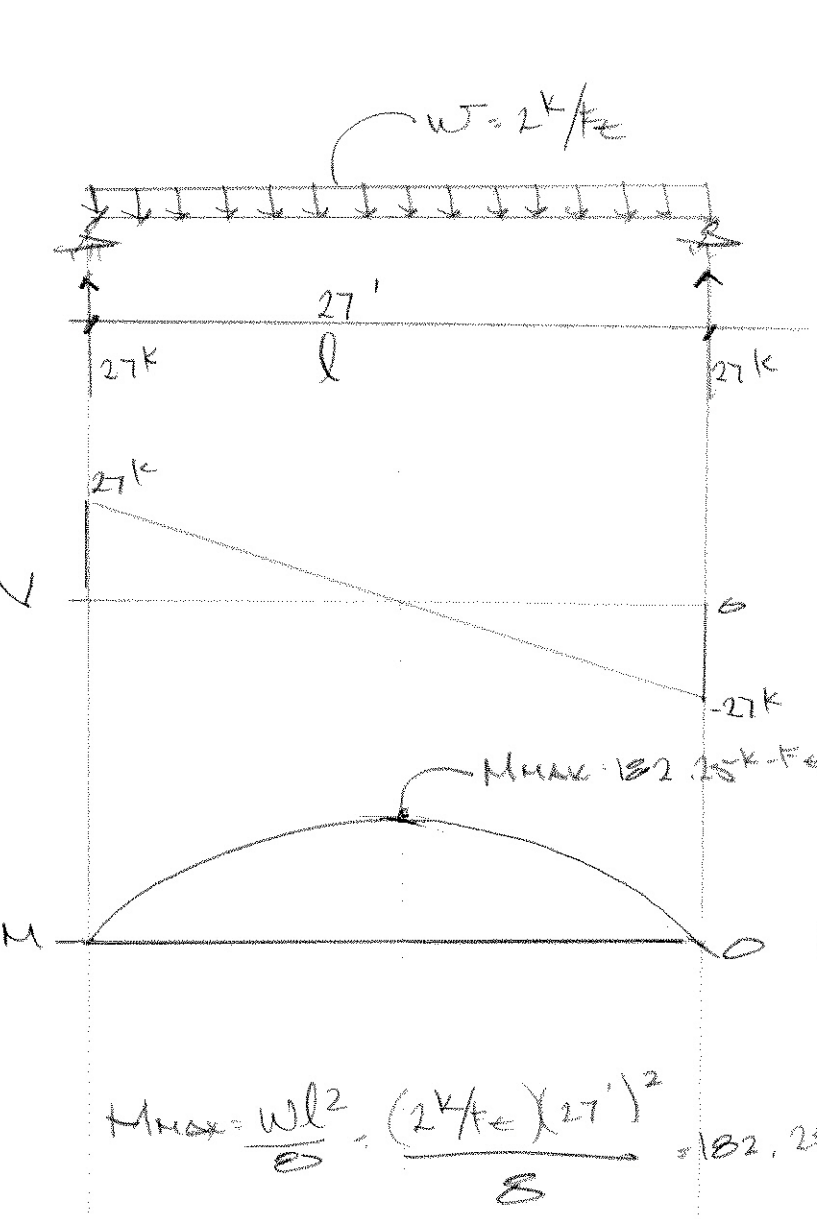
$542.25^{k\text{-ft}}$

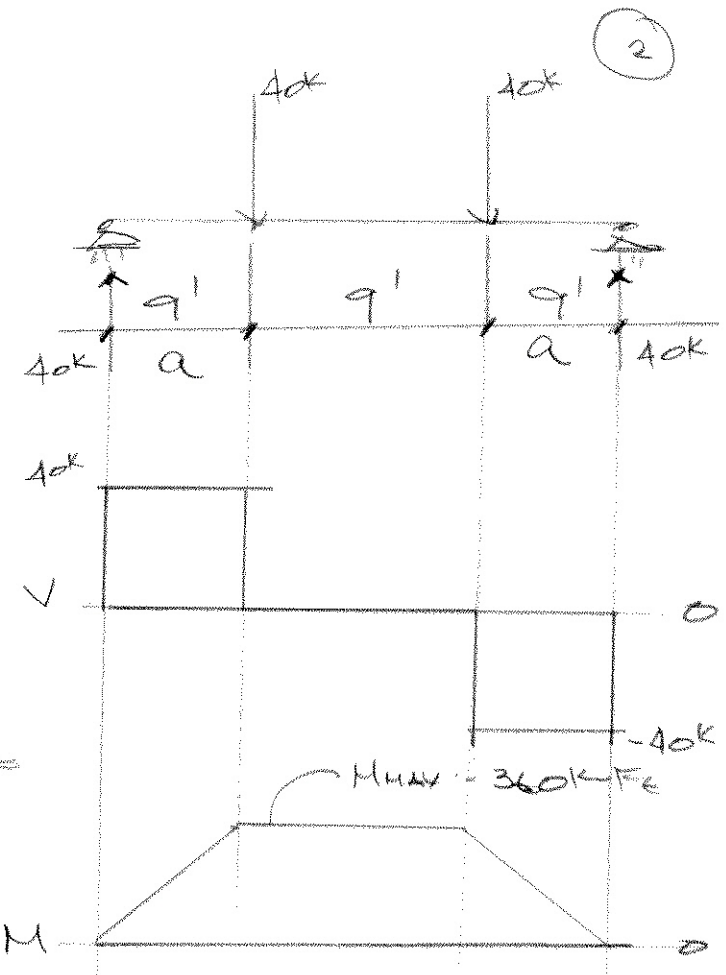
$M_{MAX} = \frac{wl^2}{8} + Pa$

$= \frac{(2^k/ft)(27')^2}{8} + (40^k)(9')$

$= 542.25^{k\text{-ft}}$

MAM
6/22/06





$$M_{MAX} = \frac{wl^2}{8} = \frac{(2^k/ft)(27')^2}{8} = 182.25^{k\text{-}ft}$$

$$M_{MAX} = Pa = (40^k)(9') = 360^{k\text{-}ft}$$

By Superposition $\Rightarrow$ $182.25^{k\text{-}ft} + 360^{k\text{-}ft}$

$$542.25^{k\text{-}ft}$$

MAM
6/22/06