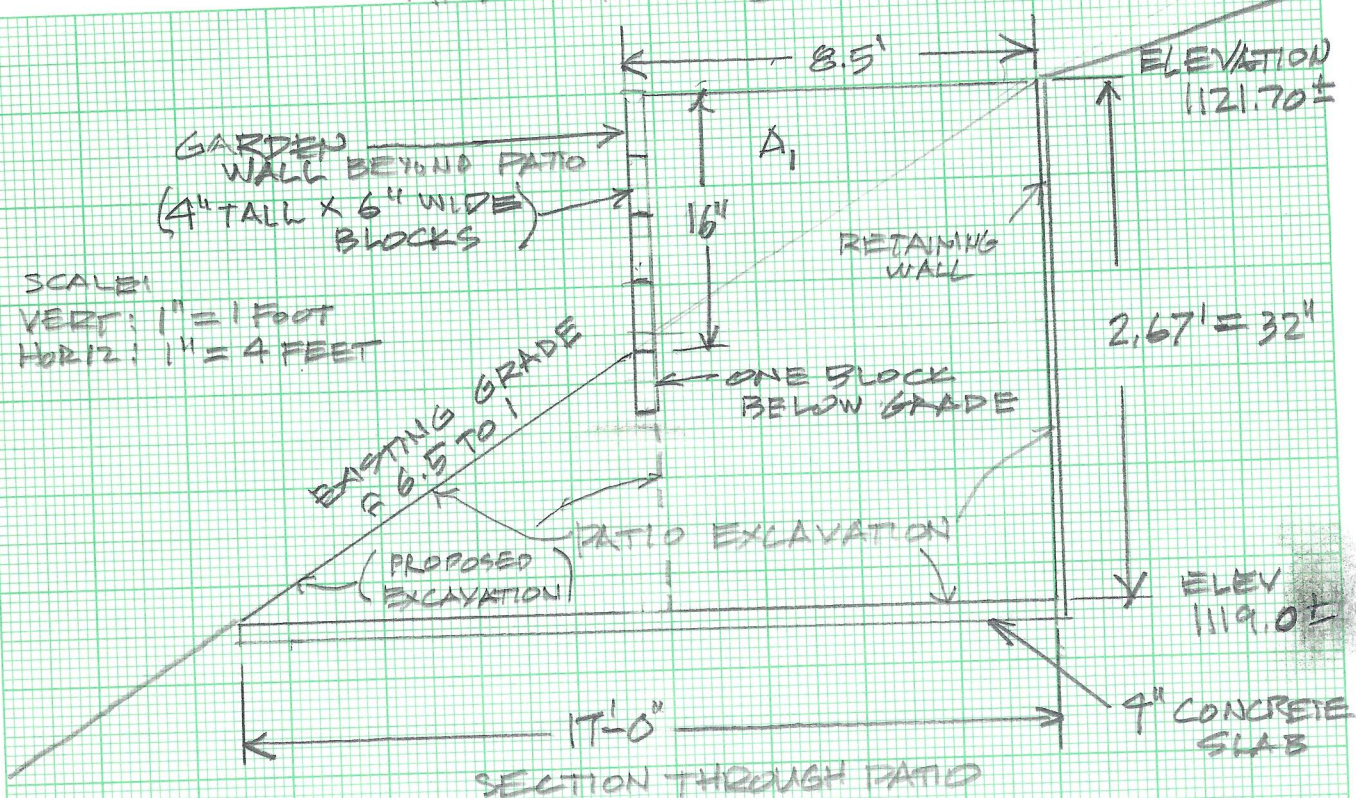


ATTACHMENT 6



FILL ADDED BEHIND WALL FROM EXCAVATION

$$\begin{aligned} \text{VOLUME} &= A_1 \times \text{WALL LENGTH} / 2 \\ &= 8.0' \times 1.33' \times 41' / 2 \\ &= 218.7 \text{ CF} \end{aligned}$$

FILL BY CONSTRUCTING GARDEN WALL

$$\begin{aligned} \text{VOLUME} &= \text{WALL HEIGHT} \times \text{LENGTH} \times \text{WIDTH} \\ &= 16.25' \times 41 \text{ FEET} \times 6" \\ &= 1.33' \times 41 \times 0.5 = 342.6 \text{ CF} \end{aligned}$$

FILL BY PATIO CONSTRUCTION

$$\text{VOL} = (17)^2 \pi / 4 \times 0.333 = 75.7 \text{ CF}$$

PATIO EXCAVATION REMOVED FROM FLOODPLAIN

$$\begin{aligned} \text{VOLUME} &= \text{PATIO AREA} \times \text{DEPTH ABOVE SLAB} / 2 \\ &= (17)^2 \pi / 4 \times 2.667 / 2 \\ &= 302.6 \text{ CF} \end{aligned}$$

FILL BY HOT-TUB (92" SQUARE)

$$\text{VOLUME} = 7.67 \times 7.67 \times 2.67 = 156.7 \text{ CF}$$

FILL BY RETAINING WALL COLUMNS (9)

$$\text{VOLUME} = 0.65 \times 0.65 \times 2.67 \times 9 = 10.0 \text{ CF}$$

FILL BY PERGOLA COLUMNS (4)

$$\text{VOLUME} = 0.5 \times 0.5 \times 2.67 \times 4 = 2.67 \text{ CF}$$