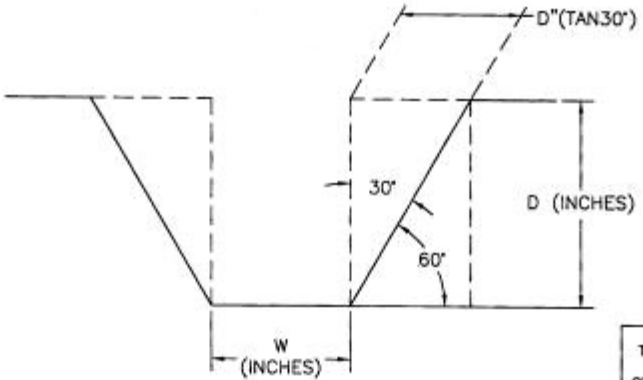
COMPARISON OF VOLUME OF MATERIAL REMOVED BY TRENCHER AND EXCAVATOR WITH 60° WALLS



TAN∝=OPP/ADJ

OPP=ADJ(TAN30°)

FOR 10' LINEAR DISTANCES

VOLUME OF MATERIAL REMOVED BY TRENCHER = W" X D" X 10'(12IN/FT)

VOLUME OF MATERIAL REMOVED BY EXCAVATOR =
W" X D" X 10'(12IN/FT) + D"(D"TAN30°) X 10'(12IN/FT)

LETS DO A QUICK TABLE
ASSUME W=24" FOR ALL BELOW.

D(FT)	D(INCH)	VOLUME (CU FT) TRENCHER	VOLUME (CU FT) EXCAVATOR	% INCREASE OF MATERIAL REMOVED BY EXCAVATOR
3'	36"	60 CU FT	60 + 52 = 112 CU FT	86%
4'	48"	80 CU FT	80 + 92 = 172 CU FT	115%
5'	60"	100 CU FT	100 + 144 = 244 CU FT	144%
6'	72"	120 CU FT	120 + 208 = 328 CU FT	173%

*ABOVE BASED ON 10' LINEAR DITCH @24" BOTTOM WIDTH