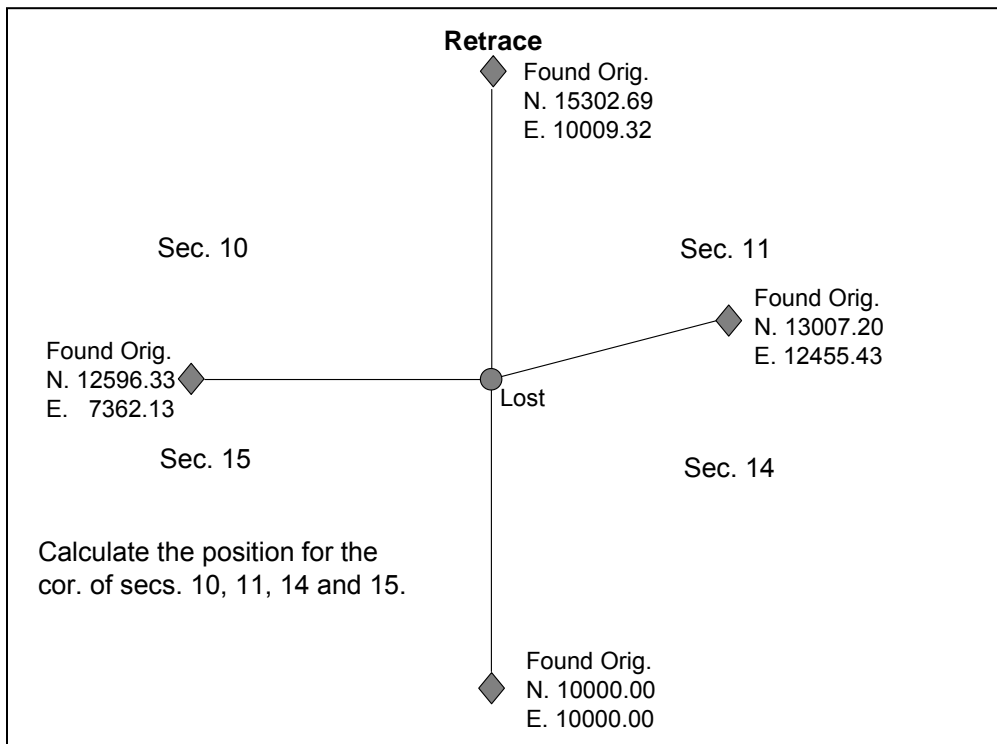
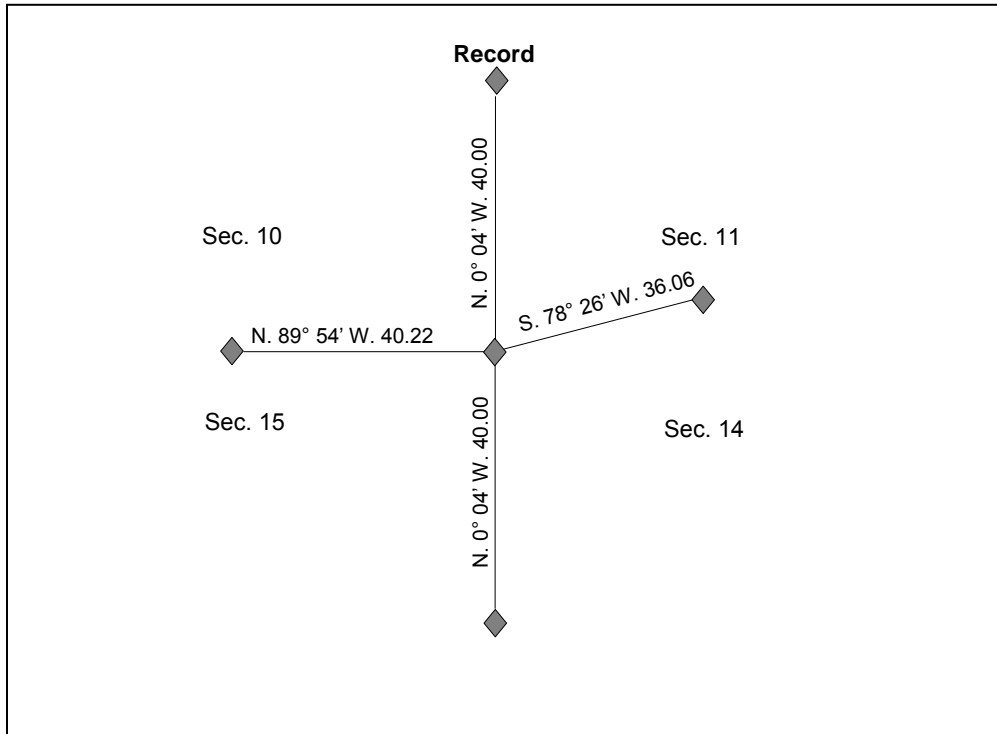


DOUBLE PROPORTION EXERCISE



N-S Proportion:

Record latitude between controlling corners: N. 80.00 chs. = 5280.00 ft.

Retrace latitude between controlling corners: N. 5302.69 ft.

Record proportion is midpoint, therefore the latitude to the lost sec. cor. is: 2651.35 ft.

N. 10000.00 + 2651.35 = N. 12651.35

E-W Proportion

Record:

Cardinal equivalent of the departure of the E ½ mile: $\sin 78^\circ 26' \times 36.06 = 35.328$ chs. = 2331.63 ft.

Cardinal equivalent of the departure of the W ½ mile: $\sin 89^\circ 54' \times 40.22 = 40.220$ chs. = 2654.52 ft.

Record departure between controlling corners: 4986.17 ft.

Retrace departure between controlling corners: 5093.30 ft.

Retrace departure \div Record departure = K

$5093.30 \div 4986.15 = 1.021490$

K x Record departure of each segment of the line = Proportionate departure of each segment of the line

$1.021490 \times 2331.63 = 2381.74$ ft.

“ $\times 2654.52 = 2711.56$ ft.

E. $12455.43 - 2381.74 =$ E. 10073.69 ft.

Proportionate Position of the Section Corner

N. 12651.35
E. 10073.69

