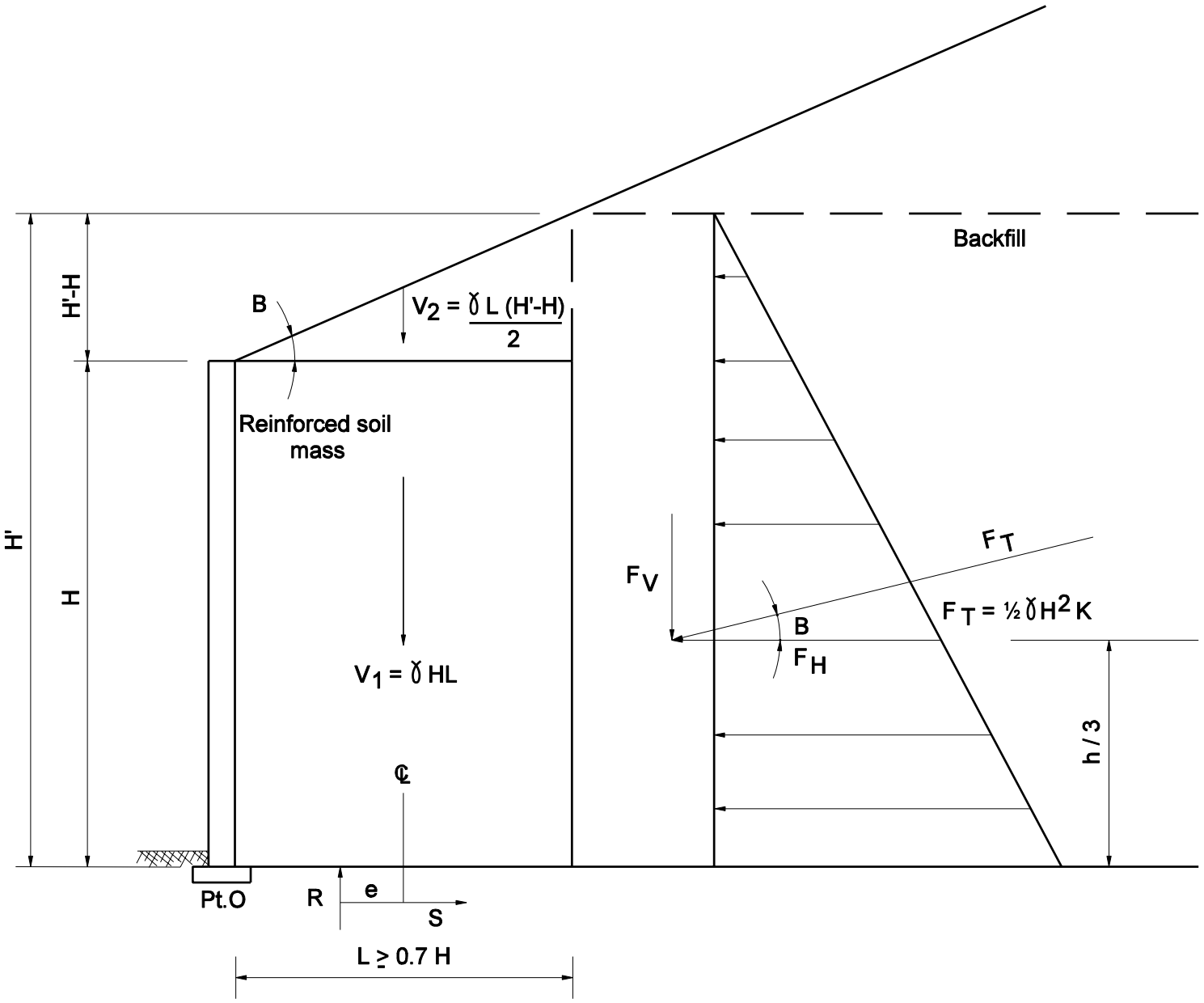

SAFETY FACTOR AGAINST OVERTURNING (MOMENTS ABOUT PT.O):

$$\text{S.F. (O)} = \frac{\Sigma \text{ Moments Resisting (Mr)}}{\Sigma \text{ Moments Overturning (Mo)}} = \frac{V_1 (L/2) + V_2 (2L/3) + F_V (L)}{F_H (H'/3)} \geq 2.0$$

SAFETY FACTOR AGAINDT SLIDING:

$$\text{S.F. (S)} = \frac{\Sigma \text{ Horizontal Resisting Force(s)}}{\Sigma \text{ Horizonal Driving Force(s)}} = \frac{(V_1 + V_2)\ \text{TanS}^*}{F_H} \geq 1.5$$

*S = Coefficient of Sliding Friction.

$$e = \frac{L}{2} - \frac{Mr-Mo}{R} \leq \frac{L}{6} \qquad \sigma v = \frac{R}{L - 2e}$$

where: e = Eccentricity R = Resultant of vertical forces $V_1 + V_2 + F_V$

SLOPING BACKFILL

Figure 68-4A