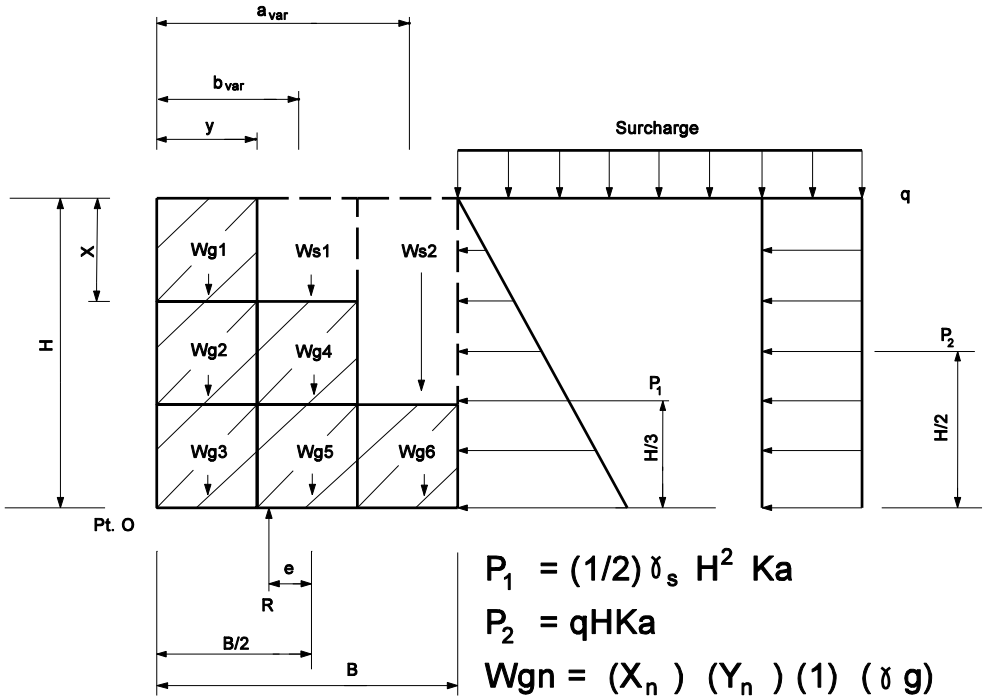

Safty Factor Against Sliding

$$S.F. = \frac{\text{Resisting Forces}}{\text{Driving Force}} = \frac{[\sum Wgn + \sum Wsn]\ \text{Tan}\ \phi}{P_1 + P_2} \geq 1.5$$

Safty Factor Against Rotation About Pt. O

$$S.F. = \frac{\text{Resisting Moments}}{\text{Driving Moments}} = \frac{M_R}{M_D} = \frac{(\sum Wgn)(b) + \sum Wsn\,(a)}{P_1\ (H/3) + P_2\ (H/2)} \geq 2.0$$

where b = distance to gabion section center of gravity
a = distance to soil block center of gravity

Bearing Pressure
Base Preassure (σ_v) = $\frac{R}{B-2e} = \leq$ q allowable (allowable soil bearing capacity)

where R = $\sum$ Wgn + $\sum$Wsn, e = eccentricity = $\frac{B}{2} - \frac{M_R - M_D}{R}$

EXAMPLE OF HORIZONTAL BACKSLOPE WITH SURCHARGE - EXAMPLE
Figure 68-5C