trus, x = F cos & + F cos & - FN sind = 0 = Fs cost+ Ms Fn cost - Fn sint = 0 $= \sum_{N=1}^{\infty} \frac{1}{\mu_{s} \cos \theta - \sin \theta}$ thet, y= Fs sin + Ff sin + FN cos + -Fg = 0 = Fs sint + FN (Ms sint + cost) -mg = 0 = ksmn sin & - LOS & - SIN & (US SIN & + CUS &) - mg=0 => Smin = mg K[sint - cost Mscost-sint]

16) Balancing the fores in the horizontal and voltral directions

Balancing Ne Fores in the horizontal and voltage directions

From $x = F_s \cos \theta - F_N \sin \theta - F_s \cos \theta = 0$ $= F_s \cos \theta - F_N \sin \theta - \mu_s F_N \cos \theta = 0$ $= \int_{-\infty}^{\infty} F_N - \frac{F_s \cos \theta}{\sin \theta + \mu_s \cos \theta}$

 $= F_{S} \sin \theta + F_{N} \left(\cos \theta - M_{S} \sin \theta \right) - mg = 0$ $= K_{S} \sin \theta + \cos \theta \frac{\cos \theta - M_{S} \sin \theta}{\sin \theta + M_{S} \cos \theta} - mg = 0$ $= \sum_{s} \int_{M_{N}} \int_{M_{N}} \frac{1}{\sin \theta} \int_{M_{N}$

Frety = Fs sat + Fr cost - Ff sand -mg = 0