SEISMIC ANCHORAGE

LOADS: PER 2010 CALIFORNIA BUILDING CODE AND ASCE 7-05
(STRENGTH DESIGN IS USED) (Sos = 2.00, \( \alpha_p = 10 \), \( \beta_p = 15 \), \( R_p = 25 \), \( z/h = 0.0 \))

WEIGHT = 1600 LB
HORIZONTAL FORCE \((E_h) = 0.90W_p = 1440 \text{ LB}\)
VERTICAL FORCE \((E_v) = 0.40W_p = 640 \text{ LB}\)

BOLT FORCES:

TENSION (T)

\[
T_{\text{MAXIMUM}} = \frac{1440\#(34\text{")}}{2\text{bolts}(55.5\text{")}} \times (0.3) + \frac{1440\#(34\text{")}(33\text{")}}{1\text{bolt}(28\text{")}(55.5\text{")}} - \frac{(1600\#(0.9) - 640\#(33\text{")})}{2\text{bolts}(55.5\text{")}} = 934 \text{ LBS/BOLT (MAX)}
\]

SHEAR (V)

\[
V_{\text{MAXIMUM}} = \frac{1440\#(33\text{")}}{2\text{bolts}(55.5\text{")}} = 428 \text{ LBS/BOLT (MAX)}
\]

NOTE:
ENGINEER OF RECORD SHALL PROVIDE DESIGN OF SUPPORT STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN.
SEISMIC ANCHORAGE

ELEVATED FLOOR

LOADS: PER 2010 CALIFORNIA BUILDING CODE AND ASCE 7-05
(STRENGTH DESIGN IS USED) (Sds = 2.00, αp = 10, Ip = 15, Rp = 25, z/h ≤ 10)

WEIGHT = 1600 LB
HORIZONTAL FORCE (Eh) = 1.50Wp = 2400 LB
VERTICAL FORCE (Ew) = 0.40Wp = 640 LB

BOLT FORCES:

TENSION (T)

\[
T_{\text{MAXIMUM}} = \left( \frac{2400\#(34')}{2\text{bolts}(55.5')} \times 0.3 \right) - \frac{2400\#(34')(33')}{1\text{bolt}(128')(55.5')} + \frac{(1600\#(0.9) - 640\#(33'))}{2\text{bolts}(55.5')} = 1716 \text{ LBS/BOLT (MAX)}
\]

SHEAR (V)

\[
V_{\text{MAXIMUM}} = \frac{2400\#(33')}{2\text{bolts}(55.5')} = 714 \text{ LBS/BOLT (MAX)}
\]

NOTE:

ENGINEER OF RECORD SHALL PROVIDE DESIGN OF SUPPORT STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN.