

## FOLLETT CORPORATION

### ICE AND WATER DISPENSER W/ BASE STAND (MODEL 12CI425A)

DES. **J. ROBERSON**

JOB NO. **11-1420**

DATE **4/24/14**

SHEET

**1**

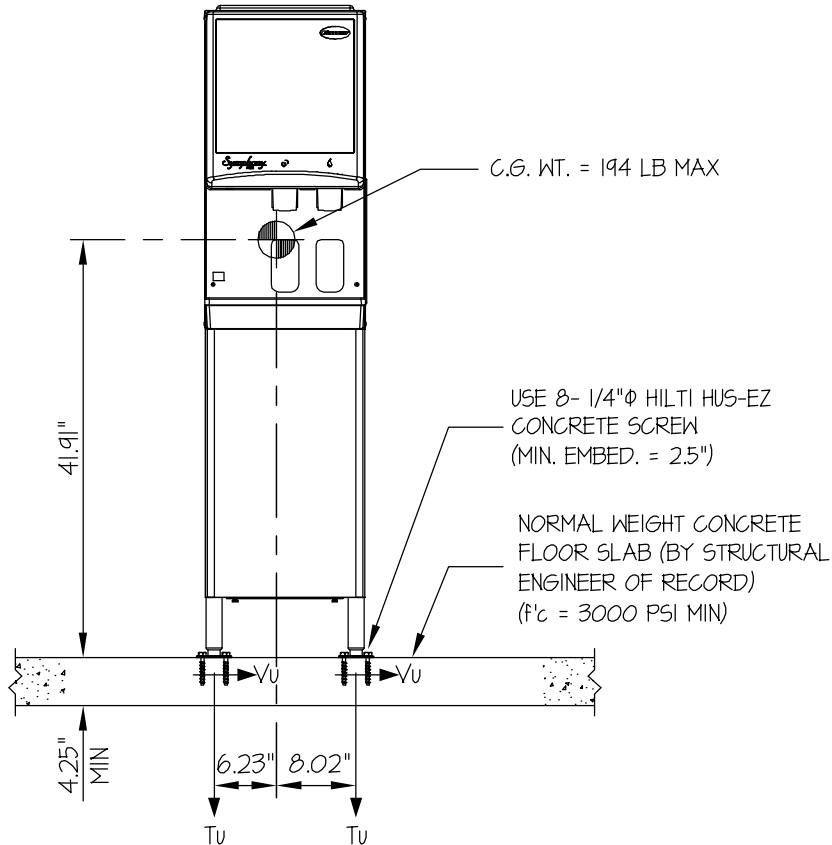
OF **2** SHEETS

SEISMIC ANCHORAGE

SLAB ON GRADE

**NOTE: ALTERNATE ANCHORING SOLUTION**

- (1)  $\frac{3}{8}$ " HILTI KB-TZ AT EACH LEG (4 TOTAL)
- (MIN. EMBED = 2")
- (MIN SLAB THICKNESS = 4")



$T_u = 557$  LB/SCREW (MAX)  
 $V_u = 77$  LB/SCREW (MAX)

**FRONT ELEVATION**

**NOTES:**

1. FORCES ARE DETERMINED PER 2013 CALIFORNIA BUILDING CODE AND ASCE 7-10 STRENGTH DESIGN IS USED.

HORIZONTAL FORCE ( $E_h$ ) =  $1.125 W_p$  ( $S_{Ds} = 2.5, a_p = 1.0, I_p = 1.5, R_p = 2.5, \Omega_o = 2.5, z/h = 0$ )  
 HORIZONTAL FORCE ( $E_{mh}$ ) =  $2.81 W_p$  ( $\Omega_o = 2.5$  FOR CONCRETE ANCHORAGE)  
 VERTICAL FORCE ( $E_v$ ) =  $0.50 W_p$

2. CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THESE CALCULATIONS ENCOMPASS ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
3. STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.



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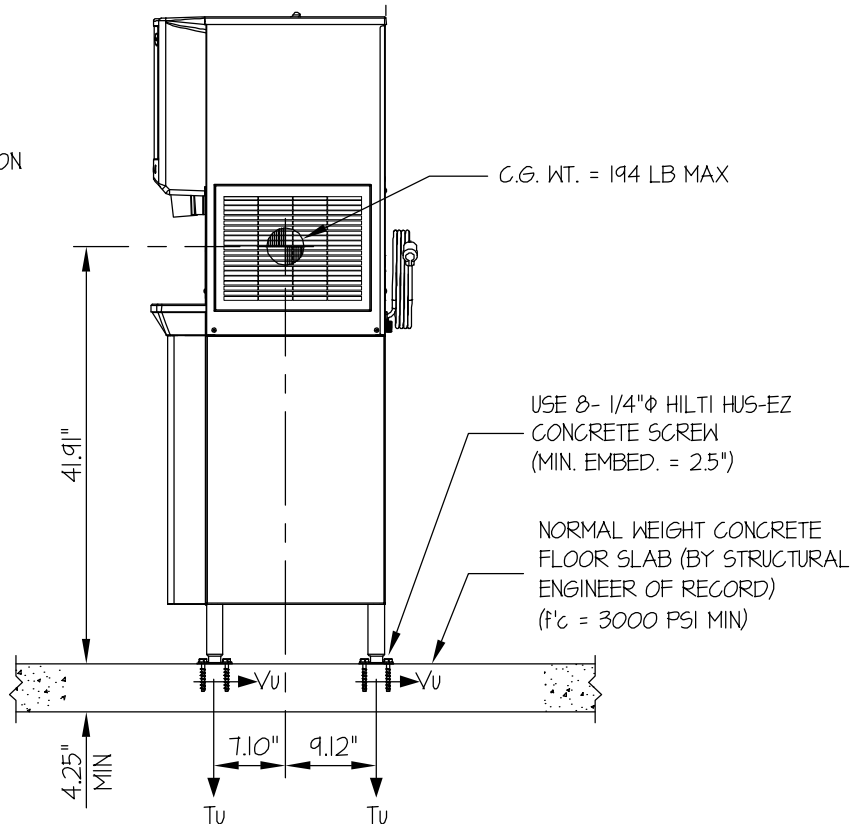
OF **2** SHEETS

SEISMIC ANCHORAGE

SLAB ON GRADE

NOTE: ALTERNATE ANCHORING SOLUTION

- (1) 3/8" HILTI KB-TZ AT EACH LEG (4 TOTAL)
- (MIN. EMBED = 2")
- (MIN SLAB THICKNESS = 4")



**SIDE ELEVATION**

LOADS: PER 2013 CALIFORNIA BUILDING CODE AND ASCE 7-10.

(STRENGTH DESIGN IS USED) ( $S_{ps} = 2.5$ ,  $a_p = 10$ ,  $l_p = 15$ ,  $R_p = 2.5$ ,  $\Omega_o = 2.5$ ,  $z/h = 0$ )

WEIGHT = 194 LB

HORIZONTAL FORCE ( $E_{mh}$ ) =  $2.81 W_p = 545$  LB

VERTICAL FORCE ( $E_v$ ) =  $0.50 W_p = 97$  LB

BOLT FORCES:

TENSION (T)

$$T_u \text{ MAXIMUM} = \left[ \frac{545\#(41.91'')(8.02'')}{2 \text{ BOLTS } (16.22'')(14.25'')} \times (0.3) \right] + \frac{545\#(41.91'')(9.12'')}{2 \text{ BOLTS } (14.25'')(16.22'')} - \frac{(194\#(0.9) - 97\#)(8.02'')(9.12'')}{2 \text{ BOLTS } (14.25'')(16.22'')} = 557 \text{ LB/BOLT (MAX)}$$

( HORIZ - FRONT TO BACK )                      ( HORIZ - SIDE TO SIDE )                      ( 0.9WEIGHT) -  $E_v$  )

SHEAR (V)

$$V_u \text{ MAXIMUM} = \frac{545\#(8.02'')}{4 \text{ BOLTS } (14.25'')} = 77 \text{ LB/BOLT (MAX)}$$

BOLT SPEC: 1/4" HILTI HUS -EZ

$\phi T = 0.75 \phi N_n = 623$  LB/BOLT (TENSION)

$\phi V = \phi V_n = 836$  LB/BOLT (SHEAR)

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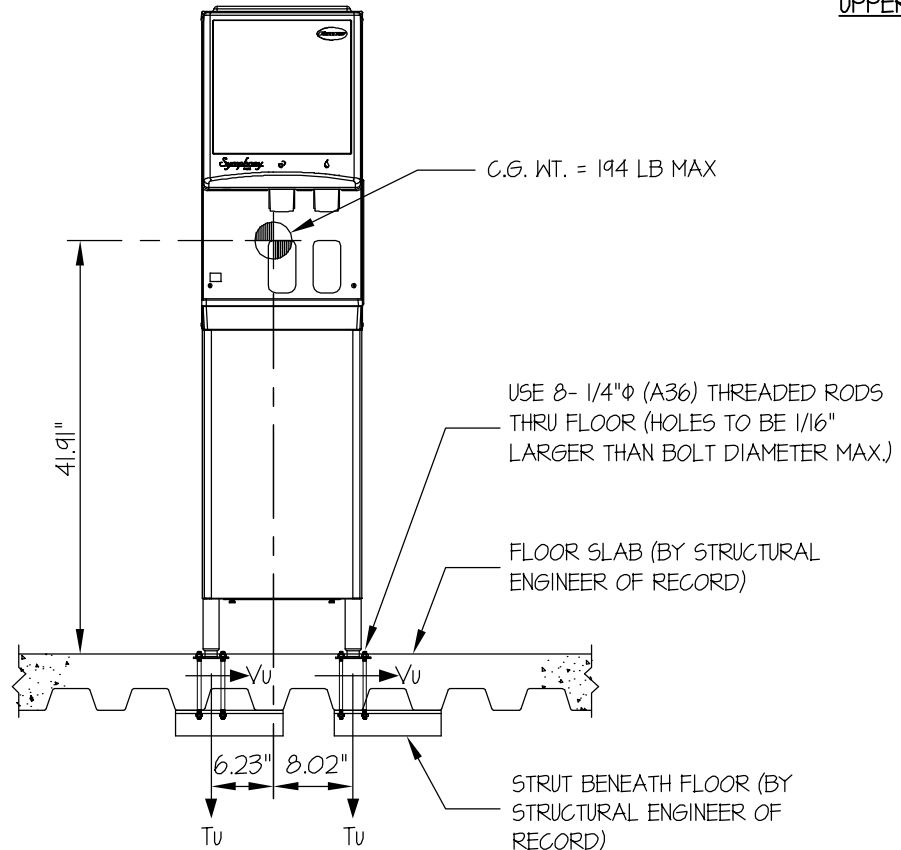
SHEET

**1**

OF **2** SHEETS

SEISMIC ANCHORAGE

UPPER FLOOR



**FRONT ELEVATION**

**NOTES:**

- FORCES ARE DETERMINED PER 2013 CALIFORNIA BUILDING CODE AND ASCE 7-10 STRENGTH DESIGN IS USED.

HORIZONTAL FORCE ( $E_h$ ) =  $1.80 W_p$  ( $S_{ds} = 2.5$ ,  $\alpha_p = 1.0$ ,  $I_p = 1.5$ ,  $R_p = 2.5$ ,  $z/h \leq 1$ )

VERTICAL FORCE ( $E_v$ ) =  $0.50 W_p$

- CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THESE CALCULATIONS ENCOMPASS ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
- STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.



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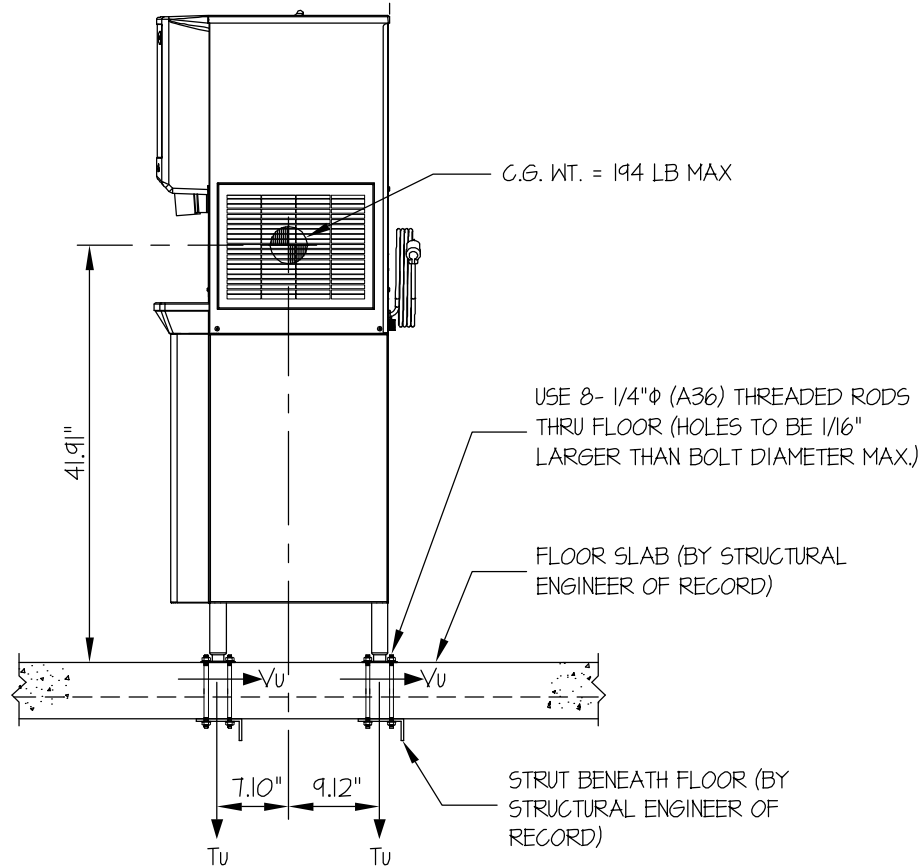
SHEET

**2**

OF **2** SHEETS

SEISMIC ANCHORAGE

UPPER FLOOR



**SIDE ELEVATION**

LOADS: PER 2013 CALIFORNIA BUILDING CODE AND ASCE 7-10.

(STRENGTH DESIGN IS USED) ( $S_{Ds} = 2.5$ ,  $a_p = 1.0$ ,  $I_p = 15$ ,  $R_p = 2.5$ ,  $z/h \leq 1$ )

WEIGHT = 194 LB

HORIZONTAL FORCE ( $E_h$ ) = 180  $W_p = 349$  LB

VERTICAL FORCE ( $E_v$ ) = 0.50  $W_p = 97$  LB

BOLT FORCES:

TENSION (T)

BOLT SPEC: 3/8" (A36) THREADED ROD

$\phi T = 1599$  LB/BOLT

$\phi V = 853$  LB/BOLT

$$T_{U \text{ MAXIMUM}} = \left[ \frac{349\#(41.91\")(8.02\"){}}{2 \text{ BOLTS } (16.22\")(14.25\")} \times (0.3) \right] + \frac{349\#(41.91\")(9.12\"){}}{2 \text{ BOLTS } (14.25\")(16.22\")} - \frac{(194\#(0.9) - 97\#)(8.02\")(9.12\"){}}{2 \text{ BOLTS } (14.25\")(16.22\")} = 353 \text{ LB/BOLT (MAX)}$$

( HORIZ - FRONT TO BACK )                      ( HORIZ - SIDE TO SIDE )                      ( 0.9WEIGHT ) -  $E_v$

SHEAR (V)

$$V_{U \text{ MAXIMUM}} = \frac{349\#(8.02\"){}}{4 \text{ BOLTS } (14.25\")} = 49 \text{ LB/BOLT (MAX)}$$