

CHATSWORTH PRODUCTS, INC.

VERTICAL CABLE RUNWAY

DES. J. ROBERSON

JOB NO. 11-1131

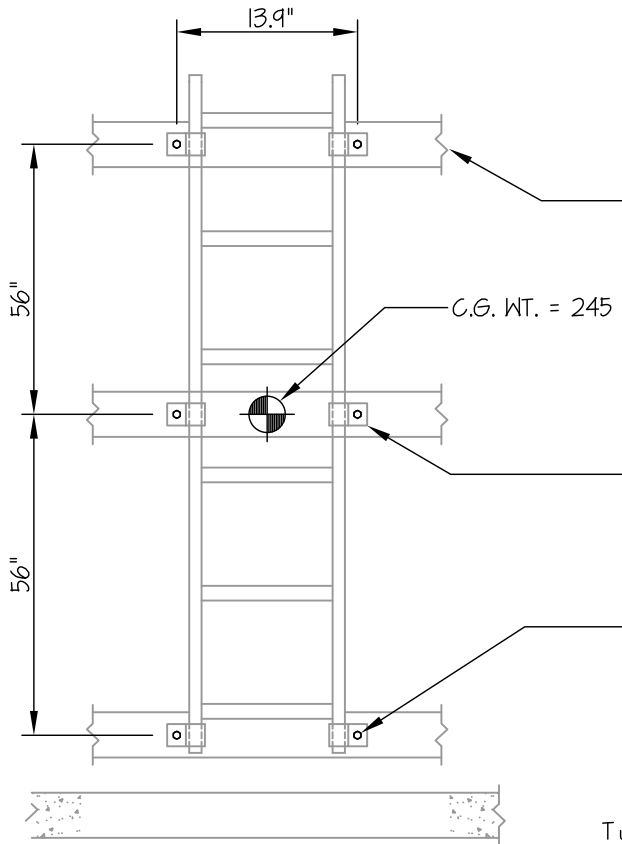
DATE 6/29/12

SHEET

1

OF **1** SHEETS

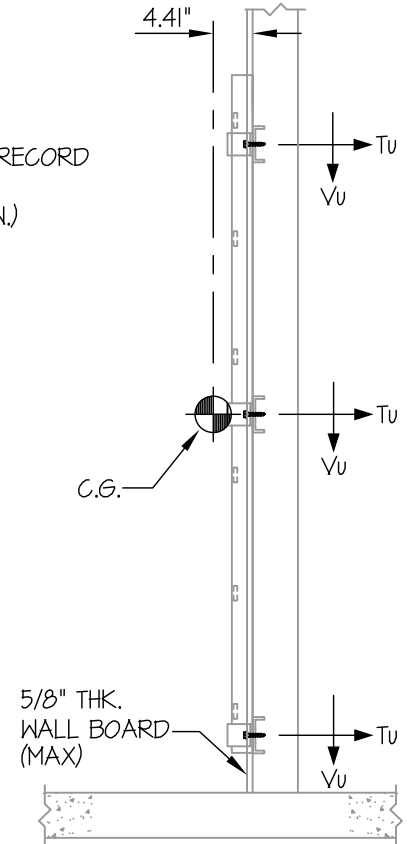
SEISMIC ANCHORAGE



FRONT ELEVATION

$T_u = 86 \text{ LB/BOLT (MAX)}$
 $V_u = 127 \text{ LB/BOLT (MAX)}$

WALL MOUNTED



SIDE ELEVATION

LOADS: PER 2010 CALIFORNIA BUILDING CODE AND ASCE 7-05 .

(STRENGTH DESIGN IS USED) ($S_{ds} = 2.00$, $a_p = 2.5$, $I_p = 1.5$, $R_p = 6.0$, $z/h \leq 1.0$)

WEIGHT = 245 LB (INCLUDES MAX LOAD)

HORIZONTAL FORCE (E_h) = $1.50W_p = 368 \text{ LB.}$

VERTICAL FORCE (E_v) = $0.40W_p = 98 \text{ LB.}$

TENSION (T)

$$T_{u \text{ VERT.}} = \frac{(1.2(245\#) + 98\#)(4.41'')}{2 \text{ BOLTS}(112'')} = 8 \text{ LB}$$

$$T_{u \text{ PARALLEL}} = \frac{368\#(4.41'')}{2 \text{ BOLTS}(13.9'')} = 58 \text{ LB}$$

$$T_{u \text{ PERP.}} = \frac{368\#}{6 \text{ BOLTS}} = 61 \text{ LB}$$

$$T_{u \text{ MAX}} = 8\# + (0.3)(58) + 61 = 86 \text{ LB/BOLT (MAX)}$$

SHEAR (V)

$$V_{u \text{ MAX}} = \frac{1.2(245\#) + 98\# + 368\#}{6 \text{ BOLTS}} = 127 \text{ LB/BOLT (MAX)}$$

1/4"φ SM SCREWS TO 16 GA., 50 KSI STEEL

$\phi T = 418 \text{ LB/SCREW}$

$\phi V = 362 \text{ LB/SCREW}$

UNITY CHECK:

$$\left(\frac{T_u}{\phi T} \right) + \left(\frac{V_u}{\phi V} \right) \leq 1.0$$

$$\left(\frac{86}{418} \right) + \left(\frac{127}{362} \right) = 0.56 \leq 1.0 \therefore \text{OK}$$

NOTE:

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

