

CHATSWORTH PRODUCTS, INC.

WALL MOUNTED CABINETS

DES. **J. ROBERSON**

JOB NO. **11-1131**

DATE **7/23/12**

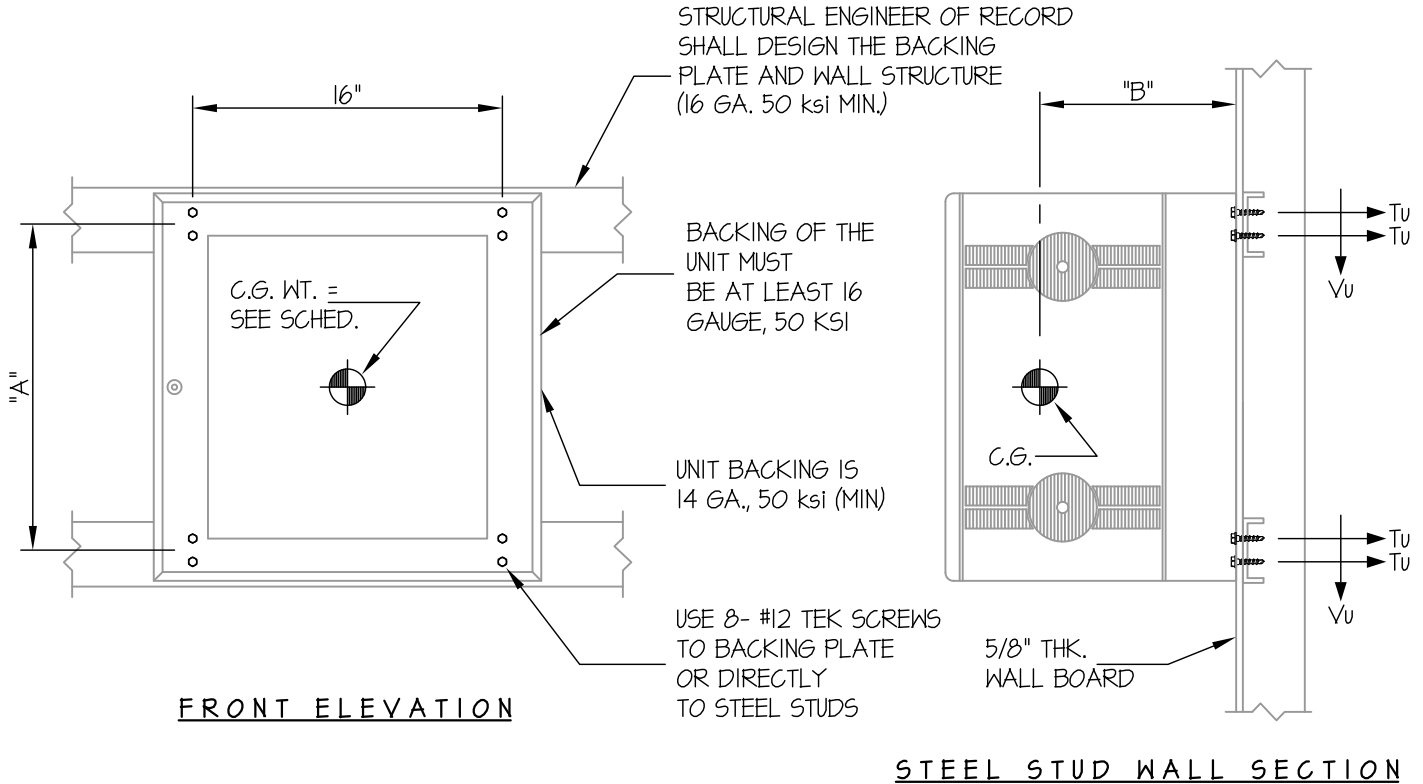
SHEET

1

OF **2** SHEETS

SEISMIC ANCHORAGE

WALL MOUNTED



$T_u = 187 \text{ LB/SCREW (MAX)}$
 $V_u = 134 \text{ LB/SCREW (MAX)}$

SEE PAGE 2 OF 2 FOR WEIGHT AND DIMENSIONS

NOTES:

1. FORCES ARE DETERMINED PER 2010 CALIFORNIA BUILDING CODE AND ASCE 7-05. STRENGTH DESIGN IS USED.

HORIZONTAL FORCE (E_h) = $1.50 W_p$ ($S_{Ds} = 2.00, a_p = 2.5, I_p = 1.5, R_p = 6.0, z/h = 0.0$)

VERTICAL FORCE (E_v) = $0.40 W_p$

2. CENTER OF GRAVITY (C.G.) WEIGHT IS A MAXIMUM. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.

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



CHATSWORTH PRODUCTS, INC.

WALL MOUNTED CABINETS

DES. J. ROBERSON

JOB NO. 11-1131

DATE 7/23/12

SHEET

2

OF

2

SHEETS

SEISMIC ANCHORAGE

WALL MOUNTED

MODEL NO.	"A" (in)	"B" (in)	WEIGHT (lbs)
11890-X24	22"	9"	266
11840-X24	22"	12"	275
11996-X24	22"	15"	286
11890-X36	34"	9"	295
11840-X36	34"	12"	307
11996-X36	34"	15"	320
11890-X48	46"	9"	317
11840-X48	46"	12"	331
* 11996-X48	46"	15"	347

* MODEL REPRESENTED IN CALCULATION BELOW

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)

WEIGHT = 347 LB

HORIZONTAL FORCE (E_h) = 150W_p = 520 LB

VERTICAL FORCE (E_v) = 0.40W_p = 139 LB

BOLT FORCES:

#12 TEK SCREWS IN 16 GA., 50 KSI STEEL

φT = 328 LB/SCREW

φV = 288 LB/SCREW

$$T_{u \text{ VERTICAL}} = \frac{(1.2(347\#) + 139\#)15"}{4 \text{ SCREWS } (46")} = 45 \text{ LB}$$

$$T_{u \text{ PARALLEL}} = \frac{520\#(15")}{4 \text{ SCREWS } (16")} = 122 \text{ LB}$$

$$T_{u \text{ PERP.}} = \frac{520\#}{8 \text{ SCREWS}} = 65 \text{ LB}$$

$$T_{u \text{ MAX}} = 45\# + (0.3)(65) + 122 = 187 \text{ LB/SCREW (MAX)}$$

UNITY CHECK:

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

$$\left(\frac{187}{328} \right) + \left(\frac{134}{288} \right) = 1.0 \leq 1.0 \therefore \text{O.K.}$$

SHEAR (V)

$$V_{u \text{ MAX}} = \frac{1.2(347\#) + 139\# + 520\#}{8 \text{ SCREWS}} = 134 \text{ LB/SCREW (MAX)}$$