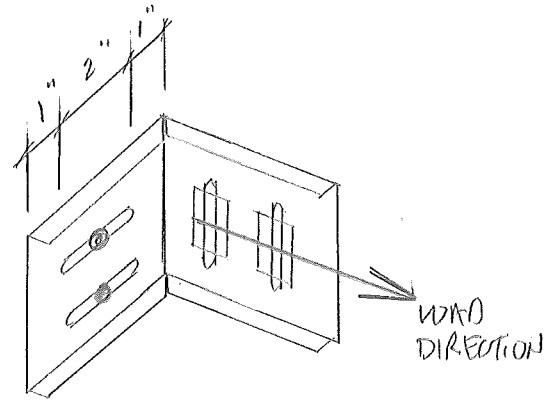
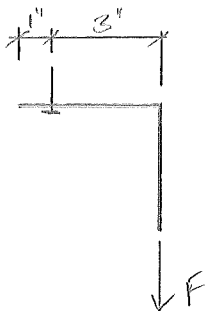


SEISMIC DRIFT CLIP

ASSUME WORST CASE SCENARIO,  
SCREENS INTO CLOSURE  $\bar{R}$  ARE PUSHED  
ALL THE WAY TO END OF SUBT TOWARD  
CLIP EDGE



USING #12 SCS FOR ATTACHMENT TO CLOSURE  $\bar{R}$ , FIND MAXIMUM ALLOWABLE  
OUTWARD LOAD.

ASSUME 18 GA CLOSURE  $\bar{R}$

$$T_{\text{ASCREW}} = 124\# (2) = 248\#$$

$$F_{\text{ALLOW}} = 248\# / (3\text{\"}/1\text{\"}) = 82\#$$

ASSUME 16 GA CLOSURE  $\bar{R}$

$$T_{\text{ASCREW}} = 225\# (2) = 450\#$$

$$F_{\text{ALLOW}} = 450\# / (3\text{\"}/1\text{\"}) = 150\#$$

ASSUME 14 GA CLOSURE  $\bar{R}$

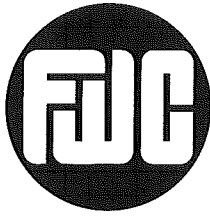
$$T_{\text{ASCREW}} = 284\# (2) = 568\#$$

$$F_{\text{ALLOW}} = 568\# / (3\text{\"}/1\text{\"}) = 189\#$$

ASSUME 12 GA CLOSURE  $\bar{R}$

$$T_{\text{ASCREW}} = 405\# (2) = 810\#$$

$$F_{\text{ALLOW}} = 810\# / (3\text{\"}/1\text{\"}) = 270\#$$



**FICCADENTI  
WAGGONER  
and CASTLE**  
Structural Engineers

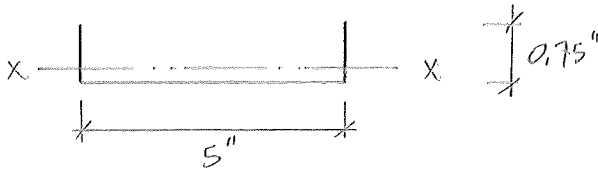
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PROJECT SEISMIC DRIFT CLIP  
DATE 10/31/13  
DESIGNER EMB  
PAGE 2/4

## SEISMIC DRIFT CLIP DESIGN

### CLIP CAPACITIES

#### 14 GAUGE CLIP

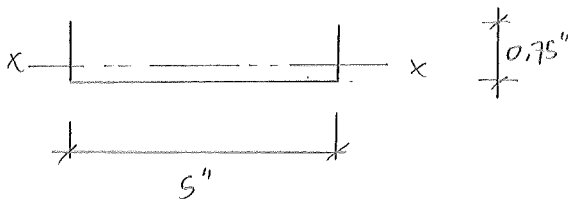


$$M_{\max} = 0.686 \text{ k-in}$$

WITH SCREWS TO CLOSURE @  
ALL THE WAY TOWARD THE  
FREE EDGE, MOMENT ARM = 3"

$$\therefore F_{\text{ALLOW}} = 686 \text{ k-in} / 3" = 228 \#$$

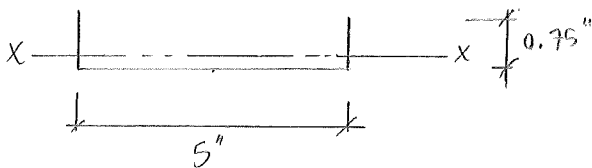
#### 12 GAUGE CLIP



$$M_{\max} = 0.948 \text{ k-in}$$

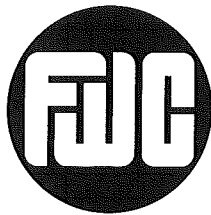
$$F_{\text{ALLOW}} = 948 \text{ k-in} / 3" = 316 \#$$

#### 10 GAUGE CLIP



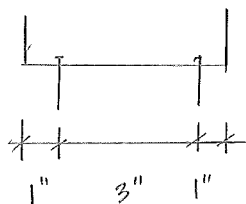
$$M_{\max} = 1.134 \text{ k-in}$$

$$F_{\text{ALLOW}} = 1134 \text{ k-in} / 3" = 378 \#$$



SEISMIC DRIFT CLIP DESIGN

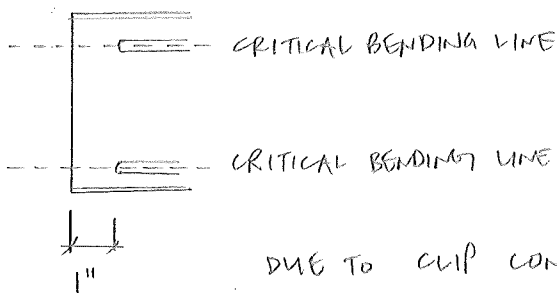
BASED ON ALLOWABLE MOMENT IN CLIP, FIND MOMENT IN WEB



$$F_{ALLOW 12} = 316 \#$$

$$T_{SCREEN} = 15B \#$$

$$M_{WEB} = 0.154 K \cdot in$$



DUE TO CLIP CONFIGURATION, THE ALLOWABLE MOMENT IS LIMITED BY 1" OF MATERIAL FROM SLOT TO CLIP EDGE.

$$S_{WEB} = \frac{1}{6} \cdot (0.1017")^2 = 0.001724 in^3$$

$$F_b = 0.75 F_y = 0.75 (50 ksi) = 37.5 ksi$$

$$M_a = 37500 psi (0.001724 in^3) = 64.6 \# \cdot in$$

$$\therefore F_{ALLOW} = 64.6 \# \cdot in (1") (2) = 129 \#$$

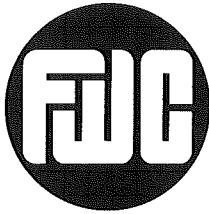
FOR 10 GA,

$$S_{WEB} = \frac{1}{6} (0.1222")^2 = 0.002571 in^3$$

$$F_b = 37500 psi$$

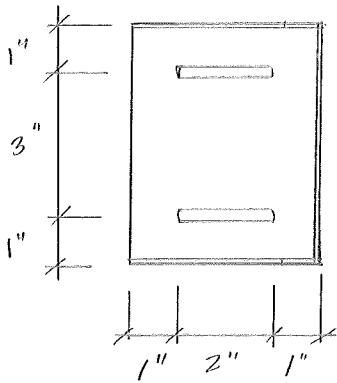
$$M_a = 96.4 \# \cdot in$$

$$\therefore F_{ALLOW} = 193 \#$$

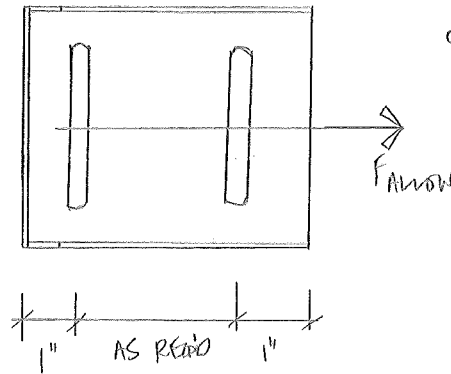


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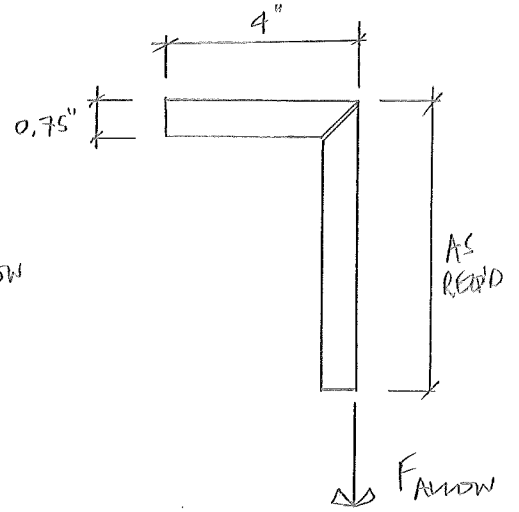
SEISMIC DRIFT CLIP SUMMARY



FRONT VIEW



SIDE VIEW



TOP VIEW

$$F_{ALLOW} \text{ FOR } 12 \text{ GA CLIP} = \underline{\underline{129 \#}}$$

$$F_{ALLOW} \text{ FOR } 10 \text{ GA CLIP} = \underline{\underline{193 \#}}$$

↑ NUMBERS ARE GOOD FOR  
CLOSURE PLATES AT LEAST  
54 MIL THICK AND HEAVIER.