



EASE
EQUIPMENT ANCHORAGE & SEISMIC ENGINEERING
 2801 Connery Way Ste. B
 Missoula, MT 59808
 Phn: (406) 541-3273 Fax: (406) 541-3274

Office of Statewide Health Planning and Development
ANCHORAGE PRE-APPROVAL

OPA-0801-07

Equipment Manufacturer: Milestone AV Technologies

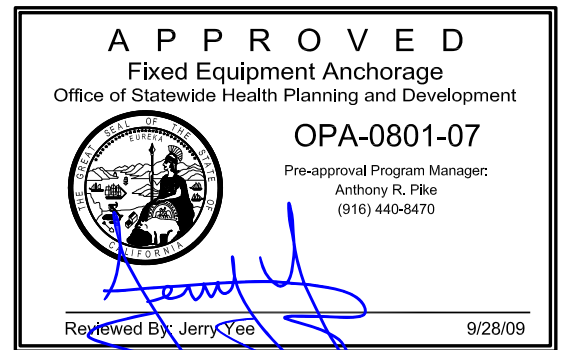
Equipment Type: Chief - Large Flat Panel Display (Fixed and Tilt Mount)

GENERAL NOTES

1. FORCES PER ASCE 7-05 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3, WHERE $S_{DS} = 1.93$, $a_p = 1.0$, $I_p = 1.5$ & $R_p = 2.5$
2. THIS PRE-APPROVAL CONFORMS TO THE 2007 CALIFORNIA BUILDING CODE.
3. THE DETAILS IN THIS PRE-APPROVAL MAY BE USED AT ANY HEIGHT AND AT ANY LOCATION IN THE STATE OF CALIFORNIA.
4. ALL ANCHOR FORCES SHOWN ON THE DRAWINGS ARE WORKING LOADS (AS OPPOSED TO STRENGTH LEVEL LOADS) AND MAY BE USED FOR ALLOWABLE STRESS DESIGN.
5. SHEET METAL SCREWS SHALL BE TEKS SCREWS BY ITW BUILDEX (ICC ESR-1976).
6. PER CAN 2-1708A.5, THIS UNIT DOES NOT REQUIRE "SPECIAL SEISMIC CERTIFICATION".

RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD

7. DESIGN BACKING BARS, STUDS, ETC. WHICH THE UNITS ARE ATTACHED TO AS NOTED ON THE DRAWINGS. THE SEOR SHALL ALSO VERIFY THE ADEQUACY OF THE STRUCTURES (SUCH AS WALLS AND FLOORS) WHICH SUPPORT THE UNITS FOR THE LOADS IMPOSED ON THEM BY THE UNITS AS WELL AS ALL OTHER LOADS.
8. PROVIDE ANY SUPPORTING STRUCTURE REQUIRED TO SUPPORT WEIGHTS AND FORCES SHOWN, IN ADDITION TO ALL OTHER LOADS.
9. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2007 CBC AND WITH THE DETAILS SHOWN IN THIS PRE-APPROVAL. VERIFY THAT THE ACTUAL EQUIPMENT'S WEIGHT, CG LOCATION, ANCHOR LOCATIONS, ANCHOR DETAILS AND THE MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN ON THE PRE-APPROVAL DOCUMENTS.



MILESTONE AV TECHNOLOGIES

**CHIEF - LARGE FLAT PANEL DISPLAY
(FIXED & TILT MOUNT)**

DES. **R. LA BRIE**

JOB NO. **11-0781**

DATE **9/28/09**

SHEET

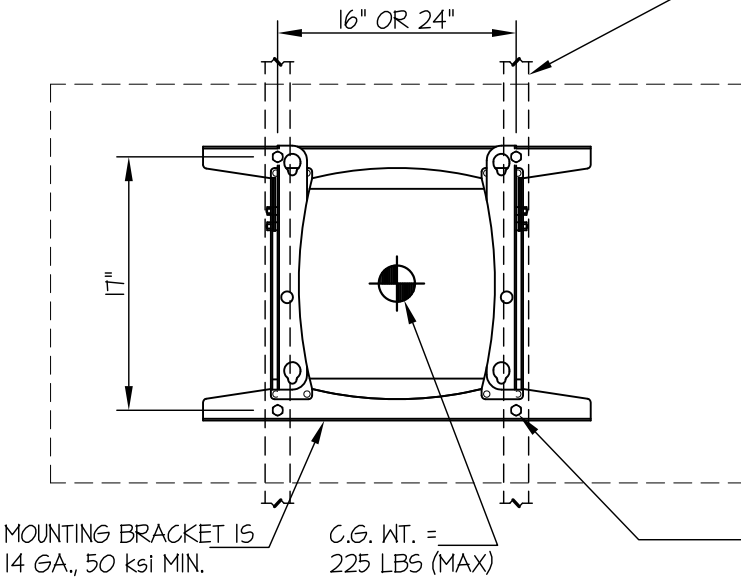
2

OF **2** SHEETS

SEISMIC ANCHORAGE

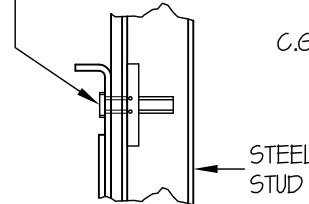
WALL MOUNTED

ENGINEER OF RECORD
SHALL DESIGN
THE WALL STRUCTURE



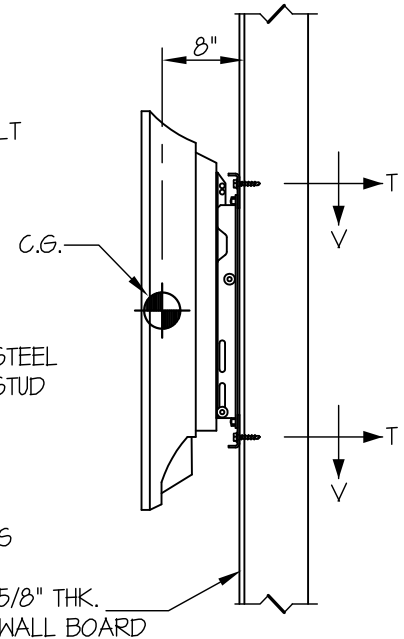
FRONT ELEVATION

1/4" ϕ TOGGLER BOLT
TO STEEL STUD
(4 TOTAL)



CONNECTION WHERE
STEEL STUD OCCURS

USE 4- 5/16" LAG BOLTS
TO WOOD STUD
(2" MIN. EMBED.)



SIDE ELEVATION

$T_{MAX} = 145 \text{ LBS/BOLT}$
 $V_{MAX} = 126 \text{ LBS/BOLT}$

NOTES:

- ANCHORAGE DESIGN PER 2007 CALIFORNIA BUILDING CODE - SECTION 1613A AND ASCE 7-05 SECTIONS 12 AND 13. ALLOWABLE STRESS DESIGN IS USED.
HORIZONTAL FORCE (E_h) = $0.97 W_p (S_{DS} = 1.93, I_p = 1.5, a_p = 1.0, R_p = 2.5)$
VERTICAL FORCE (E_v) = $0.27 W_p$
- CENTER OF GRAVITY (C.G.) WEIGHT IS A MAXIMUM. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
- ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN, IN ADDITION TO ALL OTHER LOADS.
- SEE GENERAL NOTES: SHEET I



A P P R O V E D
Fixed Equipment Anchorage
Office of Statewide Health Planning and Development

OPA-0801-07

Pre-approval Program Manager:
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Reviewed By: Jerry Yee 9/28/09

MILESTONE AV TECHNOLOGIES

**CHIEF - LARGE FLAT PANEL DISPLAY
 (FIXED & TILT MOUNT)**

DES. **R. LA BRIE**

JOB NO. **11-0781**

DATE **5/6/09**

SHEET

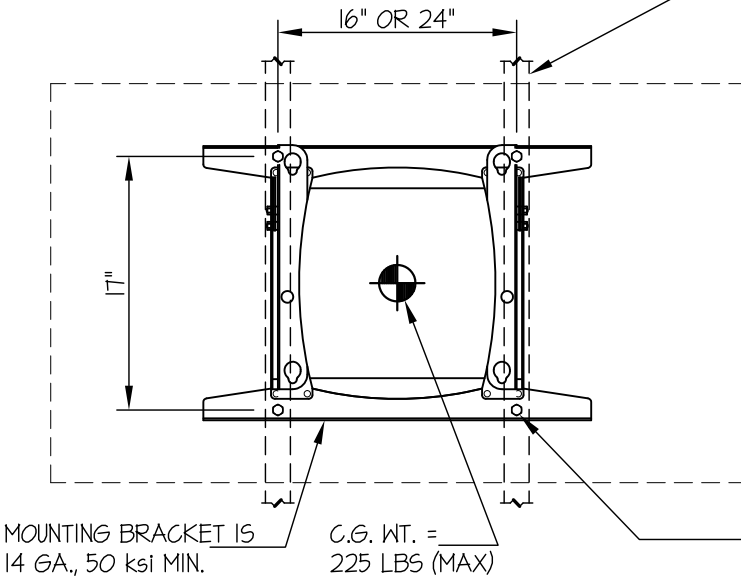
1

OF **1** SHEET

SEISMIC ANCHORAGE

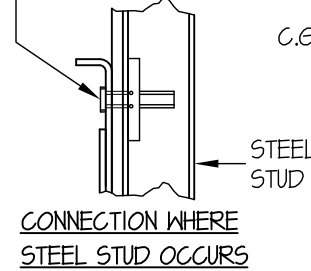
WALL MOUNTED

ENGINEER OF RECORD
 SHALL DESIGN
 THE WALL STRUCTURE



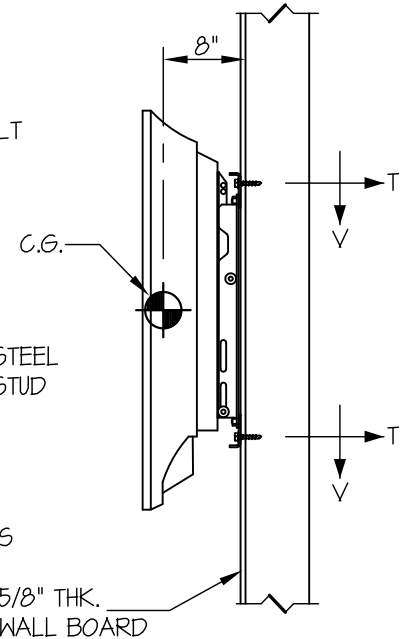
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SIDE ELEVATION

LOADS: PER 2007 CALIFORNIA BUILDING CODE SECTION 1613A AND ASCE 7-05 SECTIONS 12 AND 13.

WEIGHT = 225 LBS (MAX)

HORIZONTAL FORCE (E_h) = .97 W_p = 218 LBS

VERTICAL FORCE (E_v) = 0.27 W_p = 61 LBS

TENSION (T)

$$T_{\text{VERTICAL}} = \frac{(225\# + 61\#)8''}{2 \text{ BOLTS } (17'')} = 67 \text{ LBS}$$

$$T_{\text{PARALLEL}} = \frac{218\#(8'')} {2 \text{ BOLTS } (16'')} = 55 \text{ LBS}$$

$$T_{\text{PERP.}} = \frac{218\#}{4 \text{ SCREWS}} = 55 \text{ LBS}$$

$$T_{\text{MAX}} = 67\# + \sqrt{55^2 + 55^2} = 145 \text{ LBS/BOLT (MAX)}$$

SHEAR (V)

$$V_{\text{MAX}} = \frac{225\# + 61\# + 218\#}{4 \text{ BOLTS}} = 126 \text{ LBS/BOLT (MAX)}$$

NOTE:

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

