APPLICATION FOR OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM)

OFFICE USE ONLY
APPLICATION #: OPM-0304-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: ☒ New ☐ Renewal ☐ Update to Pre-CBC 2013 OPA Number: _____

Manufacturer Information

Manufacturer: Milestone AV Technologies

Manufacturer's Technical Representative: Michael Harrell

Mailing Address: 8401 Eagle Creek Parkway, Ste 700, Savage, MN. 55378

Telephone: (952) 225-6313 Email: Michael.harrell@milestone.com

Product Information

Product Name: LVS1U/LVSXU Monitor Wall Mount

Product Type: Computer

Product Model Number: LVS1U/LVSXU

General Description: Wall Mount for Video Monitor

Applicant Information

Applicant Company Name: **EASE Co.**

Contact Person: Jonathan Roberson, S.E.

Mailing Address: 5877 Pine Ave. Suite 210, Chino Hills, CA. 91709

Telephone: (909) 606-7622 Email: J.Roberson@EASECo.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2013.

Signature of Applicant: _____ Date: 2/2/16

Title: Principal Engineer Company Name: **EASE Co.**

Registered Design Professional Preparing Engineering Recommendations

Company Name: EASE Co.

Name: Jonathan Roberson, S.E. California License Number: S4197

Mailing Address: 5877 Pine Ave. Suite 210, Chino Hills, CA. 91709

Telephone: 909-606-7667 Email: J.Roberson@EASECo.com

OSHPD Special Seismic Certification Preapproval (OSP)

☐ Special Seismic Certification is preapproved under OSP-
(Separate application for OSP is required)

☒ Special Seismic Certification is not preapproved

Certification Method(s)

☐ Testing in accordance with: ☐ ICC-ES AC156 ☐ FM 1950-10

☐ Other* (Please Specify):

*Use of test criteria other than those adopted by the California Building Standards Code, 2013 (CBSC 2013) for component supports and attachments are not permitted. For distribution system, interior partition wall, and suspended ceiling seismic bracings, test criteria other than those adopted in the CBSC 2013 may be used when approved by OSHPD prior to testing.

☒ Analysis

☐ Experience Data

☐ Combination of Testing, Analysis, and/or Experience Data (Please Specify):

List of Attachments Supporting the Manufacturer's Certification

☐ Test Report ☒ Drawings ☒ Calculations ☐ Manufacturer's Catalog

☐ Other(s) (Please Specify):

OFFICE USE ONLY – OSHPD APPROVAL VALID FOR CBC 2013 ONLY

Signature: Date: 04-27-2016

Print Name: Jeffrey Enzler

Title: DSE

Condition of Approval (if applicable):

EASE
EQUIPMENT ANCHORAGE
& SEISMIC ENGINEERING

5877 Pine Ave, Ste. 210
Chino Hills, CA. 91709
Phn: (909) 606-7622

Office of Statewide Health Planning and Development

PREAPPROVAL OF MANUFACTURER'S CERTIFICATION

OPM-0304-13

THIS PREAPPROVAL CONFORMS TO THE 2013 CALIFORNIA BUILDING CODE

MANUFACTURER: **MILESTONE INC.**

EQUIPMENT NAME: **LVS1U-LVSXU SERIES MONITOR WALL MOUNT**

Date: 4/26/16

GENERAL NOTES

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2013 CBC. THE DEMANDS (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2013 CBC
2. THIS DOCUMENT MAY ONLY BE USED WITH THE EXPRESS WRITTEN CONSENT OF THE MANUFACTURER LISTED ABOVE FOR THE SPECIFIC PROJECT SITE AND INSTALLATION LOCATION. THIS DOCUMENT IS INVALID WITHOUT SUCH CONSENT.
3. THIS PREAPPROVAL CONFORMS TO THE 2013 CALIFORNIA BUILDING CODE WHERE S_{DS} IS NOT GREATER THAN 2.20.
4. FORCES PER ASCE 7-10 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3,

   WHERE $S_{DS} = 2.20$, $a_p = 1.0$, $I_p = 1.5$, $R_p = 2.5$, $z/h \leq 1$ CONCRETE WALL. SEE FOLLOWING SHEETS FOR Ω_o
5. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE.
6. ALL DESIGN FORCES SHOWN ON THE DRAWINGS ARE FACTORED LOADS THAT SHALL BE USED FOR STRENGTH DESIGN.
7. SHEET METAL SCREWS SHALL BE TEKS SCREWS BY ITW BUILDEX (ICC ESR-1976).
8. CONCRETE WALL DETAIL VALID FOR DEMANDS SHOWN AT ANY ELEVATION. (i.e. $z/h \leq 1$)
9. **RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD OF THE BUILDING**

   A. PROVIDE SUPPORTING STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN IN ADDITION TO ALL OTHER LOADS.

   B. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2013 CBC AND WITH THE DETAILS, MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN ON THE PREAPPROVAL DOCUMENTS.

   C. VERIFY THAT PROJECT SPECIFIC VALUES OF S_{DS} & z/h RESULT IN SEISMIC FORCES (E_h, E_v) THAT DO NOT EXCEED THE VALUES ON THE DETAILS.

   D. VERIFY THAT THE CONCRETE WALL TO WHICH THE EQUIPMENT IS ANCHORED MEETS THE REQUIREMENTS OF THE APPLICABLE ICC ESR.

   E. VERIFY THAT THE ANCHORS ARE AN ADEQUATE DISTANCE FROM ANY CONCRETE WALL EDGES OR OPENINGS (SEE TYPICAL DETAIL ON SHEET 2).

   F. VERIFY THAT ALL NEW OR EXISTING ANCHORS ARE AN ADEQUATE DISTANCE FROM THE UNIT ATTACHMENTS AND CHECK FOR INTERACTION WHERE OTHER ANCHORS ARE WITHIN 18" OR 6hef FROM THIS UNIT'S ANCHORS.

   G. DESIGN BACKING BARS, STUDS, ETC. WHICH THE UNITS ARE ATTACHED TO AS NOTED ON THE DRAWINGS.

REGISTERED PROFESSIONAL ENGINEER
JONATHAN ROBERSON
No. 4197
EXP. 6-30-2016
4/26/16
STRUCTURAL
STATE OF CALIFORNIA

NOT STRUCTURAL ENGINEER OF RECORD

MILESTONE INC.

LVS1U-LVSXU SERIES MONITOR WALL MOUNT

DES. J. ROBERSON
JOB NO. 11-1524
DATE 4/26/16
SHEET 2 OF 8 SHEETS

SCREW ANCHORS:

A. ATTACHMENT IS TO BE MADE WITH THE ANCHORS LISTED BELOW AND INSTALLED AS DESCRIBED IN THE CORRESPONDING ICC REPORT.

Anchor Diameter	Concrete Type	Min. f'c (psi)	Anchor Type	ICC Report No.	Min. Embed.	Min. Spacing	Min. Edge Dist.	Min. Conc. Thickness	Torque Test	Direct Tension Test
1/4"	Normal Weight	3000	Hilti Kwik HUS	ESR-3027	1.92"	2.5"	12"	6"	N/A	779
3/8"	Normal Weight	3000	Hilti Kwik HUS	ESR-3027	2.5"	2.5"	12"	6"	N/A	1043

B. THIS PREAPPROVAL ALLOWS FOR UP TO A MAXIMUM OF 2 ADJACENT CONCRETE WALL EDGES, 12" AWAY MINIMUM (i.e. - CORNER). SEE ADJACENT DETAIL FOR ADDITIONAL MINIMUM ALLOWABLE CONCRETE EDGE DISTANCES.

C. TESTING OF CONCRETE SCREW ANCHORS PER 2013 CBC, 1913A.7: TESTING SHALL BE DONE IN THE PRESENCE OF THE SPECIAL INSPECTOR AND A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO OSHPD

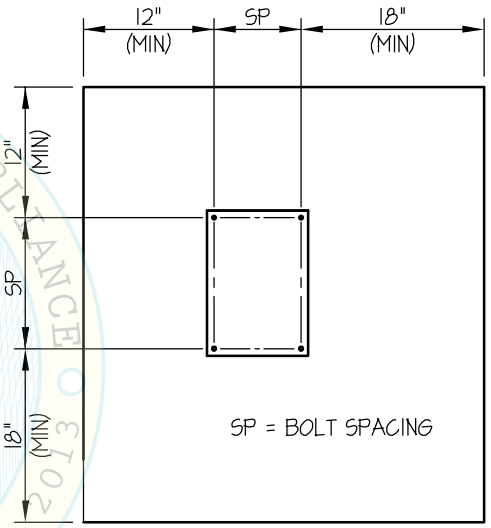
(i) AFTER AT LEAST 24 HOURS HAVE ELAPSED SINCE INSTALLATION, DIRECT PULL TENSION TEST AT LEAST 50% OF THE ANCHORS.

(ii) ACCEPTANCE CRITERIA:

- DIRECT TENSION TEST: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE TEST LOAD. A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER BECOMES LOOSE.

(iii) IF ANY ANCHOR FAILS, TEST ALL ANCHORS.

D. AVOID DAMAGING EXISTING STEEL REINFORCING IN CONCRETE WALL WHEN INSTALLING CONCRETE SCREW ANCHORS



TYPICAL CONCRETE EDGE DETAIL

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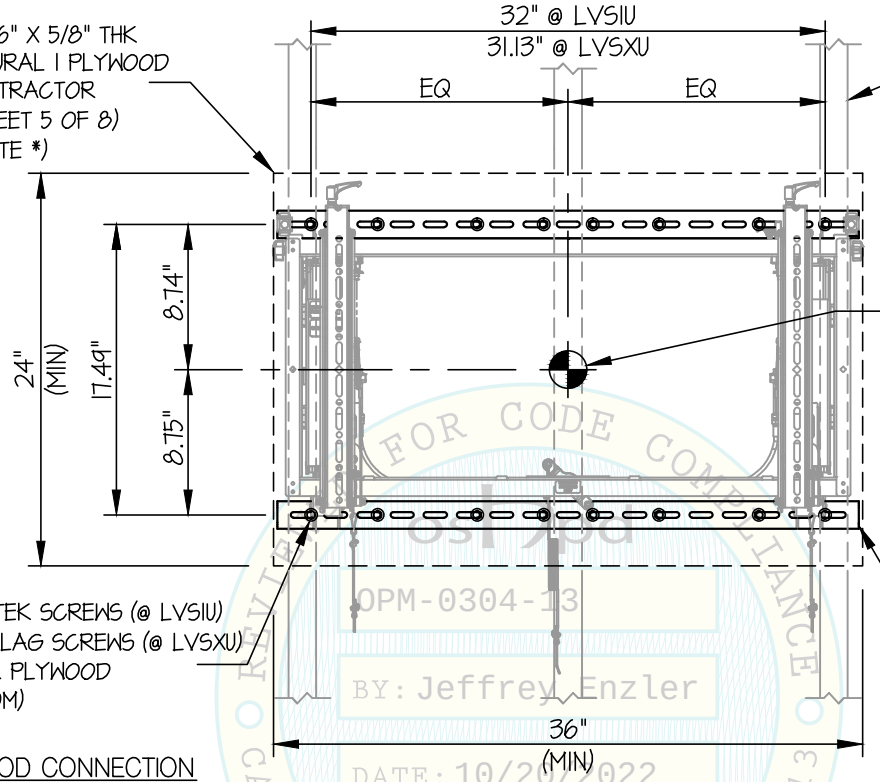
LVS1U-LVSXU SERIES MONITOR WALL MOUNT

DES. J. ROBERSON
JOB NO. 11-1524
DATE 4/25/16
SHEET 3 OF 8 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

WALL MOUNTED



ELEVATION AT STEEL STUD WALL

* PLYWOOD SHALL BE FIRE-RETARDANT TREATED PER 2016 CBC SECTIONS 603.1.1 AND 2303.2

RAIL TO PLYWOOD CONNECTION
Tu = 45 LB/SCREW (MAX)
Vu = 42 LB/SCREW (MAX)

PLYWOOD TO METAL STUD CONNECTION
Tu = 62 LB/SCREW (MAX)
Vu = 29 LB/SCREW (MAX)

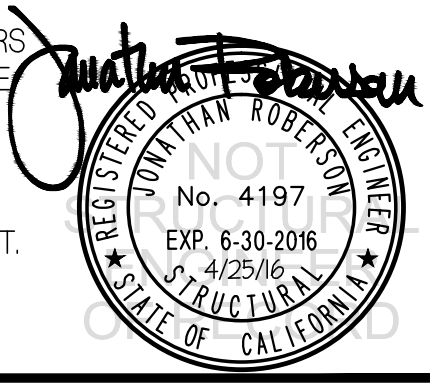
NOTES:

1. **FORCES ARE DETERMINED PER 2013 CALIFORNIA BUILDING CODE AND ASCE 7-10**
   STRENGTH DESIGN IS USED. (S_{DS} = 2.20, a_p = 1.0, I_p = 1.5, R_p = 2.5, Ω_o = 2.5, $z/h \leq 1$)

   HORIZONTAL FORCE (E_h) = 1.58 Wp
   HORIZONTAL FORCE (E_{mh}) = 3.96 Wp (FOR CONCRETE ANCHORAGE)
   VERTICAL FORCE (E_v) = 0.44 Wp

2. CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES 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.



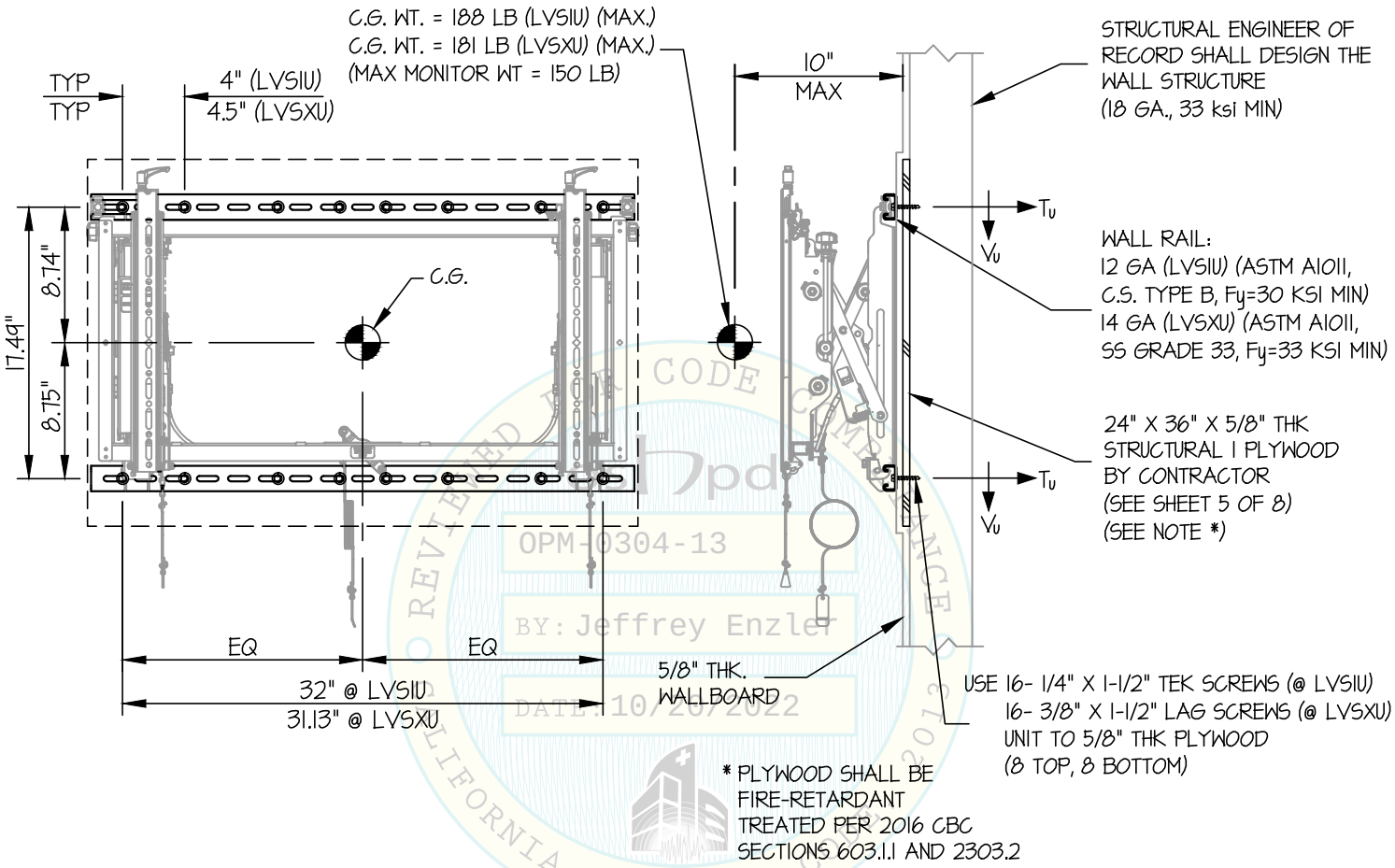
MILESTONE INC.

LVS1U-LVSXU SERIES MONITOR WALL MOUNT

DES. J. ROBERSON
JOB NO. 11-1524
DATE 4/25/16
SHEET 4 OF 8 SHEETS

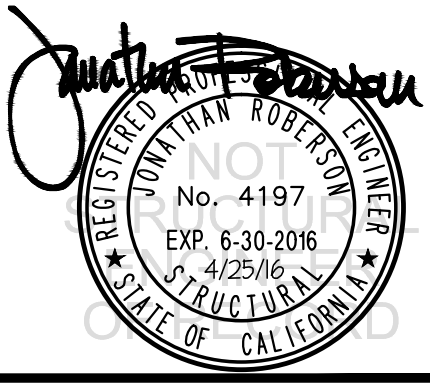
SEISMIC SUPPORTS & ATTACHMENTS

WALL MOUNTED



ELEVATION AT STEEL STUD WALL
(RAILS TO PLYWOOD)

STEEL STUD WALL SECTION
(RAILS TO PLYWOOD)



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LVS1U-LVSXU SERIES MONITOR WALL MOUNT

DES.	J. ROBERSON
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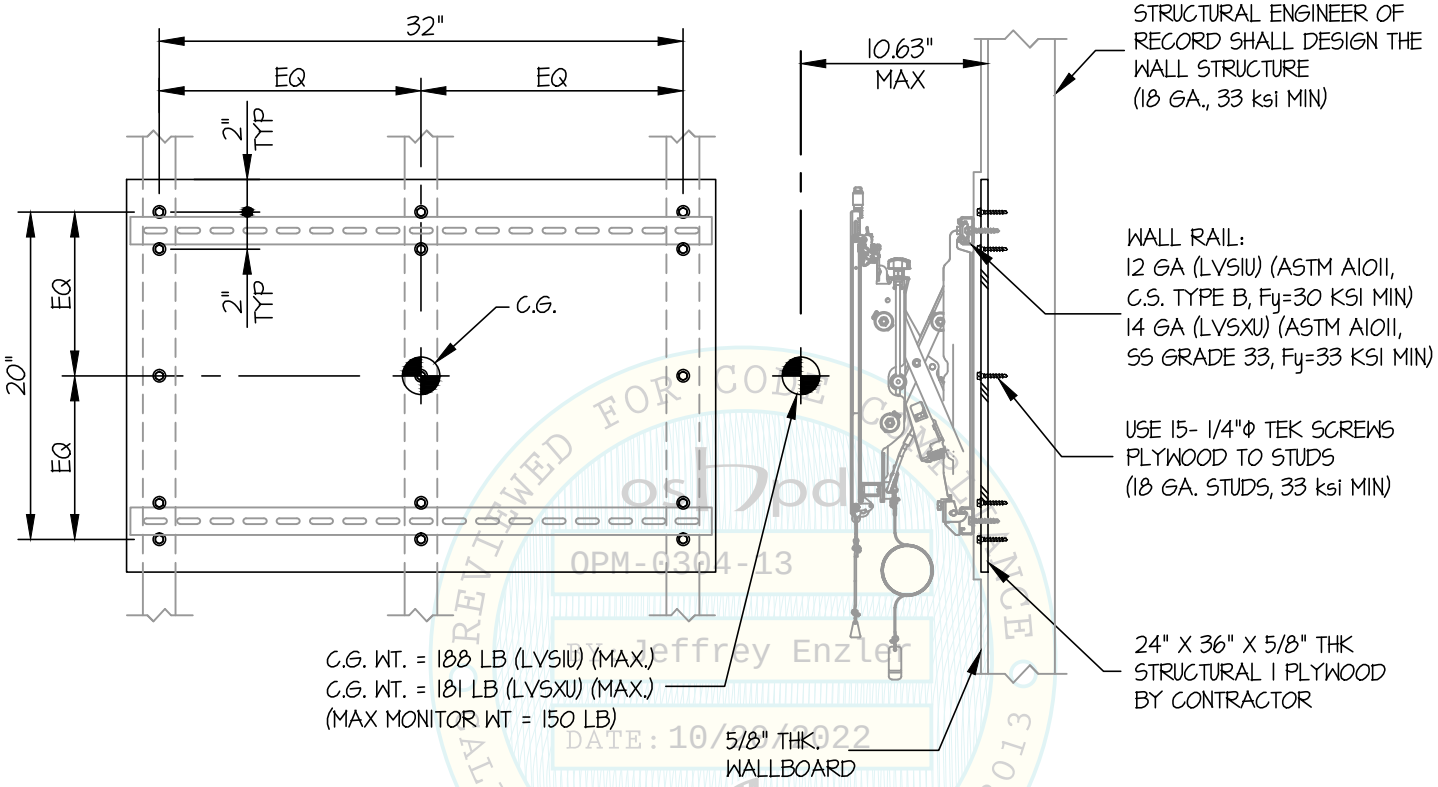
DATE	4/25/16

SHEET 5 OF 8 SHEETS

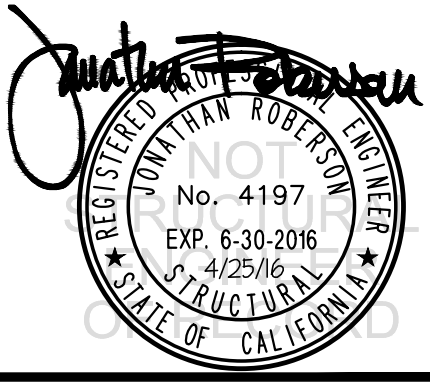
SEISMIC SUPPORTS & ATTACHMENTS

WALL MOUNTED



ELEVATION AT STEEL STUD WALL
(PLYWOOD TO METAL STUDS)

STEEL STUD WALL SECTION
(PLYWOOD TO METAL STUDS)



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LVS1U-LVSXU SERIES MONITOR WALL MOUNT

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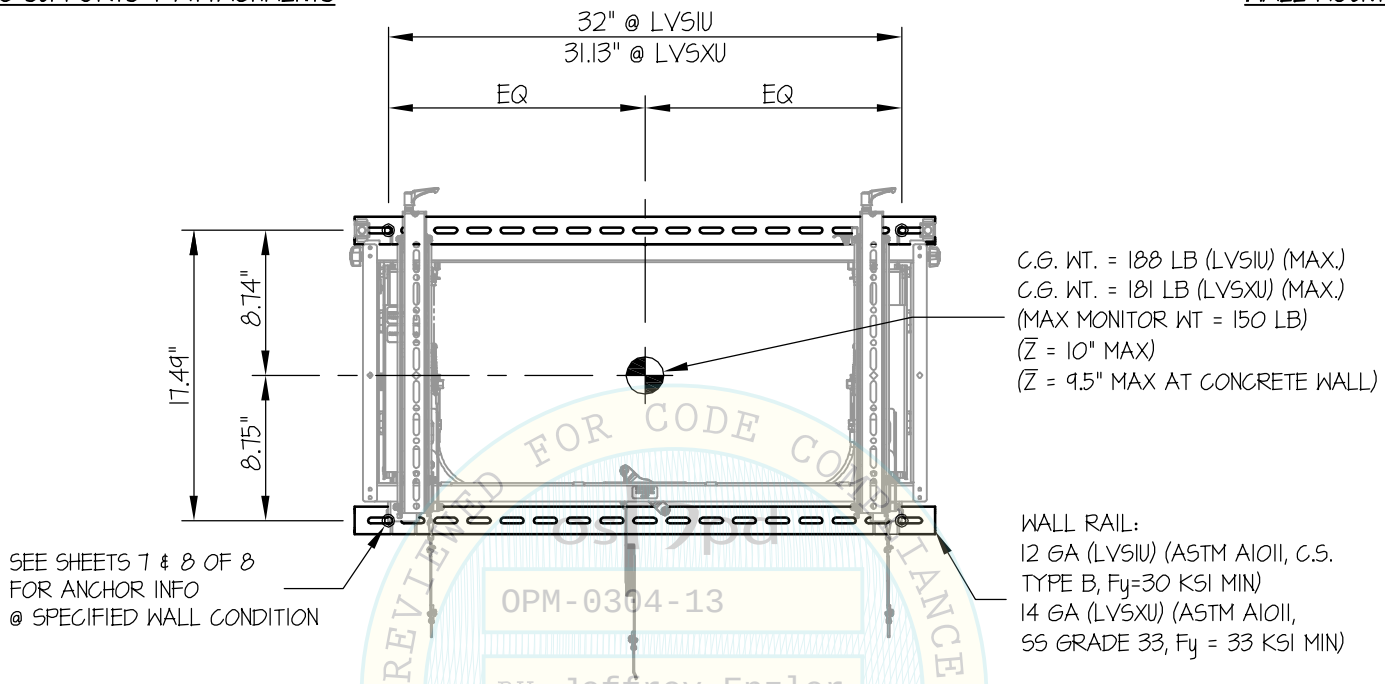
SHEET 6 OF 8 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED



ELEVATION AT WOOD STUD OR CONCRETE WALL

CONNECTION AT WOOD STUD WALL
Tu = 178 LB/SCREW (MAX)
Vu = 168 LB/SCREW (MAX)

CONNECTION AT CONCRETE WALL
Tu = 305 LB/SCREW (MAX)
Vu = 202 LB/SCREW (MAX)

NOTES:

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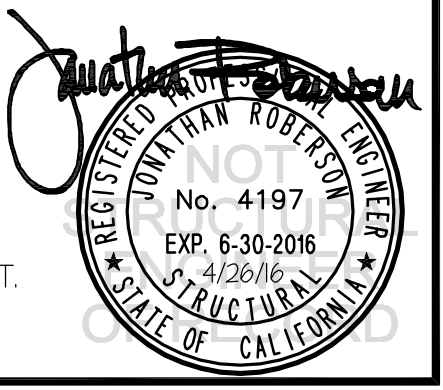

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DES.	J. ROBERSON
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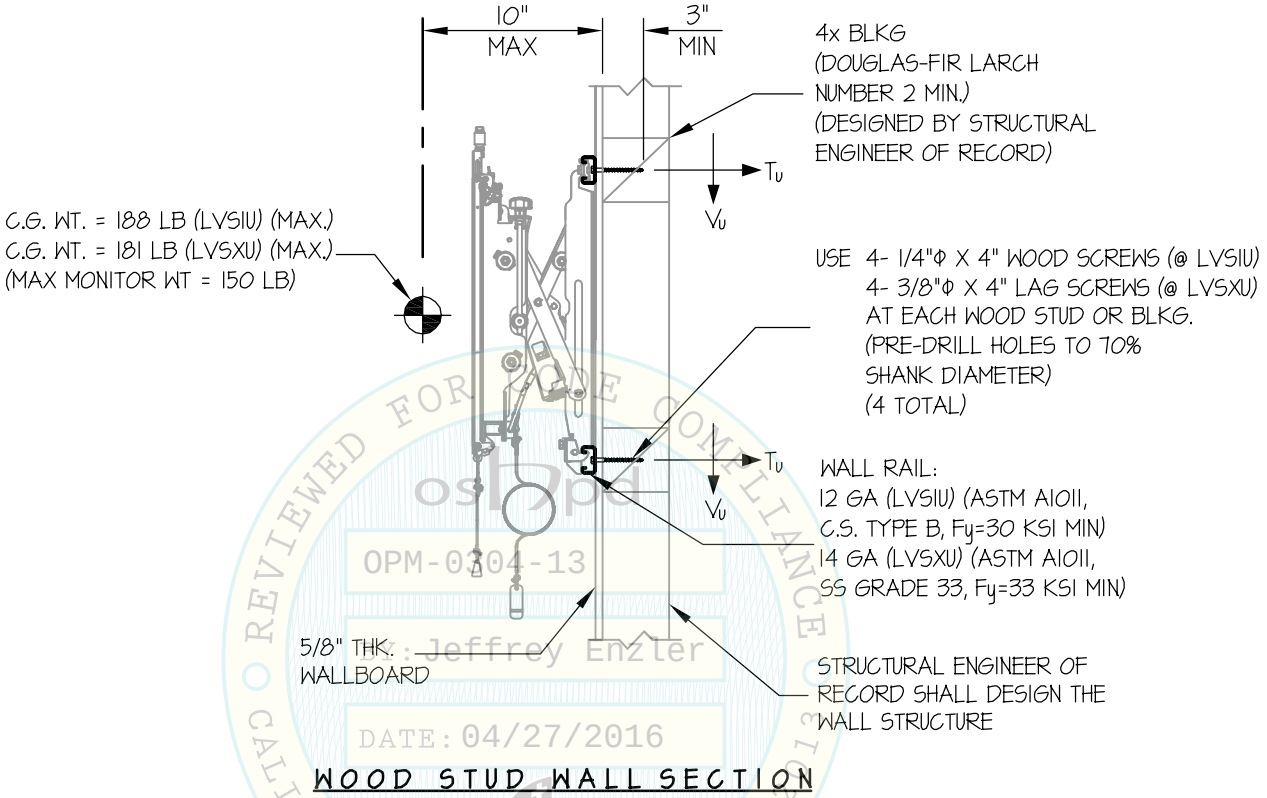
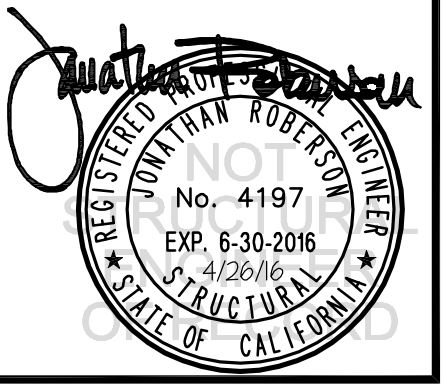
SHEET 7 OF 8 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

WALL MOUNTED



WOOD STUD WALL SECTION



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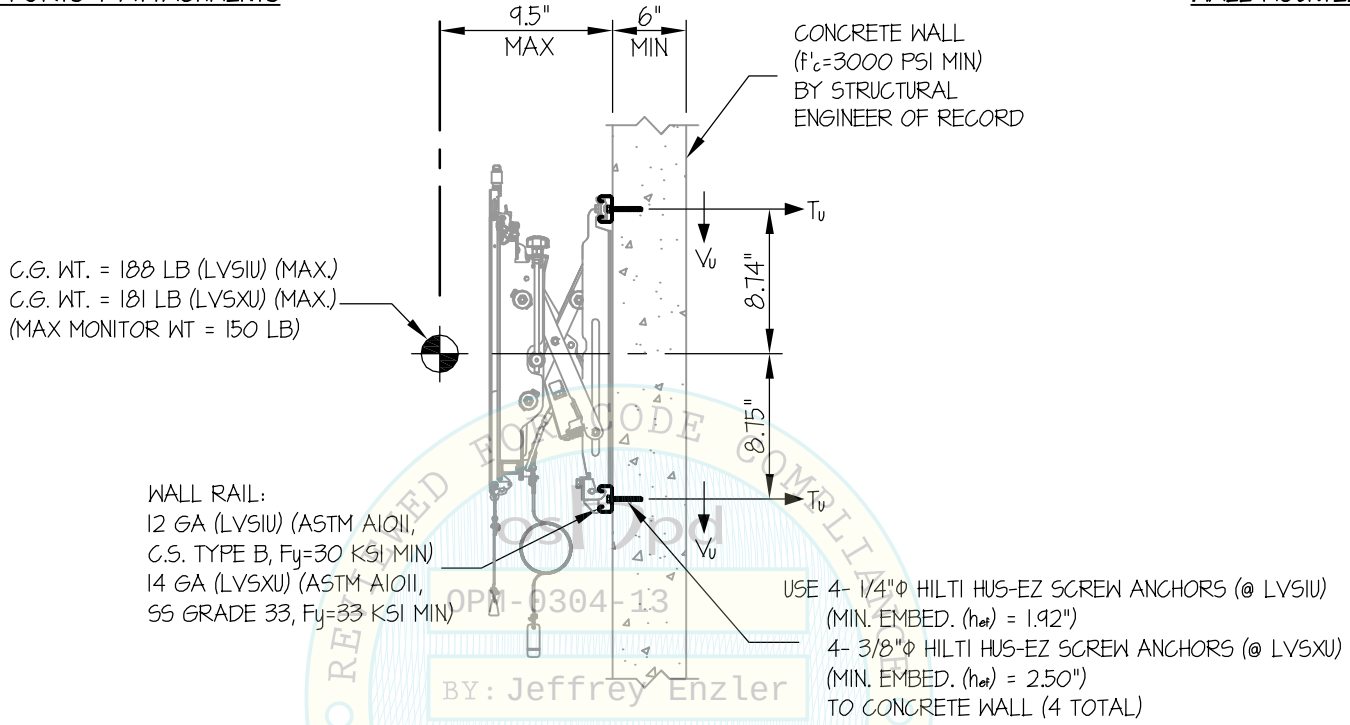
SHEET 8 OF 8 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

WALL MOUNTED



CONCRETE WALL SECTION