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

OFFICE USE ONLY
APPLICATION #: OPM-0489-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

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

Manufacturer Information

Manufacturer: Fry Reglet Corporation

Manufacturer's Technical Representative: Mark Brinkman

Mailing Address: 12342 Hawkins Street Santa Fe Springs, CA 90670

Telephone: 562-903-9500 Email: markbrinkman@fryreglet.com

Product Information

Product Name: Graph Modular Wall System

Product Type: Wall cladding system

Product Model Number: Varies

General Description: Graph is a modular wall system including extruded aluminum framing components and field installed wall panels. Panels are metal, wood, phenolic or glass

Applicant Information

Applicant Company Name: Fry Reglet Corporation

Contact Person: Mark Brinkman

Mailing Address: 12342 Hawkins Street Santa Fe Springs, CA 90670

Telephone: 770-521-9660 Email: markbrinkman@fryreglet.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016.

Signature of Applicant: _____ Date: 05 / 10 / 18

Title: Director, Product Development Company Name: Fry Reglet Corporation

Registered Design Professional Preparing Engineering Recommendations

Company Name: MRH Structural Engineers, Inc.

Name: Mohammad R. Hariri California License Number: SE 3545

Mailing Address: 3400 Irvine Ave., Suite #101, Newport Beach, California, 92660

Telephone: (949) 690-2751 Email: MRH_SE@sbcglobal.net

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 1950-16

☒ Other* (Please Specify): By Analysis

*Use of criteria other than those adopted by the California Building Standards Code, 2016 (CBSC 2016) 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 2016 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 2016 & ALL PRE-2016 CODE BASED PROJECTS

Signature: Date: February 15, 2019

Print Name: Jeffrey Kikumoto

Title: SSE

Condition of Approval (if applicable):

FRY REGLET
ARCHITECTURAL METALS

ALPHARETTA, GA
SANTA FE SPRINGS, CA
WWW.FRYREGLET.COM

GRAPH WALL CLADDING SYSTEM

OPM-0489-13

Seismic Supports & Attachments

CALIFORNIA BUILDING CODE 2016 (CBC 2016)

M.R.H. **STRUCTURAL ENGINEERS, INC.**
3400 IRVINE AVE. , STE. 101
NEWPORT BEACH, CA 92660
TEL (714) 633-6302 / (949) 690-2751

MRH
Structural Engineer: Mohammad Hariri
California SE No. S3545

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DATE: FEBRUARY 11, 2019

GENERAL INFORMATION

1.0 GENERAL NOTES

1. This OSHPD Preapproval of Manufacturer's Certification (OPM) is based on the CBC 2016. The demand (design forces) for use with this OPM shall be based on the CBC 2016.

2. The substrates included in this pre-approval are as follows:

   a. Wood
   b. Steel

3. This pre-approval is for the seismic supports & attachments of the unit to the structure. It does not address other loads.

4. The maximum S_{DS} utilized for this OPM is ≤ 2.0.

5. The ranges of components sizes and material included in the pre-approval are as follows:

   a. The graph wall cladding system weight shall not exceed 200 pounds.
   b. The graph wall cladding system shall be 4'-0" wide by 8'-0" long and may be oriented vertically or horizontally.

6. The graph wall cladding system shall not be oriented diagonally.

7. Seismic forces are determined per Chapter 13 of ASCE 7-10.

8. All anchor forces shown in this OSHPD OPM are due to application of factored vertical and lateral loads per ASCE 7-10 and shall be used for strength design.

9. Isolators such as Teflon and Neoprene shall be placed between aluminum and other material to prevent contact between dissimilar materials.

10. Sheet Metal Screws (SMS) shall be TEKS screws by ITW BUILDEX (ICC-ES ESR-1976)

11. Installation requirements apply to wood screws meeting the requirements on ANSI/ASME Standard B18.6.1.

2.0 RESPONSIBILITIES OF SEOR OF THE BUILDING

1. Structural Engineer of Record shall verify adequacy of the new or existing structure to support the graph wall cladding system.

2. Structural Engineer of Record shall provide and/or design additional members including but not limited to backing studs, backing bars, studs and blocking to resist the reactions of the graph wall cladding system at the anchor locations.

3. Structural Engineer of Record shall provide design for supporting structure to resist in-plane and out-of-plane anchor forces in any directions in addition to other code required loads and forces.

4. Structural Engineer of Record shall verify that the combination of S_{DS} & z/h result in seismic forces (E_h , E_v) that are not greater than the values indicated in Section 5.0.

GENERAL INFORMATION (CONT.)

3.0 BUILDING CODES, STANDARDS, & GUIDELINES

This pre-approval conforms to the following:

a. **2016 California Building Code (CBC2016)**

b. **American Society of Civil Engineers (ASCE 7-10) including Supplement No. 1**

c. **North American Specification for the design of Cold-Formed steel structural members - S100-12**

d. **ANSI / AF & PA NDS - 2015**

4.0 SEISMIC BRACING DESIGN PARAMETERS.

a. $S_{DS} = 2.0$

b. $a_P = 2.5$

c. $R_P = 6.0$

d. $z/h \leq 1.0$

e. $I_P = 1.5$

5.0 TOTAL SEISMIC ANCHOR DESIGN FORCES

a. **Total Seismic Horizontal Force:** $E_h = 1.5\ W_p$

b. **Total Seismic Vertical Force:** $E_v = 0.4\ W_p$

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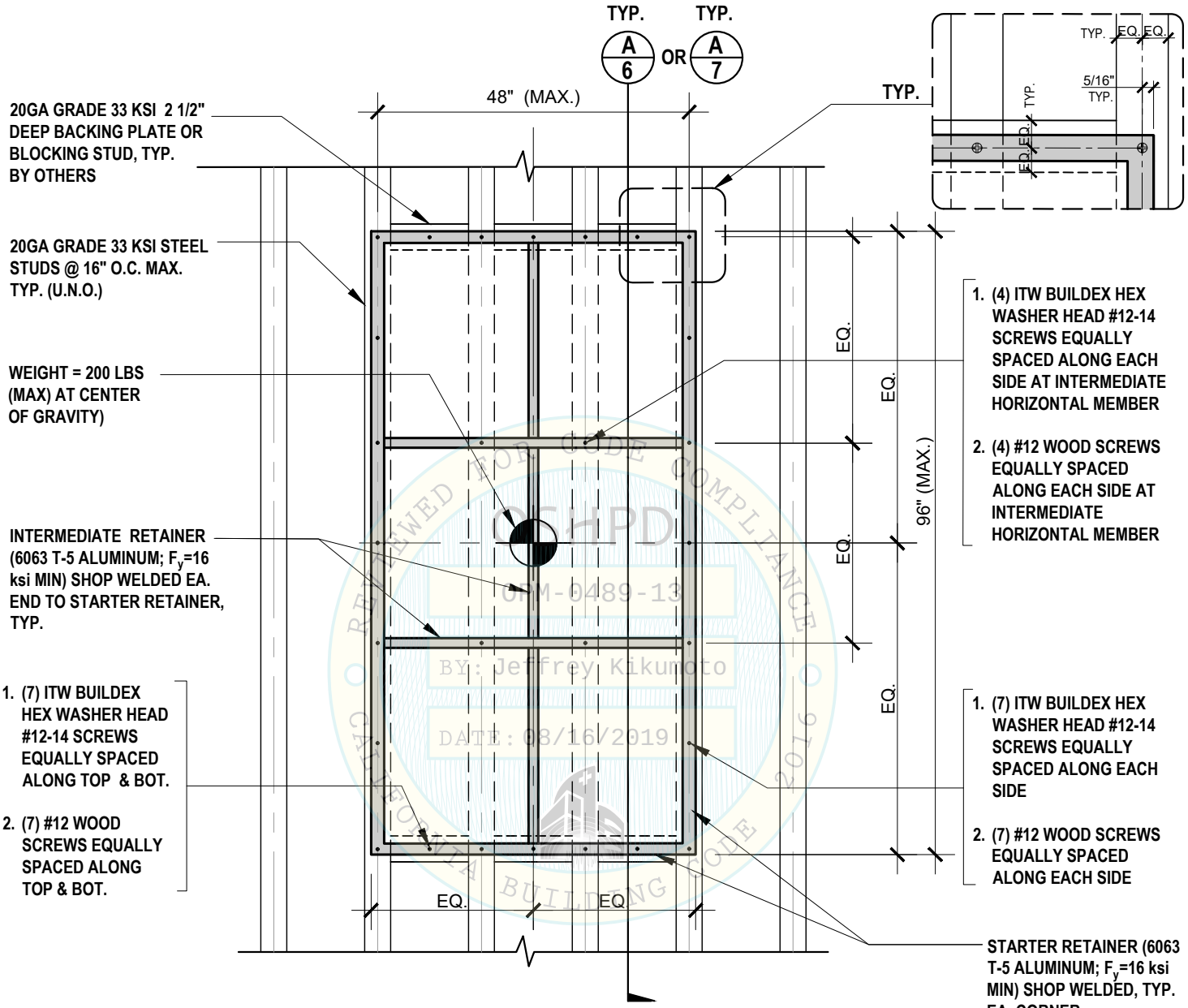
FRY REGLET GRAPH WALL CLADDING SYSTEM (PORTRAIT)



PORTRAIT ORIENTATION OF GRAPH WALL CLADDING SYSTEM

N.T.S.

NOTES:

1. The graph wall cladding system weight shall not exceed 200 pounds.
2. All panels within this frame shall have the same material and weight: install using supplied manufacture's panel layouts with location of "dual-lock" connectors with standard black clips and tape".
3. Maximum steel and wood stud spacing shall be 16" oc.
4. Sheet metal screws shall be installed at the centerline of steel stud flange width or backing studs.
5. Wood screws shall be installed at the centerline of wood stud or wood blocking.

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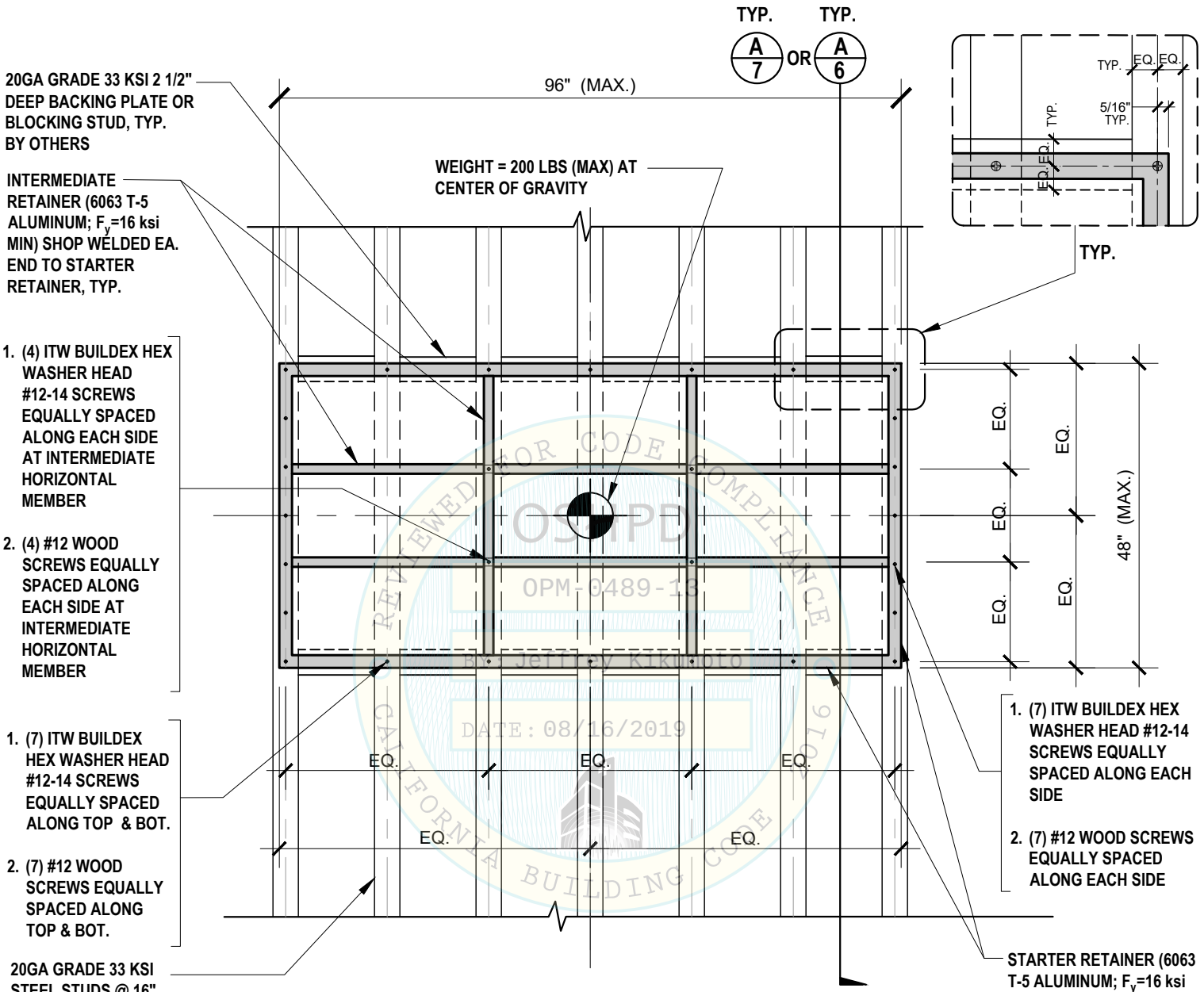
FRY REGLET GRAPH WALL CLADDING SYSTEM (LANDSCAPE)



LANDSCAPE ORIENTATION OF GRAPH WALL CLADDING SYSTEM
N.T.S.

NOTES:

1. The graph wall cladding system weight shall not exceed 200 pounds.
2. All panels within this frame shall have the same material and weight: install using supplied manufacture's panel layouts with location of "dual-lock connectors with standard black clips and tape".
3. Maximum steel and wood stud spacing shall be 16" oc.
4. Sheet metal screws shall be installed at the centerline of steel stud flange width or backing studs.
5. Wood screws shall be installed at the centerline of wood stud or wood blocking.
6. See page 6 & 7 for fastener loads.

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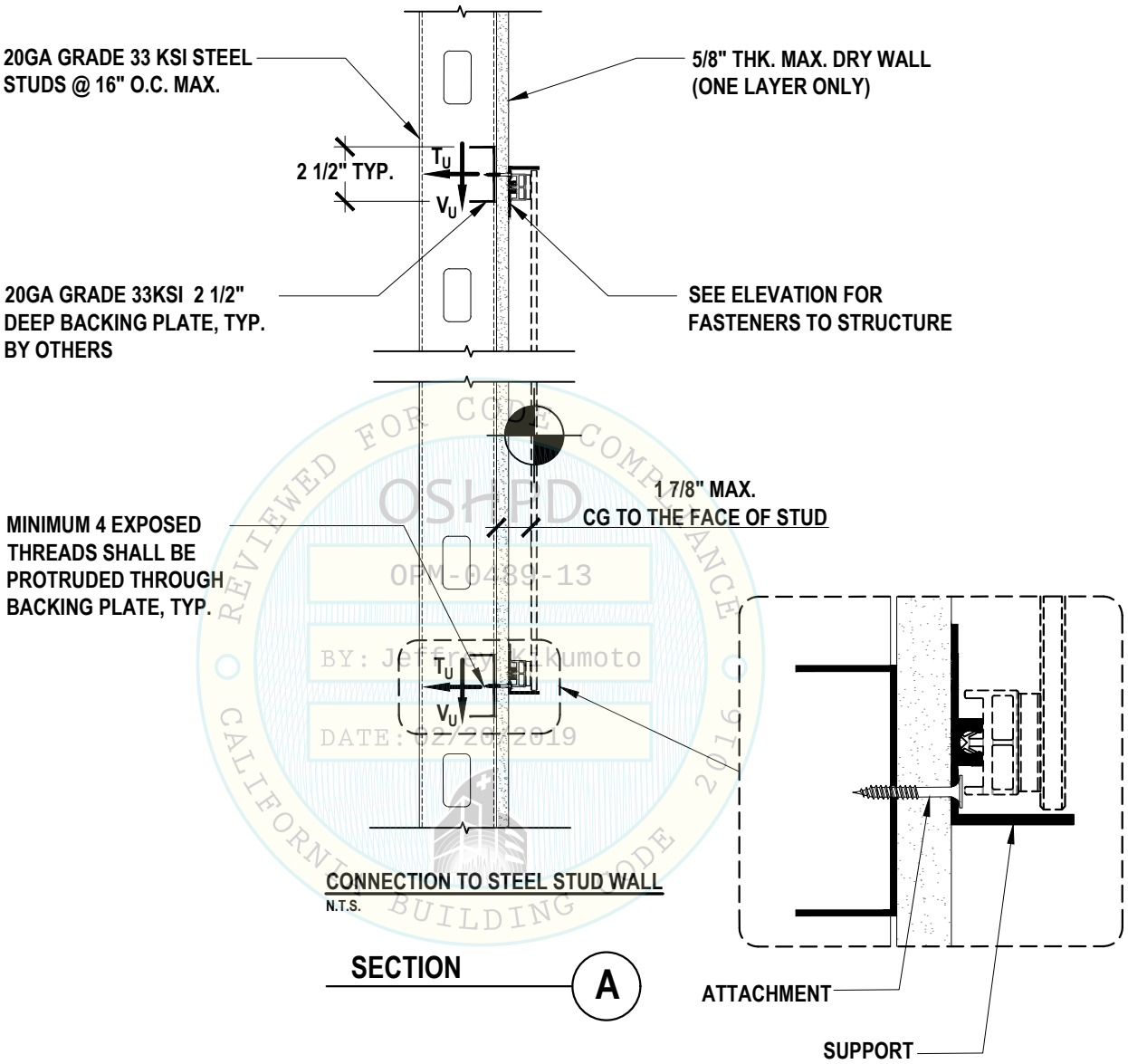
FRY REGLET GRAPH WALL CLADDING SYSTEM ATTACHED TO STEEL STUD WALL



CONNECTION TO STEEL STUD WALL
N.T.S.

SECTION A

NOTES:

1. T_U = 40 LBS for each fastener.
2. V_U = 50 LBS for each fastener.
3. Maximum steel and wood stud spacing shall be 16" oc.
4. Sheet metal screws shall be installed at the centerline of steel stud flange width or backing studs.
5. Wood screws shall be installed at the centerline of wood stud or wood blocking.

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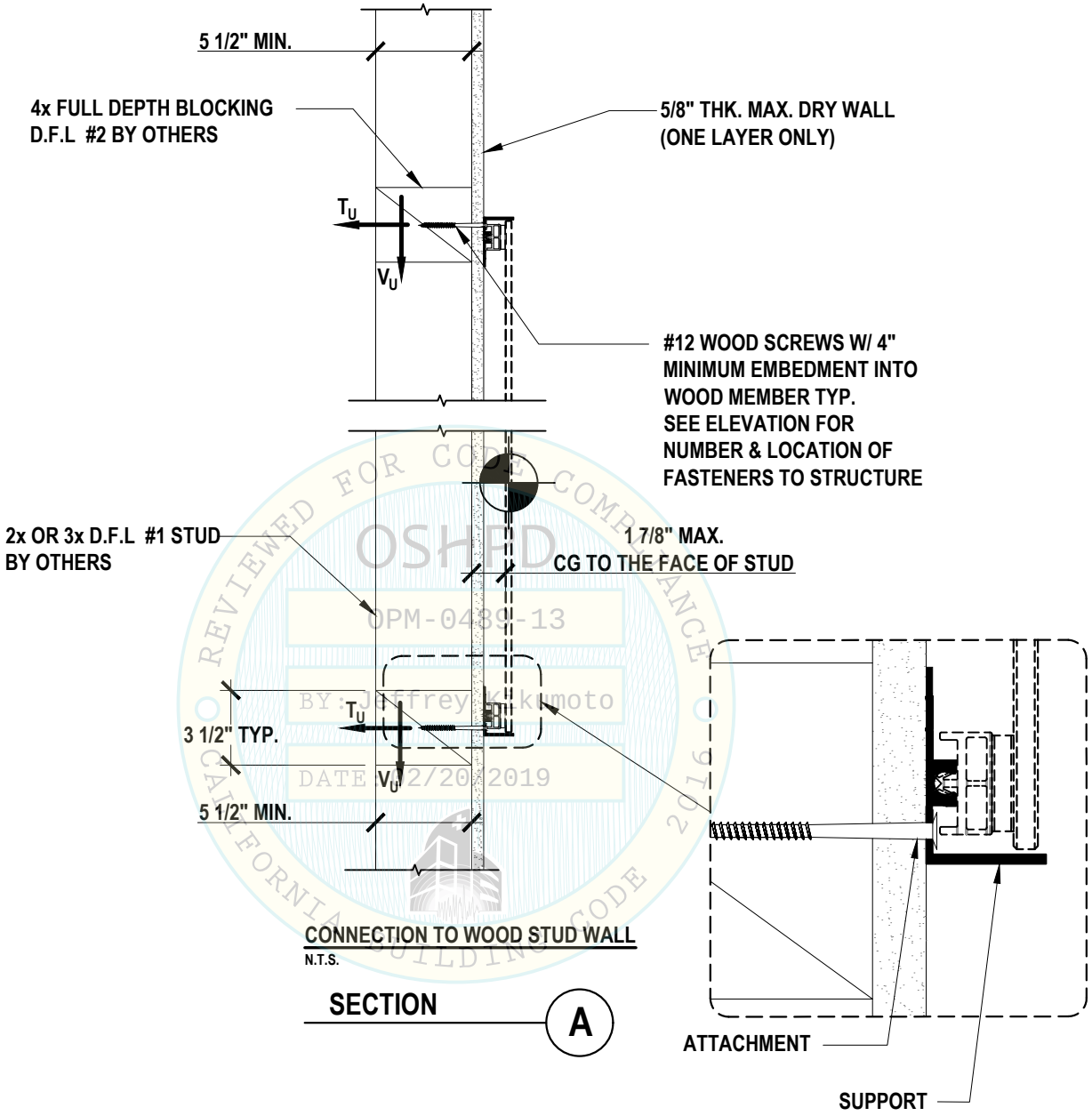
FRY REGLET GRAPH WALL CLADDING SYSTEM ATTACHED TO WOOD STUD WALL



NOTES:

1. T_U = 40 LBS for each fastener.
2. V_U = 50 LBS for each fastener.
3. Maximum steel and wood stud spacing shall be 16" oc.
4. Sheet metal screws shall be installed at the centerline of steel stud flange width or backing studs.
5. Wood screws shall be installed at the centerline of wood stud or wood blocking.

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