



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION

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

OFFICE USE ONLY

APPLICATION #: OPM-0418

HCAI Preapproval of Manufacturer's Certification (OPM)

Type: New Renewal/Update

Manufacturer Information

Manufacturer: Amico Corporation

Manufacturer's Technical Representative: Paul Tilcox

Mailing Address: 85 Fulton Way, Richmond Hill, ON L4B2N4

Telephone: (877) 462-6426

Email: ptilcox@amico.com

Product Information

Product Name: NULOOK SERIES PANEL WALL (SURFACE MOUNT)

Product Type: Other mechanical and electrical components

Product Model Number: 3 panel system; widths from 16"-60" per panel; height at 104" max

General Description: Headwall system providing lighting, electrical and med gas services

Applicant Information

Applicant Company Name: EASE LLC.

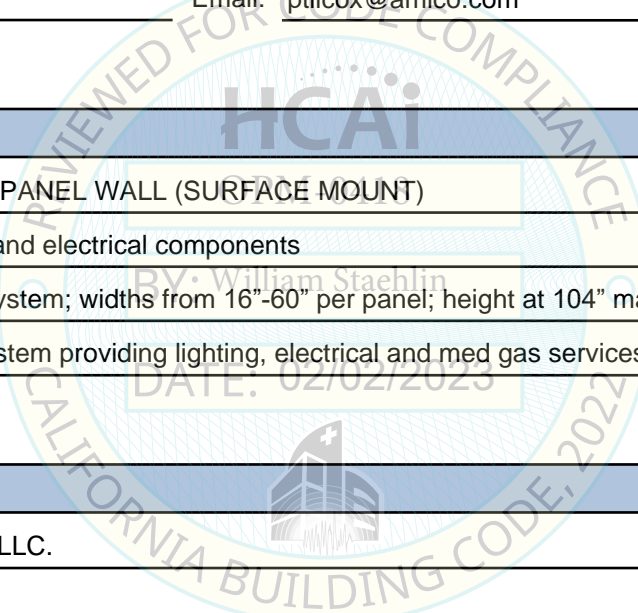
Contact Person: Tiffany Tonn

Mailing Address: 1515 FAIRVIEW AVE, STE 205, MISSOULA, MT 59801

Telephone: (406) 541-3273

Email: tiffany@easeco.com

Title: Office Manager



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STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY





DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION

Registered Design Professional Preparing Engineering Recommendations

Company Name: EASE LLC
Name: Jonathan Roberson California License Number: S4197
Mailing Address: 5877 Pine Ave., Suite 210, Chino Hills, CA 91709
Telephone: (951) 295-1892 Email: jon@EASECo.com

HCAI Special Seismic Certification Preapproval (OSP)

Special Seismic Certification is preapproved under OSP OSP Number:

Certification Method

Testing in accordance with: ICC-ES AC156 FM 1950-16
Other(s) (Please Specify):

*Use of criteria other than those adopted by the California Building Standards Code, 2022 (CBSC 2022) 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 2022 may be used when approved by HCAI prior to testing.

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

HCAI Approval

Date: 2/2/2023
Name: William Staehlin Title: Senior Structural Engineer
Condition of Approval (if applicable):



**EQUIPMENT ANCHORAGE
& SEISMIC ENGINEERING**

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

The Department of Health Care Access and Information
PREAPPROVAL OF MANUFACTURER'S CERTIFICATION
OPM-0418

THIS PREAPPROVAL CONFORMS TO THE 2022 CALIFORNIA BUILDING CODE

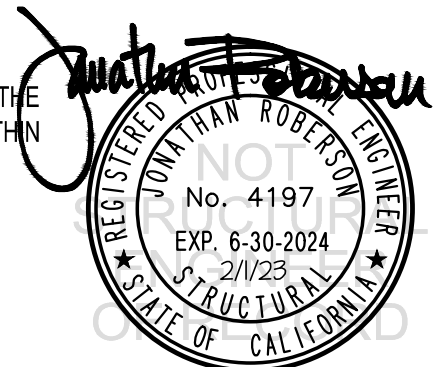
MANUFACTURER: **AMICO CORPORATION**
EQUIPMENT NAME: **NULOOK SERIES PANEL WALL (SURFACE MOUNT)**

Sheet: 1 of 11

Date: 2/1/23

GENERAL NOTES

1. THIS HCAI PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2022 CBC. THE DEMANDS (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2022 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 2022 CALIFORNIA BUILDING CODE WHERE S_{Ds} IS NOT GREATER THAN 2.0.
4. FORCES PER ASCE 7-16 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3, WHERE $S_{Ds} = 2.0$, $a_p = 1.0$, $I_p = 1.5$, $R_p = 1.5$, $z/h = 0$ AT CONCRETE SLAB & $z/h \leq 1$ AT CONCRETE SLAB ON METAL DECK. SEE FOLLOWING SHEETS FOR Ω_c .
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. CONCRETE SLAB ON METAL DECK DETAIL VALID FOR DEMANDS SHOWN AT ANY ELEVATION IN THE BUILDING. (i.e. $z/h \leq 1$)
8. CONCRETE SLAB DETAIL VALID FOR DEMANDS SHOWN AT ANY ELEVATION AT OR BELOW GRADE. (i.e. $z/h = 0$)
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 2022 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 SLAB TO WHICH THE EQUIPMENT IS ANCHORED MEETS THE REQUIREMENTS OF THE APPLICABLE ICC ESR AND THIS OPM.
 - E. VERIFY THAT THE ANCHORS ARE AN ADEQUATE DISTANCE FROM ANY SLAB 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 $6h_{ef}$ FROM THIS UNIT'S ANCHORS.



AMICO CORPORATION

NULOOK SERIES PANEL WALL

DES. **J. ROBERSON**

JOB NO. **11-2202**

DATE **2/1/23**

SHEET

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OF **11** SHEETS

10. EXPANSION 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
3/8"	Normal Weight	3000	Hilti Kwik Bolt TZ2 (CARBON STEEL)	ESR-4266	2"	3"	12"	4"	30 FT-LB	1488 lb

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

C. TESTING AND SPECIAL INSPECTION OF EXPANSION ANCHORS SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY EMPLOYED BY THE FACILITY OWNER PER CBC 1704A & 1910A.5 AND CAC 7-149. ALL REPORTS SHALL BE SENT TO THE INSPECTOR OF RECORD, OWNER AND THE ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE

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

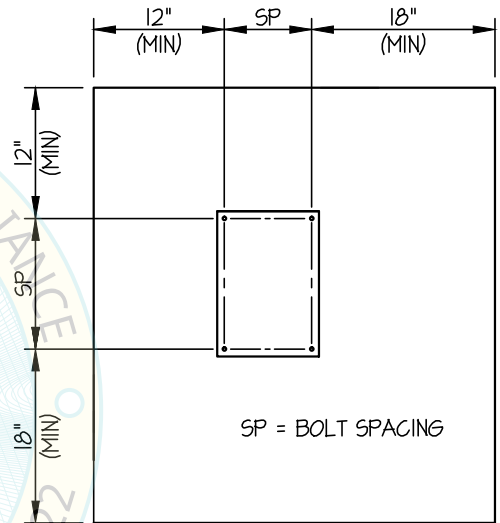
(ii) ACCEPTANCE CRITERIA:

- 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.
- TORQUE TEST: THE APPLICABLE TORQUE MUST BE ACHIEVED WITHIN THE FOLLOWING LIMITS: WEDGE TYPE : 1/2 TURN OF THE NUT

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

D. AVOID DAMAGING EXISTING STEEL REINFORCING IN CONCRETE SLAB WHEN INSTALLING CONCRETE EXPANSION ANCHORS.

E. PROVIDE FOR FULL THREAD ENGAGEMENT OF NUT & WASHER.



TYPICAL CONCRETE EDGE DETAIL
(SLAB ON GRADE ONLY)

DATE: 02/02/2023



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NULOOK SERIES PANEL WALL (SURFACE MOUNT)

DES. **J. ROBERSON**

JOB NO. **11-2202**

DATE **2/1/23**

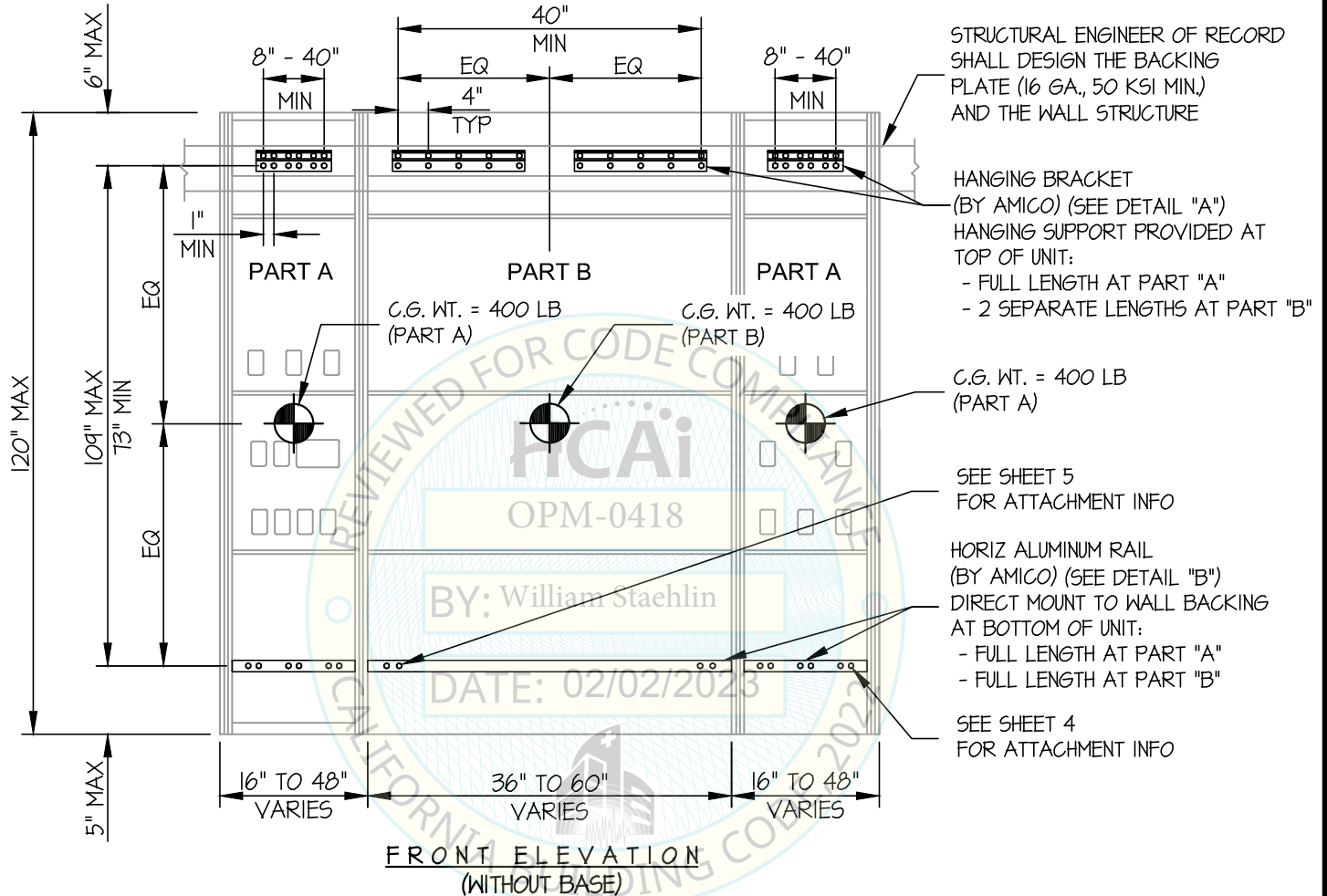
SHEET

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SEISMIC SUPPORTS & ATTACHMENTS

WALL MOUNTED



NOTES:

- FORCES ARE DETERMINED PER 2022 CALIFORNIA BUILDING CODE AND ASCE 7-16. STRENGTH DESIGN IS USED. [EXAMPLE: $S_{ds} = 2.00$, $a_p = 1.0$, $I_p = 1.5$, $R_p = 1.5$, $z/h \leq 1$]

HORIZONTAL FORCE (E_h) = $2.40 W_p$
VERTICAL FORCE (E_v) = $0.40 W_p$

- THIS PREAPPROVAL ENCOMPASSES WEIGHTS AND VERTICAL CG POSITIONS UP TO THE VALUES SHOWN.
- THIS PREAPPROVAL WAS PREPARED WITHOUT KNOWLEDGE OF ANY SITE CONDITION. COMPATIBILITY FOR USE WITH A SITE SHALL BE EVALUATED BY THE STRUCTURAL ENGINEER OF RECORD OF THE INSTALLATION (SEOR). USE REQUIRES APPROVAL BY THE SEOR.
- STRUCTURAL ENGINEER OF RECORD FOR THE INSTALLATION SHALL VERIFY ALL CONDITIONS, EVALUATE INTERACTION WITH ADJACENT EQUIPMENT AND ANCHORS, AND PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.
- WEIGHTS SHOWN REFLECT LARGER PANEL SIZE.
- SEE GENERAL NOTES: SHEET 1



AMICO CORPORATION

DES. J. ROBERSON

SHEET

NULOOK SERIES PANEL WALL (SURFACE MOUNT)

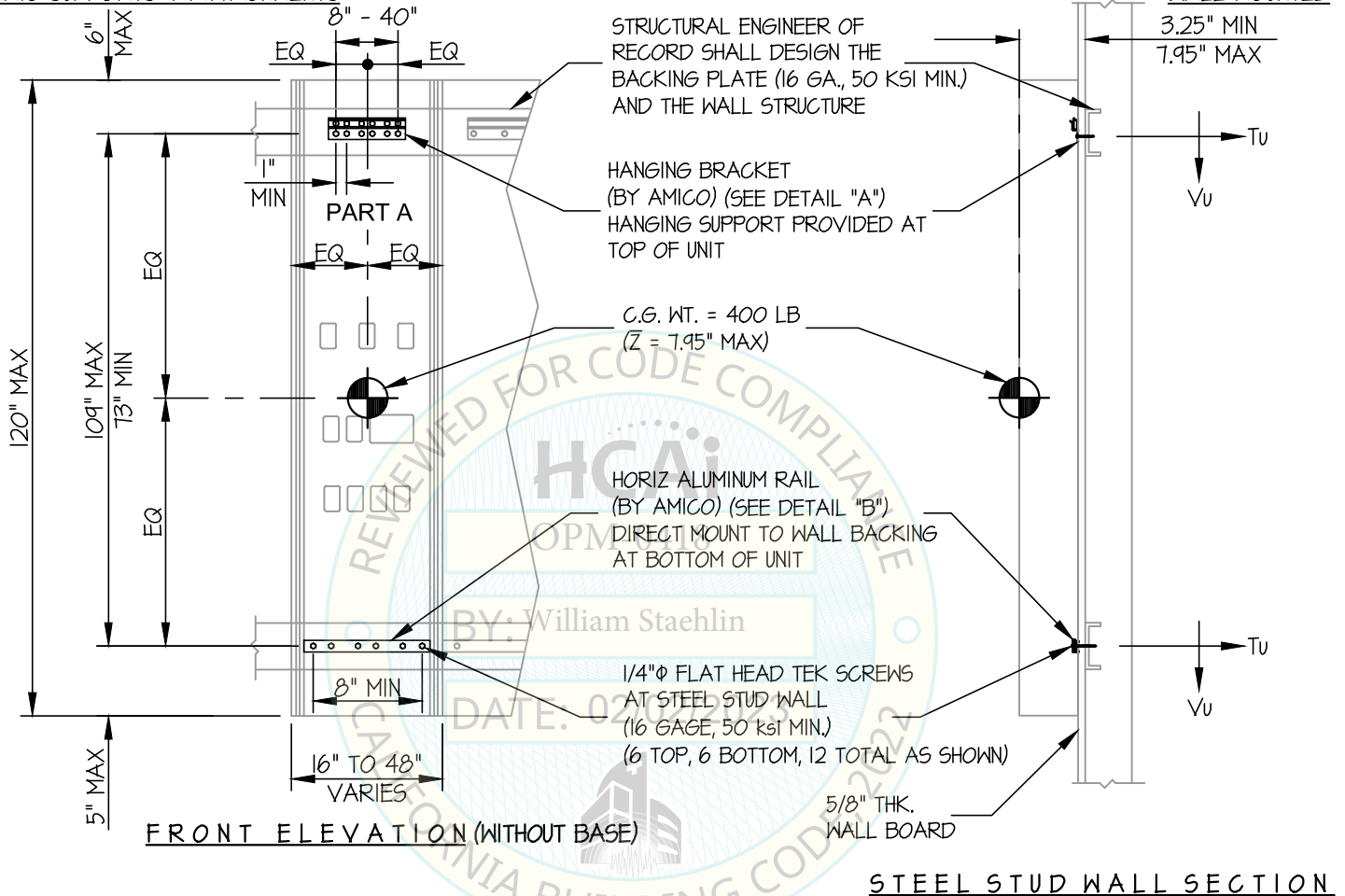
JOB NO. 11-2202

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DATE 2/1/23

11

SEISMIC SUPPORTS & ATTACHMENTS



TOP SCREW FORCES (PART A)

T_u = 309 LB/SCREW (MAX)

V_u = 96 LB/SCREW (MAX)

BOT SCREW FORCES (PART A)

T_u = 297 LB/SCREW (MAX)

V_u = 96 LB/SCREW (MAX)



AMICO CORPORATION

DES. J. ROBERSON

SHEET

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NULOOK SERIES PANEL WALL (SURFACE MOUNT)

JOB NO. 11-2202

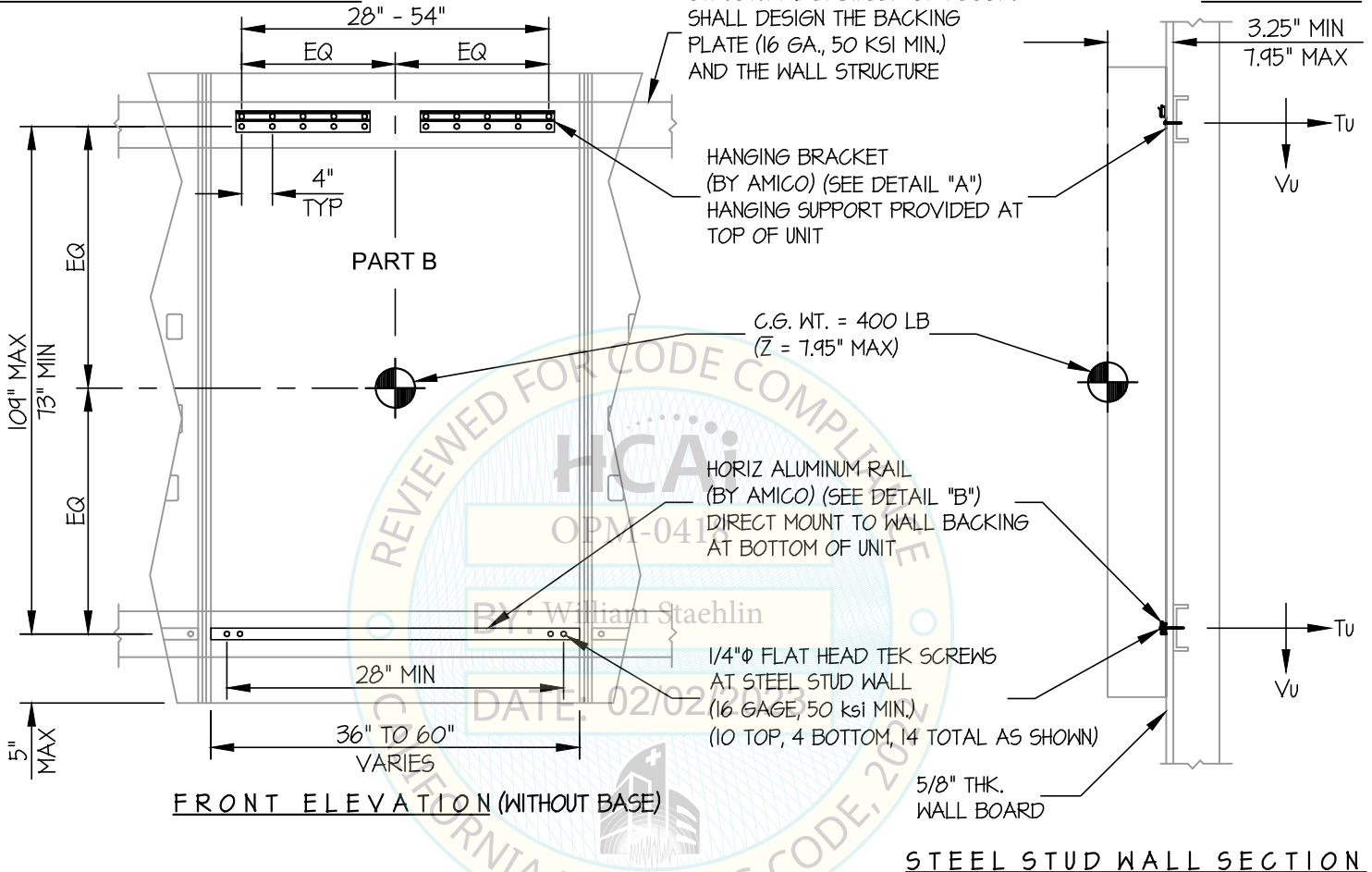
DATE 2/1/23

11

SEISMIC SUPPORTS & ATTACHMENTS

STRUCTURAL ENGINEER OF RECORD SHALL DESIGN THE BACKING PLATE (16 GA., 50 KSI MIN.) AND THE WALL STRUCTURE

WALL MOUNTED



TOP SCREW FORCES (PART B)

T_u = 102 LB/SCREW (MAX)

V_u = 67 LB/SCREW (MAX)

BOT SCREW FORCES (PART B)

T_u = 144 LB/SCREW (MAX)

V_u = 129 LB/SCREW (MAX)



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NULOOK SERIES PANEL WALL (SURFACE MOUNT)

DES. J. ROBERSON

JOB NO. 11-2202

DATE 2/1/23

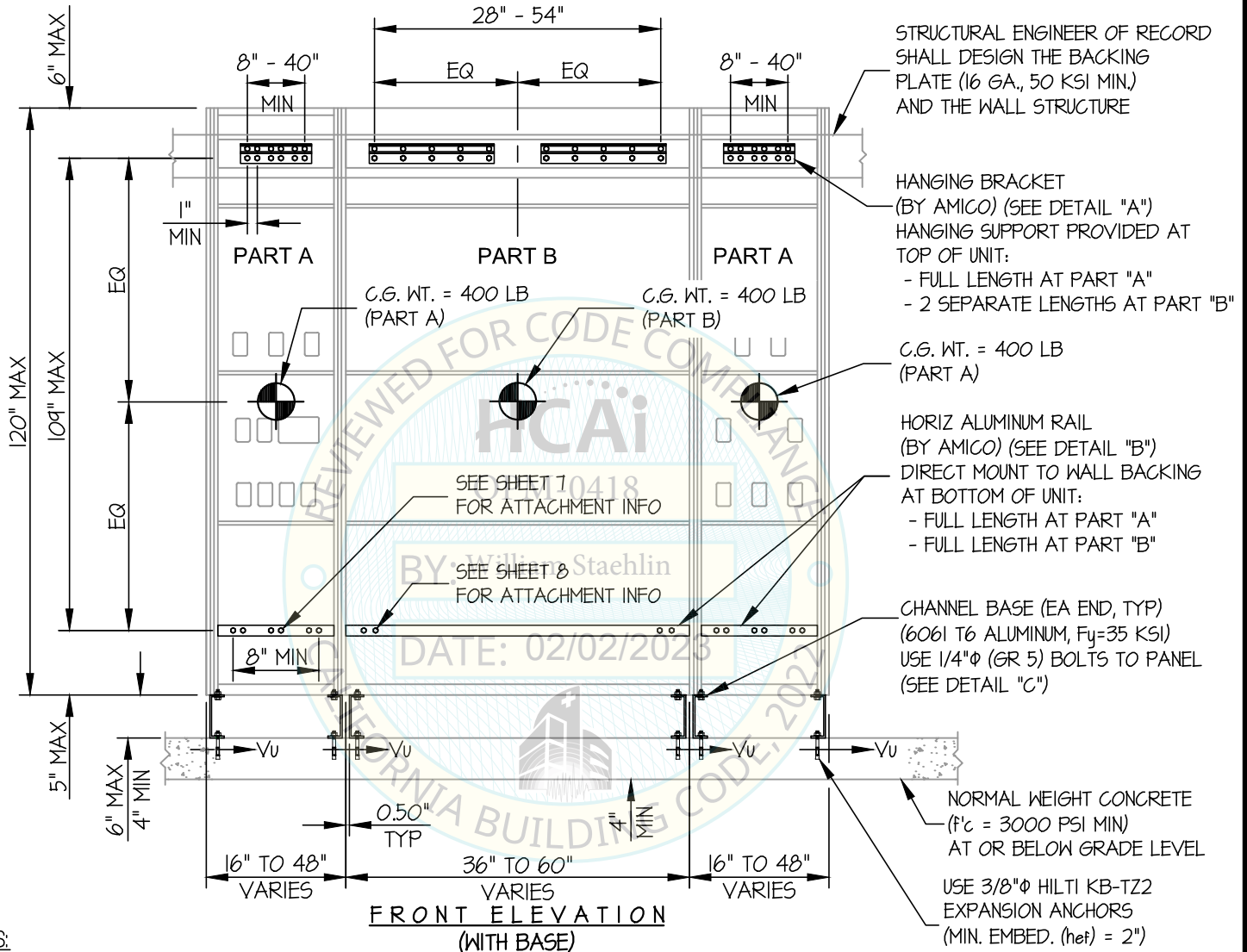
SHEET

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11

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB / WALL MOUNTED



FRONT ELEVATION
(WITH BASE)

NOTES:

- FORCES ARE DETERMINED PER 2022 CALIFORNIA BUILDING CODE AND ASCE 7-16. STRENGTH DESIGN IS USED. [EXAMPLE: $S_{ds} = 2.00$, $a_p = 10$, $l_p = 15$, $R_p = 15$, $z/h \leq 1$]

 HORIZONTAL FORCE (E_h) = $2.40 W_p$
 VERTICAL FORCE (E_v) = $0.40 W_p$
- THIS PREAPPROVAL ENCOMPASSES WEIGHTS AND VERTICAL CG POSITIONS UP TO THE VALUES SHOWN.
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- STRUCTURAL ENGINEER OF RECORD FOR THE INSTALLATION SHALL VERIFY ALL CONDITIONS, EVALUATE INTERACTION WITH ADJACENT EQUIPMENT AND ANCHORS, AND PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.
- WEIGHTS SHOWN REFLECT LARGER PANEL SIZE.
- SEE GENERAL NOTES: SHEET 1

STRUCTURAL ENGINEER OF RECORD SHALL DESIGN THE BACKING PLATE (16 GA., 50 KSI MIN.) AND THE WALL STRUCTURE

HANGING BRACKET (BY AMICO) (SEE DETAIL "A")
HANGING SUPPORT PROVIDED AT TOP OF UNIT:
- FULL LENGTH AT PART "A"
- 2 SEPARATE LENGTHS AT PART "B"

C.G. WT. = 400 LB (PART A)

HORIZ ALUMINUM RAIL (BY AMICO) (SEE DETAIL "B")
DIRECT MOUNT TO WALL BACKING AT BOTTOM OF UNIT:
- FULL LENGTH AT PART "A"
- FULL LENGTH AT PART "B"

CHANNEL BASE (EA END, TYP) (6061 T6 ALUMINUM, $F_y = 35$ KSI)
USE 1/4" ϕ (GR 5) BOLTS TO PANEL (SEE DETAIL "C")

NORMAL WEIGHT CONCRETE ($f'_c = 3000$ PSI MIN) AT OR BELOW GRADE LEVEL

USE 3/8" ϕ HILTI KB-TZ2 EXPANSION ANCHORS (MIN. EMBED. (h_{ef}) = 2") (SEE DETAIL "C")



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NULOOK SERIES PANEL WALL (SURFACE MOUNT)

DES. J. ROBERSON

SHEET

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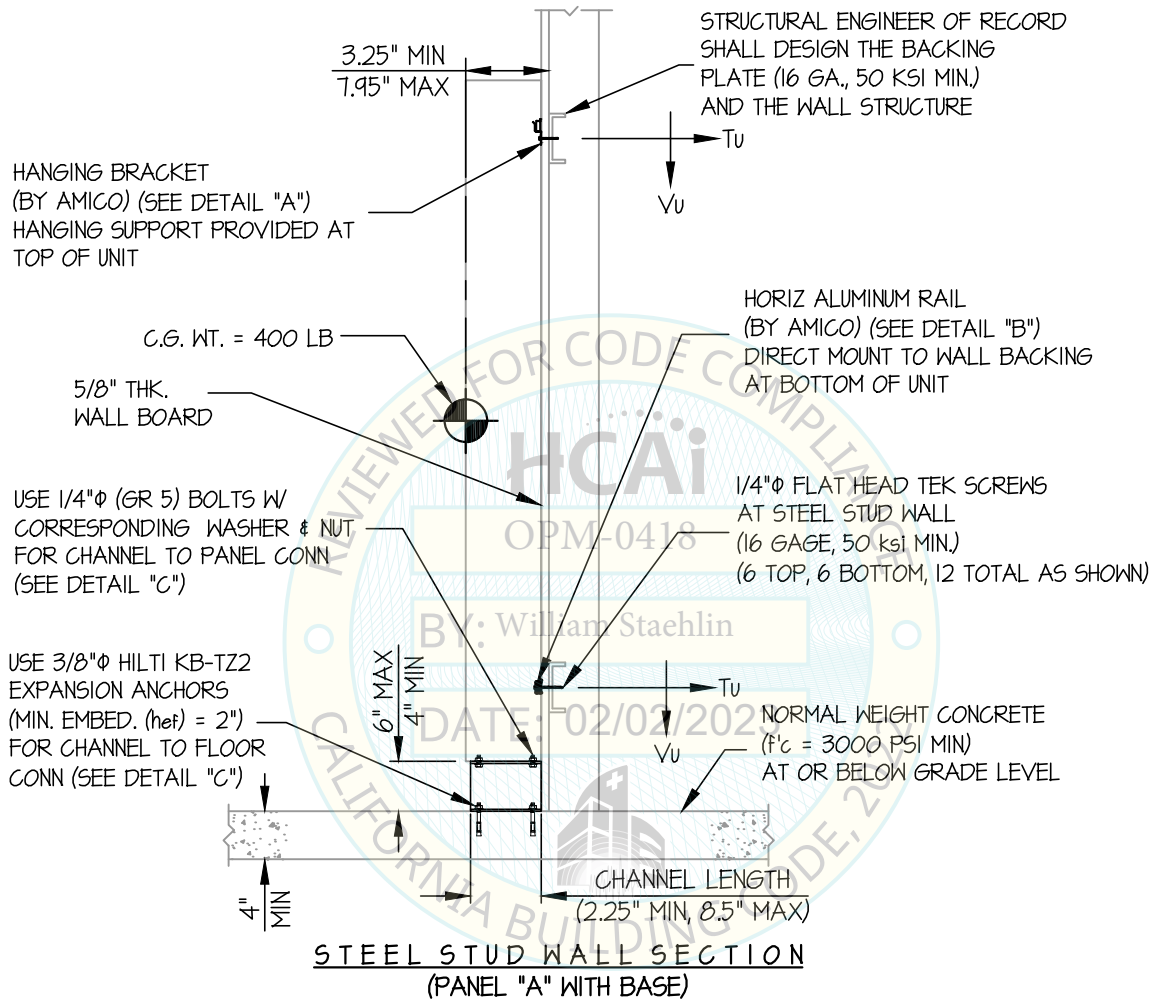
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DATE 2/1/23

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SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB / WALL MOUNTED



TOP SCREW FORCES (PART A)

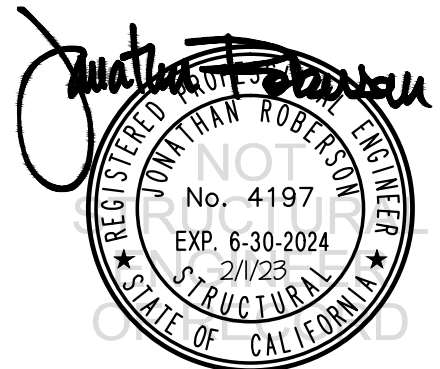
$T_u = 297$ LB/SCREW (MAX)

$V_u = 96$ LB/SCREW (MAX)

BOT SCREW FORCES (PART A)

$T_u = 297$ LB/SCREW (MAX)

$V_u = 96$ LB/SCREW (MAX)



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NULOOK SERIES PANEL WALL (SURFACE MOUNT)

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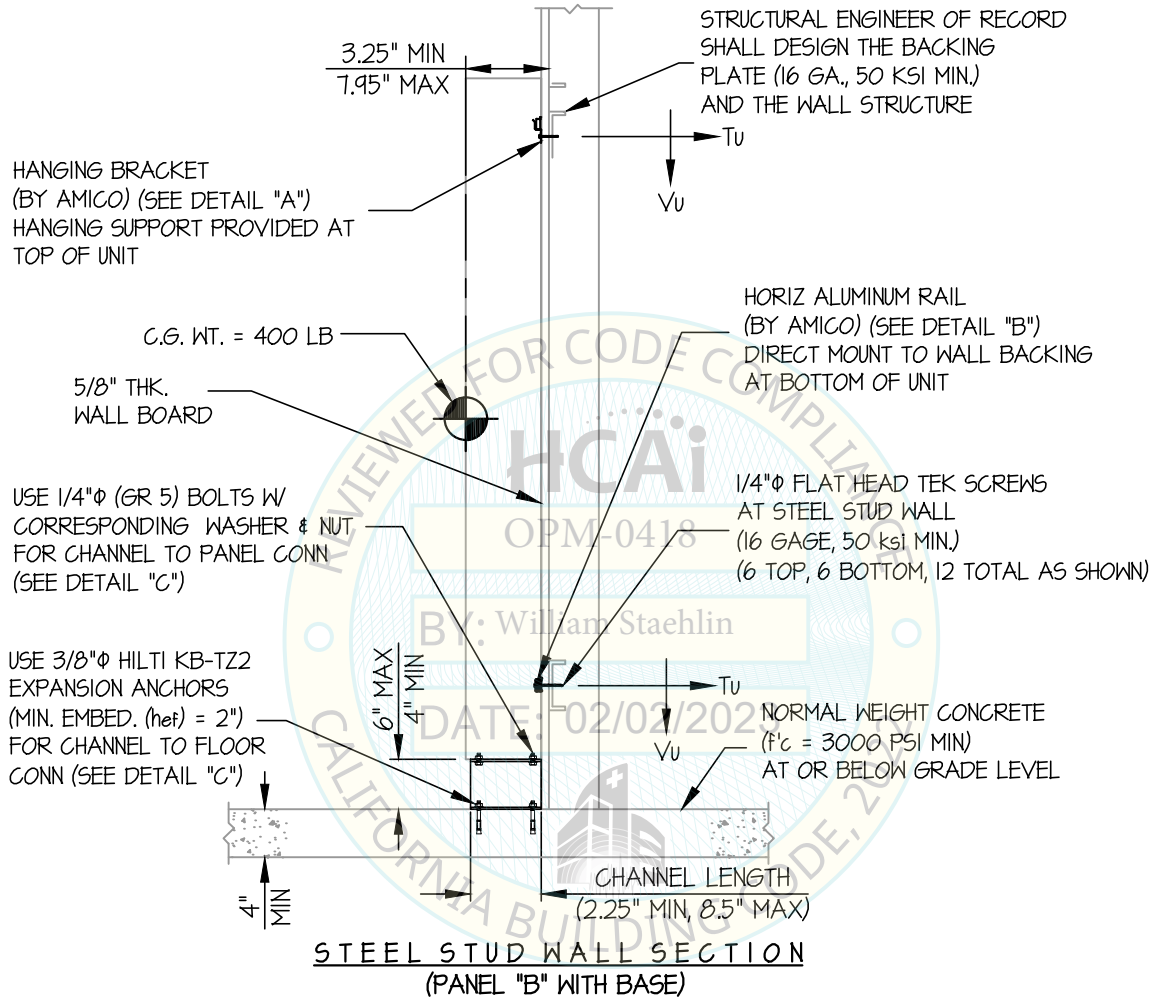
SHEET

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11

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB / WALL MOUNTED



STEEL STUD WALL SECTION
(PANEL "B" WITH BASE)

TOP SCREW FORCES (PART B)

T_u = 95 LB/SCREW (MAX)
V_u = 67 LB/SCREW (MAX)

BOT SCREW FORCES (PART B)

T_u = 144 LB/SCREW (MAX)
V_u = 129 LB/SCREW (MAX)



AMICO CORPORATION

DES. J. ROBERSON

SHEET

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NULOOK SERIES PANEL WALL (SURFACE MOUNT)

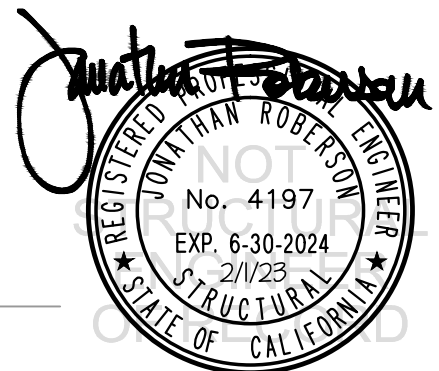
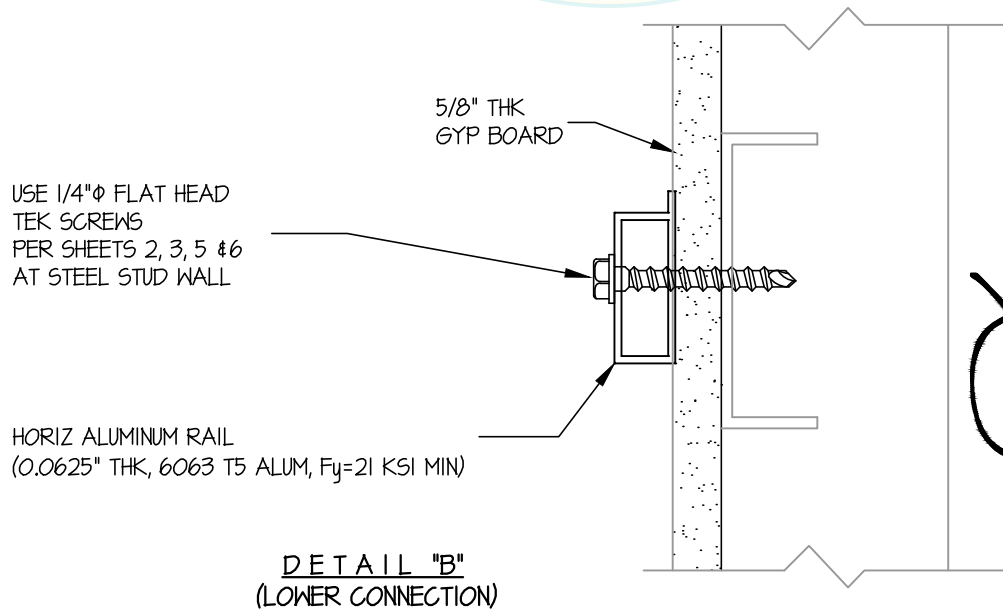
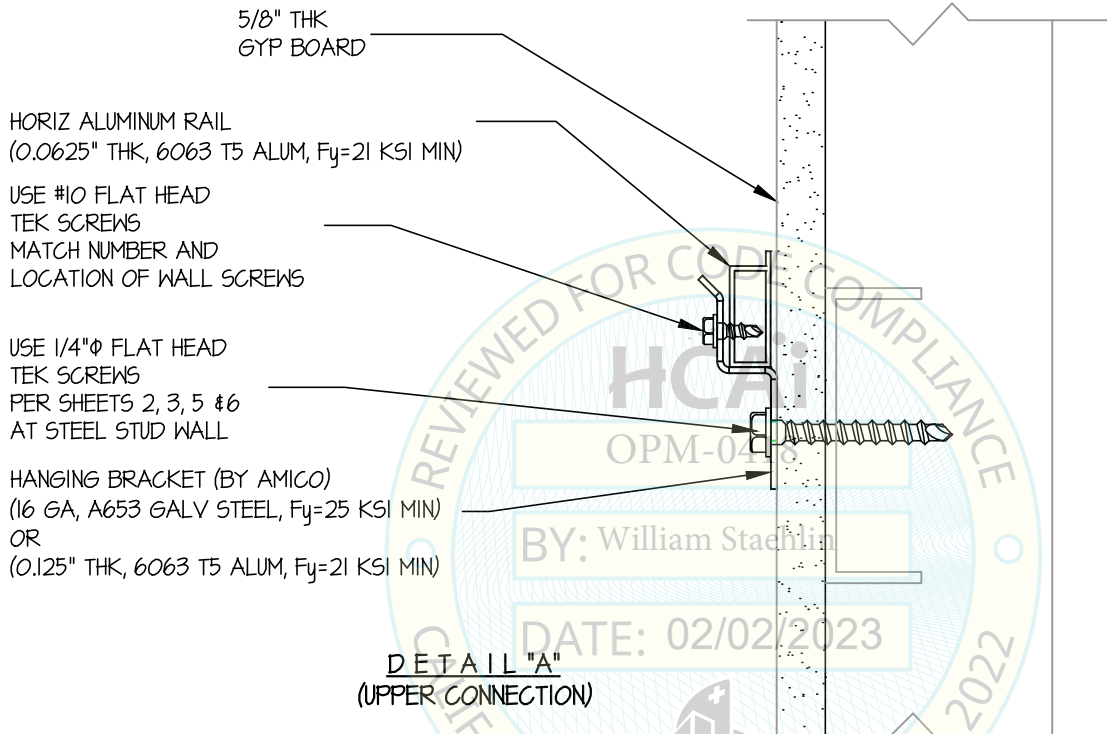
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OF 11 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

BRACKET DETAIL



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SHEET

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NULOOK SERIES PANEL WALL (SURFACE MOUNT)

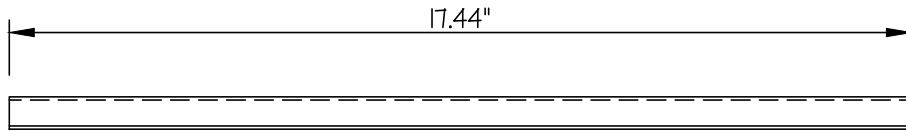
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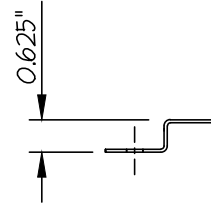
OF 11 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

BRACKET DETAIL

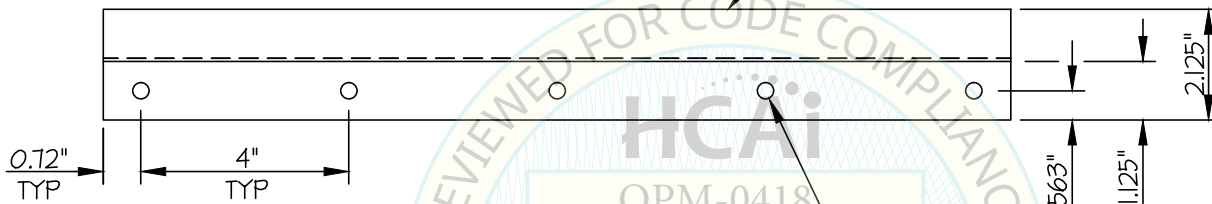


FRONT



SIDE

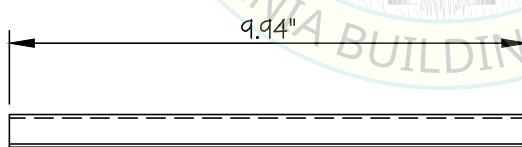
690 GALVANIZED STEEL (16 GA) (Fy = 25 KSI MIN)



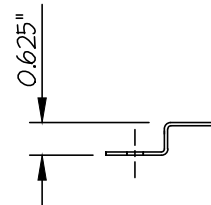
PLAN

(5) 5/16" ϕ HOLES

DETAIL WALL MOUNT FOR WIDTH 19" HW

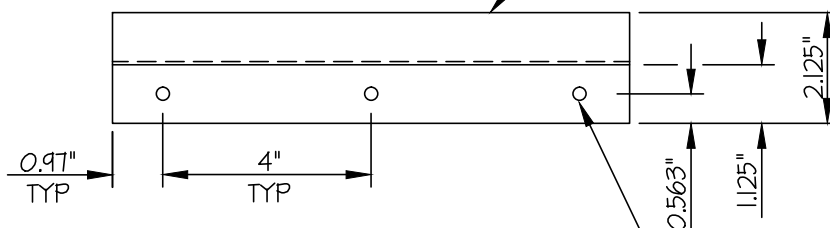


FRONT



SIDE

690 GALVANIZED STEEL (16 GA) (Fy = 25 KSI MIN)



PLAN

(5) 5/16" ϕ HOLES

WALL MOUNT BRACKETS



AMICO CORPORATION

DES. **J. ROBERSON**

SHEET

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NULOOK SERIES PANEL WALL (SURFACE MOUNT)

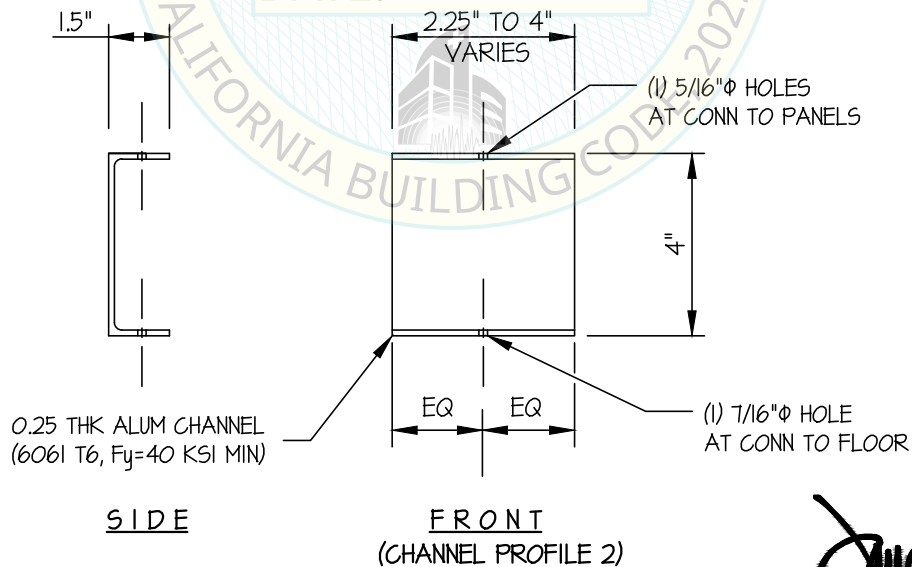
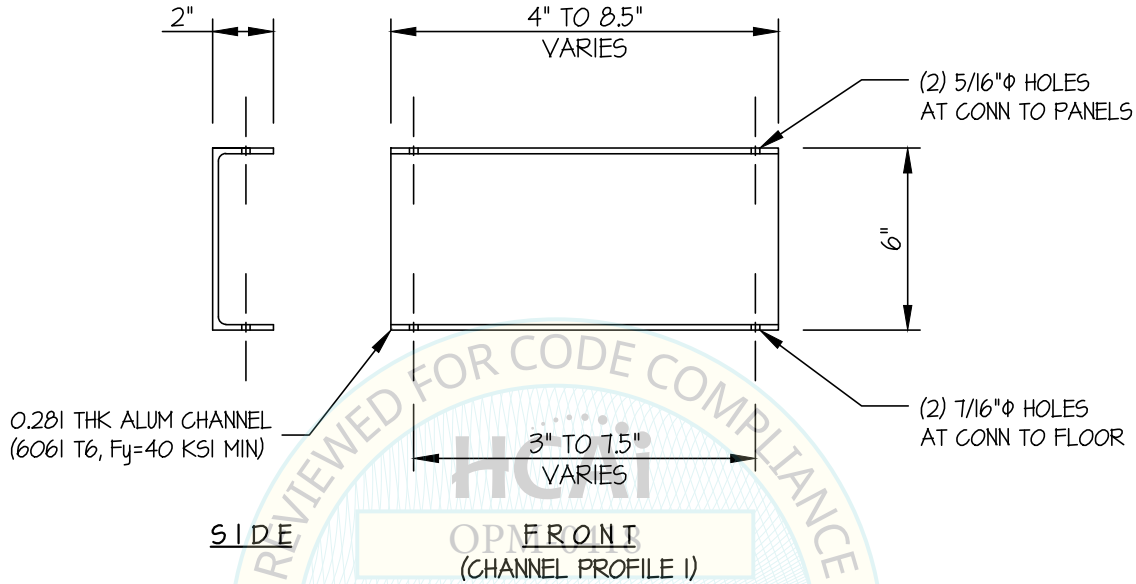
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SEISMIC SUPPORTS & ATTACHMENTS

BRACKET DETAIL



DETAIL "C"

