



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT

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

OFFICE USE ONLY

APPLICATION #: OPM-0536

HCAI Preapproval of Manufacturer's Certification (OPM)

Type: New Renewal/Update

Manufacturer Information

Manufacturer: Getinge USA

Manufacturer's Technical Representative: Adnan Shamun

Mailing Address: 1777 E. Henrietta Road, Rochester, NY 14623

Telephone: (123) 456-7890 Email: adnan.shamun@getinge.com

Product Information

Product Name: GSS610 Series Sterilizers

Product Type: Other Electrical and Mechanical Components

Product Model Number: GSS61010-2, GSS61014-12, GSS61015-2, GSS61021-2

General Description: Used for Sterilization of Hospital Tools and Equipment

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

"A healthier California where all receive equitable, affordable, and quality health care"

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY





**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT**

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: 5/16/2024
Name: Jeffrey Kikumoto Title: Senior Structural Engineer
Condition of Approval (if applicable): _____

"A healthier California where all receive equitable, affordable, and quality health care"

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY





**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-0536

THIS PREAPPROVAL CONFORMS TO THE 2022 CALIFORNIA BUILDING CODE

MANUFACTURER: **GETINGE USA, INC.**
EQUIPMENT NAME: **GSS610 SERIES STERILIZERS**

Sheet: 1 of 12
Date: 11/17/22

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 0.50, 0.55, 0.60, 1.20, & 2.00.
4. FORCES PER ASCE 7-16 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3,
WHERE $S_{ds} = 0.50$, $a_p = 1.0$, $I_p = 1.5$, $R_p = 1.5$, $z/h = 0$ AT CONCRETE SLAB. SEE FOLLOWING SHEETS FOR Ω_e
WHERE $S_{ds} = 0.55$, $a_p = 1.0$, $I_p = 1.5$, $R_p = 1.5$, $z/h = 0$ AT CONCRETE SLAB. SEE FOLLOWING SHEETS FOR Ω_e
WHERE $S_{ds} = 0.60$, $a_p = 1.0$, $I_p = 1.5$, $R_p = 1.5$, $z/h = 0$ AT CONCRETE SLAB. SEE FOLLOWING SHEETS FOR Ω_e
WHERE $S_{ds} = 2.00$, $a_p = 1.0$, $I_p = 1.5$, $R_p = 1.5$, $z/h = 0$ AT CONCRETE SLAB. SEE FOLLOWING SHEETS FOR Ω_e
WHERE $S_{ds} = 1.20$, $a_p = 1.0$, $I_p = 1.5$, $R_p = 1.5$, $z/h \leq 1$ AT CONCRETE SLAB ON METAL DECK. SEE FOLLOWING SHEETS FOR Ω_e
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 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 REPORT 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.



GETINGE USA, INC.

GSS610 SERIES STERILIZERS

DES. J. ROBERSON

JOB NO. 36-2205

DATE 11/17/22

SHEET

2

OF 12 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
5/8"	Sand Light Weight	3000	Hilti Kwik Bolt TZ2 (CARBON STEEL)	ESR-4266	4"	12"	48"	3.25" Over Flutes	40 FT-LB	N/A
1/2"	Normal Weight	3000	Hilti Kwik Bolt TZ2 (CARBON STEEL)	ESR-4266	2.5"	3"	24"	5"	50 FT-LB	1940 lb
1/2"	Normal Weight	3000	Hilti Kwik Bolt TZ2 (CARBON STEEL)	ESR-4266	3-1/4"	2.75"	21"	6"	50 FT-LB	2131 lb
1/2"	Normal Weight	3000	Hilti Kwik Bolt TZ2 (CARBON STEEL)	ESR-4266	3-1/4"	3"	21"	6"	50 FT-LB	2174 lb

B. THIS PREAPPROVAL ALLOWS FOR UP TO A MAXIMUM OF 2 ADJACENT CONCRETE SLAB EDGES, 21" & 24" 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

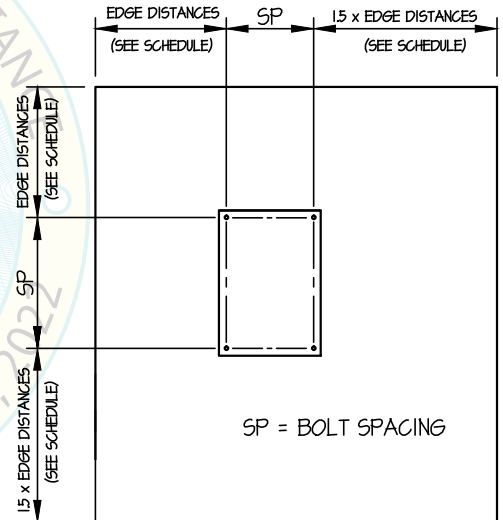
(iii) IF ANY ANCHOR FAILS, TEST ALL ANCHORS.

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

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

11. BOLTS THROUGH CONCRETE ON METAL DECK

- A. BOLTS SHALL BE TORQUED BY 3/4 TURN OF THE NUTS AFTER THE SNUG TIGHT (THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQUIRED TO BRING THE CONNECTED PLIES INTO FIRM CONTACT) CONDITION IS ACHIEVED, UNLESS OTHERWISE NOTED.
- B. THROUGH BOLT HOLES SHALL BE 1/16" LARGER THAN BOLT SIZE (HOLE SIZE = BOLT SIZE + 1/16) FOR CONCRETE.
- C. THROUGH-BOLTS IN CONCRETE SHALL RECEIVE SPECIAL INSPECTION AND TESTING (THROUGH BOLTS WITH STEEL TO STEEL CONNECTION IN TENSION DO NOT REQUIRE TENSION TESTING) IN ACCORDANCE WITH REQUIREMENTS FOR POST-INSTALLED ANCHORS.



TYPICAL CONCRETE EDGE DETAIL (SLAB ON GRADE ONLY)



GETINGE USA, INC.

GSS610 SERIES STERILIZERS

DES. **J. ROBERSON**

JOB NO. **36-2205**

DATE **11/17/22**

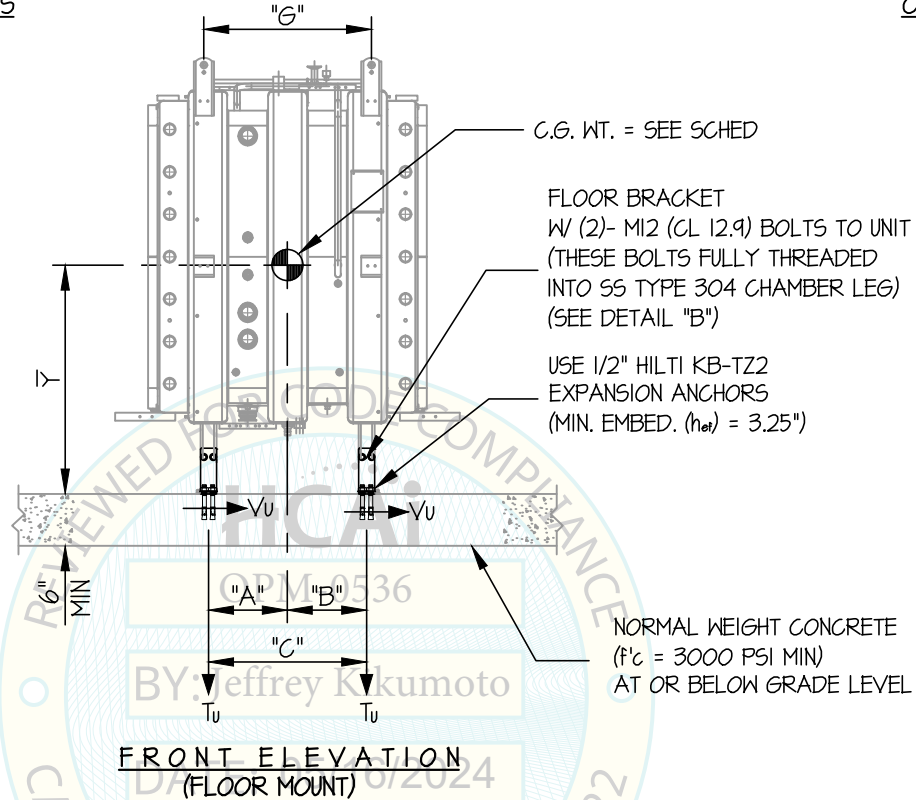
SHEET

3

OF **12** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB



NOTES:

- FORCES ARE DETERMINED PER 2022 CALIFORNIA BUILDING CODE AND ASCE 7-16. STRENGTH DESIGN IS USED:

S _{ds}	2.00	0.60	0.55	0.50
HORIZONTAL FORCE (E _h)	0.90 W _p	0.27 W _p	0.25 W _p	0.23 W _p
HORIZONTAL FORCE (E _{mh})	1.80 W _p	0.54 W _p	0.50 W _p	0.45 W _p
VERTICAL FORCE (E _v)	0.40 W _p	0.12 W _p	0.11 W _p	0.10 W _p

(E_{mh} = E_h x Ω_o; FOR CONCRETE ANCHORAGE)

[EXAMPLE PARAMETERS: α_p = 1.0, I_p = 1.5, R_p = 1.5, Ω_o = 2.0, z/h = 0]

- THIS PREAPPROVAL ENCOMPASSES WEIGHTS AND VERTICAL C.G. POSITIONS NOT EXCEEDING 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.
- SEE GENERAL NOTES; SHEET 1 AND 2.



GETINGE USA, INC.

GSS610 SERIES STERILIZERS

DES. **J. ROBERSON**

JOB NO. **36-2205**

DATE **11/17/22**

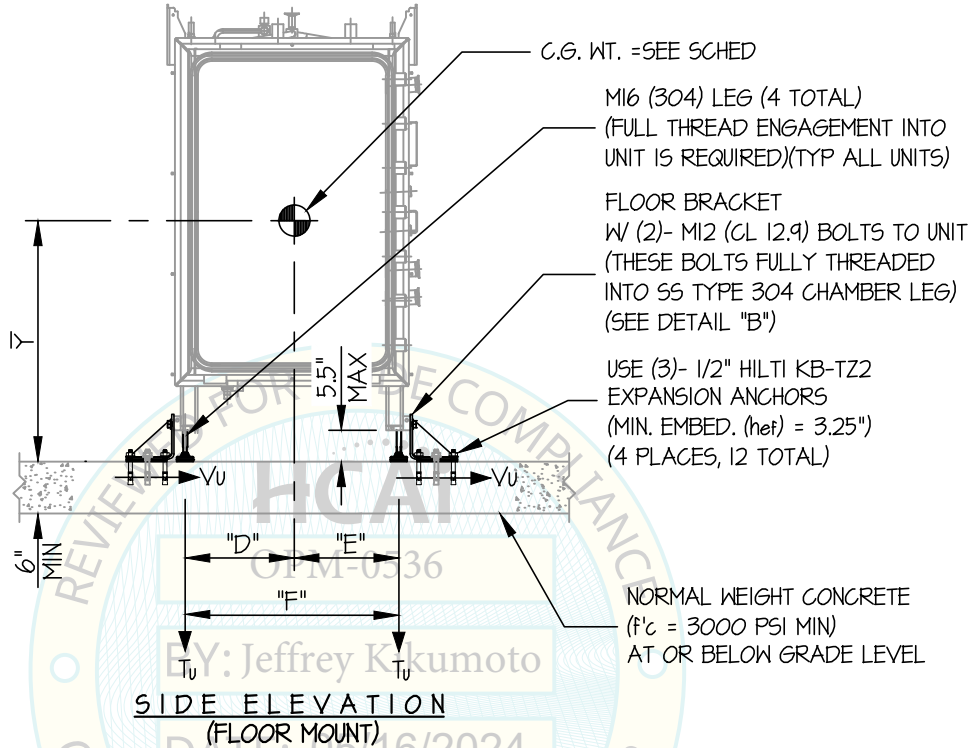
SHEET

4

OF **12** SHEETS

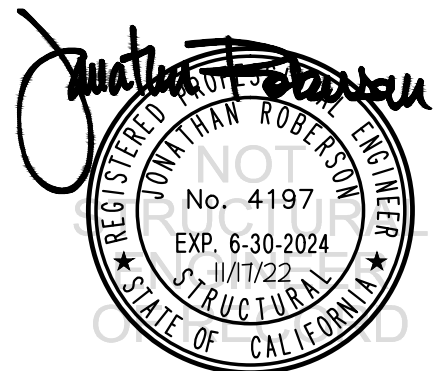
SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB



MAX Sds	UNIT NUMBER	WEIGHT (lb.)	"Y" (in.)	"A" (in.)	"B" (in.)	"C" (in.)	"D" (in.)	"E" (in.)	"F" (in.)	Tu (lb.) ⁺	Vu (lb.) ⁺
0.50	GSS61010-2	3777	413	11.73	12.68	24.41	19.53	10.55	30.08	1437	896
0.60	GSS61014-2	4328	415	18.62	19.96	38.58	19.09	10.99	30.08	1488	1206
0.55	GSS61015-2	4747	42.8	21.38	22.72	44.10	19.17	10.91	30.08	1470	1229
0.60	GSS61021-2	5090	40.9	32.83	33.31	66.14	18.00	12.03	30.08	1467	1343

+ Tu & Vu ARE IN LB/BOLT



GETINGE USA, INC.

GSS610 SERIES STERILIZERS

DES. **J. ROBERSON**

JOB NO. **36-2205**

DATE **11/17/22**

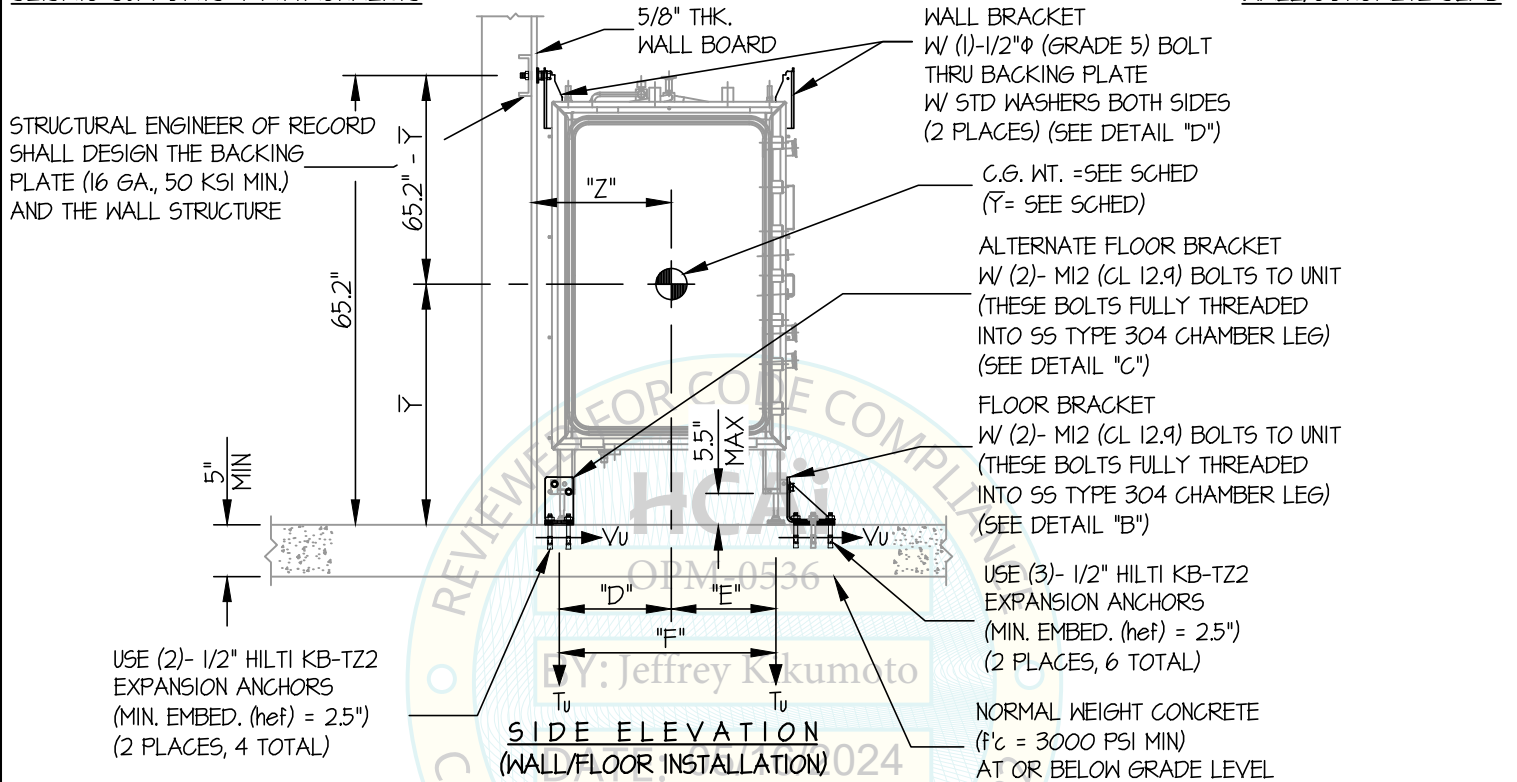
SHEET

5

OF **12** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

WALL/CONCRETE SLAB



MAX Sds	UNIT NUMBER	WEIGHT (lb.)	"Y" (in.)	"A" (in.)	"B" (in.)	"C" (in.)	"D" (in.)	"E" (in.)	"F" (in.)	"G" (in.)	"Z" (in.)	Tu (lb.) WALL	Vu (lb.) WALL	Vu (lb.) ⁺ FLOOR
200	GSS61010-2	3777	413	11.73	12.68	24.41	19.53	10.55	30.08	24.61	23.9	2424	1077	835
200	GSS61014-2	4328	415	18.62	19.96	38.58	19.09	10.99	30.08	38.78	23.5	1887	1240	732
200	GSS61015-2	4747	42.8	21.38	22.72	44.10	19.17	10.91	30.08	44.29	23.6	1928	1402	716
200	GSS61021-2	5090	40.9	32.83	33.31	66.14	18.00	12.03	30.08	66.34	22.4	1738	1437	675

+ Vu IS IN LB/BOLT (VALUE INCLUDES Ω)



GETINGE USA, INC.

GSS610 SERIES STERILIZERS

DES. J. ROBERSON

JOB NO. 36-2205

DATE 11/17/22

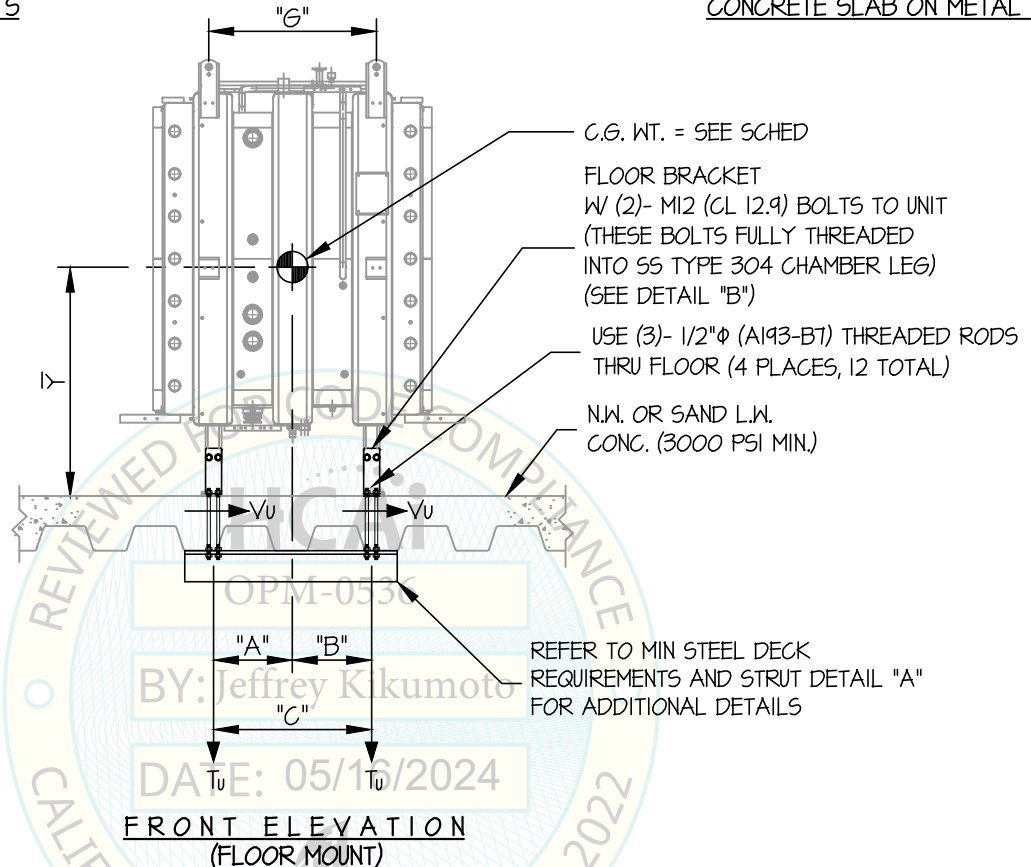
SHEET

6

OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB ON METAL DECK



NOTES:

1. FORCES ARE DETERMINED PER 2022 CALIFORNIA BUILDING CODE AND ASCE 7-16. STRENGTH DESIGN IS USED:

HORIZONTAL FORCE (E_h) = $1.44 W_p$

HORIZONTAL FORCE (E_{mh}) = $2.88 W_p$ (FOR CONCRETE ANCHORAGE)

VERTICAL FORCE (E_v) = $0.24 W_p$

[EXAMPLE PARAMETERS: $S_{ds} = 1.20$, $a_p = 1.0$, $I_p = 1.5$, $R_p = 1.5$, $\Omega_o = 2.0$, $z/h \leq 1$]

2. THIS PREAPPROVAL ENCOMPASSES WEIGHTS AND VERTICAL C.G. POSITIONS NOT EXCEEDING VALUES SHOWN.

3. 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.

4. 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.

4. SEE GENERAL NOTES: SHEET 1 AND 2.



GETINGE USA, INC.

GSS610 SERIES STERILIZERS

DES. **J. ROBERSON**

JOB NO. **36-2205**

DATE **11/17/22**

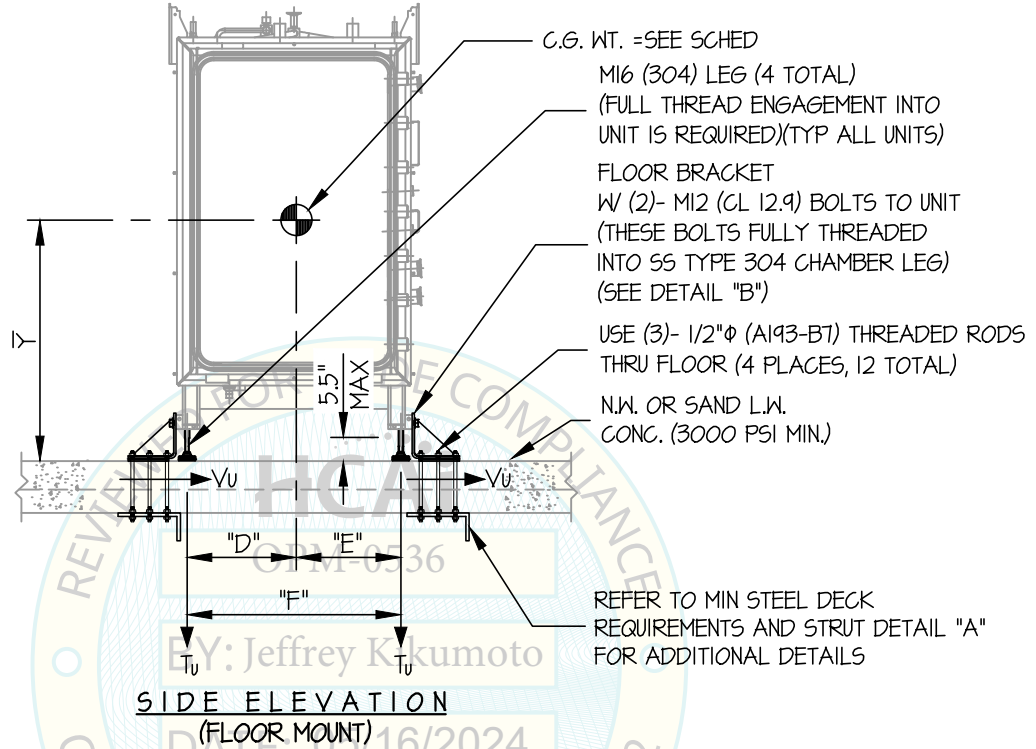
SHEET

7

OF **12** SHEETS

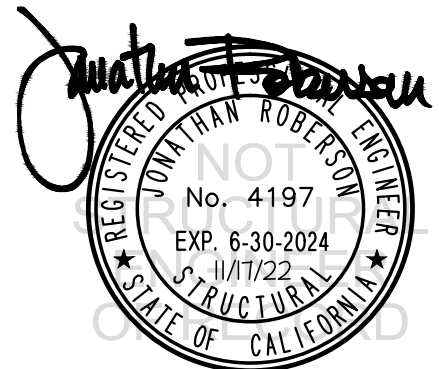
SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB ON METAL DECK



UNIT NUMBER	WEIGHT (lb.)	"Y" (in.)	"A" (in.)	"B" (in.)	"C" (in.)	"D" (in.)	"E" (in.)	"F" (in.)	+ Tu (lb.)	+ Vu (lb.)
GSS61010-2	3777	413	11.73	12.68	24.41	19.53	10.55	30.08	7179	2868
GSS61014-2	4328	415	18.62	19.96	38.58	19.09	10.99	30.08	5457	3215
GSS61015-2	4747	42.8	21.38	22.72	44.10	19.17	10.91	30.08	5986	3540
GSS61021-2	5090	40.9	32.83	33.31	66.14	18.00	12.03	30.08	5570	3571

+ Tu & Vu ARE IN LB/BOLT (VALUES DO NOT INCLUDE Ω)



GETINGE USA, INC.

GSS610 SERIES STERILIZERS

DES. **J. ROBERSON**

JOB NO. **36-2205**

DATE **11/17/22**

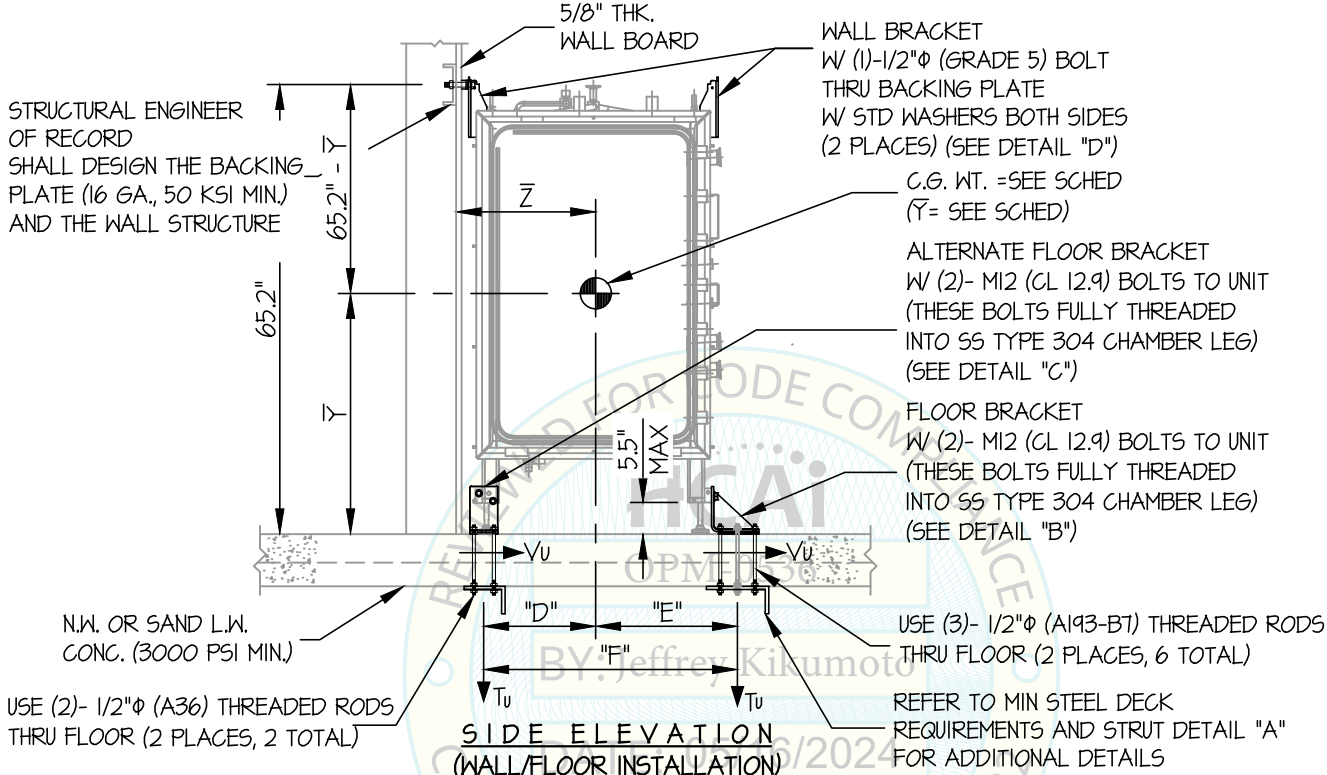
SHEET

8

OF **12** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

WALL/CONCRETE SLAB ON METAL DECK



UNIT NUMBER	WEIGHT (lb.)	"Y" (in.)	"A" (in.)	"B" (in.)	"C" (in.)	"D" (in.)	"E" (in.)	"F" (in.)	"G" (in.)	"Z" (in.)	T _u (lb.) WALL	V _u (lb.) WALL	V _u (lb.) FLOOR
GSS61010-2	3777	41.3	11.73	12.68	24.41	19.53	10.55	30.08	24.61	23.9	3883	1723	668
GSS61014-2	4328	41.5	18.62	19.96	38.58	19.09	10.99	30.08	38.78	23.5	3019	1983	586
GSS61015-2	4747	42.8	21.38	22.72	44.10	19.17	10.91	30.08	44.29	23.6	3085	2244	573
GSS61021-2	5090	40.9	32.83	33.31	66.14	18.00	12.03	30.08	66.34	22.4	2781	2299	540

+ T_u & V_u ARE IN LB/BOLT (VALUES DO NOT INCLUDE Ω)



GETINGE USA, INC.

GSS610 SERIES STERILIZERS

DES. **J. ROBERSON**

JOB NO. **36-2205**

DATE **11/17/22**

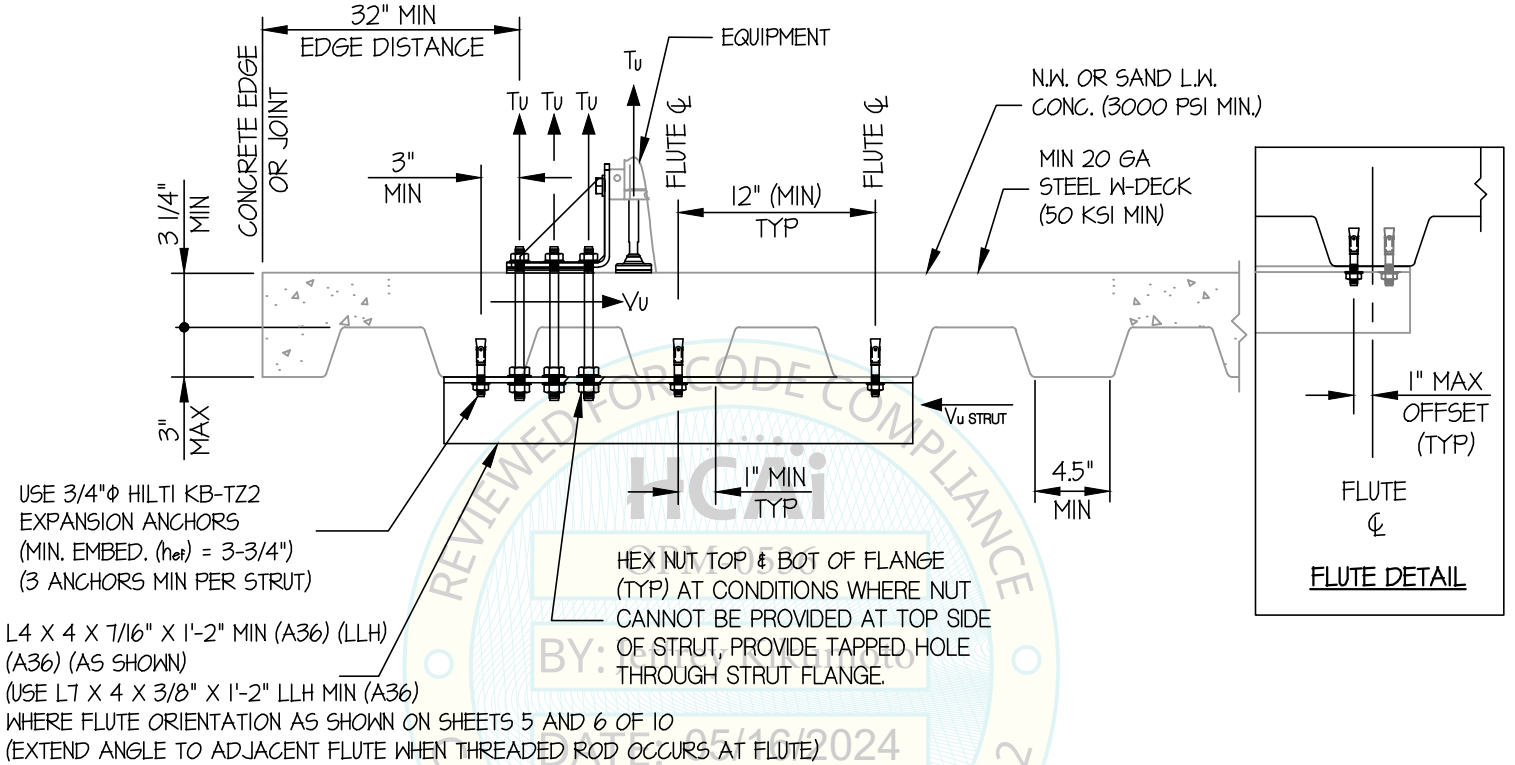
SHEET

9

OF **12** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE DETAIL



MIN STEEL DECK REQUIREMENTS AND STRUT DETAIL (A)

Jonathan Roberson

REGISTERED PROFESSIONAL ENGINEER
JONATHAN ROBERSON
No. 4197
EXP. 6-30-2024
11/17/22
STRUCTURAL
STATE OF CALIFORNIA

GETINGE USA, INC.

GSS610 SERIES STERILIZERS

DES. **J. ROBERSON**

JOB NO. **36-2205**

DATE **11/17/22**

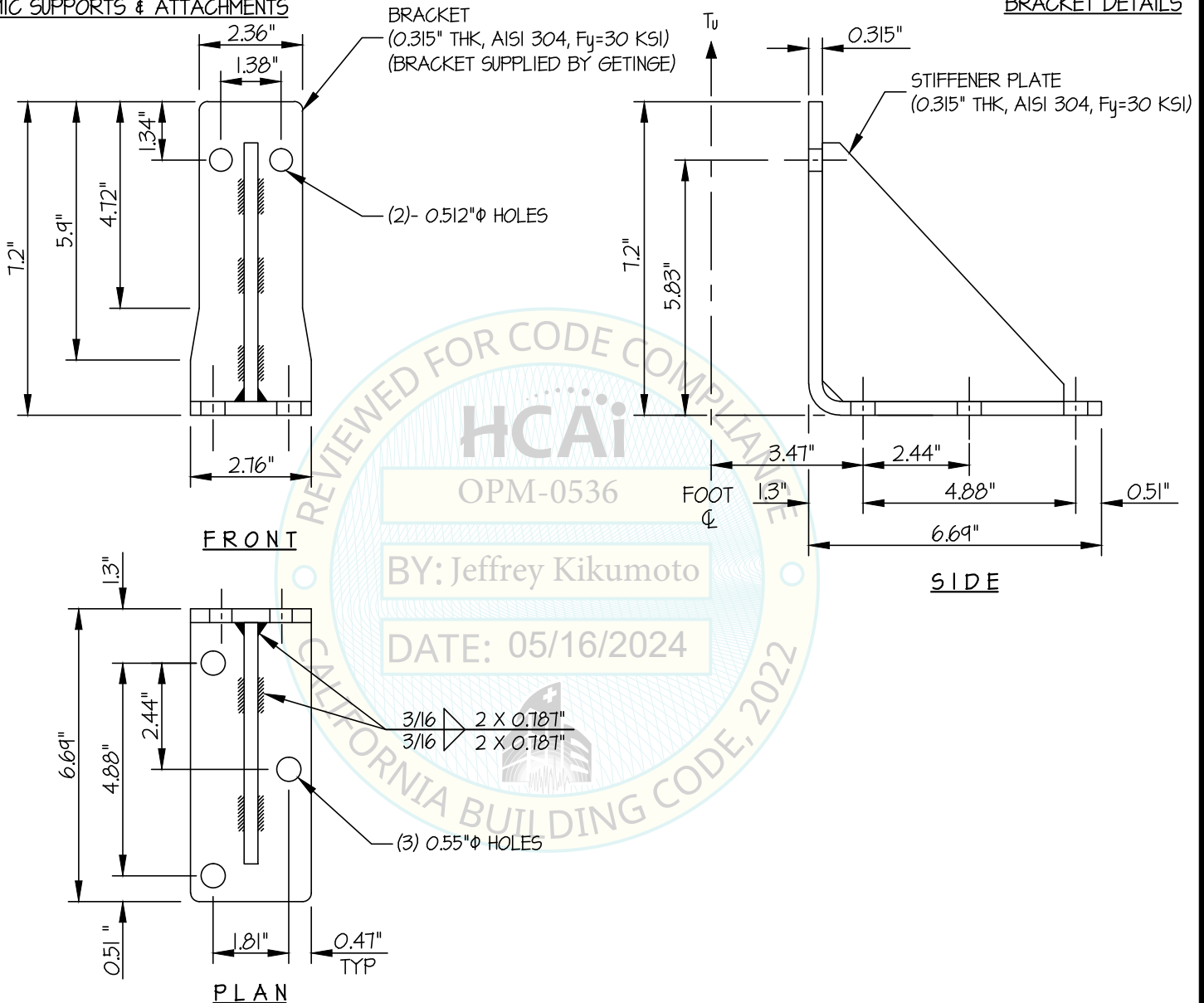
SHEET

10

OF **12** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

BRACKET DETAILS



FLOOR BRACKET DETAIL (B)

Jonathan Roberson

REGISTERED PROFESSIONAL ENGINEER
No. 4197
EXP. 6-30-2024
11/17/22
STRUCTURAL
STATE OF CALIFORNIA

GETINGE USA, INC.

DES. **J. ROBERSON**

SHEET

11

JOB NO. **36-2205**

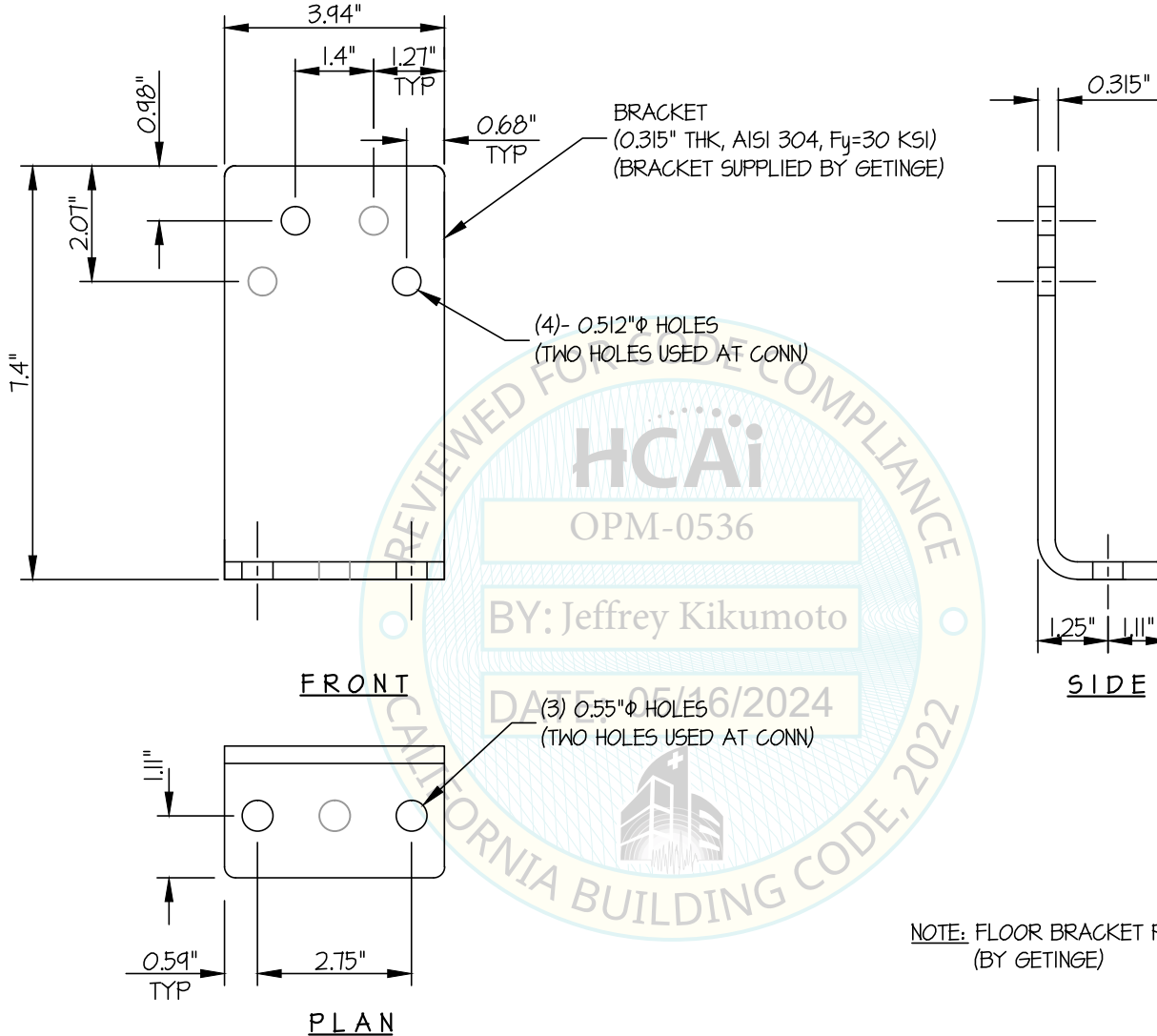
GSS610 SERIES STERILIZERS

DATE **11/17/22**

OF **12** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

BRACKET DETAILS



ALTERNATE FLOOR BRACKET DETAIL (C)



GETINGE USA, INC.

GSS610 SERIES STERILIZERS

DES. **J. ROBERSON**

JOB NO. **36-2205**

DATE **11/17/22**

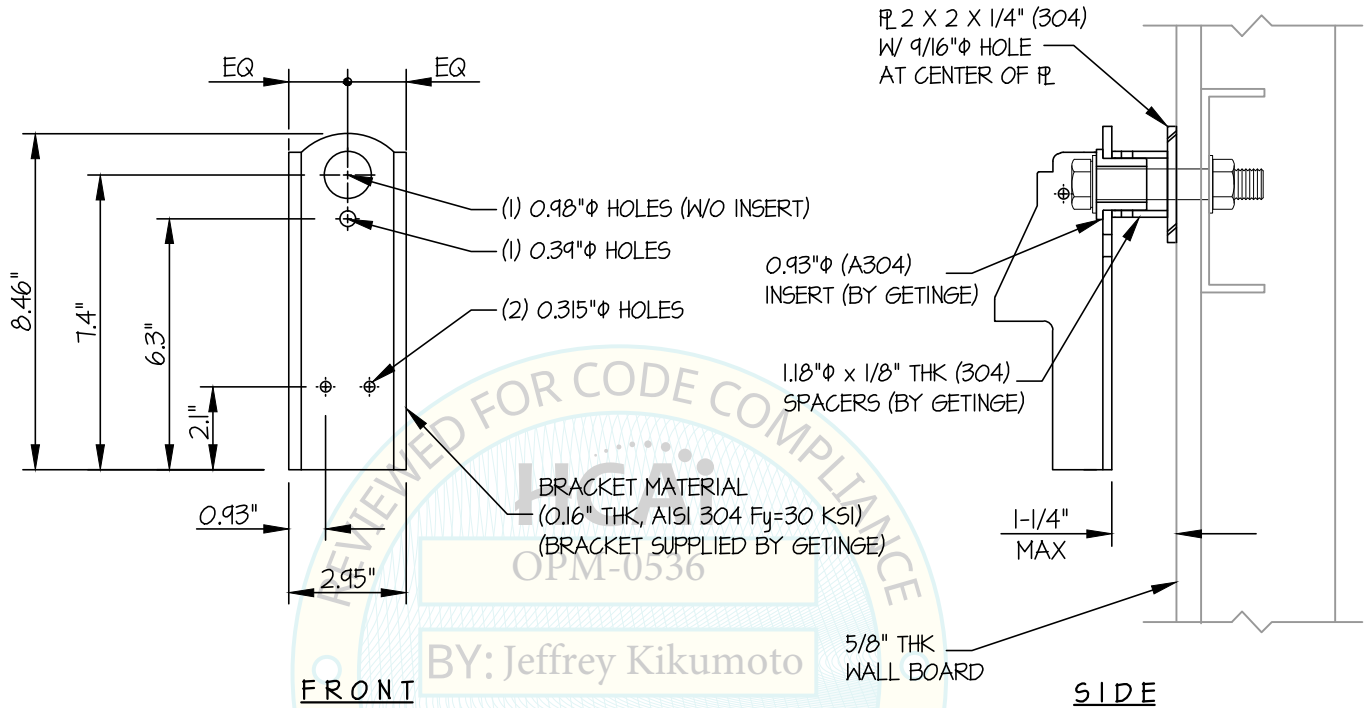
SHEET

12

OF **12** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

BRACKET DETAILS



FRONT

SIDE

WALL BRACKET DETAIL (D)

