



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

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

OFFICE USE ONLY

APPLICATION #: OPM-0536

OSHPD 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: (585) 272-5243

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: _____

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY

OSHPD



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

Registered Design Professional Preparing Engineering Recommendations

Company Name: EASE

Name: Jonathan Roberson

California License Number: S4197

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

Telephone: (909) - 606-7622

Email: jon@EASECo.com

OSHDP 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, 2019 (CBSC 2019) 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 2019 may be used when approved by OSHDP prior to testing.

☒ Analysis

☐ Experience Data

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

OSHDP Approval

Date: 11/24/2021

Name: Haeseong Lim

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

Office of Statewide Health Planning and Development
PREAPPROVAL OF MANUFACTURER'S CERTIFICATION
OPM-0536

THIS PREAPPROVAL CONFORMS TO THE 2019 CALIFORNIA BUILDING CODE

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

Sheet: 1 of 12

Date: 11/23/21

GENERAL NOTES

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2019 CBC. THE DEMANDS (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2019 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 2019 CALIFORNIA BUILDING CODE WHERE S_{ds} IS NOT GREATER THAN 0.55, 0.60, 0.65, & 1.20.
4. FORCES PER ASCE 7-16 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3,
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 $S_{ds} = 0.65$, $a_p = 1.0$, $I_p = 1.5$, $R_p = 1.5$, $z/h = 0$ 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 2019 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. 36-1803

DATE 11/23/21

SHEET

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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	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" 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

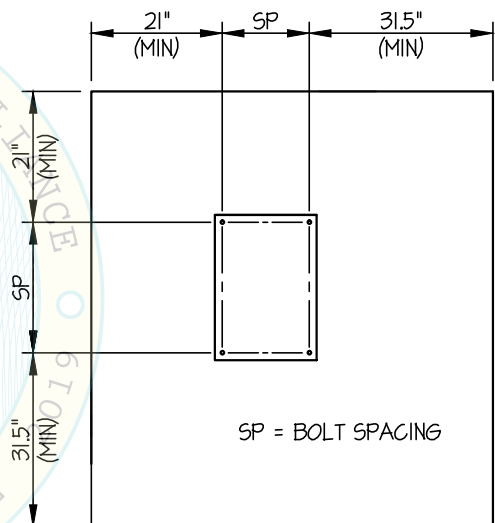
(iii) IF ANY ANCHOR FAILS, TEST ALL ANCHORS.

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)



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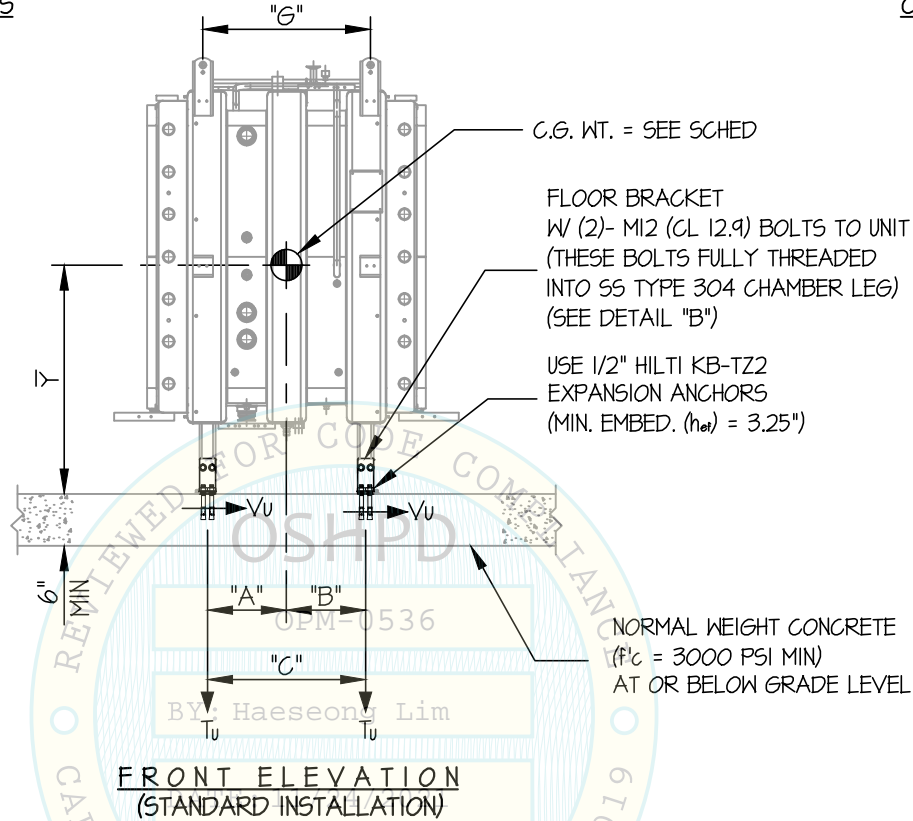
SHEET

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OF **12** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB



NOTES:

- FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16.**

STRENGTH DESIGN IS USED. ($\alpha_p = 1.0$, $l_p = 1.5$, $R_p = 1.5$, $\Omega_o = 2.0$, $z/h = 0$)

Sds	0.65	0.60	0.55
HORIZONTAL FORCE (E_h)	$0.29 W_p$	$0.27 W_p$	$0.25 W_p$
HORIZONTAL FORCE (E_{mh})	$0.59 W_p$	$0.54 W_p$	$0.50 W_p$
VERTICAL FORCE (E_v)	$0.13 W_p$	$0.12 W_p$	$0.11 W_p$

($E_{mh} = E_h \times \Omega_o$; FOR CONCRETE ANCHORAGE)

- CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THESE CALCULATIONS ENCOMPASS ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
- 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.
- SEE GENERAL NOTES: SHEET 1 AND 2.



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GSS610 SERIES STERILIZERS

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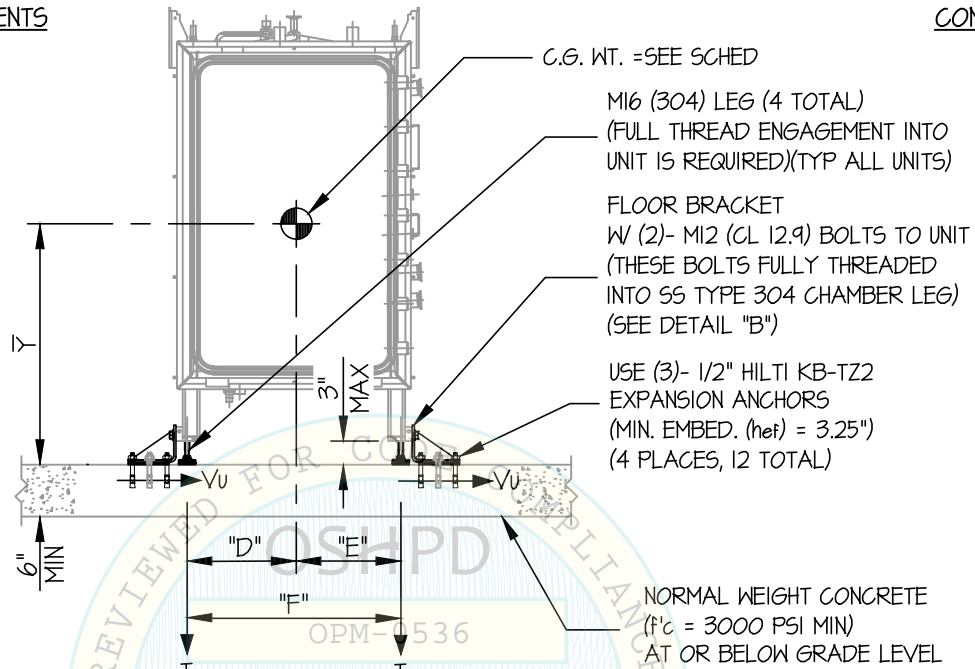
SHEET

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OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB



SIDE ELEVATION
(STANDARD INSTALLATION)

MAX Sds	UNIT NUMBER	WEIGHT (lb.)	"Y" (in.)	"A" (in.)	"B" (in.)	"C" (in.)	"D" (in.)	"E" (in.)	"F" (in.)	Tu (lb.) ⁺	Vu (lb.) ⁺
0.55	GSS61010-2	3777	39.3	11.73	12.68	24.41	19.53	10.55	30.08	1595	996
0.65	GSS61014-2	4328	39.5	18.62	19.96	38.58	19.09	10.99	30.08	1586	1317
0.60	GSS61015-2	4747	40.9	21.38	22.72	44.09	19.17	10.91	30.08	1553	1328
0.60	GSS61021-2	5090	38.9	32.83	33.31	66.14	18.05	12.03	30.08	1350	1343

+ Tu & Vu ARE IN LB/BOLT



GETINGE USA, INC.

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SHEET

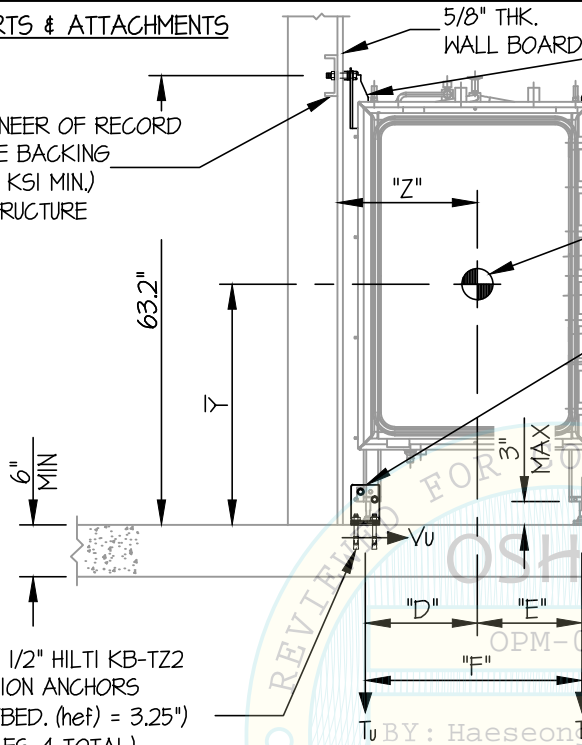
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OF **12** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

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

USE (2)- 1/2" HILTI KB-TZ2 EXPANSION ANCHORS (MIN. EMBED. (hef) = 3.25") (2 PLACES, 4 TOTAL)



WALL BRACKET W/ (1)-1/2"Φ (GRADE 5) BOLT THRU BACKING PLATE W/ STD WASHERS BOTH SIDES (2 PLACES) (SEE DETAIL "D")

C.G. WT. = SEE SCHED
(Y = SEE SCHED)

ALTERNATE FLOOR BRACKET W/ (2)- M12 (CL 12.9) BOLTS TO UNIT (THESE BOLTS FULLY THREADED INTO SS TYPE 304 CHAMBER LEG) (SEE DETAIL "C")

FLOOR BRACKET W/ (2)- M12 (CL 12.9) BOLTS TO UNIT (THESE BOLTS FULLY THREADED INTO SS TYPE 304 CHAMBER LEG) (SEE DETAIL "B")

USE (3)- 1/2" HILTI KB-TZ2 EXPANSION ANCHORS (MIN. EMBED. (hef) = 3.25") (2 PLACES, 6 TOTAL)

NORMAL WEIGHT CONCRETE (F'c = 3000 PSI MIN) AT OR BELOW GRADE LEVEL

SIDE ELEVATION

DATE: 11/24/2021

MAX Sds	UNIT NUMBER	WEIGHT (lb.)	"Y" (in.)	"A" (in.)	"B" (in.)	"C" (in.)	"D" (in.)	"E" (in.)	"F" (in.)	Tu (lb.) ⁺	Vu (lb.) ⁺
0.55	GSS61010-2	3777	39.3	11.73	12.68	24.41	19.53	10.55	30.08	1549	365
0.65	GSS61014-2	4328	39.5	18.62	19.96	38.58	19.09	10.99	30.08	1391	484
0.60	GSS61015-2	4747	40.9	21.38	22.72	44.10	19.17	10.91	30.08	1362	488
0.60	GSS61021-2	5090	38.9	32.83	33.31	66.14	18.05	12.03	30.08	1184	495

+ Tu & Vu ARE IN LB/BOLT



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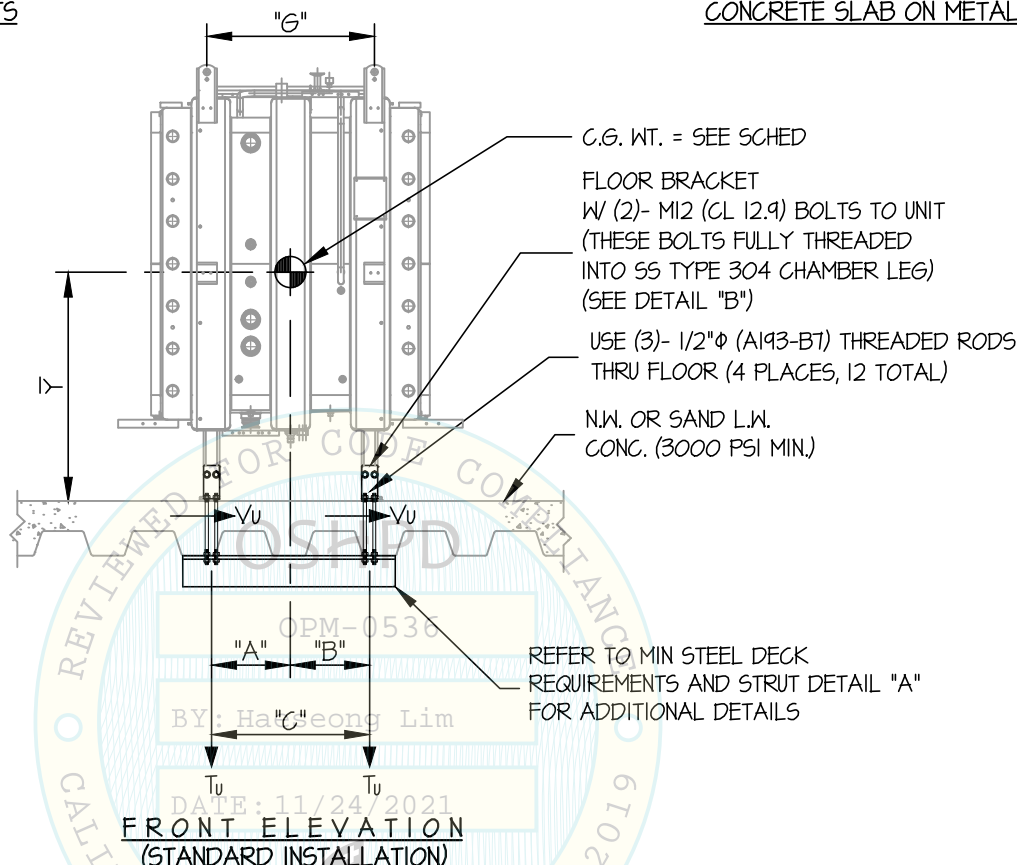
SHEET

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OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB ON METAL DECK



NOTES:

- FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16
STRENGTH DESIGN IS USED. ($S_{Ds} = 1.20$, $a_p = 1.0$, $l_p = 1.5$, $R_p = 1.5$, $\Omega_o = 2.0$, $z/h \leq 1$)

HORIZONTAL FORCE (E_h) = $1.44 W_p$

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

VERTICAL FORCE (E_v) = $0.24 W_p$

- CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN.
THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
- 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.



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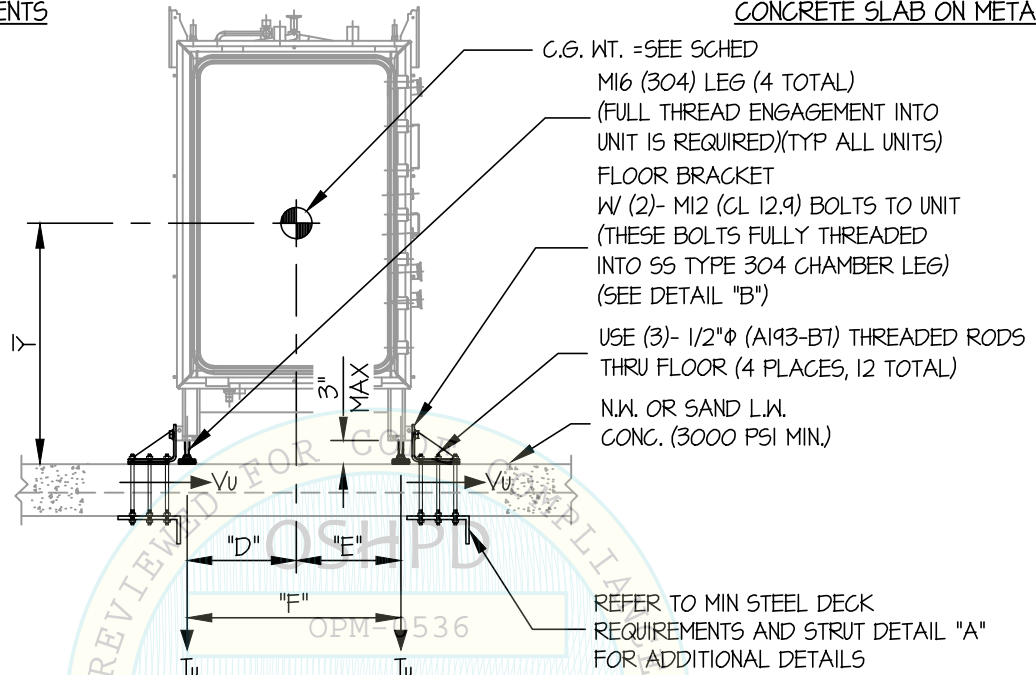
SHEET

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OF **12** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB ON METAL DECK



SIDE ELEVATION
(STANDARD INSTALLATION)

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	39.3	11.73	12.68	24.41	19.53	10.55	30.08	6785	2868
GSS61014-2	4328	39.5	18.62	19.96	38.58	19.09	10.99	30.08	5143	3215
GSS61015-2	4747	40.9	21.38	22.72	44.09	19.17	10.91	30.08	5668	3540
GSS61021-2	5090	38.9	32.83	33.31	66.14	18.05	12.03	30.08	5260	3581

+ Tu & Vu ARE IN LB/BOLT



GETINGE USA, INC.

GSS610 SERIES STERILIZERS

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SHEET

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OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

5/8" THK.
WALL BOARD

WALL BRACKET

WALL/CONCRETE SLAB ON METAL DECK

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

W (1)-1/2"φ (GRADE 5) BOLT
THRU BACKING PLATE
W/ STD WASHERS BOTH SIDES
(2 PLACES) (SEE DETAIL "D")

C.G. WT. = SEE SCHED
(Y = SEE SCHED)

ALTERNATE FLOOR BRACKET
W (2)- M12 (CL 12.9) BOLTS TO UNIT
(THESE BOLTS FULLY THREADED
INTO SS TYPE 304 CHAMBER LEG)
(SEE DETAIL "C")

FLOOR BRACKET
W (2)- M12 (CL 12.9) BOLTS TO UNIT
(THESE BOLTS FULLY THREADED
INTO SS TYPE 304 CHAMBER LEG)
(SEE DETAIL "B")

N.W. OR SAND L.W.
CONC. (3000 PSI MIN.)

USE (2)- 1/2"φ (A36) THREADED RODS
THRU FLOOR (2 PLACES, 4 TOTAL)

USE (3)- 1/2"φ (A193-B7) THREADED RODS
THRU FLOOR (2 PLACES, 6 TOTAL)

REFER TO MIN STEEL DECK
REQUIREMENTS AND STRUT DETAIL "A"
FOR ADDITIONAL DETAILS

BY: Haeseong Lim
SIDE ELEVATION
(WALL/FLOOR INSTALLATION)

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	39.3	11.73	12.68	24.41	19.53	10.55	30.08	8550	1052
GSS61014-2	4328	39.5	18.62	19.96	38.58	19.09	10.99	30.08	4979	1182
GSS61015-2	4747	40.9	21.38	22.72	44.10	19.17	10.91	30.08	5498	1300
GSS61021-2	5090	38.9	32.83	33.31	66.14	18.05	12.03	30.08	4657	1321

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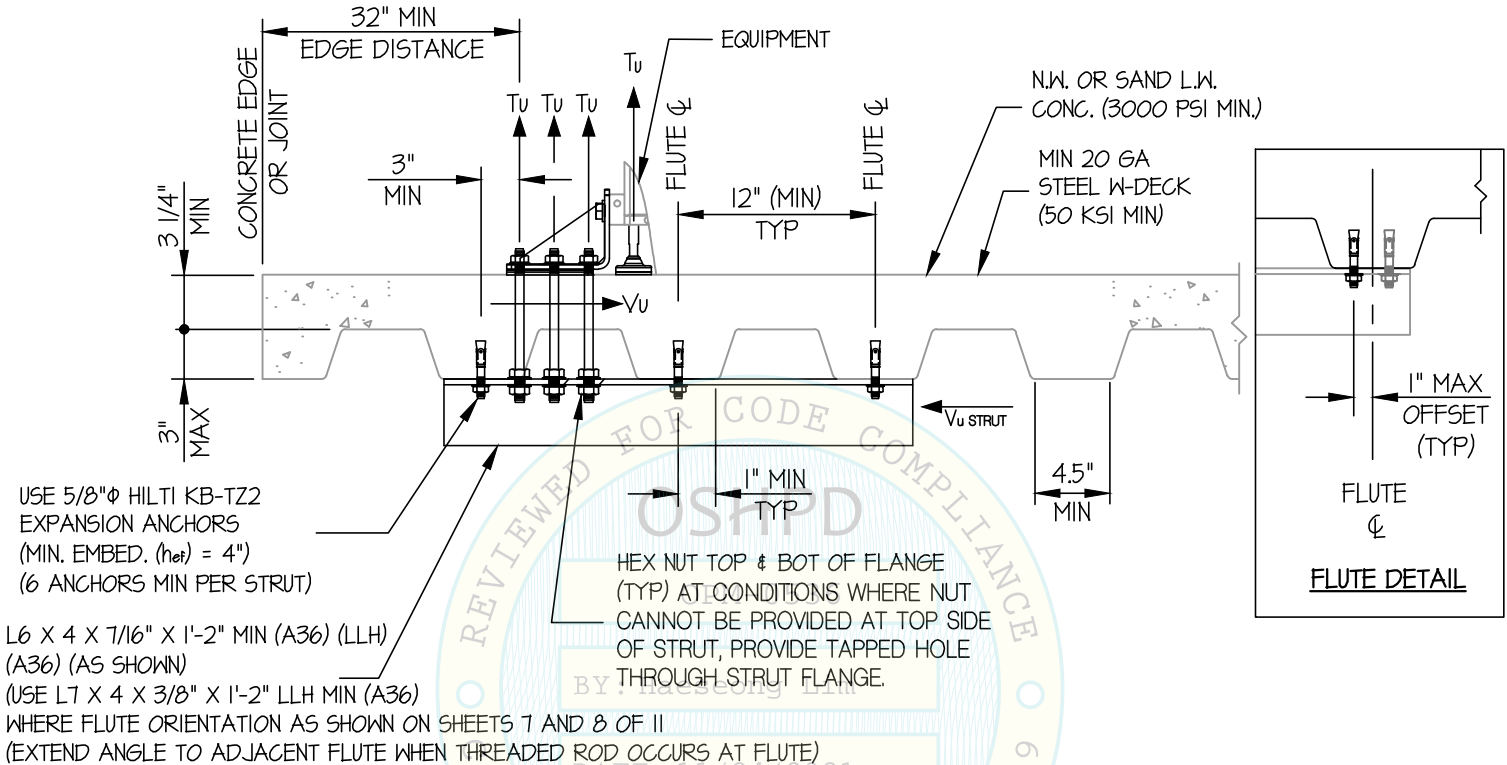
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SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE DETAIL



MIN STEEL DECK REQUIREMENTS AND STRUT DETAIL (A)



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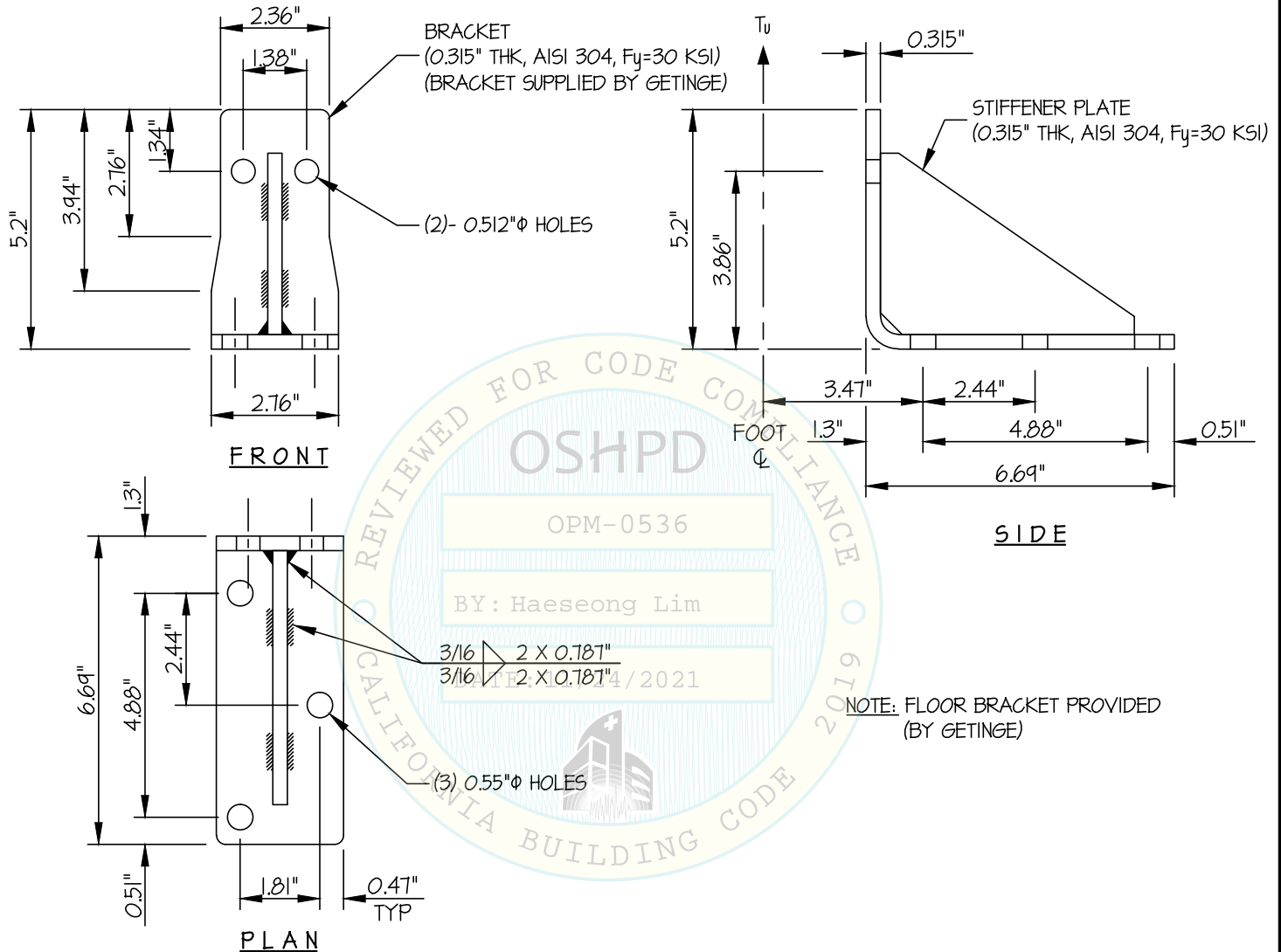
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SEISMIC SUPPORTS & ATTACHMENTS

BRACKET DETAILS



FLOOR BRACKET DETAIL (B)



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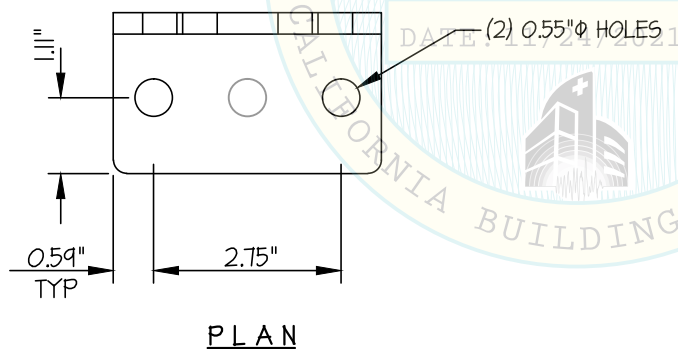
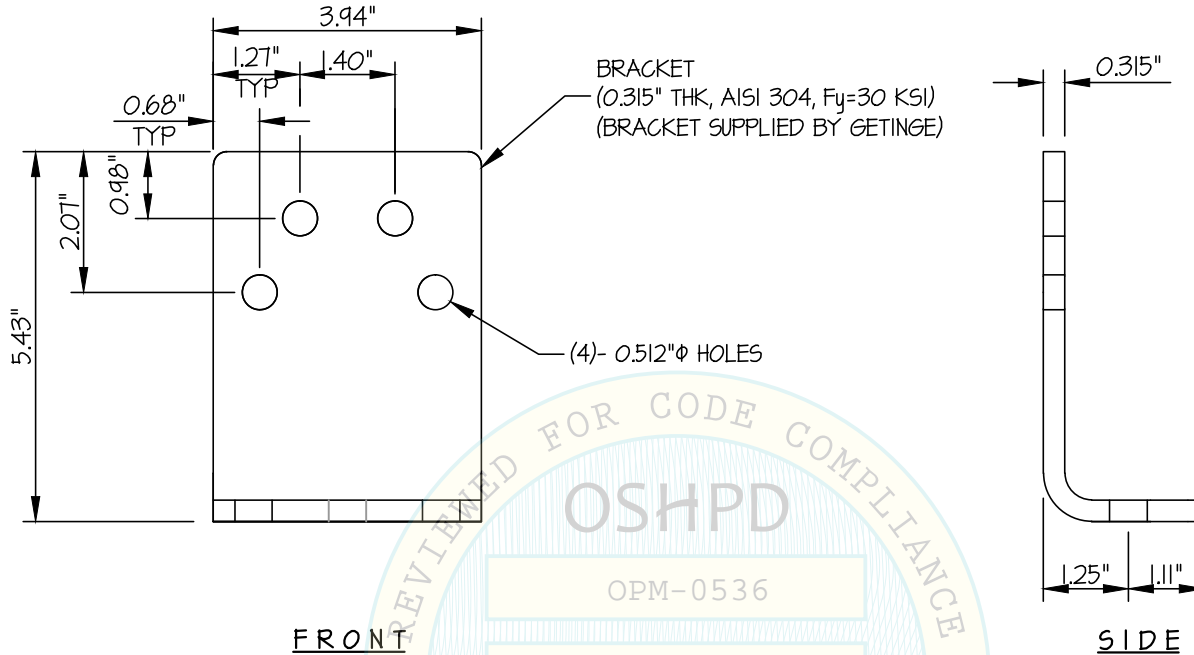
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OF **12** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

BRACKET DETAILS



NOTE: FLOOR BRACKET PROVIDED
(BY GETINGE)

ALTERNATE FLOOR BRACKET DETAIL (C)



GETINGE USA, INC.

GSS610 SERIES STERILIZERS

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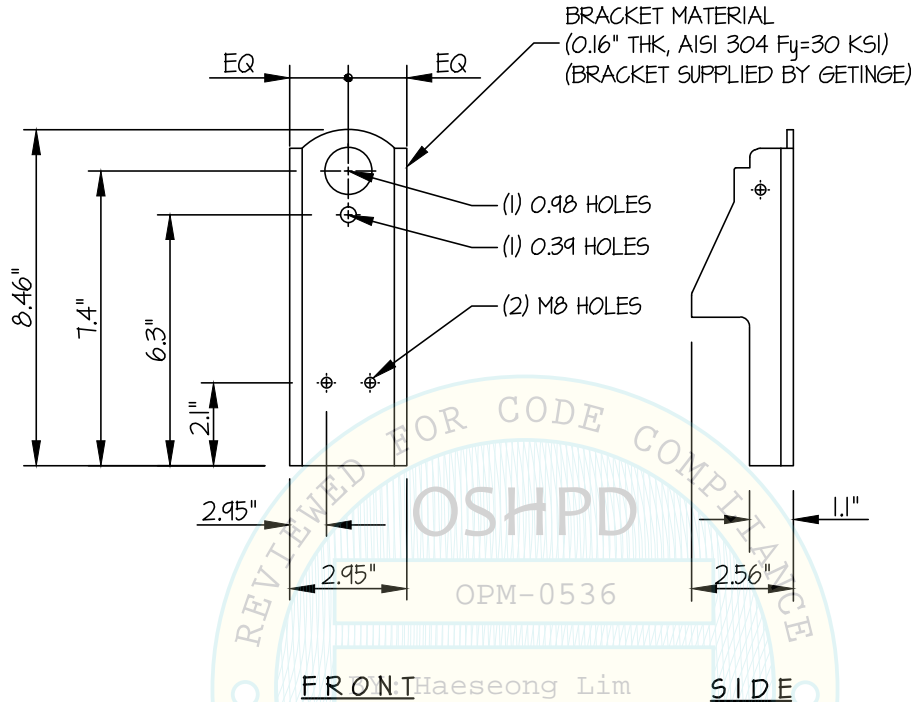
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OF **12** SHEETS



WALL/LIFTING BRACKET DETAIL (D)

