



**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

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

OFFICE USE ONLY

APPLICATION #: OPM-0325-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

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

Manufacturer Information

Manufacturer: Skytron LLC.

Manufacturer's Technical Representative: Bob Vreeland

Mailing Address: Skytron US, 5085 Corporate Exchange Blvd SE, Grand Rapids, MI 49512

Telephone: (616) 656-1189

Email: bvreeland@skytron.us

Product Information

Product Name: Integrity 175 and 215 Sterilizers

Product Type: Sterilizer

Product Model Number: Integrity 175 (ASSV-AH06-120R, ASSV-AH06-120F), Integrity 175SG (ASSV-AH06-208R, ASSV-AH06-208F, ASSV-AH06-480R, ASSV-AH06-480F), Integrity 215 (ASSV-AB09-120R, ASSV-AB09-120F), Integrity 215SG (ASSV-AB09-208R, ASSV-AB09-208F, ASSV-AB09-480R, ASSV-AB09-480F)

General Description: Integrity Sterilizers provide superior performance within a compact foot print. An integrated water recirculation system reduces water usage. Simple touch screen controls make for ease of operation.

Full steam jacket assures precise temperature control.

Applicant Information

Applicant Company Name: ISAT Seismic Bracing

Contact Person: William V Joerger

Mailing Address: 1020 Crews Road, Suite Q, Matthews NC 28105

Telephone: 510-714-0216

Email: wvjoerger@isatsb.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: March 2, 2016

Title: Principal Structural Engineer

Company Name: ISAT Seismic Bracing

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





**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

Registered Design Professional Preparing Engineering Recommendations

Company Name: ISAT Seismic Bracing

Name: William V Joerger California License Number: S4545

Mailing Address: 1020 Crews Rd, Matthews NC 28105

Telephone: 510-714-0216 Email: wvjoerger@isatsb.com

OSHPD Special Seismic Certification Preapproval (OSP)

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

Special Seismic Certification is no preapproved

Certification Method(s)

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

Other* (Please Specify): _____

Equipment is considered to be rugged. OPM is for anchorage to concrete slabs.

*Use of 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: *J Enzler* Date: 05-11-2016

Print Name: Jeffrey Enzler

Title: DSE

Condition of Approval (if applicable): _____

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





INTERNATIONAL SEISMIC APPLICATION TECHNOLOGY

A Division of Tomarco Contractor Specialties

Submittal Documents

OPM-0325-13

OSHPD OPM-0325-13

BY: Jeffrey Enzler

SUPPORT AND ATTACHMENT CONSTRUCTION DRAWINGS INTEGRITY 175 AND 215 STERILIZERS

SKYTRON, LLC

ISAT
1020 Crews Road Suite Q
Matthews, N.C. 28105
704-841-4080



WV Joerger 06 May 16

FILE NO.: CLT-0216-029

“Empowered by Experience”

REV 1

OSHPD OPM-0325-13 DWG - i



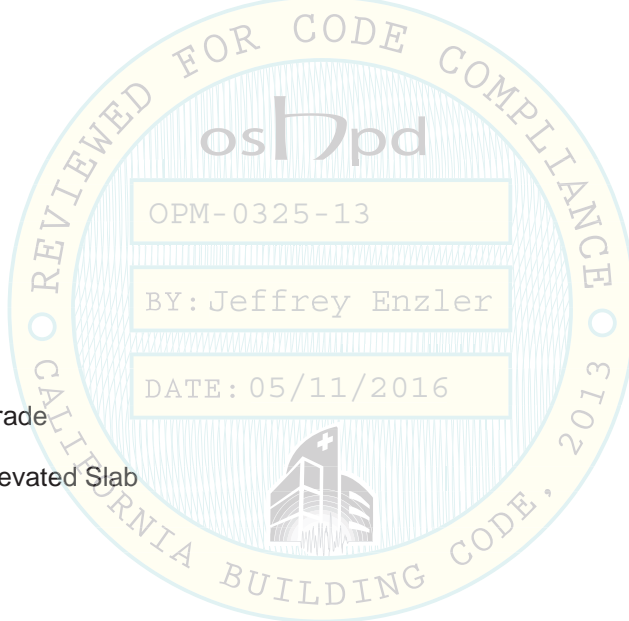
OSHPD OPM-0325-13

SKYTRON INTEGRITY 175 AND 215 STERILIZERS

CONSTRUCTION DRAWING INDEX

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OSHPD OPM-0325-13

MANUFACTURE: SKYTRON
EQUIPMENT TYPE: STERILIZERS


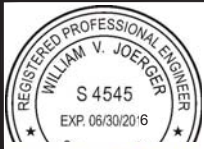
GENERAL NOTES:

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2013. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2013.
2. SEISMIC CRITERIA USED: $S_{DS} = 2.5$ $I_p = 1.5$ $a_p = 1.0$ $R_p = 1.5$ (OTHER EQUIPMENT). FOR $z/h = 0$ $F_pH = 1.13$ AND FOR $z/h \leq 1.0$ $F_pH = 3.00$ AND $F_pV = 0.50$.
3. SUPPORT AND ATTACHMENT FORCES ARE DETERMINED USING ASCE 7-10 CHAPTER 13 "SEISMIC DESIGN REQUIREMENTS FOR NONSTRUCTURAL COMPONENTS". AN OVERSTRENGTH FACTOR $\Omega_0 = 1.5$ IS USED FOR CONCRETE MATERIALS PER ASCE 7-10 SUPPLEMENT 1 TABLE 13.6-1. LOADS SHOWN ARE STRENGTH DESIGN LOADS PER CBC 2013 SECTION 1909A.
4. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE.
5. STEEL MATERIALS: ANGLES AND PLATE ASTM A36, ALL THREAD ROD ASTM F1554 GRADE36 ($F_u = 58$ KSI). BOLTS SUPPLIED BY SKYTRON ARE ISO 898 CLASS 12.9 ($F_u = 177$ KSI).
6. CONCRETE SLABS:
 - a. FOR ELEVATED SOLID CONCRETE SLABS: 6" THICKNESS OF NORMAL WEIGHT CONCRETE WITH 3000 PSI MINIMUM STRENGTH.
 - b. METAL DECK: 3" DEEP COMPOSITE STEEL DECK, 20 GAGE MINIMUM, 4 1/2 INCH MINIMUM BOTTOM FLUTE WIDTH AND FLUTE SPACING OF 12", WITH 3 1/4 INCH SAND LIGHT WEIGHT CONCRETE CONCRETE COVER AT 3000 PSI MINIMUM STRENGTH.
 - c. FOR SLAB ON GRADE: 6" THICKNESS NORMAL WEIGHT CONCRETE AT 3000 PSI MINIMUM STRENGTH.
7. POST-INSTALLED CONCRETE ANCHORS: HILTI KWIK BOLT TZ (ESR-1917) STAINLESS STEEL 5/8" DIAMETER x 4 3/4" MIN. HOLE DEPTH (4.00" EFFECTIVE EMBEDMENT) AND 60 FT-LBS INSTALLATION TORQUE (SUPPLIED BY INSTALLATION CONTRACTOR).
8. EXERCISE DUE CARE WHEN DRILLING POST-INSTALLED ANCHORS TO AVOID DAMAGING CONCRETE REINFORCEMENT OR TENDONS.

RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD

1. CONFIRM THE MATERIAL PROPERTIES AND THICKNESS OF THE CONCRETE SLAB TO WHICH THE EQUIPMENT IS ATTACHED MEETS THE REQUIREMENTS OF THIS OPM.
2. PROVIDE A PLAN FOR INSPECTION OF SUPPORTS AND ATTACHMENTS AND VERIFY ITS IMPLEMENTATION.
3. CONFIRM THE SPECIFIED MINIMUM CONCRETE EDGE DISTANCES ARE MAINTAINED BASED ON THE ACTUAL EQUIPMENT LOCATION. VERIFY THAT EXISTING OR NEW ANCHORS ARE AN ADEQUATE DISTANCE FROM THIS UNIT'S ATTACHMENT.
4. VERIFY THAT THE EXISTING STRUCTURE IS ADEQUATE FOR THE IMPOSED DEAD, LATERAL AND TENSION FORCES SHOWN IN ADDITION TO ALL OTHER LOADS.
5. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH CBC 2013 AND WITH THE OPM-0325-13 DETAILS INCLUDING MATERIALS AND DIMENSIONS OF THE SUPPORT WHERE THE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN.
6. VERIFY THAT THE PROJECT SPECIFIC S_{DS} AND z/h VALUES RESULT IN SEISMIC FORCES (E_h AND E_v) DO NOT EXCEED THE VALUES SHOWN IN THESE DETAILS.
7. DESIGN THE SUPPLEMENTAL STEEL BELOW THE SLAB (PAGE "MISC STEEL") AND DETAIL THE CONNECTIONS TO STRUCTURE.

OPM-0325-13 SKYTRON INTEGRITY 175 AND 215 STERILIZERS GENERAL NOTES

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SCALE: N.T.S.	PAGE: GEN NOTES

OSHPD OPM-0325-13

MANUFACTURE: SKYTRON
EQUIPMENT TYPE: STERILIZERS

ATTACHMENT NOTES:

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2013. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2013.
2. PERIODIC SPECIAL INSPECTION PER CBC 2013 SECTION 1705A AND TABLE 1705A.3 INCLUDING VERIFICATION OF ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, ANCHOR SPACING, EDGE DISTANCES, CONCRETE MEMBER THICKNESS, TIGHTENING TORQUE, HOLE DIMENSIONS, ANCHOR EMBEDMENT AND ADHERENCE TO THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS. IN ADDITION, FOLLOW THE PROVISIONS OF THE 2013 CALIFORNIA BUILDING CODE SECTION 1913A.7.2 BY CONFIRMING THE INSTALLATION TORQUE SPECIFIED BY THE MANUFACTURER. TESTING IS NOT TO OCCUR UNTIL A MINIMUM OF 24 HOURS HAS ELAPSED AFTER THE INSTALLATION OF THE SUBJECT ANCHORS. TESTING SHALL BE DONE IN THE PRESENCE OF THE SPECIAL INSPECTOR. TEST 50% OF THE ANCHORS FOR EACH PIECE OF EQUIPMENT. USING A CALIBRATED TORQUE WRENCH VERIFY THE INSTALLATION TORQUE IS OBTAINED WITHIN 1/2 TURN OF THE NUT. REPORT OF TEST RESULTS ARE TO BE SUBMITTED TO THE ENFORCEMENT AGENCY. THE SEOR SHALL PROVIDE REMEDIAL ANCHORAGE DETAILS IN THE EVENT THAT AN ANCHOR FAILS TO MEET THE TEST REQUIREMENTS.
3. STRENGTH DESIGN WAS USED FOR ANCHOR FORCE CALCULATIONS INCLUDING Ω_0 PER ACI 318-11 WHERE REQUIRED FOR ATTACHMENT TO CONCRETE.


Equipment Data		Seismic Design Forces at Grade					Seismic Design Forces at Elevated	
Model Series	Weight	ex (in)	ey (in)	ez (in)	Vu (lbs.)	Tu (lbs.)	Vu (lbs.)	Tu (lbs.)
175	1688	0.10	0.375	37.25	488	2,352	1,248	4,360
215	2340	0.00	0.375	37.25	667	2,493	1,778	4,680

1. WEIGHTS AND MOMENTS ARE FACTORED LOADS USING STRENGTH DESIGN AND INCLUDE THE FOLLOWING FACTORS: DL = 0.9, FpH AT GRADE = 1.13, FpH ELEVATED = 3.00 AND FpV = 0.5.
2. FORCES ARE AT STRENGTH DESIGN LEVEL AND INCLUDE A CONCRETE OVERSTRENGTH FACTOR $\Omega_0 = 1.5$.

MODEL NUMBERS INCLUDED IN THIS OPM:

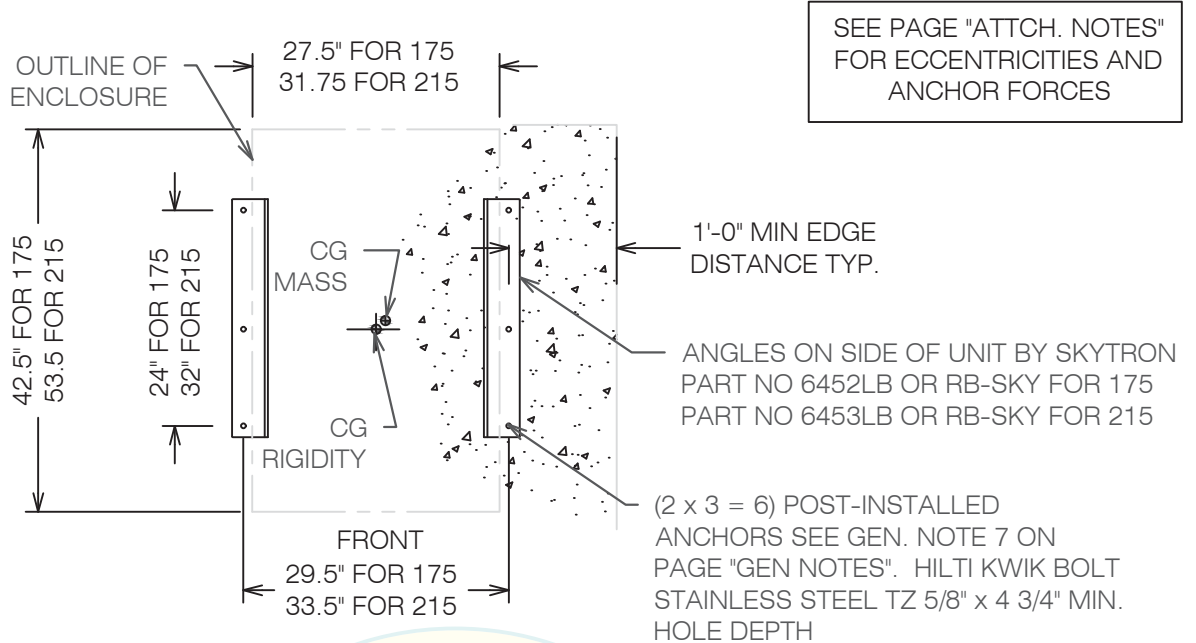
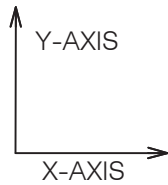
INTEGRITY 175 ASSV-AH06-120R, ASSV-AH06-120F
 INTEGRITY 175SG ASSV-AH06-208R, ASSV-AH06-208F, ASSV-AH06-480R, ASSV-AH06-480F
 INTEGRITY 215 ASSV-AB09-120R, ASSV-AB09-120F
 INTEGRITY 215SG ASSV-AB09-208R, ASSV-AB09-208F, ASSV-AB09-480R, ASSV-AB09-480F

OPM-0325-13 SKYTRON INTEGRITY 175 AND 215 STERILIZERS ATTACHMENT NOTES



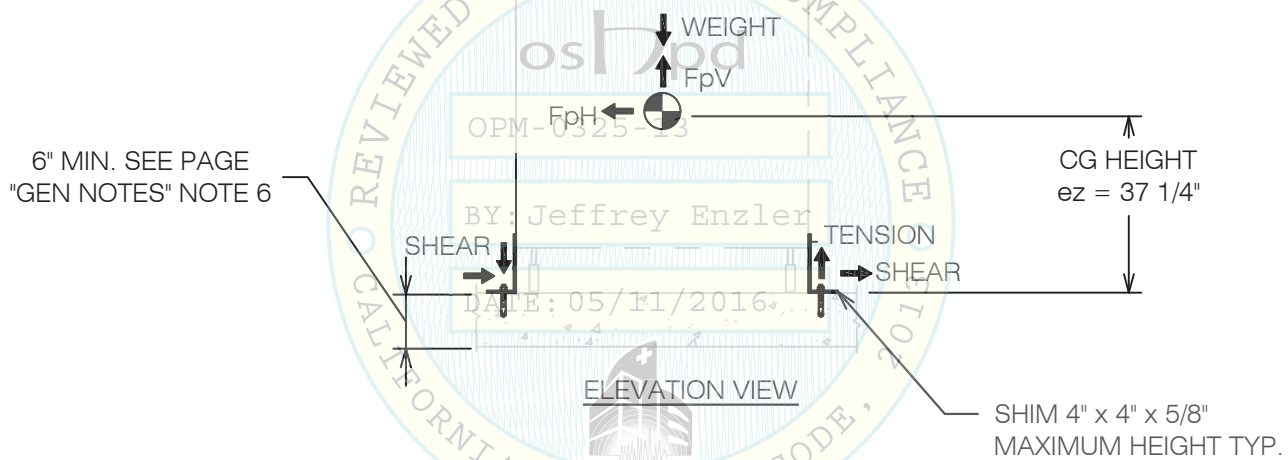
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SEE PAGE "ATTCH. NOTES" FOR ECCENTRICITIES AND ANCHOR FORCES

ATTACHMENT PLAN VIEW



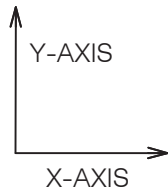
OPM-0325-13 SKYTRON INTEGRITY 175 AND 215 STERILIZER AT GRADE



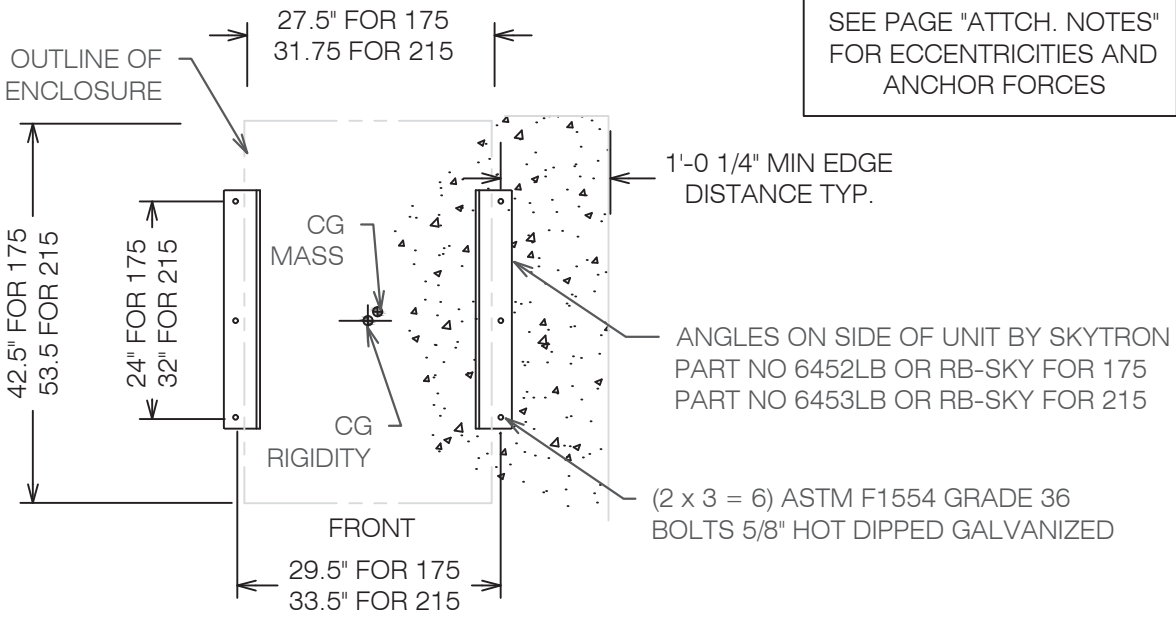
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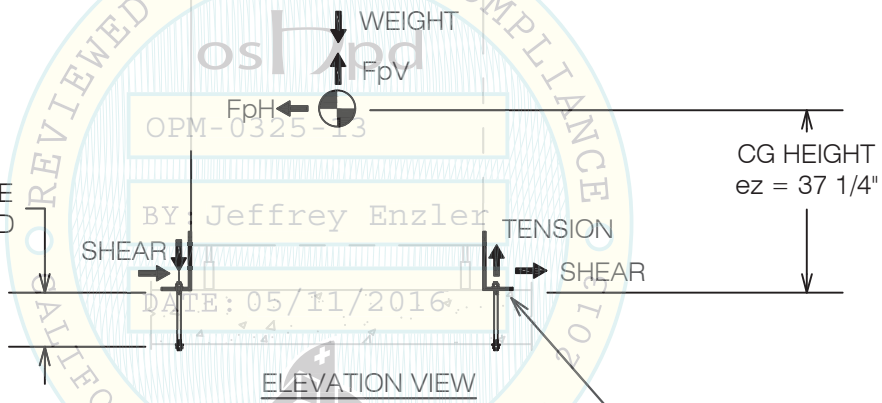


SEE PAGE "ATTCH. NOTES"
FOR ECCENTRICITIES AND
ANCHOR FORCES



ATTACHMENT PLAN VIEW

SOLID CONCRETE OR
SLAB ON DECK SEE PAGE
"GEN NOTES" NOTE 6 AND
PAGE "MISC. STEEL"

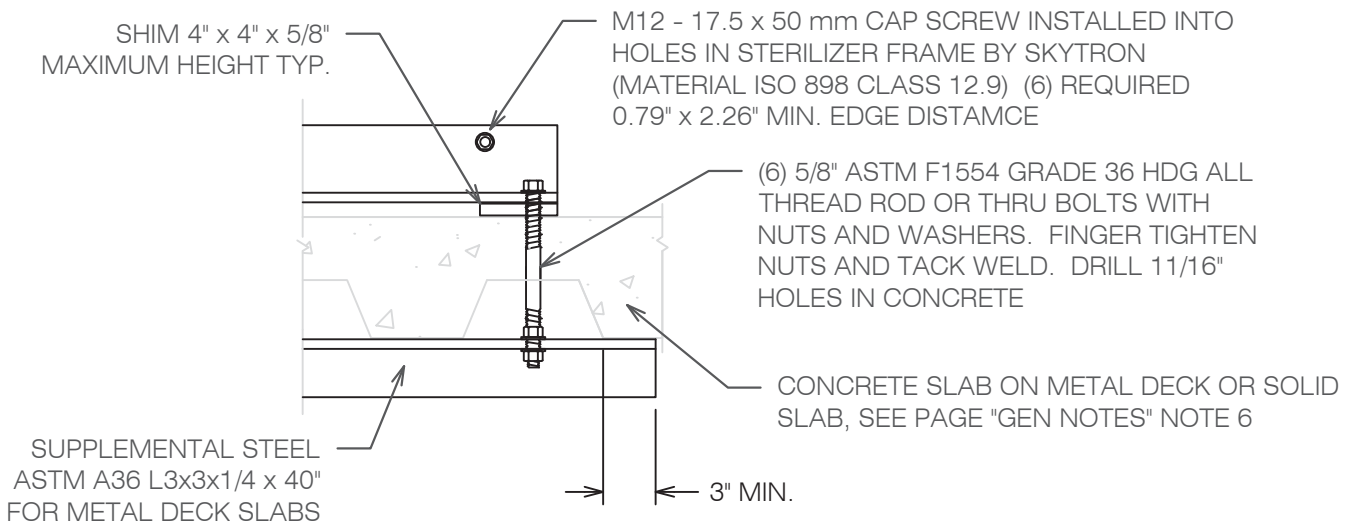


ELEVATION VIEW

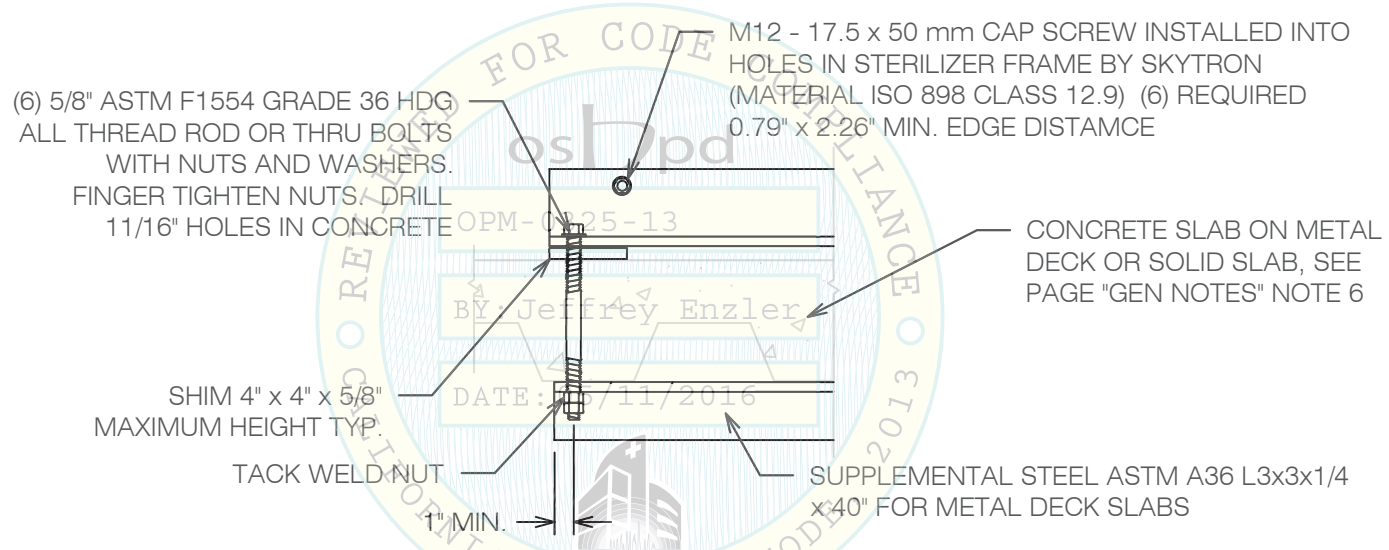
SHIM 4" x 4" x 5/8"
MAXIMUM HEIGHT TYP.

OPM-0325-13 SKYTRON INTEGRITY 175 AND 215 STERILIZER AT ELEVATED SLABS

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DETAIL OF ATTACHMENT BRACKETS PROVIDED BY SKYTRON



OPM-0325-13 SKYTRON INTEGRITY 175 AND 215 STERILIZERS
MISCELLANEOUS STEEL FOR SLABS ON METAL DECK



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