



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION

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

OFFICE USE ONLY

APPLICATION #: OPM-0512

HCAI Preapproval of Manufacturer's Certification (OPM)

Type: New Renewal/Update

Manufacturer Information

Manufacturer: Getinge USA

Manufacturer's Technical Representative: Paul Fraser

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

Telephone: (201) 574-3596

Email: paul.fraser@getinge.com

Product Information

Product Name: Satelite

Product Type: Cantilever

Product Model Number: Satelite Surgical Light

General Description: Overhead surgical lights and monitors used in surgery rooms

Applicant Information

Applicant Company Name: EASE LLC.

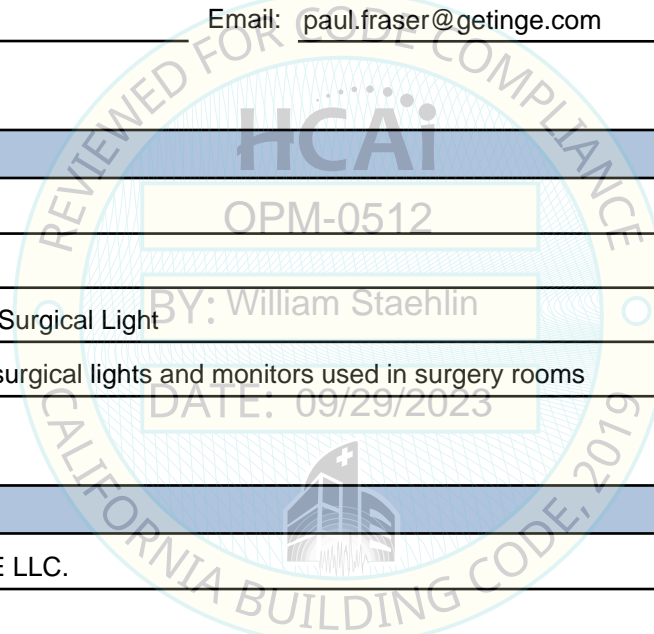
Contact Person: Tiffany Tonn

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

Telephone: (406) 541-3273

Email: tiffany@easeco.com

Title: _____



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

HCAI Special Seismic Certification Preapproval (OSP)

Special Seismic Certification is preapproved under OSP OSP Number: _____

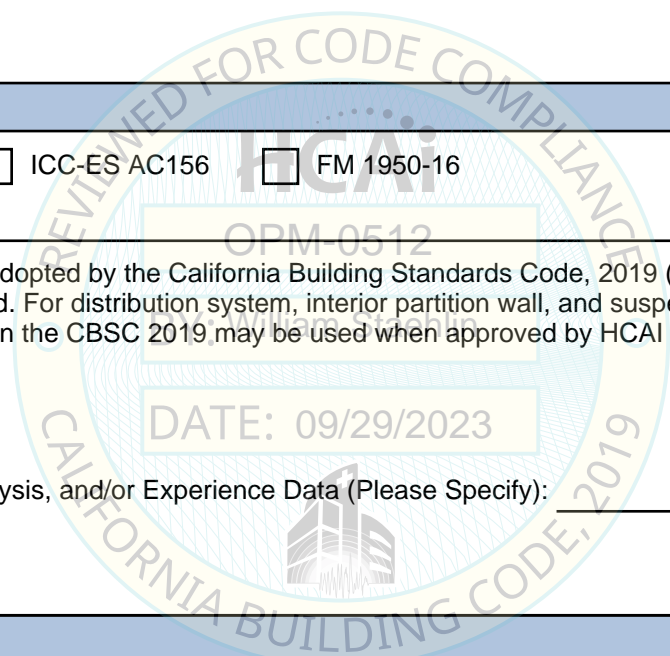
Certification Method

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, 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 HCAI prior to testing.

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



HCAI Approval

Date: 9/29/2023
Name: William Staehlin Title: Senior Structural Engineer
Condition of Approval (if applicable): _____

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**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-0512

THIS PREAPPROVAL CONFORMS TO THE 2022 CALIFORNIA BUILDING CODE

MANUFACTURER: **GETINGE USA, INC.**
EQUIPMENT NAME: **SATELITE SURGICAL LIGHTS**

Sheet: 1 of 10
Date: 9/19/23

GENERAL NOTES

1. THIS HCAI PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2022 CBC. THE DEMANDS
2. (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2022 CBC
3. 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.
4. THIS PREAPPROVAL CONFORMS TO THE 2022 CALIFORNIA BUILDING CODE WHERE S_{ds} IS NOT GREATER THAN 2.20.
5. FORCES PER ASCE 7-16 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3,
WHERE $S_{ds} = 2.20$, $a_p = 2.5$, $I_p = 1.5$, $R_p = 2.5$, $z/h \leq 1$ AT CONCRETE SLAB ON METAL DECK. SEE FOLLOWING SHEETS FOR Ω .
6. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE.
7. ALL DESIGN FORCES SHOWN ON THE DRAWINGS ARE FACTORED LOADS THAT SHALL BE USED FOR STRENGTH DESIGN.
8. CONCRETE SLAB ON METAL DECK DETAIL VALID FOR DEMANDS SHOWN AT ANY ELEVATION IN THE BUILDING. (i.e. $z/h \leq 1$)
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.

SATELITE SURGICAL LIGHTS

DES. **J. ROBERSON**

JOB NO. **36-1403**

DATE **9/19/23**

SHEET

2

OF **10** 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. fc (psi)	Anchor Type	ICC Report No.	Min. Embed.	Min. Spacing	Min. Edge Dist.	Min. Conc. Over Flutes	Torque Test	Direct Tension Test
1/2"	Sand Light Weight	3000	Hilti Kwik Bolt TZ2 (CARBON STEEL)	ESR-4266	2"	6.75"	24"	3.25"	50 FT-LB	N/A

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

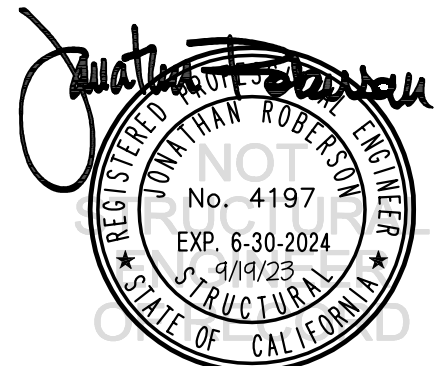
(ii) ACCEPTANCE CRITERIA:

- 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.



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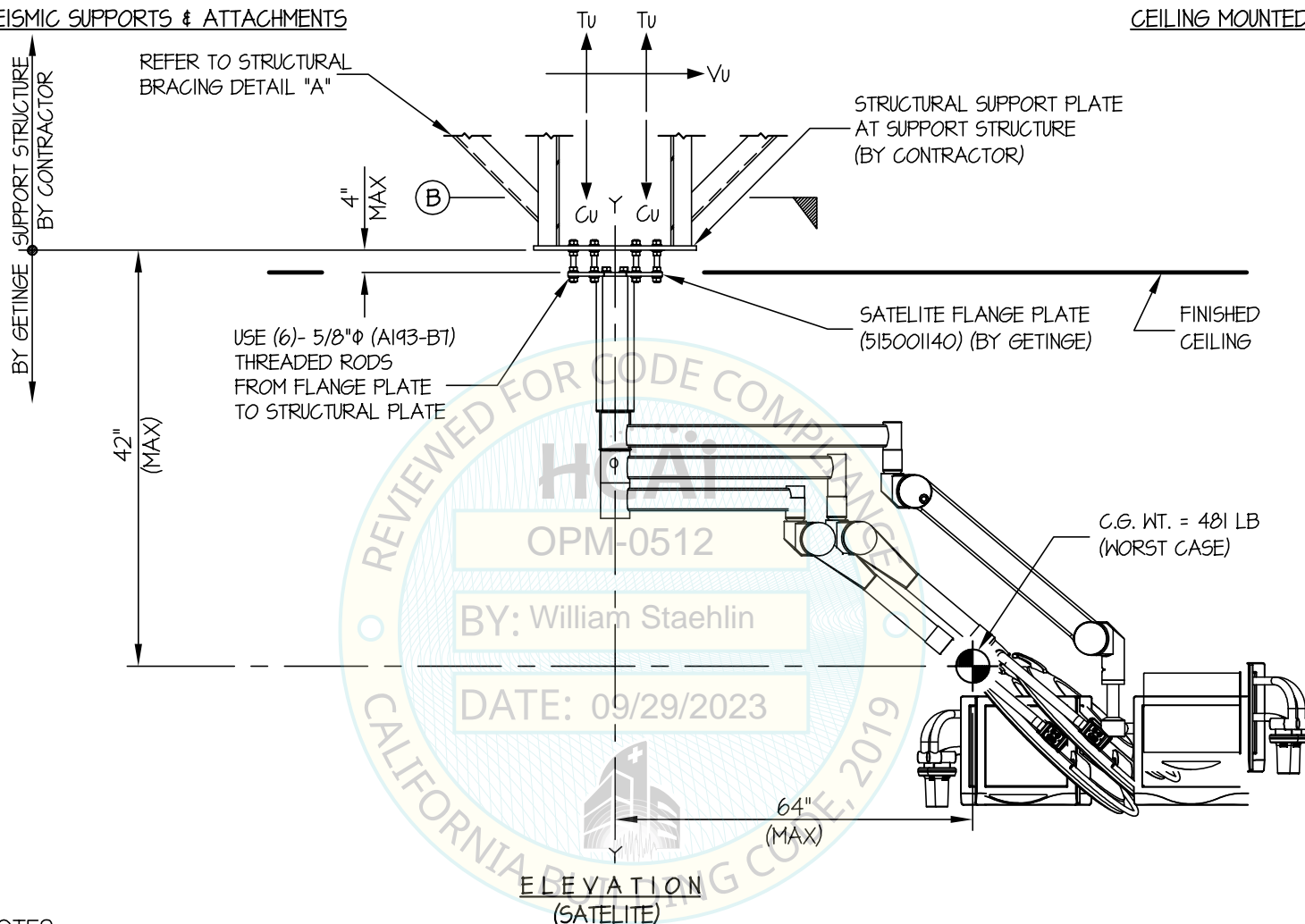
SHEET

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OF **10** SHEETS

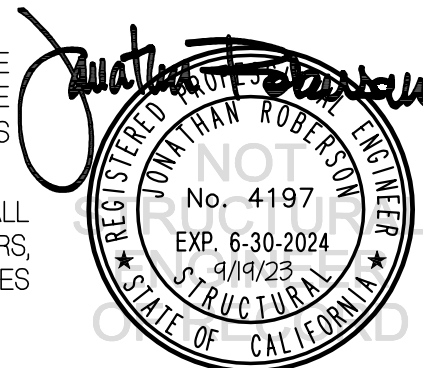
SEISMIC SUPPORTS & ATTACHMENTS

CEILING MOUNTED



NOTES:

- FORCES ARE DETERMINED PER 2022 CALIFORNIA BUILDING CODE AND ASCE 7-16. STRENGTH DESIGN IS USED. (EXAMPLE: $S_{ds} = 2.20$, $a_p = 2.5$, $I_p = 1.5$, $R_p = 2.5$, $\Omega_o = 2.0$, $z/h \leq 1$)
 - HORIZONTAL FORCE (E_h) = $3.96 W_p$
 - HORIZONTAL FORCE (E_{mh}) = $7.92 W_p$ (FOR CONCRETE ANCHORAGE)
 - VERTICAL FORCE (E_v) = $0.44 W_p$
- THIS CALCULATION ENCOMPASSES WEIGHTS AND VERTICAL C.G. POSITIONS NOT EXCEEDING VALUES SHOWN.
- THIS CALCULATION 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: SHEETS 1 AND 2.



GETINGE USA, INC.

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SHEET

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SATELITE SURGICAL LIGHTS

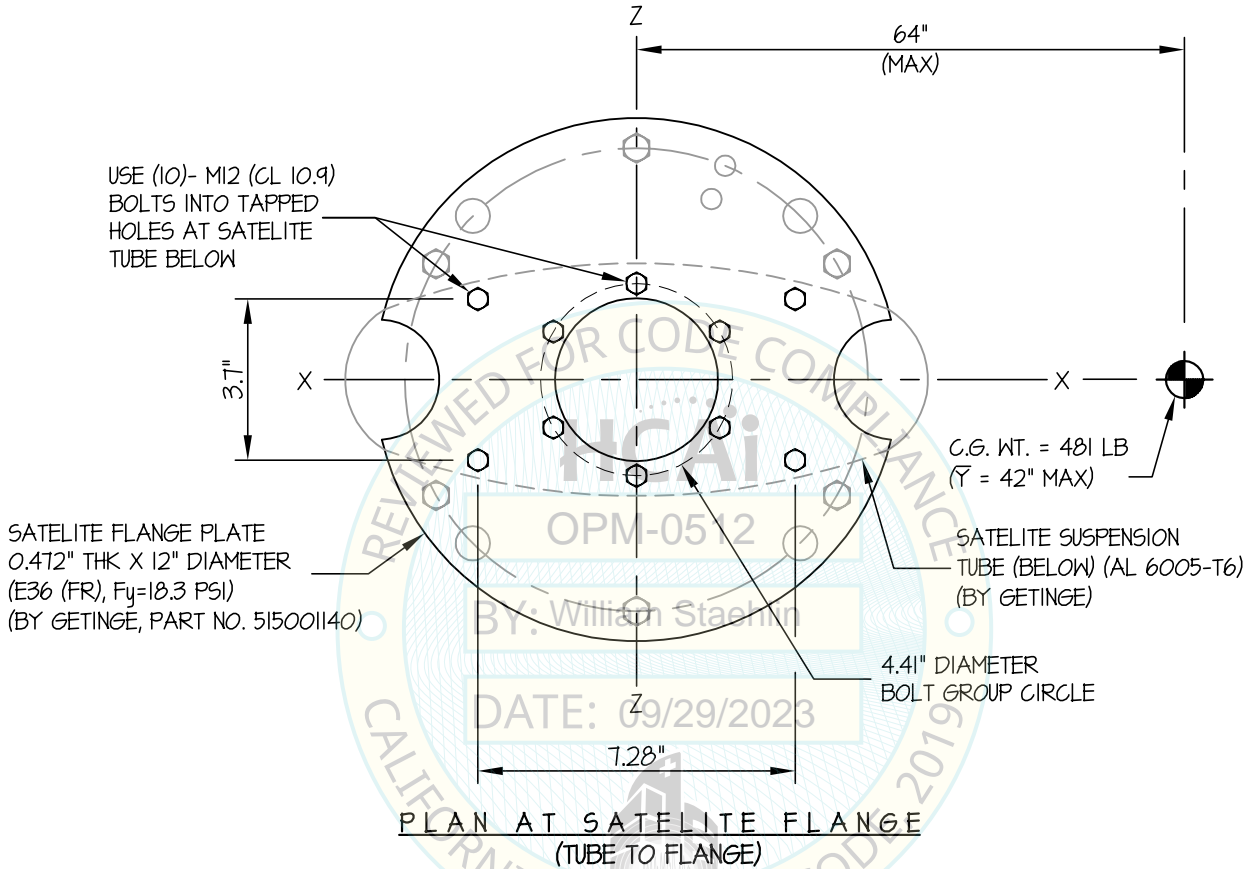
JOB NO. **36-1403**

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OF **10** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

SATELITE TUBE TO SATELITE FLANGE PLATE



Jonathan Roberson

REGISTERED PROFESSIONAL ENGINEER
No. 4197
EXP. 6-30-2024
9/19/23
STRUCTURAL
STATE OF CALIFORNIA

GETINGE USA, INC.

DES. **J. ROBERSON**

SHEET

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SATELITE SURGICAL LIGHTS

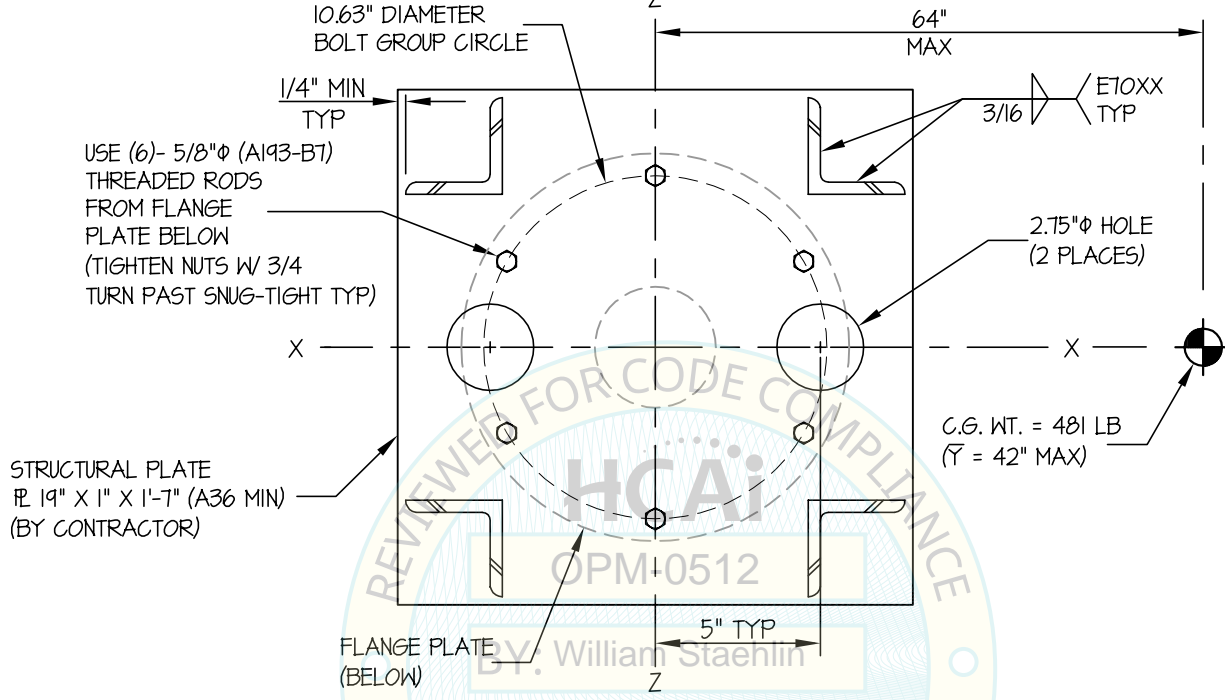
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OF **10** SHEETS

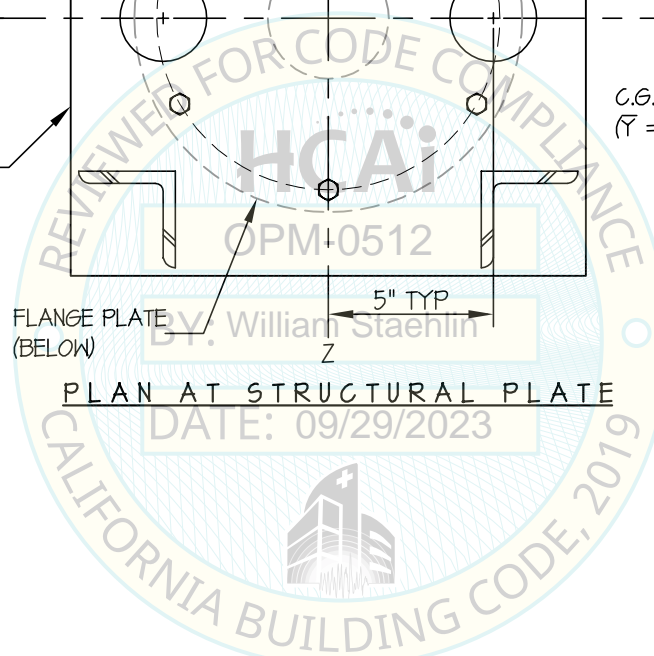
SEISMIC SUPPORTS & ATTACHMENTS

SATELITE FLANGE PLATE TO STRUCTURAL SUPPORT PLATE



PLAN AT STRUCTURAL PLATE

DATE: 09/29/2023



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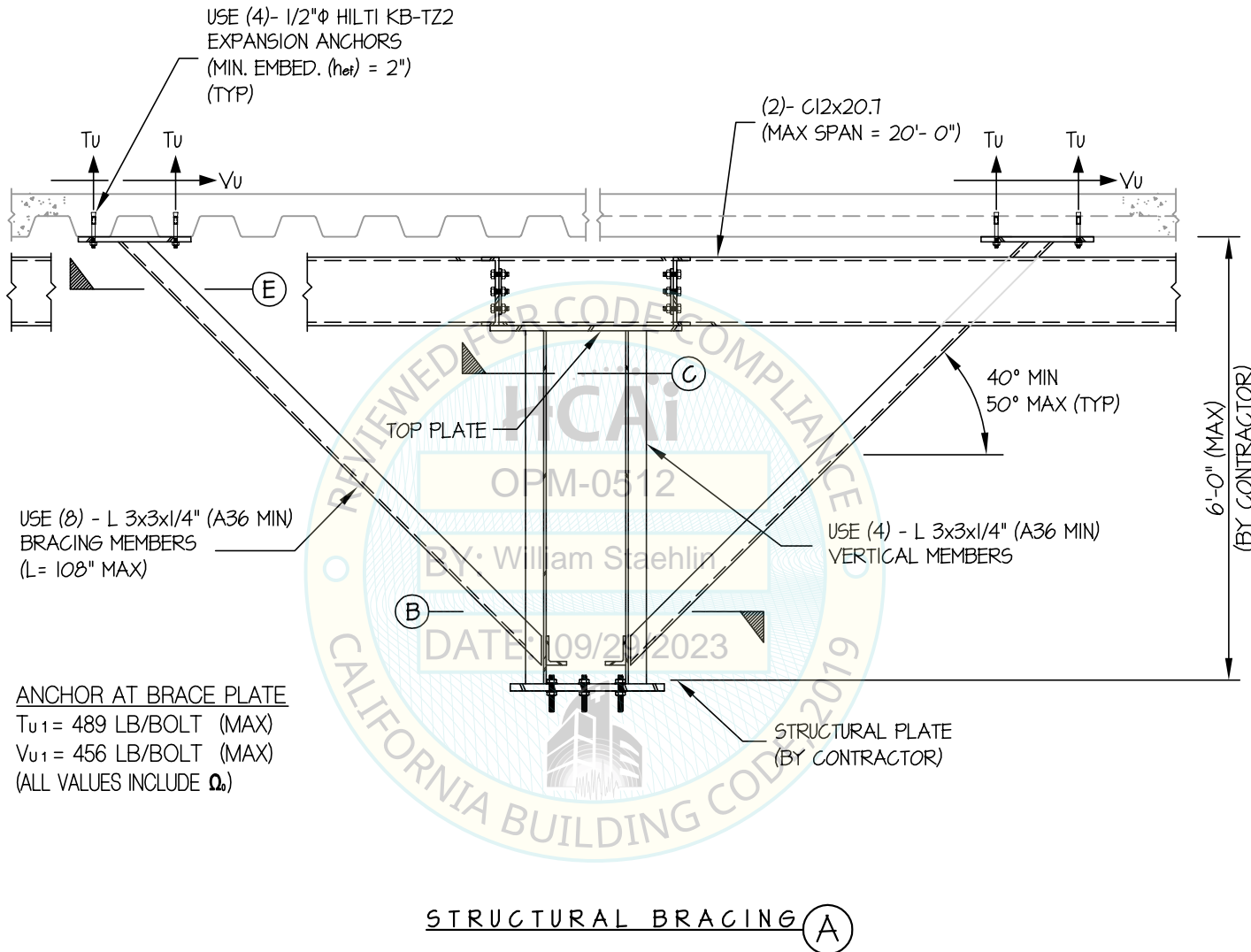
SHEET

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OF **10** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

BRACING DETAILS



Jonathan Roberson
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 No. 4197
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 9/19/23
 STATE OF CALIFORNIA

GETINGE USA, INC.

DES. **J. ROBERSON**

SHEET

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SATELITE SURGICAL LIGHTS

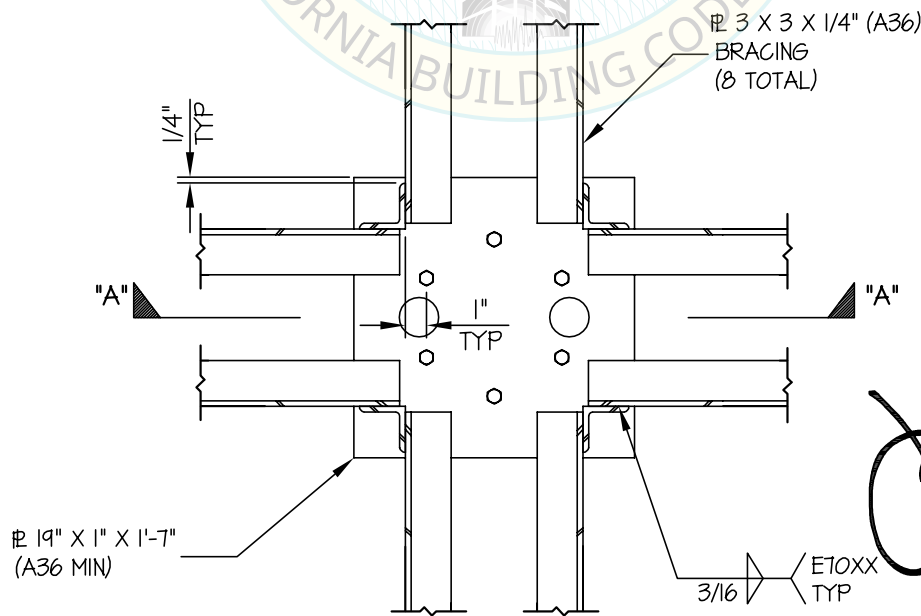
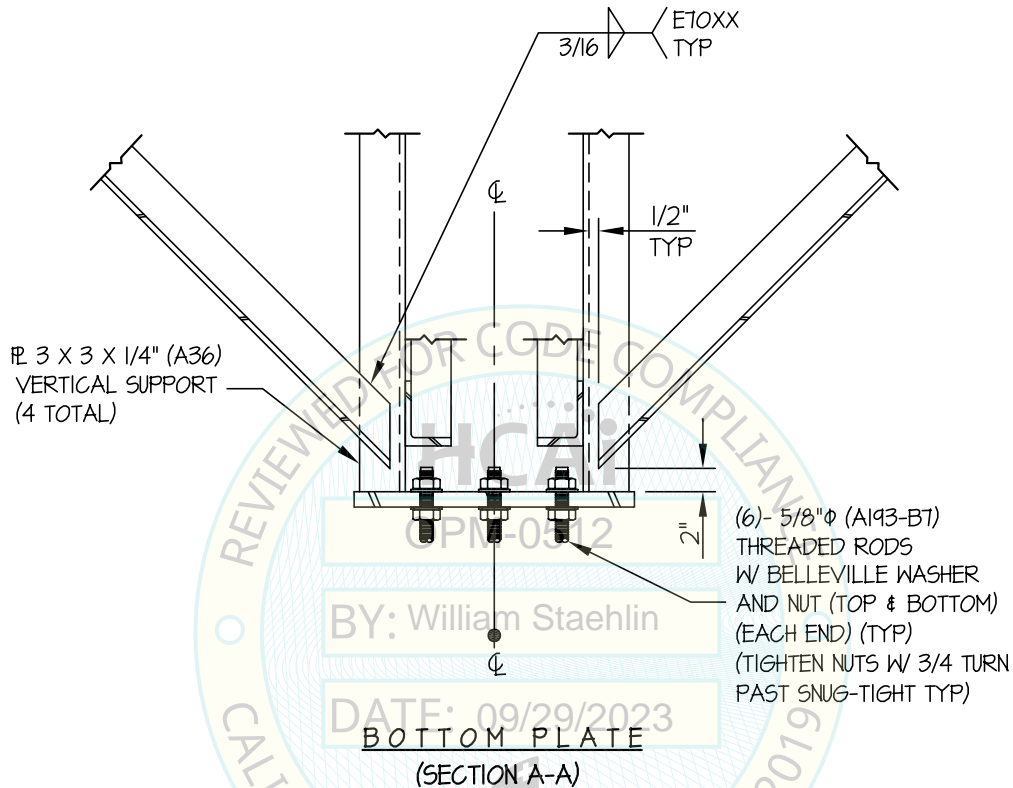
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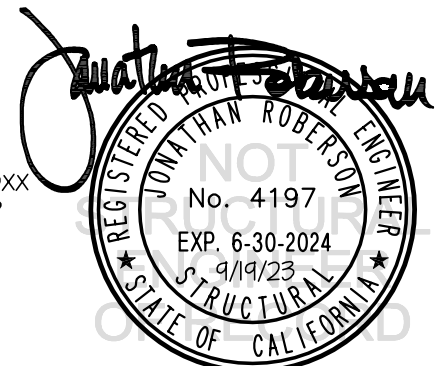
OF **10** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

BRACING DETAILS



STRUCTURAL PLATE DETAIL (B)



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SATELITE SURGICAL LIGHTS

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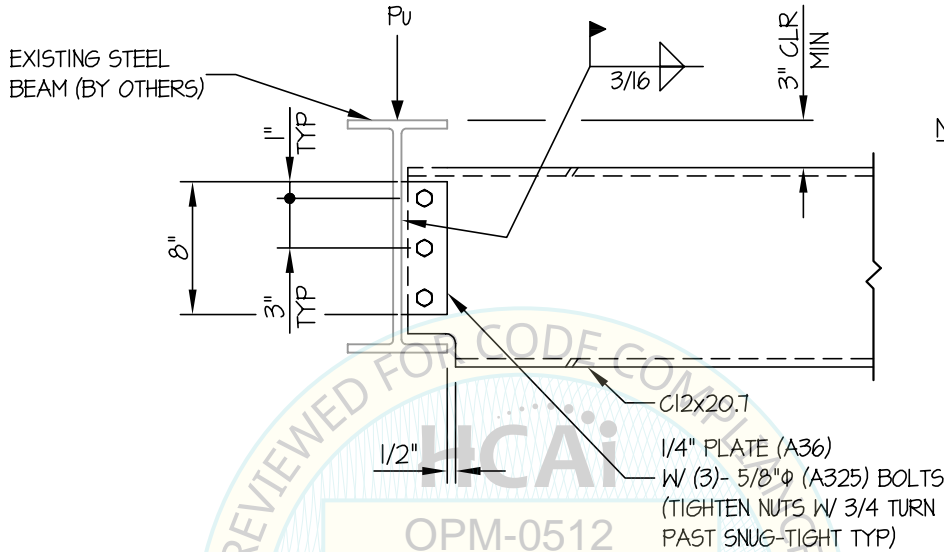
SHEET

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OF **10** SHEETS

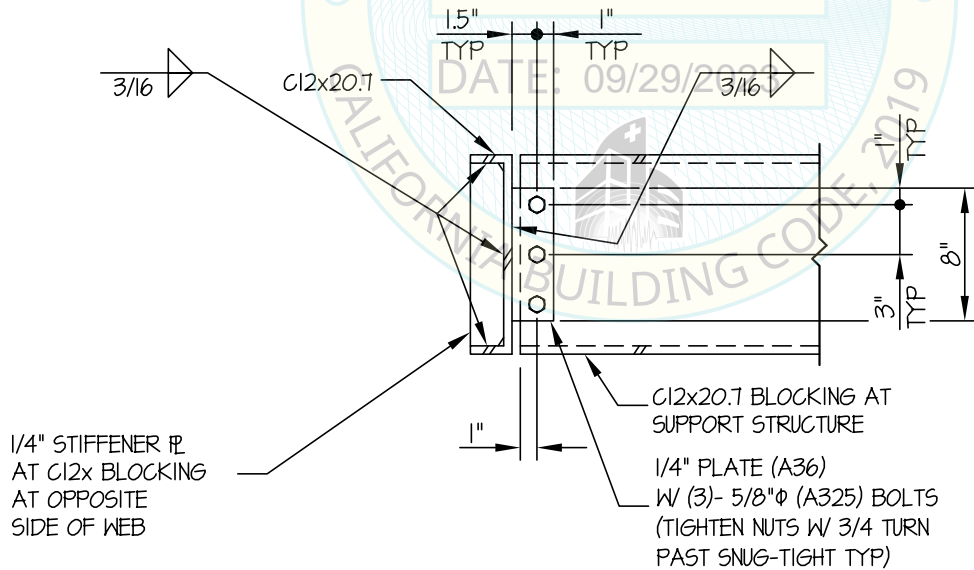
SEISMIC SUPPORTS & ATTACHMENTS

CEILING MOUNTED



NOTE CHECK (E) BEAM FOR
ADDITIONAL LOAD
OF $P_u = 8.0K$
LOCATED HALFWAY
BETWEEN (N) C12x
BEAMS

CONNECTION AT (E) STEEL BEAM



CONNECTION AT BLOCKING

MC18x CONNECTION DETAILS (D)



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SHEET

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SATELITE SURGICAL LIGHTS

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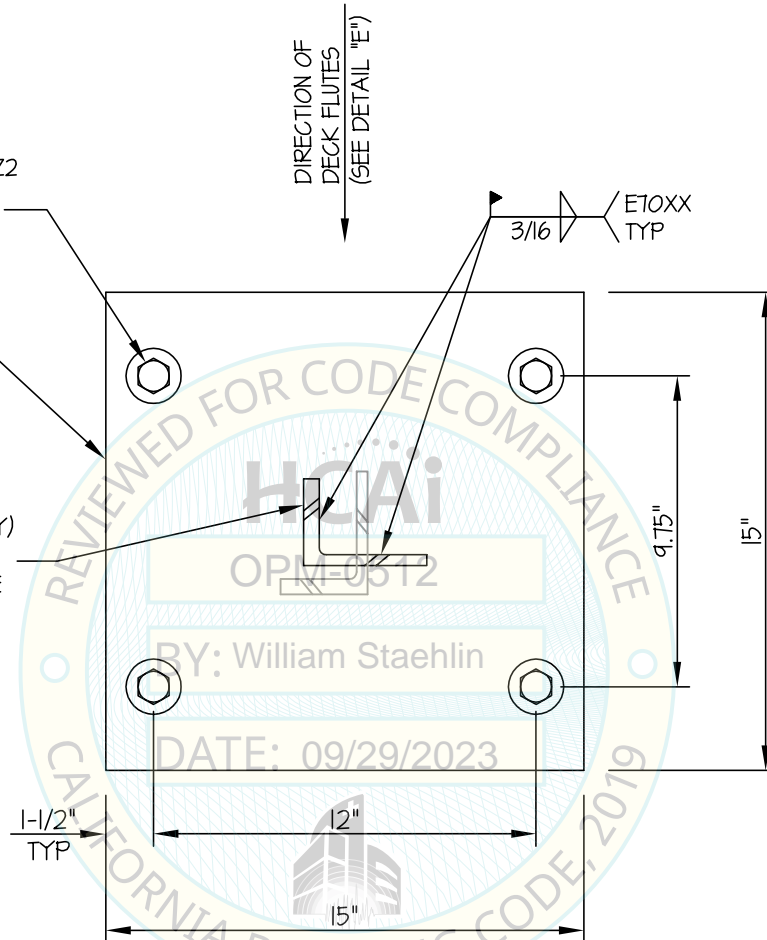
SEISMIC SUPPORTS & ATTACHMENTS

BRACING DETAILS

USE (4)- 1/2"φ HILTI KB-TZ2
EXPANSION ANCHORS
(MIN. EMBED. (h_{ef}) = 2")
W/ STANDARD WASHERS

3/8" ϕ (A36, MIN)

BRACING MEMBER
(ORIENTATION MAY VARY)
CENTERED ON PLATE
(PLACEMENT TOLERANCE
± 1" ANY DIRECTION)



ANCHOR AT BRACE PLATE
T_{u1} = 332 LB/BOLT (MAX)
V_{u1} = 322 LB/BOLT (MAX)

BRACE PLATE DETAIL (E)



GETINGE USA, INC.

DES. J. ROBERSON

SHEET

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JOB NO. 36-1403

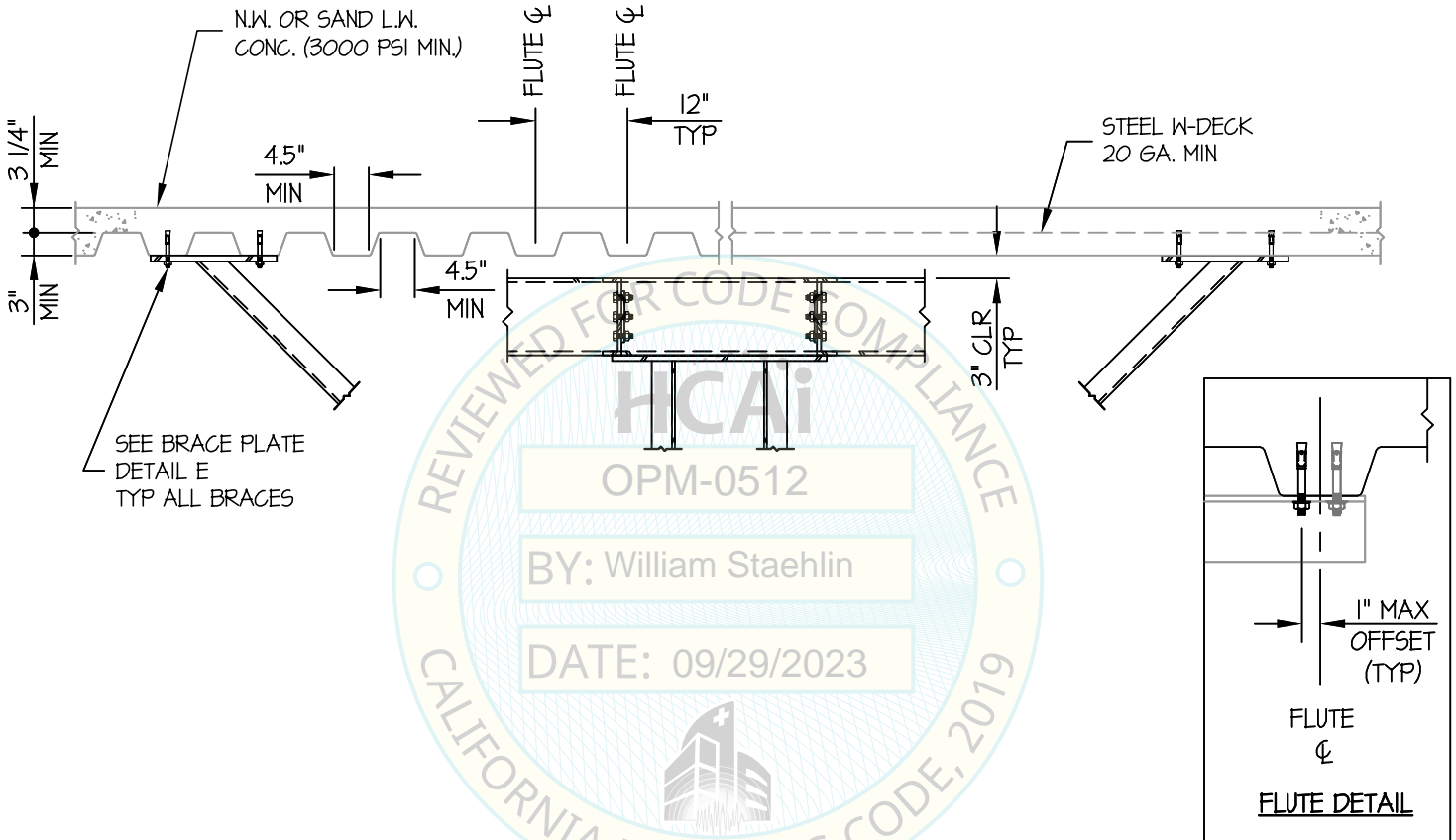
SATELITE SURGICAL LIGHTS

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OF 10 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

BRACING DETAILS



MIN STEEL DECK REQUIREMENTS AND STRUT DETAIL (F)

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