





# OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

## Registered Design Professional Preparing Engineering Recommendations

Company Name: ISAT Seismic Bracing

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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 / 2(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: *William Staehlin* Date: 08-10-2015

Print Name: William Staehlin

Title: SSE

Condition of Approval (if applicable): \_\_\_\_\_

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

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY





# INTERNATIONAL SEISMIC APPLICATION TECHNOLOGY

A Division of Tomarco Contractor Specialties

## Submittal Documents

OPM-0198-13

### OSHPD OPM-0198-13

## ATTACHMENT OPM DRAWINGS VISION 1321, VISION 1327, VISION 1330L AND RELIANCE 1227 WASHERS/DISINFECTORS

# STERIS

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



FILE NO.: CLT-0315-040

*"Empowered by Experience"*

REV 3

OSHPD OPM-0198-13 DWG - i



# OSHPD OPM-0198-13

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### DRAWING INDEX

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**OSHPD OPM-0198-13**

MANUFACTURE: STERIS

EQUIPMENT TYPE: WASHER/DISINFECTOR

**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:  $S_{DS} = 2.5$   $I_p = 1.5$   $a_p = 1.0$   $R_p = 2.5$  (WET SIDE COMPONENT)  $z/h = 0.0$  WITH  $F_{pH} = 1.13$   $W_p$  AT GRADE,  $z/h = 0.5$  WITH  $F_{pH} = 1.20$  USED FOR DESIGN UP TO BUILDING MID-HEIGHT OR WHERE  $F_{pH}$  IS LESS THAN 1.20 AND  $z/h = 0.90$  FOR DESIGN ABOVE THE BUILDING MID-HEIGHT OR WHERE  $F_{pH}$  IS LESS THAN 1.68,  $F_{pV} = 0.50$   $W_p$ .
3. SUPPORT AND ATTACHMENT FORCES ARE DETERMINED USING ASCE 7-10 CHAPTER 13 "SEISMIC DESIGN REQUIREMENTS FOR NONSTRUCTURAL COMPONENTS". AN OVERSTRENGTH FACTOR  $\Omega_0 = 2.5$  IS USED FOR CONCRETE ANCHORAGE FORCES 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. THIS PREAPPROVAL IS FOR CONCRETE SLAB AT GRADE OR ELEVATED SLABS FOR THE DEMAND LOADS SHOWN WHERE  $S_{DS} \leq 2.5$ .
6. MATERIALS: PLATE ASTM A36, WIDE FLANGED BEAM ASTM A992  $F_y = 50$  KSI, WELDED STUDS ASTM A36, BOLTS ASTM A307 WITH ASTM F436 CIRCULAR WASHERS, WELDING FILLER MATERIAL E70XX FOR CARBON STEEL WELDING, SHIM PLATE BY STERIS AISI 304 STAINLESS STEEL, CONCRETE REINFORCING BARS ASTM A615 GRADE 60  $F_y = 60$  KSI.
7. CONCRETE SLABS. FOR THROUGH BOLTS: SOLID CONCRETE SLAB: 6" WITH NORMAL WEIGHT CONCRETE WITH 3000 PSI STRENGTH. METAL DECK: 3" DEEP COMPOSITE STEEL DECK, 20 GAGE MINIMUM, 4.5 INCH MINIMUM BOTTOM FLUTE WIDTH AND 12" FLUTE SPACING WITH 3.25" LIGHT WEIGHT CONCRETE CONCRETE COVER AT 3000 PSI MINIMUM STRENGTH. FOR EMBEDDED PLATES: 10" MINIMUM THICKNESS NORMAL WEIGHT CONCRETE WITH 4000 PSI STRENGTH.
8. EXERCISE DUE CARE WHEN DRILLING POST-INSTALLED ANCHORS TO AVOID DAMAGING CONCRETE REINFORCEMENT OR TENDONS.

OPM-0198-13

**RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD**

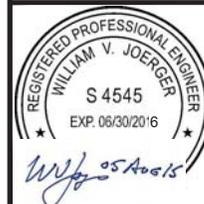
1. CONFIRM THE FOUNDATION PIT OR SLAB CONCRETE HAS A STRENGTH OF 4000 PSI FOR NORMAL WEIGHT CONCRETE AND THE EDGE DISTANCE AND REINFORCING CLEARANCES AND PLACEMENT REQUIREMENTS SHOWN ON THE INSTALLATION DETAILS ARE MET.
2. PROVIDE A PLAN FOR INSPECTION OF SUPPORTS AND ATTACHMENTS AND VERIFY ITS IMPLEMENTATION.
3. VERIFY THAT THE EXISTING STRUCTURE IS ADEQUATE FOR THE IMPOSED DEAD, LATERAL AND TENSION FORCES SHOWN IN ADDITION TO ALL OTHER LOADS.
4. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH CBC 2013 AND WITH THE OPM-0198-13 DETAILS.

OPM-0198-13 STERIS VISION AND RELIANCE WASHERS/DISINFECTORS

GENERAL NOTES



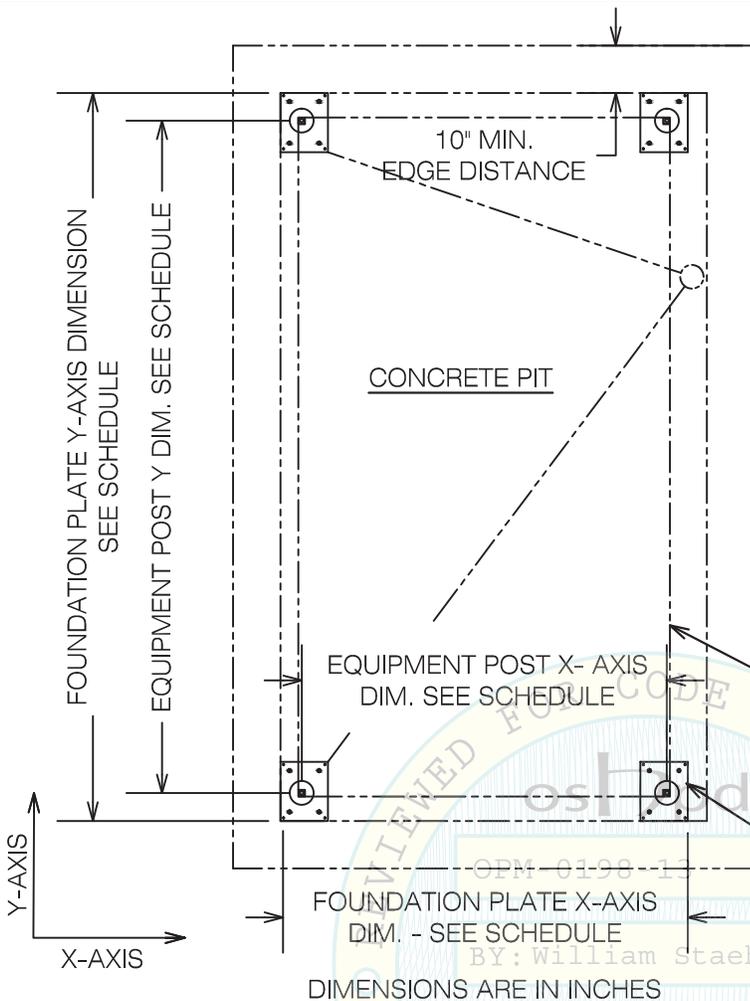
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International Seismic Application Technology  
1020 Crews Road, Suite Q, Matthews, NC 28105  
704-841-4080 www.isatsb.com



<b>DRAWN BY:</b> WVJ	<b>DATE:</b> 03/06/15
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<b>SCALE</b> N.T.S.	<b>PAGE</b> GEN NOTES
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**NOTES:**

1. FOR INSTALLATIONS WITH A PIT THE PLATE ELEVATION IS TO BE 7" BELOW THE FINISHED SLAB ELEVATION.
2. FOR INSTALLATIONS WITHOUT A PIT, SET THE TOP OF THE FOUNDATION PLATE FLUSH WITH THE TOP OF THE SLAB.
3. FOUNDATION PLATE IS TO BE SET LEVEL AND TRUE WITHIN 1/32" PER FOOT.
4. FOR MODEL VISION 1321 THE EDGE DISTANCE TO THE CENTER DRAIN IS ALLOWED TO BE 5 INCHES. SEE PAGE "CONC REINF" FOR ADDITIONAL CONCRETE REINFORCEMENT DETAILS.

OUTLINE OF COMPONENT ABOVE

SEE PAGE "FDN PLATE" FOR DETAILS OF THE EMBEDDED PLATE.

SEE PAGE "POST ATTACH" FOR DETAILS OF THE EQUIPMENT FRAME CONNECTION

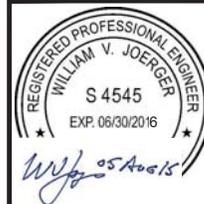
DIMENSIONS ARE IN INCHES

MODEL	POST X-AXIS DIM	POST Y-AXIS DIM	PLATE X-AXIS DIM	PLATE Y-AXIS DIM	VERTICAL CG	WEIGHT - LBS
VISION 1321	61.625 (61 5/8)	84.562 (84 9/16)	68.75 (68 3/4)	94	51.25	6371
VISION 1327	61.625 (61 5/8)	108.562 (108 9/16)	68.75 (68 3/4)	118	50.65	6666
VISION 1330L	61.625 (61 5/8)	120.562 (120 9/16)	68.75 (68 3/4)	130	50.45	6810
RELIANCE 1227	55.625 (55 5/8)	108.562 (108 9/16)	60.75 (60 3/4)	118	49.15	5360

**OPM-0198-13 STERIS VISION AND RELIANCE WASHERS/DISINFECTORS  
FOUNDATION PLAN**

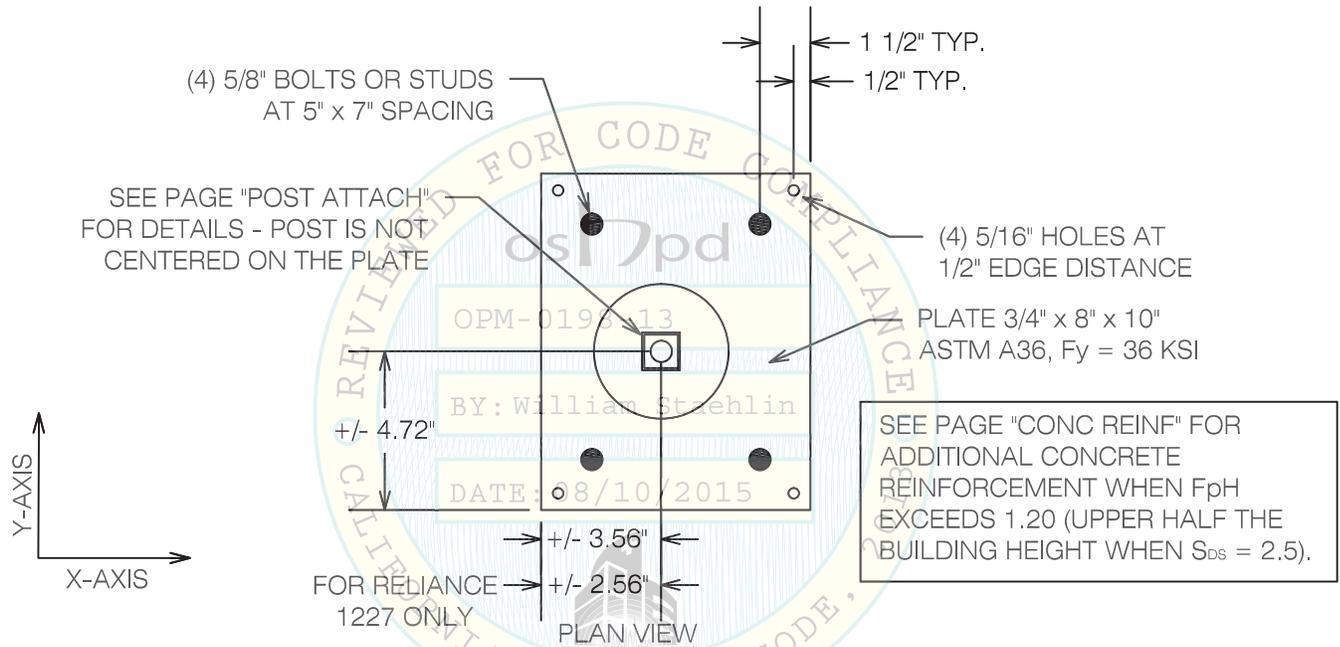
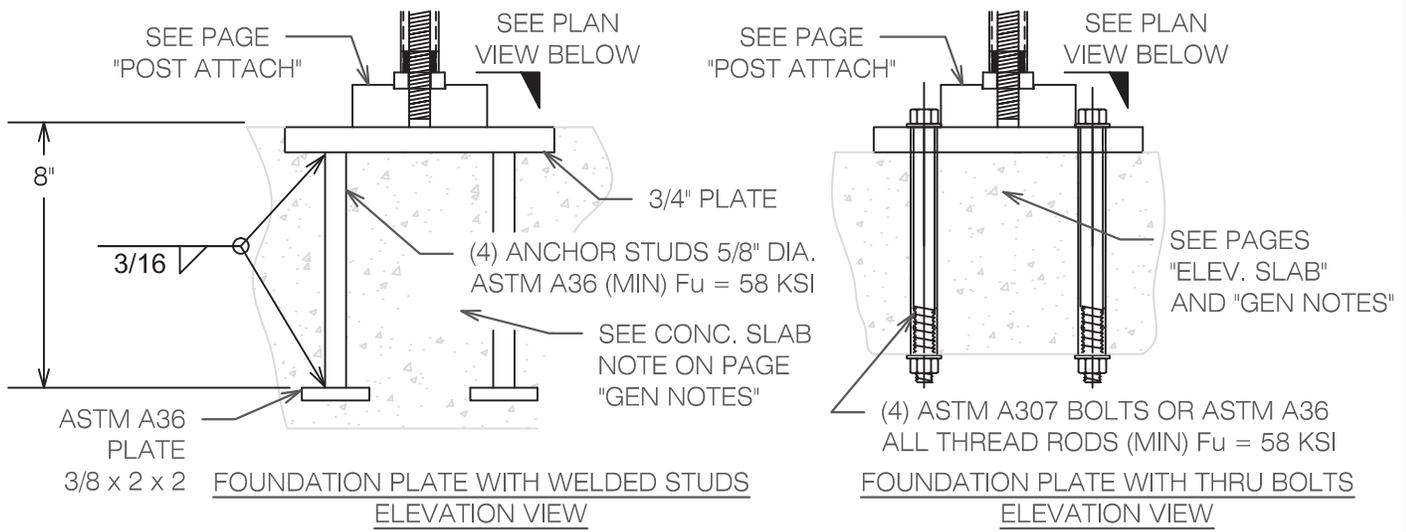


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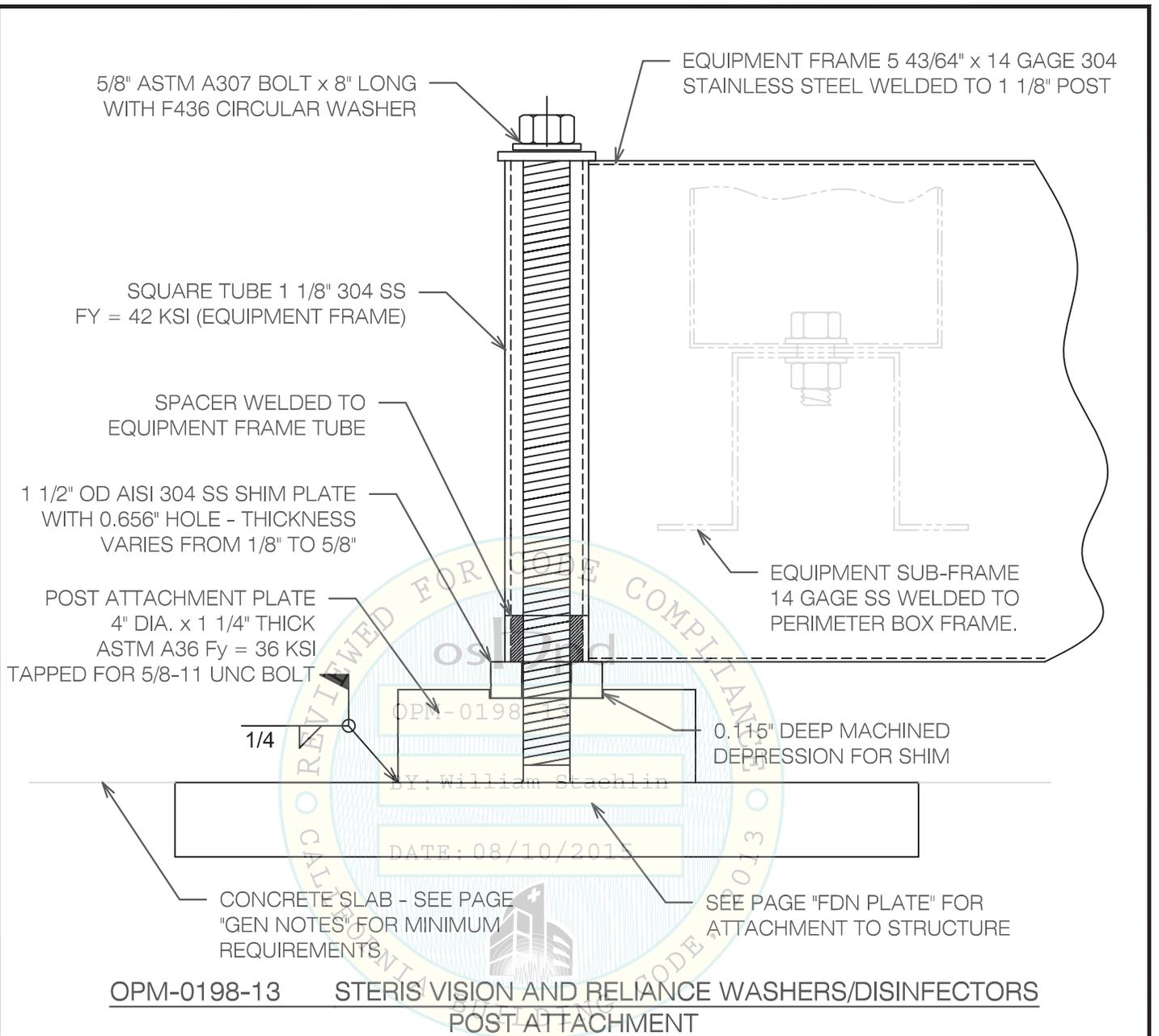
**OPM-0198-13 STERIS VISION AND RELIANCE WASHERS/DISINFECTORS**  
**FOUNDATION PLATE DETAILS (SUPPLIED BY FIELD)**



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		N.T.S.
		FDN PLATE

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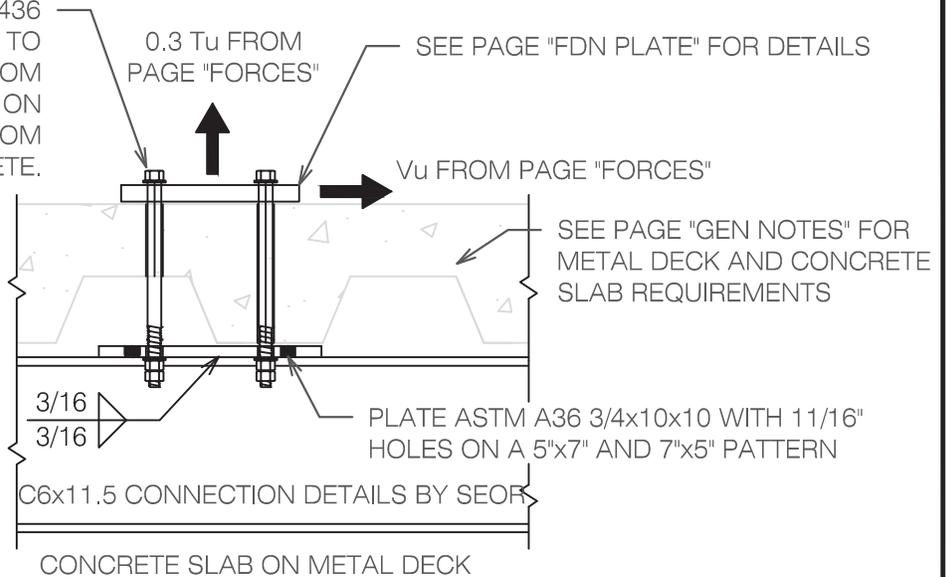
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<b>REV NO:</b> 3		
<b>SCALE</b> N.T.S.	<b>PAGE</b> POST ATTACH.	

OSHPD OPM-0198-13 DWG - 4

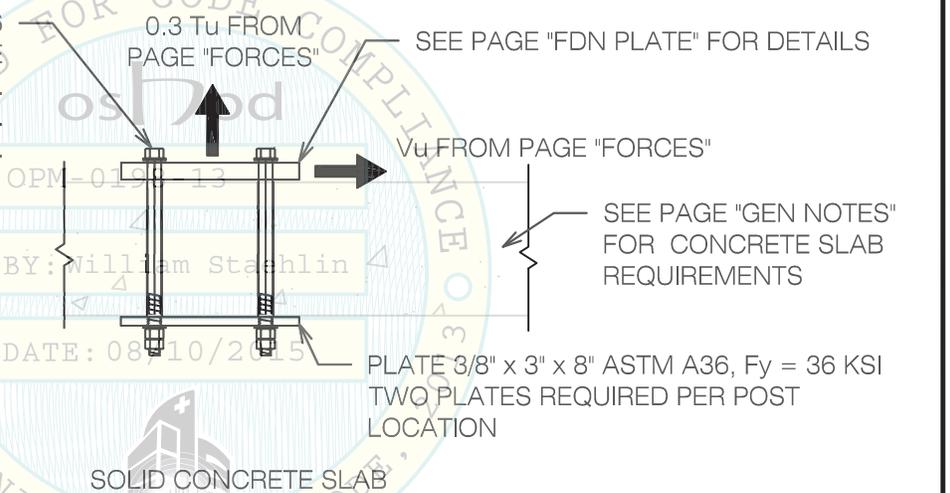
(4) 5/8" ASTM A307 BOLTS, F436 WASHERS AND A563 NUTS. TORQUE TO 3/4 TURN PAST SNUG TIGHT. BOTTOM WASHER TO BE CLIPPED TO 15/16" ON ONE SIDE. DOUBLE NUTS AT BOTTOM PLATE. DRILL 3/4" HOLE IN CONCRETE.

STRUCTURAL ENGINEER OF RECORD IS TO VERIFY THE ADEQUACY OF THE W8 BEAM AND BEAM CONNECTION TO STRUCTURE FOR THE IMPOSED LOADS.

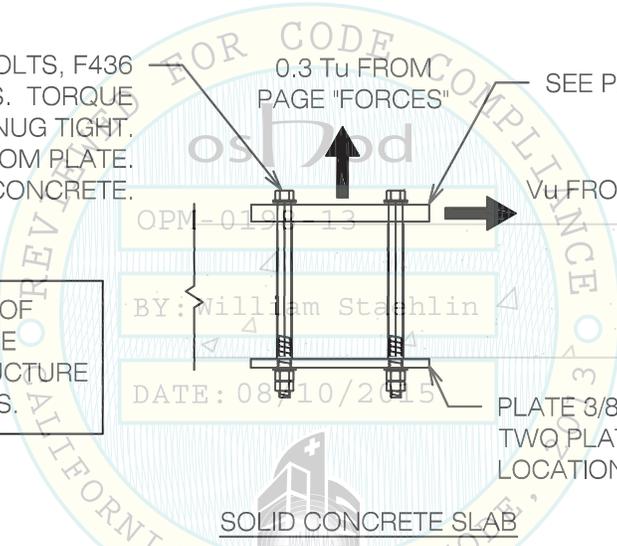


(4) 5/8" ASTM A307 BOLTS, F436 WASHERS AND A563 NUTS. TORQUE TO 3/4 TURN PAST SNUG TIGHT. DOUBLE NUTS AT BOTTOM PLATE. DRILL 3/4" HOLE IN CONCRETE.

STRUCTURAL ENGINEER OF RECORD IS TO VERIFY THE ADEQUACY OF THE STRUCTURE FOR THE IMPOSED LOADS.



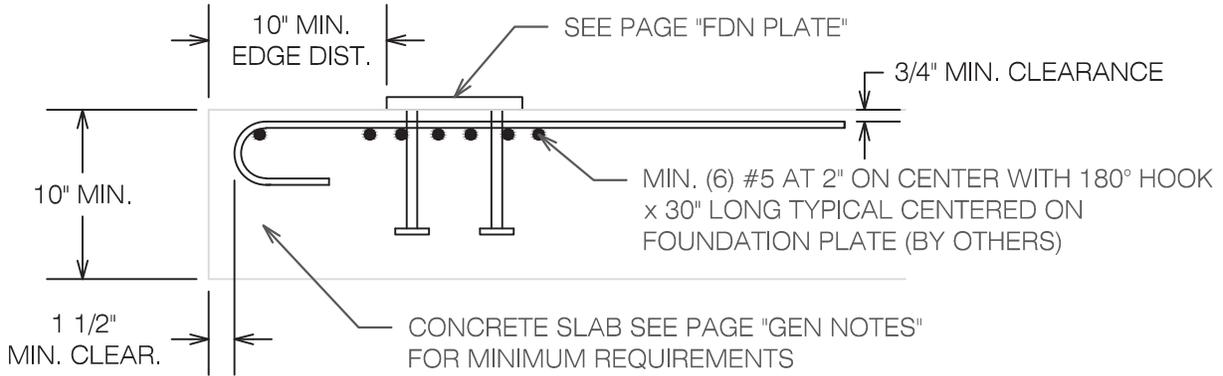
**OPM-0198-13 STERIS VISION AND RELIANCE WASHERS/DISINFECTORS ELEVATED SLAB DETAIL FOR MODELS MOUNTED TO THE TOP OF THE SLAB**



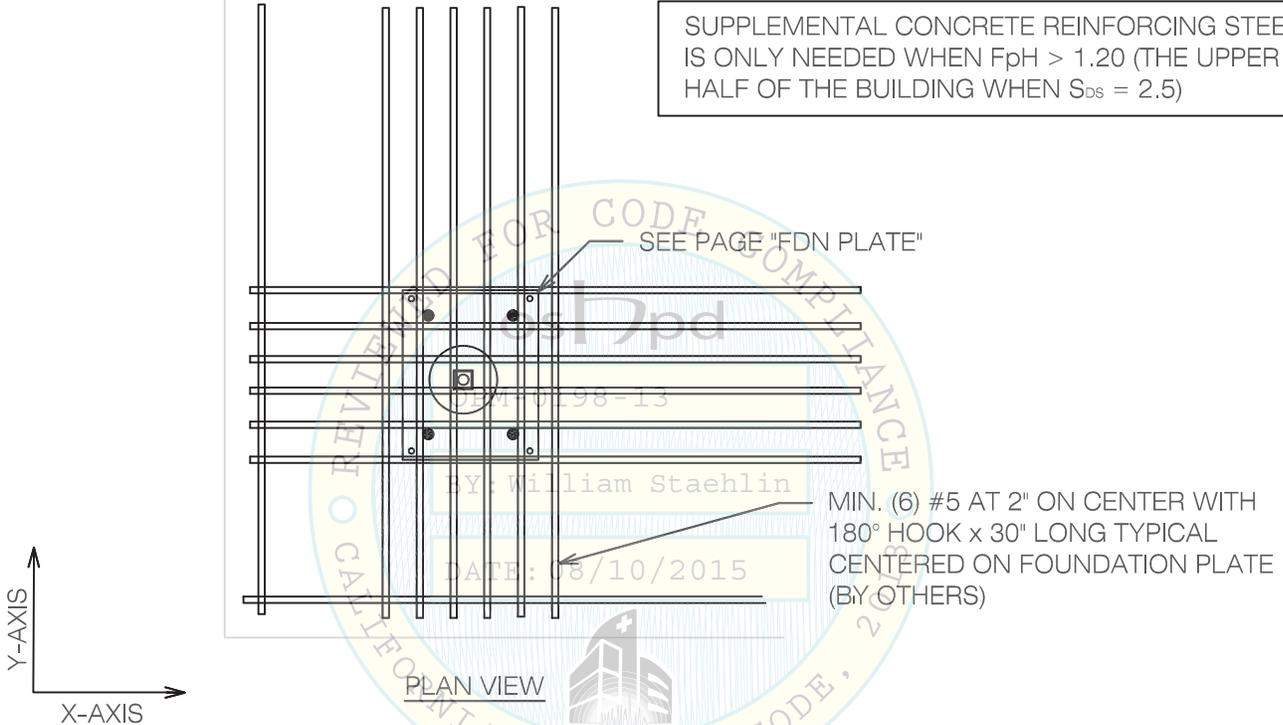


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	<b>SCALE</b> N.T.S.	<b>PAGE</b> ELEV SLAB



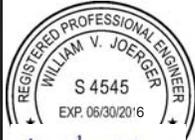
SUPPLEMENTAL CONCRETE REINFORCING STEEL IS ONLY NEEDED WHEN  $F_p H > 1.20$  (THE UPPER HALF OF THE BUILDING WHEN  $S_{DS} = 2.5$ )



**OPM-0198-13 STERIS VISION AND RELIANCE WASHERS/DISINFECTORS  
ADDITIONAL CONCRETE REINFORCEMENT AT FOUNDATION PLATE DETAILS**

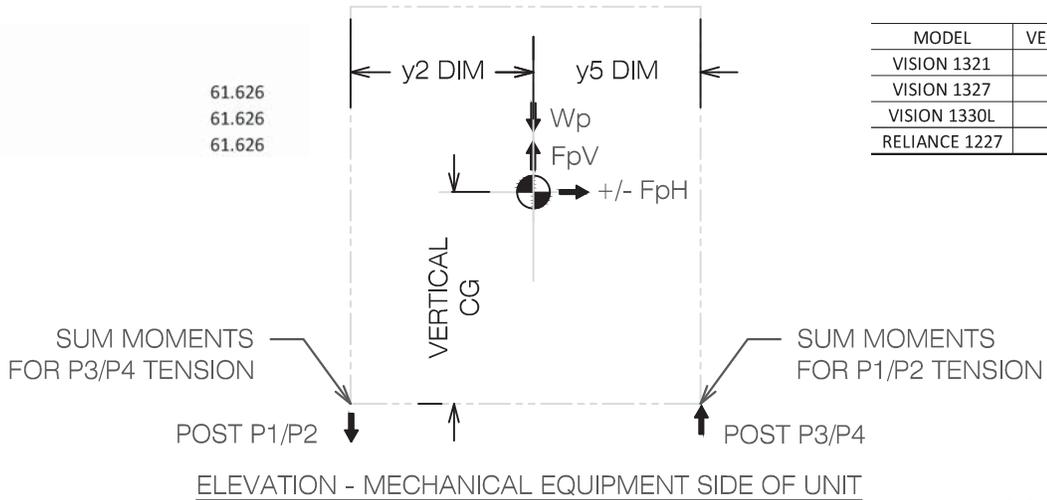


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<b>SCALE</b> N.T.S.	<b>PAGE</b> CONC REINF	

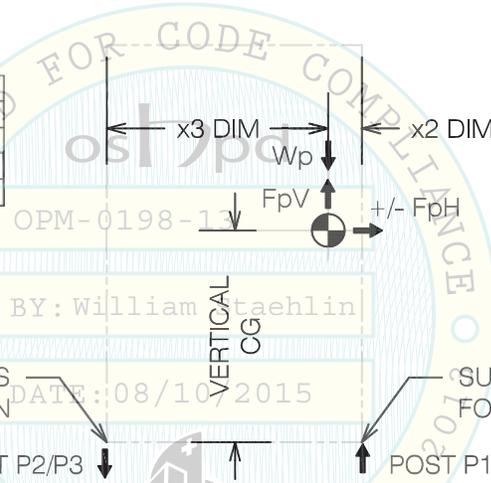
61.626  
61.626  
61.626

MODEL	VERTICAL CG - IN
VISION 1321	51.250
VISION 1327	50.650
VISION 1330L	50.450
RELIANCE 1227	49.150

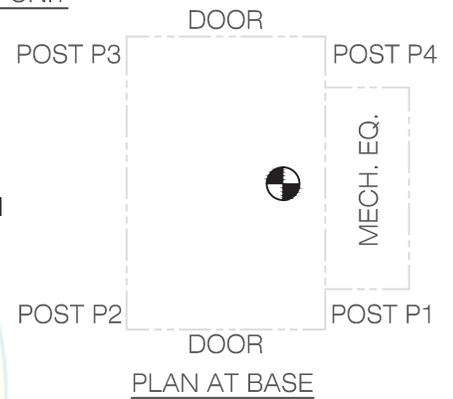


ELEVATION - MECHANICAL EQUIPMENT SIDE OF UNIT

MODEL	x2 DIM - IN	x3 DIM - IN
VISION 1321	8.088	53.538
VISION 1327	8.888	52.738
VISION 1330L	9.288	52.338
RELIANCE 1227	9.788	45.838



ELEVATION - DOOR SIDE OF UNIT

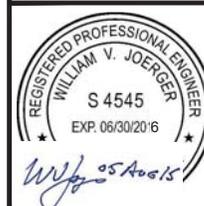


PLAN AT BASE

OPM-0198-13 STERIS VISION AND RELIANCE WASHERS/DISINFECTORS  
OVERTURNING MOMENTS

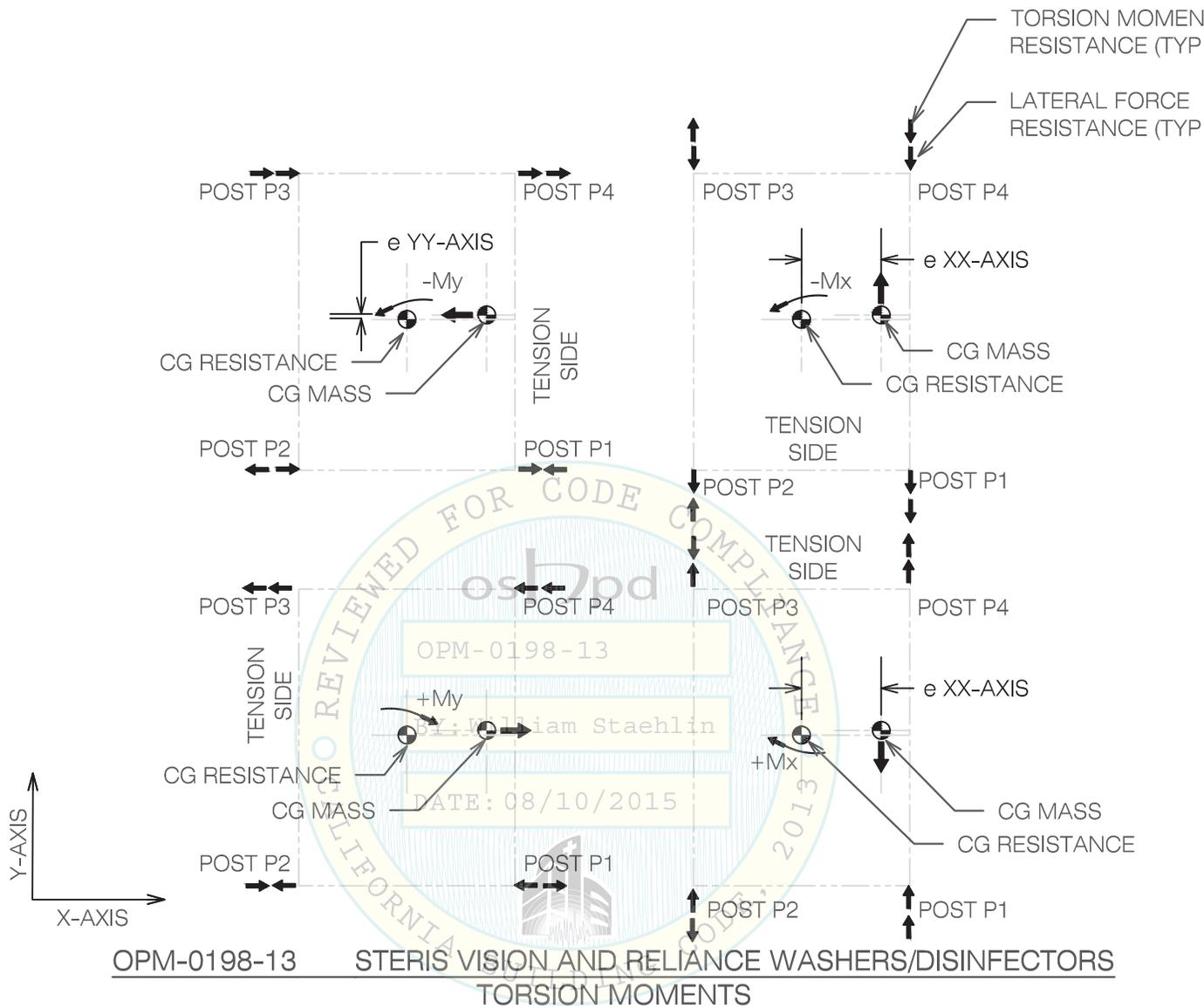


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OPM-0198-13 STERIS VISION AND RELIANCE WASHERS/DISINFECTORS  
TORSION MOMENTS

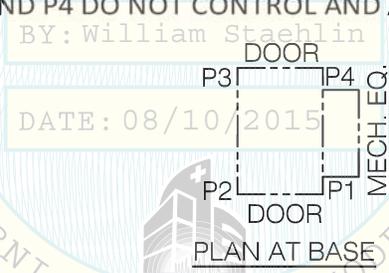
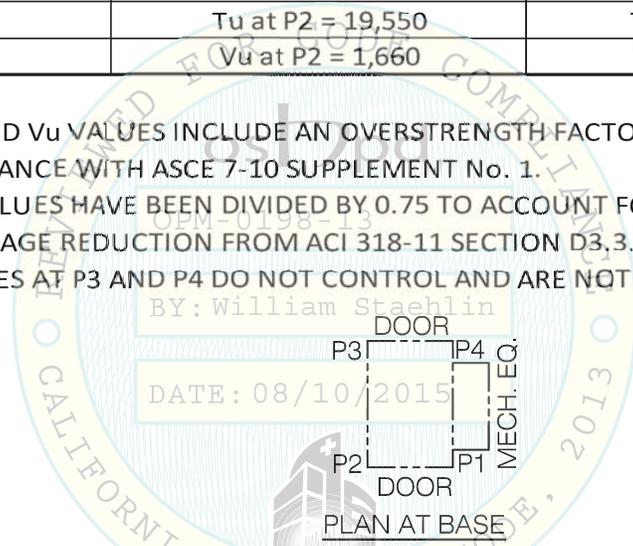


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MODEL NUMBER	GRADE TO MID-HT - LBS (FpH MAX. = 1.20)	MID-HT TO TOP FLOOR - LBS (FpH = 1.80 MAX.)
VISION 1321	Tu at P1 = 17230	Tu at P1 = 27,560
	Vu at P1 = 11,930	Vu at P1 = 16,700
	Tu at P2 = 23500	Tu at P2 = 33,830
	Vu at P2 = 2,620	Vu at P2 = 3,660
VISION 1327	Tu at P1 = 16,750	Tu at P1 = 27,010
	Vu at P1 = 12,220	Vu at P1 = 17,110
	Tu at P2 = 23,080	Tu at P2 = 33,340
	Vu at P2 = 2,540	Vu at P2 = 3,550
VISION 1330L	Tu at P1 = 16,690	Tu at P1 = 26,970
	Vu at P1 = 12,350	Vu at P1 = 17,290
	Tu at P2 = 22,700	Tu at P2 = 32,840
	Vu at P2 = 2,490	Vu at P2 = 3,490
RELIANCE 1227	Tu at P1 = 14,920	Tu at P1 = 25,840
	Vu at P1 = 9,320	Vu at P1 = 13,970
	Tu at P2 = 19,550	Tu at P2 = 30480
	Vu at P2 = 1,660	Vu at P2 = 2,490

1. Tu AND Vu VALUES INCLUDE AN OVERSTRENGTH FACTOR OF 2.5 IN ACCORDANCE WITH ASCE 7-10 SUPPLEMENT No. 1.
2. Tu VALUES HAVE BEEN DIVIDED BY 0.75 TO ACCOUNT FOR THE CONCRETE ANCHORAGE REDUCTION FROM ACI 318-11 SECTION D3.3.4.4.
3. FORCES AT P3 AND P4 DO NOT CONTROL AND ARE NOT LISTED.



OPM-0198-13 STERIS VISION AND RELIANCE WASHERS/DISINFECTORS CONCRETE ATTACHMENT FORCES



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SCALE N.T.S.	PAGE FORCES	