



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

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

OFFICE USE ONLY

APPLICATION #: OPM-0344-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

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

Manufacturer Information

Manufacturer: _____ BD Life Sciences

Manufacturer's Technical Representative: _____ Jerry Lotz

Mailing Address: _____ 7 Loveton Circle, Sparks, MD 21152

Telephone: _____ 410-316-4718 Email: _____ jerry_lotz@bd.com

Product Information

Product Name: _____ BD Phoenix M50

Product Type: _____ Bacterial testing device OPM-0344-13

Product Model Number: _____ BDDS443624

General Description: _____ Grows and identifies bacteria and conducts antibiotic susceptibility testing

Applicant Information

Applicant Company Name: _____ BD Life Sciences

Contact Person: _____ Gerard Lotz

Mailing Address: _____ 7 Loveton Circle, Sparks, MD 21152

Telephone: _____ 410-316-4718 Email: _____ jerry_lotz@bd.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016.

Signature of Applicant: _____ *Gerard Lotz* Date: 04/25/2016

Title: _____ Senior Mechanical Engineer Company Name: _____ BD Life Sciences

"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: CYS Structural Engineers
Name: Dieter T. Siebald California License Number: SE 4346
Mailing Address: 2495 Natomas Park Drive, Suite #650, Sacramento, CA 95833
Telephone: 916-920-2020 Email: dieters@cyseng.com

OSHPD Special Seismic Certification Preapproval (OSP)

- ☐ Special Seismic Certification is preapproved under OSP-
(Separate application for OSP is required)
☐ Special Seismic Certification is not preapproved

Certification Method(s)

- ☐ Testing in accordance with: ☐ ICC-ES AC156 ☐ FM 1950-15
☐ Other* (Please Specify): _____

*Use of criteria other than those adopted by the California Building Standards Code, 2016 (CBSC 2016) 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 2016 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 2016 & ALL PRE-2016 CODE BASED PROJECTS

Signature: Jeffrey Enzler Date: 10-19-2016
Print Name: Jeffrey Enzler
Title: DSE
Condition of Approval (if applicable): _____

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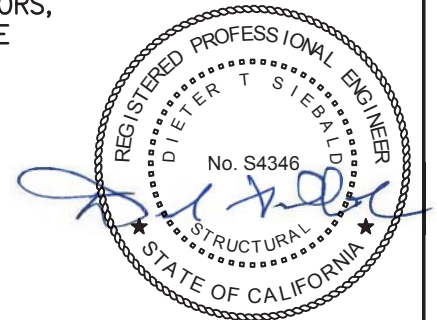


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- NOTES:**
1. THESE DRAWINGS ARE PREPARED FOR BD LIFE SCIENCES – DIAGNOSTIC SYSTEMS, SPARKS, MARYLAND.
 2. THE CONTRACTOR & INSPECTOR OF RECORD SHALL OBTAIN A COPY OF THIS PRE-APPROVAL FROM THE OFFICE OF STATEWIDE HEALTH PLANNING & DEVELOPMENT (OSHPD) PRE-APPROVAL PROGRAMS WEBSITE.
 3. THIS PRE-APPROVAL COVERS THE SUPPORTS & ATTACHMENTS OF THE EQUIPMENT TO THE SUPPORTING STRUCTURE. THE EQUIPMENT, STAND & ATTACHMENT HARDWARE ARE SUPPLIED BY THE MANUFACTURER. THE EXPANSION ANCHORS, THRU-BOLTS & STRUT PLATES SHOWN IN THIS OPM SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.



SHEET TITLE: TABLE OF CONTENTS



CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

TEL (916) 920-2020
www.cyseng.com

Job No:	16031
Date:	10-12-2016
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GENERAL NOTES:

1. THIS OSHPD PRE-APPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2013. THE DEMAND (DESIGN FORCES) FOR USE W/ THIS OPM SHALL BE BASED ON THE CBC 2013.
2. IT IS THE RESPONSIBILITY OF THE SEOR FOR A SITE SPECIFIC PROJECT TO VERIFY:
 - A. THE ADEQUACY OF THE NEW OR EXISTING STRUCTURE TO RESIST THE FORCES & WT SPECIFIED FOR EA EQUIP IN ADDITION TO ALL OTHER LOADS. PROVIDE & DESIGN SUPPLEMENTARY MEMBERS AS REQ.
 - B. THAT THE FLR ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY SLAB EDGES OR OPGS.
 - C. THAT THE FLR ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS. THE SPCG SHOWN IN THE TEST LOADS TABLE ON PG 3 IS THE REQ MIN SPCG OF THE GIVEN DIA ANCHORS. THE REQ SPCG FROM ANCHORS OF OTHER DIAMETERS & EMBEDMENTS MAY VARY & SHALL BE EVALUATED BY THE SEOR.
 - D. THAT THE INSTALLATION IS IN CONFORMANCE W/ THE CBC 2013 & W/ THE DETAILS SHOWN IN THIS PRE-APPROVAL.
 - E. THAT THE ACTUAL EQUIP'S WT, CENTER OF GRAVITY (CG) LOCATION, ANCHOR LOCATIONS, ANCHOR DETAILS, & THE MATERIAL & GAGE OF THE EQUIP WHERE ATTACHMENTS ARE MADE, AGREE W/ THE INFO SHOWN ON THE PRE-APPROVAL DOCUMENTS.
3. EXPANSION ANCHORS INSTALLED IN NWC OR SLWC SHALL BE CARBON STEEL HILTI KB-TZ EXPANSION ANCHORS COMPLYING W/ ESR-1917 REISSUED MAY 2015:
 - A. INSTALLATION: INSTALL THE EXPANSION ANCHORS IN ACCORDANCE W/ THE REQUIREMENTS GIVEN IN THE ICC EVALUATION REPORT FOR THE SPECIFIC ANCHOR & THE PARAMETERS GIVEN IN THE TABLE ON PG 3.
 - B. JOB TESTING: FOR VERIFYING SATISFACTORY INSTALLATION WORKMANSHIP, PERFORM JOBSITE TESTING IN ACCORDANCE W/ THE TEST LOAD TABLE PROVIDED IN THIS DOCUMENT. TEST 50% OF THE INSTALLED ANCHORS. THE TEST LOAD MAY BE APPLIED BY ANY METHOD THAT WILL EFFECTIVELY MEASURE THE TORQUE IN THE ANCHOR SUCH AS CALIBRATED TORQUE WRENCH METHOD. ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE INSPECTOR OF RECORD (IOR). IF ANY ANCHOR FAILS THE TEST, TEST ALL ANCHORS. THE TEST SHALL BE PERFORMED 24 HOURS OR MORE AFTER INSTALLATION. TESTING MAY BE DONE PRIOR TO EQUIP INSTALLATION. ALSO REFER TO CBC 1913A.7 "FIELD TESTS FOR POST-INSTALLED ANCHORS IN CONCRETE".
 - C. FAILURE/ACCEPTANCE CRITERIA: THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:
 - TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN THE FOLLOWING LIMITS:
WEDGE TYPE: ONE-HALF ($\frac{1}{2}$) TURN OF THE NUT.



SHEET TITLE: GENERAL NOTES



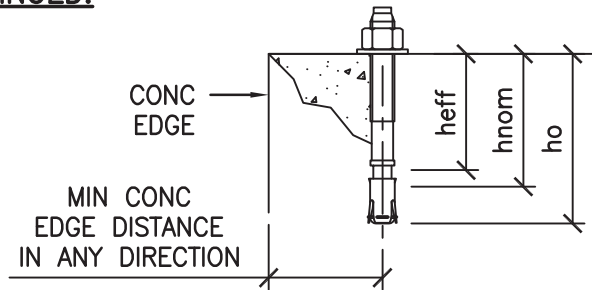
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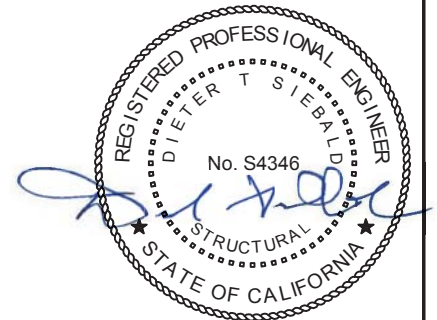
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GENERAL NOTES CONTINUED:



ANCHOR DIA (INCH)	INSTALLATION EMBED (INCH) hnom	EFFECTIVE EMBED (INCH) heff	HOLE DEPTH (INCH) ho	MIN CONC THK (INCH) h	MIN CONC EDGE DISTANCE (INCH)	MIN ANCHOR SPCG (INCH)	TEST TORQUE (FT-LBS)	CONDITION OF ANCHORAGE
3/8	2 5/16	2	2 5/8	4	12	4.25	25	CASE 1
1/2	3 5/8	3 1/4	4	6	12	4.25	40	CASE 2
1/2	2 3/8	2	2 5/8	4	12	4.25	40	CASE 3

4. BOLTS THRU CONC ON MTL DECK: OPM-0344-13
- BOLTS SHALL BE TORQUED BY 3/4 TURN OF THE NUT AFTER SNUG TIGHT CONDITION IS ACHIEVED, UNO. THE SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQ TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.
 - THRU-BOLT HOLES SHALL BE 1/16" LARGER THAN BOLT SIZE (HOLE SIZE = BOLT SIZE + 1/16").
 - THRU-BOLTS IN CONC SHALL RECEIVE SPECIAL INSPECTION & TESTING IN ACCORDANCE W/ REQUIREMENTS FOR POST-INSTALLED ANCHORS. THRU-BOLTS W/ STL TO STL CONNECTION IN TENSION DO NOT REQUIRE TESTING.



SHEET TITLE: GENERAL NOTES (CONTINUED)



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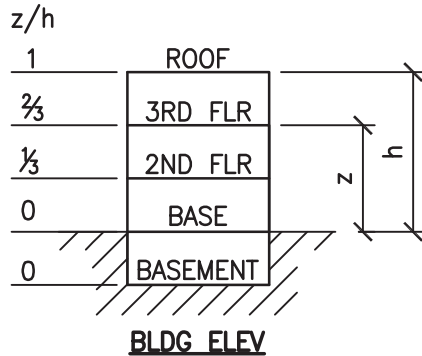
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GENERAL NOTES CONTINUED:

5. THREE (3) CASES OF ATTACHMENT ARE SPECIFIED & PRESENTED IN THIS PRE-APPROVAL:



CASE 1: ATTACHMENT DETAILS LOCATED AT UPPER FLRS ABV THE BASE OF A BLDG. THE FLRS ARE ASSUMED TO BE BUILT OF A MIN $\frac{3}{4}$ " SLWC TOPPING OVER 3" DEEP MIN 20 GA MTL DECK ($f'_c = 3000$ PSI, MIN).

FOR CASE 1: $z/h \leq 1$ & $S_{ps} \leq 2.50$

CASE 2: ATTACHMENT DETAILS LOCATED AT OR BLW THE BASE OF A BLDG. THE FLRS ARE ASSUMED TO BE BUILT OF A MIN 6" NWC SLAB ($f'_c = 3000$ PSI, MIN).

FOR CASE 2A (SINGLE UNIT ON STAND):

$z/h = 0$ & $S_{ps} \leq 2.50$

FOR CASE 2B (STACKED UNITS ON STAND):

$z/h = 0$ & $S_{ps} \leq 2.20$

CASE 3: ATTACHMENT DETAILS LOCATED AT OR BLW THE BASE OF A BLDG. THE FLRS ARE ASSUMED TO BE BUILT OF A MIN 4" NWC SLAB ($f'_c = 3000$ PSI, MIN).

FOR CASE 3A (SINGLE UNIT ON STAND):

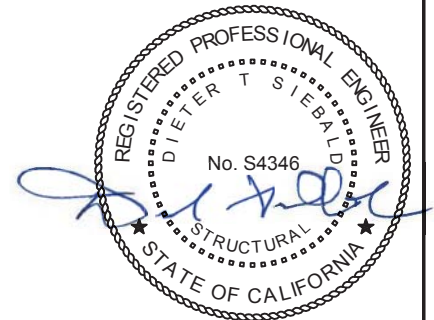
$z/h = 0$ & $S_{ps} \leq 2.0$

FOR CASE 3B (STACKED UNITS ON STAND):

$z/h = 0$ & $S_{ps} \leq 1.4$

6. THIS PRE-APPROVAL MAY BE USED ONLY AT GEOGRAPHICAL LOCATIONS IN THE STATE OF CALIFORNIA WHERE S_{ps} IS LESS THAN OR EQ TO THE VALUES NOTED ABV.

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SHEET TITLE: GENERAL NOTES (CONTINUED)



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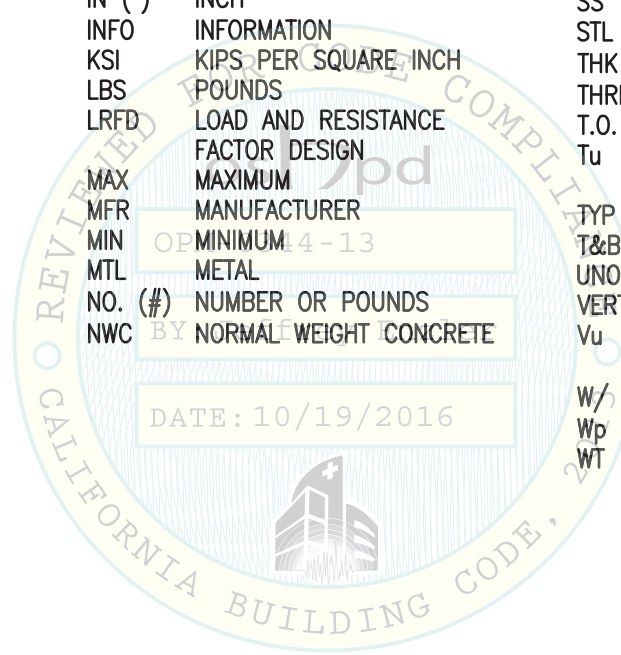
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ABBREVIATIONS:

@	AT	f'c	MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE	OPG	OPENING
∠	ANGLE			OPM	OSPHD PRE-APPROVAL OF MANUFACTURER'S CERTIFICATION
AB	ANCHOR BOLT	FLG	FLANGE		
ABV	ABOVE	FLR	FLOOR	OSPHD	OFFICE OF STATEWIDE HEALTH PLANNING & DEVELOPMENT
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	FT (')	FOOT/FEET		
		F _p	HORIZONTAL SEISMIC FORCE	PERP	PERPENDICULAR
ADJ	ADJACENT			PG(S)	PAGE(S)
AISI	AMERICAN IRON & STEEL INSTITUTE	F _y	PER ASCE 7-10 SEISMIC FORCE REQUIREMENTS	PL	PLATE
ALUM	ALUMINUM			PSI	POUNDS PER SQUARE INCH
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	GA	SPECIFIED MINIMUM YIELD STRESS OF STEEL	REQ	REQUIRED
		GR	GAUGE	SEOR	STRUCTURAL ENGINEER OF RECORD
BLDG	BUILDING	HT	GRADE		
BLW	BELOW	ICC	HEIGHT	SLWC	SAND-LIGHTWEIGHT CONCRETE
BOTT	BOTTOM		INTERNATIONAL CODE COUNCIL	SPCG	SPACING
CBC	CALIFORNIA BUILDING CODE	IN (")	INCH	SPEC	SPECIFICATION
CG	CENTER OF GRAVITY	INFO	INFORMATION	SS	STAINLESS STEEL
CL	CENTERLINE	KSI	KIPS PER SQUARE INCH	STL	STEEL
CONC	CONCRETE	LBS	POUNDS	THK	THICK/THICKNESS
COORD	COORDINATE	LRFD	LOAD AND RESISTANCE FACTOR DESIGN	THRD	THREAD OR THREADED
CRS	COLD-ROLLED STEEL	MAX	MAXIMUM	T.O.	TOP OF
DEG	DEGREE	MFR	MANUFACTURER	Tu	ANCHORAGE TENSION REACTION DUE TO SEISMIC FORCE
DIA (ø)	DIAMETER	MIN	MINIMUM	TYP	TYPICAL
(E)	EXISTING CONDITION	MTL	METAL	T&B	TOP & BOTTOM
EA	EACH	NO. (#)	NUMBER OR POUNDS	UNO	UNLESS NOTED OTHERWISE
EE	EACH END	NWC	NORMAL WEIGHT CONCRETE	VERT	VERTICAL
ELEV	ELEVATION			Vu	ANCHORAGE SHEAR REACTION DUE TO SEISMIC FORCE
EQ	EQUAL			W/	WITH
EQUIP	EQUIPMENT			Wp	OPERATING WEIGHT
ES	EACH SIDE			WT	WEIGHT



SHEET TITLE: ABBREVIATIONS



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SYSTEM OVERVIEW & DESIGN CRITERIA:

- TWO (2) INSTALLATION CONFIGURATIONS OF THE BD PHOENIX M50 UNIT ARE COVERED BY THIS OPM, THE STAND CONFIGURATION "A" W/ SINGLE UNIT ON STAND & CONFIGURATION "B" STACKED UNITS ON STAND. THE STACKED UNIT ON STAND, CONFIGURATION "B", IS SHOWN ON PG 7 & 8. THE SINGLE UNIT ON STAND, CONFIGURATION "A", IS NOT SHOWN BUT ALLOWABLE MAX S_{DS} VALUES ARE GIVEN BLW. PLEASE NOTE, THE MAX S_{DS} IS DIFFERENT FOR EA CONFIGURATION DUE TO THE DIFFERENCE IN TOTAL EQUIP WT & HT OF CG.
- SUPPORT & ATTACHMENT DESIGN IS PER 2013 CBC AT LRFD LEVEL FORCES.

OTHER MECHANICAL OR ELECTRICAL COMPONENTS PER TABLE 13.6-1 OF ASCE 7-10 SUPPLEMENT #1:

$$a_p = 1.0 \quad R_p = 1.5 \quad I_p = 1.5 \quad \Omega_0 = 1.5 \text{ (FOR CONC ANCHORS ONLY)}$$

W_p AS NOTED ON DRAWINGS ON PG 7

UPPER FLRS ABV THE BASE OF BLDG, $z/h \leq 1$

CASE 1: $S_{DS} = 2.50 \quad F_p = 3.00 W_p$

FLRS AT OR BLW THE BASE OF BLDG, $z/h = 0$

CASE 2A: $S_{DS} = 2.50 \quad F_p = 1.13 W_p$

CASE 2B: $S_{DS} = 2.20 \quad F_p = 0.99 W_p$

CASE 3A: $S_{DS} = 2.0 \quad F_p = 0.90 W_p$

CASE 3B: $S_{DS} = 1.4 \quad F_p = 0.63 W_p$

LOAD COMBINATIONS

$(0.9 - 0.2 S_{DS}) D - \Omega_0 F_p$ (FOR MAX TENSION)

$(1.2 + 0.2 S_{DS}) D + \Omega_0 F_p$ (FOR MAX COMPRESSION)

DATE: 10/19/2016



SHEET TITLE: SYSTEM OVERVIEW & DESIGN CRITERIA



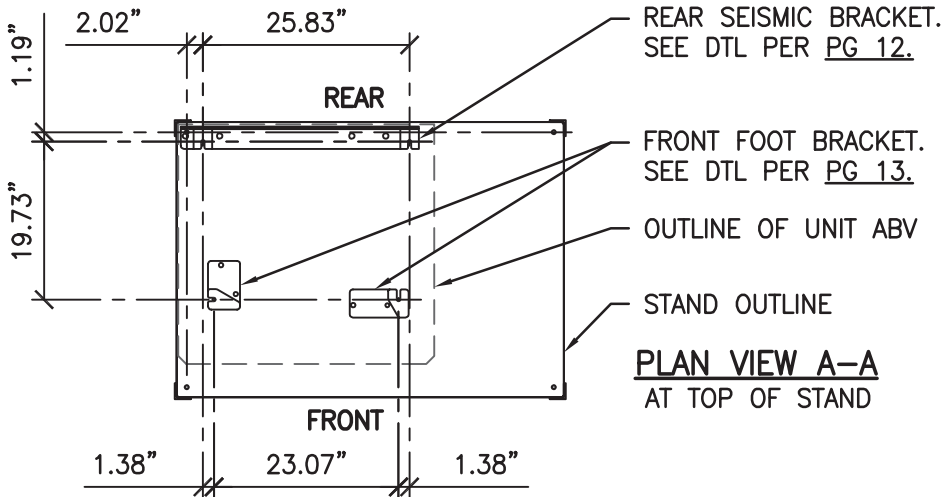
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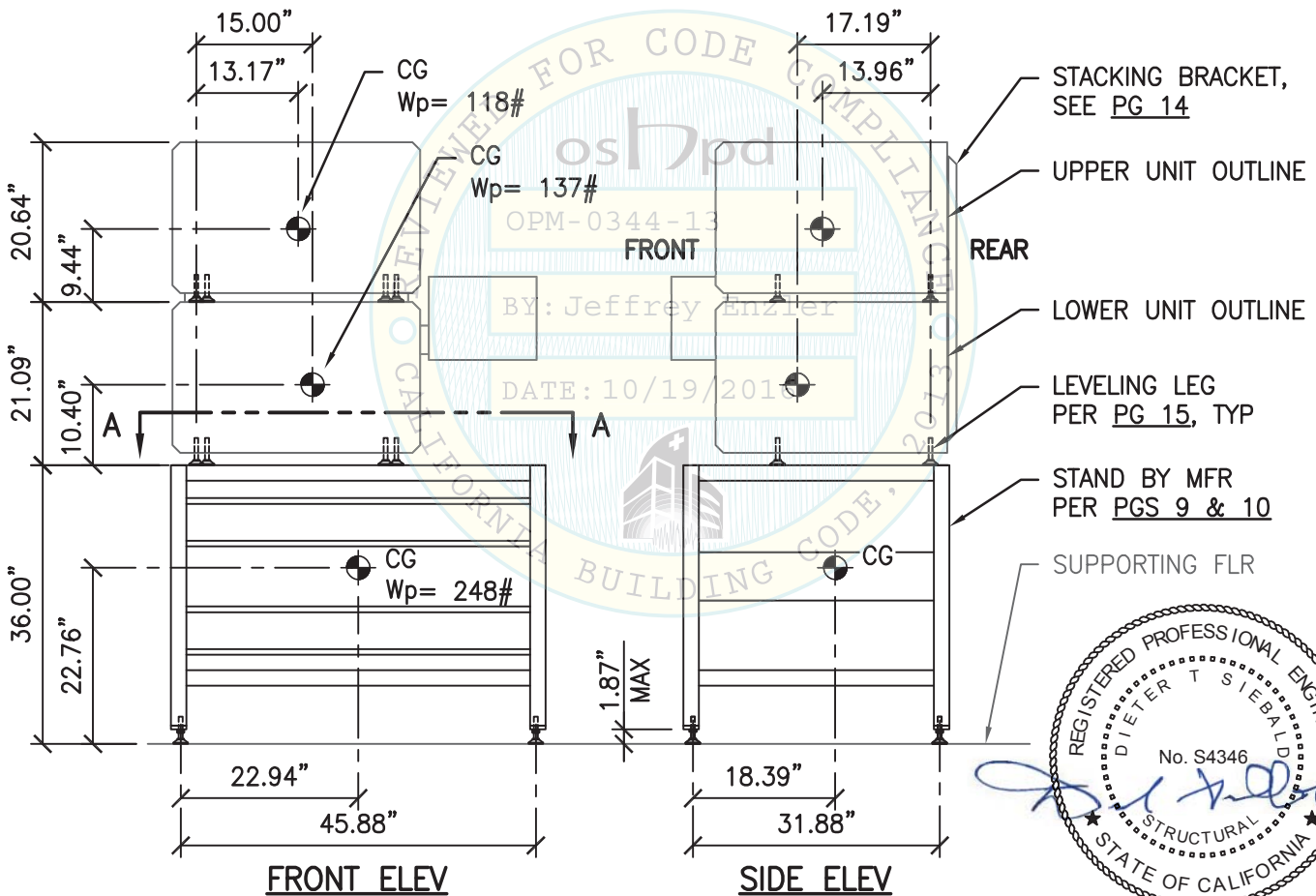
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BD Life Sciences - Diagnostic Systems
BD PHOENIX M50



NOTES:

1. SEE PG 9 FOR ISOMETRIC VIEW OF STAND.
2. THERE MAY BE EITHER A SINGLE UNIT OR TWO STACKED UNITS ON THE STAND. REFER TO PG 6.



SHEET TITLE: PHOENIX M50 CONFIGURATIONS
ELEVATIONS & PLANS



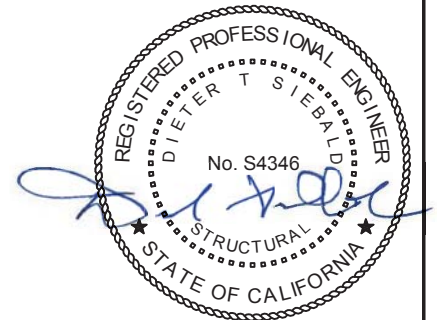
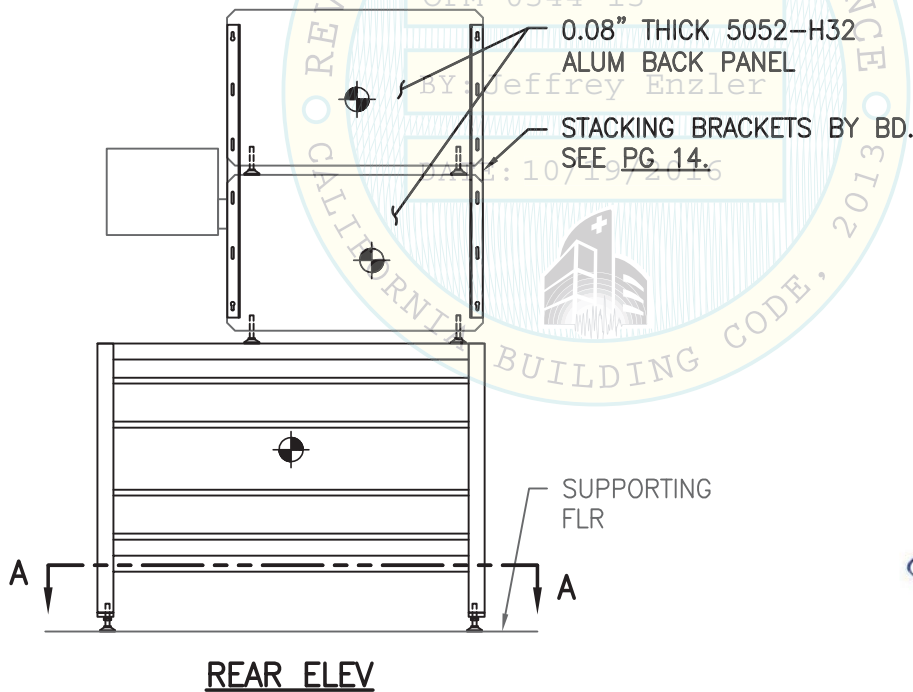
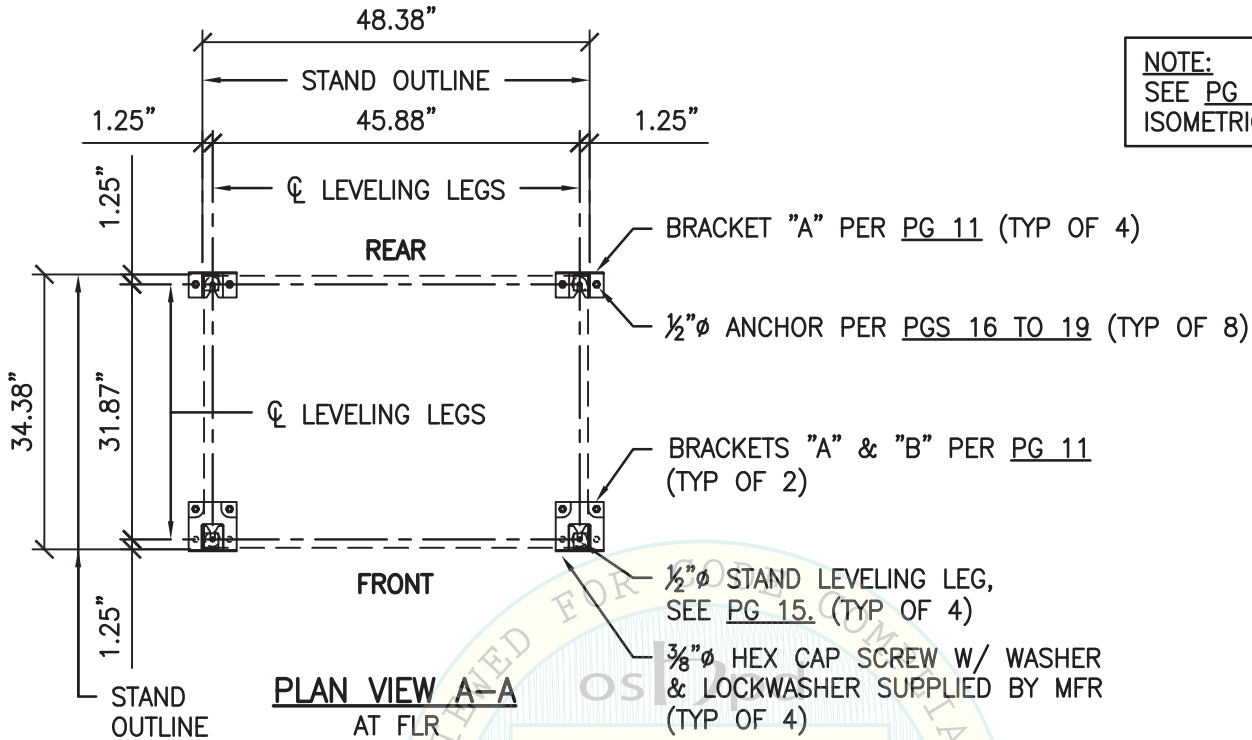
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NOTE:
SEE PG 9 FOR
ISOMETRIC VIEW.



**SHEET TITLE: PHOENIX M50 CONFIGURATIONS
ELEVATIONS & PLANS**



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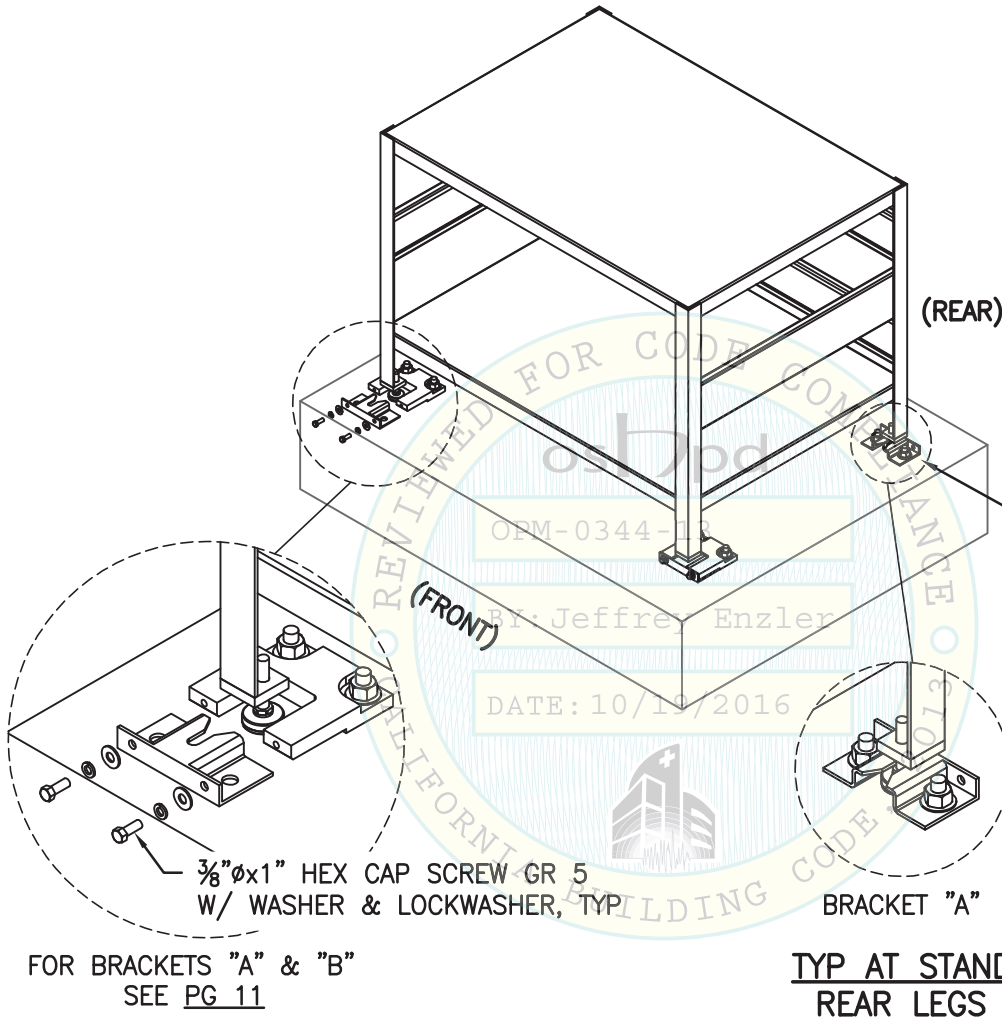
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NOTES:

1. UNITS NOT SHOWN FOR CLARITY.
2. SEE NOTE 3 ON PG 1.



SHEET TITLE: STAND ISOMETRIC VIEW

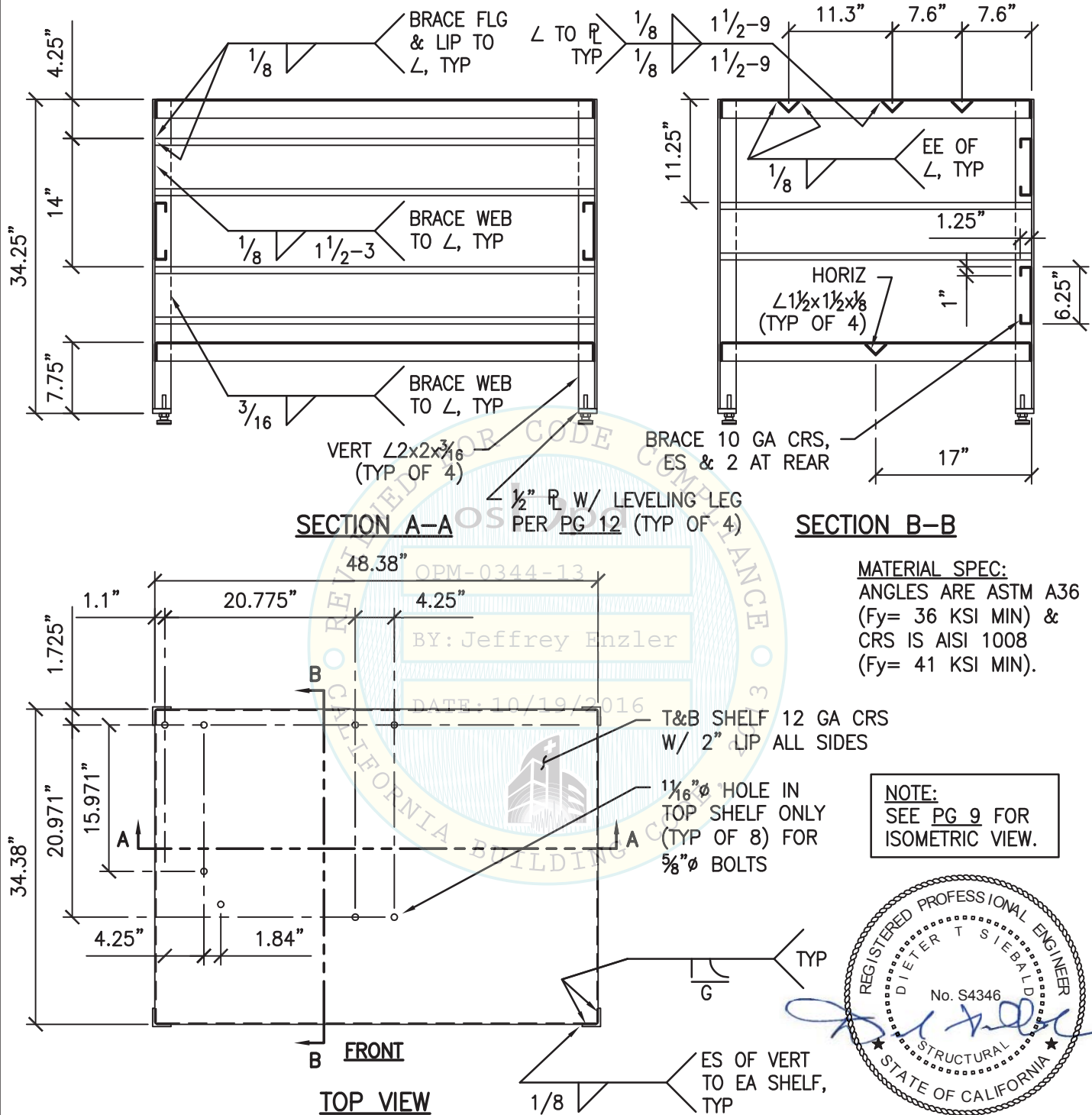


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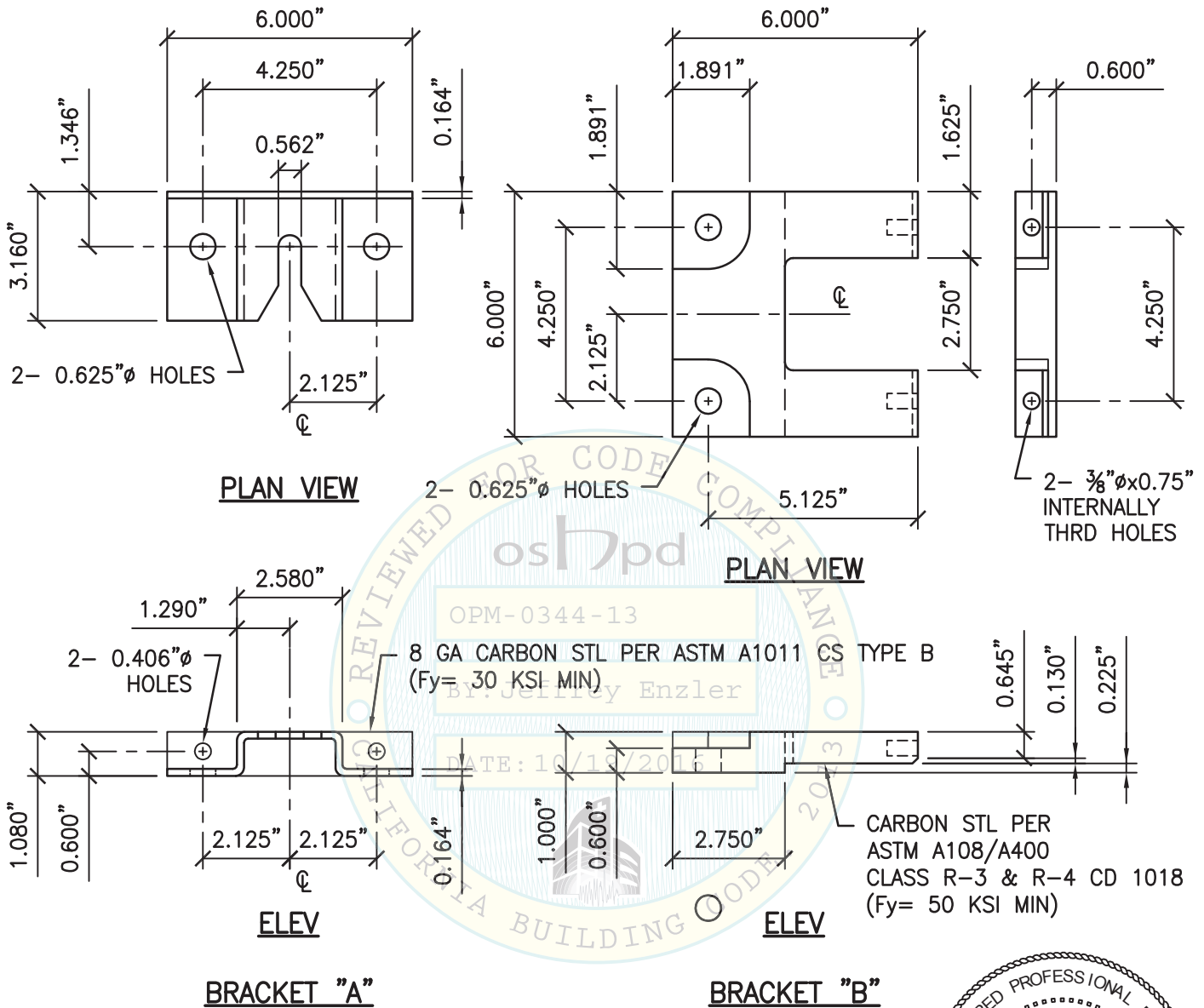


SHEET TITLE: STAND ASSEMBLY
PLAN & ELEVATIONS

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SHEET TITLE: STAND FLOOR SEISMIC BRACKET DETAILS

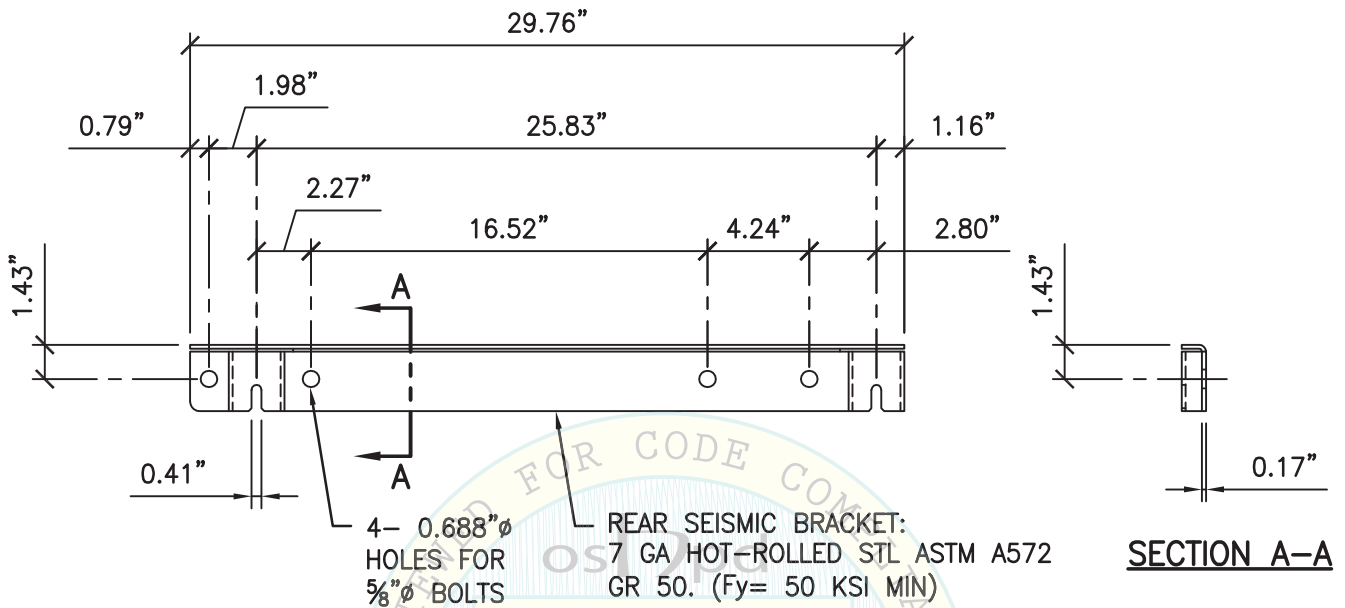


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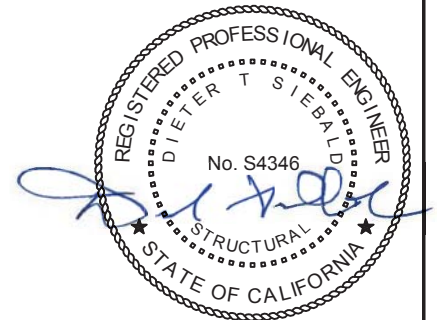
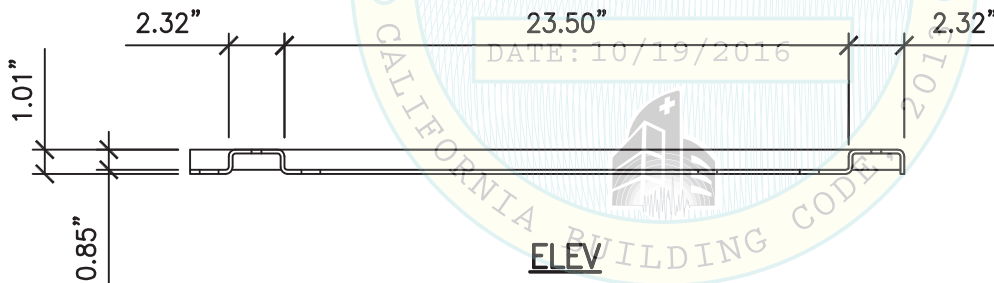


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PLAN VIEW

BY: Jeffrey Enzler

DATE: 10/19/2016



SHEET TITLE: PHOENIX M50 REAR SEISMIC BRACKET DETAIL

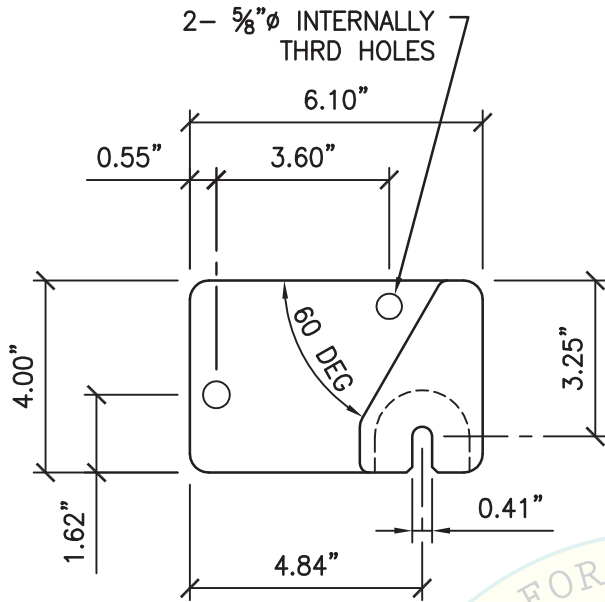


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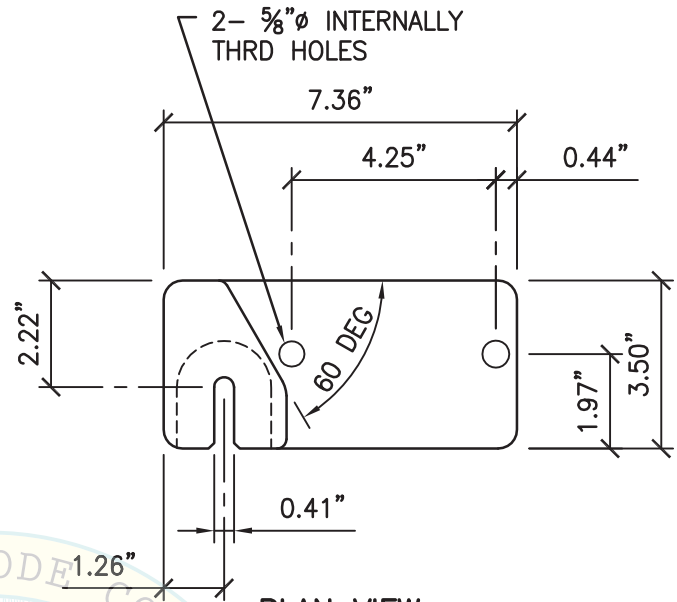
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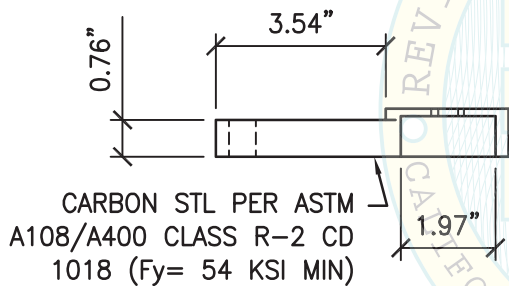
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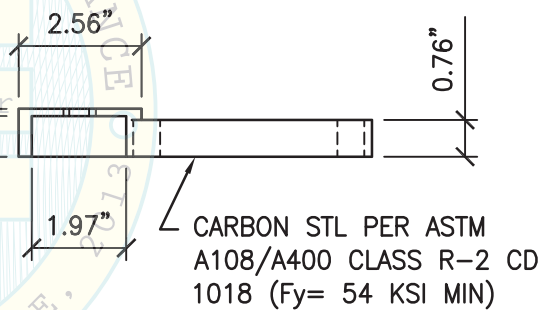
PLAN VIEW
FRONT LEFT FOOT BRACKET



PLAN VIEW
FRONT RIGHT FOOT BRACKET



ELEV VIEW
FRONT LEFT FOOT BRACKET



ELEV VIEW
FRONT RIGHT FOOT BRACKET



SHEET TITLE: PHOENIX M50 FRONT FOOT BRACKET DETAILS

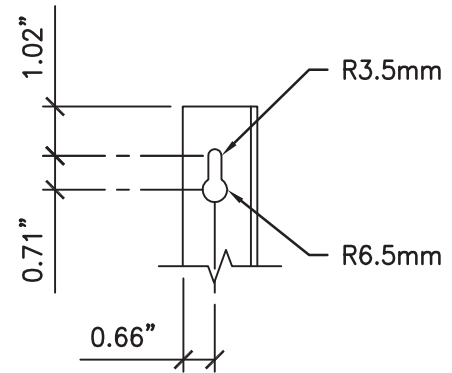
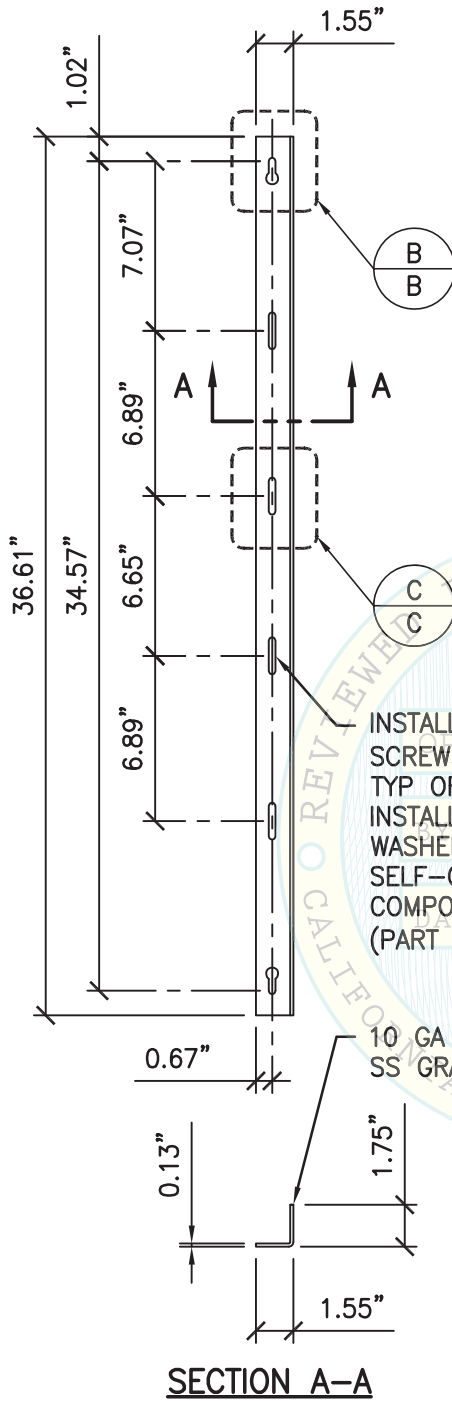


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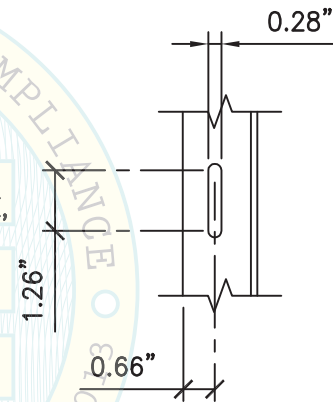
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DETAIL B-B



DETAIL C-C

SECTION A-A



SHEET TITLE: PHOENIX M50 STACKING BRACKET DETAIL

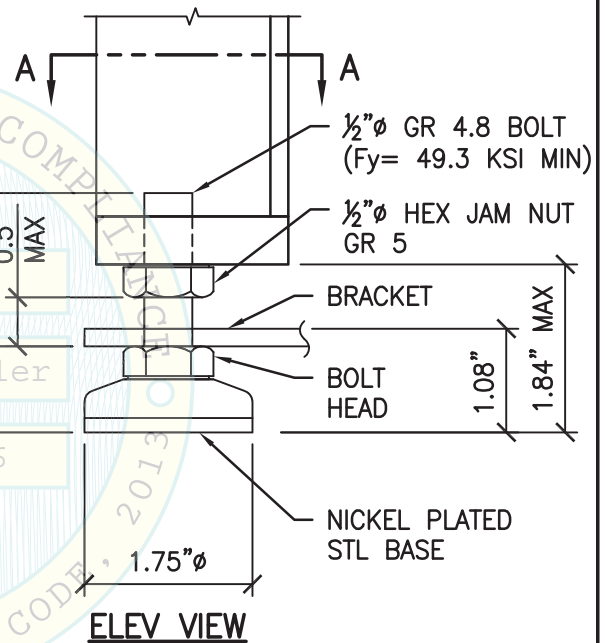
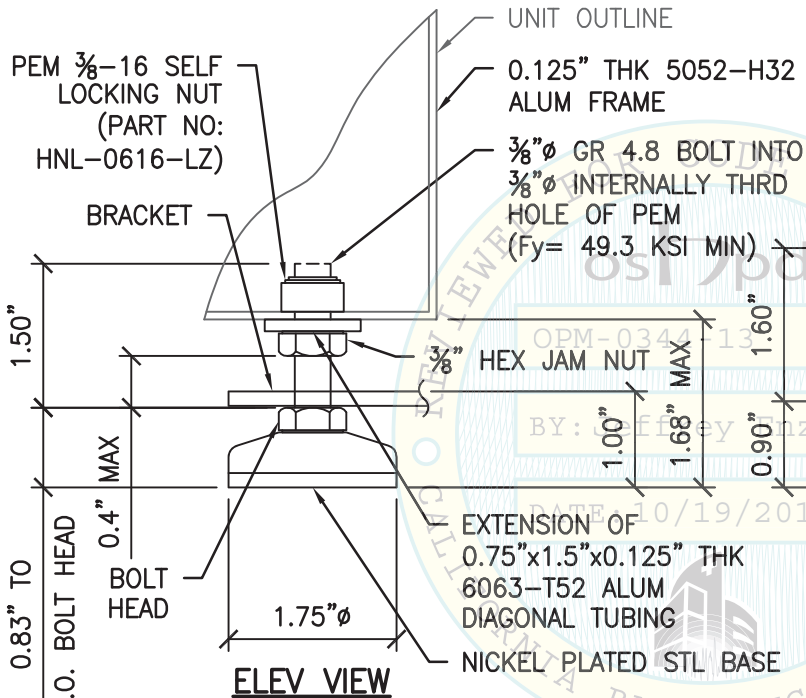
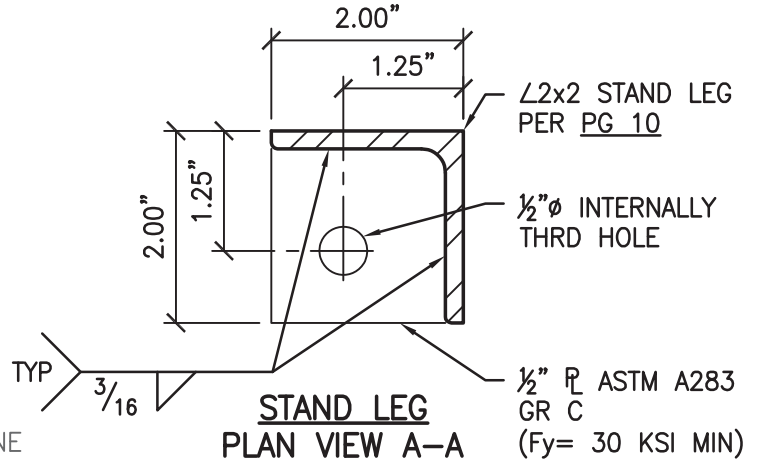


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PHOENIX M50 UNIT LEVELING LEG

STAND LEVELING LEG



SHEET TITLE: PHOENIX M50 & STAND LEVELING LEG DETAILS



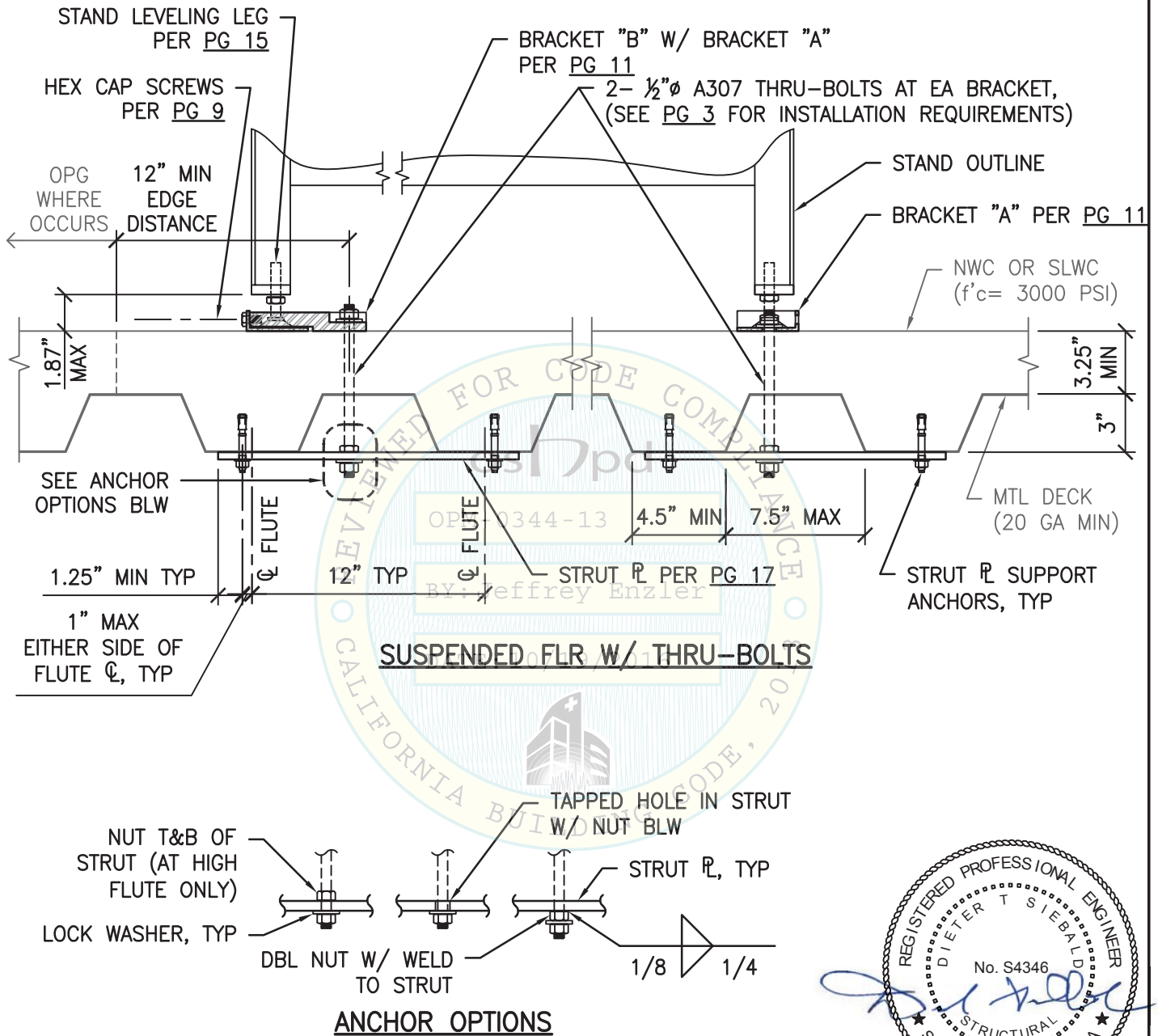
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L:\Jobs\16031 BD - Phoenix M50 OPM-0344-13\STRU\S1.dwg Time: Oct 12, 2016 - 09:20am Login: camachom DimScale: 1 LTScale: 6



SHEET TITLE: ATTACHMENT DETAILS
STAND TO CONCRETE FILL OVER METAL DECK (CASE 1)

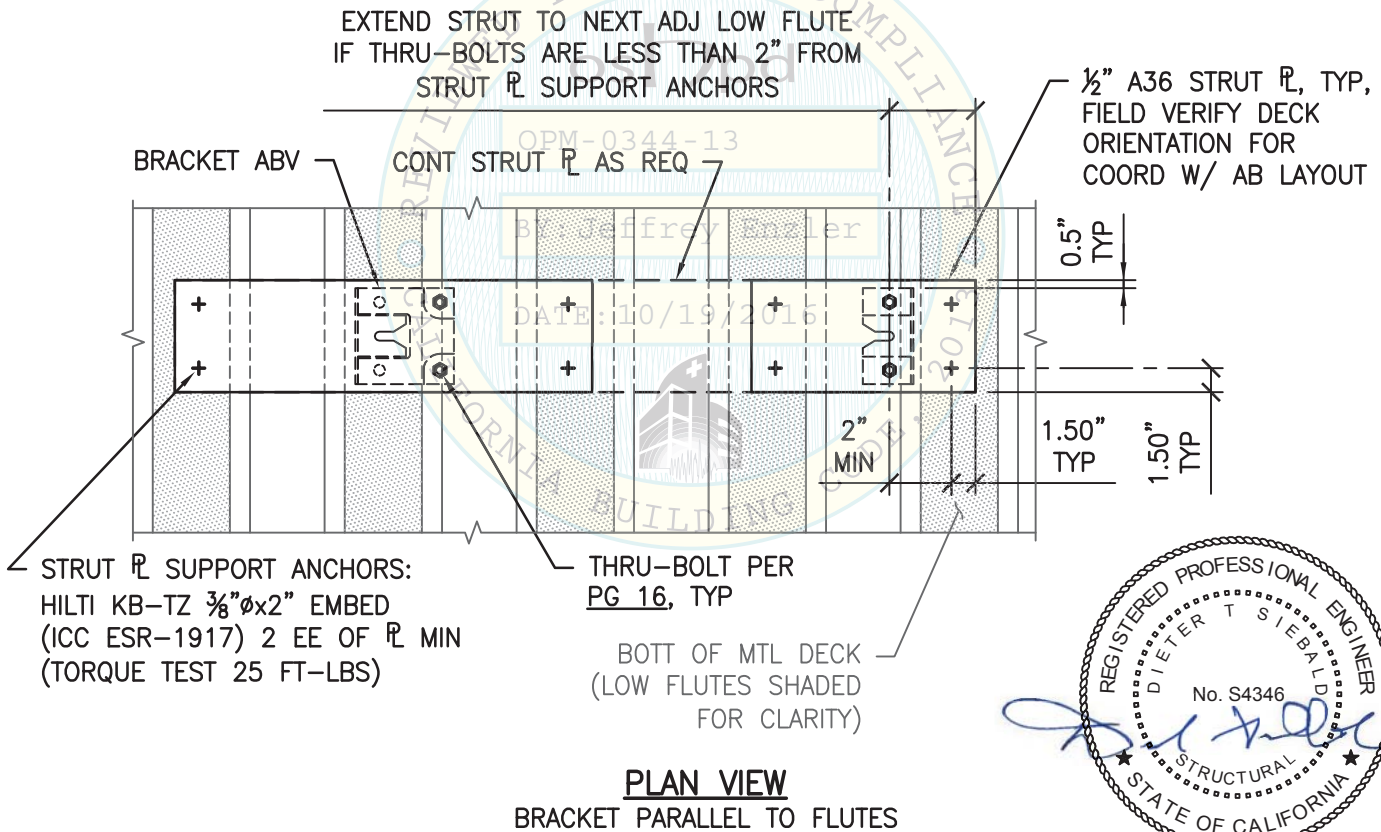
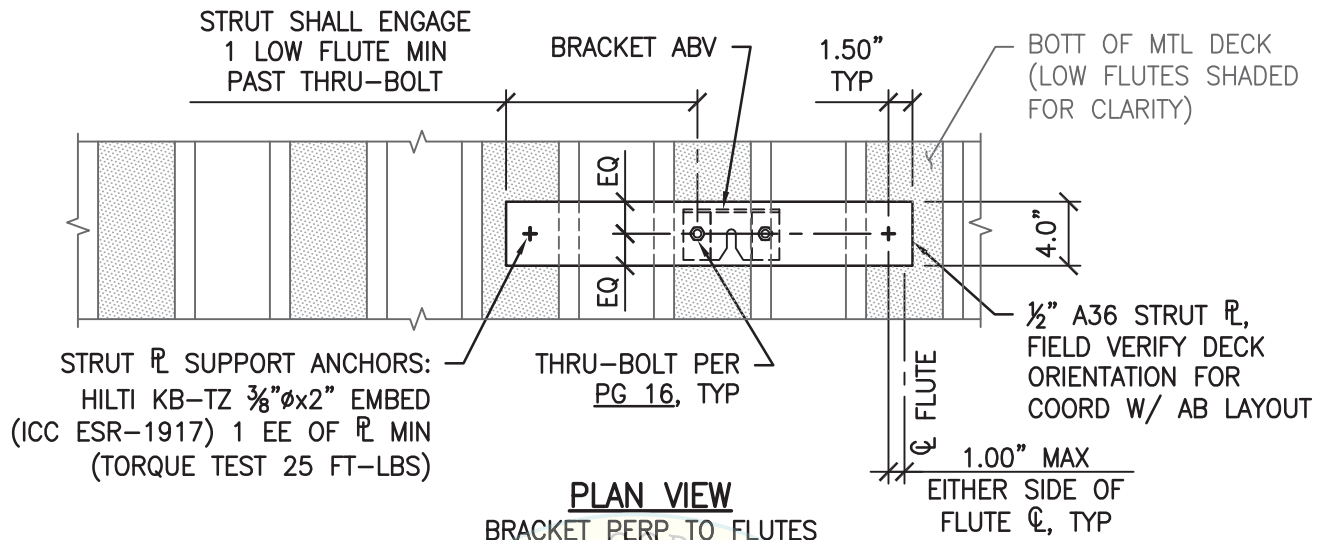


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SHEET TITLE: STRUT PLATE DETAILS

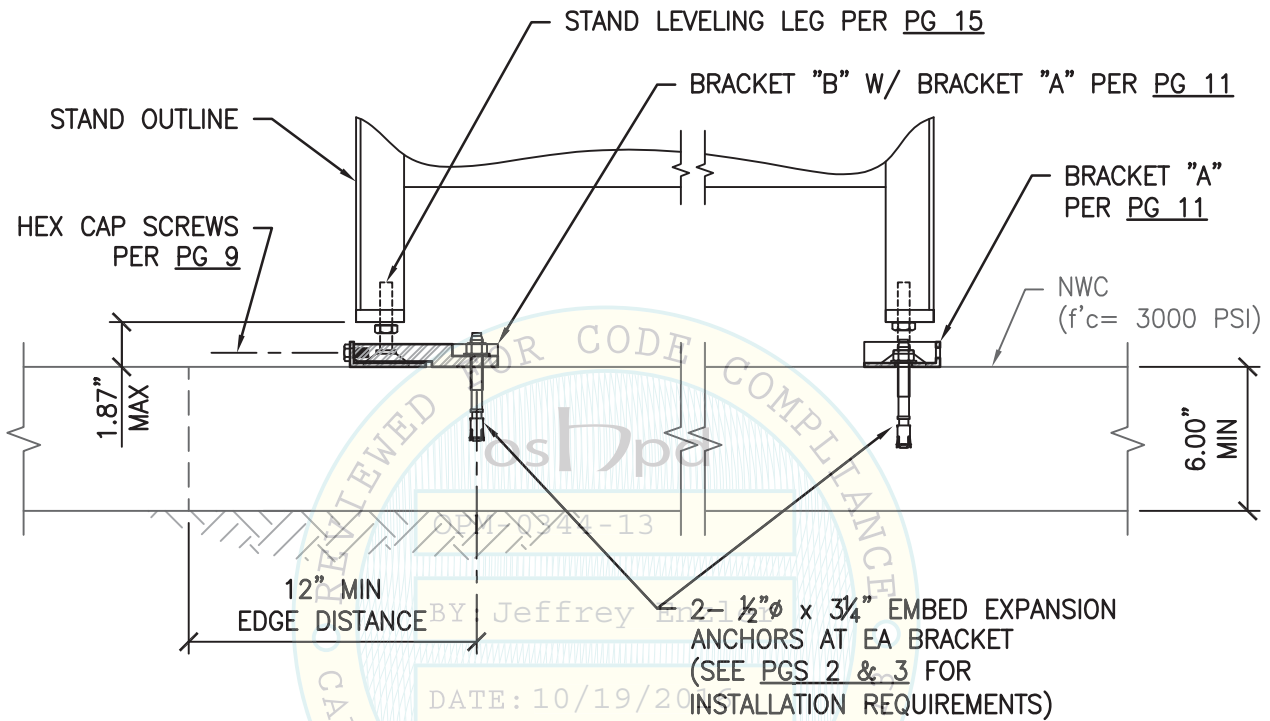


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6" SLAB ON GRADE

CASE 2A MAX S_{ps} = 2.50 (FOR SINGLE INSTRUMENT ON STAND)

CASE 2B MAX S_{ps} = 2.20 (FOR TWO STACKED INSTRUMENTS ON STAND)



SHEET TITLE: ATTACHMENT DETAILS

STAND TO 6" SLAB ON GRADE (CASE 2)



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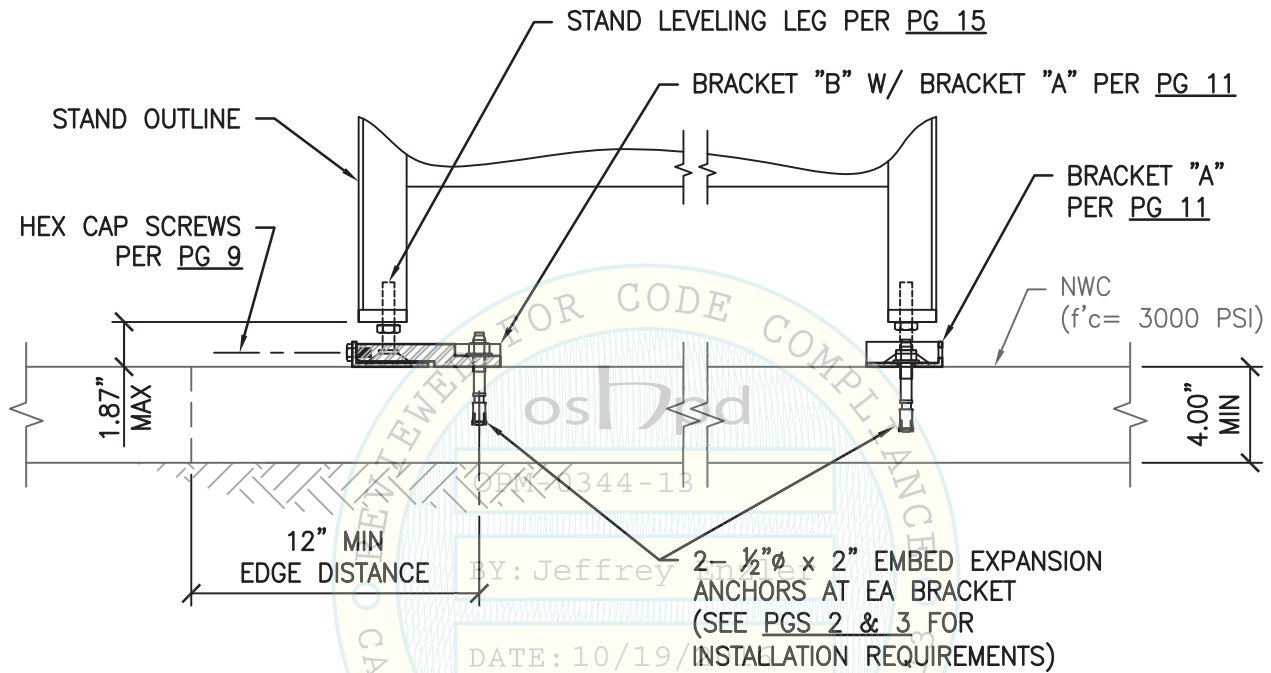
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4" SLAB ON GRADE

CASE 3A MAX S_{DS} = 2.0 (FOR SINGLE INSTRUMENT ON STAND)
CASE 3B MAX S_{DS} = 1.4 (FOR TWO STACKED INSTRUMENTS ON STAND)



SHEET TITLE: ATTACHMENT DETAILS
STAND TO 4" SLAB ON GRADE (CASE 3)



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