



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

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

OFFICE USE ONLY
APPLICATION #: OPM-0105-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: [ ] New [X] Renewal [ ] Update to Pre-CBC 2013 OPA Number:

Manufacturer Information

Manufacturer: Ortho Clinical Diagnostics
Manufacturer's Technical Representative: Frank Koetter
Mailing Address: 100 Indigo Creek Drive, MC00891, Rochester, NY 14626-5101
Telephone: 1-585-453-4003 Email: Frank.koetter@orthoclinicaldiagnostics.com

Product Information

Product Name: Vitros 5600 & Vitros 7600 Integrated Systems
Product Type: Immunoassay System
Product Model Number: Vitros 5600 & Vitros 7600
General Description: clinical chemistry and immunoassay system analyzers

Applicant Information

Applicant Company Name: Ortho Clinical Diagnostics
Contact Person: Frank Koetter
Mailing Address: 100 Indigo Creek Drive, MC00891, Rochester, NY 14626-5101
Telephone: 1-585-453-4003 Email: Frank.koetter@orthoclinicaldiagnostics.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: [Signature] Date: 3/17/2018
Title: Group Director, Systems Development & LCM Company Name: Ortho Clinical Diagnostics

"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, Inc.

Name: Dieter T. Siebald California License Number: S4346

Mailing Address: 2495 Natomas Park Drive, Suite 650, Sacramento, CA 95833

Telephone: 1-916-920-2020 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 1950-16
- 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:  Date: 05-24-2018

Print Name: Jeffrey Kikumoto

Title: SSE

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

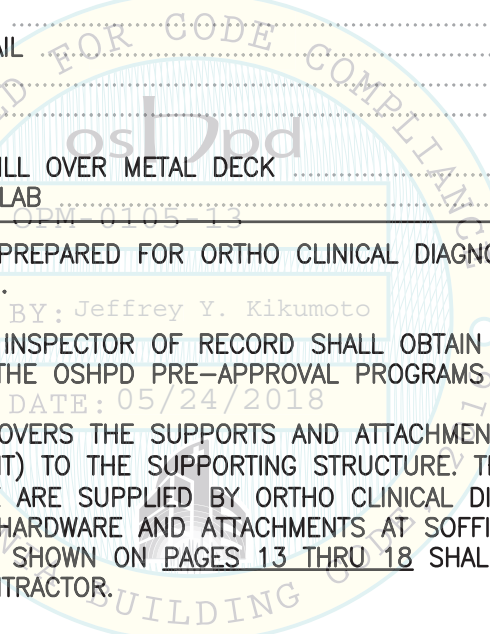
"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"



OPM-0105-13  
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- NOTES:**
1. THESE DRAWINGS ARE PREPARED FOR ORTHO CLINICAL DIAGNOSTICS, ROCHESTER, NEW YORK.
  2. THE CONTRACTOR AND INSPECTOR OF RECORD SHALL OBTAIN A COPY OF THIS PRE-APPROVAL FROM THE OSHPD PRE-APPROVAL PROGRAMS WEBSITE.
  3. THIS PRE-APPROVAL COVERS THE SUPPORTS AND ATTACHMENTS OF THE COMPONENT (EQUIPMENT) TO THE SUPPORTING STRUCTURE. THE UNIT AND ATTACHMENT HARDWARE ARE SUPPLIED BY ORTHO CLINICAL DIAGNOSTICS. THROUGH BOLTS, UNDER FLOOR HARDWARE AND ATTACHMENTS AT SOFFIT UNDER METAL DECK AND EXPANSION BOLTS SHOWN ON PAGES 13 THRU 18 SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.



SHEET TITLE: TABLE OF CONTENTS

 <p><b>CYS STRUCTURAL ENGINEERS, INC.</b> 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 18011 Date: 05/10/2018 Page: 1 of 18
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**GENERAL NOTES:**

1. THIS OSHPD PRE-APPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2016. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2016.
2. IT IS THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER OF RECORD FOR A SITE SPECIFIC PROJECT TO VERIFY:
  - A. THE ADEQUACY OF THE NEW OR EXISTING STRUCTURE TO RESIST THE FORCES AND WEIGHT SPECIFIED FOR EACH EQUIPMENT IN ADDITION TO ALL OTHER LOADS. PROVIDE AND DESIGN SUPPLEMENTARY MEMBERS AS REQUIRED.
  - B. THAT THE FLOOR ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY SLAB EDGES OR OPENINGS.
  - C. THAT THE FLOOR ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS. THE SPACING SHOWN IN THE TEST LOADS TABLE ON PAGE 3 IS THE REQUIRED MINIMUM SPACING OF THE 1/2" & 5/8" DIAMETER ANCHOR BOLTS. THE REQUIRED SPACING FROM ANCHORS OF OTHER DIAMETERS AND EMBEDMENTS MAY VARY AND SHALL BE EVALUATED BY THE SEOR.
  - D. THAT THE INSTALLATION IS IN CONFORMANCE WITH THE CBC 2016 AND WITH THE DETAILS SHOWN IN THIS PRE-APPROVAL.
  - E. THAT THE ACTUAL EQUIPMENT'S WEIGHT, CENTER OF GRAVITY (CG) LOCATION, ANCHOR LOCATIONS, ANCHOR DETAILS, AND THE MATERIAL AND GAGE OF THE EQUIPMENT WHERE ATTACHMENTS ARE MADE, AGREE WITH THE INFORMATION SHOWN ON THE PRE-APPROVAL DOCUMENTS.
  - F. THAT THE PROJECT SPECIFIC VALUES OF  $S_{DS}$  &  $z/h$  RESULT IN SEISMIC FORCES ( $E_h$ ,  $E_v$ ) THAT DO NOT EXCEED THE VALUES IN THE DETAILS.
- 3A. EXPANSION ANCHORS INSTALLED IN NORMAL WEIGHT OR SAND-LIGHTWEIGHT CONCRETE SHALL BE CARBON STEEL HILTI KB-TZ EXPANSION ANCHORS COMPLYING WITH ESR-1917 REISSUED MAY 2017.
- B. INSTALLATION: INSTALL THE EXPANSION ANCHORS IN ACCORDANCE WITH THE REQUIREMENTS GIVEN IN THE ICC EVALUATION REPORT FOR THE SPECIFIC ANCHOR AND THE PARAMETERS GIVEN IN THE TABLE ON PAGE 3.
- C. JOB TESTING: FOR VERIFYING SATISFACTORY INSTALLATION WORKMANSHIP, PERFORM JOB SITE TESTING IN ACCORDANCE WITH THE TENSION LOAD TABLE PROVIDED IN THIS DOCUMENT. TORQUE TEST 50% OF THE INSTALLED ANCHORS. ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE SPECIAL INSPECTOR. REPORT OF TEST RESULTS SHALL BE SUBMITTED TO OSHPD. 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 EQUIPMENT INSTALLATION. ALSO REFER TO CBC 1910A.5 "TESTS FOR POST-INSTALLED ANCHORS IN CONCRETE".
- D. 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 (1/2) TURN OF THE NUT.
- E. AVOID DAMAGING EXISTING STEEL REINFORCING IN CONCRETE SLAB WHEN INSTALLING CONCRETE EXPANSION ANCHORS.
- F. PROVIDE FOR FULL THREAD ENGAGEMENT OF NUT & WASHER.

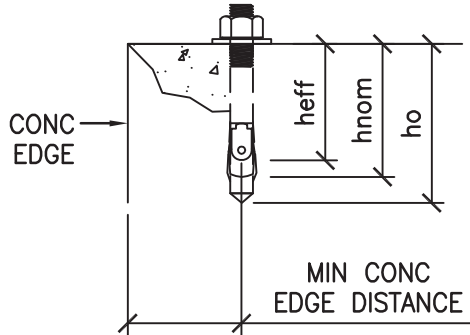


SHEET TITLE: GENERAL NOTES

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**GENERAL NOTES CONTINUED:**



ANCHOR DIA (INCH) da	INSTALLATION EMBED (INCH) hnom	EFFECTIVE EMBED (INCH) hef	HOLE DEPTH (INCH) ho	MIN CONC THICKNESS (INCH) h <sub>min</sub>	MIN CONC EDGE DISTANCE (INCH)	MIN AB SPACING (INCH)	TEST TORQUE (FT-LBS)	CONDITION OF ANCHORAGE
5/8	4 7/16	4	4 3/4	6	16	3	60	CASE 2
1/2	2 3/8	2	2 5/8	4	30	3	40	CASE 3

4. BOLTS THROUGH CONCRETE ON METAL DECK:
  - A. BOLTS SHALL BE TORQUED BY 3/4 TURN OF THE NUTS AFTER SNUG TIGHT (THE SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQUIRED TO BRING THE CONNECTED PLIES INTO FIRM CONTACT) CONDITION IS ACHIEVED, UNLESS NOTED OTHERWISE.
  - B. THRU-BOLT HOLES SHALL BE 1/16" LARGER THAN BOLT SIZE (HOLE SIZE = BOLT SIZE + 1/16")
  - C. THRU-BOLTS IN CONC SHALL RECEIVE SPECIAL INSPECTION & TESTING (THRU-BOLTS W/ STEEL-TO-STEEL CONNECTION IN TENSION DO NOT REQUIRE TESTING) IN ACCORDANCE W/ REQUIREMENTS FOR POST-INSTALLED ANCHORS.
5. SCREW ANCHORS TO BOTT OF CONC FILL OVER MTL DECK:
  - A. HILTI KH-EZ (ICC ESR-3027) TENSION TEST LOAD FOR CASE 1:

ANCHOR DIA (INCH) da	INSTALLATION EMBED (INCH) hnom	EFFECTIVE EMBED (INCH) hef	HOLE DEPTH (INCH) ho	MIN CONC THICKNESS (INCH) h <sub>min</sub>	MIN CONC EDGE DISTANCE (INCH)	MIN AB SPACING (INCH)	TENSION TEST LOAD (LBS)
1/4	1 5/8	1.18	2	3/4	1 1/4*	10*	400

\* SEE PAGE 14 IN THIS OPM.



SHEET TITLE: GENERAL NOTES (CONTINUED)



**CYS STRUCTURAL ENGINEERS, INC.**

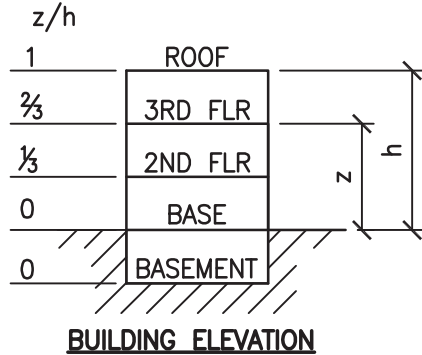
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**GENERAL NOTES CONTINUED:**

6. THREE (3) CASES OF ANCHORAGE ARE SPECIFIED AND PRESENTED IN THIS PRE-APPROVAL:

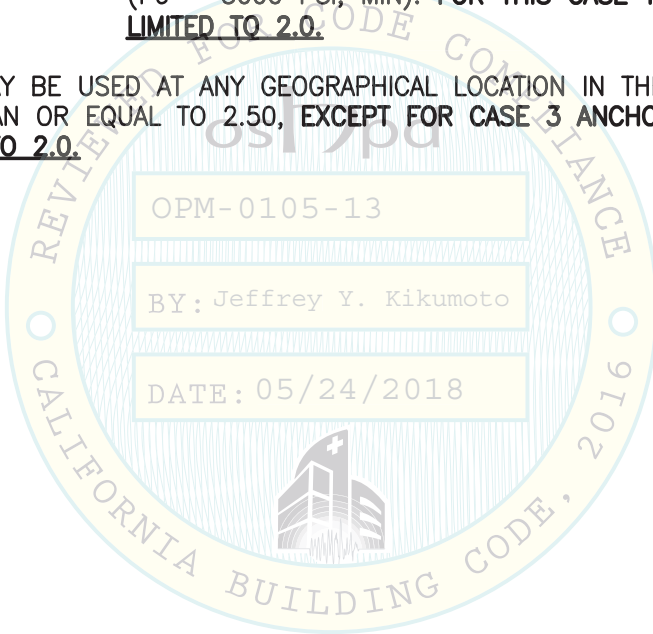


**CASE 1:** ANCHORAGE DETAILS LOCATED AT UPPER FLRS ABV THE BASE OF A BUILDING ( $z/h \leq 1.0$ ), IT IS ASSUMED THAT THE FLRS ARE BUILT OF A MIN 3/4" SAND-LWC TOPPING OVER MTL DECK ( $f'c = 3000$  PSI, MIN).

**CASE 2:** ANCHORAGE DETAILS LOCATED AT OR BELOW THE BASE OF A BUILDING ( $z/h=0$ ). THE FLRS ARE ASSUMED TO BE BUILT OF A MIN 6" NWC SLAB ( $f'c = 3000$  PSI, MIN).

**CASE 3:** ANCHORAGE DETAILS LOCATED AT OR BELOW THE BASE OF THE BUILDING ( $z/h=0$ ). THE FLRS ARE ASSUMED TO BE BUILT OF A MIN 4" NWC SLAB ( $f'c = 3000$  PSI, MIN). FOR THIS CASE THE MAX  $S_{DS}$  IS LIMITED TO 2.0.

7. THIS PRE-APPROVAL MAY BE USED AT ANY GEOGRAPHICAL LOCATION IN THE STATE OF CALIFORNIA. WHERE  $S_{DS}$  IS LESS THAN OR EQUAL TO 2.50, EXCEPT FOR CASE 3 ANCHORAGE WHERE  $S_{DS}$  MUST BE LESS THAN OR EQUAL TO 2.0.



SHEET TITLE: DESIGN CRITERIA

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VITROS 5600 & 7600 INTEGRATED SYSTEM EQUIPMENT ATTACHMENT

Ortho Clinical Diagnostics

**ABBREVIATIONS:**

AB	ANCHOR BOLTS	GA	GAUGE
ABV	ABOVE	IN (")	INCH
ADJ	ADJACENT	KSI	KIPS PER SQUARE INCH
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	LBS	POUNDS
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	LRFD	LOAD AND RESISTANCE FACTOR DESIGN
BLW	BELOW	LWC	LIGHT WEIGHT CONCRETE
BOTT	BOTTOM	MAX	MAXIMUM
CBC	CALIFORNIA BUILDING CODE	MFR	MANUFACTURER
CG	CENTER OF GRAVITY	MIN	MINIMUM
⊕	CENTERLINE	MTL	METAL
COORD	COORDINATE	NO. (#)	NUMBER OR POUNDS
CONC	CONCRETE	NWC	NORMAL WEIGHT CONCRETE
DBL	DOUBLE	OSHPD	OFFICE OF STATEWIDE HEALTH PLANNING & DEVELOPMENT
DIA (φ)	DIAMETER	PG	PAGE
(E)	EXISTING CONDITION	PSI	POUNDS PER SQUARE INCH
EA	EACH	SEOR	STRUCTURAL ENGINEER OF RECORD
ELEV	ELEVATION	STL	STEEL
EMBED	EMBEDMENT	T&B	TOP & BOTTOM
EQUIP	EQUIPMENT	Tu	ANCHORAGE TENSION REACTION DUE TO SEISMIC FORCE AT LRFD
f'c	MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE	THRD	THREAD OR THREADED
FLR	FLOOR	TYP	TYPICAL
FT	(') FOOT/FEET	VERT	VERTICAL
Fp	HORIZONTAL SEISMIC FORCE PER ASCE 7-10 SEISMIC FORCE REQUIREMENTS	Vu	ANCHORAGE SHEAR REACTION DUE TO SEISMIC FORCE AT LRFD
Fv	VERTICAL SEISMIC FORCE PER ASCE 7-10 SEISMIC FORCE REQUIREMENTS	W/	WITH
Fy	SPECIFIED YIELD STRENGTH OF STEEL, KSI	W/O	WITHOUT
		Wp 018	OPERATING WEIGHT

**DESIGN CRITERIA**

SUPPORT & ATTACHMENT DESIGN IS PER 2016 CBC AT LRFD LEVEL FORCES. OTHER MECHANICAL ELECTRICAL COMPONENTS PER TABLE 13.6.1 OF ASCE 7-10 SUPPLEMENT #1

$\phi_p = 1.0$        $R_p = 1.5$        $I_p = 1.5$        $\Omega_0 = 1.5$  (CONCRETE ANCHORS)

VITROS 5600:       $W_p = 2342\#$   
 VITROS 7600:       $W_p = 2347\#$

FOR CASE 1 – UPPER FLRS ABV THE BASE,  $z/h \leq 1.0$   
 $S_{Ds} = 2.50$        $F_p = 3.00 W_p$        $F_v = 0.50 W_p$

FOR CASE 2 – SLAB AT OR BELOW BASE,  $z/h = 0$   
 $S_{Ds} = 2.50$        $F_p = 1.125 W_p$        $F_v = 0.50 W_p$

FOR CASE 3 – SLAB AT OR BELOW BASE,  $z/h = 0$   
 $S_{Ds} = 2.0$        $F_p = 0.90 W_p$        $F_v = 0.40 W_p$



SHEET TITLE: ABBREVIATIONS



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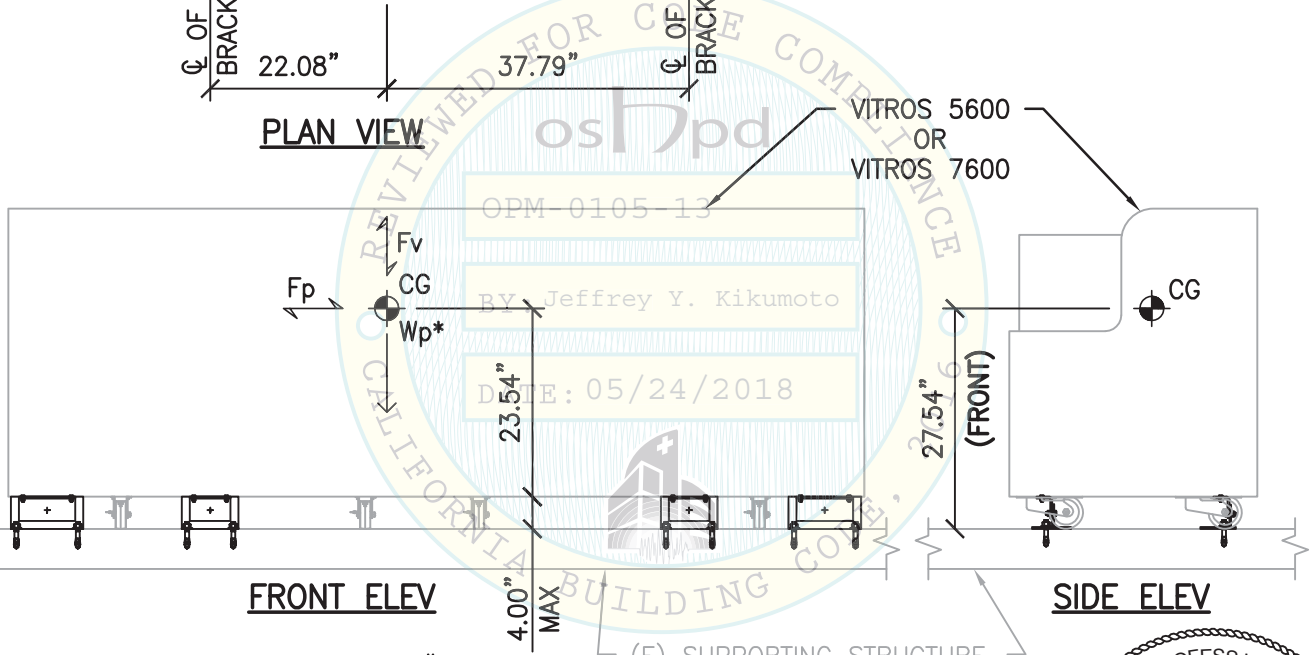
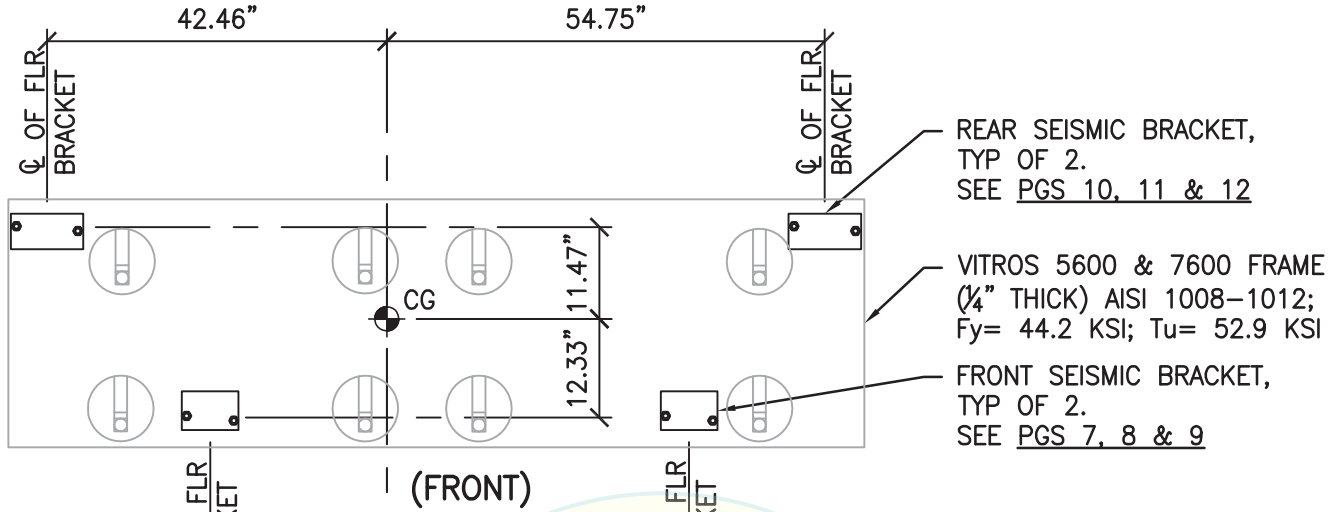
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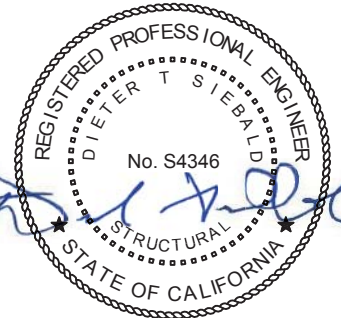
VITROS 5600 & 7600 INTEGRATED SYSTEM EQUIPMENT ATTACHMENT

Ortho Clinical Diagnostics



\*FOR VITROS 5600, Wp = 2342#  
 FOR VITROS 7600, Wp = 2347#

(E) SUPPORTING STRUCTURE. SEE PGS 13, 14, 17 OR 18 AS APPLICABLE



SHEET TITLE: PLAN & ELEVATION



CYS STRUCTURAL ENGINEERS, INC.

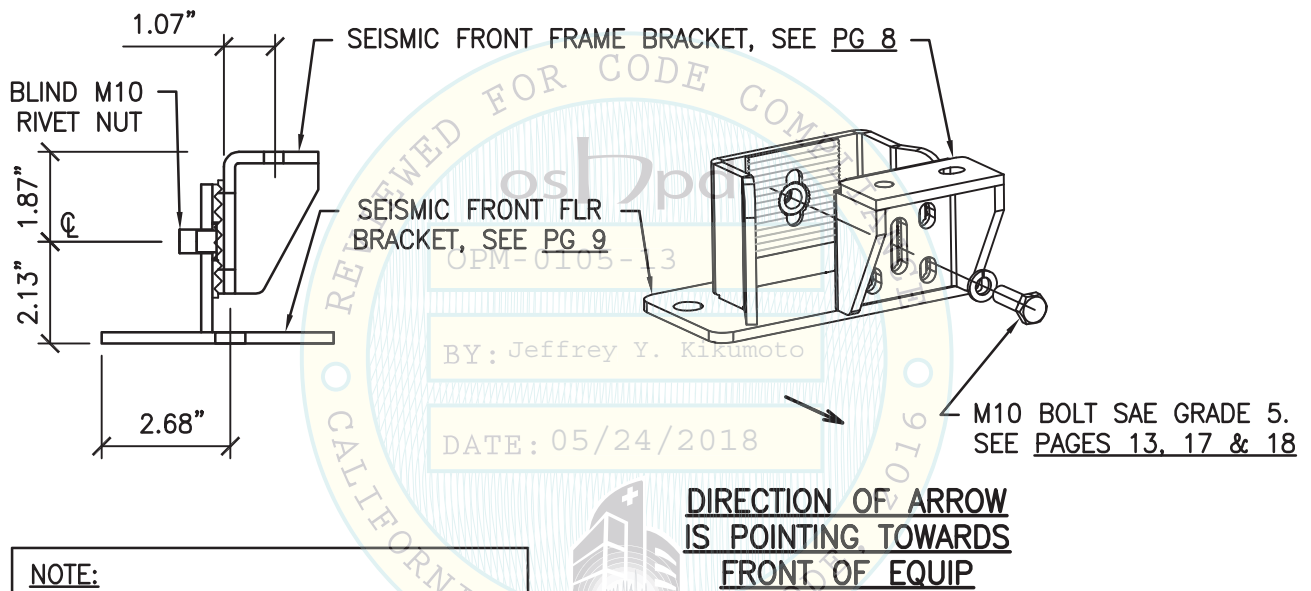
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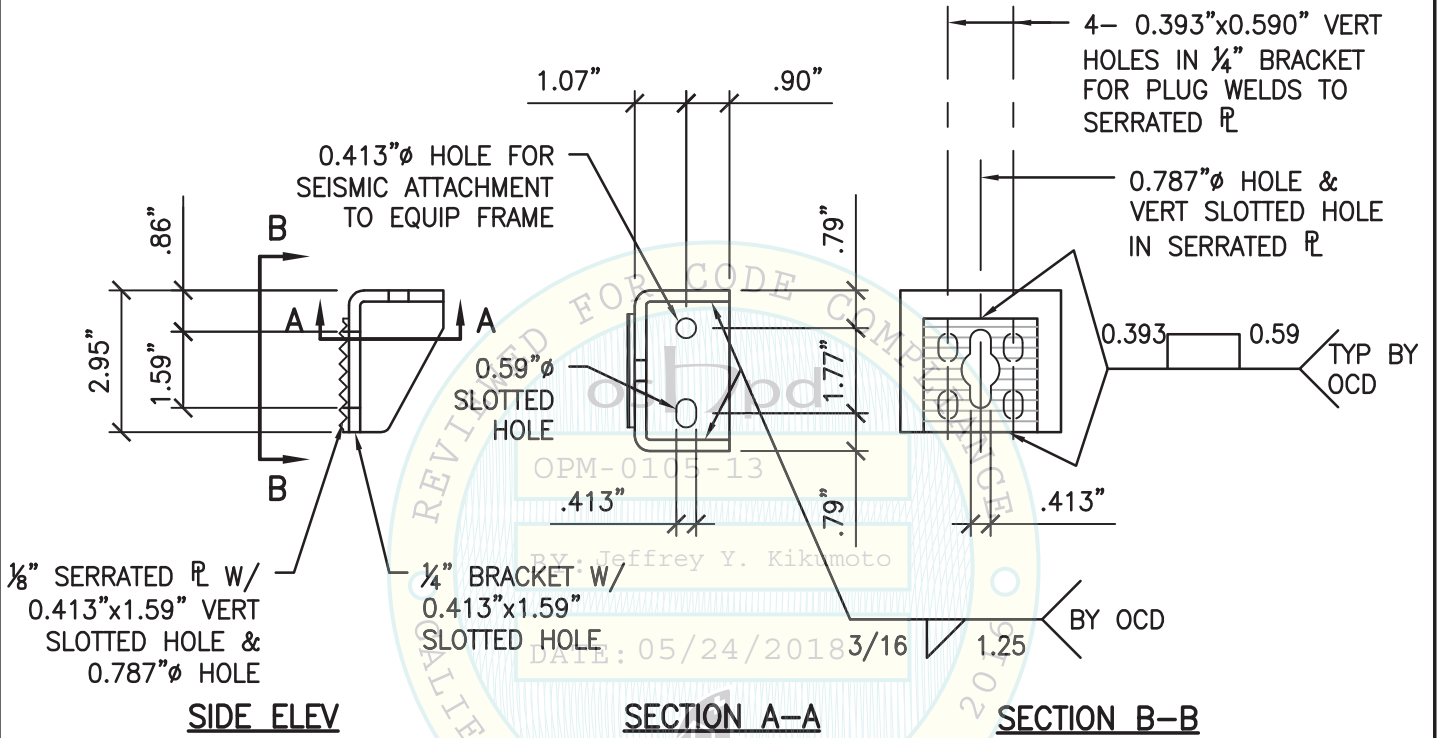
**NOTE:**  
BRACKET MATERIAL IS AISI 1006/1012  
LOW CARBON STL (Fy = 44 KSI).



SHEET TITLE: FRONT BRACKET ASSEMBLY DETAIL

 <b>CYS STRUCTURAL ENGINEERS, INC.</b> 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833	TEL (916) 920-2020 www.cyseng.com	Job No: 18011 Date: 05/10/2018 Page: 7 of 18
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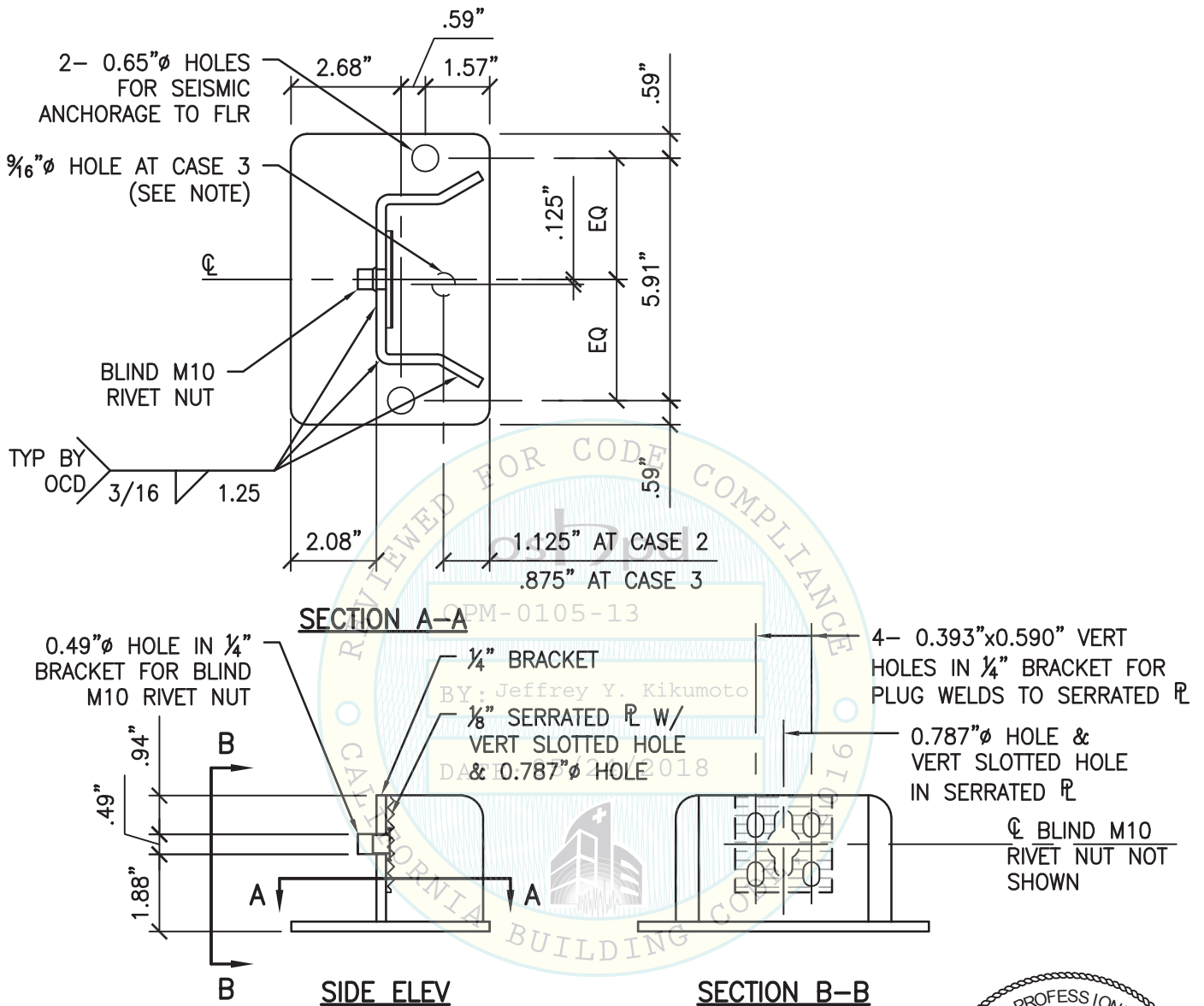


SHEET TITLE: FRONT FRAME BRACKET DETAIL

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**NOTE:**  
 FOR CASE 3, ADDITIONAL ANCHORAGE HOLE MUST BE DRILLED THRU BRACKET BY THE CONTRACTOR TO ACCOMMODATE AN ADDITIONAL ANCHOR. CONTRACTOR IS RESPONSIBLE FOR REPLACING BRACKET IF IT IS DAMAGED DURING DRILLING.



SHEET TITLE: FRONT FLOOR BRACKET DETAIL



**CYS STRUCTURAL ENGINEERS, INC.**

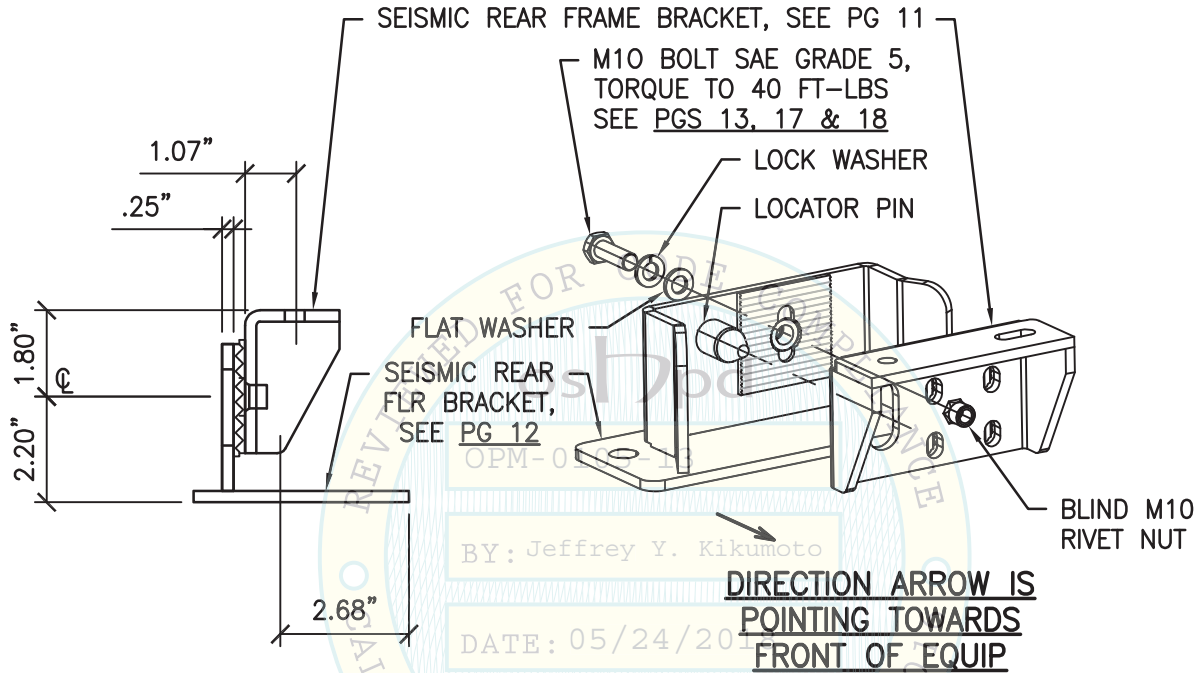
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**NOTE:**  
ONLY ONE REAR BRACKET ASSEMBLY HAS A LOCATOR PIN.



**NOTE:**  
BRACKET MATERIAL IS AISI 1006/1012 LOW CARBON STL (Fy = 44 KSI).

BY: Jeffrey Y. Kikumoto

DATE: 05/24/2018



SHEET TITLE: REAR BRACKET ASSEMBLY DETAIL



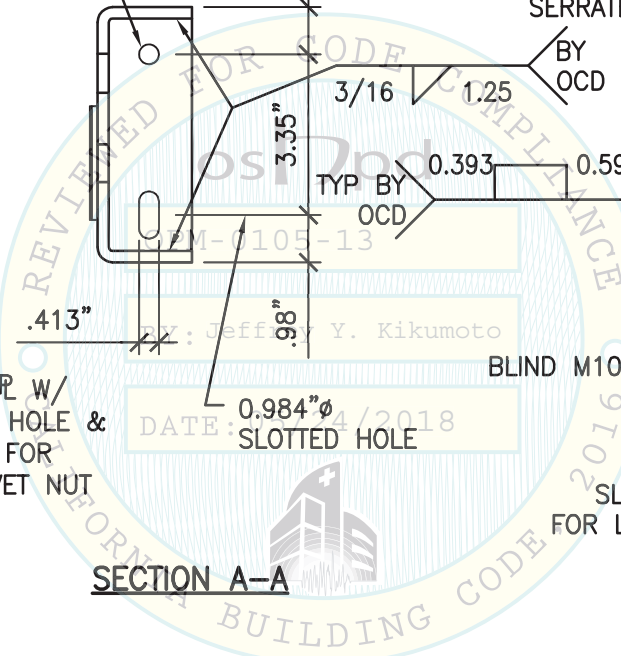
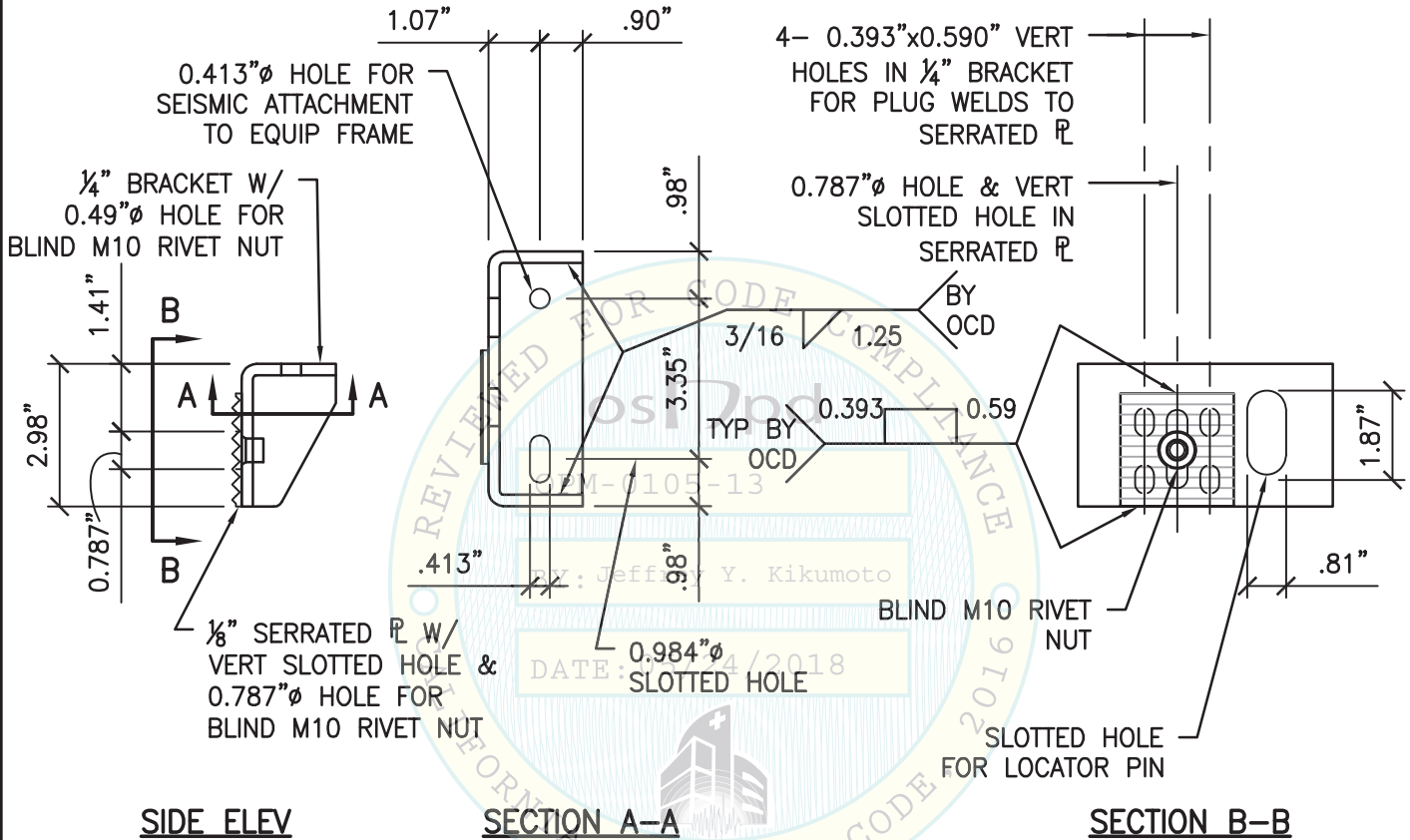
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SHEET TITLE: REAR FRAME BRACKET DETAIL



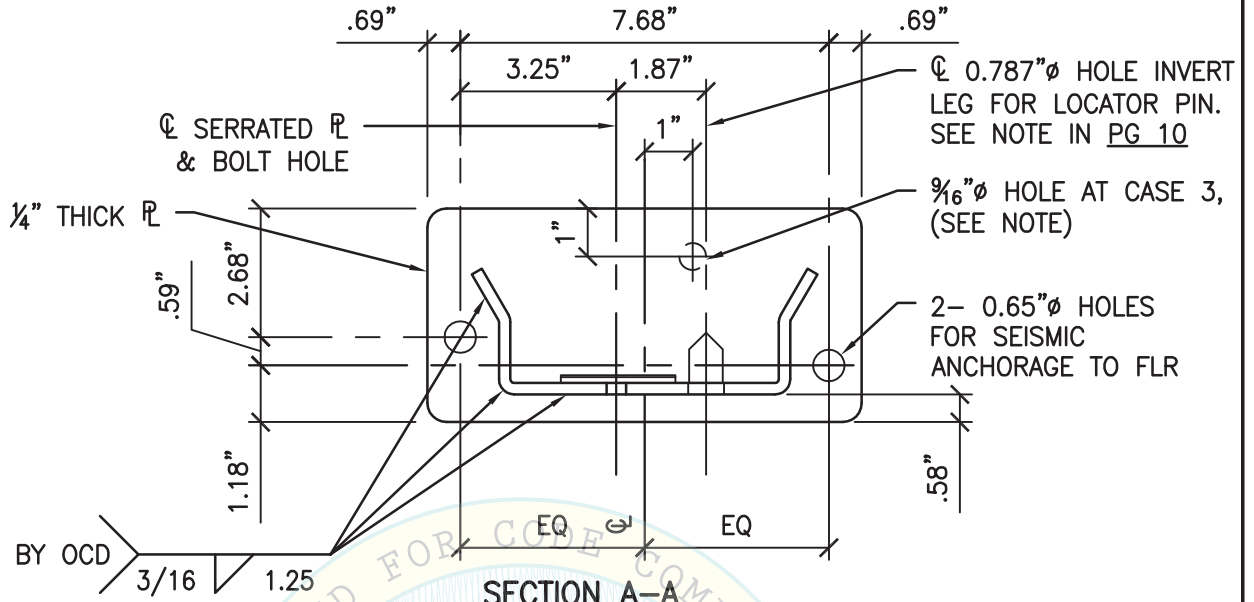
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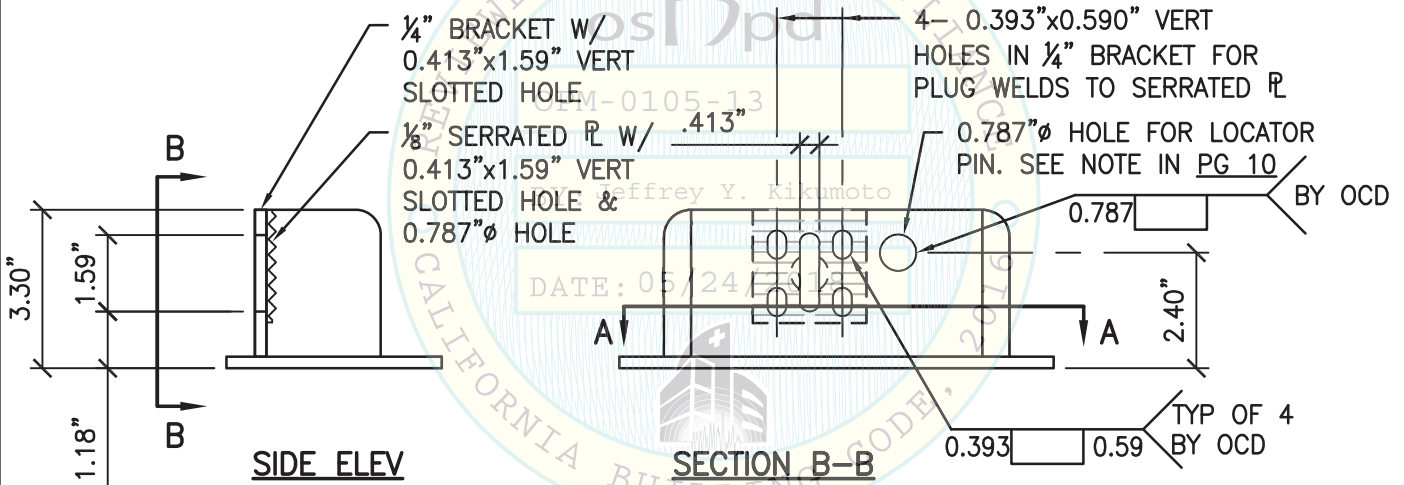
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SECTION A-A



SIDE ELEV

SECTION B-B

**NOTE:**

FOR CASE 3, ADDITIONAL ANCHORAGE HOLE MUST BE DRILLED THRU BRACKET BY THE CONTRACTOR TO ACCOMMODATE AN ADDITIONAL ANCHOR. CONTRACTOR IS RESPONSIBLE FOR REPLACING BRACKET IF IT IS DAMAGED DURING DRILLING.



SHEET TITLE: REAR FLOOR BRACKET DETAIL



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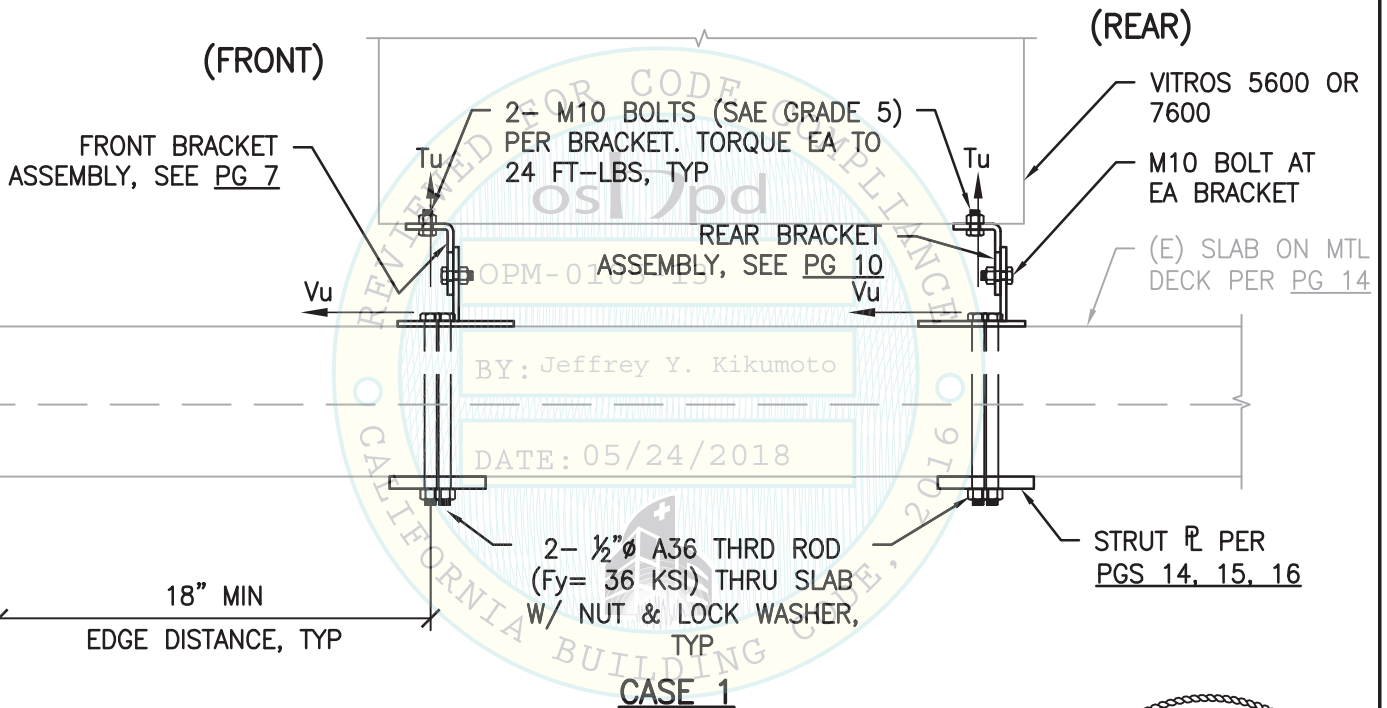
VITROS 5600 & 7600 INTEGRATED SYSTEM EQUIPMENT ATTACHMENT

Ortho Clinical Diagnostics

MAX ANCHOR FORCES AT LRFD AT EA AB

	FRONT BRACKET		REAR BRACKET	
	Tu	Vu	Tu	Vu
CASE 1 $z/h \leq 1.0$ W/O $\Omega_o$	3720#	1004#	6243#	983#
CASE 1 $z/h \leq 1.0$ W/ $\Omega_o$	3720#	1506#	6243#	1475#

( $\Omega_o = 1.5$ ) OVERSTRENGTH FACTOR MUST BE APPLIED TO SHEAR FORCE ONLY

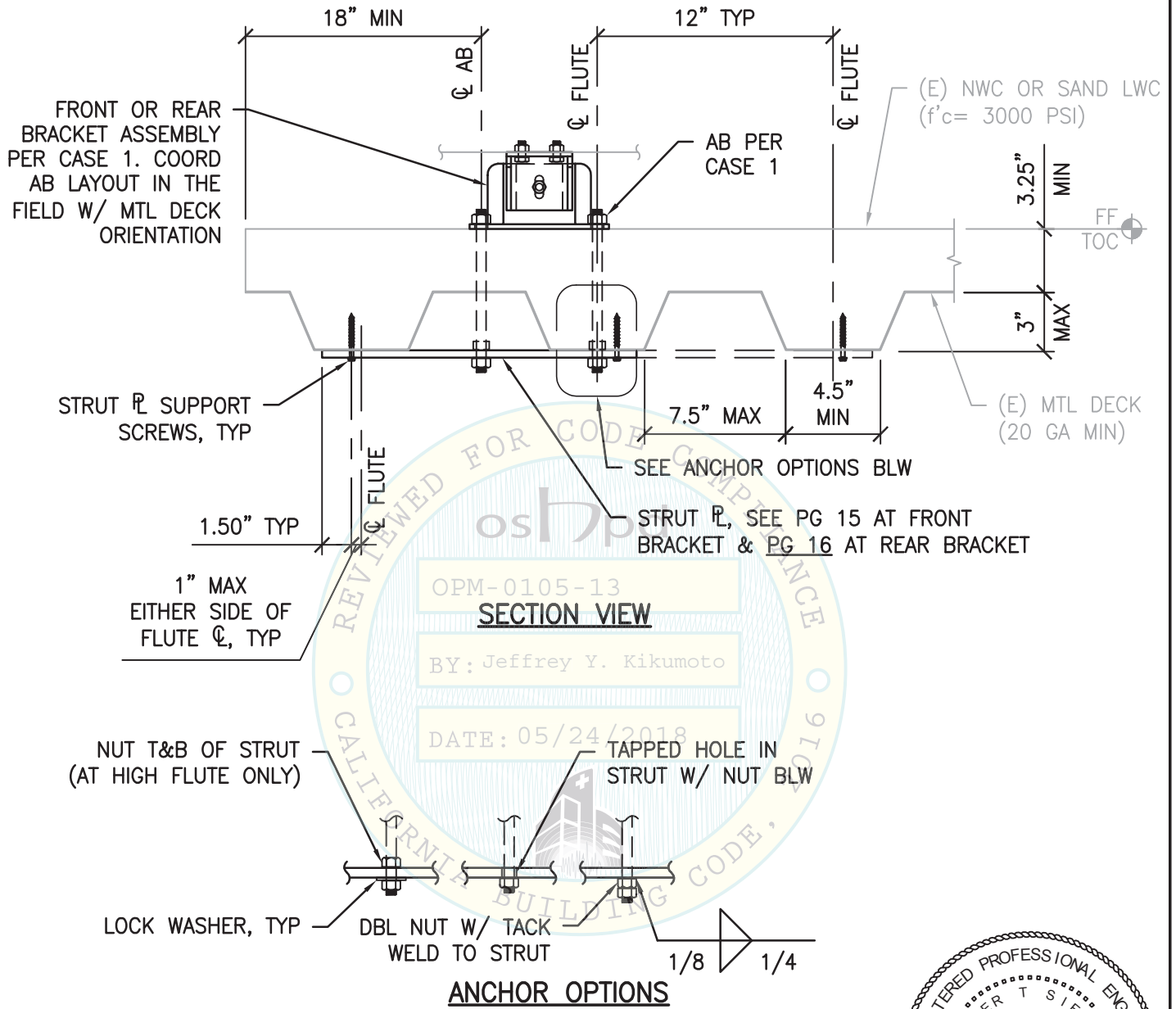


SHEET TITLE: ATTACHMENT DETAIL TO CONCRETE FILL OVER METAL DECK

**CYS STRUCTURAL ENGINEERS, INC.**  
 2495 NATOMAS PARK DRIVE, SUITE 650  
 SACRAMENTO, CA 95833  
 TEL (916) 920-2020  
 www.cyseng.com

Job No: 18011  
 Date: 05/10/2018  
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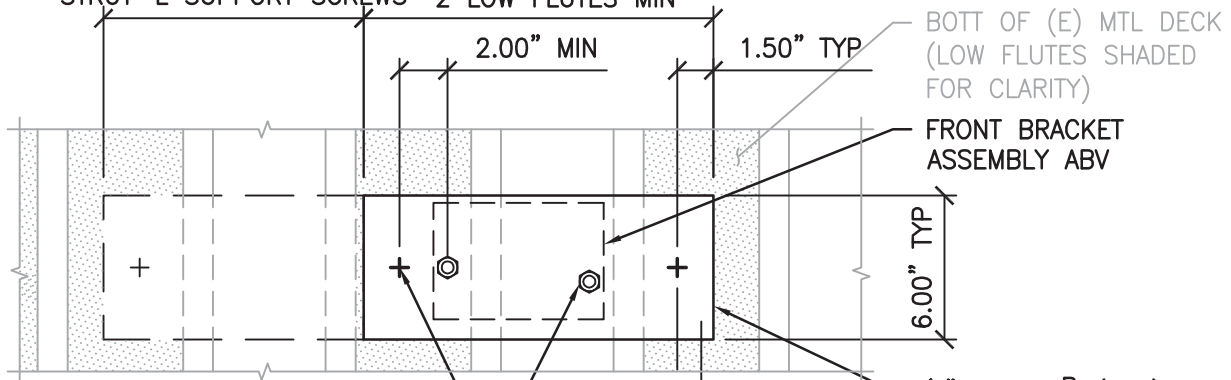
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VITROS 5600 & 7600 INTEGRATED SYSTEM EQUIPMENT ATTACHMENT

Ortho Clinical Diagnostics

EXTEND STRUT LENGTH TO NEXT ADJ LOW FLUTE IF AB'S ARE LESS THAN 2" FROM STRUT  $\bar{r}$  SUPPORT SCREWS  
 LENGTH SHALL ENGAGE 2 LOW FLUTES MIN



BOTT OF (E) MTL DECK (LOW FLUTES SHADED FOR CLARITY)

FRONT BRACKET ASSEMBLY ABV

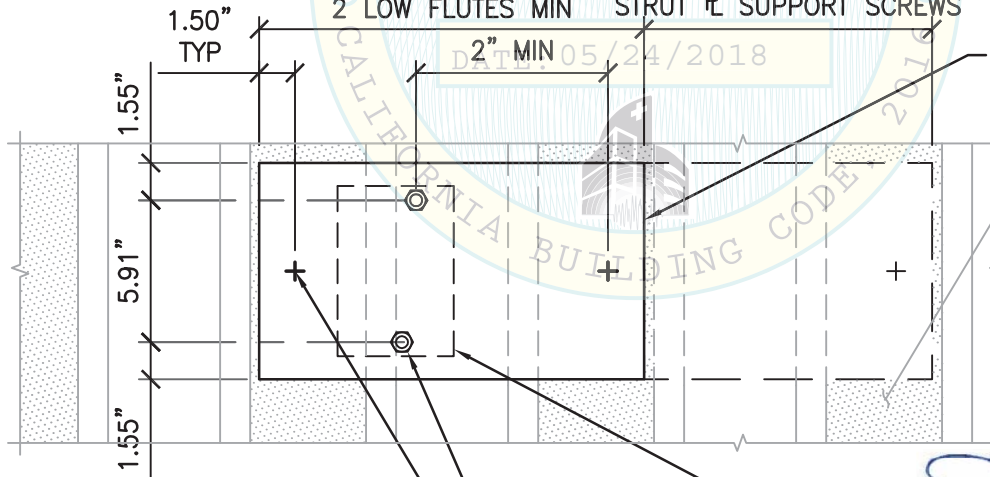
$\frac{1}{2}$ " STRUT  $\bar{r}$  (A36), TYP. FIELD VERIFY DECK ORIENTATION FOR COORD W/ AB LAYOUT

STRUT  $\bar{r}$  SUPPORT SCREWS: HILTI KH-EZ  $\frac{1}{4}$ " $\phi$ x $2\frac{5}{8}$ " CONC SCREWS (ICC ESR-3027) 1 EA END OF  $\bar{r}$ . USE 18 FT-LBS MAX INSTALLATION TORQUE USING A CALIBRATED TORQUE WRENCH, TYP

**PLAN VIEW**

ANCHORS PERPENDICULAR TO FLUTES

EXTEND STRUT LENGTH TO NEXT ADJ LOW FLUTE IF AB'S ARE LESS THAN 2" FROM STRUT  $\bar{r}$  SUPPORT SCREWS  
 LENGTH SHALL ENGAGE 2 LOW FLUTES MIN



$\frac{1}{2}$ " STRUT  $\bar{r}$  (A36). FIELD VERIFY DECK ORIENTATION FOR COORD W/ AB LAYOUT

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**PLAN VIEW**

ANCHORS PARALLEL TO FLUTES



SHEET TITLE: ATTACHMENT DETAIL TO CONCRETE FILL OVER METAL DECK



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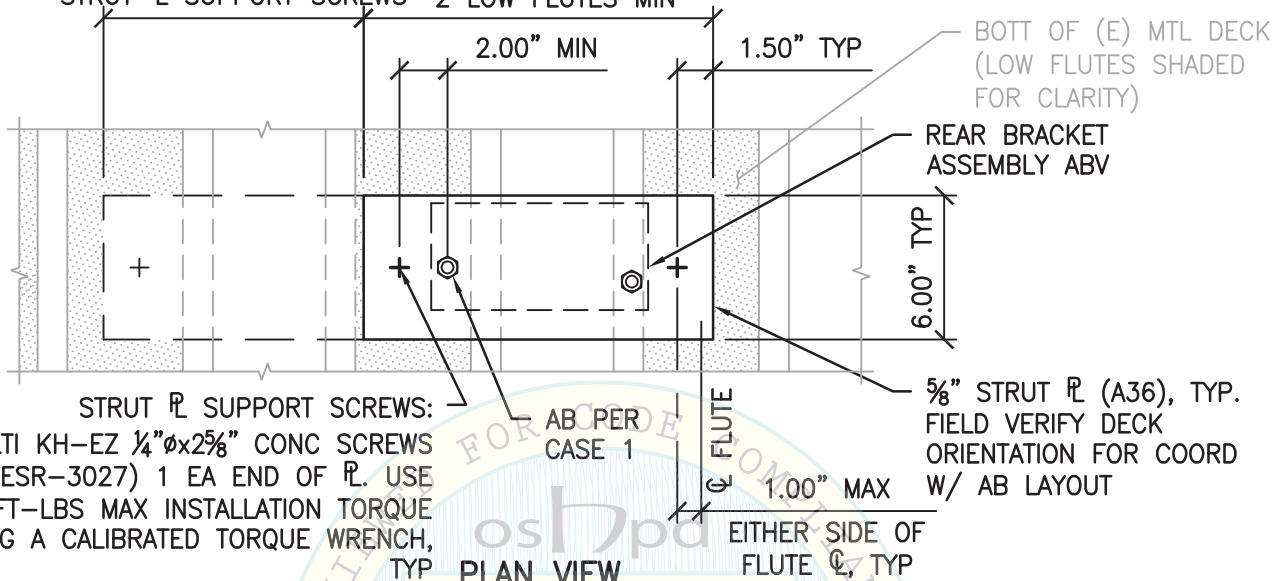
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VITROS 5600 & 7600 INTEGRATED SYSTEM EQUIPMENT ATTACHMENT

Ortho Clinical Diagnostics

EXTEND STRUT LENGTH TO NEXT ADJ LOW FLUTE IF AB'S ARE LESS THAN 2" FROM STRUT  $\bar{r}$  SUPPORT SCREWS  
 LENGTH SHALL ENGAGE 2 LOW FLUTES MIN

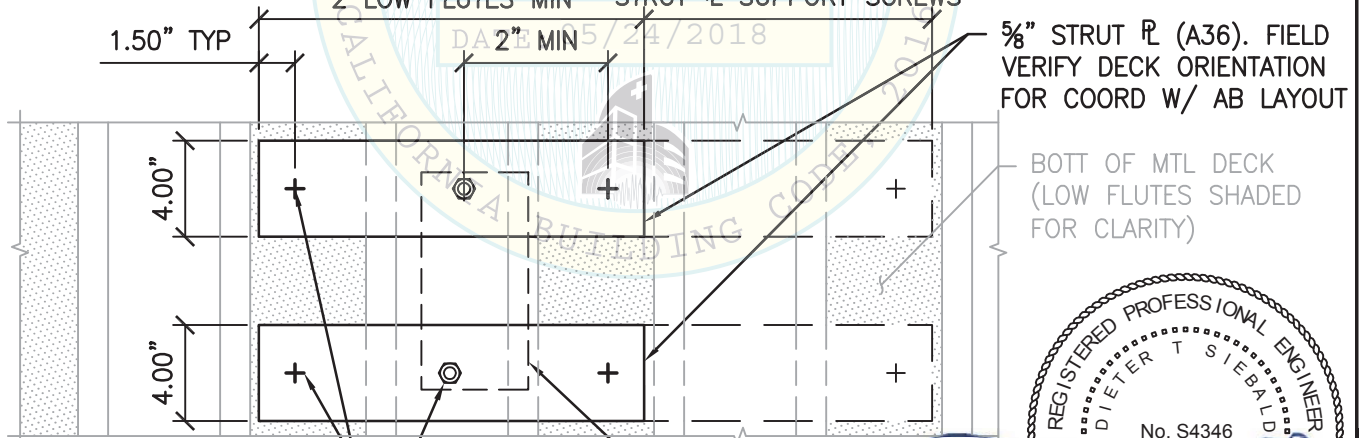


STRUT  $\bar{r}$  SUPPORT SCREWS:  
 HILTI KH-EZ  $\frac{1}{4}$ " $\phi$ x $\frac{5}{8}$ " CONC SCREWS (ICC ESR-3027) 1 EA END OF  $\bar{r}$ . USE 18 FT-LBS MAX INSTALLATION TORQUE USING A CALIBRATED TORQUE WRENCH, TYP

**PLAN VIEW**

ANCHORS PERPENDICULAR TO FLUTES

EXTEND STRUT LENGTH TO NEXT ADJ LOW FLUTE IF AB'S ARE LESS THAN 2" FROM 2 LOW FLUTES MIN STRUT  $\bar{r}$  SUPPORT SCREWS



STRUT  $\bar{r}$  SUPPORT SCREWS:  
 HILTI KH-EZ  $\frac{1}{4}$ " $\phi$ x $\frac{5}{8}$ " CONC SCREWS (ICC ESR-3027) 1 EA END OF  $\bar{r}$

**PLAN VIEW**

ANCHORS PARALLEL TO FLUTES



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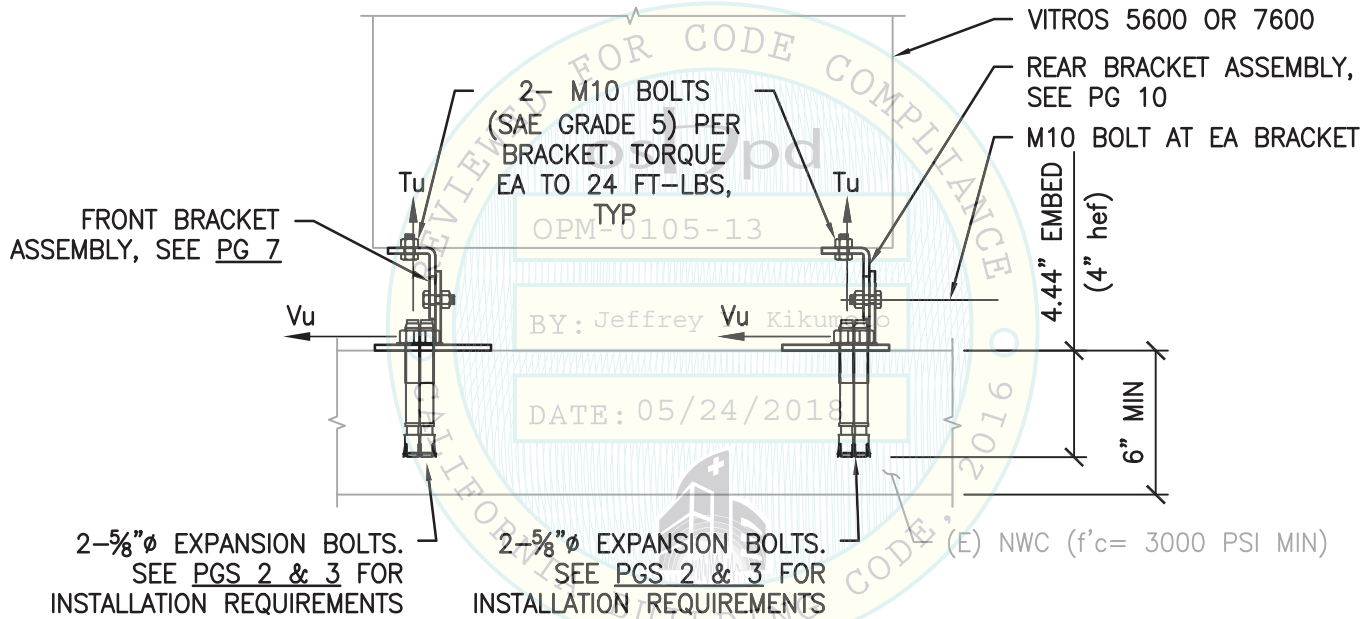
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VITROS 5600 & 7600 INTEGRATED SYSTEM EQUIPMENT ATTACHMENT

Ortho Clinical Diagnostics

MAX ANCHOR FORCES AT LRFD AT EA AB				
CASE 2 z/h=0	FRONT BRACKET		REAR BRACKET	
	Tu	Vu	Tu	Vu
	2008#	565#	1587#	617#

INCLUDES OVERSTRENGTH FACTOR ( $\Omega_o$ )



**CASE 2**  
( $f'_c = 3000$  PSI)



SHEET TITLE: ATTACHMENT DETAIL TO CONCRETE SLAB

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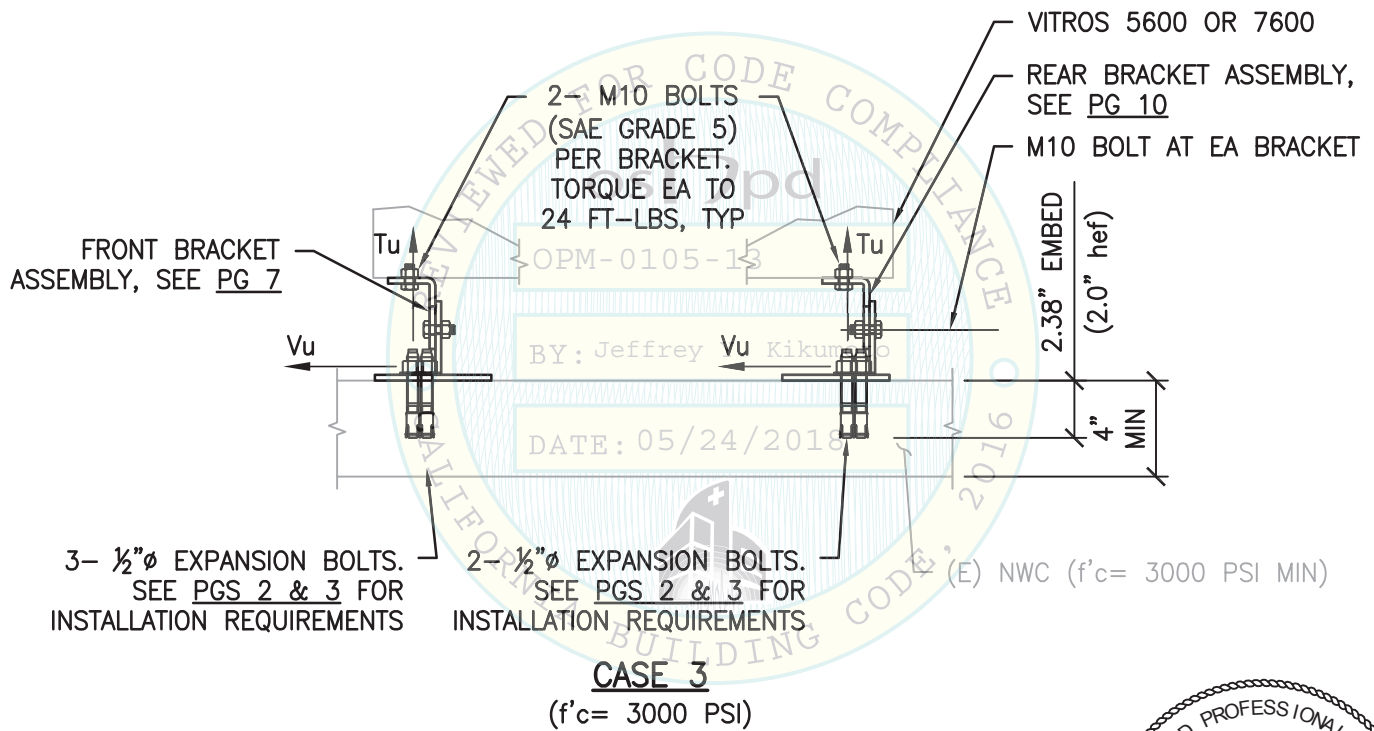
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VITROS 5600 & 7600 INTEGRATED SYSTEM EQUIPMENT ATTACHMENT

Ortho Clinical Diagnostics

MAX ANCHOR FORCES AT LRFD AT EA AB				
CASE 3 z/h=0	FRONT BRACKET		REAR BRACKET	
	Tu	Vu	Tu	Vu
	1045#	308#	1180#	492#

INCLUDES OVERSTRENGTH FACTOR ( $\Omega_o$ )



**NOTE:**

THIS ANCHORAGE DETAIL CAN ONLY BE USED AT GEOGRAPHICAL LOCATIONS WHERE  $S_{ps}$  IS LESS THAN OR EQUAL TO 2.0.



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