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

OFFICE USE ONLY

APPLICATION #: OPM-0635

HCAI Preapproval of Manufacturer's Certification (OPM)

Type: ☐ New ☒ Renewal/Update

Manufacturer Information

Manufacturer: F. Hoffmann-La Roche Ltd

Manufacturer's Technical Representative: Jeff Rademacher

Mailing Address: 9115 Hague Road, Indianapolis, IN 46256

Telephone: (859) 992-7523 Email: jeffrey_w.rademacher@roche.com

Product Information

Product Name: ROCHE COBAS PRO INTEGRATED SOLUTIONS SYSTEM

Product Type: Medical Analyzers

Product Model Number: cobas Pro

General Description: Chemistry & Immunochemistry Testing

Applicant Information

Applicant Company Name: F. Hoffmann-La Roche Ltd

Contact Person: Jeff Rademacher

Mailing Address: 9115 Hague Road, Indianapolis, IN 46256

Telephone: (859) 992-7523 Email: jeffrey_w.rademacher@roche.com

Title: Lead Regional System Support Engineer

Registered Design Professonal Preparing Engineering Recommendations

Company Name: CYS STRUCTURAL ENGINEERS, INC.

Name: Dieter Siebald California License Number: S4346

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

Telephone: (916) 920-2020 Email: dieters@cyseng.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, 2022 (CBSC 2022) 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 2022 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: 2/29/2024

Name: William Staehlin Title: Senior Structural Engineer

Condition of Approval (if applicable):

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OPM–0635

NOTES: 1. THESE DRAWINGS ARE PREPARED FOR ROCHE DIAGNOSTICS CORPORATION, INDIANAPOLIS, INDIANA.

2. THE CONTRACTOR AND 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 AND ATTACHMENTS OF THE UNIT TO THE SUPPORTING STRUCTURE. THE EQUIPMENT UNITS ARE SUPPLIED BY ROCHE. THE SEISMIC BRACKETS, THRU–BOLTS & EXPANSION ANCHORS SHOWN ON PAGES 18–23 SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: TABLE OF CONTENTS

CYS STRUCTURAL ENGINEERS, INC.
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www.cyseng.com

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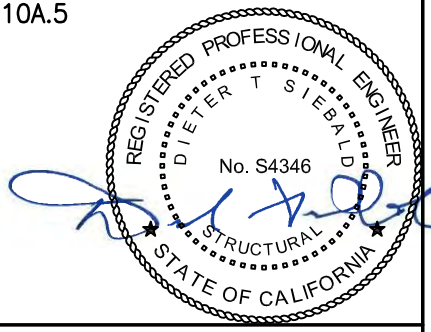
GENERAL NOTES:

1. THIS OSHPD PRE-APPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2019. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2019.
2. EQUIP ANCHORAGES SUCH AS EXPANSION ANCHORS, BOLTS, SCREWS & FITTINGS SHALL BE DESIGNED IN COMPLIANCE W/ THE FORCE LEVEL REQUIREMENTS OF THE 2019 CBC, TITLE 24, PART 2, VOLUME 2. LOAD COMBINATION FOR LOAD & RESISTANCE FACTOR DESIGN (LRFD) SHALL BE USED.
3. IT IS THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER OF RECORD (SEOR) FOR A SITE SPECIFIC PROJECT TO VERIFY:
   - A. THE ADEQUACY OF THE (N) OR (E) STRUCTURE TO RESIST THE FORCES AND WT SPECIFIED FOR EA EQUIP IN ADDITION TO ALL OTHER LOADS. PROVIDE & DESIGN SUPPLEMENTARY MEMBERS AS REQ.
   - B. THAT THE (N) ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY SLAB EDGES OR OPGS. SEE TABLE 1 ON PG 3.
   - C. THAT THE (N) ANCHORS ARE LOCATED AT LEAST 18" AWAY FROM ADJ (E) ANCHORS OR THE SEOR SHALL EVALUATE THE ANCHORAGES FOR THE EQUIP IN THIS OPM FOR ADVERSE AFFECTS OF ADJ ANCHORS. THE SPACING SHOWN IN TABLE 1 ON PG 3, IS THE REQ MIN SPACING OF THE ½" DIA AB'S. THE REQ SPACING FROM ANCHORS OF OTHER DIA & EMBEDMENTS WILL VARY & SHALL BE EVALUATED BY THE SEOR.
   - D. THAT THE INSTALLATION IS IN CONFORMANCE W/ THE 2019 CBC AND W/ THE DTLS SHOWN IN THIS PRE-APPROVAL.
   - E. THAT THE ACTUAL EQUIP'S WT, CENTER OF GRAVITY (CG) LOCATION, ANCHOR LOCATIONS, ANCHOR DTLS, & THE MATERIAL & GA OF THE EQUIP WHERE ATTACHMENTS ARE MADE, AGREE W/ THE INFO SHOWN IN THIS PRE-APPROVAL.
   - F. THAT THE CONC SLAB TO WHICH THE EQUIP IS ANCHORED SHALL MEET THE REQUIREMENTS OF THE APPLICABLE ICC REPORT & THIS OPM.
4. EXPANSION ANCHORS INSTALLED IN NWC OR SLWC SHALL BE CARBON STEEL HILTI KWIK BOLT TZ2 EXPANSION ANCHORS COMPLYING W/ ESR-4266 REISSUED DECEMBER 2023, SUBJECT TO RENEWAL DECEMBER 2025.
   - A. INSTALLATION: INSTALL THE EXPANSION ANCHORS IN ACCORDANCE W/ THE REQUIREMENTS GIVEN IN THE ICC EVALUATION REPORT FOR THE SPECIFIC ANCHOR AND THE PARAMETERS GIVEN IN THE TABLE ON PG 3.
   - B. JOB TESTING: FOR VERIFYING SATISFACTORY INSTALLATION WORKMANSHIP, PERFORM JOB SITE 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 SPRING LOADING DEVICES OR CALIBRATED TORQUE WRENCH METHOD. REPORT OF TEST RESULTS SHALL BE SUBMITTED TO OSHPD. ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE INSPECTOR OF RECORD. 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 2019 CBC 1910A.5 "TESTS FOR POST-INSTALLED ANCHORS IN CONCRETE".



SHEET TITLE: GENERAL NOTES

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GENERAL NOTES: (CONTINUED)

4C. 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 (½) TURN OF THE NUT.

D. ANCHOR REQUIREMENTS:

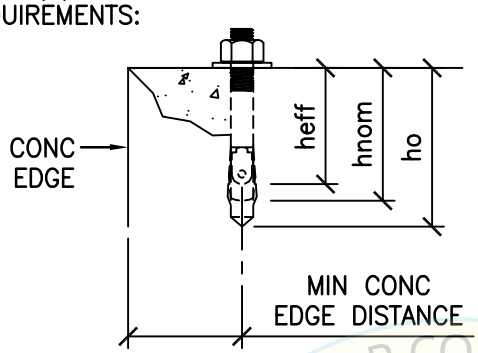

TABLE 1

CONDITION OF ANCHORAGE	ANCHOR DIA (INCH) da	INSTALLATION EMBED (INCH) hnom	EFFECTIVE EMBED (INCH) hef	HOLE DEPTH (INCH) ho	MIN CONC THICKNESS (INCH) h_{min}	MIN CONC EDGE DISTANCE (INCH)	MIN AB SPACING (INCH)	TEST TORQUE (FT–LBS)
CASE 2	½	2½	2	2¾	4	12	4.5	50

1. BOLTS THROUGH CONC ON MTL DECK:
   A. BOLTS SHALL BE TORQUED BY ¾ TURN OF THE NUTS 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.
   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 IN ACCORDANCE W/ REQUIREMENTS FOR POST–INSTALLED ANCHORS. THRU–BOLTS W/ STL TO STL CONN IN TENSION DO NOT REQ TESTING.

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SHEET TITLE: GENERAL NOTES (CONTINUED)

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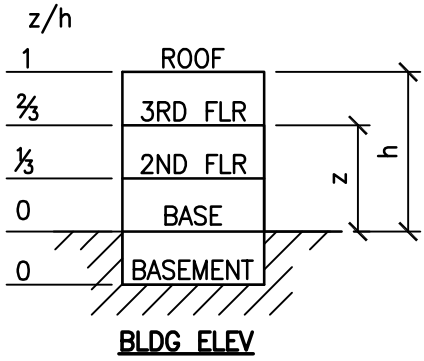
GENERAL NOTES: (CONTINUED)

6. TWO (2) CASES OF ATTACHMENT ARE SPECIFIED AND PRESENTED IN THIS PRE-APPROVAL:



CASE 1: ATTACHMENT DTLS LOCATED AT UPPER FLRS ABV THE BASE OF A BLDG ($z/h \leq 0.65$), THE FLRS ARE ASSUMED TO BE BUILT OF A MIN 3¼" SLWC TOPPING OVER MTL DECK ($f'c$ = 3000 PSI, MIN). $S_{DS} \leq 1.70g$

CASE 2: ATTACHMENT DTLS LOCATED AT OR BLW THE BASE OF A BLDG ($z/h = 0$). THE FLRS ARE ASSUMED TO BE BUILT OF A MIN 4" NWC SLAB ($f'c$ = 3000 PSI, MIN). $S_{DS} \leq 2.30g$

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SHEET TITLE: SYSTEM OVERVIEW & DESIGN CRITERIA

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ABBREVIATIONS:

AB	ANCHOR BOLT	f'c	MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE	MTL	METAL
ABV	ABOVE			(N)	NEW CONDITION
ADJ	ADJACENT	FLR	FLOOR	NO. (#)	NUMBER OR POUNDS
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	FT (')	FOOT/FEET	NWC	NORMAL WEIGHT CONCRETE
		F_p	HORIZONTAL SEISMIC FORCE PER ASCE 7-16 SEISMIC FORCE REQUIREMENTS	OPG	OPENING
				PG(S)	PAGE(S)
BLDG	BUILDING			PL	PLATE
BLW	BELOW	F_v	VERTICAL SEISMIC FORCE PER ASCE 7-16 SEISMIC FORCE REQUIREMENTS	PSI	POUNDS PER SQUARE INCH
BOTT	BOTTOM			REQ	REQUIRED
CBC	CALIFORNIA BUILDING CODE			SEOR	STRUCTURAL ENGINEER OF RECORD
CG	CENTER OF GRAVITY	F_y	SPECIFIED MINIMUM YIELD STRESS OF STEEL	SLWC	SAND-LIGHTWEIGHT CONCRETE
℄	CENTERLINE			Tu	ANCHORAGE TENSION REACTION DUE TO SEISMIC FORCE
CONC	CONCRETE	GA	GAUGE		
CONN	CONNECTION	IN (")	INCH	THRD	THREAD OR THREADED
COORD	COORDINATE	INFO	INFORMATION	TYP	TYPICAL
DBL	DOUBLE	KSI	KIPS PER SQUARE INCH	T&B	TOP & BOTTOM
DTL	DETAIL	LBS	POUNDS	UNO	UNLESS NOTED OTHERWISE
DIA (ø)	DIAMETER	LRFD	LOAD AND RESISTANCE FACTOR DESIGN	Vu	ANCHORAGE SHEAR REACTION DUE TO SEISMIC FORCE
(E)	EXISTING CONDITION				
EA	EACH	MAX	MAXIMUM	W/	WITH
ELEV	ELEVATION	MFR	MANUFACTURER	Wp	OPERATING WEIGHT
EQUIP	EQUIPMENT	MIN	MINIMUM	WT	WEIGHT

DESIGN CRITERIA & SEISMIC DESIGN FORCES (LRFD)

$$F_p = \frac{0.4 a_p S_{DS} W_p (1+2\,z/h)}{(R_p/I_p)}$$ ASCE 7-16 (13.3-1)

F_p (MAX) $= 1.6\, S_{DS}\, I_p\, W_p$ ASCE 7-16 (13.3-2)

F_p (MIN) $= 0.3\, S_{DS}\, I_p\, W_p$ ASCE 7-16 (13.3-3)

$E_v = F_v = \pm 0.2\, S_{DS}\, W_p$ ASCE 7-16 (12.4-4)

SUPPORT & ATTACHMENT DESIGN IS PER 2019 CBC AT LRFD LEVEL FORCES PER TABLE 13.6-1 OF ASCE 7-16 SUPPLEMENT #1. "OTHER MECHANICAL OR ELECTRICAL COMPONENTS"

$a_p = 1.0$
Rp = 1.5
Ip = 1.5
Ωo = 1.5
Wp = AS NOTED ON PGS 11 TO 16

TABLE 2 (LRFD)

	S_{DS}	z/h	F_p COEFFICIENT	F_v COEFFICIENT
CASE 1	1.70	0.65	1.564 Wp	0.340 Wp
CASE 2	2.30	0	1.035 Wp	0.460 Wp

LOAD COMBINATIONS
1. $(1.2 + 0.2\, S_{DS})$ D+1.0E
2. $(0.9-0.2\, S_{DS})$ D+1.0E

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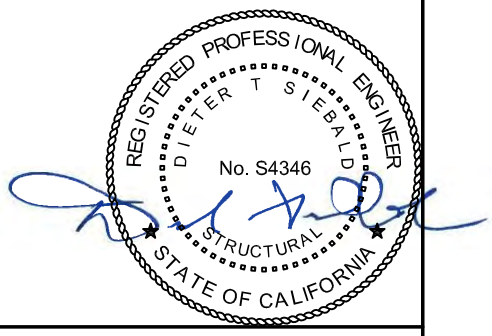
SYSTEM OVERVIEW & CONFIGURATIONS

1. THE cobas PRO INTEGRATED SOLUTIONS SYSTEM CONSISTS OF EIGHT MAJOR COMPONENTS THAT ARE ARRANGED IN FOUR DIFFERENT CONFIGURATIONS SHOWN ON THE FOLLOWING PGS:
   - SAMPLE SUPPLY UNIT (SSU) – SAMPLES ARE LOADED AND UNLOADED FROM THE SYSTEM HERE.
   - SAMPLE BUFFER (SB) – STORAGE BUFFER THAT FACILITATES SAMPLE RETRIEVAL FOR ADD–ON REQUESTS
   - ANALYTICAL UNITS (AU) – UP TO THREE ANALYTICAL UNITS CAN MAKE UP A SYSTEM, THEY ARE:
   - ION SELECTIVE ELECTRODE UNIT (ISE) – OPTIONAL UNIT FOR DETERMINATION OF ELECTROLYTES.
   - cobas c503 – CLINICAL CHEMISTRY MODULE (MEDIUM THROUGHPUT)
   - cobas e801 – IMMUNOASSAY MODULE
   - ANALYTICAL UNIT CORE COMPONENTS – EA MODULE LISTED ABOVE HAS THE FOLLOWING CORE COMPONENTS:
   - SAMPLE BUFFER LINE (SBL) – SAMPLE TRANSFER LINES WHICH INCLUDE:
     - SBL–TL–c503: TRANSFER LINE (TL) – RACK TRANSFER LINE LOCATED BEHIND EVERY MODULE THAT IS NOT THE LAST MODULE.
     - SBL–DL–c503 & SBL–DL–e801: DRIVE LINE (DL) – RACK DRIVE LINE LOCATED BEHIND THE LAST MODULE IN A GIVEN CONFIGURATION.

2. SCHEMATIC OVERVIEW DWGS FOLLOW THAT SHOW THE FOUR DIFFERENT COMBINATIONS.



SHEET TITLE: SYSTEM OVERVIEW & CONFIGURATIONS

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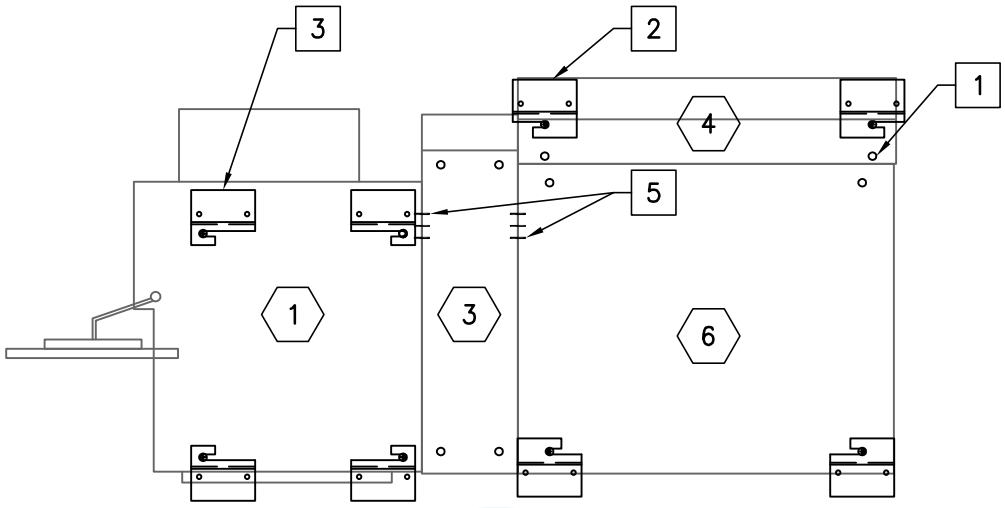

SCHEMATIC PLAN

COMPONENT:

1. SSU PER PG 11
2. * ISE PER PG 14
3. SB PER PG 12
4. SBL PER PG 13
5. * c503 PER PG 15
6. e801 PER PG 16

*NOT PART OF THIS CONFIGURATION

KEY NOTES

1. LEVELING LEG PER PG 17, TYP
2. SEISMIC BRACKET PER PG 18 OR ALTERNATE SEISMIC BRACKET PER PG 24, TYP UNO
3. SSU SEISMIC BRACKET PER PG 19, TYP
4. * ISE SEISMIC BRACKET PER PG 20, TYP
5. M8x16mm SUS304 BOLT BY MFR (REFER TO UNIT "PLAN & ELEVATIONS" FOR LOCATIONS
6. M8x20mm SUS304 BOLT BY MFR
7. M4x6mm CS SCREW BY MFR

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SHEET TITLE: SYSTEM CONFIGURATIONS
e801

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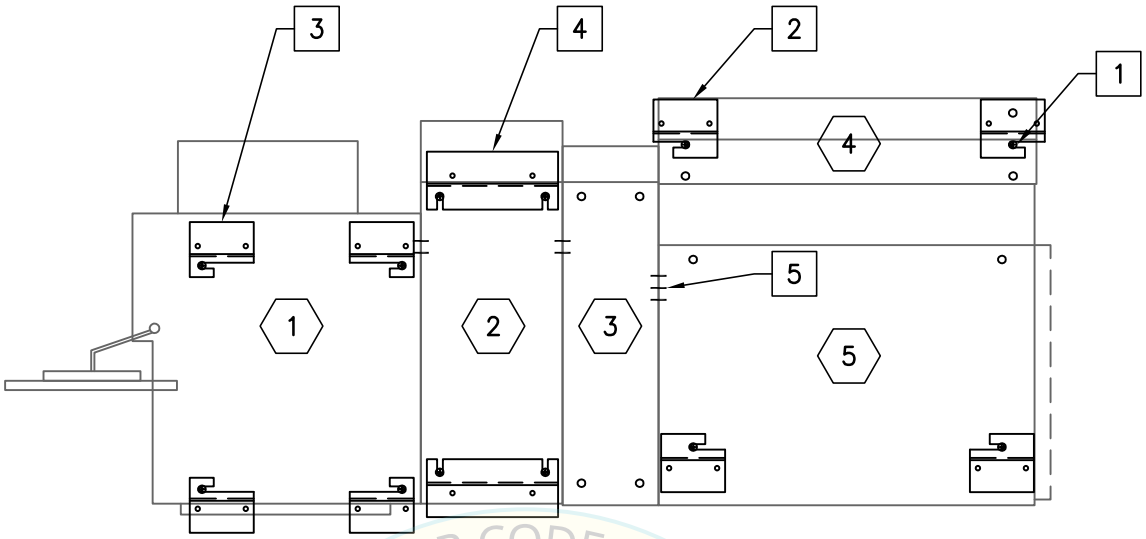

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SCHEMATIC PLAN

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SHEET TITLE: SYSTEM CONFIGURATIONS
ISE + c503

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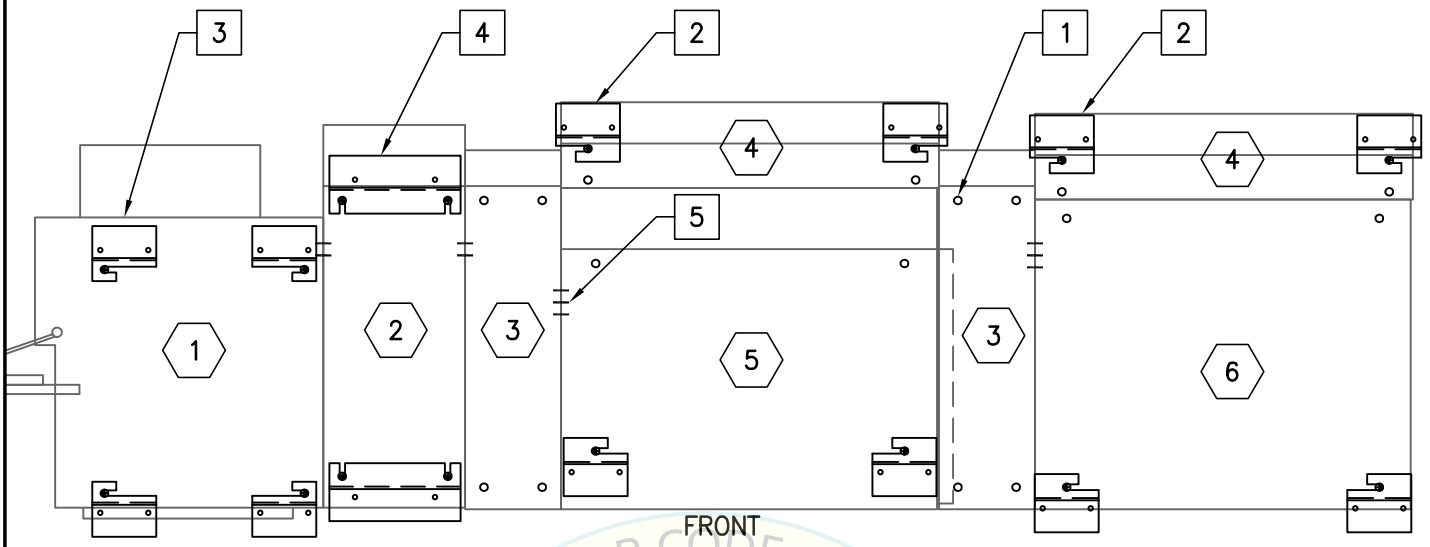

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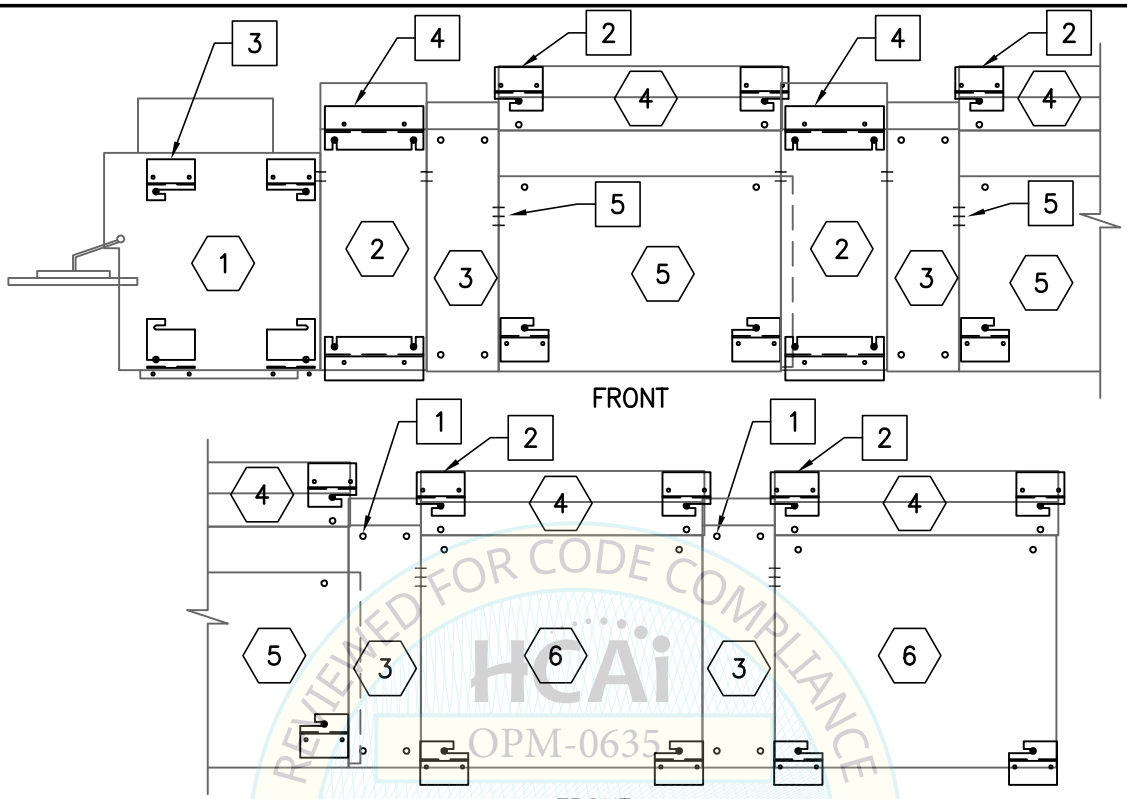

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ISE + c503 + ISE + c503 + e801 + e801

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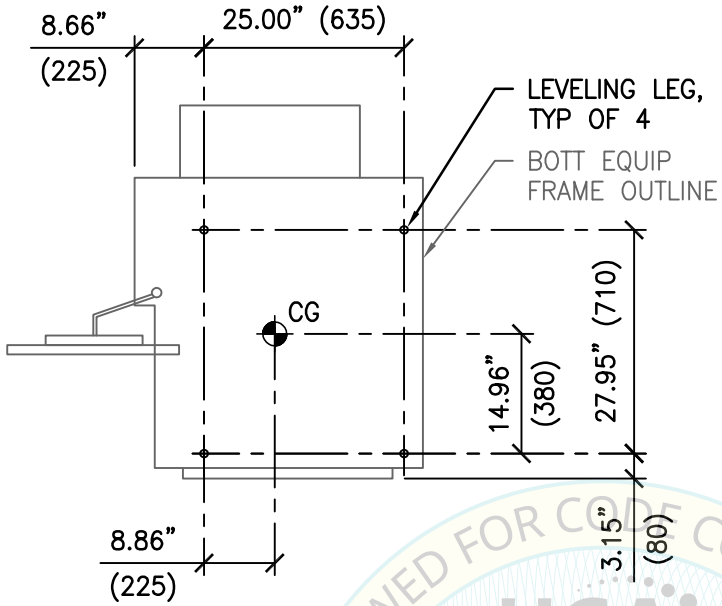
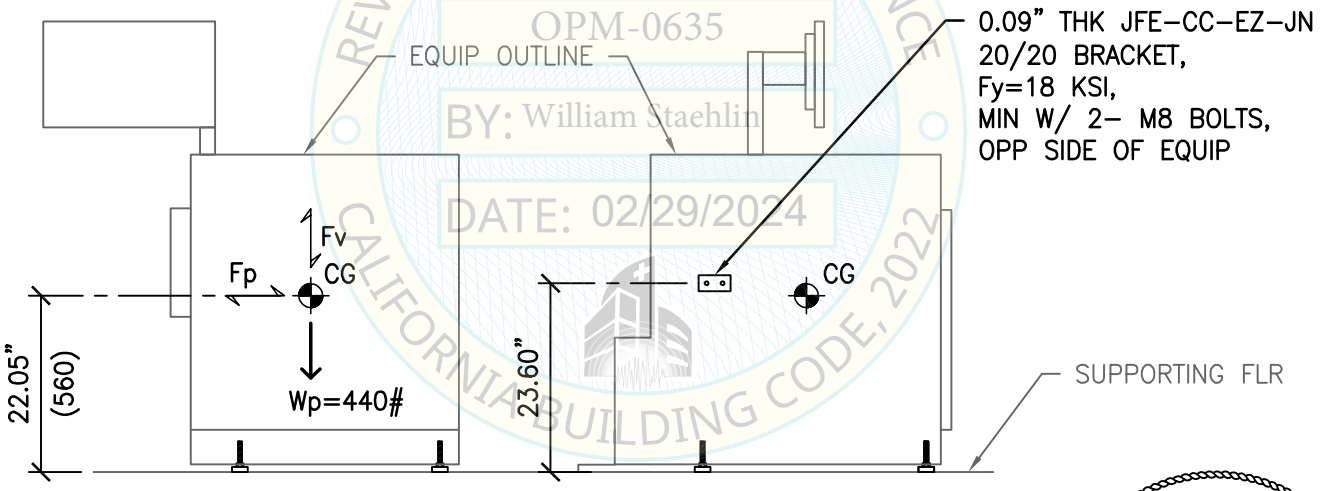


PLAN VIEW



FRONT ELEV

LEFT ELEV

NOTES:
1. FOR SEISMIC BRACKET LOCATIONS & ORIENTATION SEE SYSTEM CONFIGURATION PLANS.
2. WHEELS NOT SHOWN FOR CLARITY.
3. FRAME MATERIAL: JFE-CC-EZ-JN 20/20.
4. REFER TO PG 23 FOR FRAME MATERIAL PROPERTIES.

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SHEET TITLE: COMPONENT PLANS & ELEVATIONS
SAMPLE SUPPLY UNIT (SSU)

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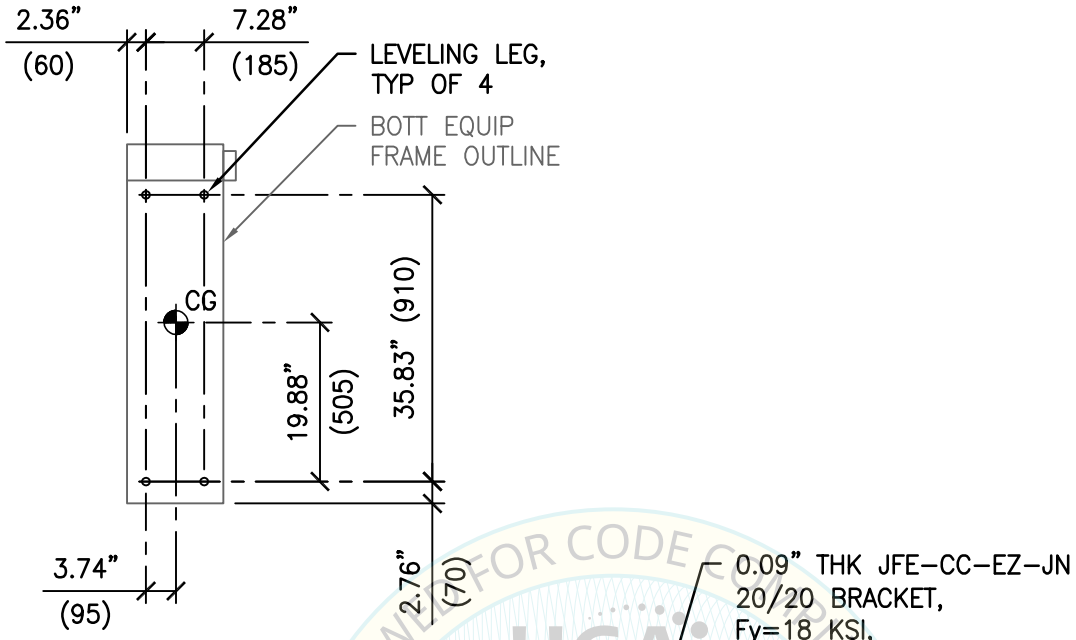
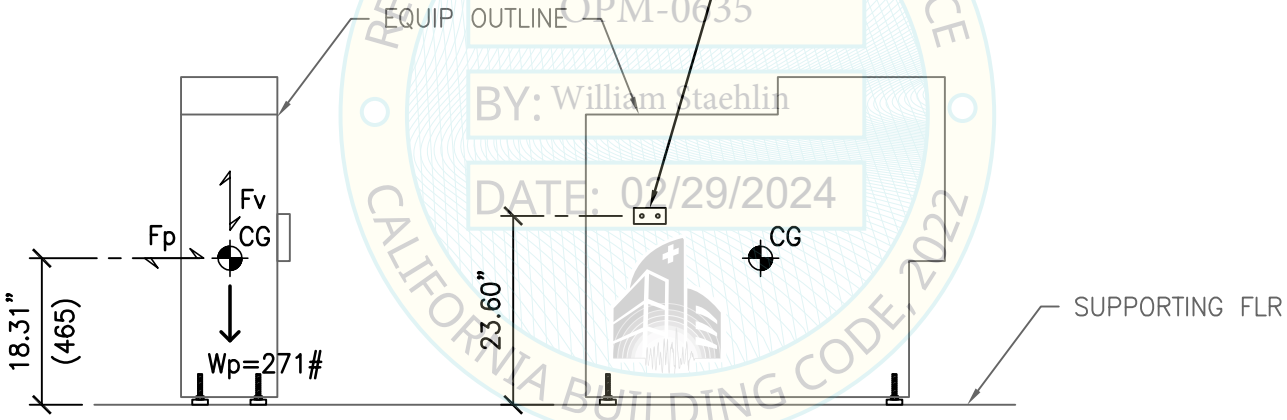
ROCHE DIAGNOSTICS CORPORATION
cobas® PRO INTEGRATED SOLUTIONS SYSTEM



PLAN VIEW



FRONT ELEV

RIGHT ELEV

NOTES:
1. FOR SEISMIC BRACKET LOCATIONS & ORIENTATION SEE SYSTEM CONFIGURATION PLANS.
2. WHEELS NOT SHOWN FOR CLARITY.
3. FRAME MATERIAL: SUS430 & JFE-CC-EZ-JN 20/20.
4. REFER TO PG 23 FOR FRAME MATERIAL PROPERTIES.

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: COMPONENT PLANS & ELEVATIONS
SAMPLE BUFFER (SB)

CYS STRUCTURAL ENGINEERS, INC.
2710 GATEWAY OAKS DRIVE, SUITE 190N
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	24001
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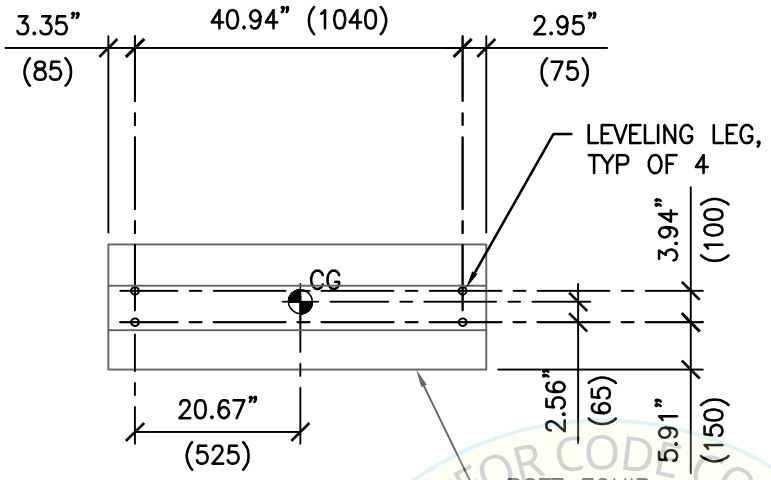
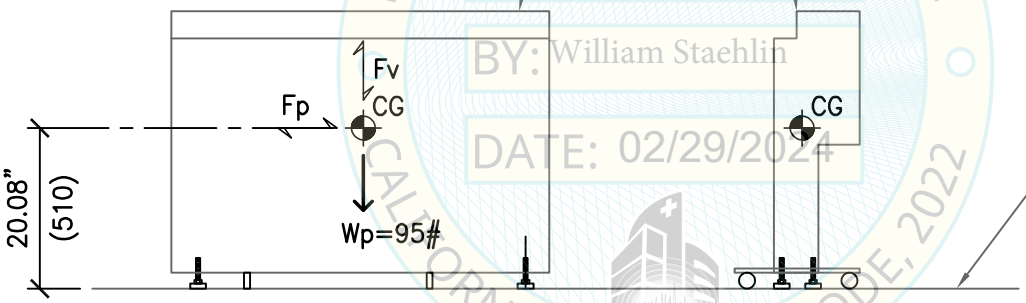
ROCHE DIAGNOSTICS CORPORATION
cobas® PRO INTEGRATED SOLUTIONS SYSTEM



PLAN VIEW

COMPONENTS QUALIFIED BY THIS DWG:
- SBL–DL–c503
- SBL–TL–c503
- SBL–DL–e801



FRONT ELEV LEFT ELEV

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

NOTES:
1. FOR SEISMIC BRACKET LOCATIONS & ORIENTATION SEE SYSTEM CONFIGURATION PLANS.
2. WHEELS NOT SHOWN FOR CLARITY.
3. FRAME MATERIAL: SUS430 & JFE–CC–EZ–JN 20/20.
4. REFER TO PG 23 FOR FRAME MATERIAL PROPERTIES.

SHEET TITLE: COMPONENT PLANS & ELEVATIONS
SAMPLE BUFFER LINE (SBL)

CYS STRUCTURAL ENGINEERS, INC.
2710 GATEWAY OAKS DRIVE, SUITE 190N
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

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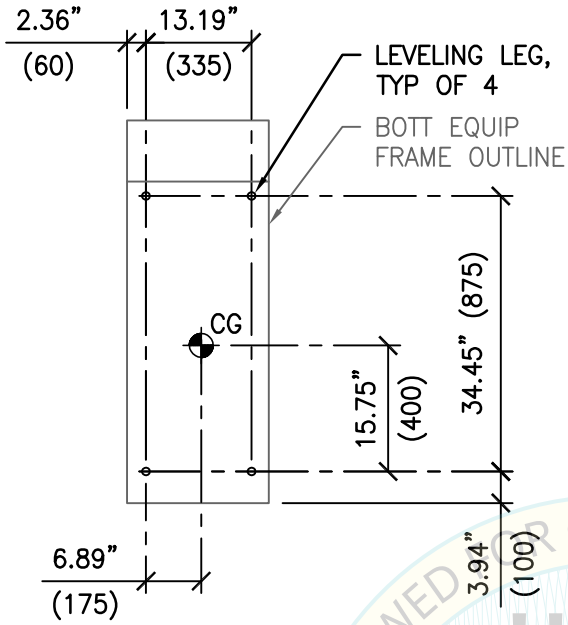
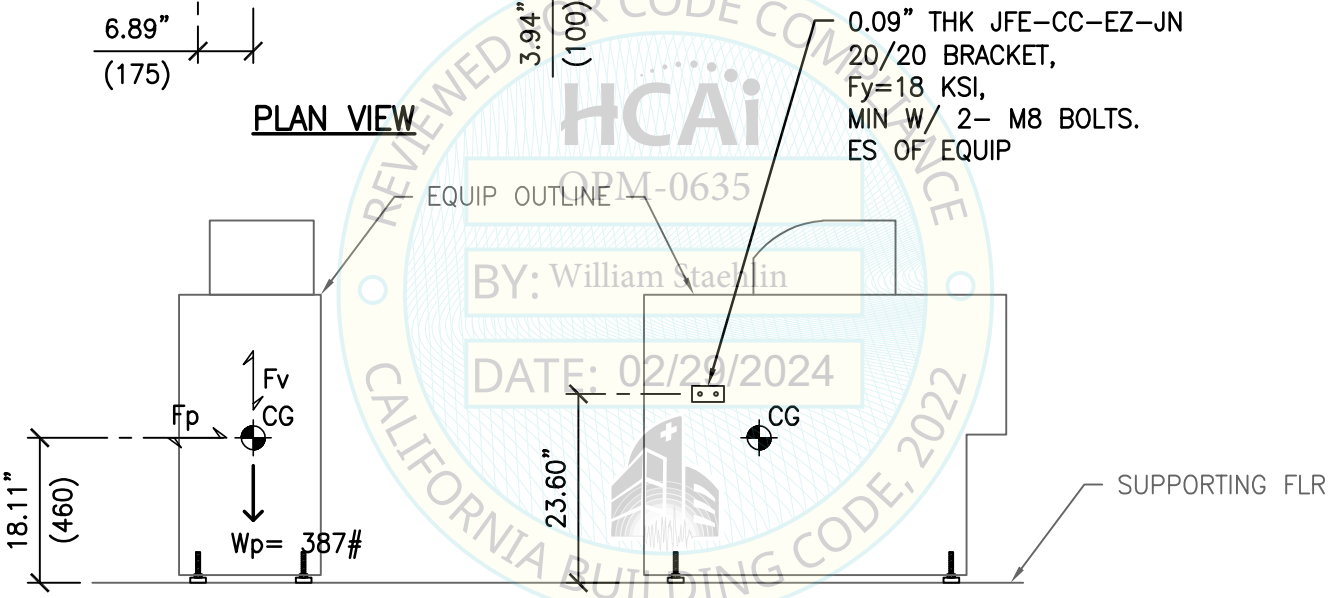
ROCHE DIAGNOSTICS CORPORATION
cobas® PRO INTEGRATED SOLUTIONS SYSTEM



PLAN VIEW



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NOTES:
1. FOR SEISMIC BRACKET LOCATIONS & ORIENTATION SEE SYSTEM CONFIGURATION PLANS.
2. WHEELS NOT SHOWN FOR CLARITY.
3. FRAME MATERIAL: SUS430 & JFE-CC-EZ-JN 20/20.
4. REFER TO PG 23 FOR FRAME MATERIAL PROPERTIES.

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: COMPONENT PLANS & ELEVATIONS
ION SELECTIVE ELECTRODE UNIT (ISE)

CYS STRUCTURAL ENGINEERS, INC.
2710 GATEWAY OAKS DRIVE, SUITE 190N
SACRAMENTO, CA 95833
TEL (916) 920-2020
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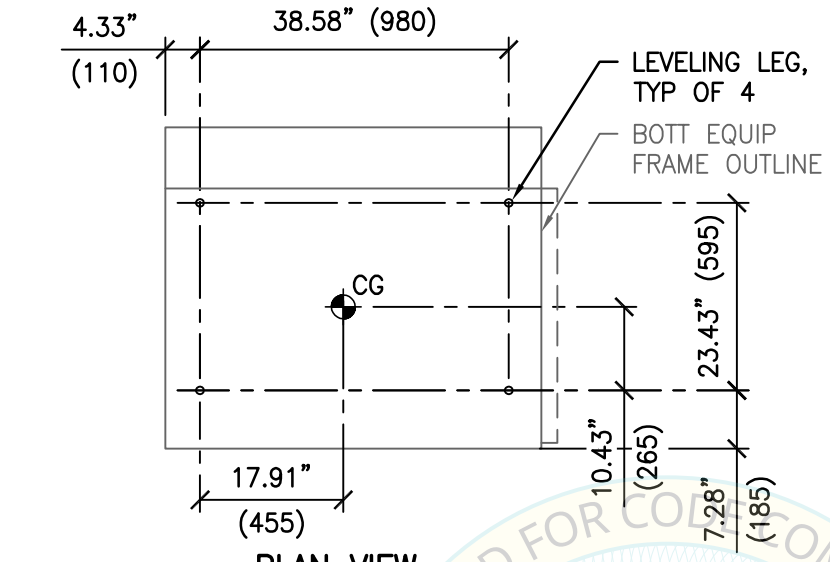
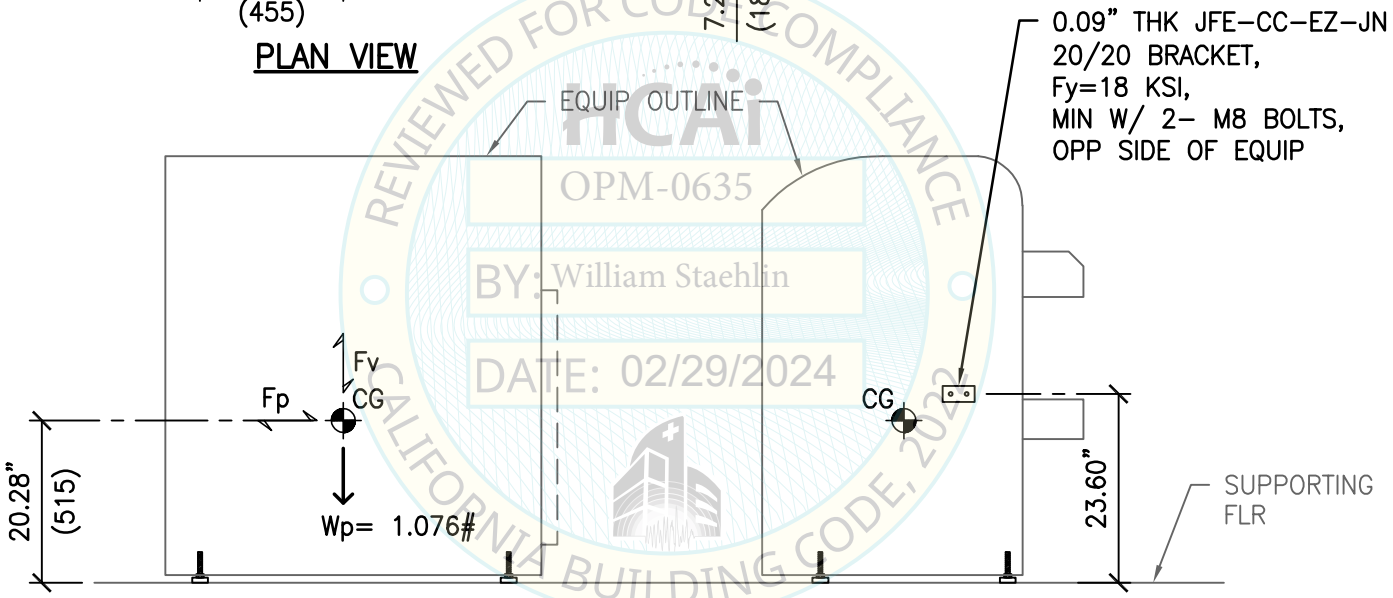
ROCHE DIAGNOSTICS CORPORATION
cobas® PRO INTEGRATED SOLUTIONS SYSTEM



PLAN VIEW



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REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

NOTES:
1. FOR SEISMIC BRACKET LOCATIONS & ORIENTATION SEE SYSTEM CONFIGURATION PLANS.
2. WHEELS NOT SHOWN FOR CLARITY.
3. FRAME MATERIAL: SUS430 & JFE-CC-EZ-JN 20/20.
4. REFER TO PG 23 FOR FRAME MATERIAL PROPERTIES.

SHEET TITLE: COMPONENT PLANS & ELEVATIONS
ANALYTICAL UNIT (C503)

CYS STRUCTURAL ENGINEERS, INC.
2710 GATEWAY OAKS DRIVE, SUITE 190N
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

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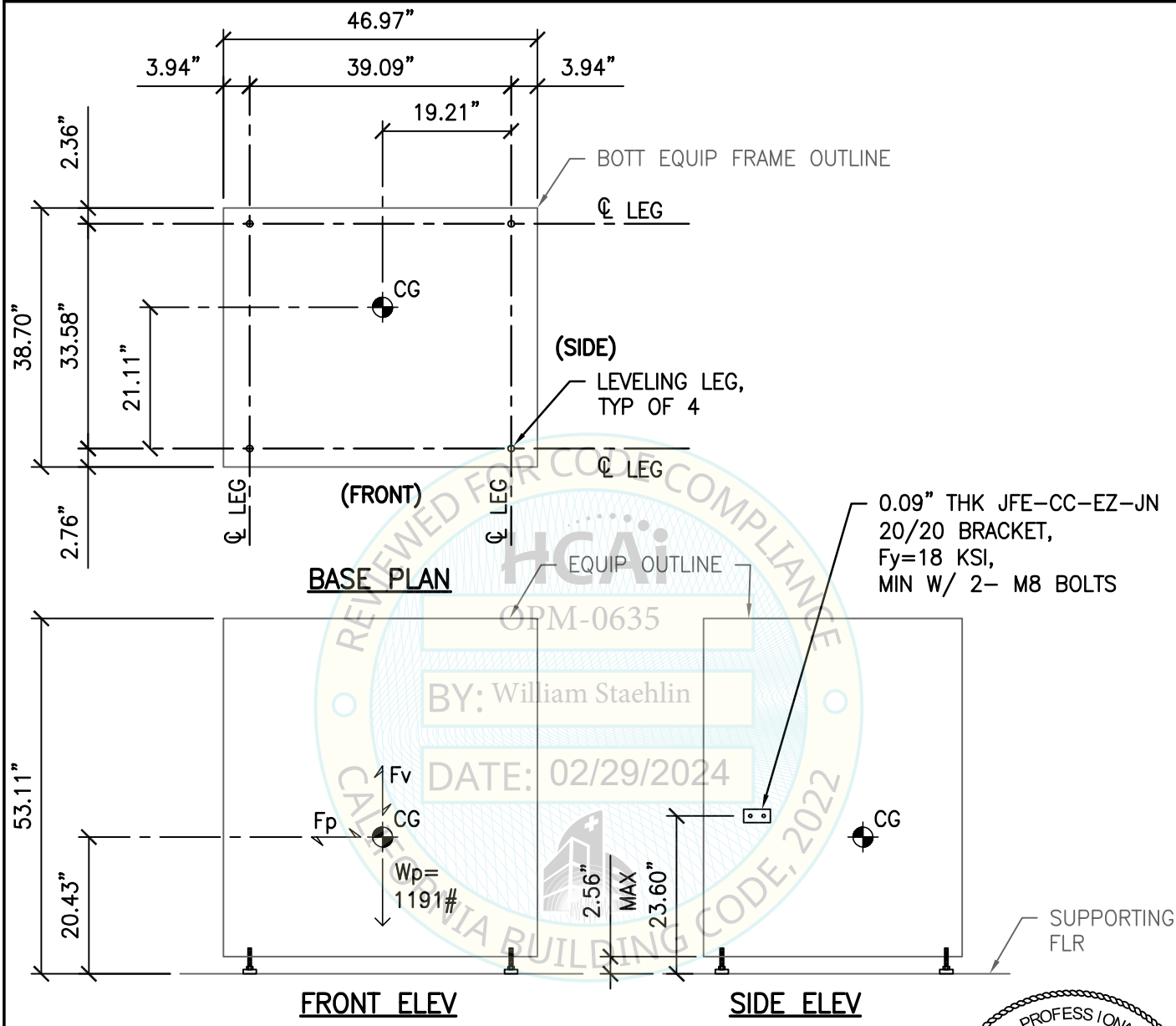
ROCHE DIAGNOSTICS CORPORATION
cobas® PRO INTEGRATED SOLUTIONS SYSTEM



NOTES:
1. FOR SEISMIC BRACKET LOCATIONS & ORIENTATION SEE SYSTEM CONFIGURATION PLANS.
2. WHEELS NOT SHOWN FOR CLARITY.
3. FRAME MATERIAL: SUS430.
4. REFER TO PG 23 FOR FRAME MATERIAL PROPERTIES.

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: COMPONENT PLANS & ELEVATIONS
ANALYTICAL UNIT (e801)

CYS STRUCTURAL ENGINEERS, INC.
2710 GATEWAY OAKS DRIVE, SUITE 190N
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

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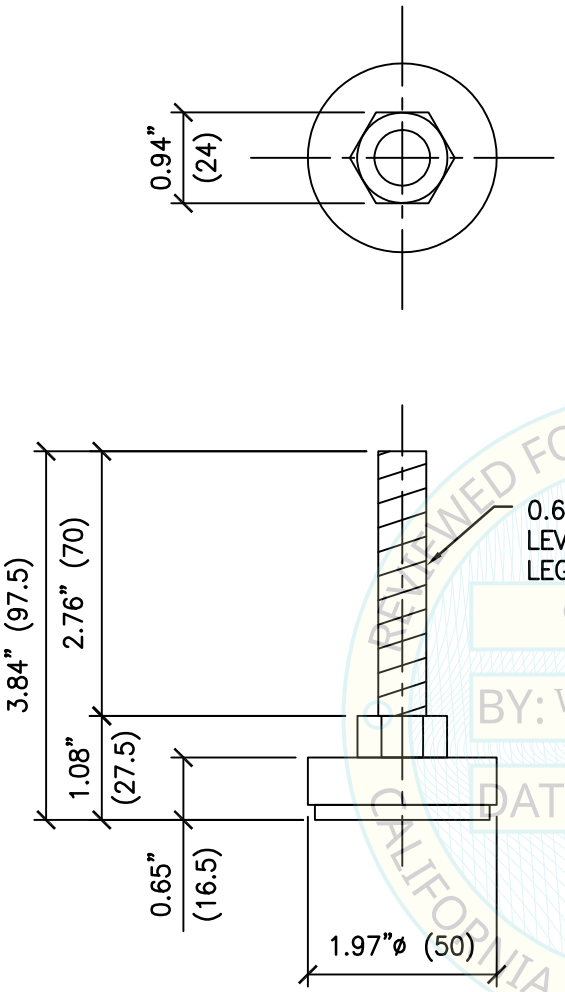
ROCHE DIAGNOSTICS CORPORATION
cobas® PRO INTEGRATED SOLUTIONS SYSTEM

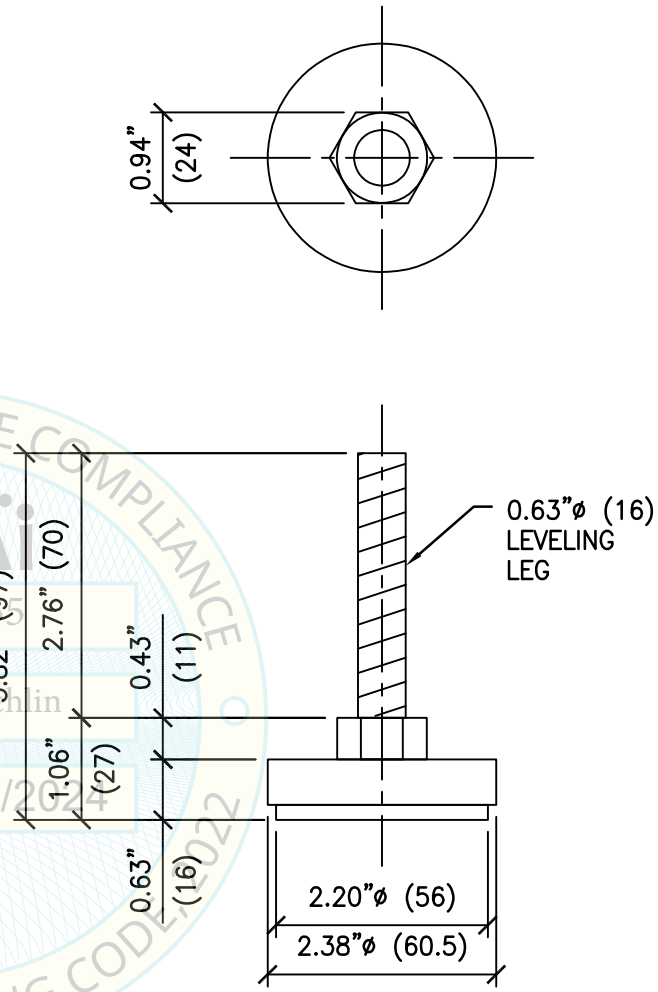
Roche

TYP COBAS PRO LEVELING FOOT



MATERIAL: SWCH10R
STRENGTH: Fy= 30 KSI
ALLOWANCE LOAD: 770#

c503 LEVELING FOOT



MATERIAL: SWCH10R
STRENGTH: Fy= 30 KSI
ALLOWANCE LOAD: 990#

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: LEVELING LEG DETAIL

CYS STRUCTURAL ENGINEERS, INC.
2710 GATEWAY OAKS DRIVE, SUITE 190N
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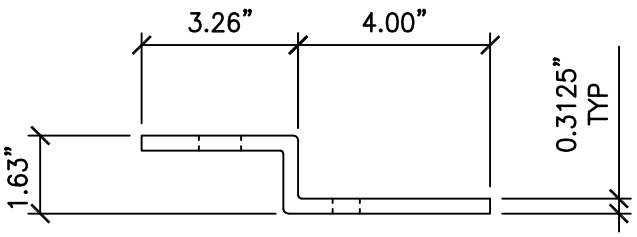
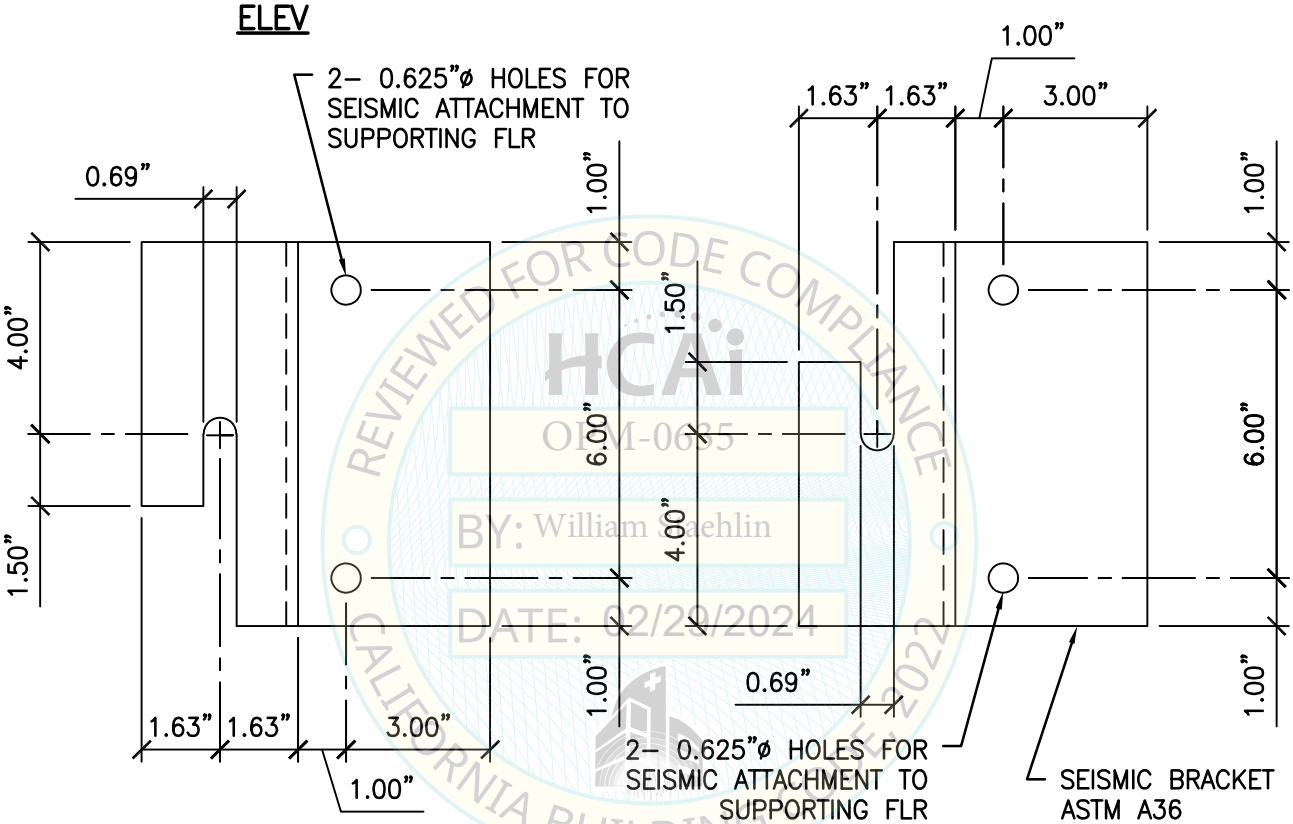
ROCHE DIAGNOSTICS CORPORATION
cobas® PRO INTEGRATED SOLUTIONS SYSTEM



ELEV

NOTES:
1. FOR CASE 1 & CASE 2 ATTACHMENT TO FLR, SEE PGS 21 & 23.
2. BRACKET & SLOT DIRECTIONS SHALL BE FOLLOWED AS SHOWN ON SYSTEM CONFIGURATION PLANS.



RIGHT–HAND

LEFT–HAND

PLANS

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: SEISMIC BRACKET DETAIL

CYS STRUCTURAL ENGINEERS, INC.
2710 GATEWAY OAKS DRIVE, SUITE 190N
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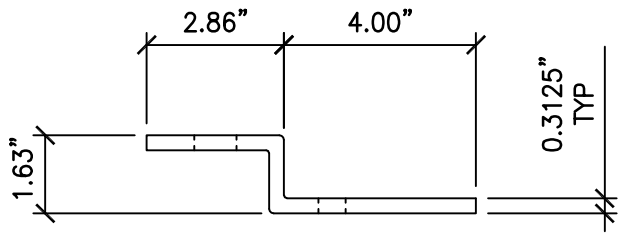
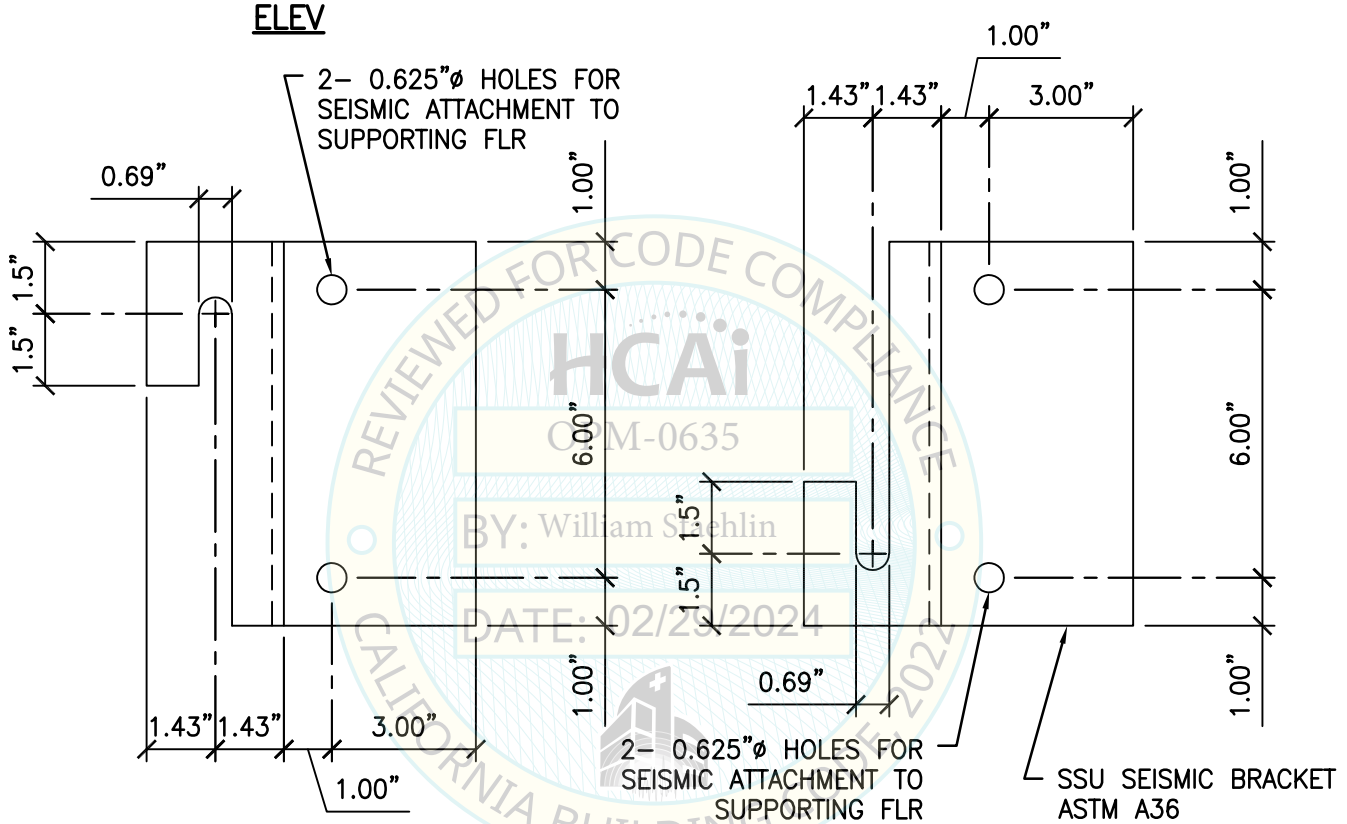
ROCHE DIAGNOSTICS CORPORATION
cobas® PRO INTEGRATED SOLUTIONS SYSTEM



ELEV

NOTES:
1. FOR CASE 1 & CASE 2 ATTACHMENT TO FLR, SEE PGS 21 & 23.
2. BRACKET & SLOT DIRECTIONS SHALL BE FOLLOWED AS SHOWN ON SYSTEM CONFIGURATION PLANS.



RIGHT–HAND

LEFT–HAND

PLANS

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: SSU SEISMIC BRACKET DETAIL

CYS STRUCTURAL ENGINEERS, INC.
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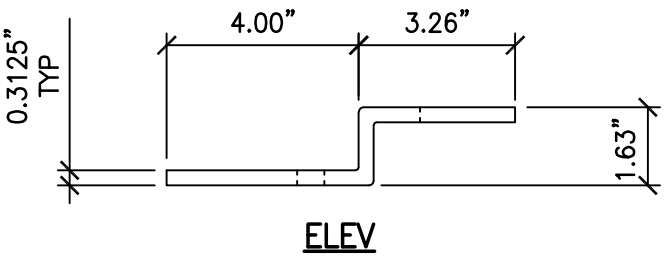
ROCHE DIAGNOSTICS CORPORATION
cobas® PRO INTEGRATED SOLUTIONS SYSTEM

Roche

NOTES:
1. FOR CASE 1 & CASE 2 ATTACHMENT TO FLR, SEE PGS 21 & 23.
2. BRACKET & SLOT DIRECTIONS SHALL BE FOLLOWED AS SHOWN ON SYSTEM CONFIGURATION PLANS.



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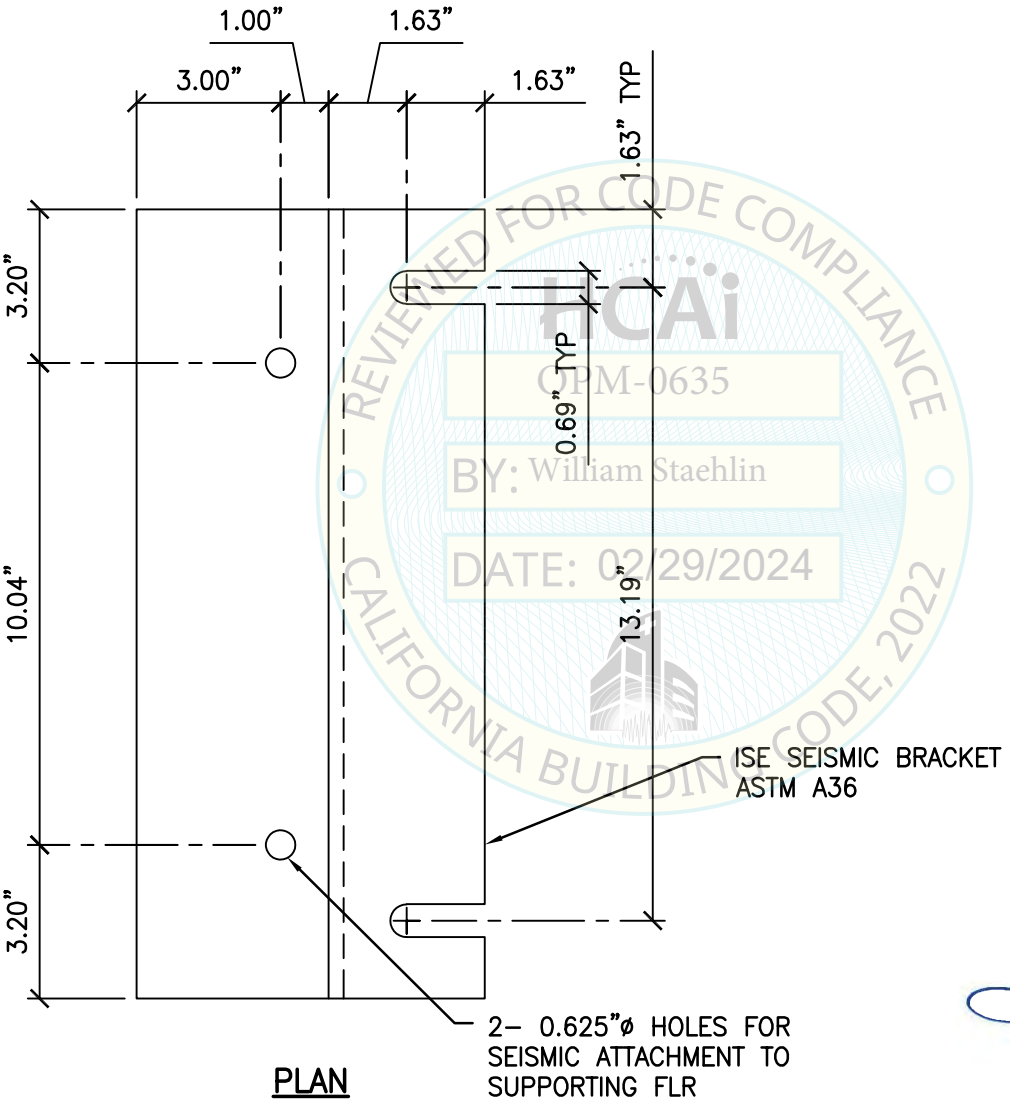
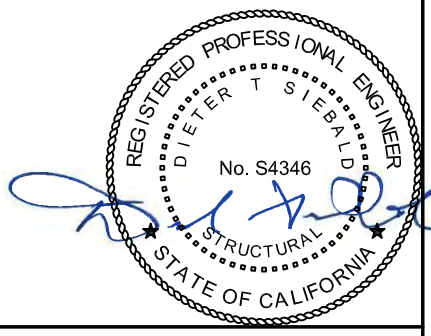


PLAN



SHEET TITLE: ISE SEISMIC BRACKET DETAIL

CYS STRUCTURAL ENGINEERS, INC.
2710 GATEWAY OAKS DRIVE, SUITE 190N
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

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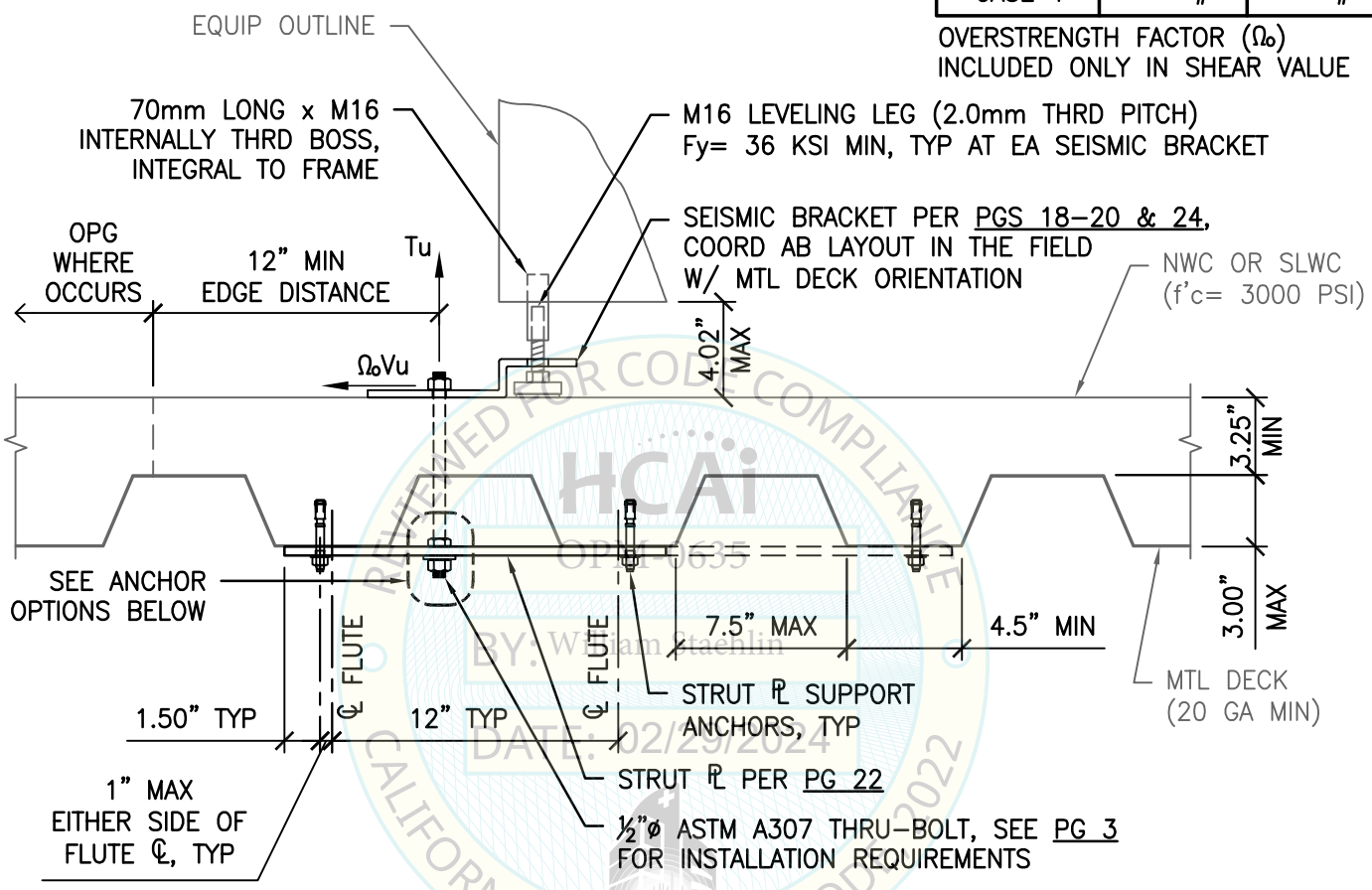
ROCHE DIAGNOSTICS CORPORATION
cobas® PRO INTEGRATED SOLUTIONS SYSTEM

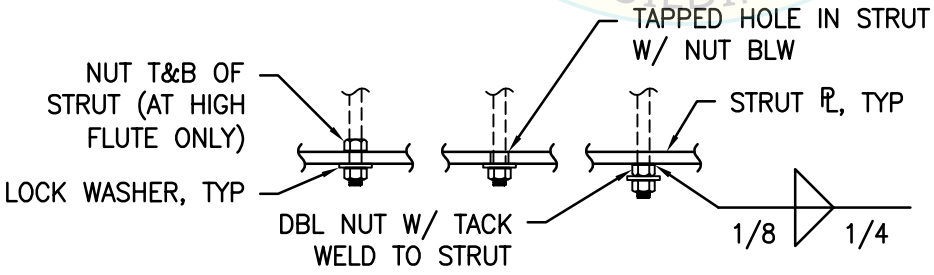
Roche

	MAX LRFD FORCES AT EA ANCHOR	
	T_u	$\Omega_o V_u$
CASE 1	1015#	821#

OVERSTRENGTH FACTOR (Ω_o) INCLUDED ONLY IN SHEAR VALUE



SUSPENDED FLOOR (CASE 1)



ANCHOR OPTIONS

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

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

CYS STRUCTURAL ENGINEERS, INC.
2710 GATEWAY OAKS DRIVE, SUITE 190N
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	24001
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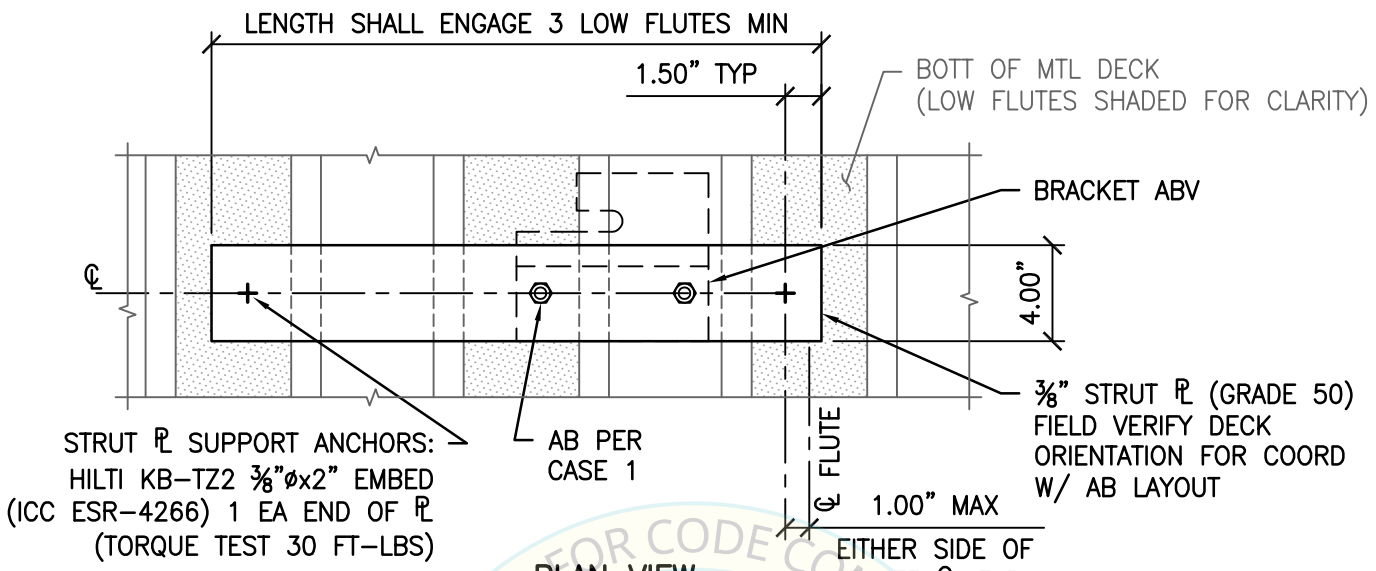
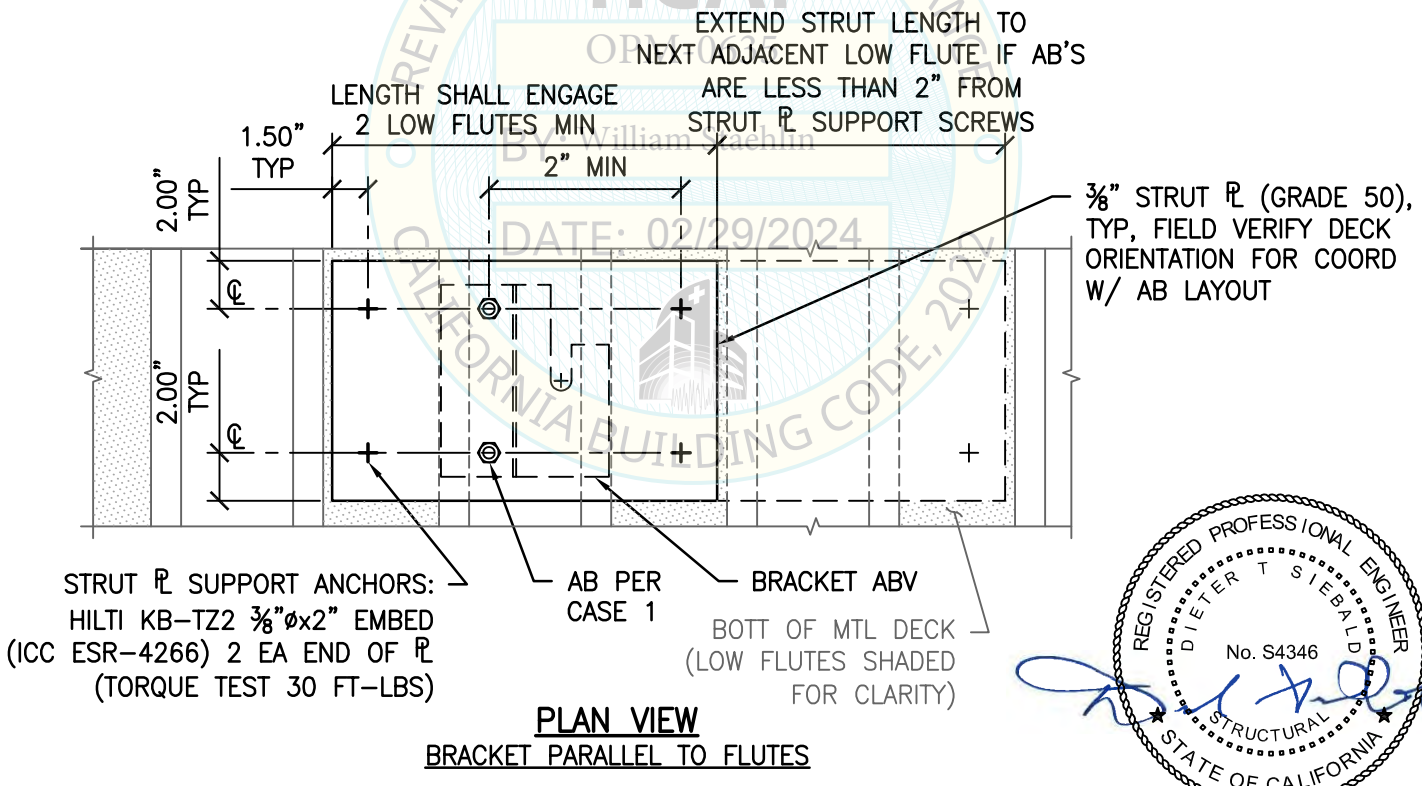
ROCHE DIAGNOSTICS CORPORATION
cobas® PRO INTEGRATED SOLUTIONS SYSTEM



PLAN VIEW
BRACKET PERPENDICULAR TO FLUTES



PLAN VIEW
BRACKET PARALLEL TO FLUTES

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: TYPICAL STRUT DETAIL

CYS STRUCTURAL ENGINEERS, INC.
2710 GATEWAY OAKS DRIVE, SUITE 190N
SACRAMENTO, CA 95833
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Job No:	24001
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ROCHE DIAGNOSTICS CORPORATION
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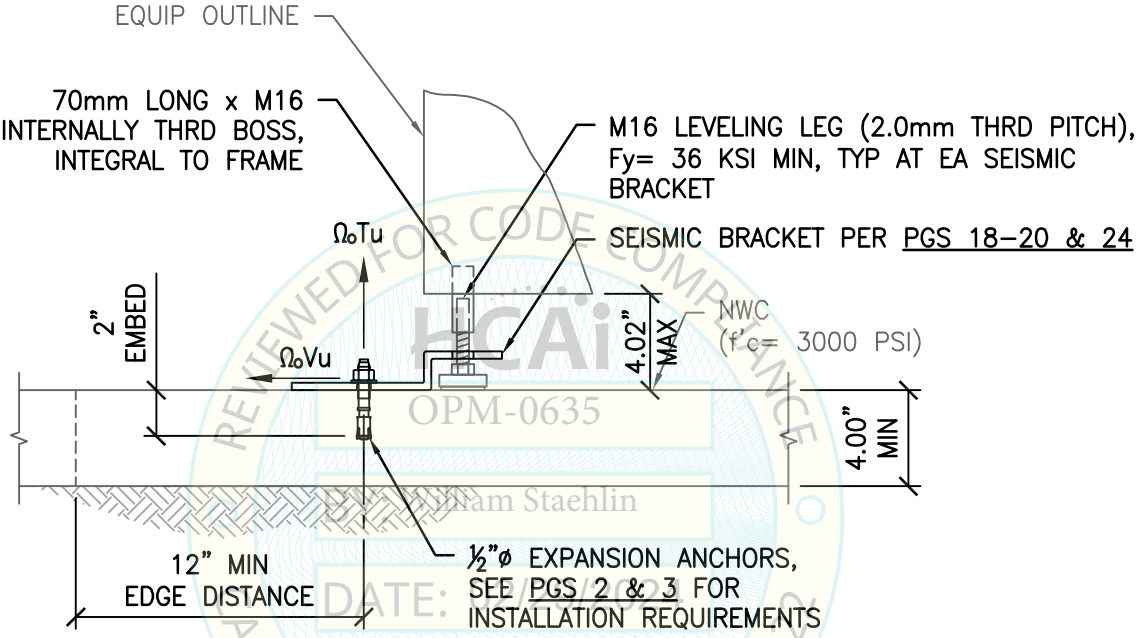
	MAX LRFD FORCES AT EA ANCHOR	
	$\Omega_o T_u$	$\Omega_o V_u$
CASE 2	942#	726#

OVERSTRENGTH FACTOR (Ω_o) INCLUDED.



SLAB ON GRADE (CASE 2)

EQUIPMENT FRAME MATERIAL:
SUS430, GRADE 430SS, ASTM A240:
2.0mm THK (14 GA)
Fy= 45 KSI MIN; Fu= 70 KSI MIN
OR
JFE-CC-EZ-JN 20/20, CHROMATE FREE COATED STEEL:
2.5mm THK (13 GA)
Fy= 18.1 KSI MIN; Fu= 39.1 KSI MIN

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: ATTACHMENT DETAIL
TO SLAB ON GRADE (CASE 2)

CYS STRUCTURAL ENGINEERS, INC.
2710 GATEWAY OAKS DRIVE, SUITE 190N
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	24001
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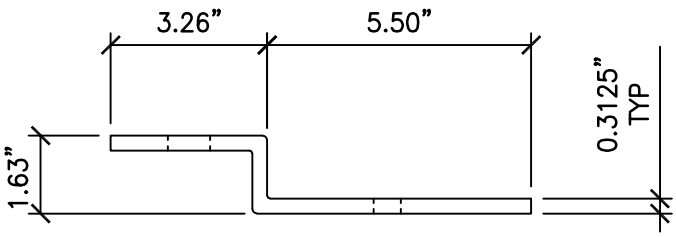
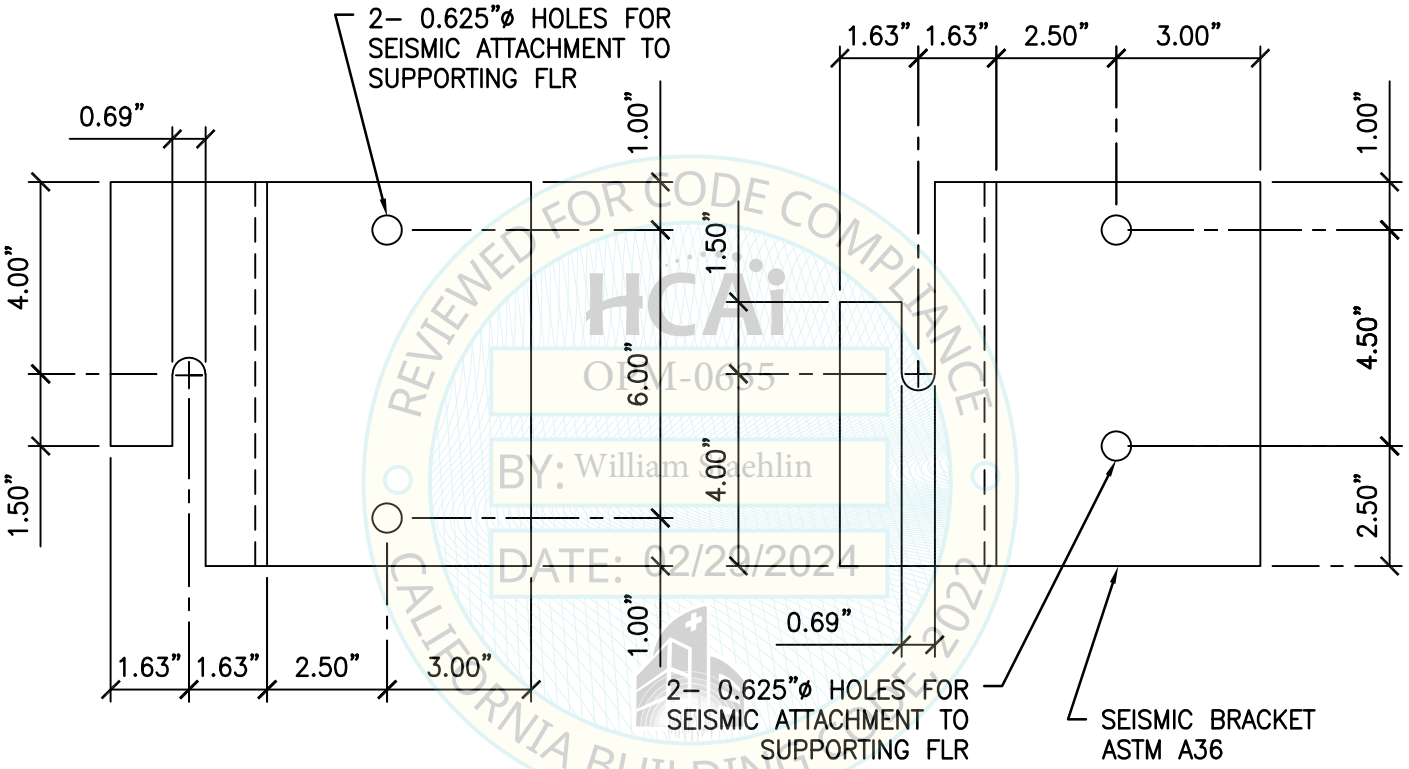


ELEV

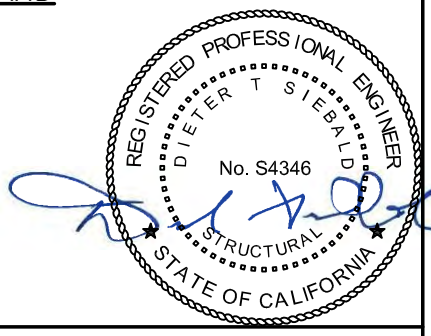
NOTES:
1. FOR CASE 1 & CASE 2 ATTACHMENT TO FLR, SEE PGS 21 & 23.
2. BRACKET & SLOT DIRECTIONS SHALL BE FOLLOWED AS SHOWN ON SYSTEM CONFIGURATION PLANS.
3. THESE ALTERNATE SEISMIC BRACKETS ARE FOR THE c503 & e801 MODULES.



RIGHT–HAND

LEFT–HAND

PLANS



SHEET TITLE: ALTERNATE SEISMIC BRACKET DETAIL

CYS STRUCTURAL ENGINEERS, INC.
2710 GATEWAY OAKS DRIVE, SUITE 190N
SACRAMENTO, CA 95833
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