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

OFFICE USE ONLY
APPLICATION #: OPM-0138-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: ☐ New ☐ Renewal ☒ Update to Pre-CBC 2013 OPA Number: OPA-2412-07

Manufacturer Information

Manufacturer: Roche Diagnostics Corporation

Manufacturer's Technical Representative: Robert A. Jones

Mailing Address: P.O. Box 50457, Indianapolis, IN 46250-457

Telephone: 317-521-3244 Email: Robert.jones@roche.com

Product Information

Product Name: cobas 6000 Analyzer Series

Product Type: Blood Analyzers

Product Model Number: cobas C501, cobas E601, Sampler Unit, Second Rotor, E-Connection/Extension, C-Extension, Connect Unit of E-Connection

General Description: General Chemistry Tests

Applicant Information

Applicant Company Name: Roche Diagnostics Corporation

Contact Person: Robert A. Jones

Mailing Address: P.O. Box 50457, Indianapolis, IN 46250-457

Telephone: 317-521-3244 Email: Robert.jones@roche.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2013.

Signature of Applicant: Robert A Jones Date: September 8, 2014

Title: Manager-Field Engineering Support Company Name: Roche Diagnostics Corporation

Registered Design Professional Preparing Engineering Recommendations

Company Name: CYS Structural Engineers, Inc.

Name: Dieter T. Siebald California License Number: S 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 1950-10

☐ Other* (Please Specify):

*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 (Please Specify):

List of Attachments Supporting the Manufacturer's Certification

☐ Test Report ☒ Drawings ☒ Calculations ☐ Manufacturer's Catalog

☒ Other(s) (Please Specify): Manufacturer's Equipment Drawings and Documents (attached to Calculations)

OFFICE USE ONLY – OSHPD APPROVAL VALID FOR CBC 2013 ONLY

Signature: Date: 04-03-2015

Print Name: William Staehlin

Title: SSE

Condition of Approval (if applicable):

TABLE OF CONTENTS
OPM–0138–13

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 BRACKET, THRU–BOLTS & EXPANSION ANCHORS SHOWN ON PAGES 19–22 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.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	14085.01
Date:	3/31/2015
Page:	1 of 23

GENERAL NOTES:

1. THIS OSHPD PRE–APPROVAL 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. 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 ½" 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 2013 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.
3. 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 1, 2013, CORRECTED AUGUST 2014..
   - A. 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.
   - B. JOB TESTING: FOR VERIFYING SATISFACTORY INSTALLATION WORKMANSHIP, PERFORM JOB SITE TESTING IN ACCORDANCE WITH 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 TENSION OR TORQUE IN THE ANCHOR SUCH AS DIRECT PULL WITH A HYDRAULIC JACK OR CALIBRATED SPRING LOADING DEVICES OR CALIBRATED TORQUE WRENCH METHOD. 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 EQUIPMENT 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:
     - HYDRAULIC RAM METHOD: APPLY AND HOLD TEST LOAD FOR A MINIMUM OF 15 SECONDS. THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD WHERE WASHERS ARE USED. FOR WEDGE TYPE ANCHORS, SUCH AS HILTI KB–TZ, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE.
     - TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN THE FOLLOWING LIMITS: WEDGE TYPE: ONE–HALF (½) TURN OF THE NUT.

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

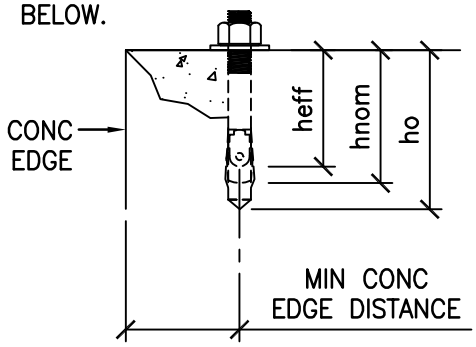
SHEET TITLE: GENERAL NOTES

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

Job No:	14085.01
Date:	3/31/2015
Page:	2 of 23

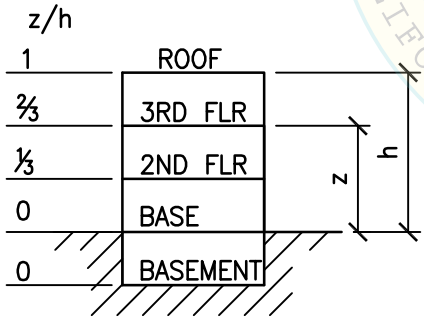
GENERAL NOTES CONTINUED:

3D. TEST VALUES: APPLY TEST LOADS TO ANCHORS WITHOUT REMOVING THE NUT IF POSSIBLE, SEE TABLE BELOW.



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 LOAD		CONDITION OF ANCHORAGE
							TENSION LOAD (LBS)	TORQUE (FT-LBS)	
½	2⅜	2	2⅝	4	12	2.8"	1605	40	CASE 2

4. BOLTS THROUGH CONCRETE ON METAL DECK:
   A. BOLTS SHALL BE TORQUED BY ¾ 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 CONCRETE SHALL RECEIVE SPECIAL INSPECTION & TESTING (THRU-BOLTS WITH STEEL TO STEEL CONNECTION IN TENSION DO NOT REQUIRE TESTING) IN ACCORDANCE WITH REQUIREMENTS FOR POST-INSTALLED ANCHORS.
5. TWO (2) CASES OF ATTACHMENT ARE SPECIFIED AND PRESENTED IN THIS PRE-APPROVAL:



BUILDING ELEVATION

CASE 1: ATTACHMENT DETAILS LOCATED AT UPPER FLOORS ABOVE THE BASE OF A BUILDING ($z/h \leq 1.0$), THE FLOORS ARE ASSUMED TO BE BUILT OF A MIN 3¼" SLWC TOPPING OVER METAL DECK ($f'c$ = 3000 PSI, MIN).

CASE 2: ATTACHMENT DETAILS LOCATED AT OR BELOW THE BASE OF A BUILDING ($z/h=0$). THE FLOORS ARE ASSUMED TO BE BUILT OF A MIN 4" NWC SLAB ($f'c$ = 3000 PSI, MIN).

6. 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.

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

SHEET TITLE: GENERAL NOTES (CONTINUED)

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

Job No:	14085.01
Date:	3/31/2015
Page:	3 of 23

ABBREVIATIONS:

@	AT
AB	ANCHOR BOLT
ABV	ABOVE
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
BLDG	BUILDING
BLW	BELOW
BOTT	BOTTOM
CBC	CALIFORNIA BUILDING CODE
CG	CENTER OF GRAVITY
℄	CENTERLINE
CONC	CONCRETE
COORD	COORDINATE
DBL	DOUBLE
DIA (ø)	DIAMETER
(E)	EXISTING CONDITION
EA	EACH
ELEV	ELEVATION
EQUIP	EQUIPMENT
f'c	MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE
FLR	FLOOR
FT (')	FOOT/FEET
F_p	HORIZONTAL SEISMIC FORCE PER ASCE 7-10 SEISMIC FORCE REQUIREMENTS
F_v	VERTICAL SEISMIC FORCE PER ASCE 7-10 SEISMIC FORCE REQUIREMENTS
F_y	SPECIFIED MINIMUM YIELD STRESS OF STEEL
GA	GAUGE
IN (")	INCH
KSI	KIPS PER SQUARE INCH
LBS	POUNDS
LRFD	LOAD AND RESISTANCE FACTOR DESIGN
MAX	MAXIMUM
MFR	MANUFACTURER
MIN	MINIMUM
MTL	METAL
NO. (#)	NUMBER OR POUNDS
NWC	NORMAL WEIGHT CONCRETE
OPG	OPENING
PG(S)	PAGE(S)
ℙ	PLATE
PSI	POUNDS PER SQUARE INCH
SLWC	SAND-LIGHTWEIGHT CONCRETE
Tu	ANCHORAGE TENSION REACTION DUE TO SEISMIC FORCE
THRD	THREAD OR THREADED
TYP	TYPICAL
T&B	TOP & BOTTOM
Vu	ANCHORAGE SHEAR REACTION DUE TO SEISMIC FORCE
W/	WITH
W/O	WITHOUT
Wp	OPERATING WEIGHT
WT	WEIGHT

DESIGN CRITERIA

ATTACHMENT DESIGN IS PER 2013 CBC AT LRFD LEVEL FORCES.

FLOOR MOUNTED MECHANICAL EQUIPMENT PER ASCE 7-10 TABLE 13.6-1.
a_p = 1.0 R_p = 1.5 I_p = 1.5 Ω_0 = 1.5 (CONCRETE ANCHORS)
W_P AS NOTED ON COMPONENT DRAWINGS SHOWN ON PGS 12 TO 18

FOR CASE 1 – UPPER FLOORS ABOVE THE BASE, z/h ≤ 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

THE MAX FORCES ON THE ATTACHMENT TO SUPPORTING STRUCTURE ARE DETERMINED BY EVALUATING THREE TYPICAL GROUPS OF COMPONENTS. THE CENTER OF GRAVITY LOCATIONS AND COMBINED OPERATING WEIGHTS USED IN THE EVALUATIONS ARE AS FOLLOWS:

GROUP #	PROPERTIES OF GROUPS ANALYZED FOR OPM				
	WT	X_{CG} (IN)	Y_{CG} (IN)	H_{CG} (IN)	COMPONENTS IN GROUP
1	838#	25.16	16.77	16.74	e601/E-CONNECTION/EXTENSION
2	1169#	32.01	17.12	19.48	c501/SAMPLER UNIT/C-EXTENSION
3	1279#	42.52	16.54	16.71	e601 SYSTEM

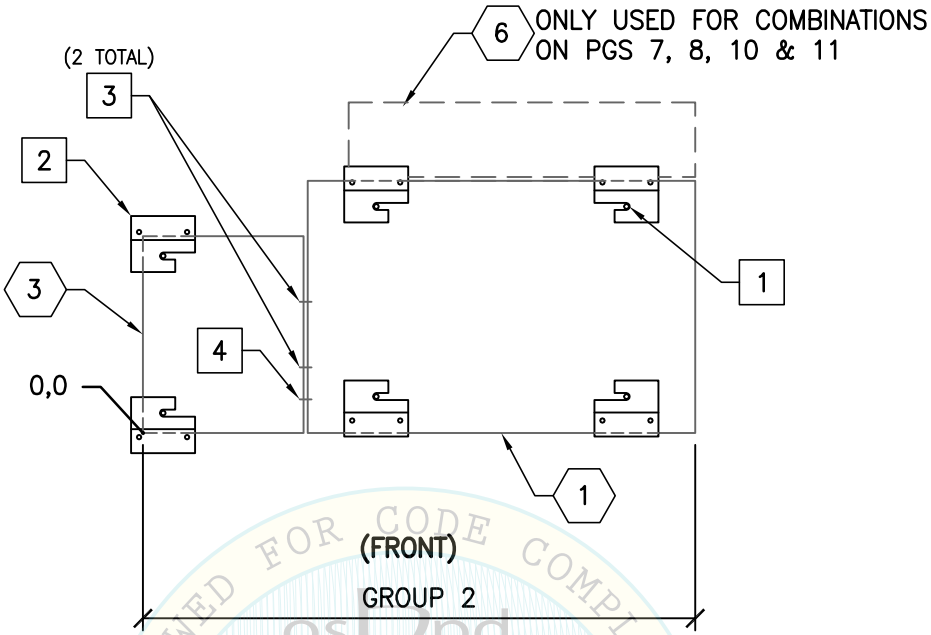
REFER TO SYSTEM COMBINATION PLANS ON PGS 5 TO 11 FOR IDENTIFICATION OF GROUPS.

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

SHEET TITLE: ABBREVIATIONS & DESIGN CRITERIA

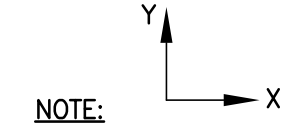
CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	14085.01
Date:	3/31/2015
Page:	4 of 23

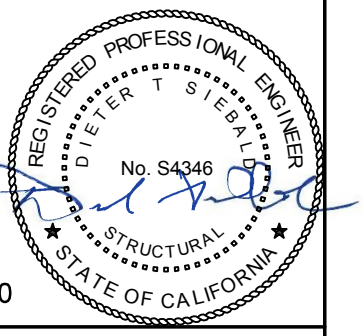


COMPONENT	
1	c501 PER PG 12
2	e601 PER PG 13
3	SAMPLER UNIT MODULE PER PG 14
4	SECOND ROTOR PER PG 15
5	E-CONNECTION/EXTENSION PER PG 16, TYP
6	C-EXTENSION PER PG 17
7	CONNECT UNIT OF E-CONNECTION PER PG 18

KEY NOTES	
1	LEVELING LEG, TYP
2	SEISMIC BRACKET PER PG 19, TYP
3	CONNECTING SHEAR PL BY MFR
4	25mmøx20mm SUS304-B CONN PIN FOR ALIGNMENT ONLY BY MFR
5	M4x6mm CS SCREW BY MFR
6	15mmøx20mm SS400 CONN PIN FOR ALIGNMENT ONLY BY MFR
7	M4x8mm CS SCREW CONN BY MFR
8	M8x16mm SUS304 BOLT BY MFR
9	M4x10mm CS SCREW BY MFR
10	ROTOR SEISMIC BRACKET PER PG 20



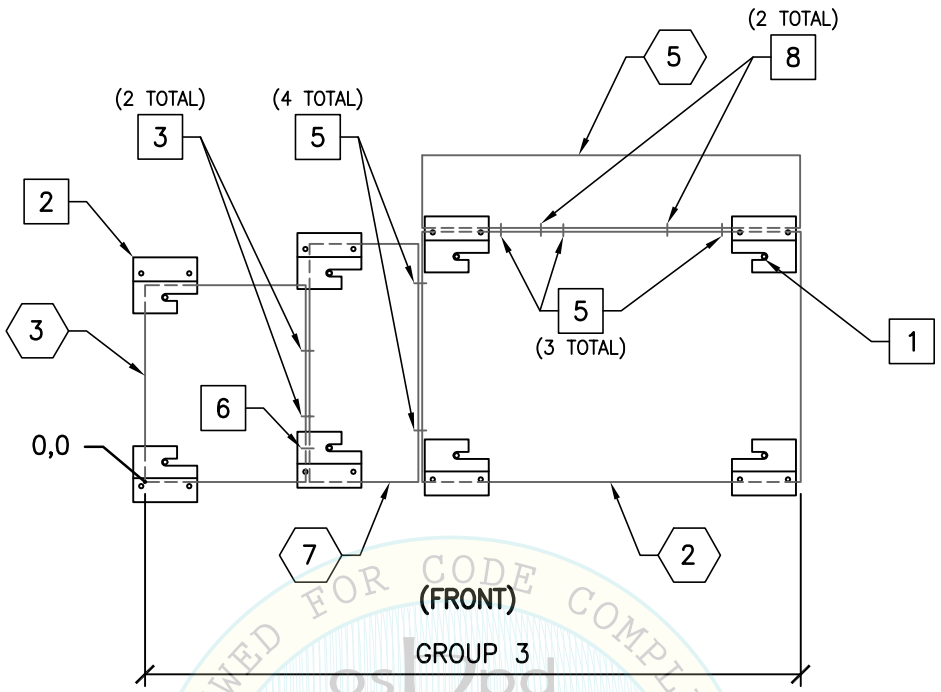
NOTE:
SEE PG 4 FOR GROUP CG LOCATION & WT.



SHEET TITLE: c501 SYSTEM PLAN

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

Job No:	14085.01
Date:	3/31/2015
Page:	5 of 23



COMPONENT	
1	c501 PER PG 12
2	e601 PER PG 13
3	SAMPLER UNIT MODULE PER PG 14
4	SECOND ROTOR PER PG 15
5	E-CONNECTION/EXTENSION PER PG 16, TYP
6	C-EXTENSION PER PG 17
7	CONNECT UNIT OF E-CONNECTION PER PG 18

KEY NOTES	
1	LEVELING LEG, TYP
2	SEISMIC BRACKET PER PG 19, TYP
3	CONNECTING SHEAR PL BY MFR
4	25mmøx20mm SUS304-B CONN PIN FOR ALIGNMENT ONLY BY MFR
5	M4x6mm CS SCREW BY MFR
6	15mmøx20mm SS400 CONN PIN FOR ALIGNMENT ONLY BY MFR
7	M4x8mm CS SCREW CONN BY MFR
8	M8x16mm SUS304 BOLT BY MFR
9	M4x10mm CS SCREW BY MFR
10	ROTOR SEISMIC BRACKET PER PG 20

Y
X

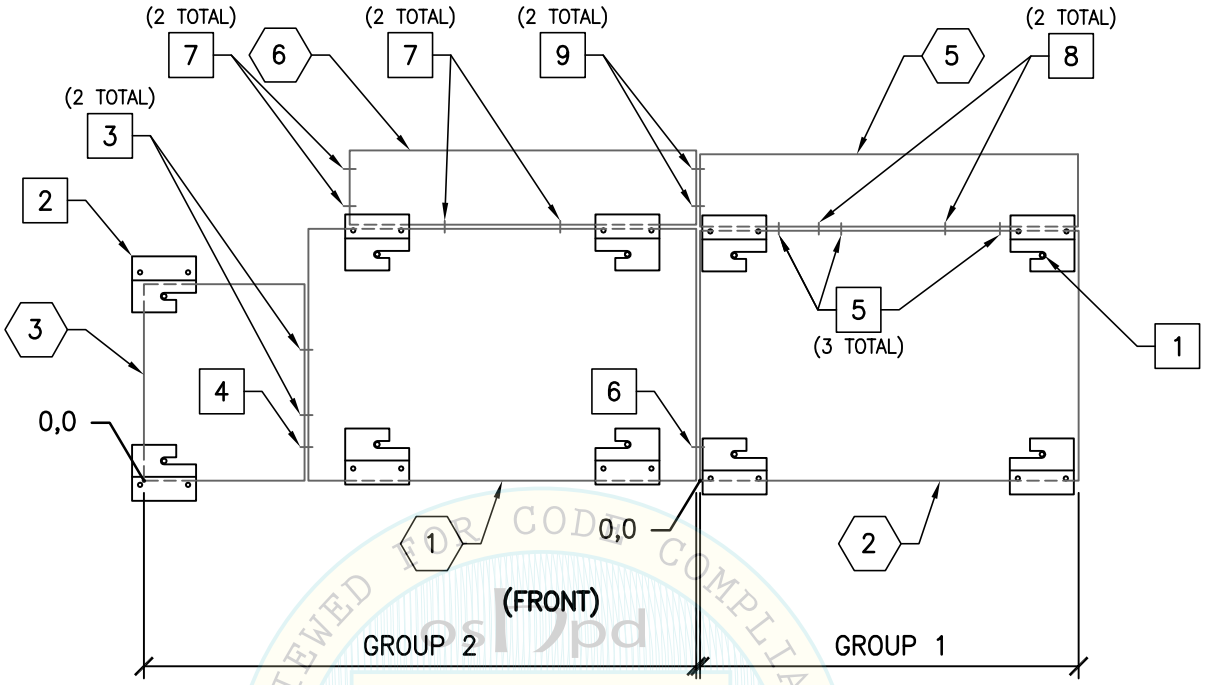
NOTE:
SEE PG 4 FOR GROUP CG LOCATION & WT.

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

SHEET TITLE: e601 SYSTEM PLAN

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

Job No:	14085.01
Date:	3/31/2015
Page:	6 of 23



COMPONENT	
1	c501 PER PG 12
2	e601 PER PG 13
3	SAMPLER UNIT MODULE PER PG 14
4	SECOND ROTOR PER PG 15
5	E-CONNECTION/EXTENSION PER PG 16, TYP
6	C-EXTENSION PER PG 17
7	CONNECT UNIT OF E-CONNECTION PER PG 18

KEY NOTES	
1	LEVELING LEG, TYP
2	SEISMIC BRACKET PER PG 19, TYP
3	CONNECTING SHEAR PL BY MFR
4	25mmøx20mm SUS304-B CONN PIN FOR ALIGNMENT ONLY BY MFR
5	M4x6mm CS SCREW BY MFR
6	15mmøx20mm SS400 CONN PIN FOR ALIGNMENT ONLY BY MFR
7	M4x8mm CS SCREW CONN BY MFR
8	M8x16mm SUS304 BOLT BY MFR
9	M4x10mm CS SCREW BY MFR
10	ROTOR SEISMIC BRACKET PER PG 20

Y
X

NOTE:
SEE PG 4 FOR GROUP CG LOCATION & WT.

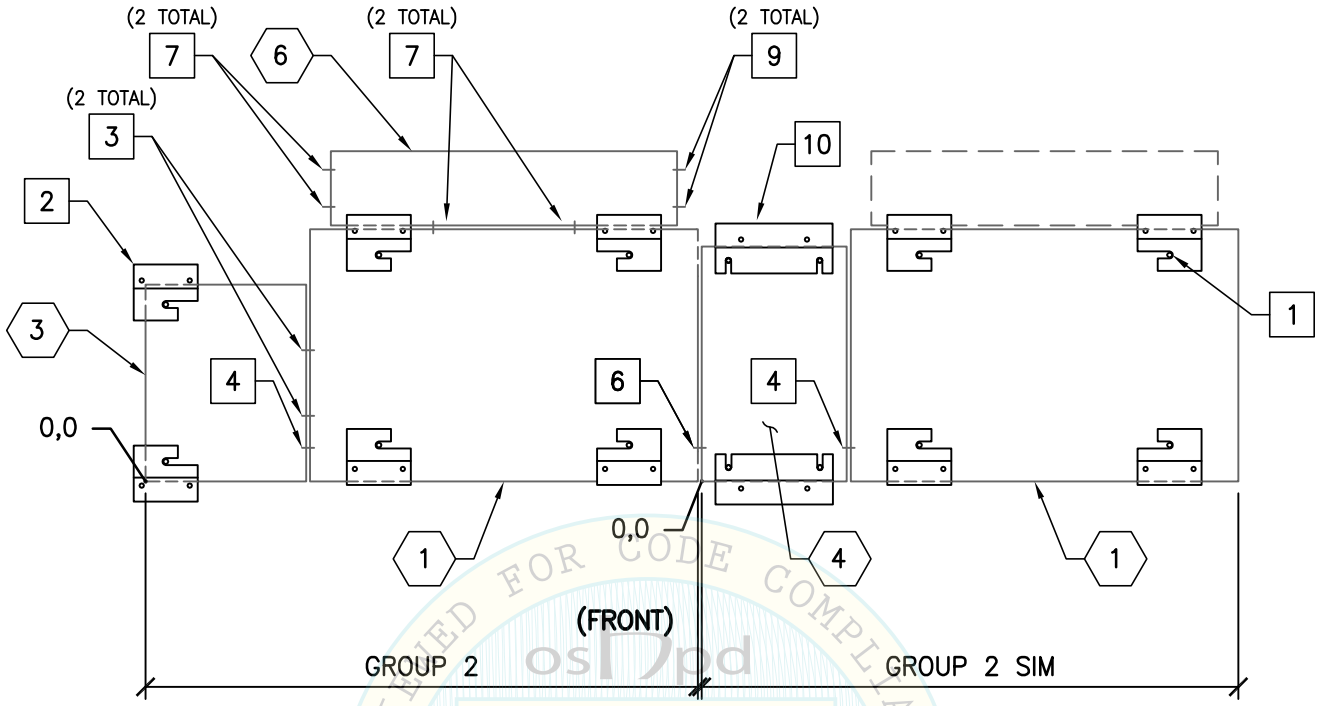
REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: c501/e601 SYSTEM COMBINATION PLAN

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

Job No:	14085.01
Date:	3/31/2015
Page:	7 of 23

L:\Jobs14\14085 Roche - Four OPMs\Task 01 - cobas 6000 OPM-0138-13\STRU\S1_TASK 01.dwg Time:Mar31,2015-03:44pm Login:camachom Dimscale:1 LTScale:6



COMPONENT

1. c501 PER PG 12
2. e601 PER PG 13
3. SAMPLER UNIT MODULE PER PG 14
4. SECOND ROTOR PER PG 15
5. E-CONNECTION/EXTENSION PER PG 16, TYP
6. C-EXTENSION PER PG 17
7. CONNECT UNIT OF E-CONNECTION PER PG 18

KEY NOTES

1. LEVELING LEG, TYP
2. SEISMIC BRACKET PER PG 19, TYP
3. CONNECTING SHEAR PL BY MFR
4. 25mmøx20mm SUS304-B CONN PIN FOR ALIGNMENT ONLY BY MFR
5. M4x6mm CS SCREW BY MFR
6. 15mmøx20mm SS400 CONN PIN FOR ALIGNMENT ONLY BY MFR
7. M4x8mm CS SCREW CONN BY MFR
8. M8x16mm SUS304 BOLT BY MFR
9. M4x10mm CS SCREW BY MFR
10. ROTOR SEISMIC BRACKET PER PG 20

Y
X

NOTE:
SEE PG 4 FOR GROUP CG LOCATION & WT.

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

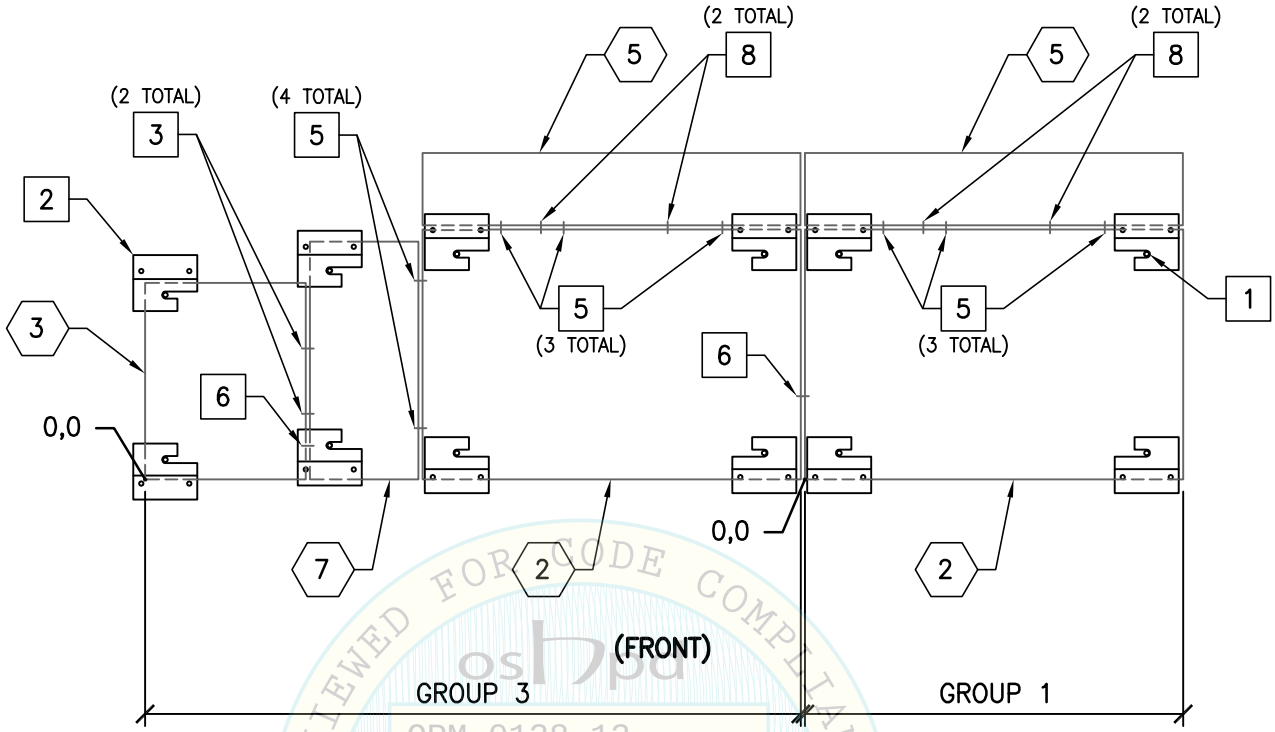
SHEET TITLE: c501/c501 SYSTEM COMBINATION PLAN

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

Job No:	14085.01
Date:	3/31/2015
Page:	8 of 23

L:\Jobs14\14085 Roche - Four OPMs\Task 01 - cobas 6000 OPM-0138-13\STRU\S1_TASK 01.dwg Time:Mar31,2015-03:44pm Login:camachom Dimscale:1 LTScale:6

ROCHE DIAGNOSTICS CORPORATION
cobas® 6000 ANALYZER SERIES



COMPONENT	
1	c501 PER PG 12
2	e601 PER PG 13
3	SAMPLER UNIT MODULE PER PG 14
4	SECOND ROTOR PER PG 15
5	E-CONNECTION/EXTENSION PER PG 16, TYP
6	C-EXTENSION PER PG 17
7	CONNECT UNIT OF E-CONNECTION PER PG 18

KEY NOTES	
1	LEVELING LEG, TYP
2	SEISMIC BRACKET PER PG 19, TYP
3	CONNECTING SHEAR PL BY MFR
4	25mmøx20mm SUS304-B CONN PIN FOR ALIGNMENT ONLY BY MFR
5	M4x6mm CS SCREW BY MFR
6	15mmøx20mm SS400 CONN PIN FOR ALIGNMENT ONLY BY MFR
7	M4x8mm CS SCREW CONN BY MFR
8	M8x16mm SUS304 BOLT BY MFR
9	M4x10mm CS SCREW BY MFR
10	ROTOR SEISMIC BRACKET PER PG 20

Y
X

NOTE:
SEE PG 4 FOR GROUP CG LOCATION & WT.

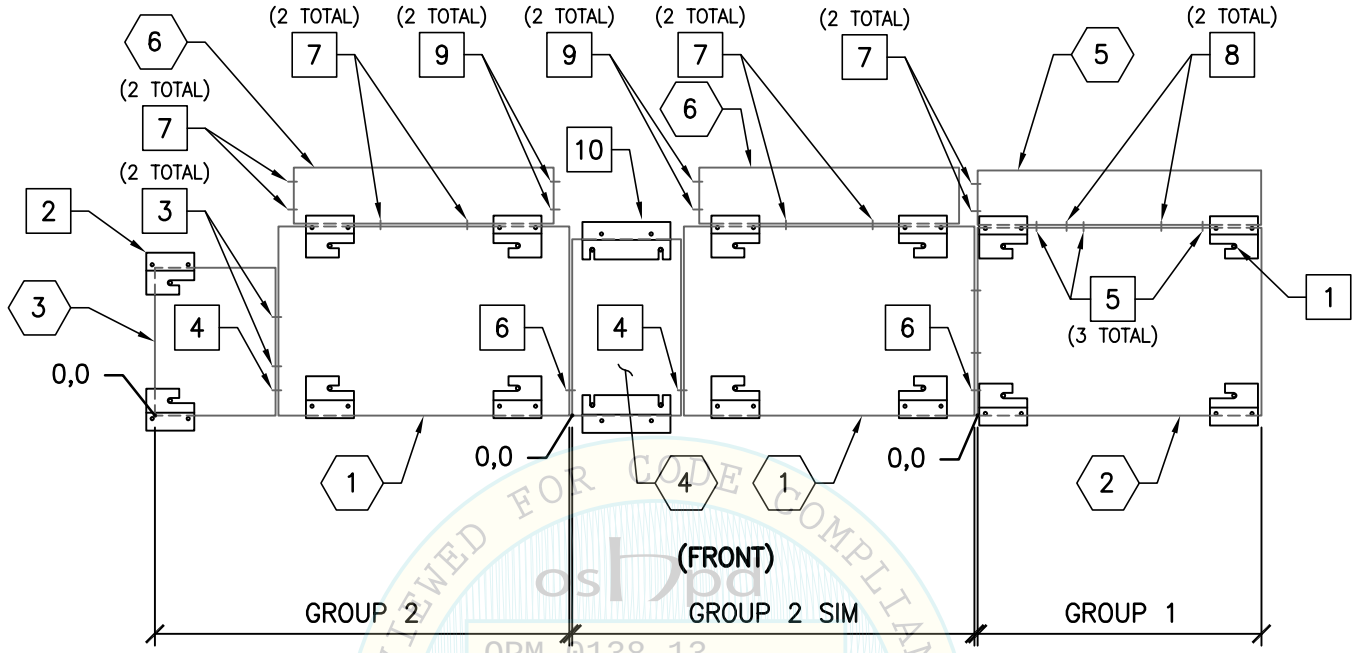
REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: e601/e601 SYSTEM COMBINATION PLAN

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

Job No:	14085.01
Date:	3/31/2015
Page:	9 of 23

ROCHE DIAGNOSTICS CORPORATION
cobas® 6000 ANALYZER SERIES



COMPONENT

1. c501 PER PG 12
2. e601 PER PG 13
3. SAMPLER UNIT MODULE PER PG 14
4. SECOND ROTOR PER PG 15
5. E-CONNECTION/EXTENSION PER PG 16, TYP
6. C-EXTENSION PER PG 17
7. CONNECT UNIT OF E-CONNECTION PER PG 18

KEY NOTES

1. LEVELING LEG, TYP
2. SEISMIC BRACKET PER PG 19, TYP
3. CONNECTING SHEAR PL BY MFR
4. 25mmøx20mm SUS304-B CONN PIN FOR ALIGNMENT ONLY BY MFR
5. M4x6mm CS SCREW BY MFR
6. 15mmøx20mm SS400 CONN PIN FOR ALIGNMENT ONLY BY MFR
7. M4x8mm CS SCREW CONN BY MFR
8. M8x16mm SUS304 BOLT BY MFR
9. M4x10mm CS SCREW BY MFR
10. ROTOR SEISMIC BRACKET PER PG 20

Y
X

NOTE:
SEE PG 4 FOR GROUP CG LOCATION & WT.

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

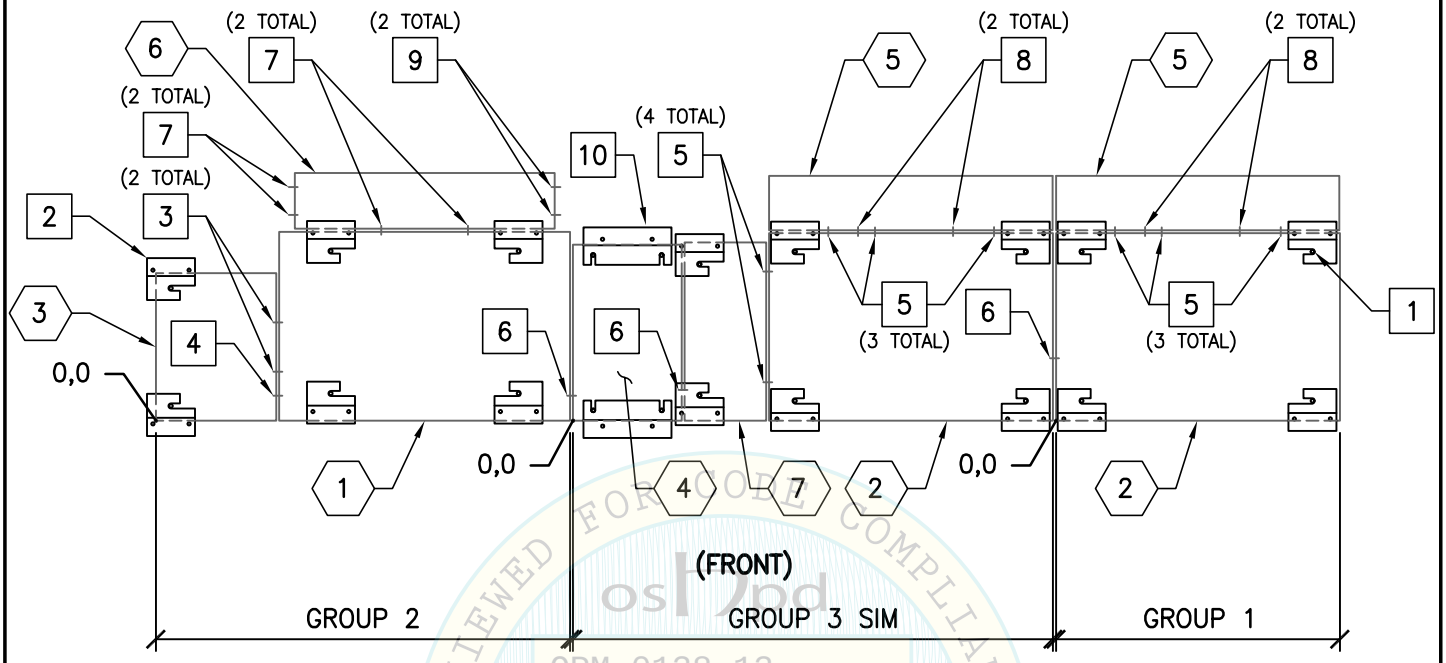
SHEET TITLE: c501/c501/e601 SYSTEM COMBINATION PLAN

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

Job No:	14085.01
Date:	3/31/2015
Page:	10 of 23

L:\Jobs14\14085 Roche - Four OPMs\Task 01 - cobas 6000 OPM-0138-13\STRU\S1_TASK 01.dwg Time:Mar31,2015-03:44pm Login:camachom Dimscale:1 LTScale:6

ROCHE DIAGNOSTICS CORPORATION
cobas® 6000 ANALYZER SERIES



COMPONENT

1	c501 PER PG 12
2	e601 PER PG 13
3	SAMPLER UNIT MODULE PER PG 14
4	SECOND ROTOR PER PG 15
5	E-CONNECTION/EXTENSION PER PG 16, TYP
6	C-EXTENSION PER PG 17
7	CONNECT UNIT OF E-CONNECTION PER PG 18

KEY NOTES

1	LEVELING LEG, TYP
2	SEISMIC BRACKET PER PG 19, TYP
3	CONNECTING SHEAR PL BY MFR
4	25mmøx20mm SUS304-B CONN PIN FOR ALIGNMENT ONLY BY MFR
5	M4x6mm CS SCREW BY MFR
6	15mmøx20mm SS400 CONN PIN FOR ALIGNMENT ONLY BY MFR
7	M4x8mm CS SCREW CONN BY MFR
8	M8x16mm SUS304 BOLT BY MFR
9	M4x10mm CS SCREW BY MFR
10	ROTOR SEISMIC BRACKET PER PG 20

Y
X

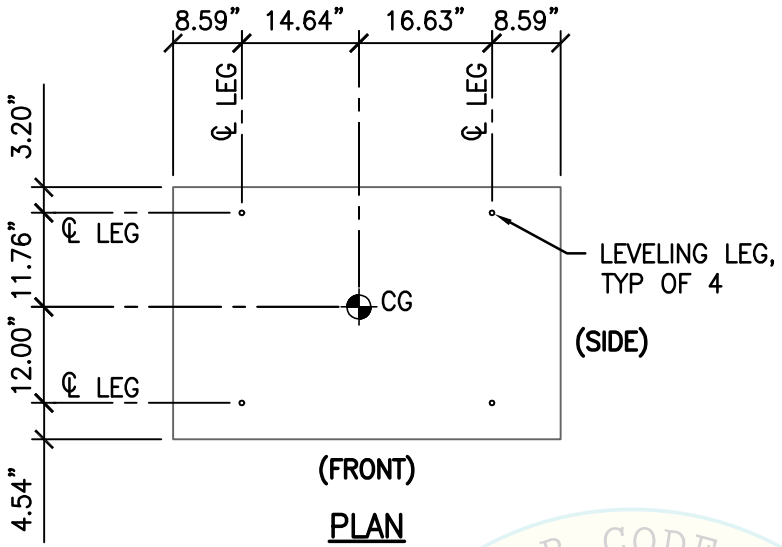
NOTE:
SEE PG 4 FOR GROUP CG LOCATION & WT.

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

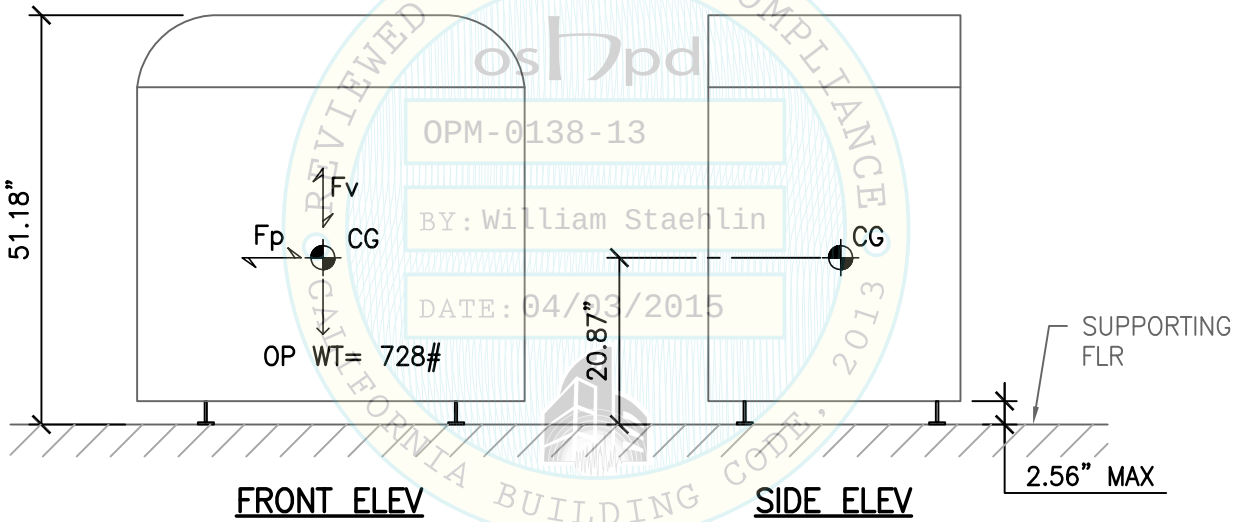
SHEET TITLE: c501/e601/e601 SYSTEM COMBINATION PLAN

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

Job No:	14085.01
Date:	3/31/2015
Page:	11 of 23



PLAN



FRONT ELEV SIDE ELEV

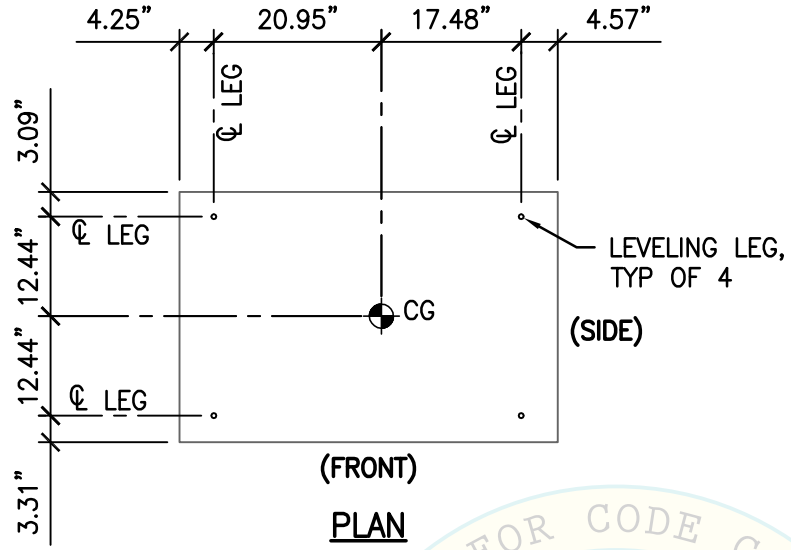
NOTES:
1. FOR SEISMIC BRACKET LOCATIONS & ORIENTATION SEE SYSTEM COMBINATION PLANS.
2. WHEELS NOT SHOWN FOR CLARITY.
3. FRAME MATERIAL: SUS430 & JFE-CC-EZ-JN 20/20.
4. REFER TO PG 23 FOR FRAME MATERIAL PROPERTIES.

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

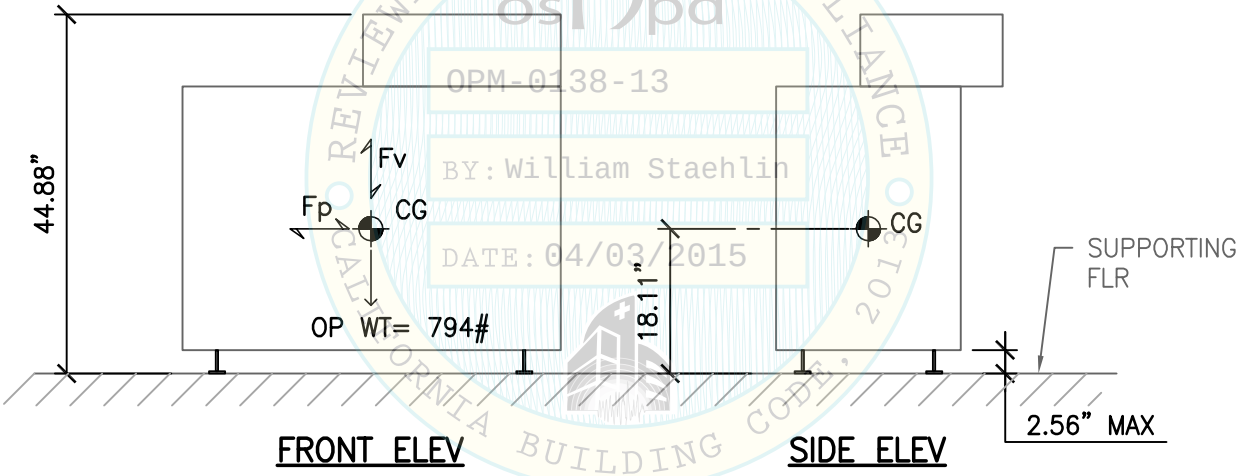
SHEET TITLE: c501 UNIT
PLAN & ELEVATIONS

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

Job No:	14085.01
Date:	3/31/2015
Page:	12 of 23



PLAN



FRONT ELEV SIDE ELEV

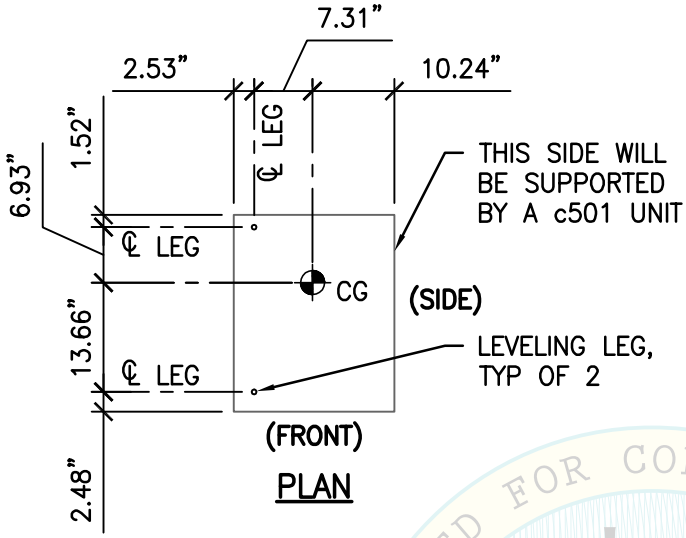
NOTES:
1. FOR SEISMIC BRACKET LOCATIONS & ORIENTATION SEE SYSTEM COMBINATION PLANS.
2. WHEELS NOT SHOWN FOR CLARITY.
3. FRAME MATERIAL: SUS430 & JFE-CC-EZ-JN 20/20.
4. REFER TO PG 23 FOR FRAME MATERIAL PROPERTIES.

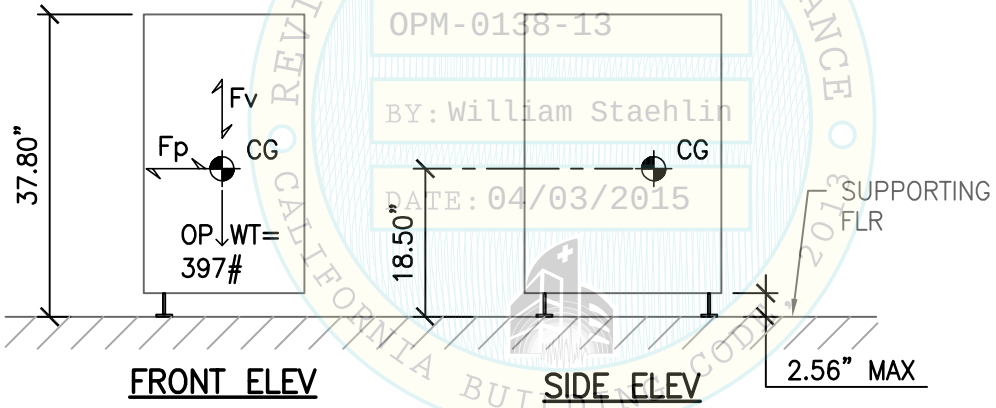
REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: e601 UNIT
PLAN & ELEVATIONS

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

Job No:	14085.01
Date:	3/31/2015
Page:	13 of 23





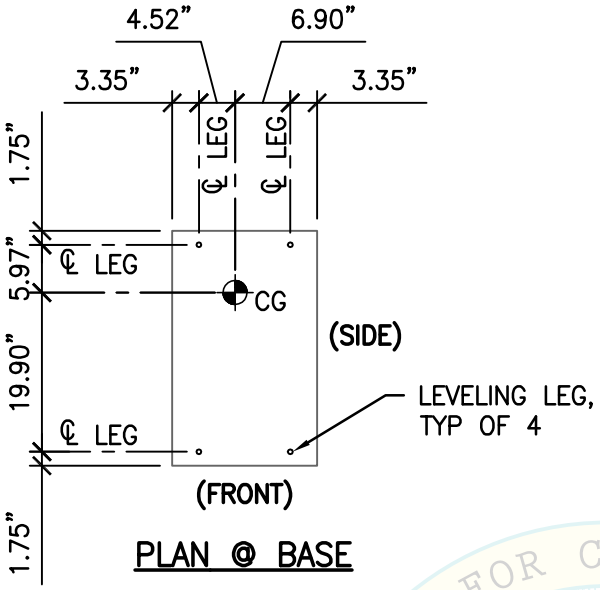
NOTES:
1. FOR SEISMIC BRACKET LOCATIONS & ORIENTATION SEE SYSTEM COMBINATION PLANS.
2. WHEELS NOT SHOWN FOR CLARITY.
3. FRAME MATERIAL: SUS430 & JFE-CC-EZ-JN 20/20.
4. REFER TO PG 23 FOR FRAME MATERIAL PROPERTIES.

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

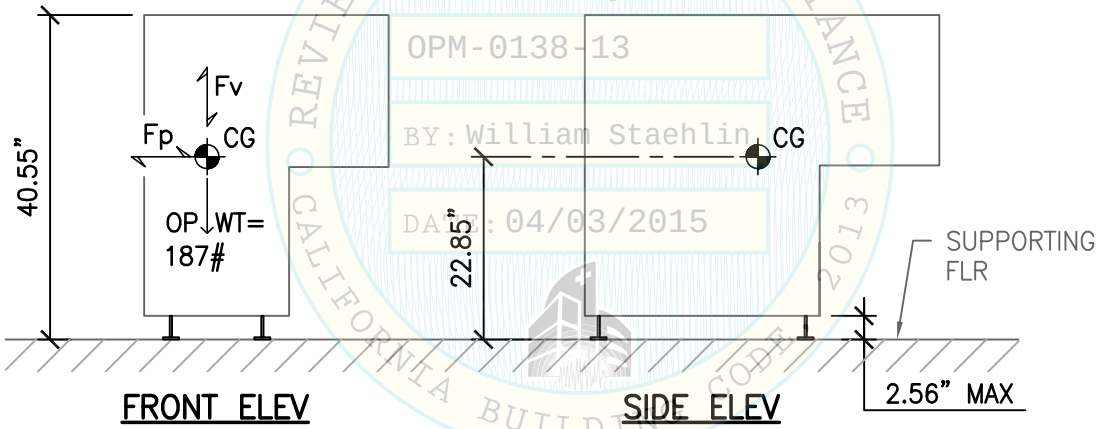
SHEET TITLE: SAMPLER UNIT MODULE
PLAN & ELEVATIONS

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

Job No:	14085.01
Date:	3/31/2015
Page:	14 of 23



PLAN @ BASE



FRONT ELEV SIDE ELEV

NOTES:
1. FOR SEISMIC BRACKET LOCATIONS & ORIENTATION SEE SYSTEM COMBINATION 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.

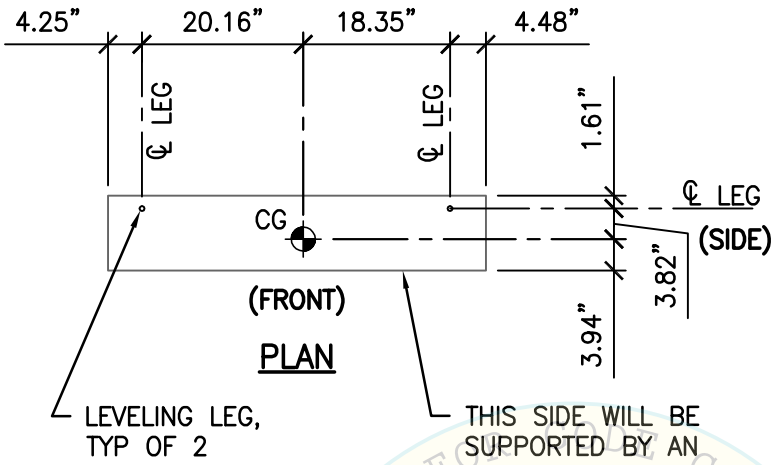
REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

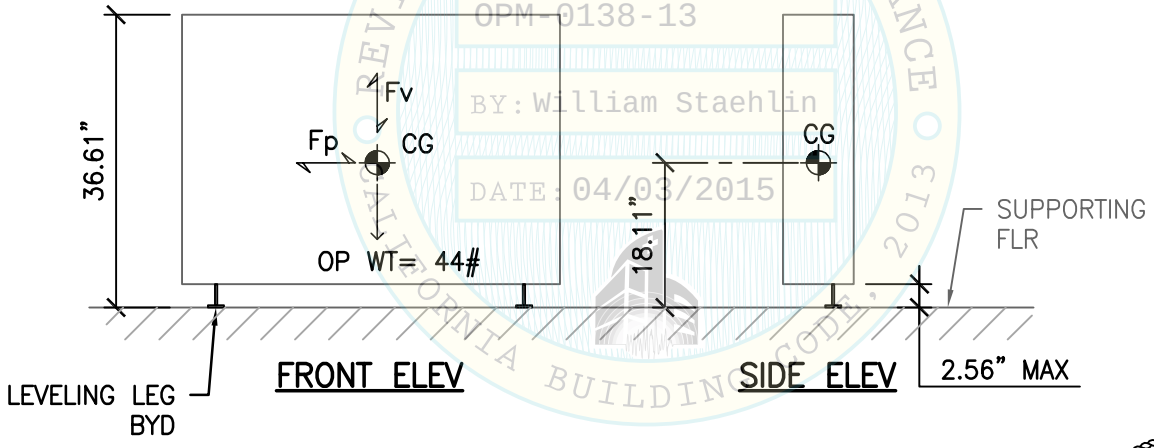
SHEET TITLE: SECOND ROTOR
PLAN & ELEVATIONS

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

Job No:	14085.01
Date:	3/31/2015
Page:	15 of 23

L:\Jobs14\14085 Roche - Four OPMs\Task 01 - cobas 6000 OPM-0138-13\STRU\S1_TASK 01.dwg Time:Mar31,2015-03:45pm Login:camachom Dimscale:1 LTScale:6





NOTES:
1. FOR SEISMIC BRACKET LOCATIONS & ORIENTATION SEE SYSTEM COMBINATION 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

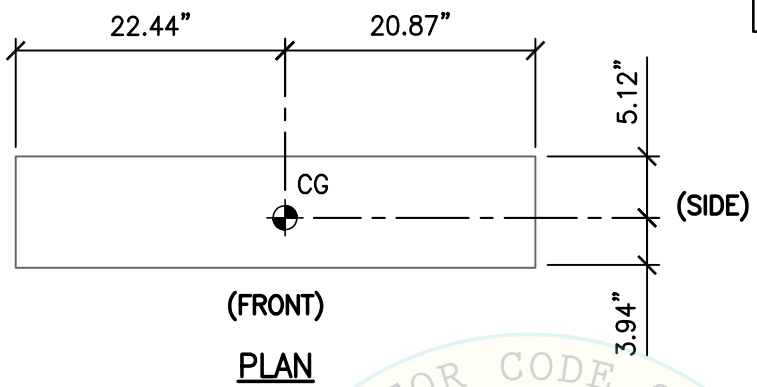
SHEET TITLE: E-CONNECTION/EXTENSION PLAN & ELEVATIONS

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

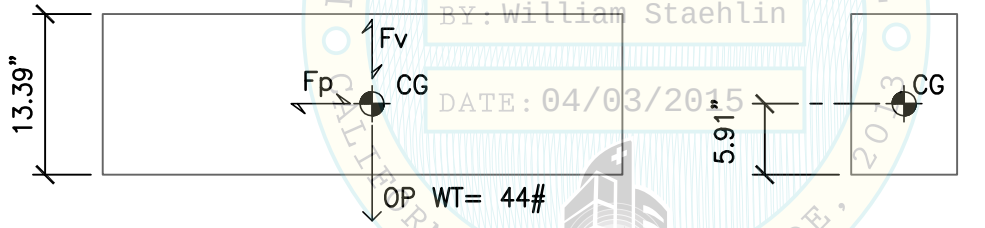
Job No:	14085.01
Date:	3/31/2015
Page:	16 of 23

ROCHE DIAGNOSTICS CORPORATION
cobas® 6000 ANALYZER SERIES

NOTE:
THIS UNIT HAS NO LEVELING LEGS & HANGS FROM THE **c501**. THE **C-EXTENSION** SITS ABOUT 3'-0" ABOVE THE FLR. FOR LOCATION, SEE SYSTEM COMBINATION PLANS.



PLAN



FRONT ELEV SIDE ELEV

NOTES:
1. FOR SEISMIC BRACKET LOCATIONS & ORIENTATION SEE SYSTEM COMBINATION 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.

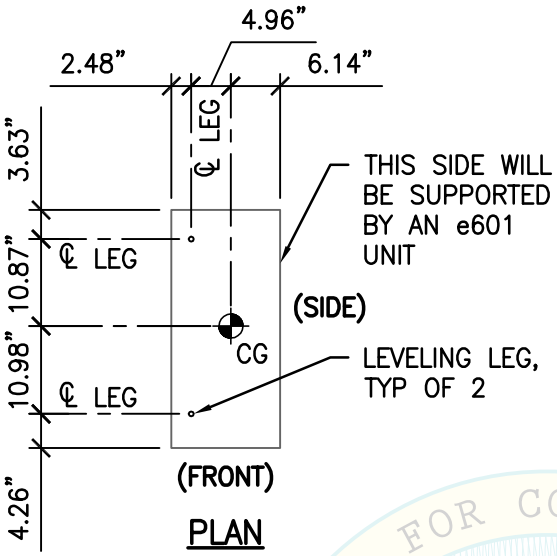
REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: C-EXTENSION
PLAN & ELEVATIONS

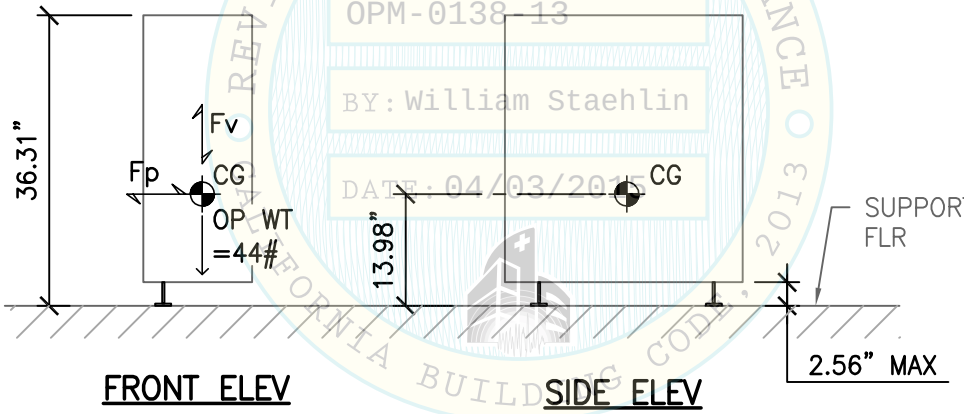
CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	14085.01
Date:	3/31/2015
Page:	17 of 23

L:\Jobs14\14085 Roche - Four OPMs\Task 01 - cobas 6000 OPM-0138-13\STRU\S1_TASK 01.dwg Time:Mar31,2015-03:45pm Login:camachom Dimscale:1 LTScale:6



PLAN



FRONT ELEV SIDE ELEV

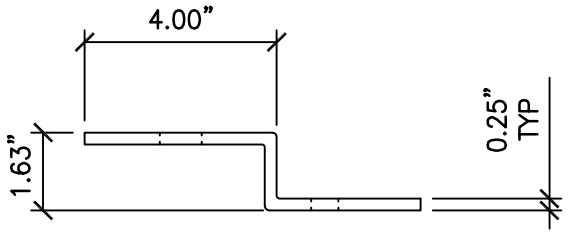
NOTES:
1. FOR SEISMIC BRACKET LOCATIONS & ORIENTATION SEE SYSTEM COMBINATION PLANS.
2. WHEELS NOT SHOWN FOR CLARITY.
3. FRAME MATERIAL: SUS430 & JFE-CC-EZ-JN 20/20.
4. REFER TO PG 23 FOR FRAME MATERIAL PROPERTIES.

SHEET TITLE: CONNECT UNIT OF E-CONNECTION PLAN & ELEVATIONS

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

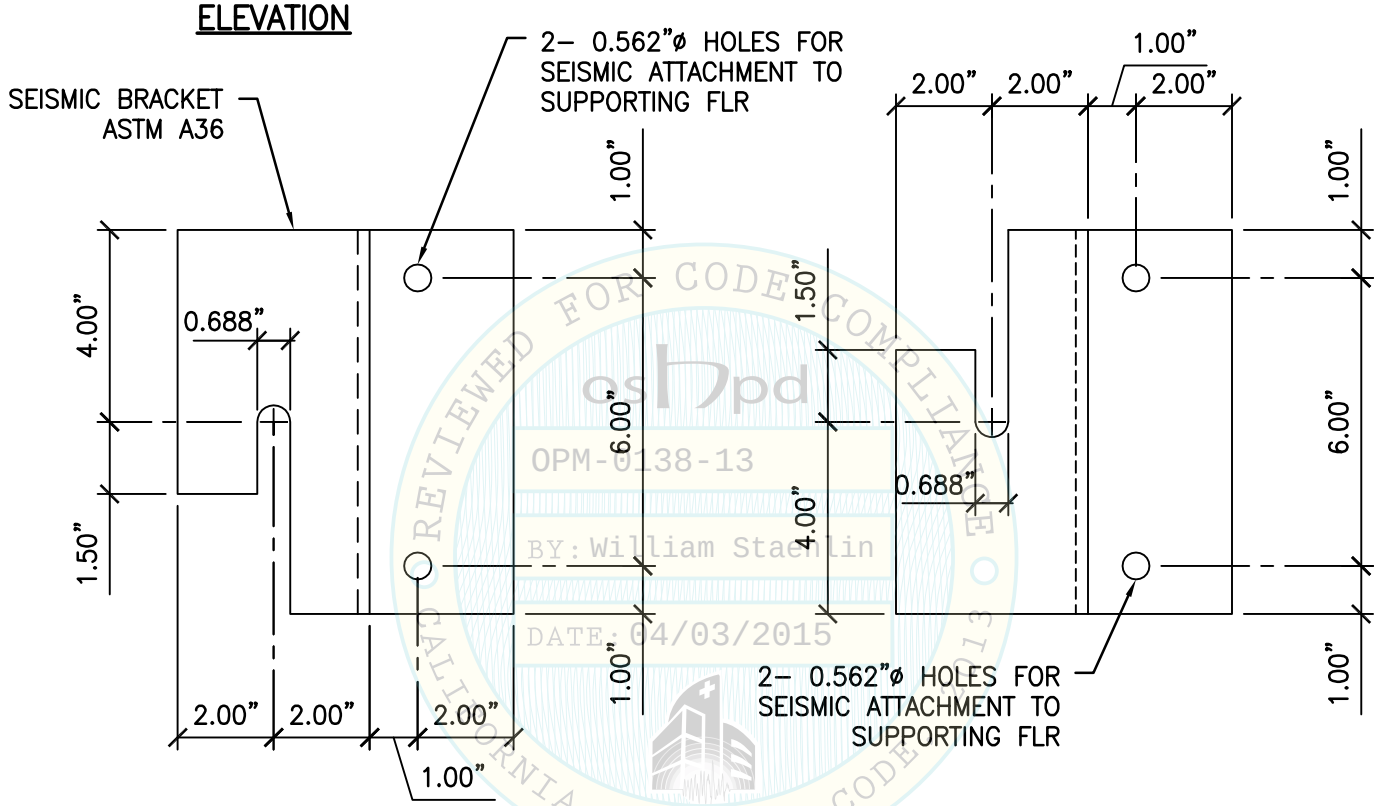
Job No:	14085.01
Date:	3/31/2015
Page:	18 of 23

ROCHE DIAGNOSTICS CORPORATION
cobas® 6000 ANALYZER SERIES



ELEVATION

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 COMBINATION PLANS.



RIGHT–HAND

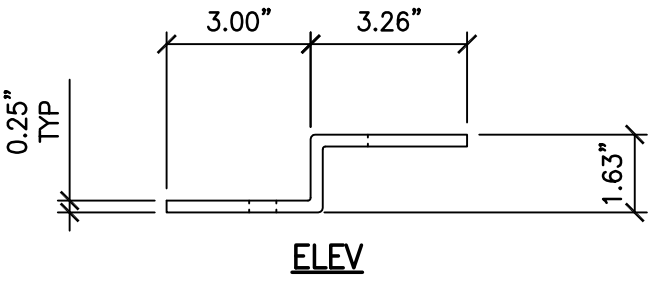
LEFT–HAND

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

SHEET TITLE: SEISMIC BRACKET DETAIL

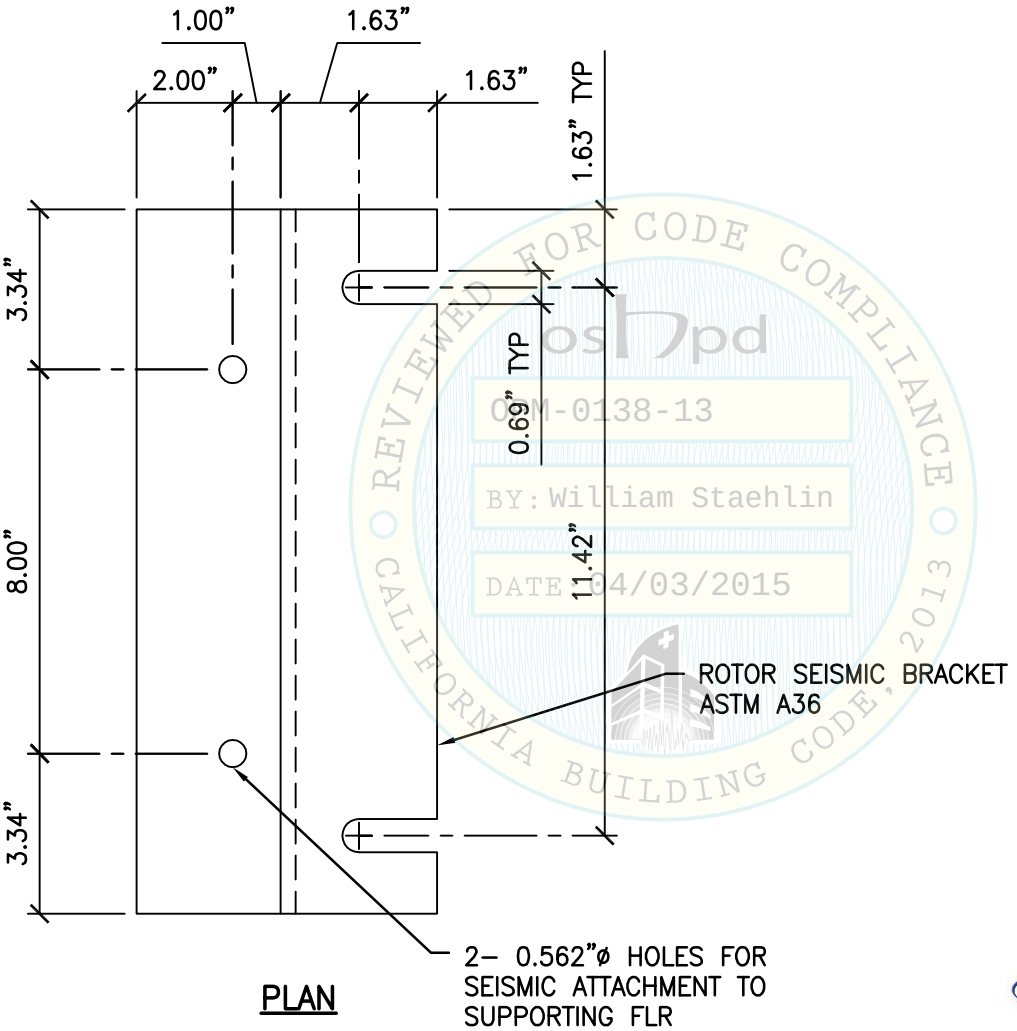
CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	14085.01
Date:	3/31/2015
Page:	19 of 23



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 COMBINATION PLANS.



PLAN

SHEET TITLE: ROTOR SEISMIC BRACKET DETAIL

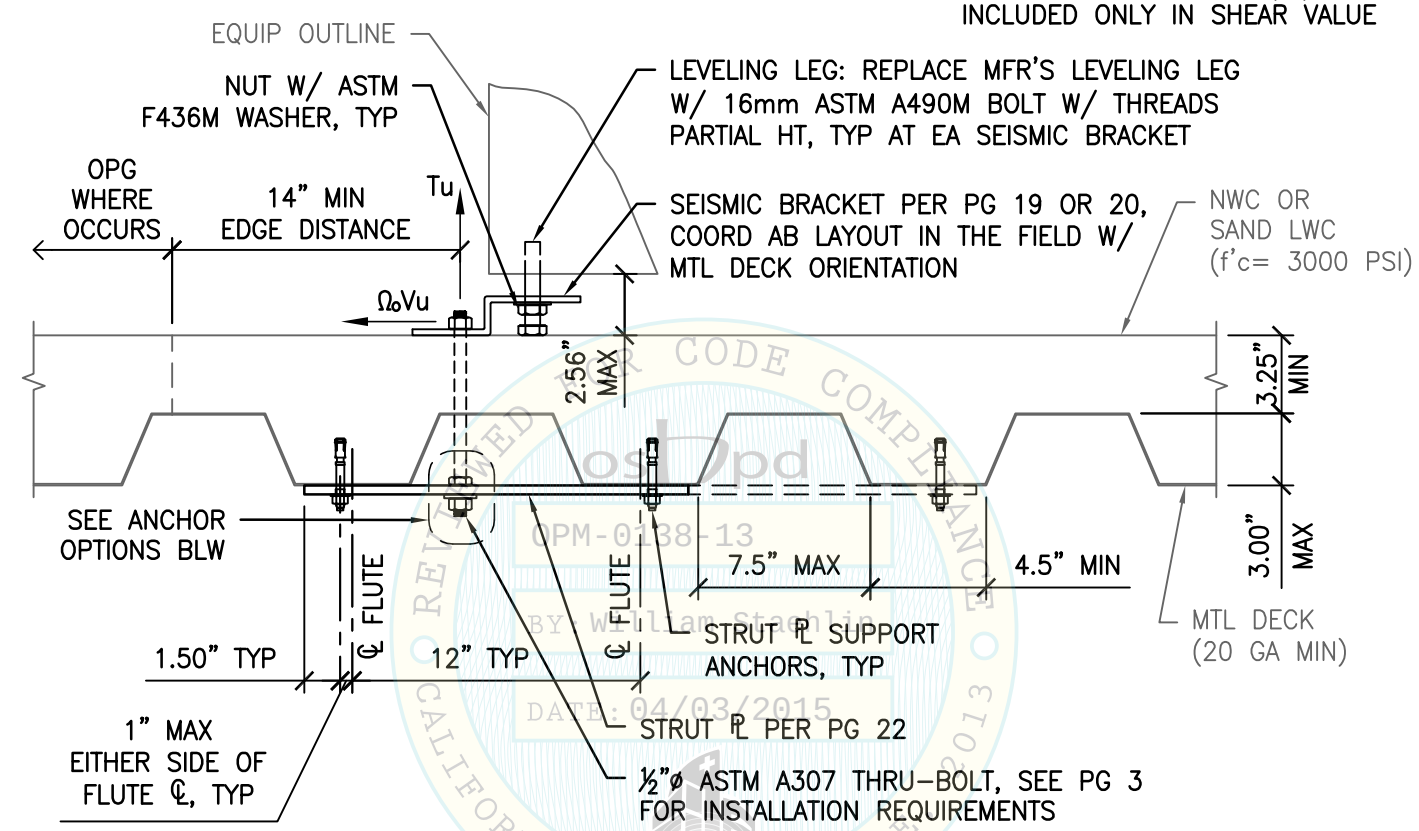
CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	14085.01
Date:	3/31/2015
Page:	20 of 23

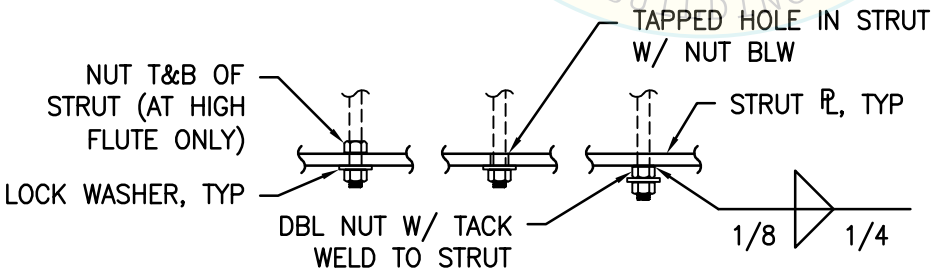
ROCHE DIAGNOSTICS CORPORATION
cobas® 6000 ANALYZER SERIES

	MAX LRFD FORCES AT EA ANCHOR	
	T_u	$\Omega_o V_u$
CASE 1	1555#	2199#

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

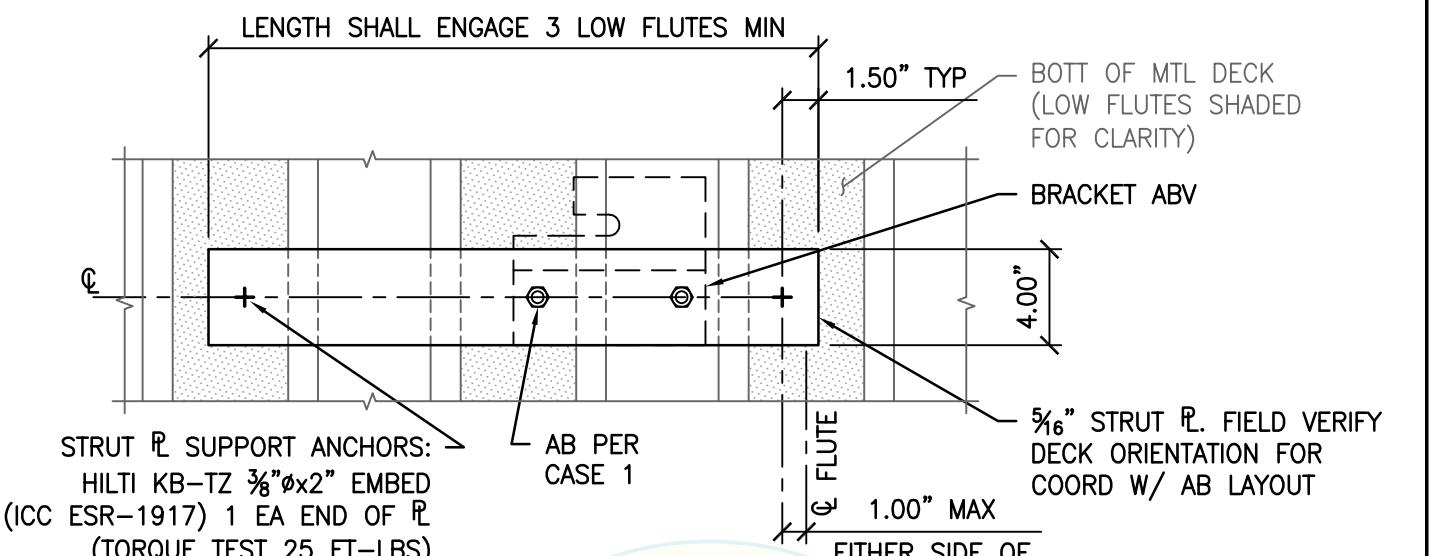
SHEET TITLE: ATTACHMENT DETAIL
TO CONCRETE FILL OVER METAL DECK (CASE 1)

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

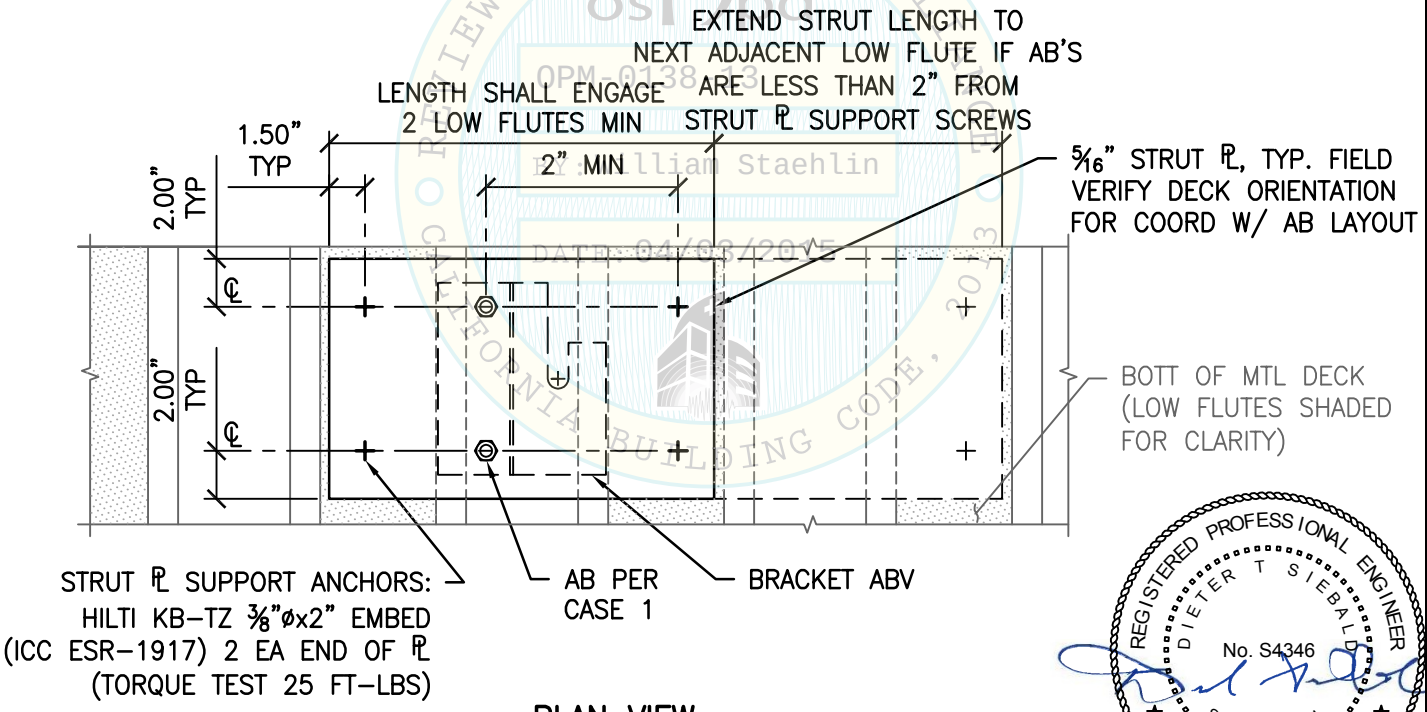
Job No:	14085.01
Date:	3/31/2015
Page:	21 of 23

L:\Jobs14\14085 Roche - Four OPMs\Task 01 - cobas 6000 OPM-0138-13\STRU\S1_TASK 01.dwg Time:Mar31,2015-03:45pm Login:camachom Dimscale:1 LTScale:6

ROCHE DIAGNOSTICS CORPORATION
cobas® 6000 ANALYZER SERIES



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

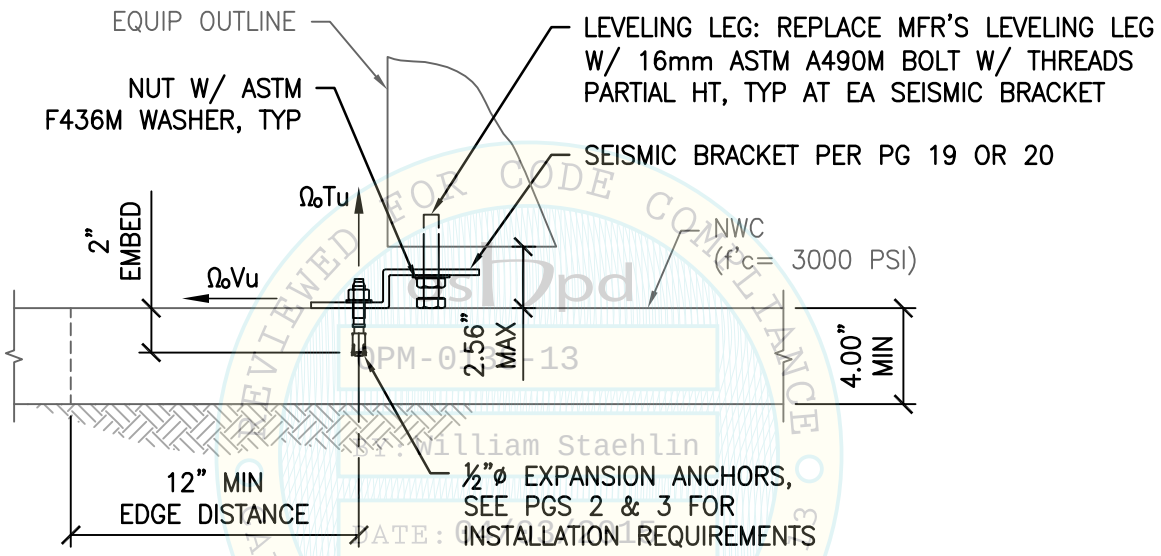
CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	14085.01
Date:	3/31/2015
Page:	22 of 23

L:\Jobs14\14085 Roche - Four OPMs\Task 01 - cobas 6000 OPM-0138-13\STRU\S1_TASK 01.dwg Time:Mar31,2015-03:45pm Login:camachom Dimscale:1 LTScale:6

	MAX LRFD FORCES AT EA ANCHOR	
	$\Omega_o T_u$	$\Omega_o V_u$
CASE 2, MAX V	279#	824#
CASE 2, MAX T	740#	210#

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

Job No:	14085.01
Date:	3/31/2015
Page:	23 of 23