



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

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

OFFICE USE ONLY
APPLICATION #: OPM-0451-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

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

Manufacturer Information

Manufacturer: Roche Diagnostics Corporation
Manufacturer's Technical Representative: John D. Willems
Mailing Address: 1910 Innovation Park Drive, Tucson, AZ 85755
Telephone: (520) 229-4421 Email: John.willems@roche.com

Product Information

Product Name: HE 600 System
Product Type: Diagnostic Equipment OPM-0451-13
Product Model Number: HE 600 System
General Description: Instrument is used to stain tissue samples in order for a Pathologist to diagnose for cancer.

Applicant Information

Applicant Company Name: Roche Diagnostics Corporation
Contact Person: John D. Willems
Mailing Address: 1910 Innovation Park Drive, Tucson, AZ 85755
Telephone: (520) 229-4421 Email: John.willems@roche.com

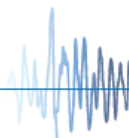
I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016.

Signature of Applicant: [Handwritten Signature] Date: 19 Dec 2017

Title: Mechanical Engineering Manager Company Name: Roche Diagnostics Corporation

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

STATE OF CALIFORNIA - HEALTH AND HUMAN SERVICES AGENCY
OSH-FD-700 (REV 12/16/15)



OSHPD

"Equitable Healthcare Accessibility for California"



**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: (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: 3/20/2019

Print Name: Jeffrey Kikumoto

Title: SE

Condition of Approval (if applicable): _____

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

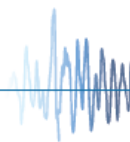
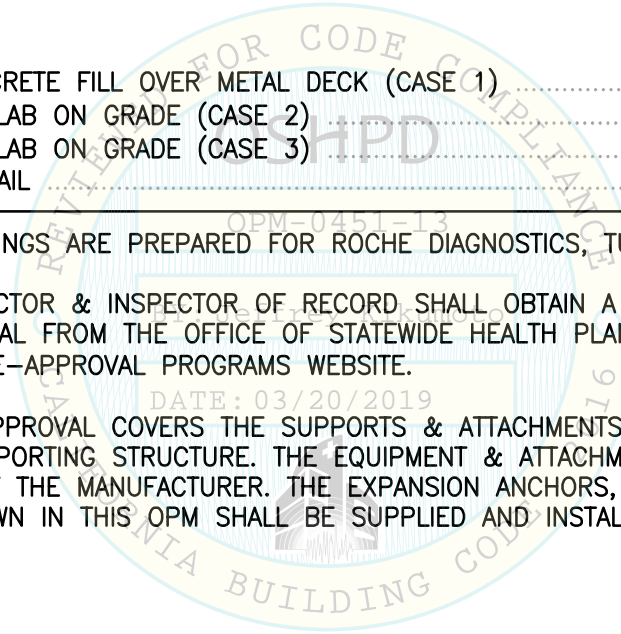




TABLE OF CONTENTS
OPM-0451-13

	PAGE
GENERAL NOTES	2
ABBREVIATIONS	5
SYSTEM OVERVIEW & DESIGN CRITERIA	6
HE 600 ELEVATIONS	7
HE 600 PLAN	8
SEISMIC BRACKET ASSEMBLY	9
SEISMIC FRAME BRACKET	10
SEISMIC FLOOR BRACKET	11
ATTACHMENT DETAILS	
EQUIPMENT TO CONCRETE FILL OVER METAL DECK (CASE 1)	12
EQUIPMENT TO 6" SLAB ON GRADE (CASE 2)	14
EQUIPMENT TO 4" SLAB ON GRADE (CASE 3)	15
MONITOR ATTACHMENT DETAIL	16

- NOTES:**
1. THESE DRAWINGS ARE PREPARED FOR ROCHE DIAGNOSTICS, TUCSON, ARIZONA.
 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 & 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

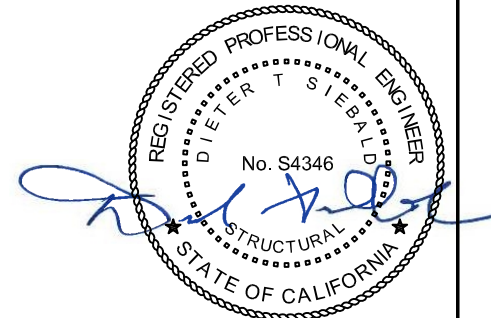
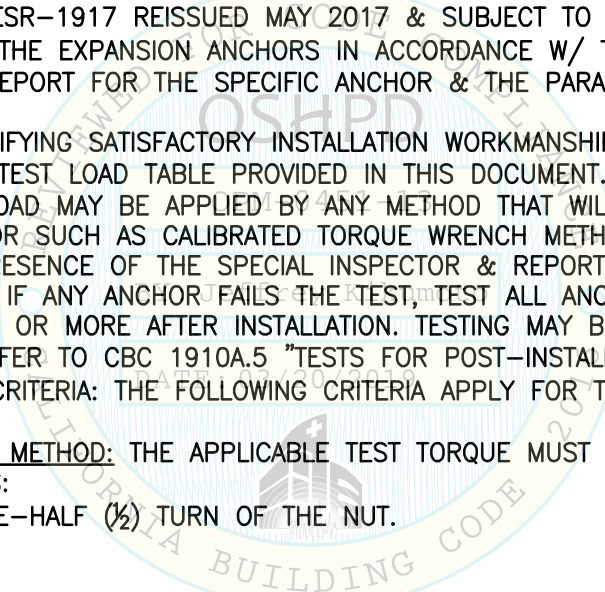
<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 16120 Date: 1-3-2019 Page: 1 of 16
--	--------------------------------------	--

L:\Jobs\16120 Roche Ventana - HE 600 OPM-0451-13\STRU\S1.dwg Time:Jan03,2019 -01:08pm Login:camachom DimScale:1 LTScale:6



GENERAL NOTES:

1. THIS OSHPD PRE-APPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2016. THE DEMAND (DESIGN FORCES) FOR USE W/ THIS OPM SHALL BE BASED ON THE CBC 2016.
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 2016 & 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 2017 & SUBJECT TO RENEWAL MAY 2019.
 - 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 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 EQUIP INSTALLATION. ALSO REFER TO CBC 1910A.5 "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 (1/2) TURN OF THE NUT.



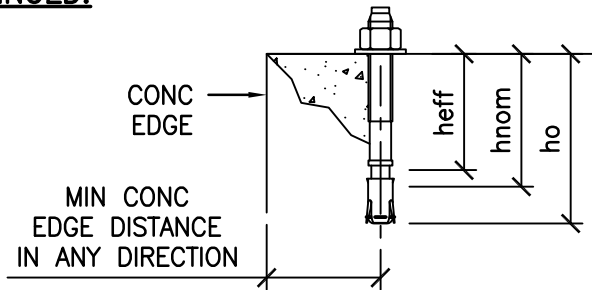
SHEET TITLE: GENERAL NOTES

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 16120 Date: 1-3-2019 Page: 2 of 16
--	--------------------------------------	--

L:\Jobs\16120 Roche Ventana - HE 600 OPM-0451-13\STRU\S1.dwg Time:Jan03,2019 -01:10pm Login:camachom DimScale:1 LTScale:6



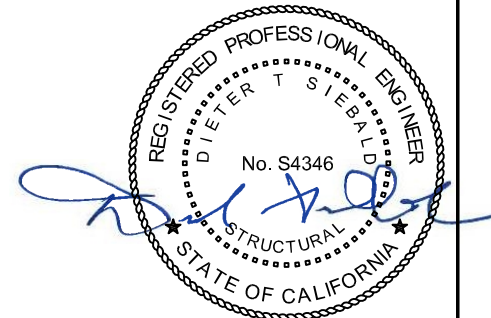
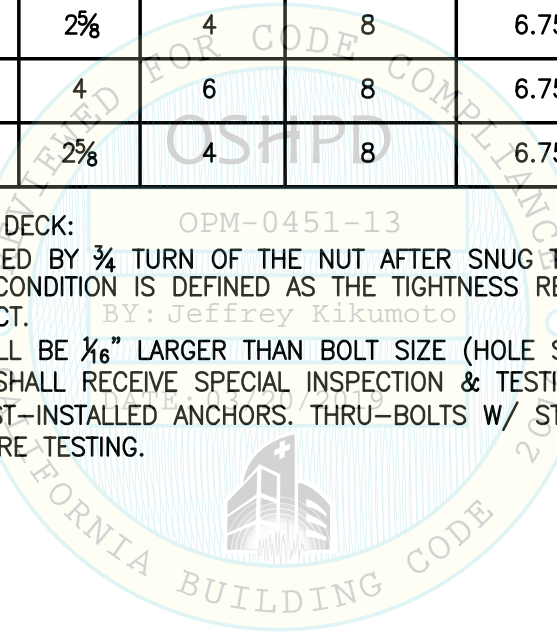
GENERAL NOTES CONTINUED:



ANCHOR DIA (INCH)	INSTALLATION EMBED (INCH) hnom	EFFECTIVE EMBED (INCH) hef	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	8	6.75	25	CASE 1 STRUT R'S
1/2	3 5/8	3 1/4	4	6	8	6.75	40	CASE 2
1/2	2 3/8	2	2 5/8	4	8	6.75	40	CASE 3

4. BOLTS THRU CONC ON MTL DECK:

- A. 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.
- 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 CONNECTION IN TENSION DO NOT REQUIRE TESTING.



SHEET TITLE: GENERAL NOTES (CONTINUED)

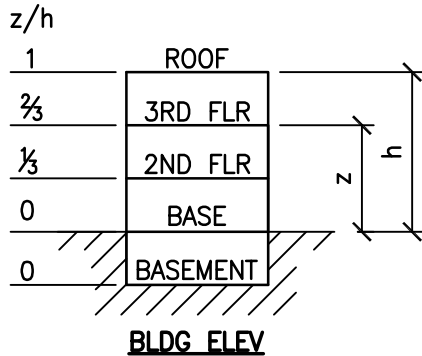
<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 16120 Date: 1-3-2019 Page: 3 of 16
--	--------------------------------------	--

L:\Jobs\16120 Roche Ventana - HE 600 OPM-0451-13\STRU\S1.dwg Time:Jan03,2019 -01:10pm Login:camachom DimScale:1 LTScale:6



GENERAL NOTES CONTINUED:

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

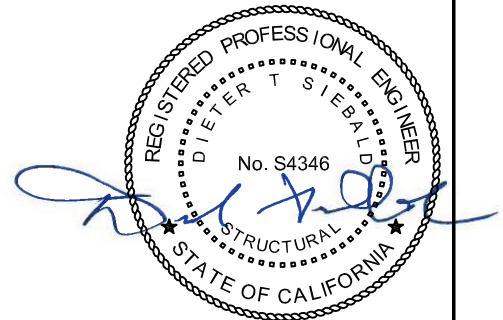
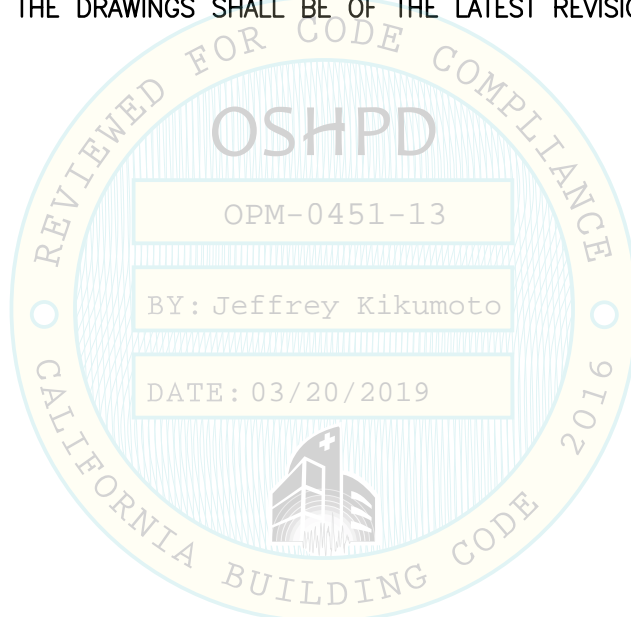


CASE 1: ATTACHMENT DETAILS LOCATED AT UPPER FLRS ABV THE BASE OF A BLDG. THE FLRS ARE ASSUMED TO BE BUILT OF A MIN 3/4" SLWC TOPPING OVER 3" DEEP MIN 20 GA MTL DECK (f'c = 3000 PSI, MIN).

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).

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).

6. ASTM SPECIFICATIONS ON THE DRAWINGS SHALL BE OF THE LATEST REVISION.



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

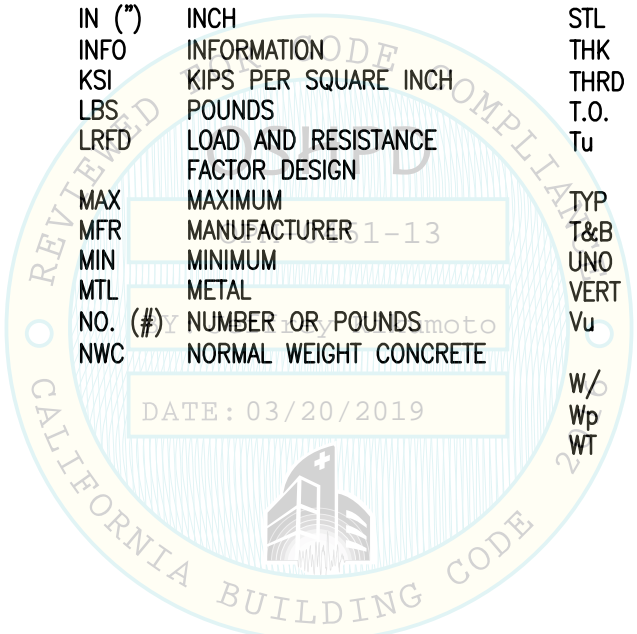
Job No:	16120
Date:	1-3-2019
Page:	4 of 16

L:\Jobs\16120 Roche Ventana - HE 600 OPM-0451-13\STRU\S1.dwg Time:Jan03,2019 -01:10pm Login:camachom DimScale:1 LTScale:6



ABBREVIATIONS:

@	AT	f'c	MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE	OPG	OPENING
∠	ANGLE			OPM	OSHPD PRE-APPROVAL OF MANUFACTURER'S CERTIFICATION
AB	ANCHOR BOLT	FLG	FLANGE		
ABV	ABOVE	FLR	FLOOR	OSHPD	OFFICE OF STATEWIDE HEALTH PLANNING & DEVELOPMENT
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	FT (')	FOOT/FEET		
ADJ	ADJACENT	F _p	HORIZONTAL SEISMIC FORCE PER ASCE 7-10 SEISMIC FORCE REQUIREMENTS	PERP	PERPENDICULAR
AISI	AMERICAN IRON & STEEL INSTITUTE	F _y	SPECIFIED MINIMUM YIELD STRESS OF STEEL	PG	PAGE
ALUM	ALUMINUM			PL	PLATE
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	GA	GAUGE	PSI	POUNDS PER SQUARE INCH
		GR	GRADE	REQ	REQUIRED
BLDG	BUILDING	HRS	HOT-ROLLED STEEL	SEOR	STRUCTURAL ENGINEER OF RECORD
BLW	BELOW	HT	HEIGHT	SLWC	SAND-LIGHTWEIGHT CONCRETE
BOTT	BOTTOM	ICC	INTERNATIONAL CODE COUNCIL	SPCG	SPACING
CBC	CALIFORNIA BUILDING CODE			SPEC	SPECIFICATION
CG	CENTER OF GRAVITY	IN (")	INCH	SS	STAINLESS STEEL
CL	CENTERLINE	INFO	INFORMATION	STL	STEEL
CONC	CONCRETE	KSI	KIPS PER SQUARE INCH	THK	THICK/THICKNESS
CONT	CONTINUOUS	LBS	POUNDS	THRD	THREAD OR THREADED
COORD	COORDINATE	LRFD	LOAD AND RESISTANCE FACTOR DESIGN	T.O.	TOP OF
CRS	COLD-ROLLED STEEL	MAX	MAXIMUM	Tu	ANCHORAGE TENSION REACTION DUE TO SEISMIC FORCE
DBL	DOUBLE	MFR	MANUFACTURER'S 1-13	TYP	TYPICAL
DEG	DEGREE	MIN	MINIMUM	T&B	TOP & BOTTOM
DIA (∅)	DIAMETER	MTL	METAL	UNO	UNLESS NOTED OTHERWISE
(E)	EXISTING CONDITION	NO. (#)	NUMBER OR POUNDS	VERT	VERTICAL
EA	EACH	NWC	NORMAL WEIGHT CONCRETE	Vu	ANCHORAGE SHEAR REACTION DUE TO SEISMIC FORCE
EE	EACH END			W/	WITH
ELEV	ELEVATION			Wp	OPERATING WEIGHT
EQ	EQUAL			WT	WEIGHT
EQUIP	EQUIPMENT				
ES	EACH SIDE				



SHEET TITLE: ABBREVIATIONS

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 16120 Date: 1-3-2019 Page: 5 of 16
--	--------------------------------------	--

L:\Jobs\16120 Roche Ventana - HE 600 OPM-0451-13\STRU\S1.dwg Time:Jan03,2019-01:10pm Login:camachom DimScale:1 LScale:6



SYSTEM OVERVIEW & DESIGN CRITERIA:

1. SUPPORT & ATTACHMENT DESIGN IS PER 2016 CBC AT LRFD LEVEL FORCES.

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

$a_p = 1.0$ $R_p = 1.5$ $I_p = 1.5$ $\Omega_0 = 1.5$ (FOR CONC ANCHORS ONLY)

W_p AS NOTED ON PG 8.

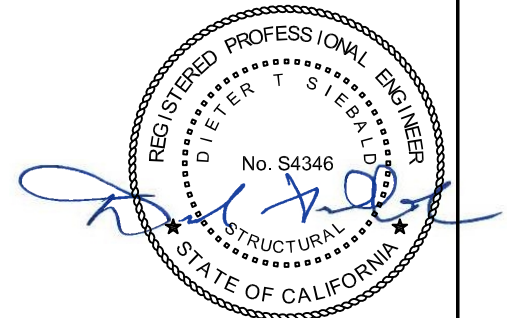
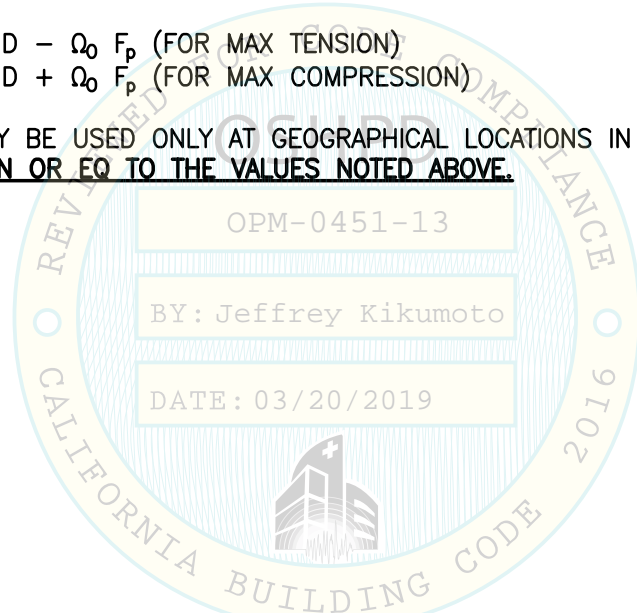
UPPER FLRS ABV THE BASE OF BLDG, $z/h \leq 0.75$
 CASE 1: $S_{DS} = 2.50$ $F_p = 2.50 W_p$

FLRS AT OR BLW THE BASE OF BLDG, $z/h = 0$
 CASE 2: $S_{DS} = 2.50$ $F_p = 1.13 W_p$
 CASE 3: $S_{DS} = 1.70$ $F_p = 0.77 W_p$

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)

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

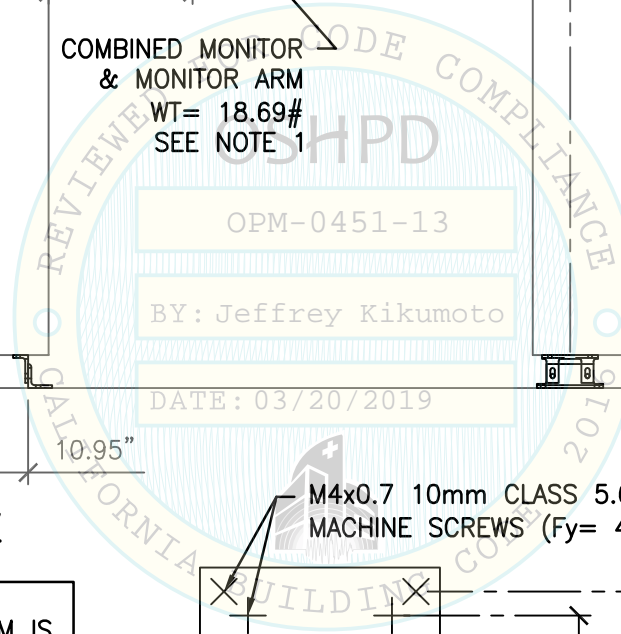
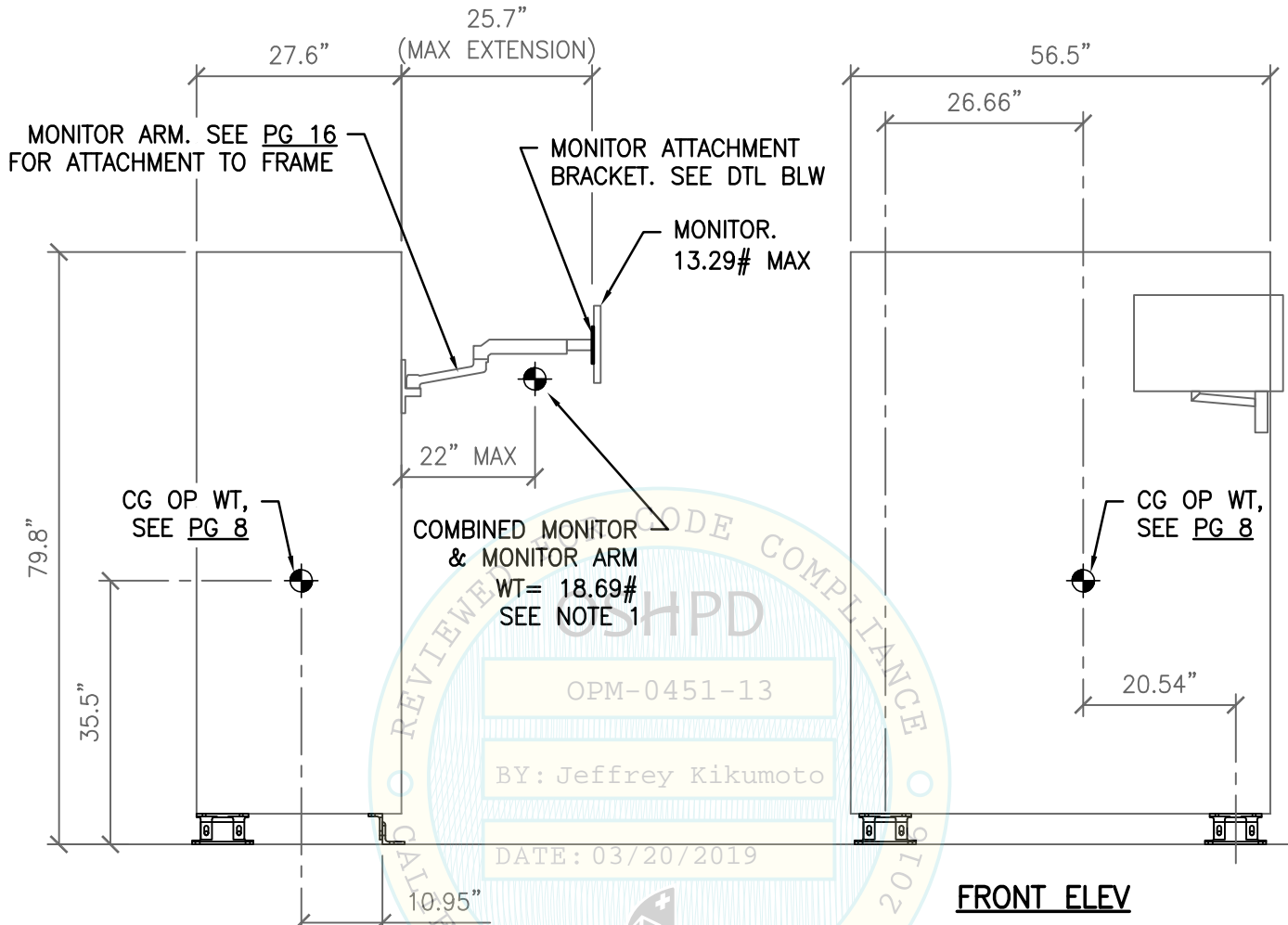


SHEET TITLE: SYSTEM OVERVIEW & DESIGN CRITERIA

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 16120 Date: 1-3-2019 Page: 6 of 16
--	--------------------------------------	--

L:\Jobs\16120 Roche Ventana - HE 600 OPM-0451-13\STRU\S1.dwg Time:Jan03,2019 -01:10pm Login:camachom DimScale:1 LTScale:6

ROCHE HE 600



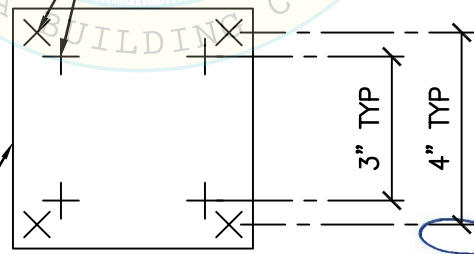
SIDE ELEV

FRONT ELEV

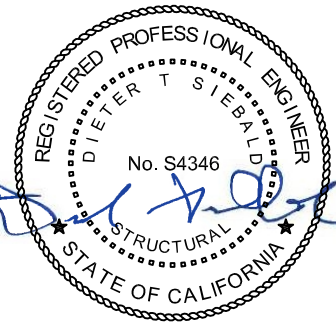
- NOTES:**
1. WT OF MONITOR & ARM IS INCLUDED IN OVERALL WT.
 2. WT NOTED ON PG 8.

4.53"x4.53"x0.079" THK
SPCC STL σ (Fy= 24.4 KSI)

M4x0.7 10mm CLASS 5.6 PAN HEAD
MACHINE SCREWS (Fy= 43.5 KSI)



**MONITOR ATTACHMENT BRACKET
DETAIL**

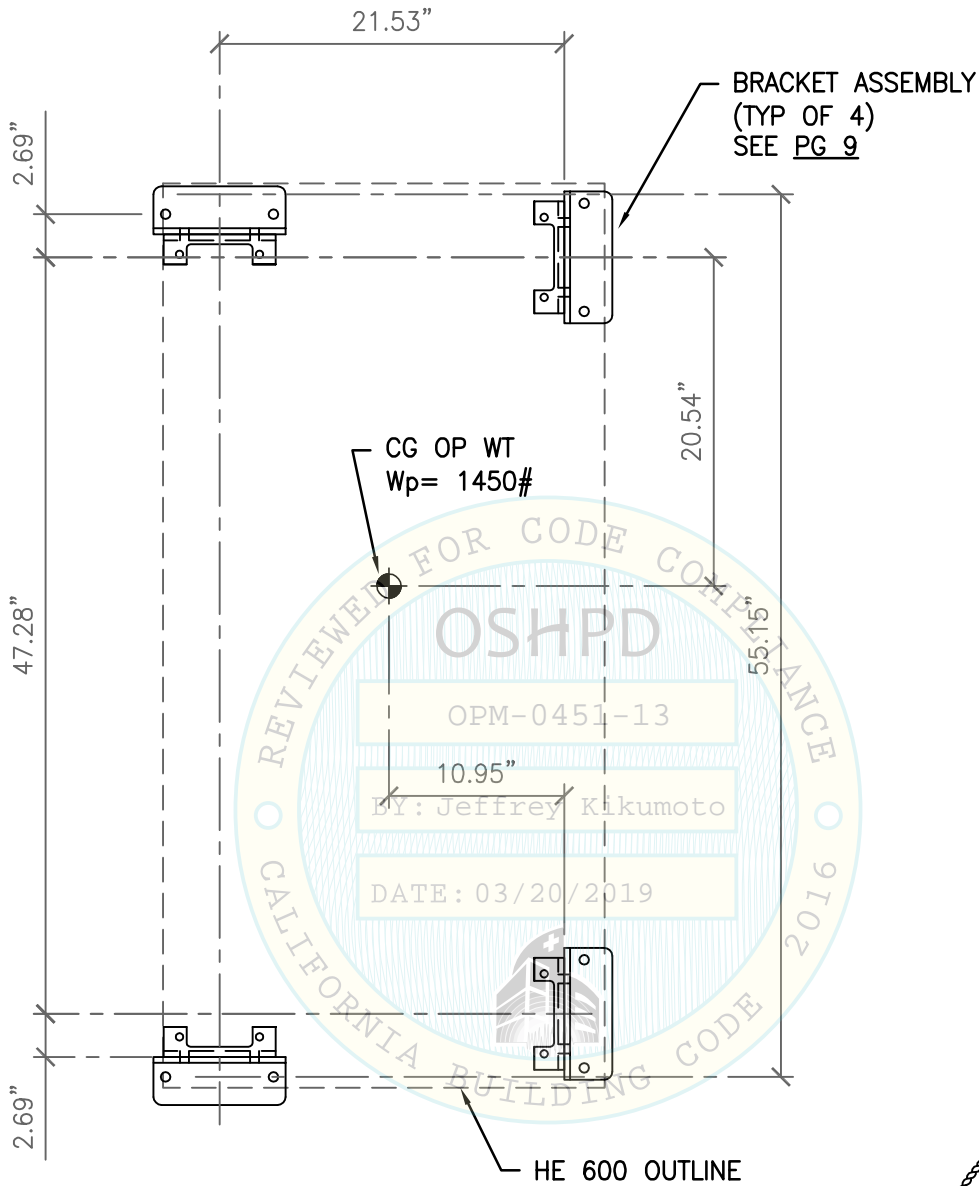


SHEET TITLE: HE 600
ELEVATIONS

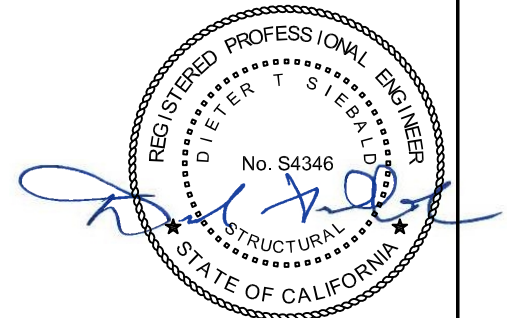
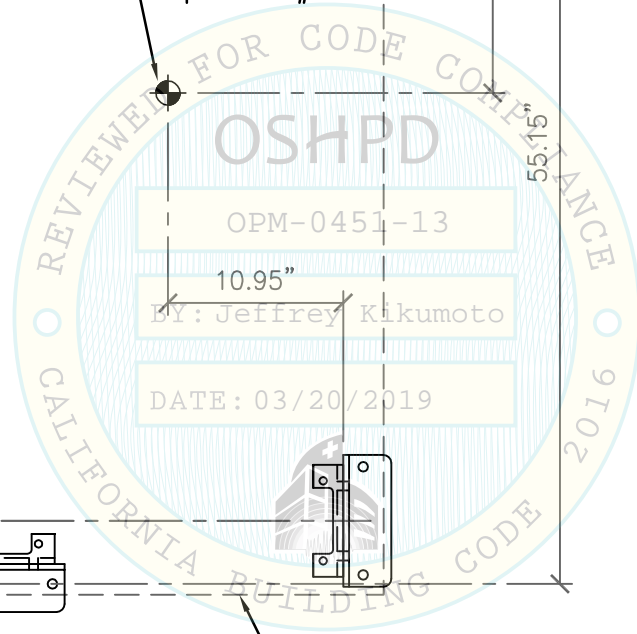
<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 16120 Date: 1-3-2019 Page: 7 of 16
--	--------------------------------------	--

L:\Jobs\16120 Roche Ventana - HE 600 OPM-0451-13\STRU\S1.dwg Time:Jan03,2019 -01:11pm Login:camachom DimScale:1 LTScale:6

ROCHE HE 600



PLAN VIEW



SHEET TITLE: HE 600
PLAN

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 16120 Date: 1-3-2019 Page: 8 of 16
--	--------------------------------------	--

L:\Jobs\16120 Roche Ventana - HE 600 OPM-0451-13\STRU\S1.dwg Time:Jan03,2019 -01:11pm Login:camachom DimScale:1 LTScale:6

ROCHE HE 600

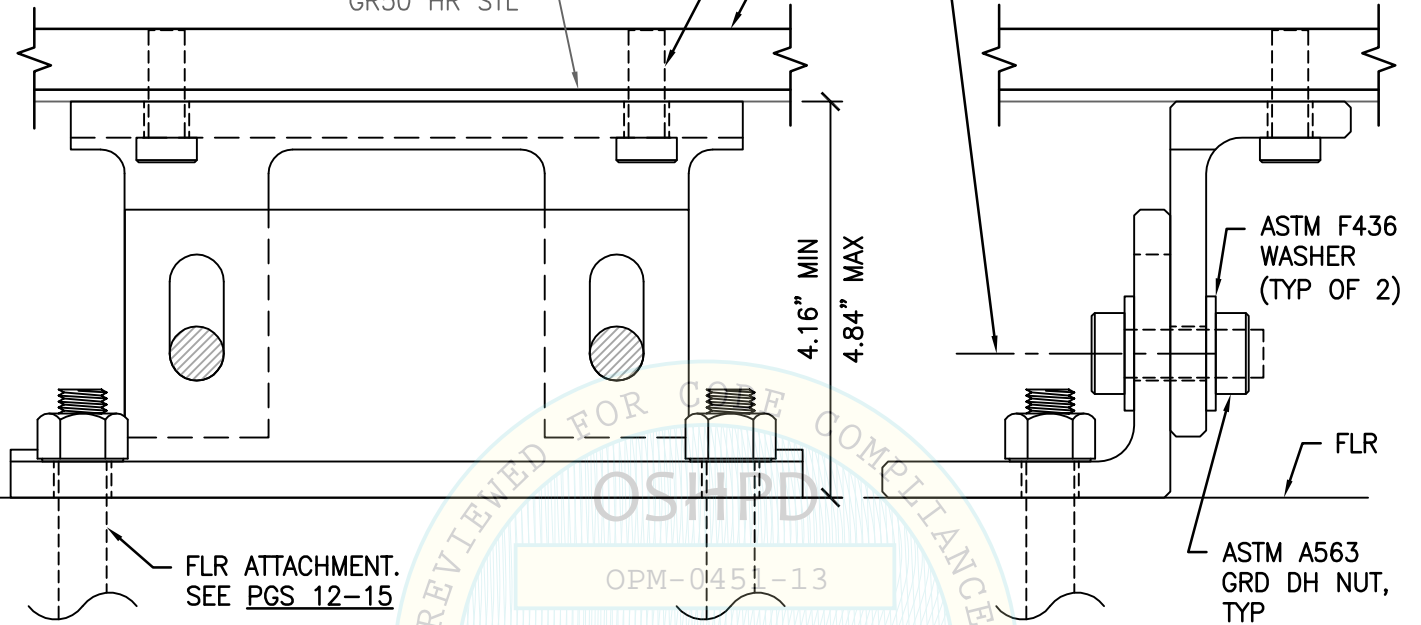


$\frac{3}{8}$ "-24 ASTM A574 GRADE 8 SOCKET HEAD CAP SCREW OVER $\frac{3}{8}$ " FLAT WASHER. TORQUE TO 15 FT-LBS (TYP OF 2) PER BRACKET

0.63" THK ASTM A1018 GR45 LOWER CHASSIS CASTER MOUNT

0.13" THK ASTM A1011 HSLAS GR50 HR STL

$\frac{1}{2}$ " ϕ ASTM A325 BOLT (TYP OF 2) TORQUE TO 100 FT-LBS

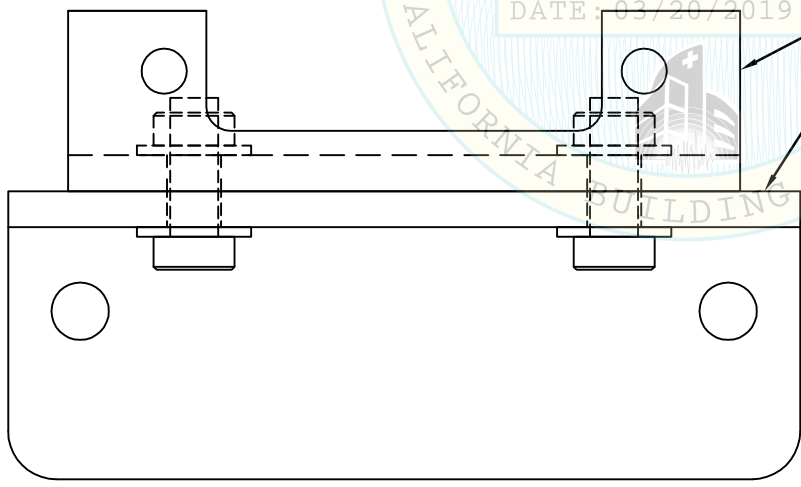
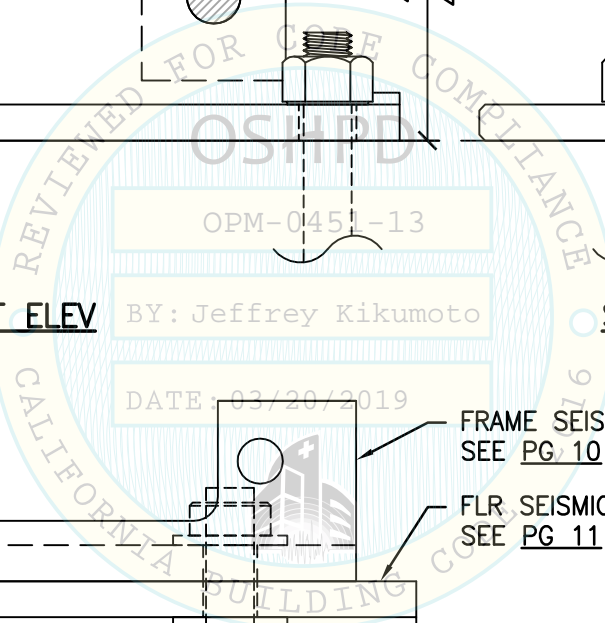


FLR ATTACHMENT. SEE PGS 12-15

ASTM A563 GRD DH NUT, TYP

FRONT ELEV

SIDE ELEV



PLAN VIEW

FRAME SEISMIC BRACKET. SEE PG 10

FLR SEISMIC BRACKET. SEE PG 11

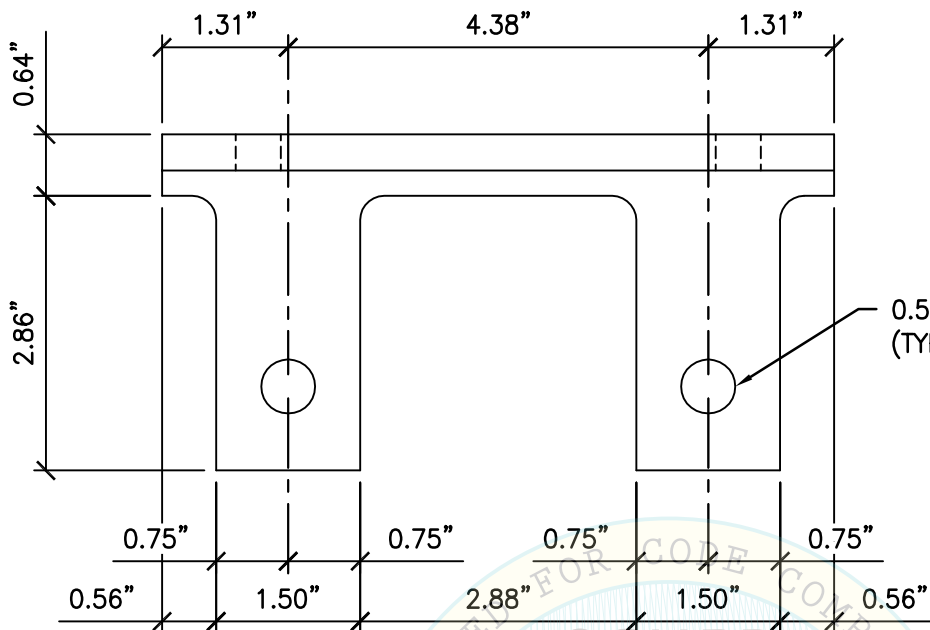


SHEET TITLE: SEISMIC BRACKET ASSEMBLY

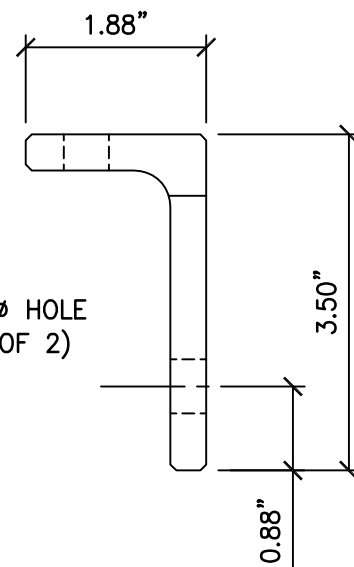
<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 16120 Date: 1-3-2019 Page: 9 of 16
--	--------------------------------------	--

L:\Jobs\16120 Roche Ventana - HE 600 OPM-0451-13\STRU\S1.dwg Time:Jan03,2019 -01:11pm Login:camachom DimScale:1 LTScale:6

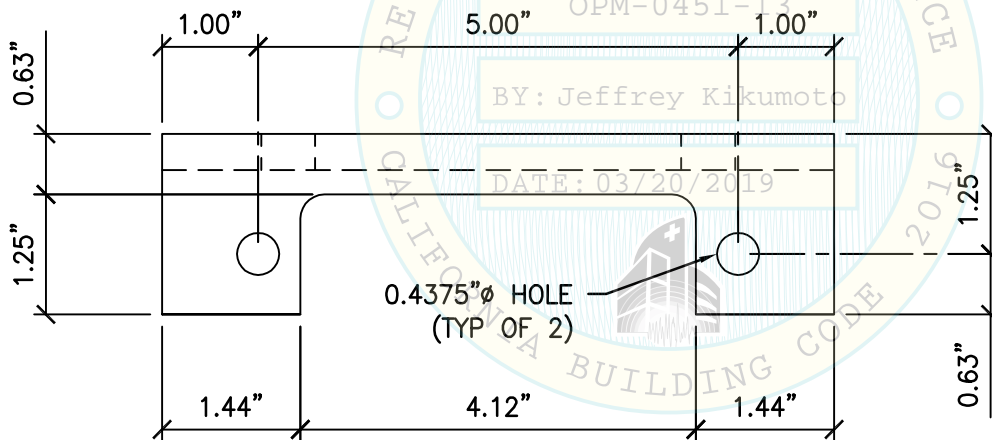
ROCHE HE 600



FRONT ELEV

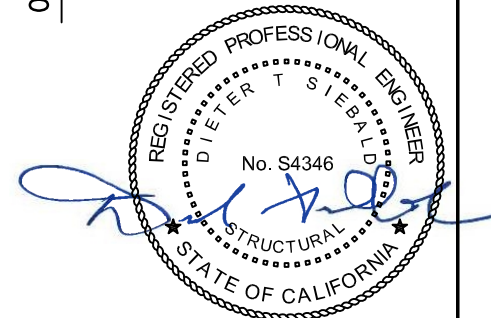


SIDE ELEV



PLAN VIEW

NOTE:
 BRACKET ANGLE MATERIAL IS CONSTRUCTED FROM
 $3\frac{1}{2}$ "x $3\frac{1}{2}$ "x $\frac{3}{8}$ " ASTM A572 GR50. BACK SURFACE
 TO BE UNPAINTED CLEAN MILL SCALE STL SURFACE.



SHEET TITLE: SEISMIC FRAME BRACKET DETAIL



CYS STRUCTURAL ENGINEERS, INC.

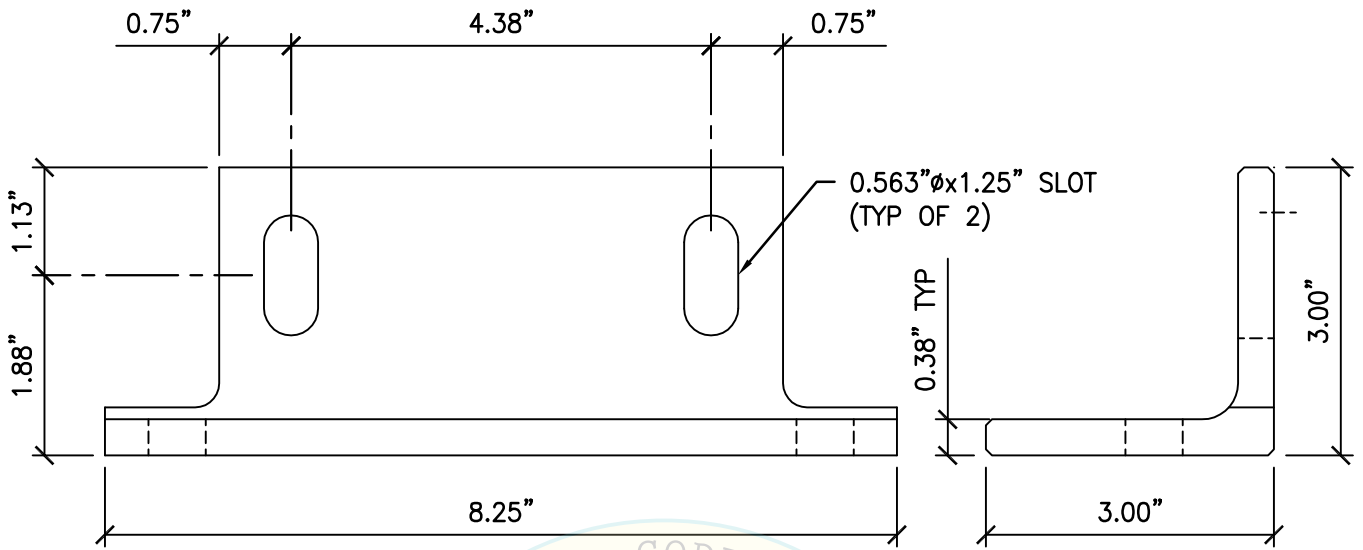
2495 NATOMAS PARK DRIVE, SUITE 650
 SACRAMENTO, CA 95833

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

Job No:	16120
Date:	1-3-2019
Page:	10 of 16

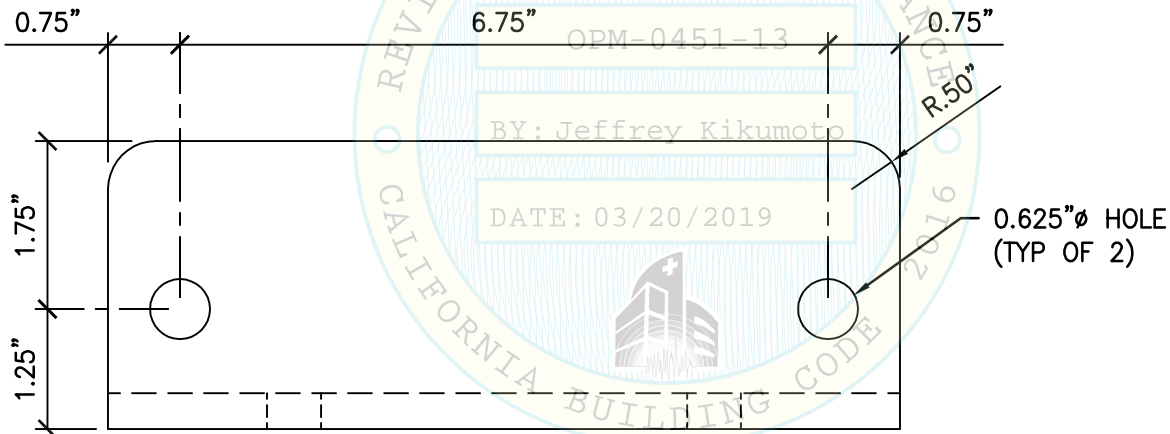
L:\Jobs\16120 Roche Ventana - HE 600 OPM-0451-13\STRU\S1.dwg Time:Jan03,2019 -01:11pm Login:camachom DimScale:1 LTScale:6

ROCHE HE 600

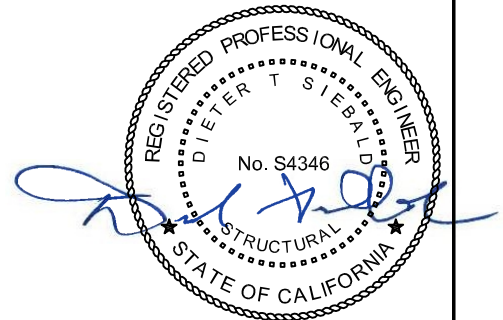
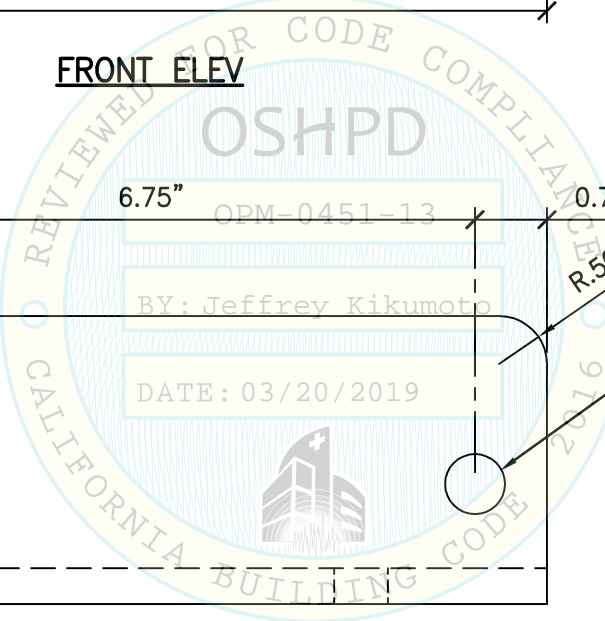


FRONT ELEV

SIDE ELEV



PLAN VIEW



NOTE:
BRACKET ANGLE MATERIAL IS CONSTRUCTED FROM
3"x3"x $\frac{3}{8}$ " ASTM A572 GR50. BACK SURFACE
TO BE UNPAINTED CLEAN MILL SCALE STL SURFACE.

SHEET TITLE: SEISMIC FLOOR BRACKET



CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

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

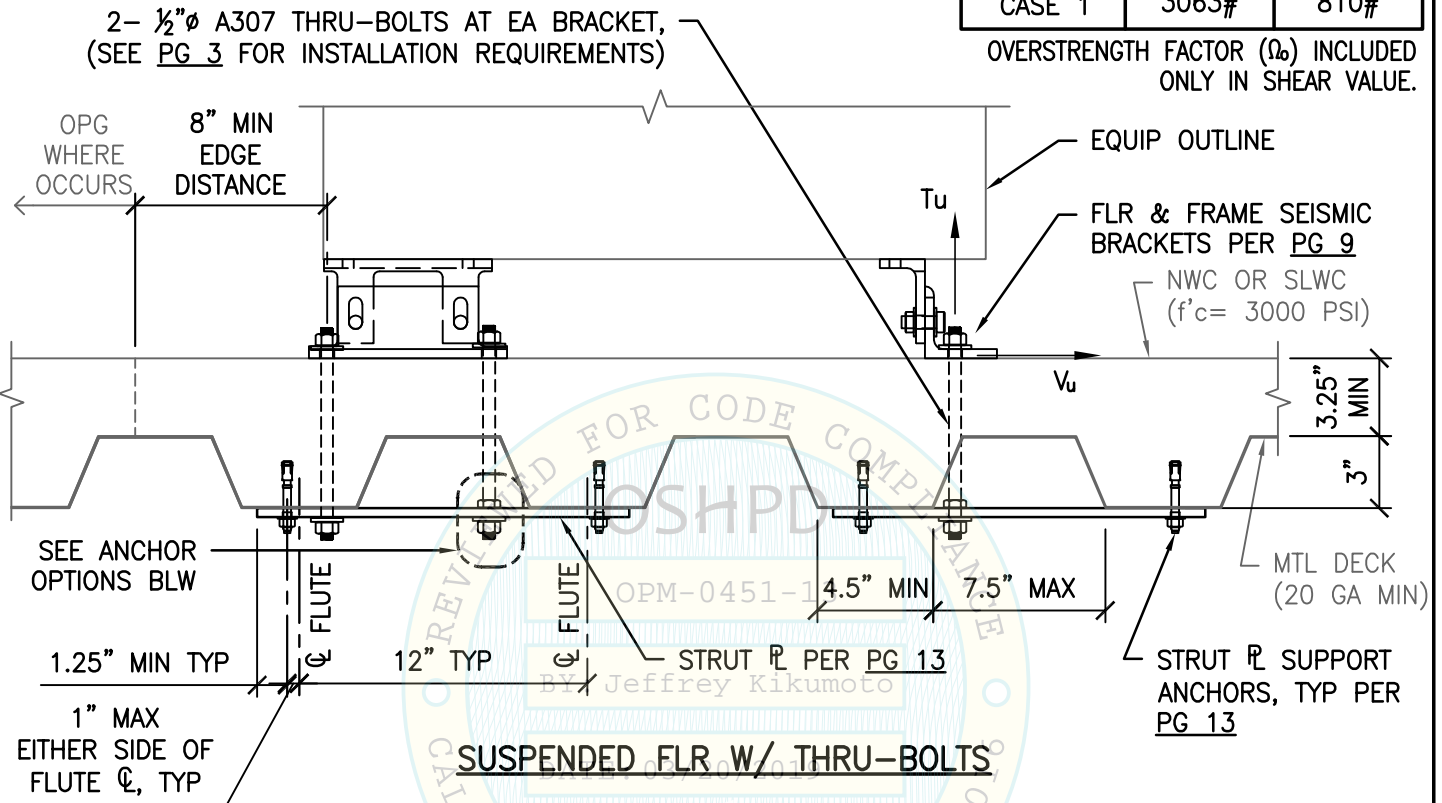
Job No:	16120
Date:	1-3-2019
Page:	11 of 16

L:\Jobs\16120 Roche Ventana - HE 600 OPM-0451-13\STRU\S1.dwg Time:Jan03,2019 -01:11pm Login:camachom DimScale:1 LTScale:6

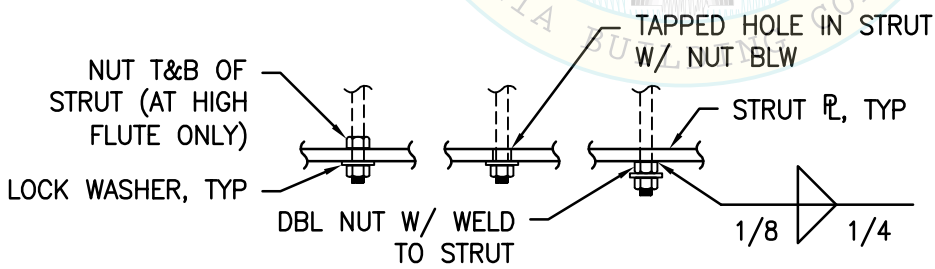


FOR DESIGN CRITERIA SEE PG 3	MAX LRFD FORCES AT EA ANCHOR (LBS)	
	T _u	V _u
CASE 1	3063#	810#

OVERSTRENGTH FACTOR (Ω_b) INCLUDED ONLY IN SHEAR VALUE.



SUSPENDED FLR W/ THRU-BOLTS



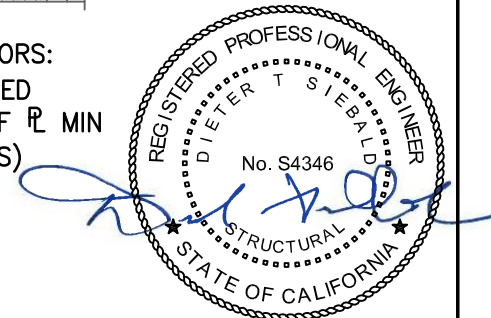
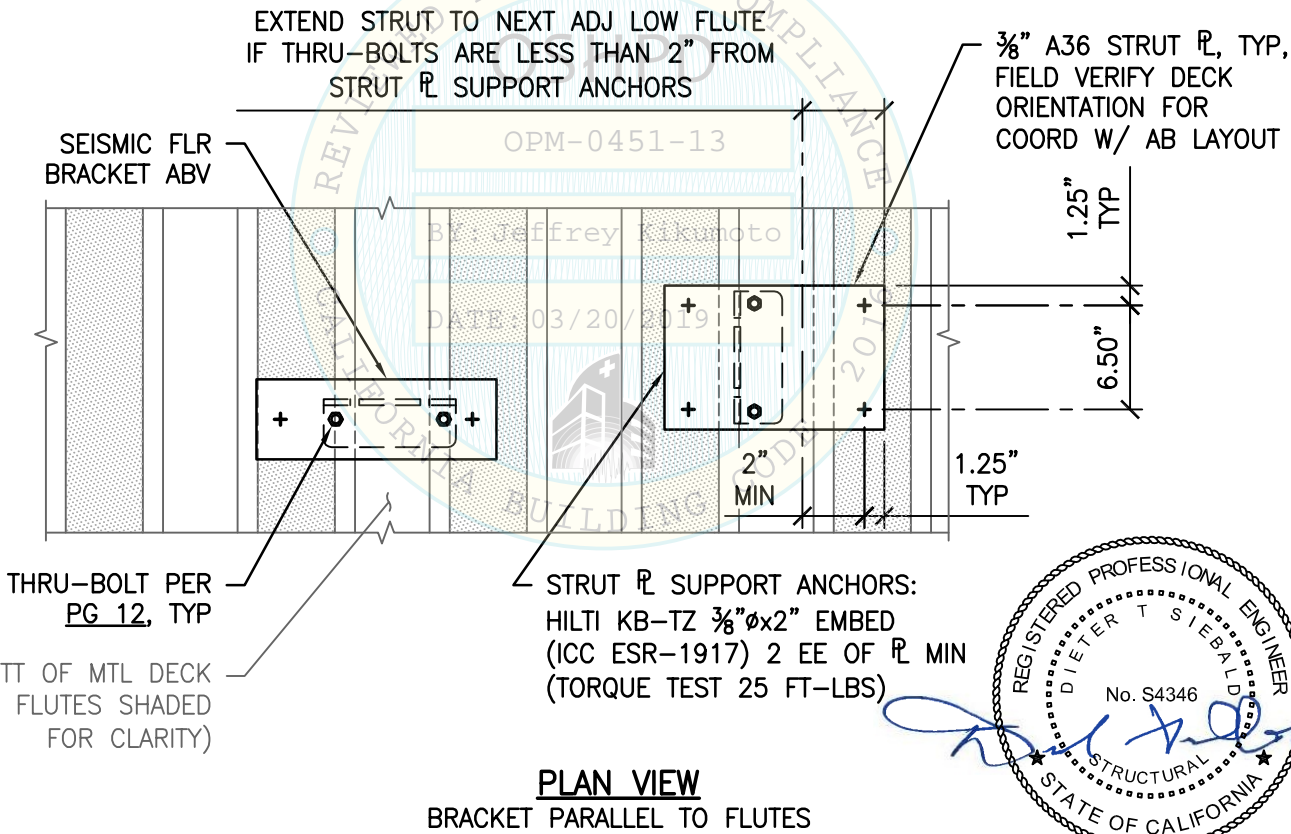
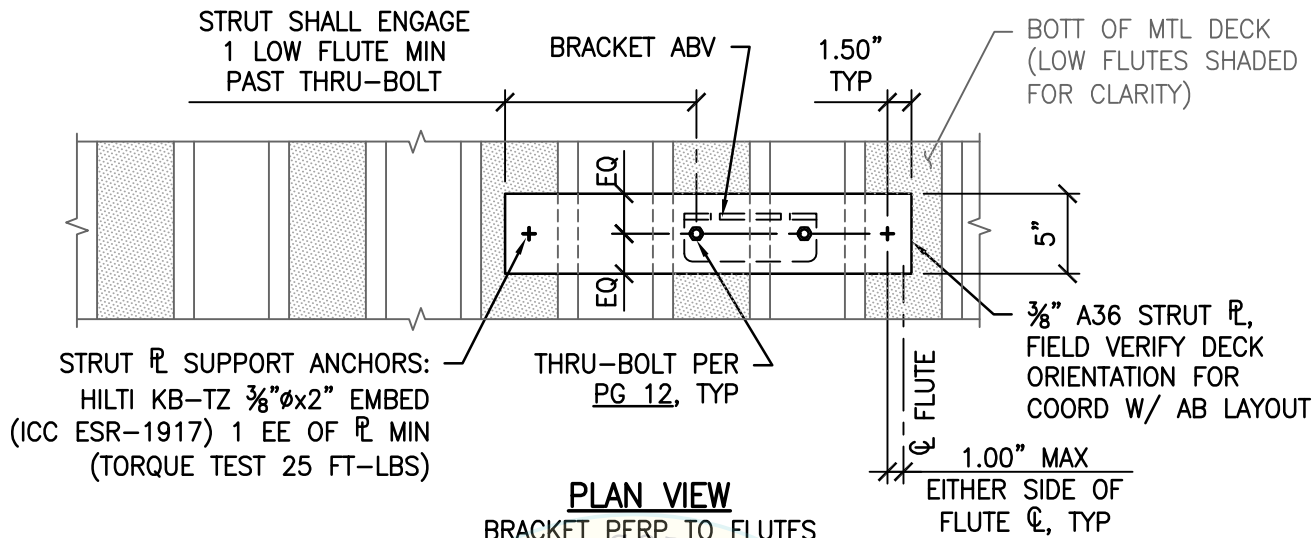
ANCHOR OPTIONS



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

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	<p>TEL (916) 920-2020 www.cyseng.com</p>	<p>Job No: 16120 Date: 1-3-2019 Page: 12 of 16</p>
--	--	--

L:\Jobs\16120 Roche Ventana - HE 600 OPM-0451-13\STRU\S1.dwg Time:Jan03,2019-01:11pm Login:camachom DimScale:1 LTScale:6



SHEET TITLE: STRUT PLATE DETAILS



CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

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

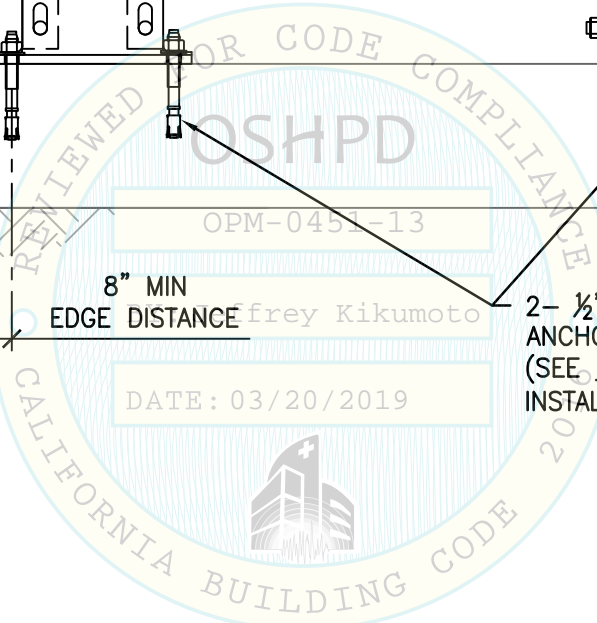
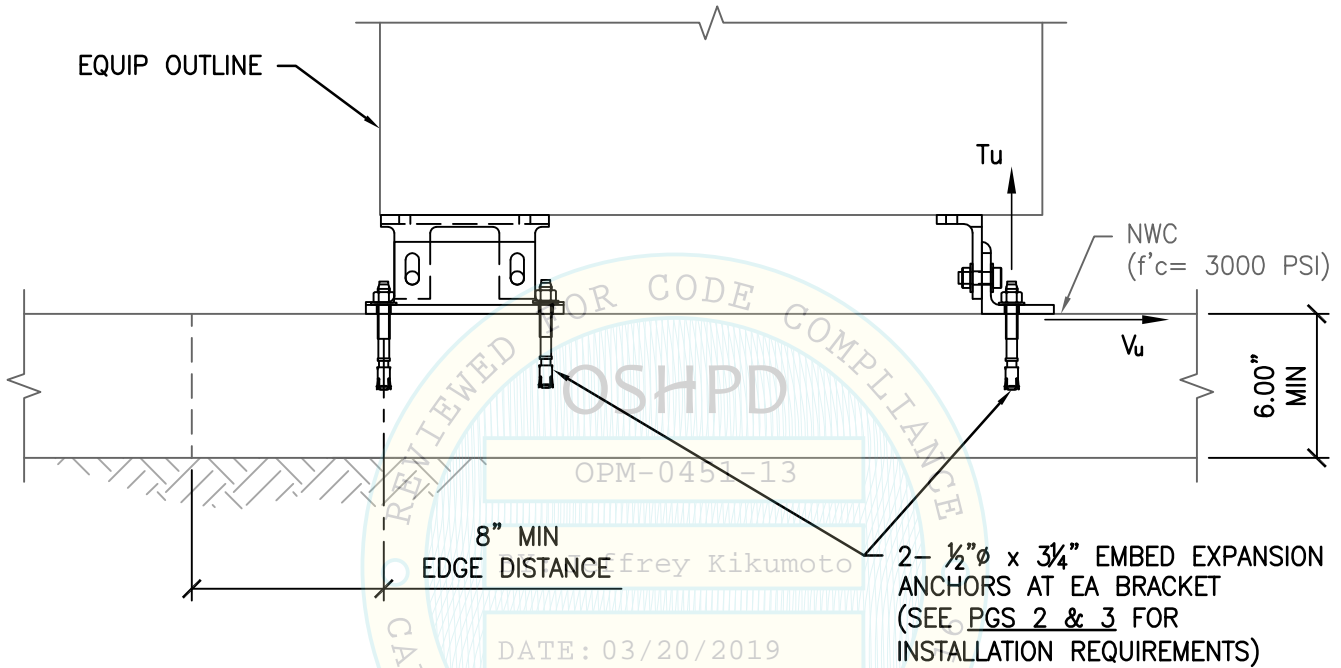
Job No:	16120
Date:	1-3-2019
Page:	13 of 16

L:\Jobs\16120 Roche Ventana - HE 600 OPM-0451-13\STRU\S1.dwg Time:Jan03,2019 -01:11pm LogIn:camachom DimScale:1 LTScale:6



FOR DESIGN CRITERIA SEE PG 3	MAX LRFD FORCES AT EA ANCHOR (LBS)	
	T _u	V _u
CASE 2	2003#	273#

OVERSTRENGTH FACTOR (Ω_o) INCLUDED.



2- 1/2" ϕ x 3/4" EMBED EXPANSION ANCHORS AT EA BRACKET (SEE PGS 2 & 3 FOR INSTALLATION REQUIREMENTS)



SHEET TITLE: ATTACHMENT DETAILS
STAND TO 6" SLAB ON GRADE (CASE 2)

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020	Job No: 16120
	www.cyseng.com	Date: 1-3-2019
		Page: 14 of 16

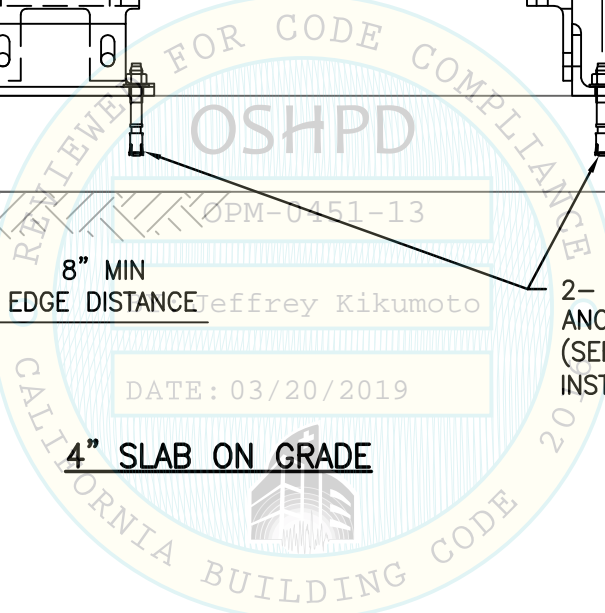
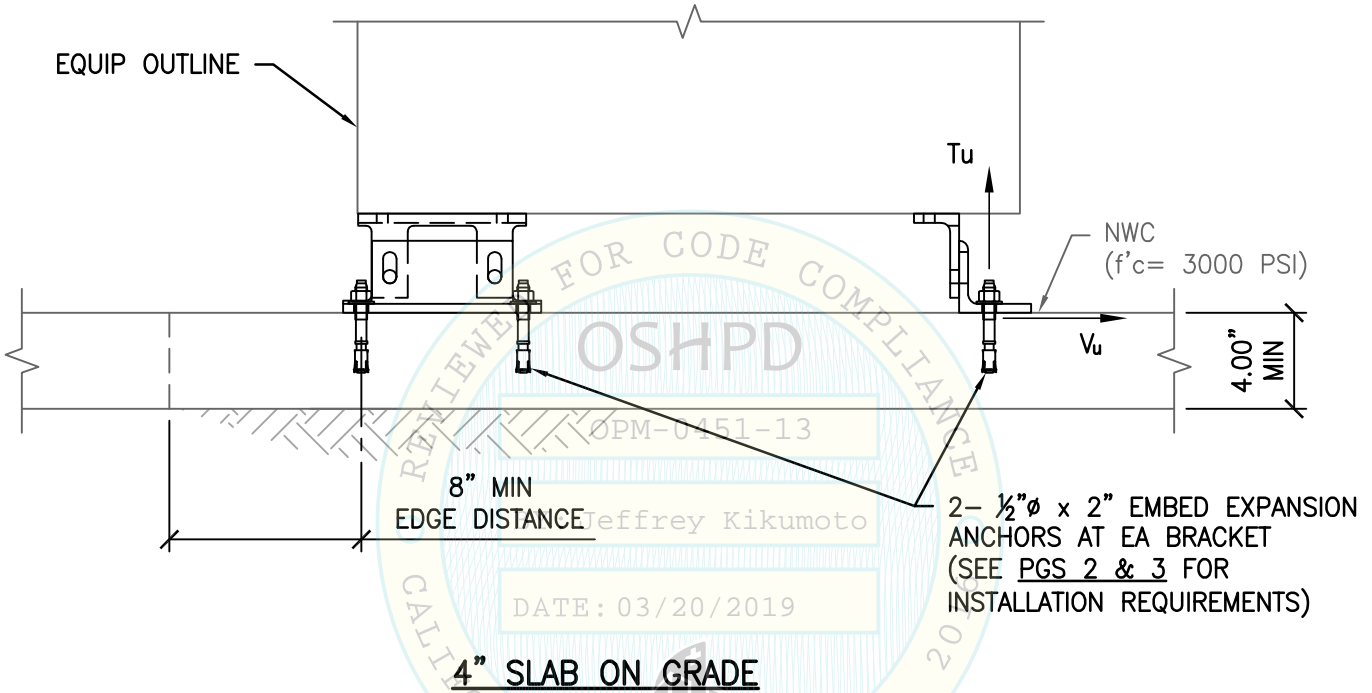
L:\Jobs\16120 Roche Ventana - HE 600 OPM-0451-13\STRU\S1.dwg Time:Jan03,2019-01:11pm Login:camachom DimScale:1 LTScale:6

ROCHE HE 600



FOR DESIGN CRITERIA SEE PG 3	MAX LRFD FORCES AT EA ANCHOR (LBS)	
	T _u	V _u
CASE 3	1279#	185#

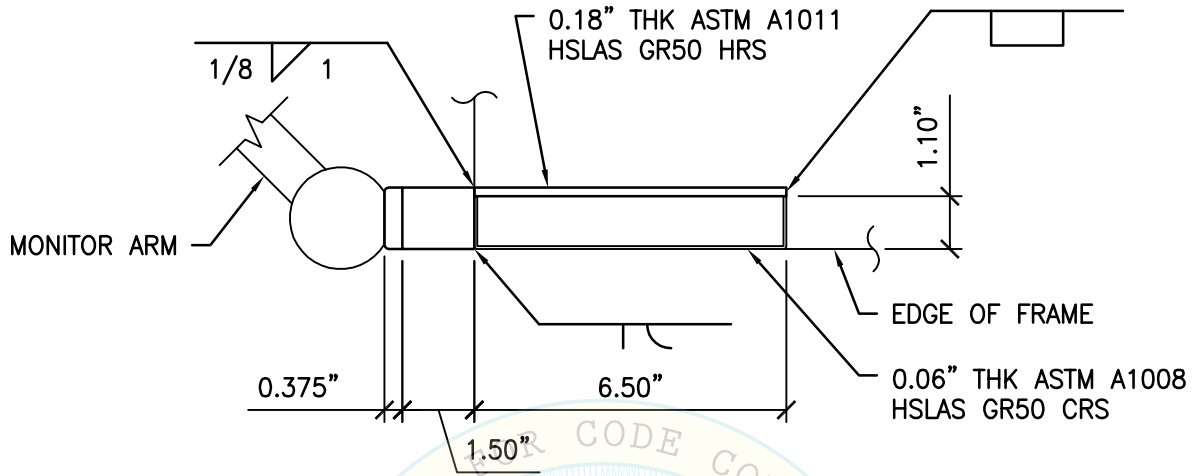
OVERSTRENGTH FACTOR (Ω_o) INCLUDED.



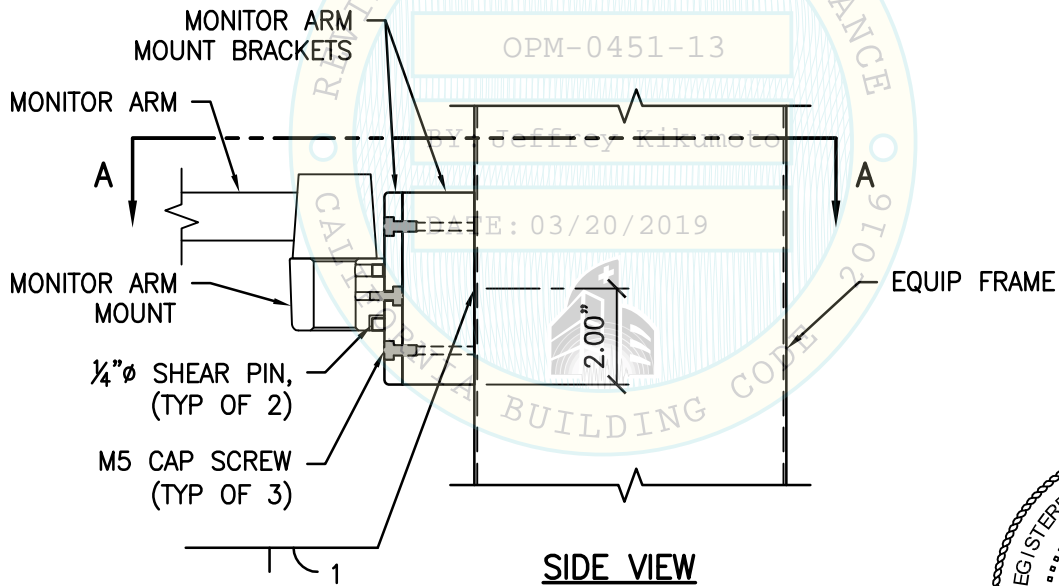
SHEET TITLE: ATTACHMENT DETAILS
STAND TO 4" SLAB ON GRADE (CASE 3)

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020	Job No: 16120
	www.cyseng.com	Date: 1-3-2019
		Page: 15 of 16

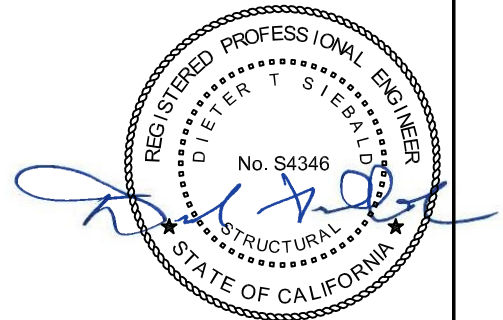
L:\Jobs\16120 Roche Ventana - HE 600 OPM-0451-13\STRU\S1.dwg Time: Jan 03, 2019 - 01:11pm Login: camachom DimScale: 1 LTScale: 6



PLAN VIEW A-A



SIDE VIEW



SHEET TITLE: MONITOR ATTACHMENT DETAIL



CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

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

Job No:	16120
Date:	1-3-2019
Page:	16 of 16

L:\Jobs\16120 Roche Ventana - HE 600 OPM-0451-13\STRU\S1.dwg Time:Jan03,2019-01:11pm Login:camachom DimScale:1 LTScale:6