



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

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

OFFICE USE ONLY
APPLICATION #: OPM-0142-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

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

Manufacturer Information

Manufacturer: Abbott Laboratories
Manufacturer's Technical Representative: Jason Harris
Mailing Address: 1921 Hurd Drive, MS 2-15, Irving, TX 75038
Telephone: (972) 518-7672 Email: jason.n.harris@abbott.com

Product Information

Product Name: Sapphire and SMS Hematology Interface Modules
Product Type: Unified workstation automated pre/post analytical processing laboratory instruments
Product Model Number: Sapphire Hematology Analyzer, Sapphire Hematology Analyzer support table, Sapphire Hematology Spacer Module, SMS Hematology Analyzer, SMS Hematology Analyzer support table, SMS Hematology Spacer Module, Load Bay w/ robotic arm, Unload Bay
General Description: The Sapphire Hematology Analyzer and the SMS Hematology Analyzer, and their associated ancillary components comprise a modular system designed to automate analytical processing of hematological samples as part of an automated laboratory. These components are organized as a spur off of an Abbott a3600 automated analyzer instrument system.

Applicant Information

Applicant Company Name: CYS STRUCTURAL ENGINEERS, INC.
Contact Person: David Calia
Mailing Address: 2495 Natomas Park Drive, Suite 650, Sacramento, CA 95833
Telephone: (916) 920-2020 Email: davidc@cyseng.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: David M. Calia Date: 04/13/2018
Title: V.P. of Bus. Dev. & Marketing Company Name: CYS STRUCTURAL ENGINEERS, INC.

"Access to Safe, Quality Healthcare Environments that Meet California's





**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

Registered Design Professional Preparing Engineering Recommendations

Company Name: CYS STRUCTURAL ENGINEERS, INC.

Name: David Calia California License Number: S5614

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

Telephone: (916) 920-2020 Email: davidc@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): Calculation in accordance with 2013 CBC

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*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): _____

DATE: 08/14/2018

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 2013 ONLY

Signature:  Date: 08-14-2018

Print Name: Jeffrey Kikumoto

Title: SSE

Condition of Approval (if applicable): _____

"Access to Safe, Quality Healthcare Environments that Meet California's



SAPPHIRE & SMS HEMATOLOGY ANALYZERS
AUTOMATED ANALYTICAL LABORATORY INSTRUMENTS
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NOTES:

1. THESE DRAWINGS ARE PREPARED FOR ABBOTT LABORATORIES, AN ILLINOIS CORPORATION, ABBOTT PARK, ILLINOIS.
2. THE CONTRACTOR SHALL OBTAIN A COPY OF THIS PRE-APPROVAL FROM THE OSHPD WEBSITE AND PROVIDE ONE COPY FOR THE INSPECTOR OF RECORD.
3. COMPONENT AND SUB-ASSEMBLIES SHALL BE INSTALLED BY ABBOTT.
4. ANCHORAGE OF COMPONENTS AND SUPPORTS TO THE BUILDING STRUCTURE SHALL BE INSTALLED BY THE GENERAL CONTRACTOR.



SHEET TITLE: SHEET INDEX



CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

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

Job No:	13027.01
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GENERAL NOTES:

1. THIS OSHPD PRE-APPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2013. THE DEMAND (DESIGN FORCES) FOR USE 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 COMPONENT IN ADDITION TO ALL OTHER LOADS. PROVIDE AND DESIGN SUPPLEMENTARY MEMBERS AS REQUIRED.
 - B. THAT THE ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY SLAB EDGES OR OPENINGS.
 - C. THAT THE ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS. THE SPACING SHOWN IN THE TEST VALUES TABLE ON PAGE 5 IS THE REQUIRED SPACING FROM ANCHORS OF OTHER DIAMETERS AND EMBEDMENTS WILL VARY.
 - D. THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2013 CBC 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.
- 3A. EXPANSION ANCHORS INSTALLED IN NORMAL WEIGHT OR SAND-LIGHTWEIGHT CONCRETE SHALL BE STAINLESS STEEL HILTI KB-TZ EXPANSION ANCHORS COMPLYING WITH ICC-ES ESR-1917 REISSUED MAY 1, 2013. CORRECTED MAY 2015.
 - 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 5.
 - C. TESTING:
 - JOB TESTING: FOR VERIFYING SATISFACTORY INSTALLATION WORKMANSHIP, PERFORM JOB SITE TESTING IN ACCORDANCE WITH THE TENSION 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 IN THE ANCHOR SUCH AS DIRECT PULL WITH A HYDRAULIC JACK OR CALIBRATED SPRING LOADING DEVICES. 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". REPORT OF TEST RESULTS SHALL BE SUBMITTED TO OSHPD.
 - 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. A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE OR BY A CONTINUOUS LOSS OF JACKING PRESSURE.
 - TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN THE FOLLOWING LIMITS: WEDGE TYPE: ONE-HALF (1/2) TURN OF THE NUT.

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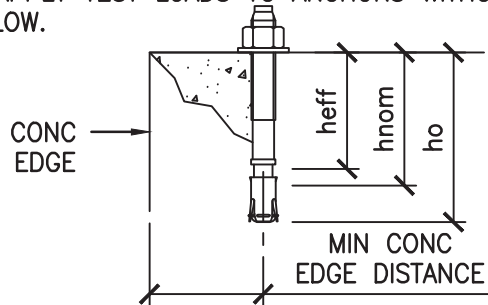
SHEET TITLE: GENERAL NOTES

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GENERAL NOTES CONTINUED:

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

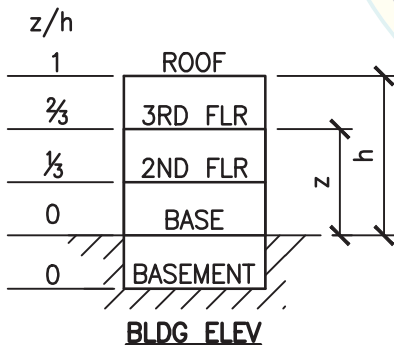


MECHANICAL ANCHOR

POST-INSTALLED ANCHOR SCHEDULE

ANCHOR TYPE & DIA (INCH)	INSTALLATION EMBED (INCH) hnom	EFFECTIVE EMBED (INCH) heff	HOLE DEPTH (INCH) ho	MIN CONC THICKNESS (INCH) h	MIN CONC EDGE DISTANCE (INCH)	MIN AB SPACING UNO (INCH)	TEST LOAD		CONDITION OF ANCHORAGE
							TENSION LOAD (LBS)	TORQUE (FT-LBS)	
KB-TZ 304 SS 3/8"φ	2 5/16	2	2 5/8	SEE DETAILS	12	6	N/A	25	CASE 1
KB-TZ 304 SS 1/2"φ	2 3/8	2	2 5/8	4	12	6	1550	40	CASE 2
KB-TZ 304 SS 3/4"φ	3 9/16	3 3/4	4 3/8	6	12	6	3844	60	CASE 2

4. TWO (2) CONDITIONS OF ANCHORAGE ARE SPECIFIED AND PRESENTED IN THIS PRE-APPROVAL:



CASE 1: ATTACHMENT DTLS LOCATED AT UPPER FLRS ABV THE BASE OF A BLDG ($z/h \leq 1.0$), IT IS ASSUMED THAT THE FLRS ARE BUILT OF A MIN 3/4" NWC OR SLWC TOPPING OVER MTL DECK ($f'c = 3000$ PSI, MIN).

CASE 2: ATTACHMENT DTLS LOCATED AT OR BELOW 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), EXCEPT AT TUBE STORAGE UNITS WHERE THE SOG THICKNESS MUST BE AT LEAST 6", UNO.



07/20/2015

SHEET TITLE: GENERAL NOTES

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GENERAL NOTES CONTINUED:

5. THIS PRE-APPROVAL MAY BE USED AT ANY GEOGRAPHICAL LOCATION IN THE STATE OF CALIFORNIA. WHERE S_Ds IS LESS THAN OR EQ TO 2.5.
6. COORDINATE THE ANCHOR BOLT LAYOUT WITH THE COMPONENT IN THE FIELD PRIOR TO SETTING ANCHOR BOLTS.
7. ANCHOR BRACKETS SHALL BE PAINTED WITH A RUST INHIBITIVE PRIMER FOLLOWED BY A COLOR COAT SELECTED BY THE HOSPITAL FACILITY OR MATCH THE COLOR OF THE BASE OF THE EQUIPMENT IF A COLOR IS NOT SPECIFIED BY THE HOSPITAL.
8. FASTENERS AND ASSOCIATED HARDWARE SHALL BE FIELD PAINTED TO MATCH BRACKETS AFTER INSTALLATION IS COMPLETE.
9. STRUCTURAL STEEL SHAPES AND CONNECTORS SHALL CONFORM TO THE FOLLOWING, UNO:
 - A. PLATES, ANGLES, BARS & MISCELLANEOUS SHAPES ASTM A36
 - B. PLATES AS NOTED ASTM A572 GR 50
 - C. MACHINE BOLTS ASTM A307
10. UNIT COMPONENTS AND INTER-CONNECTION OF THE COMPONENTS SHALL BE PROVIDED BY ABBOTT. CONTRACTOR SHALL FURNISH AND INSTALL THE SEISMIC SUPPORTS AND ATTACHMENTS (INCLUDING SEISMIC BRACKETS, EXPANSION ANCHORS, THRU-BOLTS, STRUT PLATES BELOW SLABS, HIGH STRENGTH BOLTS TO REPLACE LEVELING LEGS, ETC.) IN CONJUNCTION WITH COMPONENT SETTING INSTRUCTIONS FROM ABBOTT FIELD INSTALLATION PERSONNEL.
11. DRAWING SCALES ARE NOT PROVIDED. DO NOT SCALE OFF OF THESE DRAWINGS. THE INTENT OF THESE DRAWINGS IS TO SHOW HOW TO FABRICATE THE SEISMIC BRACKET TO ANCHOR THE EQUIPMENT SPECIFIED. THE REPRESENTATIONS OF THE EQUIPMENT ARE ONLY INTENDED TO SHOW THE COORDINATION WITH THE SEISMIC BRACKETS.
12. BOLTS THROUGH CONCRETE ON METAL DECK: 42-13
 - A. BOLTS SHALL BE TORQUED BY $\frac{3}{4}$ 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. THROUGH BOLT HOLES SHALL BE $\frac{1}{16}$ " LARGER THAN BOLT SIZE (HOLE SIZE = BOLT SIZE + $\frac{1}{16}$ ")
 - C. THROUGH BOLTS IN CONCRETE SHALL RECEIVE SPECIAL INSPECTION & TESTING (THROUGH BOLTS WITH STEEL TO STEEL CONNECTION IN TENSION DO NOT REQUIRE TESTING) IN ACCORDANCE WITH REQUIREMENTS FOR POST-INSTALLED ANCHORS.
13. TAKE CARE TO AVOID DAMAGING REBAR OR POST-TENSIONING TENDONS WHEN INSTALLING ANCHORS TO CONCRETE.
14. DRY BOLT AND NUT INSTALLATION TORQUES SHALL BE AS FOLLOWS:

<u>BOLT OR NUT</u>	<u>TORQUE (FT-LBS)</u>
M5	5
M8	8
M10	15
M16	67
M20	136
$\frac{1}{4}$ "	10
$\frac{1}{2}$ "	40

THESE VALUES DO NOT APPLY TO POST-INSTALLED CONCRETE ANCHORS.



SHEET TITLE: GENERAL NOTES

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ABBOTT LABORATORIES
EQUIPMENT SUPPORTS & ATTACHMENTS

WELDING NOTES:

1. ALL WELDING IS TO BE DONE BY CERTIFIED WELDERS USING E70XX ELECTRODES (UNO). THE USE OF E70-T4 WELDING WIRE IS NOT ALLOWED FOR ANY APPLICATION. ALL WELDS SHALL BE IN CONFORMITY WITH THE PROJECT SPECIFICATIONS AND STRUCTURAL WELDING CODE-STEEL OF THE AMERICAN WELDING SOCIETY (AWS D1.1-10). SEE SPECIAL INSPECTIONS SECTION FOR WELDING INSPECTION REQUIREMENT. SUBMIT ALL WELDING PROCEDURES AND SPECIFICATIONS TO OWNER'S TESTING LABORATORY FOR REVIEW AND APPROVAL PRIOR TO BEGINNING FABRICATION.
2. WELD LENGTHS CALLED FOR ON PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WHERE FILLET WELD SYMBOL IS GIVEN WITHOUT INDICATION OF SIZE, USE MINIMUM SIZE WELDS AS SPECIFIED IN AISC 360-10, SECTION J2.2b.

DESIGN CRITERIA

DESIGN OF SUPPORTS & ATTACHMENTS FOR ALL EQUIP COMPONENTS IS PER 2013 CBC

ALL EQUIP
ASCE 7-10 TABLE 13.6-1
OTHER MECHANICAL OR
ELECTRICAL COMPONENTS

$S_{DS} = 2.5$

$I_p = 1.5$

$\alpha_p = 1.0$

$R_p = 1.5$

$\Omega_o = 1.5$

W_p AS NOTED ON COMPONENT DIMS SCHEDULE SHOWN ON PG 10 & 11

SEISMIC LOADS FOR CASE 1 - UPPER FLRS ABV THE BASE, $z/h \leq 1.0$ (LRFD)

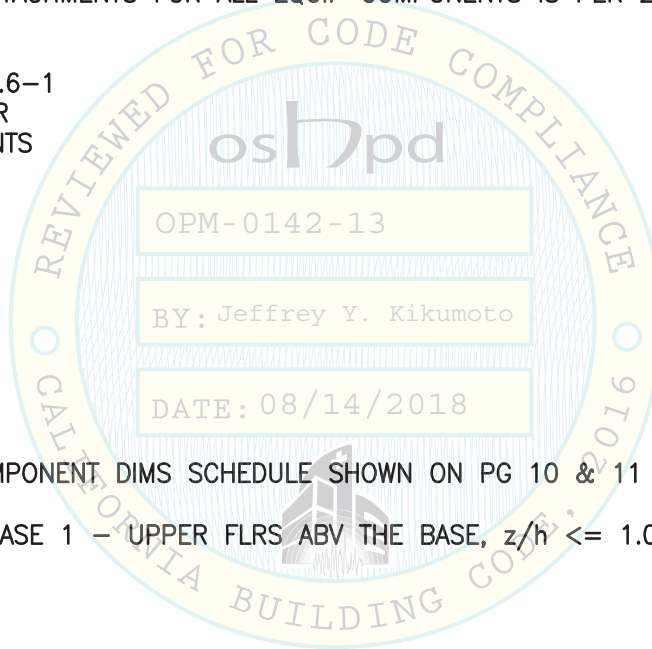
ALL EQUIP, UNO
 $F_p = 3.00 W_p$

$F_v = 0.50 W_p$

SEISMIC LOADS FOR CASE 2 - SLAB AT OR BELOW BASE, $z/h = 0$ (LRFD)

ALL EQUIP
 $F_p = 1.12 W_p$

$F_v = 0.50 W_p$



SHEET TITLE: GENERAL NOTES & DESIGN CRITERIA

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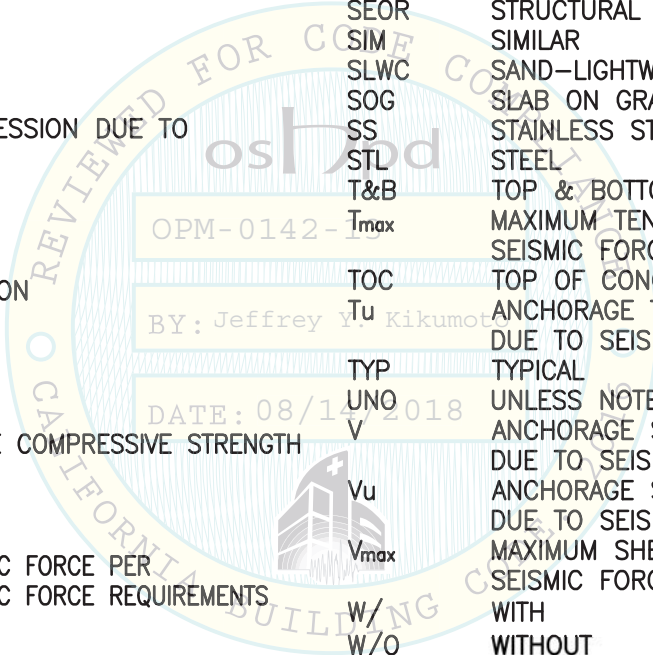
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ABBOTT LABORATORIES
EQUIPMENT SUPPORTS & ATTACHMENTS



ABBREVIATIONS:

@	AT	LWC	LIGHT WEIGHT CONCRETE
AB	ANCHOR BOLT	MAX	MAXIMUM
ABV	ABOVE	MFR	MANUFACTURER
ADDNL	ADDITIONAL	MIN	MINIMUM
ADJ	ADJACENT	MM	MILLIMETERS
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	MTL	METAL
ALUM	ALUMINUM	NWC	NORMAL WEIGHT CONCRETE
ASD	ALLOWABLE STRENGTH DESIGN	OPG	OPENING
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	OSHPD	OFFICE OF STATEWIDE HEALTH PLANNING & DEVELOPMENT
BLDG	BUILDING	PG	PAGE
BOTT	BOTTOM	PL	PLATE
BTW	BETWEEN	PSI	POUNDS PER SQUARE INCH
CBC	CALIFORNIA BUILDING CODE	R	RADIUS OF GYRATION
CG	CENTER OF GRAVITY	SCHED	SCHEDULE
CLSE	CALIFORNIA LICENSED STRUCTURAL ENGINEER	SEOR	STRUCTURAL ENGINEER OF RECORD
CL	CENTERLINE	SIM	SIMILAR
CONC	CONCRETE	SLWC	SAND-LIGHTWEIGHT CONCRETE
CONN	CONNECTION	SOG	SLAB ON GRADE
COORD	COORDINATE	SS	STAINLESS STEEL
C _{max}	MAXIMUM COMPRESSION DUE TO SEISMIC FORCES	STL	STEEL
DTL(S)	DETAIL(S)	T&B	TOP & BOTTOM
DIA (∅)	DIAMETER	T _{max}	MAXIMUM TENSION DUE TO SEISMIC FORCE
DIM (S)	DIMENSION(S)	TOC	TOP OF CONCRETE
(E)	EXISTING CONDITION	Tu	ANCHORAGE TENSION REACTION DUE TO SEISMIC FORCE
EA	EACH	TYP	TYPICAL
ELEV	ELEVATION	UNO	UNLESS NOTED OTHERWISE
EQ	EQUAL	V	ANCHORAGE SHEAR REACTION DUE TO SEISMIC FORCE
EQUIP	EQUIPMENT	Vu	ANCHORAGE SHEAR REACTION DUE TO SEISMIC FORCE
f'c	MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE	V _{max}	MAXIMUM SHEAR DUE TO SEISMIC FORCE
FF	FINISHED FLOOR	W/	WITH
FLR	FLOOR	W/O	WITHOUT
F _p	HORIZONTAL SEISMIC FORCE PER ASCE 7-10 SEISMIC FORCE REQUIREMENTS	W _p	COMPONENT SELF-WEIGHT
FRMG	FRAMING		
FT	FOOT/FEET		
F _v	VERTICAL SEISMIC FORCE PER ASCE 7-10 SEISMIC FORCE REQUIREMENTS		
F _y	SPECIFIED YIELD STRENGTH OF REINFORCING, PSI OR SPECIFIED MINIMUM YIELD STRESS OF STEEL, KSI		
GA	GAUGE		
IN (")	INCH		
INFO	INFORMATION		
LBS	POUNDS		
LRFD	LOAD & RESISTANCE FACTOR DESIGN		



SHEET TITLE: ABBREVIATIONS



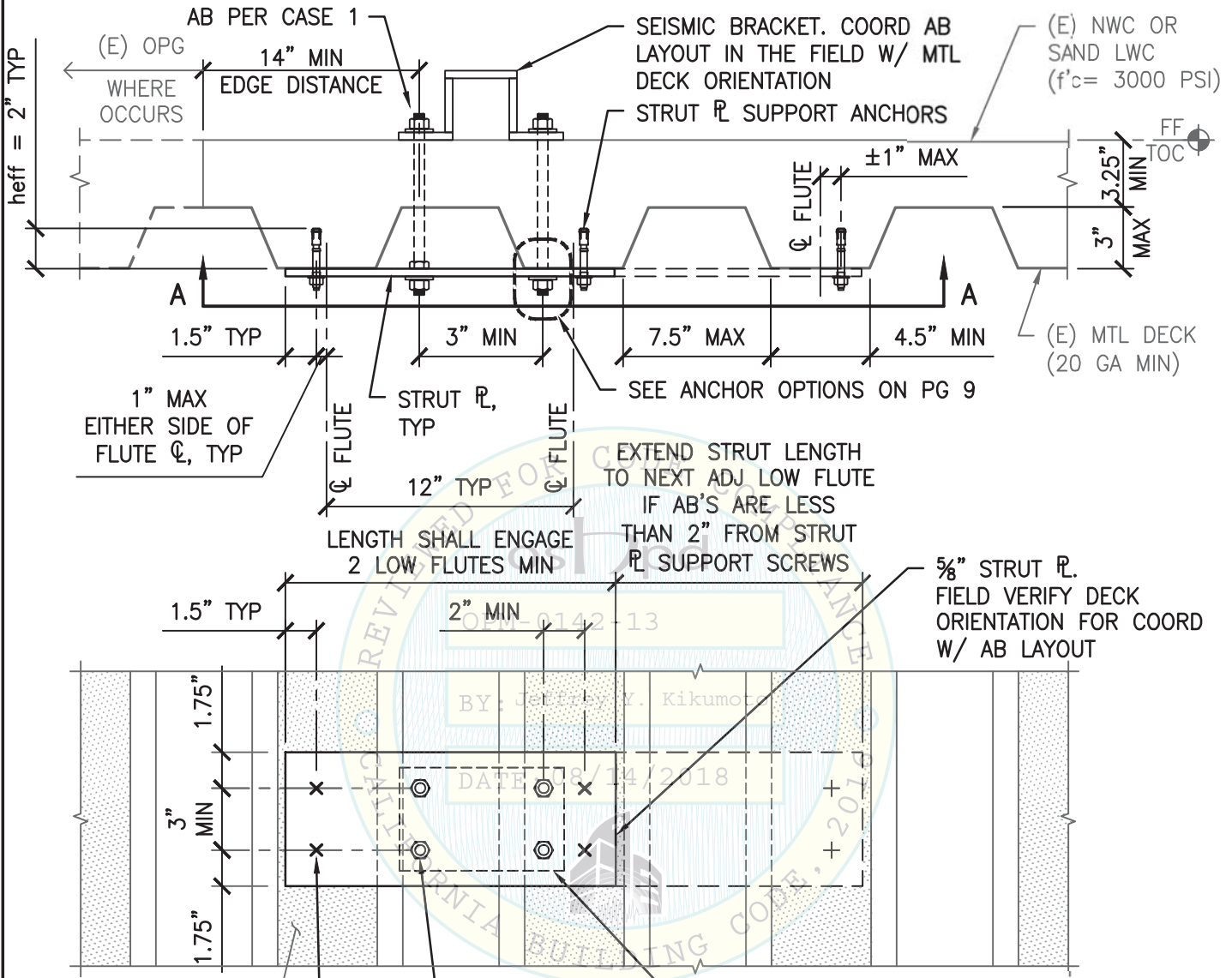
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REVIEWED FOR CODE COMPLIANCE
BY: Jeffrey Y. Kikumoto
DATE: 8/14/2018

BOTT OF MTL DECK
(LOW FLUTES SHADED FOR CLARITY)

STRUT SUPPORT ANCHORS:
HILTI KB-TZ 3/8"Ø, 2 EA END OF R'S 6" WIDE OR WIDER, 1 EA END OF R'S LESS THAN 6" WIDE, TYP

NOTE:
FOR AB SPACED MORE THAN 3 1/2" APART 2-3 1/2" WIDE STRUT R'S SIM TO DTL ON PG 8 MAY BE USED.

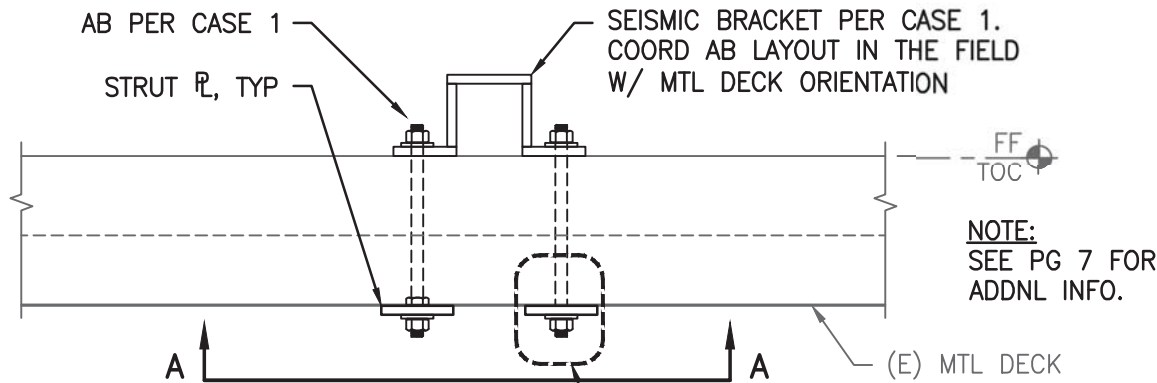
SECTION A-A



SHEET TITLE: TYPICAL STRUT DETAIL

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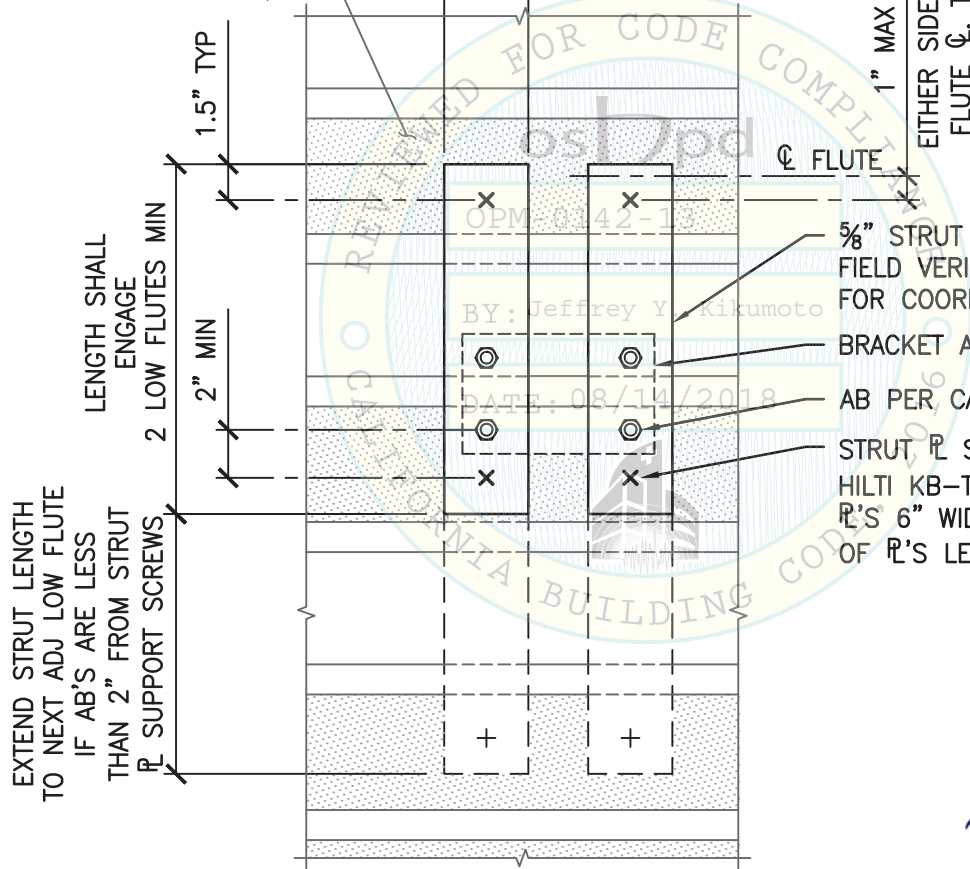


NOTE:
SEE PG 7 FOR
ADDNL INFO.

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

3.5" TYP

SEE ANCHOR OPTIONS
ON PG 9



NOTE:
A SINGLE STRUT R SIM
TO DTL ON PG 7 MAY
BE USED.

EXTEND STRUT LENGTH
TO NEXT ADJ LOW FLUTE
IF AB'S ARE LESS
THAN 2" FROM STRUT
R SUPPORT SCREWS

LENGTH SHALL
ENGAGE
2 LOW FLUTES MIN

5/8" STRUT R, TYP.
FIELD VERIFY DECK ORIENTATION
FOR COORD W/ AB LAYOUT

BRACKET ABV

AB PER CASE 1

STRUT R SUPPORT ANCHORS:
HILTI KB-TZ 3/8"φ, 2 EA END OF
R'S 6" WIDE OR WIDER, 1 EA END
OF R'S LESS THAN 6" WIDE.

SECTION A-A



07/20/2015

SHEET TITLE: TYPICAL STRUT DETAIL



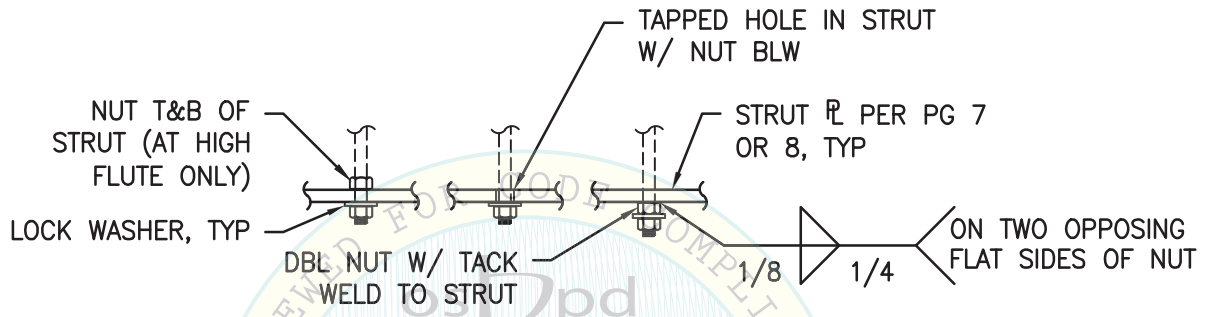
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SACRAMENTO, CA 95833

TEL (916) 920-2020
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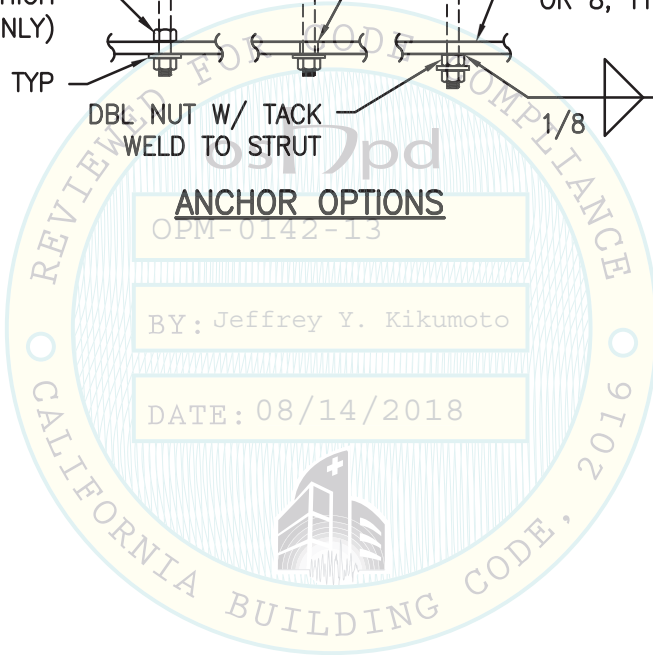
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ANCHOR OPTIONS

OPM-0142-13
 BY: Jeffrey Y. Kikumoto
 DATE: 08/14/2018



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ABBOTT LABORATORIES
EQUIPMENT SUPPORTS & ATTACHMENTS

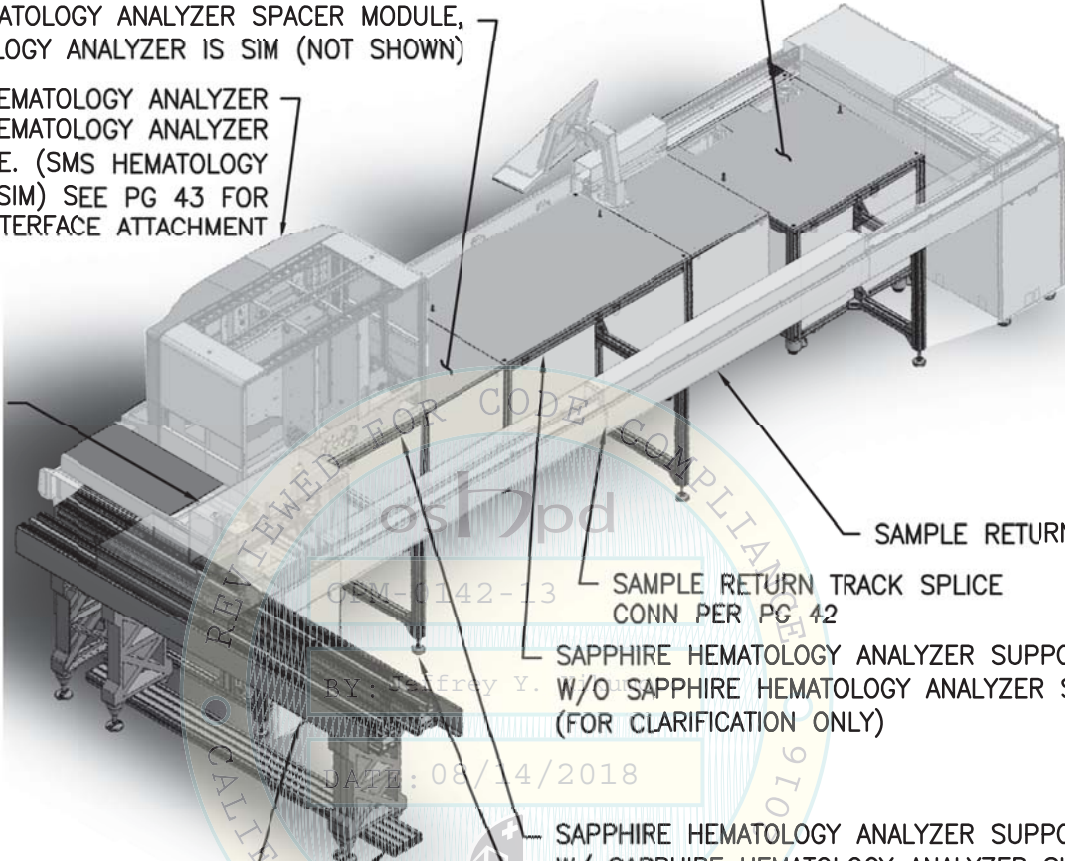


SMS HEMATOLOGY ANALYZER SUPPORT TABLE W/O SMS HEMATOLOGY ANALYZER SHOWN (FOR CLARIFICATION ONLY). SEE PG 23 FOR MORE INFO. SEE PG 24 FOR SEISMIC LOAD PATH & ANCHORAGE TO THE BLDG STRUCTURE.

SAPPHIRE HEMATOLOGY ANALYZER SPACER MODULE, SMS HEMATOLOGY ANALYZER IS SIM (NOT SHOWN)

SAPPHIRE HEMATOLOGY ANALYZER ATTACHED TO HEMATOLOGY ANALYZER SUPPORT TABLE. (SMS HEMATOLOGY ANALYZER IS SIM) SEE PG 43 FOR SUPPORT INTERFACE ATTACHMENT

ROBOTIC ARM (SUPPORTED BY LOAD BAY)



SAMPLE RETURN TRACK

SAMPLE RETURN TRACK SPLICE
CONN PER PG 42

SAPPHIRE HEMATOLOGY ANALYZER SUPPORT TABLE
W/O SAPPHIRE HEMATOLOGY ANALYZER SHOWN
(FOR CLARIFICATION ONLY)

SAPPHIRE HEMATOLOGY ANALYZER SUPPORT TABLE
W/ SAPPHIRE HEMATOLOGY ANALYZER SHOWN

TRACK TOP RAILS
PER PG 15
TRACK BOTT RAILS
PER PG 15

LEVELING LEG AT RETURN
TRACK, TYP. SEE PG 41

NOTES:

1. COMPONENTS ARE SHOWN ONLY TO DESCRIBE THE HEMATOLOGY SYSTEM. NUMBER & LOCATION OF COMPONENTS MAY VARY BASED ON SITE SPECIFIC NEEDS.
2. COMPONENT SUB-ASSEMBLY CONNS SHALL BE PERFORMED BY ABBOTT. NOT BY THE GENERAL CONTRACTOR.
3. SEE PG 11 FOR COMPONENT UNIT WEIGHTS & DIMS.
4. FOR ADDNL INFO NOT SHOWN, SEE PG 10B.
5. SEE PG 22 FOR MORE INFO. SEE PG 24 FOR SEISMIC LOAD PATH & ANCHORAGE TO BLDG STRUCTURE



5/7/15

SHEET TITLE: HEMATOLOGY TRACK ASSEMBLY



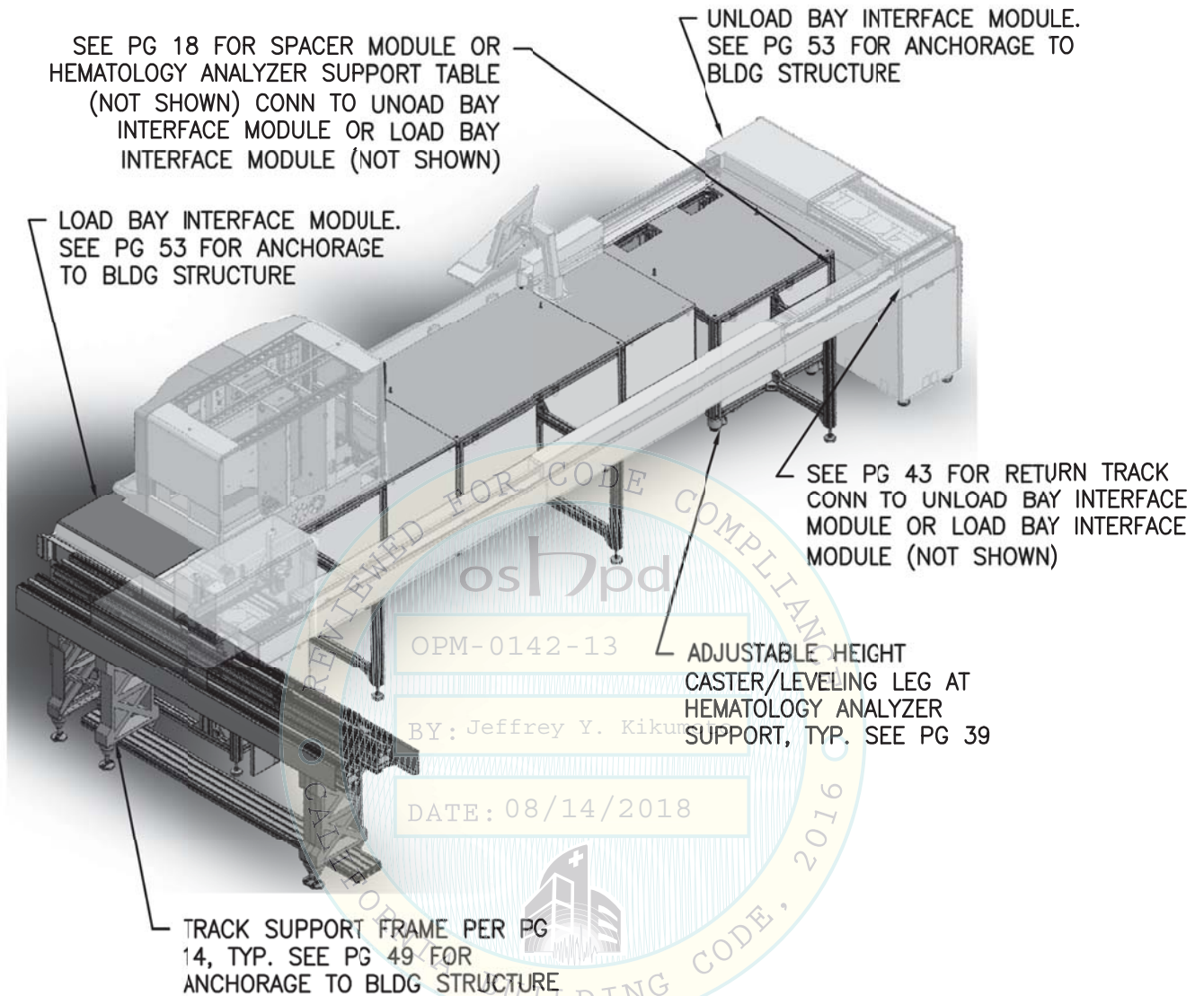
CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

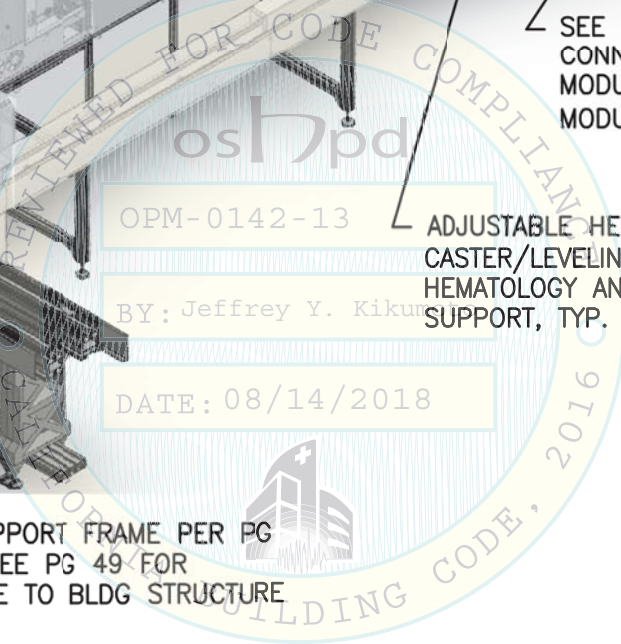
TEL (916) 920-2020
www.cyseng.com

Job No:	13027.01
Date:	1-6-2015
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L:\Jobs\13\13027 Abbott o3600 OPM\ACAD\HEME\STRU\S1_HEME.dwg Time:Jan06,2015-11:06am Login:cmachom DimScale:1 LTRScale:6



REVIEWED FOR CODE COMPLIANCE
OPM-0142-13
BY: Jeffrey Y. Kikumoto
DATE: 08/14/2018



NOTES:

1. COMPONENTS ARE SHOWN ONLY TO DESCRIBE THE HEMATOLOGY SYSTEM. NUMBER & LOCATION OF COMPONENTS MAY VARY BASED ON SITE SPECIFIC NEEDS.
2. COMPONENT SUB-ASSEMBLY CONNS SHALL BE PERFORMED BY ABBOTT, NOT BY THE GENERAL CONTRACTOR.
3. SEE PG 11 FOR COMPONENT UNIT WEIGHTS & DIMS.

REGISTERED PROFESSIONAL ENGINEER
DAVID MATTHEW CALIA
No S5614
STRUCTURAL
STATE OF CALIFORNIA
David M. Calia
5/7/15

SHEET TITLE: HEMATOLOGY TRACK ASSEMBLY



CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
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ABBOTT LABORATORIES
EQUIPMENT SUPPORTS & ATTACHMENTS



ITEM NO.	COMPONENT/SUPPORT	LEVELING FOOT DIMS		CG LOCATION			WEIGHT (W _p)
		WIDTH	DEPTH	\bar{x}	\bar{y}	\bar{z}	
1.	TYPICAL TRACK MODULE	90" MAX	11.5"	MIDSPAN	5.75"	26.9"	165#
2.	LOAD BAY INTERFACE MODULE	48.6"	12.0"	29.7"	5.2"	26.5"	88.2#
3.	SAPPHIRE HEMATOLOGY ANALYZER 4	41.26"	20.2"	21.7"	7.5"	10"	366#
4.	SMS HEMATOLOGY ANALYZER 4	30.13"	16.54"	17.2"	6.8"	9.3"	317#
5.	SAPPHIRE HEMATOLOGY ANALYZER SUPPORT TABLE	42.2"	25.5"	20.9"	15.9"	17.5"	211#
6.	SMS HEMATOLOGY ANALYZER SUPPORT TABLE	27.8"	30.0"	13.9"	18.7"	19.4"	210#
7.	SAPPHIRE HEMATOLOGY ANALYZER SPACER MODULE	SEE NOTE 2	SEE NOTE 2	SEE NOTE 3	SEE NOTE 3	SEE NOTE 3	44#
8.	SMS HEMATOLOGY ANALYZER SPACER MODULE	SEE NOTE 2	SEE NOTE 2	SEE NOTE 3	SEE NOTE 3	SEE NOTE 3	22#
9.	UNLOAD BAY INTERFACE MODULE	48.3"	9.4"	28.1"	3.3"	27.3"	55.1#

NOTES:

- SEE PG 12 FOR MORE INFO.
- THE SPACER MODULE HAS NO FEET. IT ATTACHES TO AN ADJ ANALYZER SUPPORT ON TWO OPPOSING SIDES.
- CG LOCATION IS NOT PROVIDED BECAUSE THIS COMPONENT IS SUPPORTED BY AN ADJ ANALYZER SUPPORT.
- DIMS ARE FROM FASTENERS ATTACHING THE ANALYZER TO THE SUPPORT TABLE.

BY: Jeffrey Y. Kikumoto

DATE: 08/14/2018

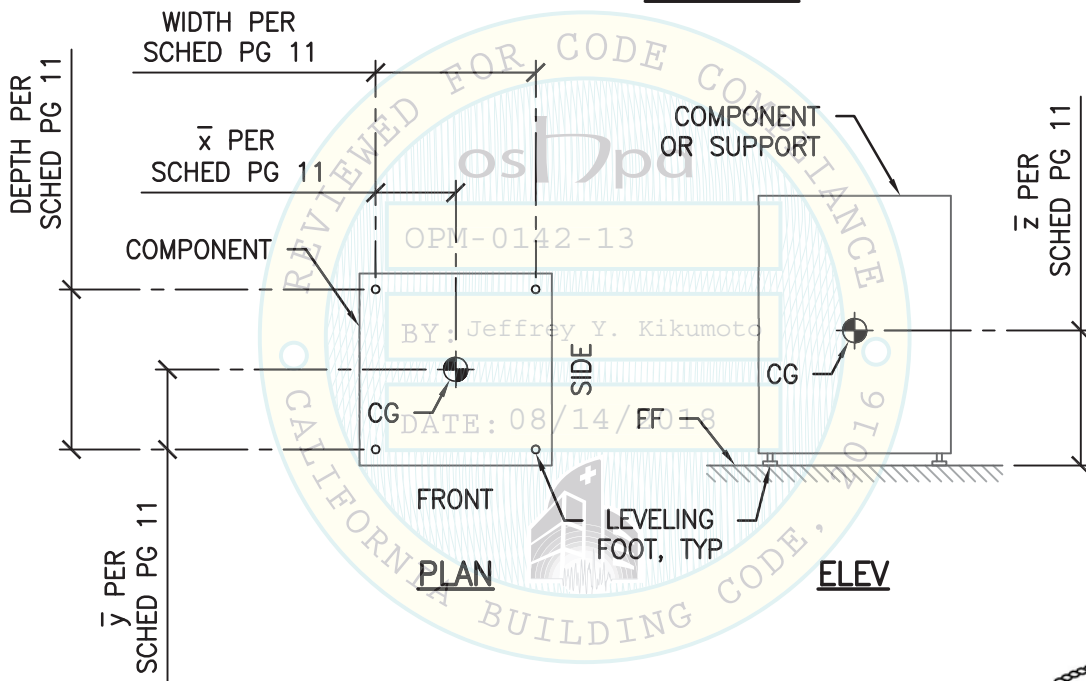
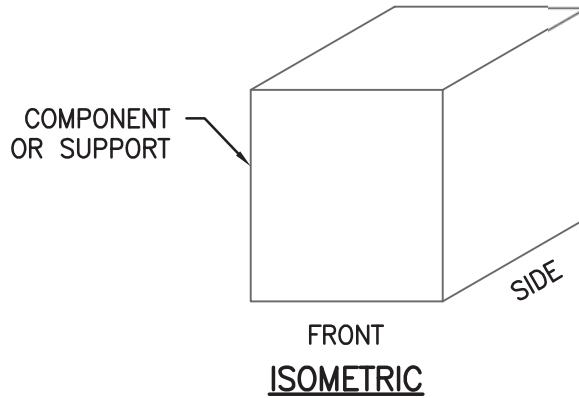


5/7/15

SHEET TITLE: COMPONENTS / SUPPORTS DIMENSIONS SCHEDULE

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 1-6-2015 Page: 11 of 64

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SHEET TITLE: COMPONENT / SUPPORT DIMENSIONS TYPICAL DETAIL



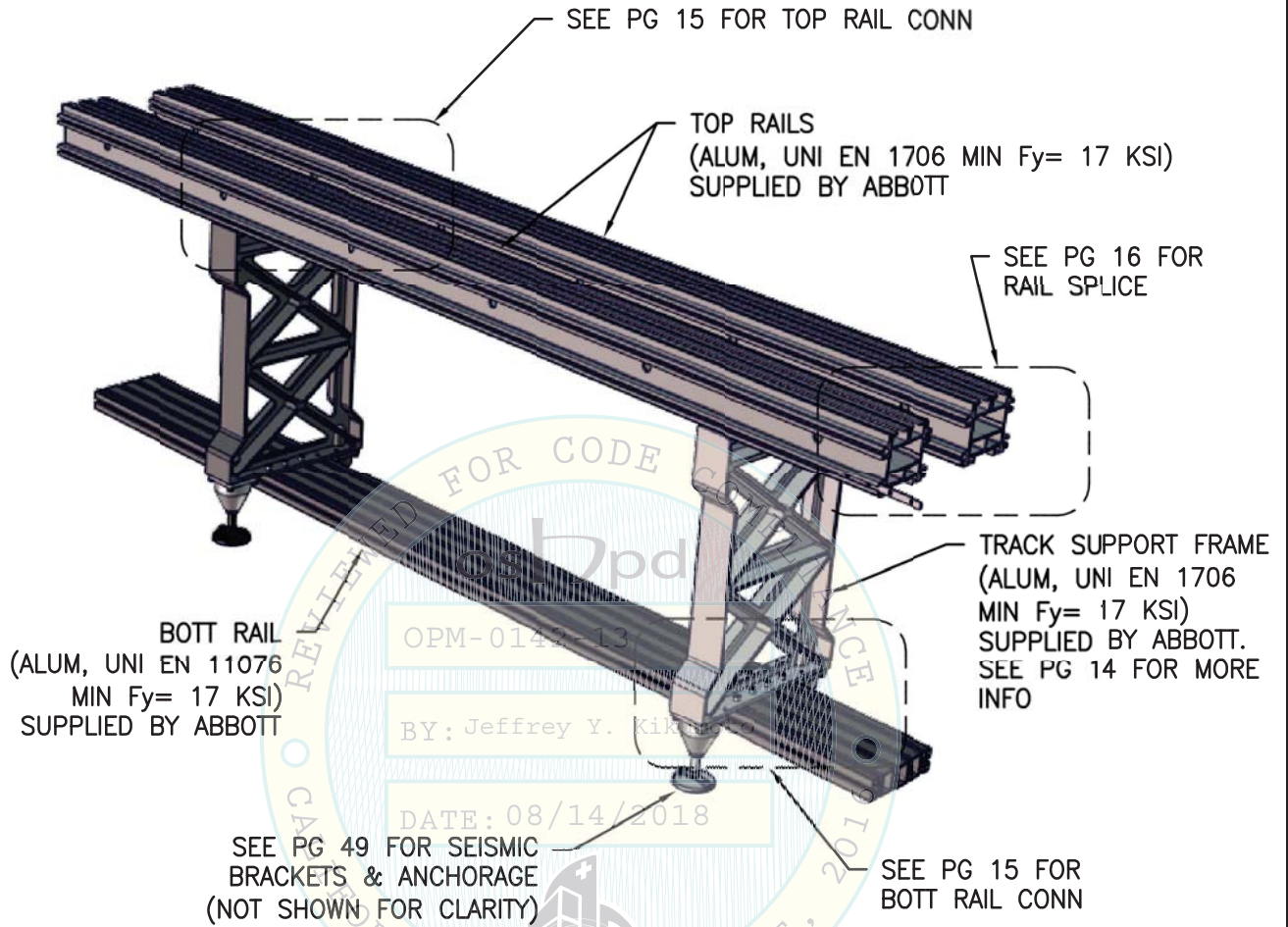
CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
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NOTES:

1. MAX OPERATING WEIGHT $W_p = 165$ LBS INCLUDING SUPPORT FRAMES, T&B RAIL, TRACK, COVERS, ETC.
2. COMPONENT SUB-ASSEMBLY CONNS SHALL BE PERFORMED BY ABBOTT, NOT BY THE GENERAL CONTRACTOR.

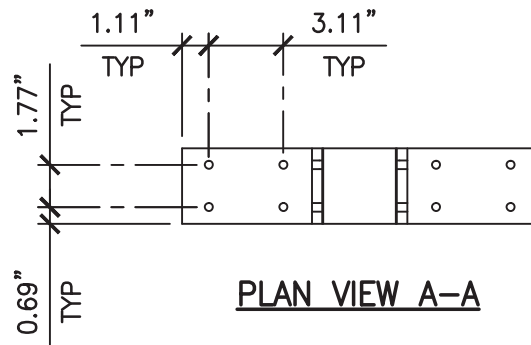


5/7/15

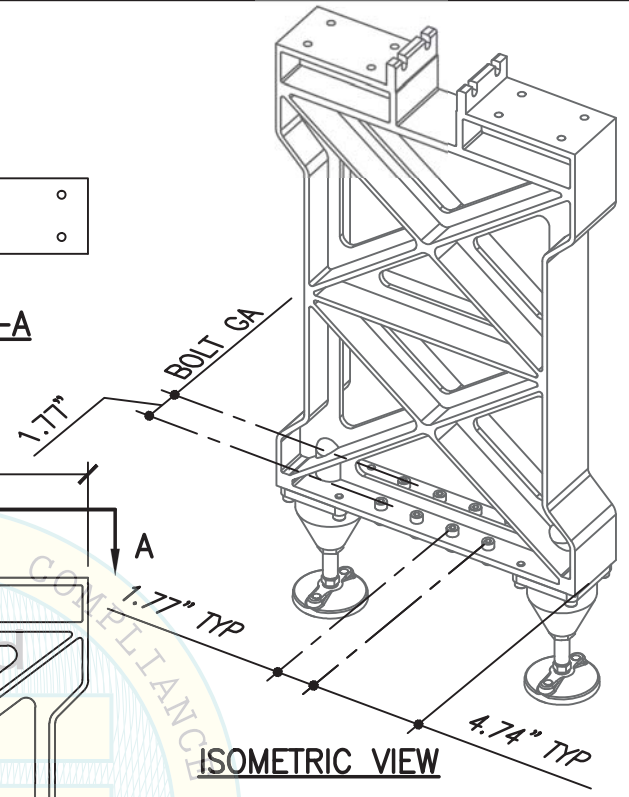
SHEET TITLE: TYPICAL TRACK MODULE
(ITEM NO. 1 - SUPPORT)

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 1-6-2015 Page: 13 of 64
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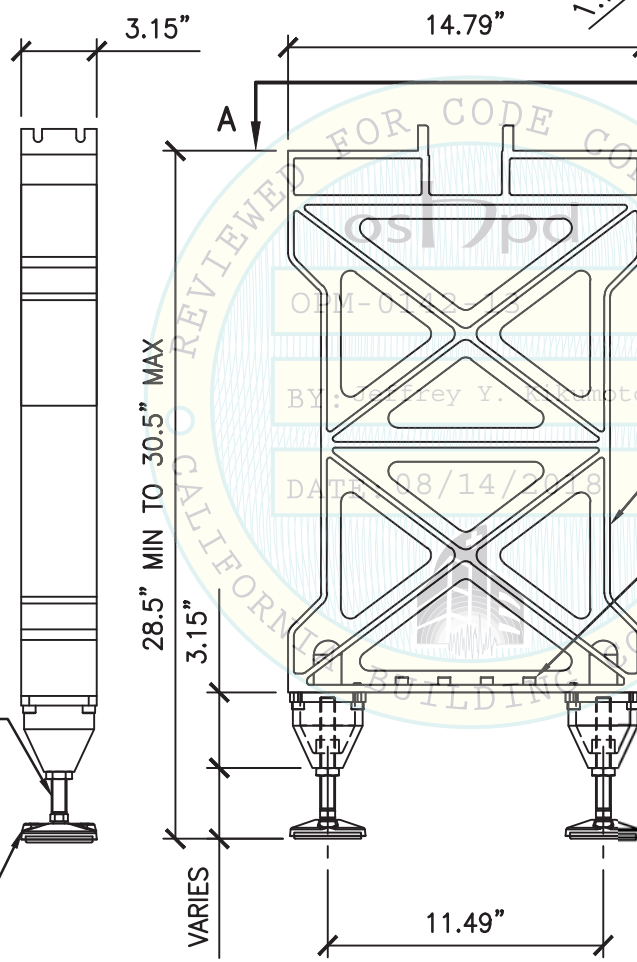
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PLAN VIEW A-A



ISOMETRIC VIEW



ELEV VIEW

16mmØ LEVELING LEG (ASTM A283 Fy MIN= 24 KSI)

80mmØ LEVELING FOOT

TRACK SUPPORT FRAME

M8x20 UNI 5931-8.8, TYP
(8 TOTAL AT BOTT RAIL, NOT SHOWN, 6 TOTAL AT EA TOP RAIL, NOT SHOWN)
Fy= 96 KSI.



SHEET TITLE: TYPICAL TRACK MODULE (ITEM NO. 1 - SUPPORT)
TRACK SUPPORT FRAME

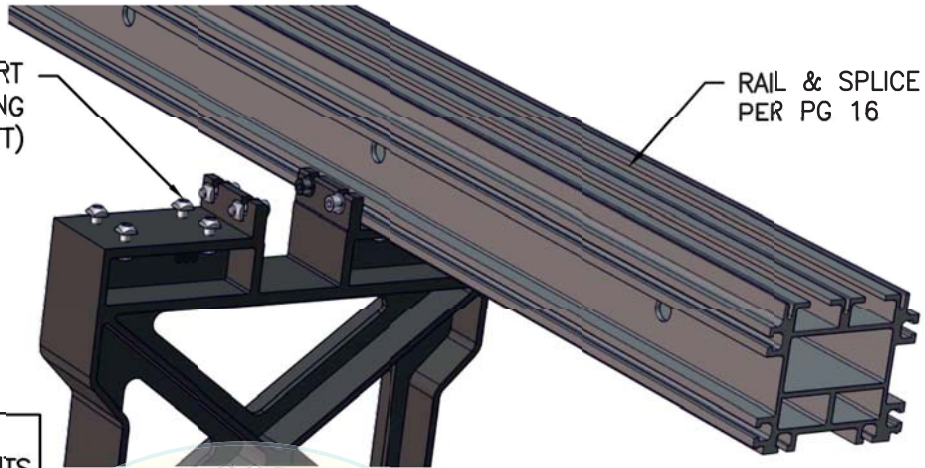
CYS STRUCTURAL ENGINEERS, INC.
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SACRAMENTO, CA 95833
TEL (916) 920-2020
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CONNECT TOP RAILS TO SUPPORT
FRAME W/ 6- M8 BOLTS W/ SPRING
NUTS EA RAIL (CONN BY ABBOTT)

RAIL & SPLICE
PER PG 16



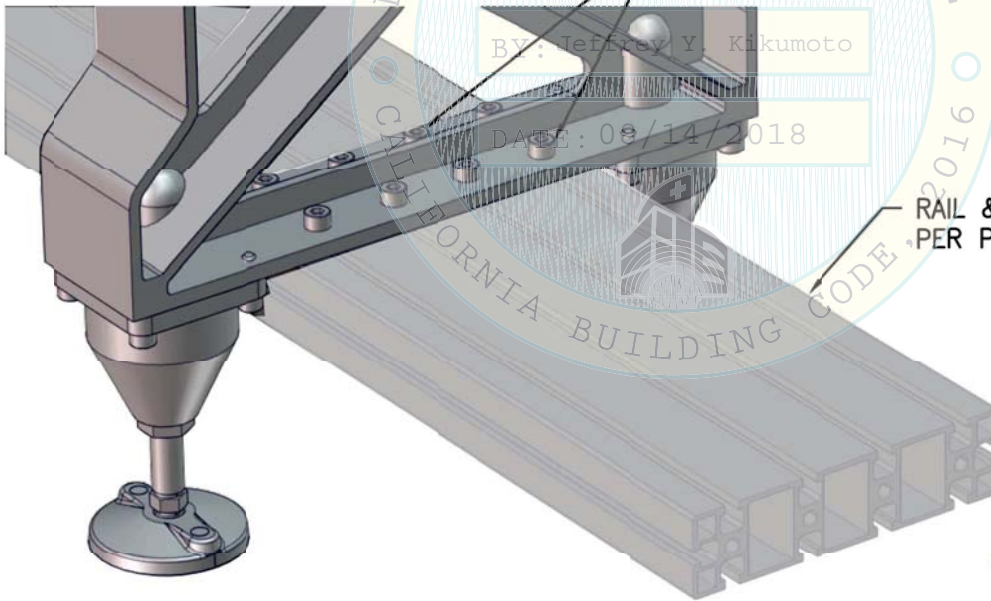
SEE PG 14 FOR MORE INFO
REGARDING BOLTED ATTACHMENTS
OF THE RAILS TO THE TRACK
SUPPORT FRAME.

TOP RAIL CONN

CONNECT BOTT RAIL TO SUPPORT FRAME W/
8- M8 BOLTS W/ SPRING NUTS EA RAIL

BY: Jeffrey Y. Kikumoto

DATE: 08/14/2018



RAIL & SPLICE
PER PG 16

BOTT RAIL CONN



5/7/15

SHEET TITLE: TYPICAL TRACK MODULE (ITEM NO. 1 - SUPPORT)
TOP & BOTTOM RAIL CONNECTION



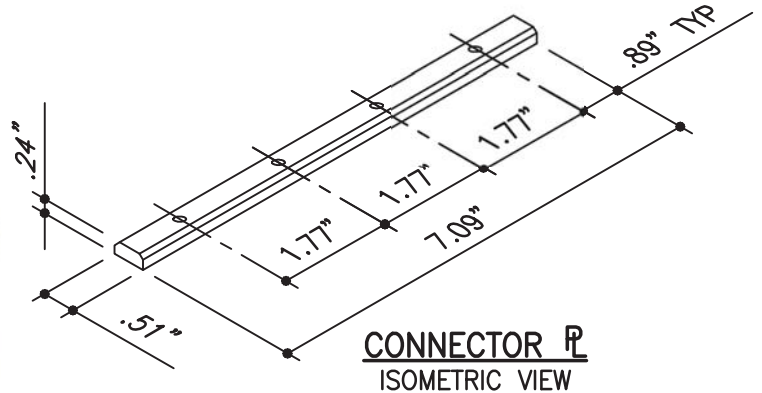
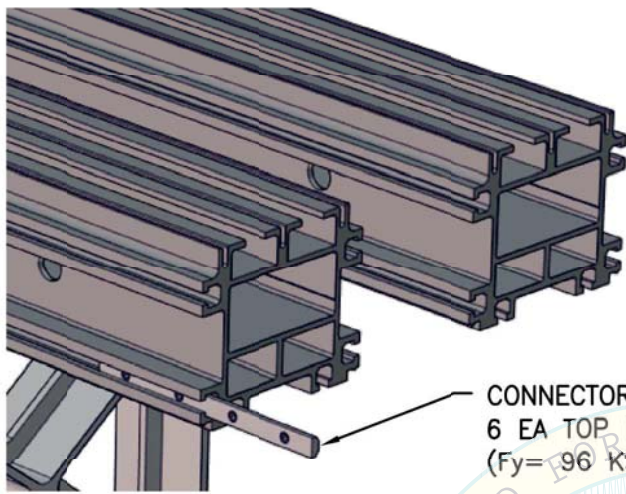
CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

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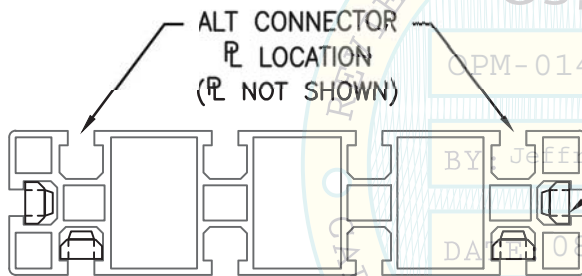
Job No:	13027.01
Date:	1-6-2015
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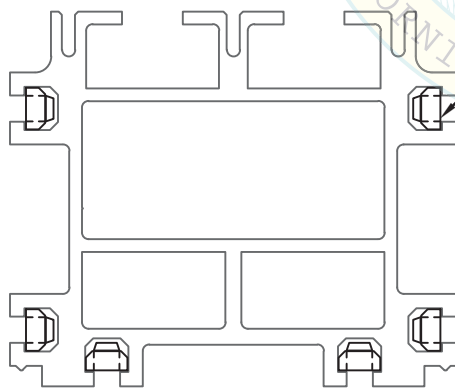
CONNECTOR PLATE W/ 4- M8 SET SCREWS. CTR ON RAIL SPLICE.
6 EA TOP RAIL & 4 AT BOTT RAIL. (16 TOTAL)
(Fy= 96 KSI MIN) (CONN BY ABBOTT)

RAIL SPLICE



CONNECTOR PLATE (STL, Fe 37 GALVANIZED MIN Fy= 37 KSI), TYP OF 4 AT BOTT RAIL
SECTION PROPERTIES:
A= 0.1070 IN²; S= 0.00353 IN³;
I= 0.000454 IN⁴ TWO CONNECTOR PLATES ARE REQ AT ES OF THE RAIL IN ANY OF THE 3 LOCATIONS.

BOTT RAIL



CONNECTOR PLATE (STL, Fe 37 GALVANIZED MIN Fy= 36 KSI), TYP OF 6 AT TOP RAIL
SECTION PROPERTIES:
A= 0.1070 IN²; S= 0.00353 IN³;
I= 0.000454 IN⁴

TOP RAIL

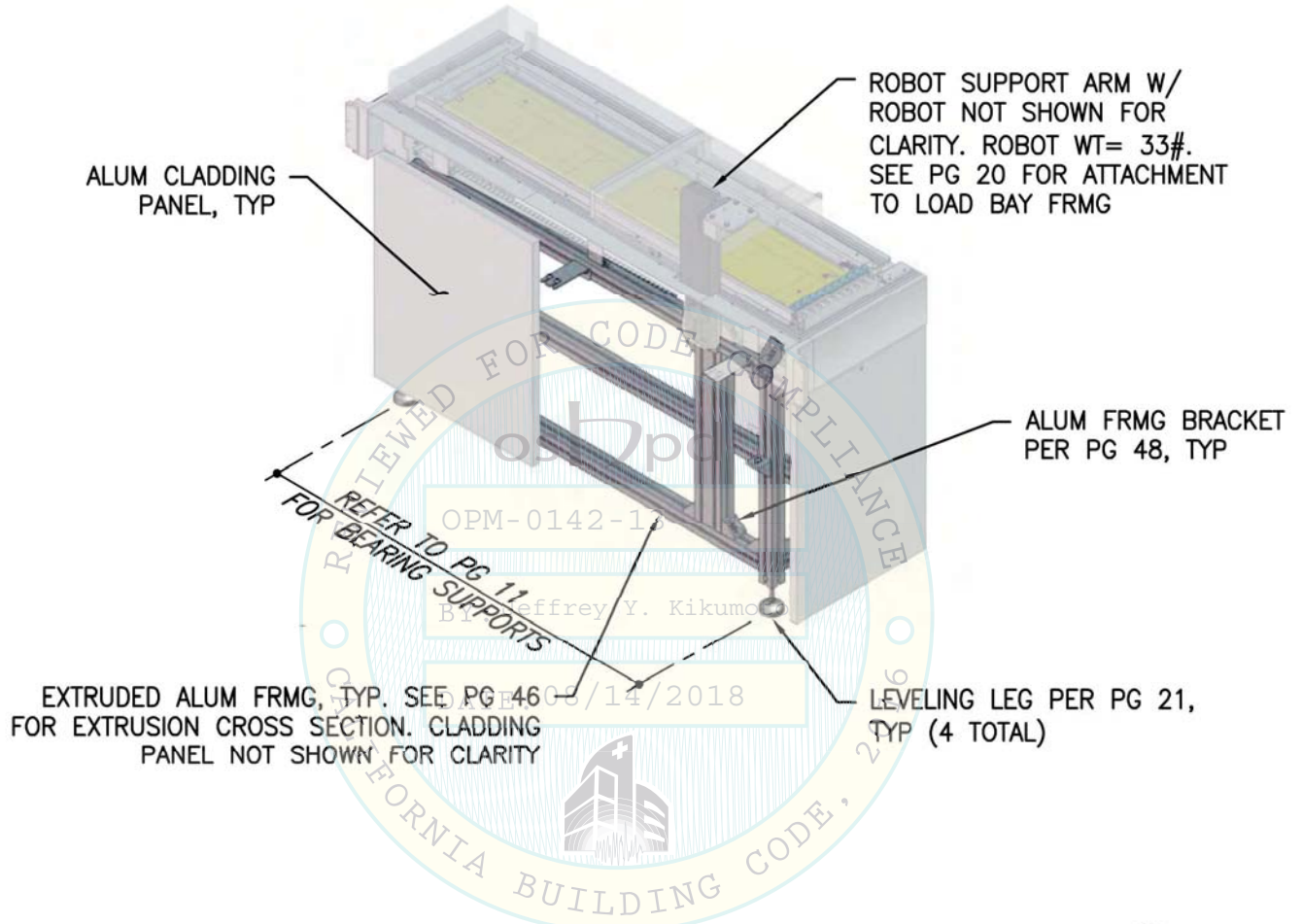


SHEET TITLE: TYPICAL TRACK MODULE (ITEM NO. 1 - SUPPORT)
RAIL SPLICE DETAIL

CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
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Job No:	13027.01
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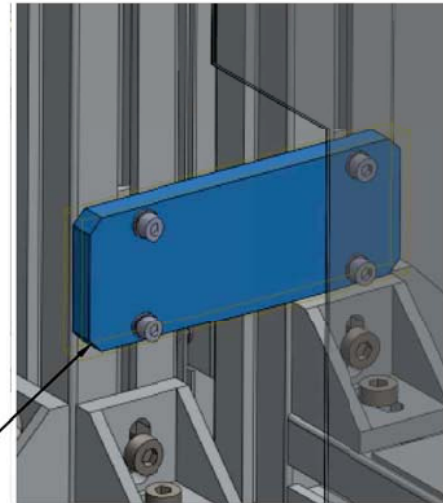
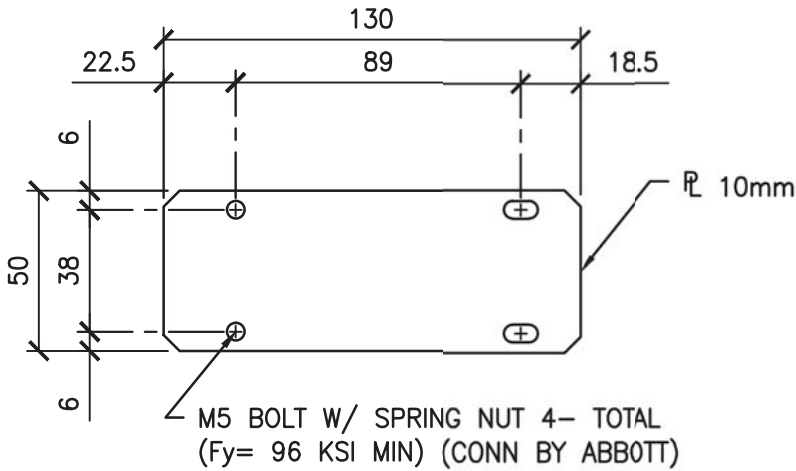
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SHEET TITLE: LOAD BAY INTERFACE MODULE
(ITEM NO. 2 - SUPPORT)

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 1-6-2015 Page: 17 of 64
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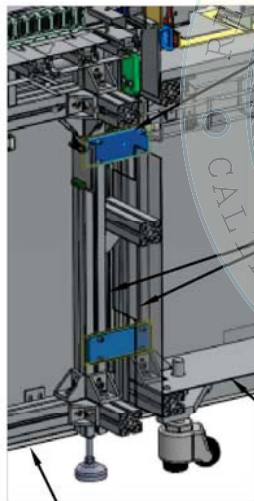


ENLARGED VIEW

CONNECTOR \overline{R}
(ALUM 6060 F_y MIN= 26.8 KSI)
PROPERTIES:
 $A = 0.775\text{in}^2$; $S_x = 0.254\text{in}^3$;
 $S_y = 0.509\text{in}^3$; $I_x = 0.250\text{in}^4$;
 $I_y = 0.010\text{in}^4$

OPM-0142-13
CONNECTOR \overline{R} T&B.
SEE ENLARGED VIEW
BY: Jeffrey Y. Kikumoto

DATE: 08/14/2018
INTERNAL FRMG, TYP



FRONT OF HEMATOLOGY
ANALYZER SUPPORT TABLE

FRONT OF LOAD BAY MODULE
OR UNLOAD BAY MODULE

ELEV



SHEET TITLE: LOAD BAY / UNLOAD BAY INTERFACE MODULE CONNECTION
TO HEMATOLOGY ANALYZER SUPPORT TABLE



CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

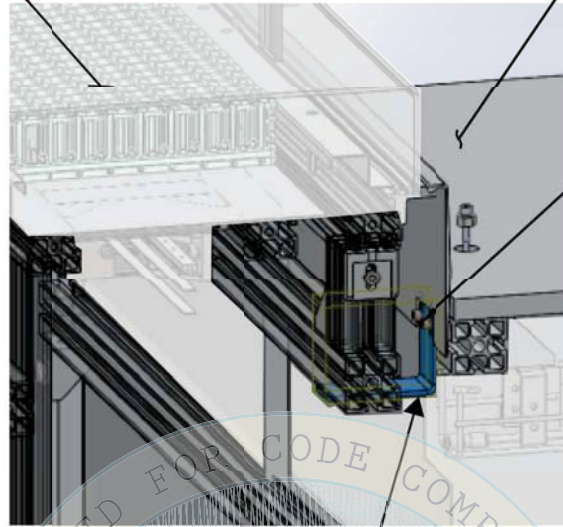
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Date:	07-20-2015
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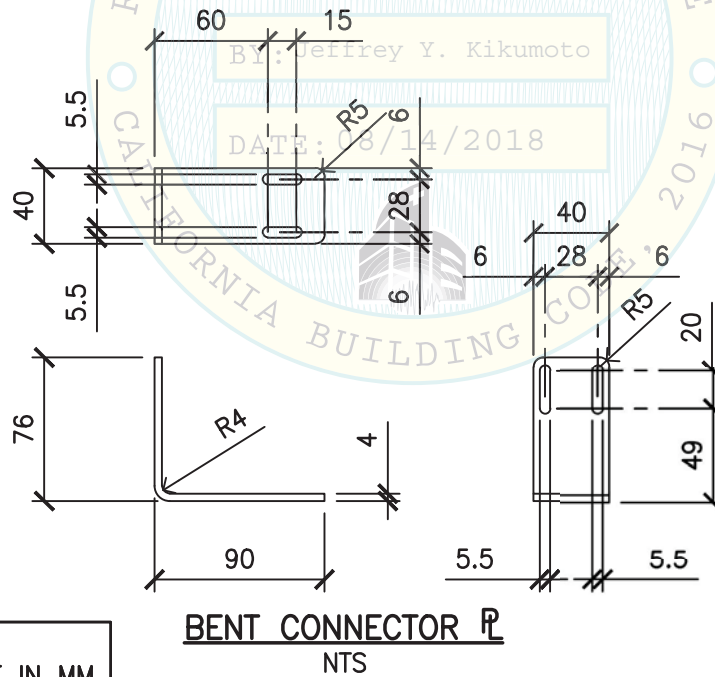
BACK OF LOAD BAY
MODULE OR UNLOAD BAY
MODULE

BACK OF HEMATOLOGY
ANALYZER SUPPORT
TABLE W/O ANALYZER

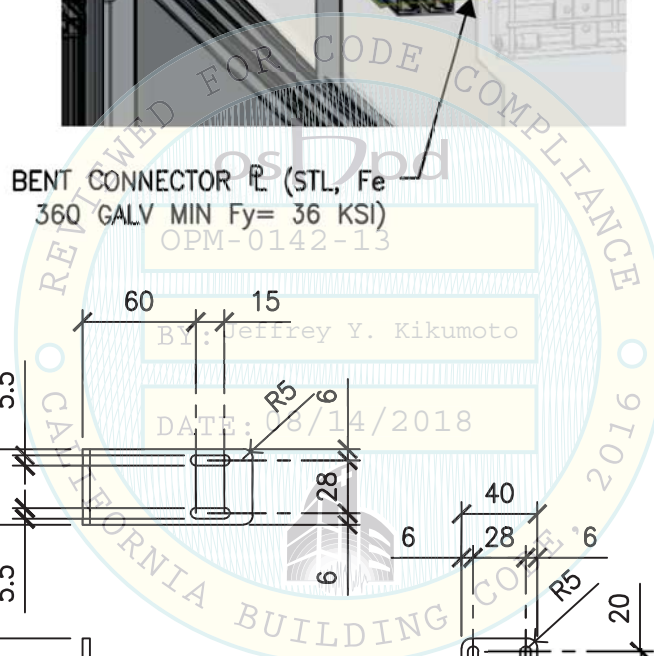


2- M8 BOLTS W/ NUTS
AT EA LEG OF BENT
CONNECTOR \bar{L} , 4 TOTAL.
($F_y = 96$ KSI MIN)
(CONN BY ABBOTT)

BENT CONNECTOR \bar{L} (STL, Fe
360 GALV MIN $F_y = 36$ KSI)



NOTE:
ALL DIMS SHOWN ARE IN MM

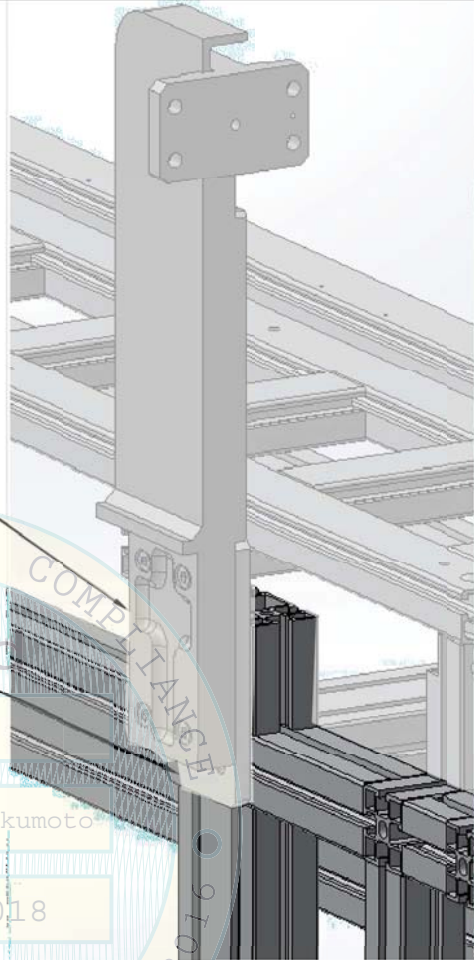


07/20/2015

SHEET TITLE: LOAD BAY / UNLOAD BAY MODULE INTERFACE CONNECTION
TO HEMATOLOGY ANALYZER SUPPORT TABLE

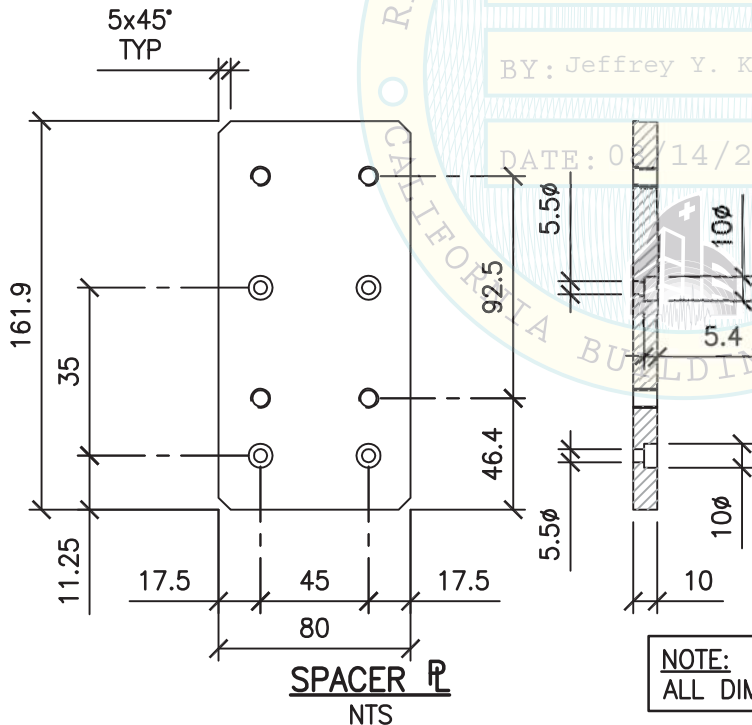
<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	Job No: 13027.01
	Date: 07-20-2015
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ROBOT SUPPORT (ALUM UNI 3051
Fy MIN= 80 MPa) ATTACHED TO
SPACER \bar{L} BY ABBOTT W/ 4-
M8x28-8.8 BOLTS (Fy MIN= 92 KSI)

SPACER \bar{L} (ALUM 6060 Fy MIN= 14.5 KSI)
ATTACHED TO FRMG BY ABBOTT W/
4- M5x16-8.8 BOLTS (Fy MIN= 92 KSI)



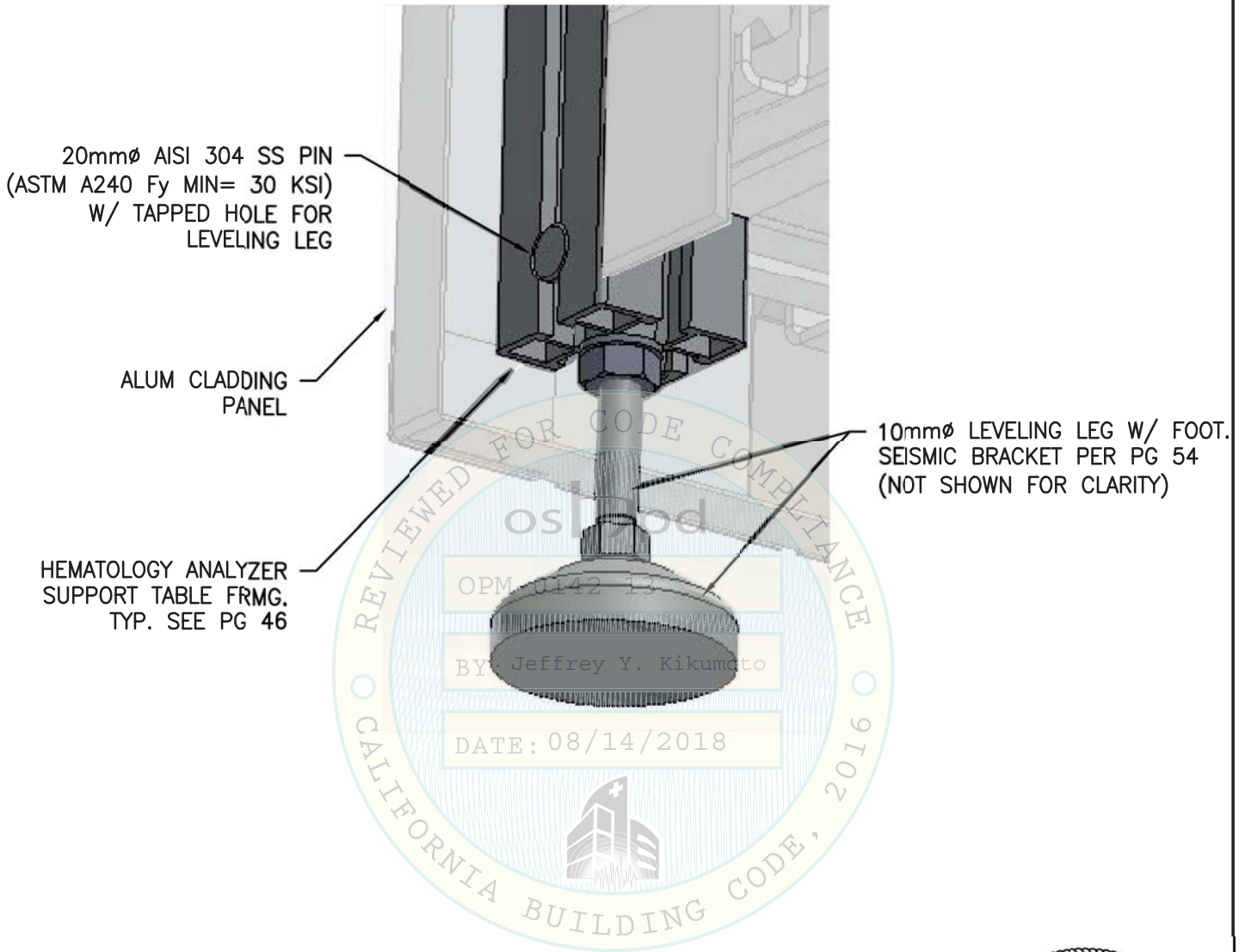
NOTE:
ALL DIMS SHOWN ARE IN MM

REGISTERED PROFESSIONAL ENGINEER
DAVID MATTHEW CALIA
No S5614
STRUCTURAL
STATE OF CALIFORNIA
David M. Calia
5/7/15

SHEET TITLE: LOAD BAY INTERFACE MODULE ROBOT SUPORT ARM ATTACHMENT

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 1-6-2015 Page: 20 of 64
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NOTE:

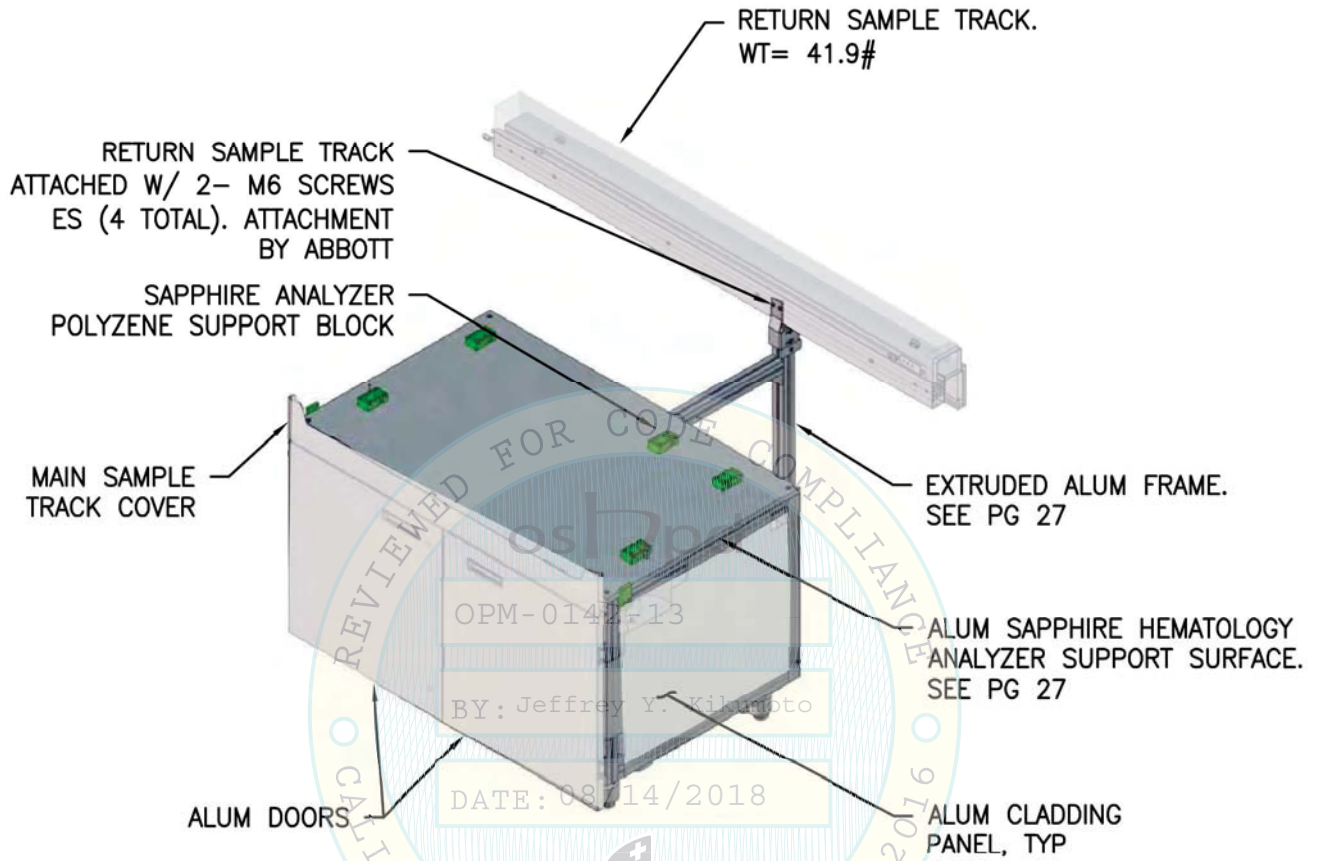
- HEMATOLOGY ISLAND LEVELING LEG SHOWN FOR CLARIFICATION ONLY. SUBCOMPONENT ASSEMBLY SHALL BE PERFORMED BY ABBOTT, NOT BY THE GENERAL CONTRACTOR.



SHEET TITLE: LOAD BAY / UNLOAD BAY INTERFACE MODULE
LEVELING LEG CONNECTION TYPICAL DETAIL

 <p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 07-20-2015 Page: 21 of 64
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L:\Jobs\13\13027 - Abbott - OPM\ACAD\HEME\STRU\SI_HEME.dwg Time: Jul 20, 2015 - 10:50am Logintbeebyz Dimscale: 1 LScale: 6



NOTES:

1. SAPHIRE HEMATOLOGY ANALYZER NOT SHOWN FOR CLARITY.
2. SEE PG 38 FOR BOTT VIEW.

REGISTERED PROFESSIONAL ENGINEER
DAVID MATTHEW CALIA
No. S5614
David M. Calia
STRUCTURAL
STATE OF CALIFORNIA
5/7/15

SHEET TITLE: SAPHIRE HEMATOLOGY SUPPORT TABLE
(ITEM NO. 5 SUPPORT)



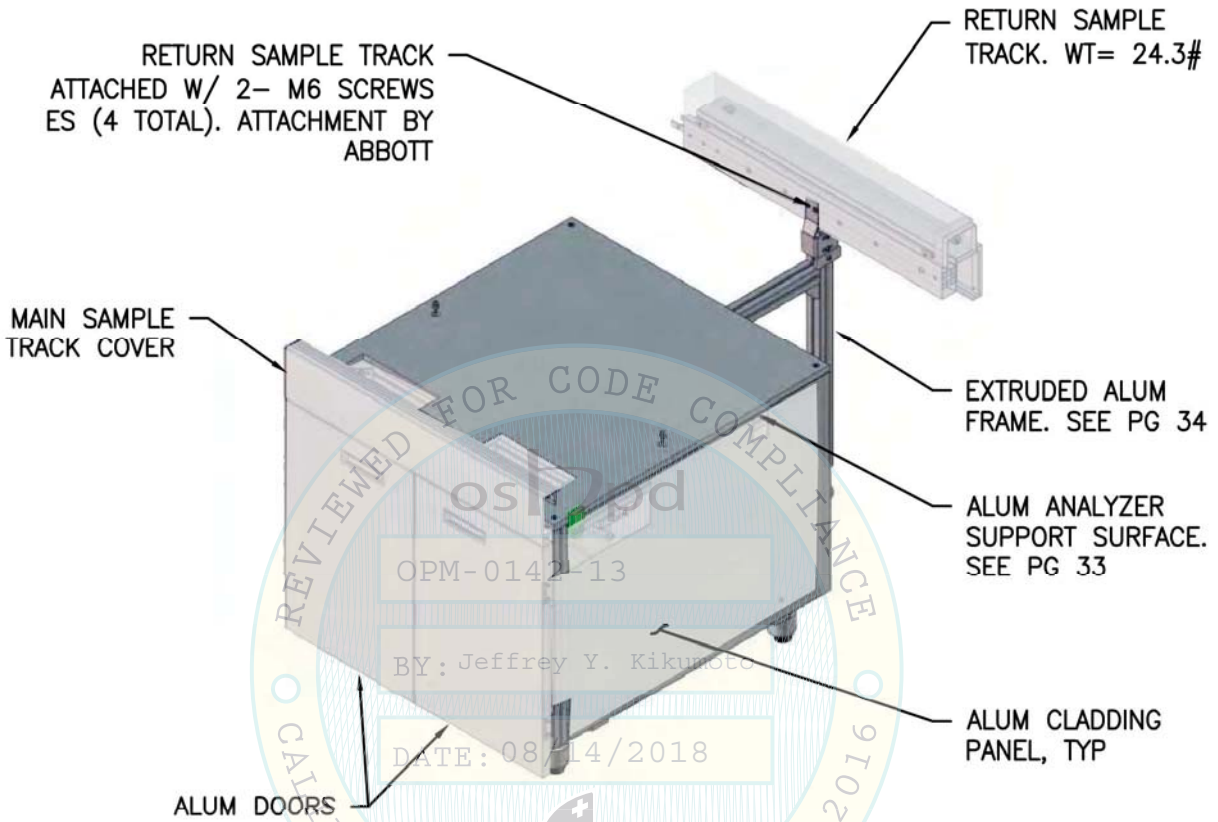
CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

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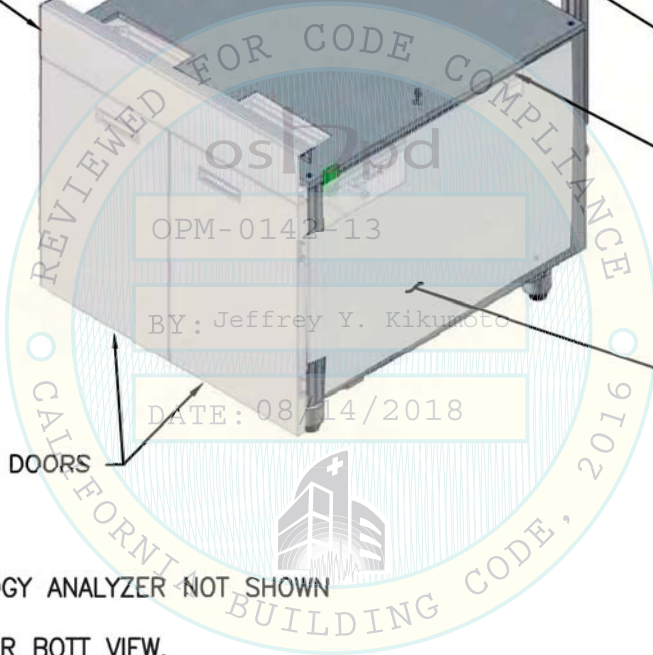
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Date:	1-6-2015
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NOTES:

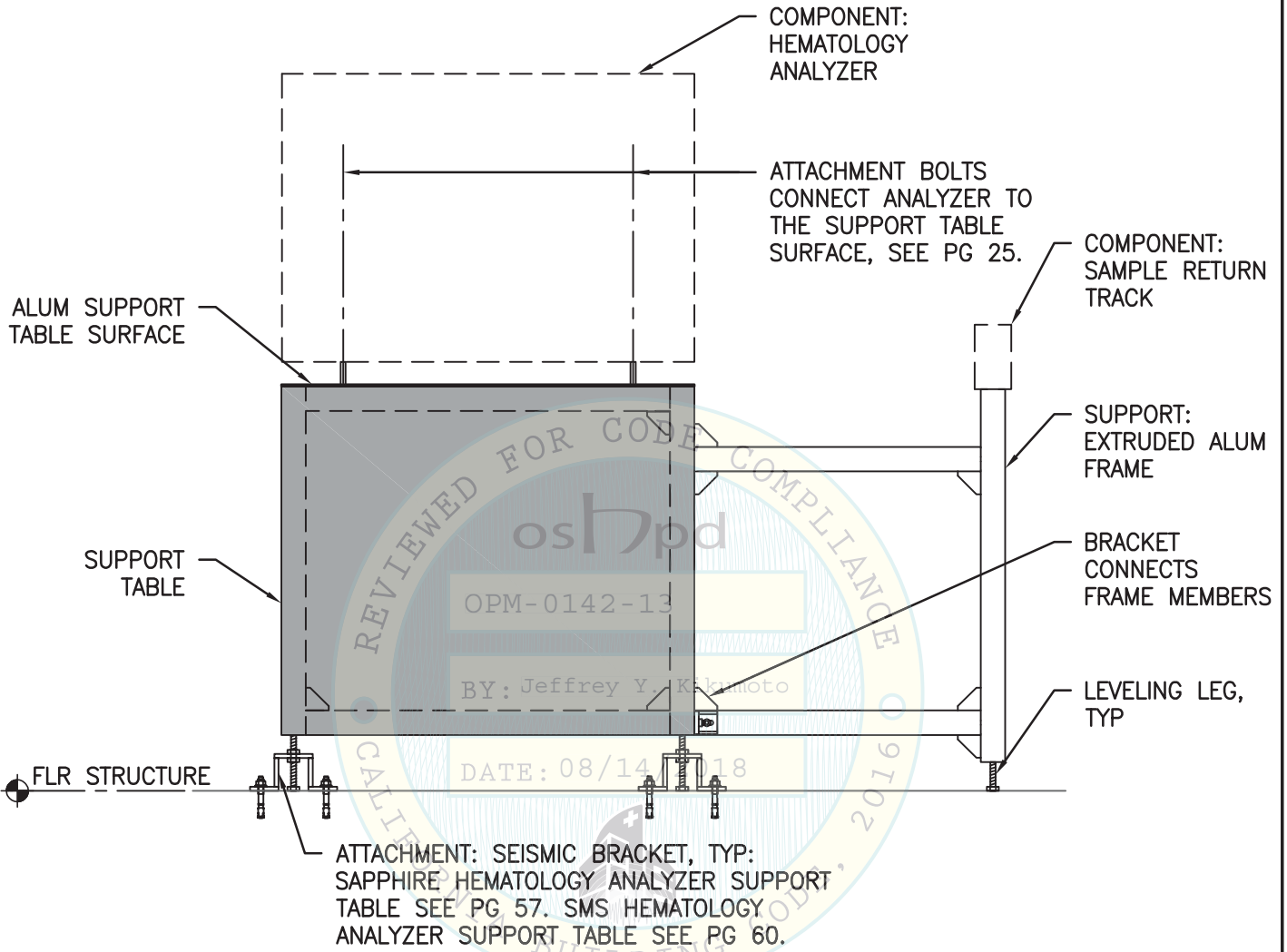
1. SMS HEMATOLOGY ANALYZER NOT SHOWN FOR CLARITY.
2. SEE PG 38 FOR BOTT VIEW.



SHEET TITLE: SMS HEMATOLOGY ANALYZER SUPPORT TABLE
(ITEM NO. 6 - SUPPORT)

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 1-6-2015 Page: 23 of 64
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NOTE:

- THIS GRAPHIC IS A GENERIC DEPICTION OF THE SEISMIC LOAD PATH ATTACHING THE COMPONENTS TO THEIR SUPPORT AND THE SUPPORT TO THE BLDG STRUCTURE.



5/7/15

SHEET TITLE: HEMATOLOGY ANALYZER ANCHORAGE LOAD PATH



CYS STRUCTURAL ENGINEERS, INC.

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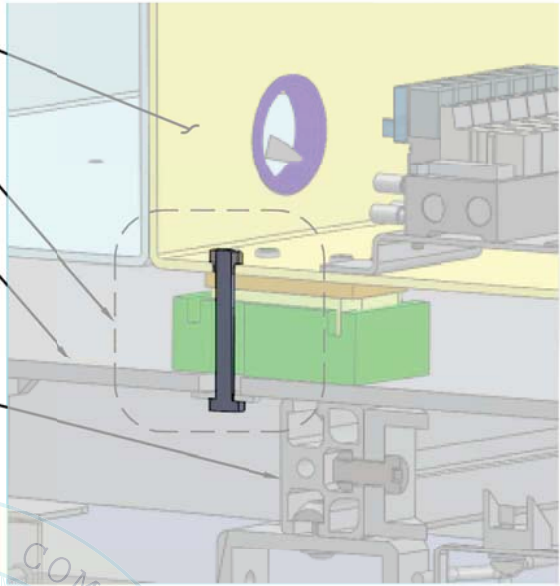
Job No:	13027.01
Date:	1-6-2015
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L:\Jobs\13027 Abbott a3600 OPM\ACAD\HEME\STRU\S1_HEME.dwg Time:Jan06,2015-11:07am Login:camachom Dimscale:1 LTScale:6

SAPPHIRE HEMATOLOGY ANALYZER SHOWN
(SMS HEMATOLOGY ANALYZER IS SIM)

ATTACHMENT TO SUPPORT.
SEE ENLARGED DTL BLW

ALUM SUPPORT TABLE TOP

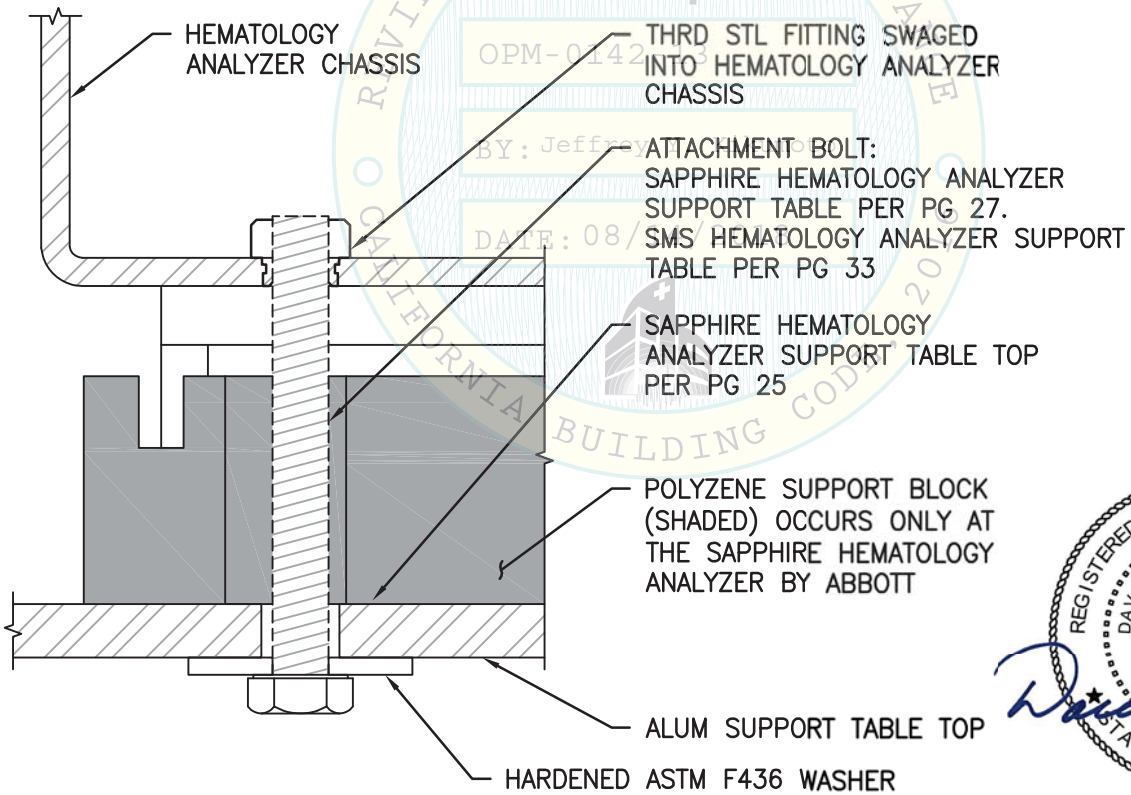


NOTES:

1. SAPPHIRE HEMATOLOGY ANALYZER:
SEE PG 26 FOR MORE INFO.
2. SMS HEMATOLOGY ANALYZER:
SEE PG 32 FOR MORE INFO.

SUPPORT TABLE
FRMG

ANALYZER	MATERIAL	THICKNESS	Fy MIN
SAPPHIRE	5052-H32 ALUMINUM	0.125"	28 KSI
SMS	302-304 SS	1.6mm	30 KSI



06/08/2015

SHEET TITLE: HEMATOLOGY ANALYZER TO SUPPORT TABLE CONNECTION



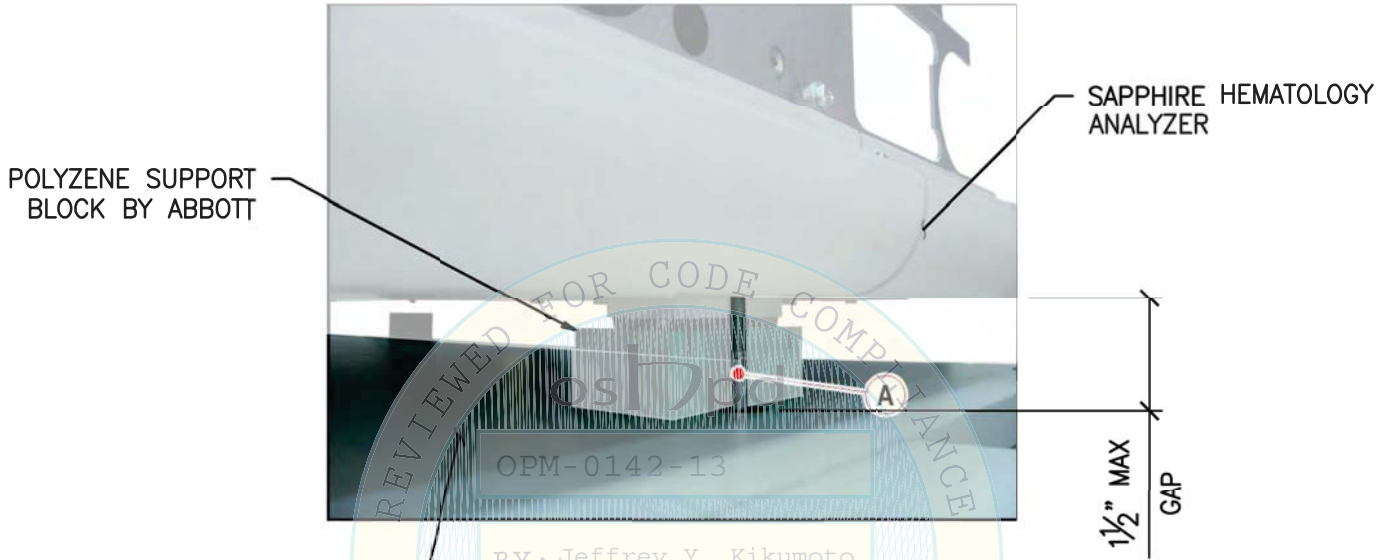
CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

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

Job No:	13027.01
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L:\Jobs\13027 Abbott a3600 OPM\ACAD\HEME\STRU\S1_HEME.dwg Time:Jun08,2015-01:44pm Login:cmachom Dimscale:1 LScale:6

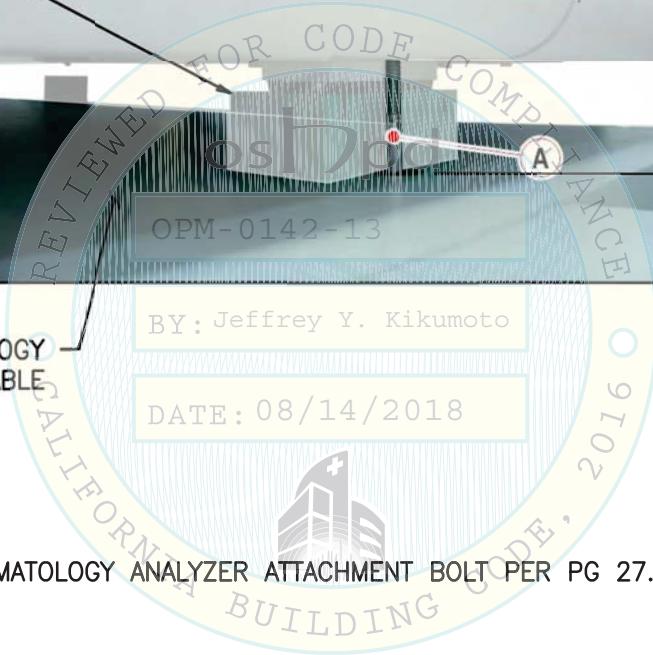


SAPPHIRE HEMATOLOGY ANALYZER SUPPORT TABLE

BY: Jeffrey Y. Kikumoto

DATE: 08/14/2018

(A) = SAPPHIRE HEMATOLOGY ANALYZER ATTACHMENT BOLT PER PG 27.



5/7/15

SHEET TITLE: SAPPHIRE HEMATOLOGY ANALYZER SUPPORT



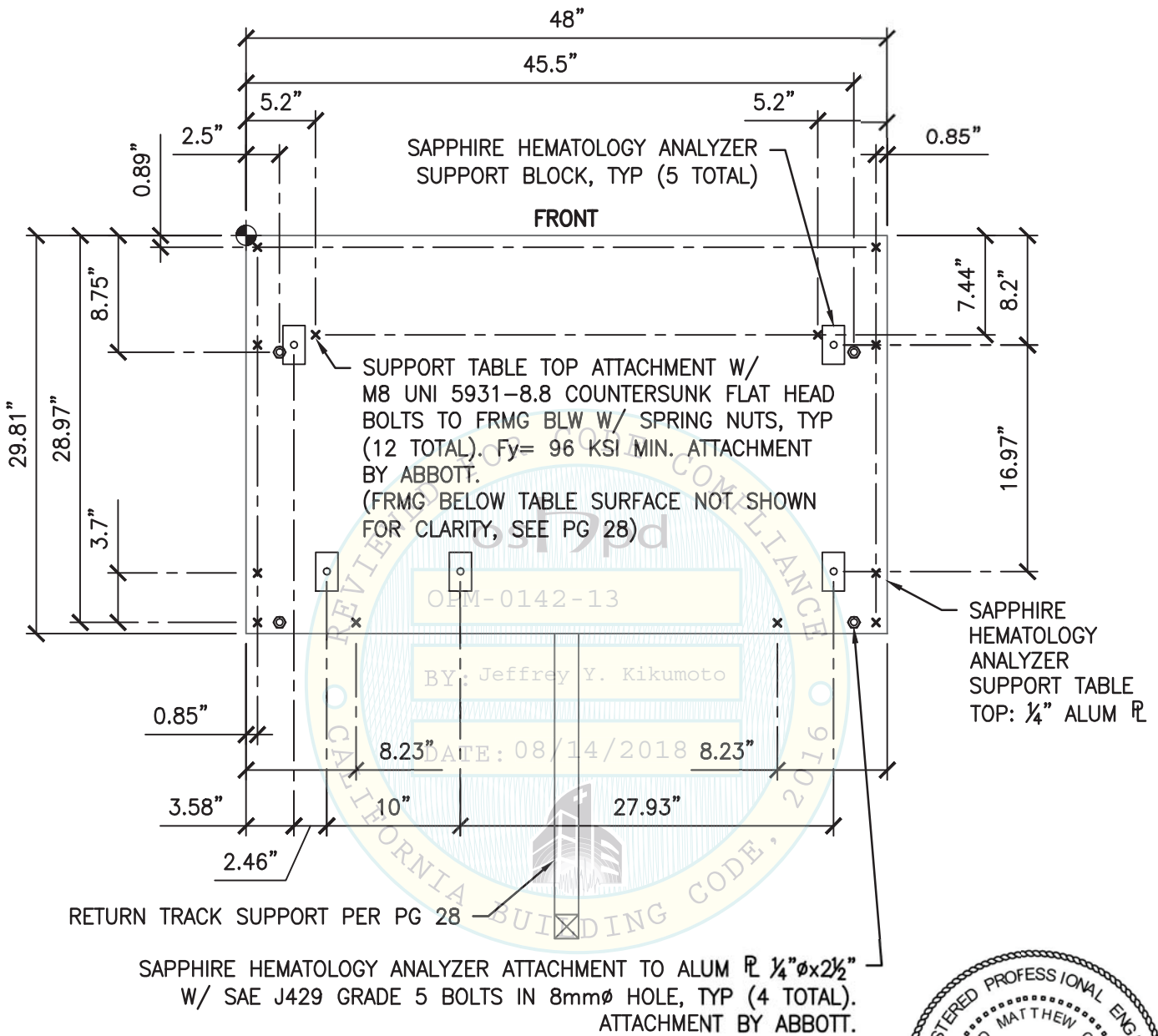
CYS STRUCTURAL ENGINEERS, INC.

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Date:	1-6-2015
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L:\Jobs\13\13027 Abbott a3600 OPM\ACAD\HEME\STRU\S1_HEME.dwg Time:Jan06,2015-11:07am Login:camachom Dimstyle:1 LTScale:6



PLAN VIEW
(TOP SURFACE OF TABLE SHOWN)

NOTES:

1. SAPPHIRE HEMATOLOGY ANALYZER NOT SHOWN FOR CLARITY, SEE PG 10A.
2. SUPPORT FRMG BLW TABLE TOP NOT SHOWN FOR CLARITY, SEE PG 28.

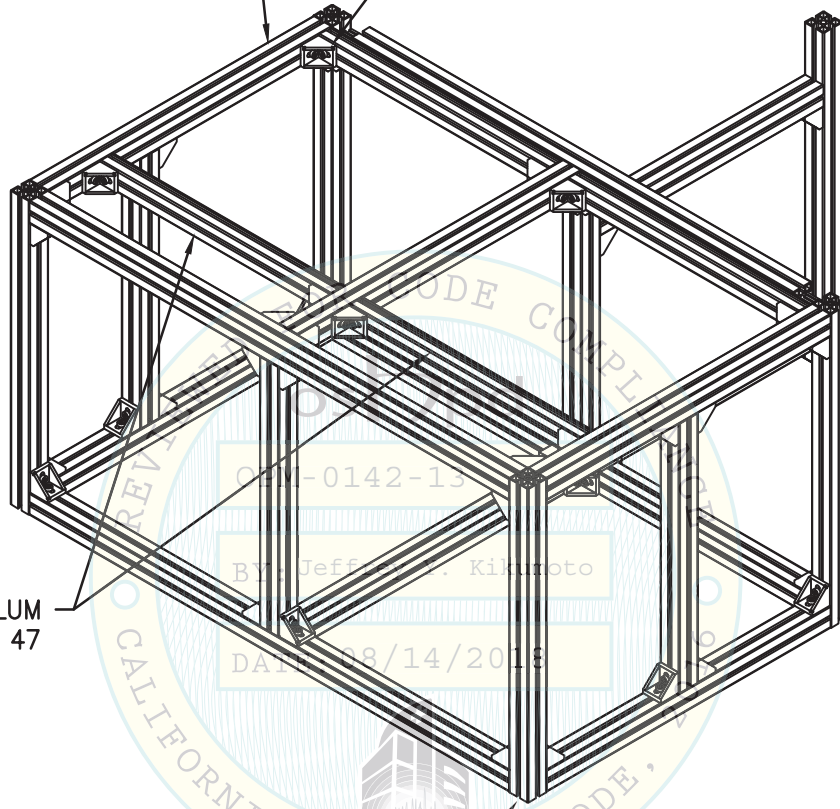


SHEET TITLE: SAPPHIRE HEMATOLOGY ANALYZER TO
SUPPORT TABLE INTERFACE CONNECTION

	CYS STRUCTURAL ENGINEERS, INC.	Job No: 13027.01	
	2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833	TEL (916) 920-2020 www.cyseng.com	Date: 07-20-2015
			Page: 27 of 64

HEMATOLOGY ANALYZER SUPPORT
TABLE FRAME IS CONSTRUCTED OF
45mmx45mm ALUM EXTRUSION, TYP
UNO. SEE PG 46.

FRMG MEMBER ATTACHMENT BRACKET W/ 2- M8
UNI 5931-8.8 BOLTS W/ SPRING NUTS, TYP.
Fy= 96 KSI MIN. ATTACHMENT BY ABBOTT. SEE
PG 48 FOR ENLARGED VIEW



32mmx45mm ALUM
EXTRUSION PER PG 47

CASTER/LEVELING LEG ATTACHMENT POINT
(LEG NOT SHOWN), TYP.
(4 TOTAL, ONE PER CORNER), SEE PG 39

NOTES:

- HEMATOLOGY SUPPORT TABLE FRMG SHOWN FOR CLARIFICATION ONLY. SUBCOMPONENT ASSEMBLY SHALL BE PERFORMED BY ABBOTT, NOT BY THE GENERAL CONTRACTOR.
- FOR FRAME SECTION & MATERIAL PROPERTIES, SEE PGS 46 & 47.
- FOR FRMG BRACKET LOCATIONS, SEE PGS 29 THRU 31.

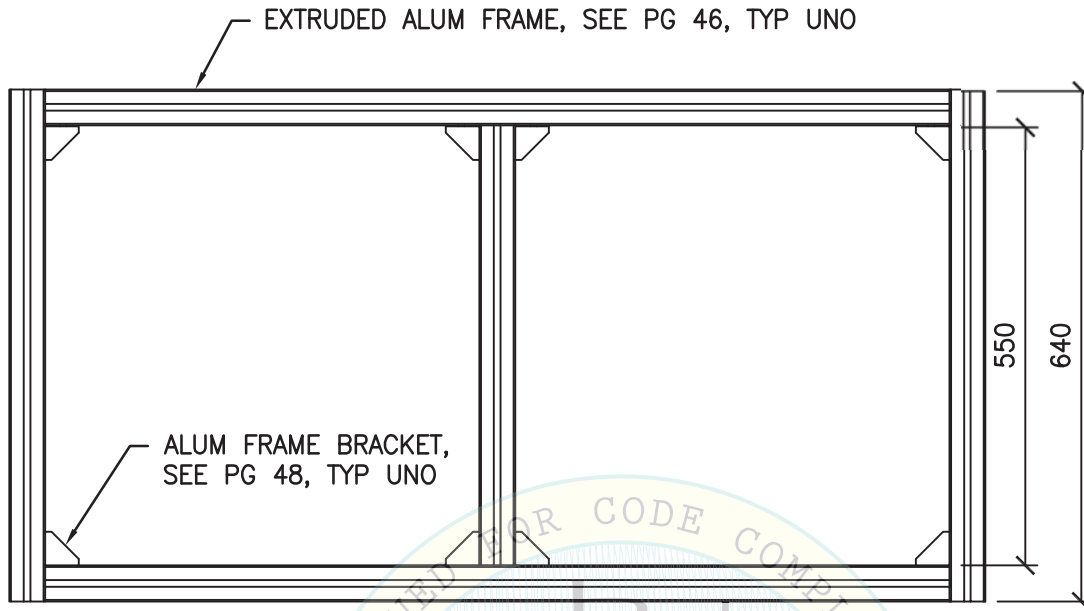


SHEET TITLE: SAPPHIRE HEMATOLOGY ANALYZER TABLE FRAME
(ITEM NO. 5 - SUPPORT)

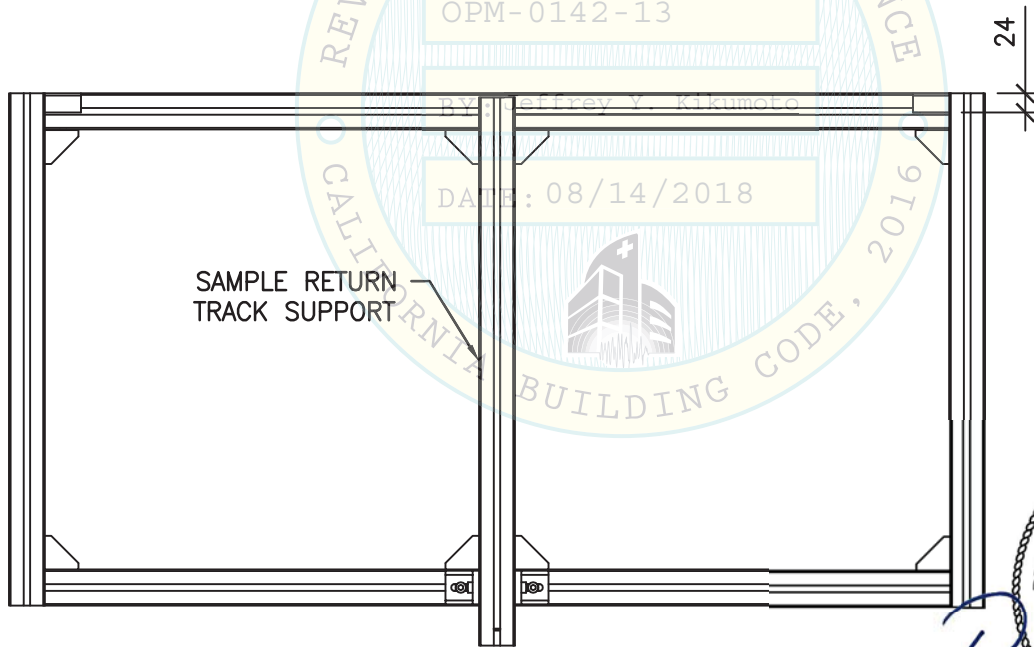
<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 07-20-2015 Page: 28 of 64
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L:\Jobs\13027 Abbott OPM\ACAD\HEME\STRU\SI_HEME.dwg Time:Jul20,2015-10:50am Logint:beebyz Dimscale:1 LTScale:6

ABBOTT LABORATORIES
EQUIPMENT SUPPORTS & ATTACHMENTS



FRONT VIEW



BACK VIEW

NOTE:
ALL DIMS SHOWN ARE IN MM



SHEET TITLE: SAPPHIRE HEMATOLOGY ANALYZER SUPPORT TABLE FRAME
(ITEM NO. 5 - SUPPORT) FRONT VIEW & BACK VIEW



CYS STRUCTURAL ENGINEERS, INC.

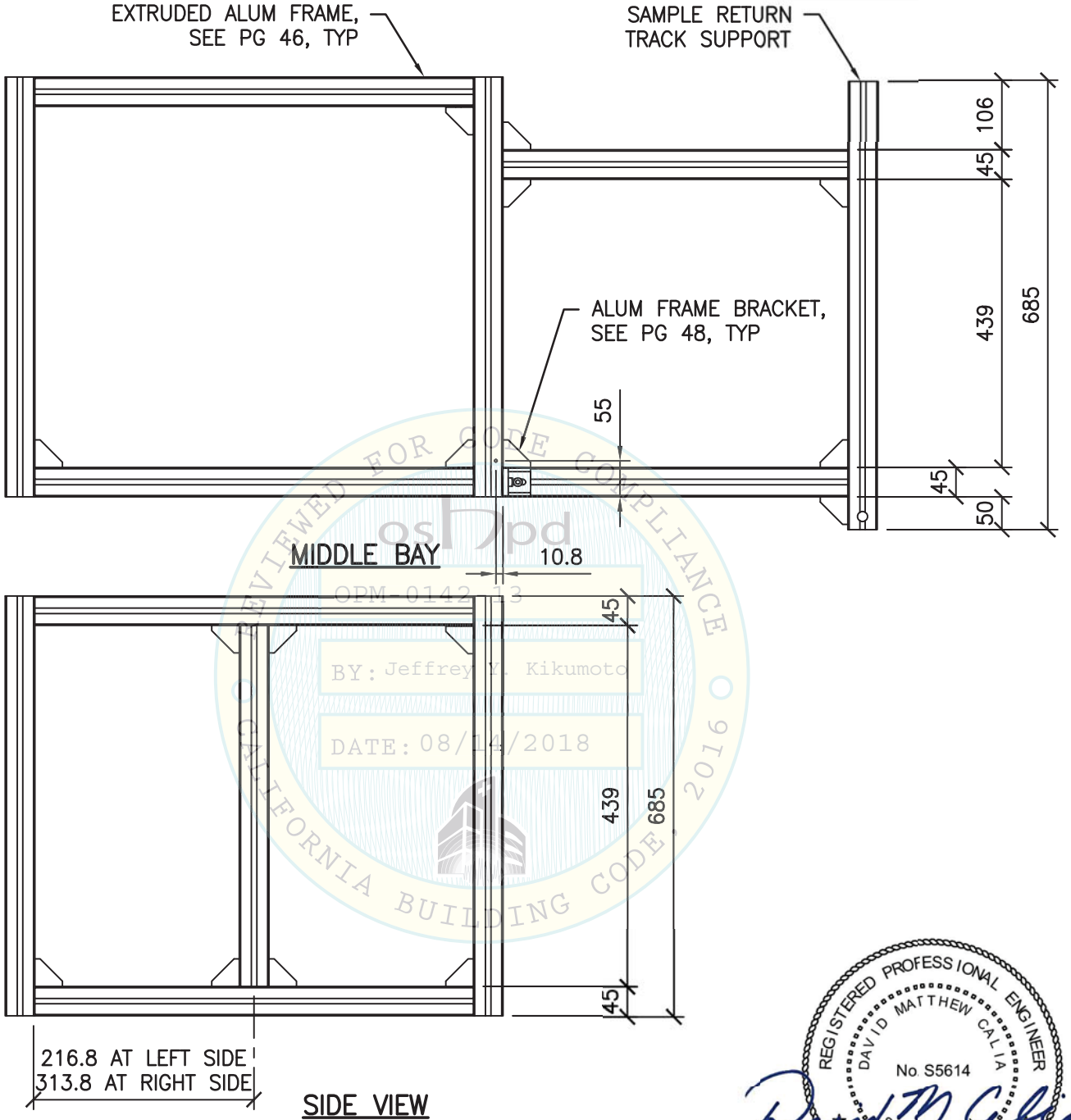
2495 NATOMAS PARK DRIVE, SUITE 650
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Job No:	13027.01
Date:	1-6-2015
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L:\Jobs\13\13027 Abbott a3600 OPM\ACAD\HEME\STRU\S1_HEME.dwg Time:Jan06,2015--11:07am Login:camachom Dimscale:1 L1Scale:6

ABBOTT LABORATORIES
EQUIPMENT SUPPORTS & ATTACHMENTS



**FRONT
ELEV**

SIDE VIEW

NOTE:
ALL DIMS SHOWN ARE IN MM

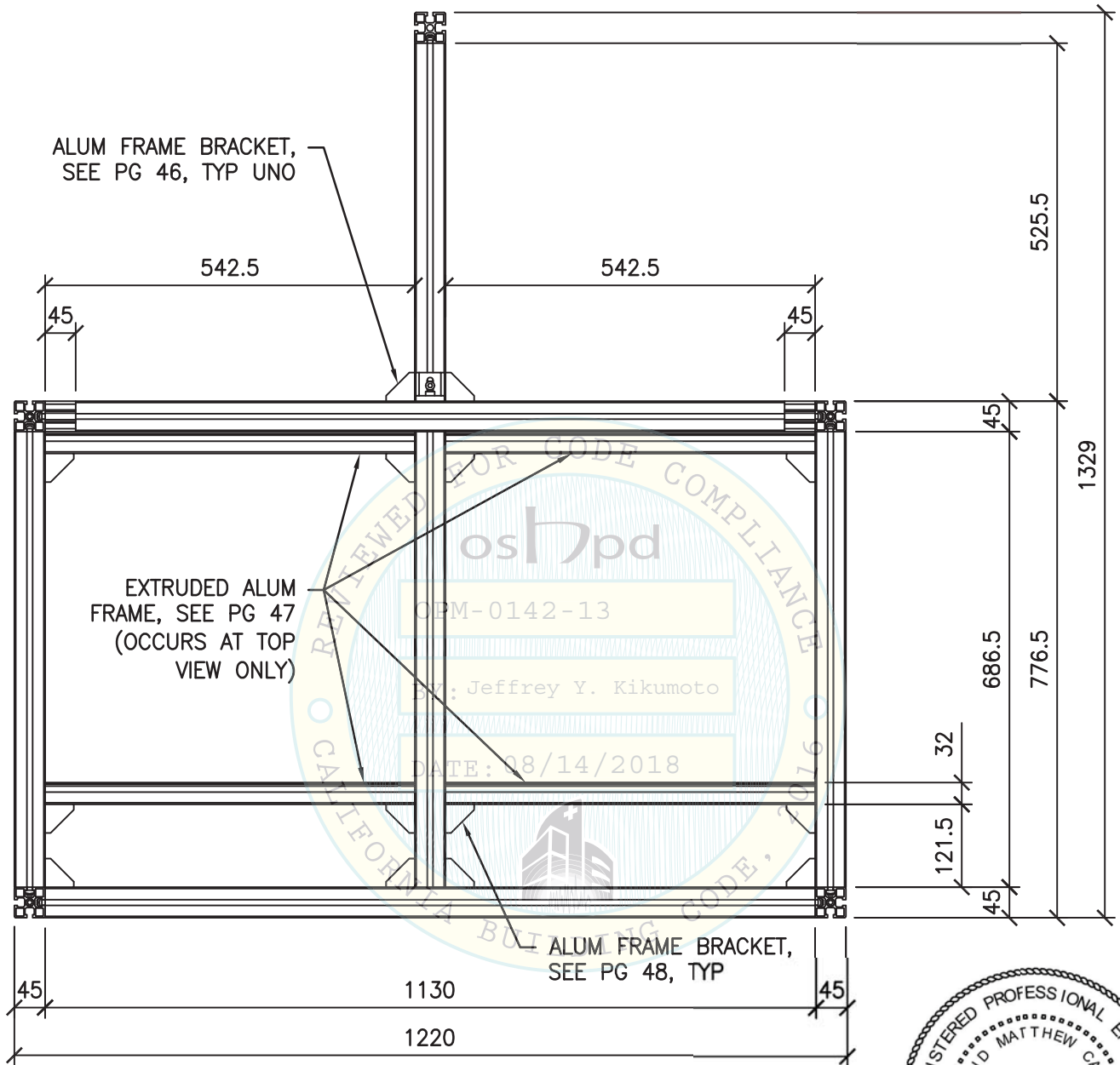


**SHEET TITLE: SAPHIRE HEMATOLOGY ANALYZER SUPPORT TABLE FRAME
(ITEM NO. 5 - SUPPORT) MIDDLE BAY & SIDE VIEW**

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Job No:	13027.01
Date:	1-6-2015
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L:\Jobs\13\13027 Abbott a3600 OPM\ACAD\HEME\STRU\S1_HEME.dwg Time:Jan06,2015-11:08am Login:camachom Dimstyle:1 LTScale:6



TOP VIEW
(BOTT VIEW, SIM AS NOTED)

NOTE:
ALL DIMS SHOWN ARE IN MM



SHEET TITLE: SAPPHIRE HEMATOLOGY ANALYZER SUPPORT TABLE FRAME
(ITEM NO. 5 - SUPPORT) TOP VIEW (BOTT VIEW, SIM AS NOTED)



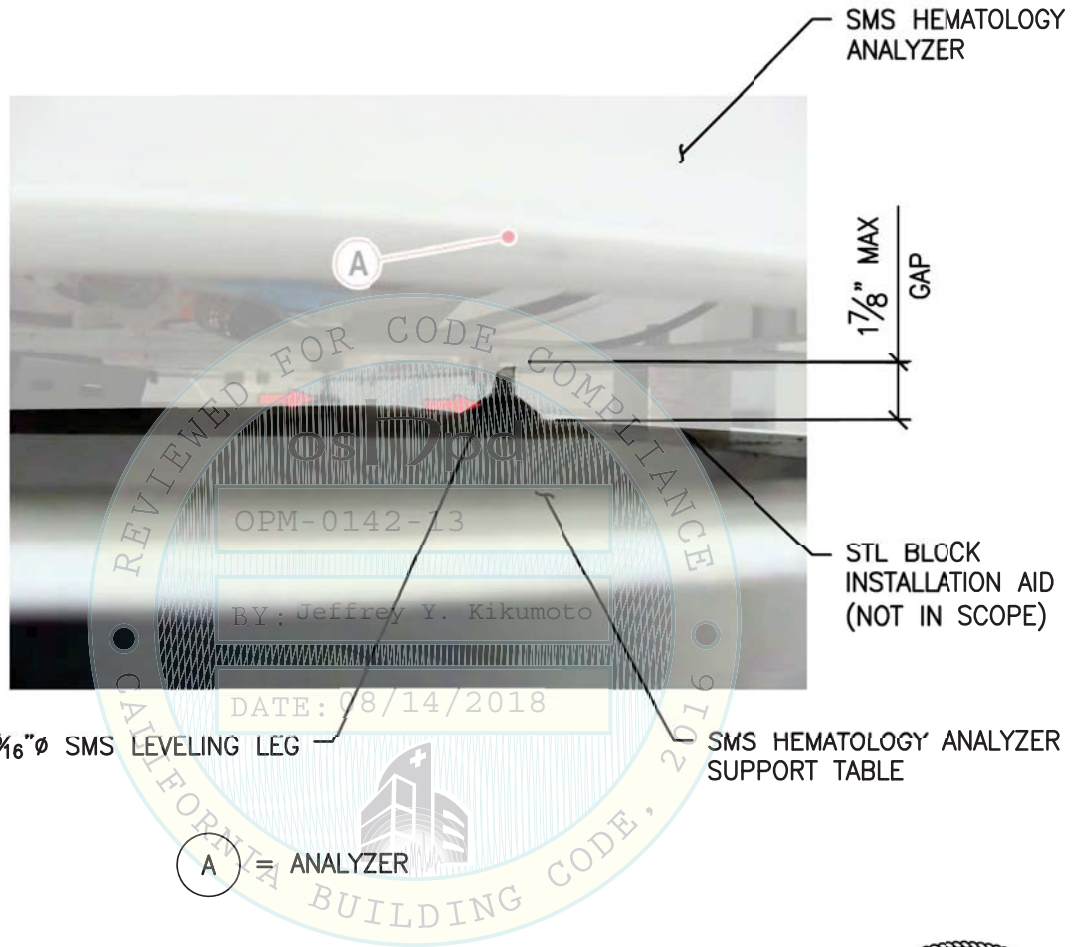
CYS STRUCTURAL ENGINEERS, INC.

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Job No:	13027.01
Date:	1-6-2015
Page:	31 of 64

L:\Jobs\13\13027 Abbott a3600 OPM\ACAD\HEME\STRU\S1_HEME.dwg Time:Jan06,2015-11:08am Login:camachom Dimstyle:1 L1Scale:6



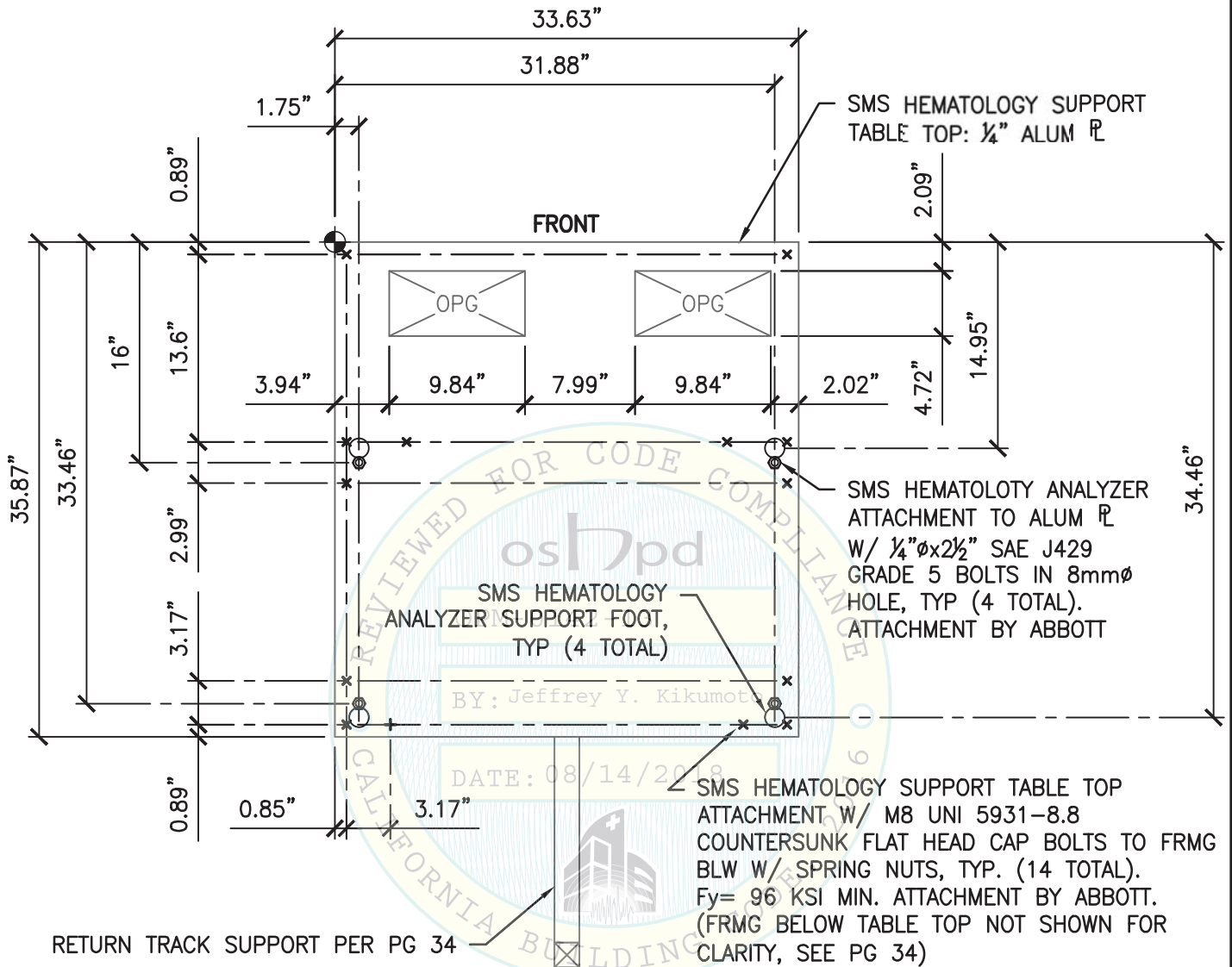
SHEET TITLE: SMS HEMATOLOGY ANALYZER SUPPORT

CYS STRUCTURAL ENGINEERS, INC.
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SACRAMENTO, CA 95833

TEL (916) 920-2020
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Job No:	13027.01
Date:	1-6-2015
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PLAN VIEW
(TOP SURFACE OF TABLE SHOWN)

NOTES:

1. SMS HEMATOLOGY ANALYZER NOT SHOWN FOR CLARITY, SEE PG 10A.
2. SUPPORT FRMG BLW TABLE TOP NOT SHOWN FOR CLARITY, SEE PG 34.



07/20/2015

SHEET TITLE: SMS HEMATOLOGY ANALYZER TO
SUPPORT TABLE INTERFACE CONNECTION

CYS STRUCTURAL ENGINEERS, INC.

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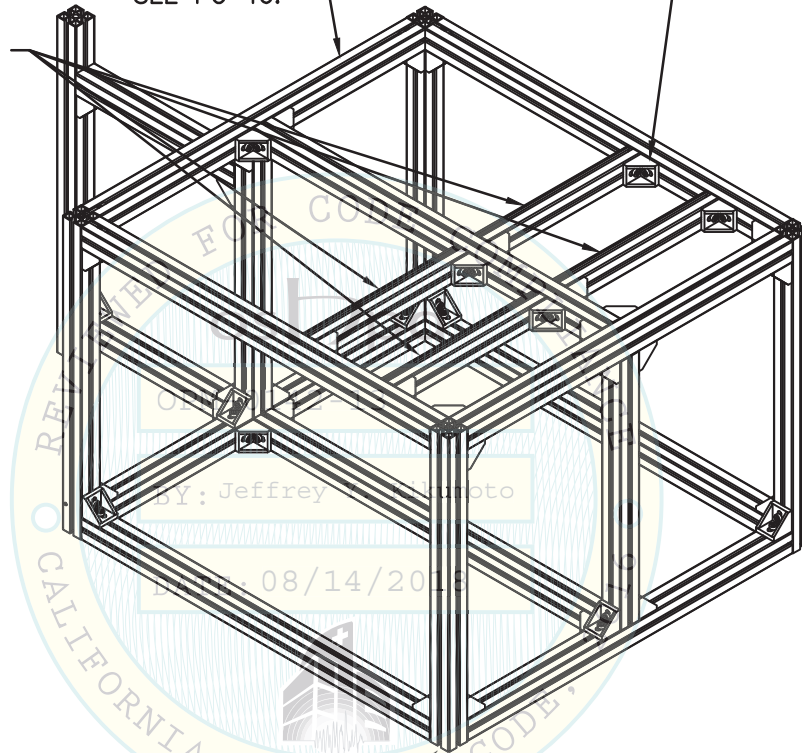
Job No:	13027.01
Date:	07-20-2015
Page:	33 of 64

L:\Jobs\13\13027_Abbott\OPM\ACAD\HEME\STRU\SI_HEME.dwg Time: Jul 20, 2015 - 10:50am Logintbeebyz DimScale: 1 LTRScale: 6

FRMG MEMBER ATTACHMENT BRACKET W/
2- M8 UNI 5931-8.8 BOLTS W/ SPRING NUTS, TYP.
Fy= 96 KSI MIN. ATTACHMENT BY ABBOTT. SEE PG 48
FOR ENLARGED VIEW

HEMATOLOGY ANALYZER SUPPORT
TABLE FRAME IS CONSTRUCTED OF
45mmx45mm ALUM EXTRUSION, TYP.
SEE PG 46.

32mmx45mm ALUM
EXTRUSION PER PG 47



CASTER/LEVELING LEG ATTACHMENT POINT
(LEG NOT SHOWN), TYP.
(4 TOTAL, ONE PER CORNER), SEE PG 39

NOTES:

1. HEMATOLOGY SUPPORT TABLE FRMG SHOWN FOR CLARIFICATION ONLY. SUBCOMPONENT ASSEMBLY SHALL BE PERFORMED BY ABBOTT, NOT BY THE GENERAL CONTRACTOR.
2. FOR FRAME SECTION & MATERIAL PROPERTIES, SEE PGS 46 & 47.
3. FOR FRMG BRACKET LOCATIONS, SEE PGS 35 THRU 37.



07/20/2015

SHEET TITLE: SMS HEMATOLOGY ANALYZER SUPPORT TABLE FRAME
(ITEM NO. 6 - SUPPORT)



CYS STRUCTURAL ENGINEERS, INC.

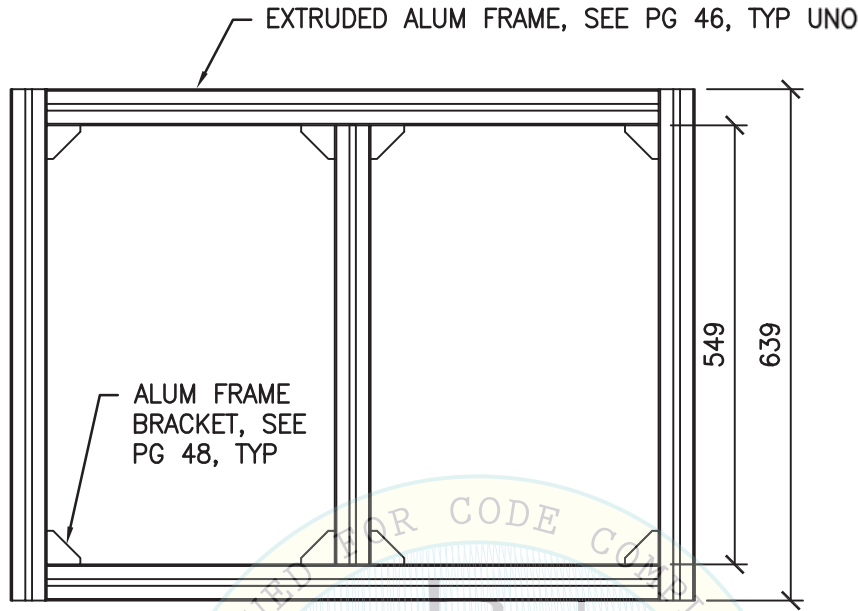
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

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

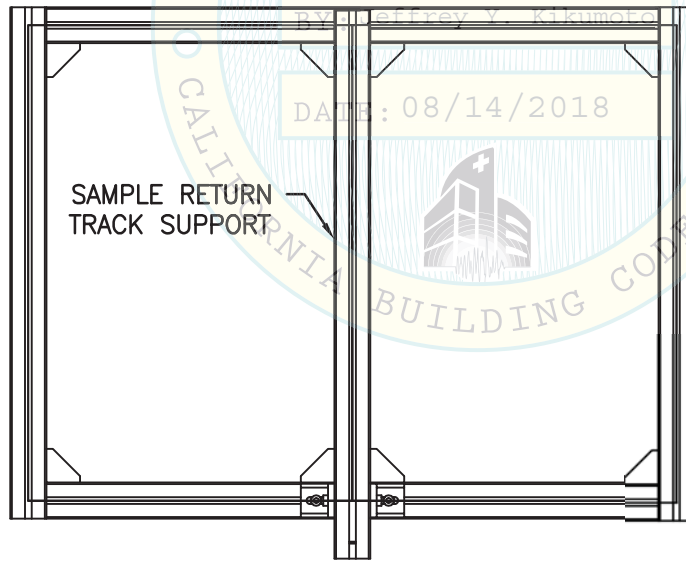
Job No:	13027.01
Date:	07-20-2015
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L:\Jobs\13\13027 Abbott OPM\ACAD\HEME\STRU\SI_HEME.dwg Time:Jul20,2015-10:50am Logint:beebyz Dimscale:1 LTScale:6

ABBOTT LABORATORIES
EQUIPMENT SUPPORTS & ATTACHMENTS

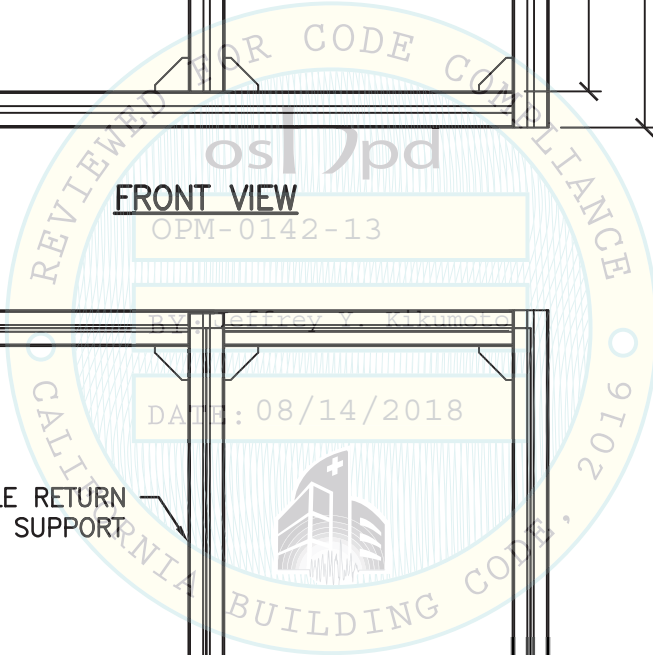


FRONT VIEW



BACK VIEW

NOTE:
ALL DIMS SHOWN ARE IN MM



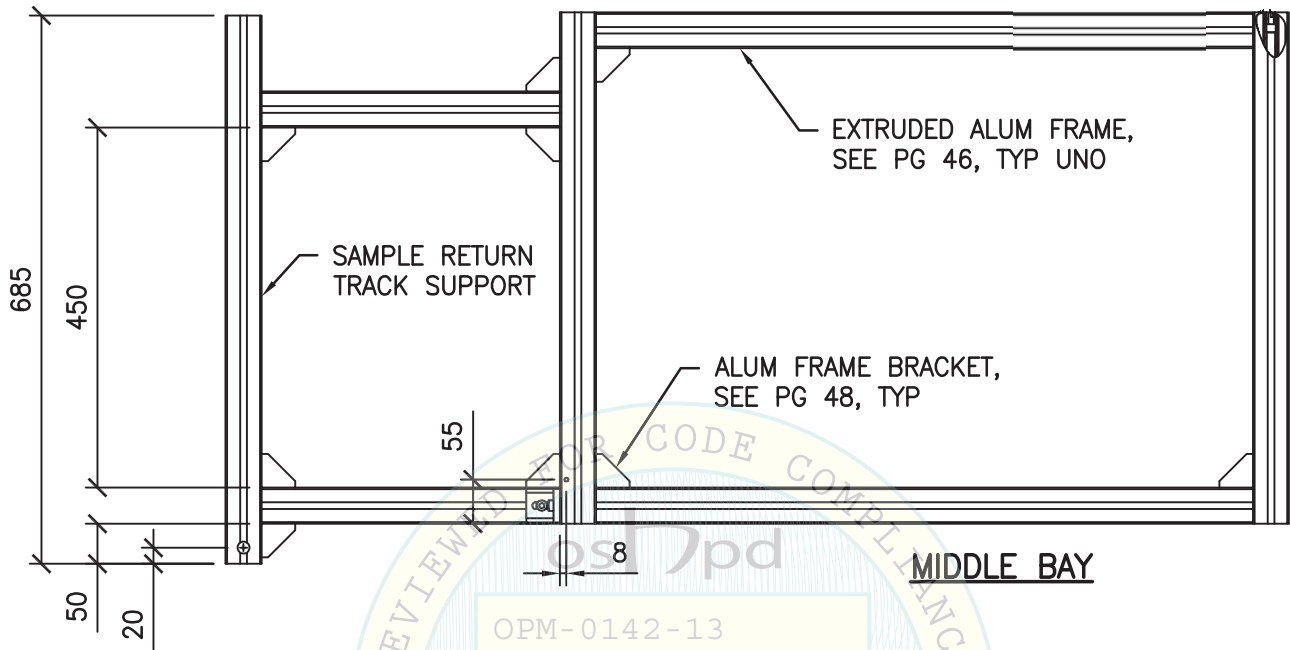
SHEET TITLE: SMS HEMATOLOGY ANALYZER SUPPORT TABLE FRAME
(ITEM NO. 6 - SUPPORT) FRONT VIEW & BACK VIEW

CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

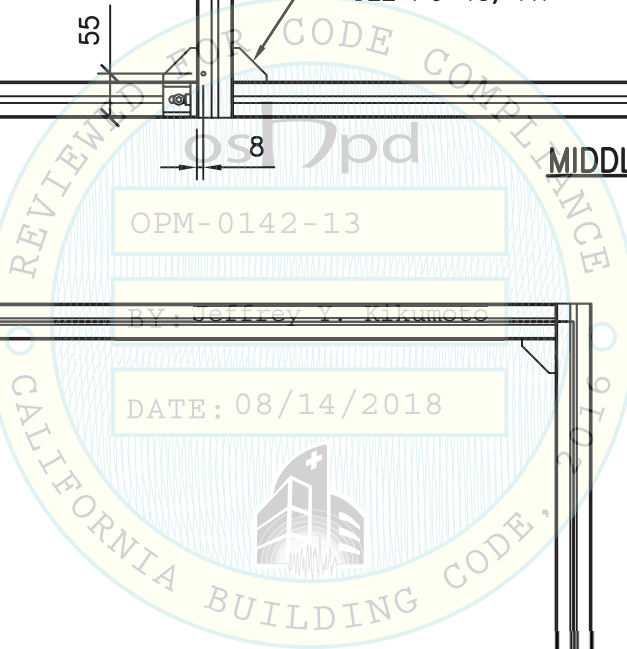
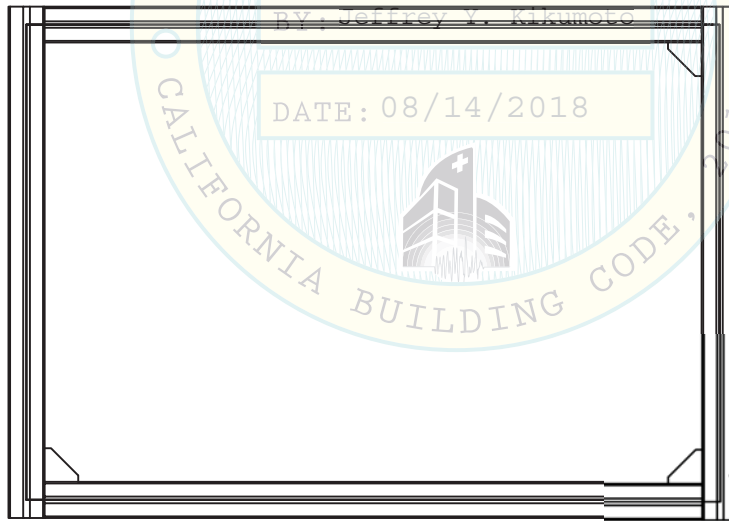
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Date:	1-6-2015
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FRONT ELEV



NOTE:
ALL DIMS SHOWN ARE IN MM

SIDE VIEW

**SHEET TITLE: SMS HEMATOLOGY ANALYZER SUPPORT TABLE FRAME
(ITEM NO. 6 - SUPPORT) MIDDLE BAY & SIDE VIEW**



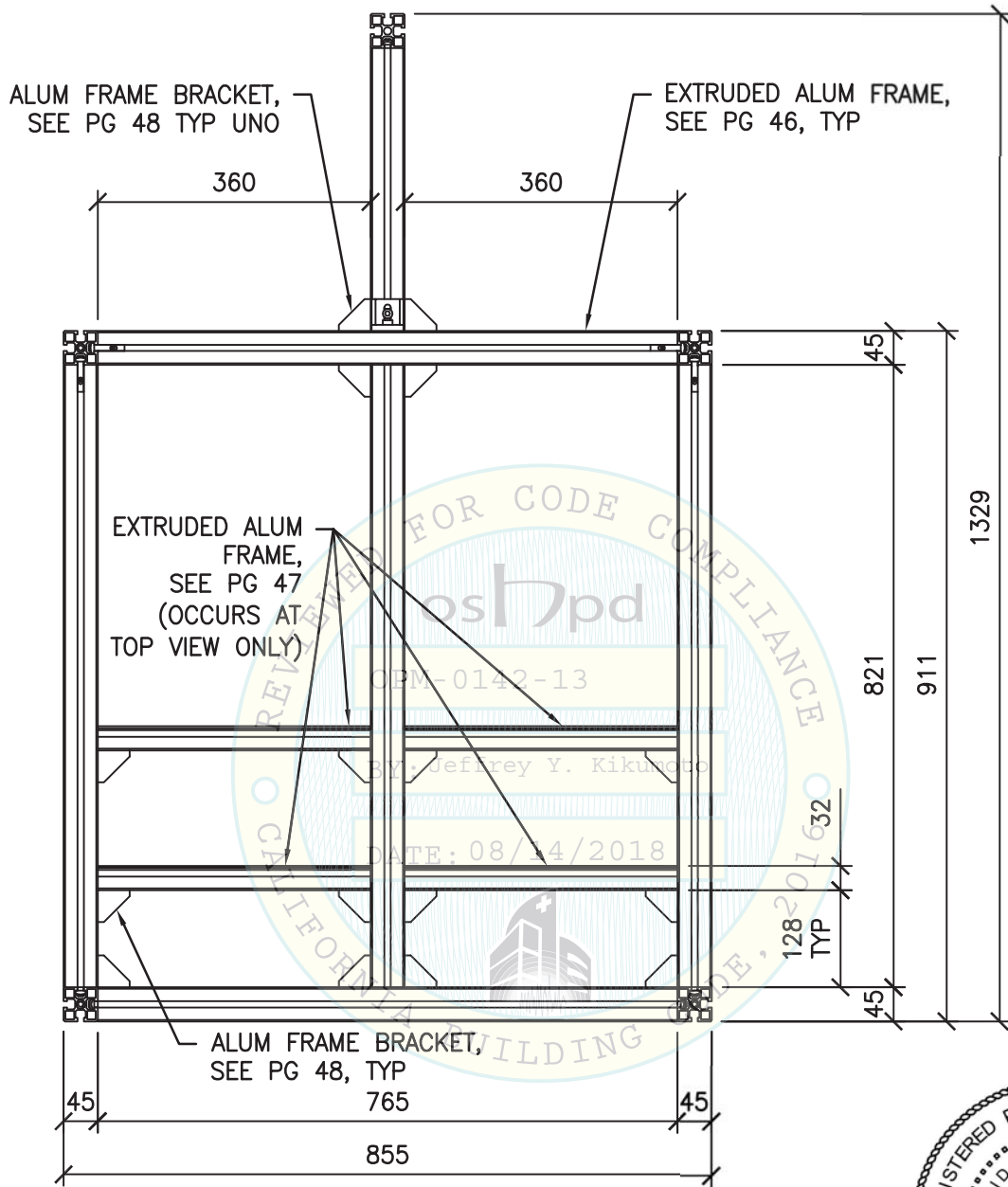
CYS STRUCTURAL ENGINEERS, INC.

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Job No:	13027.01
Date:	1-6-2015
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TOP VIEW
(BOTT VIEW, SIM AS NOTED)

NOTE:
ALL DIMS SHOWN ARE IN MM



5/7/15

SHEET TITLE: SMS HEMATOLOGY ANALYZER SUPPORT TABLE FRAME
(ITEM NO. 6 - SUPPORT) TOP VIEW (BOTT VIEW, SIM AS NOTED)



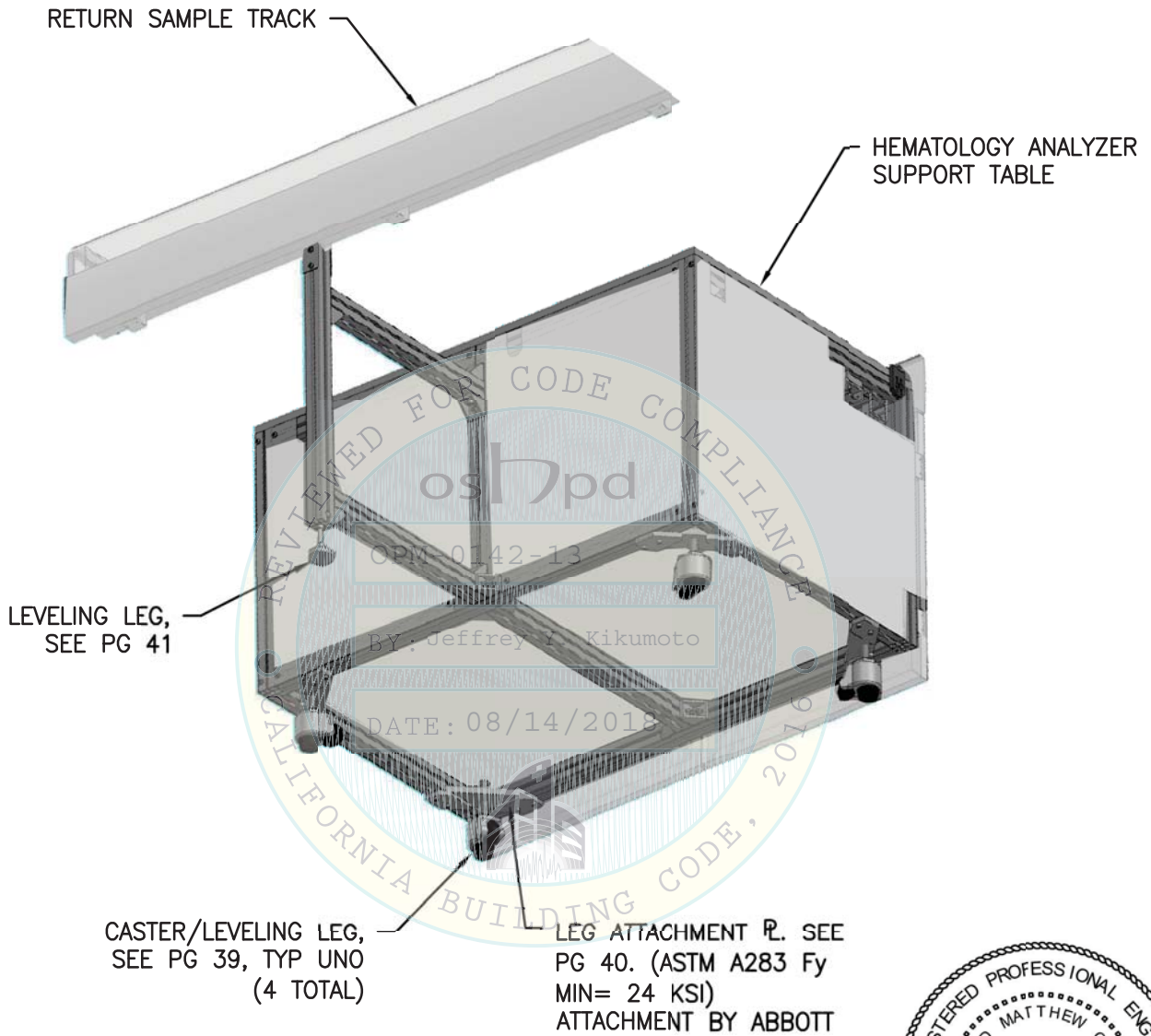
CYS STRUCTURAL ENGINEERS, INC.

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Job No:	13027.01
Date:	1-6-2015
Page:	37 of 64

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5/7/15

SHEET TITLE: HEMATOLOGY ANALYZER SUPPORT TABLE
BOTTOM OF TABLE VIEW

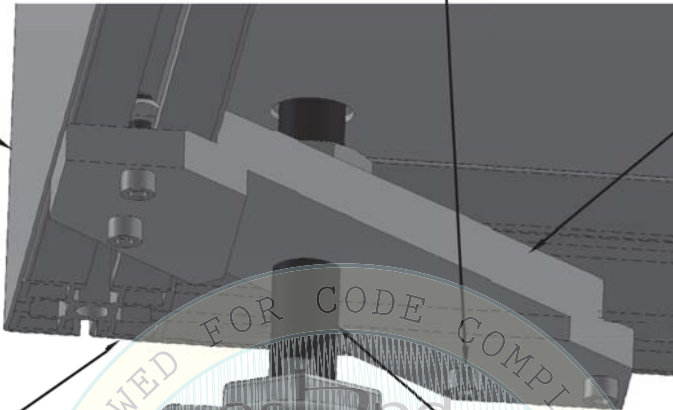
<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 1-6-2015 Page: 38 of 64

L:\Jobs\13\13027 Abbott a3600 OPM\ACAD\HEME\STRU\S1_HEME.dwg Time:Jan06,2015-11:08am Login:camachom Dimstyle:1 LTScale:6

M8 UNI 5931-8.8 BOLTS
W/ SPRING NUTS, TYP.
Fy= 96 KSI MIN. ATTACHMENT BY ABBOTT

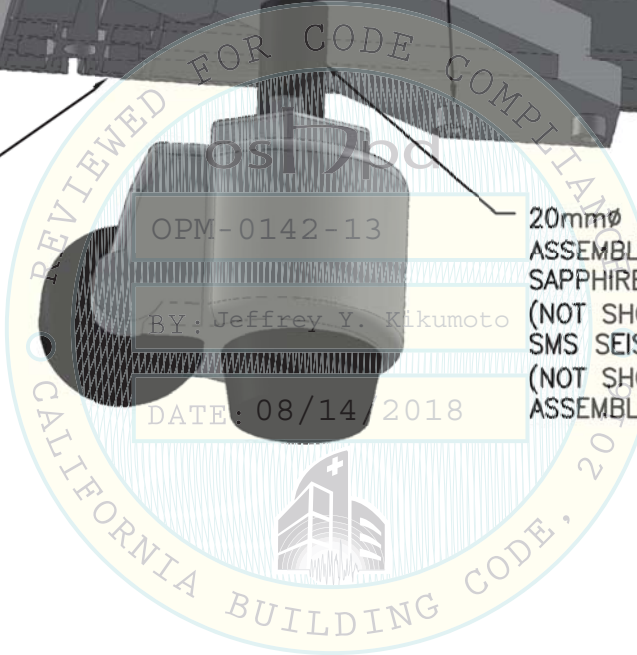
ALUM CLADDING
PANEL

ATTACHMENT \bar{R}
PER PG 40



HEMATOLOGY
ANALYZER SUPPORT
TABLE FRMG, TYP

20mm \varnothing LEVELING LEG/CASTER
ASSEMBLY (ASTM A36 Fy MIN= 36 KSI).
SAPPHIRE SEISMIC BRACKET PER PG 58
(NOT SHOWN FOR CLARITY).
SMS SEISMIC BRACKET PER PG 62
(NOT SHOWN FOR CLARITY)
ASSEMBLY ATTACHED BY ABBOTT



NOTE:

- HEMATOLOGY SUPPORT LEVELING LEG SHOWN FOR CLARIFICATION ONLY. SUBCOMPONENT ASSEMBLY SHALL BE PERFORMED BY ABBOTT, NOT BY THE GENERAL CONTRACTOR.



SHEET TITLE: HEMATOLOGY ANALYZER SUPPORT TABLE
LEVELING LEG / CASTER CONNECTION TYPICAL DETAILS



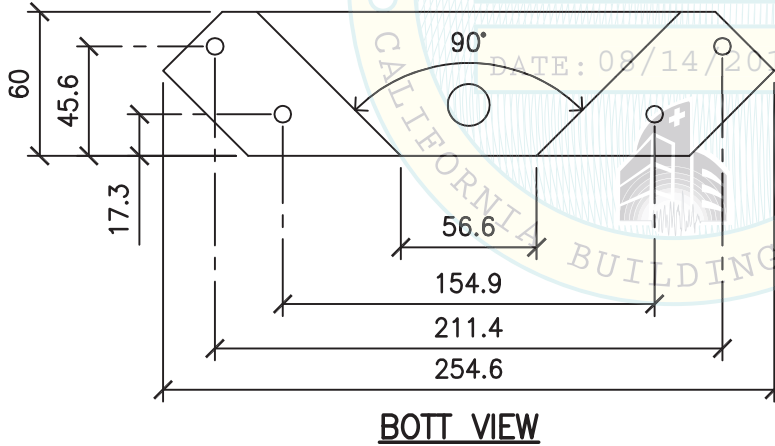
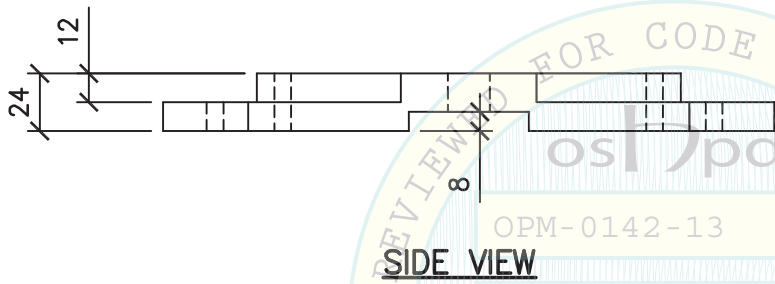
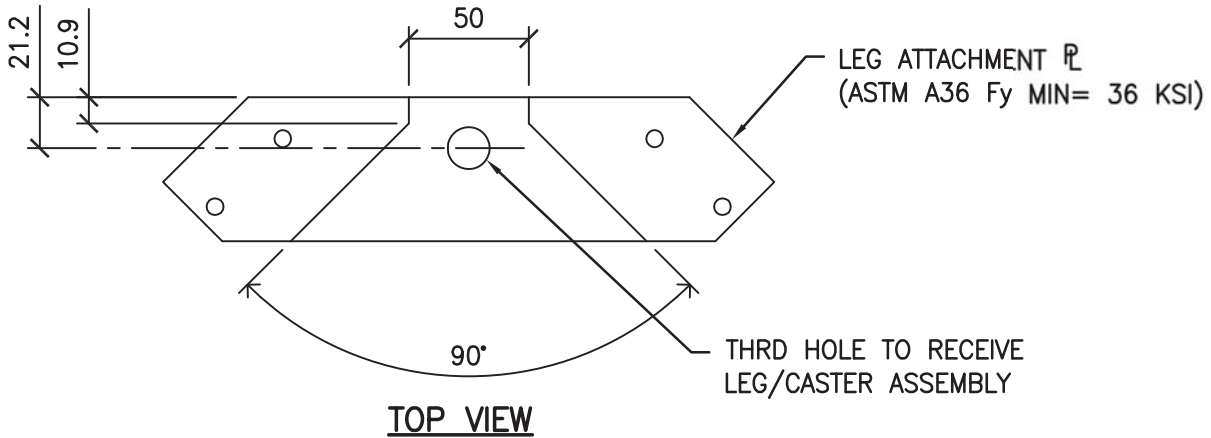
CYS STRUCTURAL ENGINEERS, INC.

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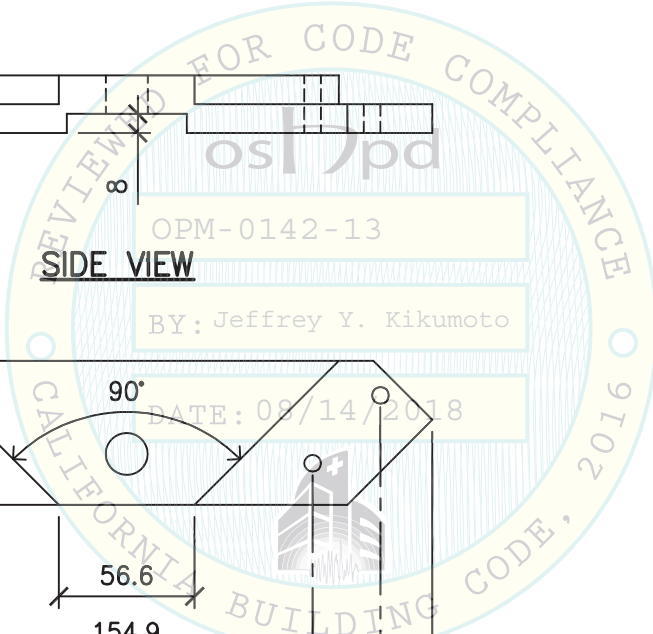
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Job No:	13027.01
Date:	07-20-2015
Page:	39 of 64

L:\Jobs\13\13027_Abbott_a3600_OPM\ACAD\HEME\STRU\SI_HEME.dwg Time:Jul20,2015-10:50am Logintbeebyz Dimscale:1 LTScale:6



NOTE:
ALL DIMS SHOWN ARE IN MM

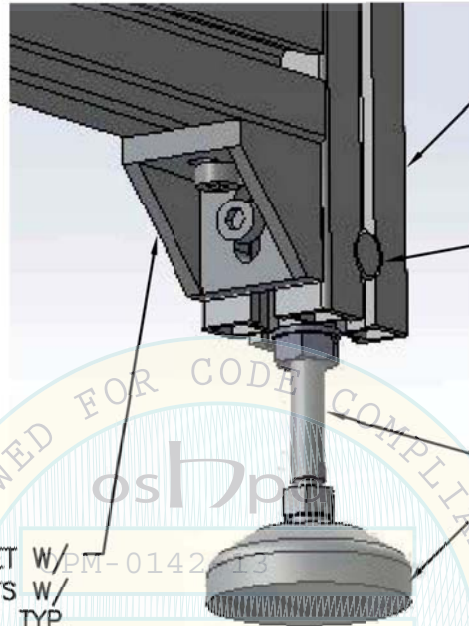


REGISTERED PROFESSIONAL ENGINEER
DAVID M. CALI
No. S5614
STRUCTURAL
STATE OF CALIFORNIA
David M. Cali
5/7/15

SHEET TITLE: HEMATOLOGY ANALYZER SUPPORT TABLE
LEG ATTACHMENT PLATE DETAILS

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 1-6-2015 Page: 40 of 64
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L:\Jobs\13\13027 Abbott a3600 OPM\ACAD\HEME\STRU\S1_HEME.dwg Time: Jan 06, 2015 - 11:09 am Login: camachom DimScale: 1 L1Scale: 6



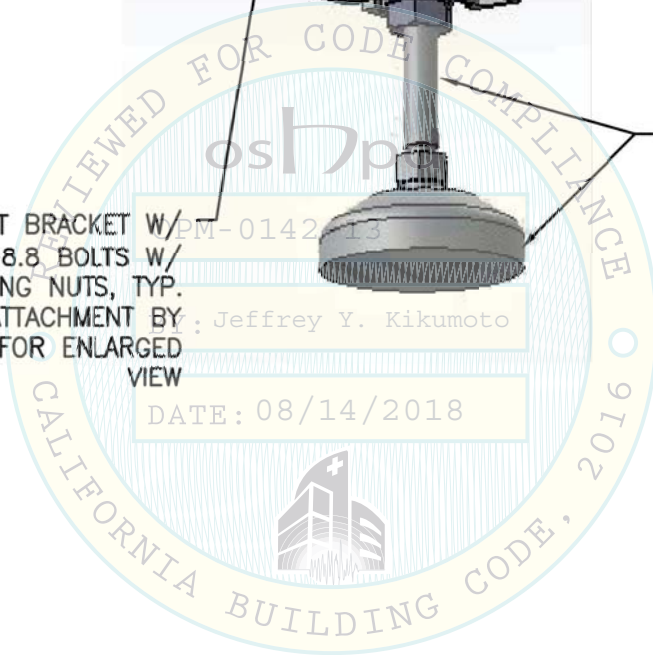
HEMATOLOGY ANALYZER
SUPPORT TABLE
RETURN SAMPLE
TRACK FRMG, TYP.
SEE PGS 22 & 23

20mm ϕ AISI 304 SS PIN
(ASTM A240 Fy MIN= 30 KSI)
W/ TAPPED HOLE FOR
LEVELING LEG

10mm ϕ LEVELING LEG
(ASTM A283 Fy MIN= 24 KSI)
W/ FOOT

FRMG MEMBER ATTACHMENT BRACKET W/
2- M8 UNI 5931-8.8 BOLTS W/
SPRING NUTS, TYP.
Fy= 36 KSI MIN. ATTACHMENT BY
ABBOTT. SEE PG 48 FOR ENLARGED
VIEW

DATE: 08/14/2018



SHEET TITLE: HEMATOLOGY ANALYZER SUPPORT TABLE SAMPLE RETURN
TRACK SUPPORT LEVELING LEG CONNECTION TYPICAL DETAIL

 <p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 07-20-2015 Page: 41 of 64
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L:\Jobs\13\13027_Abbott_a3600_OPM\ACAD\HEME\STRU\SI_HEME.dwg Time:Jul20,2015-10:50am Logintbeebyz Dimscale:1 LTScale:6

POLYCARBONATE COVER

EXTRUDED ALUM
FRAME PER PG 46

PLASTIC COVER

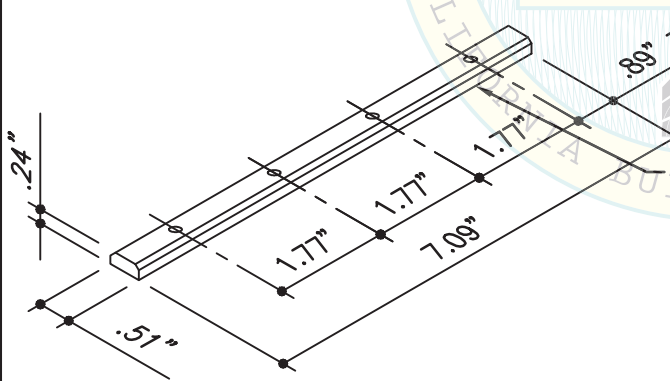
PLASTIC COVER

OPM-0142-13

BY: Jeffrey Y.

DATE: 08/14/2018

CONNECTOR \square W/ 4- M8 SET SCREWS.
CTR ON RAIL SPLICE (2 TOTAL PER SPLICE)
($F_y = 96$ KSI MIN)
CONN BY ABBOTT, TYP. SEE BLW FOR MORE INFO



CONNECTOR \square
ISOMETRIC VIEW

CONNECTOR \square (STL, Fe37 GALV
MIN $F_y = 36$ KSI), TYP.
PROPERTIES:
 $A = 0.1070$ in²; $S = 0.00353$ IN³
 $I = 0.000454$ in⁴



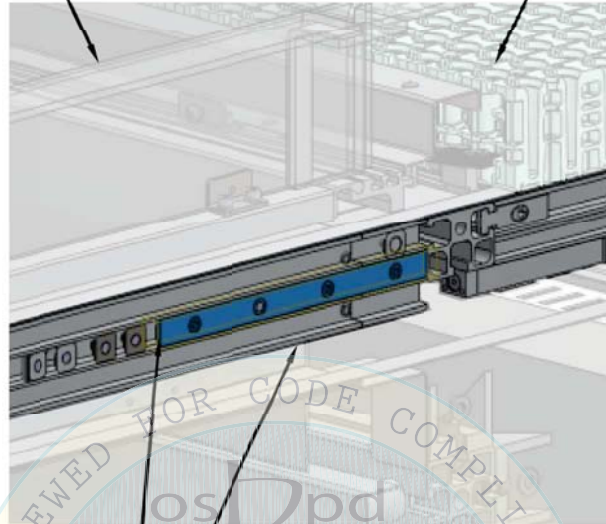
SHEET TITLE: SAMPLE RETURN TRACK -TO-TRACK CONNECTION

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 07-20-2015 Page: 42 of 64
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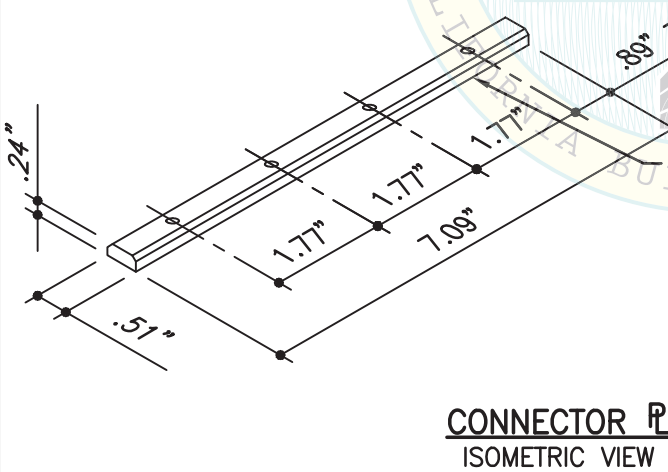
POLYCARBONATE COVER

LOAD BAY MODULE OR
UNLOAD BAY MODULE



CONNECTOR \bar{L} W/ 4- M8 SET SCREWS.
CTR ON RAIL SPLICE (2 TOTAL PER
SPLICE) ($F_y = 96$ KSI MIN) CONN BY
ABBOTT, ES OF SAMPLE RETURN TRACK
AT SPLICE.
SEE BLW FOR MORE INFO

EXTRUDED ALUM FRAME PER PG 46



CONNECTOR \bar{L} (STL, Fe37 GALV
MIN $F_y = 36$ KSI), TYP.
PROPERTIES:
 $A = 0.1070$ in²; $S = 0.00353$ IN³
 $I = 0.000454$ in⁴



SHEET TITLE: SAMPLE RETURN TRACK ATTACHMENT TO
LOAD BAY MODULE OR UNLOAD BAY MODULE



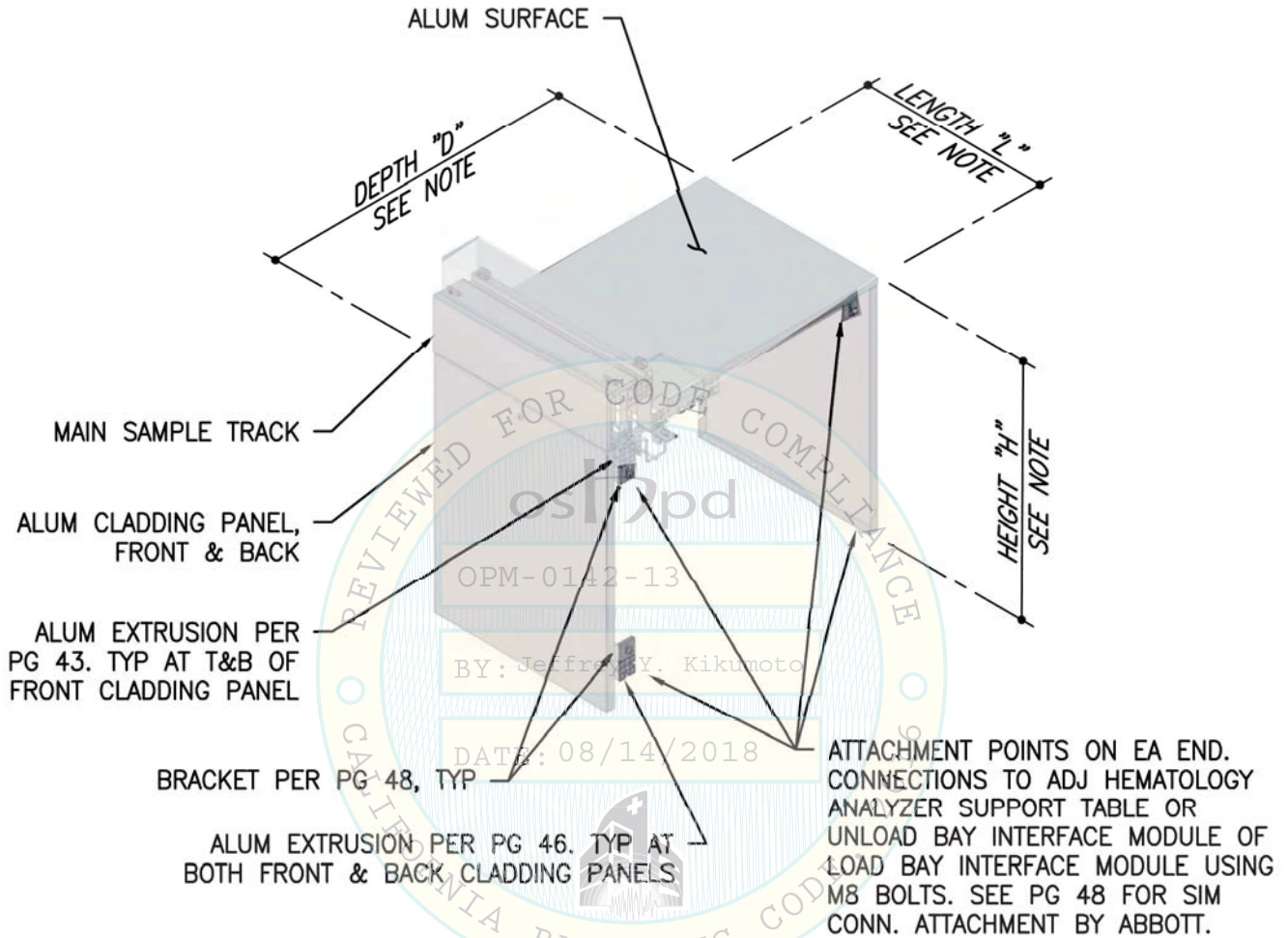
CYS STRUCTURAL ENGINEERS, INC.

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L:\Jobs\13\13027 Abbott a3600 OPM\ACAD\HOME\STRU\SI_HEME.dwg Time:Jul20,2015-10:50am Logintbeebyz Dimstyle:1 LTScale:6



DIMS:

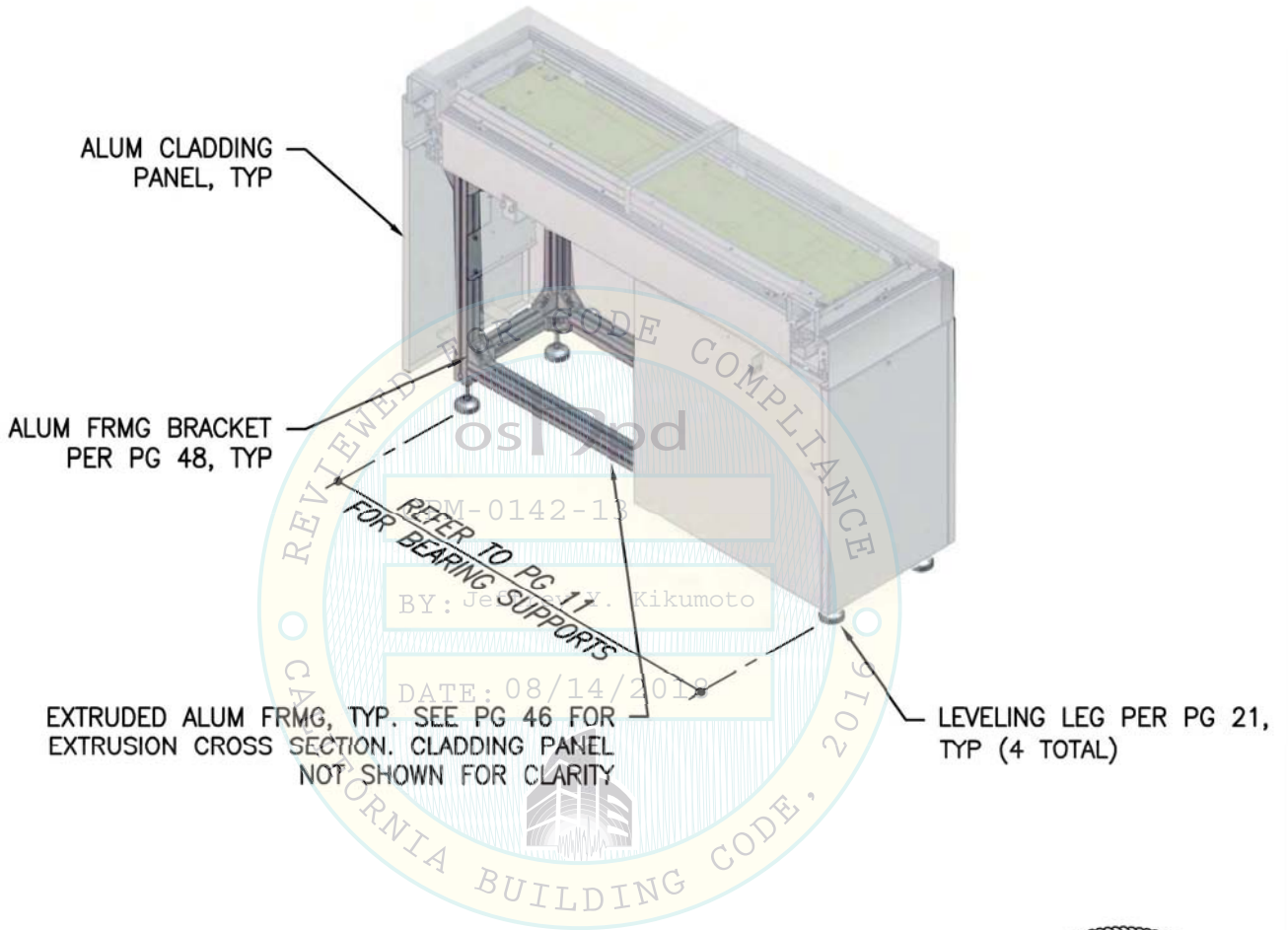
ANALYZER	L	H	D
SAPPHIRE	48"	37.8"	57.3"
SMS	24.5"	37.8"	57.3"



SHEET TITLE: TYPICAL HEMATOLOGY ANALYZER SPACER MODULE
(ITEM NO. 7 & NO. 8 - SUPPORTS)

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 1-6-2015 Page: 44 of 64
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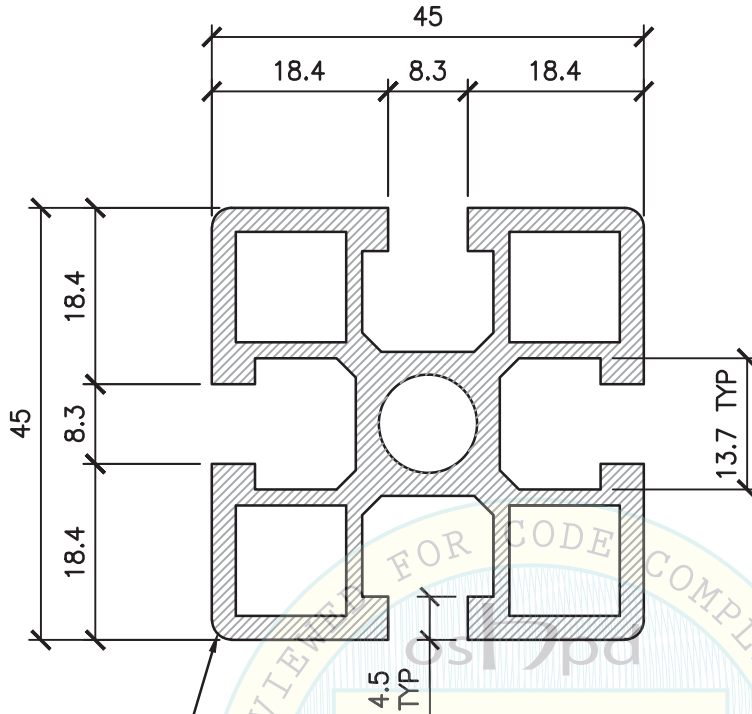
L:\Jobs\13027 Abbott a3600 OPM\ACAD\HEME\STRU\SI_HEME.dwg Time:Jan06,2015-11:09am Login:comachom Dimscale:1 LScale:6



SHEET TITLE: UNLOAD BAY INTERFACE MODULE
(ITEM NO. 9 - COMPONENT)

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 1-6-2015 Page: 45 of 64
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L:\Jobs\13027 Abbott OPM\ACAD\HEME\STRU\SI_HEME.dwg Time: Jan06, 2015 - 11:09am Login: camachom Dimscaler: 1 LTScale: 6



EXTRUDED ALUM FRAME CROSS SECTION.
ATTACHMENTS TO FRMG USING M8 UNI 5931-8.8
BOLTS W/ SPRING NUTS, TYP.
Fy= 96 KSI MIN. ATTACHMENT BY ABBOTT

DATE: 08/14/2018

SECTION PROPERTIES:

AREA (A) = 109.1 in²
SECTION MODULES (S) = 0.386 in²
MOMENT OF INERTIA (I) = 0.342 in⁴

MATERIAL:

ALUM 6060-T5
Fy = 31.9 KSI

NOTE:
ALL DIMS SHOWN ARE IN MM



SHEET TITLE: 45mmx45mm ALUMINUM FRAMING CROSS SECTION



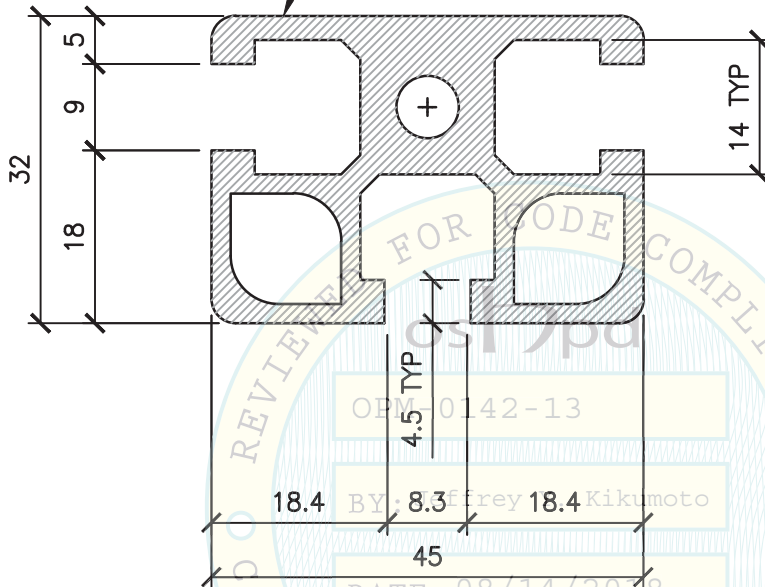
CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

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

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EXTRUDED ALUM FRAME CROSS SECTION.
ATTACHMENTS TO FRMG USING M8 UNI 5931-8.8
BOLTS W/ SPRING NUTS, TYP.
Fy= 96 KSI MIN. ATTACHMENT BY ABBOTT



SECTION PROPERTIES:

AREA (A) = 0.908 in²
SECTION MODULES = S_x = 0.276 in³
S_y = 0.230 in³
MOMENT OF INERTIA = I_x = 0.245 in⁴
I_y = 0.156 in⁴

MATERIAL:

ALUM 6060-T5
Fy = 31.9 KSI

NOTE:
ALL DIMS SHOWN ARE IN MM

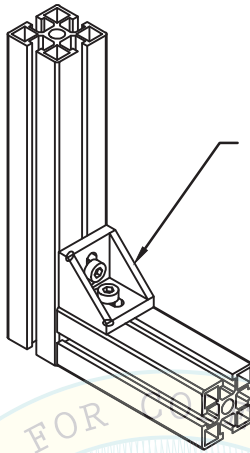


07/20/2015

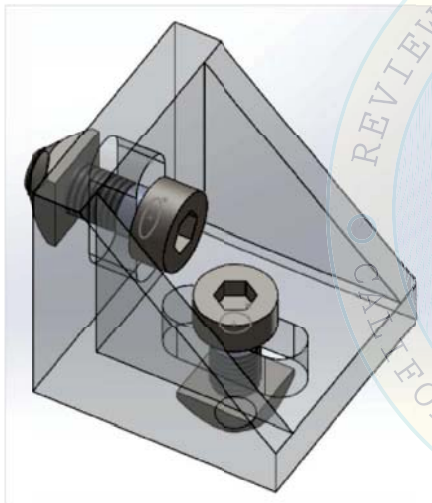
SHEET TITLE: 32mmx45mm ALUMINUM FRAMING CROSS SECTION

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 07-20-2015 Page: 47 of 64

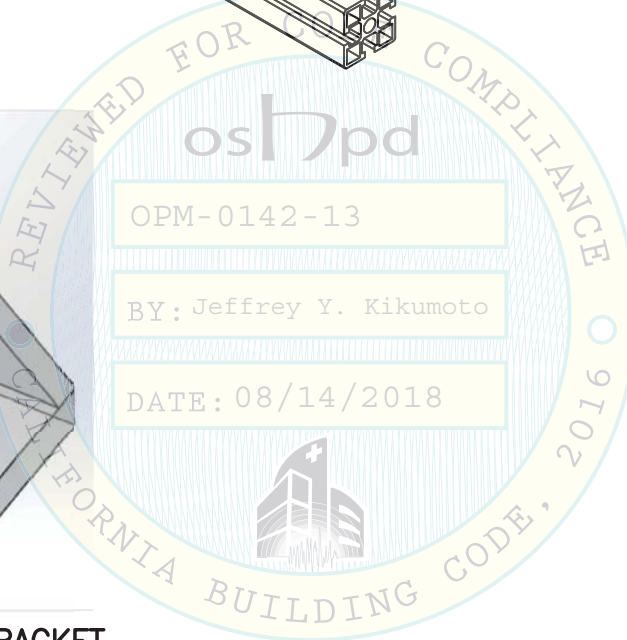
L:\Jobs\13027 Abbott a3600 OPM\ACAD\HOME\STRU\SI_HEME.dwg Time:Jul20,2015-10:50am Logintbeebyz Dimscale:1 LTScale:6



ALUM FRMG BRACKET W/ 2- M8 UNI
5931-8.8 BOLTS W/ SPRING NUTS,
Fy= 96 KSI MIN. ATTACHMENT BY ABBOTT



**ALUM FRMG BRACKET
ENLARGED VIEW**



SHEET TITLE: TYPICAL ALUMINUM FRAME BRACKET DETAIL



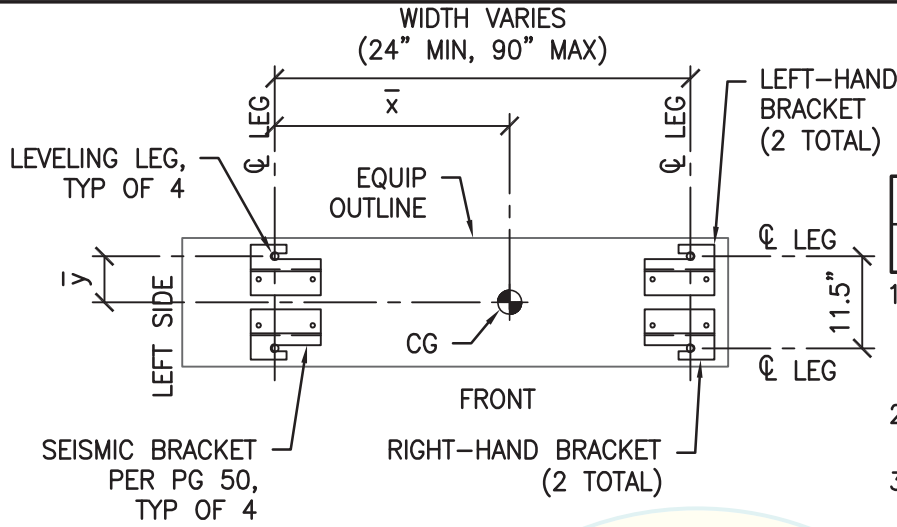
CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

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

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L:\Jobs\13027 Abbott a3600 OPM\ACAD\HEME\STRU\SI_HEME.dwg Time: Jul 20, 2015 - 10:50am Login: bebyz DimScale: 1 LScale: 6

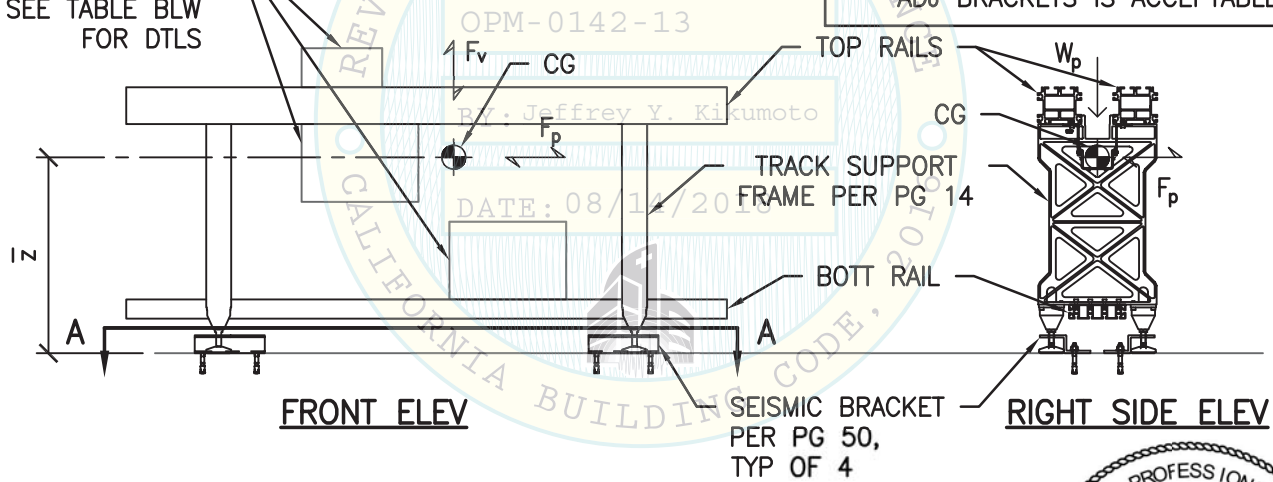


MAX ANCHOR FORCES AT LRFD AT LEVELING LEG ¹			
	T _{max}	C _{max}	V _{max}
CASE 1 ³	1362	1584#	508#
CASE 2 ²	748#	969#	286#

1. ECCENTRICITY & PRYING ACTION MUST BE CONSIDERED BASED ON THE SEISMIC BRACKET CONFIGURATION.
2. INCLUDES OVERSTRENGTH FACTOR (Ω_0).
3. OVERSTRENGTH FACTOR (Ω_0) MUST BE APPLIED FOR ANCHORAGE TO CONC.

BASE PLAN A-A

TRACK MOUNTED COMPONENTS. SEE TABLE BLW FOR DTLS



NOTE:
1. FOR COMPONENT DIMS NOT NOTED, SEE SCHED ON PG 11.
2. A DISTANCE OF 5.5" BTW AB OF ADJ BRACKETS IS ACCEPTABLE.



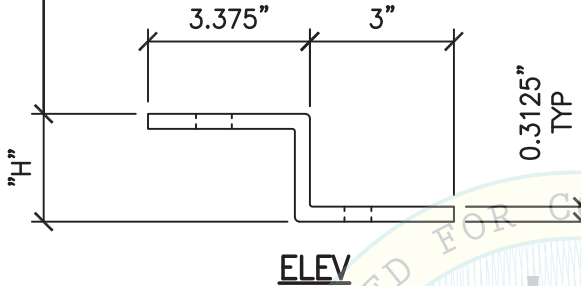
SHEET TITLE: TYPICAL TRACK MODULE (ITEM NO. 1 - SUPPORT)
BASE PLAN & ELEVATIONS

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 1-6-2015 Page: 49 of 64
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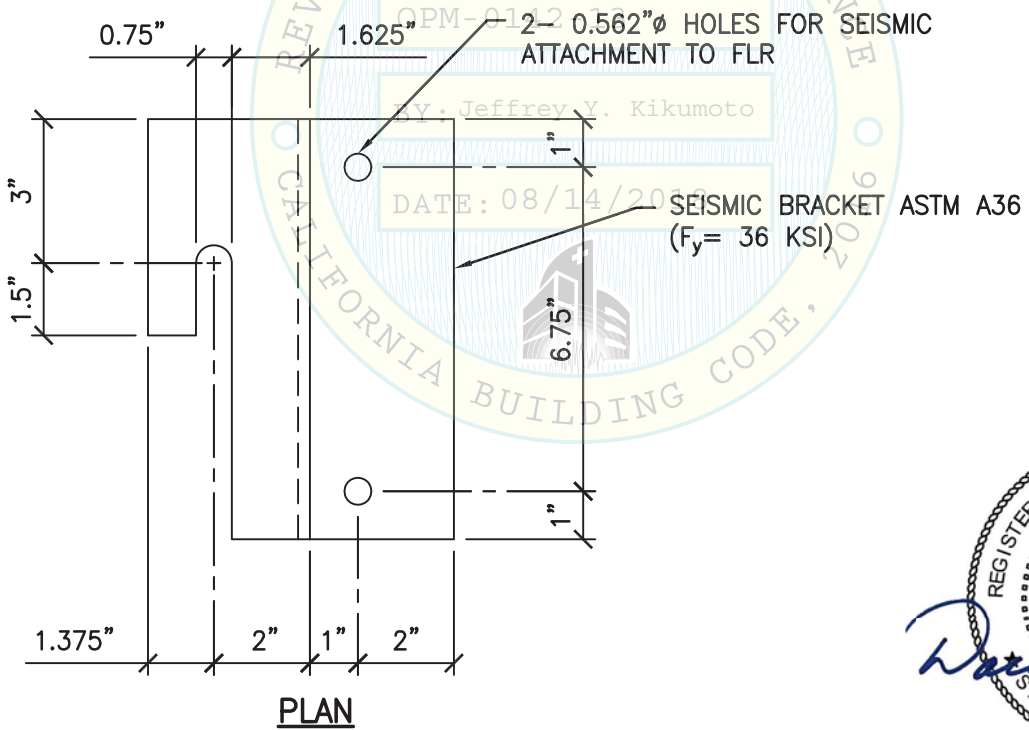
L:\Jobs\13\13027 Abbott a3600 OPM\ACAD\HEME\STRU\S1_HEME.dwg Time: Jan 06, 2015 - 11:09am Login: camachom Dimscale: 1 L1Scale: 6

"H" VARIES TO ACCOMMODATE VERTICAL ADJUSTMENT OF THE COMPONENT FOR LEVELING PURPOSES AS MEASURED FROM THE FLR TO THE BOTT OF THE COMPONENT PER THE CASE 1 & CASE 2 FLR TO COMPONENT CLEARANCES AS FOLLOWS:

"H" = 2.25" FOR
2.25" ≤ CLR ≤ 3.50"
"H" = 3.50" FOR
3.50" ≤ CLR ≤ 4.75"



- NOTES:**
1. FOR CASE 1 & CASE 2 ANCHORAGE TO FLR, SEE PGS 51 & 52.
 2. BRACKET LAYOUT SHALL BE FOLLOWED AS SHOWN ON PLANS ON PG 49.
 3. LEFT-HAND BRACKET SHOWN. SEE BASE PLAN A-A ON PG 49 FOR RIGHT-HAND BRACKET CONFIGURATION.



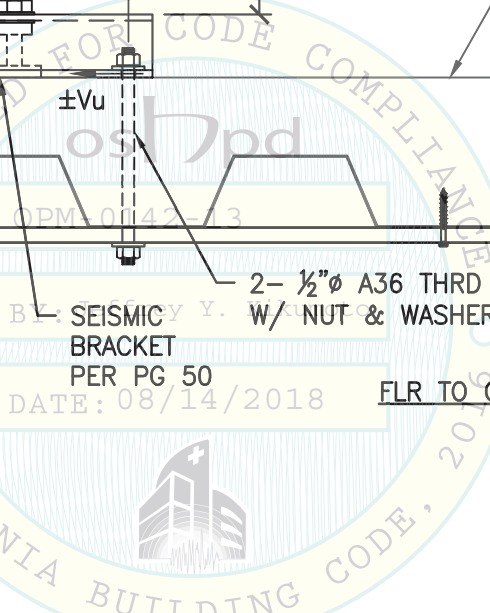
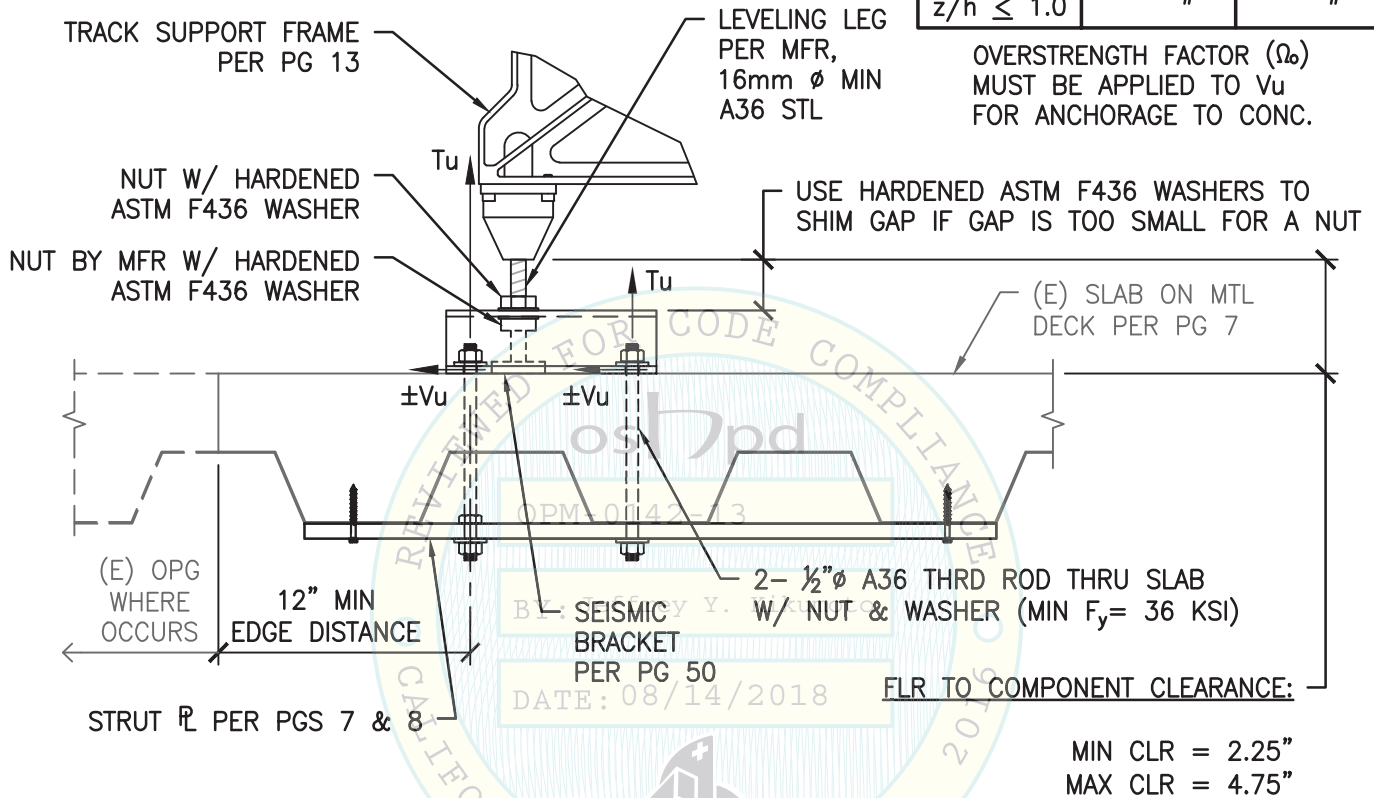
SHEET TITLE: TYPICAL TRACK MODULE (ITEM NO. 1 - SUPPORT)
SEISMIC BRACKET DETAIL

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 06-10-2015 Page: 50 of 64
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L:\Jobs\13\13027 Abbott a3600 OPM\ACAD\HOME\STRU\S1_HEME.dwg Time:Jun11,2015-01:46pm Login:mayerhoferm Dimstyle:1 LTScale:6

MAX ANCHOR FORCES AT LRFD AT EA AB	
Tu	Vu
CASE 1 z/h ≤ 1.0	2808#
	364#

OVERSTRENGTH FACTOR (Ω_o)
MUST BE APPLIED TO Vu
FOR ANCHORAGE TO CONC.



CASE 1 – SUSPENDED FLR W/ THRU BOLTS



SHEET TITLE: TYPICAL TRACK MODULE (ITEM NO. 1 - SUPPORT)
ANCHORAGE DETAIL

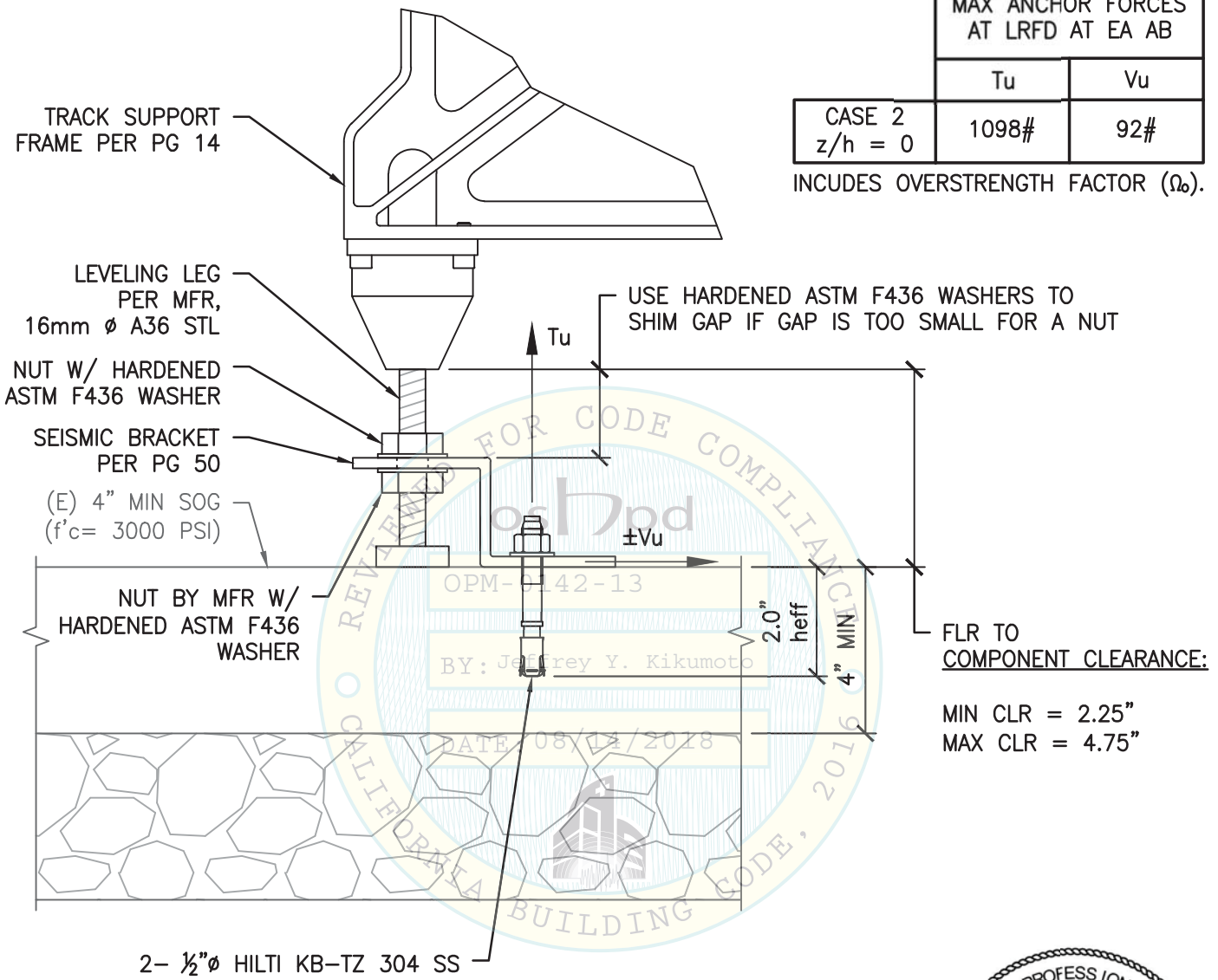
CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

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L:\Jobs\13027 - Abbott - OPM\ACAD\HEME\STRU\S1_HEME.dwg Time: Jul 20, 2015 - 10:50am Logintbeebyz DimScale: 1 LScale: 6

MAX ANCHOR FORCES AT LRFD AT EA AB		
	Tu	Vu
CASE 2 z/h = 0	1098#	92#

INCLUDES OVERSTRENGTH FACTOR (Ω_o).



CASE 2 - SLAB ON GRADE
(SLAB AT OR BELOW GRADE)

FLR TO
COMPONENT CLEARANCE:
MIN CLR = 2.25"
MAX CLR = 4.75"



07/20/2015

SHEET TITLE: TYPICAL TRACK MODULE (ITEM NO. 1 - SUPPORT)
ANCHORAGE DETAIL

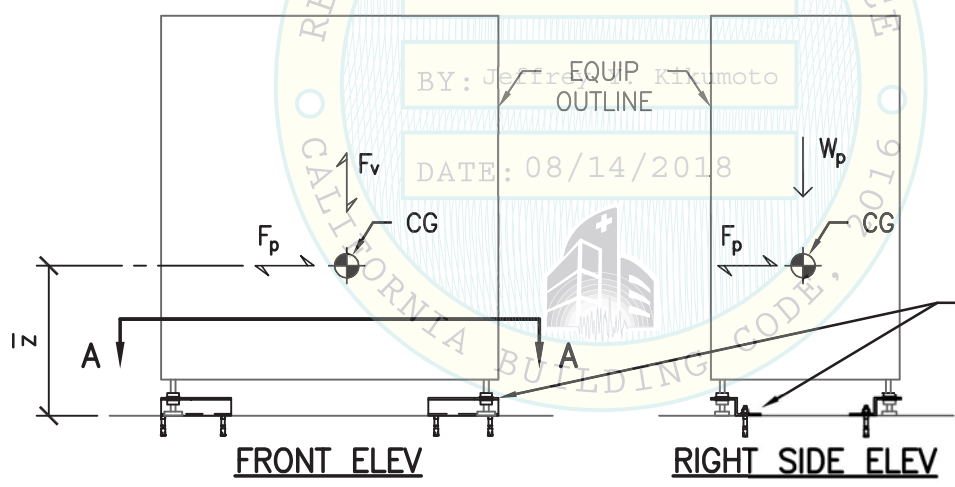
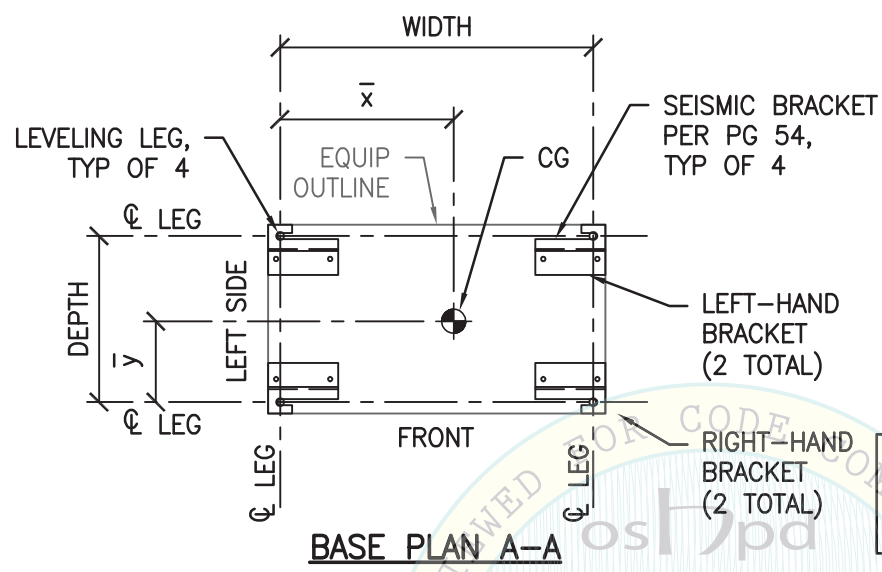
<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 07-20-2015 Page: 52 of 64
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L:\Jobs\13027 - Abbott a3600 OPM\ACAD\HEME\STRU\SI_HEME.dwg Time: Jul 20, 2015 - 10:50am Logintbeebyz Dimscale: 1 LTRScale: 6

MAX ANCHOR FORCES AT LRFD AT LEVELING LEG ¹			
	Tu, max	Cu, max	Vu, max
CASE 1	348#	411#	150#
CASE 2	190#	254#	84#

1. ECCENTRICITY & PRYING ACTION MUST BE CONSIDERED BASED ON THE SEISMIC BRACKET CONFIGURATION.

NOTE:
FOR COMPONENT DIMS NOT NOTED, SEE SCHED ON PG 11.



SEISMIC BRACKET PER PG 54, TYP OF 4.



5/7/15

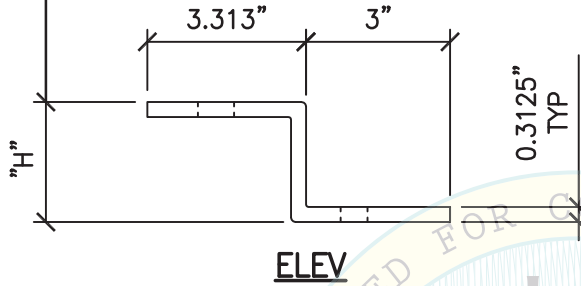
SHEET TITLE: LOAD BAY INTERFACE MODULE & UNLOAD BAY INTERFACE MODULE (ITEMS NO. 2 & NO. 9 - SUPPORT) BASE PLAN & ELEVATIONS

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 1-6-2015 Page: 53 of 64
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L:\Jobs\13\13027 Abbott a3600 OPM\ACAD\HEME\STRU\S1_HEME.dwg Time:Jan06,2015-11:10am Login:camachom DimScale:1 LScale:6

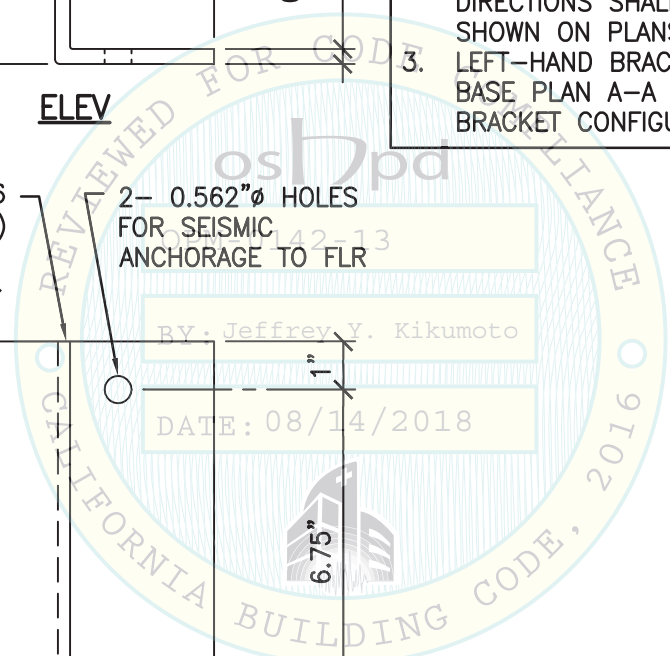
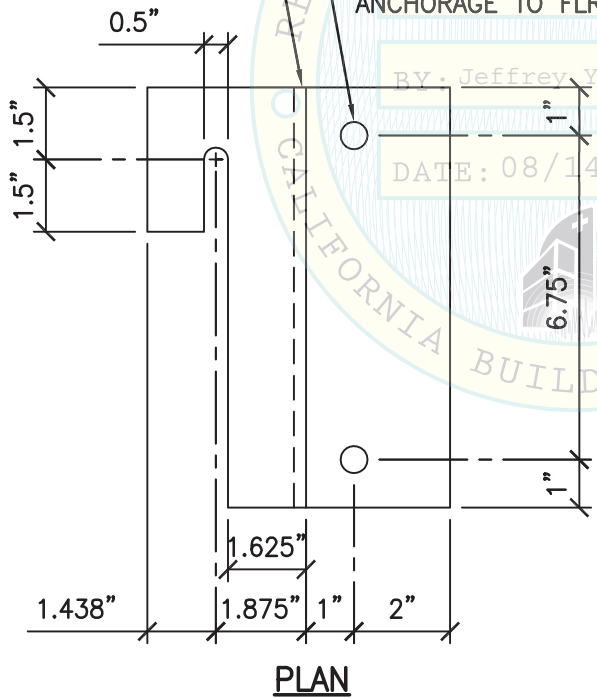
"H" VARIES TO ACCOMMODATE VERTICAL ADJUSTMENT OF THE COMPONENT FOR LEVELING PURPOSES AS MEASURED FROM THE FLR TO THE BOTT OF THE COMPONENT PER THE CASE 1 & CASE 2 FLR TO COMPONENT CLEARANCES AS FOLLOWS:

"H" = 2.500" FOR
2.500" ≤ CLR ≤ 3.750"
"H" = 3.750" FOR
3.750" ≤ CLR ≤ 5.000"



- NOTES:**
1. FOR CASE 1 & CASE 2 ANCHORAGE TO FLR, SEE PGS 55 & 56.
 2. BRACKET LAYOUT & SLOT DIRECTIONS SHALL BE FOLLOWED AS SHOWN ON PLANS ON PG 53.
 3. LEFT-HAND BRACKET SHOWN. SEE BASE PLAN A-A FOR RIGHT-HAND BRACKET CONFIGURATION.

SEISMIC BRACKET ASTM A36
($F_y = 36$ KSI)
2- 0.562" ϕ HOLES FOR SEISMIC ANCHORAGE TO FLR



SHEET TITLE: LOAD BAY INTERFACE MODULE & UNLOAD BAY INTERFACE MODULE
(ITEMS NO. 2 & NO. 9 - SUPPORT) SEISMIC BRACKET DETAIL

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 06-10-2015 Page: 54 of 64
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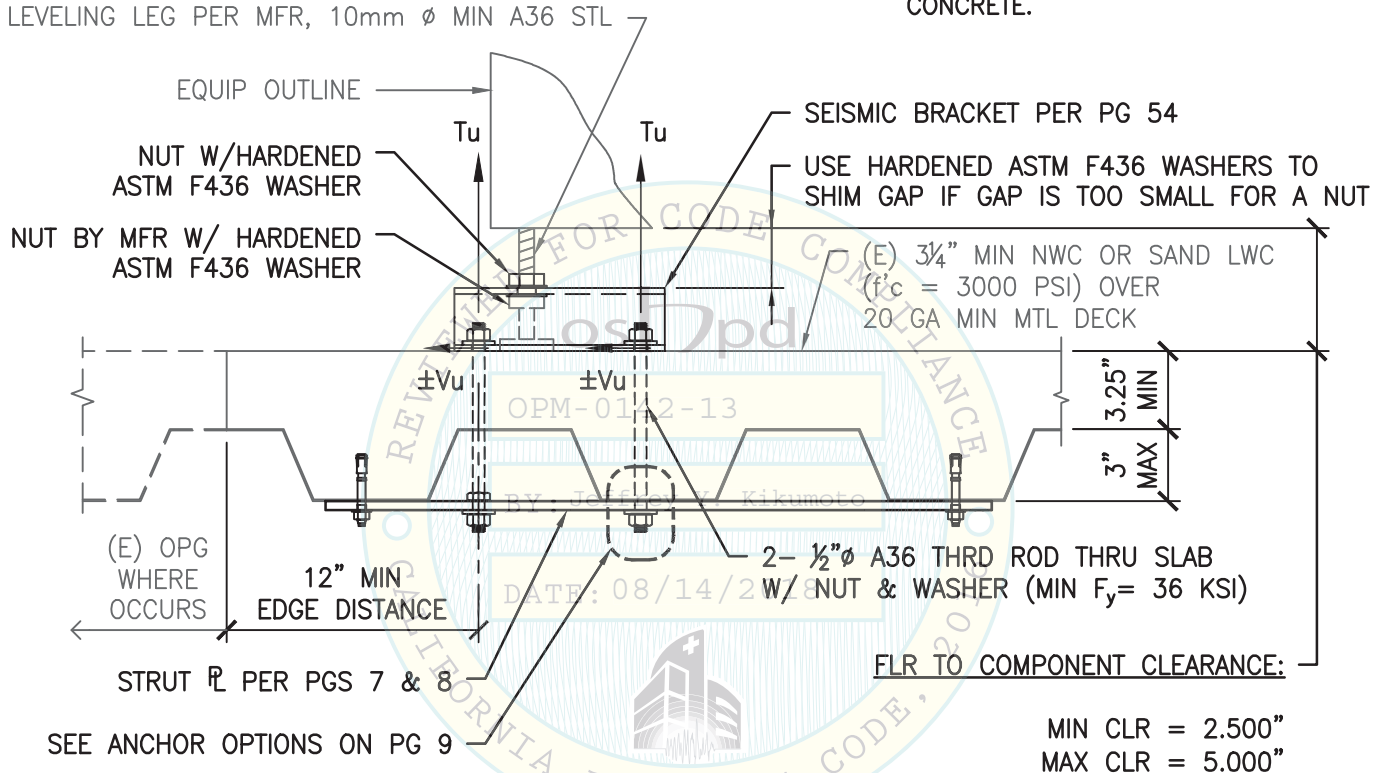
L:\Jobs\13\13027 Abbott OPM\ACAD\HEME\STRU\S1_HEME.dwg Time: Jun 11, 2015 - 11:13:30am Login: rmayherferm Dimstyle: 1 LTScale: 6

NOTE:
DBL NUTS AT STRUT ARE ONLY PERMITTED TO OCCUR AT ANCHOR RODS PASSING THRU HIGH FLUTES.

MAX ANCHOR FORCES
AT LRFD AT EA AB

	Tu	Vu
CASE 1 $z/h \leq 1.0$	948#	128#

OVERSTRENGTH FACTOR (Ω_o) MUST BE APPLIED TO Vu FOR ANCHORAGE TO CONCRETE.



CASE 1 – SUSPENDED FLR W/ THRU BOLTS



07/20/2015

SHEET TITLE: LOAD BAY INTERFACE MODULE & UNLOAD BAY INTERFACE MODULE
(ITEMS NO. 2 & NO. 9 - SUPPORT) ATTACHMENT DETAIL



CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

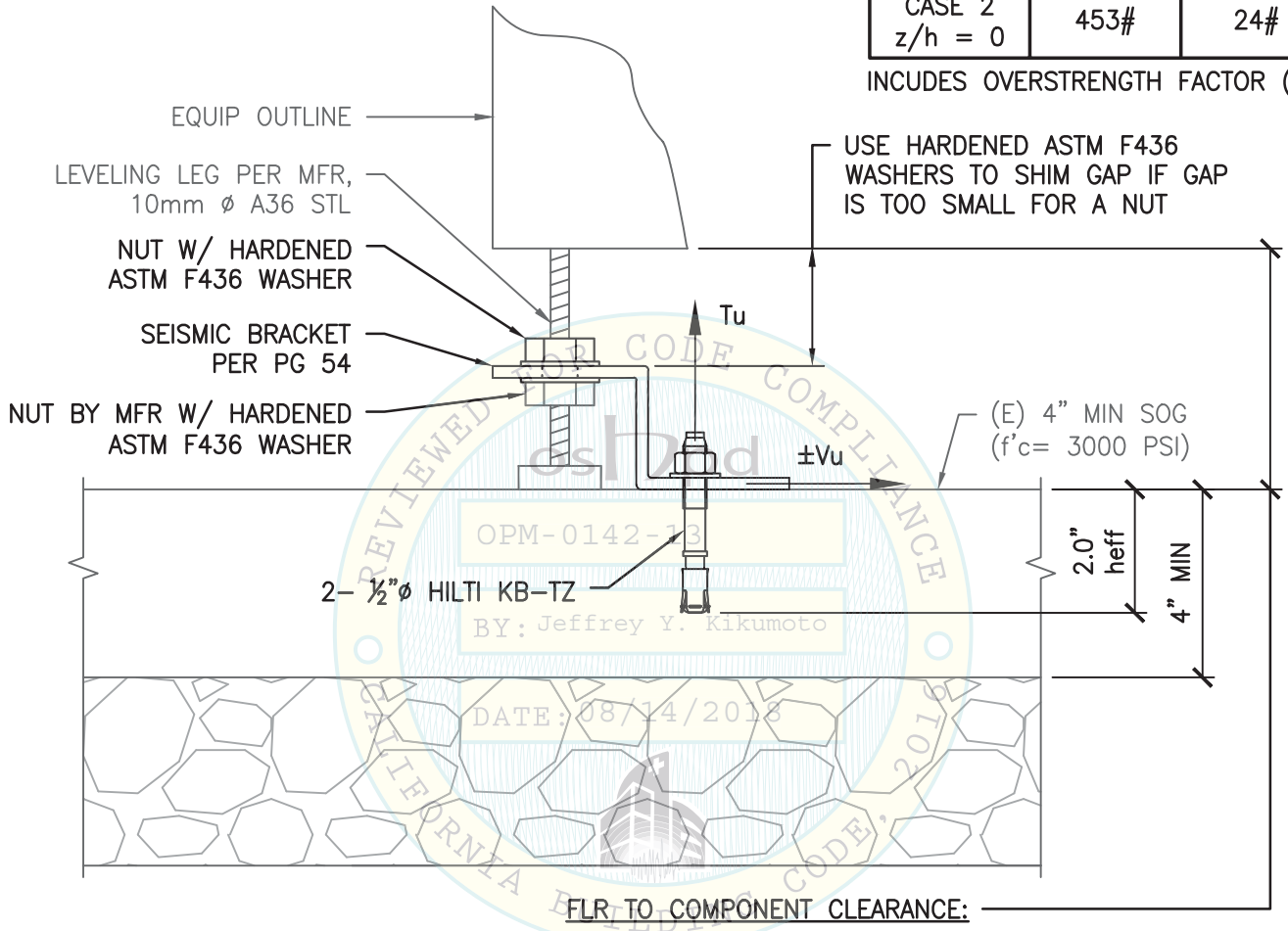
TEL (916) 920-2020
www.cyseng.com

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Date:	07-20-2015
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L:\Jobs\13027_Abbott_a3600_OPM\ACAD\HEME\STRU\SI_HEME.dwg Time: Jul 20, 2015 - 10:50am Logintbeebyz Dimscale: 1 L7Scale: 6

MAX ANCHOR FORCES AT LRFD AT EA AB	
Tu	Vu
CASE 2 z/h = 0	453#
	24#

INCLUDES OVERSTRENGTH FACTOR (ϕ_o).



OPM-0142-13
BY: Jeffrey Y. Kikumoto
DATE: 08/14/2015

FLR TO COMPONENT CLEARANCE:

MIN CLR = 2.500"
MAX CLR = 5.000"

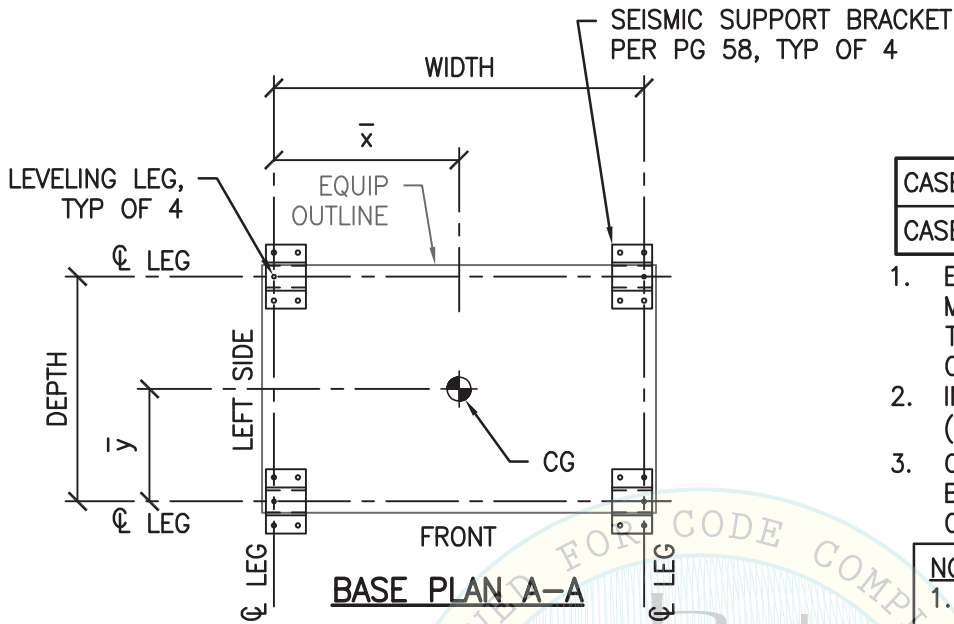
CASE 2 – SLAB ON GRADE
(SLAB AT OR BELOW GRADE)



SHEET TITLE: LOAD BAY INTERFACE MODULE & UNLOAD BAY INTERAFACE MODULE
(ITEMS NO. 2 & NO. 9 - SUPPORT) ATTACHMENT DETAIL

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 07-20-2015 Page: 56 of 64
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L:\Jobs\13027_Abbott\ACAD\HOME\STRU\SI_HEME.dwg Time: Jul 20, 2015 - 10:50am Logintbeebyz DimScale: 1 LTRScale: 6

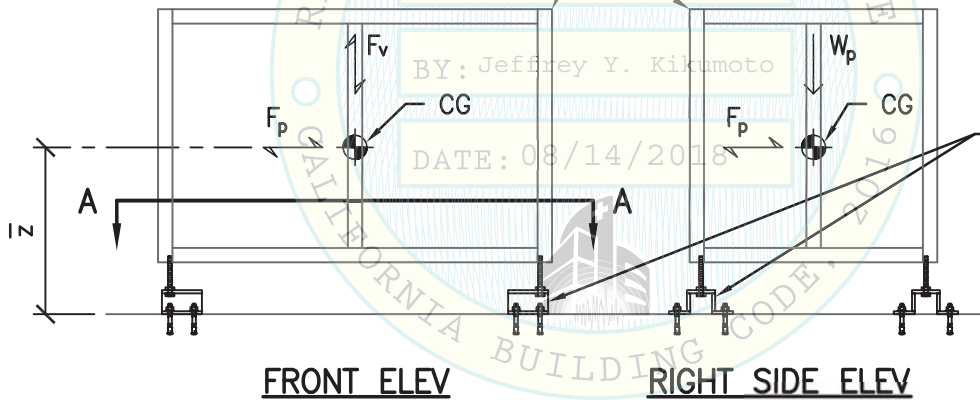


MAX ANCHOR FORCES AT LRFD AT LEVELING LEG ¹			
	T _{max}	C _{max}	V _{max}
CASE 1 ³	1063#	1650#	515#
CASE 2 ²	573#	1044#	508#

1. ECCENTRICITY & PRYING ACTION MUST BE CONSIDERED BASED ON THE SEISMIC BRACKET CONFIGURATION.
2. INCLUDES OVERSTRENGTH FACTOR (Ω_o).
3. OVERSTRENGTH FACTOR (Ω_o) MUST BE APPLIED FOR ANCHORAGE TO CONC.

NOTE:
 1. FOR COMPONENT DIMS NOT NOTED, SEE SCHED ON PG 11.
 2. A DISTANCE OF 5.5" BTW AB OF ADJ BRACKETS IS ACCEPTABLE.

SUPPORT TABLE FRAME



FRONT ELEV

RIGHT SIDE ELEV



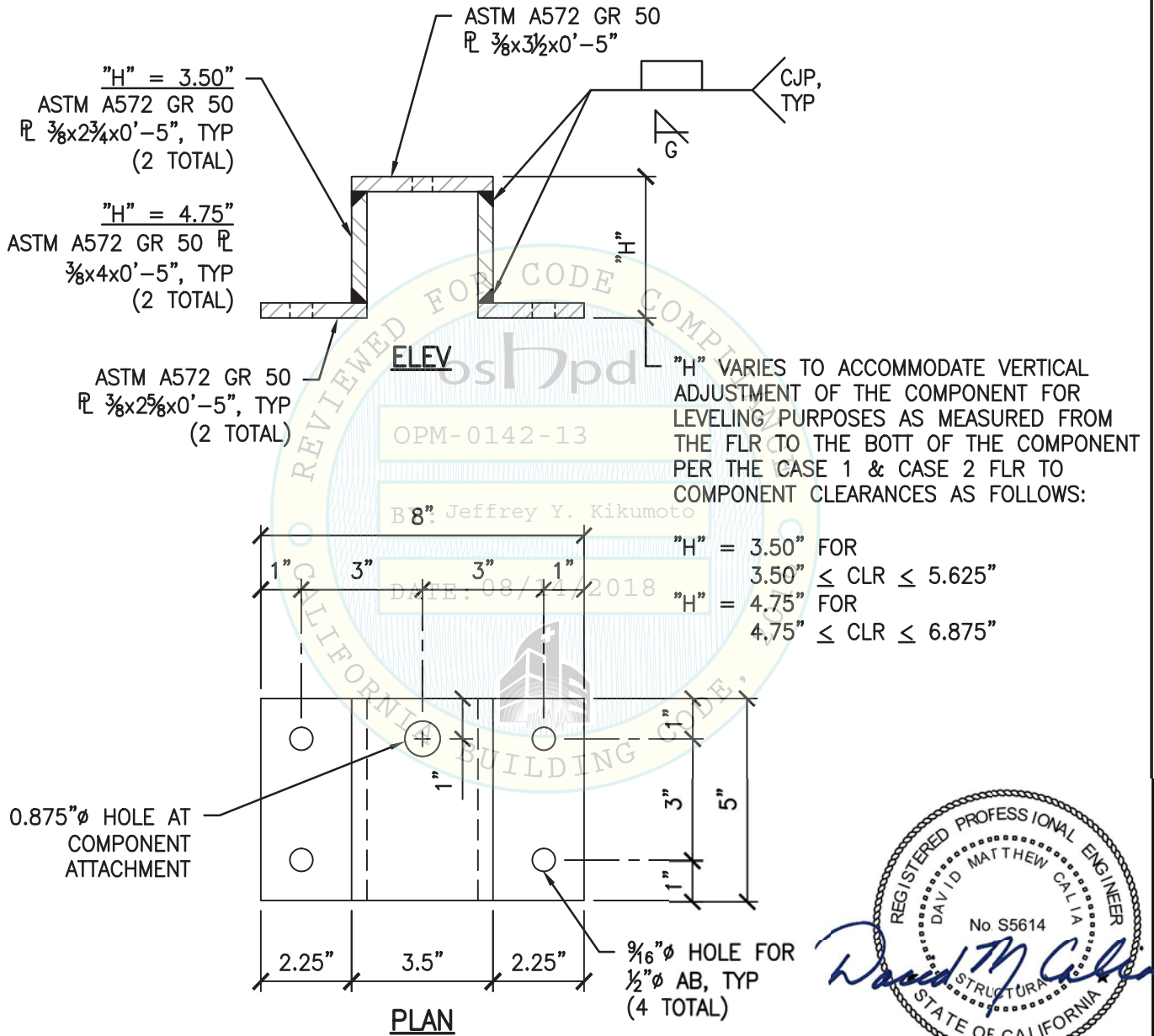
SHEET TITLE: SAPPHIRE HEMATOLOGY ANALYZER SUPPORT TABLE (ITEM NO. 5 - SUPPORT)
BASE PLAN & ELEVATIONS

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 1-6-2015 Page: 57 of 64
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L:\Jobs\13027 Abbott OPM\ACAD\HEME\STRU\S1_HEME.dwg Time: Jun 08, 2015 - 01:47pm Login: camachom DimScale: 1 LScale: 6

NOTES:

1. FOR CASE 1 & CASE 2 ANCHORAGE TO FLR, SEE PGS 59 & 60.
2. BRACKET LAYOUT SHALL BE FOLLOWED AS SHOWN ON PLANS ON PG 57.
3. SEE PG 4 FOR WELDING NOTES.



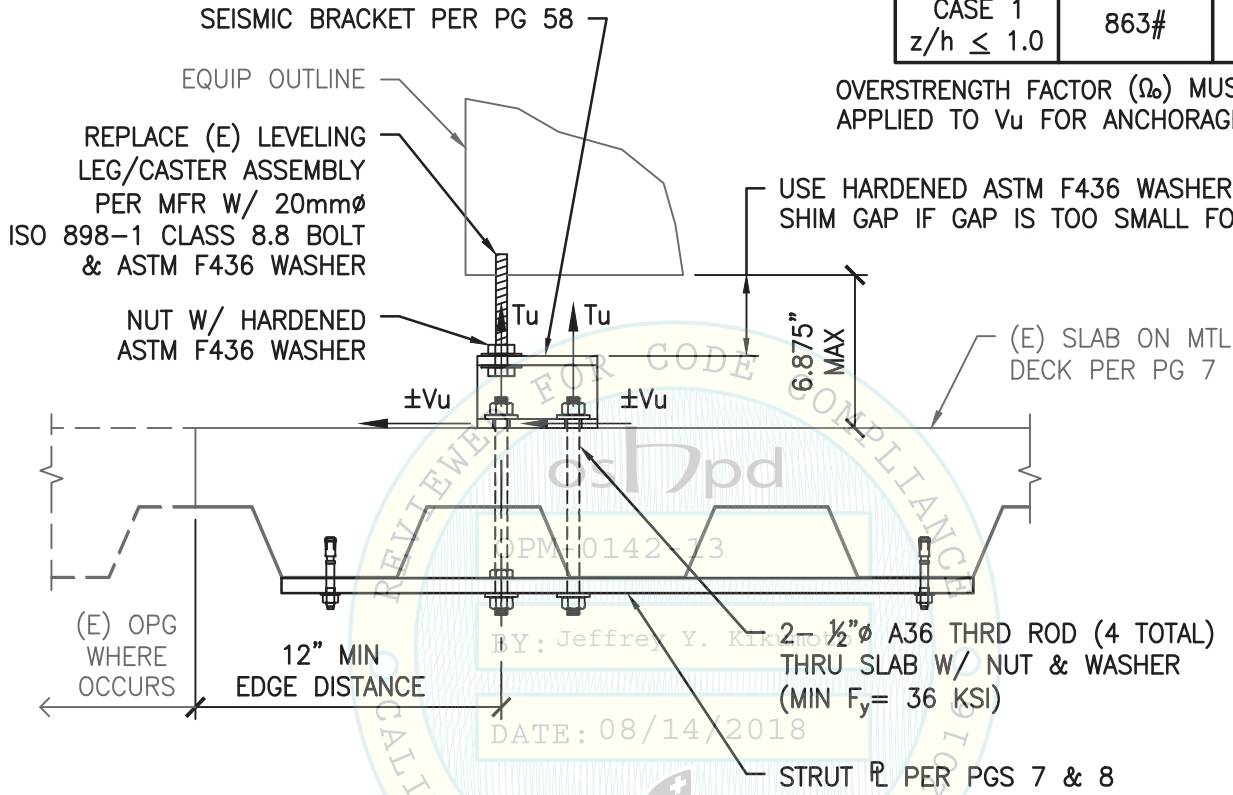
SHEET TITLE: SAPPHIRE HEMATOLOGY ANALYZER SUPPORT TABLE (ITEM NO. 5 - SUPPORT)
SUPPORT BRACKET DETAIL

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	Job No: 13027.01
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MAX ANCHOR FORCES AT LRFD AT EA AB	
Tu	Vu
CASE 1 $z/h \leq 1.0$	863# 257#

OVERSTRENGTH FACTOR (Ω_o) MUST BE APPLIED TO V_u FOR ANCHORAGE TO CONC.



CASE 1 - SUSPENDED FLR W/ THRU BOLTS



SHEET TITLE: SAPPHIRE HEMATOLOGY ANALYZER SUPPORT TABLE (ITEM NO. 5 - SUPPORT)
SEISMIC ATTACHMENT DETAIL

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 07-20-2015 Page: 59 of 64
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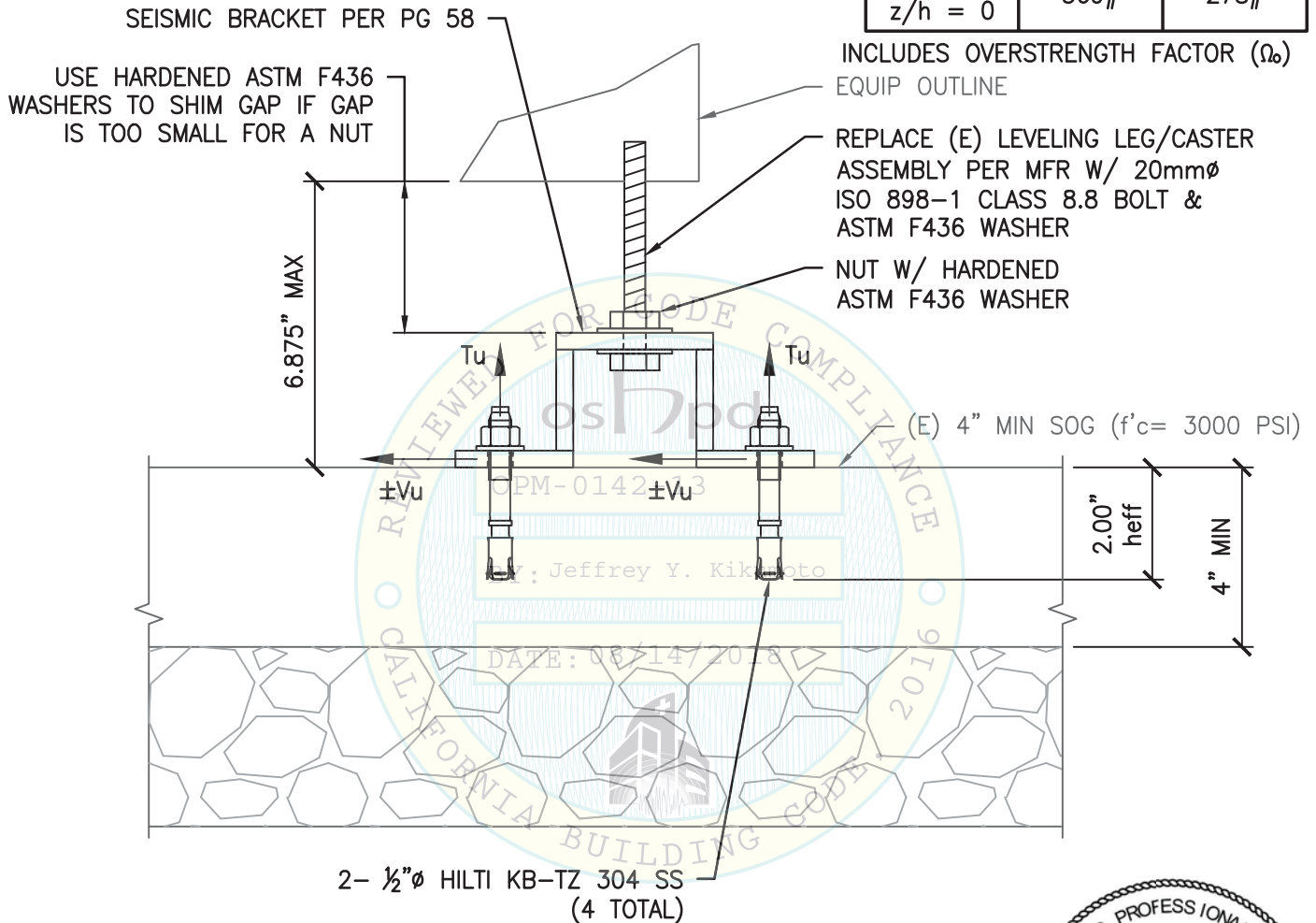
L:\Jobs\13027_Abbott\OPM\ACAD\HEME\STRU\S1_HEME.dwg Time: Jul 20, 2015 - 10:50am Logint: beebyz DimScale: 1 LScale: 6

MAX ANCHOR FORCES
AT LRFD AT EA AB

	Tu	Vu
CASE 2 z/h = 0	369#	278#

INCLUDES OVERSTRENGTH FACTOR (Ω_o)
EQUIP OUTLINE

REPLACE (E) LEVELING LEG/CASTER
ASSEMBLY PER MFR W/ 20mm ϕ
ISO 898-1 CLASS 8.8 BOLT &
ASTM F436 WASHER
NUT W/ HARDENED
ASTM F436 WASHER



CASE 2 - SLAB ON GRADE
(SLAB AT OR BELOW GRADE)

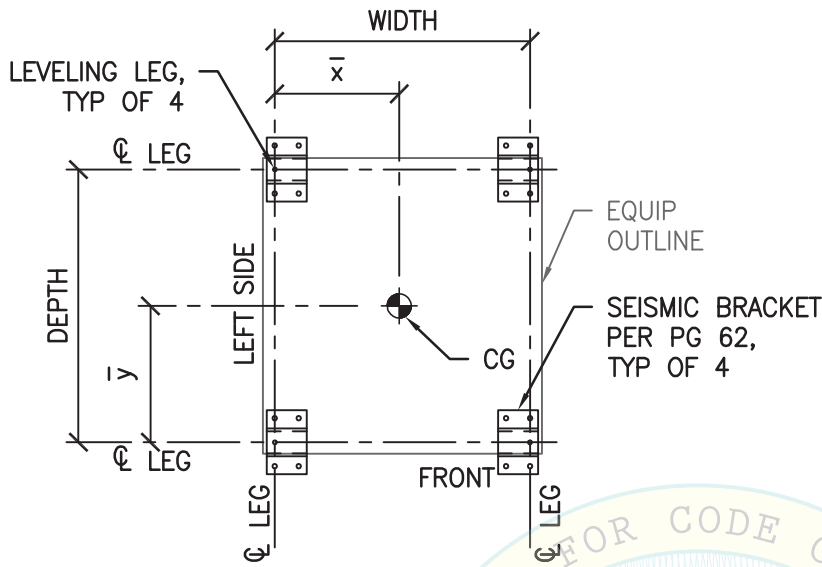


07/20/2015

SHEET TITLE: SAPPHIRE HEMATOLOGY ANALYZER SUPPORT TABLE (ITEM NO. 5 - SUPPORT)
SEISMIC ATTACHMENT DETAIL

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	<p>TEL (916) 920-2020 www.cyseng.com</p>	Job No: 13027.01
		Date: 07-20-2015
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L:\Jobs\13027_Abbott\ACAD\HEME\STRU\SI_HEME.dwg Time: Jul 20, 2015 - 10:50am Logintbeebyz Dimscale: 1 LScale: 6



BASE PLAN A-A

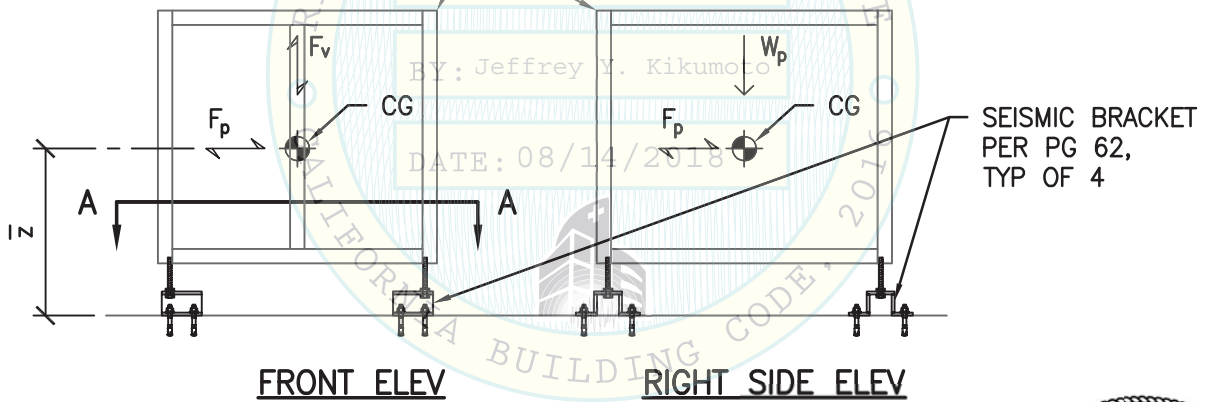
MAX ANCHOR FORCES AT LRFD AT LEVELING LEG ¹			
	T _{max}	C _{max}	V _{max}
CASE 1 ³	915#	1209#	510#
CASE 2 ²	458#	759#	301#

1. ECCENTRICITY & PRYING ACTION MUST BE CONSIDERED BASED ON THE SEISMIC BRACKET CONFIGURATION.
2. INCLUDES OVERSTRENGTH FACTOR (Ω_o).
3. OVERSTRENGTH FACTOR (Ω_o) MUST BE APPLIED FOR ANCHORAGE TO CONC.

NOTE:

1. FOR COMPONENT DIMS NOT NOTED, SEE SCHED ON PG 11.
2. A DISTANCE OF 5.5" BTW AB OF ADJ BRACKETS IS ACCEPTABLE.

SUPPORT TABLE FRAME



FRONT ELEV

RIGHT SIDE ELEV



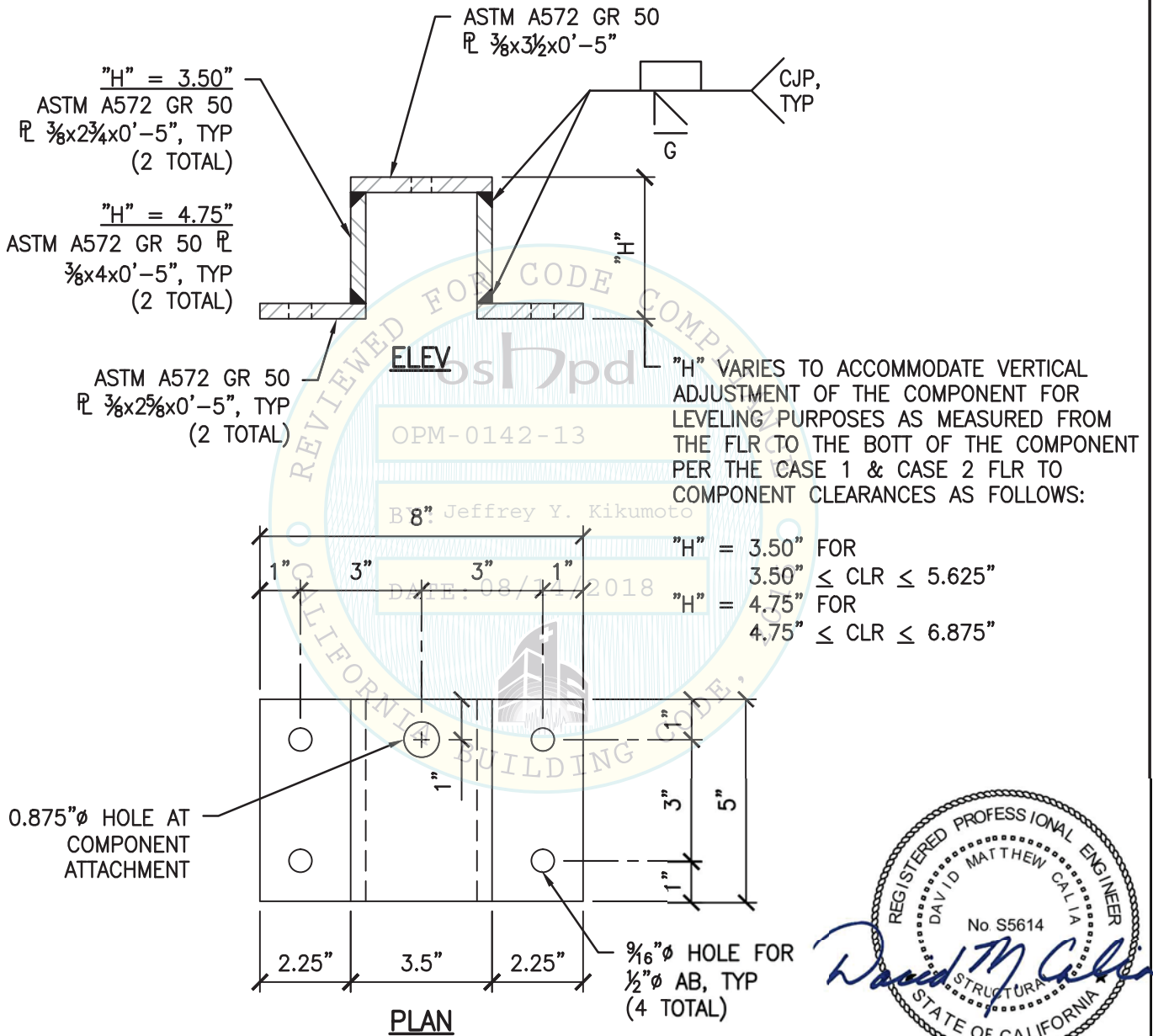
SHEET TITLE: SMS HEMATOLOGY ANALYZER SUPPORT TABLE (ITEM NO. 6 - SUPPORT)
BASE PLAN & ELEVATIONS

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 13027.01 Date: 06-10-2015 Page: 61 of 64
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NOTES:

1. FOR CASE 1 & CASE 2 ANCHORAGE TO FLR, SEE PGS 63 & 64.
2. BRACKET LAYOUT SHALL BE FOLLOWED AS SHOWN ON PLANS ON PG 61.
3. SEE PG 4 FOR WELDING NOTES.



07/20/2015

SHEET TITLE: SMS HEMATOLOGY ANALYZER SUPPORT TABLE (ITEM NO. 6 - SUPPORT)
SUPPORT BRACKET DETAIL

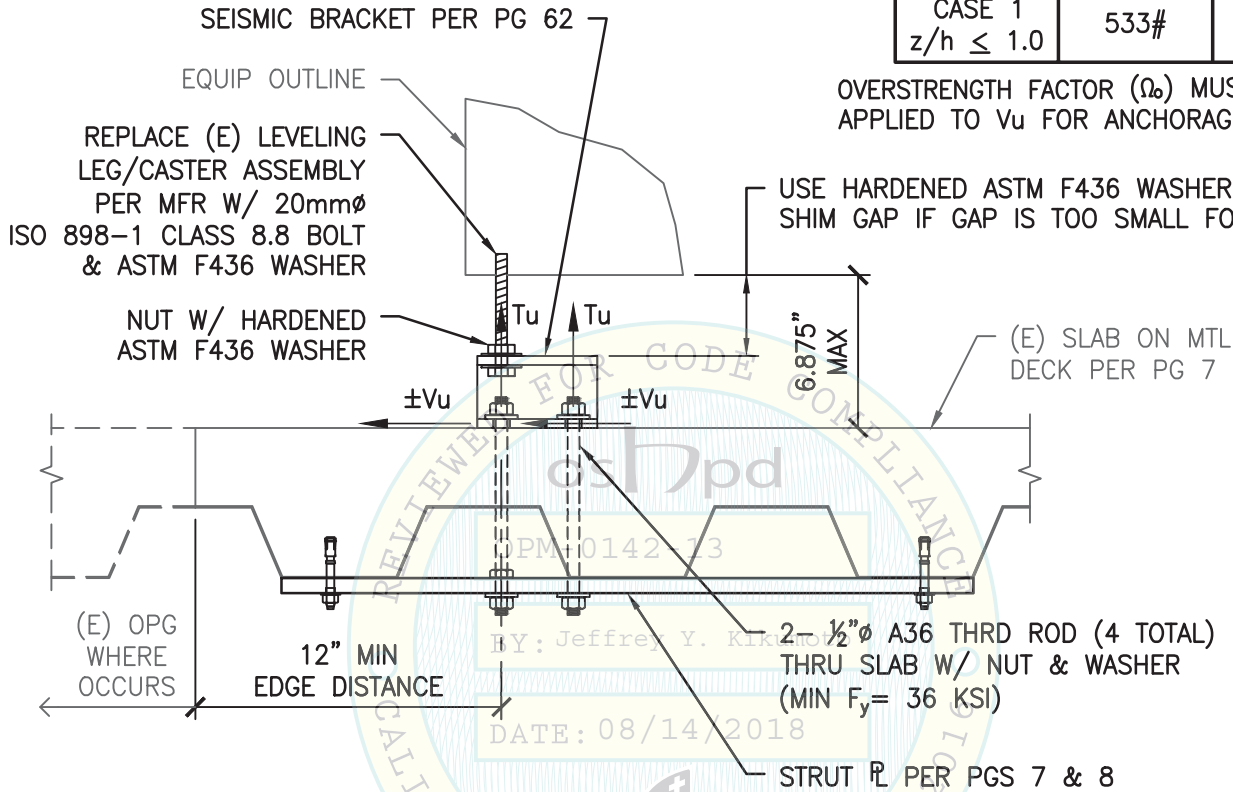
<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	Job No: 13027.01
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MAX ANCHOR FORCES
AT LRFD AT EA AB

	Tu	Vu
CASE 1 z/h ≤ 1.0	533#	219#

OVERSTRENGTH FACTOR (Ω_o) MUST BE APPLIED TO V_u FOR ANCHORAGE TO CONC.



CASE 1 - SUSPENDED FLR W/ THRU BOLTS



07/20/2015

SHEET TITLE: SMS HEMATOLOGY ANALYZER SUPPORT TABLE (ITEM NO. 6 - SUPPORT)
SEISMIC ATTACHMENT DETAIL



CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

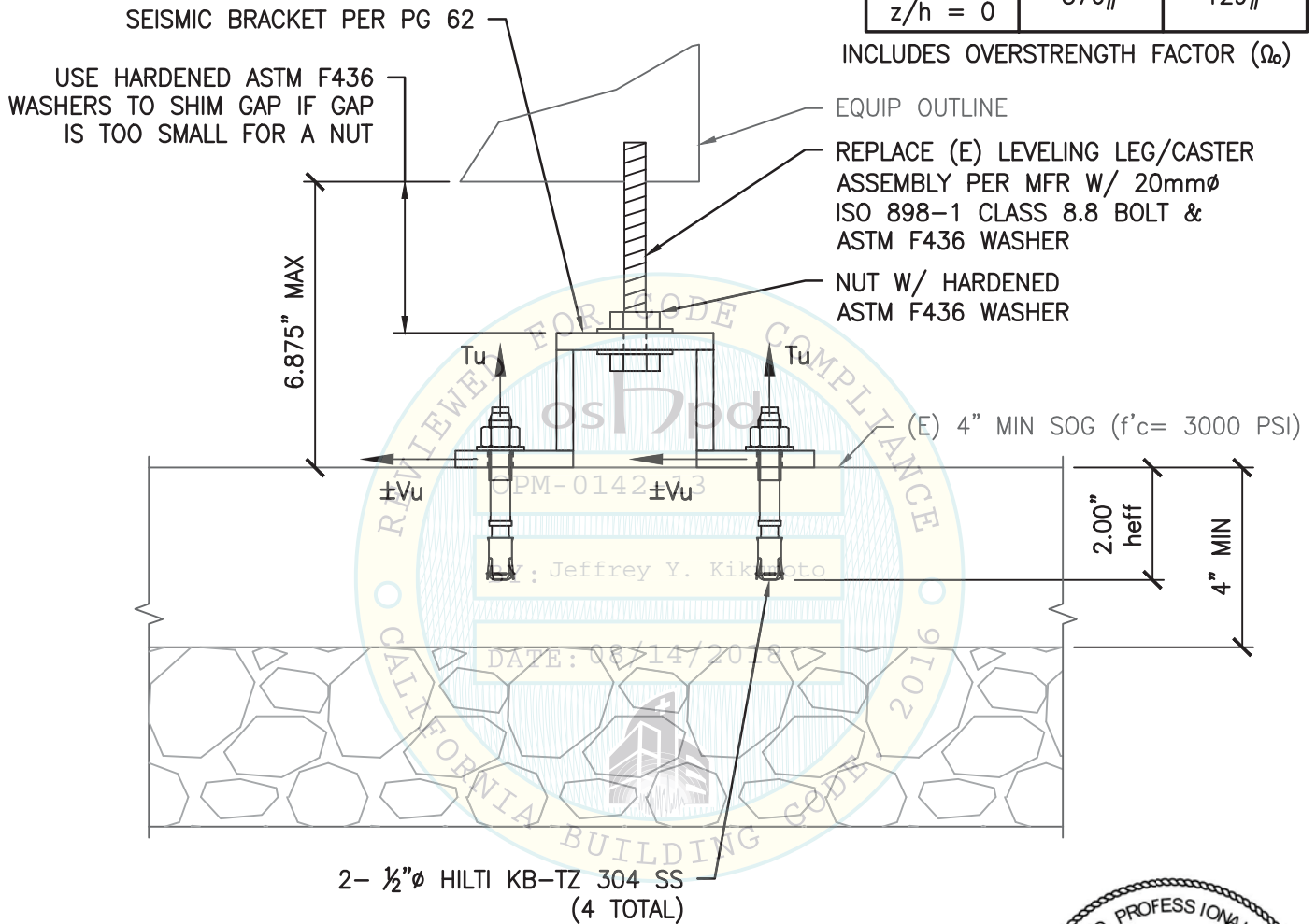
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MAX ANCHOR FORCES AT LRFD AT EA AB	
Tu	Vu
CASE 2 z/h = 0	376#
	129#

INCLUDES OVERSTRENGTH FACTOR (Ω_b)



CASE 2 – SLAB ON GRADE
(SLAB AT OR BELOW GRADE)



07/20/2015

SHEET TITLE: SMS HEMATOLOGY ANALYZER SUPPORT TABLE (ITEM NO. 6 - SUPPORT)
SEISMIC ATTACHMENT DETAIL

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	Job No: 13027.01
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	Page: 64 of 64

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