



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
FACILITIES DEVELOPMENT DIVISION**

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

OFFICE USE ONLY

**APPLICATION #: OPM-0367**

**HCAI Preapproval of Manufacturer's Certification (OPM)**

Type:  New  Renewal/Update

**Manufacturer Information**

Manufacturer: Siemens Healthineers

Manufacturer's Technical Representative: Aravind Hiremath

Mailing Address: 62 Flanders Bartley Road, Flanders, NJ 07836

Telephone: (862) 219-4331

Email: Aravind.Hiremath.ext@siemens-healthineers.com

**Product Information**

Product Name: ATELLICA ANALYZER SYSTEMS

OPM-0367

Product Type: CLINICAL DIAGNOSTIC ANALYZER

Product Model Number: Atellica® IM 1300 Analyzer, Atellica® CH 930 Analyzer, Atellica® Sample Handler, Atellica® Direct Load, Atellica® Direct Connect, Atellica® Sample Handler Connect; Any combination of the Atellica® Solution consists of Atellica® IM 1300 Analyzer + Atellica® CH 930 Analyzer + Atellica® Sample Handler w/Atellica® Magline

General Description: BODY FLUID ANALYZERS

**Applicant Information**

Applicant Company Name: CYS Structural Engineers, Inc.

Contact Person: Dieter Siebald

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

Telephone: (916) 920-2020

Email: dieters@cyseng.com

Title: Structural Engineer

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

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY





**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
FACILITIES DEVELOPMENT DIVISION**

**Registered Design Professional Preparing Engineering Recommendations**

Company Name: CYS STRUCTURAL ENGINEERS, INC.

Name: Dieter Siebald California License Number: S4346

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

Telephone: (916) 920-2020 Email: dieters@cyseng.com

**HCAI Special Seismic Certification Preapproval (OSP)**

Special Seismic Certification is preapproved under OSP OSP Number: \_\_\_\_\_

**Certification Method**

Testing in accordance with:  ICC-ES AC156  FM 1950-16

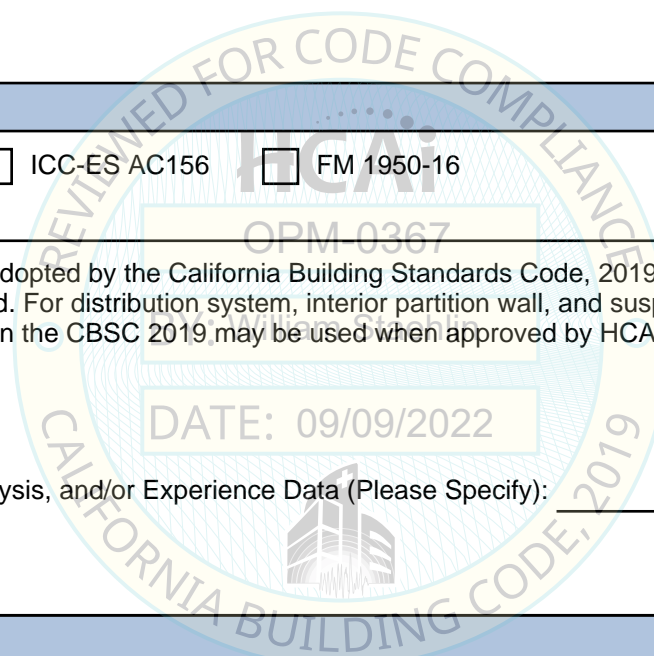
Other(s) (Please Specify): \_\_\_\_\_

\*Use of criteria other than those adopted by the California Building Standards Code, 2019 (CBSC 2019) 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 2019 may be used when approved by HCAI prior to testing.

Analysis

Experience Data

Combination of Testing, Analysis, and/or Experience Data (Please Specify): \_\_\_\_\_



**HCAI Approval**

Date: 2/6/2022

Name: William Staehlin Title: Senior Structural Engineer

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

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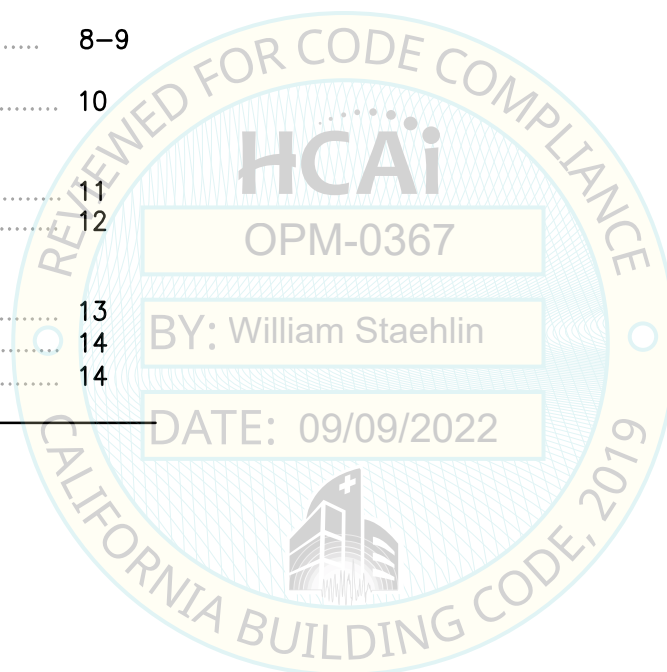
**ATELLICA® ANALYZER SYSTEMS  
SEISMIC SUPPORTS & ATTACHMENTS  
FOR CALIFORNIA HOSPITALS**

**TABLE OF CONTENTS  
OPM-0367**

	PAGE
GENERAL NOTES .....	2
DESIGN CRITERIA .....	3
ABBREVIATIONS .....	3
<b>ANALYZER MODULES PLANS &amp; ELEVATIONS</b>	
ATELLICA® DIRECT LOAD + IM 1300 ANALYZER .....	4
ATELLICA® DIRECT LOAD + CH 930 ANALYZER .....	5
ATELLICA® DIRECT LOAD OR ATELLICA® DIRECT CONNECT .....	6
ATELLICA® SAMPLE HANDLER CONNECT .....	7
ATELLICA® SOLUTION (ATELLICA® CH 930 ANALYZER + ATELLICA® IM 1300 ANALYZER + ATELLICA® SAMPLE HANDLER W/ ATELLICA® MAGLINE) .....	8-9
ANALYZER MODULES TYPICAL BRACKET ASSEMBLY .....	10
<b>SUPPORT DETAILS</b>	
TYPICAL FRAME & FLOOR BRACKETS .....	11
TYPICAL BACKER PLATE & FLOOR SPACER .....	12
<b>ATTACHMENT DETAILS</b>	
CASE 1: CONCRETE FILL OVER METAL DECK & STRUT PLATE DETAIL .....	13
CASE 2: 4" CONCRETE SLAB ON GRADE .....	14
CASE 3: 6" CONCRETE SLAB ON GRADE .....	14

**NOTES:**

- THESE DRAWINGS ARE PREPARED FOR SIEMENS HEALTHINEERS, NEWARK, DELAWARE.
- THE CONTRACTOR AND INSPECTOR OF RECORD SHALL OBTAIN A COPY OF THIS PRE-APPROVAL FROM THE DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION (HCAI) PRE-APPROVAL PROGRAMS WEBSITE.
- THIS PRE-APPROVAL COVERS THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT (COMPONENTS) TO THE SUPPORTING STRUCTURE. THE EQUIPMENT UNITS ARE SUPPLIED BY SIEMENS. THE ATTACHMENT HARDWARE IS SUPPLIED AND INSTALLED BY SIEMENS. THROUGH BOLTS, UNDER FLOOR HARDWARE AND ATTACHMENTS UNDER METAL DECK AND EXPANSION BOLTS SHOWN ON PAGES 13, 14, 17 AND 18 SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.



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SHEET TITLE: TABLE OF CONTENTS



SIEMENS HEALTHINEERS  
ATELLICA® ANALYZER SYSTEMS



**CYS STRUCTURAL ENGINEERS, INC.**

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Rev	Description	Date	Job No:	21057
			Date:	02/02/2022
			By:	CYS
			Page:	1 of 14

**GENERAL NOTES:**

- THIS HCAI PRE-APPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2019 CALIFORNIA BUILDING CODE. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2019.
- IT IS THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER OF RECORD (SEOR) FOR A SITE SPECIFIC PROJECT TO VERIFY:
  - 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.
  - THAT THE FLR ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY SLAB EDGES OR OPGS.
  - 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 2 IS THE REQ MIN SPCG OF THE 1/2" DIA AB'S. THE REQ SPCG FROM ANCHORS OF OTHER DIAMETERS & EMBEDMENTS MAY VARY & SHALL BE EVALUATED BY THE SEOR.
  - THAT THE INSTALLATION IS IN CONFORMANCE W/ THE CBC 2019 & W/ THE DETAILS SHOWN IN THIS PRE-APPROVAL.
  - 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. DIMS ARE IN INCHES (MILLIMETERS).

4. DRAWING SCALES ARE NOT PROVIDED. DO NOT SCALE OFF OF THESE DRAWINGS. THE INTENT OF THESE DRAWINGS ARE TO SHOW HOW TO ANCHOR THE EQUIP SPECIFIED. THE REPRESENTATIONS OF THE EQUIP ARE ONLY INTENDED TO SHOW THE COORD W/ THE SEISMIC BRACKETS.

5. COORD THE AB LAYOUT W/ THE EQUIP IN THE FIELD PRIOR TO SETTING AB'S. TAKE CARE TO AVOID DAMAGING REBAR OR POST-TENSIONING TENDONS WHEN INSTALLING ANCHORS TO CONC.

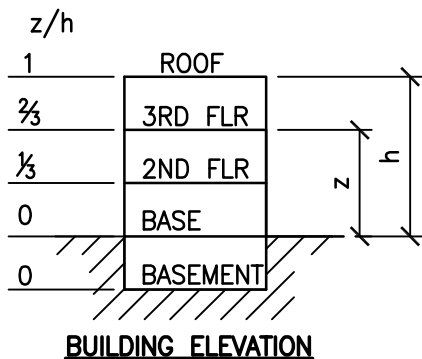
6. THREE (3) CASES OF ANCHORAGE ARE SPECIFIED AND PRESENTED IN THIS PRE-APPROVAL:

**CASE 1:** ANCHORAGE DETAILS LOCATED AT UPPER FLOORS ABOVE THE BASE OF A BUILDING ( $z/h \leq 0.67$ ), IT IS ASSUMED THAT THE FLOORS ARE BUILT OF A MINIMUM 3/4" SAND-LIGHTWEIGHT CONCRETE TOPPING OVER METAL DECK ( $f'c = 3000$  PSI, MINIMUM).

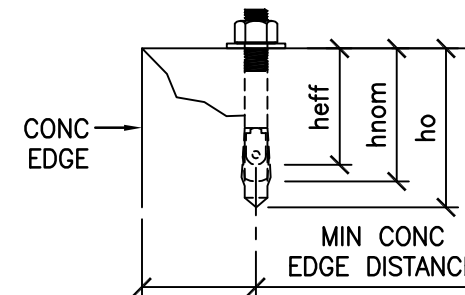
**CASE 2:** ANCHORAGE DETAILS LOCATED AT OR BELOW THE BASE OF THE BUILDING ( $z/h=0$ ). THE FLOORS ARE ASSUMED TO BE BUILT OF A MINIMUM 4" NORMAL-WEIGHT CONCRETE SLAB ( $f'c = 3000$  PSI, MINIMUM).

**CASE 3A:** ANCHORAGE DETAILS LOCATED AT OR BELOW THE BASE OF A BUILDING ( $z/h=0$ ). THE FLOORS ARE ASSUMED TO BE BUILT OF A MINIMUM 6" NORMAL-WEIGHT CONCRETE SLAB ( $f'c = 4000$  PSI, MINIMUM).

**CASE 3B:** ANCHORAGE DETAILS LOCATED AT OR BELOW THE BASE OF THE BUILDING ( $z/h=0$ ). THE FLOORS ARE ASSUMED TO BE BUILT OF A MINIMUM 6" NORMAL-WEIGHT CONCRETE SLAB ( $f'c = 3000$  PSI, MINIMUM).



- EXPANSION ANCHORS INSTALLED IN NWC OR SLWC CONC SHALL BE CARBON STL HILTI KB-TZ2 EXPANSION ANCHORS COMPLYING W/ ICC-ES ESR-4266 ISSUED DECEMBER 2020, REVISED APRIL 2021.
  - 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 ANCHOR TABLE BELOW AND ATTACHMENT DETAIL 2 ON PG 13.
  - 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 INSPECTOR OF RECORD (IOR). 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 "FIELD TESTS FOR POST-INSTALLED ANCHORS IN CONCRETE".
  - 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.
  - TEST VALUES: SEE TABLE BLW  
POST-INSTALLED ANCHORS SHALL BE INSTALLED W/ FULL THRD ENGAGMENT OF THE NUT & WASHER



CONDITION OF ANCHORAGE	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 AB SPCG (INCH)	TORQUE TEST (FT-LBS)
CASE 2	1/2	2 1/2	2	2 3/4	5	12	6	50
CASE 3A CASE 3B	1/2	3 3/4	3 3/4	4 1/4	5 1/2	12	6	50

7. THESE DRAWINGS MAY BE USED AT ANY GEOGRAPHICAL LOCATION IN THE STATE OF CALIFORNIA WHERE  $S_{DS}$  IS LESS THAN OR EQUAL TO 2.5, EXCEPT FOR CASE 2, CASE 3A AND CASE 3B ANCHORAGE WHERE  $S_{DS}$  MUST BE LESS THAN OR EQUAL TO 1.20, 1.80 AND 1.60 RESPECTIVELY.

- BOLTS THROUGH CONC ON MTL DECK:
  - BOLTS SHALL BE TORQUED BY 3/4 TURN OF THE NUTS AFTER SNUG TIGHT (THE SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQ TO BRING THE CONNECTED PLIES INTO FIRM CONTACT) CONDITION IS ACHIEVED, UNO.
  - THRU-BOLT HOLES SHALL BE 1/16" LARGER THAN BOLT SIZE (HOLE SIZE = BOLT SIZE + 1/16")
  - THRU-BOLTS IN CONC SHALL RECEIVE SPECIAL INSPECTION & TESTING (THRU-BOLTS W/ STL-TO-STL CONN IN TENSION DO NOT REQUIRE TESTING) IN ACCORDANCE W/ REQUIREMENTS FOR POST-INSTALLED ANCHORS.



SHEET TITLE: GENERAL NOTES



SIEMENS HEALTHINEERS  
ATELLICA® ANALYZER SYSTEMS



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Rev	Description	Date	Job No:	21057
			Date:	02/02/2022
			By:	CYS
			Page:	2 of 14

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**DESIGN CRITERIA:**

SUPPORT & ATTACHMENT DESIGN IS PER 2019 CBC AT LRFD LEVEL FORCES.

OTHER MECHANICAL OR ELECTRICAL COMPONENTS PER ASCE 7-16 TABLE 13.6-1 & [CBC 1617A.1.23]

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

$W_p$  AS NOTED ON DRAWINGS

UPPER FLRS ABV THE BASE OF BLDG,  $z/h \leq 0.67$

CASE 1:       $S_{Ds} = 2.50$        $F_p = 2.34 W_p$

FLRS AT OR BLW THE BASE OF BLDG,  $z/h = 0$

CASE 2:       $S_{Ds} = 1.20$        $F_p = 0.540 W_p$

CASE 3A:       $S_{Ds} = 1.80$        $F_p = 0.810 W_p$

CASE 3B:       $S_{Ds} = 1.60$        $F_p = 0.720 W_p$

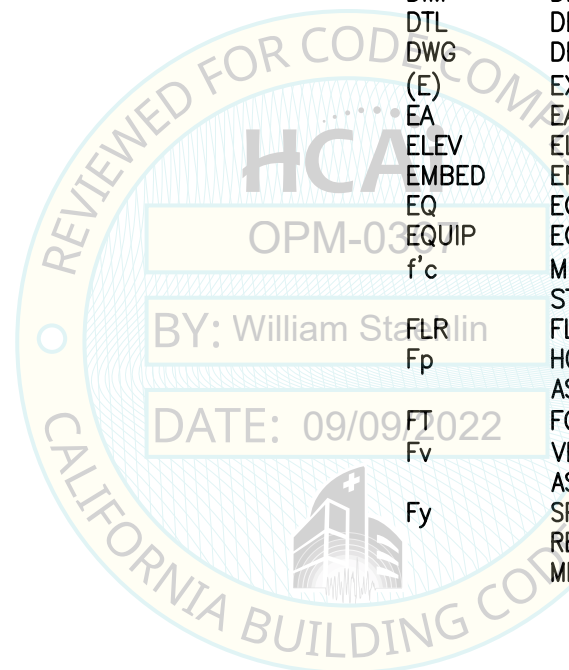
LOAD COMBINATIONS

$(0.9 - 0.2 S_{Ds}) D - \Omega_0 F_p$  (FOR MAX TENSION)

$(1.2 + 0.2 S_{Ds}) D + \Omega_0 F_p$  (FOR MAX COMPRESSION)

**ABBREVIATIONS:**

@	AT	GA	GAGE
ABV	ABOVE	GR	GRADE
AB	ANCHOR BOLT	HCAI	DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
ADJ	ADJACENT	ICC	INTERNATIONAL CODE COUNCIL
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	IN (")	INCH
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	INC	INCORPORATED
BLDG	BUILDING	INFO	INFORMATION
BLW	BELOW	IOR	INSPECTOR OF RECORD
BOTT	BOTTOM	kg	KILOGRAM
CBC	CALIFORNIA BUILDING CODE	KSI	KIPS PER SQUARE INCH
CG	CENTER OF GRAVITY	LBS	POUNDS
CL	CENTERLINE	LRFD	LOAD & RESISTANCE FACTOR DESIGN
CONC	CONCRETE	MAX	MAXIMUM
CONN	CONNECTION	MFR	MANUFACTURER
COORD	COORDINATE/COORDINATION	MIN	MINIMUM
DBL	DOUBLE	MTL	METAL
DIA (φ)	DIAMETER	NO. (#)	NUMBER
DIM	DIMENSION	NTS	NOT TO SCALE
DTL	DETAIL	NWC	NORMAL WEIGHT CONCRETE
DWG	DRAWING	OPG	OPENING
(E)	EXISTING CONDITION	PERP	PERPENDICULAR
EA	EACH	PG	PAGE
ELEV	ELEVATION	PL	PLATE
EMBED	EMBEDMENT	PSI	POUNDS PER SQUARE INCH
EQ	EQUAL	REQ	REQUIRED
EQUIP	EQUIPMENT	SEOR	STRUCTURAL ENGINEER OF RECORD
f'c	MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE	SLWC	SAND LIGHT WEIGHT CONCRETE
FLR/in	FLOOR	SPCG	SPACING
Fp	HORIZONTAL SEISMIC FORCE PER ASCE 7-16 SEISMIC FORCE REQUIREMENTS	SS	STAINLESS STEEL
FT	FOOT/FEET	STL	STEEL
Fv	VERTICAL SEISMIC FORCE PER ASCE 7-16 SEISMIC FORCE REQUIREMENTS	THK	THICK/THICKNESS
Fy	SPECIFIED YIELD STRENGTH OF REINFORCING, PSI OR SPECIFIED MINIMUM YIELD STRESS OF STEEL, KSI	THRD	THREAD OR THREADED
		TYP	TYPICAL
		T&B	TOP & BOTTOM
		UNO	UNLESS NOTED OTHERWISE
		W/	WITH
		W/O	WITHOUT
		Wp	COMPONENT SELF-WEIGHT
		WT	WEIGHT



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SHEET TITLE: DESIGN CRITERIA & ABBREVIATIONS



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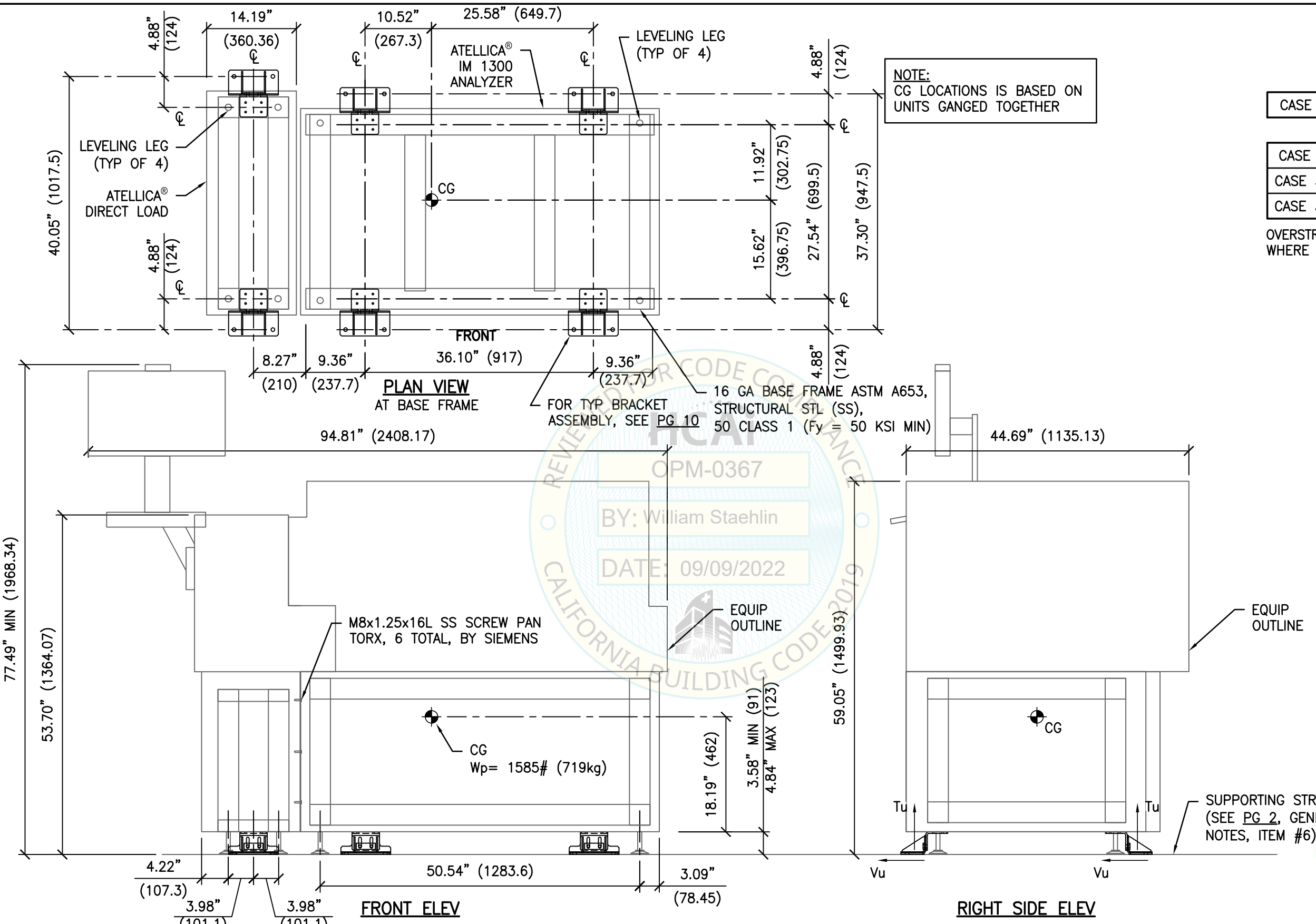
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Rev	Description	Date	Job No:	21057
			Date:	02/02/2022
			By:	CYS
			Page:	3 of 14

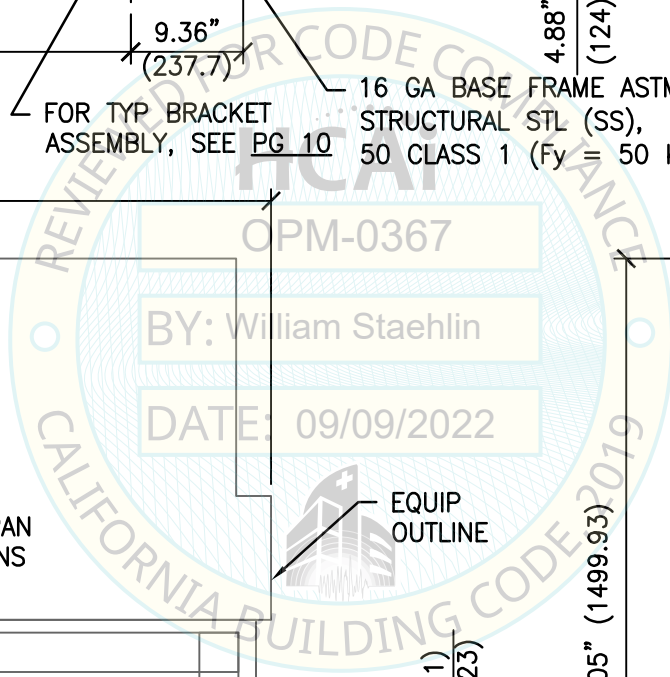
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**NOTE:**  
CG LOCATIONS IS BASED ON  
UNITS GANGED TOGETHER

MAX ANCHOR FORCES AT LRFD AT EA ANCHOR BOLT		
	Tu	$\Omega_b$ Vu
CASE 1	2864#	1008#
	$\Omega_b$ Tu	$\Omega_b$ Vu
CASE 2	669#	272#
CASE 3A	877#	409#
CASE 3B	717#	363#

OVERSTRENGTH FACTOR ( $\Omega_b$ ) INCLUDED WHERE NOTED



SHEET TITLE: ANALYZER MODULES PLANS & ELEVATIONS  
ATELLICA® DIRECT LOAD + IM 1300 ANALYZER

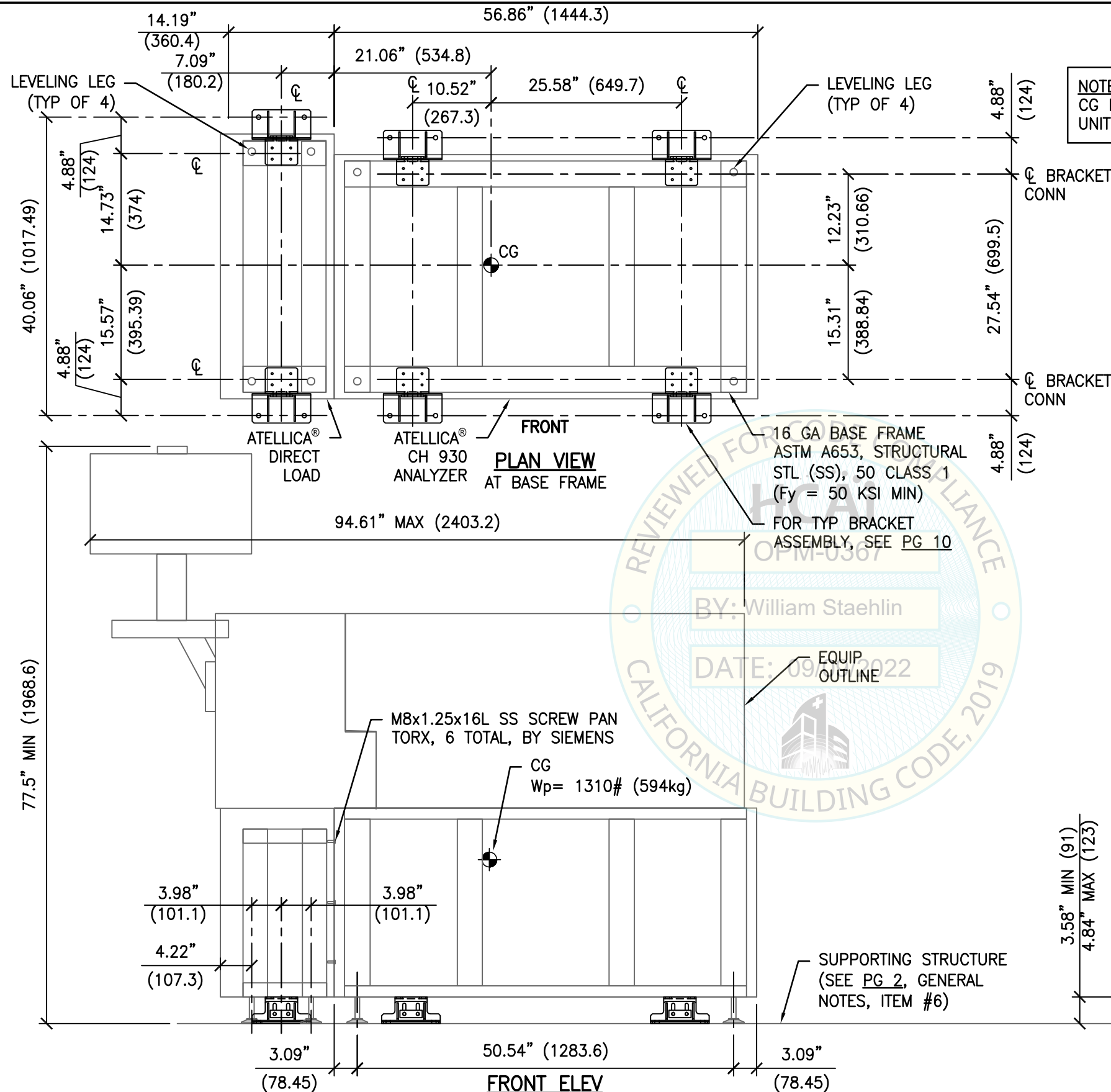


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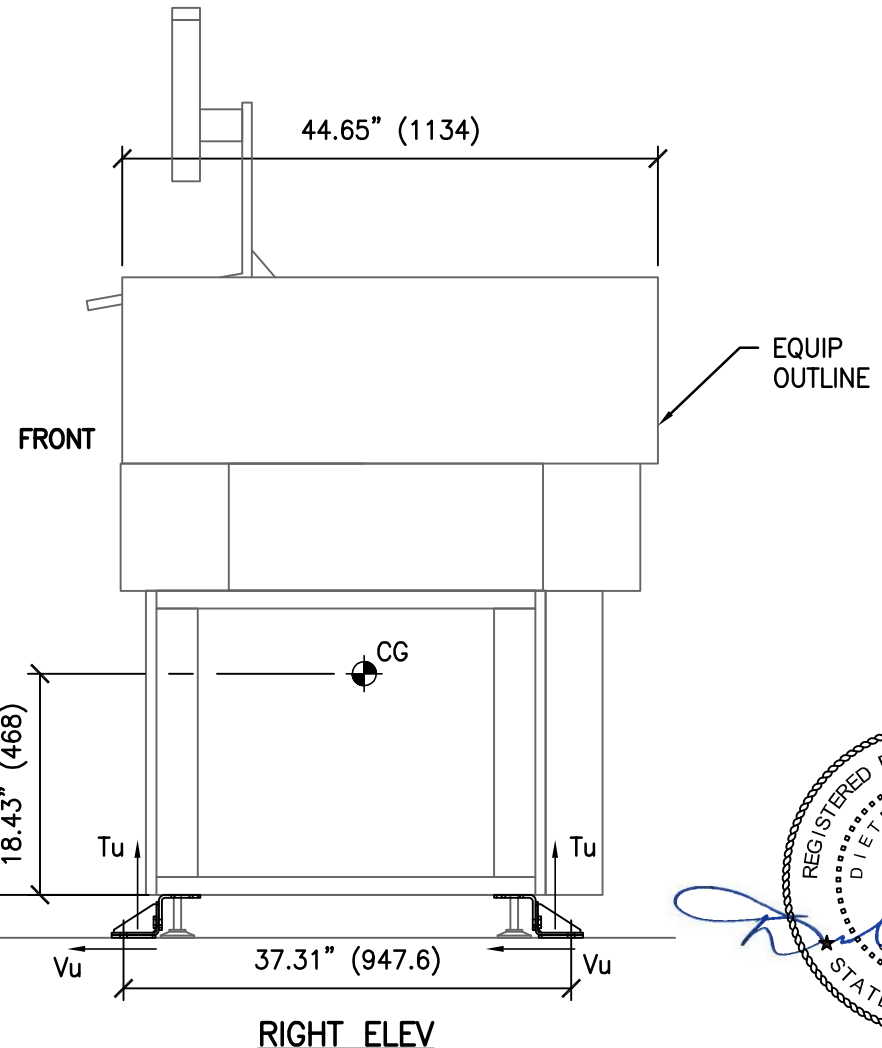
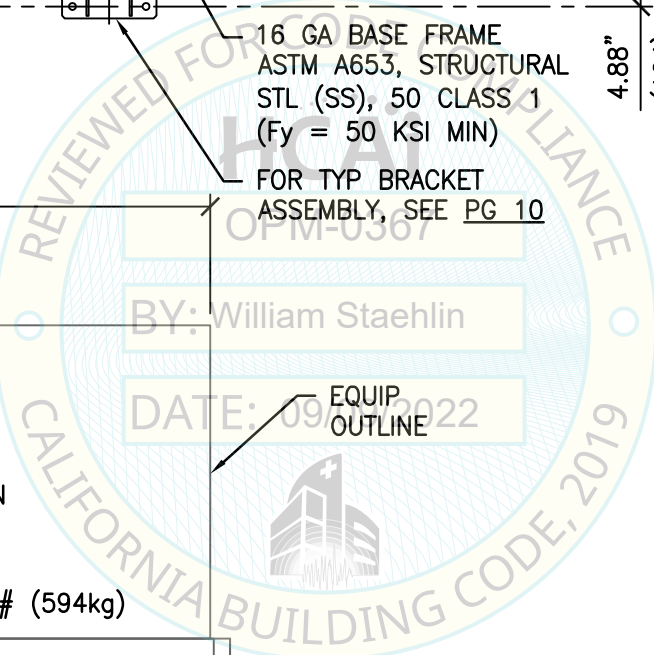
Rev	Description	Date	Job No:	21057
			Date:	02/02/2022
			By:	CYS
			Page:	4 of 14



**NOTE:**  
CG LOCATION IS BASED ON  
UNITS GANGED TOGETHER

MAX ANCHOR FORCES AT LRFD AT EA ANCHOR BOLT		
	Tu	$\Omega_o$ Vu
CASE 1	2450#	850#
	$\Omega_o$ Tu	$\Omega_o$ Vu
CASE 2	567#	229#
CASE 3A	750#	344#
CASE 3B	624#	306#

OVERSTRENGTH FACTOR ( $\Omega_o$ ) INCLUDED WHERE NOTED



SHEET TITLE: ANALYZER MODULES PLANS & ELEVATIONS  
ATELLICA® DIRECT LOAD + CH 930 ANALYZER

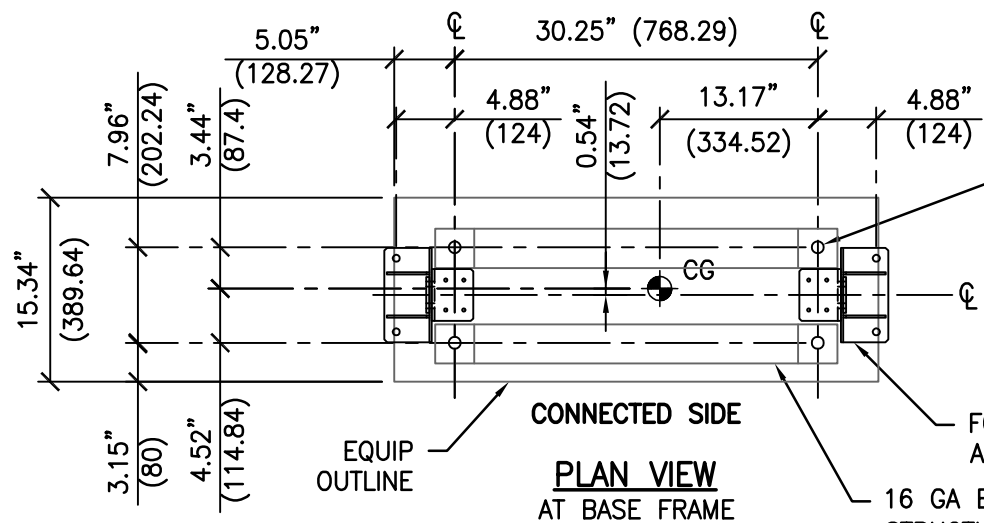


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Rev	Description	Date	Job No:	21057
			Date:	02/02/2022
			By:	CYS
			Page:	5 of 14



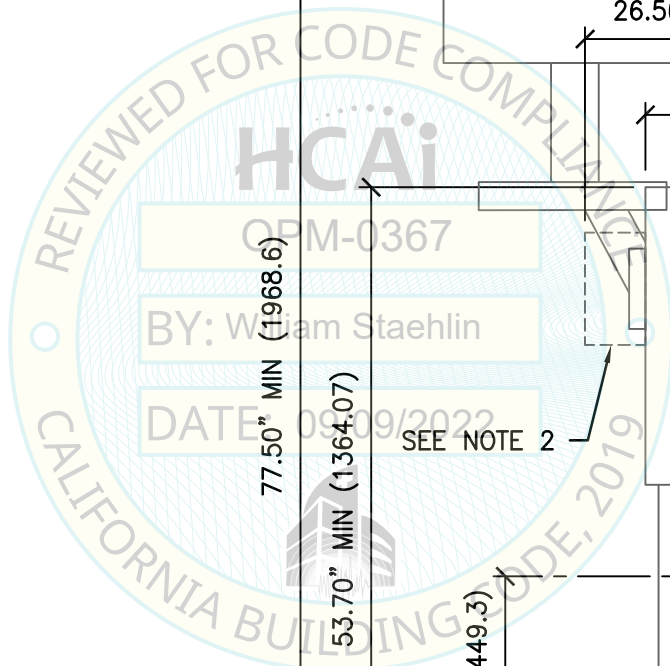
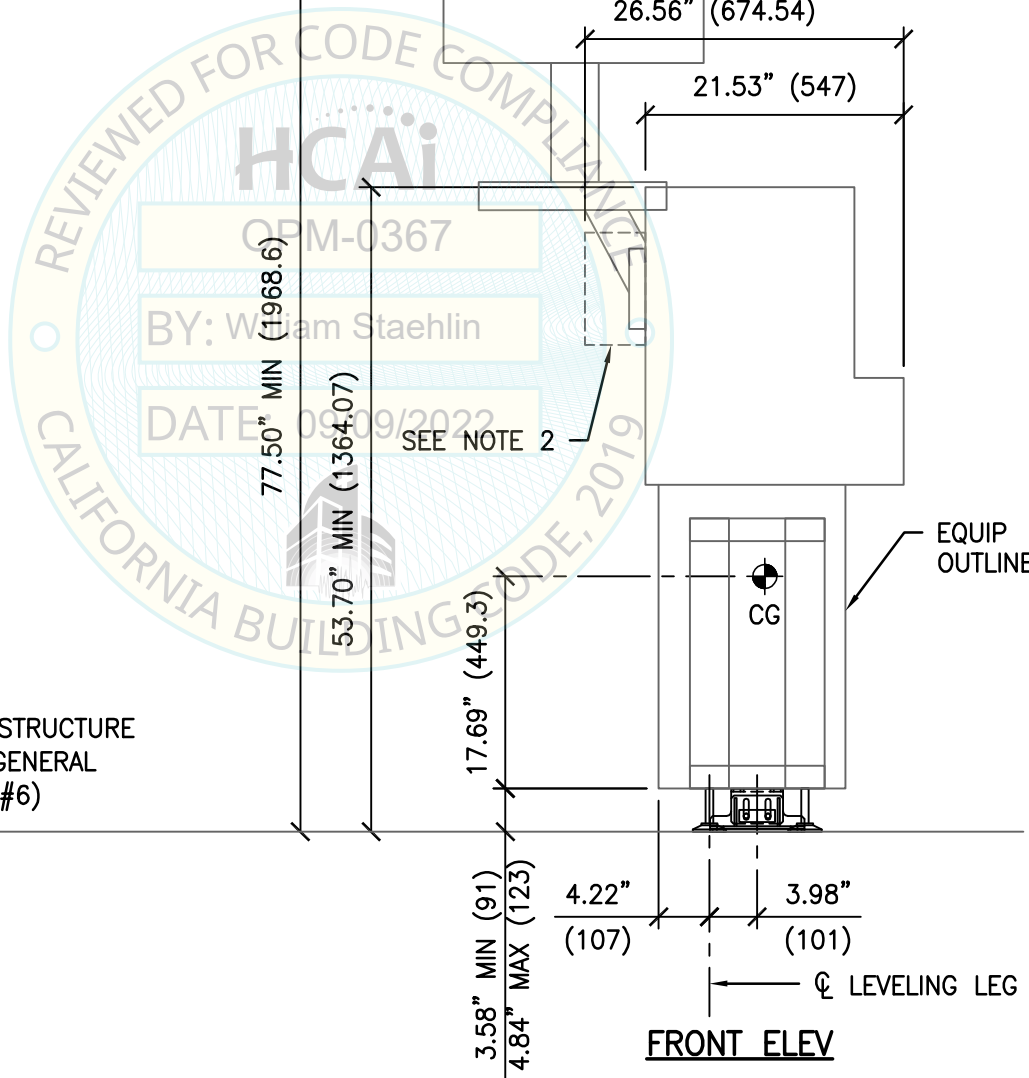
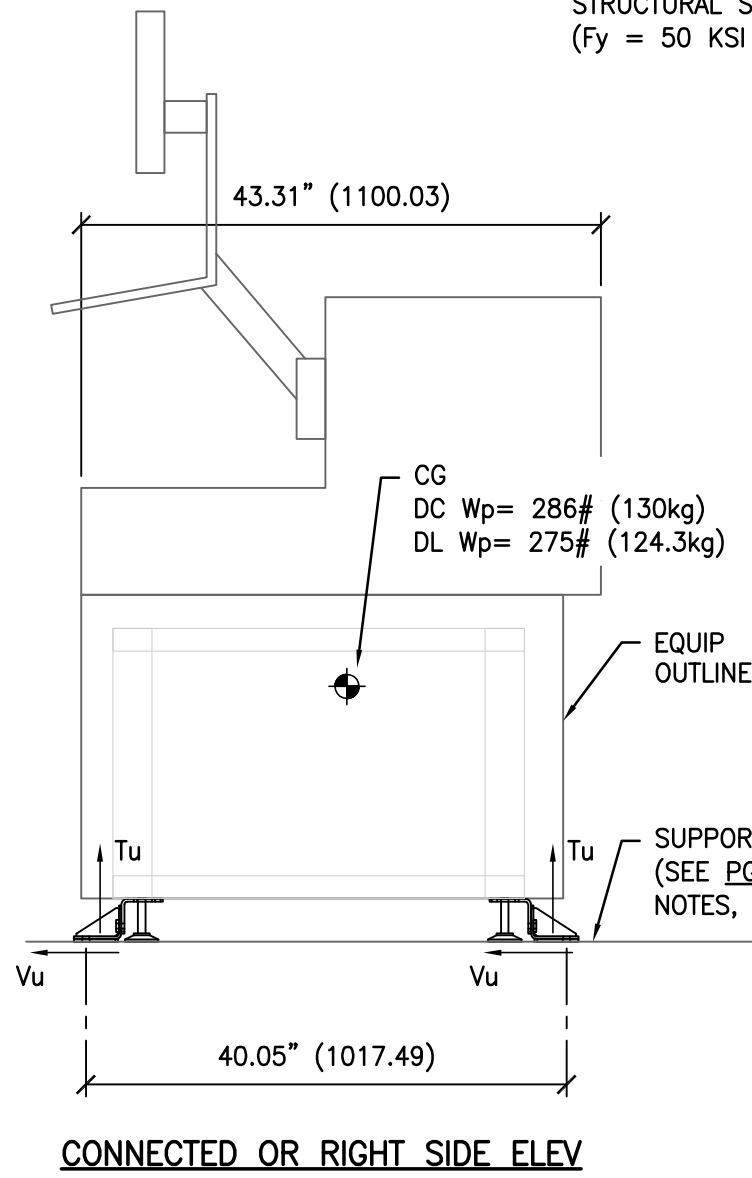
M20 THRD BAR MILD STEEL WIRE (SWRM) LEVELING LEG (TYP OF 4) ALLOWABLE BEARING CAPACITY PER MFR= 2200 LB FULL THRD ENGAGEMENT PROVIDED FOR BOLT INSIDE COMPONENT, TYP

FOR TYP BRACKET ASSEMBLY SEE PG 10  
16 GA BASE FRAME ASTM A653, STRUCTURAL STL (SS), 50 CLASS 1 (Fy = 50 KSI MIN)

**NOTES:**  
1. THE ATELICA® DIRECT LOAD OR ATELICA® DIRECT CONNECT MAY BE CONNECTED TO A ATELICA® IM 1300 ANALYZER OR ATELICA® CH 930 ANALYZER.  
2. THE ATELICA® DIRECT CONNECT HAS THE ADDED FEATURE (INTEGRAL W/ COMPONENT) SHOWN ON FRONT ELEV. THE ATELICA® DIRECT LOAD MODULE DOES NOT.

	MAX ANCHOR FORCES AT LRFD AT EA ANCHOR BOLT	
	Tu	$\Omega_o$ Vu
CASE 1	4493#	443#
	$\Omega_o$ Tu	$\Omega_o$ Vu
CASE 2	2196#	154#
CASE 3A	2251#	230#
CASE 3B	1989#	205#

OVERSTRENGTH FACTOR ( $\Omega_o$ ) INCLUDED WHERE NOTED



SHEET TITLE: ANALYZER MODULES PLANS & ELEVATIONS  
ATELICA® DIRECT LOAD OR ATELICA® DIRECT CONNECT



SIEMENS HEALTHINEERS  
ATELICA® ANALYZER SYSTEMS

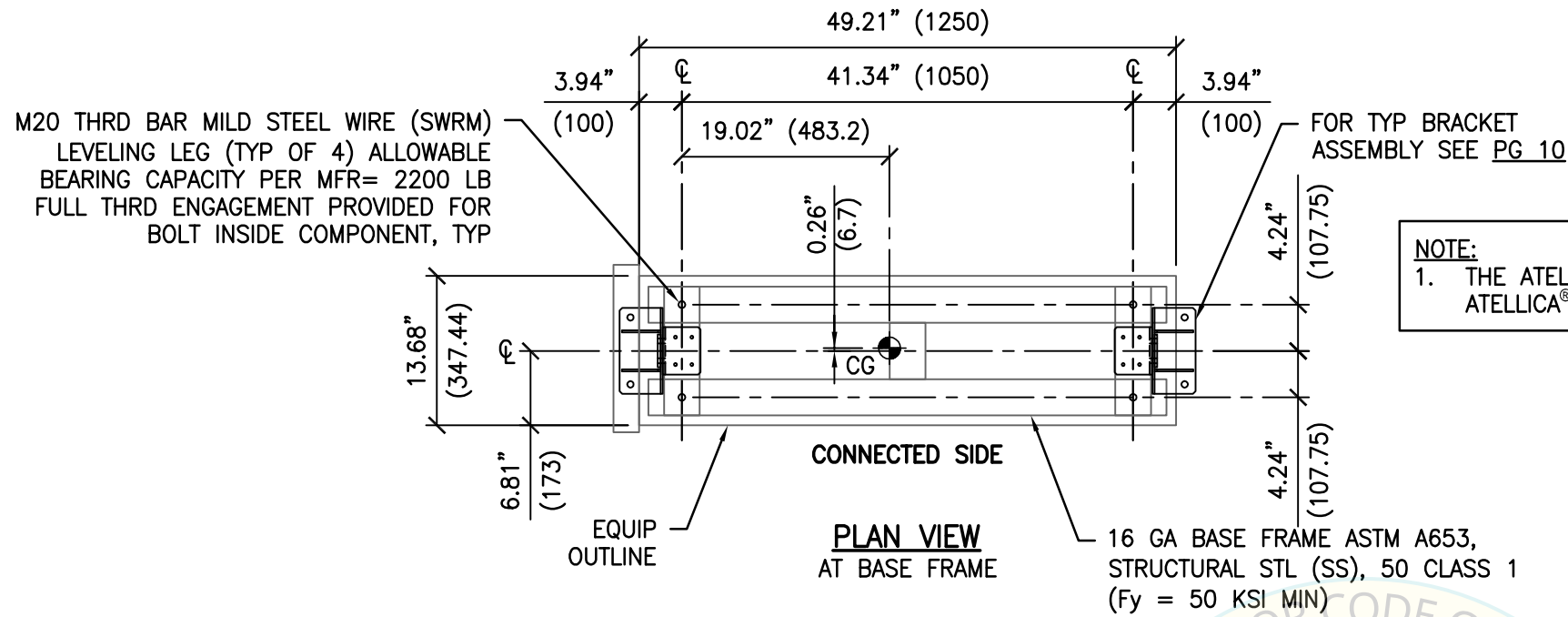


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Rev	Description	Date	Job No:	21057
			Date:	02/02/2022
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			Page:	6 of 14

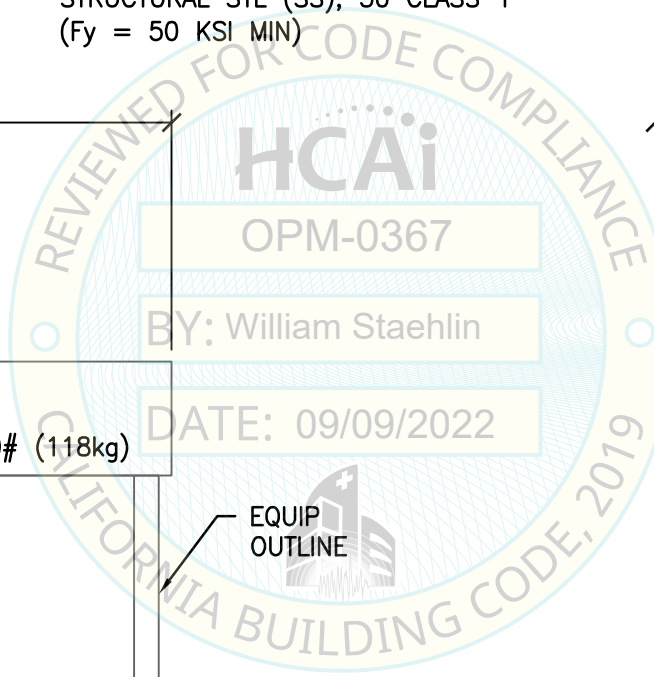
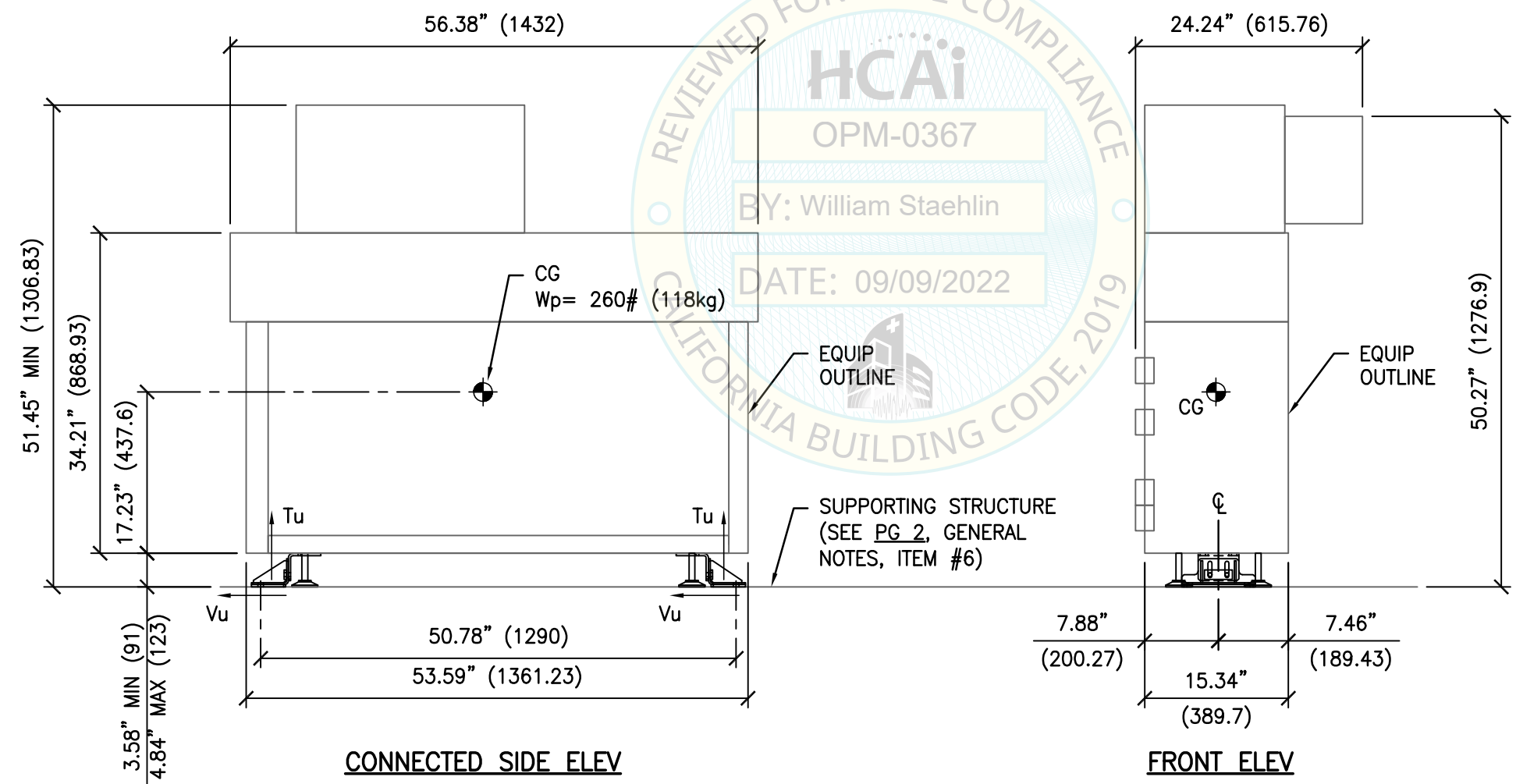
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	MAX ANCHOR FORCES AT LRFD AT EA ANCHOR BOLT	
	Tu	$\Omega_o$ Vu
CASE 1	4750#	500#
	$\Omega_o$ Tu	$\Omega_o$ Vu
CASE 2	1796#	135#
CASE 3A	1845#	203#
CASE 3B	1629#	181#

OVERSTRENGTH FACTOR ( $\Omega_o$ ) INCLUDED WHERE NOTED



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SHEET TITLE: ANALYZER MODULES PLANS & ELEVATIONS  
ATELICA® SAMPLE HANDLER CONNECT



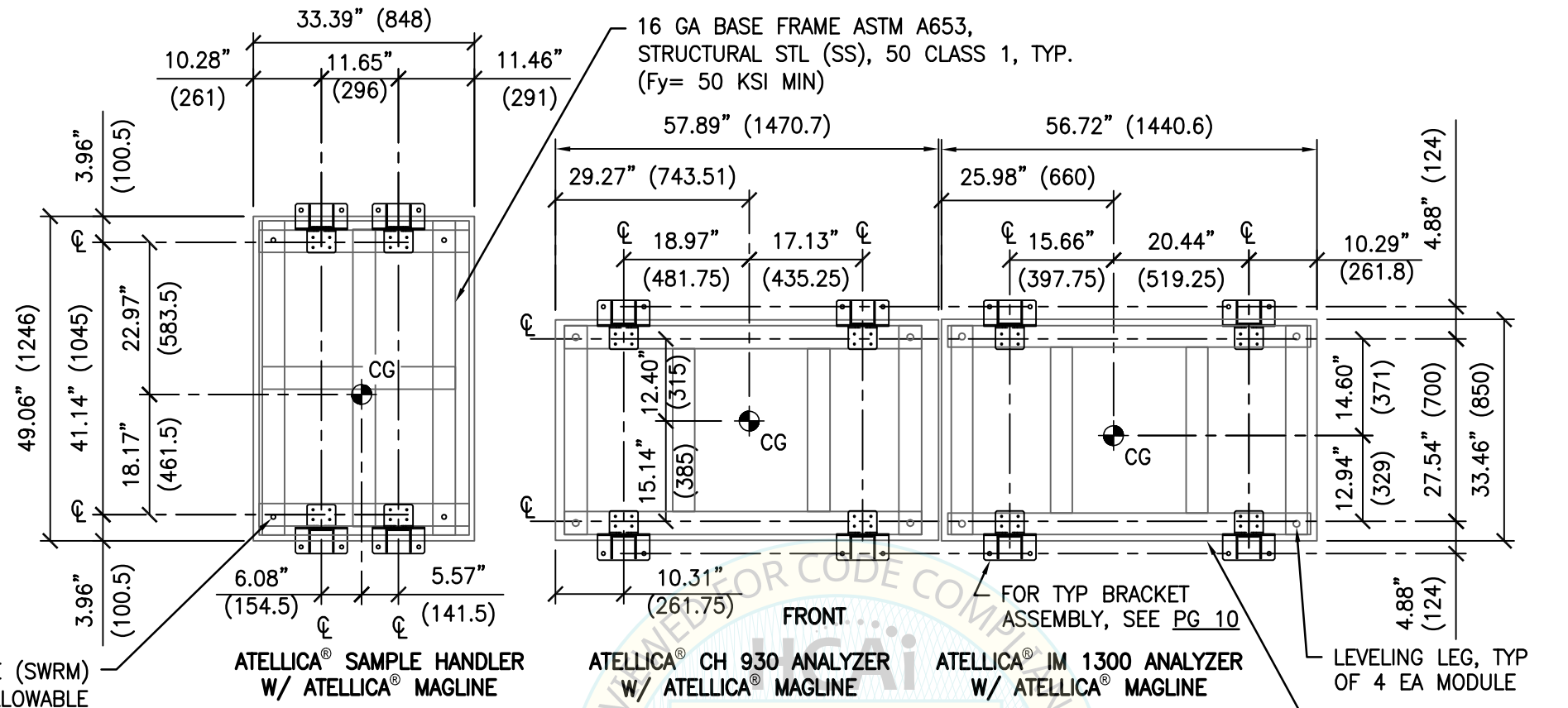
SIEMENS HEALTHINEERS  
ATELICA® ANALYZER SYSTEMS



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

Rev	Description	Date	Job No:	21057
			Date:	02/02/2022
			By:	CYS
			Page:	7 of 14

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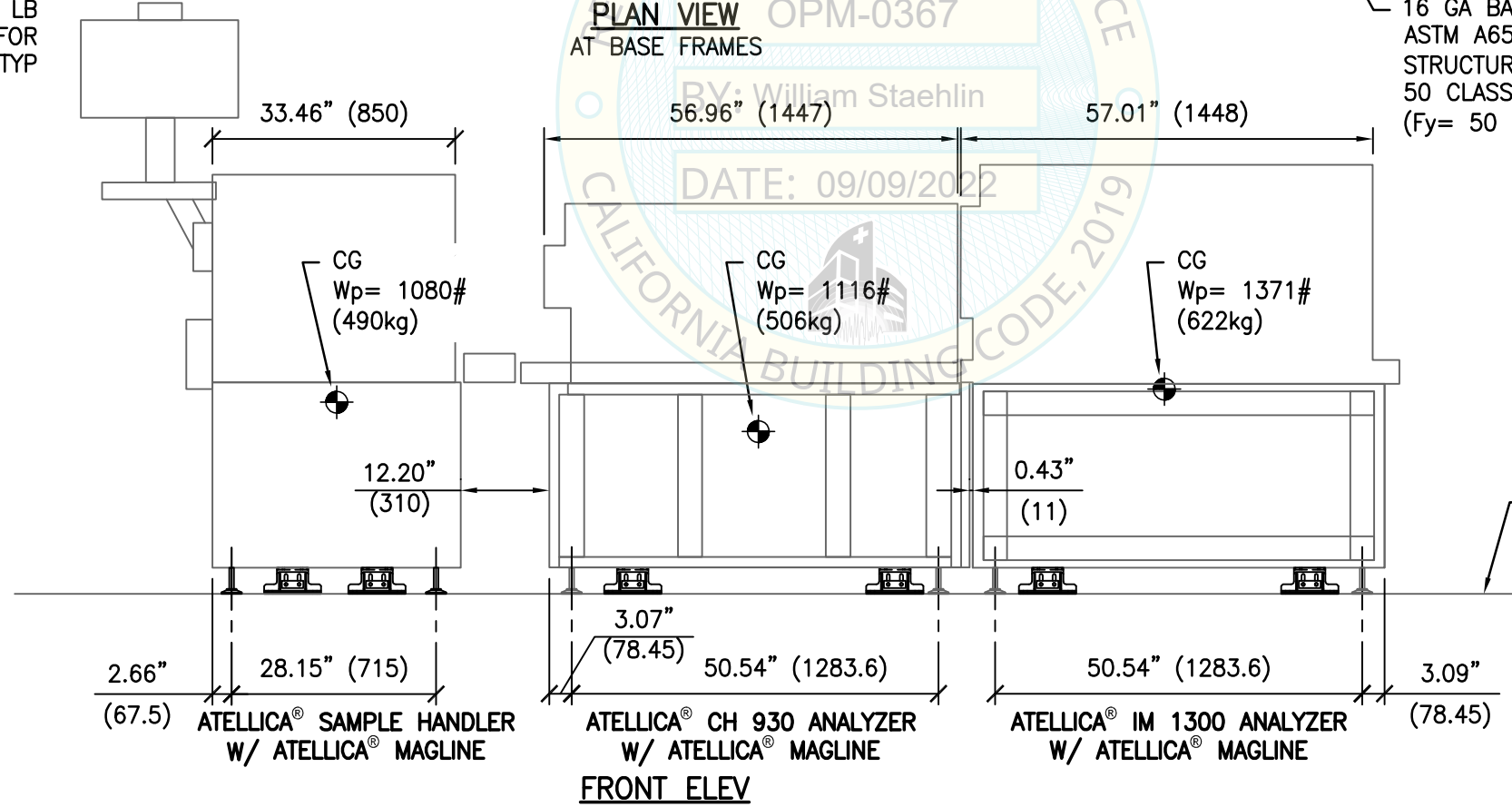
M20 THRD BAR MILD STEEL WIRE (SWRM) LEVELING LEG (TYP OF 4) ALLOWABLE BEARING CAPACITY PER MFR= 2200 LB FULL THRD ENGAGEMENT PROVIDED FOR BOLT INSIDE COMPONENT, TYP

ATELLICA® SAMPLE HANDLER W/ ATELLICA® MAGLINE

ATELLICA® CH 930 ANALYZER W/ ATELLICA® MAGLINE

ATELLICA® IM 1300 ANALYZER W/ ATELLICA® MAGLINE

PLAN VIEW  
AT BASE FRAMES



DATE: 09/09/2022  
BY: William Staehlin



SHEET TITLE: ANALYZER MODULES PLANS & ELEVATIONS  
ATELLICA® SOLUTION (ATELLICA® CH 930 ANALYZER + ATELLICA® IM 1300 ANALYZER + ATELLICA® SAMPLE HANDLER W/ ATELLICA® MAGLINE)

Rev	Description	Date	Job No:
			21057
			Date: 02/02/2022
			By: CYS
			Page: 8 of 14

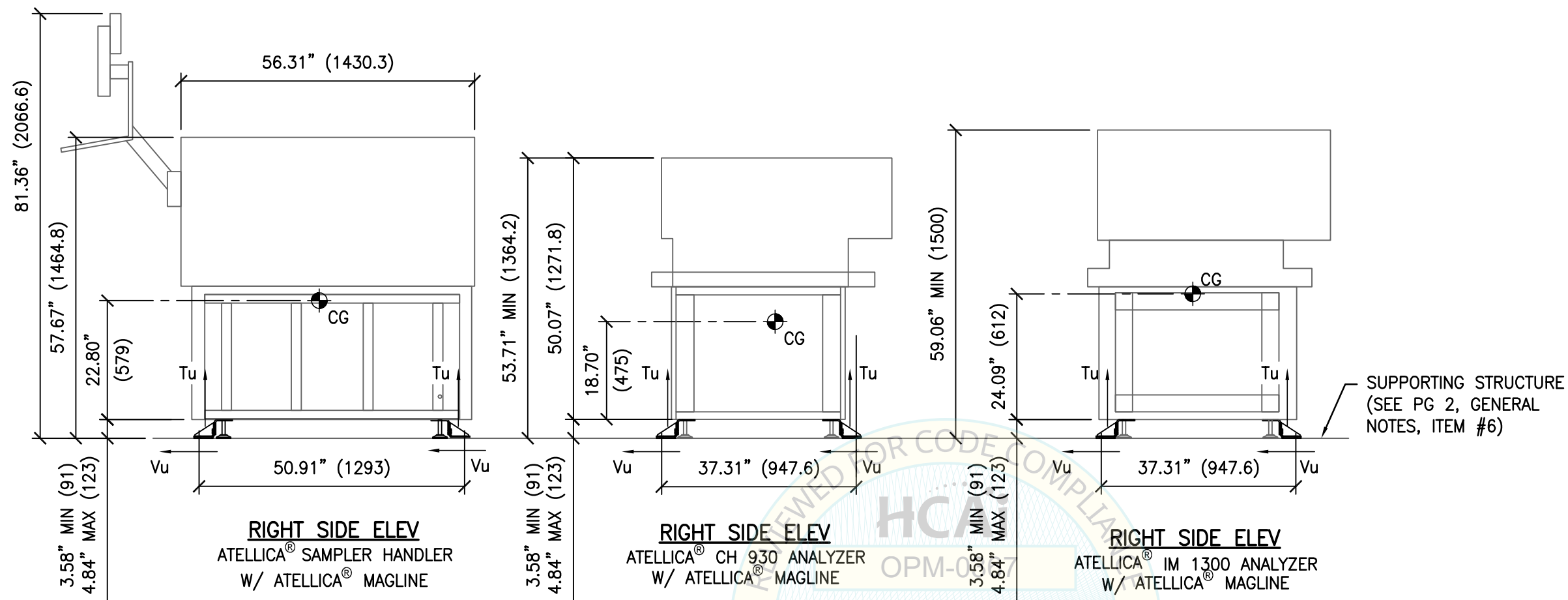


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L:\Jobs21\21057 Siemens - OPM Bracket Modification\ACAD\STRU\S1.dwg Time: Aug 23, 2022 - 03:56pm Login: camachom DimScale: 12 L1Scale: 6



SUPPORTING STRUCTURE  
(SEE PG 2, GENERAL  
NOTES, ITEM #6)

MAX ANCHOR FORCES AT LRFD AT EA ANCHOR BOLT		
	Tu	$\Omega_o$ Vu
CASE 1	5005#	849#
	$\Omega_o$ Tu	$\Omega_o$ Vu
CASE 2	2277#	294#
CASE 3A	2433#	441#
CASE 3B	2127#	392#

OVERSTRENGTH FACTOR ( $\Omega_o$ ) INCLUDED WHERE NOTED

MAX ANCHOR FORCES AT LRFD AT EA ANCHOR BOLT		
	Tu	$\Omega_o$ Vu
CASE 1	2329#	818#
	$\Omega_o$ Tu	$\Omega_o$ Vu
CASE 2	770#	283#
CASE 3A	1007#	425#
CASE 3B	842#	378#

OVERSTRENGTH FACTOR ( $\Omega_o$ ) INCLUDED WHERE NOTED

MAX ANCHOR FORCES AT LRFD AT EA ANCHOR BOLT		
	Tu	$\Omega_o$ Vu
CASE 1	3605#	998#
	$\Omega_o$ Tu	$\Omega_o$ Vu
CASE 2	1716#	346#
CASE 3A	1629#	519#
CASE 3B	1387#	462#

OVERSTRENGTH FACTOR ( $\Omega_o$ ) INCLUDED WHERE NOTED

BY: William Staehlin  
DATE: 09/09/2022



SHEET TITLE: ANALYZER MODULES PLANS & ELEVATIONS  
ATELLICA® SOLUTION (ATELLICA® CH 930 ANALYZER + ATELLICA® IM 1300 ANALYZER + ATELLICA® SAMPLE HANDLER W/ ATELLICA® MAGLINE)



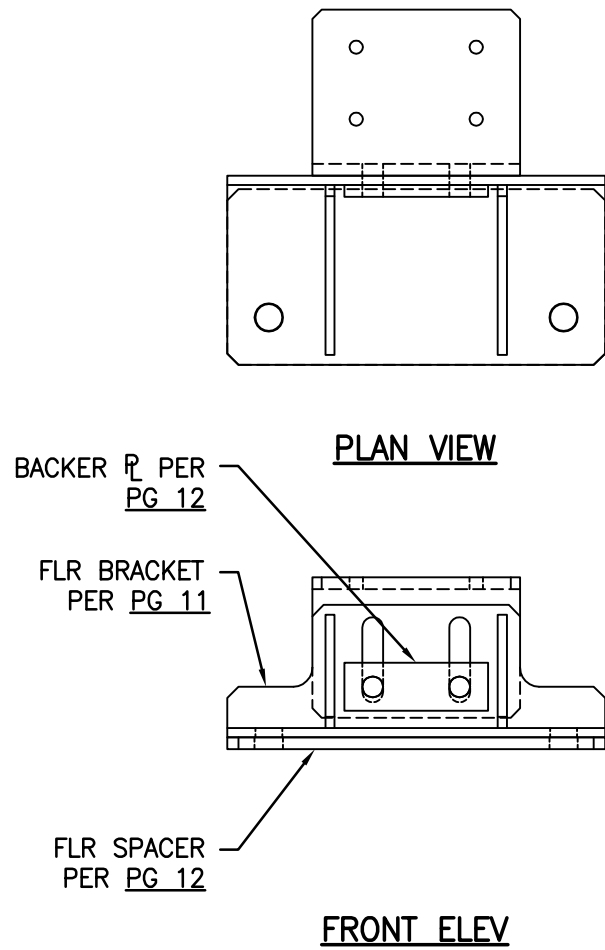
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Rev	Description	Date	Job No:	21057
			Date:	02/02/2022
			By:	CYS
			Page:	9 of 14

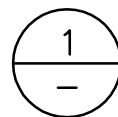
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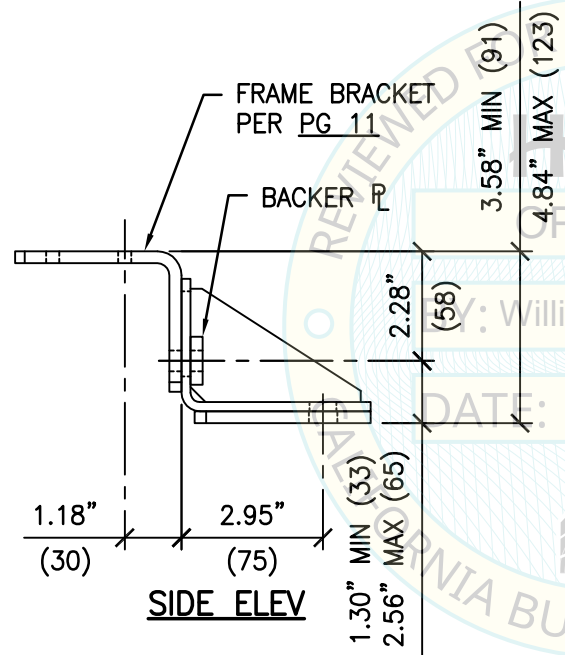
**PLAN VIEW**

**FRONT ELEV**

**TYP BRACKET ASSEMBLY  
PLAN & ELEVATIONS  
DETAIL**

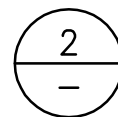


NTS

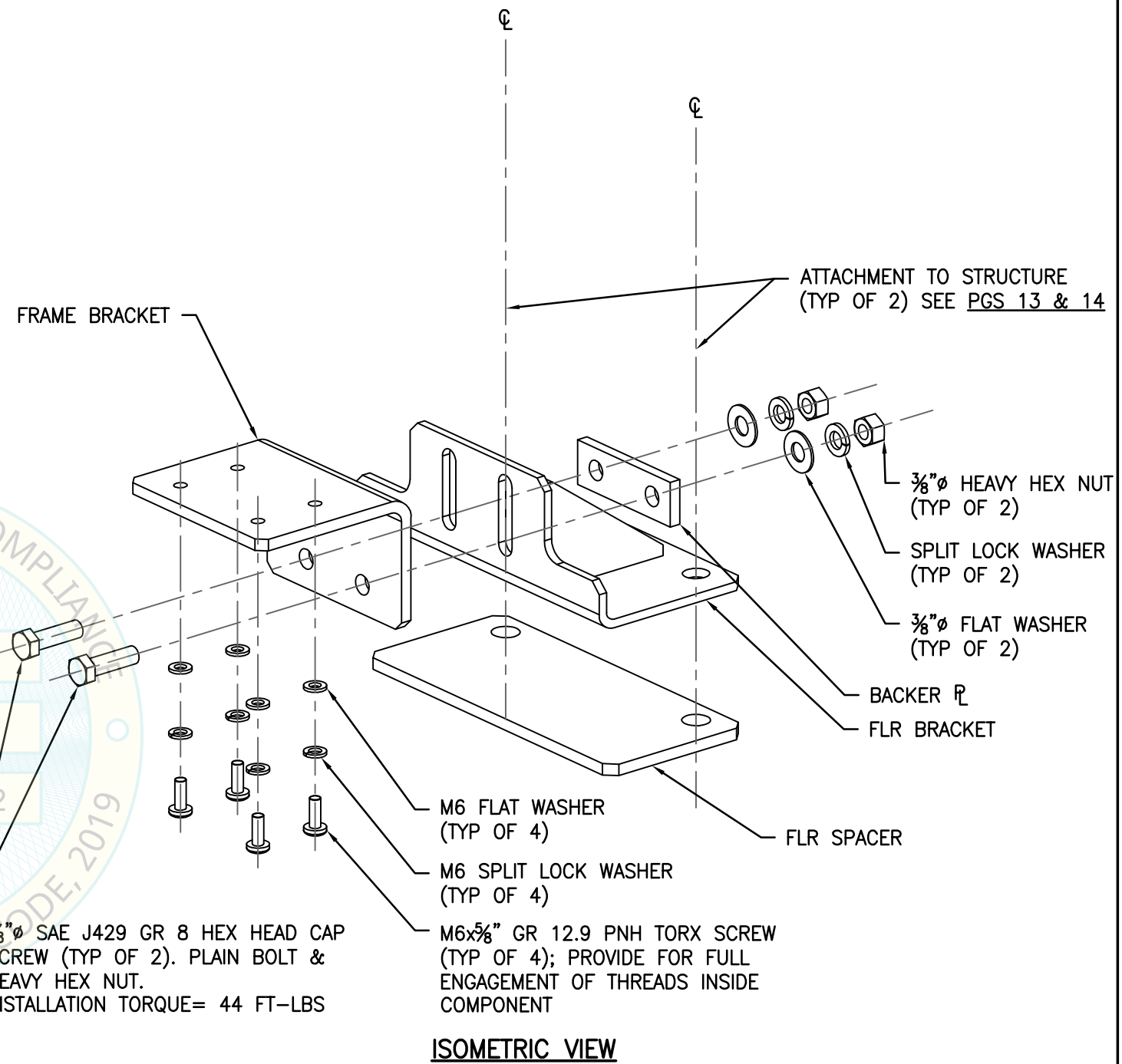


**SIDE ELEV**

**TYP BRACKET ASSEMBLY  
ISOMETRIC  
DETAIL**



NTS



**ISOMETRIC VIEW**



SHEET TITLE: ANALYZER MODULES TYPICAL BRACKET ASSEMBLY



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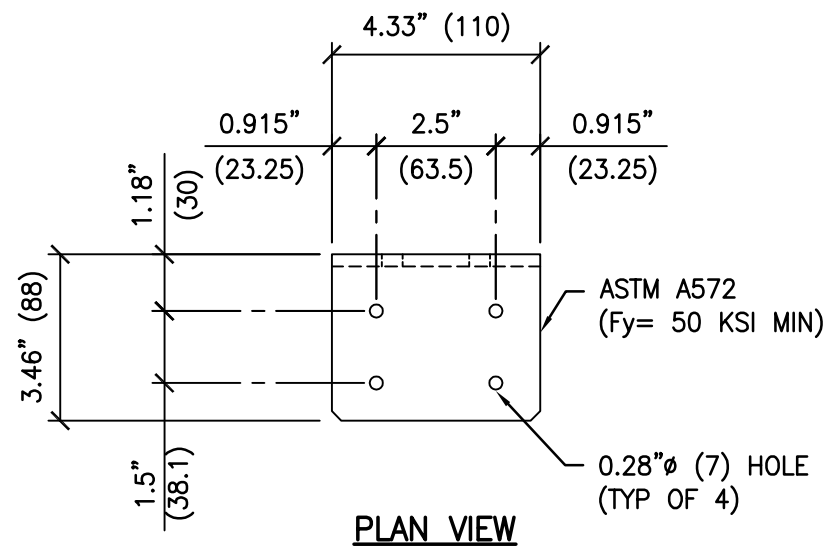


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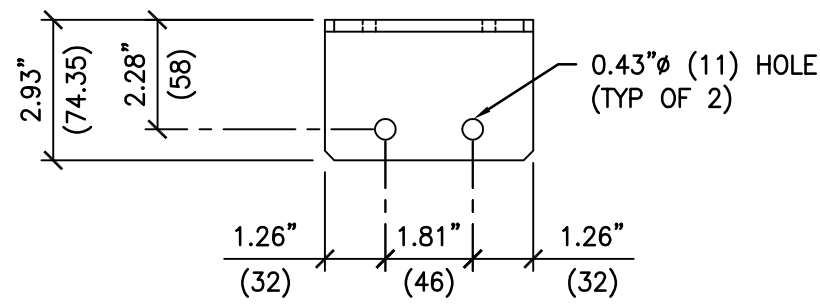
Rev	Description	Date	Job No:	21057
			Date:	02/02/2022
			By:	CYS
			Page:	10 of 14



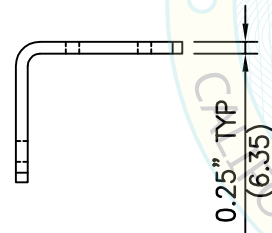
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PLAN VIEW



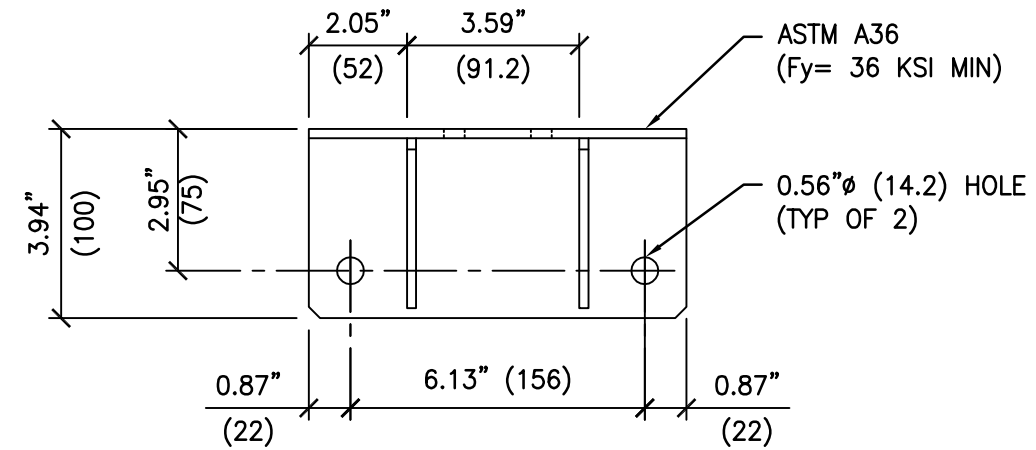
FRONT ELEV



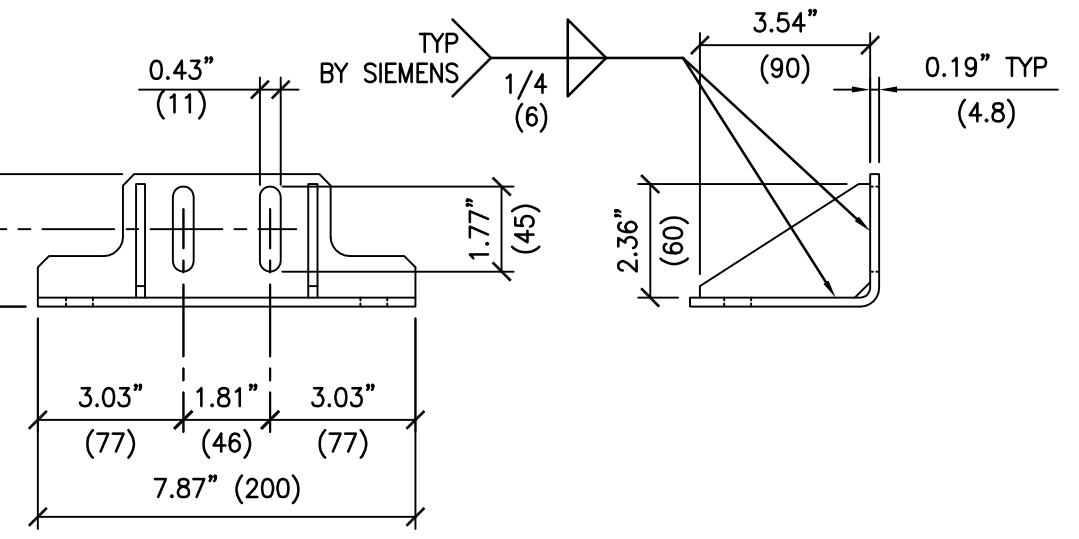
SIDE ELEV

1  
— 3" = 1'-0"

TYP FRAME BRACKET  
DETAIL



PLAN VIEW



FRONT ELEV

SIDE ELEV

2  
— 3" = 1'-0"

TYP FLOOR BRACKET  
DETAIL



SHEET TITLE: SUPPORT DETAILS  
TYPICAL FRAME & FLOOR BRACKETS



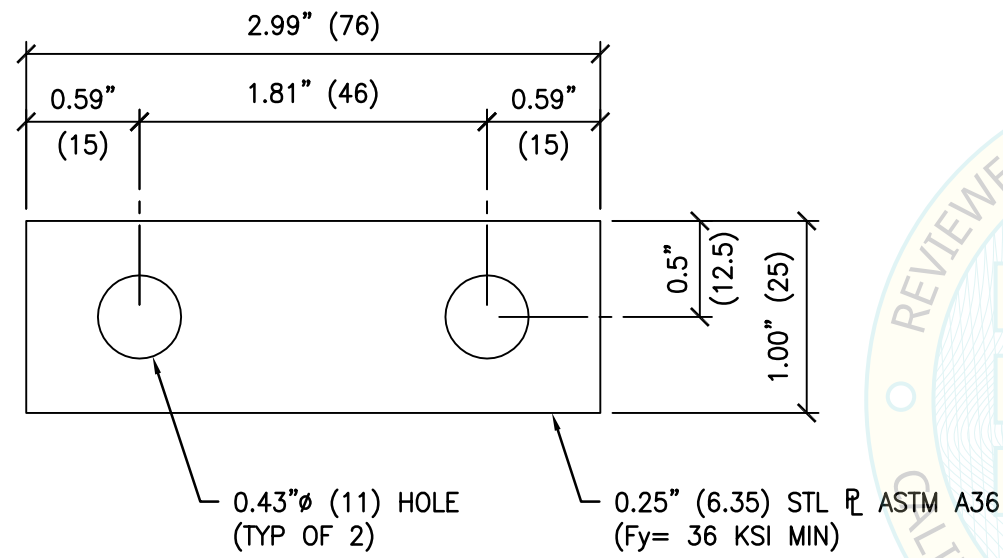
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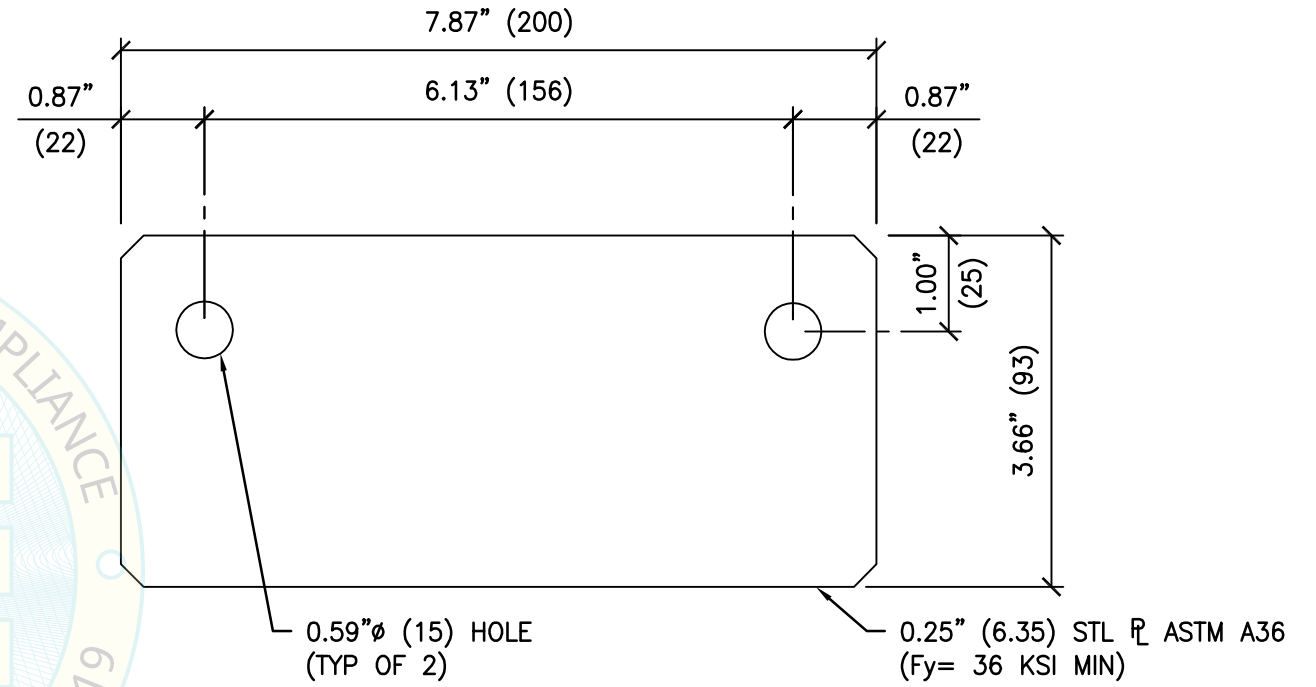
Rev	Description	Date	Job No:	21057
			Date:	02/02/2022
			By:	CYS
			Page:	11 of 14

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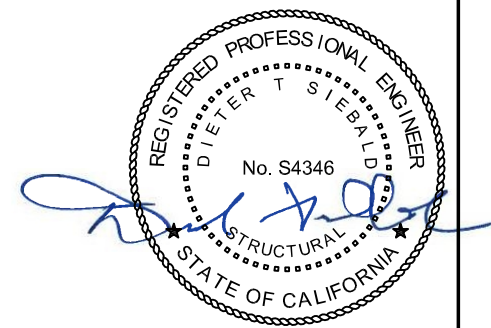
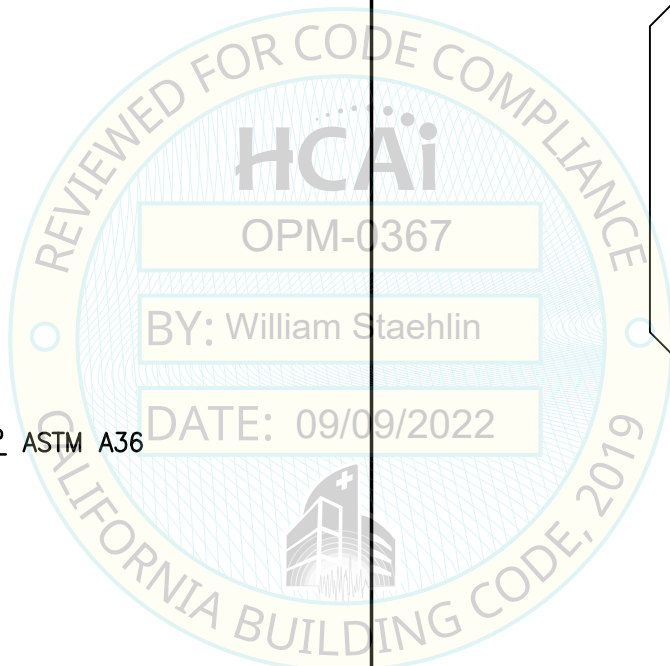
1  
 - 1'-0" = 1'-0"

TYP BACKER PLATE  
 DETAIL



2  
 - 6" = 1'-0"

TYP FLOOR SPACER  
 DETAIL



SHEET TITLE: SUPPORT DETAILS  
 TYPICAL BACKER PLATE & FLOOR SPACER

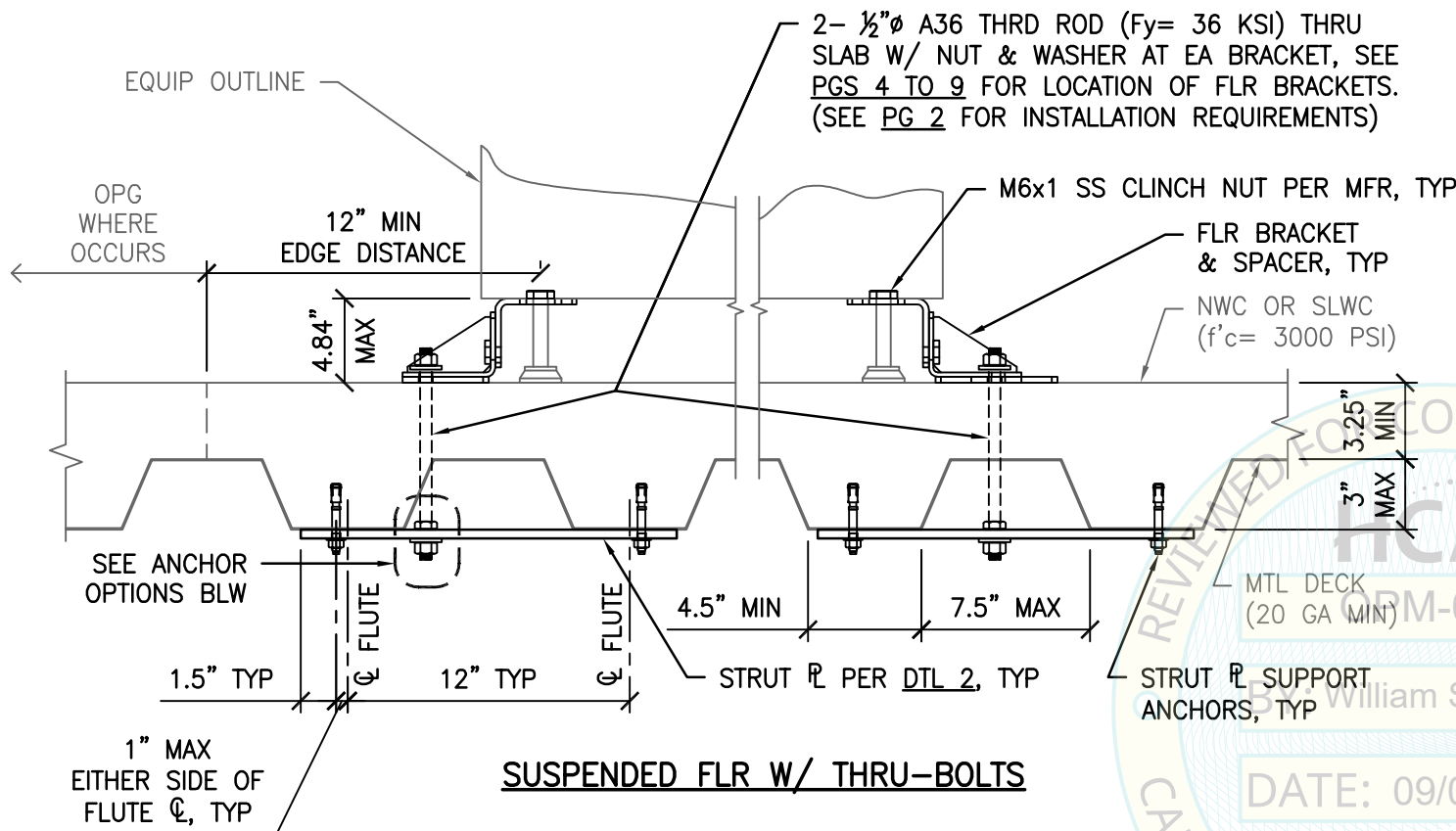
Rev	Description	Date	Job No:	21057
			Date:	02/02/2022
			By:	CYS
			Page:	12 of 14



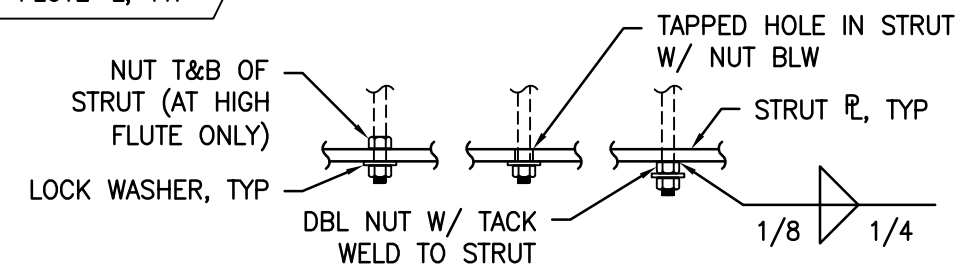
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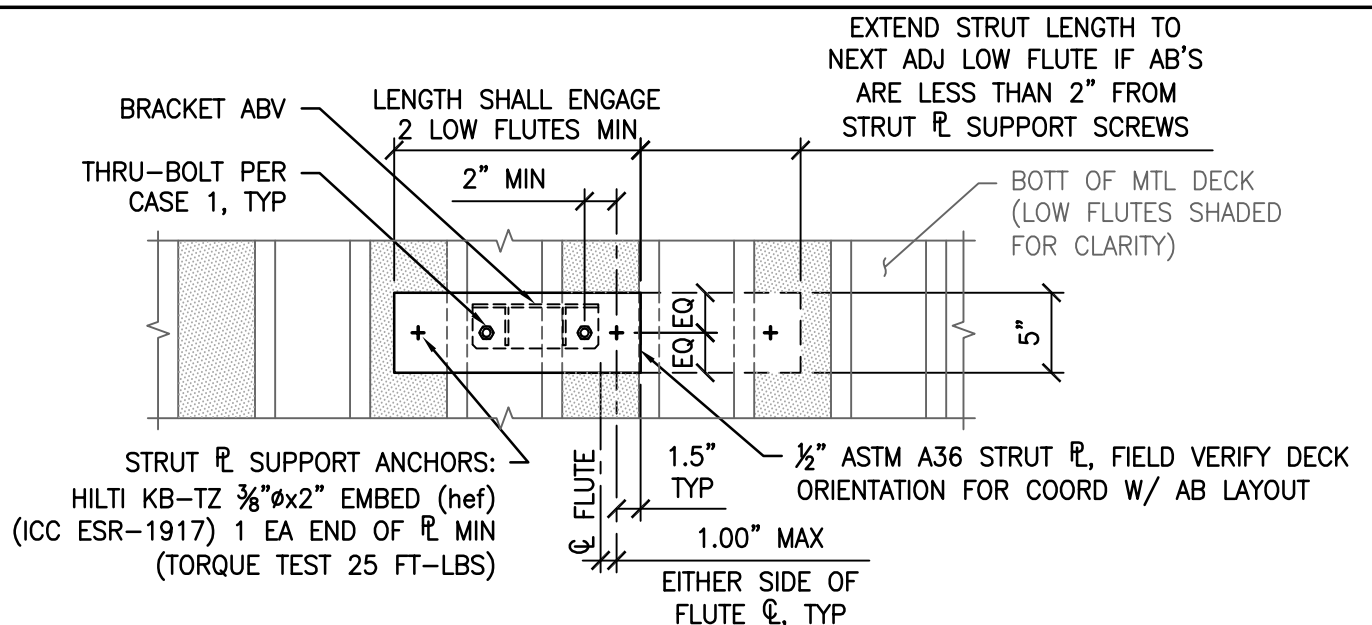
**SUSPENDED FLR W/ THRU-BOLTS**



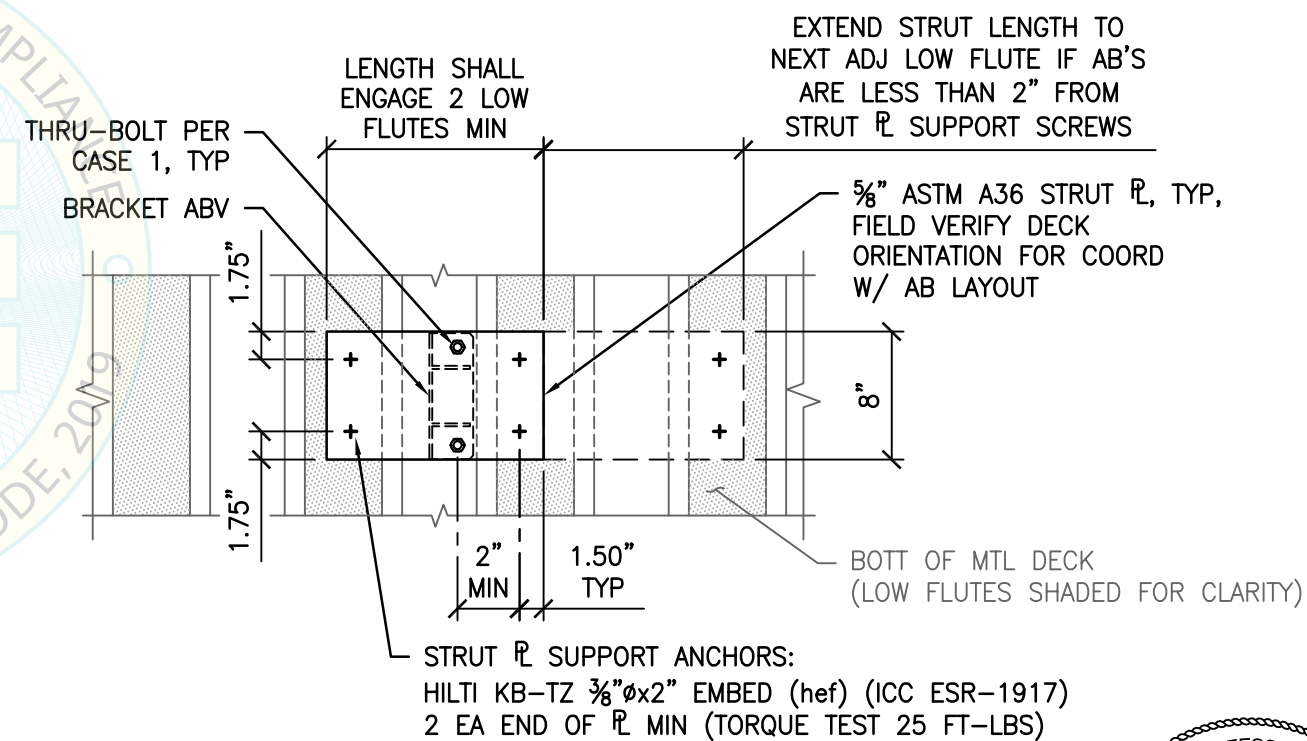
**ANCHOR OPTIONS**

1  
- 1 1/2" = 1'-0"

(CASE 1)  
CONC FILL OVER MTL DECK  
ATTACHMENT DETAIL



**PLAN VIEW**  
BRACKET PERP TO FLUTES



**PLAN VIEW**  
BRACKET PARALLEL TO FLUTES

2  
- 1 1/2" = 1'-0"

STRUT PLATE  
ATTACHMENT DETAIL



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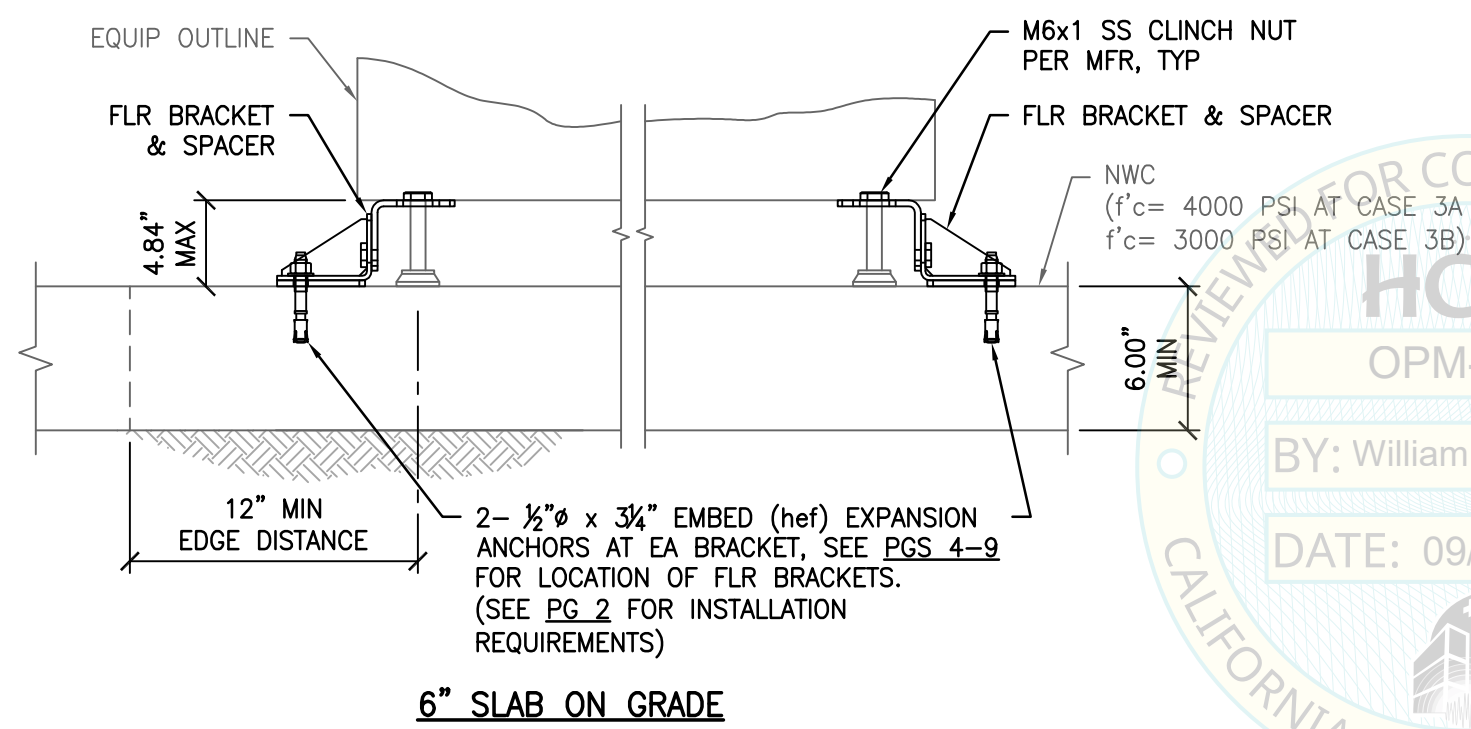
SHEET TITLE: ATTACHMENT DETAILS  
CONCRETE FILL OVER METAL DECK & STRUT PLATE DETAIL

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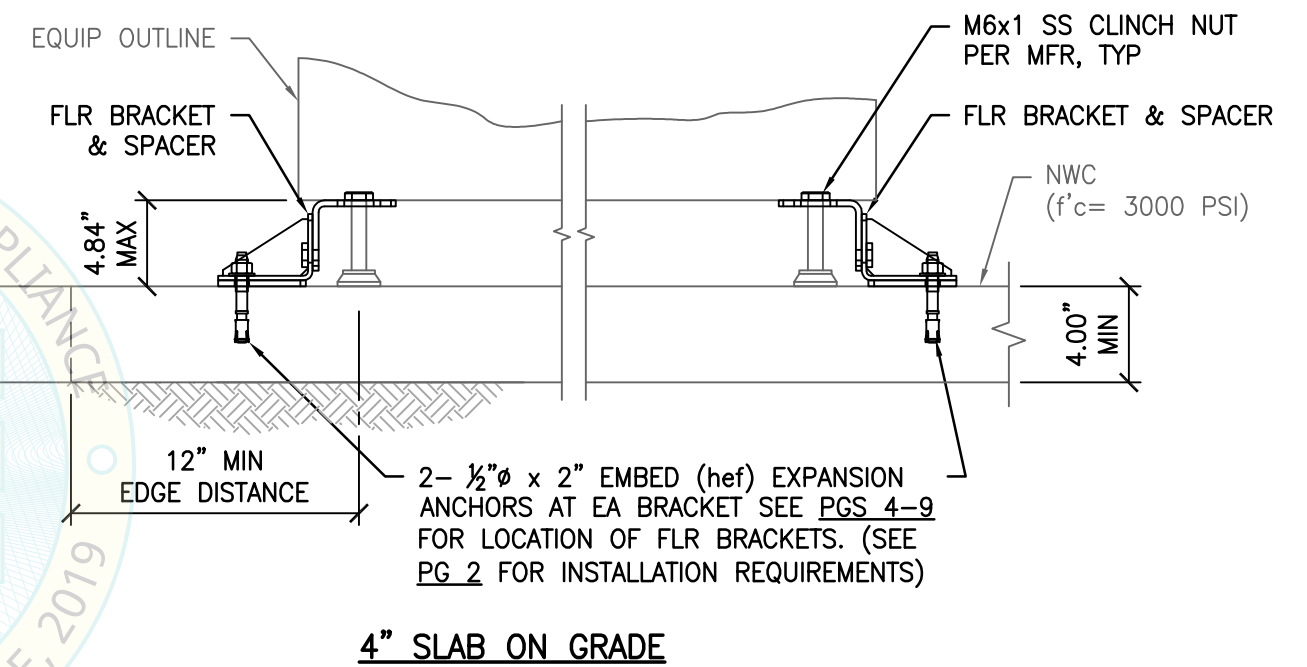
Rev	Description	Date	Job No:	21057
			Date:	02/02/2022
			By:	CYS
			Page:	13 of 14

c:\Users\comachom\appdata\local\temp\AcPublish\_34692\51.dwg Time: Aug 16, 2022 - 04:52pm Login: comachom DimScale: 12 L1Scale: 6



(CASE 3A & CASE 3B)  
**6" SLAB ON GRADE**  
**ATTACHMENT DETAIL**

1  
 - 1 1/2" = 1'-0"



(CASE 2)  
**4" SLAB ON GRADE**  
**ATTACHMENT DETAIL**

2  
 - 1 1/2" = 1'-0"



SHEET TITLE: ATTACHMENT DETAILS  
 CONCRETE SLAB ON GRADE



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			By:	CYS
			Page:	14 of 14