



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

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

OFFICE USE ONLY
APPLICATION #: OPM-0430-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

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

Manufacturer Information

Manufacturer: Amico Mobility Solutions
Manufacturer's Technical Representative: Agustin Garcia de Paredes
Mailing Address: 55 East Wilmot St. Richmond Hill, ON, L4B 1A3
Telephone: 905-764-0800 ext. 5256 Email: AGarciadeParedes@amico.com

Product Information

Product Name: Amico GoLift
Product Type: Motorized Patient Lift
Product Model Number: GoLift 400, GoLift 700, GoLift 1000
General Description: Overhead Patient Lift

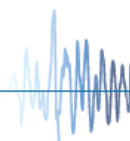
Applicant Information

Applicant Company Name: Amico Mobility Solutions
Contact Person: Agustin Garcia de Paredes
55 East Wilmot St. Richmond Hill, ON, L4B 1A3
Telephone: 905-764-0800 ext. 5256 Email: AGarciadeParedes@amico.com

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

Signature of Applicant: [Signature] Date: 23-May-2017
Title: Global Manager QA/RA Company Name: Amico Mobility Solutions Corp.

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





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

Registered Design Professional Preparing Engineering Recommendations

Company Name: CYS Structural Engineers, Inc.

Name: Dieter T. Siebald California License Number: S4346

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

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

OSHPD Special Seismic Certification Preapproval (OSP)

- Special Seismic Certification is preapproved under OSP-
(Separate application for OSP is required)
- Special Seismic Certification is not preapproved

Certification Method(s)

- Testing in accordance with: ICC-ES AC156 FM 1950-16
- Other* (Please Specify): _____

*Use of criteria other than those adopted by the California Building Standards Code, 2016 (CBSC 2016) for component supports and attachments are not permitted. For distribution system, interior partition wall, and suspended ceiling seismic bracings, test criteria other than those adopted in the CBSC 2016 may be used when approved by OSHPD prior to testing.

- Analysis
- Experience Data
- Combination of Testing, Analysis, and/or Experience Data (Please Specify): _____

List of Attachments Supporting the Manufacturer's Certification

- Test Report Drawings Calculations Manufacturer's Catalog
- Other(s) (Please Specify): _____

OFFICE USE ONLY – OSHPD APPROVAL VALID FOR CBC 2016 & ALL PRE-2016 CODE BASED PROJECTS

Signature: *William Staehlin* Date: 11-14-2017

Print Name: William Staehlin

Title: SSE

Condition of Approval (if applicable): _____

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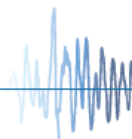


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- NOTES:**
1. THESE DRAWINGS ARE PREPARED FOR AMICO MOBILITY SOLUTIONS, RICHMOND HILL, ONTARIO, CANADA
 2. THE CONTRACTOR & INSPECTOR OF RECORD SHALL OBTAIN A COPY OF THIS PRE-APPROVAL FROM THE OSHPD PRE-APPROVAL PROGRAMS WEBSITE.
 3. THIS PRE-APPROVAL COVERS THE SUPPORTS & ATTACHMENTS OF THE OVERHEAD AMICO GOLIFT SYSTEM TO THE SUPPORTING STRUCTURE.



SHEET TITLE: TABLE OF CONTENTS

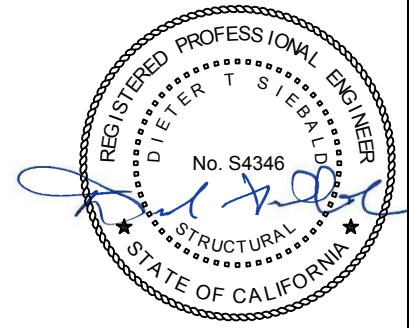
<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 17050 Date: 10-17-2017 Page: 1 of 27
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GENERAL NOTES:

1. THIS OSHPD PRE-APPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2016. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2016.
2. IT IS THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER OF RECORD (SEOR) OF A SITE SPECIFIC PROJECT TO VERIFY:
 - A. THE ADEQUACY OF THE NEW OR EXISTING STRUCTURE TO RESIST THE FORCES & WT SPECIFIED FOR EA EQUIP IN ADDITION TO ALL OTHER LOADS. PROVIDE & DESIGN SUPPLEMENTARY MEMBERS AS REQ.
 - B. THAT THE ANCHORS INTO THE SOFFIT OF CONCRETE OVER METAL DECK FLOOR AND ROOF ASSEMBLIES ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY SLAB EDGES OR OPENINGS.
 - C. THAT THE ANCHORS INTO THE SOFFIT OF CONCRETE OVER METAL DECK FLOOR AND ROOF ASSEMBLIES ARE AT AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS. THE SPACING SHOWN IN THE TEST TORQUE TABLE ON PG 3 IS THE REQUIRED MINIMUM SPACING OF THE GIVEN DIAMETER ANCHORS. THE REQUIRED SPACING FROM ANCHORS OF OTHER DIAMETERS & EMBEDMENTS MAY VARY & SHALL BE EVALUATED BY THE SEOR.
 - D. THAT THE INSTALLATION IS IN CONFORMANCE W/ THE CBC 2016 & W/ THE DETAILS SHOWN IN THIS PRE-APPROVAL.
 - E. THAT THE ACTUAL EQUIP'S WT, CENTER OF GRAVITY (CG) LOCATION, SUPPORT & ATTACHMENT LOCATIONS, SUPPORT & ATTACHMENT DETAILS, & THE MATERIAL & GA OF THE EQUIP WHERE ATTACHMENTS ARE MADE, AGREE W/ THE INFORMATION SHOWN ON THE PRE-APPROVAL DOCUMENTS.
3. EXPANSION ANCHORS INSTALLED IN NWC OR SLWC SHALL BE CARBON STEEL HILTI KB-TZ EXPANSION ANCHORS COMPLYING W/ ESR-1917 REISSUED MAY 2017 AND SUBJECT TO RENEWAL MAY 2019.
 - A. INSTALLATION: INSTALL THE EXPANSION ANCHORS IN ACCORDANCE W/ THE REQUIREMENTS GIVEN IN THE ICC EVALUATION REPORT FOR THE SPECIFIC ANCHOR & THE PARAMETERS GIVEN IN THE TABLE ON PG 3.
 - B. JOB TESTING: FOR VERIFYING SATISFACTORY INSTALLATION WORKMANSHIP, PERFORM JOBSITE TESTING IN ACCORDANCE W/ THE TEST LOAD TABLE PROVIDED IN THIS DOCUMENT. TEST 50% OF THE INSTALLED ANCHORS. THE TEST LOAD MAY BE APPLIED BY ANY METHOD THAT WILL EFFECTIVELY MEASURE THE TORQUE IN THE ANCHOR SUCH AS CALIBRATED TORQUE WRENCH METHOD. ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE 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".
 - C. FAILURE/ACCEPTANCE CRITERIA: THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:
 - TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN THE FOLLOWING LIMITS:
WEDGE TYPE: ONE-HALF (½) TURN OF THE NUT.

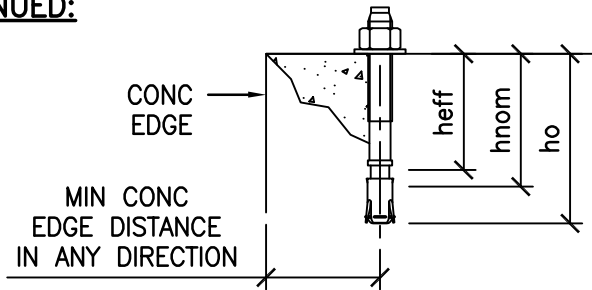


SHEET TITLE: GENERAL NOTES

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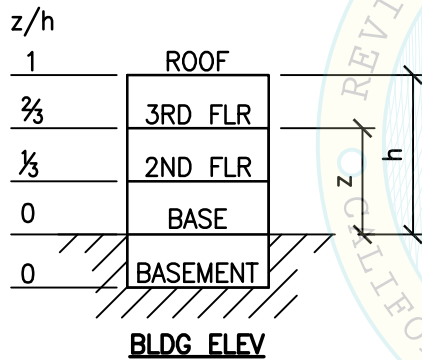
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GENERAL NOTES CONTINUED:



ANCHOR DIA (INCH)	INSTALLATION EMBED (INCH) hnom	EFFECTIVE EMBED (INCH) heff	HOLE DEPTH (INCH) ho	MIN CONC THK (INCH) h	MIN CONC EDGE DISTANCE (INCH)	MIN ANCHOR SPCG (INCH)	TEST TORQUE (FT-LBS)
1/2	3 5/8	3/4	4	SEE PGS 17-19	4.5	10	40

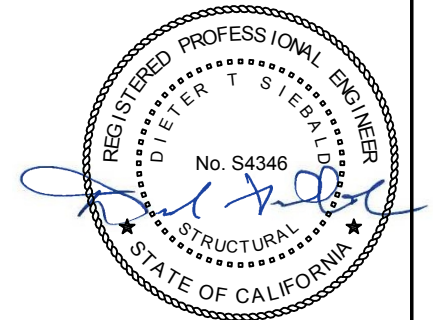
4. A SINGLE CASE OF ATTACHMENT IS SPECIFIED & PRESENTED IN THIS PRE-APPROVAL:



ATTACHMENT DETAILS LOCATED AT UPPER FLRS & ROOF ABV THE BASE OF A BLDG. THE FLRS & ROOFS ARE ASSUMED TO BE BUILT OF A MIN 3/4" SLWC TOPPING OVER 3" DEEP MIN 20 GA MTL DECK (f'c = 3000 PSI, MIN). FOR z/h RATIOS & S_{DS} VALUES SEE DESIGN CRITERIA & COMPONENT DWGS

DATE: 11/14/2017

- THIS PRE-APPROVAL MAY BE USED AT ANY GEOGRAPHICAL LOCATION IN THE STATE OF CALIFORNIA. WHERE S_{DS} IS LESS THAN OR EQ TO VALUES SHOWN ON PG 6.
- TEK SCREWS PER ICC REPORTS ESR-2196, ESR-1976 & ESR-1271.



SHEET TITLE: GENERAL NOTES CONTINUED



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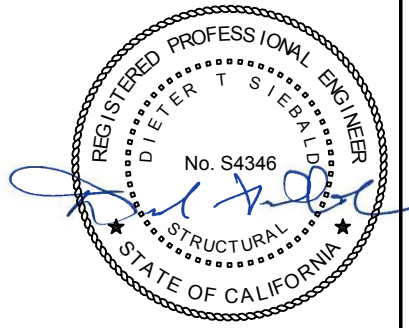
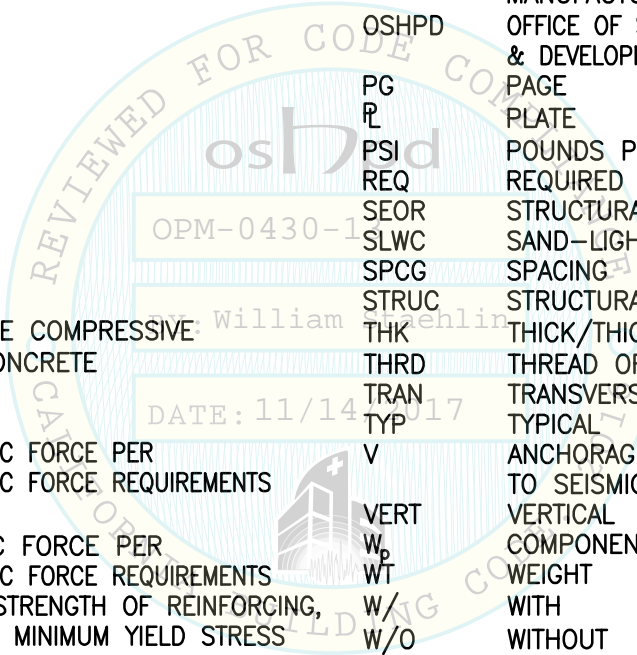
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ABBREVIATIONS:

∠	ANGLE	ICC	INTERNATIONAL CODE COUNCIL
ABV	ABOVE	IN (")	INCH
ALT	ALTERNATE	INFO	INFORMATION
ALUM	ALUMINUM	KSI	KIPS PER SQUARE INCH
ASD	ALLOWABLE STRENGTH DESIGN	LBS	POUNDS
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	LONG	LONGITUDINAL
BLDG	BUILDING	LRFD	LOAD & RESISTANCE FACTOR DESIGN
BM	BEAM	MAX	MAXIMUM
BRCG	BRACING	MFR	MANUFACTURER
BTW	BETWEEN	MIN	MINIMUM
CBC	CALIFORNIA BUILDING CODE	MTL	METAL
CG	CENTER OF GRAVITY	NWC	NORMAL WEIGHT CONCRETE
CONC	CONCRETE	OC	ON CENTER
CONN	CONNECTION	OPM	OSPHD PRE-APPROVAL OF
COORD	COORDINATE		MANUFACTURER'S CERTIFICATION
☐	CENTERLINE	OSHPD	OFFICE OF STATEWIDE HEALTH PLANNING & DEVELOPMENT
DBL	DOUBLE	PG	PAGE
DIA (∅)	DIAMETER	PL	PLATE
DEG	DEGREE	PSI	POUNDS PER SQUARE INCH
DTL	DETAILS	REQ	REQUIRED
DWG	DRAWING	SEOR	STRUCTURAL ENGINEER OF RECORD
(E)	EXISTING	SLWC	SAND-LIGHTWEIGHT CONCRETE
EA	EACH	SPCG	SPACING
EQ	EQUAL	STRUC	STRUCTURAL
EQUIP	EQUIPMENT	THK	THICK/THICKNESS
f'c	MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE	THRD	THREAD OR THREADED
FIN	FINISH	TRAN	TRANSVERSE
FLR	FLOOR	TYP	TYPICAL
F _p	HORIZONTAL SEISMIC FORCE PER ASCE 7-10 SEISMIC FORCE REQUIREMENTS	V	ANCHORAGE SHEAR REACTION DUE TO SEISMIC FORCE
FT (')	FOOT/FEET	VERT	VERTICAL
F _{pv}	VERTICAL SEISMIC FORCE PER ASCE 7-10 SEISMIC FORCE REQUIREMENTS	W _p	COMPONENT SEISMIC WEIGHT
F _y	SPECIFIED YIELD STRENGTH OF REINFORCING, PSI OR SPECIFIED MINIMUM YIELD STRESS OF STEEL, KSI	WT	WEIGHT
GA	GAUGE	W/	WITH
		W/O	WITHOUT



SHEET TITLE: ABBREVIATIONS

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SUPPORT & ATTACHMENT DESIGN CRITERIA

DESIGN FOR PATIENT LIFT SYSTEMS IS PER 2016 CBC AT ASD/LRFD LEVEL FORCES.

$z/h \leq 0.60$

$S_{DS} = \text{SEE PG 6}$

$I_p = 1.5$

$q_p = 2.5$

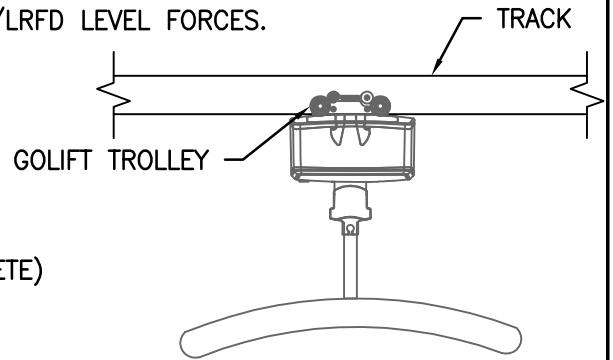
$R_p = 4.5 \quad \Omega_o = 2.5 \text{ (FOR ATTACHMENT TO CONCRETE)}$

MIN $F_p = 0.30 S_{DS} I_p W_p = \text{SEE PGS 6 \& 7}$

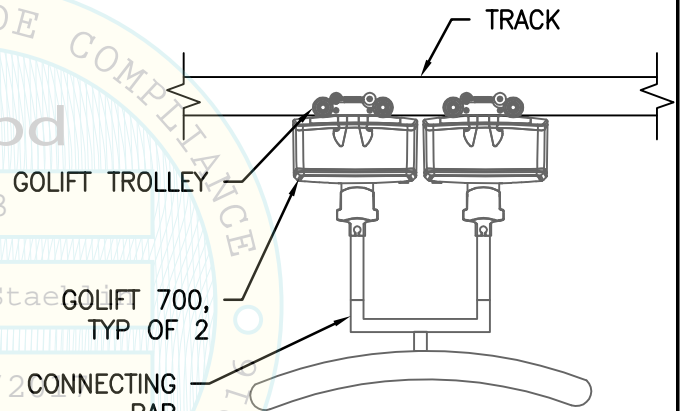
MAX $F_p = 1.60 S_{DS} I_p W_p = \text{SEE PGS 6 \& 7}$

$F_p = 0.4q_p S_{DS} I_p W_p (1+2 z/h)/R_p = \text{SEE PGS 6 \& 7}$

$F_{pv} = \pm 0.20 S_{DS} W_p = \text{SEE PGS 6 \& 7}$



GOLIFT 400 & 700



GOLIFT 1000

LRFD LOAD COMBINATIONS (SEE NOTE 3 BELOW)

$(1.2+0.2S_{DS})(D+L) + 1.0E$

ASD LOAD COMBINATIONS (SEE NOTE 3 BELOW)

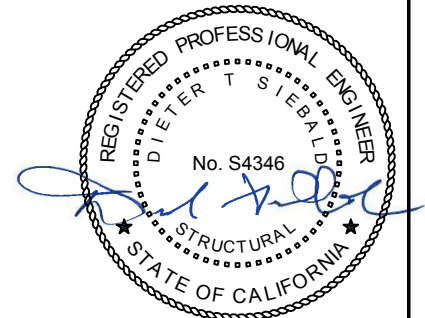
$(1.0+0.105S_{DS})(D+L) + 0.525E$

$(0.6-0.14S_{DS})(D+L) - 0.7E$

COMPONENT SEISMIC WT W_p

LOAD DIRECTION	TRAN	LONG	VERT
$W_p =$	$P_D + 0.2P_L$	$P_D + 0.1P_L$	$P_D + P_L$

1. THESE LOADS MUST BE FACTORED PER THE ABOVE ASD/LRFD LOAD COMBINATIONS.
2. SEE PG 6 FOR P_D & P_L .
3. THE MOTOR HAS A LIMITING LOAD AND AN ELECTROMAGNETIC FRICTION BRAKE THAT SLOWLY LOWERS THE PATIENT DOWN AT 770 LBS. THEREFORE THE ABOVE VERTICAL LOADS $(1.2+0.2S_{DS})(D+L)$; $(1.0+0.105S_{DS})(D+L)$; $(0.6-0.14S_{DS})(D+L)$ MAY BE REPLACED WITH $(D+770 \text{ LBS})$.



SHEET TITLE: DESIGN CRITERIA



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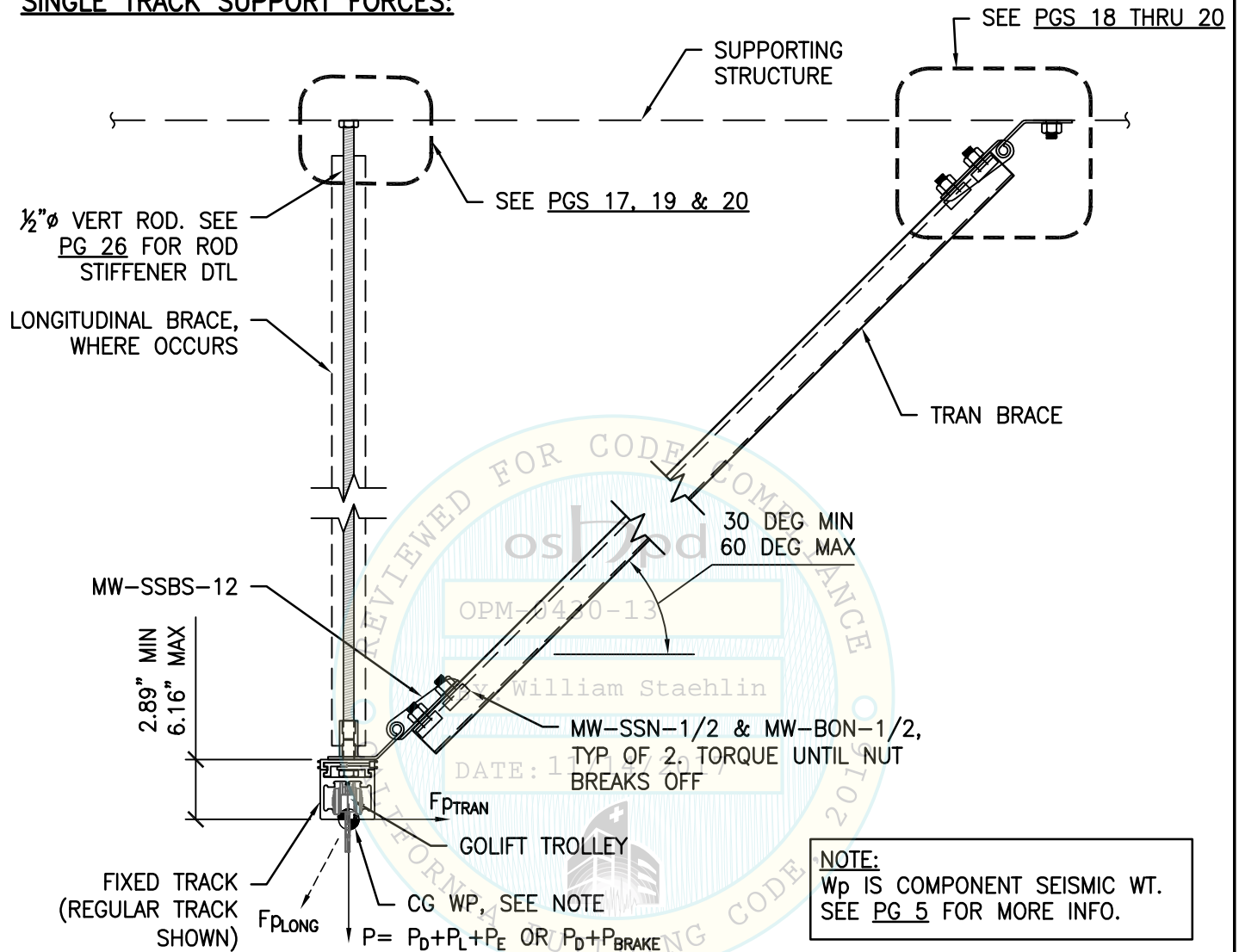
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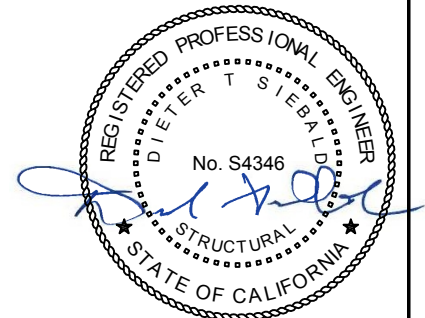
SINGLE TRACK SUPPORT FORCES:



NOTE:
W_p IS COMPONENT SEISMIC WT.
SEE PG 5 FOR MORE INFO.

FORCES:

	S _{Ds}	P _D	P _L	P _E	P _{BRAKE} (LB)	F _{PTRAN} (LB)	F _{PLONG} (LB)
GOLIFT 400	2.5	84	400	242	770	1.83W _p	0.549W _p
GOLIFT 700	2.5	82	700	391	770	1.83W _p	0.549W _p
GOLIFT 1000	2.0	88	1000	435	1540	1.47W _p	0.441W _p



SHEET TITLE: SUPPORT FORCES
SINGLE TRACK FORCES (STRUT SUPPORTS SHOWN)



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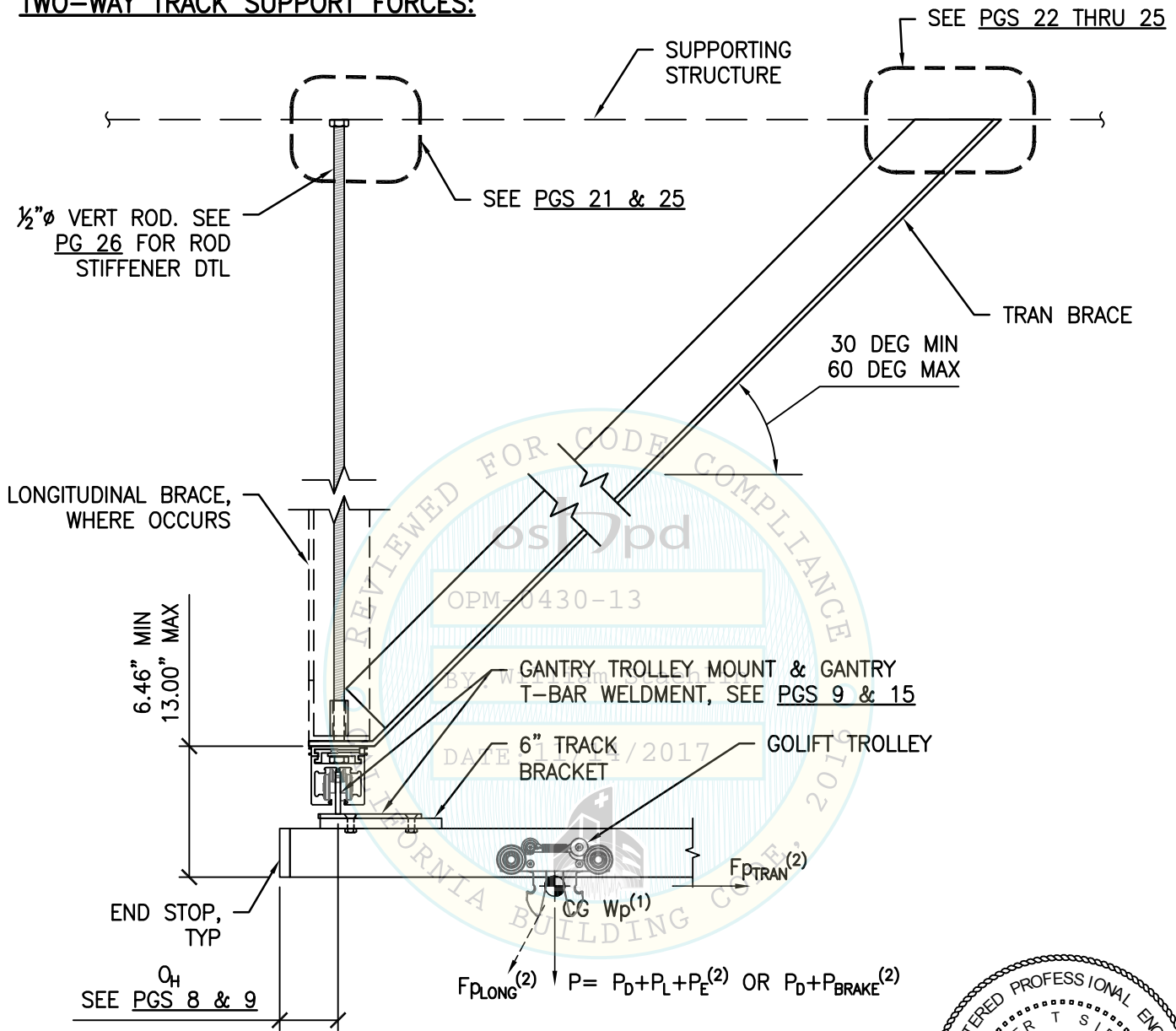
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TWO-WAY TRACK SUPPORT FORCES:



NOTES:

1. W_p IS COMPONENT SEISMIC WT.
SEE PG 5 FOR MORE INFO.
2. SEE PG 6 FOR FORCES



SHEET TITLE: SUPPORT FORCES
TWO-WAY TRACK FORCES (ANGLE SUPPORTS SHOWN)



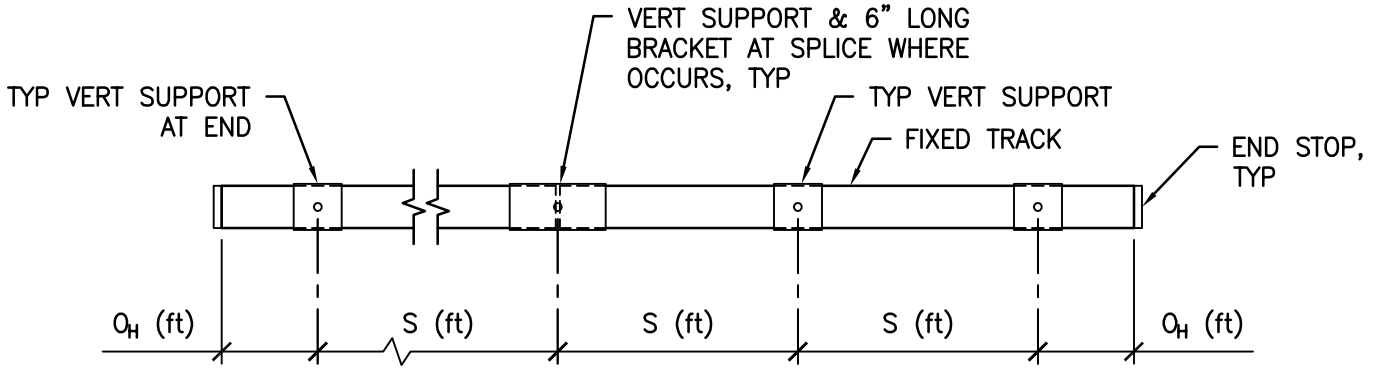
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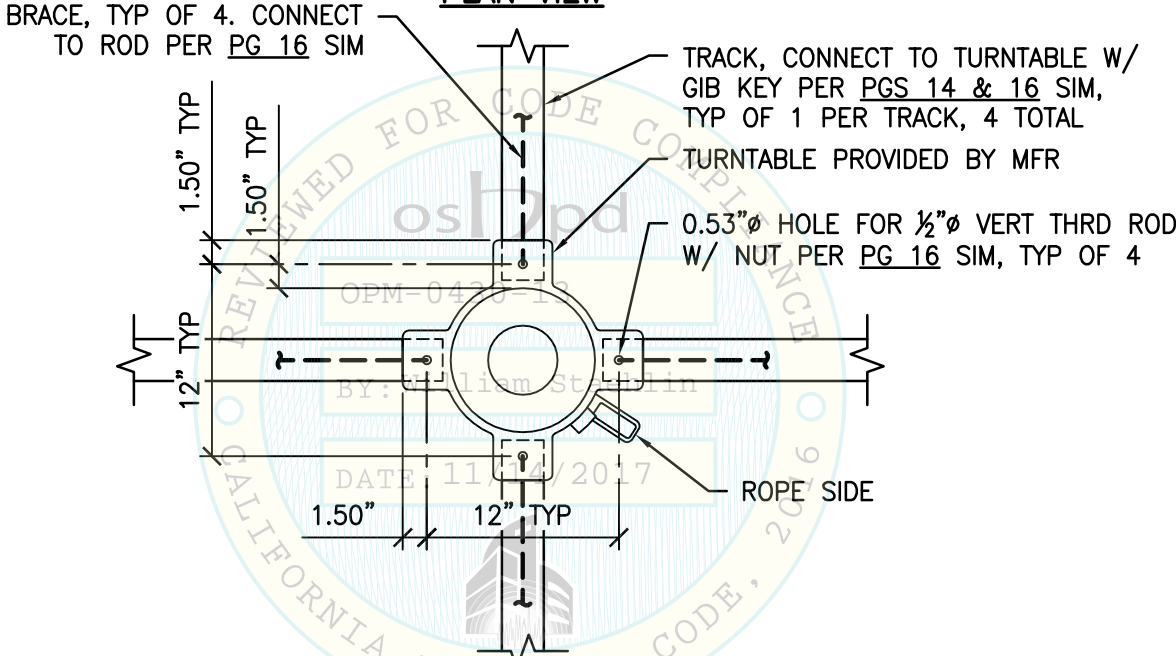
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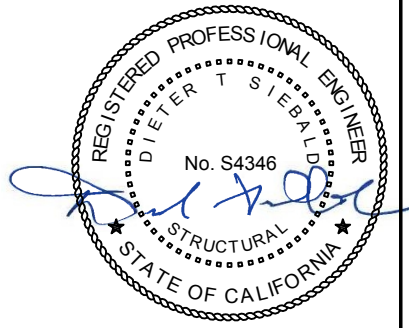


**SINGLE TRACK
PLAN VIEW**



**TRACK TURN TABLE 4 PORT
PLAN VIEW**

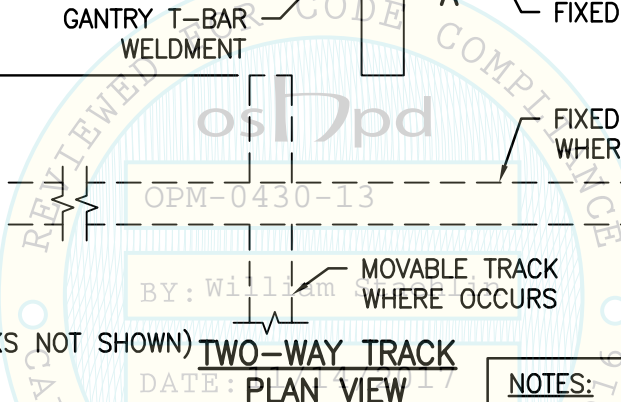
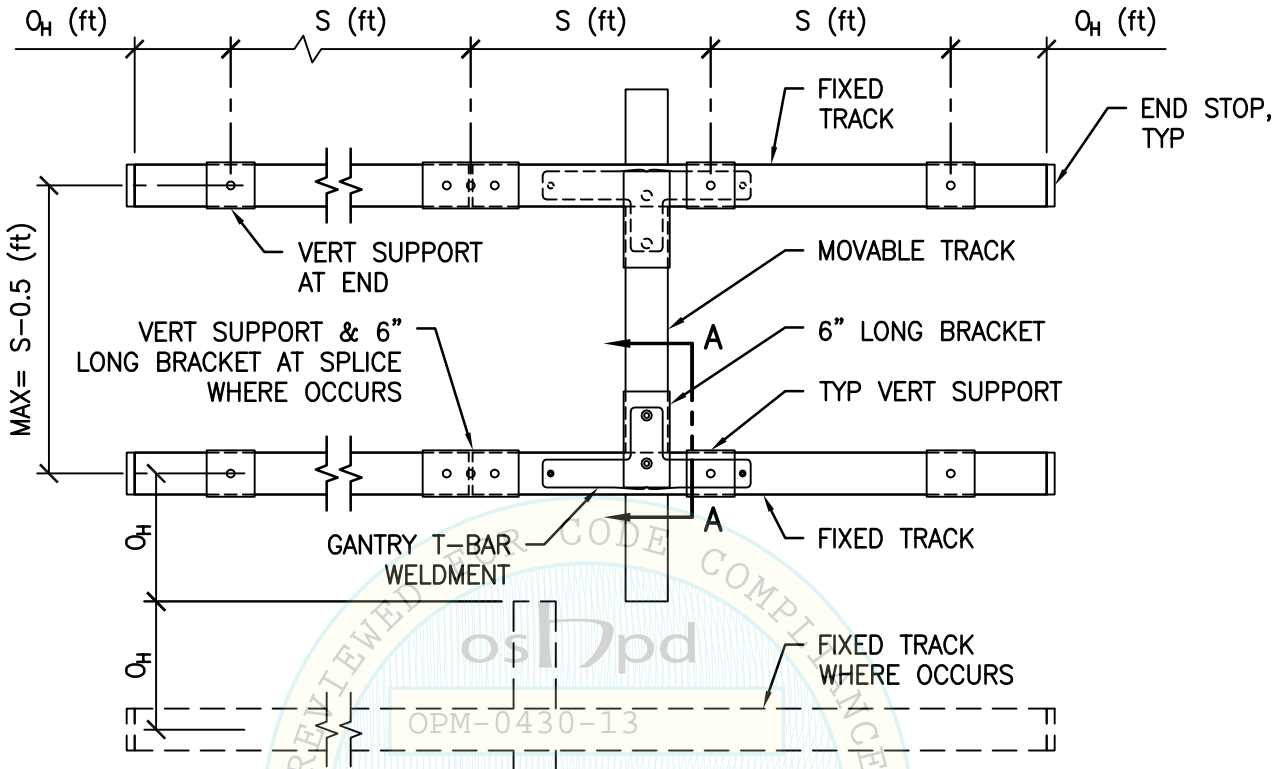
- NOTES:**
1. SEE DTLS ON PG 11 FOR BRCG LOCATION AT VERT SUPPORTS.
 2. SEE TABLES ON PG 12 FOR MAX VERT SUPPORT & BRACE SPACINGS. S = TRACK SPAN, O_H = TRACK OVERHANG SPAN
 3. TRACK MATERIAL: AA 6063-T65
 4. TURNTABLE MATERIAL: TURNTABLE HAS MANY PARTS THAT ARE EITHER MADE FROM 1020 COLD ROLLED STL OR AL 6061 T6.



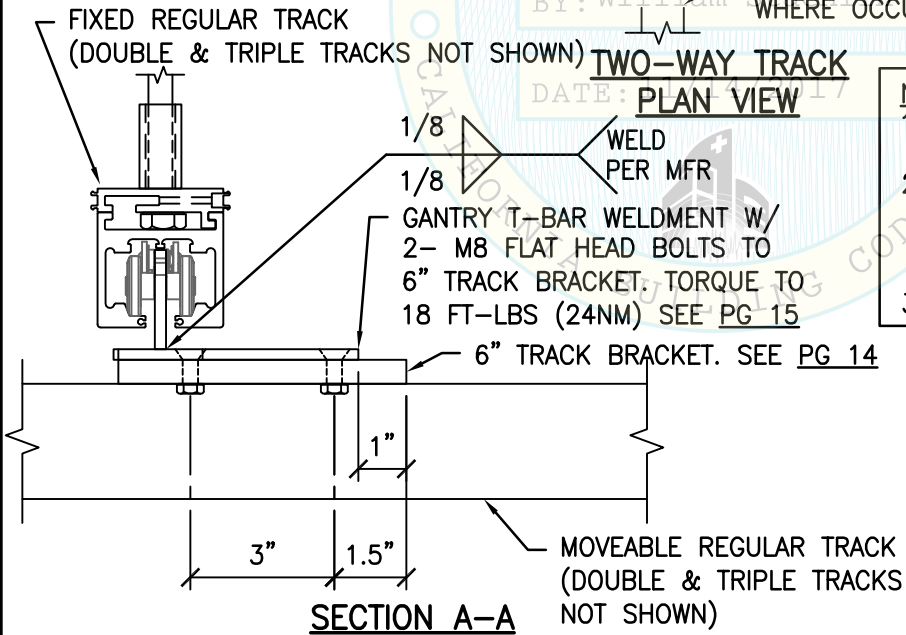
SHEET TITLE: LAYOUT DRAWINGS & SUPPORT LOCATIONS
SINGLE TRACK & TRACK TURN TABLE 4 PORT

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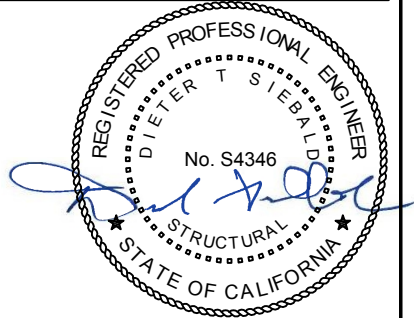
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TWO-WAY TRACK
PLAN VIEW



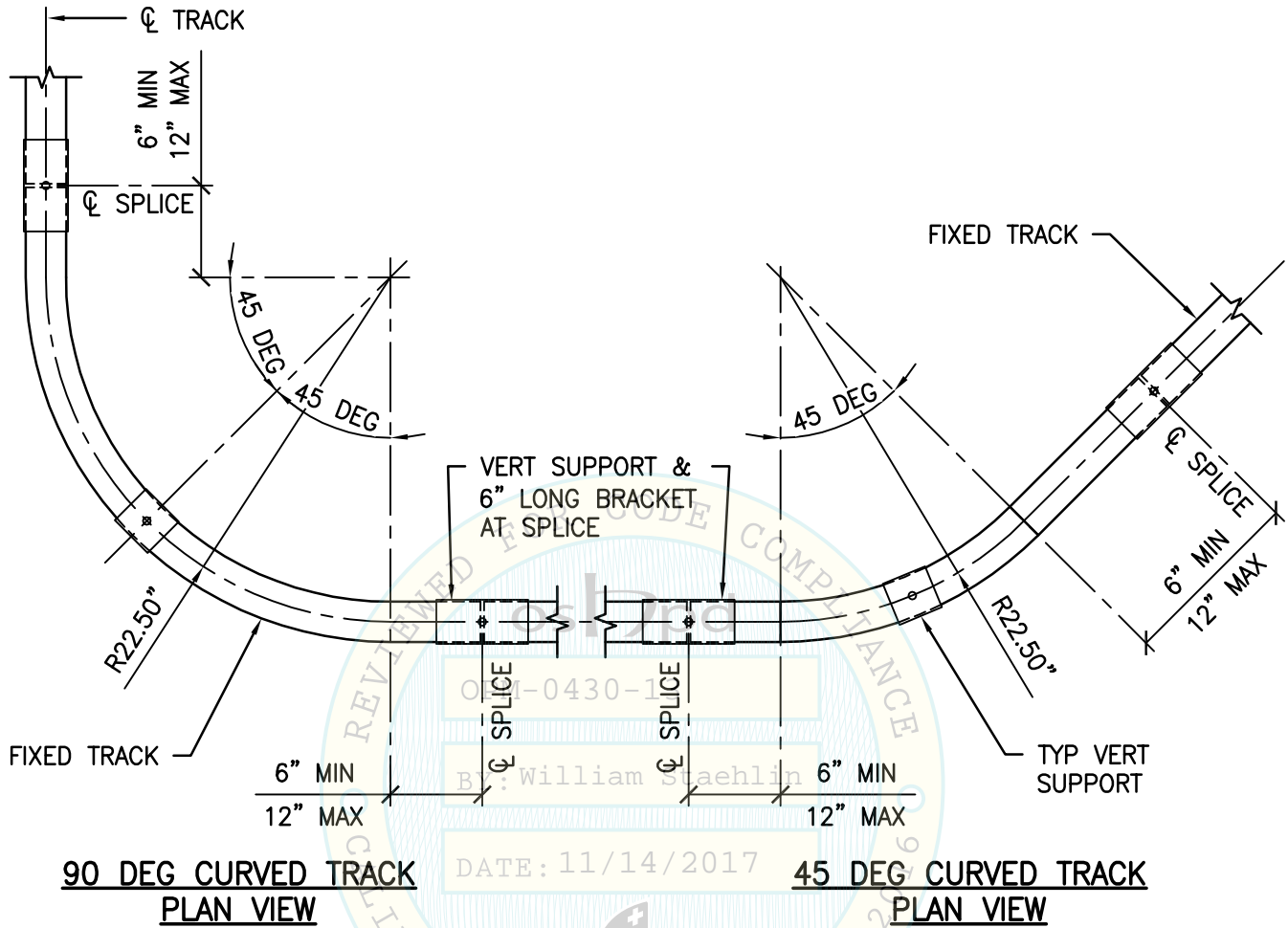
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 3. TRACK MATERIAL: AA 6063-T65



SHEET TITLE: LAYOUT DRAWINGS & SUPPORT LOCATIONS
TWO-WAY TRACK

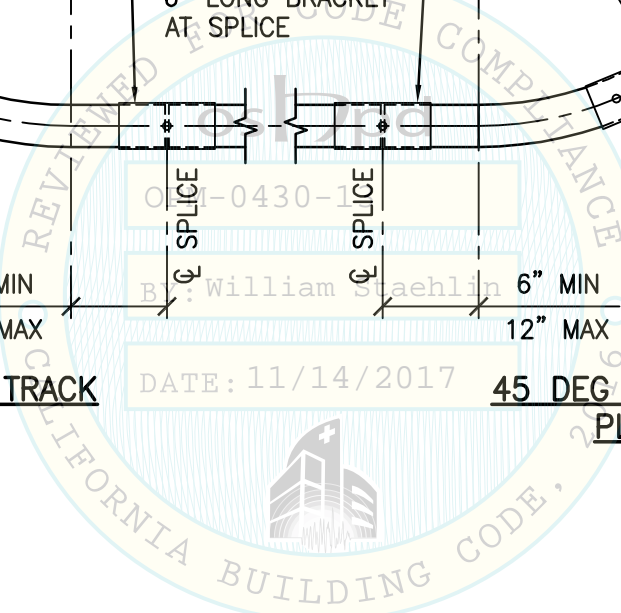
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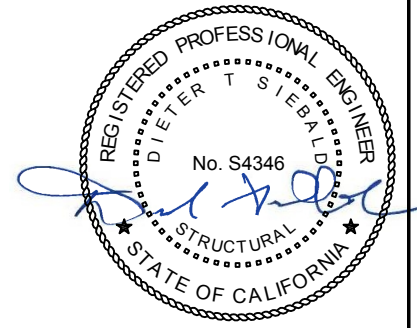


**90 DEG CURVED TRACK
PLAN VIEW**

**45 DEG CURVED TRACK
PLAN VIEW**



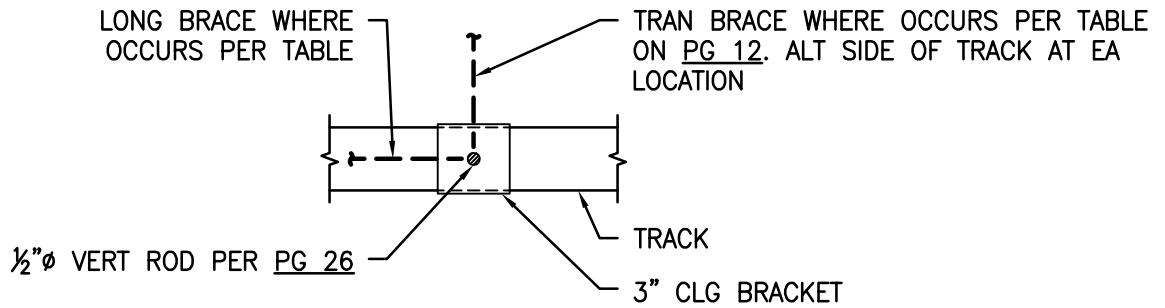
- NOTES:**
1. SEE DTLS ON PG 11 FOR BRCG LOCATION AT VERT SUPPORTS.
 2. SEE TABLES ON PG 12 FOR MAX VERT SUPPORT & BRACE SPACINGS. S = TRACK SPAN, Q_H = TRACK OVERHANG SPAN
 3. TRACK MATERIAL: AA 6063-T65



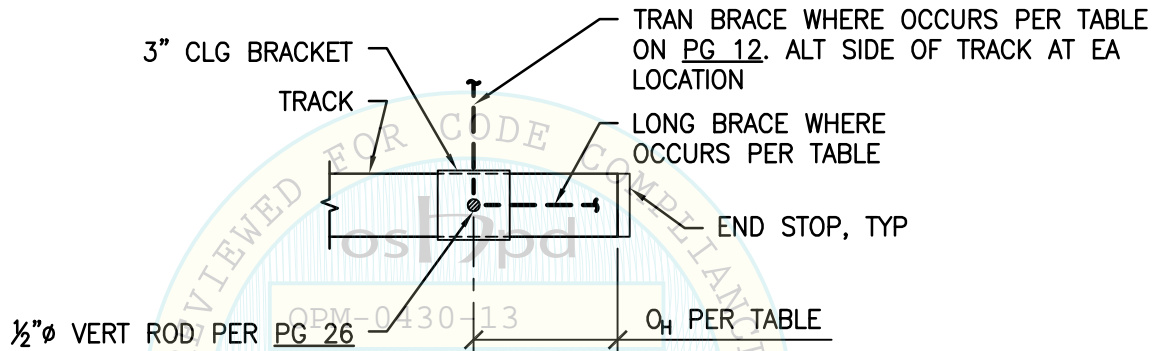
SHEET TITLE: LAYOUT DRAWINGS & SUPPORT LOCATIONS
90 DEGREE & 45 DEGREE CURVED TRACK

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 17050 Date: 10-17-2017 Page: 10 of 27
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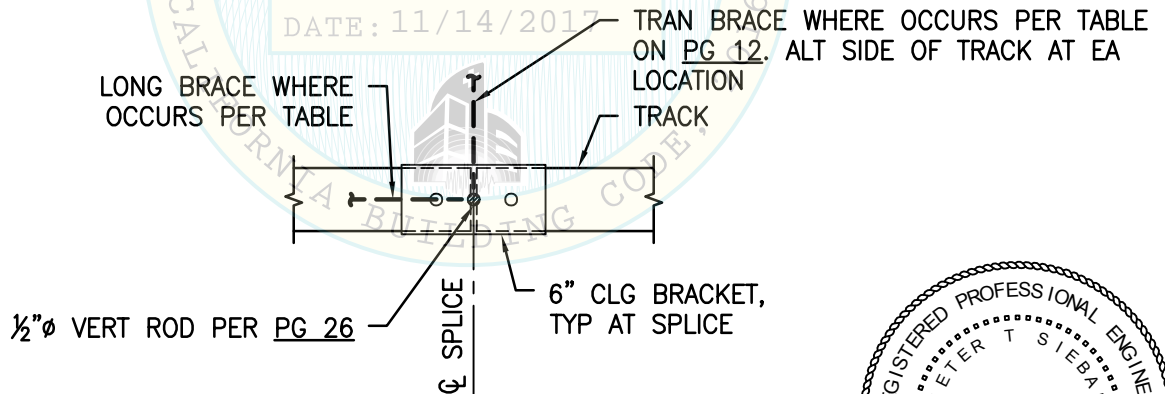
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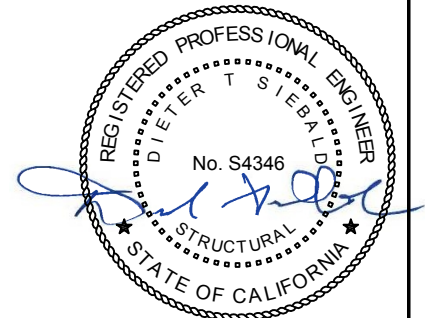
BRACE LOCATION
TYP VERT SUPPORT



BRACE LOCATION
VERT SUPPORT AT END



BRACE LOCATION
VERT SUPPORT AT SPLICE



SHEET TITLE: LAYOUT DRAWINGS & SUPPORT LOCATIONS
BRACE LOCATION AT VERT SUPPORTS



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L:\Jobs\17050 Amico - Golift OPM\ACAD\S1.dwg Time:Oct17,2017 - 10:54am Login:comachom Dimscale:1 LTScale:6

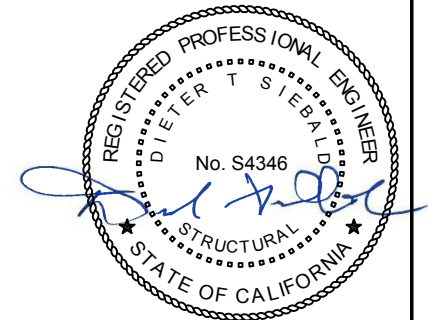
VERT SUPPORT & BRACE SPACING TABLES:

MAX VERT SUPPORT SPACING (IN)						
	BTW SUPPORTS, S			OVERHANG, O _H		
	REGULAR TRACK	DOUBLE TRACK	TRIPLE TRACK	REGULAR TRACK	DOUBLE TRACK	TRIPLE TRACK
GOLIFT 400	80	128	166	20	32	58
GOLIFT 700	60	101	142	16	25	46
GOLIFT 1000	44	85	139	13	21	39

MAX BRACE SPACING (IN)						
	TRANSVERSE			LONGITUDINAL		
	REGULAR TRACK	DOUBLE TRACK	TRIPLE TRACK	REGULAR TRACK	DOUBLE TRACK	TRIPLE TRACK
GOLIFT 400	80	128	166	168	168	168
GOLIFT 700	60	101	142	168	168	168
GOLIFT 1000	44	85	139	168	168	168

NOTES:

1. SPACINGS SHOWN ABV ARE MAX, COORD W/ LAYOUT DWGS.
2. BRACES MUST OCCUR AT A VERT SUPPORT.
3. TRAN BRACES ALWAYS OCCUR AT TRACK ENDS & SPLICES.
4. PROVIDE ONE LONG BRACE PER EA STRAIGHT SECTION OF TRACK MIN.
5. PATIENTS SHALL NOT BE LIFTED IN TANDEM UNLESS IT IS VERIFIED THAT THE SPACING BTW THE PATIENTS IS GREATER THAN 20'-0".
6. THE ABV SPACINGS ARE BASED ON AN L/200 DEFLECTION LIMIT.
7. FOR TRACK SECTION PROPERTIES & MATERIAL, SEE PG 13.
8. SEE PG 5 FOR GOLIFT CONFIGURATIONS.



**SHEET TITLE: LAYOUT DRAWINGS & SUPPORT LOCATIONS
VERT SUPPORT & BRACE SPACING TABLES**



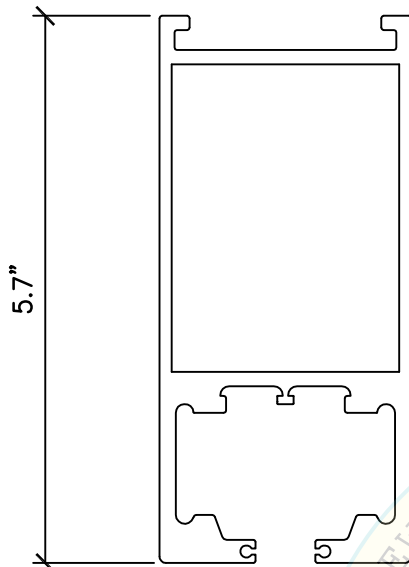
CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

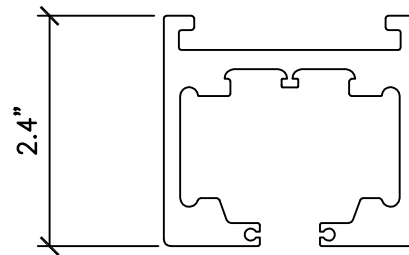
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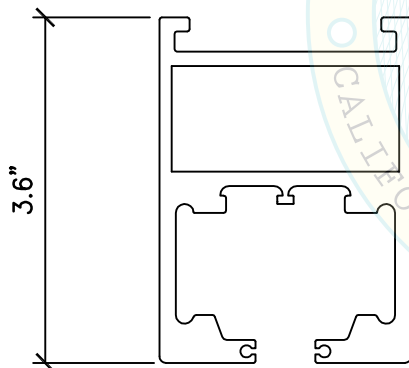
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TRIPLE TRACK



REGULAR TRACK



DOUBLE TRACK

TRACK SECTION PROPERTIES			
	REGULAR	DOUBLE	TRIPLE
A (in ²)=	2.09	2.58	3.15
Sxx (in ³)=	1.07	1.75	3.46
Syy (in ³)=	1.55	1.94	2.62
Ixx (in ⁴)=	1.29	3.31	10.95
Iyy (in ⁴)=	2.05	2.54	3.43
WT (LB/FT) =	2.55	3.20	3.83

TRACK MATERIAL: AA6063 - T65
ALUM, UNO (Fy= 33 KSI MIN)



SHEET TITLE: TRACK & COMPONENT DETAILS
TRACK PROPERTIES



CYS STRUCTURAL ENGINEERS, INC.

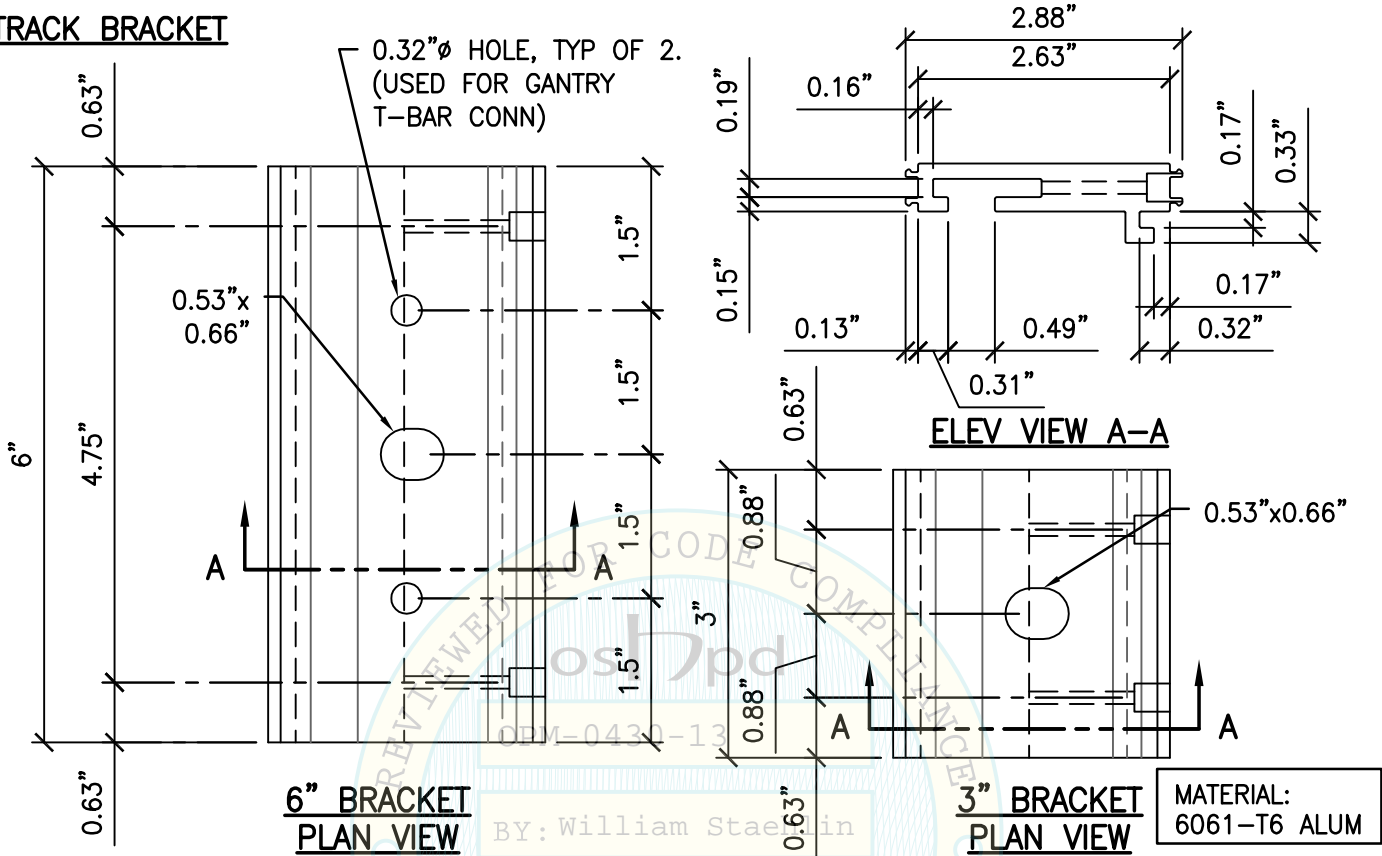
2495 NATOMAS PARK DRIVE, SUITE 650
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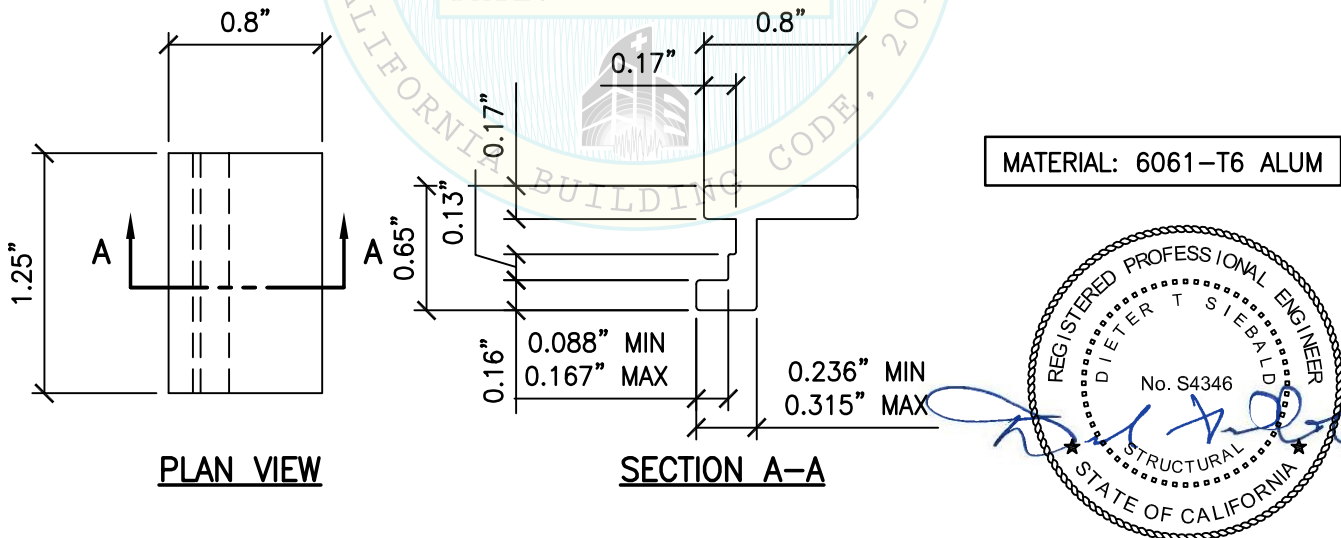
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L:\Jobs\17050 Amico - GoLift OPM\ACAD\S1.dwg Time:Oct17,2017 - 10:54am Login:comachom DimScale:1 LTScale:6

TRACK BRACKET



TRACK BRACKET GIB KEY



SHEET TITLE: TRACK & COMPONENT DETAILS
TRACK BRACKETS



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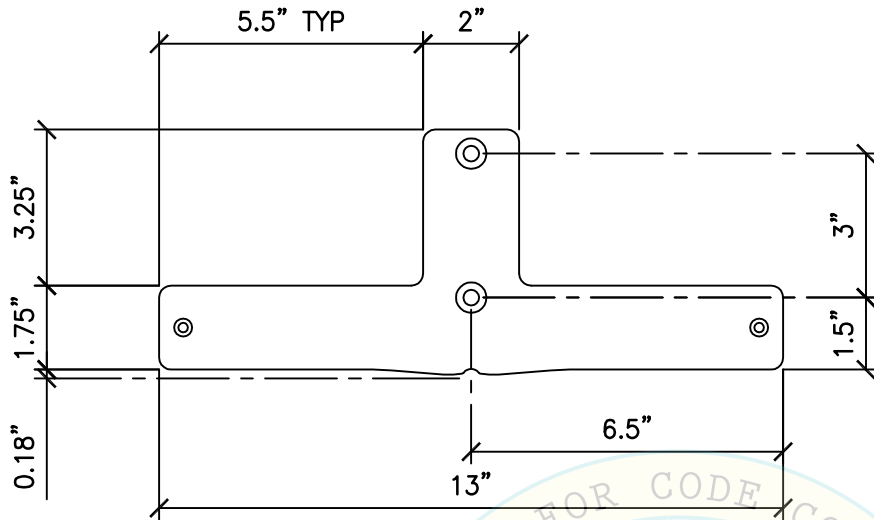
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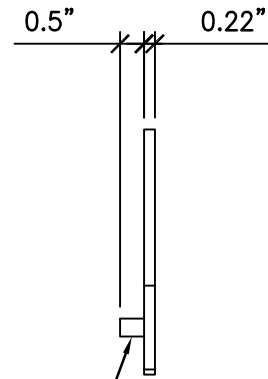


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GANTRY T-BAR



FRONT VIEW

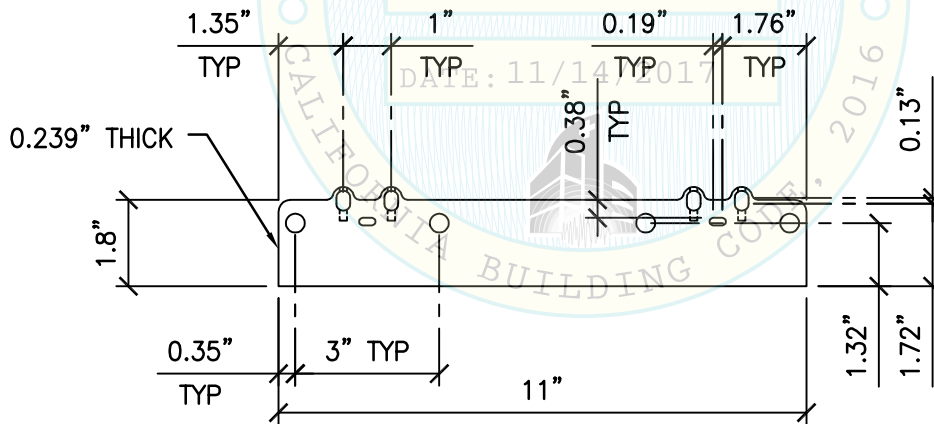


SIDE VIEW

GUIDING ROLLER,
TYP OF 2

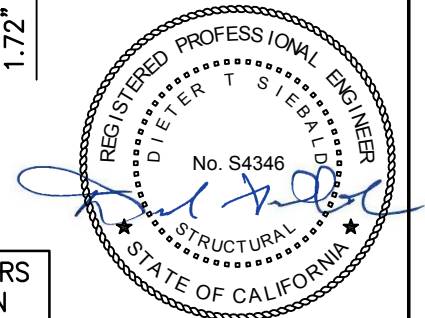
MATERIAL: 1045 CRS
Fy= 65.3 KSI, MIN

GANTRY TROLLEY MOUNT



FRONT VIEW

MATERIAL: 1045 CRS
Fy= 65.3 KSI, MIN



SHEET TITLE: TRACK & COMPONENT DETAILS

GANTRY T-BAR & GANTRY TROLLEY MOUNT



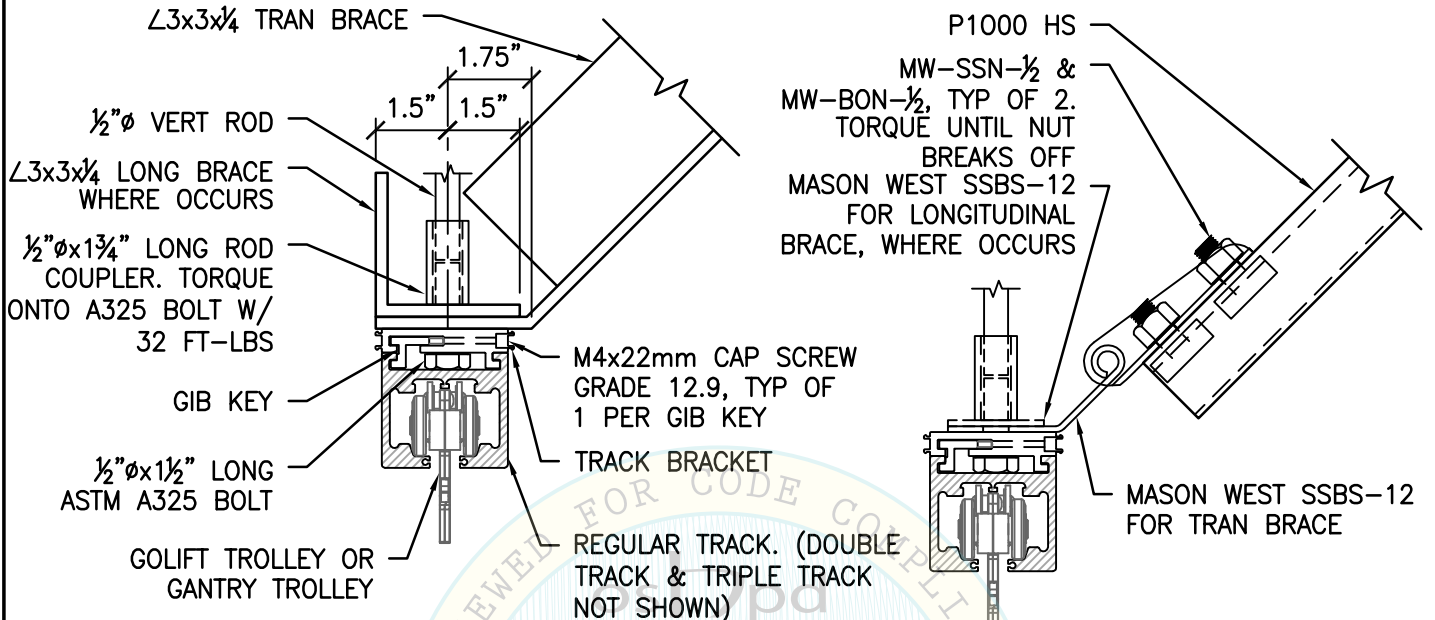
CYS STRUCTURAL ENGINEERS, INC.

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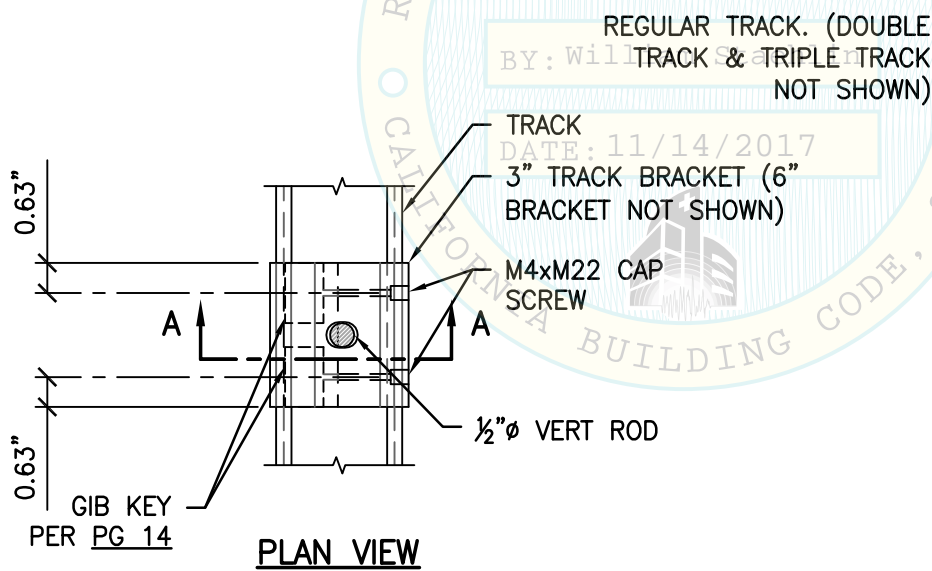
Job No:	17050
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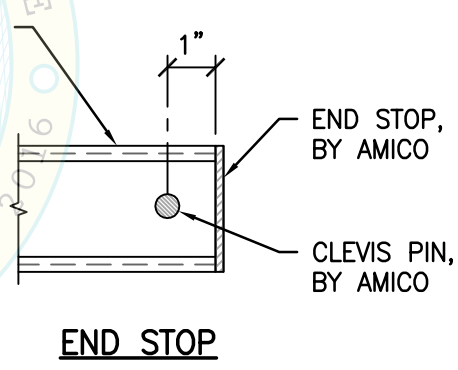


SECTION A-A
AT ANGLE BRACE OPTION

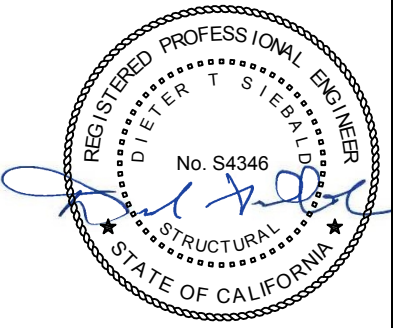
SECTION A-A
AT STRUT BRACE OPTION



PLAN VIEW



END STOP



SHEET TITLE: TRACK & COMPONENT DETAILS
TRACK BRACKET ASSEMBLIES

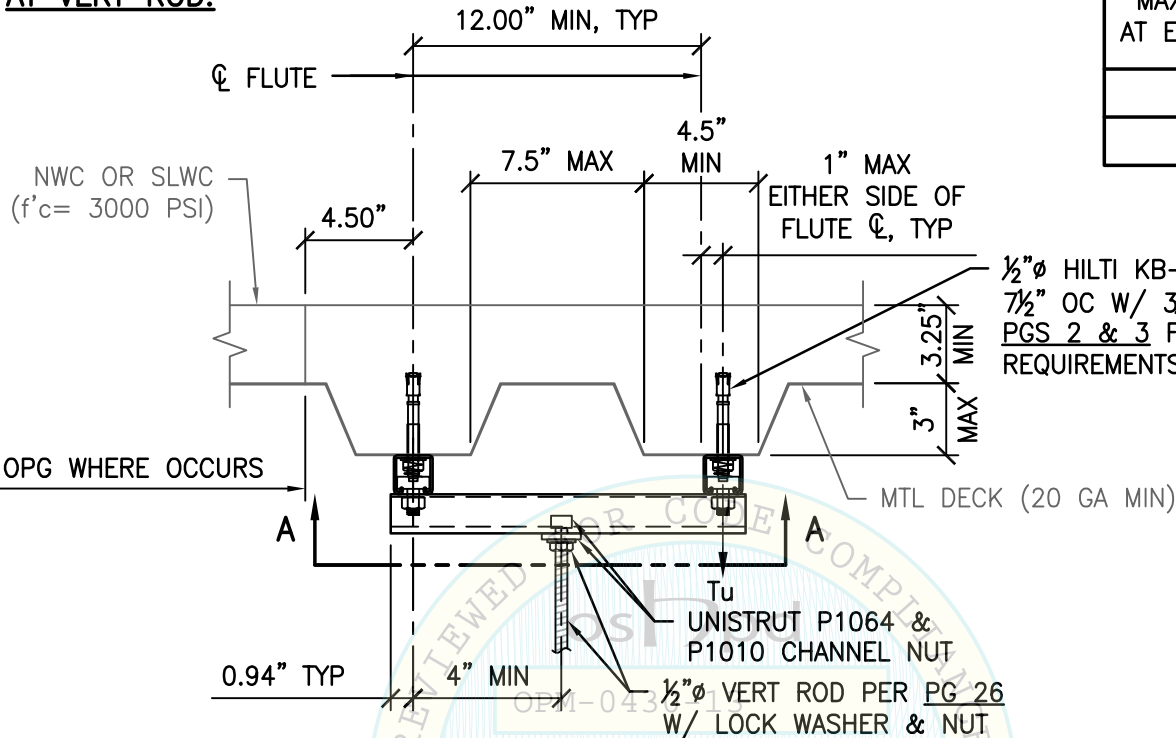
<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 17050 Date: 10-17-2017 Page: 16 of 27
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L:\Jobs\17050 Amico - Golift OPM\ACAD\1.dwg Time: Oct 17, 2017 - 10:54:48am Login: comachom Dim: scale: 1 L1Scale: 6

AMICO GOLIFT 400, 700 & 1000
MOTORIZED PATIENT LIFT SYSTEMS



AT VERT ROD:

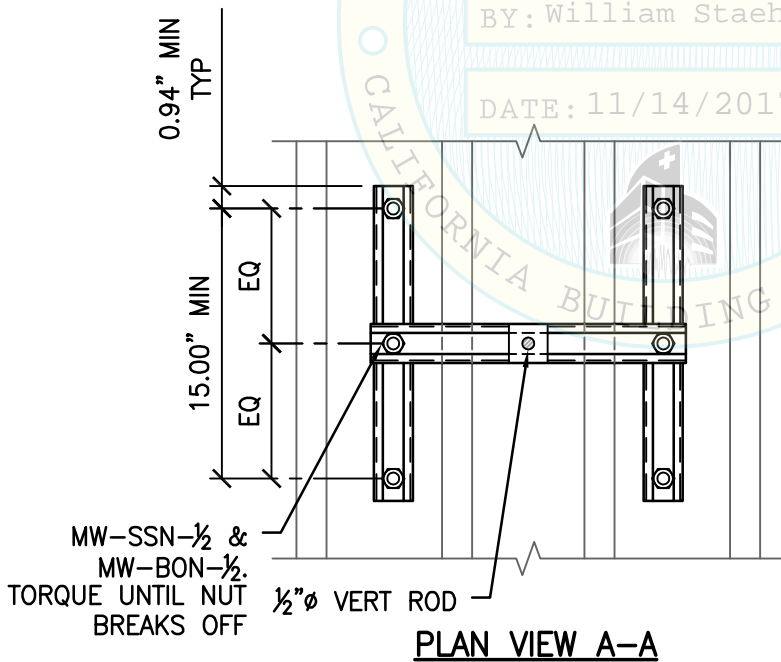


MAX LRFD FORCES
AT EA ANCHOR (LBS)

$\Omega_o T_u$
1273#

$\frac{1}{2}$ " ϕ HILTI KB-TZ ANCHORS @
 $\frac{7}{2}$ " OC W/ $\frac{3}{4}$ " EMBED. SEE
PGS 2 & 3 FOR INSTALLATION
REQUIREMENTS (6- TOTAL)

VERT ROD ATTACHMENT PERP TO MTL DECK FLUTES



PLAN VIEW A-A

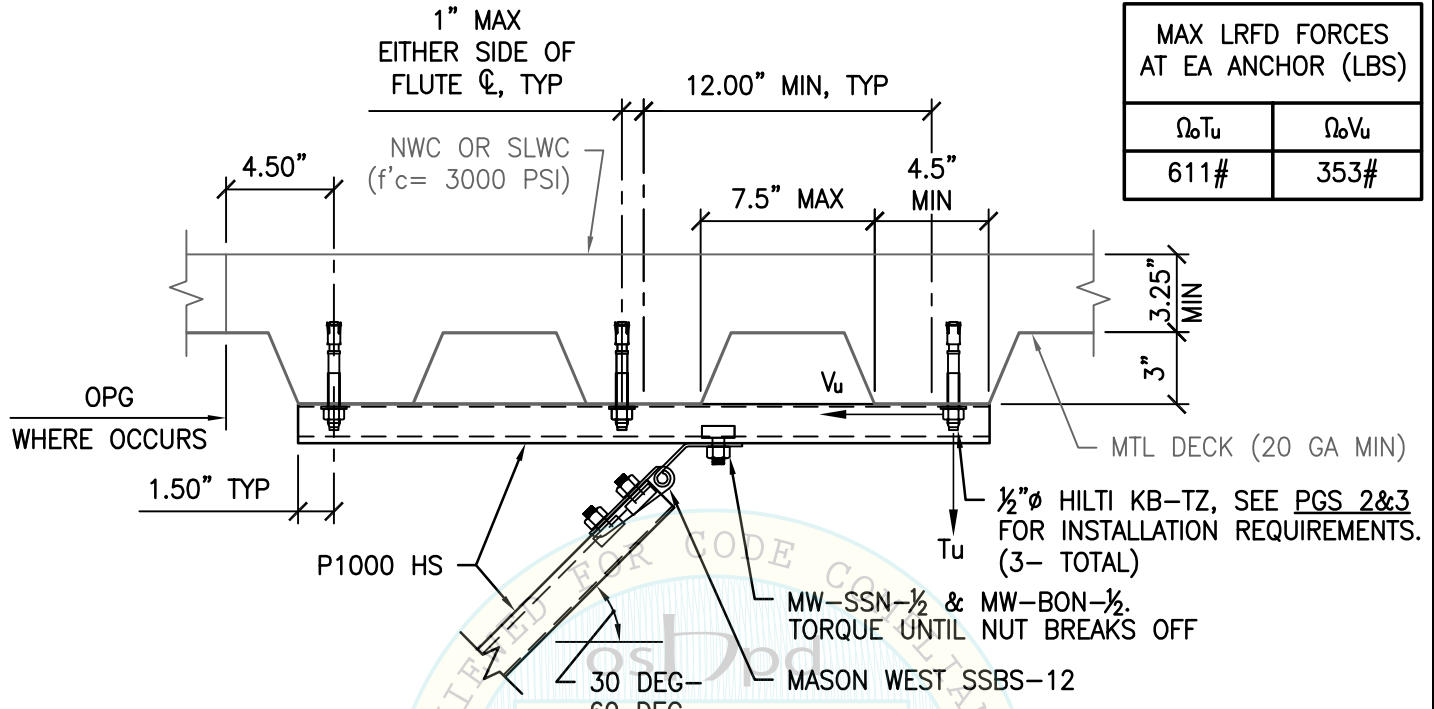
TORQUE $\frac{1}{2}$ " ϕ NUTS
TO 50 FT-LBS



SHEET TITLE: SUPPORT & ATTACHMENT DETAILS - STRUT
VERTICAL ROD & BRACE ATTACHMENT TO CONCRETE FILL OVER METAL DECK

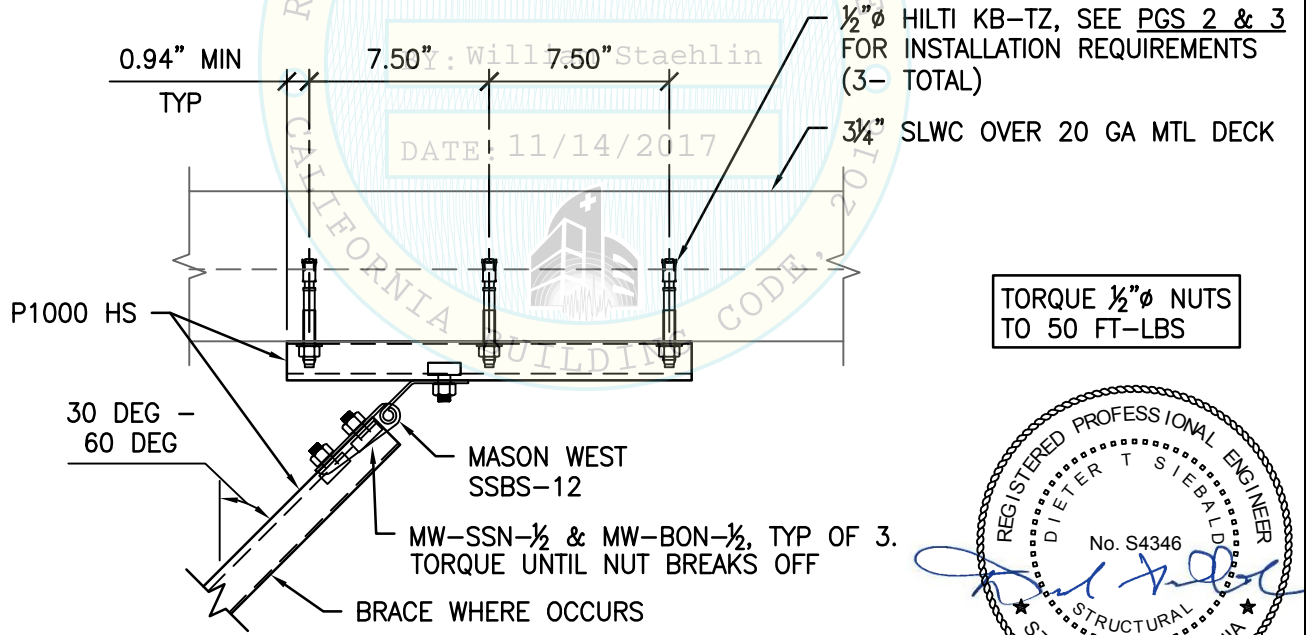
<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 17050 Date: 10-17-2017 Page: 17 of 27
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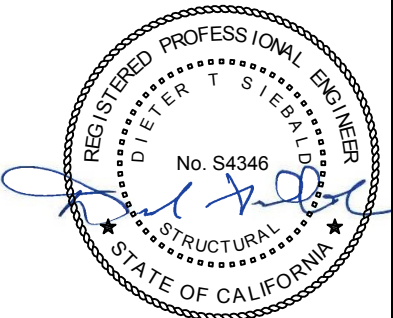


MAX LRFD FORCES AT EA ANCHOR (LBS)	
$\Omega_o T_u$	$\Omega_o V_u$
611#	353#

BRACE ATTACHMENT PERP TO MTL DECK FLUTES



TORQUE $\frac{1}{2}$ " ϕ NUTS
TO 50 FT-LBS



BRACE ATTACHMENT PARALLEL TO MTL DECK FLUTES

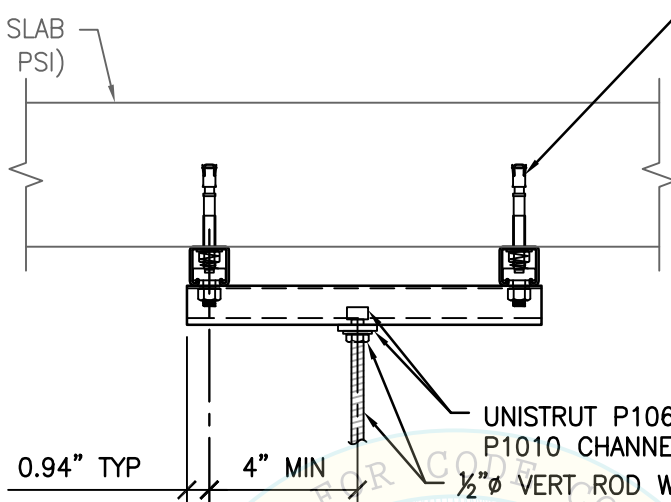
SHEET TITLE: SUPPORT & ATTACHMENT DETAILS - STRUT
VERTICAL ROD & BRACE ATTACHMENT TO CONCRETE FILL OVER METAL DECK

<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: 17050
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L:\Jobs\17\17050 Amico - Golift OPM\ACAD\S1.dwg Time:Oct17,2017 - 10:54:48am Login:comachom Dimscale:1 LTSscale:6

6" MIN CONC SLAB
(f'c= 3000 PSI)

1/2"φ HILTI KB-TZ, SEE PGS 2 & 3
FOR INSTALLATION REQUIREMENTS
(6- TOTAL)



UNISTRUT P1064 R &
P1010 CHANNEL NUT
1/2"φ VERT ROD W/ LOCK
WASHER & NUT PER PG 26

VERT ROD ATTACHMENT

0.94" MIN
TYP

7.50" 7.50"

1/2"φ HILTI KB-TZ, SEE PGS
2 & 3 FOR INSTALLATION
REQUIREMENTS (3- TOTAL)

P1000 HS

6" MIN CONC SLAB
(f'c= 3000 PSI)

- NOTES:**
1. FOR INFO NOT SHOWN OR NOTED, SEE PGS 17 & 18
 2. TORQUE 1/2"φ NUTS TO 50 FT-LBS

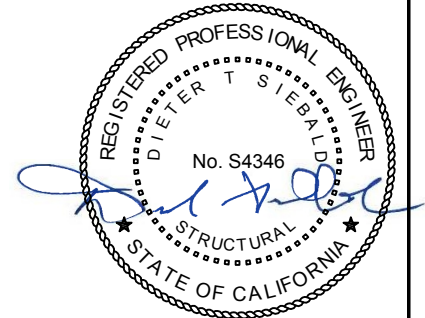
30 DEG -
60 DEG

MASON WEST SSBS-12

MW-SSN-1/2 & MW-BON-1/2,
TYP OF 3. TORQUE UNTIL
NUT BREAKS OFF

BRACE WHERE OCCURS

BRACE ATTACHMENT



SHEET TITLE: SUPPORT & ATTACHMENT DETAILS - STRUT
VERTICAL ROD & BRACE ATTACHMENT TO 4" MIN CONCRETE SLAB



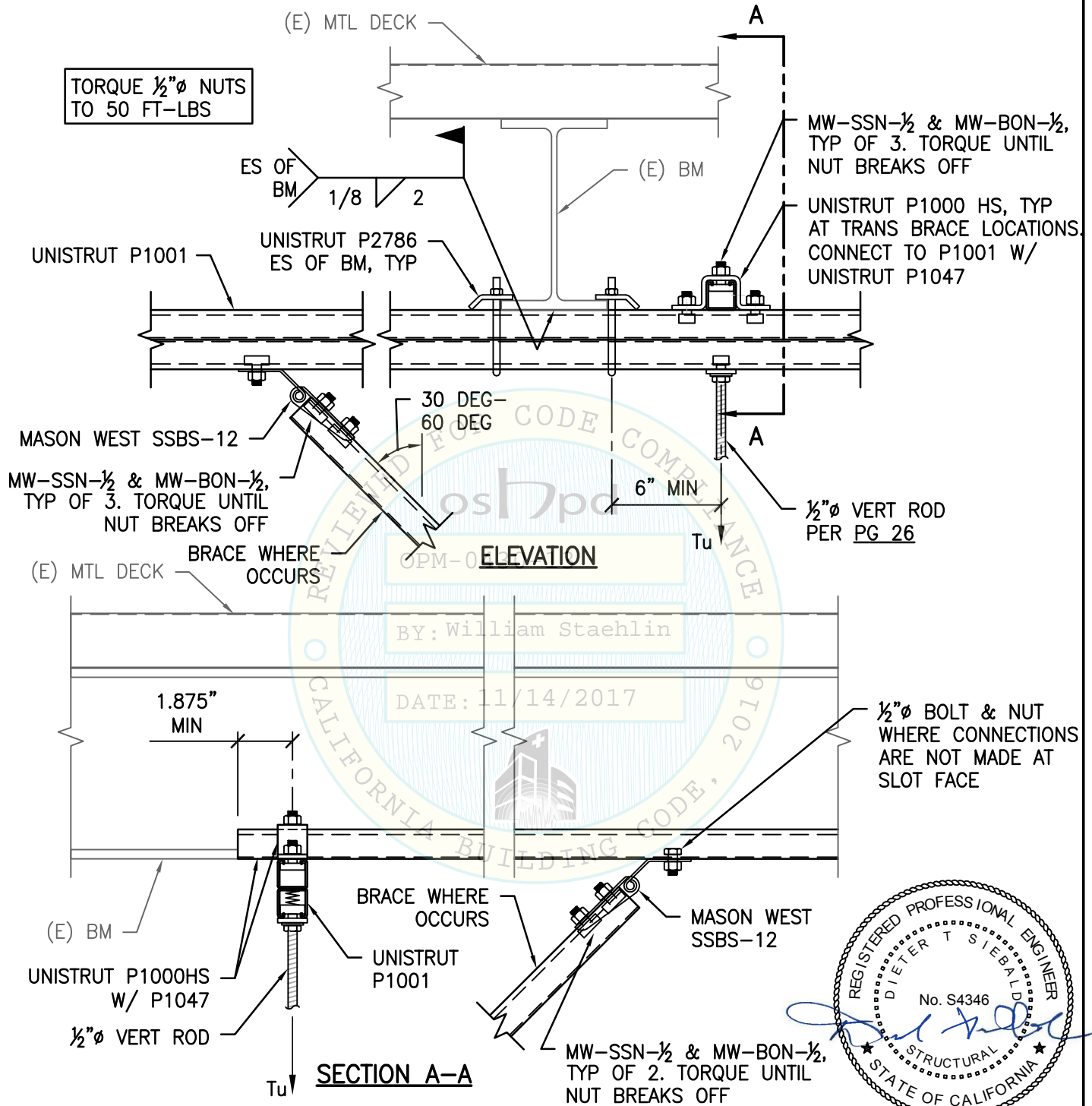
CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
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L:\Jobs\17\17050 Amico - Golift OPM\ACAD\S1.dwg Time:Oct17,2017 - 10:54am Login:comachom DimScale:1 LTScale:6



SHEET TITLE: SUPPORT & ATTACHMENT DETAILS - STRUT
VERTICAL ROD & BRACE ATTACHMENT TO STEEL BEAM



CYS STRUCTURAL ENGINEERS, INC.

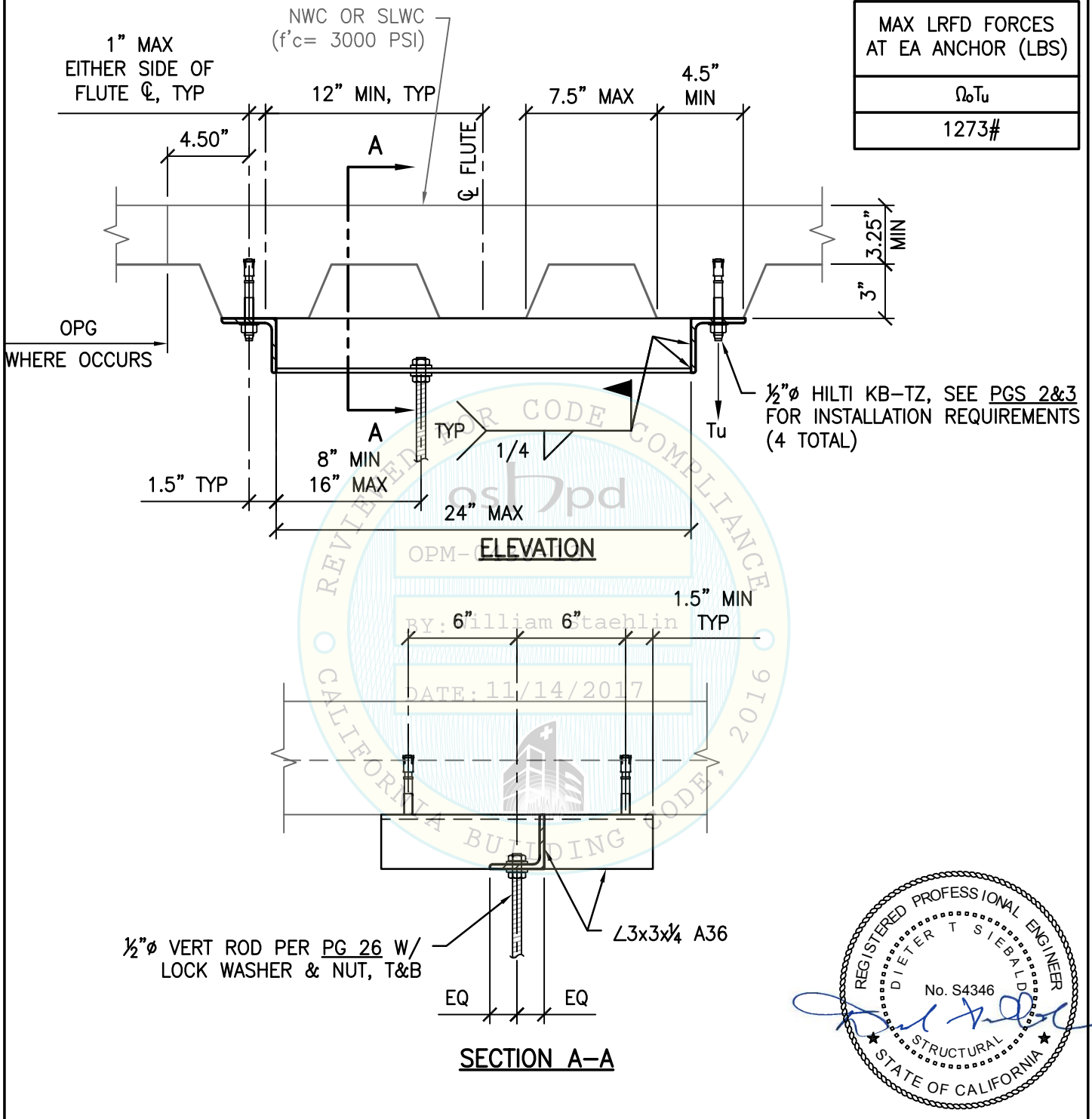
2495 NATOMAS PARK DRIVE, SUITE 650
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TEL (916) 920-2020
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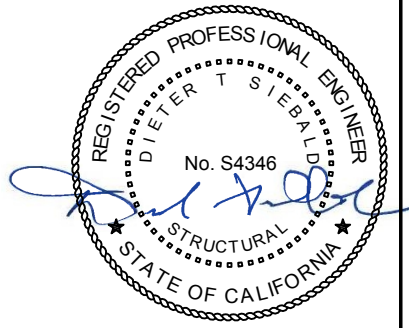
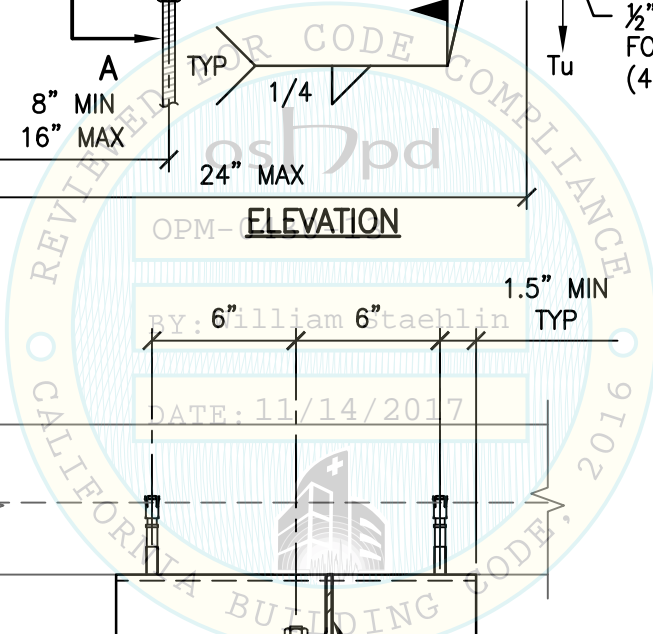
Job No:	17050
Date:	10-17-2017
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L:\Jobs\17\17050 Amico - Golift OPM\ACAD\S1.dwg Time:Oct17,2017 - 10:54am Login:cornachom DimScale:1 LTScale:6

AMICO GOLIFT 400, 700 & 1000
MOTORIZED PATIENT LIFT SYSTEMS



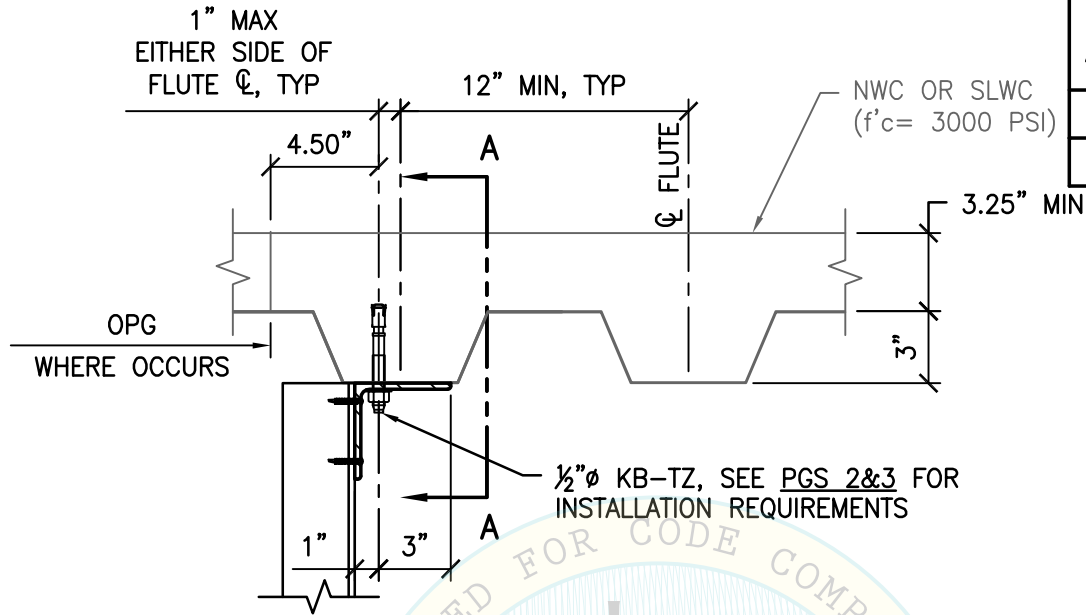
MAX LRFD FORCES AT EA ANCHOR (LBS)
$\Omega_o T_u$
1273#



L:\Jobs\17050 Amico - Golift OPM\ACAD\S1.dwg Time:Oct17,2017 - 10:54:48am Login:comachom Dim:scale:1 L1Scale:6

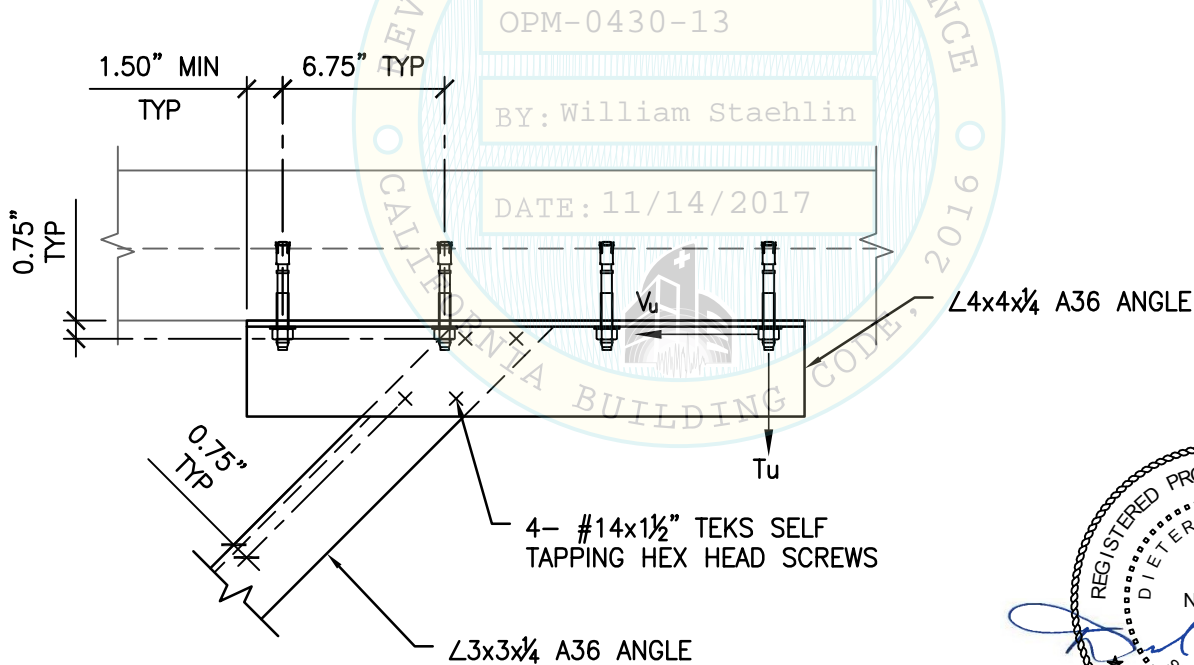
SHEET TITLE: SUPPORT & ATTACHMENT DETAILS - ANGLE
VERTICAL ROD ATTACHMENT TO CONCRETE FILL OVER METAL DECK

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 17050 Date: 10-17-2017 Page: 21 of 27
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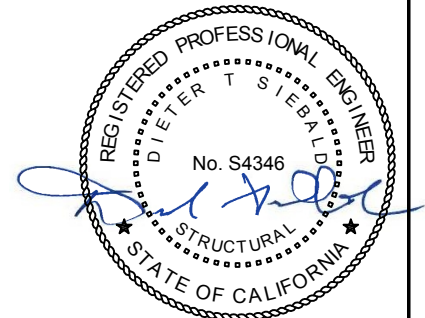


MAX LRFD FORCES AT EA ANCHOR (LBS)	
$\Omega_o T_u$	$\Omega_o V_u$
651#	376#

BRACE PARALLEL TO MTL DECK FLUTE



SECTION A-A



SHEET TITLE: SUPPORT & ATTACHMENT DETAILS - ANGLE
BRACE ATTACHMENT TO CONCRETE FILL OVER METAL DECK



CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

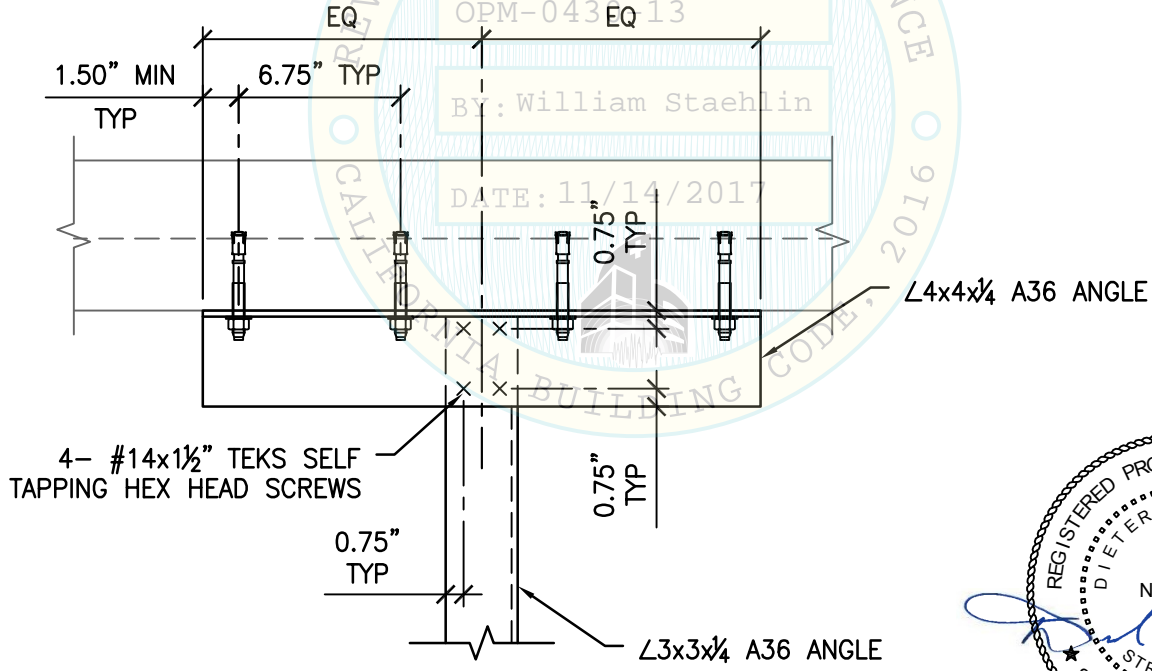
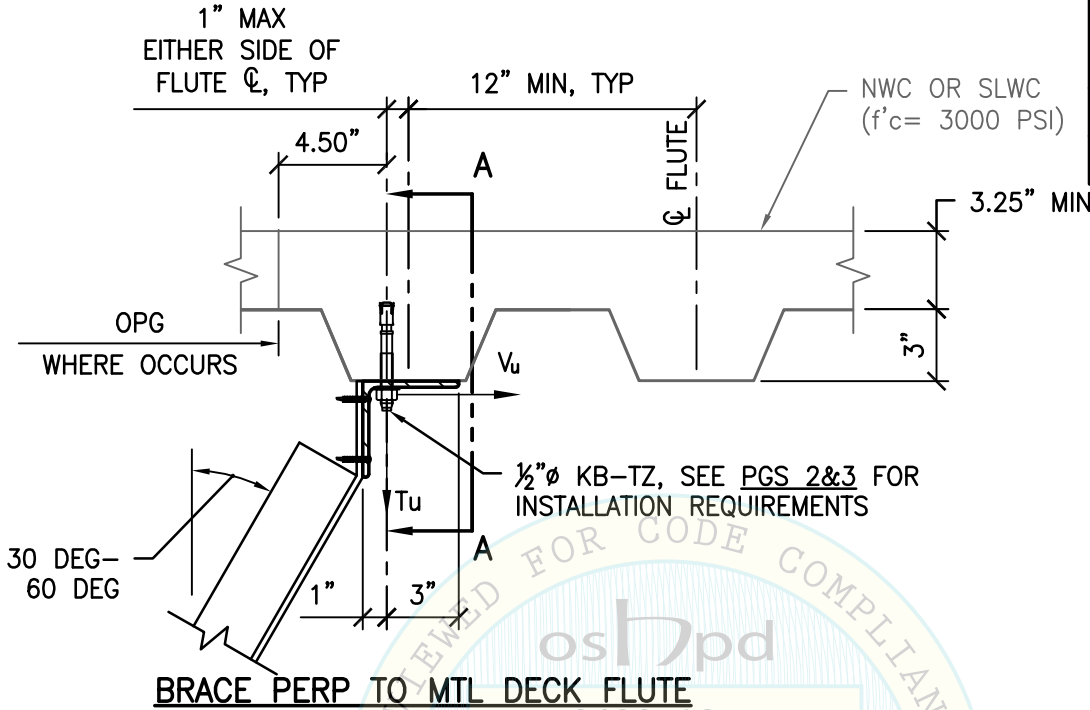
TEL (916) 920-2020
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Job No:	17050
Date:	10-17-2017
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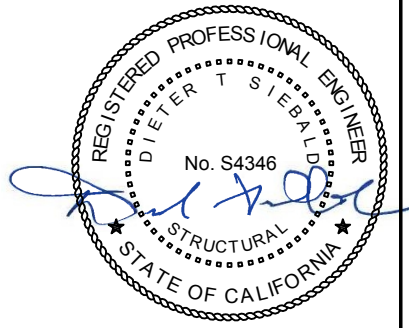
L:\Jobs\17050 Amico - Golift OPM\ACAD\1.dwg Time: Oct 17, 2017 - 10:54am Login: comachom DimScale: 1 LTScale: 6

MAX LRFD FORCES
AT EA ANCHOR (LBS)

$\Omega_o T_u$	$\Omega_o V_u$
611#	353#



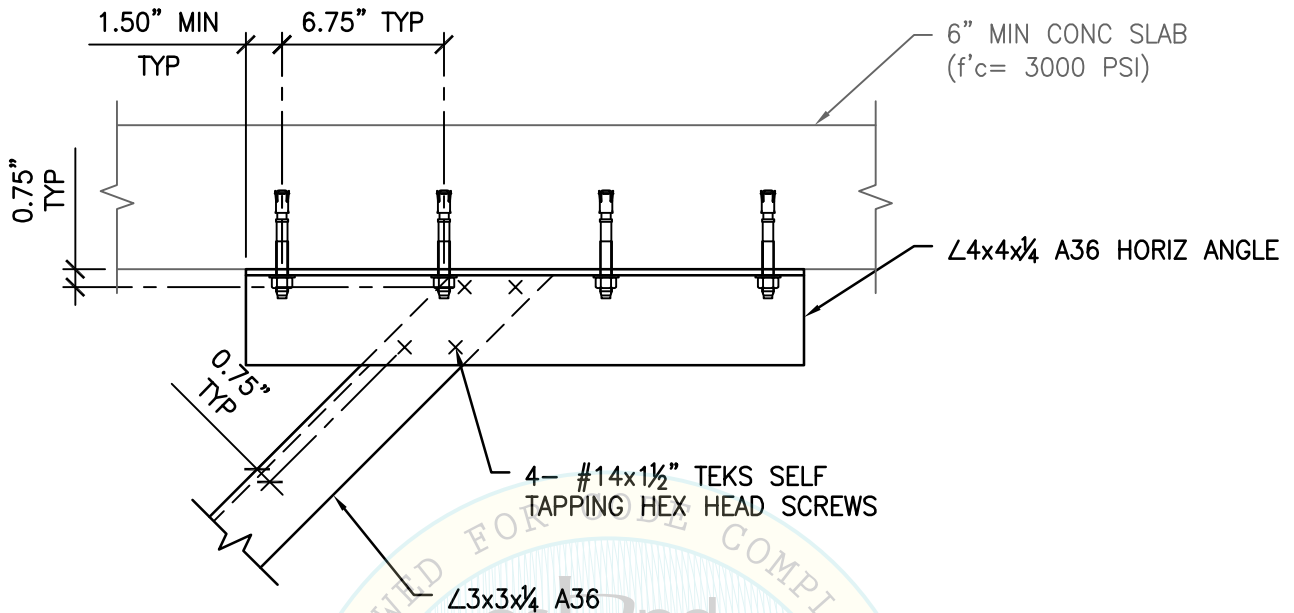
SECTION A-A



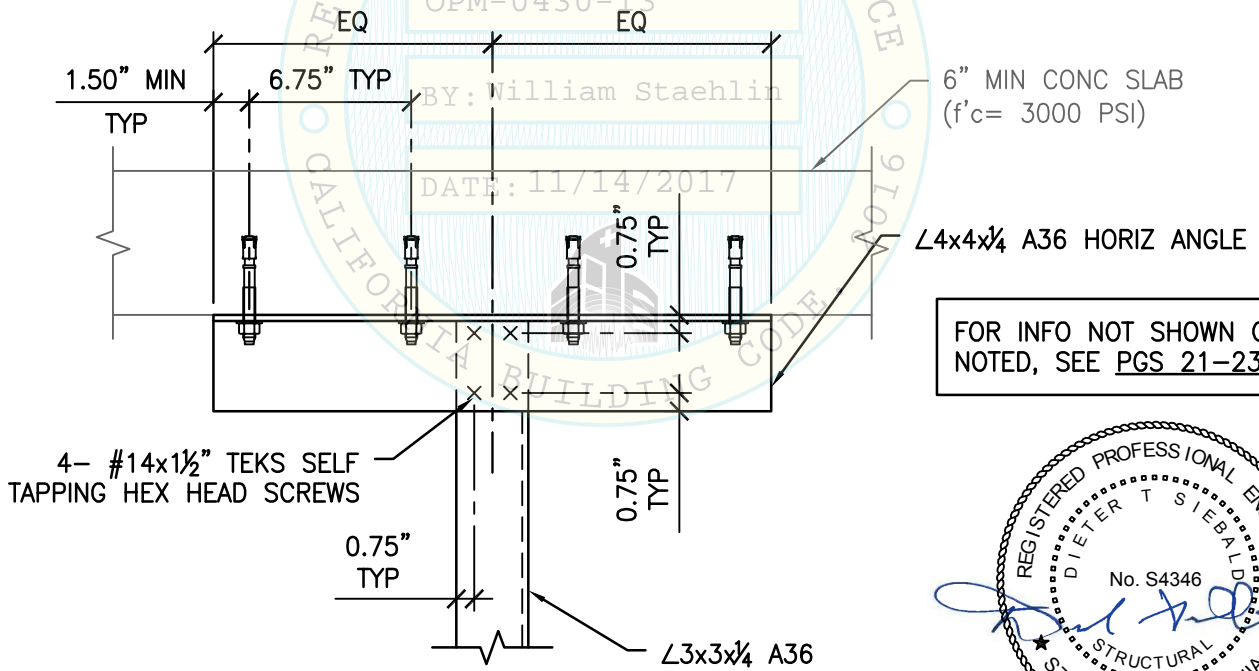
SHEET TITLE: SUPPORT & ATTACHMENT DETAILS - ANGLE
BRACE ATTACHMENT TO CONCRETE FILL OVER METAL DECK

<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: 17050
		Date: 10-17-2017
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L:\Jobs\17\17050 Amico - Golift OPM\ACAD\1.dwg Time: Oct 17, 2017 - 10:54am Login: comachom Dim: scale: 1 LT: scale: 6

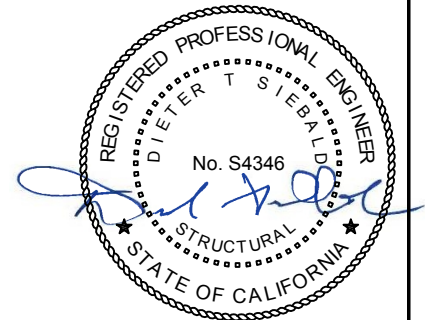


BRACE PARALLEL TO HORIZ ANGLE



BRACE PERP TO HORIZ ANGLE

FOR INFO NOT SHOWN OR NOTED, SEE PGS 21-23



SHEET TITLE: SUPPORT & ATTACHMENT DETAILS - ANGLE
VERTICAL ROD & BRACE ATTACHMENT TO 4" MIN CONCRETE SLAB



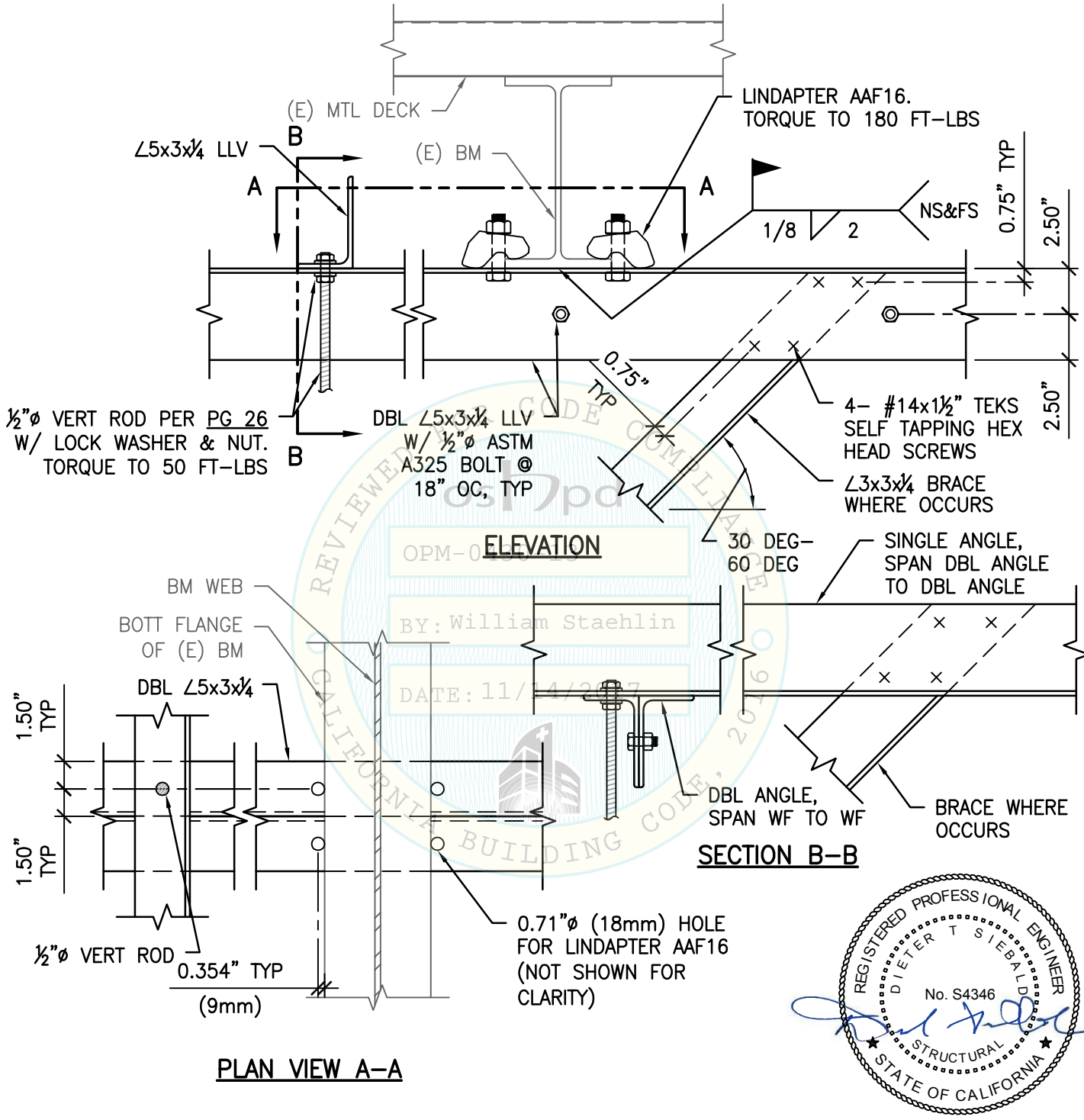
CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

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

Job No:	17050
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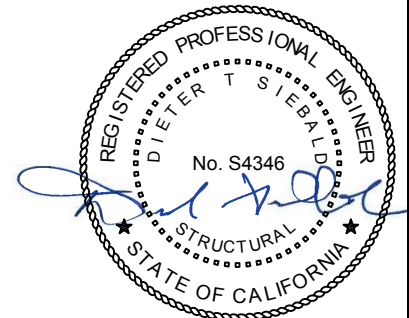
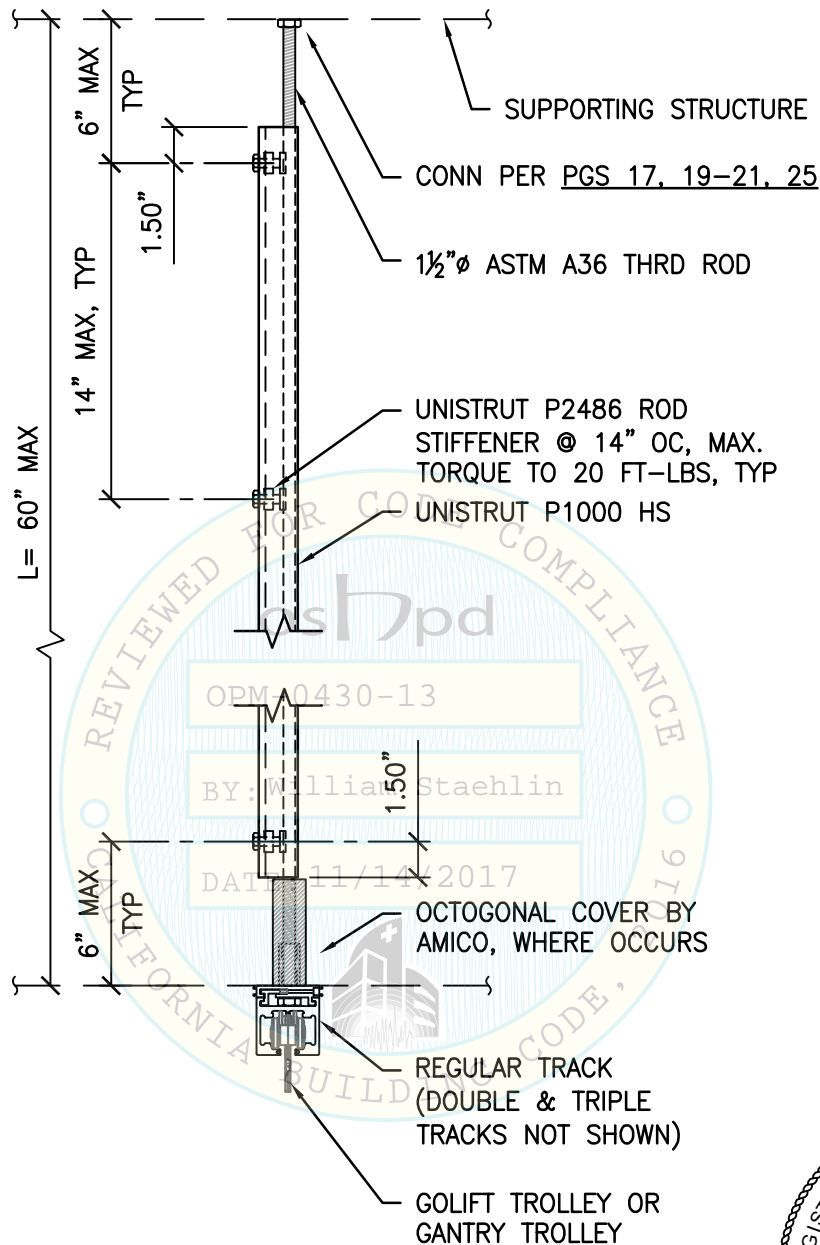
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SHEET TITLE: SUPPORT & ATTACHMENT DETAILS - ANGLE
VERTICAL ROD & BRACE ATTACHMENT TO STEEL BEAM

<p>CYS STRUCTURAL ENGINEERS, INC. 2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833</p>	TEL (916) 920-2020 www.cyseng.com	Job No: 17050 Date: 10-17-2017 Page: 25 of 27
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L:\Jobs\17\17050 Amico - Golift OPM\ACAD\S1.dwg Time: Oct 17, 2017 - 10:54am Login: comachom Dimstyle: 1 L1Scale: 6



SHEET TITLE: TYPICAL SUPPORT ATTACHMENT DETAILS
VERTICAL ROD STIFFENER



CYS STRUCTURAL ENGINEERS, INC.

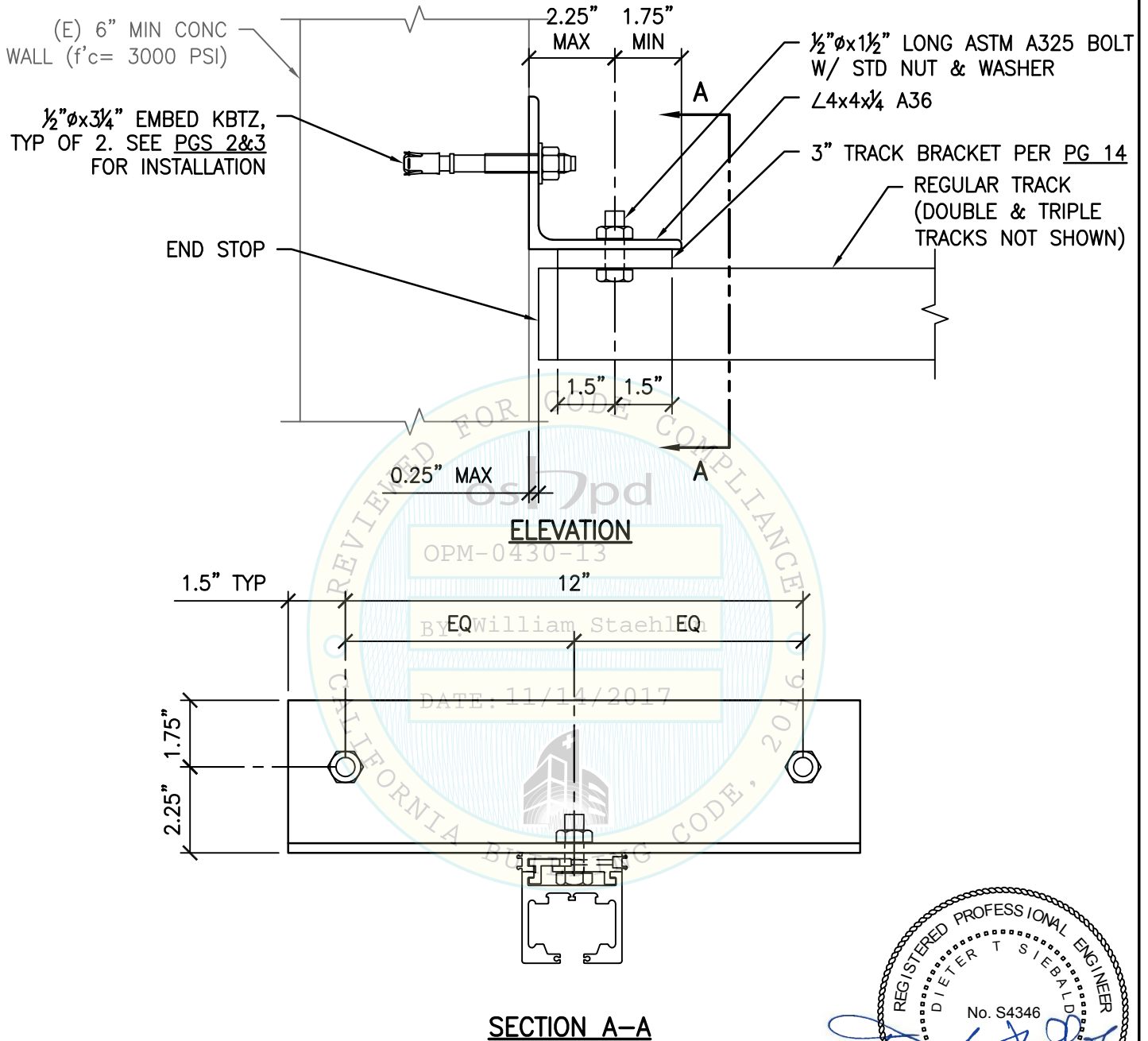
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833

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

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AMICO GOLIFT 400, 700 & 1000
MOTORIZED PATIENT LIFT SYSTEMS



SHEET TITLE: TYPICAL SUPPORT ATTACHMENT DETAILS
TRACK ATTACHMENT TO (E) CONC WALL



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