

# OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

OF MANUFACTURER'S CERTIFICATION (OPM)  APPLICATION #: OPM-0056-13
OF MANUFACTURER'S CERTIFICATION (OPM) APPLICATION #: OPM-0056-13
OSHPD Preapproval of Manufacturer's Certification (OPM)
Type: New Renewal Update to Pre-CBC 2013 OPA Number:
Manufacturer Information
Manufacturar: TPLIMPE Madical Systems Inc.
Manufacturer: TRUMPF Medical Systems, Inc.
Manufacturer's Technical Representative: Jeff Saunders
Mailing Address: 1046 LeGrand Boulevard, Charleston, SC 29492
Telephone: 843-534-0606 Email: Deffrey.Saunders@us.trumpf.com
Product Information
Product Name: TRULIGHT 1000
Product Type: Wall Mounted Examination Light - 0056-13
Product Model Number: None
General Description: Wall Mounted Examination Light
DATE: 02/12/2014
E CONTRACTOR OF THE CONTRACTOR
Applicant Information
Applicant Company Name: TRUMPF Medical Systems, Inc.
Contact Person: Jeff Saunders
Mailing Address: 1046 LeGrand Boulevard, Charleston, SC 29492
Telephone: 843-534-0606 Email: Jeffrey.Saunders@us.trumpf.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: Date: 9/30/2013
Title: Manager, Customer Support Company Name: Trumpf Medical Systems

"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 Des	ign Professional Preparing Engineeri	ng Recommendations	
Company Name:	CYS Structural Engineers, Inc.		
Name:	Dieter T. Siebald	California License Number: SE #4346	
Mailing Address:	2495 Natomas Park Drive, Suite 650, Sacr	amento, CA 95833	
Telephone:	916-920-2020 E	mail: dieters@cyseng.com	
OSHPD Special	Seismic Certification Preapproval (O	SP)	
(Separate ap	mic Certification is preapproved under OSP- oplication for OSP is required) mic Certification is no preapproved		
Certification Me	ethod(s)		
Testing in acc	cordance with:   ICC-ES AC156	PM 1950-10	
supports and attac bracings, test crite	chments are not permitted. For distribution s		g seismic
<ul><li>✓ Analysis</li><li>✓ Experience D</li></ul>	Q WWW 00 /1.	m	
	of Testing, Analysis, and/or Experience Data	a (Please Specify):	
List of Attachm	ents Supporting the Manufacturer's C	Certification	
☐ Test Report ☐ Other(s) (P	☑ Drawings ☑ Calculate Please Specify):	Manufacturer's Catalog	
OFFICE USE ONI	LY – OSHPD APPROVAL VALID FOR CBC	2013 ONLY	
Signature:		Date: February 12, 2014	
Print Name: / Jeff	•		
	ructural Engineer oval (if applicable):		

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oshpo

# TRULIGHT 1000 WALL MOUNTED EQUIPMENT SUPPORT & ATTACHMENT TABLE OF CONTENTS OPM-0056-13

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TRULIGHT 1000 ELEVATION PLAN WALL BEARING BRACKET	6 7 8
WALL SUPPORT STUD WALL SUPPORT STUD CONNECTION AT TOP TUBE STEEL POST SUPPORT TUBE STEEL POST TOP & BOTTOM CONNECTIONS OF MOUNTING PLATE ATTACHMENT UNDERSIDE OF METAL DECK DETAILM 0.05-6-1-3	9 10 11 12 13

NOTES: 1. THESE DRAWINGS ARE PREPARED FOR TRUMPF MEDICAL SYSTEMS, INC., CHARLESTON, SOUTH CAROLINA.

- 2. THE CONTRACTOR AND 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 & ATTACHEMENTS OF THE UNIT TO THE SUPPORTING STRUCTURE. THE UNIT AND WALL BEARING HARDWARE ARE SUPPLIED BY TRUMPF. ALL THREAD RODS, MOUNTING PLATE AND REQUIRED WALL SUPPORT ELEMENTS SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.



SHEET TITLE: TABLE OF CONTENTS

2495 NATOMAS PARK DRIVE, SUITE 650 TEL (916) 920-2020 Date: 2-11-2014 SACRAMENTO, CA 95833 www.cyseng.com Page: 1 of 14	CYS STRUCTURAL ENGINEERS,	INC.		Job No:	13084
	2495 NATOMAS PARK DRIVE, SUITE 650	TEL	(916) 920-2020	Date:	2-11-2014
			www.cyseng.com	Page:	1 of 14



#### **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:
- THE ADEQUACY OF THE NEW OR EXISTING STRUCTURE TO RESIST THE FORCES AND WEIGHT SPECIFIED FOR EACH EQUIPMENT IN ADDITION TO ALL OTHER LOADS. PROVIDE AND DESIGN SUPPLEMENTARY MEMBERS AS REQUIRED.
- THAT THE FLOOR ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY SLAB EDGES OR OPENINGS.
- THAT THE FLOOR ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS. THE SPACING SHOWN IN THE TEST LOADS TABLE ON PAGE 3 IS THE REQUIRED MINIMUM SPACING OF THE 1/8" DIAMETER ANCHOR BOLTS. THE REQUIRED SPACING FROM ANCHORS OF OTHER DIAMETERS AND EMBEDMENTS MAY VARY AND SHALL BE EVALUATED BY THE SEOR.
- THAT THE INSTALLATION IS IN CONFORMANCE WITH THE CBC 2013 AND WITH THE DETAILS SHOWN IN THIS PRE-APPROVAL.
- THAT THE ACTUAL EQUIPMENT'S WEIGHT, CENTER OF GRAVITY (CG) LOCATION, ANCHOR LOCATIONS, ANCHOR DETAILS, AND THE MATERIAL AND GAUGE OF THE EQUIPMENT WHERE ATTACHMENTS ARE MADE, AGREE WITH THE INFORMATION SHOWN ON THE PRE-APPROVAL DOCUMENTS.
- EXPANSION ANCHORS INSTALLED IN NORMAL WEIGHT OR SAND-LIGHTWEIGHT CONCRETE SHALL BE CARBON STEEL HILTI KB-TZ EXPANSION ANCHORS COMPLYING WITH ESR-1917 REISSUED MAY 1, 2013.
- 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 3.
- 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 OR CALIBRATED TORQUE WRENCH METHOD. ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE INSPECTOR OF RECORD. IF ANY ANCHOR FAILS, THE TEST, TEST ALL ANCHORS. THE TEST SHALL BE PERFORMED 24 HOURS OR MORE AFTER INSTALLATION. TESTING MAY BE DONE PRIOR TO EQUIPMENT INSTALLATION. ALSO REFER TO CBC 1913A.7 "FIELD TESTS FOR POST-INSTALLED ANCHORS IN CONCRETE".
  - FAILURE/ACCEPTANCE CRITERIA: THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF **INSTALLED ANCHORS:** 
    - HYDRAULIC RAM METHOD: APPLY AND HOLD TEST LOAD FOR A MINIMUM OF 15 SECONDS. THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD WHERE WASHERS ARE USED. FOR WEDGE TYPE ANCHORS, SUCH AS HILTI KB-TZ, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE.
    - TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN THE FOLLOWING LIMITS: WEDGE TYPE: ONE-HALF (1/2) TURN OF THE NUT.

SHEET TITLE: GENERAL NOTES



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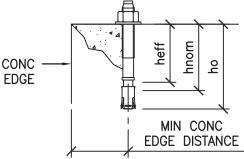
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02/12/2014

#### **GENERAL NOTES CONTINUED:**

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

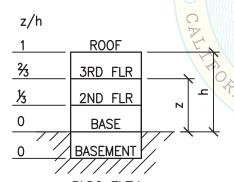


MECHANICAL ANCHOR

ANCHOR DIA (INCH) da	INSTALLATION EMBED (INCH) hnom	EFFECTIVE EMBED (INCH) hef	HOLE DEPTH (INCH) ho	MIN CONC THICKNESS (INCH)	MIN CONC EDGE DISTANCE (INCH)	MIN AB SPACING (INCH)	TENSION	LOAD TORQUE (FT-LBS)	CONDITION OF ANCHORAGE
3/8	25/16	2	25/8	04\$	<b>D</b> pd	4	<u> </u>	25	CASE 1

\* CONC THICKNESS MAY BE 31/4" AT CONC OVER MTL DECK. SEE TABLE 6 OF ESR-1917.

4. A SINGLE CASE OF ANCHORAGE IS SPECIFIED AND PRESENTED IN THIS PRE-APPROVAL:



DATE: 02/12/2014

CASE 1: ANCHORAGE DTLS LOCATED AT ANY LEVEL OF A BLDG (z/h <=1.0), IT IS ASSUMED THAT THE FLRS ARE BUILT OF A MIN 3/4" SAND-LWC OR NWC TOPPING OVER MTL DECK OR 4" NWC SLAB (f/c = 3000 PSI, MIN).

BLDG ELEV

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 2.50.

No. S4346

SHEET TITLE: GENERAL NOTES (CONTINUED)

	CYS STRUCTURAL ENGINEERS,	INC.
<b>((*))</b>	2495 NATOMAS PARK DRIVE, SUITE 650	TEL

SACRAMENTO, CA 95833

 JC.
 Job No:
 13084

 TEL
 (916) 920-2020
 Date:
 2-11-2014

#### ARRREVIATIONS:

<b>ARRKEAIN</b>	ATIONS:		
<b>@</b>	AT	KSI	KIPS PER SQUARE INCH
AB	ANCHOR BOLT	LBS	POUNDS
ABV	ABOVE	LRFD	LOAD & RESISTANCE FACTOR DESIGN
ALT	ALTERNATE	LWC	LIGHT WEIGHT CONCRETE
ASD	ALLOWABLE STRENGTH DESIGN	MAX	MAXIMUM
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	MFR	MANUFACTURER
BLDG	BUILDING	MIN	MINIMUM
BLKG	BLKG	MTL	METAL
BLW	BELOW	NWC	NORMAL WEIGHT CONCRETE
BOTT	BOTTOM	OPM	OSPHD PRE-APPROVAL OF
BRG	BEARING		MANUFACTURER'S CERTIFICATION
BTW	BETWEEN	OSHPD	OFFICE OF STATEWIDE HEALTH PLANNING
CBC	CALIFORNIA BUILDING CODE		& DEVELOPMENT
CG	CENTER OF GRAVITY	PG(S)	PAGE(S)
CLR	CLEAR	P	PLATE
CLSE	CALIFORNIA LICENSED STRUCTURAL ENGINEER	PSI	POUNDS PER SQUARE INCH
Q.	CENTERLINE	RDP	REGISTERED DESIGN PROFESSIONAL
CONC	CONCRETE CONNECTION	REQ	REQUIRED
CONN	CONNECTION	SAD	SEE ARCHITECTURAL DRAWINGS
DBL	DOUBLE	SEOR.	STRUCTURAL ENGINEER OF RECORD
DTL(S)	DETAIL(S)	SIMC	SIMILAR
DIA (ø)	DOUBLE DETAIL(S) DIAMETER DETAIL(S)	SLWC	SAND LIGHT WEIGHT CONCRETE
DWG	DRAWING	SMS	SHEET METAL SCREWS
(E)	EXISTING CONDITION OPM-0056-	STD	STANDARD
ÈA	FACH	STL	STEEL C
ELEV	ELEVATION BY: Jeffrey Y.	THRD	THREAD OR THREADED
EQ	EQUAL	TOC	TOP OF CONCRETE
EQUIP	EQUIPMENT	TYP	TYPICAL

DATE: 02/12**Y**2014

**VERT** 

**FLR FLOOR** HORIZONTAL SEISMIC FORCE PER Fp

EACH SIDE

FINISH FLOOR

ASCE 7-10 SEISMIC FORCE REQUIREMENTS

FT (') FOOT/FEET  $F_{pv}$ 

VERTICAL SEISMIC FORCE PER ASCE 7-10 SEISMIC FORCE REQUIREMENTS ILDING

SPECIFIED YIELD STRENGTH OF REINFORCING, PSI OR SPECIFIED MINIMUM YIELD STRESS

OF STEEL, KSI

**GAUGE** GA

**GWB** GYPSUM WALLBOARD

HSS HOLLOW STRUCTURAL SECTION

HT **HEIGHT** 

INTERNATIONAL CODE COUNCIL ICC

IN (") **INCH** 

SHEET TITLE: ABBREVIATIONS

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ANCHORAGE SHEAR REACTION DUE

COMPONENT OPERATING WEIGHT

TO SEISMIC FORCE

VERTICAL

MEH

ES

FF

#### **DESIGN CRITERIA**

ANCHORAGE DESIGN FOR EXAM LIGHT IS PER 2013 CBC AT LRFD LEVEL FORCES.

$$W_p$$
 = 20 LBS  $z/h$  = 1.0 UPPER FLRS ABV THE BASE  $S_{DS}$  = 2.50  $I_p$  = 1.5  $I_p$  = 2.5  $I_p$  = 2.5  $I_p$  = 2.5 MIN Fp = 0.30  $I_p$  S<sub>DS</sub> Ip Wp = 1.125 Wp MAX Fp = 1.60  $I_p$  S<sub>DS</sub> Ip Wp = 6.000 Wp

 $F_p = 0.4a_p S_{DS} I_p W_p (1+2 z/h)/Rp = 4.5 W_p = 90 LBS$  $F_{pv} = \pm 0.20 S_{DS} W_p = \pm 0.50 W_p = \pm 10 LBS$ 

ANCHORAGE DESIGN FOR WALL IS PER 2013 CBC AT LRFD LEVEL FORCES.

$$z/h = 1.0$$
  
 $S_{DS} = 2.50$   
 $I_p = 1.5$   
 $a_p = 1.0$   
 $R_p = 2.5$   
 $\Omega o = 2.50$  FOR CONC ANCHORS ONLY  
 $F_p = 0.4a_p$   $S_{DS}$   $Ip$   $Wp$   $(1+2$   $z/h)/Rp = 1.8  $Wp$   
 $F_{pv} = \pm 0.20$   $S_{DS}$   $Wp = \pm 0.50$   $Wp$  OPM-0056-13$ 





SHEET TITLE: DESIGN CRITERIA

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### TRUMPF TRUMPF MEDICAL SYSTEMS **TRULIGHT 1000** WALL SURFACE (SINGLE OR DBL LAYER OF GWB) 31.50" WALL BRG BRACKET, PROVIDED & INSTALLED BY TRUMPF, SEE PG 8 CG Wp= 20# EXAM LIGHT -WALL MOUNTING PL PROVIDED & INSTALLED BY CONTRACTOR, SEE PG 13 31.50" 3.50" لى 70.32" DATE: 02/12/2014 NOTE: SAD OR ROOM LAYOUT DWGS FOR THE ATTACHMENT HT ABV FF. BUILDING

SHEET TITLE: TRULIGHT 1000 ELEVATION

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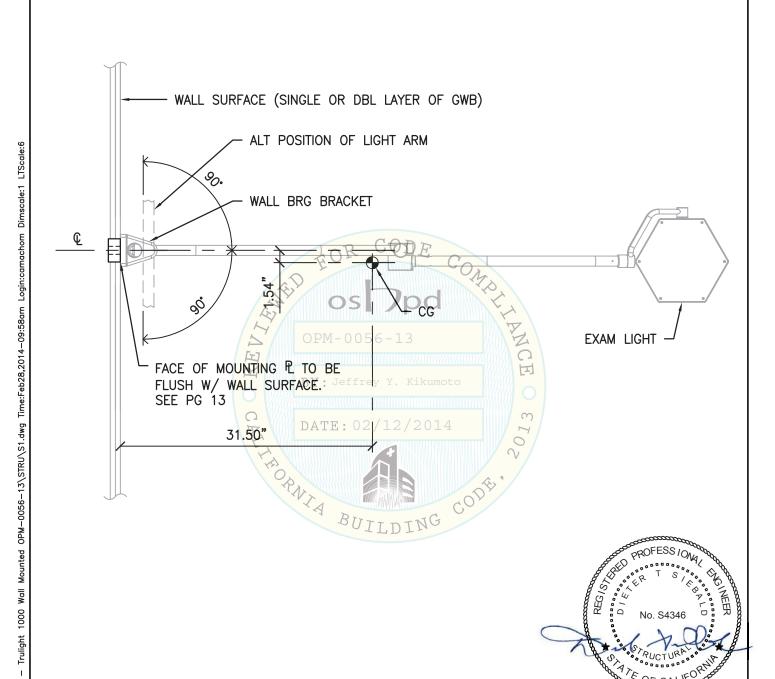
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- Trulight 1000 Wall Mounted OPM-0056-13\STRU\S1.dwg Time:Feb28,2014-09:58am Login:camachom Dimscale:1 LTScale:6

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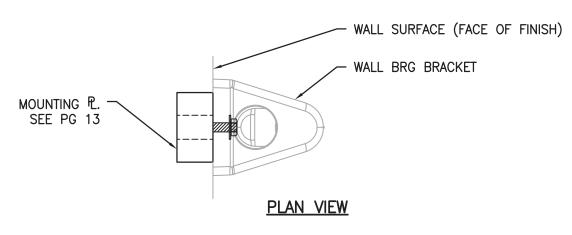
SHEET TITLE: TRULIGHT 1000 PLAN

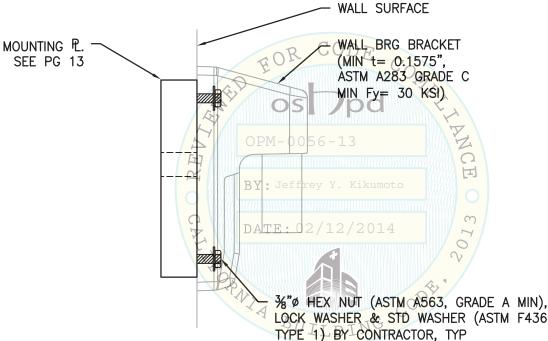
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SIDE VIEW

NOTE:

WALL BRG BRACKET IS SUPPLIED BY TRUMPF AND MOUNTING PL IS SUPPLIED BY CONTRACTOR

SHEET TITLE: TRULIGHT 1000 WALL BEARING BRACKET DETAIL

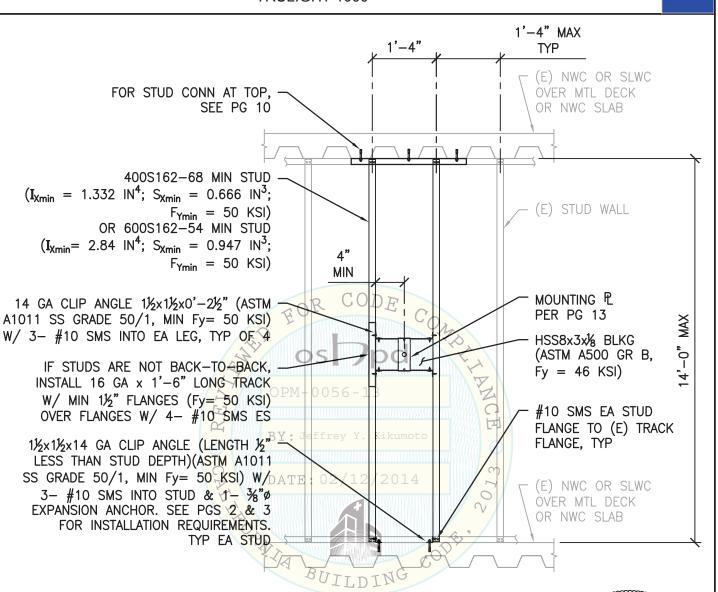


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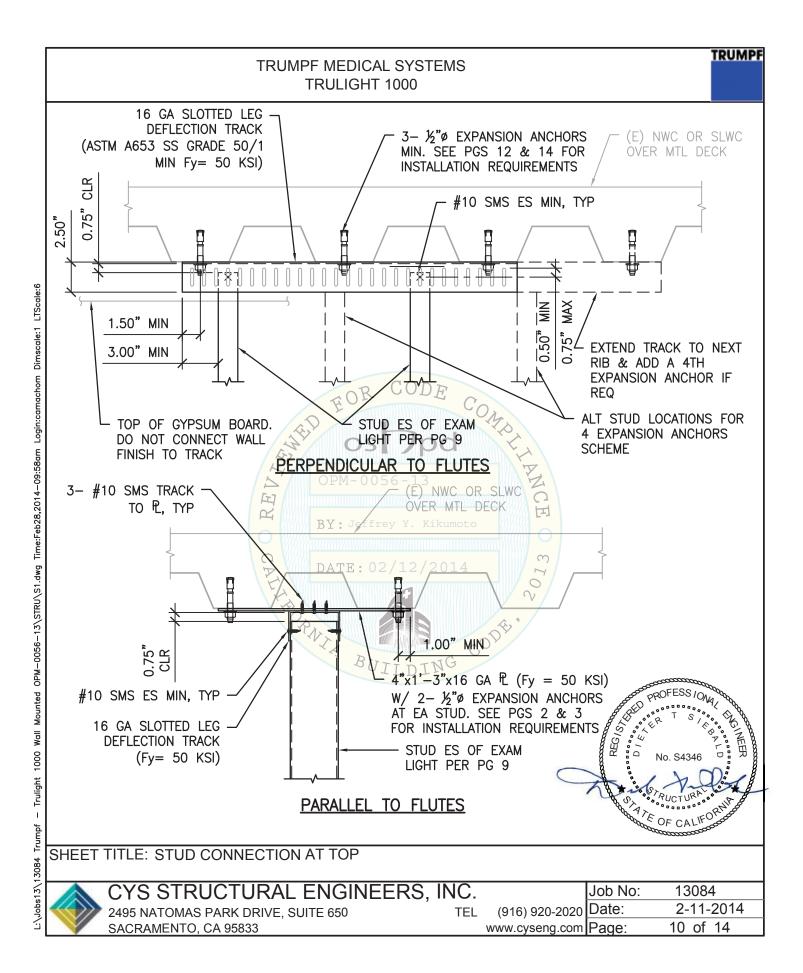
NOTE:

THE WALL STUDS & CONNECTIONS TO SUPPORTING STRUCTURE HAVE BEEN DESIGNED FOR A MAX ALLOWABLE INTERSTORY DRIFT OF DpI= (0.015)(14'x12"/')(1.5)= 3.78"

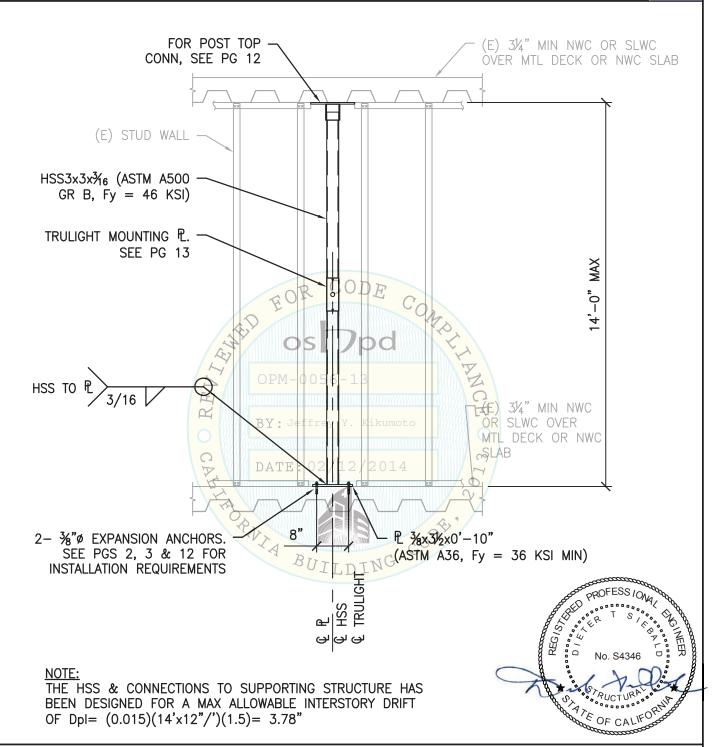


SHEET TITLE: STUD WALL SUPPORT

	CTURAL ENGINEERS	, IINC.		Job No:	13084
2495 NATOMAS F	ARK DRIVE, SUITE 650	TEL	(916) 920-2020	Date:	2-11-2014
SACRAMENTO, C	A 95833		www.cyseng.com	Page:	9 of 14





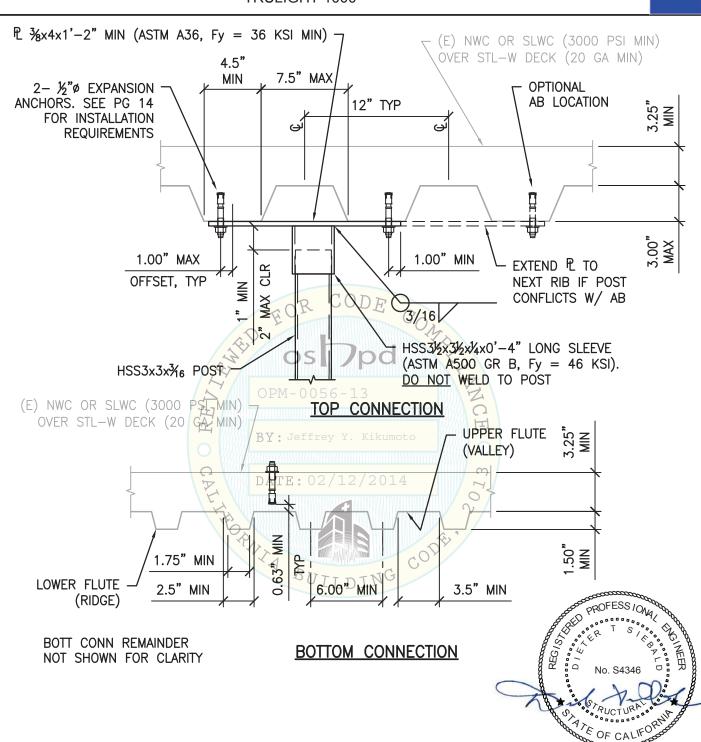


SHEET TITLE: TUBE STEEL POST SUPPORT

	CYS STRUCTURAL ENGINEERS.	INC.		Job No:	13084
<b>&gt;&gt;&gt;</b>	2495 NATOMAS PARK DRIVE, SUITE 650	TEL	(916) 920-2020	Date:	2-11-2014
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SHEET TITLE: TUBE STEEL POST TOP & BOTTOM CONNECTIONS

	CYS STRUCTURAL ENGINEERS.	INC.		Job No:	13084
>>	2495 NATOMAS PARK DRIVE, SUITE 650	TEL	(916) 920-2020	Date:	2-11-2014
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SHEET TITLE: MOUNTING PLATE ATTACHMENT

CYS STRUCTURAL ENGINEERS,	INC.		Job No:	13084
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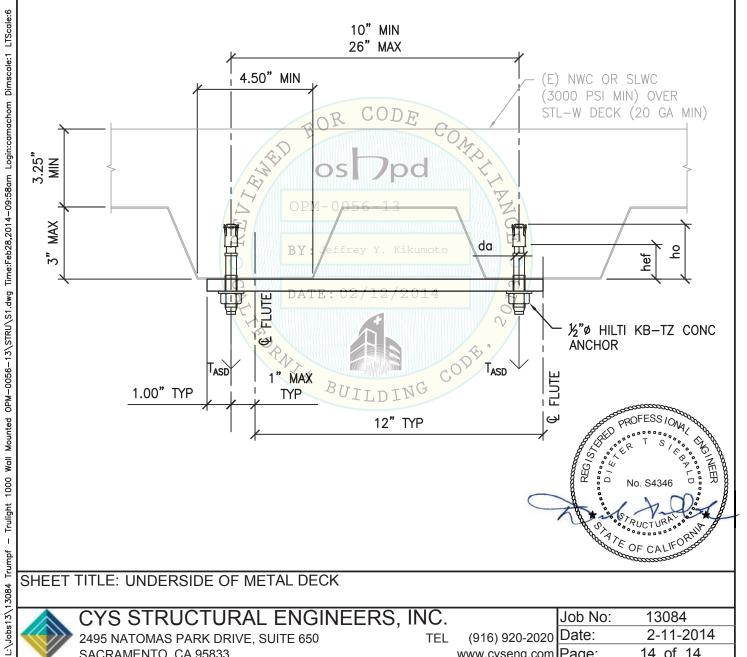
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#### TRUMPF

ALLOWABLE VERT LOAD (LBS) T <sub>ASD</sub>	ANCHOR DIA (INCH) da	EFFECTIVE EMBED (INCH) hef	HOLE DEPTH (INCH) ho		MIN EDGE DISTANCE (INCH) Cmin	
610	1/2	21/4	25/8	6¾	7	40

#### **NOTES:**

- MIN SPACING REQUIREMENT IS ALONG FLUTE LENGTH ONLY.
- ALLOWABLE LOADS TAKEN FROM OSHPD OPD-0001-13.



SHEET TITLE: UNDERSIDE OF METAL DECK

CYS STRUCTURAL ENGINEERS,	INC.		Job No:	13084
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