



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT  
FACILITIES DEVELOPMENT DIVISION

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

OFFICE USE ONLY

APPLICATION #: OPM-0302-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: ☒ New ☐ Renewal ☐ Update to Pre-CBC 2013 OPA Number: \_\_\_\_\_

Manufacturer Information

Manufacturer: Chatsworth Products, Inc.

Manufacturer's Technical Representative: Brandi Oldt

Mailing Address: 3004 South Austin Ave., Georgetown, TX. 78626

Telephone: (800) 834-4969

Email: BOldt@chatsworth.com

Product Information

Product Name: Adjustable QuadraRack and ServerRack

Product Type: Instrumentation Cabinet

OPM-0302-13

Product Model Number: 15211-X01/15215-X01, 15211-X03/15215-X03, 15211-X15/15215-X15, 15211-X08/15215-X08, 15212-X01/15216-X01, 15212-X03/15216-X03, 15212-X15/15216-X15, 15212-X08/15216-X08, 15213-X01/15217-X01, 15213-X03/15217-X03, 15213-X15/15217-X15, 15213-X08/15217-X08, 15214-X01/15218-X01, 15214-X03/15218-X03, 15214-X15/15218-X15, 15214-X08/15218-X08

General Description: Telecommunication Rack

Applicant Information

Applicant Company Name: EASE Co.

Contact Person: Jonathan Roberson, S.E.

Mailing Address: 5877 Pine Ave. Suite 210, Chino Hills, CA. 91709

Telephone: (909) 606-7622

Email: J.Roberson@EASECo.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: 1/28/16

Title: Principal Engineer

Company Name: EASE Co.

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

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY  
OSH-FD-700 (REV 1/24/13)



oshpd

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

### Registered Design Professional Preparing Engineering Recommendations

Company Name: EASE Co.

Name: Jonathan Roberson, S.E. California License Number: S4197

Mailing Address: 5877 Pine Ave. Suite 210, Chino Hills, CA. 91709

Telephone: 909-606-7667 Email: J.Roberson@EASECo.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): \_\_\_\_\_

\*Use of test 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): \_\_\_\_\_

### 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: William Staehlin Date: 08-24-2016

Print Name: William Staehlin

Title: SSE

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

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

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY  
OSH-FD-700 (REV 1/24/13)

osHPD

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**EQUIPMENT ANCHORAGE  
& SEISMIC ENGINEERING**

5877 Pine Ave, Ste. 210  
Chino Hills, CA. 91709  
Phn: (909) 606-7622

Office of Statewide Health Planning and Development  
**PREAPPROVAL OF MANUFACTURER'S CERTIFICATION**  
**OPM-0302-13**

**THIS PREAPPROVAL CONFORMS TO THE 2013 CALIFORNIA BUILDING CODE**

MANUFACTURER: **CHATSWORTH PRODUCTS, INC**  
EQUIPMENT NAME: **Adjustable ServerRack-QuadraRack**

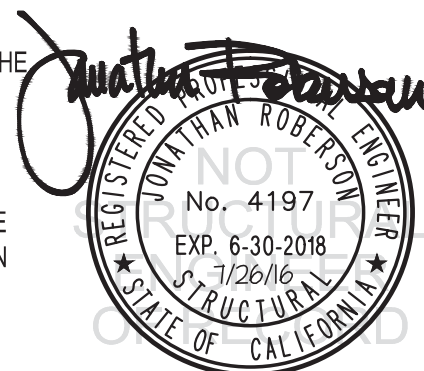
Sheet: 1 of 12

Date: 7/26/16

**GENERAL NOTES**

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2013 CBC. THE DEMANDS (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2013 CBC
2. THIS DOCUMENT MAY ONLY BE USED WITH THE EXPRESS WRITTEN CONSENT OF THE MANUFACTURER LISTED ABOVE FOR THE SPECIFIC PROJECT SITE AND INSTALLATION LOCATION. THIS DOCUMENT IS INVALID WITHOUT SUCH CONSENT.
3. THIS PREAPPROVAL CONFORMS TO THE 2013 CALIFORNIA BUILDING CODE WHERE  $S_{Ds}$  IS NOT GREATER THAN 1.40, 2.00 & 2.20. SEE DETAIL FOR APPLICABILITY
4. FORCES PER ASCE 7-10 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3,  
WHERE  $S_{Ds} = 1.40$ ,  $a_p = 2.5$ ,  $I_p = 1.5$ ,  $R_p = 6.0$ ,  $z/h = 0$  AT CONCRETE SLAB. SEE FOLLOWING SHEETS FOR  $\Omega_o$   
WHERE  $S_{Ds} = 2.00$ ,  $a_p = 2.5$ ,  $I_p = 1.5$ ,  $R_p = 6.0$ ,  $z/h = 0$  AT CONCRETE SLAB. SEE FOLLOWING SHEETS FOR  $\Omega_o$   
WHERE  $S_{Ds} = 2.20$ ,  $a_p = 2.5$ ,  $I_p = 1.5$ ,  $R_p = 6.0$ ,  $z/h < 1$  AT CONCRETE SLAB ON METAL DECK. SEE FOLLOWING SHEETS FOR  $\Omega_o$
5. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE.
6. ALL DESIGN FORCES SHOWN ON THE DRAWINGS ARE FACTORED LOADS THAT SHALL BE USED FOR STRENGTH DESIGN.
7. CONCRETE SLAB ON METAL DECK DETAIL VALID FOR DEMANDS SHOWN AT ANY ELEVATION IN THE BUILDING. (i.e.  $z/h \leq 1$ )
8. CONCRETE SLAB ON GRADE DETAIL VALID FOR DEMANDS SHOWN AT ANY ELEVATION AT OR BELOW GRADE. (i.e.  $z/h = 0$ )
9. **RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD OF THE BUILDING**

- A. PROVIDE SUPPORTING STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN IN ADDITION TO ALL OTHER LOADS.
- B. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2013 CBC AND WITH THE DETAILS, MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN ON THE PREAPPROVAL DOCUMENTS.
- C. VERIFY THAT PROJECT SPECIFIC VALUES OF  $S_{Ds}$  &  $z/h$  RESULT IN SEISMIC FORCES ( $E_h$ ,  $E_v$ ) THAT DO NOT EXCEED THE VALUES ON THE DETAILS.
- D. VERIFY THAT THE CONCRETE SLAB TO WHICH THE EQUIPMENT IS ANCHORED MEETS THE REQUIREMENTS OF THE APPLICABLE ICC ESR.
- E. VERIFY THAT THE ANCHORS ARE AN ADEQUATE DISTANCE FROM ANY SLAB EDGES OR OPENINGS (SEE TYPICAL DETAIL ON SHEET 2).
- F. VERIFY THAT ALL NEW OR EXISTING ANCHORS ARE AN ADEQUATE DISTANCE FROM THE UNIT ATTACHMENTS AND CHECK FOR INTERACTION WHERE OTHER ANCHORS ARE WITHIN 18" OR  $6h_{ef}$  FROM THIS UNIT'S ANCHORS.



## CHATSWORTH PRODUCTS, INC

## Adjustable ServerRack-QuadraRack

DES. J. ROBERSON

JOB NO. 11-1453

DATE 7/26/16

SHEET

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OF 12 SHEETS

## 10. EXPANSION ANCHORS:

- A. ATTACHMENT IS TO BE MADE WITH THE ANCHORS LISTED BELOW AND INSTALLED AS DESCRIBED IN THE CORRESPONDING ICC REPORT.

Anchor Diameter	Concrete Type	Min. f'c (psi)	Anchor Type	ICC Report No.	Min. Embed.	Min. Spacing	Min. Edge Dist.	Min. Conc. Thickness	Torque Test	Direct Tension Test
3/8"	Sand Light Weight	3000	Hilti Kwik Bolt TZ	ESR-1917	2"	N/A	N/A	See Sheet 11 of 12	25 FT-LB	1186 lb
5/8"	Normal Weight	3000	Hilti Kwik Bolt TZ	ESR-1917	3-1/8"	12"	24"	5"	60 FT-LB	3135 lb
5/8"	Normal Weight	3000	Hilti HIT HY 200	ESR-3187	4"	12"	24"	6"	60 FT-LB	4540 lb

- B. THIS PREAPPROVAL ALLOWS FOR UP TO A MAXIMUM OF 2 ADJACENT CONCRETE SLAB EDGES, 24" AWAY MINIMUM (i.e. - CORNER). SEE ADJACENT DETAIL FOR ADDITIONAL MINIMUM ALLOWABLE CONCRETE EDGE DISTANCES.

- C. TESTING OF EXPANSION ANCHORS PER 2013 CBC, 1913A.7: TESTING SHALL BE DONE IN THE PRESENCE OF THE SPECIAL INSPECTOR AND A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO OSHPD

- (i) AFTER AT LEAST 24 HOURS HAVE ELAPSED SINCE INSTALLATION, DIRECT PULL TENSION TEST OR TORQUE TEST AT LEAST 50% OF THE ANCHORS.

- (ii) ACCEPTANCE CRITERIA:

- DIRECT TENSION TEST: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE TEST LOAD. A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER BECOMES LOOSE.
- TORQUE TEST: THE APPLICABLE TORQUE MUST BE ACHIEVED WITHIN THE FOLLOWING LIMITS: WEDGE TYPE : 1/2 TURN OF THE NUT

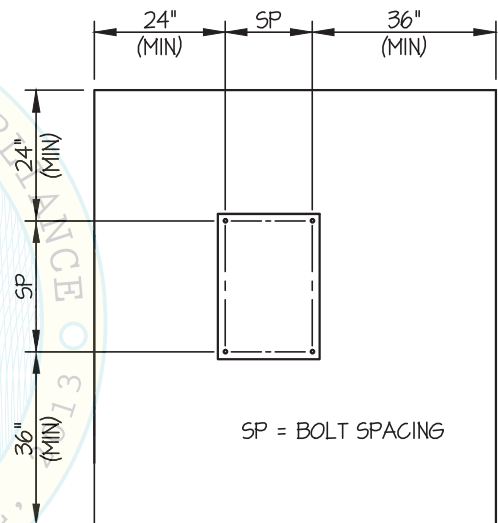
- (iii) IF ANY ANCHOR FAILS, TEST ALL ANCHORS.

- D. AVOID DAMAGING EXISTING STEEL REINFORCING IN CONCRETE SLAB WHEN INSTALLING CONCRETE EXPANSION ANCHORS.

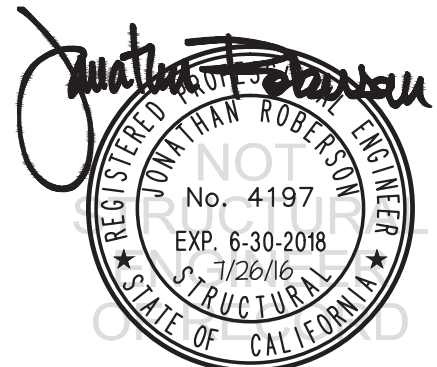
- E. PROVIDE FOR FULL THREAD ENGAGEMENT OF NUT & WASHER.

## 11. BOLTS THROUGH CONCRETE ON METAL DECK

- A. BOLTS SHALL BE TORQUED BY 3/4 TURN OF THE NUTS AFTER THE SNUG TIGHT (THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQUIRED TO BRING THE CONNECTED PLIES INTO FIRM CONTACT) CONDITION IS ACHIEVED, UNLESS OTHERWISE NOTED.
- B. THROUGH BOLT HOLES SHALL BE 1/16" LARGER THAN BOLT SIZE (HOLE SIZE = BOLT SIZE + 1/16) FOR CONCRETE.
- C. THROUGH-BOLTS IN CONCRETE SHALL RECEIVE SPECIAL INSPECTION AND TESTING (THROUGH BOLTS WITH STEEL TO STEEL CONNECTION IN TENSION DO NOT REQUIRE TENSION TESTING) IN ACCORDANCE WITH REQUIREMENTS FOR POST-INSTALLED ANCHORS.



TYPICAL CONCRETE EDGE DETAIL





### CHATSWORTH PRODUCTS, INC

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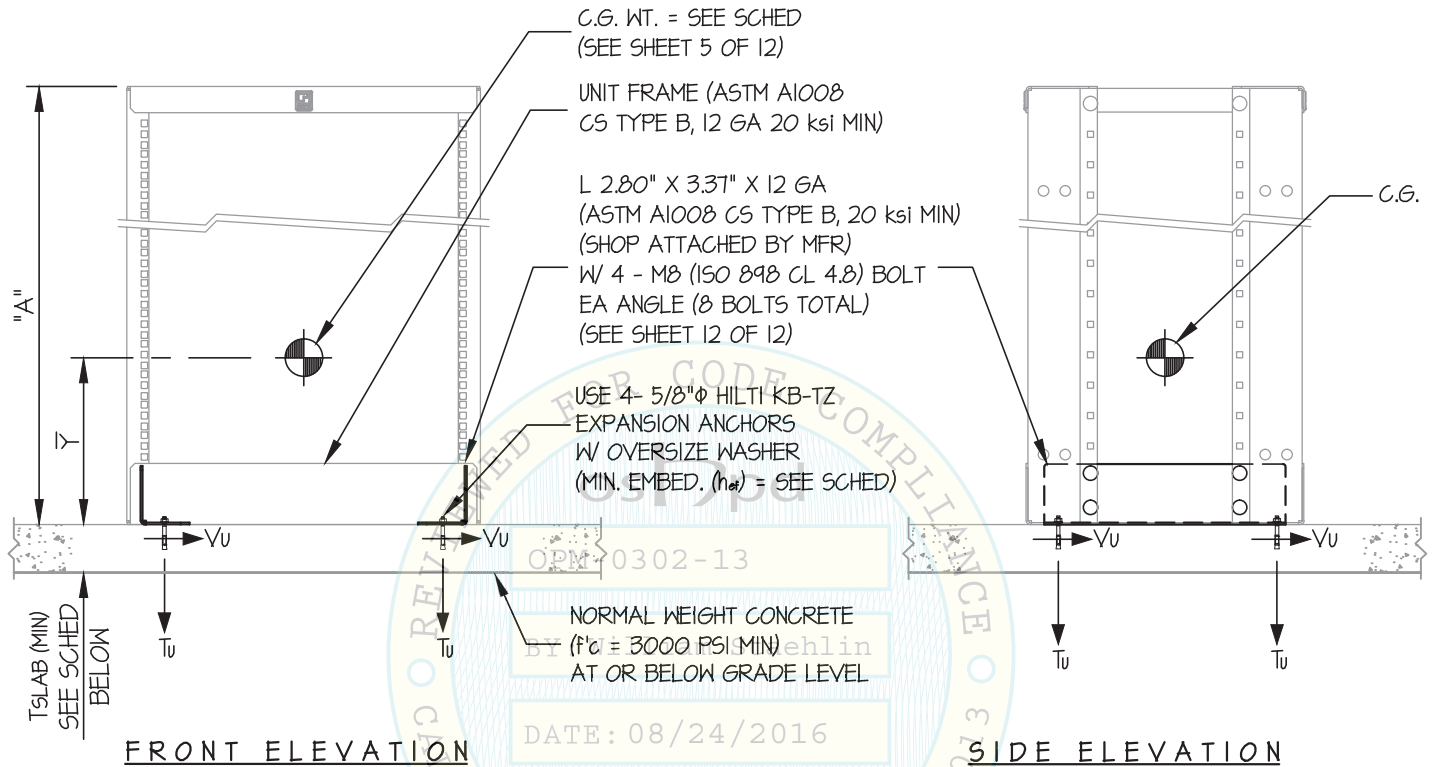
SHEET

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OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB



ANCHORS					
Sds	TYPE	DIAM	MIN. EMBED. ( $h_{ef}$ )	QTY	TSLAB
140	HILTI KB-TZ	5/8"	3.125"	4	5"
200	HILTI KB-TZ	5/8"	4"	4	6"

#### NOTES:

- FORCES ARE DETERMINED PER 2013 CALIFORNIA BUILDING CODE AND ASCE 7-10. STRENGTH DESIGN IS USED. ( $\alpha_p = 2.5$ ,  $l_p = 1.5$ ,  $R_p = 6.0$ ,  $\Omega_o = 2.5$ ,  $z/h = 0$ )
- CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THESE CALCULATIONS ENCOMPASS ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
- STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.



## CHATSWORTH PRODUCTS, INC

DES. J. ROBERSON

SHEET

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## Adjustable ServerRack-QuadraRack

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OF 12 SHEETS

SEISMIC SUPPORTS &amp; ATTACHMENTS

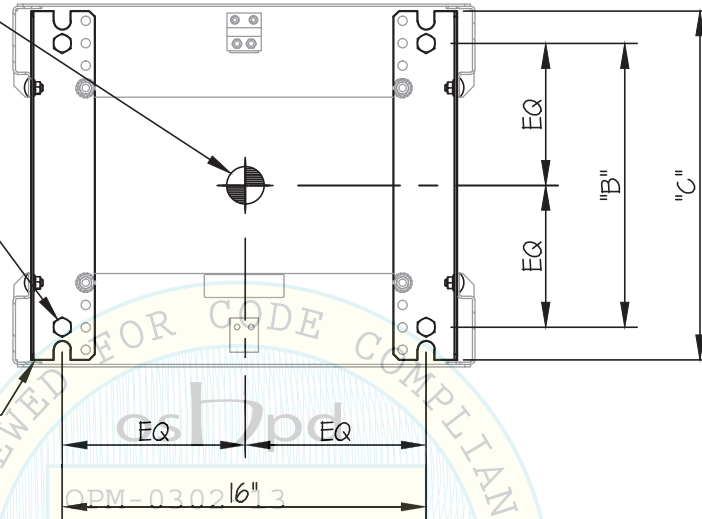
MAX  $S_{Ds} \leq 1.40$ 

CONCRETE SLAB

C.G. WT. = SEE SCHED  
 (Y = SEE SHED SHEET 5 OF 12)

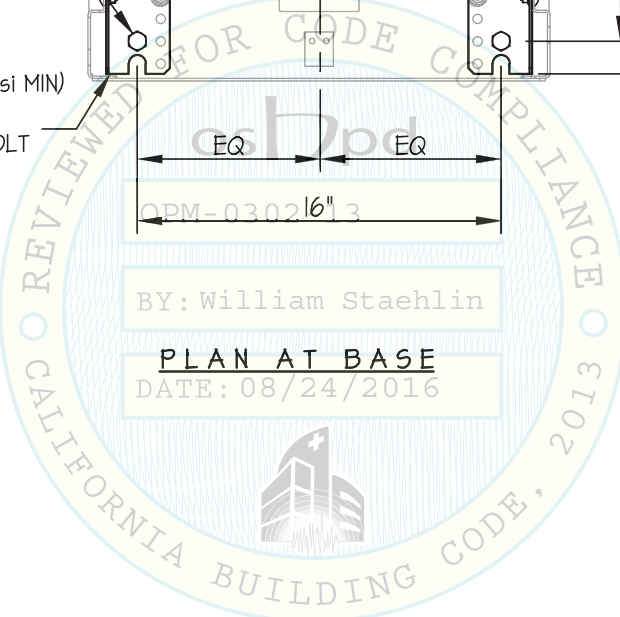
USE 4- 5/8"  $\Phi$  HILTI KB-TZ  
 EXPANSION ANCHORS  
 W/ OVERSIZE WASHER  
 (MIN. EMBED. ( $h_{ef}$ ) = 3.125")

L 2.80" X 3.37" X 12 GA  
 (ASTM A1008 CS TYPE B, 20 ksi MIN)  
 (SHOP ATTACHED BY MFR)  
 W/ 4 - M8 (ISO 898 CL 4.8) BOLT  
 EA ANGLE (8 BOLTS TOTAL)  
 (SEE SHEET 12 OF 12)



BY: William Staehlin

PLAN AT BASE  
 DATE: 08/24/2016



## CHATSWORTH PRODUCTS, INC

DES. J. ROBERSON

SHEET

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## Adjustable ServerRack-QuadraRack

DATE 7/26/16

OF 12 SHEETS

SEISMIC SUPPORTS &amp; ATTACHMENTS

MAX Sds ≤ 1.40

CONCRETE SLAB

MODEL NO. (SQ PUNCH RAILS/#12- 24 THREADED RAILS)	** MAX OP WEIGHT (lb.)	HEIGHT" A" (in.)	DEPTH "B" (in.)	HEIGHT "C" (in.)	CHANNEL DEPTH "D" (in.)	* Tu (lb.)	* Vu (lb.)
15211-X01/15215-X01	572	72	12.47	33.4	15.34	1405	226
15211-X03/15215-X03	580	84	12.47	33.9	15.34	1447	229
15211-X15/15215-X15	587	96	12.47	45.5	15.34	1997	232
15211-X08/15215-X08	595	108	12.47	51.5	15.34	2303	235
15212-X01/15216-X01	576	72	19.36	33.4	22.24	1096	228
15212-X03/15216-X03	584	84	19.36	33.9	22.24	1135	232
15212-X15/15216-X15	591	96	19.36	45.5	22.24	1565	233
15212-X08/15216-X08	599	108	19.36	51.5	22.24	1808	237
15213-X01/15217-X01	580	72	26.25	33.4	29.13	1041	229
15213-X03/15217-X03	588	84	26.25	33.9	29.13	1073	232
15213-X15/15217-X15	595	96	26.25	45.5	29.13	1489	232
15213-X08/15217-X08	603	108	26.25	51.5	29.13	1720	238
15214-X01/15218-X01	584	72	33.14	33.4	36.01	1012	231
15214-X03/15218-X03	592	84	33.14	33.9	36.01	1046	234
15214-X15/15218-X15	600	96	33.14	45.5	36.01	1450	237
15214-X08/15218-X08	608	108	33.14	51.5	36.01	1676	240

\* VALUES INCLUDE  $\Omega$ 

\*\* MAX OP WEIGHT = EQUIPMENT WEIGHT + CONTENTS (CONTENTS = 500 LB MAX)



CHATSWORTH PRODUCTS, INC

DES. J. ROBERSON

SHEET

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JOB NO. 11-1453

Adjustable ServerRack-QuadraRack

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SEISMIC SUPPORTS &amp; ATTACHMENTS

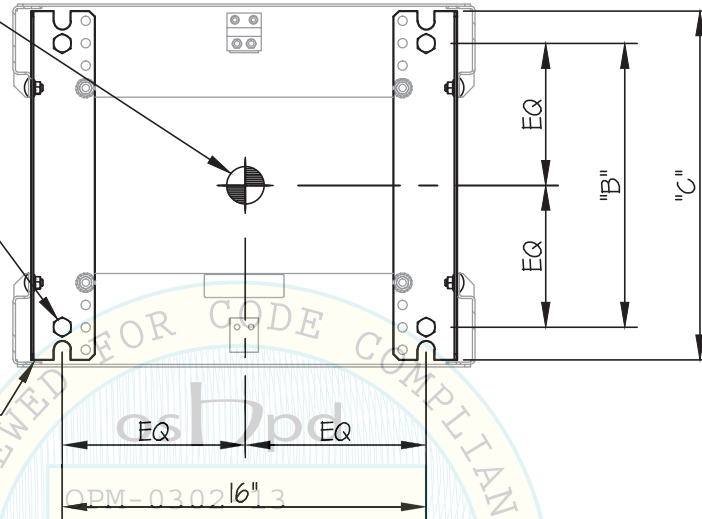
 $1.40 < \text{MAX } S_{ps} \leq 2.00$ 

CONCRETE SLAB

C.G. WT. = SEE SCHED  
 (Y = SEE SHED SHEET 7 OF 12)

USE 4- 5/8"  $\phi$  HILTI KB-TZ  
 EXPANSION ANCHORS  
 W/ OVERSIZE WASHER  
 (MIN. EMBED. (h<sub>ef</sub>) = 4")

L 2.80" X 3.37" X 12 GA  
 (ASTM A1008 CS TYPE B, 20 ksi MIN)  
 (SHOP ATTACHED BY MFR)  
 W/ 4 - M8 (ISO 898 CL 4.8) BOLT  
 EA ANGLE (8 BOLTS TOTAL)  
 (SEE SHEET 12 OF 12)



BY: William Staehlin

DATE: 08/24/2016

PLAN AT BASE





### CHATSWORTH PRODUCTS, INC

### Adjustable ServerRack-QuadraRack

DES. J. ROBERSON

JOB NO. 11-1453

DATE 7/26/16

SHEET

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OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

1.40 < MAX  $S_{DS}$  ≤ 2.00

CONCRETE SLAB

MODEL NO. (SQ PUNCH RAILS/#12- 24 THREADED RAILS)	** MAX OP WEIGHT (lb.)	HEIGHT" A" (in.)	DEPTH "B" (in.)	HEIGHT Y (in.)	CHANNEL DEPTH "C" (in.)	* T <sub>u</sub> (lb.)	* V <sub>u</sub> (lb.)
15211-X01/15215-X01	572	72	12.47	33.4	15.34	2055	322
15211-X03/15215-X03	580	84	12.47	33.9	15.34	2116	326
15211-X15/15215-X15	587	96	12.47	45.5	15.34	2900	330
15211-X08/15215-X08	595	108	12.47	51.5	15.34	3336	335
15212-X01/15216-X01	576	72	19.36	33.4	22.24	1616	173
15212-X03/15216-X03	584	84	19.36	33.9	22.24	1664	622
15212-X15/15216-X15	591	96	19.36	45.5	22.24	2286	332
15212-X08/15216-X08	599	108	19.36	51.5	22.24	2632	337
15213-X01/15217-X01	580	72	26.25	33.4	29.13	1539	326
15213-X03/15217-X03	588	84	26.25	33.9	29.13	1584	331
15213-X15/15217-X15	595	96	26.25	45.5	29.13	2177	335
15213-X08/15217-X08	603	108	26.25	51.5	29.13	2507	339
15214-X01/15218-X01	584	72	33.14	33.4	36.01	1497	329
15214-X03/15218-X03	592	84	33.14	33.9	36.01	1541	333
15214-X15/15218-X15	600	96	33.14	45.5	36.01	2123	338
15214-X08/15218-X08	608	108	33.14	51.5	36.01	2445	342

\* VALUES INCLUDE  $\Omega$

\*\* MAX OP WEIGHT = EQUIPMENT WEIGHT + CONTENTS (CONTENTS = 500 LB MAX)



### CHATSWORTH PRODUCTS, INC

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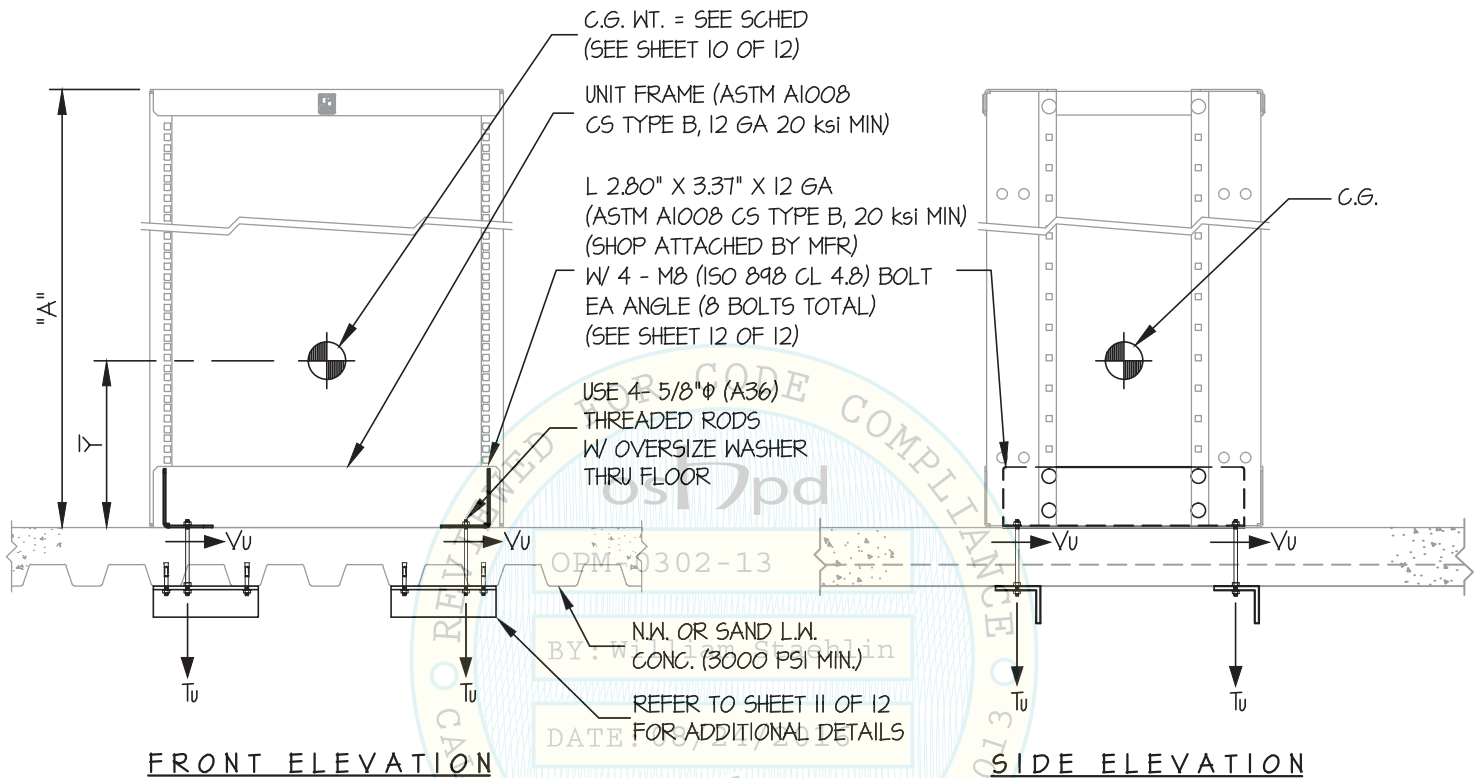
SHEET

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OF 12 SHEETS

#### SEISMIC SUPPORTS & ATTACHMENTS

#### CONCRETE SLAB ON METAL DECK



#### NOTES:

- FORCES ARE DETERMINED PER 2013 CALIFORNIA BUILDING CODE AND ASCE 7-10.

STRENGTH DESIGN IS USED. ( $S_{bs} = 2.20$ ,  $a_p = 2.5$ ,  $l_p = 15$ ,  $R_p = 6.0$ ,  $\Omega_o = 2.5$ ,  $z/h \leq 1$ )

HORIZONTAL FORCE ( $E_h$ ) =  $1.65 W_p$

HORIZONTAL FORCE ( $E_{mh}$ ) =  $4.13 W_p$  (FOR CONCRETE ANCHORAGE)

VERTICAL FORCE ( $E_v$ ) =  $0.44 W_p$

- CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THESE CALCULATIONS ENCOMPASS ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
- STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.



### CHATSWORTH PRODUCTS, INC

### Adjustable ServerRack-QuadraRack

DES. J. ROBERSON

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SHEET

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OF 12 SHEETS

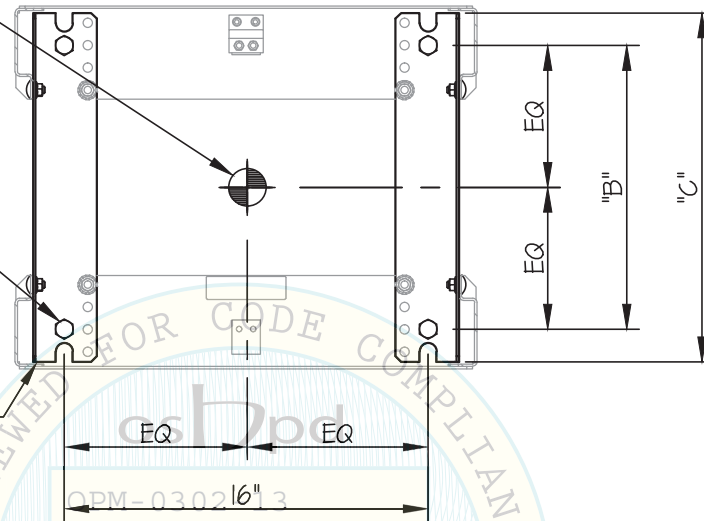
SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB ON METAL DECK

C.G. WT. = SEE SCHED  
(Y = SEE SHED SHEET 10 OF 12)

USE 4- 5/8"Φ (A36)  
THREADED RODS  
W/ OVERSIZE WASHER  
THRU FLOOR

L 2.80" X 3.37" X 12 GA  
(ASTM A1008 CS TYPE B, 20 ksi MIN)  
(SHOP ATTACHED BY MFR)  
W/ 4 - M8 (ISO 898 CL 4.8) BOLT  
EA ANGLE (8 BOLTS TOTAL)  
(SEE SHEET 12 OF 12)



BY: William Staehlin

PLAN AT BASE

DATE: 08/24/2016



## CHATSWORTH PRODUCTS, INC

DES. J. ROBERSON

SHEET

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JOB NO. 11-1453

## Adjustable ServerRack-QuadraRack

DATE 7/26/16

OF 12 SHEETS

SEISMIC SUPPORTS &amp; ATTACHMENTS

CONCRETE SLAB ON METAL DECK

MODEL NO. (SQ PUNCH RAILS/#12- 24 THREADED RAILS)	** MAX OP WEIGHT (lb.)	HEIGHT" A" (in.)	DEPTH "B" (in.)	HEIGHT Y (in.)	CHANNEL DEPTH "C" (in.)	* T <sub>u</sub> (lb.)	* V <sub>u</sub> (lb.)
15211-X01/15215-X01	572	72	12.47	33.4	15.34	1494	236
15211-X03/15215-X03	580	84	12.47	33.9	15.34	1538	239
15211-X15/15215-X15	587	96	12.47	45.5	15.34	2113	242
15211-X08/15215-X08	595	108	12.47	51.5	15.34	2433	245
15212-X01/15216-X01	576	72	19.36	33.4	22.24	1172	238
15212-X03/15216-X03	584	84	19.36	33.9	22.24	1207	241
15212-X15/15216-X15	591	96	19.36	45.5	22.24	1662	244
15212-X08/15216-X08	599	108	19.36	51.5	22.24	1916	247
15213-X01/15217-X01	580	72	26.25	33.4	29.13	1115	239
15213-X03/15217-X03	588	84	26.25	33.9	29.13	1148	243
15213-X15/15217-X15	595	96	26.25	45.5	29.13	1585	246
15213-X08/15217-X08	603	108	26.25	51.5	29.13	1825	249
15214-X01/15218-X01	584	72	33.14	33.4	36.01	1084	241
15214-X03/15218-X03	592	84	33.14	33.9	36.01	1117	244
15214-X15/15218-X15	600	96	33.14	45.5	36.01	1543	248
15214-X08/15218-X08	608	108	33.14	51.5	36.01	1778	251

\* VALUES DO NOT INCLUDE  $\Omega$ .

\*\* MAX OP WEIGHT = EQUIPMENT WEIGHT + CONTENTS (CONTENTS = 500 LB MAX)





### CHATSWORTH PRODUCTS, INC

### Adjustable ServerRack-QuadraRack

DES. J. ROBERSON

JOB NO. 11-1453

DATE 7/26/16

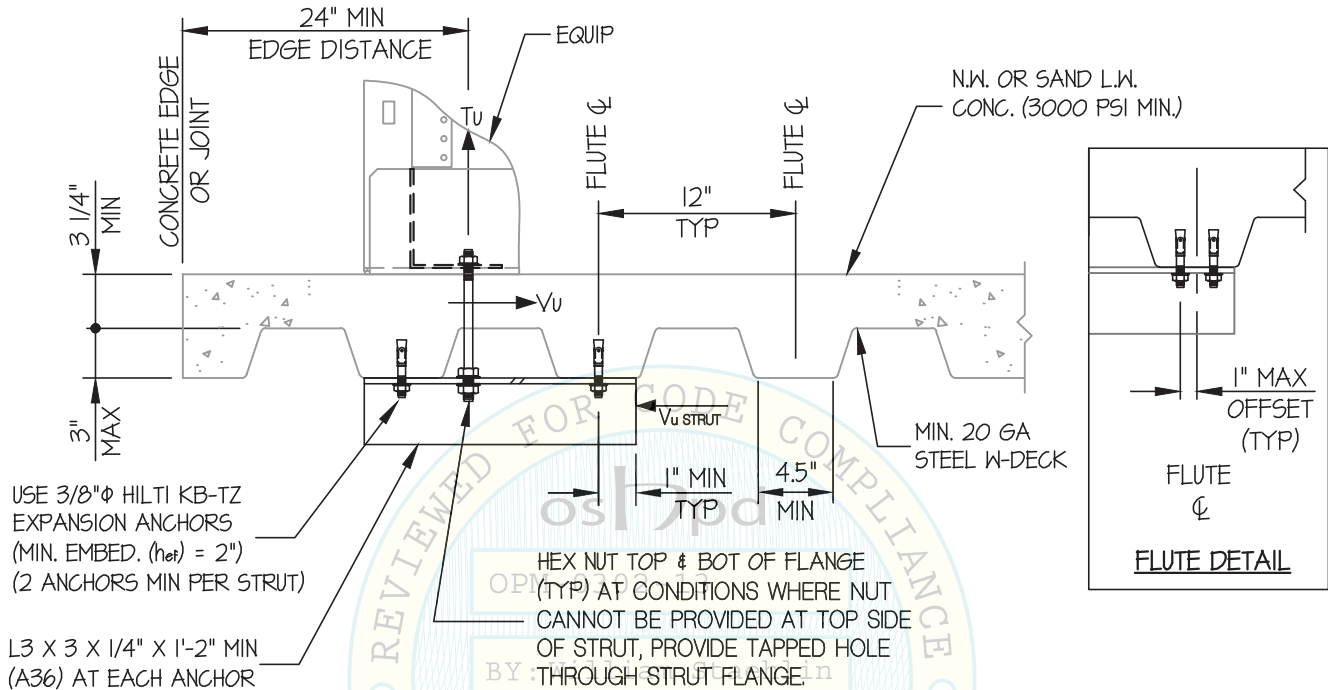
SHEET

11

OF 12 SHEETS

#### SEISMIC SUPPORTS & ATTACHMENTS

#### CONCRETE DETAILS



#### MIN STEEL DECK REQUIREMENTS AND STRUT DETAIL



CHATSWORTH PRODUCTS, INC

Adjustable ServerRack-QuadraRack

DES. J. ROBERSON

JOB NO. 11-1453

DATE 7/26/16

SHEET

12

OF 12 SHEETS

## SEISMIC SUPPORTS &amp; ATTACHMENTS

## BRACKET DETAILS

