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

OFFICE USE ONLY

APPLICATION #: OPM-0651

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: [X] New [ ] Renewal/Update

Manufacturer Information

Manufacturer: Torvan Medical, Inc.

Manufacturer's Technical Representative: Hassan Alavi

Mailing Address: 417 Horner Ave., Etobicoke, ON M8W4W3

Telephone: () - Email: halavi@torvanmedical.com

Product Information

Product Name: HEPA, DRYING & SCOPE CABINETS

Product Type: other Electrical & Mechanical Components

Product Model Number: 24-44" HEPA (V1/V2) Side Load, 24”-44” HEPA Top Load, 24”-44” Drying (V1/V2) Side Load, 24”-44” Drying Top Load and 27” & 36” Scope; Single and Double Door Cabinets

General Description: Drying Cabinets for Endoscope Equipment

Applicant Information

Applicant Company Name: EASE LLC.

Contact Person: Tiffany Tonn

Mailing Address: 1515 FAIRVIEW AVE, STE 205, MISSOULA, MT 59801

Telephone: (406) 541-3273 Email: tiffany@easeco.com

Title: Office Manager

Registered Design Professonal Preparing Engineering Recommendations

Company Name: EASE

Name: Jonathan Roberson California License Number: S4197

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

Telephone: (951) 295-1892 Email: jon@EASECo.com

OSHPD 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 OSHPD prior to testing.

☒ Analysis

☐ Experience Data

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

OSHPD Approval

Date: 1/11/2022

Name: William Staehlin Title: Senior Structural Engineer

Condition of Approval (if applicable):

EASE
EQUIPMENT ANCHORAGE & SEISMIC ENGINEERING
5877 Pine Ave, Ste. 210
Chino Hills, CA. 91709
Phn: (909) 606-7622

Department of Health Care Access and Information

PREAPPROVAL OF MANUFACTURER'S CERTIFICATION

OPM-0651

THIS PREAPPROVAL CONFORMS TO THE 2019 CALIFORNIA BUILDING CODE

MANUFACTURER: **TORVAN MEDICAL**

EQUIPMENT NAME: **HEPA, DRYING & SCOPE CABINETS**

Date: 1/11/22

GENERAL NOTES

1. THIS HCAI PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2019 CBC. THE DEMANDS (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2019 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 2019 CALIFORNIA BUILDING CODE.
4. FORCES PER ASCE 7-16 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3, WHERE S_{DS} = 2.20, a_p = 1.0, I_p = 1.5, R_p = 1.5, z/h $\leq$ 1.
5. THE DETAILS IN THIS PREAPPROVAL MAY BE USED AT ANY LOCATION IN THE STATE OF CALIFORNIA, WHERE SDS IS NOT GREATER THAN 2.20.
6. ALL DESIGN FORCES SHOWN ON THE DRAWINGS ARE FACTORED LOADS THAT SHALL BE USED FOR STRENGTH DESIGN.
7. SHEET METAL SCREWS SHALL BE HILTI S-MB SCREWS BY HILTI (ICC ESR-2196).
8. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE.
9. PROVIDE PLACARD AT EACH CABINET IDENTIFYING MAXIMUM CONTENT WEIGHT ALLOWED. PLACARD MOUNTING LOCATION SHALL BE VISIBLE ON UNIT.
10. RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD OF THE BUILDING

   A. PROVIDE SUPPORTING STRUCTURE REQUIRED TO SUPPORT WEIGHTS AND FORCES SHOWN, IN ADDITION TO ALL OTHER LOADS.

   B. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2019 CBC AND WITH THE DETAILS SHOWN IN THIS PREAPPROVAL. VERIFY THAT THE ACTUAL EQUIPMENT'S WEIGHT, CG LOCATION, ANCHOR LOCATIONS, ANCHOR DETAILS AND THE MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN ON THE PREAPPROVAL DOCUMENTS.

   C. VERIFY THAT THE COMBINATION OF S_{DS} & z/h RESULT IN SEISMIC FORCES (E_h , E_v) THAT ARE NOT GREATER THAN THE VALUES ON THE DETAILS.

   D. DESIGN BACKING BARS, STUDS, ETC. WHICH THE UNITS ARE ATTACHED TO AS NOTED ON THE DRAWINGS.

REGISTERED PROFESSIONAL ENGINEER
JONATHAN ROBERSON
No. 4197
EXP. 6-30-2022
1/11/22
STRUCTURAL
STATE OF CALIFORNIA

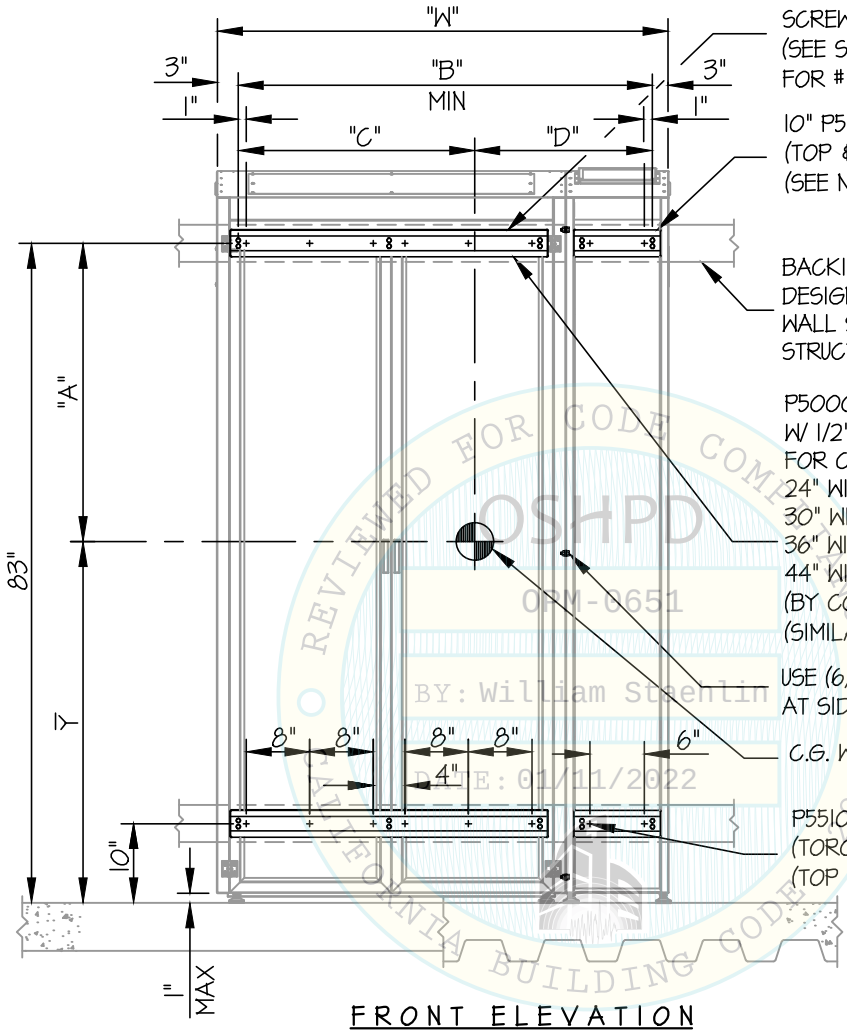
TORVAN MEDICAL

24"- 44" HEPA (V1/V2) CABINETS (SIDE LOAD)

DES.	J. ROBERSON
JOB NO.	11-2123
DATE	1/11/22
SHEET	2
OF	15 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

WALL MOUNTED



FRONT ELEVATION
(44" HEPA CABINET SHOWN)

USE #12 HILTI S-MD SCREW ANCHORS (TOP & BOTTOM) (SEE SCHED ON SHEET 3 OF 14 FOR # OF BRACKETS & SCREWS)

10" P5000 UNISTRUT AT COMPONENT CABINET (TOP & BOTTOM) (DETAIL "A") (SEE NOTE BELOW FOR BALANCE OF INFO)

BACKING PLATE (16 GA. 50 ksi MIN.) (TOP & BOTTOM) DESIGNED AND CONNECTED TO WALL STRUCTURE BY STRUCTURAL ENGINEER OF RECORD

P5000 UNISTRUT (12 GA, A653, GR33) W/ 1/2"Φ P5510 UNISTRUT SPRING NUT FOR CONN OF CABINET TO UNISTRUT
24" WIDE CABINETS USE 20" UNISTRUT P5000
30" WIDE CABINETS USE 26" UNISTRUT P5000
36" WIDE CABINETS USE 32" UNISTRUT P5000
44" WIDE CABINETS USE 40" UNISTRUT P5000
(BY CONTRACTOR) (SEE DETAIL "A") (SIMILAR AT ADD-ONS)

USE (6)- #8-32 (A307) SCREWS W/ RIVET NUTS AT SIDE LOAD CABINET ATTACHMENT

C.G. WT. = SEE SCHED

P5510 UNISTRUT SPRING NUT (TORQUE TO 50 FT-LBS) (TOP & BOTTOM, SEE SCHED FOR TOTAL)

NOTES:

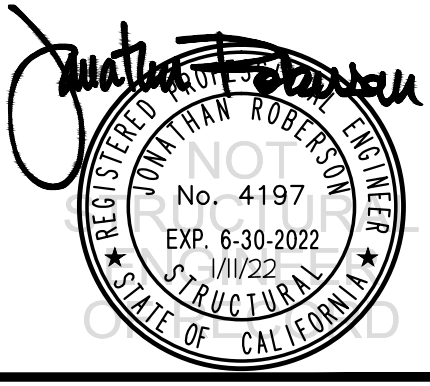
1. **FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16.**
   STRENGTH DESIGN IS USED. (S_{DS} = 2.20, a_p = 1.0, I_p = 1.5, R_p = 1.5, $z/h \leq 1$)

   HORIZONTAL FORCE (E_h) = 2.64 W_p
   VERTICAL FORCE (E_v) = 0.44 W_p

2. CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.

3. 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.

4. SEE GENERAL NOTES: SHEETS 1 AND 2

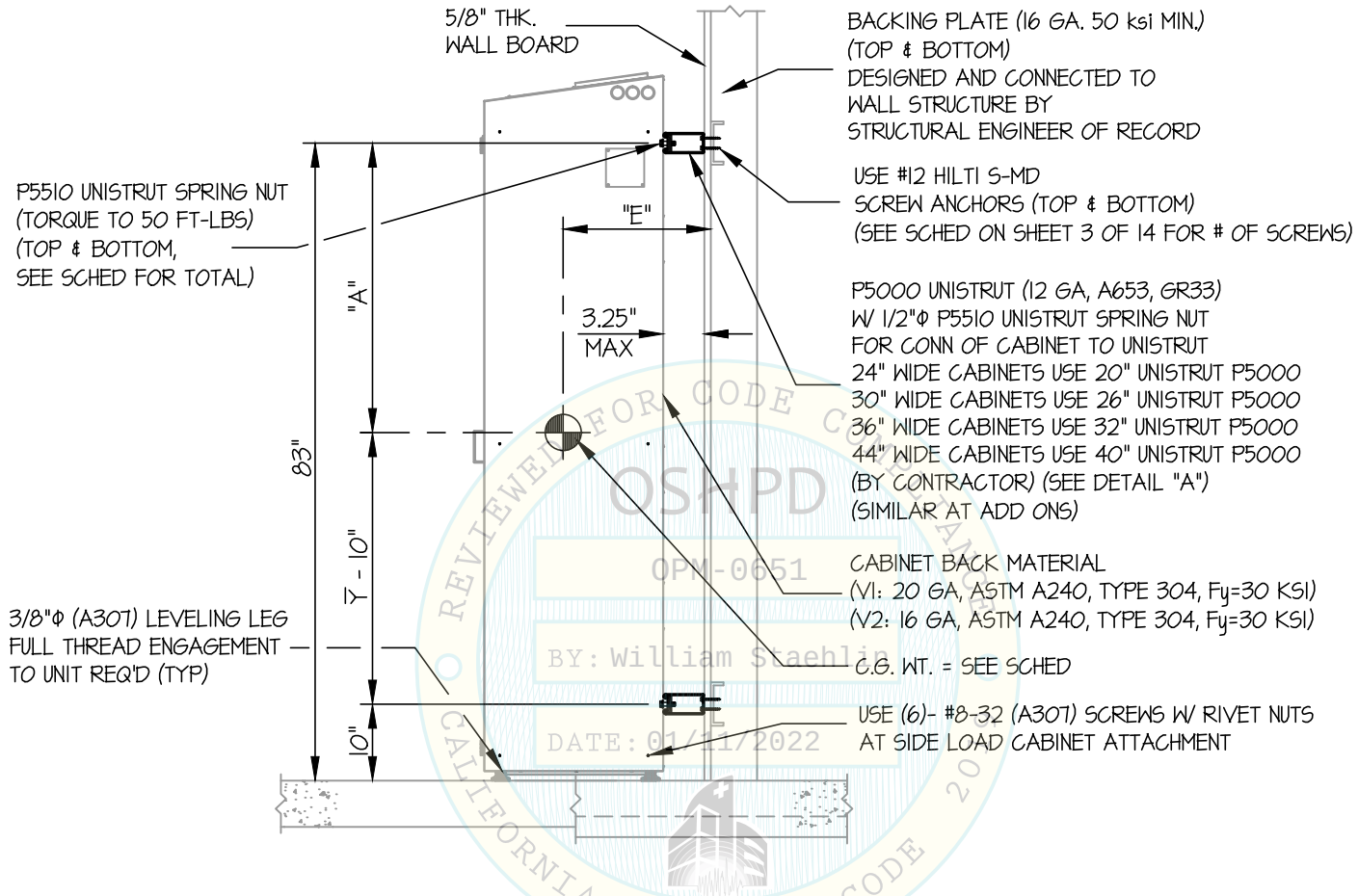


TORVAN MEDICAL

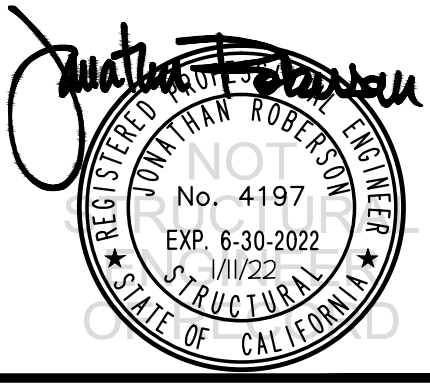
24"- 44" HEPA (V1/V2) CABINETS (SIDE LOAD)

DES.	J. ROBERSON
JOB NO.	11-2123
DATE	1/11/22
SHEET	3
OF	15 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED



SIDE ELEVATION
(44" HEPA CABINET SHOWN)



TORVAN MEDICAL

24"- 44" HEPA (V1/V2) CABINETS (SIDE LOAD)

DES. J. ROBERSON
JOB NO. 11-2123
DATE 1/11/22

SHEET 4 OF 15 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

WALL MOUNTED

V1 UNIT (SIDE LOAD)	LOADED WEIGHT (lb.)	UNIT SELF WEIGHT (lb.)	"W" (in.)	"A" (in.)	"B" (in.)	"C" (in.)	"D" (in.)	"E" (in.)	$\bar{Y}$ (in.)	** # OF SCREWS	** # P5510 UNISTRUT SPRING UNIT	+ Tu (lb.) PER SCREW	+ Vu (lb.) PER SCREW
24" + 13" HEPA	354	343	36.50	39.2	30.5	17.9	12.6	16.6	43.8	8	5	159	63
30" + 13" HEPA	405	394	42.95	37.9	37.0	21.2	15.8	16.9	45.1	10	7	151	56
36" + 13" HEPA	432	421	48.95	37.5	43.0	24.9	18.1	17.1	45.5	10	7	142	59
44" + 13" HEPA	465	454	56.92	37.4	51.0	29.4	21.5	17.1	45.6	10	8	133	63

V2 UNIT (SIDE LOAD)	LOADED WEIGHT (lb.)	UNIT SELF WEIGHT (lb.)	"W" (in.)	"A" (in.)	"B" (in.)	"C" (in.)	"D" (in.)	"E" (in.)	$\bar{Y}$ (in.)	** # OF SCREWS	** # P5510 UNISTRUT SPRING UNIT	+ Tu (lb.) PER SCREW	+ Vu (lb.) PER SCREW
24" + 13" HEPA	382	371	37.03	36.0	31.0	16.7	14.3	15.8	47.0	8	5	151	64
30" + 13" HEPA	431	420	43.03	35.5	37.0	20.0	17.0	16.2	47.5	10	7	152	58
36" + 13" HEPA	461	450	49.03	34.9	43.0	23.4	19.6	16.1	48.1	10	7	145	64
44" + 13" HEPA	520	509	57.03	32.2	51.0	25.6	25.4	15.7	50.8	10	8	147	77

+ VALUES INCLUDE Ω_o

** NUMBER OF SCREWS/SPRING NUT PER ROW
(2 ROWS TOTAL, 1 TOP & 1 BOTTOM)

TORVAN MEDICAL

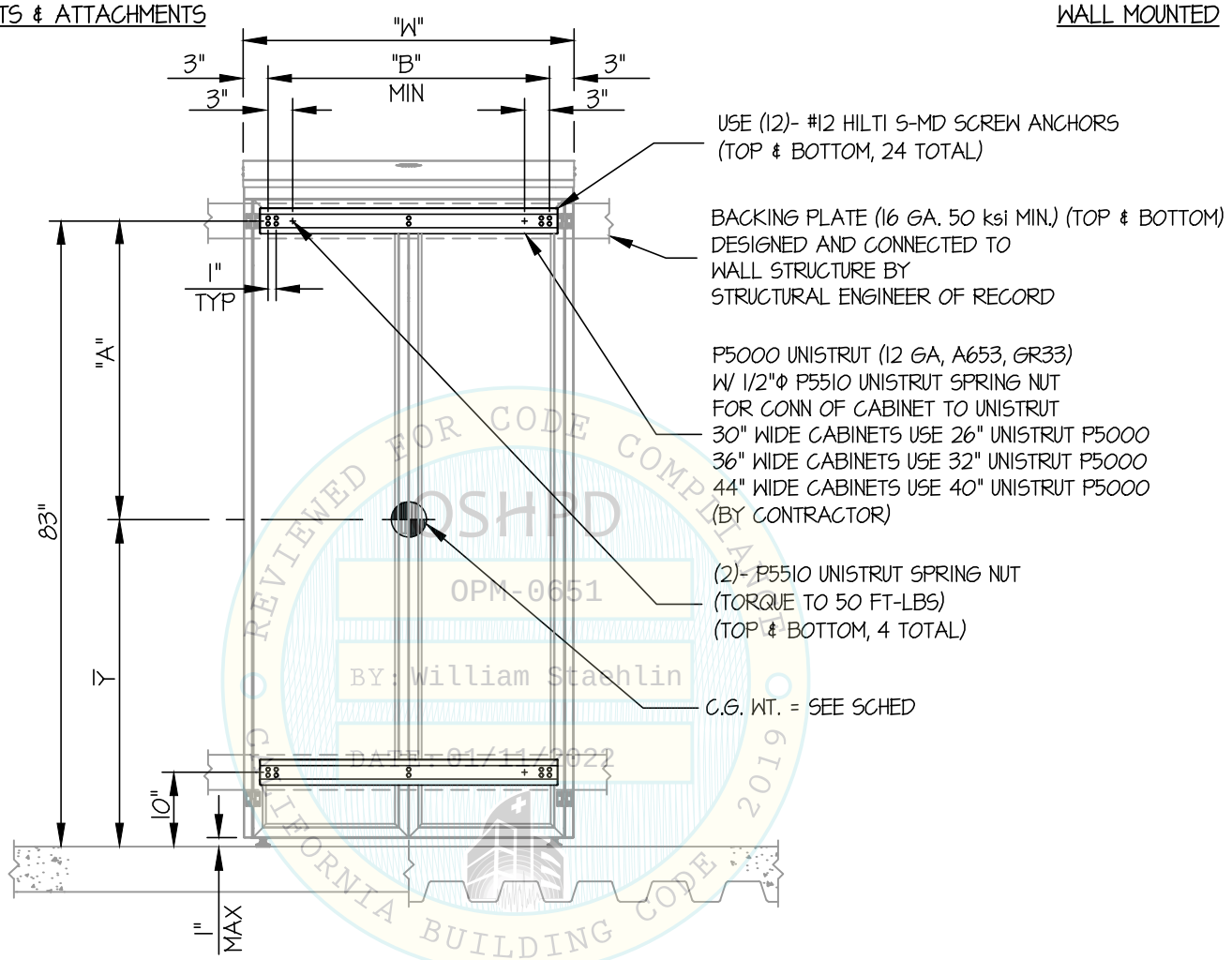
24"- 44" HEPA CABINETS (TOP LOAD)

DES.	J. ROBERSON
JOB NO.	11-2123
DATE	1/11/22

SHEET 5 OF 15 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

WALL MOUNTED



FRONT ELEVATION
(44" HEPA CABINET SHOWN)

NOTES:

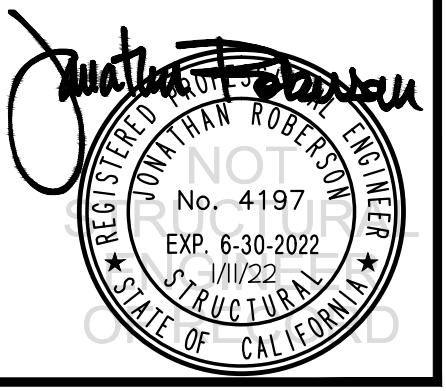
1. **FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16**
   STRENGTH DESIGN IS USED. (S_{DS} = 2.20, a_p = 1.0, I_p = 1.5, R_p = 1.5, $z/h \leq 1$)

   HORIZONTAL FORCE (E_h) = 2.64 W_p
   VERTICAL FORCE (E_v) = 0.44 W_p

2. CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.

3. 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.

4. SEE GENERAL NOTES: SHEETS 1 AND 2

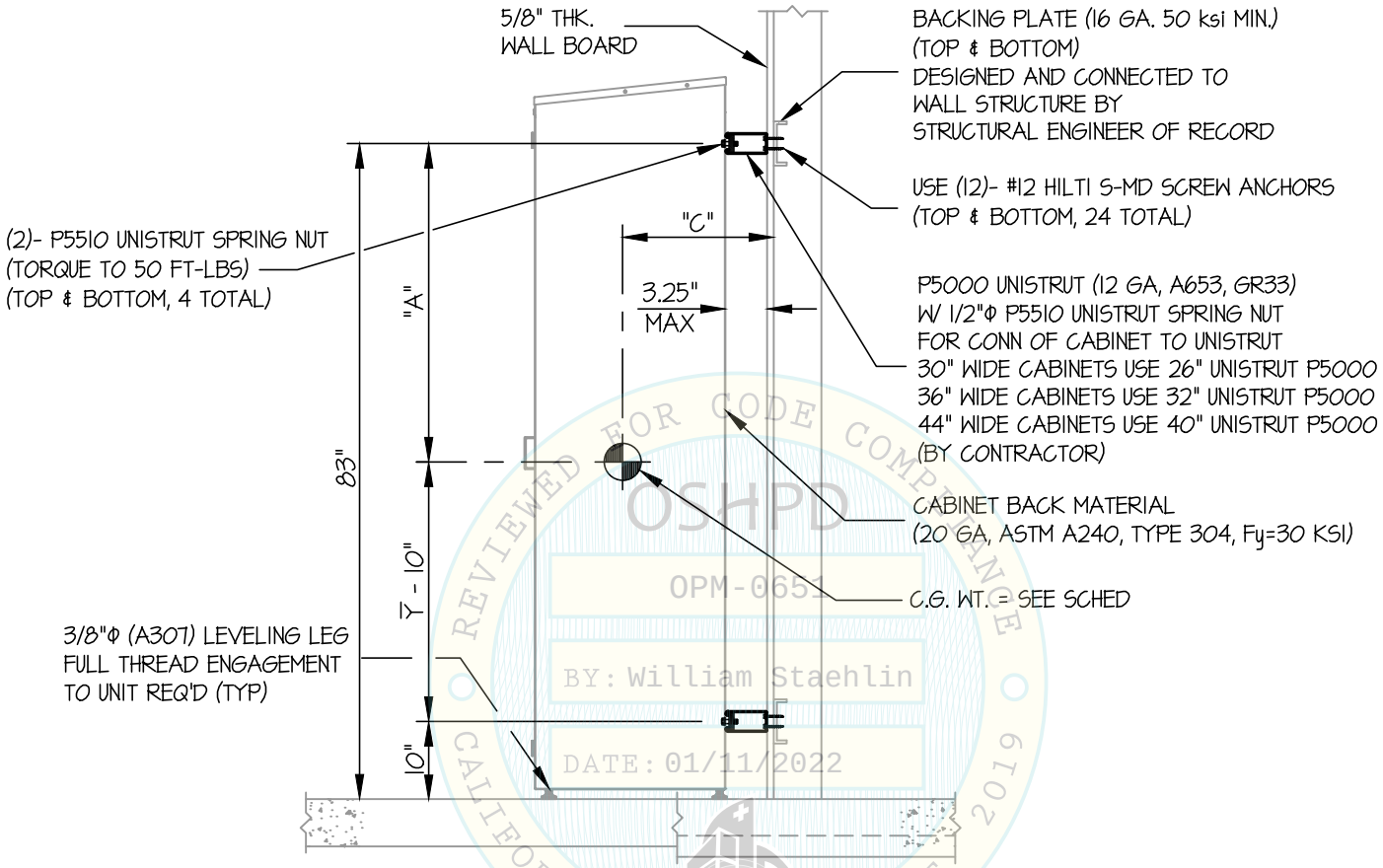


TORVAN MEDICAL

24"- 44" HEPA CABINETS (TOP LOAD)

DES. J. ROBERSON
JOB NO. 11-2123
DATE 1/11/22
SHEET 6 OF 15 SHEETS

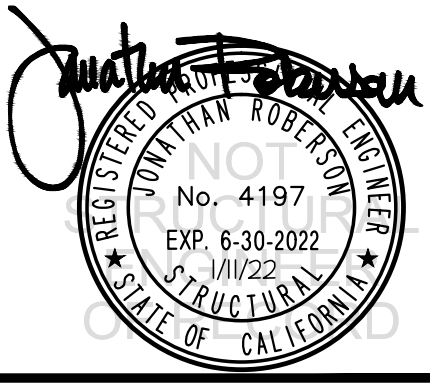
SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED



SIDE ELEVATION
(44" HEPA CABINET SHOWN)

UNIT (TOP LOAD)	LOADED WEIGHT (lb.)	UNIT SELF WEIGHT (lb.)	"W" (in.)	"A" (in.)	"B" (in.)	"C" (in.)	Ȳ (in.)	** # OF SCREWS PER BRACKET	** # P5510 UNISTRUT SPRING UNIT	+ Tu (lb.) PER SCREW	+ Vu (lb.) PER SCREW
30" HEPA	372	360	30.97	39.8	25.0	17.4	43.2	12	5	113	67
36" HEPA	414	403	36.97	39.8	31.0	17.3	43.2	12	5	105	74
44" HEPA	473	462	44.97	39.3	39.0	17.3	43.7	12	6	106	84

+ VALUES INCLUDE Ω_0
** NUMBER OF SCREWS/SPRING NUT PER ROW
(2 ROWS TOTAL, 1 TOP & 1 BOTTOM)



TORVAN MEDICAL

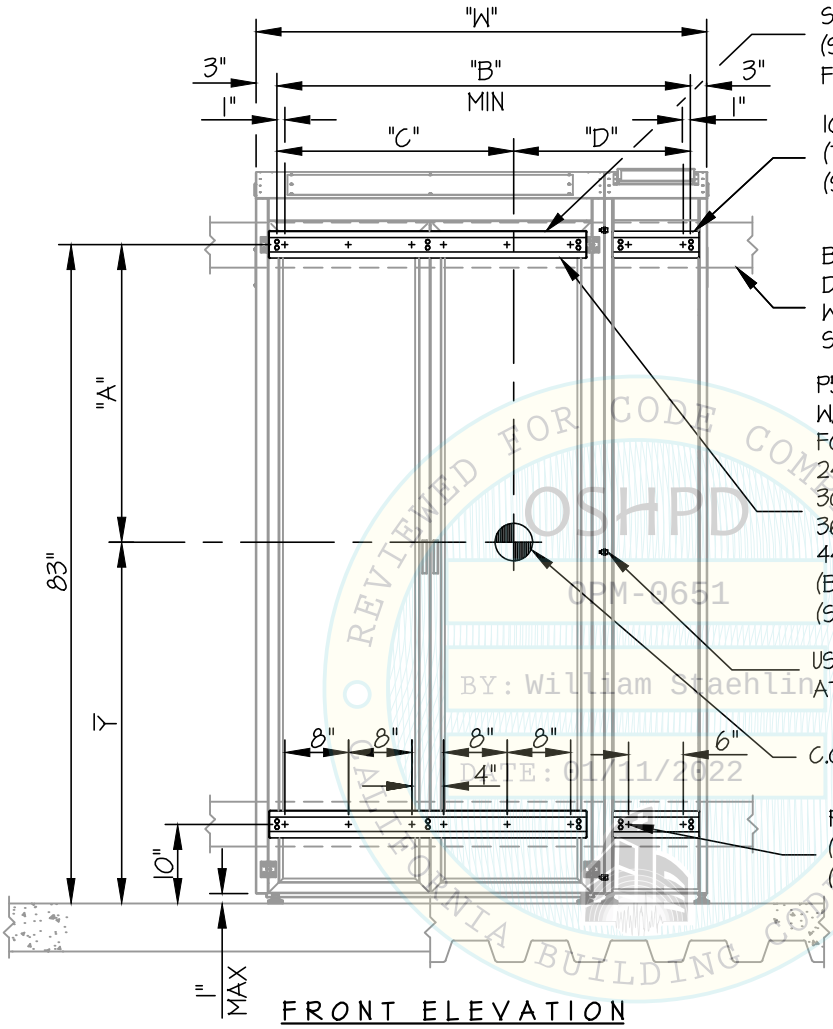
24"- 44" DRYING (V1/V2) CABINETS (SIDE LOAD)

DES.	J. ROBERSON
JOB NO.	11-2123
DATE	1/11/22

SHEET 7 OF 15 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

WALL MOUNTED



FRONT ELEVATION
(44" DRYING CABINET SHOWN)

USE #12 HILTI S-MD
SCREW ANCHORS (TOP & BOTTOM)
(SEE SCHED ON SHEET 8 OF 14
FOR # OF BRACKETS & SCREWS)

10" P5000 UNISTRUT AT COMPONENT CABINET
(TOP & BOTTOM) (DETAIL "A")
(SEE NOTE BELOW FOR BALANCE OF INFO)

BACKING PLATE (16 GA. 50 ksi MIN.) (TOP & BOTTOM)
DESIGNED AND CONNECTED TO
WALL STRUCTURE BY
STRUCTURAL ENGINEER OF RECORD

P5000 UNISTRUT (12 GA, A653, GR33)
W/ 1/2"Φ P5510 UNISTRUT SPRING NUT
FOR CONN OF CABINET TO UNISTRUT
24" WIDE CABINETS USE 20" UNISTRUT P5000
30" WIDE CABINETS USE 26" UNISTRUT P5000
36" WIDE CABINETS USE 32" UNISTRUT P5000
44" WIDE CABINETS USE 40" UNISTRUT P5000
(BY CONTRACTOR) (SEE DETAIL "A")
(SIMILAR AT ADD-ONS)

USE (6)- #8-32 (A307) SCREWS W/ RIVET NUTS
AT SIDE LOAD CABINET ATTACHMENT

C.G. WT. = SEE SCHED

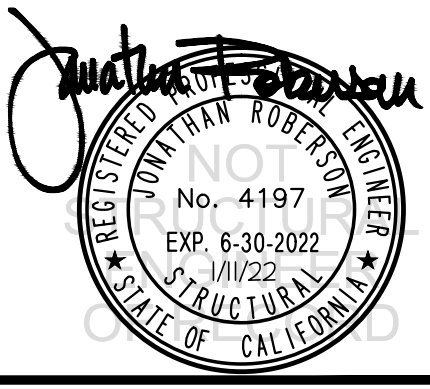
P5510 UNISTRUT SPRING NUT
(TORQUE TO 50 FT-LBS)
(TOP & BOTTOM, SEE SCHED FOR TOTAL)

NOTES:

1. **FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16.**
   STRENGTH DESIGN IS USED. (S_{DS} = 2.20, a_p = 1.0, I_p = 1.5, R_p = 1.5, $z/h \leq 1$)

   HORIZONTAL FORCE (E_h) = 2.64 W_p
   VERTICAL FORCE (E_v) = 0.44 W_p

2. CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
3. 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.
4. SEE GENERAL NOTES: SHEETS 1 AND 2



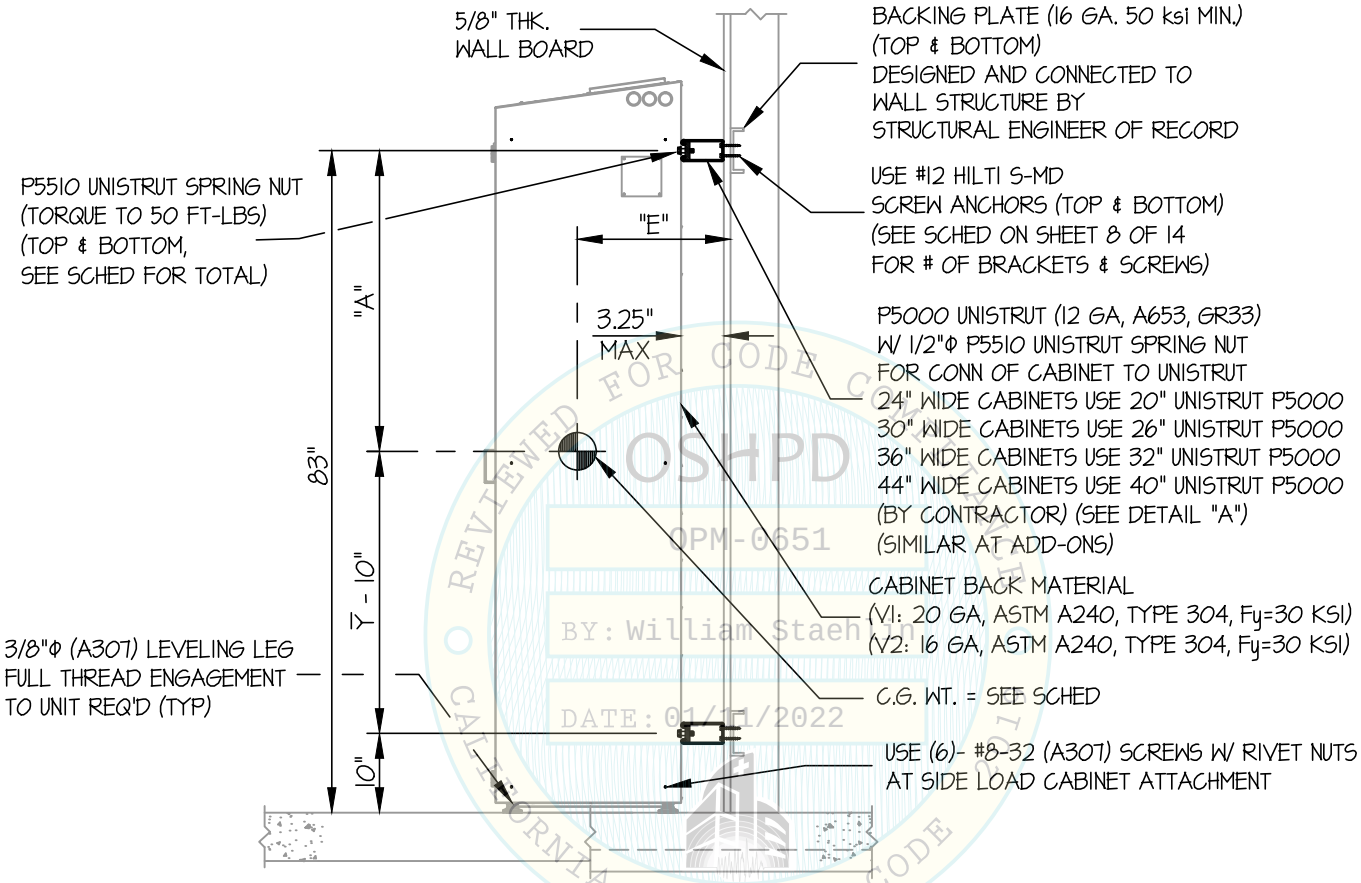
TORVAN MEDICAL

24"- 44" DRYING (V1/V2) CABINETS (SIDE LOAD)

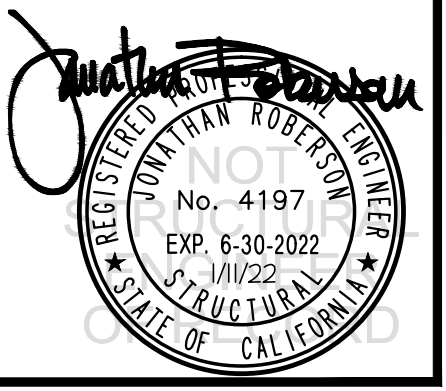
DES.	J. ROBERSON
JOB NO.	11-2123
DATE	1/11/22

SHEET 8 OF 15 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED



FRONT ELEVATION
(44" DRYING CABINET SHOWN)



TORVAN MEDICAL

24"- 44" DRYING (V1/V2) CABINETS (SIDE LOAD)

DES. J. ROBERSON
JOB NO. 11-2123
DATE 1/11/22

SHEET 9 OF 15 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

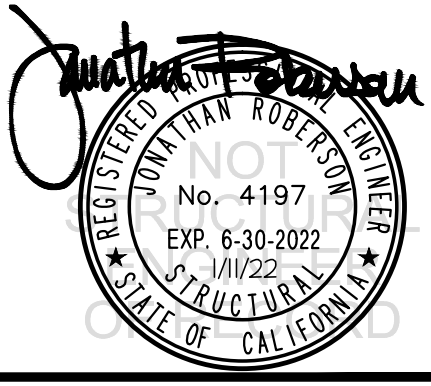
WALL MOUNTED

V1 UNIT (SIDE LOAD)	LOADED WEIGHT (lb.)	UNIT SELF WEIGHT (lb.)	"W" (in.)	"A" (in.)	"B" (in.)	"C" (in.)	"D" (in.)	"E" (in.)	$\bar{Y}$ (in.)	** # OF SCREWS	**# P5510 UNISTRUT SPRING UNIT	+ Tu (lb.) PER SCREW	+ Vu (lb.) PER SCREW
24" + 13" DRYING	362	343	36.50	38.1	30.5	17.4	13.1	16.4	44.9	8	5	155	62
30" + 13" DRYING	413	394	42.95	36.8	37.0	20.9	16.1	16.8	46.2	10	7	148	55
36" + 13" DRYING	448	422	48.95	36.5	43.0	24.5	18.5	16.9	46.5	10	7	141	59
44" + 13" DRYING	481	455	56.92	37.9	51.0	29.6	21.3	16.2	45.1	10	8	134	66

V2 UNIT (SIDE LOAD)	LOADED WEIGHT (lb.)	UNIT SELF WEIGHT (lb.)	"W" (in.)	"A" (in.)	"B" (in.)	"C" (in.)	"D" (in.)	"E" (in.)	$\bar{Y}$ (in.)	** # OF SCREWS	**# P5510 UNISTRUT SPRING UNIT	+ Tu (lb.) PER SCREW	+ Vu (lb.) PER SCREW
24" + 13" DRYING	410	391	37.03	34.3	31.0	17.4	13.6	15.8	48.7	8	5	170	72
30" + 13" DRYING	459	440	43.03	34.1	37.0	20.7	16.3	16.2	48.9	10	7	168	65
36" + 13" DRYING	503	477	49.03	33.2	43.0	24.7	18.3	16.0	49.8	10	7	166	72
44" + 13" DRYING	560	534	57.03	31.1	51.0	30.0	22.0	15.6	51.9	10	8	167	84

+ VALUES INCLUDE Ω_0

** NUMBER OF SCREWS/SPRING NUT PER ROW (2 ROWS TOTAL, 1 TOP & 1 BOTTOM)



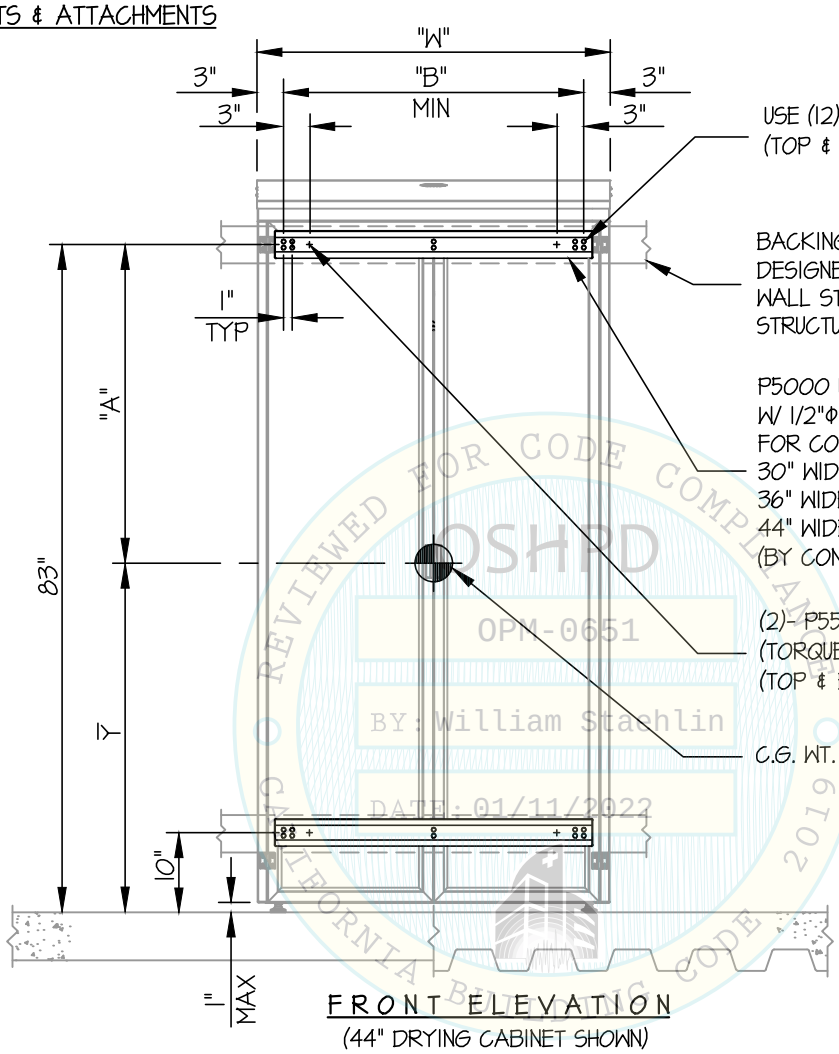
TORVAN MEDICAL

24"- 44" DRYING CABINETS (TOP LOAD)

DES.	J. ROBERSON
JOB NO.	11-2123
DATE	1/11/22

SHEET 10 OF 15 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED



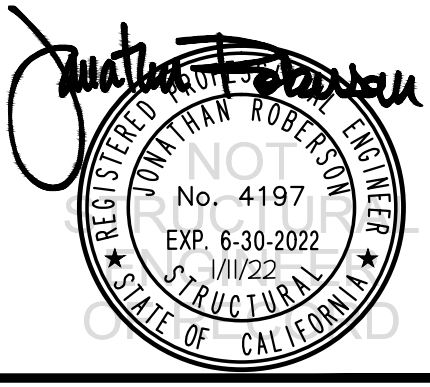
FRONT ELEVATION
(44" DRYING CABINET SHOWN)

NOTES:

1. **FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16.**
   STRENGTH DESIGN IS USED. (S_{DS} = 2.20, a_p = 1.0, I_p = 1.5, R_p = 1.5, $z/h \leq 1$)

   HORIZONTAL FORCE (E_h) = 2.64 W_p
   VERTICAL FORCE (E_v) = 0.44 W_p

2. CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
3. 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.
4. SEE GENERAL NOTES: SHEETS 1 AND 2

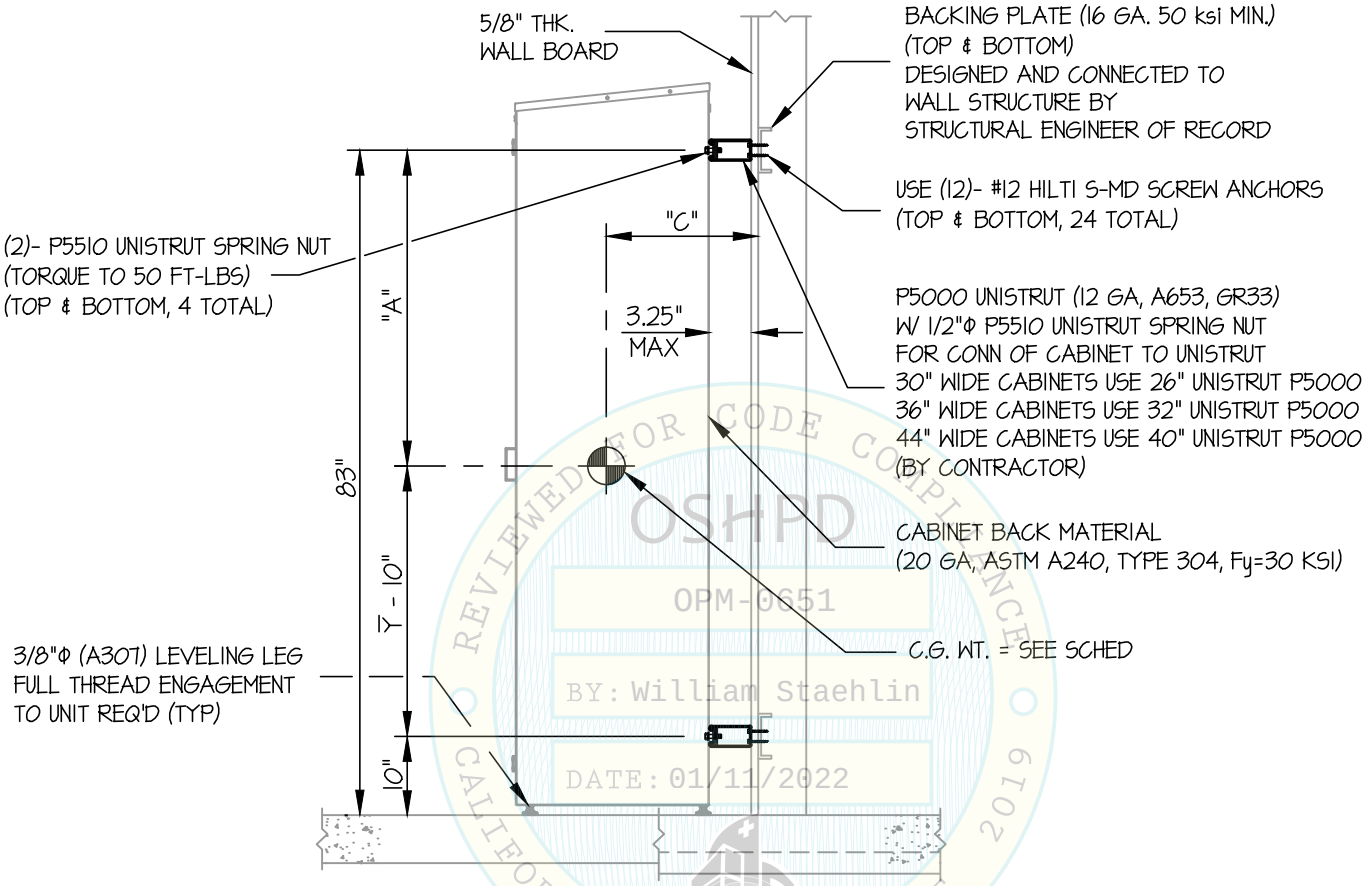


TORVAN MEDICAL

24"- 44" DRYING CABINETS (TOP LOAD)

DES. J. ROBERSON
JOB NO. 11-2123
DATE 1/11/22
SHEET 11 OF 15 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED

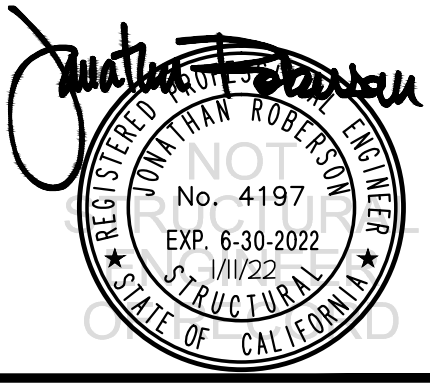


SIDE ELEVATION
(44" DRYING CABINET SHOWN)

UNIT (TOP LOAD)	LOADED WEIGHT (lb.)	UNIT SELF WEIGHT (lb.)	"W" (in.)	"A" (in.)	"B" (in.)	"C" (in.)	Ȳ (in.)	** # OF SCREWS PER BRACKET	** # P5510 UNISTRUT SPRING UNIT	+ Tu (lb.) PER SCREW	+ Vu (lb.) PER SCREW
30" HEPA	386	361	30.97	37.8	25.0	17.0	45.2	12	5	109	66
36" HEPA	428	403	36.97	37.8	31.0	17.0	45.2	12	5	102	73
44" HEPA	487	465	44.97	38.4	39.0	17.1	44.6	12	6	107	85

+ VALUES INCLUDE Ω_0

** NUMBER OF SCREWS/SPRING NUT PER ROW
(2 ROWS TOTAL, 1 TOP & 1 BOTTOM)



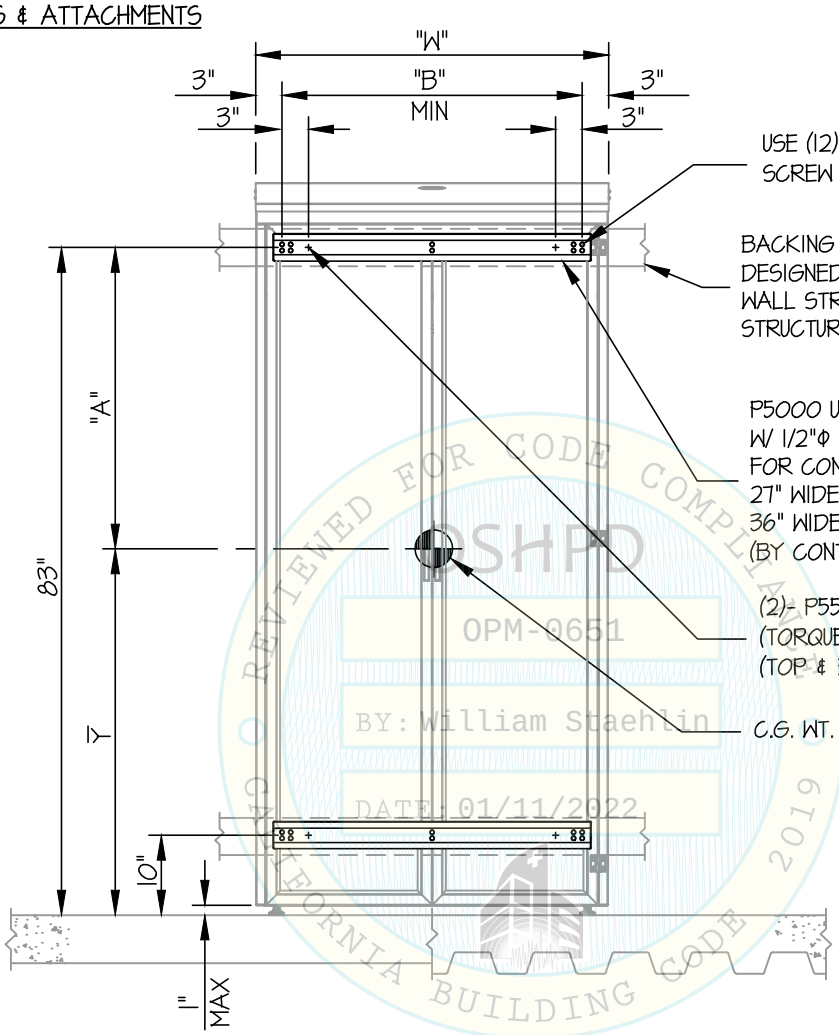
TORVAN MEDICAL

27" & 36" SCOPE CABINETS

DES. J. ROBERSON
JOB NO. 11-2123
DATE 1/11/22

SHEET 12 OF 15 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED



FRONT ELEVATION
(36" SCOPE CABINET SHOWN)

NOTES:

1. **FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16**
   STRENGTH DESIGN IS USED. (S_{DS} = 2.20, a_p = 1.0, I_p = 1.5, R_p = 1.5, $z/h \leq 1$)

   HORIZONTAL FORCE (E_h) = 2.64 W_p
   VERTICAL FORCE (E_v) = 0.44 W_p

2. CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.

3. 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.

REGISTERED PROFESSIONAL ENGINEER
JONATHAN ROBERSON
No. 4197
EXP. 6-30-2022
1/11/22
STRUCTURAL
STATE OF CALIFORNIA

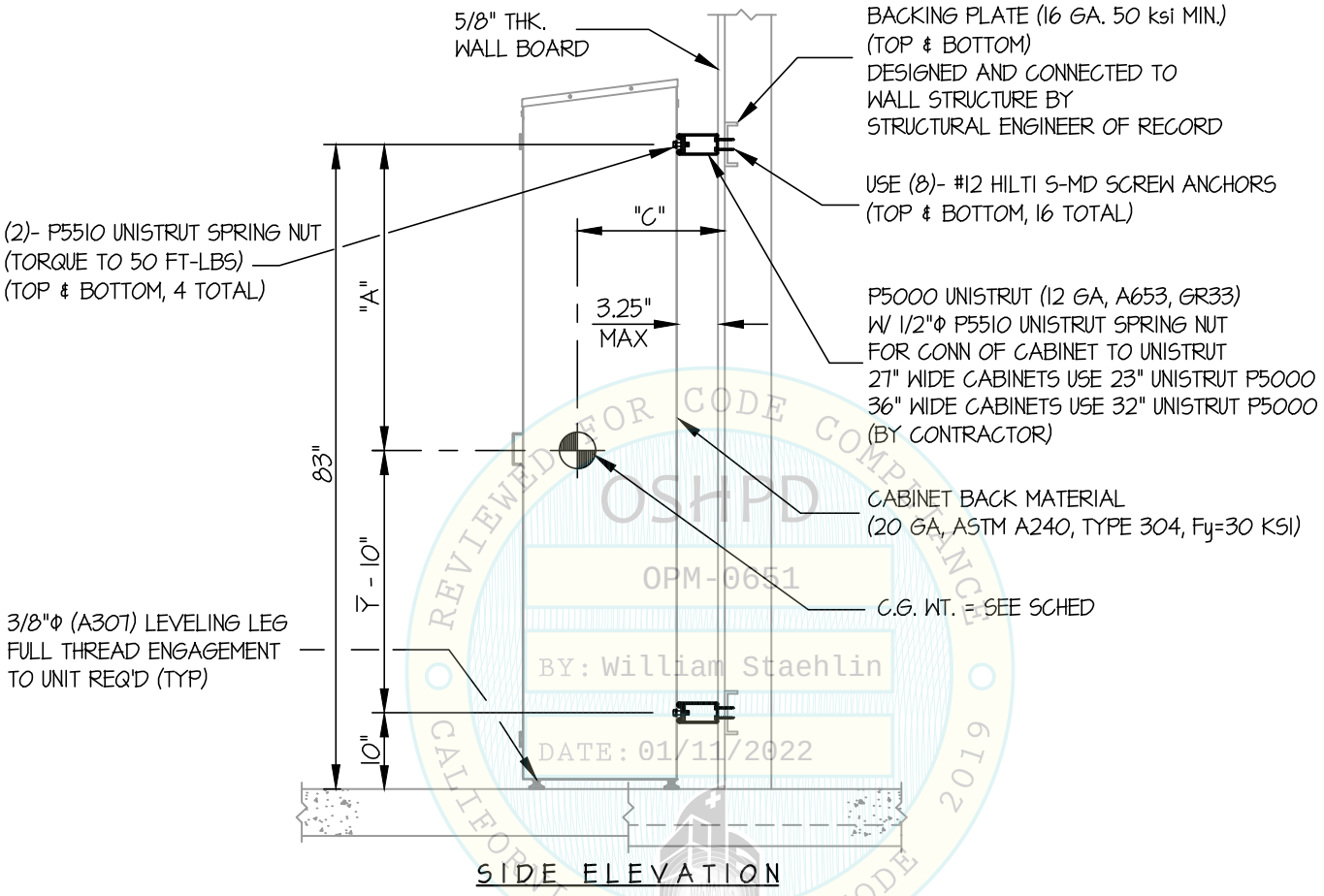
TORVAN MEDICAL

27" & 36" SCOPE CABINETS

DES. J. ROBERSON
JOB NO. 11-2123
DATE 1/11/22

SHEET 13 OF 15 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED

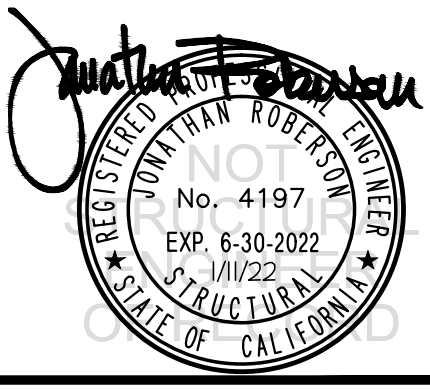


SIDE ELEVATION

UNIT	LOADED WEIGHT (lb.)	UNIT SELF WEIGHT (lb.)	"W" (in.)	"A" (in.)	"B" (in.)	"C" (in.)	Ȳ (in.)	** # OF SCREWS PER BRACKET	** # P5510 UNISTRUT SPRING UNIT	+ Tu (lb.) PER SCREW	+ Vu (lb.) PER SCREW
27" SCOPE	419	400	29.97	43.1	24.0	16.2	39.9	12	3	135	82
36" SCOPE	557	538	38.97	42.8	33.0	16.8	40.2	12	5	143	108

+ VALUES INCLUDE Ω_0

** NUMBER OF SCREWS/SPRING NUT PER ROW (2 ROWS TOTAL, 1 TOP & 1 BOTTOM)



TORVAN MEDICAL

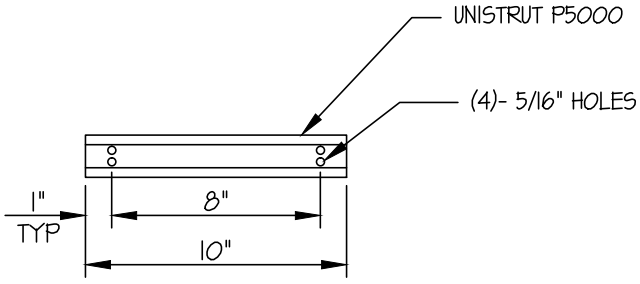
HEPA/DRYING CABINETS (SIDE LOAD)

DES. J. ROBERSON
JOB NO. 11-2123
DATE 1/11/22

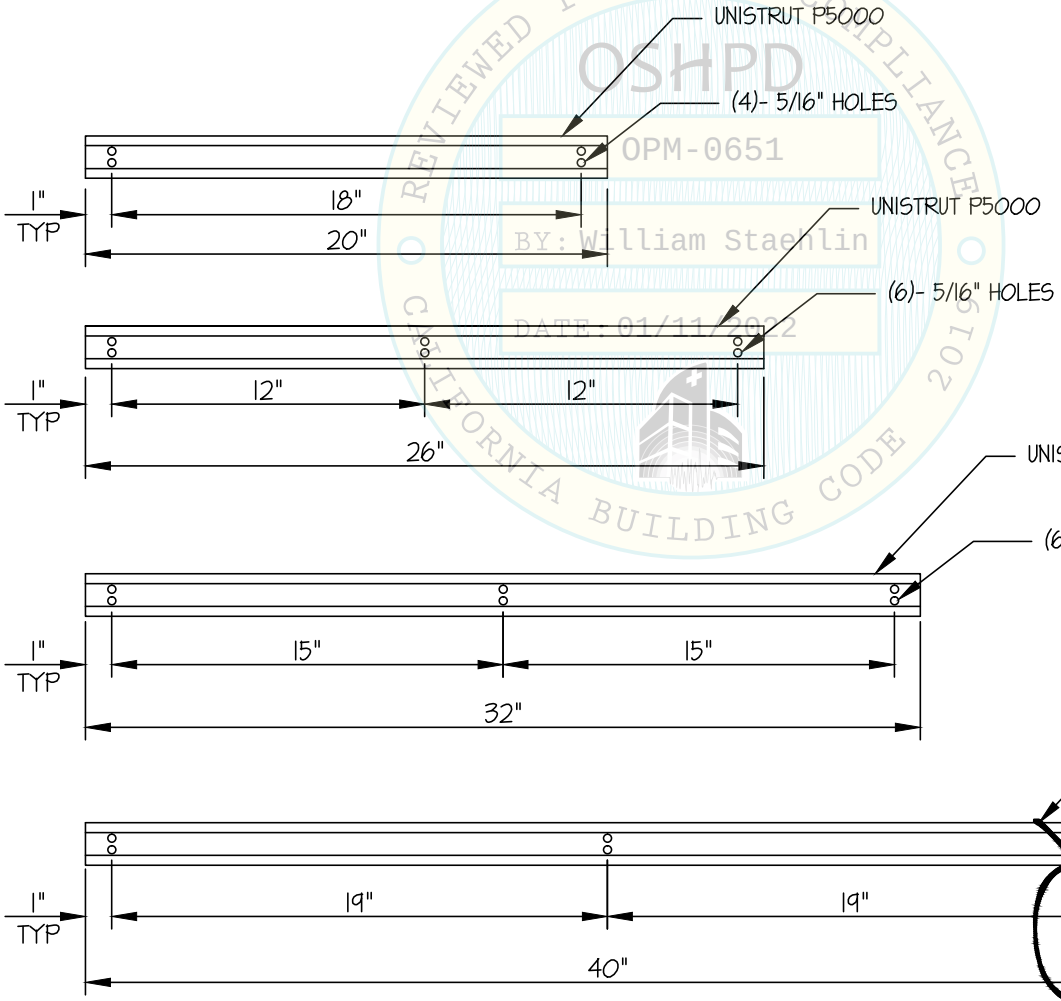
SHEET 14 OF 15 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

BRACKET DETAILS

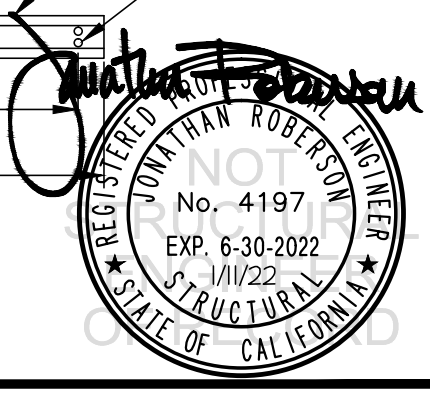


AT COMPONENT CABINET



AT MAIN CABINETS

DETAIL "A"



TORVAN MEDICAL

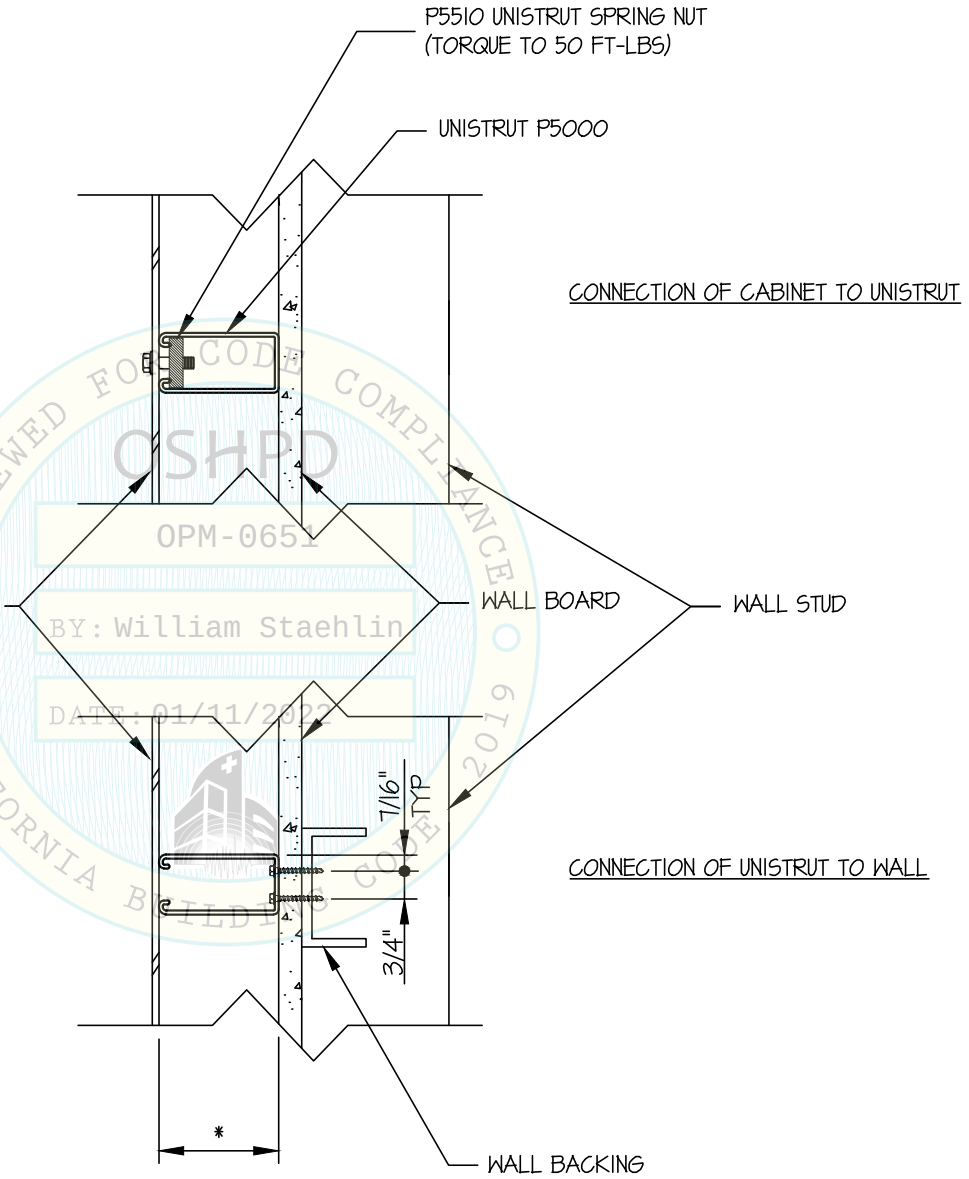
HEPA/DRYING/SCOPE CABINETS

DES. J. ROBERSON
JOB NO. 11-2123
DATE 1/11/22

SHEET 15 OF 15 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

BRACKET DETAILS



* 1-5/8" : P1000 UNISTRUT (USE P1010 SPRING NUT, TORQUE TO 50 FT-LBS)
2-7/16" : P5500 UNISTRUT (USE P5510 SPRING NUT, TORQUE TO 50 FT-LBS)
3-1/4" : P5000 UNISTRUT (USE P5510 SPRING NUT, TORQUE TO 50 FT-LBS)

DETAIL "B"

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