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

OFFICE USE ONLY

APPLICATION #: OPM-0471

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: ☐ New ☒ Renewal/Update

Manufacturer Information

Manufacturer: Aladdin Temp-Rite LLC

Manufacturer's Technical Representative: Jeff Burns

Mailing Address: 250 E. Main Street, Hendersonville, TN 37075

Telephone: (615) 537-3711 Email: jburns@aladdin-atr.com

Product Information

Product Name: Convect-Rite III Docking Station plus Cart

Product Type: Rethermalization refrigerator unit with cart

Product Model Number: Docking Station: CR3DS2, CR3DS0, CR3DS1; Cart CR3C24xxx, CR3C30xxx

General Description: Rethermalization docking station for meal carts to heat/cool meals prior to distribution to patients. The docking station provides the controls for consistent convected refrigeration and heat as required of meals in cart. After rethermalization, the insulated cart is then disengaged and serves as the meal delivery cart.

Applicant Information

Applicant Company Name: Aladdin Temp-Rite LLC

Contact Person: Jeff Burns

Mailing Address: 250 E. Main Street, Hendersonville, TN 37075

Telephone: (615) 537-3741 Email: jburns@aladdin-atr.com

Title: Chief Financial Officer

Registered Design Professonal Preparing Engineering Recommendations

Company Name: DEGENKOLB ENGINEERS

Name: Chad Closs California License Number: S5946

Mailing Address: 225 Broadway, Suite 1325, San Diego, CA 92101

Telephone: (858) 699-5412 Email: ccloss@degenkolb.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: 1/14/2021

Name: George Chu Title: Senior Structural Engineer

Condition of Approval (if applicable):

GENERAL NOTES

I. GENERAL

1. THIS OSHPD PRE-APPROVAL OF MANUFACTURE'S CERTIFICATION (OPM) IS BASED ON THE CBC 2019. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2019.
2. THIS PRE-APPROVAL IS VALID FOR THE EQUIPMENT DESCRIBED IN THESE DRAWINGS THROUGHOUT THE STATE OF CALIFORNIA, PER THE S_{DS} and HEIGHT LIMITS NOTED IN THESE GENERAL NOTES

II. RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD

1. VERIFY MATERIALS AND WORKMANSHIP TO CONFORM WITH THE 2019 EDITION OF THE CALIFORNIA BUILDING CODE AND THE REQUIREMENTS OF THIS PRE-APPROVAL DOCUMENT.
2. VERIFY THE ADEQUACY OF THE EXISTING FRAMING TO SUPPORT THE LOADS INDICATED ON S3 AND S4, IN ADDITION TO ALL OTHER LOADS.
3. DESIGN ANY SUPPLEMENTARY MEMBER AND THEIR ATTACHMENTS OTHER THAN THOSE DETAILED WITHIN THIS PRE-APPROVAL.
4. VERIFY THE EQUIPMENTS WEIGHT, LOCATION. ANCHOR LOCATIONS AND ANCHOR DETAILS AGREE WITH THE INFORMATION SHOWN IN THIS PRE-APPROVAL.

III. STRUT FRAMING

1. CONNECTORS MANUFACTURED BY MASON WEST CORPORATION AND B-LINE. CHANNEL FRAMING COMPONENTS MANUFACTURED BY UNISTRUT, MASON WEST CORPORATION OR B-LINE. SEE SHEET S3.
2. CHANNEL FRAMING TO CONFORM TO ASTM A1011 SS, GRADE 33 .
3. STRUT TYPE: SOLID SECTIONS ONLY. CHANNEL MINIMUM SECTION PROPERTIES:

CHANNEL	A (IN.^{2})	S_{xx} (IN.^{3})	I_{xx} (IN.^{4})	GAGE	WT (PLF)
1 5/8" SQ	0.544	0.195	0.180	12	1.89
1 1/4" SQ	0.305	0.086	0.061	14	1.04

IV. MECHANICAL ANCHORS

1. WEDGE ANCHORS INTO CONCRETE OR MASONRY: SEE S4. ANCHORS SHALL BE ZINC COATED CARBON STEEL. INSTALL ANCHORS IN ACCORDANCE WITH ICC REPORT. MASONRY ANCHORAGE ONLY APPLICABLE TO UNCRACKED, FULLY GROUTED CONCRETE MASONRY UNIT CONSTRUCTION PER ICC ESR-1385 §3.2.
2. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF 2 ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOWEL AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT APPROVED BY THE ENGINEER OF RECORD. NOTIFY THE ENGINEER OF RECORD IF ANY REINFORCING IS DAMAGED.
3. ANCHORS WILL BE PROOF-TESTED BY OWNER'S TESTING AND INSPECTION AGENCY.
4. IF ANY ANCHOR FAILS TESTING, REPLACE ANCHOR AND TEST ADDITIONAL ANCHORS OF THE SAME CATEGORY NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE PASS, THEN RESUME INITIAL TESTING FREQUENCY.
5. TEST ANCHORS NO SOONER THAN 24 HOURS AFTER INSTALLATION.
6. TEST 50% WEDGE ANCHORS PER THE FOLLOWING METHOD:
   A. TORQUE WRENCH METHOD: TEST ANCHORS TO THE TORQUE LOAD INDICATED IN THE TABLE BELOW WITHIN THE FOLLOWING LIMITS:
      1. ONE-HALF TURN OF THE NUT.

WEDGE	
ANCHOR DIA. (IN)	TORQUE LOAD (FT-LBS)
3/8	25
1/2	40
5/8	60

V. STRUCTURAL STEEL

1. STRUCTURAL STEEL TO CONFORM TO THE FOLLOWING UNLESS OTHERWISE NOTED:

   STAINLESS STEEL BOLTS: ASTM A320 S.S. GR. B8 CLASS 1 OR A307 ZINC BOLTS PER ASTM F2329
   MASON WEST (BREAK-OFF NUT) AND B-LINE CONNECTORS: NUTS AND BOLTS MOUNTED TO CHANNELS SHALL BE TIGHTENED TO THE FOLLOWING MINIMUM TORQUES:

BOLT DIAMETER (IN.)	BOLT TORQUE (FT. LBS.)
1/2	50

   PLATES: ASTM A572 GR 50
   WELDING ELECTRODE: E70XXX
2. HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123 AND ASTM A153 STRUCTURAL STEEL.

VI. WOOD

1. INSTALL WOOD SCREWS PER IAPMO ER-192. VERIFY (E) WOOD STUDS MEET MATERIAL REQUIREMENTS IN ACCORDANCE WITH THE IAPMO REPORT.

VII. STRUCTURAL TESTS, INSPECTIONS, AND OBSERVATIONS

1. AN INDEPENDENT TESTING AGENCY AND SPECIAL INSPECTORS WILL BE RETAINED BY THE OWNER TO PERFORM THE FOLLOWING TESTS AND INSPECTION. PROVIDE ACCESS AND FURNISH SAMPLES TO THE AGENCY AS REQUIRED.
2. THE FOLLOWING ITEMS REQUIRE TESTS AND INSPECTIONS IN ACCORDANCE WITH THE REQUIREMENTS OF THE CHAPTER "STRUCTURAL TESTS AND INSPECTIONS" OF THE CODE.
3. MECHANICAL ANCHORS:
   A. VERIFY TYPE OF ANCHOR, ANCHOR DIMENSIONS, CONCRETE TYPE AND COMPRESSIVE STRENGTH, PREDRILLED HOLE DIMENSIONS, ANCHOR SPACING, EDGE DISTANCE, SLAB THICKNESS AND ANCHOR EMBEDMENT.
   B. PROOF-TEST AS INDICATED IN THE MECHANICAL ANCHORS SECTION OF THESE GENERAL NOTES.

VIII. DESIGN CRITERIA

1. APPLICABLE CODE: 2019 CALIFORNIA BUILDING CODE.
2. SEISMIC DESIGN:
   ALLOWABLE SEISMIC FORCE $F_{P,ASD} = 0.7*0.4\ S_{DS}*Wp(1+2*z/h)$ $E_{VASD} = 0.7*0.2(S_{DS})Wp$
   WHERE:
   S_{DS} = SEE TABLE — WORST CASE ACCEL. — Rp = 1.5 LOW DEFORMATION
   Ip = 1.5 — FOR ESSENTIAL EQUIP. — ap = 1.0 RIGID COMPONENT
   z/h= SEE TABLE — FOR ANY FLOOR — Ω = 1.5

   NOT APPLICABLE AT SITES WITH SOIL CLASS F
3. THIS PRE-APPROVAL HAS THE FOLLOWING LIMITATIONS ON S_{DS} BASED ON INSTALLATION LOCATION IN THE BUILDING:
   z = HEIGHT IN STRUCTURE OF UNIT INSTALLATION
   h = AVERAGE ROOF HEIGHT OF STRUCTURE
   S_{DS} = DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETER AT SHORT PERIODS

z/h	CONVECT 24/MINI S_{DS}, MAX	CONVECT 30 S_{DS}, MAX
0 (SLAB AT OR BELOW BASE)	3.0	3.0
0.25	2.93	2.40
0.5	2.20	1.88
0.75	1.73	1.50
1.0 (ROOF)	1.40	1.23

TABLE VALUES MAY NOT BE INTERPOLATED. FOR z/h VALUES IN BETWEEN, SMALLER S_{DS}, MAX. MUST BE USED. ENGINEER OF RECORD MUST VERIFY PRE-APPROVAL IS VALID FOR SPECIFIC SITE AND UNIT INSTALLATION LOCATION. IF SITE S_{DS} IS LARGER THAN S_{DS}, MAX., PRE-APPROVAL IS NOT APPLICABLE AND ENGINEER OF RECORD IS RESPONSIBLE FOR PROVIDING ALTERNATE SUPPORTS & ATTACHMENTS DESIGN.

IX. HOW TO USE THIS PRE-APPROVAL

1. REVIEW AND UNDERSTAND ALL GENERAL NOTES AND FIGURES BEFORE PROCEEDING.
2. DETERMINE THE MAXIMUM DEMANDS ON THE EXISTING STRUCTURE FROM THE NEW UNIT FROM THE TABLE ON SHEETS S3 AND S4, AND VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE WITH THE ENGINEER OF RECORD FOR THE BUILDING.

SHEET LIST

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ALADDIN TEMP-RITE CONVECT-RITE III
MODELS CR3DS2, CR3DS0, CR3DS1
Title: GENERAL NOTES

Sheet Number: S1

Drawn:	ASM	Job number:	C0753014.00
Design:	ASM	Rev:	
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Date	10/02/2020		

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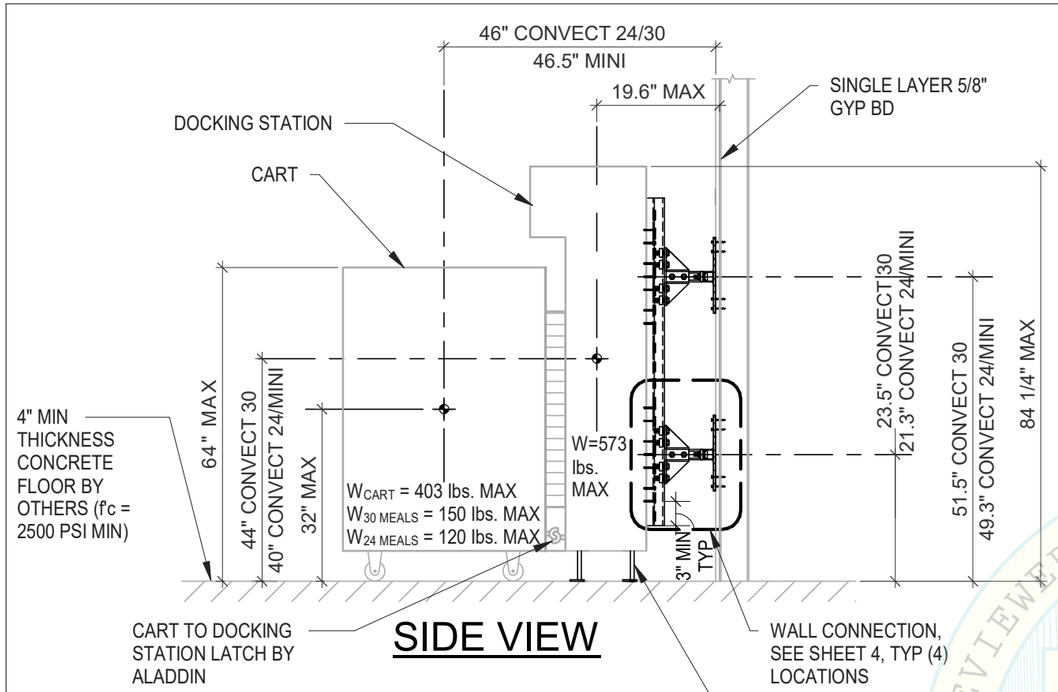
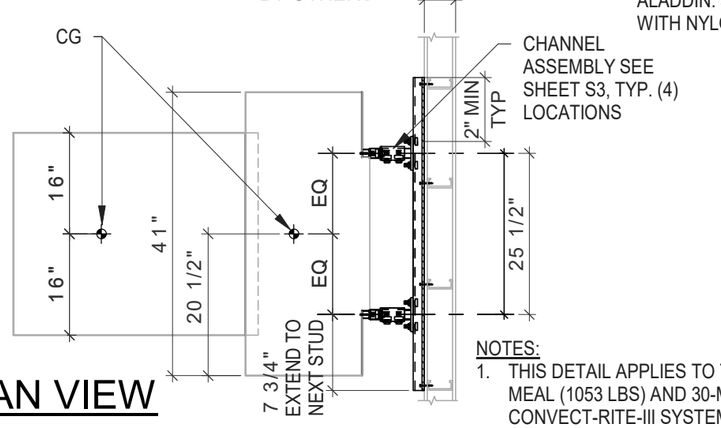


SIDE VIEW



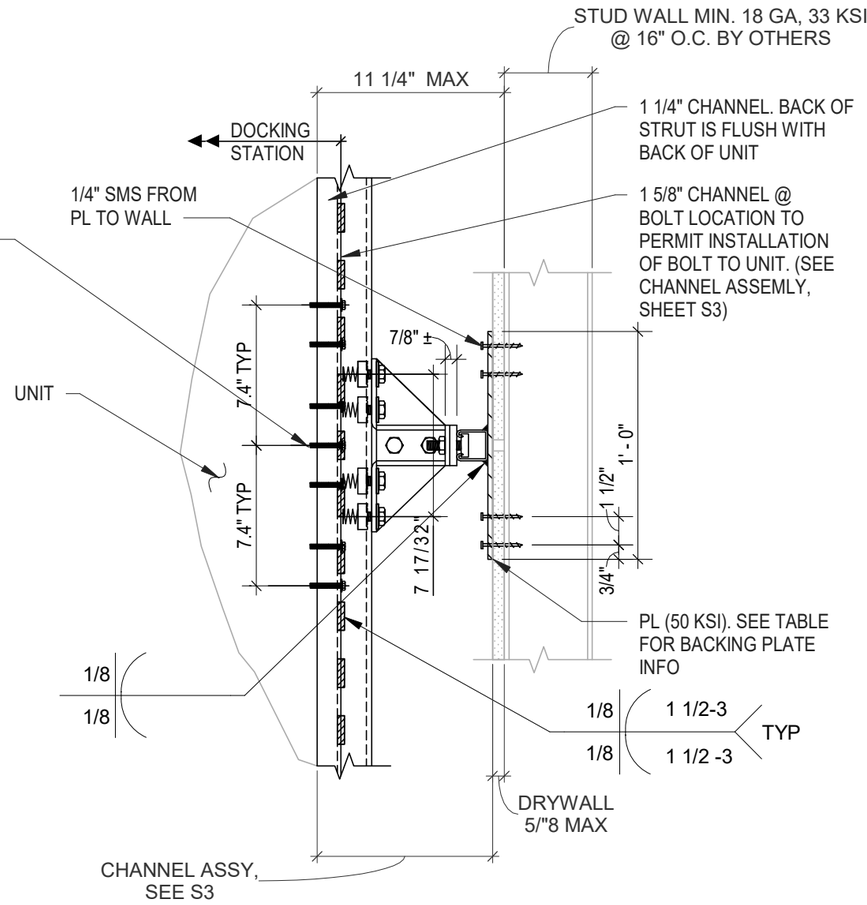
PLAN VIEW

NOTES:
1. THIS DETAIL APPLIES TO THE MINI, 24-MEAL (1053 LBS) AND 30-MEAL (1126 LBS) CONVECT-RITE-III SYSTEMS.

PROVIDE BOLT INTO ALL MFR SUPPLIED HOLES (7 TOTAL PER CONNECTION) CENTER ASSEMBLY ON MIDDLE BOLT T & B, EA SIDE. MFR FRAME 14 GAUGE 304 SS MIN

BACKING PLATE OPTIONS		
	MAX DESIGN VALUES FOR USE OF 12 GA SS PL (50 KSI). SEE NOTE 1	
	CONVECT 24/MINI	CONVECT 30
INSTALLATION LOCATION (z/h)	S_{DS} MAX	S_{DS} MAX
0: FLOORS AT OR BELOW BASE	0.77	0.67
0.25	0.55	0.48
0.50	0.41	0.43
0.75	0.33	0.27
1.00	0.27	0.23

TABLE NOTES:
1. FOR S_{DS} VALUES ABOVE THE MAXIMUM VALUES SHOWN ABOVE, USE 1/4" SS PL (50 KSI)
2. SEE SHEET 1 FOR GENERAL NOTES.



NOTES:
1. WELD UNISTRUTS TOGETHER PRIOR TO INSTALLATION TO UNIT.

WALL CONNECTION

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ALADDIN TEMP-RITE CONVECT-RITE III
MODELS CR3DS2, CR3DS0, CR3DS1
Title:
CONNECTION DETAILS

Sheet Number: S2

Drawn:	ASM	Job number:	C0753014.00
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Date	10/02/2020		

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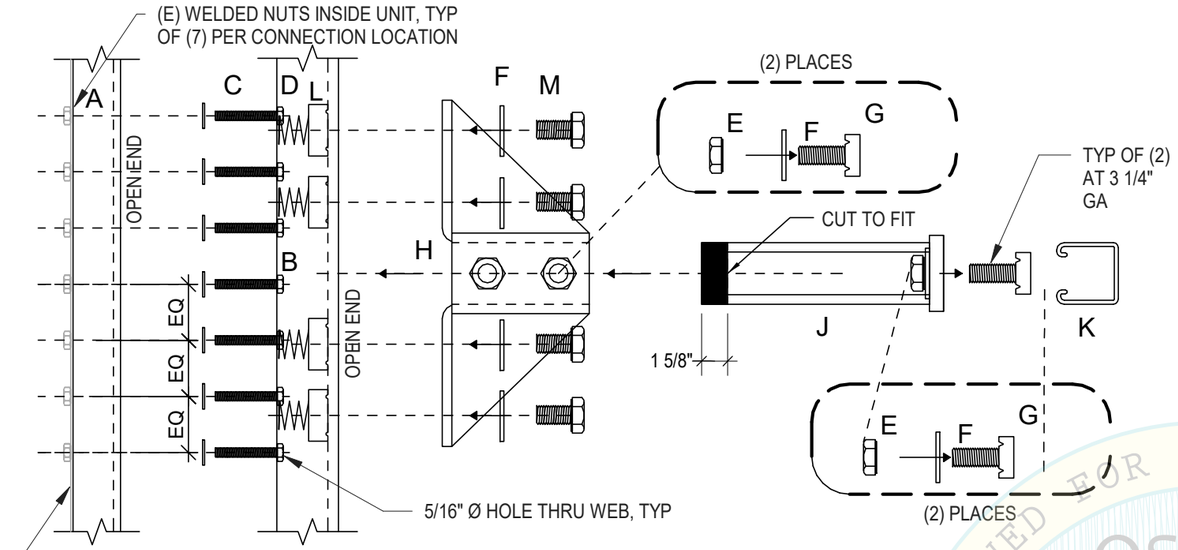
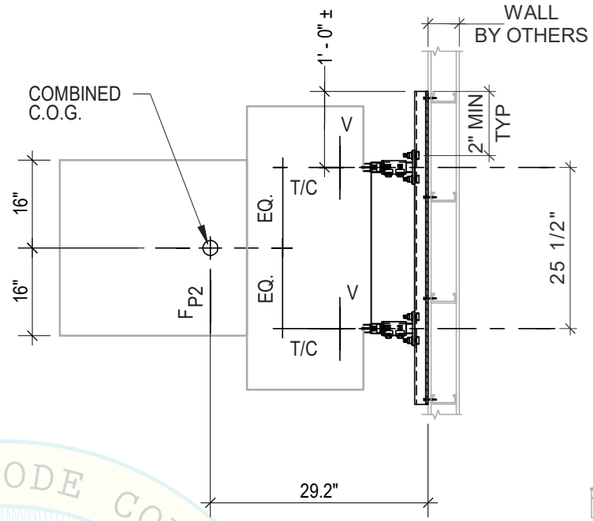
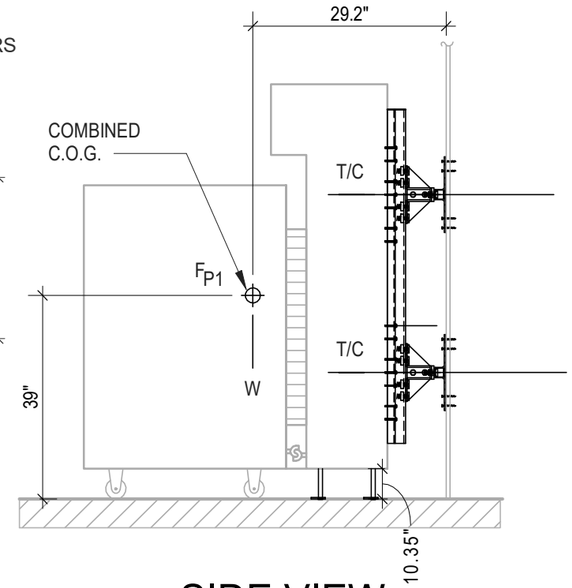


CHANNEL ASSEMBLY



PLAN VIEW



SIDE VIEW

PARTS LIST

A. 1 1/4" CHANNEL CONTINUOUS FULL HEIGHT OF UNIT.
B. 1/4"-20 STAINLESS STEEL BOLT INTO (E) UNIT WELD NUTS. (7) PER CONNECTION LOCATION. SEE NOTE 2.
C. 1/4" S.S. FLAT WASHER. (1) PER STAINLESS STEEL BOLT.
D. 1 5/8" CHANNEL CONTINUOUS ALONG AND CENTERED ON 'A' WITH FLARE BEVEL WELD CONNECTION PER S2.
E. STANDARD HEX NUT OR BREAK-OFF NUT (MW-BON-1/2)
F. 1/2" S.S. FLAT WASHER. ASME B18.21.1-2009
G. 1/2"- MW-SSN-1/2 STRUT BOLT.
H. UNISTRUT FITTING #P2348.
J. UNISTRUT FITTING #P2944 CUT AS SHOWN.
K. 1 5/8" CHANNEL ALONG WALL WELDED TO PL PER S2.
L. B-LINE N200 SERIES SPRING NUT. SEE NOTE 3 BELOW, & NOTE V.I ON SHEET S1
M. 1/2"-20 STAINLESS STEEL HEX HEAD BOLT INTO SPRING NUT. SEE NOTE 3.

SHEET NOTES:

1. NO PARTS SUPPLIED BY ALADDIN.
2. B CONNECTS 1 5/8" CHANNEL TO 1 1/4" CHANNEL AND MFR FRAME 14 GAUGE 304 SS MIN
3. ASSEMBLY L-F-M AND E-F-G CAN BE INTERCHANGEABLE.

INSTALLATION LOCATION (z/h)	CONVECT 24/MINI			CONVECT 30		
	F_{P1}, F_{P2} (lbs.)	CONNECTION FORCES (lbs.)		F_{P1}, F_{P2} (lbs.)	CONNECTION FORCES (lbs.)	
		T/C	V		T/C	V
0: FLOORS AT OR BELOW BASE	885	248	294	946	322	345
> 0: FLOORS ABOVE BASE	1278	392	424	1182	403	431

TABLE NOTES:

1. Fp FORCES ARE FOR ALLOWABLE STRESS DESIGN.
2. SEE SHEET 1 FOR GENERAL NOTES.

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MODELS CR3DS2, CR3DS0, CR3DS1
Title: CONNECTION DETAILS

Drawn: ASM | Job number: C0753014.00
Design: Designer | Rev:
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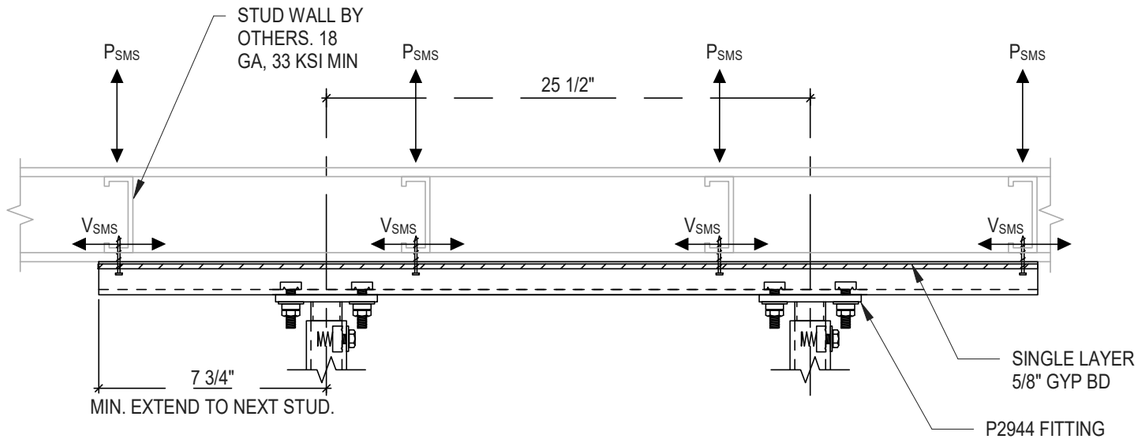
Date 10/02/2020

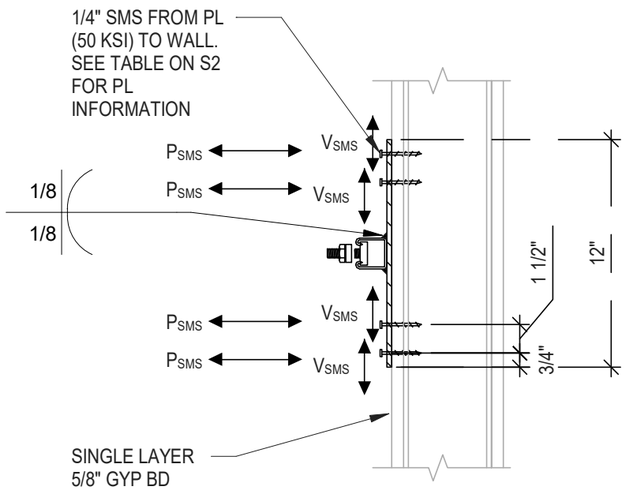
Sheet Number: S3
OF Sheets



PLAN VIEW

WALL SUBSTRATE	ANCHOR	MIN EDGE DISTANCE	MIN END DISTANCE	MIN SPACING	NOTES / REFERENCE
2500 PSI MIN NWC OR SAND LIGHT WEIGHT CONCRETE. MIN 8" THICK	1/2"Øx3 1/4" EFFECTIVE EMBED HILTI SS KBTZ	7.5"	N/A	3.25"	INSTALLED IN ACCORDANCE WITH ICC ESR-1917 SEE S5
SOLID GROUT CMU	1/2"Øx3 1/2" EMBED HILTI KB3. SEE NOTE 1.	4"	N/A	ONE PER CELL, 8" O.C.	INSTALLED IN ACCORDANCE WITH ICC ESR-1385 SEE S5
WOOD STUDS	SAME AS METAL STUD WALL W/ SIMPSON SDWH19600DB SCREWS	1"	4"	3"	INSTALLED IN ACCORDANCE WITH IAPMO ER-192 . SEE NOTE 2

NOTE:
1. THE USE OF HILTI KWIK BOLT 3 MASONRY ANCHORS SHALL SATISFY ICC-ES ESR 1385 §5.0 "CONDITIONS OF USE", AND THE RDP SHALL SUBMIT CALCULATIONS DEMONSTRATING THE FOLLOWING:
   A. THE MASONRY WALL IS NOT CRACKED AS DEFINED IN ICC-ES AC01 §2.3
   B. THE MASONRY WALL WILL NOT CRACK UNDER THE DESIGN EARTHQUAKE LOADS UNDER ALL SERVICE LOAD CONDITIONS. i.e. THE WALL REMAINS ELASTIC
2. WOOD STUDS MUST BE SOLID-SAWN LUMBER OR ENGINEERED WOOD WITH 0.50 MIN SPECIFIC GRAVITY. ENGINEERED WOOD MUST HAVE 0.8E MIN MODULUS OF ELASTICITY FOR LATERAL LOADING AND 1.55E MIN FOR WITHDRAWAL LOADING PER IAPMO ER-192. APPLICABILITY LIMITED TO LOCATIONS WHERE A MAXIMUM OF (2) LAYERS OF GYPSUM BOARD ARE PRESENT PER ICC-ES AC233.



WALL CONNECTION

NOTE:
1. SMS FORCES ARE FOR ALLOWABLE STRESS DESIGN.
2. SEE SHEET 1 FOR GENERAL NOTES.
3. P_{SMS} IS APPLIED TO THE PLAN LEFT AND RIGHT CONNECTION POINT WITH OPPOSITE SIGN.

INSTALLATION LOCATION (z/h)	CONVECT 24/MINI SCREW FORCES (lbs.)		CONVECT 30 SCREW FORCES (lbs.)	
	P_{SMS}	V_{SMS}	P_{SMS}	V_{SMS}
0 (GROUND FLOOR OR BELOW) to 0.50	105	46	96	44
> 0.50: ALL LOCATIONS ABOVE z/h = 0.50	110	50	104	50

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Sheet Number
S4
OF Sheets

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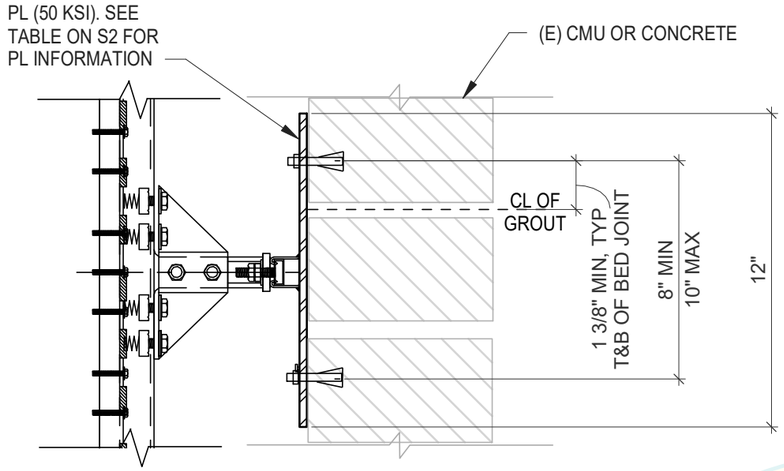
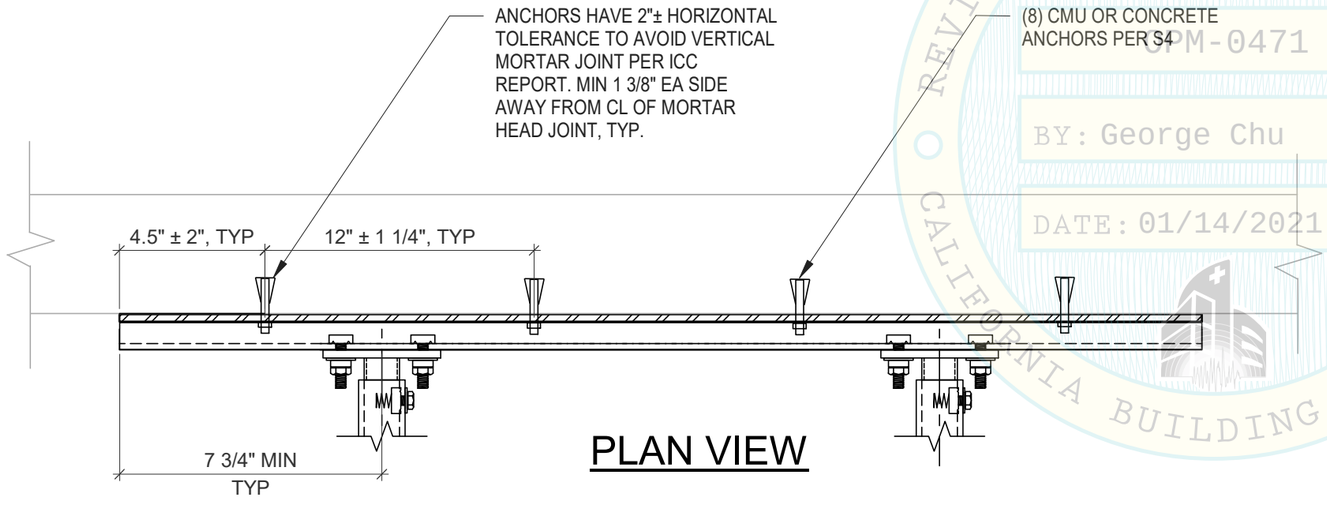


WALL CONNECTION

INSTALLATION LOCATION (z/h)	CONVECT 24/MINI BOLT FORCES (lbs.)		CONVECT 30 BOLT FORCES (lbs.)	
	P_{BOL}	V_{BOL}	P_{BOL}	V_{BOL}
0 (GROUND FLOOR OR BELOW) TO 0.50	210	138	192	88
> 0.50: ALL LOCATIONS ABOVE z/h = 0.50	220	100	208	100

NOTE:
1. BOLT FORCES ARE FOR ALLOWABLE STRESS DESIGN.
2. SEE SHEET 1 FOR GENERAL NOTES.
3. P_{BOL} IS APPLIED TO THE LEFT AND RIGHT CONNECTION POINT WITH OPPOSITE SIGN.



PLAN VIEW

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MODELS CR3DS2, CR3DS0, CR3DS1
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Sheet Number
S5

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