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

OFFICE USE ONLY

APPLICATION #: OPM-0566

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: [X] New [ ] Renewal/Update

Manufacturer Information

Manufacturer: Kimball International

Manufacturer's Technical Representative: R E

Mailing Address: 1600 Royal St, Jasper, IN 47546

Telephone: (812) 482-8308 Email: ricardo.espinosa@kimball.com

Product Information

Product Name: Kimball Office Spaces

Product Type: Modular panel system with worksurfaces

Product Model Number: XSITE, NARRATE, CETRA & IWEQ

General Description: Modular panel system with worksurfaces

Applicant Information

Applicant Company Name: Kimball International

Contact Person: Jared Myrick

Mailing Address: 1600 Royal Street, Jasper, IN 47546

Telephone: (812) 481-6367 Email: jared.myrick@kimball.com

Title: Product Life Cycle Engineer

Registered Design Professonal Preparing Engineering Recommendations

Company Name: ZFA STRUCTURAL ENGINEERS

Name: Mark Moore California License Number: S4443

Mailing Address: 100 Bush Street, Suite 1850, San Francisco, CA 94104

Telephone: (415) 243-4091 Email: markm@zfa.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: 2/10/2021

Name: Haeseong Lim Title: Senior Structural Engineer

Condition of Approval (if applicable):

TABLE OF CONTENTS

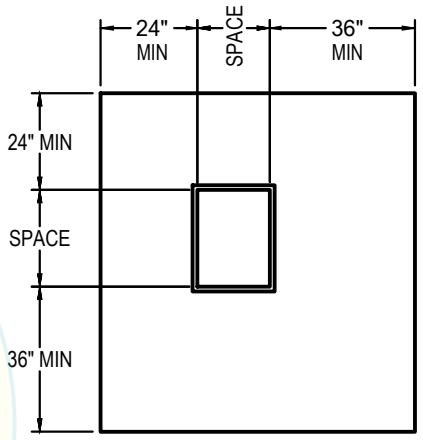
GENERAL NOTES

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. EXPANSION ANCHORS:
   a. ATTACHMENT IS TO BE WITH THE ANCHORS LISTED BELOW AND INSTALLED IN ACCORDANCE WITH THE CORRESPONDING ICC REPORT.
   b. THIS PRE-APPROVAL ALLOWS FOR UP TO A MAXIMUM OF 2 ADJACENT CONCRETE EDGES. SEE DETAIL 1 FOR MINIMUM ALLOWABLE CONCRETE EDGE DISTANCES.

ANCHOR TYPE: HILTI KWIK BOLT TZ ICC REPORT: ESR 1917 MIN f'c: 3000 psi.

Anchor Diameter	Min. Embed	Min. Spacing	Min. Edge Dist.	Min. Conc. Thickness	Installation Torque	Test Loads Tension/Direct Pull	Test Loads Torque
3/8"	2	10"	24"	SEE SHEET 13	25 FT-LB	-	25 FT-LB
1/2"	2"	4.5"	24"	6"	40 FT-LB	1,450 Lb.	40 FT-LB



DETAIL 1 – TYPICAL CONCRETE EDGE

3. TESTING AND SPECIAL INSPECTION OF POST-INSTALLED ANCHORS SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY EMPLOYED BY THE FACILITY OWNER PER CBC 1704A & 1910A.5 AND CAC 7-149. ALL REPORTS SHALL BE SENT TO THE INSPECTOR OF RECORD, OWNER AND THE ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE.

   a. AFTER AT LEAST 24 HOURS HAVE ELAPSED SINCE INSTALLATION, TORQUE OR DIRECT PULL TEST AT LEAST 50% OF THE ANCHORS.

   b. ACCEPTANCE CRITERIA:
      TORQUE TEST: FOR WEDGE TYPE ANCHORS, THE APPLICABLE TORQUE MUST BE ACHIEVED WITHIN A 1/2 TURN OF THE NUT.
      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.

   c. IF ANY ANCHOR FAILS, TEST ALL ANCHORS

4. FORCES PER ASCE 7-16 SECTION 13.3.1, WHERE: S_{DS} = 2.0, a_p = 1.0, I_p = 1.5, R_p = 2.5
   z/h = 0, AT CONCRETE SLAB ON GRADE z/h ≤ 1.0, AT CONCRETE ON METAL DECK.

5. BOLTS THROUGH CONCRETE ON METAL DECK

   a. BOLTS SHALL BE TORQUED BY 3/4 TURN OF THE NUTS AFTER SNUG TIGHT (THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQURIED TO BRING THE CONNECTED PLIES INTO FIRM CONTACT) CONDTION 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 AN TESTING (THROUGH BOLTS WITH STEEL TO STEEL CONNECTION IN TENSION DO NOT REQUIRE TENSION TESTING) IN ACCORDANCE WITH REQUIREMENT FOR POST-INSTALLED ANCHORS.

GENERAL NOTES (CONTINUED)

6. THE DETAILS IN THIS PRE-APPROVAL MAY BE USED AT ANY LOCATION IN THE STATE OF CALIFORNIA, WHERE S_{DS} IS NOT GREATER THAN 2.0.
7. ALL ANCHOR FORCES SHOWN ON THE DRAWINGS ARE FACTORED LOADS THAT SHALL BE USED FOR STRENGTH DESIGN.
8. THIS PRE-APPROVAL COVERS THE SUPPORTS AND ATTACHMENTS OF THE UNIT TO THE STRUCTURE. SEE SHEETS 12 AND 13 FOR ATTACHMENT DETAILS.

RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD OF THE BUILDING

9. VERIFY THE ADEQUACY OF THE STRUCTURES (SUCH AS FLOORS) WHICH SUPPORT THE UNITS FOR THE LOADS IMPOSED ON THEM BY THE UNITS AS WELL AS ALL OTHER LOADS.
10. PROVIDE SUPPORTING STRUCTURE REQUIRED TO SUPPORT WEIGHTS AND FORCES SHOWN, IN ADDITION TO ALL OTHER LOADS.
11. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2019 CBC AND WITH THE DETAILS SHOWN IN THIS PRE-APPROVAL. 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 IN THE PRE-APPROVAL DOCUMENTS
12. 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.
13. 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 UNITS ANCHORS.

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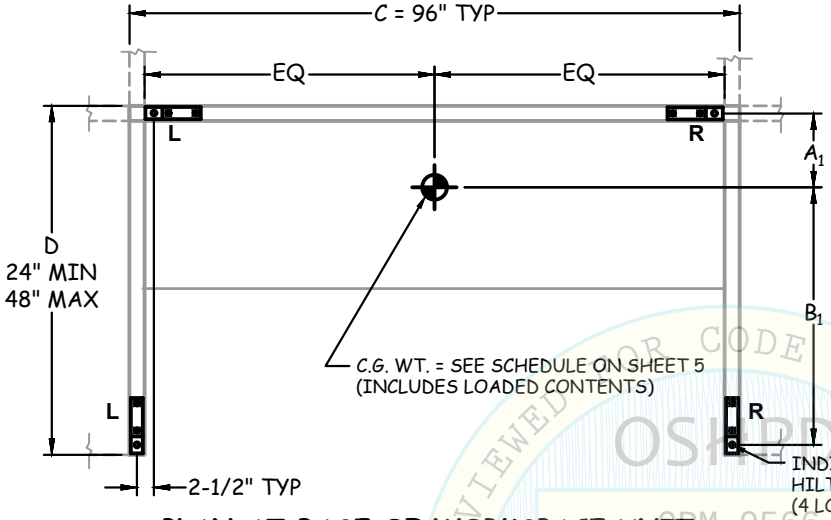
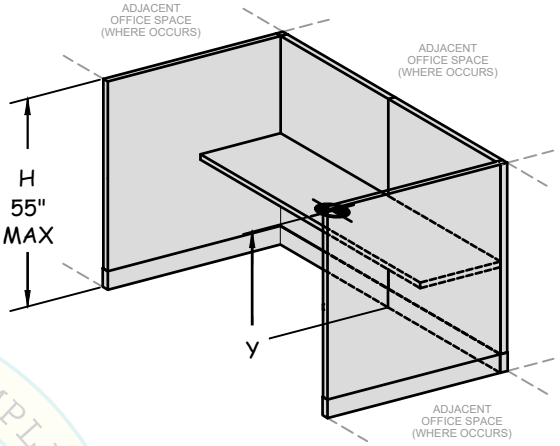
Equipment Type:
XSITE, NARRATE, CETRA & IWEQ OFFICE SPACES

TYPICAL LAYOUT 1



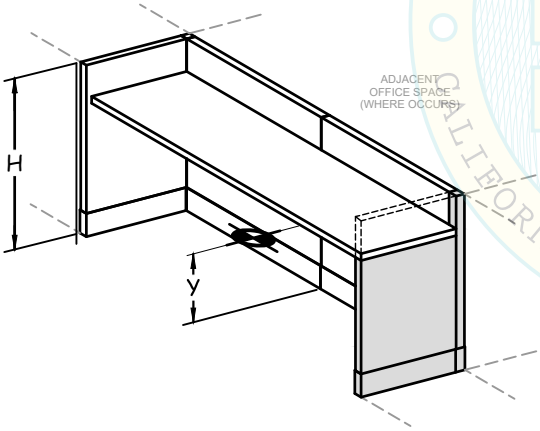


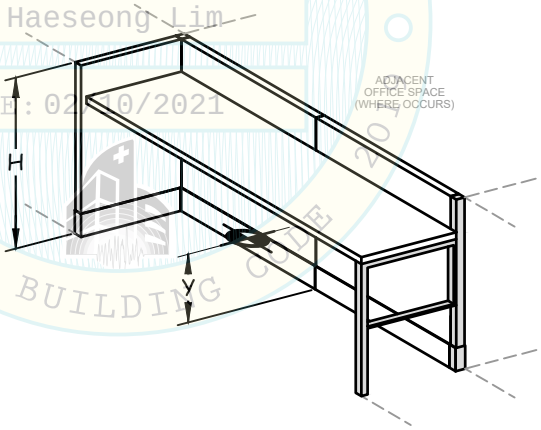
INDICATES SEISMIC ATTACHMENT:
HILTI EXPANSION ANCHORS (OR) THREADED RODS
(4 LOCATIONS TOTAL)

SEE SCHEDULE ON SHEET 5 FOR ANCHOR/ROD Ø AND
SHEET 12 AND 13 FOR ANCHOR BRACKET DETAILS.
ALL BRACKETS ARE PRE-MANUFACTURED BY KIMBALL.

PLAN AT BASE OF WORKSPACE UNIT

BRACKET QTY: (2) L - LEFT OPENING
(2) R - RIGHT OPENING





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Signature: RICARDO ESPINOSA
Print Name: Ricardo Espinosa
Title: R&D Engineering Mgr.
Date: 01/14/2019

UNIT STYLE 1: WITH PANEL

UNIT STYLE 2: WITH LEG

NOTES:

1. FORCES ARE DETERMINED PER CBC 2019 AND ASCE 7-16 WITH SDS = 2.00, ap = 1.0, Ip = 1.5, Rp = 2.5
   HORIZONTAL FORCE (Eh) AT SLAB ON GRADE (z/h = 0) = 0.90 Wp (LRFD).
   HORIZONTAL FORCE (Eh) AT ALL OTHER LEVELS (z/h ≤ 1) = 1.44 Wp (LRFD).
   VERTICAL FORCE (Ev) AT ALL LEVELS = 0.40 Wp (LRFD).
2. THE WORKSPACE UNIT MAY BE STANDALONE OR CONFIGURED WITH ADJACENT WORKSPACE UNITS. SEE APPENDIX A FOR EXAMPLES OF POSSIBLE LAYOUT CONFIGURATIONS. EACH WORKSPACE UNIT SHALL HAVE ITS OWN ANCHORING SYSTEM.
3. OUTLINES SHOWN IN THE DETAILS ABOVE ARE GENERIC. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM SHOWN ON SHEET 5 AND INCLUDES THE SELF WEIGHT OF THE WORKSPACE UNIT AND ALL COMPONENTS, PLUS LOADED CONTENTS.
4. THE EQUIP. MANUFACTURER MUST DESIGN THE WORKSPACE UNIT TO ENSURE THE C.G. HEIGHT ≤ THE C.G. HEIGHT DIMENSION SHOWN IN THE ELEVATION VIEWS.
5. SEE SHEET 2 FOR GENERAL NOTES AND EXPANSION ANCHOR INSTALLATION INSTRUCTIONS.

REGISTERED PROFESSIONAL ENGINEER
MARK A. MOORE
STRUCTURAL
No. 4443
STATE OF CALIFORNIA

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Equipment Type:
XSITE, NARRATE, CETRA & IWEQ OFFICE SPACES

LAYOUT 1 - ANCHOR DEMAND FORCE SCHEDULE

							ANCHOR FOR BRACKET (SEE SHEET 11)								
							SLAB ON GRADE (MIN CONCRETE THICKNESS = 6")					CONCRETE ON METAL DECK			
H (in)	Y (in)	WT (lb)	D (in)	C (in)	A_1 (in)	B_1 (in)	$\Omega_o T_u$ (lb)	$\Omega_o V_u$ (lb)	Anchor Type	Anchor Ø	Min Embed (h_{ef})	T_u (lb)	$\Omega_o V_u$ (lb)	Anchor Type	Rod Ø
30.0	16.0	305	24	96	11	13	176	495	HILTI KB-TZ	1/2"	2"	170	792	ALL THREAD ROD	1/2"
42.5	18.0	351	24	96	11	14	248	563				231	900		
49.5	19.5	377	24	96	10	14	301	601				274	962		
54.5	20.7	397	24	96	10	14	345	630				311	1008		
30.0	15.9	335	48	96	12	36	91	490	HILTI KB-TZ	1/2"	2"	91	784	ALL THREAD ROD	1/2"
42.5	18.3	393	48	96	12	36	134	575				128	921		
49.5	20.1	425	48	96	12	36	166	623				156	997		
54.5	21.4	451	48	96	12	36	194	660				179	1057		

NOTES:

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   HORIZONTAL FORCE (Eh) AT SLAB ON GRADE (z/h = 0) = 0.90 Wp (LRFD).
   HORIZONTAL FORCE (Eh) AT ALL OTHER LEVELS (z/h ≤ 1.0) = 1.44 Wp (LRFD).
   VERTICAL FORCE (Ev) AT ALL LEVELS = 0.40 Wp (LRFD).
2. SEE SHEET 2 FOR GENERAL NOTES AND EXPANSION ANCHOR INSTALLATION INSTRUCTIONS.
3. OUTLINES SHOWN IN THE DETAILS ON SHEET 4 ARE GENERIC. THE CENTER OF GRAVITY WEIGHTS SHOWN IN THE SCHEDULE ARE A MAXIMUM AND INCLUDE THE SELF WEIGHT OF THE WORKSPACE UNIT AND ALL COMPONENTS, PLUS LOADED CONTENTS. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
4. THE EQUIPMENT MANUFACTURER MUST DESIGN THE WORKSPACE UNIT TO ENSURE THE C.G. HEIGHT ≤ THE C.G HEIGHT DIMENSION SPECIFIED IN THE SCHEDULE.
5. WORKSPACE UNIT MAY BE STANDALONE OR CONFIGURED WITH ADJACENT WORKSPACE UNITS. SEE APPENDIX A FOR EXAMPLES OF POSSIBLE LAYOUT CONFIGURATIONS. EACH WORKSPACE SHALL HAVE ITS OWN ANCHORING SYSTEM.
6. THE STRUCTURAL ENGINEER OF RECORD SHALL PROVIDE STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN.

Kimball International certifies this document as an outline drawing.
Signature: Ricardo Espinosa
Print Name: Ricardo Espinosa
Title: R&D Engineering Mgr.
Date: 01/14/2019

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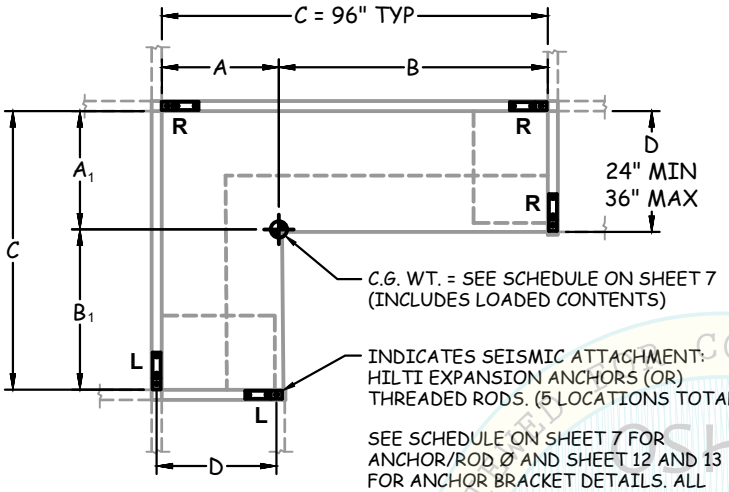
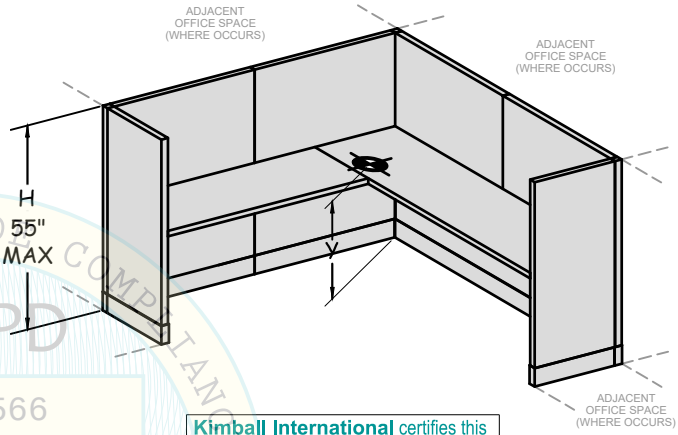
TYPICAL LAYOUT 2





PLAN AT BASE OF WORKSPACE UNIT

BRACKET QTY: (2) L - LEFT OPENING
(3) R - RIGHT OPENING

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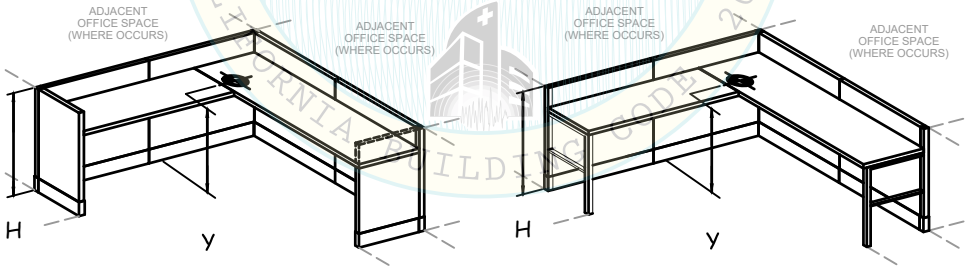

UNIT STYLE 1: WITH PANEL **UNIT STYLE 2: WITH LEG**

NOTES:

1. FORCES ARE DETERMINED PER CBC 2019 AND ASCE 7-16 WITH SDS = 2.00, ap = 1.0, Ip = 1.5, Rp = 2.5
   HORIZONTAL FORCE (Eh) AT SLAB ON GRADE (z/h = 0) = 0.90 Wp (LRFD).
   HORIZONTAL FORCE (Eh) AT ALL OTHER LEVELS (z/h ≤ 1) = 1.44 Wp (LRFD).
   VERTICAL FORCE (Ev) AT ALL LEVELS = 0.40 Wp (LRFD).
2. THE WORKSPACE UNIT MAY BE STANDALONE OR CONFIGURED WITH ADJACENT WORKSPACE UNITS. SEE APPENDIX A FOR EXAMPLES OF POSSIBLE LAYOUT CONFIGURATIONS. EACH WORKSPACE UNIT SHALL HAVE ITS OWN ANCHORING SYSTEM.
3. OUTLINES SHOWN IN THE DETAILS ABOVE ARE GENERIC. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM SHOWN ON SHEET 7 AND INCLUDES THE SELF WEIGHT OF THE WORKSPACE UNIT AND ALL COMPONENTS, PLUS LOADED CONTENTS.
4. THE EQUIP. MANUFACTURER MUST DESIGN THE WORKSPACE UNIT TO ENSURE THE C.G. HEIGHT ≤ THE C.G. HEIGHT DIMENSION SHOWN IN THE ELEVATION VIEWS.
5. SEE SHEET 2 FOR GENERAL NOTES AND EXPANSION ANCHOR INSTALLATION INSTRUCTIONS.

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Equipment Type:
XSITE, NARRATE, CETRA & IWEQ OFFICE SPACES

LAYOUT 2 - ANCHOR DEMAND FORCE SCHEDULE

									ANCHOR FOR BRACKET (SEE SHEET 11)								
									SLAB ON GRADE (MIN CONCRETE THICKNESS = 6")					CONCRETE ON METAL DECK			
H (in)	Y (in)	WT (lb)	D (in)	C (in)	A (in)	B (in)	A_1 (in)	B_1 (in)	$\Omega_o T_u$ (lb)	$\Omega_o V_u$ (lb)	Anchor Type	Anchor Ø	Min Embed (h_{ef})	T_u (lb)	$\Omega_o V_u$ (lb)	Anchor Type	Rod Ø
30	16.0	510	24	96	39.8	56.2	34.9	61.1	188	699	1/2"	HILTI KB-TZ	2"	194	1119	ALL THREAD ROD	1/2"
42.5	18.0	584	24	96	38.6	57.4	33.7	62.3	250	786	1/2"			250	1258		
49.5	19.5	625	24	96	37.9	58.1	33.1	62.9	298	836	1/2"			291	1337		
54.5	20.7	657	24	96	37.6	58.4	32.7	63.3	338	874	1/2"			326	1398		
30	16.0	538	36	96	42.4	53.6	37.5	58.5	104	762	1/2"	HILTI KB-TZ	2"	128	1220	ALL THREAD ROD	1/2"
42.5	18.0	612	36	96	41.0	55.0	36.2	59.8	145	853	1/2"			168	1365		
49.5	19.5	653	36	96	40.4	55.6	35.6	60.4	178	903	1/2"			198	1445		
54.5	20.7	685	36	96	40.0	56.0	35.2	60.8	206	942	1/2"			223	1508		
30	16.0	382	48	96	56.5	39.5	50.0	46.0	70	625	1/2"	HILTI KB-TZ	2"	88	1000	ALL THREAD ROD	1/2"
42.5	18.0	496	48	96	54.7	41.3	48.2	47.8	113	796	1/2"			132	1273		
49.5	19.5	562	48	96	53.9	42.1	47.4	48.6	147	893	1/2"			165	1429		
54.5	20.7	604	48	96	53.3	42.7	46.9	49.1	175	955	1/2"			191	1527		

NOTES:

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2. SEE SHEET 2 FOR GENERAL NOTES AND EXPANSION ANCHOR INSTALLATION INSTRUCTIONS.
3. THE CENTER OF GRAVITY WEIGHTS SHOWN IN THE SCHEDULE ARE A MAXIMUM AND INCLUDE THE SELF WEIGHT OF THE WORKSPACE UNIT AND ALL COMPONENTS, PLUS LOADED CONTENTS. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
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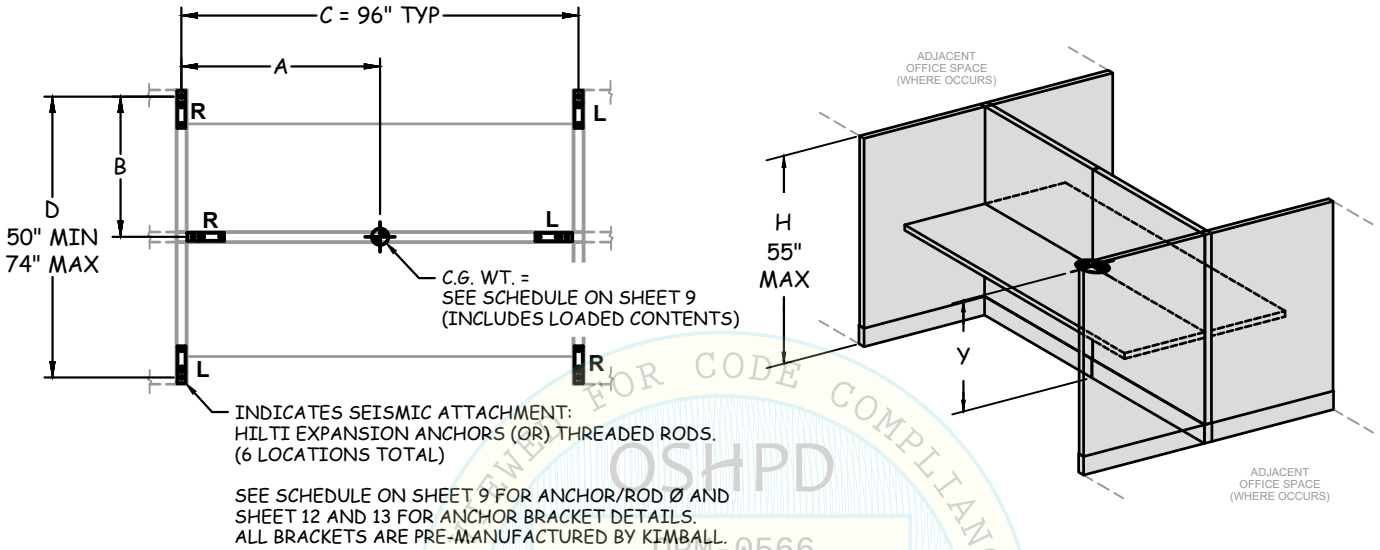
5. WORKSPACE UNIT MAY BE STANDALONE OR CONFIGURED WITH ADJACENT WORKSPACE UNITS. SEE APPENDIX A FOR EXAMPLES OF POSSIBLE LAYOUT CONFIGURATIONS. EACH WORKSPACE SHALL HAVE ITS OWN ANCHORING SYSTEM.
6. THE STRUCTURAL ENGINEER OF RECORD SHALL PROVIDE STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN.

Kimball International certifies this document as an outline drawing.
Signature: R&D ESPINOSA
Print Name: Ricardo Espinosa
Title: R&D Engineering Mgr.
Date: 01/14/2019

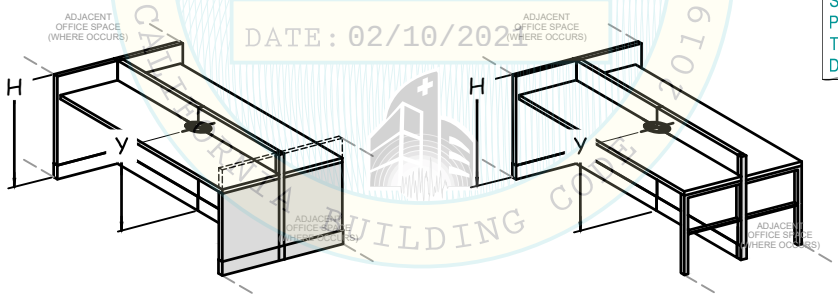
REGISTERED PROFESSIONAL ENGINEER
MARK A. MOORE
STRUCTURAL
No. 4443
STATE OF CALIFORNIA

TYPICAL LAYOUT 3



PLAN AT BASE OF WORKSPACE UNIT

BRACKET QTY: (3) L - LEFT OPENING
(3) R - RIGHT OPENING



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Print Name: Ricardo Espinosa
Title: R&D Engineering Mgr.
Date: 01/14/2019

UNIT STYLE 1: WITH PANEL **UNIT STYLE 2: WITH LEG**

NOTES:

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3. OUTLINES SHOWN IN THE DETAILS ABOVE ARE GENERIC. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM SHOWN ON SHEET 9 AND INCLUDES THE SELF WEIGHT OF THE WORKSPACE UNIT AND ALL COMPONENTS, PLUS LOADED CONTENTS.
4. THE EQUIP. MANUFACTURER MUST DESIGN THE WORKSPACE UNIT TO ENSURE THE C.G. HEIGHT ≤ THE C.G. HEIGHT DIMENSION SHOWN IN THE ELEVATION VIEWS.
5. SEE SHEET 2 FOR GENERAL NOTES AND EXPANSION ANCHOR INSTALLATION INSTRUCTIONS.

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Equipment Type:
XSITE, NARRATE, CETRA & IWEQ OFFICE SPACES

LAYOUT 3 - ANCHOR DEMAND FORCE SCHEDULE

							ANCHOR FOR BRACKET (SEE SHEET 11)								
							SLAB ON GRADE (MIN CONCRETE THICKNESS = 6")					CONCRETE ON METAL DECK			
H (in)	Y (in)	WT (lb)	D (in)	C (in)	A (in)	B (in)	$\Omega_o T_u$ (lb)	$\Omega_o V_u$ (lb)	Anchor Type	Anchor Ø	Min Embed (h_{ef})	T_u (lb)	$\Omega_o V_u$ (lb)	Anchor Type	Rod Ø
30.0	16.0	340	50	96	48	25	79	281	HILTI KB-TZ	1/2"	2"	87	449	ALL THREAD ROD	1/2"
42.5	18.0	387	50	96	48	25	113	319				118	511		
49.5	19.5	413	50	96	48	25	139	341				141	545		
54.5	20.7	433	50	96	48	25	160	354				158	567		
30.0	16.0	326	74	96	48	37	33	269	HILTI KB-TZ	1/2"	2"	50	430	ALL THREAD ROD	1/2"
42.5	18.0	373	74	96	48	37	54	307				70	492		
49.5	19.5	401	74	96	48	37	71	331				85	530		
54.5	20.7	420	74	96	48	37	85	347				98	555		

NOTES:

1. FORCES ARE DETERMINED PER CBC 2019 AND ASCE 7-16 WITH SDS = 2.00, ap = 1.0, Ip = 1.5, AND Rp = 2.5. OVERSTRENGTH AMPLIFICATION Ωo =2.0 SHALL APPLY TO ANCHOR DEMAND FORCES PER 2019 CBC 1617A.1.23.
   HORIZONTAL FORCE (Eh) AT SLAB ON GRADE (z/h = 0) = 0.90 Wp (LRFD).
   HORIZONTAL FORCE (Eh) AT ALL OTHER LEVELS (z/h ≤ 1.0) = 1.44 Wp (LRFD).
   VERTICAL FORCE (Ev) AT ALL LEVELS = 0.40 Wp (LRFD).
2. SEE SHEET 2 FOR GENERAL NOTES AND EXPANSION ANCHOR INSTALLATION INSTRUCTIONS.
3. THE CENTER OF GRAVITY WEIGHTS SHOWN IN THE SCHEDULE ARE A MAXIMUM AND INCLUDE THE SELF WEIGHT OF THE WORKSPACE UNIT AND ALL COMPONENTS, PLUS LOADED CONTENTS. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
4. THE EQUIPMENT MANUFACTURER MUST DESIGN THE WORKSPACE UNIT TO ENSURE THE C.G. HEIGHT ≤ THE C.G HEIGHT DIMENSION SPECIFIED IN THE SCHEDULE.
5. WORKSPACE UNIT MAY BE STANDALONE OR CONFIGURED WITH ADJACENT WORKSPACE UNITS. SEE APPENDIX A FOR EXAMPLES OF POSSIBLE LAYOUT CONFIGURATIONS. EACH WORKSPACE SHALL HAVE ITS OWN ANCHORING SYSTEM.
6. THE STRUCTURAL ENGINEER OF RECORD SHALL PROVIDE STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN.

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Signature: RICARDO ESPINOSA
Print Name: Ricardo Espinosa
Title: R&D Engineering Mgr.
Date: 01/14/2019

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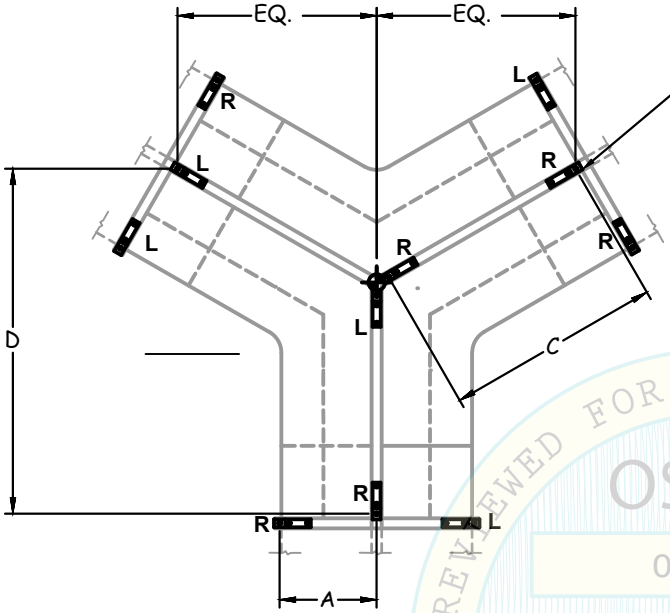
Job No. 34028
Date: Jan. 11, 2020

Equipment Type:
XSITE, NARRATE, CETRA & IWEQ OFFICE SPACES

TYPICAL LAYOUT 4



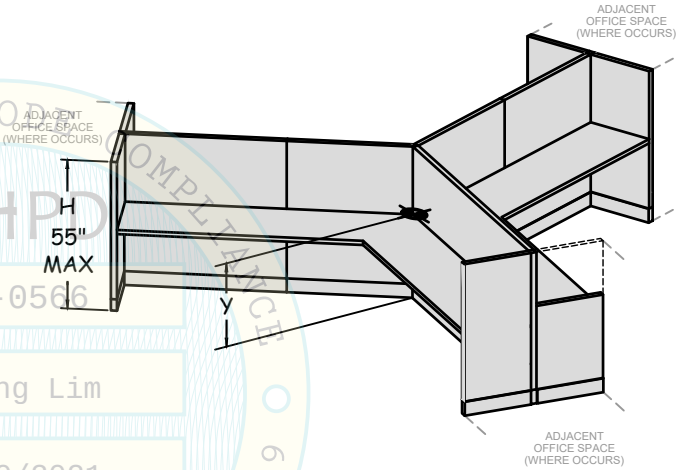
INDICATES SEISMIC ATTACHMENT:
HILTI EXPANSION ANCHORS (OR) THREADED RODS.
(11 LOCATIONS TOTAL)

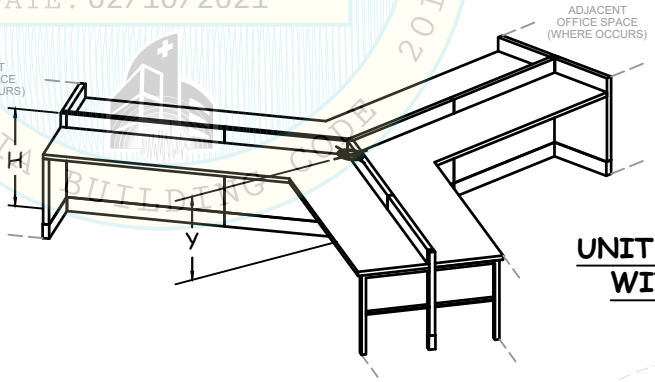
SEE SCHEDULE ON SHEET 11 FOR ANCHOR/ROD Ø AND SHEET 12 AND 13 FOR ANCHOR BRACKET DETAILS. ALL BRACKETS ARE PRE-MANUFACTURED BY KIMBALL.

PLAN AT BASE OF WORKSPACE UNIT

BRACKET QTY: (5) L - LEFT OPENING
(6) R - RIGHT OPENING

UNIT STYLE 1: WITH PANEL





UNIT STYLE 2: WITH LEG

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Print Name: Ricardo Espinosa
Title: R&D Engineering Mgr.
Date: 01/14/2019

NOTES:

1. FORCES ARE DETERMINED PER CBC 2019 AND ASCE 7-16 WITH SDS = 2.00, ap = 1.0, Ip = 1.5, Rp = 2.5
   HORIZONTAL FORCE (Eh) AT SLAB ON GRADE (z/h = 0) = 0.90 Wp (LRFD).
   HORIZONTAL FORCE (Eh) AT ALL OTHER LEVELS (z/h ≤ 1) = 1.44 Wp (LRFD).
   VERTICAL FORCE (Ev) AT ALL LEVELS = 0.40 Wp (LRFD).
2. THE WORKSPACE UNIT MAY BE STANDALONE OR CONFIGURED WITH ADJACENT WORKSPACE UNITS. SEE APPENDIX A FOR EXAMPLES OF POSSIBLE LAYOUT CONFIGURATIONS. EACH WORKSPACE UNIT SHALL HAVE ITS OWN ANCHORING SYSTEM.
3. OUTLINES SHOWN IN THE DETAILS ABOVE ARE GENERIC. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM SHOWN ON SHEET 11 AND INCLUDES THE SELF WEIGHT OF THE WORKSPACE UNIT AND ALL COMPONENTS, PLUS LOADED CONTENTS.
4. THE EQUIP. MANUFACTURER MUST DESIGN THE WORKSPACE UNIT TO ENSURE THE C.G. HEIGHT ≤ THE C.G. HEIGHT DIMENSION SHOWN IN THE ELEVATION VIEWS.
5. SEE SHEET 2 FOR GENERAL NOTES AND EXPANSION ANCHOR INSTALLATION INSTRUCTIONS.

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LAYOUT 4 - ANCHOR DEMAND FORCE SCHEDULE

						ANCHOR FOR BRACKET (SEE SHEET 11)								
						SLAB ON GRADE (MIN CONCRETE THICKNESS = 6")					CONCRETE ON METAL DECK			
H (in)	Y (in)	WT (lb)	D (in)	C (in)	A (in)	$\Omega_o T_u$ (lb)	$\Omega_o V_u$ (lb)	Anchor Type	Anchor Ø	Min Embed (h_{ef})	T_u (lb)	$\Omega_o V_u$ (lb)	Anchor Type	Rod Ø
30.0	16.0	1,407	143	96	24	218	596	HILTI KB-TZ	1/2"	2"	229	953	ALL THREAD ROD	1/2"
42.5	18.0	1,541	143	96	24	295	652				295	1044		
49.5	19.5	1,615	143	96	24	352	684				344	1094		
54.5	20.7	1,671	143	96	24	400	707				384	1132		
30.0	16.0	1,485	143	96	30	232	629	HILTI KB-TZ	1/2"	2"	242	1006	ALL THREAD ROD	1/2"
42.5	18.0	1,619	143	96	30	310	685				310	1097		
49.5	19.5	1,693	143	96	30	369	717				361	1147		
54.5	20.7	1,749	143	96	30	419	740				402	1185		

NOTES:

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   HORIZONTAL FORCE (Eh) AT SLAB ON GRADE (z/h = 0) = 0.90 Wp (LRFD).
   HORIZONTAL FORCE (Eh) AT ALL OTHER LEVELS (z/h ≤ 1.0) = 1.44 Wp (LRFD).
   VERTICAL FORCE (Ev) AT ALL LEVELS = 0.40 Wp (LRFD).
2. SEE SHEET 2 FOR GENERAL NOTES AND EXPANSION ANCHOR INSTALLATION INSTRUCTIONS.
3. THE CENTER OF GRAVITY WEIGHTS SHOWN IN THE SCHEDULE ARE A MAXIMUM AND INCLUDE THE SELF WEIGHT OF THE WORKSPACE UNIT AND ALL COMPONENTS, PLUS LOADED CONTENTS. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
4. THE EQUIPMENT MANUFACTURER MUST DESIGN THE WORKSPACE UNIT TO ENSURE THE C.G. HEIGHT ≤ THE C.G HEIGHT DIMENSION SPECIFIED IN THE SCHEDULE.
5. WORKSPACE UNIT MAY BE STANDALONE OR CONFIGURED WITH ADJACENT WORKSPACE UNITS. SEE APPENDIX A FOR EXAMPLES OF POSSIBLE LAYOUT CONFIGURATIONS. EACH WORKSPACE SHALL HAVE ITS OWN ANCHORING SYSTEM.
6. THE STRUCTURAL ENGINEER OF RECORD SHALL PROVIDE STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN.

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Print Name: Ricardo Espinosa
Title: R&D Engineering Mgr.
Date: 01/14/2019

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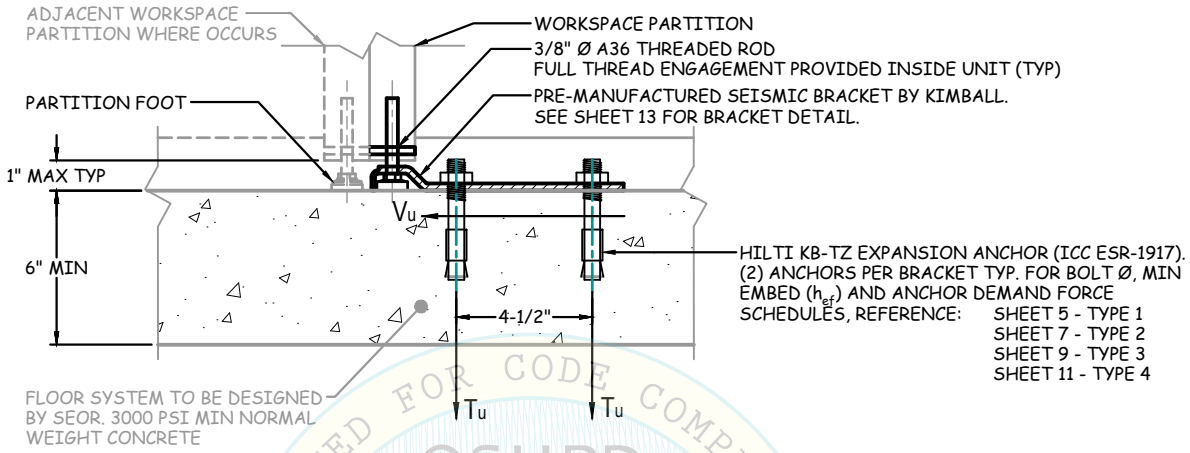
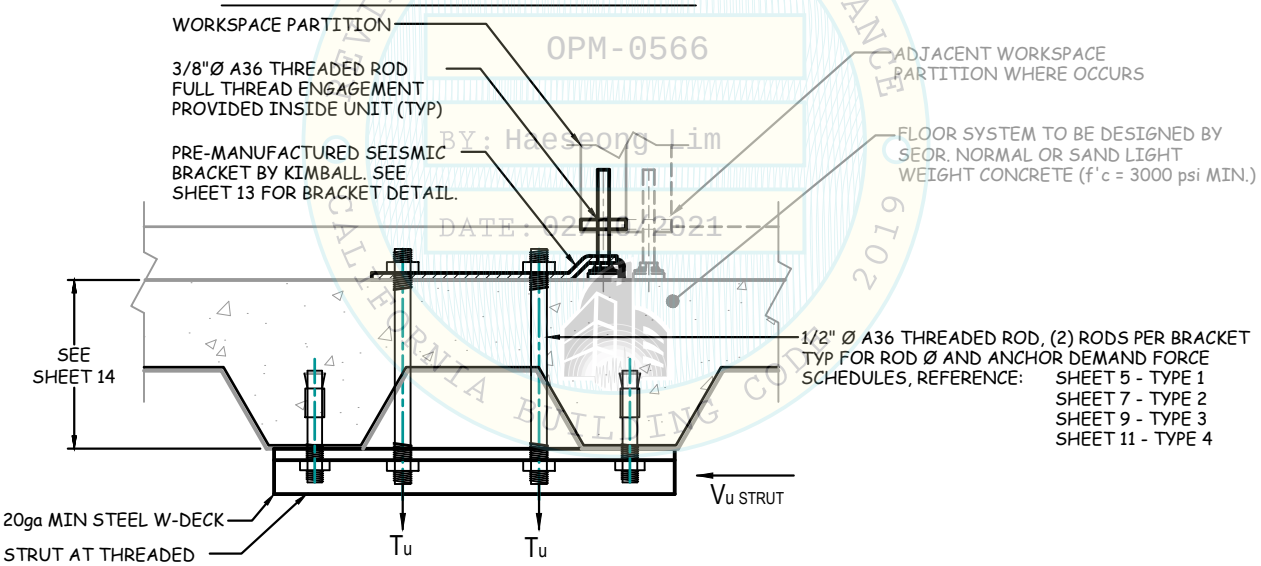
ANCHOR BRACKET CONNECTION: CONC SLAB/CONC ON METAL DECK



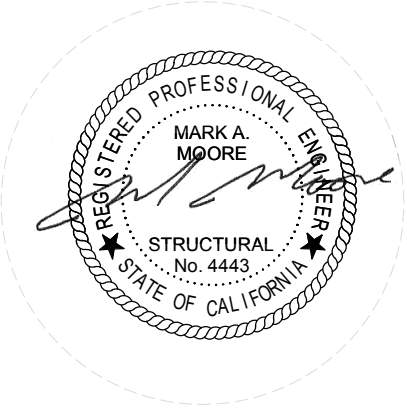
CONCRETE SLAB ON GRADE



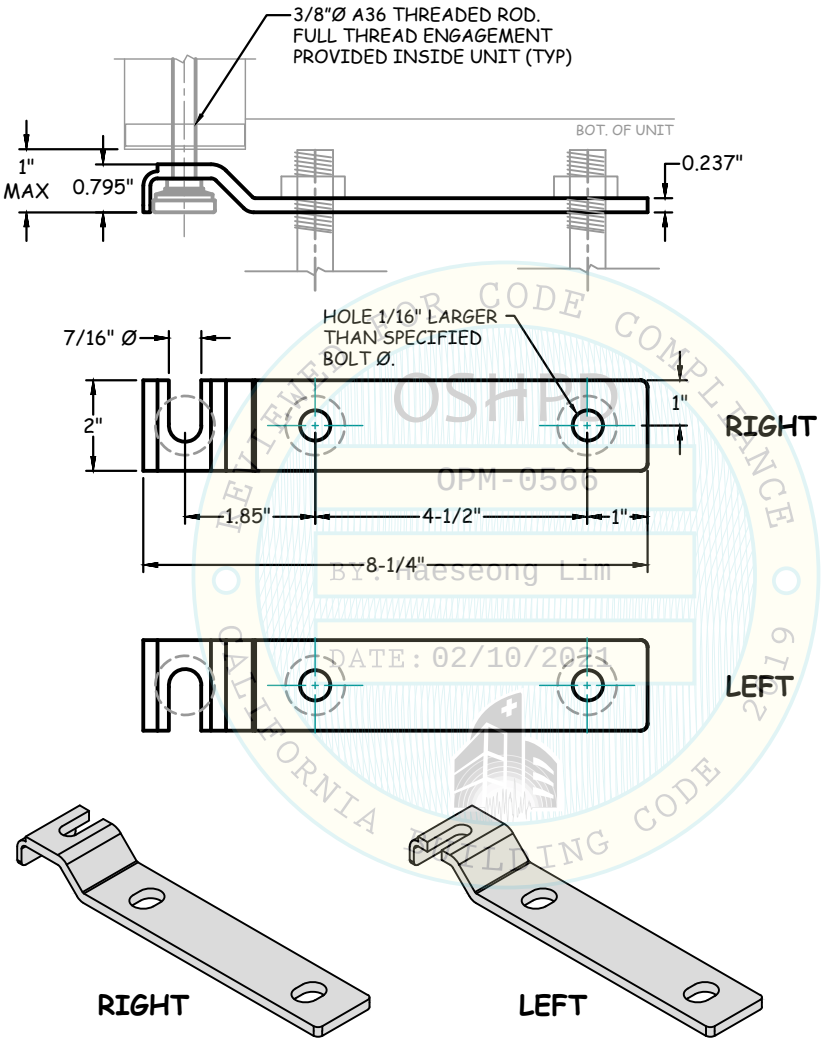
CONCRETE ON METAL DECK

NOTES:

1. FORCES ARE DETERMINED PER CBC 2019 AND ASCE 7-16 WITH SDS = 2.00, ap = 1.0, Ip = 1.5, Rp = 2.5
   HORIZONTAL FORCE (Eh) AT SLAB ON GRADE (z/h = 0) = 0.90 Wp (LRFD).
   HORIZONTAL FORCE (Eh) AT ALL OTHER LEVELS (z/h ≤ 1) = 1.44 Wp (LRFD).
   VERTICAL FORCE (Ev) AT ALL LEVELS = 0.40 Wp (LRFD).
2. SEE SHEET 2 FOR GENERAL NOTES AND EXPANSION ANCHOR INSTALLATION INSTRUCTIONS.
3. STRUCTURAL ENGINEER OF RECORD SHALL PROVIDE STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN IN THE DEMAND FORCE SCHEDULES ON SHEETS 5, 7, 9 AND 11.
4. STRUCTURAL ENGINEER OF RECORD SHALL DEFINE STRUT(S) LENGTH AT METAL DECK BASED ON UNIT LOCATION AND ORIENTATION.
5. IF NUT CANNOT BE PLACED AT THE TOP-SIDE OF THE STRUT ASSEMBLY, PROVIDE TAPPED HOLE THROUGH STRUT FLANGE.
6. ADJACENT WORKSPACE UNITS ARE SECURED TO EACH OTHER WITH BOLTS AND METAL BRACKETS (BY KIMBALL). EACH UNIT SHALL HAVE ITS OWN ANCHORING SYSTEM, BUT MAY SHARE A SEISMIC BRACKET DEPENDING ON THE LAYOUT CONFIGURATION.



ANCHOR BRACKET DETAIL



NOTES:

1. BRACKET STEEL GRADE: ANSI 1018/ASTM A109 (MIN Fy = 54 KSI)
2. SEE SHEET 2 FOR GENERAL NOTES AND EXPANSION ANCHOR INSTALLATION INSTRUCTIONS.
3. INSTALL ANCHORS PRIOR TO POSITIONING WORKSPACE UNIT IN PLACE.

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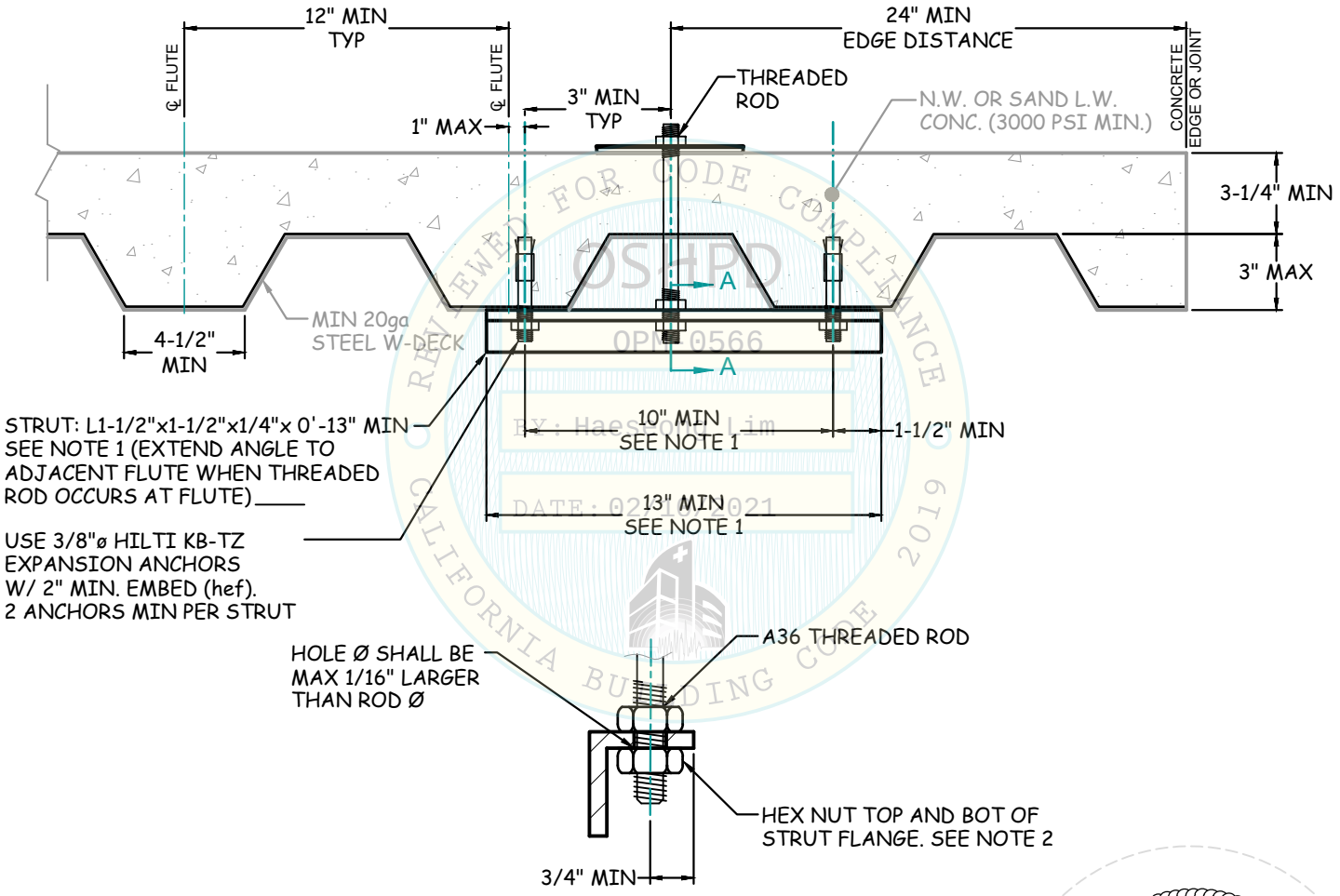
Job No. 34028
Date: Jan. 11, 2020

Equipment Type:
XSITE, NARRATE, CETRA & IWEQ OFFICE SPACES

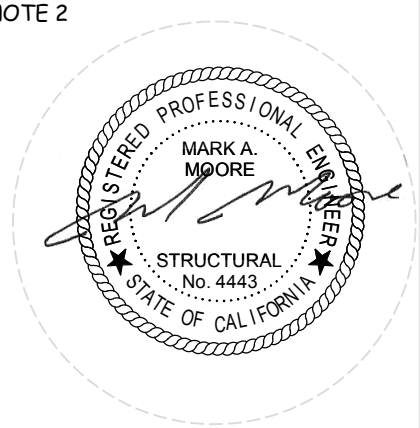
SEISMIC ATTACHMENT: METAL DECK THRU BOLT DETAIL



SECTION A-A

NOTES:

1. THE STRUCTURAL ENGINEER OF RECORD SHALL DEFINE STRUT(S) LENGTHS AT METAL DECK BASED ON WORKSPACE UNIT LOCATION AND ORIENTATION.
2. IF A NUT CANNOT BE PLACED AT THE TOP-SIDE OF THE STRUT ASSEMBLY, PROVIDE A TAPPED HOLE THROUGH STRUT FLANGE.
3. ADJACENT WORKSPACE UNITS ARE SECURED TO EACH OTHER WITH BOLTS AND METAL BRACKETS (BY KIMBALL). EACH ADJACENT UNIT SHALL HAVE ITS OWN ANCHORING SYSTEM, BUT MAY SHARE A SEISMIC BRACKET DEPENDING ON THE LAYOUT CONFIGURATION.
4. SEE SHEET 2 FOR GENERAL NOTES AND EXPANSION ANCHOR INSTALLATION INSTRUCTIONS.



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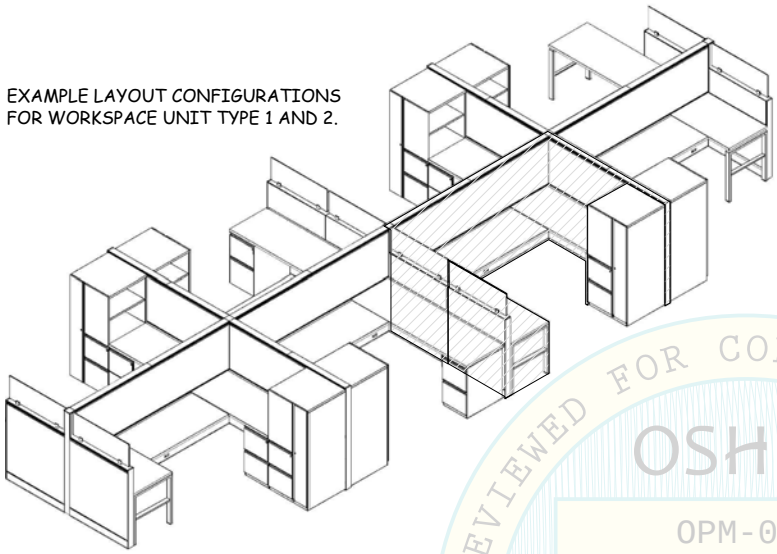
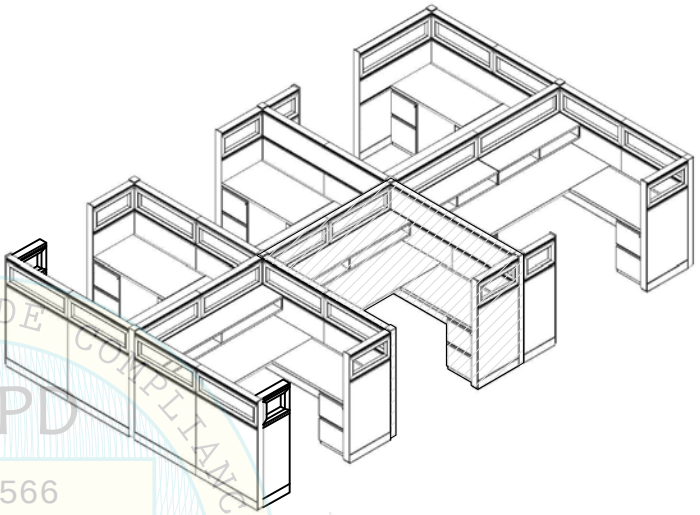
APPENDIX - EXAMPLE LAYOUT CONFIGURATIONS (FOR REFERENCE ONLY)

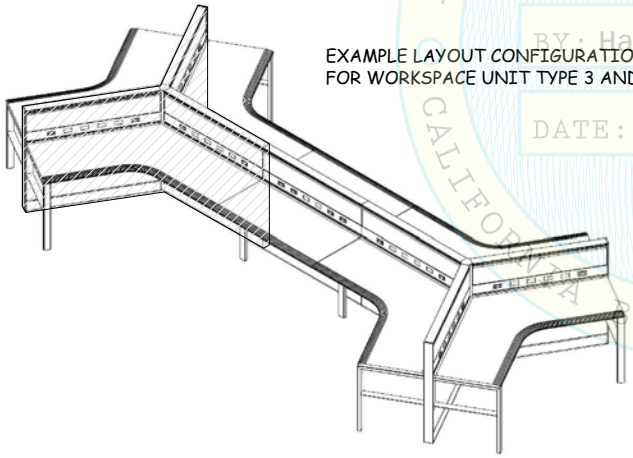
EXAMPLE LAYOUT CONFIGURATIONS FOR WORKSPACE UNIT TYPE 1 AND 2.



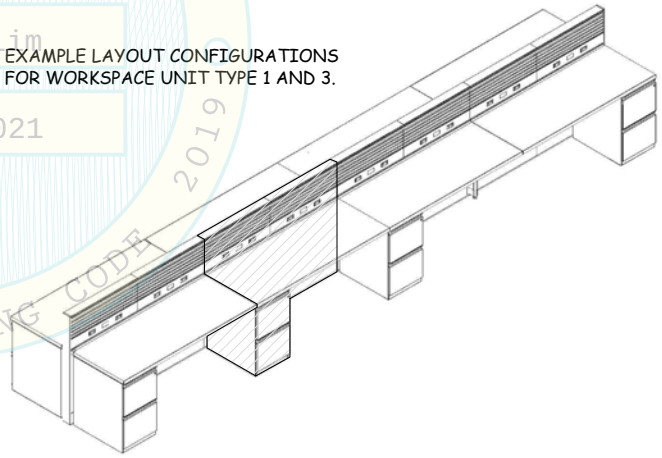
EXAMPLE LAYOUT CONFIGURATIONS FOR WORKSPACE UNIT TYPE 2.



EXAMPLE LAYOUT CONFIGURATIONS FOR WORKSPACE UNIT TYPE 3 AND 4.



EXAMPLE LAYOUT CONFIGURATIONS FOR WORKSPACE UNIT TYPE 1 AND 3.



WORKSPACE UNITS CONSIST OF MULTIPLE COMPONENTS THAT ARE MANUFACTURED AND PRE-ASSEMBLED BY KIMBALL. BEYOND A PRODUCT LINE, THEY ARE NOT IDENTIFIED BY A MODEL NUMBER DUE TO THE EXTENSIVE CONFIGURATIONS AND ASSEMBLY OPTIONS POSSIBLE FOR EACH UNIT. ANY WORKSPACE UNIT WITH ANY COMBINATION OF COMPONENTS IS INCLUDED IN THIS OPM SO LONG AS THE FOLLOWING CRITERIA IS MET:

THE COMBINED WEIGHT OF THE WORKSPACE UNIT AND ALL COMPONENTS, PLUS LOADED CONTENTS DOES NOT EXCEED THE MAXIMUM WEIGHT LISTED IN THE SCHEDULES ON SHEET 5, 7, 9 AND 11.

THE OVERALL HEIGHT, WIDTH AND DEPTH DIMENSIONS ARE WITHIN THE STATED VALUES LISTED IN THE SCHEDULES ON SHEET 5, 7, 9 AND 11.

WORKSPACE UNITS MAY BE STANDALONE OR CONFIGURED WITH ADJACENT WORKSPACE UNITS THAT ARE SECURED TO EACH OTHER WITH BOLTS AND METAL BRACKETS (BY KIMBALL). EACH UNIT SHALL HAVE ITS OWN ANCHORING SYSTEM, BUT MAY SHARE A SEISMIC BRACKET DEPENDING ON THE LAYOUT CONFIGURATION.