GENERAL NOTES: 2021 – IBC

1. ACCESS TO BUILDING FOR PERSONS IN WHEELCHAIRS IS DESIGNED BY AND FIELD BUILT BY OTHERS AND SUBJECT TO LOCAL JURISDICTION. THE PRIMARY ENTRANCE AND ALL REQUIRED EXITS MUST BE ACCESSIBLE.
2. ALL DOORS SHALL BE OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY, TOOL, SPECIAL KNOWLEDGE OR EFFORT. MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS SHALL NOT BE USED.
3. PROVISIONS FOR EXIT DISCHARGE LIGHTING INCLUDING EMERGENCY ARE THE RESPONSIBILITY OF THE BUILDING OWNER AND SUBJECT TO LOCAL JURISDICTION APPROVAL WHEN NOT SHOWN ON THE FLOOR PLAN.
4. CONSTRUCTION TYPE IS VB
5. OCCUPANCY IS B
6. OCCUPANT LOAD IS BASED ON 1 PERSON PER 150 SQUARE FEET OF GROSS FLOOR AREA.
7. MINIMUM CORRIDOR WIDTH IS 44 INCHES.
8. MINIMUM CORRIDOR FINISH IS CLASS B (GYPSUM)
9. ALL GLAZING WITHIN A 24 INCH ARC OF DOORS WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR AND ALL GLAZING IN DOORS SHALL BE SAFETY, TEMPERED, OR ACRYLIC PLASTIC SHEET.
10. THIS BUILDING REQUIRES A FIRE SEPARATION DISTANCE GREATER THAN 15 FEET.
11. PORTABLE FIRE EXTINGUISHER PER NFPA 10 SHALL BE INSTALLED ON SITE BY OTHERS SUBJECT TO LOCAL JURISDICTIONAL APPROVAL
12. HEAT LOSS & GAIN ANALYSIS IS IN COMPLIANCE WITH THE 2021 INTERNATIONAL ENERGY CONSERVATION CODE.
13. APPROXIMATE BUILDING HEIGHT IS <15'-0", I STORY, 2280SQ. F.T

DRAWING INDEX:

TRUSS INFO

TRUSS JOB #	MANUAL PAGE #
M961	*SEE ATTACHED*

2020 NATIONAL ELECTRIC CODE

1. ALL CIRCUITS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE APPROPRIATE ARTICLES OF THE NATIONAL ELECTRICAL CODE (NEC).
2. WHEN LIGHT FIXTURES ARE INSTALLED IN CLOSETS THEY SHALL BE SURFACE MOUNTED OR RECESSED. INCANDESCENT FIXTURES SHALL HAVE COMPLETELY ENCLOSED LAMPS. SURFACE MOUNTED INCANDESCENT FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 12 INCHES AND ALL OTHER FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 6 INCHES FROM "STORAGE AREA" AS DEFINED BY NEC 410-2.
3. WHEN WATER HEATERS ARE INSTALLED THEY SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE WATER HEATERS SERVED. THE BRANCH CIRCUIT SWITCH OR CIRCUIT BREAKER SHALL BE PERMITTED TO SERVE AS THE DISCONNECTING MEANS ONLY WHERE THE SWITCH OR CIRCUIT BREAKER IS WITHIN SIGHT FROM THE WATER HEATER OR IS CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
4. HVAC EQUIPMENT SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE EQUIPMENT SERVED. A UNIT SWITCH WITH A MARKED "OFF" POSITION THAT IS A PART OF THE HVAC EQUIPMENT AND DISCONNECTS ALL UNGROUNDED CONDUCTORS SHALL BE PERMITTED AS THE DISCONNECTING MEANS WHERE OTHER DISCONNECTING MEANS ARE ALSO PROVIDED BY A READILY ACCESSIBLE CIRCUIT BREAKER.
5. PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM THE INTERRUPTING RATING OF THE MAIN BREAKER MUST BE DESIGNED AND VERIFIED AS BEING IN COMPLIANCE WITH SECTION 110-9 OF THE NEC BY LOCAL ELECTRICAL CONSULTANT.
6. THE MAIN ELECTRICAL FEEDERS ARE DESIGNED BY OTHERS AND SITE INSTALLED AND SUBJECT TO LOCAL JURISDICTION APPROVAL.
7. SITE ELECTRICAL CONTRACTOR/ENGINEER TO VERIFY ADEQUACY OF PANEL SIZING FOR SITE INSTALLED HVAC UNITS.
8. EXTERIOR LIGHTS NOT INTENDED FOR 24 HR USE, SHALL BE CONNECTED TO A PHOTOCELL OR TIMER.
9. RECEPTACLES INSTALLED OUTDOORS IN A WET LOCATION SHALL HAVE AN ENCLOSURE THAT IS WEATHER PROOF WHETHER OR NOT THE ATTACHED PLUG IS NEEDED.
10. FOR SITE INSTALLED APPLIANCES, SUBJECT TO LOCAL JURISDICTION APPROVAL.
11. EXTERIOR EMERGENCY LIGHTING IS SITE INSTALLED BY OTHERS AND SUBJECT TO LOCAL APPROVAL.
12. ALL CIRCUITS CROSSING OVER MODULE MATING LINE SHALL BE SITE CONNECTED WITH APPROVED ACCESSIBLE JUNCTION BOXES OR CABLE CONNECTORS.

PLUMBING NOTES: 2021 IBC

1. TOILETS SHALL BE ELONGATED WITH NON-ABSORBENT OPEN FRONT SEATS.
2. RESTROOM WALLS SHALL BE COVERED WITH A NON-ABSORBENT MATERIAL TO A MINIMUM HEIGHT OF 48 INCHES A.F.F.
3. CUSTOMER ASSUMES ALL RESPONSIBILITY FOR DRINKING WATER FACILITIES AND SERVICE SINK WHEN NOT SHOWN ON FLOOR PLAN.
4. ALL PLUMBING FIXTURES SHALL HAVE SEPARATE SHUT-OFF VALVES.
5. WATER HEATER SHALL HAVE A T&P RELIEF VALVE WITH DRAIN TO EXTERIOR, AND A SHUT-OFF VALVE WITHIN 3 FEET ON THE COLD WATER SUPPLY LINE.
6. DWV SYSTEM SHALL BE EITHER ABS OR PVC -DWV.
7. WATER SUPPLY LINES SHALL BE CROSS-LINKED POLYETHYLENE, CPVC, OR COPPER; WHEN CROSS-LINKED POLYETHYLENE SUPPLY LINES ARE INSTALLED THE MAXIMUM WATER HEATER TEMPERATURE SETTING IS 180° F. THE CROSS-LINKED POLYETHYLENE PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS LIMITATIONS AND INSTRUCTIONS.
8. WATER CLOSETS ARE TANK TYPE AND URINALS ARE FLUSH TANK TYPE UNLESS OTHERWISE SPECIFIED.
9. BUILDING DRAIN AND CLEANOUTS ARE DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL.
10. THERMAL EXPANSION DEVICE, IF REQUIRED BY WATER HEATER INSTALLED, AND IF NOT SHOWN ON PLUMBING PLAN, IS DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL APPROVAL.

MECHANICAL NOTES: 2021 IMC

1. ALL SUPPLY AIR REGISTERS SHALL BE 14 INCHES X 14 INCHES AND 4 INCHES X 10 INCHES ADJUSTABLE, SEE HVAC LAYOUT FOR DUCT SIZE.
2. RESTROOM EXHAUST VENT FANS SHALL PROVIDE MIN. 75 CFM OR MORE EXHAUST PER WATER CLOSET OR URINAL.
3. EXHAUST VENT FANS SHALL BE DUCTED TO THE EXTERIOR AND TERMINATE AT AN APPROVED VENT CAP.
4. HVAC EQUIPMENT SHALL BE EQUIPPED WITH OUTSIDE FRESH AIR INTAKES PROVIDING 5 CFM FOR EACH OCCUPANT PLUS .06 CFM PER SQ. FT.
5. RETURN AIR GRILLS, SEE HVAC LAYOUT FOR SIZE AND LOCATIONS, WITH SITE INSTALLED DUCT, SITE INSTALLED DUCT SUBJECT TO LOCAL JURISDICTION APPROVAL.
6. BUILDING DESIGN TO COMPLY WITH THERMAL ZONE 3A.
7. HVAC SYSTEM AND DESIGN TO BE SITE INSTALLED BY OTHERS AND SUBJECT TO LOCAL APPROVAL.

STRUCTURAL LOAD LIMITATIONS:

FLOOR LIVE LOAD:
- A. OFFICES. 50 PSF UNIFORM LOAD & 2,000 LB CONCENTRATED LOAD OVER A 30" X 30" AREA LOCATED ANYWHERE ON THE FLOOR
- B. LOBBY 100 PSF UNIFORM & 2,000 LB CONCENTRATED LOAD OVER 30"X30" AREA LOCATED ANYWHERE ON FLOOR.

ROOF LIVE LOAD:
- A. 20 PSF

ROOF SNOW LOAD:
- A. Pg = 20 PSF GROUND SNOW LOAD
- B. Pf = 15.4 PSF FLAT-ROOF SNOW LOAD
- C. Ce = 1.0 SNOW EXPOSURE FACTOR
- D. Is = 1.0 SNOW IMPORTANCE FACTOR
- E. Ct = 1.1 SNOW THERMAL FACTOR

WIND LOAD:
- A. 117MPH VULT (90MPH VASD) WIND SPEED
- B. Iw = 1.0 WIND IMPORTANCE FACTOR
- C. C WIND EXPOSURE CATEGORY
- D. GCpi = +/- .18 INTERNAL PRESSURE COEFFICIENT
- E. THIS BUILDING IS NOT DESIGNED FOR PLACEMENT ON THE UPPER HALF OF A HILL OR ESCARPMENT EXCEEDING 15 FEET IN HEIGHT.

COMPONENT & CLADDING LOAD: (EA=10SF)
- Pr ZONE 1= -17.0 PSF
- Pr ZONE 2= -30.0 PSF
- Pr ZONE 3= -44.0 PSF
- Pr ZONE 4= -20.0 PSF
- Pr ZONE 5= -25.0 PSF

SEISMIC LOAD:
- A. II SEISMIC USE GROUP
- B. D SITE CLASS
- C. A.13 SEISMIC FORCE RESISTING SYSTEM
- D. B SEISMIC DESIGN CATEGORY
- E. SIMPLIFIED ANALYSIS PROCEDURE
- F. Sds ≤.267 DESIGN SPECTRAL RESPONSE
- F. Ss ≤ .25 SPECIAL RESPONSE COEFFICIENT
- G. S1 ≤ .06 SPECTRAL RESPONSE COEFFICIENT
- H. V = 3283 LBS DESIGN BASE SHEAR
- I. R = 6.5 RESPONSE MODIFICATION COEFFICIENT

FLOOD LOAD:
THIS BUILDING IS NOT DESIGNED TO BE LOCATED IN A FLOOD HAZARD AREA.

BUILDING CATEGORY:II

ENCLOSURE CATEGORY: ENCLOSED

ACCESSIBILITY NOTES: ICC / ANSI A117.1–17 / 2010 ADAAG

1. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGN SHALL BE DISPLAYED AT ALL ACCESSIBLE RESTROOM FACILITIES AND AT ACCESSIBLE BUILDING ENTRANCES UNLESS ALL ENTRANCES ARE ACCESSIBLE. INACCESSIBLE ENTRANCES SHALL HAVE DIRECTIONAL SIGNS INDICATING THE ROUTE TO THE NEAREST ACCESSIBLE ENTRANCE.
2. ACCESSIBLE DRINKING FOUNTAINS SHALL HAVE A SPOUT HEIGHT NO HIGHER THAN 36 INCHES ABOVE THE FLOOR AND EDGE OF BASIN NO HIGHER THAN 34 INCHES ABOVE THE FLOOR FOR INDIVIDUALS IN WHEELCHAIRS. ADDITIONALLY, DRINKING WATER PROVISIONS SHALL BE MADE FOR INDIVIDUALS WHO HAVE DIFFICULTY IN BENDING.
3. WHERE STORAGE FACILITIES SUCH AS CABINETS, SHELVES, CLOSETS, AND DRAWERS ARE PROVIDED AT LEAST ONE OF EACH TYPE PROVIDED SHALL CONTAIN STORAGE SPACE COMPLYING WITH THE FOLLOWING: DOORS, ETC. TO SUCH SPACES SHALL BE ACCESSIBLE (ie. TOUCH LATCHES, U-SHAPED PULLS); SPACES SHALL BE WITHIN 15 INCHES MINIMUM AND 48 INCHES MAXIMUM OF THE FLOOR FOR FORWARD REACH OR 15 INCHES MINIMUM AND 48 INCHES MAXIMUM, OF THE FLOOR FOR SIDE REACH; CLOTHES RODS SHALL BE A MAXIMUM OF 48 INCHES ABOVE THE FLOOR (46 INCHES MAXIMUM WHEN DISTANCE FROM WHEELCHAIR TO ROD EXCEEDS 10 INCHES).
4. CONTROLS, DISPENSERS, RECEPTACLES AND OTHER OPERABLE EQUIPMENT SHALL BE NO HIGHER THAN 45 INCHES ABOVE THE FLOOR FOR FRONT APPROACH OR 48 INCHES ABOVE THE FLOOR FOR SIDE APPROACH. RECEPTACLES ON WALLS SHALL BE MOUNTED NO LESS THAN 15 INCHES ABOVE THE FLOOR. EXCEPTION: HEIGHT LIMITATIONS DO NOT APPLY WHERE THE USE OF SPECIAL EQUIPMENT DICTATES OTHERWISE OR WHERE ELECTRICAL RECEPTACLES ARE NOT NORMALLY INTENDED FOR USE BY BUILDING OCCUPANTS.
5. WHERE EMERGENCY WARNING SYSTEMS ARE PROVIDED, THEY SHALL INCLUDE BOTH AUDIBLE AND VISUAL ALARMS. THE VISUAL ALARMS SHALL BE LOCATED THROUGHOUT, INCLUDING RESTROOMS, AND PLACED 80 INCHES ABOVE THE FLOOR OR 6 INCHES BELOW CEILING, WHICHEVER IS LOWER.
6. DOORS TO ALL ACCESSIBLE SPACES SHALL HAVE ACCESSIBLE HARDWARE (i.e. LEVER-OPERATED, PUSH-TYPE, U-SHAPED) MOUNTED NO HIGHER THAN 48 INCHES ABOVE THE FLOOR AND 347 INCHES MINIMUM.
7. FLOOR SURFACES SHALL BE STABLE, FIRM, AND SLIP-RESISTANT. CHANGES IN LEVEL BETWEEN 0.25 INCH AND 0.5 INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2. CHANGES IN LEVEL GREATER THAN 0.5 INCH REQUIRE RAMPS. CARPET PILE THICKNESS SHALL BE 0.5 INCH MAX. GRATINGS IN FLOOR SHALL HAVE SPACES NO GREATER THAN 0.5 INCH WIDE IN ONE DIRECTION. DOORWAY THRESHOLDS SHALL NOT EXCEED 0.5 INCH IN HEIGHT.
8. ACCESSIBLE WATER CLOSETS SHALL BE 17 INCHES TO 19 INCHES FROM THE FLOOR TO THE TOP OF THE SEAT. GRAB BARS SHALL BE 36 INCHES LONG MINIMUM WHEN LOCATED BEHIND WATER CLOSET AND 42 INCHES MINIMUM WHEN LOCATED ALONG SIDE OF WATER CLOSET, AND SHALL BE MOUNTED 33 INCHES TO 36 INCHES ABOVE THE FLOOR.
9. ACCESSIBLE URINALS SHALL BE STALL-TYPE OR WALL HUNG WITH ELONGATED RIMS AT A MAXIMUM OF 17 INCHES ABOVE THE FLOOR.
10. ACCESSIBLE LAVATORIES SHALL BE MOUNTED WITH THE RIM NO HIGHER THAN 34 INCHES ABOVE THE FLOOR AND A CLEARANCE OF AT LEAST 29 INCHES ABOVE THE FLOOR TO THE BOTTOM OF THE APRON.
11. ACCESSIBLE SINKS SHALL BE MOUNTED WITH THE RIM NO HIGHER THAN 34 INCHES ABOVE THE FLOOR AND A CLEARANCE OF AT LEAST 27 INCHES HIGH, 30 INCHES WIDE, AND 19 INCHES DEEP UNDERNEATH SINK. THE SINK DEPTH SHALL BE 6.5 INCHES MAXIMUM.
12. HOT WATER AND DRAIN PIPES UNDER ACCESSIBLE LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. INSULATION OR PROTECTION MATERIALS MAY BE SITE INSTALLED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER ACCESSIBLE LAVATORIES AND SINKS.
13. ACCESSIBLE LAVATORIES AND SINKS SHALL HAVE ACCESSIBLE FAUCETS (i.e. LEVER-OPERATED, PUSH TYPE, ELECTRONICALLY CONTROLLED).
14. WHERE MIRRORS ARE PROVIDED IN RESTROOM, AT LEAST ONE SHALL BE PROVIDED WITH ITS BOTTOM EDGE NO HIGHER THAT 40 INCHES ABOVE THE FLOOR IF LOCATED OVER LAVATORIES, SINKS, AND COUNTERS. MIRRORS NOT LOCATED ABOVE LAVATORIES, SINKS OR COUNTERS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 35 INCHES MAXIMUM ABOVE THE FLOOR.
15. WHERE MEDICINE CABINETS ARE PROVIDED, AT LEAST ONE SHALL BE LOCATED WITH A USABLE SHELF NO HIGHER THAN 44 INCHES ABOVE THE FLOOR.
16. GRAB BARS REQUIRED FOR ACCESSIBILITY SHALL BE 1.25 INCHES TO 2 INCHES IN DIAMETER WITH 1.5 INCHES CLEAR SPACE BETWEEN THE BAR AND THE WALL.
17. W/C FLUSH CONTROL SHALL BE MOUNTED ON THE WIDE SIDE OF THE TOILET COMPARTMENT.
18. DOORS TO ALL ACCESSIBLE SPACES SHALL HAVE ACCESSIBLE HARDWARE (LEVER-OPERATED, PUSH TYPE, U-TYPE) MOUNTED NO HIGHER THAN 48" ABOVE FLOOR.
19. A TOWEL DISPENSER SHALL BE LOCATED ADJACENT TO ALL ACCESSIBLE LAVATORIES.
20. AN 18" VERTICAL GRAB BAR IS TO BE INSTALLED ABOVE THE 42" HORIZONTAL BAR.

APPROVED
HILLBORN, WERNER, CARTER & ASSOCIATES, INC.
04-27-2026
HWC

STATE OF MISSOURI
WALTER E. WOOD
NUMBER PE-2017022072
PROFESSIONAL ENGINEER
VALID
April 22, 2026

CODES: SEE NOTES	Clayton
STATE LABEL(S): MO	
SCALE:	PROJECT #:M0920184MO | JOB #:1869–1394 | PLAN #:

COVER SHEET — SHEET C-1

Job	Truss	Truss Type	Qty	Ply	CLAYTON BEAN STATION (927)	I80906473
WPL-969-016-0215_(16W)	M961-21	HINGED TRUSS	1	1	ETN-M961: 6/12 16' MOD Job Reference (optional)	

25.4.0 e Dec 15 2025 MiTek Industries, Inc. Wed Apr 8 13:19:53 2026 Page 1
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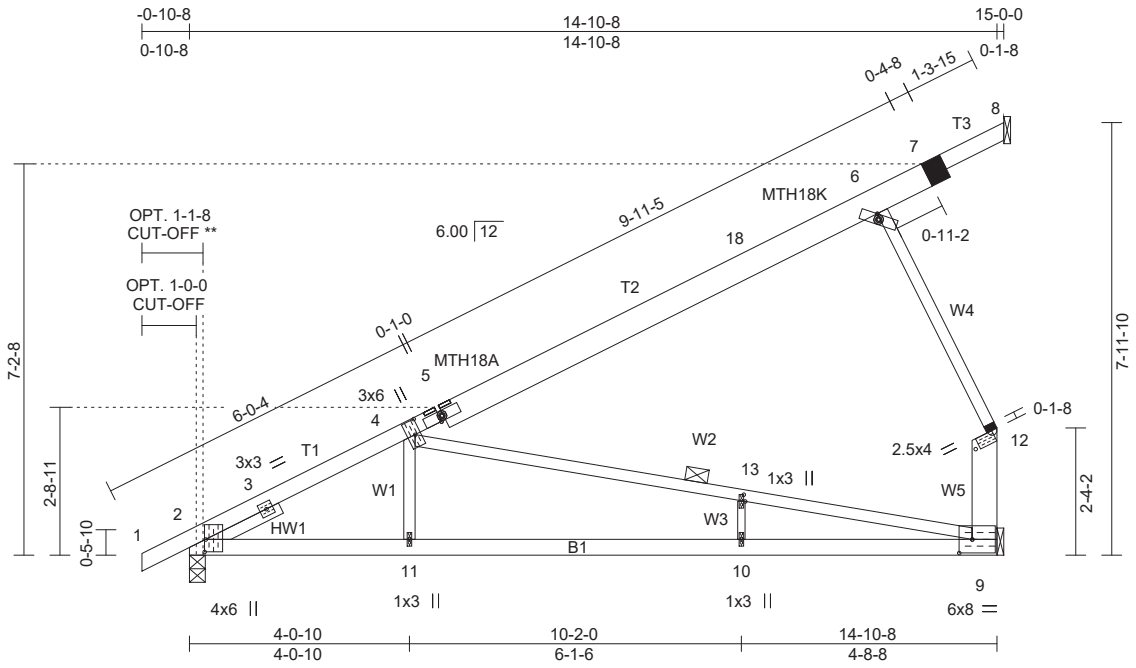

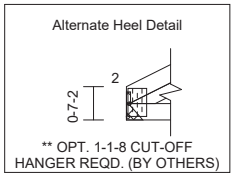

Plate Offsets (X,Y)-- [2:0-2-12,0-0-4], [4:0-3-4,0-1-4], [5:0-0-11,0-1-2], [6:0-0-11,0-1-2], [9:0-9-9,1-5-7], [9:0-2-14,0-3-0], [13:0-1-8,0-0-5]

SPACING-: 2-0-0		**SPACING-:** 1-4-0		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d
LOADING (psf)		**LOADING** (psf)		Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.29	10-11	>603	240
TCLL	23.1	TCLL	34.7	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.52	10-11	>334	180
(Ground Snow=30.0)		(Ground Snow=45.0)		Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.02	9	n/a	n/a
TCDL	11.0	TCDL	16.5	Code	IBC2021/TPI2014	Matrix-MS						
BCLL	0.0 *	BCLL	0.0 *									
BCDL	10.0	BCDL	15.0									

PLATES	**GRIP**
MT20	197/144
MT18HS	197/144

Weight: 68 lb
FT = 0%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 5-7: 2x6 SPF No.2
BOT CHORD	2x4 SP 2400F 2.0E
WEBS	2x3 SPF No.2 *Except* 9-12: 2x6 SPF Stud, 6-12: 2x3 SPF Stud 10-13: 1-8/16x1-10/16 SPF No.2
SLIDER	Left 2x3 SPF No.2 1-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals. [PSA]
BOT CHORD	Rigid ceiling directly applied or 6-4-0 oc bracing.
WEBS	1 Row at midpt 4-9
JOINTS	1 Brace at Jt(s): 12

REACTIONS. (lb/size) 2=748/0-3-8 (min. 0-1-8), 9=620/Mechanical, 8=0/Mechanical
Max Horz 2=458(LC 12), 8=-107(LC 19)
Max Uplift 2=-342(LC 12), 9=-492(LC 12)
Max Grav 2=801(LC 19), 9=764(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-3=-826/555, 3-18=-1271/562, 18-20=-1237/570, 4-20=-1233/572, 4-21=-483/15, 5-21=-473/17, 5-22=-491/62, 22-23=-463/65, 19-23=-373/76, 6-19=-349/89, 9-12=-504/508
BOT CHORD	2-11=-1031/1203, 10-11=-1021/1205, 9-10=-1021/1205
WEBS	4-11=0/377, 4-13=-965/777, 9-13=-960/769, 6-12=-582/588

REQUIRED FIELD JOINT CONNECTIONS - Maximum Compression (lb)/ Maximum Tension (lb)/ Maximum Shear (lb)/ Maximum Moment (lb-in)
7=156/101/70/0, 12=582/588/0/0

April 8,2026

NOTES- (18)
1) Dado: 0-2-10 length x 0-0-12 deep dado, 0-0-0 to right edge from joint 5 on the top face.
2) Dado: 0-2-10 length x 0-0-12 deep dado, 0-0-0 to left edge from joint 5 on the top face.
3) Wind: ASCE 7-16; Vult=152mph (3-second gust) Vasd=120mph @24in o.c.; TCDL=4.4psf; BCDL=4.0psf; (Alt. 180mph @16in o.c.; TCDL=6.6psf; BCDL=6.0psf); h=22ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 14-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
4) TCLL: ASCE 7-16; Pg=30.0 psf; Ps=23.1 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Roof design snow load has been reduced to account for slope.
6) Unbalanced snow loads have been considered for this design.

Continued on page 2

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

NOTES- (18)

7) This truss has been designed for greater of min roof live load of 18.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
8) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
9) All plates are MT20 plates unless otherwise indicated.
10) See HINGE PLATE DETAILS for plate placement.
11) Provisions must be made to prevent lateral movement of hinged member(s) during transportation.
12) All additional member connections shall be provided by others for forces as indicated.
13) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
14) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
15) Refer to girder(s) for truss to truss connections.
16) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 342 lb uplift at joint 2 and 492 lb uplift at joint 9.
17) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
18) Lumber must be graded for sizes as shown

LOAD CASE(S) Standard

I certify that this document was prepared or approved by me, and I am a licensed professional engineer under the laws of the State of Maryland.
Lic. No. 28690 Expiration Date: 04/30/2027.

April 8,2026

Job	Truss	Truss Type	Qty	Ply	CLAYTON BEAN STATION (927)	I80906476
WPL-969-016-0215_(16W)	M961-21C	HINGED TRUSS	1	1	ETN-M961-GH: 6/12 16' MOD Job Reference (optional)	

25.4.0 e Dec 15 2025 MiTek Industries, Inc. Wed Apr 8 13:31:44 2026 Page 1
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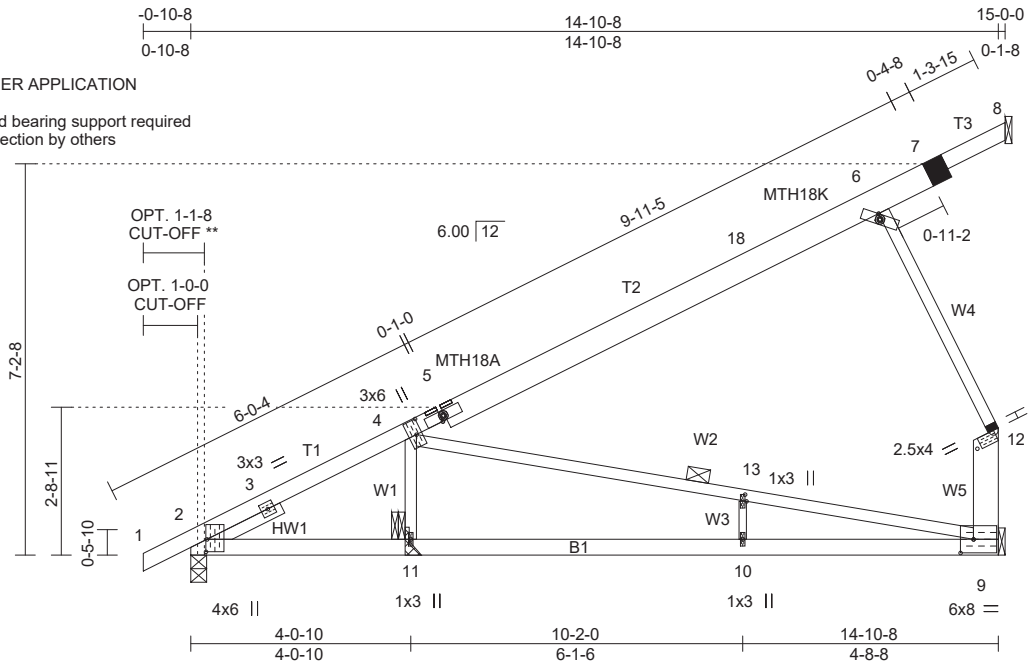
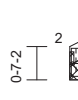
GARAGE HEADER APPLICATION

Full bottom chord bearing support required at joint 11. Connection by others



Alternate Heel Detail



** OPT. 1-1-8 CUT-OFF HANGER REQD. (BY OTHERS)

APPROVED • HILBORN, WERNER, CARTER & ASSOCIATES, INC.
04-27-2026
HWC

Plate Offsets (X,Y)-- [2:0-2-12,0-0-4], [4:0-3-4,0-1-4], [5:0-0-11,0-1-2], [6:0-0-11,0-1-2], [9:0-9-9,1-5-7], [9:0-2-14,0-3-0], [13:0-1-8,0-0-5]

SPACING-: 2-0-0		**SPACING-:** 1-4-0		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d
LOADING (psf)		**LOADING** (psf)		Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.34	9-10	>377	240
TCLL	23.1	TCLL	34.7	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.40	10-11	>316	180
(Ground Snow=30.0)		(Ground Snow=45.0)		Rep Stress Incr	YES	WB	0.53	Horz(CT)	-0.01	9	n/a	n/a
TCDL	11.0	TCDL	16.5	Code	IBC2021/TPI2014	Matrix-MS						
BCLL	0.0 *	BCLL	0.0 *									
BCDL	10.0	BCDL	15.0									

PLATES	**GRIP**
MT20	197/144
MT18HS	197/144

Weight: 68 lb
FT = 0%

LUMBER-

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BOT CHORD	2x4 SP 2400F 2.0E
WEBS	2x3 SPF No.2 *Except* 9-12: 2x6 SPF Stud, 6-12: 2x3 SPF Stud 10-13: 1-8/16x1-10/16 SPF No.2
SLIDER	Left 2x3 SPF No.2 1-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals. [PSA]
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 13

REACTIONS. (lb/size) 11=651/0-3-0 (min. 0-1-8), 2=272/0-3-8 (min. 0-1-8), 9=445/Mechanical, 8=0/Mechanical
Max Horz 2=458(LC 12), 8=-107(LC 19)
Max Uplift 11=-233(LC 12), 2=-171(LC 12), 9=-429(LC 12)
Max Grav 11=705(LC 5), 2=339(LC 19), 9=594(LC 19)

ALABAMA LICENSED No. 25963 PROFESSIONAL ENGINEER JOHN L. GALINSKI

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-3=-264/275, 3-18=-306/131, 4-21=-483/15, 5-21=-473/17, 5-22=-491/62, 22-23=-463/65, 19-23=-373/76, 6-19=-349/89, 9-12=-438/508
BOT CHORD	2-11=-537/172, 10-11=-512/150, 9-10=-512/150
WEBS	4-11=-552/600, 4-13=-1/258, 9-13=-1/250, 6-12=-506/588

REQUIRED FIELD JOINT CONNECTIONS - Maximum Compression (lb)/ Maximum Tension (lb)/ Maximum Shear (lb)/ Maximum Moment (lb-in)
7=155/101/67/0, 12=506/588/0/0

COMMONWEALTH OF VIRGINIA
JOHN L. GALINSKI
Lic. No. 038607
PROFESSIONAL ENGINEER

April 8,2026

NOTES- (18)

1) Dado: 0-2-10 length x 0-0-12 deep dado, 0-0-0 to right edge from joint 5 on the top face.
2) Dado: 0-2-10 length x 0-0-12 deep dado, 0-0-0 to left edge from joint 5 on the top face.
3) Wind: ASCE 7-16; Vult=152mph (3-second gust) Vasd=120mph @24in o.c.; TCDL=4.4psf; BCDL=4.0psf; (Alt. 180mph @16in o.c.; TCDL=6.6psf; BCDL=6.0psf); h=22ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 14-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
4) TCLL: ASCE 7-16; Pg=30.0 psf; Ps=23.1 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Roof design snow load has been reduced to account for slope.
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 18.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.

Continued on page 2

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

NOTES- (18)

8) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
9) All plates are MT20 plates unless otherwise indicated.
10) See HINGE PLATE DETAILS for plate placement.
11) Provisions must be made to prevent lateral movement of hinged member(s) during transportation.
12) All additional member connections shall be provided by others for forces as indicated.
13) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
14) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
15) Refer to girder(s) for truss to truss connections.
16) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 233 lb uplift at joint 11, 171 lb uplift at joint 2 and 429 lb uplift at joint 9.
17) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
18) Lumber must be graded for sizes as shown

LOAD CASE(S) Standard

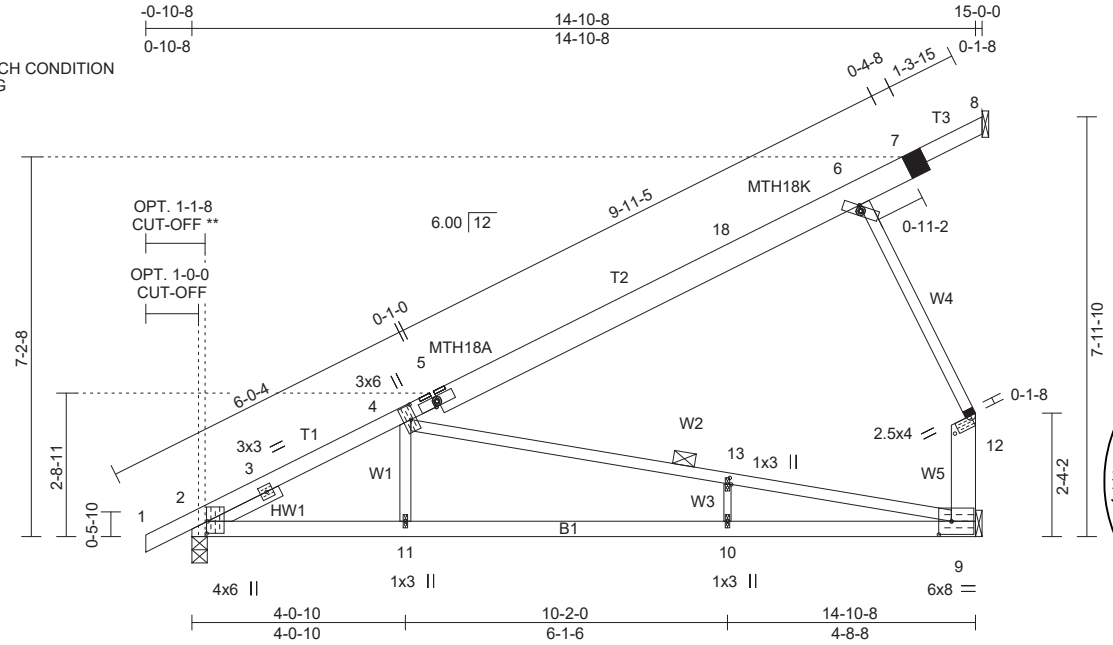
I certify that this document was prepared or approved by me, and I am a licensed professional engineer under the laws of the State of Maryland.
Lic. No. 28690 Expiration Date: 04/30/2027.

April 8,2026

Job	Truss	Truss Type	Qty	Ply	CLAYTON BEAN STATION (927)	I80906479
WPL-969-016-0215_(16W)	M961-21F	HINGED TRUSS	1	1	ETN-M961-P1: 6/12 16' MOD Job Reference (optional)	

25.4.0 e Dec 15 2025 MiTek Industries, Inc. Wed Apr 8 13:31:59 2026 Page 1
ID:2p6xyGRzImjK61WCMu1pfiyYozA-dvNbXr5o_F5rw09iXcbYltlTe0LYlNaTfBgvAlzSmJU

END WALL PORCH CONDITION
! NOTE SPACING



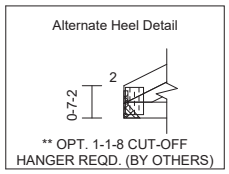


Plate Offsets (X,Y)-- [2:0-2-12,0-0-4], [4:0-3-4,0-1-4], [5:0-0-11,0-1-2], [6:0-0-11,0-1-2], [9:0-9-9,1-5-7], [9:0-2-14,0-3-0], [13:0-1-8,0-0-5]

LOADING (psf)		SPACING-	1-4-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	23.1	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	0.32	10-11	>548	240	MT20	197/144
(Ground Snow=30.0)		Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.35	10-11	>502	180	MT18HS	197/144
TCDL	11.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	-0.01	9	n/a	n/a		
BCLL	0.0 *	Code	IBC2021/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 68 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
5-7: 2x6 SPF No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except*
9-12: 2x6 SPF Stud, 6-12: 2x3 SPF Stud
10-13: 1-8/16x1-10/16 SPF No.2
SLIDER Left 2x3 SPF No.2 1-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-2-3 oc purlins, except[PSA] end verticals.
BOT CHORD Rigid ceiling directly applied or 7-3-4 oc bracing.
WEBS 1 Row at midpt 4-9
JOINTS 1 Brace at Jt(s): 12

REACTIONS. (lb/size) 2=499/0-3-8 (min. 0-1-8), 9=413/Mechanical, 8=-0/Mechanical
Max Horz 2=308(LC 12), 8=-72(LC 19)
Max Uplift 2=-216(LC 9), 9=-290(LC 9)
Max Grav 2=534(LC 19), 9=510(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-487/443, 3-18=-804/796, 18-20=-776/801, 4-20=-773/803, 4-21=-322/0, 5-21=-315/0, 5-22=-328/25, 22-23=-309/29, 9-12=-292/326
BOT CHORD 2-11=-1054/657, 10-11=-1060/658, 9-10=-1060/658
WEBS 4-11=-149/251, 4-13=-534/910, 9-13=-533/908, 6-12=-338/377

REQUIRED FIELD JOINT CONNECTIONS - Maximum Compression (lb)/ Maximum Tension (lb)/ Maximum Shear (lb)/ Maximum Moment (lb-in)
7=104/63/43/0, 12=338/377/0/0

NOTES- (18)
1) Dado: 0-2-10 length x 0-0-12 deep dado, 0-0-0 to right edge from joint 5 on the top face.
2) Dado: 0-2-10 length x 0-0-12 deep dado, 0-0-0 to left edge from joint 5 on the top face.
3) Wind: ASCE 7-16; Vult=152mph (3-second gust) Vasd=120mph; TCDL=6.6psf; BCDL=6.0psf; h=22ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 14-11-4 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
4) TCLL: ASCE 7-16; Pg=30.0 psf; Ps=23.1 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Roof design snow load has been reduced to account for slope.
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 18.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
8) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
9) All plates are MT20 plates unless otherwise indicated.
10) See HINGE PLATE DETAILS for plate placement.
11) Provisions must be made to prevent lateral movement of hinged member(s) during transportation.
12) All additional member connections shall be provided by others for forces as indicated.
13) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

April 8,2026

Continued on page 2

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NOTES- (18)

14) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
15) Refer to girder(s) for truss to truss connections.
16) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 216 lb uplift at joint 2 and 290 lb uplift at joint 9.
17) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
18) Lumber must be graded for sizes as shown

LOAD CASE(S) Standard

I certify that this document was prepared or approved by me, and I am a licensed professional engineer under the laws of the State of Maryland.
Lic. No. 28690 Expiration Date: 04/30/2027.

April 8,2026

COM*check* Software Version COMcheckWeb

Envelope Compliance Certificate

APPROVED
HILBORN, WERNER, CARTER & ASSOCIATES, INC.
04-27-2026
HWC

Project Information

Energy Code:	2021 IECC
Project Title:	M0920184MO
Location:	Springfield, Missouri
Climate Zone:	4a
Project Type:	New Construction
Vertical Glazing / Wall Area:	18%

Construction Site: Owner/Agent: Designer/Contractor:

Additional Efficiency Package(s)

Credits: 10.0 Required 124.0 Proposed
Reduced lighting power, 124.0 credit

Building Area	Floor Area
1-Retail : Nonresidential	2280

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor(a)
Roof: Attic Roof, Wood Joists, [Bldg. Use 1 - Retail]	2280	40.0	0.0	0.026	0.021
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - Retail]	1908	21.0	0.0	0.062	0.064
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID NA, SHGC 0.23, [Bldg. Use 1 - Retail] (b)	310	---	---	0.300	0.450
Door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID NA, SHGC 0.22, [Bldg. Use 1 - Retail] (b)	21	---	---	0.300	0.630
Door: Glass (over 50% glazing): Metal Frame, Non-Entrance Door, Perf. Specs.: Product ID NA, SHGC 0.22, [Bldg. Use 1 - Retail] (b)	21	---	---	0.300	0.450
Floor: Wood-Framed, [Bldg. Use 1 - Retail]	2280	33.0	0.0	0.030	0.033

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
(b) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.

Envelope PASSES: Design 15% better than code

Envelope Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2021 IECC requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

STATE OF MISSOURI
WALTER E. WOOD
NUMBER
PE-2017022072
PROFESSIONAL ENGINEER

VALID

Name - Title Signature Date

COM*check* Software Version COMcheckWeb

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2021 IECC
Project Title: M0920184MO
Project Type: New Construction

Construction Site: Owner/Agent: Designer/Contractor:

Additional Efficiency Package(s)

Credits: 10.0 Required 124.0 Proposed
Reduced lighting power, 124.0 credit

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-Retail	2280	0.84	1915
		Total Allowed Watts =	1915

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
1-Retail				
Incandescent: Incandescent 75W:	1	33	10	330
			Total Proposed Watts =	330

Interior Lighting PASSES: Design 83% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2021 IECC requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

VALID

Name - Title Signature Date

COM*check* Software Version COMcheckWeb

Exterior Lighting Compliance Certificate

APPROVED • HILBORN, WERNER, CARTER & ASSOCIATES, INC. • 04-27-2026 HWC

Project Information

Energy Code:	2021 IECC
Project Title:	M0920184MO
Project Type:	New Construction
Exterior Lighting Zone	3 (Other (LZ3))

Construction Site: Owner/Agent: Designer/Contractor:

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts /	D Tradable Wattage	E Allowed Watts (B X C)
Parking area	2100 ft2	0.06	Yes	126
			Total Tradable Watts (a) =	126
			Total Allowed Watts =	126
			Total Allowed Supplemental Watts (b) =	500

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 500 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
Parking area (2100 ft2): Tradable Wattage				
Incandescent: Incandescent 750W:	2	4	60	240
			Total Tradable Proposed Watts =	240

Exterior Lighting PASSES: Design 62% better than code

Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2021 IECC requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

STATE OF MISSOURI WALTER E. WOOD NUMBER PE-2017022072 PROFESSIONAL ENGINEER

VALID

Name - Title Signature Date

COM*check* Software Version COMcheckWeb

Mechanical Compliance Certificate

APPROVED • HILBORN, WERNER, CARTER & ASSOCIATES, INC. • 04-27-2026 HWC

Project Information

Energy Code:	2021 IECC
Project Title:	M0920184MO
Location:	Springfield, Missouri
Climate Zone:	4a
Project Type:	New Construction

Construction Site: Owner/Agent: Designer/Contractor:

Additional Efficiency Package(s)

Credits: 10.0 Required 124.0 Proposed
Reduced lighting power, 124.0 credit

Mechanical Systems List

Quantity System Type & Description

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2021 IECC requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

STATE OF MISSOURI WALTER E. WOOD NUMBER PE-2017022072 PROFESSIONAL ENGINEER

VALID

Name - Title Signature Date

COM*check* Software Version COMcheckWeb

Inspection Checklist

Energy Code: 2021 IECC

Requirements: 97.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR1][1]	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C103.2 [PR4][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C103.2 [PR8][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.4.1 [PR10][1]	The vertical fenestration area <= 30 percent of the gross above-grade wall area.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.4.1 [PR11][1]	The skylight area <= 3 percent of the gross roof area.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C402.4.2 [PR14][1]	In enclosed spaces > 2,500 ft2 directly under a roof with ceiling heights >15 ft. and used as an office, lobby, atrium, concourse, corridor, storage, gymnasium/exercise center, convention center, automotive service, manufacturing, non-refrigerated warehouse, retail store, distribution/sorting area, transportation, or workshop, the following requirements apply: (a) the daylight zone under skylights is >= half the floor area; (b) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40; or a minimum skylight effective aperture >= 1 percent.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C406 [PR9][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C303.2.1 [FO6][1]	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Complies?	Comments/Assumptions
C303.1.3 [FR12][2]	Fenestration products rated in accordance with NFRC certified and as to performance labels or certificates provided.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.4.3 [FR10][1]	Vertical fenestration SHGC value.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.4.3, C402.4.3.4 [FR8][1]	Installed vertical fenestration U-factor and SHGC consistent with label specifications and as reported in plans and COMcheck reports.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.4.5 [FR14][2]	U-factor of opaque swinging and nonswinging doors associated with the building thermal envelope meets requirements.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.7.7 [ME58][3]	Outdoor air and exhaust systems have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Check gravity dampers where allowed. Reference section language for operational details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

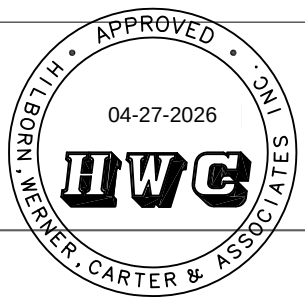
1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3.1 [EL22][1]	Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 50 percent.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1, C405.2.1.1 [EL18][1]	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, corridors, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1.2 [EL19][1]	Occupancy sensors control function in warehouses: In warehouses, the lighting in aisleways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more within 20 minutes of when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor. Lights not turned off by occupant sensors is done so by time-switch.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1.3 [EL20][1]	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) general lighting in each zone permitted to turn on upon occupancy in control zone, 3) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 4) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. 
C405.2.2, C405.2.2.1 [EL21][2]	Each area not served by occupancy sensors (per C405.2.1.1) have time-switch controls and functions detailed in sections C405.2.2.1.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.4, C405.2.4.1, C405.2.4.2 [EL23][2]	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3 Daylight-responsive controls for applicable spaces, C405.2.3.1 Daylight responsive control function and section C405.2.3.2 Sidelit zone.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.5 [EL27][1]	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.7 [EL28][1]	Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 30%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.7 [EL26][2]	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.8 [EL27][2]	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.9.1, C405.9.2 [EL28][2]	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.10 [EL29][2]	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.1.1 [EL30][2]	At least 90% of dwelling unit permanently installed lighting shall have lamp efficacy >= 65 lm/W or luminaires with efficacy >= 45 lm/W or comply with C405.2.4 or C405.3.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.11, C405.11.1 [EL31][2]	50% of 15/20 amp receptacles installed in enclosed offices, conference rooms, copy rooms, break rooms, classrooms and workstations and > 25% of branch circuit feeders for modular furniture will have automatic receptacle control in accordance with C405.11.1.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:



1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Complies?	Comments/Assumptions
C303.1 [IN3][1]	Roof insulation installed per manufacturer's instructions and is labeled with R-value or insulation certificate providing R-value and other relevant data. Blown or poured loose-fill insulation is installed only where the roof slope is <=3 in 12.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.2.1 [IN20][1]	Roof assembly meets minimal thermal resistance installed between roof framing or in a continuous fashion on the roof assembly as stipulated in Table C402.1.3. Requirements for above deck insulation, minimum thickness, suspended ceilings, staggered joints and skylight curbs will be met.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C303.2 [IN7][1]	Above-grade wall insulation installed per manufacturer's instructions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C303.2, C402.2.4 [IN9][2]	Floor insulation installed per manufacturer's instructions. Cavity or structural slab insulation installed in permanent contact with underside of decking or structural slabs.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C105 [IN6][1]	Installed above-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.2.3 [IN8][2]	Installed floor insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.2.6 [IN18][3]	Radiant panels and associated components, designed for heat transfer from the panel surfaces to the occupants or indoor space are insulated with a minimum of R-3.5.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C105 [IN2][1]	Installed roof insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports. For some ceiling systems, verification may need to occur during Framing Inspection.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.5.1.1 [IN1][1]	All sources of air leakage in the building thermal envelope are sealed, caulked, gasketed, weather stripped or wrapped with moisture vapor-permeable wrapping material to minimize air leakage.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [FI17][3]	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C401.3 [FI58][1]	A thermal envelope certificate will be supplied and completed by an approved third party.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.5 [FI55][1]	Building envelope contains a continuous air barrier that has been tested and deemed to limit air leakage <= 0.40 cfm/ft2.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.5.8 [FI37][1]	Weatherseals installed on all loading dock cargo door openings and provide direct contact along the top and sides of vehicles parked in the doorway.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.5.1 [FI19][1]	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Exterior Lighting fixture schedule for values.*
C406.3 [FI67][1]	Reduced lighting power - this credit specifies that the connected lighting power is >= 10% more efficient than 2021 IECC requirements.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.1.1 [FI57][1]	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.5 [FI16][3]	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.3 [FI33][1]	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

PRINT DATE: 04/22/2026
Model: M0920184MO

OFF FRAME BASEMENT & CRAWL FOUNDATION DESIGN FOR:

30' - 0 " 2-SECTION MODULAR
1 STORY- W.O ATTIC

Attic without storage where the maximum clear height between joist and rafter is less than 42 inches or req'd insulation depth exceeds the depth of the bottom chord.

PERIMETER ANCHORED SYSTEM- BUILDING IS SECURED TO FOUNDATION WALLS TO SUPPORT WIND AND SEISMIC FORCES.

SIDEWALLS ARE SUPPORTED (PERIMETER BLOCKED)

APPROVED • HILBORN, WERNER, CARTER & ASSOCIATES, INC. • 04-27-2026 HWC

BUILDING CODE INFORMATION:
IBC (2021)
ASCE 7-16

BUILDING SITE INFORMATION:

*MAXIMUM ULTIMATE/DESIGN WIND SPEED & EXPOSURE:	117/ 90 MPH EXPOSURE C-enclosed
MINIMUM SOIL BEARING CAPACITY:	1500 PSF
MAXIMUM GROUND SNOW(S):	20 PSF,
Flat roof snow load (Pf)=20.0 PSF	
SEISMIC DESIGN CATEGORY:	C
DESIGN SPECTRAL RESPONSE (S_{DS}):	0.47
SEISMIC SOIL SITE CLASS:	D
Ss:	0.5
S1:	0.25

STATE OF MISSOURI • WALTER E. WOOD NUMBER PE-2017022072 • PROFESSIONAL ENGINEER
VALID
April 22, 2026

HOME INFORMATION:

UNIT WIDTH:	30' - 0 "
MAX. UNIT LENGTH:	76 ft.
ROOF PITCH:	6/12 to 4/12
DESIGN LOADS:	100 PSF FL. LL., 7 PSF T.C.D.L., 8 PSF B.C. D.L., 25 PSF FL. DL. &, 10 PSF B.C.L.L
MAX. SIDEWALL HEIGHT:	108 INCHES
TOTAL MATING WALL RIM JOIST BEAMS:	(4) 2X10 #1 SP
RIM JOIST SPLICES:	6" X 6" MiTek MT20 metal plates each side
RIM JOIST SPLICES ARE NOT REQUIRED TO BE SUPPORTED BY PIERS	
MODEL #:	M0920184MO
OFF FRAME FLOOR	
PLANT NUMBER:	927

Please email questions to:
SiteCompletionQ&A@ClaytonHomes.com

It is responsibility of others (retailer,builder & building offical) to determine if this package is appropreate for site location by verifying design criteria and soil bearing capacity of site.

** Ultimate wind speed Vult. Per ASCE 7-16 / allowable stress design wind speed Vasd. All wind speeds are indicated as (Vasd) design speeds unless otherwise indicated.*

FILENAME:927I-19.R.K.C.22.2.4(_)

program version: 26.03

Clayton home building group

Model: M0920184MO

FILENAME:927I-19.R.K.C.22.2.4(_)

program version: 26.03

Preface

This foundation design manual is dedicated to the ever-growing trend to place homes over basements and permanent foundations. CMH Manufacturing, Inc. has attempted to address the more common installation configurations. These may or may not be the only acceptable designs for basements or permanent foundations. If deviations are made from these details, it is the homeowner's and/or installation contractor's responsibility to obtain proper documentation and engineer's details of construction acceptable to the local authority having jurisdictions. CMH Manufacturing, Inc. will not supply any details other than what is contained in the following design manual. If an alternate design is requested it must be provided by an independent engineer subject to local approval. The owner/contractor is responsible for any additional construction details, permits, inspections and fees associated with these items.

Setting a home over a basement or permanent foundation requires special knowledge, experience and equipment to accomplish a safe and proper set. Contractors performing this type of installation must be licensed, bonded and insured to protect all aspects of this type of work.

April 22, 2026

Instructions

#REF!

2. The provided foundation and anchorage designs are not applicable for the following conditions. In all these cases a complete geotechnical evaluation must be performed and foundation must be designed by a professional engineer in accordance with section 1808.6 (IBC) for site specific conditions.
• Site contains OL, OH or Pt class soils.
• Site contains compressible or shifting soils.
• Site contains expansive soils per IRC (R403.1.8.1) or per local authority and adopted code.
• Site contains soils which do not provide the minimum allowable soil bearing strength as specified per the provided designs.
• Foundation walls support unbalanced loads on opposite sides of building, such as a daylight basement or walk out basement where the building aspect ratio, L/W, exceeds the values specified in Table L.
• Site with soils subject to liquifaction or soil containing high concerntration of sulfate.

3. Determine foundation wall height for each wall of foundation. Reference Detail – D1 for wall height.

4. Determine height of backfill for each wall of foundation. Reference Table L when backfill heights along the foundation wall are unbalanced. Reference Detail – D1 for perimeter foundation wall construction.

5. Determine what type of mateline supports will be used. Reference Detail - D3, D5 or D7 for mateline columns.

6. Determine if type H connector plates will be used around the perimeter of the building. Fastening and anchoring tables have been provided with and without the use of the H connectors.

7. Find the ***Floor to Sill Plate & Sill Plate to Foundation*** table for site soil classification.

8. Find site wall height and backfill height line and follow this line across. Heights are listed as maximums, therefore any line beneath (greater height) may be utilized for items 10 ,11 & 12 below.

9. If type H connectors will be installed the table labeled ***With Type H Plate Connectors*** can be utilized. Note (6) will specify spacing for H plates along sidewalls and Note (7) will specify spacing for H plates along each endwall.

10. Select desired rim to sill connection from line in table (E, F or G for sidewalls and E or G for endwalls).

11. Select desired anchor type (4 or 5) for sill to foundation wall connection and determine anchor spacing for sidewall and endwall under corresponding column.

12. Determine if shearwall foundation holddowns are required by checking far right column within selected row. See Shearwall Foundation Holddown Detail (Detail D18) for connection requirements .

The above process may be repeated as desired for different foundation wall and backfill combinations.

General Notes

1. Foundation plans and details developed by CMH Manufacturing, Inc. are provided to our company owned sales centers and wholesale distribution partners. Alternate foundation systems may be used in lieu of these plans provided they are designed by a local professional Engineer or Architect familiar with the local soil and climate conditions, and are approved by the local authority having jurisdiction.

2. All notes stating "in field" or "by owner" are obligations pertaining to owner/contractor.

3. Owner /Contractor shall provide complete foundation, including footing drains, vapor barrier, sill plate, anchor bolts, stair area, slab and footing reinforcement along with damp proofing, waterproofing, backfill, and all finish work per Chapter 18 of IBC

4. Owner/Contractor shall be responsible for performing all work in accordance with approved construction details and obtaining all necessary inspections as required by local or state authorities. If home is placed on site where any window sill is less than 24" above finished floor and 72" or greater above the exterior grade, Retailer/Builder is responsible for installing a window guard must be installed that complies with ASTM F2090.

5. Not designed for areas likely to have collapsible, expansive, compressible, shifting, liquifaction, soil containing high concentration of sulfate or other unknown soil characteristics. In these conditions a local engineer must provide foundation design and the building official shall determine whether to require a soil test to determine the soil characteristics. This soil test shall be made by an approved testing agency using an approved method.

6. Pier spacing is dimensioned to centerline unless otherwise noted.

7. The foundation dimensions shown are nominal. An increase in module width should be expected due to module expansion, setting tolerances, etc. The foundation contractor should consult with the manufacturer of the modules prior to construction of the foundation to determine the actual width of the home and placement of anchors.

8. All steel support columns shall have protective coating and a load capacity equal to or greater than specified on foundation plan (k=1000 pounds).

9. All foundation construction materials and installation shall be in accordance with all state and local codes.

10. Backfill shall not be placed against the wall until the wall has sufficient strength and has been anchored to the floor above or has been sufficiently braced to prevent damage by the backfill. Heavy-equipment must be restricted to a minimum distance to the foundation at least equal to the depth of the foundation.

11. Solid cap block or cement fill required at top courses of all masonry piers or pilasters.

12. The foundation design has been designed to be placed in the seismic zone indicated on the cover of this document. Please note that all CMH structures have been designed for seismic (zone/category) A, B, or C only, unless otherwise noted on floor plan and cover page of these instructions.

13. All piers shall be constructed of 8"x8"x16" concrete masonry units conforming to ASTM C90 with a minimum compressive strength of 700 psi. Masonry foundation walls must be laid in type m or s mortar. When required per tables or details, piers of masonry units shall be laid in type m or s mortar. All dry stack masonry should be surfaced bonded with an approved adhesive product.

14. All reinforcing steel shall be Grade 60 minimum. All splices shall be lapped 24” minimum and splices shall be offset 30” minimum within same footer.

15. All concrete grout shall be 3000 psi at 28 days.

16. Reference the model plan drawing for specific foundation layout.

17. Concrete footings shall have a minimum compressive strength of 3000 psi at 28 days. Concrete foundation walls and other concrete exposed to weather shall have a minimum compressive strength of 3000 psi at 28 days and in moderate and severe weather areas the concrete shall be air entrained no less than 5 percent and not more than 7 percent.

18. All exterior footings shall be placed at least 12” below the undisturbed ground surface. All exterior footings shall extend below the frost line or otherwise frost protected in accordance with approval local building code

19. Top of foundation walls shall extend a minimum of 6-1/2” above finished adjacent grade. Wood framing members, including wood sheathing, that rest on exterior foundation walls and are less than 8” from exposed earth shall be of naturally durable or preservative-treated wood. Wood floor joist shall not be closer than 18” from exposed ground in under floor space.

20. Owner/Contractor shall verify this package is applicable for use at site by verifying all site conditions including design criteria and allowable soil bearing capacity meets or exceeds those specified within this package and shall verify dimensions prior to starting foundation. Notify home manufacturer of any discrepancies immediately.

21. The foundation must be designed and built to local codes and ordinances and must be approved and inspected by local building officials.

22. Access shall be to all under floor spaces. Access shall be a minimum of 18” by 24”. If mechanical equipment is installed is this area, please refer to the Mechanical Code for minimum access opening. Through wall access openings shall not be located under an exterior door.

23. Under floor space shall be ventilated with a net area ratio not less than 1 square foot for each 150 square feet of under floor space area placed in accordance with local codes. Ratio may be reduced to 1/1,500 where ground is covered with a 6-mil polyethylene or approved vapor retarderl.

24. Field installed wiring in basement is subject to local inspection. Basement smoke alarms must be installed at foot of stairs and interconnected with home smoke alarms and tested on site. Smoke alarms must be located, installed, and tested in conformance with local building requirements.

25. Large clear spans along mating wall require a column or pier at each end. See model specific foundation plot plan for mating wall column locations and Table M and Table N for support pier and footer size.

26. Basement stairs (widths, handrails, clearances, headroom, landings, fire protection, etc.) are the responsibility of the owner/contractor and must be constructed to comply with local building codes.

27. Owner/contractor shall not alter basement stair opening without written approval from CMH Manufacturing, Inc.

28. Lighting and receptacles in basement are the responsibility of owner/contractor.

29. Termite protection shall be provided per the building code and local requirements and are responsibility of owner/contractor.

30. Ground snow load is indicated on foundation plans. Snow load must be verified per locality. Building has not been designed to be located within a Tsunami design zone.

31. This structure has not been designed to be located within flood hazard locations or in Coastal A Zones. When site is located in a flood hazard area or in Coastal A Zones as determined by the local authority having jurisdiction or flood hazard maps. The unit shall have lowest floor elevated above the design floor elevation. Foundation and anchorage designs shall be provided by a local engineer in conformance with locally adopted building code and ASCE-24-14.

32. All connection hardware, anchor bolts, straps, hold-downs, washers and fasteners shall be minimum of ASTM A653 Type G185 zinc coated galvanized or stainless when in contact with pressure treated sill plates or other pressure treated lumber.

33. Radon control, when required by a local jurisdiction, shall be provided and installed by others in accordance with appendix F of the IRC.

34. Topographic wind effects have not been considered. Home has not been designed to be located in areas designated as having local historical data documenting structural damage to buildings caused by wind speed-up at isolated hills, ridges and escarpments.

35. Surface drainage shall be devirted to a storm sewer or other approved collection point. Lots shall be graded to drain surface water away from foundation walls. The grade shall fall a minimum of 6 inches within the first 10 feet.

36 A 6-mil-thick polyethylene moisture barrier shall be applied over the porous layer with the basement floor constructed over the polyethylene.

37. Concrete and Masonry Foundation walls that retain earth and enclose interior spaces and floors below grade shall be damp proofed from the top of the footing to the finished grade. Masonry walls shall have not less than 3/8" Portland cement parging applied to the exterior of the wall. The parging shall be damp proofed in accordance with one of the following.

a. Bituminous coating, b. 3 pound per sq. yard of arcylic modified cement, c. 1/8" coat of surface-bonding cement complying with ASTM C887, d. Material permitted for waterproofing per Section R406.2, e. Other approved methods or materials.

38. Concrete and masonry foundation walls that retain earth and enclose interior spaces and floors below grade in areas of high water table or other severe soil-water conditions shall be waterproofed from the top of the footing to the finished grade in accordance with one of the following:

a. 2-ply hot-mopped felts, b. 55 pound rolled roofing, c. 40-mil polymer-modified asphalt., d. 60-mil flexible polymer cement, e. 1/8" cement-based, fiber-reinforced, waterproof coating, f. 60-mil solvent-free liquid-applied synthetic rubber.

39. If building is located within a wind borne debris region glazed openings shall be protected from wind borne debris. Wind Borne debris protection is the responsibility of others.

40. When Geotechnical report is required or available, all recommendations shall be followed and geotechnical engineer shall review all foundation plans to verify applicability with recommendations and engineer shall be present on regular basis during site preparation, fill placement and foundation excavation.

41. Self-closing rated doors shall be installed between garage and house (on-site by other).(R302.5.1)

The home has not been constructed to be placed over unprotected basements or crawl spaces intended for storage or containing heating appliances. It is the responsibility of other to provide 1/2" gyp. On underside of floor as required by R302.13.

43. A 10-mil polyethylene or approved vapor retarder with joints lapped not less than 12 inches shall be placed between the concrete floor slab and the base course or the prepared subgrade.

SOIL CLASSIFICATION

#REF!						
LATERAL SOIL LOAD	UNIFIED SOIL CLASSIFICATION SYSTEM SYMBOL	SOIL DESCRIPTION	DRAINAGE CHARACTERISTICS[a]	FROST HEAVE POTENTIAL	VOL. CHANGE POTENTIAL EXPANSION[b]	ALLOWABLE SOIL PRESSURE
30 psf LATERAL SOIL LOAD	GW	Well-graded gravels, gravel sand mixtures, little or no fines	Good	Low	Low	3000
	GP	Poorly graded gravel or gravels sand mixtures, little or no fines	Good	Low	Low	3000
	SW	Well-graded gravels, gravelly sands, little or no fines	Good	Low	Low	2000
	SP	Poorly graded sand, or gravelly sands, little or no fines	Good	Low	Low	2000
45 psf LATERAL SOIL LOAD	GM	Silty gravels, gravel-sand-silt mixtures	Good	Medium	Low	2000
	SM	Silty sand, sand-silt mixtures	Good	Medium	Low	2000
	GC	Clayey gravels, gravel-sand-clay mixtures	Medium	Medium	Low	2000
60 psf LATERAL SOIL LOAD	SC	Clayey sands, sand-clay mixture	Medium	Medium	Low	2000
	ML	Inorganic silts and very find sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	Medium	High	Low	1500
	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	Medium	Medium	Medium to Low	1500
	CH	Inorganic clays of high plasticity, fat clays	Poor	Medium	High	1500
	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts	Poor	High	High	1500
SPECIAL INSPECTION REQUIRED	OL	Organic silts and organic silty clays of low plasticity	Poor	Medium	Medium	SPECIAL INSPECTION REQUIRED
	OL	Organic clays of medium to high plasticity, organic silts	Unsatisfactory	Medium	High	
	Pt	Peat and other highly organic soils	Unsatisfactory	Medium	High	

a. The percolation rate for good drainage is over 4 inches per hour, medium drainage is 2 inches to 4 inches per hour, and poor is less than 2 inches per hour.

b. Soils with low potential expansion typically have a plasticity index (PI) of 0 to 15, soils with a medium potential expansion have a PI of 10 to 35 and soils with a high potential expansion have PI greater than 20.

c. IRC Table of same name has been used in part to derive table with additional information supplimented from other accepted engineering references.

TABLE R404.1.1:IBC (2021) PERIMETER FOUNDATION WALL MINIMUM REQUIREMENTS [Seismic Seismic Zone: Design]

		GW, GP, SW, & SP Soil Class (30 PSF)			GM, GC, SM-SC, & ML Soil Class (45 PSF)			SC, MH, ML-CL, & Inorganic CL Soil Class (60 PSF)		
Max. Wall Height	Maximum Unbalanced Fill*	Plain Masonry 1 Walls	8" Reinforced Masonry Walls [5,9]	8" Poured Concrete Walls [6, 7]	Plain Masonry 1 Walls	8" Reinforced Masonry Walls [5,9]	8" Poured Concrete Walls [6, 7]	Plain Masonry 1 Walls	8" Reinforced Masonry Walls [5,9]	8" Poured Concrete Walls [6, 7]
0 to 5 feet	4	6 in. solid (3) or 8 in.	-	PC	6 in. solid (3) or 8 in.	-	PC	6 in. solid (3) or 8 in.	-	PC
	5	6 in. solid (3) or 8 in.	-	PC	8 in.	-	PC	10 in.	-	PC
6 feet to 7 feet	4	6 in. solid (3) or 8 in.	#4 @ 48 in. o.c.	PC	8	#4 @ 48 in. o.c.	PC	8	#4 @ 48 in. o.c.	PC
	5	6 in. solid (3) or 8 in.	#4 @ 48 in. o.c.	PC	10 in.	#4 @ 48 in. o.c.	PC	10 in.	#4 @ 48 in. o.c.	PC
	6	10 in.	#4 @ 48 in. o.c.	PC	12 in.	#5 @ 48 in. o.c.	PC	10 in. solid (3)	#5 @ 48 in. o.c.	#5 @ 48 in. o.c.
	7	12 in.	#5 @ 48 in. o.c.	PC	10 in. solid (3)	#6 @ 48 in. o.c.	#5 @ 46 in. o.c.	12 in. solid (3)	'#6 @ 40 in. o.c.	#6 @ 48 in. o.c.
8 feet	4	6 in. solid (3) or 8 in.	#4 @ 48 in. o.c.	PC	6 in. solid (3) or 8 in.	#4 @ 48 in. o.c.	PC	8	#4 @ 48 in. o.c.	PC
	5	6 in. solid (3) or 8 in.	#4 @ 48 in. o.c.	PC	10 in.	#4 @ 48 in. o.c.	PC	12 in.	#4 @ 48 in. o.c.	PC
	6	10 in.	#4 @ 48 in. o.c.	PC	12 in.	#5 @ 48 in. o.c.	PC	12 in. solid (3)	#5 @ 48 in. o.c.	#6@32in o.c.
	7	12 in.	#5 @ 48 in. o.c.	PC	12 in. solid (3)	#6 @ 48 in. o.c.	#5 @ 41 in. o.c.	Footnote (4)	'#6 @ 40 in. o.c.	#6@32 in. o.c.
	8	10 in. solid (3)	#5 @ 48 in. o.c.	#6@41	12 in. solid (3)	#6 @ 48 in. o.c.	#6 @ 43 in. o.c.	Footnote (4)	'#6 @ 32 in. o.c.	#6@18 in. o.c.
9 feet	4	6 in. solid (3) or 8 in.	#4 @ 48 in. o.c.	PC	6 in. solid (3) or 8 in.	#4 @ 48 in. o.c.	PC	8 in.	#4 @ 48 in. o.c.	PC
	5	8 in.	#4 @ 48 in. o.c.	PC	10 in.	#4 @ 48 in. o.c.	PC	12 in.	#5 @ 48 in. o.c.	PC
	6	10 in.	#4 @ 48 in. o.c.	PC	12 in.	#4 @ 48 in. o.c.	PC	12 in. solid (3)	#6 @ 48 in. o.c.	#6@35 in. o.c.
	7	12 in.	#5 @ 48 in. o.c.	PC	12 in. solid (3)	#6 @ 48 in. o.c.	#6@35 in. o.c.	Footnote (4)	'#6 @ 40 in. o.c.	#6@32 in. o.c.
	8	12 in. solid (3)	#6 @ 48 in. o.c.	#6@36 in. o.c.	Footnote (4)	'#6 @ 40 in. o.c.	#6@32 in. o.c.	Footnote (4)	#6 @ 24 in. o.c.	#6@28 in. o.c.
	9	Footnote (4)	'#6 @ 40 in. o.c.	#6@35 in. o.c.	Footnote (4)	#6 @ 24 in. o.c.	#6@25 in. o.c.	Footnote (4)	#6 @ 16 in. o.c.	#6@24 in. o.c.
10 feet	8	NA	#6 @ 48 in. o.c.	#6 @ 35 in. o.c.	NA	#6 @ 32 in. o.c.	#6 @ 29 in. o.c.	NA	#6 @ 24 in. o.c.	#6 @ 21 in. o.c.
	9	NA	#6 @ 40 in. o.c.	#6@34 in. o.c.	NA	#6 @ 24in. o.c.	#6@22 in. o.c.	NA	#6 @ 16 in. o.c.	#6@16 in. o.c.
	10	NA	#6 @ 32 in. o.c.	#6 @ 27 in. o.c.	NA	#6 @ 16 in. o.c.	#6 @ 17 in. o.c.	NA	#6 @ 16 in. o.c.	#6 @ 13 in. o.c.

*Unbalanced backfill height is the difference in height between the exterior finish grade level and the top of the basement slab or crawl space grade.

Backfill shall be placed only AFTER the home has been anchored to the foundation wall.

(1) - All block must conform to ASTM C90 (700 psi rated) and be laid in a running bond of Type M or S mortar with overlapping pattern . Ungrouted hollow masonry units are permitted except where otherwise indicated.

(3) - Solid grouted hollow units or solid masonry units.

(4) - Wall construction per reinforced units or design required.

(5) - Vertical reinforcement shall be Grade 60 minimum. The distance from the face of the soil side of the wall to the center of vertical reinforcement shall be at least 5". Reinforcement shall be installed in accordance chapter 4 and section R608 of IRC.

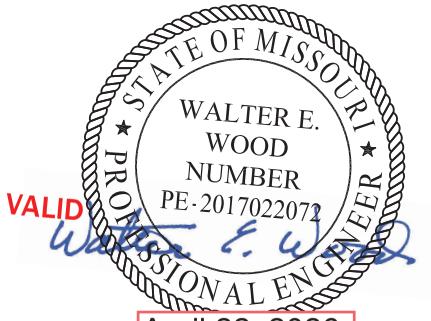
(6) - PC = Plain Concrete (Concrete with less reinforement than minimum for reinforced concrete)

(7) - All reinforcement shall be Grade 60 minimum. The distance from the face of the soil side of the wall to the vertical reinforcement shall be at least 6 1/16", but not more than 6 11/16".

'All information above has been extracted from the 2009 IRC Tables R404.1.1(1), Tables R404.1.1(2) Tables R404.1.2(3)

(8) Reserved

(9) Reserved



April 22, 2026

FILENAME:927I-19.R.K.C.22.2.4(_)

Maximum Aspect Ratio, L/W for Unbalanced Foundations

		SOIL CLASS		
Maximum Wall Height	**Maximum Unbalanced Fill**	**GW, GP, SW, & SP (30 PSF)**	**GM, GC, SM-SC, & ML (45 PSF)**	**SC, MH, ML-CL, & Inorganic CL (60 PSF)**
7 feet	4	4.0	4.0	4.0
	5	4.0	3.4	2.6
	6	3.0	2.0	1.5
	7	1.9	1.2	0.9
8 feet	4	4.0	4.0	4.0
	5	4.0	3.9	2.9
	6	3.4	2.3	1.7
	7	2.1	1.4	1.1
	8	1.4	1.0	0.7
9 feet	4	4.0	4.0	4.0
	5	4.0	4.0	3.3
	6	3.8	2.6	1.9
	7	2.4	1.6	1.2
	8	1.6	1.1	0.8
	9	1.1	0.8	0.6

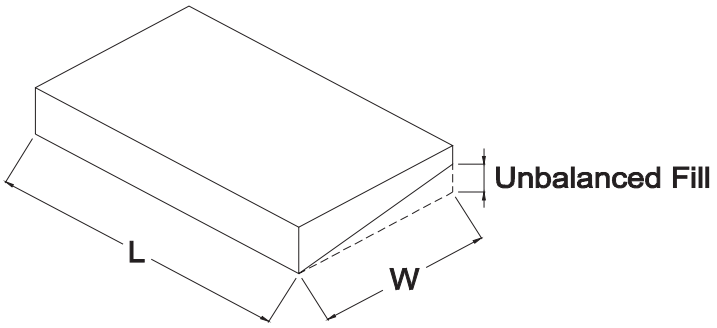
Instructions:

Where foundation wall support unbalnced load on opposite sides of building such as daylight basement, the building aspect ratio, L/W, shall not exceed the value specified in Table

1 - Determine foundation wall height, unbalanced fill depth, and soil class to determine aspect ratio from table above.

2 - Multiple "W" times aspect ratio.

3 - Result is equal to the maximum allowable building length on the exposed side.



Example 1 - check sidewall for 26'-8" x 60'-0" home.

Basement Wall Height = 8'-0"

Unbalanced backfill = 7'-0"

Soil Class = SP

Aspect Ratio from Table above = 2.1

26.67 x 2.1 = 56'-0" max. allowable length - **example fails**

Try again using 6'-0" max. unbalanced fill with an aspect ratio of 3.4.

26.67 x 3.4 = 90'-8" max. allowable length - **example passes**

Max. allowable backfill is 6'-0"

Example 2 - check endwall for 26'-8" x 60'-0" home.

Basement Wall Height = 8'-0"

Unbalanced backfill = 7'-0"

Soil Class = SP

Aspect Ratio from Table above = 2.1

60 x 2.1 = 126'-0" max. allowable length - **example passes**

"L" = total overall dimension of the building on the exposed side

"W" = the total overall dimension of the building on the side adjacent to the exposed side

Required Rim Joist to Sill Plate Fastening at wall "L".
Use a 20 Gauge metal angle clip at 24" o.c. with (5) 8d nails per leg or an approved connector supplying 230 pounds per linear foot capacity.

**Page extracted from 2006 IRC section R404.1.5 & Table R404.1(3)*

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UNBALANCED FOUNDATIONS (TABLE L)

DATE: 3/27/07 | FILENAME:927I-19.R.K.C.22.2.4(_)

PAGE #:

TABLE M - MINIMUM CONCRETE BLOCK PIER AND FOOTER SIZE

AT MATING WALL COLUMNS (REF. DETAILS D4 OR D5)							# of Uplift Ties
GROUND SNOW=>		20					
MAXIMUM MATING LINE SPAN BETWEEN MATING WALL COLUMN SUPPORTS	4 '	(D) 40"x40"X12"					0
	6 '	(D) 40"x40"X12"					0
	8 '	(D) 40"x40"X12"					0
	10 '	(D) 40"x40"X12"					0
	12 '	(D) 40"x40"X12"					0
	14 '	(D) 40"x40"X12"					0
	16 '	(D) 40"x40"X12"					0
	18 '	(T) 48"x48"X16"					0
	20 '	(T) 48"x48"X16"					1
	22 '	(T) 48"x48"X16"					1
	24 '	(T) 48"x48"X16"					1
	26 '	(T) 48"x48"X16"					1
	28 '	(T) 48"x48"X16"					1
	30 '	(T) 48"x48"X16"					1
	32 '	(T) 48"x48"X16"					1
	34 '	(T) 48"x48"X16"					1
	36 '	(T) 48"x48"X16"					1
	46 '	(DR) 62"x62"X23"					1
SUPPORTS UNDER MATING OPENING AS CLEARSPANS IN FEET							
PIER SPACING		5.3 '					
PIER CONFIG.		(D) 40"x40"X12"					
SUPPORTS UNDER MATING WALLS- CLEARSPANS IN FEET							
PIER SPACING		4.9 '					
PIER CONFIG.		(D) 40"x40"X12"					

Girder beams construction to be (4) 2X10 #1 SP joists. Splices 6" X 6" MiTek MT20 metal plates each side

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PROFESSIONAL ENGINEER

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April 22, 2026

Chart Key:
(Pier Configuration) Min. footer width (inches) x Min. footer length (inches) x Min. footer depth (inches)
(S)= Single stack block configuration.
(D)= Double stack block configuration.
(T)= Triple stack block configuration.
(DR)=Double stack reinforced & fully grouted configuration.
IE. For 20 psf 180" box with 14' opening:Double stack pier on a 40"x 40" sq. footer 12" deep footing.

30' 1 STORY- W.O ATTIC OFF FRAME BASEMENT & CRAWL With Roof Pitch of 6/12 Min. to 4/12 Max.

NOTES:
1 DESIGNED FOR 90 MPH MAX. WIND SPEED.
2 DESIGNED FOR 1500 PSF MIN. ALLOWABLE SOIL BEARING CAPACITY.
3 DESIGN TO * Ultimate wind speed Vult. Per ASCE 7-16 / allowable stress design wind speed Vasd. All wind speeds are indicated as (Vasd) design speeds unless otherwise indicated. & ASCE 7-16 &
4 MAX. MATING WALL OPENINGS LISTED IN CHART ASSUME OPENING IN BOTH HALVES. IF ANCHOR IS TIED TO ONLY ONE COLUMN (ONE HALF) THEN HALF THE OPENING SIZE CAN BE USED WHEN LOOKING UP VALUE IN TABLE ABOVE. PIER SUPPORTS REQUIRED AT EACH SIDE OF DOOR OPENINGS AND ALL EXTERIOR WALL OPENINGS GREATER THAN 4'.
5 WHEN PIER CONFIGURATION IS NOT GIVEN IN CHART THE ACTUAL LOADS EXCEED ALL PREDESIGNED PIERS AND A LOCAL ENGINEER MUST DESIGN THE SUPPORTS FOR THE GIVEN LOADS (- UPLIFT/ + GRAVITY LOADS).
6 ALL PIERS SHALL BE EMBEDDED IN TYPE M OR S MORTAR.

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FILENAME:927I-19.R.K.C.22.2.4(_)

TABLE N - STRUCTURAL STEEL POST AND FOOTER SIZE AT MATING WALL COLUMNS (REF. DETAIL D7)

GROUND SNOW=	20					Uplift force
MAXIMUM MATING LINE SPAN BETWEEN MATING WALL COLUMN SUPPORTS						
4 '	(14k) 38"x38"X13"					0 #
6 '	(14k) 38"x38"X13"					0 #
8 '	(14k) 38"x38"X13"					0 #
10 '	(14k) 38"x38"X13"					0 #
12 '	(14k) 38"x38"X13"					0 #
14 '	(20k) 44"x44"X14"					0 #
16 '	(20k) 44"x44"X14"					0 #
18 '	(20k) 44"x44"X14"					0 #
20 '	(20k) 44"x44"X14"					55 #
22 '	(20k) 44"x44"X14"					155 #
24 '	(20k) 44"x44"X14"					255 #
26 '	(20k) 44"x44"X14"					355 #
28 '	(20k) 44"x44"X14"					455 #
30 '	(20k) 44"x44"X14"					555 #
32 '	(20k) 44"x44"X14"					655 #
34 '	(30k) 54"x54"X17"					755 #
36 '	(30k) 54"x54"X17"					855 #
46 '	(30k) 54"x54"X17"					1355 #
SUPPORTS UNDER MATING OPENING AS CLEARSPANS IN FEET						
POST SPACING	5.3 '					
FOOTER SIZE	(14k) 38"x38"X13"					
SUPPORTS UNDER MATING WALLS- CLEARSPANS IN FEET						
POST SPACING	4.9 '					
FOOTER SIZE	(14k) 38"x38"X13"					

Girder beams construction to be (4) 2X10 #1 SP joists. Splices 6" X 6" MiTek MT20 metal plates each side

Chart Key:
(Post Load)= Minimum allowable compression rating which post must be rated in kips (1000 lbs.).
(Post Capacity and Footer Size) Min. footer width (inches) x Min. footer length (inches) x Min. footer depth (inches)
Note: Steel piers must have a minimum steel base plate size of 4 inches x 5.5 inches which bears directly on footer sized per chart.
Minimum steel column top plate size of 4"x5.5"for 9000#; 6"x6"for 14000#; 6"x6"for 20000# & 6"x10"for 30000#

Minimum footer Reinforcement (Number of #4 bars each way):

Footer size	# of No. 4 bars	Footer size	# of No. 4 bars
30"x30"	3	44"x44"	6
38"x38"	5	54"x54"	9

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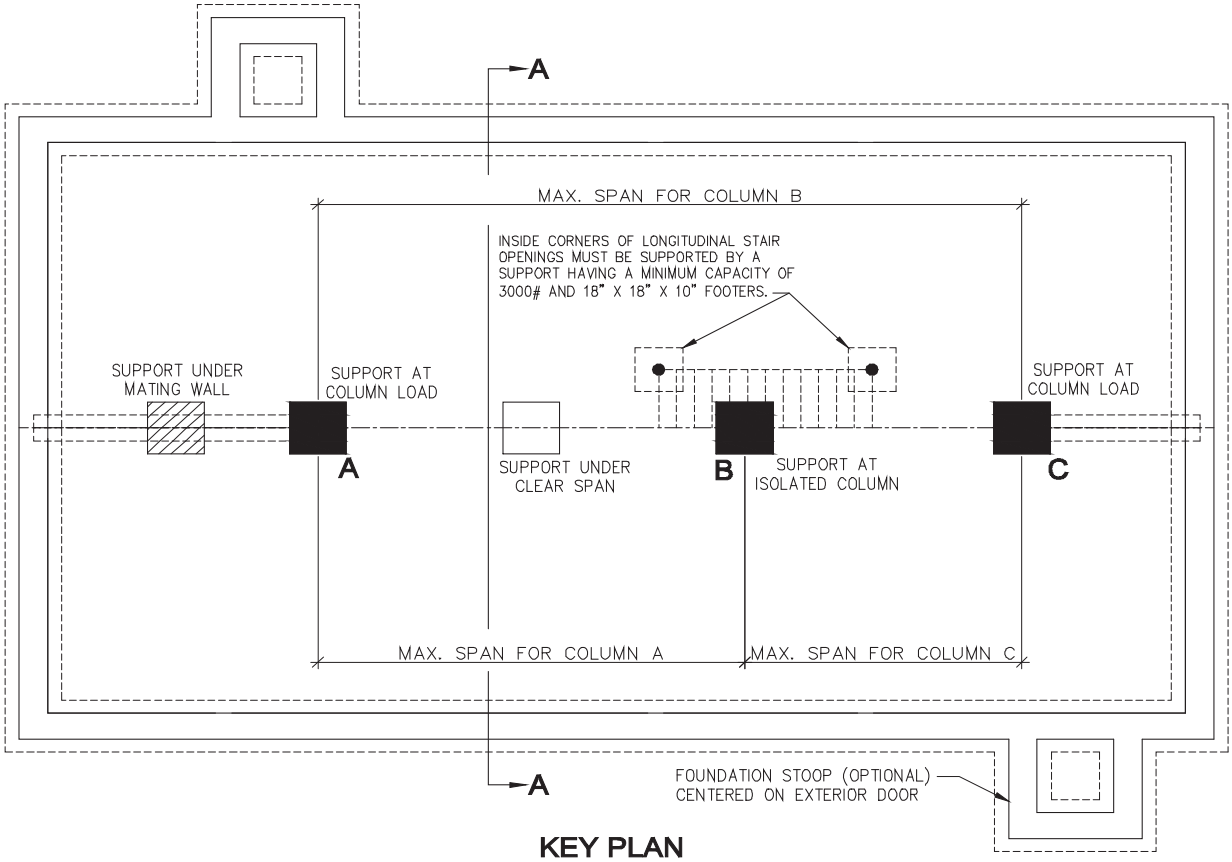
April 22, 2026

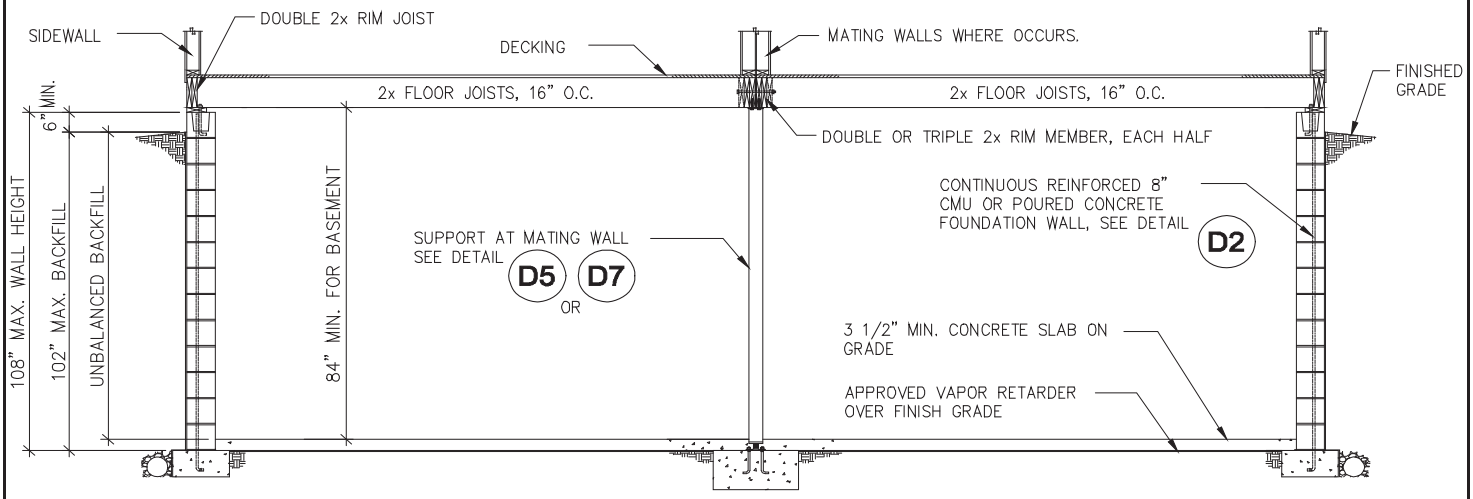
30' 1 STORY- W.O ATTIC OFF FRAME BASEMENT & CRAWL With Roof Pitch of 6/12 Min. to 4/12 Max.

NOTES: 1 DESIGNED FOR 90 MPH MAX. WIND SPEED.
2 DESIGNED FOR 1500 PSF MIN. ALLOWABLE SOIL BEARING CAPACITY.
3 DESIGN TO * Ultimate wind speed Vult. Per ASCE 7-16 / allowable stress design wind speed Vasd. All wind speeds are indicated as (Vasd) design speeds unless otherwise indicated. & ASCE 7-16 &
4 MAX. MATING WALL OPENINGS LISTED IN CHART ASSUME OPENING IN BOTH HALVES. IF ANCHOR IS TIED TO ONLY ONE COLUMN (ONE HALF) THEN HALF THE OPENING SIZE CAN BE USED WHEN LOOKING UP VALUE IN TABLE ABOVE. PIERS SUPPORTS REQUIRED AT EACH SIDE OF DOOR OPENINGS AND ALL EXTERIOR WALL OPENINGS GREATER THAN 4'.
5 WHEN PIER CONFIGURATION IS NOT GIVEN IN CHART THE ACTUAL LOADS EXCEED ALL PREDESIGNED FOOTERS AND A LOCAL ENGINEER MUST DESIGN THE SUPPORTS FOR THE GIVEN LOADS (- UPLIFT/ + GRAVITY LOADS).



KEY PLAN
OFF-FRAME BASEMENT - 2 SECTION

NOT TO SCALE



CROSS SECTION A-A

NOTES:

1. MARRIAGE LINE POSTS SHALL SUPPORT THE MARRIAGE WALL, COLUMNS AND STAIR LOADS WHERE OCCURS. REFER TO SPECIFIC FOUNDATION LAYOUT FOR LOCATION INFORMATION.
2. SEE GENERAL NOTES SECTION FOR VENTILATION, DRAINAGE AND OTHER FOUNDATION REQUIREMENTS.

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April 22, 2026

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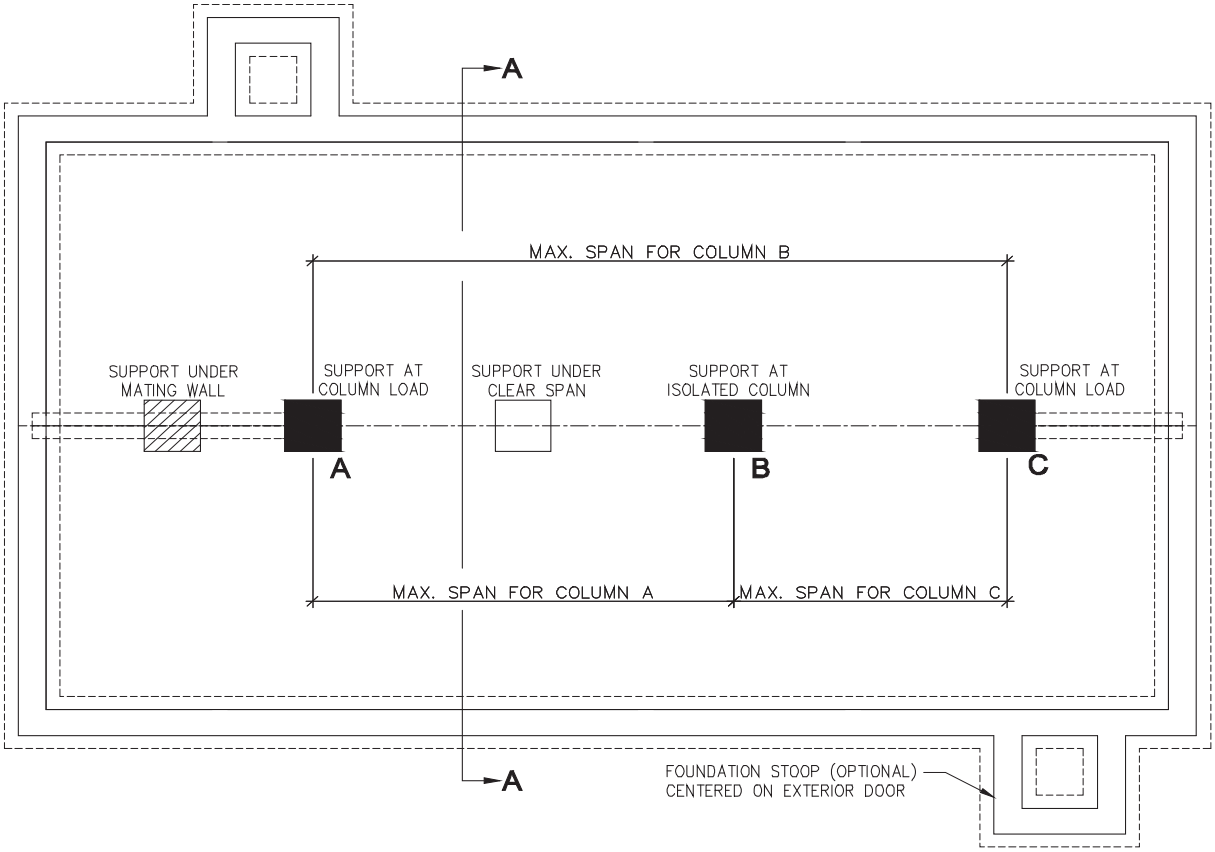
KEY PLAN 7 - OFF-FRAME / BASEMENT / 2 SECTION

DATE: 05/25/07

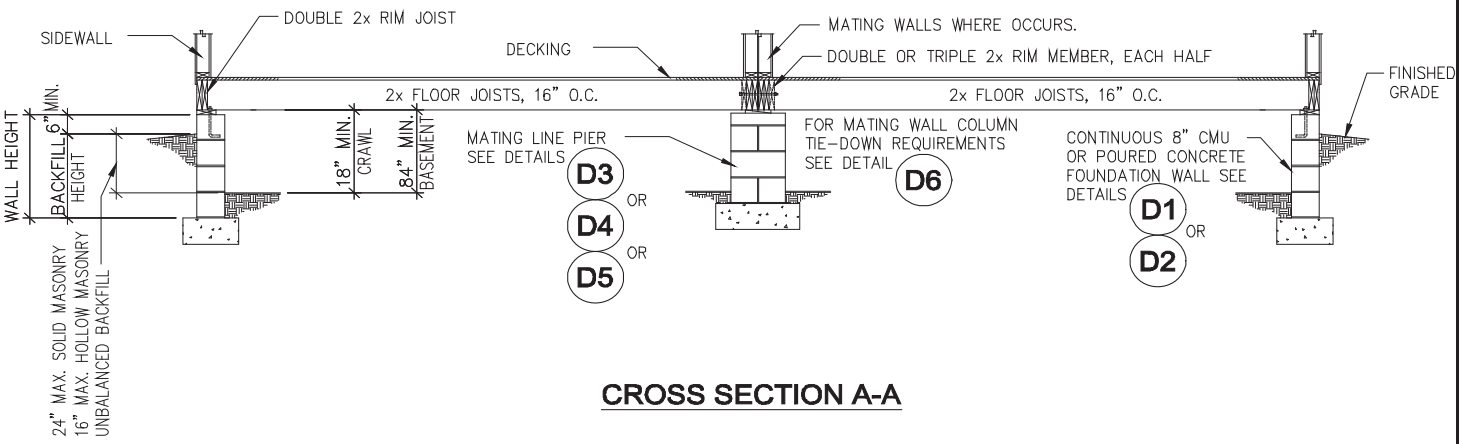
927I-19.R.K.C.22.2.4(_)

PAGE #:



KEY PLAN
OFF-FRAME CRAWL SPACE - 2 SECTION

NOT TO SCALE



CROSS SECTION A-A

NOTES:

1. MARRIAGE LINE POSTS SHALL SUPPORT THE MARRIAGE WALL, COLUMNS AND STAIR LOADS WHERE OCCURS. REFER TO SPECIFIC FOUNDATION LAYOUT FOR LOCATION INFORMATION.
2. SEE GENERAL NOTES SECTION FOR VENTILATION, DRAINAGE AND OTHER FOUNDATION REQUIREMENTS.

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April 22, 2026

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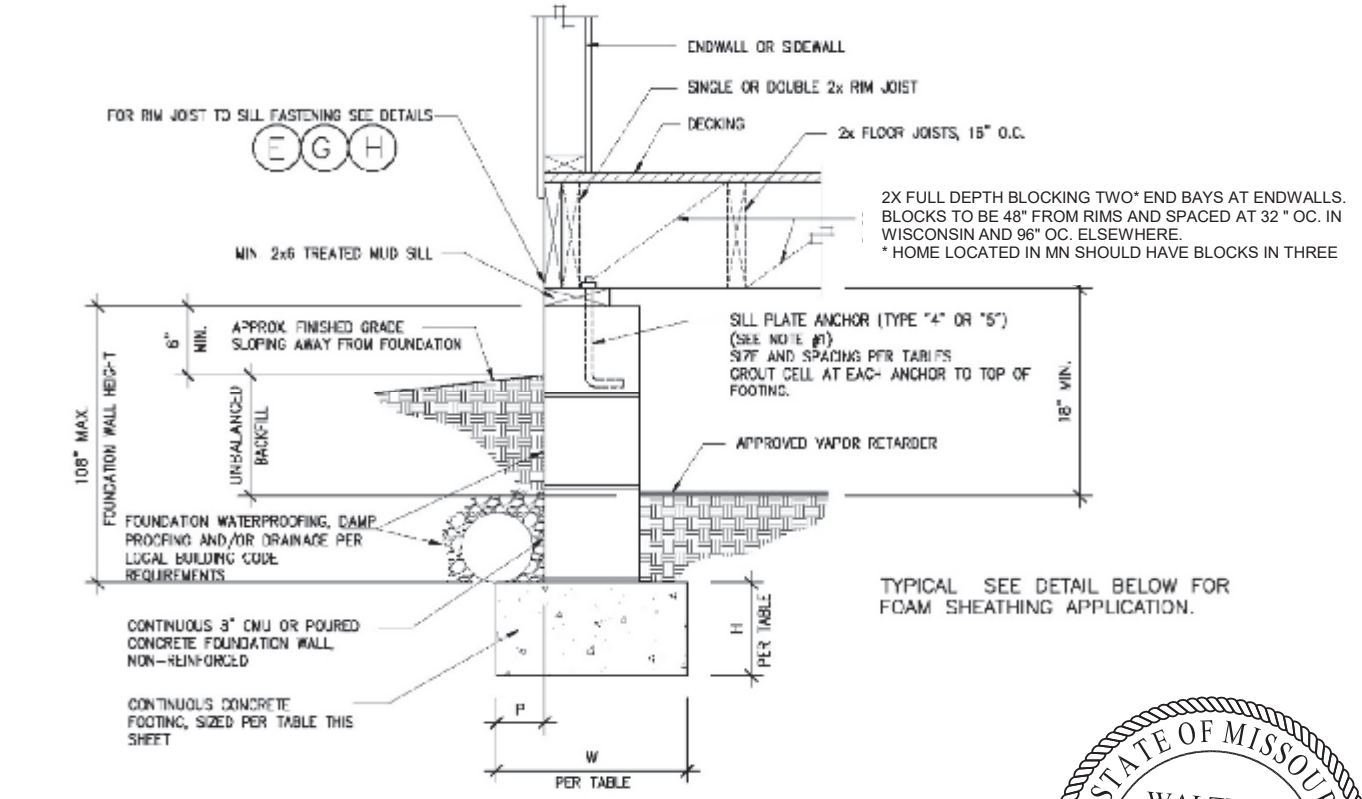
KEY PLAN 8 - OFF-FRAME / CRAWL SPACE / 2 SECTION

DATE: 05/25/07

927I-19.R.K.C.22.2.4(_)

PAGE #:



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April 22, 2026

FOOTER SIZE TABLE

MAX. GROUND SNOW	MIN. FOOTER SIZE		
	WIDTH W	DEPTH H	
		Crawl	Basement
20 PSF	16 "	6"	6"
	16 "	6"	6"

NON-REINFORCED PERIMETER FOUNDATION WALL
BASEMENT OR CRAWLSPACE
MAX. 90 MPH WIND SPEED & SEISMIC ZONE C
30 ' WIDE 1 STORY- W.O ATTIC

NOTES:

1) MUD SILL TO FOUNDATION ANCHORS:
   TYPE 4: 1/2" DIAMETER STEEL ANCHOR BOLTS EMBEDDED 7" MIN. INTO CONCRETE FOUNDATION WALL OR CLOSE CELL CMU WITH 2"x2"x1/8" WASHERS AND NUTS. BOLT HEADS SHALL NOT BE RECESSED INTO SINGLE SILL PLATE.
   TYPE 5: SIMPSON MAB OR MAS MUD SILL ANCHOR INSTALLED PER INSTALLATION INSTRUCTIONS.
2) RIM TO MUD SILL FASTENING AND SILL TO FOUNDATION ANCHOR SPACING SHALL BE THE MINIMUM OF:
   a) SPACING GIVEN IN APPLICABLE TABLES FOR UNIT CONFIGURATION AND WIND SPEED.
   b) SPACING GIVEN IN BACKFILL/ SIDEWALL TABLES FOR GIVEN UNIT CONFIGURATION, MAXIMUM BASEMENT WALL HEIGHT, BACKFILL DEPTH, AND LOCAL SOIL CLASSIFICATION.
3) DISTANCE FROM EDGE OF FOOTER TO FACE OF FOUNDATION WALL (P) SHALL NOT BE LESS THAN 2" AND SHALL NOT EXCEED THE FOOTER THICKNESS (H).
4) 1500 PSF MIN. ALLOWABLE SOIL BEARING CAPACITY.

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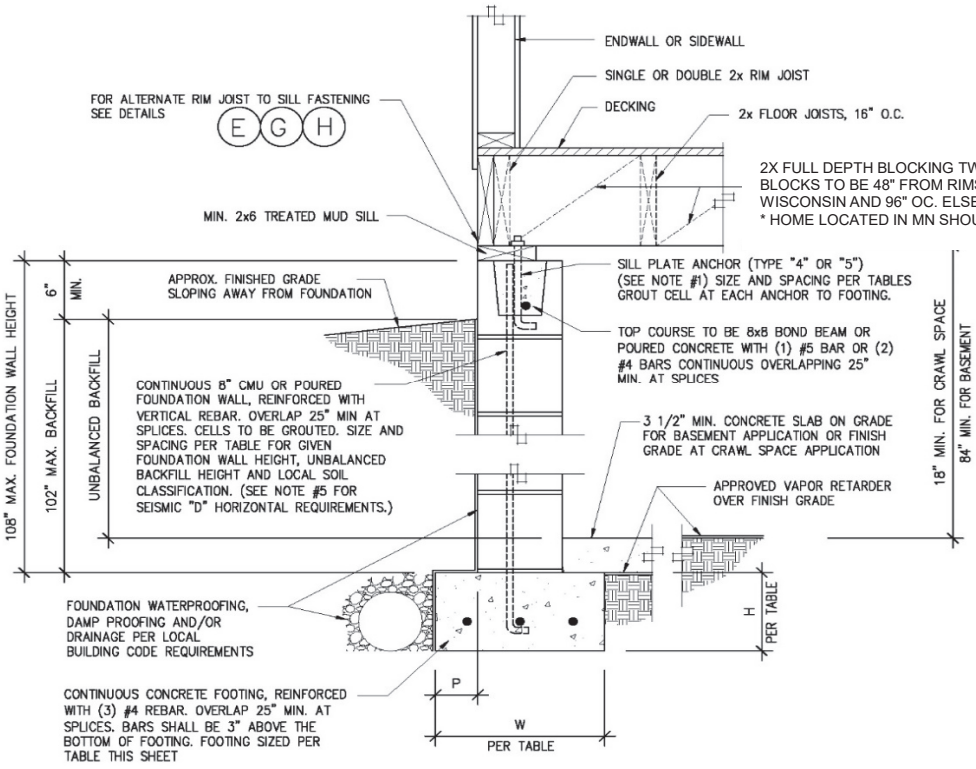
NON-REINFORCED PERIMETER FOUNDATION WALL - DETAIL - D1

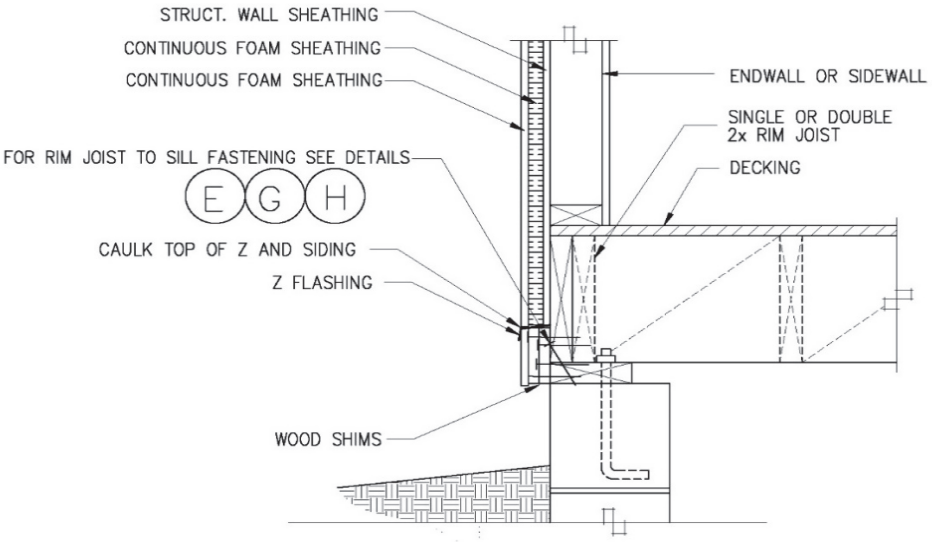
DATE: 07/17/07

927I-19.R.K.C.22.2.4(_)

PAGE #:



TYPICAL
SEE BELOW FOR ADDITIONAL DETAIL
FOR FOAM SHEATHING APPLICATION



FOOTER SIZE TABLE

MAX. GROUND SNOW	MIN. FOOTER SIZE		
	WIDTH W	DEPTH H	
		Crawl	Basement
20 PSF	16 "	6"	6"

Model: M0920184MO

REINFORCED PERIMETER FOUNDATION WALL

BASEMENT OR CRAWL SPACE

30 ' WIDE 1 STORY- W.O ATTIC

117/ 90 *MAXIMUM ULTIMATE/DESIGN WIND SPEED
EXPOSURE C-enclosed & SEISMIC ZONE C

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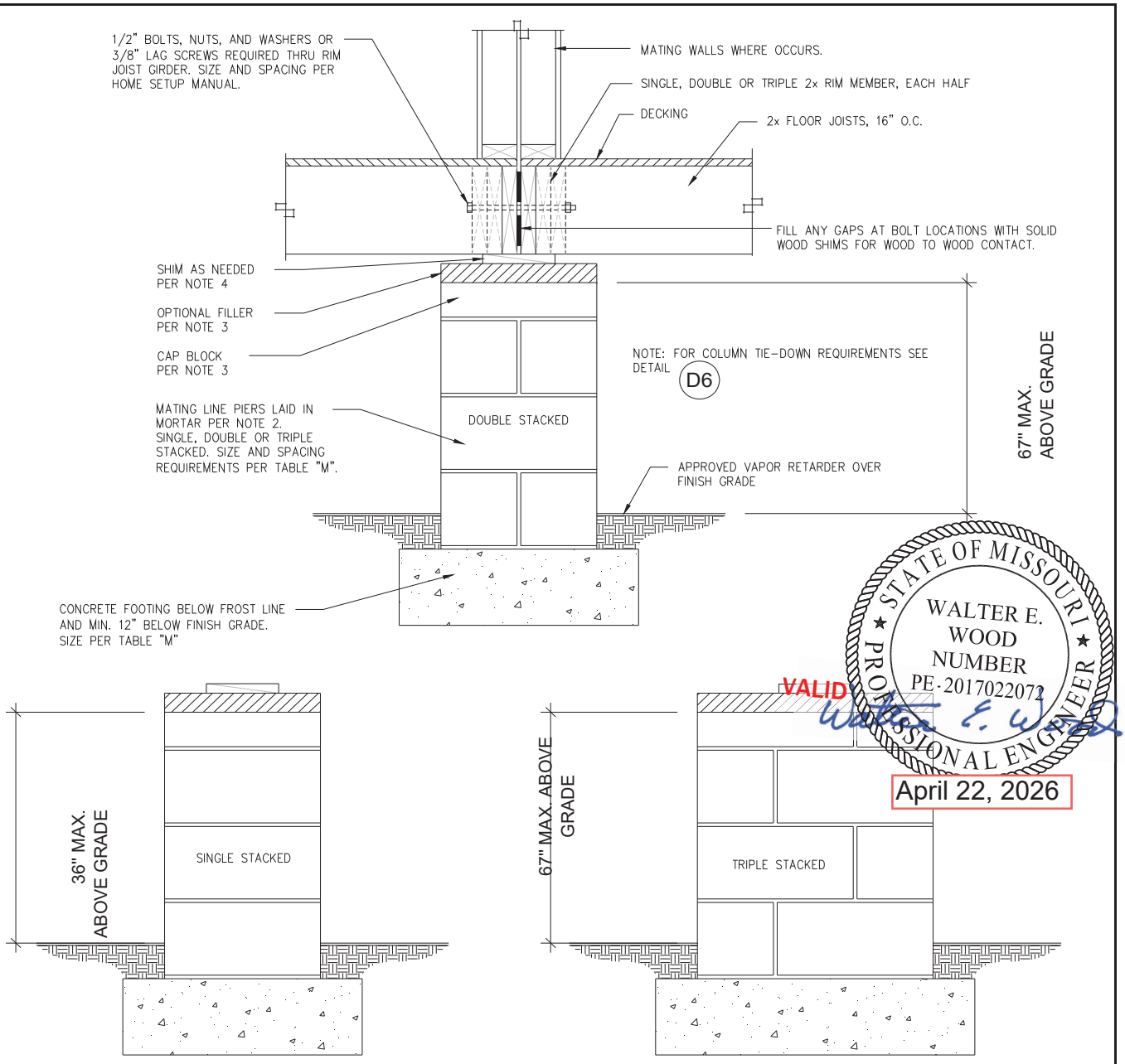
NOTES:

1. MUD SILL TO FOUNDATION ANCHORS:
   TYPE 4:1/2'' DIAMETER STEEL ANCHOR BOLTS EMBEDDED 7'' MIN. INTO CONCRETE FOUNDATION WALL OR CLOSE CELL CMU WITH 2"x2"x1/8" WASHERS AND NUTS. BOLT HEADS SHALL NOT BE RECESSED INTO SINGLE SILL PLATE.
   TYPE 5: SIMPSON MAB OR MAS MUD SILL ANCHOR INSTALLED PER INSTALLATION INSTRUCTIONS.
2. RIM TO MUD SILL FASTENING AND SILL TO FOUNDATION ANCHOR SPACING SHALL BE THE MINIMUM OF:
   a) SPACING GIVEN IN APPLICABLE TABLES FOR UNIT CONFIGURATION AND WIND SPEED.
   b) SPACING GIVEN IN BACKFILL/ SIDEWALL TABLES FOR GIVEN UNIT CONFIGURATION, MAXIMUM BASEMENT WALL HEIGHT, BACKFILL DEPTH, AND LOCAL SOIL CLASSIFICATION.
3. DISTANCE FROM EDGE OF FOOTER TO FACE OF FOUNDATION WALL (P) SHALL NOT BE LESS THAN 2" AND SHALL NOT EXCEED THE FOOTER THICKNESS (H).
4. 1500 PSF MIN. ALLOWABLE SOIL BEARING CAPACITY.
5. FOR SEISMIC ZONES EXCEEDING ZONE C:
   VERTICALLY REINFORCED PER TABLE (R404.1.1) AT 16" O.C. ALONG ENDWALLS & 48" O.C.ELSEWHERE.

REINFORCED PERIMETER FOUNDATION WALL - DETAIL - D2

DATE: 06/04/07 | 927I-19.R.K.C.22.2.4(_)



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April 22, 2026

NON-REINFORCED MATING WALL OR COLUMN SUPPORT PIER
CRAWL SPACE ONLY

Model: M0920184MO

NOTES:

1. FOOTINGS MUST BE LEVEL IN ALL DIRECTIONS. PIERS ARE TO BE PLACED CENTERED ON THE FOOTING SO THAT THE FOOTING PROJECTION FROM THE PIER IS EQUAL FROM SIDE-TO-SIDE AND FRONT-TO-BACK. PIERS MUST BE LEVEL VERTICALLY ON ALL SIDES AND SQUARE WITH THE FOOTING.
2. CONCRETE BLOCKS FOR PIERS ARE 8" x 16" x 8" NOMINAL SIZE, HOLLOW CELL LOAD BEARING CMU's MANUFACTURED IN CONFORMANCE WITH ASTM C90, GRADE "N". OPEN CELLS ARE ALIGNED VERTICALLY.THE PIERS SHALL BE LAID IN RUNNING BOND WITH TYPE M OR S MORTAR OR APPROVED ALTERNATE (SEE GENERAL NOTE 12). SINGLE STACKED BLOCKS TO BE LAID WITH LONG SIDE PERPENDICULAR TO MATE LINE RIM JOISTS. DOUBLE STACKED BLOCK IS LAID WITH EACH LAYER AT A RIGHT ANGLE TO THE PREVIOUS LAYER. THE TOP COURSE OR THE CAP BLOCKS SHALL BE PERPENDICULAR TO THE MATE LINE RIM JOISTS.
3. CAP BLOCKS SHALL BE 4'' SOLID CONCRETE OR MASONRY BLOCK. 2x NOMINAL HARDWOOD OR 1/2'' STEEL MAY BE USED AS A CAP BLOCK IF THE TOP COURSE OF THE PIER IS SOLID MASONRY OR CONCRETE OR IF THE TOP COURSE OF A HOLLOW PIER IS FILLED WITH CONCRETE OR GROUT. OPTIONAL FILLER MATERIAL MAY BE 2x NOMINAL HARDWOOD OR 2'' OR 4' NOMINAL SOLID CONCRETE BLOCK. ALL CAPS AND FILLER SHALL BE OF THE SAME NOMINAL DIMENSIONS AS THE PIERS THEY REST UPON. INDIVIDUAL LENGTHS OF CAP BLOCKS AND FILLER SHALL BE PERPENDICULAR TO THE MATE LINE RIM JOISTS.
4. SHIMS SHALL BE OF HARDWOOD, AT LEAST 3 1/2" WIDE AND 6" LONG AND ARE NOT TO EXCEED ONE INCH IN THICKNESS. SHIMS SHALL BE PERPENDICULAR TO MATE LINE, FITTED AND DRIVEN TIGHT BETWEEN CAP BLOCKS OR FILLER AND MATE LINE RIM JOISTS.
5. MARRIAGE LINE PIERS SHALL SUPPORT THE MARRIAGE WALL AND COLUMNS WHERE OCCURS PER MODEL SPECIFIC FOUNDATION PLAN. MAXIMUM PIER SPACING PER TABLE "M".
6. SEE GENERAL NOTES FOR DRAINAGE AND OTHER FOUNDATION REQUIREMENTS.

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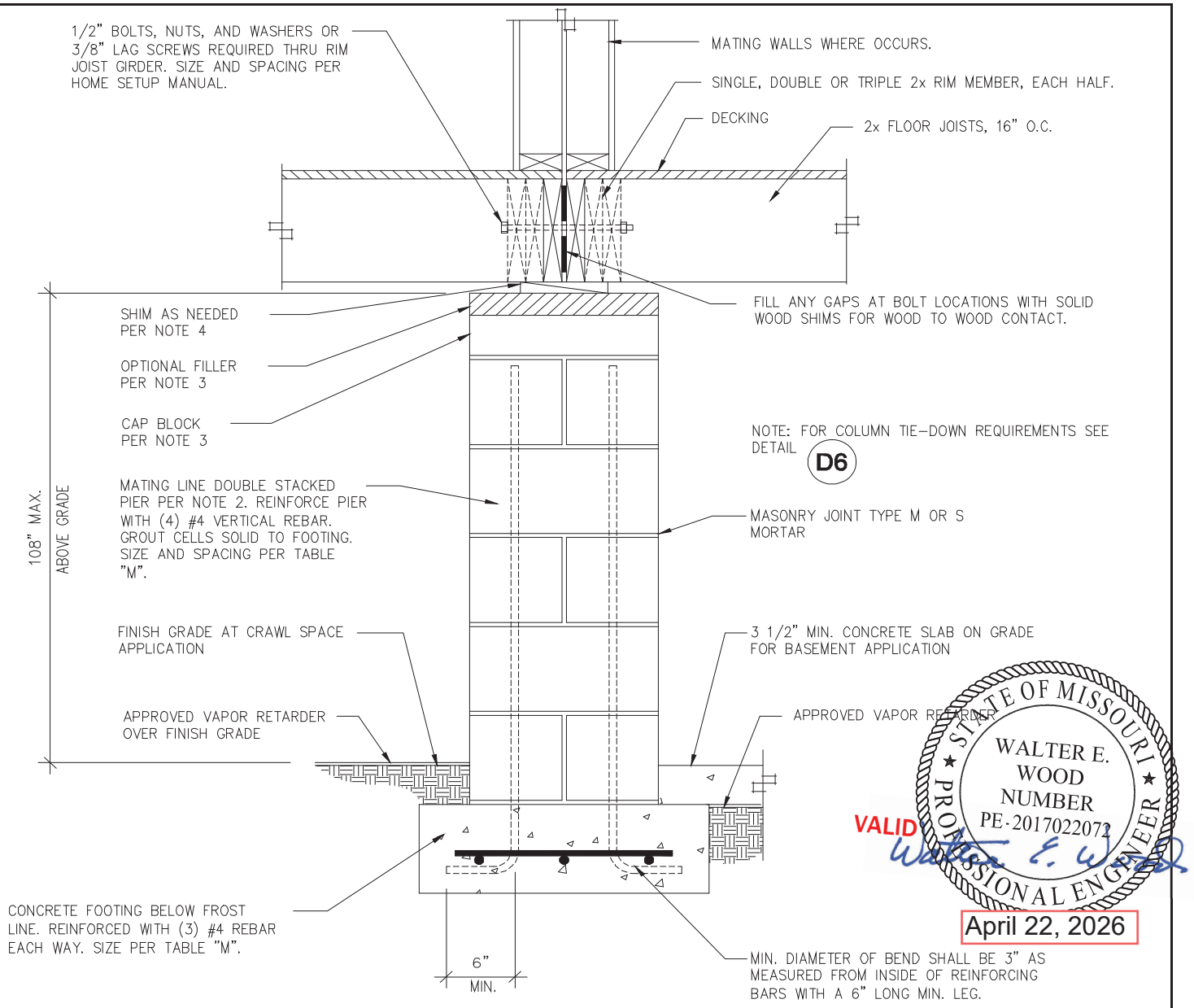
NON-REINFORCED MATING WALL COLUMN SUPPORT PIER - CRAWLSPACE ONLY - DETAIL - D3

DATE: 06/13/07

927I-19.R.K.C.22.2.4(_)

PAGE #:



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REINFORCED MATING WALL OR COLUMN SUPPORT PIER BASEMENT OR CRAWL SPACE (PIER SPACING AND FOOTER SIZE PER TABLE M)

Model: M0920184MO

NOTES:
1. FOOTINGS MUST BE LEVEL IN ALL DIRECTIONS. PIERS ARE TO BE PLACED CENTERED ON THE FOOTING SO THAT THE FOOTING PROJECTION FROM THE PIER IS EQUAL FROM SIDE-TO-SIDE AND FRONT-TO-BACK. PIERS MUST BE LEVEL VERTICALLY ON ALL SIDES AND SQUARE WITH THE FOOTING.
2. CONCRETE BLOCKS FOR PIERS ARE 8" x 16" x 8" NOMINAL SIZE, HOLLOW CELL LOAD BEARING CMU's MANUFACTURED IN CONFORMANCE WITH ASTM C90, GRADE "N". OPEN CELLS ARE ALIGNED VERTICALLY.THE PIERS SHALL BE LAID IN RUNNING BOND WITH TYPE M OR S MORTAR. SINGLE STACKED BLOCKS TO BE LAID WITH LONG SIDE PERPENDICULAR TO MATE LINE RIM JOISTS. DOUBLE STACKED BLOCK IS LAID WITH EACH LAYER AT A RIGHT ANGLE TO THE PREVIOUS LAYER. THE TOP COURSE OR THE CAP BLOCKS SHALL BE PERPENDICULAR TO THE MATE LINE RIM JOISTS.
3. CAP BLOCKS SHALL BE 4" SOLID CONCRETE OR MASONRY BLOCK. 2x NOMINAL HARDWOOD OR 1/2" STEEL MAY BE USED AS A CAP BLOCK IF THE TOP COURSE OF THE PIER IS SOLID MASONRY OR CONCRETE OR IF THE TOP COURSE OF A HOLLOW PIER IS FILLED WITH CONCRETE OR GROUT. OPTIONAL FILLER MATERIAL MAY BE 2x NOMINAL HARDWOOD OR 2" OR 4' NOMINAL SOLID CONCRETE BLOCK. ALL CAPS AND FILLER SHALL BE OF THE SAME NOMINAL DIMENSIONS AS THE PIERS THEY REST UPON. INDIVIDUAL LENGTHS OF CAP BLOCKS AND FILLER SHALL BE PERPENDICULAR TO THE MATE LINE RIM JOISTS.
4. SHIMS SHALL BE OF HARDWOOD, AT LEAST 3 1/2" WIDE AND 6" LONG AND ARE NOT TO EXCEED ONE INCH IN THICKNESS. SHIMS SHALL BE PERPENDICULAR TO MATE LINE, FITTED AND DRIVEN TIGHT BETWEEN CAP BLOCKS OR FILLER AND MATE LINE RIM JOISTS.
5. MARRIAGE LINE PIERS SHALL SUPPORT THE MARRIAGE WALL AND COLUMNS WHERE OCCURS PER MODEL SPECIFIC FOUNDATION PLAN. MAXIMUM PIER SPACING PER TABLE "M".
6. SEE GENERAL NOTES FOR DRAINAGE AND OTHER FOUNDATION REQUIREMENTS.

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REINFORCED MATING WALL OR COLUMN SUPPORT PIER - BASEMENT OR CRAWL SPACE
DETAIL - D5

DATE: 06/04/07 | 927I-19.R.K.C.22.2.4(_)

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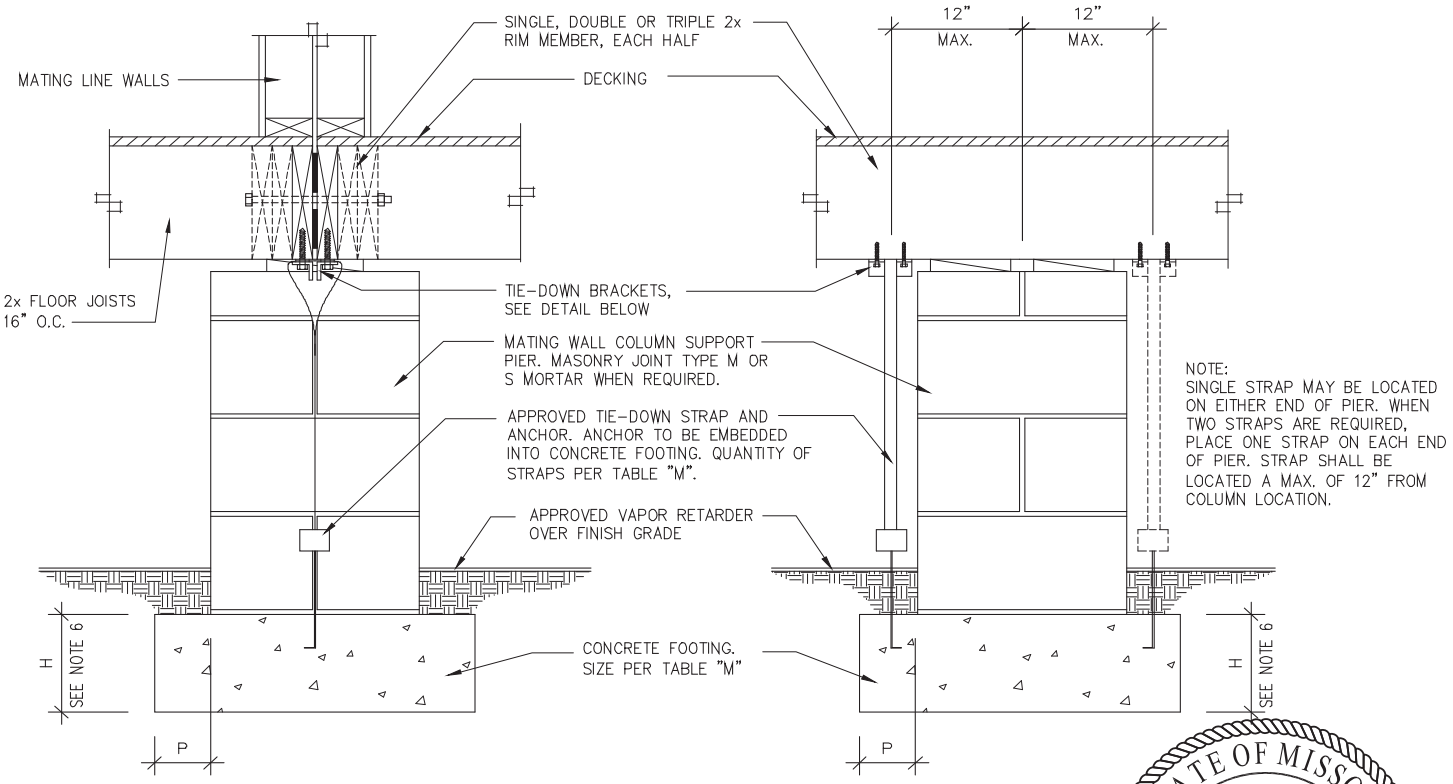
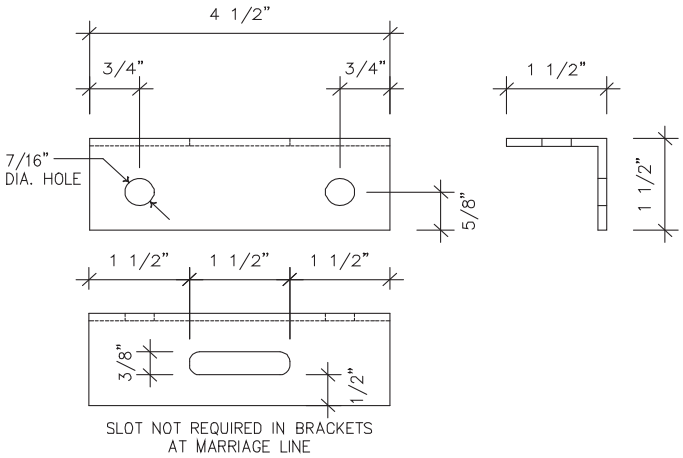


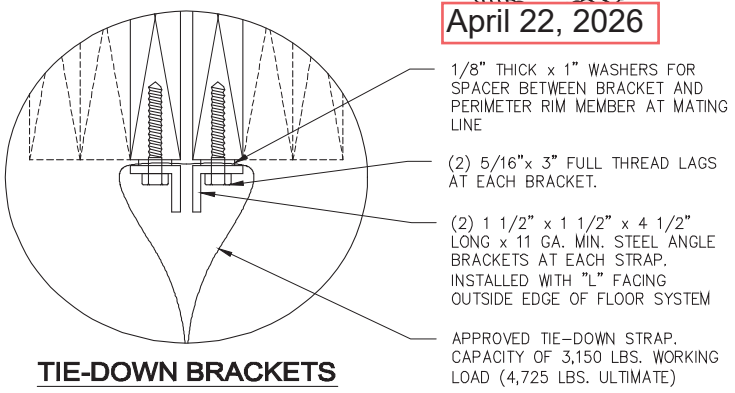
END VIEW **SIDE VIEW**

STATE OF MISSOURI
WALTER E. WOOD
NUMBER PE-2017022072
PROFESSIONAL ENGINEER

VALID

April 22, 2026





TIE-DOWN BRACKETS

MATING WALL COLUMN TIE DOWN

NOTES:
1. ALL MARRIAGE WALL COLUMN LOCATIONS WITH OPENINGS 4 FEET OR GREATER MAY REQUIRE THE INSTALLATION OF COLUMN BRACKETS AND TIE-DOWNS. SEE TABLE "M" FOR REQUIREMENTS.
2. EACH BRACKET IS RATED FOR AN ALLOWABLE WORKING LOAD OF 1,719 LBS.
3. THE CAPACITY OF BOTH THE TIE-DOWN STRAP AND ANCHOR MUST BE 3,150 LBS. WORKING LOAD (4,725 LBS. ULTIMATE)
4. USE A RADIUS CLIP FOR ALL BRACKET APPLICATIONS BY THREADING A PIECE OF STRAP OVER THE BRACKETS BEFORE LOOPING THE TIE-DOWN STRAP AROUND THE BRACKET.
5. GROUND ANCHORS WHICH ARE LISTED FOR THE REQUIRED CAPACITY ABOVE MAY BE USED IN LIEU OF CONCRETE ANCHOR.
6. DISTANCE FROM EDGE OF FOOTING TO FACE OF FOUNDATION WALL (P) SHALL NOT BE LESS THAN 2" AND SHALL NOT EXCEED THE FOOTING THICKNESS (H). FOOTING THICKNESS MAY BE 10" IF GROUND ANCHORS WITH AN UPLIFT CAPACITY OF 3,150 LBS. ARE USED IN PLACE OF CONCRETE ANCHORS.
7. FOOTING SIZES PER TABLE "M" HAVE BEEN DESIGNED ASSUMING CONCRETE ANCHORS WILL BE UTILIZED. IF GROUND ANCHORS ARE UTILIZED TO TRANSMIT UPLIFT INTO GROUND SOIL, THE DEPTH OF THE FOOTING MAY BE REDUCED TO (P). WHERE (P) IS EQUAL TO THE GREATEST DISTANCE FROM EDGE OF FOOTING TO EDGE OF PIER. MINIMUM DEPTH IS 9".

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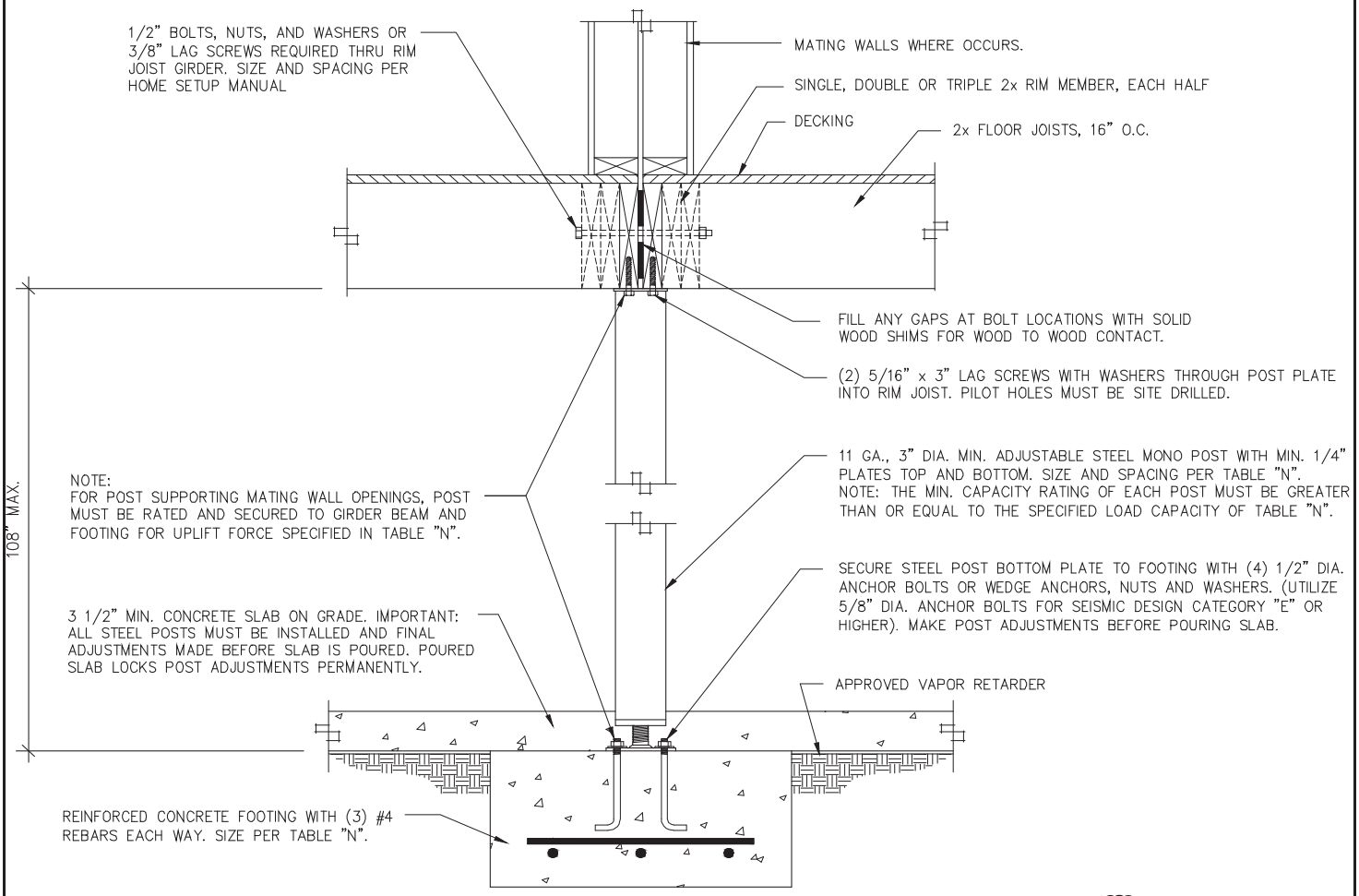
MATING WALL COLUMN TIE DOWN - DETAIL - D6

DATE: 06/29/07 | 927I-19.R.K.C.22.2.4(_)



ALTERNATE POST INSTALLATION: STEEL POSTS MAY BE INSTALLED WITH SCREW JACK ASSEMBLY AT THE TOP OR BOTTOM. STEEL POSTS INSTALLED WITHOUT THE SCREW JACK ASSEMBLY AT THE BOTTOM AND ENCASED IN CONCRETE ARE SUBJECT TO LOAD REDUCTIONS. VERIFY THE CAPACITY OF THE STEEL POST BASED ON THE INSTALLATION METHOD PRIOR TO INSTALLATION OF THE POST.

ADJUSTABLE STEEL COLUMN POST
BASEMENT OR CRAWL SPACE
(MAXIMUM POST SPACING PER TABLE N)

NOTES:

1. FOOTINGS MUST BE LEVEL IN ALL DIRECTIONS. STEEL POSTS ARE TO BE PLACED CENTERED ON THE FOOTING SO THAT THE FOOTING PROJECTION FROM THE POST IS EQUAL FROM SIDE-TO-SIDE AND FRONT-TO-BACK. COLUMN POSTS MUST BE LEVEL VERTICALLY ON ALL SIDES AND SQUARE WITH THE FOOTING.

2. MARRIAGE LINE STEEL POSTS SHALL SUPPORT THE MARRIAGE WALL AND COLUMNS WHERE OCCURS PER

3. SEE GENERAL NOTES FOR DRAINAGE AND OTHER FOUNDATION REQUIREMENTS.

Model: M0920184MO

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ADJUSTABLE STEEL COLUMN POST - BASEMENT OR CRAWL SPACE - DETAIL - D7

DATE: 06/08/07

927I-19.R.K.C.22.2.4(_)

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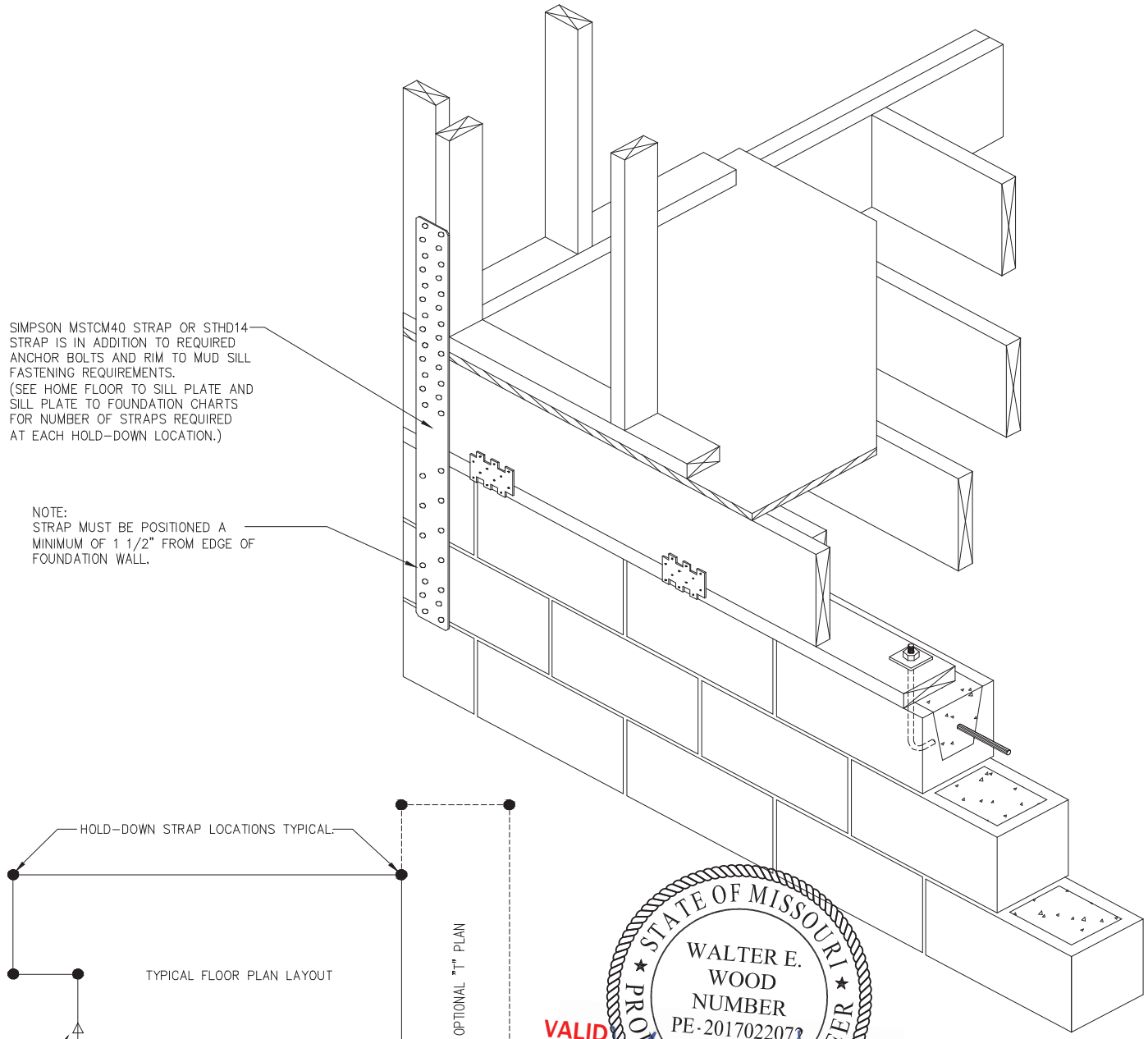

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WALTER E. WOOD
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PROFESSIONAL ENGINEER

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April 22, 2026

SHEARWALL FOUNDATION HOLD-DOWN

Model: M0920184MO

NOTES:

1. WHERE REQUIRED AT FREE-END HOLD-DOWNS (AS LOCATED ON THE FOUNDATION LAYOUT) OR AT BUILDING CORNERS PER THE FASTENING TABLES INCLUDED WITHIN THIS FOUNDATION DESIGN PACKAGE, THE FOUNDATION HOLD-DOWN STRAPS ARE THE RESPONSIBILITY OF OTHERS AND ARE NOT PROVIDED BY CLAYTON HOME BUILDING GROUP OR SUBSIDIARIES.
2. SIMPSON MSTCM40 SHALL BE FASTENED TO WALL STUD WITH (26) 16d NAILS AND TO FOUNDATION WALL WITH (14) 1/4" x 2 1/4" TITAN SCREWS.
3. SIMPSON MSTCM40 OR STHD14 STRAP MAY BE PLACED ON ENDWALL OR SIDEWALL. MINIMUM EDGE DISTANCE OF TITAN SCREW TO CONCRETE OR MASONRY BLOCK CORNER OF 1 1/2" MUST BE MAINTAINED.
4. SIMPSON MSTCM40 STRAP IS IN ADDITION TO THE REQUIRED ANCHOR BOLTS AND RIM TO MUD SILL FASTENING REQUIREMENTS.
5. SIMPSON STHD14 STRAP (POURED WALLS) MUST BE FASTENED TO WALL STUD WITH (38) .148X 3 1/4" NAILS.)
6. DESIGN STRAP CAPACITY: MSTCM40=4250# AND STHD14= 5025#

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SHEARWALL FOUNDATION HOLD-DOWN - DETAIL - D18

DATE: 06/13/07

927I-19.R.K.C.22.2.4(_)

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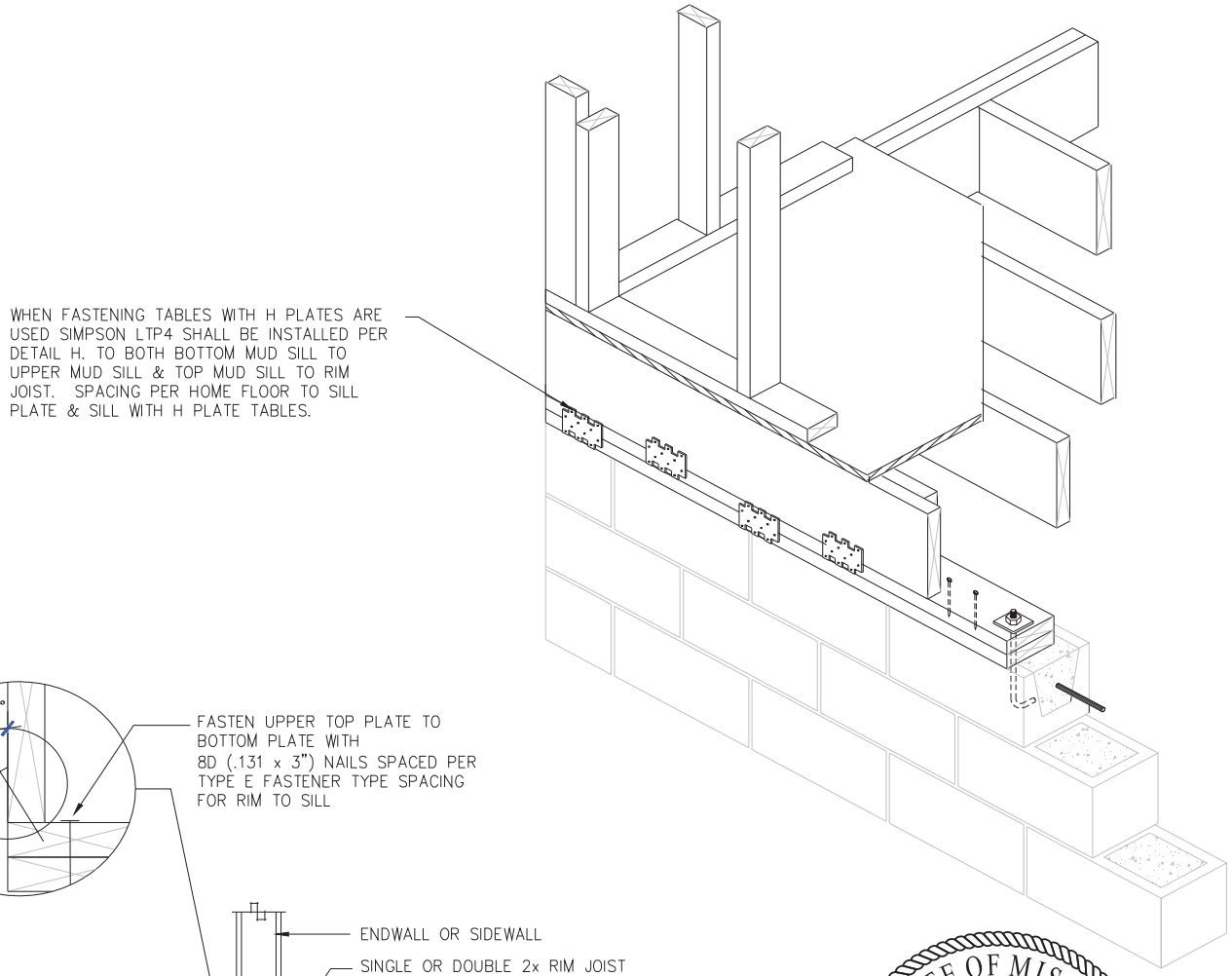

STATE OF MISSOURI
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PROFESSIONAL ENGINEER

VALID

April 22, 2026

Model: M0920184MO

DOUBLE MUD SILL OPTION

NOTES:

1. MUD SILL TO FOUNDATION ANCHORS:
   TYPE 4:1/2" DIAMETER STEEL ANCHOR BOLTS EMBEDDED 7" MIN. INTO CONCRETE FOUNDATION WALL OR CLOSE CELL CMU WITH 2"x2"x1/8" WASHERS AND NUTS. BOLT HEADS SHALL NOT BE RECESSED INTO BOTTOM MUD SILL PLATE.
2. UPPER MUD SILL MUST BE FASTENED TO LOWER MUD SILL WITH .131"X3" NAILS SPACED PER RIM JOIST TO MUD SILL SPACING TABLE FOR TYPE E FASTENERS.
4. WHEN FASTENING TABLES WITH H PLATES ARE USED, SIMPSON LPT4 PLATES MUST BE INSTALLED FROM LOWER MUD SILL TO UPPER MUD SILL AND FROM UPPER MUD SILL TO RIM JOIST PER FASTENING SPACED PER RIM TO MUD SILL SPACING TABLES.

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DOUBLE MUD SILL FOUNDATION WALL DETAIL - D34

DATE: 06/04/07 | I-19.R.CC.C.42.0.4

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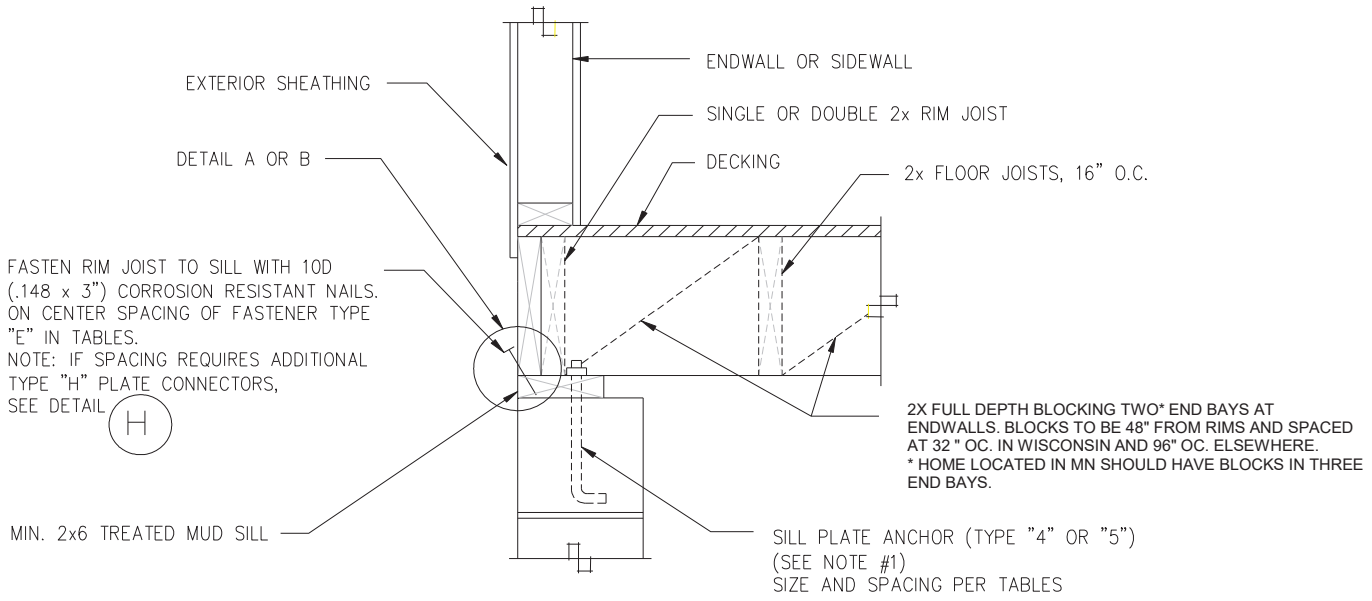

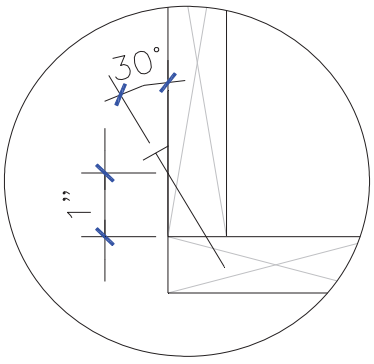

ALTERNATE FASTENER:

THE FOLLOWING ALTERNATE FASTENERS MAY BE USED WHEN SPACING IN CHART IS MULTIPLIED BY THE FOLLOWING FASTENER MULTIPLIER.

8D (.131 x 3") NAIL = .82
16D (.162 x 3 1/2") NAIL = 1.2
#8 x 3" WOOD SCREW = .78

DETAIL A- DIRECT RIM TO SILL FASTENING

STATE OF MISSOURI
WALTER E. WOOD
NUMBER PE-2017022072
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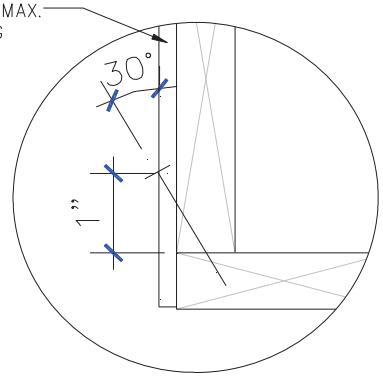
April 22, 2026

FASTENED THRU $\frac{7}{16}$" MAX. EXTERIOR SHEATHING



ALTERNATE FASTENER:

FASTENERS MAY BE INSTALLED THROUGH $\frac{7}{16}$" MAXIMUM THICK WALL SHEATHING WHEN SPACING IN CHARTS ARE REDUCED BY MULTIPLYING BY THE FOLLOW:

10d (.148"X3") NAIL = .68
8D (.131 x 3") NAIL = .55
16D (.162 x 3 1/2") NAIL = .816
#8 x 3" WOOD SCREW = .53

DETAIL B- THRU SHEATHING RIM TO SILL FASTENING

FLOOR TO SILL PLATE FASTENING -TYPE "E" -ENDWALL OR SIDEWALL

NOTES:

1) MUD SILL TO FOUNDATION ANCHORS:
   TYPE 4: 1/2'' DIAMETER STEEL ANCHOR BOLTS EMBEDDED 7'' MIN. INTO CONCRETE FOUNDATION WALL OR CLOSE CELL CMU WITH 2"x2"x1/8" WASHERS AND NUTS. BOLT HEADS SHALL NOT BE RECESSED INTO SINGLE SILL PLATE.
   TYPE 5: SIMPSON MAB OR MASA MUD SILL ANCHOR INSTALLED PER INSTALLATION INSTRUCTIONS
2) RIM TO MUD SILL FASTENING AND SILL TO FOUNDATION ANCHOR SPACING SHALL BE THE MINIMUM OF:
   a) SPACING GIVEN IN APPLICABLE TABLES FOR UNIT CONFIGURATION AND WIND SPEED.
   b) SPACING GIVEN IN BACKFILL/ SIDEWALL TABLES FOR GIVEN UNIT CONFIGURATION, MAXIMUM BASEMENT WALL HEIGHT, BACKFILL DEPTH, AND LOCAL SOIL CLASSIFICATION.

Model: M0920184MO

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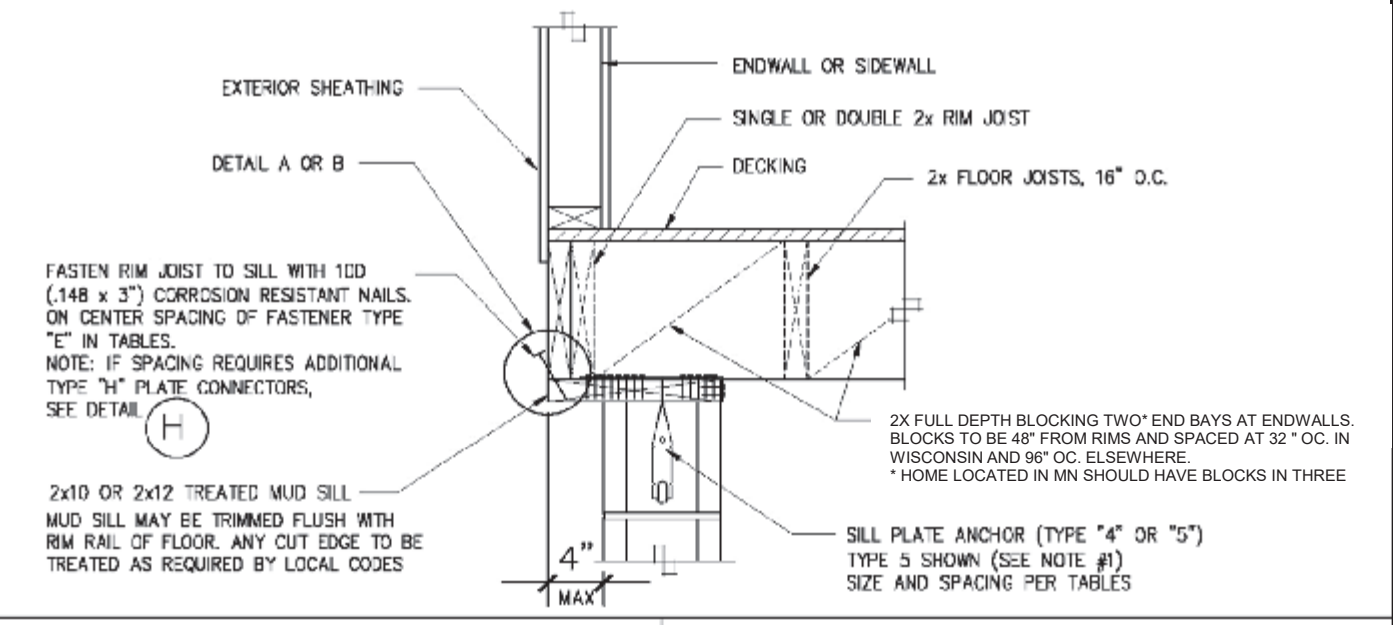
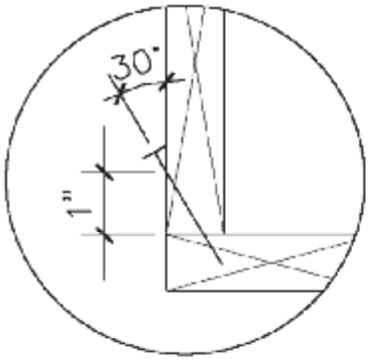
FLOOR TO SILL PLATE FASTENING - ENDWALL OR SIDEWALL - DETAIL - E

DATE: 04/17/07 | 927I-19.R.K.C.22.2.4(_)

PAGE #: Page 23 of 29



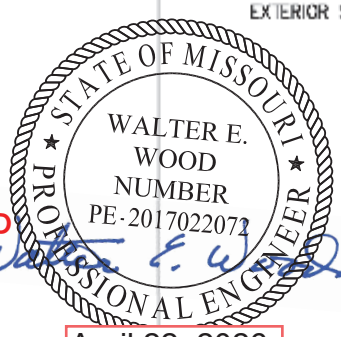


ALTERNATE FASTENER:

THE FOLLOWING ALTERNATE FASTENERS MAY BE USED WHEN SPACING IN CHART IS MULTIPLIED BY THE FOLLOWING FASTENER MULTIPLIER.

8D (.131 x 3") NAIL = .82
16D (.162 x 3 1/2") NAIL = 1.2
#8 x 3" WOOD SCREW = .76

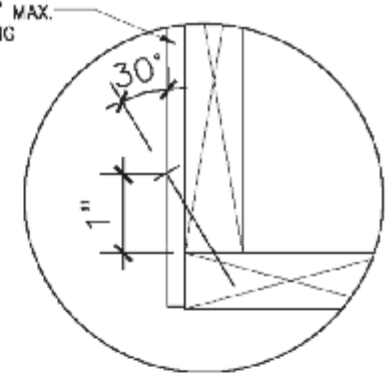
DETAIL A—DIRECT RIM TO SILL FASTENING



VALID

April 22, 2026

FASTENED THRU 7/16" MAX. EXTERIOR SHEATHING



ALTERNATE FASTENER:

FASTENERS MAY BE INSTALLED THROUGH 7/16" MAXIMUM THICK WALL SHEATHING WHEN SPACING IN CHARTS ARE REDUCED BY MULTIPLYING BY THE FOLLOW:

10d (.148"X3") NAIL = .68
8D (.131 x 3") NAIL = .55
16D (.162 x 3 1/2") NAIL = .816
#8 x 3" WOOD SCREW = .53

DETAIL B— THRU SHEATHING RIM TO SILL FASTENING

FLOOR TO SILL PLATE FASTENING -TYPE "E" -ENDWALL OR SIDEWALL

NOTES:

1) MUD SILL TO FOUNDATION ANCHORS:
   TYPE 4: 1/2'' DIAMETER STEEL ANCHOR BOLTS EMBEDDED 7'' MIN. INTO CONCRETE FOUNDATION WALL OR CLOSE CELL CMU WITH 2"x2"x1/8" WASHERS AND NUTS. BOLT HEADS SHALL NOT BE RECESSED INTO SINGLE SILL PLATE.
   TYPE 5: SIMPSON MAB15 MUD SILL ANCHOR SITE INSTALLED PER INSTALLATION. FILL ALL AVAILABLE HOLES IN STRAP WITH A MINIMUM OF (2) FASTENERS INTO SIDE OF MUD SILL.
2) RIM TO MUD SILL FASTENING AND SILL TO FOUNDATION ANCHOR SPACING SHALL BE THE MINIMUM OF:
   a) SPACING GIVEN IN APPLICABLE TABLES FOR UNIT CONFIGURATION AND WIND SPEED.
   b) SPACING GIVEN IN BACKFILL/ SIDEWALL TABLES FOR GIVEN UNIT CONFIGURATION, MAXIMUM BASEMENT WALL HEIGHT, BACKFILL DEPTH, AND LOCAL SOIL CLASSIFICATION.

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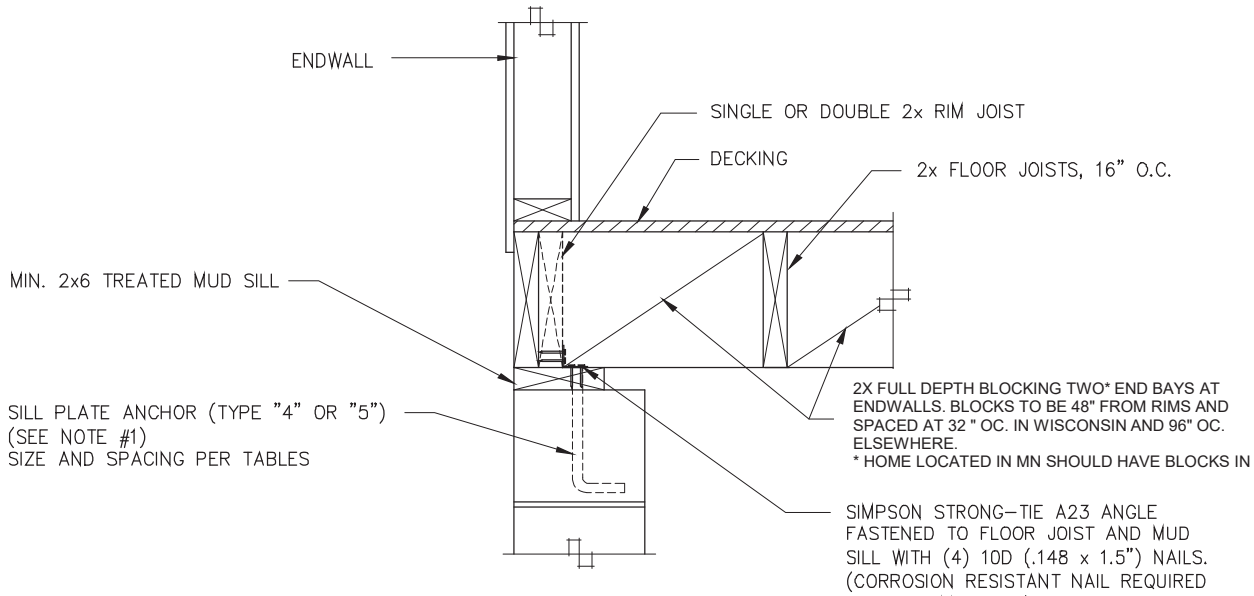
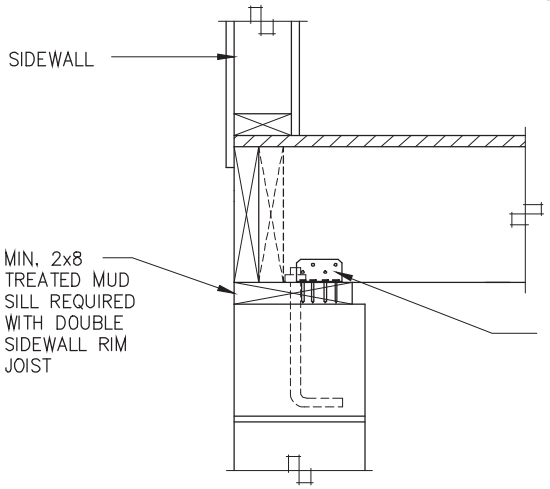
ALT. FLOOR TO SILL PLATE FASTENING - ENDWALL OR SIDEWALL - DETAIL - E2

DATE: 04/17/07 | 927I-19.R.K.C.22.2.4(_)

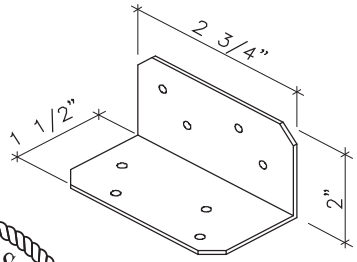
PAGE #: Page 24 of 29



ENDWALL DETAIL



SIMPSON STRONG-TIE A23 ANGLE FASTENED TO FLOOR JOIST AND MUD SILL WITH (4) 10D (.148 x 1.5") NAILS. (CORROSION RESISTANT NAIL REQUIRED INTO P.T. MUD SILL)
USE (1) OR (2) ANGLES EA. JOIST PER FASTENER TYPE "G" IN TABLES.
NOTE: IF SPACING REQUIRES ADDITIONAL TYPE "H" PLATE CONNECTORS, SEE DETAIL H



SIMPSON STRONG-TIE A23' ANGLE

SIDEWALL DETAIL

STATE OF MISSOURI
WALTER E. WOOD
NUMBER PE-2017022072
PROFESSIONAL ENGINEER
VALID
April 22, 2026

FLOOR TO SILL PLATE FASTENING - TYPE "G" -ENDWALL OR SIDEWALL

NOTES:

1) MUD SILL TO FOUNDATION ANCHORS:
   TYPE 4:DIAMETER STEEL ANCHOR BOLTS EMBEDDED 7'' MIN. INTO CONCRETE FOUNDATION WALL OR CLOSE CELL CMU WITH WASHERS AND NUTS. BOLT HEADS SHALL NOT BE RECESSED INTO SINGLE SILL PLATE.
   TYPE 5: SIMPSON MAB OR MASA MUD SILL ANCHOR INSTALLED PER INSTALLATION INSTRUCTIONS
2) RIM TO MUD SILL FASTENING AND SILL TO FOUNDATION ANCHOR SPACING SHALL BE THE MINIMUM OF:
   a) SPACING GIVEN IN APPLICABLE TABLES FOR UNIT CONFIGURATION AND WIND SPEED.
   b) SPACING GIVEN IN BACKFILL/ SIDEWALL TABLES FOR GIVEN UNIT CONFIGURATION, MAXIMUM BASEMENT WALL HEIGHT, BACKFILL DEPTH, AND LOCAL SOIL CLASSIFICATION.

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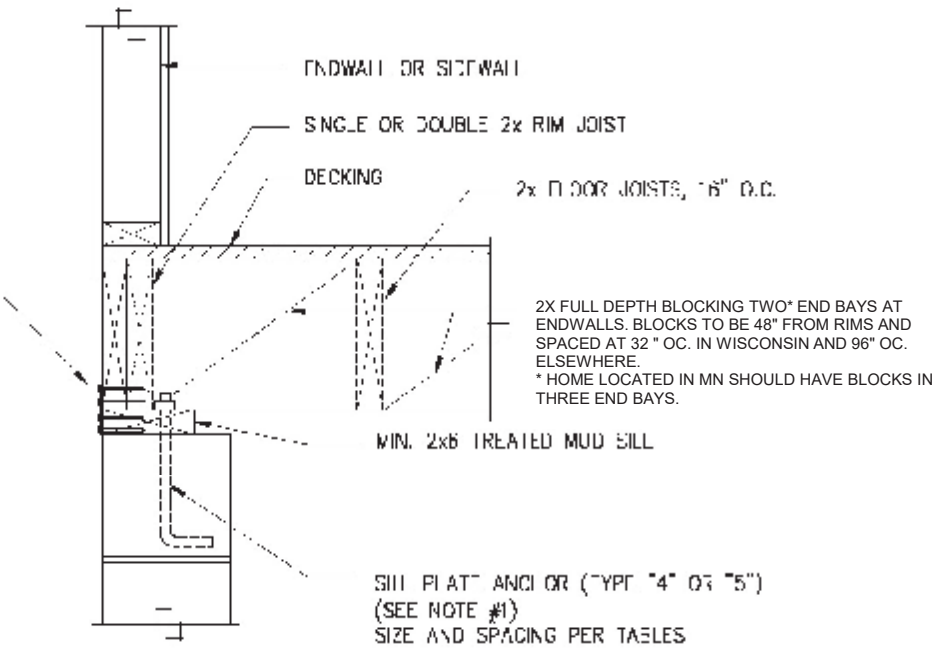
FLOOR TO SILL PLATE FASTENING - ENDWALL OR SIDEWALL - DETAIL - G

DATE: 05/25/07 | 927I-19.R.K.C.22.2.4(_)

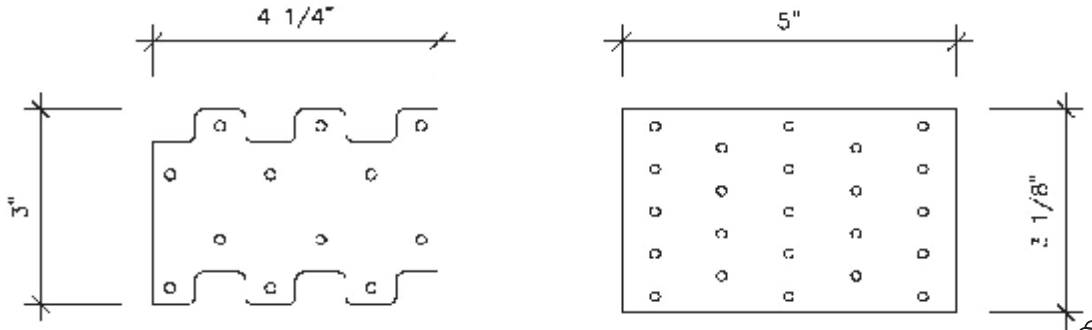
PAGE #: Page 25 of 29



SIMPSON STRONG-TIE LTP4 OR TP35 TIE PLATE FASTENED TO RIM JOIST AND MUD SILL WITH (12) RD (.131 x 1.5") NAILS. CORROSION RESISTANT NAILS REQUIRED INTO P.T. MUD SILL.

QUANTITY, LOCATION AND O.C. SPACING PER NOTES 6 OR 7 IN TABLES.

NOTE: USE OF TIE PLATES IS FOR WIND LOAD ONLY AND MUST BE IN ADDITION TO FASTENING REQUIRED FOR BACKFILL PRESSURE PER DETAILS E G



SIMPSON STRONG TIE "LTP4" TIE PLATE

SIMPSON STRONG TIE "TP35" TIE PLATE

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WALTER E. WOOD
NUMBER PE-2017022072
PROFESSIONAL ENGINEER
VALID
April 22, 2026

FLOOR TO SILL PLATE FASTENING - TYPE "H" - ENDWALL OR SIDEWALL

NOTES:

1) MUD SILL TO FOUNDATION ANCHORS:
   TYPE 4:DIAMETER STEEL ANCHOR BOLTS EMBEDDED 7" MIN. INTO CONCRETE FOUNDATION WALL OR CLOSE CELL CMU WITH WASHERS AND NUTS. BOLT HEADS SHALL NOT BE RECESSED INTO SINGLE SILL PLATE.
   TYPE 5: SIMPSON MAB OR MASA MUD SILL ANCHOR INSTALLED PER INSTALLATION INSTRUCTIONS
2) RIM TO MUD SILL FASTENING AND SILL TO FOUNDATION ANCHOR SPACING SHALL BE THE MINIMUM OF:
   a) SPACING GIVEN IN APPLICABLE TABLES FOR UNIT CONFIGURATION AND WIND SPEED.
   b) SPACING GIVEN IN BACKFILL/ SIDEWALL TABLES FOR GIVEN UNIT CONFIGURATION, MAXIMUM BASEMENT WALL HEIGHT, BACKFILL DEPTH, AND LOCAL SOIL CLASSIFICATION.

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FLOOR TO SILL PLATE FASTENING - ENDWALL OR SIDEWALL - DETAIL - H

DATE: 04/17/07 | 927I-19.R.K.C.22.2.4(_)

PAGE #: Page 26 of 29

Home Floor to Sill Plate & Sill Plate to Foundation
WITH TYPE H PLATE CONNECTORS (See note 6 & 7)

SOIL CLASSES SC, ML-CL AND INORGANIC CL SOILS [Allowable bearing capacity of 1500 psf or less]

Unit Width: 30' to 30' Max.
Unit Length: 76' Max.
Roof Pitch: 6/12 to 4/12
Max. Roof Overhang: 12 "
Max. Sidewall Height: 9 '
***Wind Speed (3s):** 90
Seismic Zone C

Model: M0920184MO

		MAXIMUM FASTENER SPACING OR FASTENERS PER JOIST SPACING [2,3 & 5]								# REQ'D
		SIDEWALL FASTENING SPACING [1]				END WALL FASTENING				S/W HDS
Foundation Wall[10]		Rim to Sill[6]		Sill to Fnd. Wall		Rim to Sill[7]		Sill to Fnd. Wall		SEE
Wall Height	Backfill Depth	Fastener Type		Anchor Spacing		Fastener Type		Anchor Spacing		D18
		E	G[4]	4	5	E	G	4	5	/CORNER
24 "	16 "	30.3" o.c.	1	72" o.c.	72" o.c.	40" o.c.	72" o.c.	56" o.c.	30" o.c.	0
84 "	24 "	30.3" o.c.	1	72" o.c.	72" o.c.	42" o.c.	72" o.c.	56" o.c.	30" o.c.	0
40 "	32 "	8.4" o.c.	1	72" o.c.	72" o.c.	8" o.c.	72" o.c.	53" o.c.	30" o.c.	0
5 '	4 '	3.7" o.c.	1	39" o.c.	57" o.c.	4" o.c.	46" o.c.	36" o.c.	27" o.c.	0
7 '	4 '	5.2" o.c.	1	59" o.c.	72" o.c.	5" o.c.	64" o.c.	45" o.c.	28" o.c.	0
7 '	5 '	NA	1	26" o.c.	38" o.c.	NA	33" o.c.	26" o.c.	24" o.c.	0
7 '	6 '	NA	2	14" o.c.	21" o.c.	NA	19" o.c.	14" o.c.	17" o.c.	0
8 '	4 '	5.9" o.c.	1	71" o.c.	72" o.c.	6" o.c.	72" o.c.	48" o.c.	29" o.c.	0
8 '	5 '	3.0" o.c.	1	31" o.c.	45" o.c.	3" o.c.	37" o.c.	30" o.c.	25" o.c.	0
8 '	6 '	NA	2	16" o.c.	24" o.c.	NA	22" o.c.	16" o.c.	19" o.c.	0
8 '	7 '	NA	2	10" o.c.	15" o.c.	NA	14" o.c.	10" o.c.	13" o.c.	0
9 '	3 '	15.8" o.c.	1	72" o.c.	72" o.c.	16" o.c.	72" o.c.	56" o.c.	30" o.c.	0
9 '	4 '	6.7" o.c.	1	72" o.c.	72" o.c.	7" o.c.	72" o.c.	50" o.c.	29" o.c.	0
9 '	5 '	3.4" o.c.	1	35" o.c.	52" o.c.	3" o.c.	42" o.c.	34" o.c.	26" o.c.	0
9 '	6 '	NA	2	19" o.c.	28" o.c.	NA	24" o.c.	19" o.c.	20" o.c.	0
9 '	7 '	NA	2	11" o.c.	17" o.c.	NA	15" o.c.	11" o.c.	15" o.c.	0
9 '	8 '	NA	NA	7" o.c.	11" o.c.	NA	10" o.c.	7" o.c.	10" o.c.	0

NOTES:

1. Foundation wall height at connector should be used at sidewalls or Max. height along sidewall for End wall fastening in table above.

2. See details for additional fastener options.

3. All fastener spacing must start within 12" maximum of each corner or half specified spacing (lesser of two).

4. Type F & G connectors are qty. per 16" oc. Joist spacing.

5. Fastener Type Key:

" Type E"- Fasteners toe-nailed through rim joist into sill plate (Refer to Detail E)

"Type F"- Fasteners direct nailed from sill plate into each floor joist (Applicable at Sidewalls only) (Refer to Detail F)

"Type G"- Number of Simpson A23 angles fastened to sill plate and each 16" OC. (2x8 min. sill plate) (Refer to Detail G)

"Type H"- Simpson LPT4 or TP35 plate fastened to rim joist and mud sill with (12) 8dx1.5" treated nails. (Refer to Detail H)

Anchor Types:

"Type 4"- 1/2" x10" Anchor Bolt with 2"x2"x1/8" Washer between plate and nut.

"Type 5"- Simpson MAB15 (concrete or CMU block) or MASA (Concrete)

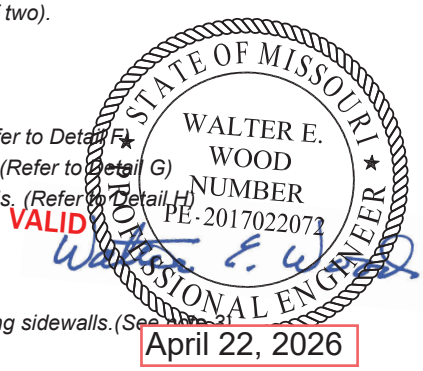
6. Fasteners are in addition to (2) Type H tie plates spaced within 6' of corners & 96" oc. elsewhere along sidewalls.(See Dtl. 21)

7. Fasteners are in addition to Type H tie plates spaced at 33" oc. along endwall.

8. Three options (E,F,& G) for rim to sill fastening and two options (4 & 5) for sill plate to foundation anchorage have been provided in chart. Any combination of rim sill connectors and mud sill anchors maybe used.

9. All connection hardware, anchor bolts, straps, hold-downs, washers and fasteners shall be galvanized or stainless when in contact with PT sill plates or other PT lumber.

10. Maximum foundation wall height and maximum unbalanced backfill.



927I-19.R.K.C.22.2.4(_)

Home Floor to Sill Plate & Sill Plate to Foundation
WITHOUT TYPE H PLATE CONNECTORS (See note 6 & 7)

SOIL CLASSES SC, ML-CL AND INORGANIC CL SOILS [Allowable bearing capacity of 1500 psf or less]

Unit Width: 30' to 30' Max.
Unit Length: 76' Max.
Roof Pitch: 6/12 to 4/12
Max. Roof Overhang: 12 "
Max. Sidewall Height: 9 '
***Wind Speed (3s):** 90
Seismic Zone C

Model: M0920184MO

		MAXIMUM FASTENER SPACING OR FASTENERS PER JOIST SPACING [2,3 & 5]								# REQ'D
		SIDEWALL FASTENING SPACING [1]				END WALL FASTENING				S/W HDS
Foundation Wall[10]		Rim to Sill[6]		Sill to Fnd. Wall		Rim to Sill[7]		Sill to Fnd. Wall		SEE
Wall Height	Backfill Depth	Fastener Type		Anchor Spacing		Fastener Type		Anchor Spacing		D18
		E	G[4]	4	5	E	G	4	5	/CORNER
24 "	16 "	16.0" o.c.	1	72" o.c.	72" o.c.	8" o.c.	30" o.c.	56" o.c.	30" o.c.	1
84 "	24 "	16.0" o.c.	1	72" o.c.	72" o.c.	8" o.c.	30" o.c.	56" o.c.	30" o.c.	1
40 "	32 "	13.9" o.c.	1	72" o.c.	72" o.c.	7" o.c.	28" o.c.	53" o.c.	30" o.c.	1
5 '	4 '	4.5" o.c.	1	39" o.c.	57" o.c.	5" o.c.	17" o.c.	36" o.c.	27" o.c.	0
7 '	4 '	6.9" o.c.	1	59" o.c.	72" o.c.	6" o.c.	22" o.c.	45" o.c.	28" o.c.	0
7 '	5 '	3.0" o.c.	1	26" o.c.	38" o.c.	3" o.c.	12" o.c.	26" o.c.	24" o.c.	0
7 '	6 '	NA	2	14" o.c.	21" o.c.	NA	6" o.c.	14" o.c.	17" o.c.	0
8 '	4 '	8.3" o.c.	1	71" o.c.	72" o.c.	6" o.c.	24" o.c.	48" o.c.	29" o.c.	0
8 '	5 '	3.6" o.c.	1	31" o.c.	45" o.c.	4" o.c.	13" o.c.	30" o.c.	25" o.c.	0
8 '	6 '	NA	2	16" o.c.	24" o.c.	NA	7" o.c.	16" o.c.	19" o.c.	0
8 '	7 '	NA	2	10" o.c.	15" o.c.	NA	4" o.c.	10" o.c.	13" o.c.	0
9 '	3 '	16.0" o.c.	1	72" o.c.	72" o.c.	8" o.c.	30" o.c.	56" o.c.	30" o.c.	1
9 '	4 '	9.8" o.c.	1	72" o.c.	72" o.c.	7" o.c.	25" o.c.	50" o.c.	29" o.c.	0
9 '	5 '	4.1" o.c.	1	35" o.c.	52" o.c.	4" o.c.	15" o.c.	34" o.c.	26" o.c.	0
9 '	6 '	NA	1	19" o.c.	28" o.c.	NA	8" o.c.	19" o.c.	20" o.c.	0
9 '	7 '	NA	2	11" o.c.	17" o.c.	NA	5" o.c.	11" o.c.	15" o.c.	0
9 '	8 '	NA	NA	7" o.c.	11" o.c.	NA	3" o.c.	7" o.c.	10" o.c.	0

NOTES:

1. RESERVED

2. See details for additional fastener options.

3. All fastener spacing must start within 12" maximum of each corner or half specified spacing (lesser of two).

4. Type F & G connectors are qty. per 16" oc. Joist spacing.

5. Fastener Type Key:

" Type E"- Fasteners toe-nailed through rim joist into sill plate (Refer to Detail E)

"Type F"- Fasteners direct nailed from sill plate into each floor joist (Applicable at Sidewalls only) (Refer to Detail F)

"Type G"- Number of Simpson A23 angles fastened to sill plate and each 16" OC. (2x8 min. sill plate) (Refer to Detail G)

"Type H"- Simpson LPT4 or TP35 plate fastened to rim joist and mud sill with (12) 8dx1.5" treated nails (Refer to Detail H)

Anchor Types:

"Type 4"- 1/2" x10" Anchor Bolt with 2"x2"x1/8" Washer between plate and nut.

"Type 5"- Simpson MAB15 (concrete or CMU block) or MASA

6. Fasteners reflected in chart do NOT require "H type" connector plates to be installed along sidewall.

7. Fasteners reflected in chart do NOT require "H type" connector plates to be installed along endwall.

8. Three options (E,F,& G) for rim to sill fastening and two options (4 & 5) for sill plate to foundation anchorage have been provided in chart. Any combination of rim sill connectors and mud sill anchors maybe used.

9. All connection hardware, anchor bolts, straps, hold-downs, washers and fasteners shall be galvanized or stainless when in contact with PT sill plates or other PT lumber.

10. Maximum foundation wall height and maximum unbalanced backfill.

927I-19.R.K.C.22.2.4(_)

Mating wall is a roof load bearing wall; therefore the column supports of all first floor mating wall opening must be supported for the concentrated gravity and uplift loads based on the opening span as provided in table A:

TABLE A: Mating wall column roof loads:

	Colum ID	First Floor Span (ft.)	Location (Ft)	Roof Loads at 1st floor opening per Snow load (lbs.)[1]: 20 psf					Net Uplift
THE FOLLOWING PIERS ARE LOCATED UNDER (A/B) MATING WALL COLUMNS	1	18.4'	0'	5908 #					920 #
	2	18.1'	18.333'	5811 #					905 #
	3	20.4'	39'	6550 #					1020 #
	4	20.4'	59.333'	6550 #					1020 #

1.Table A reflects roof load at mating wall opening supports from roof load only. To determine the load at a foundation adjacent floor and wall loads must be added per table B. In lue of using above load may be derivied by multiplying half mating wall opening span times mating wall at 1st floor ceiling uniform load as specified in table B.

TABLE B: UNIFORM LOAD (PLF) AT FLOOR LINE AT:

	Floor Load Only[3]	Uniform Load under wall per Ground Snow (lbs/ft.): 20 psf					Net Uplift (lb/ft.) NC	Corner
SIDEWALL AT 1st FLOOR CEILING	937.5 plf	314.8 plf					74.7 plf	86.7 plf
SIDEWALL AT FLOOR TO SILL:	937.5 plf	1110.5 plf					. plf	. plf
MAX. SIDEWALL RIM RAIL SPANS (in.)[1]	34.3"	55.2"						
MATING WALL AT 1st FLOOR CEILING:	1875. plf	642.1 plf					100. plf	100. plf
MATING WALL AT FLOOR TO SILL:	1875. plf	2189. plf					. plf	. plf
MAX. MATING RIM RAIL SPANS (in.)[2]	63.6"	58.8"						

FOOTNOTES:

1. SIDEWALL SPANS BASED ON RIM JOIST(S): (2) 2X10 #1 SP WITH EACH RIM MEMBER SPLICED WITH 6" X 6" MiTek MT20 metal plates each side
2. MATING GIRDER SPANS BASED ON RIM JOIST(S): (4) 2X10 #1 SP WITH EACH RIM MEMBER SPLICED WITH 6" X 6" MiTek MT20 metal plates each side
3. FLOOR ONLY- INDICATES LOAD OR ALLOWABLE SPANS UNDER MATING WALL OPENINGS (FLOOR LOAD ONLY).

4. EACH ENDWALL SHALL BE ANCHORED TO FOUNDATION FOR SHEAR DUE TO HOR. WIND FOR 6000 Lbs. &. EACH SIDEWALL SHALL BE ANCHORED TO FOUNDATION FOR SHEAR DUE TO HOR. WIND FOR 2222 Lbs.
5. GRAVITY LOADS DO NOT INCLUDE WEIGHT OF FOUNDATION WALLS AND FOOTERS.
6. INDICATES UNIFORM LOAD OR ALLOWABLE SPANS UNDER MATING WALLS (FLOOR + ROOF LOADS).
7. UPLIFT LOAD AT SIDES OF FIRST FLOOR OPENINGS=(PLF)*OPENING/2

NOTES TO ALTERNATE FOUNDATION DESIGN PROFFESIONAL:

1. THIS PACKAGE CONTAINS A COMPLETE RECOMMENDED FOUNDATION SUPPORT AND ANCHORAGE SYSTEM DESIGNED TO CARRY ALL IMPOSED LOADS ON THE STRUCTURE. ALTERNATIONS TO THESE DIRECTIONS MUST BE PREFORMED BY A LICENSED PROFESSIONAL ENGINEER TO CARRY ALL IMPOSED LOADS IN A MANNOR THAT DOES NOT OVERSTRESS THE HOME STRUCTURE.
2. THE LOAD ON THIS PAGE HAS BEEN PREPARED TO COMMUNICATE THE IMPOSED LOAD REQUIREMENTS FOR THE HOME AND IS INTENDED TO BE UTILIZED BY A PROFESSIONAL ENGINEERING IN CONFORMANCE WITH LOCAL BUILDING CODES.
3. FOUNDATION LOADS ABOVE REFLECTS THE FOLLOWING:
   a. OFF FRAME BASEMENT & CRAWL FOUNDATION DESIGN FOR: 30' - 0 " 2-SECTION MODULAR 1 STORY- W.O ATTIC
   b. 117/ 90 MPH EXPOSURE C-enclosed
   c. 20 PSF, MAX. GROUND SNOW LOAD.
   d. 100 PSF FL. LL., 7 PSF T.C.D.L., 8 PSF B.C. D.L., 25 PSF FL. DL. &, 10 PSF B.C.L.L MAX. GROUND SNOW LOAD.
   e. SEISMIC DESIGN CATEGORY C SDS=0.466666666666667
4. ALL DESIGN AND CONSTRUCTION IS SUBJECT TO THE AUTHORITY HAVING JURISDICTION. CONTACT LOCAL BUILDING DEPARTMENT FOR FROST LINE AND SOIL REQUIREMENTS.
5. FLOOR OR FOUNDATION WALL MUST BE INSULATED TO MEET A CONDITION SPACE AS REQUIRED BY HVAC DESIGN AS APPROVED BY BUILDING JURISDICTION. FOUNDATION WALL INSULATION SHALL BE PROVIDED AND INSTALLED BY OTHESR ON-SITE.
6. ALL FOUNDATION AND SITE WORK TO BE PERFORMED BY A LICENSED PROFESSIONAL CONTRACTOR.
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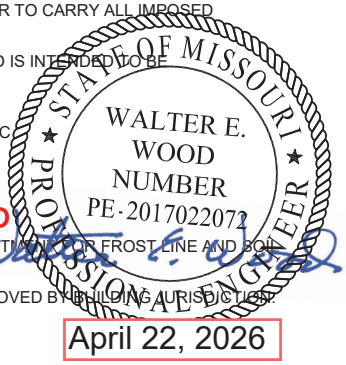
8. PLEASE REFER TO THE PROVIDED FOUNDATION DESIGN PACKAGE FOR ALL FOUNDATION CONSTRUCTION REQUIREMENTS.
9. PLEASE CONTACT JOHN WELDY VP OF ENGINEERING AT 574.862.6210 FOR ADDITIONAL INFORMATION. PLEASE PROVIDE FILENAME:927I-19.R.K.C.22.2.4(_)



FOUNDATION DESIGN FOR: M0920184MO

OFF FRAME BASEMENT & CRAWL FOUNDATION DESIGN FOR:

30' - 0 " 2-SECTION MODULAR 1 STORY- W.O ATTIC PER IBC (2021)

THE FOLLOWING PIERS ARE LOCATED UNDER (A/B) MATING WALL COLUMNS

COLUMN	LOCATION	PIER LOADS IN KIPS (1000 #)				
#	-HITCH	20				
1	0'	11.08 k				
2	18.333'	14.97 k				
3	39'	16.22 k				
4	59.333'	16.26 k				

PIER SPACING AND KIPS BETWEEN (A/B) MATING COLUMN LOCATIONS:

		(# OF SPANS) @ SPAN SPACING PIER LOAD IN KIPS				
Space ID:	Columns	20				
Wall 1	F-1	N.A.				
Opening 1	1-2	(4) @4' -6" 8.5 k each				
Wall 2		(5) @4' -1" 9.1 k each				
Opening 2	3-4	(4) @5' -0" 9.6 k each				
Wall 3	4-R	(4) @4' -2" 9.2 k each				
Opening 3						
Wall 4						
Opening 4						
Wall 5						
Opening 5						

STATE OF MISSOURI
WALTER E. WOOD
NUMBER PE-2017022072
PROFESSIONAL ENGINEER
VALID
April 22, 2026

DESIGNER GUIDE FOR ALTERNATIVE FOUNDATIONS:

* Ultimate wind speed Vult. Per ASCE 7-16 / allowable stress design wind speed Vasd. All wind speeds are indicated as (Vasd) design speeds unless otherwise indicated.

UNIT WIDTH: 180 in
ROOF PITCH: 6/12 TO 4/12
WIND: 117/ 90 MPH EXPOSURE C-enclo
1 STORY- W.O ATTIC
PLANT #: 927
MODEL NUMBER: M0920184MO
MAX. STRUCTURE LENGTH: 76 ft.

Ver. 26.03

Mating wall is a roof load bearing wall; therefore the column supports of all first floor mating wall opening must be supported for the concentrated gravity and uplift loads based on the opening span as provided in table A:

TABLE A: Mating wall column roof loads:

	Colum ID	First Floor Span (ft.)	Location (Ft)	Roof Loads at 1st floor opening per Snow load (lbs.)[1]: 20 psf					Net Uplift
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	3	20.4'	39'	6550 #					1020 #
	4	20.4'	59.333'	6550 #					1020 #

1.Table A reflects roof load at mating wall opening supports from roof load only. To determine the load at a foundation adjacent floor and wall loads must be added per table B. In lue of using above load may be derivied by multiplying half mating wall opening span times mating wall at 1st floor ceiling uniform load as specified in table B.

TABLE B: UNIFORM LOAD (PLF) AT FLOOR LINE AT:

	Floor Load Only[3]	Uniform Load under wall per Ground Snow (lbs/ft.): 20 psf					Net Uplift (lb/ft.) NC	Corner
SIDEWALL AT 1st FLOOR CEILING	937.5 plf	314.8 plf					74.7 plf	86.7 plf
SIDEWALL AT FLOOR TO SILL:	937.5 plf	1110.5 plf					. plf	. plf
MAX. SIDEWALL RIM RAIL SPANS (in.)[1]	34.3"	55.2"						
MATING WALL AT 1st FLOOR CEILING:	1875. plf	642.1 plf					100. plf	100. plf
MATING WALL AT FLOOR TO SILL:	1875. plf	2189. plf					. plf	. plf
MAX. MATING RIM RAIL SPANS (in.)[2]	63.6"	58.8"						

FOOTNOTES:

1. SIDEWALL SPANS BASED ON RIM JOIST(S): (2) 2X10 #1 SP WITH EACH RIM MEMBER SPLICED WITH 6" X 6" MiTek MT20 metal plates each side
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4. EACH ENDWALL SHALL BE ANCHORED TO FOUNDATION FOR SHEAR DUE TO HOR. WIND FOR 6000 Lbs. &. EACH SIDEWALL SHALL BE ANCHORED TO FOUNDATION FOR SHEAR DUE TO HOR. WIND FOR 2222 Lbs.
5. GRAVITY LOADS DO NOT INCLUDE WEIGHT OF FOUNDATION WALLS AND FOOTERS.
6. INDICATES UNIFORM LOAD OR ALLOWABLE SPANS UNDER MATING WALLS (FLOOR + ROOF LOADS).
7. UPLIFT LOAD AT SIDES OF FIRST FLOOR OPENINGS=(PLF)*OPENING/2

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3. FOUNDATION LOADS ABOVE REFLECTS THE FOLLOWING:
   a. OFF FRAME BASEMENT & CRAWL FOUNDATION DESIGN FOR: 30' - 0 " 2-SECTION MODULAR 1 STORY- W.O ATTIC
   b. 117/ 90 MPH EXPOSURE C-enclosed
   c. 20 PSF, MAX. GROUND SNOW LOAD.
   d. 100 PSF FL. LL., 7 PSF T.C.D.L., 8 PSF B.C. D.L., 25 PSF FL. DL. &, 10 PSF B.C.L.L MAX. GROUND SNOW LOAD.
   e. SEISMIC DESIGN CATEGORY C SDS=0.466666666666667
4. ALL DESIGN AND CONSTRUCTION IS SUBJECT TO THE AUTHORITY HAVING JURISDICTION. CONTACT LOCAL BUILDING DEPARTMENT FOR FROST LINE AND SOIL REQUIREMENTS.
5. FLOOR OR FOUNDATION WALL MUST BE INSULATED TO MEET A CONDITION SPACE AS REQUIRED BY HVAC DESIGN AS APPROVED BY BUILDING JURISDICTION. FOUNDATION WALL INSULATION SHALL BE PROVIDED AND INSTALLED BY OTHESR ON-SITE.
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9. PLEASE CONTACT JOHN WELDY VP OF ENGINEERING AT 574.862.6210 FOR ADDITIONAL INFORMATION. PLEASE PROVIDE FILENAME:927I-19.R.K.C.22.2.4(_)

STATE OF MISSOURI
WALTER E. WOOD
NUMBER PE-2017022072
PROFESSIONAL ENGINEER
VALID
April 22, 2026

PRINT DATE: 04/22/2026
Model: M0920184MO

PIER SET (FRAME TIED) FOUNDATION DESIGN FOR:

30' - 0 " 2-SECTION MODULAR
1 STORY- W.O ATTIC

Attic without storage where the maximum clear height between joist and rafter is less than 42 inches or req'd insulation depth exceeds the depth of the bottom chord.

FRAME STRAPS & GROUND ANCHORS ARE REQUIRED TO BE USED FOR THIS SYSTEM.

SIDEWALLS & MATING WALL(S) ARE NOT SUPPORTED (PERIMETER BLOCKED)

APPROVED • HILBORN, WERNER, CARTER & ASSOCIATES, INC. •
04-27-2026
HWC

BUILDING CODE INFORMATION:

IBC (2021)
ASCE 7-16

BUILDING SITE INFORMATION:

*MAXIMUM ULTIMATE/DESIGN WIND SPEED & EXPOSURE:	117/ 90 MPH EXPOSURE C-enclosed
MINIMUM SOIL BEARING CAPACITY:	1500 PSF
MAXIMUM GROUND SNOW(S):	20 PSF,
Flat roof snow load (Pf)=20.0 PSF	
SEISMIC DESIGN CATEGORY:	C
DESIGN SPECTRAL RESPONSE (S_{DS}):	0.47
SEISMIC SOIL SITE CLASS:	D
Ss:	0.5
S1:	0.25

STATE OF MISSOURI ★ WALTER E. WOOD NUMBER PE-2017022072 ★ PROFESSIONAL ENGINEER
VALID
April 22, 2026

HOME INFORMATION:

UNIT WIDTH:	30' - 0 "
MAX. UNIT LENGTH:	76 ft.
ROOF PITCH:	6/12 to 4/12
DESIGN LOADS:	100 PSF FL. LL., 7 PSF T.C.D.L., 8 PSF B.C. D.L., 25 PSF FL. DL. &, 10 PSF B.C.L.L
MAX. SIDEWALL HEIGHT:	108 INCHES

MODEL #: M0920184MO
ON FRAME FLOOR
PLANT NUMBER: 927

Please email questions to:
SiteCompletionQ&A@ClaytonHomes.com

It is responsibility of others (retailer,builder & building offical) to determine if this package is appropreate for site location by verifying design criteria and soil bearing capacity of site.

** Ultimate wind speed Vult. Per ASCE 7-16 / allowable stress design wind speed Vasd. All wind speeds are indicated as (Vasd) design speeds unless otherwise indicated.*

FILENAME:927N-19.R.K.C.22.2.4(4)

program version: 26.03

PAGE DESCRIPTION	DETAIL	PAGE #
COVER		1
TABLE OF CONTENTS		2
GENERAL NOTES		3
PIER AND FOOTER DESIGN TABLE M	TABLE M	6
	KEY 11	7
KEY PLAN 11 - ON-FRAME PIER AND CURTAIN WALL SET		
KEY PLAN 12 - ON-FRAME PIER SET	KEY 12	8
NON-REINFORCED MATING PIER / CRAWLSPACE ONLY (DRY STACKED) - DETAIL D4	D4	9
MATING WALL COLUMN TIE DOWN - DETAIL D6	D6	10
FRAME PIERS (DRY STACKED)	D9	11
NON-REINFORCED PERIMETER SUPPORT PIER D15	D15	12
CURTAIN WALL AND PILASTER FOUNDATION WALL D17	D17	13
TRANSVERSE TIEDOWN ANCHORAGE CHARTS		14
LONGITUDINAL TIEDOWN ANCHORAGE CHARTS		15
DESIGNER GUIDE FOR ALTERNATIVE FOUNDATIONS		16

Model: M0920184MO

FILENAME:927N-19.R.K.C.22.2.4(4)

program version: 26.03

General Notes

1. Foundation plans and details developed by CMH Manufacturing, Inc. are provided to our company owned sales centers and wholesale distribution partners. Alternate foundation systems may be used in lieu of these plans provided they are designed by a local professional Engineer or Architect familiar with the local soil and climate conditions, and are approved by the local authority having jurisdiction.
2. All notes stating "in field" or "by owner" are obligations pertaining to owner/contractor.
3. Owner / Contractor shall remove all organic material including debris and vegetation from under home.
4. The area beneath and around home should be graded and sloped to prevent surface water from accumulating under the home.
5. Owner /Contractor shall provide complete foundation, vapor barrier, tie down anchor, and all finish work.
6. Owner/Contractor shall be responsible for performing all work in accordance with previously approved construction details and obtaining all necessary inspections as required by local or state authorities.
7. In areas likely to have collapsible, expansive, compressible, shifting or other unknown soil characteristics, the building official shall determine whether to require a soil test to determine the soil characteristics. This soil test shall be made by an approved testing agency using an approved method.
8. Pier spacing is dimensioned to centerline unless otherwise noted.
9. The foundation dimensions shown are nominal. An increase in module width should be expected due to module expansion, setting tolerances, etc... The foundation contractor should consult with the manufacturer of the modules prior to construction of the foundation to determine the amount of increase width to be added to the nominal dimensions and placement of anchors.
10. All steel support columns shall have protective coating and a load capacity equal to or greater than specified on foundation plan (k=1000 pounds).
11. All foundation construction materials and installation shall be in accordance with all state and local codes.
12. Piers may be dry stacked.
13. Single stacked concrete block are oriented so that the long direction is perpendicular to the long direction of the I-beam.
14. Double and triple stacked blocks must be arranged so that each layer is at right angles to the previous layer and the concrete cap block shall be perpendicular to the I-beam.
15. Maintain a minimum clearance of 18 inches beneath the homes floor joist.
16. Maintain a minimum of 12” beneath main I-beam in areas of utility connections (waste plumbing, HVAC duct, ect.).
17. Solid cap block or cement fill required at top courses of all masonry piers or pilasters.
18. Hardwood shims maybe used between I-beam and pier to level home. Shims shall be at least 3-1/2 inches wide and 6 inches long and are not to exceed 1-1/2 inch in thickness. At least 2 shims must be per pier driven from opposite sides of the I-beam. Shims must be perpendicular to I-beam and driven tight. Shims may not occupy more than 1 inch of vertical space.

19. Wind anchorage frame tiedowns straps must be located within 2 feet of end wall and at the spacing indicated in the chart between endwall frame tie downs.

20. Designs for seismic zones A, B, or C only, unless otherwise noted on plans.

21. All piers shall be constructed of 8"x8"x16" concrete masonry units conforming to ASTM C 90.

22. All reinforcing shall be Grade 60 minimum. All splices shall be lapped 24” minimum and splices shall be offset 30” minimum within same footer.

23. All concrete grout shall be 3000 psi at 28 days.

24. Reference the model plan drawing for specific foundation layout.

25. Concrete footings shall have a minimum compressive strength of 5000 psi at 28 days. Except may be 2500 psi with approved admixture that provides a water & vapor resistance at least equivalent to 5000 psi. Concrete foundation walls and other concrete exposed to weather shall have a minimum compressive strength of 3000 psi at 28 days and in moderate andsevere weather areas the concrete shall be air entrained no less than 5 percent and not more than 7 percent.

26. All exterior footings shall be placed at least 12” below the undisturbed ground surface. All exterior footings shall extend below the frost line or otherwise frost protected in accordance with approval local building code

27. Top of foundation walls shall extend a minimum of 6-1/2” above finished adjacent grade except when a masonry veneer of 4” minimum is used. Wood floor joist shall not be closer than 18” from exposed ground in under floor space.

28. Owner/Contractor shall verify this package is applicable for use at site by verifying all site conditions including design criteria and allowable soil bearing capacity meets or exceeds those specified within this package and shall verify dimensions prior to starting foundation. Notify home manufacturer of any discrepancies immediately.

29. The foundation must be designed and built to local codes and ordinances and must be approved and inspected by local building officials.

30. Access shall be to all under floor spaces. Access shall be a minimum of 18” by 24”. If mechanical equipment is installed is this area, please refer to the Mechanical Code for minimum access opening. Through wall access openings shall not be located under an exterior door.

31. Under floor space shall be ventilated with a net area ratio not less than 1 square foot for each 150 square feet of under floor space area placed in accordance with local codes. Ratio may be reduced to 1/1,500 where ground is covered with Class I vapor material.

32. Field installed wiring in basement is subject to local inspection. Basement smoke alarms must be installed and tested on site.

33. Large clear spans along mating wall require a column or pier at each end. See model specific foundation plan for required capacity and additional column requirements.

34. Basement stairs (widths, handrails, clearances, headroom, landings, fire protection, etc.) are the responsibility of the owner/contractor and must be constructed to comply with local building codes.

35. Owner/contractor shall not alter basement stair opening without written approval from CMH Manufacturing.

36. Lighting and receptacles in basement are the responsibility of owner/contractor.

37. Termite protection shall be provided per the building code and local requirements and are responsibility of owner/contractor.

38. Ground snow load is indicated on foundation plans. Snow load must be verified per locality. Building has not been designed to be located within a Tsunami design zone.

39. All connection hardware, anchor bolts, straps, hold-downs, washers and fasteners shall be minimum of ASTM A653 Type G185 zinc coated galvanized or stainless when in contact with pressure treated sill plates or other pressure treated lumber.

40. This structure has not been designed to be located within flood hazard locations. When site is located in a flood hazard area as determined by the local authority having jurisdiction or flood hazard maps. The unit shall have lowest floor elevated above the design floor elevation. Foundation and anchorage designs shall be provided by a local engineer in conformance with adopted local building code and ASCE-24--14

41. Radon control, when required by a local jurisdiction, shall be provided and installed by others in accordance with appendix F of the IRC.

42. Topographic wind effects have not been considered. Home has not been designed to be located in areas designated as having local historical data documenting structural damage to wind speed-up at isolated hills, ridges and escarpments.

43. The home has not been constructed to be placed over unprotected basements or crawl spaces intended for storage or containing fuel-fired appliances. It is the responsibility of other to provide ½" gypsum or equivalent on the underside of the floor when required by R501.3.

44. Self-closing rated doors shall be installed between garage and house (on-site by other).(R302.5.1)

45. If building is located within a wind borne debris region glazed openings shall be protected from wind borne debris. Wind Borne debris protection is the responsibility of others.

46. A 6-mil polyethylene or approved vapor retarder with joints lapped not less than 12 inches shall be placed between the concrete floor slab and the base course or the prepared subgrade.

47. If home is placed on site where any window sill is less than 24" above finished floor and 72" or greater above the exterior grade, Retailer/Builder is responsible for installing a window guard must be installed that complies with ASTM F2090.

TABLE M - MINIMUM CONCRETE BLOCK PIER AND FOOTER SIZE

AT MATING WALL COLUMNS (REF. DETAILS D4 OR D5)							# of Uplift Ties
GROUND SNOW=>		20					
MAXIMUM MATING LINE SPAN BETWEEN MATING WALL COLUMN SUPPORTS	4 '	(S) 26"x26"X9"					0
	6 '	(S) 26"x26"X9"					0
	8 '	(S) 26"x26"X9"					0
	10 '	(S) 26"x26"X9"					0
	12 '	(S) 26"x26"X9"					0
	14 '	(S) 26"x26"X9"					0
	16 '	(S) 26"x26"X9"					0
	18 '	(D) 34"x34"X9"					0
	20 '	(D) 34"x34"X9"					0
	22 '	(D) 34"x34"X9"					0
	24 '	(D) 34"x34"X9"					0
	26 '	(D) 34"x34"X9"					0
	28 '	(D) 34"x34"X9"					0
	30 '	(D) 34"x34"X9"					0
	32 '	(D) 34"x34"X9"					0
	34 '	(D) 34"x34"X9"					1
	36 '	(D) 34"x34"X9"					1
	46 '	(T) 42"x42"X13"					1

MAIN BEAM SUPPORT SPACING & PIER CONFIGURATION					
PIER SPACING	7.2' MAX				
PIER CONFIG.	(D) 34"x34"X9"				

THIS UNIT DOES NOT REQUIRED PERIMETER PIERS UNDER MATING WALL					

PIER SUPPORTS UNDER SIDE WALLS (PERIMETER BLOCKING)					
PIER SPACING					
PIER CONFIG.					

Chart Key:
(Pier Configuration) Min. footer width (inches) x Min. footer length (inches) x Min. footer depth (inches)
(S)= Single stack block configuration.
(D)= Double stack block configuration.
(T)= Triple stack block configuration.
(DR)=Double stack reinforced & fully grouted configuration.
IE. For 20 psf 180" box with 14' opening:Single stack pier on a 26"x 26" sq. footer 9" deep footing.

30' 1 STORY- W.O ATTIC PIER SET (FRAME TIED) With Roof Pitch of 6/12 Min. to 4/12 Max.

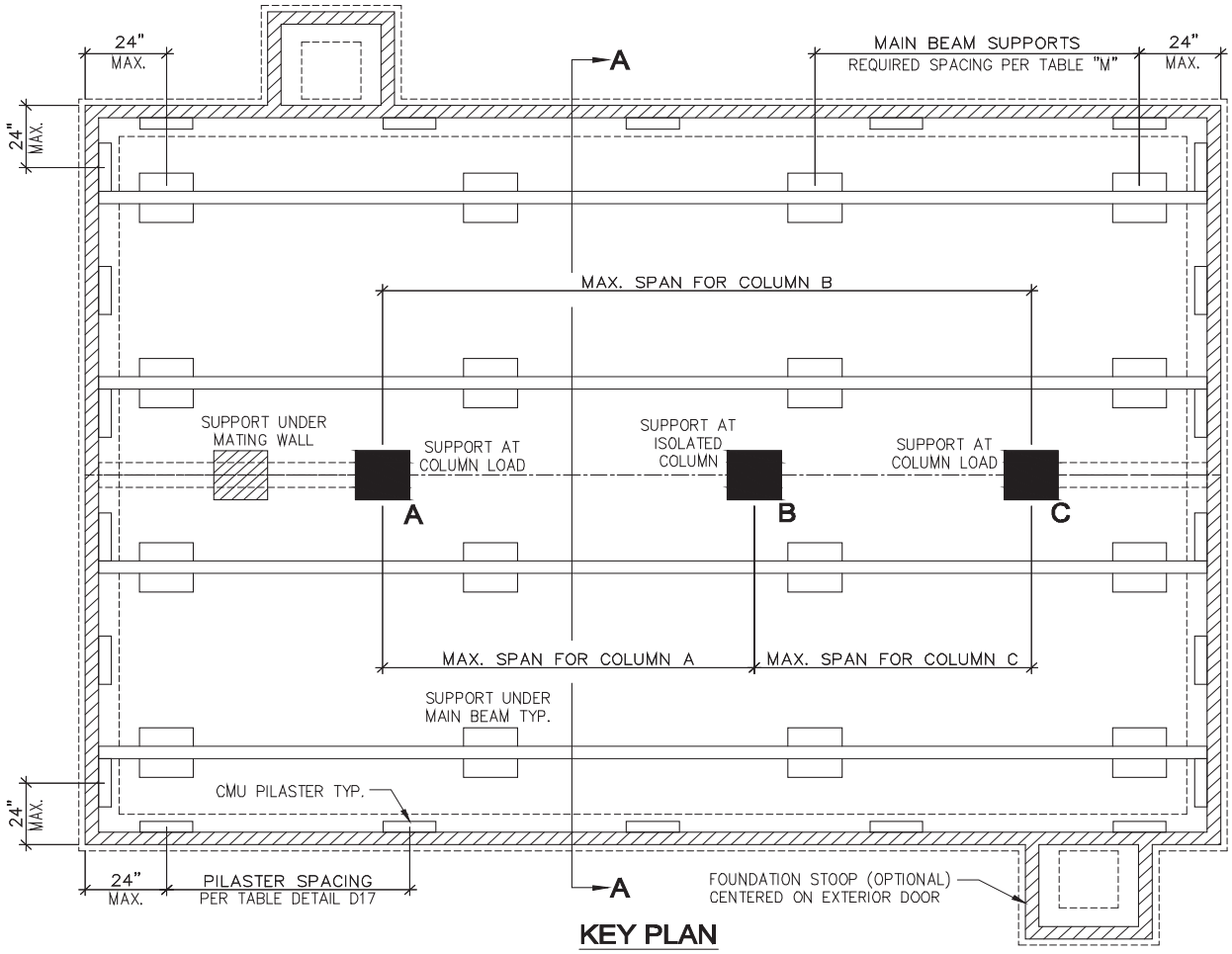
NOTES:
1 DESIGNED FOR 90 MPH MAX. WIND SPEED.
2 DESIGNED FOR 1500 PSF MIN. ALLOWABLE SOIL BEARING CAPACITY.
3 DESIGN TO * Ultimate wind speed Vult. Per ASCE 7-16 / allowable stress design wind speed Vasd. All wind speeds are inc
speeds unless otherwise indicated. & ASCE 7-16 &
4 MAX. MATING WALL OPENINGS LISTED IN CHART ASSUME OPENING IN BOTH HALVES. IF ANCHOR IS TIED TO ONLY ONE COLUMN (ONE HALF) THEN HALF THE OPENING SIZE CAN BE USED WHEN LOOKING UP VALUE IN TABLE ABOVE. PIER SUPPORTS REQUIRED AT EACH SIDE OF DOOR OPENINGS AND ALL EXTERIOR WALL OPENINGS GREATER THAN 4'.

5 WHEN PIER CONFIGURATION IS NOT GIVEN IN CHART THE ACTUAL LOADS EXCEED ALL PREDESIGNED PIERS AND A LOCAL ENGINEER MUST DESIGN THE SUPPORTS FOR THE GIVEN LOADS (- UPLIFT/ + GRAVITY LOADS).
6 ALL PIERS OTHER THAN (DR) MAY BE DRY STACKED.

STATE OF MISSOURI
WALTER E. WOOD
NUMBER PE-2017022072
PROFESSIONAL ENGINEER
VALID
April 22, 2026

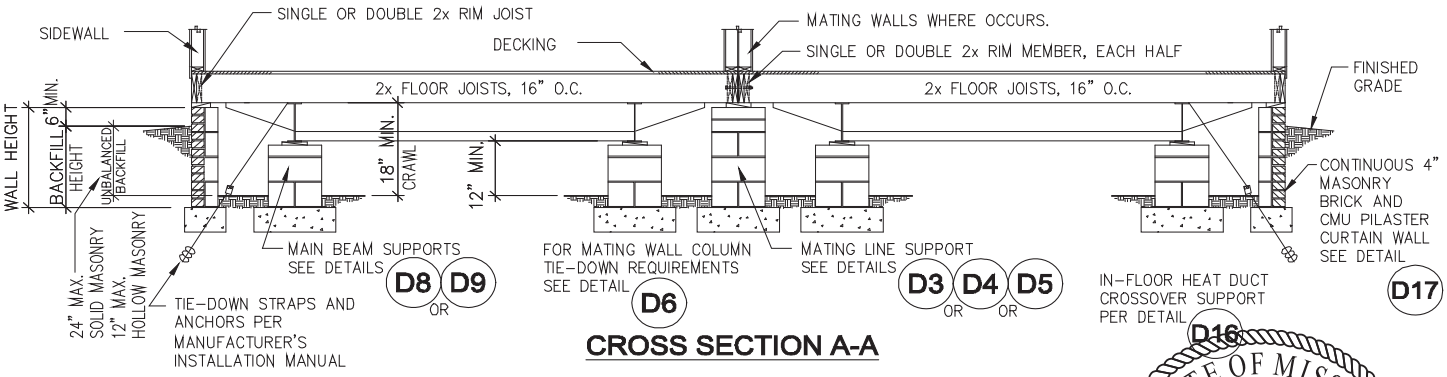
Model: M0920184MO

FILENAME:927N-19.R.K.C.22.2.4(4)



KEY PLAN
ON-FRAME CURTAIN WALL PIER SET - 2 SECTION

NOT TO SCALE



CROSS SECTION A-A

NOTES:

1. MARRIAGE LINE SUPPORTS SHALL SUPPORT THE MARRIAGE WALL AND COLUMNS WHERE OCCURS. SUPPORTS ARE ALSO REQUIRED AT ALL INFLOOR HEAT DUCT CROSSOVER LOCATIONS. REFER TO SPECIFIC FOUNDATION LAYOUT FOR LOCATION INFORMATION.

2. PERIMETER SUPPORTS REQUIRED AT EACH SIDE OF ALL SIDEWALL DOOR OPENINGS AND AT OPENINGS GREATER THAN 48". (BAY WINDOWS, RECESSED ENTRIES, PORCHES, ETC.) DOORS AND OPENINGS ON ENDWALLS DO NOT REQUIRE SUPPORTS. ADDITIONAL PERIMETER SUPPORTS SHALL BE LOCATED ALONG THE SIDEWALL AS REQUIRED BY ROOF LOADS.

3. SEE GENERAL NOTES SECTION FOR VENTILATION, DRAINAGE AND OTHER FOUNDATION REQUIREMENTS.

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Walter E. Wood

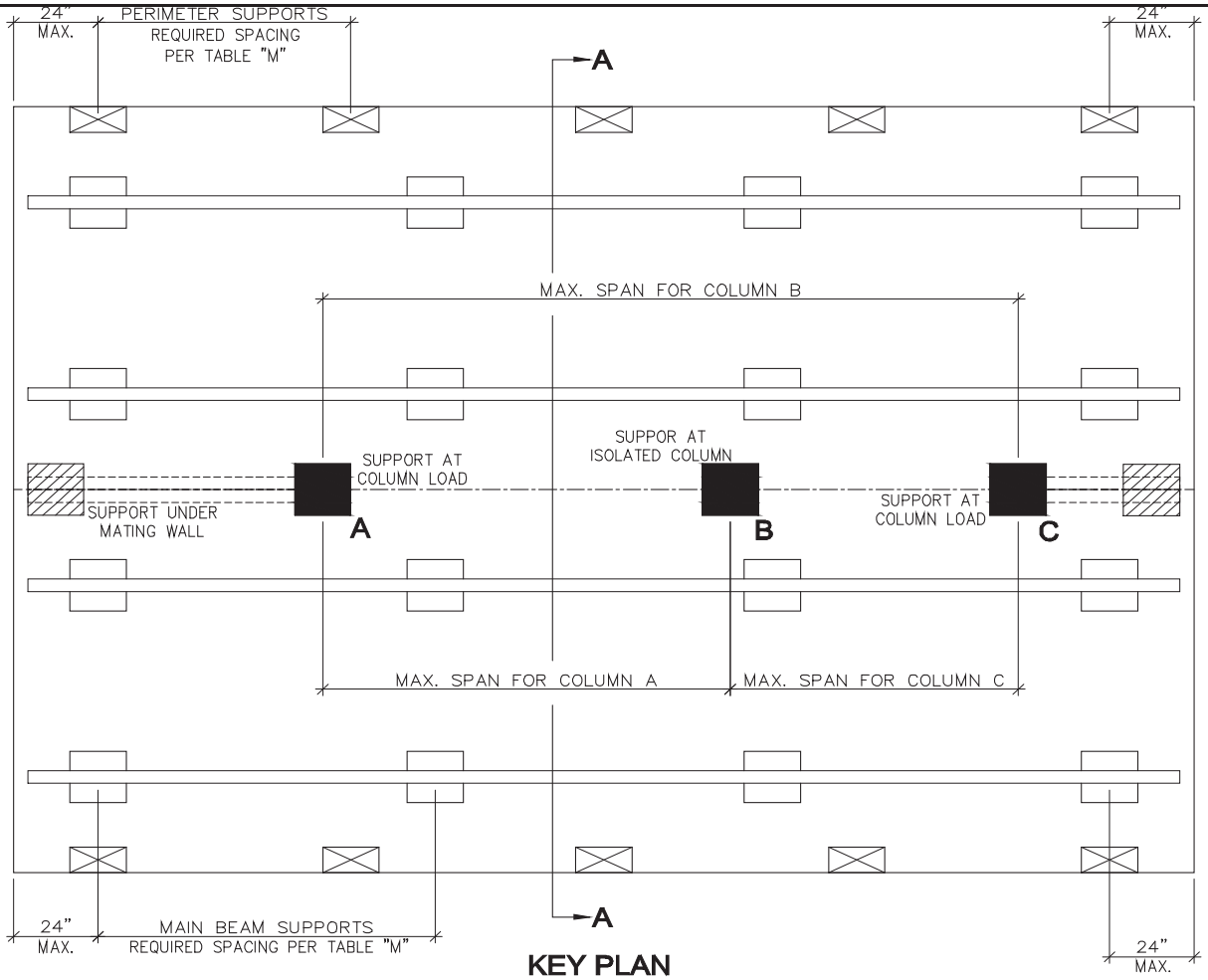
April 22, 2026

KEY PLAN 11 - ON-FRAME / CURTAIN WA 2 SECTION

DATE: 06/05/07

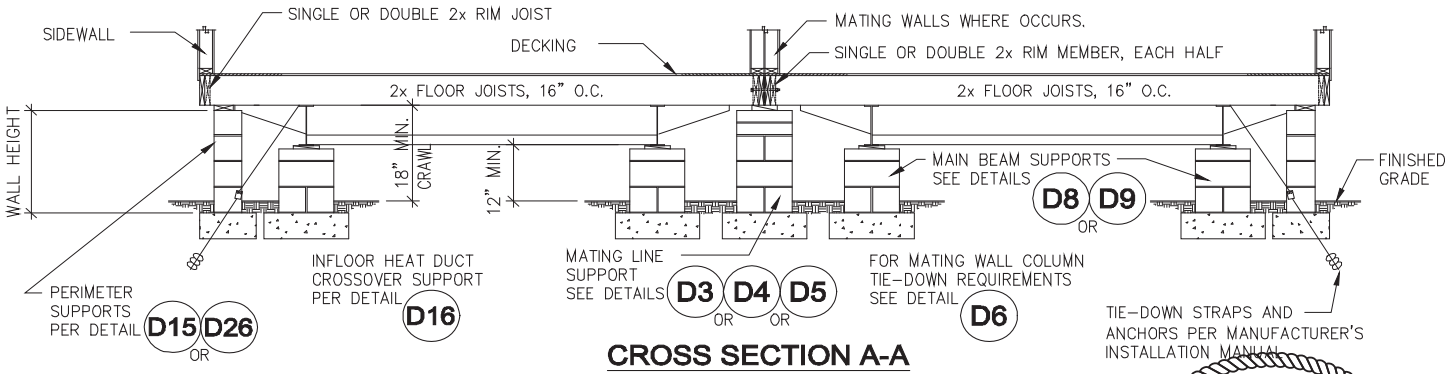
927N-19.R.K.C.22.2.4(4)

PAGE #:



KEY PLAN
ON-FRAME PIER SET - 2 SECTION

NOT TO SCALE



CROSS SECTION A-A

NOTES:

1. MARRIAGE LINE SUPPORTS SHALL SUPPORT THE MARRIAGE WALL AND COLUMNS WHERE OCCURS. SUPPORTS ARE ALSO REQUIRED AT ALL INFLOOR HEAT DUCT CROSSOVER LOCATIONS. REFER TO SPECIFIC FOUNDATION LAYOUT FOR LOCATION INFORMATION.

2. PERIMETER SUPPORTS REQUIRED AT EACH SIDE OF ALL SIDEWALL DOOR OPENINGS AND AT OPENINGS GREATER THAN 48". (BAY WINDOWS, RECESSED ENTRIES, PORCHES, ETC.) DOORS AND OPENINGS ON ENDWALLS DO NOT REQUIRE SUPPORTS. ADDITIONAL PERIMETER SUPPORTS SHALL BE LOCATED ALONG THE SIDEWALL AS REQUIRED BY ROOF LOADS.

3. SEE GENERAL NOTES SECTION FOR VENTILATION, DRAINAGE AND OTHER FOUNDATION REQUIREMENTS.

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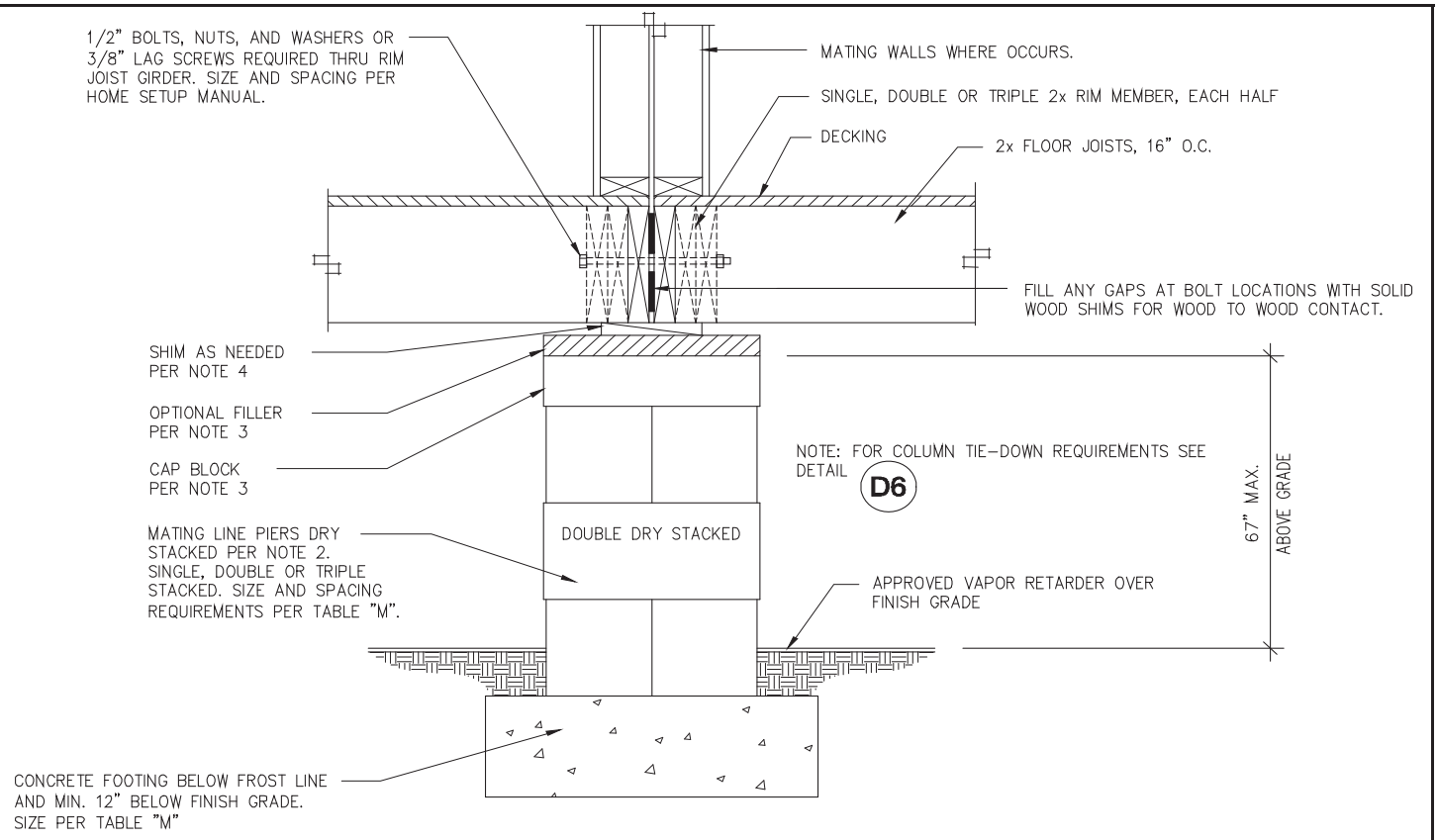
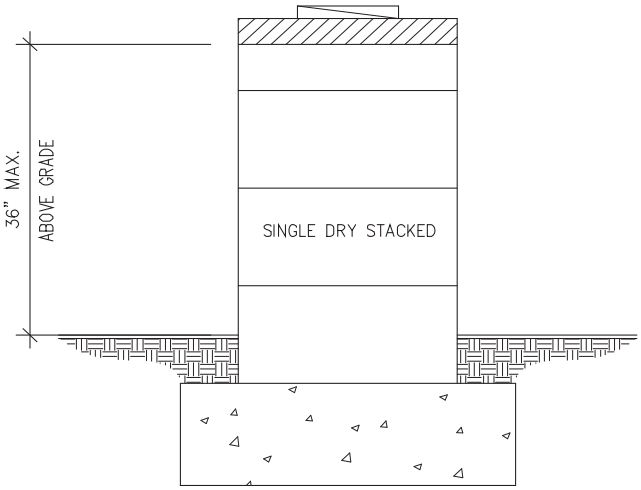
KEY PLAN 12 - ON-FRAME PIER SET / 2 SECTION

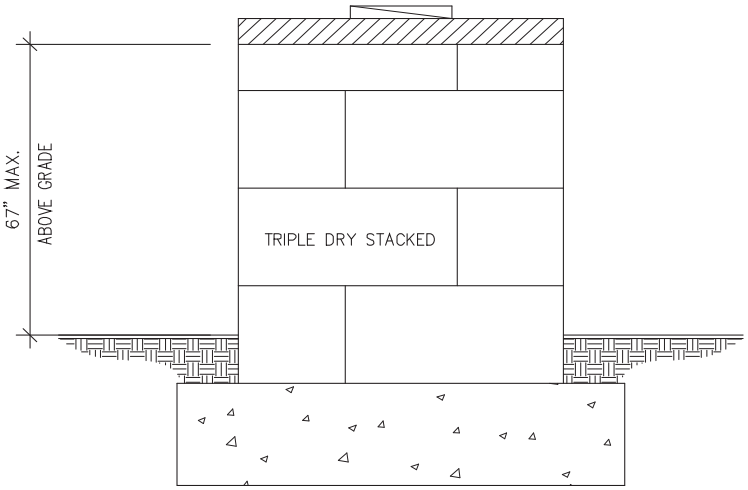
DATE: 06/05/07

927N-19.R.K.C.22.2.4(4)

PAGE #:







DRY STACKED MATING WALL OR COLUMN SUPPORT PIER CRAWL SPACE ONLY (REFER TO TABLE M)

NOTES:

1. FOOTINGS MUST BE LEVEL IN ALL DIRECTIONS. PIERS ARE TO BE PLACED CENTERED ON THE FOOTING SO THAT THE FOOTING PROJECTION FROM THE PIER IS EQUAL FROM SIDE-TO-SIDE AND FRONT-TO-BACK. PIERS MUST BE LEVEL VERTICALLY ON ALL SIDES AND SQUARE WITH THE FOOTING.
2. CONCRETE BLOCKS FOR PIERS ARE 8" x 16" x 8" NOMINAL SIZE, HOLLOW CELL LOAD BEARING CMU's MANUFACTURED IN CONFORMANCE WITH ASTM C90, GRADE "N". OPEN CELLS ARE ALIGNED VERTICALLY. MORTAR IS NOT REQUIRED WHEN APPROVED BY THE AUTHORITY HAVING JURISDICTION. SINGLE STACKED BLOCKS TO BE LAID WITH LONG SIDE PERPENDICULAR TO MATE LINE RIM JOISTS. DOUBLE STACKED BLOCK IS LAID WITH EACH LAYER AT A RIGHT ANGLE TO THE PREVIOUS LAYER. THE TOP COURSE OR THE CAP BLOCKS SHALL BE PERPENDICULAR TO THE MATE LINE RIM JOISTS.
3. CAP BLOCKS SHALL BE 4'' SOLID CONCRETE OR MASONRY BLOCK. 2x NOMINAL HARDWOOD OR 1/2'' STEEL MAY BE USED AS A CAP BLOCK IF THE TOP COURSE OF THE PIER IS SOLID MASONRY OR CONCRETE OR IF THE TOP COURSE OF A HOLLOW PIER IS FILLED WITH CONCRETE OR GROUT. OPTIONAL FILLER MATERIAL MAY BE 2x NOMINAL HARDWOOD OR 2'' OR 4' NOMINAL SOLID CONCRETE BLOCK. ALL CAPS AND FILLER SHALL BE OF THE SAME NOMINAL DIMENSIONS AS THE PIERS THEY REST UPON. INDIVIDUAL LENGTHS OF CAP BLOCKS AND FILLER SHALL BE PERPENDICULAR TO THE MATE LINE RIM JOISTS.
4. SHIMS SHALL BE OF HARDWOOD, AT LEAST 3 1/2" WIDE AND 6" LONG AND ARE NOT TO EXCEED ONE INCH IN THICKNESS. SHIMS SHALL BE PERPENDICULAR TO MATE LINE, FITTED AND DRIVEN TIGHT BETWEEN CAP BLOCKS OR FILLER AND MATE LINE RIM JOISTS.
5. MARRIAGE LINE PIERS SHALL SUPPORT THE MARRIAGE WALL AND COLUMNS WHERE OCCURS PER MODEL SPECIFIC FOUNDATION PLAN. MAXIMUM PIER SPACING PER TABLE "M".
6. SEE GENERAL NOTES FOR DRAINAGE AND OTHER FOUNDATION REQUIREMENTS.

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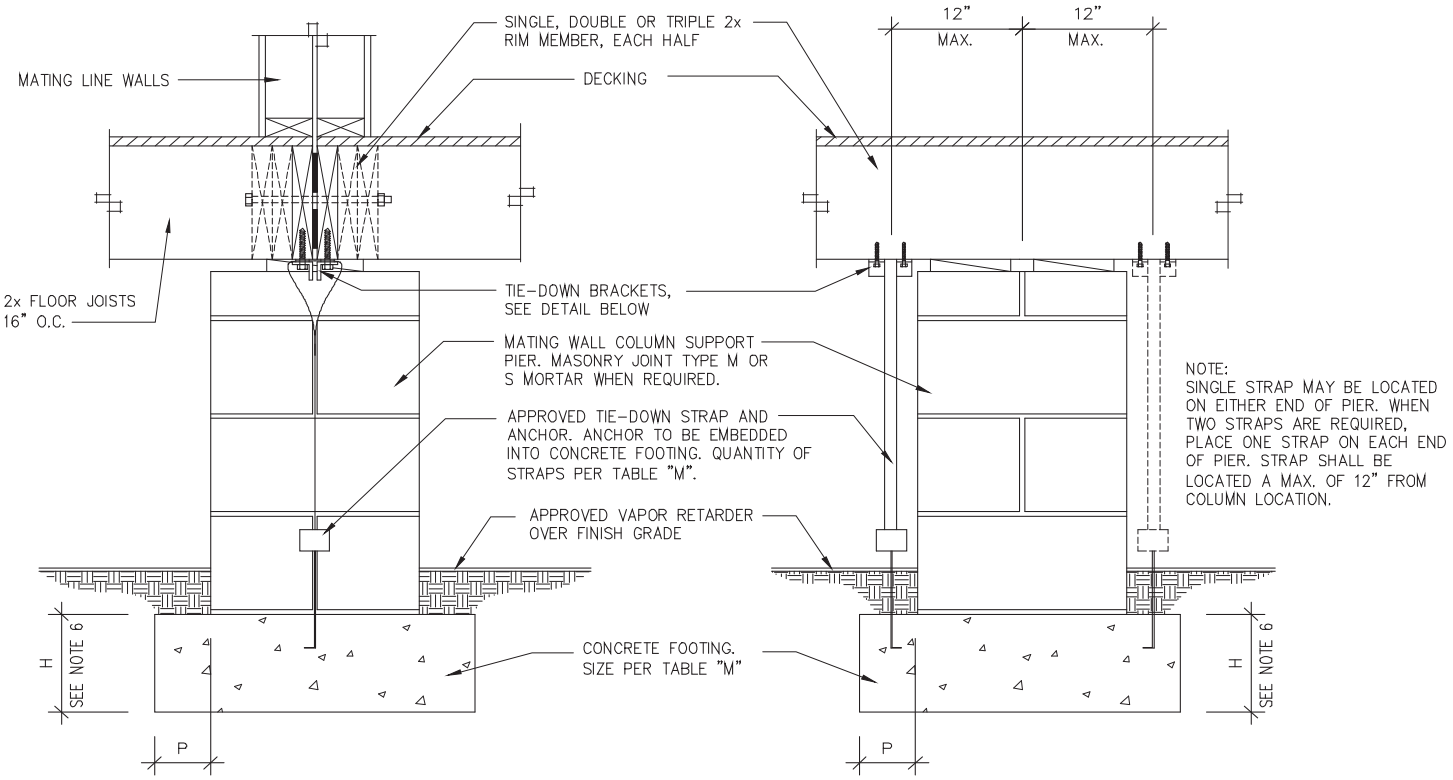
DRY STACKED MATING WALL COLUMN SUPPORT PIER - CRAWL SPACE ONLY

DETAIL - D4

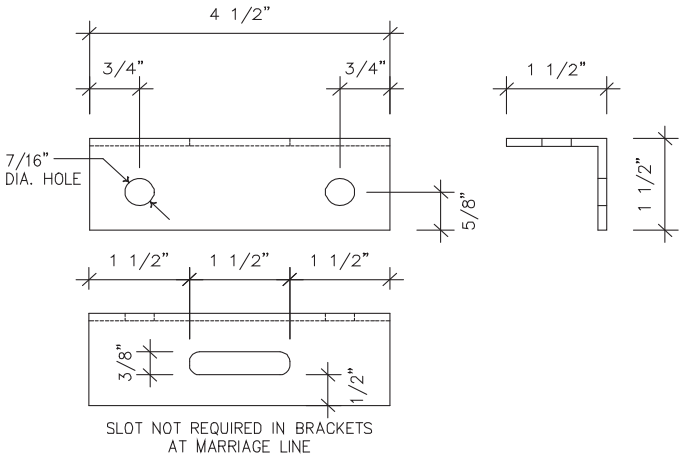
DATE: 06/13/07

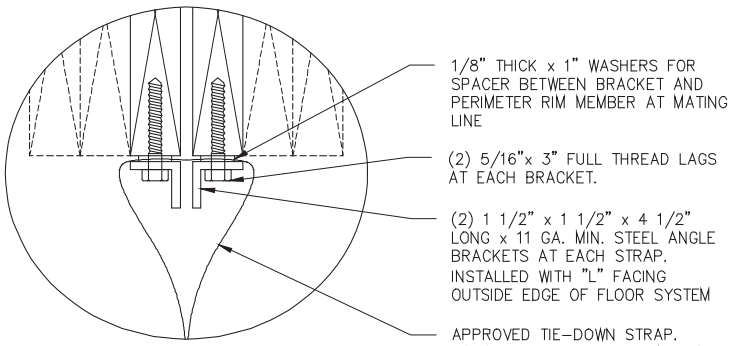
927N-19.R.K.C.22.2.4(4)

PAGE #:



END VIEW **SIDE VIEW**





TIE-DOWN BRACKETS

MATING WALL COLUMN TIE DOWN

NOTES:
1. ALL MARRIAGE WALL COLUMN LOCATIONS WITH OPENINGS 4 FEET OR GREATER MAY REQUIRE THE INSTALLATION OF COLUMN BRACKETS AND TIE-DOWNS. SEE TABLE "M" FOR REQUIREMENTS.
2. EACH BRACKET IS RATED FOR AN ALLOWABLE WORKING LOAD OF 1,719 LBS.
3. THE CAPACITY OF BOTH THE TIE-DOWN STRAP AND ANCHOR MUST BE 3,150 LBS. WORKING LOAD (4,725 LBS. ULTIMATE)
4. USE A RADIUS CLIP FOR ALL BRACKET APPLICATIONS BY THREADING A PIECE OF STRAP OVER THE BRACKETS BEFORE LOOPING THE TIE-DOWN STRAP AROUND THE BRACKET.
5. GROUND ANCHORS WHICH ARE LISTED FOR THE REQUIRED CAPACITY ABOVE MAY BE USED IN LIEU OF CONCRETE ANCHOR.
6. DISTANCE FROM EDGE OF FOOTING TO FACE OF FOUNDATION WALL (P) SHALL NOT BE LESS THAN 2" AND SHALL NOT EXCEED THE FOOTING THICKNESS (H). FOOTING THICKNESS MAY BE 10" IF GROUND ANCHORS WITH AN UPLIFT CAPACITY OF 3,150 LBS. ARE USED IN PLACE OF CONCRETE ANCHORS.
7. FOOTING SIZES PER TABLE "M" HAVE BEEN DESIGNED ASSUMING CONCRETE ANCHORS WILL BE UTILIZED. IF GROUND ANCHORS ARE UTILIZED TO TRANSMIT UPLIFT INTO GROUND SOIL, THE DEPTH OF THE FOOTING MAY BE REDUCED TO (P). WHERE (P) IS EQUAL TO THE GREATEST DISTANCE FROM EDGE OF FOOTING TO EDGE OF PIER. MINIMUM DEPTH IS 9".

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MATING W... TIE DOWN - DETAIL - D6

DATE: 06/29/07

927N-19.R.K.C.22.2.4(4)

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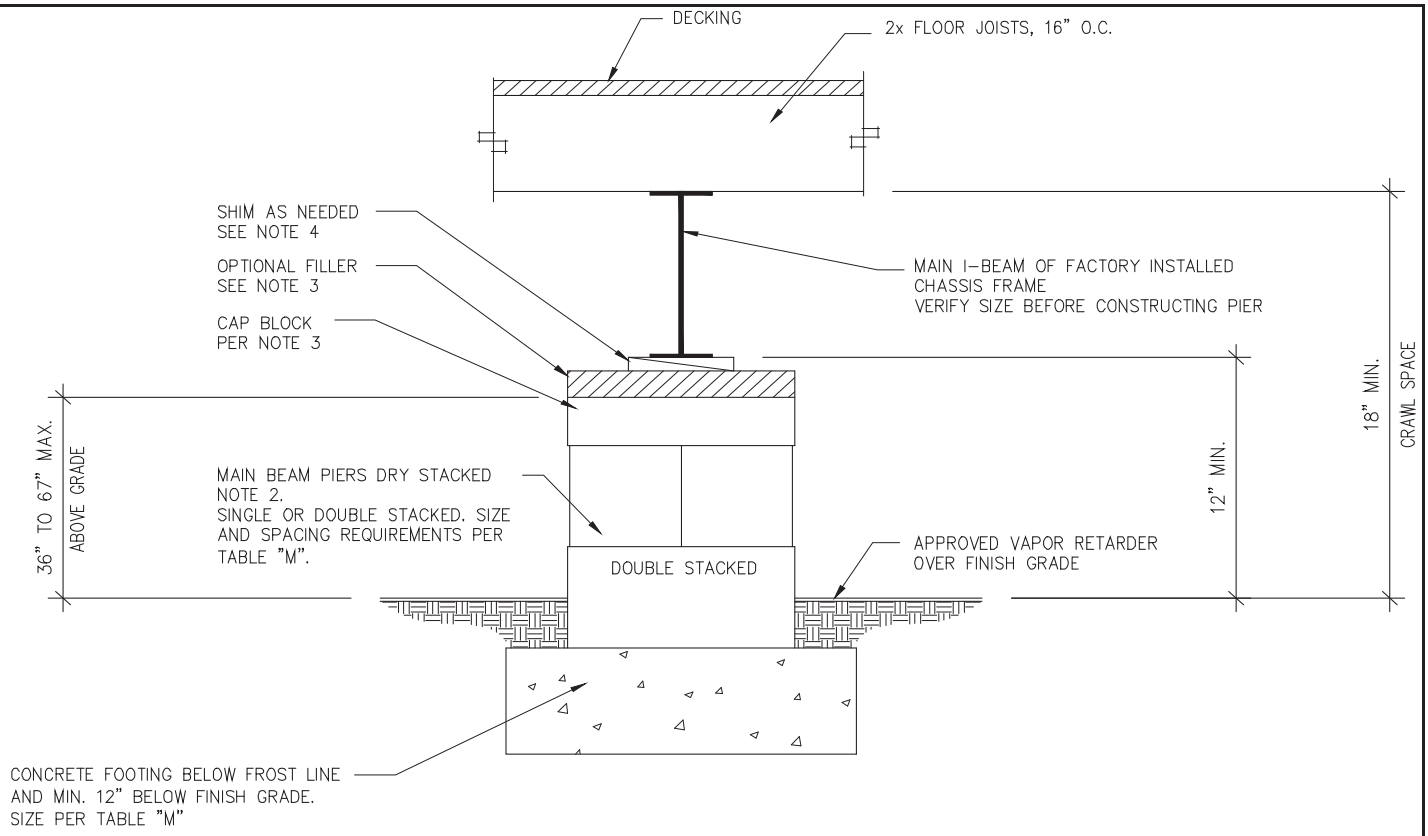

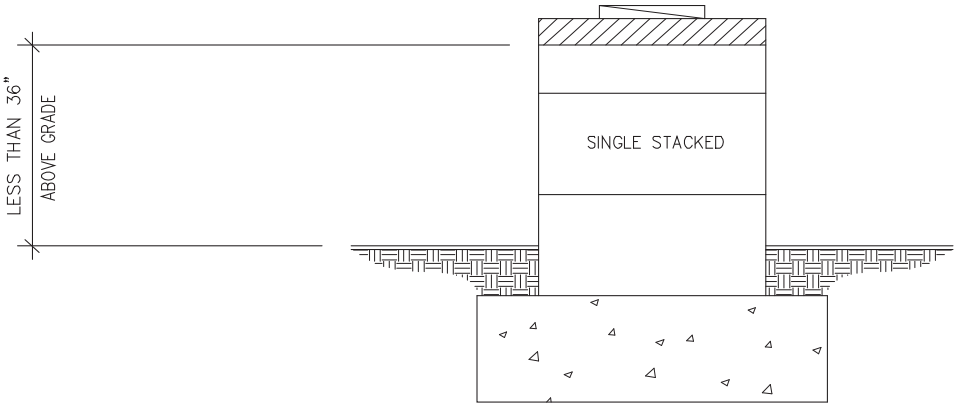

DRY STACKED MAIN I-BEAM SUPPORT PIER
ON-FRAME CRAWL SPACE ONLY

NOTES:
1. FOOTINGS MUST BE LEVEL IN ALL DIRECTIONS. PIERS ARE TO BE PLACED CENTERED ON THE FOOTING SO THAT THE FOOTING PROJECTION FROM THE PIER IS EQUAL FROM SIDE-TO-SIDE AND FRONT-TO-BACK. PIERS MUST BE LEVEL VERTICALLY ON ALL SIDES AND SQUARE WITH THE FOOTING.
2. CONCRETE BLOCKS FOR PIERS ARE 8" x 16" x 8" NOMINAL SIZE, HOLLOW CELL LOAD BEARING CMU's MANUFACTURED IN CONFORMANCE WITH ASTM C90, GRADE "N". OPEN CELLS ARE ALIGNED VERTICALLY. MORTAR IS NOT REQUIRED WHEN APPROVED BY THE AUTHORITY HAVING JURISDICTION. SINGLE STACKED BLOCKS TO BE LAID WITH LONG SIDE PERPENDICULAR TO MATE LINE RIM JOISTS. DOUBLE STACKED BLOCK IS LAID WITH EACH LAYER AT A RIGHT ANGLE TO THE PREVIOUS LAYER. THE TOP COURSE OR THE CAP BLOCKS SHALL BE PERPENDICULAR TO THE MATE LINE RIM JOISTS.
3. CAP BLOCKS SHALL BE 4" SOLID CONCRETE OR MASONRY BLOCK. 2x NOMINAL HARDWOOD OR 1/2" STEEL MAY BE USED AS A CAP BLOCK IF THE TOP COURSE OF THE PIER IS SOLID MASONRY OR CONCRETE OR IF THE TOP COURSE OF A HOLLOW PIER IS FILLED WITH CONCRETE OR GROUT. OPTIONAL FILLER MATERIAL MAY BE 2x NOMINAL HARDWOOD OR 2" OR 4' NOMINAL SOLID CONCRETE BLOCK. ALL CAPS AND FILLER SHALL BE OF THE SAME NOMINAL DIMENSIONS AS THE PIERS THEY REST UPON. INDIVIDUAL LENGTHS OF CAP BLOCKS AND FILLER SHALL BE PERPENDICULAR TO THE MATE LINE RIM JOISTS.
4. SHIMS SHALL BE OF HARDWOOD, AT LEAST 3 1/2" WIDE AND 6" LONG AND ARE NOT TO EXCEED ONE INCH IN THICKNESS. SHIMS SHALL BE PERPENDICULAR TO MATE LINE, FITTED AND DRIVEN TIGHT BETWEEN CAP BLOCKS OR FILLER AND MATE LINE RIM JOISTS.
5. MARRIAGE LINE PIERS SHALL SUPPORT THE MARRIAGE WALL AND COLUMNS WHERE OCCURS PER MODEL SPECIFIC FOUNDATION PLAN. MAXIMUM PIER SPACING PER TABLE "M".
6. SEE GENERAL NOTES FOR DRAINAGE AND OTHER FOUNDATION REQUIREMENTS.

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April 22, 2026

ON FRAME PIER - DETAIL - D9

DATE: 06/13/07

927N-19.R.K.C.22.2.4(4)

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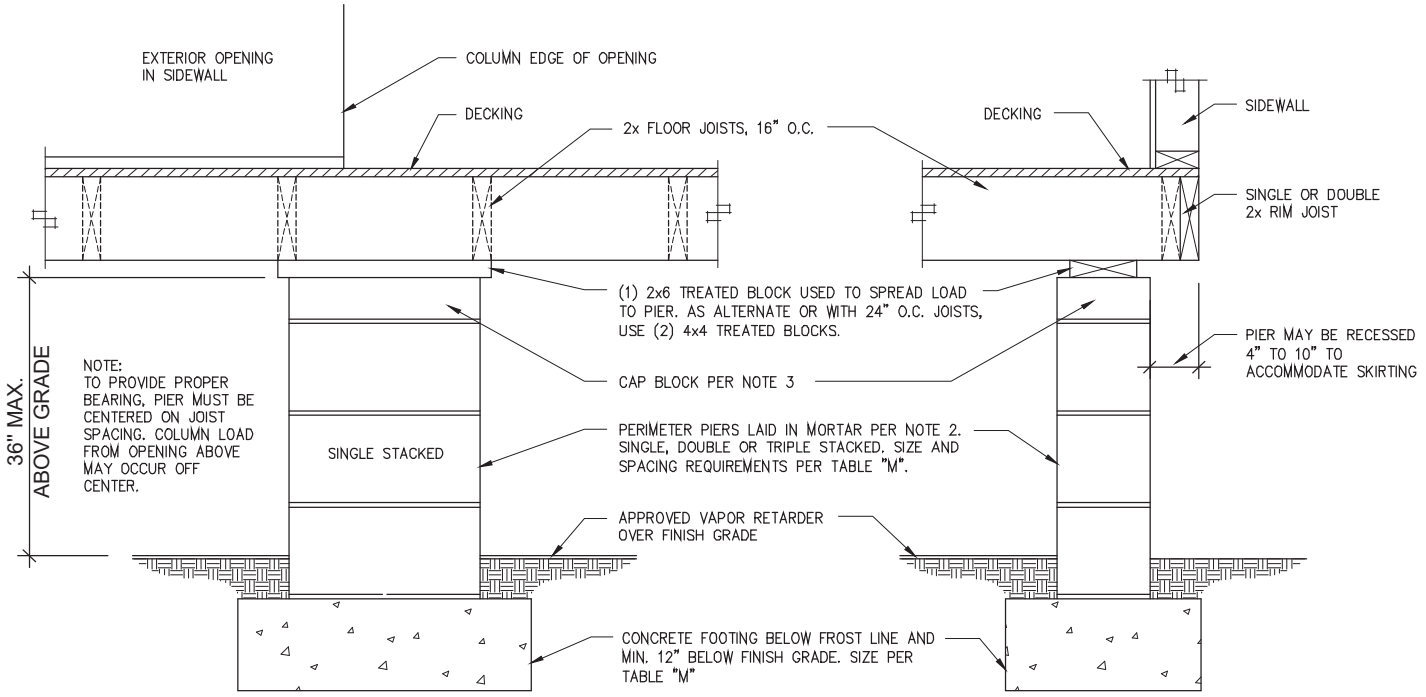

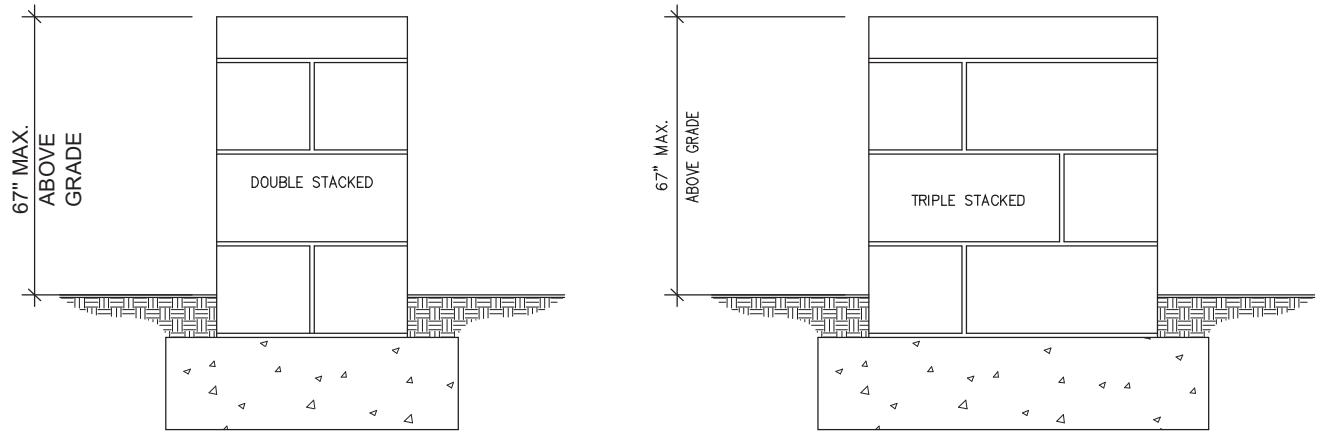

NON-REINFORCED PERIMETER OR PORCH POST SUPPORT PIER

NOTES:
1. FOOTINGS MUST BE LEVEL IN ALL DIRECTIONS. PIERS ARE TO BE PLACED CENTERED ON THE FOOTING SO THAT THE FOOTING PROJECTION FROM THE PIER IS EQUAL FROM SIDE-TO-SIDE AND FRONT-TO-BACK. PIERS MUST BE LEVEL VERTICALLY ON ALL SIDES AND SQUARE WITH THE FOOTING.
2. CONCRETE BLOCKS FOR PIERS ARE 8" x 16" x 8" NOMINAL SIZE, HOLLOW CELL LOAD BEARING CMU's MANUFACTURED IN CONFORMANCE WITH ASTM C90, GRADE "N". OPEN CELLS ARE ALIGNED VERTICALLY. SEE NOTE 7. FOR MORTAR REQUIREMENT. SINGLE STACKED BLOCKS TO BE LAID WITH LONG SIDE PERPENDICULAR TO MATE LINE RIM JOISTS. DOUBLE STACKED BLOCK IS LAID WITH EACH LAYER AT A RIGHT ANGLE TO THE PREVIOUS LAYER. THE TOP COURSE OR THE CAP BLOCKS SHALL BE PERPENDICULAR TO THE MATE LINE RIM JOISTS.
3. CAP BLOCKS SHALL BE 4" SOLID CONCRETE OR MASONRY BLOCK. 2x NOMINAL HARDWOOD OR 1/2" STEEL MAY BE USED AS A CAP BLOCK IF THE TOP COURSE OF THE PIER IS SOLID MASONRY OR CONCRETE OR IF THE TOP COURSE OF A HOLLOW PIER IS FILLED WITH CONCRETE OR GROUT. OPTIONAL FILLER MATERIAL MAY BE 2x NOMINAL HARDWOOD OR 2" OR 4' NOMINAL SOLID CONCRETE BLOCK. ALL CAPS AND FILLER SHALL BE OF THE SAME NOMINAL DIMENSIONS AS THE PIERS THEY REST UPON. INDIVIDUAL LENGTHS OF CAP BLOCKS AND FILLER SHALL BE PERPENDICULAR TO THE MATE LINE RIM JOISTS.
4. SHIMS SHALL BE OF HARDWOOD, AT LEAST 3 1/2" WIDE AND 6" LONG AND ARE NOT TO EXCEED ONE INCH IN THICKNESS. SHIMS SHALL BE PERPENDICULAR TO MATE LINE, FITTED AND DRIVEN TIGHT BETWEEN CAP BLOCKS OR FILLER AND MATE LINE RIM JOISTS.
5. MARRIAGE LINE PIERS SHALL SUPPORT THE MARRIAGE WALL AND COLUMNS WHERE OCCURS PER MODEL SPECIFIC FOUNDATION PLAN. MAXIMUM PIER SPACING PER TABLE "M".
6. SEE GENERAL NOTES FOR DRAINAGE AND OTHER FOUNDATION REQUIREMENTS.

7. MORTAR IS NOT REQUIRED WHEN APPROVED BY LOCAL AUTHORITY HAVING JURISDICTION

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April 22, 2026

NON-REINFORCED PERIMETER/ PORCH POST [illegible]R - DETAIL - D15

DATE: 07/18/07

927N-19.R.K.C.22.2.4(4)

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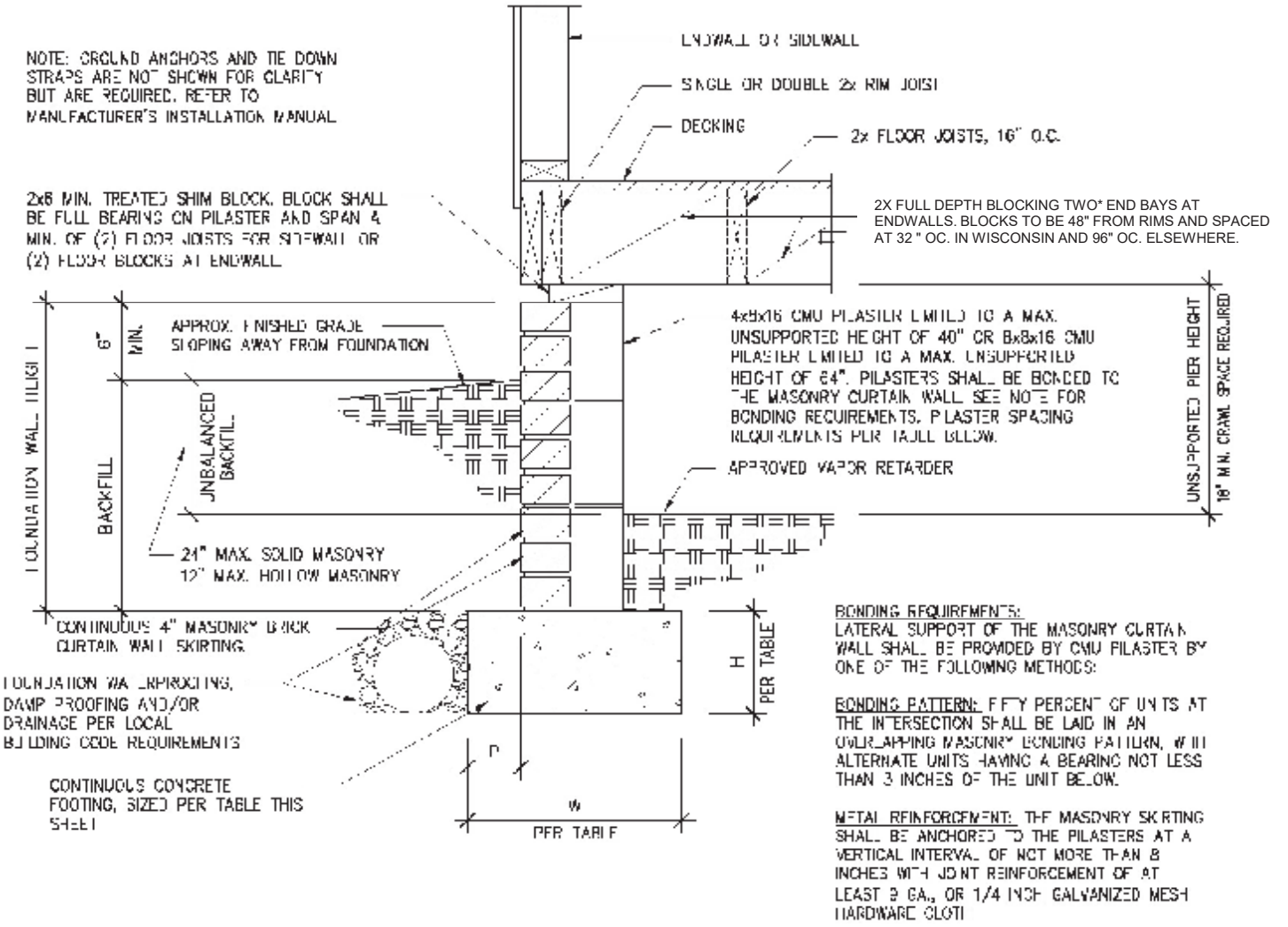


BLOCK SIZE	MAXIMUM PILASTER SPACING PER ROOF LIVE LOAD					GROUND ANCHORS [2]		H/ CONCRETE ANCHORS [3]	
	20					W	H	W	H [6]
4"X8"X16"	6 ' O.C.					12 "	8 "	12 "	8 "
8"X8"X16"	6 ' O.C.					23 "	10 "	23 "	10 "

CURTAIN WALL AND PILASTER FOUNDATION WALL
30 ' WIDE 1 STORY- W.O ATTIC
SEISMIC ZONE C MAX. WIND SPEED OF 90 MPH
PIER SET ONLY

NOTES:
1. THIS DETAIL IS APPLICABLE FOR USE ONLY WHEN ALL OF THE FOLLOWING ARE TRUE:
   a. ON FRAME FLOOR WITH PIER AND STRAP FOUNDATION AND ANHCORAGE SYSTEM.
   b. SEISMIC ZONE DOES NOT EXCEED SEISMIC ZONE C.
2. STRUCTURE IS ANCHORED PER OTHER DETAILS WITH STRAPS AND GROUND ANCHORS.
3. STRUCTURE IS ANCHORED PER OTHER DETAILS WITH STRAPS AND CONCRETE ANCHORS EMBEDDED INTO PERIMETER FOOTING AS SIZED ABOVE. CONCRETE ANCHOR SHALL HAVE LISTED DESIGN CAPAICITY OF 3150# MINIMUM.
4. PILASTER CONSTRUCTION MAY SUBSTITUTE FOR PERIMETER PIER REQUIREMENTS WHEN ALL CELLULAR SPACES ARE FILLED SOLIDLY WITH CONCRETE OR TYPE M OR S MORTAR.
5. HOLLOW PIERS SHALL BE CAPPED WITH 4" OF SOLID MASONRY OR CONCRETE OR THE CAVITIES OF THE TOP COURSE SHALL BE FILLED WITH CONCRETE OR GROUNT.
6. FOR EVERY 1 1/2" OF SOIL FILL ABOVE TOP OF FOOTER, 1" MAY BE SUBTRACTED FROM REQUIRED FOOTER DEPTH (H) FOR CONCRETE ANCHORS BUT SHALL NOT BE LESS THEN H AS SIZED FOR GROUND ANCHORS.

STATE OF MISSOURI
WALTER E. WOOD
NUMBER PE-2017022072
PROFESSIONAL ENGINEER

VALID
Clayton Homes

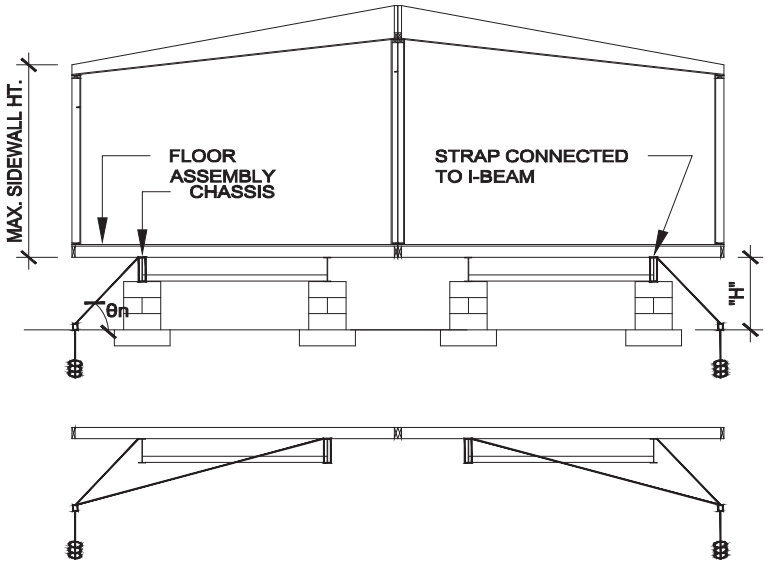
April 22, 2026

CURTAIN WALL AND PILASTER FOUNDATION WALL PIER SET ONLY - DETAIL - D17

DATE: 06/05/07 | 927N-19.R.K.C.22.2.4(4)

PAGE #:

2-SECTION MODULAR

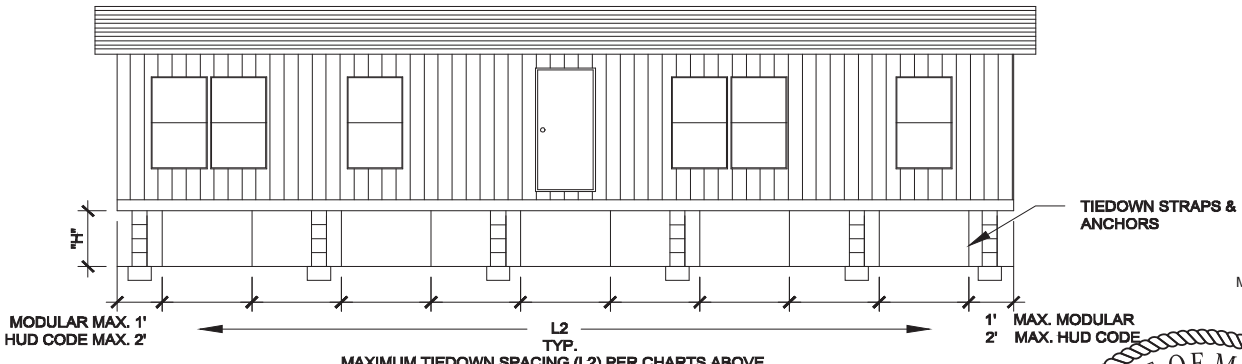


USE:
WIND ZONE 1 OR
90 MPH WIND
WHERE
θn ≤ 60°

WIND ZONE 1 OR
90 MPH WIND
WHERE
θn > 60°

HEIGHT "H"	(2) BOX 180" UNIT WIDTHS		
	CONFIG. TYPE	MAX. SPACING (L2)	
		6/12	4/12
20 in	1	12 ft	12 ft
30 in	1	12 ft	12 ft
40 in	1	12 ft	12 ft
50 in	1	11.02 ft	11.45 ft
60 in	3	10.26*	10.65*

** Additional strap must be attached to far beam frame tiedown installed since near beam strap angle exceeds 60 degrees .*



Model: M0920184MO

MAXIMUM TIEDOWN SPACING (L2) PER CHARTS ABOVE

TYPICAL SIDE ELEVATION SHOWING TIE-DOWN SPACING

NOTES:

1 MAXIMUM SIDEWALL HEIGHT OF 117.25 inches. & MAXIMUM OVERHANG OF 12 ".
2 MAXIMUM ANCHOR INSET OF 6".
3 DESIGNED TO IBC (2021)
4 MAXIMUM WIND SPEED OF 90 MPH.
5 ANCHOR EQUIPMENT & STRAPS SHALL HAVE A LISTED DESIGN CAPACITY OF : ANCHORS=3150LBS. STRAPS=3150 LBS. & VERTICAL SIDEWALL ATTACHMENTS=1062 LBS.
6 CHASSIS BEAM SPACE =99.5".
7 RESERVED
8 ANCHORING EQUIPMENT SHALL BE INSTALLED PER MFG. INSTRUCTIONS AND SHALL BE CERTIFIED FOR SITE CONDITIONS INCLUDING SOIL TYPE FOR DESIGN CAPACITY OF 3150 LBS. WITH PULL APPLIED AT A 30 DEGREE MINIMUM ANGLE FROM HORIZONTAL.
9 SEE SETUP MANUAL FOR ALL OTHER SETUP REQUIREMENTS INCLUDING SHEARWALL TIEDOWN REQUIREMENTS.
10 SPACING (L2) MAY NOT BE LESS THEN TWICE THE EMBEDMENT DEPTH OF THE ANCHOR.

Clayton Homes

TRANSVERSE TIEDOWN ANCHORAGE REQUIREMENTS

VALID

STATE OF MISSOURI
WALTER E. WOOD
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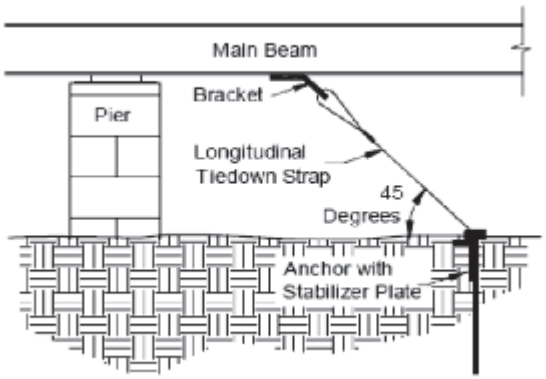
April 22, 2026

DATE 8/28/08

PAGE #:

MAX. PIER HEIGHT	LONGITUDINAL TIEDOWN QUANTITY SUMMARY TABLE: WIND SPEED 90 MPH MINIMUM UNIT LENGTHS:								
	30 '	36 '	42 '	48 '	54 '	60 '	66	72	78 '
24"	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
28"	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
36"	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
44"	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
52"	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
64"	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.



ATTACH STRAPS TO THE BRACKET WELDED BY THE MANUFACTURER TO THE FRAME. IF NO BRACKETS HAVE BEEN INSTALLED, USE APPROVED BEAM CLAMPS DESIGNED SPECIFICALLY FOR THIS PURPOSE, AVAILABLE FROM ANCHOR SUPPLIERS OR CONNECT THE STRAP TO A SPRING HANGER OR A CROSSMEMBER (WITHIN 3" OF THE MAIN i-BEAM). CONNECT STRAPS TO ANCHORS FOLLOWING SAME PROCEDURE AS FOR SIDEWALL FRAME ANCHORS. PROTECTION OFTHE STRAP AT SHARP CORNERS MUST BE PROVIDED.

Model: M0920184MO

NOTES:
1 MAXIMUM SIDEWALL HEIGHT OF 117.25 inches. & MAXIMUM OVERHANG OF 12 ".
2 MAXIMUM WIND SPEED OF 90 MPH.
3 DESIGNED TO IBC (2021)
4 MAXIMUM ROOF PITCH=4/12.
5 ANCHOR EQUIPMENT & STRAPS SHALL HAVE A LISTED DESIGN CAPACITY OF : ANCHORS=3150LBS. STRAPS=3150 LBS. & VERTICAL SIDEWALL ATTACHMENTS=1062 LBS.
6 TIEDOWN STRAP ANGLE FROM HORIZONTAL SHALL NOT EXCEED 45 DEGREES.
7 180" MAX UNIT WIDTH DOUBLE WIDE
8 NUMBER OF LONGITUDINAL TIEDOWNS REQUIRED PER END OF EACH HOME PER TABLE TABLE MUST BE INSTALLED.
9 ANCHORING EQUIPMENT SHALL BE INSTALLED PER MFG. INSTRUCTIONS AND SHALL BE CERTIFIED FOR SITE CONDITIONS INCLUDING SOIL TYPE FOR DESIGN CAPACITY OF 3150 LBS. WITH PULL APPLIED AT A 30 DEGREE MINIMUM ANGLE FROM HORIZONTAL.
10 SEE SETUP MANUAL FOR ALL OTHER SETUP REQUIREMENTS INCLUDING SHEARWALL TIEDOWN REQUIREMENTS.
11 N.R.: NOT REQUIRED-LONGITUDINAL TIE STRAPS ARE NOT REQUIRED ON THESE CONDITIONS.

STATE OF MISSOURI
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LONGITUDINAL TIEDOWN ANCHORAGE REQUIREMENTS

April 22, 2026

DATE 8/28/08

927N-19.R.K.C.22.2.4(4)

PAGE #:

DESIGNER GUIDE FOR ALTERNATIVE FOUNDATIONS:

* Ultimate wind speed Vult. Per ASCE 7-16 / allowable stress design wind speed Vasd. All wind speeds are indicated as (Vasd) design speeds unless otherwise indicated.

UNIT WIDTH: 180 in
ROOF PITCH: 6/12 TO 4/12
WIND: 117/ 90 MPH EXPOSURE C-enclo
1 STORY- W.O ATTIC
PLANT #: 927
MODEL NUMBER: M0920184MO
MAX. STRUCTURE LENGTH: 76 ft.

Ver. 26.03

Mating wall is a roof load bearing wall; therefore the column supports of all first floor mating wall opening must be supported for the concentrated gravity and uplift loads based on the opening span as provided in table A:

TABLE A: Mating wall column roof loads:

	Colum ID	First Floor Span (ft.)	Location (Ft)	Roof Loads at 1st floor opening per Snow load (lbs.)[1]: 20 psf					Net Uplift
THE FOLLOWING PIERS ARE LOCATED UNDER (A/B) MATING WALL COLUMNS	1	18.4'	0'	5908 #					920 #
	2	18.1'	18.333'	5811 #					905 #
	3	20.4'	39'	6550 #					1020 #
	4	20.4'	59.333'	6550 #					1020 #

1.Table A reflects roof load at mating wall opening supports from roof load only. To determine the load at a foundation adjacent floor and wall loads must be added per table B. In lue of using above load may be derivied by multiplying half mating wall opening span times mating wall at 1st floor ceiling uniform load as specified in table B.

TABLE B: UNIFORM LOAD (PLF) AT FLOOR LINE AT:

	Floor Load Only[3]	Uniform Load under wall per Ground Snow (lbs/ft.): 20 psf					Net Uplift (lb/ft.) NC	Corner
SIDEWALL AT 1st FLOOR CEILING	. plf	314.8 plf					74.7 plf	86.7 plf
SIDEWALL AT FLOOR TO SILL:	. plf	1132.1 plf					. plf	. plf
MAX. SIDEWALL RIM RAIL SPANS (in.)[1]	NA	NA						
MATING WALL AT 1st FLOOR CEILING:	. plf	642.1 plf					100. plf	100. plf
MATING WALL AT FLOOR TO SILL:	. plf	2232.2 plf					. plf	. plf
MAX. MATING RIM RAIL SPANS (in.)[2]	NA	NA						
SIDEWALL & MATING WALL SUPPORTED[8]:		N						
CHASSIS BEAM SUPPORTS (PLF):	948.3 plf	1142.9 plf						
MAXIMUM CHASSIS PIER SPACING (FT.):	8.' o/c	7.2' o/c						

FOOTNOTES:

1. SIDEWALL SPANS BASED ON RIM JOIST(S): (2) 2X10 #1 SP WITH EACH RIM MEMBER SPLICED WITH Support beside each sidewall opening and at 8' oc. under sidewalls.
2. MATING GIRDER SPANS BASED ON RIM JOIST(S): (4) 2X10 #1 SP WITH EACH RIM MEMBER SPLICED WITH
3. FLOOR ONLY- INDICATES LOAD OR ALLOWABLE SPANS UNDER MATING WALL OPENINGS (FLOOR LOAD ONLY).
4. EACH ENDWALL SHALL BE ANCHORED TO FOUNDATION FOR SHEAR DUE TO HOR. WIND FOR 6000 Lbs. &. EACH SIDEWALL SHALL BE ANCHORED TO FOUNDATION FOR SHEAR DUE TO HOR. WIND FOR 2222 Lbs.
5. GRAVITY LOADS DO NOT INCLUDE WEIGHT OF FOUNDATION WALLS AND FOOTERS.
6. INDICATES UNIFORM LOAD OR ALLOWABLE SPANS UNDER MATING WALLS (FLOOR + ROOF LOADS).
7. UPLIFT LOAD AT SIDES OF FIRST FLOOR OPENINGS=(PLF)*OPENING/2
8. "Y"- SIDEWALL & MATING WALL IS SUPPORTED BY PIERS. OR "N"-SIDEWALL OR MATING WALL NOT SUPPORTED BY PIERS AT 8' OC. MAX.

NOTES TO ALTERNATE FOUNDATION DESIGN PROFFESIONAL:

1. THIS PACKAGE CONTAINS A COMPLETE RECOMMENDED FOUNDATION SUPPORT AND ANCHORAGE SYSTEM DESIGNED TO CARRY ALL IMPOSED LOADS ON THE STRUCTURE. ALTERNATIONS TO THESE DIRECTIONS MUST BE PREFORMED BY A LICENSED PROFESSIONAL ENGINEER TO CARRY ALL IMPOSED LOADS IN A MANNOR THAT DOES NOT OVERSTRESS THE HOME STRUCTURE.
2. THE LOAD ON THIS PAGE HAS BEEN PREPARED TO COMMUNICATE THE IMPOSED LOAD REQUIREMENTS FOR THE HOME AND IS INTENDED TO BE UTILIZED BY A PROFESSIONAL ENGINEERING IN CONFORMANCE WITH LOCAL BUILDING CODES.
3. FOUNDATION LOADS ABOVE REFLECTS THE FOLLOWING:
   a. PIER SET (FRAME TIED) FOUNDATION DESIGN FOR: 30' - 0 " 2-SECTION MODULAR 1 STORY- W.O ATTIC
   b. 117/ 90 MPH EXPOSURE C-enclosed
   c. 20 PSF, MAX. GROUND SNOW LOAD.
   d. 100 PSF FL. LL., 7 PSF T.C.D.L., 8 PSF B.C. D.L., 25 PSF FL. DL. &, 10 PSF B.C.L.L MAX. GROUND SNOW LOAD.
   e. SEISMIC DESIGN CATEGORY C SDS=0.466666666666667
4. ALL DESIGN AND CONSTRUCTION IS SUBJECT TO THE AUTHORITY HAVING JURISDICTION. CONTACT LOCAL BUILDING DEPARTMENT FOR FROST LINE AND SOIL REQUIREMENTS.
5. FLOOR OR FOUNDATION WALL MUST BE INSULATED TO MEET A CONDITION SPACE AS REQUIRED BY HVAC DESIGN AS APPROVED BY BUILD FOUNDATION WALL INSULATION SHALL BE PROVIDED AND INSTALLED BY OTHESR ON-SITE.
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STATE OF MISSOURI
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NUMBER PE-2017022072
PROFESSIONAL ENGINEER

VALID

April 22, 2026

FOUNDATION DESIGN FOR: M0920184MO

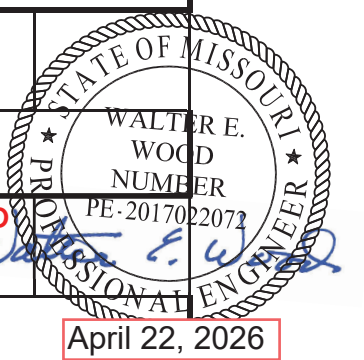
PIER SET (FRAME TIED) FOUNDATION DESIGN FOR:

30' - 0 " 2-SECTION MODULAR 1 STORY- W.O ATTIC PER IBC (2021)

THE FOLLOWING PIERS ARE LOCATED UNDER (A/B) MATING WALL COLUMNS						
COLUMN	LOCATION	PIER LOADS IN KIPS (1000 #)				
#	-HITCH	20				
1	0'	6.29 k				
2	18.333'	6.21 k				
3	39'	6.93 k				
4	59.333'	6.93 k				

PIER SPACING AND KIPS BETWEEN (A/B) MATING COLUMN LOCATIONS:

		(# OF SPANS) @ SPAN SPACING PIER LOAD IN KIPS				
Space ID:	Columns	20				
Wall 1	F-1	N.A.				
Opening 1	1-2	NONE REQUIRED				
Wall 2		NONE REQUIRED				
Opening 2	3-4	NONE REQUIRED				
Wall 3	4-R	NONE REQUIRED				
Opening 3						
Wall 4						
Opening 4						
Wall 5						
Opening 5						



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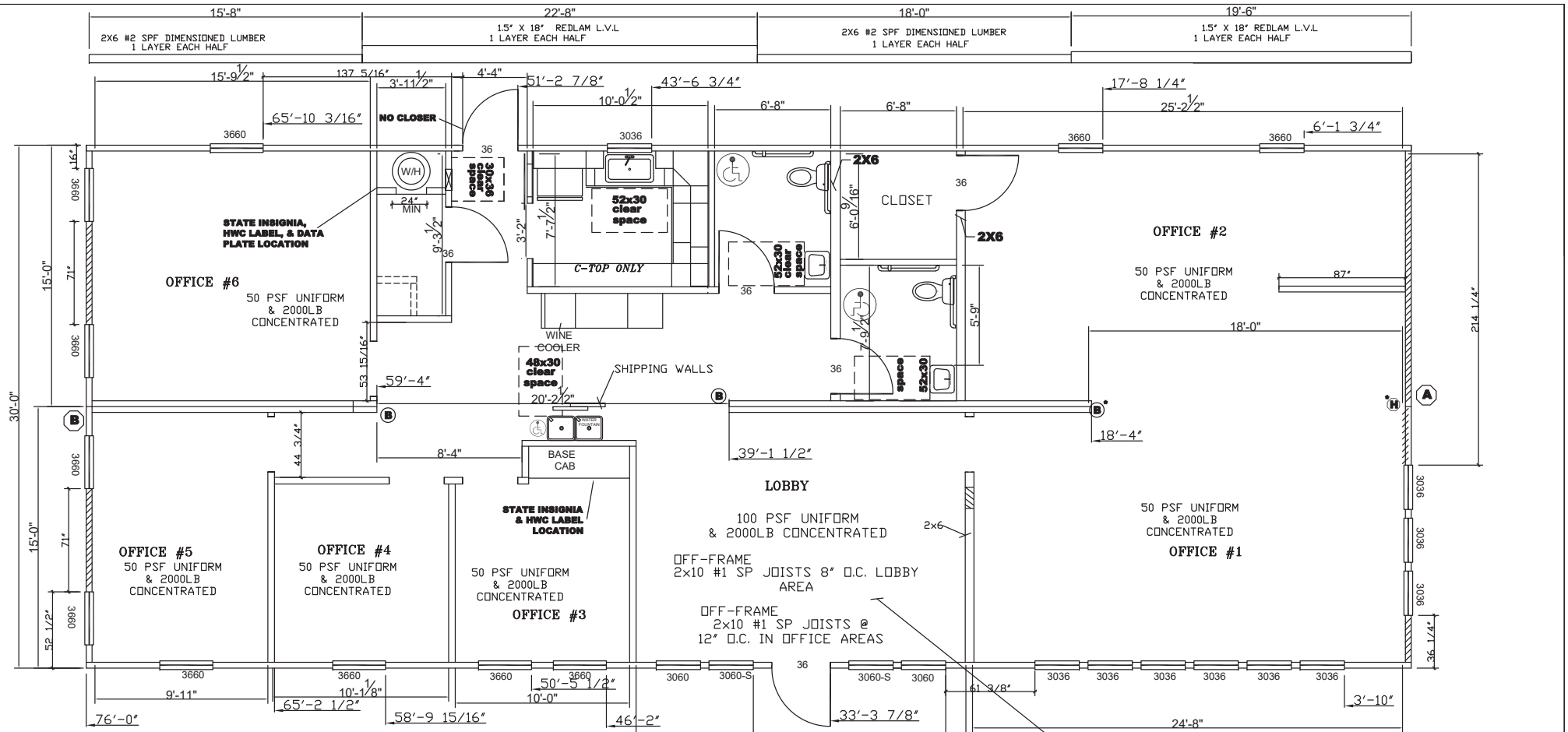

ALL DOORS SHALL BE 80" TALL UNLESS OTHERWISE SPECIFIED

WINDOW SYMBOLS WITH THE LETTERS 'E' OR 'S' BESIDE THEM DESIGNATE THAT WINDOW AS BEING EITHER AN 'EGRESS' OR 'SAFETY GLAZED' WINDOW

ex. (K)E for EGRESS
(K)S for SAFETY GLAZED

COLUMN STRAPPING SCHEDULE

- (A) (2) 2X3 SPF #2 THIS HALF (B) (3) 2X4 SPF #2 EACH HALF
- (C) (3) 2X3 SPF #2 THIS HALF (D) (3) 2X3 SPF #2 EACH HALF
- (E) (4) 2X3 SPF #2 THIS HALF (F) (4) 2X3 SPF #2 EACH HALF
- (G) (5) 2X3 SPF #2 THIS HALF (H) (2) 2X6 SPF #2 EACH HALF

* : WITH RIDGE BEAM BEARING STIFFENER

NOTES:
1. ALL COLUMN STUDS SHALL BE GLUED/NAILED TOGETHER. PVA GLUE WITH 100% COVERAGE SHALL BE USED.
2. INSTALL 2 STEEL STRAPS AT EACH STUD OF EACH COLUMN.
3. COLUMN STUDS SHALL NOT BE NOTCHED OR BORED.
4. ALT. COLUMN STUD CONFIGURATIONS MAY BE USED REFER TO STATE DESIGN PACKAGE FOR DETAILS.

90 -MPH SHEARWALL INFO

- (A) = 481 PLF
- (B) = 481 PLF

STATE OF MISSOURI
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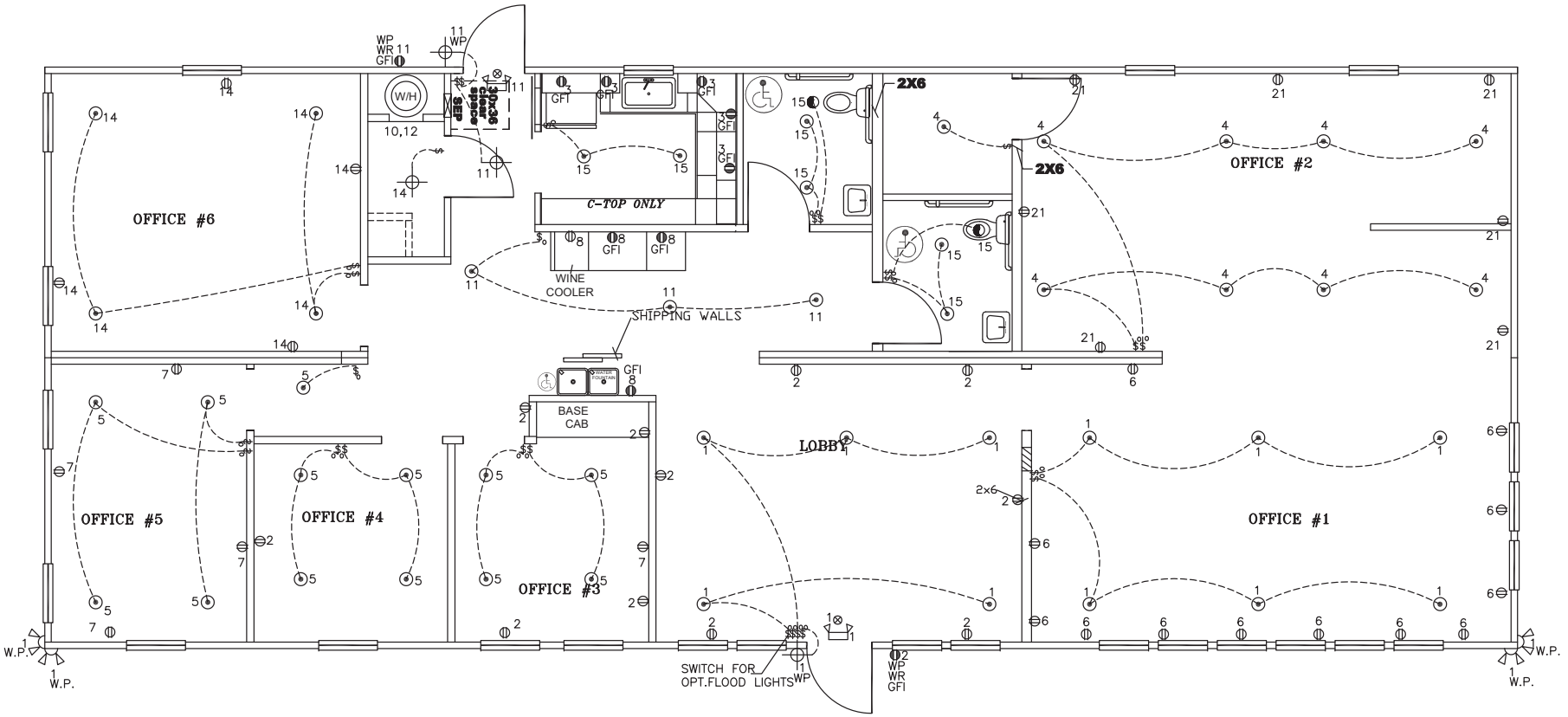
PROFESSIONAL ENGINEER
VALID
April 22, 2026

APPROVED
HILBORN, WERNER, CARTER & ASSOCIATES, INC.
04-27-2026
HWC

CODES: SEE NOTES	Clayton		
STATE LABEL(S): MO			
SCALE:	PROJECT #: M0920184MO	JOB #: 1869-1394	PLAN #: XXXX
FLOOR PLAN			SHEET P-1



S J-BOX @ 80" A.F.F. FOR MANUAL STROB LIGHT TO BE SITE INSTALLED & SUBJECT TO LOCAL APPROVAL

ELECTRICAL SCHEDULE

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (CU.)
1,2,4,5,6,7 11,14,21	LIGHTING, FAN & RECEPTACLES	20 A (1P)	12-2 NM
3,8	SNACK AREA	20 A (1P)	12-2 NM
10,12	WATER HEATER	20 A (1P)	12-2 NM
16,18 17,19	HVAC	SIZE PER MFG.	SIZE PER MFG.
5	EXT. SIGNAGE	20 A (1P)	12-2 NM

SYMBOLS

- SMOKE DETECTOR
- DUPLEX RECEPTACLE 120 V.
- SINGLE RECEPTACLE 240 V.
- GFI DUPLEX RECEPTACLE 120 V.
- INCANDESCENT LIGHT WITH 1- 60 W. BULB
- VENT FAN 75CFM
- THERMOSTAT
- EMERGENCY LIGHT WITH INTERNAL BATTERY BACKUP
- RECESSED CAN LIGHT
- LIGHTING OCCUPANCY SENSORS
- EMERGENCY LIGHT/EXIT SIGN COMBO WITH BATTERY BACKUP
- FLOOD LIGHT
- MECHANICAL ATTIC VENT
- JUNCTION BOX (NON POWERED UNLESS CIRCUIT NO. IS SHOWN)
- DATA JACK
- TELEPHONE JACK
- SWITCH & 3 WAY SWITCH

TOP OF PANEL BOX NOT TO EXCEED 60" ABOVE FINISH FLOOR

NOTE: EXIT SIGNS MUST BE A MIN. OF 7'-0" TO BOTTOM OF SIGN.

NOTE: EMERGENCY LIGHTS SHALL BE WIRED AHEAD OF SWITCHES,

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL	KVA
GENERAL LIGHTING .0035 KW/SF X 2100 SF X 1.25=		7.35
156 RECEPTS AT 180VA/1000=		10.08
WATER HEATER		3.8
2 FANS AT .3 KW X 1.25=		.75
HVAC UNITS @ 15 KW		15
OTHER		
TOTAL	33.18	
TOTAL/240 X 1000=		138.25
INSTALL 200 AMP PANEL		
120/240 V 1ø		

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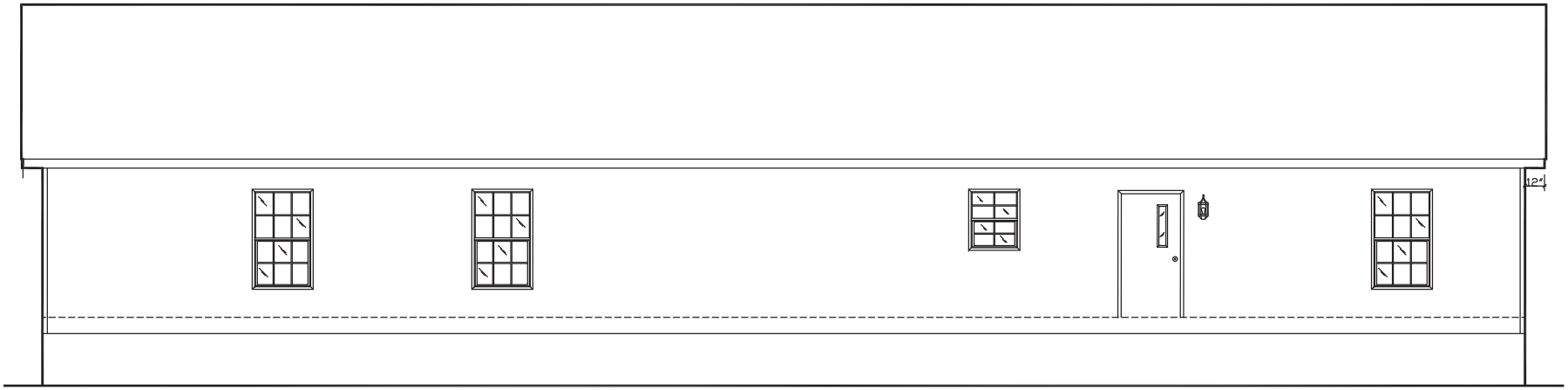
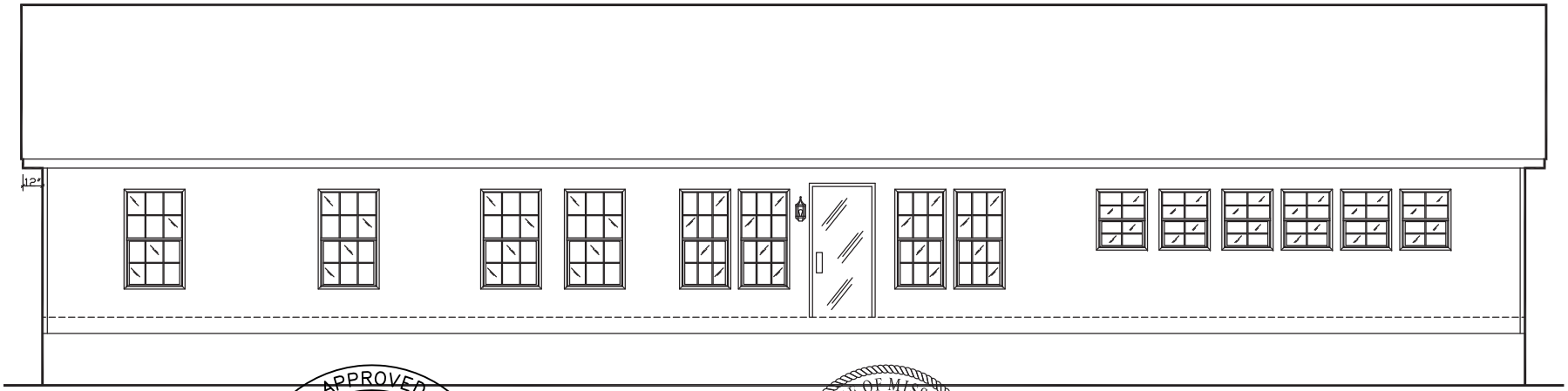
CODES: SEE NOTES
STATE LABEL(S): MO
SCALE:
Clayton
PROJECT #:M0920184MO
JOB #:1869-1394
PLAN #: XXXX

ELECTRICAL PLAN

SHEET E-1



BACK

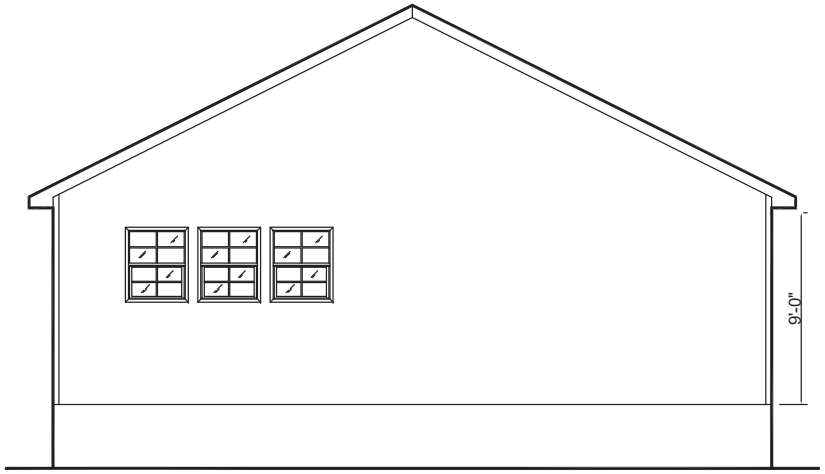


FRONT

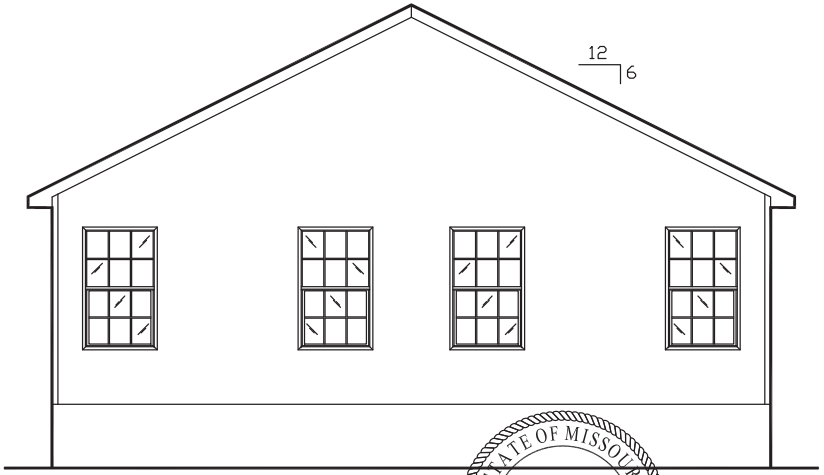
APPROVED • HILLBORN, WERNER, CARTER & ASSOCIATES, INC. •
04-27-2026
HWC

STATE OF MISSOURI
WALTER E. WOOD
NUMBER PE-2017022072
PROFESSIONAL ENGINEER
VALID
April 22, 2026

CODES: SEE NOTES	Clayton		
STATE LABEL(S): MO			
SCALE: 3/16" = 1'-0"	PROJECT #: M0920184MO	JOB #: 1869-1394	PLAN #: XXXX
ELEVATIONS			SHEET P-2



RIGHT SIDE



LEFT SIDE

APPROVED
HILLBORN, WERNER, CARTER & ASSOCIATES, INC.
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HWC

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NUMBER PE-2017022072
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April 22, 2026

CODES: SEE NOTES	Clayton		
STATE LABEL(S): MO			
SCALE: 3/16" = 1'-0"	PROJECT #: M0920184MO	JOB #: 1869-1394	PLAN #: XXXX
ELEVATIONS			SHEET P-2.1

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04-27-2026
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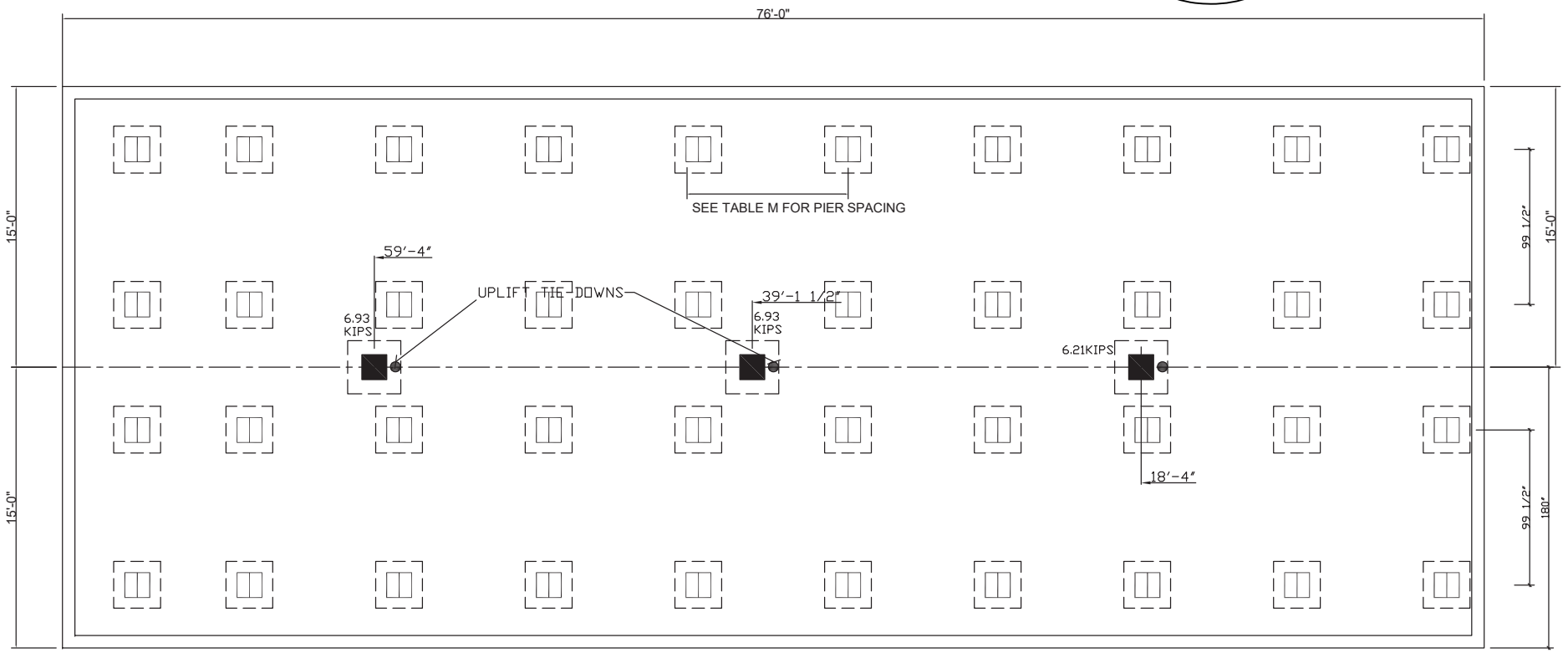

PIER LEGEND

- ☐ = SUPPORT UNDER MATING OPENING
- ■ = SUPPORT AT MATING COLUMN
- ▨ = SUPPORT UNDER MATING WALL
- ▩ = PIER PORCH/RECESSED ENTRY
- ☐ = PIER MAIN BEAM
- ⊠ = PIER PERIMETER
- ● = TIE-DOWN SUPPORT (QTY PER TBL M, SEE DETAIL D-6 IN FOUND. PKG.)

GENERAL NOTES:

1. FOUNDATION WIDTH IS NOMINAL AND DOES NOT TAKE INTO ACCOUNT THE OSB, SIDING, OR SPACE CREATED BY CRANE CABLES IN THE MATE AREA. WIDTH MAY NEED TO BE ADJUSTED ACCORDINGLY.
2. SEE FOUNDATION PACKAGE FOR ADDITIONAL DETAILS AND INFORMATION.

FOUNDATION DESIGN SPECIFICATIONS

SEISMIC DESIGN CATEGORY – C
GROUND SNOW LOAD = 20 PSF MAX
MATING LINE GIRDER BEAM = (2) 2x10 #1 SP
GIRDER BEAM SPLICE PLATE = 6" x 6" MIN.

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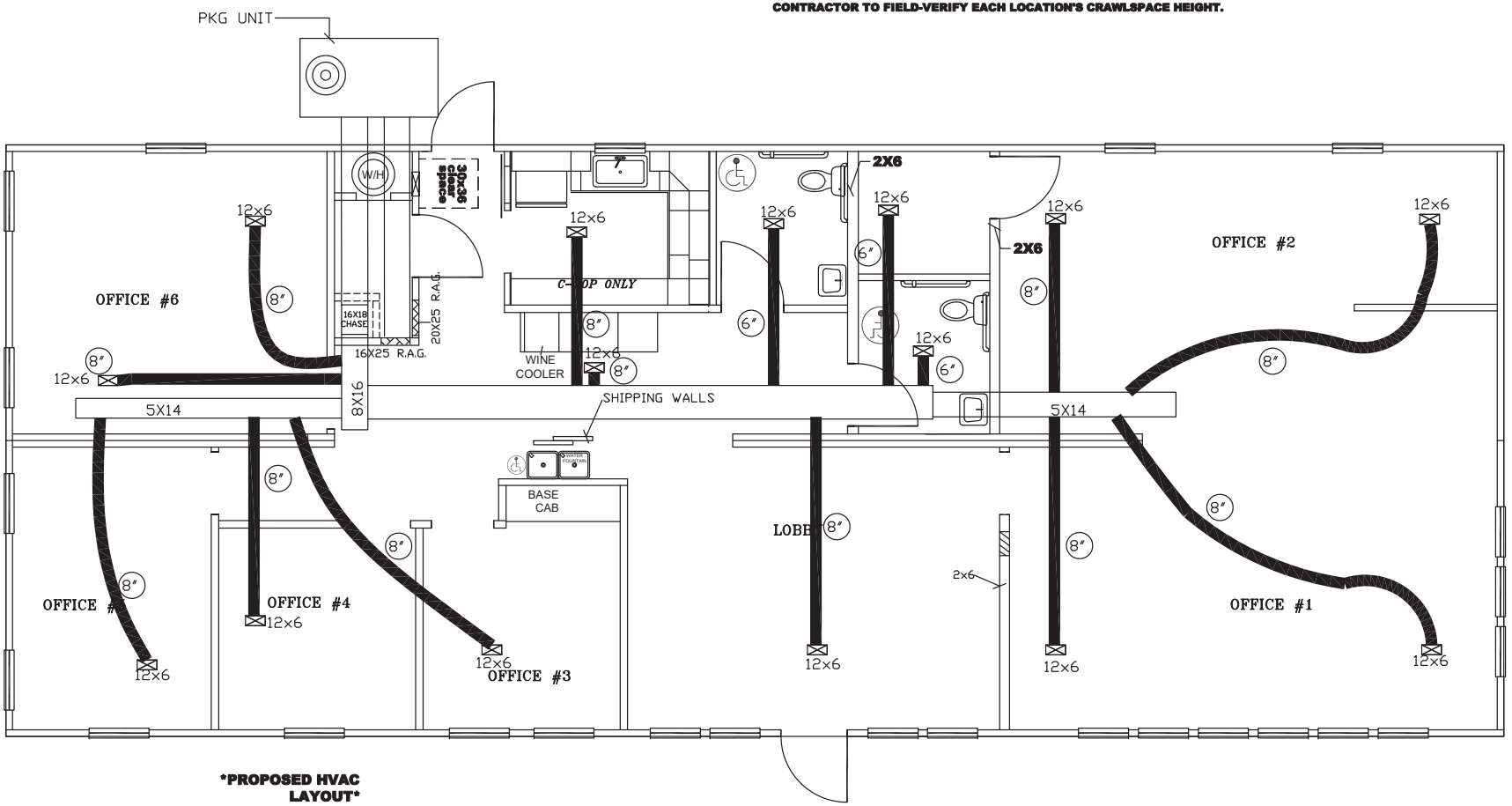
CODES: SEE NOTES	Clayton		
STATE LABEL(S): MO			
SCALE: 3/16" = 1'-0"	PROJECT #: M0920184MO	JOB #: 1869-1394	PLAN #: XXXX
ON-FRAME FOUNDATION			SHEET F-4

SA & RA DUCTWORK TO BE RUN IN CRAWLSPACE UNDER BUILDING.
CONTRACTOR TO FIELD-VERIFY EACH LOCATION'S CRAWLSPACE HEIGHT.



PROPOSED HVAC LAYOUT

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HWC

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WALTER E. WOOD
NUMBER PE-2017022072
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April 22, 2026

JAMES HARRILL, PE
1001 OAK CHASE BLVD.
LENOIR CITY, TN 37772

CODES: SEE NOTES	Clayton		
STATE LABEL(S): MO			
SCALE:	PROJECT #: M0920184MO	JOB #: 1869-1394	PLAN #: XXXX
HVAC LAYOUT			SHEET H-1

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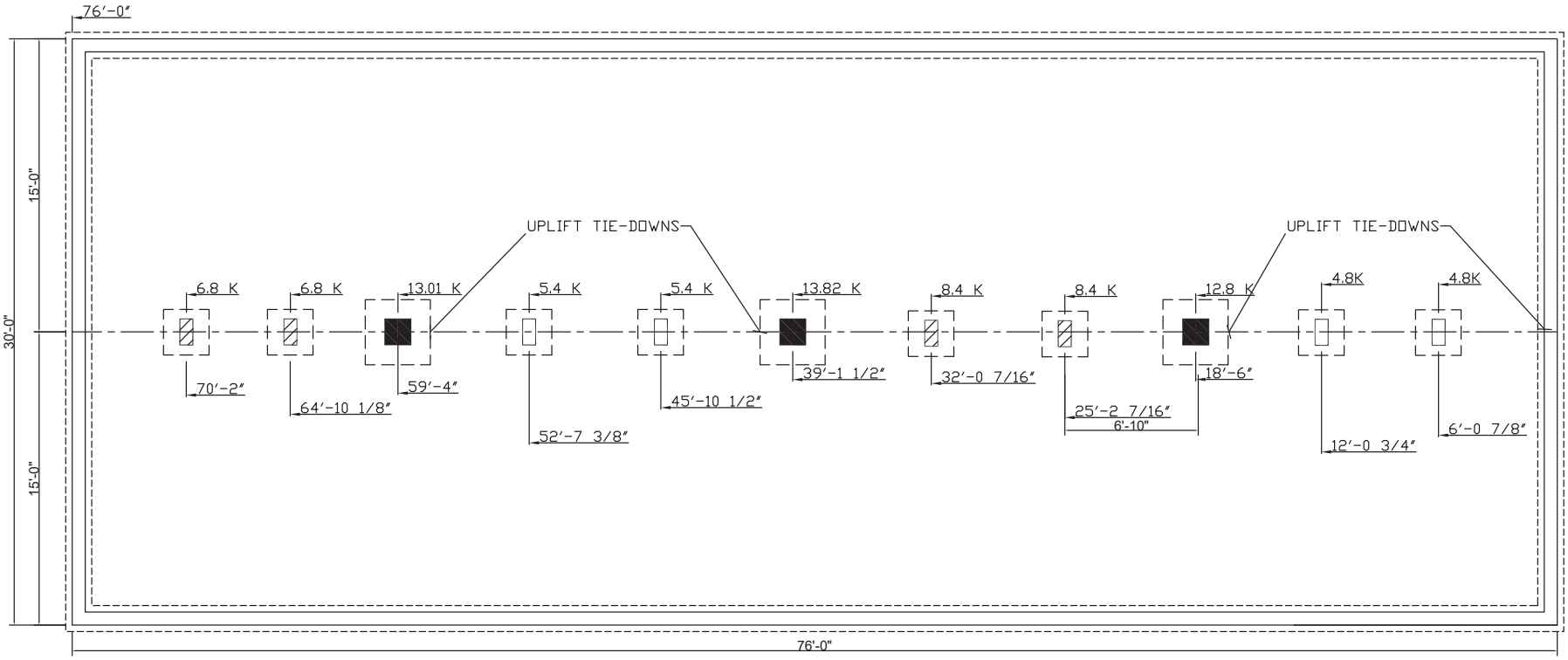

PIER LEGEND
- = SUPPORT UNDER MATING OPENING
- = SUPPORT AT MATING COLUMN
- = SUPPORT UNDER MATING WALL
- = PIER PORCH/RECESSED ENTRY
- = PIER MAIN BEAM
- = PIER PERIMETER
- = CROSS BEAM SUPPORT & MATING WALL COLUMN SUPPORT

FOUNDATION DESIGN SPECIFICATIONS

SEISMIC DESIGN CATEGORY – C
GROUND SNOW LOAD = 20 PSF MAX
MATING LINE GIRDER BEAM = (4) 2x10 #1 SPF
GIRDER BEAM SPLICE PLATE = 6" x 6" MIN.

GENERAL NOTES:
1. FOUNDATION WIDTH IS NOMINAL AND DOES NOT TAKE INTO ACCOUNT THE OSB, SIDING, OR SPACE CREATED BY CRANE CABLES IN THE MATE AREA. WIDTH MAY NEED TO BE ADJUSTED ACCORDINGLY.
2. SEE FOUNDATION PACKAGE FOR ADDITIONAL DETAILS AND INFORMATION.

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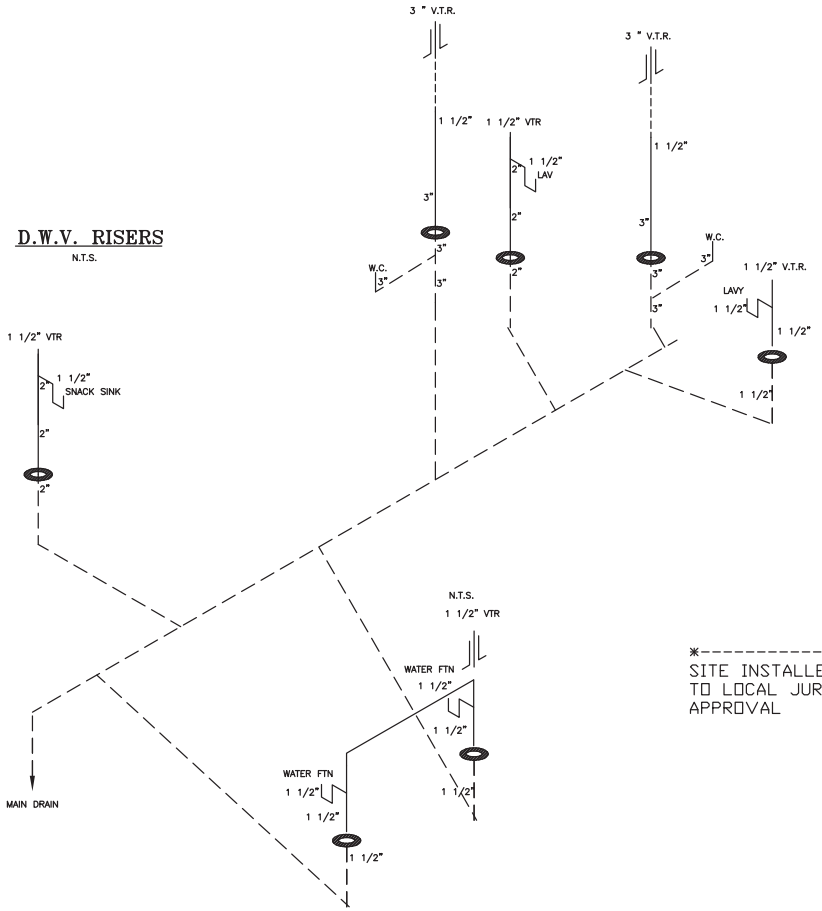
SCALE:	PROJECT #: M0920184MO	JOB #: 1869-1394	PLAN #: XXXX
OFF FRAME FOUNDATION			SHEET F-3

D.W.V. RISERS

N.T.S.



*----------
SITE INSTALLED SUBJECT TO LOCAL JURISDICTION APPROVAL

HILBORN, WERNER, CARTER & ASSOCIATES, INC.
APPROVED
04-27-2026
HWC

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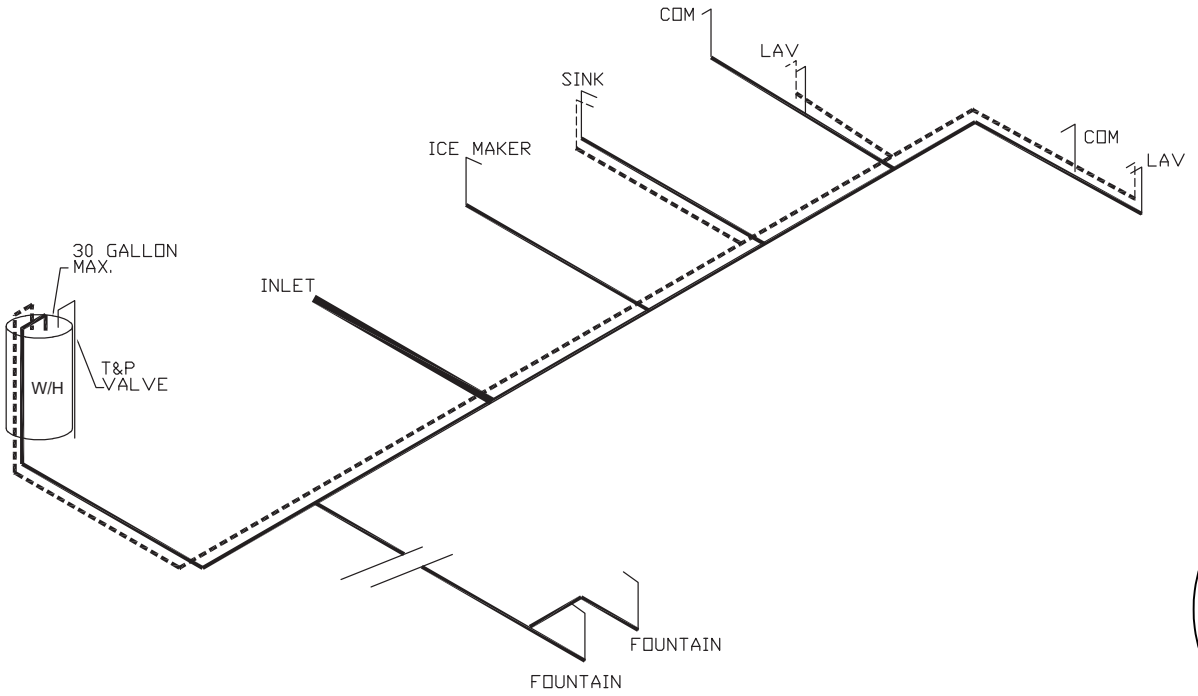
SCALE:	PROJECT #:M0920184MO	JOB #:1869-1394	PLAN #: XXXX
DWV LINES			SHEET H-2

W/H TO BE SITE INSTALLED BY OTHERS AND IS SUBJECT TO LOCAL JURISDICTION APPROVAL

SUPPLY LINE SIZING IS BASED ON AN ASSUMED AVAILABLE PRESSURE OF 40 TO 49 PSI AT MAIN INLET AND SHOULD BE VERIFIED PRIOR TO CONSTRUCTION.

COLD WATER LINE
HOT WATER LINE
1/2" WATER LINE
3/4" WATER LINE
1" WATER LINE



APPROVED
HILBORN, WERNER, CARTER & ASSOCIATES, INC.
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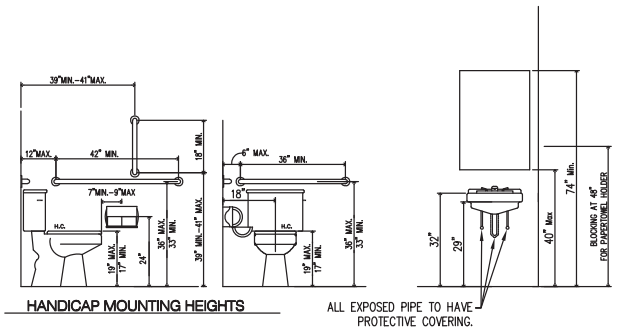
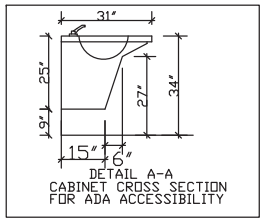
STATE LABEL(S): MO			
SCALE:	PROJECT #: M0920184MO	JOB #: 1869-1394	PLAN #: XXXX
SUPPLY LINES			SHEET H-2.1

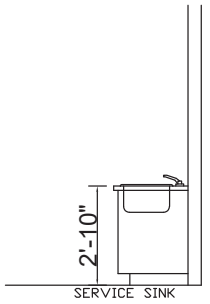


HANDICAP MOUNTING HEIGHTS

ALL EXPOSED PIPE TO HAVE PROTECTIVE COVERING.



DETAIL A-A
CABINET CROSS SECTION
FOR ADA ACCESSIBILITY



SERVICE SINK

CLEAR FLOOR SPACE SHOWN
ON FLOOR PLAN

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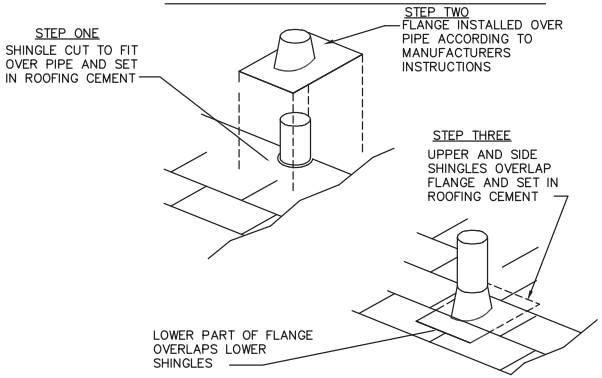
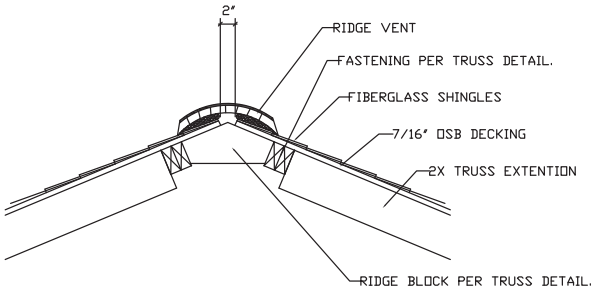
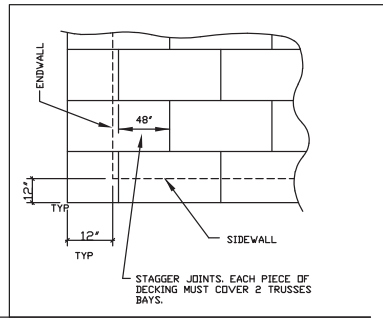
SCALE:	PROJECT #: M0920184MO	JOB #: 1869-1394	PLAN #: XXXX
ADA DETAILS			SHEET D-2

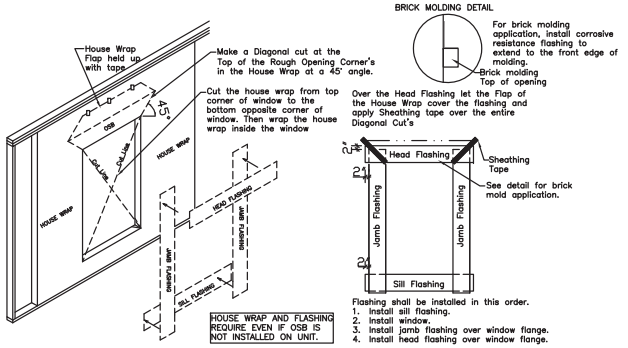
ROOF PENETRATIONS



NOTES:
1. WHEN ROOF DECKING IS PENETRATED, THE AREA PENETRATED MAY BE 1/2" +/- 1/4" LARGER THEN ITEM PROTRUDING THRU OR PER THE MANUFACTURERS INSTALLATION INSTRUCTIONS.
2. ALL SHINGLES PENETRATIONS TO BE SEALED IN ACCORDANCE WITH THE FLASHING MANUFACTURER INSTALLATION INSTRUCTIONS WHEN APPLICABLE. OTHERWISE USE DETAIL ABOVE.
3. DO NOT USE PETROLEUM BASED SEALANTS ON BASE OF FLASHING WHEN USING A NO CAULK FLASHING.
4. PLUMBING VENT PENETRATION SHALL EXTEND A MINIMUM OF 6" ABOVE ROOF FINISH.
5. CHIMNEYS TO BE LOCATED BETWEEN TRUSSES TO MAINTAIN MINIMUM REQUIRED DISTANCES FROM COMBUSTIBLE MATERIAL.
6. DETAILS APPLICABLE TO PLUMBING VENTS, FLUES AND CHIMNEYS, AND ELECTRICAL MASTS.







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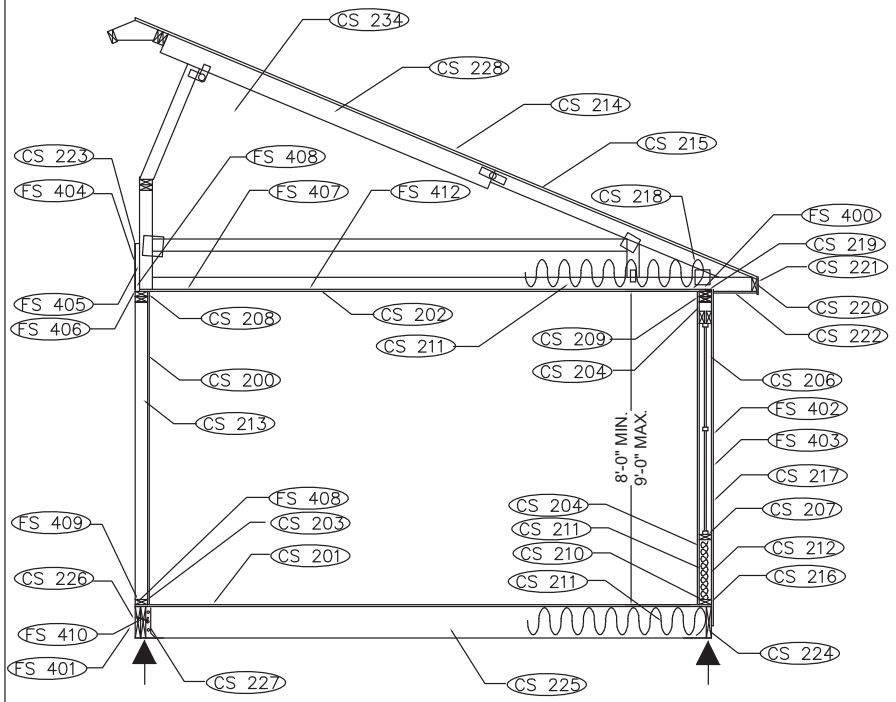
CODES: SEE NOTES	Clayton		
STATE LABEL(S): MO			
SCALE: N.T.S.	PROJECT #:M0920184MO	JOB #:1869-1394	PLAN #: XXXX
ROOF DETAILS			SHEET D-1



- CS 200 — 1/2" GYPSUM BOARD TAPED, SANDED AND FINISHED MAY BE SUBSTITUTED IN ANY LOCATION FOR THE 3/8" VINYL COVERED GYPSUM.
- CS 201 — 19/32" T&G OSB , EXP. 1, 24/16 OR 5/8" T&G PLYWOOD, STURD-I-FLOOR EXP. 1. ALL ENDS ARE BUTT JOINTS. INSTALLED PERPENDICULAR TO JOIST.
- CS 202 — 1/2" MINIMUM GYPSUM BOARD INSTALLED PER MANUFACTURER'S SPECIFICATIONS. (ACOUSTICALLY TREATED) (WHEN SUPPORTS ARE 24" O.C. AND WET SPRAY-ON FINISH IS USED GYPSUM BOARD SHALL BE 5/8 INCH THICK OR GOLD BOND 1/2 INCH HIGH STRENGTH CEILING BOARD OR EQUAL SHALL BE USED). SPRAY APPLIED VAPOR BARRIER (ONE PERM MAX.).
- CS 203 — BOTTOM SOLE PLATE 2X3 #3 SPF MIN.
- CS 204 — CRIPPLE STUD 2X4 #2 SPF MIN. 16" O.C.
- CS 205 — 2x HEADER PER EW-20.0 IN APPROVED PACKAGE.
- CS 206 — TYPICAL WINDOW OR DOOR SEE FLOOR PLAN FOR SPECIFICATIONS.
- CS 207 — WINDOW SILL PLATE MIN. 2x4 SPF#2
- CS 208 — DOUBLE TOP PLATE MINIMUM 2X3 #3 SPF
- CS 209 — DOUBLE TOP PLATE MINIMUM 2X4 #3 SPF
- CS 210 — BOTTOM SOLE PLATE 2X4 #3 SPF MIN.
- CS 211 — INSULATION W/ VAPOR BARRIER-SEE ATTACHED RESCHECKS OR C-1 SHEET FOR R - VALUE.
- CS 212 — EXTERIOR WALL STUDS 2X4 SPF #2 AT 16" O.C. OPT. 2X6 SPF #3 AT 16" O.C.
- CS 213 — MARRIAGE WALL STUDS MIN 2X3 SPF #3 AT 16" O.C.
- CS 214 — 7/16" OSB SHEATHING RATED EXP 1, 24/16
- CS 215 — ASPHALT OR FIBERGLASS SHINGLES OVER TWO LAYERS OF 15# FELT FOR PITCHES UP TO 4:12 AND ONE LAYER FOR 4:12 OR STEEPER INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
  UNDERLAYMENT SHALL CONFORM WITH ASTM D 226, TYPE I, OR ASTM D 4869, TYPE I.
  CLOSED VALLEY FLASHING SHALL COMPLY WITH ASTM D 224 TYPE II OR TYPE III. ASTM D 1970 MAY BE USED IN LIEU OF LINING MATERIAL.
- CS 216 — 7/16" OSB SHEATHING RATED EXP. 1, 24/16 WITH WATER RESISTIVE BARRIER BELOW ALL EXT. FINISH MATERIAL.
  CORROSION-RESISTANT FLASHING REQUIRED AT ALL LOCATIONS AS SHOWN ON APPROVED MANUAL DETAILS
- CS 217 — LAP BOARD, WOOD OR VINYL SIDING, HARDI SIDING, OR EXPOSED SHEATHING FOR ON SITE EXTERIOR FINISH INSTALLATION.
- CS 218 — MAINTAIN 1" MIN. SPACE BETWEEN INSULATION AND ROOF SHEATHING.
- CS 219 — COMPRESSION STRIP SHIM (2" CONTINUOUS)
- CS 220 — 2X MIN. SPF #3 RIM
- CS 221 — ALUMINUM OR HARDI FASCIA MATERIAL
- CS 222 — CONTINUES VENTILATED SOFFIT
- CS 223 — RIDGE BEAM PER RC-60.0 IN APPROVED PACKAGE
- CS 224 — FLOOR RIM JOIST PER FL-100.0 IN APPROVED PACKAGE
- CS 225 — FLOOR JOIST PER FL-100.0 IN APPROVED PACKAGE
- CS 226 — MATE LINE FLOOR RIM JOIST PER FL-100.0 IN APPROVED PACKAGE
- CS 227 — JOIST HANGER PER FL-120.0 IN APPROVED PACKAGE
- CS 228 — ENGINEERED TRUSSES PER C-1 SHEET
- CS 229 — ENDWALL OVERHANG DETAIL PER RC-10.0 DETAIL(S)
- CS 230 — RESERVED FOR FUTURE USES
- CS 231 — RESERVED FOR FUTURE USES
- CS 232 — RESERVED FOR FUTURE USES
- CS 233 — RESERVED FOR FUTURE USES
- CS 234 — GABLE ENDWALL FRAMING PER RC-21.0 DETAIL(S).

- FS 400 — ROOF TRUSS ATTACHMENT TO TOP PLATE PER RC-30.0 IN APPROVED PACKAGE.
- FS 401 — EXTERIOR WALL STRAPPING AND FASTENING PER EW-31.0 IN APPROVED PACKAGE.
- FS 402 — EXTERIOR STRUCTURAL SHEATHING PER SW-10.0 OR SW-35.0, WHICH EVER IS WORST CASE OF, APPROVED STATE PACKAGE.
- FS 403 — RESERVED FOR FUTURE USES
- FS 404 — SITE SET UP CONNECTION:
  3/8" LAG BOLT WITH 1" MIN. PENETRATION LAG SCREW SPACED 16" O.C. STAGGERED FROM SIDE TO SIDE.
  ALT. 1/2" DIA. BOLT WITH 1 3/8" WASHER SPACED 24" O.C. MAX.
- FS 405 — FASTEN RIDGE BEAM TO EACH TRUSS PER RC-60.0 IN APPROVED PACKAGE.
- FS 404 — RIDGEBEAM FASTENED TO TOP PLATE WITH #8x4" SCREWS 16" O.C.
- FS 407 — INTERIOR PARTITIONS FASTENED TO TRUSS OR LAYFLATS IN ROOF AND FLOOR PER PT-40.0 IN APPROVED PACKAGE.
- FS 408 — MARRIAGE WALL STRAPPING AND FASTENING PER MW-30.0 IN APPROVED PACKAGE. (TYPICAL EACH MARRIAGE WALL)
- FS 409 — EXTERIOR WALLS FASTENED TO FLOOR PER EW-31.0 IN APPROVED PACKAGE.
- FS 410 — SITE SET UP CONNECTION:
  3/8" LAG SCREWS STAGGERED FROM SIDE TO SIDE AT 48" O.C. MAXIMUM. LAG SCREWS MUST PENETRATE 1.75" MINIMUM INTO ADJACENT MODULE RIM JOIST OR SITE INSTALL 1/2" X 4" BOLTS INTO PRE-DRILLED HOLES AT 48" O.C. MAX.
- FS 411 — FRAME TO FLOOR PER FL-500.0 IN APPROVED PACKAGE.
- FS 412 — ENDWALL
  TRUSS TO PLATE
  #8x3" SCREW W/ 1-3/8" PENETRATION 6" O.C. TOE SCREW

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04-27-2026
HWC

NOTE:
1. FLOOR INSULATION MAY BE SITE INSTALLED.
2. BUILDING IS SYMMETRICAL.

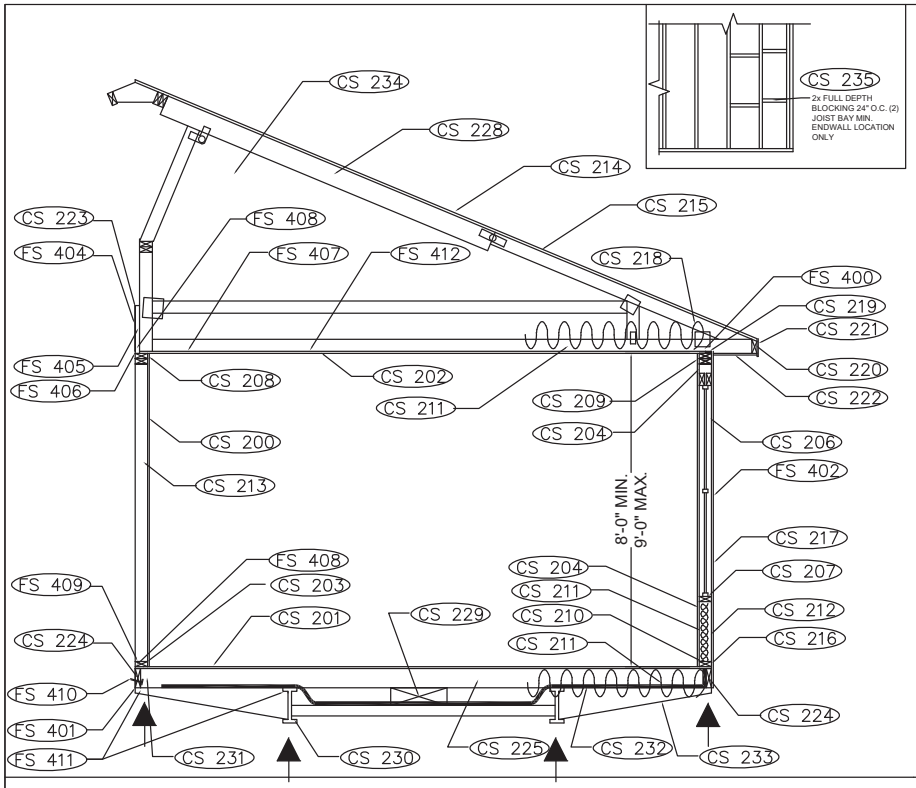
CLAYTON HOMES

12/6/04

CODES: SEE NOTES	REVISIONS	BY	DATE
STATE LABEL(S): MO	Added nail and staple option to interior partitions.	BR	1.11.08
SCALE: N.T.S.		BR	05.21.08

OFF FRAME CROSS SECTION

SHEET X-2



CS 200 — 1/2" GYPSUM BOARD TAPED, SANDED AND FINISHED MAY BE SUBSTITUTED IN ANY LOCATION FOR THE 3/8" VINYL COVERED GYPSUM.

CS 201 — 19/32" T&G OSB , EXP. 1, 24/16 OR 5/8" T&G PLYWOOD, STURD-I-FLOOR EXP. 1. ALL ENDS ARE BUTT JOINTS. INSTALLED PERPENDICULAR TO JOIST.

CS 202 — 1/2" MINIMUM GYPSUM BOARD INSTALLED PER MANUFACTURER'S SPECIFICATIONS. (ACOUSTICALLY TREATED) (WHEN SUPPORTS ARE 24" O.C. AND WET SPRAY-ON FINISH IS USED GYPSUM BOARD SHALL BE 5/8 INCH THICK OR GOLD BOND 1/2 INCH HIGH STRENGTH CEILING BOARD OR EQUAL SHALL BE USED). SPRAY APPLIED VAPOR BARRIER (ONE PERM MAX.).

CS 203 — BOTTOM SOLE PLATE 2X3 #3 SPF MIN.

CS 204 — CRIPPLE STUD 2X4 #2 SPF MIN. 16" O.C.

CS 205 — 2x HEADER PER EW-20.0 IN APPROVED PACKAGE.

CS 206 — TYPICAL WINDOW OR DOOR SEE FLOOR PLAN FOR SPECIFICATIONS.

CS 207 — WINDOW SILL PLATE MIN. 2x4 SPF#2

CS 208 — DOUBLE TOP PLATE MIN. 2X3 #3 SPF

CS 209 — DOUBLE TOP PLATE MIN. 2X4 #3 SPF

CS 210 — BOTTOM SOLE PLATE 2X4 #3 SPF MIN.

CS 211 — INSULATION W/ VAPOR BARRIER-SEE ATTACHED RESCHECKS OR C-1 SHEET FOR R - VALUE.

CS 212 — EXTERIOR WALL STUDS 2X4 SPF #2 AT 16" O.C. OPT. 2X6 SPF #3 AT 16" O.C.

CS 213 — MARRIAGE WALL STUDS MIN 2X3 SPF #3 AT 16" O.C.

CS 214 — 7/16" OSB SHEATHING RATED EXP 1, 24/16

CS 215 — ASPHALT OR FIBERGLASS SHINGLES OVER TWO LAYERS OF 15# FELT FOR PITCHES UP TO 4:12 AND ONE LAYER FOR 4:12 OR STEEPER INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
UNDERLAYMENT SHALL CONFORM WITH ASTM D 226, TYPE I, OR ASTM D 4869, TYPE I.
CLOSED VALLEY FLASHING SHALL COMPLY WITH ASTM D 224 TYPE II OR TYPE III. ASTM D 1970 MAY BE USED IN LIEU OF LINING MATERIAL.

CS 216 — 7/16" OSB SHEATHING RATED EXP. 1, 24/16 WITH WATER RESISTIVE BARRIER BELOW ALL EXT. FINISH MATERIAL.
CORROSION-RESISTANT FLASHING REQUIRED AT ALL LOCATIONS AS SHOWN ON APPROVED MANUAL DETAILS

CS 217 — LAP BOARD, WOOD OR VINYL SIDING, HARDI SIDING, OR EXPOSED SHEATHING FOR ON SITE EXTERIOR FINISH INSTALLATION.

CS 218 — MAINTAIN 1" MIN. SPACE BETWEEN INSULATION AND ROOF SHEATHING.

CS 219 — COMPRESSION STRIP SHIM (2" CONTINUOUS)

CS 220 — 2X MIN. SPF #3 RIM

CS 221 — ALUMINUM OR HARDI FASCIA MATERIAL

CS 222 — CONTINUES VENTILATED SOFFIT

CS 223 — RIDGE BEAM PER RC-60.0 IN APPROVED PACKAGE

CS 224 — FLOOR RIM JOIST PER FL-500.0 IN APPROVED PACKAGE

CS 225 — FLOOR JOIST PER FL-500.0 IN APPROVED PACKAGE

CS 226 — ENDWALL OVERHANG DETAIL PER RC-10.0 DETAIL(S)

CS 227 — RESERVED FOR FUTURE USES

CS 228 — ENGINEERED TRUSSES PER C-1 SHEET

CS 229 — SEE MECH. NOTES FOR FLOOR DUCT SPECIFICATIONS

CS 230 — I-BEAM -SEE FOUNDATION PACKAGE FOR SIZE

CS 231 — INSTALL 2x6 SPF#3 MINIMUM BEARING BLOCK BETWEEN FLOOR JOISTS UNDER ALL COLUMNS HAVING A GREATER THAN 12 FEET MEASURED ALONG MARRIAGE.

CS 232 — .040" POLYMAX BOTTOM BOARD (TYP.)

CS 233 — OUTRIGGERS AND CROSSMEMBERS PER FL SECTION "FLOOR SYSTEM SUMMARY" IN APPROVED PACKAGE.

CS 234 — GABLE ENDWALL FRAMING PER RC-21.0 DETAIL(S).

NOTE:
1. BUILDING IS SYMMETRICAL.

FS 400 — ROOF TRUSS ATTACHMENT TO TOP PLATE PER RC-30.0 IN APPROVED PACKAGE.

FS 401 — EXTERIOR WALL STRAPPING AND FASTENING PER EW-31.0 IN APPROVED PACKAGE.

FS 402 — EXTERIOR STRUCTURAL SHEATHING PER SW-10.0 OR SW-35.0, WHICH EVER IS WORST CASE OF, APPROVED STATE PACKAGE.

FS 403 — RESERVED FOR FUTURE USES

FS 404 — SITE SET UP CONNECTION:
3/8" LAG BOLT WITH 1" MIN. PENETRATION LAG SCREW SPACED 16" O.C. STAGGERED FROM SIDE TO SIDE.
ALT. 1/2" DIA. BOLT WITH 1 3/8" WASHER SPACED 24" O.C. MAX.

FS 405 — FASTEN RIDGE BEAM TO EACH TRUSS PER RC-60.0 IN APPROVED PACKAGE.

FS 404 — RIDGEBEAM FASTENED TO TOP PLATE WITH #8x4" SCREWS 16" O.C.

FS 407 — INTERIOR PARTITIONS FASTENED TO TRUSS OR LAYFLATS IN ROOF AND FLOOR PER PT-40.0 IN APPROVED PACKAGE.

FS 408 — MARRIAGE WALL STRAPPING AND FASTENING PER MW-30.0 IN APPROVED PACKAGE. (TYPICAL EACH MARRIAGE WALL)

FS 409 — EXTERIOR WALLS FASTENED TO FLOOR PER EW-31.0 IN APPROVED PACKAGE.

FS 410 — SITE SET UP CONNECTION:
3/8" LAG SCREWS STAGGERED FROM SIDE TO SIDE AT 48" O.C. MAXIMUM. LAG SCREWS MUST PENETRATE 1.75" MINIMUM INTO ADJACENT MODULE RIM JOIST OR SITE INSTALL 1/2" X 4" BOLTS INTO PRE-DRILLED HOLES AT 48" O.C. MAX.

FS 411 — FRAME TO FLOOR PER FL-500.0 IN APPROVED PACKAGE.

FS 412 — ENDWALL
TRUSS TO PLATE
#8x3" SCREW W/ 1-3/8" PENETRATION 6" O.C. TOE SCREW

STATE OF MISSOURI
WALTER E. WOOD
NUMBER PE-2017022072
PROFESSIONAL ENGINEER
VALID
April 22, 2026

APPROVED
HILBORN, WERNER, CARTER & ASSOCIATES, INC.
04-27-2026
HWC

CLAYTON HOMES

12/29/04

CODES: SEE NOTES	REVISIONS	BY	DATE
STATE LABEL(S): MO	Added nail and staple option to interior partitions.	BR	1.11.08
SCALE: N.T.S.		BR	05.21.08

ON FRAME CROSS SECTION

SHEET X-1