

ROOF SCALE: 1/4" = 1'-0"

*ALL RAFTERS SHALL BE 2" X 6" #2 @ 16" D.C., UNLESS NOTED OTHERWISE.

SEE DETAIL 7/S3.2 FOR ALTERNATE RAFTER BEARING DETAIL WHEN RAFTERS ARE REQUIRED TO BEAR HIGHER THAN THE VALL DOUBLE TOP PLATE.

Flashing note: DRIP Edge, valleys and flashings to be metal clad.

rddf notes: Rodf designed for light rodf covering

30psf TOTAL LOAD [10psf DL, 20psf LL (SL)]

* RAFTERS (HEM-FIR, DDUG-FIR, DR EQUAL): SEE SPAN CHARTS BELDV

<u>CODE MINIMUM</u>

	RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN	
	#2-2x6	024" D.C.	11′-7 ″	
> >>	#2-2x6	@16″ D.C.	14'-2 '	///
	#2-2x8	@24″ D.C.	14'-8 '	
	#2-2x8	@16″ D.C.	17'-11 '	
	#2-2x10	024 * D.C.	17'-10'	
	#2-2x10	016″ D.C.	21'-11 '	

NDTE: CODE MINIMUM ALLOWS FOR A RAFTER DEFLECTION OF L/180 TOTAL LOAD

HIGHER PERFORMANCE (RECOMMENDED)

	RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN		
	#2-2x6	@24″ D.C.	8'-6 '		
#2-2x6 @16" [].C.			9'-9'		
	#2-2x8	024 " D.C.	11'-3"		
#2-2x8 @16" D.C.			12'-9'		
	#2-2x10	@24″ D.C.	14'-3 '		
	#2-2x10	@16" D.C.	16'-3 '		
	DEFLECTION = L/360 LIVE LOAD, L/240 TOTAL LOAD				

* VAULTS TO BE 2x10 DEPTH

* RIDGE BDARDS ARE: (UNLESS DTHERVISE NOTED) - #2- 2X8 UP TO 10/12 PITCH

- #2- 2X10 DVER 10/12 PITCH

* ALL HIPS & VALLEYS ARE: (UNLESS DTHERWISE NOTED) - #2- 2X8 UP TD 10/12 PITCH

- #2- 2X10 DVER 10/12 PITCH

* PURLINS ARE 2X6 MIN.

PURLIN STRUTS ARE AT 4'-0' D.C.
PURLIN STRUTS SHALL BE INSTALLED AT NOT LESS THAN A 45 DEGREE ANGLE WITH THE HORIZONTAL
ALL PURLINS STRUTS SHALL HAVE A MAXIMUM UNBRACED LENGTH OF 8'-0'
PURLINS STRUTS SHALL BE CONSTRUCTED IN A

'T' CONFIGURATION AND PER THE FOLLOWING CHART:

purlin strut	MAX PURLIN STRUT LENGTH
(2) 2x4	8′-0 ″
(1) 2x4 & (1) 2x6	12'-0 '
(1) 2x6 & (1) 2x8	20'-0 '
(2) 2x6 & (1) 2x8	30'-0"
CONSULT ARCH./ENGR. >	30'-0 '

 * RIDGE BRACES ARE SAME AS PURLIN BRACES-SPACING, SIZE, CONFIGURATION, & INSTALLATION (SEE PURLIN BRACE NOTES ABOVE)
 * HIP & VALLEY BRACES ARE SAME AS PURLIN SIZE, CONFIGURATION, & INSTALLATION (SEE PURLIN BRACE NOTES ABOVE)

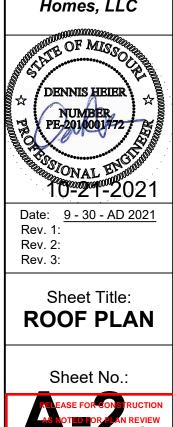
 * VERTICAL BRACE IF DOT IS UNDER HIP OR VALLEY
 * SLASH IS TOP END OF BRACE (/), DOT IS BOTTOM OF BRACE (o).
 * ~ ~ ~ ~ DENDTES BEARING WALL

 *
 DENDTES RDDF BRACE

 *
 DENDTES PURLIN

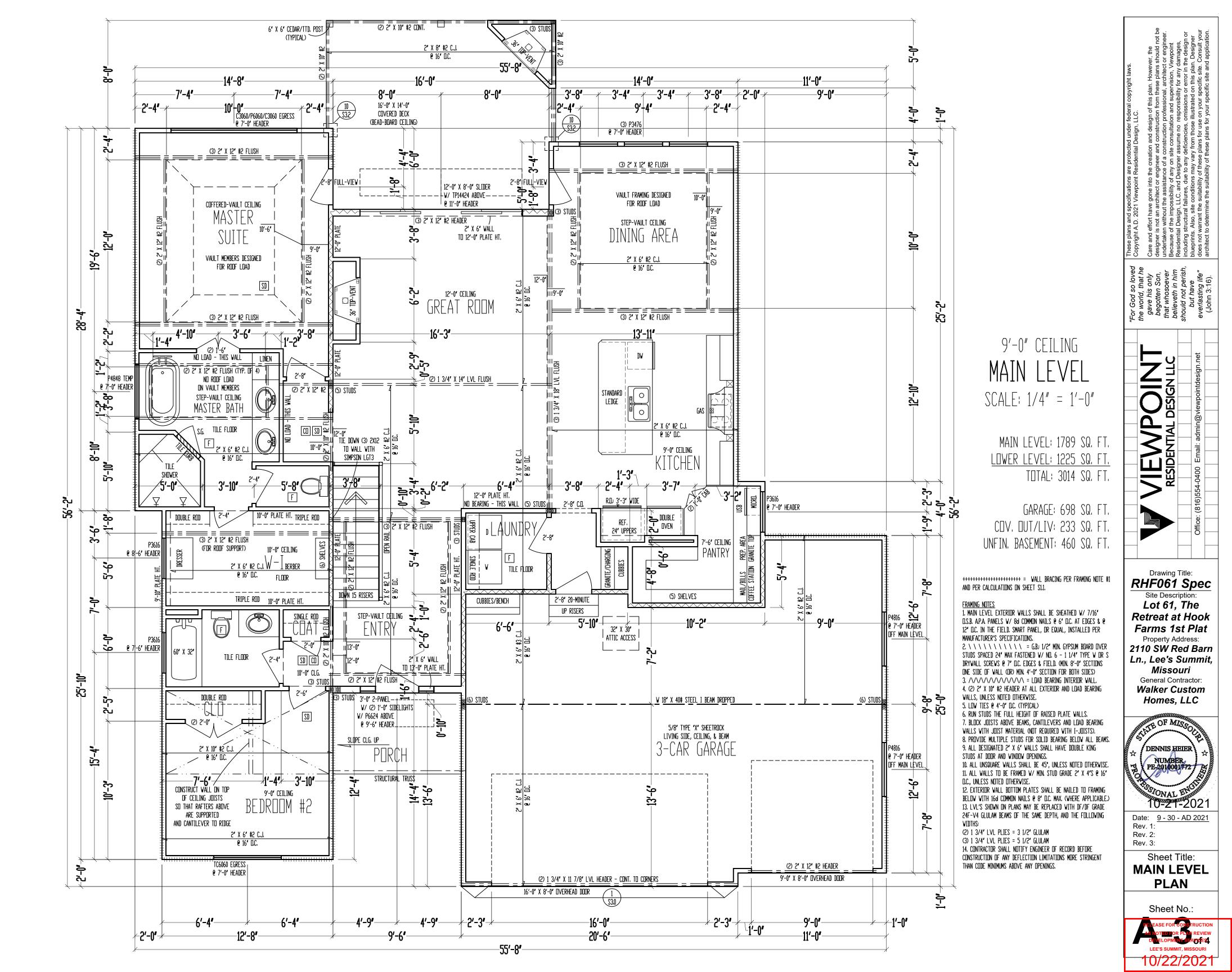
 *
 DENDTES BEARING STRUCTURE

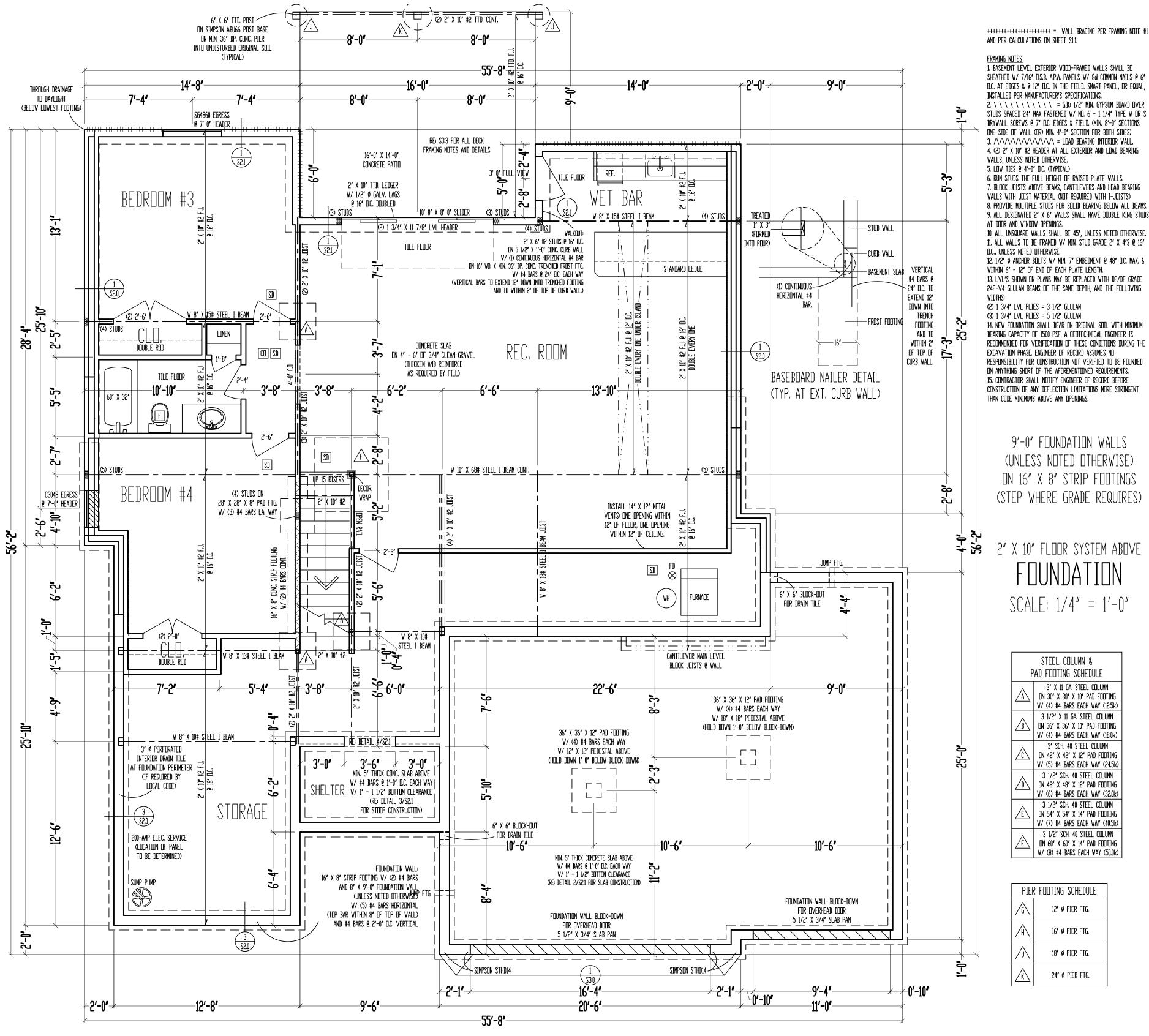
are Re: A.D. so lov , that */erlasting life* (John 3:16). "For God s the world, gave his begotter that who. Z U Δ P 5 2 Drawing Title: **RHF061 Spec** Site Description: Lot 61, The Retreat at Hook Farms 1st Plat Property Address: 2110 SW Red Barn Ln., Lee's Summit, Missouri General Contractor: Walker Custom Homes, LLC DE OF MISS



LEE'S SUMMIT

10/22/2021





2″X 10″ FLOOR SYSTEM ABOV FOUNDATION SCALE: 1/4'' = 1'-0''

PIER FOOTING SCHEDULE					
12 ' ø pier ftg.					
16' ø pier ftg.					
18' ø pier ftg.					
24' ø pier ftg.					

	STEEL COLUMN &
P	AD FOOTING SCHEDULE
	3' X 11 GA. STEEL COLUMN DN 30' X 30' X 10' PAD FODTING W/ (4) #4 BARS EACH WAY (12.5k)
B	3 1/2" X 11 GA. STEEL COLUMN DN 36" X 36" X 10" PAD FODTING W/ (4) #4 BARS EACH WAY (18.0k)
ſ	3' SCH. 40 STEEL COLUMN DN 42' X 42' X 12' PAD FODTING W/ (5) #4 BARS EACH WAY (24.5k)
	3 1/2' SCH. 40 STEEL COLUMN DN 48' X 48' X 12' PAD FOOTING W/ (6) #4 BARS EACH WAY (32.0k)
Æ	3 1/2" SCH. 40 STEEL COLUMN DN 54" X 54" X 14" PAD FODTING W/ (7) #4 BARS EACH WAY (40.5k)
\wedge	3 1/2" SCH. 40 STEEL COLUMN

F ON 60' X 60' X 14' PAD FOOTING

W/ (8) #4 BARS EACH WAY (50.0k)

14. NEW FOUNDATION SHALL BEAR ON ORIGINAL SOIL WITH MINIMUM BEARING CAPACITY OF 1500 PSF. A GEOTECHNICAL ENGINEER IS RECOMMENDED FOR VERIFICATION OF THESE CONDITIONS DURING THE EXCAVATION PHASE. ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION NOT VERIFIED TO BE FOUNDED ON ANYTHING SHORT OF THE AFOREMENTIONED REQUIREMENTS. 15. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD BEFORE CONSTRUCTION OF ANY DEFLECTION LIMITATIONS MORE STRINGENT THAN CODE MINIMUMS ABOVE ANY OPENINGS.	IFor G The wo gave gave bego bego bego believed
9'-0" FOUNDATION WALLS (UNLESS NOTED OTHERWISE) ON 16" X 8" STRIP FOOTINGS (STEP WHERE GRADE REQUIRES)	VIEWPC RESIDENTIAL DESI
2" X 10" FLOOR SYSTEM ABOVE	

God so lov vorld, that ve his only gotten Son but have erlasting life John 3:16).

AND PER CALCULATIONS ON SHEET S1.1.

<u>Framing Notes</u>

Drawing Title: RHF061 Spec Site Description: Lot 61, The **Retreat at Hook** Farms 1st Plat Property Address: 2110 SW Red Barn Ln., Lee's Summit, Missouri General Contractor: Walker Custom Homes, LLC DE OF MISE DENNIS HEIEI NUMBER PE-2010001772 1.0 YONAL E 10-21-2021 Date: 9 - 30 - AD 2021 Rev. 1: Rev. 2: Rev. 3: Sheet Title: FOUNDATION PLAN Sheet No.: LEE'S SUMMIT, MISSOUR

10/22/2021

FASTENER SCHEDULE FOR STRUCTURAL MEMBERS							
DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION					
ROOF ¹							
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL	4-8d (2½" x 0.113")	TOENAIL					
CEILING JOISTS TO PLATE, TOE NAIL	4-8d (2½" x 0.113")	PER JOIST, TOENAIL					
CEILING JOISTS NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS, FACE NAIL	4-10d (3" x 0.128")	FACE NAIL					
CEILING JOIST TO PARALLEL RAFTER (HEEL JOINT)	TBLE R802.5.2	FACE NAIL					
COLLAR TIE TO RAFTER, FACE NAIL OR 1 $\frac{1}{4}$ x 20 GA. RIDGE STRAP TO RAFTER	4-10d (3" x 0.128")	FACE NAIL, EACH RAFTER					
RAFTER OR ROOF TRUSS TO PLATE	3-16d BOX NAILS (3½" x 0.135") OR 3-10d COMMON NAILS (3" x 0.148")	2 TOE NAILS ON ONE SIDE AND 1 TOE NAIL ON OPPOSITE SIDE OF EACH RAFTER OR TRUSS					
ROOF RAFTERS TO RIDGE, VALLEY, OR HIP RAFTERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM	4-16d (3 ½" x 0.135") - TOENAIL; 3-16d BOX (3 ½" x 0.135") - END NAIL	TOENAIL, END NAIL					
	WALL						
STUD TO STUD (NOT AT BRACED WALL PANELS)	10d (3" x 0.128")	16" O.C. FACE NAIL					
STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d (3½" x 0.135")	12" O.C. FACE NAIL					
BUILT-UP HEADER, TWO PIECES WITH ½" SPACER	16d (3½" x 0.135")	12" O.C. EACH EDGE FACE NAIL					
CONTINUOUS HEADER TO STUD	4-8d (2½" x 0.131")	TOENAIL					
TOP PLATE TO TOP PLATE	10d (3" x 0.128")	12" O.C. FACE NAIL					
DOUBLE TOP PLATE SPLICE	8-16d COMMON (3 ¹ / ₂ " x 0.162")	FACE NAIL ON EACH SIDE OF END JOINT (MIN. 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)					
BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON (3 ¹ / ₂ " x 0.162")	16" O.C. FACE NAIL					
BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANEL)	3-16d BOX (3 ½" x 0.135")	3 EACH 16" O.C. FACE NAIL					
TOP OR SOLE PLATE TO STUD, END NAIL	4-8d BOX (2 ½" x 0.113") - TOENAIL; 3-16d BOX (3 ½" x 0.135") - END NAIL	TOENAIL, END NAIL (SEE LEFT)					
TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	3-10d BOX (3" x 0.128")	FACE NAIL					
1" BRACE TO EACH STUD AND PLATE	3-8d BOX (2 ½" x 0.113")	FACE NAIL					
1"x6" SHEATHING TO EACH BEARING	3-8d BOX (2 ½" x 0.113")	FACE NAIL					
1"x8" SHEATHING TO EACH BEARING	3-8d BOX (2 ½" x 0.113") - FACE NAIL; WIDER THAN 1"x8" - 4-8d BOX (2 ½" x 0.113")	FACE NAIL					
	FLOOR						
JOIST TO SILL, TOP PLATE, OR GIRDER	4-8d BOX (2 ¹ / ₂ " x 0.113")	TOE NAIL					
RIM JOIST, BAND JOIST, OR BLOCKING TO SILL OR TOP PLATE (ROOF APPLICATIONS ALSO)	8d BOX (2 ¹ / ₂ " x 0.113")	4" O.C. TOE NAIL					
1" x 6" SUBFLOOR OR LESS TO EACH JOIST	3-8d BOX (2 ½" x 0.113")	FACE NAIL					
2" SUBFLOOR TO JOIST OR GIRDER	3-16d BOX (3 ½" x 0.135")	BLIND AND FACE NAIL					
2" PLANKS (PLAN & BEAM - FLOOR AND ROOF)	3-16d BOX (3 ½" x 0.135")	AT EACH BEARING, FACE NAIL					
BAND OR RIM JOIST TO JOIST	3-16d COMMON (3 ½" x 0.162")	END NAIL					
BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS	10d BOX (3" x 0.128")	24" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES					
LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	4-16d BOX (3 ½" x 0.135")	AT EACH JOIST OR RAFTER, FACE NAIL					
BRIDGING OR BLOCKING TO JOIST	2-10d BOX (3" x 0.128")	EACH END, TOENAIL					

ESCRIPTION OF BUILDING MATERIAL	FASTNER SCHEDULE FOR	R STRUCTURAL MEMBERS	INTERMEDIATE SUPPORTS (INCHES)
	IBFLOOR, ROOF AND INTERIOR WALL SHE		
3/8" - 1/2"	6d COMMON (2" x 0.113") NAIL (SUBFLOOR, WALL) 8d COMMON NAIL (ROOF)	6	12
¹⁹ / ₃₂ " - 1"	8d COMMON NAIL (2½" x 0.131")	6	12
11%" - 11⁄4"	10d COMMON (3" x 0.148") NAIL OR 8d (2½" x 0.131") DEFORMED NAIL	6	12
	OTHER WALL		
¹ / ₂ " STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	1 $\frac{1}{2}$ " GALVANIZED ROOFING NAIL, $\frac{7}{16}$ " HEAD DIAMETER, OR 1 $\frac{1}{4}$ " LONG 16 GA. STAPLE WITH $\frac{7}{16}$ " OR 1" CROWN	3	6
25" STRUCTURAL CELLULOSIC 72 FIBERBOARD SHEATHING	1 $\frac{3}{4}$ " GALVANIZED ROOFING NAIL, $\frac{7}{16}$ " HEAD DIAMETER, OR 1 $\frac{1}{2}$ " LONG 16 GA. STAPLE WITH $\frac{7}{16}$ " OR 1" CROWN	3	6
½" GYPSUM SHEATHING	1½" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1½" LONG; 1¼" SCREWS, TYPE W OR S	7	1 7
%" GYPSUM SHEATHING	1¾" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1½" LONG; 1½" SCREWS, TYPE W OR S	7	7
W	OOD STRUCTURAL PANELS, COMBINATIO	N SUBFLOOR UNDERLAYMENT TO FRAM	ING
⅔" AND LESS	6d DEFORMED (2" x 0.120") NAIL OR 8d COMMON (2½" x 0.131") NAIL	6	12
7∕8" - 1"	8d COMMON (2½" x 0.131") NAIL OR 8d DEFORMED (2½" x 0.120") NAIL	6	12
11⁄8" - 11⁄4"	10d COMMON (3" x 0.148") NAIL OR 8d DEFORMED (2½" x 0.120") NAIL	6	12

1. IF INFORMATION LISTED ON PLAN SHEETS CONTRADICTS INFORMATION IN THIS TABLE, INFORMATION ON PLANS TAKES PRECEDENCE OVER INFORMATION LISTED IN THIS TABLE

FOUNDATION NOTES

- PSI FOR BASEMENT AND INTERIOR FLOOR SLABS-ON-GRADE, 3000 PSI FOR FOUNDATION WALLS, AND 3500 PSI FOR PORCHES AND GARAGE FLOOR SLABS
- STANDARDS PROVIDE A MINIMUM 4"-DIAMETER PERFORATED DRAIN PIPE ALONG PERIMETER OF USABLE SPACE AT FOOTING LEVEL OR OTHER EQUIVALENT MATERIALS PER IRC SECTION R405.1. THE PIPE SHALL BE COVERED WITH A MINIMUM
- MINIMUM 20 GALLON SUMP PIT FOUNDATION SHALL BE DESIGNED FOR A BEARING CAPACITY OF 1500 PSF AND FOUNDED ON COMPETENT ORIGINAL SOIL AS DETERMINED AND CONFIRMED BY A LICENSED GEOTECHNICAL ENGINEER OR ENGINEERING GEOLOGIST. ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION NOT VERIFIED TO BE FOUNDED ON ANY
- SOIL WITH THE AFOREMENTIONED MINIMUM PROPERTIES. 5. FOOTINGS SHALL BE A MINIMUM OF 16" WIDE x 8" DEEP AND SHALL HAVE A MINIMUM OF (2) CONTINUOUS GRADE 40 #4 BARS WITH 3" BOTTOM CLERANCE. BOTTOM OF FOOTING SHALL BE LOCATED A MINIMUM OF 3'-0" BELOW GRADE FOR FROST PROTECTION.
- CONCRETE PADS SUP0PORTING COLUMN LOADS SHALL BE NO SMALLER THAN 2'-0" x 2'-0" x 1'-0" DEEP WITH A MINIMUM OF (4) GRADE 40 #4 BARS EACH WAY WITH 3" BOTTOM CLEARANCE
- FOUNDATION WALLS SHALL BE A MINIMUM OF 8" NOMINAL WIDTH AND SHALL HAVE HOIZONTAL GRADE 40 #4 BARS AT 2'-0" O.C. MAX. WITH VERTICAL #4 BARS AS REQUIRED ON FOUNDATION CROSS SECTION ON SHEET S2.0 REINFORCEMENT SHALL LAP A MINIMUM OF 2'-0" (CLASS B SPLICE)
- INTERIOR BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB 10. BASEMENT FLOOR SLAB SHALL BE A MINIMUM OF 4" THICK ON A MINIMUM BASE COURSE OF 4" TO 6" OF SAND, GRAVEL OR CRUSHED ROCK. BETWEEN THE BASE COURSE AND FLOOR SLAB SHALL BE PLACED A 6-MIL POLY
- VAPOR RETARDER WITH MINIMUM OVERLAP OF 6" AT DISCONTINUITIES 11. IF A FLOOR IS TO BE SUPPORTED BY A MINIMUM OF 2'-0" OF GRANULAR FILL OR 8" OF EARTH, BASEMENT SLAB SHALL BE DESIGNED BY A LICENSED ENGINEER
- 12. 7" INTO CENTER OF WALL STEM AND SHALL BE INSTALLED AT A MAXIMUM OF 6'-0" O.C. (OR AS NOTED ON PLANS) AND SHALL BE INSTALLED WITHIN 6" TO 12" OF EACH END OF EACH SILL PLATE LENGTH, PER IRC SECTION R403.1.6
- 13. FOUNDATION WINDOW WELLS SHALL BE PROVIDED WITH MINIMUM DIMENSIONS AS SHOWN IN DETAIL ON SHEET S2 0 14. THE GARAGE FLOOR SHALL SLOPE TOWARD THE VEHICLE DOORS OR TO A TRENCH OR UNTRAPPED DRAIN THAT

DISCHARGES TO THE EXTERIOR, ABOVE GRADE

FRAMING NOTES

- 15. ALL DIMENSIONAL LUMBER SHALL BE DOUGLAS-FIR-LARCH GRADE #2, UNLESS NOTED OTHERWISE ON PLANS 16. ALL INTERIOR LOAD-BEARING AND EXTERIOR WALL HEADERS SHALL BE (2) #2 - 2x10's, UNLESS NOTED OTHERWISE ON PLANS
- BLOCK OVER BEAMS AND AT CANTILEVERS AND DOOR JAMBS 17. 18. INTERIOR NON-BEARING WALLS RESTING ON BASEMENT SLAB SHALL BE ISOLATED FROM ABOVE FRAMING BY A
- MINIMUM OF 1/2 ALL HEADERS/BEAMS SHALL BEAR ON A MINIMUM OF (2) 2x4 POSTS (KING AND JACK STUDS), UNLESS NOTED 19. OTHERWISE
- 20. WHERE JOISTS SPAN PARALLEL TO FOUNDATION, BLOCKING SHALL BE PROVIDED IN THE TWO SPACES MOST ADJACENT TO THE FOUNDATION WALL AT 4'-0" O.C. FOR THE PURPOSE OF TRANSFERRING LATERAL FOUNDATION WALL LOAD TO THE FLOOR DIAPHRAGM. FASTEN JOISTS AND BLOCKING TO SILL PLATE WITH (4) 10d NAILS. IF MECHANICAL DUCTWORK IS INSTALLED IN ONE OF THESE FIRST TWO BAYS, FASTEN 2x4's FLAT AT 4'-0" O.C. BETWEEN JOIST(S) AND/OR SILL AND PROVIDE BLOCKING AS PRESCRIBED ABOVE IN THE NEXT TWO JOIST BAYS. SECURE 2x4's TO JOIST(S)/SILL PLATE WITH (4) 10d NAILS. 21. ALL WOOD MATERIAL SUPPORTED ON CONCRETE OR MASONRY SHALL BE TREATED OR OF DECAY-RESISTANT
- MATERIAI 22. JOISTS UNDER BEARING PARTITIONS ON PLANS HAVE BEEN SIZED TO SUPPORT THE DESIGN LOAD. JOISTS FRAMING INTO THE FACE OF A STEEL OR WOOD BEAM SHALL BE SUPPORTED WITH APPROPRIATE 23.
- COLD-FORMED STEEL JOIST HANGERS JOISTS FRAMED ON TOP OF STRUCTURAL MEMBER SHALL BE SUPPORTED AT EN DS BY FULL-DEPTH SOLID 24. BLOCKING MIN. 1%" IN THICKNESS OR BY FASTENING RIM TO JOISTS PER FASTENING TABLE TO LEFT
- ALL WALL COVERINGS SHALL COMPLY WITH IRC SECTION R702.3 25. 26. ALL RAFTERS AND COLLAR TIES SHALL COMPLY WITH IRC SECTION R802.3.
- 27. ALL RAFTERS SHALL HAVE 2x4 COLLAR TIES @ 4-0" O.C. IN UPPER ½ OF VERTICAL DISTANCE BETWEEN CEILING AND ROOF
- BLOCKING BETWEEN JOISTS UNDER A LOAD-BEARING WALL IS NOT REQUIRED 28. PER IRC SECTION 501.3, BOTTOM OF ALL FLOOR ASSEMBLIES ABOVE UNFINISHED AREAS SHALL BE PROVIDED WITH 29. A ½" GYPSUM BOARD MEMBRANE OR RESIDENTIAL FIRE SPRINKLER SYSTEM WHEN FLOOR SYSTEM IS CONSTRUCTED OF OTHER THAN DIMENSION LUMBER OR STRUCTURAL COMPOSITE LUMBER EQUAL TO OR GREATER THAN 2x10 NOMINAL DIMENSION(WHERE REQUIRED BY ENFORCING JURISDICTION)
- ENGINEERED LVL's SHALL HAVE MINIMUM PROPERTIES OF Fb = 2600 psi, E=1900 ksi, AND Fv=285 psi 30 31. ENGINEERED PARALLAMS SHALL HAVE MINIMUM PROPERTIES OF Fb = 2600 psi, E = 2000 ksi, AND Fv = 290 psi
- 32. COLUMN CONNECTION TO STEEL BEAMS SHALL BE WITH A CLIP POST CAP WITH ALL FOUR TAB EARS BENT AROUND THE BOTTOM FLANGE OF THE BEAM. FOR A BEARING PLATE, FOUR HOLES SHALL BE DRILLED IN THE BOTTOM FLANGE OF THE STEEL BEAM TO MATCH THE HOLE PATTERN OF THE PLATE. ½" x 2" BOLTS SHALL THEN BE INSTALLED WITH A FLAT WASHER, LOCK WASHER, AND A NUT IN EACH OF THE HOLES. THE POST CAP MAY BE WELDED TO THE STEEL BEAM IN ACCORDANCE WITH AWS D1.1-92 AS AN ALTERNATIVE, AND WOULD NEED TO BE INSPECTED BY AN AWS-CERTIFIED INSPECTOR.
- 33. WHEN MECHANICAL EQUIPMENT IS LOCATED IN AN ENCLOSED ROOM, THERE SHALL BE (2) 14"x12" VENTS LOCATED IN A WALL COMMON WITH ADDITIONAL LIVING AREA. ONE VENT SHALL BE LOCATED SUCH THAT THE BOTTOM OF THE VENT BEGINS 12" FROM THE FLOOR AND THE OTHER VENT SHALL BE LOCATED SUCH THAT THE TOP OF THE VENT BEGINS 12" FROM THE CEILING.
- 34. ALL ROOF SHEATHING SHALL BE T/6" OSB WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND @ 12" O.C. IN FIELD

GLAZING NOTES

- 35. GLAZING IN HAZARDOUS LOCATIONS AS IDENTIFIED IN IRC SECTION R308.4 SHALL BE OF APPROVED SAFETY GLAZING MATERIALS. GLASS IN STORM DOORS, INDIVIDUAL FIXED OR OPENABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 2'-0" ARC OF THE DOOR IN A CLOSED POSITION AND FOR WHICH THE BOTTOM EDGE IS WITHIN 5'-0" OF THE FLOOR, WALLS ENCLOSING STAIRWAYS AND LANDINGS WHERE THE GLAZING IS WITHIN 5'-0" OF THE TOP OR BOTTOM OF THE STAIR, ENCLOSURES FOR SPAS, TUBS, SHOWERS, AND WHIRLPOOLS, GLAZING IN FIXED OR OPENABLE PANELS EXCEEDING NINE SQUARE FEET AND FOR WHICH THE BOTTOM EDGE IS LESS THAN 1'-6" ABOVE THE FLOOR OR WALKING SURFACE WITHIN 3'-0"
- 36. ALL OPERABLE WINDOWS SHALL HAVE FALL PROTECTION PER IRC SECTION R612.2

ATTIC VENTILATION

37. ENCLOSED ATTICS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. VENTILATING OPENINGS SHALL BE PROVIDED WITH CORROSION-RESISTANT WIRE MESH, WITH 1/4" TO 1/4" OPENINGS. THE TOTAL FREE VENTILATING AREA SHALL NOT BE LESS THAN λ_{50} OF THE AREA OF SPACE VENTILATED, EXCEPT WHERE THE VENTILATORS ARE LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED - THE REQUIRED AREA MAY BE REDUCED TO 1/300.

EMERGENCY EGRESS

- 38. PROVIDE A MINIMUM OF ONE WINDOW FOR EACH BEDROOM THAT HAS A MINIMUM OPENABLE AREA OF 5.7 SQUARE FEET WITH A MINIMUM OPENABLE HEIGHT OF 2'-0" AND A MINIMUM WIDTH OF 1'-9". IN ADDITION, THE OPENABLE
- PORTION OF EGRESS WINDOWS SHALL NOT EXCEED 3'-8" ABOVE THE ADJOINING FLOOR OR PERMANENT STEP. 39. PROVIDE SMOKE ALARMS IN EACH SLEEPING ROOM, OUTSIDE OF EACH SLEEPING AREA AND ON EACH FLOOR, INCLUDING BASEMENT (IF APPLICABLE). ALARMS SHALL BE HARDWIRED TOGETHER SO THAT THE ACTIVATION OF
- ONE SMOKE ALARM WILL ACTIVATE ALL SMOKE ALARMS IN THE DWELLING. PROVIDE CARBON MONOXIDE DETECTORS OUTSIDE EACH SLEEPING AREA.

MASONRY VENEER

- 40. MASONRY VENEER SHALL BE ANCHORED TO THE SUPPORTING WALL STUDS WITH CORROSION-RESISTANT METAL TIES EMBEDDED IN MORTAR OR GROUT AND EXTENDING INTO THE VENEER A MINIMUM OF 1/2", WITH NOT LESS THAN 5/" MORTAR OR GROUT COVER TO OUTSIDE FACE 41. VENEER TIES, IF STRAND WIRE, SHALL NOT BE LESS IN THICKNESS THAN NO. 9 U.S. GAGE WIRE AND SHALL HAVE A
- CORRUGATED. 42. EACH TIE SHALL SUPPORT NOT MORE THAN 2.67 SQUARE FEET OF WALL AREA AND SHALL BE SPACED NOT MORE
- THAN 32 INCHES ON CENTER HORIZONTALLY AND 24 INCHES ON CENTER VERTICALLY. VENEER TIES AROUND WALL OPENINGS: ADDITIONAL METAL TIES SHALL BE PROVIDED AROUND ALL WALL OPENINGS GREATER THAN 16 INCHES IN EITHER DIMENSION. METAL TIES AROUND THE PERIMETER OF OPENINGS

GARAGE NOTES

44. DOOR(S) BETWEEN THE GARAGE AND DWELLING SHALL BE MINIMUM 1%" SOLID CORE OR HONEY-COMBED STEEL DOOR WITH 20-MINUTE FIRE RATING EQUIPPED WITH A SELF-CLOSING DEVICE 45. VEHICLE DOORS AND FRAMES SHALL BE DESIGNED AND INSTALLED TO MEET THE 115-MPH 3-SECOND GUST LOADING PER DASMA 108 AND ASTM E 330-96 PER IRC 2018

CONCRETE SHALL BE AIR-ENTRAINED BETWEEN 5%-7% WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2500

THE FOUNDATION DESIGN SHALL COMPLY WITH THE ENFORCING JURISDICTION'S RESIDENTIAL FOUNDATION

OF 6" OF GRAVEL OR CRUSHED ROCK. THE DRAIN SHALL DAYLIGHT BELOW FOOTING LEVEL OR TERMINATE IN A

SILL PLATES SHALL BE ANCHORED TO THE FOUNDATION WALL WITH 1/2" Ø ANCHOR BOLTS EMBEDDED A MINIMUM OF

HOOK EMBEDDED IN THE MORTAR JOINT, OR IF SHEET METAL, SHALL BE NOT LESS THAN NO. 22 U.S. GAGE BY 7/4"

SHALL BE SPACED NOT MORE THAN 3 FEET ON CENTER AND PLACED WITHIN 12 INCHES OF THE WALL OPENING.

GARAGE NOTES (CONTINUED)

45.

- THE GARAGE SHALL BE SEPARATED FROM THE DWELLING AND ITS ATTIC AREAS BY MINIMUM %" GYP. BOARD APPLIED TO THE GARAGE SIDE OF FRAMING. WHERE HABITABLE SPACE OCCURS ABOVE THE GARAGE. THE GARAGE CEILING ASSEMBLY SHALL BE PROTECTED WITH A MINIMUM 5/8" TYPE X GYP. BOARD. WHERE A FLOOR/CEILING SPACE IS PROVIDED ABOVE THE GARAGE COLUMNS AND BEAMS SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED WITH 5/" GYP. BOARD.
- GARAGE DOOR H-FRAME FOR THE ATTACHMENT OF THE TRACK AND COUNTER BALANCE SHALL CONSIST OF THE FOLLOWING: 2x6 VERTICAL JAMBS RUNNING FROM FLOOR TO CEILING AND SHALL BE FASTENED WITH 21/2"" x 0.120" NAILS AT 7" O.C. STAGGERED WITH (7) 31/4" x 0.120" NAILS THROUGH THE JAMB INTO THE HEADER. MINIMUM 2x8 HEADER FOR ATTACHMENT OF COUNTER BALANCE SYSTEM.

DESIGN LOADING (PER TABLE R301.5)

MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS (PSF)					
USE	LIVE LOAD	DEAD LOAD			
UNINHABITABLE ATTICS WITHOUT STORAGE	10	10			
UNINHABITABLE ATTICS WITH LIMITED STORAGE	20	10			
HABITABLE ATTICS AND ATTICS SERVED WITH FIXED STAIRS	30	10			
BALCONIES (EXTERIOR) AND DECKS	40	10 ^d			
FIRE ESCAPES	40	10			
GUARDRAILS AND HANDRAILS ^a	200 [°]	-			
GUARDRAIL IN-FILL COMPONENTS ^b	50 ^c	-			
PASSENGER VEHICLE GARAGES	50	DEPENDENT UPON SLAB CONSTRUCTION			
ROOMS OTHER THAN SLEEPING ROOM	40	10 ^d			
SLEEPING ROOM	30	10 ^d			
STAIRS	40	10 ^d			

a. A single concentrated load applied in any direction at any point along the top b. Guard in-fill components (all those except the handrail), ballusters and panel fillers shall be designed to

withstand a horizontally applied normal load of 50 pounds on an area equal to one square foot. This load need not be assumed to act concurrently with any other live load requirement. c. Glazing used in handrail assemblies and guards shall be designed with a safety factor of 4. The safety factor shall be applied to each of the concentrated loads applied to the top of the rail, and to the load on the infill components. These loads shall be determined independently of one another, and loads are assumed not to occur with any other live load.

d. An additional dead loading of 10 psf shall be applied where thinset tile floor is to be installed. An additional dead loading of 50 psf shall be applied where mudset tile floor is to be installed

INSULATION/EFFICIENCY

- 1. BUILDING ENVELOPE INSULATION SHALL COMPLY WITH IRC TABLE N1102.1.1 OR THE 2012 IECC (SEE SHEET S3.1 FOR FRAMING DETAILS AND TABLES ON THIS SHEET FOR MORE INFORMATION)
- CATHEDRAL -VAULTED CEILING FRAMING SHALL BE FRAMED WITH A MINIMUM INSULATION VALUE OF R-38. IF VAULTED RAFTERS DO NOT PROVIDE REQUIRED DEPTH TO ACHIEVE R-38 INSULATION BUILDER SHALL FUR DOWN RAFTERS PER DETAILS PROVIDED ON SHEET S3.1.

INSULATION AND FENESTRATION REQUIRE	MENTS BY COMPONENT (TABLE N1102-1-1)
CLIMATE ZONE	4-A
FENESTRATION U-FACTOR	0.35
SKYLIGHT U-FACTOR	0.55
GLAZED FENSTRATION SHGC	0.40
CEILING R-VALUE	49
WOOD FRAME WALL R-VALUE	15
MASS WALL R-VALUE	8 / 13
FLOOR R-VALUE	19
BASEMENT WALL R-VALUE	10-CONTINUOUS OR 13-CAVITY
SLAB R-VALUE AND DEPTH	10 AT 2'-0"
CRAWL SPACE WALL R-VALUE	10-CONTINUOUS OR 13-CAVITY
DUCTWORK EXPOSED TO OUTSIDE AIR R-VALUE	8
DUCTWORK NOT EXPOSED TO OUTSIDE AIR R-VALUE	6
CATHEDRAL VAULTED CEILING R-VALUE	38

DUCT SEALING

ROOM

N1103 2 2 (R403 2 2) SEALING (MANDATORY) DUCTS AIR HANDLERS AND FILTER BOXES SHALL BE SEALED. JOINTS AND SEAMS SHALL COMPLY WITH SECTION M1601.4.1 OF 2018 IRC EXCEPTIONS:

- AIR-IMPERMEABLE SPRAY FOAM PRODUCTS SHALL BE PERMITTED TO BE APPLIED WITHOUT ADDITIONAL JOINT SEALS
- WHERE A DUCT CONNECTION IS MADE THAT IS PARTIALLY INACCESSIBLE, THREE 2. SCREWS OR RIVETS SHALL BE EQUALLY SPACED ON THE EXPOSED PORTION OF THE JOINT SO AS TO PREVENT A HINGE EFFECT.
- CONTINUOUSLY WELDED AND LOCKING-TYPE LONGITUDINAL JOINTS AND SEAMS IN 3. DUCTS OPERATING AT STATIC PRESSURES LESS THAN 2 INCHES OF WATER COLUMN PRESSURE CLASSIFICATION SHALL NOT REQUIRE ADDITIONAL CLOSURE SYSTEMS.
- DUCT TIGHTNESS SHALL BE VERIFIED BY EITHER OF THE FOLLOWING: POST-CONSTRUCTION TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM 1. PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. ACROSS THE ENTIRE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTER BOOTS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.
- ROUGH-IN TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM PER 100 2. SQUARE FEET OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. ACROSS THE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST. IF THE AIR HANDLER IS NOT INSTALLED AT THE
- TIME OF THE TEST, TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 3 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA EXCEPTION: THE TOTAL LEAKAGE TEST IS NOT REQUIRED FOR DUCTS AND AIR HANDLERS LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE.

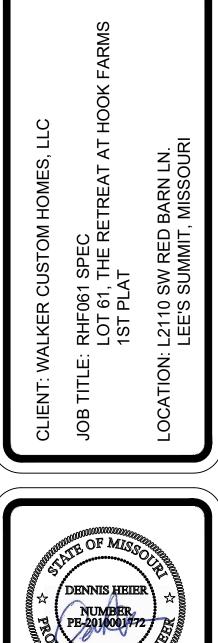
ME	MECHANICAL VENTILATION SYSTEM FAN EFFICACY						
FAN LOCATION	AIR FLOW RATE MINIMUM (CFM)	MINIMUM EFFICACY (CFM/WATT)	AIR FLOW RATE MAXIMUM (CFM)				
RANGE HOODS	ANY	2.8	ANY				
IN-LINE FAN	ANY	2.8	ANY				
BATHROOM, UTILITY ROOM	10	1.4	90				
BATHROOM, UTILITY	90	2.8	ANY				

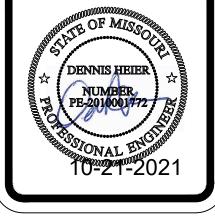
2.8

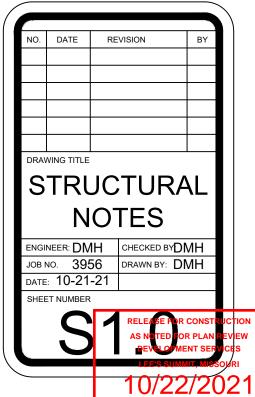
ANY

90









RESIDENTIAL SEISMIC & WIND ANALYSIS

						INFUT	
DETERMINE WEIGHT	DETERMINE WEIGHT OF HOUSE:						CALCULATED VALUE
LOCATION	LOCATION				DEAD LOAD (psf)	AREA (ft ²)	WEIGHT (lbs.)
ROOF					10	2720	27200
CEILING					10	2720	27200
FIRST FLOOR					10	2720	27200
				WALL LENGTH (ft)	WALL HEIGHT (ft)	WALL UNIT WT. (psf)	WEIGHT (lbs)
FIRST FLOOR EXT. W	/ALL DL			223.68	10	10	22368
					DEAD LOAD (psf)	AREA (ft2)	WEIGHT (lbs)
FIRST FLOOR INT. PA	ARTITION WALL DL				6	2720	16320
	PRO	JECTED AREAS (WIND	DESIGN PER 115 MPH	3-SECOND GUST, EXPOSL	IRE C AND MEAN ROOF HEIGHT <= 30	FT ASSUMED)	
	FRONT	TO-BACK			SIDE-TO-SIDE		
	AREA	LOAD			AREA	LOAD	
SLOPED ROOF	216	1838	1	SLOPED ROOF	726	6172	
VERT. ROOF	266	3307	CUMULATIVE	VERT. ROOF	0	0	CUMULATIVE
1ST	612.37	7613	12833	1ST	617.87	7675	13922
BSMT ^a	BSMT ^a 0 0 0 BSMT ^a			100	1416	8377	
PRESSURE (PSF) - PER ASCE CH. 6							
SLOPED ROOF ZONE B			9.7	ZONE C	11.3	2a (FIG. 28.6-1, ASCE7)	
WALL/VERT. ROOF ZONE A 14.2		14.2	ZONE D	7.7	11.134		
	MEAN ROOF HT., h 23						

a) If there is a walkout wall to be sheathed, determine tributary wind area and enter here. If no walkout, enter 0 for area.

 $q_{z10_ASD} \mbox{=} 0.6 q_{z10}$ (Design Velocity Pressure for ASD analysis under ASCE7-10 and IRC/IBC 2012) q_{z10}=0.00256K_zK_{zt}K_dV² (ASCE7-10 Velocity Pressure)

1ST FLOOR TRIBUTARY WEIGHT

BASEMENT TRIBUTARY WEIGHT	
S_{S} (SITE GROUND MOTION - %g - FROM ASCE7 SEISMIC MAP)	
F _a (from ASCE7 Table 11.4-1)	

 S_{DS} (= 2/3 * S_{S} * F_{a})

		SEISMIC SHEAR			
N		From ASCE7	′ (Eq. 12.8-1):	,	* W / R) (lbs.)
IT					50 50
N I	· · · · · · · · · · · · · · · · · · ·			15	
Sheathing Location	Min. Sheathing Schedule	Fastening Schedule	Allowable Sh	ear (#/LF)	Code Reference
Exterior <u>(Option #1)</u>	7/16" APA Rated Plywood/OSB	1-1/2" 16ga. Steples w/ 1" penetration@ 6" OC Edges, 6" OC Field For 24" stud spacing, 12" OC Field For 16" stud spacing	155		per IBC, Table 2306.3(1)
Exterior <u>(Option #2)</u>	7/15" APA Rated Plywood/OSB	1-1/2" 16ga. Staples w/ 1" penetration@ 4" OC Edges, 6" OC Field For 24" stud spacing, 12" OC Field For 16" stud spacing	230		per IBC, Table 2306.3(1)
Exterior <u>(Option #3)</u>	7/16" APA Rated Plywood/OSB	1-1/2" 16gs. Steples w/ 1" penetration@ 3" OC Edges, 6" OC Field For 24" stud spacing, 12" OC Field For 16" stud spacing	310		per IBC, Table 2306.3(1)
Exterior <u>(Option #4)</u>	7/16" APA Rated Plywood/OSB or shiplap panel sheathing, or 3/8" shiplap panel sheathing with tighter nail spacing	8d Common Nails w/ 1-3/8" penetration @ 6" O.C. Edges, 12" O.C. Field for 7/16" APA-rated plywood/OSB or shiplap panel sheathing OR @ 4" O.C. Edges, 12" O.C. Field for 3/8" shiplap panel sheathing	220		AF&PA SDPW Table 4.3A
Exterior (Option #5)	7/16" APA Rated Plywood/OSB or shiplap panel sheathing, or 3/8" shiplap panel sheathing with tighter nail spacing	8d Common Nails w/ 1-3/8" penetration @ 4" O.C. Edges, 12" O.C. Field for 7/16" APA-rated plywood/OSB or shiplap panel sheathing OR @ 3" O.C. Edges, 12" O.C. Field for 3/8" shiplap panel sheathing	320		AF&PA SDPW Table 4.3A
Exterior (<i>Option #6)</i>	7/16" APA Rated Plywood/OSB or shiplap panel sheathing, or 3/8" shiplap panel sheathing with tighter nail spacing and double studs at each pane edge	8d Common Nails w/ 1-3/8" penetration @ 3" O.C. Edges, 12" O.C. I Field	410		AF&PA SDPW Table 4.3A
Interior	1/2" Gypsum Board	No. 6- 1 ¹ / ₄ " Type W or S Screws @ 8" O.C. Edges, 12" O.C. Field	60		per IBC, Table 2306.4.4
Interior	16 Ga. Simpson/USP Type WB Steel X-Brace (or equal)	(3) 16d @ end studs & (1) 8d @ intermediate studs (per manufacture specifications - see detail on sheet S3)	325		

EXTERIOR SHEATHING OPTION FOR FIRST FLOOR EXTERIOR SHEATHING OPTION FOR BASEMENT WALLS 6

WIDTH OF 1ST STORY (FT.) 55.67 DEPTH OF 1ST STORY (FT.) 56.17 BACK WALL OF GARAGE (FT.) 22 GAR. WALL: 1=F-B, 2=S-S 2

WIDTH OF 2ND STORY (FT.) DEPTH OF 2ND STORY (FT.)

INPUT

65584 65584 12.0% 1.6

0.128

			EXTER	RIOR STRUCTURAL WALL L	LENGTHS (ft.) & RESISTANCES			
		SE	SEISMIC WIND			WIND		
	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)
1ST FLOOR	77	29260	28	10640	77	40964	28	14896
BASEMENT	0	0	25	11750	0	0	25	16450
				1	i i		ł	1
		ADDITIONAL RESIS	TANCE REQUIRED	1	Anchor Bolt Spacing	(in.)	16d Nail Spacing req'd at bottom plate (i	
		SEISMIC	WIND		diameter (in.)	0.5	1st Floor F-B	24
1ST FLOOR FRONT-T	O-BACK	0	0		Shear value (per NDS)	944	1st Floor S-S	22
1ST FLOOR SIDE-TO-	SIDE	0	0		Spacing F-B (inches)	158.7		
BASEMENT FRONT-T	O-BACK	0	0		spacing S-S (inches)	144.9		
BASEMENT SIDE-TO-	SIDE	0	0	1				

	RESISTANCE REQUIRED IN ADDITION TO RESISTANCE PROVIDED BY EXTERIOR WALLS**								
	ADDITIONAL RESISTANCE REQUIRED (POUNDS)	PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE	INTERIOR X-BRACES (325#/BRACE)	INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.)	INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.)	RESISTANCE PROVIDED BY ADDITIONAL METHODS (POUNDS)	OK?		
1ST FLOOR FRONT-TO-BACK	0					0	YES		
1ST FLOOR SIDE-TO-SIDE	0					0	YES		
BASEMENT FRONT-TO-BACK	0					0	YES		
BASEMENT SIDE-TO-SIDE	0					0	YES		

2) SEE SHEET S1 FOR INTERIOR STEEL X-BRACE INSTALLATION, 3) INTERIOR WALLS SHEATHED WITH OSB SHALL BE ATTACHED WITH SAME STAPLE/NAILING PATTERN AS EXTERIOR OSB ON SAME FLOOR (SEE TABLE ABOVE) AND ARE ONLY APPLICABLE FOR FULL-HEIGHT SECTIONS OF 2'-8" OR LONGER ALL LATERAL BRACING ACHIEVED AT EXTERIOR WALLS AND WALLS DIRECTLY ON FOUNDATIONS; THEREFORE, NO INTERIOR BRACING PER 2012 IRC SECTION R502.2.1 IS REQUIRED WIND UPLIFT ANALYSIS

WIND OF EIT ANALTOID								
	X/12	DEGREES						
ROOF PITCH (MAX)	10	39.8	PITCH OF 6 OR LESS:	EOH -13.3, E -7.2, G -5.2				
	ASCE 7							
	LENGTH (FT.)	PRESSURE (PSF)	LINEAL FT. OF OH	UPLIFT PER FT* (LBS)				
OVERHANG	1	-1.08	225.68	-1.08				
	TOTAL AREA (FT ²)	ZONE E AREA (FT ²)	ZONE G AREA (FT ²)	PRESSURE ZN. E (PSF)	PRESSURE ZN. G (PSF)	TOTAL FORCE (LBS)	FORCE PER LINEAL FT @ PERIMETER (LBS)	
MAIN ROOF**	3126.9839	-451.327824	3578.311724	-1.08	-0.36	-801	-3.6	
*ALONG PERIMETER	LONG PERIMETER TOTAL UPLIFT PER LINEAL FOOT ALONG EXTERIOR (POUNDS)		UNDS)	-4.7	UPLIFT OK			
*INSIDE EXTERIOR WALLS RESISTANCE DUE TO DEAD WEIGHT & (3) 10d TOENAILS		251.6						

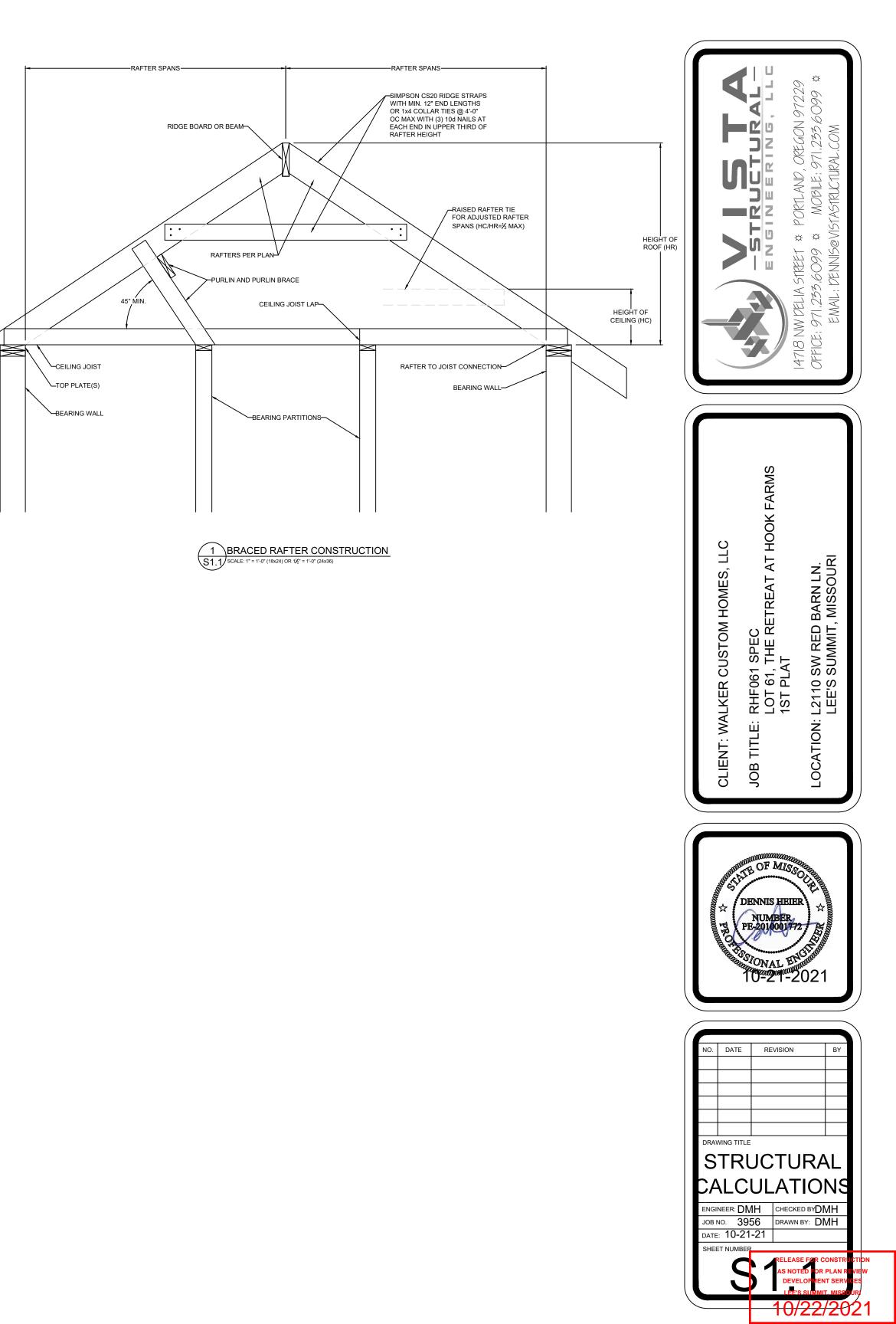
NOTE FOR CONSTRUCTION: THE CONTINUOUS STRUCTURAL PANEL SHEATHING BRACING METHOD REQUIRES USE OF THE ABOVE TABLE FOR SHEATHING OF THE ENTIRE STRUCTURE. IN ADDITION, FRAMING MEMBERS SHALL BE @ 16" O.C. MAX., UNBLOCKED, AND W/ SHEATHING APPLIED DIRECTLY TO FRAMING MEMBERS

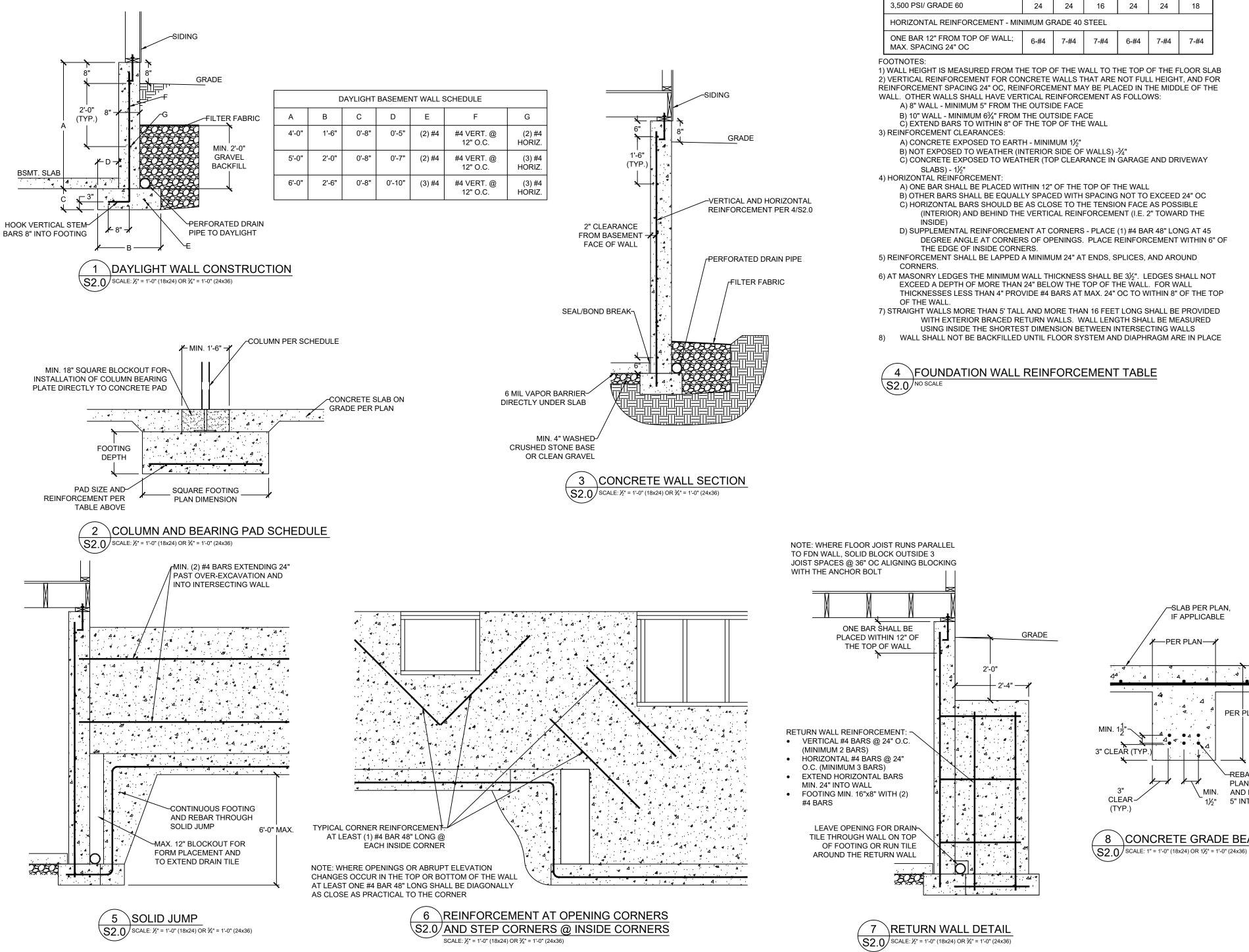
NOTE FOR DESIGN:

ALL WALLS USED IN THE CALCULATION OF THE RESISTANCE FOR THIS STRUCTURE SHALL HAVE A MINIMUM UNINTERRUPTED HEIGHT OF 8'-0" AND LENGTH OF 2'-8". ALLOWABLE RESISTANCES HAVE BEEN #/FT AND INCREASED BY 40% FOR WIND LOADS, PER VALUES IN 2012 IBC SECTION 2306 AND AF&PA SDPWS TABLE 4.3A. FOR EXAMPLE, 7/16" APA-RATED SHEATHING WITH 8d @ 6" & 12" HAS A SEISMIC SHEAR VALUE OF 240 A WIND SHEAR VALUE OF 335#/FT - 40% GREATER THAN THAT OF SEISMIC)

NOTE: SOIL SITE CLASS ASSUMED TO BE CLASS D. IF SITE CONDITIONS ARE DETERMINED TO BE CLASS E OR F, CONSULT ENGINEER BEFORE PROCEEDING

WITH CONSTRUCTION





CONCRETE STRENGTH/GRADE REINFORCEMENT (#4 BARS)	8"	THICK W	ALL	10" THICK WALL		
	8'	9'	10'	8'	9'	10'
3,000 PSI/ GRADE 40	24	24	16	24	24	18
3,500 PSI/ GRADE 40	24	24	16	24	24	18
3,000 PSI/ GRADE 60	24	24	16	24	24	18
3,500 PSI/ GRADE 60	24	24	16	24	24	18
HORIZONTAL REINFORCEMENT - MINIMUM GRADE 40 STEEL						
ONE BAR 12" FROM TOP OF WALL; MAX. SPACING 24" OC	6-#4	7-#4	7-#4	6-#4	7-#4	7-#4

1) WALL HEIGHT IS MEASURED FROM THE TOP OF THE WALL TO THE TOP OF THE FLOOR SLAB 2) VERTICAL REINFORCEMENT FOR CONCRETE WALLS THAT ARE NOT FULL HEIGHT, AND FOR REINFORCEMENT SPACING 24" OC, REINFORCEMENT MAY BE PLACED IN THE MIDDLE OF THE WALL. OTHER WALLS SHALL HAVE VERTICAL REINFORCEMENT AS FOLLOWS:

- C) CONCRETE EXPOSED TO WEATHER (TOP CLEARANCE IN GARAGE AND DRIVEWAY

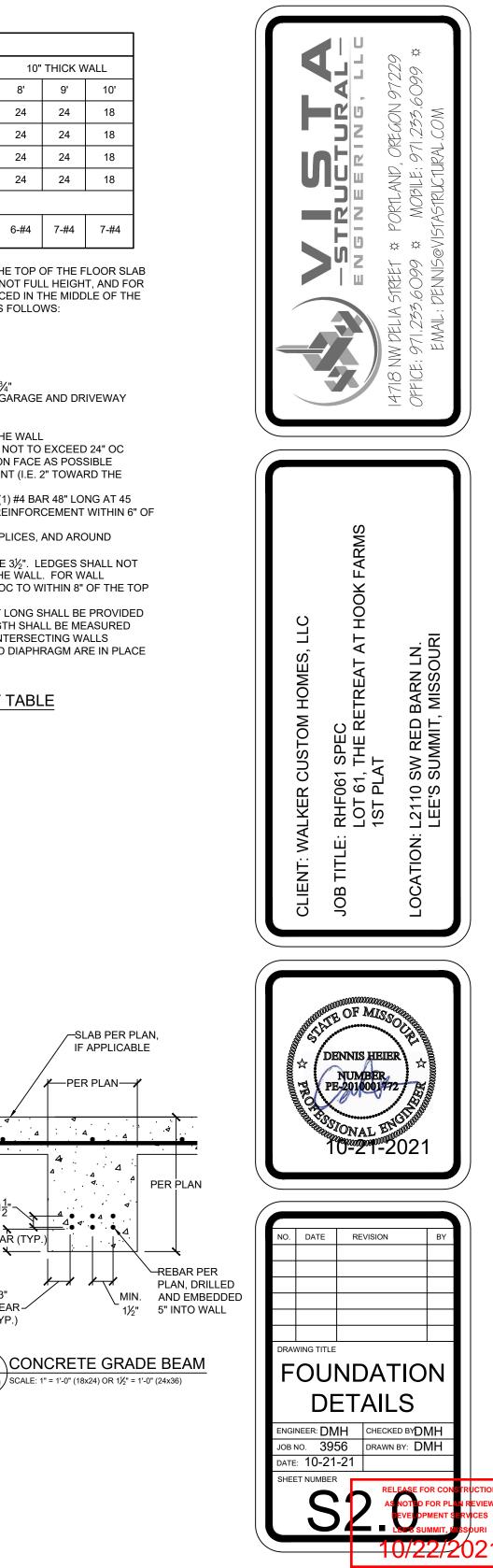
- C) HORIZONTAL BARS SHOULD BE AS CLOSE TO THE TENSION FACE AS POSSIBLE (INTERIOR) AND BEHIND THE VERTICAL REINFORCEMENT (I.E. 2" TOWARD THE
- D) SUPPLEMENTAL REINFORCEMENT AT CORNERS PLACE (1) #4 BAR 48" LONG AT 45 DEGREE ANGLE AT CORNERS OF OPENINGS. PLACE REINFORCEMENT WITHIN 6" OF

5) REINFORCEMENT SHALL BE LAPPED A MINIMUM 24" AT ENDS, SPLICES, AND AROUND

6) AT MASONRY LEDGES THE MINIMUM WALL THICKNESS SHALL BE 31/2". LEDGES SHALL NOT EXCEED A DEPTH OF MORE THAN 24" BELOW THE TOP OF THE WALL. FOR WALL THICKNESSES LESS THAN 4" PROVIDE #4 BARS AT MAX. 24" OC TO WITHIN 8" OF THE TOP

- WITH EXTERIOR BRACED RETURN WALLS. WALL LENGTH SHALL BE MEASURED USING INSIDE THE SHORTEST DIMENSION BETWEEN INTERSECTING WALLS
- 8) WALL SHALL NOT BE BACKFILLED UNTIL FLOOR SYSTEM AND DIAPHRAGM ARE IN PLACE

FOUNDATION WALL REINFORCEMENT TABLE



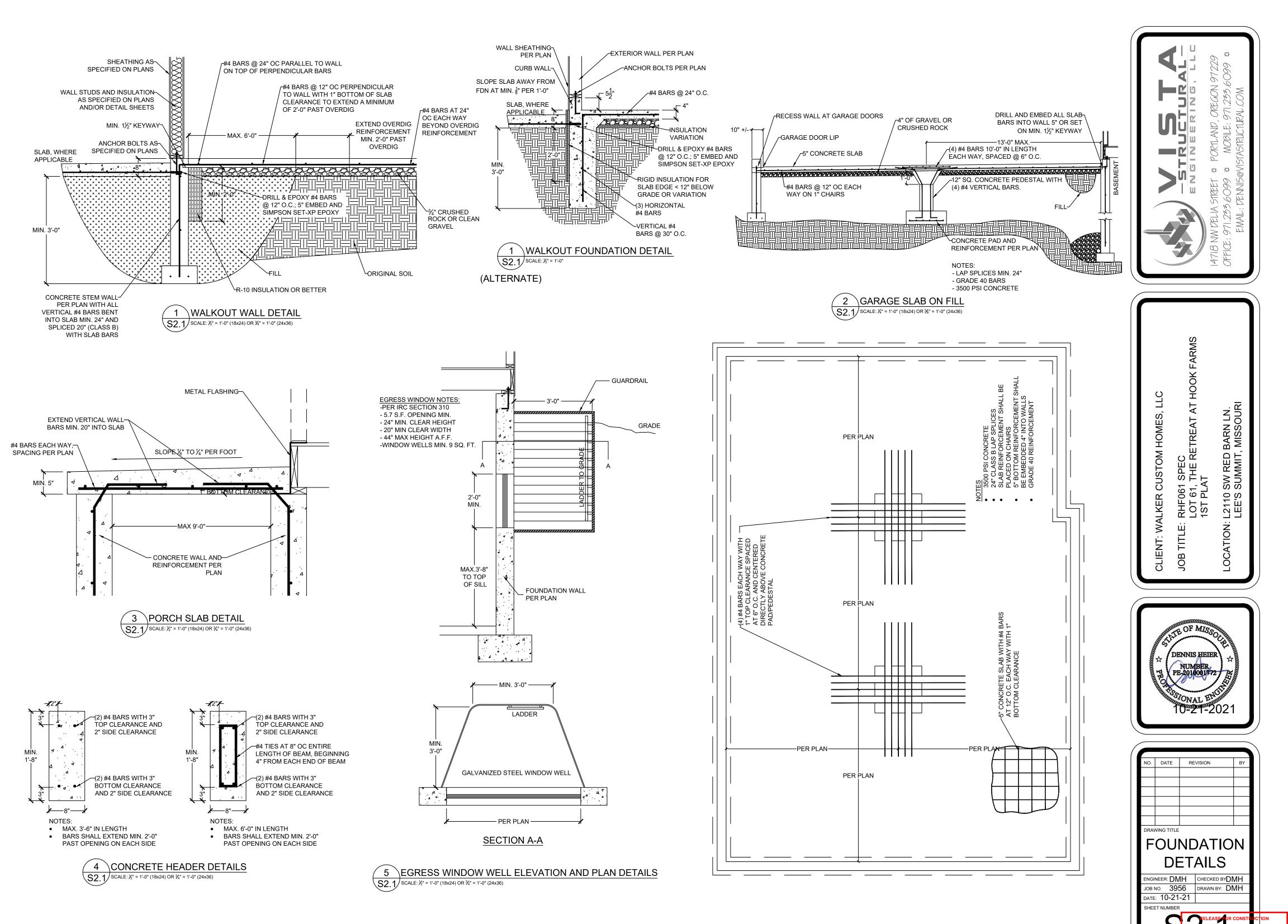
-SLAB PER PLAN. IF APPLICABLE

4

11/2"

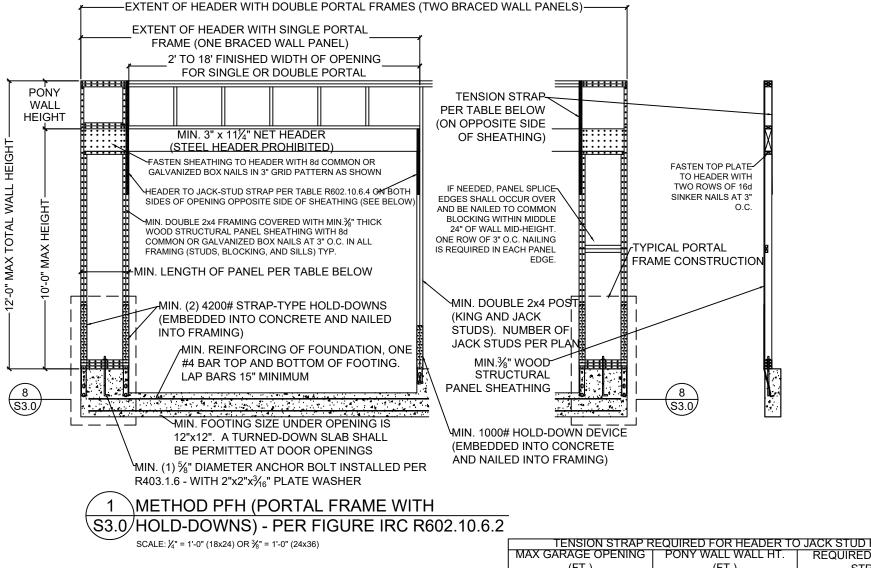
PER PLAN

×



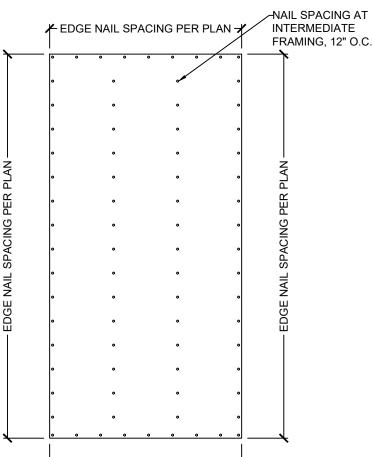
AS NOTED FOR PLAN REVE DEVELOPMENT SERVICES

10/22/2021



	MINIMUM PANEL LENGTH FOR DETAIL 1/S3.0 (INCHES) WALL HEIGHT						
	8 FEET	11 FEET	12 FEET				
SUPPORTING ROOF ONLY	16	16	16	18	20		
SUPPORTING ONE STORY AND ROOF	ND ROOF 24 24 24 27 2						

	REQUIRED FOR HEADER TO		1/92 0 ANI
			1/33.0 ANI
MAX GARAGE OPENING	PONY WALL WALL HT.	REQUIRED SIMPSON	MIN. STRA
(FT.)	(FT.)	STRAP	
181.01	01.01	0000	
18'-0"	0'-0"	CS20	
9'-0"	1'-0"	CS20	
9-0	1-0	0320	
18'-0"	1'-0"	CS14	
18-0	1-0	0314	
9'-0"	2'-0"	CS18	
9-0	2-0	0318	
18'-0"	2'-0"	CMSTC16	
18-0	2-0	CMSTCT0	
9'-0"	4'-0"	CMSTC16	
9-0	4-0	CIVISTOTO	
16'-0"	4'-0"	CMST14	
10-0	4-0	CIVI3114	
•	•	•	•



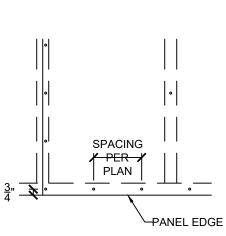
EDGE NAIL SPACING PER PLAN



SPACING PER -PLAN

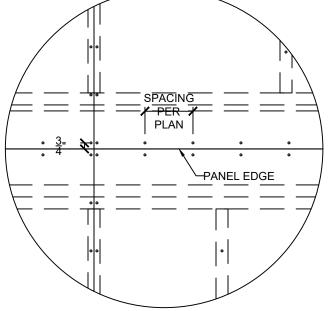
SHEATHING EDGE AT TOP PLATE

(SINGLE ROW OF FASTENERS)

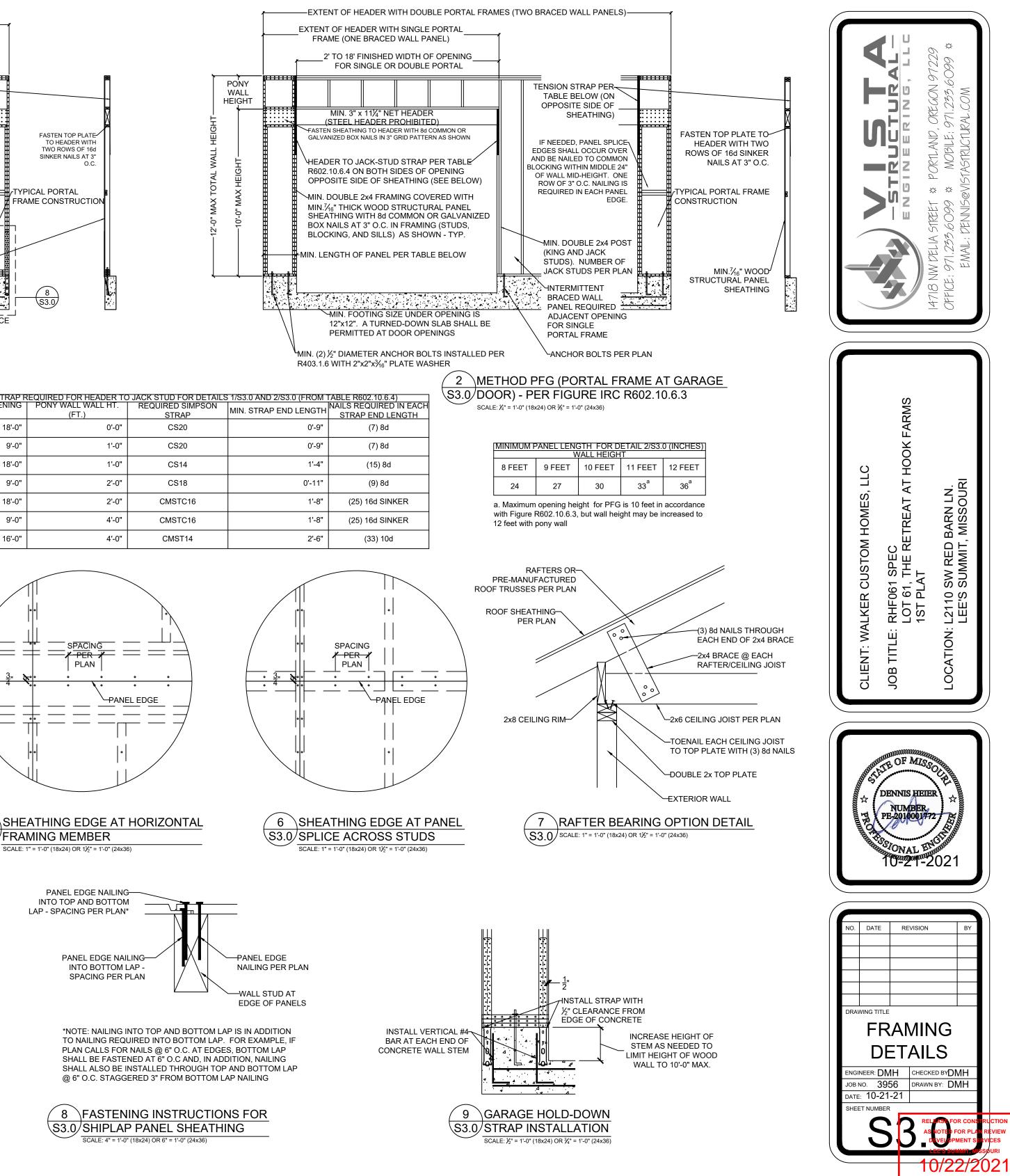


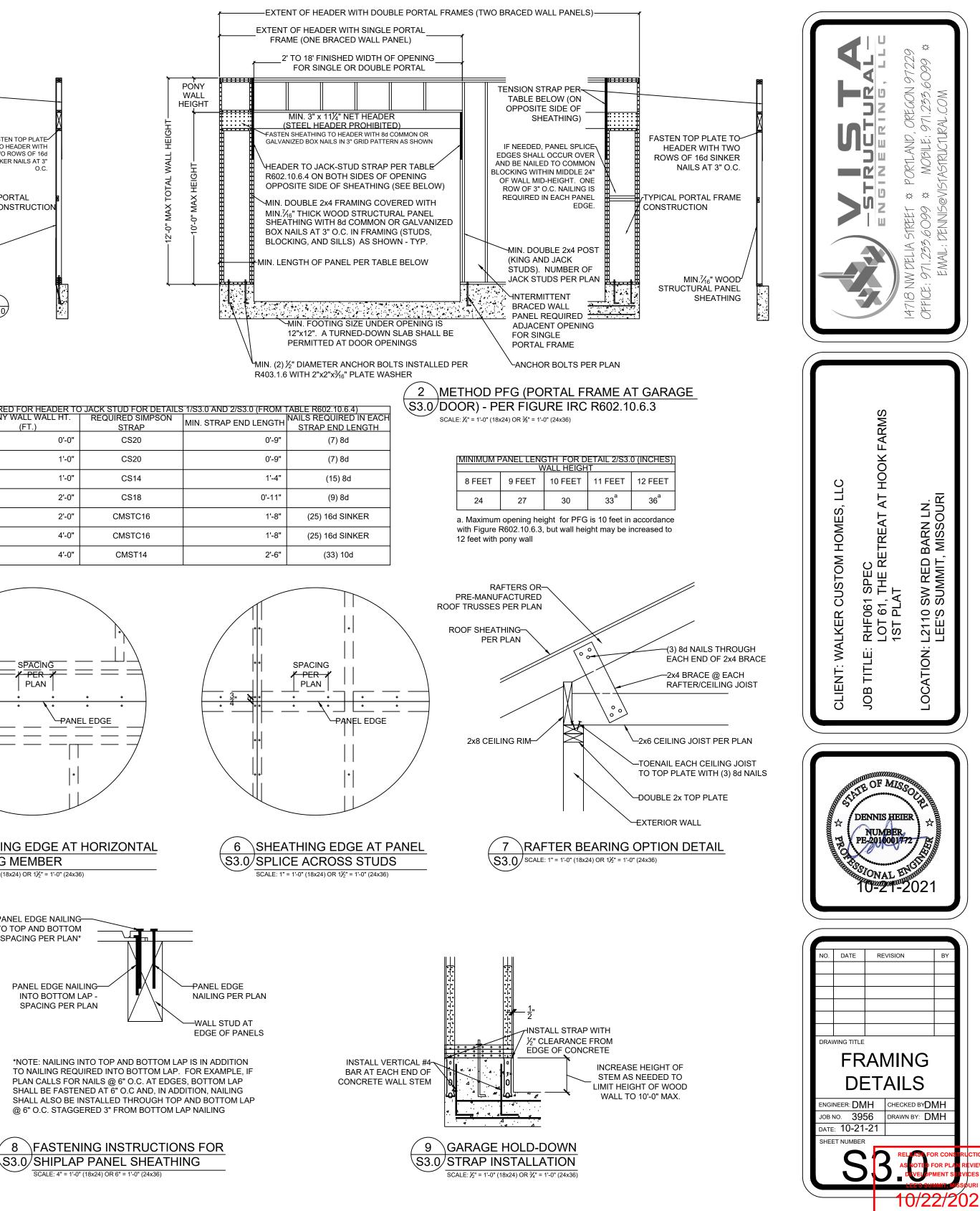
SHEATHING EDGE AT BOTTOM PLATE (SINGLE ROW OF FASTENERS)

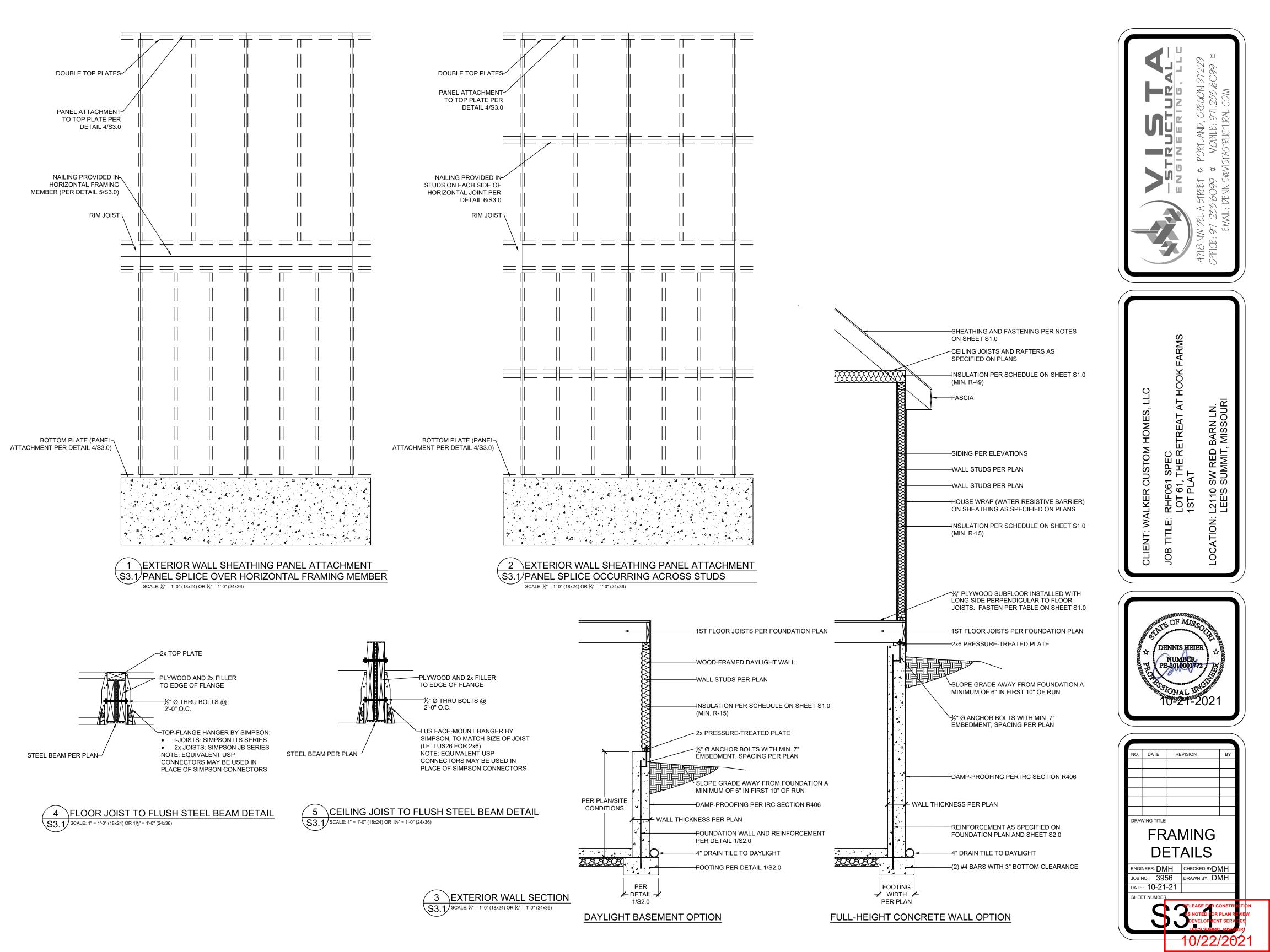


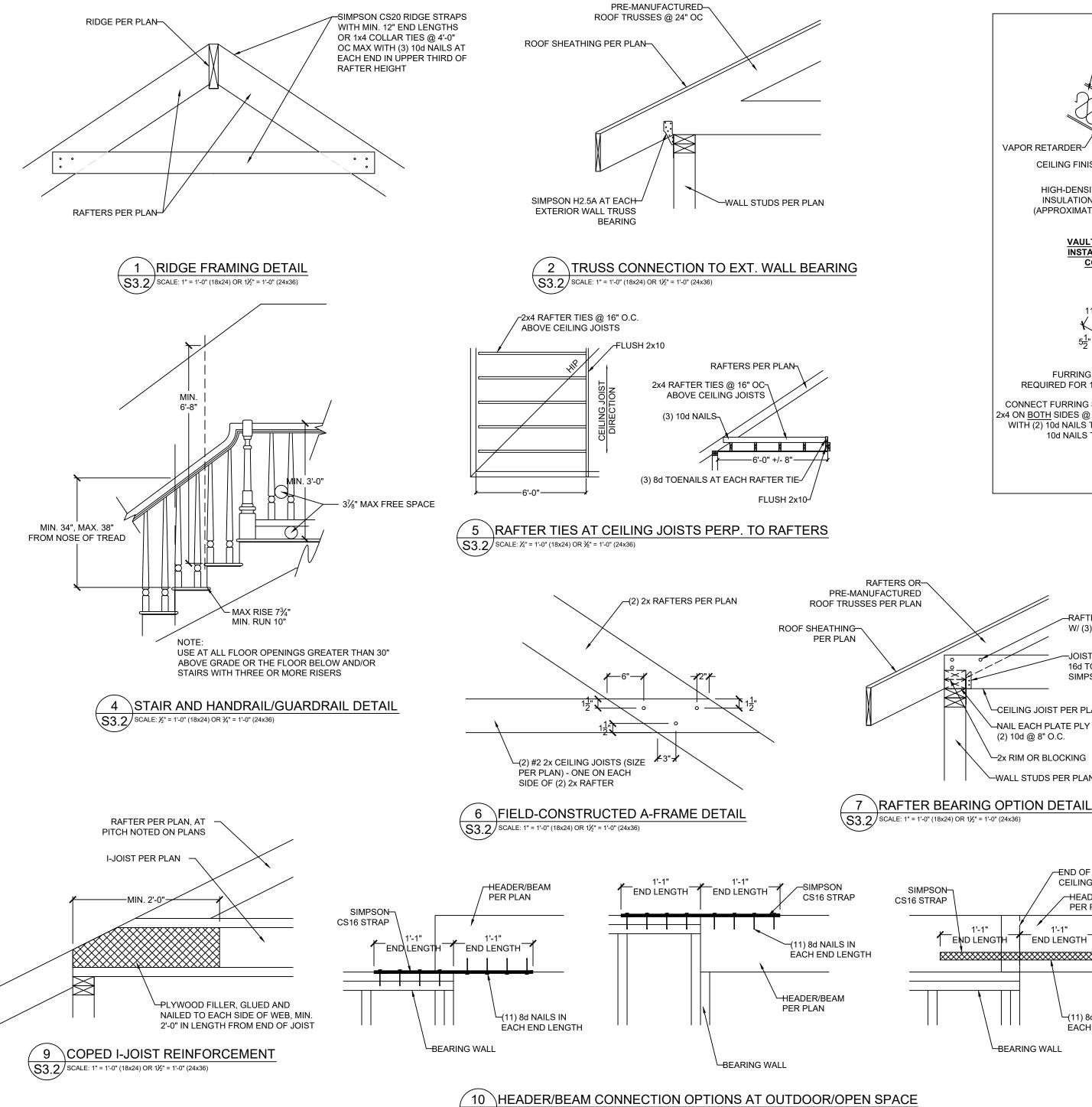


SHEATHING EDGE AT HORIZONTAL 5 ` S3.0/FRAMING MEMBER

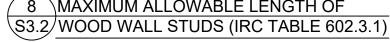








SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)



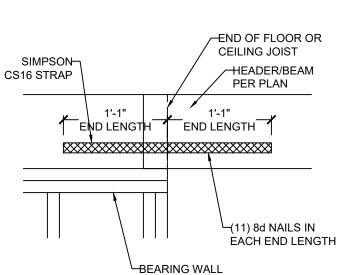
8 \MAXIMUM ALLOWABLE LENGTH OF

3) THIS TABLE DOES NOT APPLY FOR STUDS SUPPORTING MEMBERS WITH A TRIB. LENGTH GREATER THAN 6'-0"

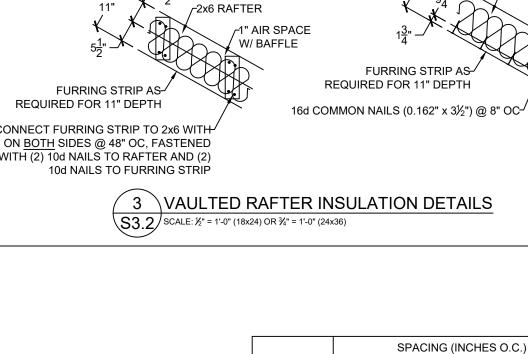
2) UTILITY, STANDARD, STUD AND #3 GRADE LUMBER OF ANY SPECIES ARE NOT PERMITTED

1) DR = DESIGN REQUIRED

NOTES:



12	2x6	2x4	2x4	2x4
14	2x6	2x6	2x6	2x4
16	2x6	2x6	2x6	2x4
18	DR	2x6	2x6	2x6
20	DR	DR	2x6	2x6
SUP	PORTING O	NE FLOOR /	AND A ROO	F
10 OR LESS	2x6	2x4	2x4	2x4
12	2x6	2x6	2x6	2x4
14	2x6	2x6	2x6	2x6
16	DR	2x6	2x6	2x6
18	DR	2x6	2x6	2x6
20	DR	DR	2x6	2x6
SUPF	PORTING TW	/O FLOORS	AND A ROC	DF
10 OR LESS	2x6	2x6	2x4	2x4
12	2x6	2x6	2x6	2x6
14	2x6	2x6	2x6	2x6
16	DR	2x6	2x6	2x6
18	DR	DR	2x6	2x6
20	DR	DR	DR	2x6
NOTES				



-RAFTER TO CEILING JOIST

W/ (3) 16d FACE NAILS

-JOIST TO PLATE W/ (3)

SIMPSON H3 HOLDDOWN

16d TOE NAILS OR

-CEILING JOIST PER PLAN

-NAIL EACH PLATE PLY W/ (2) 10d @ 8" O.C.

-2x RIM OR BLOCKING

WALL STUDS PER PLAN

HEIGHT (FT.)

10 OR LESS

24

2x4

12

2x4

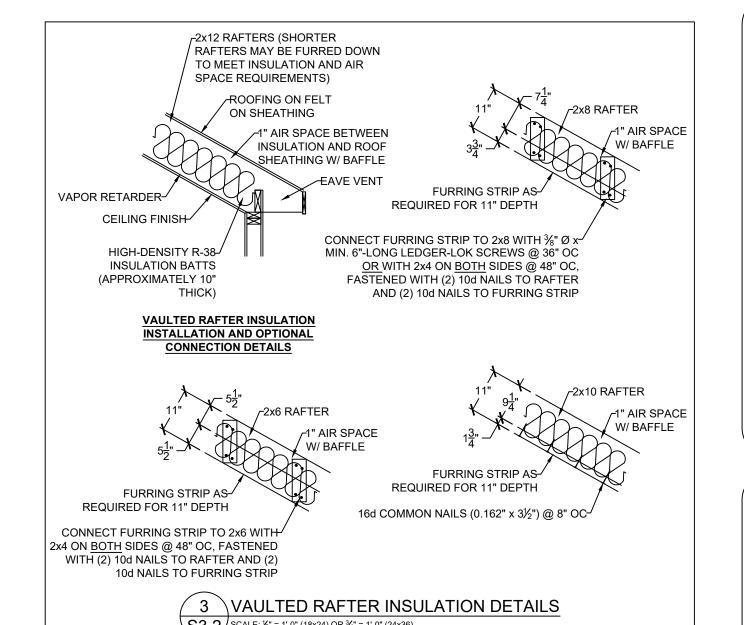
8

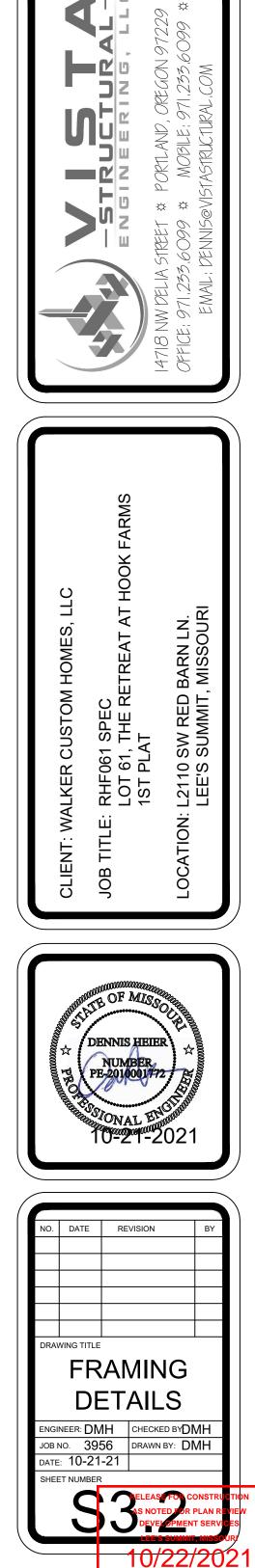
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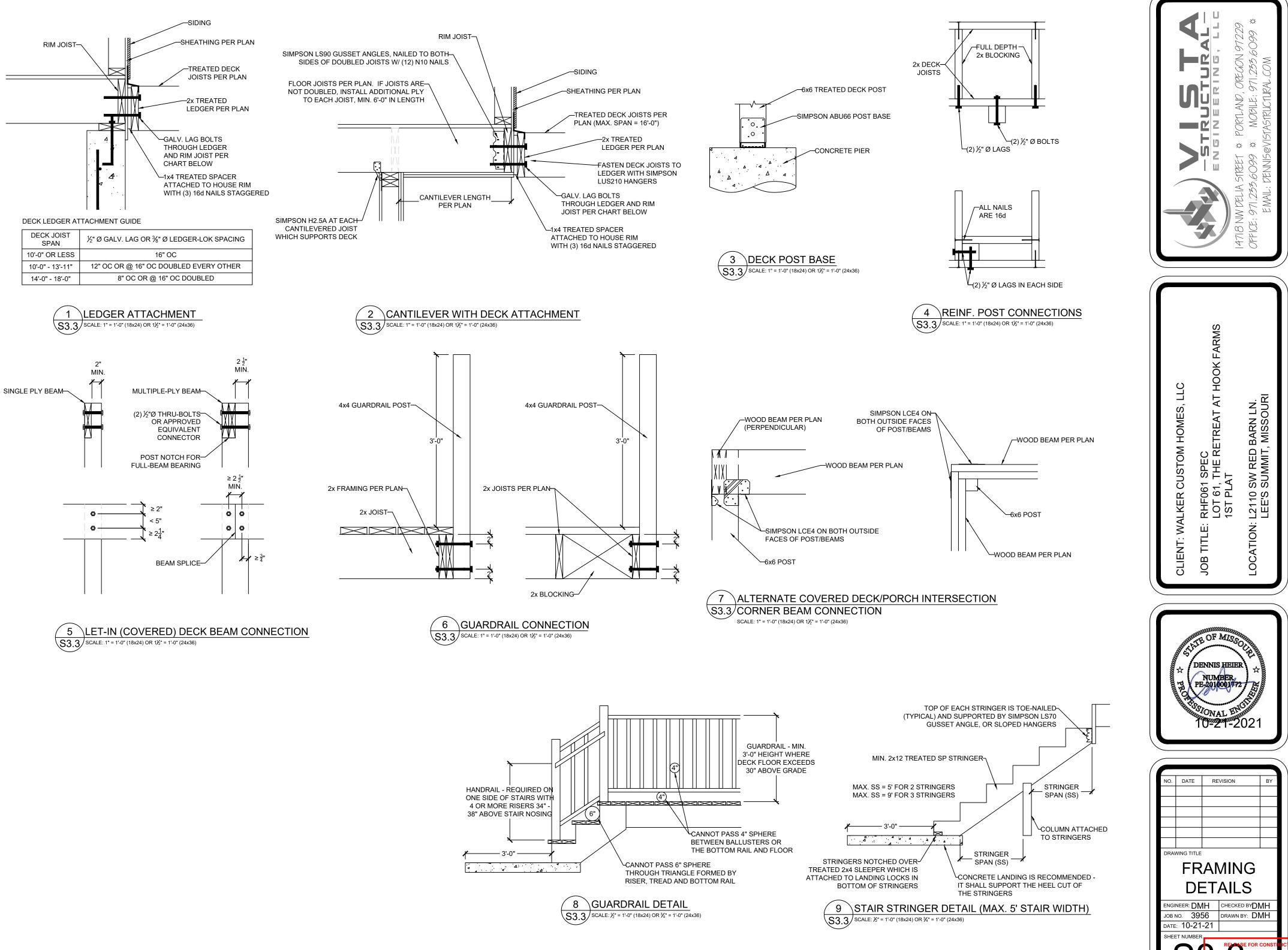
16

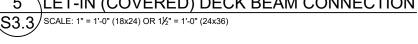
2x4

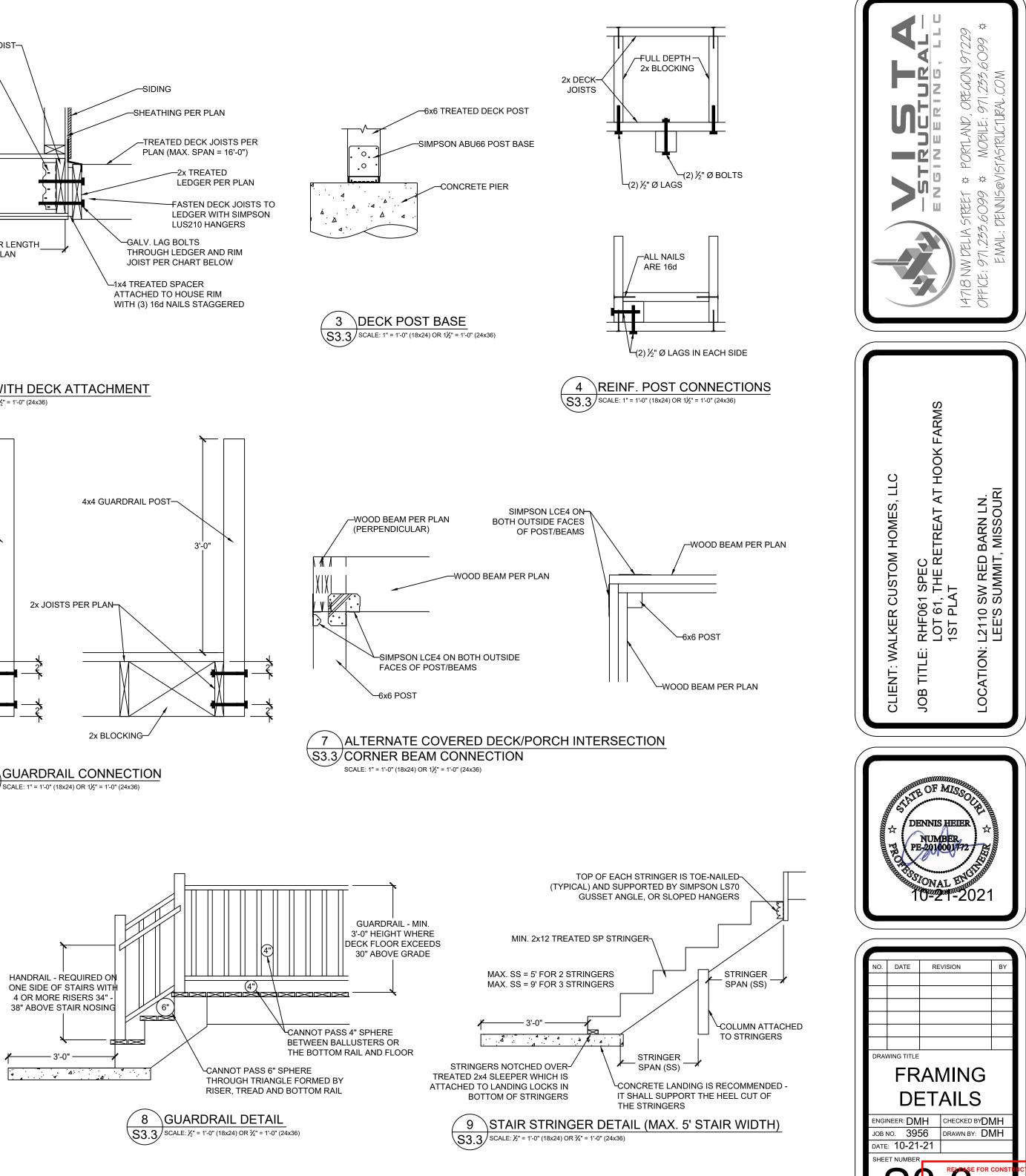
SUPPORTING A ROOF ONLY



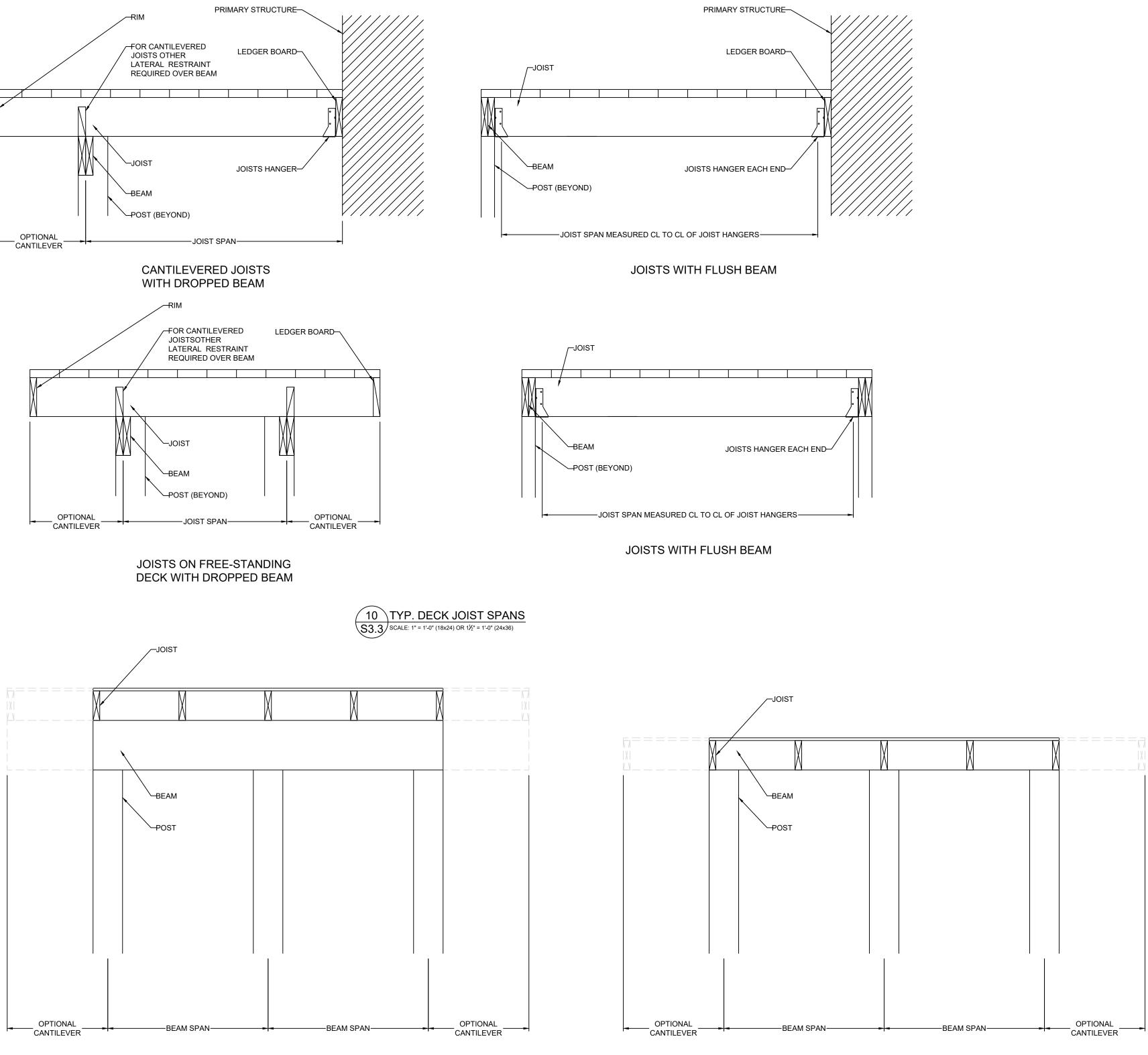








DROPPED BEAM



☆ 7229 99 * 6 ט שו <u>N</u> 80 112 112 Ę יין ב PORTL. \geq U ¢ ¢ FARMS НООК LLC BARN LN. MISSOURI RHF061 SPEC LOT 61, THE RETREAT AT 1ST PLAT CLIENT: WALKER CUSTOM HOMES, SW RED E SUMMIT, L2110 JOB TITLE: LOCATION: JE OF MISS DENNIS HEIER PE-2010001772 VONAL EN 10-2021 DATE REVISION BY RAWING TITLE FRAMING DETAILS ENGINEER: DMH CHECKED BYDMH JOB NO. 3956 DRAWN BY: DMH DATE: 10-21-21 HEET NUMBER SB