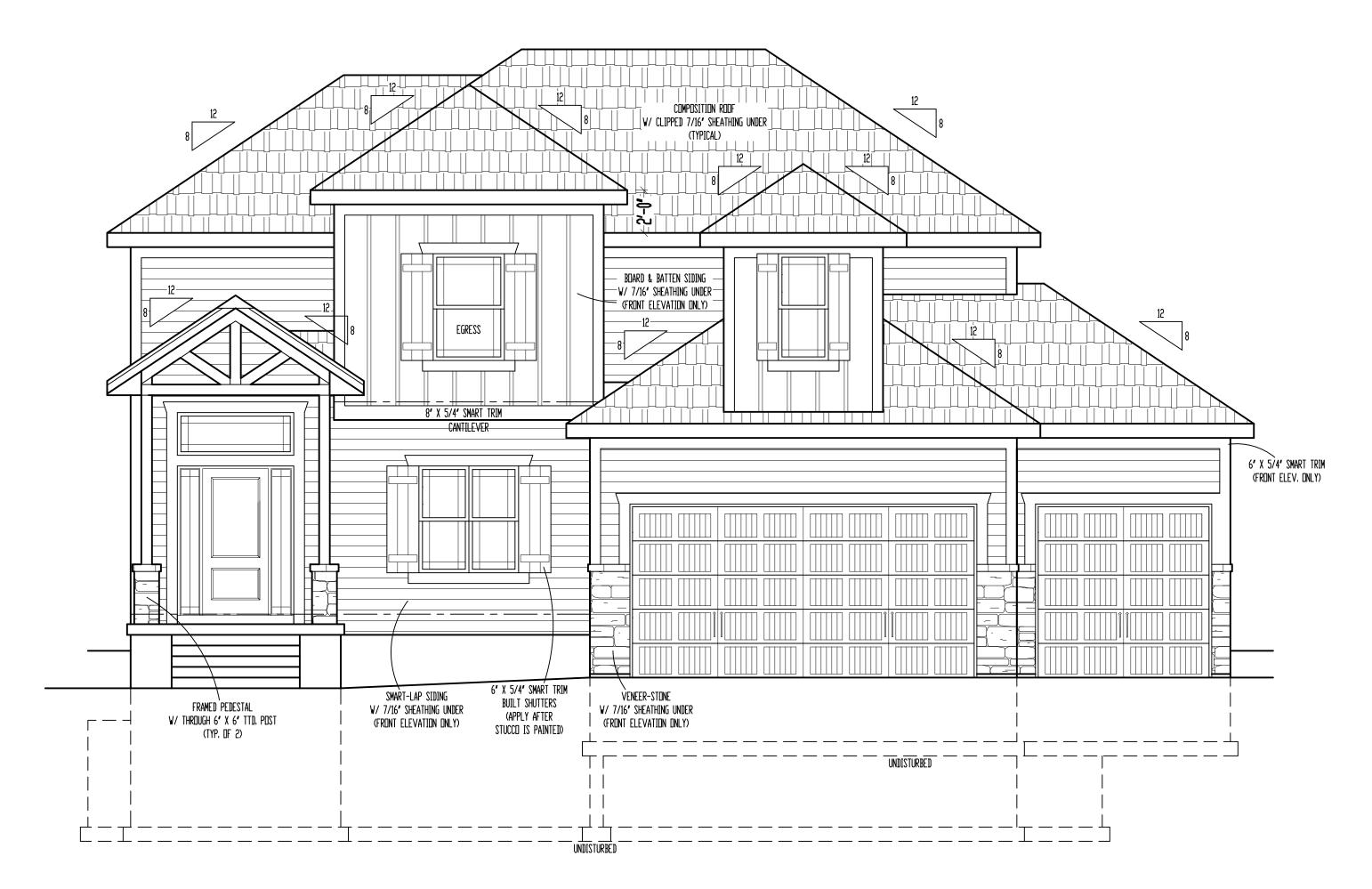
### ONE-TIME-BUILD LICENSE AGREEMENT

NOTE: GOVERNING CODES & GENERAL CONTRACTOR'S WRITTEN SPECIFICATIONS TAKE PRECEDENCE OVER THESE PLANS.

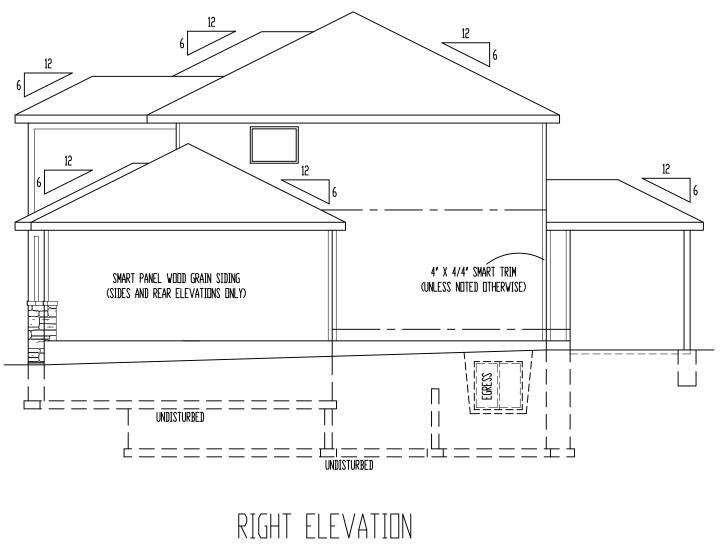


FRONT ELEVATION SCALE: 1/4'' = 1'-0''

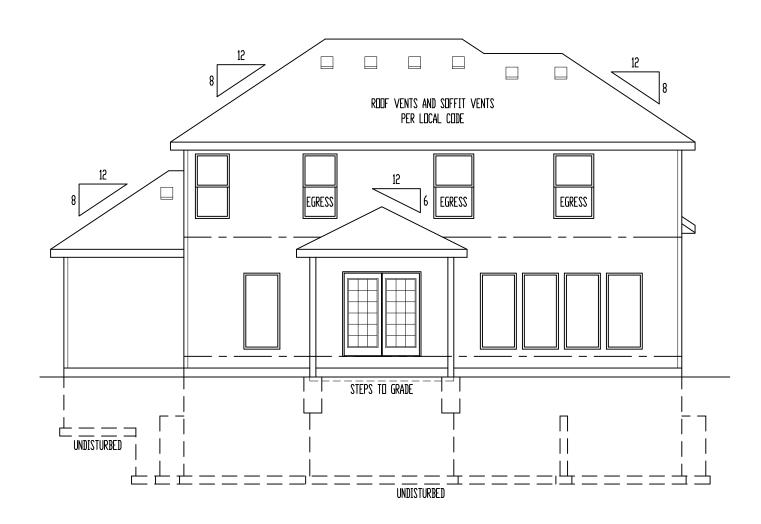
RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

04/02/2021

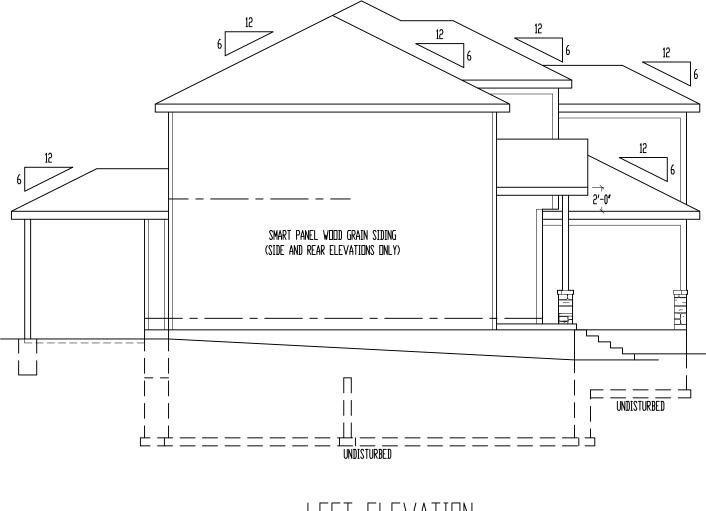
<i>"For God so loved</i> These plans and specifications are protected under federal copyright laws. <i>the world, that he</i>	<i>gave his only</i> Care and effort have gone into the creation and design of this plan. However, the <i>begotten Son</i> , designer is not an architect or engineer and construction from these plans should not be <i>that whosoever</i> undertaken without the assistance of a construction professional, architect or engineer.	nim rish,	but nave blueprints. Also, site conditions may vary from those illustrated on this plan. Designer evertlasting life" does not warrant the suitability of these plans for use on your specific site. Consult your (John 3:16). architect to determine the suitability of these plans for your specific site and application.
			M/T: (816)547-4437 E: Plans@ViewpointDesign.net
Lo Cre 230 Rd. IQ IQ Date Rev Rev Rev Rev	SSIONA 3-2 2. 1: 2. 2:	ion: criptio , Ea 6th ddres: 0Id ouri ontrac truc: MISS HEIE 9 - AD	NT A n: gle Plat s: Port mmit, tion A Content 2021
	Shee	t No.	of 6



SCALE: 1/8'' = 1'-0''



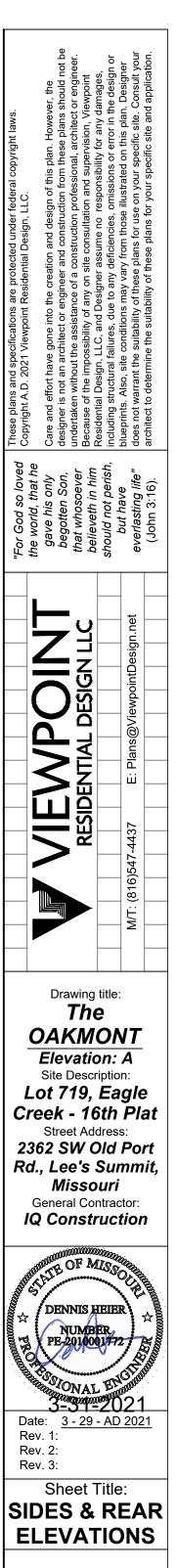
REAR ELEVATION SCALE: 1/8'' = 1'-0''



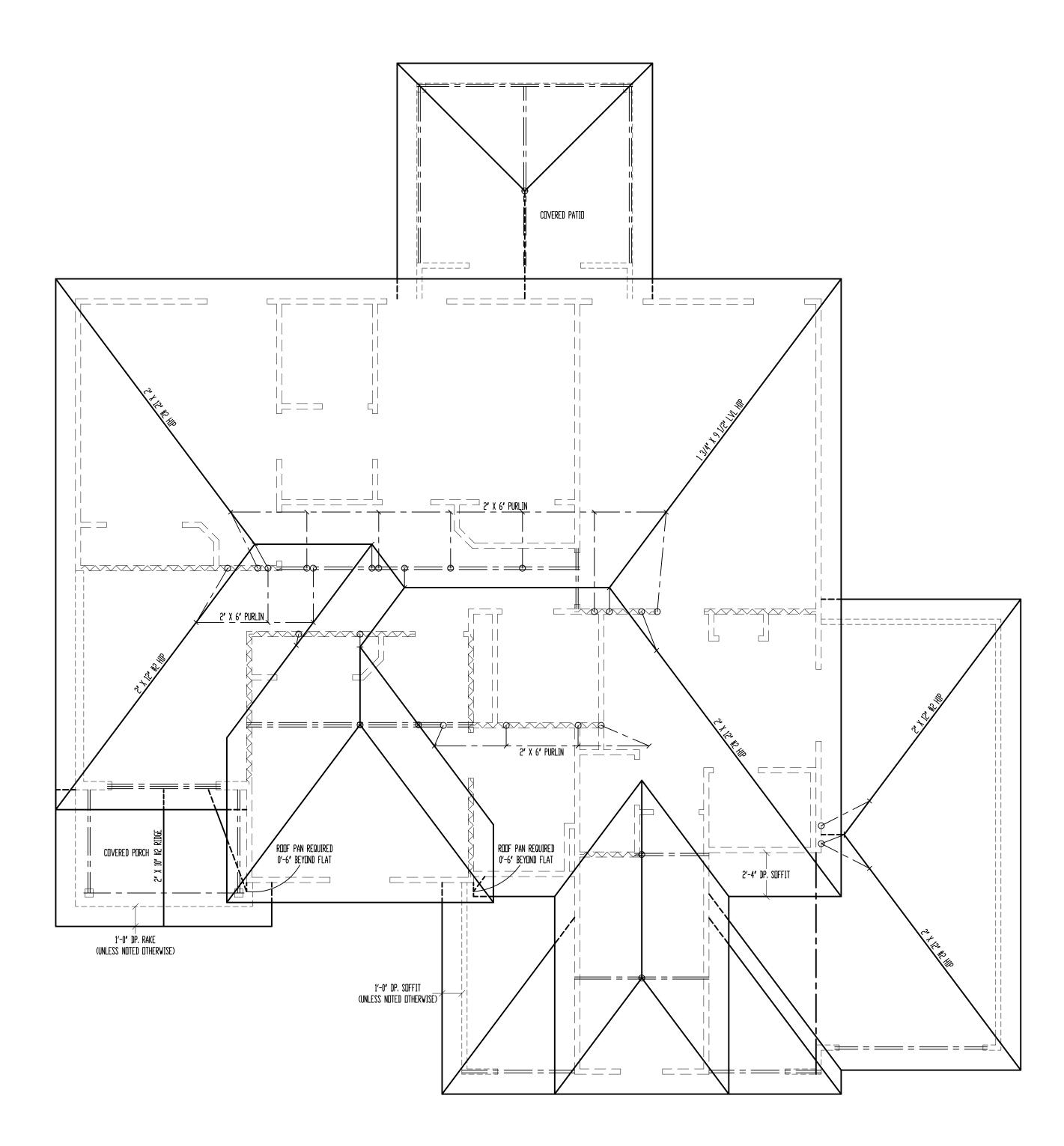
LEFT ELEVATION SCALE: 1/8'' = 1'-0''

elevations: Smart panel vood grain siding on side and rear elevations composition roof shingles locate roof and soffit vents per code adjust foundation to grade

- DPTIDNAL DECK: DECK CONSTRUCTION TO COMPLY WITH MUNICIPALITY'S RESIDENTIAL DECK STANDARDS 2" X 10" #2 TTD. @ 16" D.C. FLOOR JOISTS (MAX. SPAN: 14'-0") 2' X 6' TTD. DECKING 6' X 6' TTD. DECKING 6' X 6' TTD. PDSTS 2' X 2' TTD. SPINDLES 2' X 6' TTD. TDP RAIL
- Determine optional stairs on site







# RODF SCALE: 1/4'' = 1'-0''

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

#### Flashing Note: DRIP EDGE, VALLEYS AND FLASHINGS TO BE METAL CLAD.

#### RODF NOTES: Roof designed for light roof covering

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

\* RAFTERS (HEM-FIR, DDUG-FIR, DR EQUAL): see span charts below

#### <u>CODE MINIMUM</u>

	RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN	
	#2-2x6	@24″ D.C.	11′-7 <b>′</b>	
>>>	#2-2x6	<b>@16″</b> D.C.	14'-2 <b>'</b>	] ‹‹‹
	#2-2x8	024° D.C.	14'-8 <b>'</b>	
	#2-2x8	<b>@16″</b> D.C.	17'-11 <b>'</b>	
	#2-2x10	024° D.C.	17'-10 <b>'</b>	
	#2-2x10	<b>@16″</b> D.C.	21′-11 <b>″</b>	
	UDTE ODD			

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

#### HIGHER PERFORMANCE (RECOMMENDED)

RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN
#2-2x6	024 <b>°</b> D.C.	8′-6 <b>′</b>
#2-2x6	<b>@16″</b> D.C.	9′-9 <b>′</b>
#2-2x8	024 <b>°</b> D.C.	11'-3 <b>'</b>
#2-2x8	<b>@16″</b> D.C.	12'-9 <b>'</b>
#2-2x10	024 <b>°</b> D.C.	14'-3 <b>'</b>
#2-2x10	<b>@16″</b> D.C.	16'-3 <b>'</b>

DEFLECTION = L/360 LIVE LOAD, L/240 TOTAL LOAD

#### \* VAULTS TO BE 2x10 DEPTH

- \* RIDGE BOARDS ARE: (UNLESS OTHERWISE NOTED)
- #2- 2X8 UP TO 10/12 PITCH
- #2- 2X10 DVER 10/12 PITCH
- \* ALL HIPS & VALLEYS ARE: (UNLESS DTHERWISE NOTED)
- #2- 2X8 UP TO 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 DF 8'-0'
  - PURLINS STRUTS SHALL BE CONSTRUCTED IN A
    - 'T' Configuration and per the following chart:

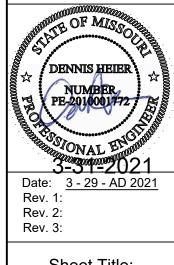
purlin strut	MAX PURLIN STRUT LENGTH
(2) 2x4	8'-0 <b>'</b>
(1) 2x4 & (1) 2x6	12′-0 <b>′</b>
(1) 2x6 & (1) 2x8	20'-0 <b>'</b>
(2) 2x6 & (1) 2x8	30'-0"
CONSULT ARCH./FNGR. >	30'-0 <b>'</b>

\* 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
- \*----- DENDITES BEARING STRUCTURE

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"For God so loved the world, that he	gave his only begotten Son, that whosoever believeth in him	but have but have everlasting life" (John 3:16).
	RESIDENTIAL DESIGN LLC	M/T: (816)547-4437 E: Plans@ViewpointDesign.net
 Lo Cre 236	ek - 10 Street Ad 52 SW 0	e ONT on: A ription: Eagle 6th Plat dress: Old Port Summit,

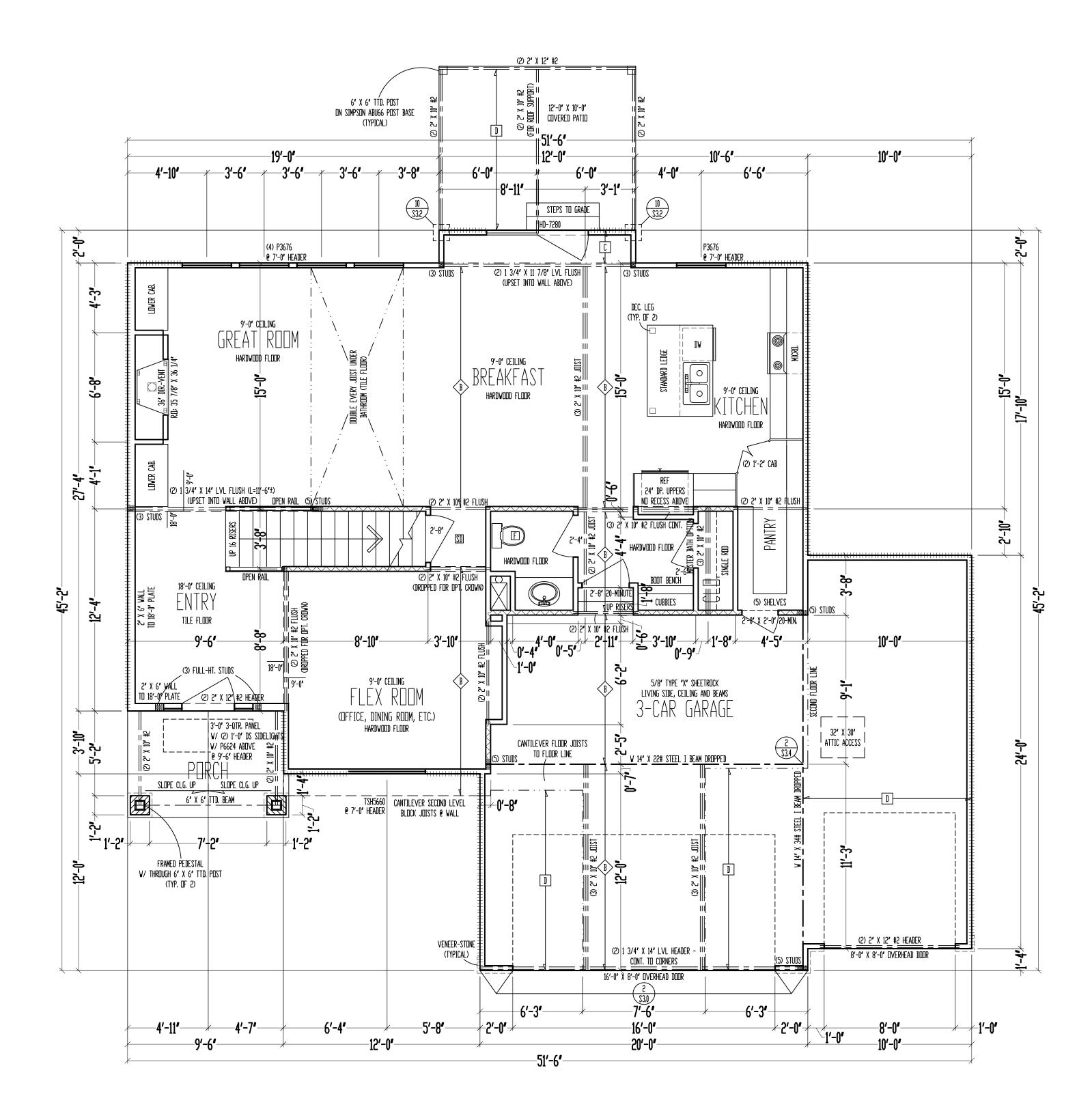


General Contractor:

IQ Construction

Sheet Title: **ROOF PLAN** 





9'-0" CEILING 2" X 10" FLOOR SYSTEM MAIN LEVEL SCALE: 1/4'' = 1'-0''MAIN LEVEL: 1094 SQ. FT. SECOND LEVEL: 1221 SQ. FT. TOTAL: 2315 SQ. FT. GARAGE: 667 SQ. FT. UNFIN, BASEMENT: 1008 SQ, FT, COV. DUT/LIV: 120 SQ. FT. AND PER CALCULATIONS ON SHEET S1.1. <u>Framing Notes</u> 1. Main level exterior valls shall be sheathed v/ 7/16' D.S.B. A.P.A. Panels v/ 8d common Nails @ 6' D.C. At edges & @ 12' D.C. IN SPECIFICATIONS. STUDS SPACED 24" MAX FASTENED V/ ND, 6 - 1 1/4" TYPE V DR S SIDE OF WALL (OR) MIN. 4'-0' SECTION FOR BOTH SIDES) 3. /////////// = LOAD bearing interior wall. 4. (2) 2" X 10" #2 Header at all exterior and load bearing WALLS, UNLESS NOTED OTHERWISE. 5. LOW TIES @ 4'-0' D.C. (TYPICAL) 6. RUN STUDS THE FULL HEIGHT DF RAISED PLATE WALLS. 7. BLOCK JOISTS ABOVE BEAMS, CANTILEVERS AND LOAD BEARING WALLS WITH JOIST MATERIAL (NOT REQUIRED WITH I-JOISTS). at door and vindow openings. unless noted otherwise. 12. EXTERIOR WALL BOTTOM PLATES SHALL BE NAILED TO FRAMING Below with 16d common NAILS @ 8" D.C. Max. (Where Applicable.)

++++++++++++++++++++++ = Wall bracing PER Framing NDTE #1

THE FIELD. SMART PANEL, DR EQUAL, INSTALLED PER MANUFACTURER'S

DRYWALL SCREWS @ 7" D.C. EDGES & FIELD, (MIN, 8'-0" SECTIONS DNE

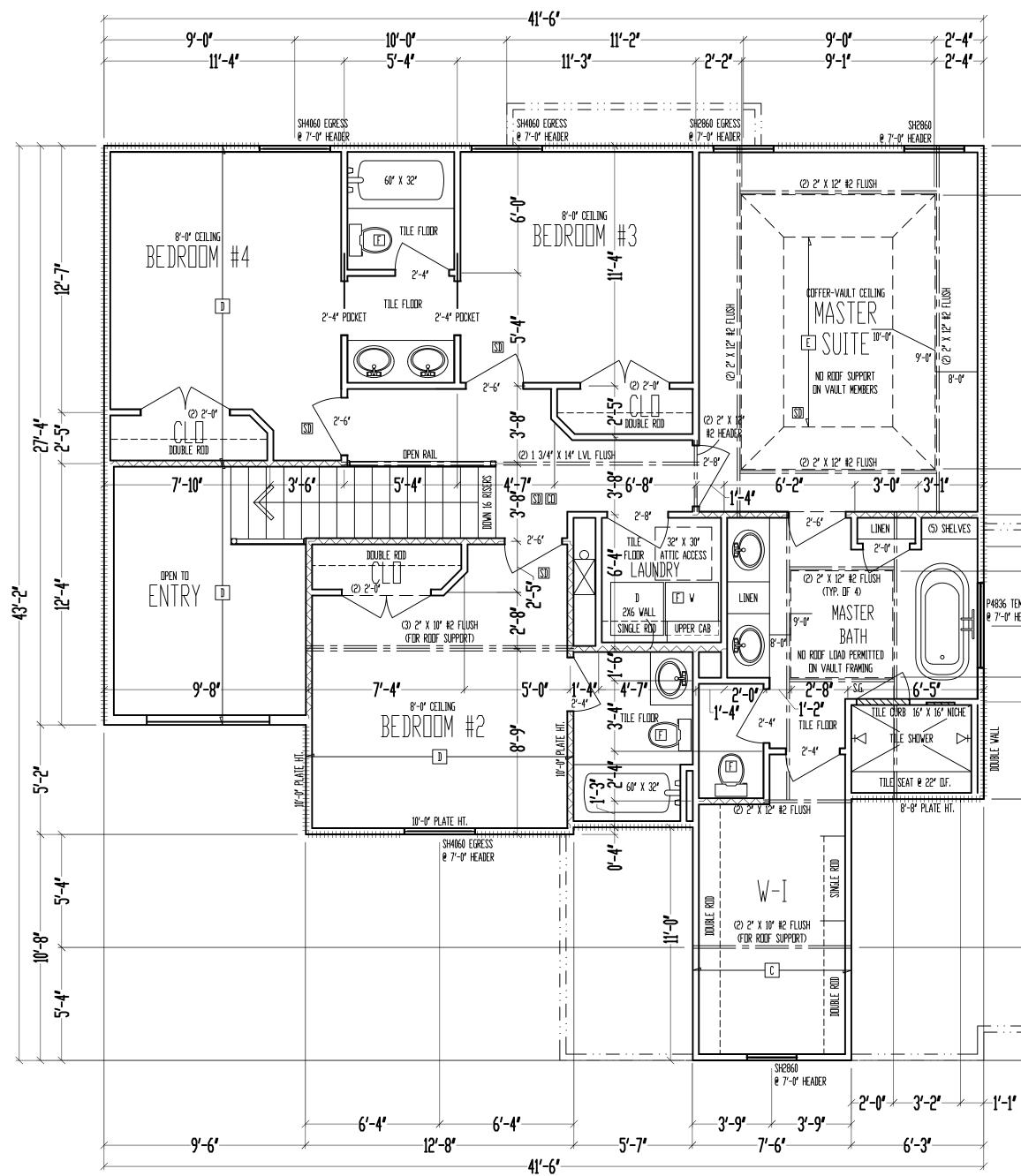
8. PROVIDE MULTIPLE STUDS FOR SOLID BEARING BELOW ALL BEAMS. 9. ALL DESIGNATED 2" X 6" WALLS SHALL HAVE DOUBLE KING STUDS

10. ALL UNSQUARE WALLS SHALL BE 45°, UNLESS NOTED OTHERWISE. 11. ALL WALLS TO BE FRAMED W/ MIN. STUD GRADE 2" X 4"S @ 16" D.C.,

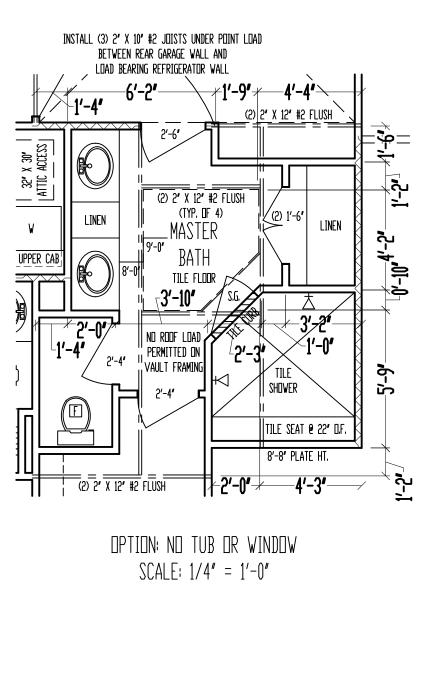
	JOIST SCHEDULE
	2" X 10" #3 FLOOR JOIST € 16" D.C.
	2" X 10" #2 Floor joist @ 16" D.C.
0	2" X 6" #3 CEILING JOIST € 16" D.C.
D	2" X 6" #2 CEILING JOIST € 16" D.C.

PLAN

RELEASE



<u>+-2'-4'</u>--**2′-4″**-2'-4' 12' #2 FLU 12'-11' \$ 8'-0**'** ູ່ -,01-,02 -2'-2 **≁,9-,**|+ : <u>\_\_\_\_\_</u> : : <u>\_\_\_</u> : : <u>\_\_\_</u> : : <u>\_\_</u> : : (5) SHELVES 1,-2 43′-2″ P4836 TEMP. @ 7'-0" HEADER 1′-2 -8′-2′ 4'-7" **\_\_\_\_**\_\_\_\_ 12'-4' 5'-4" \_\_\_\_



# 8'-0" CEILING SECOND LEVEL SCALE: 1/4" = 1'-0"

++++++++++++++++++++ = Wall bracing per framing note #1 and per calculations on sheet \$1.1.

#### <u>Framing Notes</u>

1. SECOND LEVEL EXTERIOR VALLS SHALL BE SHEATHED W/ 7/16' D.S.B. A.P.A. PANELS W/ 8d COMMON NAILS @ 6' D.C. AT EDGES & @ 12' D.C. IN THE FIELD. SMART PANEL, DR EQUAL, INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

4. (2) 2" X 10" #2 Header at all exterior and load bearing walls, unless noted otherwise.

- 5. LOW TIES @ 4'-0" D.C. (TYPICAL)
- 6. RUN STUDS THE FULL HEIGHT OF RAISED PLATE WALLS. 7. BLOCK JDISTS ABOVE BEAMS, CANTILEVERS AND LOAD BEARING

VALLS WITH JUST MATERIAL (NOT REQUIRED WITH I-JOISTS).

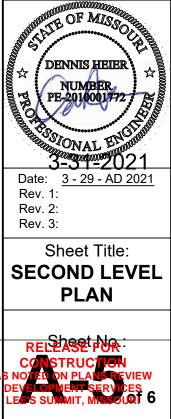
8. PROVIDE MULTIPLE STUDS FOR SOLID BEARING BELOW ALL BEAMS. 9. ALL DESIGNATED 2' X 6' WALLS SHALL HAVE DOUBLE KING STUDS AT DODR AND WINDOW OPENINGS.

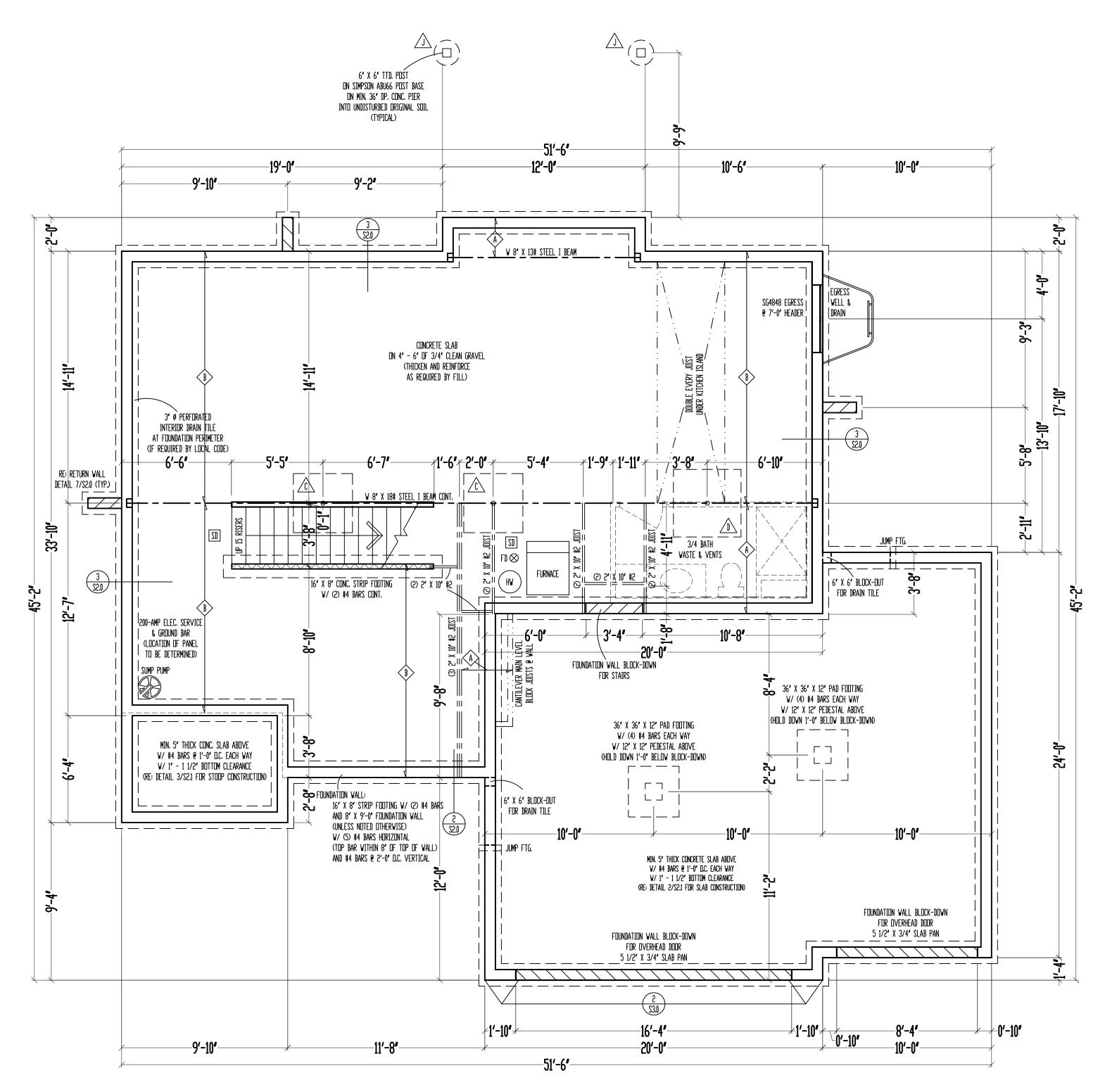
10. All unsquare walls shall be 45°, unless noted otherwise. 11. All walls to be framed W/ Min. Stud grade 2' X 4's @ 16' o.C., Unless noted otherwise.

UNLESS NUTED DIFFERVISE. 12. Exterior Wall Bottom Plates Shall be nailed to framing Below With 160 common Nails @ 16' D.C. Max. (Where Applicable.)

	JOIST SCHEDULE
0	2" X 6" #3 CEILING JOIST € 16" D.C.
D	2" X 6" #2 CEILING JOIST @ 16" D.C.

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"For God so loved the world, that he	gave his only begotten Son,	that whosoever believeth in him	should not perish,	everlasting life"	(John 3:16).
		RESIDENTIAL DESIGN LLC		M/T: (816)547-4437 E: Plans@ViewpointDesign.net	
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South States	DEN	********			00000000000





+++++ = Vall Bracing Pei Sheet S1.1,	r framing note #1 and per calculations on
SECTIONS ONE SIDE OF WALL (OR) MIN. 4'-0' SEC 3. /\/\/\/\/\/\/\/\/ = LOAD BEARING INT 4. (2) 2' X 10' #2 HEADER AT ALL EXTERIOR AND 5. LOW TIES $Q$ 4'-0' D.C. (TYPICAL) 6. RUN STUDS THE FULL HEIGHT OF RAISED PLATE	S & @ 12' D.C. IN THE FIELD. SMART PANEL, DR ATIONS. <sup>2</sup> SUM BOARD OVER STUDS SPACED 24' MAX VALL SCREVS @ 7' D.C. EDGES & FIELD. (MIN. 8'-0' TION FOR BOTH SIDES) TERIOR WALL. I LOAD BEARING WALLS, UNLESS NOTED OTHERWISE. E WALLS. D LOAD BEARING WALLS WITH JOIST MATERIAL (NOT BELOW ALL BEAMS. DOUBLE KING STUDS AT DOOR AND WINDOW NOTED OTHERWISE.
12. 1/2" Ø Anchor Bolts W/ Min. 7" Embedment Fach plate i Ength.	
13. NEW FDUNDATION SHALL BEAR ON ORIGINAL SO A GEDTECHNICAL ENGINEER IS RECOMMENDED FOR '	
Excavation phase. Engineer of record assume	s no responsibility for construction not
verified to be founded on anything short of	THE AFLIKEMENTILINED REQUIREMENTS.
STEEL COLUMN &	PIER FOOTING SCHEDULE
PAD FOOTING SCHEDULE	G 12" Ø PIER FTG.
A DN 30' X 30' X 10' PAD FDDTING W/ (4) #4 BARS EACH WAY (12.5k)	H 16' Ø PIER FTG.
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)	18" Ø PIER FTG.
A 3' SCH, 40 STEEL COLUMN	K 24' Ø PIER FTG.
C DN 42' X 42' X 12' PAD FODTING W/ (5) #4 BARS EACH WAY (24.5k)	
3 1/2" SCH. 40 STEEL COLUMN	JOIST SCHEDULE
D 48' X 48' X 12' PAD FODTING W/ (6) #4 BARS EACH WAY (32.0k)	2' X 10' #3 FLOOR JOIST
A 3 1/2" SCH, 40 STEEL COLUMN	
LN 54' X 54' X 14' PAD FODTING W/ (7) #4 BARS EACH WAY (40.5k)	B         2" X 10" #2 FLOOR JOIST           @ 16" D.C.
3 1/2" SCH. 40 STEEL COLUMN	·
∠F         DN 60" X 60" X 14" PAD F00TING           W/ (8) #4 BARS EACH WAY (50.0k)	
·	

R SOLID BEARING BELD LLS SHALL HAVE DOUB	IV ALL BEAMS. Le king studs at door and vindow
	id othervise. X 4's @ 16' D.C., Unless noted othervise. Y D.C. Max. & Vithin 6' – 12' of end of
ecommended for veri F record assumes no	ITH MINIMUM BEARING CAPACITY DF 1500 PSF. FICATION DF THESE CONDITIONS DURING THE RESPONSIBILITY FOR CONSTRUCTION NOT AFOREMENTIONED REQUIREMENTS.
&	PIER FOOTING SCHEDULE

9'-0" FOUNDATION WALLS

(UNLESS NOTED OTHERWISE)

ON 16" X 8" STRIP FOOTINGS

(STEP WHERE GRADE REQUIRES)

2" X 10" FLOOR SYSTEM

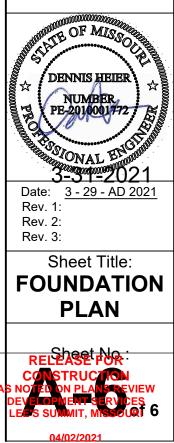
FOUNDATION

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

		V V V V V V V V V V V V V V V V V V V
	the world, that he	
	gave his only	Care and effort have gone into the creation and design of this plan.
	begotten Son,	designer is not an architect or engineer and construction from these
	that whosoever	undertaken without the assistance of a construction professional, ar
SIDEN I AL DESIGN LLC	believeth in him	Because of the impossibility of any on site consultation and supervis
	should not perish,	Residential Design, LLC, and Designer assume no responsibility to including structural failures, due to any deficiencies, omissions or el
7 E: Plans@ViewpointDesign.net	but nave everlasting life"	blueprints. Also, site conditions may vary from those illustrated on the does not warrant the suitability of these plans for use on your speci-
	(John 3:16).	architect to determine the suitability of these plans for your specific

Drawing title: The OAKMONT Elevation: A Site Description: Lot 719, Eagle Creek - 16th Plat Street Address: 2362 SW Old Port Rd., Lee's Summit, Missouri General Contractor: **IQ Construction** 

P



	FASTENER SCHEDULE FOR STRUCTURAL MEMBERS		
DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION	
	ROOF		
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 <sup>1</sup> / <sub>2</sub> " 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 <sup>1</sup> / <sub>2</sub> " 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 <sup>1</sup> / <sub>2</sub> " x 0.113")	TOE NAIL	
RIM JOIST, BAND JOIST, OR BLOCKING TO SILL OR TOP PLATE (ROOF APPLICATIONS ALSO)	8d BOX (2 <sup>1</sup> / <sub>2</sub> " 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
<sup>19</sup> / <sub>32</sub> " -  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		
<sup>1</sup> / <sub>2</sub> " 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 18. INTERIOR NON-BEARING WALLS RESTING ON BASEMENT SLAB SHALL BE ISOLATED FROM ABOVE FRAMING BY A
- MINIMUM OF 3/2 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 Tr 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  $\lambda_{50}$  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
- HOOK EMBEDDED IN THE MORTAR JOINT, OR IF SHEET METAL, SHALL BE NOT LESS THAN NO. 22 U.S. GAGE BY 7/4" 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 SHALL BE SPACED NOT MORE THAN 3 FEET ON CENTER AND PLACED WITHIN 12 INCHES OF THE WALL OPENING.

#### 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

#### 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 <sup>5</sup>/<sub>8</sub>" 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 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 <sup>d</sup>					
FIRE ESCAPES	40	10					
GUARDRAILS AND HANDRAILS <sup>a</sup>	200 <sup>°</sup>	-					
GUARDRAIL IN-FILL COMPONENTS <sup>b</sup>	50 <sup>c</sup>	-					
PASSENGER VEHICLE GARAGES	50	DEPENDENT UPON SLAB CONSTRUCTION					
ROOMS OTHER THAN SLEEPING ROOM	40	10 <sup>d</sup>					
SLEEPING ROOM	30	10 <sup>d</sup>					
STAIRS	40	10 <sup>d</sup>					

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

BATHROOM, UTILITY

ROOM

BATHROOM, UTILITY

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.
- 2. ROUGH-IN TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM PER 100 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								
FANLLOGATION	AIR FLOW RATE	MINIMUM EFFICACY	AIR FLOW RATE						
FAN LOCATION	MINIMUM (CFM)	(CFM/WATT)	MAXIMUM (CFM)						
RANGE HOODS	ANY	2.8	ANY						
IN-LINE FAN	ANY	2.8	ANY						

1.4

2.8

10

90

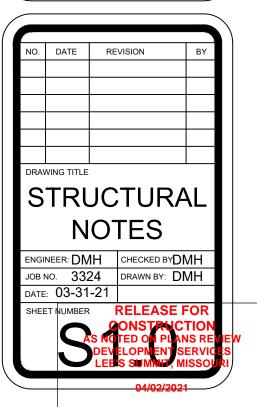
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ANY









#### RESIDENTIAL SEISMIC & WIND ANALYSIS

	RESIDENTIAL SEISINIC & WIND ANALTSIS							
DETERMINE WEIGHT	OF HOUSE:						CALCULATED VALUE	
LOCATION					DEAD LOAD (psf)	AREA (ft <sup>2</sup> )	WEIGHT (lbs.)	
ROOF				10	1881	18810		
CEILING					10	1661	16610	
SECOND FLOOR					10	1221	12210	
FIRST FLOOR	RST FLOOR					1661	16610	
	WALL LENGTH (ft)					WALL UNIT WT. (psf)	WEIGHT (lbs)	
SECOND FLOOR EXT	. WALL DL			169.34	8	8	10837.76	
FIRST FLOOR EXT. W	ALL DL			193.34		10	19334	
					DEAD LOAD (psf)	AREA (ft2)	WEIGHT (lbs)	
SECOND FLOOR INT.					6	1221	7326	
FIRST FLOOR INT. PA	RTITION WALL DL				6	1661	9966	
	PRO	DJECTED AREAS (WIND	DESIGN PER 115 MPH	3-SECOND GUST, EXPOS	URE C AND MEAN ROOF HEIGHT <= 30	0 FT ASSUMED)		
	FRONT	-TO-BACK			SIDE-TO-SIDE			
	AREA	LOAD			AREA	LOAD		
SLOPED ROOF	270	2272		SLOPED ROOF	208	1770		
VERT. ROOF	25	307	CUMULATIVE	VERT. ROOF	14	174	CUMULATIVE	
2ND	373.5	4681	7260	2ND	388.53	4851	6795	
1ST	566.5	6963	14223	1ST	496.87	6177	12972	
			PRESSURE (PSI	F) - 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	ZONE D	7.7	9.034	
	MEAN ROOF HT., h		24					

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<sub>z10</sub>=0.00256K<sub>z</sub>K<sub>zt</sub>K<sub>d</sub>V<sup>2</sup> (ASCE7-10 Velocity Pressure)  $q_{z10\_ASD}$ =0.6 $q_{z10}$  (Design Velocity Pressure for ASD analysis under ASCE7-10 and IRC/IBC 2012)

$      ^{2ND FLOOR TRIBUTARY WEIGHT                                    $	I ASCE7 SEISMIC MAP)			40838.88 75460.76 12.0% 1.6 0.128 6.5	
		SEISMIC SHEAR			
LOCATION 2ND FLOOR 1ST FLOOR		Fron	n ASCE7 (Eq. 12.8-1):	V (= 1.2 * S <sub>DS</sub> * V 965 1783	,, ,
Sheathing Location	Min. Sheathing Schedule	Fastening Schedule	Allowa	ole Shear (#/LF)	Code Re
Exterior <u>(Option #1)</u>	7/16" APA Reted Plywood/OSB	1-1/2" 16gs. Staples w/ 1" penetration@ 6" OC Edges, 6" OC Field For 24" stud spacing, 12" OC Field For 16" stud spacing	·	155	per IBC, 2306.3(1
Exterior <u>(Option #2)</u>	7/16" APA Rated Plywood/OSB	1-1/2* 16ga. Staples w/ 1" penetration@ 4* OC Edges, 6" OC Field For 24" stud specing, 12" OC Field For 16" stud specing		230	per IBC, 2308.3(1
Exterior <u>(Option #3)</u>	7/16" APA Rated Plywood/OSB	1-1/2* 16gs. Staples w/ 1° penetration@ 3* OC Edges, 6" OC Field For 24" stud spacing, 12" OC Field For 16" stud spacing		310	per IBC, 2308.3(1
Exterior (Option #4)	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 S Table 4.3

		anodannig		
Exterior <u>(<i>Option #5)</i></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 @ 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 SDPWS Table 4.3A
Exterior <u>(<b>Option #6)</b></u>	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 panel edge	8d Common Nails w/ 1-3/8" penetration @ 3" O.C. Edges, 12" O.C. Field	410	AF&PA SDPWS Table 4.3A
Interior	1/2" Gypsum Board	No. 6- 1 <sup>1</sup> / <sub>4</sub> " 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 manufacturer specifications - see detail on sheet S3)	325	

Code Reference per IBC, Table 2308.3(1)

per IBC, Table 2308.3(1)

AF&PA SDPWS

Table 4.3A

TERIOR SHEATHING OPTION FOR SECOND FLOOR	4
EXTERIOR SHEATHING OPTION FOR FIRST FLOOR	5
EXTERIOR SHEATHING OPTION FOR BASEMENT WALLS	4)

EXTERIOR STRUCTURAL WALL LENGTHS (ff.) & RESISTANCES									
	SEISMIC					WIND			
	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)	
2ND FLOOR	60	16800	48	13440	60	23520	48	18816	
1ST FLOOR	85	32300	33	12540	85	45220	33	17556	
		ADDITIONAL RESIS	TANCE REQUIRED		Anchor Bolt Spacing (in.)		16d Nail Spacing req'd at bottom plate (in.)		
		SEISMIC	WIND		diameter (in.)	0.5	2nd Floor F-B	34	
2ND FLOOR FRONT-T	O-BACK	0	0		Shear value (per NDS)	944	2nd Floor S-S	41	
2ND FLOOR SIDE-TO-	SIDE	0	0		Spacing F-B (inches)	115.1	1st Floor F-B	17	
1ST FLOOR FRONT-T	O-BACK	0	0		spacing S-S (inches)	143.9	1st Floor S-S	21	
1ST FLOOR SIDE-TO-	SIDE	0	0						

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?
2ND FLOOR FRONT-TO-BACK	0					0	YES
2ND FLOOR SIDE-TO-SIDE	0					0	YES
1ST FLOOR FRONT-TO-BACK	0					0	YES
1ST ELOOD SIDE TO SIDE	0		10			0	VES

2) SEE SHEET S1 FOR INTERIOR STEEL X-BRACE INSTALLATION, 3) INTERIOR WALLS SHEATHED WITH OSB SHALL BE ATTACHED WITH SAME STAPLE/NAILING

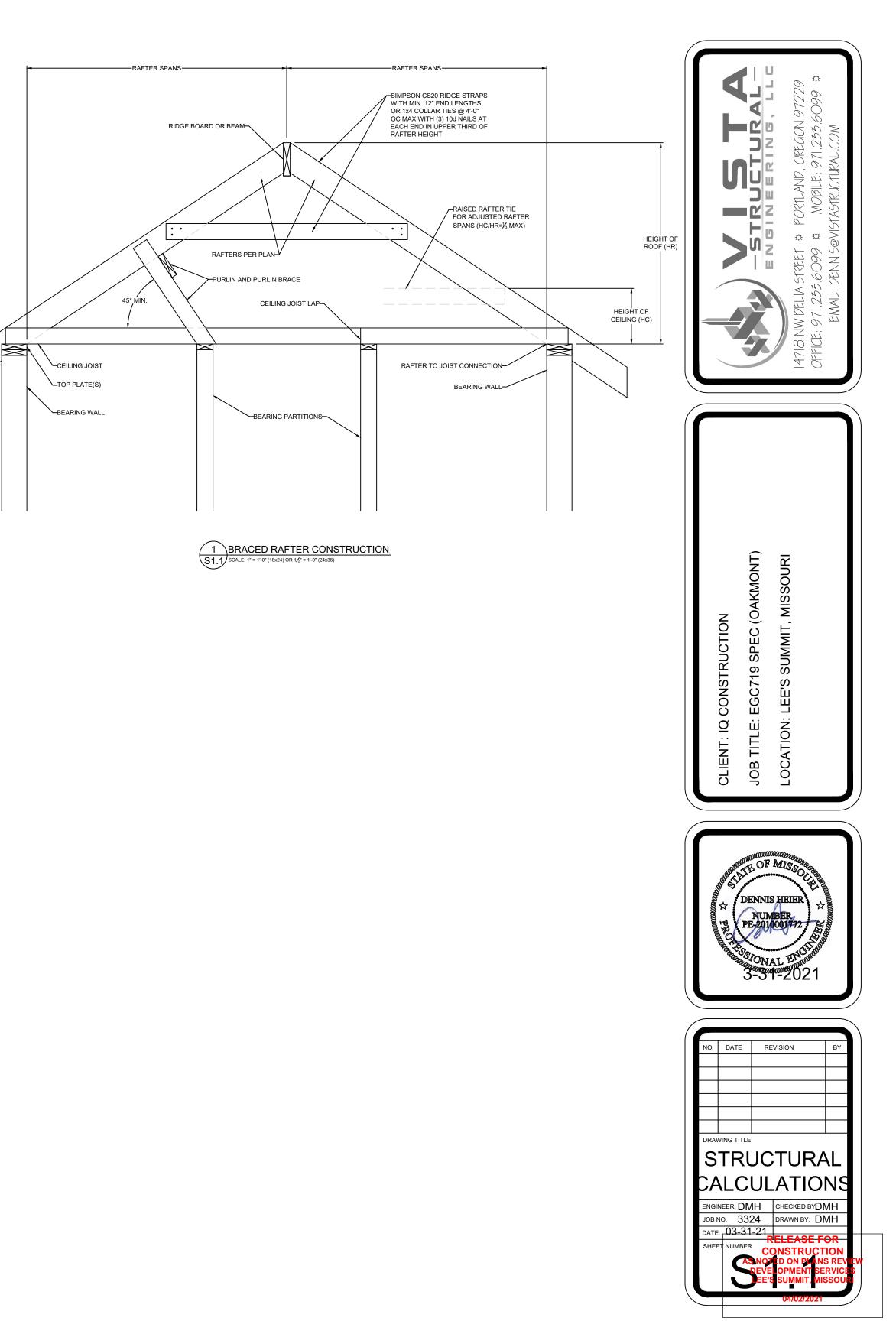
PATTERN AS EXTERIOR OSD ON SAME FLOOR (SEE TABLE ABOVE) AND ARE ONLY APPLICABLE FOR FULL-HEIGHT SECTIONS OF 2-8" OR LONGER ALL LATERAL BRACING ACHIEVED AT EXTERIOR WALLS AND WALLS DIRECTLY ON FOUNDATIONS; THEREFORE, NO INTERIOR BRACING PER 2012 IRC SECTION R502.2.1 IS REQUIRE

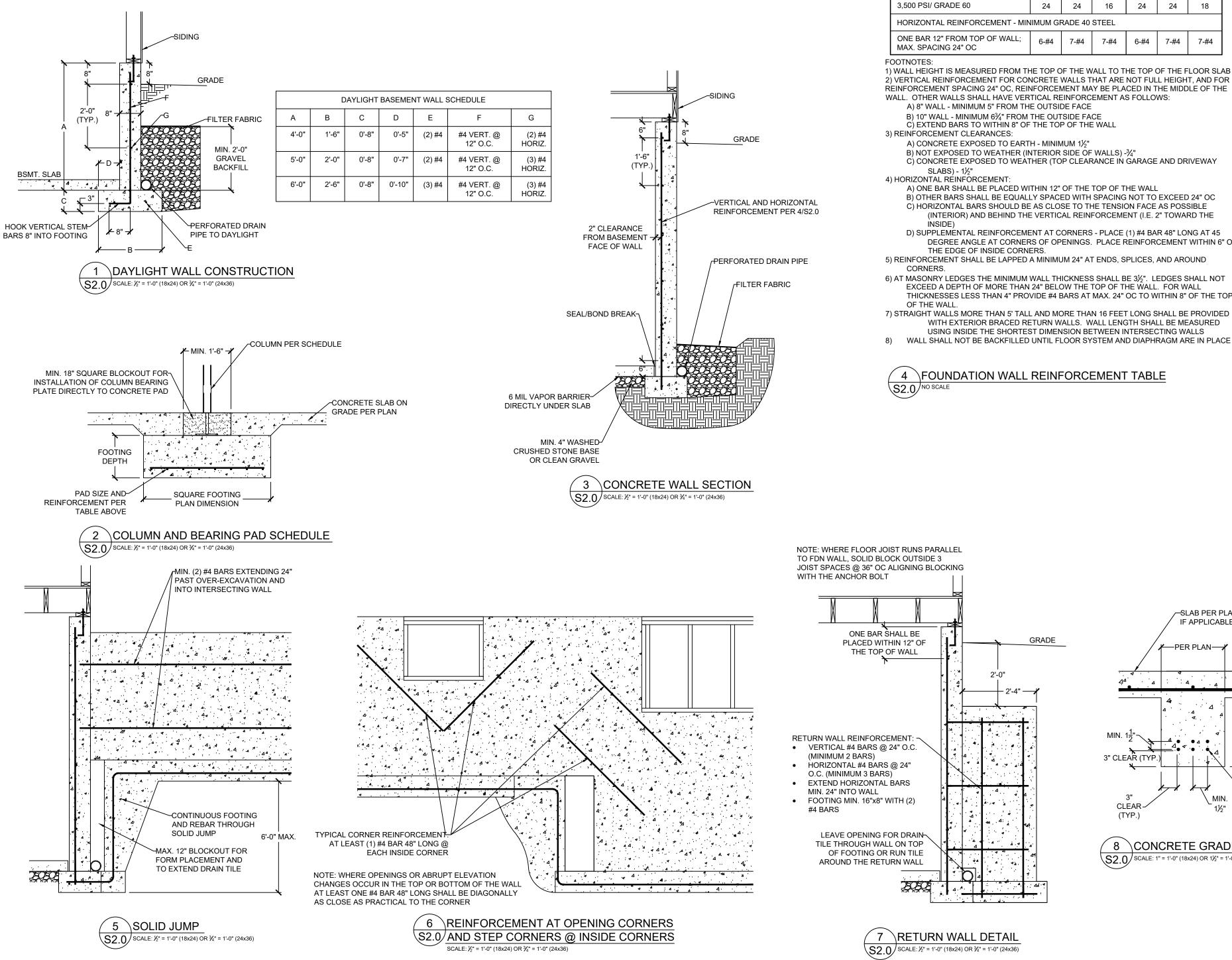
	WIND UPLIFT ANALYSIS							
	X/12	DEGREES			· · ·			
ROOF PITCH (MAX)	8	33.7	PITCH OF 6 OR LESS:	EOH -13.3, E -7.2, G -5.2				
ASCE 7								
	LENGTH (FT.)	PRESSURE (PSF)	LINEAL FT. OF OH	UPLIFT PER FT* (LBS)				
OVERHANG	1	-1.08	195.34	-1.08				
	TOTAL AREA (FT <sup>2</sup> )	ZONE E AREA (FT <sup>2</sup> )	ZONE G AREA (FT <sup>2</sup> )	PRESSURE ZN. E (PSF)	PRESSURE ZN. G (PSF)	TOTAL FORCE (LBS)	FORCE PER LINEAL FT @ PERIMETER (LBS)	
MAIN ROOF**	2326.255	1203.364936	1122.890064	-1.08	-0.36	-1704	-8.8	
*ALONG PERIMETER TOTAL UPLIFT PER LINEAL FOOT ALONG EXTERIOR (POUNDS)		-9.9	UPLIFT OK					
**INSIDE EXTERIOR V	VALLS	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	8" THICK WALL		10" THICK WALL			
REINFORCEMENT (#4 BARS)	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

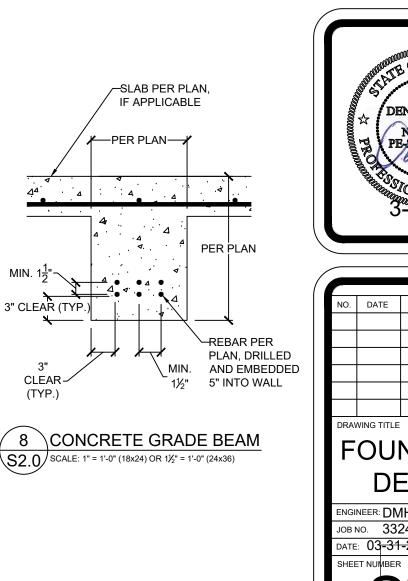
- B) OTHER BARS SHALL BE EQUALLY SPACED WITH SPACING NOT TO EXCEED 24" OC C) HORIZONTAL BARS SHOULD BE AS CLOSE TO THE TENSION FACE AS POSSIBLE (INTERIOR) AND BEHIND THE VERTICAL REINFORCEMENT (I.E. 2" TOWARD THE
- D) SUPPLEMENTAL REINFORCEMENT AT CORNERS PLACE (1) #4 BAR 48" LONG AT 45 DEGREE ANGLE AT CORNERS OF OPENINGS. PLACE REINFORCEMENT WITHIN 6" OF

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

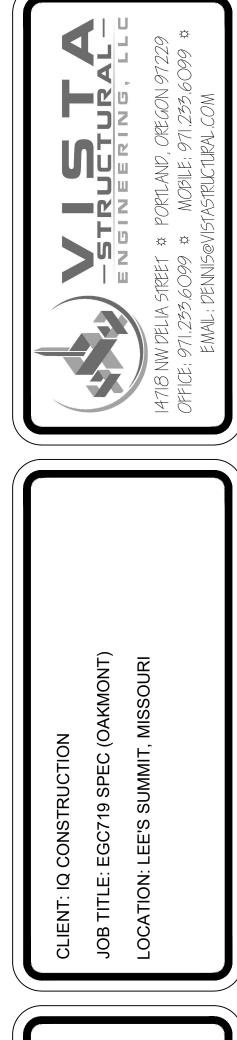
6) AT MASONRY LEDGES THE MINIMUM WALL THICKNESS SHALL BE 31/2". LEDGES SHALL NOT EXCEED A DEPTH OF MORE THAN 24" BELOW THE TOP OF THE WALL. FOR WALL THICKNESSES LESS THAN 4" PROVIDE #4 BARS AT MAX. 24" OC TO WITHIN 8" OF THE TOP

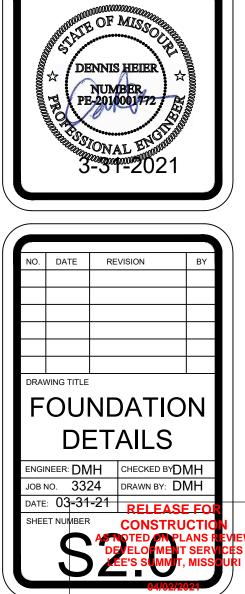
- WITH EXTERIOR BRACED RETURN WALLS. WALL LENGTH SHALL BE MEASURED USING INSIDE THE SHORTEST DIMENSION BETWEEN INTERSECTING WALLS
- 8) WALL SHALL NOT BE BACKFILLED UNTIL FLOOR SYSTEM AND DIAPHRAGM ARE IN PLACE

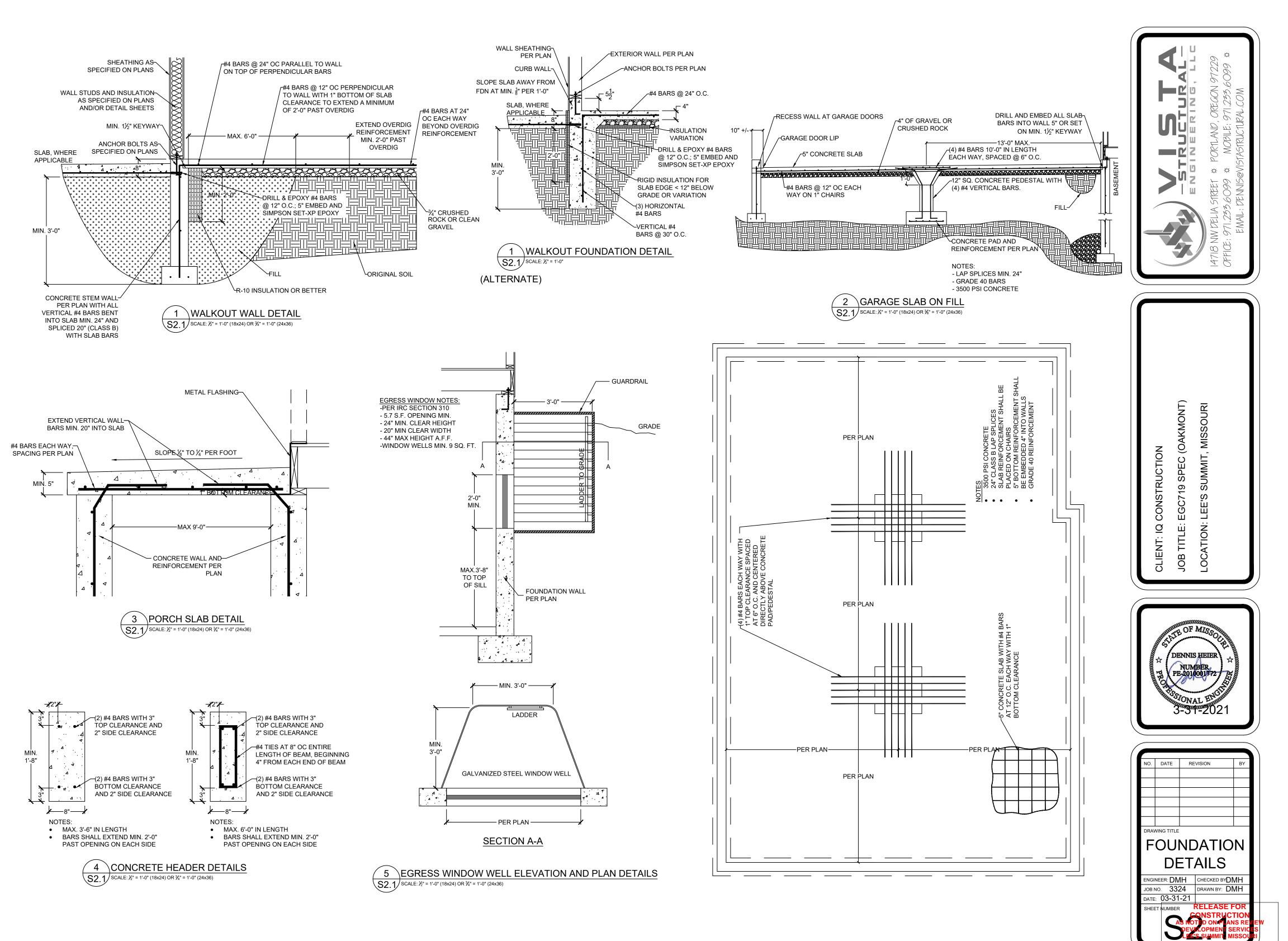
FOUNDATION WALL REINFORCEMENT TABLE

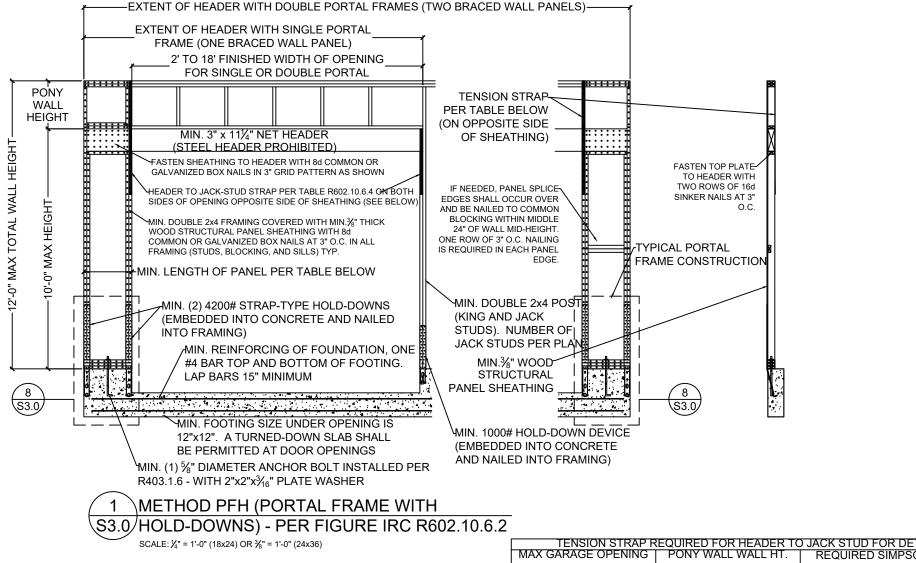


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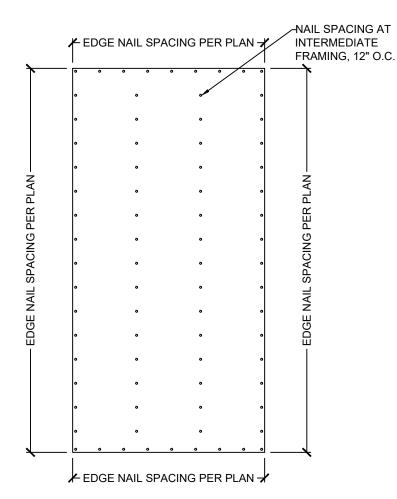




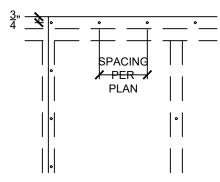


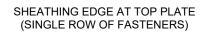
	MINIMUM PANEL LENGTH FOR DETAIL 1/S3.0 (INCHES)				
	WALL HEIGHT           8 FEET         9 FEET         10         11           8 FEET         9 FEET         FEET         FEET				
SUPPORTING ROOF ONLY	16	16	16	18	20
SUPPORTING ONE STORY AND ROOF	24	24	24	27	29

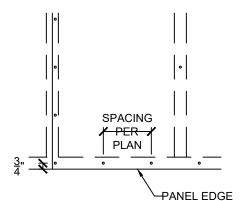
		D JACK STUD FOR DETAILS	5 1/S3.0 AN
MAX GARAGE OPENING (FT.)	PONY WALL WALL HT. (FT.)	REQUIRED SIMPSON STRAP	MIN. STR.
18'-0"	0'-0"	CS20	
9'-0"	1'-0"	CS20	
18'-0"	1'-0"	CS14	
9'-0"	2'-0"	CS18	
18'-0"	2'-0"	CMSTC16	
9'-0"	4'-0"	CMSTC16	
16'-0"	4'-0"	CMST14	





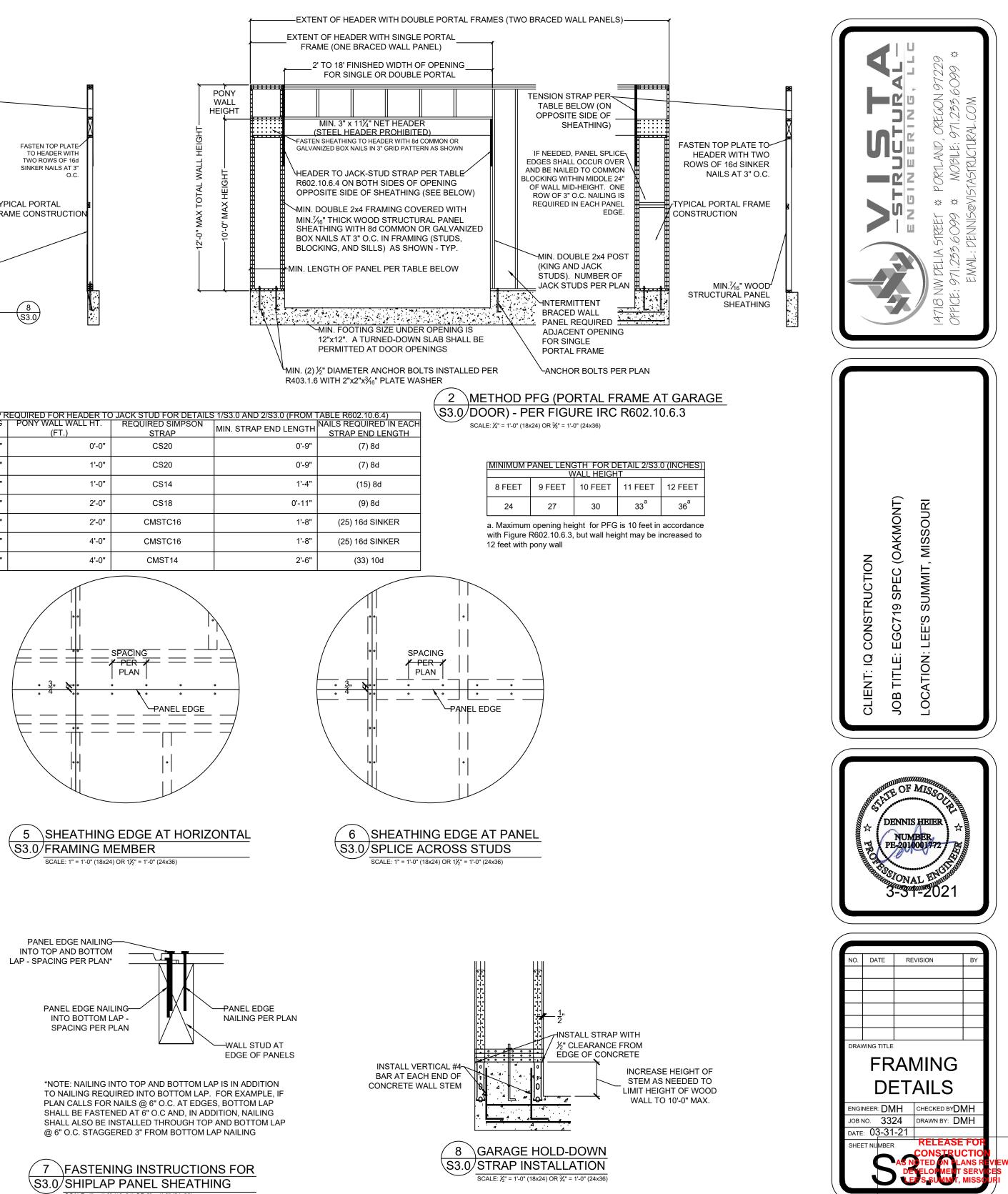


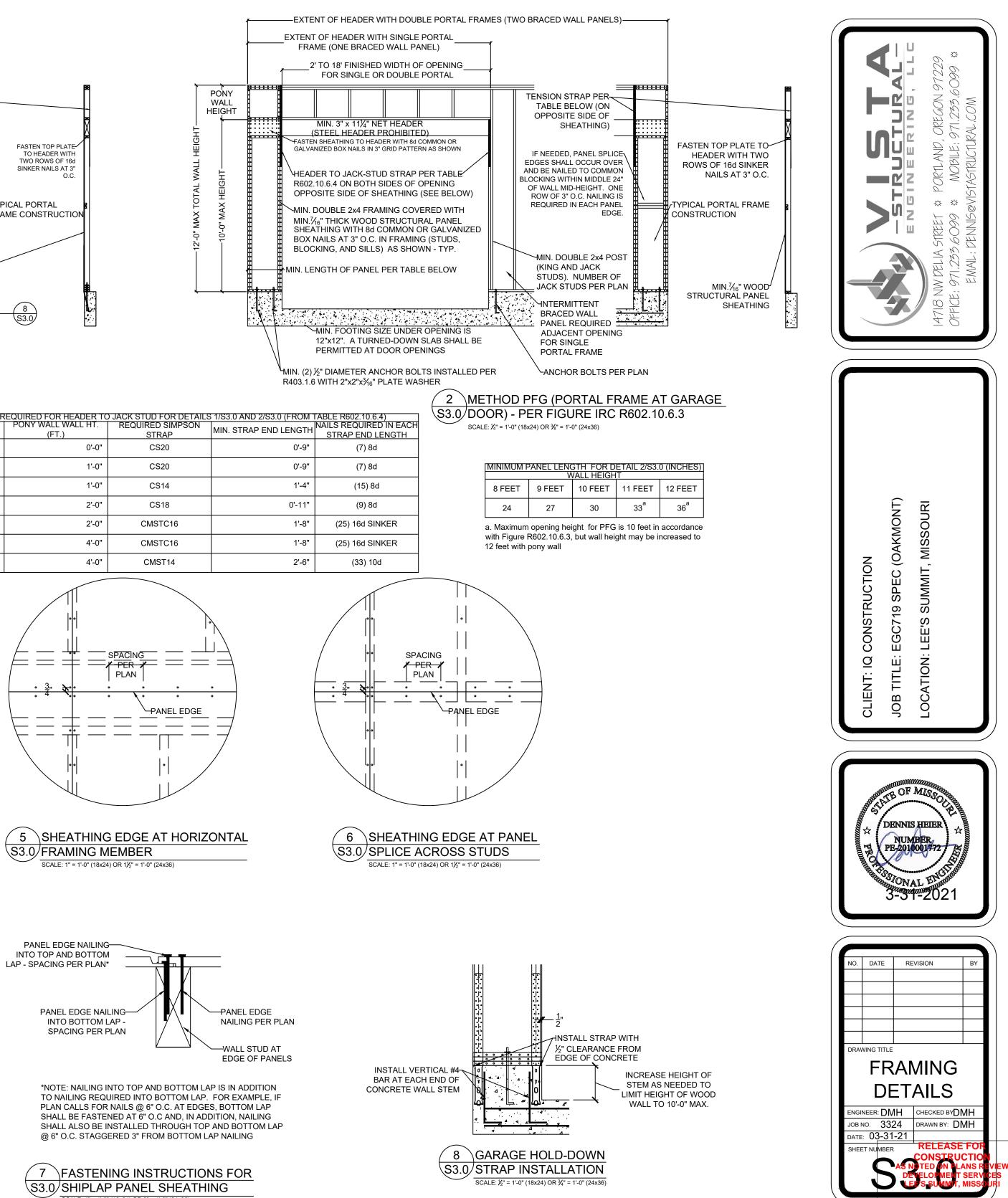


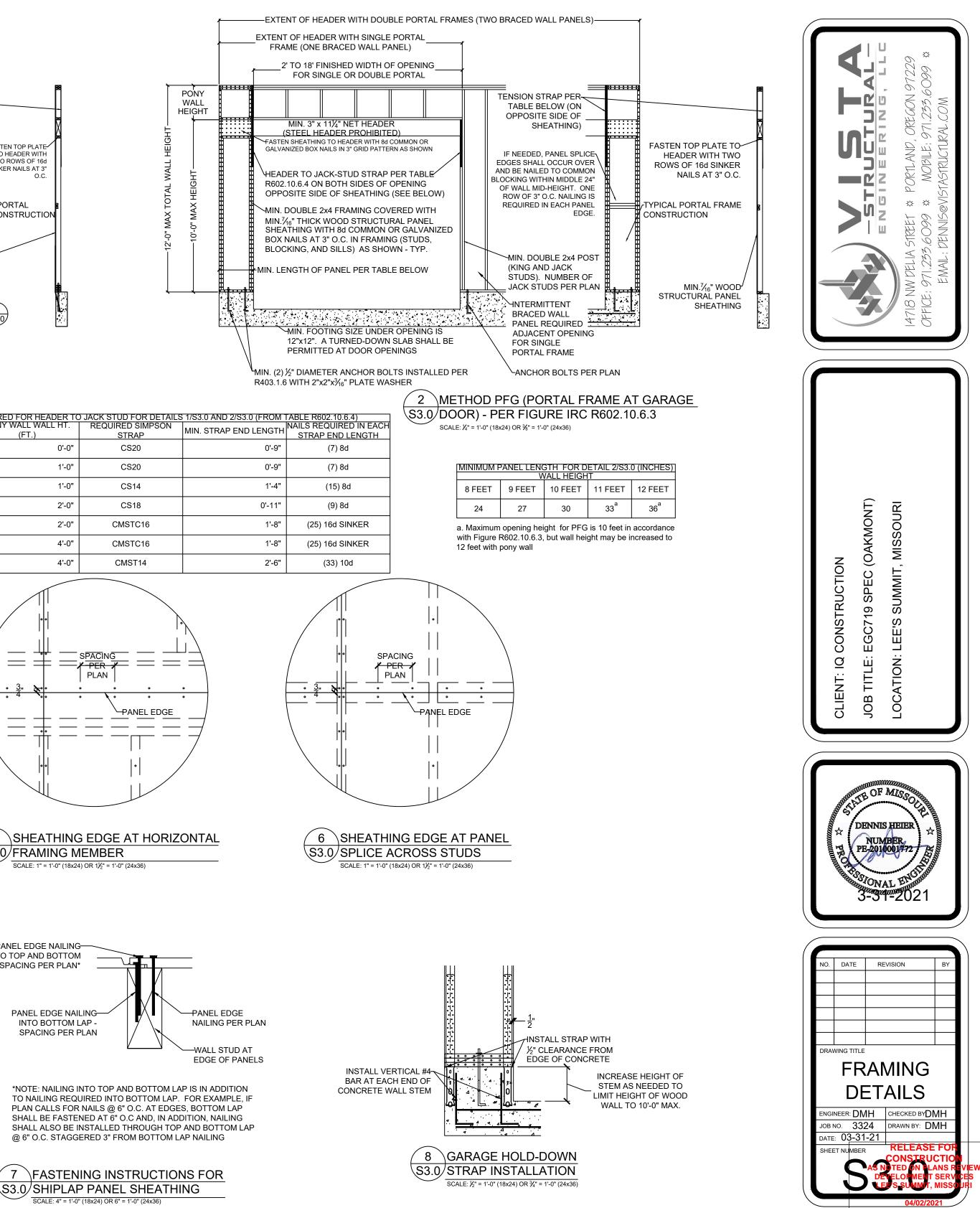


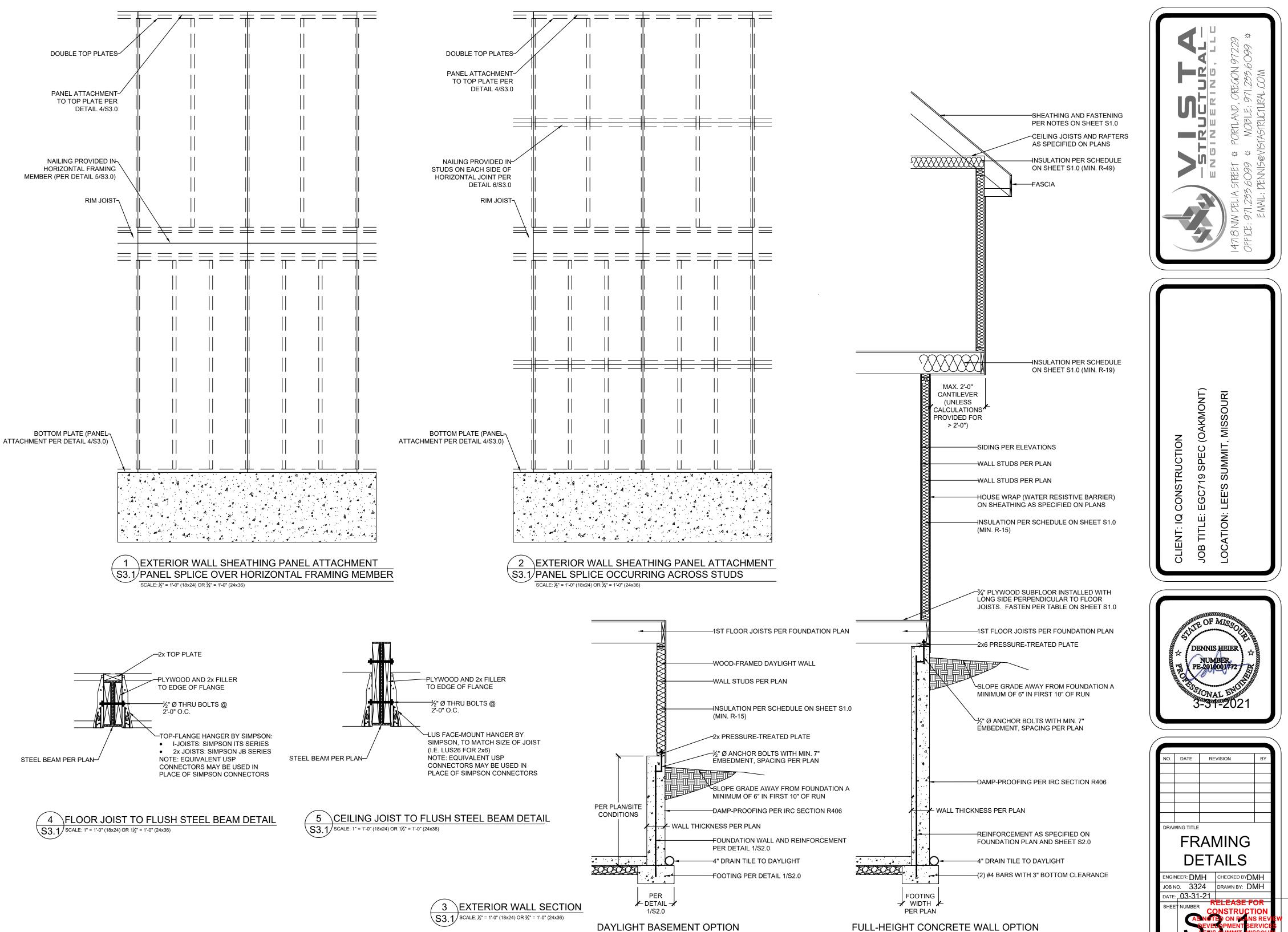
SHEATHING EDGE AT BOTTOM PLATE (SINGLE ROW OF FASTENERS)

SHEATHING EDGE AT TOP 4 S3.0/AND BOTTOM PLATES SCALE: 1" = 1'-0" (18x24) OR 1<sup>1</sup>/<sub>2</sub>" = 1'-0" (24x36)

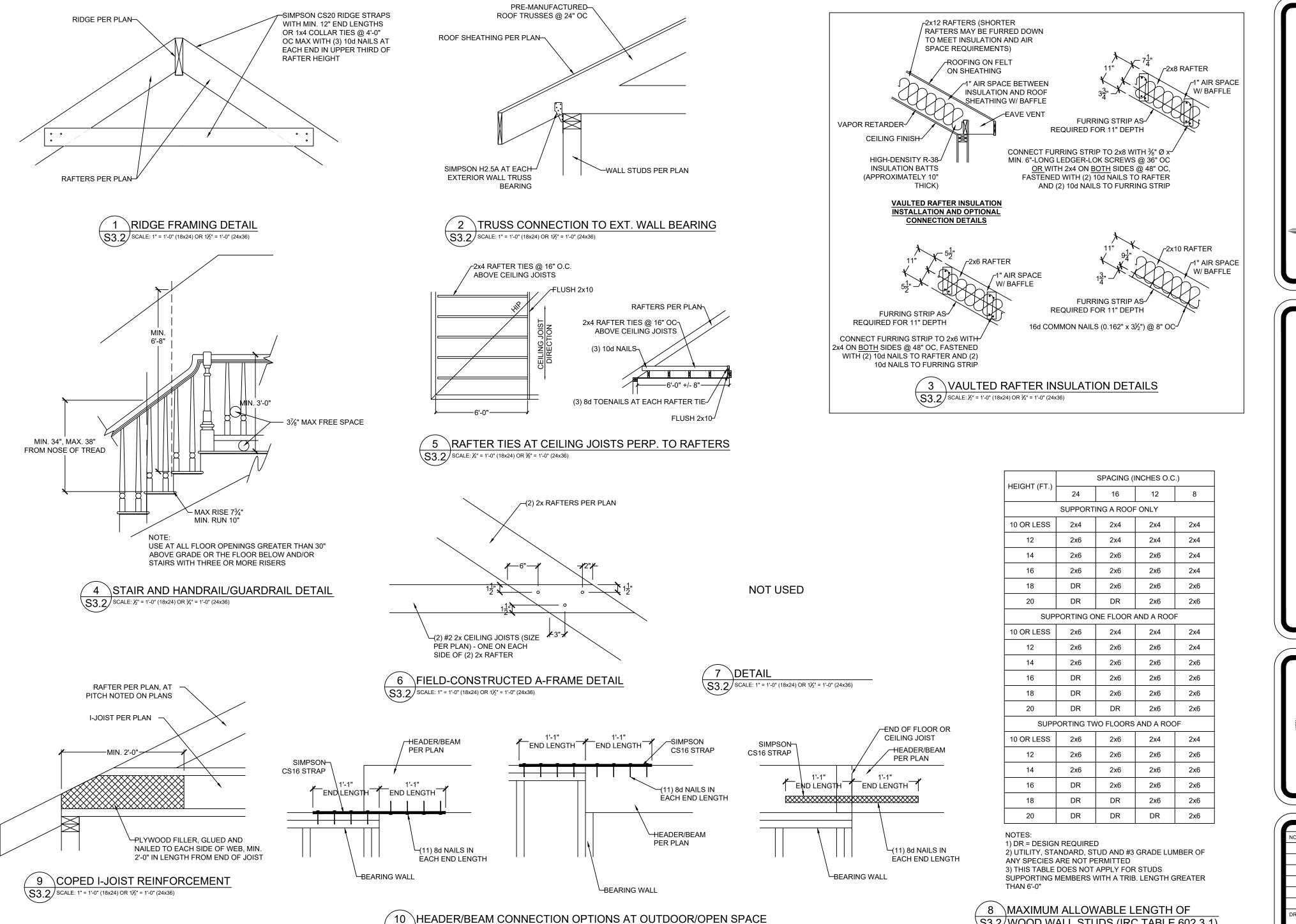




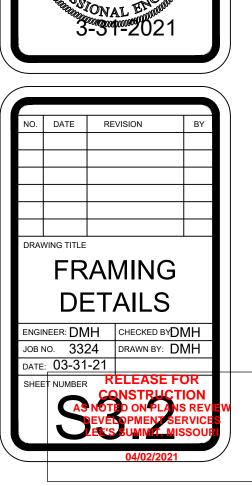




FULL-HEIGHT CONCRETE WALL OPTION



SG1.2 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)



JZ

SPEC (OAKMONT)

EGC719

TITLE:

JOB

TE OF MISE

DENNIS HEIER

NUMBER

PE-2010001472

CLIENT: IQ CONSTRUCTION

LEE'S SUMMIT, MISSOURI

LOCATION:

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# S3.2/WOOD WALL STUDS (IRC TABLE 602.3.1)

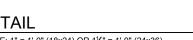
NOTES:
1) DR = DESIGN REQUIRED
2) UTILITY, STANDARD, STUD AND #3 GRADE LUMBER OF
ANY SPECIES ARE NOT PERMITTED

18	DR	DR	2x6	2x6
20	DR	DR	DR	2x6
NOTES: 1) DR = DESIGN			GRADELU	

N	ΩТ	E	S.	

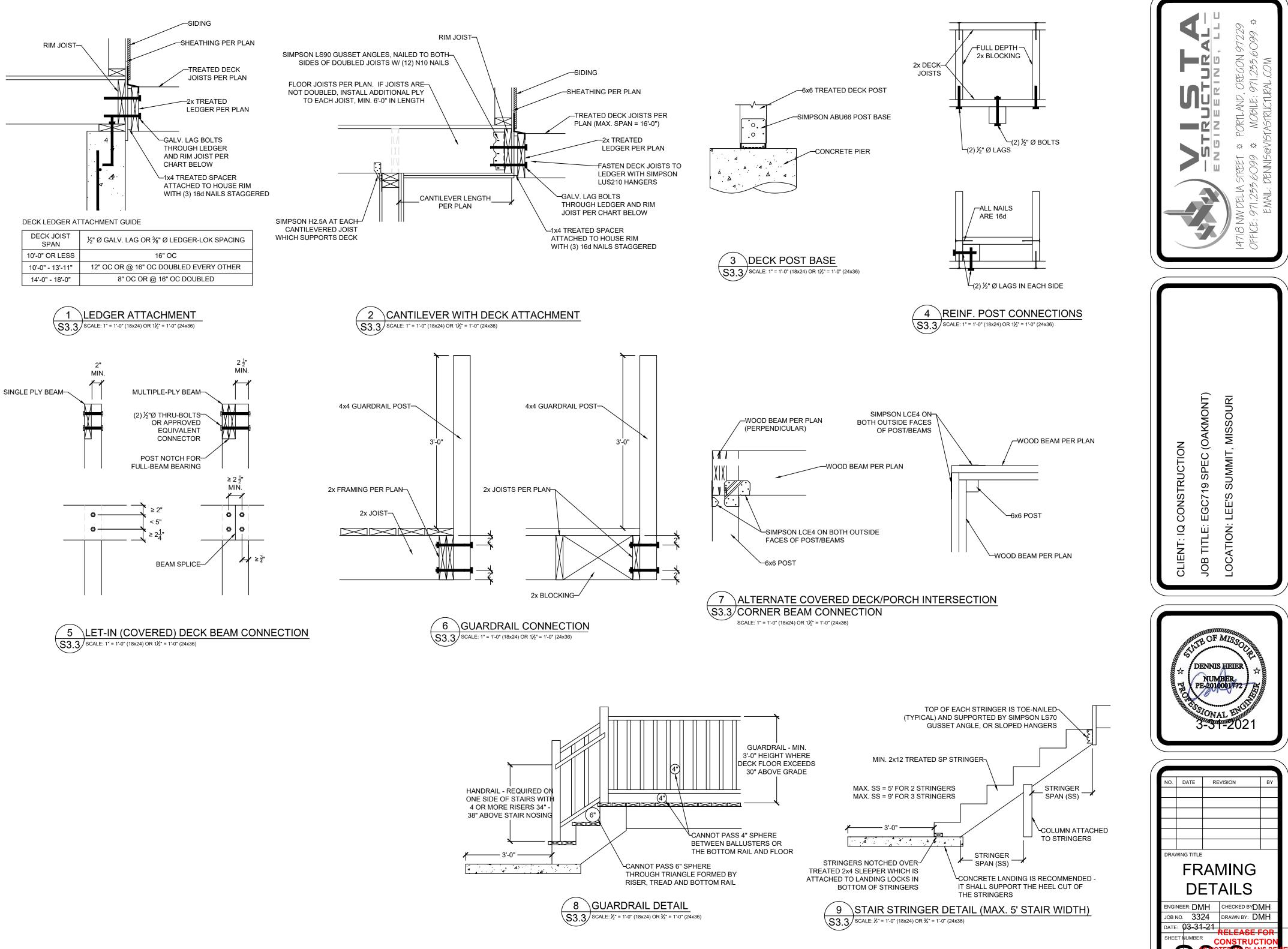
20	DR	DR	2x6	2x6			
SUPPORTING TWO FLOORS AND A ROOF							
10 OR LESS	2x6	2x6	2x4	2x4			
12	2x6	2x6	2x6	2x6			
14	2x6	2x6	2x6	2x6			
16	DR	2x6	2x6	2x6			
18	DR	DR	2x6	2x6			
20	DR	DR	DR	2x6			

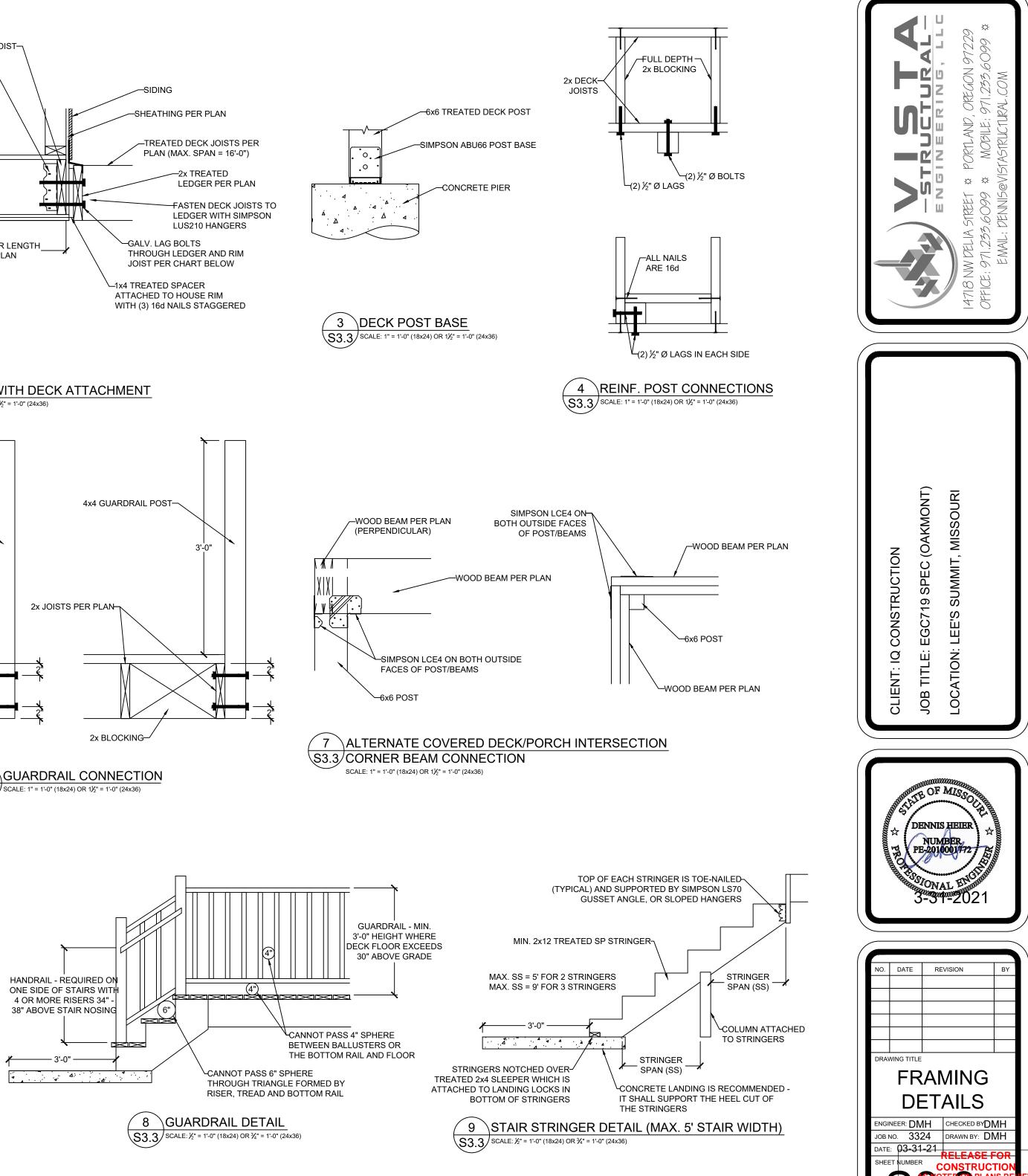




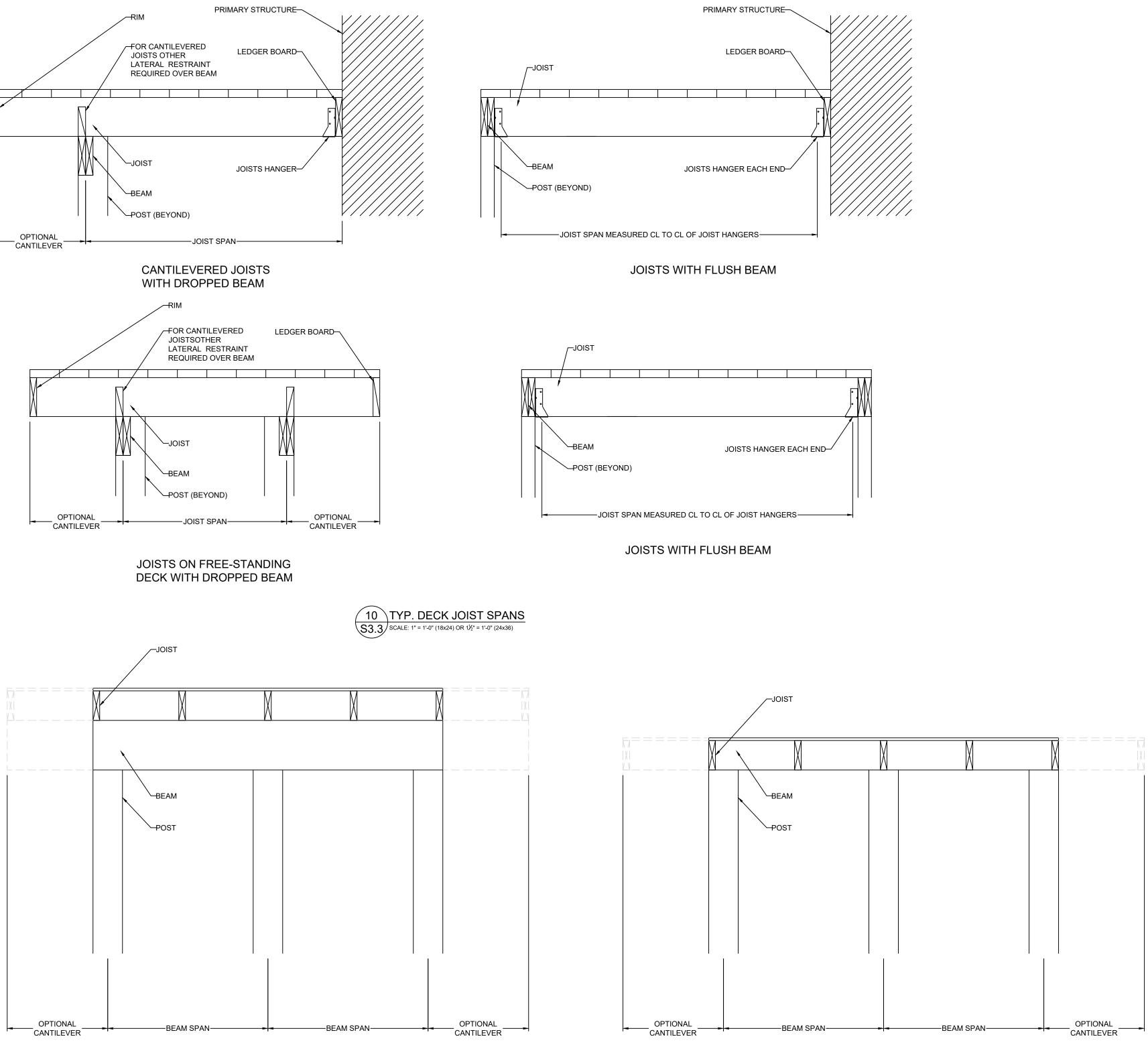
SUPPORTING A ROOF ONLY				
10 OR LESS	2x4	2x4	2x4	2x4
12	2x6	2x4	2x4	2x4
14	2x6	2x6	2x6	2x4
16	2x6	2x6	2x6	2x4
18	DR	2x6	2x6	2x6
20	DR	DR	2x6	2x6
SUP	PORTING O	NE FLOOR /	AND A ROO	F
10 OR LESS	2x6	2x4	2x4	2x4
12	2x6	2x6	2x6	2x4
14	2x6	2x6	2x6	2x6
16	DR	2x6	2x6	2x6
18	DR	2x6	2x6	2x6
20	DR	DR	2x6	2x6
SUPF	PORTING TV	VO FLOORS	AND A ROC	)F
10 OR LESS	2x6	2x6	2x4	2x4
12	2x6	2x6	2x6	2x6
14	2x6	2x6	2x6	2x6

	24	16	12	8		
SUPPORTING A ROOF ONLY						
10 OR LESS	2x4	2x4	2x4	2x4		
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		





### DROPPED BEAM



☆ 7229 90 ± 9 ט שו Í ON 90 112 112 Ê  $\neq$ יין ב PORTL.  $\geq$ U ¢ ¢ JOB TITLE: EGC719 SPEC (OAKMONT) LOCATION: LEE'S SUMMIT, MISSOURI CLIENT: IQ CONSTRUCTION JE OF MISS DENNIS HEIER NUMBER PE-2010001472 PE-YONAL EN 3-3-2021 DATE REVISION ΒY RAWING TITLE FRAMING DETAILS 
 ENGINEER:
 DMH
 CHECKED BYDMH

 JOB NO.
 3324
 DRAWN BY:
 DMH

 DATE:
 03-31-21
 RELEASE FOR
 HEET NUMBER

