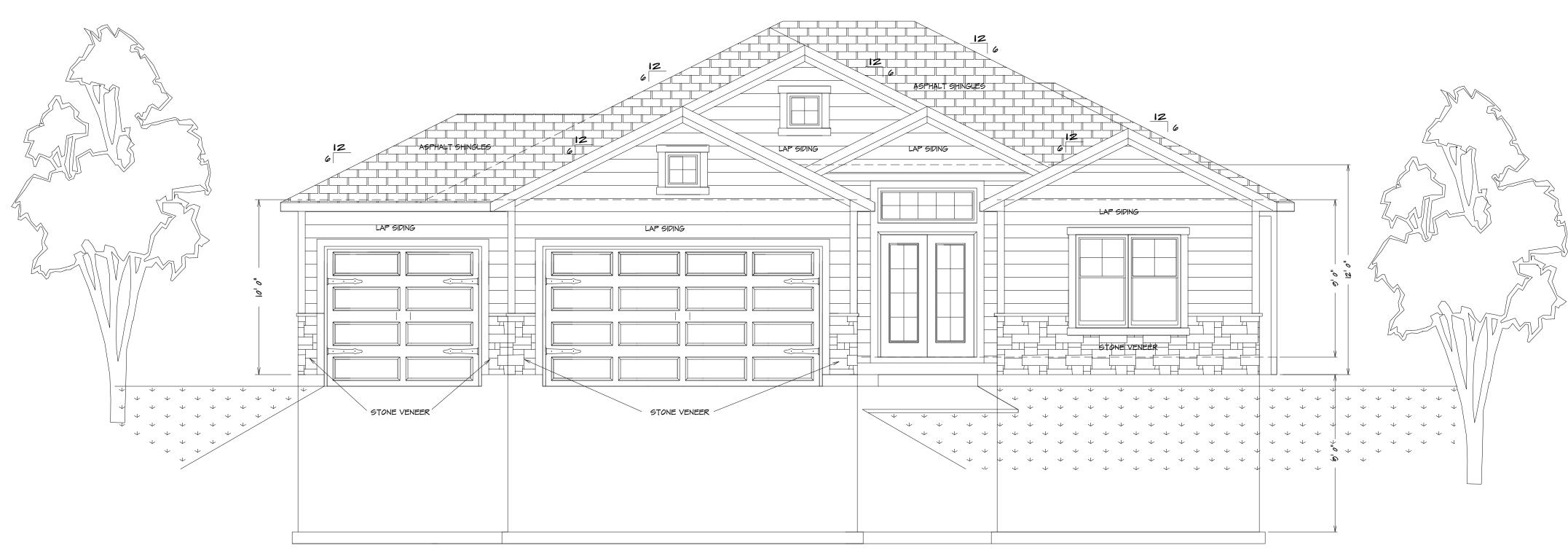




Quality By Design



BUILDER/CONTRACTOR IS RESPONSIBLE TO
CHECK ALL DIMENSIONS FOR ACCURACY
BETWEEN FLOORS, FOUNDATION, AND ELEVATIONS.
ALSO VERIFY ALL BEAM, HEADERS, PAD LOCATIONS,
AND COLUMN SIZES.

LEFT ELEVATION

1/8" = 1'0"

ALL NOTES, SECTIONS, AND DRAWINGS ARE IN ACCORDANCE WITH THE 2018 IRC

FRONT ELEVATION

1/4" = 1'0"

NOTE:

ACTUAL ELEVATIONS MAY VARY FROM ARCHITECTURAL

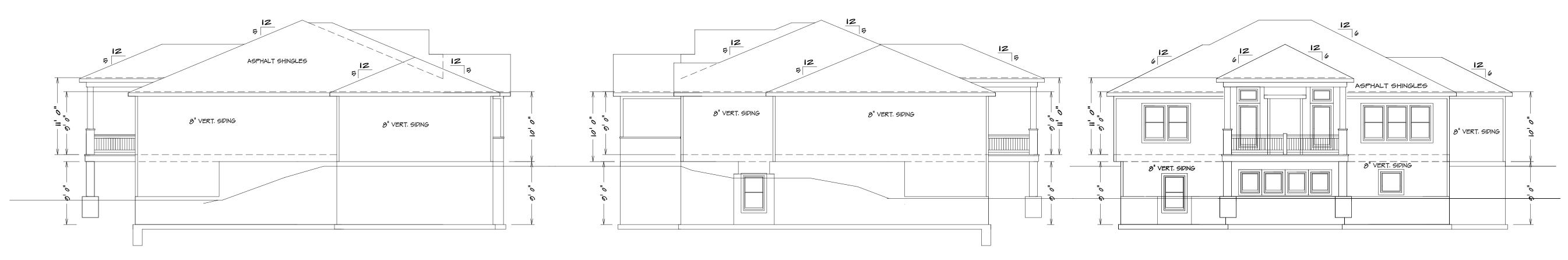
DRAWINGS, DUE TO TERRAIN/BACKFILL PROCESS

MAY VARY DUE TO MATERIALS AVAILABILITY

FRONT ELEVATION IS ARCHITECTURAL DRAWING AND

1821 SW SAGE LEES SUMMIT MO LOT 160

THE "CYPRESS"



RIGHT ELEVATION

1/8" = 1'0"

AARON DELANDY
OBERMINER
NUMBER
PE-2008019580

REAR ELEVATION

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/24/2022

SQUARE FOOTAGE

LIVING AREA

FIRST FLOOR = 1625

BASEMENT = 1215

UNFINISHED AREA STORAGE BASEMENT = 257 GARAGE = 725 UNDER STOOP = 32 UNDER GARAGE = 672

COVERED DECK = 186

KH-6105 (LOT 160)

 JYER:
 PHONE:
 PATE DRAWN:
 PLAN NO.
 SHEET NO.

 R:
 PHONE:
 PATE REVISED:
 I
 I

 R:
 PHONE:
 PATE REVISED:
 FILE NAME:
 APPROX. SQ.FT

 ISION:
 LOT NO.
 PESIGNER:
 6105 ELEV

FOUNDATION, AND ELEVATIONS. ALSO VERIFY ALL BEAM, HEADERS,
P COLUMN SIZES. BUILDER&CONTRACTOR TO CHECK FOR
ONTRACTS, CITY, AND NATIONAL CODES. BUILDER&CONTRACTOR
ONSIBLITY FOR LOT PLACEMENT, SET-BACKS, AND FLOOD PLAINS.
OR AND HOME OWNER ACCEPTS RESPONSIBLITY FOR ANY AND ALL
MENTS OR RESEMBLANCES TO OTHER COPYRIGHTED PLANS.
OR ACCEPTS RESPONSIBLITY FOR ANY AN ON SITE CHANGES MADE

SEE ELEVATION FOR WALL HEIGHTS

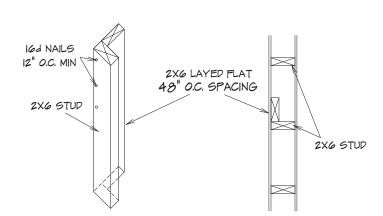
NOTE... ELECTRICAL SERVICE TO BE 200 AMP.

NOTE... DOUBLE JOIST UNDER

ALL PARALLEL WALLS

ABOVE UNLESS NOTED

S.D. = SMOKE DETECTOR



EXTERIOR TALL WALL SECTION

10' TRU 18' TALL WALLS UNINTERRUPTED TO BE CONSTRUCTED WITH 2X6 STUDS 16" O.C. WITH STIFF BACK EVERY 48" O.C.

GENERAL HEADER SPECIFICATIONS:			
REQUIRED AREAS NEEDING HEADERS:	HEADER DESCRIPTIONS:		
WINDOWS/DOORS UP TO 38" R.O.	(2) #2 D-FIR 2X10'S		
WINDOWS/DOORS 38" UP TO 72" R.O.	(2) #2 D-FIR 2X10'S W/1/2" GLUE PLY		
WINDOWS/DOORS 72" UP TO 96" R.O.	(2) 9 1/2" L.V.L.		
8'0" GARAGE DOORS W/CEILING & ROOF LOAD	(2) 9 1/2" L.V.L.		
9'0" GARAGE DOORS W/CEILING & ROOF LOAD	(2) 9 1/2" L.V.L.		
8'0" GARAGE DOORS W/SECOND FLOOR	(2) 9 1/2" L.V.L.		
9'0" GARAGE DOORS W/SECOND FLOOR	(2) 11 7/8" L.V.L.		
16'0" GARAGE DOOR W/NO SECOND FLOOR	(2) 11 7/8" L.V.L.		
16'0" GARAGE DOORS W/SECOND FLOOR	(2) 14" L.V.L.		

R312.2.1 Window sills.

In dwelling units, where the opening of an operable window is located more than 72 inches (1820 mm) above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches (610 mm) above the fininshed floor of the room in which the window is located. Operable sections of windows shall not permit openings that allow passage of a 4-inch-diameter (102 mm) sphere where such openings are located within 24 inches (610 mm) of the finished floor.

Exception

- I. Windows whose openings will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening when the opening is in its largest opened position.
- Openings that are provided with window fall prevention devices that comply with ASTM F 2090.
 Windows that are provided with window opening control devices that
- 3. Windows that are provided with window opening control devices that comply with Section R312.2.2.

R312.2.2 Window opening control devices.

Window opening control devices shall comply with ASTM F 2090. The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by Section R310.1.1.

Bathrooms, water closet compartments and other similar rooms shall be provided with aggregate glazing area in windows of not less than 3 square feet, one-half of which must be openable.

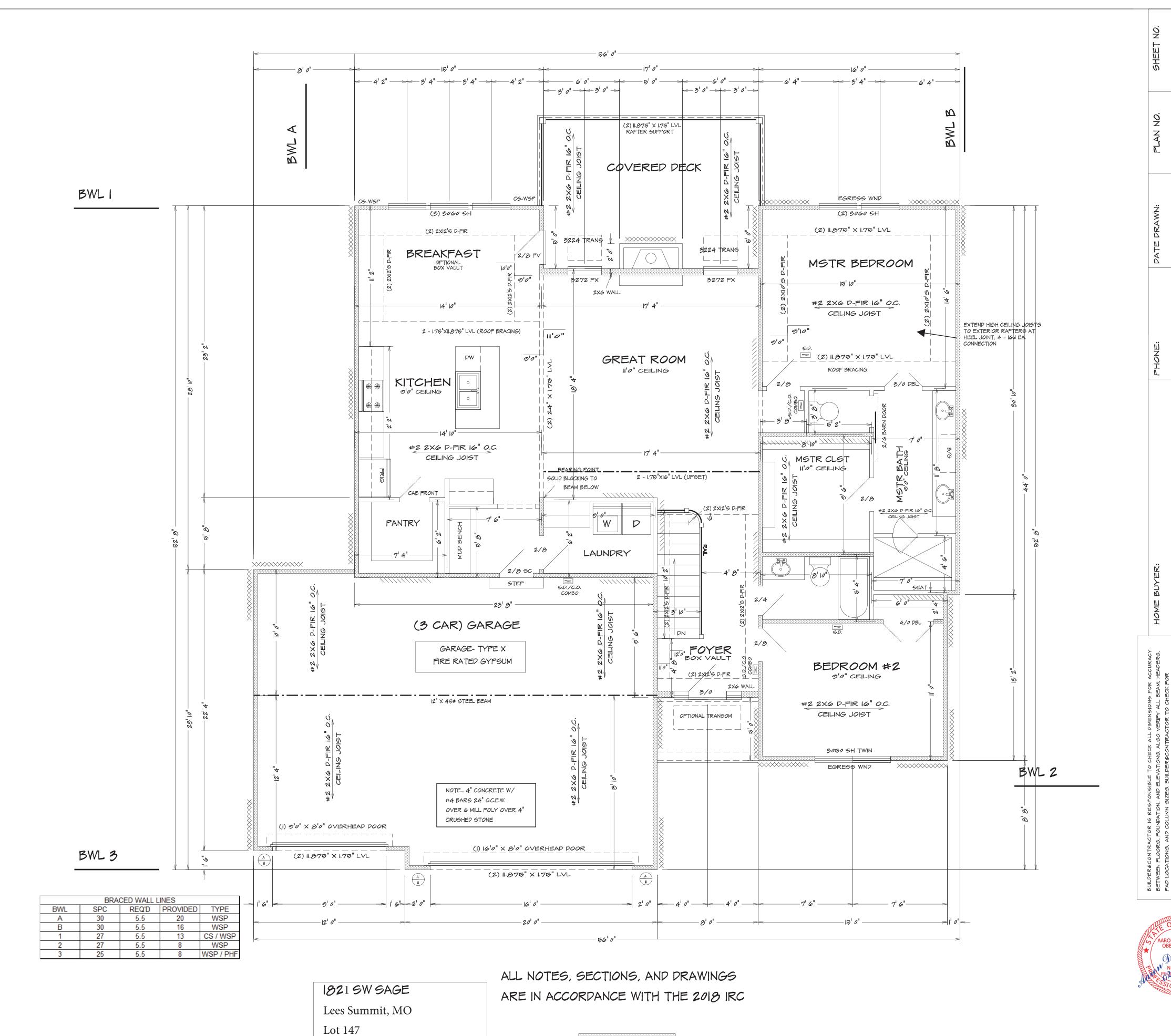
Exception:

The glazed areas shall not be required where artificial light and a local exhaust system are provided.

The minimum local exhaust rates shall be determined in

accordance with Section MI507.

Exhaust air from the space shall be exhausted directly to the outdoors.



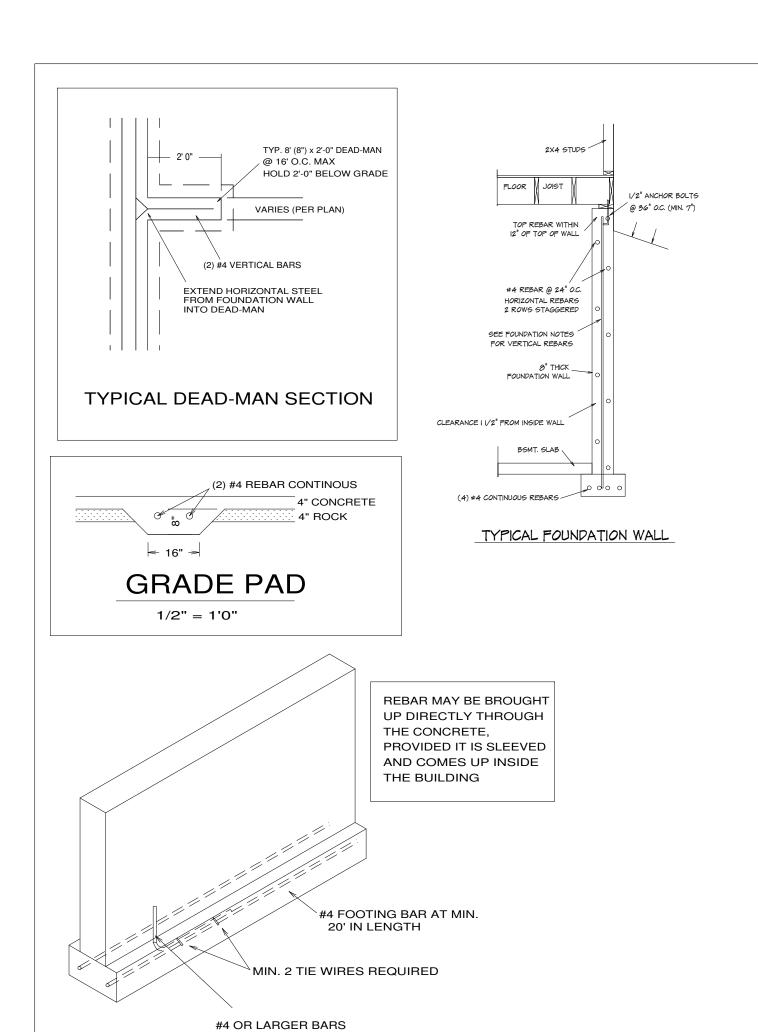
BEARING WALL

FIRST FLOOR PLAN

1/4" = 10"

KH-6105 (LOT 160)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/24/2022



1. Section 250.52 of the National Electrical Code requires that the concrete encased reinforcing steel be included in the grounding electrode system... This means that you must have "an electrode encased by at least 50 mm (2 in.) of concrete, located horizontally near the bottom or vertically, and within that portion of a concrete foundation or footing that is in direct contact with the earth, consisting of at least 6.0 m (20 ft) of one or more bare or zinc galvanized or other electrically conductive coated steel reinforcing bars or rods of not less than 13 mm (1/2 in.) in diameter, or consisting of at least 6.0 m (20 ft) of bare copper conductor not smaller than 4 AWG.

2. Reinforcing bars shall be permitted to be bonded together by the usual steel tie wires or other effective means. Where multiple concrete-encased electrodes are present at a building or structure, it shall be permissible to bond only one into the grounding electrode system." Proper lap splices are required

UFER GOUNDING SECTION

STEEL COLUMNS TO BE
3" DIAMETER SCHEDULE 40 PIPE MANUFACTURED
IN ACCORDANCE WITH ASTM A53 GRADE B OR
APPROVED EQUIVALENT UNLESS NOTED

Note...Bridging. Joists exceeding a nominal 2 inches by 12 inches shall be supported laterally by solid blocking, diagonal bridging (wood or metal), or a continuous 1-inch-by-3-inch strip nailed across the bottom of joists perpendicular to joists at intervals not exceeding 8 feet.

porportational to jointo at into	i vaio riot	OXOCCAII	19 0 100t.		
(R502.7.1)					
				•	
	REQUIRED FOOTING:				
SEE ELEVATION FOR WALL HEIGHTS	BUILDING HEIGHT	MINIMUM FOOTING	HORIZONTAL REBAR	LOCAT	
WALL HEIGHTS	1 OR 2 STY.	8"T x 16"W	2-#4	3" FRON	

3 STORY 8"T × 24"W 2-#4 3" FROM BTM.

ACC. STR. 8"T x 12"W 2-#4 3" FROM BTM.

FOOTING FOR 12" THICK WALL TO BE DESIGNED BY OTHERS

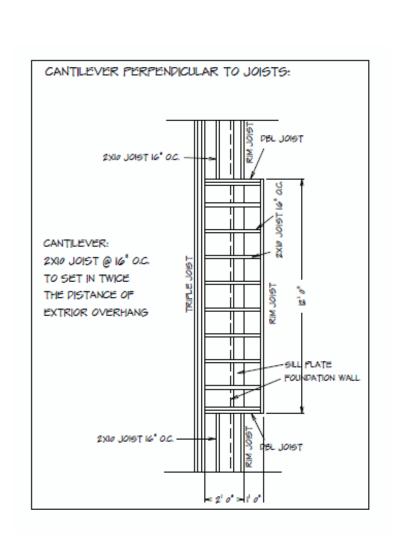
NOTE... DOUBLE JOIST UNDER ALL PARALLEL WALLS ABOVE UNLESS NOTED

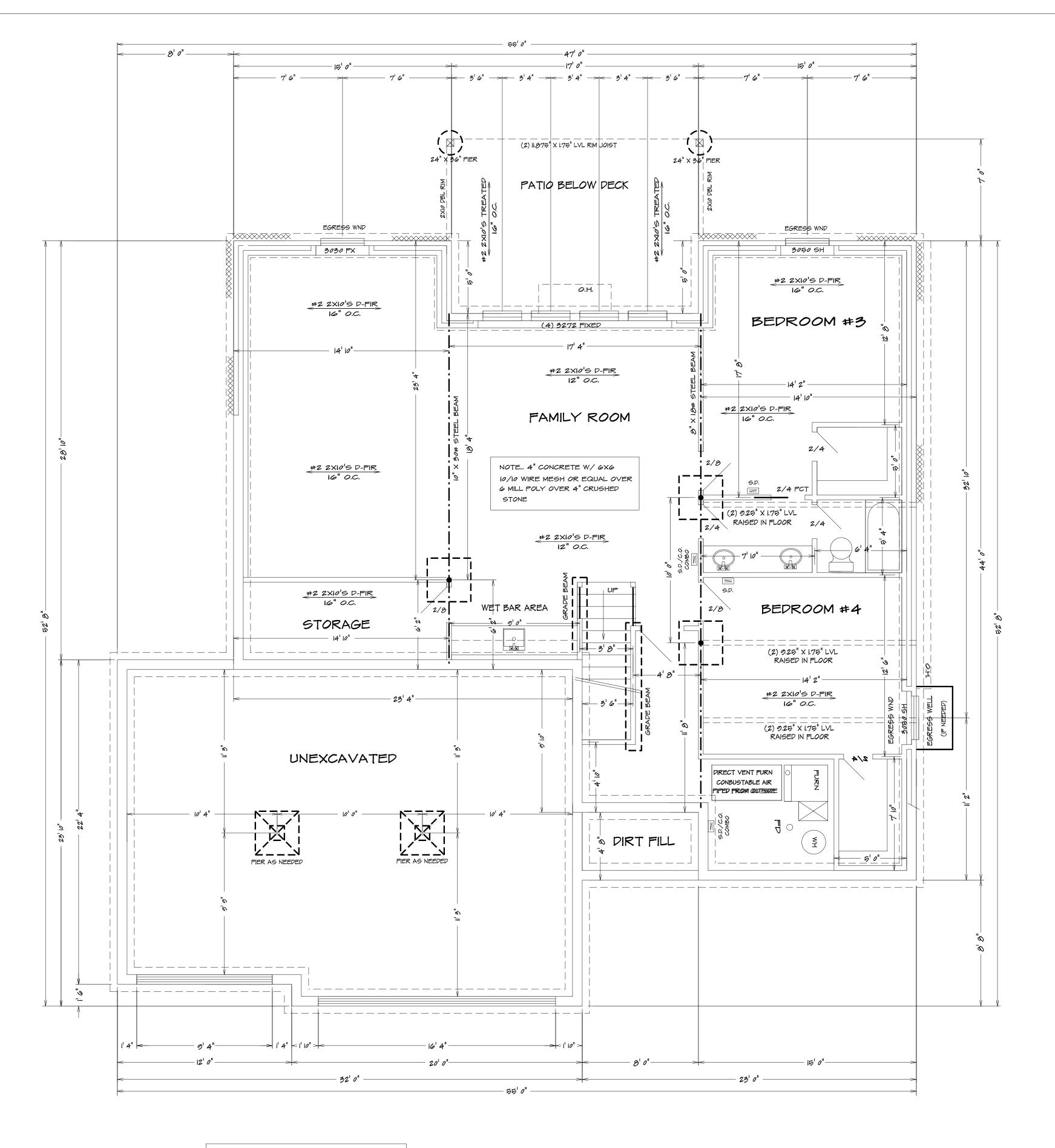
NOTE... ELECTRICAL SERVICE

TO BE 200 AMP.

S.D. = SMOKE DETECTOR

42" X 42" X IZ" CONCRETE PADS WITH (6) #4 REBARS EACH WAY (UNLESS NOTED)

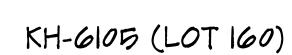


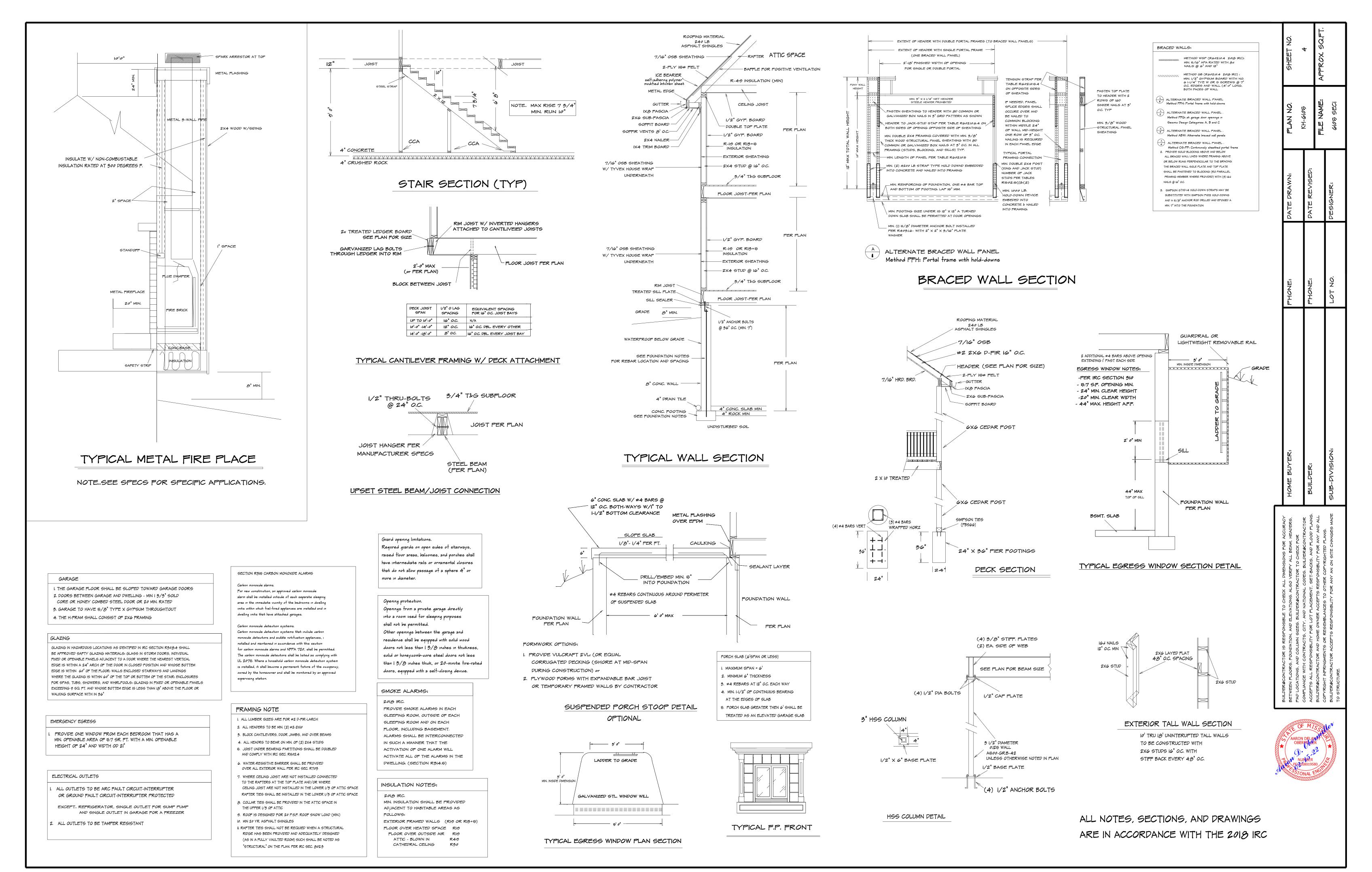


181219W SAGE LEES SUMMIT MO LOT 160 ALL NOTES, SECTIONS, AND DRAWINGS
ARE IN ACCORDANCE WITH THE 2018 IRC

BASEMENT PLAN

1/4" = 1'0"





Foundation Wall Reinforcement Schedule - Table 2

Concrete strength/Grade	8 inch thick wall			10 inch thick wall		
Reinforcement #4 bar	8'	9'	10'	8'	9'	10'
3,000 psi / Grade 40	16	12	NP	24	16	12
3,500 psi / Grade 40	16	12	NP	24	24	12
3,000 psi / Grade 60	24	16	NP	24	20	16
3,500 psi / Grade 60	24	16	NP	24	24	16
Horizontal reinforcement –	- Minim	num Gr	ade 40	steel	#4	oar
One bar 12" from top of wall; maximum spacing 24" o.c.	4-#4	5-#4	6-#4	4-#4	5-#4	6-#4

- Footnotes:

 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 spaced 24 inch on center may be placed in the middle of the wall. Other walls shall have vertical reinforcement place as follows:
- a) 8-inch wall Minimum 5 inches from the outside face.
 b) 10-inch wall Minimum 6.75 inches from the outside face.
- c) Extend bars to within 8 inches of the top of the wall.3) Reinforcement clearances:
- a) Concrete exposed to earth minimum 1-1/2 inches.
- b) Not exposed to weather (interior side of walls) minimum 3/4 inch.
- c) Concrete exposed to weather (top clearance in garage and driveway slabs)- 1-1/2 inches.
 4) Horizontal reinforcement:
- a) One bar shall be placed within 12 inches of the top of the wall.
- b) Other bars shall be equally spaced with spacing not to exceed 24 inches on center.
- c) Horizontal bars should be as close to the tension face as possible (interior) and behind the vertical reinforcement (i.e.2" towards the inside).
- d) Supplemental reinforcement (i.e. 2 towards the Inside).

 Supplemental reinforcement at corners Place 1 #4 bar 48 inches long at 45 degree angle at corners of openings per Figure 4a. Place reinforcement within 6" of the edge of
- 5) Reinforcement shall be lapped a minimum 24 inches at ends, splices, and around corners.
- 6) At masonry ledges the minimum wall thickness shall be 3-1/2 inches. Ledges shall not exceed a depth of more than 24 inches below the top of the wall. For wall thicknesses less than 4 inches provide #4 bars at maximum 24 inches on center to within 8 inches of the top of the wall.
- Straight walls more than 5 feet tall and more than 16 feet long shall be provided with exterior braced return walls. Wall length shall be measured using inside the shortest dimension between intersecting walls (See 7/S2).

	ULE FOR STRUCTURAL MEMBERS
	ULE FOR STRUCTURAL MEMBERS

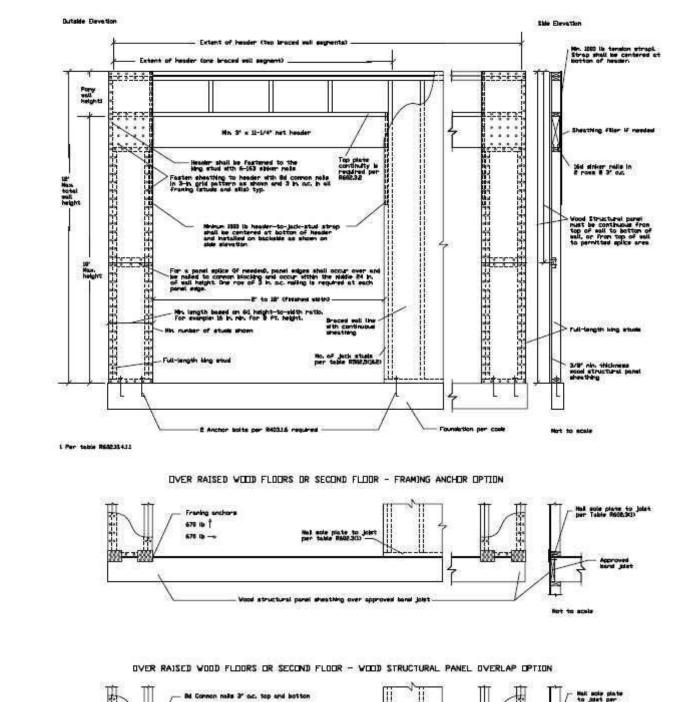
		DESCRIPTION OF	SPACING OF FASTENERS		
ITEM	DESCRIPTION OF BUILDING MATERIALS	FASTENER ^{b, c, e}	Edges (inches) ⁱ	Intermediate supports ^{c, e} (inches)	
W	ood structural panels, su	ıbfloor, roof and interior wa sheathing to fo		o framing and particleboard wall	
32	3/8" - 1/2"	6d common (2" \times 0.113") nail (subfloor wall) 8d common ($2^{1}/_{2}$ " \times 0.131") nail (roof)	6	12 ⁹	
33	¹⁹ / ₃₂ " - 1"	8d common nail (2 ¹ / ₂ " × 0.131")	6	12 ⁹	
34	11/8" - 11/4"	10d common (3" × 0.148") nail or 8d (2 ¹ / ₂ " × 0.131") deformed nail	6	12	
		Other wall she	athing ^h		
35	¹ / ₂ " structural cellulosic fiberboard sheathing	$1^1/_2$ " galvanized roofing nail, $^7/_{16}$ " crown or 1" crown staple 16 ga., $1^1/_4$ " long	3	6	
36	²⁵ / ₃₂ " structural cellulosic fiberboard sheathing	$1^3/4$ " galvanized roofing nail, $^7/_{16}$ " crown or 1" crown staple 16 ga., $1^1/_2$ " long	3	6	
37	1/2" gypsum sheathing ^d	1 ¹ / ₂ " galvanized roofing nail; staple galvanized, 1 ¹ / ₂ " long; 1 ¹ / ₄ screws, Type W or S	7	7	
38	5/8" gypsum sheathing ^d	1 ³ /4" galvanized roofing nail; staple galvanized, 1 ⁵ /8" long; 1 ⁵ /8" screws, Type W or S	7	7	
Â	Wood stri	uctural panels, combination	subfloor unde	erlayment to framing	
39	³ /4" and less	6d deformed (2" × 0.120") nail or 8d common (2 ¹ / ₂ " × 0.131") nail	6	12	
40	⁷ /8" - 1"	8d common (2 ¹ / ₂ " × 0.131") nail or 8d deformed (2 ¹ / ₂ " × 0.120") nail	6	12	
41	1 ¹ /8" - 1 ¹ /4"	10d common (3" × 0.148") nail or 8d deformed (2 ¹ / ₂ " × 0.120") nail	6	12	

For SI: 1 inch = 25.4 mm. 1 foot = 304.8 mm. 1 mile per hour = 0.447 m/s: 1 Ksi = 6.895 MPa.

TABLE R602.3(1) FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

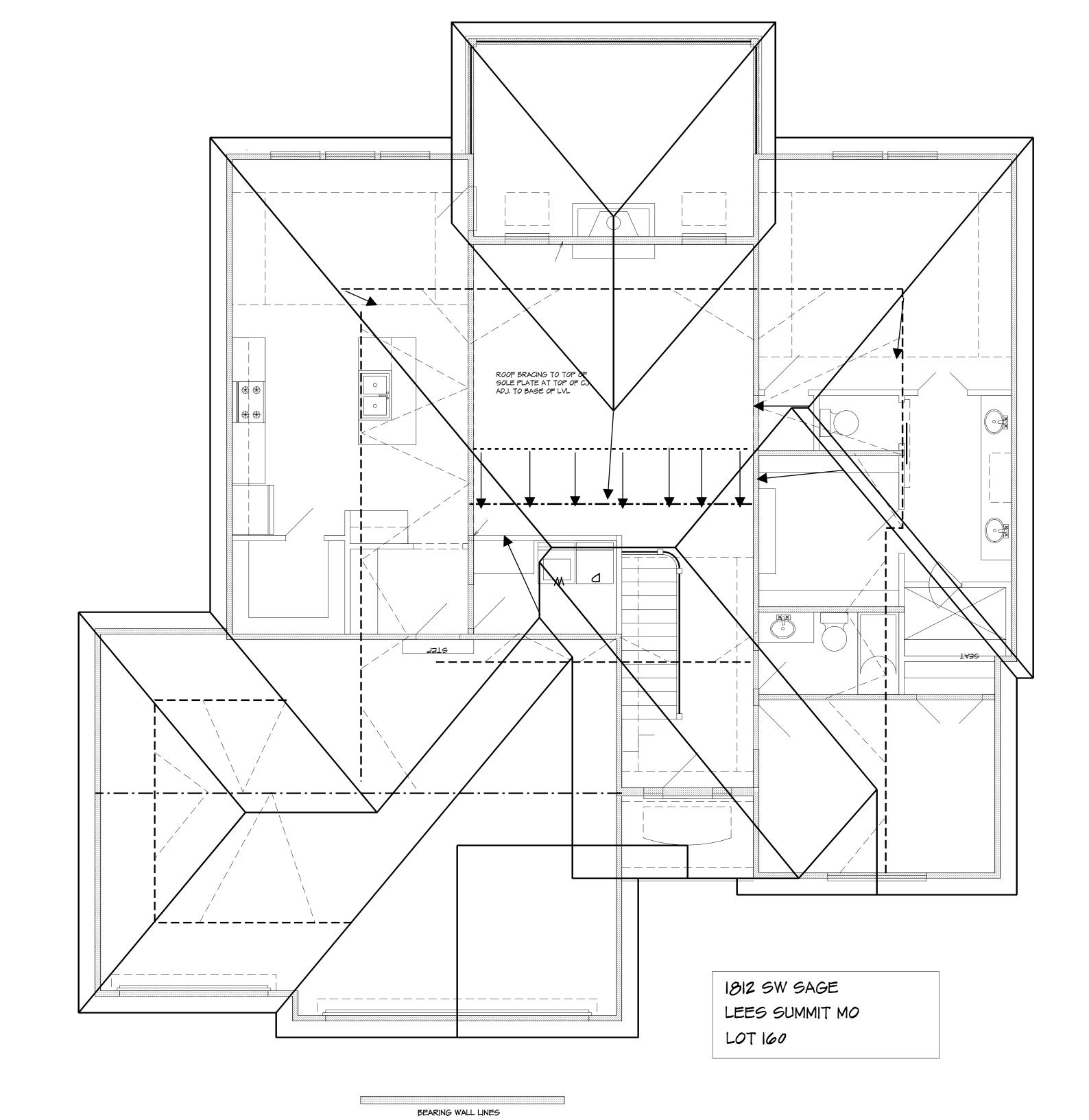
TEM	DESCRIPTION OF BUILDING ELEMENTS	FASTENER ^{a, b, c}	SPACING OF FASTENERS
	Value 1/10/22 H10/22 ESA SENSIV	Roof	
1	Blocking between joists or rafters to top plate, toe nail	3-8d (2 ¹ / ₂ " × 0.113")	87
2	Ceiling joists to plate, toe nail	3-8d (2 ¹ / ₂ " × 0.113")	80—
3	Ceiling joists not attached to parallel rafter, laps over partitions, face nail	3-10d	9 2-
4	Collar tie to rafter, face nail or 1 ¹ /4" × 20 gage ridge strap	3-10d (3" × 0.128")	y-
5	Rafter or roof truss to plate, toe nail	3-16d box nails (3 ¹ / ₂ " × 0.135") or 3-10d common nails (3" × 0.148")	2 toe nails on one sid and 1 toe nail on opposite side of each rafter or trussi
6	Roof rafters to ridge, valley or hip rafters: toe nail face nail	4-16d (3 ¹ / ₂ " × 0.135") 3-16d (3 ¹ / ₂ " × 0.135")	19—
7	Built up stude face pail	Wall	24" 0 0
7 8	Built-up studs-face nail Abutting studs at intersecting	10d (3" × 0.128") 16d (3 ¹ / ₂ " ×	24" o.c.
9	wall corners, face nail Built-up header, two pieces with 1/2" spacer	0.135") 16d (3 ¹ / ₂ " × 0.135")	16" o.c. along each edge
10	Continued header, two pieces	16d (3 ¹ / ₂ " × 0.135")	16" o.c. along each
11	Continuous header to stud, toe	4-8d (2 ¹ / ₂ " × 0.113")	N-
12	Double studs, face nail	10d (3" × 0.128")	24" o.c.
13	Double top plates, face nail	10d (3" × 0.128")	24" o.c.
14	Double top plates, minimum 24-inch offset of end joints, face nail in lapped area	8-16d (3 ¹ / ₂ " × 0.135")	80 —
15	Sole plate to joist or blocking, face nail	16d (3 ¹ / ₂ " × 0.135")	16" o.c.
16	Sole plate to joist or blocking at braced wall panels	3-16d (3 ¹ / ₂ " × 0.135")	16" o.c.
17	Stud to sole plate, toe nail	3-8d (2 ¹ / ₂ " × 0.113") or 2-16d (3 ¹ / ₂ " × 0.135")	F-5
18	Top or sole plate to stud, end nail	2-16d (3 ¹ / ₂ " × 0.135")	8-
19	Top plates, laps at corners and intersections, face nail	2-10d (3" × 0.128")	18
20	1" brace to each stud and plate, face nail	2-8d (2 ¹ / ₂ " × 0.113") 2 staples 1 ³ / ₄ " ×	% <u></u>
21	1" × 6" sheathing to each bearing, face nail	2-8d (2 ¹ /2" × 0.113") 2 staples 1 ³ /4"	11-11-
22	1" × 8" sheathing to each bearing, face nail	2-8d (2 ¹ / ₂ " × 0.113") 3 staples 1 ³ / ₄	1877-1878
23	Wider than 1" × 8" sheathing to each bearing, face nail	3-8d (2 ¹ / ₂ " × 0.113") 4 staples 1 ³ / ₄ "	8_82
24	Joist to sill or girder, toe nail	3-8d (2 ¹ /2" ×	
25	Rim joist to top plate, toe nail	0.113") 8d (2 ¹ / ₂ " ×	6" o.c.
A00000	(roof applications also) Rim joist or blocking to sill	0.113") 8d (2 ¹ / ₂ " ×	58 R04046
26	plate, toe nail	0.113")	6" o.c.
27	1" × 6" subfloor or less to each joist, face nail	2-8d (2 ¹ / ₂ " × 0.113") 2 staples 1 ³ / ₄ "	76 <u></u> 788
28	2" subfloor to joist or girder, blind and face nail	2-16d (3 ¹ / ₂ " × 0.135")	87
29	2" planks (plank & beam - floor & roof)	2-16d (3 ¹ / ₂ " × 0.135")	at each bearing
30	Built-up girders and beams, 2-inch lumber layers	10d (3" × 0.128")	Nail each layer as follows: 32" o.c. at to and bottom and staggered. Two nails at ends and at each splice.

OVER CONCRETE OR MASONRY BLOCK FOUNDATION



CF-PF WALL BRACING SECTION

Hen overlap 9-1/4"



ROOF ELEVATION

ROOF DESIGNED WITH: LIVE LOAD = 20 PSF DEAD LOAD = 10 PSF

ALL NOTES, SECTIONS, AND DRAWINGS ARE IN ACCORDANCE WITH THE 2018 IRC NOTE... HIP RIDGE FOR THE MAIN ROOF AS:

2X8 FOR UNBRACED LENGTH UP TO 0'0"

2XI0 FOR UNBRACED LENGTH UP TO 10'0"

2XI2 FOR UNBRACED LENGTH UP TO 12'0"

ALL RAFTERS TO BE #2 2X6 D-FIR 16" O.C.
UNLESS OTHER WISE NOTED

PURLING RAFTERS TO BEARING WALL LINES

CONNECT RAFTERS TO CEILING JOIST W (4) IGA GALV. NAILS

CONNECT RAFTERS TO RIDGE, VALLEY, AND HIP RIDGE

WITH (4) IGA GALV. NAILS

VERT. RIDGE AND RAFTER SUPPORTS TO BE EQUAL TO OR GREATER THAN THE DEPTH OF RAFTERS





31 Ledger strip supporting joists 0.135") At each joist or rafter