

l. 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 leas  $6.0~\mathrm{m}$  (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)

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

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. (R502.7.1)

STEEL COLUMNS TO BE 3" DIAMETER SCHEDULE 40 PIPE MANUFACTURED IN ACCORDANCE WITH AGTM AG3 GRADE B OR APPROVED EQUIVALENT UNLESS NOTED

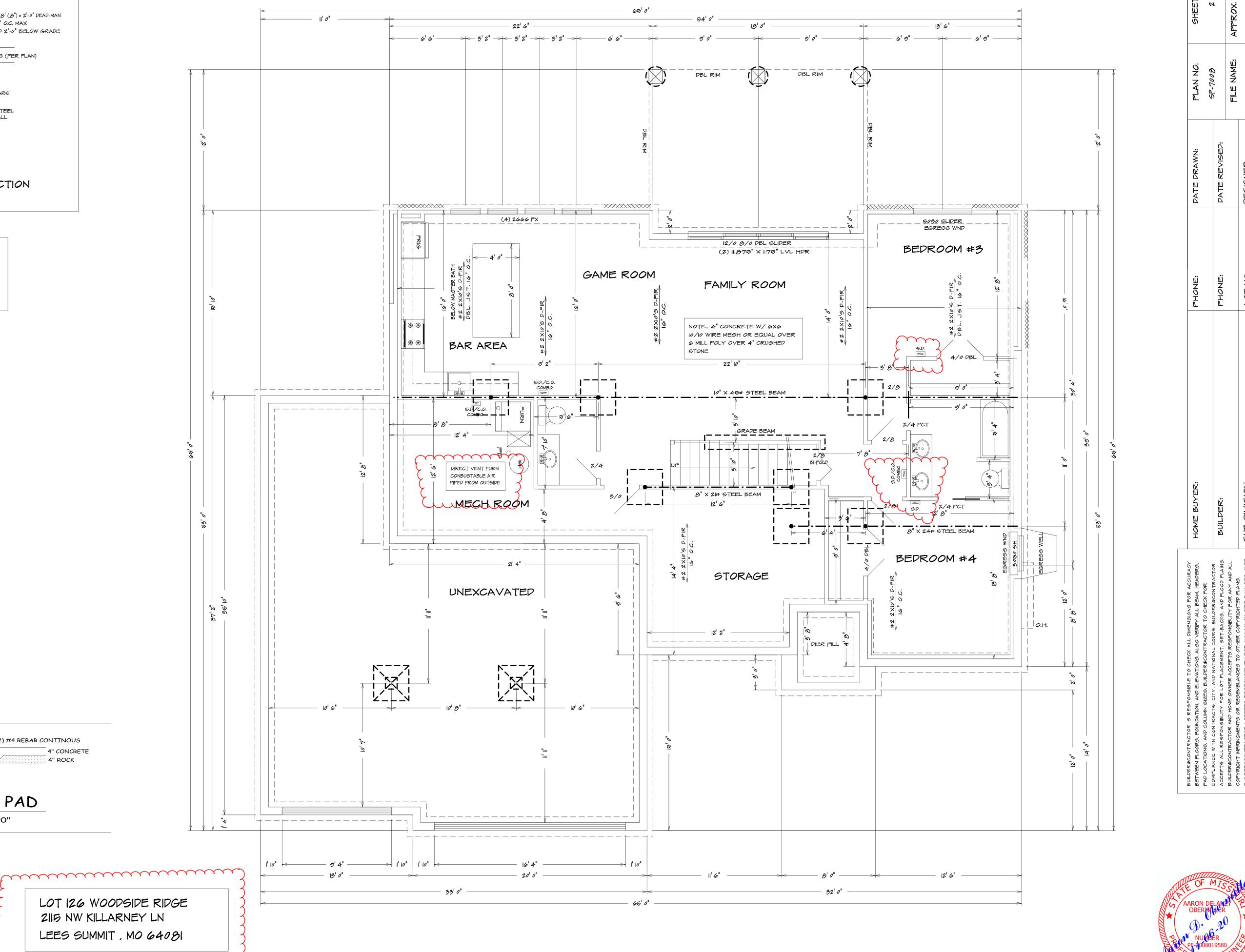
NOTE ... 42" X 42" X 12" CONCRETE PADS WITH (6) #4 REBARS EACH WAY (UNLESS NOTED)

(2) #4 REBAR CONTINOUS 4" CONCRETE GRADE PAD 1/2" = 1'0"

REQUIRED FOO	OTING:		
BUILDING HEIGHT	MINIMUM FOOTING	HORIZONTAL REBAR	LOCATION OF REBAR
1 OR 2 STY.	8"T × 16"W	2-#4	3" FROM BTM.
3 STORY	8"T × 24"W	2-#4	3" FROM BTM.
ACC. STR.	8"T × 12"W	2-#4	3" FROM BTM.

2115 NW KILLARNEY LN

LOT 126 WOODSIDE RIDGE LEES SUMMIT, MO 64081



BASEMENT PLAN

1/4" = 1'0"

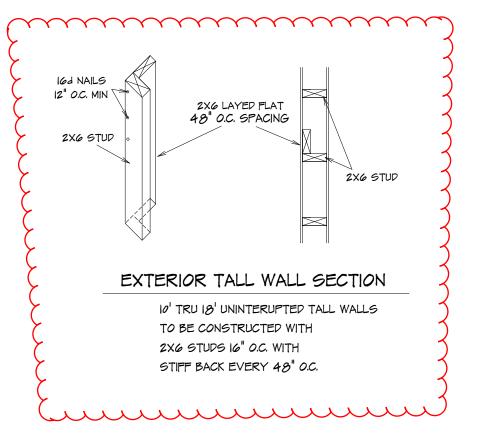
SF-7008 (LOT 126)

SEE ELEVATION FOR WALL HEIGHTS

NOTE... ELECTRICAL SERVICE TO BE 200 AMP.

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

S.D. = SMOKE DETECTOR



REQUIRED AREAS NEEDING HEADERS:	HEADER DESCRIPTIONS:
WINDOWS/DOORS UP TO 38" R.O.	(2) #2 D-FIR 2XIO'S
WINDOWS/DOORS 38" UP TO 72" R.O.	(2) #2 P-FIR 2XIO'S W/I/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)    7/8" L.V.L.
16'0" GARAGE DOOR W/NO SECOND FLOOR	(2)    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 finished 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.
- 2. Openings that are provided with window fall prevention devices that comply with ASTM F 2000.
- 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.

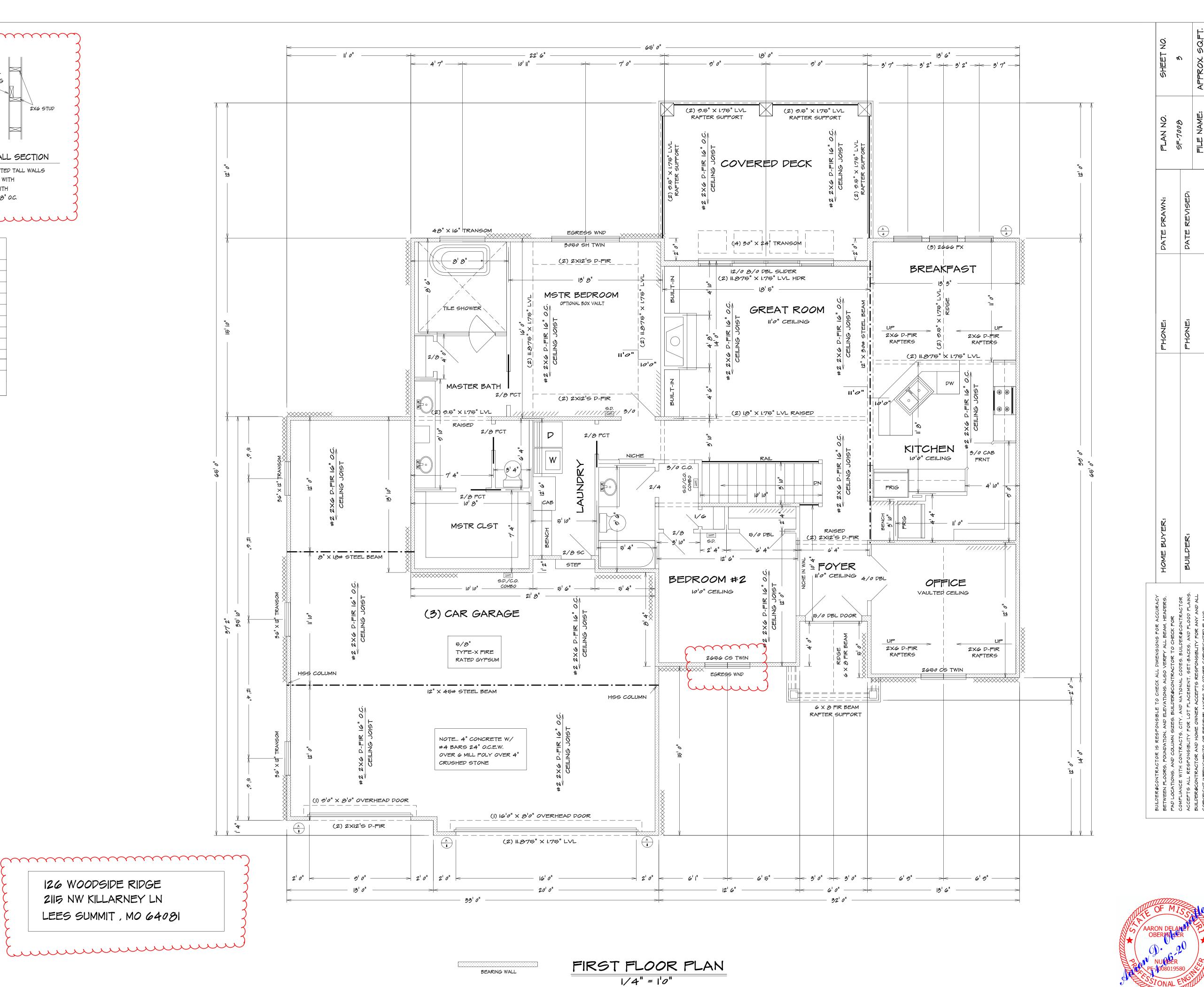
Bathrooms, water closet compartments and other similar rooms shall be provided with aggregate glazing area in windows of not less than 3 square feet, one-half of which must be openable.

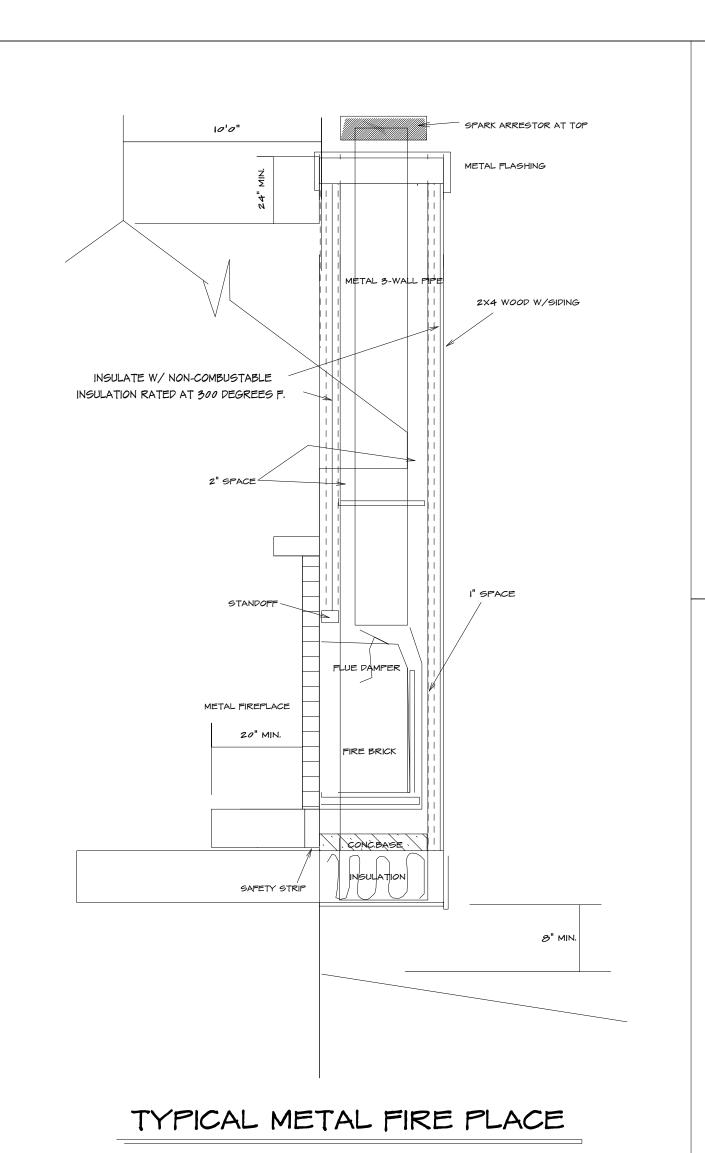
# Exception:

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

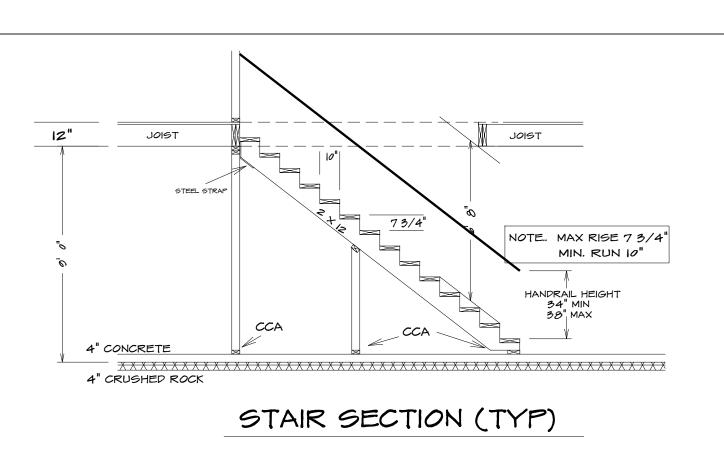
The minimum local exhaust rates shall be determined in accordance with Section MI507.

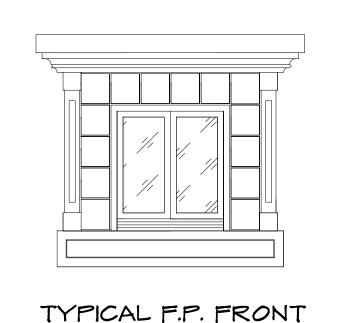
Exhaust air from the space shall be exhausted directly to the outdoors.





NOTE SEE SPECS FOR SPECIFIC APPLICATIONS.





# EMERGENCY EGRESS

PROVIDE ONE WINDOW FROM EACH BEDROOM THAT HAS A MIN. OPENABLE AREA OF 5.7 SR. FT. WITH A MIN. OPENABLE HEIGHT OF 24" AND WIDTH OD 21"

#### ELECTRICAL OUTLETS

ALL OUTLETS TO BE BRANCH CIRCUIT-INTERRUPTER OR GROUND FAULT CIRCUIT-INTERRUPTER PROTECTED

EXCEPT.. REFRIGERATOR, SINGLE OUTLET FOR SUMP PUMP AND SINGLE OUTLET IN GARAGE FOR A FREEZER

2. ALL RECEP. TO BE TAMPER RESISTANT

#### GARAGE

I. THE GARAGE FLOOR SHALL BE SLOPED TOWARD GARAGE DOORS 2. DOORS BETWEEN GARAGE AND DWELLING - MIN I 3/3" SOILD CORE OR HONEY COMBED STEEL DOOR OR 20 MIN. RATED 3. GARAGE TO HAVE 5/8" TYPE X GYPSUM THROUGHTOUT

4. THE H-FRAM SHALL CONSIST OF 2X6 FRAMING

GLAZING IN HAZARDOUS LOCATIONS AS IDENTIFIED IN IRC SECTION R308.4 SHALL BE APPROVED SAFTY GLAZING MATERIALS: GLASS IN STORM DOORS, INDIVIDUAL FIXED OR OPENABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN 60" OF THE FLOOR: WALLS ENCLOSED STAIRWAYS AND LANDINGS WHERE THE GLAZING IS WITHIN 60" OF THE TOP OR BOTTEM OF THE STAIR: ENCLOSURES FOR SPAS, TUBS, SHOWERS, AND WHIRLPOOLS: GLAZING IN FIXED OR OPENABLE PANELS EXCEEDING 9 SQ. FT. AND WHOSE BOTTEM EDGE IS LESS THAN 18" ABOVE THE FLOOR OR

> ROOFING MATERIAL 240 LB ASPHALT SHINGLES

7/16" OSB SHEATHING -

METAL EDGE

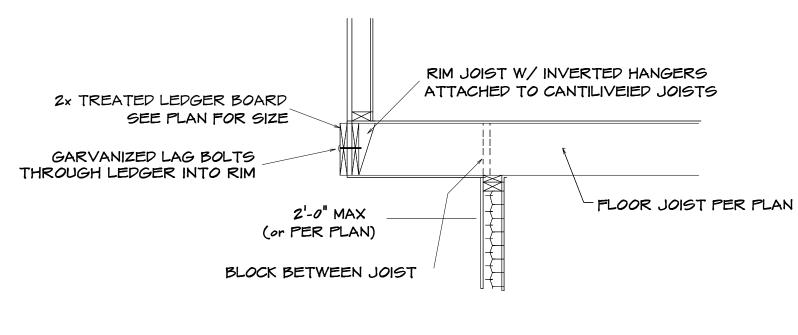
FAFTER ATTIC SPACE

R-40 INSULATION (MIN)

CEILING JOIST

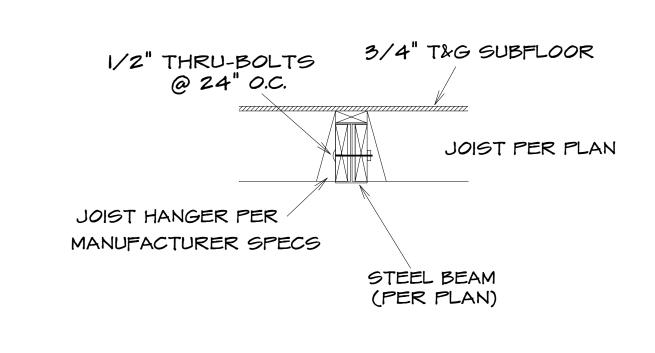
- BAFFLE FOR POSITIVE VENTILATION

# TYPICAL FRAMING DETAILS (Not to Scale)

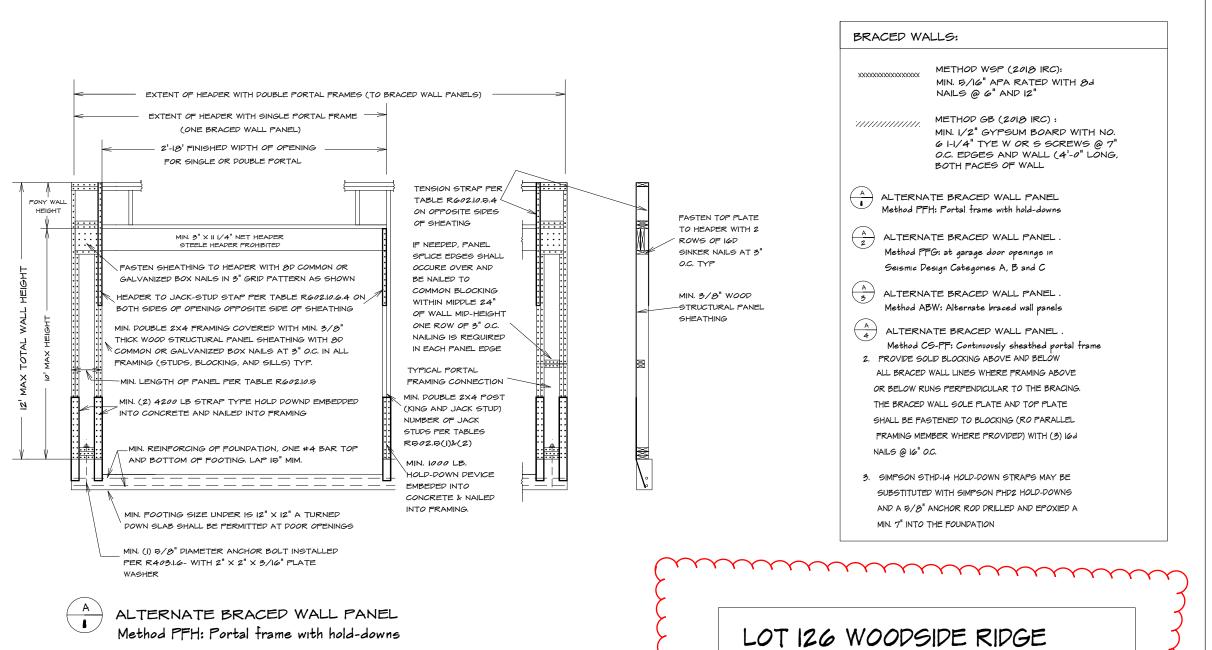


DECK JOIST SPAN	1/2" O LAG SPACING	EQUIVALENT SPACING FOR 16" O.C. JOIST BAYS	
UP TO 10'-0"	16" O.C.	N/A	
10'-0" -14'-0"	12" O.C.	16" O.C. DBL. EVERY OTHER	
14'-0" -18'-0"	8" O.C.	16" O.C. DBL. EVERY JOIST BAY	

# TYPICAL CANTILEVER FRAMING W/ DECK ATTACHMENT

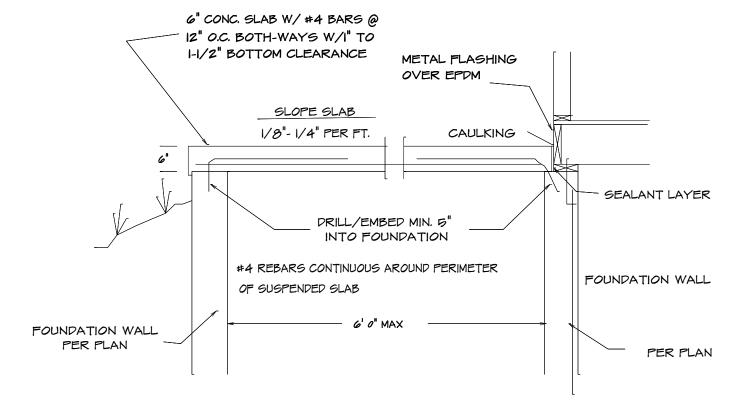


### UPSET STEEL BEAM/JOIST CONNECTION



2115 NW KILLARNEY LN

LEES SUMMIT, MO 64081



### FORMWORK OPTIONS:

- I. PROVIDE VULCRAFT 2VLI (OR EQUAL CORRUGATED DECKING (SHORE AT MID-SPAN DURING CONSTRUCTION) or
- 2. PLYWOOD FORMS WITH EXPANDABLE BAR JOIST OR TEMPORARY FRAMED WALLS BY CONTRACTOR

# SUSPENDED PORCH STOOP DETAIL OPTIONAL

## PORCH SLAB (6'SPAN OR LESS)

- I.  $MAXIMUM SPAN = 6^{l}$ 2. MINIMUM 6" THICKNESS
- 4. MIN. 1-1/2" OF CONTINUIUS BEARING AT THE EDGES OF SLAB 5. PORCH SLAB GREATER THEN 6' SHALL BE

3. #4 REBARS AT IZ" O.C. EACH WAY

TREATED AS AN ELEVATED GARAGE SLAB

#### INSULATION NOTES: MIN. INSULATION SHALL BE PROVIDED ADJACENT TO HABITABLE AREAS AS EXTERIOR FRAMED WALLS (RID OR RI3+5) FLOOR OVER HEATED SPACE RIO FLOOR OVER OUTSIDE AIR RIO CATHEDRAL CEILING

### SECTION R315 CARBON MONOXIDE ALARMS

Carbon monoxide alarms. For new construction, an approved carbon monoxide alarm shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in dwelling units within which fuel-fired appliances are installed and in dwelling units that have attached garages.

Carbon monoxide detection systems that include carbon monoxide detectors and audible notification appliances, i nstalled and maintained in accordance with this section for carbon monoxide alarms and NFPA 720, shall be permitted. The carbon monoxide detectors shall be listed as complying with UL 2075. Where a household carbon monoxide detection system is installed, it shall become a permanent fixture of the occupancy, owned by the homeowner and shall be monitored by an approved

### SMOKE ALARMS:

Carbon monoxide detection systems

PROVIDE SMOKE ALARMS IN EACH SLEEPING ROOM, OUTSIDE OF EACH SLEEPING ROOM AND ON EACH FLOOR, INCLUDING BASEMENT. ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE DWELLING. (SECTION R314.5)

#### IX8 FASCIA 2X6 SUB-FASCIA 1/2" GYP. BOARD SOFFIT BOARD -- DOUBLE TOP PLATE SOFFIR VENTS 8' O.C. –1/2" GYP. BOARD 2X4 NAILER-R-10 OR R13+5 IX4 TRIM BOARD -- EXTERIOR SHEATHING 7/16" OSB SHEATHING -2X6 STUP @ 16" O.C. W/ TYVEX HOUSE WRAP UNDERNEATH 3/4" T&G SUBFLOOR FLOOR JOIST-PER PLAN —— 1/2" GYP. BOARD 7/16" OSB SHEATHING R-19 OR R13+5 INSULATION W/ TYVEX HOUSE WRAP -EXTERIOR SHEATHING — 2X6 STUD @ 16" O.C. 3/4" T&G SUBFLOOR RIM JOIST TREATED SILL PLATE FLOOR JOIST-PER PLAN SILL SEALER -WATERPROOF BELOW GRADE SEE FOUNDATION NOTES FOR REBAR LOCATION AND SPACING PER PLAN 8" CONC. WALL 4" DRAIN TILE 4" CONC. SLAB MIN SEE FOUNDATION NOTES TYPICAL WALL SECTION

# FRAMING NOTE

- . ALL LUMBER SIZES ARE FOR #2 D-FIR-LARCH 2. ALL HEADERS TO BE MIN. (2) #2-2XIO
- 3. BLOCK CANTILEVERS, DOOR JAMBS, AND OVER BEAMS
- 4. ALL HEADRS TO BEAR ON MIN. OF (2) 2X4 STUDS
- 5. JOIST UNDER BEARING PARTITIONS SHALL BE DOUBLED AND COMPLY WITH 2018 IRC
- 6. WATER-RESISTIVE BARRIER SHALL BE PROVIDED
- OVER ALL EXTERIOR WALL PER 2018 IRC 7. WHERE CEILING JOIST ARE NOT INSTALLED CONNECTED
- TO THE RAFTERS AT THE TOP PLATE AND/OR WHERE CEILING JOIST ARE NOT INSTALLED IN THE LOWER 1/3 OF ATTIC SPACE RAFTER TIES SHALL BE INSTALLED IN THE LOWER 1/3 OF ATTIC SPACE 8. COLLAR TIES SHALL BE PROVIDED IN THE ATTIC SPACE IN
- THE UPPER 1/3 OF ATTIC 9. ROOF IS DESIGNED FOR 20 P.S.F. ROOF SNOW LOAD (MIN.)
- 10. MIN 20 YR. ASPHALT SHINGLES II. RAFTER TIES SHALL NOT BE REQUIED WHEN A STRUCTURAL RIDGE HAS BEEN PROVIDED AND ADEQUATELY DESIGNED
- (AS IN A FULLY VAULTED ROOM) SUCH SHALL BE NOTED AS "STRUCTURAL" ON THE PLAN. PER 2018 IRC

Opening protection. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood

Required guards on open sides of stairways,

raised floor areas, balconies, and porches shall

have intermediate rails or ornamental closures

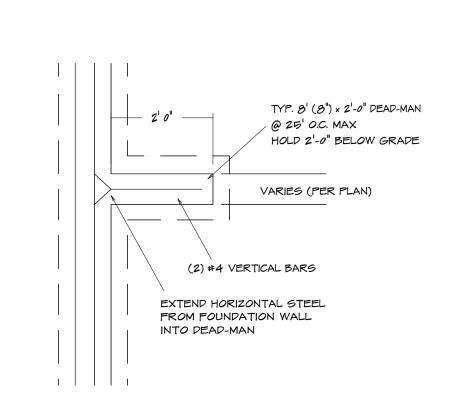
that do not allow passage of a sphere 4" or

Guard opening limitations.

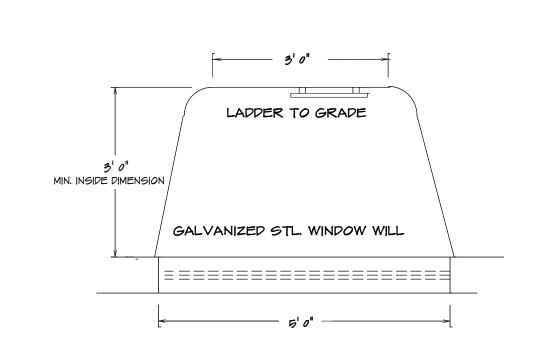
more in diameter.

doors not less than 13/8 inches in thickness, solid or honeycomb-core steel doors not less than 13/8 inches thick, or 20-minute fire-rated doors, equipped with a self-closing device.

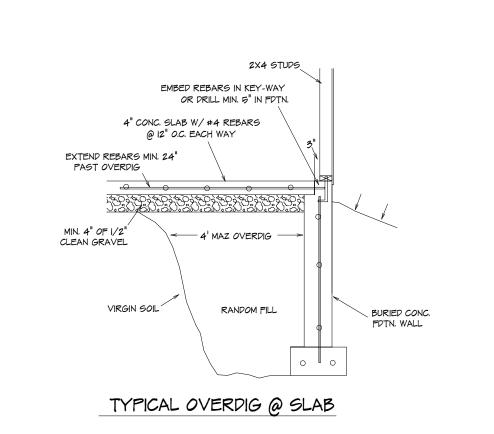
TYPICAL DETAILS

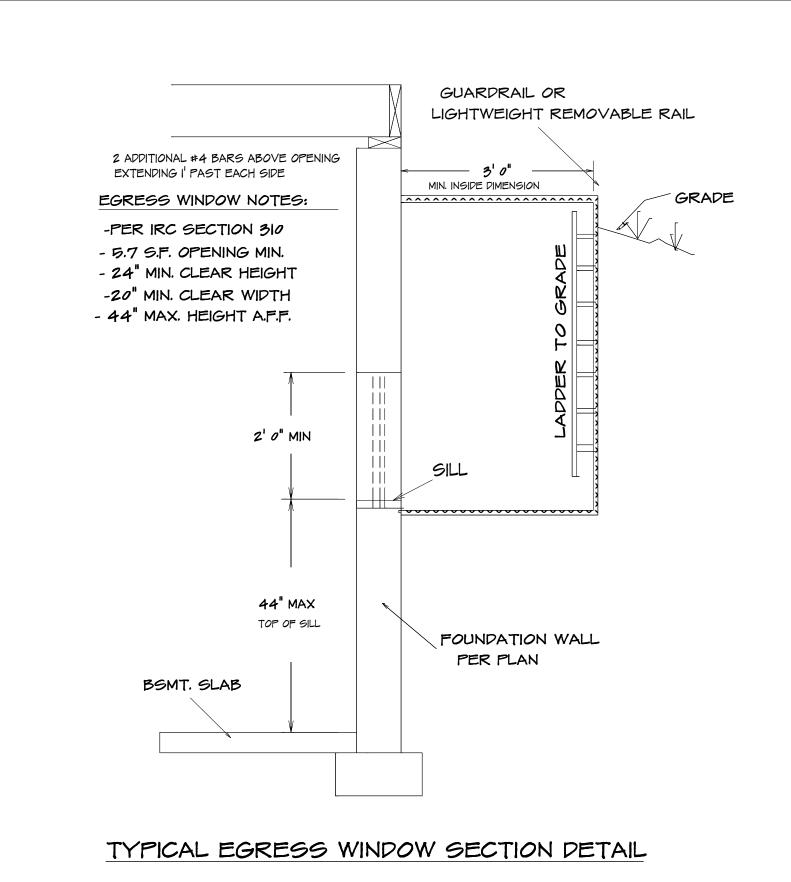


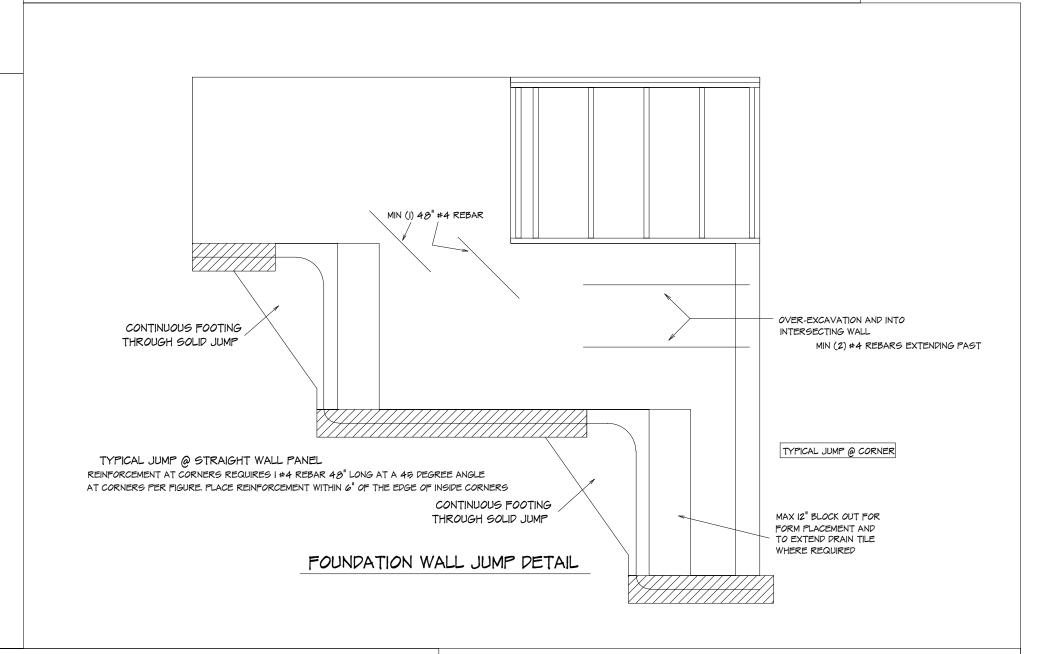
## TYPICAL DEAD-MAN SECTION

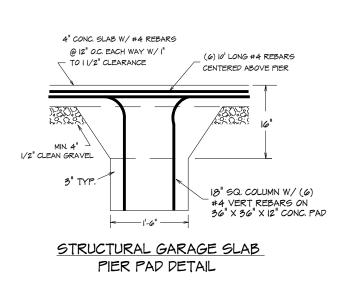


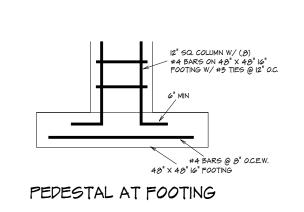
TYPICAL EGRESS WINDOW PLAN SECTION

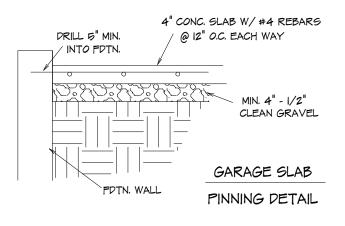


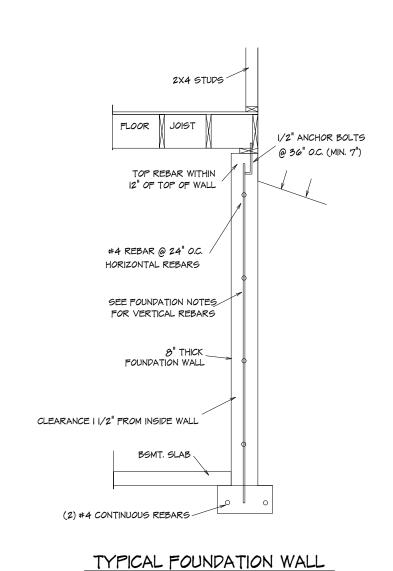












FOUNDATION NOTES:

FND WALL REINFORCEMENT ( CLASS 60 SOIL, EXCEPT FOR RARE CIRCUMSTANCES)
(ALL REBARS TO BE GRADE 40)
9' WALL W/ 8' BACKFILL VERT. #4 REBARS @ 12" O.C.
9' WALL W/ 7' BACKFILL VERT. #4 REBARS @ 18" O.C.
SET ON A 16" X 8" CONCRETE FOOTER WITH (2) #4
REBARS CONTINOUS.

IO' WALL W/ O' BACKFILL VERT. #4 REBARS @ 8" O.C.
IO' WALL W/ O' BACKFILL VERT. #4 REBARS @ 12" O.C.
SET ON A 20" X I2" CONCRETE FOOTER WITH (2) #4
REBARS CONTINOUS.
HORIZ #4 REBARS @ 24" O.C.
8" X 4'0" CONCRETE WALL WITH (3) #4 REBARS
HORZ. AND WITH #4 REBARS @ 24" O.C. VERTICALLY
CONCRETE FLOOR - 4" CONCRETE ON 4"
CRUSHED ROCK.
CONCRETE GARAGE FLOOR - 4"

CONCRETE GARAGE FLOOR - 4"
CONCRETE ON 4" CRUSHED ROCK WITH
6X6 10/10 WIRE MESH.
(SUPENDED GARAGE FLOORS TO BE
DESIGNED BY LICENCED ENGINEER)
COLUMN FOOTING FOR MIN. SOIL
LOAD OF 1500 PSF

42" X 42" X 12" CONCRETE PAPS WITH (6)
#4 REBARS EACH WAY (UNLESS NOTED)

CONCRETE GRADE PAPS - 16" X 8" WITH (2)
#4 REBARS CONTINOUS.

ALL FOOTINGS SHALL EXCEED A MINIMUM FROST
DEPTH OF 36 INCHES BELOW GRADE.

MAXIMUM DEPTH OF UNBALANCED FILL IS (7 FEET)
FOR 8-INCH WALL AND (8 FEET) FOR TEN-INCH

WATERPROOF CONCRETE WALL FROM FOOTING TO GRADE LINE.

OPTIONAL WALK-OUT WALL

OPTIONAL WALK-OUT WALL

16" X 36" CONCRETE FROST FOOTER W/ (3) #4

REBARS PARALLEL 12" O.C. CONTINOUS.

#4 REBAR VERT. BENT INTO FLOOR 7'0" @ 24" O.C.

BELOW GRADE USE 4" OF CONCRETE ON 4"

CRUSHED ROCK WITH 6 MIL-POLY OVER CRUSHED
ROCK BELOW GRADE.

ROCK BELOW GRADE. DRAINAGE TILES, GRAVEL OR CRUSHED STONE DRAINS, PERFORATED PIPE OR OTHER APPROVED SYSTEMS OR MATERIALS SHALL BE INSTALLED AT OR BELOW THE AREA TO BE PROTECTED AND SHALL DISCHARGE BY GRAVITY OR MECHANICAL MEANS INTO AN PPROVED DRAINAGE SYSTEM. GRAVEL OR CRUSHED SONE DRAINS SHALL EXTEND AT LEAST I FOOT BEYOND THE OUTSIDE EDGE OF THE FOOTING AND 6 INCHES ABOVE THE TOP OF THE FOOTING AND BE COVERED WITH AN APPROVED FILTER MEMBRANE MATERIAL. THE TOP OF OPEN JOINTS OF DRAIN TILES SHALL BE PROTECTED WITH STRIPS OF BUILDING PAPER, AND DRANAGE TILES OR PERFORATED PIPE SHALL BE PLACED ON A MINIUM OF 2 INCHES OF WASHED GRAVEL OR CRUSHED ROCK AT LEAST ONE SIEVE SIZE LARGER THAN THE TILE JOINT OPENING OR PERFORATION AND COMVERED WITH NOT LESS THAN 6 INCHES OF THE SAME MATERIAL.

