KH CONSTRUCTION
KEVIN HIGDON CONSTRUCTION

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.

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

## FRONT ELEVATION

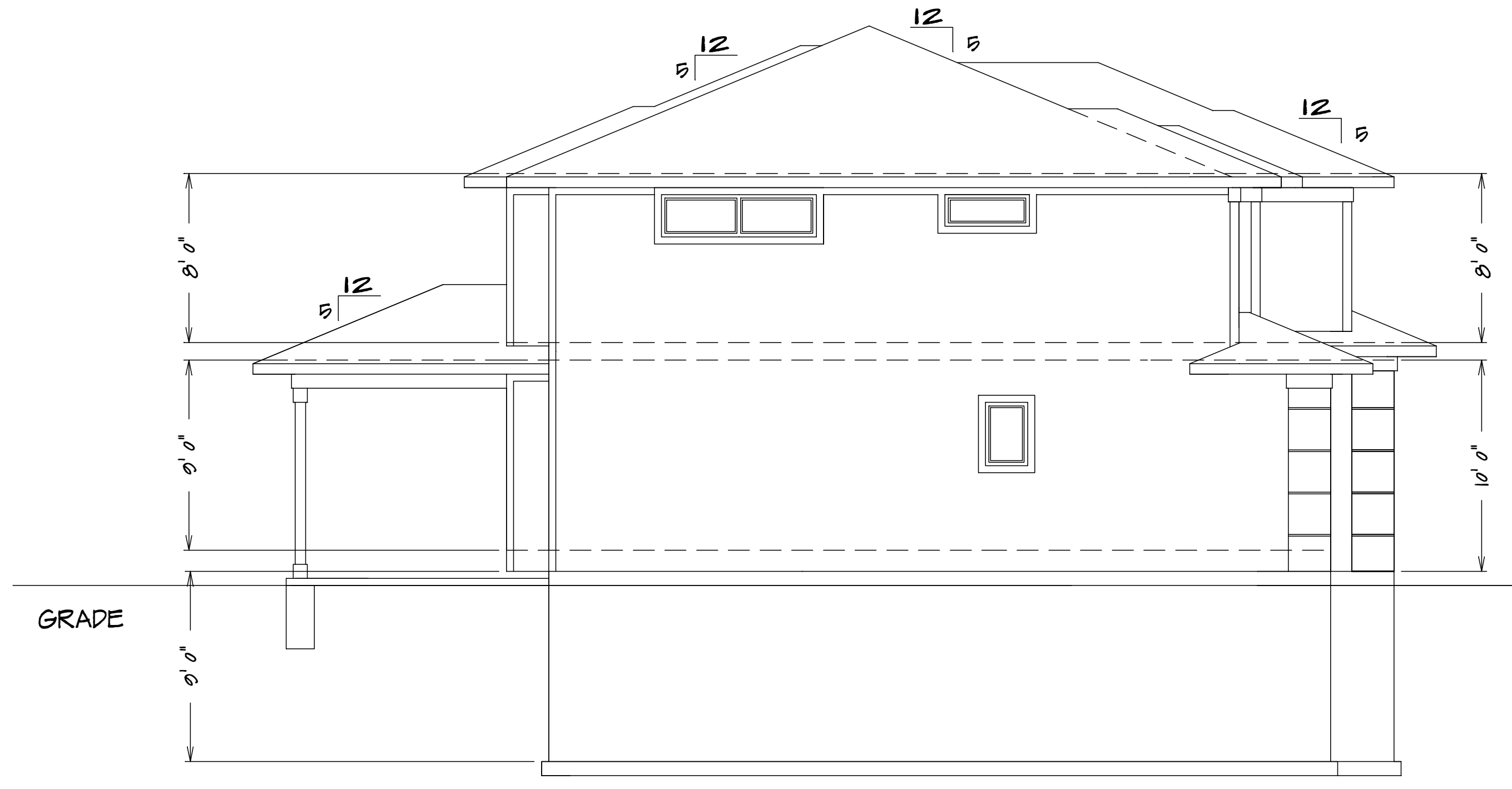
1/4" = 1'0"

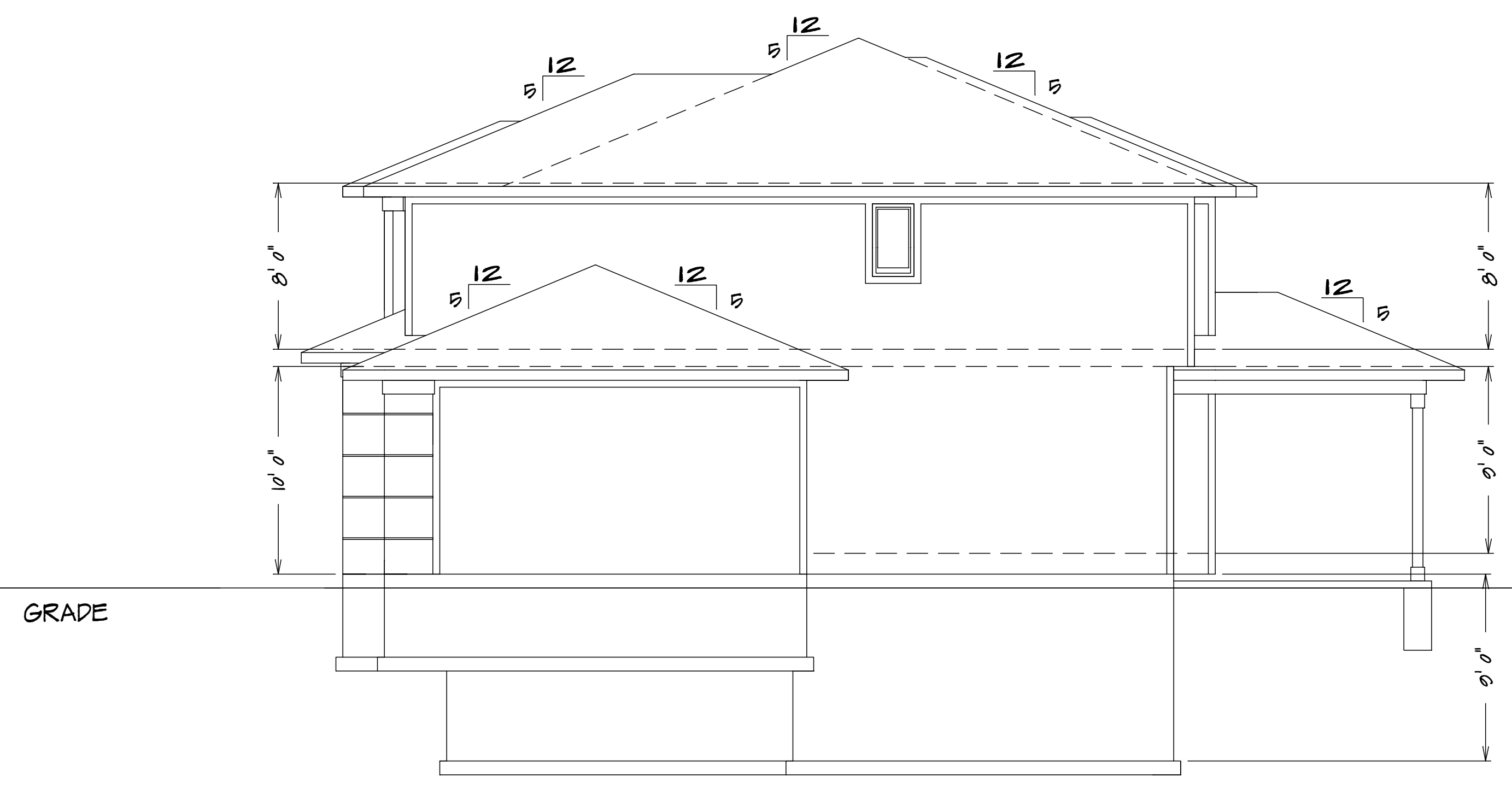
NOTE:
ACTUAL ELEVATIONS MAY VARY FROM ARCHITECTURAL DRAWINGS, DUE TO TERRAIN/BACKFILL PROCESS

FRONT ELEVATION IS ARCHITECTURAL DRAWING AND MAY VARY DUE TO MATERIALS AVAILABILITY

MD 2
Quality By Design

606 NE LONE HILL DRIVE
LEES SUMMIT MO
LOT 16 ESTATES OF CHAPEL RIDGE





## LEFT ELEVATION

1/8" = 1'0"

## RIGHT ELEVATION

1/8" = 1'0"

## REAR ELEVATION

1/8" = 1'0"

Kim Brennan
Digitally signed by Kim Brennan
Reason: Release for Construction
Date: 2020.09.21 08:17:49-05'00'

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/21/2020

AARON DELANEY OBERMILLER
NUMBER PE-2008019580
Aaron D. Obermiller
09-09-20

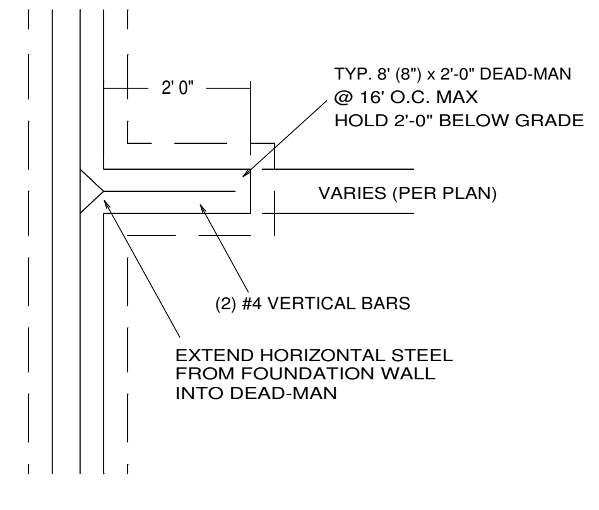
### SQUARE FOOTAGE

LIVING AREA
- FIRST FLOOR = 1105
- SECOND FLOOR = 1465
- OPTIONAL BASEMENT = 675
- COVERED PATIO = 144

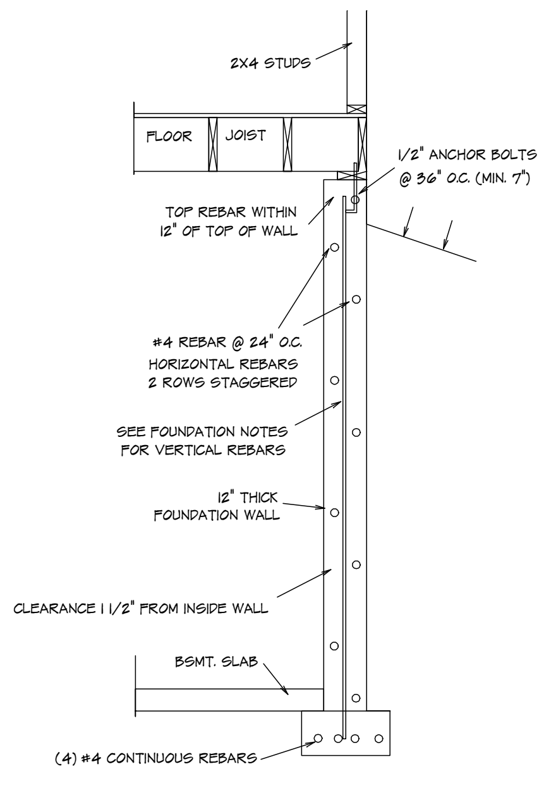
UNFINISHED AREA
- STORAGE BASEMENT = 295
- GARAGE = 722

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. BUILDER&CONTRACTOR TO CHECK FOR COMPLIANCE WITH CONTRACTS, CITY, AND NATIONAL CODES. BUILDER&CONTRACTOR ACCEPTS ALL RESPONSIBLITY FOR LOT PLACEMENT, SET-BACKS, AND FLOOD PLAINS. BUILDER&CONTRACTOR AND HOME OWNER ACCEPTS RESPONSIBLITY FOR ANY AND ALL COPYRIGHT INFRINGMENTS OR RESEMBLANCES TO OTHER COPYRIGHTED PLANS. BUILDER&CONTRACTOR ACCEPTS RESPONSIBLITY FOR ANY AN ON SITE CHANGES MADE TO STRUCTURE.

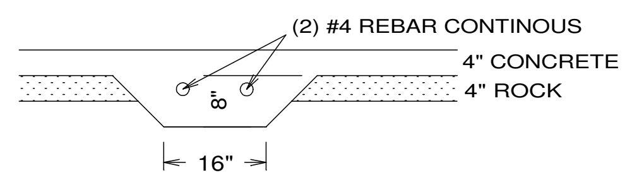
HOME BUYER:
BUILDER:
SUB-DIVISION:
PHONE:
PHONE:
LOT NO.
DATE DRAWN:
DATE REVISED:
DESIGNER:
PLAN NO. KH-6106
FILE NAME: 6106 ELEV
SHEET NO. 1
APPROX. SQ.FT.



## TYPICAL DEAD-MAN SECTION

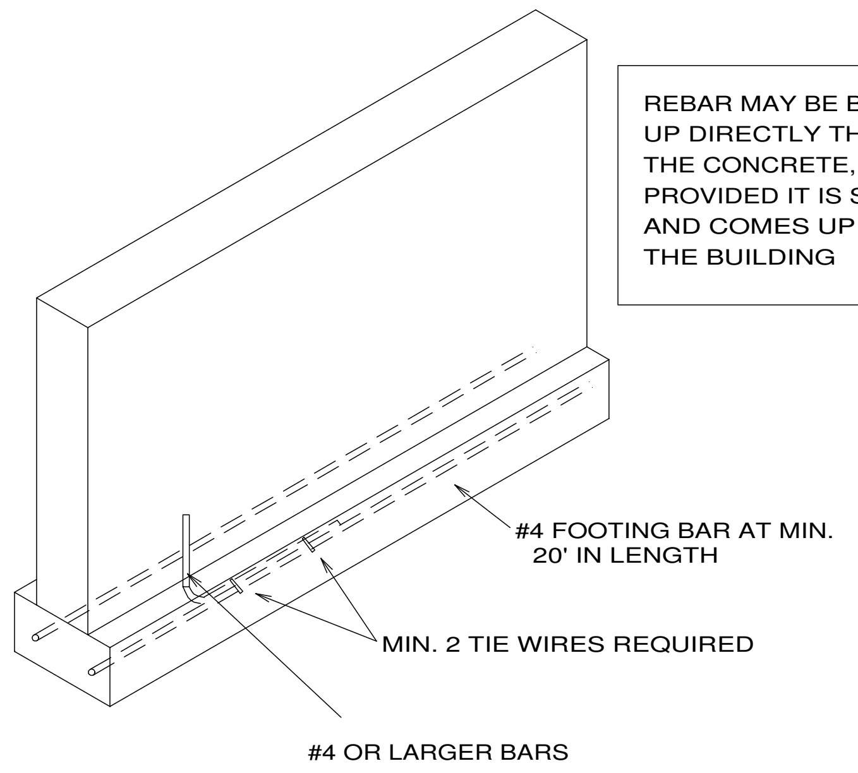


## TYPICAL FOUNDATION WALL



## GRADE PAD

1/2" = 1'0"



REBAR MAY BE BROUGHT
UP DIRECTLY THROUGH
THE CONCRETE,
PROVIDED IT IS SLEEVED
AND COMES UP INSIDE
THE BUILDING

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. (R502.7.1)

SEE ELEVATION FOR
WALL HEIGHTS

NOTE... ELECTRICAL SERVICE
TO BE 200 AMP.

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

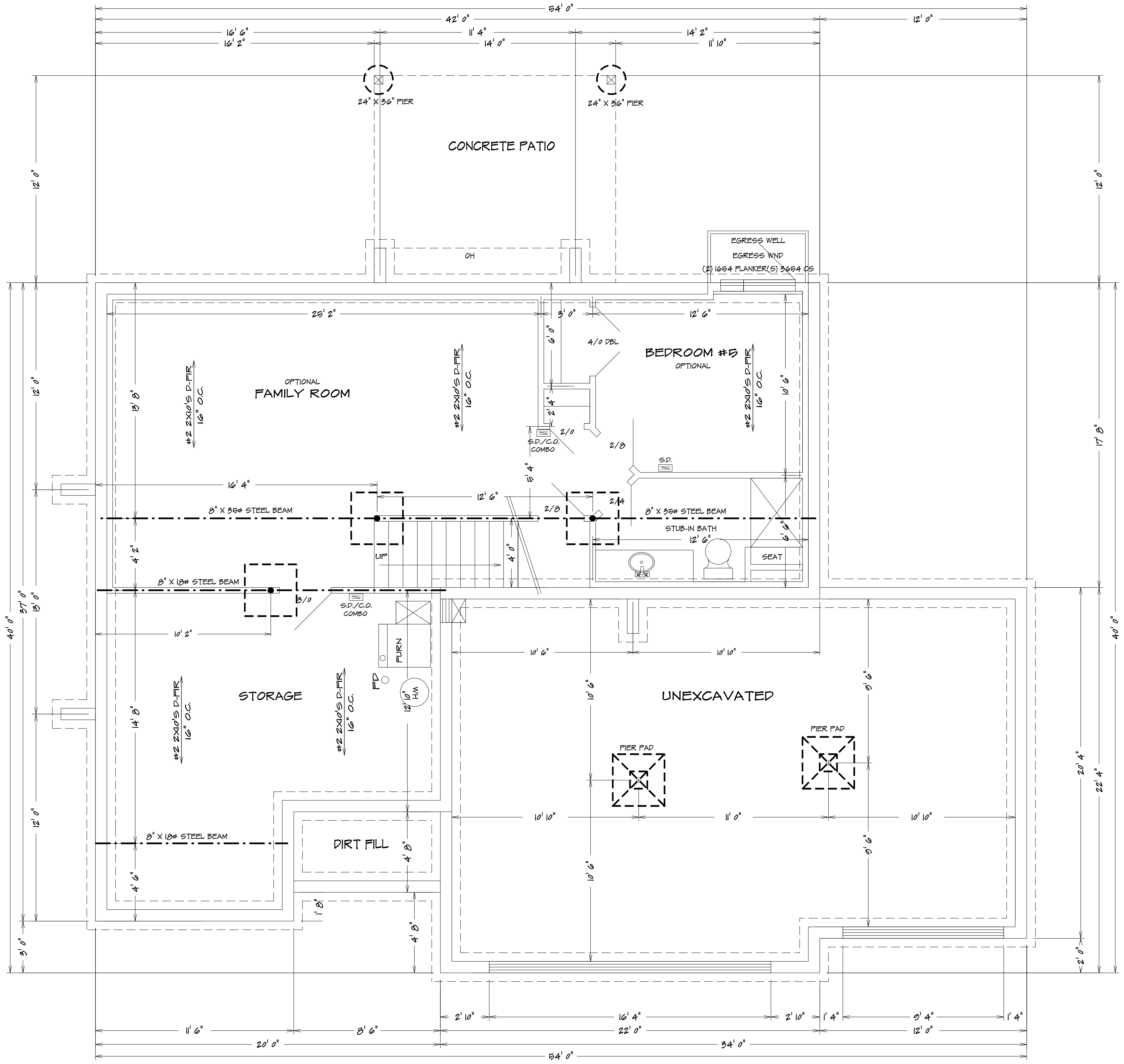
S.D. = SMOKE DETECTOR

REQUIRED FOOTING:

| BUILDING HEIGHT | MINIMUM FOOTING | HORIZONTAL REBAR | LOCATION OF REBAR |
|---|---|---|---|
| 1 OR 2 STY. | 8"T x 16"W | 2-#4 | 3" FROM BTM. |
| 3 STORY | 8"T x 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

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



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

## BASEMENT PLAN

1/4" = 1'0"

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

09/21/2020

AARON DELANEY
OBERMILLER
NUMBER
PE-2008019580
Aaron D. Obermiller
09-09-20

SHEET NO.
2

APPROX. SQ.FT.

PLAN NO.
KH-6106

FILE NAME:
6106 BSMT

DATE DRAWN:

DATE REVISED:

DESIGNER:

PHONE:

PHONE:

LOT NO.

HOME BUYER:

BUILDER:

SUB-DIVISION:

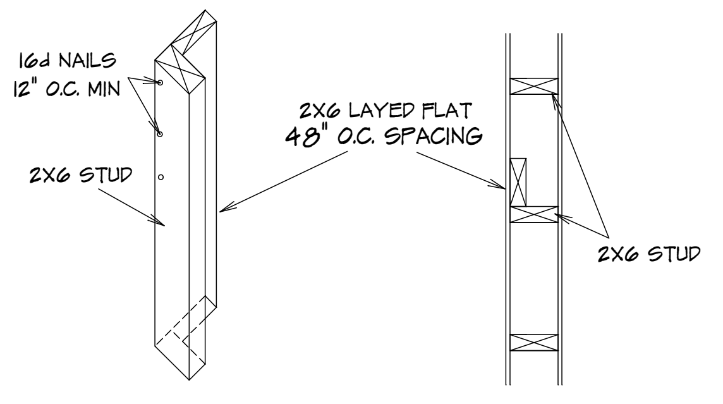
BUILDER@CONTRACTOR IS RESPONSIBLE TO CHECK ALL DIMENSIONS FOR ACCURACY BETWEEN FLOORS, FOUNDATION, AND ELEVATIONS. ALSO VERIFY ALL BEAM, HEADERS, PAD LOCATIONS, AND COLUMN SIZES. BUILDER@CONTRACTOR TO CHECK FOR COMPLIANCE WITH CONTRACTS, CITY, AND NATIONAL CODES. BUILDER@CONTRACTOR ACCEPTS ALL RESPONSIBLITY FOR LOT PLACEMENT, SET-BACKS, AND FLOOD PLAINS. BUILDER@CONTRACTOR AND HOME OWNER ACCEPTS RESPONSIBLITY FOR ANY AND ALL COPYRIGHT INFRINGMENTS OR RESEMBLANCES TO OTHER COPYRIGHTED PLANS. BUILDER@CONTRACTOR ACCEPTS RESPONSIBLITY FOR ANY AN ON SITE CHANGES MADE TO STRUCTURE.

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. |

USE HEADERS FOR OPENINGS ABOVE UNLESS SPECIFIED OTHERWISE.

R312.2.1 Window sills.

In dwelling units, where the opening of an operable window is located more than 72 inches (1829 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.

Exceptions:

1. 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 2090.
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.

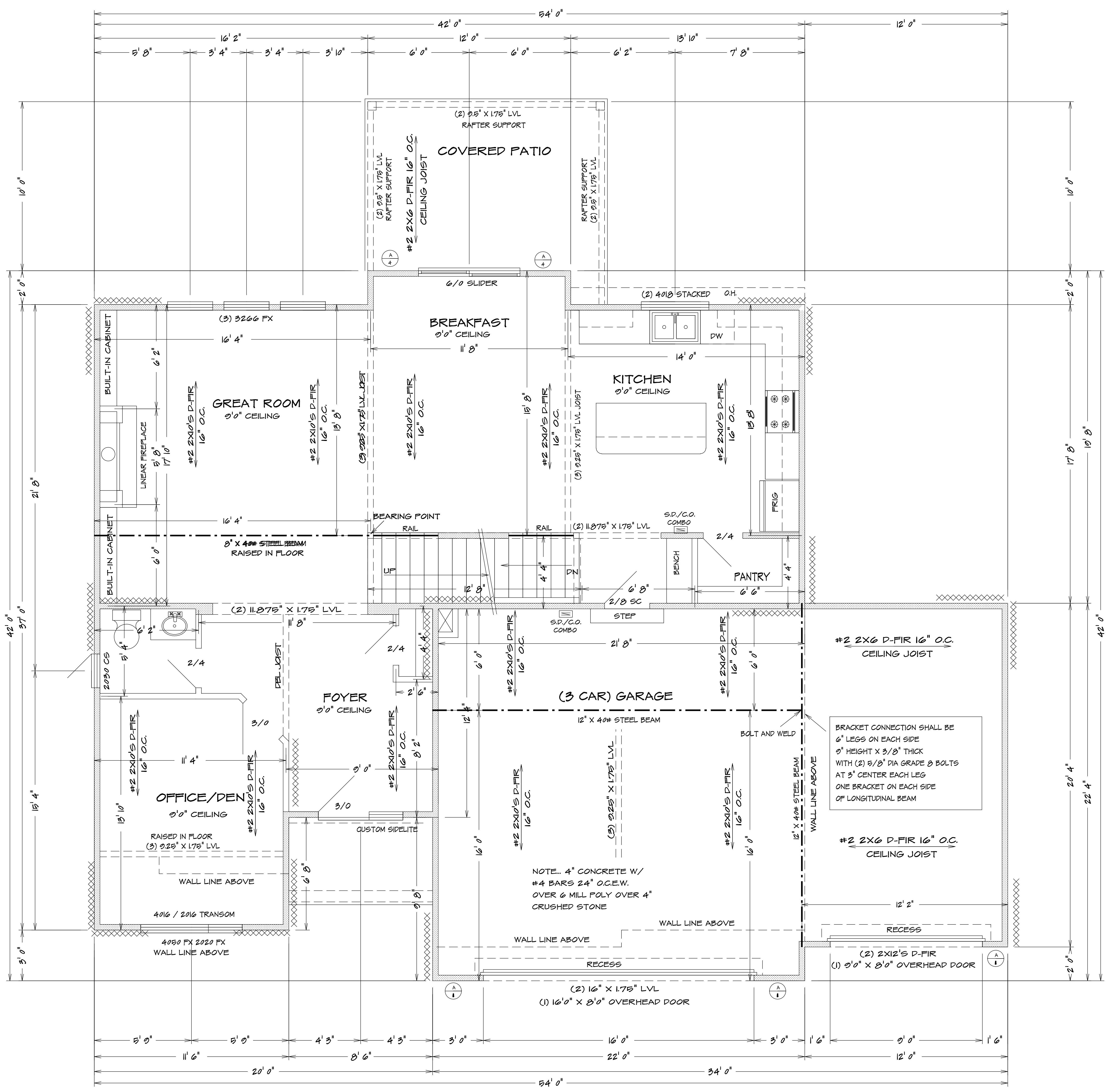
Bathrooms, water closet compartments and other similar rooms shall be provided with aggregate glazing area in windows of not less than 3 square feet, one-half of which must be openable.

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 M1507.

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



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

▨ BEARING WALL

## FIRST FLOOR PLAN

1/4" = 1'0"

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

09/21/2020

AARON DELANEY
OBERMILLER
NUMBER
PE-2008019580

Aaron D. Obermiller
09-09-20

SHEET NO.
3

APPROX. SQ.FT.

PLAN NO.
KH-6106

FILE NAME:
6106 FLR1

DATE DRAWN:

DATE REVISED:

DESIGNER:

PHONE:

PHONE:

LOT NO.

HOME BUYER:

BUILDER:

SUB-DIVISION:

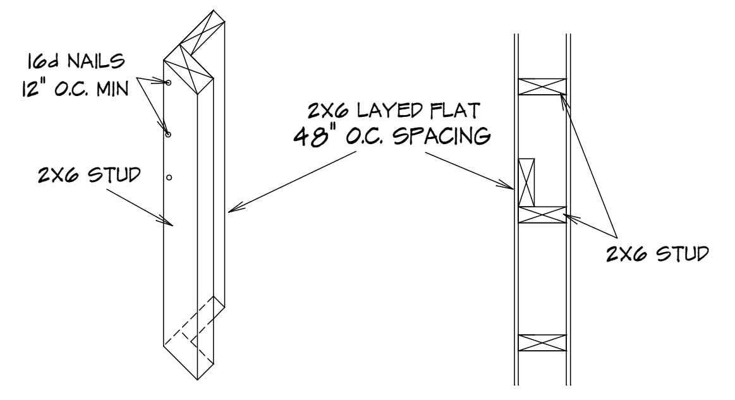
BUILDER@CONTRACTOR IS RESPONSIBLE TO CHECK ALL DIMENSIONS FOR ACCURACY BETWEEN FLOORS, FOUNDATION, AND ELEVATIONS, ALSO VERIFY ALL BEAM, HEADERS, PAD LOCATIONS, AND COLUMN SIZES. BUILDER@CONTRACTOR TO CHECK FOR COMPLIANCE WITH CONTRACTS, CITY, AND NATIONAL CODES. BUILDER@CONTRACTOR ACCEPTS ALL RESPONSIBLITY FOR LOT PLACEMENT, SET-BACKS, AND FLOOD PLAINS. BUILDER@CONTRACTOR AND HOME OWNER ACCEPTS RESPONSIBLITY FOR ANY AND ALL COPYRIGHT INFRINGMENTS OR RESEMBLANCES TO OTHER COPYRIGHTED PLANS. BUILDER@CONTRACTOR ACCEPTS RESPONSIBLITY FOR ANY AN ON SITE CHANGES MADE TO STRUCTURE.

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. |

USE HEADERS FOR OPENINGS ABOVE UNLESS SPECIFIED OTHERWISE.

R312.2.1 Window sills.

In dwelling units, where the opening of an operable window is located more than 72 inches (1829 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.

Exceptions:

1. 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 2090.
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.

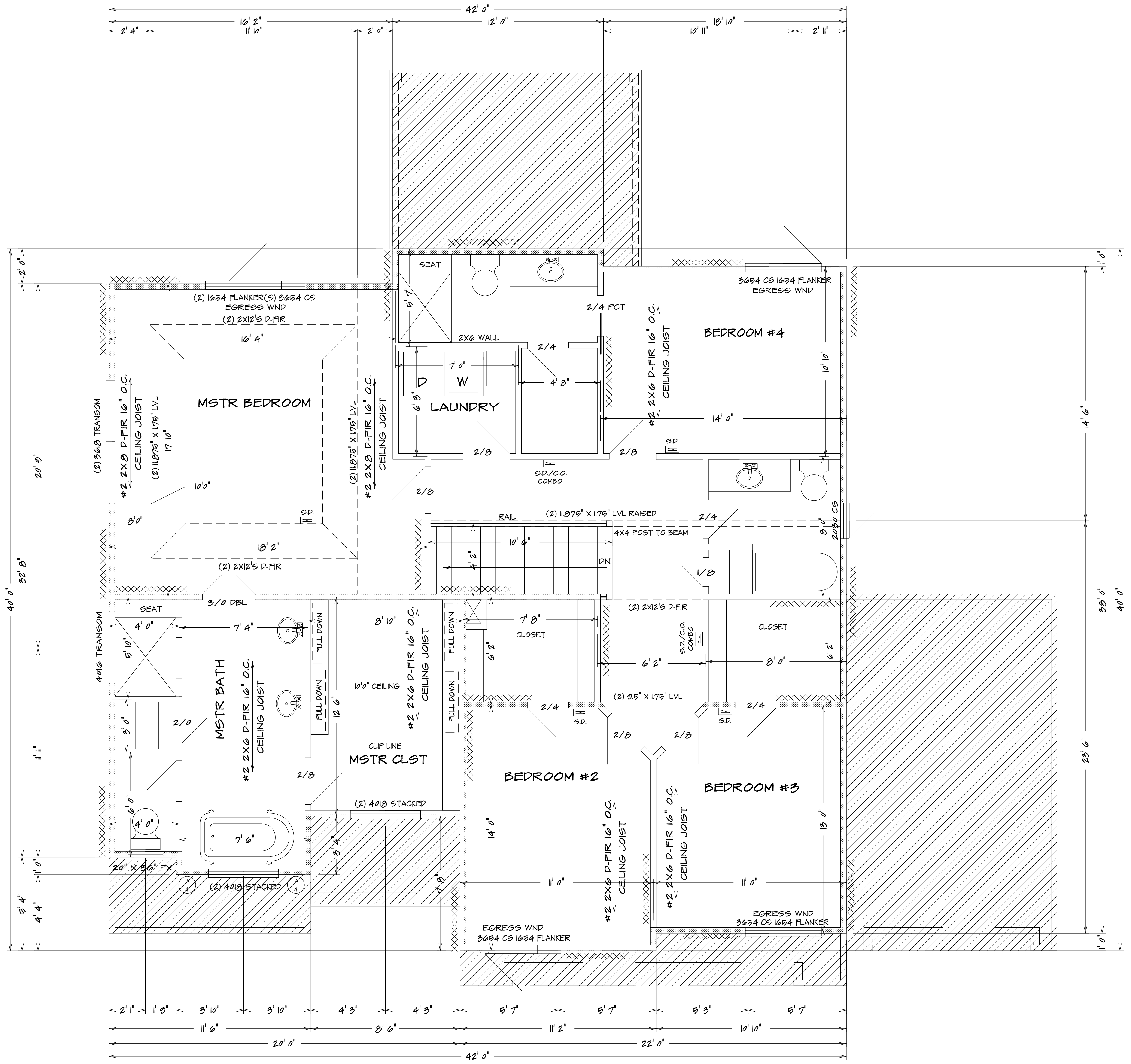
Bathrooms, water closet compartments and other similar rooms shall be provided with aggregate glazing area in windows of not less than 3 square feet, one-half of which must be openable.

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 M1507.

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



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

▨ BEARING WALL

## SECOND FLOOR PLAN

1/4" = 1'0"

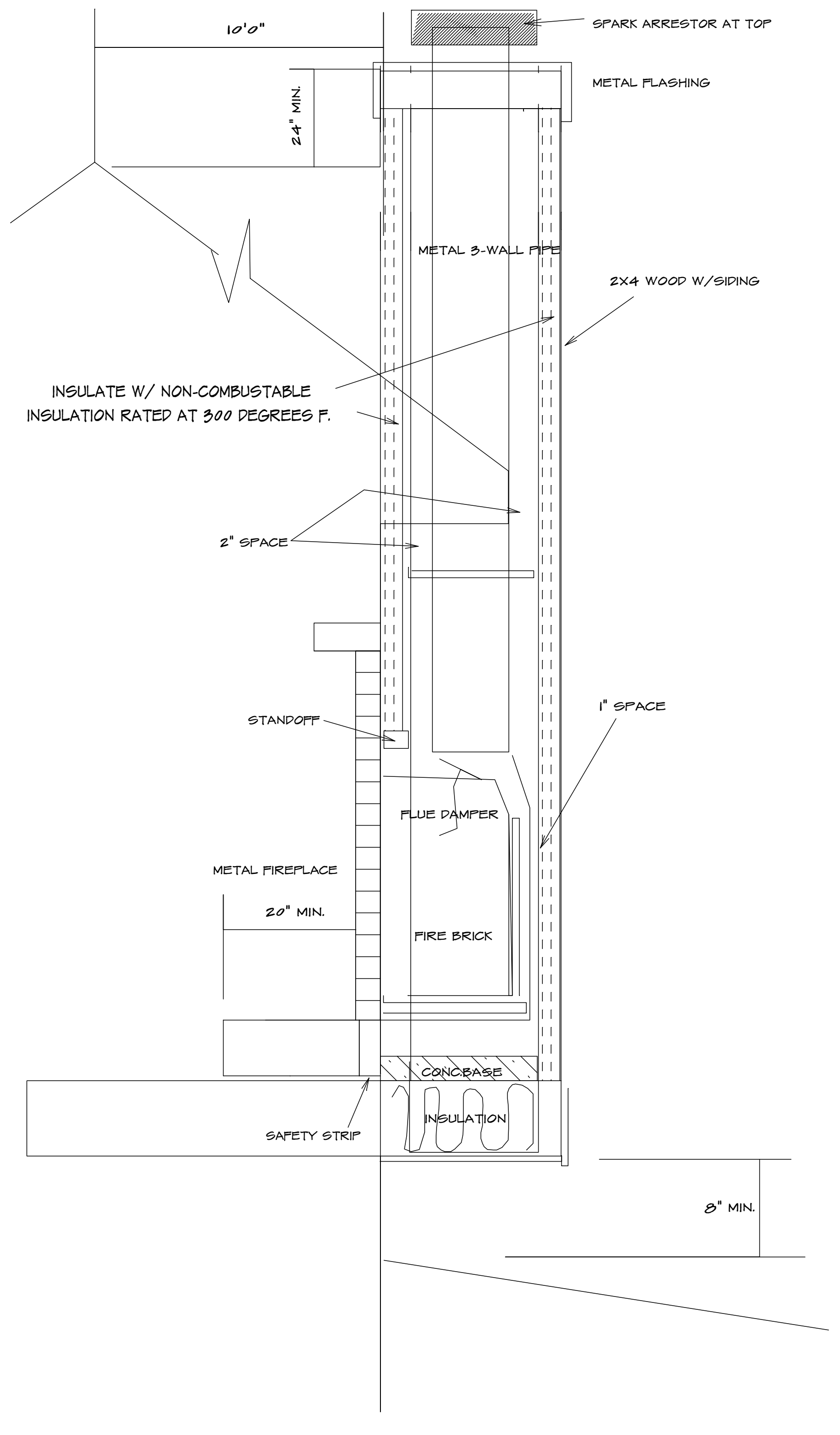
RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

09/21/2020

AARON DELANEY
OBERMILLER
NUMBER
PE-2008019580
Aaron D. Obermiller
09-09-20

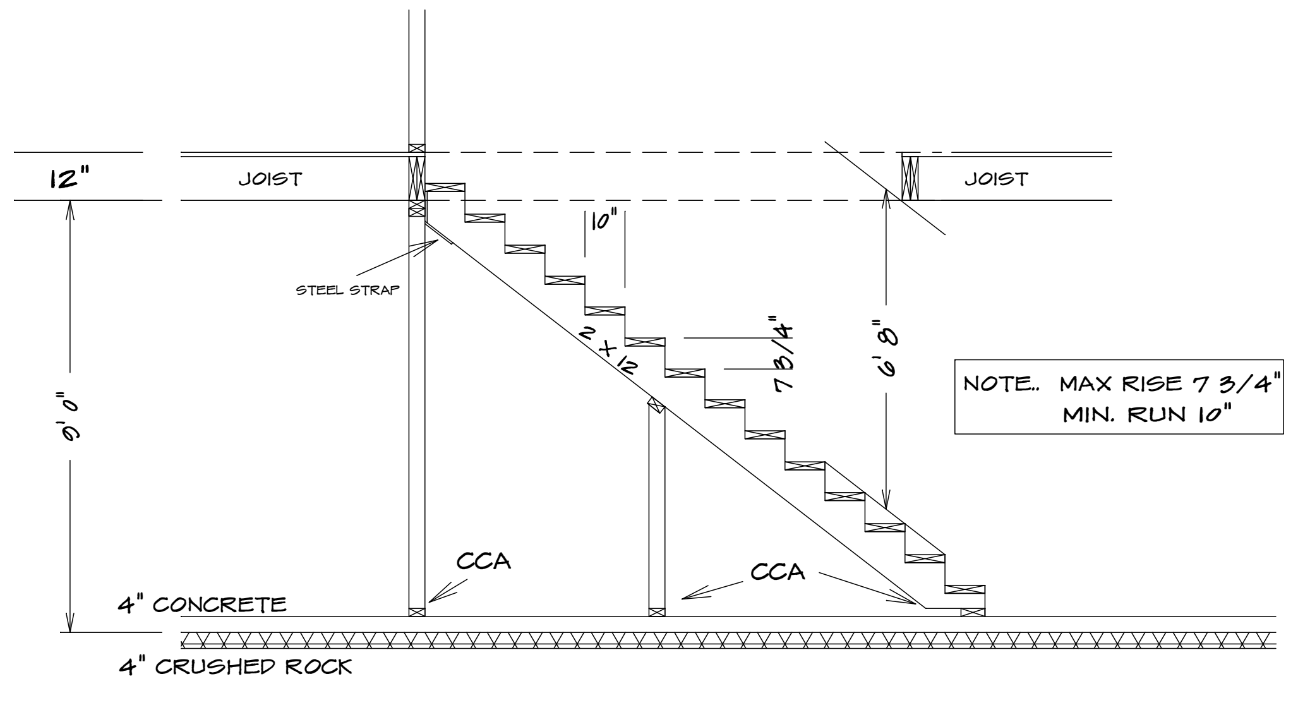
BUILDER&CONTRACTOR IS RESPONSIBLE TO CHECK ALL DIMENSIONS FOR ACCURACY BETWEEN FLOORS, FOUNDATION, AND ELEVATIONS. ALSO VERIFY ALL BEAM, HEADERS, PAD LOCATIONS, AND COLUMN SIZES. BUILDER&CONTRACTOR TO CHECK FOR COMPLIANCE WITH CONTRACTS, CITY, AND NATIONAL CODES. BUILDER&CONTRACTOR ACCEPTS ALL RESPONSIBLITY FOR LOT PLACEMENT, SET-BACKS, AND FLOOD PLAINS. BUILDER&CONTRACTOR AND HOME OWNER ACCEPTS RESPONSIBLITY FOR ANY AND ALL COPYRIGHT INFRINGMENTS OR RESEMBLANCES TO OTHER COPYRIGHTED PLANS. BUILDER&CONTRACTOR ACCEPTS RESPONSIBLITY FOR ANY AN ON SITE CHANGES MADE TO STRUCTURE.

| | | | | |
|---|---|---|---|---|
| HOME BUYER: | PHONE: | DATE DRAWN: | PLAN NO.<br>KH-6106 | SHEET NO.<br>4 |
| BUILDER: | PHONE: | DATE REVISED: | FILE NAME:<br>6106 FLR2 | APPROX. SQ.FT. |
| SUB-DIVISION: | LOT NO. | DESIGNER: | | |

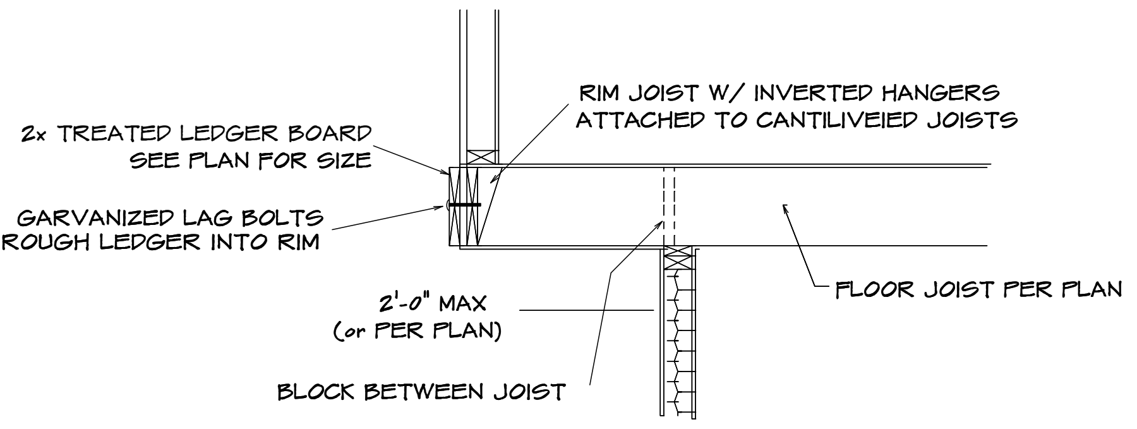


## TYPICAL METAL FIRE PLACE

NOTE..SEE SPECS FOR SPECIFIC APPLICATIONS.

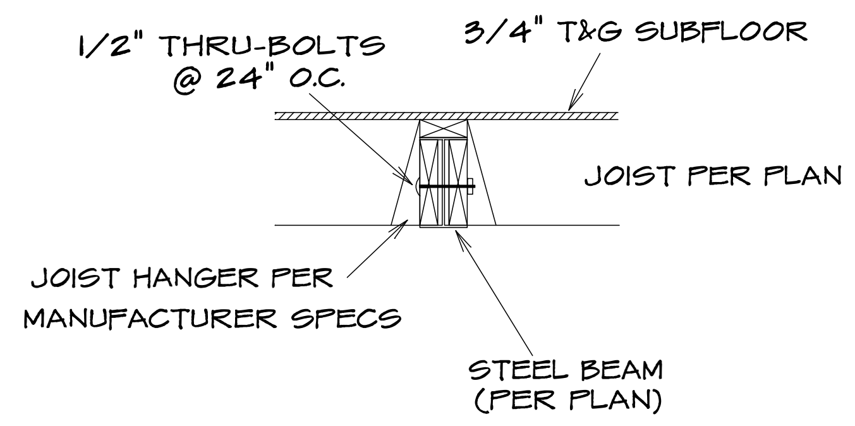


## STAIR SECTION (TYP)

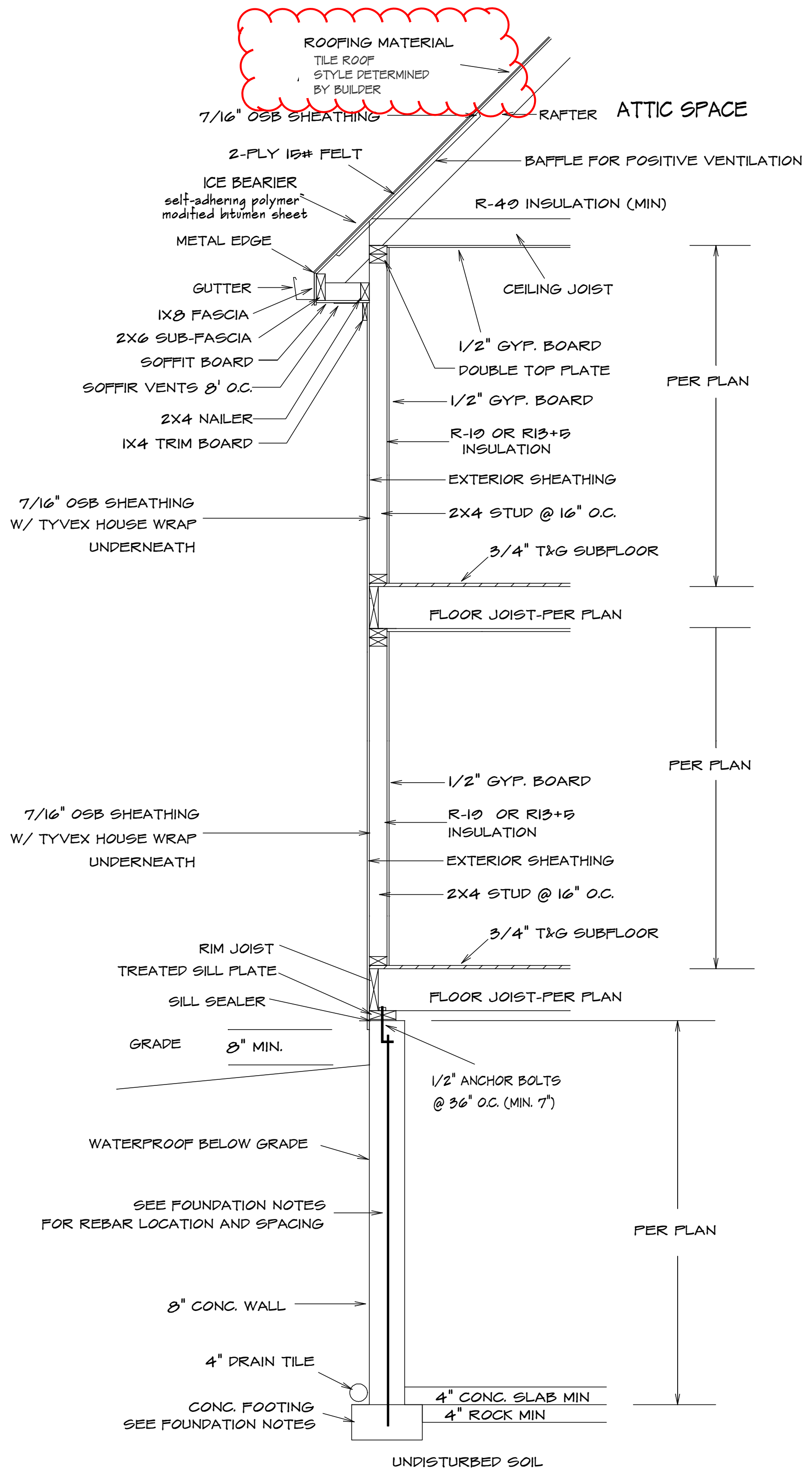


| DECK JOIST SPAN | 1/2" O LAG SPACING | EQUIVALENT SPACING FOR 16" O.C. JOIST BAYS |
|---|---|---|
| UP TO 10'-0" | 16" O.C. | N/A |
| 10'-0" -14'-0" | 12" O.C. | 16" O.C. DBL. EVERY OTHER |
| 14'-0" -18'-0" | 8" O.C. | 16" O.C. DBL. EVERY JOIST BAY |

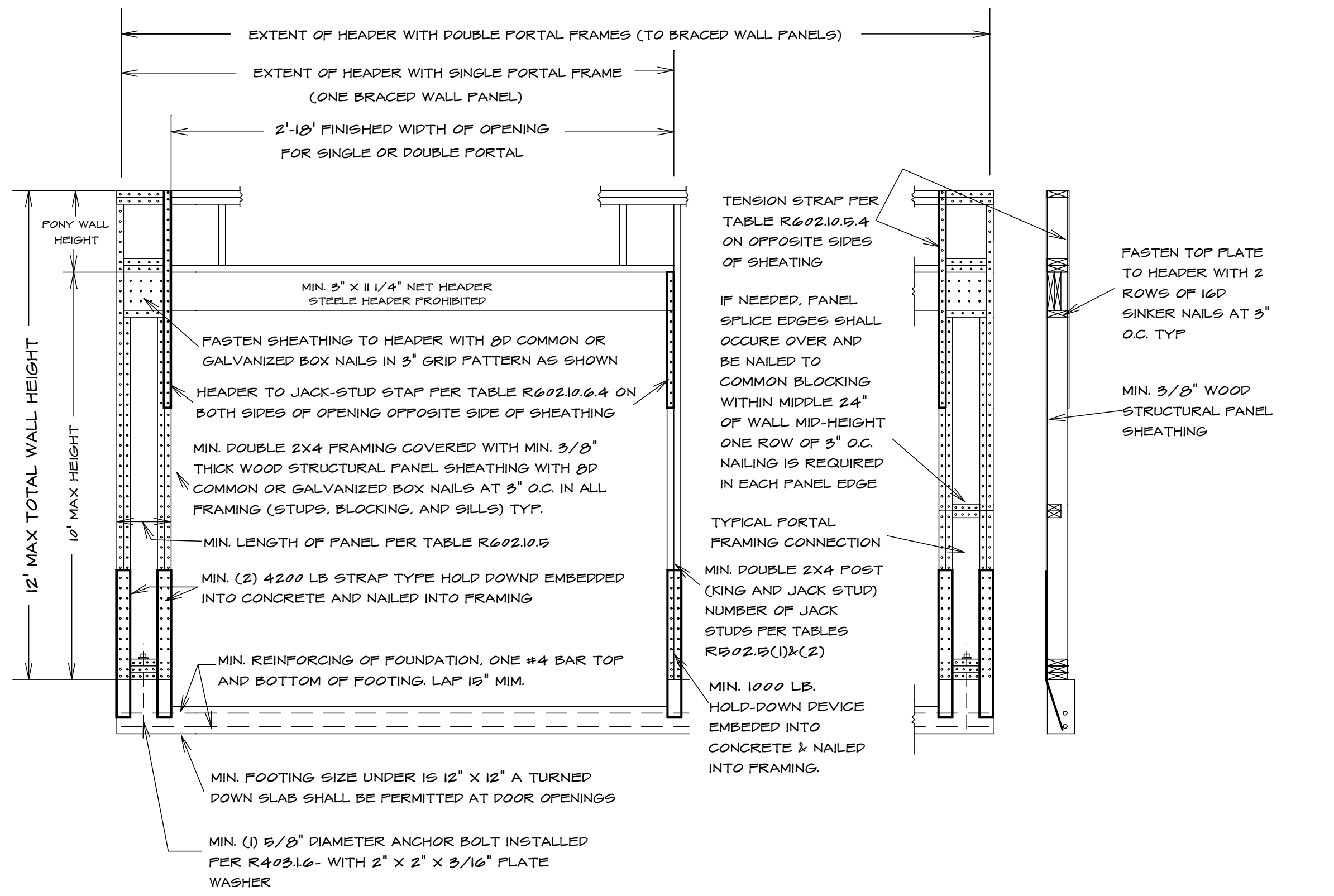
## TYPICAL CANTILEVER FRAMING W/ DECK ATTACHMENT



## UPSET STEEL BEAM/JOIST CONNECTION



## TYPICAL WALL SECTION



(A/1) ALTERNATE BRACED WALL PANEL
R602.10.6.2 Method PFH: Portal frame with hold-downs

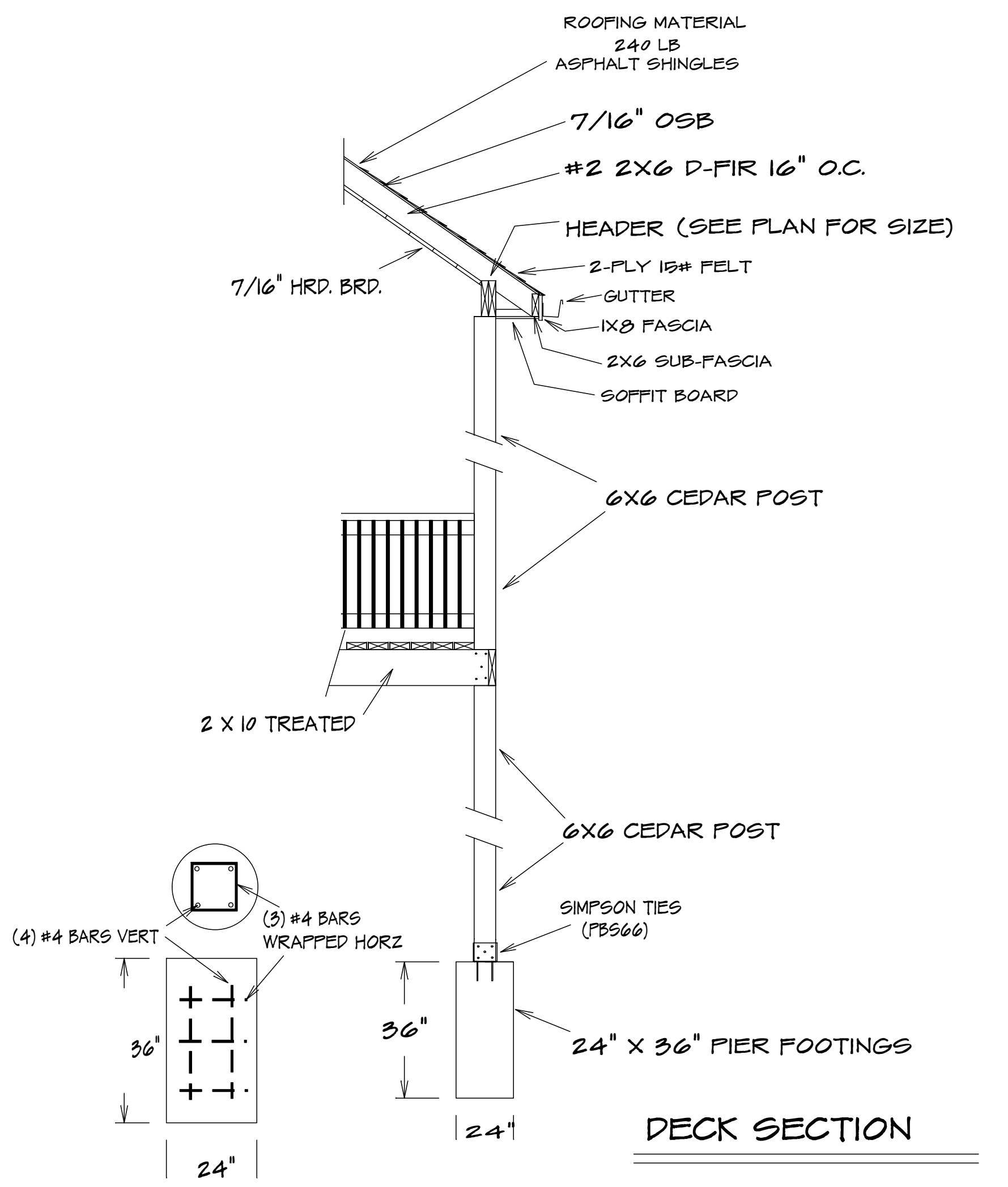
## BRACED WALL SECTION

BRACED WALLS:

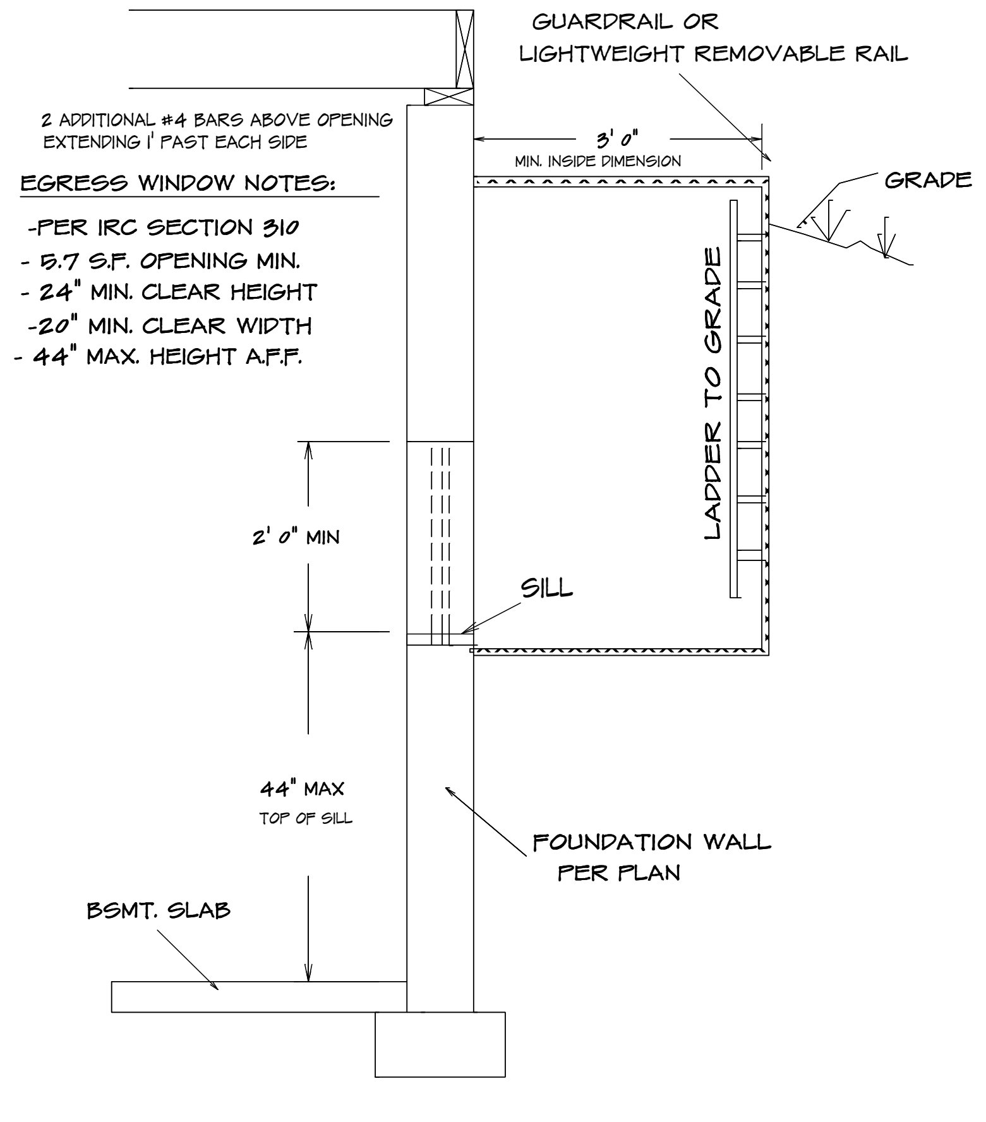
| | |
|---|---|
| xxxxxxxxxxxxxxxxx | METHOD WSP (R602.10.4 2018 IRC): MIN. 5/16" APA RATED WITH 8d NAILS @ 6" AND 12" |
| ////////////// | METHOD GB (R602.10.4 2018 IRC) : MIN. 1/2" GYPSUM BOARD WITH NO. 6 1-1/4" TYE W OR S SCREWS @ 7" O.C. EDGES AND WALL (4'-0" LONG, BOTH FACES OF WALL |
| A/1 | ALTERNATE BRACED WALL PANEL<br>R602.10.6.2 Method PFH: Portal frame with hold-downs |
| A/2 | ALTERNATE BRACED WALL PANEL .<br>R602.10.6.3 Method PFG: at garage door openings in Seismic Design Categories A, B and C |
| A/3 | ALTERNATE BRACED WALL PANEL .<br>R602.10.6.1 Method ABW: Alternate braced wall panels |
| A/4 | ALTERNATE BRACED WALL PANEL .<br>R602.10.6.4 Method CS-PF: Continuously sheathed portal frame |

2. PROVIDE SOLID BLOCKING ABOVE AND BELOW ALL BRACED WALL LINES WHERE FRAMING ABOVE OR BELOW RUNS PERPENDICULAR TO THE BRACING. THE BRACED WALL SOLE PLATE AND TOP PLATE SHALL BE FASTENED TO BLOCKING (RO PARALLEL FRAMING MEMBER WHERE PROVIDED) WITH (3) 16d NAILS @ 16" O.C.

3. SIMPSON STHD-14 HOLD-DOWN STRAPS MAY BE SUBSTITUTED WITH SIMPSON PHD2 HOLD-DOWNS AND A 5/8" ANCHOR ROD DRILLED AND EPOXIED A MIN. 7" INTO THE FOUNDATION

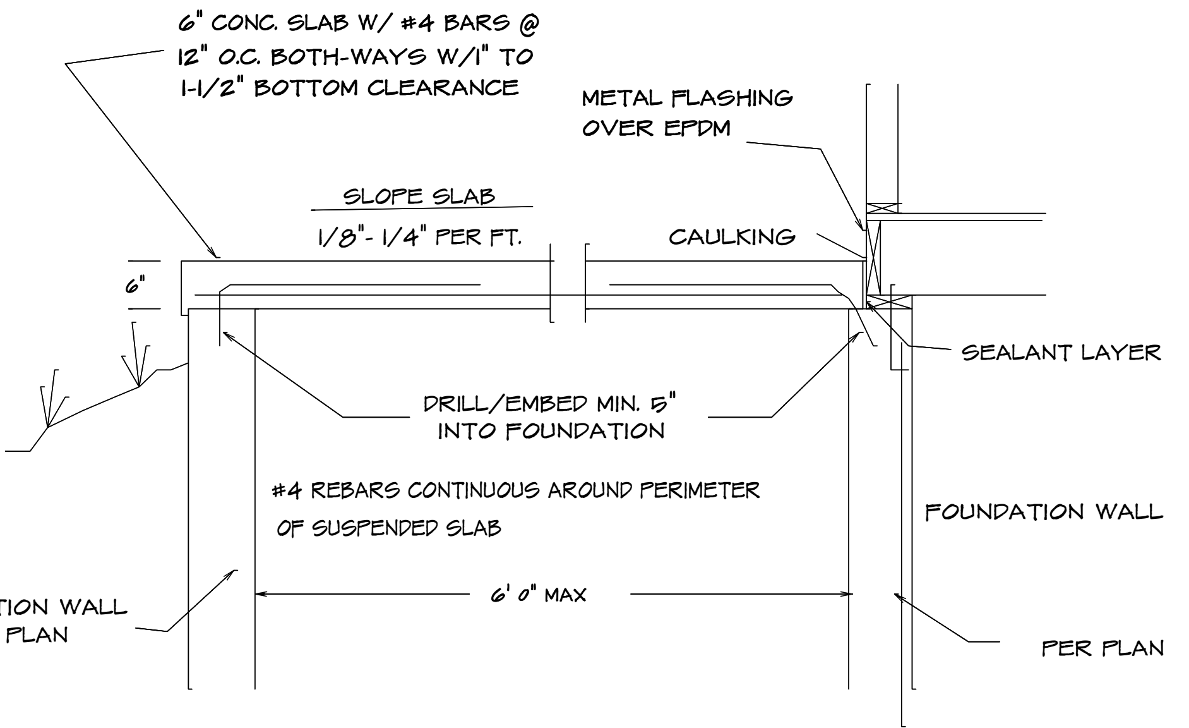


## DECK SECTION



EGRESS WINDOW NOTES:
- -PER IRC SECTION 310
- 5.7 S.F. OPENING MIN.
- 24" MIN. CLEAR HEIGHT
- -20" MIN. CLEAR WIDTH
- 44" MAX. HEIGHT A.F.F.

## TYPICAL EGRESS WINDOW SECTION DETAIL



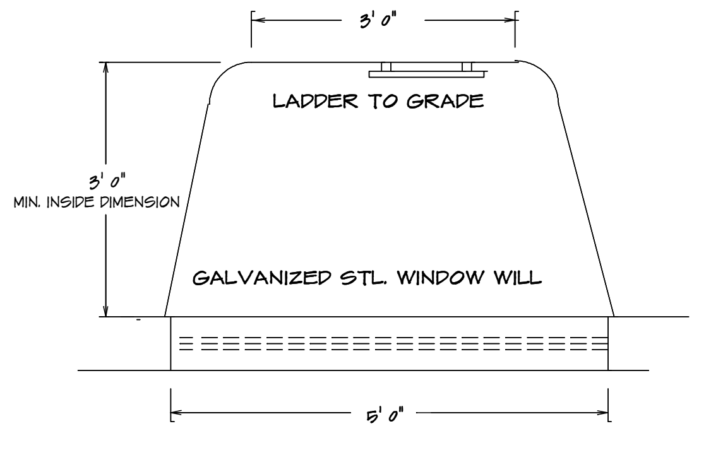
FORMWORK OPTIONS:

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

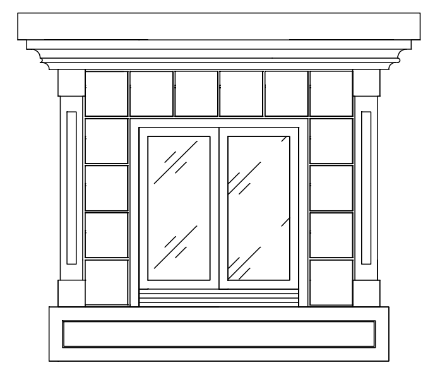
## SUSPENDED PORCH STOOP DETAIL
## OPTIONAL

PORCH SLAB (6'SPAN OR LESS)

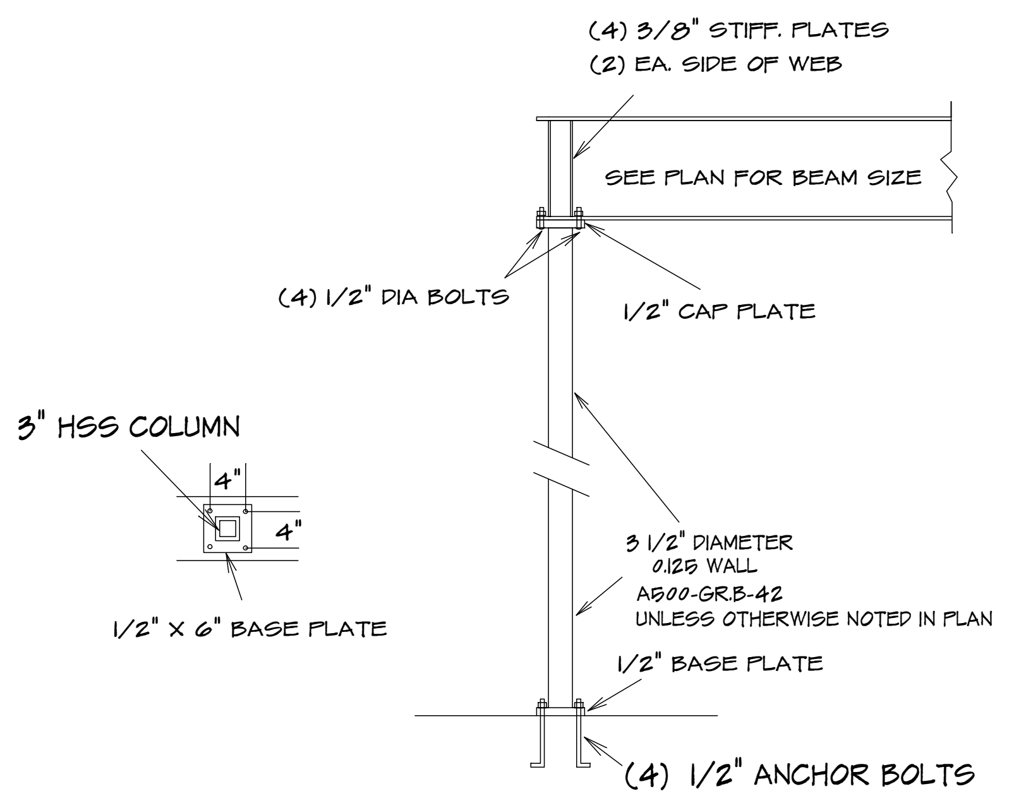
1. MAXIMUM SPAN = 6'
2. MINIMUM 6" THICKNESS
3. #4 REBARS AT 12" O.C. EACH WAY
4. MIN. 1-1/2" OF CONTINUIUS BEARING AT THE EDGES OF SLAB
5. PORCH SLAB GREATER THEN 6' SHALL BE TREATED AS AN ELEVATED GARAGE SLAB



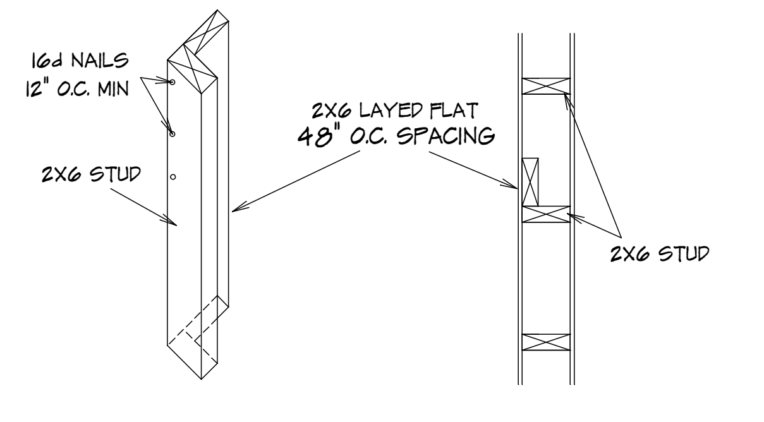
## TYPICAL EGRESS WINDOW PLAN SECTION



## TYPICAL F.P. FRONT



## HSS COLUMN DETAIL



## EXTERIOR TALL WALL SECTION

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

GARAGE

1. THE GARAGE FLOOR SHALL BE SLOPED TOWARD GARAGE DOORS
2. DOORS BETWEEN GARAGE AND DWELLING - MIN 1 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

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 A 24" ARCH OF THE DOOR IN CLOSED POSITION AND WHOSE BOTTOM EDGE IS WITHIN 60" OF THE FLOOR: WALLS ENCLOSED STAIRWAYS AND LANDINGS WHERE THE GLAZING IS WITHIN 60" OF THE TOP OR BOTTOM OF THE STAIR: ENCLOSURES FOR SPAS, TUBS, SHOWERS, AND WHIRLPOOLS: GLAZING IN FIXED OR OPENABLE PANELS EXCEEDING 9 SQ. FT. AND WHOSE BOTTOM EDGE IS LESS THAN 18" ABOVE THE FLOOR OR WALKING SURFACE WITH IN 36"

EMERGENCY EGRESS

1. 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

1. ALL OUTLETS TO BE ARC FAULT 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 OUTLETS TO BE TAMPER RESISTANT

SECTION R315 CARBON MONOXIDE ALARMS

R315.1 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.

R315.2 Carbon monoxide detection systems.
Carbon monoxide detection systems that include carbon monoxide detectors and audible notification appliances, installed 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 supervising station.

FRAMING NOTE

1. ALL LUMBER SIZES ARE FOR #2 D-FIR-LARCH
2. ALL HEADERS TO BE MIN. (2) #2-2X10
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 IRC SEC. R502.4
6. WATER-RESISTIVE BARRIER SHALL BE PROVIDED OVER ALL EXTERIOR WALL PER IRC SEC. R703
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
11. 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 IRC SEC. 802.3

R312.2 Guard opening limitations.
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 more in diameter.

R302.5.1 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 doors not less than 1 3/8 inches in thickness, solid or honeycomb-core steel doors not less than 1 3/8 inches thick, or 20-minute fire-rated doors, equipped with a self-closing device.

SMOKE ALARMS:

2018 IRC.
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)

INSULATION NOTES:

2018 IRC.
MIN. INSULATION SHALL BE PROVIDED ADJACENT TO HABITABLE AREAS AS FOLLOWS:

| | |
|---|---|
| EXTERIOR FRAMED WALLS | (R19 OR R13+5) |
| FLOOR OVER HEATED SPACE | R19 |
| FLOOR OVER OUTSIDE AIR | R19 |
| ATTIC - BLOWN IN | R49 |
| CATHEDRAL CEILING | R30 |

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

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/21/2020

AARON DELANEY OBERMILLER
NUMBER PE-2008019580
Aaron D. Obermiller
09-20-20

SHEET NO. 5
APPROX. SQ.FT.
PLAN NO. KH-6106
FILE NAME: 6106 SECI
DATE DRAWN:
DATE REVISED:
DESIGNER:
PHONE:
PHONE:
LOT NO.
HOME BUYER:
BUILDER:
SUB-DIVISION:

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. BUILDER&CONTRACTOR TO CHECK FOR COMPLIANCE WITH CONTRACTS, CITY, AND NATIONAL CODES. BUILDER&CONTRACTOR ACCEPTS ALL RESPONSIBLITY FOR LOT PLACEMENT, SET-BACKS, AND FLOOD PLAINS. BUILDER&CONTRACTOR AND HOME OWNER ACCEPTS RESPONSIBLITY FOR ANY AND ALL COPYRIGHT INFRINGMENTS OR RESEMBLANCES TO OTHER COPYRIGHTED PLANS. BUILDER&CONTRACTOR ACCEPTS RESPONSIBLITY FOR ANY AN ON SITE CHANGES MADE TO STRUCTURE.

## Foundation Wall Reinforcement Schedule - Table 2

| Vertical reinforcement spacing 60 psf soil | | | | | | |
|---|---|---|---|---|---|---|
| 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 – Minimum Grade 40 steel #4 bar | | | | | | |
| 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 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 inside corners
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.
7) 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).

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

| ITEM | DESCRIPTION OF BUILDING ELEMENTS | NUMBER AND TYPE OF FASTENER$^{a, b, c}$ | SPACING OF FASTENERS |
|---|---|---|---|
| | | **Roof** | |
| 1 | Blocking between joists or rafters to top plate, toe nail | 3-8d ($2^1/_2$" × 0.113") | — |
| 2 | Ceiling joists to plate, toe nail | 3-8d ($2^1/_2$" × 0.113") | — |
| 3 | Ceiling joists not attached to parallel rafter, laps over partitions, face nail | 3-10d | — |
| 4 | Collar tie to rafter, face nail or $1^1/_4$" × 20 gage ridge strap | 3-10d (3" × 0.128") | — |
| 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 side and 1 toe nail on opposite side of each rafter or truss$^{j}$ |
| 6 | Roof rafters to ridge, valley or hip rafters: toe nail face nail | 4-16d ($3^1/_2$" × 0.135")<br>3-16d ($3^1/_2$" × 0.135") | — |
| | | **Wall** | |
| 7 | Built-up studs-face nail | 10d (3" × 0.128") | 24" o.c. |
| 8 | Abutting studs at intersecting wall corners, face nail | 16d ($3^1/_2$" × 0.135") | 12" o.c. |
| 9 | Built-up header, two pieces with $^1/_2$" spacer | 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 edge |
| 11 | Continuous header to stud, toe nail | 4-8d ($2^1/_2$" × 0.113") | — |
| 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") | — |
| 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") | — — |
| 18 | Top or sole plate to stud, end nail | 2-16d ($3^1/_2$" × 0.135") | — |
| 19 | Top plates, laps at corners and intersections, face nail | 2-10d (3" × 0.128") | — |
| 20 | 1" brace to each stud and plate, face nail | 2-8d ($2^1/_2$" × 0.113")<br>2 staples 1 $^3/_4$" × | — — |
| 21 | 1" × 6" sheathing to each bearing, face nail | 2-8d ($2^1/_2$" × 0.113")<br>2 staples 1 $^3/_4$" | — — |
| 22 | 1" × 8" sheathing to each bearing, face nail | 2-8d ($2^1/_2$" × 0.113")<br>3 staples 1 $^3/_4$ | — — |
| 23 | Wider than 1" × 8" sheathing to each bearing, face nail | 3-8d ($2^1/_2$" × 0.113")<br>4 staples $1^3/_4$" | — — |
| | | **Floor** | |
| 24 | Joist to sill or girder, toe nail | 3-8d ($2^1/_2$" × 0.113") | — |
| 25 | Rim joist to top plate, toe nail (roof applications also) | 8d ($2^1/_2$" × 0.113") | 6" o.c. |
| 26 | Rim joist or blocking to sill plate, toe nail | 8d ($2^1/_2$" × 0.113") | 6" o.c. |
| 27 | 1" × 6" subfloor or less to each joist, face nail | 2-8d ($2^1/_2$" × 0.113")<br>2 staples $1^3/_4$" | — — |
| 28 | 2" subfloor to joist or girder, blind and face nail | 2-16d ($3^1/_2$" × 0.135") | — |
| 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 top and bottom and staggered.<br>Two nails at ends and at each splice. |
| 31 | Ledger strip supporting joists or rafters | 3-16d ($3^1/_2$" × 0.135") | At each joist or rafter |

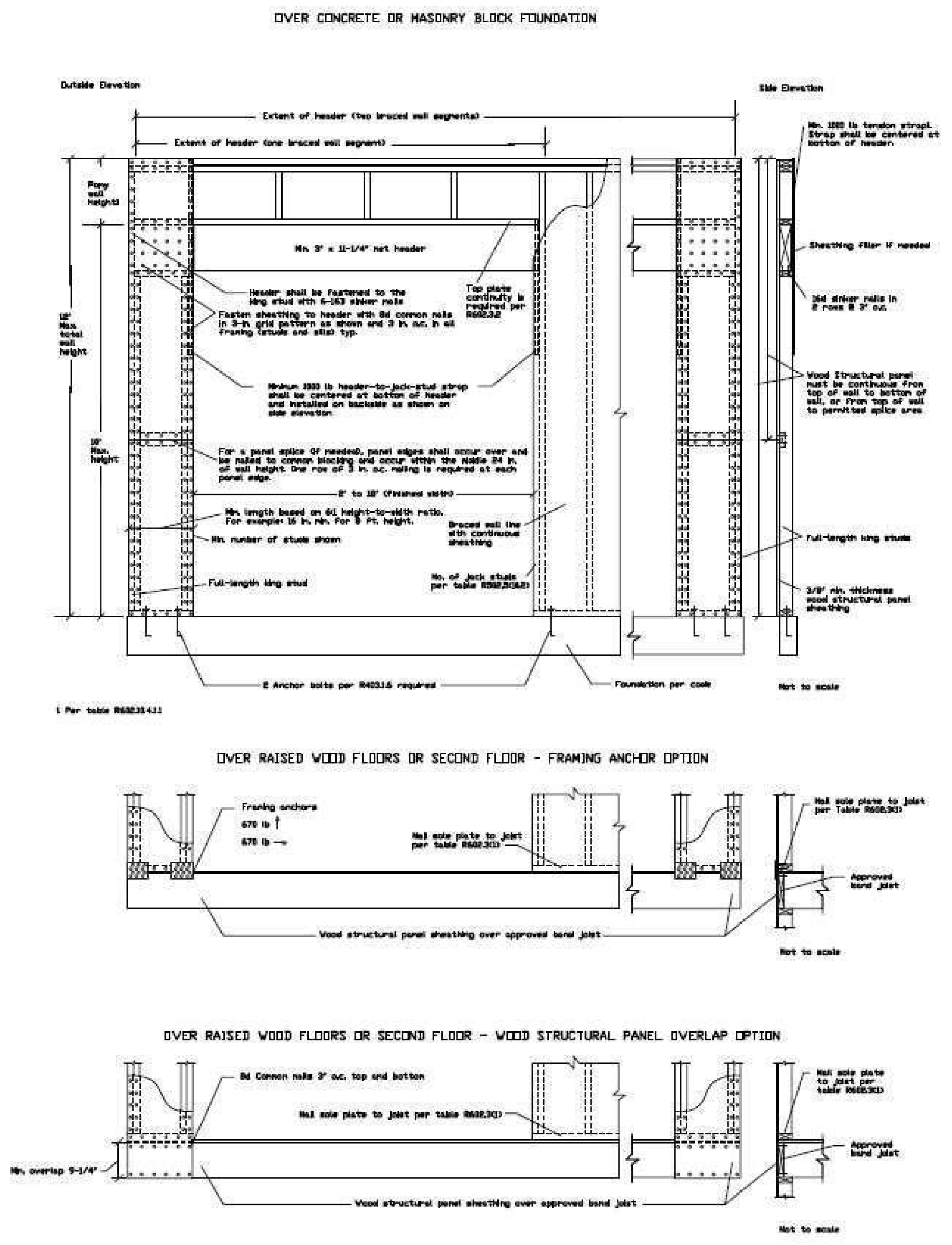
**TABLE R602.3(1)—continued FASTENER SCHEDULE FOR STRUCTURAL MEMBERS**

| ITEM | DESCRIPTION OF BUILDING MATERIALS | DESCRIPTION OF FASTENER$^{b, c, e}$ | SPACING OF FASTENERS | |
|---|---|---|---|---|
| | | | Edges (inches)$^{i}$ | Intermediate supports$^{c, e}$ (inches) |
| | Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing | | | |
| 32 | $^3/_8$" - $^1/_2$" | 6d common (2" × 0.113") nail (subfloor wall)$^{j}$<br>8d common ($2^1/_2$" × 0.131") nail (roof)$^{f}$ | 6 | $12^{g}$ |
| 33 | $^{19}/_{32}$" - 1" | 8d common nail ($2^1/_2$" × 0.131") | 6 | $12^{g}$ |
| 34 | $1^1/_8$" - $1^1/_4$" | 10d common (3" × 0.148") nail or<br>8d ($2^1/_2$" × 0.131") deformed nail | 6 | 12 |
| | Other wall sheathing$^{h}$ | | | |
| 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 structural panels, combination subfloor underlayment to framing | | | |
| 39 | $^3/_4$" and less | 6d deformed (2" × 0.120") nail or<br>8d common ($2^1/_2$" × 0.131") nail | 6 | 12 |
| 40 | $^7/_8$" - 1" | 8d common ($2^1/_2$" × 0.131") nail or<br>8d deformed ($2^1/_2$" × 0.120") nail | 6 | 12 |
| 41 | $1^1/_8$" - $1^1/_4$" | 10d common (3" × 0.148") nail or<br>8d deformed ($2^1/_2$" × 0.120") nail | 6 | 12 |

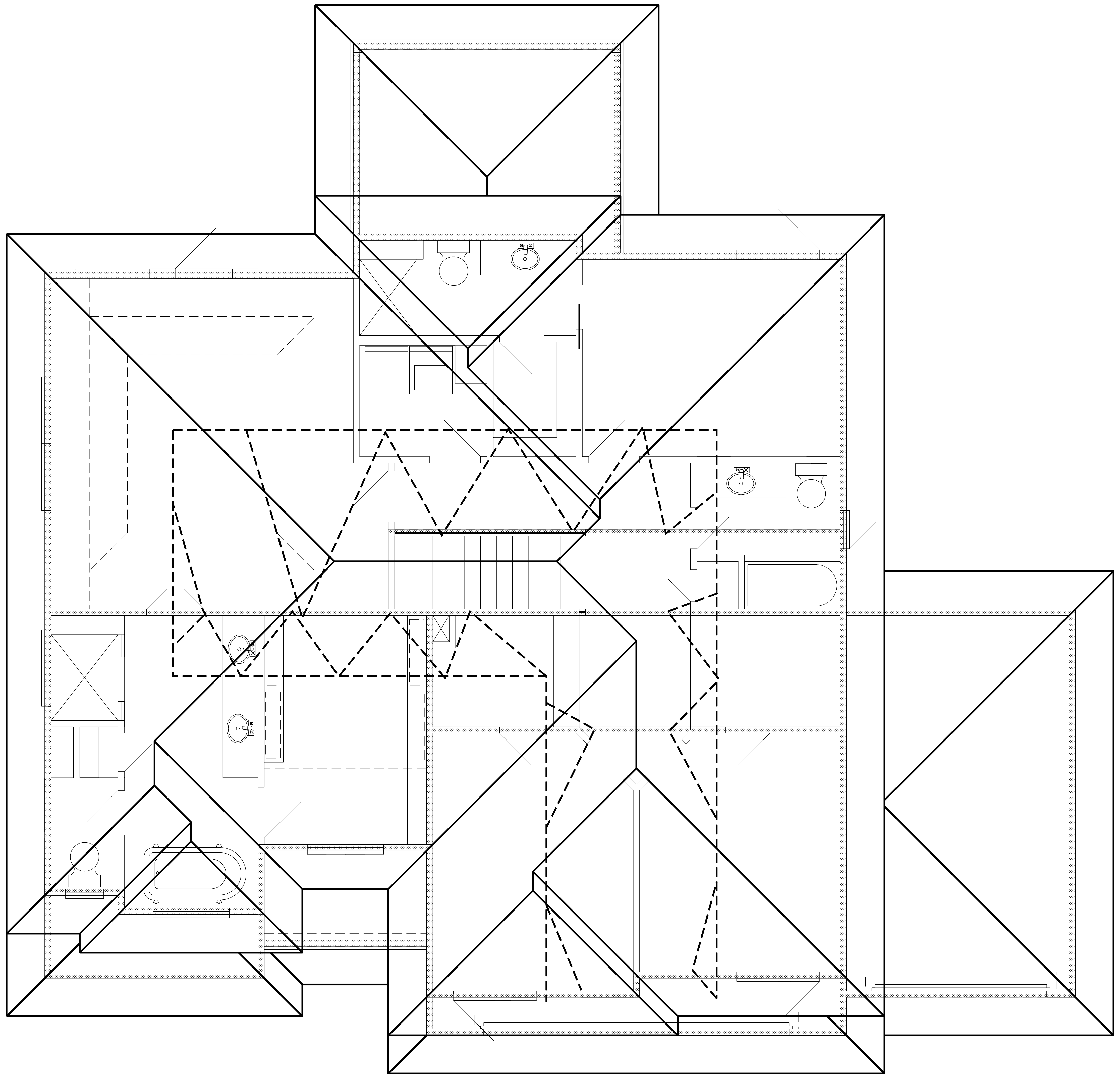
For SI: 1 inch = 25.4 mm. 1 foot = 304.8 mm. 1 mile per hour = 0.447 m/s: 1 Ksi = 6.895 MPa.

REQUIRED FOOTING:

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



CF-PF WALL BRACING SECTION



TILE ROOF LOADS:

ROOF LIVE LOAD = 20 PSF

ROOF DEAD LOAD = 30 PSF

# ROOF ELEVATION

1/8" = 1'0"

NOTE... HIP RIDGE FOR THE MAIN ROOF AS:

2X10 #2 D-FIR FOR UNBRACED LENGTH UP TO 9'0"
2X12 #2 D-FIR FOR UNBRACED LENGTH UP TO 11'0"
1.75" X 9.25" LVL FOR UNBRACED LENGTH UP TO 14'0"
1.75" X 11.25" FOR UNBRACED LENGTH UP TO 17"0"

▨ BEARING WALL

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

MAXIMUM UNSUPPORTED HORIZONTAL SPAN FOR
#2 2X6 D-FIR 16" O.C. TO BE 11'0"

PURLINGS TO BE EQUAL TO RAFTER OR GREATER

PURLING TO BE SUPPORTED TO BEARING WALL LINES
WITH SUPPORTS SPACED 4'0" O.C. MAX FOR 2X6 PURLING
6'0" O.C. MAX FOR 2X8 PURLING
8'0" O.C. MAX FOR 2X10 PURLING

CONNECT RAFTERS TO CEILING JOIST W (4) 16d GALV. NAILS

CONNECT RAFTERS TO RIDGE, VALLEY, AND HIP RIDGE
WITH (4) 16d GALV. NAILS

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/21/2020

AARON DELANEY OBERMILLER
NUMBER PE-2008019580
Aaron D. Obermiller
09-09-20

SHEET NO. 6
APPROX. SQ.FT.
PLAN NO. KH-6106
FILE NAME: 6106 SEC2
DATE DRAWN:
DATE REVISED:
DESIGNER:
PHONE:
PHONE:
LOT NO.
HOME BUYER:
BUILDER:
SUB-DIVISION:

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. BUILDER@CONTRACTOR TO CHECK FOR COMPLIANCE WITH CONTRACTS, CITY, AND NATIONAL CODES. BUILDER@CONTRACTOR ACCEPTS ALL RESPONSIBLITY FOR LOT PLACEMENT, SET-BACKS, AND FLOOD PLAINS. BUILDER@CONTRACTOR AND HOME OWNER ACCEPTS RESPONSIBLITY FOR ANY AND ALL COPYRIGHT INFRINGMENTS OR RESEMBLANCES TO OTHER COPYRIGHTED PLANS. BUILDER@CONTRACTOR ACCEPTS RESPONSIBLITY FOR ANY AN ON SITE CHANGES MADE TO STRUCTURE.