MD² DESIGNS
Quality By Design

FRONT ELEVATION
1/4" = 1'0"

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.

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

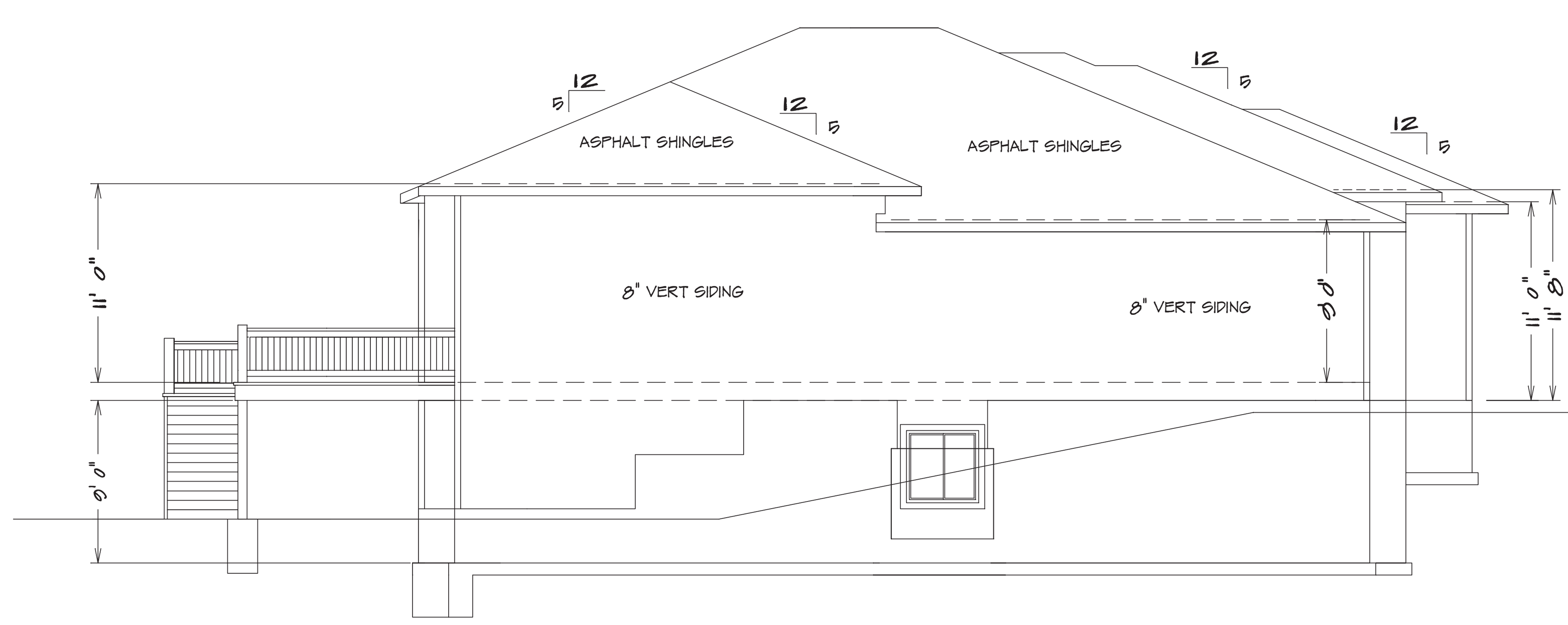
FRONT ELEVATION IS ARCHITECTURAL DRAWING AND MAY VARY DUE TO MATERIALS AVAILABILITY

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

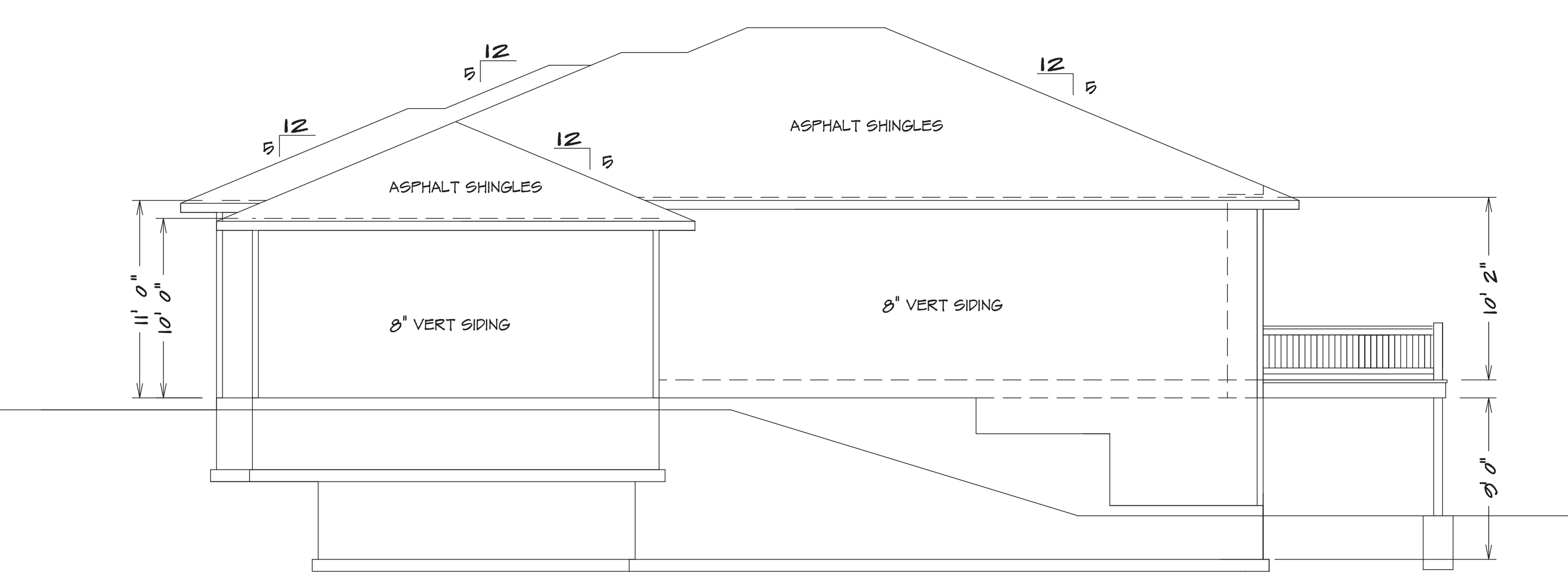
LOT 192 NAPA VALLEY
3916 SW FLINTROCK

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/10/2025

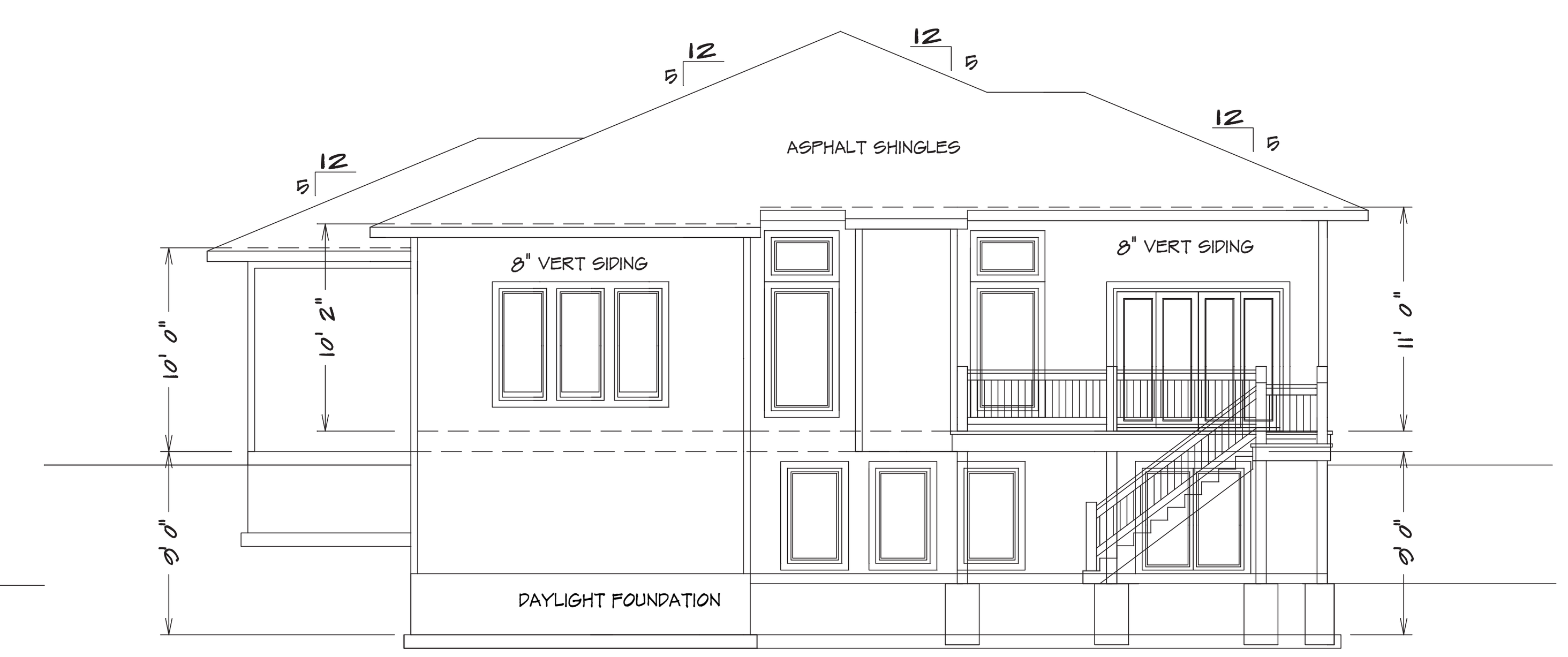
Brandon Kalwei
Digitally signed by Brandon Kalwei
DN: CN=Brandon Kalwei, OU=Development, OU=LS Users, DC=COLS, DC=LOC
Date: 2025.03.10 11:10:45-05'00'



LEFT ELEVATION
1/8" = 1'0"



RIGHT ELEVATION
1/8" = 1'0"



REAR ELEVATION
1/8" = 1'0"

KH CONSTRUCTION
KEVIN HIGDON CONSTRUCTION

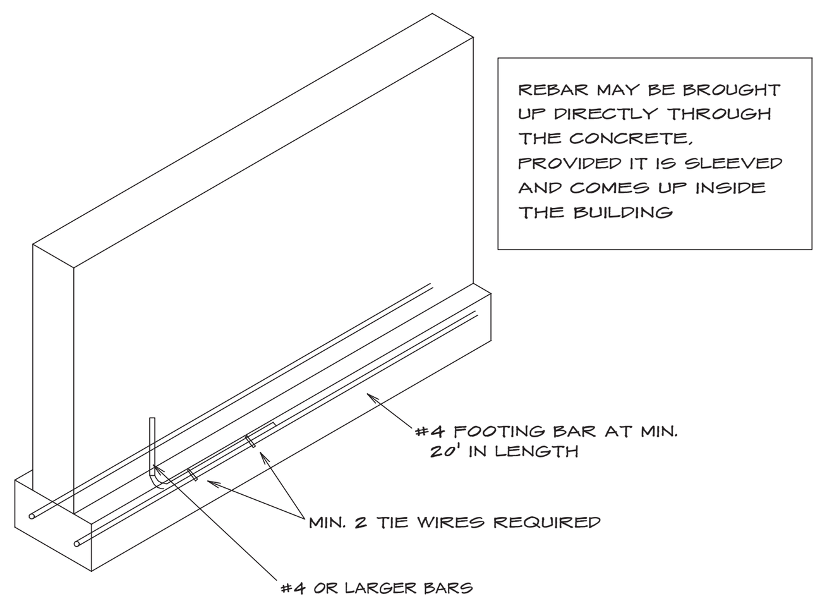
SHEET NO. 1
APPROX. SQFT.
PLAN NO. KH-6117
FILE NAME: 6117 ELEV
DATE DRAWN:
DATE REVISED:
DESIGNER:
PHONE:
PHONE:
LOT NO.
HOME BUYER:
BUILDER:
SUB-DIVISION:

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.

SQUARE FOOTAGE
LIVING AREA
- FIRST FLOOR = 1815
- BASEMENT = 1366
- OPEN DECK = 216

UNFINISHED AREA
- STORAGE = 355
- GARAGE = 740
- UNDER STOOP = 40

KH-6117



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

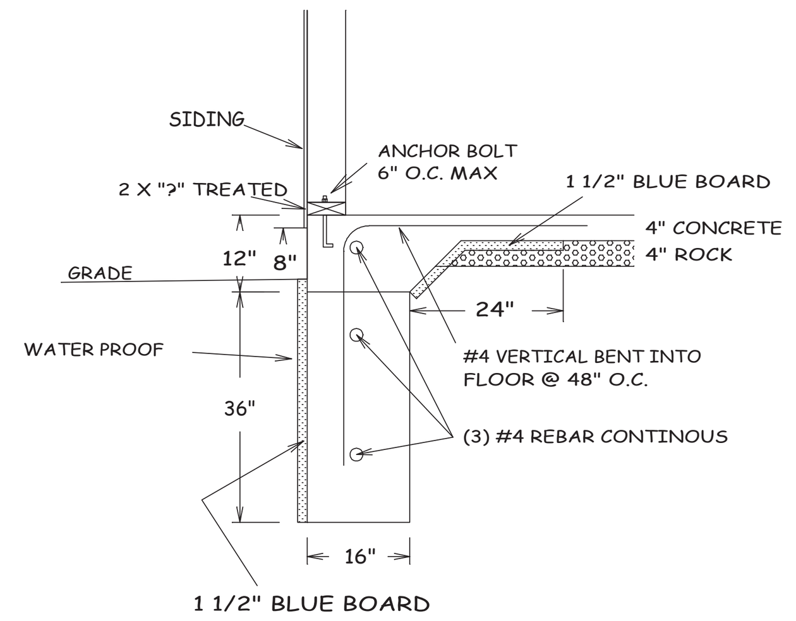
STEEL COLUMNS TO BE
3" DIAMETER SCHEDULE 40 PIPE MANUFACTURED
IN ACCORDANCE WITH ASTM A53 GRADE B OR
APPROVED EQUIVALENT UNLESS NOTED

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

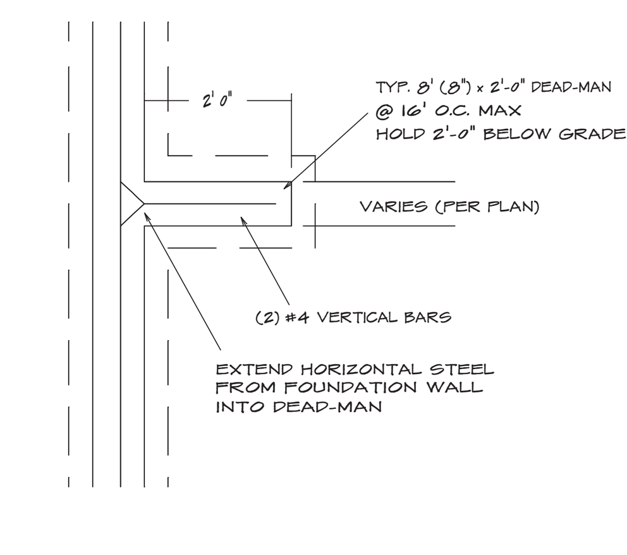
REQUIRED FOOTING:

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.

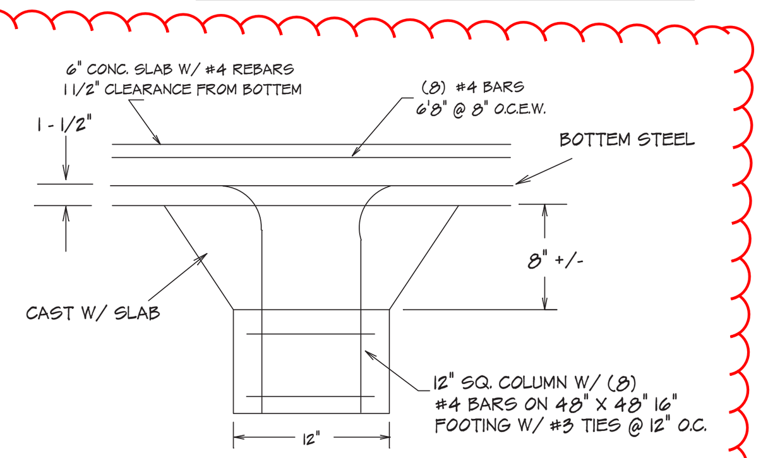
FOOTING FOR 12" THICK WALL TO BE DESIGNED BY OTHERS



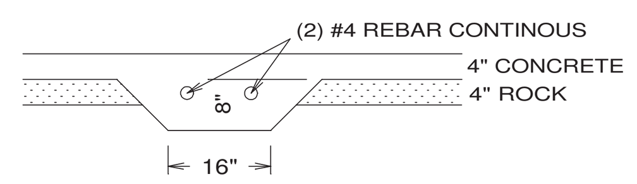
FROST FOOTING



TYPICAL DEAD-MAN SECTION

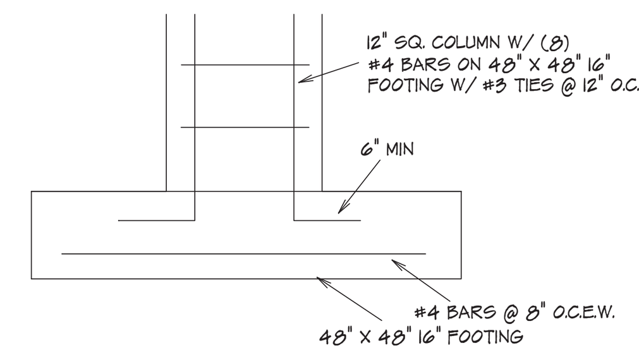


SLAB AT PEDESTAL

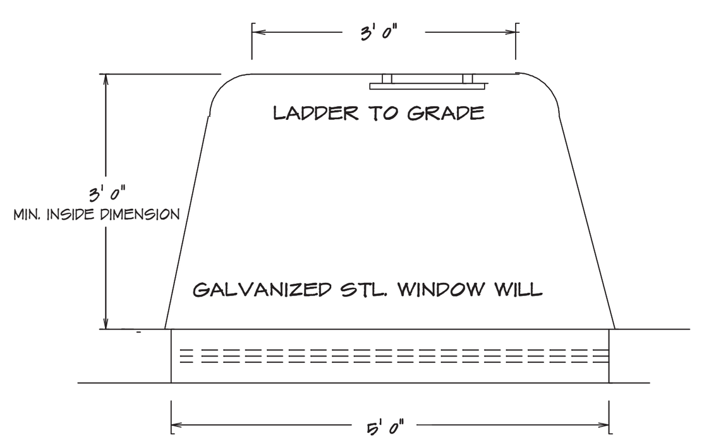


GRADE PAD

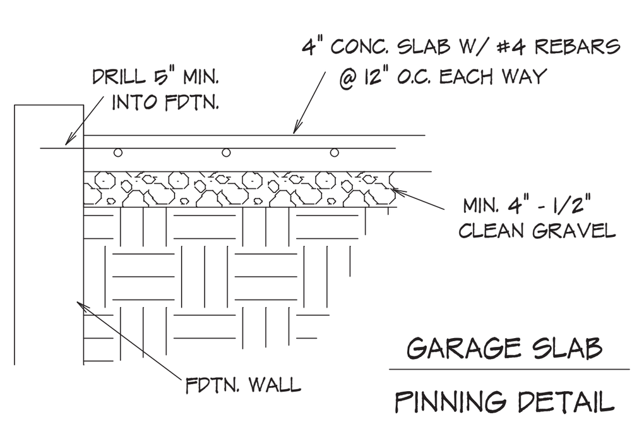
1/2" = 1'0"



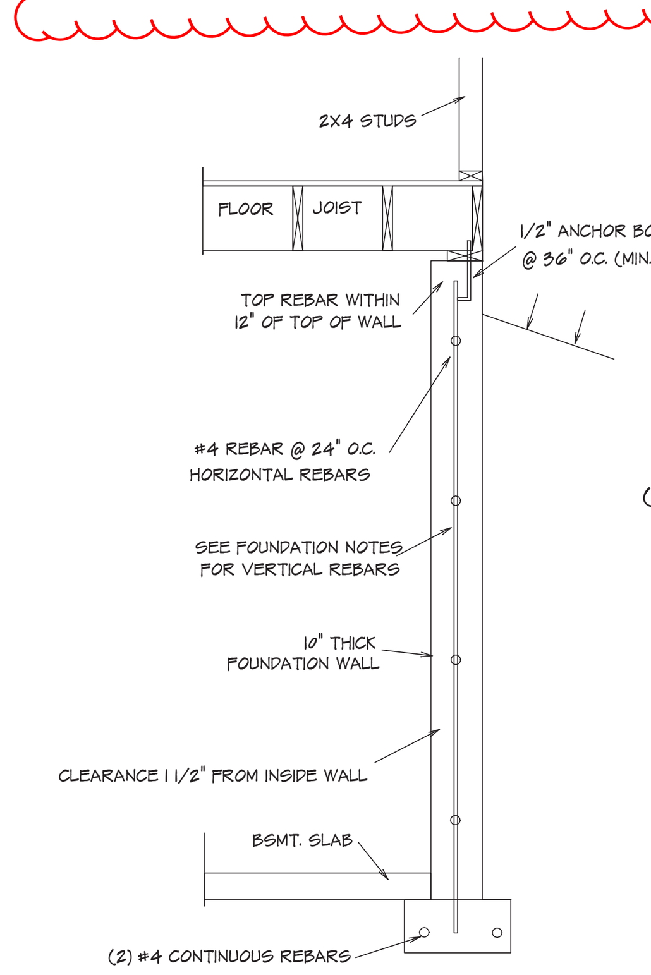
PEDESTAL AT FOOTING



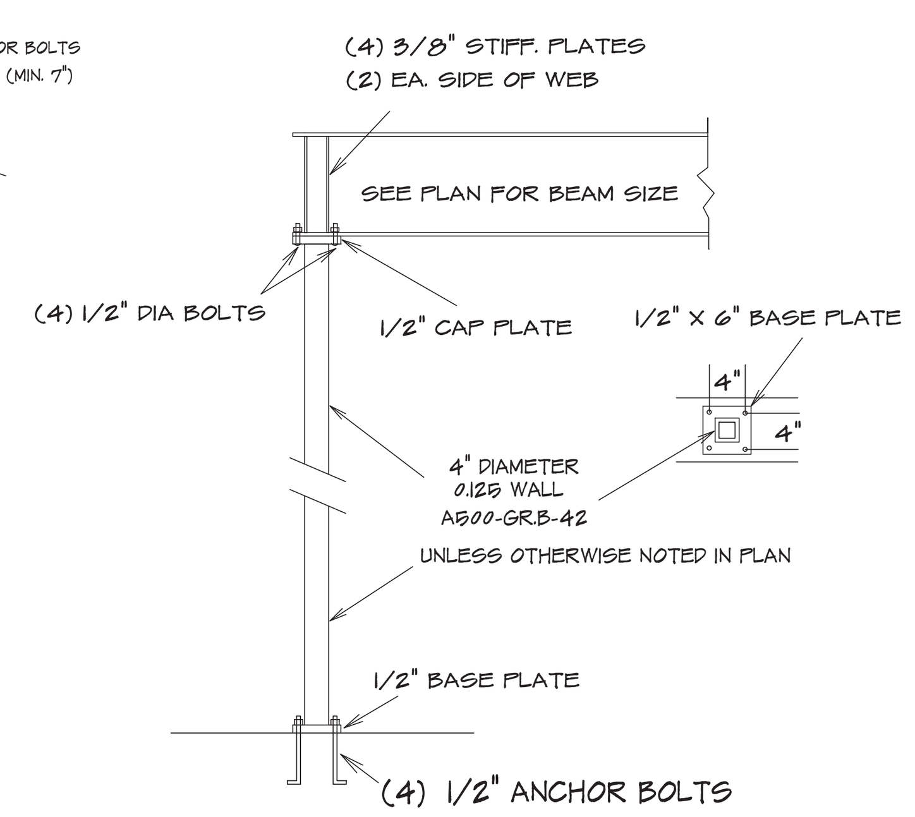
TYPICAL EGRESS WINDOW PLAN SECTION



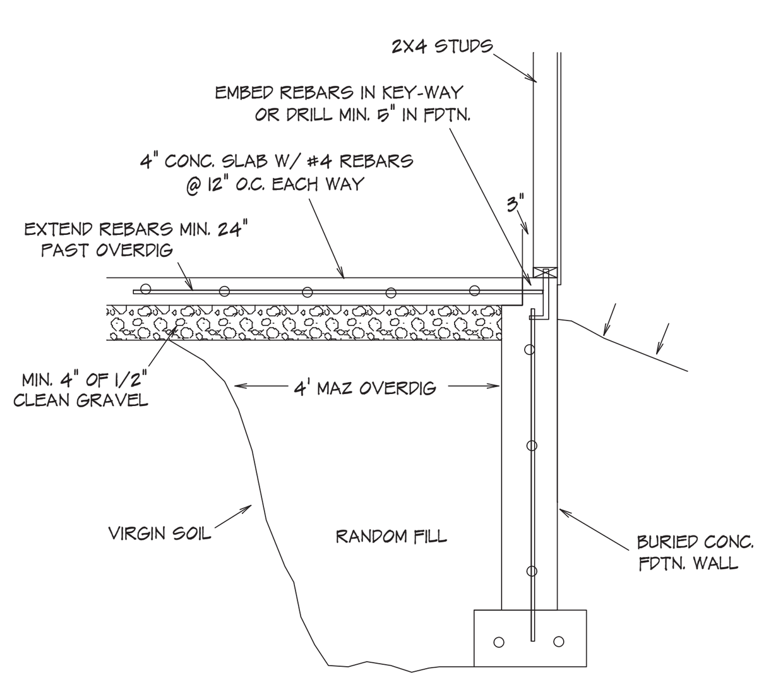
GARAGE SLAB PINNING DETAIL



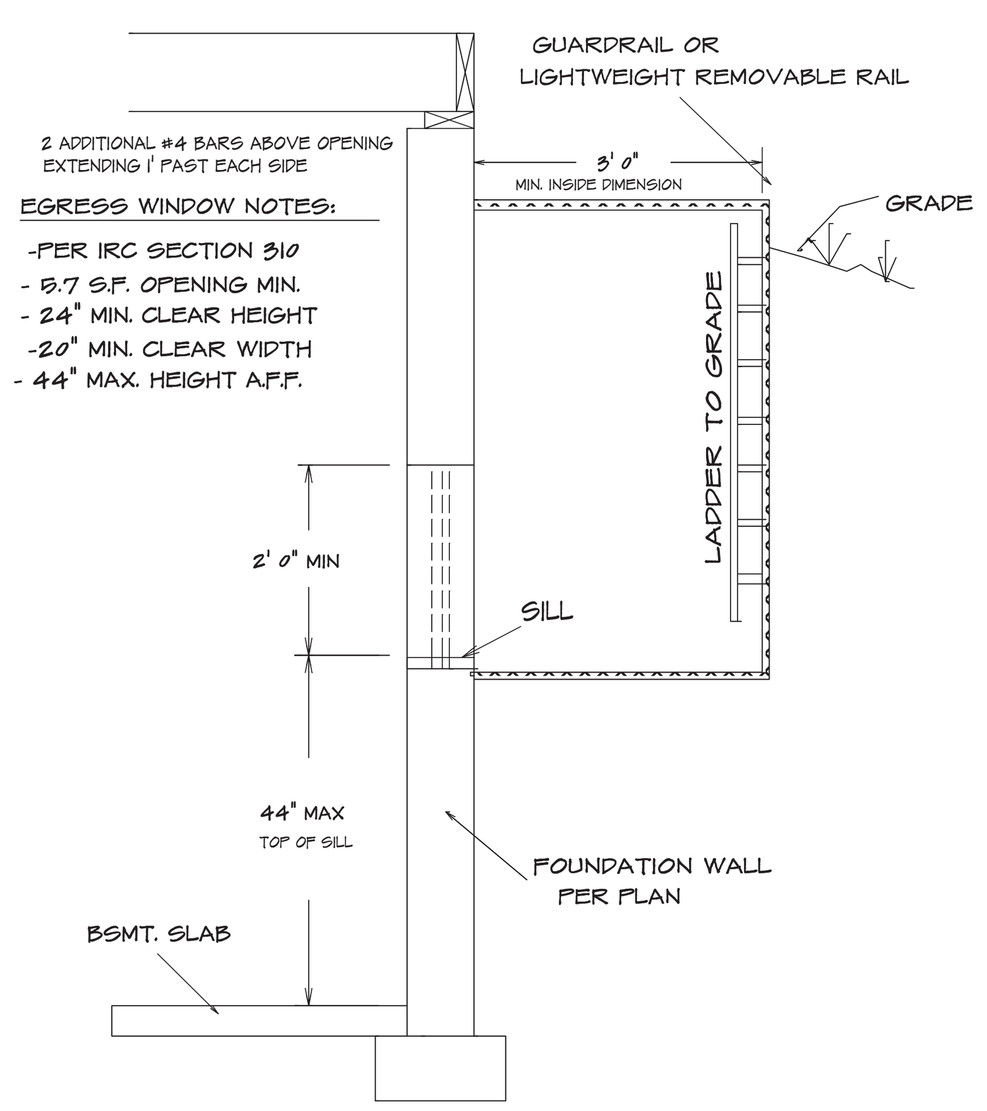
TYPICAL FOUNDATION WALL



HSS COLUMN DETAIL



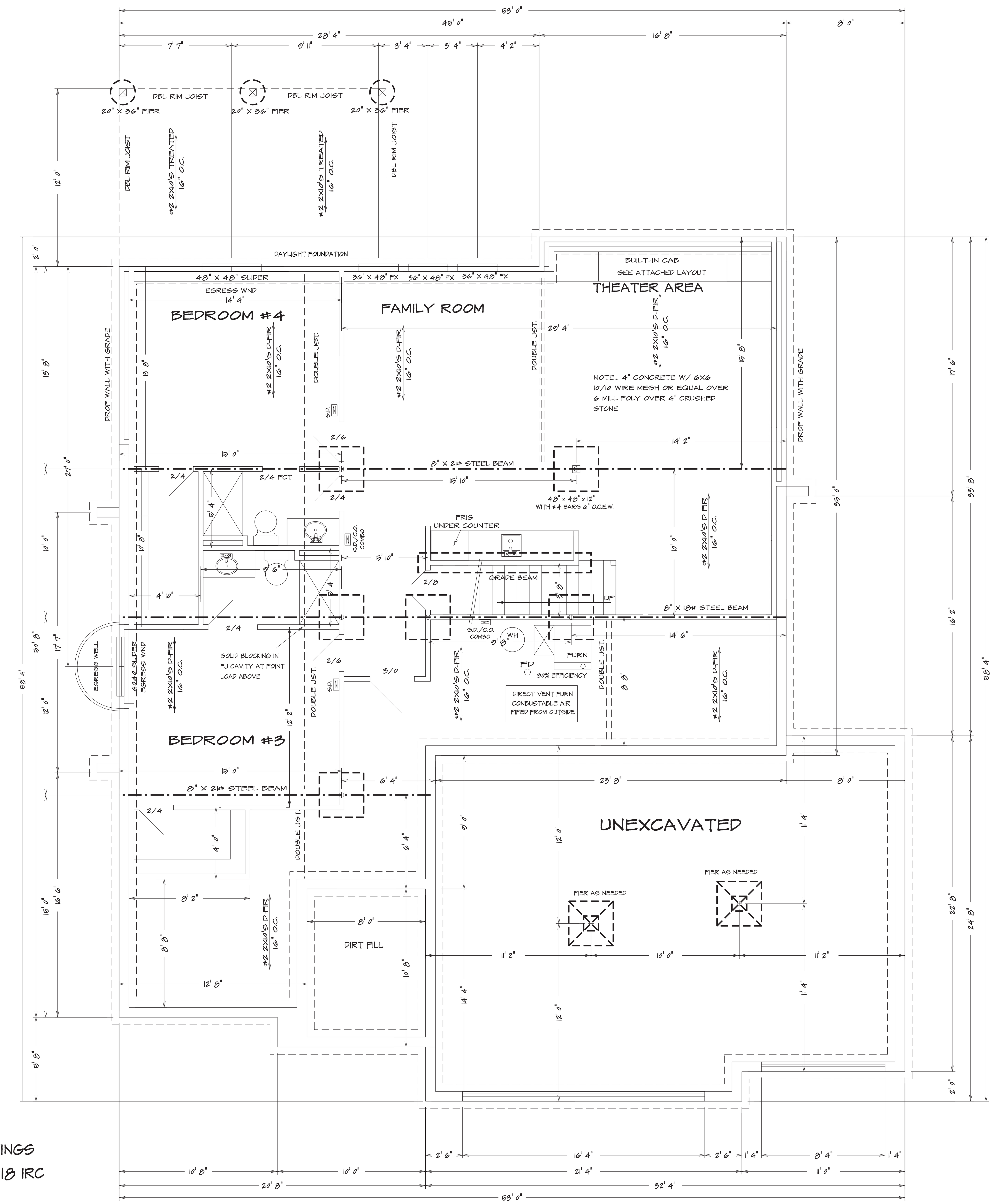
TYPICAL OVERDIG @ SLAB



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

KH-6117



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

BASEMENT PLAN

1/4" = 1'0"

SHEET NO. 2

APPROX. SQFT.

PLAN NO. KH-6117

FILE NAME: 6117 BSMT

DATE DRAWN:

DATE REVISED:

DESIGNER:

PHONE:

PHONE:

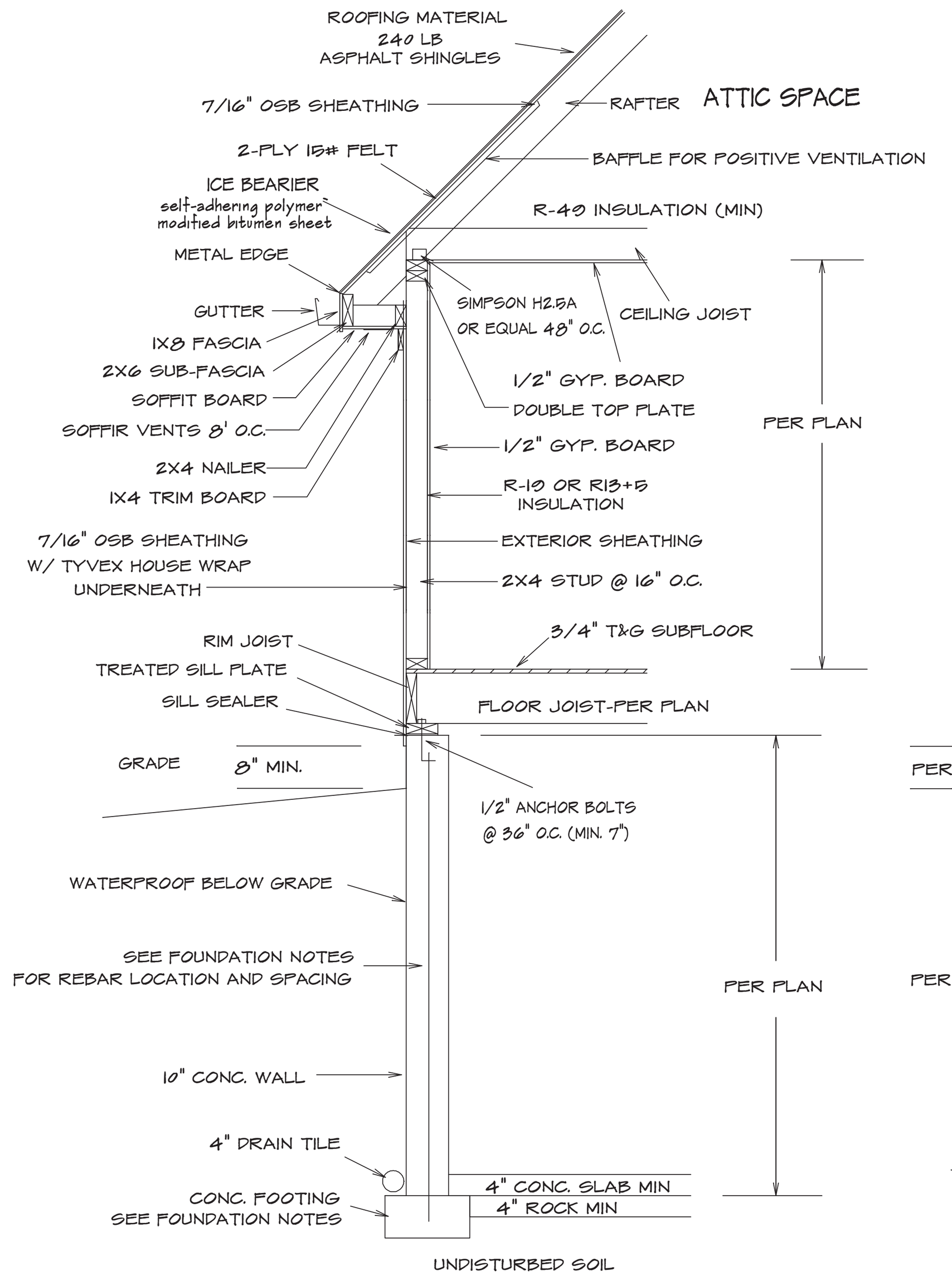
LOT NO.

HOME BUYER:

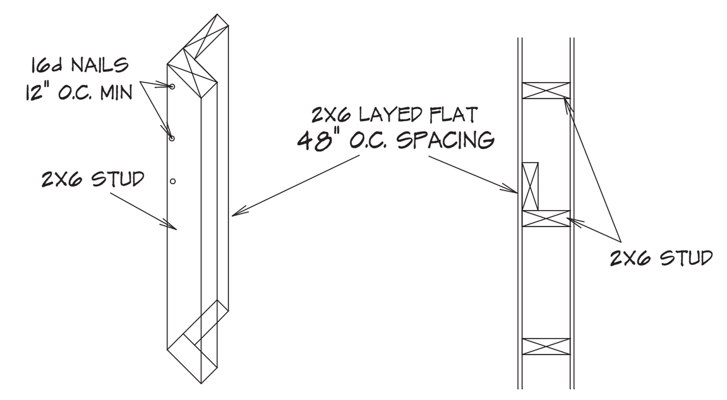
BUILDER:

SUB-DIVISION:

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/10/2025

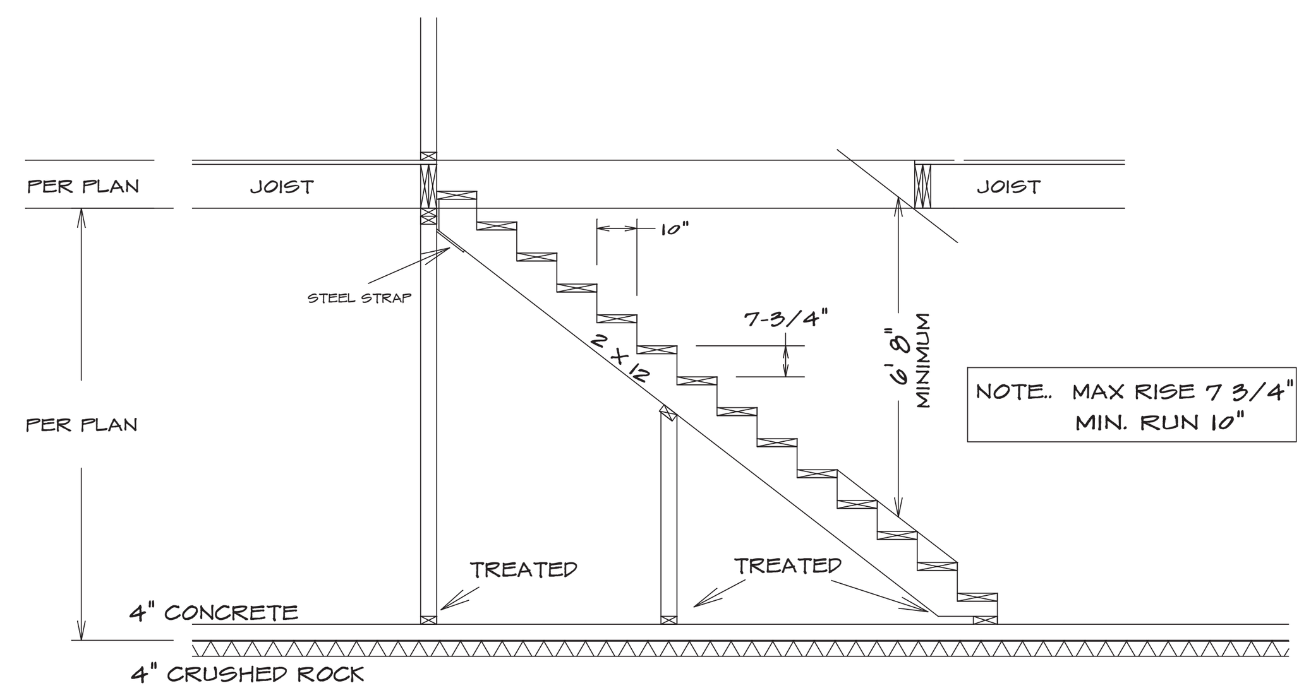


TYPICAL WALL SECTION

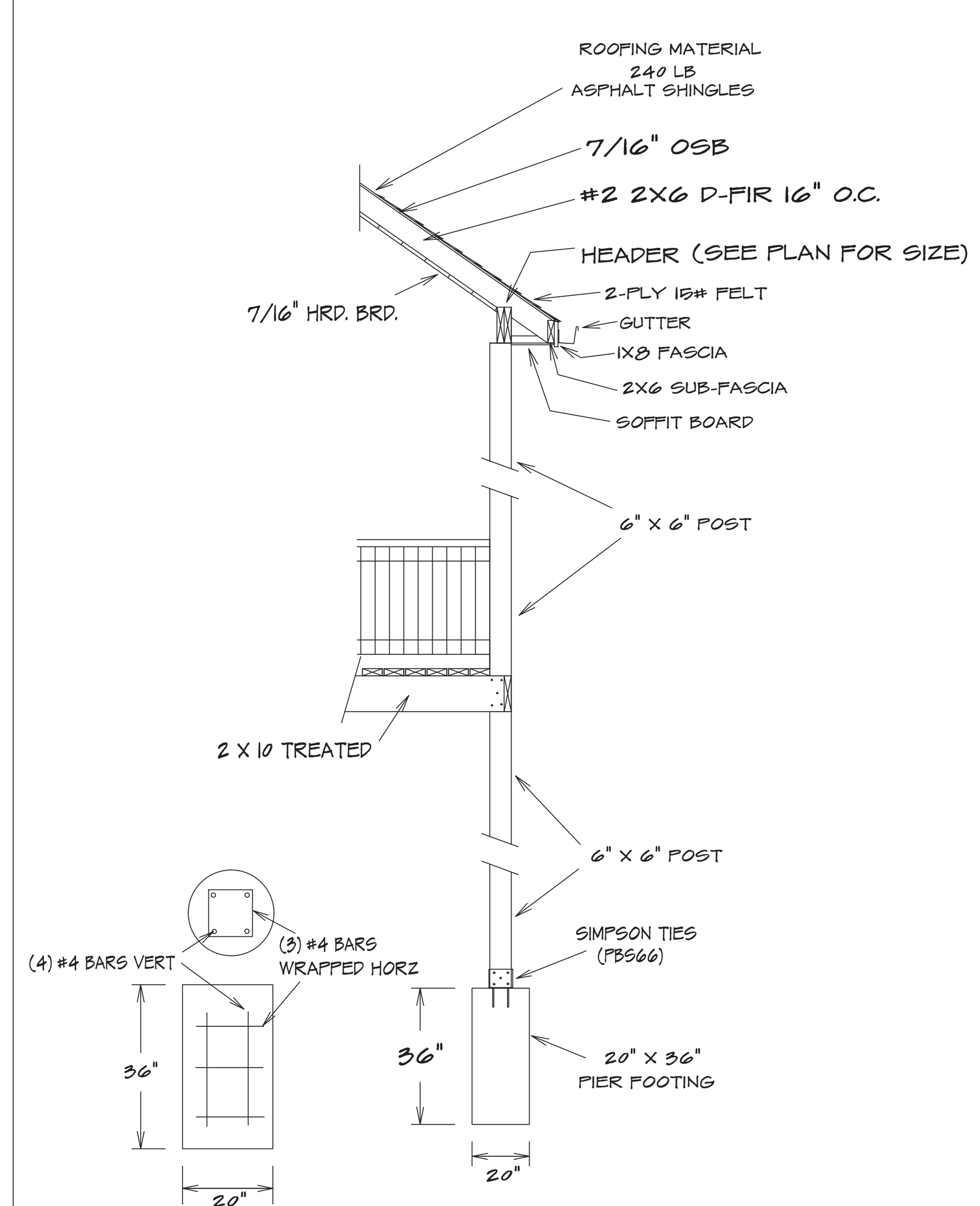


EXTERIOR TALL WALL SECTION

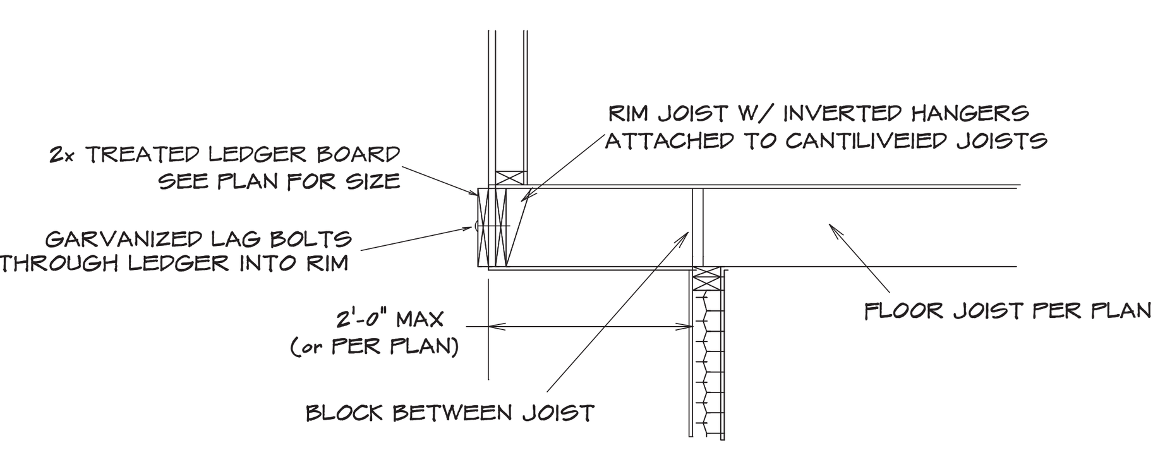
10' TRU 18' TALL WALLS UNINTERRUPTED TO BE CONSTRUCTED WITH 2X6 STUDS 16" O.C. WITH STIFF BACK EVERY 48" O.C.



STAIR SECTION (TYP)

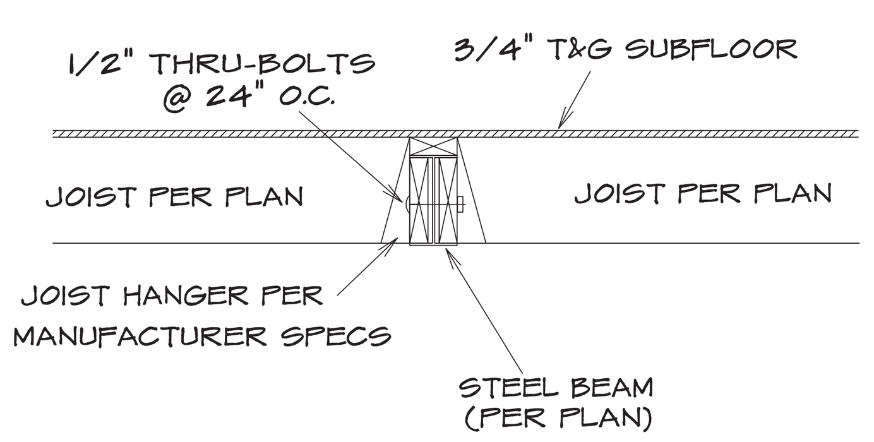


DECK SECTION



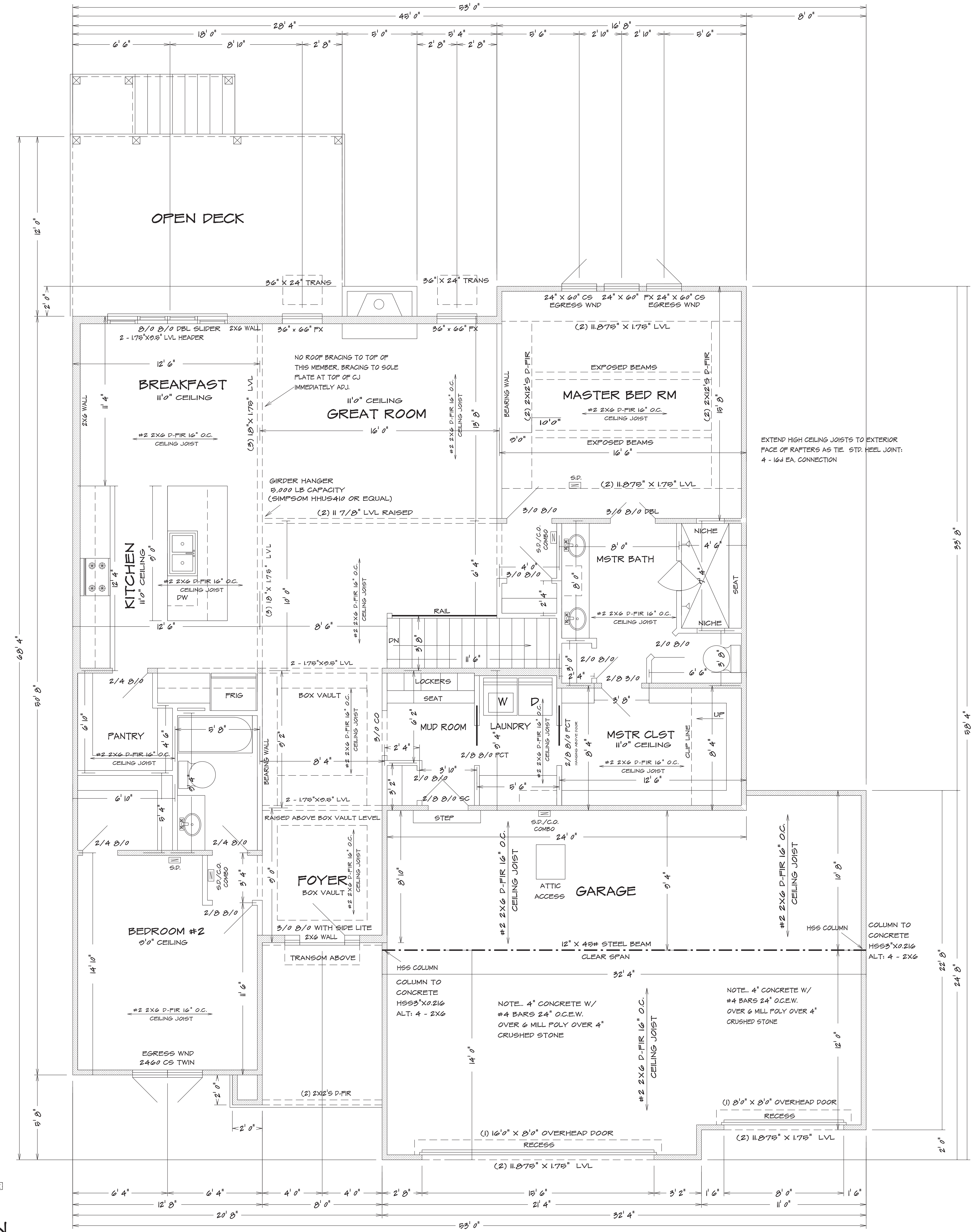
DECK JOIST SPAN	1/2" O LAG SPACING	EQUIVALENT SPACING FOR 16" O.C. JOIST BAYS
UP TO 10'-0"	16" O.C.	N/A
10'-0" -14'-0"	12" O.C.	16" O.C. DBL. EVERY OTHER
14'-0" -18'-0"	8" O.C.	16" O.C. DBL. EVERY JOIST BAY

TYPICAL CANTILEVER FRAMING W/ DECK ATTACHMENT



UPSET STEEL BEAM/JOIST CONNECTION

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



BEARING WALL LINES

FIRST FLOOR PLAN

1/4" = 1'0"

KH-6117

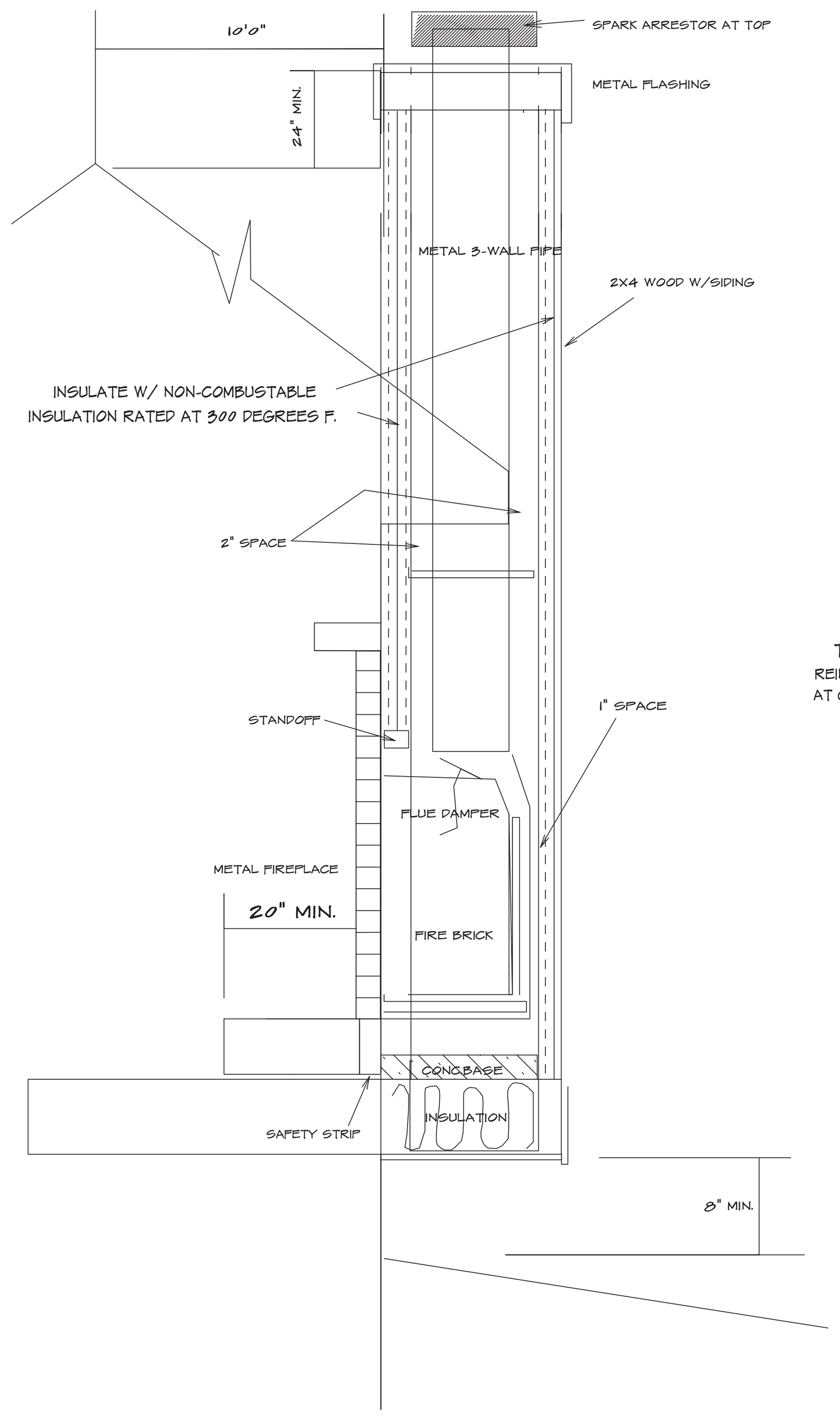
BUILDER/CONTRACTOR IS RESPONSIBLE TO CHECK ALL DIMENSIONS FOR ACCURACY BETWEEN FLOORS, FOUNDATION, AND ELEVATIONS. ALSO VERIFY ALL BEAM, HEADERS, PAD LOCATIONS, AND COLUMN SIZES. BUILDER/CONTRACTOR TO CHECK FOR COMPLIANCE WITH CONTRACTS, CITY, AND NATIONAL CODES. BUILDER/CONTRACTOR ACCEPTS ALL RESPONSIBILITY 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 RESPONSIBILITY FOR ANY AN ON SITE CHANGES MADE TO STRUCTURE.

HOME BUYER:	PHONE:	DATE DRAWN:
BUILDER:	PHONE:	DATE REVISED:
SUB-DIVISION:	LOT NO.	DESIGNER:

PLAN NO. KH-6117 ©
FILE NAME: 6117 FLR1
SHEET NO. 3
APPROX. SQ.FT.

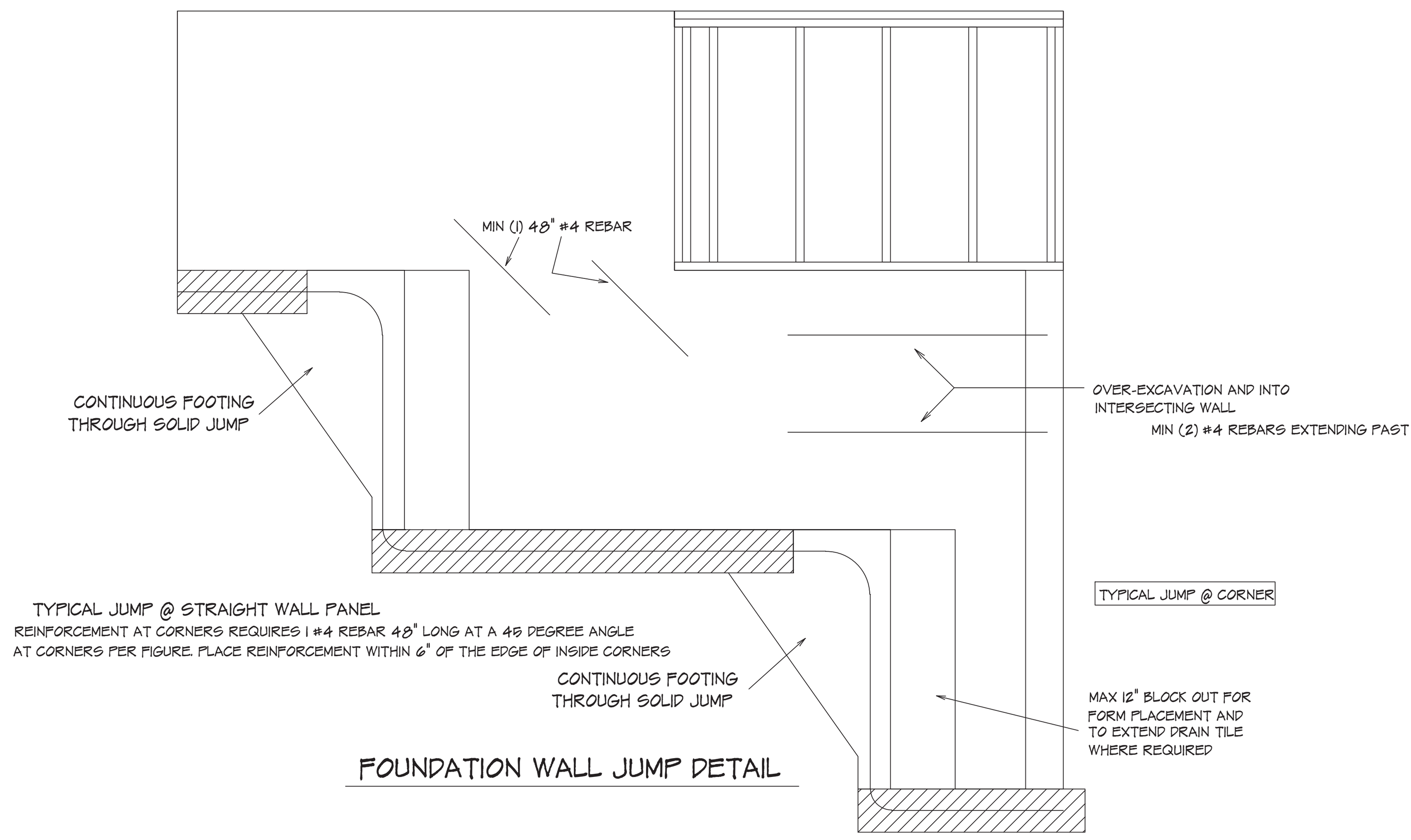
STATE OF MISSOURI — AARON D. ... PROFESSIONAL ENGINEER

RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 03/10/2025



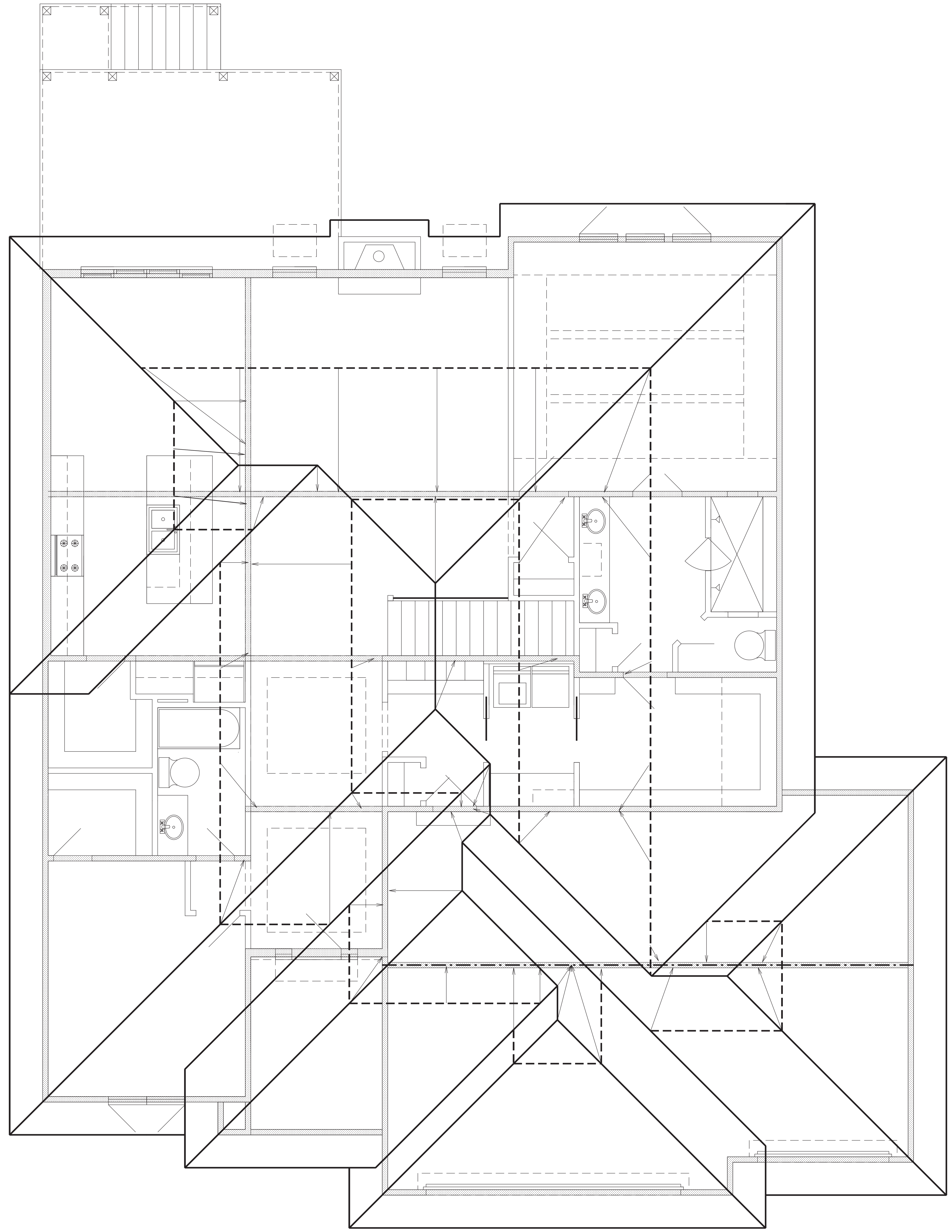
TYPICAL METAL FIRE PLACE

NOTE-SEE SPECS FOR SPECIFIC APPLICATIONS.



FOUNDATION WALL JUMP DETAIL

TYPICAL F.P. FRONT



NOTE: HIP RIDGE FOR THE MAIN ROOF AS:
2X8 FOR UNBRACED LEGTH UP TO 8'0"
2X10 FOR UNBRACED LENGTH UP TO 9'0"
2X12 FOR UNBRACED LENGTH UP TO 10'0"
ALL RAFTERS TO BE #2 2X6 D-FIR 16" O.C.
UNLESS OTHERWISE NOTED
PURLING RAFTERS TO BEARING WALL LINES
CONNECT RAFTERS TO CEILING JOIST W/ 4-16d
GALV. NAILS
CONNECT RAFTERS TO RIDGE, VALLEY, AND
HIP W/ 4-16d GALV.NAILS
VERT. RIDGE AND RAFTER SUPPORTS TO BE
EQUAL TO OR GREATER THAN THE DEPTH OF
RAFTERS

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

BEARING WALL LINES

ROOF ELEVATION
1/4" = 1'0"

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

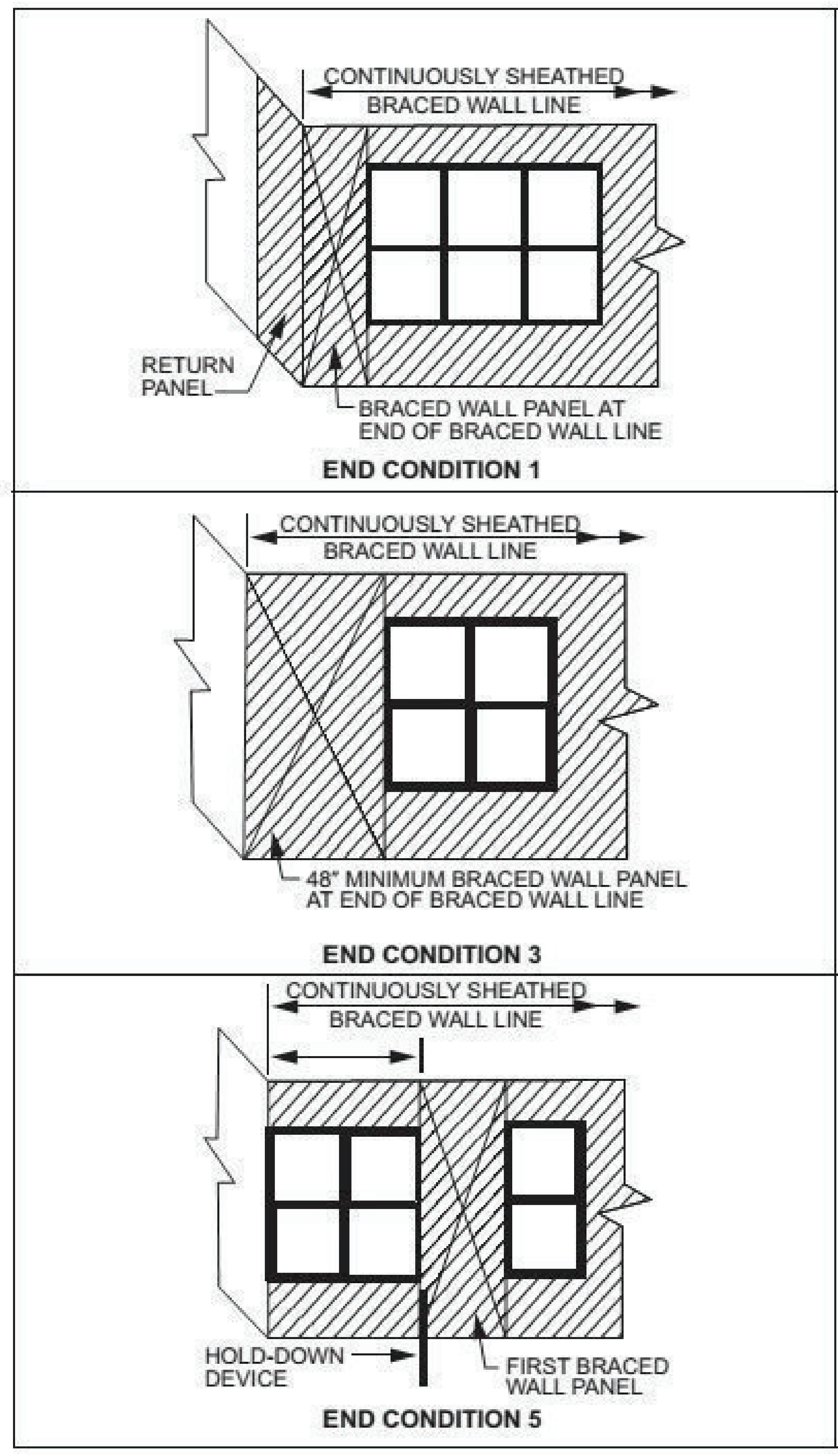
KH-6117

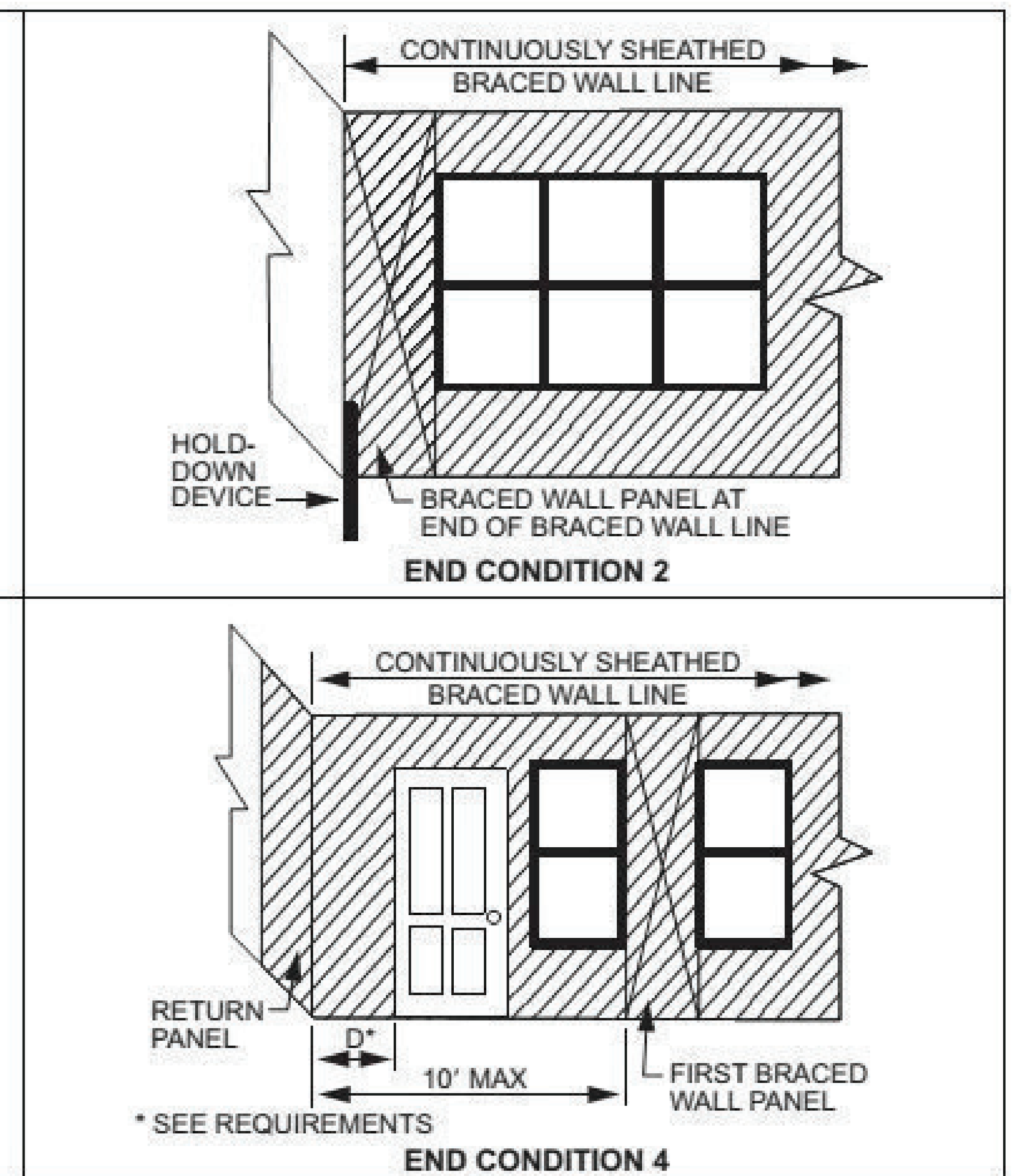
SHEET NO. 4
PLAN NO. KH-6117 (C)
APPROX. SQ.FT.
FILE NAME: 6117 ROOF
DATE DRAWN:
DATE REVISED:
DESIGNER:
PHONE:
PHONE:
LOT NO.
HOME BUYER:
BUILDER:
SUB-DIVISION:

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.

STATE OF MISSOURI
AARON DELANEY OBERMILLER
NUMBER PE-2008019580
PROFESSIONAL ENGINEER
Aaron D. Obermiller
12-16-24

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/10/2025



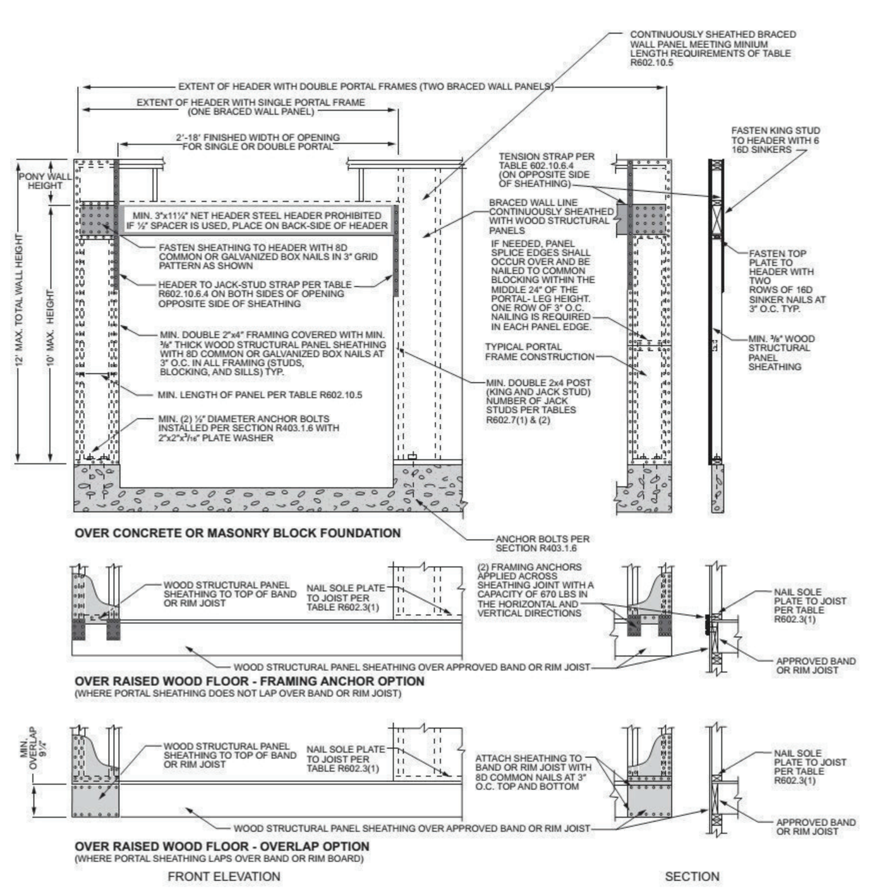


REQUIREMENTS

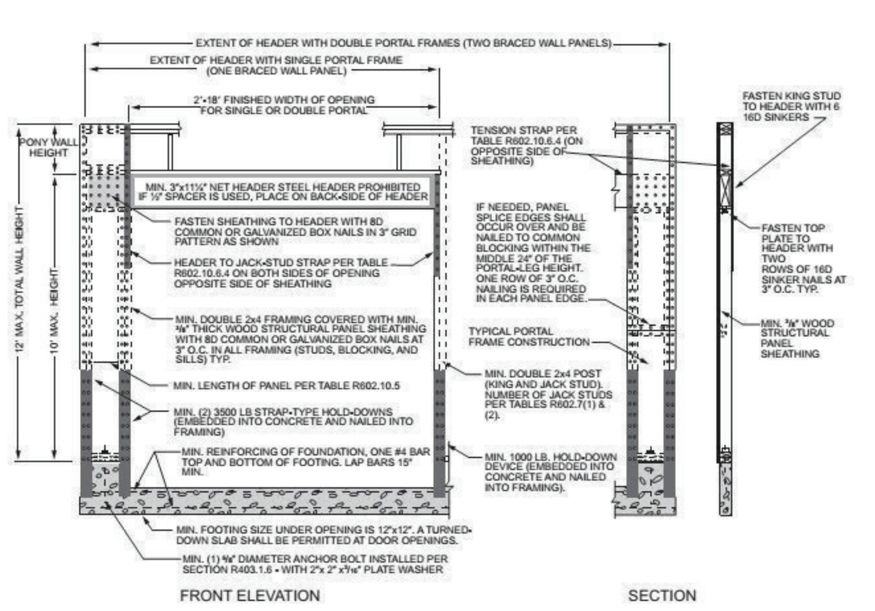
Return panel: 24" for braced wall lines sheathed with wood structural panels
32" for braced wall lines sheathed with structural fiberboard

Distance D: 24" for braced wall lines sheathed with wood structural panels
32" for braced wall lines sheathed with structural fiberboard

Hold-down device: 800 lbs capacity fastened to the edge of the braced wall panel closest to the corner and to the foundation or floor framing below



ALTERNATE BRACED WALL PANEL .
Method CS-PF: Continuously sheathed portal frame



ALTERNATE BRACED WALL PANEL
Method PFH: Portal frame with hold-downs

BRACED WALLS:

XXXXXXXXXXXXXXXXX METHOD WSP OR LB (2018 IRC):
MIN. 5/16" APA RATED WITH 8d NAILS @ 6" AND 12"

/////////////// METHOD GB (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

PFH = ALTERNATE BRACED WALL PANEL
Method PFH: Portal frame with hold-downs

PFG = ALTERNATE BRACED WALL PANEL .
Method PFG: at garage door openings in Seismic Design Categories A, B and C

ABW = ALTERNATE BRACED WALL PANEL .
Method ABW: Alternate braced wall panels

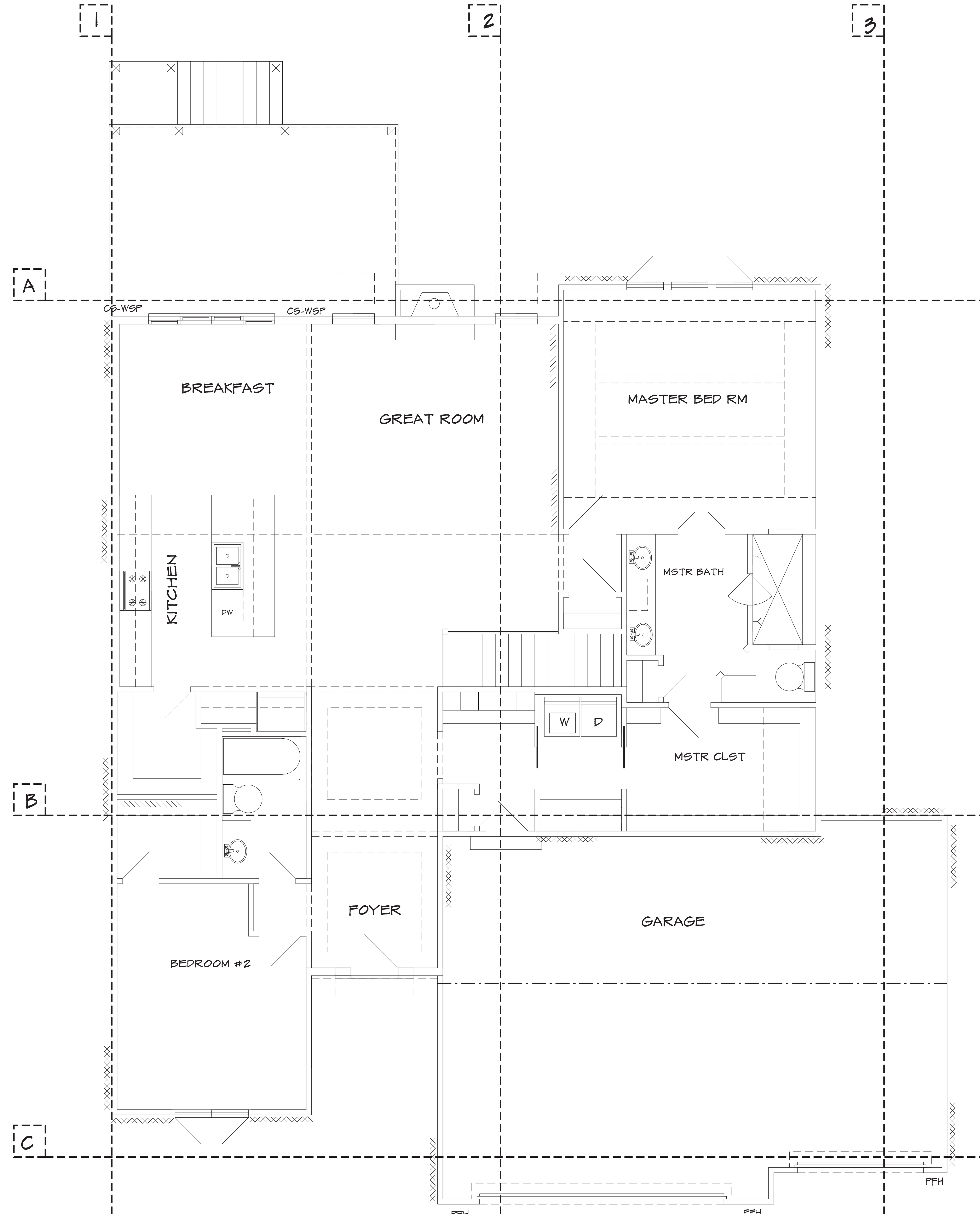
CS-WSP = ALTERNATE BRACED WALL PANEL .
Method CS-WSP: Continuously sheathed wall structural panel

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

BRACED WALL LINES

WALL	SPACING	TYPE	REQ'D	PROVIDED
1	12' 4"	WSP	6' 6"	16' 0"
2	24' 6"	WSP/GB	9' 6"	16' 0"
3	12' 2"	WSP	6 6"	16' 0"
A	16' 4"	WSP/CS-WSP	6' 6"	12' 0"
B	27' 2"	WSP/GB	9' 6"	16' 0"
C	10' 10"	WSP/PFH	6' 6"	13' 6"



WALL BRACE PLAN
1/4" = 1'0"

KH-6117

SHEET NO. 5
APPROX. SQFT.
PLAN NO. KH-6117 ©
FILE NAME: 6117 WBS
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.

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/10/2025

GENERAL NOTES

WINDOW SIZES SHOWN ARE APPROXIMATE.
THE BUILDER SHALL SELECT WINDOWS TO MEET BUILDING CODE REQUIREMENTS AND TO FIT IN THE AVALABLE SPACE. OVERALL ROUGH OPENINGS FOR MULLED UNITS WILL VARY BY WINDOW/ DOOR MANUFACTURER.

EXTERIOR WALLS ARE 2x4 STUDS AT 16" O.C. UNLESS OTHERWISE NOTED.

GARAGE
THE GARAGE FLOOR SHALL BE SLOPED TOWARD GARAGE DOORS
DOORS BETWEEN GARAGE AND DWELLING - MIN 1 3/8" SOLID CORE OR HONEY COMBED STEEL DOOR OR 20 MIN. RATED.
GARAGE TO HAVE 5/8" TYPE X GYPSUM THROUGHTOUT
THE H-FRAM SHALL CONSIST OF 2X6 FRAMING

GLAZING
GLAZING IN HAZARDOUS LOCATIONS AS IDENTIFIED IN 2018 IRC 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 BOTTEM 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 WALKING SURFACE WITH IN 36"

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

ELECTRICAL OUTLETS
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
ALL OUTLETS TO BE TAMPER RESISTANT

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 GARAGE.

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 ALAMS 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.

GUARD OPENING LIMITATIONS
REQUIRED GUARDS ON OPEN SIDES OF STAIRWAYS, RAISED FLOOR AREA, BALONIES, AND PORCHES SHALL HAVE INTERMEDIATE RAILS OR ORNAMENTAL CLOSURES THAT DO NOT ALLOW PASSAGE OF A SPHERE 4" OR MORE IN DIAMETER.

OPENING PROTECTION
OPENING 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 EQUIPTED WITH SOLID WOOD DOORS NOT LESS THAN 1 3/8" IN THICKNESS, SOLID OR HONEYCOMB-CORE STEEL DOOR NOT LESS THAN 1 3/8" THICK, OR 20 MINUTE FIRE-RATED DOORS, EQUIPTED WITH A SELF-CLOSING DEVICE.

SMOKE ALARMS
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.

FRAMING NOTE
ALL LUMBER SIZES ARE FOR #2 D-FIR-LARCH
ALL HEADERS TO BE MIN. (2) #2-2X10
BLOCK CANTILEVERS, DOOR JAMBS, AND OVER BEAMS
ALL HEADRS TO BEAR ON MIN. OF (2) 2X4 STUDS
JOIST UNDER BEARING PARTITIONS SHALL BE DOUBLED AND COMPLY WITH 2018 IRC
WATER-RESISTIVE BARRIER SHALL BE PROVIDED OVER ALL EXTERIOR WALLS PER 2018 IRC
ROOF PLAN NOTES
ALL ROOF RAFTERS NOT CALLED OUT ARE TO BE 2x6 SPF #1/#2 @ 16"o
ALL CEILING JOISTS NOT CALLED OUT ARE TO BE 2x6 SPF #1/#2 @ 16"o
ALL VAULTS TO BE FURRED DOWN w/2x MATERIAL TO PROVIDE FOR R-38 INSULATION
ALL EXTERIOR AND LOAD BEARING WINDOW AND DOOR HEADERS TO BE (2) 2x10 DFIR #2 UNLESS NOTED OTHERWISE ON PLANS
ALL EDGES, HIPS, AND VALLEYS NOT MARKED SHALL BE (1) NOMINAL SIZE LARGER THAN THE INTERSECTING RAFTERS
CEILING JOISTS AND RAFTERS SHALL BE NAILED TO EACH OTHER WITH (3) 16d COM (3 1/2"x0.162") NAILS AND THE RAFTER SHALL BE NAILED TO THE TOP WALL PLATE WITH (3) 8d COM (2 1/2"x0.131") NAILS. CEILING JOISTS SHALL BE CONTINUOUS OR SECURELY JOINED WITH (3) 16d COM (3 1/2"x0.162") NAILS WHERE THEY MEET OVER INTERIOR PARTITIONS AND ARE NAILED TO ADJACENT RAFTERS TO PROVIDE A CONTINUOUS TIE ACROSS THE BUILDING WHEN SUCH JOISTS ARE PARALLEL TO THE RAFTERS.
WHERE CEILING JOISTS ARE NOT CONNECTED TO THE RAFTERS AT THE TOP WALL PLATE (or AT LOCATIONS WHERE C.J. ARE PERPENDICULAR TO RAFTERS), INSTALL 2x4 RAFTER TIES, IN THE LOWER 1/3 OF ATTIC SPACE @ 16"o WITH (3) 16d COM (3 1/2"x0.162") NAILS EA END.
COLLAR TIES SHALL BE PROVIDED IN THE ATTIC SPACE IN THE UPPER 1/3 OF ATTIC
RAFTER CONNECTIONS DESIGNED TO RESIST UPLIFT FORCES PER 2018 IRC TABLE R802.11. ROOF HEADERS DO NOT HAVE NOTABLE UPLIFT TO REQUIRE HOLD DOWNS.
PROVIDE METAL FLASHING AT ALL ROOF VALLEYS.
ROOF AND SOFFIT VENTS PER LOCAL CODES. WHERE POSSIBLE, PROVIDE ROOF VENTING ON BACK SIDE OF ROOF.
EXACT GUTTER AND DOWNSPOUT LOCATION BY GUTTER INSTALLER.
ROOF IS DESIGNED FOR 20 P.S.F. ROOF SNOW LOAD (MIN)
MIN 20 YR. ASPHALT SHINGLES
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

ROOF BRACING
ROOF PURLINS TO BE PLACED APPROXIMATELY WHERE SHOWN ON ROOF PURLINS, USE 2x6 STUD GRADE PURLIN PLACED PERPENDICULAR TO RAFTERS (UNLESS NOTED OTHERWISE ON PLANS)
RIDGE, HIP, VALLEY, AND PURLIN BRACE STRUTS TO BE PLACED AS SHOWN ON PLANS. STRUTS TO BE 2x4 STUD GRADE w/ MAXIMUM UNBRACED LENGTH OF 8'-0" AND AT A 45° ANGLE w/ HORIZONTALOR GREATER (VERTICAL WHERE POSSIBLE)
BRACES LONGER THAN 8'-0" SHALL BE 2x4 STRONG BACK BRACES

EXCEPTIONS:
WINDOWS WHOSE OPENING WILL NOT ALLOW A 4" DIAMETER SPHERE TO PASS THROUGH THE OPENING WHEN THE OPENING IS IN ITS LARGEST OPENED POSITION. OPENINGS THAT ARE PROVIDED WITH WINDOW FALL PREVENTION DEVICES, WHICH COMPLY WITH ASTM F 2090.
WINDOWS THAT ARE PROVIDED WITH WINDOW OPENING CONTROL DEVICES THAT COMPLY WITH SECTION R312.2.

EXHAUST AIR
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 OPERABLE
EXCEPTION:
THE GLAZED AREAS SHALL NOT BE REQUIRED WHERE ARTIFICIAL LIGHT AND A LOCAL EXHAUST SYSTEM ARE PROVIDED. THE MINIMUM LOCAL EXHAUST RATE SHALL BE DETERMINED IN ACCORDANCE WITH SECTION M1507. EXHUAST AIR FROM THE SPACE SHALL BE EXHAUSTED DIRECTLY TO THE OUTDOORS

BRIDGING
JOISTS EXCEEDING A NOMINAL 2" X 12" SHALL BE SUPPOTED LATERALLY BY SOLID BLOCKING, DIAGONAL BRIDGING (WOOD OR METAL), OR A CONTINUOUS 1" X 3" STRIP NAILED ACROSS THE BOTTEM OF THE JOIST PERPENDICULAR TO JOIST AT INTERVALS NOT EXCEEDING 8 FEET

WINDOW AND DOOR NOTES

1. ALL WINDOWS ARE SHOWN IN FEET (IE. 3068 IS A 3'0"x6'0" WINDOW).
ALL DOORS SHOWN IN FEET AND INCHES (IE. 2868 DOOR IS A 2'-8"x6'-8" DOOR).
CONTRACTOR/INSTALLER TO VERIFY R.O. DIMENSIONS WITH BUILDER SUPPLIED CUT SHEET PRIOR TO FRAMING.
2. ALL WINDOWS TO BE LOW-E GLASS TO MEET ALL LOCAL ENERGY CODE REQUIREMENTS.
3. PROVIDE EGRESS WINDOW IN ALL SLEEPING ROOMS.
WINDOWS SHALL COMPLY WITH THE FOLLOWING:
A. MINIMUM OPEN AREA 5.7 SQ.FT.
B. MINIMUM OPENING HEIGHT 24 INCHES
C. MINIMUM OPENING WIDTH 20 INCHES
D. SILL HEIGHT 44" MAX ABOVE FLOOR
4. ALL WINDOW SILLS ARE TO BE 24" MIN ABOVE FINISH FLOOR, OR SHALL BE FIXED/INOPERABLE
5. ALL WINDOWS AND GLAZED DOORS SHALL COMPLY WITH IRC SECTION R308.4: GLAZING IN HAZARDOUS LOCATIONS SHALL BE OF APPROVED SAFETY GLAZING MATERIALS.
GLASS IN STORM DOORS, INDIVIDUAL FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24" ARC OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS WITHIN 60" OF THE FLOOR, WALLS ENCLOSING STAIRWAYS AND LANDINGS WHERE THE GLAZING IS WITHN 60" OF THE TOP OR BOTTOM OF STAIR, ENCLOSURES FOR TUBS, SHOWERS AND WHIRLPOOLS, GLAZING IN FIXED OR OPERABLE PANELS EXCEEDING 9 SF AND WHOSE BOTTOM EDGE IS LESS THAN 18" ABOVE THE FLOOR OR WALKING SURFACE WITHIN 36".
6. ALL OPERABLE WINDOWS SHALL HAVE FALL PROTECTION PER IRC R612.2.
7. ALL GLAZING IN WINDOWS AND DOORS SHALL COMPLY WITH THE TEST CRITERIA FOR CATEGORY II IN ACCORDANCE WITH CPSC 16 CFR 1201.
8. WINDOW MANUFACTURER TO CONFIRM EXACT SAFTEY AND EGRESS WINDOW LOCATIONS PER LOCAL CODES.

GENERAL PLAN REQUIREMENTS

1. ALL STUD WALL FRAMING SHALL BE CONTINUOUS FROM THE FLOOR TO ROOF OR CEILING DIAPHRAGM, U.N.O. ALL WALLS OVER 10'-0" ARE TO BE 2x6 @ 16"o U.N.O.
2. PROVIDE WATER-RESISTANT EXTERIOR WALL COVERING ON ALL FRAMED WALLS TO COMPLY WITH IRC SECTION R703.3.
3. PROVIDE GFCI ELECTRICAL OUTLETS ON EXTERIOR, IN UNFINISHED BASEMENT, IN BATHROOMS, ABOVE KITCHEN COUNTERS, IN GARAGE, AND WITHIN 6'-0" OF ANY SINK.
4. ALL EXTERIOR DOORS SERVED BY LANDING.
5. INSTALL CARBON MONOXIDE DETECTORS PER IRC SECTION 315 OUTSIDE OF EACH SLEEPING AREA.
6. INSTALL SMOKE DETECTORS IN EACH SLEEPING ROOM, OUTSIDE OF EACH SLEEPING AREA, WITH A MINIMUM OF ONE ON EACH FLOOR PER IRC SECTION 314.
7. PROVIDE A "UPER" GROUND PER IRC 3902.1.
8. REFER TO WALL BRACE SHEET FOR ALL WALL BRACING PETAILS AND/OR CALCULATIONS.
9. INSTALL BLOCKING FOR TP HOLDERS, TOWEL BARS, AND TRIM BEAMS.
10. GARAGE DOOR H-FRAME: THE H-FRAME FOR ATTACHMENT OF THE GARAGE DOOR TRACK AND COUNTER BALANCE SHALL CONSIST OF THE FOLLOWING:
2x6 VERTICAL JAMBS RUNNING FROM FLOOR TO CELING ATTACHED WITH 3 1/4"x120 NAILS @ 9". STAGGERED WITH (7) 3 1/4x120 NAILS THRU JAMB INTO HEADER, MINIMUM 2x8 HEADER FOR ATTACHMENT OF COUNTER BALANCE SYSTEM.
11. OVERHEAD GARAGE DOORS TO MEET 90 MPH WIND LOAD RESISTANCE REQUIREMENTS OF DASMA 108-S AND ASTM E 330-02 PER IRC SECTION R 612.4.
12. MAXIMUM RISER HEIGHT OF STAIRWAYS SHALL NOT EXCEED 7 3/4" MAXIMUM RISER HEIGHT OF STAIRWAYS SHALL NOT EXCEED 7 3/4" AND THE TREADS SHALL PROVIDE A MINIMUM TREAD DEPTH OF 10".
13. ALL EXTERIOR AND LOAD BEARING WINDOW AND DOOR HEADERS TO BE (2) 2x10 DFIR #2 UNLESS NOTED OTHERWISE ON PLANS
14. ALL HEADER BEARINGS (OTHER THAN WINDOWS) TO BE (2) 2x4 STUDS UNLESS NOTED OTHERWISE.
WINDOW HEADER BEARING TO BE (1) 2x4 EA END UNLESS NOTED OTHERWISE.

GENERAL FOUNDATION REQUIRMENTS

1. ALL FOOTINGS ARE TO BE EXTENDED TO MIN 36" BELOW FINISHED GRADE.
2. ALL INTERIOR FOOTINGS FOR LOAD BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB.
3. FOR ALL CONC WALL OPENINGS, FOOTING & WALL STEPS, PROVIDE ONE #4 BAR, 48" LONG DIAGONALLY AS CLOSE AS PRACTICAL TO CORNER.
4. ALL REINFORCEMENT SHALL BE LAPPED A MIN OF 24" AT ENDS SPLICES AND AROUND CORNERS.
5. ANCHOR BOLTS ARE TO BE SPACED @ 36"o WITH 7" MIN EMBED. A BOLT SHALL BE PLACED WITHIN 12" OF THE END OF EACH PLATE SECTION.
6. FASTEN JOISTS TO SILL PLATES WITH (3) 8d COM NAILS.
7. WHERE JOIST IS PARALLEL TO FOUNDATION, PROVIDE SOLID BLOCKING @ 32"o FOR (3) JST SPACES. FASTEN TO SILL PLATE PER NOTE 6.
8. VAPOR BARRIER: 6 MIL PE VAPOR RETARDER WITH JOINTS LAPPED A MIN OF 6" BETWEEN SLAB & BASE.
9. DAMP PROOFING: ONE COAT (MIN) OF DAMP PROOFING OR EQUIVALENT FOUNDATION MEMBRANE SHALL BE APPLIED TO EXTERIOR WALL SURFACES BELOW GRADE. SEAL TIE HOLES, VOIDS BEFORE APPLICATION.
10. FOUNDATION DRAIN: INSTALL CONT 4"- PERFORATED PVC DRAIN TILE. DRAIN TILE TO BE EXTENDED TO SQUARE SUMP PIT WHICH EXTENDS A MIN 24" BELOW BASEMENT FLOOR.
11. ALL FRAMING MEMBERS IN CONTACT WITH CONCRETE SHALL BE ACQ TREATED LUMBER.
12. ALL STEEL FASTENERS (INCLUDING FOUND. ANCHOR BOLTS) ON ACQ TO BE (DOUBLE HOT-DIPPED) GALVANIZED.
13. PROVIDE A "UPER" GROUND PER IRC 3902.1 PROVIDE A "UPER" GROUND PER IRC 3902.1A. EGRESS WELL REQUIREMENTS:
A. IF THE VERTICAL DISTANCE FROM THE WINDOW SILL TO ADJACENT GRADE IS GREATER THAN 44", PROVIDE A LADDER.
B. ADD DRAIN TO DAYLIGHT OR SUMP PUMP.

ENERGY REQUIRMENTS

CONTRACTOR TO PROVIDE ENERGY AUDIT USING THE HERS ENERGY RATING SYSTEM. IN LIEU OF AN ENERGY AUDIT, THE FOLLOWING PRESCRIPTIVE REQUIREMENTS MAY BE FOLLOWED:
A. ALL DUCTS, AIR HANDLERS, FILTER BOXES, AND BUILDING ALL DUCTS, AIR HANDLERS, FILTER BOXES, AND BUILDING CAVITIES TO BE SEALED PER IRC SECTION N1103.2.
B. THE BUILDING THERMAL ENVELOPE IS REQUIRED TO BE SEALED THE BUILDING THERMAL ENVELOPE IS REQUIRED TO BE SEALED PER IRC SECTION N1102.4.
C. CONTRACTOR TO SUBMIT "MANUAL J" AND "MANUAL D" CALCULATIONS FOR THE HVAC SYSTEM.
D. INSULATION TO COMPLY WITH IECC AS FOLLOWS:
INSULATION TO COMPLY WITH IECC AS FOLLOWS:

WALLS	R-13
CEILING (FLAT)	R-49
CEILING (VAULTED)	R-38 (NOTE: VAULTED AREA NOT TO 600sq ft OR 20% OF ROOF AREA, WHICHEVER IS LESS)
FLOORS OVER UNCONDITIONED SPACE	R-19
CRAWL SPACE WALLS	R-15 (or R-10 CONTINUOUS)
BASEMENT WALLS	R-15 (or R-10 CONTINUOUS)
SLABS	N/R
DUCTWORK	R-8
WINDOWS	
U-FACTOR	U 0.35 (MAX)
SHGC	0.40 (MAX)
SKYLIGHTS	
U-FACTOR	U 0.55 (MAX)
SHGC	0.40 (MAX)

TABLE R802.3(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 (2½" × 0.113")	—
2	Ceiling joists to plate, toe nail	3-8d (2½" × 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 1¼" × 20 gage ridge strap	3-10d (3" × 0.128")	—
5	Rafter or roof truss to plate, toe nail	3-16d box nails (3½" × 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
6	Roof rafters to ridge, valley or hip rafters: toe nail face nail	4-16d (3½" × 0.135") 3-16d (3½" × 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 (3½" × 0.135")	12" o.c.
9	Built-up header, two pieces with ½" spacer	16d (3½" × 0.135")	16" o.c. along each edge
10	Continued header, two pieces	16d (3½" × 0.135")	16" o.c. along each edge
11	Continuous header to stud, toe nail	4-8d (2½" × 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 (3½" × 0.135")	—
15	Sole plate to joist or blocking, face nail	16d (3½" × 0.135")	16" o.c.
16	Sole plate to joist or blocking at braced wall panels	3-16d (3½" × 0.135")	16" o.c.
17	Stud to sole plate, toe nail	3-8d (2½" × 0.113") or 2-16d (3½" × 0.135")	— —
18	Top or sole plate to stud, end nail	2-16d (3½" × 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 (2½" × 0.113") 2 staples 1 ¾" × —	— —
21	1" × 6" sheathing to each bearing, face nail	2-8d (2½" × 0.113") 2 staples 1 ¾" × —	— —
22	1" × 8" sheathing to each bearing, face nail	2-8d (2½" × 0.113") 3 staples 1 ¾" × —	— —
23	Wider than 1" × 8" sheathing to each bearing, face nail	3-8d (2½" × 0.113") 4 staples 1¾" × —	— —
	Floor		
24	Joist to sill or girder, toe nail	3-8d (2½" × 0.113")	—
25	Rim joist to top plate, toe nail (roof applications also)	8d (2½" × 0.113")	6" o.c.
26	Rim joist or blocking to sill plate, toe nail	8d (2½" × 0.113")	6" o.c.
27	1" × 6" subfloor or less to each joist, face nail	2-8d (2½" × 0.113") 2 staples 1¾" × —	— —
28	2" subfloor to joist or girder, blind and face nail	2-16d (3½" × 0.135")	—
29	2" planks (plank & beam – floor & roof)	2-16d (3½" × 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. Two nails at ends and at each splice.
31	Ledger strip supporting joists or rafters	3-16d (3½" × 0.135")	At each joist or rafter

TABLE R802.3(1)—continued FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

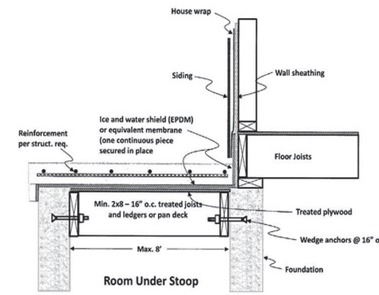
ITEM	DESCRIPTION OF BUILDING MATERIALS	DESCRIPTION OF FASTENER[a, b, c]	SPACING OF FASTENERS: Edges (inches)[h]	SPACING OF FASTENERS: Intermediate supports[c, e] (inches)
	Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing			
32	⅜" – ½"	6d common (2" × 0.113") nail (subfloor wall) 8d common (2½" × 0.131") nail (roof)[f]	6	12[g]
33	⅝" – ¾"	8d common nail (2½" × 0.131")	6	12[g]
34	⅞" – 1"	10d common (3" × 0.148") nail or 8d (2½" × 0.131") deformed nail	6	12
	Other wall sheathing[k]			
35	½" structural cellulosic fiberboard sheathing	1½" galvanized roofing nail, 7/16" crown or 1" crown staple 16 ga., 1¼" long	3	6
36	25/32" structural cellulosic fiberboard sheathing	1¾" galvanized roofing nail, 7/16" crown or 1" crown staple 16 ga., 1½" long	3	6
37	½" gypsum sheathing[d]	1½" galvanized roofing nail; staple galvanized, 1½" long; 1¼" screws, Type W or S	7	7
38	⅝" gypsum sheathing[d]	1¾" galvanized roofing nail; staple galvanized, 1⅝" long; 1⅝" screws, Type W or S	7	7
	Wood structural panels, combination subfloor underlayment to framing			
39	¾" and less	6d deformed (2" × 0.120") nail or 8d common (2½" × 0.131") nail	6	12
40	⅞" – 1"	8d common (2½" × 0.131") nail or 8d deformed (2½" × 0.120") nail	6	12
41	1⅛" – 1¼"	10d common (3" × 0.148") nail or 8d deformed (2½" × 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.

Foundation Wall Reinforcement Schedule - Table 2

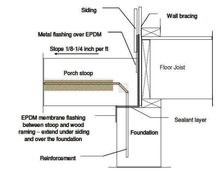
Vertical reinforcement spacing 60 psf soil						
Concrete strength/Grade	**8 inch thick wall**			**10 inch thick wall**		
Reinforcement #4 bar	**8'**	**9'**	**10'**	**8'**	**9'**	**10'**
3,000 psi / Grade 40	**16**	**12**	**NP**	**24**	**16**	**12**
3,500 psi / Grade 40	**16**	**12**	**NP**	**24**	**24**	**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).



GENERAL REQUIREMENTS:

FLASHING OR ANOTHER APPROVED WEATHER RESISTIVE BARRIER SHALL BE PLACED BETWEEN THE CONCRETE PORCH STOOP AND THE DWELLING (IRC R319).
THE WEATHER RESISTIVE BARRIER SHALL EXTEND UNDER THE WALL COVERING AND DOWN OVER THE EDGE OF THE FOUNDATION WALL TO FORM A CONTINUOUS BARRIER TO PREVENT WATER INTRUSION INTO THE BUILDING (IRC R703.8). PENETRATIONS, SEAMS, AND JOINTS SHALL BE EFFECTIVELY SEALED.
THE FLASHING AND SEALANTS SHALL FORM A PHYSICAL BARRIER TO RESTRICT TERMITE ACCESS (IRC R320.1)



SUSPENDED PORCH STOOP DETAIL

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

PHONE:	PHONE:	DATE DRAWN:	PLAN NO. KH-6117
		DATE REVISED:	FILE NAME: 6117 SEC
LOT NO.	SUB-DIVISION:	DESIGNER:	APPROX. SQ.FT.
	BUILDER:		SHEET NO. 6
	HOME BUYER:		

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 RESPONSIBILITY FOR LOT PLACEMENT, SET-BACKS, AND FLOOR PLANS. BUILDER&CONTRACTOR AND HOME OWNER ACCEPTS RESPONSIBILITY FOR ANY AND ALL BUILDING CODE VIOLATIONS. BUILDER&CONTRACTOR AGREES TO OBTAIN ENGINEERING FOR ANY AND ALL SITE CHANGES MADE TO STRUCTURE. BUILDER&CONTRACTOR ASSUMES RESPONSIBILITY FOR ANY PLAN

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 DOOR 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.

KH-6117