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KS. COA. #E1312 MO. COA. #2006034946-F

319 PARK RIDGE STONE DR., LEE'S SUMMIT, MO 2028 NE BLUE DURANGO III, WOOD
THE DURANG

REVISION TABLE

11/8/2019 HD #: Drawn By:

FRONT ELEVATION SHEET NUMBER:

SQUARE FOOTAGE 1ST FLOOR 1874 SF 1473 SF 2ND FLOOR BASEMENT 1790 SF 288 SF COVERED PATIO FRONT PORCH 50 SF GARAGE 763 SF 50 SF SUSPENDED STOOP



5 3D VIEW



FRONT ELEVATION

1/4" = 1'-0"

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LEE

DR.

STONE

BLUE

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3" SCH. 40 STEEL COL. ON 42"x42"x14" CONCRETE PAD W/ (7) #4 BARS EACH WAY (18.4K MAX)

3" G SCH. 40 STEEL COL. ON 36"x36"x12" B CONCRETE PAD W/ (6) #4 BARS EACH

3" SCH. 40 STEEL COL. ON 30"x30"x12"
A CONCRETE PAD W/ (5) #4 BARS EACH

3-1/2" SCH. 40 STEEL COL. ON 48"x48"x16" CONCRETE PAD W/ (8) #4 BARS EACH WAY (24.0K MAX)

COLUMN PAD SCHEDULE

WAY (9.4K MAX)

WAY (13.5K MAK)

3-1/2" © SCH. 40 STEEL COL. ON 54"x54"x16" CONCRETE PAD W/ (9) #4 BARS EACH WAY (30.4K MAX)

3-1/2" (SCH. 40 STEEL COL. ON F 60"x60"x18" CONCRETE PAD W/ (10) #4 BARS EACH WAY (37.5K MAX)

DECK PIER SCHEDULE

MIN. 6X6 TRTD/CDR POST ON 16"

MIN. 6X6 TRTD/CDR POST ON 18" ()

MIN. 6X6 TRTD/CDR POST ON 24"

(6283# MAX)

OF 1500 PSF MINIMUM BEARING.

PIERS TO TERMINATE AT A POINT 36"

LENGTH OF 12' WITHOUT CONTACTING HD

-HOUSE WILL BE PROVIDED WITH A "UFER"

MPH REQUIREMENTS -ALL HEADERS NOT LABELED SHALL BE MIN (2)

- SMOKE DETECTOR - CARBON MONOXIDE

PLAN SHEET NUMBER:

FOUNDATION

Date:

HD #:

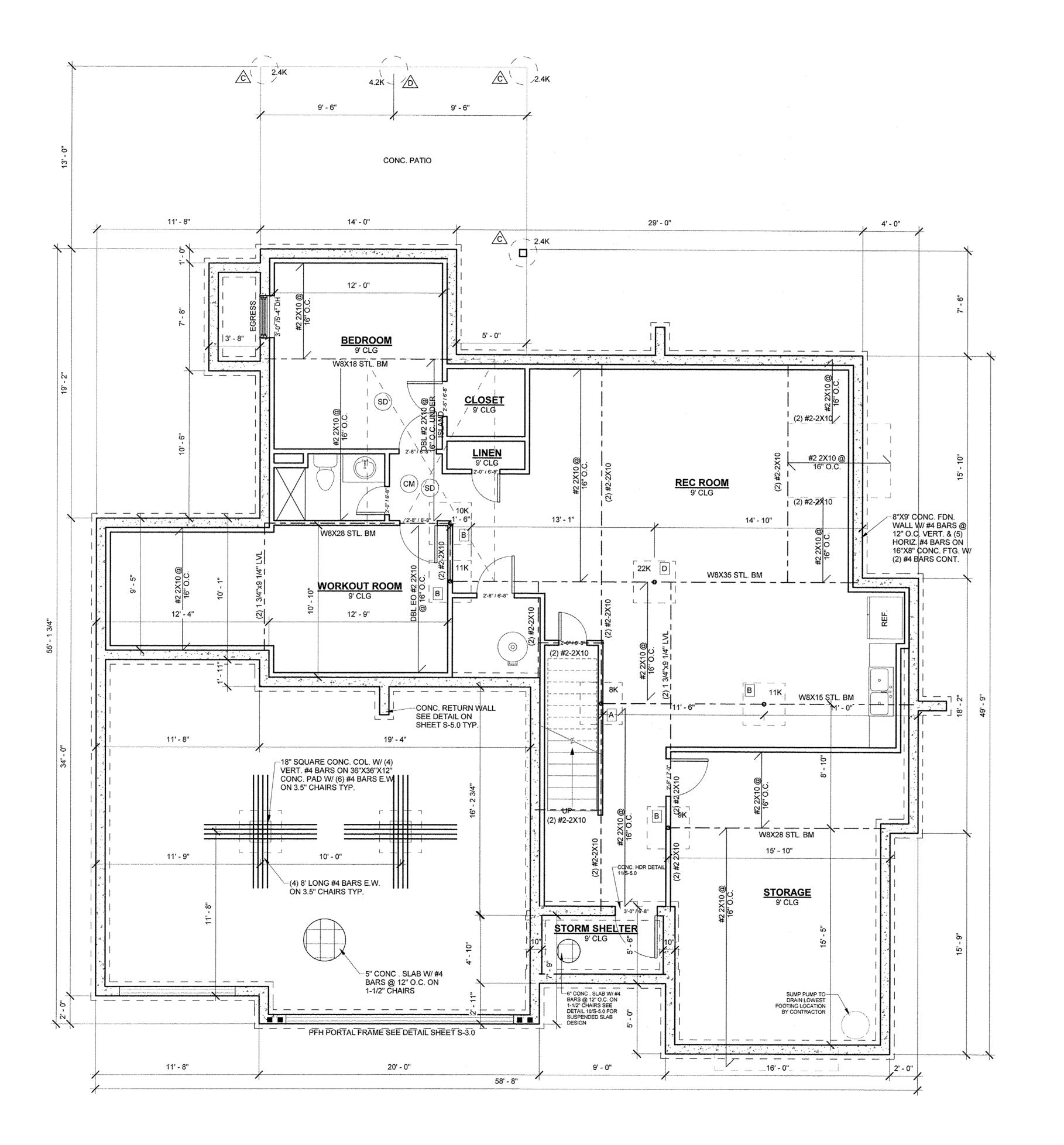
Drawn By:

Reviewed By:

REVISION TABLE

11/8/2019

38283



MIN. 1/2" ANCHOR BOLTS SHALL BE INSTALLED @ 36" O.C. MAX AND WITHIN 6"-12" FROM THE END OF EACH SECTION OF SILL PLATE ALONG ENTIRE PERIMETER OF FOUNDATION

1ST FLOOR EXTERIOR/ GARAGE WALL -2x4 BOTTOM PLATE 3," SUBFLOORING RIM JOIST FOUNDATION WALL BOTTOM PLATE, INTO SUBFLOOR AND RIM JOIST -ANCHOR BOLTS AS SPECIFIED ON

FOUNDATION ANCHORING NOTES

-16d COMMON (0.162"x3 ½") NAILS @12" OC THROUGH

MIN. 6X6 TRTD/CDR POST ON 12" A CONC PIER WITH USP PAU 66 BASE OR = (1570# MAX)

B CONC PIER WITH USP PAU 66 BASE OR = (2787# MAX)

CONC PIER WITH USP PAU 66 BASE OR = (3535# MAX)

CONC PIER WITH USP PAU 66 BASE OR =

PIERS TO TERMINATE ON ORIGINAL SOIL

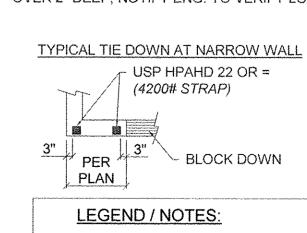
MINIMUM BELOW FINISH GRADE. POST ARE NOT TO EXCEED AN UNBRACED ENGINEERING FOR GUIDANCE.

GENERAL NOTES: -WINDOW SHALL HAVE FALL PROTECTION PER IRC

GROUND PER IRC SECTION 3608.1.5 -ALL TALL STUD WALLS TO BE CONSTRUCTED PER TABLE R602.3.1 ON SHEET S-2.0 ANY STUD WALL OVER 10 FEET TALL IS TO BE A CONTINUOUS STUD

-OVERHEAD GARAGE DOORS MUST MEET DASMA

#2-2X10 DFL -DBL ALL JST UNDER ISLAND -INSTALL W8X15 STEEL BEAM MIN. UNDER ALL F.P. WALLS/HEARTHS (THAT WILL RECEIVE ROCK) UNLESS NOTED AS A LARGER BEAM. ANY STONE OVER 2" DEEP, NOTIFY ENG. TO VERIFY LOADS

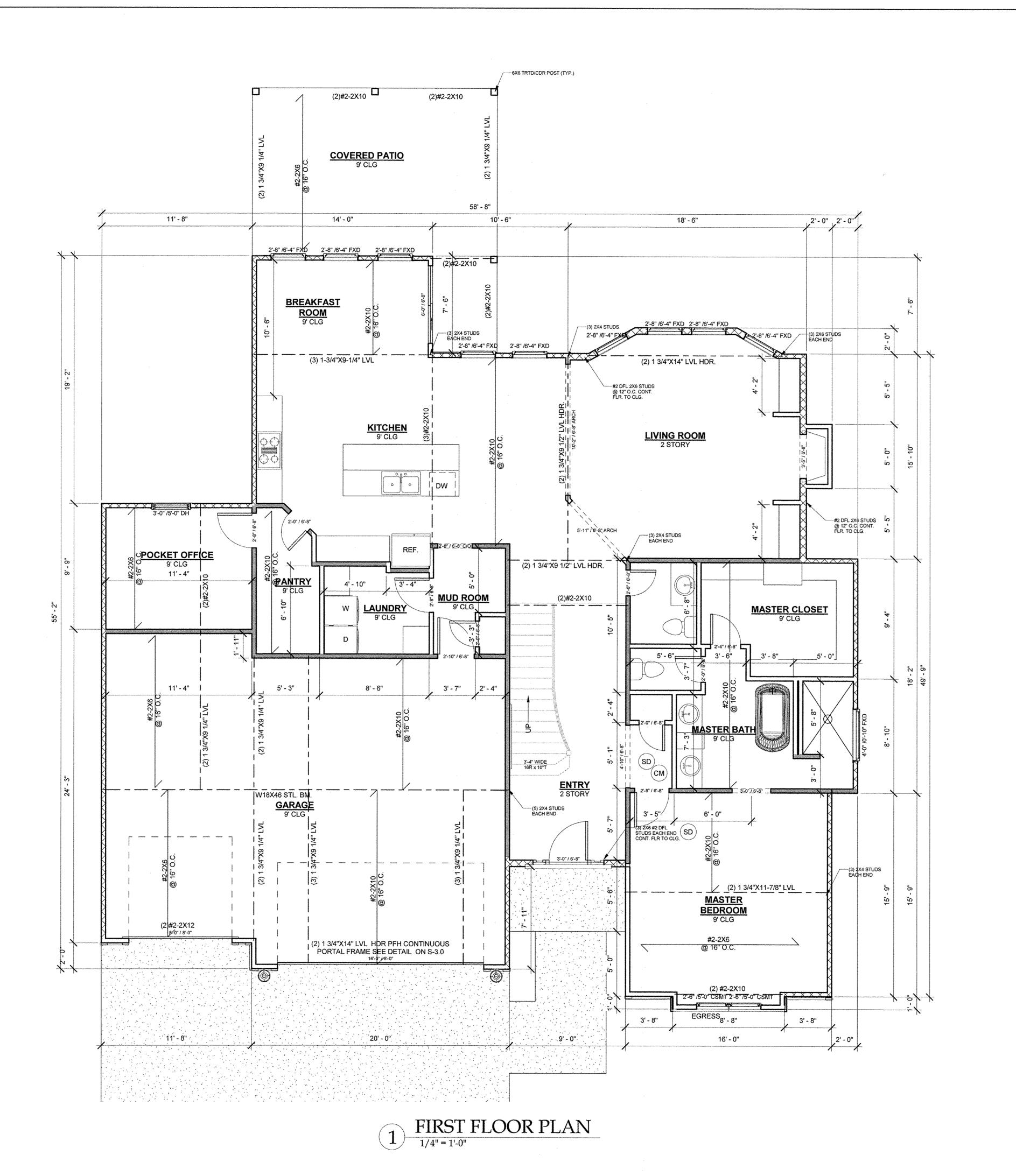


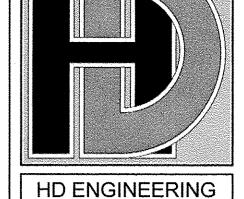
- LOAD BEARING WALL — - - - - LOAD BEARING BEAM ■ -USP HPAHD 22 OR EQUAL 4200# STRAP

DETECTOR

FOUNDATION PLAN

1/4" = 1'-0"





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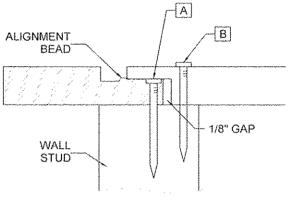
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SEE S-6.0 FOR ALL DECK FRAMING NOTES AND DETAILS

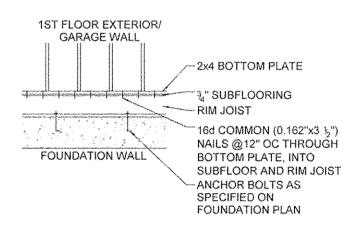


NAILING WITH SPACING AS SPECIFIED PER PLAN. FOR EXAMPLE, IF REQUIRED SPACING IS 4" O.C., BOTTOM LAP SHALL FIRST BE NAILED AT 4" O.C. (NAIL "A"), THEN FULL DEPTH SECTION OF OVERLAP PANEL SHALL BE NAILED @ 4" O.C. (NAIL "B")

3/8" APA REQUIRED NAILING PATTERN FOR SHIPLAP PANEL SHEATHING

FOUNDATION ANCHORING NOTES

MIN. 1/2" ANCHOR BOLTS SHALL BE INSTALLED @ 36"
O.C. MAX AND WITHIN 6"-12" FROM THE END OF
EACH SECTION OF SILL PLATE ALONG ENTIRE
PERIMETER OF FOUNDATION



GENERAL NOTES:
-WINDOW SHALL HAVE FALL PROTECTION PER IRC 312.2.4
-HOUSE WILL BE PROVIDED WITH A "UFER" GROUND PER IRC SECTION 3608.1.5
-ALL TALL STUD WALLS TO BE CONSTRUCTED PER TABLE R602.3.1 ON SHEET S-2.0
-OVERHEAD GARAGE DOORS MUST MEET DASMA

ALL TALL STUD WALLS TO BE CONSTRUCTED PER TABLE R602.3.1 ON SHEET S-2.0

BRACED WALLS: SEE CALCULATIONS ON SHEET S-3.0, PER ASCE7-10 REQUIREMENTS AS ALLOWED BY IRC 2012 R301.2.1

90 MPH REQUIREMENTS

<u>ALL EXTERIOR WALLS</u> SHALL BE SHEATHED PER ANY ONE OF THE FOLLOWING OPTIONS:

7/16" APA-RATED PLYWOOD/OSB WITH 8d NAILS @ 6" O.C. AT EDGES AND @ 12" O.C. IN THE FIELD
 7/16" SHIPLAP PANEL SHEATHING (I.E. LP SMARTSIDE OR EQUIVALENT) WITH 8d NAILS @ 6" O.C. AT EDGES AND @ 12" O.C.

IN THE FIELD

•¾" SHIPLAP PANEL SHEATHING (I.E. LP SMARTSIDE OR EQUIVALENT)

WITH 6d NAILS @ 4" O.C. AT EDGES AND @ 12" O.C. IN THE FIELD

LEGEND / NOTES:

- LOAD BEARING WALL
- - LOAD BEARING BEAM

- BRACED WALL SEE REQUIREMENT ABOVE

SD - SMOKE DETECTOR

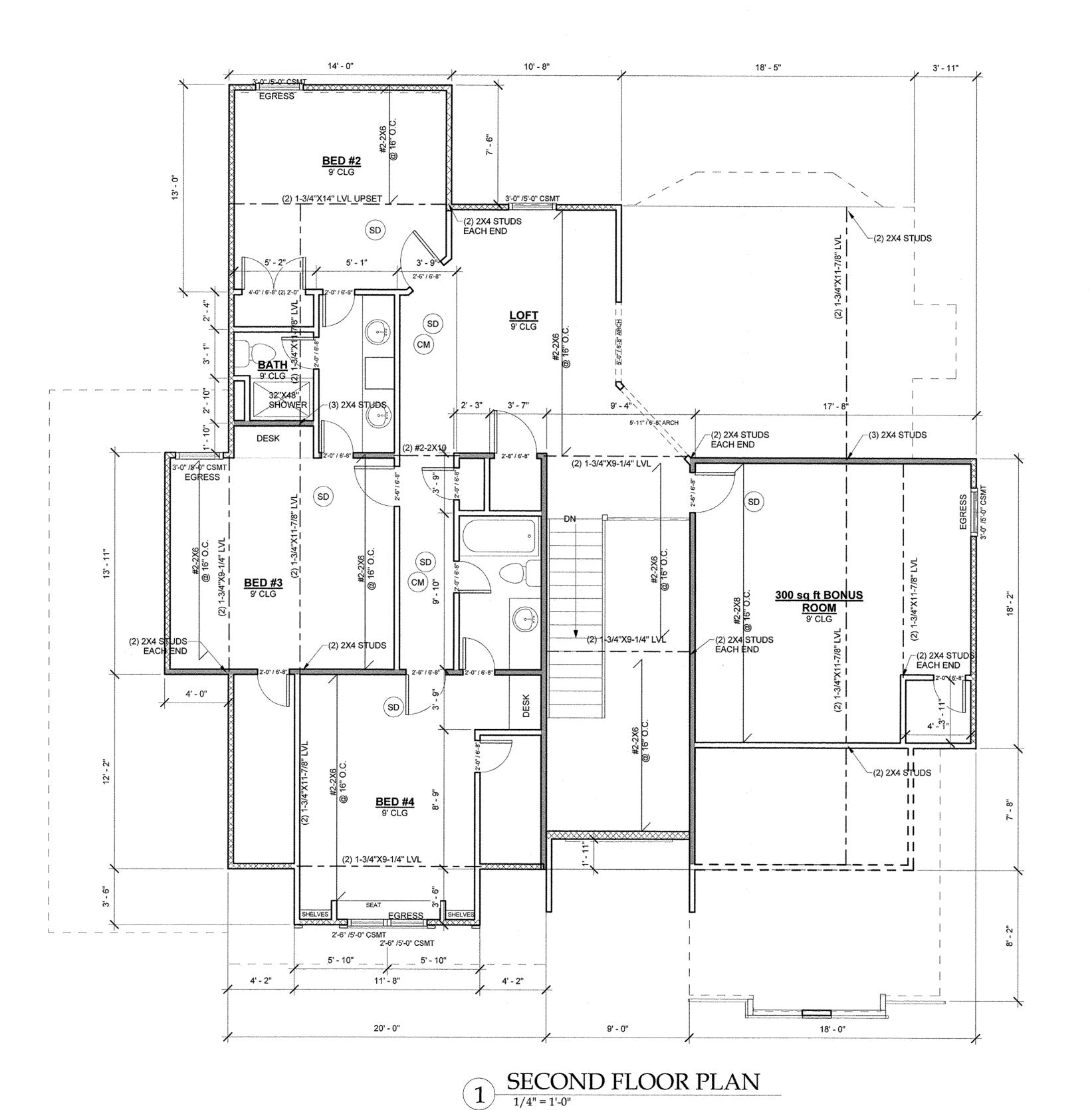


- CARBON MONOXIDE DETECTOR Date: 11/8/2019
HD #: 38283
Drawn By: PJH

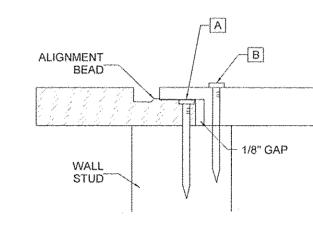
REVISION TABLE

FIRST FLOOR PLAN

Reviewed By:



NAILING WITH SPACING AS SPECIFIED PER PLAN. FOR EXAMPLE, IF REQUIRED SPACING IS 4" O.C., BOTTOM LAP SHALL FIRST BE NAILED AT 4" O.C. (NAIL "A"), THEN FULL DEPTH SECTION OF OVERTILE SHALL BE NAILED @ 4" O.C. (NAIL "B")



3/8" APA REQUIRED NAILING PATTERN FOR SHIPLAP PANEL SHEATHING

GENERAL NOTES: -WINDOW SHALL HAVE FALL PROTECTION PER IRC 312.2.4 -HOUSE WILL BE PROVIDED WITH A "UFER" GROUND PER IRC SECTION 3608.1.5 -ALL TALL STUD WALLS TO BE CONSTRUCTED PER

TABLE R602.3.1 ON SHEET S-2.0 -OVERHEAD GARAGE DOORS MUST MEET DASMA 90 MPH REQUIREMENTS

ALL TALL STUD WALLS TO CONSTRUCTED PER TABLE

R602.3.1 ON SHEET S-2.0

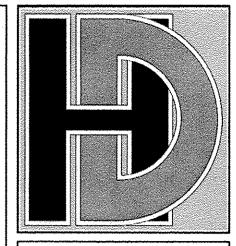
BRACED WALLS: SEE CALCULATIONS ON SHEET S-3.0, PER ASCE7-10 REQUIREMENTS AS ALLOWED BY IRC 2012 R301.2.1

ALL EXTERIOR WALLS SHALL BE SHEATHED PER ANY ONE OF THE FOLLOWING OPTIONS:

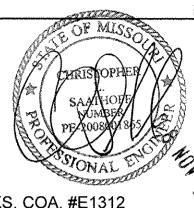
- ¼6" APA-RATED PLYWOOD/OSB WITH 8d NAILS @ 6" O.C. AT EDGES AND @ 12" O.C. IN THE FIELD
- V_{16} " SHIPLAP PANEL SHEATHING (I.E. LP SMARTSIDE OR EQUIVALENT) WITH 8d NAILS @ 6" O.C. AT EDGES AND @ 12" O.C. IN THE FIELD

•38" SHIPLAP PANEL SHEATHING (I.E. LP SMARTSIDE OR EQUIVALENT) WITH 6d NAILS @ 4" O.C. AT EDGES AND @ 12" O.C. IN THE FIELD

LEGEND / NOTE	<u>S:</u>
	- LOAD BEARING WALL
	- LOAD BEARING BEAM
KXXXXXXX	- BRACED WALL SEE REQUIREMENT ABOVE
SD - SMOKE DE	TECTOR
CM) - CARBON N	MONOXIDE DETECTOR
CONTINUOUSLY WI PANEL WITH 8d CON PENETRATION @ 6"	LLS TO BE SHEATHED TH 7/16" APA-RATED MMON NAILS W/ 1 3/8" OC AT EDGES AND @ O (SEE SPREADSHEET R CALCULATIONS)
-ALL LOAD-BEARING LABELED SHALL BE	



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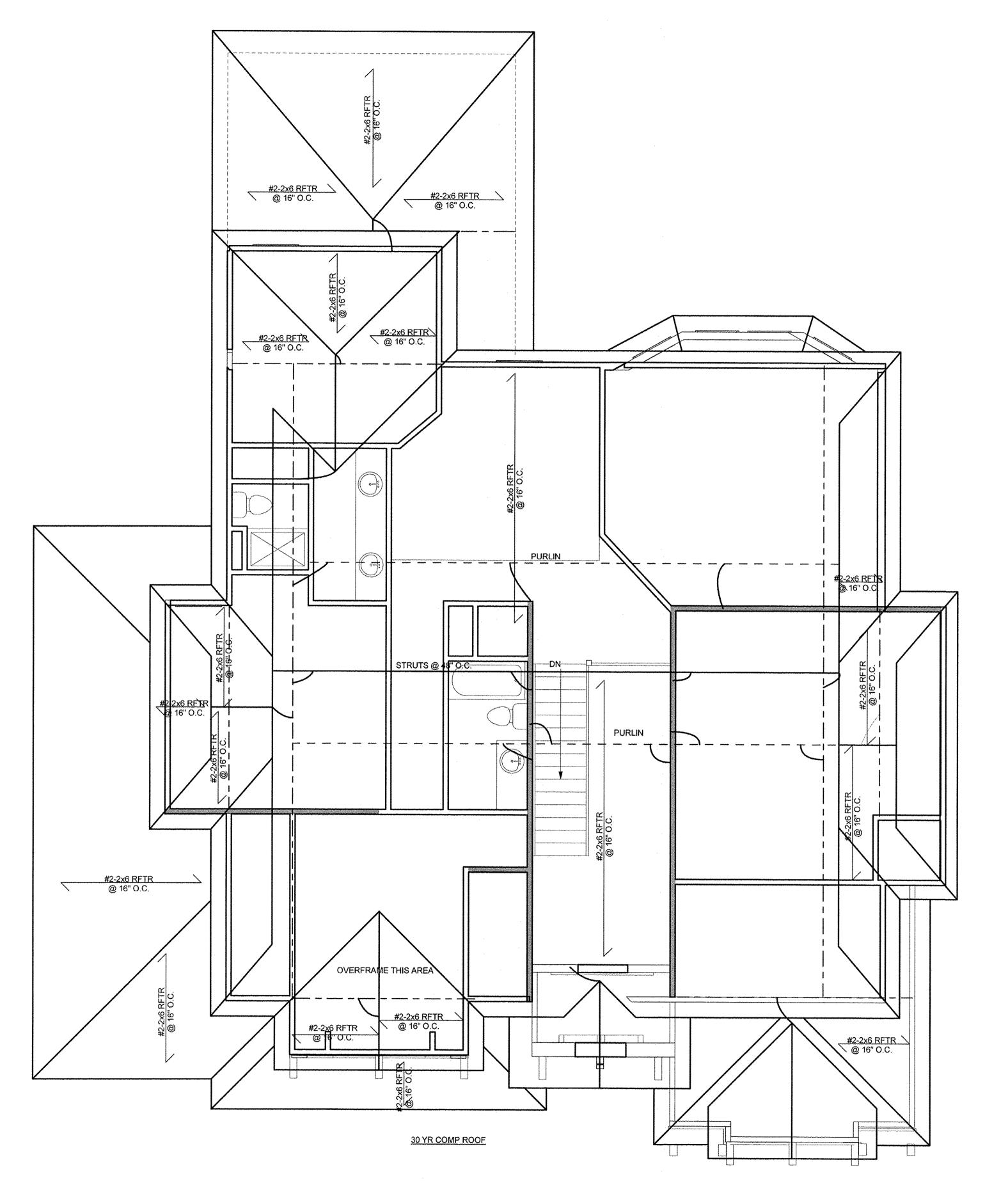
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319 PARK RIDGE SUMMIT, MO DR. BLUESTONE ----DURANG 2028 NE 里

REVISION TABLE

11/8/2019 38283 HD #: Drawn By: Reviewed By:

SECOND FLOOR PLAN SHEET NUMBER:



1 ROOF PLAN
1/4" = 1'-0"

ROOF DESIGNED FOR LIGHT ROOF COVERING 30PSF TOTAL LOAD [10PSF DL, 20PSF LL (SL)]

RAFTERS (DOUG-FIR, OR EQUAL): SEE SPAN CHARTS BELOW

RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN
#2-2x6	@24" O.C.	11'-9"
#2-2x6	@16" O.C.	14'-1"
#2-2x8	@24" O.C.	14'-10"
#2-2x8	@16" O.C.	18'-2"
#2-2x10	@24" O.C.	18'-2"
#2-2x10	@16" O.C.	22'-3"

RAFTERS	SPACING	MAX HORIZONTAL CLEARSPA
#2-2x6	@24" O.C.	8'-6"
#2-2x6	@16" O.C.	9'-9"
#2-2x8	@24" O.C.	11'-3"
#2-2x8	@16" O.C.	12'-9"
#2-2x10	@24" O.C.	14'-3"
#2-2x10	@16" O.C.	16'-3"

DEFLECTION = L/360 LIVE LOAD, L/240 TOTAL LOAD VAULTS TO BE 2×10 DEPTH

ALL RIDGES, HIPS, AND VALLEYS NOT MARKED SHALL BE (1) NOMINAL SIZE LARGER THAN THE INTERSECTING RAFTERS

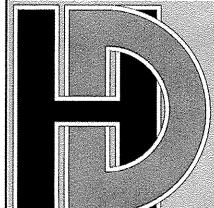
PURLINS ARE 2x6 MIN. PURLIN STRUTS ARE AT 4'-0" O.C. PURLIN STRUTS SHALL BE INSTALLED AT NOT LESS THAN A 45 DEGREE ANGLE WITH THE HORIZONTAL ALL PURLINS STRUTS SHALL HAVE A MAXIMUM UNBRACED LENGTH OF 8'-0" PURLINS STRUTS SHALL BE CONSTRUCTED IN A "T" CONFIGURATION AND PER THE FOLLOWING CHART

PURLIN STRUT	MAX PURLIN STRUT LENGTH
(2) 2x4	8'-0"
(1) 2x4 & (1) 2x6	12'-0"
(1) 2x6 & (1) 2x8	20'-0"
(2) 2x6 & (1) 2x8	30'-0"
CONSULT ARCH /ENGR	>30,"04

GENERAL NOTES: -WINDOW SHALL HAVE FALL PROTECTION PER IRC -HOUSE WILL BE PROVIDED WITH A "UFER" GROUND PER IRC SECTION 3608.1.5
-ALL TALL STUD WALLS TO BE CONSTRUCTED PER TABLE R602.3.1 ON SHEET S-2.0 -OVERHEAD GARAGE DOORS MUST MEET DASMA 90 MPH REQUIREMENTS

LEGEND / NOTES:

- LOAD BEARING WALL
 - LOAD BEARING BEAM
 - PURLIN



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REVISION TABLE

11/8/2019

38283 HD #: Drawn By: Reviewed By:

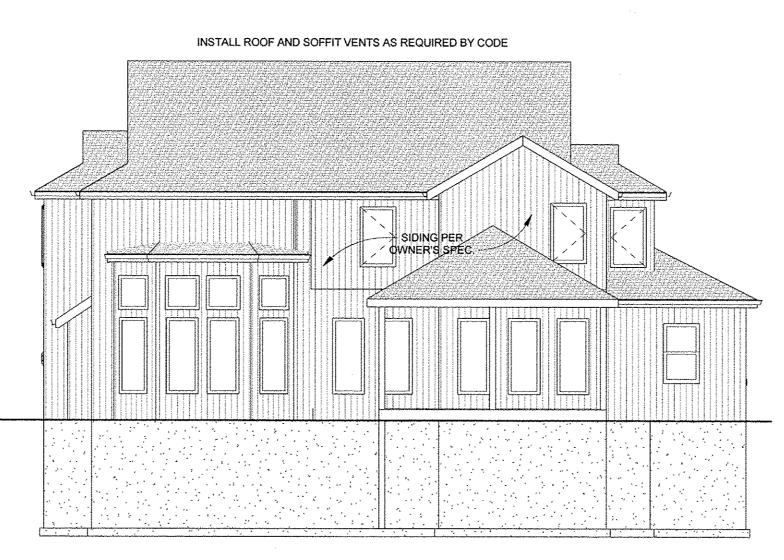
ROOF PLAN



— SIDING PER OWNER'S SPEC. --- WATER-RESISTANT

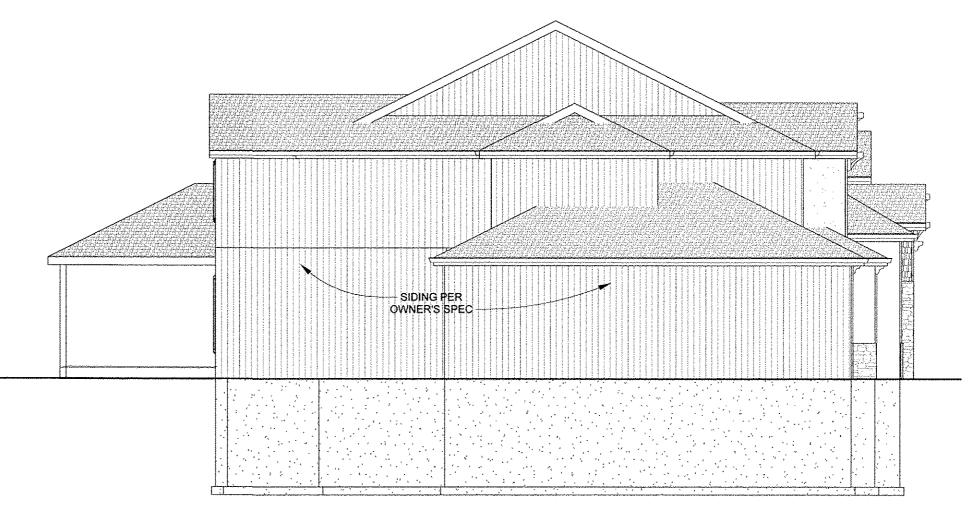
LEFT ELEVATION

1/8" = 1'-0"



4 REAR ELEVATION

1/8" = 1'-0"

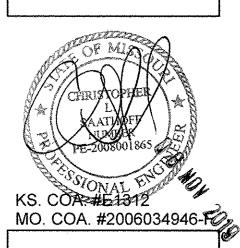


3 RIGHT ELEVATION

1/8" = 1'-0"

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319 PARK RIDGE CONST WOOD BROTHERS CONS
THE DURANGO III, GABLE ROOF/ LOT 319 PARK RI
2028 NE BLUESTONE DR., LEE'S SUMMIT, MO

REVISION TABLE

11/8/2019 HD #: 38283 Drawn By: Reviewed By:

ELEVATIONS

GENERAL NOTES:

1. PLANS SHALL COMPLY WITH THE 2018 INTERNATIONAL RESIDENTIAL CODE, 2018 IECC, AND ALL AMENDMENTS AS ADOPTED BY THE AHJ. IF ANY CHANGES OR DEVIATIONS ARE MADE FROM THESE PLANS THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE AUTHORITY AND THE ENGINEER TO EVALUATE THE CHANGES AND MAKE ANY APPROPRIATE MODIFICATIONS TO THE PLANS. 2. WHERE DISCREPANCIES EXIST BETWEEN THE STANDARD COMMENTS, NOTES FOR THE DESIGN

PROFESSIONAL OR THE CODE, THE MOST RESTRICTIVE SHALL APPLY.

3. THE CONTRACTUAL OBLIGATION OF THESE PLANS IS TO PROVIDE THE OWNER/BUILDER AND THE AHJ WITH A SET OF PLANS THAT MEET AHJ AND CODE REQUIREMENTS FOR A SINGLE SITE CONSTRUCTION PROJECT. UNLESS REQUESTED BY OUR CLIET, CODE/AHJ MINIMUM DESIGNS WILL BE UTILIZED. ALSO, UNLESS REQUESTED BY THE OWNER, OUR FIRM CAN NOT AND WILL NOT BE AUTHORIZED TO VISIT THE SITE TO EVALUATE THE SITE OR ANY CONSTRUCTION FOR THIS PROJECT IMPLEMENTATION OF ALTERNATES TO THE DESIGNS INCLUDING BUT NOT LIMITED TO PIER DESIGNS, FOUNDATION ALTERATIONS, OR ANY STRUCTURAL CHANGES NOT PROVIDED BY HD ENGINEERING OR A PROFESSIONAL REFERRED BY HD ENGINEERING SHALL RELEASE HD ENGINEERING FROM ALL LIABILITY ASSOCIATED WITH THIS DESIGN.

4. OUR FIRM HIGHLY RECOMMENDS THAT ANY SITE WITH GREATER THAN A 15% GRADE, ANY SITE WHERE A PREVIOUS STRUCTURE WAS LOCATED, OR ANY SITE WITH FILL MATERIAL OR A POTENTIAL SOIL BEARING CAPACITY BELOW 1500 PSF SHOULD BE EVALUATED BY OUR FIRM OR AN HD ENGINEERING REFERRED GEOTECHINICAL FIRM PRIOR TO PLACING FOOTINGS. 5. DUE TO THE WIDE VARIETY OF SOIL CONDITIONS IN OUR AREA AND THE WIDE VARIETY OF PLASTICITY INDEX AND SOIL BEARING CAPACITIES OUR FIRM RECOMMENDS ALL SITES BE

EVALUATED BY HD ENGINEERING OR AN HD ENGINEERING REFERRED GEOTECHNICAL FIRM PRIOR

FOUNDATION NOTES:

1. THE FOUNDATION DESIGN SHALL COMPLY WITH THE ENFORCING JURISDICTION RESIDENTIAL FOUNDATION STANDARD IN LIEU OF ENGINEERING REPORT REQUIREMENTS BASED ON ACTUAL

SITE CONDITIONS. 2. FOUNDATION WALLS SHALL BE DAMP-PROOFED PER IRC SECTION R406.

- 3. PROVIDE A MINIMUM 4" PERFORATED DRAIN AROUND USABLE SPACE BELOW GRADE OR OTHER EQUIVALENT MATERIALS PER IRC SECTION 405.1. THE PIPE SHALL BE COVERED WITH NOT LESS THAN 6" OF WASHED GRAVEL OR CRUSHED ROCK. THE DRAIN SHALL DAYLIGHT TO THE EXTERIOR BELOW THE FLOOR LEVEL OR TERMINATE IN A MINIMUM 20 GALLON SUMP PIT.
- 4. FOUNDATION DESIGN SHALL BE BASED ON A MINIMUM SOIL BEARING CAPACITY OF 1500 PSF. 5. FOOTINGS SHALL BE A MIN. OF 16" WIDE AND 8" DEEP W/ (2) #4 BARS CONTINUOUS, LOCATED A MIN. OF 3" CLEAR FROM BOTTOM. FOOTINGS SHALL BE A MINIMUM OF 36" BELOW GRADE FOR FROST PROTECTION.
- 6. COLUMN PADS SHALL BE A MINIMUM OF 24"X24"X8" WITH (3) #4 BARS EACH WAY. 7. FOUNDATION WALLS SHALL BE A MINIMUM 8" THICK W/ MINIMUM #4 BARS @ 24" O.C.
- HORIZONTAL AND VERTICAL W/ THE TOP BAR WITHIN 8" OF THE TOP OF THE WALL UNLESS NOTED OTHERWISE ON PLAN.
- 8. REINFORCEMENT SHALL LAP A MINIMUM OF 24"

TO PLACEMENT OF ANY "STANDARD" FOUNDATIONS.

- 9. INTERIOR BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR
- 10. INTERIOR NON-BEARING WALLS, OTHER THAN THOSE RESTING DIRECTLY ON THE FOOTING, SHALL BE ISOLATED FROM THE FLOOR FRAMING ABOVE BY A SEPARATION OF $\frac{1}{2}$ ".
- 11. CONCRETE FLOOR SLABS ON GRADE, SHALL BE A MINIMUM 4" THICK OVER A MINIMUM 4" BASE OF SAND, GRAVEL, OR CRUSHED STONE. BASEMENT SLABS SHALL HAVE A MIN. 6 MIL POLYETHYLENE OR APPROVED VAPOR RETARDER WITH JOINTS LAPPED NOT LESS THAN 6" SHALL
- BE PLACED BETWEEN THE FLOOR SLAB AND THE BASE COURSE. 12. FLOOR SLABS SUPPORTED BY FILL CONSISTING OF MORE THAN 24" OF GRANULAR FILL OR 8"
- OF EARTH SHALL BE REINFORCED PER A SEPARATE ENGINEERING DESIGN. 13. BASEMENT FOUNDATION SILL PLATES SHALL BE BOLTED TO THE FOUNDATION W/ A MINIMUM OF 1/2" ANCHOR BOLTS EMBEDDED AT LEAST 7" INTO THE CONCRETE AND SPACED NOT MORE THAN 3' ON CENTER AND WITHIN 12" OF EACH END PIECE PER IRC SECTION R403.1.6. 14. FOUNDATION WINDOW WELLS FOR SECONDARY MEANS OF EGRESS SHALL PROVIDE A
- MINIMUM 3'X3' HORIZONTAL AREA. 15. THE BASE OF ALL FOOTING EXCAVATIONS SHOULD BE FREE OF ALL WATER AND LOOSE MATERIAL PRIOR TO PLACING CONCRETE. CONCRETE SHOULD BE PLACED AS SOON AS POSSIBLE AFTER EXCAVATING SO THAT EXCESSIVE DRYING OR DISTURBANCE OF BEARING MATERIALS DOES NOT OCCUR. SHOULD THE MATERIALS AT BEARING LEVEL BECOME EXCESSIVELY DRY OR SATURATED, WE RECOMMEND THAT THE AFFECTED MATERIAL BE REMOVED PRIOR TO PLACING CONCRETE.
- 16. IT IS RECOMMENDED THAT ALL FOOTING EXCAVATIONS BE EVALUATED AND TESTED BY A GEOTECHNICAL ENGINEER IMMEDIATELY PRIOR TO PLACEMENT OF FOUNDATION CONCRETE. UNSUITABLE AREAS IDENTIFIED AT THIS TIME SHOULD BE CORRECTED. CORRECTIVE PROCEDURES WOULD BE DEPENDENT UPON CONDITIONS ENCOUNTERED AND MAY INCLUDE DEEPENING OF FOUNDATION ELEMENTS, OR UNDERCUTTING OF UNSUITABLE MATERIALS AND REPLACEMENT WITH ENGINEERED FILL.

STAIRWAY NOTES:

- 1. STAIRWAYS SHALL PROVIDE A MAXIMUM 7 3/4" RISE AND MIN. 10" RUN. 2. PROVIDE MINIMUM 36" GUARDRAILS ON THE OPEN SIDES OF RAISED FLOORS, PORCHES AND BALCONIES. MINIMUM 34" GUARDRAILS ON THE OPEN SIDES OF STAIRWAYS LOCATED MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW. GUARDRAIL ENCLOSURES SHALL HAVE
- INTERMEDIATE RAILS OR ORNAMENTAL PATTERNS THAT DO NOT ALLOW PASSAGE OF A SPHERE 3. EACH STAIRWAY OF 3 OR MORE RISERS SHALL PROVIDE A CONTINUOUS HANDRAIL ON AT
- LEAST ONE SIDE BETWEEN 34" AND 38" ABOVE THE NOSING OF THE THREADS. 4. HANDRAILS SHALL HAVE A CIRCULAR CROSS-SECTION OF 1 1/4" MINIMUM TO 2" MAXIMUM OR OTHER APPROVED GRABABLE SHAPE PER IRC SECTION R311.7.8.3
- 5. PROVIDE A MINIMUM 6'-8" OF HEADROOM CLEARANCE IN STAIRWAYS. 6. ENCLOSED ACCESSIBLE SPACE UNDER STAIRWAYS SHALL HAVE WALLS AND THE UNDERSIDE OF THE STAIR AND LANDING PROTECTED WITH 1/2" GYPSUM BOARD ON ENCLOSURE SIDE. 7. WINDERS SHALL PROVIDE A MINIMUM TREAD OF AT LEAST 6" AT ANY POINT WITHIN CLEAR

WIDTH OF STAIRS, WINDER TREAD PROPORTION TO COMPLY WITH IRCR311.7.5.2.1.

GLAZING NOTES:

1. GLAZING IN HAZARDOUS LOCATIONS AS IDENTIFIED IN IRC SECTION R308.4 SHALL BE OF APPROVED SAFETY GLAZING MATERIALS. GLASS IN STORM DOORS, INDIVIDUAL FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24" ARCH 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 WITHIN 60" OF THE TOP OR BOTTOM OF THE STAIR, ENCLOSURES FOR SPAS, TUBS, SHOWERS AND WHIRLPOOLS, GLAZING IN FIXED OR OPERABLE PANELS EXCEEDING 9 S.F. AND WHOSE BOTTOM EDGE IS LESS THAN 18" ABOVE THE FLOOR OR WALKING SURFACE WITHIN 36" 2. IN DWELLING UNITS, WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED MORE THAN 72 INCHES ABOVE THE FINISHED GRADE OR SURFACE BELOW, THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE A MINIMUM OF 24 INCHES 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 SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 24 INCHES OF THE FINISHED FLOOR.

FRAMING NOTES:

1. ALL LUMBER SIZES ARE FOR DOUGLAS FIR-LARCH UNLESS OTHERWISE NOTED.

- 2. ALL HEADERS TO BE A MINIMUM OF (2) #2-2X10'S UNLESS OTHERWISE NOTED.
- 3. BLOCK CANTILEVERS, DOOR JAMBS, AND OVER BEAMS.
- 4. ALL HEADERS/BEAMS TO BEAR ON A MINIMUM OF (2) 2X4 POSTS UNLESS NOTED OTHERWISE. 5. INTERIOR NON-BEARING WALLS, OTHER THAN THOSE RESTING DIRECTLY ON THE FOOTING
- SHALL BE ISOLATED FROM THE FLOOR FRAMING ABOVE.
- 6. WHERE JOISTS RUN PARALLEL TO FOUNDATION WALLS, SOLID BLOCKING FOR A MINIMUM OF (2) JOIST SPACES SHALL BE PROVIDED AT A MAXIMUM OF 4' CENTERS TO TRANSFER LATERAL LOADS ON THE WALL TO THE FLOOR DIAPHRAGM. THE BLOCKING SHALL BE SECURELY NAILED TO THE JOISTS AND FLOORING. NAIL JOISTS AND BLOCKING TO SILL PLATE WITH (4) 10D NAILS.

7. IF DUCTS ARE INSTALLED IN THE FIRST JOIST SPACE(S), NAIL 2X4'S FLAT AT 4' CENTERS WITHIN THE JOIST SPACE(S) AND THEN PROVIDE SOLID BLOCKING, INSTALLED UPRIGHT, IN THE NEXT TWO JOIST SPACES. SECURE THE 2X4'S TO THE SILL PLATE WITH (4) 10D NAILS. 8. ALL SILLS AND SLEEPERS SUPPORTED ON CONCRETE OR MASONRY AND FURRING ATTACHED

- TO CONCRETE OR MASONRY SHALL BE OF DECAY RESISTANT MATERIALS. 9. JOISTS UNDER BEARING PARTITIONS SHALL BE SIZED TO CARRY THE DESIGN LOAD IN
- ACCORDANCE WITH IRC SECTION R502.4. 10. JOISTS FRAMING FROM OPPOSITE SIDES OVER BEARING SUPPORTS SHALL LAP A MINIMUM OF
- 3" AND SHALL BE NAILED TOGETHER WITH A MINIMUM 10D FACE NAILS. 11. JOISTS FRAMING INTO A WOOD GIRDER OR BEAM SHALL BE SUPPORTED BY APPROVED FRAMING ANCHORS OR ON MINIMUM 2"X2" LEDGER STRIPS.
- 12. HEADER AND TRIMMERS SHALL BE OF SUFFICIENT CROSS SECTION TO SUPPORT THE FLOOR FRAMING. TRIMMER JOISTS SHALL BE DOUBLED WHEN THE HEADER IS SUPPORTED MORE THAN 3' FROM THE TRIMMER JOIST BEARING. WHEN THE HEADER SPAN EXCEEDS 4', THE HEADER AND TRIMMER SHALL BE DOUBLED.
- 13. JOISTS AT SUPPORTS SHALL BE SUPPORTED LATERALLY AT THE ENDS BY FULL-DEPTH SOLID BLOCKING NOT LESS THAN 2" NOMINAL THICKNESS OR BY ATTACHMENT TO A HEADER, BAND OR RIM JOIST OR TO AN ADJOINING STUD OR OTHERWISE PROVIDED WITH LATERAL SUPPORT TO PREVENT ROTATION.
- 14. ALL WALL COVERINGS TO COMPLY WITH IRC SECTION 702.3. AND 703.2.
- 15. ALL RAFTER / COLLAR TIES TO COMPLY WITH IRC SECTIONS 802.3 AND 802.3.1. 16. ALL RAFTERS TO HAVE 2x4 COLLAR TIES @ 48" OC IN UPPER 1/3 OF DISTANCE BETWEEN
- CEILING AND ROOF 17. BLOCKING BETWEEN JOISTS UNDER A PERPENDICULAR LOAD-BEARING WALL IS NOT
- REQUIRED 18. BOTTOM OF ALL FLOOR ASSEMBLIES SHALL BE PROVIDED WITH A 1/2" GYPSUM WALLBOARD
- MEMBRANE (IF REQUIRED BY LOCAL CODE) 19. I-JOIST AND FLOOR TRUSS SYSTEMS SHALL BE FIRE PROTECTED PER IRC R501.3. 20. STUDS SHALL BE CONTINUOUS FROM THE FLOOR TO THE ROOF/ CEILING DIAPHRAGM PER

CONCRETE NOTES:

IRC 602.3

1. CONCRETE SHALL BE AIR-ENTRAINED WITH A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 2500 PSI FOR BASEMENT AND INTERIOR FLOOR SLABS, 3000 PSI FOR BASEMENT AND FOUNDATION WALLS AND 3500 PSI FOR PORCHES, CARPORTS AND GARAGE FLOOR SLABS.

EMERGENCY EGRESS AND RESCUE NOTES:

- 1. PROVIDE ONE WINDOW FOR EACH BEDROOM THAT HAS A MINIMUM OPENABLE AREA OF 5.7 S.F. WITH A MINIMUM OPENABLE HEIGHT OF 24" AND WIDTH OF 21". IN ADDITION, THE OPENABLE PORTION OF EGRESS WINDOWS SHALL NOT EXCEED 44" ABOVE THE ADJOINING FLOOR OR PERMANENT STEP.
- 2. PROVIDE SMOKE ALARMS IN EACH SLEEPING ROOM, OUTSIDE OF EACH SLEEPING AREA AND ON EACH FLOOR INCLUDING BASEMENTS. ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE DWELLING.

GARAGE NOTES:

1. THE GARAGE FLOOR SHALL SLOPE TOWARDS THE GARAGE DOORWAYS OR SLOPE TO A TRENCH OR UNTRAPPED DRAIN THAT DISCHARGES DIRECTLY TO THE EXTERIOR ABOVE GRADE. 2. DOORS BETWEEN THE GARAGE AND DWELLING - MINIMUM 1 3/8" SOLID WOOD, SOLID OR HONEY-COMBED CORE STEEL DOOR NOT LESS THAN 1 3/8" THICK, OR 20 - MINUTE FIRE - RATED EQUIPPED WITH SELF CLOSING DEVICE PER IRC2018 R302.5.1.

3. GARAGE VEHICLE DOORS AND FRAMES SHALL BE DESIGNED AND INSTALLED TO MEET THE 90-MPH 3-SECOND GUST LOADING PER DASMA 108 AND ASTM E 330-96 PER IRC2018 R301.2.1 4. THE GARAGE SHALL BE SEPARATED FROM THE DWELLING AND ITS ATTIC AREAS BY MINIMUM 5/8" GYPSUM BOARD APPLIED TO THE GARAGE SIDE. WHERE HABITABLE SPACE OCCURS ABOVE THE GARAGE, THE FLOOR CEILING ASSEMBLY SHALL BE PROTECTED WITH MINIMUM 5/8" TYPE X GYPSUM BOARD ON THE GARAGE CEILING. WHERE A FLOOR/CEILING SPACE IS PROVIDED ABOVE THE GARAGE COLUMNS AND BEAMS SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED WITH 5/8" GYPSUM BOARD OR EQUIVALENT.

5. GARAGE DOOR H-FRAME FOR THE ATTACHMENT OF THE TRACK AND COUNTER BALANCE SHALL CONSIST OF THE FOLLOWING: 2x6 VERTICAL JAMBS RUNNING FROM FLOOR TO CEILING ATTACHED WITH 1 3/4"X.120" NAILS AT 7" CENTERS STAGGERED WITH (7) 3 1/4"X.120" NAILS THRU THE JAMB INTO THE HEADER, MINIMUM 2X8 HEADER FOR ATTACHMENT OF COUNTER BALANCE SYSTEM.

MECHANICAL/INSULATION:

1. BUILDING ENVELOPE INSULATION SHALL COMPLY WITH IRC TABLE N1102.1.1 OR THE 2018 IECC. (SEE S-6.0 FOR MORE DETAILS)

VENTILATION:

1. ENCLOSED ATTICS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. VENTILATING OPENINGS SHALL BE PROVIDED WITH CORROSION-RESISTANT WIRE MESH, WITH 1/8" TO 1/4" OPENINGS. THE TOTAL FREE VENTILATING AREA SHALL NOT BE LESS THAN 1/150 OF THE AREA OF SPACE VENTILATED, EXCEPT WHERE THE VENTILATORS AREA LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED THE REQUIRED AREA MAY BE REDUCED TO 1/300.

SHEATHING SCHEDULE

ALL SHEATHING MATERIALS TO BE APPLIED PERPENDICULAR TO JOISTS AND ENDS STAGGERED

BUILDING COMPONENT	MATERIAL	FASTENING		
ROOF SHEATHING	7/16" PLYWOOD	16 GA X 1 3/4" STAPLES @ 6" OC EDGES & 12" OC IN FIELD		
	1x 4 #3 FURRING	1/2" CROWN STAPLES		
FLOOR SHEATHING	3/4" T&G YELLOW	14 GA X 1 3/4" STAPLES @ 6" OC EDGES & 12" OC IN FIELD		
	PINE PLYWOOD	12.5 GA X 1 1/2" RING OR SCREW SHANK NAILS @ 6" OC EDGES & 12" OC IN FIELD		
WALL COVERING	1/2" GYPSUM SHEATHING	6D COMMON NAILS: 1 5/8" GALVANIZED STAPLES; 1 1/4" SCREWS, TYPE W OR S @ 4" OC EDGES & 8" OC IN FIELD		
CEILING COVERING	1/2" GYPSUM SHEATHING	7" OC NAILED / 12" OC SCREWED W/ 13GA, 1 3/8" LONG, 19/64" HEAD; 0.098 Ø, 1 1/4" LONG, ANG-RINGED; 5D COOLER NAIL, 0.086 Ø, 1 5/8" LONG, 15/64" HEAD; OR GYP BD NAIL, 0.086 Ø, 1 5/8" LONG, 19/64" HEAD		
EXTERIOR WALL	7/16" APA RATED SHEATHING	8D COMMON NAILS @ 6" OC EDGES & 12" OC IN THE FIELD		
SHEATHING	RATED PANEL SIDING, RATED 16" OC, ½6" THICK	8D BOX OR SINKER NAILS @ 6" OC EDGES & 12" OC IN THE FIELD		

FRAME FASTENING SCHEDULE

BUILDING COMPONENT	FASTEN TO	FASTEN W/					
	RIDGE / VALLEY / HIP	TOENAIL W/ (4) 16D					
	PLATE	FACENAIL W/ (3) 16D TOENAIL W/ (3) 10D					
RAFTERS	LEDGER STRIPS SUPPORTING JOISTS OR RAFTERS	FACENAIL W/ (3) 16D					
	COLLAR TIE TO RAFTERS	FACENAIL W/ (3) 10D					
	TOP PLATE	TOENAIL W/ (3) 8D @ EACH END					
	WHERE CLG JST RUN PARALLEL TO RAFTERS FACENAIL TO RAFTERS W/ (3) 10D MINIMUM						
CEILING JOISTS	LAPS OVER PARTITIONS	FACENAIL W/ (3) 10D					
	BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	TOENAIL W/ (3) 8D					
	BUILT-UP BEAMS, 2" LUMBER LAYERS, FACENAIL OPPOSITE SIDES, (2) @ EACH END PLUS	10D @ 32" OC STAGGERED, TOP & BOTTOM, OPPOSITE SIDES					
BEAMS	BUILT-UP BEAMS OF ENGINEERED LUMBER, FACE NAIL OPPOSITE SIDES	(2) ROWS @ 12" OC					
	BUILT-UP HEADER, TWO PIECES WI ½" SPACER	16D @16" OC ALONG EDGES					
	BUILT-UP HEADER, TWO PIECES, NO ½" SPACER	3" x 0.131" NAILS @ 12" OC ALONG EDGES					
•	BEARING	TOENAIL W/ (2) 18D @ EACH END					
	RIM JOIST TO SILL OR TOP PLATE	TOENAIL W/ 8D COMMON OR 10D BOX NAILS @ 6" OC					
	JOIST TO SILL OR GIRDER	TOENAIL W/ (3) 8D					
	JOIST TO RIM JOIST BRIDGING TO JOIST	FACENAIL W/ (3) 16D TOENAIL W/ (2) 8D					
FLOOR JOISTS	I-JOIST TO BEARING PLATE	TOENAIL W/ (2) 8D - ONE INTO EACH SIDE AT LEAST 1½" FROM THE END					
	RIM JOIST TO I-JOIST	FACENAIL W/ (2) 10D BOX NAILS - ONE INTO EACH FLANGE					
	SOLE PLATE TO LSL RIM BOARD	16D BOX NAILS @ 12" OC					
	SINGLE JOIST HANGERS *	10D FACENAILS AND TONAILS					
	DOUBLE JOIST HANGERS *	16D FACENAILS AND TOENAILS					
	TOP & SOLE PLATE TO STUD	END NAIL W/ (2) 16D					
	STUD TO SOLE AND TOP PLATE	TOENAIL W/ (4) 8D					
	DOUBLE TOP PLATES	FACENAIL W/ 16D @ 16" OC					
	DOUBLE TOP PLATE LAP SPLICE	FACENAIL W/ (8) 16D					
	TOP PLATE LAPS & INTERSECTIONS	FACENAIL W/ (2) 16D FACENAIL W/ 16D @ 24" OC					
	DOUBLE STUDS	FACENAIL W/ 16D @ 24 OC					
WALLS	BUILT-UP CORNER STUDS	@ 24" OC FACENAIL W/ (2) 16D IN					
,	STEEL "X" BRACING	EACH TOP & BOTTOM PLATE & (1) 8D PER STUD					
	SOLE PLATE TO JOIST OR BLOCKING	FACENAIL W/ 16D @ 16" OC					
	SOLE PLATES TO JOIST OR BLOCKING AT BRACED WALL LINES, PERPENDICULAR TO FRAMING	FACENAIL W/ (3) 16D @ 16" OC ALONG BRACED WALL PANEL					
	TOP PLATE TO JOIST OR BLOCKING AT BW LINES, PERPENDICULAR TO FRAMING	TOENAIL W/ 8D @ 6" OC ALONG BRACED WALL PANEL					
	SOLE PLATES TO JOIST OR BLOCKING AT BW LINES PARALLEL TO FRAMING, BLOCKING @ 16" OC	FACENAIL W/ (3) 16D @ 16" OC ALONG BW PANEL & AT EACH BLOCK					
	TOP PLATE TO JOIST OR BLOCKING AT BW LINES, PARALLEL TO FRAMING, BLOCKING @ 16" OC	TOENAIL W/ 8D @ 6" OC ALONG BW PANEL & AT EACH BLOCK					
	NON-STRUCT. SIDING OVER STRUCT. SHEATHING	(1) 6D BOX NAIL IN EACH STUD					
	FIBER CEMENT PLANK SIDING	(1) 6D GALVANIZED NAIL IN EACH STUD					
	WINDOW INSTALLATION NAILING	1¾" - 2" ROOFING NAILS @ 12" OC MAX.					

* JOIST HANGER NOTES: 1) NO JOIST HANGER NAILS ALLOWED FOR TOENAILS, 2) NO GUN NAILS OR SCREWS ALLOWED IN CONNECTORS, 3) TOENAILS SHALL ALWAYS BE A FULL 3" OR 3½" NAIL

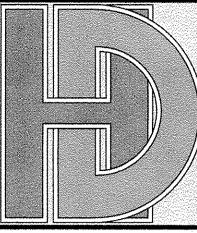
COLUMN CONNECTION TO STEEL BEAMS SHALL BE WITH A CLIP POST CAP WITH ALL FOUR TAB EARS BENT AROUND THE BOTTOM FLANGE OF THE BEAM. FOR A BEARING PLATE, FOUR HOLES SHALL BE DRILLED IN THE BOTTOM FLANGE OF THE STEEL BEAM TO MATCH THE HOLE PATTERN OF THE PLATE. 1/2" X 2" BOLTS SHOULD THEN BE INSTALLED WITH A FLAT WASHER, LOCK WASHER, AND A NUT IN EACH OF THE HOLES. THE POST CAP MAY BE WELDED TO THE STEEL BEAM IN ACCORDANCE WITH AWS D1.1-92 AS AN ALTERNATIVE, AND WOULD NEED TO BE INSPECTED BY AN AWS-CERTIFIED INSPECTOR.

DESIGN LOADS (PSF)

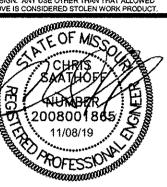
AREA	MIN DEAD LOAD	MIN LIVE LOAD
EXTERIOR BALCONIES	10	60
DECKS, STAIRS	10	40
CEILING JOISTS / ATTICS NO STORAGE - SCUTTLE ACCESS ONLY ROOF SLOPE 3:12 OR LESS	10	10
CEILING JOISTS / ATTICS NO STORAGE - SCUTTLE ACCESS ONLY ROOF SLOPE OVER 3:12	10	10
CEILING JOISTS / ATTICS WITH STORAGE - DOOR PULL DOWN LADDER ACCESS	10	20
ROOMS: NON-SLEEPING	10	40
ROOMS: SLEEPING	10	30
ROOF: LIGHT ROOF COVERING	10	20
ROOF: HEAVY ROOF COVERING / CONCRETE / TILE / SLATE	20	20
GUARDRAILS, HANDRAILS	200# LL	NORMAL

ENGINEERED LUMBER MIN DESIGN REQUIREMENTS

	F _b (psi)	E (psi)	F _V (psi)
LVL	2600	1.8x10^6	285
GLULAM	2400	1.8x10^6	190
PARALLAM	2600	2.0x10^6	290



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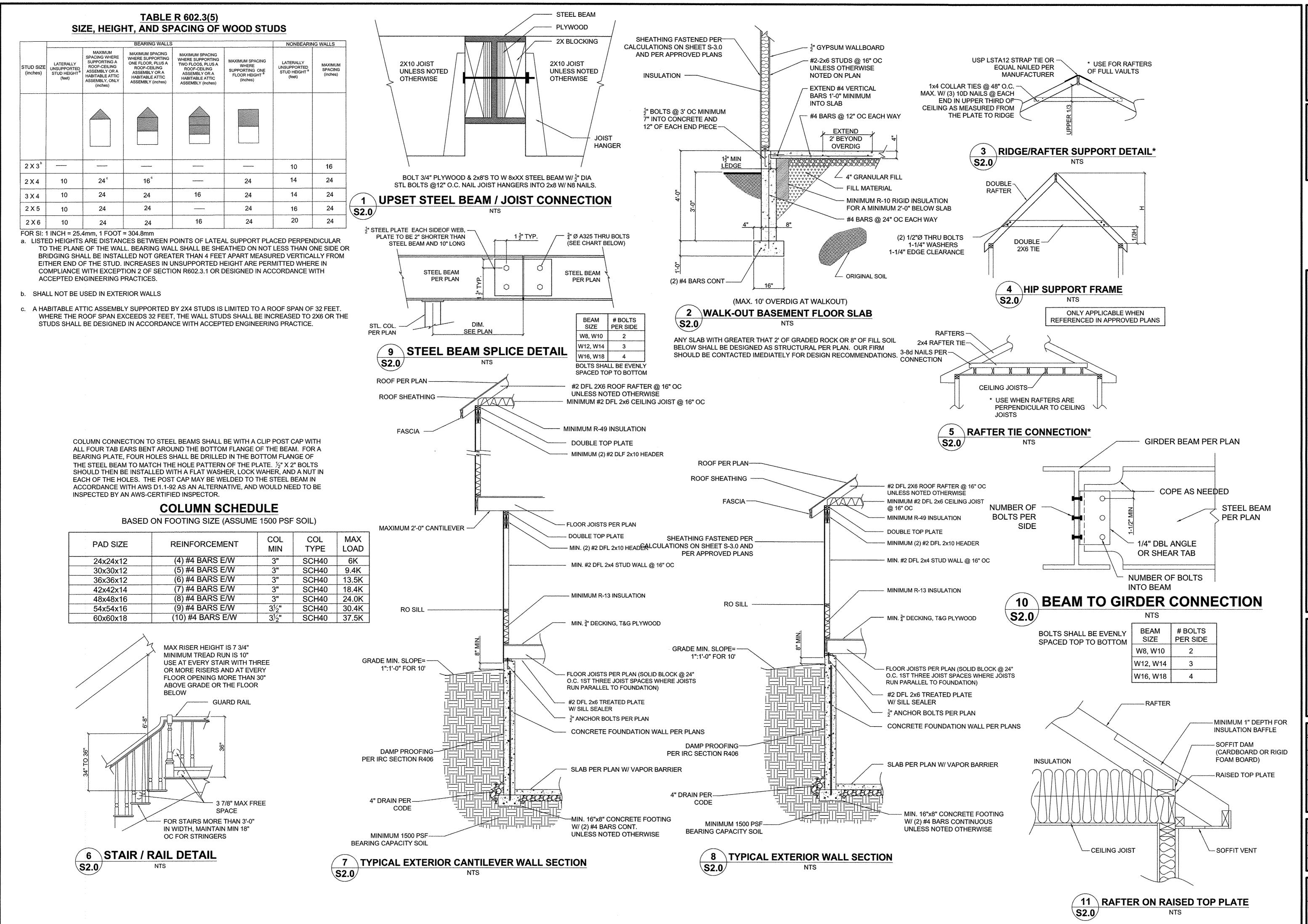


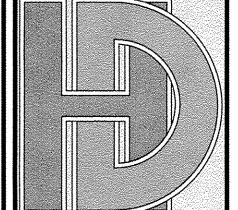
KS. COA. # E1312 MO. COA. # 2006034946-F

REVISION TABLE

Date: 11/08/19 HD #: 38283 Drawn by: AWH Reviewed by: CLS

STRUCTURAL DETAILS HEET NUMBER:

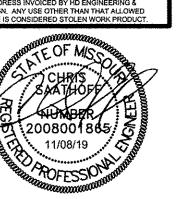




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OOD BROTHERS CONSTANT RIDGE LOT 319 THE DURAGO III
2028 NE BLUESTONE DR. LEE'S SUMMIT, MO
STRUCTURAL DETAILS

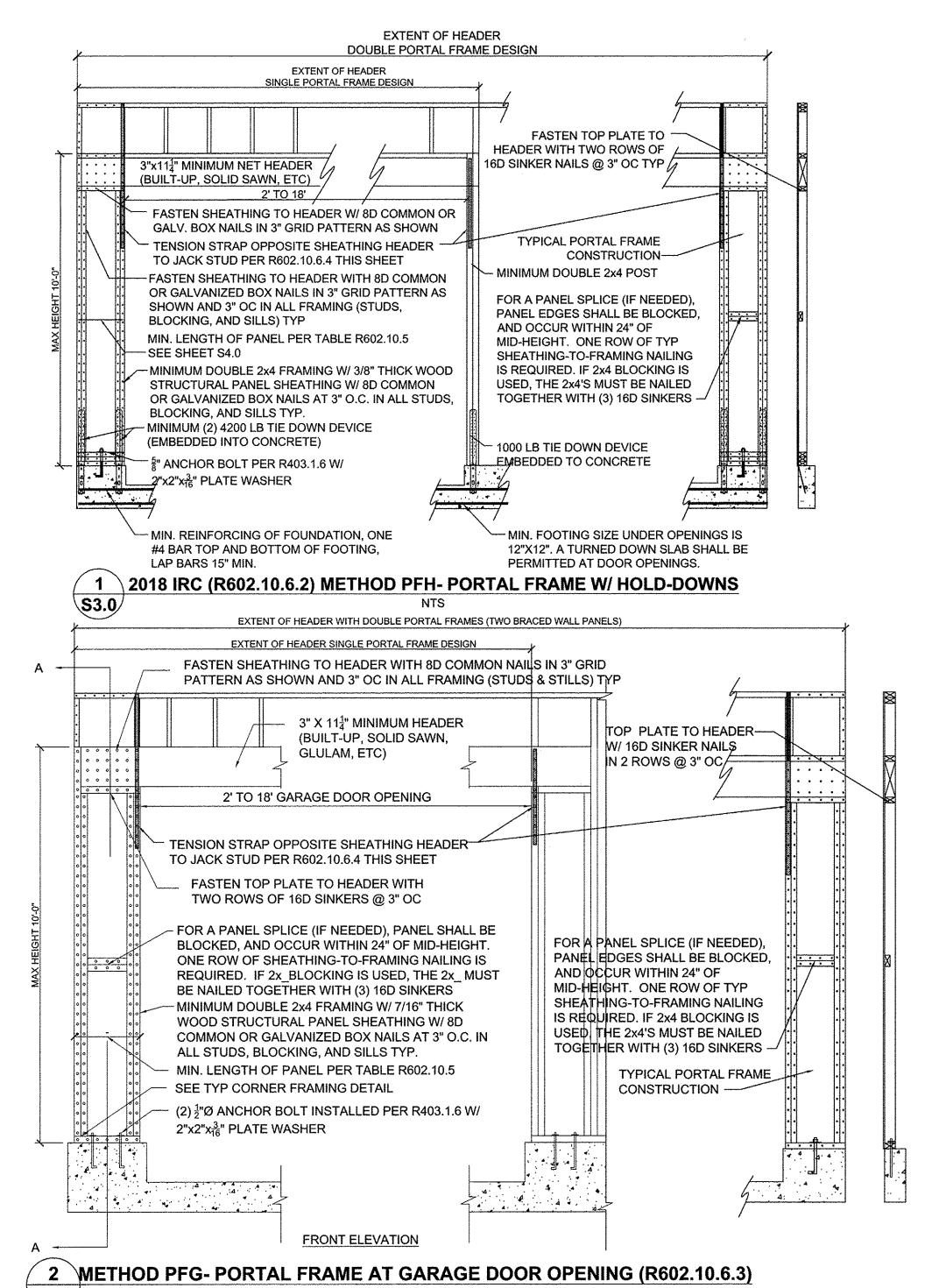
REVISION TABLE

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Date: 11/08/19
HD #: 38283
Drawn by: AWH
Reviewed by: CLS

STRUCTURAL DETAILS SHEET NUMBER:

S-2.0



TENSION STRAP CAPACITY REQUIRED FOR RESISTING WIND PRESSURES
PERPENDICULAR TO METHOD PFH, PFG AND CS-PF BRACED WALL

PANELS IRC2018 TABLE R602.10.6.4										
	MAX. PONY WALL HEIGHT (FEET)	MAX. TOTAL WALL HEIGHT (FEET)		TENSION STRAP CAPACITY REQUIRED (POUNDS) ^a						
MINIMUM WALL STUD FRAMING NOMINAL SIZE & GRADE			MAX. OPENING	ULTIMATE DESIGN WIND SPEED V _{ult} (MI				ED V _{ult} (MPI	H)	
			WIDTH (FEET)	110	115	130	110	115	130	
	ALAMAN AND AND AND AND AND AND AND AND AND A	***		E	XPOSURE	В	EXPOSURE C			
	0	10	18	1,000	1,000	1,000	1,000	1,000	1,050	
			9	1,000	1,000	1,000	1,000	1,000	1,750	
	1	10	16	1,000	1,025	2,050	2,075	2,500	3,950	
			18	1,000	1,275	2,375	2,400	2,850	DR	
	2	10	9	1,000	1,000	1,475	1,500	1,875	3,125	
OVANO O ODADE			16	1,175	2,175	3,525	3,550	4,125	DR	
2X4 NO. 2 GRADE			18	2,075	2,500	3,950	3,975	DR	DR	
			9	1,150	1,500	2,650	2,675	3,175	DR	
	2	12	16	2,875	3,375	DR	DR	DR	DR	
			18	3,425	3,975	DR	DR	DR	DR	
	_	40	9	2,275	2,750	DR	DR	DR	DR	
	4	12	12	3,225	3,775	DR	DR	DR	DR	
			9	1,000	1,000	1,700	1,700	2,025	3,050	
	2	12	16	1,825	2,150	3,225	3,225	3,675	DR	
			18	2,200	2,550	3,725	3,750	DR	DR	
2X6 STUD GRADE	<u></u>		9	1,450	1,750	2,700	2,725	3,125	DR	
	4	12	16	2,050	2,400	DR	DR	DR	DR	
			18	3,350	3,800	DR	DR	DR	DR	

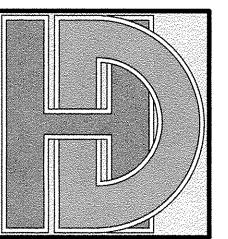
a. DR = DESIGN REQUIREDb. STRAP SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

	T OF HOUSE:					<u> </u>	INPUT CALCULATED VALUE	
OCATION OOF) }	DEAD LOAD (psf)	AREA (ft ²) 2824	WEIGHT (lbs.) 28240	
EILING ECOND FLOOR					10 10	2557 1558	25570 15580	
RST FLOOR	T MALL D			WALL LENGTH (ft)	10 WALL HEIGHT (ft)	1440 WALL UNIT WT. (psf)	14400 WEIGHT (lbs)	
ECOND FLOOR EX IRST FLOOR EXT. V				180 230		8 9 AREA (ft2)	11520 18630 WEIGHT (lbs)	
	PARTITION WALL D	L			6 6	1558 1440	9348 8640	
		JECTED AREAS (WIND D	DESIGN PER 115 MPH	3-SECOND GUST, EXPOSI	URE C AND MEAN ROOF HEIGHT <=			: :
		T-TO-BACK LOAD			SIDE-TO-SI AREA			
SLOPED ROOF VERT. ROOF	621 0	5200 0	CUMULATIVE	SLOPED ROOF VERT, ROOF	675 0	5743 0	CUMULATIVE	
2ND 1ST	468 630	5818 7705	11018 18724	2ND 1ST	351 520	4498 6465	10241 16706	
	SLOPED ROOF WALL/VERT, ROOF	ZONE B ZONE A		F) - PER ASCE CH. 6 9.7 14.2	ZONE C ZONE D	11.3	2a (FiG. 28.6-1, ASCE7)	
) If there is a walko	MEAN ROOF HT., h		20	o walkout, enter 0 for area.	ZONE D		10.4	
ato tall and the least common the ategor is also a many comply process and destroying in	^{/2} (ASCE7-10 Velocity	and the control of th	and recognized the first of the analysis of the control of the con	أتنابي المناسي الرسدونية وليسترد ويردادون والماء المناسات فليفيه السموانيا الدار	SD analysis under ASCE7-10 and IRC/II	BC 2012)		Same and the same of the same
ND FLOOR TRIBUTA	and a second control of a control of the party of the control of the party of the control of the						59570 99573	
s (SITE GROUND M	and the contract of the second contract of th	ASCE7 SEISMIC MAP)					12.0% 1.6	
S _{DS} (= 2/3 * S _S * F _a)	<u> </u>						0.128	sa Paraganan Maraganan
R (from ASCE7 Table	12.2-1)		<u> </u>	SEISMIC	CUEAD		6.5	
OCATION ND FLOOR				одоміс		n ASCE7 (Eq. 12.8-1);	V (= 1.2 * S _{DS} * W	/ R) (lbs.)
ST FLOOR							2353	
Sheathin	g Location	Min. Sheathi	ng Schedule		tening Schedule	Allowa	ole Shear (#/LF)	Code Reference
Exterior (Option #4)	7/16" APA Rated Ply panel sheathing, or sheathing with tig	r 3/8" shiplap panel	O.C, Field for 7/16" APA sheathing OR @ 4" O.C.	/8" penetration @ 6" O.C. Edges, 12" -rated plywood/OSB or shiplap panel Edges, 12" O.C. Field for 3/8" shiplap anel sheathing		220	AF&PA SDPWS Table 4,3A
Int	erior	1/2" Gyps	úm Board	No. 6- 1 ¹ / ₄ " Type W or S	Screws @ 8" O.C. Edges, 12" O.C. Field		60	per IBC, Table 2306.4.4
Int	erior	16 Ga. Simpson/USP T			& (1) 8d @ intermediate studs (per		325	
		(or e	quai)	manuacturer specin	cations - see detail on sheet S3)			
EXTERIOR SHEATHI	NG OPTION FOR SEC		4	* · · · · · · · · · · · · · · · · · · ·	WIDTH OF 1ST STORY (FT.)	63	WIDTH OF 2ND STORY (FT.)	52
	in or more and	71120011			DEPTH OF 1ST STORY (FT.)	52	DEPTH OF 2ND STORY (FT.)	39
					BACK WALL OF GARAGE (FT.)	34	DEPTH OF 2ND STORY (FT.)	39
					BACK WALL OF GARAGE (FT.) GAR. WALL: 1=F-B, 2=S-S		DEPTH OF 2ND STORY (FT.)	39
			EXTER ISMIC	NOR STRUCTURAL WALL L	BACK WALL OF GARAGE (FT.)	34	DEPTH OF 2ND STORY (FT.)	39
	FRONT-TO-BACK	SE RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)	BACK WALL OF GARAGE (FT.) GAR. WALL: 1=F-B, 2=S-S ENGTHS (ft.) & RESISTANCES FRONT-TO-BACK	34 2 WIND RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (Ibi
		SE	ISMIC		BACK WALL OF GARAGE (FT.) GAR. WALL: 1=F-B, 2=S-S ENGTHS (ft.) & RESISTANCES	34 2 WIND		
	FRONT-TO-BACK	RESISTANCE (lbs.) 11200 24360 ADDITIONAL RESIS	SIDE-TO-SIDE 55 73 TANCE REQUIRED	RESISTANCE (lbs.)	BACK WALL OF GARAGE (FT.) GAR. WALL: 1=F-B, 2=S-S ENGTHS (ft.) & RESISTANCES FRONT-TO-BACK 40 87 Anchor Bolt Spacing	34 2 WIND RESISTANCE (lbs.) 15680 34104	SIDE-TO-SIDE 55 73 16d Nail Spacing req'd at	RESISTANCE (lb: 21560 28616
2ND FLOOR IST FLOOR 2ND FLOOR FRONT- 2ND FLOOR SIDE-TO	FRONT-TO-BACK 40 87 TO-BACK	RESISTANCE (lbs.) 11200 24360 ADDITIONAL RESIS SEISMIC 0	SIDE-TO-SIDE 55 73 STANCE REQUIRED WIND 0	RESISTANCE (lbs.)	BACK WALL OF GARAGE (FT.) GAR. WALL: 1=F-B, 2=S-S ENGTHS (ft.) & RESISTANCES FRONT-TO-BACK 40 87 Anchor Bolt Spacing diameter (in.) Shear value (per NDS)	WIND RESISTANCE (lbs.) 15680 34104 (in.) 0.5 944	SIDE-TO-SIDE 55 73 16d Nail Spacing req'd at 2nd Floor F-B 2nd Floor S-S	RESISTANCE (lb: 21560 28616
ST FLOOR ND FLOOR FRONT- ND FLOOR SIDE-TO ST FLOOR FRONT-	FRONT-TO-BACK 40 87 TO-BACK 9-SIDE TO-BACK	RESISTANCE (lbs.) 11200 24360 ADDITIONAL RESIS SEISMIC 0 0 0	SIDE-TO-SIDE 55 73 STANCE REQUIRED WIND 0 0 0	RESISTANCE (lbs.)	BACK WALL OF GARAGE (FT.) GAR. WALL: 1=F-B, 2=S-S ENGTHS (ft.) & RESISTANCES FRONT-TO-BACK 40 87 Anchor Bolt Spacing diameter (in.)	WIND RESISTANCE (lbs.) 15680 34104 (in.) 0.5	SIDE-TO-SIDE 55 73 16d Nail Spacing req'd at 2nd Floor F-B	RESISTANCE (lb: 21560 28616
ST FLOOR ND FLOOR FRONT- ND FLOOR SIDE-TO ST FLOOR FRONT-	FRONT-TO-BACK 40 87 TO-BACK 9-SIDE TO-BACK	RESISTANCE (lbs.) 11200 24360 ADDITIONAL RESIS SEISMIC 0 0	SIDE-TO-SIDE 55 73 STANCE REQUIRED WIND 0 0 0 0	RESISTANCE (lbs.) 15400 20440	BACK WALL OF GARAGE (FT.) GAR. WALL: 1=F-B, 2=S-S ENGTHS (ft.) & RESISTANCES FRONT-TO-BACK 40 87 Anchor Bolt Spacing diameter (in.) Shear value (per NDS) Spacing F-B (inches) spacing S-S (inches)	34 2 WIND RESISTANCE (lbs.) 15680 34104 (in.) 0.5 944 100.7 136.7	SIDE-TO-SIDE 55 73 16d Nail Spacing req'd at 2nd Floor F-B 2nd Floor S-S 1st Floor F-B	RESISTANCE (lb: 21560 28616
ST FLOOR ND FLOOR FRONT- ND FLOOR SIDE-TO ST FLOOR FRONT-	FRONT-TO-BACK 40 87 TO-BACK 9-SIDE TO-BACK	RESISTANCE (lbs.) 11200 24360 ADDITIONAL RESIS SEISMIC 0 0 0 ADDITIONAL	SIDE-TO-SIDE 55 73 TANCE REQUIRED WIND 0 0 0 0 RESISTANCE REQUI	RESISTANCE (lbs.) 15400 20440 RED IN ADDITION TO RES	BACK WALL OF GARAGE (FT.) GAR. WALL: 1=F-B, 2=S-S ENGTHS (ft.) & RESISTANCES FRONT-TO-BACK 40 87 Anchor Bolt Spacing diameter (in.) Shear value (per NDS) Spacing F-B (inches) spacing S-S (inches)	WIND RESISTANCE (lbs.) 15680 34104 (in.) 0.5 944 100.7 136.7	SIDE-TO-SIDE 55 73 16d Nail Spacing req'd at 2nd Floor F-B 2nd Floor S-S 1st Floor F-B 1st Floor S-S	RESISTANCE (lbs. 21560 28616 bottom plate (in.)
ST FLOOR ND FLOOR FRONT- ND FLOOR SIDE-TO ST FLOOR FRONT-	FRONT-TO-BACK 40 87 TO-BACK 9-SIDE TO-BACK	RESISTANCE (lbs.) 11200 24360 ADDITIONAL RESIS SEISMIC 0 0 0	SIDE-TO-SIDE 55 73 STANCE REQUIRED WIND 0 0 0 RESISTANCE REQUI	RESISTANCE (lbs.) 15400 20440 RED IN ADDITION TO RES	BACK WALL OF GARAGE (FT.) GAR. WALL: 1=F-B, 2=S-S ENGTHS (ft.) & RESISTANCES FRONT-TO-BACK 40 87 Anchor Bolt Spacing diameter (in.) Shear value (per NDS) Spacing F-B (inches) spacing S-S (inches)	WIND RESISTANCE (lbs.) 15680 34104 (in.) 0.5 944 100.7 136.7 VALLS*** INT. WALL LENGTH SHEATHED W/ OSB	SIDE-TO-SIDE 55 73 16d Nail Spacing req'd at 2nd Floor F-B 2nd Floor S-S 1st Floor F-B 1st Floor S-S	RESISTANCE (lb: 21560 28616
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END FLOOR FRONT- IND FLOOR SIDE-TO ST FLOOR SIDE-TO ST FLOOR SIDE-TO ST FLOOR SIDE-TO ST FLOOR SIDE-TO TO ST FLOOR SIDE-TO ST FLOOR SIDE-TO TO SIDE-	FRONT-TO-BACK 40 87 TO-BACK 9-SIDE TO-BACK 9-SIDE TO-BACK 1-SIDE TACHED CALCULATION OR INTERIOR STEEL BIOR OSB ON SAME INTERIOR STEEL BIOR OSB ON SAME INTERIOR STEEL TACHED CALCULATION OR INTERIOR STEEL TOTAL AREA (FT²) 1 TOTAL AREA (FT²) 3276	RESISTANCE (lbs.) 11200 24360 ADDITIONAL RESIS SEISMIC 0 0 0 0 0 ADDITIONAL RESISTANCE REQUIRED (POUNDS) 0 0 0 0 DNS FOR PORTAL FRAM X-BRACE INSTALLATION FLOOR (SEE TABLE ABC DEGREES 30.3 PRESSURE (PSF) -1.08	SIDE-TO-SIDE 55 73 STANCE REQUIRED WIND 0 0 0 RESISTANCE REQUI PORTAL FRAMES OF PERF. SHEAR WALL RESISTANCE E OR PERFORATED S 3) INTERIOR WALLS EVE) AND ARE ONLY A PITCH OF 6 OR LESS LINEAL FT. OF OH 232	RESISTANCE (lbs.) 15400 20440 RED IN ADDITION TO RESISTANCE (325#/BRACE) SHEAR WALL RESISTANCE SHEATHED WITH OSB SHAPPLICABLE FOR FULL-HE WIND UPLIFT EOH -13.3, E -7.2, G -5.2 UPLIFT PER FT* (LBS) -1.08	BACK WALL OF GARAGE (FT.) GAR. WALL: 1=F-B, 2=S-S ENGTHS (ft.) & RESISTANCES FRONT-TO-BACK 40 87 Anchor Bolt Spacing diameter (in.) Shear value (per NDS) Spacing F-B (inches) spacing S-S (inches) STANCE PROVIDED BY EXTERIOR V INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.) E CAPACITIES (IF APPLICABLE), ALL BE ATTACHED WITH SAME STAFFIGHT SECTIONS OF 2'-8" OR LONGE!	WIND RESISTANCE (lbs.) 15680 34104 (in.) 0.5 944 100.7 136.7 VALLS** INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.) PLE/NAILING R	SIDE-TO-SIDE 55 73 16d Nail Spacing req'd at 2nd Floor F-B 2nd Floor S-S 1st Floor F-B 1st Floor S-S RESISTANCE PROVIDED BY ADDITIONAL METHODS (POUNDS) 0 0 0	RESISTANCE (lbs. 21560 28616 bottom plate (in.) OK? YES YES YES YES
END FLOOR FRONT- END FLOOR SIDE-TO EST FLOOR SIDE-TO EST FLOOR SIDE-TO END FLOOR SIDE-TO END FLOOR SIDE-TO EST FLOOR SIDE-TO END FLOOR SIDE-TO EST FLOOR SIDE-TO END FLOOR SID	FRONT-TO-BACK 40 87 TO-BACK 9-SIDE TO-BACK 9-SIDE TO-BACK 1-SIDE TACHED CALCULATION STEEL BIOR OSB ON SAME INTERIOR STEEL BI	RESISTANCE (lbs.) 11200 24360 ADDITIONAL RESIS SEISMIC 0 0 0 0 0 0 0 0 0 0 0 0 0 0 DNS FOR PORTAL FRAM X-BRACE INSTALLATION FLOOR (SEE TABLE ABC DEGREES 30.3 PRESSURE (PSF) -1.08 ZONE E AREA (FT²)	SIDE-TO-SIDE 55 73 STANCE REQUIRED WIND 0 0 0 0 RESISTANCE REQUI PORTAL FRAMES OF PERF. SHEAR WALL RESISTANCE E OR PERFORATED S 3) INTERIOR WALLS DVE) AND ARE ONLY A PITCH OF 6 OR LESS LINEAL FT. OF OH 232 ZONE G AREA (FT²) 1815.84	RESISTANCE (lbs.) 15400 20440 RED IN ADDITION TO RESISTANCE (325#/BRACE) SHEAR WALL RESISTANCE SHEATHED WITH OSB SHAPPLICABLE FOR FULL-HE WIND UPLIFT EOH -13.3, E -7.2, G -5.2 UPLIFT PER FT* (LBS) -1.08 PRESSURE ZN. E (PSF) -1.08	BACK WALL OF GARAGE (FT.) GAR. WALL: 1=F-B, 2=S-S ENGTHS (ft.) & RESISTANCES FRONT-TO-BACK 40 87 Anchor Bolt Spacing diameter (in.) Shear value (per NDS) Spacing F-B (inches) spacing S-S (inches) ISTANCE PROVIDED BY EXTERIOR V INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.) E CAPACITIES (IF APPLICABLE), ALL BE ATTACHED WITH SAME STAFIGHT SECTIONS OF 2'-8" OR LONGE! ANALYSIS	WIND RESISTANCE (lbs.) 15680 34104 (in.) 0.5 944 100.7 136.7 VALLS** INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.) PLE/NAILING R	SIDE-TO-SIDE 55 73 16d Nail Spacing req'd at 2nd Floor F-B 2nd Floor S-S 1st Floor F-B 1st Floor S-S RESISTANCE PROVIDED BY ADDITIONAL METHODS (POUNDS) 0 0 0 0 0 FORCE PER LINEAL FT @	RESISTANCE (lbs. 21560 28616 bottom plate (in.) OK? YES YES YES YES

WITH CONSTRUCTION

NOTE: SOIL SITE CLASS ASSUMED TO BE CLASS D. IF SITE CONDITIONS ARE

DETERMINED TO BE CLASS E OR F, CONSULT ENGINEER BEFORE PROCEEDING



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E		ION		
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Date: 11/08/19 HD #: 38283

Drawn by:AWH

Reviewed by: CLS
STRUCTURAL

DETAILS
EET NUMBER:

S-3.0

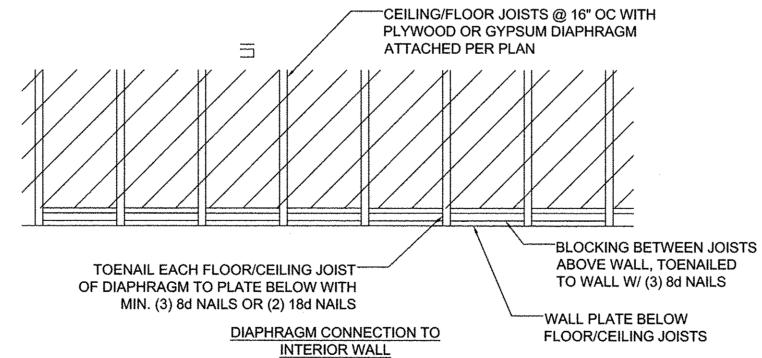
ALLOWABLE LOADS FOR PNEUMATIC OR MECHANICALLY DRIVEN NAILS AND STAPLES

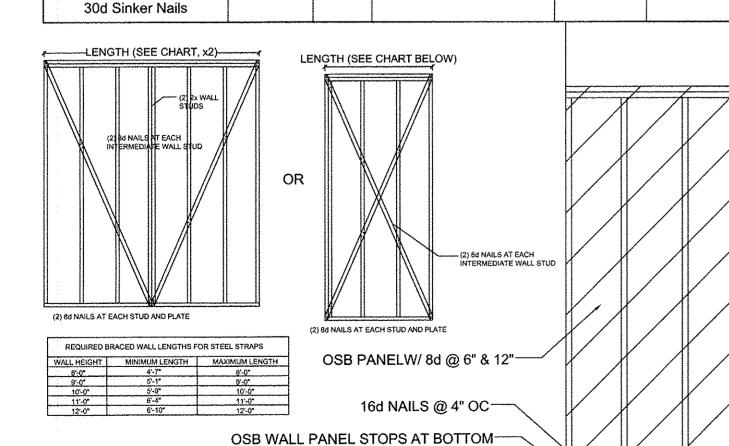
	Communication of the Communica	Resignation of the American	PENETRATION	ALLOWABLE LOADS (IN POUNDS)				
FASTENER	NAIL GUN NAILS/	WIRE	REQUIRED INTO MAIN MEMBER FOR LATERAL	LATERAL S	STRENGTH	WITHDRAW	STRENGT	
DESCRIPTION	WIRE DIA.	GA.	STRENGTH (IN.)	SP DF/L		SP	DF/L	
16 GA. STAPLE	.063	16	1	51		36	32	
15 GA. STAPLE	.072	15	1	64		42	37	
14 GA. STAPLE	.080	14	1	75		46	41	
6d COOLER NAIL	.092	13	1	46	***	27	23	
6d SINKER NAIL	.092	13	"	40		21	23	
6d BOX NAIL								
6d CASING NAIL	.099	12-1/2	1-1/8	61	55	31	24	
7d COOLER NAIL						-		
6d COMMON NAIL								
8d COOLER NAIL	**************************************							
8d SINKER NAIL	.113	11-1/2	1-1/4	79	72	35	28	
8d BOX NAIL								
8d CASING NAIL						THE PARTY OF THE P		
6d RING SHANK NAIL								
6d SCREW SHANK NAIL				89	81	41		
8d RING SHANK NAIL	.120	11	1-3/8				32	
8d SCREW SHANK NAIL								
10d Cooler Nail			1-1/2	89	81			
10d Sinker Nail	.128	10-1/2				36	31	
12d Short						to constitution of the con		
10d Box Nails		10-1/2	1-1/2	101	93	40	31	
12d Box Nails	.128							
10d Casing Nails								
8d Common Nails				***************************************				
16d Short	.131	10-1/4	1-1/2	106	97	41	32	
12d Sinkers						<u> </u>		
16d Box Nails	.135	10	1-1/2	113	103	42	33	
10d Ring Shank Nails			A CONTRACTOR OF THE CONTRACTOR			<u> </u>		
10d Screw Shank Nails								
12d Ring Shank Nails	.135	10	1-5/8	113	103	46	36	
12d Screw Shank Nails								
10d Common Nails	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					ļ		
12d Common Nails								
16d Sinker Nails	.148	9	1-5/8	128	118	46	36	
20d Box Nails								
30d Box Nails								
16d Ring Shank Nails								
16d Screw Shank Nails	.148	9	1-3/4	128	118	50	40	
16d Common Nails							****	
40d Box Nails	.162	8	1-3/4	154	141	50	40	
20d Ring Shank Nails								
20d Screw Shank Nails	.177	7	2-1/8	178	163	59	47	
20d Sinker Neils	177	-7	2-1/8	178	163	54	43	

TABLE R602.10.5 MINIMUM LENGTH OF BRACED WALL PANELS

		MIN	IIMUM LEI (INCHES				
/6	METHOD SEE TABLE R602.10.4)	***************************************	N	ALL HEIG	HT		CONTRIBUTING LENGTH
	(022 17 1022 1 1032 1 1034)			10 FEET	11 FEET	12 FEET	(INCHES)
DWB,WSI	P,SFB,PBS,PCP,HPS,BV-WSP	48	48	48	53	58	ACTUAL ^b
	GB		48	48	53	58	DOUBLE SIDED = ACTUAL SINGLE SIDED=.5xACTUAL
	LIB	55	62	69	NP	NP	ACTUAL ^b
A DVA	SDC A, B, AND C ULTIMATE DESIGN WIND SPEED<140	28	32	34	38	42	40
ABW	SDC D ₀ ,D ₁ ,D ₂ ULTIMATE DESIGN WIND SPEED<140	32	32	34	NP	NP	48
PFH	SUPPORTING ROOF ONLY	16	16	16	NOTE C	NOTE C	48
PFR	SPTNG. ONE STORY & ROOF	24	24	24	NOTE C	NOTE C	48
	PFG	24	27	30	NOTE D	NOTE D	1.5 x ACTUAL ^b
	CS-G	24	27	30	33	36	ACTUAL⁵
	CS-PF	16	18	20	NOTE E	NOTE E	ACTUAL ^⁵
	ADJACENT CLEAR OPENING HEIGHT (INCHES)						
	≤64	24	27	30	33	36	
	68	26	27	30	33	36	
	72	27	27	30	33	36	
	76	30	29	30	33	36	
	80	32	30	30	33	36	
	84	35	32	32	33	36	
	88	38	35	33	33	36	
	92	43	37	35	35	36	
	96	48	41	38	36	36	
CS-WSP,	100	-	44	40	38	38	
	104	_	49	43	40	39	ACTUAL ^b
	108	-	54	46	43	41	
	112		-	50	45	43	
	116	-	-	55	48	45	
	120	-	-	60	52	48	
	124	-	-	-	56	51	
	128	**	-	-	61	54	
	132	-	-	-	66	58	
	136	-	•	-	-	62	
	140	*	-	-	-	66	
	144	-	-	-	-	72	

- a. LINEAR INTERPOLATION SHALL BE PERMITTED
- b. USE THE ACTUAL LENGTH WHEN IT IS GREATER THAN OR EQUAL TO THE MINIMUM LENGTH
- c. MAX. HEADER HEIGHT FOR PFH IS 10' IN ACCORDANCE WITH R602.10.6.2, WALL HEIGHT MAY BE INCREASED TO 12' WITH PONY WALL.
- d. MAX. OPENING HEIGHT FOR PFG IS 10' IN ACCORDANCE WITH R602,10.6.3, WALL HEIGHT MAY BE INCREASED TO 12' WITH PONY WALL.
- e. MAX. OPENING HEIGHT FOR CS-PF IS 10' IN ACCORDANCE WITH R602.10.6.4, WALL HEIGHT MAY BE INCREASED TO 12' WITH PONY WALL.





OF SOLE PLATE - NEW STRIP OF OSB

CONTINUES DOWN PAST BOTTOM OF

STARTS AT TOP OF SUBFLOOR AND

(2) ROWS OF 8d NAILS @ 6" OC INTO RIM-

8d NAILS @ 3" OC INTO SILL PLATE-

SILL PLATE

BOARD

20d Sinker Nails

20d Common Nails

.177

.148

2-1/8

2-1/8

178

170

163

166

TYPICAL CONNECTION DETAIL FOR PANEL SPLICE AT BOTTOM PLATE

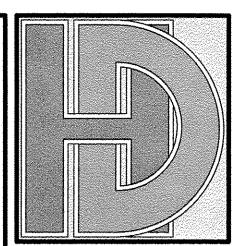
54

43

- 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 A. ALL NAILS ARE SMOOTH-COMMON, BOX OR DEFORMED SHANKS EXCEPT WHERE OTHERWISE STATED. NAILS USED FOR FRAMING AND SHEATHING CONNECTIONS SHALL HAVE MINIMUM AVERAGE BENDING YIELD STRENGTHS AS SHOWN: 80 KSI FOR SHANK DIAMETER OF 0.192 INCH (20D COMMON), NAILS FOR SHANK DIAMETERS LARGER THANK 0.142 INCH BUT NOT LARGER THANK 0.177 INCH, AND 100 KSI FOR SHANK DIAMETER OF 0.142 INCH OR LESS.
- B. STAPLES ARE 16 GAGE WIRE AND HAVE A MINIMUM 7/16 INCH ON DIAMETER CROWN WIDTH.
- C. NAILS SHALL BE SPACED AT NOT MORE THAN 6 INCHES ON CENTER AT ALL SUPPORTS WHERE SPANS ARE 48 INCHES OR GREATER.
- D. FOUR-FOOT BY 8-FOOT OR 4-FOOT BY 9-FOOT PANELS SHALL BE APPLIED VERTICALLY.
- E. SPACING OF FASTENERS NOT INCLUDED IN THIS TABLE SHALL BE BASED ON TABLE R602.3(2).
- F. FOR REGIONS HAVING BASIC WIND SPEED OF 110 MPH OR GREATER, 8D DEFORMED (2 1 X 0.120) NAILS SHALL BE USED FOR ATTACHING PLYWOOD AND WOOD STRUCTURAL PANEL ROOF SHEATHING TO FRAMING WITHIN MINIMUM 48-INCHES DISTANCE FROM GABLE END WALLS, IF MEAN ROOF HEIGHT IS MORE THAN 25 FEET, UP TO 35 FEET MAXIMUM.
- G. FOR REGIONS HAVING BASIC WIND SPEED OF 100 MPH OR LESS, NAILS FOR ATTACHING WOOD STRUCTURAL PANEL ROOF SHEATHING TO GABLE END WALL FRAMING SHALL BE SPACED 6 INCHES ON CENTER. WHEN BASIC WIND SPEED IS GREATER THAN 100 MPH, NAILS FOR ATTACHING PANEL ROOF SHEATHING TO INTERMEDIATE SUPPORTS SHALL BE SPACED 6 INCHES ON CENTER FOR MINIMUM 48-INCH DISTANCE FROM RIDGES, EAVES AND GABLE END WALLS; AND 4 INCHES ON CENTER TO GABLE END WALL
- FRAMING. H. GYPSUM SHEATHING SHALL CONFORM TO ASTM C 1396 AND SHALL BE INSTALLED IN ACCORDANCE WITH GA 253, FIBERBOARD
- SHEATHING SHALL CONFORM TO ASTM C 208. I. SPACING OF FASTENERS ON FLOOR SHEATHING PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND REQUIRE BLOCKING AND AT ALL FLOOR PERIMETERS ONLY. SPACING OF FASTENERS ON ROOF SHEATHING PANEL EDGES APPLIES TO PANEL EDGES
- SUPPORTED BY FRAMING MEMBERS AND REQUIRED BLOCKING. BLOCKING OF ROOF OR FLOOR SHEATHING PANEL EDGES PERPENDICULAR TO THE FRAMING MEMBERS NEED NOT BE PROVIDED EXCEPT AS REQUIRED BY OTHER PROVISIONS OF THIS CODE. FLOOR PERIMETER SHALL BE SUPPORTED BY FRAMING MEMBERS OR SOLID BLOCKING.
- J. WHERE A RAFTER IS FASTENED TO AN ADJACENT PARALLEL CEILING JOIST IN ACCORDANCE WITH THIS SCHEDULE, PROVIDE TWO TOE NAILS ON ONE SIDE OF THE RAFTER AND TOE NAILS FROM CEILING JOIST TO TOP PLATE IN ACCORDANCE WITH THIS SCHEDULE. THE TOE NAIL ON THE OPPOSITE SIDE OF THE RAFTER SHALL NOT BE REQUIRED.

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

ITEM	DESCRIPTION OF BUILDING ELEMENTS ROOTERS	NUMBER AND TYPE OF FASTENER AB,C OF	SPACING OF FASTENERS	
1	BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL	4-8D BOX (2 3" X 0.113")	TOE NAIL	
2	CEILING JOISTS TO PLATE, TOE NAIL	3-10D (3"X0.128") 3-3"X 0.131" NAILS	PER JOIST, TOE NAIL	
3	CEILING JOISTS NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS (SEE SECTION R802.5.2 AND TABLE R802.52	4-10D BOX (3"X 0.128") 3-16D COMMON (3 ½"X 0.162") 4-3"X 0.131"NAILS	FACE NAIL	
4	CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT) SEE SECTION R802.5.2 AND TABLE R802.5.2)	TABLE R802.5.2	FACE NAIL	
5	COLLAR TIE TO RAFTER, FACE NAIL OR 1 1/4" X 20GA. RIDGE STRAP TO RAFTER	4-10D BOX (3" X 0.128") 3-10D COMMON (3" X 0.148") 4-3" X 0.131" NAILS	FACE NAILS EACH RAFTER	
6	RAFTER OR ROOF TRUSS TO PLATE	3-16D BOX NAILS (3 ½" X0.135") 3-10D COMMON NAILS (3" X 0.148" 4-10D BOX (3" X 0.128" 4-3" X0.131" NAILS	2 TOE NAILS ON ONE SIDE AND 1 TOE NAIL ON OPPOSIT SIDE OF EACH FAGTER OR TRUSS ¹	
7	ROOF RAFTERS TO RIDGE, VALLEY OR HIP RAFTERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM	4-16D(3 ½" X 0.135"); OR 3-10D COMMON (3" X 0.148") 4-10D BOX (3" X 0.128"); OR 4-3" X 0.131" NAILS 3-16D(3 ½" X0.135"); OR 2-16D COMMON (3 1/2" X0.162") 3-10D BOX (3" X 0.128"); OR 3-3" X 0.131" NAILS	TOE NAIL	
	W	ALL		
8	STUD TO STUD (NOT BRACED WALL PANELS)	16D (3 ½" X 0.162") 10D BOX (3" X 0.128"); OR 3" X 0.131" NAILS	24" OC FACE NAIL	
9	STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16D BOX (3 X 0.125); OR 3 X 0.131 NAILS 16D COMMON (3 ½" X 0.162")	16" OC FACE NAIL 12" OC FACE NAIL 16" OC FACE NAIL	
10	BUILT-UP HEADER (2" TO 2" HEADER WITH ½" SPACER)	16D COMMON (3 ½" X 0.162")	16" OC EACH EDGE FACE NAIL	
11	CONTINUOUS HEADER TO STUD	16D BOX (3 ½" X 0.135") 5-8D BOX (2 ½" X 0.113") or 4-8D COMMON (2 ½" X 0.131")	12" OC EACH EDGE FACE NAIL TOE NAIL	
12	TOP PLATE TO TOP PLATE	4-10D BOX (3" X 0.128") 16D COMMON (3½" X 0.162")	16" OC FACE NAIL	
	DOUBLE TOD DI ATE ODI IOF	10D BOX (3" X 0.128") OR 3" X 0.131" NAILS 8-16D COMMON (3 ½" X 0.162"); or 12-16D BOX (3 ½" X	12" OC FACE NAIL FACE NAIL ON EACH SIDE OF END JOINT (MINIMUM	
13	DOUBLE TOP PLATE SPLICE	0.135"); or 12-10D BOX (3" X 0.128"); or 12-3" X 0.131" NAILS	24" LAP SPLIC LENGTH EACH SIDE OF END JOINT)	
14	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS	16D COMMON (3 ½" X 0.162") 16D BOX (3 1/2" X 0.135"); OR 3" X 0.131" NAILS	16" OC FACE NAIL 12" OC FACE NAIL	
15	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS	3-16D BOX (3 1/2" X 0.135"); or 2-16D COMMON (3 1/2" X0.162"); or 4-3" X 0.131" NAILS	3 EACH 16" OC FACE NAIL 2 EACH 16" OC FACE NAIL 4 EACH 16" OC FACE NAIL	
16	TOP OR BOTTOM PLATE TO STUD	4-8D BOX (2 ½" X 0.113"); or 3-16D BOX (3 ½" X0.135"); or 4-8D COMMON (2 ½" X0.131"); or 4-10D BOX (3" X0.128"); or 3-3" X 0.131" NAILS	TOE NAIL	
	, or orderrount Bright 19 0105	3-16D BOX (3 ½" X 0.135"); or 2-16D COMMON (3 ½" X0.162"); or 3-10D BOX (3" X0.128");or 3-3" X 0.131" NAILS	END NAIL	
17	TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	3-10D BOX (3" X 0.128"); or 2-16D COMMON (3 ½" X0.162"); or 3-3" X 0.131" NAILS	FACE NAIL	
18	1" BRAVE TO EACH STUD AND PLATE	3-8D BOX (2 ½" X 0.113"); or 2-8D COMMON (2 ½" X0.131") or 2-10D BOX (3" X 0.128"); or 2 STAPLES 1 ¾"	FACE NAIL	
19	1" X 6" SHEATHING TO EACH BEARING	3-8D BOX (2 3" X 0.113"); or 2-8D COMMON (2 3" X0.131") or 2-10D BOX (3" X 0.128"); or 2 STAPLES 1" CROWN, 16GA., 1 3" LONG	FACE NAIL	
20	1" X 8" AND WIDER SHEATHING TO EACH BEARING	3-8D BOX (2 ½" X 0.113"); or 3-8D COMMON (2 ½" X0.131") or 3-10D BOX (3" X 0.128"); or 3 STAPLES, 1" CROWN, 16GA., 1 ¾" LONG WIDER THAN 1" X 8"	FACE NAIL	
		4-8D BOX (2 ½" X 0.113"); or 3-8D COMMON (2 ½" X0.131") or 3-10D BOX (3" X 0.128"); or 4 STAPLES, 1" CROWN, 16GA., 1 ½" LONG		
	FLO	OR		
21	JOIST TO SILL, TOP PLATE OR GIRDER	4-8D BOX (2 ½" X 0.113"); or 3-8D COMMON (2 ½" X0.131") or 3-10D BOX (3" X 0.128"); or 3-3" X 0.131: NAILS	TOE NAIL	
22	RIM JOIST, BAND JOIST OR BLOCKING TO SILL OR TOP PLATE (ROOF APPLICATIONS ALSO)	8D BOX (2 ½" X 0.113") 8D COMMON (2 ½" X 0.131"); or 10D BOX (3" X0.128") or	4" OC TOE NAIL	
	1" X 6" SUBFLOOR OR LESS TO EACH JOIST	3-3" X 0.131" NAILS 3-8D BOX (2 3" X 0.113"); or 2-8D COMMON (2 3" X0.131")		
23		or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1 \(\frac{1}{4}\)" LONG 3-16D BOX (3 \(\frac{1}{4}\)" X 0.135"); or		
24	2" SUBFLOOR TO JOIST OR GIRDER	2-16D BOX (3 ½ X 0.133), 61 2-16D COMMON (3 ½" X 0.162") 3-16D BOX (3 ½" X 0.135"); or	BLIND AND FACE NAIL	
25	2" PLANKS (PLANK & BEAM-FLOOR AND ROOF)	2-16D COMMON (3 ½" X 0.162") 3-16D COMMON (3 ½" X 0.162"); or 4-10D BOX	AT EACH BEARING, FACE NAIL	
26	BAND OR RIM JOIST TO JOIST	(3" X0.128") or 4-3" X 0.131" NAILS; or 4-3" X 14GA. STAPLES, ¹ / ₁₆ " CROWN	END NAIL	
27	BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS	20D COMMON (4" X 0.192"); or 10D BOX (3" X 0.128"); or 3" X 0.131" NAILS	NAIL EACH LAYER AS FOLLOWS: 32" OC AT TIP AN BOTTOM AND STAGGERED 24" OC FACE NAIL AT TOP AND BOTTOM STAGGER	
		AND: 2-20D COMMON (4" X 0.192"); or	ON OPPOSITE SIDES FACE NAIL AT END AND AT EACH SPLICE	
		3-10D BOX (3" X 0.128; or 3-3" X 0.131" NAILS		
28	LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	3-10D BOX (3" X 0.128; or 3-3" X 0.131" NAILS 4-16D BOX (3 \(\frac{1}{2}\)" X 0.135"): or 3-26D COMMON (3 \(\frac{1}{2}\)" X 0.162"); or	AT EACH JOIST OR RAFTER, FACE NAIL	
29	BRIDGING OR BLOCKING TO JOIST	4-16D BOX (3 ½" X 0.135"): or 3-26D COMMON (3 ½" X 0.162"); or 4-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"): or 2-8D COMMON (2 ½" X 0.131" or 2-3" X 0.131") NAILS	AT EACH JOIST OR RAFTER, FACE NAIL EACH END, TOE NAIL SPACING OF FASTENERS	
29 ITEM	BRIDGING OR BLOCKING TO JOIST DESCRIPTION OF BUILDING ELEMENTS	4-16D BOX (3 ½" X 0.135"): or 3-26D COMMON (3 ½" X 0.162"); or 4-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"): or 2-8D COMMON (2 ½" X 0.131" or 2-3" X 0.131") NAILS NUMBER AND TYPE OF FASTENER	EACH END, TOE NAIL SPACING OF FASTENERS EDGES INTERMEDIATE SUPPORTS (INCHES) " (INCHES) "."	
29 ITEM	BRIDGING OR BLOCKING TO JOIST	4-16D BOX (3 ½" X 0.135"): or 3-26D COMMON (3 ½" X 0.162"); or 4-10D BOX (3" X 0.128"): or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"): or 2-8D COMMON (2 ½" X 0.131" or 2-3" X 0.131") NAILS NUMBER AND TYPE OF FASTENER VALL SHEATHING TO FRAMING AND PAI JRAL PANEL EXTERIOR WALL SHEATHIN	EACH END, TOE NAIL SPACING OF FASTENERS EDGES INTERMEDIATE SUPPORTS (INCHES) " (INCHES) C.E. RTICLEBOARD WALL SHEATHING TO	
29 ITEM	BRIDGING OR BLOCKING TO JOIST DESCRIPTION OF BUILDING ELEMENTS OD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR V	4-16D BOX (3 ½" X 0.135"): or 3-26D COMMON (3 ½" X 0.162"); or 4-10D BOX (3" X 0.128"): or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"): or 2-8D COMMON (2 ½" X 0.131" or 2-3" X 0.131") NAILS NUMBER AND TYPE OF FASTENER VALL SHEATHING TO FRAMING AND PAI JRAL PANEL EXTERIOR WALL SHEATHIN 6D COMMON (2"X 0.113" NAIL (SUBFLOOR, WALL)* IBD COMMON (2 ½" X 0.131 NAIL (ROOF); or RSRS-01 (2 ½"	EACH END, TOE NAIL SPACING OF FASTENERS EDGES (INCHES) " (INCHES) C.E. RTICLEBOARD WALL SHEATHING TO NG TO WALL FRAMING]	
29 ITEM	DESCRIPTION OF BUILDING ELEMENTS OD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR V FRAMING [SEE TABLE R602.3(3) FOR WOOD SRUCTU	4-16D BOX (3 ½" X 0.135"): or 3-26D COMMON (3 ½" X 0.162"); or 4-10D BOX (3" X 0.128"): or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"): or 2-8D COMMON (2 ½" X 0.131" or 2-3" X 0.131") NAILS NUMBER AND TYPE OF FASTENER VALL SHEATHING TO FRAMING AND PAI JRAL PANEL EXTERIOR WALL SHEATHIN 6D COMMON (2"X 0.113" NAIL (SUBFLOOR, WALL)	EACH END, TOE NAIL SPACING OF FASTENERS EDGES (INCHES) " (INCHES) C.C.	
29 ITEM WOO	DESCRIPTION OF BUILDING ELEMENTS OD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR V FRAMING [SEE TABLE R602.3(3) FOR WOOD SRUCTU 3"-1" 8"-2"	4-16D BOX (3 ½" X 0.135"): or 3-26D COMMON (3 ½" X 0.162"); or 4-10D BOX (3" X 0.128"): or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"): or 2-8D COMMON (2 ½" X 0.131" or 2-3" X 0.131") NAILS NUMBER AND TYPE OF FASTENER VALL SHEATHING TO FRAMING AND PAI JRAL PANEL EXTERIOR WALL SHEATHIN 6D COMMON (2"X 0.113" NAIL (SUBFLOOR, WALL)' 8D COMMON (2 ½" X 0.131 NAIL (ROOF); or RSRS-01 (2 ¾" X 0.113" NAIL (ROOF) 8D COMMON NAIL (2 ½" X 0.131; or RSRS-01; 2 ¾" X 0.113) NAIL ROOF 10D COMMON NAIL (3" X 0.148) NAIL; or 8D (2 ½" X 0.131") DEFORMED NAIL	EACH END, TOE NAIL SPACING OF FASTENERS EDGES INTERMEDIATE SUPPORTS (INCHES) (INCHES) C.E. RTICLEBOARD WALL SHEATHING TO NG TO WALL FRAMING] 6 12 ^F	
29 ITEM WOO 30 31 32	DESCRIPTION OF BUILDING ELEMENTS OD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR V FRAMING [SEE TABLE R602.3(3) FOR WOOD SRUCTU 3" - ½" 1½" - 1" 1½" - 1¼"	4-16D BOX (3 ½" X 0.135"): or 3-26D COMMON (3 ½" X 0.162"); or 4-10D BOX (3" X 0.128"): or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"): or 2-8D COMMON (2 ½" X 0.131" or 2-3" X 0.131") NAILS NUMBER AND TYPE OF FASTENER VALL SHEATHING TO FRAMING AND PAI JRAL PANEL EXTERIOR WALL SHEATHIN 6D COMMON (2"X 0.113" NAIL (SUBFLOOR, WALL)' 8D COMMON (2 ½" X 0.131 NAIL (ROOF); or RSRS-01 (2 ½" X 0.113" NAIL (ROOF) 8D COMMON NAIL (2 ½" X 0.131; or RSRS-01; 2 ½" X 0.113) NAIL ROOF I 10D COMMON NAIL (3" X 0.148) NAIL; or 8D (2 ½" X 0.131") DEFORMED NAIL OTHER WALL SHEATHING	EACH END, TOE NAIL SPACING OF FASTENERS EDGES (INCHES) H (INCHES) C.E RTICLEBOARD WALL SHEATHING TO NG TO WALL FRAMING] 6 12 ^F 6 12 ^F 6 12	
29 ITEM WOO 30 31 32	BRIDGING OR BLOCKING TO JOIST DESCRIPTION OF BUILDING ELEMENTS OD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR V FRAMING [SEE TABLE R602.3(3) FOR WOOD SRUCTU 3" - ½" 19" - 1" 1½" - 1¼" ½" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	4-16D BOX (3 ½" X 0.135"): or 3-26D COMMON (3 ½" X 0.162"); or 4-10D BOX (3" X 0.128"): or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"): or 2-8D COMMON (2 ½" X 0.131" or 2-3" X 0.131") NAILS NUMBER AND TYPE OF FASTENER VALL SHEATHING TO FRAMING AND PAI JRAL PANEL EXTERIOR WALL SHEATHIN 6D COMMON (2"X 0.113" NAIL (SUBFLOOR, WALL)' 8D COMMON (2"X 0.113" NAIL (ROOF); or RSRS-01 (2 ½" X 0.113" NAIL (ROOF) 8D COMMON NAIL (2 ½" X 0.131; or RSRS-01; 2 ½" X 0.131") NAIL ROOF J 10D COMMON NAIL (3" X 0.148) NAIL; or 8D (2 ½" X 0.131") DEFORMED NAIL OTHER WALL SHEATHING GALVANIZED ROOF NAIL, 76" HEAD DIAMETER, OR 1½" LONG 16GA, STAPLE WITH 76" OR 1" CROWN	### EACH END, TOE NAIL SPACING OF FASTENERS EDGES	
29 ITEM WOO 30 31 32 33 34	BRIDGING OR BLOCKING TO JOIST DESCRIPTION OF BUILDING ELEMENTS OD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR V FRAMING [SEE TABLE R602.3(3) FOR WOOD SRUCTU \[\frac{3}{8}\ldots - \frac{1}{2}\ldots \] \[\frac{19}{32}\ldots - 1\ldots \] \[\frac{1}{8}\ldots - 1 \frac{1}{4}\ldots \] \[\frac{2}{32}\ldots \text{STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING} \] \[\frac{1}{4}\ldots \]	4-16D BOX (3 ½" X 0.135"): or 3-26D COMMON (3 ½" X 0.162"); or 4-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"): or 2-8D COMMON (2 ½" X 0.131" or 2-3" X 0.131") NAILS NUMBER AND TYPE OF FASTENER VALL SHEATHING TO FRAMING AND PAI JRAL PANEL EXTERIOR WALL SHEATHIN 6D COMMON (2"X 0.113" NAIL (SUBFLOOR, WALL)' 8D COMMON (2 ½" X 0.131 NAIL (ROOF); or RSRS-01 (2 ¾" X 0.131" NAIL (ROOF); 8D COMMON NAIL (2 ½" X 0.131; or RSRS-01; 2 ¾" X 0.113" NAIL (ROOF) 10D COMMON NAIL (3" X 0.148) NAIL; or 8D (2 ½" X 0.131") DEFORMED NAIL OTHER WALL SHEATHING GALVANIZED ROOF NAIL, ¼" HEAD DIAMETER, OR 1 ½" LONG 16GA. STAPLE WITH ¼" OR 1" CROWN "GALVANIZED ROOF NAIL, ¼" HEAD DIAMETER, OR 1 ½" LONG 16GA. STAPLE WITH ¼" OR 1" CROWN	### EACH END, TOE NAIL SPACING OF FASTENERS EDGES	
29 ITEM WOO 30 31 32 33 34 35	BRIDGING OR BLOCKING TO JOIST DESCRIPTION OF BUILDING ELEMENTS OD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR V FRAMING [SEE TABLE R602.3(3) FOR WOOD SRUCTL \[\frac{3}{8} - \frac{1}{2}'' \] \[\frac{19}{32}'' - 1'' \] \[\frac{1}{8}'' - 1 \frac{1}{4}'' \] \[\frac{1}{2}''' \] \[\frac{1}{2}'''' \] \[\frac{1}{2}''''' \] \[\frac{1}{2}'''''' \] \[\frac{1}{2}''''''''''''''''''''''''''''''''''	4-16D BOX (3 ½" X 0.135"): or 3-26D COMMON (3 ½" X 0.162"); or 4-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"): or 2-8D COMMON (2 ½" X 0.131" or 2-3" X 0.131") NAILS NUMBER AND TYPE OF FASTENER VALL SHEATHING TO FRAMING AND PAI JRAL PANEL EXTERIOR WALL SHEATHIN 6D COMMON (2"X 0.113" NAIL (SUBFLOOR, WALL)' 8D COMMON (2½" X 0.131" NAIL (ROOF); or RSRS-01 (2 ½" X 0.113" NAIL (ROOF); 8D COMMON NAIL (2½" X 0.131; or RSRS-01; 2½" X 0.113" NAIL ROOF) 10D COMMON NAIL (3" X 0.148) NAIL; or 8D (2½" X 0.131") DEFORMED NAIL OTHER WALL SHEATHING GALVANIZED ROOF NAIL, ½" HEAD DIAMETER, OR 1½" LONG 16GA. STAPLE WITH ½" OR 1" CROWN " GALVANIZED ROOF NAIL, ½" HEAD DIAMETER, OR 1½" LONG 16GA. STAPLE WITH ½" OR 1" CROWN ½" GALVANIZED ROOF NAIL, ½" HEAD DIAMETER, OR 1½" LONG 16GA. STAPLE WITH ½" OR 1" CROWN ½" GALVANIZED ROOF NAIL, ½" HEAD DIAMETER, OR 1½" LONG 16GA. STAPLE WITH ½" OR 1" CROWN ½" GALVANIZED ROOF NAIL, ½" HEAD DIAMETER, OR 1½" LONG; 1½" SCREWS, TYPE W or S	### EACH END, TOE NAIL SPACING OF FASTENERS EDGES	
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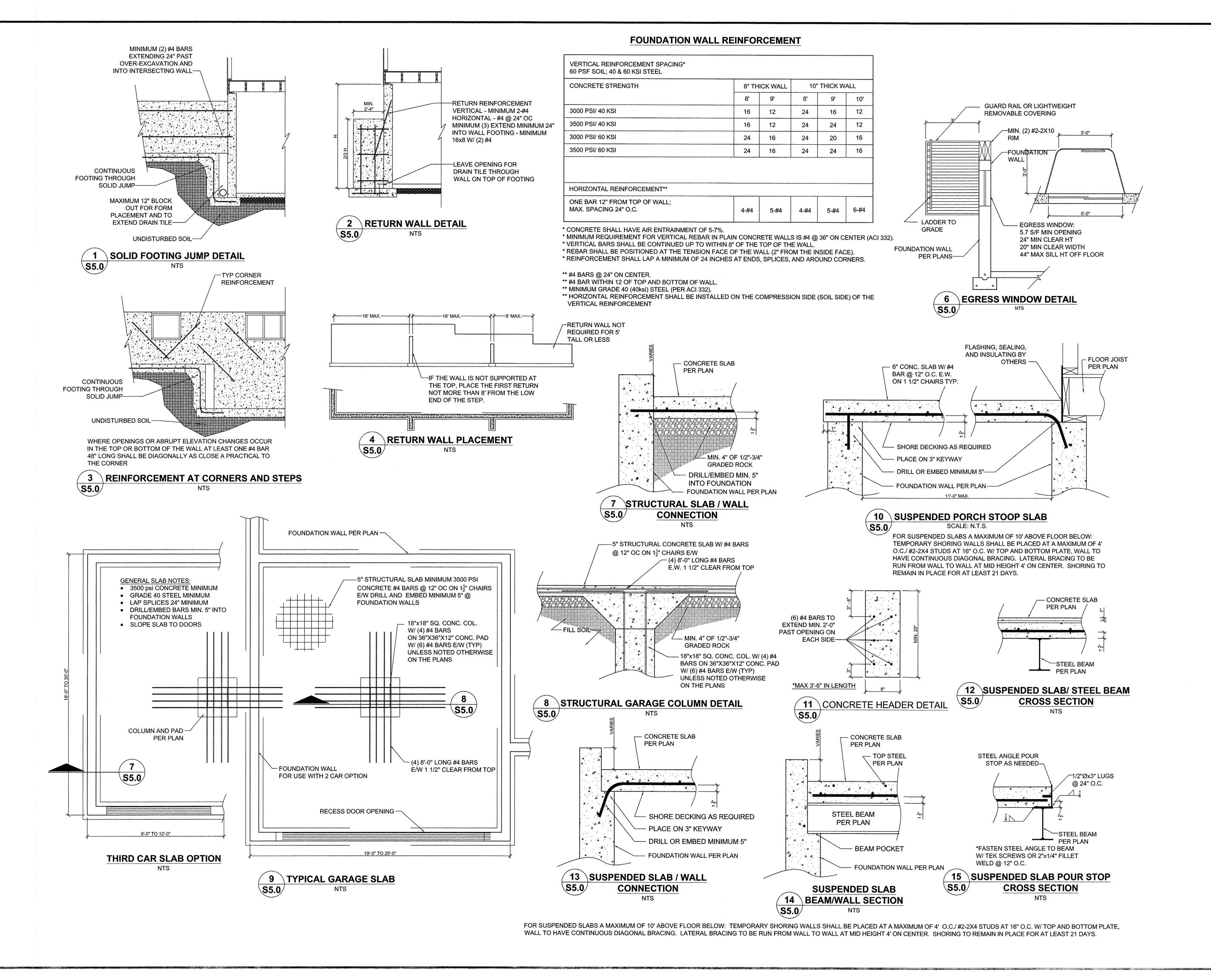
KS. COA. # E1312 MO. COA. # 2006034946-F

BF

REVISION TABLE

Date: 11/08/19 HD #: 38283 Drawn by: AWH Reviewed by: CLS

STRUCTURAL DETAILS



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KS. COA. # E1312 MO. COA. # 2006034946-F

FE'S CONST

WOOD BROTHERS
PAKR RIDGE LOT 319 THE D
2028 NE BLUESTONE DR. LEE'S

REVISION TABLE

Date: 11/08/19

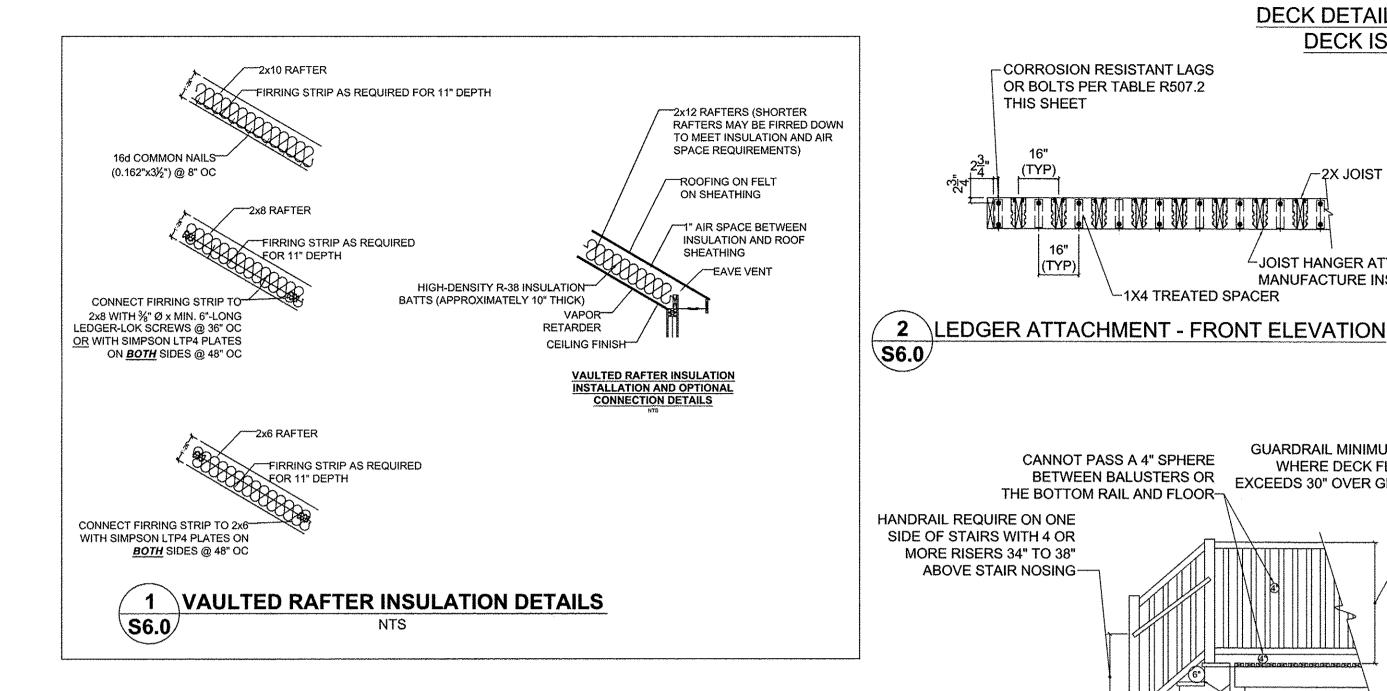
HD #: 38283

Drawn by: AWH

Reviewed by: CLS

STRUCTURAL DETAILS SHEET NUMBER:

S-5.0



CATHEDRAL / VAULTED CEILING

FRAMING AND INSULATION

MINIMUM R-38 INSULATION REQUIRED

WHERE THE CEILING IS APPLIED DIRECTLY TO THE BOTTOM

MINIMUM INSULATION VALUE, RAFTER SIZES WILL NEED TO BE INCREASED, OR ADEQUATE FURRING SHALL BE USED TO

IN ADDITION, IF THE RAFTER SIZE IS INCREASED IT SHALL BE

VERIFIED THAT THE RIDGE BE A MINIMUM OF ONE NOMINAL SIZE LARGER THAN THE RAFTERS BEING RECEIVED. (SEE CHART BELOW)

OBTAIN THE MINIMUM JOIST DEPTH FOR THE REQUIRED INSULATION.

2x6

2x8

R-19

 $6\frac{1}{4}$ "

2x10

R-30

8 <u>1</u>"

2x12

R-38

10 ¹/₄"

OF THE RAFTERS, A MINIMUM 1" AIR SPACE SHALL BE

NOTE: RAFTER SIZES SPECIFIED ON PLANS ARE THE MINIMUM REQUIRED FOR STRUCTURAL PURPOSES ONLY.

THE SHEATHING FOR VENTILATION (R806.3)

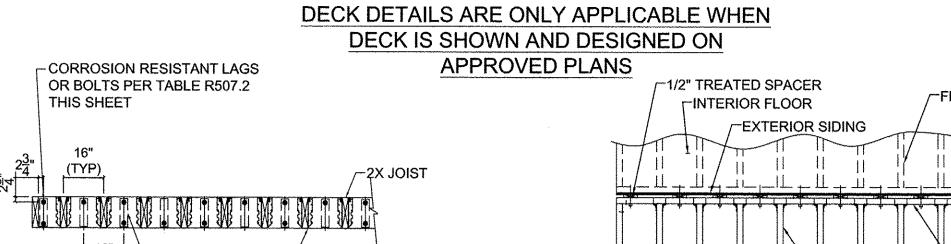
IF FULL RAFTER DEPTH IS NOT ADEQUATE FOR

BUILDER TO VERIFY:

MAXIMUM INSULATION VALUE

1" AIR SPACE (FIBERGLASS)

PROVIDED BETWEEN THE TOP OF THE INSULATION AND



MANUFACTURE INSTRUCTIONS

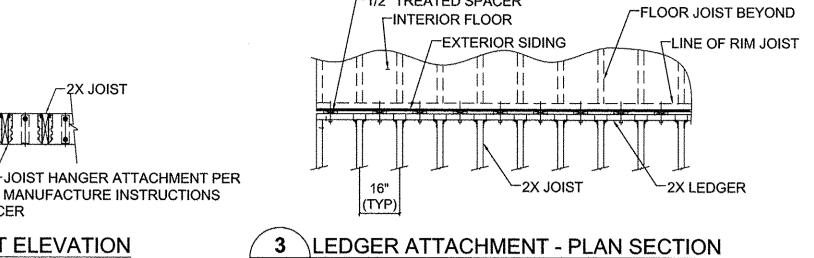
GUARDRAIL MINIMUM 36"

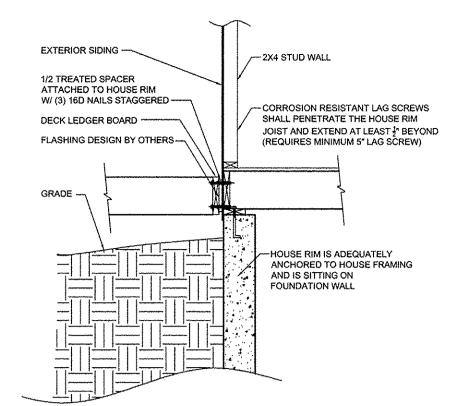
EXCEEDS 30" OVER GRADE---

WHERE DECK FLOOR

CANNOT PASS A 6" SPHERE THROUGH TRIANGLE FORMED BY

RISER, TREAD AND BOTTOM RAIL





DECK POST NOTE ALL POST SUPPORTING ROOF LOADS SHALL BE CONTINUOUS FROM THE PIER CONNECTION TO THE ROOF SUPPORTING STRUCTURE. IF POST SPLICES ARE REQUIRED THE SPLICE SHALL BE ENGINEERED

4 LEDGER ATTACHMENT - SECTION VIEW

BY THE ENGINEER OF RECORD FOR THE PROJECT TABLE IRC2018 R507.9.1.3(1) **DECK LEDGER CONNECTION TO BAND JOIST**

(DECK LIVE LOAD = 40 PSF, DECK HEAD LOAD = 10 PSF, SNOW LOAD < 40 PSF)

\							 ,
JOIST SPAN	6' AND LESS	6'-1" TO 8'	8'-1" TO 10'	10'-1" TO 12'	12'-1" TO 14'	14'-1" TO 16'	16'-1" TO 18'
CONNECTION DETAILS			ON-CENTE	R SPACING OF F	ASTENERS ""		
1/2" LAG SCREW WITH 15/32" MAX. SHEATHING ^{cd}	30	23	18	15	13	11	10
1/2" DIAM. BOLT WITH 15/32" MAX. SHEATHING ^d	36	36	34	29	24	21	19
1/2" DIAM. BOLT WITH 15/32" MAX. SHEATHING & 1/2" STACKED WASHERS °	36	36	29	24	21	18	16

For SI: 1 inch = 25.4mm, 1 foot = 304.8mm, 1 pound per square foot = 0.0479 kPa

- a. Ledges shall be flashed in accordance with Section R703.4 to prevent water from contacting the house band joist.
- b. Snow load shall not be assumed to act concurrently with live load.
- c. The tip of the lag screw shall fully extend beyond the inside face of the band joist.
- d. Sheathing shall be wood structural panel or solid sawn lumber.
- e. Sheathing shall be permitted to be wood structural panel, gypsum board, fiberboard lumber or foam sheathing. Up to 1 thinckness of stacked washers shall
- be permitted to substitute for you to ½" of allowable sheathing thickness where combined with wood structural panel or lumbers sheathing.

TABLE IRC2018 R507.9.1.3(2) PLACEMENT OF LAG SCEWS AND BOLT IN DECK LEDGERS ADN BAND JOISTS

	MINIMUM END AND E	EDGE DISTANCES AND SPACE	NG BETWEEN ROWS	
	TOP EDGE	BOTTOM EDGE	ENDS	ROW SPACING
LEDGER	2 inches ^d	3/4 inches	2 inches b	1 5 inches
BAND JOIST °	3/4 inches	2 inches	2 inches ^b	1 $\frac{5}{8}$ inches $^{\flat}$

For SI: 1 inch = 25,4mm.

- a. Lag screws of bolts shal lbe staggered from the top to the bottom along the horizontal run of the deck ledger in accordance with Figure R507.9.1.3(1)
- c. For engineered rim joists, the manufacturer's recommendations shall govern.
- d. The minimum distances from bottom row of lag screws or bolts to the top of the ledger shall be in accordance with Figure R507.9.1.3(1)

MINIMUM INSULATION & FENSTRATION VALUES BY COMPONENT, PER IRC2018 N1102.1.2

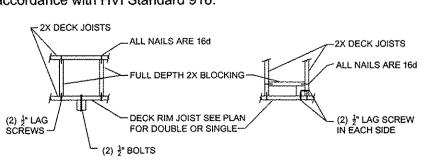
CLIMATE ZONE	FENSTRATION U-FACTOR		GLAZED SHGC FENSTRATION	INSULATED METAL DOOR U-VALUE	INSULATED WOOD DOOR U-VALUE					SLAB R-VALUE & DEPTH	CRAWL SPACE WALL R-VALUE	DUCTWORK OVER OUTSIDE R-VALUE	
4 EXCEPT MARINE	0.32	0.55	0.40	0.60	0.50	49	20 OR 13+5	19	10 CONTINUOUS OR 13 CAVITY	R-10 2 FT.	10 CONTINUOUS OR 13 CAVITY	8	6

HEIGHT OF CJ

MINIMUM MECHANICAL EQUIPMENT EFFICIENCY VALUES BY COMPONENT DED IDC2018 N1103 6 1

BY COMPONE	NI, PER IRCZUT	5 N11U3.5.1	
AIR FLOW RATE MINIMUM (CFM)	MINIMUM EFFICACY CFM/WATT	AIR FLOW RATE MAXIMUM (CFM)	
ANY	1.2 CFM/WATT	ANY	
ANY	2.8 CFM/WATT	ANY	
ANY	2.8 CFM/WATT	ANY	
10	1.4 CFM/WATT	< 90	
90	2.8 CFM/WATT	ANY	
	AIR FLOW RATE MINIMUM (CFM) ANY ANY 10	MINIMUM (CFM) ANY 1.2 CFM/WATT ANY 2.8 CFM/WATT ANY 2.8 CFM/WATT 10 1.4 CFM/WATT	

For SI: 1 cubic foot per min = 28.3 L/min. a. When tested in accordance with HVI Standard 916.



\REINFORCED POST CONNECTIONS S6.0 SCALE: 2" 1'-0"

1) BUILDING THERMAL ENVELOPE IS REQUIRED TO BE SEALED WITH AN AIR BARRIER AS PER N1102.4.1 OF THE 2012 IRC 2) RECESSED LIGHTING SHALL BE SEALED TO PREVENT LEAKAGE BETWEEN THE CONDITIONED SPACE AND UNCONDITIONED SPACE 3) ALL DUCTS, AIR HANDLERS, FILTER BOXES, AND BUILDING CAVITIES USED AS DUCTS SHALL BE SEALED AS PER N1103.2 OF THE 2012 IRC

6 ATTIC ACCESS DETAIL

(TYP)

ABOVE STAIR NOSING-

CANNOT PASS A 4" SPHERE

THE BOTTOM RAIL AND FLOOR-

BETWEEN BALUSTERS OR

-1X4 TREATED SPACER

5 GUARDRAIL DETAIL

1/2" GYP. CAP OR EQUAL

- 2X4 CLEAT W/ WEATHER

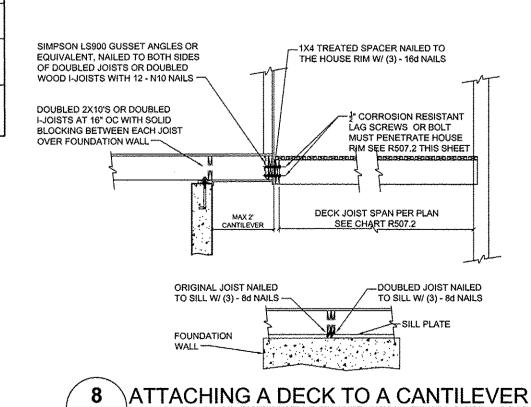
STRIPPING ON BOTTOM

GYP. PER SHEATHING SCHEDULE

R-49 INSULATION INSIDE

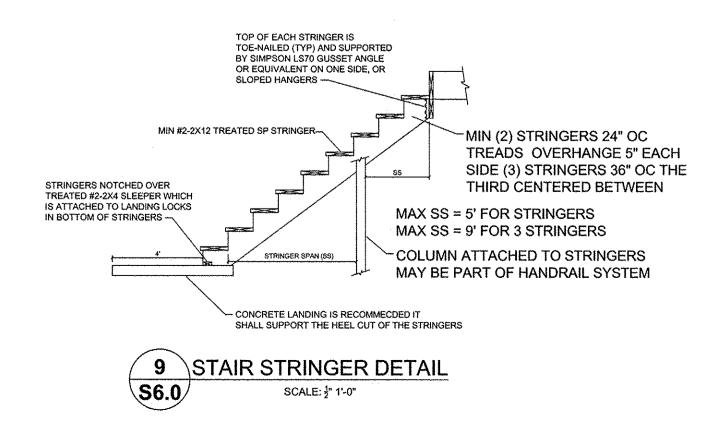
2x12 BOX MIN. 22"X30"

SCALE: 1 = 1'-0"



SCALE: 3" = 1'-0"

S6.0



DUCT SEALING METHOD, PER IRC2018 W1103.3.2

N1103.2.2 (R403.2.2) SEALING (MANDATORY) DUCTS, AIR HANDLERS, AND FILTER BOXES SHALL BE SEALED, JOINTS AND SEAMS SHALL COMPLY WITH SECTION M1601.4.1 OF THIS CODE.

EXCEPTIONS:

1. AIR-IMPERMEABLE SPRAY FOAM PRODUCTS SHALL BE PERMITTED TO BE APPLIED WITHOUT ADDITIONAL JOINT SEALS. 2. WHERE A DUCT CONNECTION IS MADE THAT IS PARTIALLY INACCESSIBLE, THREE SCREWS OR RIVETS SHALL BE EQUALLY SPACED ON THE EXPOSED PORTION OF THE JOINT SO AS TO PREVENT A HINGE EFFECT.

3. CONTINUOUSLY WELDED AND LOCKING-TYPE LONGITUDINAL JOINTS AND SEAMS IN DUCTS OPERATING AT STATIC PRESSURE LESS THAN 2 INCHES OF WATER COLUMN (500 Pa) PRESSURE CLASSIFICATION SHALL NOT REQUIRE ADDITIONAL CLOSURE SYSTEMS.

DUCT TIGHTNESS SHALL BE VERIFIED BY EITHER OF THE FOLLOWING: 1. POSTCONSTRUCTION TEST: TOTAL LEAKAGE SHALL NOT BE LESS THAN OR EQUAL TO 4 CFM (113.3 L/MIN) PER 100FT² (9.29m²) OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. (25 Pa) ACROSS THE ENTIRE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTER BOOTS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.

2. ROUGH-IN TEST: TOTAL AIR LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM (113.3 L/MIN) PER 100FT² (9.29m²) OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. (25 Pa) ACROSS THE ENTIRE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST. IF THE AIR HANDLER IS NOT INSTALLED AT THE TIME OF THE TEST, TOTAL AIR LEAKAGE SHALL BE LESS THAN OR EQUAL TO 3 CFM (85 L/MIN) PER 100FT² (9.29m²) OF CONDITIONED FLOOR AREA.

EXCEPTION: THE TOTAL LEAKAGE IS NOT REQUIRED FOR DUCTS AND AIR HANDLERS LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE.

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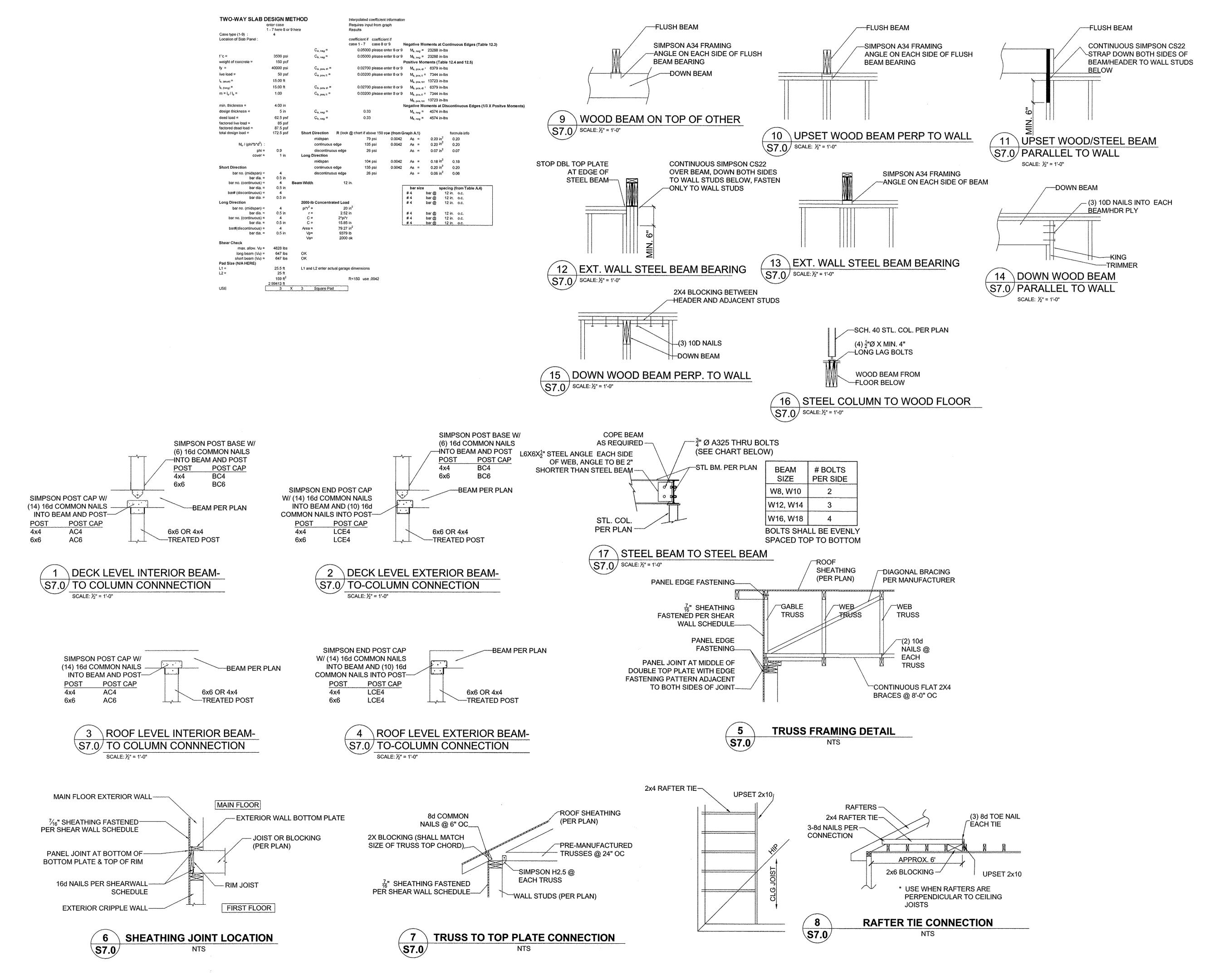
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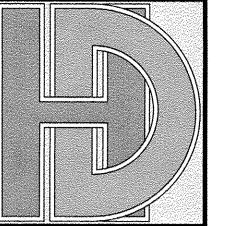
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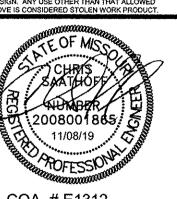
STRUCTURAL DETAILS

Reviewed by:





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