

SCALE: 1/4" = 1'-0"

\*ALL RAFTERS SHALL BE 2' X 6' #2 @ 16' D.C., UNLESS NOTED OTHERWISE.

FLASHING NOTE: Drip edge, valleys and flashings to be metal clad.

ROOF DESIGNED FOR LIGHT ROOF COVERING 30psf Total Load (10psf DL, 20psf LL (SL))

\* RAFTERS (HEM-FIR, DDUG-FIR, DR EQUAL): SEE SPAN CHARTS BELDW

CODE MINIMUM

RAFTERS SPACING MAX HORIZONTAL CLEARSPAN

#2-2x6 @24" D.C. 11'-7'

HIGHER PERFORMANCE (RECOMMENDED)

RAFTERS SPACING MAX HORIZONTAL CLEARSPAN
#2-2x6 @24" D.C. 8"-6" 

\* VAULTS TO BE 2x10 DEPTH

\* RIDGE BOARDS ARE: (UNLESS OTHERWISE NOTED)

- #2- 2X8 UP TO 10/12 PITCH

- #2- 2X10 OVER 10/12 PITCH

\* PURLINS ARE 2X6 MIN.

\* ALL HIPS & VALLEYS ARE: (UNLESS DTHERWISE NOTED) - #2- 2X8 UP TO 10/12 PITCH - #2- 2X10 OVER 10/12 PITCH

- PURLIN STRUTS ARE AT 4'-0" D.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 DF 8'-0' - PURLINS STRUTS SHALL BE CONSTRUCTED IN A 'T' CONFIGURATION AND PER THE FOLLOWING CHART:

\* RIDGE BRACES ARE SAME AS PURLIN BRACES-SPACING, SIZE, CONFIGURATION, & INSTALLATION (SEE PURLIN BRACE NOTES ABOVE) \* HIP & VALLEY BRACES ARE SAME AS PURLIN SIZE, CONFIGURATION, & INSTALLATION (SEE PURLIN BRACE NOTES ABOVE)

\* VERTICAL BRACE IF DOT IS UNDER HIP OR VALLEY \* SLASH IS TOP END OF BRACE ( / ), DOT IS BOTTOM OF BRACE ( o ). \* ~ DENOTES BEARING WALL \*---- DENOTES ROOF BRACE \*---- DENOTES PURLIN \*---- DENDTES BEARING STRUCTURE

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Site Description:

Lot 307,

Lot 307,

Park Ridge - 6th F

Street Address:

1913 NE Catalina A

Lee's Summit, Miss

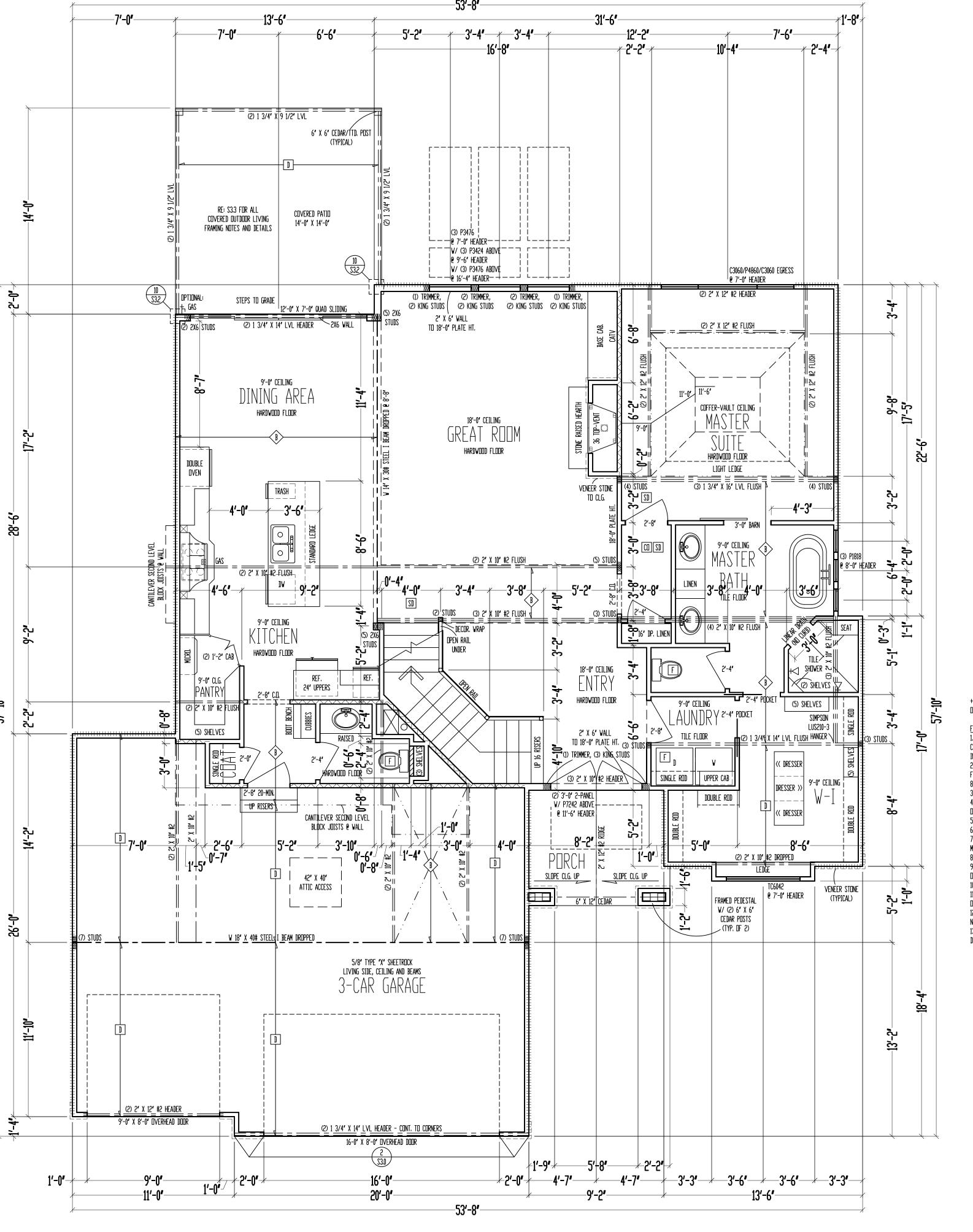
Spec PKR307



Date: 2 - 25 - AD 2021 Rev. 1: Rev. 2: Rev. 3:

> Sheet Title: **ROOF PLAN**

Sheet No.:



9'-0" CEILING
2" X 10" FLOOR SYSTEM
MAIN LEVEL

SCALE: 1/4" = 1'-0"

MAIN LEVEL: 1673 SQ. FT.

SECOND LEVEL: 827 SQ. FT.

TOTAL: 2500 SQ. FT.

GARAGE: 751 SQ. FT. COV. DUT/LIV: 196 SQ. FT. UNFIN. BASEMENT: 1419 SQ. FT.

++++++ = Wall Bracing per Framing note #1 and per calculations

6. RUN STUDS THE FULL HEIGHT OF RAISED PLATE WALLS.
7. BLOCK JOISTS ABOVE BEAMS, CANTILEVERS AND LOAD BEARING WALLS WITH JOIST MATERIAL (NOT REQUIRED WITH I-JOISTS).
8. PROVIDE MULTIPLE STUDS FOR SOLID BEARING BELOW ALL BEAMS.
9. ALL DESIGNATED 2' X 6' WALLS SHALL HAVE DOUBLE KING STUDS AT DOOR AND WINDOW OPENINGS.
10. ALL UNSQUARE WALLS SHALL BE 45', UNLESS NOTED OTHERWISE.

11. ALL WALLS TO BE FRAMED W/ MIN. STUD GRADE 2" X 4"S @ 16" D.C., UNLESS NOTED OTHERWISE.
12. EXTERIOR WALL BOTTOM PLATES SHALL BE NAILED TO FRAMING BELOW WITH 16d COMMON NAILS @ 8" D.C. MAX. (WHERE APPLICABLE.)
13. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD BEFORE CONSTRUCTION OF ANY DEFLECTION LIMITATIONS MORE STRINGENT THAN CODE MINIMUMS ABOVE ANY OPENINGS.

	JOIST SCHEDULE
(A)	2" X 10" #2 TTD. FLOOR JOIST @ 16" D.C.
$\bigcirc$ B $>$	2' X 10' #2 FLDDR JDIST € 16' D.C.
(¢)	2" X 10" #2 FLOOR JOIST @ 16" D.C DOUBLE EVERY OTHER
D	2' X 6' #2 CEILING JOIST @ 16' D.C.

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For God so loved the orld, that he gave his ly begotten Son, that hosoever believeth in im should not perish, thave everlasting life"

RESIDENTIAL DESIGN LLC
(816) 547-4437 E: Plans@ViewpointDesign.net

Site Description:

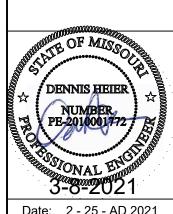
Lot 307,

Park Ridge - 6th Plat

Street Address:

1913 NE Catalina Ave.,

PKR307 Spec
General Contractor:
Valker Custom Homes, LLC

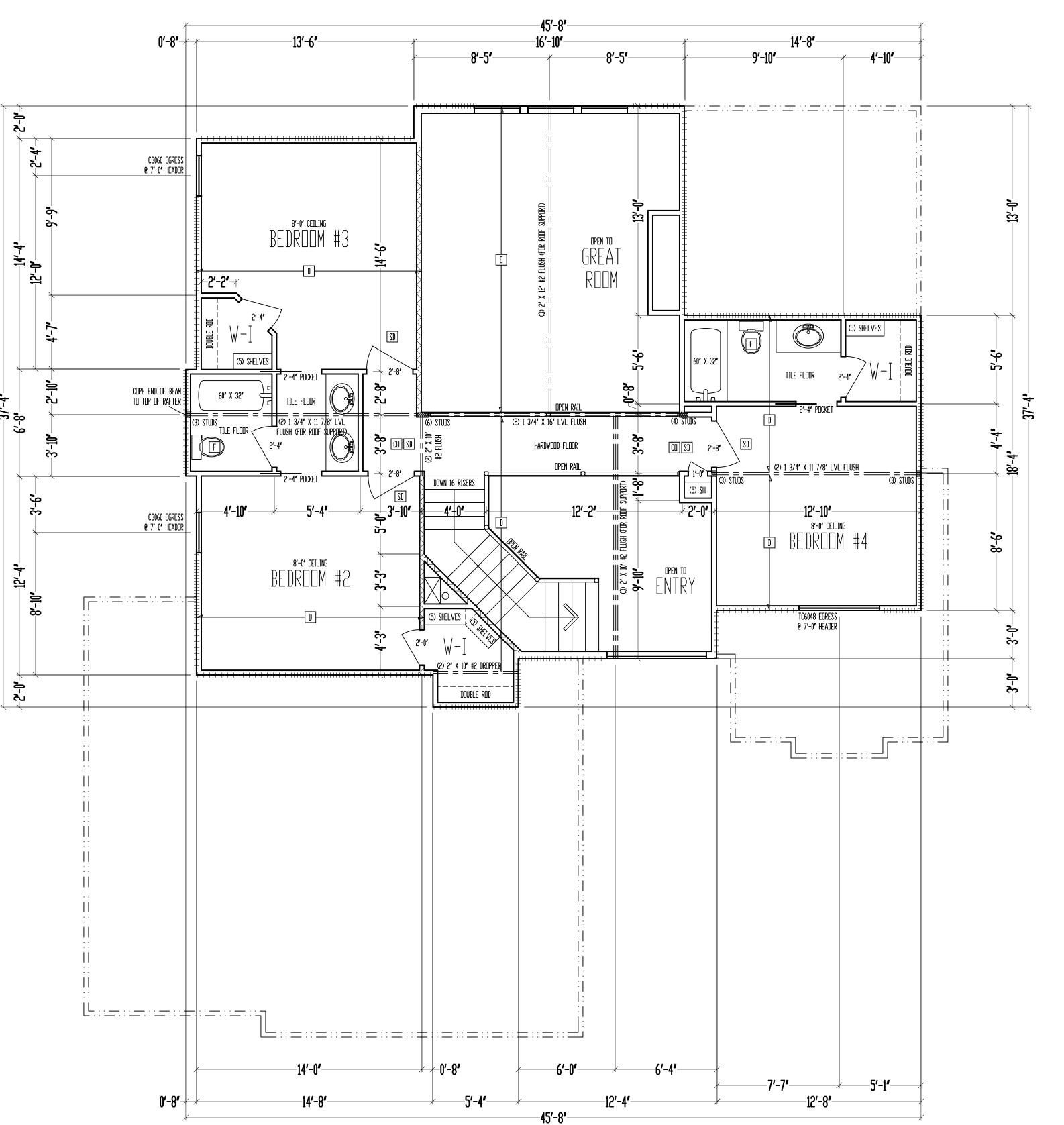


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Sheet Title:
MAIN LEVEL
PLAN

Sheet No.:

A-3
of 5



# 8'-0" CEILING SCALE: 1/4" = 1'-0"

3. /\/\/\/\/\/\/\ = LOAD BEARING INTERIOR WALL. 4. (2) 2' x 10' #2 HEADER AT ALL EXTERIOR AND LOAD BEARING WALLS, UNLESS NOTED

5. LOW TIES @ 4'-0' D.C. (TYPICAL)
6. RUN STUDS THE FULL HEIGHT OF RAISED PLATE WALLS.
7. BLOCK JOISTS ABOVE BEAMS, CANTILEVERS AND LOAD BEARING WALLS WITH JOIST MATERIAL (NOT REQUIRED WITH I-JOISTS).
8. PROVIDE MULTIPLE STUDS FOR SOLID BEARING BELOW ALL BEAMS.
9. ALL DESIGNATED 2" X 6" WALLS SHALL HAVE DOUBLE KING STUDS AT DOOR AND WINDOW

10. ALL UNSQUARE WALLS SHALL BE 45°, UNLESS NOTED OTHERWISE. 11. ALL WALLS TO BE FRAMED W/ MIN. STUD GRADE 2′ X 4′S @ 16′ D.C., UNLESS NOTED

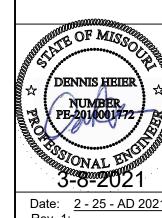
UTHERWISE.

12. EXTERIOR WALL BOTTOM PLATES SHALL BE NAILED TO FRAMING BELOW WITH 16d COMMON NAILS @ 16' D.C. MAX. (WHERE APPLICABLE.)

13. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD BEFORE CONSTRUCTION OF ANY DEFLECTION LIMITATIONS MORE STRINGENT THAN CODE MINIMUMS ABOVE ANY OPENINGS.

	JOIST SCHEDULE
D	2" X 6" #2 CEILING JOIST @ 16" D.C.
E	2' X 8' #2 CEILING JOIST @ 16' D.C.

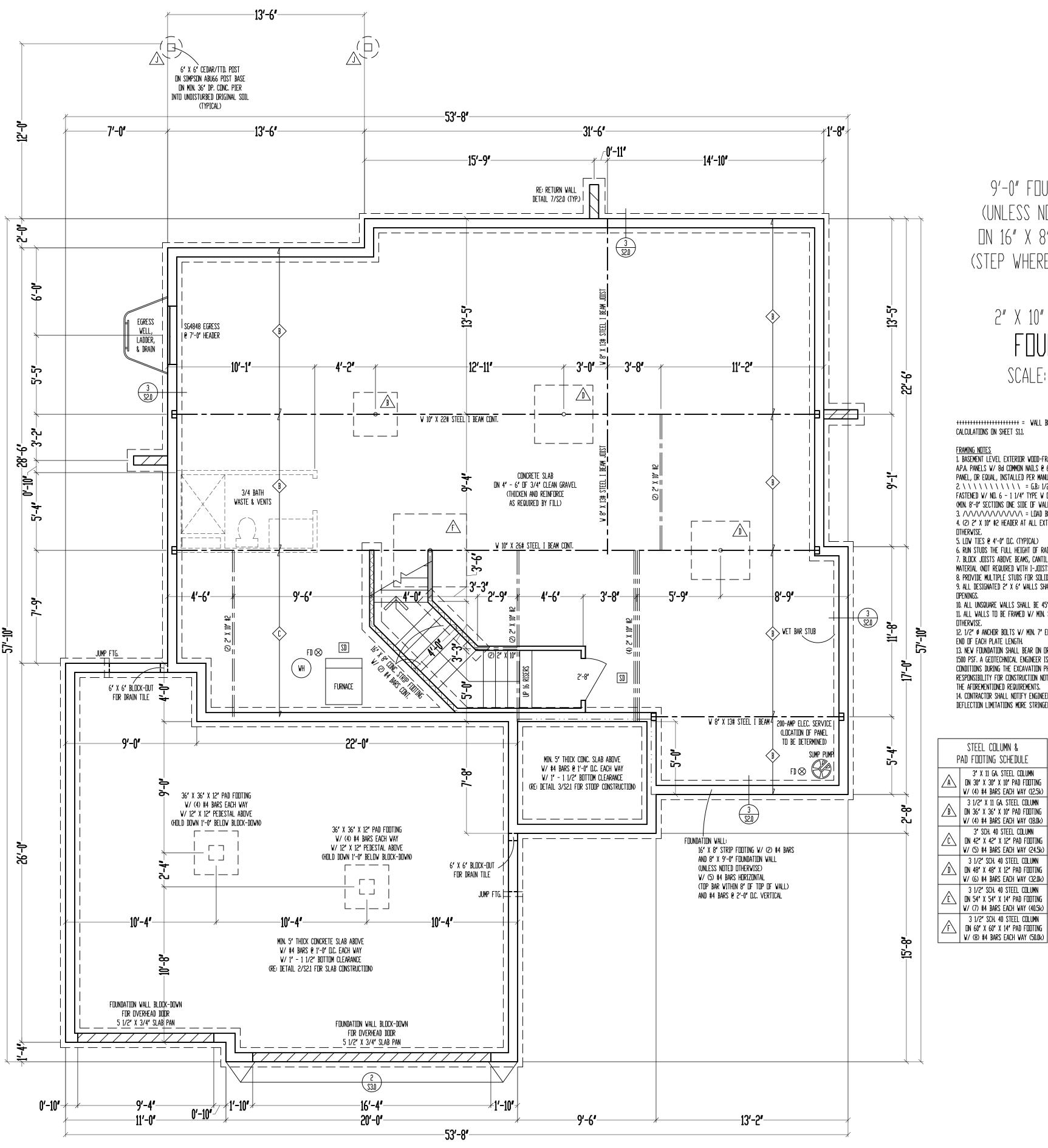
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Date: <u>2 - 25 - AD 2021</u> Rev. 1: Rev. 2: Rev. 3:

Sheet Title: **SECOND LEVEL** PLAN





9'-0" FOUNDATION WALLS ON 16" X 8" STRIP FOOTINGS (STEP WHERE GRADE REQUIRES)

## 2" X 10" FLOOR SYSTEM FOUNDATION

SCALE: 1/4" = 1'-0"

+++++++++++++++++++++++++++++ = WALL BRACING PER FRAMING NOTE #1 AND PER CALCULATIONS ON SHEET \$1.1.

A.P.A. PANELS W/ 8d COMMON NAILS @ 6' D.C. AT EDGES & @ 12' D.C. IN THE FIELD. SMART PANEL, DR EQUAL, INSTALLED PER MANUFACTURER'S SPECIFICATIONS. 2. \ \ \ \ \ \ \ \ \ = G.B.: 1/2' min. Gypsum board over studs spaced 24' max fastened w/ no. 6-1 1/4' type w or s drywall screws 0 7' d.c. edges & field. (MIN. 8'-0" SECTIONS ONE SIDE OF WALL (OR) MIN. 4'-0" SECTION FOR BOTH SIDES) 3.  $\/\/\/\/\/\/\$  = LOAD BEARING INTERIOR WALL.

4. (2) 2" X 10" #2 HEADER AT ALL EXTERIOR AND LOAD BEARING WALLS, UNLESS NOTED 5. LOW TIES @ 4'-0" D.C. (TYPICAL) 6. RUN STUDS THE FULL HEIGHT OF RAISED PLATE WALLS. 7. BLOCK JOISTS ABOVE BEAMS, CANTILEVERS AND LOAD BEARING WALLS WITH JOIST

MATERIAL (NOT REQUIRED WITH I-JOISTS). 8. PROVIDE MULTIPLE STUDS FOR SOLID BEARING BELOW ALL BEAMS. 9. ALL DESIGNATED 2' X 6' WALLS SHALL HAVE DOUBLE KING STUDS AT DOOR AND WINDOW

10. ALL UNSQUARE WALLS SHALL BE 45°, UNLESS NOTED OTHERWISE. 11. ALL WALLS TO BE FRAMED W/ MIN. STUD GRADE 2' X 4'S @ 16' D.C., UNLESS NOTED

12. 1/2' Ø ANCHOR BOLTS W/ MIN. 7' EMBEDMENT @ 48' D.C. MAX. & VITHIN 6' - 12' DF END OF EACH PLATE LENGTH. 13. NEW FOUNDATION SHALL BEAR ON ORIGINAL SOIL WITH MINIMUM BEARING CAPACITY OF 1500 PSF. A GEDTECHNICAL ENGINEER IS RECOMMENDED FOR VERIFICATION OF THESE CONDITIONS DURING THE EXCAVATION PHASE, ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION NOT VERIFIED TO BE FOUNDED ON ANYTHING SHORT OF THE AFDREMENTIONED REQUIREMENTS.

14. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD BEFORE CONSTRUCTION OF ANY DEFLECTION LIMITATIONS MORE STRINGENT THAN CODE MINIMUMS ABOVE ANY OPENINGS.

PIER FOOTING SCHEDULE STEEL COLUMN & PAD FOOTING SCHEDULE 12" Ø PIER FTG. 3' X 11 GA. STEEL COLUMN ON 30' X 30' X 10' PAD FOOTING 16" Ø PIER FTG. W/ (4) #4 BARS EACH WAY (12.5k) 3 1/2" X 11 GA. STEEL COLUMN 18" Ø PIER FTG. ON 36" X 36" X 10" PAD FOOTING W/ (4) #4 BARS EACH WAY (18.0k) 24" Ø PIER FTG. 3" SCH. 40 STEEL COLUMN ON 42' X 42' X 12' PAD FOOTING W/ (5) #4 BARS EACH WAY (24.5k) 3 1/2" SCH. 40 STEEL COLUMN JOIST SCHEDULE DN 48' X 48' X 12' PAD FOOTING ∑ 2' X 10' #2 TTD, FLOOR JOIST

3 1/2" SCH. 40 STEEL COLUMN

3 1/2" SCH. 40 STEEL COLUMN

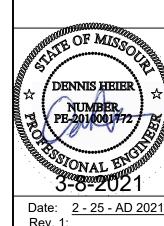
€ 16**′** 🛚.C.

2" X 10" #2 FLOOR JOIST

**€** 16″ □.C. 2' X 10' #2 FLOOR JOIST

💛 | @ 16" D.C. - DOUBLE EVERY OTHER |

Spec PKR307



Rev. 1: Rev. 2: Rev. 3:

> Sheet Title: **FOUNDATION** PLAN

Sheet No.:

1913 Lee's

	FASTENER SCHEDULE FOR STRUCTURAL MEMBERS	
DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER  ROOF <sup>1</sup>	SPACING AND LOCATION
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL	4-8d (2½" x 0.113")	TOENAIL
CEILING JOISTS TO PLATE, TOE NAIL	4-8d (2½" x 0.113")	PER JOIST, TOENAIL
CEILING JOISTS NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS, FACE NAIL	4-10d (3" x 0.128")	FACE NAIL
CEILING JOIST TO PARALLEL RAFTER (HEEL JOINT)	TBLE R802.5.2	FACE NAIL
COLLAR TIE TO RAFTER, FACE NAIL OR 1 $\frac{1}{4}$ " x 20 GA. RIDGE STRAP TO RAFTER	4-10d (3" x 0.128")	FACE NAIL, EACH RAFTER
RAFTER OR ROOF TRUSS TO PLATE	3-16d BOX NAILS (3½" x 0.135") OR 3-10d COMMON NAILS (3" x 0.148")	2 TOE NAILS ON ONE SIDE AND 1 TOE NAIL ON OPPOSITE SIDE OF EACH RAFTER OR TRUSS
ROOF RAFTERS TO RIDGE, VALLEY, OR HIP RAFTERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM	4-16d (3 ½" x 0.135") - TOENAIL; 3-16d BOX (3 ½" x 0.135") - END NAIL	TOENAIL, END NAIL
	WALL	
STUD TO STUD (NOT AT BRACED WALL PANELS)	10d (3" x 0.128")	16" O.C. FACE NAIL
STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d (3½" x 0.135")	12" O.C. FACE NAIL
BUILT-UP HEADER, TWO PIECES WITH ½" SPACER	16d (3½" x 0.135")	12" O.C. EACH EDGE FACE NAIL
CONTINUOUS HEADER TO STUD	4-8d (2½" x 0.131")	TOENAIL
TOP PLATE TO TOP PLATE	10d (3" x 0.128")	12" O.C. FACE NAIL
DOUBLE TOP PLATE SPLICE	8-16d COMMON (3 ½" x 0.162")	FACE NAIL ON EACH SIDE OF END JOINT (MIN. 24 LAP SPLICE LENGTH EACH SIDE OF END JOINT)
BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON (3 ½" x 0.162")	16" O.C. FACE NAIL
BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANEL)	3-16d BOX (3 ½" x 0.135")	3 EACH 16" O.C. FACE NAIL
TOP OR SOLE PLATE TO STUD, END NAIL	4-8d BOX (2 $\frac{1}{2}$ " x 0.113") - TOENAIL; 3-16d BOX (3 $\frac{1}{2}$ " x 0.135") - END NAIL	TOENAIL, END NAIL (SEE LEFT)
TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	3-10d BOX (3" x 0.128")	FACE NAIL
1" BRACE TO EACH STUD AND PLATE	3-8d BOX (2 ½" x 0.113")	FACE NAIL
1"x6" SHEATHING TO EACH BEARING	3-8d BOX (2 ½" x 0.113")	FACE NAIL
1"x8" SHEATHING TO EACH BEARING	3-8d BOX (2 $\frac{1}{2}$ " x 0.113") - FACE NAIL; WIDER THAN 1"x8" - 4-8d BOX (2 $\frac{1}{2}$ " x 0.113")	FACE NAIL
	FLOOR	
JOIST TO SILL, TOP PLATE, OR GIRDER	4-8d BOX (2 ½" x 0.113")	TOE NAIL
RIM JOIST, BAND JOIST, OR BLOCKING TO SILL OR TOP PLATE (ROOF APPLICATIONS ALSO)	8d BOX (2 ½" x 0.113")	4" O.C. TOE NAIL
1" x 6" SUBFLOOR OR LESS TO EACH JOIST	3-8d BOX (2 ½" x 0.113")	FACE NAIL
2" SUBFLOOR TO JOIST OR GIRDER	3-16d BOX (3 ½" x 0.135")	BLIND AND FACE NAIL
2" PLANKS (PLAN & BEAM - FLOOR AND ROOF)	3-16d BOX (3 ½" x 0.135")	AT EACH BEARING, FACE NAIL
BAND OR RIM JOIST TO JOIST	3-16d COMMON (3 ½" x 0.162")	END NAIL
BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS	10d BOX (3" x 0.128")	24" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	4-16d BOX (3 ½" x 0.135")	AT EACH JOIST OR RAFTER, FACE NAIL

DESCRIPTION OF BUILDING MATERIALS	FASTNER SCHEDULE FOR S DESCRIPTION OF FASTENER	R STRUCTURAL MEMBERS EDGE SPACING (INCHES)	INTERMEDIATE SUPPORTS (INCHES)				
	WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICLEBOARD WALL SHEATHING TO FRAMING						
3 <sub>8</sub> " - ½"	6d COMMON (2" x 0.113") NAIL (SUBFLOOR, WALL) 8d COMMON NAIL (ROOF)	6	12				
<sup>19</sup> / <sub>32</sub> " - 1"	8d COMMON NAIL (2½" x 0.131")	6	12				
11/8" - 11/4"	10d COMMON (3" x 0.148") NAIL OR 8d (2½" x 0.131") DEFORMED NAIL	6	12				
	OTHER WALL	_ SHEATHING 1					
½" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	1 $\frac{1}{2}$ " GALVANIZED ROOFING NAIL, $\frac{7}{16}$ " HEAD DIAMETER, OR 1 $\frac{1}{4}$ " LONG 16 GA. STAPLE WITH $\frac{7}{16}$ " OR 1" CROWN	3	6				
25" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	$1\frac{3}{4}$ " GALVANIZED ROOFING NAIL, $\frac{7}{16}$ " HEAD DIAMETER, OR $1\frac{1}{2}$ " LONG 16 GA. STAPLE WITH $\frac{7}{16}$ " OR 1" CROWN	3	6				
½" GYPSUM SHEATHING	1½" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1½" LONG; 1½" SCREWS, TYPE W OR S	7	7				
%" GYPSUM SHEATHING	1¾" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1½" LONG; 1½" SCREWS, TYPE W OR S	7	7				
W	OOD STRUCTURAL PANELS, COMBINATIO	N SUBFLOOR UNDERLAYMENT TO FRAM	ING				
¾" AND LESS	6d DEFORMED (2" x 0.120") NAIL OR 8d COMMON (2½" x 0.131") NAIL	6	12				
7⁄8" - 1"	8d COMMON (2½" x 0.131") NAIL OR 8d DEFORMED (2½" x 0.120") NAIL	6	12				
1½" - 1½"	10d COMMON (3" x 0.148") NAIL OR 8d DEFORMED (2½" x 0.120") NAIL	6	12				

1. IF INFORMATION LISTED ON PLAN SHEETS CONTRADICTS INFORMATION IN THIS TABLE, INFORMATION ON PLANS TAKES PRECEDENCE OVER INFORMATION

### EASTNER SCHEDULE FOR STRUCTURAL MEMBERS

#### FOUNDATION NOTES

MINIMUM 20 GALLON SUMP PIT.

- CONCRETE SHALL BE AIR-ENTRAINED BETWEEN 5%-7% WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2500 PSI FOR BASEMENT AND INTERIOR FLOOR SLABS-ON-GRADE, 3000 PSI FOR FOUNDATION WALLS, AND 3500 PSI FOR PORCHES AND GARAGE FLOOR SLABS
- 2. THE FOUNDATION DESIGN SHALL COMPLY WITH THE ENFORCING JURISDICTION'S RESIDENTIAL FOUNDATION STANDARDS
- 3. PROVIDE A MINIMUM 4"-DIAMETER PERFORATED DRAIN PIPE ALONG PERIMETER OF USABLE SPACE AT FOOTING LEVEL OR OTHER EQUIVALENT MATERIALS PER IRC SECTION R405.1. THE PIPE SHALL BE COVERED WITH A MINIMUM OF 6" OF GRAVEL OR CRUSHED ROCK. THE DRAIN SHALL DAYLIGHT BELOW FOOTING LEVEL OR TERMINATE IN A
- 4. FOUNDATION SHALL BE DESIGNED FOR A BEARING CAPACITY OF 1500 PSF AND FOUNDED ON COMPETENT ORIGINAL SOIL AS DETERMINED AND CONFIRMED BY A LICENSED GEOTECHNICAL ENGINEER OR ENGINEERING GEOLOGIST. ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION NOT VERIFIED TO BE FOUNDED ON ANY SOIL WITH THE AFOREMENTIONED MINIMUM PROPERTIES.
- ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION NOT VERIFIED TO BE FOUNDED ON ANY SOIL WITH THE AFOREMENTIONED MINIMUM PROPERTIES.

  5. FOOTINGS SHALL BE A MINIMUM OF 16" WIDE x 8" DEEP AND SHALL HAVE A MINIMUM OF (2) CONTINUOUS GRADE 40
- #4 BARS WITH 3" BOTTOM CLERANCE. BOTTOM OF FOOTING SHALL BE LOCATED A MINIMUM OF 3'-0" BELOW GRADE FOR FROST PROTECTION.
- CONCRETE PADS SUPOPORTING COLUMN LOADS SHALL BE NO SMALLER THAN 2'-0" x 2'-0" x 1'-0" DEEP WITH A MINIMUM OF (4) GRADE 40 #4 BARS EACH WAY WITH 3" BOTTOM CLEARANCE
- FOUNDATION WALLS SHALL BE A MINIMUM OF 8" NOMINAL WIDTH AND SHALL HAVE HOIZONTAL GRADE 40 #4 BARS AT 2'-0" O.C. MAX. WITH VERTICAL #4 BARS AS REQUIRED ON FOUNDATION CROSS SECTION ON SHEET S2.0 REINFORCEMENT SHALL LAP A MINIMUM OF 2'-0" (CLASS B SPLICE)
- INTERIOR BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB
- 10. BASEMENT FLOOR SLAB SHALL BE A MINIMUM OF 4" THICK ON A MINIMUM BASE COURSE OF 4" TO 6" OF SAND, GRAVEL OR CRUSHED ROCK. BETWEEN THE BASE COURSE AND FLOOR SLAB SHALL BE PLACED A 6-MIL POLY VAPOR RETARDER WITH MINIMUM OVERLAP OF 6" AT DISCONTINUITIES
- 11. IF A FLOOR IS TO BE SUPPORTED BY A MINIMUM OF 2'-0" OF GRANULAR FILL OR 8" OF EARTH, BASEMENT SLAB SHALL BE DESIGNED BY A LICENSED ENGINEER
- 12. SILL PLATES SHALL BE ANCHORED TO THE FOUNDATION WALL WITH ½" Ø ANCHOR BOLTS EMBEDDED A MINIMUM OF 7" INTO CENTER OF WALL STEM AND SHALL BE INSTALLED AT A MAXIMUM OF 6'-0" O.C. (OR AS NOTED ON PLANS)
- AND SHALL BE INSTALLED WITHIN 6" TO 12" OF EACH END OF EACH SILL PLATE LENGTH, PER IRC SECTION R403.1.6

  13. FOUNDATION WINDOW WELLS SHALL BE PROVIDED WITH MINIMUM DIMENSIONS AS SHOWN IN DETAIL ON SHEET
- 14. THE GARAGE FLOOR SHALL SLOPE TOWARD THE VEHICLE DOORS OR TO A TRENCH OR UNTRAPPED DRAIN THAT DISCHARGES TO THE EXTERIOR, ABOVE GRADE

#### FRAMING NOTES

- ALL DIMENSIONAL LUMBER SHALL BE DOUGLAS-FIR-LARCH GRADE #2, UNLESS NOTED OTHERWISE ON PLANS
- 6. ALL INTERIOR LOAD-BEARING AND EXTERIOR WALL HEADERS SHALL BE (2) #2 2x10's, UNLESS NOTED OTHERWISE ON PLANS
- 17. BLOCK OVER BEAMS AND AT CANTILEVERS AND DOOR JAMBS
- 18. INTERIOR NON-BEARING WALLS RESTING ON BASEMENT SLAB SHALL BE ISOLATED FROM ABOVE FRAMING BY A
- 19. ALL HEADERS/BEAMS SHALL BEAR ON A MINIMUM OF (2) 2x4 POSTS (KING AND JACK STUDS), UNLESS NOTED OTHERWISE
- 20. WHERE JOISTS SPAN PARALLEL TO FOUNDATION, BLOCKING SHALL BE PROVIDED IN THE TWO SPACES MOST ADJACENT TO THE FOUNDATION WALL AT 4'-0" O.C. FOR THE PURPOSE OF TRANSFERRING LATERAL FOUNDATION WALL LOAD TO THE FLOOR DIAPHRAGM. FASTEN JOISTS AND BLOCKING TO SILL PLATE WITH (4) 10d NAILS. IF MECHANICAL DUCTWORK IS INSTALLED IN ONE OF THESE FIRST TWO BAYS, FASTEN 2x4's FLAT AT 4'-0" O.C. BETWEEN JOIST(S) AND/OR SILL AND PROVIDE BLOCKING AS PRESCRIBED ABOVE IN THE NEXT TWO JOIST BAYS. SECURE 2x4's TO JOIST(S)/SILL PLATE WITH (4) 10d NAILS.
- 21. ALL WOOD MATERIAL SUPPORTED ON CONCRETE OR MASONRY SHALL BE TREATED OR OF DECAY-RESISTANT
- 22. JOISTS UNDER BEARING PARTITIONS ON PLANS HAVE BEEN SIZED TO SUPPORT THE DESIGN LOAD.
- 23. JOISTS FRAMING INTO THE FACE OF A STEEL OR WOOD BEAM SHALL BE SUPPORTED WITH APPROPRIATE COLD-FORMED STEEL JOIST HANGERS
- 24. JOISTS FRAMED ON TOP OF STRUCTURAL MEMBER SHALL BE SUPPORTED AT EN DS BY FULL-DEPTH SOLID
- BLOCKING MIN. 1%" IN THICKNESS OR BY FASTENING RIM TO JOISTS PER FASTENING TABLE TO LEFT
- 25. ALL WALL COVERINGS SHALL COMPLY WITH IRC SECTION R702.3
- 26. ALL RAFTERS AND COLLAR TIES SHALL COMPLY WITH IRC SECTION R802.3.
- 27. ALL RAFTERS SHALL HAVE 2x4 COLLAR TIES @ 4'-0" O.C. IN UPPER 1/3 OF VERTICAL DISTANCE BETWEEN CEILING AND
- 28. BLOCKING BETWEEN JOISTS UNDER A LOAD-BEARING WALL IS NOT REQUIRED
- 29. PER IRC SECTION 501.3, BOTTOM OF ALL FLOOR ASSEMBLIES ABOVE UNFINISHED AREAS SHALL BE PROVIDED WITH A ½" GYPSUM BOARD MEMBRANE OR RESIDENTIAL FIRE SPRINKLER SYSTEM WHEN FLOOR SYSTEM IS
- CONSTRUCTED OF OTHER THAN DIMENSION LUMBER OR STRUCTURAL COMPOSITE LUMBER EQUAL TO OR GREATER THAN 2x10 NOMINAL DIMENSION(WHERE REQUIRED BY ENFORCING JURISDICTION)
- 30. ENGINEERED LVL's SHALL HAVE MINIMUM PROPERTIES OF Fb = 2600 psi, E=1900 ksi, AND Fv=285 psi
   31. ENGINEERED PARALLAMS SHALL HAVE MINIMUM PROPERTIES OF Fb = 2600 psi, E = 2000 ksi, AND Fv = 290 psi
- 32. 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. ½" x 2" BOLTS SHALL 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.
- 33. WHEN MECHANICAL EQUIPMENT IS LOCATED IN AN ENCLOSED ROOM, THERE SHALL BE (2) 14"x12" VENTS LOCATED IN A WALL COMMON WITH ADDITIONAL LIVING AREA. ONE VENT SHALL BE LOCATED SUCH THAT THE BOTTOM OF THE VENT BEGINS 12" FROM THE FLOOR AND THE OTHER VENT SHALL BE LOCATED SUCH THAT THE TOP OF THE
- VENT BEGINS 12" FROM THE CEILING.

  34. ALL ROOF SHEATHING SHALL BE  $\frac{7}{16}$ " OSB WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND @ 12" O.C. IN FIELD

### **GLAZING NOTES**

- 35. 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 OPENABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 2'-0" ARC OF THE DOOR IN A CLOSED POSITION AND FOR WHICH THE BOTTOM EDGE IS WITHIN 5'-0" OF THE FLOOR, WALLS ENCLOSING STAIRWAYS AND LANDINGS WHERE THE GLAZING IS WITHIN 5'-0" OF THE TOP OR BOTTOM OF THE STAIR, ENCLOSURES FOR SPAS, TUBS, SHOWERS, AND WHIRLPOOLS, GLAZING IN FIXED OR OPENABLE PANELS EXCEEDING NINE SQUARE FEET AND FOR WHICH THE
- BOTTOM EDGE IS LESS THAN 1'-6" ABOVE THE FLOOR OR WALKING SURFACE WITHIN 3'-0"

  36. ALL OPERABLE WINDOWS SHALL HAVE FALL PROTECTION PER IRC SECTION R612.2

### ATTIC VENTILATION

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  $\frac{1}{8}$ " TO  $\frac{1}{4}$ " OPENINGS. THE TOTAL FREE VENTILATING AREA SHALL NOT BE LESS THAN  $\frac{1}{150}$  OF THE AREA OF SPACE VENTILATED, EXCEPT WHERE THE VENTILATORS ARE LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED - THE REQUIRED AREA MAY BE REDUCED TO 1/300.

### **EMERGENCY EGRESS**

- PROVIDE A MINIMUM OF ONE WINDOW FOR EACH BEDROOM THAT HAS A MINIMUM OPENABLE AREA OF 5.7 SQUARE FEET WITH A MINIMUM OPENABLE HEIGHT OF 2'-0" AND A MINIMUM WIDTH OF 1'-9". IN ADDITION, THE OPENABLE PORTION OF EGRESS WINDOWS SHALL NOT EXCEED 3'-8" ABOVE THE ADJOINING FLOOR OR PERMANENT STEP.
- 9. PROVIDE SMOKE ALARMS IN EACH SLEEPING ROOM, OUTSIDE OF EACH SLEEPING AREA AND ON EACH FLOOR, INCLUDING BASEMENT (IF APPLICABLE). ALARMS SHALL BE HARDWIRED TOGETHER SO THAT THE ACTIVATION OF ONE SMOKE ALARM WILL ACTIVATE ALL SMOKE ALARMS IN THE DWELLING. PROVIDE CARBON MONOXIDE DETECTORS OUTSIDE EACH SLEEPING AREA.

### MASONRY VENEER

- 40. MASONRY VENEER SHALL BE ANCHORED TO THE SUPPORTING WALL STUDS WITH CORROSION-RESISTANT METAL TIES EMBEDDED IN MORTAR OR GROUT AND EXTENDING INTO THE VENEER A MINIMUM OF 1½", WITH NOT LESS
- THAN %" MORTAR OR GROUT COVER TO OUTSIDE FACE.

  41. VENEER TIES, IF STRAND WIRE, SHALL NOT BE LESS IN THICKNESS THAN NO. 9 U.S. GAGE WIRE AND SHALL HAVE A HOOK EMBEDDED IN THE MORTAR JOINT, OR IF SHEET METAL, SHALL BE NOT LESS THAN NO. 22 U.S. GAGE BY %" CORRUGATED.

OPENINGS GREATER THAN 16 INCHES IN EITHER DIMENSION. METAL TIES AROUND THE PERIMETER OF OPENINGS SHALL BE SPACED NOT MORE THAN 3 FEET ON CENTER AND PLACED WITHIN 12 INCHES OF THE WALL OPENING.

42. EACH TIE SHALL SUPPORT NOT MORE THAN 2.67 SQUARE FEET OF WALL AREA AND SHALL BE SPACED NOT MORE THAN 32 INCHES ON CENTER HORIZONTALLY AND 24 INCHES ON CENTER VERTICALLY.
 43. VENEER TIES AROUND WALL OPENINGS: ADDITIONAL METAL TIES SHALL BE PROVIDED AROUND ALL WALL

### **GARAGE NOTES**

- 44. DOOR(S) BETWEEN THE GARAGE AND DWELLING SHALL BE MINIMUM 13/8" SOLID CORE OR HONEY-COMBED STEEL DOOR WITH 20-MINUTE FIRE RATING EQUIPPED WITH A SELF-CLOSING DEVICE
- 45. VEHICLE DOORS AND FRAMES SHALL BE DESIGNED AND INSTALLED TO MEET THE 115-MPH 3-SECOND GUST LOADING PER DASMA 108 AND ASTM E 330-96 PER IRC 2018

#### GARAGE NOTES (CONTINUED)

- THE GARAGE SHALL BE SEPARATED FROM THE DWELLING AND ITS ATTIC AREAS BY MINIMUM %" GYP. BOARD APPLIED TO THE GARAGE SIDE OF FRAMING. WHERE HABITABLE SPACE OCCURS ABOVE THE GARAGE, THE GARAGE CEILING ASSEMBLY SHALL BE PROTECTED WITH A MINIMUM %" TYPE X GYP. BOARD. WHERE A FLOOR/CEILING SPACE IS PROVIDED ABOVE THE GARAGE COLUMNS AND BEAMS SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED WITH %" GYP. BOARD. GARAGE DOOR H-FRAME FOR THE ATTACHMENT OF THE TRACK AND COUNTER
- 45. 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 AND SHALL BE FASTENED WITH 2½"" x 0.120" NAILS AT 7" O.C. STAGGERED WITH (7) 3¼" x 0.120" NAILS THROUGH THE JAMB INTO THE HEADER. MINIMUM 2x8 HEADER FOR ATTACHMENT OF COUNTER BALANCE SYSTEM.

#### DESIGN LOADING (PER TABLE R301.5)

USE	LIVE LOAD	DEAD LOAD
UNINHABITABLE ATTICS WITHOUT STORAGE	10	10
UNINHABITABLE ATTICS WITH LIMITED STORAGE	20	10
HABITABLE ATTICS AND ATTICS SERVED WITH FIXED STAIRS	30	10
BALCONIES (EXTERIOR) AND DECKS	40	10 <sup>d</sup>
FIRE ESCAPES	40	10
GUARDRAILS AND HANDRAILS <sup>a</sup>	200 <sup>c</sup>	-
GUARDRAIL IN-FILL COMPONENTS <sup>b</sup>	50 <sup>c</sup>	-
PASSENGER VEHICLE GARAGES	50	DEPENDENT UPON SLAB CONSTRUCTION
ROOMS OTHER THAN SLEEPING ROOM	40	10 <sup>d</sup>
SLEEPING ROOM	30	10 <sup>d</sup>
STAIRS	40	10 <sup>d</sup>

a. A single concentrated load applied in any direction at any point along the top.

b. Guard in-fill components (all those except the handrail), ballusters and panel fillers shall be designed to withstand a horizontally applied normal load of 50 pounds on an area equal to one square foot. This load need not be assumed to act concurrently with any other live load requirement.
c. Glazing used in handrail assemblies and guards shall be designed with a safety factor of 4. The safety factor shall be applied to each of the concentrated loads applied to the top of the rail, and to the load on the

infill components. These loads shall be determined independently of one another, and loads are assumed

not to occur with any other live load.

d. An additional dead loading of 10 psf shall be applied where thinset tile floor is to be installed. An additional dead loading of 50 psf shall be applied where mudset tile floor is to be installed.

#### INSULATION/EFFICIENCY

- 1. BUILDING ENVELOPE INSULATION SHALL COMPLY WITH IRC TABLE N1102.1.1 OR THE 2012 IECC (SEE SHEET S3.1 FOR FRAMING DETAILS AND TABLES ON THIS SHEET FOR MORE INFORMATION)
- CATHEDRAL -VAULTED CEILING FRAMING SHALL BE FRAMED WITH A MINIMUM INSULATION VALUE OF R-38. IF VAULTED RAFTERS DO NOT PROVIDE REQUIRED DEPTH TO ACHIEVE R-38 INSULATION BUILDER SHALL FUR DOWN RAFTERS PER DETAILS PROVIDED ON SHEET S3.1.

INSULATION AND FENESTRATION REQUIRE	
CLIMATE ZONE	4-A
FENESTRATION U-FACTOR	0.35
SKYLIGHT U-FACTOR	0.55
GLAZED FENSTRATION SHGC	0.40
CEILING R-VALUE	49
WOOD FRAME WALL R-VALUE	15
MASS WALL R-VALUE	8 / 13
FLOOR R-VALUE	19
BASEMENT WALL R-VALUE	10-CONTINUOUS OR 13-CAVITY
SLAB R-VALUE AND DEPTH	10 AT 2'-0"
CRAWL SPACE WALL R-VALUE	10-CONTINUOUS OR 13-CAVITY
DUCTWORK EXPOSED TO OUTSIDE AIR R-VALUE	8
DUCTWORK NOT EXPOSED TO OUTSIDE AIR R-VALUE	6
CATHEDRAL VAULTED CEILING R-VALUE	38

### **DUCT SEALING**

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 2018 IRC.

- 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.

  CONTINUOUSLY WELDED AND LOCKING-TYPE LONGITUDINAL JOINTS AND SEAMS IN

  DUCTS OPERATING AT STATIC PRESSURES LESS THAN 2 INCHES OF WATER COLUMN

  PRESSURE CLASSIFICATION SHALL NOT REQUIRE ADDITIONAL CLOSURE SYSTEMS.
- DUCT TIGHTNESS SHALL BE VERIFIED BY EITHER OF THE FOLLOWING:
- 1. POST-CONSTRUCTION TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. ACROSS THE ENTIRE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTER BOOTS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.
- ROUGH-IN TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. ACROSS THE 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 LEAKAGE SHALL BE LESS THAN OR EQUAL TO 3 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA.

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

MF	CHANICAL VENTILATIO	N SYSTEM FAN EFFICA	CY
FAN LOCATION	AIR FLOW RATE MINIMUM (CFM)	MINIMUM EFFICACY (CFM/WATT)	AIR FLOW RATE MAXIMUM (CFM)
RANGE HOODS	ANY	2.8	ANY
IN-LINE FAN	ANY	2.8	ANY
BATHROOM, UTILITY ROOM	10	1.4	90
BATHROOM, UTILITY ROOM	90	2.8	ANY



PEC PARK RIDGE - 6TH PI

PKR307 SPEC LOT 307, PARK RIDC

DENNIS HEIER

NUMBER

PE-2010001772

MARINE STONAL ENGINEER

3-8-200200012

NO.	DATE	REVISION	BY
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NOTES

ENGINEER: DMH CHECKED BY: DMH

JOB NO. 3207 DRAWN BY: DMH

DATE: 03-08-21
SHEET NUMBER

S<sub>1.0</sub>

#### RESIDENTIAL SEISMIC & WIND ANALYSIS

			INPUT
			CALCULATED VALUE
	DEAD LOAD (psf)	AREA (ft <sup>2</sup> )	WEIGHT (lbs.)
	10	2693	26930
	10	2693	26930
	10	827	8270
	10	2693	26930
WALL LENGTH (ft)	WALL HEIGHT (ft)	WALL UNIT WT. (psf)	WEIGHT (lbs)
166	8	8	10624
223	10	10	22300
	DEAD LOAD (psf)	AREA (ft2)	WEIGHT (lbs)
	6	827	4962
	6	2693	16158
	166	10 10 10 10 10 10 WALL LENGTH (ft) WALL HEIGHT (ft) 166 8 223 10	10   2693   10   2693   10   827   10   827   10   2693   10   2693   10   2693   10   2693   10   2693   10   10   10   10   10   10   10   1

	PROJECTED AREAS (WIND DESIGN PER 115 MPH 3-SECOND GUST, EXPOSURE C AND MEAN ROOF HEIGHT <= 30 FT ASSUMED)						
	FRONT-TO-BACK				SIDE-TO-S	IDE	
	AREA	LOAD			AREA	LOAD	
SLOPED ROOF	296	2518		SLOPED ROOF	452	3821	
VERT. ROOF	0	0	CUMULATIVE	VERT. ROOF	0	0	CUMULATIVE
2ND	411.03	5193	7711	2ND	335.97	4346	8167
1ST	590.37	7339	15051	1ST	636.13	7856	16022
	PRESSURE (P		PRESSURE (PSI	F) - PER ASCE CH. 6			
	SLOPED ROOF	ZONE B		9.7	ZONE C	11.3	2a (FIG. 28.6-1, ASCE7)
	WALL/VERT. ROOF	ZONE A		14.2	ZONE D	7.7	10.734
	MEAN ROOF HT., h		24.5				

a) If there is a walkout wall to be sheathed, determine tributary wind area and enter here. If no walkout, enter 0 for area. q<sub>z10\_ASD</sub>=0.6q<sub>z10</sub> (Design Velocity Pressure for ASD analysis under ASCE7-10 and IRC/IBC 2012)  $q_{z10}$ =0.00256 $K_z K_{zt} K_d V^2$  (ASCE7-10 Velocity Pressure)

2ND FLOOR TRIBUTARY WEIGHT 1ST FLOOR TRIBUTARY WEIGHT 59172 88866 S<sub>S</sub> (SITE GROUND MOTION - %g - FROM ASCE7 SEISMIC MAP) 12.0% F<sub>a</sub> (from ASCE7 Table 11.4-1) 1.6  $S_{DS}$  (= 2/3 \*  $S_{S}$  \*  $F_{a}$ ) 0.128 R (from ASCE7 Table 12.2-1) 6.5

	SEISMIC SHEAR	
LOCATION	From ASCE7 (Eq. 12.8-1)	
2ND FLOOR		1398
1ST FLOOR		2100

Sheathing Location	Min. Sheathing Schedule	Fastening Schedule	Allowable Shear (#/LF)	Code Reference
Exterior (Option #1)	7/16" APA Rated Plywcod/OSB	1-1/2" 16ga. Staples w/ 1" penetration@ 6" OC Edges, 6" OC Field For 24" stud spacing, 12" OC Field For 16" stud spacing	155	per IBC, Table 2306.3(1)
Exterior (Option #2)	7/16" APA Rated Plywcod/OSB	1-1/2" 16ga. Staples w/ 1" penetration@ 4" OC Edges, 6" OC Field For 24" stud spacing, 12" OC Field For 16" stud spacing	230	per (BC, Table 2306.3(1)
Exterior (Option #3)	7/16" APA Rated Plywcod/OSB	1-1/2" 16ga. Staples w/ 1" penetration@ 3" OC Edges, 6" OC Field For 24" stud spacing, 12" OC Field For 16" stud spacing	310	per IBC, Table 2306.3(1)
Exterior <u>(Option #4)</u>	7/16" APA Rated Plywood/OSB or shiplap panel sheathing, or 3/8" shiplap panel sheathing with tighter nail spacing	8d Common Nails w/ 1-3/8" penetration @ 6" O.C. Edges, 12" O.C. Field for 7/16" APA-rated plywood/OSB or shiplap panel sheathing OR @ 4" O.C. Edges, 12" O.C. Field for 3/8" shiplap panel sheathing	220	AF&PA SDPWS Table 4.3A
Exterior (Option #5)	7/16" APA Rated Plywood/OSB or shiplap panel sheathing, or 3/8" shiplap panel sheathing with tighter nail spacing	8d Common Nails w/ 1-3/8" penetration @ 4" O.C. Edges, 12" O.C. Field for 7/16" APA-rated plywood/OSB or shiplap panel sheathing OR @ 3" O.C. Edges, 12" O.C. Field for 3/8" shiplap panel sheathing	320	AF&PA SDPW: Table 4.3A
Exterior <u>(Option #6)</u>	7/16" APA Rated Plywood/OSB or shiplap panel sheathing, or 3/8" shiplap panel sheathing with tighter nail spacing and double studs at each panel edge	8d Common Nails w/ 1-3/8" penetration @ 3" O.C. Edges, 12" O.C. Field	410	AF&PA SDPWS Table 4.3A
Interior	1/2" Gypsum Board	No. 6- 1 <sup>1</sup> / <sub>4</sub> " Type W or S Screws @ 8" O.C. Edges, 12" O.C. Field	60	per IBC, Table 2306.4.4
Interior	16 Ga. Simpson/USP Type WB Steel X-Brace (or equal)	(3) 16d @ end studs & (1) 8d @ intermediate studs (per manufacturer specifications - see detail on sheet S3)	325	

EXTERIOR SHEATHING OPTION FOR SECOND FLOOR	4
EXTERIOR SHEATHING OPTION FOR FIRST FLOOR	5

EXTERIOR SHEATHING OPTION FOR BASEMENT WALLS

WIDTH OF 1ST STORY (FT.)	53.67	WIDTH OF 2ND STORY (FT.)	45.67
DEPTH OF 1ST STORY (FT.)	57.83	DEPTH OF 2ND STORY (FT.)	37.33
BACK WALL OF GARAGE (FT.)	0		
GAR. WALL: 1=F-B, 2=S-S	2		

	EXTERIOR STRUCTURAL WALL LENGTHS (ft.) & RESISTANCES							
·	SEISMIC			WIND				
	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)
2ND FLOOR	42	11760	46	12880	42	16464	46	18032
1ST FLOOR	87	33060	30.5	11590	87	46284	30.5	16226

1ST FLOOR	87	33060	30.5	11590	87	46284	30.5	16226
-				_				
		ADDITIONAL RESIS	STANCE REQUIRED	]	Anchor Bolt Spacing	(in.)	16d Nail Spacing req'd at	oottom plate (in.)
		SEISMIC	WIND	]	diameter (in.)	0.5	2nd Floor F-B	
2ND FLOOR FRONT-	TO-BACK	0	0		Shear value (per NDS)	944	2nd Floor S-S	
2ND FLOOR SIDE-TO	D-SIDE	0	0		Spacing F-B (inches)	139.3	1st Floor F-B	
1ST FLOOR FRONT-	TO-BACK	0	0		spacing S-S (inches)	121.4	1st Floor S-S	
1ST FLOOR SIDE-TO	)-SIDE	0	0	1				

	RESISTANCE REQUIRED IN ADDITION TO RESISTANCE PROVIDED BY EXTERIOR WALLS**						
		PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE	INTERIOR X-BRACES (325#/BRACE)	INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.)	INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.)	RESISTANCE PROVIDED BY ADDITIONAL METHODS (POUNDS)	OK?
2ND FLOOR FRONT-TO-BACK	0					0	YES
2ND FLOOR SIDE-TO-SIDE	0					0	YES
1ST FLOOR FRONT-TO-BACK	0					0	YES
1ST FLOOR SIDE-TO-SIDE	0					0	YES

\*\*NOTES: 1) SEE ATTACHED CALCULATIONS FOR PORTAL FRAME OR PERFORATED SHEAR WALL RESISTANCE CAPACITIES (IF APPLICABLE),
2) SEE SHEET S1 FOR INTERIOR STEEL X-BRACE INSTALLATION, 3) INTERIOR WALLS SHEATHED WITH OSB SHALL BE ATTACHED WITH SAME STAPLE/NAILING

PATTERN AS EXTERIOR OSB ON SAME FLOOR (SEE TABLE ABOVE) AND ARE ONLY APPLICABLE FOR FULL-HEIGHT SECTIONS OF 2'-8" OR LONGER

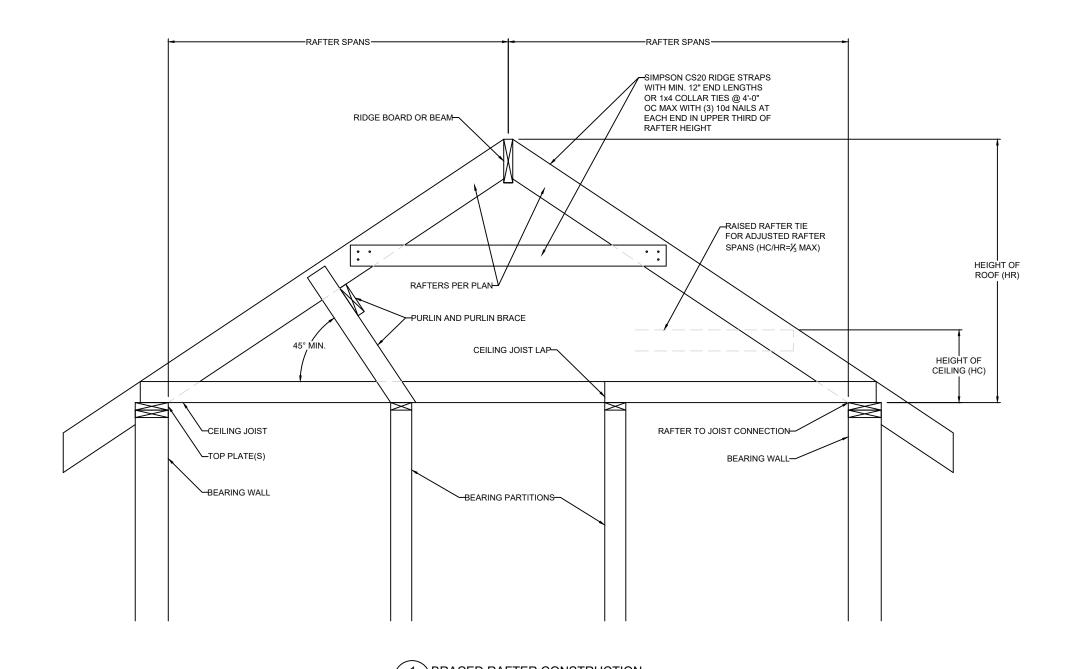
ALL LATERAL PRACING ACHIEVED AT EXTERIOR WALLS AND WALLS DIRECTLY ON FOLINDATIONS: THEREFORE NO INTERIOR BRACING PER 2012 IRC SECTION R502.2.1 IS REQUIRED

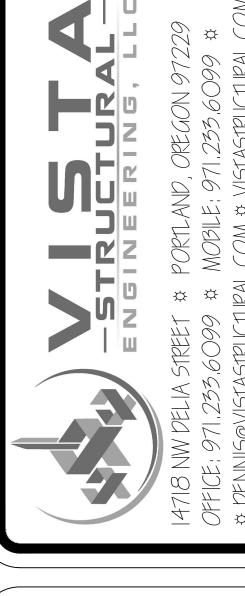
ALL LATERAL BRACI	LL LATERAL BRACING ACHIEVED AT EXTERIOR WALLS AND WALLS DIRECTLY ON FOUNDATIONS; THEREFORE, NO INTERIOR BRACING PER 2012 IRC SECTION R502.2.1 IS REQUIRED							
	WIND UPLIFT ANALYSIS							
	X/12	DEGREES						
ROOF PITCH (MAX)	10	39.8	PITCH OF 6 OR LESS:	EOH -13.3, E -7.2, G -5.2				
		ASCE 7						
	LENGTH (FT.)	PRESSURE (PSF)	LINEAL FT. OF OH	UPLIFT PER FT* (LBS)				
OVERHANG	1	-1.08	225	-1.08				
	TOTAL AREA (FT <sup>2</sup> )	ZONE E AREA (FT <sup>2</sup> )	ZONE G AREA (FT <sup>2</sup> )	PRESSURE ZN. E (PSF)	PRESSURE ZN. G (PSF)	TOTAL FORCE (LBS)	FORCE PER LINEAL FT @ PERIMETER (LBS)	
MAIN ROOF**	3103.7361	1320.968976	1782.767124	-1.08	-0.36	-2068	-9.3	
*ALONG PERIMETER	*ALONG PERIMETER TOTAL UPLIFT PER LINEAL FOOT ALONG EXTERIOR (POUNDS)				-10.4	UPLIFT OK		
**INSIDE EXTERIOR V	VALLS	RESISTANCE DUE TO DEAD	WEIGHT & (3) 10d TOENAILS		251.6			

NOTE FOR CONSTRUCTION:
THE CONTINUOUS STRUCTURAL PANEL SHEATHING BRACING METHOD REQUIRES USE OF THE ABOVE TABLE FOR SHEATHING OF THE ENTIRE STRUCTURE. IN ADDITION, FRAMING MEMBERS SHALL BE @ 16" O.C. MAX., UNBLOCKED, AND W/ SHEATHING APPLIED DIRECTLY TO FRAMING MEMBERS

NOTE FOR DESIGN:
ALL WALLS USED IN THE CALCULATION OF THE RESISTANCE FOR THIS STRUCTURE SHALL HAVE A MINIMUM UNINTERRUPTED HEIGHT OF 8'-0" AND LENGTH OF 2'-8". ALLOWABLE RESISTANCES HAVE BEEN #/FT AND INCREASED BY 40% FOR WIND LOADS, PER VALUES IN 2012 IBC SECTION 2306 AND AF&PA SDPWS TABLE 4.3A. FOR EXAMPLE, 7/16" APA-RATED SHEATHING WITH 8d @ 6" & 12" HAS A SEISMIC SHEAR VALUE OF 240 A WIND SHEAR VALUE OF 335#/FT - 40% GREATER THAN THAT OF SEISMIC)

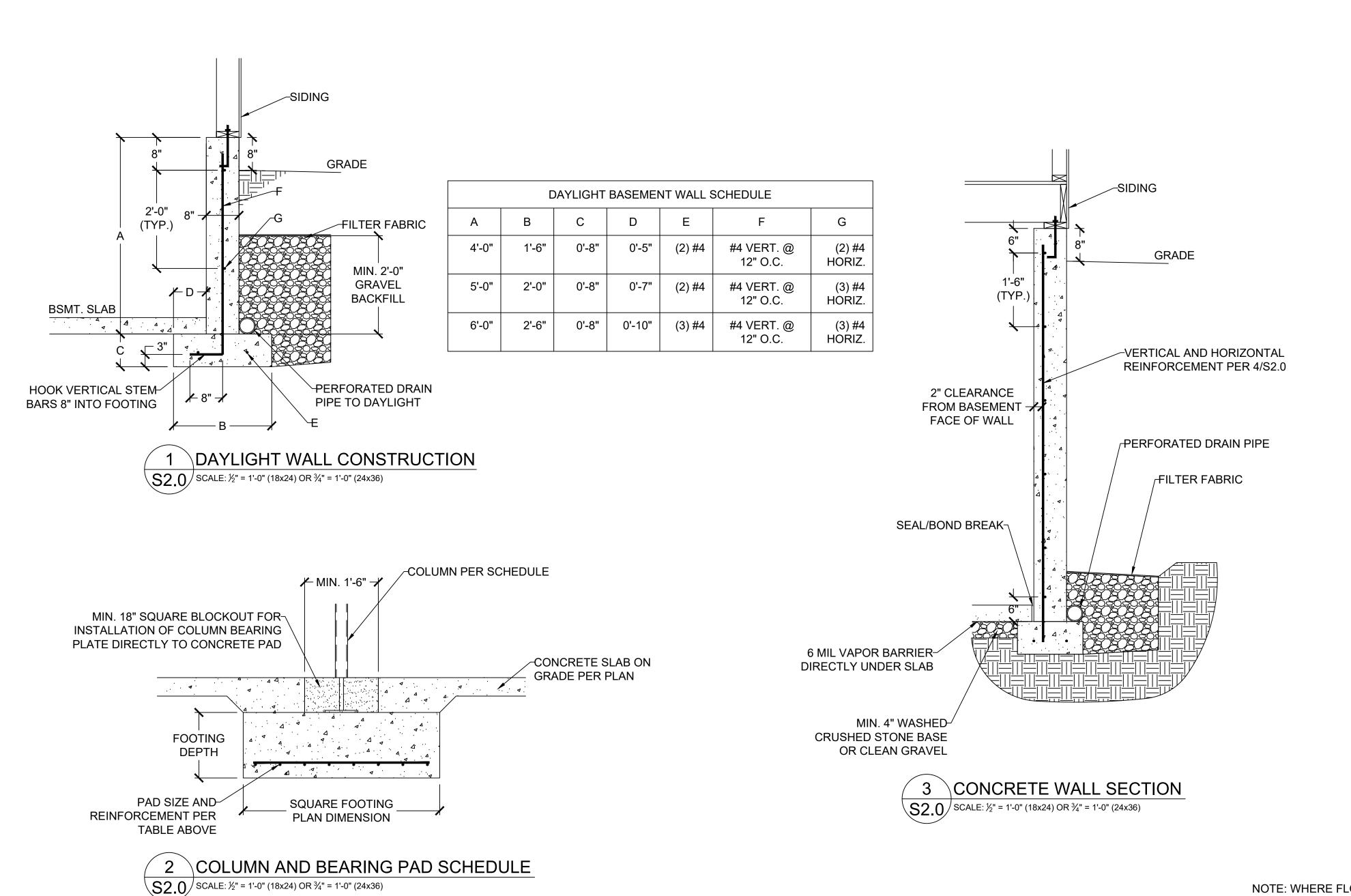
NOTE: SOIL SITE CLASS ASSUMED TO BE CLASS D. IF SITE CONDITIONS ARE DETERMINED TO BE CLASS E OR F, CONSULT ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION





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/MIN. (2) #4 BARS EXTENDING 24"

PAST OVER-EXCAVATION AND INTO INTERSECTING WALL

-CONTINUOUS FOOTING

AND REBAR THROUGH

6'-0" MAX.

SOLID JUMP

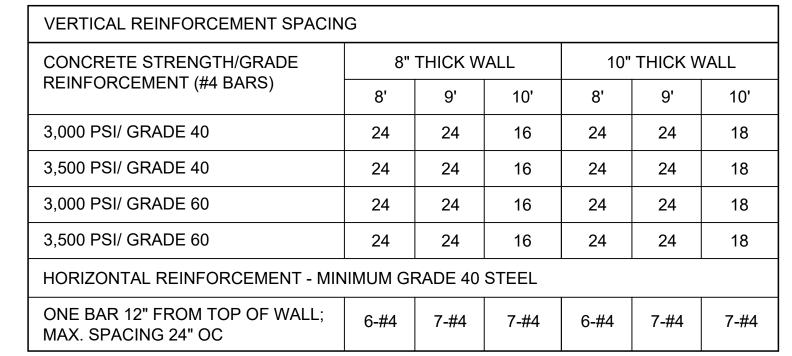
MAX. 12" BLOCKOUT FOR

FORM PLACEMENT AND

TO EXTEND DRAIN TILE

5 SOLID JUMP

S2.0 SCALE:  $\frac{1}{2}$ " = 1'-0" (18x24) OR  $\frac{3}{4}$ " = 1'-0" (24x36)

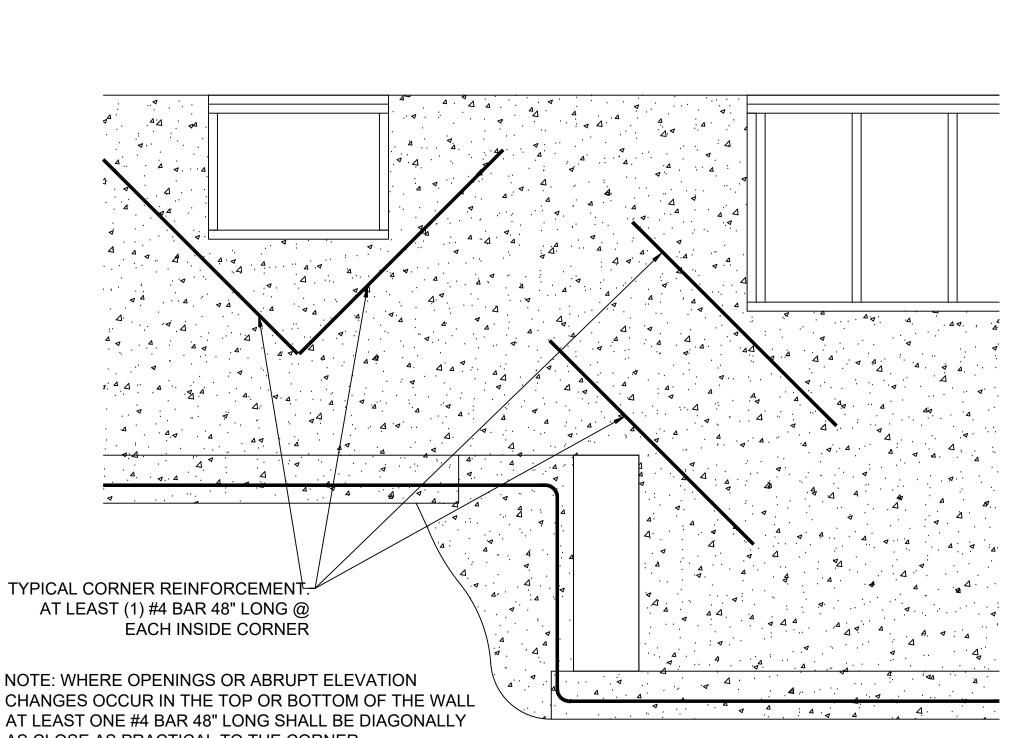


#### FOOTNOTES:

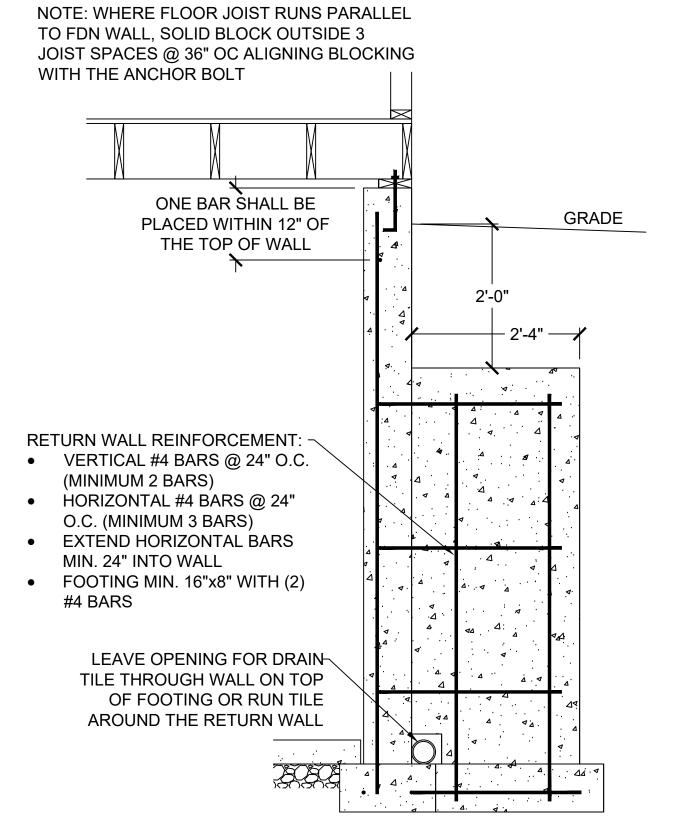
1) WALL HEIGHT IS MEASURED FROM THE TOP OF THE WALL TO THE TOP OF THE FLOOR SLAB 2) VERTICAL REINFORCEMENT FOR CONCRETE WALLS THAT ARE NOT FULL HEIGHT, AND FOR REINFORCEMENT SPACING 24" OC, REINFORCEMENT MAY BE PLACED IN THE MIDDLE OF THE WALL. OTHER WALLS SHALL HAVE VERTICAL REINFORCEMENT AS FOLLOWS:

- A) 8" WALL MINIMUM 5" FROM THE OUTSIDE FACE
- B) 10" WALL MINIMUM 63/4" FROM THE OUTSIDE FACE C) EXTEND BARS TO WITHIN 8" OF THE TOP OF THE WALL
- 3) REINFORCEMENT CLEARANCES:
- A) CONCRETE EXPOSED TO EARTH MINIMUM 11/2" B) NOT EXPOSED TO WEATHER (INTERIOR SIDE OF WALLS) -3/4"
- C) CONCRETE EXPOSED TO WEATHER (TOP CLEARANCE IN GARAGE AND DRIVEWAY
- SLABS) 1½"
- 4) HORIZONTAL REINFORCEMENT: A) ONE BAR SHALL BE PLACED WITHIN 12" OF THE TOP OF THE WALL
  - B) OTHER BARS SHALL BE EQUALLY SPACED WITH SPACING NOT TO EXCEED 24" OC C) HORIZONTAL BARS SHOULD BE AS CLOSE TO THE TENSION FACE AS POSSIBLE
  - (INTERIOR) AND BEHIND THE VERTICAL REINFORCEMENT (I.E. 2" TOWARD THE
- D) SUPPLEMENTAL REINFORCEMENT AT CORNERS PLACE (1) #4 BAR 48" LONG AT 45 DEGREE ANGLE AT CORNERS OF OPENINGS. PLACE REINFORCEMENT WITHIN 6" OF THE EDGE OF INSIDE CORNERS.
- 5) REINFORCEMENT SHALL BE LAPPED A MINIMUM 24" AT ENDS, SPLICES, AND AROUND CORNERS.
- 6) AT MASONRY LEDGES THE MINIMUM WALL THICKNESS SHALL BE 3½". LEDGES SHALL NOT EXCEED A DEPTH OF MORE THAN 24" BELOW THE TOP OF THE WALL. FOR WALL THICKNESSES LESS THAN 4" PROVIDE #4 BARS AT MAX. 24" OC TO WITHIN 8" OF THE TOP
- 7) STRAIGHT WALLS MORE THAN 5' 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
- WALL SHALL NOT BE BACKFILLED UNTIL FLOOR SYSTEM AND DIAPHRAGM ARE IN PLACE

4 \FOUNDATION WALL REINFORCEMENT TABLE S2.0 NO SCALE

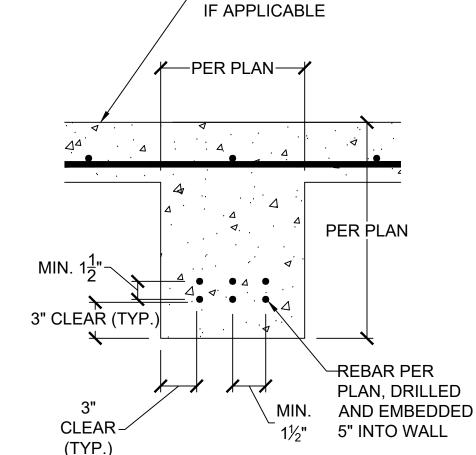


AS CLOSE AS PRACTICAL TO THE CORNER 6 REINFORCEMENT AT OPENING CORNERS S2.0/AND STEP CORNERS @ INSIDE CORNERS SCALE:  $\frac{1}{2}$ " = 1'-0" (18x24) OR  $\frac{3}{4}$ " = 1'-0" (24x36)



RETURN WALL DETAIL

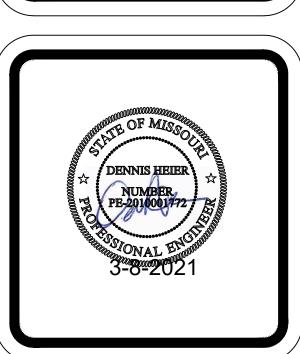
S2.0 SCALE:  $\frac{1}{2}$ " = 1'-0" (18x24) OR  $\frac{3}{4}$ " = 1'-0" (24x36)

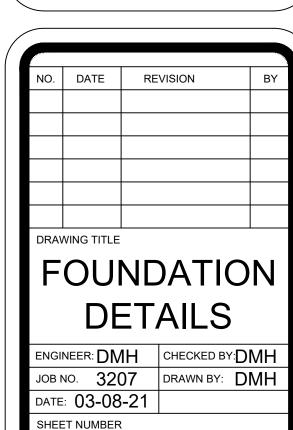


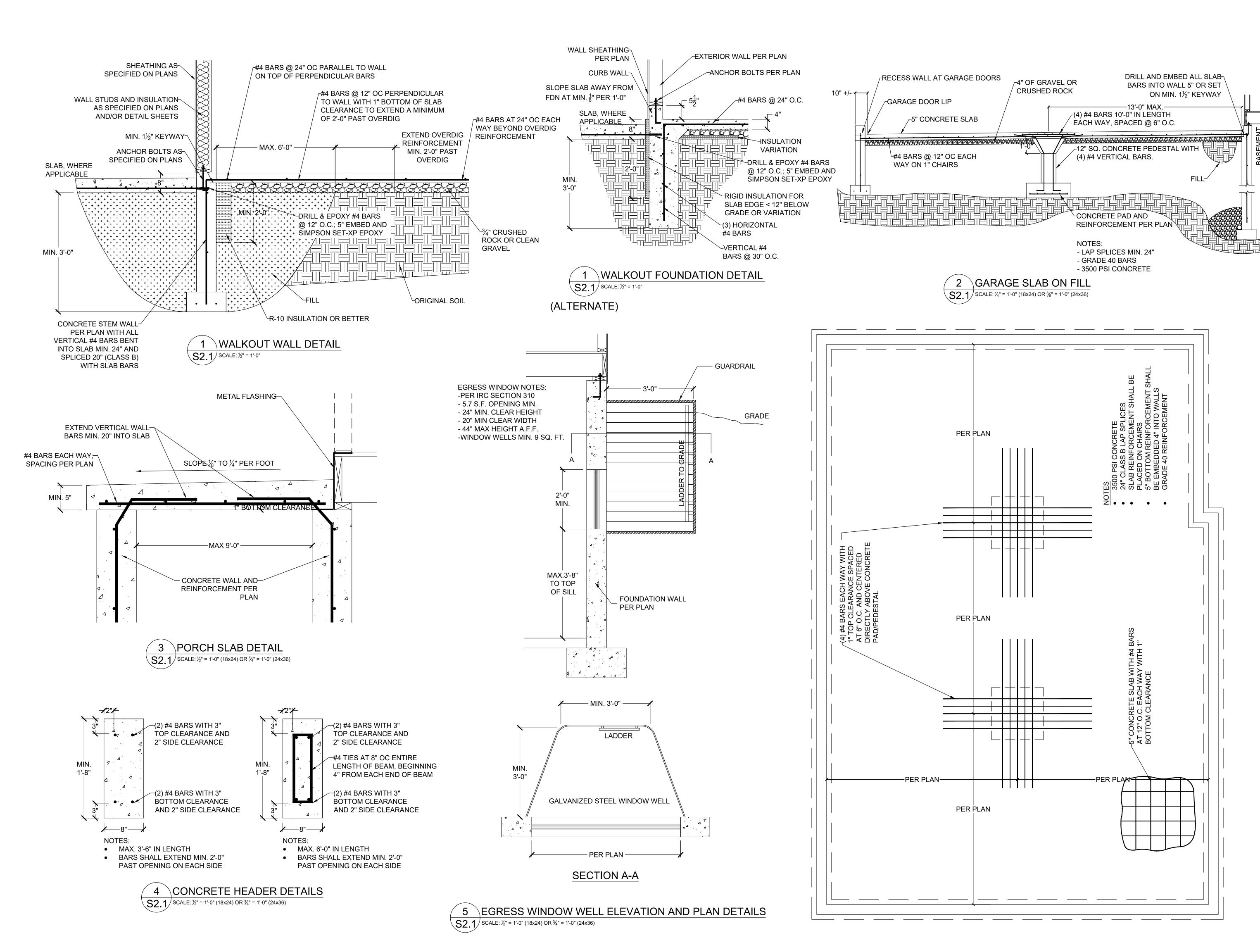
-SLAB PER PLAN,

CONCRETE GRADE BEAM S2.0 SCALE: 1" = 1'-0" (18x24) OR  $1\frac{1}{2}$ " = 1'-0" (24x36)





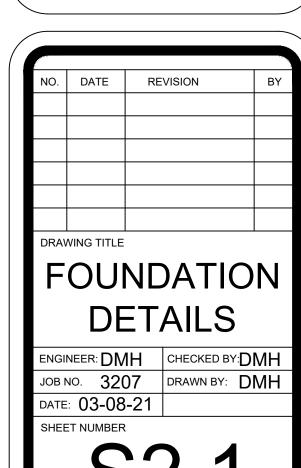


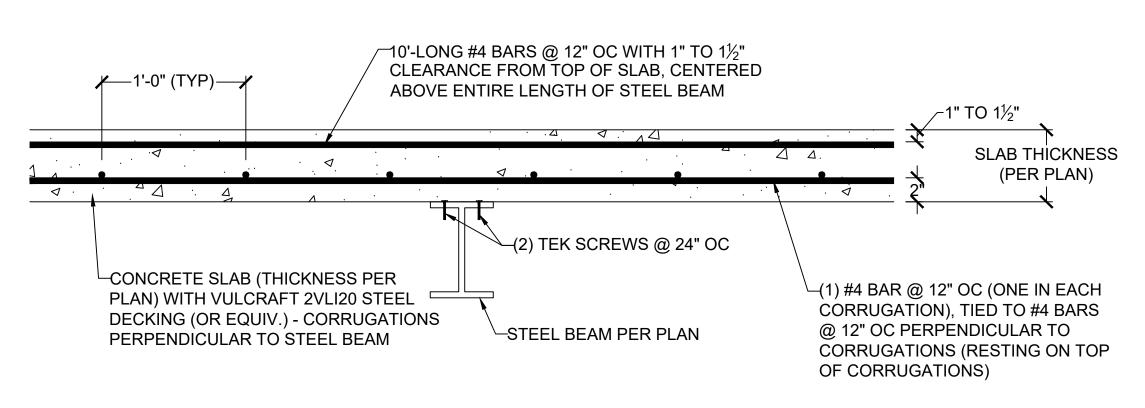




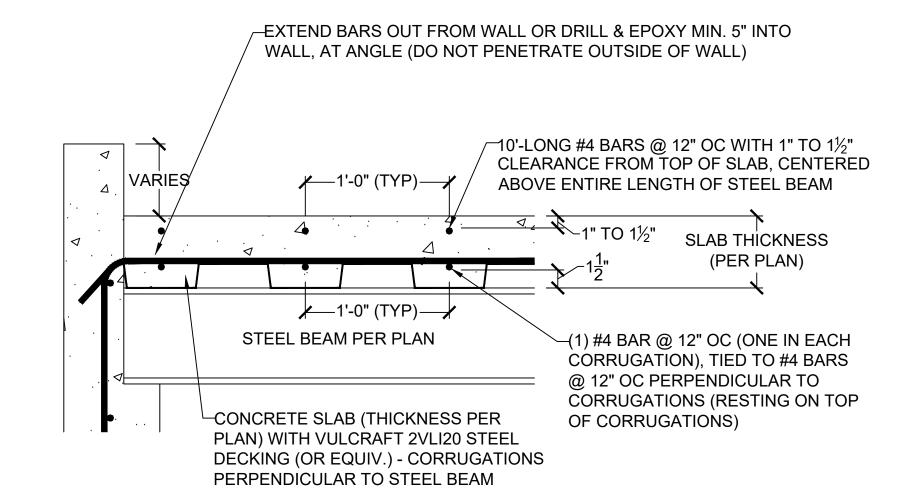
:NT: WALKER CUSTOM HOMES, LLC



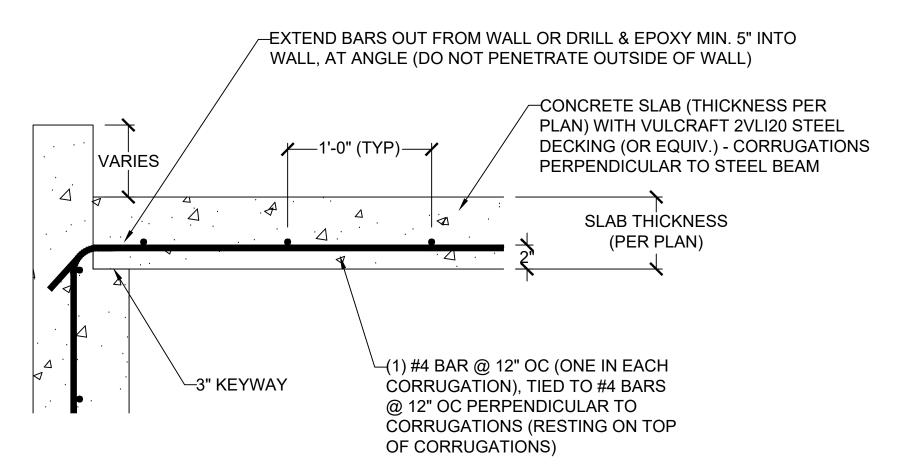




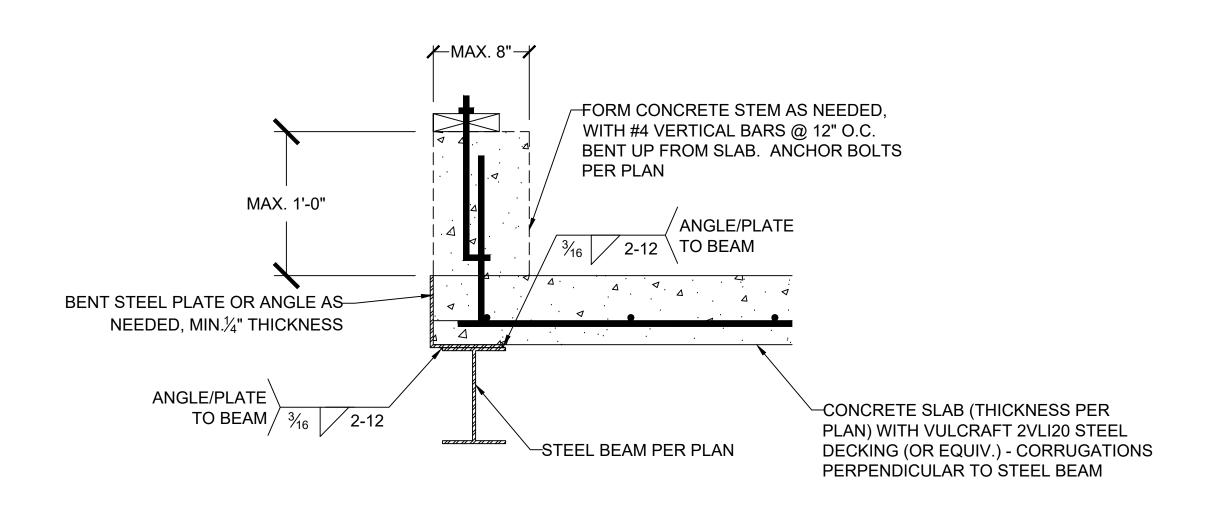
# 1 SUSPENDED SLAB CROSS SECTION AT STEEL BEAM S2.2 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)



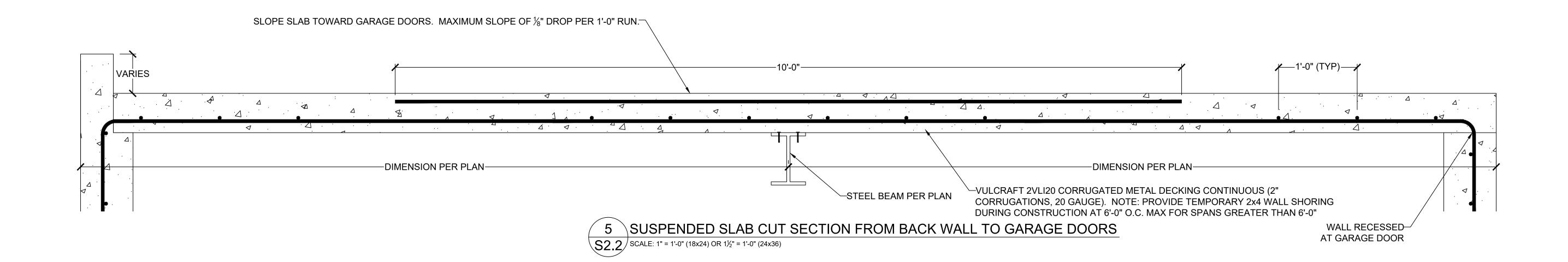
# 3 SUSPENDED SLAB CROSS SECTION AT STEEL BEAM/WALL S2.2 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)



# 2 SUSPENDED SLAB CROSS SECTION AT WALL S2.2 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)



# 4 SUSPENDED SLAB CROSS SECTION AT POUR STOP SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

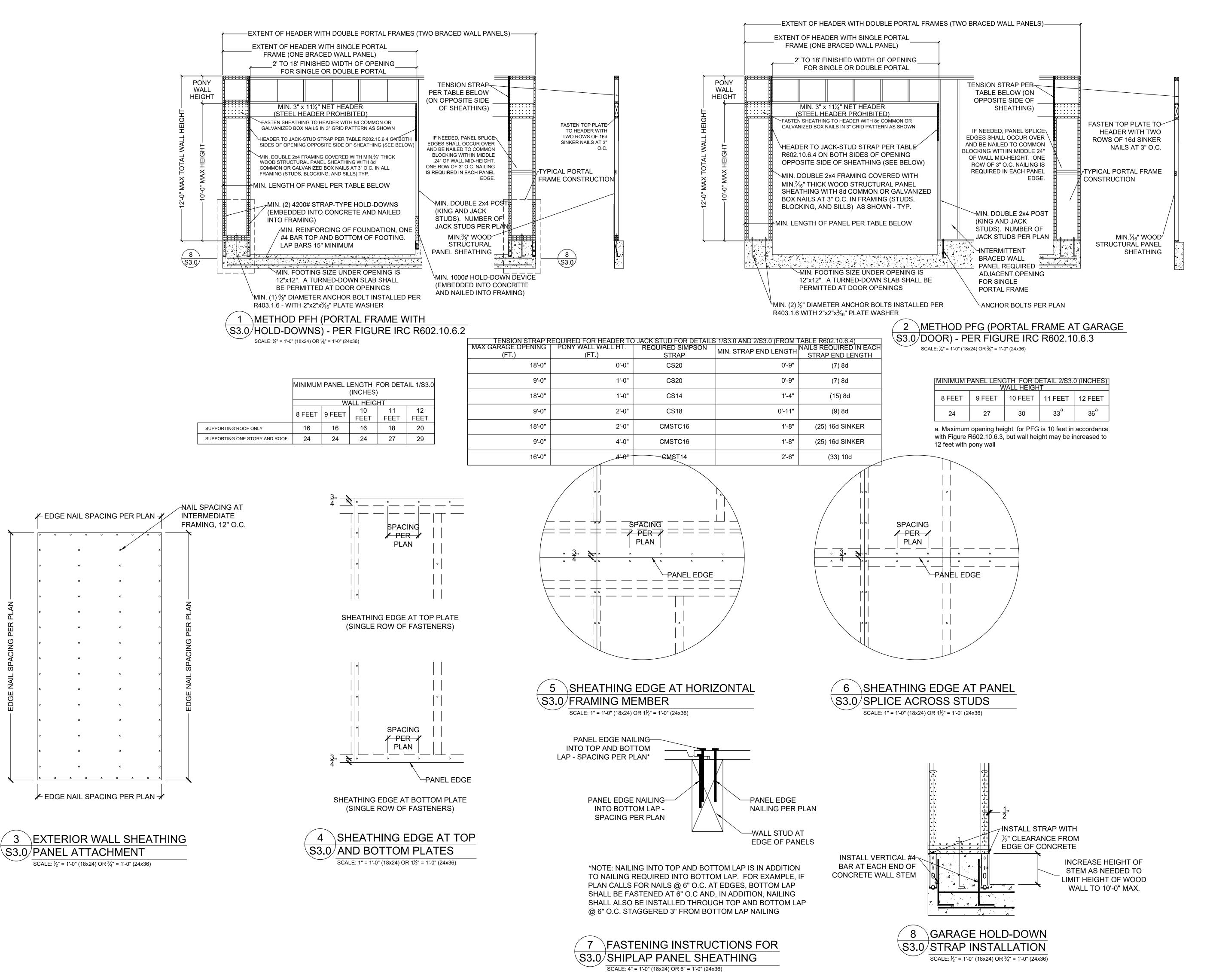




JOB TITLE: PKR307 SPEC
LOT 307, PARK RIDGE - 6TH PL



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PE-2010001772

PENDING THE PE-2010001772

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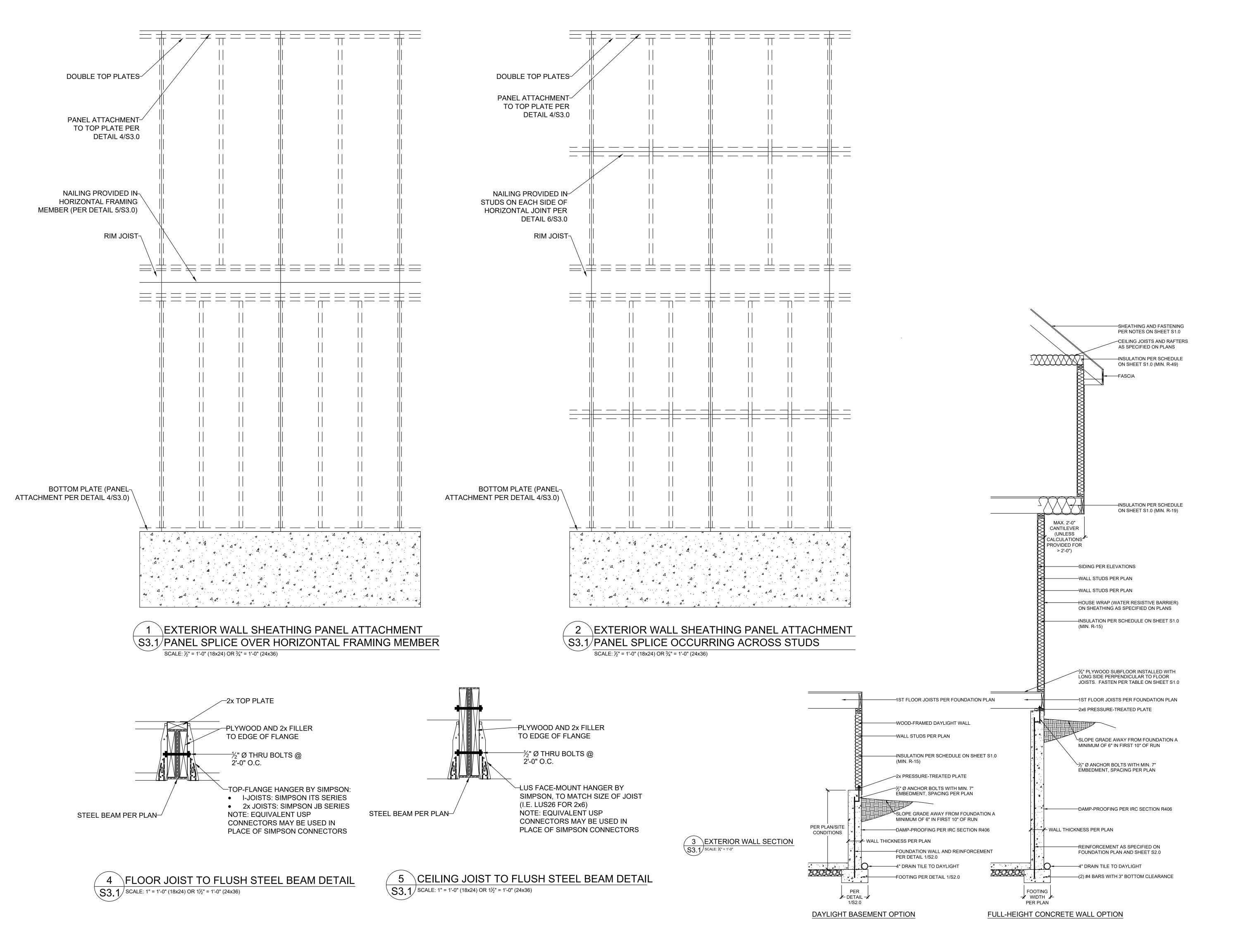
DETAILS

ENGINEER: DMH

JOB NO. 3207

DATE: 03-08-21

SHEET NUMBER





CLIENT: WALKER CUSTOM HOMES, LLC

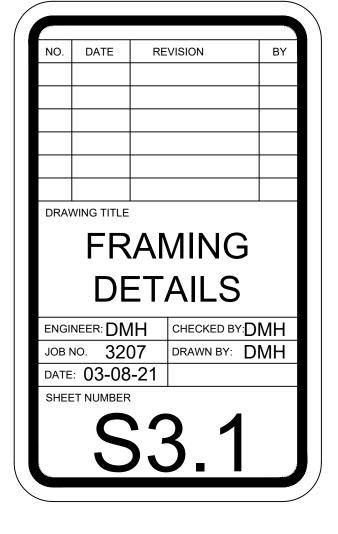
DENNIS HEIER

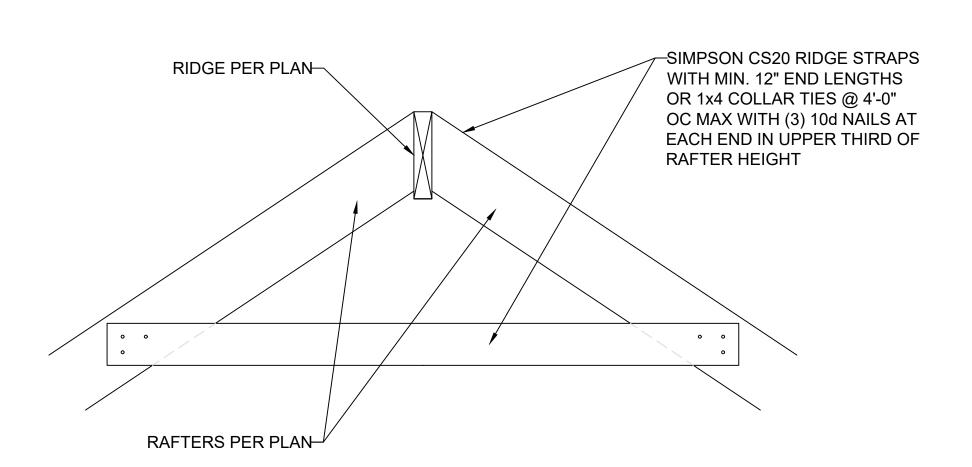
NUMBER

PE-2010001772

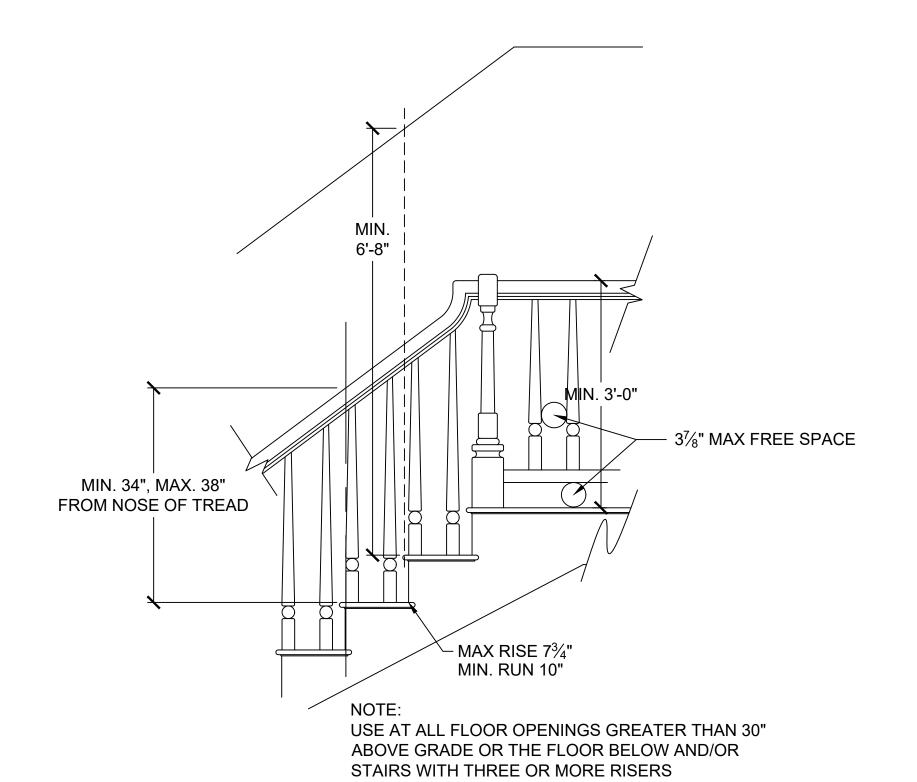
MARINE STONAL ENGINEER

3-8-2002000121

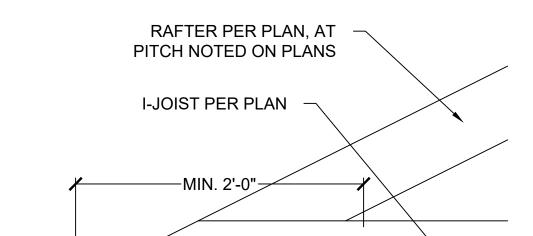




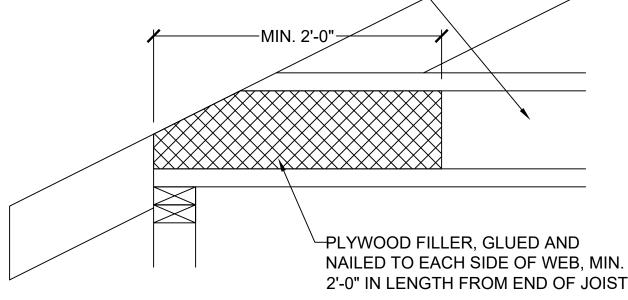
### RIDGE FRAMING DETAIL S3.2 SCALE: 1" = 1'-0" (18x24) OR $1\frac{1}{2}$ " = 1'-0" (24x36)



4 \STAIR AND HANDRAIL/GUARDRAIL DETAIL

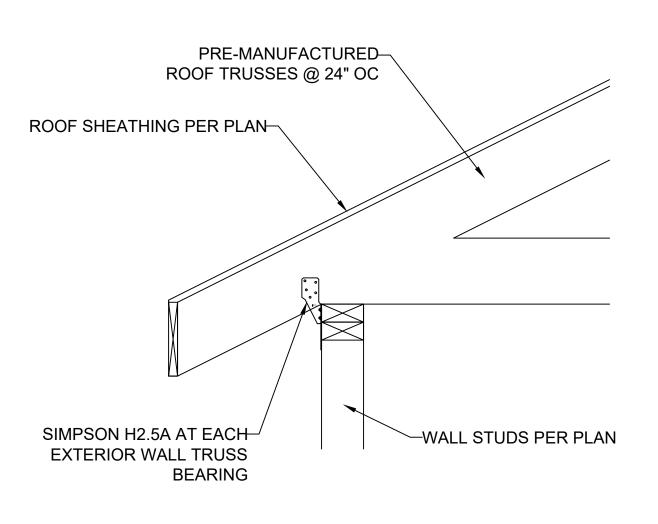


SCALE:  $\frac{1}{2}$ " = 1'-0" (18x24) OR  $\frac{3}{4}$ " = 1'-0" (24x36)

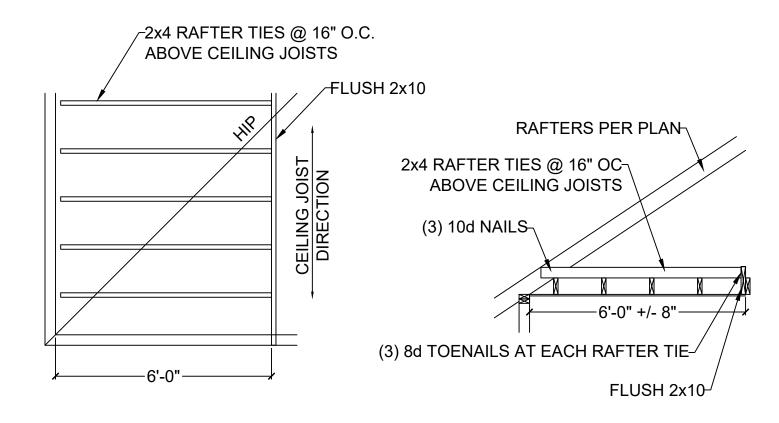


9 \COPED I-JOIST REINFORCEMENT

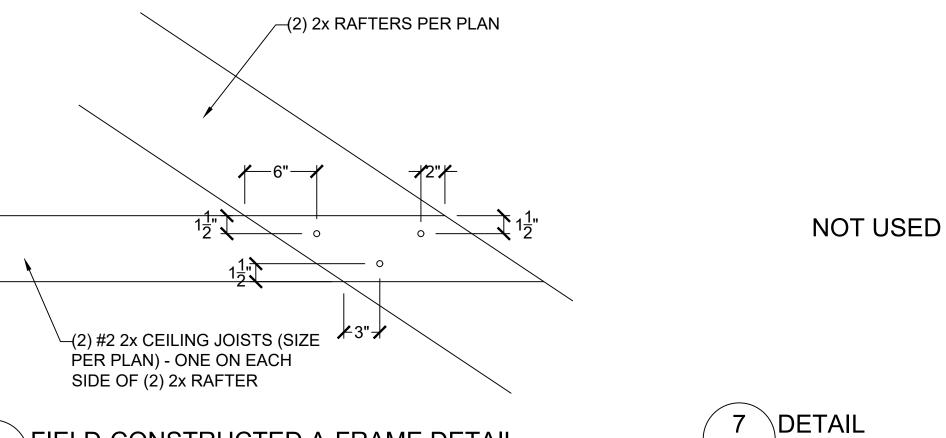
S3.2 | SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)



### TRUSS CONNECTION TO EXT. WALL BEARING SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

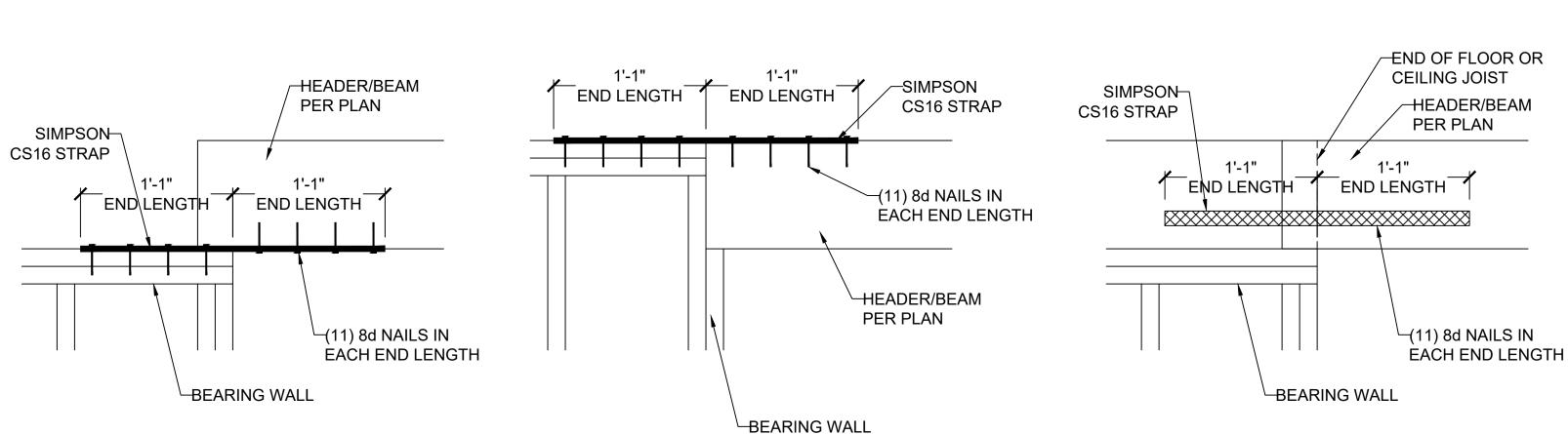


### 5 RAFTER TIES AT CEILING JOISTS PERP. TO RAFTERS SCALE: $\frac{1}{4}$ " = 1'-0" (18x24) OR $\frac{3}{6}$ " = 1'-0" (24x36)

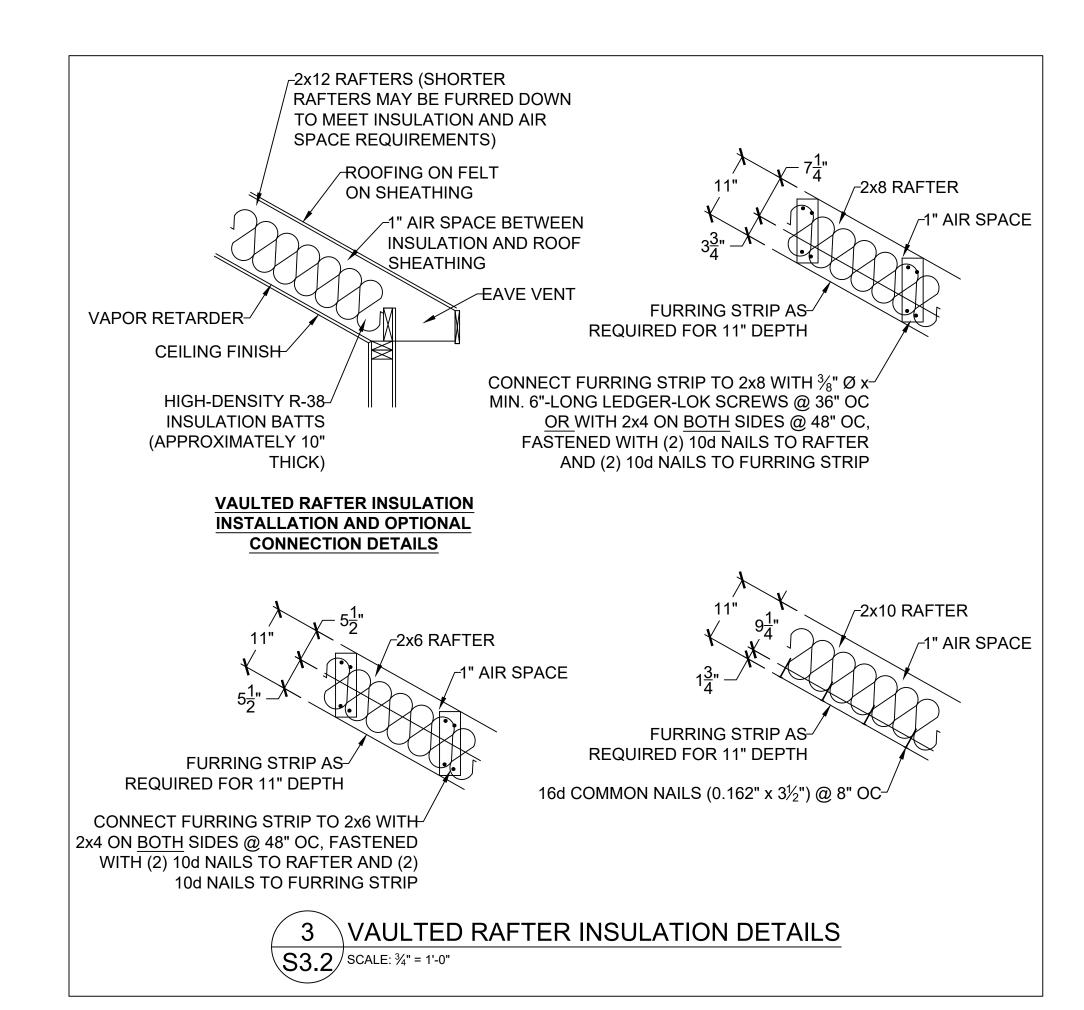


6 \FIELD-CONSTRUCTED A-FRAME DETAIL S3.2 SCALE: 1" = 1'-0" (18x24) OR  $1\frac{1}{2}$ " = 1'-0" (24x36)

S3.2 SCALE: 1" = 1'-0" (18x24) OR  $1\frac{1}{2}$ " = 1'-0" (24x36)



10 \HEADER/BEAM CONNECTION OPTIONS AT OUTDOOR/OPEN SPACE SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

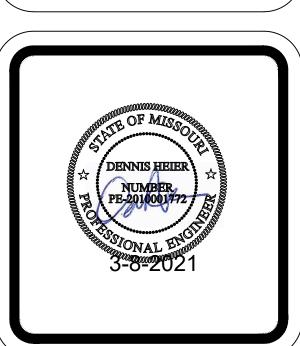


HEIGHT (FT.)		SPACING (I	INCHES O.C	.)
	24	16	12	8
	SUPPORT	ING A ROOF	ONLY	
10 OR LESS	2x4	2x4	2x4	2x4
12	2x6	2x4	2x4	2x4
14	2x6	2x6	2x6	2x4
16	2x6	2x6	2x6	2x4
18	DR	2x6	2x6	2x6
20	DR	DR	2x6	2x6
SUPF	PORTING O	NE FLOOR	AND A ROOI	=
10 OR LESS	2x6	2x4	2x4	2x4
12	2x6	2x6	2x6	2x4
14	2x6	2x6	2x6	2x6
16	DR	2x6	2x6	2x6
18	DR	2x6	2x6	2x6
20	DR	DR	2x6	2x6
SUPP	ORTING TV	VO FLOORS	AND A ROC	)F
10 OR LESS	2x6	2x6	2x4	2x4
12	2x6	2x6	2x6	2x6
14	2x6	2x6	2x6	2x6
16	DR	2x6	2x6	2x6
18	DR	DR	2x6	2x6
20	DR	DR	DR	2x6

1) DR = DESIGN REQUIRED 2) UTILITY, STANDARD, STUD AND #3 GRADE LUMBER OF ANY SPECIES ARE NOT PERMITTED 3) THIS TABLE DOES NOT APPLY FOR STUDS SUPPORTING MEMBERS WITH A TRIB. LENGTH GREATER THAN 6'-0"

8 MAXIMUM ALLOWABLE LENGTH OF  $\S3.2/WOOD$  WALL STUDS (IRC TABLE 602.3.1)

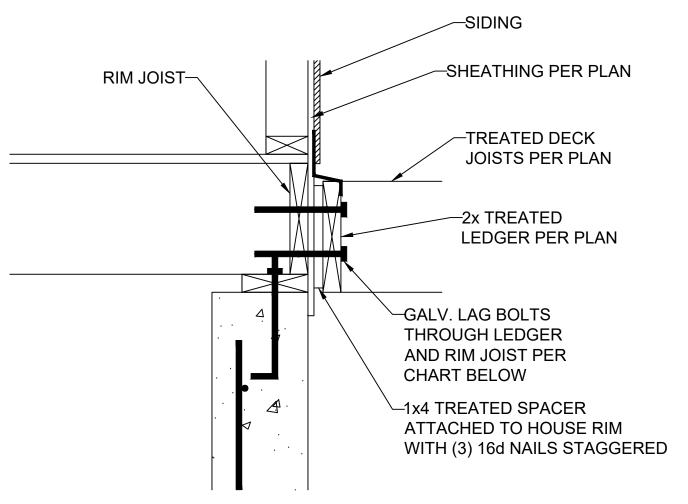




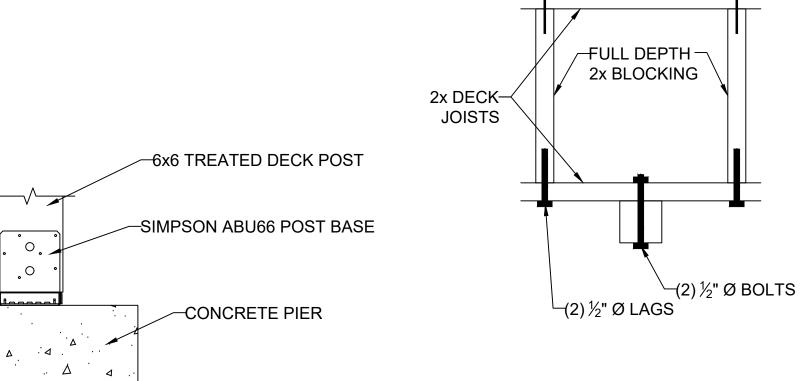
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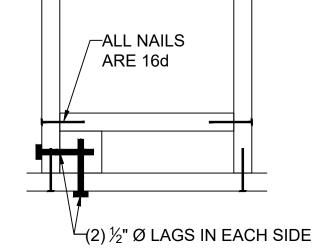
JOB NO. 3207 DRAWN BY: DMH DATE: 03-08-21

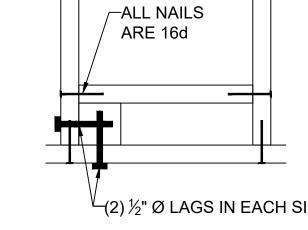
SHEET NUMBER



#### RIM JOIST-SIMPSON LS90 GUSSET ANGLES, NAILED TO BOTH-SIDES OF DOUBLED JOISTS W/ (12) N10 NAILS -SIDING FLOOR JOISTS PER PLAN. IF JOISTS ARE-SHEATHING PER PLAN NOT DOUBLED, INSTALL ADDITIONAL PLY TO EACH JOIST, MIN. 6'-0" IN LENGTH TREATED DECK JOISTS PER PLAN (MAX. SPAN = 16'-0") —2x TREATED LEDGER PER PLAN FASTEN DECK JOISTS TO LEDGER WITH SIMPSON LUS210 HANGERS GALV. LAG BOLTS \_CANTILEVER LENGTH\_ THROUGH LEDGER AND RIM PER PLAN JOIST PER CHART BELOW SIMPSON H2.5A AT EACH-**CANTILEVERED JOIST** -1x4 TREATED SPACER WHICH SUPPORTS DECK ATTACHED TO HOUSE RIM WITH (3) 16d NAILS STAGGERED





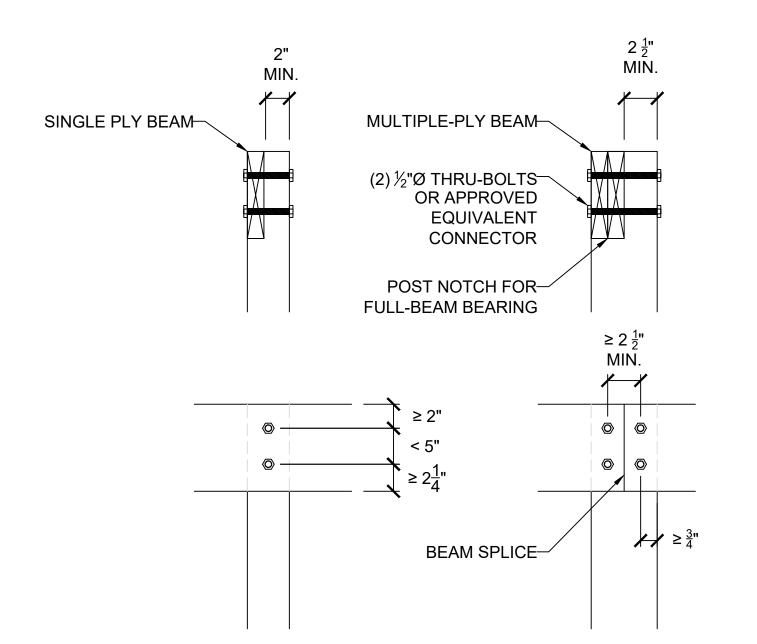




#### DECK LEDGER ATTACHMENT GUIDE

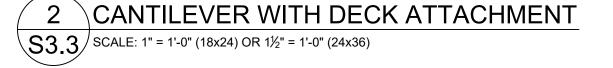
	CK JOIST SPAN	$1\!\!\!/_2$ " Ø GALV. LAG OR $3\!\!\!/_8$ " Ø LEDGER-LOK SPACING
10'-0	" OR LESS	16" OC
10'-0	)" - 13'-11"	12" OC OR @ 16" OC DOUBLED EVERY OTHER
14'-	0" - 18'-0"	8" OC OR @ 16" OC DOUBLED

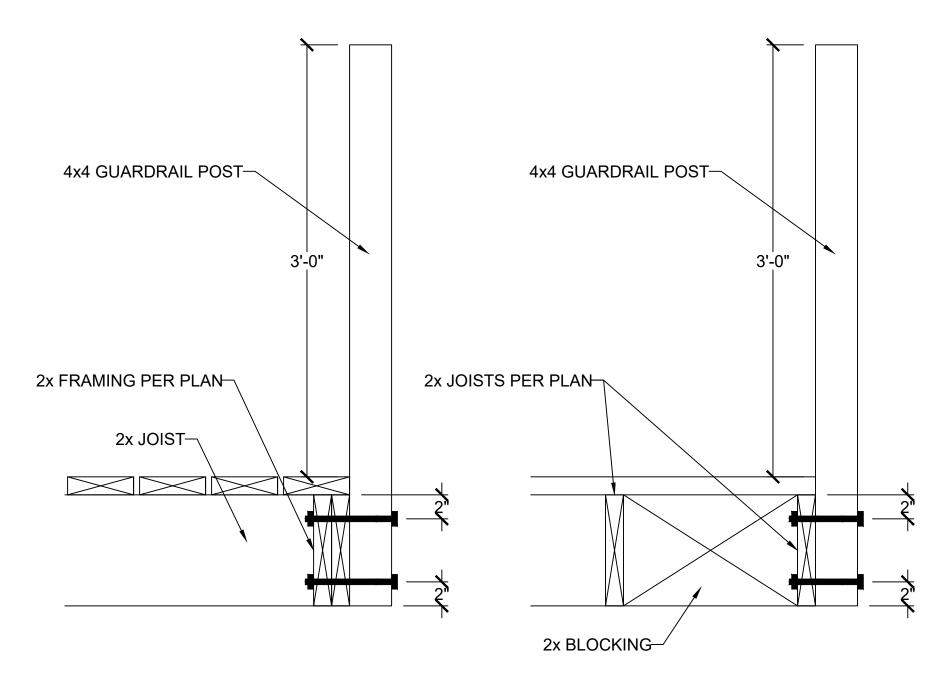
**LEDGER ATTACHMENT**  $\sqrt{3.3}$  SCALE: 1" = 1'-0" (18x24) OR  $1\frac{1}{2}$ " = 1'-0" (24x36)

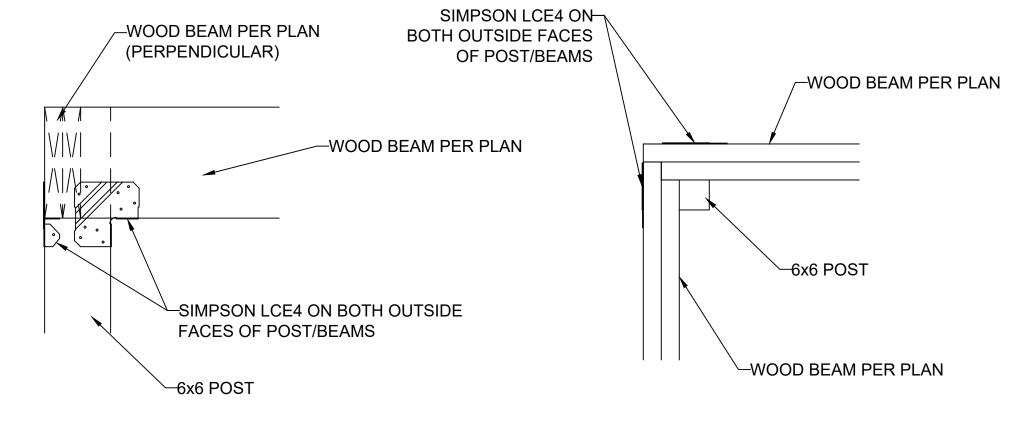


S3.3 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

5 \LET-IN (COVERED) DECK BEAM CONNECTION







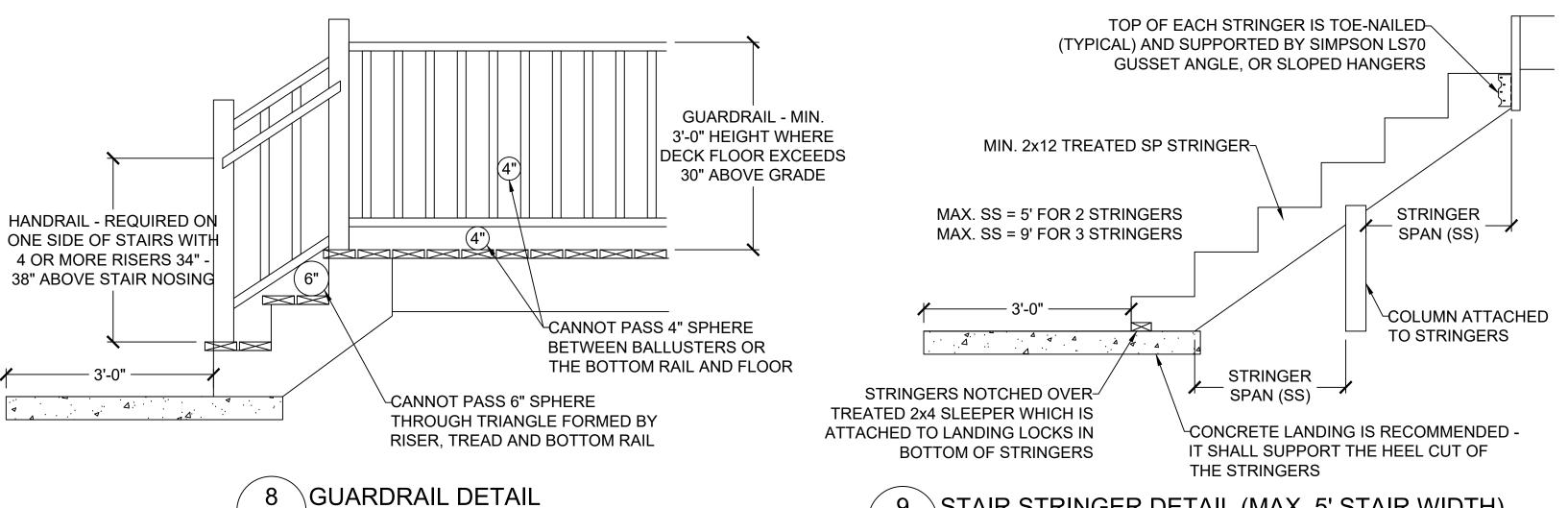
## 6 \GUARDRAIL CONNECTION S3.3 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

SCALE:  $\frac{1}{2}$ " = 1'-0" (18x24) OR  $\frac{3}{4}$ " = 1'-0" (24x36)



3 DECK POST BASE

S3.3 SCALE: 1" = 1'-0" (18x24) OR  $1\frac{1}{2}$ " = 1'-0" (24x36)

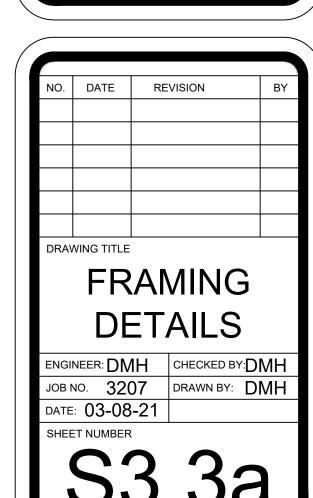


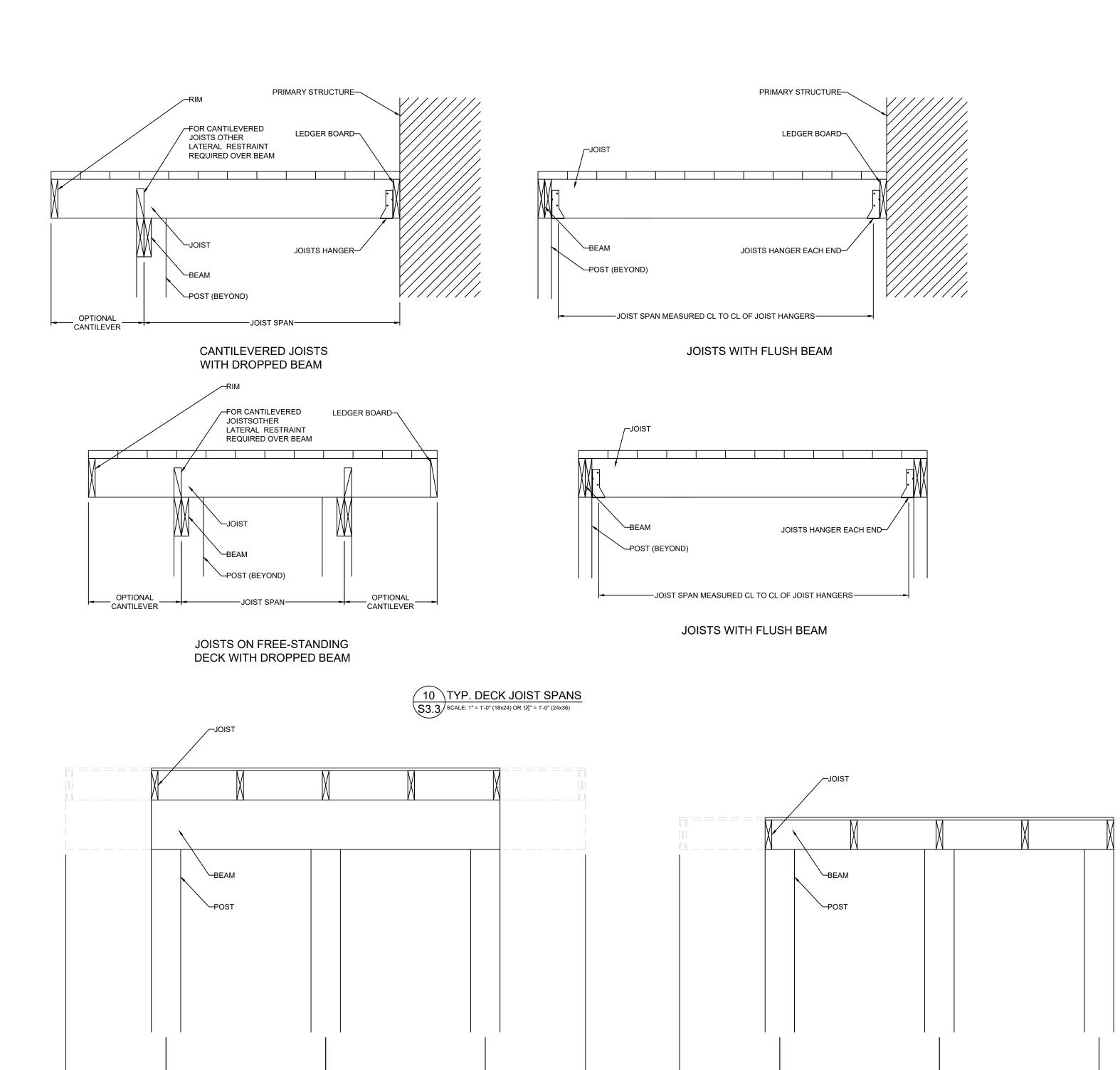
9 \STAIR STRINGER DETAIL (MAX. 5' STAIR WIDTH) SCALE:  $\frac{1}{2}$ " = 1'-0" (18x24) OR  $\frac{3}{4}$ " = 1'-0" (24x36)



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\_\_\_OPTIONAL \_\_ CANTILEVER

FLUSH BEAM

OPTIONAL CANTILEVER

\_\_OPTIONAL \_\_\_ CANTILEVER

—BEAM SPAN—

DROPPED BEAM

OPTIONAL \_\_\_\_CANTILEVER





T: WALKER CUSTOM HOMES, LLC

DRAWING TITLE

FRAMING

DETAILS

ENGINEER: DMH

CHECKED BY: DMH

JOB NO. 3207 DRAWN BY: DMH
DATE: 03-08-21