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and effort have gone into the creation and design of this plan. However, the gner is not an architect or engineer and construction from these plans should not be straken without the assistance of a construction professional, architect or engineer. Ause of the impossibility of any on site consultation and supervision, Viewpoint dential Design, LLC, and Designer assume no responsibility for any damages, ding structural failures, due to any deficiencies, omissions or error in the design or prints. Also, site conditions may vary from those illustrated on this plan. Designer so not warrant the suitability of these plans for use on your specific site. Consult your

"For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life" (John 3:16).



Sellah Homes
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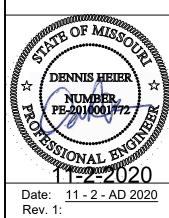


Site Description:

Lot 109, Pergola Park,
New Longview

Street Address:
3201 SW Pergola Dr.,
Lee's Summit, Missouri

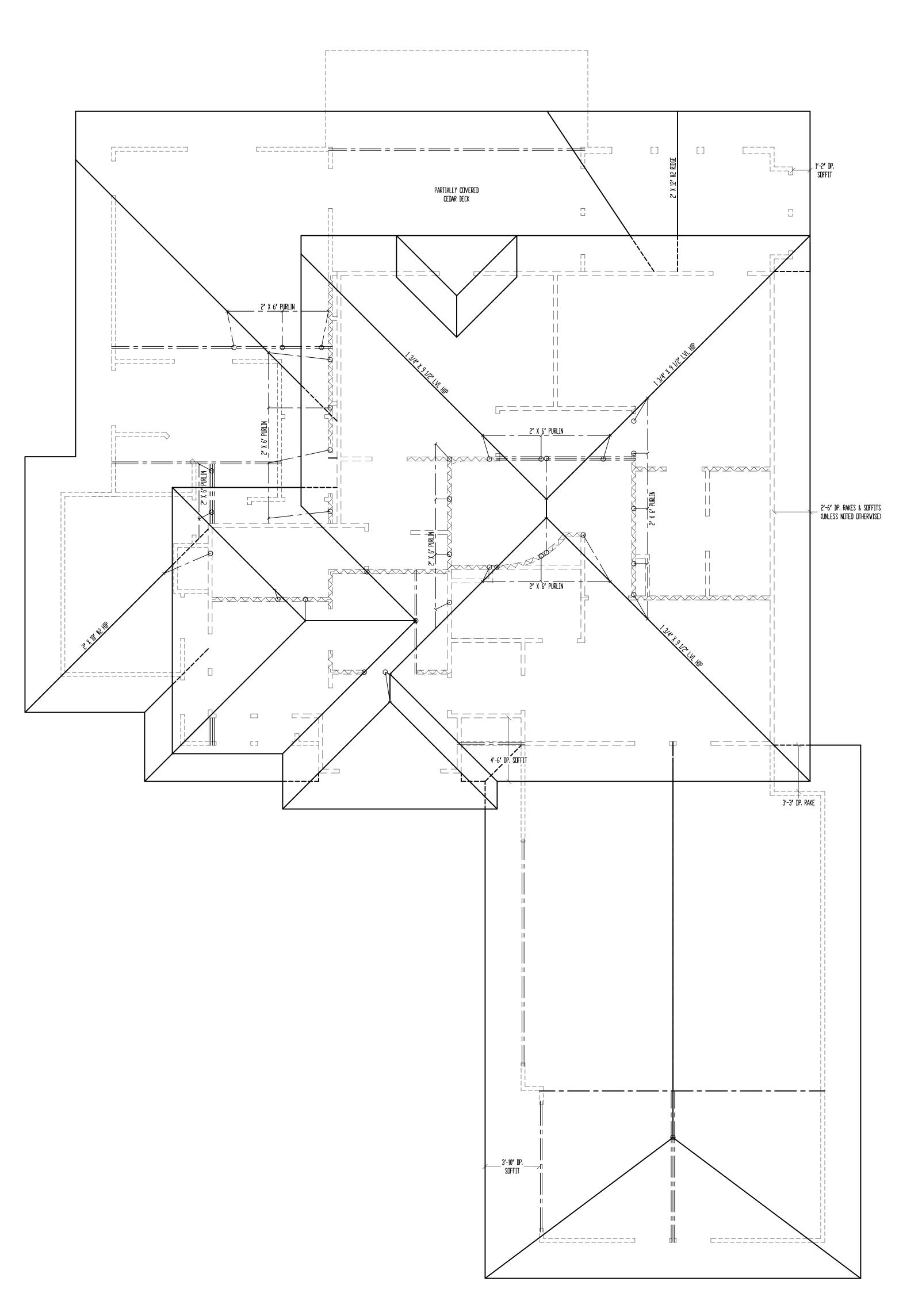
Kevin & Erin DUNN
Plan Title:



Date: 11 - 2 - AD 2020 Rev. 1: Rev. 2: Rev. 3:

Sheet Title: **ELEVATIONS**





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 MINI | | | | | | |
|-------------------------|------------|---------------------------|-----------------------------|----|-------|-------|-----|
| | RAFTERS | SPACING | MAX HORIZONTAL CLEARSPAN | | | | |
| | #2-2x6 | @24″ □.C. | 11'-7 ' | | | | |
| $\rangle\rangle\rangle$ | #2-2x6 | 0 16 ′ □.C. | 14'-2 ' | | | | |
| | #2-2x8 | @24″ □.C. | 14'-8 ' | | | | |
| | #2-2x8 | 0 16 ′ □.C. | 17'-11 ' | | | | |
| | #2-2x10 | @24″ □.C. | 17′-10 ″ | | | | |
| | #2-2x10 | 0 16 ′ □.C. | 21′-11 ′ | | | | |
| | NOTE: CODE | E MINIMUM ALL | OWS FOR A RAFTER DEFLECTION | OF | L/180 | TOTAL | LDA |

| HIGHER PERFORMANCE (RECOMMENDED) | | | | | | |
|--|-------------------|--------------------------|--|--|--|--|
| RAFTERS | SPACING | MAX HORIZONTAL CLEARSPAN | | | | |
| #2-2x6 | @24″ □.C. | 8'-6 " | | | | |
| #2-2x6 | €16 ′ □.C. | 9'-9 " | | | | |
| #2-2x8 | @24″ □.C. | 11'-3 ' | | | | |
| #2-2x8 | €16 ′ □.C. | 12'-9 ' | | | | |
| #2-2x10 | @24″ □.C. | 14'-3 ' | | | | |
| #2-2x10 | €16 ′ □.C. | 16'-3 ' | | | | |
| DEFLECTION = L/360 LIVE LOAD, L/240 TOTAL LOAD | | | | | | |

* VAULTS TO BE 2×10 DEPTH

* RIDGE BOARDS ARE: (UNLESS OTHERWISE NOTED)

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

- #2- 2X10 OVER 10/12 PITCH * ALL HIPS & VALLEYS ARE: (UNLESS OTHERWISE NOTED)

- #2- 2X8 UP TO 10/12 PITCH - #2- 2X10 OVER 10/12 PITCH * PURLINS ARE 2X6 MIN. - 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:

| 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'-0 " |

* 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 * — DENDTES PURLIN

* — DENDTES BEARING STRUCTURE

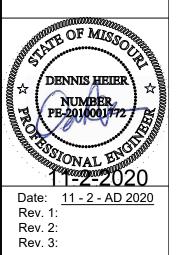
"For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life" (John 3:16).





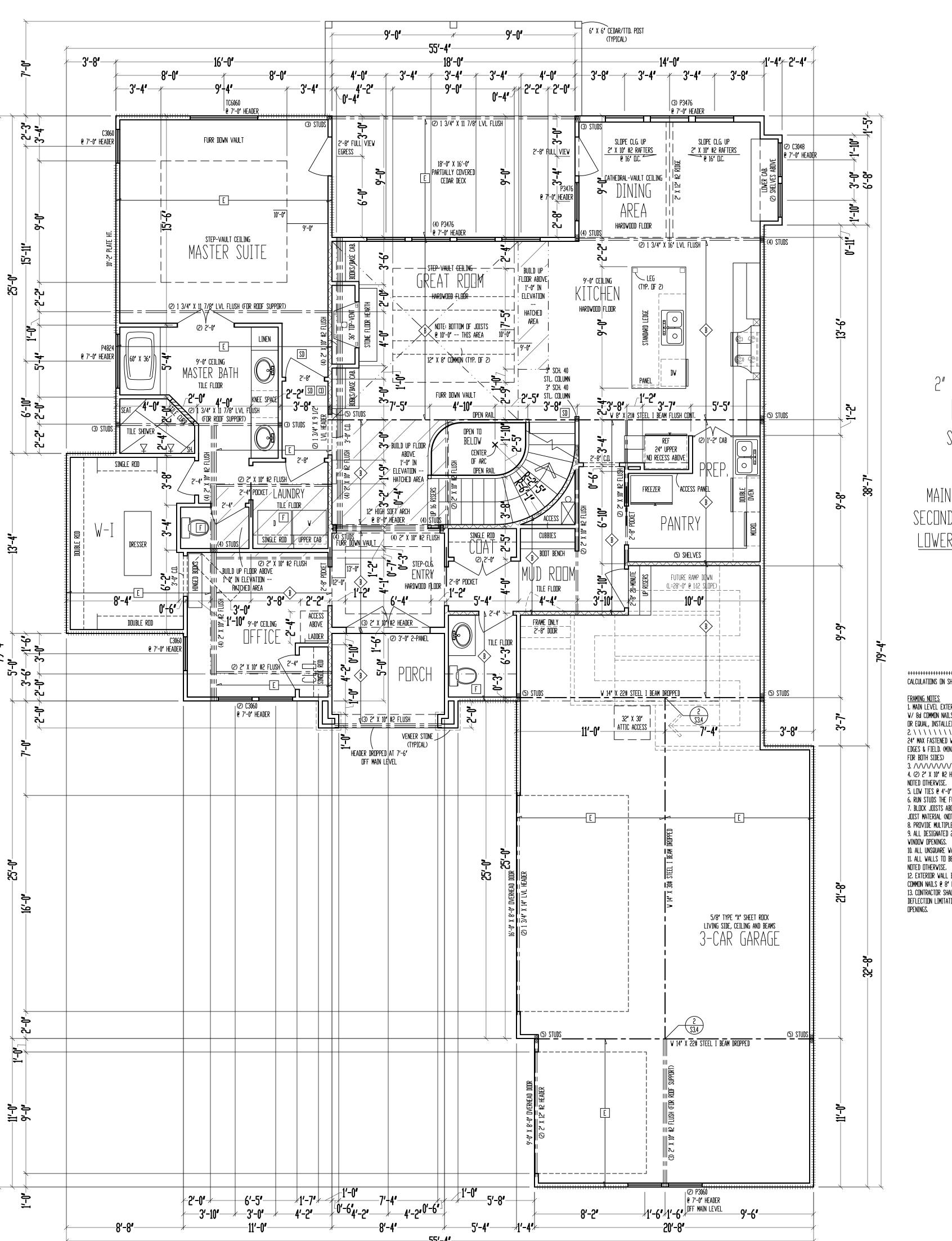
Street Address: 3201 SW Pergola Dr., Lee's Summit, Missouri Site Description: Lot 109, Pergola Parl New Longview

Kevin & Erin DUNN
DUNN
Plan Title:



Sheet Title: **ROOF PLAN**

Sheet No.:



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

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

MAIN LEVEL: 1778 SQ. FT. SECOND LEVEL: 1165 SQ. FT. LOWER LEVEL: 1080 SQ. FT. TOTAL: 4023 SQ. FT.

GARAGE: 917 SQ. FT. COV. DUT/LIV: 162 SQ. FT. UNFIN. BASEMENT: 559 SQ. FT.

CALCULATIONS ON SHEET S1.1.

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

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

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

2' X 10' #2 FLOOR JOIST

1' X 6' #2 CEILING JOIST

€ 16″ 🛛.C.

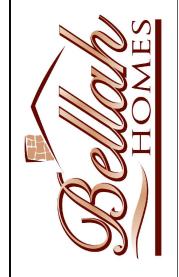
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Site Description:

Lot 109, Pergola Park,
New Longview

Street Address:
3201 SW Pergola Dr.,
Lee's Summit, Missouri

Kevin & Erin DUNN
DUNN
Plan Title:



Date: <u>11</u> Rev. 1: Rev. 2: Rev. 3:

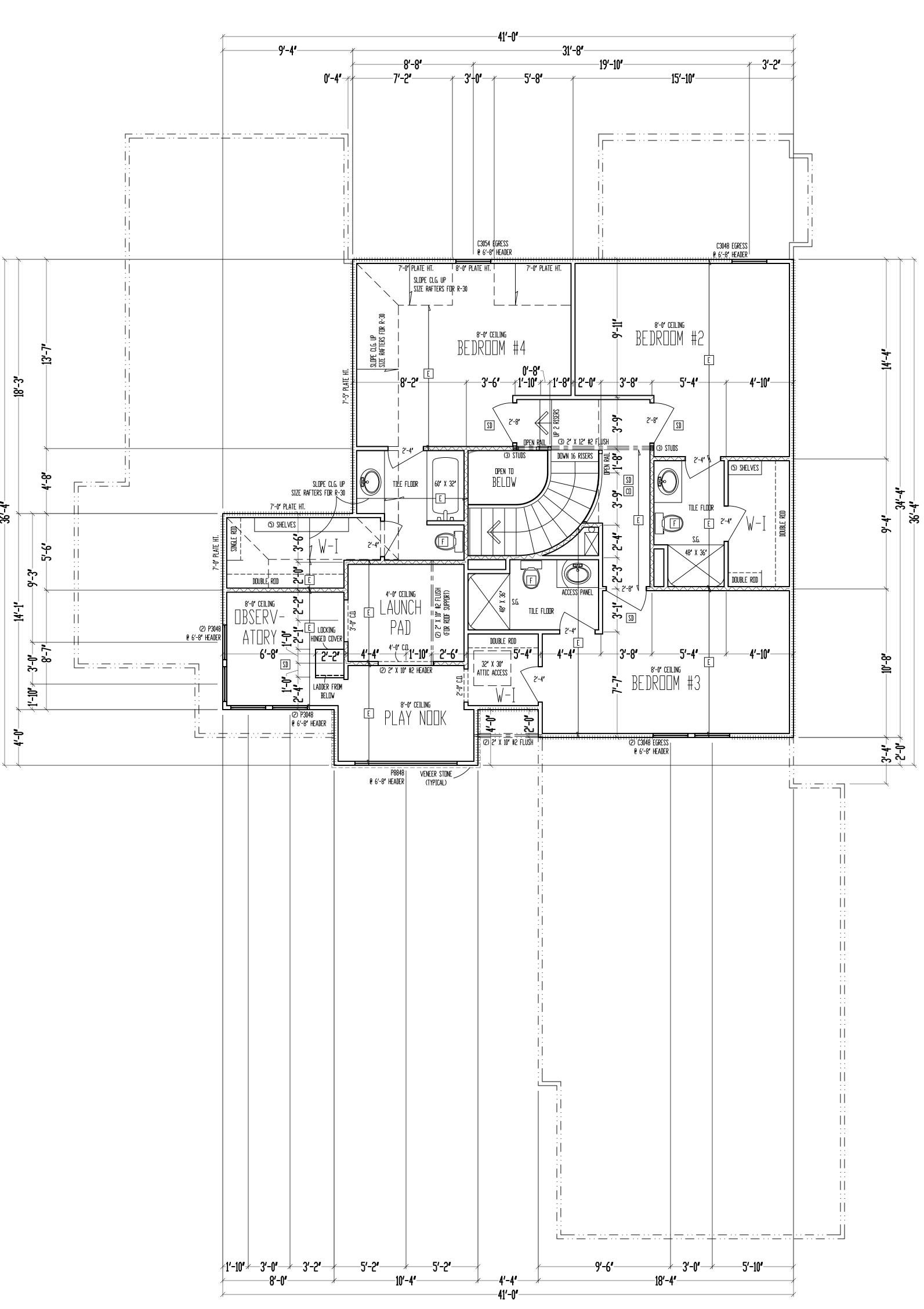
Sheet Title:

MAIN LEVEL

PLAN

Sheet No.:

A-3
of 5



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

DN SHEET S1.1.

OTHERWISE.
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

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

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

2' X 6' #2 CEILING JOIST

@ 16' D.C.

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"For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life" (John 3:16).



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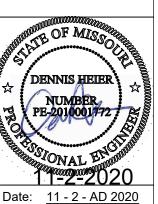


Site Description:

Lot 109, Pergola Park,
New Longview

Street Address:
3201 SW Pergola Dr.,
Lee's Summit, Missouri

Kevin & Erin DUNN Plan Title: NLV109

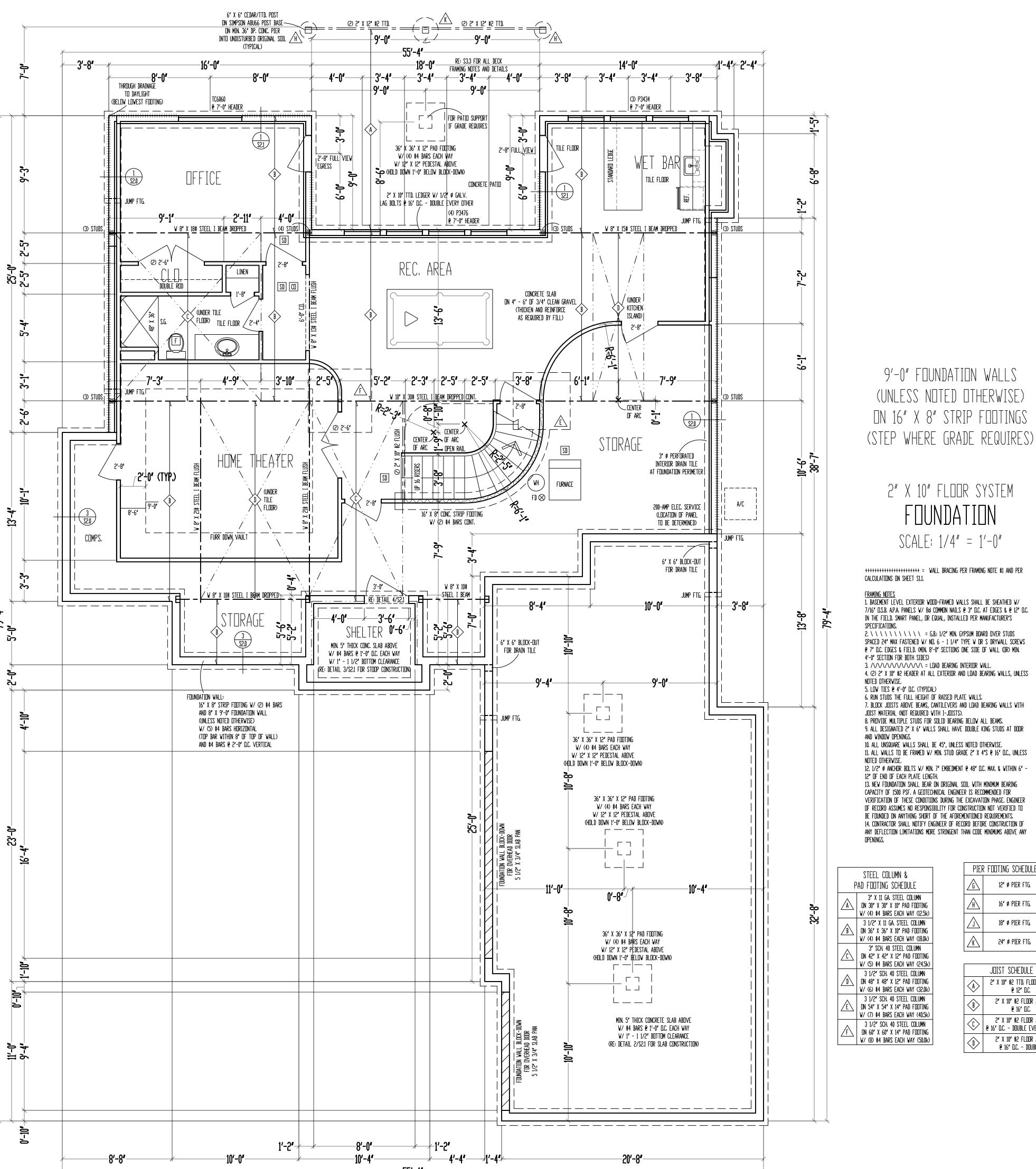


Date: 1 Rev. 1: Rev. 2: Rev. 3:

Sheet Title:
SECOND LEVEL
PLAN

Sheet No.:

A-4
of 5



2" X 10" FLOOR SYSTEM

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

CALCULATIONS ON SHEET \$1.1.

1. BASEMENT LEVEL EXTERIOR WOOD-FRAMED WALLS SHALL BE SHEATHED W/ 7/16' D.S.B. A.P.A. PANELS W/ 8d CDMMON NAILS @ 3' D.C. AT EDGES & @ 12' D.C. IN THE FIELD. SMART PANEL, DR EQUAL, INSTALLED PER MANUFACTURER'S

2. \ \ \ \ \ \ \ \ \ = G.B.; 1/2" MIN. GYPSUM BOARD OVER STUDS SPACED 24" MAX FASTENED W/ ND. 6 - 1 1/4" TYPE W DR S DRYWALL SCREWS @ 7" D.C. EDGES & FIELD. (MIN. 8'-0" SECTIONS DNE 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

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

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

12. 1/2" Ø ANCHOR BOLTS W/ MIN. 7" EMBEDMENT @ 48" D.C. MAX. & WITHIN 6" -12' OF END OF EACH PLATE LENGTH. 13. NEW FOUNDATION SHALL BEAR ON ORIGINAL SOIL WITH MINIMUM BEARING CAPACITY OF 1500 PSF. A GEOTECHNICAL 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 AFOREMENTIONED REQUIREMENTS.

STEEL COLUMN & PAD FOOTING SCHEDULE 3" X 11 GA. STEEL COLUMN │ □N 30′ X 30′ X 10′ PAD F□□TING W/ (4) #4 BARS EACH WAY (12.5k) 3 1/2" X 11 GA. STEEL COLUMN DN 36" X 36" X 10" PAD FOOTING W/ (4) #4 BARS EACH WAY (18.0k) 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 |
|------------------|---|
| (A) | 2' X 10' #2 TTD. FLDDR JOIST @ 12' D.C. |
| \bigcirc B $>$ | 2" X 10" #2 FLOOR JOIST @ 16" D.C. |
| ¢ | 2" X 10" #2 FLOOR JOIST @ 16" O.C DOUBLE EVERY OTHER |
| | 2" X 10" #2 FLOOR JOIST @ 16" D.C DOUBLED |

PIER FOOTING SCHEDULE

16' Ø PIER FTG.

24' Ø PIER FTG.

12" Ø PIER FTG.

18" Ø PIER FTG.

"For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life"

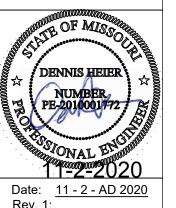
(John 3:16).





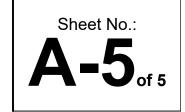
3201 SW Pergola Dr., .ee's Summit, Missouri Site Description: Lot 109, Pergola I New Longviev

Kevin & Erin DUNN
DUNN
Plan Title:



Rev. 2: Rev. 3:

FOUNDATION PLAN



| DESCRIPTION OF BUILDING ELEMENTS | NUMBER AND TYPE OF FASTENER | SPACING AND LOCATION |
|---|---|---|
| | ROOF 1 | |
| 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 NTERSECTING 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 |
| | 4 40 4 7 0 24 40 111 10 40 711 | AT EACH JOIST OR RAFTER, FACE NAIL |
| LEDGER STRIP SUPPORTING JOISTS OR RAFTERS | 4-16d BOX (3 ½" x 0.135") | AT EACH OOLOT OF THAT TER, TACE NAIL |

| SCRIPTION OF BUILDING MATERIAL | FASTNER SCHEDULE FOR S DESCRIPTION OF FASTENER | STRUCTURAL MEMBERS EDGE SPACING (INCHES) | INTERMEDIATE SUPPORTS (INCHES |
|---|--|---|-------------------------------|
| | BFLOOR, ROOF AND INTERIOR WALL SHEA | | |
| 3 ₈ " - 1 ₂ " | 6d COMMON (2" x 0.113") NAIL (SUBFLOOR, WALL) 8d COMMON NAIL (ROOF) | 6 | 12 |
| ¹⁹ / ₃₂ " - 1" | 8d COMMON NAIL (2½" x 0.131") | 6 | 12 |
| 1½" - 1½" | 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; 1¼" SCREWS, TYPE W OR S | 7 | 7 |
| ⁵ ∕8" GYPSUM SHEATHING | 1¾" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1½" LONG; 1½" SCREWS, TYPE W OR S | 7 | 7 |
| v | OOD STRUCTURAL PANELS, COMBINATION | 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

FOUNDATION NOTES

- 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
- MINIMUM 20 GALLON SUMP PIT.

 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
- 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 SUP0PORTING 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)
- 9. 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

- 5. ALL DIMENSIONAL LUMBER SHALL BE DOUGLAS-FIR-LARCH GRADE #2, UNLESS NOTED OTHERWISE ON PLANS
- 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. 11/8" IN THICKNESS OR BY FASTENING RIM TO JOISTS PER FASTENING TABLE TO LEFT
- 25. ALL WALL COVERINGS SHALL COMPLY WITH IRC SECTION R702.326. ALL RAFTERS AND COLLAR TIES SHALL COMPLY WITH IRC SECTION R802.3.
- 7. 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

- 3. 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.
- 39. 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.

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 OPENINGS GREATER THAN 16 INCHES IN EITHER DIMENSION. METAL TIES AROUND THE PERIMETER OF OPENINGS

GARAGE NOTES

- 4. DOOR(S) BETWEEN THE GARAGE AND DWELLING SHALL BE MINIMUM 1%" 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)

- 4. 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) 3½" 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)

| MINIMUM UNIFORMLY DISTRIB | | |
|--|------------------|-------------------------------------|
| 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 ^d |
| FIRE ESCAPES | 40 | 10 |
| GUARDRAILS AND HANDRAILS ^a | 200 ^c | - |
| GUARDRAIL IN-FILL COMPONENTS ^b | 50 ^c | - |
| PASSENGER VEHICLE GARAGES | 50 | DEPENDENT UPON SLAB CONSTRUCTION |
| ROOMS OTHER THAN SLEEPING ROOM | 40 | 10 ^d |
| SLEEPING ROOM | 30 | 10 ^d |
| STAIRS | 40 | 10 ^d |

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

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

b. Guard in-fill components (all those except the handrail), ballusters and panel fillers shall be designed to

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

not to occur with any other live load.

- 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.

 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:
- 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.

| MECHANICAL VENTILATION SYSTEM FAN EFFICACY | | | | | | | |
|--|--------------------------------|--------------------------------|--------------------------------|--|--|--|--|
| 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 | | | | |



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NOTES

ENGINEER: DMH CHECKED BY: DMH

JOB NO. 2819 DRAWN BY: DMH

DATE: 10-20-2020

SHEET NUMBER

S1.0

RESIDENTIAL SEISMIC & WIND ANALYSIS

| | | | INPUT |
|------------------|-------------------------|--|---|
| | | | CALCULATED VALUE |
| | DEAD LOAD (psf) | AREA (ft ²) | WEIGHT (lbs.) |
| | 10 | 2857 | 28570 |
| | 10 | 2857 | 28570 |
| | 10 | 1165 | 11650 |
| | 10 | 2857 | 28570 |
| WALL LENGTH (ft) | WALL HEIGHT (ft) | WALL UNIT WT. (psf) | WEIGHT (lbs) |
| 154.66 | 8 | 8 | 9898.24 |
| 269.32 | 10 | 10 | 26932 |
| | DEAD LOAD (psf) | AREA (ft2) | WEIGHT (lbs) |
| | 6 | 1165 | 6990 |
| | 6 | 2857 | 17142 |
| | WALL LENGTH (ft) 154.66 | 10 10 10 10 10 WALL LENGTH (ft) WALL HEIGHT (ft) 154.66 8 269.32 10 | DEAD LOAD (psf) 10 2857 10 2857 10 2857 10 1165 10 2857 WALL LENGTH (ft) WALL HEIGHT (ft) WALL UNIT WT. (psf) 154.66 8 8 269.32 10 10 DEAD LOAD (psf) AREA (ft2) 6 1165 |

| | PRO | DIECTED AREAS (WIND | DESIGN PER 115 MPH | 3-SECOND GUST EXPOS | URE C AND MEAN ROOF HEIGHT <= 3 | O ET ASSLIMED) | | |
|--------------------|------------------------|---------------------|--------------------|---------------------|---------------------------------|-------------------------|------------|--|
| | FRONT-TO-BACK | | | | SIDE-TO-S | | | |
| | AREA | LOAD | | | AREA | LOAD | | |
| SLOPED ROOF | 181 | 797 | | SLOPED ROOF | 302 | 1240 | | |
| VERT. ROOF | 0 | 0 | CUMULATIVE | VERT. ROOF | 0 | 0 | CUMULATIVE | |
| 2ND | 369 | 5442 | 6240 | 2ND | 326.97 | 4953 | 6193 | |
| 1ST | 608.63 | 8487 | 14726 | 1ST | 872.63 | 11560 | 17753 | |
| BSMT ^a | 0 | 0 | 0 | BSMT ^a | 78 | 1357 | 10234 | |
| | | | PRESSURE (PSI | F) - PER ASCE CH. 6 | | | | |
| SLOPED ROOF ZONE B | | | 5.9 | ZONE C | 11.6 | 2a (FIG. 28.6-1, ASCE7) | | |
| | WALL/VERT. ROOF ZONE A | | | 17.4 | ZONE D | 3.4 | 11.066 | |
| MEAN ROOF HT., h | | | 26 | | | | | |

a) If there is a walkout wall to be sheathed, determine tributary wind area and enter here. If no walkout, enter 0 for area. $q_{z_{10}}=0.00256K_zK_{zt}K_dV^2$ (ASCE7-10 Velocity Pressure) $q_{z_{10}_ASD}=0.6q_{z_{10}}$ (Design Velocity Pressure for A

q_{z10_ASD}=0.6q_{z10} (Design Velocity Pressure for ASD analysis under ASCE7-10 and IRC/IBC 2012)

SEISMIC SHEAR

2ND FLOOR TRIBUTARY WEIGHT
1ST FLOOR TRIBUTARY WEIGHT
BASEMENT TRIBUTARY WEIGHT S_S (SITE GROUND MOTION - %g - FROM ASCE7 SEISMIC MAP) F_a (from ASCE7 Table 11.4-1) S_{DS} (= $2/3 * S_S * F_a$) R (from ASCE7 Table 12.2-1)

| ION | | From ASC | CE7 (Eq. 12.8-1): | V (= 1.2 * | S _{DS} * W / R) (lbs.) |
|-------------------------------|---|--|-------------------|-------------|---------------------------------|
| OOR OOR ENT | | | | | 1467 2343 2343 |
| Sheathing Location | Min. Sheathing Schedule | Fastening Schedule | Allowable S | hear (#/LF) | Code Reference |
| Exterior (Option #1) | 7/18" APA Rated Plywood/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 | 15 | 5 | per IBC, Table 2306.3(1) |
| Exterior (Option #2) | 7/18" APA Rated Plywood/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 | 23 | C | per IBC, Table 2306.3(1) |
| Exterior (Option #3) | 7/16" APA Rated Plywood/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 | 31 | C | per IBC, Table 2306.3(1) |
| Exterior (Option #4) | 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 | 22 | 20 | AF&PA SDPWS Table 4.3A |
| Exterior (<i>Option #5</i>) | 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 | 32 | 20 | AF&PA SDPWS Table 4.3A |
| | 7/16" APA Rated Plywood/OSB or shiplap panel sheathing, or 3/8" shiplap panel sheathing with | 8d Common Nails w/ 1-3/8" penetration @ 3" O.C. Edges, 12" O.C. | | | AF&PA SDPWS |

| | | | Sileatiling | | | |
|------------------------------------|---|-------------------------|--|-------|--------------------------|----------------------------|
| Exterior <u>(Option #5)</u> | 7/16" APA Rated Plywoo sheathing, or 3/8" shipli tighter na | ap panel sheathing with | 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 SDPWS Table 4.3A |
| Exterior (Option #6) | sheathing, or 3/8" shiple | d double studs at each | 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" Gyps | um 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 |
| Interior | 16 Ga. Simpson/USP Ty | · | (3) 16d @ end studs & (1) 8d @ intermediate studs (per manufacturer specifications - see detail on sheet S3) | _ | 325 | |
| EXTERIOR SHEATHING OPTION FOR SEC | OND FLOOR | 4 | 1 | | | |
| | | - | | | | |
| EXTERIOR SHEATHING OPTION FOR FIRS | ST FLOOR | 5 | WIDTH OF 1ST STORY (FT.) | 55.33 | WIDTH OF 2ND STORY (FT.) | I 41 |

| | | | | | GAR. WALL: 1=F-B, 2=S-S | 2 | | |
|-----------|---------------|-------------------|--------------|----------------------|-----------------------------|-------------------|--------------|-------------------|
| | | | EXTER | RIOR STRUCTURAL WALL | LENGTHS (ft.) & RESISTANCES | | | |
| | | SE | ISMIC | | | WIND | | |
| | FRONT-TO-BACK | RESISTANCE (lbs.) | SIDE-TO-SIDE | RESISTANCE (lbs.) | FRONT-TO-BACK | RESISTANCE (lbs.) | SIDE-TO-SIDE | RESISTANCE (lbs.) |
| 2ND FLOOR | 54 | 15120 | 49 | 13720 | 54 | 21168 | 49 | 19208 |
| 1ST FLOOR | 77 | 29260 | 45 | 17100 | 77 | 40964 | 45 | 23940 |
| BASEMENT | 0 | 0 | 16 | 7520 | 0 | 0 | 16 | 10528 |

DEPTH OF 1ST STORY (FT.)

BACK WALL OF GARAGE (FT.)

79.33

DEPTH OF 2ND STORY (FT.)

| 1ST FLOOR | 11 | 29260 | 45 | 1/100 | | 40964 | 45 |
|-------------------|---------|------------------|-----------------|-------|-----------------------|----------|---------------------------|
| BASEMENT | 0 | 0 | 16 | 7520 | 0 | 0 | 16 |
| | | | | _ | | | |
| | | ADDITIONAL RESIS | STANCE REQUIRED | | Anchor Bolt Spacing | (in.) | 16d Nail Spacing req'd at |
| | | 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) | 195.3 | 1st Floor F-B |
| 1ST FLOOR FRONT- | TO-BACK | 0 | 0 | | spacing S-S (inches) | 113.0 | 1st Floor S-S |
| 1ST FLOOR SIDE-TO |)-SIDE | 0 | 0 |] | | <u> </u> | |
| BASEMENT FRONT-7 | TO-BACK | 0 | 0 | | | | |
| BASEMENT SIDE-TO | -SIDE | 0 | 0 | | | | |

| | | RESISTANCE REQUI | RED IN ADDITION TO RES | SISTANCE PROVIDED BY EXTERIOR W | /ALLS** | | |
|-------------------------|---|--|-----------------------------------|--|---|--|-----|
| | ADDITIONAL RESISTANCE REQUIRED (POUNDS) | 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 |
| BASEMENT FRONT-TO-BACK | 0 | | X | | | 0 | YES |
| BASEMENT SIDE-TO-SIDE | 0 | | į. | | | 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 BRACING ACHIEVED AT EXTERIOR WALLS AND WALLS DIRECTLY ON FOUNDATIONS; THEREFORE, NO INTERIOR BRACING PER 2012 IRC SECTION R502.2.1 IS REQUIR

| ALL LATERAL BRACI | NG ACHIEVED AT EXT | ERIOR WALLS AND WA | LLS DIRECTLY ON FO | JNDATIONS; THEREFORE | NO INTERIOR BRACING PER 2012 I | RC SECTION R502.2.1 IS | REQUIRE |
|---------------------|-------------------------------|--------------------------------|--------------------------------|---------------------------|--------------------------------|------------------------|---------------------------------------|
| | | | | WIND UPLIFT | ANALYSIS | | |
| | X/12 | DEGREES | | | | | |
| ROOF PITCH (MAX) | 4 | 18.4 | 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 | 16.56 | 271.32 | 16.56 | | | |
| | TOTAL AREA (FT ²) | ZONE E AREA (FT ²) | ZONE G AREA (FT ²) | PRESSURE ZN. E (PSF) | PRESSURE ZN. G (PSF) | TOTAL FORCE (LBS) | FORCE PER LINEAL FT @ PERIMETER (LBS) |
| MAIN ROOF** | 4389.3289 | 1221.642136 | 3167.686764 | 15.12 | 10.5 | 51732 | 192.1 |
| | | | | | | | |
| *ALONG PERIMETER | | TOTAL UPLIFT PER LINEAL I | FOOT ALONG EXTERIOR (PC | OUNDS) | 208.6 | UPLIFT OK | |
| **INSIDE EXTERIOR V | VALLS | RESISTANCE DUE TO DEAD | WEIGHT & (3) 10d TOENAILS | i | 251.6 | | |

NOTE FOR CONSTRUCTIO

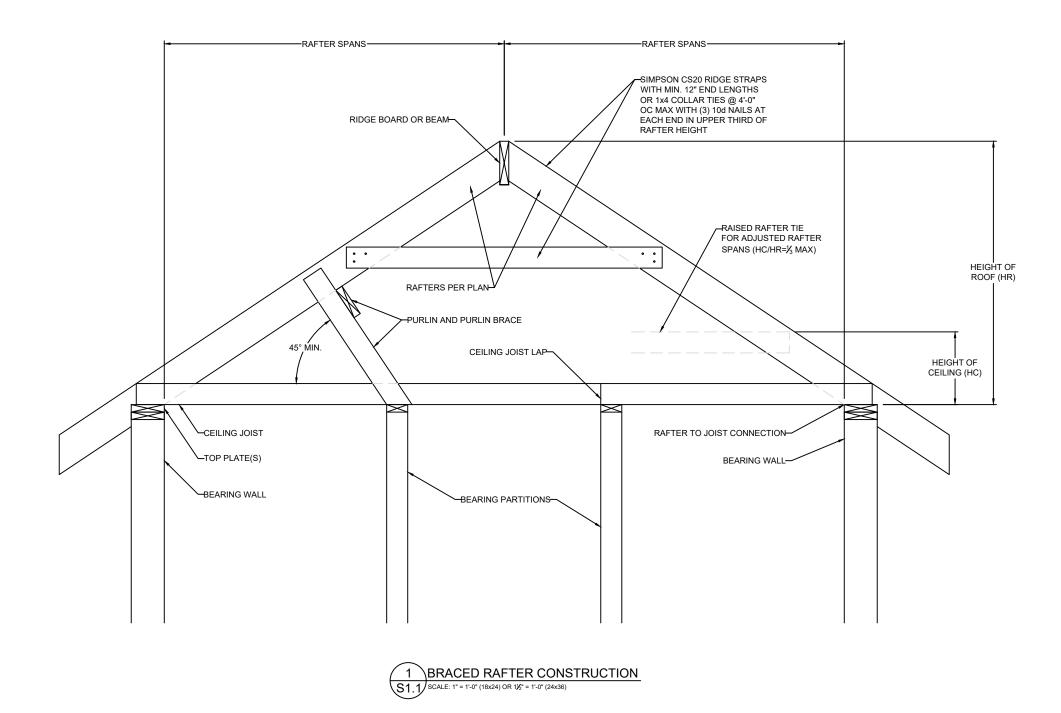
EXTERIOR SHEATHING OPTION FOR BASEMENT WALLS

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 DESIG

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



Combustion Air Calculation
Per 2012 IRC Section G2407.5

Appliance #1 Furnace 100000 BTU/h
Appliance #2
Appliance #3 Water Heater 50000 BTU/h

Total BTU/hr

Area of Combined Space (floor where appliances are located)
Ceiling Height in Usable Space 8.5 ft

Note: Per 2012 IRC Section G2407.5.3.2, The volumes of spaces in different stories shall be considered as communicating spaces where such spaces are connected by one or more openings in doors or floors having a total minimum free area of 2 square inches per 1,000 BTU/h of total input rating of all appliances

If Yes, what is the area of open space adjacent to appliance area?

Per 2012 IRC Section G2407.5.1 (Standard Method), the minimum required volume shall be 50 cubic feet per 1,000 BTU/hr (Total BTU/hr / 1,000 BTU/hr x 50 ft³)

Is floor where appliances are located open to adjacent level?

Required air space in combined areas: 7500 ft³

Required combined area: 882 ft²

Area of Combined Space > Required combined area?

Per Section G2407.5.3.1, each opening shall have a minimum free area of 1 square inch per 1,000 BTU/hr of the total input rating of all appliances in the space, but not less than 100 square inches. One opening shall commence within 12 inches of the top and one opening shall commence within 12 inches of the bottom of the enclosure. The minimum dimension of air openings shall be not less than 3 inches.

Minmum required opening area: 150 in²
Minimum grill size: 14 x 11 (inches)

Note: two grills required - one within 12" of floor, one within 12" of clg.

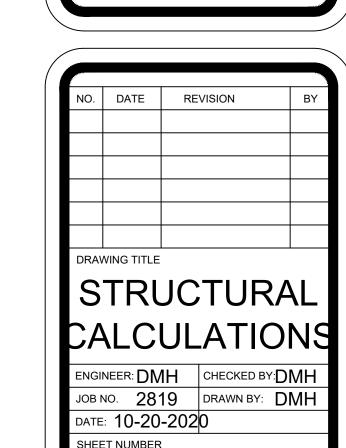


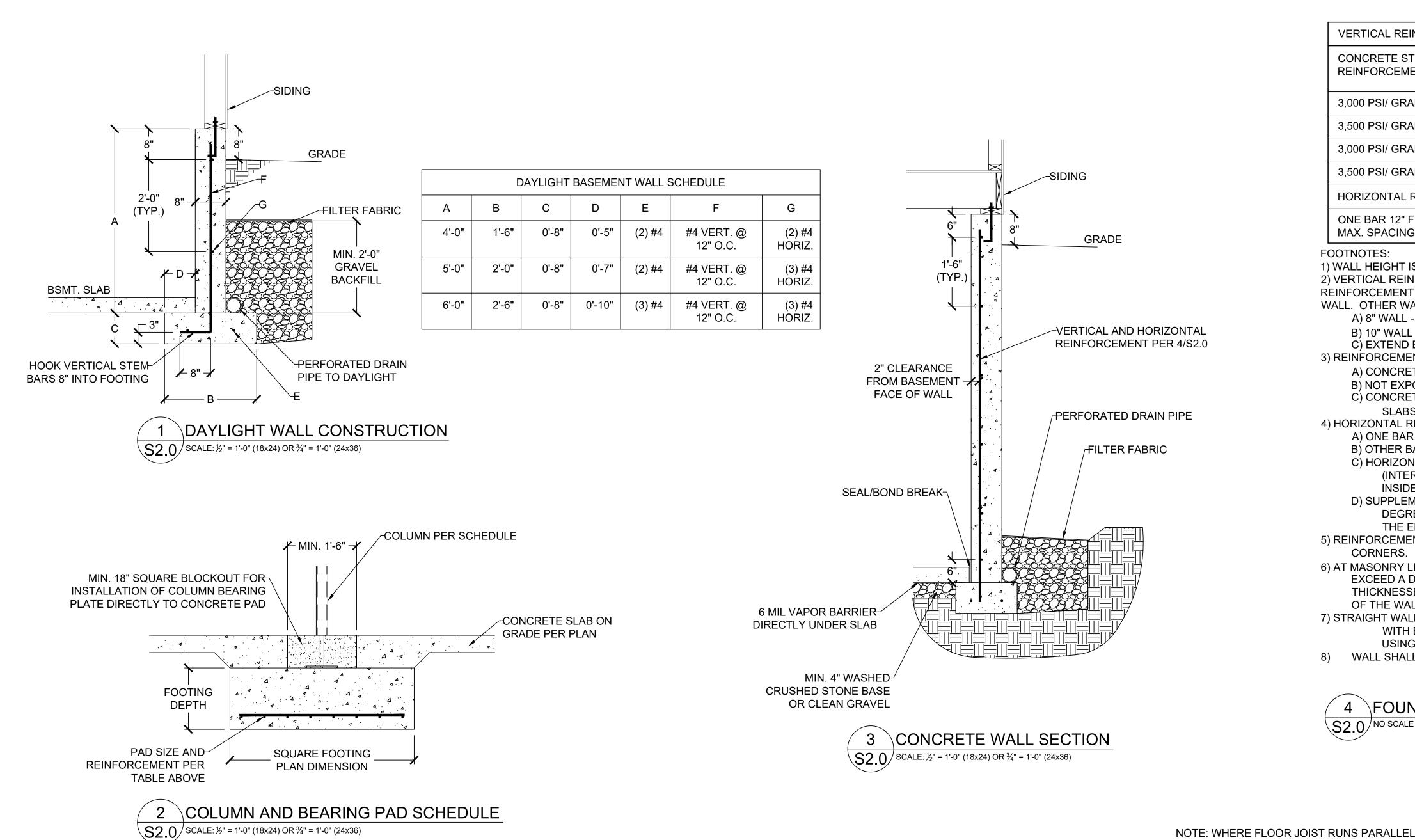
DUNN), PERGOLA PARK, NEW LONG

BOO

DENNIS HEIER

NUMBER
PE-2010001772





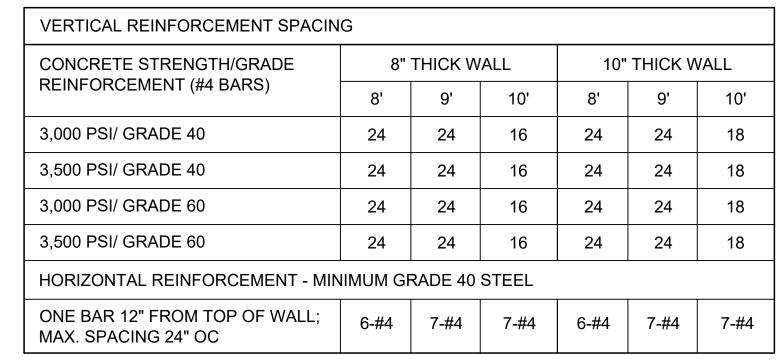
TYPICAL CORNER REINFORCEMENT!

AT LEAST (1) #4 BAR 48" LONG @

AS CLOSE AS PRACTICAL TO THE CORNER

EACH INSIDE CORNER

NOTE: WHERE OPENINGS OR ABRUPT ELEVATION



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

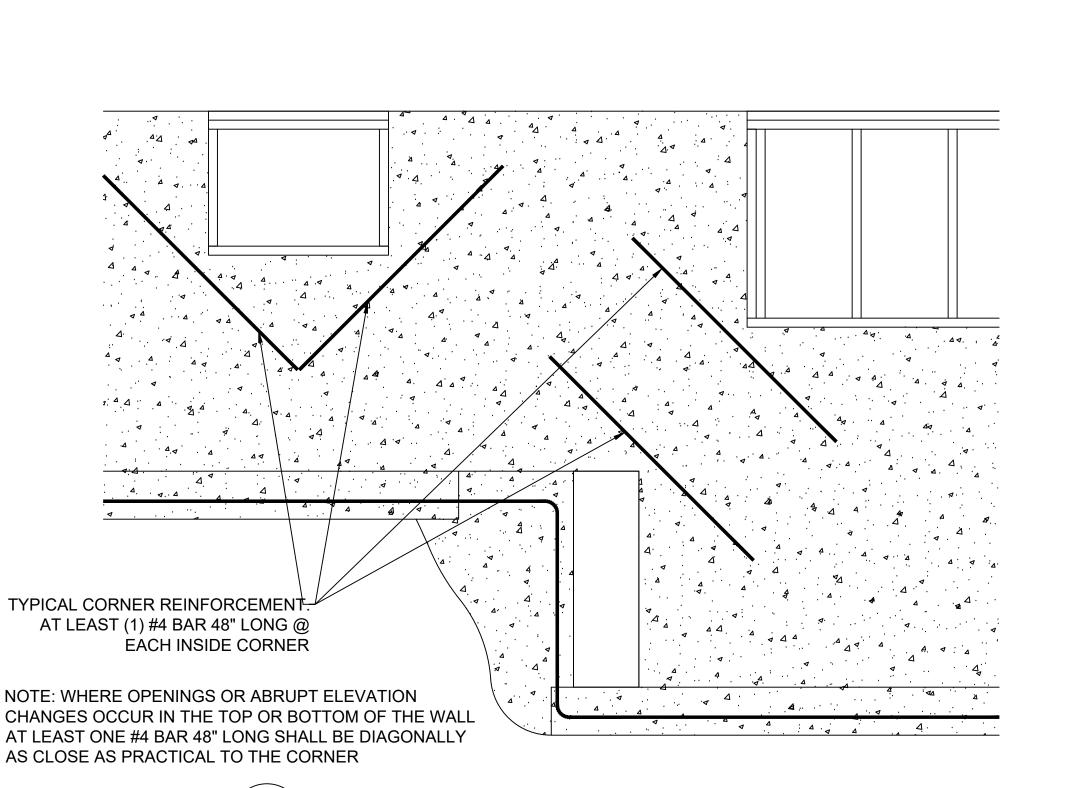
3) REINFORCEMENT CLEARANCES:

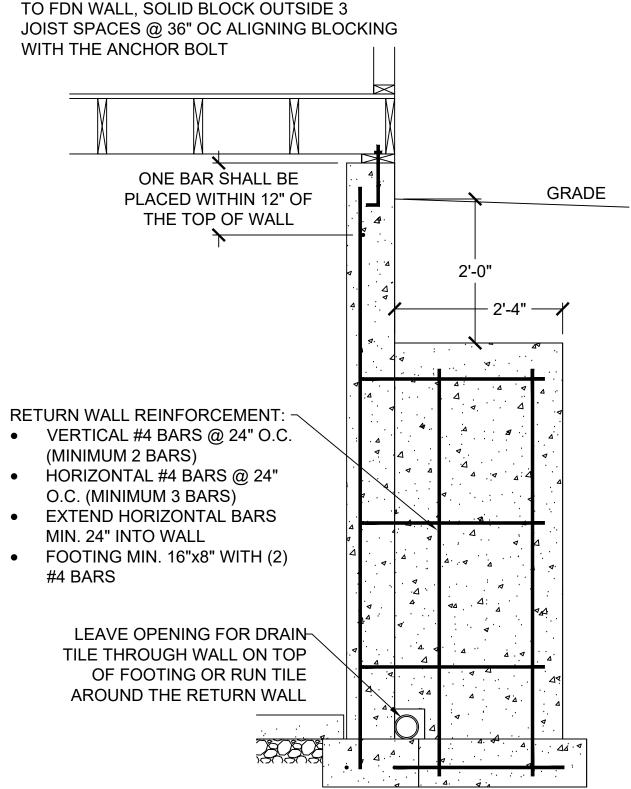
- A) CONCRETE EXPOSED TO EARTH MINIMUM 11/2"
- B) NOT EXPOSED TO WEATHER (INTERIOR SIDE OF WALLS) -3/4" C) CONCRETE EXPOSED TO WEATHER (TOP CLEARANCE IN GARAGE AND DRIVEWAY
- SLABS) 1½"
- 4) HORIZONTAL REINFORCEMENT:

CORNERS.

- 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
- 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

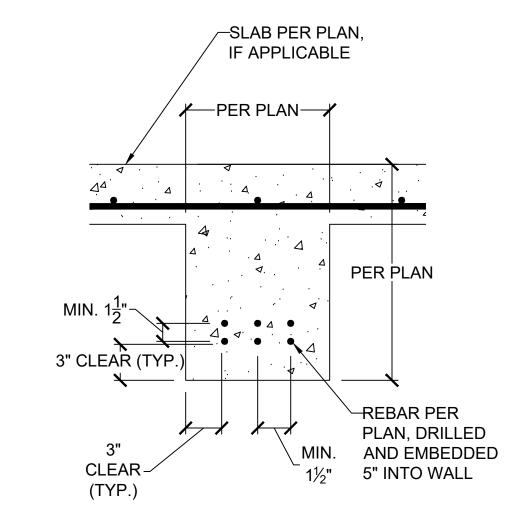
4 \FOUNDATION WALL REINFORCEMENT TABLE S2.0 NO SCALE



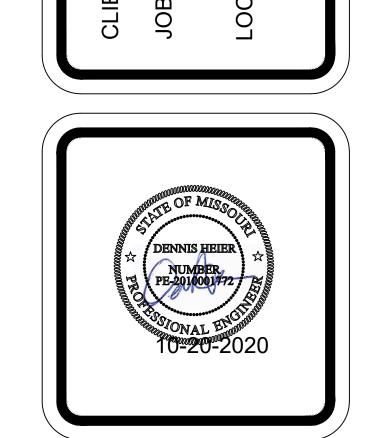


RETURN WALL DETAIL

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



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





REVISION

DATE

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

-CONTINUOUS FOOTING

AND REBAR THROUGH

6'-0" MAX.

SOLID JUMP

MAX. 12" BLOCKOUT FOR

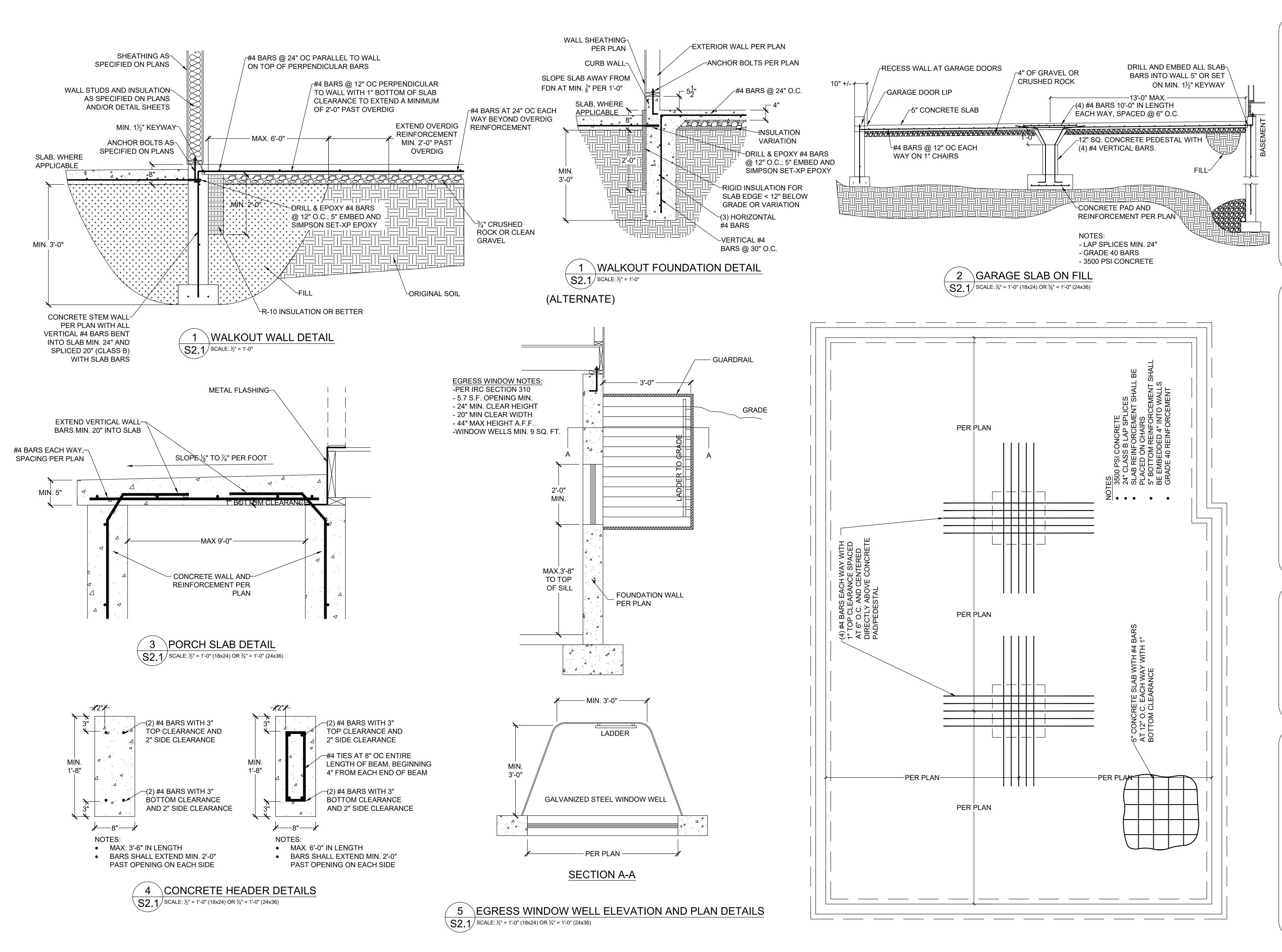
FORM PLACEMENT AND

TO EXTEND DRAIN TILE

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

PAST OVER-EXCAVATION AND INTO INTERSECTING WALL

> 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)



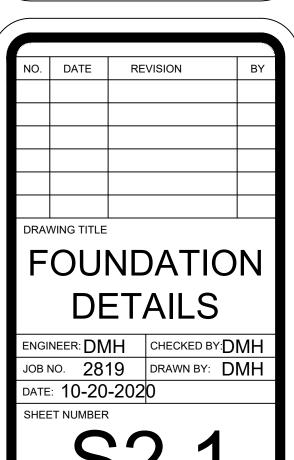
ENGINEERING, LLC

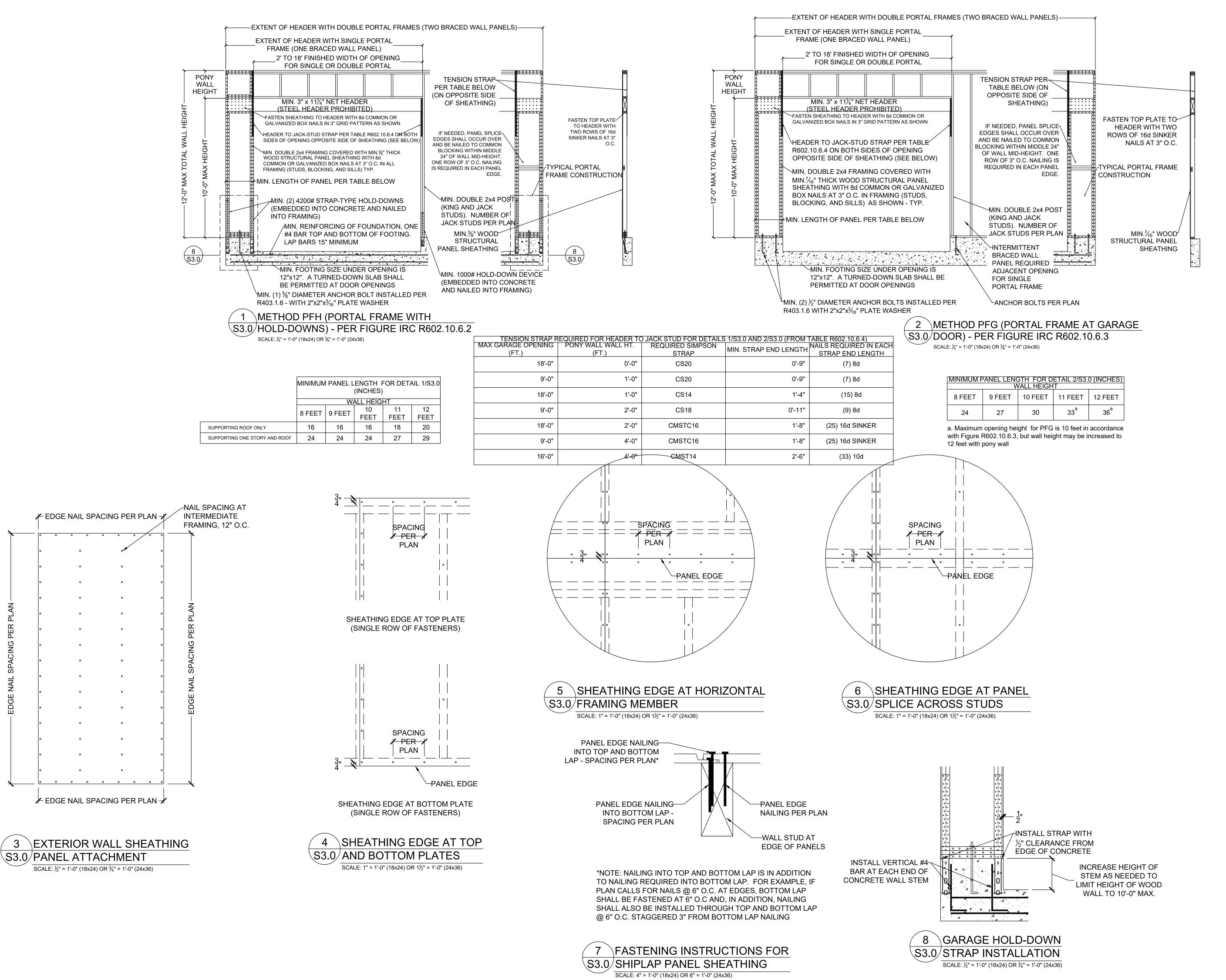
14718 NW PELIA STREET & PORTLAND, OREGON 97229

OFFICE: 971,645,0901 & MOBILE: 971,645,0901 & MO

JOB TITLE: NLV109 DUNN LOT 109, PERGOLA PARK, NEW LONGVIEW LOCATION: LEE'S SUMMIT, MISSOURI



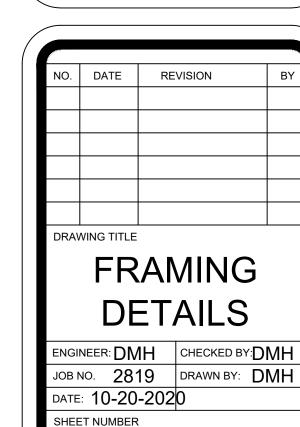


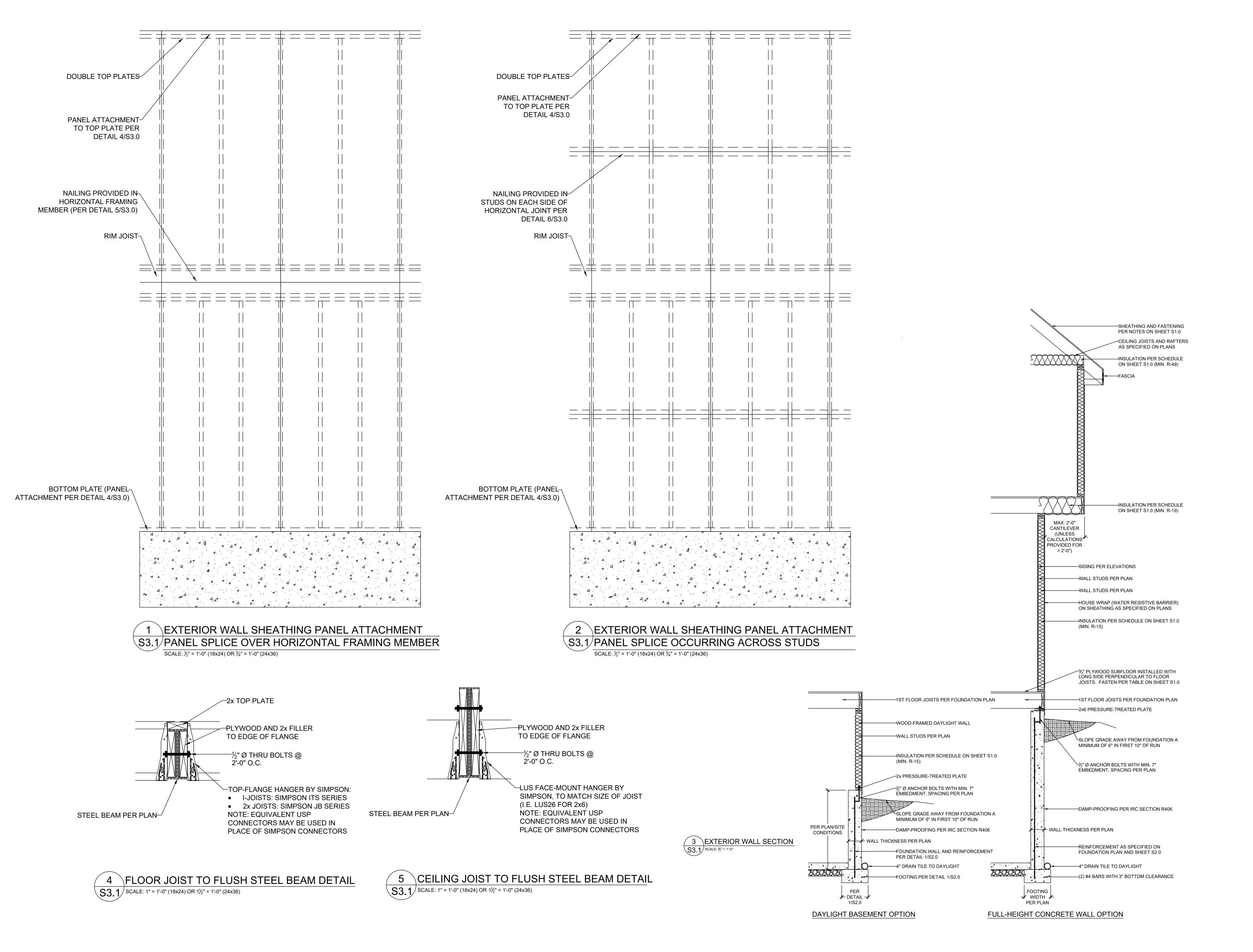




TLE: NLV109 DUNN LOT 109, PERGOLA PARK, NEW LONGVI ION: LEE'S SUMMIT, MISSOURI







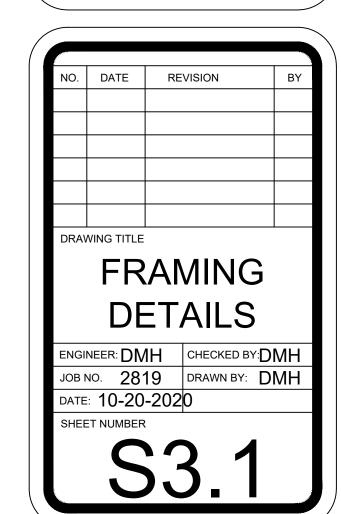


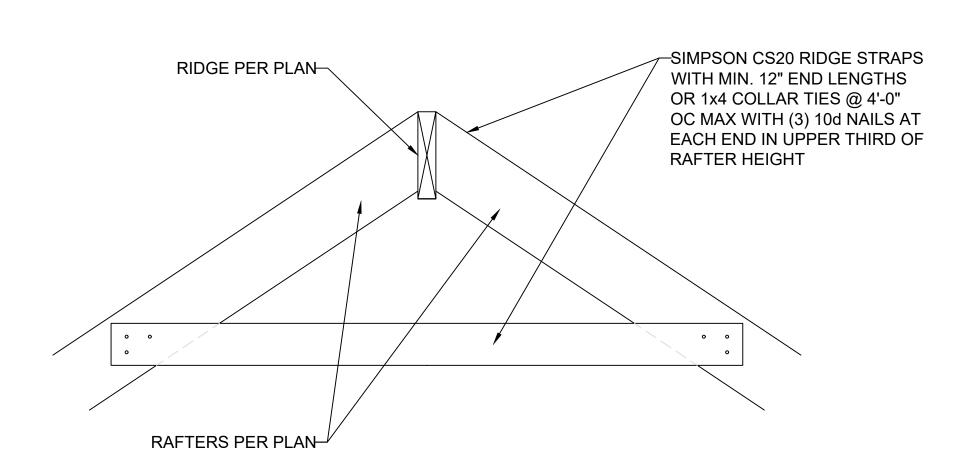
9 DUNN 39, PERGOLA PARK, NEW LONGVI SLIMMIT, MISSOLIRI

DENNIS HEIER

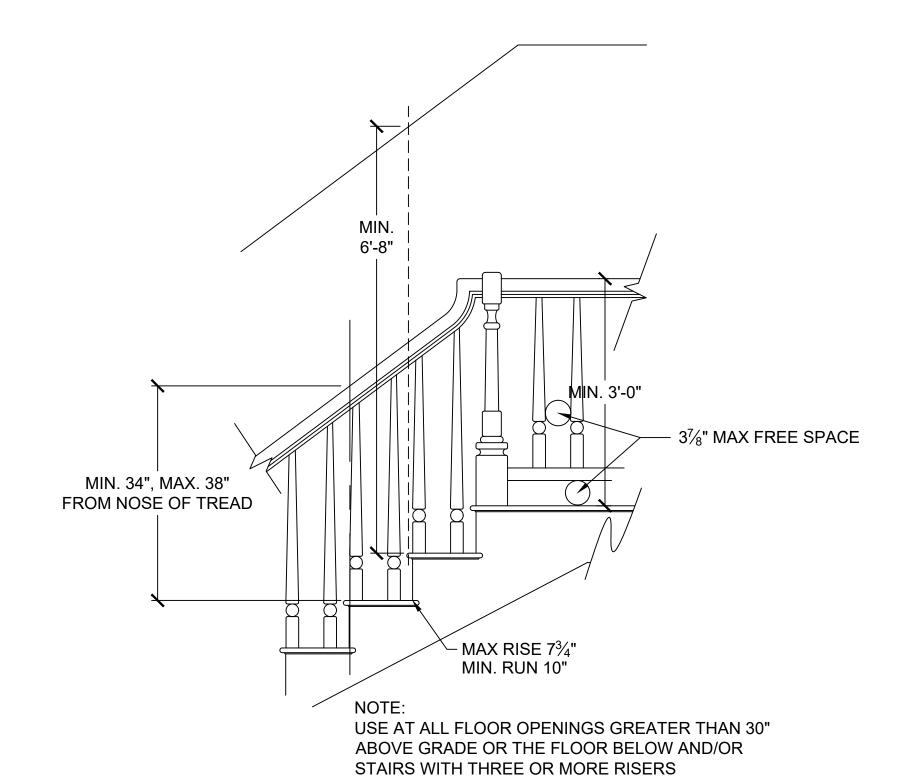
NUMBER

PE-2010001772

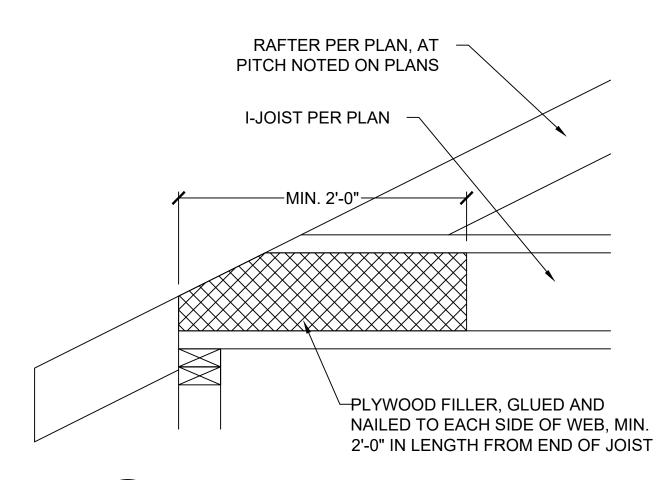




RIDGE FRAMING DETAIL S3.2 SCALE: 1" = 1'-0" (18x24) OR $1\frac{1}{2}$ " = 1'-0" (24x36)



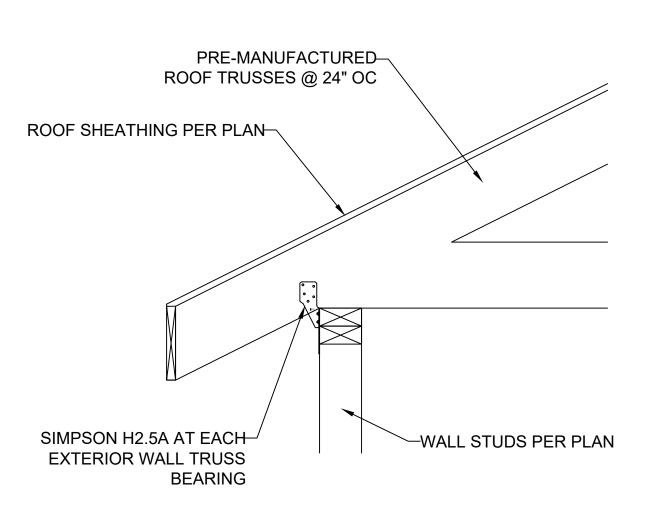
4 \STAIR AND HANDRAIL/GUARDRAIL DETAIL



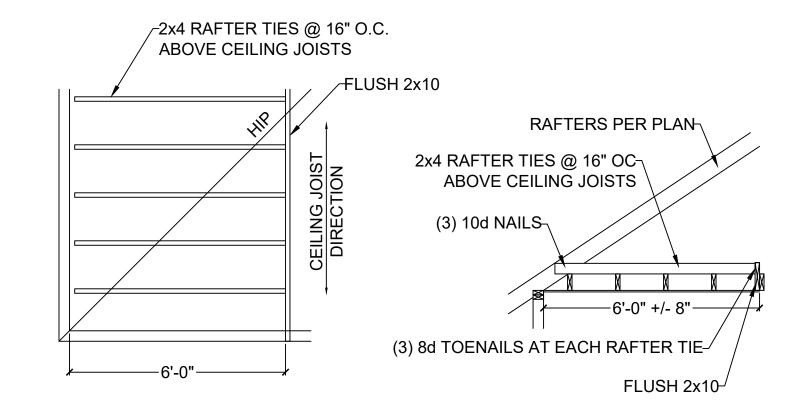
SCALE: $\frac{1}{2}$ " = 1'-0" (18x24) OR $\frac{3}{4}$ " = 1'-0" (24x36)



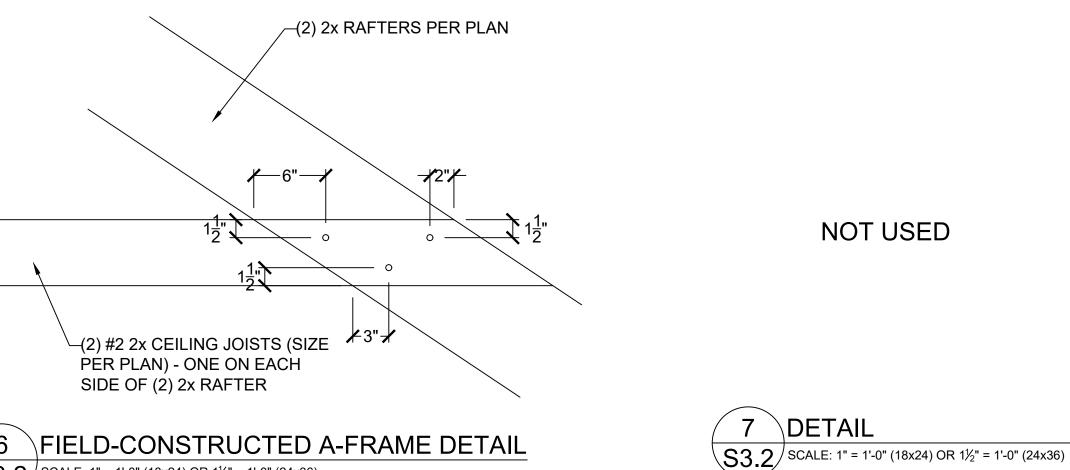
S3.2 SCALE: 1" = 1'-0" (18x24) OR $1\frac{1}{2}$ " = 1'-0" (24x36)



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 1½" = 1'-0" (24x36)

HEADER/BEAM

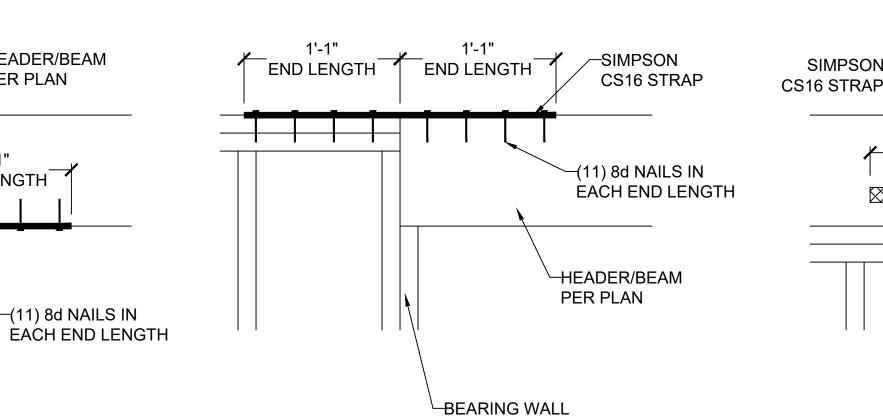
└─(11) 8d NAILS IN

PER PLAN

END LENGTH END LENGTH

BEARING WALL

SIMPSON-CS16 STRAP



| SIMPSON— CS16 STRAP | END OF FLOOR OR CEILING JOIST HEADER/BEAM PER PLAN |
|------------------------|---|
| 1'-1" END LENGTH | 1'-1" END LENGTH |
| | (11) 8d NAILS IN EACH END LENGTH |
| \ В Е | EARING WALL |

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

_2x12 RAFTERS (SHORTER RAFTERS MAY BE FURRED DOWN TO MEET INSULATION AND AIR SPACE REQUIREMENTS) ROOFING ON FELT -2x8 RAFTER ON SHEATHING -1" AIR SPACE ~1" AIR SPACE BETWEEN **INSULATION AND ROOF** SHEATHING EAVE VENT FURRING STRIP AS-VAPOR RETARDER-REQUIRED FOR 11" DEPTH CEILING FINISH CONNECT FURRING STRIP TO 2x8 WITH 3/8" Ø x-/ MIN. 6"-LONG LEDGER-LOK SCREWS @ 36" OC HIGH-DENSITY R-38-/ OR WITH 2x4 ON BOTH SIDES @ 48" OC, FASTENED WITH (2) 10d NAILS TO RAFTER **INSULATION BATTS** (APPROXIMATELY 10" THICK) AND (2) 10d NAILS TO FURRING STRIP **VAULTED RAFTER INSULATION INSTALLATION AND OPTIONAL CONNECTION DETAILS** -2x10 RAFTER -2x6 RAFTER -1" AIR SPACE I" AIR SPACE FURRING STRIP AS-REQUIRED FOR 11" DEPTH FURRING STRIP AS-**REQUIRED FOR 11" DEPTH** 16d COMMON NAILS (0.162" x 3½") @ 8" OC-/ CONNECT FURRING STRIP TO 2x6 WITH-2x4 ON BOTH SIDES @ 48" OC, FASTENED WITH (2) 10d NAILS TO RAFTER AND (2) 10d NAILS TO FURRING STRIP 3 VAULTED RAFTER INSULATION DETAILS

S3.2 | SCALE: 3/4" = 1'-0"

| | SPACING (INCHES O.C.) | | | | |
|--------------|-----------------------|------------|------------|-----|--|
| HEIGHT (FT.) | 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 ROOF | = | |
| 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 | |

NOTES: 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)



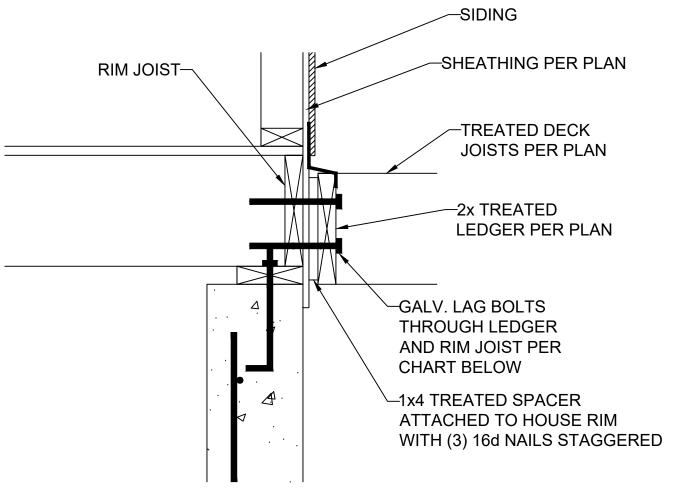
LONGVIEW NEW

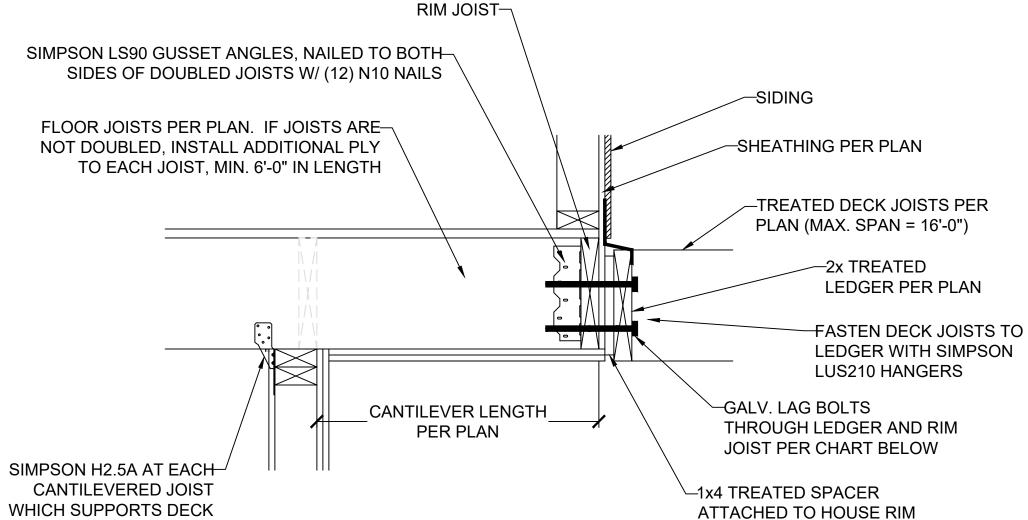


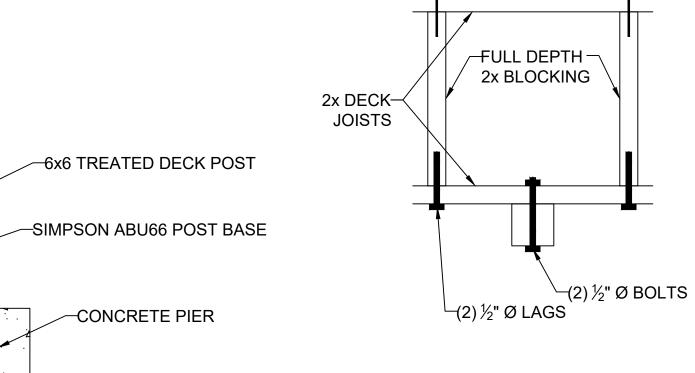
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JOB NO. 2819 DRAWN BY: DMH DATE: 10-20-2020

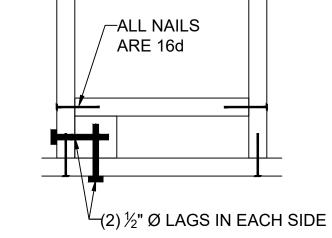
SHEET NUMBER







ALL NAILS ARE 16d



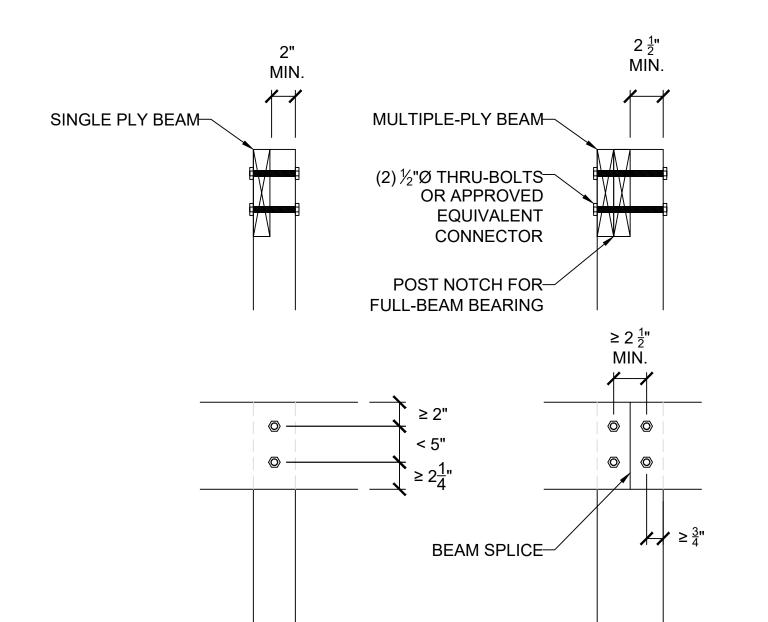


-WOOD BEAM PER PLAN

DECK LEDGER ATTACHMENT GUIDE

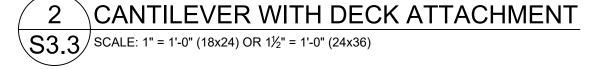
| DECK JOIST SPAN | 1/2" Ø GALV. LAG OR $3/8$ " Ø LEDGER-LOK SPACING |
|--------------------|--|
| 10'-0" OR LESS | 16" OC |
| 10'-0" - 13'-11" | 12" OC OR @ 16" OC DOUBLED EVERY OTHER |
| 14'-0" - 18'-0" | 8" OC OR @ 16" OC DOUBLED |

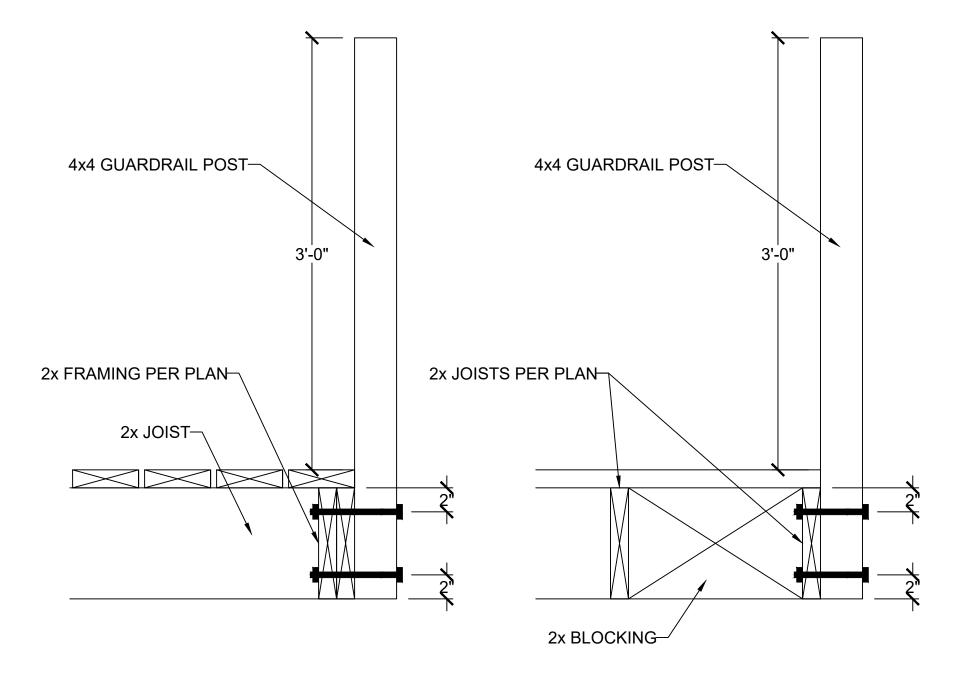




S3.3 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

5 \LET-IN (COVERED) DECK BEAM CONNECTION





─6x6 POST -SIMPSON LCE4 ON BOTH OUTSIDE FACES OF POST/BEAMS -WOOD BEAM PER PLAN ─6x6 POST

SIMPSON LCE4 ON-

OF POST/BEAMS

BOTH OUTSIDE FACES

-WOOD BEAM PER PLAN

ALTERNATE COVERED DECK/PORCH INTERSECTION S3.3/CORNER BEAM CONNECTION SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

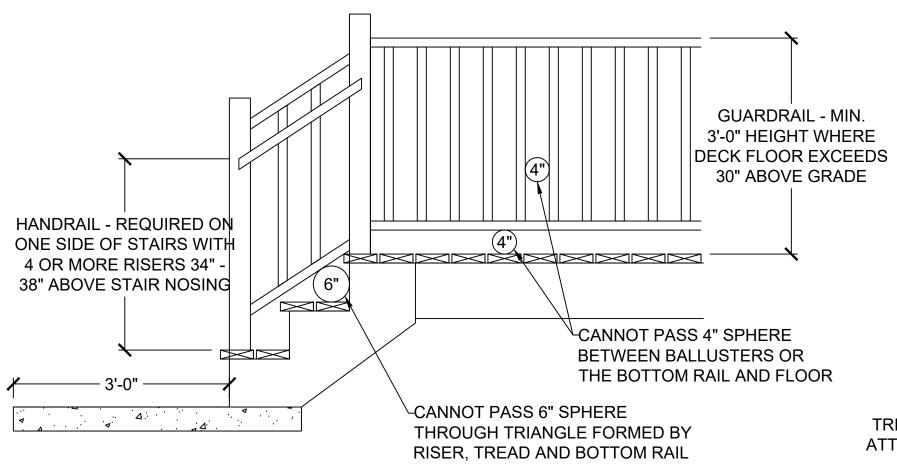
3 DECK POST BASE

_WOOD BEAM PER PLAN

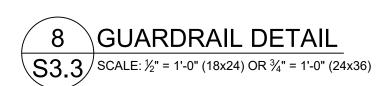
(PERPENDICULAR)

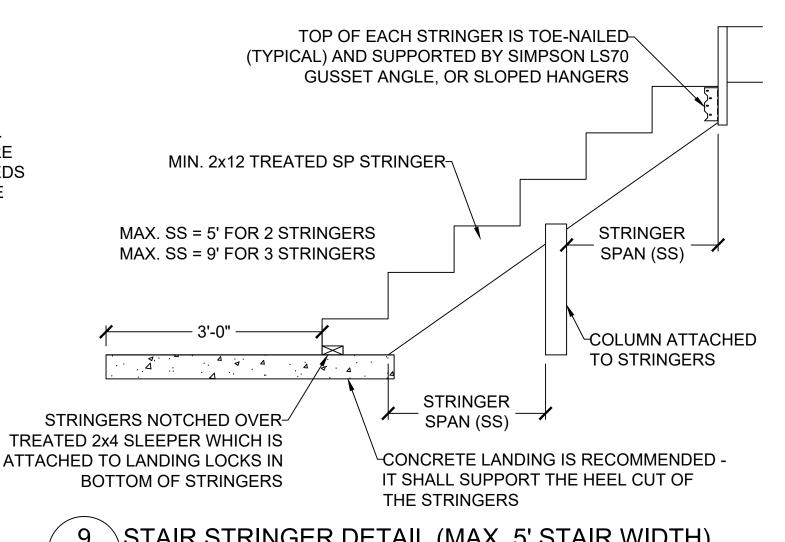
S3.3 SCALE: 1" = 1'-0" (18x24) OR $1\frac{1}{2}$ " = 1'-0" (24x36)

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



WITH (3) 16d NAILS STAGGERED



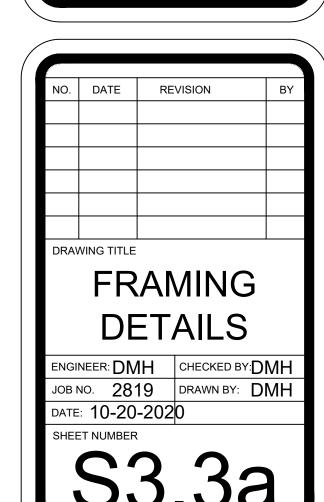


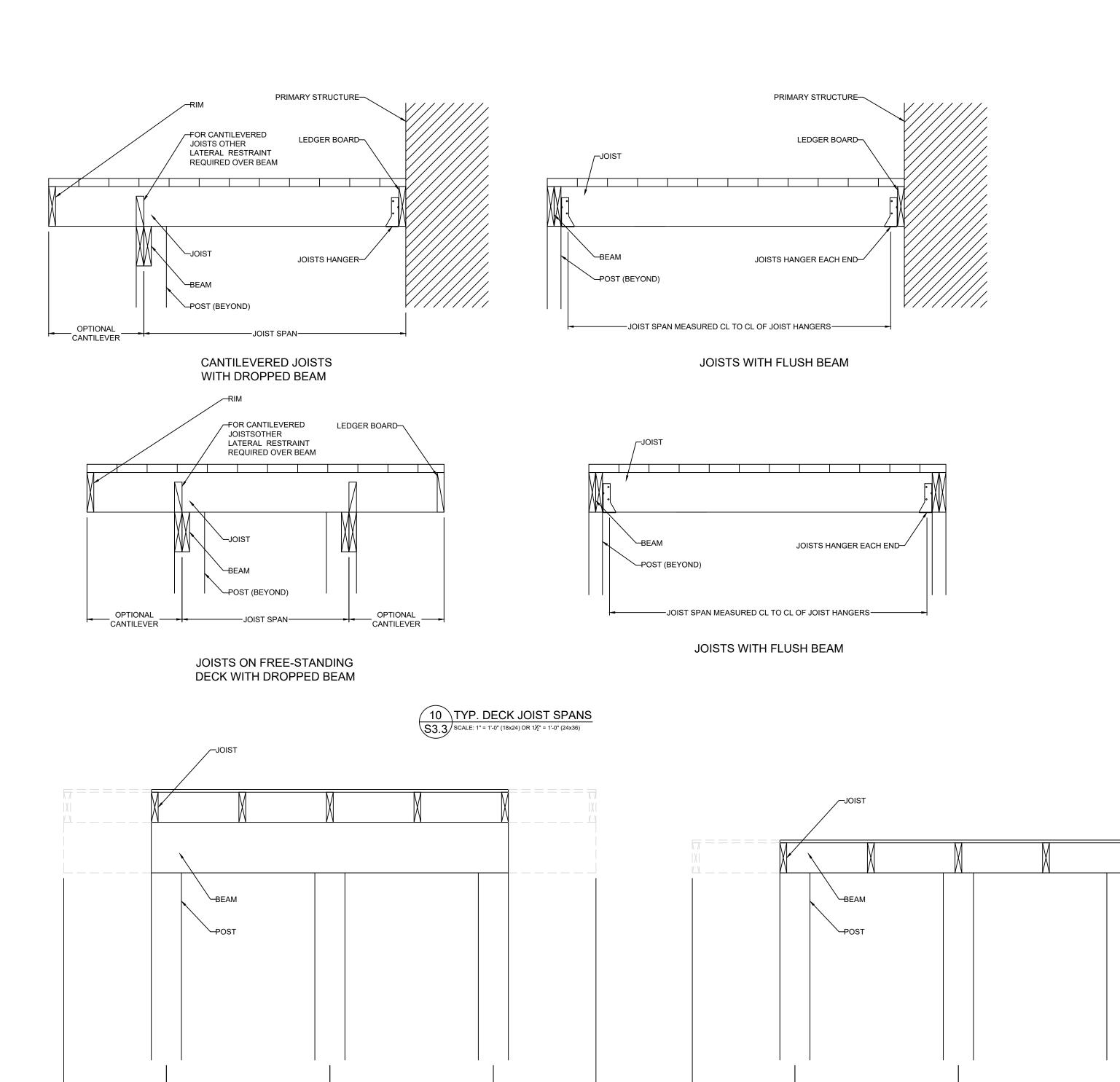
9 \STAIR STRINGER DETAIL (MAX. 5' STAIR WIDTH) S3.3 SCALE: ½" = 1'-0" (18x24) OR ¾" = 1'-0" (24x36)



LONGVIEW 109 DUNN 109, PERG







DROPPED BEAM FLUSH BEAM

___OPTIONAL __ CANTILEVER

—BEAM SPAN—

OPTIONAL CANTILEVER



__OPTIONAL ___ CANTILEVER

—BEAM SPAN—

OPTIONAL ____CANTILEVER



K, NEW LONGVIEW

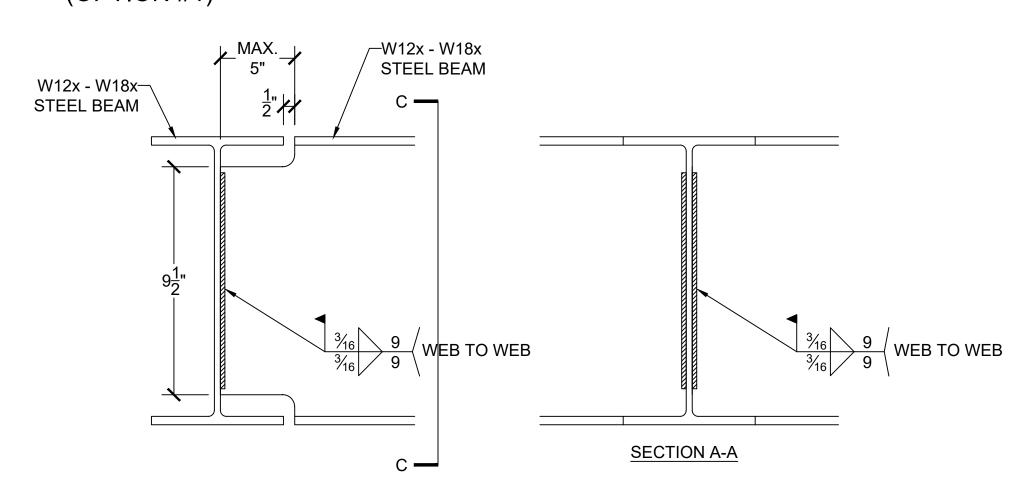
NLV109 DUNN LOT 109, PERGOLA PA



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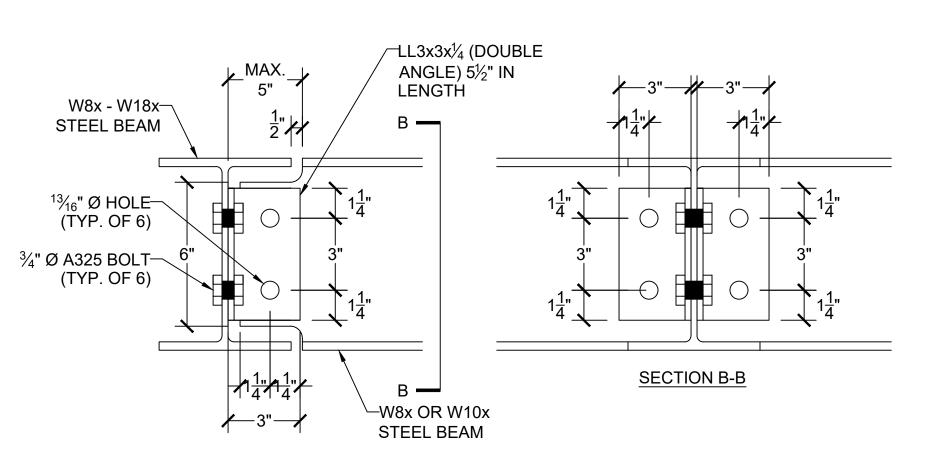
WELDED T-BEAM CONNECTION FOR W8x AND W10x BEAMS S3.4 SCALE: 2" = 1'-0" (18x24) OR 3" = 1'-0" (24x36)

(OPTION #1)



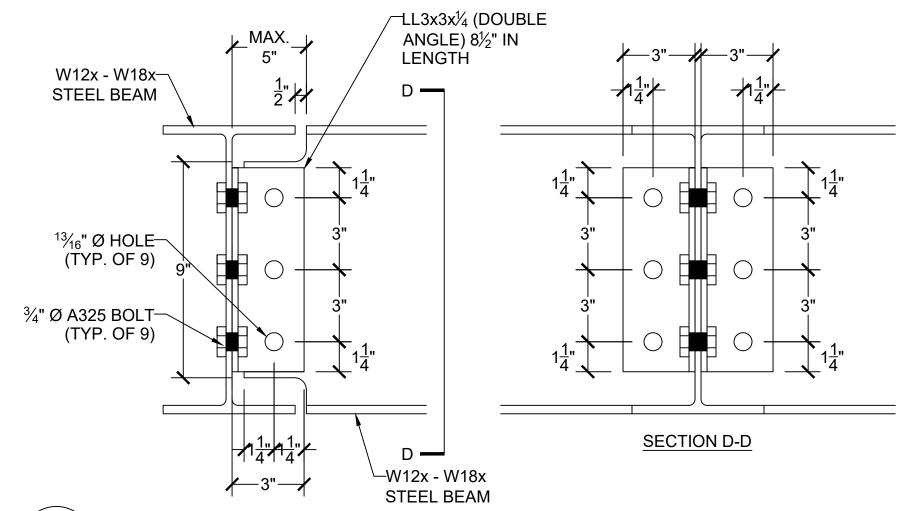
2 \WELDED T-BEAM CONNECTION FOR W12x, W14x, W16x & W18x BEAMS SCALE: 2" = 1'-0" (18x24) OR 3" = 1'-0" (24x36)

(OPTION #1)



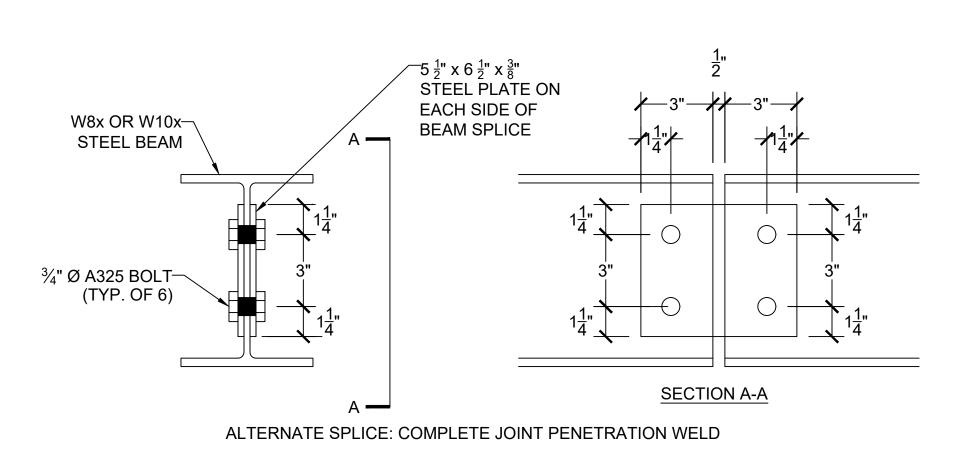
BOLTED T-BEAM CONNECTION FOR W8x AND W10x BEAMS SCALE: 2" = 1'-0" (18x24) OR 3" = 1'-0" (24x36)

(OPTION #2)

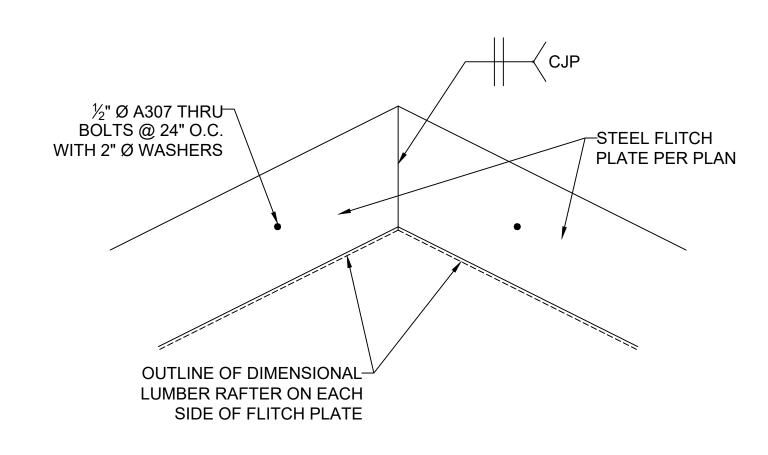


2 BOLTED T-BEAM CONNECTION FOR W12x, W14x, W16x & W18x BEAMS SCALE: 2" = 1'-0" (18x24) OR 3" = 1'-0" (24x36)

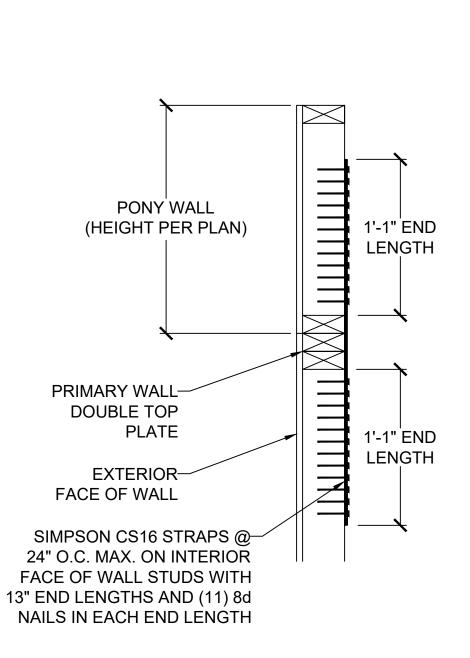
(OPTION #2)



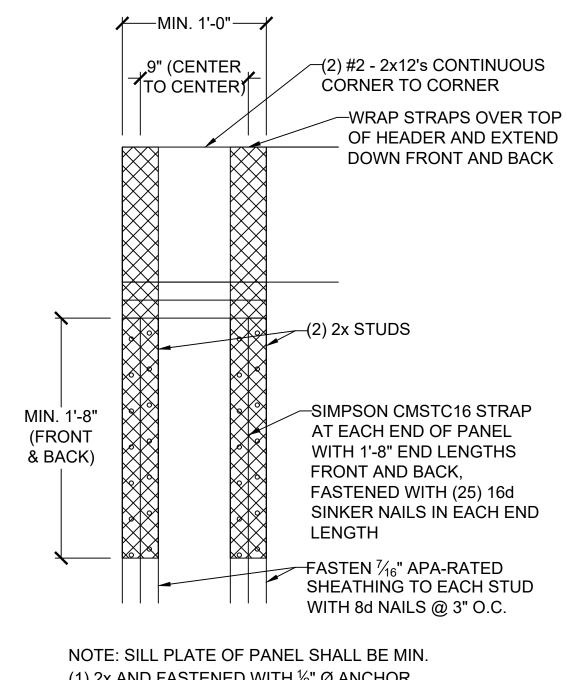
3 BEAM SPLICE CONNECTION FOR W8x AND W10x BEAMS S3.4 | SCALE: 2" = 1'-0" (18x24) OR 3" = 1'-0" (24x36)



4 RAFTER FLITCH PLATE DETAIL S3.4 SCALE: 1" = 1'-0" (18x24) OR $1\frac{1}{2}$ " = 1'-0" (24x36)

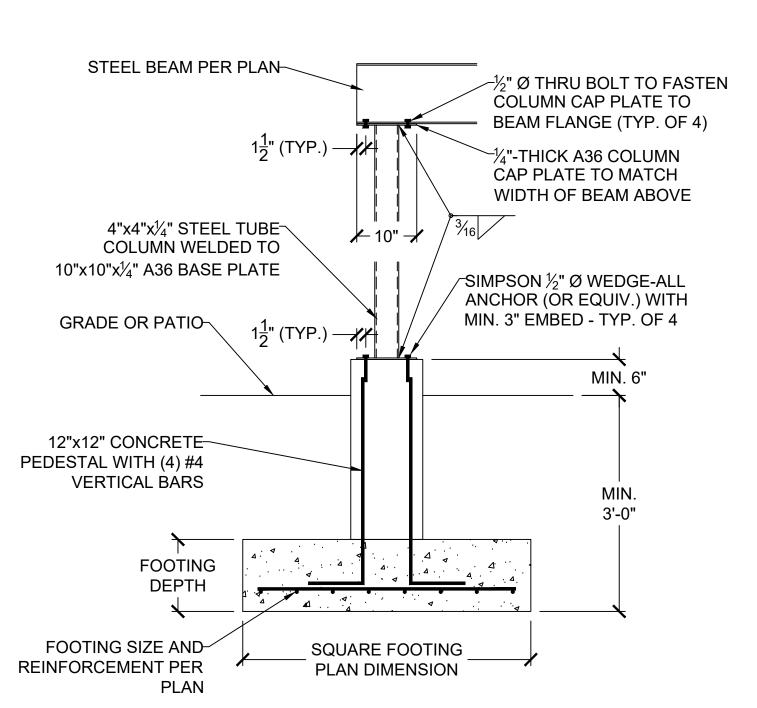




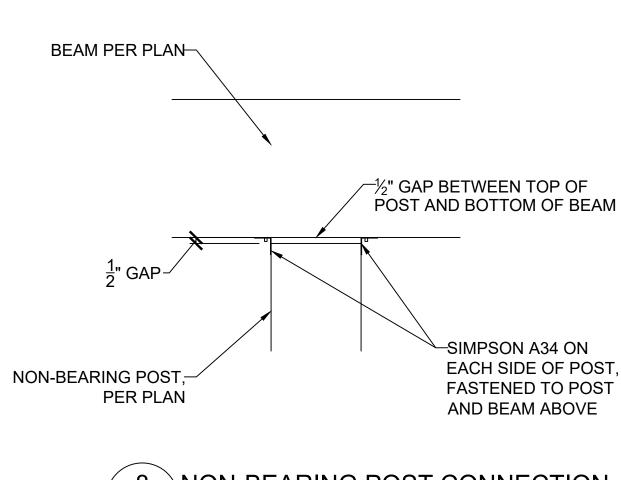


(1) 2x AND FASTENED WITH ½" Ø ANCHOR BOLT AND 2" Ø WASHER PLATE

\3RD CAR STALL BRACING S3.4 SCALE: 1" = 1'-0" (18x24) OR $1\frac{1}{2}$ " = 1'-0" (24x36)



\EXTERIOR STEEL COLUMN CONNECTIONS S3.4 SCALE: $\frac{1}{2}$ " = 1'-0" (18x24) OR $\frac{3}{4}$ " = 1'-0" (24x36)



8 \NON-BEARING POST CONNECTION S3.4 SCALE: 1" = 1'-0" (18x24) OR $1\frac{1}{2}$ " = 1'-0" (24x36)



LONGVIEW DUNN), PERG



