

MIDDLETON-RALE

RALEIGH - LOT 00.0027 THE FARM AT NEILL'S CREEK

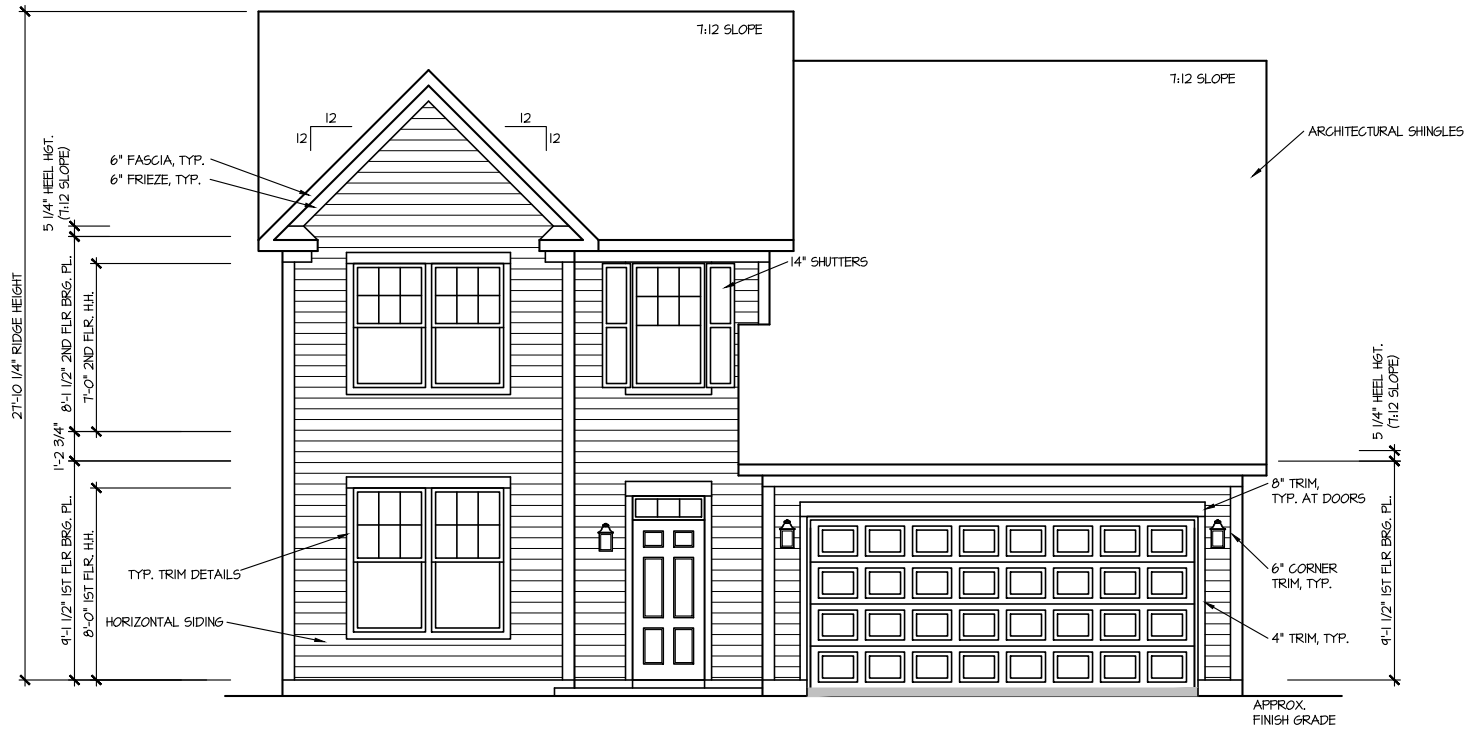
(MODEL# 2183)

ELEVATION 1- GR

The logo for DRB HOMES, featuring the letters "DRB" in a large, bold, black sans-serif font, with the word "HOMES" in a smaller, blue, sans-serif font directly below it.[illegible]

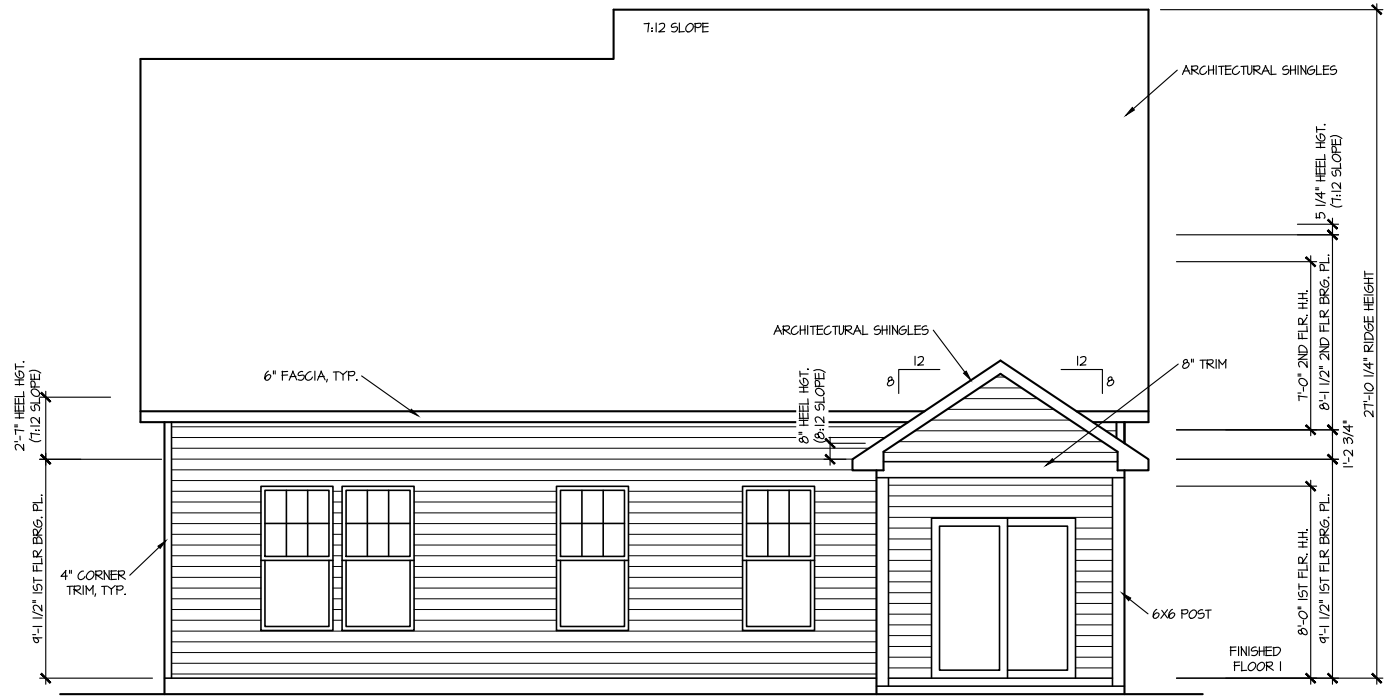
296 Peach Grove Way

[illegible]



FRONT ELEVATION I

SCALE: 1/8" = 1'-0"



REAR ELEVATION I

SCALE: 1/8" = 1'-0"

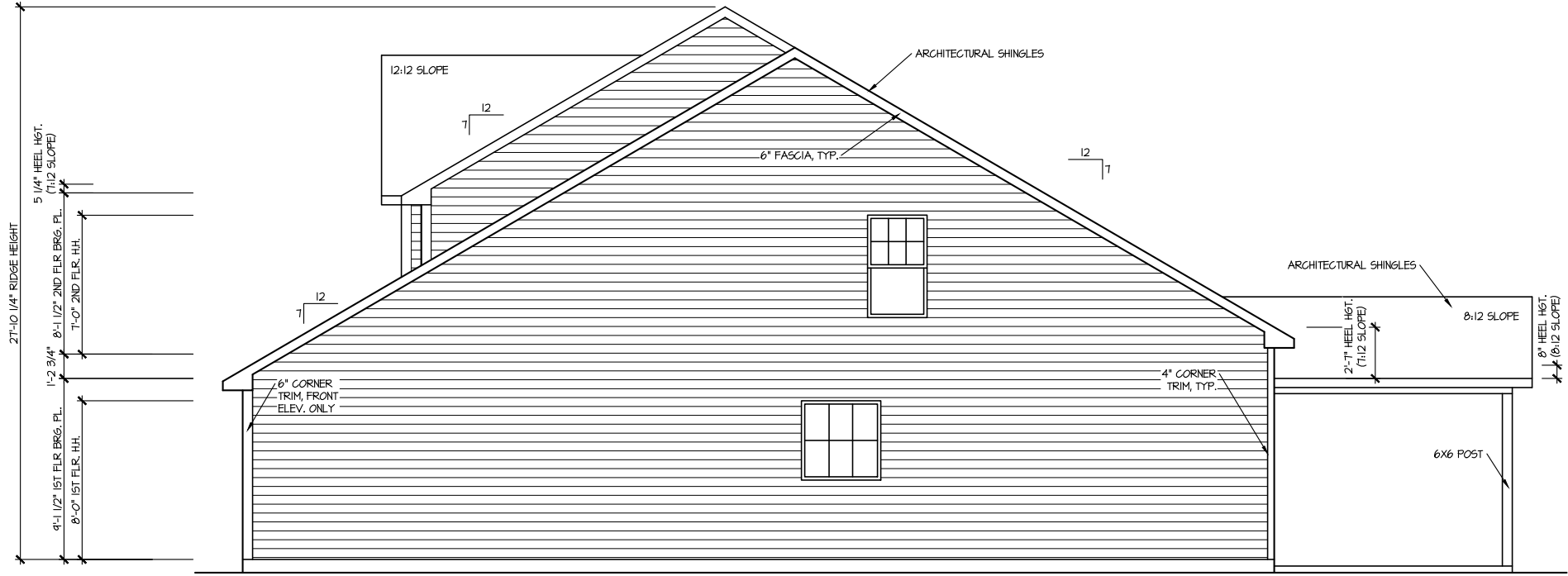
MASTER PLAN INFORMATION			
REVISION	DATE	DATE	UPDATED DATE
2-RALE	03-20-2024		09-23-2024

DRAWN BY:	ITS
DATE:	09/05/2025
PLAN NO.	2183

DRB
HOMES

HOUSE NAME:
MIDDLETON
DRAWING TITLE
FRONT & REAR ELEVATIONS

SHEET No.
A.1



RIGHT ELEVATION I
SCALE: 1/8" = 1'-0"



LEFT ELEVATION I
SCALE: 1/8" = 1'-0"

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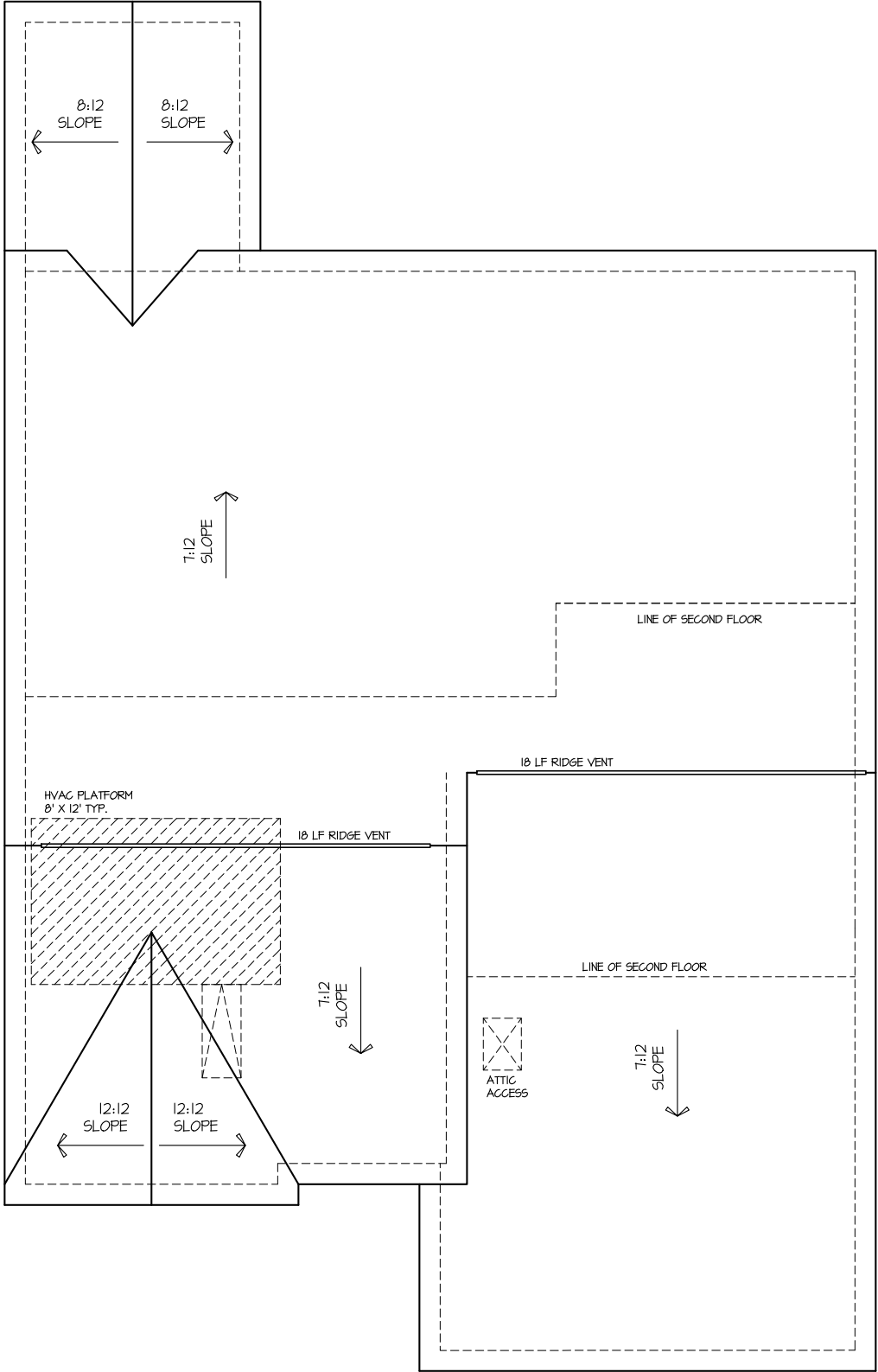
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DRB
HOMES

HOUSE NAME:
MIDDLETON
DRAWING TITLE
RIGHT & LEFT ELEVATIONS

SHEET No.
A.2

ROOF VENTILATION CALCULATIONS:
ROOF AREA = 2102 SQ. FT.
OVERALL REQUIRED VENTILATION:
1 TO 150 = 14.01 SQ. FT.
1 TO 300 = 7.01 SQ. FT.
50-80% IN TOP THIRD = 3.50 - 5.61 SQ. FT. (1 TO 300)
NET FREE AREA OF VENTED SOFFIT = 5.1 SQ. IN / LINEAR FT.
NET FREE AREA OF RIDGE VENT = 18 SQ. IN / LINEAR FT.
LOWER VENTING (BOTTOM 2/3 ROOF)
14 LINEAR FEET OF SOFFIT X 5.1 SQ. IN = 243 SQ. FT.
UPPER VENTING (TOP 1/3 ROOF)
36 LINEAR FEET OF RIDGE X 18 SQ. IN = 4.5 SQ. FT.
4.00 SQ. FT. BETWEEN 50% - 80%
(1 TO 300 ALLOWED)
TOTAL ROOF VENTILATION: 1.43 SQ. FT. > 7.01 SQ. FT. (REQ'D)



ROOF PLAN ELEV. 1

SCALE: 1/8" = 1'-0"

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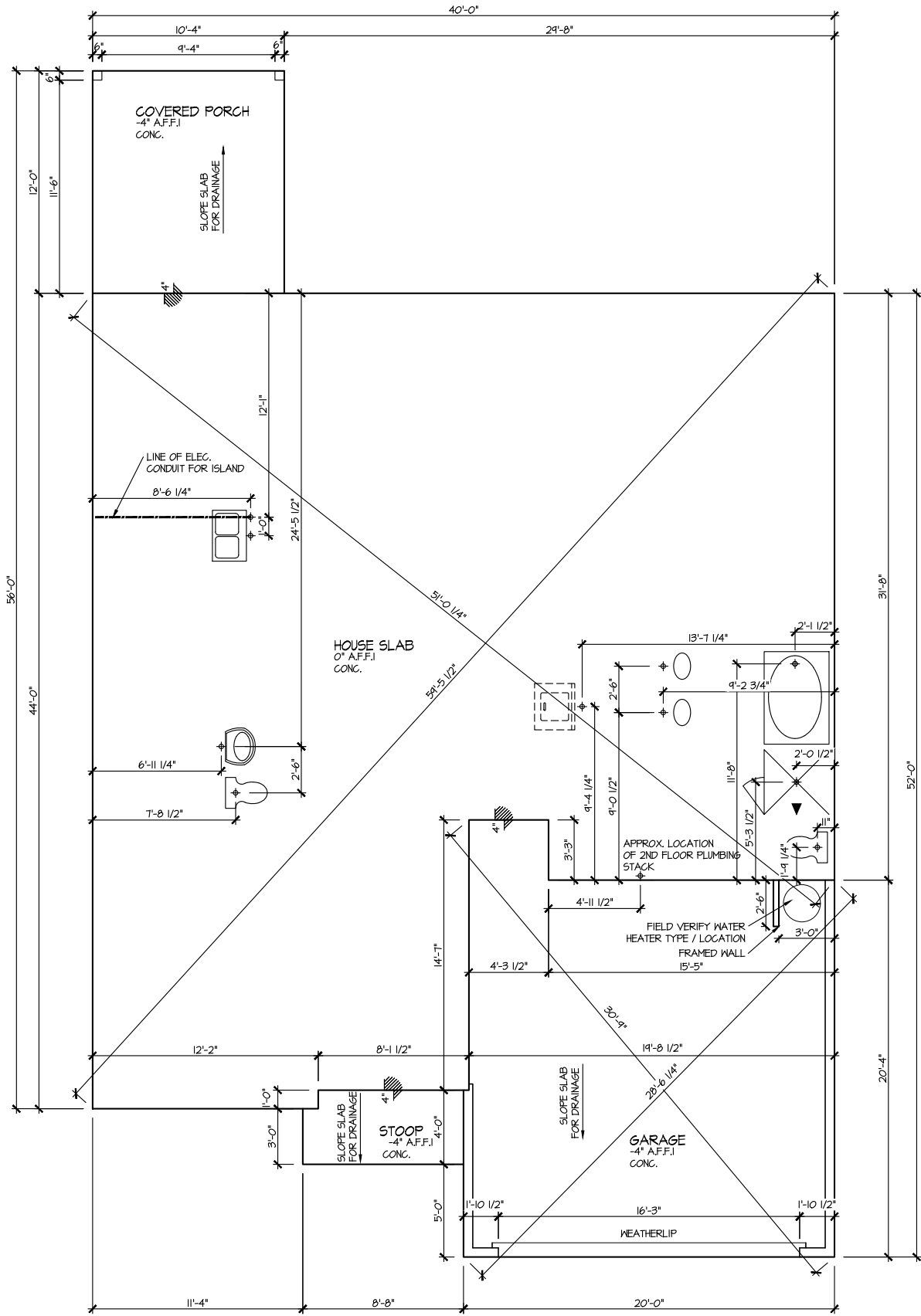
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HOUSE NAME:
MIDDLETON
DRAWING TITLE
ROOF PLAN

SHEET No.

A.3



ELEVATION I
SLAB PLAN

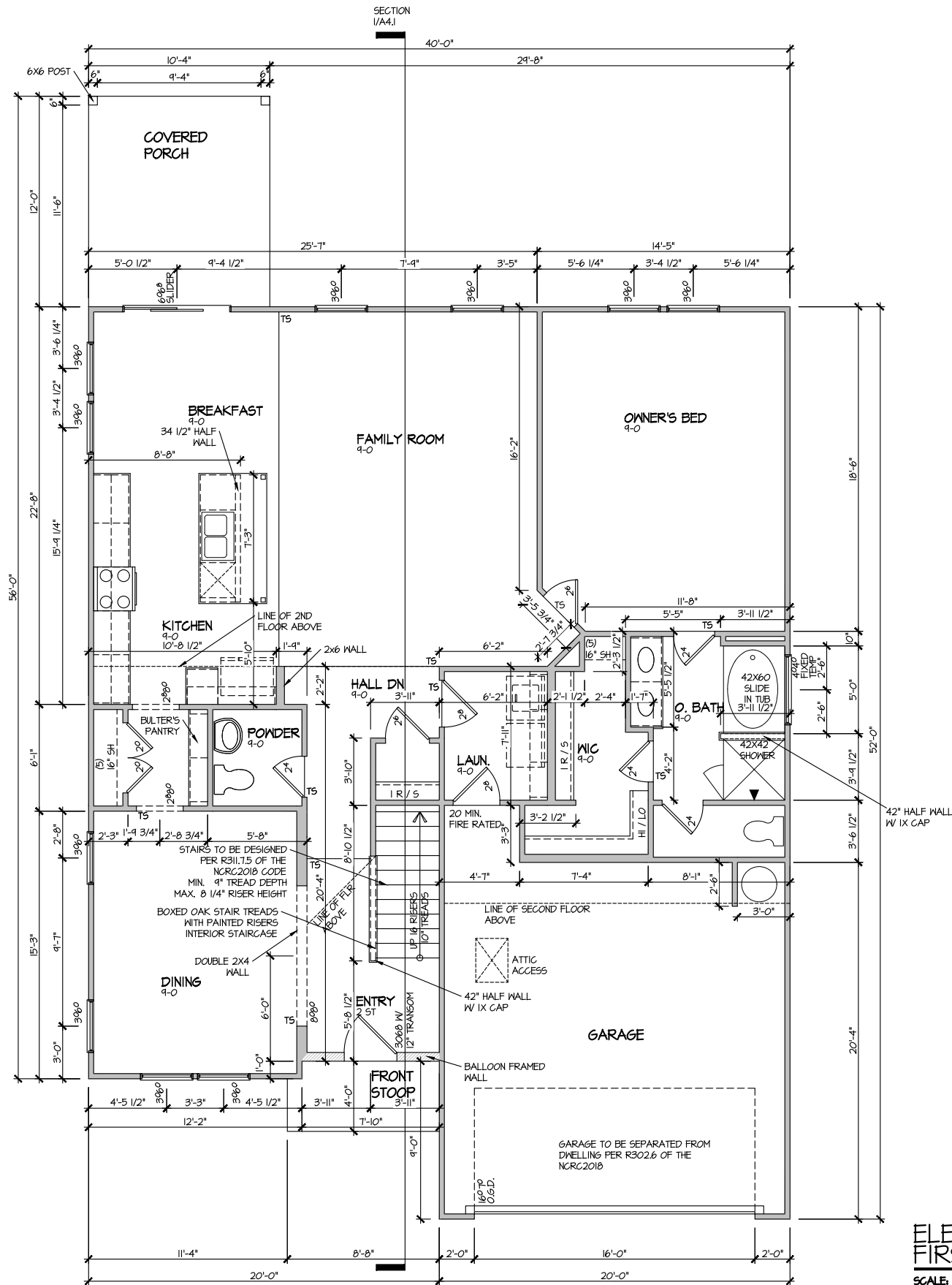
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HOUSE NAME:
MIDDLETON
DRAWING TITLE
SLAB PLAN

SHEET No.
A2.1



ELEVATION I
FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

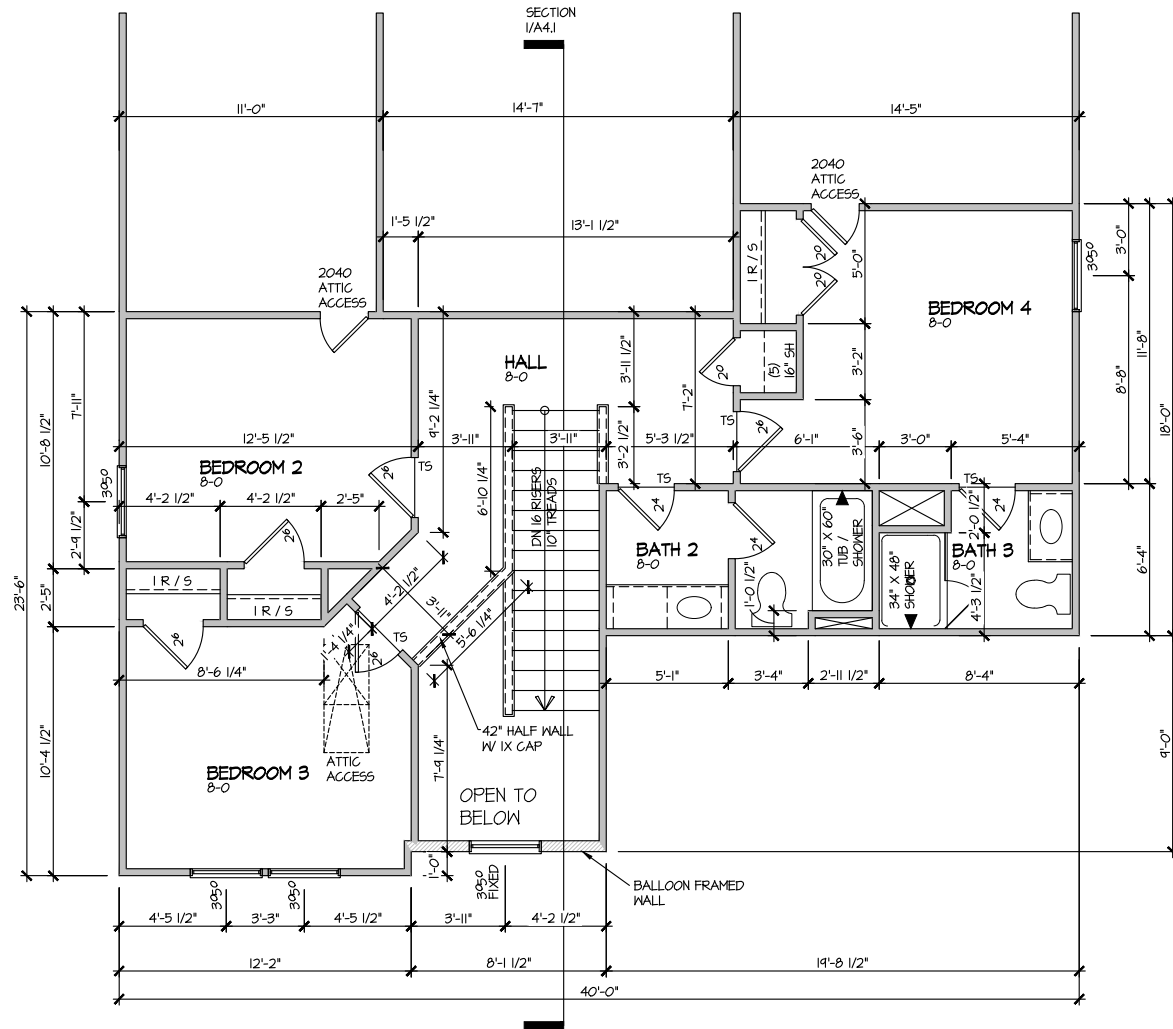
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PLAN NO.	2183



HOUSE NAME:	MIDDLETON
DRAWING TITLE	FIRST FLOOR PLAN

SHEET No.
A3.1



ELEVATION I
SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"

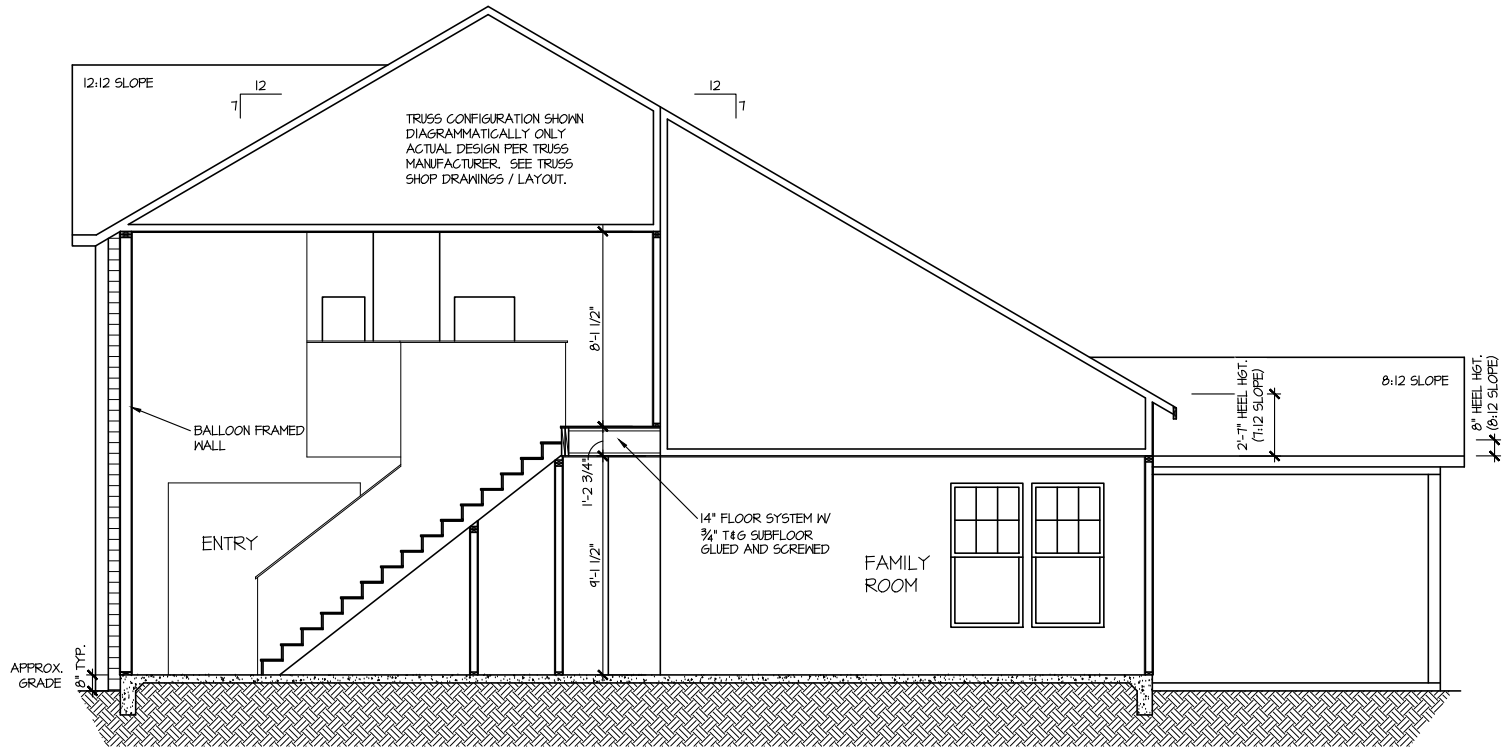
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PLAN NO.	2183

DRB
HOMES

HOUSE NAME:
MIDDLETON
DRAWING TITLE
SECOND FLOOR PLAN

SHEET No.
A3.2



SECTION I
SCALE: 1/8\" = 1'-0"

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PLAN NO.	2183

DRB
HOMES

HOUSE NAME:
MIDDLETON
DRAWING TITLE
BUILDING SECTION

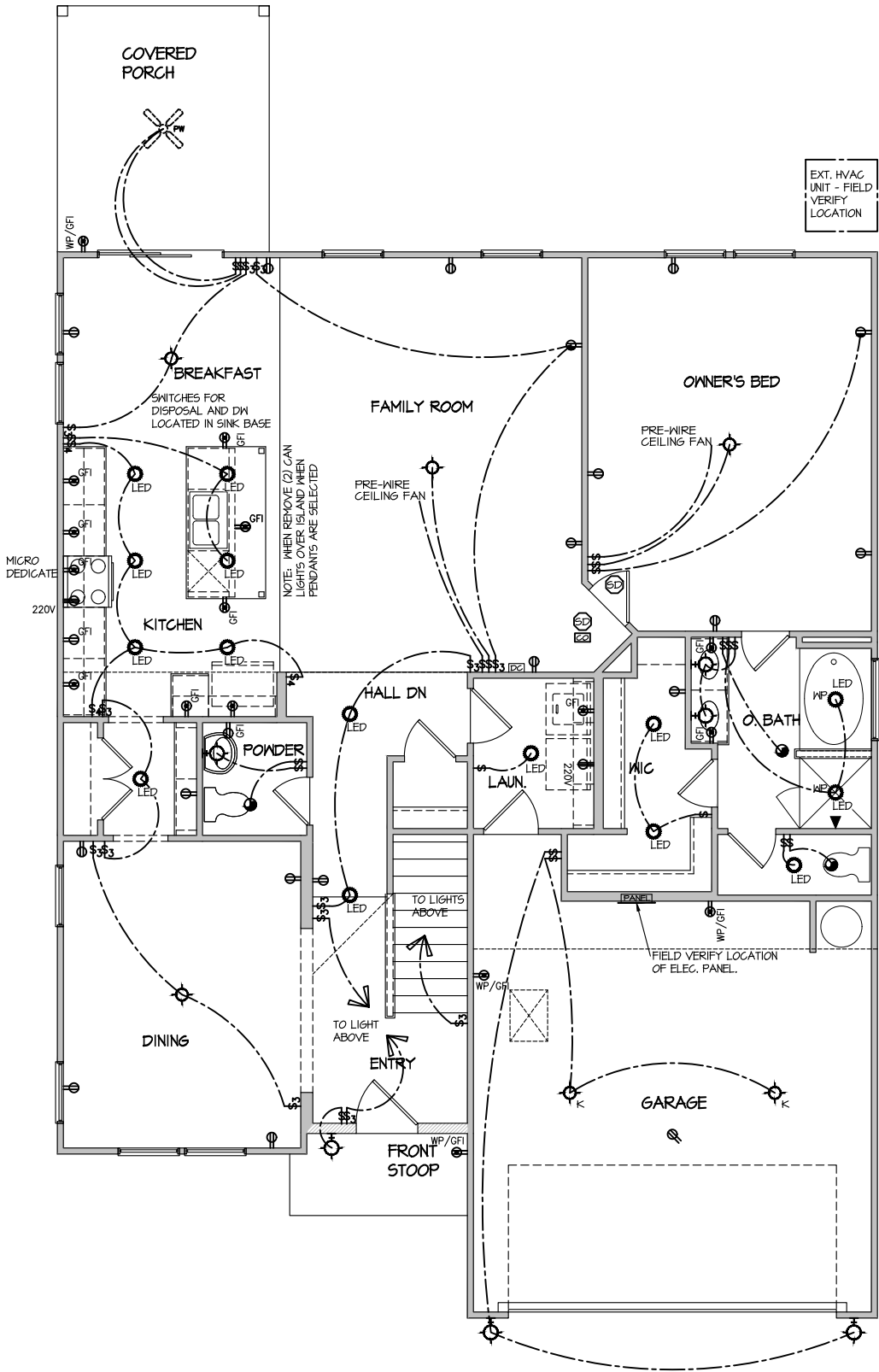
SHEET No.
A4.1

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ELECTRICAL LEGEND

- ⌚ SINGLE POLE SWITCH
- ⌚₃ THREE WAY SWITCH
- ⌚₄ FOUR WAY SWITCH
- ⊕ DUPLEX AFCI RECEPTACLE
- ⊕ DUPLEX AFCI RECEPTACLE - BOTTOM HALF SWITCHED
- ⊕ DUPLEX AFCI RECEPTACLE - FLOOR MOUNTED
- 220V ⊕ RECEPTACLE - 220V
- GFI ⊕ DUPLEX AFCI RECEPTACLE - GFI
- WP/GFI ⊕ DUPLEX AFCI RECEPTACLE - WATERPROOF GFI
- Ⓢ SMOKE DETECTOR - WIRED IN SERIES
- Ⓢ EXHAUST FAN MOTOR
- Ⓢ CO DETECTOR
- Ⓢ DOOR CHIME
- Ⓢ LIGHT FIXTURE - WALL MOUNTED
- Ⓢ LIGHT FIXTURE - CEILING MOUNTED
- LED LIGHT FIXTURE - LED SURFACE MOUNTED
- Ⓢ_P PULLCHAIN LAMPHOLDER
- Ⓢ_K KEYLESS LAMPHOLDER

NOTE: ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE ADOPTED VERSION OF THE NATIONAL ELECTRICAL CODE, THE LOCAL POWER COMPANY AND TO ALL APPLICABLE LOCAL REGULATIONS.



ELECTRICAL PLAN
FIRST FLOOR - ELEV. 1

SCALE: 1/8" = 1'-0"

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DRB
HOMES

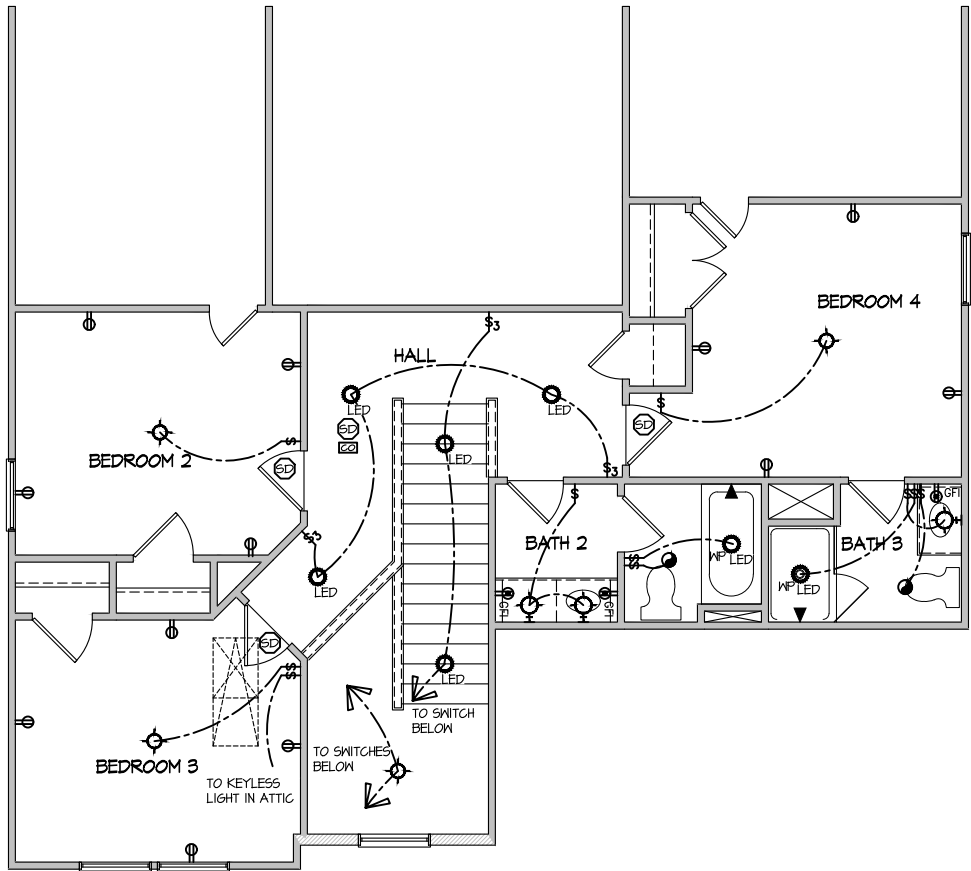
HOUSE NAME:
MIDDLETON
DRAWING TITLE
FIRST FLOOR ELECTRICAL

SHEET No.
11

ELECTRICAL LEGEND

- ⌀ SINGLE POLE SWITCH
- ⌀₃ THREE WAY SWITCH
- ⌀₄ FOUR WAY SWITCH
- ⊖ DUPLEX AFCI RECEPTACLE
- ⊖ DUPLEX AFCI RECEPTACLE - BOTTOM HALF SWITCHED
- ⊖ DUPLEX AFCI RECEPTACLE - FLOOR MOUNTED
- 220V ⊖ RECEPTACLE - 220V
- GFI ⊖ DUPLEX AFCI RECEPTACLE - GFI
- WP/GFI ⊖ DUPLEX AFCI RECEPTACLE - WATERPROOF GFI
- ⊖ SD SMOKE DETECTOR - WIRED IN SERIES
- ⊖ EXHAUST FAN MOTOR
- ⊖ CO DETECTOR
- ⊖ DOOR CHIME
- ⊖ H LIGHT FIXTURE - WALL MOUNTED
- ⊖ LIGHT FIXTURE - CEILING MOUNTED
- ⊖ LED LIGHT FIXTURE - LED SURFACE MOUNTED
- ⊖ P FULLCHAIN LAMPHOLDER
- ⊖ K KEYLESS LAMPHOLDER

NOTE: ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE ADOPTED VERSION OF THE NATIONAL ELECTRICAL CODE, THE LOCAL POWER COMPANY AND TO ALL APPLICABLE LOCAL REGULATIONS.



ELECTRICAL PLAN
SECOND FLOOR - ELEV. 1
SCALE: 1/8" = 1'-0"

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PLAN NO.	2183

DRB
HOMES

HOUSE NAME:
MIDDLETON
DRAWING TITLE
SECOND FLOOR ELECTRICAL

SHEET No.
1.2

GENERAL STRUCTURAL NOTES

FOUNDATION

- DESIGN IS BASED ON 2018 NORTH CAROLINA STATE BUILDING CODE, RESIDENTIAL CODE.
- FOOTING DESIGN - 2000 PSF ALLOWABLE SOIL BEARING PRESSURE IS ASSUMED. BUILDER/CONTRACTOR MUST VERIFY.
- FASTEN 2x SILL PLATES TO FND WITH A MINIMUM OF 2 ANCHORS PER PLATE, 12" MAX. FROM PLATE ENDS - UTILIZING:
 - 1/2" DIA. ANCHOR BOLTS @ 6'-0" O.C., 7" MIN. EMBEDMENT (CONC), 15" MIN. EMBEDMENT (CMU)
 - SIMPSON MASA ANCHOR STRAPS @ 6'-0" O.C. (CONC)
 - SIMPSON MAB23 ANCHOR STRAPS @ 2'-8" O.C. (CMU)(REFER TO DETAILS FOR 10' TALL WALL ANCHOR REQUIREMENTS)
- ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT W/ CONCRETE OR CMU SHALL BE PRESERVATIVE TREATED SOUTHERN PINE #2.
- BUILDER TO VERIFY CORROSION-RESISTANCE COMPATIBILITY OF HARDWARE & FASTENERS IN CONTACT W/ PRESERVATIVE-TREATED WOOD. CONTACT LUMBER & HARDWARE SUPPLIERS TO COORD.
- BASEMENT INTERIOR BEARING WALLS & EXTERIOR WALK-OUT BASEMENT WALLS SHALL BE 2x6 @ 16" O.C. SFF OR SYP, "STUD" GRADE OR BETTER.
- CONCRETE DESIGN BASED ON ACI 318. CONCRETE SHALL ATTAIN THE FOLLOWING MIN. COMPRESSIVE STRENGTHS IN 28 DAYS, UNO.:
 - F_c = 4,000 psi FOUNDATION WALLS
 - 2,500 psi FOOTINGS & INTERIOR SLABS ON GRADE
 - 3,000 psi GARAGE & EXTERIOR SLABS ON GRADE
 - f_y = 60,000 psi
- BASEMENT FOUNDATION WALL DESIGN BASED ON:
 - 9' OR 10' HEIGHT (AS NOTED ON PLANS)
 - TALLER WALLS MUST BE ENGINEERED.
 - NOMINAL WIDTH (1 1/2" FOR 10" THICK WALL).
- BASEMENT WALL DESIGN IS BASED ON 60 PCF BACKFILL SOIL TYPE CLASSIFICATIONS (SC, ML-CL, OR CL).
- BASEMENT WALLS SHALL BE BRACED, PRIOR TO BACKFILLING, BY ADEQUATE TEMPORARY BRACING OR INSTALL 1st FLOOR DECK.
- PROVIDE (2) #5 BARS AROUND ALL SIDES OF OPENINGS IN CONCRETE BSMT. FND. WALL WITH 2" CLEAR. REINFORCEMENT SHALL EXTEND 12" PAST CORNER OF OPENING IN ALL DIRECTIONS.
 - FOR OPENINGS UP TO 36", PROVIDE MINIMUM 10" CONCRETE DEPTH OVER OPENING OR (3)2x10 W/ (2)2x6 JACK STUDS, UNO.
 - LARGER OPENINGS SHALL BE PER PLAN.
- ALL CONCRETE EXPOSED TO THE WEATHER SHALL NOT HAVE LESS THAN 5% OR MORE THAN 1% AIR ENTRAINMENT.
- ALL FOOTINGS SHALL BEAR AT LEAST 12" BELOW FINISH GRADE.
- FOOTINGS AND SLABS ON GRADE SHALL BEAR ON VIRGIN SOIL OR 95% COMPACTED FILL.
- PROVIDE CONTROL JOINTS AT ALL INSIDE CORNERS OF SLAB EDGES, AND OTHER LOCATIONS WHERE SLAB CRACKS ARE LIKELY TO DEVELOP.
 - JOINTS SHALL BE LOCATED @ 10'-0" O.C. (RECOMMENDED) OR 15'-0" O.C. (MAXIMUM)
 - JOINT GRID PATTERN SHALL BE AS CLOSE TO SQUARES AS POSSIBLE (1:1 RATIO), WITH A MAXIMUM OF 1:1.5 RATIO
 - CONTROL JOINTS SHALL NOT BE INSTALLED IN STRUCTURAL SLABS
- CONCRETE MASONRY UNITS (CMU) SHALL BE ASTM C90 WITH A MIN. COMPRESSIVE STRENGTH OF 1900 psi (F_m=1500 psi). MORTAR SHALL BE ASTM C270, TYPE S. CMU DESIGN PER ACI 530 & 530J.
- CMU FOUNDATION WALLS SHALL HAVE "DUR-O-WALL" HORIZONTAL JOINT REINFORCEMENT (OR EQUAL) - 4 GA. MINIMUM @ 16" O.C.
- PROVIDE 2x6 (MIN.) x 16" LONG P.T. PLATE ON TOP OF ALL CRAWL SPACE PIERS. ALL PIERS SHALL BE FASTENED PER ANCHORAGE SPECIFICATIONS NOTED ABOVE. TOP 2 COURSES (MIN.) OF PIER TO BE GROUTED SOLID (8 COURSE MAX. PIER HEIGHT).
- PROVIDE 2x6 P.T. PLATE ON INTERIOR CRAWL SPACE WALLS, FASTENED PER ANCHORAGE SPECIFICATION NOTED ABOVE. TOP 2 COURSES (MIN.) OF WALL TO BE GROUTED SOLID (8 COURSE MAX. WALL HEIGHT)
- DIMENSIONS BY OTHERS, BUILDER TO VERIFY.
- BUILDER TO VERIFY THAT MODEL HAS BEEN ADEQUATELY TREATED BY A LICENSED AND BONDED PEST CONTROL COMPANY FOR SUBTERRANEAN TERMITES. METHOD AND TYPE OF TREATMENT TO BE DETERMINED BY PEST CONTROL COMPANY.

GENERAL STRUCTURAL NOTES

- DESIGN IS BASED ON 2018 NORTH CAROLINA STATE BUILDING CODE, RESIDENTIAL CODE.
- WOOD FRAME ENGINEERING IS BASED ON NDS, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" - LATEST EDITION.
- DESIGN LOADS:
 - ROOF DEAD = 7 PSF T.C., 10 PSF B.C.
LIVE = 16 PSF
LOAD DURATION FACTOR = 1.25
 - FLOOR LIVE = 40 PSF (30 PSF @ SLEEPING AREAS)
DEAD = 10 PSF (1-JOISTS & SOLID SAWN)
10 PSF T.C., 5 PSF B.C. (TRUSSES)
(ADD'L 10 PSF @ TILE)
 - LATERAL 120 MPH, EXPOSURE B. SEISMIC A/B.
 - SOIL 2,000 PSF ASSUMED ALLOWABLE BEARING PRESSURE (TO BE VERIFIED BY BUILDER)

GENERAL FRAMING

- ALL TYP. NAIL FASTENER REQUIREMENTS ARE NOTED IN STANDARD CONNECTIONS TABLE OR ON PLANS. ALL NAILS SPECIFIED ARE MIN DIAMETER AND LENGTH REQUIRED FOR CONNECTION. ALL HANGER NAILS SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS FOR MAX CHARTED CAPACITY. NOTE: HANGERS USE COMMON NAIL DIAMETERS NOT TYPICAL FRAMING GUN NAILS.
- REFER TO FASTENING SCHEDULE TABLE R602.3(1) FOR ALL CONNECTIONS, TYP. UNO.
- EXT. & INT. BRG WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. SFF OR SYP "STUD" GRADE LUMBER, OR BETTER, UNO.
 - WALLS OVER 12' TALL SHALL BE PER PLAN.
- ALL HEADERS, BEAMS & OTHER STRUCTURAL MEMBERS SHALL BE SPRUCE-PINE-FIR #2 (SFF) OR SOUTHERN PINE #2 (SYP) LUMBER, OR BETTER (KILN-DRIED). ALL HEADERS HAVE BEEN DESIGNED BASED ON CALCULATED LOADS & SIZED ACCORDINGLY. CODE TABLES HAVE NOT BEEN USED.
- ALL NON-BEARING INTERIOR STUD WALLS SHALL BE CONSTRUCTED WITH 2x "STUD" GRADE MEMBERS SPACED @ 16" O.C. (MAX, UNO.)
 - HEADERS IN NON-LOAD BEARING WALLS SHALL BE:
(1)2x4/6 FLAT @ OPENINGS UP TO 4', (2)2x4/6 FLAT UP TO 8'.
- ALL FRAMING LUMBER SHALL BE DRIED TO 15% MC (KD-15).
- ENGINEERED LUMBER BEAMS TO MEET OR EXCEED THE FOLLOWING:
 - 'LSL' - Fb=2325 psi; Fv=310 psi; E=1.55x10⁶ psi
 - 'LVL' - Fb=2600 psi; Fv=285 psi; E=2.0x10⁶ psi
 - 'PSL' - Fb=2400 PSI; FV=240 PSI; E=2.0X10⁶ PSI
- MHK SHALL BE FULLY IDENTIFIED FOR ANY AND ALL ISSUES RESULTING FROM OR RELATED TO ANY BUILDING COMPONENT IF THE OWNER DOES NOT SUBMIT THE COMPONENT SHOP DRAWINGS TO MHK FOR STRUCTURAL REVIEW PRIOR TO FABRICATION, DELIVERY, OR INSTALLATION.
- FOR 2 & 3 PLY BEAMS OF EQUAL WIDTH, FASTEN PLIES TOGETHER WITH 3 ROWS OF 3"x0.120" NAILS @ 8" O/C OR 2 ROWS 1/4"x3/8" SIMPSON SDS SCREWS (OR 3/8" TRUSSLOK SCREWS) @ 16" O/C. USE A MINIMUM OF 4 ROWS FOR BEAM DEPTHS OF 14" OR GREATER. APPLY FASTENING AT BOTH FACES FOR 3-PLY CONDITION. LOCATE TOP & BOTTOM NAILS/SCREWS 2" FROM EDGE. SOLID 3 1/2" OR 5 1/4" BEAMS ARE ACCEPTABLE. USE 2 ROWS OF NAILS FOR 2x6 & 2x8 MEMBERS.
- FOR 4 PLY BEAMS OF EQUAL WIDTH, FASTEN PLIES TOGETHER WITH 3 ROWS OF 1/4"x6" SIMPSON SDS SCREWS (OR 6 3/4" TRUSSLOK SCREWS) @ 16" O/C. USE A MINIMUM OF 4 ROWS FOR BEAM DEPTHS OF 14" OR GREATER. APPLY FASTENING AT BOTH FACES (ONE SIDE ONLY FOR TRUSSLOK SCREWS). LOCATE TOP AND BOTTOM SCREWS 2" FROM EDGE. A SOLID T" BEAM IS ACCEPTABLE.
- ALL HEADERS SHALL BE SUPPORTED BY (1)2x JACK STUD & (1)2x KING STUD, MINIMUM.
 - THE NUMBER OF STUDS SPECIFIED AT A SUPPORT INDICATES THE NUMBER OF JACK STUDS REQUIRED, UNO..
- ALL MULTI-PLY STUDS TO BE FASTENED TOGETHER W/ 3"x0.131" NAILS @ 24" O.C. (MIN), EACH PLY.
- PROVIDE SOLID BLOCKING IN FLOOR SYSTEM UNDER ALL POSTS CONTINUOUS TO FND/BEARING. BLOCKING TO MATCH POST ABOVE.
- FASTEN 2x WOOD PLATES TO TOP FLANGE OF STEEL BEAMS WITH P.A.F.'s (HILTI" X-CF PINS OR EQUAL) @ 16" O.C. STAGGERED, OR 1/2" DIA. BOLTS @ 48" O.C. STAGGERED.
- ALL EXTERIOR 4x4 WOOD POSTS SHALL HAVE SIMPSON BC52-2/4 CAP & ABM44Z BASE, UNO.

FLOOR FRAMING

- 1-JOISTS/TRUSSES SHALL BE DESIGNED BY MANUF. TO MEET OR EXCEED L/480 LIVE LOAD DEFLECTION CRITERIA. (EXCLUDES MARBLE FLOORS - CONTACT MKK FOR MARBLE FLOOR DESIGNS)
- AT 1-JOIST FLOORS, PROVIDE 1 1/8" MIN. OSB RIM BOARD.
- METAL HANGERS SHALL BE SPECIFIED BY MANUFACTURER, UNO.

- FLOOR SHEATHING SHALL BE 23/32" A.P.A. RATED "STURD-I-FLOOR" 24" O.C. EXPOSURE 1 (OR APPROVED EQUAL) WITH TONGUE AND GROOVE EDGES. FASTEN TO FRAMING MEMBERS W/ GLUE AND
 - 2 1/4" x 0.131" NAILS @ 6" o.c. @ PANEL EDGES & @ 12" o.c. FIELD.
 - 2 3/8" x 0.120" NAILS @ 4" O.C. @ PANEL EDGES & @ 8" O.C. FIELD.
 - 2 3/8" x 0.113" NAILS @ 3" O.C. @ PANEL EDGES & @ 6" O.C. IN FIELD.
 - #6 x 2" MIN. SCREWS @ 6" O.C. @ PANEL EDGES & @ 12" O.C. FIELD.

ROOF FRAMING

- BAY WINDOWS & SHED ROOFS (UP TO 6' SPAN) CAN BE 2x4 OR 2x6 RAFTERS & CEILING JOISTS @ 16/24" O.C.
- FASTEN EACH ROOF TRUSS TO TOP PLATE W/ SIMPSON H2.5T CLIP (OR APPROVED EQUAL) @ ALL BEARING POINTS. PROVIDE (2) H2.5T CLIPS AT 2-PLY GIRDER TRUSSES, (3) H2.5T CLIPS AT 3-PLY GIRDER TRUSSES & ROOF BEAMS - AT ALL BEARING POINTS.
- METAL HANGERS SHALL BE SPECIFIED BY THE MANUFACTURER, UNO.
- ERECT AND INSTALL ROOF TRUSSES PER MTGA & TPY'S BC51 1-08 "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES."
- SUPPORT PORCH & SHORT SPAN ROOF TRUSSES (MAX T' SPAN) W/ 2x4 LEDGER (UNO.) FASTENED TO:
 - RIM BOARD W/ (2) 3"x0.131" NAILS @ 16" O.C. MAX. (1-JOISTS)
 - TRUSS VERTICALS W/ (3) 3"x0.131" NAILS @ 14.2" O.C. MAX. (FLOOR TRUSSES)
- ROOF SHEATHING SHALL BE 7/16" A.P.A. RATED SHEATHING 24/16 EXPOSURE 1 (OR APPROVED EQUAL). FASTEN TO FRAMING MEMBERS
 - W/ 2 1/4" x 0.131" NAILS @ 6" o.c. @ PANEL EDGES & @ 12" O.C. FIELD.
 - W/ 2 3/8" x 0.120" NAILS @ 4" o.c. @ PANEL EDGES & @ 8" O.C. FIELD.
 - W/ 2 3/8" x 0.113" NAILS @ 3" o.c. @ PANEL EDGES & @ 6" O.C. FIELD.

HOLD-DOWN SCHEDULE

SYMBOL	SPECIFICATION
▶ HD-1	SIMPSON HTT4 HOLD-DOWN * (3/8" DIA. ANCHOR)
▶ HD-2	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM UNO.) -OR- MSTC66B3 ALTERNATE
▶ HD-3	SIMPSON 5THD14/5THD14RJ

- UTILIZE THE 55TB24 ANCHOR BOLT @ ALL MONOSLAB & INTERIOR RAISED SLAB (I.E. THICKENED SLABS, FOOTINGS) CONDITIONS. MINIMUM 24" MIN. FOOTING THICKNESS REQUIRED.
- EPOXY-SET ALTERNATE FOR MONOSLAB & INTERIOR RAISED SLAB CONDITIONS ONLY: UTILIZE SIMPSON "SET" EPOXY SYSTEM TO FASTEN THREADED ROD INTO CONCRETE FOUNDATION. PROVIDE 10" (FOR 5/8" DIA.) OR 15" (FOR 1/2" DIA.) MIN. EMBEDMENT INTO CONCRETE. INSTALL PER MANUF. INSTRUCTIONS. MINIMUM 16" FOOTING THICKNESS REQ'D. DO NOT LOCATE ANCHORS WITHIN 1 3/4" OF EDGE OF CONCRETE.

ADDITIONAL NOTES FOR TRUSS & I-JOIST MANUFACTURER

- ROOF TRUSS, FLOOR TRUSS AND ENGINEERED JOISTS SHALL BE DESIGNED TO MEET THE DIFFERENTIAL DEFLECTION CRITERIA BELOW, UNLESS NOTED OTHERWISE ON PLAN.
- TRUSSES/JOISTS SHALL BE DESIGNED SO THAT DIFFERENTIAL DEFLECTION BETWEEN ADJACENT PARALLEL TRUSSES/JOISTS OR GIRDER TRUSSES/FLUSH BEAMS DO NOT EXCEED THE FOLLOWING:
- ROOF TRUSSES:
1/4" DEAD LOAD
 - FLOOR TRUSSES, ATTIC TRUSSES, & I-JOISTS:
1/8" DEAD LOAD
 - FLOOR TRUSSES & ATTIC TRUSSES ADJACENT TO FLOOR FRAMING BY OTHERS:
LIMIT ABSOLUTE TRUSS DEFLECTION TO 3/16" DEAD LOAD. (NOT DIFFERENTIAL DEFLECTION)

ALTERNATE F.J. MANUFACTURERS

- FLOOR JOISTS BY MANUFACTURER'S OTHER THAN THOSE SHOWN ON PLAN SHALL CONFORM TO THE APA PERFORMANCE RELATED I-JOISTS DESIGN AND CONSTRUCTION GUIDE. MINIMUM JOIST PROPERTIES INCLUDING, BUT NOT LIMITED TO, ALLOWABLE SHEAR, ALLOWABLE MOMENT, STRENGTH, AND STIFFNESS, SHALL MEET OR EXCEED THOSE LISTED FOR THE FRI-60 SERIES I-JOISTS. ALL ALLOWABLE HOLES, BEARING STIFFENERS, AND JOIST TO JOIST CONNECTIONS ARE PER THE JOIST MANUFACTURER.

LATERAL BRACING & SHEAR WALL SHEATHING SPECIFICATIONS

THIS MODEL HAS BEEN DESIGNED TO RESIST LATERAL FORCES RESULTING FROM:

120 MPH WIND IN 2018 NCSEBC:RC

(120 MPH WIND SPEED IN ASCE 7-10 WIND MAP, PER IRC R301.2.1.1) EXP. B, RISK CAT. 2 & SEISMIC CAT. A/B.

THE DESIGN WAS COMPLETED PER 2015 IBC (SECTION 1604) & ASCE 7-10, AS PERMITTED BY R301.3 OF THE 2018 NCSEBC:RC, OR THE SIMPLIFIED PRESCRIPTIVE PROCEDURE IN ACCORDANCE WITH THE 2015 IRC IF THE PARAMETERS OF SECTION R602.12 COMPLY. ACCORDINGLY, THIS MODEL, AS DOCUMENTED AND DETAILED HEREWITHIN, IS ADEQUATE TO RESIST THE CODE REQUIRED LATERAL FORCES.

DESIGN WIND UPLIFT LOADS HAVE BEEN CALCULATED UTILIZING ASCE 7-10 (ACCEPTED ENGINEERING PRACTICE) AS ALLOWED PER 2018 NCSEBC:RC SECTION R802.11.1.1. THIS MODEL HAS BEEN DETAILED WHERE REQUIRED & ENGINEERED TO RESIST THE WIND UPLIFT LOAD PATH PER SECTIONS R602.3.5 & R802.11.

EXT. WALL SHEATHING SPECIFICATION

- 7/16" OSB OR 15/32" PLYWOOD:
 - FASTEN SHEATHING W/ 2 3/8"x0.113" NAILS @ 6" O.C. AT EDGES & @ 12" O.C. IN THE PANEL FIELD. TYP. UNO.
- HORIZONTAL BLOCKING OF EXT. WALL/SHEAR WALL PANEL EDGES IS NOT REQUIRED BY THIS DESIGN EXCEPT FOR THOSE AREAS SPECIFICALLY NOTED.
- ALL EXT. WALLS SHALL BE CONTINUOUSLY SHEATHED AND ARE CONSIDERED SHEAR WALLS.
- ALT. STAPLE CONNECTION SPEC: 1 1/2" 16 GA STAPLES (3/8" CROWN) @ 3" O.C. AT EDGES & @ 6" O.C. IN FIELD.

BLOCKED PANEL EDGES

- AT DESIGNATED AREAS - FASTEN SHEATHING W/ 2 3/8" x 0.113" NAILS @ 6" O.C. AT ALL PANEL EDGES AND 12" O.C. IN THE PANEL FIELD OR 1 3/4" 16 GA STAPLES (3/8" CROWN) @ 3" O.C. AT EDGES & @ 6" O.C. IN FIELD. ALL SHEATHING PANELS SHALL BE ORIENTED AND INSTALLED FULL HEIGHT OF SHEAR WALL OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT ALL UNSUPPORTED PANEL EDGES & EDGE FASTENING.

3" O.C. EDGE NAILING

- AT DESIGNATED AREAS - FASTEN PANEL EDGES OF WOOD STRUCTURAL WALL SHEATHING TO FRAMING W/ 8d NAILS @ 3" O.C. NO STAPLE ALTERNATIVE AVAILABLE AT THIS SPEC. ALL SHEATHING PANELS SHALL BE ORIENTED AND INSTALLED FULL HEIGHT OF SHEAR WALL OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT UNSUPPORTED PANEL EDGES AND 3" O.C. EDGE FASTENING.

NOTES

- SEE CONNECTION SPECIFICATIONS CHART FOR STANDARD SHEAR TRANSFER DETAILING. IF ADDITIONAL CAPACITY IS REQUIRED BY DESIGN, IT WILL BE SPECIFICALLY NOTED ON PLAN.
- DESIGN ASSUMES 16" O.C. MAX. STUD SPACING, UNO.
- ALL STRUCTURAL PANELS ARE TO BE DIRECTLY APPLIED TO STUD FRAMING.
- PRE-MANUFACTURED PANELIZED WALLS:
 - FASTEN TOGETHER END STUDS OF WALL PANELS SHEATHED W/ OSB OR PLYWOOD W/ 3" x 0.120" NAILS @ 4" O.C. (THRU ONE SIDE ONLY)

- INDICATES EXTENT OF INT. OSB SHEARWALL OR 3" O.C. OSB SHEARWALL.
- INDICATES HOLDOWN BELOW

SD2.1 REFERS TO SD2.1A FOR LVL/PSL/LSL BEAMS OR SD2.1B FOR FLITCH BEAMS OR SD2.1C FOR STEEL BEAMS

VEENER LINTEL SCHEDULE

SPAN (MAX)	HEIGHT OF VENEER ABOVE LINTEL	STEEL ANGLE SIZE
3'-0"	20 FT. MAX	L3"x3"x1/2"
6'-0"	3 FT. MAX	L3"x3"x1/2"
	12 FT. MAX	L4"x3"x1/2"
	20 FT. MAX	L5"x3"x3/8"
8'-0"	3 FT. MAX	L4"x4"x1/2" *
	12 FT. MAX	L5"x3"x3/8"
	16 FT. MAX	L6"x3"x3/8"
9'-6"	12 FT. MAX	L6"x3"x3/8"
16'-0"	2 FT. MAX	L7"x4"x1/2" **
	3 FT. MAX	L8"x4"x1/2" **

- ALL LINTELS:
- SHALL SUPPORT 2 3/8" - 3 1/2" VENEER W/ 40 psf MAXIMUM HEIGHT.
 - 16" SHALL HAVE 4" MIN. BEARING
 - 16" SHALL HAVE 8" MIN. BEARING
 - 16" SHALL NOT BE FASTENED BACK TO HEADER
 - 16" SHALL BE FASTENED BACK TO MOOD HEADER IN WALL @48" o.c.
 - W/ 1/2" DIA. x 3 1/2" LONG LAG SCREWS IN 2" LONG VERTICALLY SLOTTED HOLES.
 - MAX VENEER HT. APPLIES TO ANY PORTION OF BRICK OVER THE OPENING.
 - ALL LINTELS SHALL BE LONG LEG VERTICAL.
 - WHEN SUPPORTING VENEER < 3" WIDE THE EXTERIOR TOE OF THE HORIZONTAL LEG MAY BE CUT IN THE FIELD TO BE 3 1/4" WIDE OVER THE BEARING LENGTH ONLY. THIS IS TO ALLOW FOR MORTAR JOINT FINISHING.
 - SEE STRUCTURAL PLANS FOR ANY LINTEL CONDITION NOT ENCOMPASSED BY THE ABOVE PARAMETERS. FOR ANY LINTEL FASTENED BACK TO BEAM, FASTENERS SHALL MAINTAIN A 2 1/2" (MINIMUM) CLEAR DISTANCE FROM BOTTOM OF BEAM.
 - FOR QUEEN VENEER USE L4x3x1/2".
 - FOR 3 1/2" VENEER ONLY. SEE PLAN FOR VENEER SUPPORT IF VENEER < 3 1/2" THICK.

MEANS & METHODS NOTES

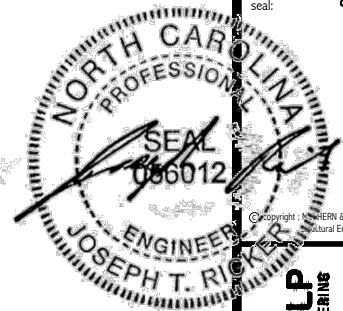
THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS FINISHED AND ALL PLAN, DETAIL, AND NOTE SPECIFICATIONS HAVE BEEN COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURES AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS, AND TIE-DOWNS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING REQUIRED TO STABILIZE AND PROTECT EXISTING AND ADJACENT STRUCTURES AND SYSTEMS DURING COURSE OF DEMOLITION AND CONSTRUCTION OF THE PROJECT.

STRUCTURAL DESIGN AND SPECIFICATIONS ASSUME THAT ALL SUPPORTING AND NON-SUPPORTING ELEMENTS IN CONTACT WITH FLOOR FRAMING ARE LEVEL, INCLUDING, BUT NOT LIMITED TO; FOUNDATIONS, SLABS ON GRADE, BEAMS, WALLS, AND NON-BEARING ELEMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LEVELNESS AND MAKE ADJUSTMENTS AS NECESSARY, INCLUDING CONSIDERATION OF THOSE AREAS THAT MAY BE WITHIN CONTRACTUAL, INDUSTRY, OR WARRANTY TOLERANCES.

ENGINEERED BEAM MATERIAL SCHEDULE

BEAM NUMBER	LVL OPTION	PSL OPTION	LSL OPTION	FLITCH OPTION	STEEL OPTION
001	(2)3/4"x11 1/8" - H	3/2"x11 1/8" - H	(2)3/4"x11 1/8" - H	(2)2x12 + (1)1/2"x11 1/4" STEEL FLITCH PLATE - H	N/A
001A	(2)3/4"x11 1/8" - H	3/2"x11 1/8" - H	(2)3/4"x11 1/8" - H	(2)2x12 + (1)1/2"x11 1/4" STEEL FLITCH PLATE - H	N/A
002	(3)3/4"x18" - FT	5/4"x18" - FT	N/A	(3)2x12 + (2)1/2"x11 1/4" STEEL FLITCH PLATES - FB	W12x19 - F
003	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1)1/2"x11 1/4" STEEL FLITCH PLATE - FB	W12x14 - F
004	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1)1/2"x11 1/4" STEEL FLITCH PLATE - FB	W12x14 - F
005	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1)1/2"x11 1/4" STEEL FLITCH PLATE - FB	W12x14 - F
006	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1)1/2"x11 1/4" STEEL FLITCH PLATE - FB	W12x14 - F
007	(2)3/4"x11 1/8" - F	3/2"x11 1/8" - F	(2)3/4"x11 1/8" - F	(2)2x12 + (1)1/2"x11 1/4" STEEL FLITCH PLATE - F	W10x12 - F
008	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1)1/2"x11 1/4" STEEL FLITCH PLATE - FB	W12x14 - F
009	(3)3/4"x18" - FT	5/4"x18" - FT	N/A	(4)2x12 + (3)1/2"x11 1/4" STEEL FLITCH PLATES - FB	W12x26 - F
010	(3)3/4"x20" - FT	5/4"x20" - FT	N/A	(4)2x12 + (3)1/2"x11 1/4" STEEL FLITCH PLATES - FB	W12x35 - F
011	(2)3/4"x11 1/8" - FB	3/2"x11 1/8" - FB	(2)3/4"x14" - FB	(2)2x12 + (1)1/2"x11 1/4" STEEL FLITCH PLATE - FB	W10x12 - FB
012	(2)3/4"x14" - H	3/2"x14" - H	(2)3/4"x14" - H	(2)2x12 + (1)1/2"x11 1/4" STEEL FLITCH PLATE - H	N/A

- BEAM NOTATION:
 - "F" INDICATES FLUSH BEAM
 - "FT" INDICATES FLUSH TOP BEAM
 - "FB" INDICATES FLUSH BOTTOM BEAM
 - "D" INDICATES DROPPED BEAM
 - "H" INDICATES DROPPED OPENING HEADER
- REFER TO DETAIL DSD2.0 FOR TYPICAL FLITCH BEAM CONNECTIONS
- REFER TO DETAIL ESD2.0 FOR TYPICAL STEEL BEAM CONNECTIONS
- FOR FLUSH TOP BEAMS PROVIDE 2x STACKED PLATES BENEATH BEAM AS REQ'D. FASTEN PLATES IN SUCCESSION W/ (2) 3"x0.120" NAILS @ 8" O.C.
- FOR FLUSH BOTTOM BEAMS PROVIDE 2x STACKED PLATES ATOP BEAM AS REQ'D. FASTEN PLATES IN SUCCESSION W/ (2) 3"x0.120" NAILS @ 8" O.C.



MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING
3800 Dunsmuir Ave. Building 4 - Asheville, NC 28806
P: 722-888-0888 | m.kulp@mulhernkulp.com



M&K project number:

126-22076

project mgr:

JTR

drawn by:

GTK

issue date:

07-11-25

REVISIONS:

date:

initial:

09-15-25

JAD

DRB HOMES

STRUCTURAL NOTES

FARM AT NEIL'S CREEK

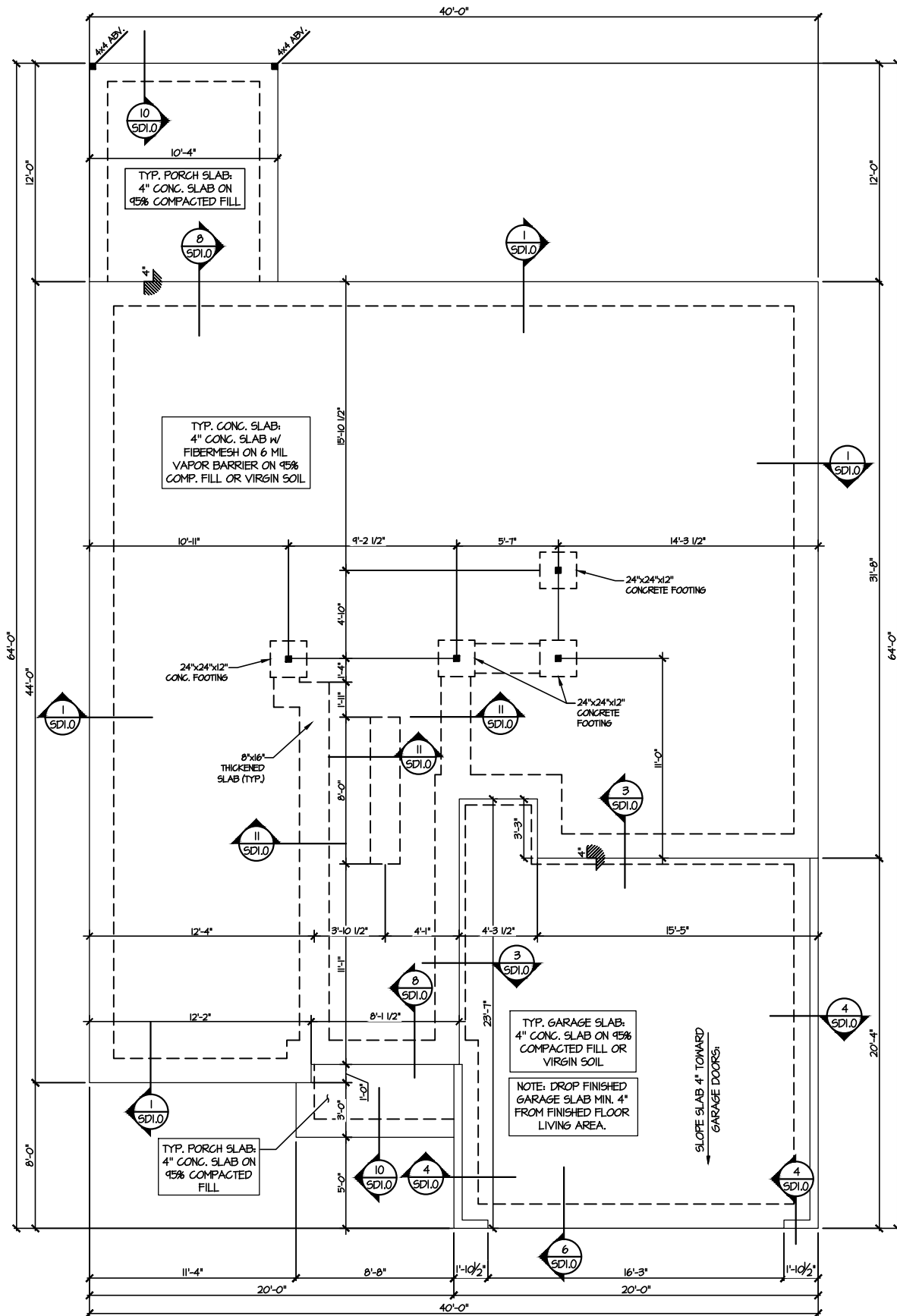
LOT 27 - MIDDLETON 1

RALEIGH, NC

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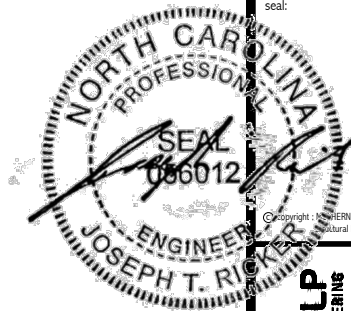
9/15/25



1 MONO SLAB FOUNDATION PLAN
SCALE: 1/8"=1'-0"

LEGEND	
• [Pattern]	INTERIOR BEARING WALL
• [Pattern]	BEARING WALL ABOVE
• [Pattern]	BEAM / HEADER
• [Pattern]	INDICATES SHEAR WALL & EXTENT
• [Pattern]	EXTENT OF OVERFRAMING
JL METAL HANGER	
•	INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
▶	INDICATES HOLD-DOWN OR STRAP. REFER TO SCHEDULE.

REFER TO SO.0 FOR
TYPICAL STRUCTURAL NOTES
& SCHEDULES



seal: 9/15/25

MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING
300 Dunsmuir Ave. Building 4 - Asheville, NC 28902
P: 728-586-0881 • mulhern+kulp.com



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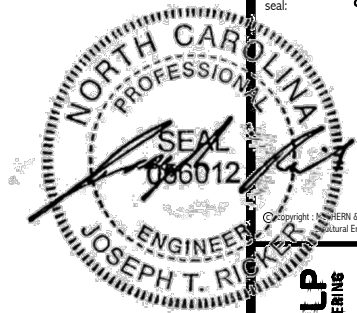
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HOMES

FOUNDATION PLANS
FARM AT NEIL'S CREEK
LOT 27 - MIDDLETON 1
RALEIGH, NC

sheet:
S1.0



MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING
3000 Dunsmuir Ave., Building 4 • Asheville, NC 28802
P: 726-586-0881 • m.kulp@mulhernkulp.com



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09-15-25 JAD

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HOMES

FLOOR FRAMING PLANS
FARM AT NEIL'S CREEK
LOT 27 - MIDDLETON 1
RALEIGH, NC

sheet:
S2.0

SD2.I REFERS TO SD2.IA FOR
LVL/PSL/LSL BEAMS OR SD2.IB
FOR FLITCH BEAMS OR SD2.IC
FOR STEEL BEAMS

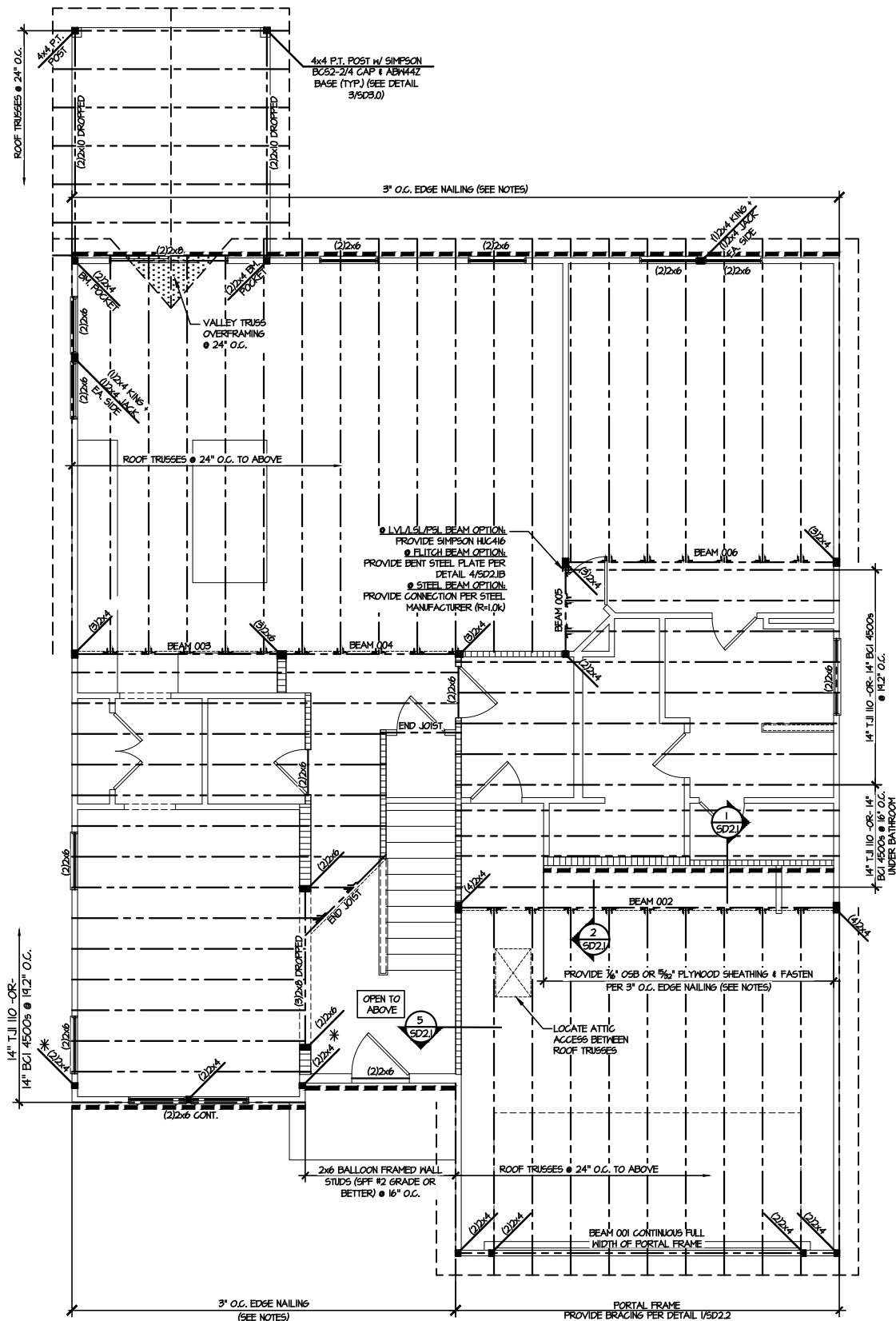
ALTERNATE F.J. MANUFACTURERS

• FLOOR JOISTS BY MANUFACTURER'S OTHER THAN THOSE SHOWN ON PLAN SHALL CONFORM TO THE APA PERFORMANCE RELATED I-JOISTS DESIGN AND CONSTRUCTION GUIDE. MINIMUM JOIST PROPERTIES INCLUDING, BUT NOT LIMITED TO, ALLOWABLE SHEAR, ALLOWABLE MOMENT, STRENGTH, AND STIFFNESS, SHALL MEET OR EXCEED THOSE LISTED FOR THE FRI-60 SERIES I-JOISTS. ALL ALLOWABLE HOLES, BEARING STIFFENERS, AND JOIST TO JOIST CONNECTIONS ARE PER THE JOIST MANUFACTURER.

LEGEND

- [Pattern] INTERIOR BEARING WALL
- [Pattern] BEARING WALL ABOVE
- [Pattern] BEAM / HEADER
- [Pattern] INDICATES SHEAR WALL & EXTENT
- [Pattern] EXTENT OF OVERFRAMING
- [Symbol] J.L. METAL HANGER
- [Symbol] INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
- [Symbol] INDICATES HOLD-DOWN OR STRAP. REFER TO SCHEDULE.

REFER TO SO.O FOR
TYPICAL STRUCTURAL NOTES
& SCHEDULES



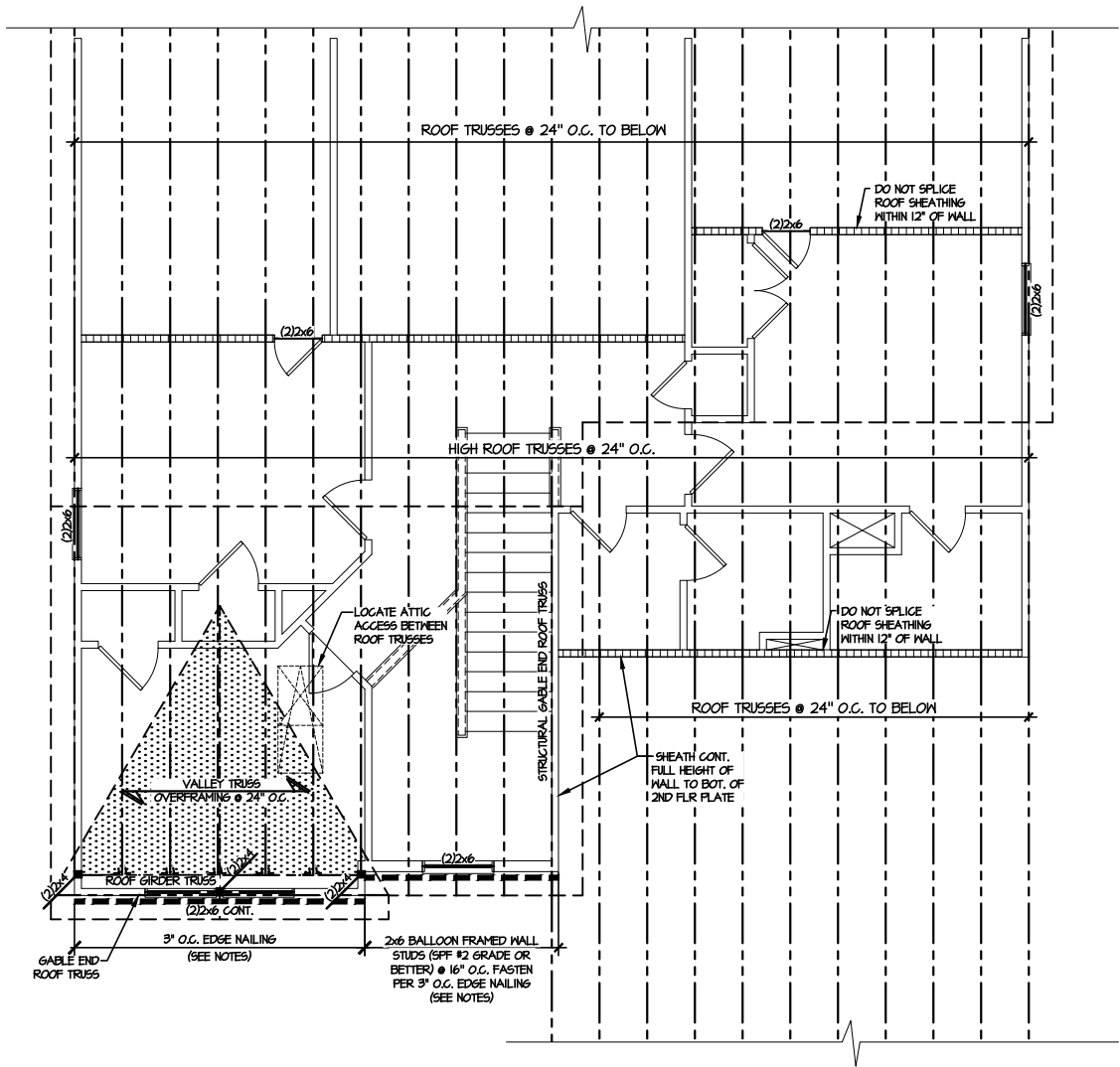
2ND FLOOR/LOW ROOF FRAMING PLAN

SCALE: 1/8"=1'-0"

ENGINEERED BEAM MATERIAL SCHEDULE

BEAM NUMBER	LVL OPTION	PSL OPTION	LSL OPTION	FLITCH OPTION	STEEL OPTION
001	(2)3/4"x11 1/8" - H	3/2"x11 1/8" - H	(2)3/4"x11 1/8" - H	(2)2x12 + (1) 3/4"x11 1/8" STEEL FLITCH PLATE - H	N/A
001A	(2)3/4"x11 1/8" - H	3/2"x11 1/8" - H	(2)3/4"x11 1/8" - H	(2)2x12 + (1) 3/4"x11 1/8" STEEL FLITCH PLATE - H	N/A
002	(3)3/4"x10" - FT	3/4"x10" - FT	N/A	(3)2x12 + (2) 3/4"x11 1/8" STEEL FLITCH PLATES - FB	M2x14 - F
003	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 3/4"x11 1/8" STEEL FLITCH PLATE - FB	M2x14 - F
004	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 3/4"x11 1/8" STEEL FLITCH PLATE - FB	M2x14 - F
005	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 3/4"x11 1/8" STEEL FLITCH PLATE - FB	M2x14 - F
006	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 3/4"x11 1/8" STEEL FLITCH PLATE - FB	M2x14 - F
007	(2)3/4"x11 1/8" - F	3/2"x11 1/8" - F	(2)3/4"x11 1/8" - F	(2)2x12 + (1) 3/4"x11 1/8" STEEL FLITCH PLATE - F	M10x12 - F
008	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 3/4"x11 1/8" STEEL FLITCH PLATE - FB	M2x14 - F
009	(3)3/4"x10" - FT	3/4"x10" - FT	N/A	(4)2x12 + (3) 3/4"x11 1/8" STEEL FLITCH PLATES - FB	M2x26 - F
010	(3)3/4"x20" - FT	3/4"x20" - FT	N/A	(4)2x12 + (3) 3/4"x11 1/8" STEEL FLITCH PLATES - FB	M2x35 - F
011	(2)3/4"x11 1/8" - FB	3/2"x11 1/8" - FB	(2)3/4"x14" - FB	(2)2x12 + (1) 3/4"x11 1/8" STEEL FLITCH PLATE - H	M10x12 - FB
012	(2)3/4"x14" - H	3/2"x14" - H	(2)3/4"x14" - H	(2)2x12 + (1) 3/4"x11 1/8" STEEL FLITCH PLATE - H	N/A

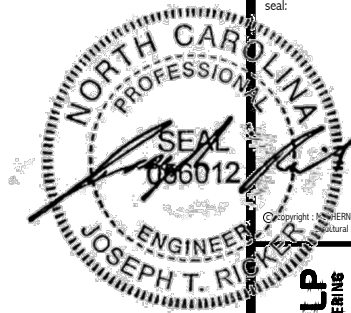
- **BEAM NOTATION:**
 - "F" INDICATES FLUSH BEAM
 - "FT" INDICATES FLUSH TOP BEAM
 - "FB" INDICATES FLUSH BOTTOM BEAM
 - "D" INDICATES DROPPED BEAM
 - "H" INDICATES DROPPED OPENING HEADER
- REFER TO DETAIL D/SD2.0 FOR TYPICAL FLITCH BEAM CONNECTIONS
- REFER TO DETAIL E/SD2.0 FOR TYPICAL STEEL BEAM CONNECTIONS
- FOR FLUSH TOP BEAMS PROVIDE 2X STACKED PLATES BENEATH BEAM AS REQ'D. FASTEN PLATES IN SUCCESSION W/ (2) 3"x0.120" NAILS @ 8" O.C.
- FOR FLUSH BOTTOM BEAMS PROVIDE 2X STACKED PLATES ATOP BEAM AS REQ'D. FASTEN PLATES IN SUCCESSION W/ (2) 3"x0.120" NAILS @ 8" O.C.



1 HIGH ROOF FRAMING PLAN
SCALE: 1/8"=1'-0"

LEGEND	
•••••	INTERIOR BEARING WALL
•••••	BEARING WALL ABOVE
•••••	BEAM / HEADER
•••••	INDICATES SHEAR WALL & EXTENT
•••••	EXTENT OF OVERFRAMING
JL	METAL HANGER
*	INDICATES POST ABOVE, PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
▷	INDICATES HOLD-DOWN OR STRAP. REFER TO SCHEDULE.

REFER TO 50.0 FOR
TYPICAL STRUCTURAL NOTES
& SCHEDULES



MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING
300 Riverside Ave., Building 4 - Asheville, NC 28802
P: 726-596-0081 • mulhern@mulhernkulp.com



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project mgr: JTR
drawn by: GTK
issue date: 07-11-25

REVISIONS:

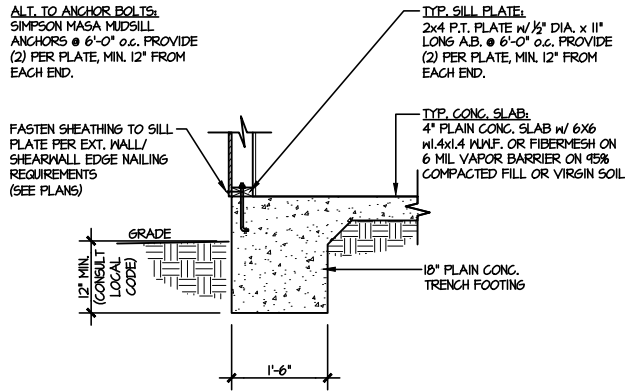
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DRB
HOMES

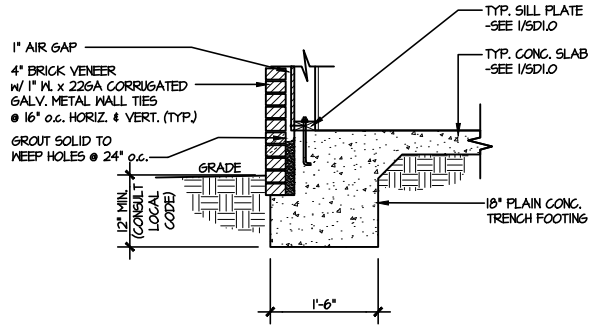
ROOF FRAMING PLANS
FARM AT NEIL'S CREEK
LOT 27 - MIDDLETON 1
RALEIGH, NC

sheet:
S3.0

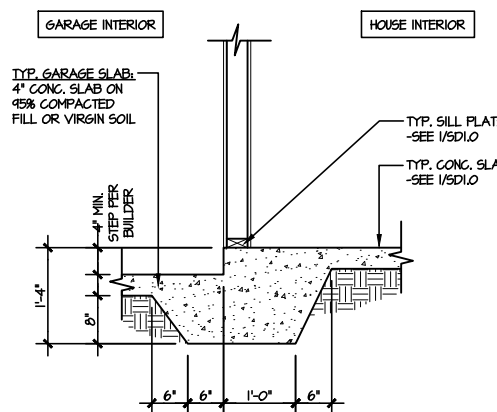
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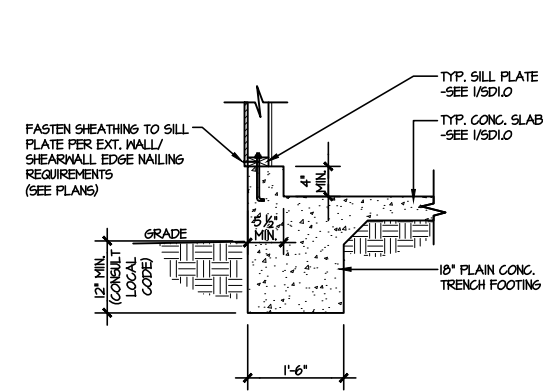
1 TYPICAL SLAB ON GRADE
PERIMETER FOOTING
SCALE: 3/8"=1'-0"



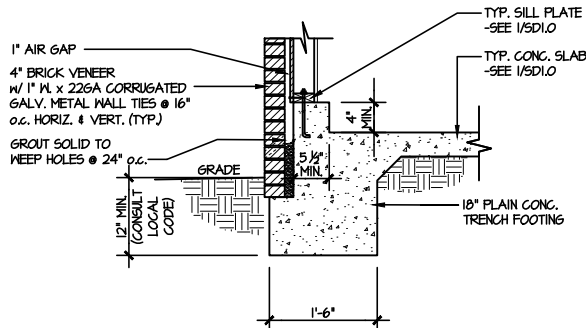
2 TYPICAL SLAB ON GRADE
PERIMETER FOOTING
SCALE: 3/8"=1'-0"



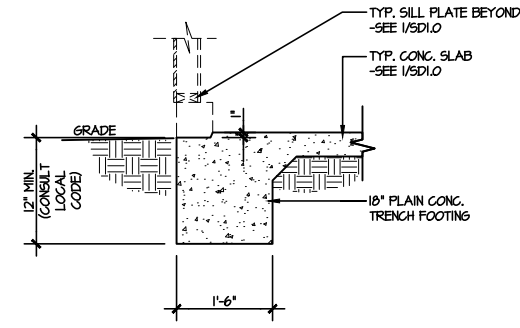
3 TYPICAL MONOLITHIC INTERIOR
GARAGE FOOTING
SCALE: 3/8"=1'-0"



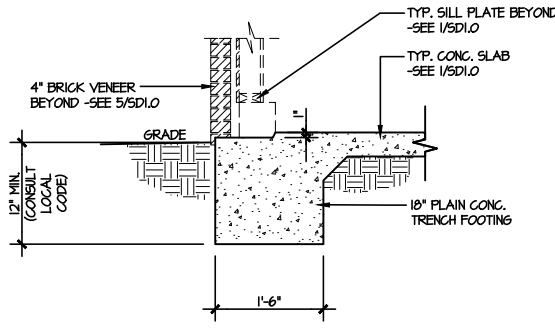
4 TYPICAL SLAB ON GRADE GARAGE
PERIMETER FOOTING
SCALE: 3/8"=1'-0"



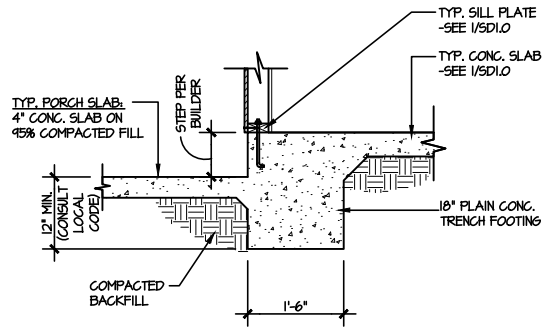
5 TYPICAL SLAB ON GRADE GARAGE
PERIMETER FOOTING
SCALE: 3/8"=1'-0"



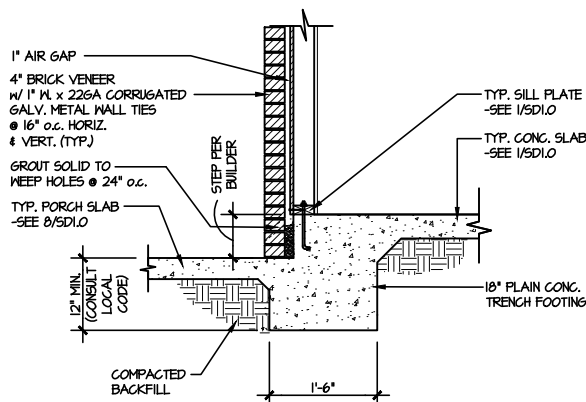
6 TYPICAL SLAB ON GRADE GARAGE
ENTRY @ PERIMETER FOOTING
SCALE: 3/8"=1'-0"



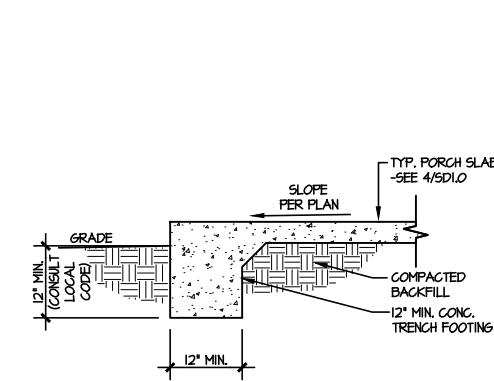
7 TYPICAL SLAB ON GRADE GARAGE
ENTRY @ PERIMETER FOOTING
SCALE: 3/8"=1'-0"



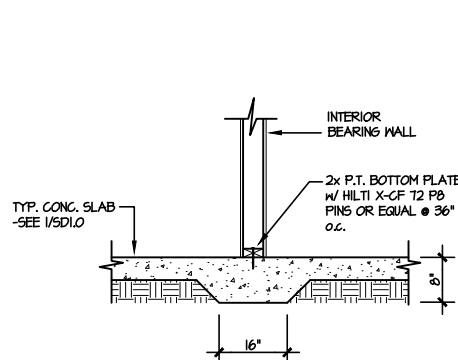
8 TYPICAL SLAB ON GRADE PERIMETER
FOOTING @ PORCH/PATIO
SCALE: 3/8"=1'-0"



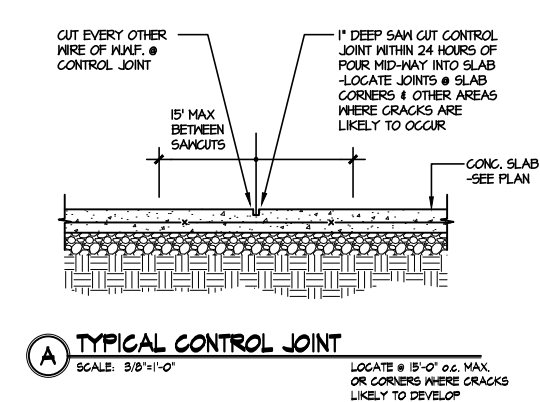
9 TYPICAL SLAB ON GRADE PERIMETER
FOOTING @ PORCH/PATIO
SCALE: 3/8"=1'-0"



10 TYPICAL FOOTING @ PORCH SLAB
SCALE: 3/8"=1'-0"

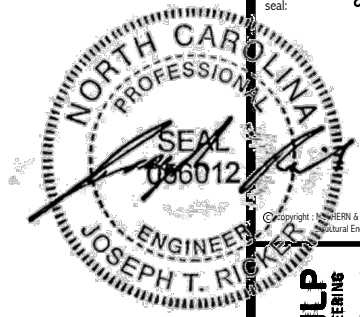


11 TYPICAL THICKENED SLAB @
INTERIOR BEARING WALL
SCALE: 3/8"=1'-0"



LETTERED DETAILS ARE TYPICAL FOR
THIS HOME & SHALL BE IMPLEMENTED IN
ALL APPLICABLE AREAS. THESE
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("CUT") ON THE PLANS.



MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING
3800 Dunsmuir Ave. Building 4 - Asheville, NC 28802
P: 728-586-0883 • m.kulp@mulhernkulp.com



M&K project number:
126-22076

project mgr: JTR
drawn by: GTK
issue date: 07-11-25

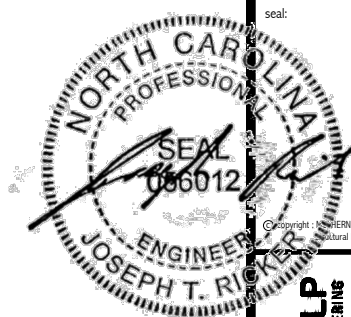
REVISIONS:

date:	initial:
09-15-25	JAD

DRB
HOMES

FOUNDATION DETAILS
FARM AT NEIL'S CREEK
LOT 27 - MIDDLETON 1
RALEIGH, NC

sheet:
SD1.0



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P: 726-546-0083 • mulhern+kulp.com



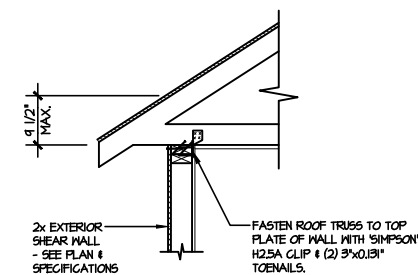
M&K project number:
126-22076
project mgr: JTR
drawn by: GTK
issue date: 07-11-25

REVISIONS:
date: initial:
09-15-25 JAD

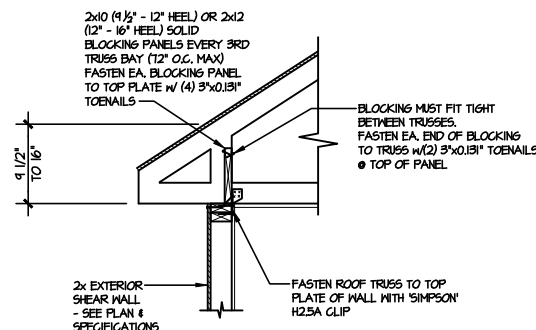
DRB
HOMES

FRAMING DETAILS
FARM AT NEIL'S CREEK
LOT 27 - MIDDLETON 1
RALEIGH, NC

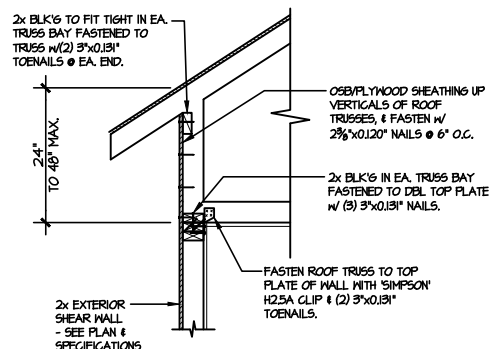
sheet:
SD2.0



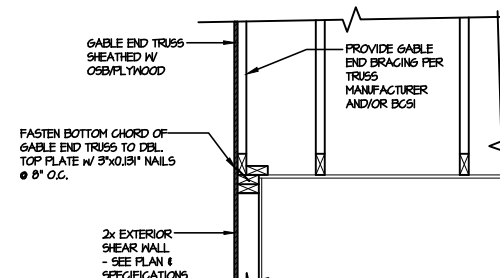
AI **TYPICAL SHEAR
TRANSFER DETAIL @ ROOF**
SCALE: 3/8"=1'-0" HEEL HEIGHT LESS THAN 9 1/2"
NO BLOCKING REQ'D



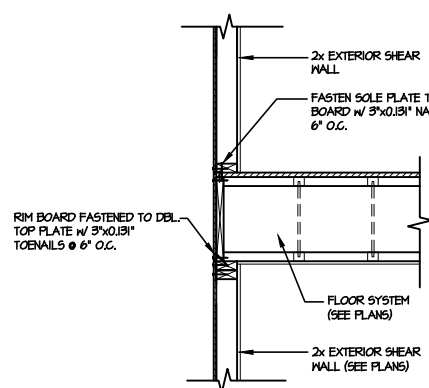
A2 **TYPICAL SHEAR
TRANSFER DETAIL @ ROOF**
SCALE: 3/8"=1'-0" HEEL HEIGHT BETWEEN 9 1/2" - 16"
BLOCKING REQ'D



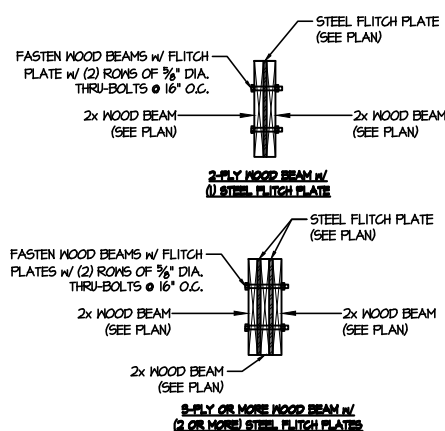
A3 **TYPICAL SHEAR TRANSFER
DETAIL @ RAISED HEEL TRUSS**
SCALE: 3/8"=1'-0" HEEL HEIGHT UP TO 48" MAX.



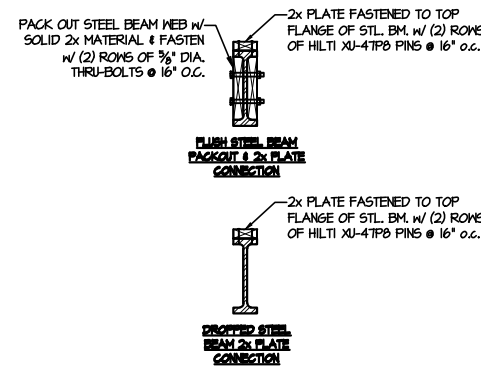
B **TYPICAL GABLE END DETAIL**
SCALE: 3/8"=1'-0"



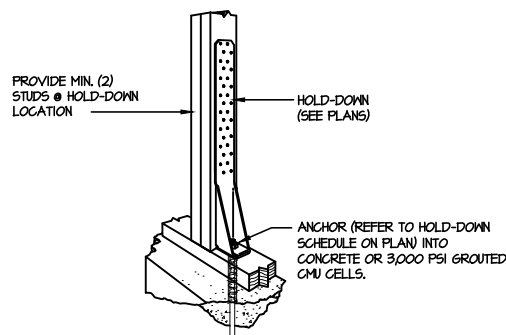
C **TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ EXTERIOR WALL**
SCALE: 3/8"=1'-0"



D **TYPICAL FLITCH BEAM CONNECTION DETAIL**
SCALE: 3/4"=1'-0"



E **TYPICAL STEEL BEAM CONNECTION DETAIL**
SCALE: 3/4"=1'-0"



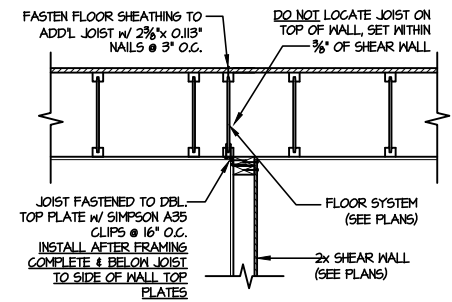
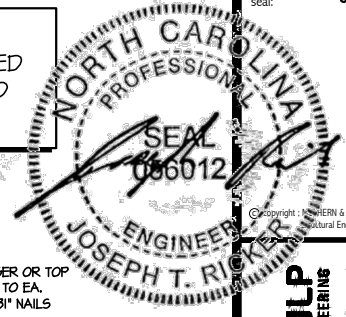
FI **TYPICAL HOLD DOWN INSTALLATION**
SCALE: N.T.S.

LETTERED DETAILS ARE TYPICAL FOR THIS HOME & SHALL BE IMPLEMENTED IN ALL APPLICABLE AREAS. THESE DETAILS ARE NOT "CUT" ON THE PLANS.

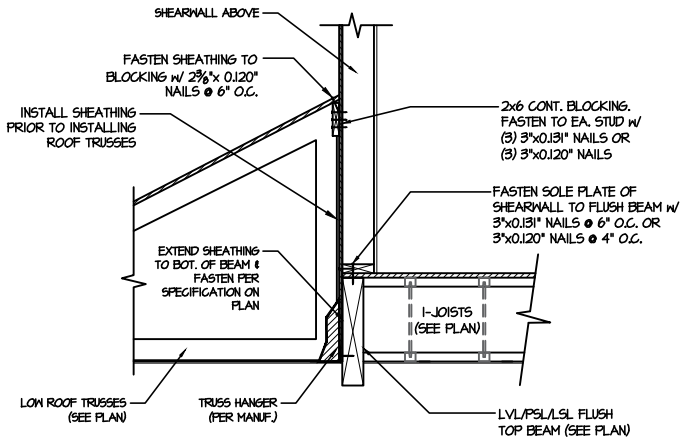
NUMBERED DETAILS ARE PLAN SPECIFIC AND ARE ONLY REQUIRED WHERE SPECIFICALLY INDICATED ("CUT") ON THE PLANS.

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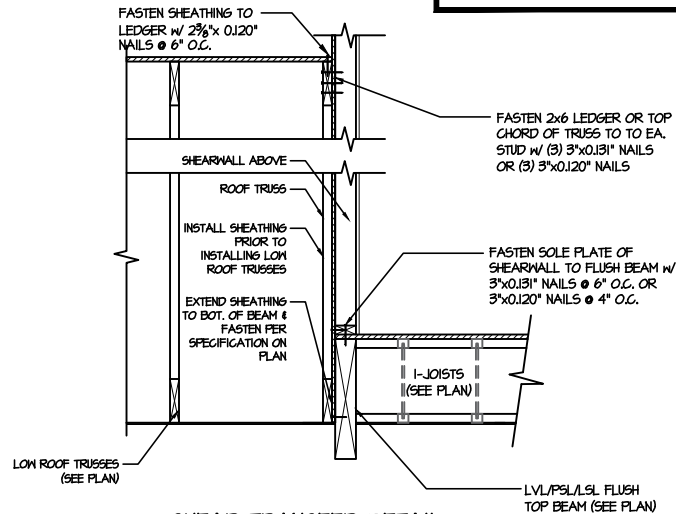
NUMBERED DETAILS ARE PLAN SPECIFIC AND ARE ONLY REQUIRED WHERE SPECIFICALLY INDICATED ("CUT") ON THE PLANS.



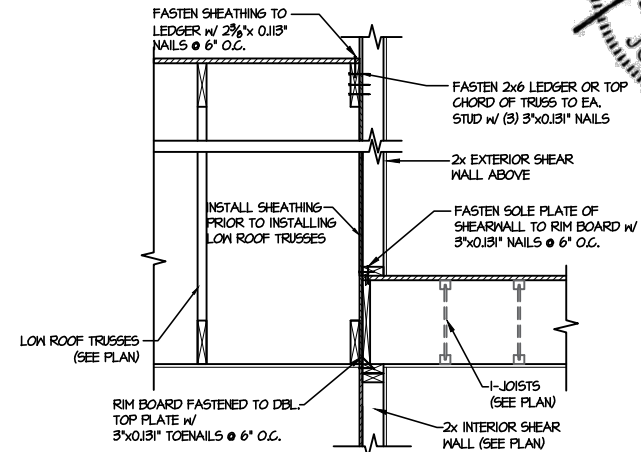
1 SHEAR TRANSFER DETAIL @
INTERIOR SHEARWALL BELOW
SCALE: 3/4"=1'-0"
PARALLEL TO FRAMING
ONLY REQ'D WHERE NOTED ON PLAN



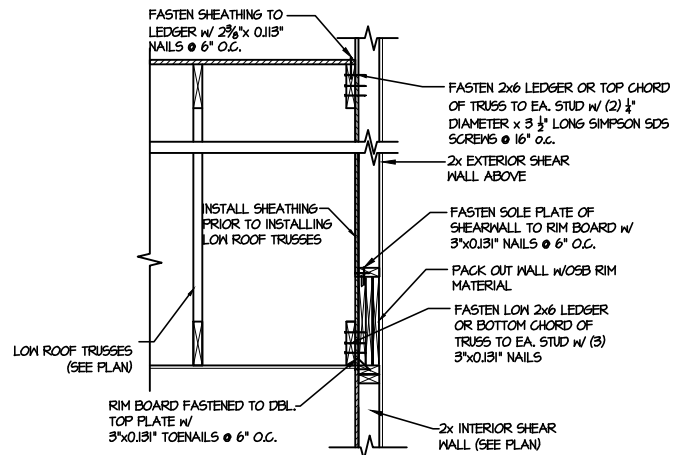
2 SHEAR TRANSFER DETAIL @
EXTERIOR SHEARWALL ABOVE
SCALE: 3/8"=1'-0"



3 SHEAR TRANSFER DETAIL @
EXTERIOR SHEARWALL ABOVE
SCALE: 3/8"=1'-0"



4 TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ INTERIOR WALL
SCALE: 3/4"=1'-0"



5 SHEAR TRANSFER DETAIL BETWEEN
FLOORS @ INTERIOR ENTRY WALL
SCALE: 3/4"=1'-0"



M&K project number:
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REVISIONS:
date: initial:
09-15-25 JAD

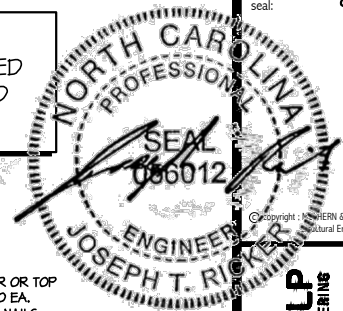


FRAMING DETAILS
FARM AT NEIL'S CREEK
LOT 27 - MIDDLETON 1
RALEIGH, NC

sheet:
SD2.1A

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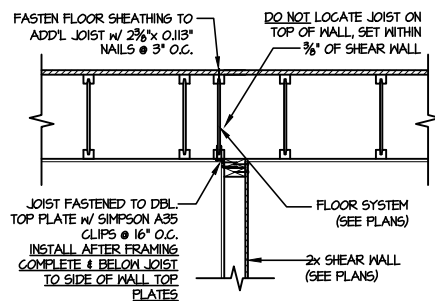
project mgr: JTR
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date: initial:
09-15-25 JAD

DRB
HOMES

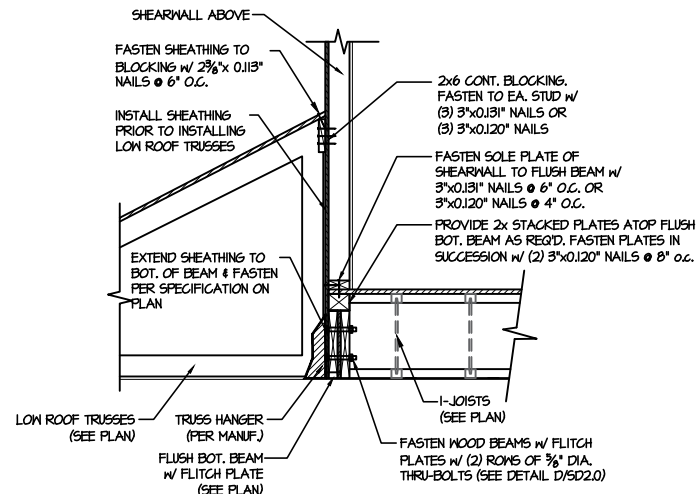
FRAMING DETAILS
FARM AT NEIL'S CREEK
LOT 27 - MIDDLETON 1
RALEIGH, NC

sheet:
SD2.1B



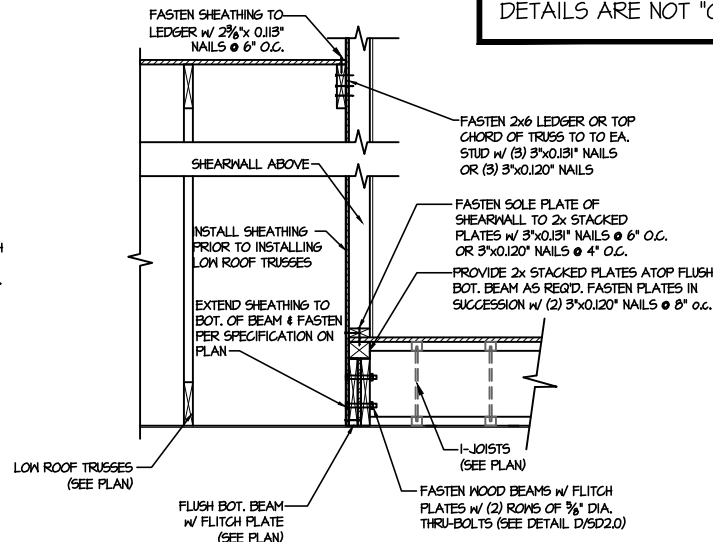
1 SHEAR TRANSFER DETAIL @
INTERIOR SHEARWALL BELOW

SCALE: 3/4"=1'-0"
PARALLEL TO FRAMING
ONLY REQ'D WHERE NOTED ON PLAN



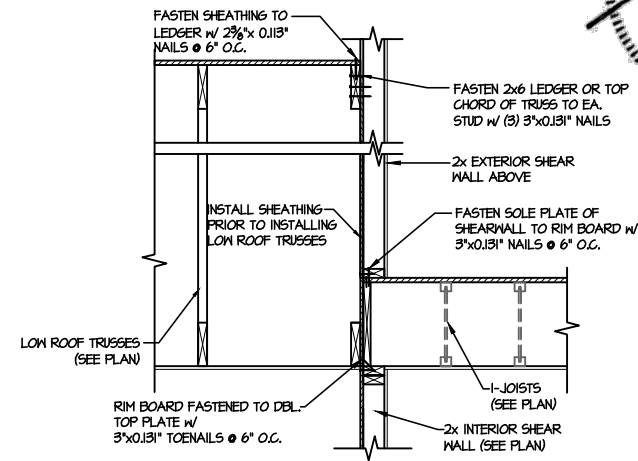
2 SHEAR TRANSFER DETAIL @
EXTERIOR SHEARWALL ABOVE

SCALE: 3/8"=1'-0"



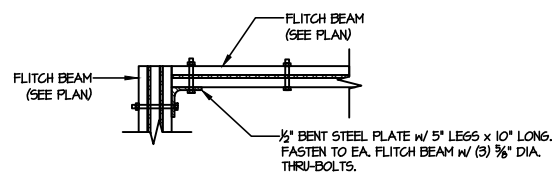
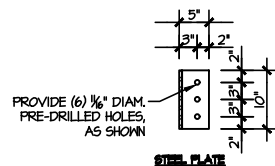
2 SHEAR TRANSFER DETAIL @
EXTERIOR SHEARWALL ABOVE

SCALE: 3/8"=1'-0"



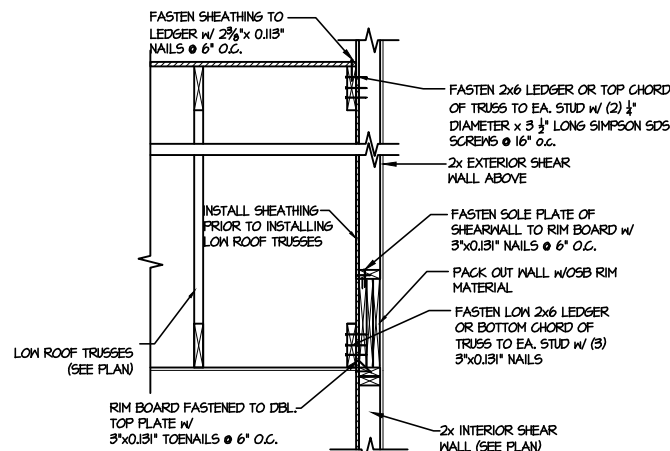
3 TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ INTERIOR WALL

SCALE: 3/4"=1'-0"



4 TYPICAL FLITCH BEAM TO FLITCH BEAM
CONNECTION DETAIL

SCALE: 3/4"=1'-0"

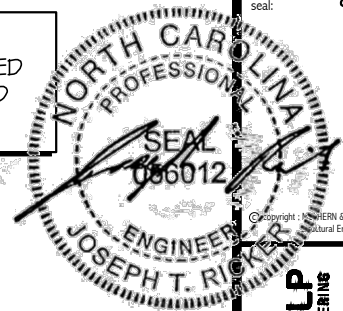


5 SHEAR TRANSFER DETAIL BETWEEN
FLOORS @ INTERIOR ENTRY WALL

SCALE: 3/4"=1'-0"

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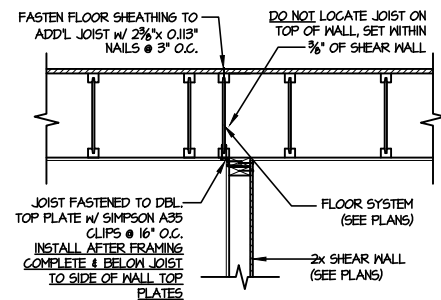
N.C. LICENSE #C-3825

M&K project number:
126-22076
project mgr: JTR
drawn by: GTK
issue date: 07-11-25
REVISIONS:
date: initial:
09-15-25 JAD

DRB
HOMES

FRAMING DETAILS
FARM AT NEIL'S CREEK
LOT 27 - MIDDLETON 1
RALEIGH, NC

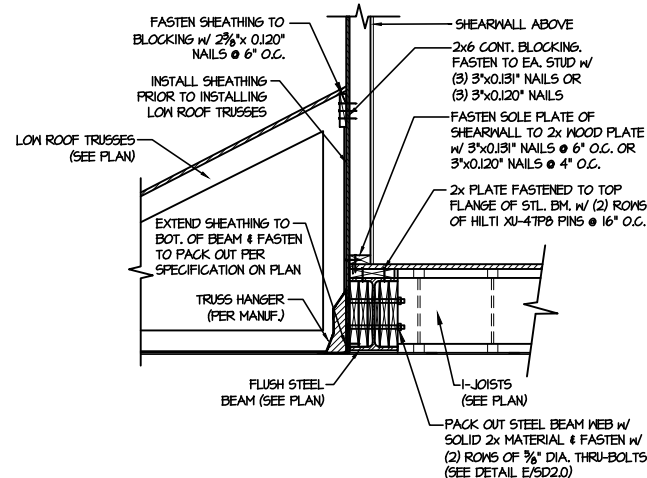
sheet:
SD2.1C



1 SHEAR TRANSFER DETAIL @
INTERIOR SHEARWALL BELOW

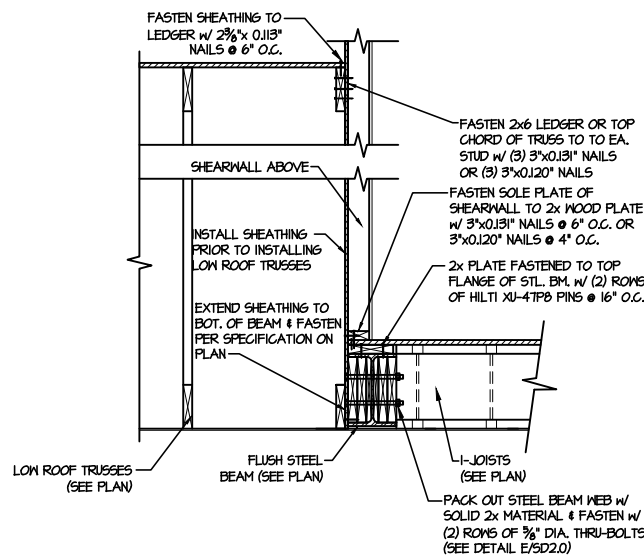
SCALE: 3/4"=1'-0"

PARALLEL TO FRAMING
ONLY RECORD WHERE NOTED ON PLAN



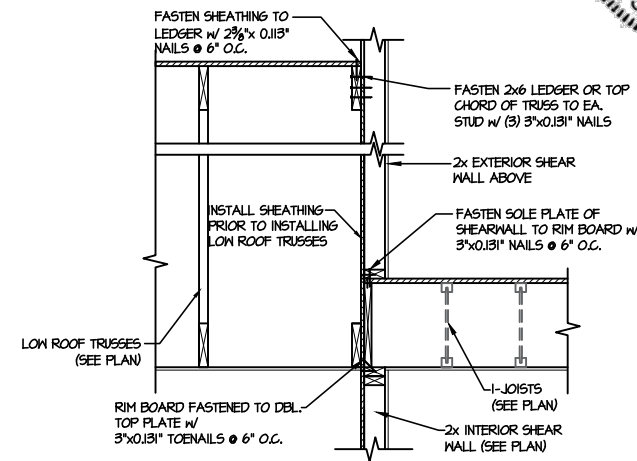
2 SHEAR TRANSFER DETAIL @
EXTERIOR SHEARWALL ABOVE

SCALE: 3/8"=1'-0"



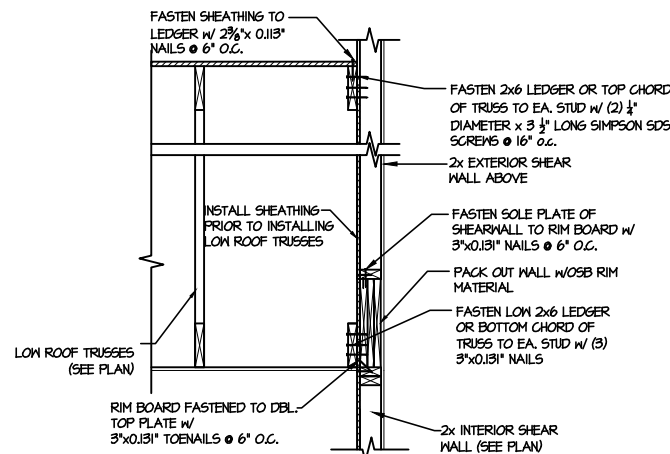
2 SHEAR TRANSFER DETAIL @
EXTERIOR SHEARWALL ABOVE

SCALE: 3/8"=1'-0"



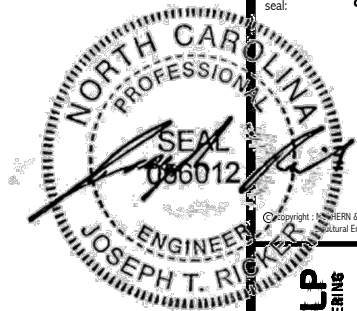
3 TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ INTERIOR WALL

SCALE: 3/4"=1'-0"



5 SHEAR TRANSFER DETAIL BETWEEN
FLOORS @ INTERIOR ENTRY WALL

SCALE: 3/4"=1'-0"



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RESIDENTIAL STRUCTURAL ENGINEERING



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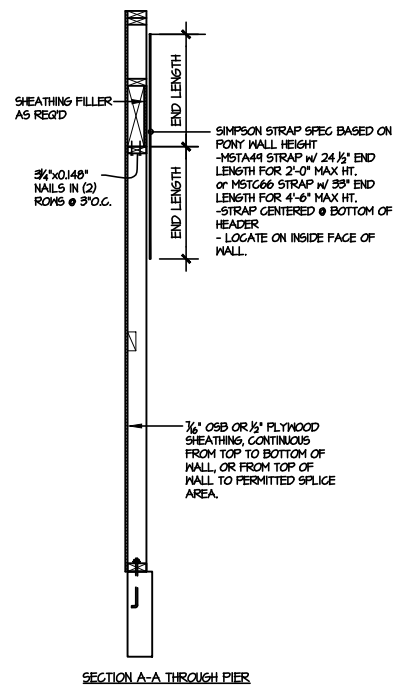
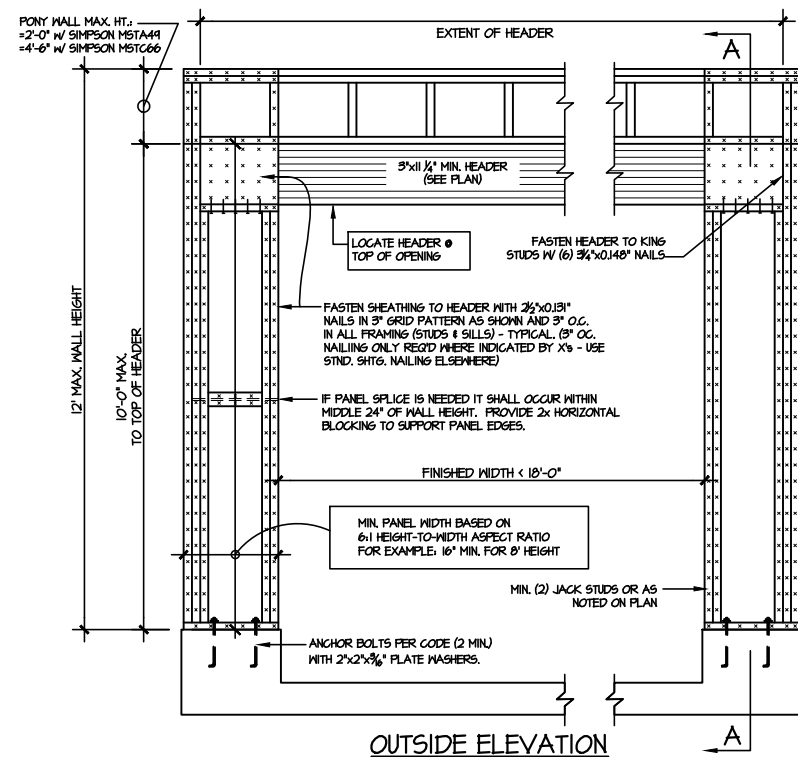
REVISIONS:
date: initial:
09-15-25 JAD

DRB
HOMES

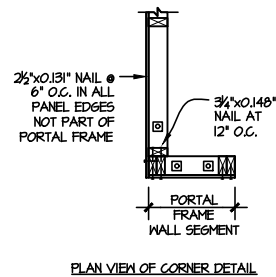
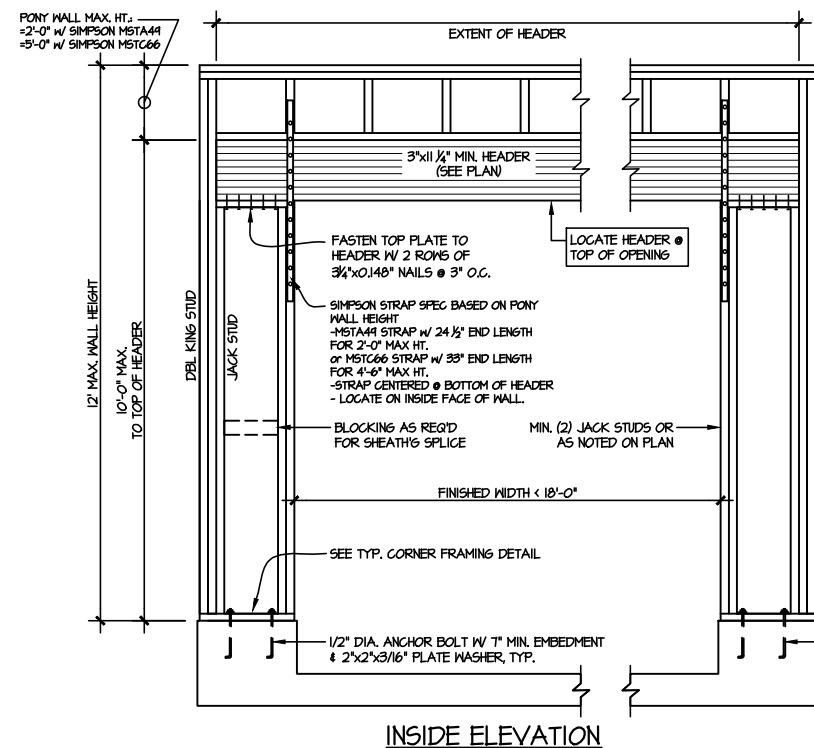
FRAMING DETAILS
FARM AT NEIL'S CREEK
LOT 27 - MIDDLETON 1
RALEIGH, NC

sheet:

SD2.2



NOTE: ALL SHEATHABLE AREAS OF EXTERIOR WALL SHALL BE FULLY SHEATHED WITH 1/2" PLYWOOD OR 1/4" OSB



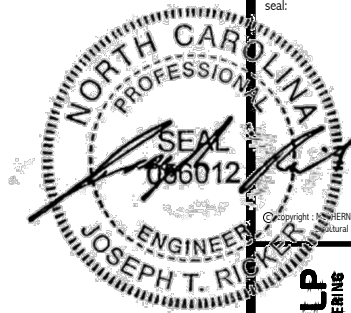
ALTERNATIVES TO 1/2" DIA. ANCHOR BOLT:
1) 1/2" DIA. x 6' LONG SIMPSON TITEN HD
2) 1/2" DIA. THREADED ROD EPOXY SET W/ 4 1/2" EMBED. (MIN) UTILIZING HILTI HY200 EPOXY ANCHORING SYSTEM (OR EQUAL)

TWO SIDED GARAGE PORTAL FRAME BRACING
ELEVATION ON CONCRETE STEM

SCALE: N.T.S.

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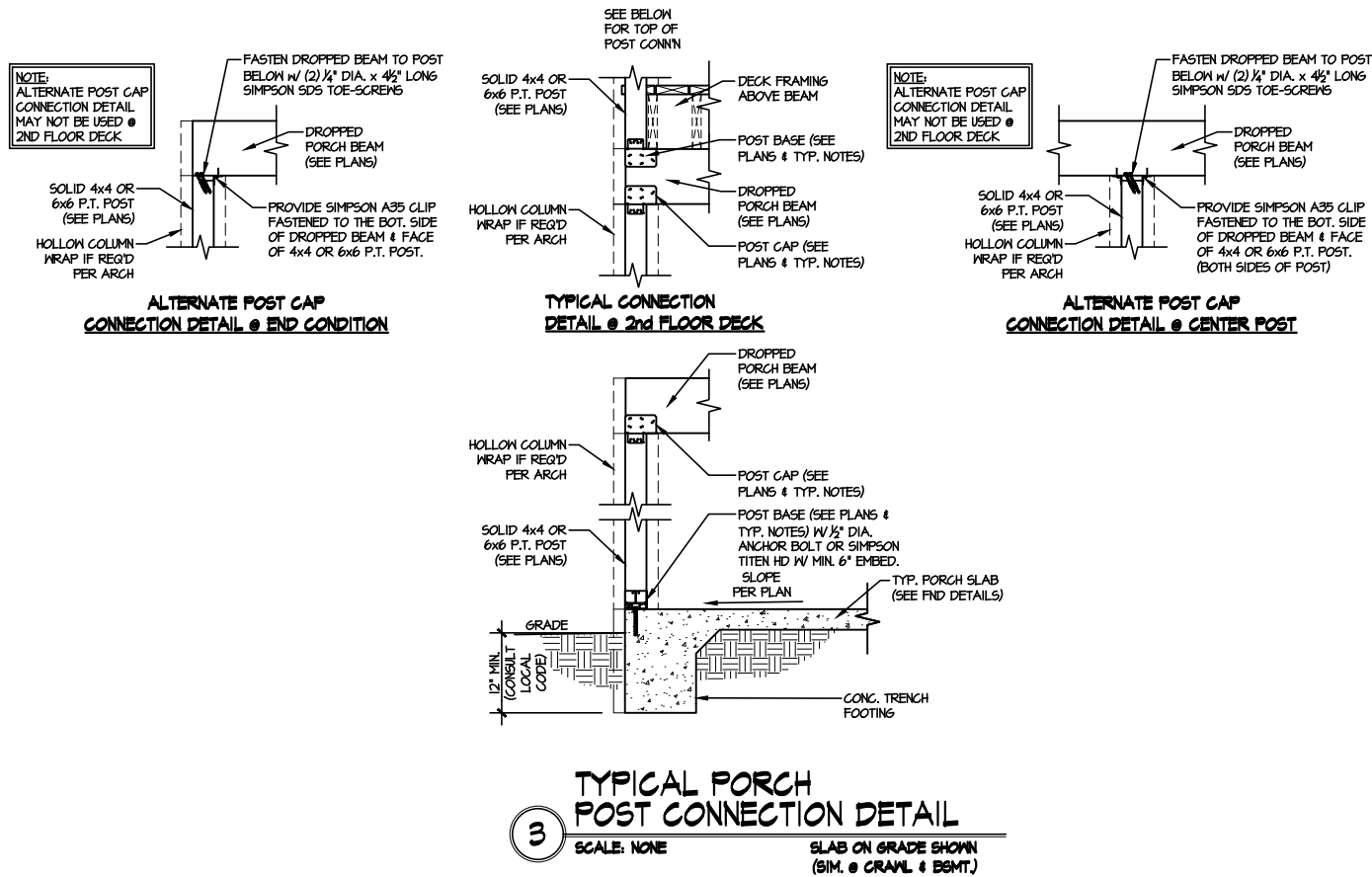


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09-15-25	JAD



FRAMING DETAILS
FARM AT NEIL'S CREEK
LOT 27 - MIDDLETON 1
RALEIGH, NC

sheet:
SD3.0

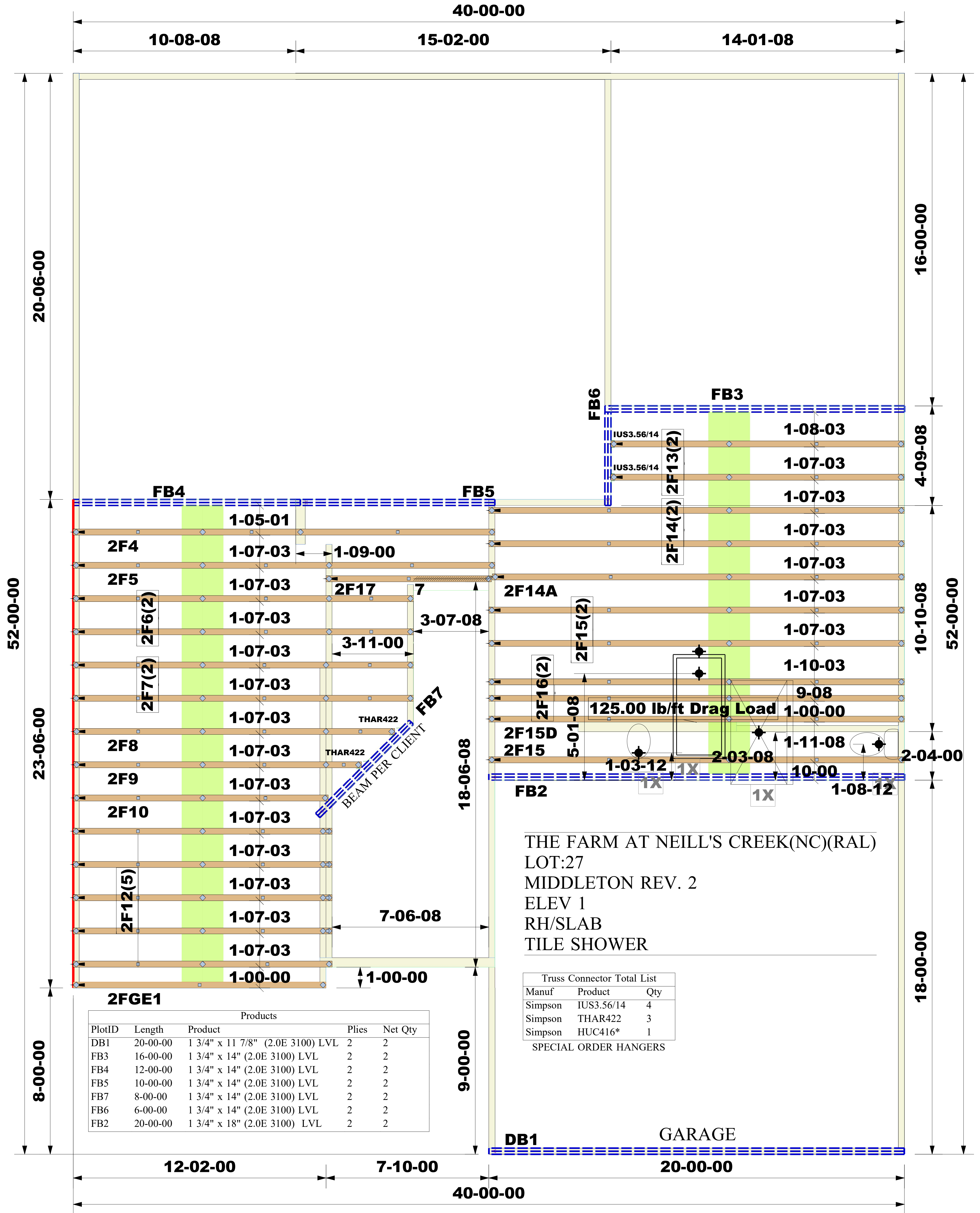


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OPEN WEB FLOOR TRUSS LAYOUT

SCALE: NTS



ELEV 1
2ND FLOOR FRAMING

Job #:

2509-4846

Designer:

Rajkumar yadav

Sales Rep:

Robbie Zarobinski

WARNING:

CONVENTIONAL FRAMING, ERECTION AND/OR PERMANENT BRACING IS NOT THE RESPONSIBILITY OF THE TRUSS DESIGNER, PLATE MANUFACTURER, OR THE TRUSS MANUFACTURER. PERSONS ERECTING TRUSSES ARE CAUTIONED TO SEEK PROFESSIONAL ADVICE REGARDING THE ERECTION BRACING WHICH IS ALWAYS REQUIRED TO PREVENT TOPPLING AND DOMINOING DURING ERECTION; AND PERMANENT BRACING WHICH MAY BE REQUIRED IN SPECIFIC APPLICATIONS. SEE "BRACING WOOD TRUSSES COMMENTARY AND RECOMMENDATIONS" (BCS1) FOR FURTHER INFORMATION.

NOTE:

IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER OR ARCHITECT TO PROVIDE AN APPROPRIATE CONNECTION FOR TRUSSES TO SUPPORTING STRUCTURE PER REACTIONS SHOWN ON TRUSS ENGINEERING. SPECIAL CONSIDERATIONS FOR MECHANICAL EQUIPMENT AND/OR PLUMBING (AND THEIR CONNECTIONS) IN TRUSS SPACE MUST BE DIAGRAMMED BY BUILDER ON APPROVED TRUSS LAYOUT PRIOR TO FABRICATION.

THIS COMPANY IS A TRUSS MANUFACTURER WHOSE RESPONSIBILITIES ARE LIMITED TO THOSE DESCRIBED IN WTCA 1-1995 "DESIGN RESPONSIBILITIES". ACCORDINGLY, IT DISCLAIMS ANY RESPONSIBILITIES AND/OR LIABILITY FOR THE CONSTRUCTION DESIGN, DRAWINGS, DOCUMENTS INCLUDING THE INSTALLATION, AND BRACING OF TRUSSES MANUFACTURED BY THIS COMPANY.

Customer: DRB Raleigh

Job Name: The Farm at Neill's Creek Lot
00.0027 OWF

Lot #: 00.0027

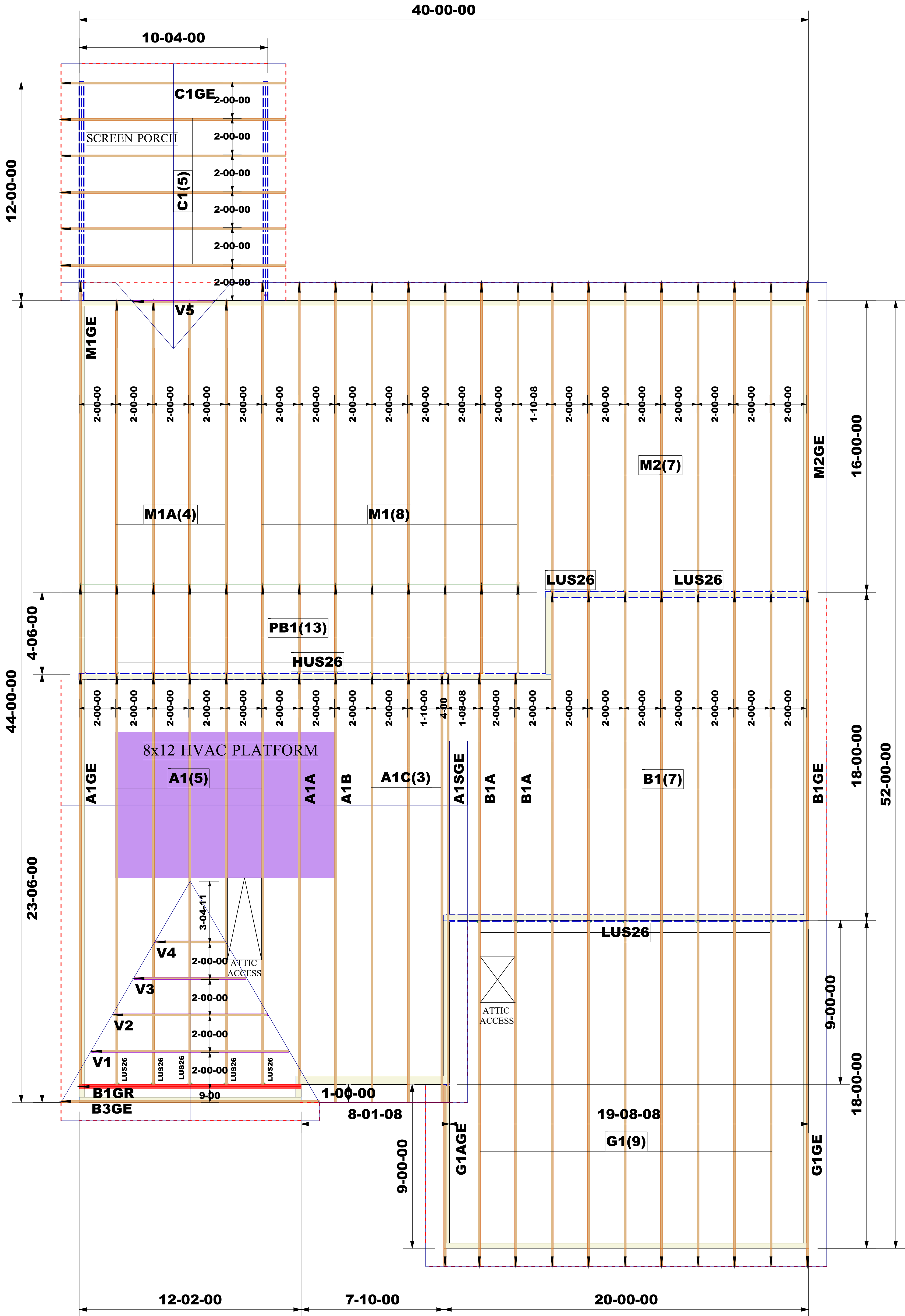
Model Name: Middleton



Structural, LLC
201 Poplar Avenue
Thurmont, MD 21788
Phone: 301-271-7591



ROOF TRUSS LAYOUT
SCALE: NTS



The Farm at Neill's Creek (NC)(RAL)
Lot 00.0027 Phase
Model 2183-1 - Middleton
Garage Right
OPT Covered Porch
Elevation 1

Truss Connector Total List		
Manuf	Product	Qty
Simpson	LUS26	23
Simpson	HUS26	18
Simpson	One H2.5A	110

*EXTERIOR DIMENSIONS ARE TO STUD.
*TOE-NAIL CONNECTIONS U.N.O.
*TRUSSES @ 2' O/C U.N.O.
*SEE PROFILE DWGS. FOR TRUSS ORIENTATION BEFORE INSTALLATION.

Job #:

2509-4847

Designer:

Abhijit Bera

Sales Rep:

Robbie Zarobinski

WARNING:

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TRUSSES SHALL BE INSTALLED IN A STRAIGHT AND PLUMB POSITION WHERE NO SHEATHING IS APPLIED DIRECTLY TO TOP AND/OR BOTTOM CHORDS, THEY SHALL BE BRACED AS SPECIFIED ON THE ENGINEERED DESIGN. TRUSSES SHALL BE HANDLED WITH REASONABLE CARE DURING ERECTION TO PREVENT DAMAGE OR PERSONAL INJURY.

NOTE:

IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER OR ARCHITECT TO PROVIDE AN APPROPRIATE CONNECTION FOR TRUSSES TO SUPPORTING STRUCTURE PER REACTIONS SHOWN ON TRUSS ENGINEERING. SPECIAL CONSIDERATIONS FOR MECHANICAL EQUIPMENT AND/OR PLUMBING (AND THEIR CONNECTIONS) IN TRUSS SPACE MUST BE DIAGRAMMED BY BUILDER ON APPROVED TRUSS LAYOUT PRIOR TO FABRICATION.

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Customer: DRB Raleigh

Job Name: The Farm at Neill's Creek

Lot #: 00.0027

Model Name: Middleton



Structural, LLC
201 Poplar Avenue
Thurmont, MD 21788
Phone: 301-271-7591

