



ELEV. SHOWN W/ 4 BLOCK CRAWL FOUNDATION (3 EXPOSED / 1 BURIED) STAIRS AS REQ'D TO GRADE PARGED AND PAINTED FOUNDATION, SHOWN, TYP. VERIFY WITH DIVISION SPECIFICATIONS OPT. HANDRAIL / STD. AS REQ'D BY CODE

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



ELEV. SHOWN W/ 4 BLOCK CRAWL FOUNDATION (3 EXPOSED / 1 BURIED) FIREPLACE CANTILEVERED AT CRAWLSPACE FOUNDATION PARGED AND PAINTED FOUNDATION, SHOWN, TYP. VERIFY WITH DIVISION SPECIFICATIONS

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

MASTER PLAN INFORMATION		UPDATED DATE
REVISION	DATE	
2-RALE	11-10-2023	

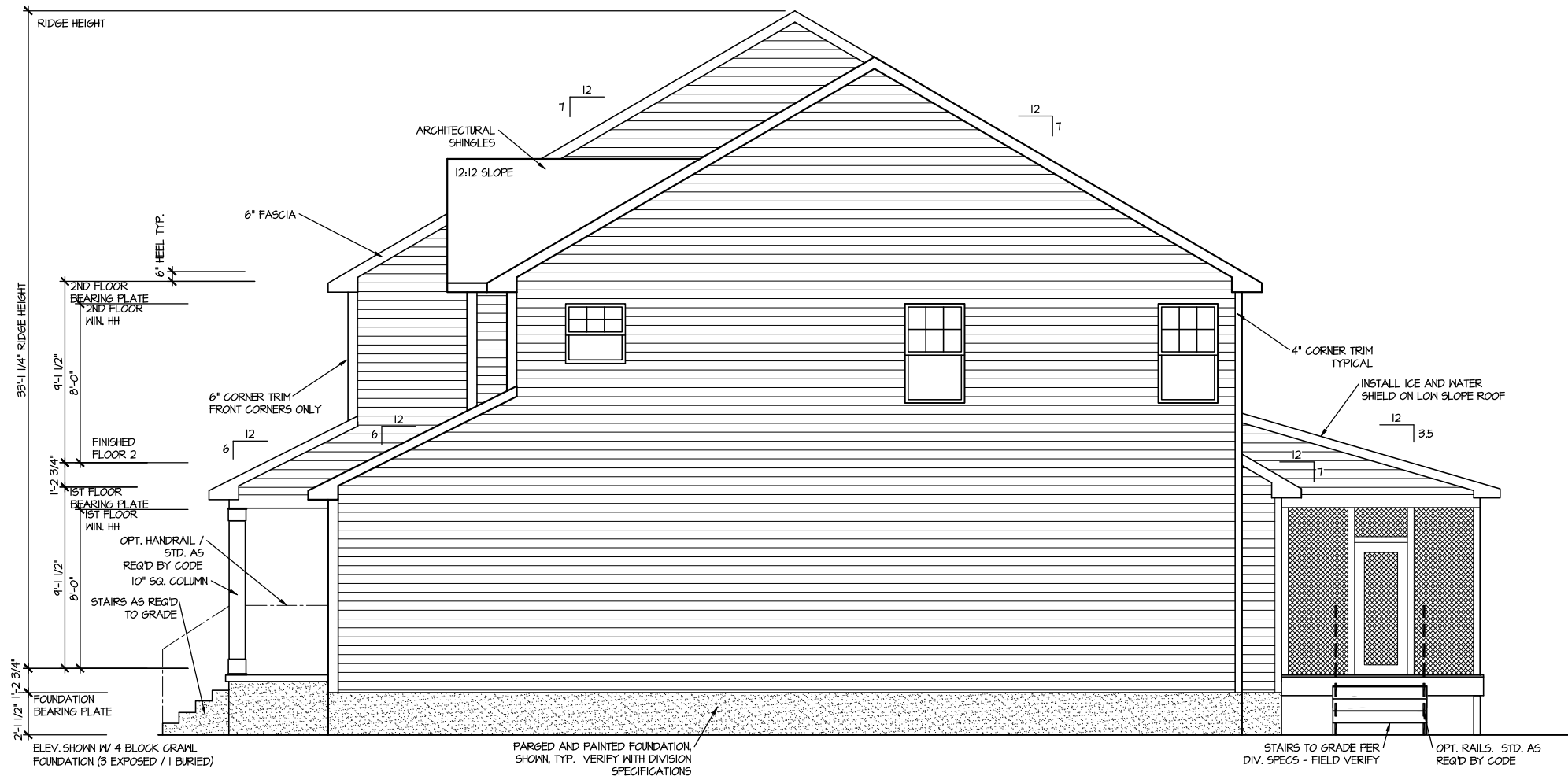
DRAWN BY:	ITS
DATE:	01/18/2024
PLAN NO.	3656



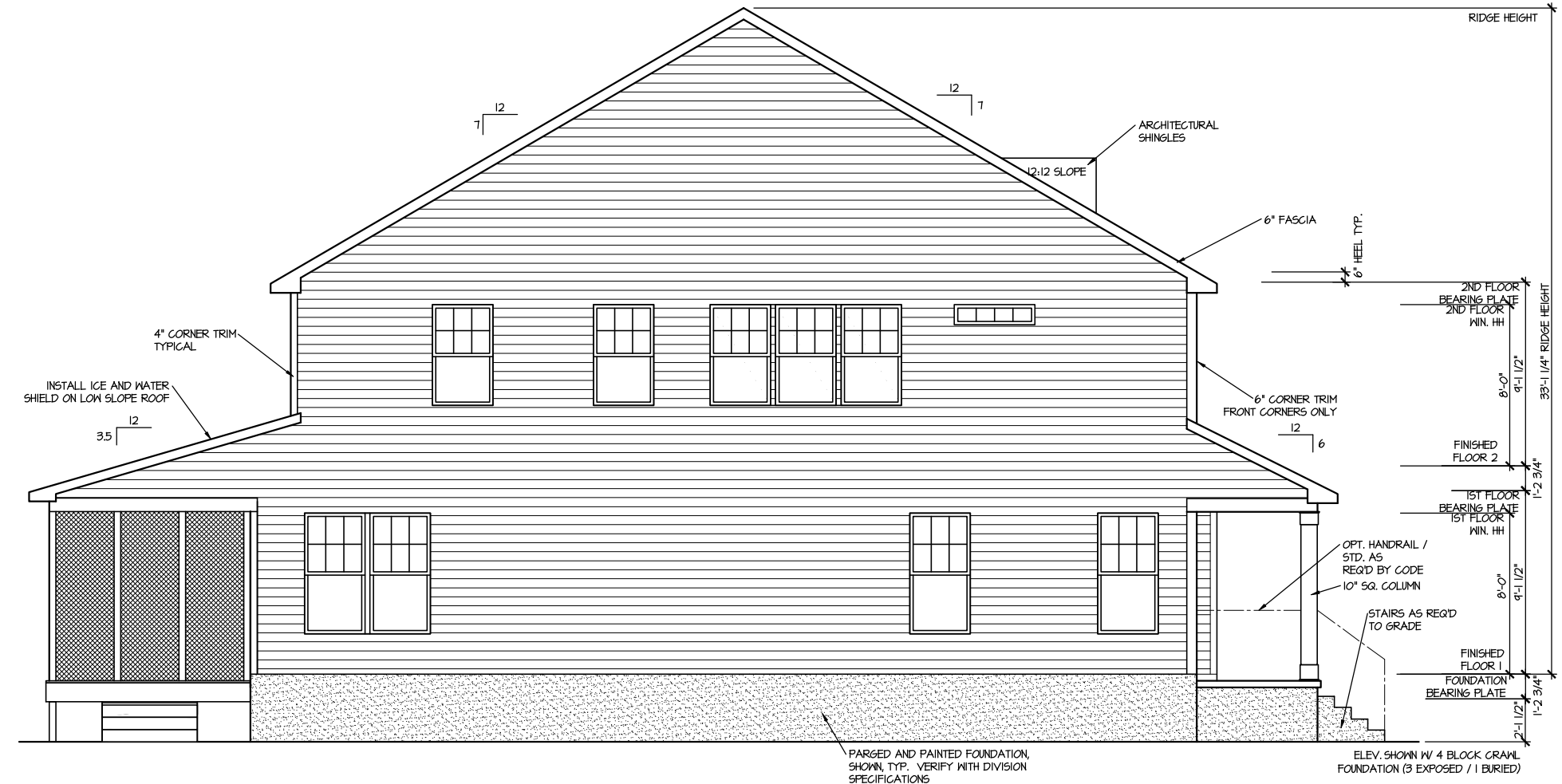
HOUSE NAME:	STONEHAVEN
DRAWING TITLE	FRONT & REAR ELEVATIONS

SHEET No.	A.I.
-----------	------

FILE: Lot_00.0097 amendment 2.dwg DATE: 1/18/2024 9:48 AM



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



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

MASTER PLAN INFORMATION	
REVISION	DATE
2 - RALE	11-10-2023
UPDATED DATE	

DRAWN BY:	ITS
DATE:	01/18/2024
PLAN NO.	3656

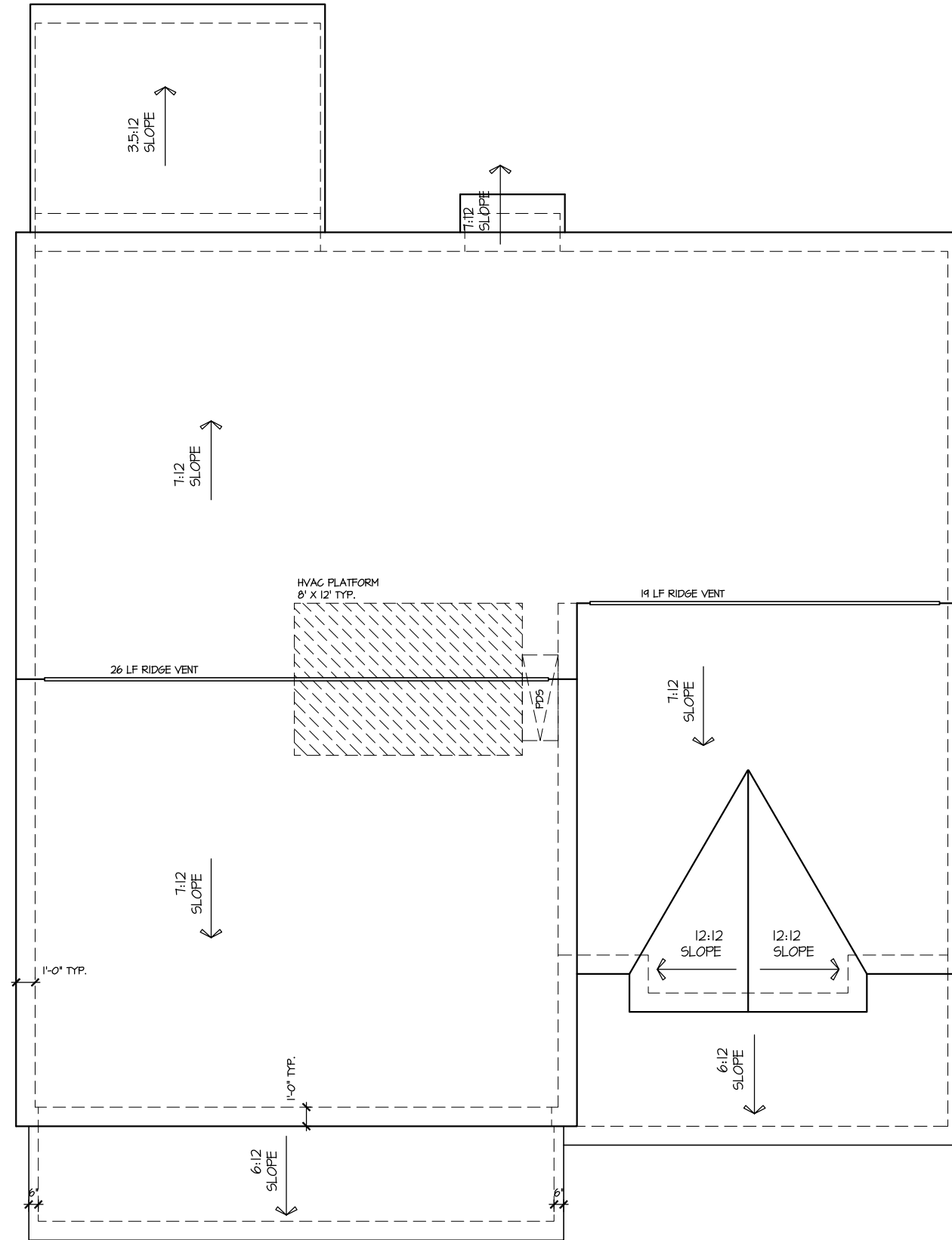


HOUSE NAME:	STONEHAVEN
DRAWING TITLE	RIGHT & LEFT ELEVATIONS

SHEET No.	A1.2
-----------	------

FILE: Lot_00.0087 amendment 2.dwg DATE: 1/18/2024 9:48 AM

ROOF VENTILATION CALCULATIONS:
 ROOF AREA = 241 SQ. FT.
 OVERALL REQUIRED VENTILATION:
 1 TO 150 = 14.27 SQ. FT.
 1 TO 300 = 7.14 SQ. FT.
 50-80% IN TOP THIRD = 9.57 - 5.71 SQ. FT. (1 TO 300)
 NET FREE AREA OF VENTED SOFFIT = 5.7 SQ. IN. / LINEAR FT.
 NET FREE AREA OF RIDGE VENT = 18 SQ. IN. / LINEAR FT.
 LOWER VENTING: (BOTTOM 2/3 ROOF)
 36 LINEAR FEET OF SOFFIT X 5.7 SQ. IN. = 3.40 SQ. FT.
 UPPER VENTING: (TOP 1/3 ROOF)
 45 LINEAR FEET OF RIDGE X 18 SQ. IN. = 5.63 SQ. FT.
 5.63 SQ. FT. BETWEEN 50% - 80%
 (1 TO 300 ALLOWED)
 TOTAL ROOF VENTILATION: 9.03 SQ. FT. > 7.14 SQ. FT. (REQ'D)



ROOF PLAN ELEV. 1
 SCALE: 1/8" = 1'-0"

MASTER PLAN INFORMATION		UPDATED DATE
REVISION	DATE	
2-RALE	11-10-2023	

DRAWN BY:
ITS
 DATE: 01/18/2024
 PLAN NO.
3656

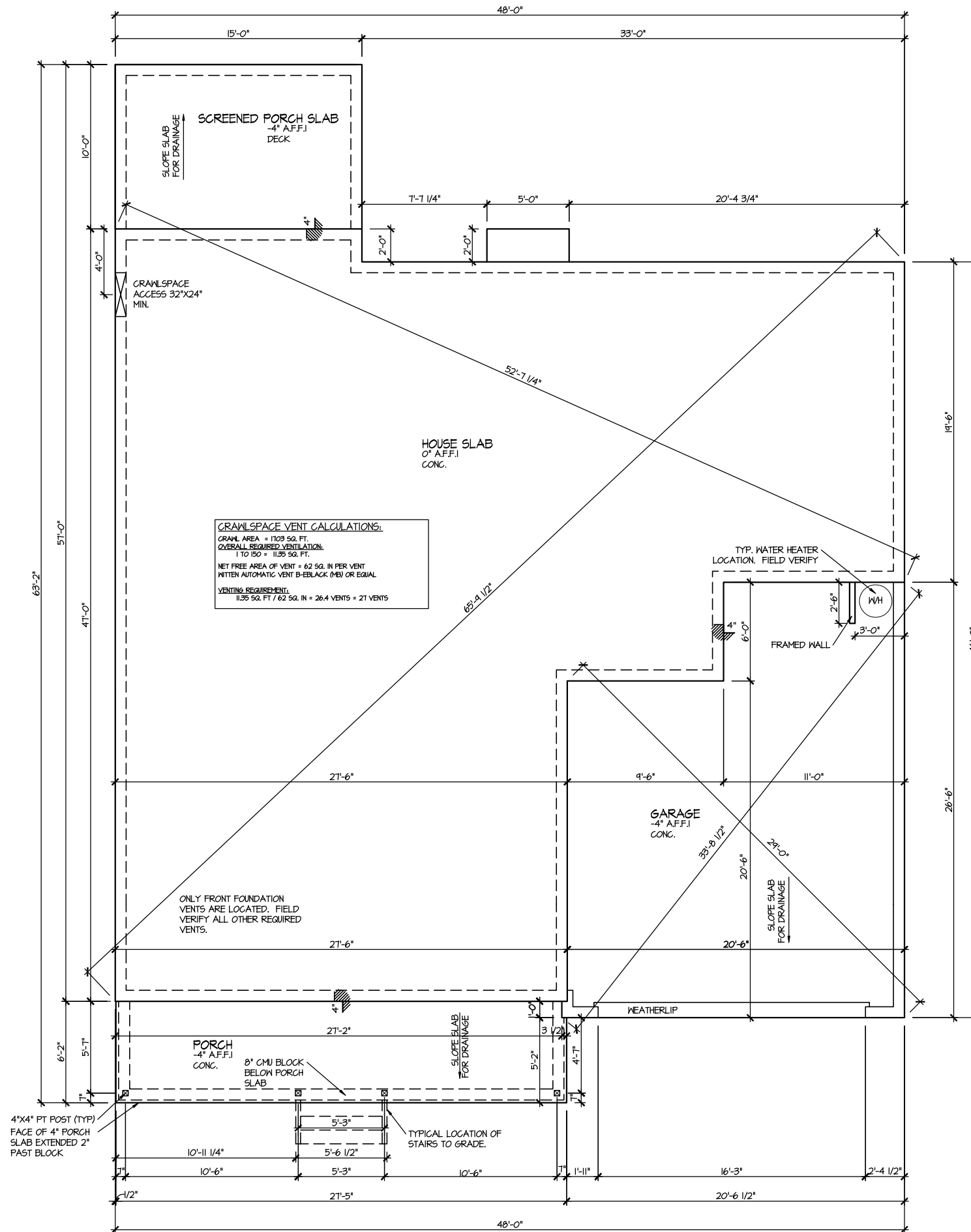


HOUSE NAME:
STONEHAVEN
 DRAWING TITLE
ROOF PLAN

SHEET No.
A13

ELEVATION I CRAWL SPACE PLAN

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



MASTER PLAN INFORMATION	
REVISION	DATE
2 - RALE	11-10-2023
	UPDATED DATE

DRAWN BY: ITS
 DATE: 01/18/2024
 PLAN NO. 3656



HOUSE NAME: STONEHAVEN
 DRAWING TITLE: CRAWL SPACE PLAN

SHEET No. A2.1

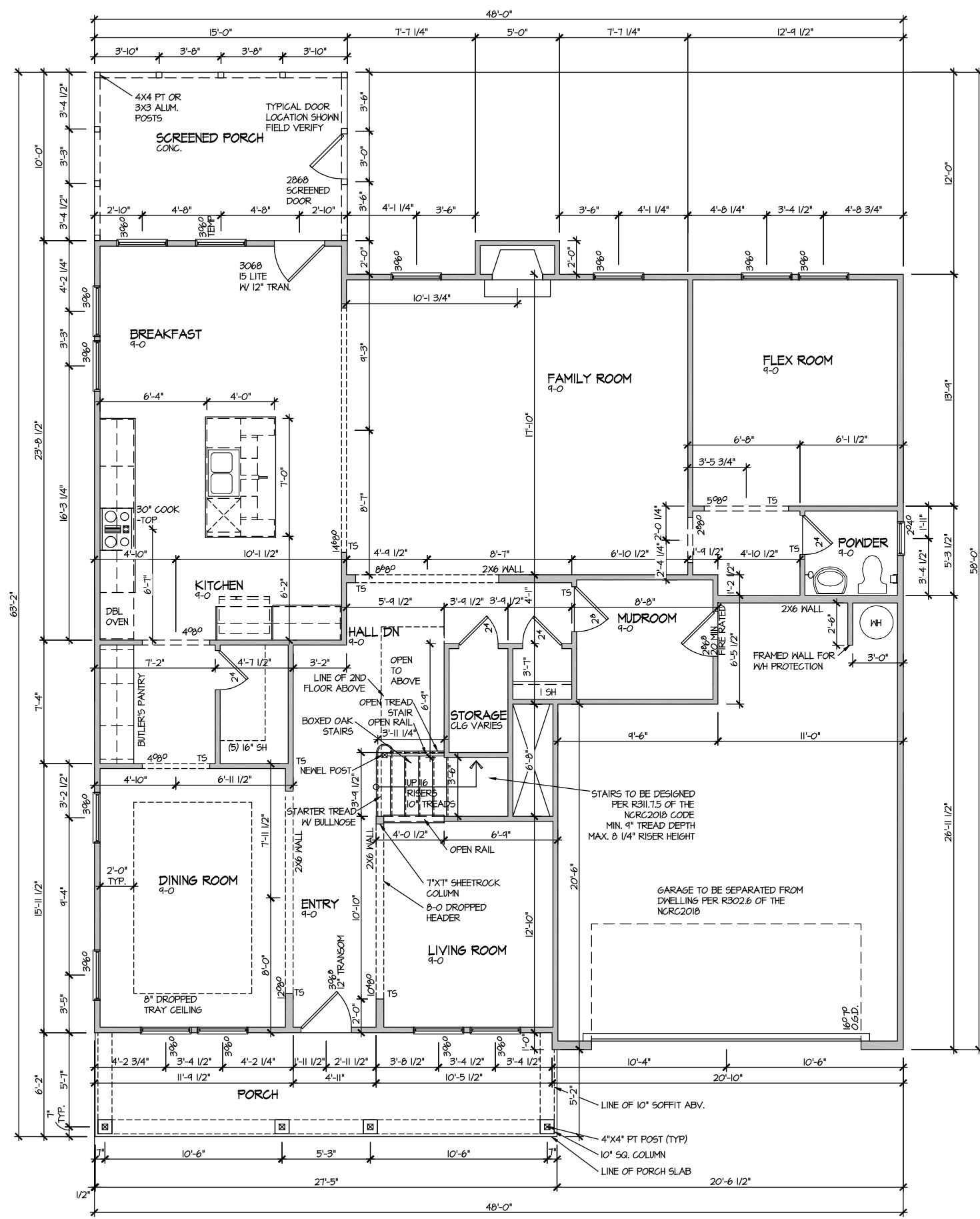
MASTER PLAN INFORMATION	
REVISION	DATE
2-RALE	11-10-2023
UPDATED DATE	

DRAWN BY: ITS
 DATE: 01/18/2024
 PLAN NO. 3656



HOUSE NAME: STONEHAVEN
 DRAWING TITLE: FIRST FLOOR PLAN

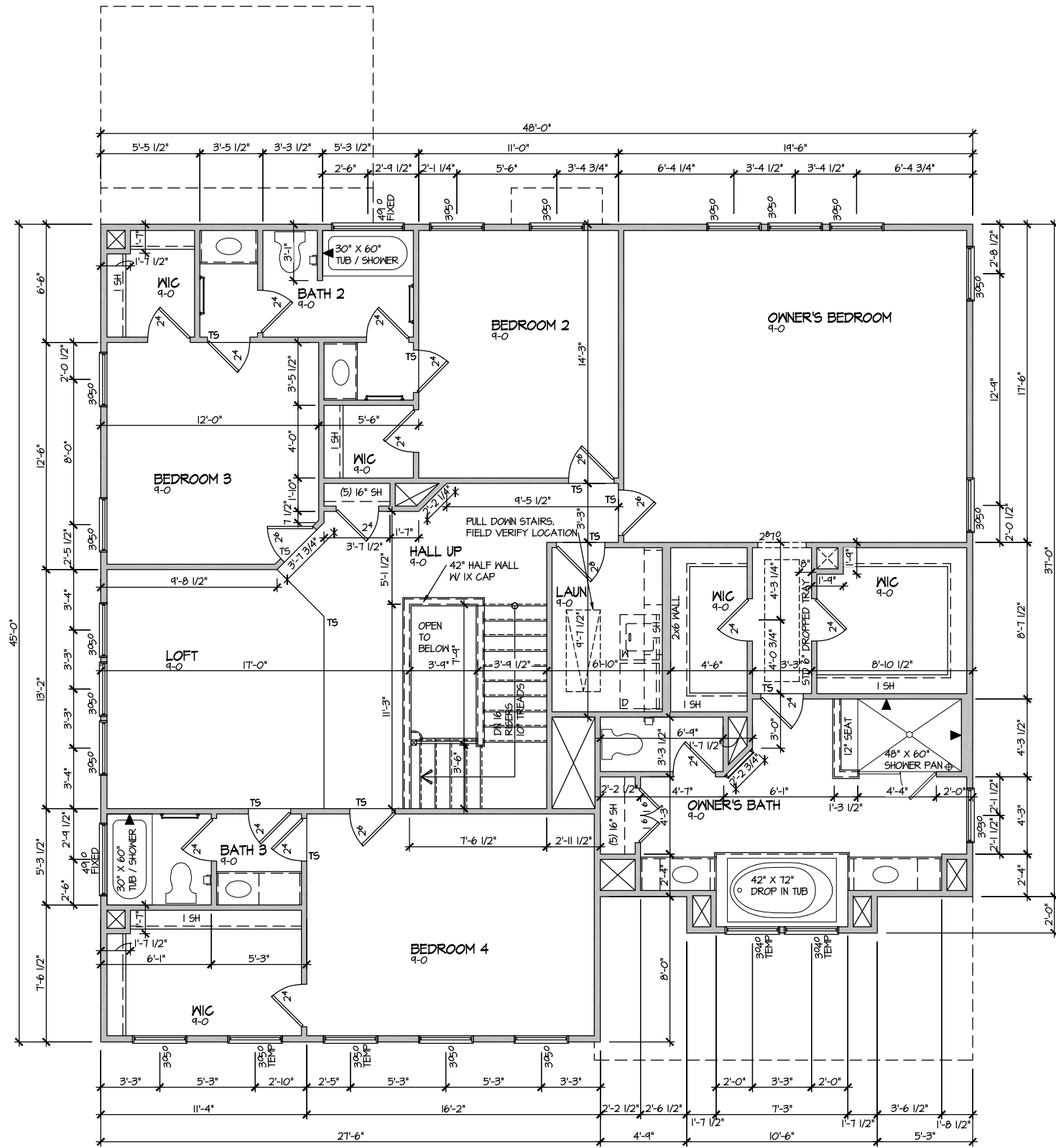
SHEET No. A3.1



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

ELEVATION I
SECOND FLOOR PLAN

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



UPDATED DATE

REVISION	DATE
2-RALE	11-10-2023

DRAWN BY:
ITS

DATE:
01/18/2024

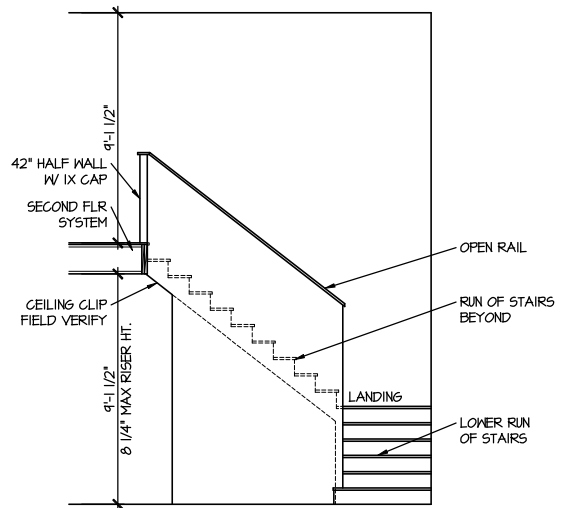
PLAN NO.
3656



HOUSE NAME:
STONEHAVEN

DRAWING TITLE
SECOND FLOOR PLAN

SHEET No.
A3.2



SECTION I

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

MASTER PLAN INFORMATION		UPDATED DATE
REVISION	DATE	
2-RALE	11-10-2023	

DRAWN BY:	ITS
DATE:	01/18/2024
PLAN NO.	3656



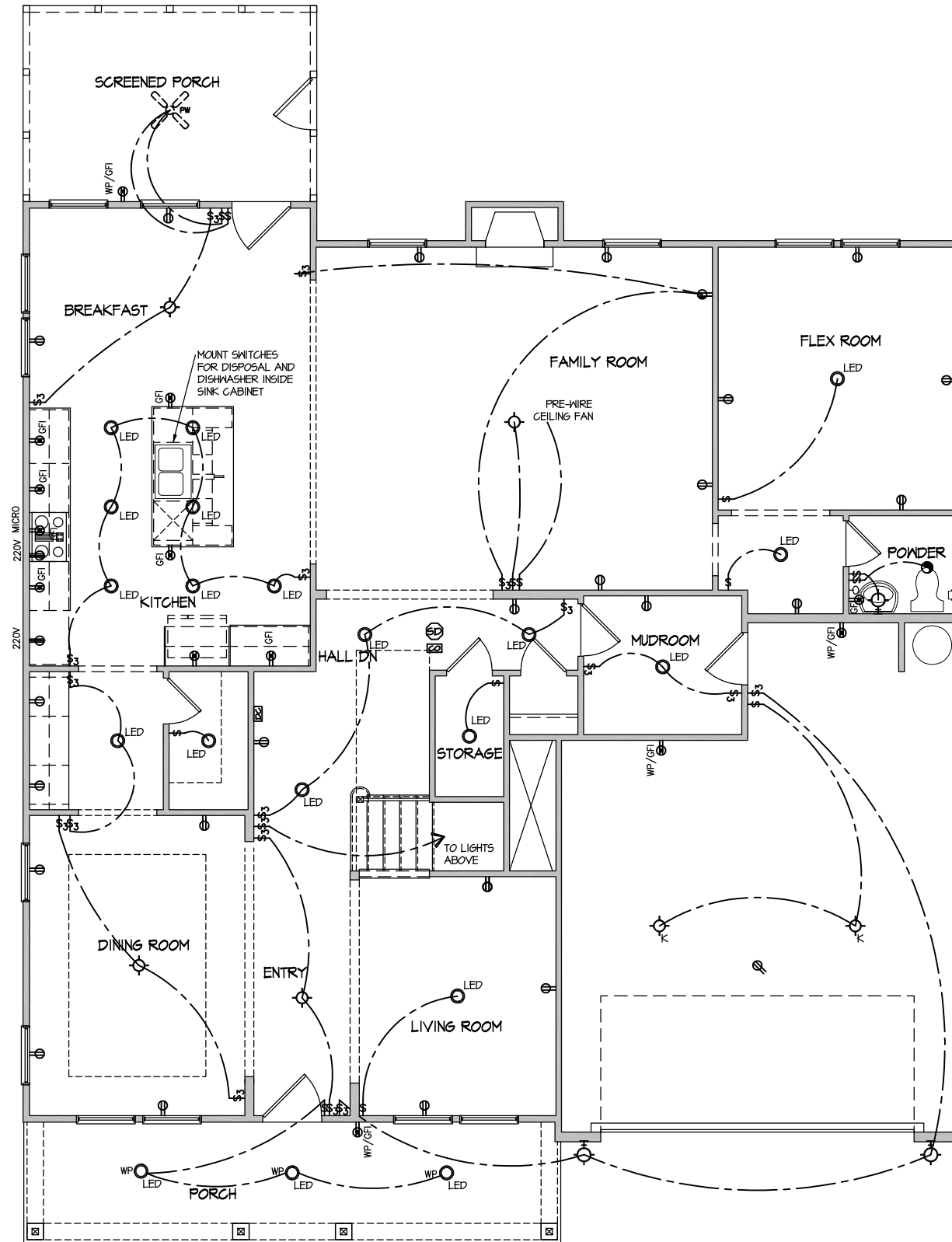
HOUSE NAME:	STONEHAVEN
DRAWING TITLE	BUILDING SECTION

SHEET No.	A4.1
-----------	------

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
- ⊕ FAN LIGHT COMBO
- WP WATER PROOFED
- ⊕ CO DETECTOR
- ⊕ DOOR CHIME
- ⊕ LIGHT FIXTURE - WALL MOUNTED
- ⊕ LIGHT FIXTURE - CEILING MOUNTED
- ⊕ LIGHT FIXTURE - CEILING MOUNTED LED
- ⊕ LED LIGHT FIXTURE - LED SURFACE MOUNTED
- ⊕ LED LIGHT FIXTURE - RECESSED CAN
- ⊕ FULLCHAIN LAMPHOLDER
- ⊕ KEYLESS LAMPHOLDER
- 2"x4' STRIP LIGHT

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"

MASTER PLAN INFORMATION	
REVISION	DATE
2-RALE	11-10-2023
UPDATED DATE	

DRAWN BY:	ITS
DATE:	01/18/2024
PLAN NO.	3656



HOUSE NAME:	STONEHAVEN
DRAWING TITLE	FIRST FLOOR ELECTRICAL

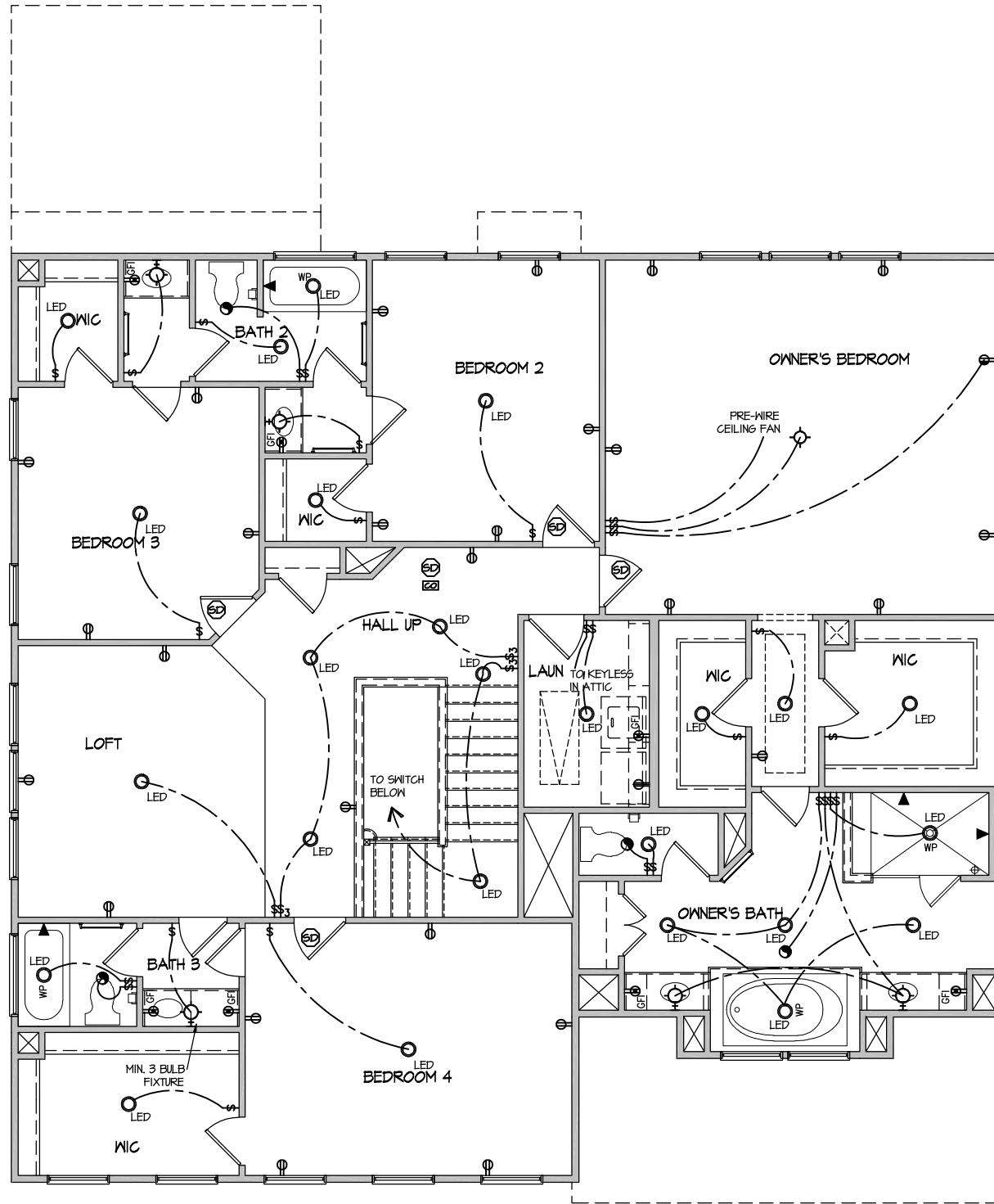
SHEET No.	E.1
-----------	-----

FILE: Lot 00.0097 amendment 2.dwg DATE: 1/18/2024 9:48 AM

ELECTRICAL LEGEND

- ⌚ SINGLE POLE SWITCH
- ⌚₃ THREE WAY SWITCH
- ⌚₄ FOUR WAY SWITCH
- Ⓜ DUPLEX AFCI RECEPTACLE
- Ⓜ₁ DUPLEX AFCI RECEPTACLE - BOTTOM HALF SWITCHED
- Ⓜ₂ 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
- Ⓜ FAN LIGHT COMBO
- WP WATER PROOFED
- Ⓜ CO DETECTOR
- Ⓜ DOOR CHIME
- Ⓜ LIGHT FIXTURE - WALL MOUNTED
- Ⓜ LIGHT FIXTURE - CEILING MOUNTED
- Ⓜ LIGHT FIXTURE - CEILING MOUNTED LED
- Ⓜ_{LED} LIGHT FIXTURE - LED SURFACE MOUNTED
- Ⓜ_{LED} LIGHT FIXTURE - RECESSED CAN
- Ⓜ_P FULLCHAIN LAMPHOLDER
- Ⓜ_K KEYLESS LAMPHOLDER
- 2'x4' STRIP LIGHT

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"

MASTER PLAN INFORMATION	
REVISION	DATE
2-RALE	11-10-2023
	UPDATED DATE

DRAWN BY:	ITS
DATE:	01/18/2024
PLAN NO.	3656

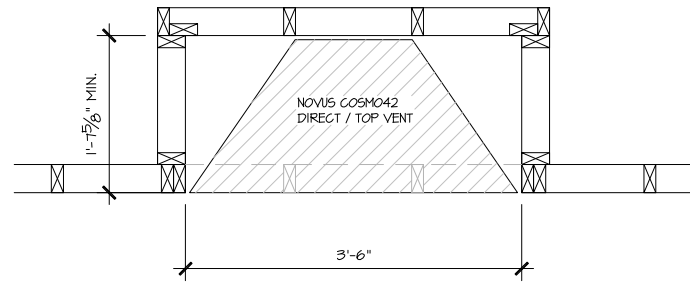


HOUSE NAME:
STONEHAVEN

DRAWING TITLE
SECOND FLOOR ELECTRICAL

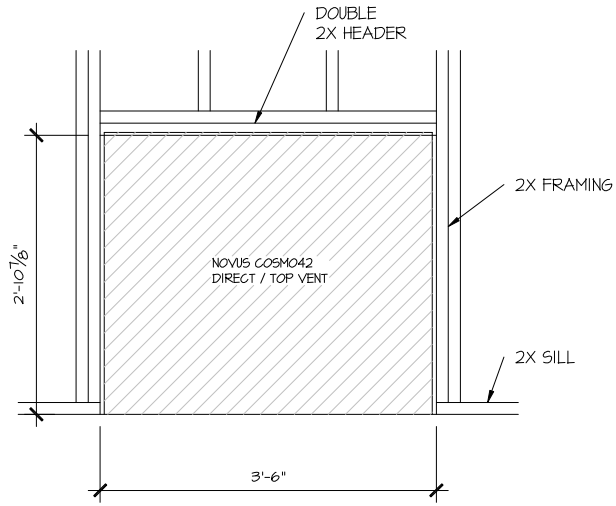
SHEET No.
E1.2

ALL DIMENSIONS ARE TO FRAMING



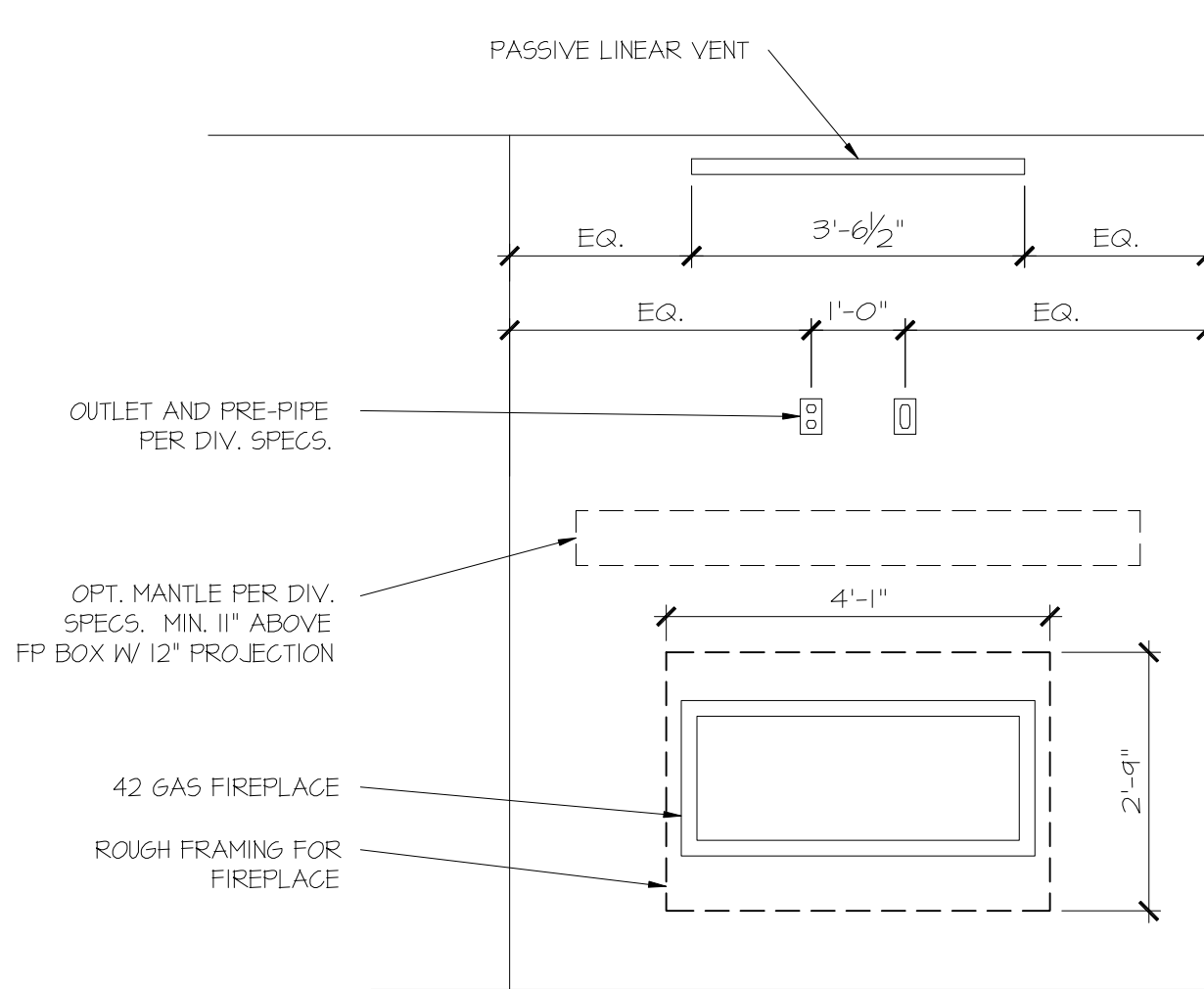
PARTIAL PLAN
NOVUS COSMO42

SCALE: 1/2" = 1'-0"



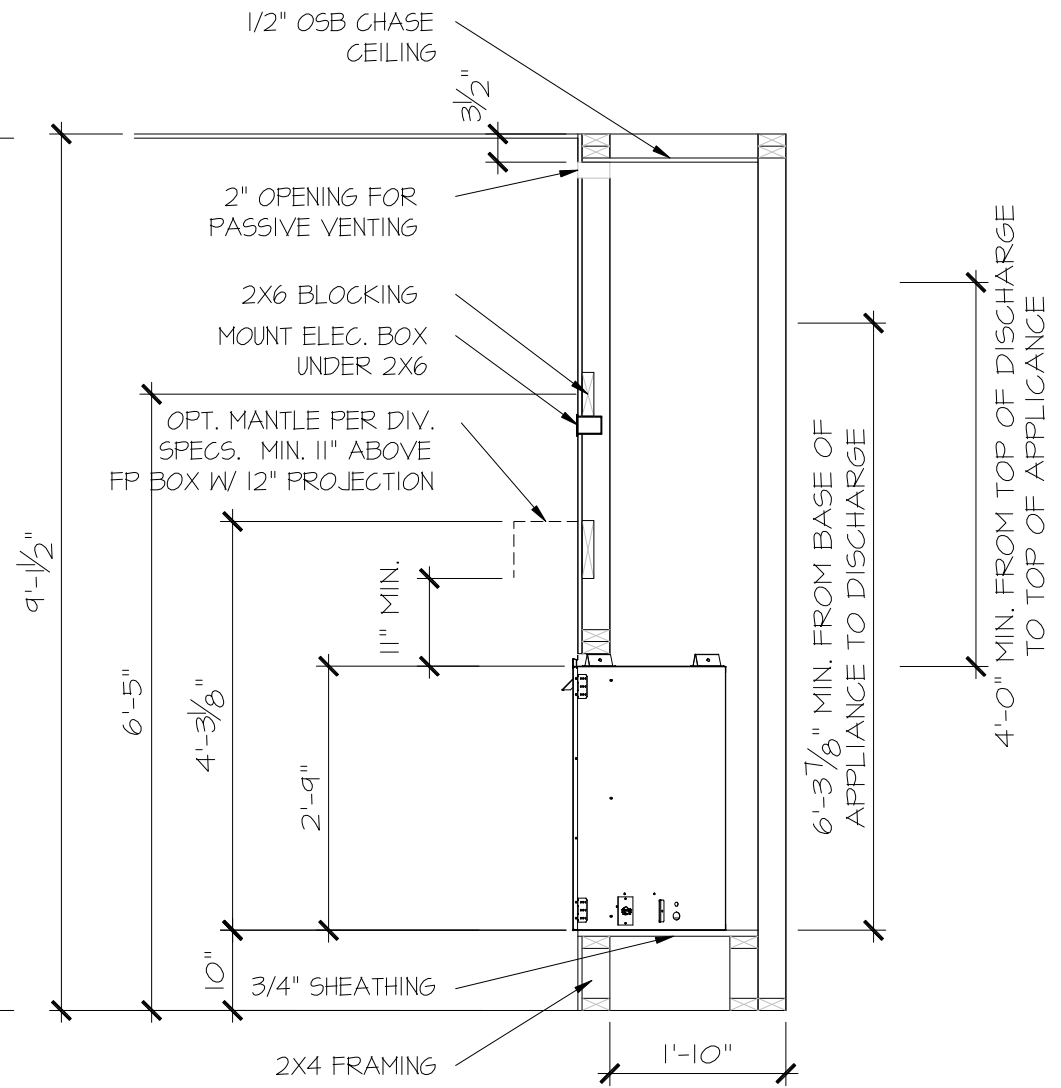
PARTIAL ELEVATION
NOVUS COSMO42

SCALE: 1/2" = 1'-0"



PARTIAL ELEVATION
NOVUS COSMO42

SCALE: 1/2" = 1'-0"



PARTIAL SECTION
NOVUS COSMO42

SCALE: 1/2" = 1'-0"

FILE: RALE FIREPLACE DETAILS 11-8-23.dwg DATE: 5/27/2022 10:35 AM

CONSULTANT LOGO

SEAL

DRAWN BY:
L. BEAVERS
DATE: 11-8-23
PLAN NO.
N/A
11 X 17 SCALE
24 X 36 SCALE



HOUSE NAME:
RALE FIREPLACE DETAILS
DRAWING TITLE
RALE FIREPLACE DETAIL
INTERIOR GAS UNITS

SHEET No.
10



MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING
300 Hancock Ave., Building 4 - Auckler, PA 15067
P: 215-949-5001 - mulhern+kulp.com
NC LICENSE #C-3825



M&K project number: 126-23061

project mgr: JTR
drawn by: SJF
issue date: 01-10-24

REVISIONS:
date: initial:
01-25-24 KFG



STRUCTURAL NOTES
BLAKE POND COMMUNITY
LOT 97 - STONEHAVEN I
RALEIGH, NC

sheet:

SO.0

GENERAL STRUCTURAL NOTES

FOUNDATION

DESIGN IS BASED ON 2018 NORTH CAROLINA STATE BUILDING CODE; RESIDENTIAL CODE.
FOOTING DESIGN - 2,000 PSF ALLOWABLE SOIL BEARING PRESSURE IS ASSUMED. BUILDER/CONTRACTOR MUST VERIFY.
FASTEN 2x4/6 SILL PLATES TO FIND 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. SPF OR 5YP, "STUD" GRADE OR BETTER.
CONCRETE DESIGN BASED ON ACI 318. CONCRETE SHALL ATTAIN THE FOLLOWING MIN. COMPRESSIVE STRENGTHS IN 28 DAYS, U.N.O.:
fc = 4,000 psi; FOUNDATION WALLS
2,500 psi; FOOTINGS & INTERIOR SLABS ON GRADE
3,000 psi; GARAGE & EXTERIOR SLABS ON GRADE
fy = 60,000 psi
BASEMENT FOUNDATION WALL DESIGN BASED ON:
• 9' OR 10' HEIGHT (AS NOTED ON PLANS)
• TALLER WALLS MUST BE ENGINEERED.
• NOMINAL WIDTH (4 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, U.N.O.
• LARGER OPENINGS SHALL BE PER PLAN.
ALL CONCRETE EXPOSED TO THE WEATHER SHALL NOT HAVE LESS THAN 5% OR MORE THAN 7% AIR ENTRAINMENT.
ALL FOOTINGS SHALL BEAR AT LEAST 12" BELOW FINISH GRADE.
FOOTINGS AND SLABS ON GRADE SHALL BEAR ON VIRGIN SOIL OR 45% 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 (Fm=1500 psi). MORTAR SHALL BE ASTM C270, TYPE S. CMU DESIGN PER ACI 530 & 530.1.
CMU FOUNDATION WALLS SHALL HAVE "DUR-O-WALL" HORIZONTAL JOINT REINFORCEMENT (OR EQUAL) - 9 GA. MINIMUM @ 16" O.C.
PROVIDE 2x8 x 16" LONG P.T. PLATE ON TOP OF ALL CRWL. SPACE PIERS. ALL PIERS SHALL BE GROUTED SOLID.
PROVIDE 2x6 P.T. PLATE ON INTERIOR CRWL. SPACE WALLS, FASTENED PER ANCHORAGE SPECIFICATION NOTED ABOVE.
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.

HOLD-DOWN SCHEDULE

SYMBOL	SPECIFICATION
HD-1	SIMPSON HTT4 HOLD-DOWN *
HD-2	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.) (PRE-BENT MSTC66 ALT. WHEN SPECIFIED)
HD-3	SIMPSON 5THD14/14RJ HOLD-DOWN

ALTERNATIVE TO S6TB24 ANCHOR BOLT SPECIFICATION:
• UTILIZE SIMPSON "SET" EPOXY SYSTEM TO FASTEN 3/8" DIA. THREADED ROD INTO CONCRETE FOUNDATION. PROVIDE 12" MIN. EMBEDMENT INTO CONCRETE. INSTALL PER MANUF. RECOMMENDATIONS. DO NOT LOCATE ANCHORS WITHIN 1 3/4" OF EDGE OF FOUNDATION.

LATERAL BRACING & SHEAR WALL SHEATHING SPECIFICATIONS

THIS MODEL HAS BEEN DESIGNED TO RESIST LATERAL FORCES RESULTING FROM:
120 MPH WIND IN 2018 NCSBC: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 1609) & ASCE 7-10, AS PERMITTED BY R301.1.3 OF THE 2018 NCSBC: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 HEREIN, 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 NCSBC:RC SECTION R802.11.1. 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

1/16" OSB OR 1/32" PLYWOOD:
FASTEN SHEATHING W/ 2 3/8" X 0.113" NAILS @ 6" O.C. AT EDGES & 12" O.C. IN THE PANEL FIELD. TYP. U.N.O.
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/ 6d 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, U.N.O.
- 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 HOLD-DOWN BELOW

FLOOR FRAMING

1- JOISTS/TRUSSES SHALL BE DESIGNED BY MANUF. TO MEET OR EXCEED L/480 LIVE LOAD DEFLECTION CRITERIA. (EXCLUDES MARBLE FLOORS - CONTACT M&K FOR MARBLE FLOOR DESIGNS)
AT 1-JOIST FLOORS, PROVIDE 1 1/8" MIN. OSB RIM BOARD.
METAL HANGERS SHALL BE SPECIFIED BY MANUFACTURER, U.N.O.
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 1/2" 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.
- 16 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 H25T CLIP (OR APPROVED EQUAL) @ ALL BEARING POINTS. PROVIDE (2) H25T CLIPS AT 2-PLY GIRDER TRUSSES, (3) H25T CLIPS AT 3-PLY GIRDER TRUSSES & ROOF BEAMS - AT ALL BEARING POINTS.
METAL HANGERS SHALL BE SPECIFIED BY THE MANUFACTURER, U.N.O.
ERECT AND INSTALL ROOF TRUSSES PER WTCA & TPI'S BCSI 1-08 "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES."
SUPPORT PORCH & SHORT SPAN ROOF TRUSSES (MAX 7' SPAN) W/ 2x4 LEDGER FASTENED TO:
- RIM BOARD W/ (2) 3"x0.131" NAILS @ 16" O.C. MAX. (1-JOISTS)
- TRUSS VERTICALS W/ (3) 3"x0.131" NAILS @ 19.2" 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 1/2" 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.

VENEER LINTEL SCHEDULE

SPAN (MAX)	HEIGHT OF VENEER ABOVE LINTEL	STEEL ANGLE SIZE
3'-0"	20 FT. MAX	L3"x3"x3/8"
	3 FT. MAX	L3"x3"x3/8"
6'-0"	12 FT. MAX	L4"x4"x3/8"
	20 FT. MAX	L5"x5"x3/8"
8'-0"	3 FT. MAX	L4"x4"x3/8" *
	12 FT. MAX	L5"x5"x3/8" *
12'-0"	16 FT. MAX	L6"x6"x3/8" *
	12 FT. MAX	L6"x6"x3/8" *
16'-0"	2 FT. MAX	L7"x4"x3/2" **
	3 FT. MAX	L8"x4"x3/2" **

ALL LINTELS:
- SHALL SUPPORT 2 3/4" - 3 1/2" VENEER W/ 40 PSF MAXIMUM HEIGHT.
- < 16" SHALL HAVE 4" MIN. BEARING
- < 16" SHALL NOT BE FASTENED BACK TO HEADER
- < 16" SHALL BE FASTENED BACK TO WOOD HEADER IN WALL @ 48" O.C. W/ 1/2" DIA. x 5 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 LESS VERTICAL.
- WHEN SUPPORTING VENEER < 3" WIDE THE EXTERIOR TOE OF THE HORIZONTAL LEG MAY BE CUT IN THE FIELD TO BE 3/4" WIDE OVER THE BEARING LENGTH ONLY. THIS IS TO ALLOW FOR HEAD/Joint FINISHING.
- SEE STRUCTURAL PLANS FOR ANY LINTEL CONDITION NOT ENCOMPASSED BY THE ABOVE PARAMETERS.
* FOR GREEN VENEER USE L4"x3/8".
** FOR 3 1/2" VENEER ONLY. SEE PLAN FOR VENEER SUPPORT IF VENEER < 3 1/2" THICK.

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

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 5/8")
10 PSF T.C., 5 PSF B.C. (TRUSSES)
(ADDL. 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. U.N.O.
EXT. & INT. BRG WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. SPF OR 5YP "STUD" GRADE LUMBER, OR BETTER, U.N.O.
• WALLS OVER 12' TALL SHALL BE PER PLAN.
ALL HEADERS, BEAMS & OTHER STRUCTURAL MEMBERS SHALL BE SPRUCE-PINE-FIR #2 (SPF) 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, U.N.O.)
• 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=1.55x10^6 psi
• LVL' - Fb=2600 psi; Fv=285 psi; E=2.0x10^6 psi
• PSL' - Fb=2400 psi; Fv=240 psi; E=2.0x10^6 psi
M&K SHALL BE FULLY INDEFINITE FOR ANY AND ALL ISSUES RESULTING FROM OR RELATED TO ANY BUILDING COMPONENT IF THE OWNER DOES NOT SUBMIT THE COMPONENT SHOP DRAWINGS TO M&K FOR STRUCTURAL REVIEW PRIOR TO FABRICATION, DELIVERY, OR INSTALLATION.
FOR 2 & 3 PLY BEAMS OF EQUAL WIDTH, FASTEN PLYS 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 3 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 PLYS 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 7" 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, U.N.O.
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 BCS2-2/4 CAP & ABW44Z BASE, U.N.O.

CONNECTION SPECIFICATIONS (TYP. U.N.O.)

DESCRIPTION OF BLDG. ELEMENT	3"x0.131" NAILS	3"x0.120" NAILS
JOIST TO SOLE PLATE	(3) TOENAILS	(3) TOENAILS*
SOLE PLATE TO JOIST/BLK'G.	(3) NAILS @ 4" O.C.	(3) NAILS @ 4" O.C.
STUD TO SOLE PLATE	(2) TOENAILS	(3) TOENAILS*
TOP OR SOLE PLATE TO STUD	(2) NAILS	(3) NAILS
RIM TO TOP PLATE	TOENAILS @ 8" O.C.	TOENAILS @ 6" O.C.*
BLK'G. BTWN. JOISTS TO TOP PL.	(3) TOENAILS	(3) TOENAILS*
DOUBLE STUD	NAILS @ 24" O.C.	NAILS @ 16" O.C.
DOUBLE TOP PLATE	NAILS @ 24" O.C.	NAILS @ 16" O.C.
DOUBLE TOP PLATE LAP SPLICE	(4) NAILS IN LAPPED AREA	(1) NAILS IN LAPPED AREA
TOP PLATE LAP @ CORNERS & INTERSECTING WALLS	(2) NAILS	(2) NAILS

* 2 3/8" X 0.113" IS AN ACCEPTABLE ALTERNATIVE TO A 3"x0.120", SAME SPACING OR NUMBER OF NAILS. (ONLY ACCEPTABLE WHERE * ARE SHOWN)

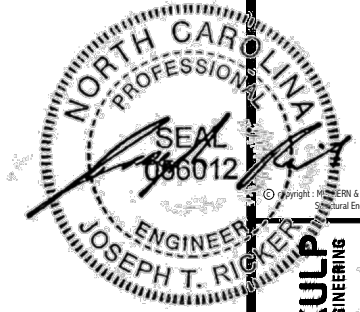
MEANS & METHODS NOTES

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.

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:
A. ROOF TRUSSES:
1/4" DEAD LOAD
B. FLOOR TRUSSES, ATTIC TRUSSES, & I-JOISTS:
1/8" DEAD LOAD
C. FLOOR TRUSSES & ATTIC TRUSSES ADJACENT TO FLOOR FRAMING BY OTHERS:
LIMIT ABSOLUTE TRUSS DEFLECTION TO 3/16" DEAD LOAD. (NOT DIFFERENTIAL DEFLECTION)



MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING
310 Bainside Ave, Building 4 - Auckler, PA 15002
P 215-948-8001 - mulhern+kulp.com
NC LICENSE #C-3825



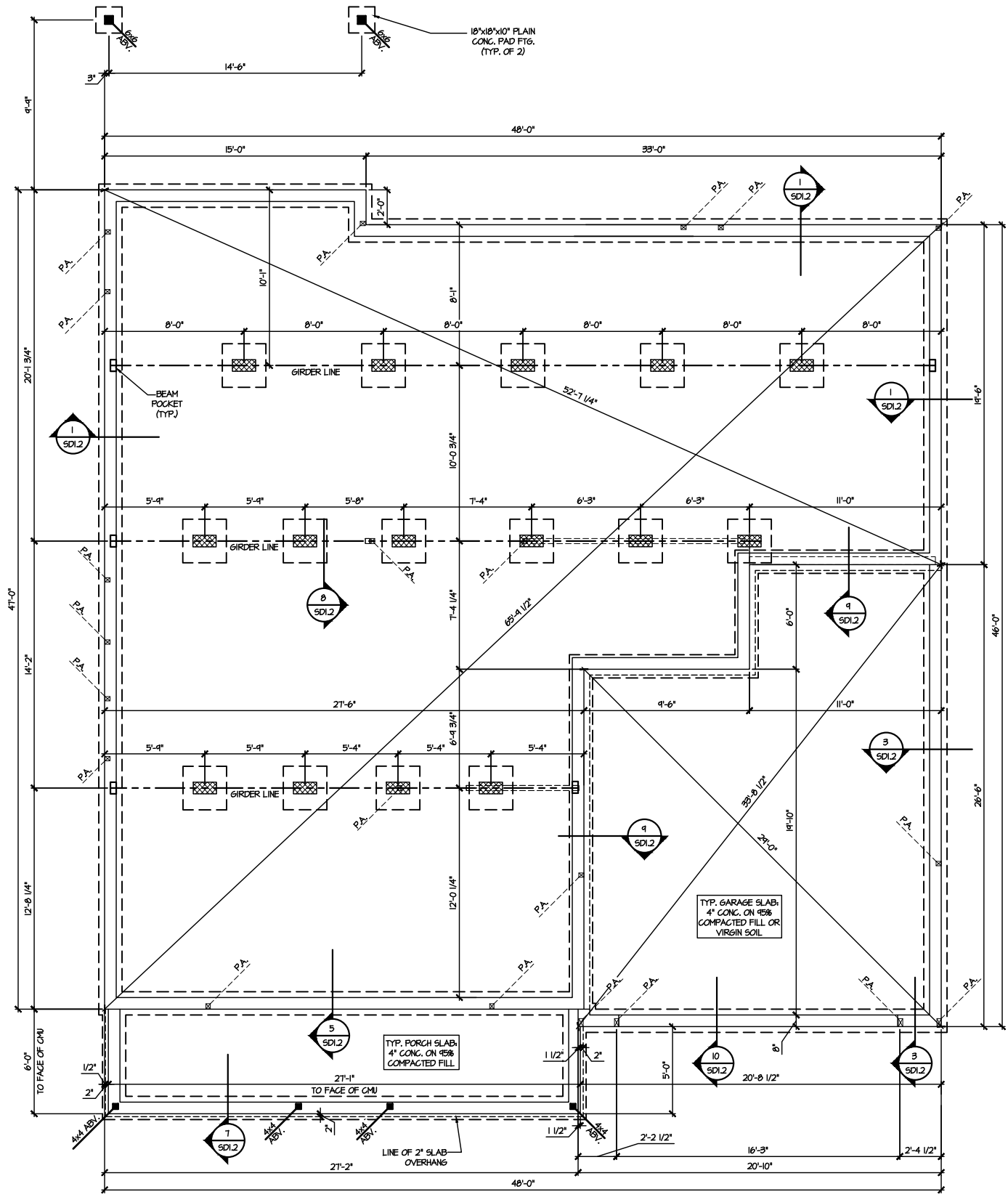
M&K project number:
126-23061
project mgr: JTR
drawn by: SJF
issue date: 01-10-24

REVISIONS:
date: initial:
01-25-24 KFG

DRB
HOMES

FOUNDATION PLANS
BLAKE POND COMMUNITY
LOT 97 - STONEHAVEN I
RALEIGH, NC

sheet:
S1.0

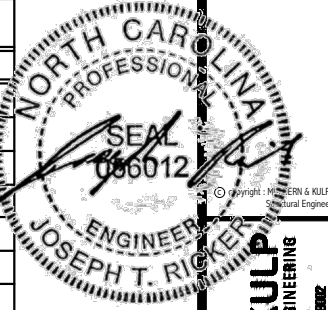


1 CRAWL SPACE FOUNDATION PLAN
SCALE: 1/8"=1'-0"

LEGEND

- Interior bearing wall
- Bearing wall above
- Beam / header
- Indicates shear wall & extent
- Extent of overframing
- J.L. metal hanger
- * Indicates post above. Provide solid blocking under post or jamb above.
- Indicates hold-down or strap. Refer to schedule.

REFER TO S.O. FOR
TYPICAL STRUCTURAL NOTES
& SCHEDULES



M&K project number:
126-23061
project mgr: JTR
drawn by: SJF
issue date: 01-10-24



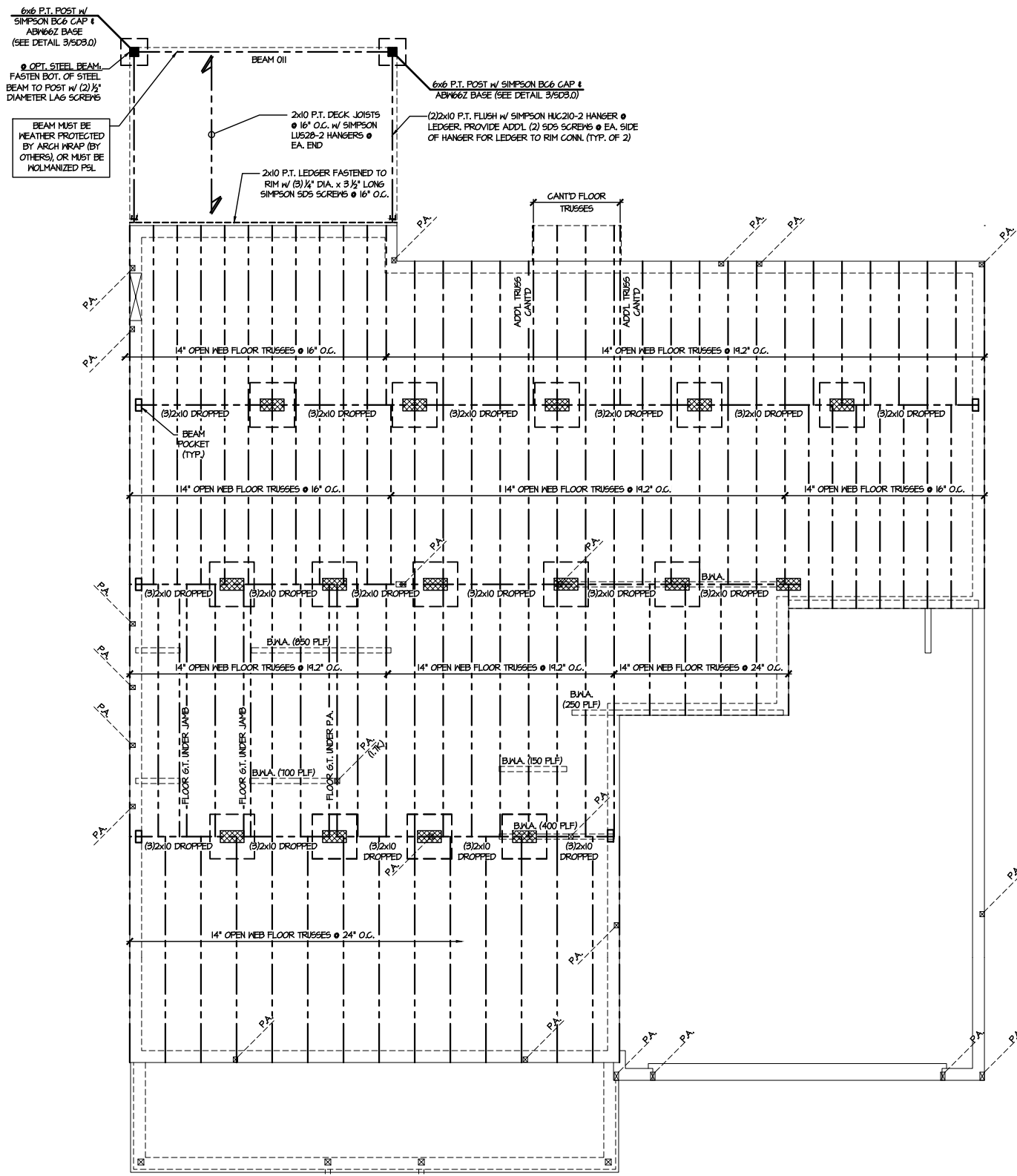
FLOOR FRAMING PLANS
BLAKE POND COMMUNITY
LOT 97 - STONEHAVEN I
RALEIGH, NC

sheet:
S2.0

ENGINEERED BEAM MATERIAL SCHEDULE

BEAM NUMBER	LVL OPTION	PSL OPTION	LSL OPTION	FLITCH OPTION	STEEL OPTION
001	(2)3/4"x4 1/4" - F	3 1/2"x4 1/4" - F	N/A	(2)2x10 + (1) 1/4"x9 1/4" STEEL FLITCH PLATES - F	W8x10 - F
002	(2)3/4"x10" - FB	3 1/2"x10" - FB	N/A	(2)2x12 + (1) 1"x11 1/4" STEEL FLITCH PLATES - F	W12x14 - F
002A	(3)3/4"x6" - FB	5 1/4"x6" - FB	N/A	(3)2x12 + (2) 1/2"x11 1/4" STEEL FLITCH PLATES - F	W12x14 - F
003	(2)3/4"x14" - F	3 1/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 1/4"x11 1/4" STEEL FLITCH PLATES - F	W12x14 - F
004	(2)3/4"x14" - F	3 1/2"x14" - F	(3)3/4"x14" - F	(2)2x12 + (1) 1/4"x11 1/4" STEEL FLITCH PLATES - F	W12x14 - F
005	(4)3/4"x10" - D	7"x10" - D	N/A	(4)2x12 + (3) 3/8"x11 1/4" STEEL FLITCH PLATES - D	W12x30 - D
006	(2)3/4"x11 1/2" - H	3 1/2"x11 1/2" - H	(3)3/4"x11 1/2" - H	N/A	N/A
007	(2)3/4"x14" - H	3 1/2"x14" - H	(3)3/4"x14" - H	(2)2x12 + (1) 3/8"x11 1/4" STEEL FLITCH PLATES - H	N/A
008	(3)3/4"x14" - F	5 1/4"x14" - F	N/A	(3)2x12 + (2) 1/4"x11 1/4" STEEL FLITCH PLATES - F	W12x14 - F
004	(3)3/4"x10" - H	5 1/4"x10" - H	N/A	(3)2x12 + (2) 1/2"x11 1/4" STEEL FLITCH PLATES - H	N/A
010	(2)3/4"x9 1/2" - H	3 1/2"x9 1/2" - H	(2)3/4"x9 1/2" - H	(2)2x10 + (1) 1/4"x9 1/4" STEEL FLITCH PLATES - H	W8x10 - H
011	(3)3/4"x9 1/2" - F	5 1/4"x9 1/2" - F	(3)3/4"x9 1/2" - F	(3)2x12 + (2) 1/4"x11 1/4" STEEL FLITCH PLATES - F	W8x10 - F
012	(4)3/4"x11 1/2" - D	7"x11 1/2" - D	N/A	(4)2x12 + (3) 3/8"x11 1/4" STEEL FLITCH PLATES - D	W12x14 - D
013	(3)3/4"x16" - FT	5 1/4"x16" - FT	N/A	(3)2x12 + (2) 1/2"x11 1/4" STEEL FLITCH PLATES - F	W12x14 - F
014	(2)3/4"x14" - F	3 1/2"x14" - F	(3)3/4"x14" - F	(2)2x12 + (1) 3/8"x11 1/4" STEEL FLITCH PLATES - F	W12x14 - F

- 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.



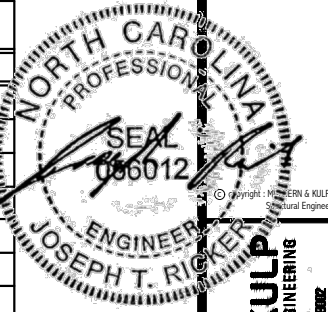
1st FLOOR FRAMING PLAN
SCALE: 1/8"=1'-0"

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

LEGEND

- Interior bearing wall
- Bearing wall above
- Beam / header
- Indicates shear wall & extent
- Extent of overframing
- 1L METAL HANGER
- * INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
- INDICATES HOLD-DOWN OR STRAP. REFER TO SCHEDULE.

REFER TO S0.0 FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

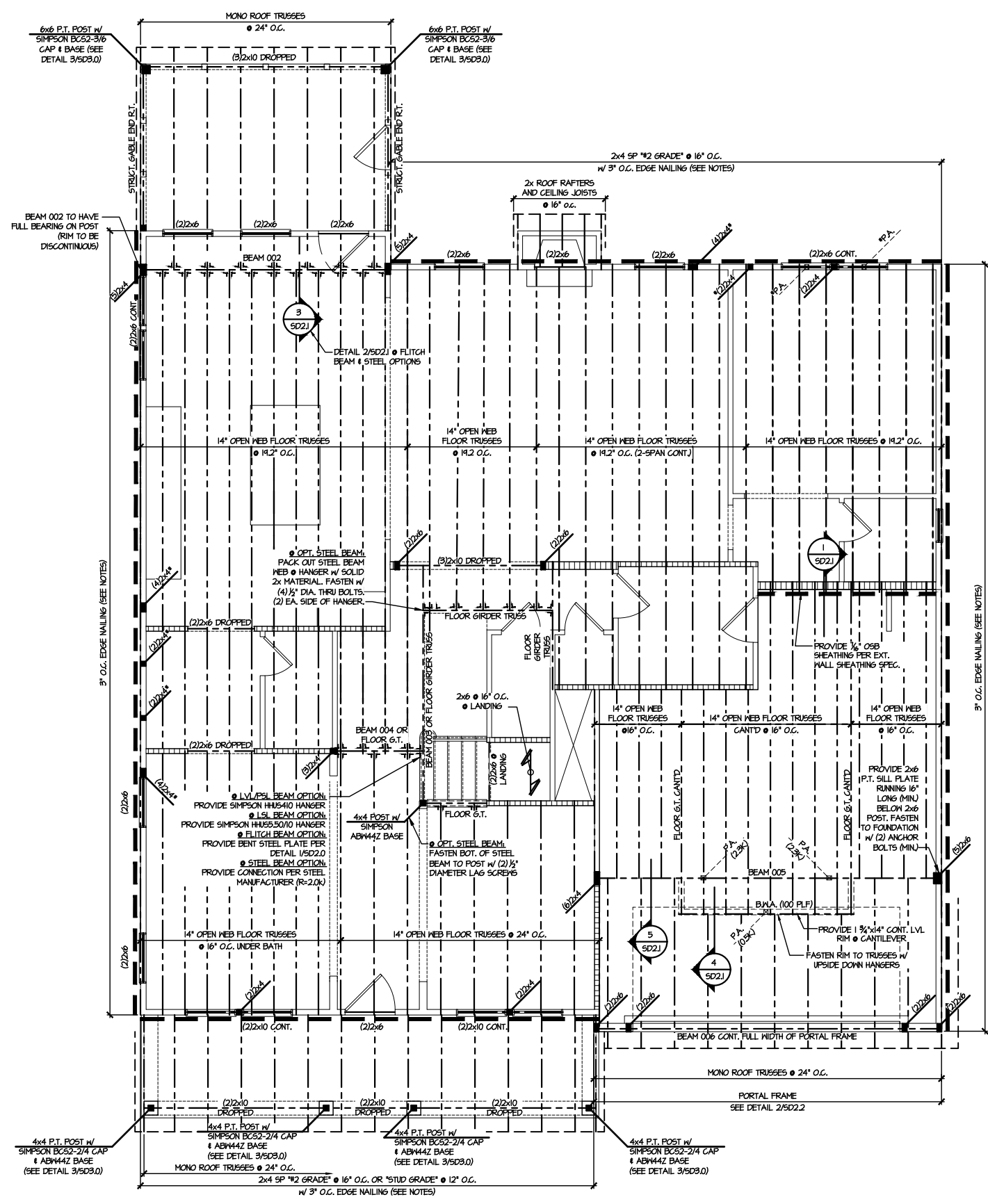


MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING
300 Bannockburn Ave. Building 4 - Aankar, PA 15822
P: 717-949-8001 - mulhern+kulp.com
NC LICENSE HC-3825

ENGINEERED BEAM MATERIAL SCHEDULE

BEAM NUMBER	LVL OPTION	PSL OPTION	LSL OPTION	FLITCH OPTION	STEEL OPTION
001	(2)3/4"x4 1/4" - F	3 1/2"x4 1/4" - F	N/A	(2)2x10 + (1) 1/4"x9 1/4" STEEL FLITCH PLATES - F	W8x10 - F
002	(2)3/4"x10" - FB	3 1/2"x10" - FB	N/A	(2)2x12 + (1) 1"x11 1/4" STEEL FLITCH PLATES - F	W12x14 - F
002A	(3)3/4"x16" - FB	5 1/4"x16" - FB	N/A	(3)2x12 + (2) 1/2"x11 1/4" STEEL FLITCH PLATES - F	W12x14 - F
003	(2)3/4"x14" - F	3 1/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 1/4"x11 1/4" STEEL FLITCH PLATES - F	W12x14 - F
004	(2)3/4"x14" - F	3 1/2"x14" - F	(3)3/4"x14" - F	(2)2x12 + (1) 3/8"x11 1/4" STEEL FLITCH PLATES - F	W12x14 - F
005	(4)3/4"x10" - D	7"x10" - D	N/A	(4)2x12 + (3) 3/8"x11 1/4" STEEL FLITCH PLATES - D	W12x30 - D
006	(2)3/4"x11 1/2" - H	3 1/2"x11 1/2" - H	(3)3/4"x11 1/2" - H	N/A	N/A
007	(2)3/4"x14" - H	3 1/2"x14" - H	(3)3/4"x14" - H	(2)2x12 + (1) 3/8"x11 1/4" STEEL FLITCH PLATES - H	N/A
008	(3)3/4"x14" - F	5 1/4"x14" - F	N/A	(3)2x10 + (2) 1/4"x11 1/4" STEEL FLITCH PLATES - F	W12x14 - F
004	(3)3/4"x10" - H	5 1/4"x10" - H	N/A	(3)2x12 + (2) 1/2"x11 1/4" STEEL FLITCH PLATES - H	N/A
010	(2)3/4"x9 1/4" - H	3 1/2"x9 1/4" - H	(2)3/4"x9 1/4" - H	(2)2x10 + (1) 1/4"x9 1/4" STEEL FLITCH PLATES - H	W8x10 - H
011	(3)3/4"x9 1/4" - F	5 1/4"x9 1/4" - F	(3)3/4"x9 1/4" - F	(3)2x10 + (2) 1/4"x11 1/4" STEEL FLITCH PLATES - F	W8x10 - F
012	(4)3/4"x11 1/2" - D	7"x11 1/2" - D	N/A	(4)2x12 + (3) 3/8"x11 1/4" STEEL FLITCH PLATES - D	W12x14 - D
013	(3)3/4"x16" - FT	5 1/4"x16" - FT	N/A	(3)2x12 + (2) 1/2"x11 1/4" STEEL FLITCH PLATES - F	W12x14 - F
014	(2)3/4"x14" - F	3 1/2"x14" - F	(3)3/4"x14" - F	(2)2x12 + (1) 3/8"x11 1/4" STEEL FLITCH PLATES - F	W12x14 - F

- 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.



2ND FLOOR FRAMING PLAN
SCALE: 1/8"=1'-0"

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

LEGEND

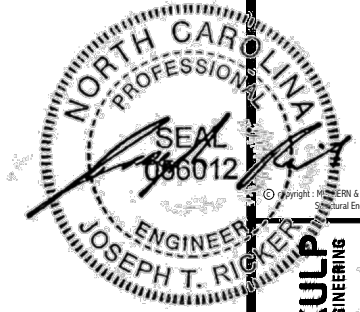
- Interior Bearing Wall
- Bearing Wall Above
- Beam / Header
- Indicates Shear Wall & Extent
- Extent of Overframing
- 1L Metal Hanger
- Indicates Post Above. Provide Solid Blocking Under Post or LAMB Above.
- Indicates Hold-Down or Strap. Refer to Schedule.

REFER TO SO.0 FOR TYPICAL STRUCTURAL NOTES & SCHEDULES



FLOOR FRAMING PLANS
BLAKE POND COMMUNITY
LOT 97 - STONEHAVEN I
RALEIGH, NC

Sheet: S3.0



MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING
310 Bainside Ave, Building 4 - Auckler, PA 15822
P 215-948-5001 - mulhern+kulp.com
NC LICENSE #C-3825



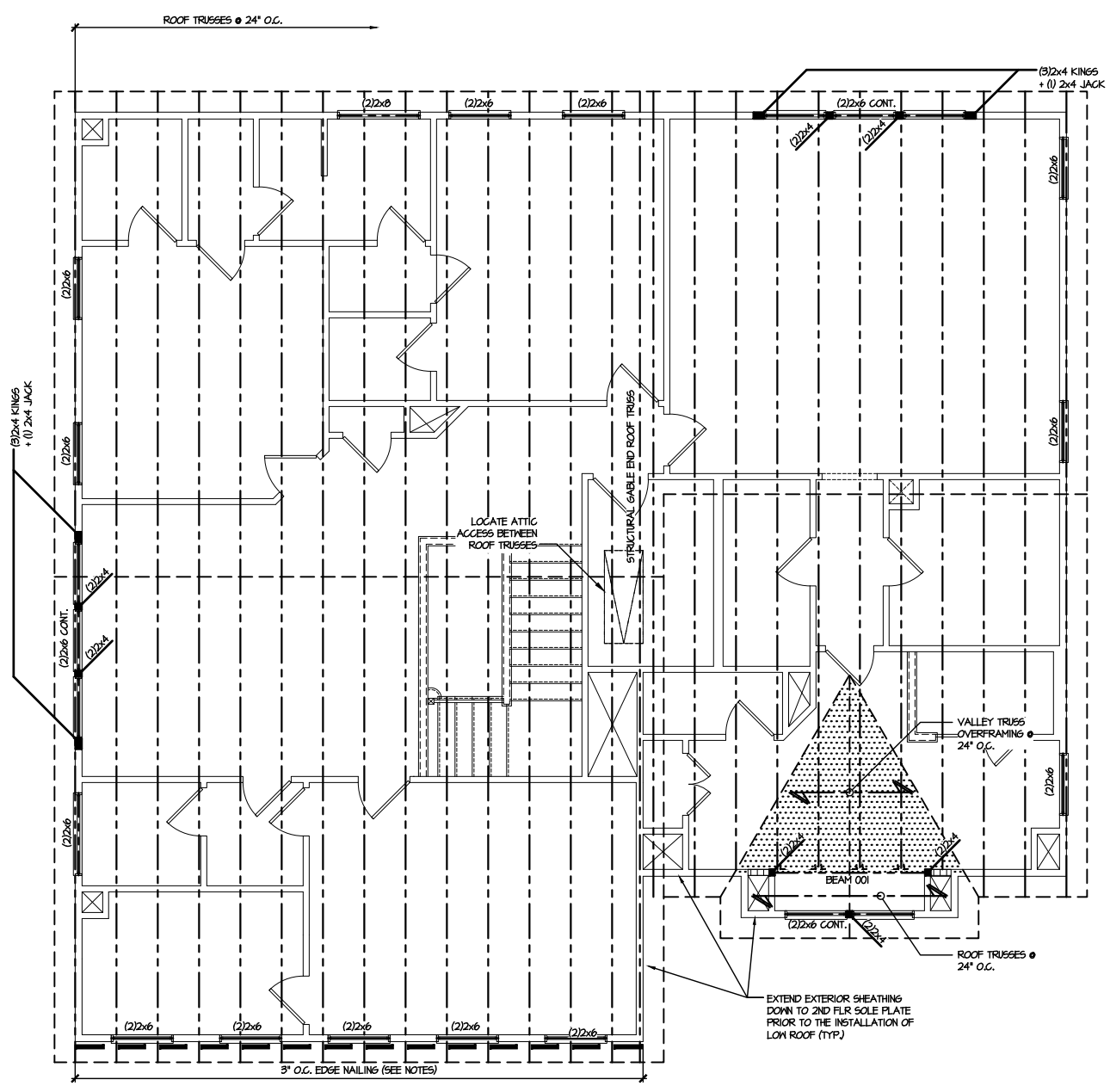
M&K project number:
126-23061
project mgr: JTR
drawn by: SJF
issue date: 01-10-24

REVISIONS:
date: initial:
01-25-24 KFG

DRB
HOMES

ROOF FRAMING PLANS
BLAKE POND COMMUNITY
LOT 97 - STONEHAVEN I
RALEIGH, NC

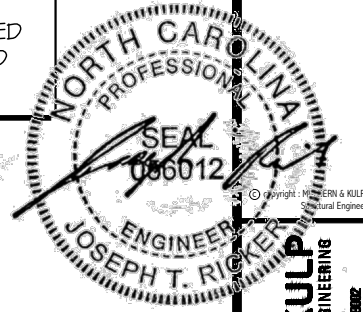
sheet:
S4.0



1 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 Dunsmuir Ave., Building 4 - Asheville, PA 18022
P: 715-948-8001 - mulhern@mkulpe.com
NC LICENSE #C-3825



M&K project number:
126-23061
project mgr: JTR
drawn by: SJF
issue date: 01-10-24

REVISIONS:
date: initial:
01-25-24 KFG

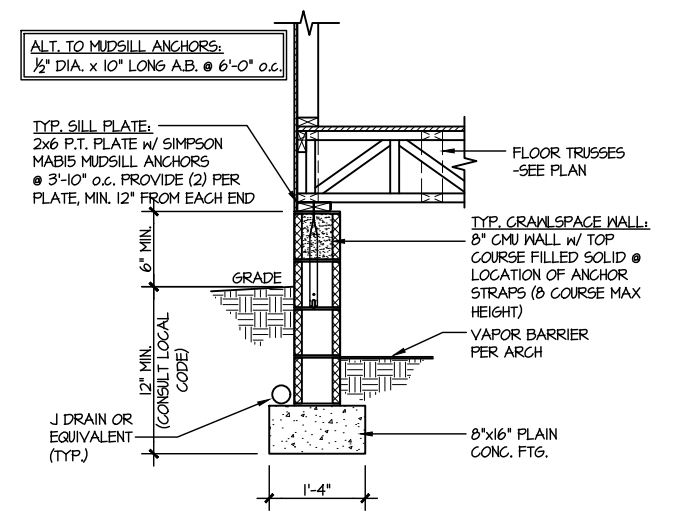
DRB
HOMES

FOUNDATION DETAILS
BLAKE POND COMMUNITY
LOT 97 - STONEHAVEN I
RALEIGH, NC

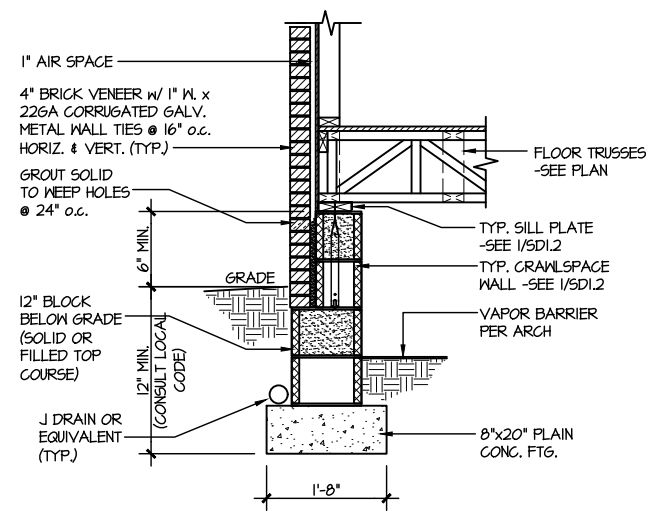
sheet:
SD1.2

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

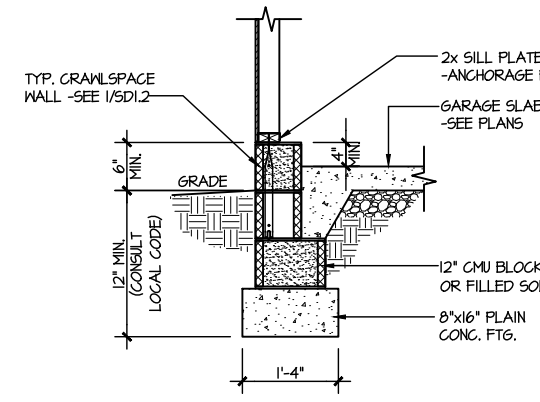
NUMBERED DETAILS ARE PLAN SPECIFIC AND ARE ONLY REQUIRED WHERE SPECIFICALLY INDICATED ("CUT") ON THE PLANS.



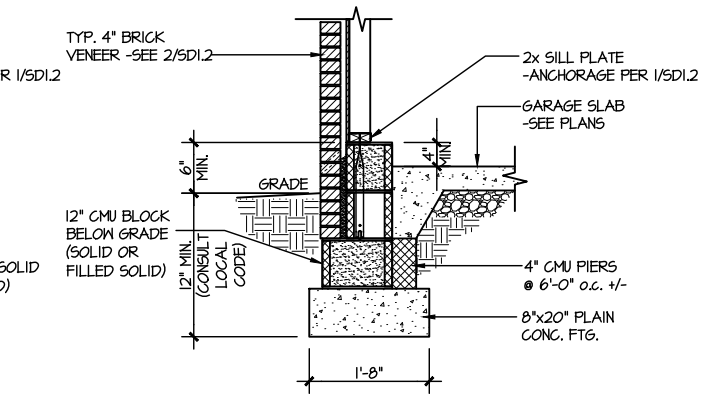
1 TYPICAL CRAWLSPACE FOUNDATION
SCALE: 3/8"=1'-0"



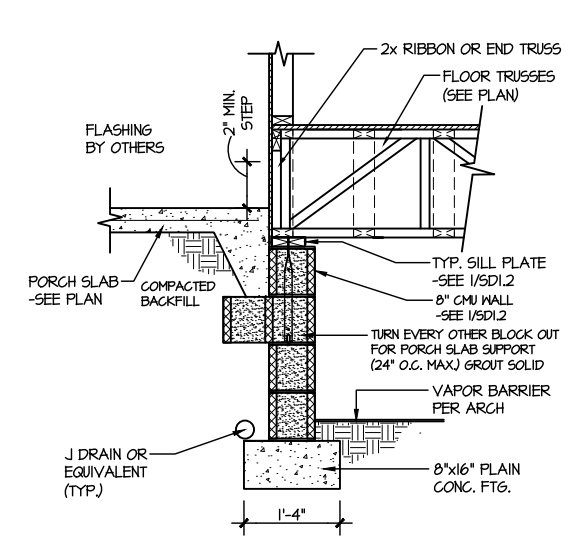
2 TYPICAL CRAWLSPACE FOUNDATION
SCALE: 3/8"=1'-0" w/ BRICK VENEER



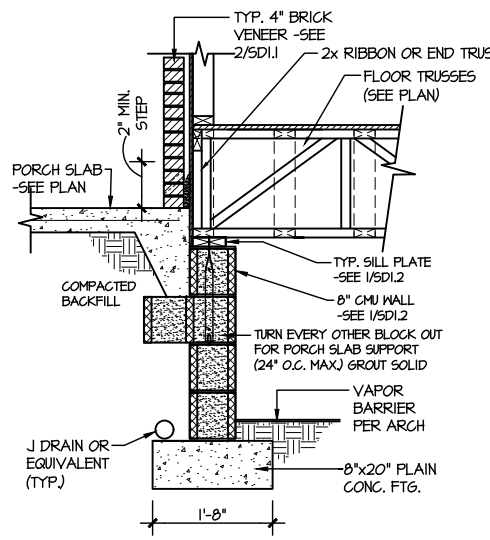
3 TYPICAL GARAGE FOUNDATION
SCALE: 3/8"=1'-0"



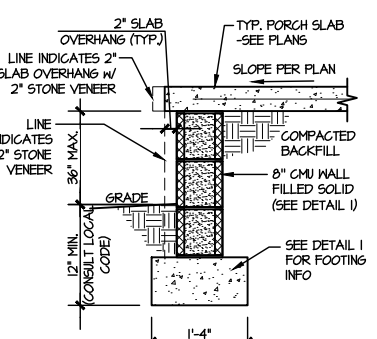
4 TYPICAL GARAGE FOUNDATION
SCALE: 3/8"=1'-0" w/ BRICK VENEER



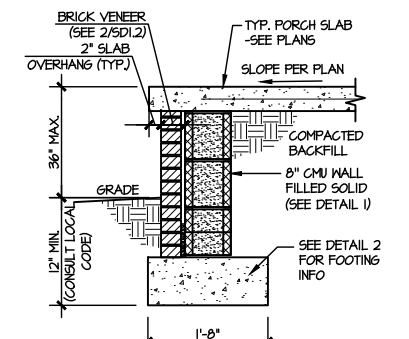
5 TYPICAL CRAWLSPACE FOUNDATION @ PORCH/PATIO SLAB
SCALE: 3/8"=1'-0" (REFER TO DETAIL 12 FOR WOOD PORCH OPTION)



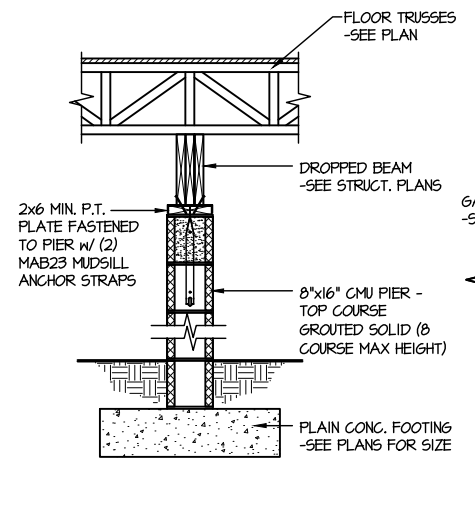
6 TYPICAL CRAWLSPACE FOUNDATION @ PORCH/PATIO SLAB
SCALE: 3/8"=1'-0" w/ BRICK VENEER



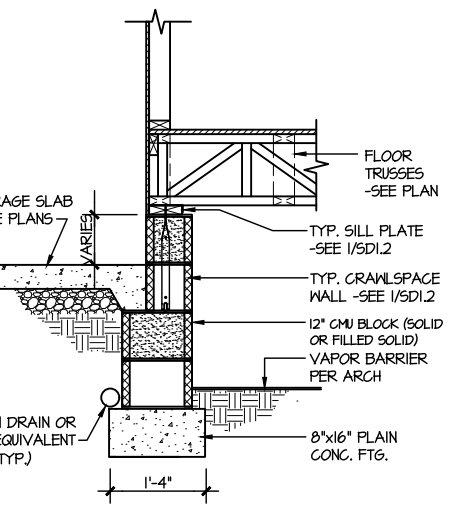
7A TYP. FOOTING @ PORCH SLAB
SCALE: 3/8"=1'-0"



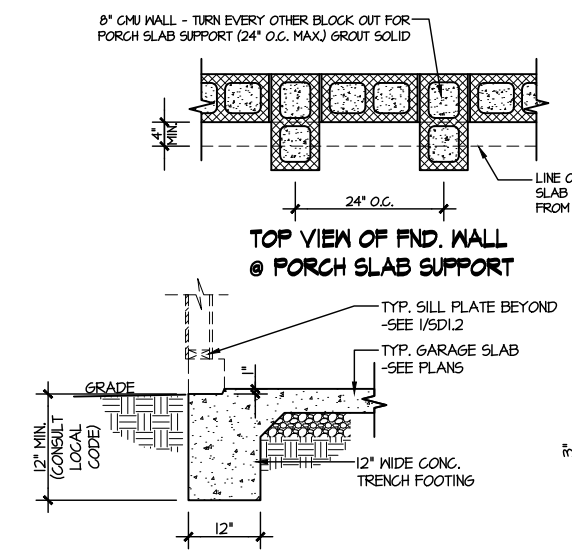
7B TYP. FOOTING @ PORCH SLAB
SCALE: 3/8"=1'-0" w/ BRICK VENEER



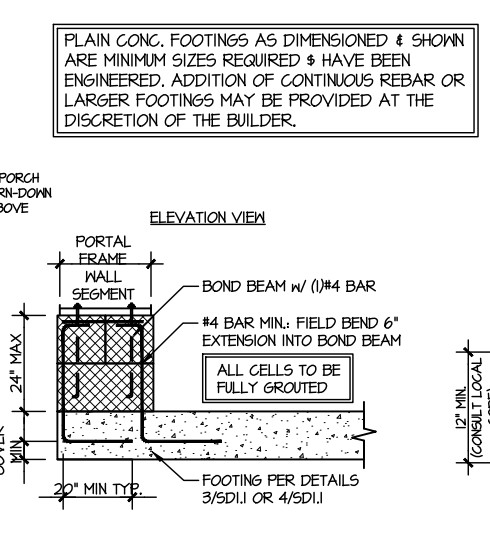
8 TYPICAL CRAWLSPACE FND. @ INTERIOR PIER
SCALE: 3/8"=1'-0"



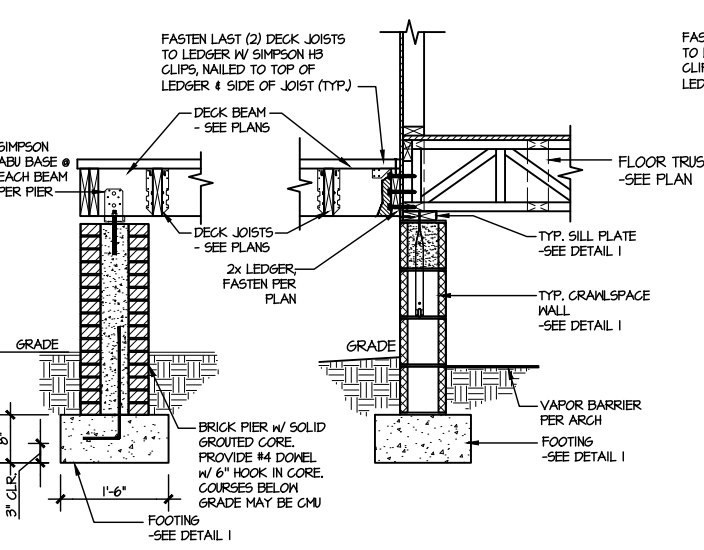
9 TYPICAL CRAWLSPACE FOUNDATION @ GARAGE
SCALE: 3/8"=1'-0"



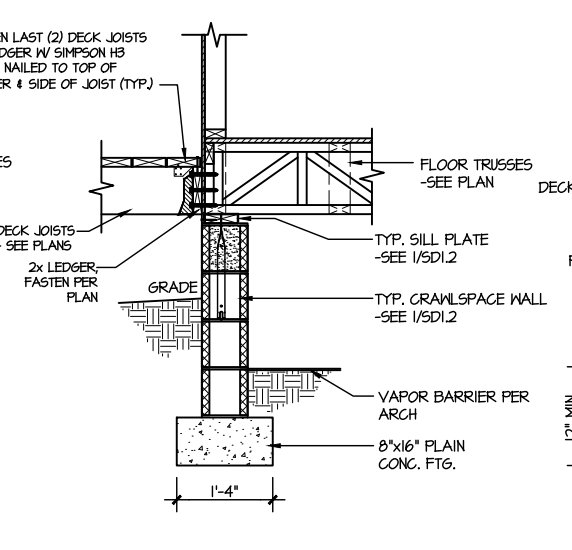
10 TYPICAL SLAB ON GRADE GARAGE ENTRY @ PERIMETER FOOTING
SCALE: 3/8"=1'-0"



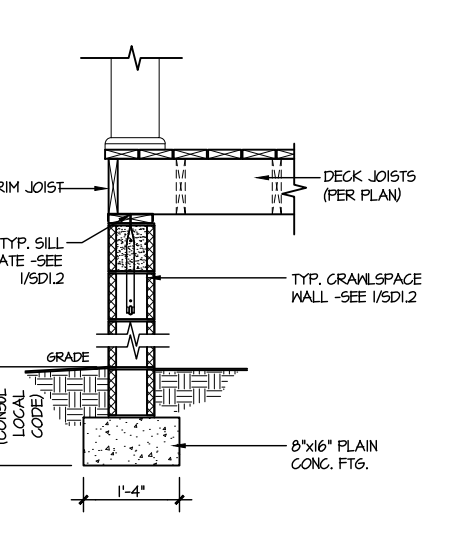
A GARAGE PORTAL FRAME STEM WALL REINFORCEMENT
SCALE: 3/8"=1'-0"



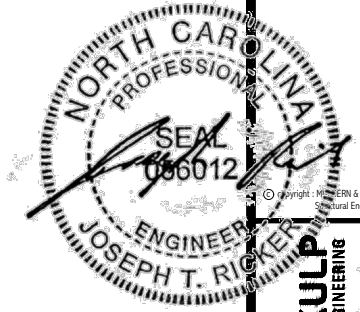
11 TYPICAL CRAWLSPACE FOUNDATION @ WOOD PORCH/DECK w/ PIERS
SCALE: 3/8"=1'-0"



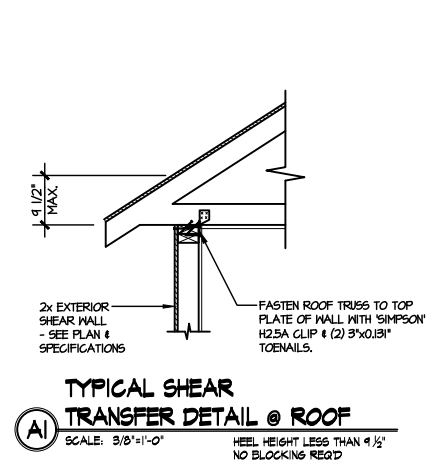
12 TYPICAL CRAWLSPACE FOUNDATION @ WOOD PORCH/DECK
SCALE: 3/8"=1'-0"



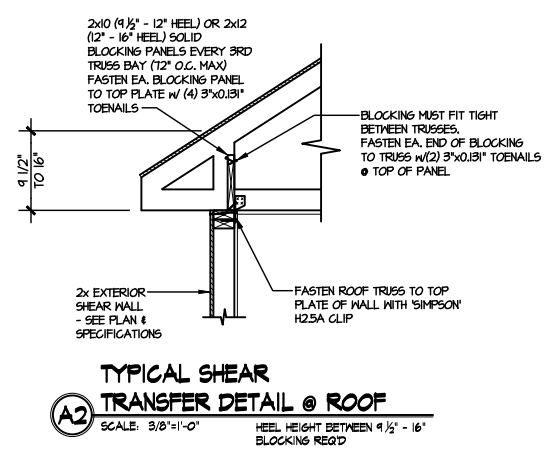
13 TYPICAL CRAWLSPACE FOUNDATION @ WOOD PORCH/DECK PERIMETER
SCALE: 3/8"=1'-0"



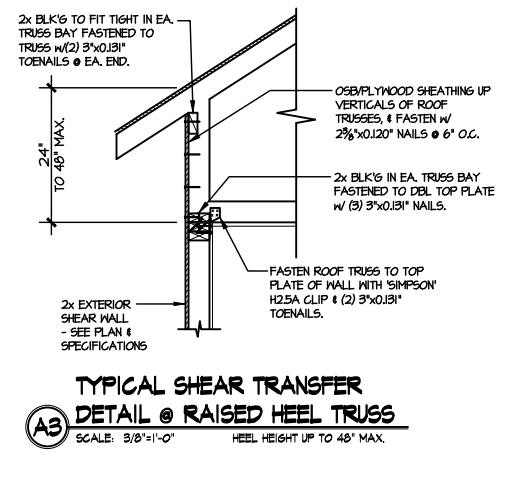
MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING
300 Dunsmuir Ave., Building 4 - Amherst, PA 15802
P: 715-948-8001 - mulhern+kulp.com
NC LICENSE #C-3825



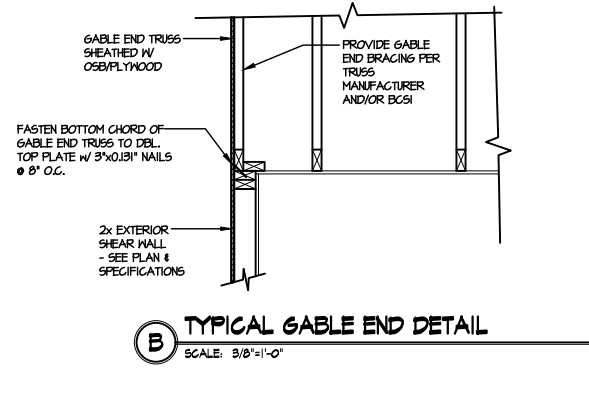
A1 TYPICAL SHEAR TRANSFER DETAIL @ ROOF
SCALE: 3/8\"/>



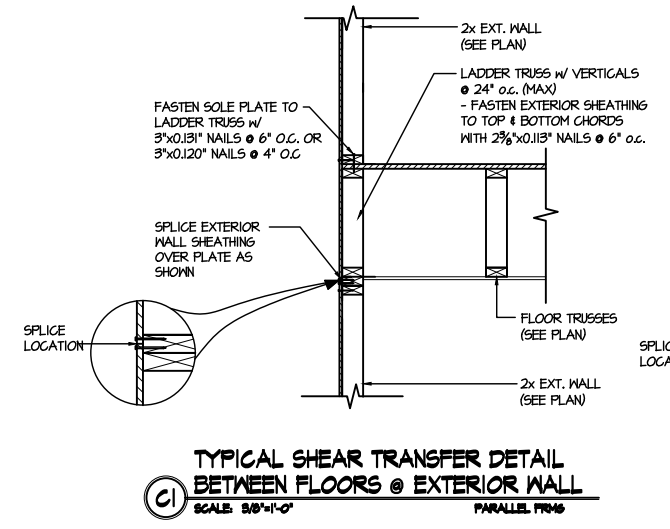
A2 TYPICAL SHEAR TRANSFER DETAIL @ ROOF
SCALE: 3/8\"/>



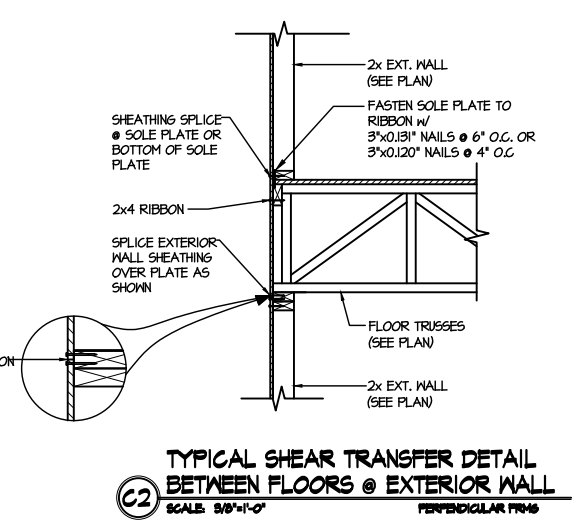
A3 TYPICAL SHEAR TRANSFER DETAIL @ RAISED HEEL TRUSS
SCALE: 3/8\"/>



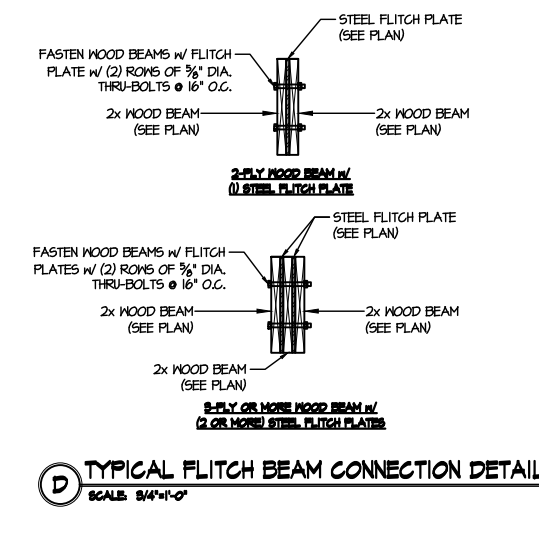
B TYPICAL GABLE END DETAIL
SCALE: 3/8\"/>



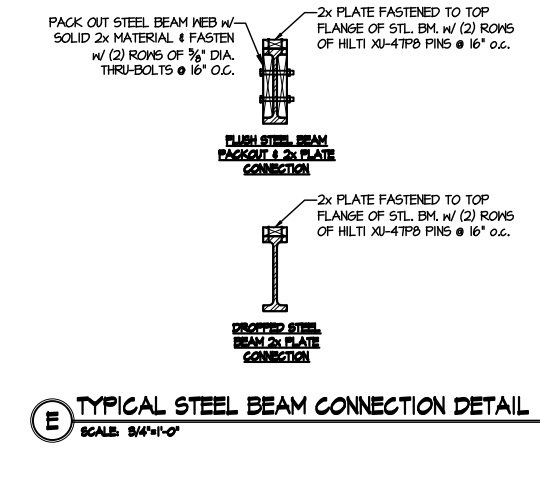
C1 TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ EXTERIOR WALL
SCALE: 3/8\"/>



C2 TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ EXTERIOR WALL
SCALE: 3/8\"/>



D TYPICAL FLITCH BEAM CONNECTION DETAIL
SCALE: 3/4\"/>



E TYPICAL STEEL BEAM CONNECTION DETAIL
SCALE: 3/4\"/>

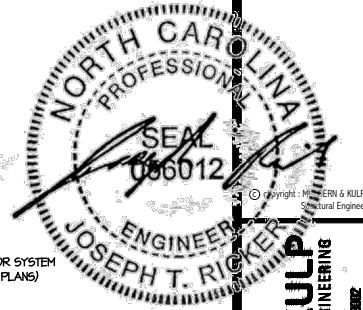
LETTERED DETAILS ARE TYPICAL FOR THIS HOME & SHALL BE IMPLEMENTED IN ALL APPLICABLE AREAS. THESE DETAILS ARE NOT "CUT" ON THE PLANS.

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

DRB HOMES

FRAMING DETAILS
BLAKE POND COMMUNITY
LOT 97 - STONEHAVEN I
RALEIGH, NC

sheet: **SD2.0**



MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING
300 Dunsmuir Ave., Building 4 - Asheville, PA 18022
P 215-948-8001 - mulhern+kulp.com
NC LICENSE #C-3825



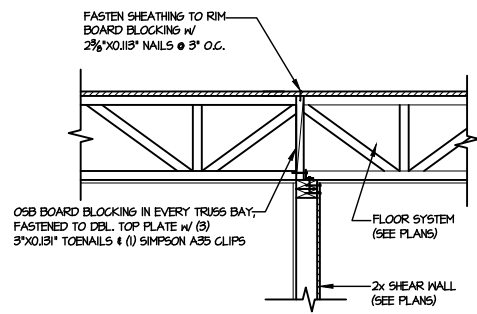
M&K project number:
126-23061
project mgr: JTR
drawn by: SJF
issue date: 01-10-24

REVISIONS:
date: initial:
01-25-24 KFG

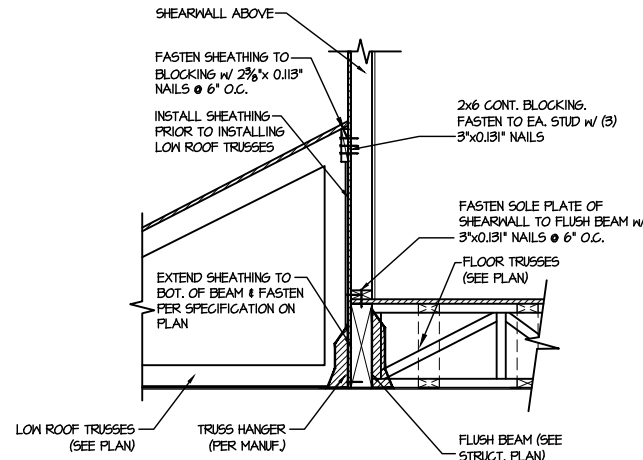
DRB
HOMES

FRAMING DETAILS
BLAKE POND COMMUNITY
LOT 97 - STONEHAVEN I
RALEIGH, NC

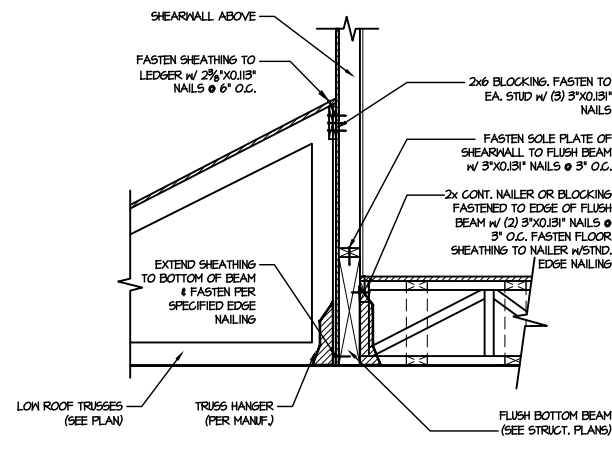
sheet:
SD2.1A



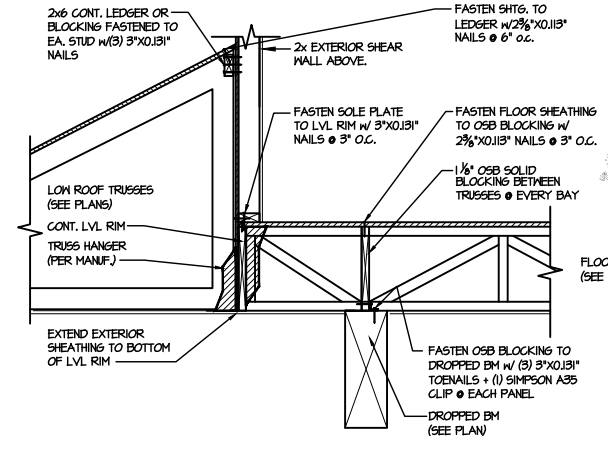
1 SHEAR TRANSFER DETAIL @ INTERIOR SHEAR WALL
SCALE: N.T.S.
PERPENDICULAR TO FRAMING



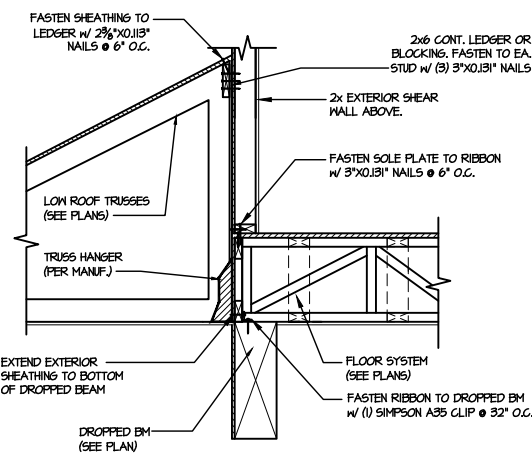
2 SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE
SCALE: 3/4\"/>



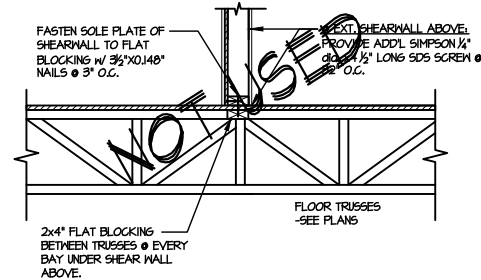
3 SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE
SCALE: 3/4\"/>



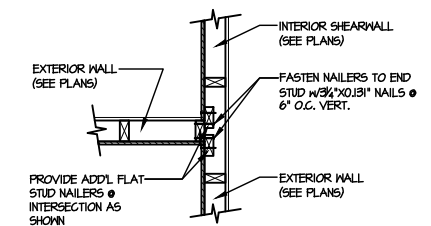
4 TYPICAL SHEAR TRANSFER DETAIL @ EXTERIOR WALL ABOVE GARAGE
SCALE: 3/4\"/>



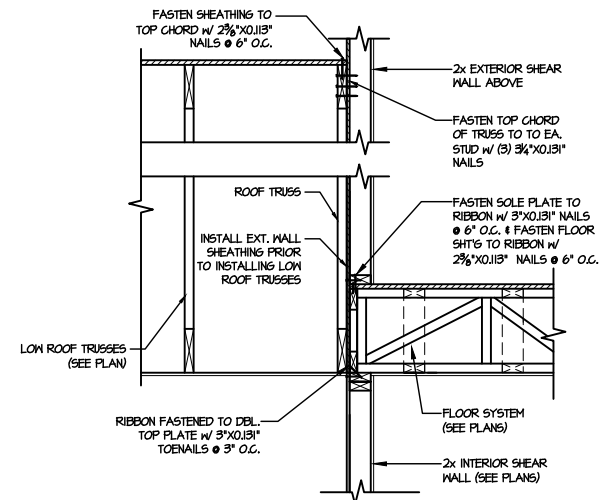
5 TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ INTERIOR WALL
SCALE: 3/4\"/>



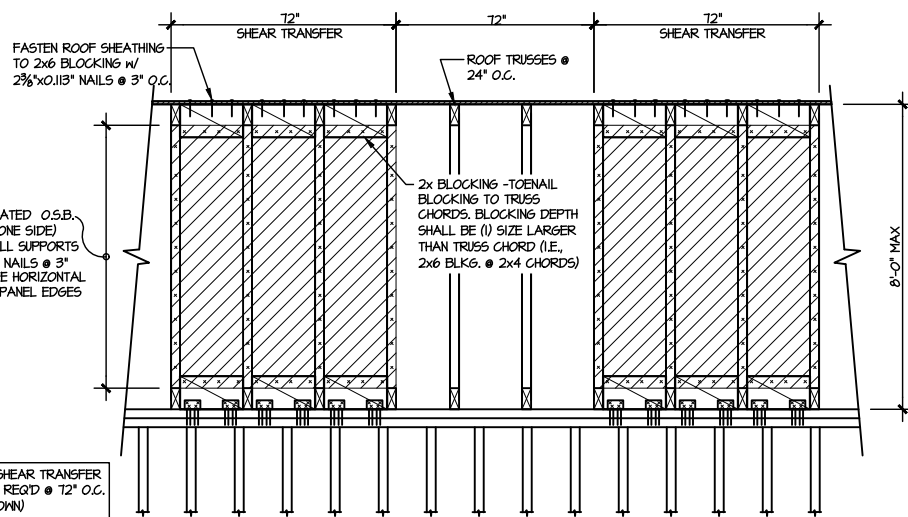
6 SHEAR TRANSFER DETAIL @ INTERIOR SHEARWALL ABOVE
SCALE: N.T.S.
PERPENDICULAR FRAMING



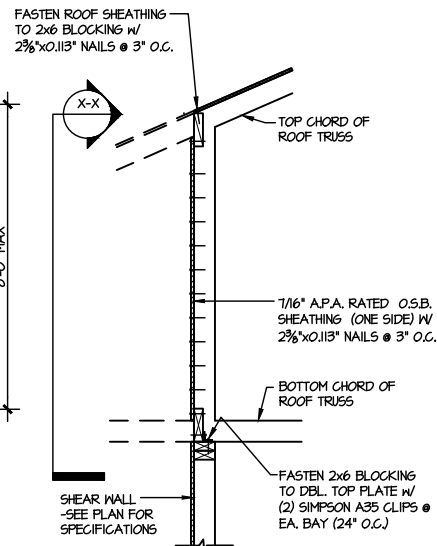
7 SHEAR TRANSFER DETAIL @ INTERSECTING INT. SHEARWALL
SCALE: 3/4\"/>



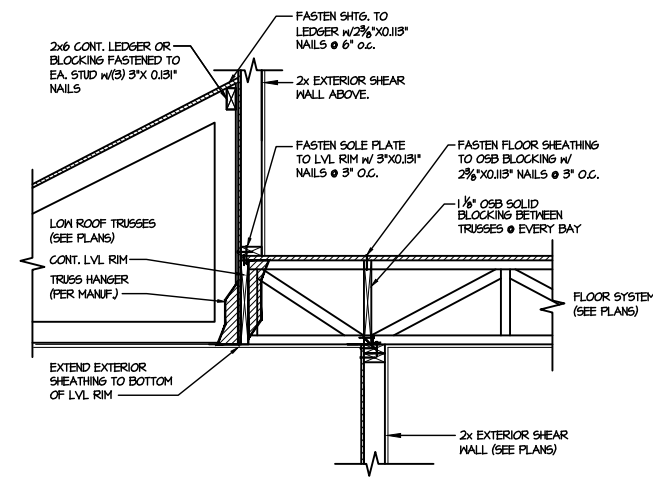
8 TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ INTERIOR WALL
SCALE: 3/4\"/>



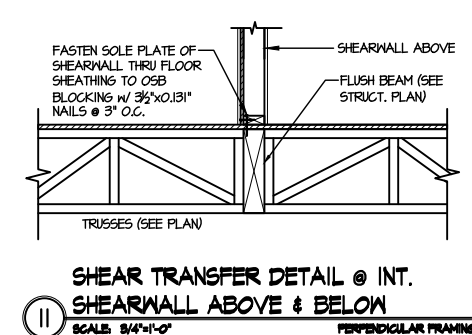
8 TYPICAL SHEAR TRANSFER DETAIL @ INTERIOR SHEARWALL
SCALE: 3/4\"/>



9 TYPICAL SHEAR TRANSFER DETAIL @ INTERIOR SHEARWALL
SCALE: 3/4\"/>

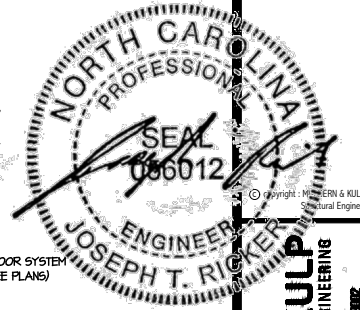


10 TYPICAL SHEAR TRANSFER DETAIL @ EXTERIOR WALL CANT'D ABOVE
SCALE: 3/4\"/>



11 SHEAR TRANSFER DETAIL @ INT. SHEARWALL ABOVE & BELOW
SCALE: 3/4\"/>

NOTE: SHEAR TRANSFER DETAIL REQ'D @ 12\"/>



MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING
300 Bannockburn Ave., Building 4 - Asheville, PA 18022
P: 215-949-8001 • m+kulps@aol.com
NC LICENSE #C-3825



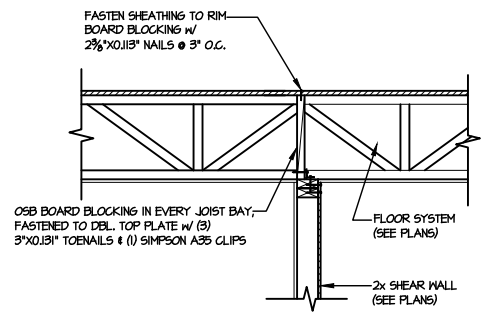
M&K project number:
126-23061
project mgr: JTR
drawn by: SJF
issue date: 01-10-24

REVISIONS:
date: initial:
01-25-24 KFG

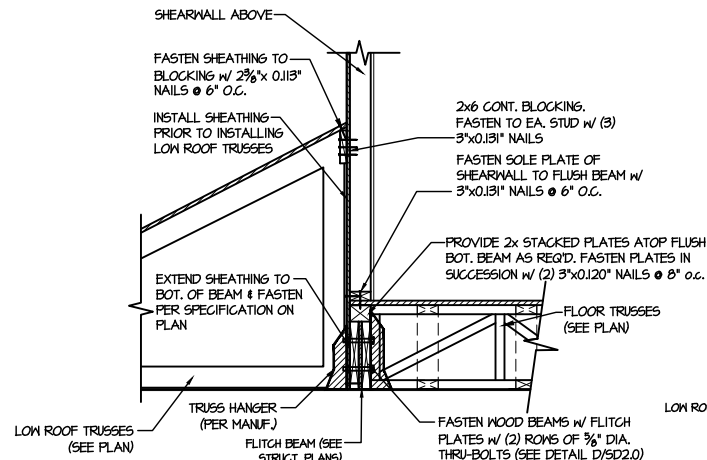
DRB HOMES

FRAMING DETAILS
BLAKE POND COMMUNITY
LOT 97 - STONEHAVEN I
RALEIGH, NC

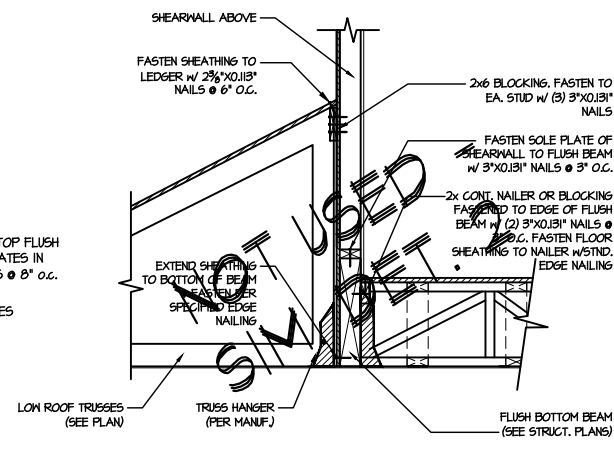
sheet:
SD2.1B



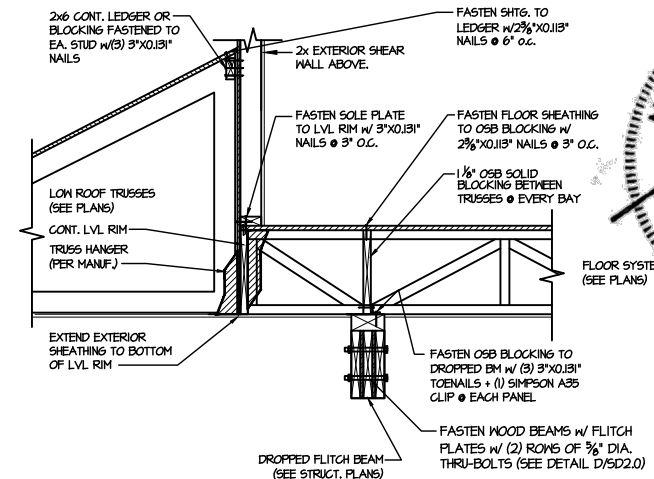
1 SHEAR TRANSFER DETAIL @ INTERIOR SHEAR WALL
SCALE: N.T.S. PERPENDICULAR TO FRAMING



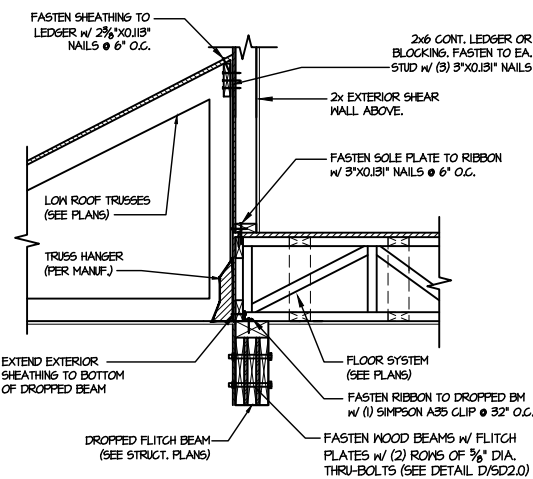
2 SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"



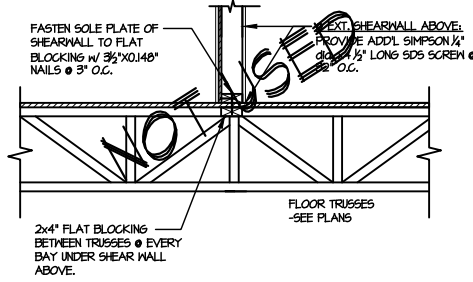
3 SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"



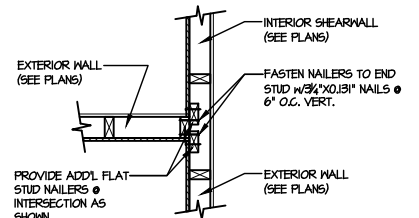
4 TYPICAL SHEAR TRANSFER DETAIL @ EXTERIOR WALL ABOVE GARAGE
SCALE: 3/4"=1'-0"



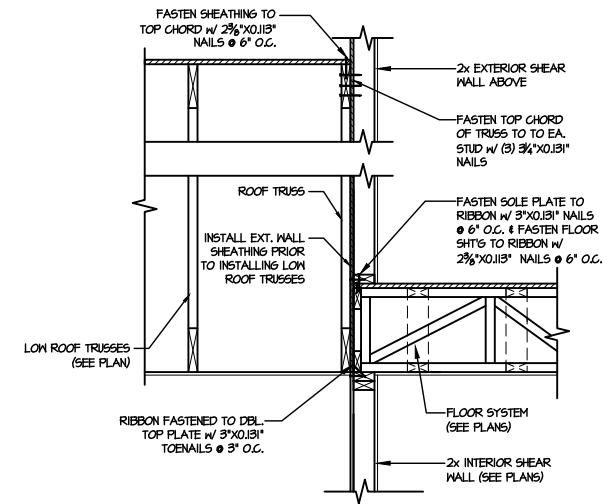
5 TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ INTERIOR WALL
SCALE: 3/4"=1'-0"



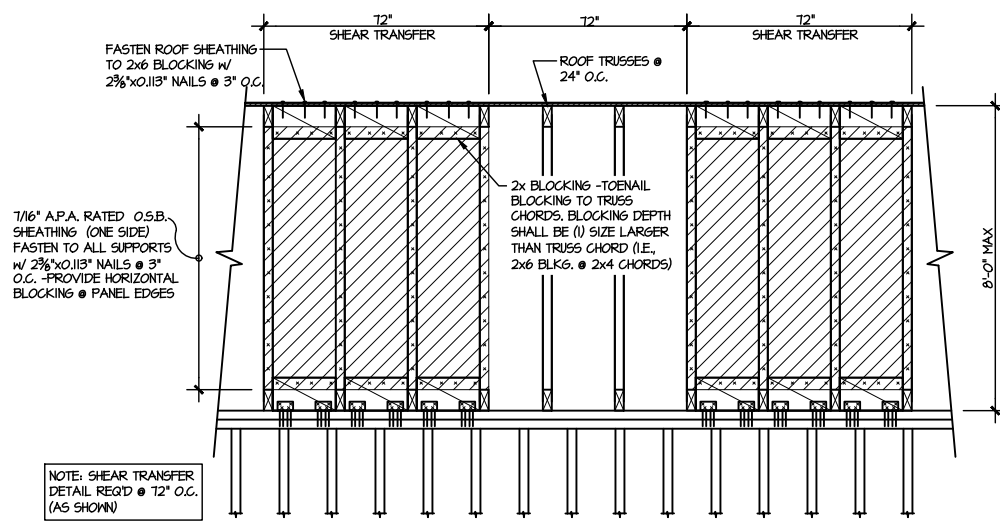
6 SHEAR TRANSFER DETAIL @ INTERIOR SHEARWALL ABOVE
SCALE: N.T.S. PERPENDICULAR FRAMING



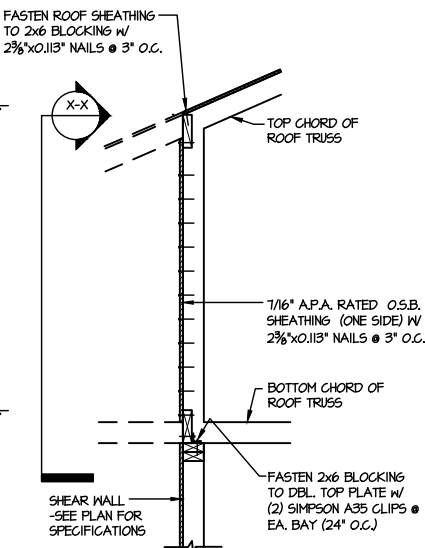
7 SHEAR TRANSFER DETAIL @ INTERSECTING INT. SHEARWALL
SCALE: 3/4"=1'-0" SHITG. ON SAME PAGE



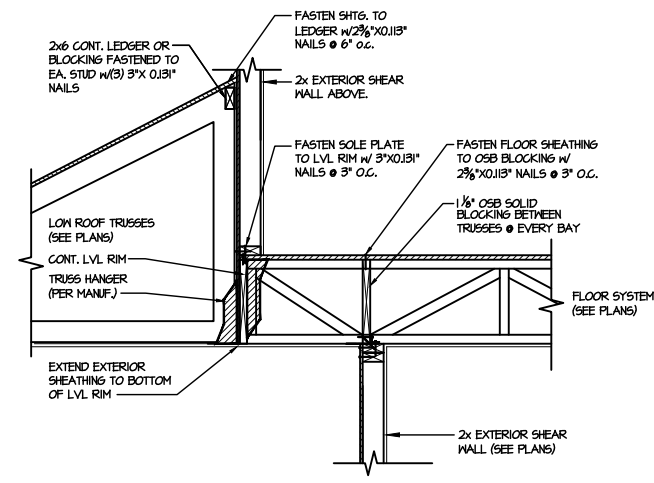
8 TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ INTERIOR WALL
SCALE: 3/4"=1'-0"



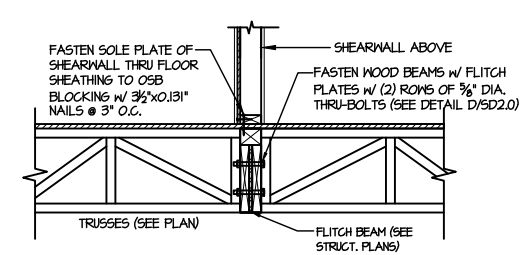
9 TYPICAL SHEAR TRANSFER DETAIL @ INTERIOR SHEARWALL
SCALE: 3/4"=1'-0"



9 TYPICAL SHEAR TRANSFER DETAIL @ INTERIOR SHEARWALL
SCALE: 3/4"=1'-0"



10 TYPICAL SHEAR TRANSFER DETAIL @ EXTERIOR WALL CANT'D ABOVE
SCALE: 3/4"=1'-0"



11 SHEAR TRANSFER DETAIL @ INT. SHEARWALL ABOVE & BELOW
SCALE: 3/4"=1'-0" PERPENDICULAR FRAMING



MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING
300 Dunsmuir Ave., Building 4 - Asheville, PA 18022
P: 715-948-8001 • mulhern+kulp.com
NC LICENSE #C-3825

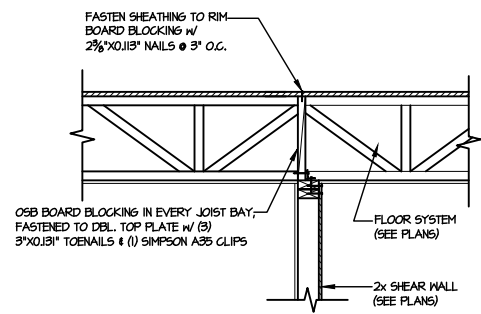


M&K project number:
126-23061
project mgr: JTR
drawn by: SJF
issue date: 01-10-24
REVISIONS:
date: initial:
01-25-24 KFG

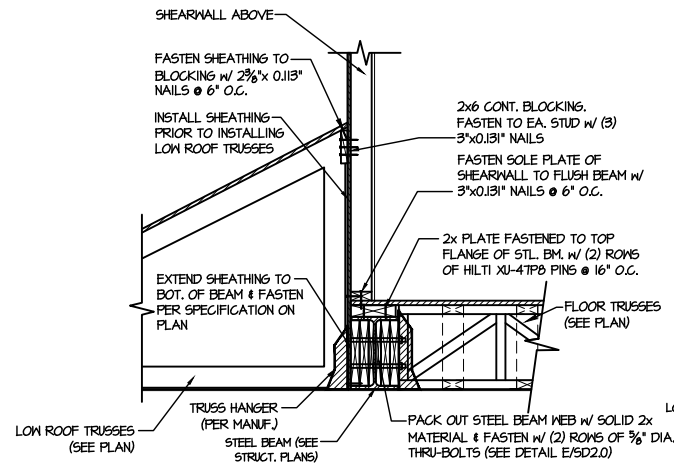
DRB
HOMES

FRAMING DETAILS
BLAKE POND COMMUNITY
LOT 97 - STONEHAVEN I
RALEIGH, NC

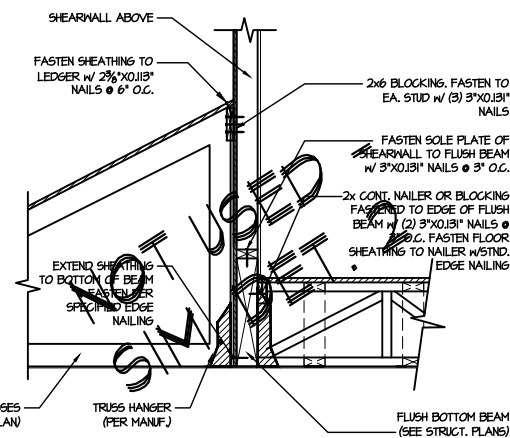
sheet:
SD2.1C



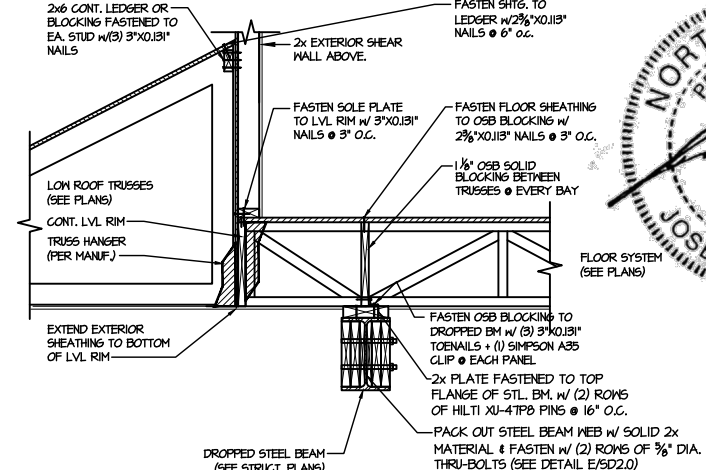
1 SHEAR TRANSFER DETAIL @ INTERIOR SHEAR WALL
SCALE: N.T.S. PERPENDICULAR TO FRAMING



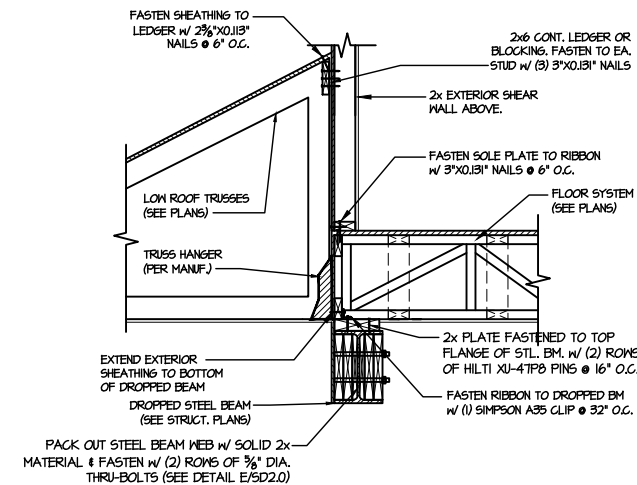
2 SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"



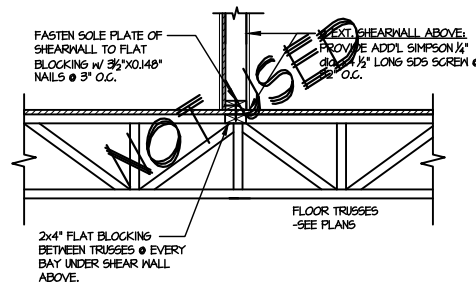
3 SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"



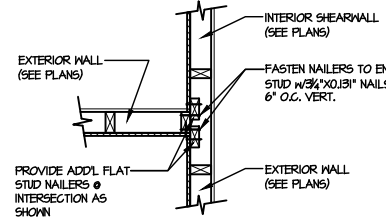
4 TYPICAL SHEAR TRANSFER DETAIL @ EXTERIOR WALL ABOVE GARAGE
SCALE: 3/4"=1'-0"



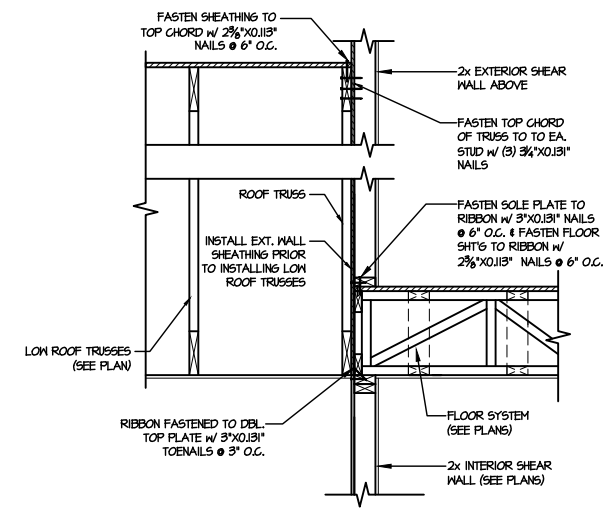
5 TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ INTERIOR WALL
SCALE: 3/4"=1'-0"



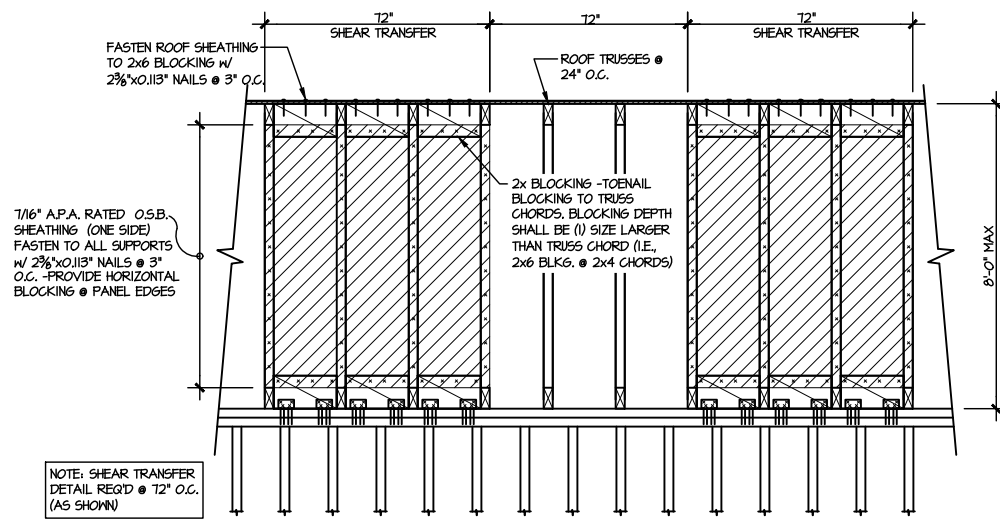
6 SHEAR TRANSFER DETAIL @ INTERIOR SHEARWALL ABOVE
SCALE: N.T.S. PERPENDICULAR FRAMING



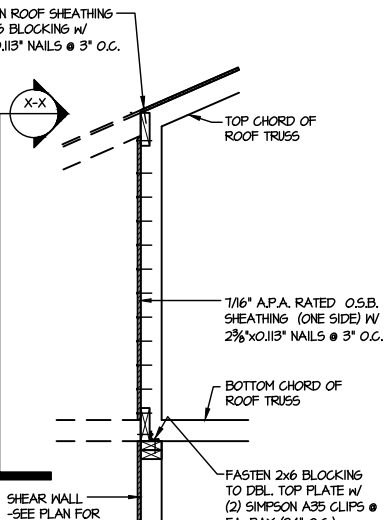
7 SHEAR TRANSFER DETAIL @ INTERSECTING INT. SHEARWALL
SCALE: 3/4"=1'-0" SHG. ON SAME PAGE



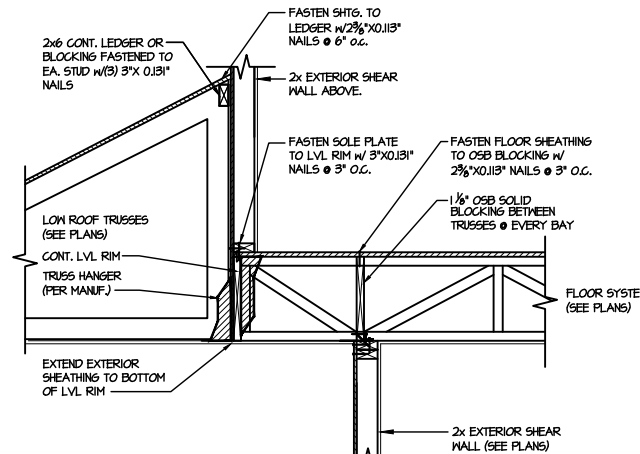
8 TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ INTERIOR WALL
SCALE: 3/4"=1'-0"



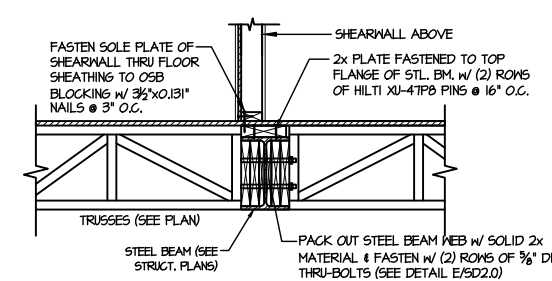
9 TYPICAL SHEAR TRANSFER DETAIL @ INTERIOR SHEARWALL
SCALE: 3/4"=1'-0"



10 TYPICAL SHEAR TRANSFER DETAIL @ INTERIOR SHEARWALL
SCALE: 3/4"=1'-0"

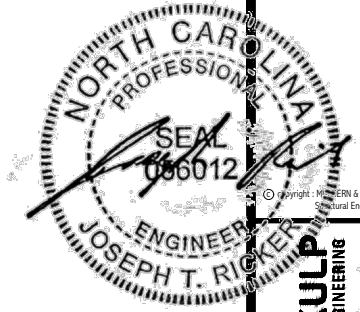


11 TYPICAL SHEAR TRANSFER DETAIL @ EXTERIOR WALL CANT'D ABOVE
SCALE: 3/4"=1'-0"



12 SHEAR TRANSFER DETAIL @ INT. SHEARWALL ABOVE & BELOW
SCALE: 3/4"=1'-0" PERPENDICULAR FRAMING

NOTE: SHEAR TRANSFER DETAIL REG'D @ 12" O.C. (AS SHOWN)



MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING
300 Bantle Ave, Building 4 - Aankar, PA 15022
P 715-948-8001 - mulhern+kulp.com
NC LICENSE #C-3825

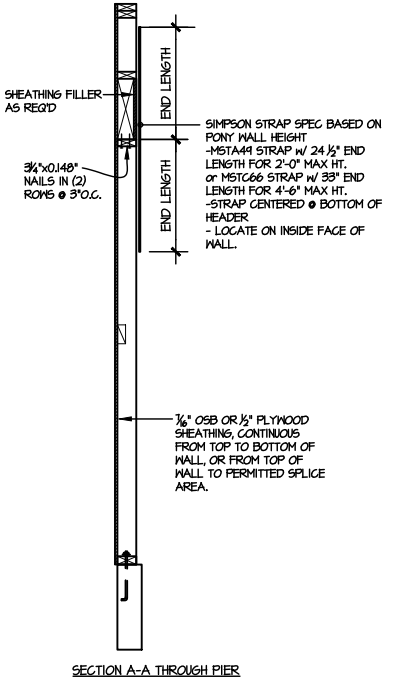
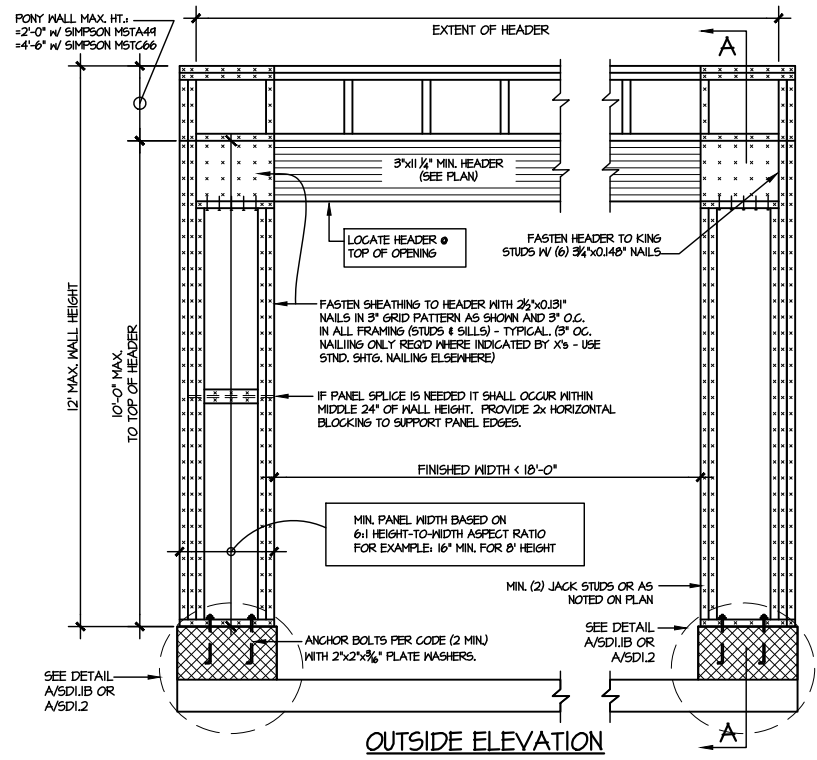


M&K project number:
126-23061
project mgr: JTR
drawn by: SJF
issue date: 01-10-24
REVISIONS:
date: initial:
01-25-24 KFG

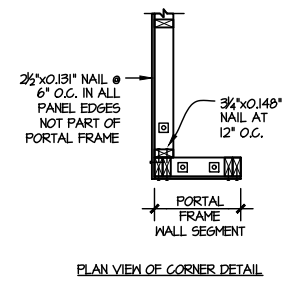
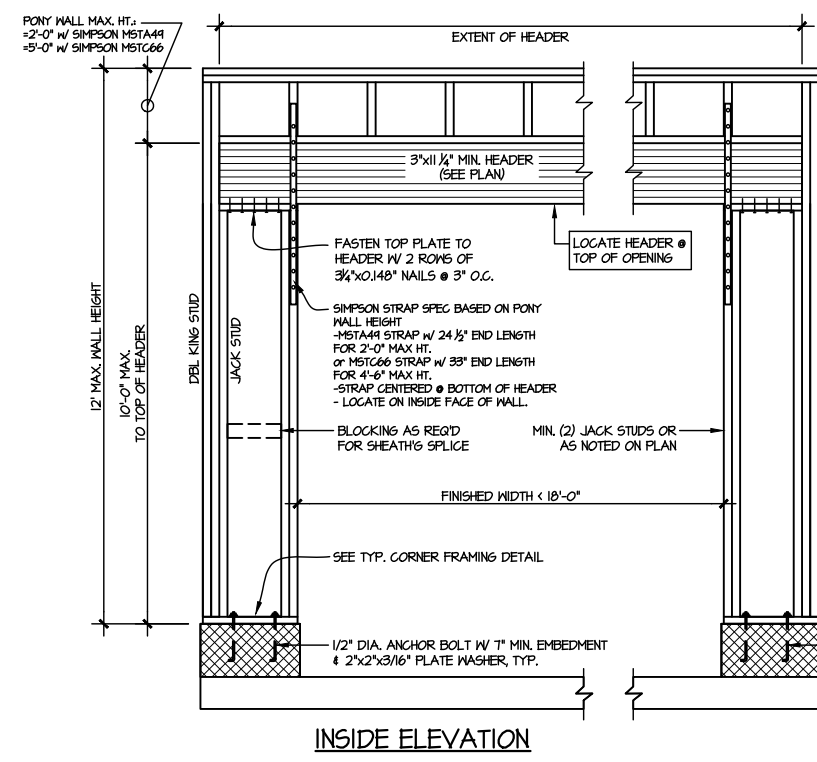
DRB HOMES

FRAMING DETAILS
BLAKE POND COMMUNITY
LOT 97 - STONEHAVEN I
RALEIGH, NC

sheet:
SD2.2

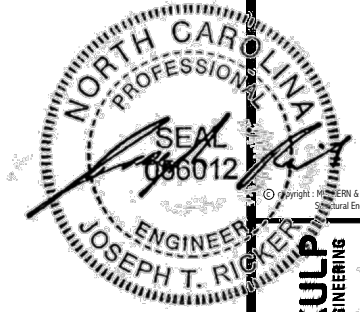


NOTE: ALL SHEATHABLE AREAS OF EXTERIOR WALL SHALL BE FULLY SHEATHED WITH 1/2" PLYWOOD OR 1/4" OSB



ALTERNATIVE TO 1/2" DIA. ANCHOR BOLT:
1) 1/2" DIA. THREADED ROD EPOXY SET W/ 4 1/2" EMBED. (MIN) UTILIZING HILTI HY200 EPOXY ANCHORING SYSTEM (OR EQUAL)

2 TWO SIDED GARAGE PORTAL FRAME BRACING ELEVATION ON CMU STEM
SCALE: N.T.S.



MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING
310 Bainside Ave, Building 4 - Annapolis, PA 19802
P 215-948-8001 - mulhern+kulp.com
NC LICENSE #C-3825



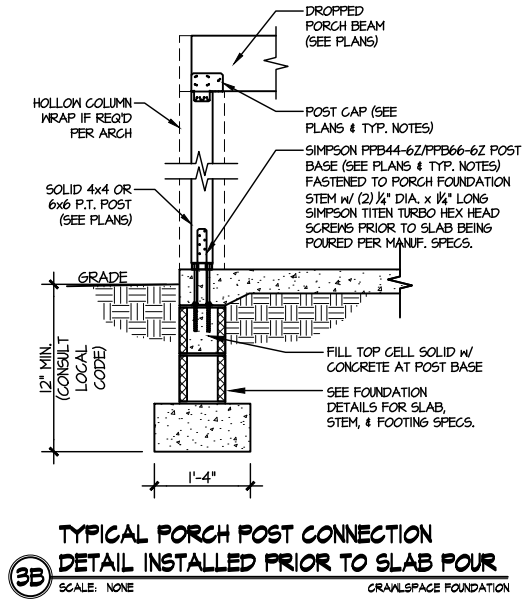
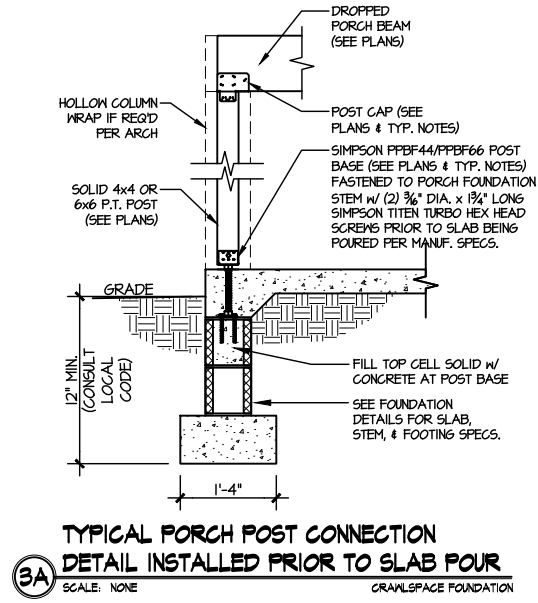
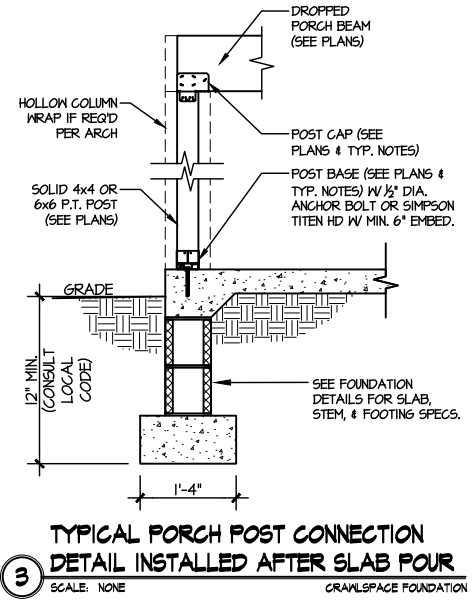
M&K project number:
126-23061
project mgr: JTR
drawn by: SJF
issue date: 01-10-24

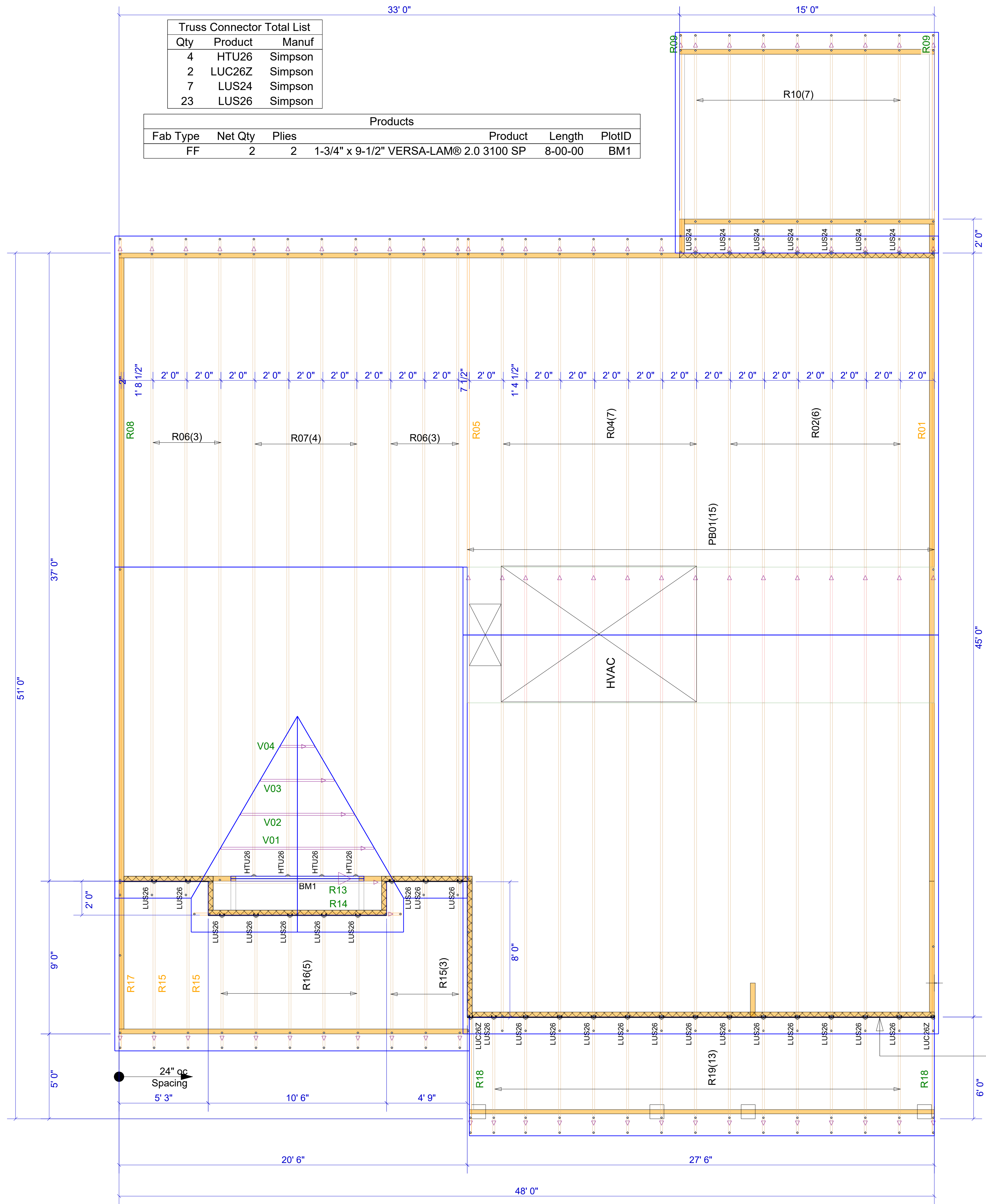
REVISIONS:
date: initial:
01-25-24 KFG



FRAMING DETAILS
BLAKE POND COMMUNITY
LOT 97 - STONEHAVEN I
RALEIGH, NC

sheet:
SD3.0





See sheathing details on sheet SD2.1 (typical for all first-story mono trusses).

▲ = LEFT END OF TRUSS

FOR PERMIT



Moncks Corner/Easley, SC (800) 475-3999
Sparta, NC (336) 372-2226

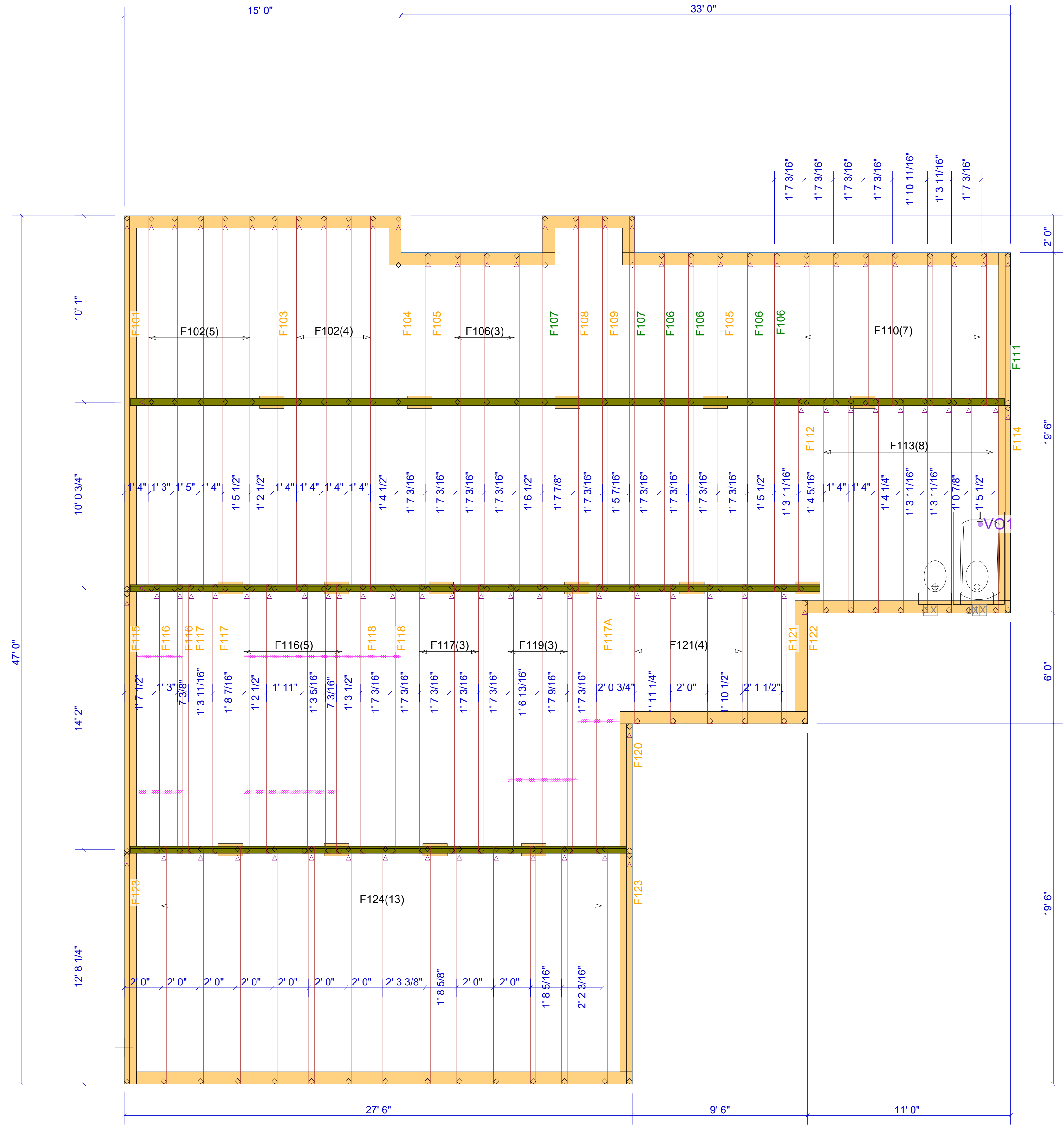
REVISIONS:

Client: DRB GROUP-RALEIGH
Job: LOT 0.0097 BLAKE POND
Plan Information: STONEHAVEN-1

NOT TO SCALE
Date: 12/22/23
Sales Rep: KYLE GIBSON
Job #: 23-B625-R01
Phone: 864-304-3282
Drawn By: CGT

ROOF

WARNING! Long span trusses, 60' or greater in length, require extreme care and experience for proper and safe handling and installation. For general handling and installation guidance, see the "Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), JOINTLY PRODUCED BY SBCA and TPI. For project specific guidance, consult with a registered design professional. ATLANTIC assumes no responsibility for the handling, installation or bracing of trusses.



▲ = LEFT END OF TRUSS

FOR PERMIT

Client: DRB GROUP-RALEIGH	
Job: LOT 0.0097 BLAKE POND	
Plan Information:	
NOT TO SCALE	Date: 01/09/24
Drawn By: CGT	Job #: Sales Rep: KYLE GIBSON
	23-B625-F01 Phone: 864-304-3282

REVISIONS:



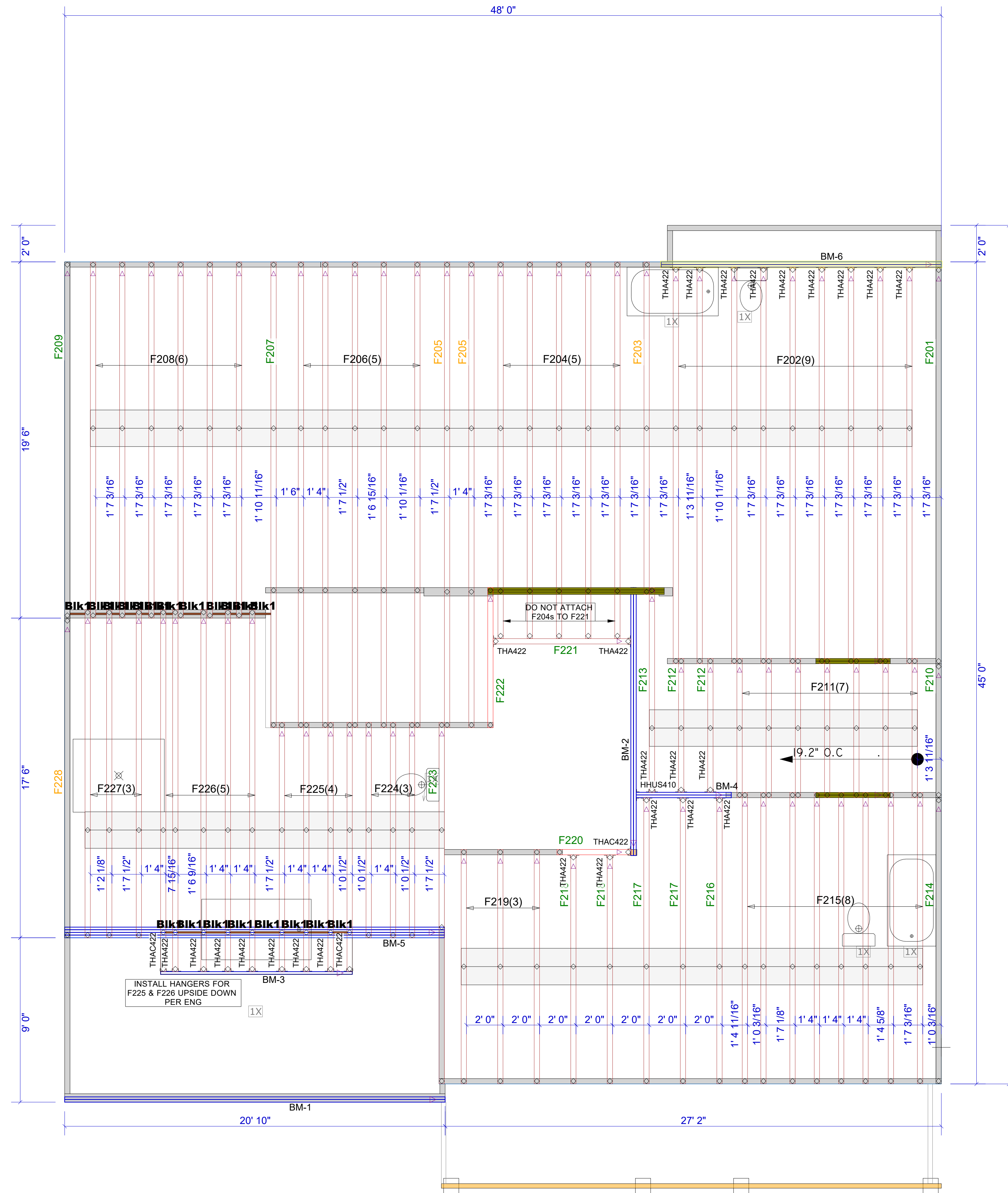
Moncks Corner/Easley, SC (800) 475-3999
Sparta, NC (336) 372-2226

WARNING! Long span trusses, 60' or greater in length, require extreme care and experience for proper and safe handling and installation. For general handling and installation guidance, see the "Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), JOINTLY PRODUCED BY SBCA and TPI. For project specific guidance, consult with a registered design professional. ATLANTIC assumes no responsibility for the handling, installation or bracing of trusses.

Products					
Net Qty	Plies	Product	Length	PlotID	
2	2	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	22' 0"	BM-1	
2	2	1-3/4" x 14" VERSA-LAM® 2.0 3100 SP	16' 0"	BM-2	
1	1	1-3/4" x 14" VERSA-LAM® 2.0 3100 SP	12' 0"	BM-3	
2	2	1-3/4" x 14" VERSA-LAM® 2.0 3100 SP	6' 0"	BM-4	
4	4	1-3/4" x 18" VERSA-LAM® 2.0 3100 SP	22' 0"	BM-5	
2	2	1-3/4" x 18" VERSA-LAM® 2.0 3100 SP	16' 0"	BM-6	
2	1	1-1/8" x 14" BC RIM BOARD OSB	12' 0"	BIK1	

Truss Connector Total List			
Qty	Product	Manuf	
26	THA422		
3	THAC422	Simpson	

Connector Summary			
Flange	Product	Manuf	Qty
None	HHUS410	Simpson	1



▲ = LEFT END OF TRUSS

REVISIONS:



Moncks Corner/Easley, SC (800) 475-3999
Sparta, NC (336) 372-2226

FOR PERMIT

Client: DRB GROUP-RALEIGH
Job: LOT 0.0097 BLAKE POND
Plan Information: STONEHAVEN-1

FLOOR

NOT TO SCALE
Date: 12/22/23
Job #: Sales Rep: KYLE GIBSON
Drawn By: CGT
23-B625-F02
Phone: 864-304-3282