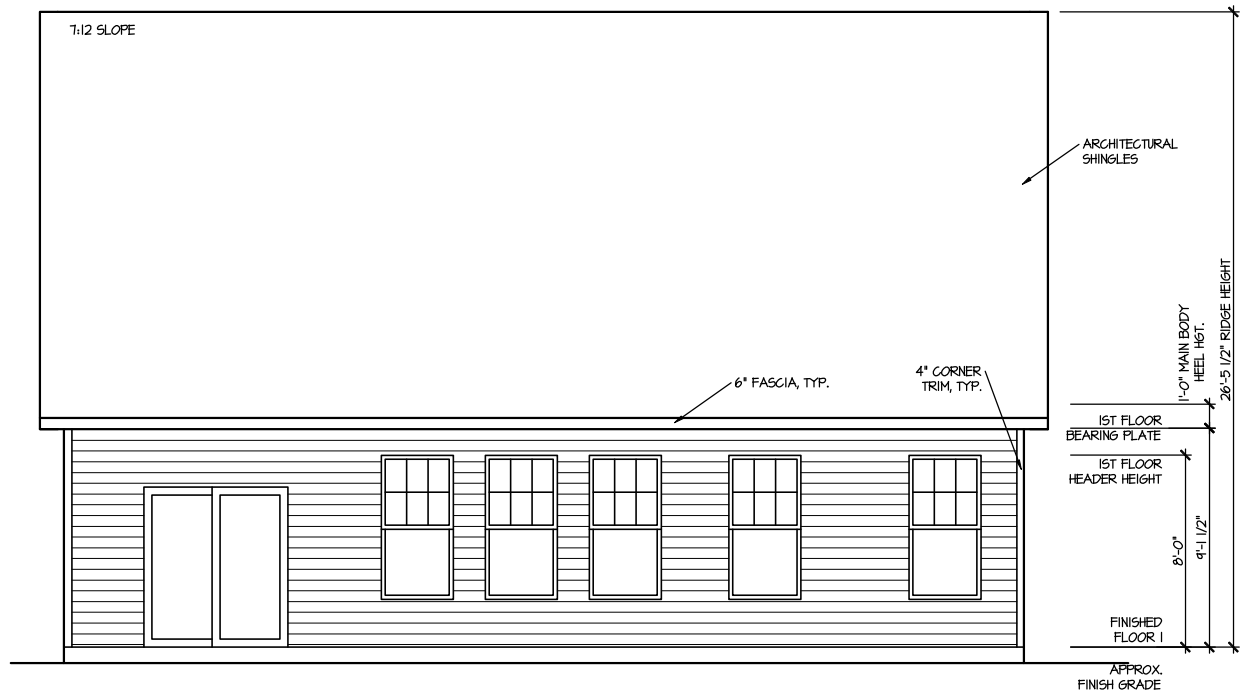


NOTE:
TYPICAL WINDOW GRIDS SHOWN
REFER TO DIVISION SPECS

NOTE:
TYPICAL FRONT DOOR SHOWN
REFER TO DIVISION SPECS

FRONT ELEVATION 4

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



REAR ELEVATION 4

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

FILE: Lot_00.0059.dwg DATE: 12/6/2024 11:16 AM

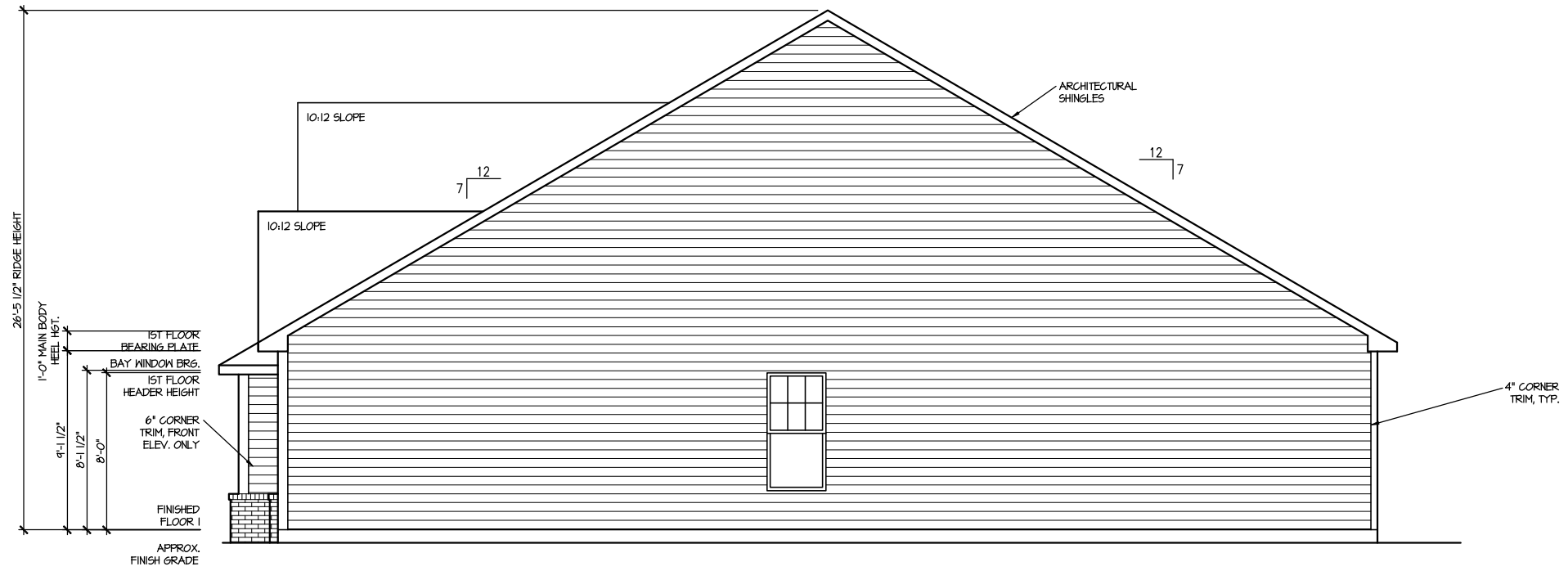
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REVISION	DATE
4-RALE	02-24-2022
UPDATED DATE	06-17-2024

DRAWN BY:	ITS
DATE:	12/06/2024
PLAN NO.	1777



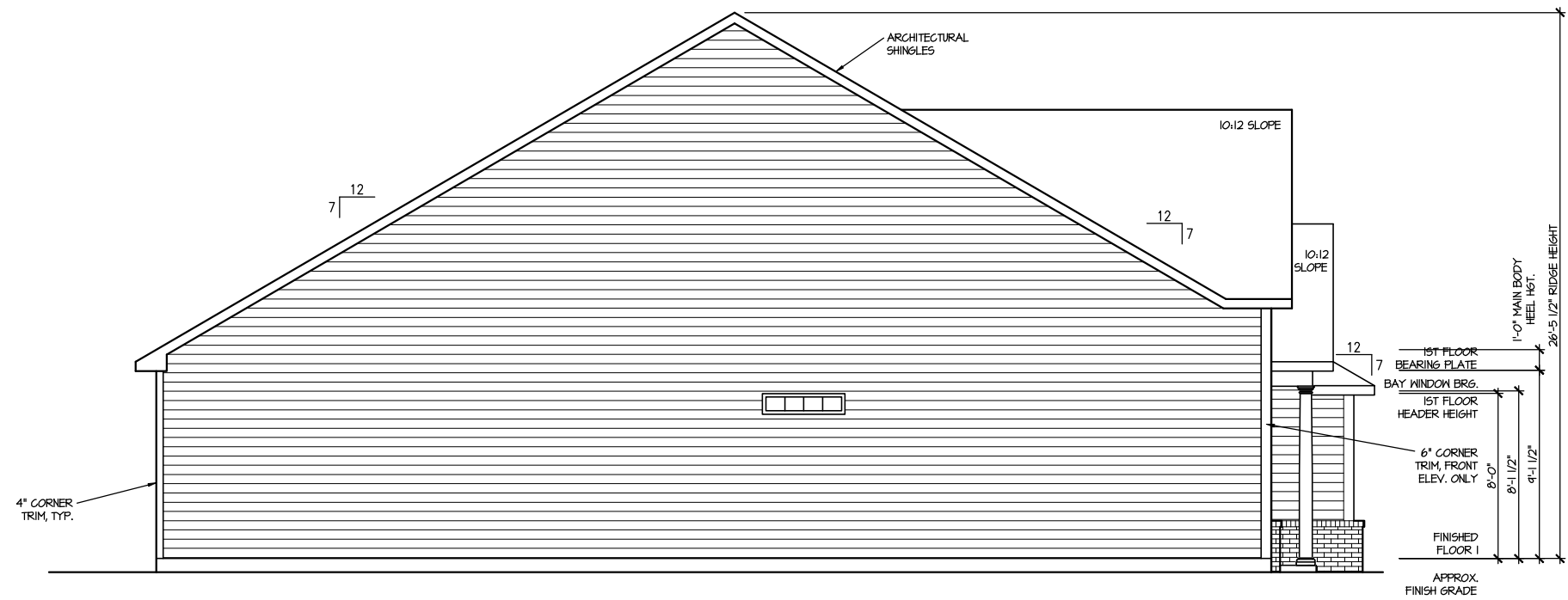
HOUSE NAME:
COOPER 3
DRAWING TITLE
FRONT & REAR ELEVATIONS

SHEET No.
A.1



RIGHT ELEVATION 4

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



LEFT ELEVATION 4

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

FILE: Lot_00.0059.dwg DATE: 12/6/2024 11:16 AM

UPDATED DATE
06-17-2024

MASTER PLAN INFORMATION
REVISION DATE 02-24-2022
4-RALE

DRAWN BY: ITS
DATE: 12/06/2024
PLAN NO. 1777



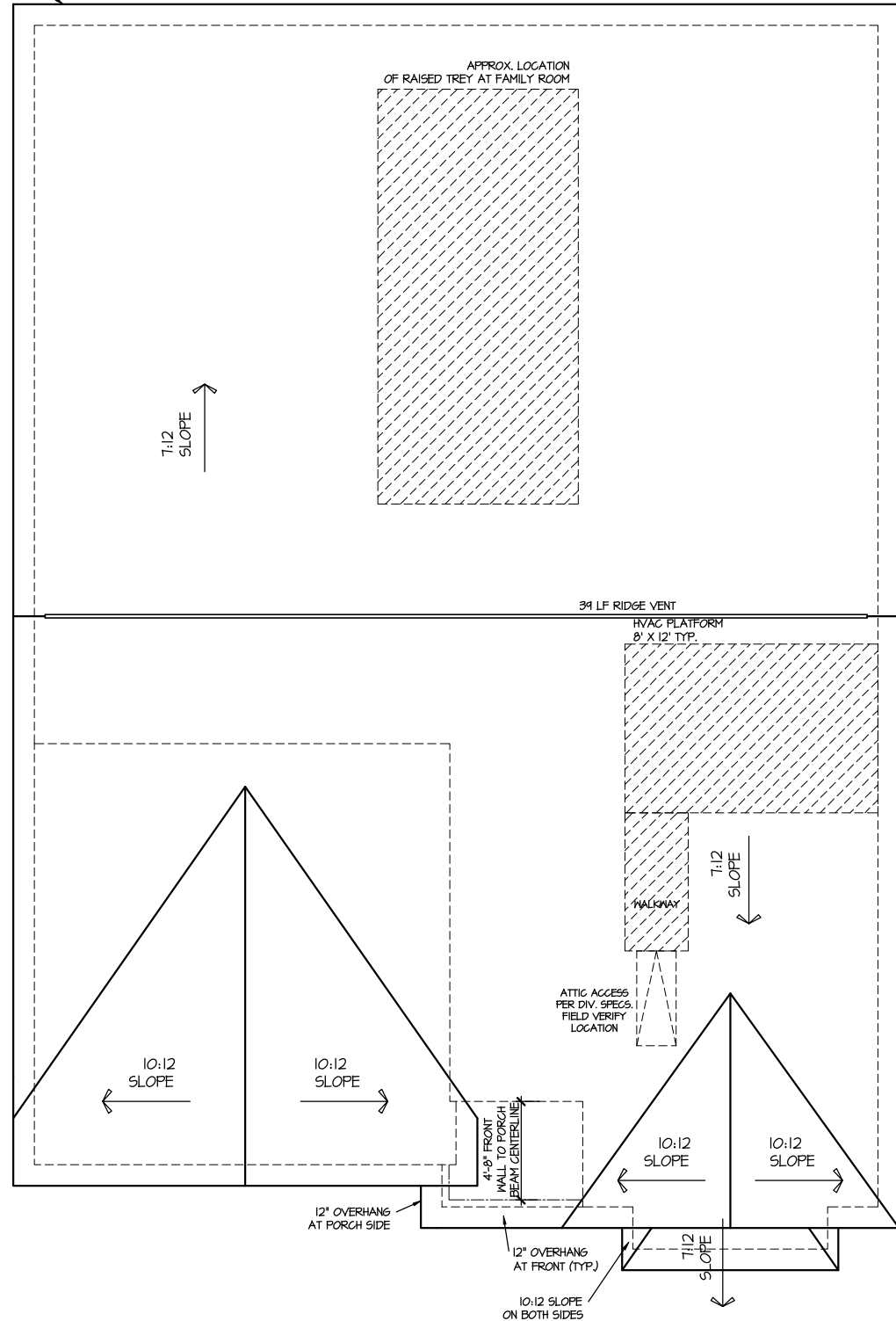
HOUSE NAME: COOPER 3
DRAWING TITLE: RIGHT & LEFT ELEVATIONS

SHEET No. A1.2

ROOF VENTILATION CALCULATIONS:

ROOF AREA = 2336 SQ. FT.
 OVERALL REQUIRED VENTILATION
 1 TO 50 = 46.72 SQ. FT.
 1 TO 300 = 1.14 SQ. FT.
 50-300 IN TOP THIRD = 3.94 - 6.23 SQ. FT. (1 TO 300)
 NET FREE AREA OF VENTED SOFFIT = 5.1 SQ. IN / LINEAR FT.
 NET FREE AREA OF RIDGE VENT = 10 SQ. IN / LINEAR FT.
 LOWER VENTING (BOTTOM 2/3 RIDG)
 14 LINEAR FEET OF SOFFIT X 5.1 SQ. IN = 243 SQ. FT.
 UPPER VENTING (TOP 1/3 RIDG)
 34 LINEAR FEET OF RIDGE X 10 SQ. IN = 468 SQ. FT.
 4.68 SQ. FT. BETWEEN 50% - 50%
 (1 TO 300 ALLOWED)
 TOTAL ROOF VENTILATION: 711 SQ. FT. > 1.14 SQ. FT. (REQ'D)

12" OVERHANG
AT REAR (TYP.)



12" OVERHANG
AT SIDES (TYP.)

ROOF PLAN ELEV. 4
 SCALE: 1/8" = 1'-0"

FILE: Lot_00.0059.dwg DATE: 12/6/2024 11:16 AM

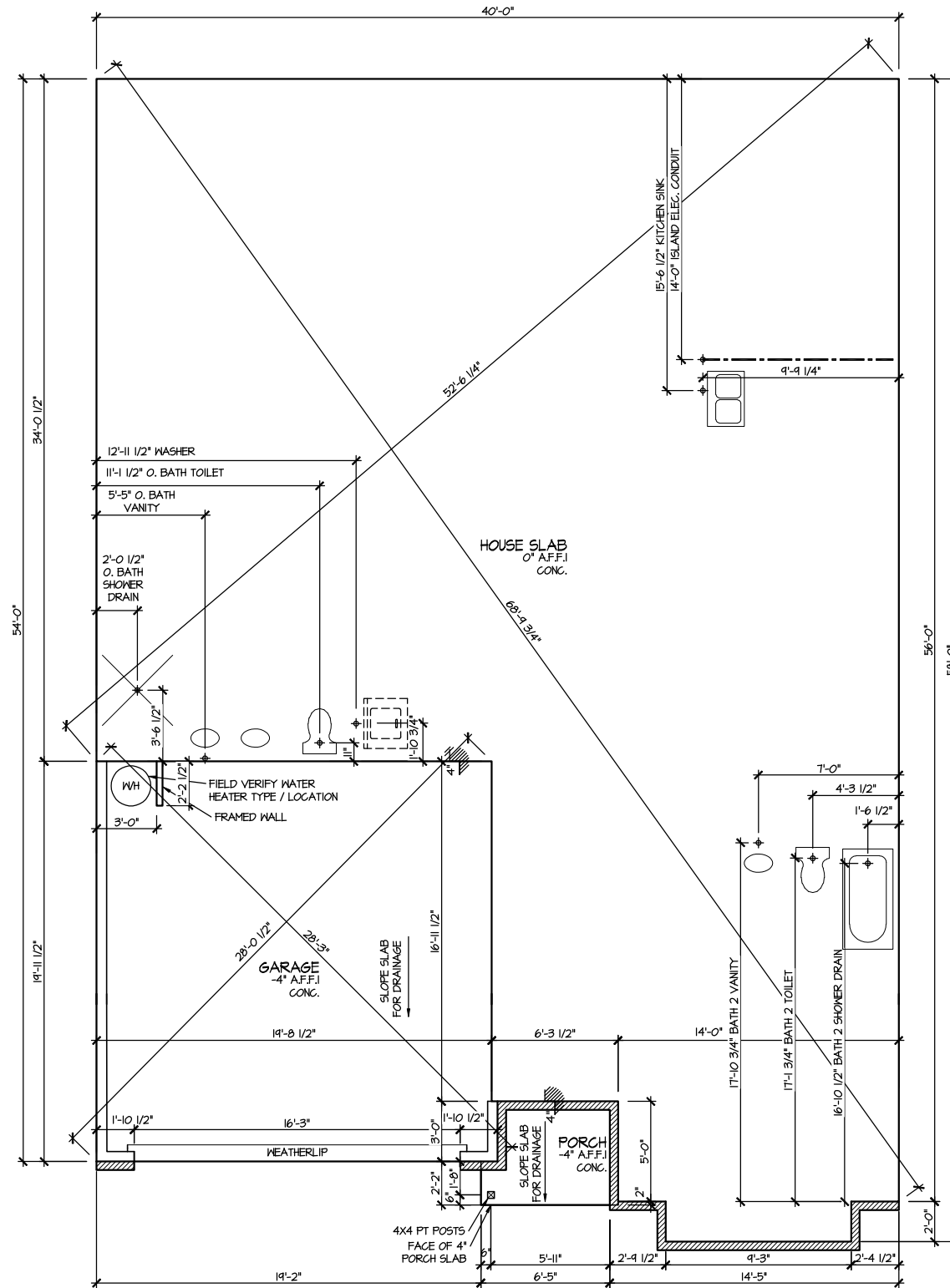
MASTER PLAN INFORMATION		UPDATED DATE
REVISION	DATE	
4-RALE	02-24-2022	06-17-2024

DRAWN BY:	ITS
DATE:	12/06/2024
PLAN NO.	1777



HOUSE NAME:
COOPER 3
 DRAWING TITLE
ROOF PLAN

SHEET No.
A.3



ELEVATION 4
SLAB PLAN
SCALE: 1/8" = 1'-0"

MASTER PLAN INFORMATION		
REVISION	DATE	UPDATED DATE
4-RALE	02-24-2022	06-17-2024

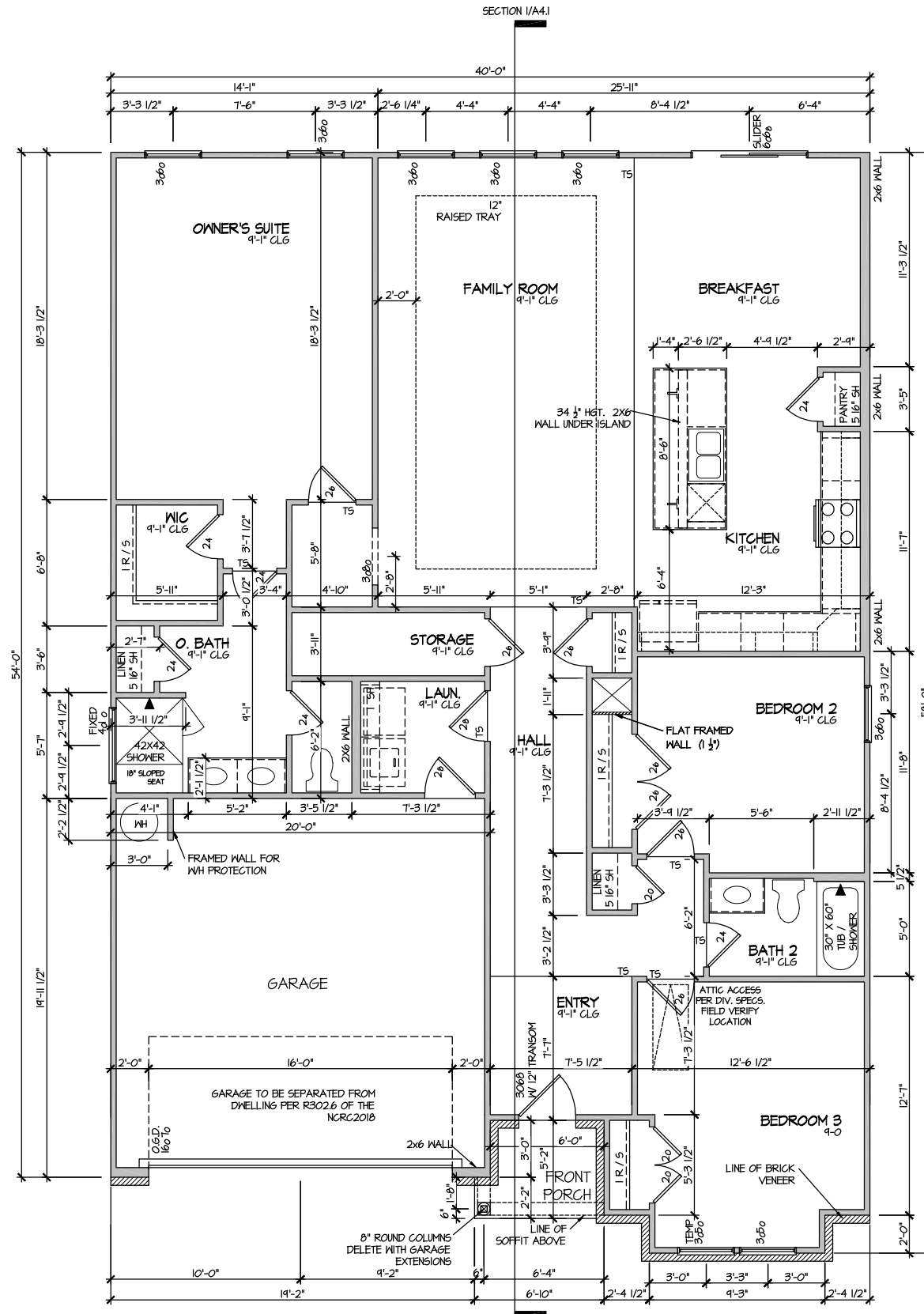
DRAWN BY:	ITS
DATE:	12/06/2024
PLAN NO.	1777



HOUSE NAME:	COOPER 3
DRAWING TITLE	SLAB PLAN

SHEET No.	A2.1
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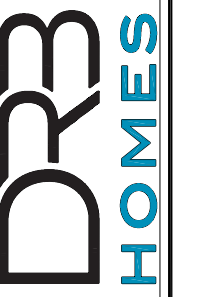
FILE: Lot_00.0059.dwg DATE: 12/6/2024 11:16 AM



ELEVATION 4
FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

MASTER PLAN INFORMATION	
REVISION	DATE
4-RALE	02-24-2022
UPDATED DATE	06-17-2024

DRAWN BY:	ITS
DATE:	12/06/2024
PLAN NO.	1777



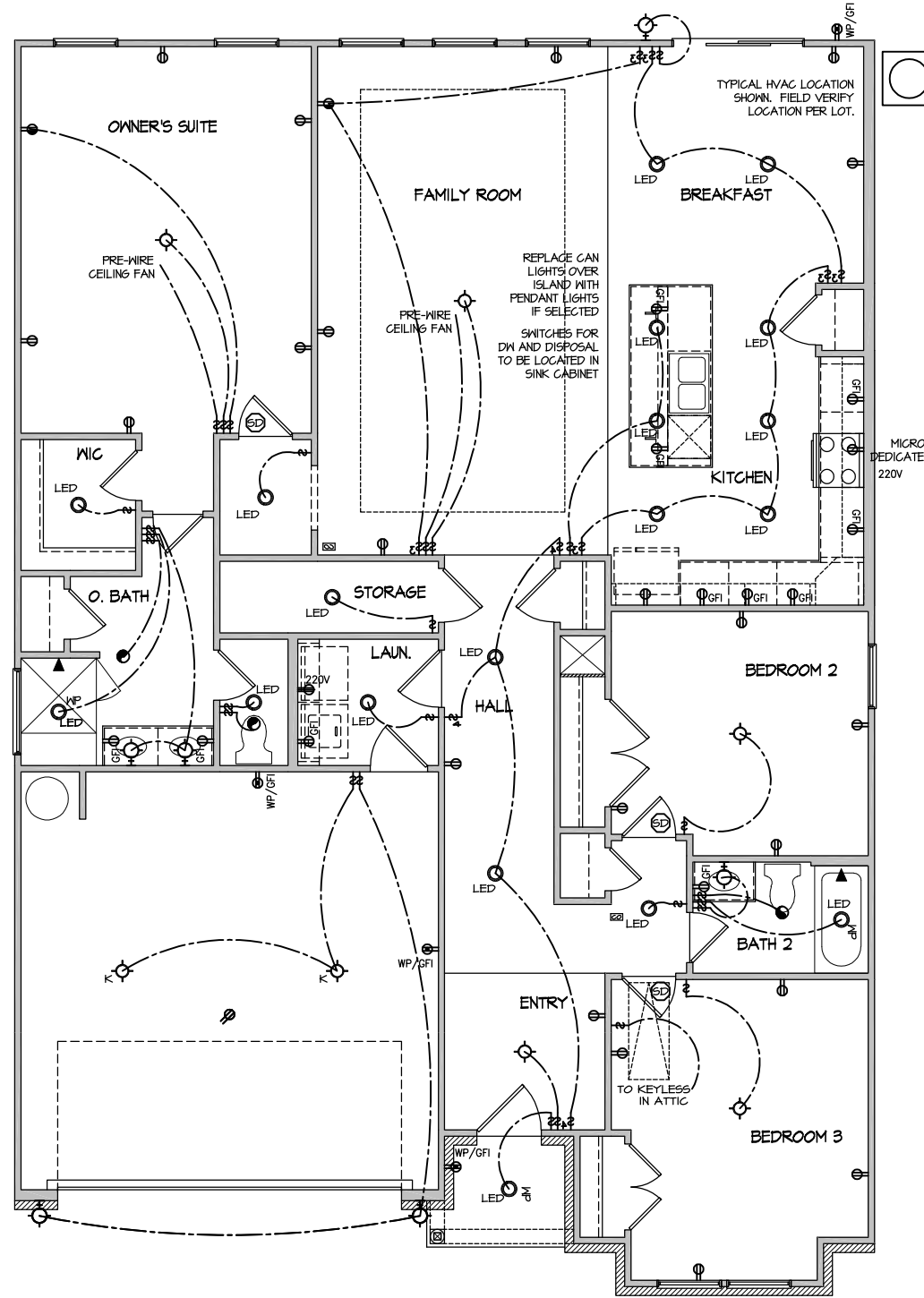
HOUSE NAME:
COOPER 3
DRAWING TITLE
FIRST FLOOR PLAN

SHEET No.
A3.1

ELECTRICAL LEGEND

- ⊡ SINGLE POLE SWITCH
- ⊡₃ THREE WAY SWITCH
- ⊡₄ FOUR WAY SWITCH
- ⊡-⊡ DUPLEX AFCI RECEPTACLE
- ⊡-⊡ (bottom half) DUPLEX AFCI RECEPTACLE - BOTTOM HALF SWITCHED
- ⊡-⊡ (floor) 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
- ⊡-⊡ (EF) EXHAUST FAN MOTOR
- ⊡-⊡ (CO) CO DETECTOR
- ⊡-⊡ (DC) DOOR CHIME
- ⊡-⊡ (H) LIGHT FIXTURE - WALL MOUNTED
- ⊡-⊡ (C) 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.



FILE: Lot_00.0059.dwg DATE: 12/6/2024 11:16 AM

ELECTRICAL PLAN
FIRST FLOOR - ELEV. 4
SCALE: 1/8" = 1'-0"

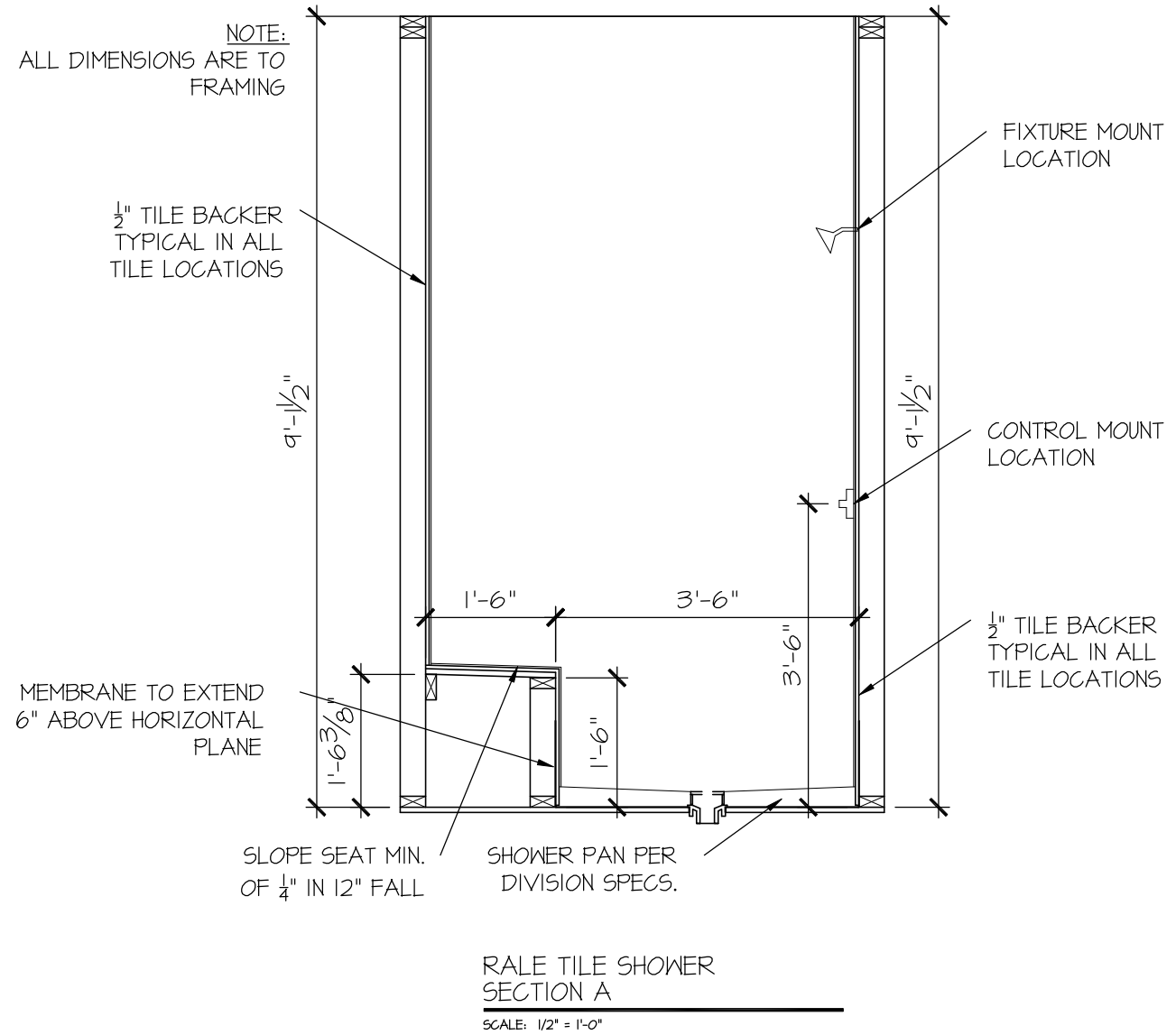
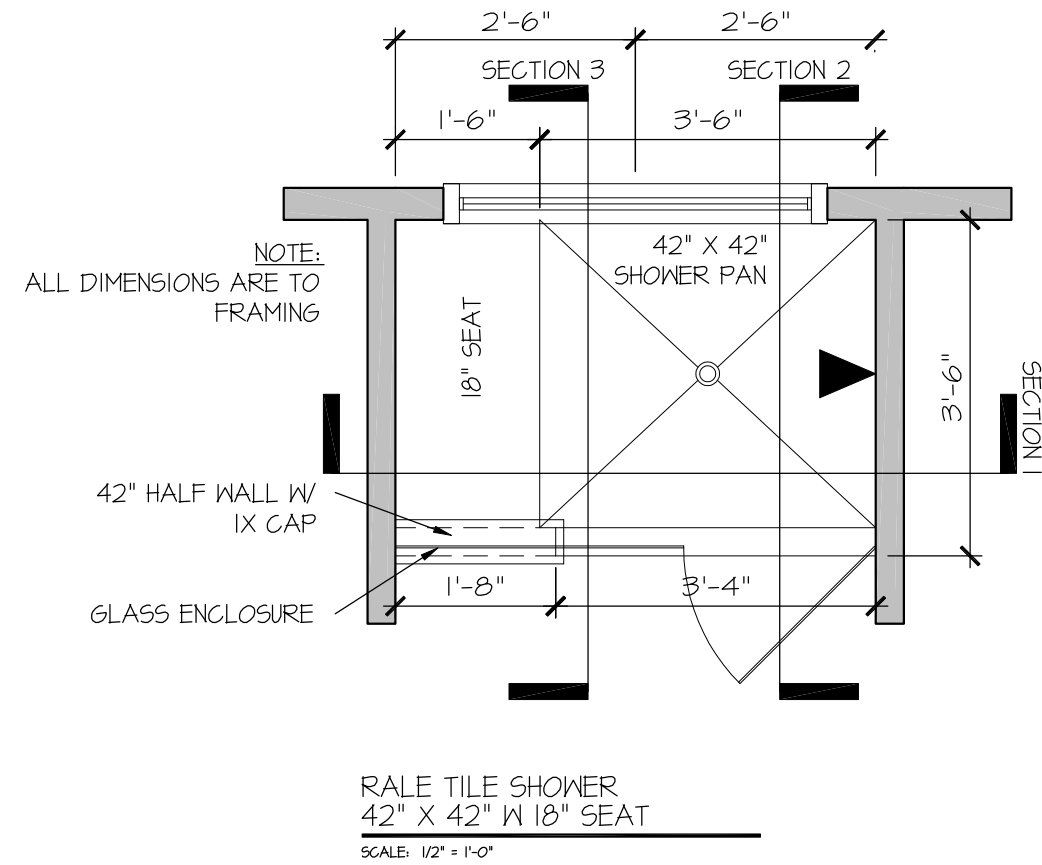
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REVISION	DATE
4-RALE	02-24-2022
	06-17-2024

DRAWN BY:	ITS
DATE:	12/06/2024
PLAN NO.	1777



HOUSE NAME:	COOPER 3
DRAWING TITLE	FIRST FLOOR ELECTRICAL

SHEET No.
11

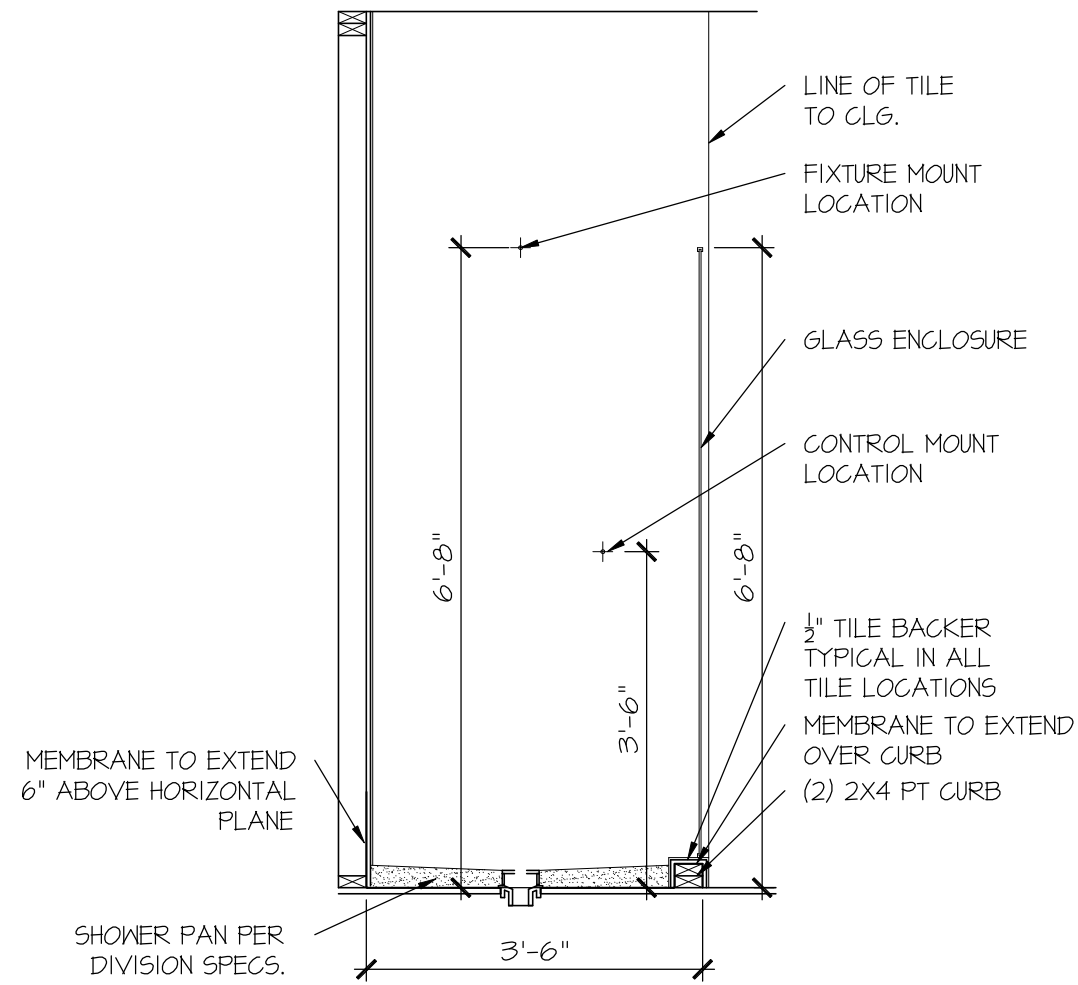


DRAWN BY:
L. BEAVERS
DATE: 9/1/22
PLAN NO.
11 X 17 SCALE
24 X 36 SCALE

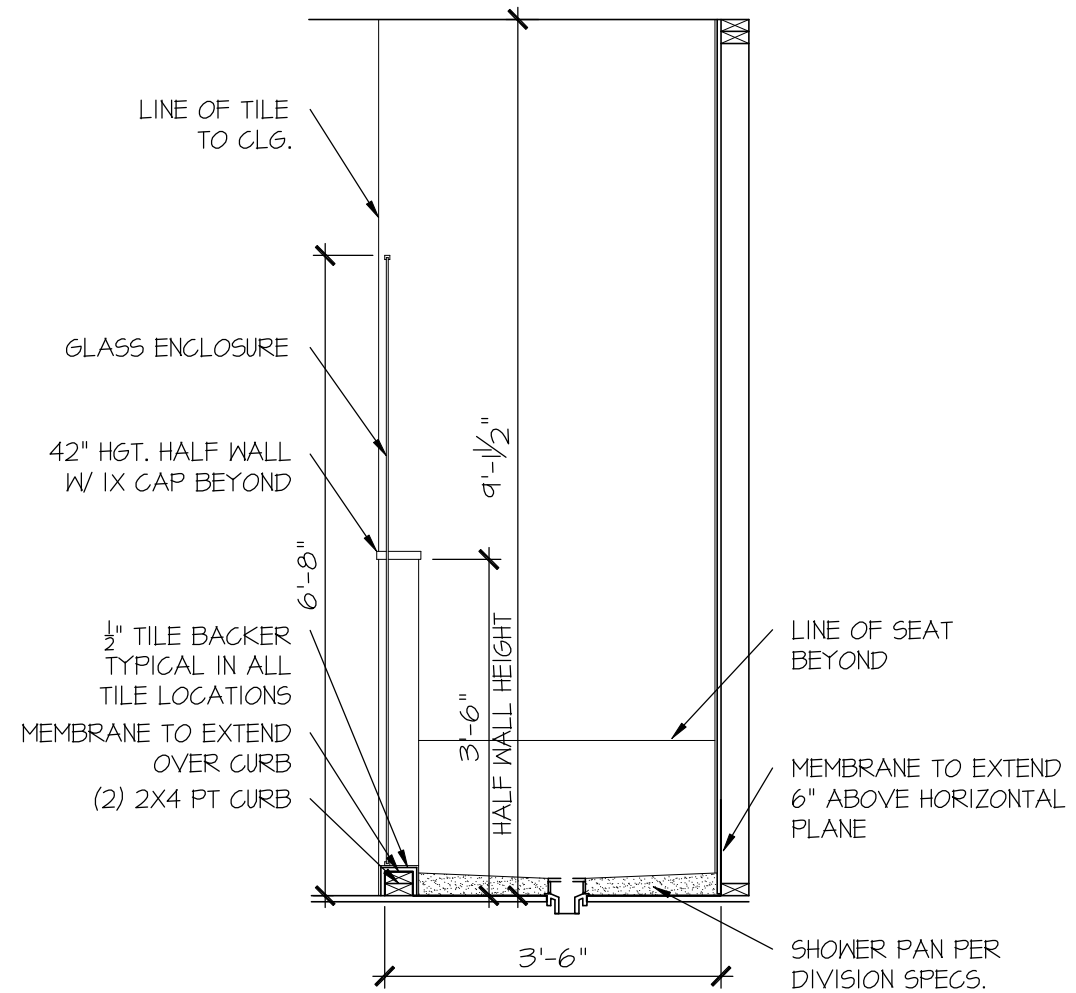


HOUSE NAME:
DRAWING TITLE
RALE TILE SHOWER DETAIL

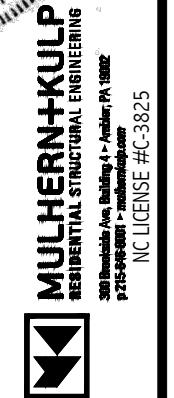
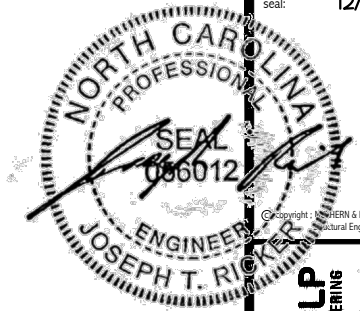
SHEET No.
01.12



RALE TILE SHOWER SECTION B
SCALE: 1/2" = 1'-0"



RALE TILE SHOWER SECTION C
SCALE: 1/2" = 1'-0"



M&K project number:
126-22076

project mgr: JTR
drawn by: KJN
issue date: 12-16-24

REVISIONS:
date: initial:



STRUCTURAL NOTES
FARM AT NEIL'S CREEK
LOT 59 - COOPER 4
RALEIGH, NC

sheet:
SO.0

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)

LATERAL BRACING & SHEAR WALL SHEATHING SPECIFICATIONS

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

120 MPH WIND IN 2018 NC5BC: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 R301.3 OF THE 2018 NC5BC: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 NC5BC: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"x0.131" 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 (1/8" CROWN) @ 3" O.C. AT EDGES & @ 6" O.C. IN FIELD.

BLOCKED PANEL EDGES

• AT DESIGNATED AREAS - FASTEN SHEATHING w/ 2 3/8" x 0.131" NAILS @ 6" O.C. AT ALL PANEL EDGES AND 12" O.C. IN THE PANEL FIELD OR 1 3/4" 16 GA STAPLES (1/8" 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 HOLD-DOWN BELOW

FLOOR FRAMING

• I-JOISTS/TRUSSES SHALL BE DESIGNED BY MANUF. TO MEET OR EXCEED L/480 LIVE LOAD DEFLECTION CRITERIA. (EXCLUDES MARBLE FLOORS - CONTACT MKF FOR MARBLE FLOOR DESIGNS)

• AT I-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 1/2" 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.

- #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 WTC & TP'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 7' SPAN) w/ 2x4 LEDGER FASTENED TO:
- RIM BOARD w/ (2) 3"x0.131" NAILS @ 16" O.C. MAX. (I-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 1/2" 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.

HOLD-DOWN SCHEDULE

SYMBOL	SPECIFICATION
▶ HD-1	SIMPSON HTT4 HOLD-DOWN *
▶ HD-2	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM UNO.) (PRE-BENT MSTC66 ALT. WHEN SPECIFIED)
▶ HD-3	SIMPSON 5THD4/14RJ HOLD-DOWN

ALTERNATIVE TO 55TB24 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.

LEGEND

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

NON-BEARING HEADER SCHEDULE

SPAN	2x4 NON-BEARING PARTITION WALL	2x6 NON-BEARING PARTITION WALL
UP TO 3'-0"	(1)2x4 FLAT	(1)2x6 FLAT
UP TO 6'-0"	(2)2x4	(3)2x4
UP TO 8'-0"	(2)2x6	(3)2x6
UP TO 12'-0"	(2)2x8	(3)2x8

NOTES:

• ALL NON-BEARING INTERIOR STUD WALLS SHALL BE CONSTRUCTED WITH 2x 'STUD' GRADE MEMBERS SPACED @ 24" O.C. (MAX.)

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 (I-JOISTS & SOLID SAWN)
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. 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 (SPF) OR SOUTHERN PINE #2 (SP) 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

• MKF SHALL BE FULLY INDEMNIFIED FOR ANY AND ALL ISSUES RESULTING FROM OR RELATED TO ANY BUILDING COMPONENT IF THE OWNER DOES NOT SUBMIT THE COMPONENT SHOP DRAWINGS TO MKF 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" TRUSLOK 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" TRUSLOK 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 TRUSLOK 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, 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 & ABW44Z BASE, UNO.

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 FND WITH A MINIMUM OF 2 ANCHORS PER PLATE, 12" MAX. FROM PLATE ENDS - UTILIZING:
• 1/2" DIA. ANCHOR BOLTS @ 6'-0" O.C., 1" 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:
• 4' 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, UNO.
• 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 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 1400 psi (F_m=1500 psi). MORTAR SHALL BE ASTM C270, TYPE S. CMU DESIGN PER ACI 530 & 530.1.

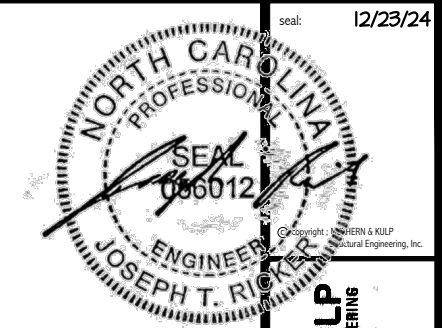
• CMU FOUNDATION WALLS SHALL HAVE 'DUR-O-HALL' HORIZONTAL JOINT REINFORCEMENT (OR EQUAL) - 4 GA. MINIMUM @ 16" O.C.

• PROVIDE 2x8 x 16" LONG P.T. PLATE ON TOP OF ALL CRAWL SPACE PIERS. ALL PIERS SHALL BE GROUTED SOLID.

• PROVIDE 2x6 P.T. PLATE ON INTERIOR CRAWL 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.



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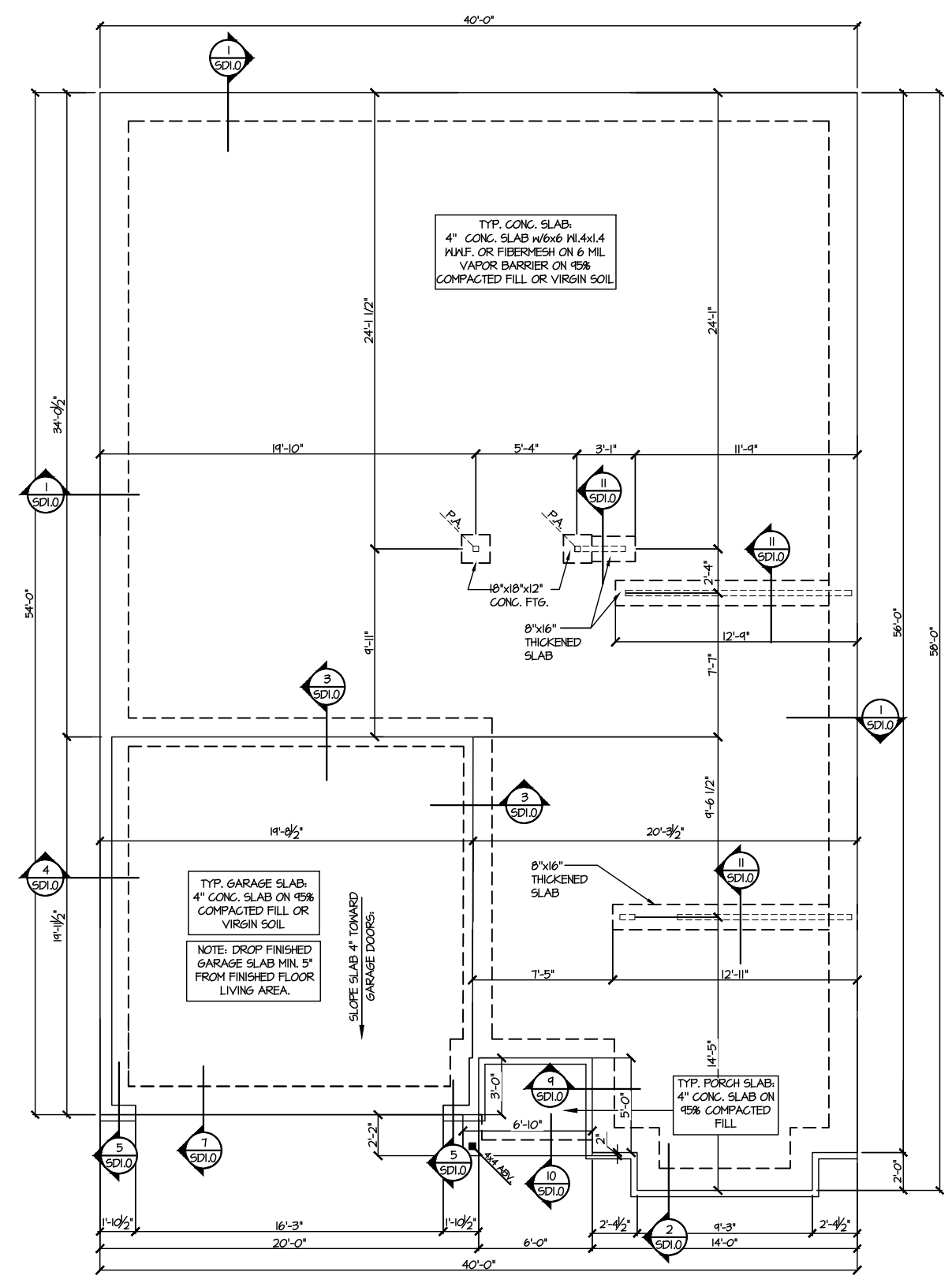
M&K project number:
126-22076
project mgr: JTR
drawn by: KJN
issue date: 12-16-24

REVISIONS:
date: initial:



FOUNDATION PLANS
FARM AT NEILS CREEK
LOT 59 - COOPER 4
RALEIGH, NC

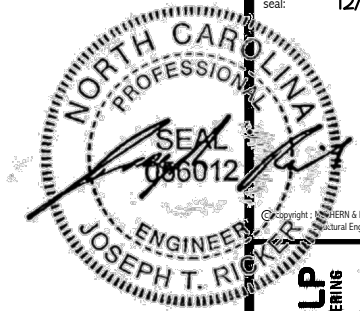
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S1.0



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

LEGEND	
	INTERIOR BEARING WALL
	BEARING WALL ABOVE
	BEAM / HEADER
	INDICATES SHEAR WALL & EXTENT
	EXTENT OF OVERFRAMING
	M 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



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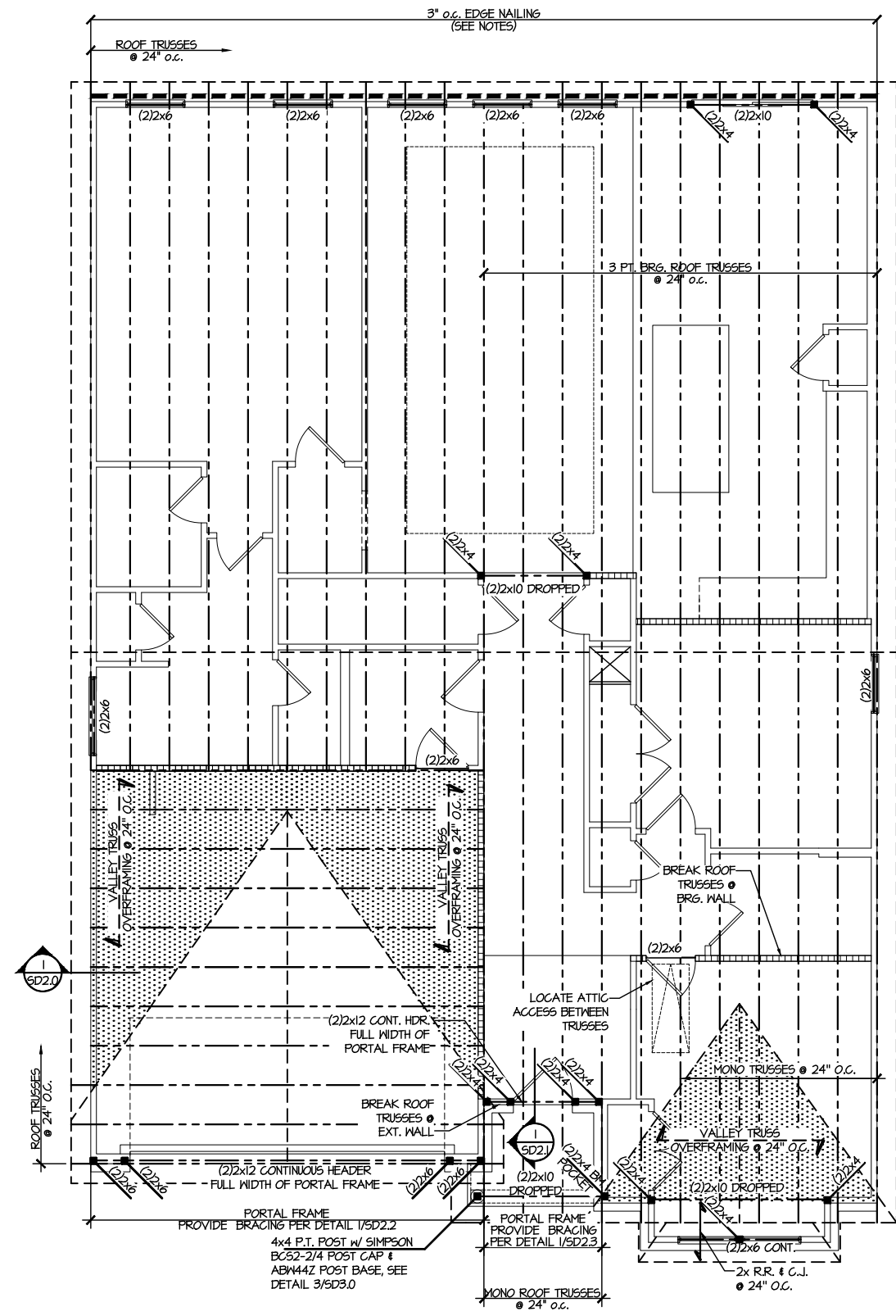
M&K project number:
126-22076
project mgr: JTR
drawn by: KJN
issue date: 12-16-24

REVISIONS:
date: initial:



ROOF FRAMING PLANS
FARM AT NEILS CREEK
LOT 59 - COOPER 4
RALEIGH, NC

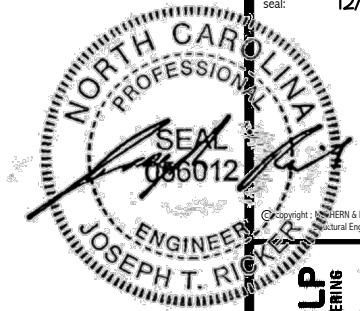
sheet:
S2.0



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
	HL 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



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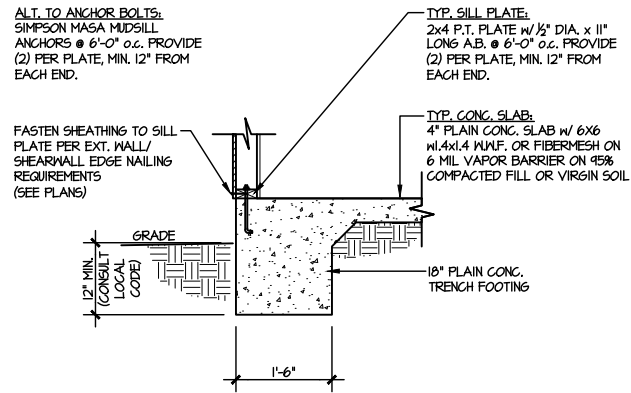
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126-22076
project mgr: JTR
drawn by: KJN
issue date: 12-16-24

REVISIONS:
date: initial:

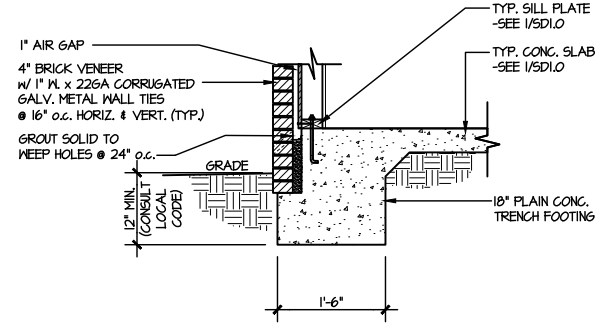


FOUNDATION DETAILS
FARM AT NEILS CREEK
LOT 59 - COOPER 4
RALEIGH, NC

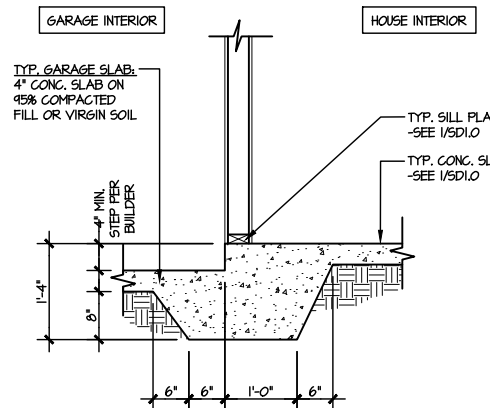
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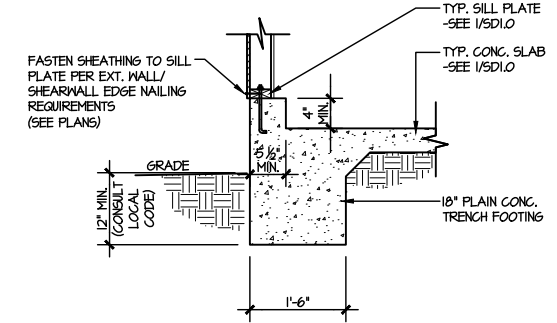
1 TYPICAL SLAB ON GRADE PERIMETER FOOTING
SCALE: 3/8"=1'-0"



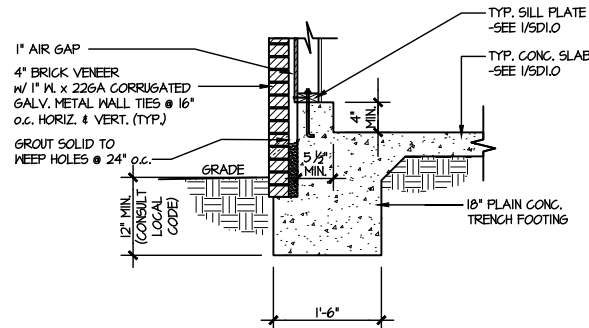
2 TYPICAL SLAB ON GRADE PERIMETER FOOTING
SCALE: 3/8"=1'-0" w/ BRICK VENEER



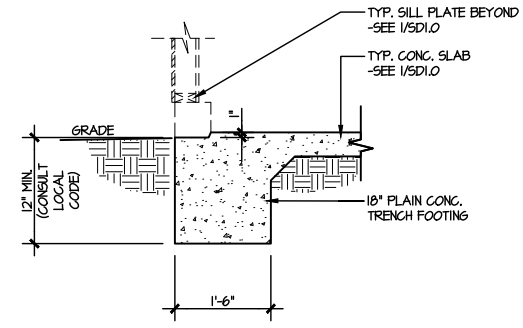
3 TYPICAL MONOLITHIC INTERIOR GARAGE FOOTING
SCALE: 3/8"=1'-0"



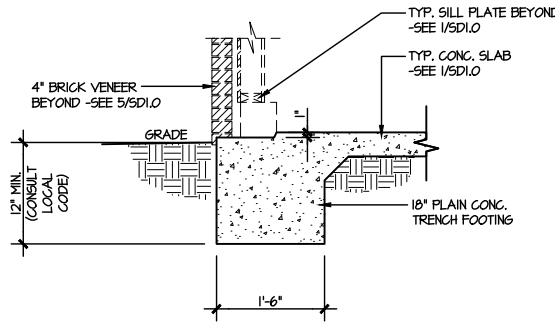
4 TYPICAL SLAB ON GRADE GARAGE PERIMETER FOOTING
SCALE: 3/8"=1'-0"



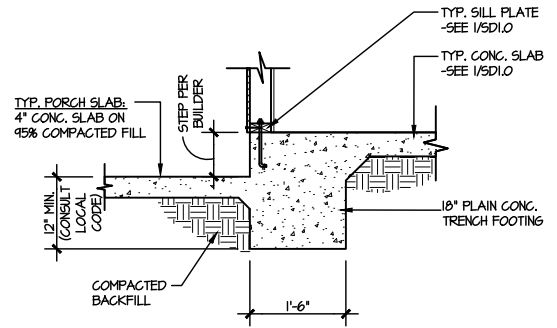
5 TYPICAL SLAB ON GRADE GARAGE PERIMETER FOOTING
SCALE: 3/8"=1'-0" w/ BRICK VENEER



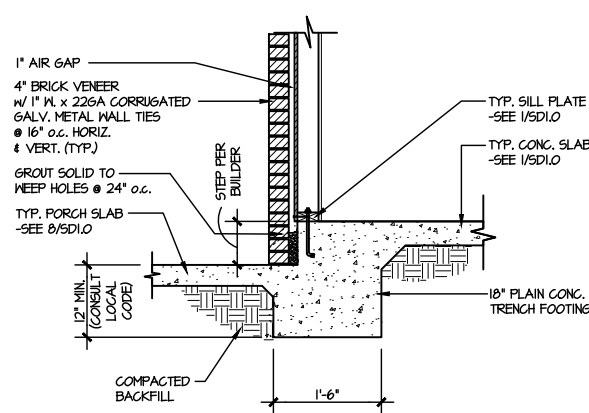
6 TYPICAL SLAB ON GRADE GARAGE ENTRY @ PERIMETER FOOTING
SCALE: 3/8"=1'-0"



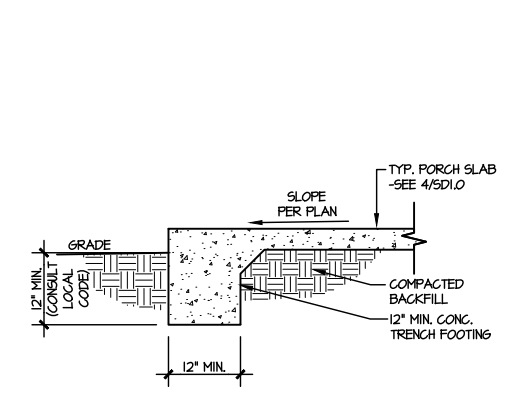
7 TYPICAL SLAB ON GRADE GARAGE ENTRY @ PERIMETER FOOTING
SCALE: 3/8"=1'-0" w/ BRICK VENEER



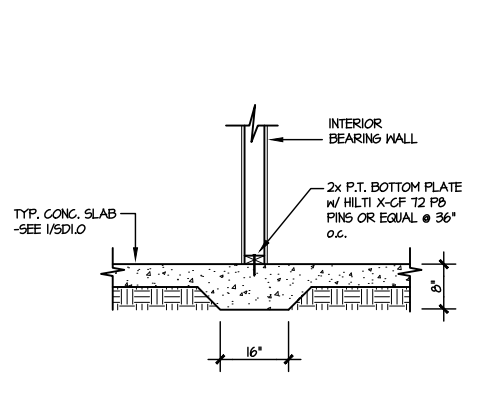
8 TYPICAL SLAB ON GRADE PERIMETER FOOTING @ PORCH/PATIO
SCALE: 3/8"=1'-0"



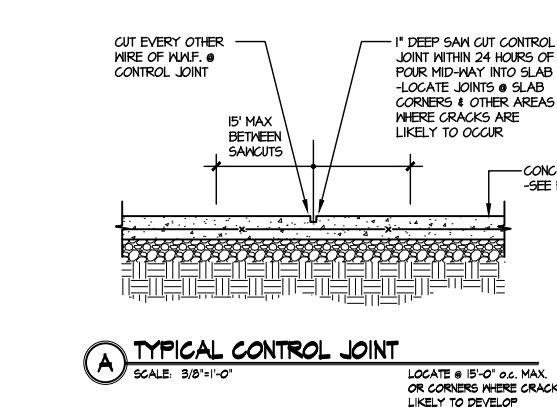
9 TYPICAL SLAB ON GRADE PERIMETER FOOTING @ PORCH/PATIO
SCALE: 3/8"=1'-0" w/ BRICK VENEER



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



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

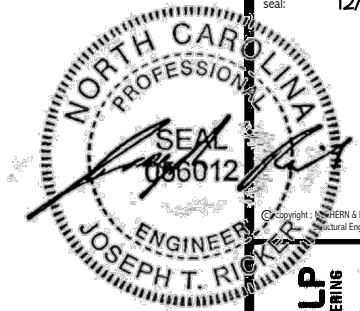


A TYPICAL CONTROL JOINT
SCALE: 3/8"=1'-0"

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.

FILE: RLH - Neils Creek - Lot 59 - Structural DATE: 12/23/2024 10:00 AM



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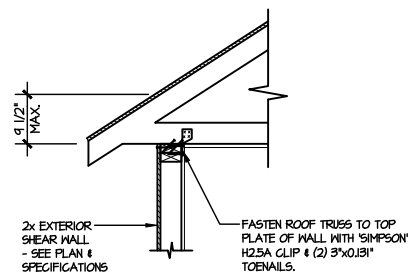
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project mgr: JTR
drawn by: KJN
issue date: 12-16-24

REVISIONS:	
date:	initial:

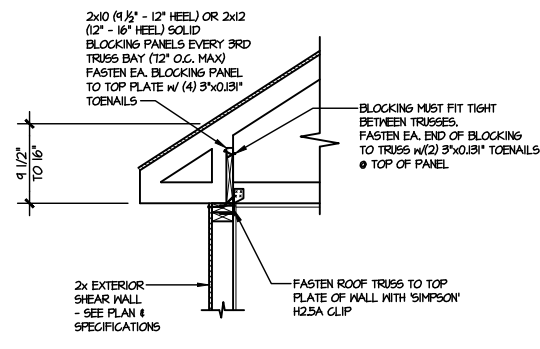
DRB HOMES

FRAMING DETAILS
FARM AT NEILS CREEK
LOT 59 - COOPER 4
RALEIGH, NC

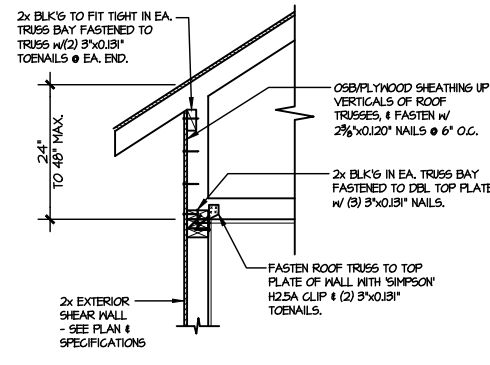
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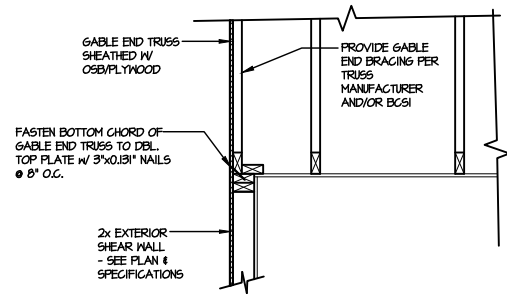
A1 TYPICAL SHEAR TRANSFER DETAIL @ ROOF
SCALE: 3/8"=1'-0"
HEEL HEIGHT LESS THAN 4 1/2"
NO BLOCKING REQ'D



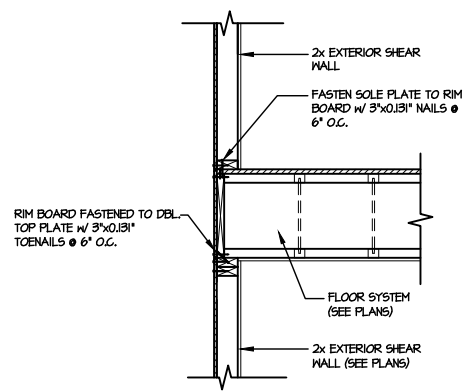
A2 TYPICAL SHEAR TRANSFER DETAIL @ ROOF
SCALE: 3/8"=1'-0"
HEEL HEIGHT BETWEEN 4 1/2" - 16"
BLOCKING REQ'D



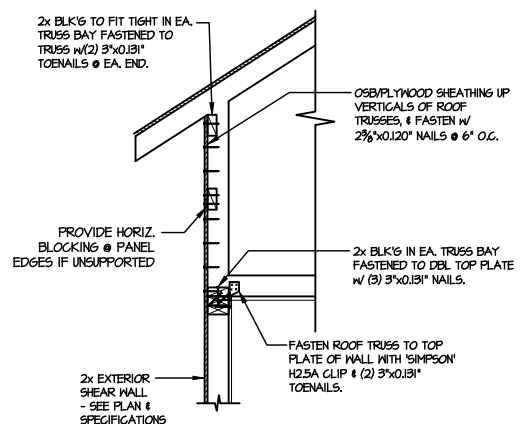
A3 TYPICAL SHEAR TRANSFER DETAIL @ RAISED HEEL TRUSS
SCALE: 3/8"=1'-0"
HEEL HEIGHT UP TO 48" MAX.



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



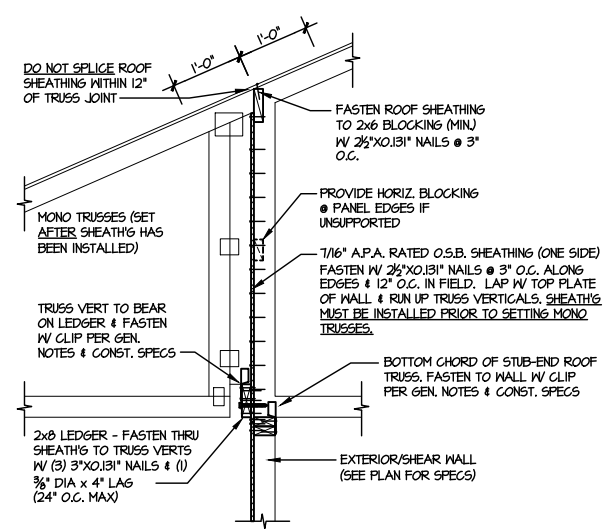
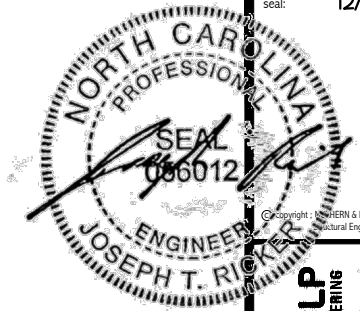
C TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ EXTERIOR WALL
SCALE: 3/8"=1'-0"



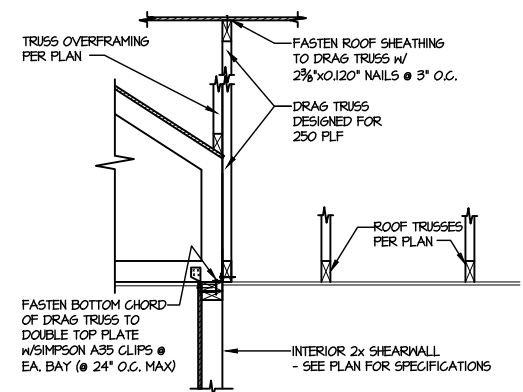
1 TYPICAL SHEAR TRANSFER DETAIL @ RAISED HEEL TRUSS
SCALE: 3/8"=1'-0"
HEEL HEIGHT GREATER THAN 48"

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

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1 SHEAR TRANSFER DETAIL @
BREAK IN TRUSSES OVER SHEAR WALL
SCALE: 3/4"=1'-0" - 23-24
3/8"=1'-0" - 11x7



2 SHEAR TRANSFER DETAIL
AT INTERIOR SHEARWALL BELOW
SCALE: 3/4"=1'-0"

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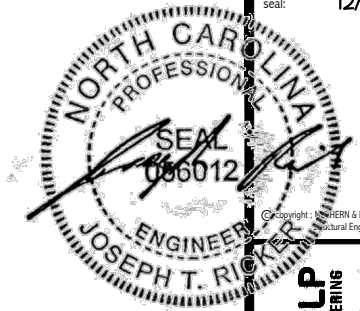


FRAMING DETAILS
FARM AT NEIL'S CREEK
LOT 59 - COOPER 4
RALEIGH, NC

sheet:
SD2.1

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

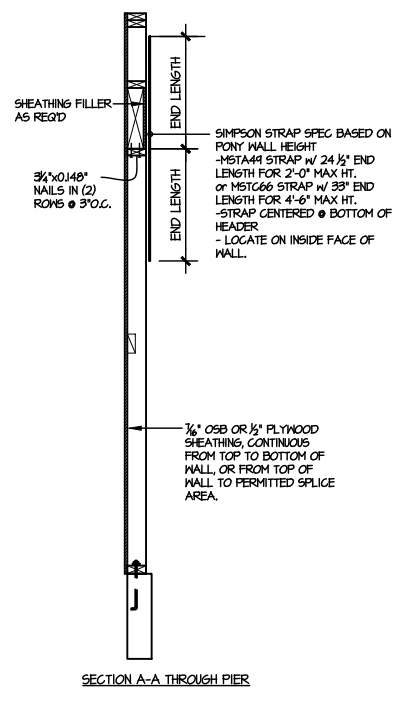
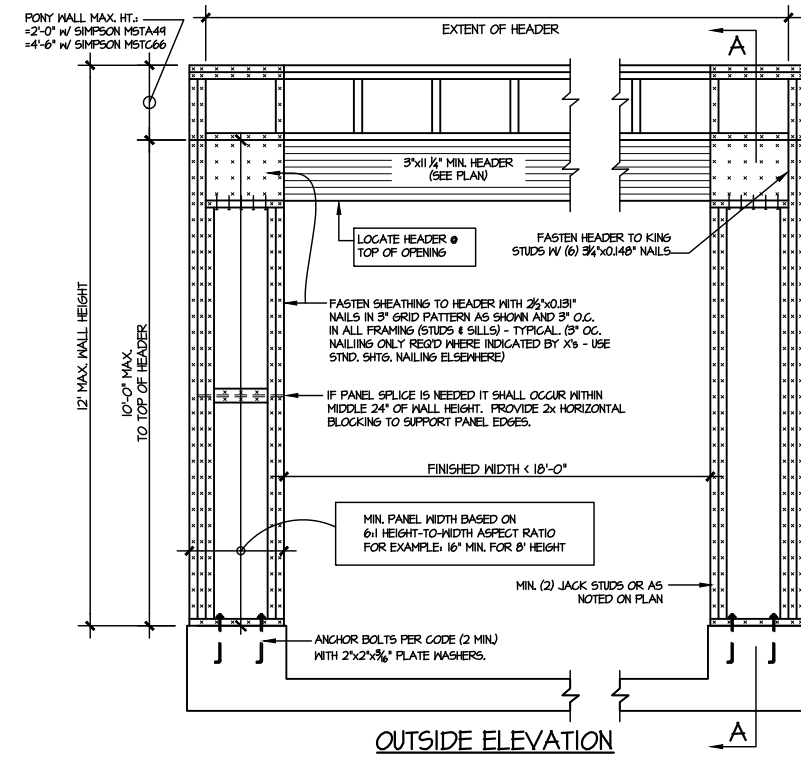
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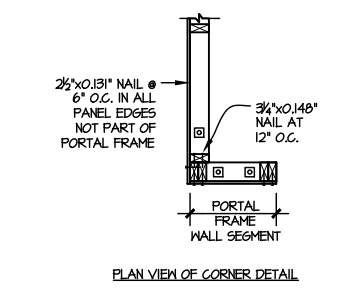
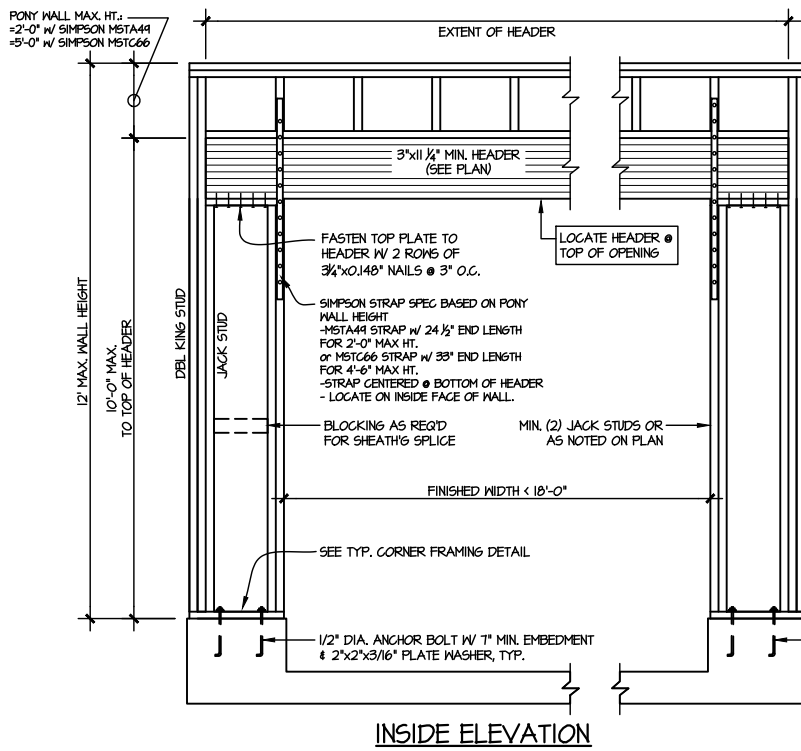
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FRAMING DETAILS
FARM AT NEILS CREEK
LOT 59 - COOPER 4
RALEIGH, NC

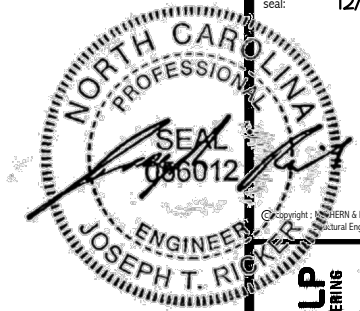


NOTE: ALL SHEATHABLE AREAS OF EXTERIOR WALL SHALL BE FULLY SHEATHED WITH 1/2" PLYWOOD OR 1/2" OSB



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.



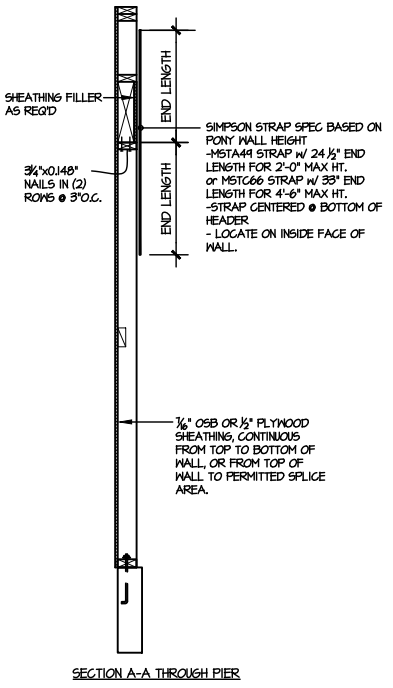
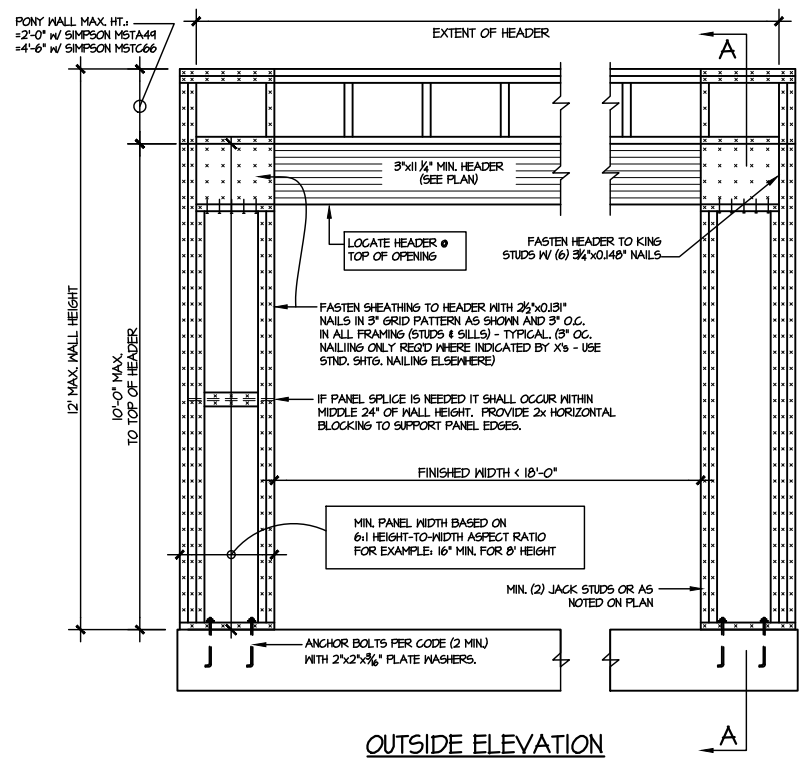
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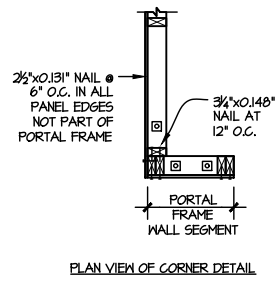
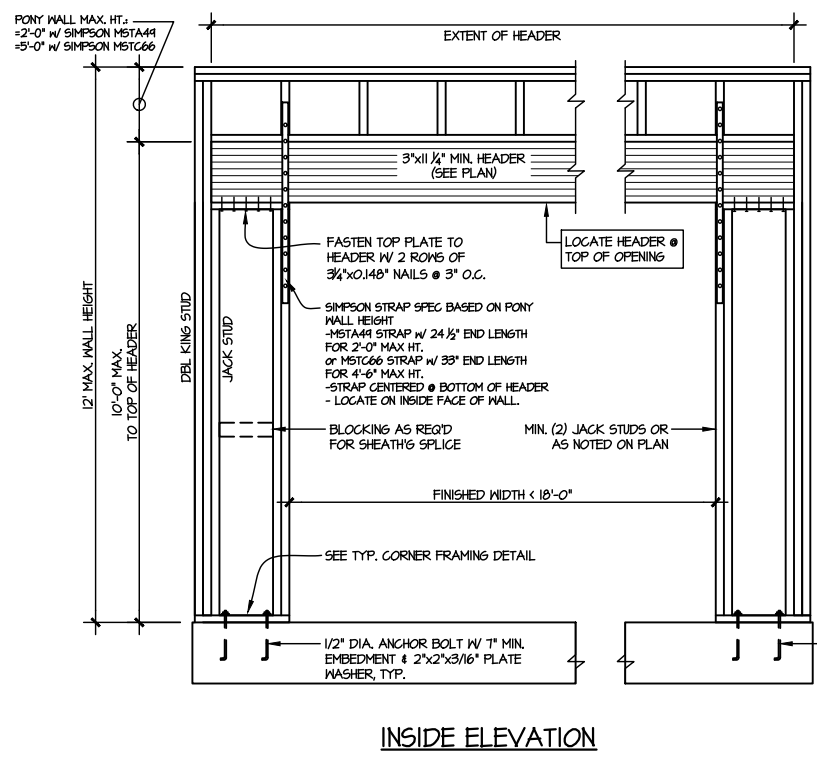


FRAMING DETAILS
FARM AT NEILS CREEK
LOT 59 - COOPER 4
RALEIGH, NC

sheet:
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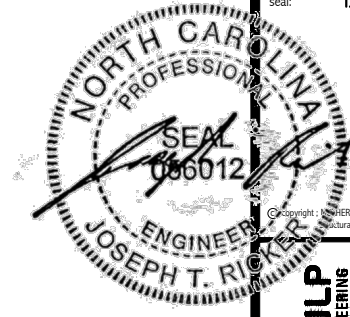


NOTE: ALL SHEATHABLE AREAS OF EXTERIOR WALL SHALL BE FULLY SHEATHED WITH 1/2" PLYWOOD OR 3/8" OSB



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 PORTAL FRAME BRACING
ELEVATION ON CONCRETE STEM**
SCALE: N.T.S.



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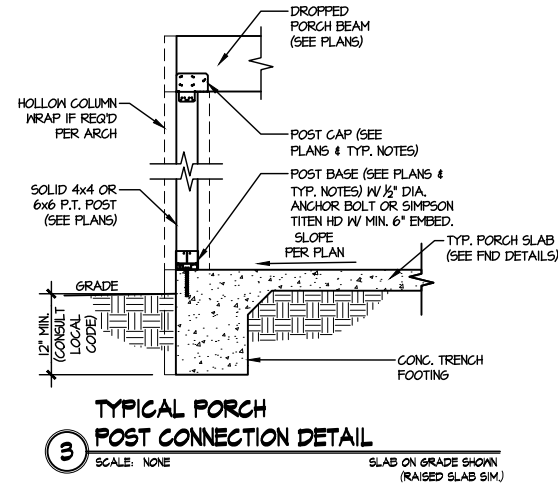
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FRAMING DETAILS
FARM AT NEILS CREEK
LOT 59 - COOPER 4
RALEIGH, NC

sheet:
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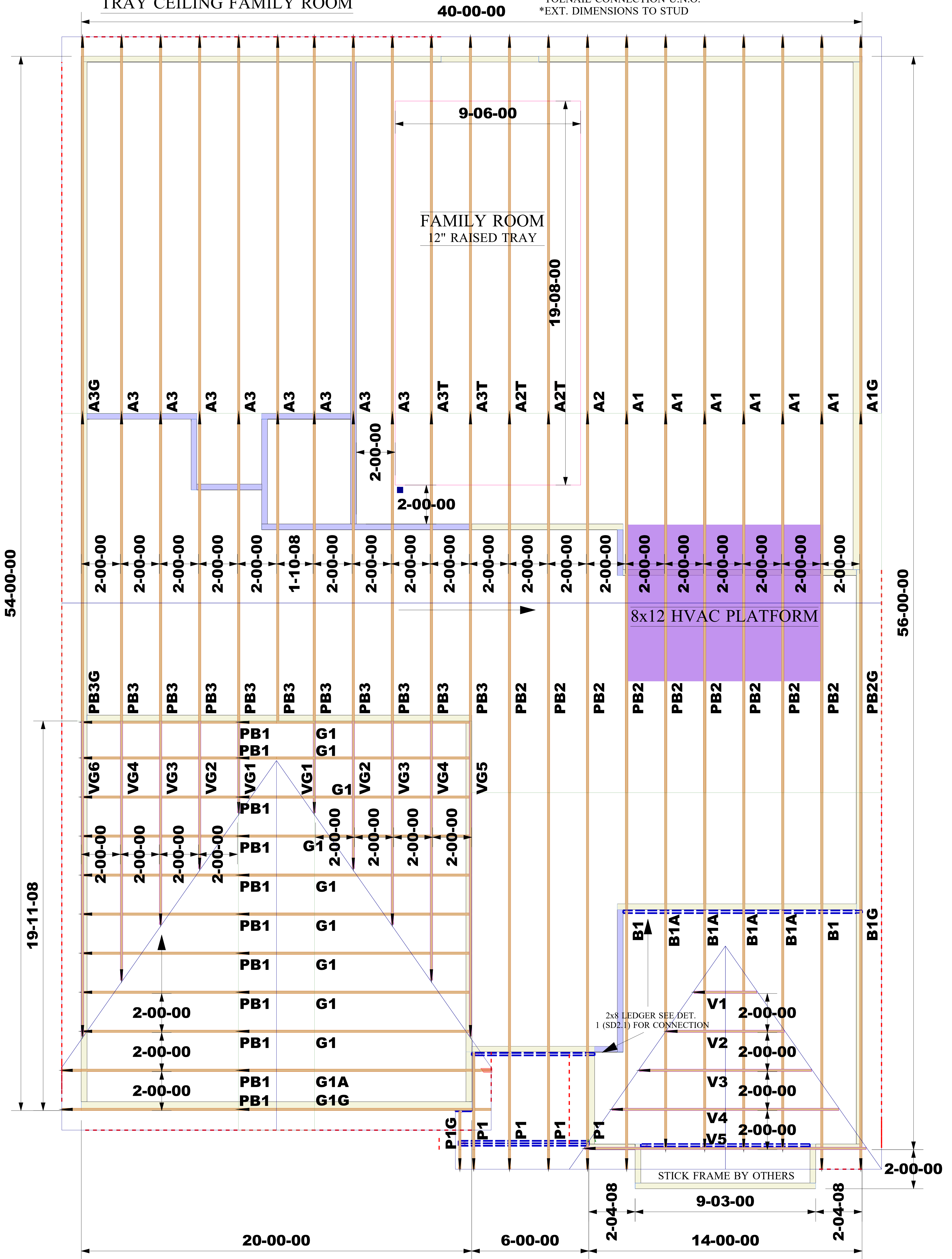


THE FARM @ NEILL'S CREEK
 (NC)(RAL) LOT 00.0059
 COOPER 3 REV. 4
 ELEV 4 - GARAGE LEFT
 TRAY CEILING FAMILY ROOM

HANGER CHART
 H2.5A 100

ROOF TRUSS LAYOUT
 SCALE: NTS
 FOR CONSTRUCTION

*TRUSS 2' O/C U.N.O.
 *TOENAIL CONNECTION U.N.O.
 *EXT. DIMENSIONS TO STUD



Job #: 2412-0987	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 TIPPING AND DOMING DURING ERECTION, AND PERMANENT BRACING WHICH MAY BE REQUIRED IN SPECIFIC APPLICATIONS. SEE "BRACING WOOD TRUSSES COMMENTARY AND RECOMMENDATIONS" (BCSI 1) FOR FURTHER INFORMATION. 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. THIS COMPANY IS A TRUSS MANUFACTURER WHOSE RESPONSIBILITIES ARE LIMITED TO THOSE DESCRIBED IN WTCIA 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.
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Customer: DRB Raleigh/Durham
Job Name: The Farm At Neill's Creek
Lot #: 00.0059
Model Name: Cooper III



Third-Party Quality Assurance Licensee
TPI Plant W974

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

