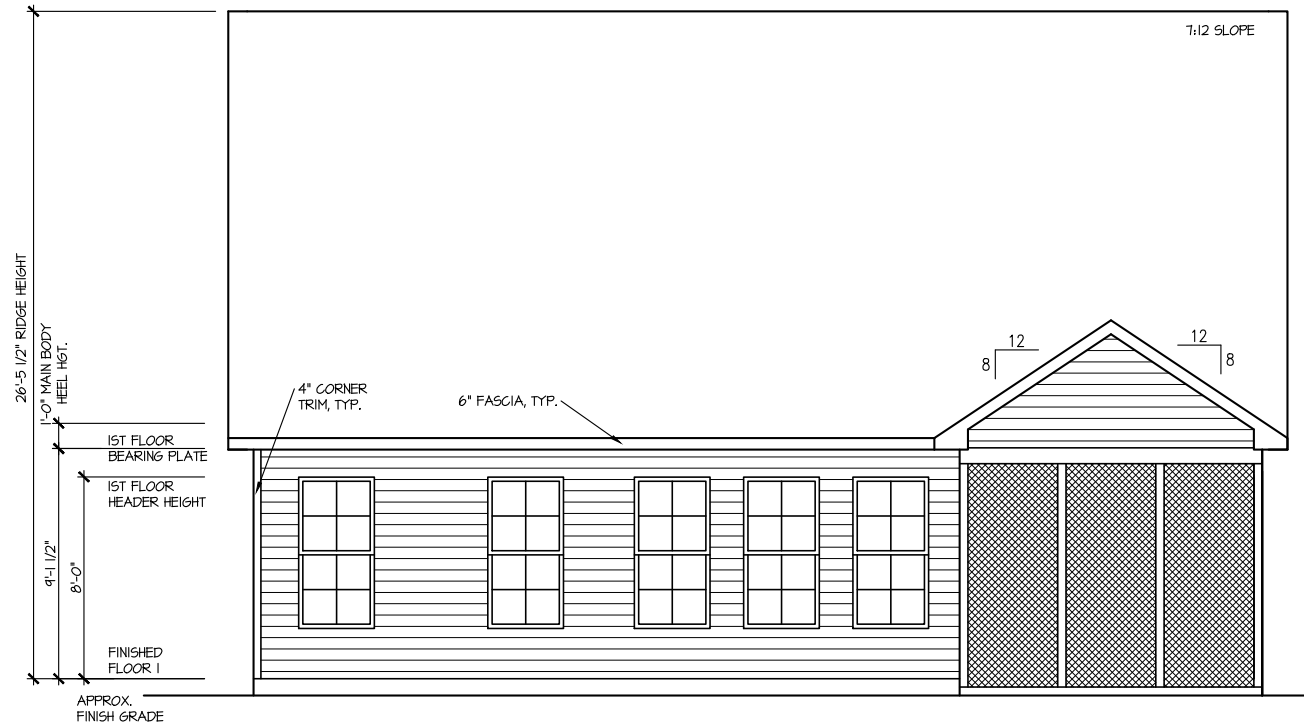


**FRONT ELEVATION 4**

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



**REAR ELEVATION 4**

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

MASTER PLAN INFORMATION

REVISION	DATE	UPDATED DATE
R3-RALE	02-24-22	03-10-22

DRAWN BY:

ITS

DATE:

04/12/2022

PLAN NO.

1777

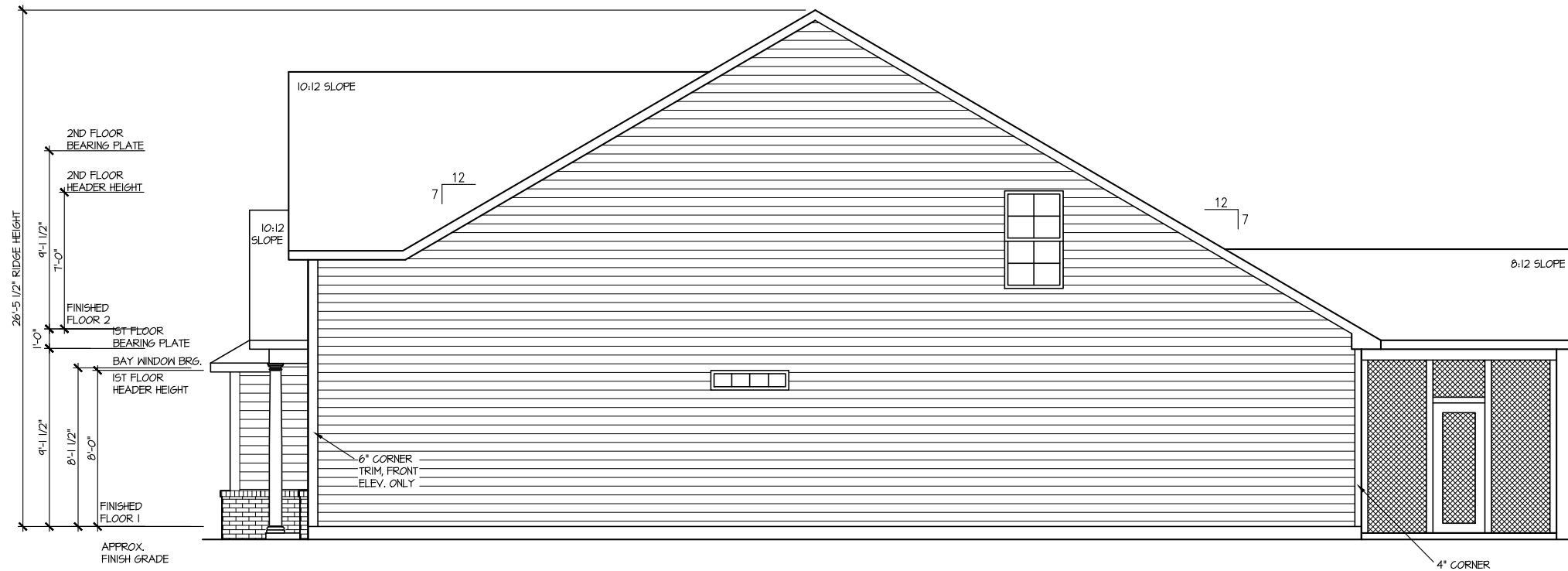


HOUSE NAME:  
**COOPER 3**

DRAWING TITLE  
**FRONT & REAR ELEVATIONS**

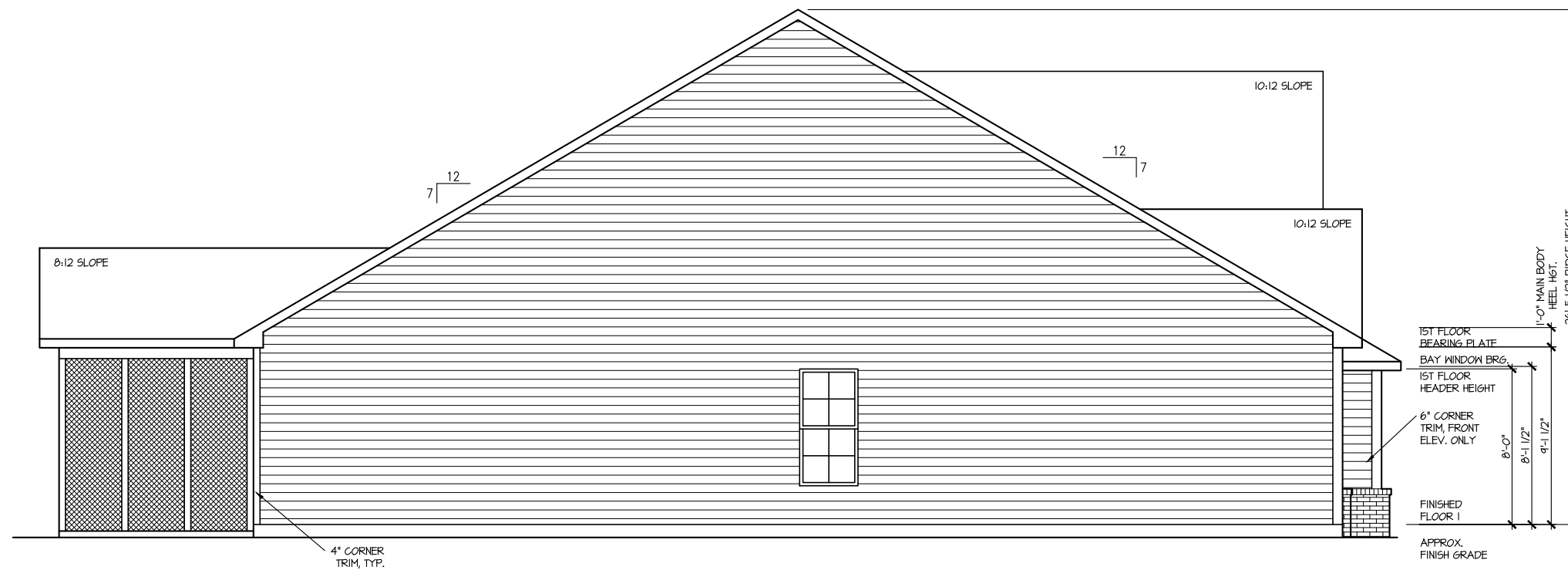
SHEET No.

**A1.1**



**RIGHT ELEVATION 4**

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



**LEFT ELEVATION 4**

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

MASTER PLAN INFORMATION	
REVISION DATE	UPDATED DATE
R3-RALE 02-24-22	03-10-22

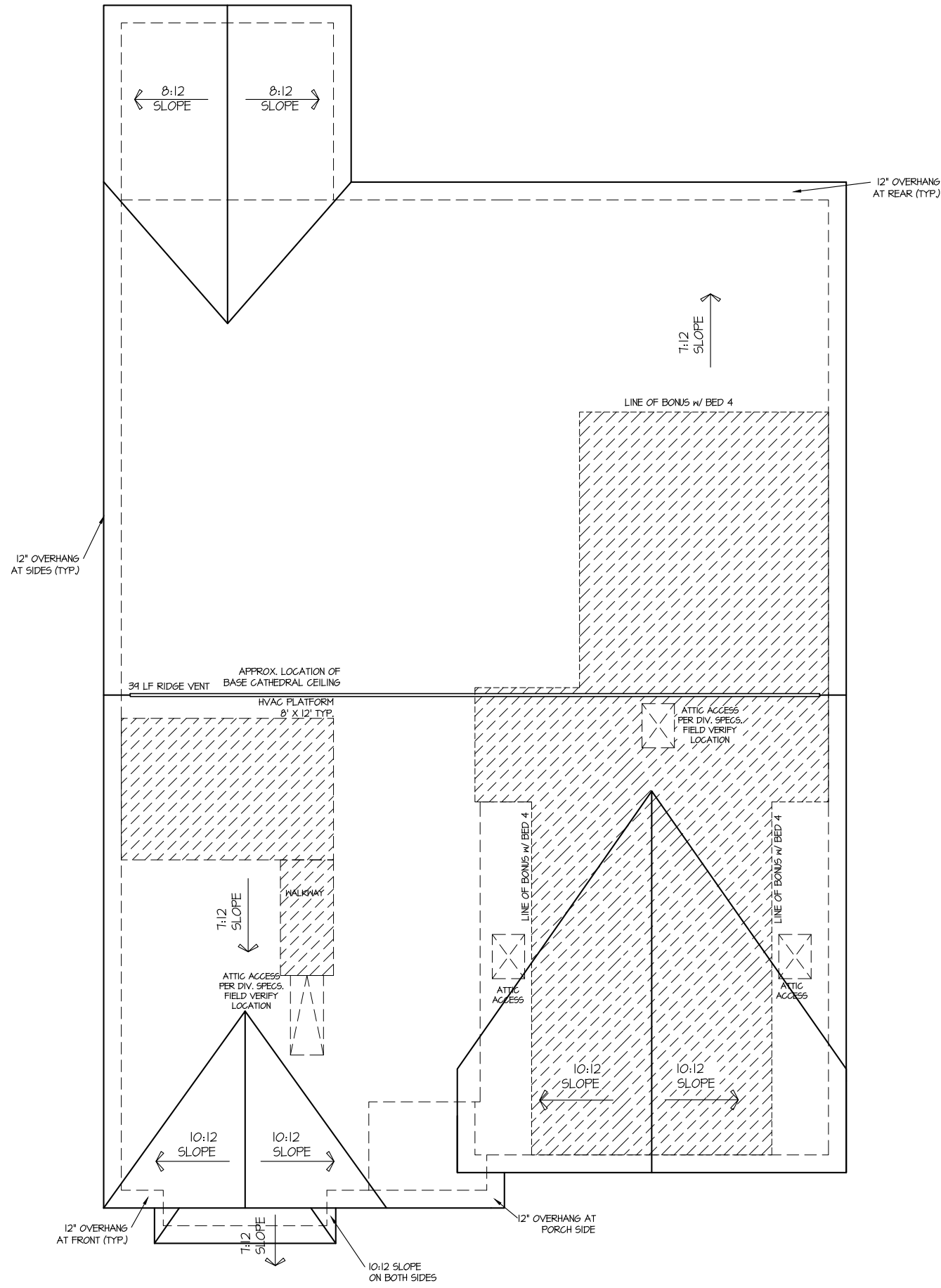
DRAWN BY:	ITS
DATE:	04/12/2022
PLAN NO.	1777

HOUSE NAME:	COOPER 3
DRAWING TITLE	RIGHT & LEFT ELEVATIONS

SHEET No.	A1.2
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**ROOF VENTILATION CALCULATIONS:**

ROOF AREA = 2466 SQ. FT.  
 OVERALL REQUIRED VENTILATION:  
 1 TO 150 = 16.44 SQ. FT.  
 1 TO 300 = 8.22 SQ. FT.  
 50-80% IN TOP THIRD = 4.11 - 6.16 SQ. FT. (1 TO 300)  
 NET FREE AREA OF VENTED SOFFIT = 5.1 SQ. IN. / LINEAR FT.  
 NET FREE AREA OF RIDGE VENT = 16 SQ. IN. / LINEAR FT.  
 LOWER VENTING (BOTTOM 2/3 RDS)  
 14 LINEAR FEET OF SOFFIT X 5.1 SQ. IN. = 2.43 SQ. FT.  
 UPPER VENTING (TOP 1/3 RDS)  
 44 LINEAR FEET OF RIDGE X 16 SQ. IN. = 6.13 SQ. FT.  
 6.13 SQ. FT. BETWEEN 50% - 80%  
 (1 TO 300 ALLOWED)  
 TOTAL ROOF VENTILATION: 1.81 SQ. FT. > 8.22 SQ. FT. (R/D)



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

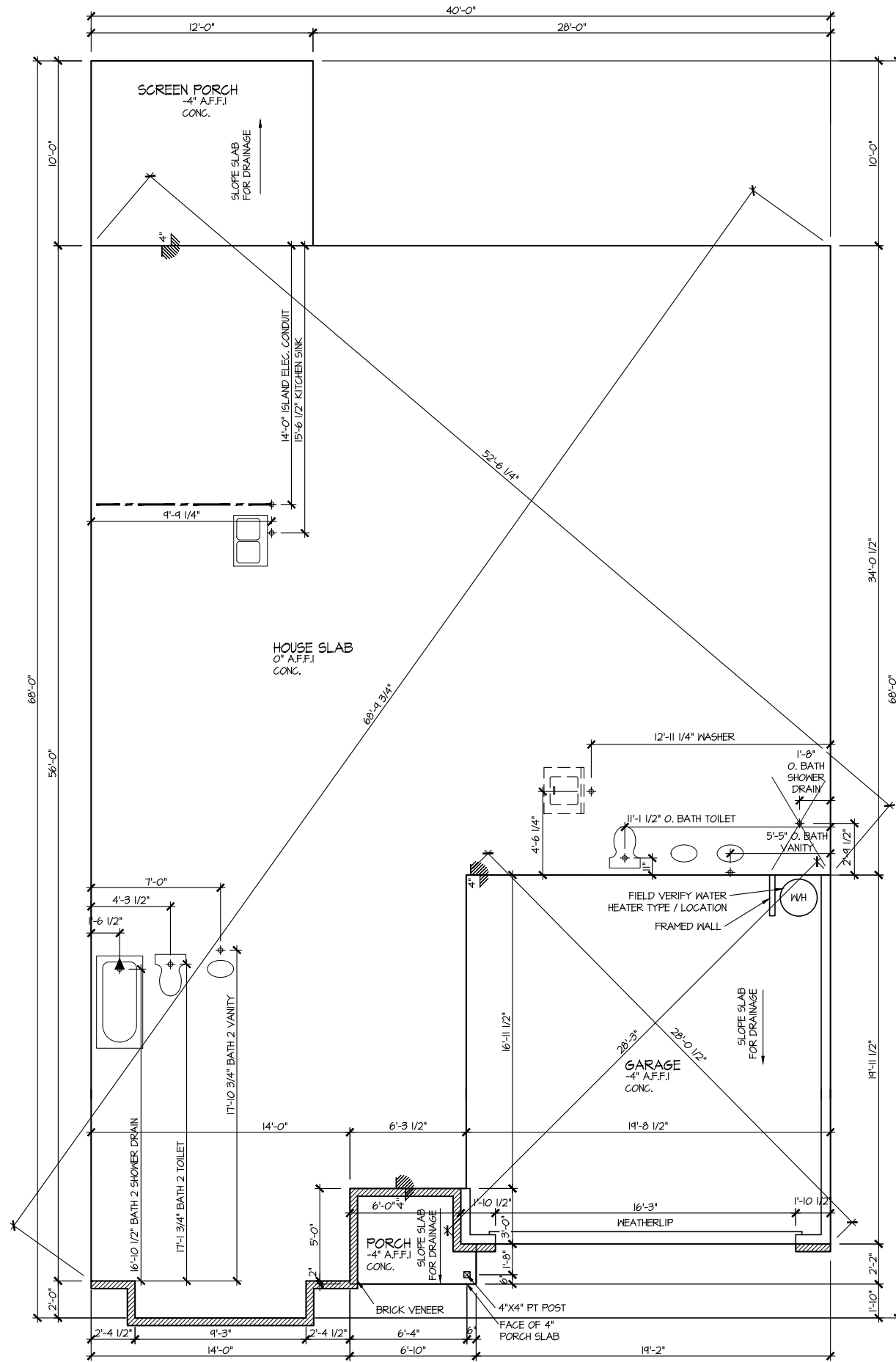
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REVISION	DATE
R3-RALE	02-24-22
UPDATED DATE	03-10-22

DRAWN BY: ITS  
 DATE: 04/12/2022  
 PLAN NO. 1777

DRB GROUP  
 DRB FIELDING HOMES  
 DRB RESIDENTIAL

HOUSE NAME: COOPER 3  
 DRAWING TITLE: ROOF PLAN

SHEET No. A1.3



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

MASTER PLAN INFORMATION

REVISION	DATE	UPDATED DATE
R3-RALE	02-24-22	03-10-22

DRAWN BY:

ITS

DATE:

04/12/2022

PLAN NO.

1777

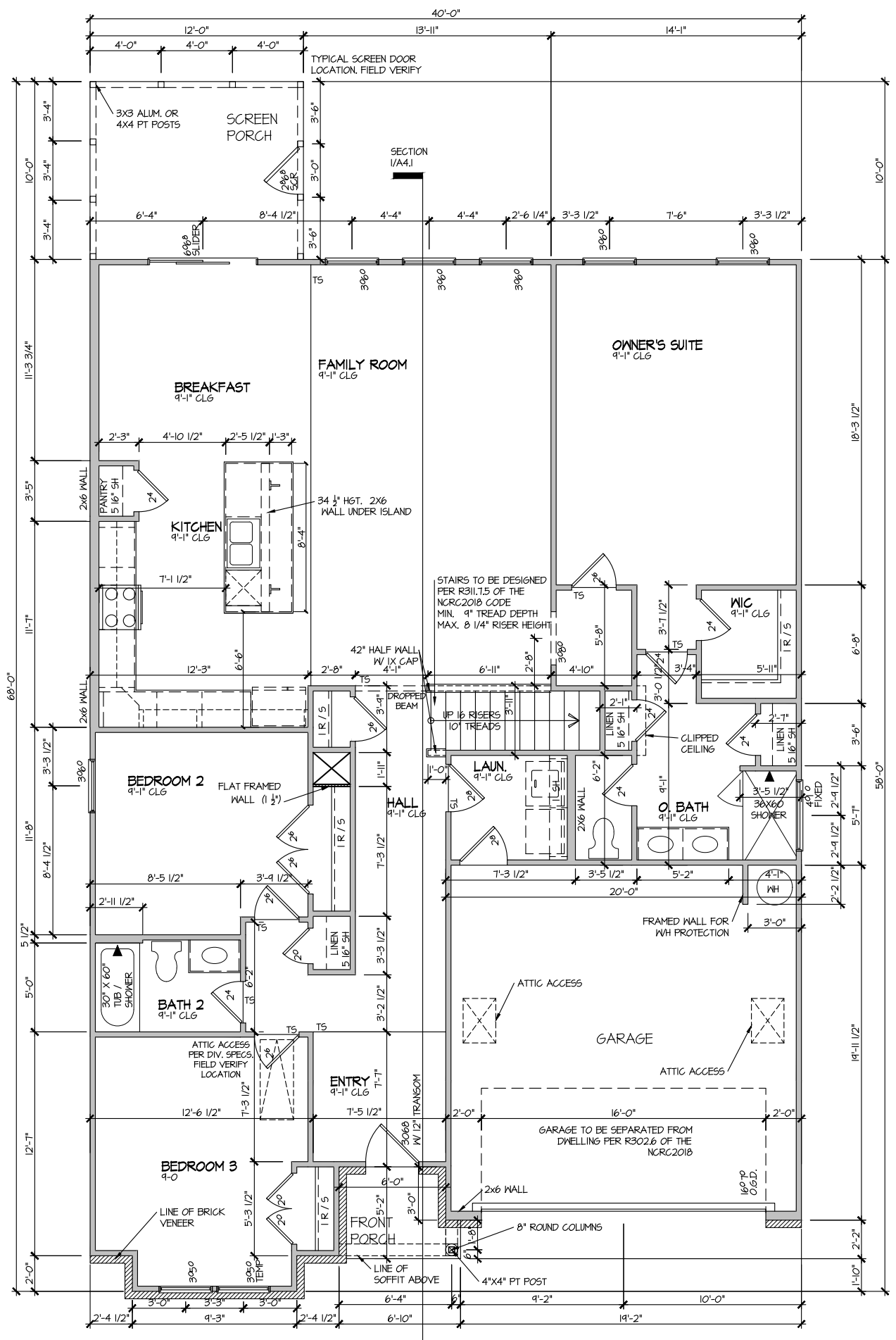


HOUSE NAME:  
**COOPER 3**

DRAWING TITLE  
**SLAB PLAN**

SHEET No.

**A2.1**



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

FILE: Lot\_00.0127.dwg DATE: 4/12/2022

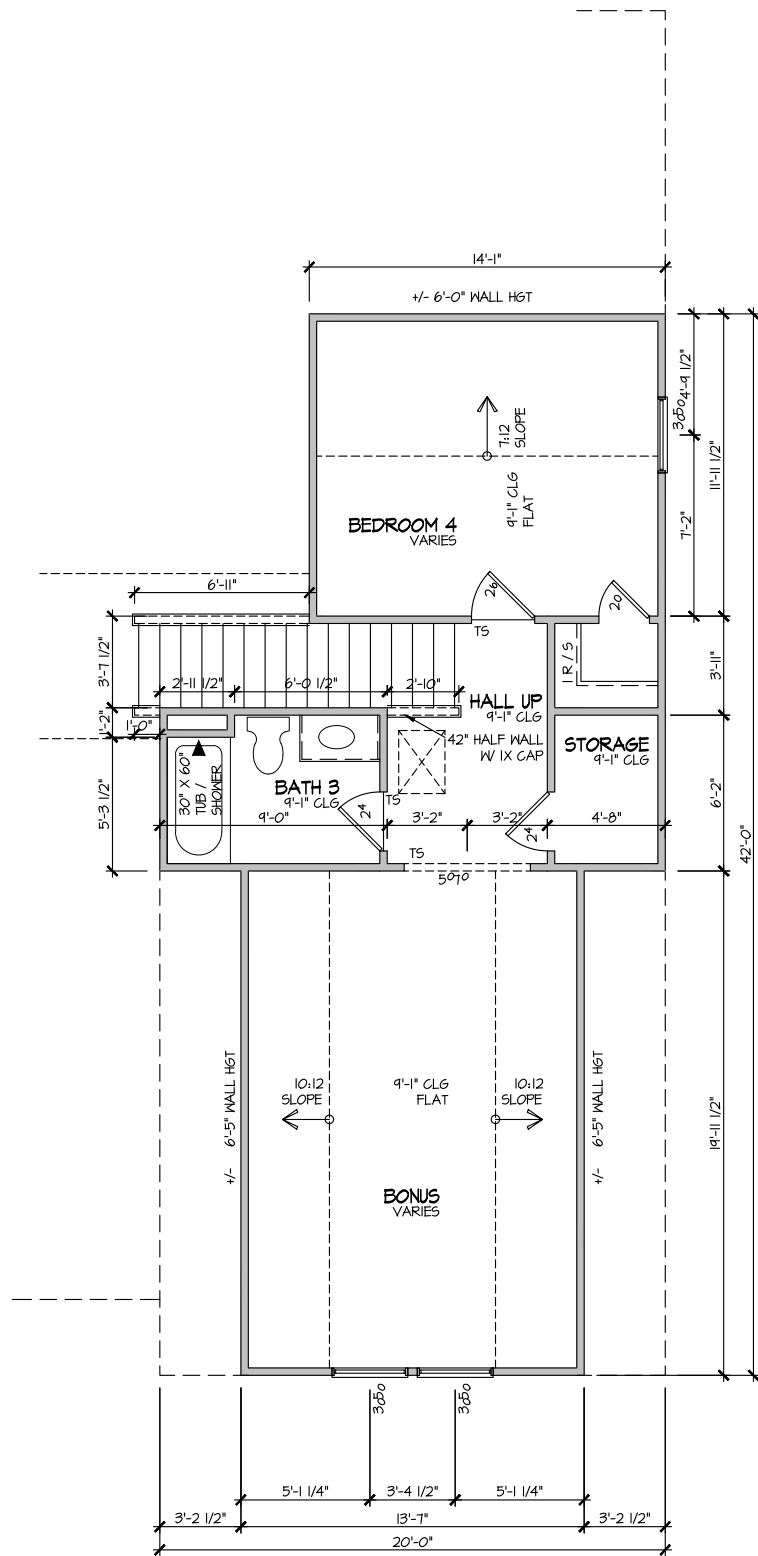
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REVISION	DATE
R3-RALE	02-24-22
UPDATED DATE	03-10-22

DRAWN BY:	ITS
DATE:	04/12/2022
PLAN NO.	1777

DRB  
 DRB GROUP  
 DRB  
 FIELDING  
 DAN RYAN  
 DIVISION

HOUSE NAME:	COOPER 3
DRAWING TITLE	FIRST FLOOR PLAN

SHEET No.	A3.1
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ELEVATION 4  
SECOND FLOOR PLAN

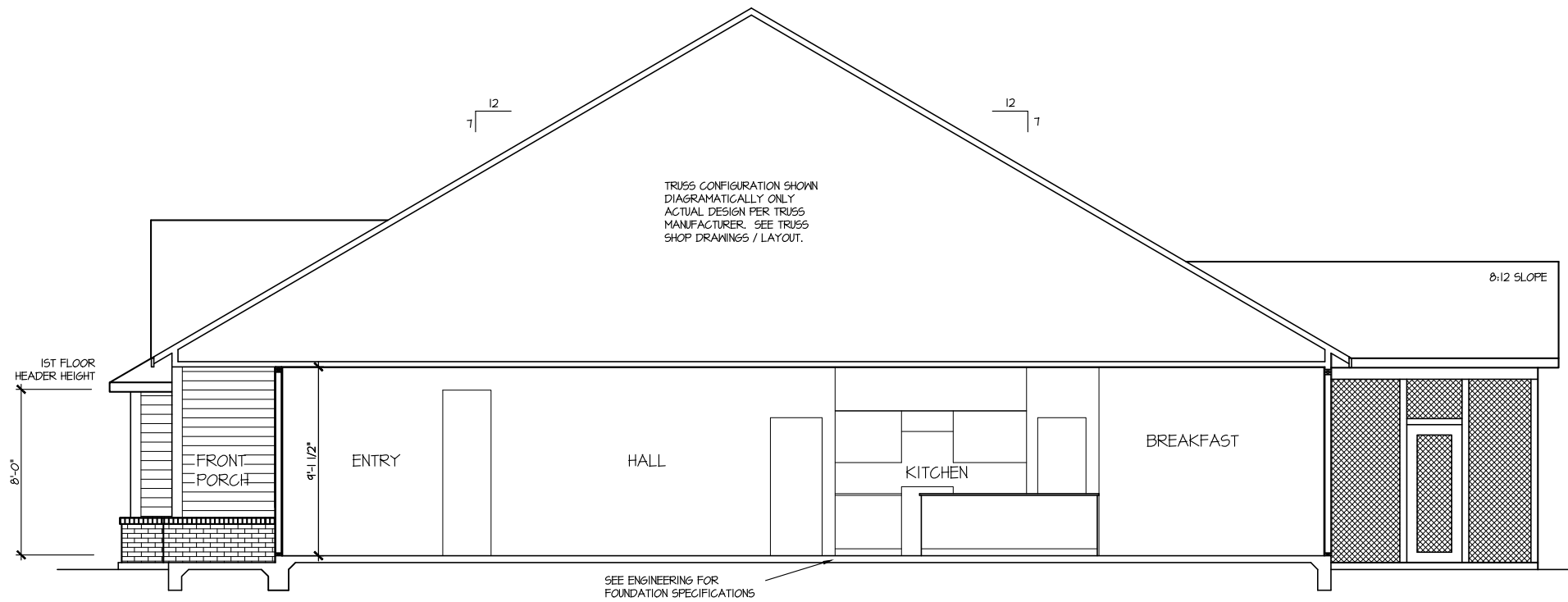
SCALE: 1/8" = 1'-0"

MASTER PLAN INFORMATION	
REVISION	DATE
R3-RALE	02-24-22
UPDATED DATE	03-10-22

DRAWN BY:	ITS
DATE:	04/12/2022
PLAN NO.	1777

HOUSE NAME:	COOPER 3
DRAWING TITLE	SECOND FLOOR PLAN

SHEET No.  
**A3.2**



**SECTION I**

---

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

MASTER PLAN INFORMATION	
REVISION	DATE
R3-RALE	02-24-22
UPDATED DATE	03-10-22

DRAWN BY:	ITS
DATE:	04/12/2022
PLAN NO.	1777

**DRB GROUP**

DRB FIELDING

DRB Coastal

HOUSE NAME:	COOPER 3
DRAWING TITLE	BUILDING SECTION

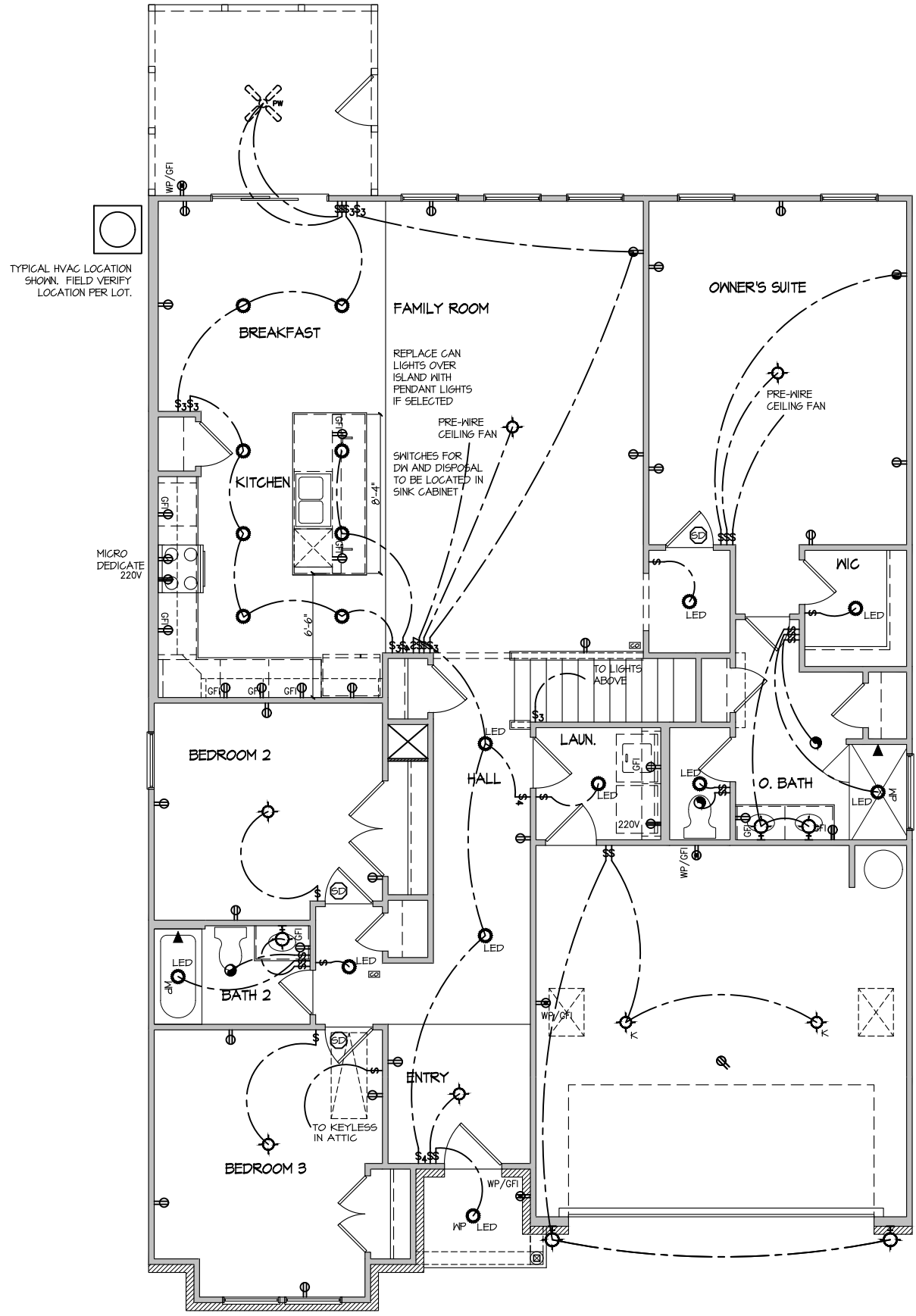
SHEET No.	A4.1
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**ELECTRICAL LEGEND**

- ⊕ SINGLE POLE SWITCH
- ⊕<sub>3</sub> THREE WAY SWITCH
- ⊕<sub>4</sub> FOUR WAY SWITCH
- ⊕-R DUPLEX AFCI RECEPTACLE
- ⊕-B DUPLEX AFCI RECEPTACLE - BOTTOM HALF SWITCHED
- ⊕-F 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
- ⊕-E EXHAUST FAN MOTOR
- ⊕-CO CO DETECTOR
- ⊕-C DOOR CHIME
- ⊕-W LIGHT FIXTURE - WALL MOUNTED
- ⊕-C LIGHT FIXTURE - CEILING MOUNTED
- ⊕-R LIGHT FIXTURE - RECESSED CAN
- ⊕-LED LIGHT FIXTURE - LED SURFACE MOUNTED
- ⊕-P FULLCHAIN LAMPHOLDER
- ⊕-K KEYLESS LAMPHOLDER

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



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

MASTER PLAN INFORMATION	
REVISION	DATE
R3-RALE	02-24-22
UPDATED DATE	03-10-22

DRAWN BY:	ITS
DATE:	04/12/2022
PLAN NO.	1777

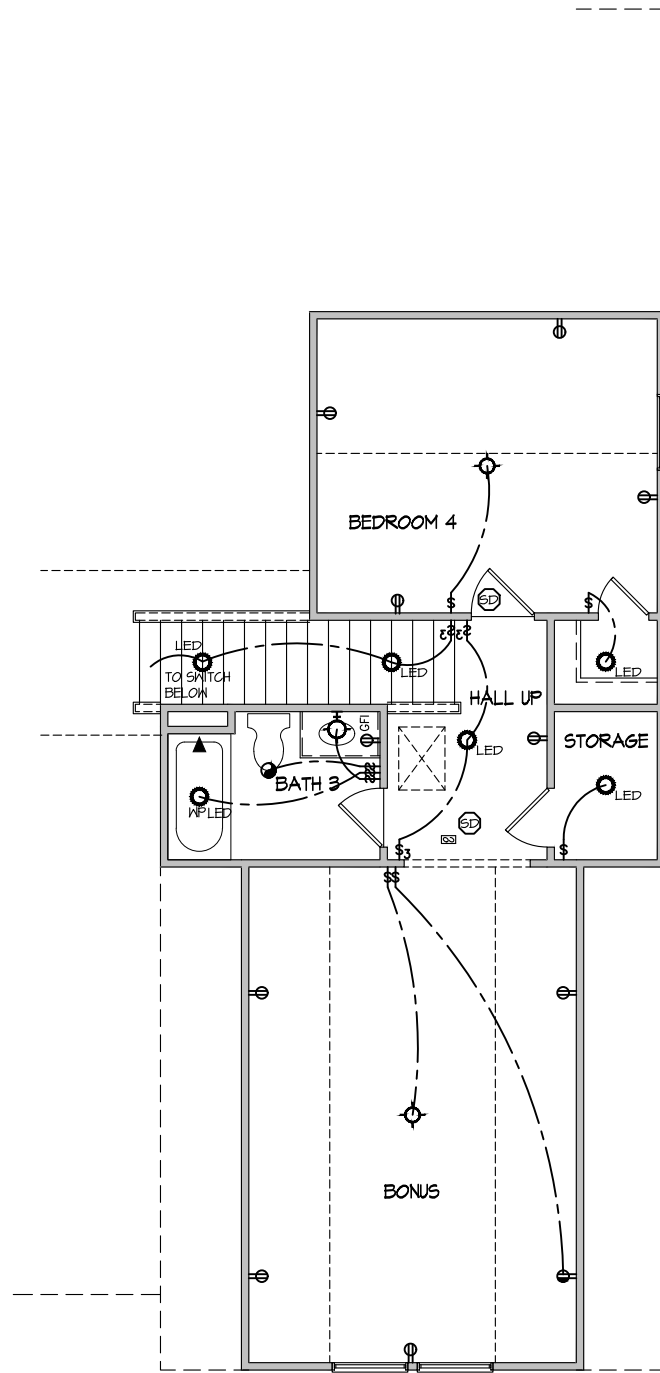
HOUSE NAME:	COOPER 3
DRAWING TITLE	FIRST FLOOR ELECTRICAL

SHEET No.	E.I.
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**ELECTRICAL LEGEND**

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

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



**ELECTRICAL PLAN  
SECOND FLOOR - ELEV. 4**

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

MASTER PLAN INFORMATION

REVISION	DATE	UPDATED DATE
R3-RALE	02-24-22	03-10-22

DRAWN BY: ITS

DATE: 04/12/2022

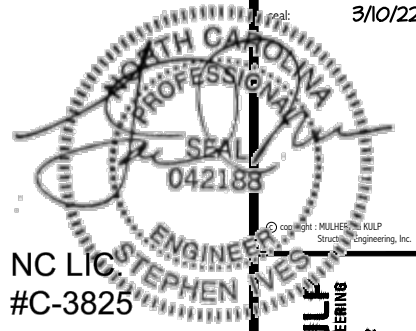
PLAN NO. 1777



HOUSE NAME: COOPER 3  
DRAWING TITLE: SECOND FLOOR ELECTRICAL

SHEET No.

E1.2



NC LIC #C-3825

MULHERN+KULP RESIDENTIAL STRUCTURAL ENGINEERING



M&K project number: 126-21030

project mgr: JTR

drawn by: KL

issue date: 08-20-21

REVISIONS:

date: initial:

03/09/22 JTS

DRB DRB GROUP

FIELDING CONSULTANTS

DRB CONSULTANTS

STRUCTURAL NOTES

COOPER 3 MODEL

RALEIGH, NC

sheet: 50.0

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.
FASTEN 2x4/6 SILL PLATES TO FND WITH A MINIMUM OF 2 ANCHORS PER PLATE...

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

GENERAL FRAMING

- ALL TYP. NAIL FASTENER REQUIREMENTS ARE NOTED IN STANDARD CONNECTIONS TABLE OR ON PLANS.
REFER TO FASTENING SCHEDULE TABLE R602.3(I) FOR ALL CONNECTIONS, TYP. UNO.
EXT. & INT. BRG WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. SFF OR 5YP "STUD" GRADE LUMBER OR BETTER...

FLOOR FRAMING

- I-JOISTS/TRUSSES SHALL BE DESIGNED BY MANUF. TO MEET OR EXCEED L/480 LIVE LOAD DEFLECTION CRITERIA.
METAL HANGERS SHALL BE SPECIFIED BY MANUFACTURER, UNO.
I-JOIST/TRUSS SHOP DWGS. SHALL BE SUBMITTED TO ARCH. & ENG. FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY.

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.
METAL HANGERS SHALL BE SPECIFIED BY THE MANUFACTURER, UNO.

HOLD-DOWN SCHEDULE

Table with 2 columns: SYMBOL, SPECIFICATION. Includes HD-1 (SIMPSON HTT4 HOLD-DOWN), HD-2 (SIMPSON MSTC66 STRAP TIE), HD-3 (SIMPSON STHD14RJ HOLD-DOWN).

ALTERNATIVE TO S61B24 ANCHOR BOLT SPECIFICATION:
\* UTILIZE SIMPSON "SET" EPOXY SYSTEM TO FASTEN 3/8" DIA. THREADED ROD INTO CONCRETE FOUNDATION.

LEGEND

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

Table with 3 columns: SPAN, 2x4 NON-BEARING PARTITION WALL, 2x6 NON-BEARING PARTITION WALL. Rows include spans up to 3'-0", 6'-0", and 8'-0".

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

LATERAL BRACING & SHEAR WALL SHEATHING SPECIFICATIONS

THIS MODEL HAS BEEN DESIGNED TO RESIST LATERAL FORCES RESULTING FROM:
120 MPH WIND IN 2018 NC SBC: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 NC SBC: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 NC SBC: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/ 8d NAILS @ 6" O.C. AT EDGES & @ 12" O.C. IN THE PANEL FIELD.
HORIZONTAL BLOCKING OF EXT. WALLS/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

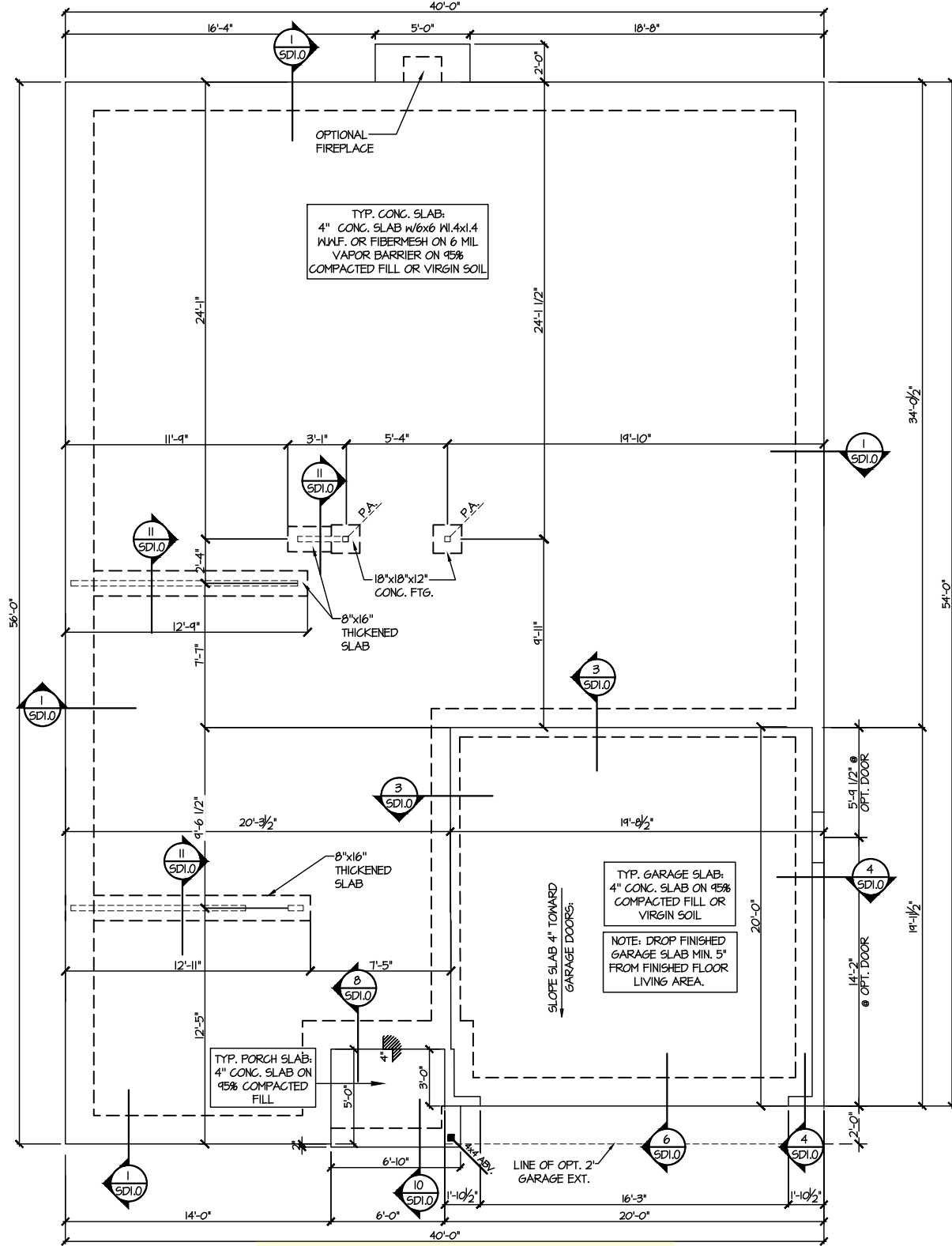
- AT DESIGNATED AREAS - FASTEN SHEATHING W/ 8d NAILS @ 6" O.C. AT ALL PANEL EDGES AND 12" O.C. IN THE PANEL FIELD OR 1 1/2" 16 GA STAPLES (1/8" CROWN) @ 3" O.C. AT EDGES & @ 6" O.C. IN FIELD. ALL SHEATHING PANELS SHALL BE ORIENTED AND INSTALLED FULL HEIGHT OF SHEAR WALL OR 2x HORIZONTAL BLOCKING SHALL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

3" O.C. EDGE NAILING

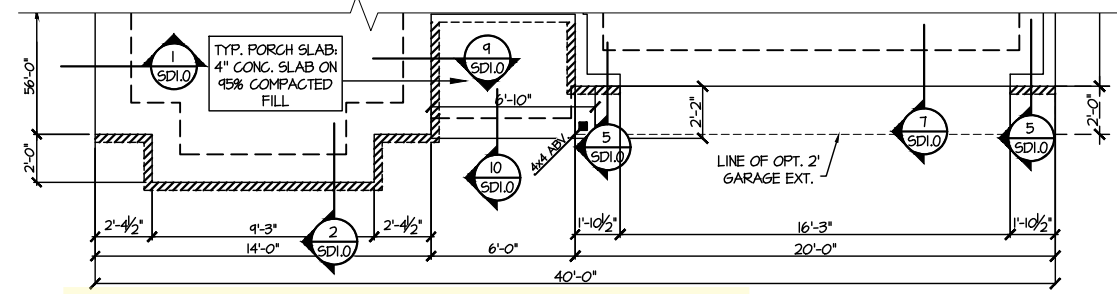
- AT DESIGNATED AREAS - FASTEN PANEL EDGES OF WOOD STRUCTURAL WALL SHEATHING TO FRAMING W/ 8d NAILS @ 3" O.C. NO STAPLE ALTERNATIVE AVAILABLE AT THIS SPEC. ALL SHEATHING PANELS SHALL BE ORIENTED AND INSTALLED FULL HEIGHT OF SHEAR WALL OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT UNSUPPORTED 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/ 10d NAILS @ 4" O.C. (THRU ONE SIDE ONLY)
INDICATES EXTENT OF INT. OSB SHEARWALL OR 3" O.C. OSB SHEARWALL.
INDICATES HOLD-DOWN BELOW



**1 MONO SLAB FOUNDATION PLAN**  
SCALE: 1/8"=1'-0"  
ELEV. #1



**2 PARTIAL MONO SLAB FOUNDATION PLAN**  
SCALE: 1/8"=1'-0"  
ELEVATION #4

**LEGEND**

- [Symbol] INTERIOR BEARING WALL
- [Symbol] BEARING WALL ABOVE
- [Symbol] BEAM / HEADER
- [Symbol] INDICATES SHEAR WALL & EXTENT
- [Symbol] 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 S.O. FOR TYPICAL STRUCTURAL NOTES & SCHEDULES**

3/10/22

SEAL  
042188

NC LIC. #C-3825

STEPHEN IVES

MULHERN+KULP  
RESIDENTIAL STRUCTURAL ENGINEERING  
300 Beavertide Ave., Building 4 - Asheville, PA 17002  
P 215-546-8801 • mulhern+kulp.com

M&K project number: 126-21030

project mgr: JTR  
drawn by: KL  
issue date: 08-20-21

REVISIONS:

date:	initial:
03/09/22	JTS

DRB GROUP

DRB GROUP

DRB GROUP

DRB GROUP

FOUNDATION PLANS  
COOPER 3 MODEL  
RALEIGH, NC

sheet: RIGHT HAND  
**S1.0**

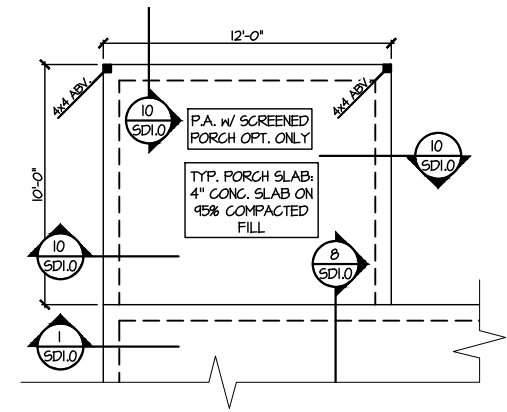
**LEGEND**

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

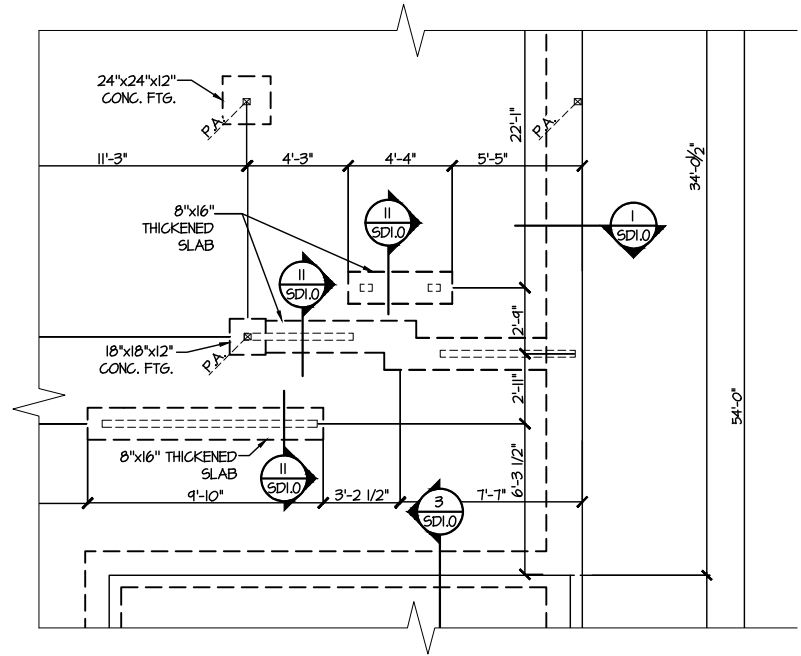
• [Symbol] METAL HANGER

**REFER TO 50.0 FOR TYPICAL STRUCTURAL NOTES & SCHEDULES**

Professional Seal: **STEPHEN VESPA**, ENGINEER, No. 042188  
 NC LIC #C-3825  
 MULHERN+KULF Structural Engineering, Inc.  
 300 Beaverville Ave., Building 4 - Asheville, PA 17002  
 P 215-506-8800 • m+k@mulhernkulf.com



**3 PARTIAL MONO SLAB FOUNDATION PLAN**  
 SCALE: 1/8"=1'-0" OPTIONAL PATIO & SCREENED PORCH



**2 PARTIAL MONO SLAB FOUNDATION PLAN**  
 OPT. BONUS ROOM W/ BEDROOM  
 SCALE: 1/8"=1'-0" ELEV. #1 SHOWN - ALL ELEV. SIM.

M&K project number: 126-21030  
 project mgr: JTR  
 drawn by: KL  
 issue date: 08-20-21

REVISIONS:  
 date: initial:  
 03/09/22 JTS

DRB GROUP  
 DRB GROUP  
 DRB FIELDING CONSULTANTS  
 DRB CONSULTANTS

FOUNDATION PLANS  
 COOPER 3 MODEL  
 RALEIGH, NC

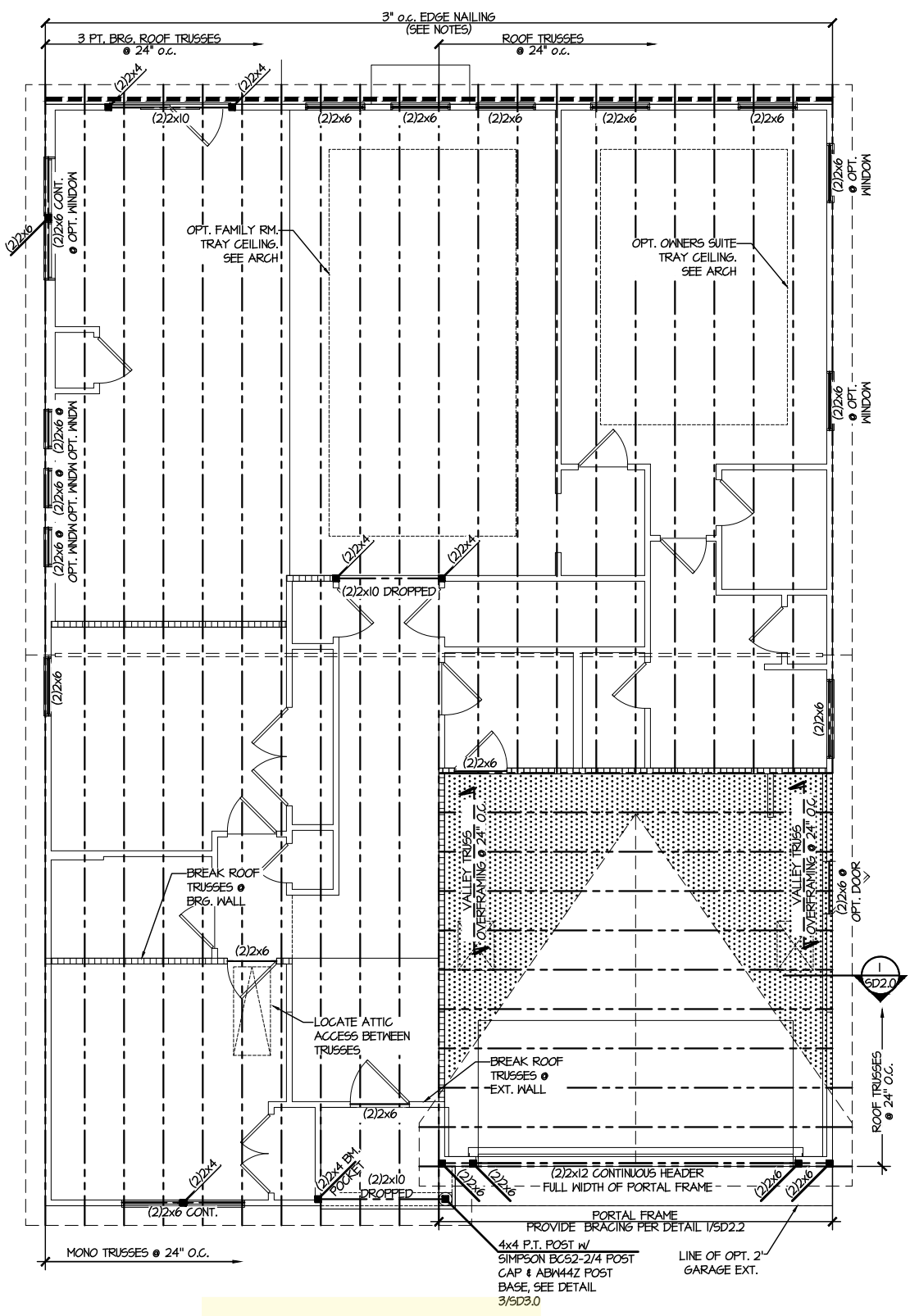
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**S1.1**

REFER TO 50.0 FOR  
TYPICAL STRUCTURAL NOTES  
& SCHEDULES

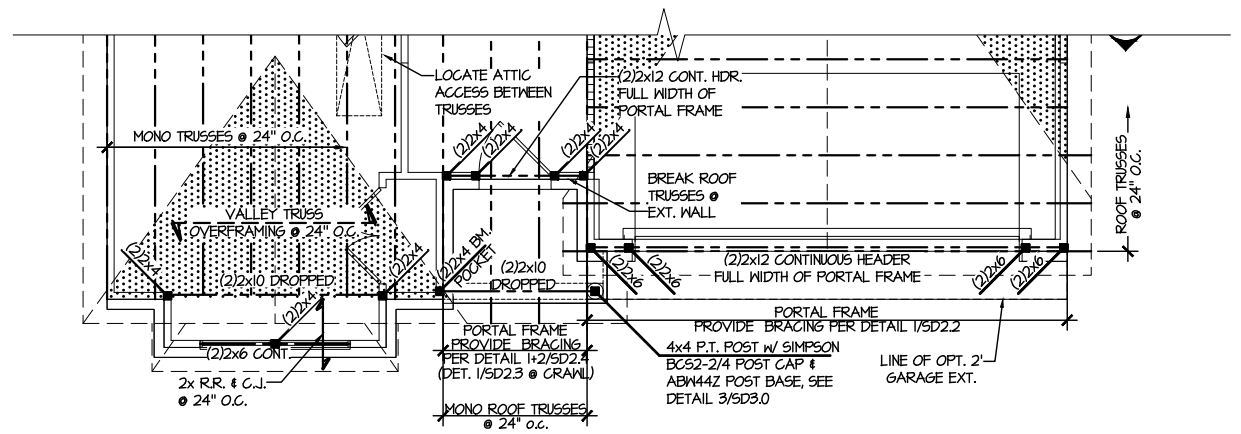
LEGEND	
	INTERIOR BEARING WALL
	BEARING WALL ABOVE
	BEAM / HEADER
	INDICATES SHEAR WALL & EXTENT
	EXTENT OF OVERFRAMING
	Metal HANGER
	INDICATES POST ABOVE, PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
	INDICATES HOLD-DOWN OR STRAP. REFER TO SCHEDULE.

NC LIC. ENGINEER  
#C-3825

MULHERN+KULP  
RESIDENTIAL STRUCTURAL ENGINEERING  
300 Beaveshide Ave. Building 4 - Asheville, PA 19002  
P 215-946-8801 • m+kulps@aol.com



**1 ROOF FRAMING PLAN**  
SCALE: 1/8"=1'-0"  
ELEVATION #1  
(SIM. @ OPT. DELUXE OWN. BATH, TILE SHOWER & ROMAN BATH)



**2 PARTIAL ROOF FRAMING PLAN**  
SCALE: 1/8"=1'-0"  
ELEVATION #4

M&K project number:  
126-21030  
project mgr: JTR  
drawn by: KL  
issue date: 08-20-21

REVISIONS:  
date: initial:  
03/09/22 JTS

DRB GROUP  
DRB GROUP  
FIELDING CONSULTANTS  
DRB CONSULTANTS

ROOF FRAMING PLANS  
COOPER 3 MODEL  
RALEIGH, NC

sheet: RIGHT HAND

**S4.0**

ENGINEERED BEAM MATERIAL SCHEDULE

BEAM NUMBER	LVL OPTION	PSL OPTION	LSL OPTION	FLITCH OPTION	STEEL OPTION
001	(2)3/4"x11 1/2" - F	3/2"x11 1/2" - F	(3)3/4"x11 1/2" - F	(2)2x12 + (1) 3/8"x1/4" STEEL FLITCH PLATES - F	M2x14 - F
002	(3)3/4"x11 1/2" - F	5/4"x11 1/2" - F	(4)3/4"x11 1/2" - F	(2)2x12 + (1) 3/8"x1/4" STEEL FLITCH PLATES - F	M2x14 - F
003	(2)3/4"x11 1/2" - F	3/2"x11 1/2" - F	(3)3/4"x11 1/2" - F	(2)2x12 + (1) 3/8"x1/4" STEEL FLITCH PLATES - F	M2x14 - F
004	(2)3/4"x11 1/4" - D	3/2"x11 1/4" - D	(2)3/4"x11 1/2" - D	(2)2x10 + (1) 3/8"x1/4" STEEL FLITCH PLATES - D	M8x10 - D

**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.

SD2.1J/SD2.1T REFERS TO SD2.1JA/SD2.1TA FOR LVL/PSL/LSL BEAMS OR SD2.1JB/SD2.1TB FOR FLITCH BEAMS OR SD2.1JC/SD2.1TC FOR STEEL BEAMS

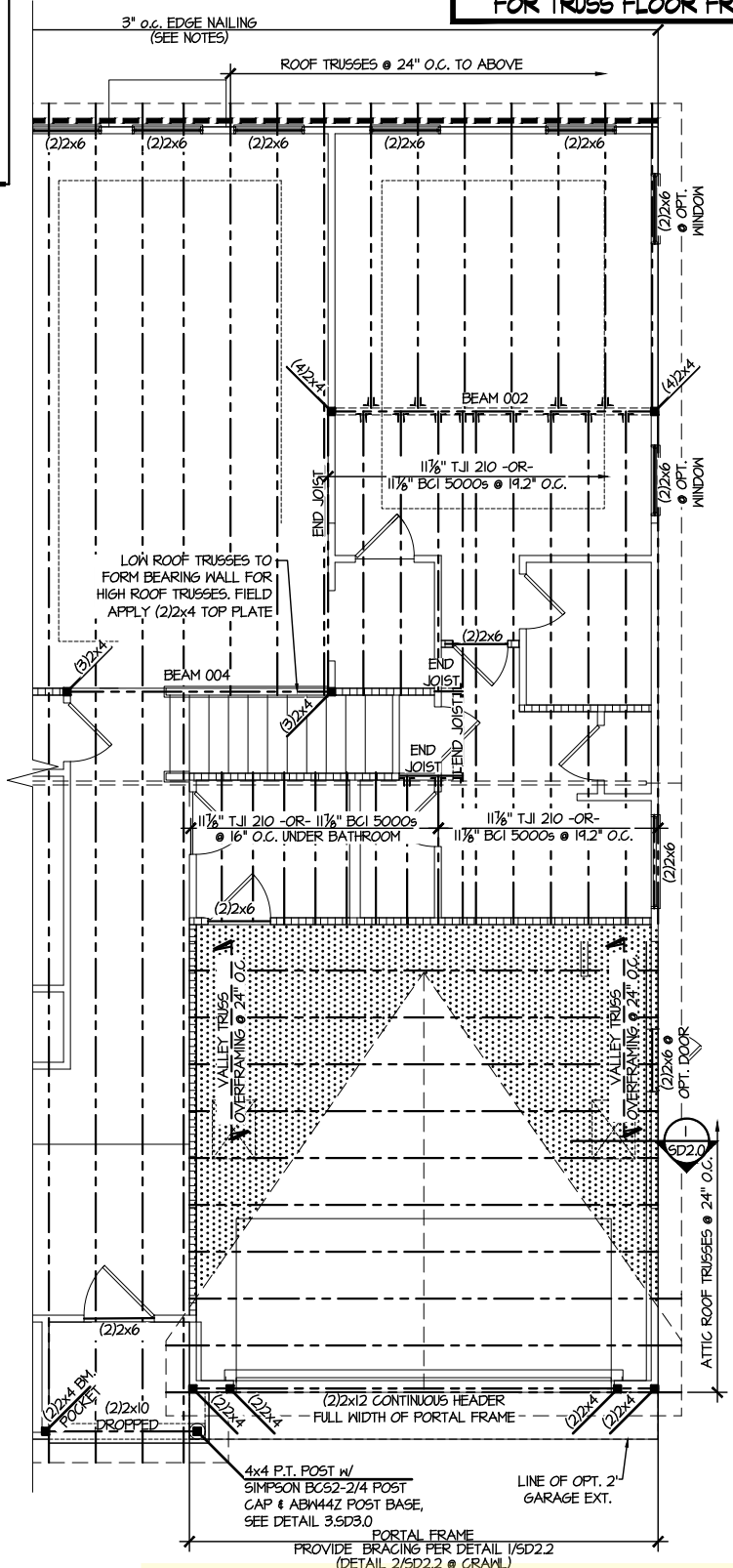
REFER TO 50.0 FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

SD2.0 & SD2.1 REFERS TO SD2.0J & SD2.1J FOR I-JOIST FLOOR FRAMING OR SD2.0T & SD2.1T FOR TRUSS FLOOR FRAMING

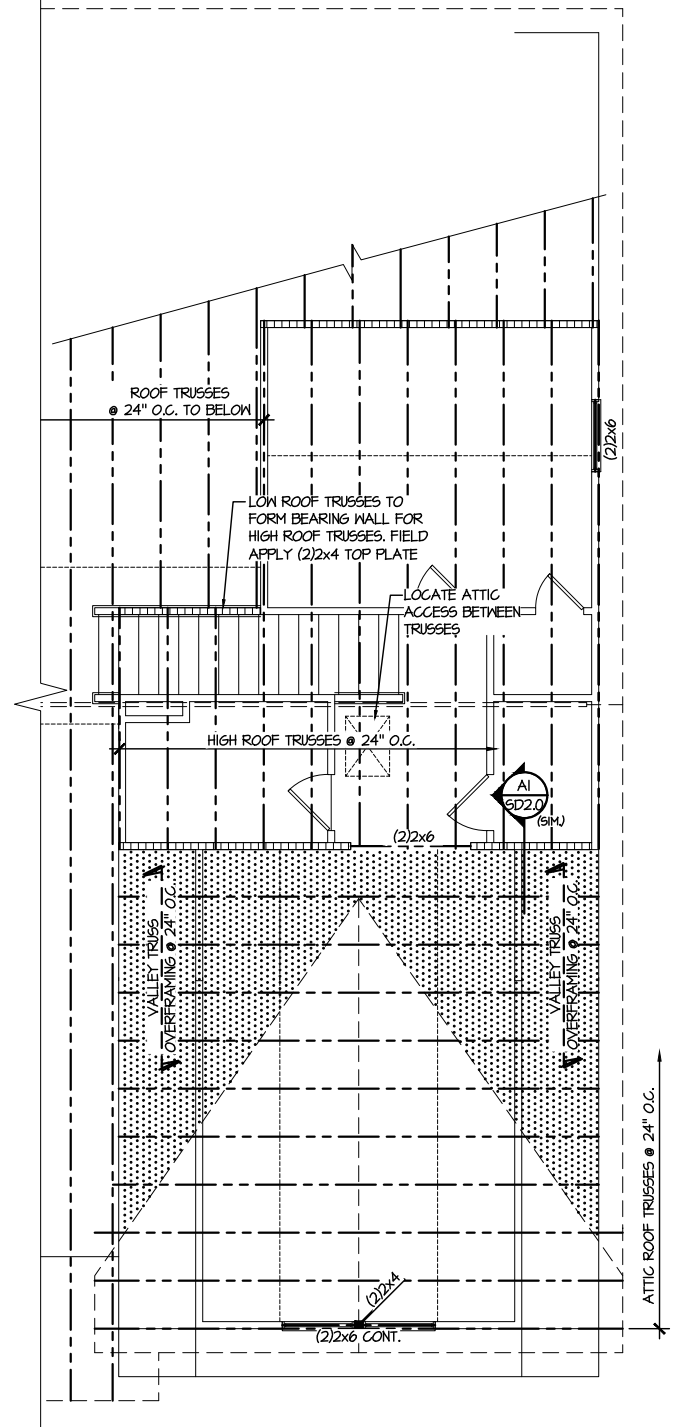
**LEGEND**

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

**NC LIC. ENGINEER**  
 #C-3825  
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**3 PARTIAL 2ND FLOOR FRAMING PLAN OPT. BONUS ROOM W/ BEDROOM**  
 SCALE: 1/8"=1'-0" ELEV #1 SHOWN - ALL ELEV. SIMILAR



**4 PARTIAL ROOF FRAMING PLAN OPT. BONUS ROOM W/ BEDROOM**  
 SCALE: 1/8"=1'-0" ELEV #3 SHOWN - ALL ELEV. SIMILAR

M&K project number: 126-21030

project mgr: JTR  
 drawn by: KL  
 issue date: 08-20-21

REVISIONS:

date:	initial:
03/09/22	JTS

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 CONSULTANTS

OPTION FRAMING PLANS  
 COOPER 3 MODEL  
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ENGINEERED BEAM MATERIAL SCHEDULE					
BEAM NUMBER	LVL OPTION	PSL OPTION	LSL OPTION	FLITCH OPTION	STEEL OPTION
001	(2)3/4"x11 1/8" - F	3/2"x11 1/8" - F	(3)3/4"x11 1/8" - F	(2)2"x12 + (1) 3/8"x11 1/4" STEEL FLITCH PLATES - F	M2x14 - F
002	(3)3/4"x11 1/8" - F	3/4"x11 1/8" - F	(4)3/4"x11 1/8" - F	(2)2"x12 + (1) 3/8"x11 1/4" STEEL FLITCH PLATES - F	M2x14 - F
003	(2)3/4"x11 1/8" - F	3/2"x11 1/8" - F	(3)3/4"x11 1/8" - F	(2)2"x12 + (1) 3/8"x11 1/4" STEEL FLITCH PLATES - F	M2x14 - F
004	(2)3/4"x11 1/4" - D	3/2"x11 1/4" - D	(2)3/4"x11 1/8" - D	(2)2"x10 + (1) 3/8"x11 1/4" STEEL FLITCH PLATES - D	M2x10 - D

**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.

SD2.1J/SD2.1T REFERS TO SD2.1JA/SD2.1TA FOR LVL/PSL/LSL BEAMS OR SD2.1JB/SD2.1TB FOR FLITCH BEAMS OR SD2.1JC/SD2.1TC FOR STEEL BEAMS

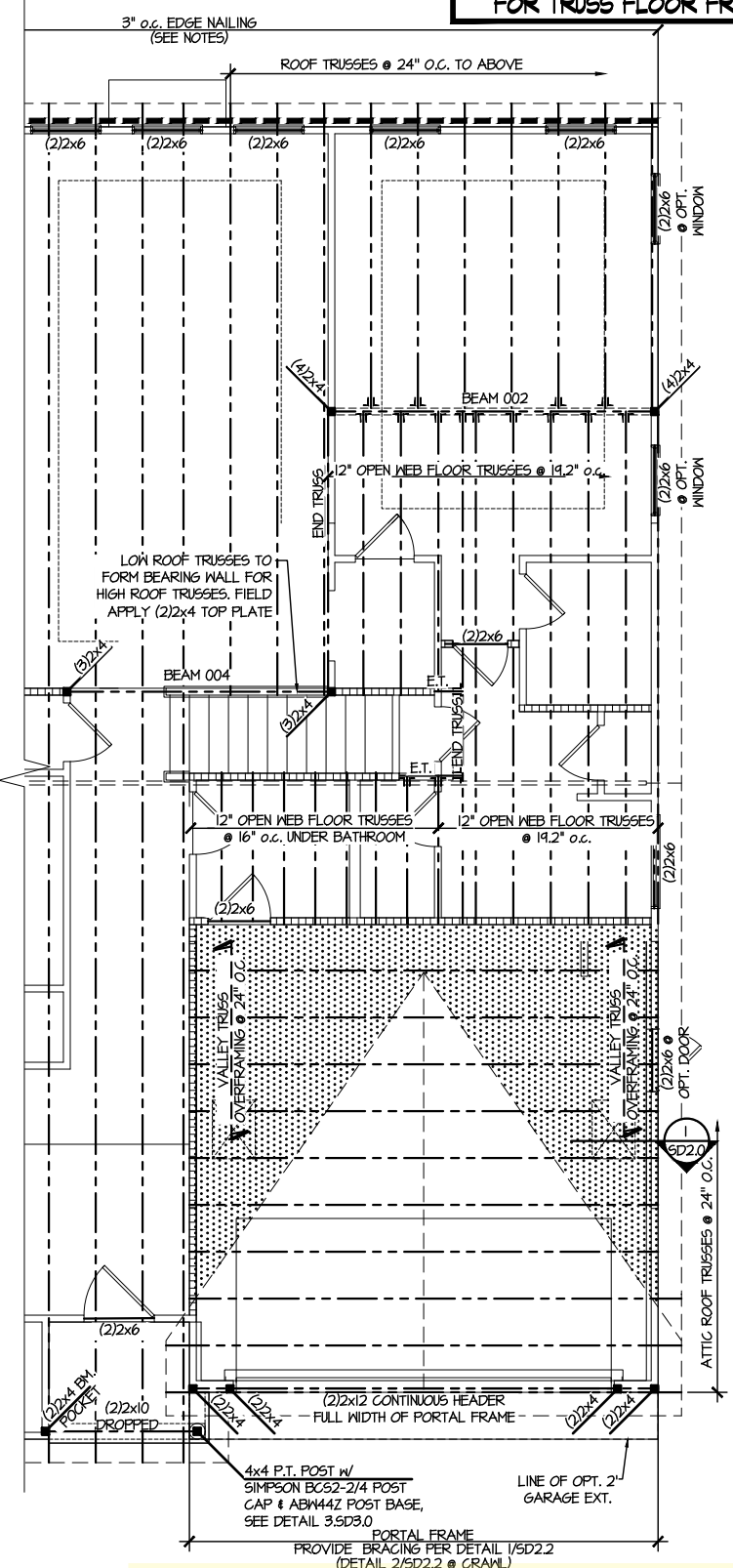
REFER TO 50.0 FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

SD2.0 & SD2.1 REFERS TO SD2.0J & SD2.1J FOR I-JOIST FLOOR FRAMING OR SD2.0T & SD2.1T FOR TRUSS FLOOR FRAMING

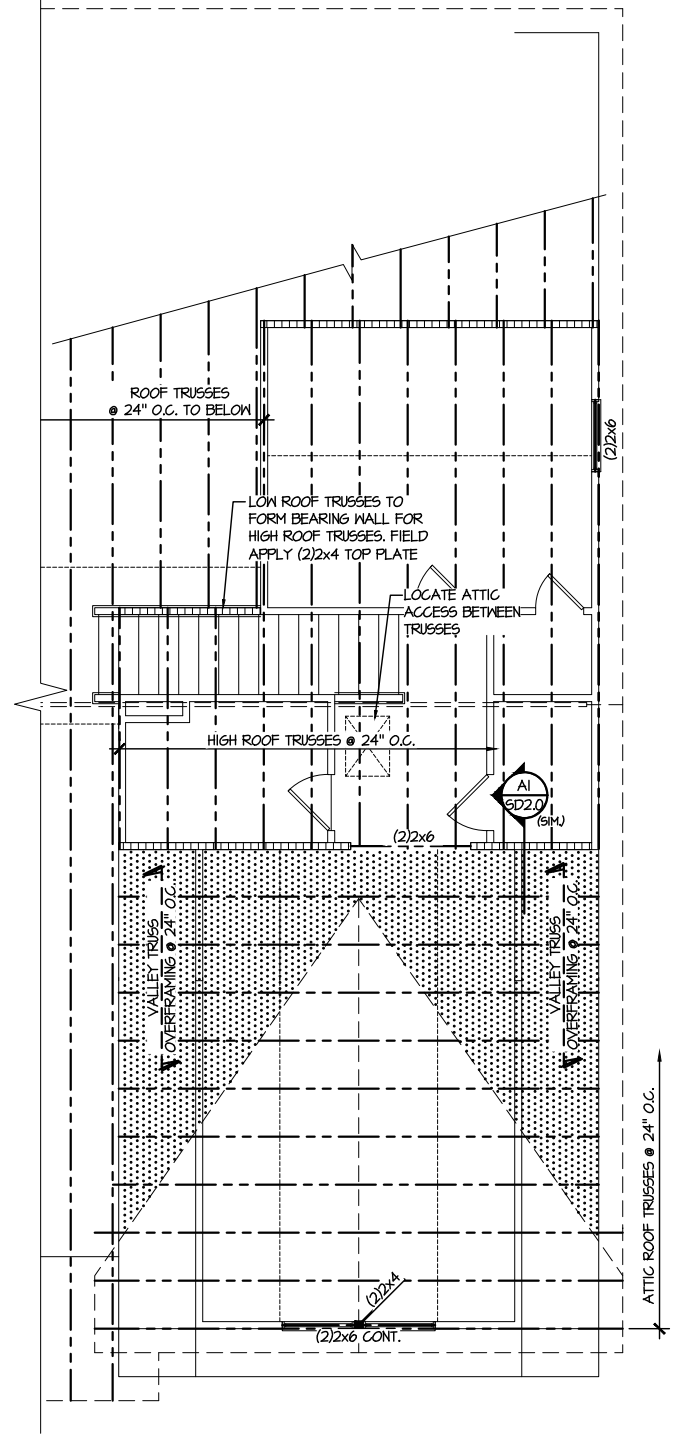
**LEGEND**

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

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**3 PARTIAL 2ND FLOOR FRAMING PLAN OPT. BONUS ROOM W/ BEDROOM**  
 SCALE: 1/8"=1'-0" ELEV #1 SHOWN - ALL ELEV. SIMILAR



**4 PARTIAL ROOF FRAMING PLAN OPT. BONUS ROOM W/ BEDROOM**  
 SCALE: 1/8"=1'-0" ELEV #3 SHOWN - ALL ELEV. SIMILAR

M&K project number: 126-21030  
 project mgr: JTR  
 drawn by: KL  
 issue date: 08-20-21

REVISIONS:  
 date: initial:  
 03/09/22 ITS

DRB GROUP  
 DRB GROUP  
 FIELDING DAY RYAN  
 CONSULTANTS

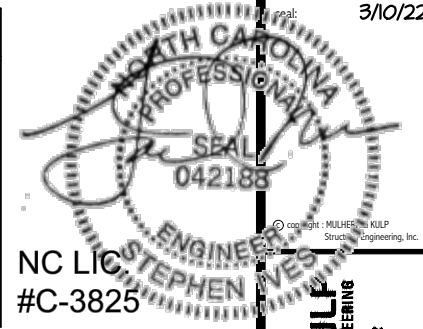
OPTION FRAMING PLANS  
 COOPER 3 MODEL  
 RALEIGH, NC



REFER TO 50.0 FOR  
TYPICAL STRUCTURAL NOTES  
& SCHEDULES

LEGEND

- [Symbol] INTERIOR BEARING WALL
- [Symbol] BEARING WALL ABOVE
- [Symbol] BEAM / HEADER
- [Symbol] INDICATES SHEAR WALL & EXTENT
- [Symbol] 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.



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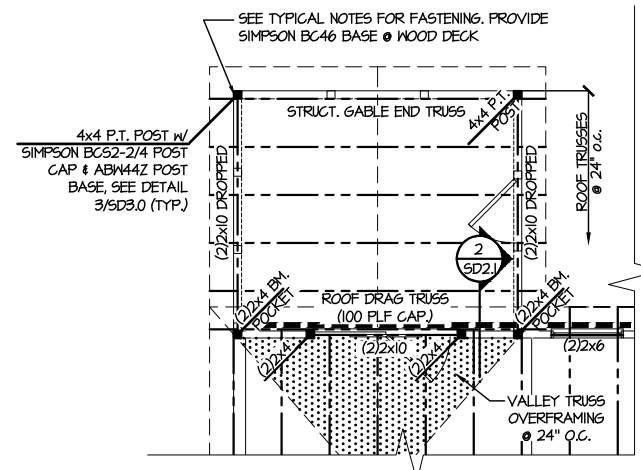


M&K project number:  
126-21030

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date:	initial:
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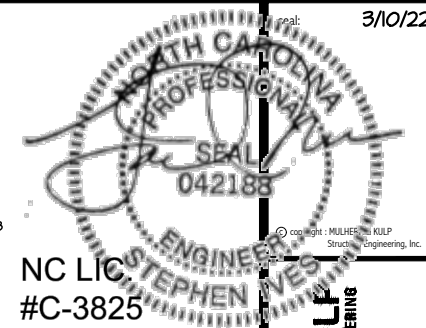


**2 PARTIAL ROOF FRAMING PLAN**  
**OPTIONAL SCREENED PORCH**  
SCALE: 1/8"=1'-0" ELEV #1 SHOWN - ALL ELEV. SIMILAR



OPTION FRAMING PLANS  
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sheet: RIGHT HAND  
**S5.1**



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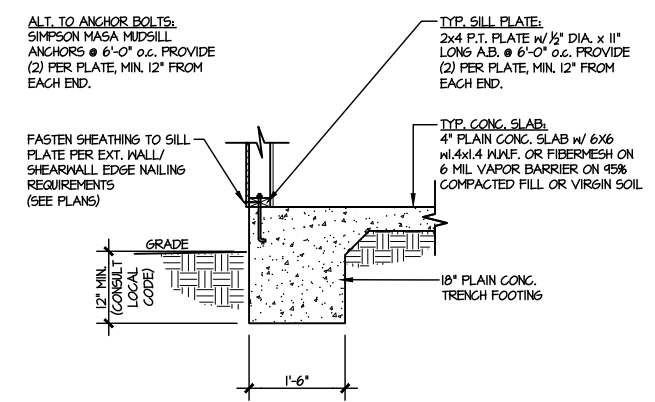
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REVISIONS:  
date: initial:  
03/09/22 JTS

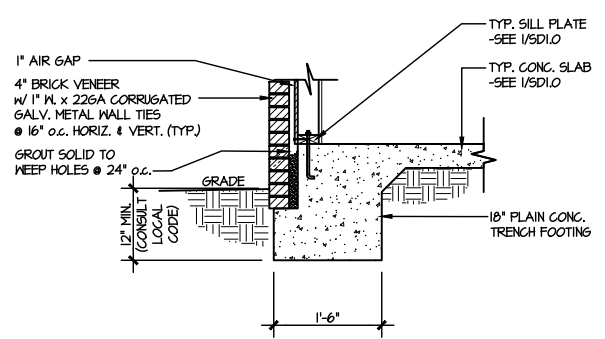


FOUNDATION DETAILS  
COOPER 3 MODEL  
RALEIGH, NC

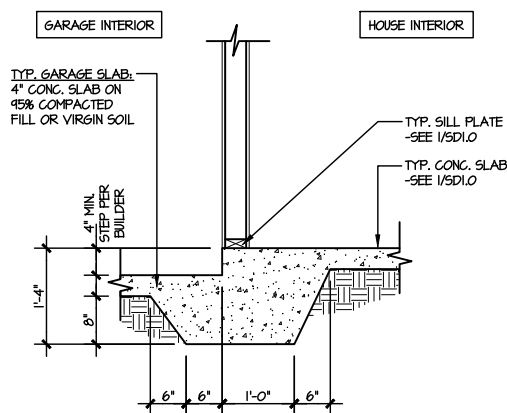
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**SD1.0**



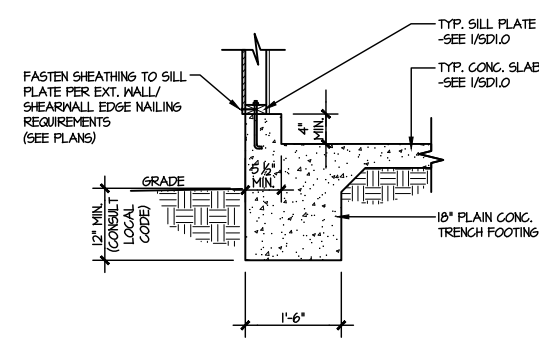
**1** TYPICAL SLAB ON GRADE PERIMETER FOOTING  
SCALE: 3/8"=1'-0"



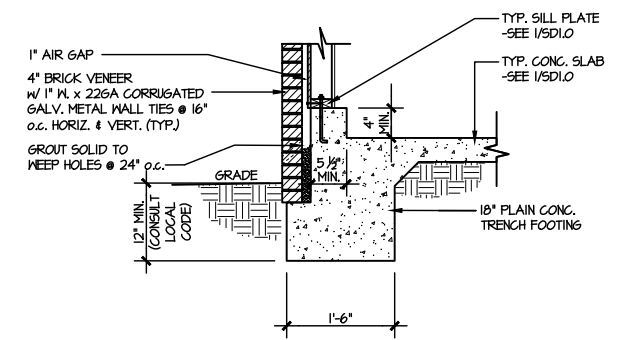
**2** TYPICAL SLAB ON GRADE PERIMETER FOOTING  
SCALE: 3/8"=1'-0" W/ BRICK VENEER



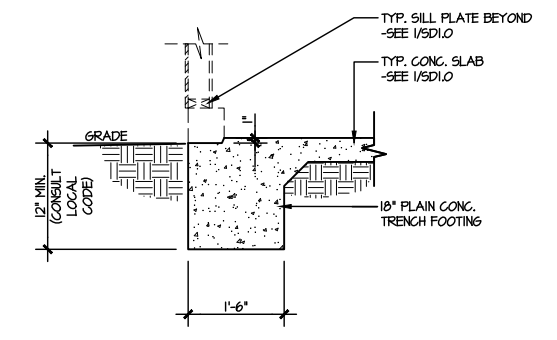
**3** TYPICAL MONOLITHIC INTERIOR GARAGE FOOTING  
SCALE: 3/8"=1'-0"



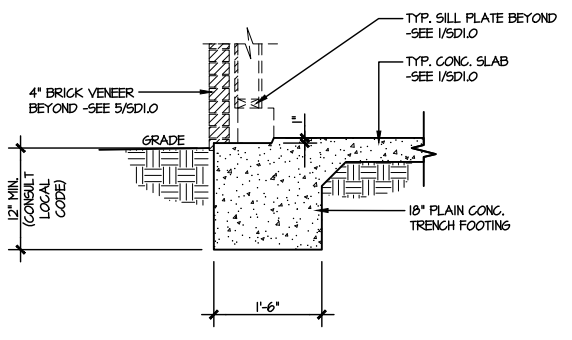
**4** TYPICAL SLAB ON GRADE GARAGE PERIMETER FOOTING  
SCALE: 3/8"=1'-0"



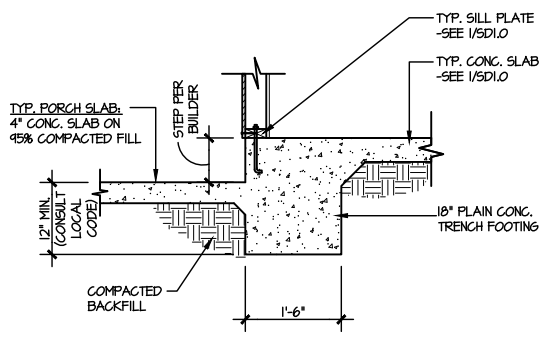
**5** TYPICAL SLAB ON GRADE GARAGE PERIMETER FOOTING  
SCALE: 3/8"=1'-0" W/ BRICK VENEER



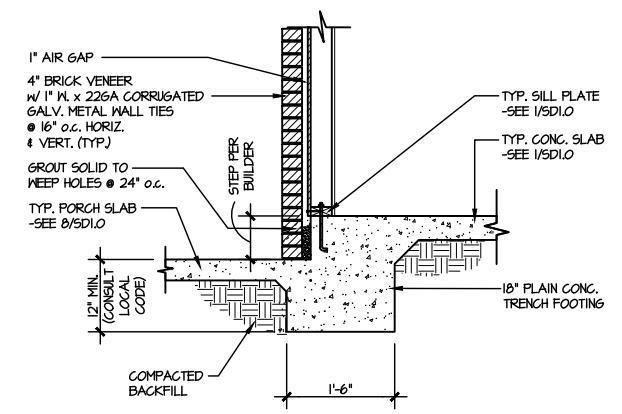
**6** TYPICAL SLAB ON GRADE GARAGE ENTRY @ PERIMETER FOOTING  
SCALE: 3/8"=1'-0"



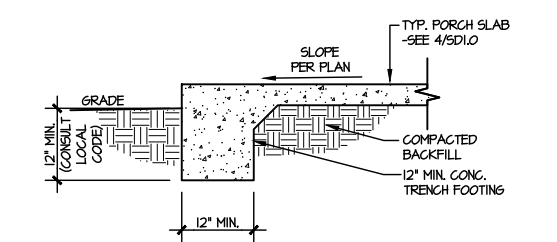
**7** TYPICAL SLAB ON GRADE GARAGE ENTRY @ PERIMETER FOOTING  
SCALE: 3/8"=1'-0" W/ BRICK VENEER



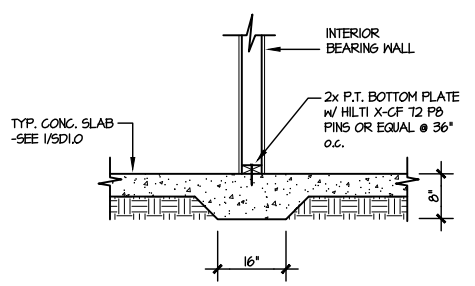
**8** TYPICAL SLAB ON GRADE PERIMETER FOOTING @ PORCH/PATIO  
SCALE: 3/8"=1'-0"



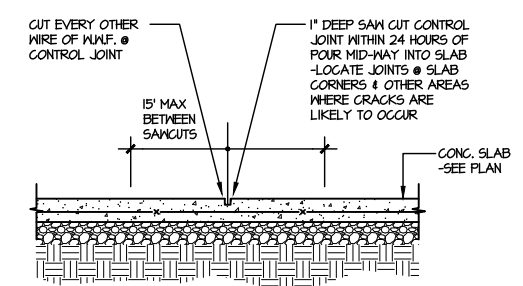
**9** TYPICAL SLAB ON GRADE PERIMETER FOOTING @ PORCH/PATIO  
SCALE: 3/8"=1'-0" W/ BRICK VENEER



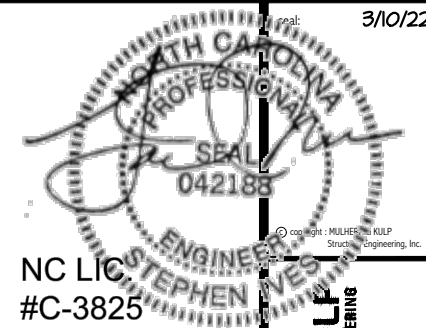
**10** TYPICAL FOOTING @ PORCH SLAB  
SCALE: 3/8"=1'-0"



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



**A** TYPICAL CONTROL JOINT  
SCALE: 3/8"=1'-0"  
LOCATE @ 15'-0" o.c. MAX. OR CORNERS WHERE CRACKS LIKELY TO DEVELOP



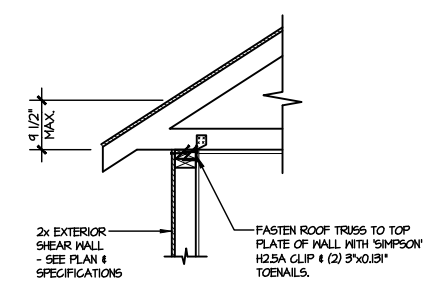
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M&K project number:  
**126-21030**  
project mgr: JTR  
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date: initial:  
03/09/22 JTS

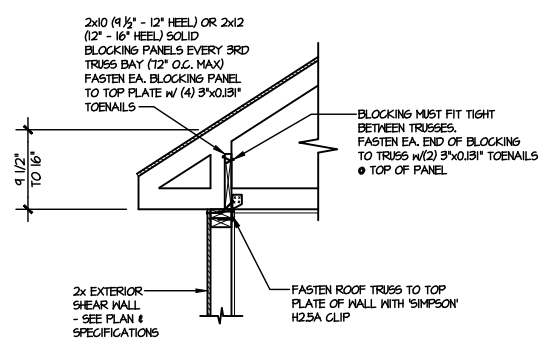


FRAMING DETAILS  
COOPER 3 MODEL  
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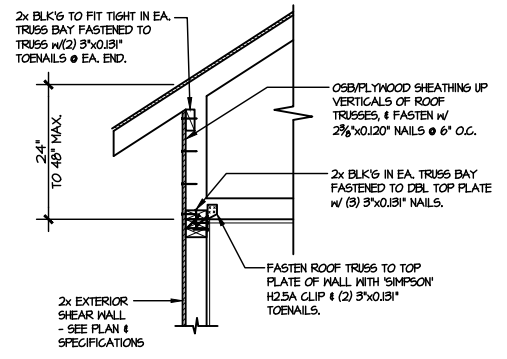
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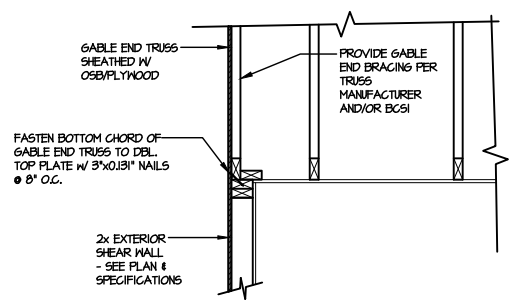
**(A1) TYPICAL SHEAR TRANSFER DETAIL @ ROOF**  
SCALE: 3/8"=1'-0"  
HEEL HEIGHT LESS THAN 4 1/2"  
NO BLOCKING REQ'D



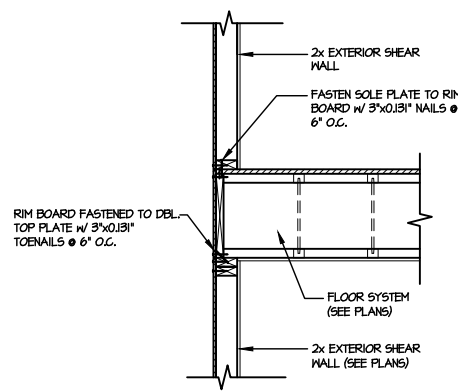
**(A2) TYPICAL SHEAR TRANSFER DETAIL @ ROOF**  
SCALE: 3/8"=1'-0"  
HEEL HEIGHT BETWEEN 4 1/2" - 16"  
BLOCKING REQ'D



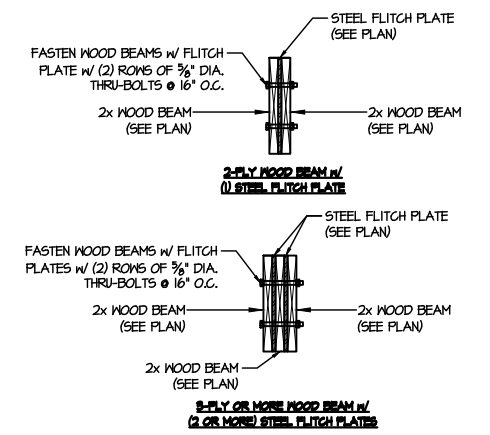
**(A3) TYPICAL SHEAR TRANSFER DETAIL @ RAISED HEEL TRUSS**  
SCALE: 3/8"=1'-0"  
HEEL HEIGHT UP TO 48" MAX.



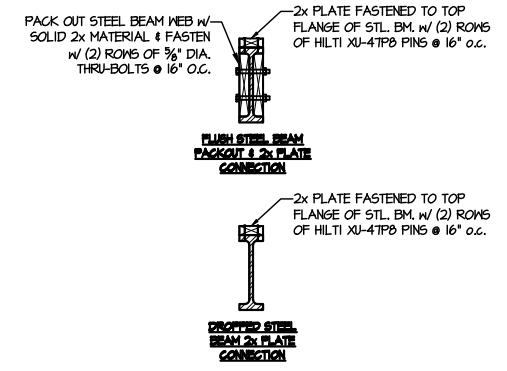
**(B) TYPICAL GABLE END DETAIL**  
SCALE: 3/8"=1'-0"



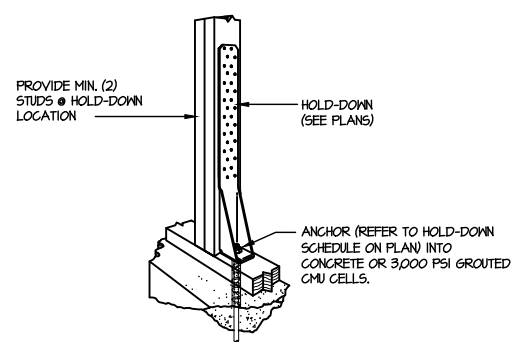
**(C) TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ EXTERIOR WALL**  
SCALE: 3/8"=1'-0"



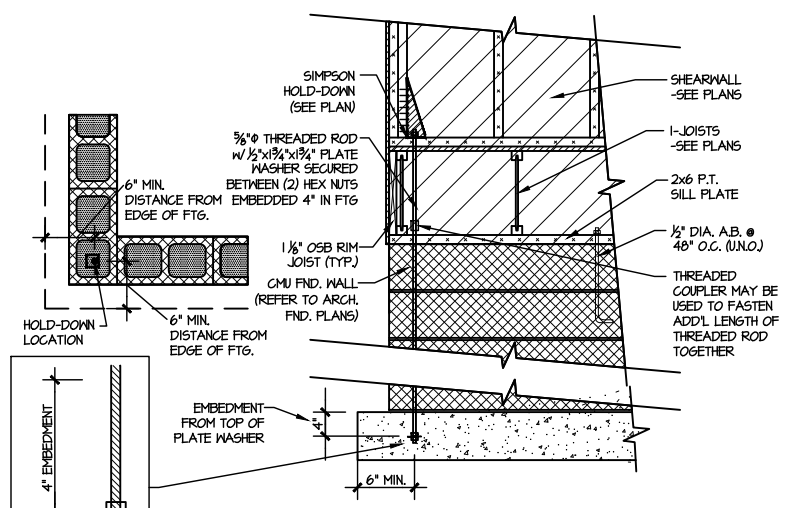
**(D) TYPICAL FLITCH BEAM CONNECTION DETAIL**  
SCALE: 3/4"=1'-0"



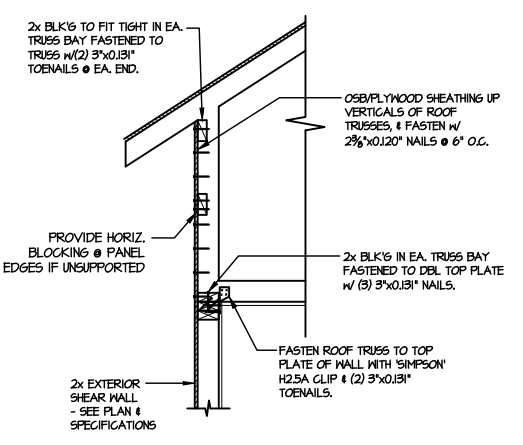
**(E) TYPICAL STEEL BEAM CONNECTION DETAIL**  
SCALE: 3/4"=1'-0"



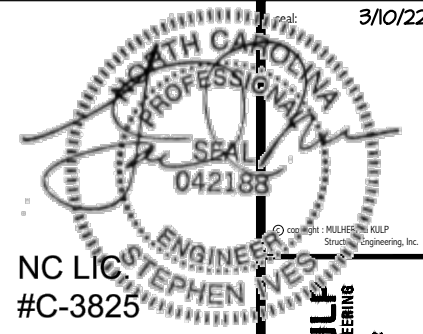
**(F1) TYPICAL HOLD DOWN INSTALLATION**  
SCALE: N.T.S.



**(F2) TYPICAL CMU FOUNDATION HOLD-DOWN INSTALLATION**  
SCALE: N.T.S. (CORNER SHOWN - APPLICABLE TO ALL CONDITIONS)



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



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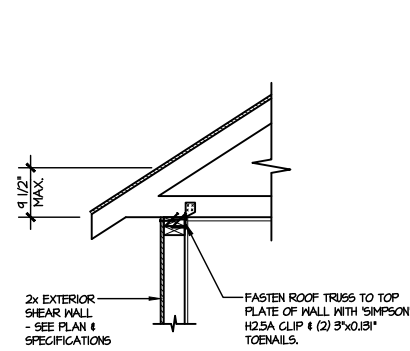
M&K project number:  
126-21030  
project mgr: JTR  
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REVISIONS:  
date: initial:  
03/09/22 JTS

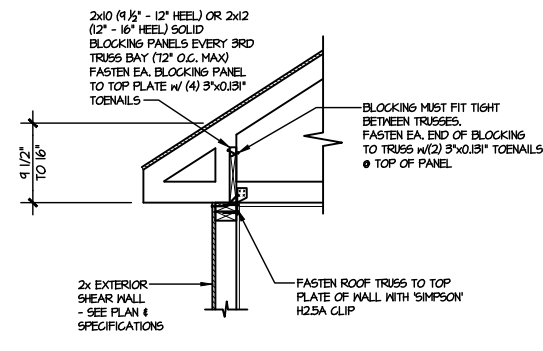
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DRB GROUP

FRAMING DETAILS  
COOPER 3 MODEL  
RALEIGH, NC

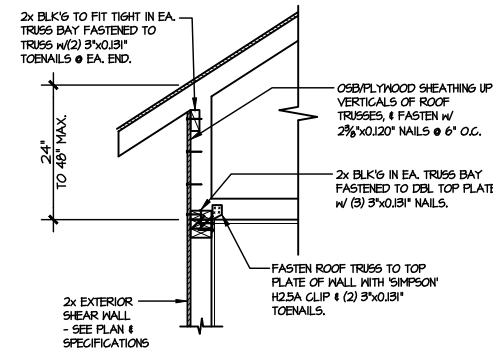
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SD2.0T



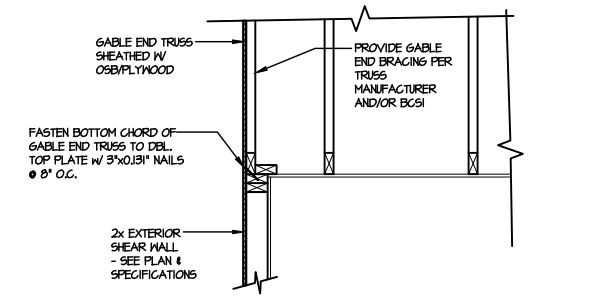
**A1** TYPICAL SHEAR TRANSFER DETAIL @ ROOF  
SCALE: 3/8"=1'-0" HEEL HEIGHT LESS THAN 4 1/2" NO BLOCKING REQ'D



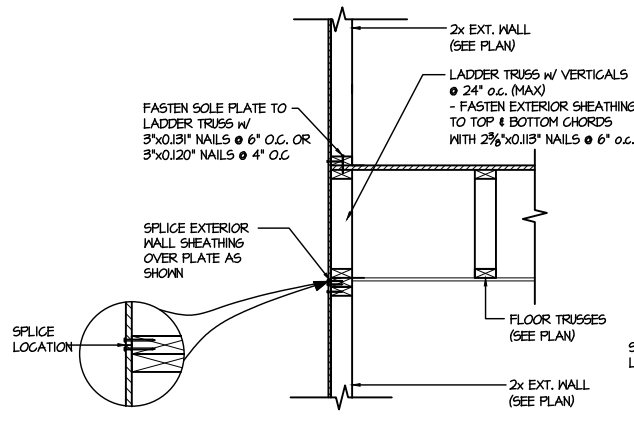
**A2** TYPICAL SHEAR TRANSFER DETAIL @ ROOF  
SCALE: 3/8"=1'-0" HEEL HEIGHT BETWEEN 4 1/2" - 16" BLOCKING REQ'D



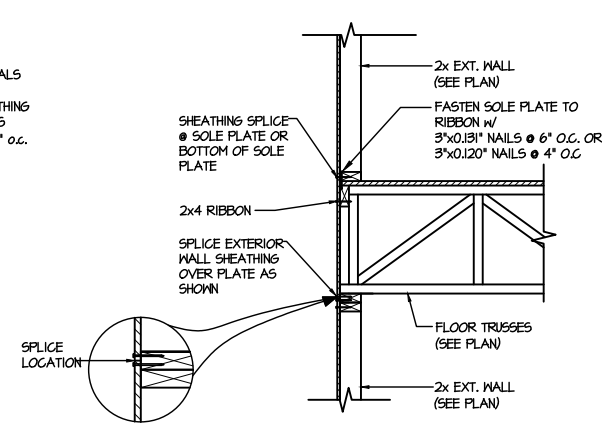
**A3** TYPICAL SHEAR TRANSFER DETAIL @ RAISED HEEL TRUSS  
SCALE: 3/8"=1'-0" HEEL HEIGHT UP TO 48" MAX.



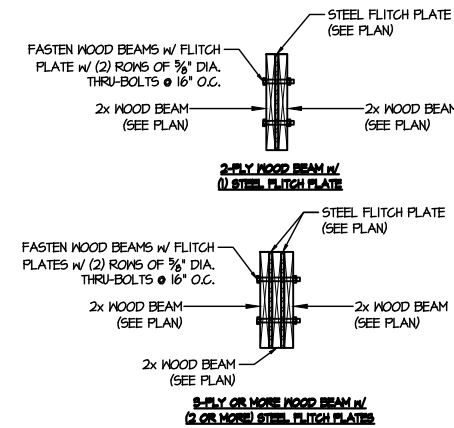
**B** TYPICAL GABLE END DETAIL  
SCALE: 3/8"=1'-0"



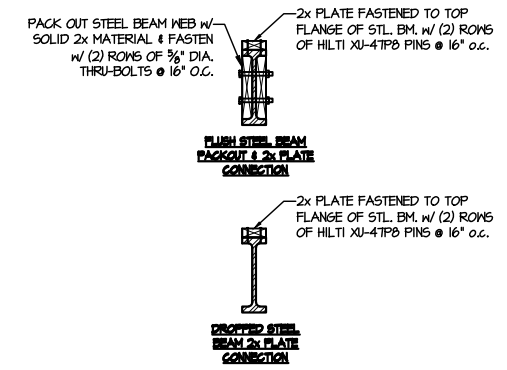
**C1** TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ EXTERIOR WALL  
SCALE: 3/8"=1'-0" PARALLEL FRAMING



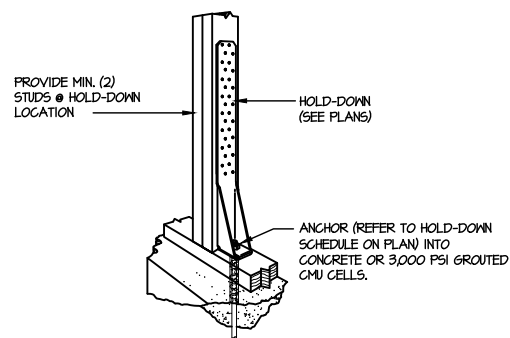
**C2** TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ EXTERIOR WALL  
SCALE: 3/8"=1'-0" PERPENDICULAR FRAMING



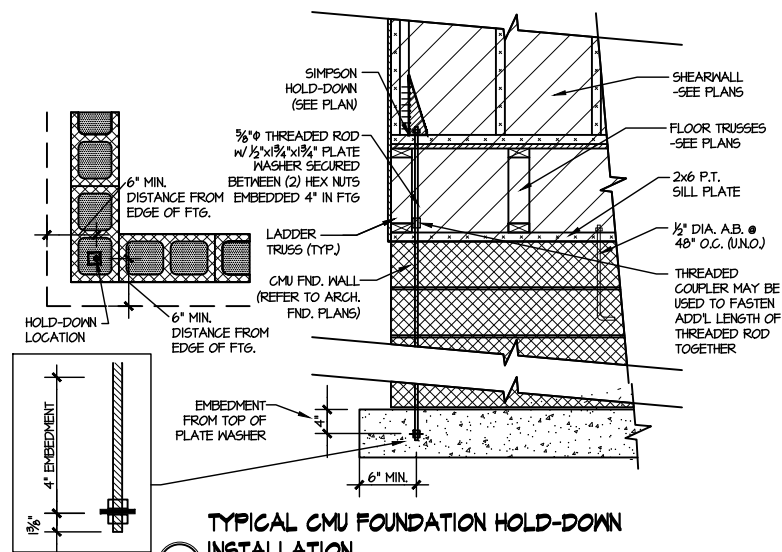
**D** TYPICAL FLITCH BEAM CONNECTION DETAIL  
SCALE: 3/4"=1'-0"



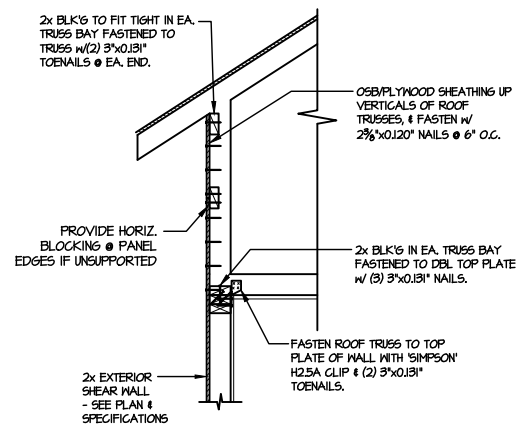
**E** TYPICAL STEEL BEAM CONNECTION DETAIL  
SCALE: 3/4"=1'-0"



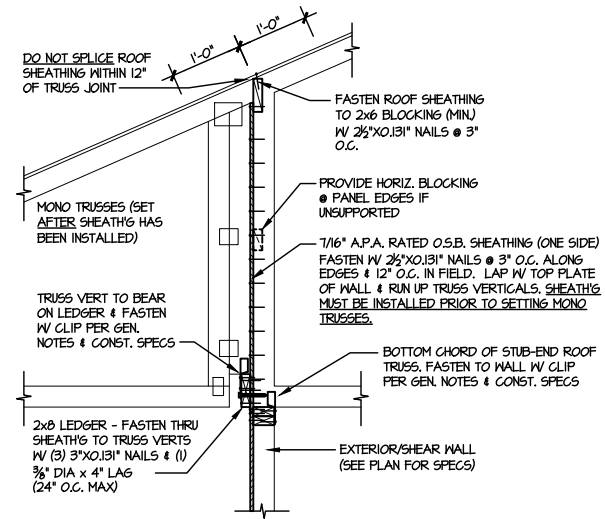
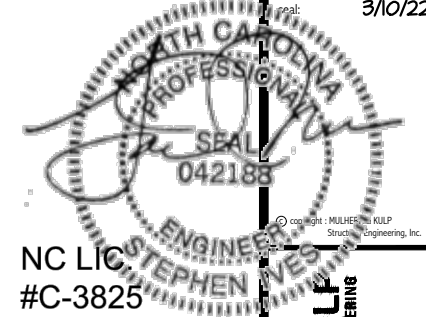
**F1** TYPICAL HOLD DOWN INSTALLATION  
SCALE: N.T.S.



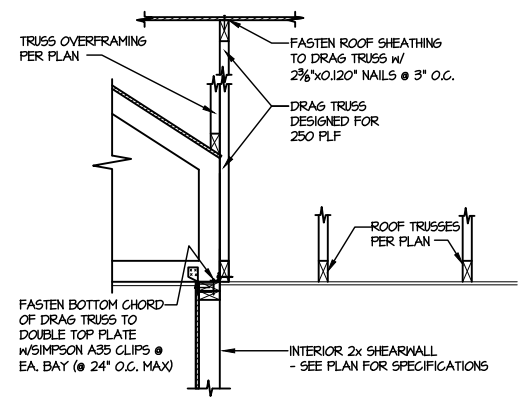
**F2** TYPICAL CMU FOUNDATION HOLD-DOWN INSTALLATION  
SCALE: N.T.S. (CORNER SHOWN - APPLICABLE TO ALL CONDITIONS)



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



**1** SHEAR TRANSFER DETAIL @ BREAK IN TRUSSES OVER SHEAR WALL  
SCALE: 3/4"=1'-0" - 22-84  
3/8"=1'-0" - 11d7



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

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MGK project number:  
126-21030

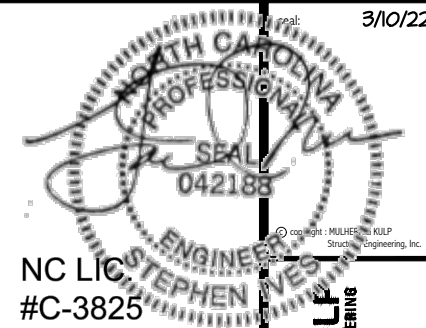
project mgr: JTR  
drawn by: KL  
issue date: 08-20-21

REVISIONS:

date:	initial:
03/09/22	JTS

FRAMING DETAILS  
COOPER 3 MODEL  
RALEIGH, NC

sheet:  
**SD2.1**



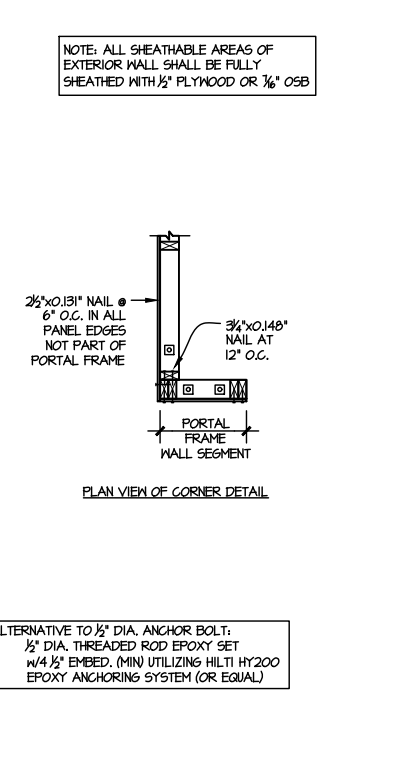
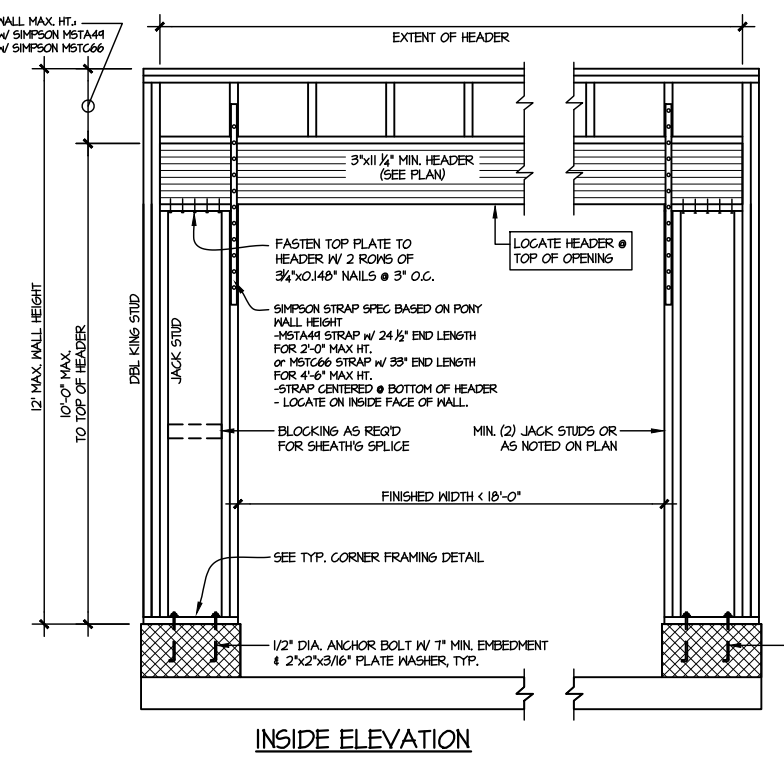
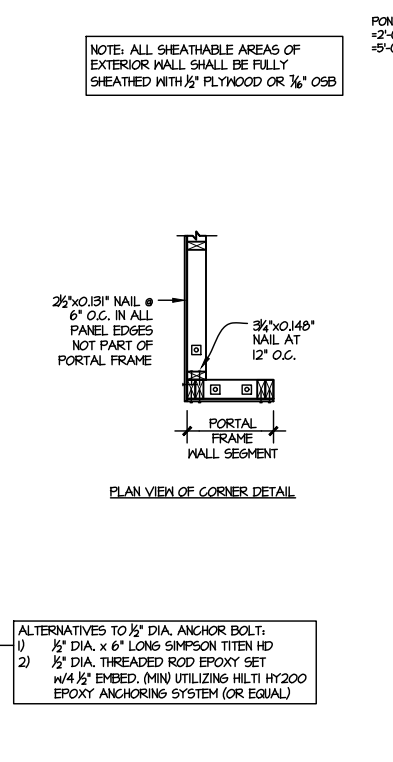
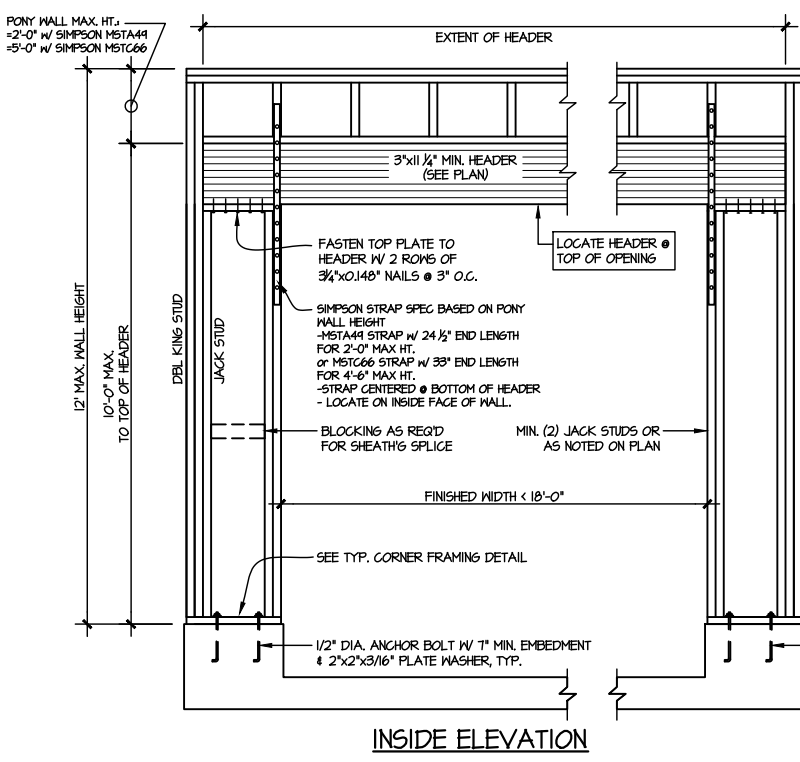
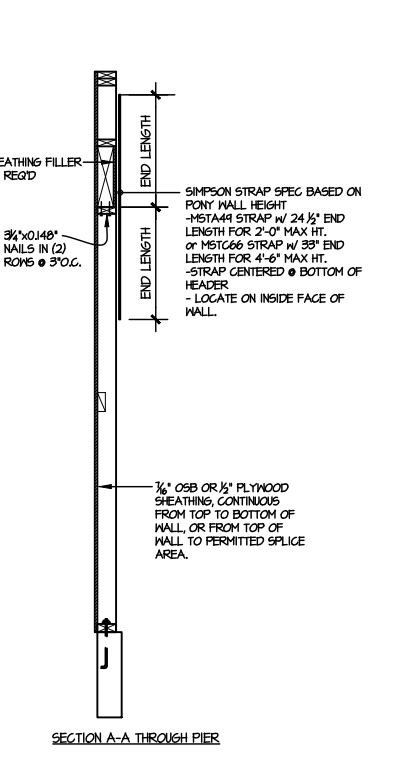
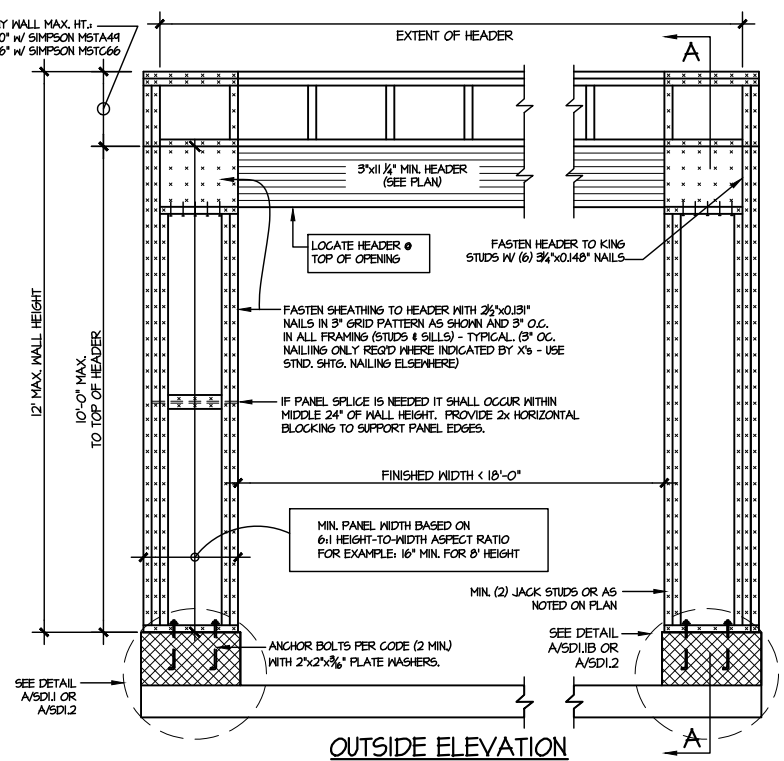
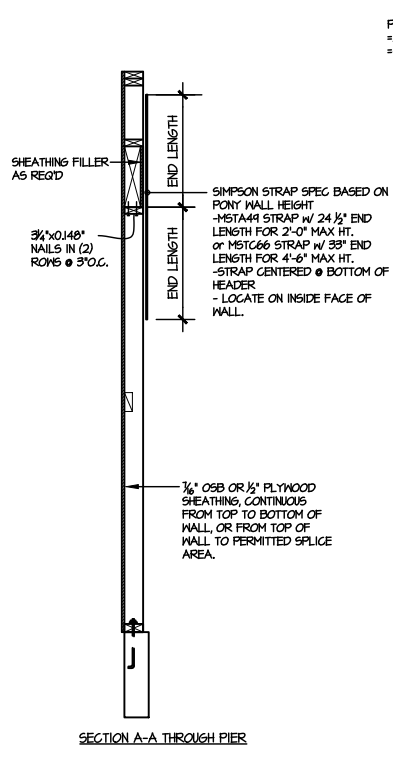
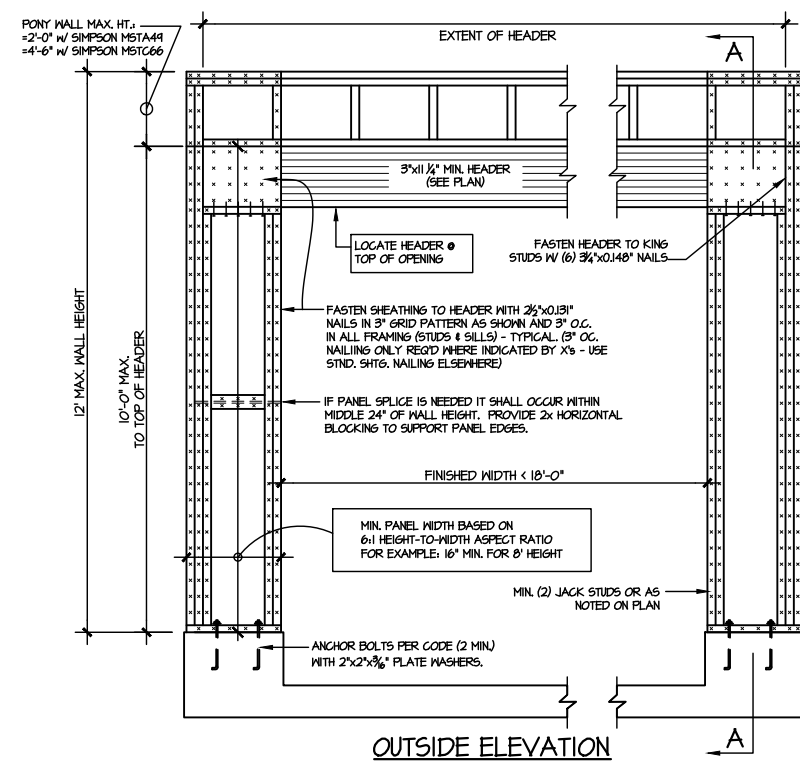
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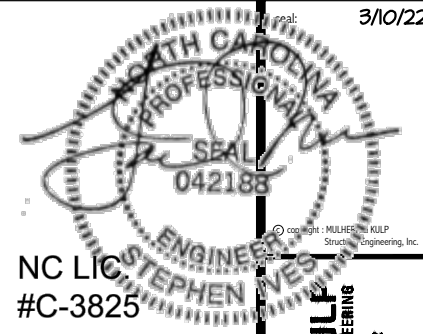
FRAMING DETAILS  
COOPER 3 MODEL  
RALEIGH, NC

sheet:  
**SD2.2**

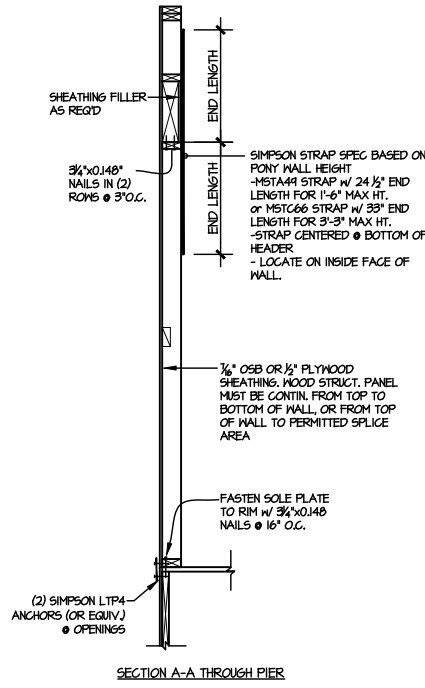
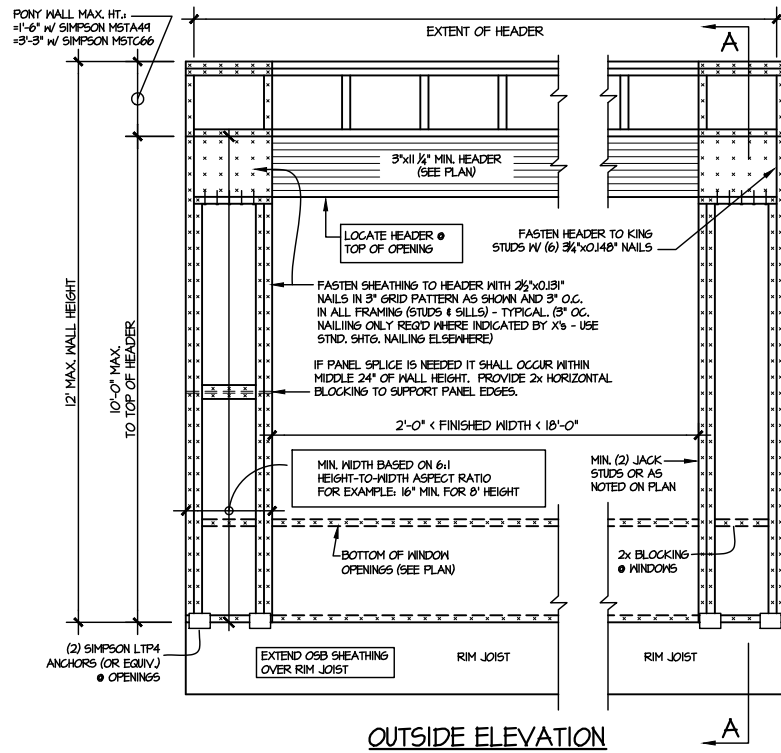


① TWO SIDED GARAGE PORTAL FRAME BRACING ELEVATION ON CONCRETE STEM  
SCALE: N.T.S.

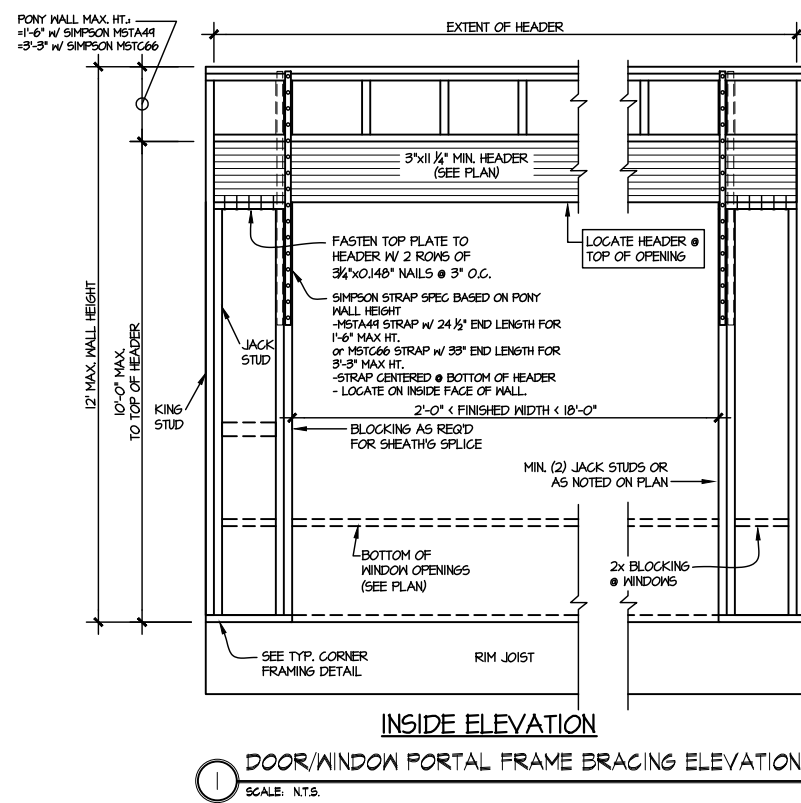
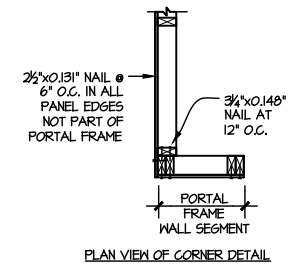
② TWO SIDED GARAGE PORTAL FRAME BRACING ELEVATION ON CMU STEM  
SCALE: N.T.S.

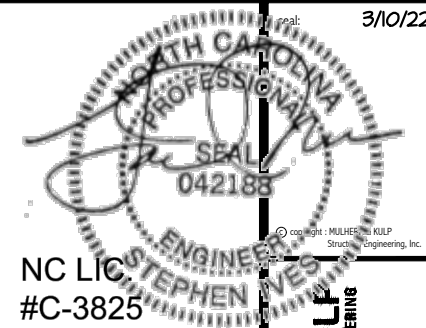


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project mgr:	JTR
drawn by:	KL
issue date:	08-20-21
REVISIONS:	
date:	initial:
03/09/22	JTS



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





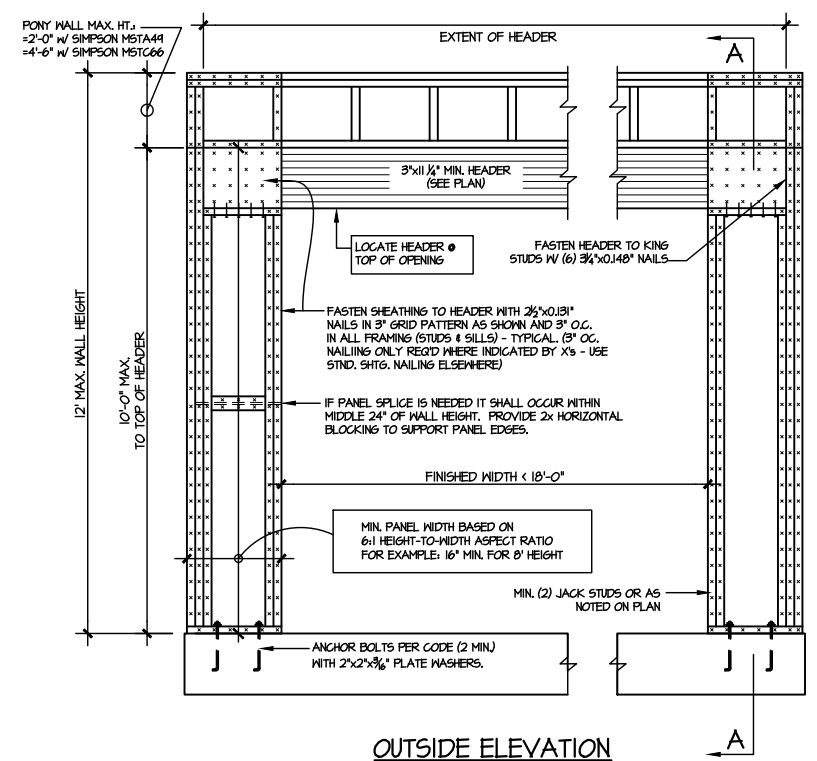
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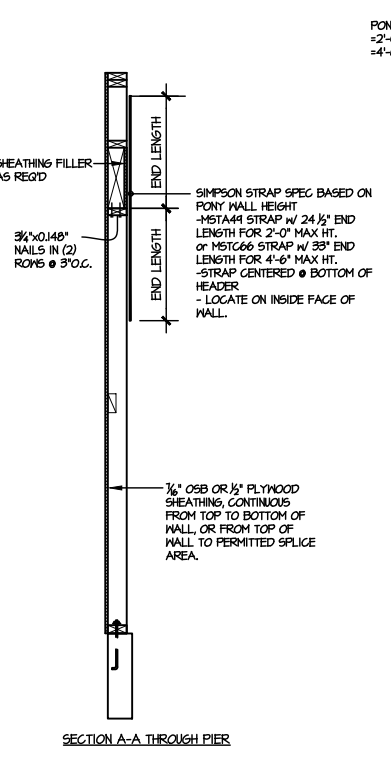


FRAMING DETAILS  
COOPER 3 MODEL  
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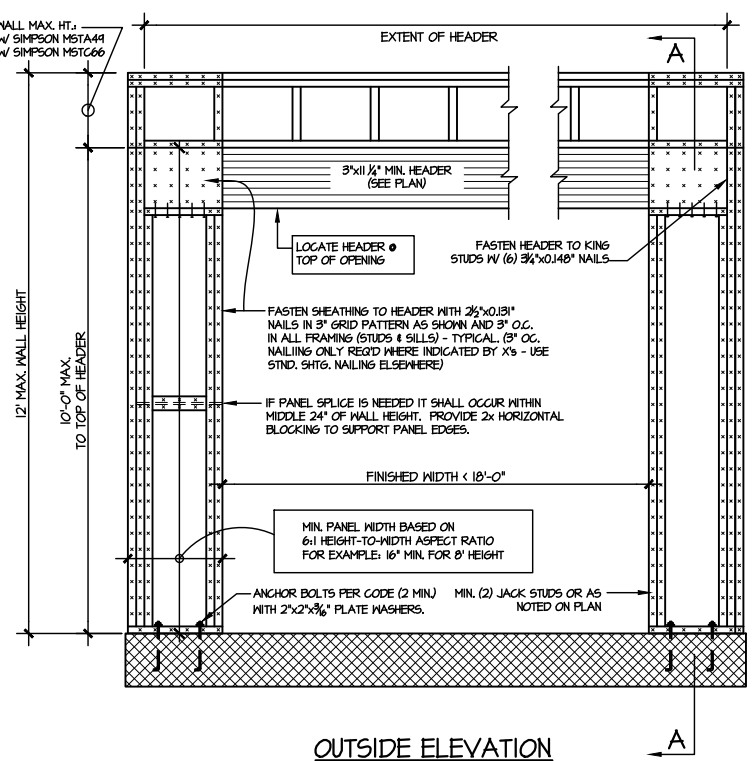
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**SD2.4**



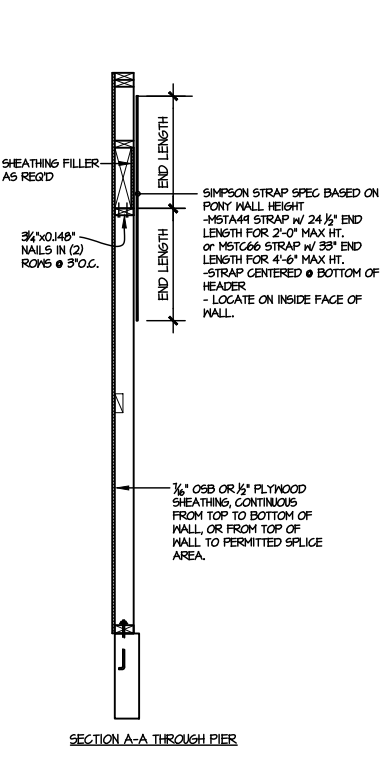
OUTSIDE ELEVATION



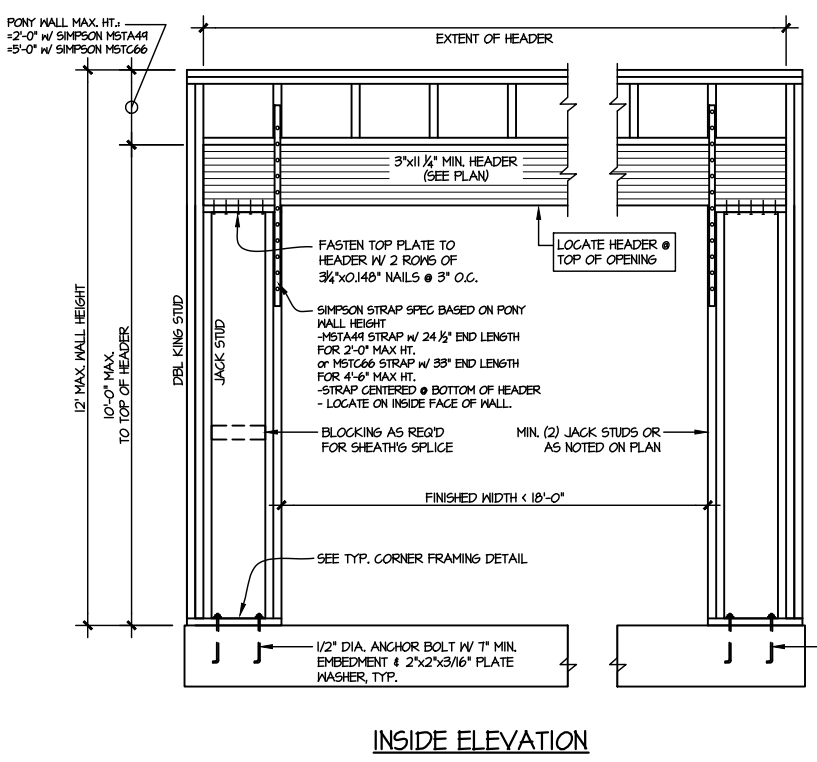
SECTION A-A THROUGH PIER



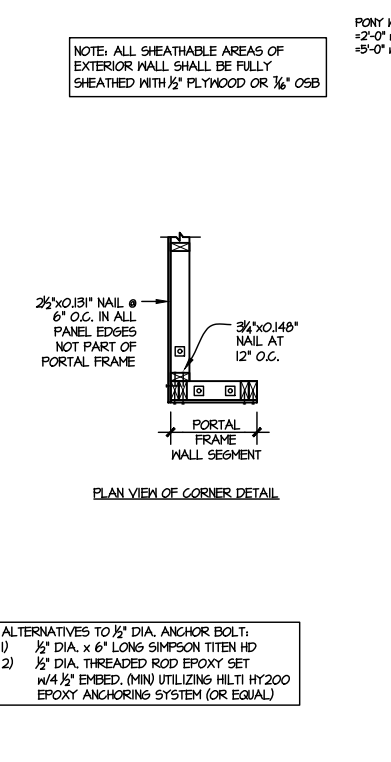
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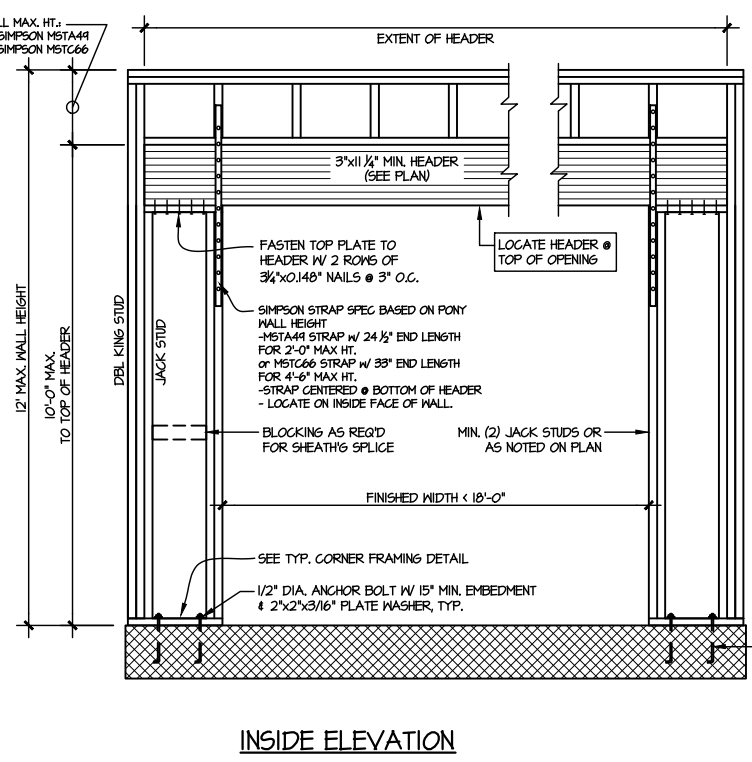
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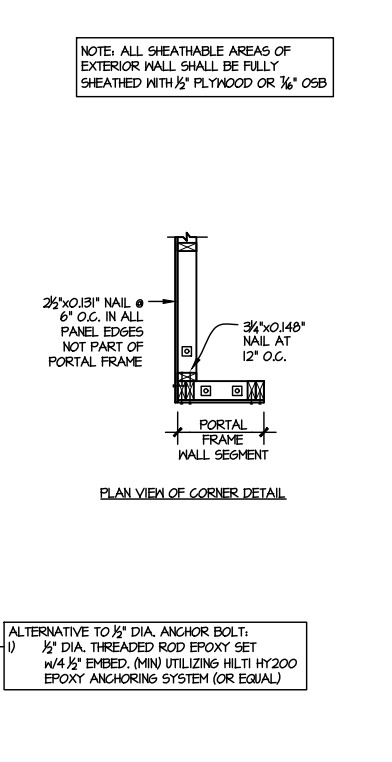
INSIDE ELEVATION



PLAN VIEW OF CORNER DETAIL



INSIDE ELEVATION

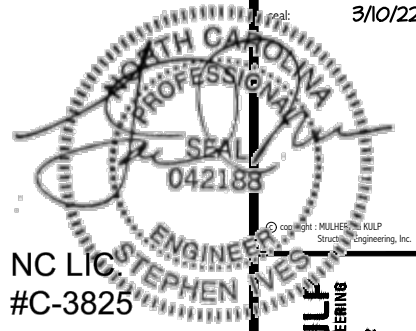


PLAN VIEW OF CORNER DETAIL

1 TWO SIDED PORTAL FRAME BRACING  
ELEVATION ON CONCRETE STEM  
SCALE: N.T.S.

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





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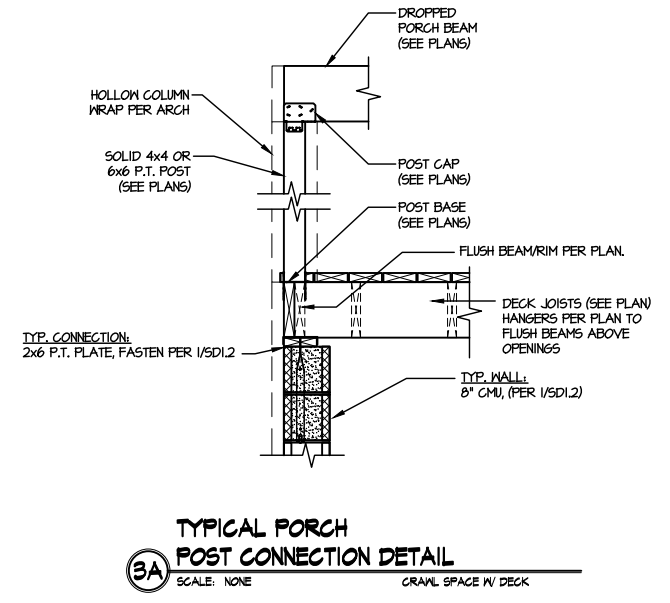
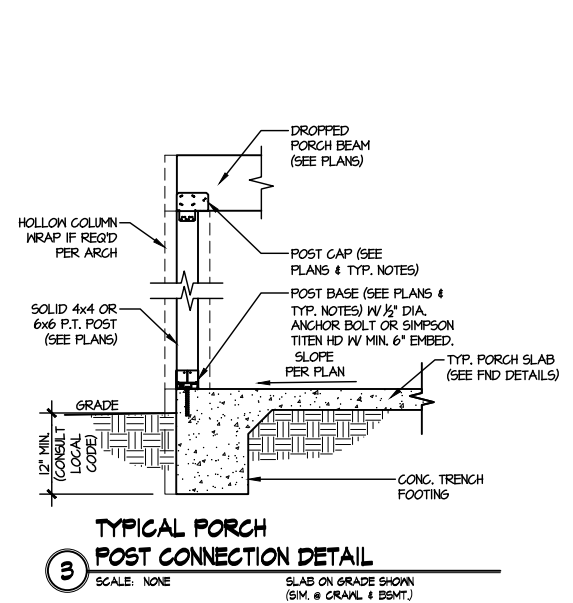
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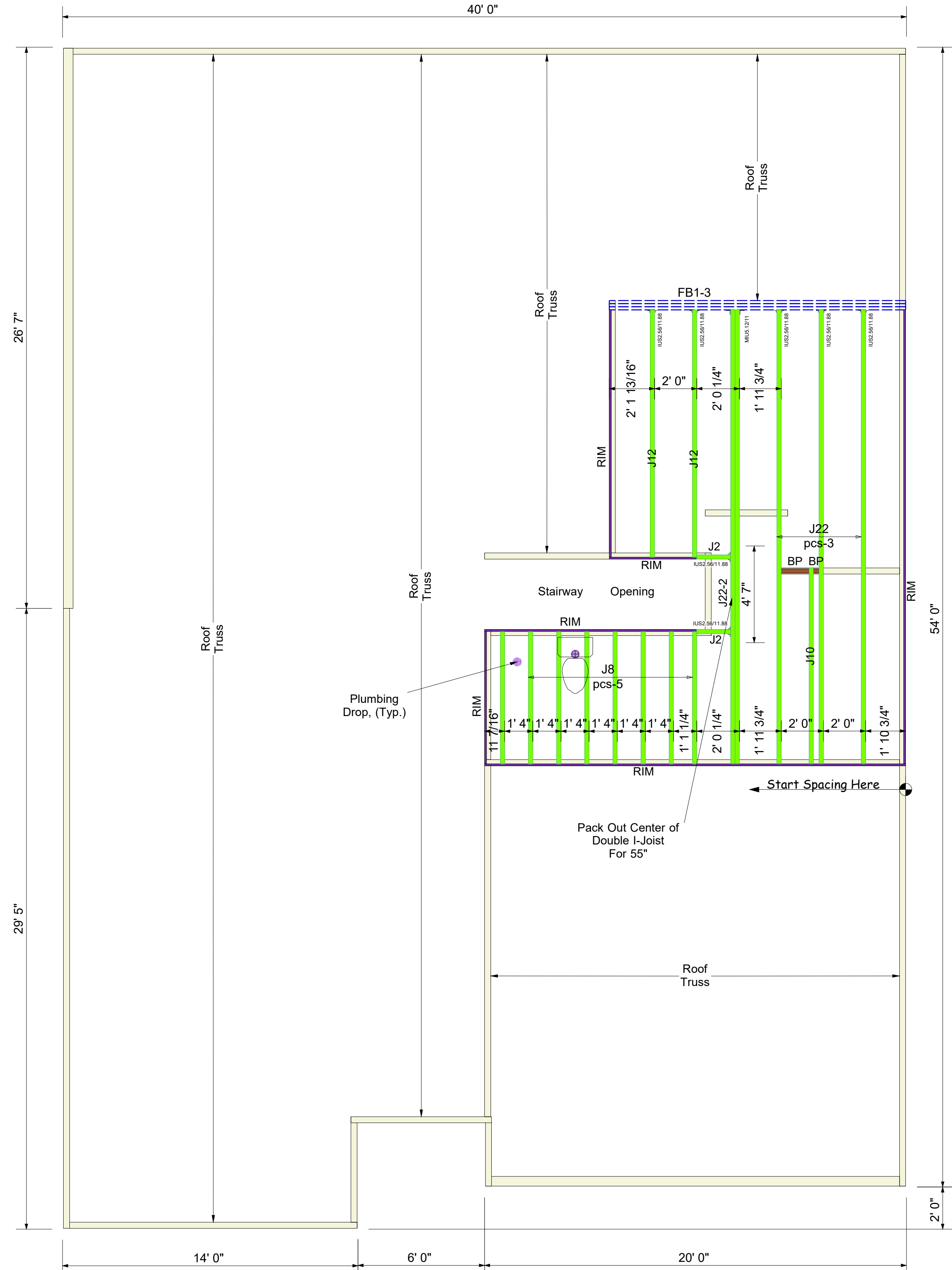
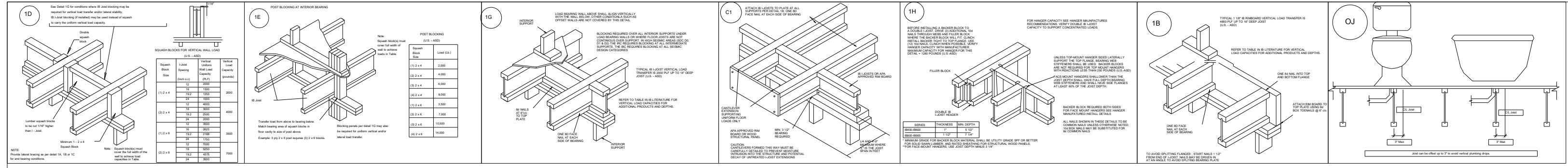
REVISIONS:  
 date: initial:  
 03/09/22 JTS



FRAMING DETAILS  
 COOPER 3 MODEL  
 RALEIGH, NC

sheet:  
**SD3.0**





Connector Summary		
Qty	Manuf	Product
7	Simpson	IUS2.56/11.88
1	Simpson	MIU5.12/11

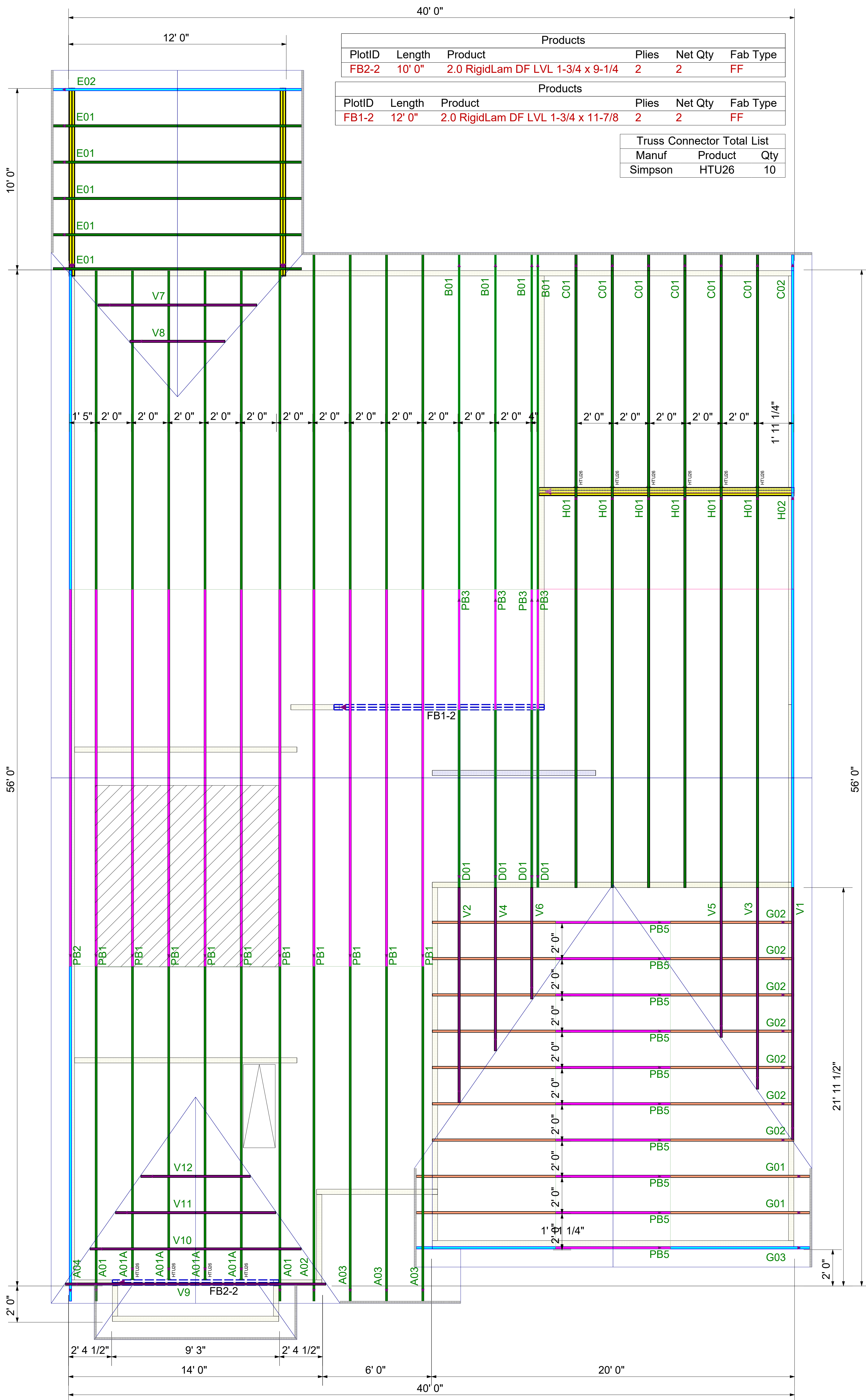
Products						
PlotID	Length	Product	Piles	Net Qty	Fab Type	
J22	22' 0"	11 7/8" PJI-40	1	3	MFD	
J22-2	22' 0"	11 7/8" PJI-40	2	2	MFD	
J12	12' 0"	11 7/8" PJI-40	1	2	MFD	
J10	10' 0"	11 7/8" PJI-40	1	1	MFD	
J8	8' 0"	11 7/8" PJI-40	1	8	MFD	
J2	2' 0"	11 7/8" PJI-40	1	2	MFD	
FB1-3	16' 0"	2.0 RigidLam DF LVL 1-3/4 x 11-7/8	3	3	FF	
RIM	12' 0"	1 1/8" x 11 7/8" APA Rim Board	1	7	FF	
BP	2' 0"	11 7/8" PJI-40	1	1	FF	

**BLOCK SOLID UNDER ALL POST /POINT LOADS FROM ABOVE - TYPICAL AT ALL LOCATIONS**

**2nd Floor I-Joist**  
DRAWING SCALE : NTS

PROJECT NUMBER <b>22040111</b>	REVISIONS	
SHEET NUMBER <b>1 / 1</b>	DATE 04.27.22	BY RKW

**Dan Ryan Builders**  
127 Farm @ Neills Creek (Cooper3 4-GRFE)  
**2nd FLOOR I-JOIST PLACEMENT PLAN**



**ROOF LAYOUT**  
DRAWING SCALE : NTS

PROJECT NUMBER <b>22040111</b>
SHEET NUMBER <b>1 / 1</b>

REVISIONS	
DATE	BY
5-16-22	ND

<b>DRB GROUP</b>	
<b>COOPER 4 - 127 FARM AT NEILLS CREEK</b>	
<b>ROOF TRUSS LAYOUT</b>	

