HERITAGE HOME DESIGNS, LLC

3206 HERITAGE TRADE DR. SUITE. 116
WAKE FOREST, NC 27587
OFFICE - (919) 556-6032
TIM-HSD@NC.RR.COM

ABBREVIATIONS

@	AT
A.F.F.	ABOVE FINISHED FLOOR
BRD.	BOARD
CAB.	CABINET
CABS.	CABINETS
COL.	COLUMN
COLS.	COLUMNS
CONC.	CONCRETE
CONT.	CONTINUOUS
DBL.	DOUBLE
DIA.	DIAMETER
DSP	DOUBLE STUD POCKET
DW	DISHWASHER
D	DRYER
ELEV.	ELEVATION
FT.	FEET
F.F.	FINISHED FLOOR
FLR.	FLOOR
FR.	FREEZER
HDR.	HEADER
HT.	HEIGHT
HTS.	HEIGHTS
HORIZ.	HORIZONTAL
IN.	INCHES
INCL.	INCLUDE
INSUL	INSULATION
LT.	LIGHT
LIN.	LINEN
MAX.	MAXIMUM
MIN.	MINIMUM
O.H.D.	OVERHEAD DOOR
O.C.	ON CENTER
OPT.	OPTIONAL
PAN.	PANTRY
REF.	REFRIGERATOR
REQ'D	REQUIRED
SCR.	SCREEN
SHLVS.	SHELVES
SHWR.	SHOWER
S.L.	SIDE LIGHT
SPECS.	SPECIFICATIONS
SQ.	SQUARE
TR.	TRANSOM
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VAN.	VANITY
VERT.	VERTICAL
WH	WATER HEATER
W	WASHER
WIN.	WINDOW
W/	WITH

*THIS PICTURE DESIGN MAY NOT REFLECT ACTUAL CHARACTERISTICS OF FINISHED HOME. THIS PICTURE IS FOR ILLUSTRATIVE PURPOSES ONLY AND MAY VARY. CONTRACTOR TO VERIFY ALL COLORS AND CHARACTERISTICS OF THIS PLAN.

SHEET INDEX:

THESE PLANS ARE DESIGNED TO MEET THE REQUIREMENTS OF THE NORTH CAROLINA STATE RESIDENTIAL BUILDING CODE - 2018 EDITION. IT IS THE RESPONSIBILITY OF THE BUILDER/ CONTRACTOR TO REVIEW AND VERIFY THESE PLANS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGNER FOR CLARIFICATION.

CRAWL SPACE VENTILATION

REQUIRED

3,140 SQ. FT. / 150 20.93 SQ. FT. OF VENTILATION

PROVIDED

.65 SQ. FT. / VENT x 33 VENTS = 21.45 (SQ. FT. OF VENTILATION)

A 6 MIL. VAPOR RETARDER SHALL BE INSTALLED TO COVER 100% OF CRAWL SPACE AREA REDUCING VENTS BY 50%. VENTS SHALL BE PLACED TO PREVENT DEAD AIR.

ATTIC VENTILATION

REQUIRED

4,326 SQ FT OF ATTIC/600= 7.21 SQ. FT. EACH OF INLET & OUTLET

PROVIDED

INLET .07 SQ. FT. PER x 104 LINEAR FT. OF VENT. = 7.28 SQ. FT. OF VENT.

OUTLET .11 SQ. FT. PER x 68 LINEAR FT. OF VENT. = 7.48 SQ. FT. OF VENT.

-CALCULATION SHOWN, CONSIDER VENTILATORS USED AT LEAST 3 FEET ABOVE THE CORNICE VENTS
-CATHEDRAL CEILINGS SHALL HAVE A 1" MINIMUM CLEARANCE BETWEEN THE BOTTOM OF THE ROOF DECK AND THE INSULATION.

TABLE N1102.1.2 (R402.1.2) INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT

*SEE N.C. RESIDENTIAL CODE, 2018 ED. FOR ADDITIONAL NOTES

CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENT WALL R-VALUE	SLAB R-VALUE & DEPTH	CRAWL SPACE WALL R-VALUE
3	0.35	0.55	0.30	38 or 30ci	13 or 13 + 2.5	5/13 or 5/10ci	19	5/13	0	5/13
4	0.35	0.55	0.30	38 or 30ci	13 or 13 + 2.5	5/13 or 5/10ci	19	10/15	10	10/15
5	0.35	0.55	NR	38 or 30 ci	19 or 13 + 5 or 15 + 3	13/17 or 13/12.5ci	30	10/15	10	10/19

THE BUILDING THERMAL ENVELOPE SHALL MEET THE REQUIREMENTS OF TABLE N1102.1.2 BASED ON THE CLIMATE ZONE SPECIFIED IN SECTION N1101.7

HERITAGE HOME DESIGNS LLC

Corp. License Number C-2550

STEWART RESIDENCE
RENOVATION/ADDITION
9665 NC 27 E.
BENSON, NC 27504

DRAWN BY: TNB
CHECKED BY: TBH
ISSUE DATE: 4-26-2023

REVISION NO.	REVISION DATE

CONTENT: COVER SHEET

SHEET: 1

FRONT ELEVATION

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

RIGHT SIDE ELEVATION

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

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CHECKED BY: TBH

ISSUE DATE: 4-26-2023

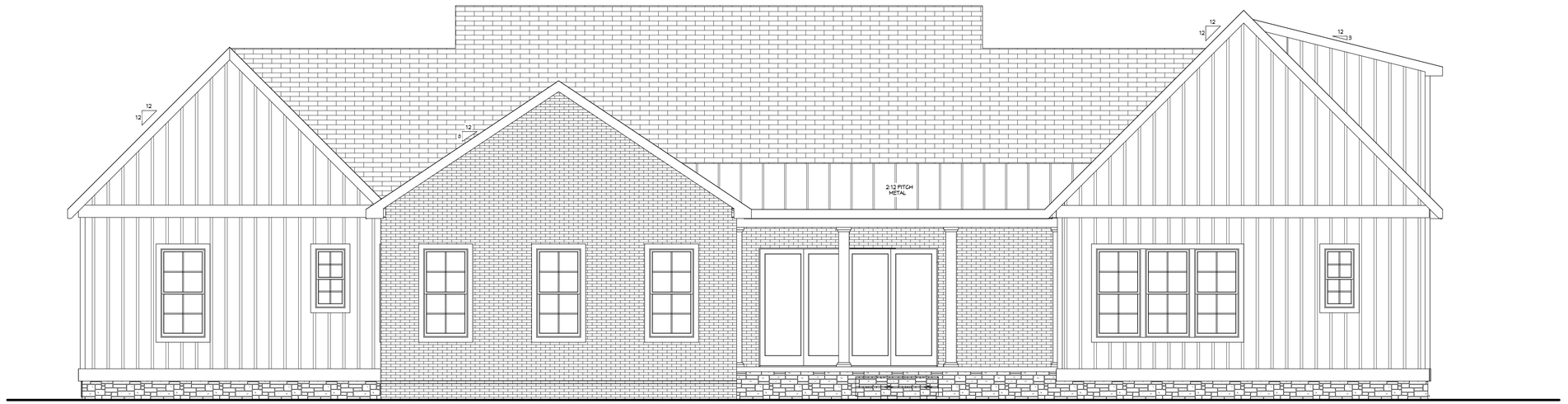
REVISION NO.	REVISION DATE

CONTENT:

FRONT ELEVATION
RIGHT ELEVATION

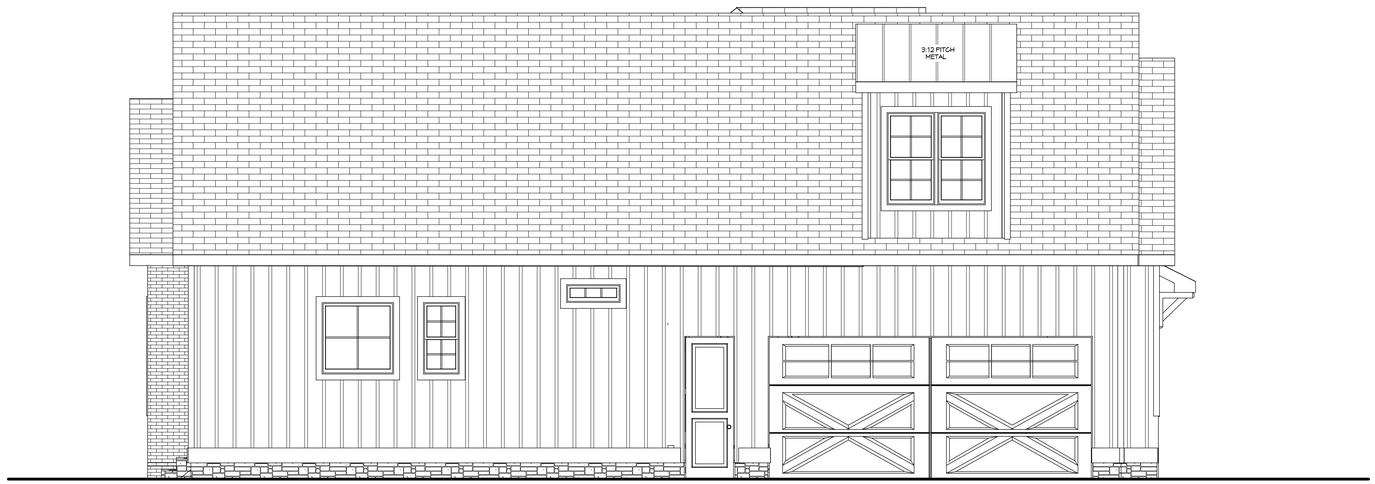
SHEET:

2



REAR ELEVATION

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



LEFT SIDE ELEVATION

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

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ISSUE DATE: 4-26-2023

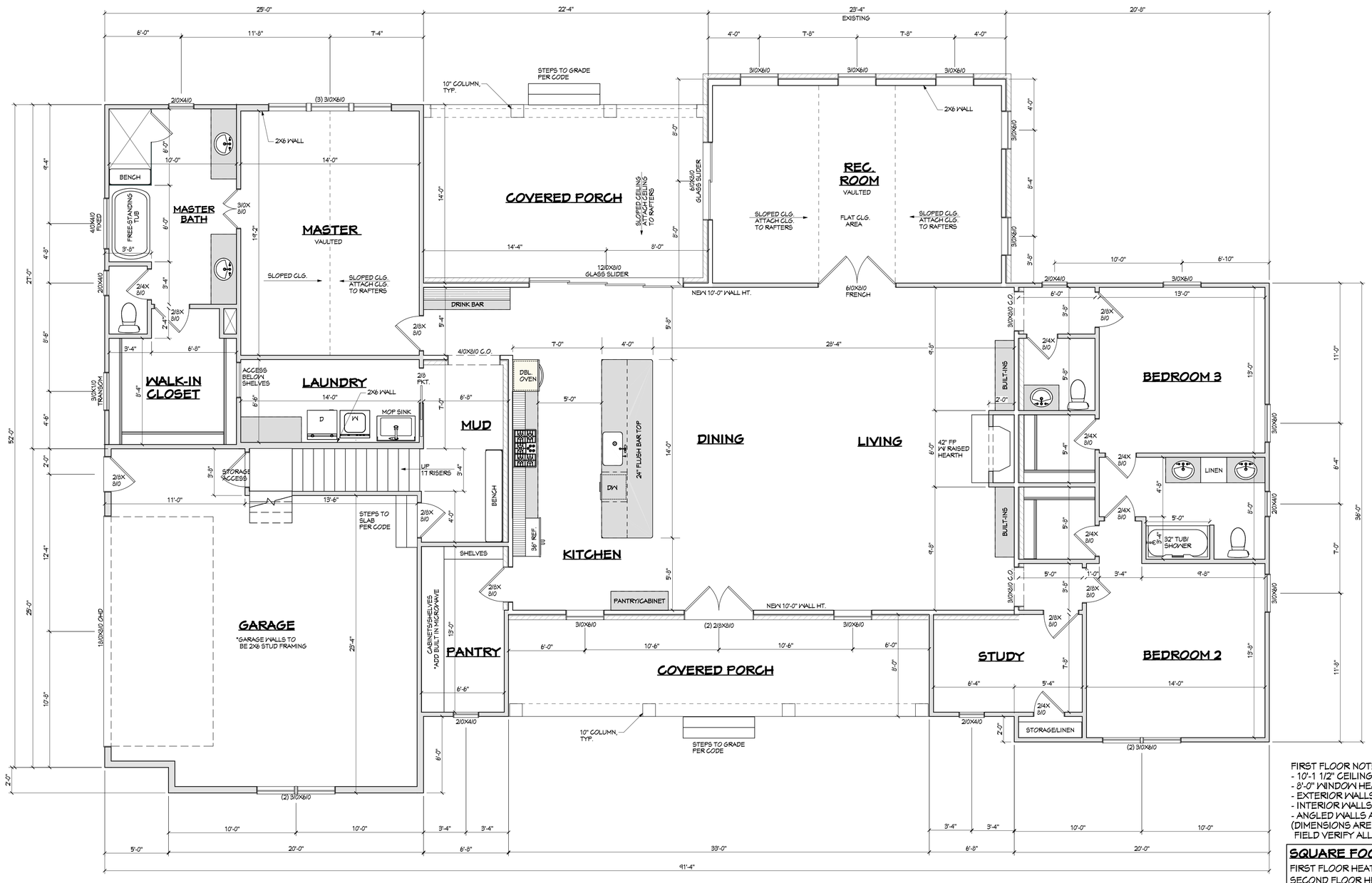
REVISION NO.	REVISION DATE

CONTENT:

REAR ELEVATION
LEFT ELEVATION

SHEET:

3



FIRST FLOOR PLAN

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

FIRST FLOOR NOTES:
- 10'-1 1/2" CEILING HEIGHT U.N.O.
- 8'-0" WINDOW HEAD HEIGHT U.N.O.
- EXTERIOR WALLS ARE 4" THICK U.N.O.
- INTERIOR WALLS ARE 4" THICK U.N.O.
- ANGLED WALLS ARE 45 DEG. U.N.O

(DIMENSIONS ARE NOMINAL- FIELD VERIFY ALL DIMENSIONS)

SQUARE FOOTAGE

FIRST FLOOR HEATED	3,140 SQ. FT.
SECOND FLOOR HEATED	N/A SQ. FT.
TOTAL HEATED	3,140 SQ. FT.
2-CAR GARAGE	609 SQ. FT.
FRONT COVERED PORCH	264 SQ. FT.
REAR COVERED PORCH	313 SQ. FT.
UNFINISHED STORAGE	505 SQ. FT.

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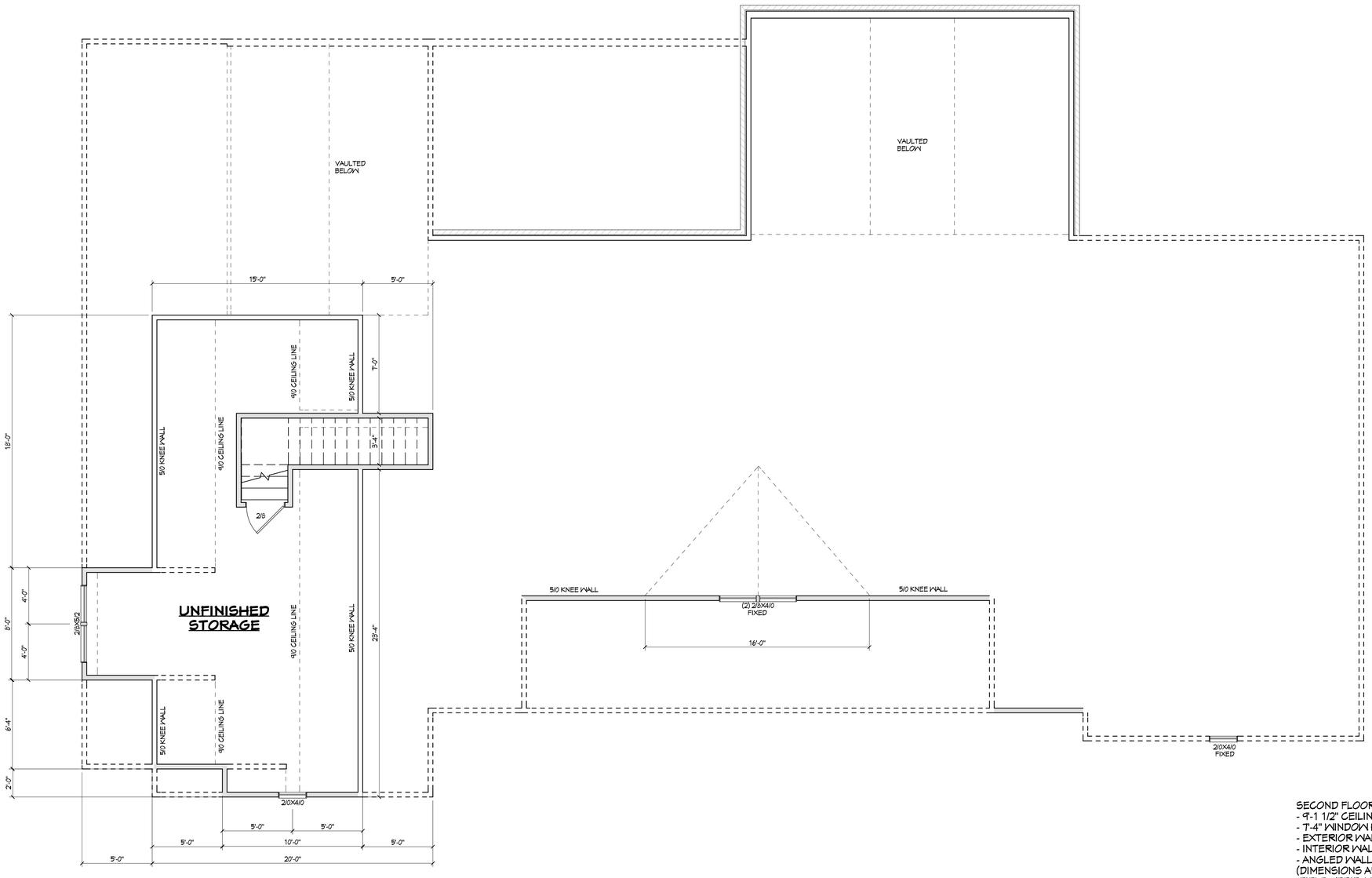
CHECKED BY: TBH

ISSUE DATE: 4-26-2023

REVISION NO.	REVISION DATE

CONTENT: FIRST FLOOR

SHEET: 4



SECOND FLOOR NOTES:
- 9'-1 1/2" CEILING HEIGHT U.N.O.
- 7'-4" WINDOW HEAD HEIGHT U.N.O.
- EXTERIOR WALLS ARE 4" THICK U.N.O.
- INTERIOR WALLS ARE 4" THICK U.N.O.
- ANGLED WALLS ARE 45 DEG. U.N.O
(DIMENSIONS ARE NOMINAL-
FIELD VERIFY ALL DIMENSIONS)

SECOND FLOOR PLAN

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

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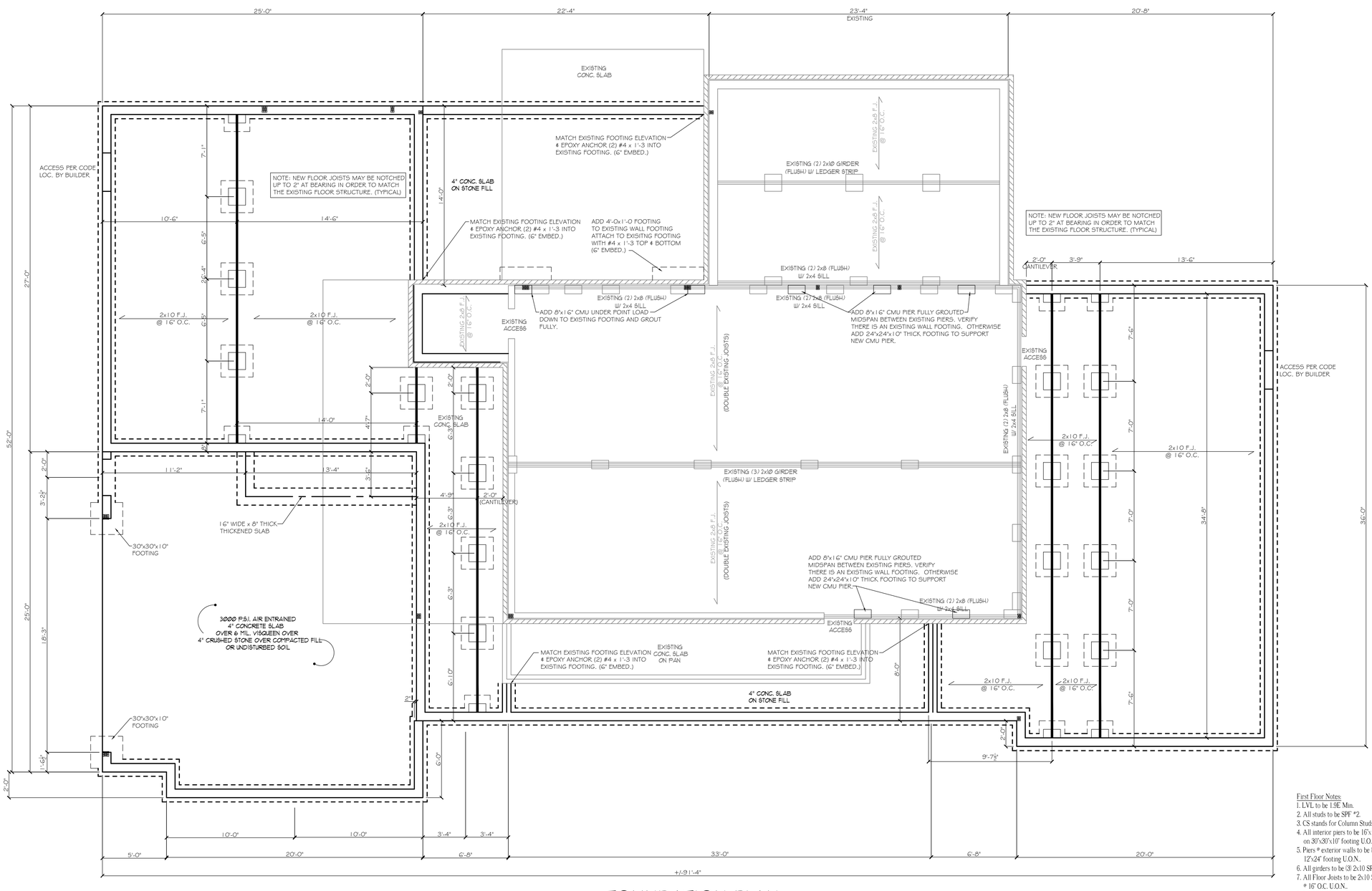
ISSUE DATE: 4-26-2023

REVISION NO.	REVISION DATE

CONTENT:
SECOND FLOOR

SHEET:
5



FOUNDATION PLAN

1/4"= 1'-0"

First Floor Notes:
1. LVL to be 1.9E Min.
2. All studs to be SPF #2.
3. CS stands for Column Studs.
4. All interior piers to be 16"x16" Block Piers on 30"x30"x10" footing U.O.N..
5. Piers @ exterior walls to be 8"x16" on 12"x24" footing U.O.N..
6. All girders to be (3) 2x10 SPF #2 (DROP) U.O.N..
7. All Floor Joists to be 2x10 SPF #2 @ 16" O.C. U.O.N..
8. See Sheet S5 for Typical Details.

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Corp. License Number C-2550

NORTH CAROLINA PROFESSIONAL ENGINEER'S SEAL 029465 THOMAS B. HARRIS
SEAL DATE: 6-5-2023

STEWART RESIDENCE
RENOVATION/ADDITION
9665 NC 27 E.
BENSON, NC 27504

issue date:

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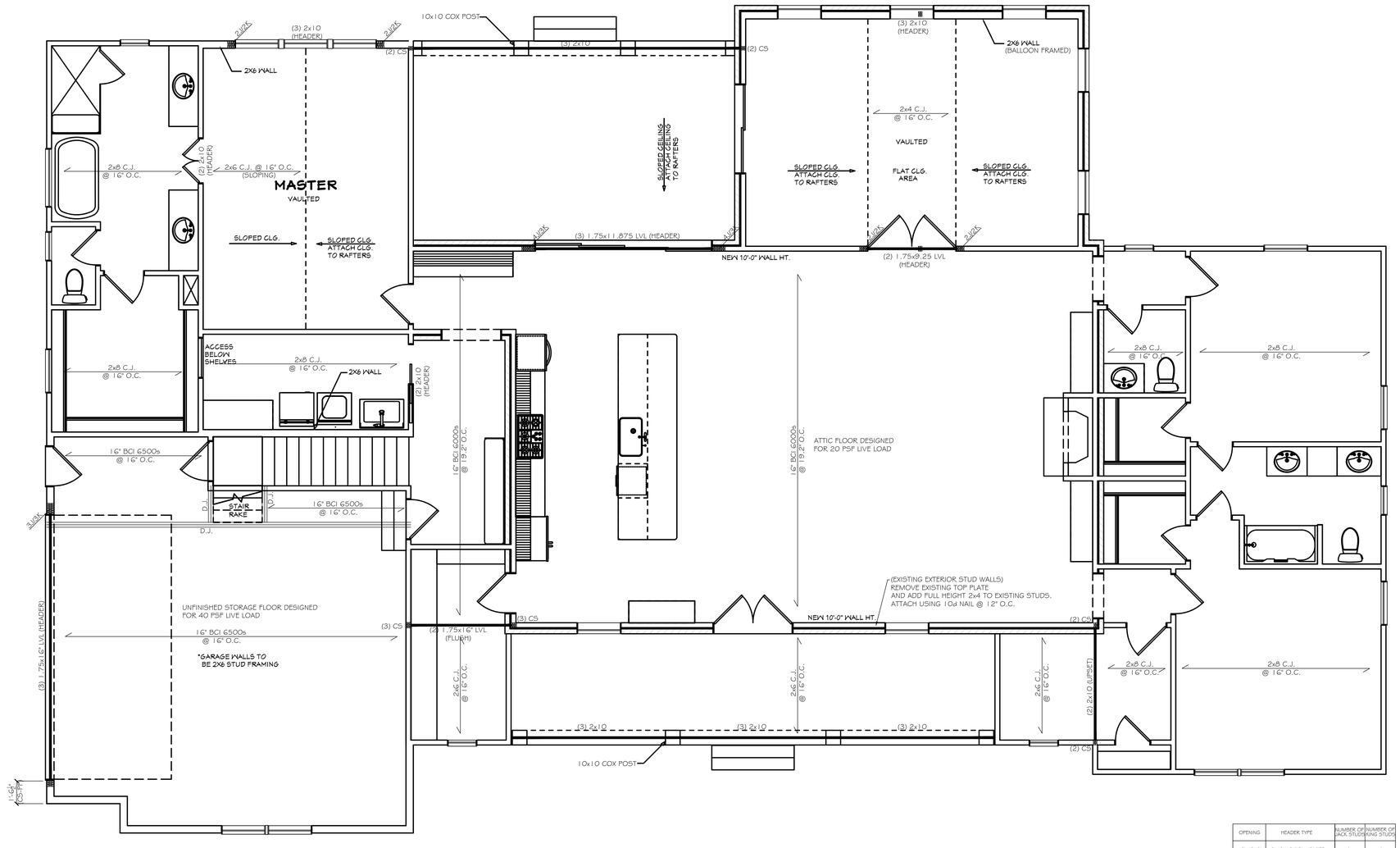
ckd. by TBH

content
FOUNDATION PLAN

sheet
S1



SECOND FLOOR FRAMING PLAN

1/4"= 1'-0"

OPENING	HEADER TYPE	NUMBER OF JACK STUDS	NUMBER OF KING STUDS
0' - 3'-0"	2 - 2x10 BOX HEADER	1	1
3'-0" - 5'-9"	2 - 2x10 BOX HEADER	2	2
5'-9" - 6'-0"	2 - 2x12 BOX HEADER	2	2

Second Floor Notes:
1. LVL to be 1.9E Min.
2. All studs to be SPF #2.
3. Abbreviations
   CS = Column Studs
   CS-WSP = Continuous Sheathed - Wood Structural Panel
   GB = Gypsum Board Braced Wall
   CS-PF = Continuous Portal Frame (See Detail Sheet)
   PFG = Portal Frame at Garage Door (See Detail Sheet)
   PFH = Portal Frame with Hold-Downs (See Detail Sheet)
   J = Jack Studs
   K = King Studs (Full Height)
4. All Floor Joists to be 2x10 SPF #2
   @ 16" O.C. U.O.N.
5. See Sheet S5 for Typical Details.

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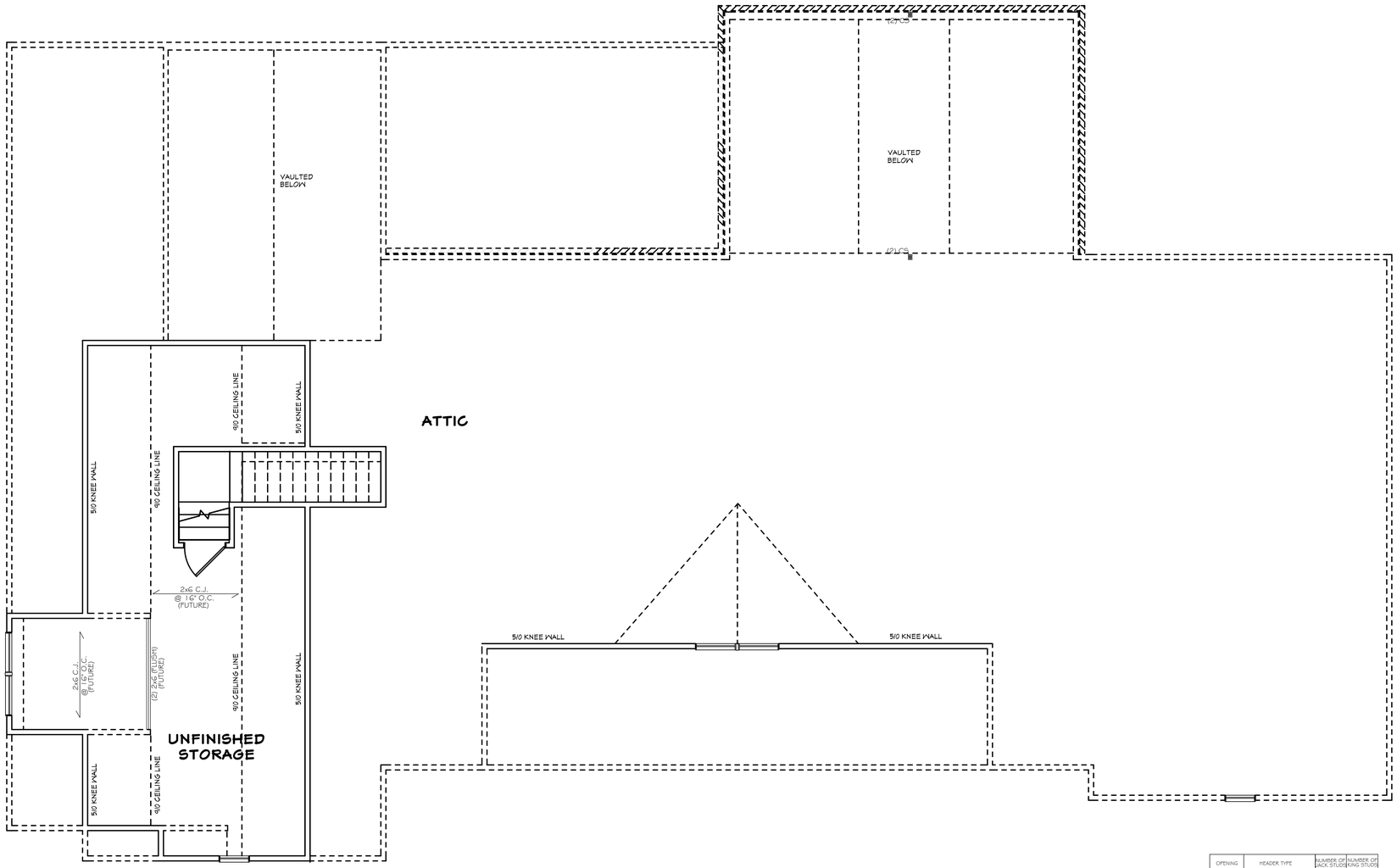
content
SECOND FLOOR FRAMING PLAN

sheet
S2



CEILING FRAMING PLAN

1/4" = 1'-0"

OPENING	HEADER TYPE	NUMBER OF JACK STUDS	NUMBER OF KING STUDS
0' - 3'-6"	2 - 2X8 BOX HEADER	1	1
3'-6" - 6'-8"	2 - 2x10 BOX HEADER	2	2

Ceiling Notes
1. LVL to be 1.9E Min.
2. All studs to be SPF #2.
3. Abbreviations:
   CS = Column Studs
   CS-WSP = Continuous Sheathed - Wood Structural Panel
   GB = Gypsum Board Braced Wall
   CS-PF = Continuous Portal Frame (See Detail Sheet)
   PFG = Portal Frame at Garage Door (See Detail Sheet)
   PFH = Portal Frame with Hold-Downs (See Detail Sheet)
   J = Jack Studs
   K = King Studs (Full Height)
4. All ceiling joists to be SPF #2 U.O.N.
5. See Sheet S5 for Typical Details.

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issue date:

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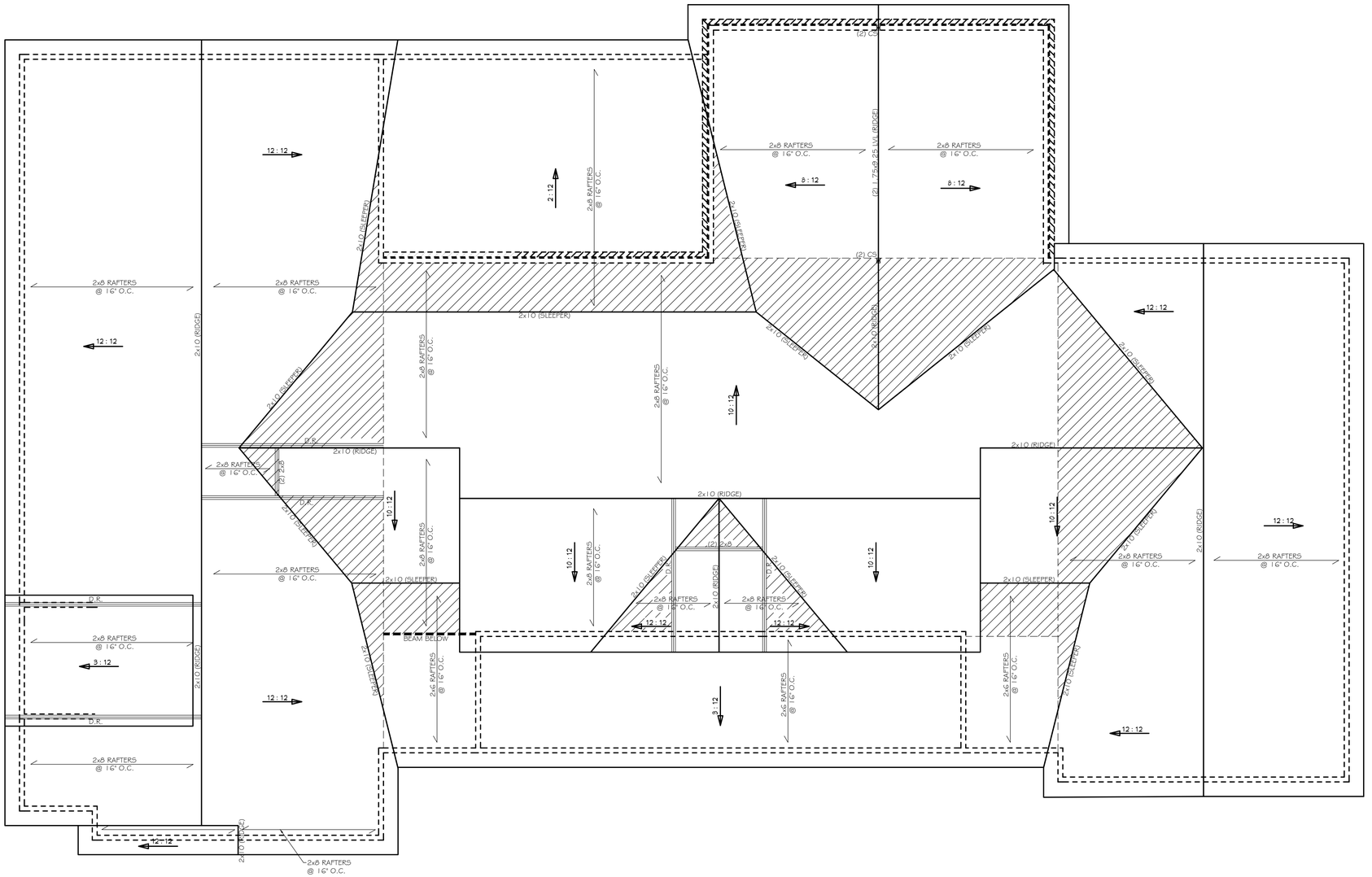
content
CEILING FRAMING PLAN

sheet
S3



ROOF FRAMING PLAN

1/4" = 1'-0"

Roof Notes:
1. All rafters SPF #2 U.O.N.
2. LVL to be 1.9E or Greater.
3. CS Stands for Column Studs.
4. See Sheet S5 for Typical Details.

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SEAL DATE: 6-5-2023

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issue date:

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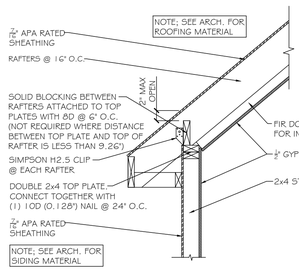
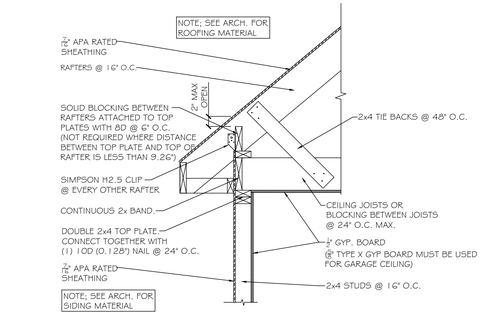
content
ROOF FRAMING PLAN

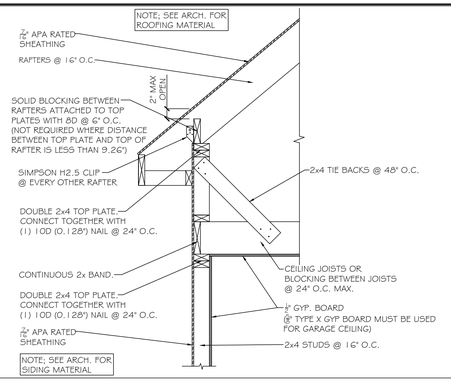
sheet
S4



RAFTER BEARING @ VAULTED CEILING



RAFTER BEARING @ FLAT CEILING



RAFTER BEARING ON KNEE WALL

1) ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPS, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS AND HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIER & GIRDER SYSTEM AND FOOTING. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM.

2) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2018 EDITION, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK NOR WILL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

3) DESIGN LOADS (R301.5)

	LIVE LOAD	DEAD LOAD	DEFLECTION
ROOMS OTHER THAN SLEEPING ROOMS	40	10	L/360
SLEEPING ROOMS	30	10	L/360
ATTIC WITH STORAGE	20	10	L/240
ATTIC WITH OUT STORAGE	10	10	L/360
STAIRS	40	--	L/360
EXTERIOR BALCONIES	60	10	L/360
DECKS	40	10	L/360
GUARDRAILS AND HANDRAILS	200	--	----
PASSENGER VEHICLE GARAGES	50	10	L/360
FIRE ESCAPES	40	10	L/360
SNOW	20	--	----
WIND LOAD	(BASED ON 115 MPH WIND VELOCITY & EXPOSURE B)		

4) FOR WALL BRACING REQUIREMENTS REFER TO SECTION R602.10 OF THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2018 EDITION (UNO.) LATERAL BRACING SHALL BE SATISFIED BY CONTINUOUSLY SHEATHING WALLS WITH STRUCTURAL SHEATHING INSTALLED PER TABLE R602.10. NOTE THAT ANY SPECIFIC BRACED WALL DETAIL SHALL BE INSTALLED AS SPECIFIED.

5) CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF 5 INCHES UNLESS NOTED OTHERWISE (UNO). AIR ENTRAINED PER TABLE 402.2

6) ALL FRAMING LUMBER SHALL BE SPF #2 (Fb = 875 PSI) UNLESS NOTED OTHERWISE (UNO).

7) LVL. SHALL BE LAMINATED VENEER LUMBER OR PARALLEL STRAND LUMBER (PSL) WITH THE FOLLOWING PROPERTIES: Fb = 2800 PSI, Fv = 285 PSI, E = 1900,000 PSI. INSTALL ALL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS.

8) ALL STRUCTURAL STEEL SHALL BE ASTM A-992. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" INCHES AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO LAG SCREWS (1/2" DIAMETER x 4" LONG.) LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOIST ARE TOE NAILED TO THE SOLE PLATE, AND SOLE PLATE IS NAILED OR BOLTED TO THE BEAM FLANGE @ 48" O.C. .

9) FLITCH BEAMS SHALL BE BOLTED TOGETHER USING 1/2" DIAMETER BOLTS (ASTM A307) WITH WASHERS PLACED UNDER THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" CENTERS (MAXIMUM), AND STAGGERED TOP AND AT BOTTOM OF BEAM (2" EDGE DISTANCE), WITH 2 BOLTS LOCATED AT 6" FROM EACH END.

10) BRICK LINTELS SHALL BE 3 1/2"x3 1/2"x1/4" STEEL ANGLE FOR UP TO 6'-0" SPAN AND 6"x4"x5/16" STEEL ANGLE WITH 6" LEG VERTICAL FOR SPANS UP TO 9'-0" (UNO).

11) THE POSITIVE AND NEGATIVE DESIGN PRESSURE FOR DOORS AND WINDOWS FOR A MEAN ROOF HEIGHT OF 35 FEET OR LESS SHALL BE 25 PSF.

12) IF ANY PART OF THE CLEAR OPENING OF THE OPERABLE PORTION OF A WINDOW IS LOCATED MORE THAN 72" ABOVE THE EXTERIOR GRADE THEN THE LOWEST PART OF THE CLEAR OPENING MUST BE AT LEAST 24" ABOVE THE FLOOR OF THE ROOM IN WHICH IT IS LOCATED.

PLANS DESIGNED TO THE 2018 NORTH CAROLINA RESIDENTIAL CODE
HOUSE DESIGNED FOR 115 MPH WIND, EXPOSURE B
ANCHOR BOLTS SHALL BE MIN. 1/2" DIAMETER & SHALL EXTEND A MINIMUM 7" INTO MASONRY OR CONCRETE. ANCHOR BOLTS TO BE NO MORE THAN 6' O.C. AND WITHIN 12" OF ALL PLATE SPLICES.

MEAN ROOF HEIGHT = 19.6'

COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOADS

MEAN ROOF HGT UP TO 30'	30'-1" - 35'	35'-1" - 40'	40'-1" - 45'
ZONE 1 16.5, -18.0	17.3, -18.9	18.0, -19.6	18.5, -20.2
ZONE 2 16.5, -21.0	17.3, -22.1	18.0, -22.9	18.5, -23.5
ZONE 3 16.5, -21.0	17.3, -22.1	18.0, -22.9	18.5, -23.5
ZONE 4 18.0, -19.5	18.9, -20.5	19.6, -21.3	20.2, -21.8
ZONE 5 18.0, -24.1	18.9, -25.3	19.6, -26.3	20.2, -27.0

MINIMUM VALUES FOR ENERGY COMPLIANCE:
ZONE 4
MAX. GLAZING U-FACTOR = 0.35
CEILING: R-38, WALLS: R-15, FLOORS: R-19

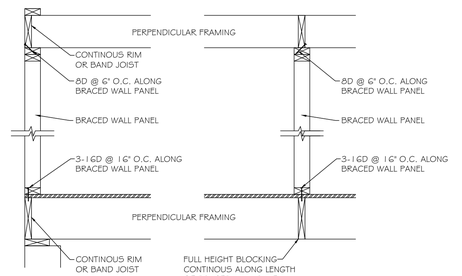
HEATED SQUARE FOOTAGE

FINISHED BASEMENT	N/A
FIRST FLOOR	3140 SF
SECOND FLOOR	N/A
THIRD FLOOR	N/A

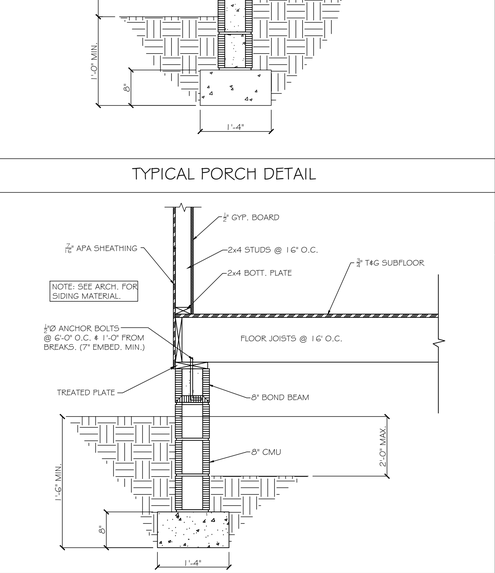
UNHEATED SQUARE FOOTAGE

UNFIN BASEMENT	N/A
GARAGE	609 SF
UNFIN STORAGE	505 SF
OTHER	577 SF

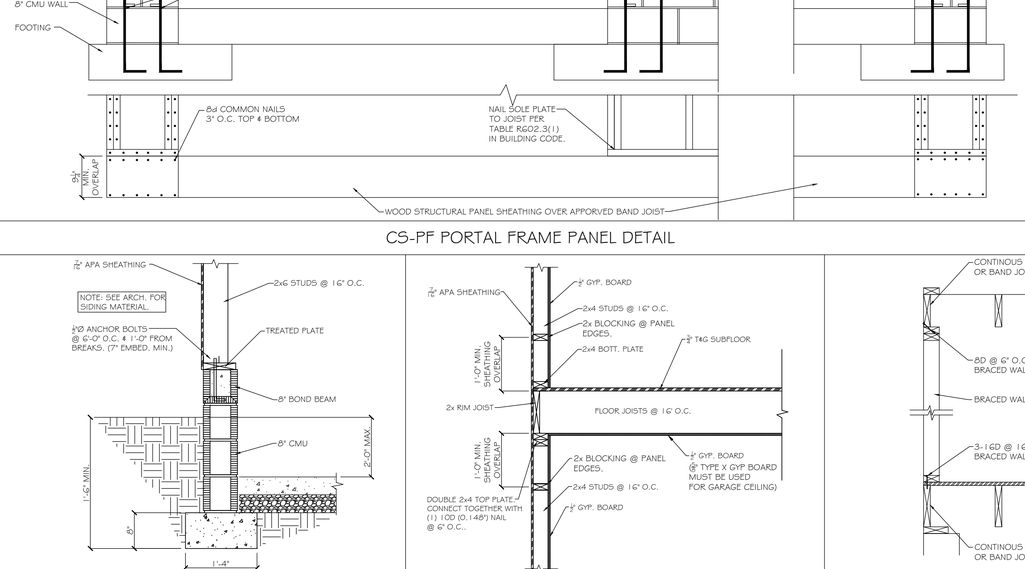
RESIDENTIAL CODE SUMMARY & NOTES



BRACED WALL PANEL CONNECTION WHEN PERPENDICULAR TO FLOOR/CEILING FRAMING



TYPICAL PORCH DETAIL

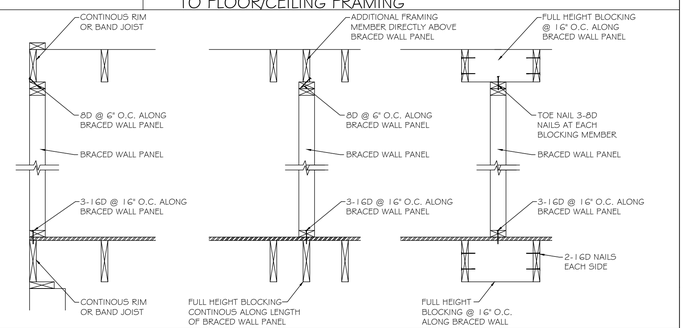


CS-PF PORTAL FRAME PANEL DETAIL

TYPICAL CRAWL SPACE FOUNDATION @ WALL WITH SIDING

GARAGE FOUNDATION WALL DETAIL

TYPICAL SECOND FLOOR DETAIL



BRACED WALL PANEL CONNECTION WHEN PARALLEL TO FLOOR/CEILING FRAMING

HERITAGE HOME DESIGNS, LLC
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SEAL 029465 ENGINEER THOMAS B. HARRIS
SEAL DATE: 6-5-2023

STEWART RESIDENCE
RENOVATION/ADDITION
9665 NC 27 E.
BENSON, NC 27504

issue date:

dwg. by TWB
ckd. by TBH

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TYPICAL DETAILS

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