

**GENERAL STRUCTURAL NOTES**

- ENGINEER'S SEAL (WHEN REQUIRED) APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPS, VALLEYS, RIDGES, FLOORS WALLS BEAMS, HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIER & GIRDER SYSTEMS AND FOOTINGS.
  - ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2018 EDITION WITH 2019 AMENDMENTS, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER AND DESIGNER WILL NOT BE RESPONSIBLE FOR AND WILL NOT HAVE CONTROL OF CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OF PROCEDURES, SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK, NOR WILL THE ENGINEER AND DESIGNER BE RESPONSIBLE FOR ANY FAILURE OF THE G.C. TO CARRY OUT ALL CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT AND BUILDING CODE DOCUMENTATION.
  - DESIGN LOADS (RECOMMENDED)
 

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (L)
ALL ROOMS ON FIRST FLOOR	40	10	L/360
ALL ROOMS ON SECOND FLOOR	40	10	L/360
ATTIC WITH STORAGE	20	10	L/240
ATTIC WITH-OUT STORAGE	10	10	L/360
STAIRS	40	10	L/360
EXTERIOR BALCONIES	40	10	L/480
DECKS	40	10	L/480
GUARD RAILS AND HAND RAILS	200	-	-
PASSENGER VEHICLE GARAGES	50	10	L/360
FIRE ESCAPES	40	10	L/360
SNOW LOAD	20	-	-
WIND	LOAD/BASED ON 100 MPH WIND VELOCITY & EXPOSURE		
  - ALL SAFETY REGULATIONS TO BE FOLLOWED STRICTLY. METHODS OF CONSTRUCTION AND ERECTION OF STRUCTURAL MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR.
- FOUNDATIONS:**
- ALLOWABLE SOIL PRESSURE ASSUMED 2000 PSF MINIMUM TO BE VERIFIED WITH LOCAL AND STATE JURISDICTIONS.
  - FOOTINGS SHALL BE CARRIED TO LOWER LEVELS OF THOSE SHOWN ON THE DRAWINGS IF REQUIRED TO REACH FIRM SOIL.
  - COMPACT ALL FILL UNDER BUILDING TO 98% MAXIMUM DENSITY AS DETERMINED BY ASTM D698. PLACE IN LAYERS 8" MAXIMUM LOOSE THICKNESS. VERIFY FIELD DENSITY, ASTM D1556, WITH ONE TEST PER 2000 SQ. FT. PER LAYER.
- STRUCTURAL MASONRY:**
- LOAD BEARING PIERS OR WALLS, FOUNDATION WALLS AND ANY OTHER MASONRY DESIGNATED ON DRAWINGS ARE TO BE CONSIDERED STRUCTURAL MASONRY.
  - COMPRESSIVE STRENGTH OF MASONRY UNITS:
 

SOLID CLAY UNITS	8000 PSF
CONCRETE UNITS	2000 PSF ON NET AREA
  - MORTAR - TYPE'S ASTM C270
  - GROUT FOR REINFORCED MASONRY - FINE GROUT ASTM C476. MINIMUM 28 DAY COMPRESSIVE STRENGTH - 3000 PSF. MAXIMUM HEIGHT TO WHICH MASONRY SHALL BE LAID BEFORE FILLING IS 9 FT. PROVIDE CLEANOUT OPENINGS AT THE BOTTOM OF EACH GROUT LIFT. CLEANOUT OPENINGS SHALL BE PROVIDED AT EACH CELL TO BE FILLED WITH GROUT.
  - REINFORCING GRADE AND DETAILS AS FOR CONCRETE. TIE IN POSITION AND PLACE CONCRETE, REINFORCING DURING CONSTRUCTION OF MASONRY. DO NOT PUSH REINFORCING DOWN INTO PREVIOUSLY PLACED GROUT FILL. SET BOLTS SIMILARLY. TIE WITHES WITH HORIZONTAL REINFORCEMENT AS SPECIFIED.
- CONCRETE:**
- CONCRETE COMPRESSIVE STRENGTH IN 28 DAYS AIR ENTRAINED PER TABLE 402.2:
 

ALL CONCRETE	3000 PSF
SLUMP	5" MAX
  - REINFORCING: ASTM A615 - 8 BARRS AND TIES GRADE 40 - ELSEWHERE GRADE 60, U.N.O. ALL REINFORCED TO BE WELDABLE GRADE WHERE WELDING SHOWN ON DRAWINGS.
  - CLEAR DISTANCE FROM FACE OF CONCRETE TO MAIN STEEL:
 

CAST-IN-PLACE-CONCRETE:	3/4"
SLABS	3"
FOOTINGS	3"
SLABS EXPOSED TO EARTH AND WEATHER	1 1/2"
  - PROVIDE WELDED WIRE MESH IN ALL SLABS ON GROUND 1 1/2" FROM TOP OF SLAB:
 

4" SLAB	6x6 - W4.0 x W4.0, U.N.O.
6" SLAB	6x6 - W4.0 x W4.0, U.N.O. UNLESS OTHERWISE NOTED
- WOOD:**
- ALLOWABLE STRESSES AND GRADES FOR TIMBER FRAMING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL DESIGN SPECIFICATION STRESS - GRADE LUMBER AND ITS FASTENING AS RECOMMENDED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION. THE DESIGN OF ALL TIMBER-FRAMING SHALL BE BY OTHERS.
  - ALL FRAMING TO BE SYP NO.2 (FD #875 PSF) UNLESS OTHERWISE NOTED (UNO) TRUSSES - AS REQUIRED BY DESIGN, TJS & LVL'S - AS REQUIRED BY DESIGN.
  - FABRICATE AND DESIGN ROOF TRUSSES IN ACCORDANCE WITH THE LATEST EDITION OF DESIGN SPECIFICATIONS FOR LIGHT METAL PLATE CONNECTED WOOD TRUSSES TPI OF THE TRUSS PLATE INSTITUTE. SUBMIT DESIGN COMPUTATIONS AND SHOP DRAWINGS SEALED BY A NORTH CAROLINA PROFESSIONAL ENGINEER FOR APPROVAL.
  - TRUSS DESIGN FOR THE FOLLOWING ROOF LOADS:
 

ATTIC ACCESS - FULL DOWN STAIRS	INSPECTION PORT ONLY
LIVE LOAD - 20 PSF	LIVE LOAD - 10 PSF
TOP CHORD LIVE LOAD - 10 PSF	TOP CHORD DEAD LOAD - 5 PSF
CEILING LOAD - 5 PSF	CEILING LOAD - 5 PSF
NET UPLIFT - 15 PSF	NET UPLIFT - 15 PSF
  - FABRICATE AND DESIGN ALL ENGINEERED LAMINATE VENEER LUMBER IN ACCORDANCE WITH THE LATEST STANDARD UNIVERSAL PRACTICES OF WOOD TRUSSES AND LVL'S. SUBMIT DESIGN COMPUTATIONS AND SHOP DRAWINGS SEALED BY A NORTH CAROLINA LICENSED ENGINEER (AS REQUIRED). LVL'S SHALL BE LAMINATED VENEER LUMBER OR PARALLEL STRAND LUMBER (PSL) WITH THE MINIMUM FOLLOWING PROPERTIES: Fd = 2800 PSF, Fv = 285 PSF, E = 1800000 PSF. INSTALL ALL MATERIALS AND CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS. THE AWARDED GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR CONFIRMING AND CERTIFYING ALL ENGINEERED LUMBER SIZES PRIOR TO CONSTRUCTION UNLESS OTHERWISE INSTRUCTED BY SEALED FRAMING PLANS AND DETAILS.
  - THE POSITIVE AND NEGATIVE DESIGN PRESSURES FOR ANY ROOF OR WALL CLADDING APPLICATION NOT SPECIFICALLY ADDRESSED IN THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2009 EDITION SHALL BE AS FOLLOWS:
 

ROOF: 45.4 PSF - 2.25:12 PITCH OR LESS
34.8 PSF - 2.25:12 TO 1:12 PITCH
21 PSF - 1:12 TO 12:12 PITCH

 WALLS: 24.1 PSF - WALLS
  - THE POSITIVE AND NEGATIVE DESIGN PRESSURE FOR DOORS AND WINDOWS FOR A LEAN ROOF HEIGHT OF 35 FEET OR LESS SHALL BE 25 PSF.
  - FITCH 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" O.C. (MAXIMUM), AND STAGGERED AT TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH 2 BOLTS LOCATED AT 6" FROM EACH END.
  - BRACED WALL PANELS SHALL BE CONSTRUCTED ACCORDING TO SECTION R602.10.3. THE AMOUNT AND LOCATION OF BRACING SHALL COMPLY WITH THE TABLE R602.10.3 THE LENGTH OF BRACED PANELS SHALL BE DETERMINED BY SECTION R602.10.4. LATERAL BRACING SHALL BE SATISFIED PER METHOD 3 BY CONTINUOUSLY SHEATHING WALLS WITH STRUCTURAL SHEATHING PER TABLE R602.3. NOTE THAT ANY SPECIFIC BRACED WALL DETAIL SHALL BE INSTALLED AS SPECIFIED.
  - ALL WOODEN BEAMS AND HEADERS SHALL HAVE THE FOLLOWING END SUPPORTS: (1) 2x4 STUD COLUMN FOR 6'-0" MAX. BEAM SPAN; (2) STUDS FOR BEAM SPANS GREATER THAN 6'-0" (UNO). ALL BEARING HEADERS AND HEADERS OVER 6'-0" IN LENGTH SHALL BE (2) 2X10'S (UNO). SEALED STRUCTURAL DRAWINGS SHALL SUPERCEDE THIS NOTE.
  - "X" PLUS A NUMBER SHOWN AT BEAM AND HEADER SUPPORTS DESIGNATES THE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET.
- STRUCTURAL STEEL:**
- STRUCTURAL STEEL BEAMS ASTM A992, PLATES, ANGLES, CHANNELS ASTM A36; STL. TUBE ASTM A500; STL. PIPE ASTM A53.
  - DESIGN FABRICATION, AND ERECTION: AISC SPECIFICATIONS FOR BUILDINGS.
  - CONNECTIONS NOT DETAILED SHALL BE DESIGNED FOR LOADS SHOWN ON DRAWINGS OR FOR LOADS GIVEN IN STANDARD AISC LOAD TABLES FOR SFAN, SECTION, AND STRENGTH SPECIFIED.
  - SHOP CONNECTIONS: WELDED. FIELD CONNECTIONS: 3/4" BOLTS, ASTM A325. TIGHTEN TO A MINIMUM TORQUE OF 200 FT.LBS. U.N.O.
  - 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, 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDED THE JOIST ARE TOE NAILED TO THE SILL PLATE, AND SILL PLATE IS NAILED OR BOLTED TO THE BEAM FLANGE & 48" O.C.
  - BRICK LINTELS SHALL BE 3 1/2"x3 1/2"x1/4" STEEL ANGLE FOR UP TO 6'-0" SPAN; 6"x4"x5/16" STEEL ANGLE WITH 6" LEG VERTICAL FOR SPANS UP TO 9'-0"; 11"x4"x3/8" STEEL ANGLE WITH 11" LEG VERTICAL FOR A MAX. 18'0" GARAGE DOOR SPANS (UNO). AT ALL GARAGE DR OPENINGS, STEEL ANGLE TO BE LAGGED INTO THE WOOD HEADER USING A 1/2" DIAMETER x 3 1/2" L. SCREWS, 18" STAGGERED.

**GENERAL FOUNDATION NOTES**

- GENERAL FOUNDATION NOTES:
- FOR FOUNDATION WALL HEIGHT AND BACKFILL REQUIREMENTS REFER TO NORTH CAROLINA RESIDENTIAL CODE TABLE R404.1.1 (1 THRU 4)
  - NOTE: ASSUMED SOIL BEARING CAPACITY = 2000 PSF. CONTRACTOR TO VERIFY SITE CONDITIONS AND CONTACT SOILS ENGINEER IF MARGINAL OR UNSTABLE SOILS ARE ENCOUNTERED.
  - ATTACH SILL PLATE WITH 1/2" DIA. ANCHOR BOLTS AT 5'-6" CENTERS (T EMBEDMENT) AND 12" FROM EACH PLATE END. (SECTION R403.1.6)
  - CONCRETE BLOCK PIER SIZE SHALL BE U.O.N (SECTION R 403.3):
 

SIZE	HOLLOW MASONRY	SOLID MASONRY
8X16	UP TO 32" HIGH	UP TO 5'-0" HIGH
12X16	UP TO 48" HIGH	UP TO 9'-0" HIGH
16X16	UP TO 64" HIGH	UP TO 12'-0" HIGH
24X24	UP TO 86" HIGH	-
  - ALL BEAM POCKET LOCATIONS THAT HAVE A SIGNIFICANT POINT LOAD, PROVIDE SOLID BLOCKING TO PIER. SOLID BLOCK ALL BEAM BEARING POINTS NOTED TO HAVE THREE OR MORE STUDS TO FOUNDATION (TYP). NUMBER SHOWN AT ALL BEAM AND HEADER SUPPORTS INDICATES NUMBER OF SUPPORT STUDS REQUIRED IN STUDS REQUIRED IN STUD POCKET.
  - ABBREVIATIONS:
 

"S"	SINGLE JOIST
"D"	DOUBLE JOIST
"T"	TRIPLE JOIST
- CONTRACTOR TO COORDINATE IN FIELD ALL STEPPED FOOTINGS AND STEPPED FOUNDATION WALLS WITH THE EXISTING GRADE OF LOT. ADJUST DIMENSIONS AND QUANTITY AS NECESSARY TO MAINTAIN CODE DEPTHS AND CLEARANCES.

**HEADER SPANS**

- HEADER SPANS:
- 3'-6" OR LESS (1) JACK & KING STUD TO SUPPORT EACH END.
  - 3'-7" OR MORE (2) JACK & 2 KING TO SUPPORT EACH END; UNLESS PLANS INDICATE OTHERWISE.

**NOTES:**

- ALL NON LOAD BEARING WALLS THAT HAVE AN OPENING, WILL RECEIVE (2) 2X6'S W/ 1/2" PLYWOOD SPACER.
- ALL WALLS PARALLEL TO FLOOR JOIST SHALL HAVE DOUBLE JOIST ATTACHED TO TOGETHER.
- IT IS ACCEPTABLE TO SUBSTITUTE 1/2" RIGID FOAM BOARD FOR 1/2" OSB SHEATHING SPECIFIED IN THE SCHEDULE ABOVE.
- \*1 GRADE OR BETTER OF SOUTHERN YELLOW PINE, \*2 GRADE SPRUCE FINE FIR IS REQUIRED TO BE USED ON ALL EXTERIOR AND INTERIOR WALL BEARING HEADER CONDITIONS.
- PROVIDE HEADER WITHIN CAVITY OF TJS. THE BOTTOM OF HEADER SHALL BE FLUSH WITH BOTTOM OF TJS.

**GENERAL FRAMING NOTES**

- GENERAL FRAMING NOTES:
- SIMPSON TOP FLANGED HANGERS, "LH" TYPE SHALL BE PROVIDED @ EACH JOINT, U.N.O. FOR SPECIFIC HANGING CONDITIONS. FOLLOW PROPER STANDARD MANUFACTURER INSTALLATION REQUIREMENTS, UNLESS OTHERWISE NOTED.
  - "S" = SINGLE JOIST  
"D" = DOUBLE JOIST  
"T" = TRIPLE JOIST
  - AT ALL LVL'S BEARING ON WALLS, FLOORS, ETC. PROVIDE COMPLETE FULL BEARING ALONG ENTIRE SURFACE OF THE LVL'S BEARING SURFACE.
  - AREA AT WALL REPRESENTS BEARING WALL CONDITION PROVIDE REQUIRED STRUCTURAL BLOCKING AT CONDITION.
  - 2X10 CONT. RIM BOARD FOR FIRST FLOOR SYSTEM RIMBOARD UNLESS OTHERWISE NOTED.
  - 2X10 CONT. RIM BOARD FOR SECOND FLOOR SYSTEM RIMBOARD UNLESS OTHERWISE NOTED.
  - CONT. 2x NAILERS AT LOCATIONS OF CEILING/ FLOOR JOISTS/RAFTERS THAT ARE PERPENDICULAR TO ANY AND ALL RM BOARDS / WALLS SHALL MATCH THE CLG. / JST. / RFR. SIZING TO WHICH IT IS BEING USED.
  - AS AN ALTERNATE TO STANDARD 2x4 WOOD "TIE-BACK" HURRICANE ANCHOR SYSTEM, USE SIMPSON HURRICANE ANCHORS, "H" TYPE SHALL BE PROVIDED @ 16" O.C. FOR SOLID LUMBER RAFTERS. FOLLOW PROPER STANDARD MANUFACTURER INSTALLATION REQUIREMENTS OR AS SPECIFIED IN THE COUNTY AND STATE IN WHICH THE HOME IS TO BE BUILT.
  - ALL FIRST FLOOR FRAMING FLUSH GIRDERS INDICATED ON THE FIRST FLOOR FRAMING PLAN USING A SOUTHERN YELLOW PINE SPECIES IS REQUIRED TO BE \*1 GRADE OR BETTER. OPTIONAL SPRUCE-FINE-FIR SPECIES REMAINS \*2 GRADE OR BETTER MINIMUM.
  - PROVIDE (1) ROW OF CROSS-BRACING OR SLD. WOOD BLOCKING BETWEEN EACH JOIST AT MIDPOINT OF SPAN; OR (2) ROWS EQUALLY SPACED BRACING/ BLOCKING ACROSS SPAN OF JOINT WHEN INDICATED ON PLANS.
  - G.C. TO COORDINATE THE CONDITION OF VERTICAL AND HORIZONTAL CUTS ON RAFTERS AT FRONT ENTRANCE WALL TO HAVE SURFACE OF CUTS FLUSH WITH WALL AND TOP FLATES.
  - THE "X" INDICATES THE RAFTER / CEILING BEARING HEIGHT ACCORDING TO REFERENCED PLAN.

**WINDOWS:**

PRODUCT CODE	SIZE	COUNT
2-8x3-2 TWIN	5'-4" x 3'-2"	2
2-8x4-6 TWIN	5'-4" x 4'-6"	1
2-8x5-6 TWIN	5'-4" x 5'-6"	5

**SQUARE FOOTAGE:**

AREA SCHEDULE	
NAME	AREA
Main Floor:	1440 sq. ft.
Second Floor:	186 sq. ft.
Porch:	740 sq. ft.
Garage:	668 sq. ft.
Gross Floor:	1626 sq. ft.

**EXTERIOR DOORS:**

PRODUCT CODE	SIZE	HINGE	COUNT
3-0x6-8 6 PANEL	3'-0"	R	2
3-0x6-8 COLONIAL E I	3'-0"	L	2
16-0x8-0 GARAGE DOOR	16'-0"	U	1

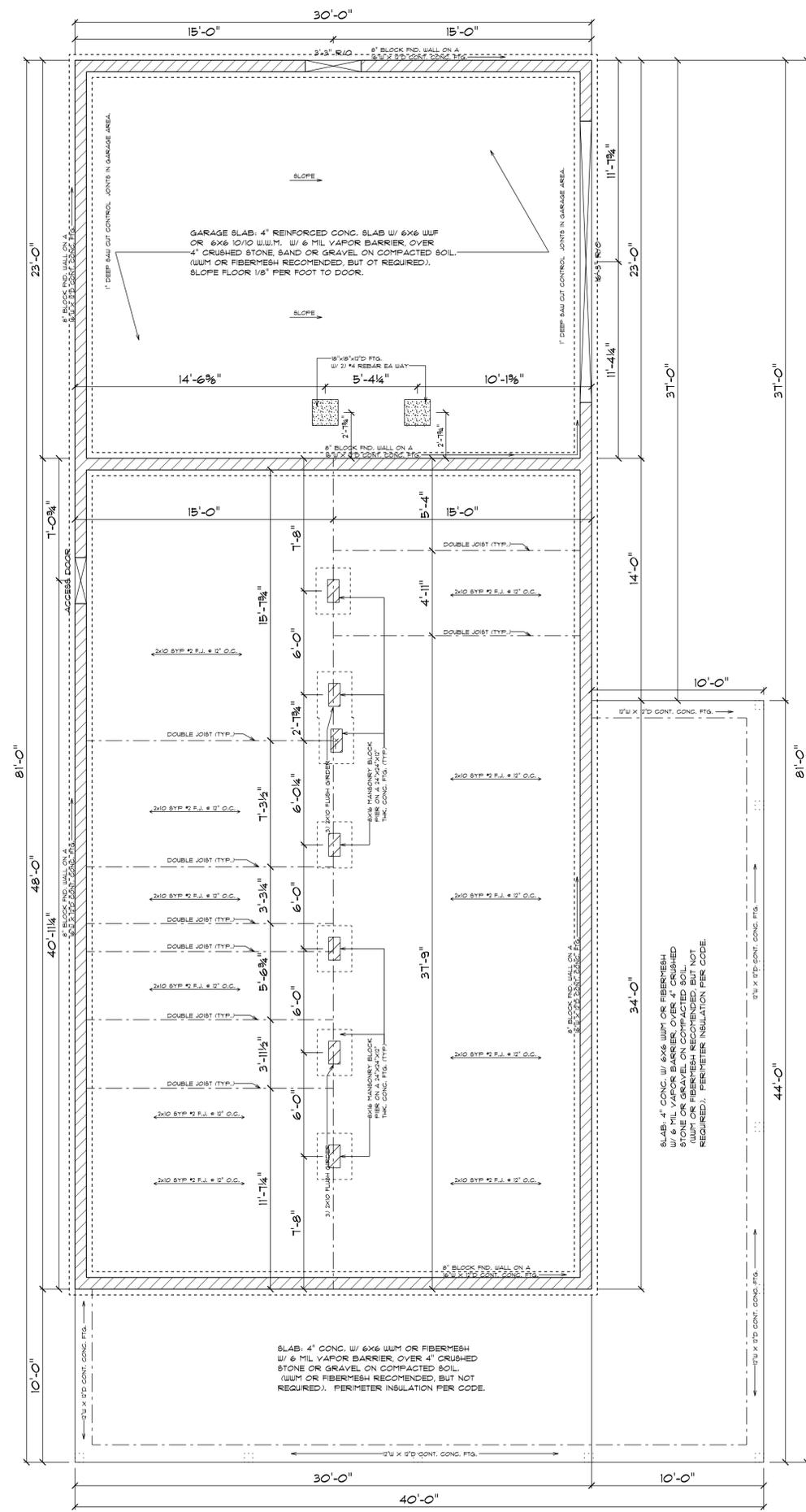
**INTERIOR DOORS:**

PRODUCT CODE	SIZE	HINGE	COUNT
28X80 COLONIAL	2'-4"	L	1
28X80 COLONIAL	2'-4"	R	1
28X80 COLONIAL	2'-4"	R	2
30X80 COLONIAL	2'-6"	L	2
30X80 COLONIAL	2'-6"	R	1
30X80 SHOWER GLASS	2'-6"	L	1
32X80 COLONIAL	2'-8"	L	1

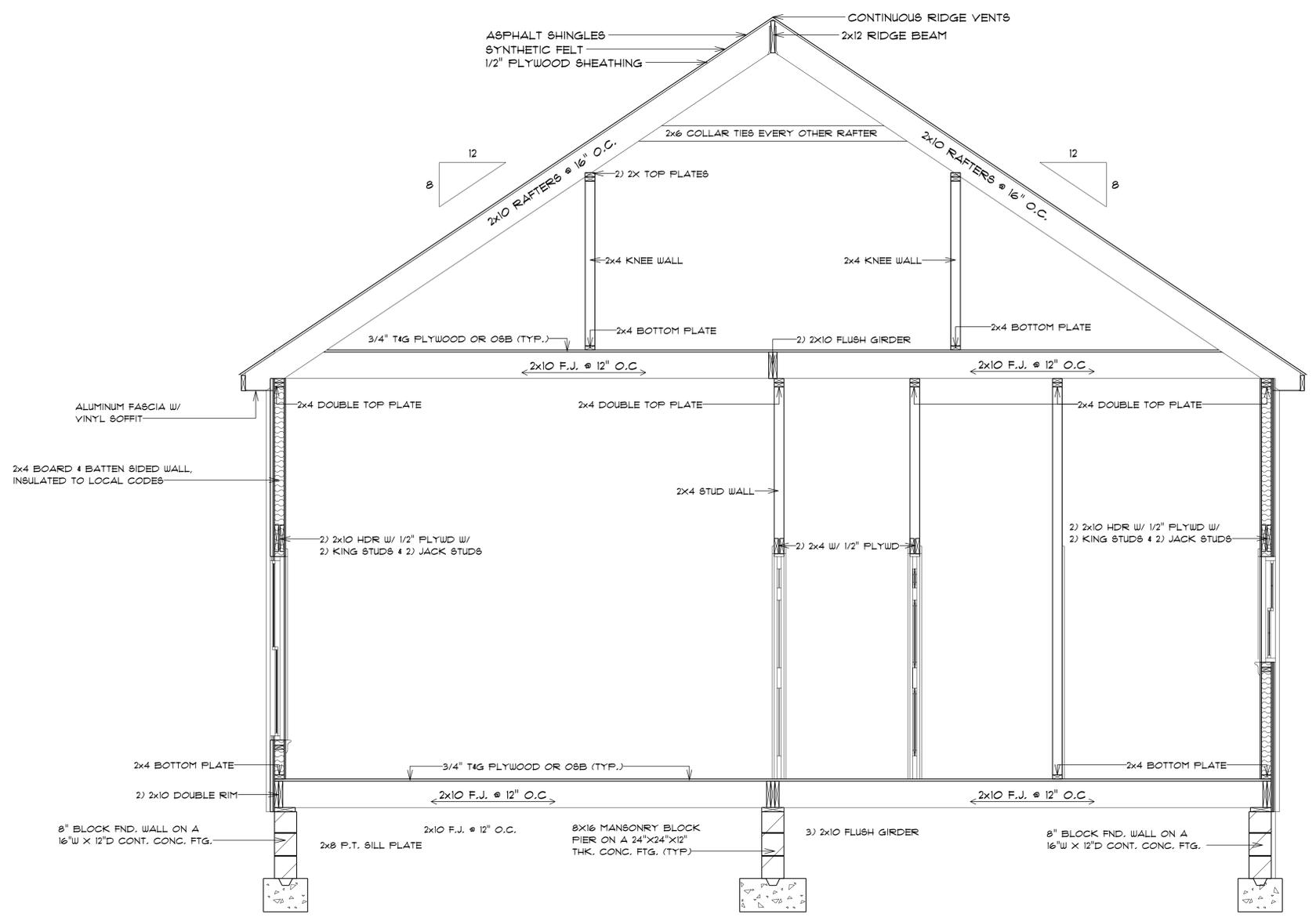


**Disclaimers:**  
Owner/Contractor retains responsibility for complying with all local building codes. Designer is not responsible for any misinterpretation of building codes. Designer is not a licensed architect. The drawings is prepared by engineer.





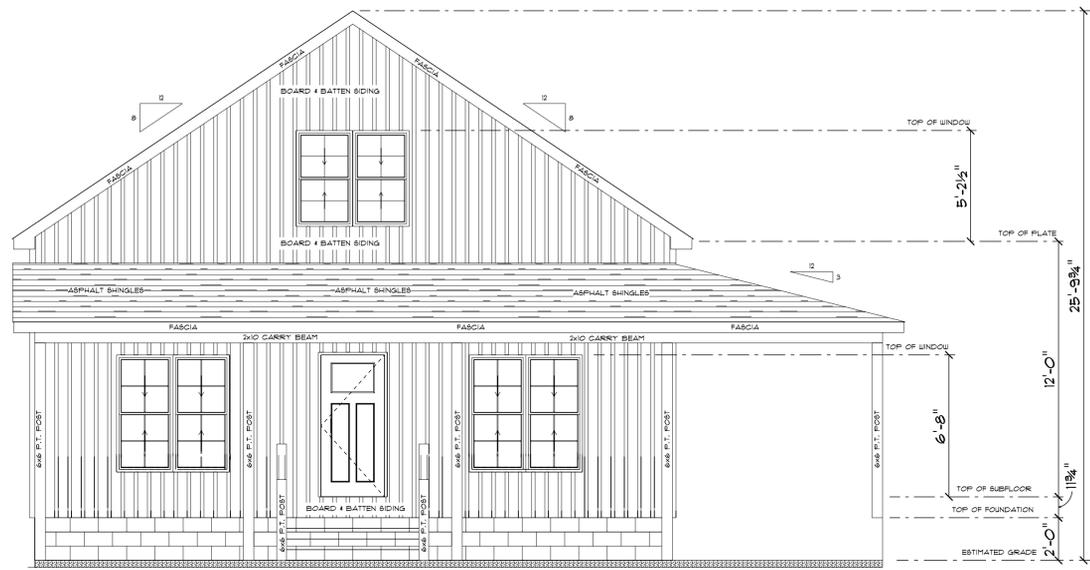
**FOUNDATION PLAN**  
SCALE: 1/4" = 1'-0"



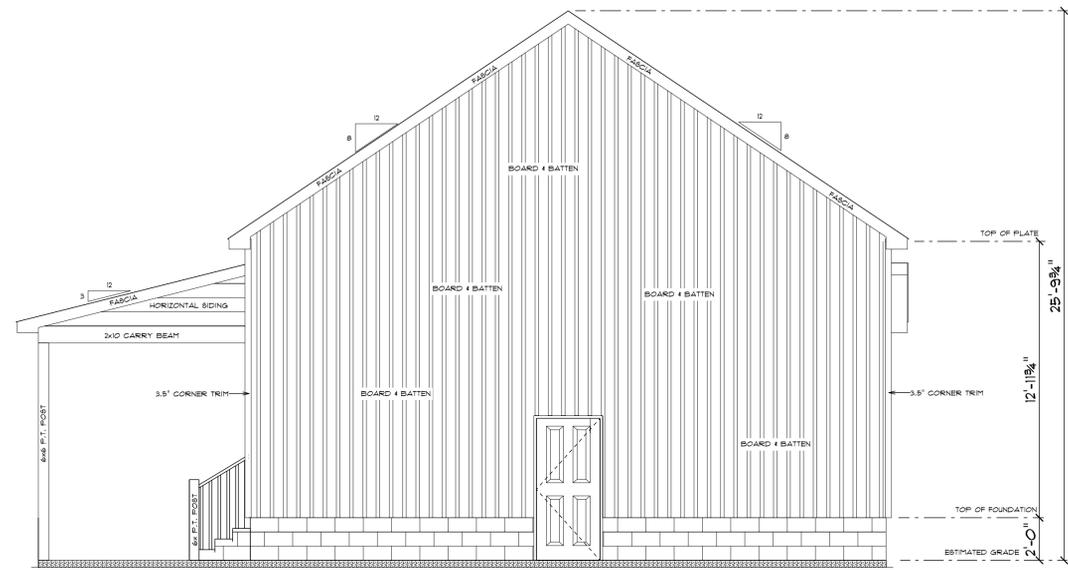
**CROSS SECTION A**  
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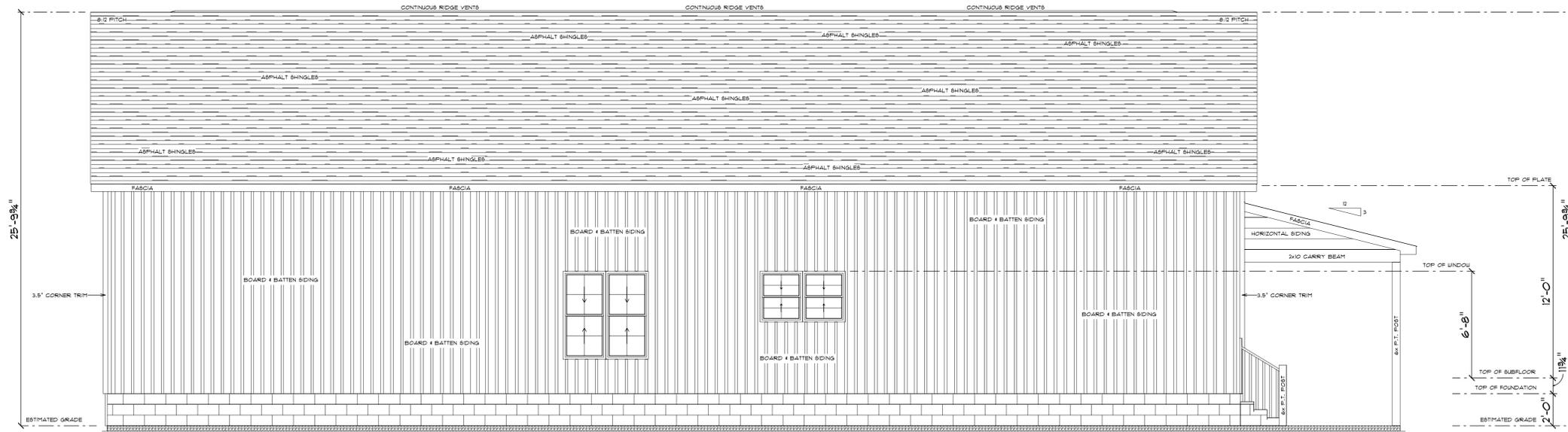
	SCALE: As Noted DRAWN BY: SBG DATE: 9/17/2025	PAGE: <b>2 / 5</b> FOUNDATION PLAN
	220 ALBY STREET ROCKY MOUNT, NC 27803 TELEPHONE: 1-252-230-2323 EMAIL: HELP@GO2HOMEDESIGNS.COM ~ WEB: WWW.GO2HOMEDESIGNS.COM	
<b>SQ. FT.</b>		
1ST FLOOR: 2ND FLOOR: TOTAL SQ FT: GARAGE:		
<b>Disclaimers:</b> <small>Owner/Contractor assumes responsibility for complying with all local building codes and regulations. The designer is not responsible for any errors or omissions. The designer is not a licensed architect. The designer is not a licensed engineer.</small>		
<b>PRIM CONSTRUCTION, LLC</b> PHONE: 1-919-999-1120 FAX: EMAIL:		



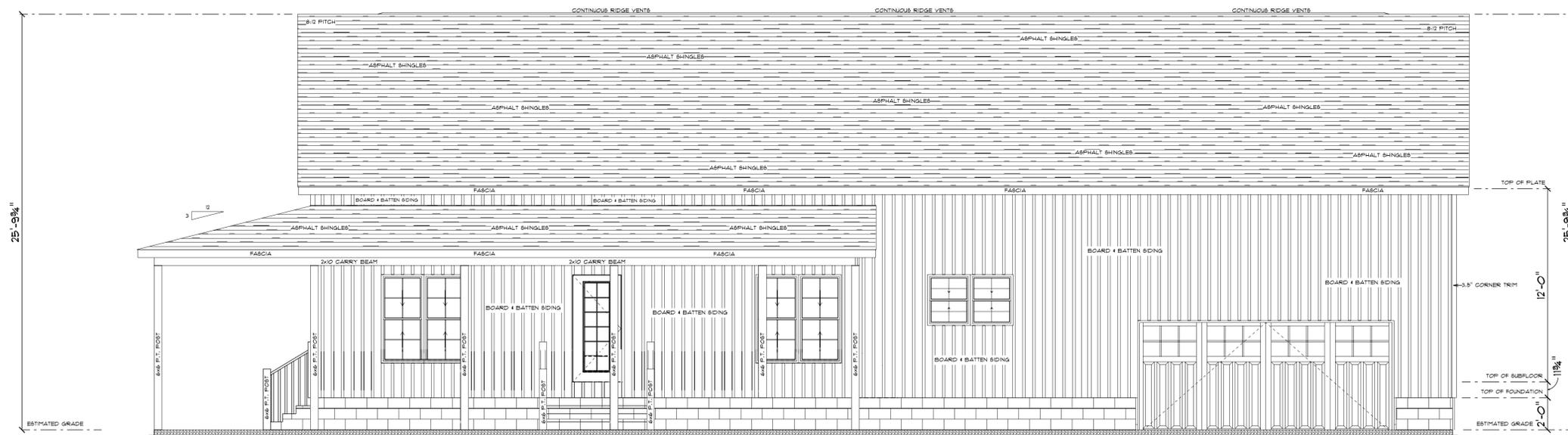
**FRONT ELEVATION**  
SCALE: 1/4" = 1'-0"



**REAR ELEVATION**  
SCALE: 1/4" = 1'-0"



**LEFT ELEVATION**  
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**RIGHT ELEVATION**  
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SQ. FT.

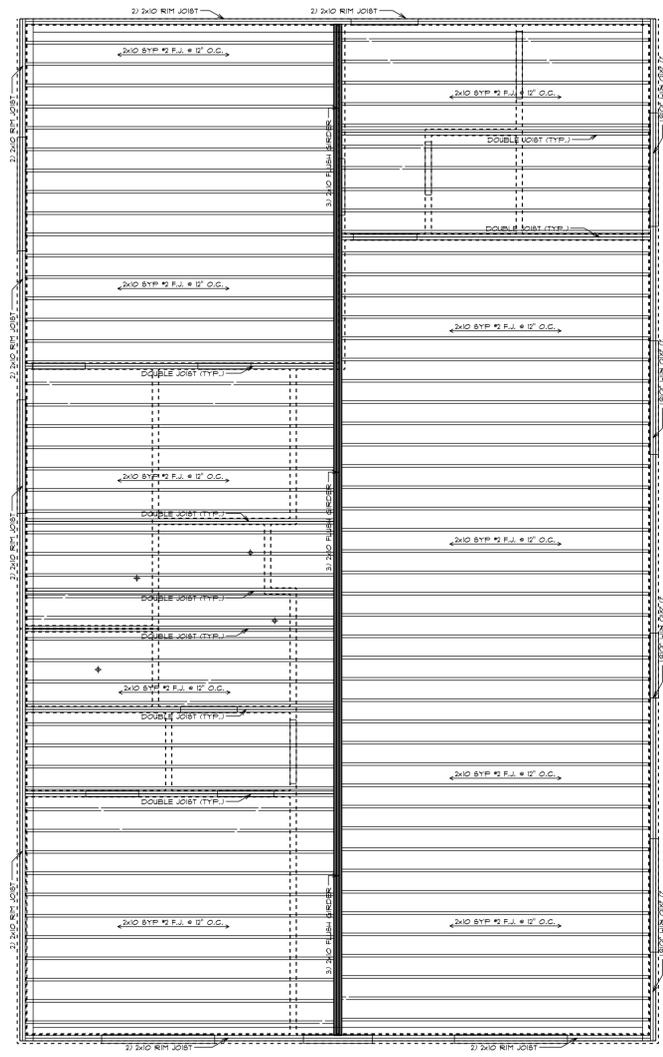
1ST FLOOR:  
2ND FLOOR:  
TOTAL SQ FT:  
GARAGE:

**Disclaimers:**  
Owner/Contractor assumes responsibility for complying with all local building codes and regulations. The contractor shall be responsible for obtaining all necessary permits. The contractor shall be responsible for all construction materials and labor. The contractor shall be responsible for all construction costs.

**PRIM CONSTRUCTION, LLC**  
PHONE: 1-919-999-1120  
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EMAIL:

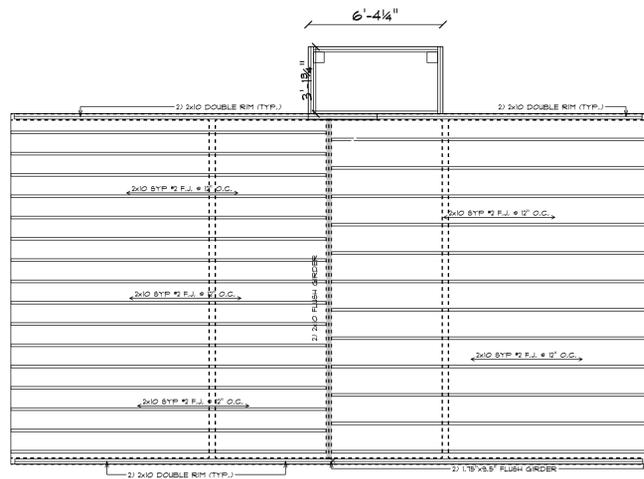






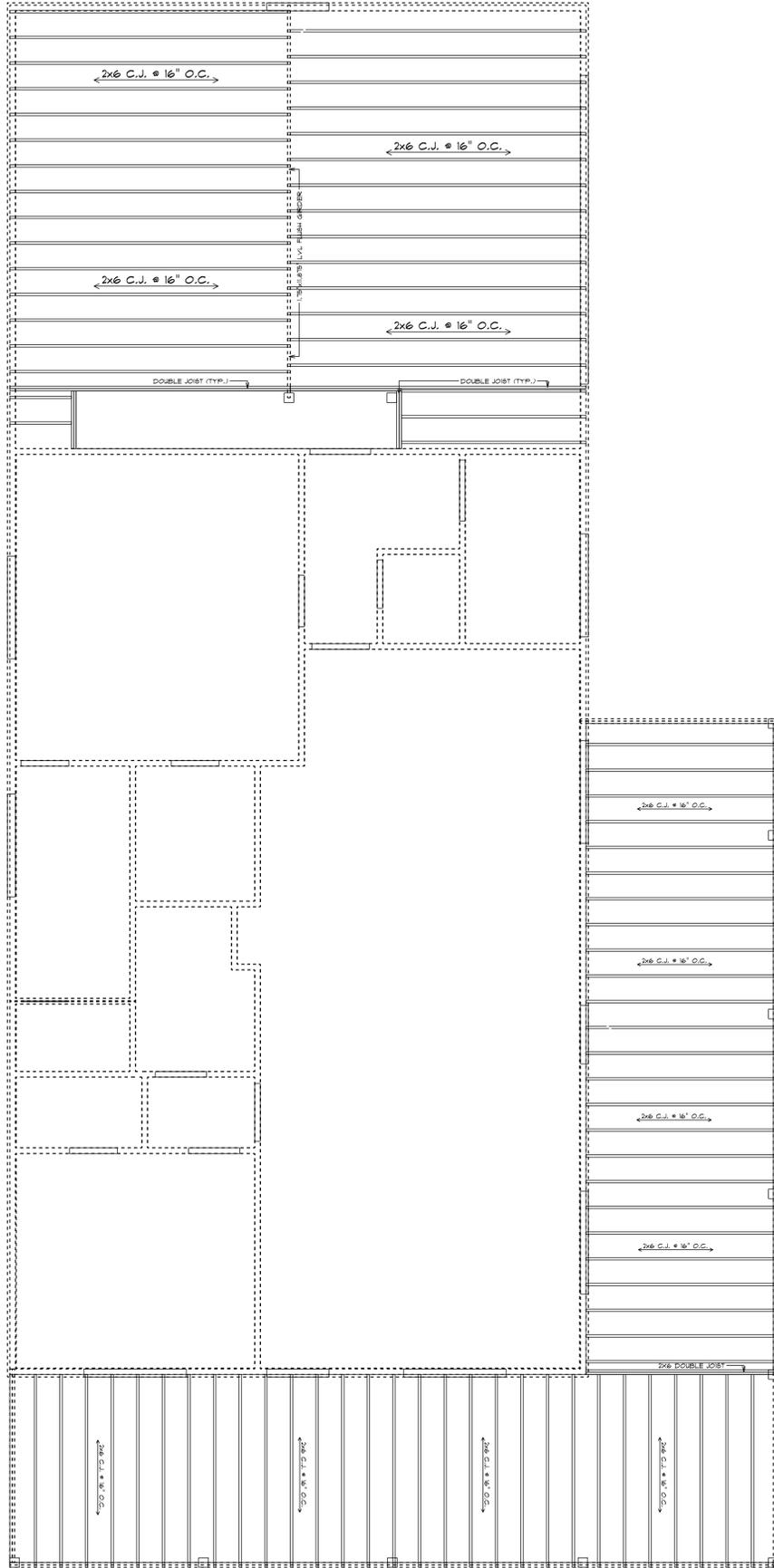
**MAIN FLOOR FRAMING**

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



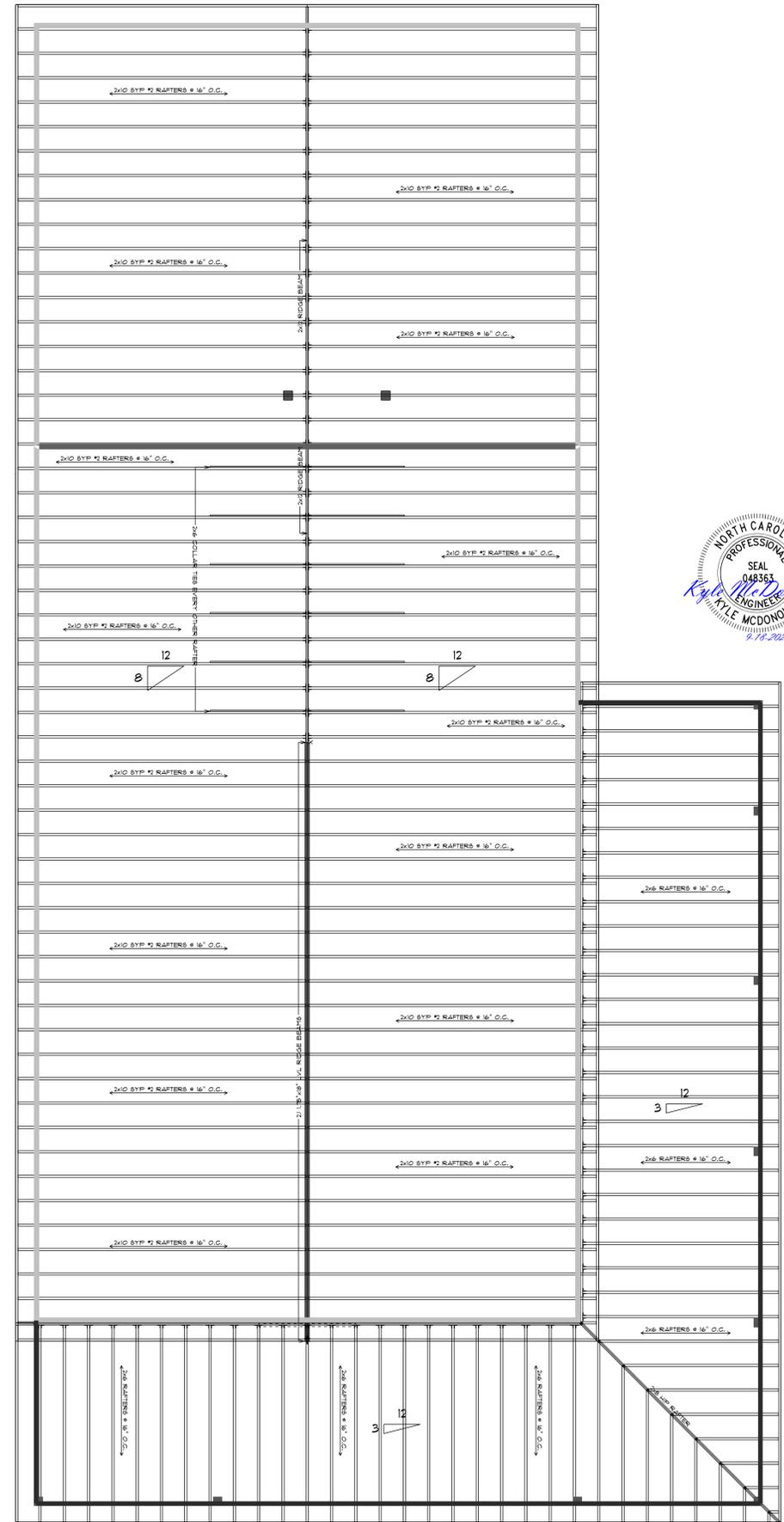
**SECOND FLOOR FRAMING**

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



**PORCH CEILING FRAMING**

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



**ROOF FRAMING PLAN**

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



<b>ALGO2 HOME DESIGNS</b> 220 ALBY STREET ROCKY MOUNT, NC 27803 TELEPHONE: 1-252-230-2323 EMAIL: HELP@ALGOHOMEDESIGNS.COM ~ WEB: WWW.ALGOHOMEDESIGNS.COM	SCALE: 1/4" = 1'-0" DRAWN BY: SBG DATE: 9/11/2025	PAGE: 5/5 FRAMING PLANS
	SQ. FT. 1ST FLOOR: 2ND FLOOR: TOTAL SQ FT: GARAGE:	PRIM CONSTRUCTION, LLC PHONE: 1-919-999-1120 FAX: EMAIL: