

VERIFY ALL DIMENSIONS BEFORE CONSTRUCTION!

2'-11 1/2'



31'-10"

20'+10"

3000 P.S.I. AIR ENTRAINED À" CONC SLAB W 6'%6' NI.4 X WI.4 WWR OR FIBER MESH REIÑFORCEMENT OVER 6 MIL VAPOR BARRIÉR OVER 4" CRUSHED STONE PILL OVER COMPACTED FILL OR INDISTURBED SOIL

– 24" X 24" X 12" THK. CONCRETE FOOTING – FILL BLOCK CORES ABOVE WITH TYPE "S" MORTAR.

EXPANSION JOINT

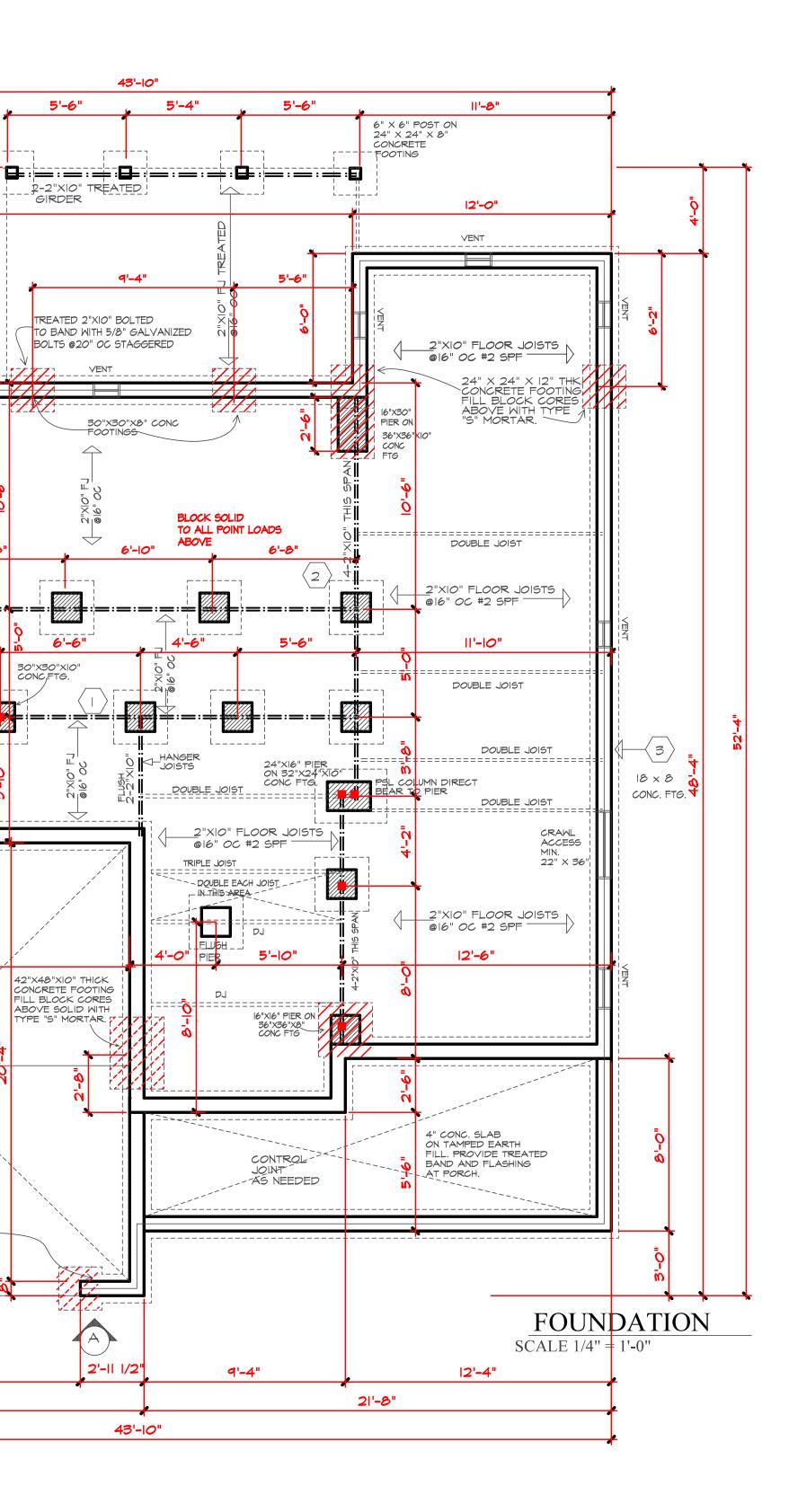
16'-3"

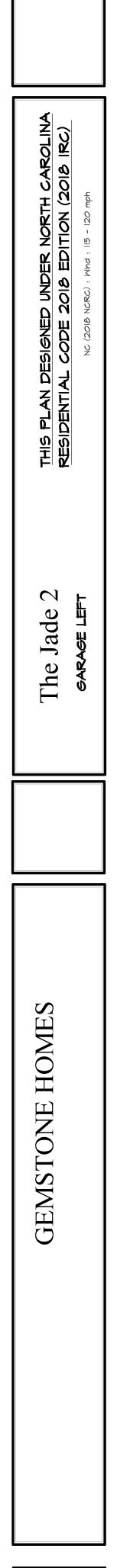
22'-2"

3'-8'

L___<mark>!</mark>___' L____

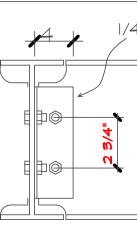
6'-8'

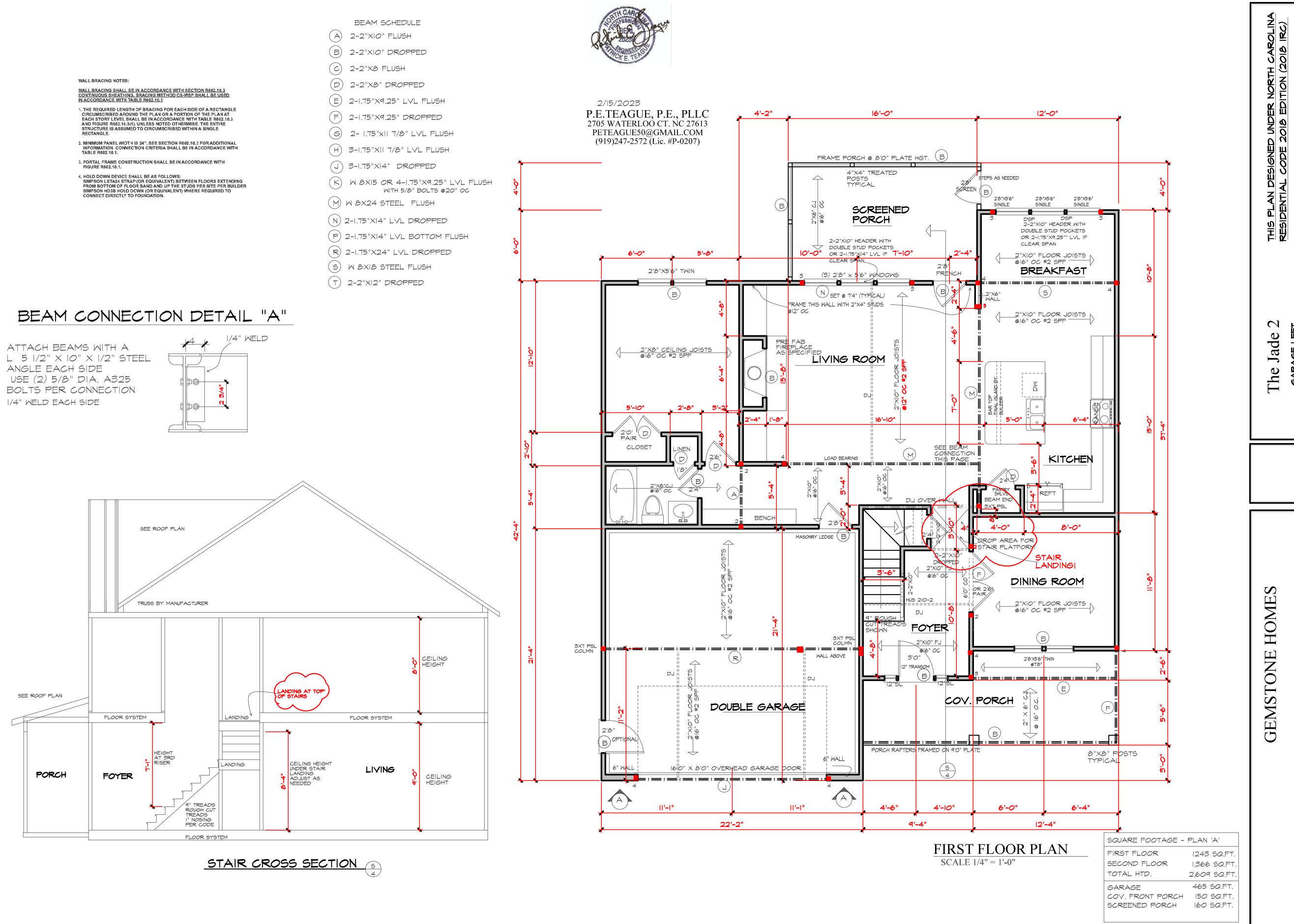


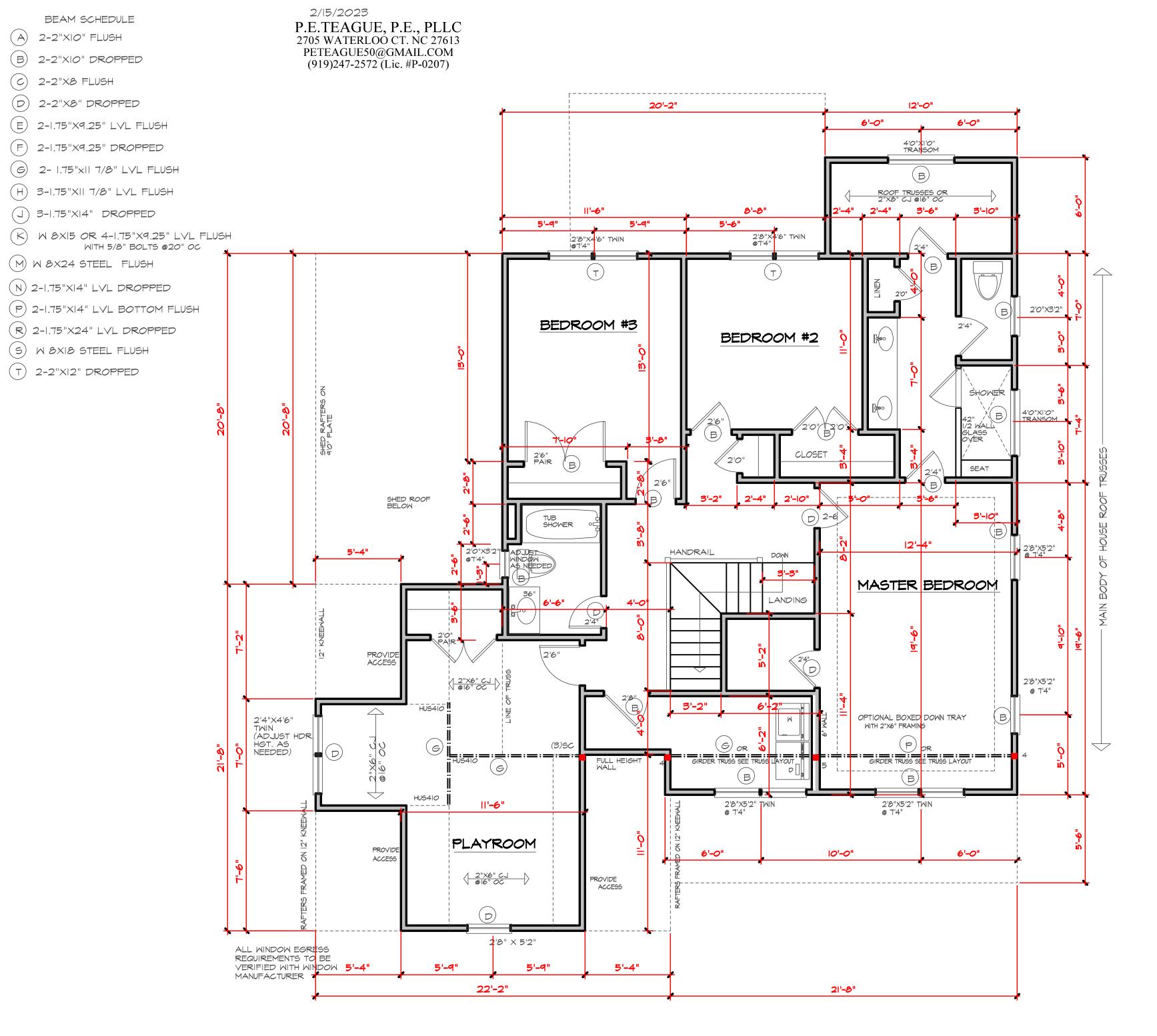


- STRUCTURE IS ASSUMED TO CIRCUMSCRIBED WITHIN A SINGLE RECTANGLE.

ANGLE EACH SIDE USE (2) 5/8" DIA. A325 BOLTS PER CONNECTION 1/4" WELD EACH SIDE







C 2-2"X8 FLUSH

(F) 2-1.75"X9.25" DROPPED

(J) 3-1.75"X14" DROPPED

M W &X24 STEEL FLUSH

S W &XI& STEEL FLUSH

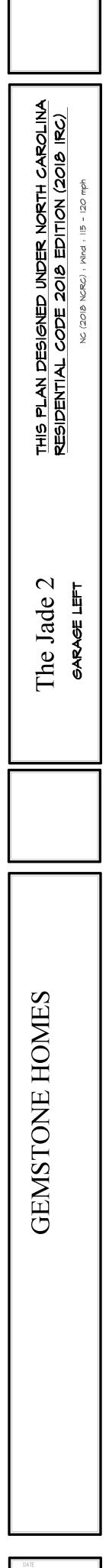
T 2-2"XI2" DROPPED

B 2-2"XIO" DROPPED

D 2-2"X8" DROPPED

- A 2-2"XIO" FLUSH
- BEAM SCHEDULE





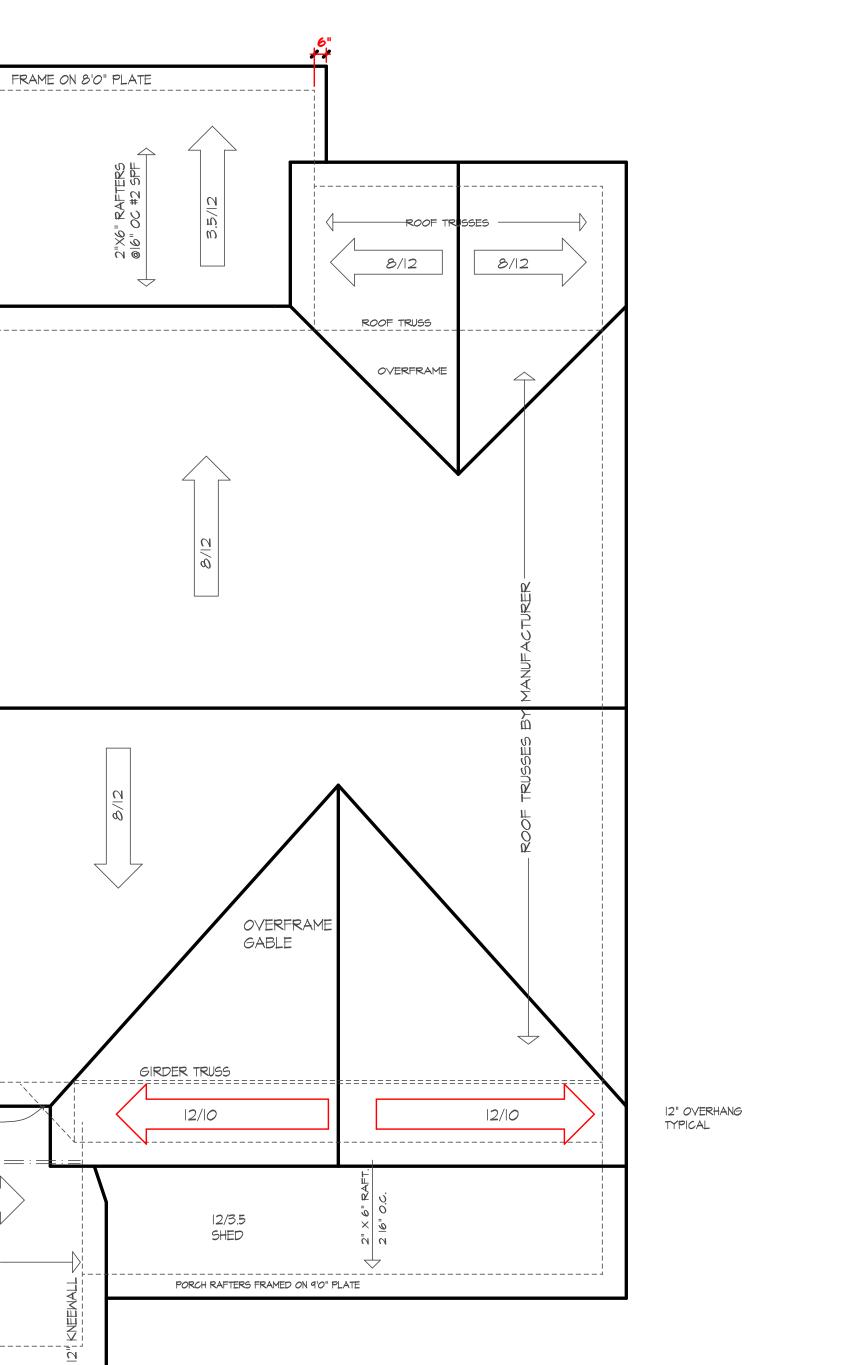
SECOND FLOOR PLAN SCALE 1/4" = 1'-0"



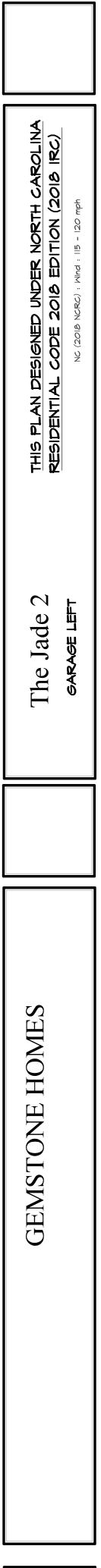


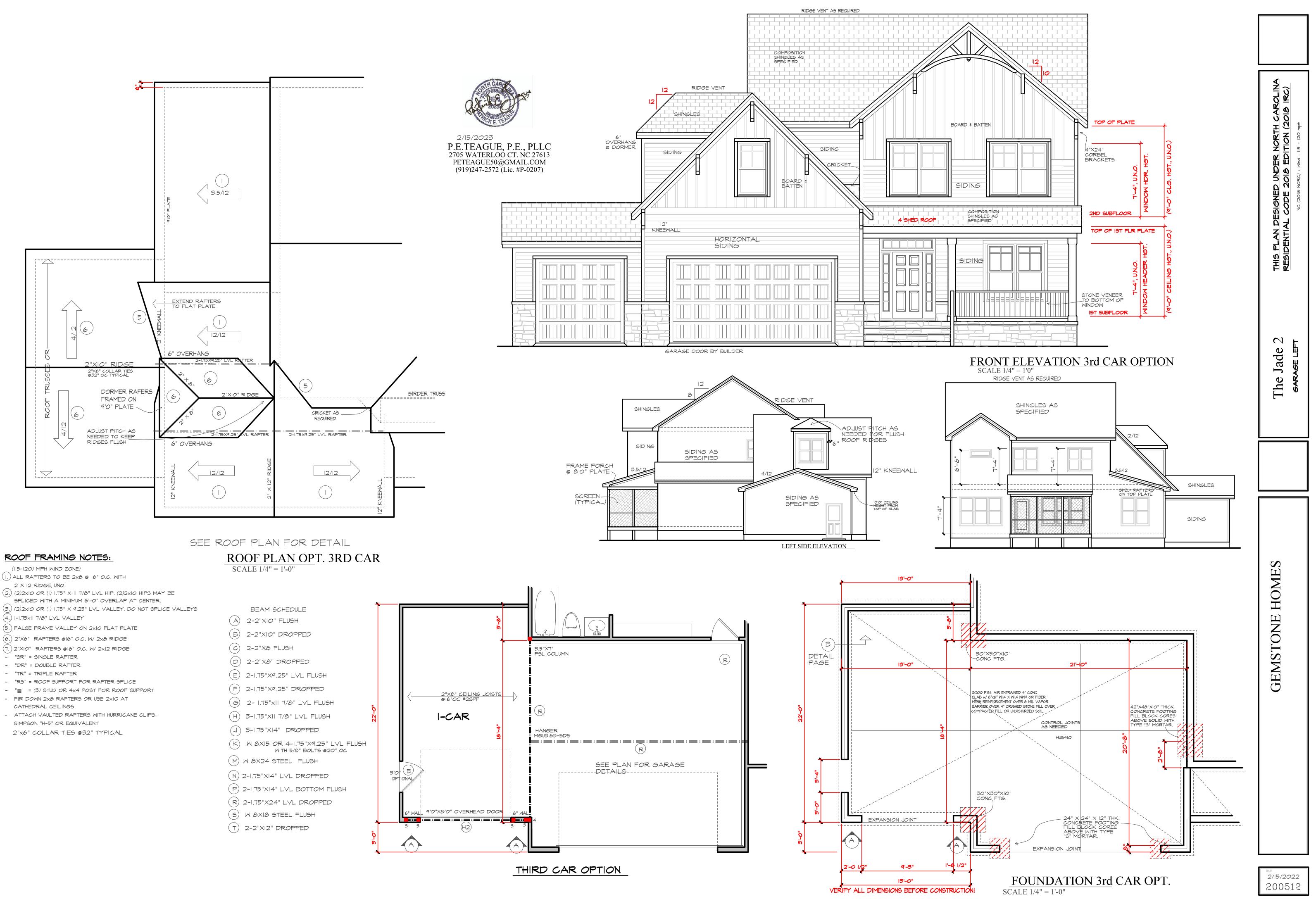
ROOF FRAMING NOTES: 6"++ (115-120) MPH WIND ZONE) (I.) ALL RAFTERS TO BE 2x8 @ 16" O.C. WITH 2 X 12 RIDGE, UNO. (2) (2)2×10 OR (1) 1.75" × 11 7/8" LVL HIP. (2)2×10 HIPS MAY BE SPLICED WITH A MINIMUM 6'-0" OVERLAP AT CENTER. (3.) (2)2x10 OR (1) 1.75" X 9.25" LVL VALLEY. DO NOT SPLICE VALLEYS (4.) I-I.75×II 7/8" LVL VALLEY (5.) FALSE FRAME VALLEY ON 2x10 FLAT PLATE 6.) 2"X6" RAFTERS @16" O.C. W/ 2x8 RIDGE (7.) 2"XIO" RAFTERS @I6" O.C. W/ 2x12 RIDGE - "SR" = SINGLE RAFTER - "DR" = DOUBLE RAFTER --- "TR" = TRIPLE RAFTER - "RS" = ROOF SUPPORT FOR RAFTER SPLICE - "■" = (3) STUD OR 4×4 POST FOR ROOF SUPPORT - FIR DOWN 2x8 RAFTERS OR USE 2x10 AT CATHEDRAL CEILINGS - ATTACH VAULTED RAFTERS WITH HURRICANE CLIPS: SIMPSON "H-5" OR EQUIVALENT 2"x6" COLLAR TIES @32" TYPICAL 2"X8" RAFTERS @16" OC #2 SPF -3.5/12 2"X8" RAFTERS @16" 0C #2 SPF -|2/|2 6" OVERHANG 2'XIO" FLAT PLATE DORMER RAFERS FRAMED ON 9'0" PLATE 1 2" X 4" °@ |6" O. CRICKET AS ____ REQUIRED ADJUST PITCH AS NEEDED TO KEEP RIDGES FLUSH _____: ____: ____: ____: ____: ____ 2-1.75X9.25" LVL RAFTER 2-1.7<u>5x9.25</u>" L RAFTER 6" OVERHANG 12/12 2"X8" RAFTERS @16" OC #2 SPF 2"X8" RAFTERS @16" OC #2 SPF $\langle \vdash$





ROOF PLAN SCALE 1/4" = 1'-0"





(115-120) MPH WIND ZONE)

- CATHEDRAL CEILINGS
- ATTACH VAULTED RAFTERS WITH HURRICANE CLIPS: SIMPSON "H-5" OR EQUIVALENT



STRUCTURAL NOTES

THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2018 EDITION (2018 IRC), PLUS ALL LOCAL CODES AND REGULATIONS. ALL MEMBERS SHALL BE FRAMED, ANCHORED, TIED AND BRACED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND THE BUILDING CODE.

2) DESIGN LOADS SEE TABLE R301.5

WIND SPEED: (REFER TO TABLE R301.2.4) VERIFY ZONE BEFORE CONSTRUCTION.

ACCORDING TO SECTION R602.10. THE AMOUNT, LOCATION, AND CONSTRUCTION OF BRACING SHALL COMPLY WITH REO2.10. NOTE THAT THE BRACING SHOWN ON THE PLANS IS BASED ON THE PRESCRIPTIVE BRACING REQUIREMENTS OF THE

4) CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF 5 INCHES UNLESS NOTED OTHERWISE (UNO). AIT ENTRAINED PER TABLE 402.2. ALL CONCRETE SHALL BE PROPORTIONED, MIXED, HANDLED, SAMPLED, TESTED AND PLACED IN ACCORDANCE WITH ACI STANDARDS. ALL SAMPLES FOR PUMPING SHALL BE TAKEN FROM THE EXIT END OF THE PUMP.

CONTRACTOR MUST CONTACT A GEOTECHNICAL ENGINEER AND THE STRUCTURAL ENGINEER IF UNSATISFACTORY SUBSURFACE CONDITIONS ARE ENCOUNTERED. THE SURFACE AREA ADJACENT TO THE FOUNDATION WALL SHALL BE PROVIDED WITH ADEQUATE DRAINAGE, AND SHALL BE GRADED SO AS TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS.

OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE SYP #2 (FB=975 PSI) PLATE MATERIAL MAY BE SPF #3 OR SYP #3 (FC(PERP) = 425 PSI - MIN).

7) ALL WOODEN BEAMS AND HEADERS SHALL HAVE THE FOLLOWING END SUPPORTS: (1) 2X4 STUD COLUMN FOR 6'-O" MAX. BEAM SPAN (UNO), (2)2X4 STUDS FOR BEAM SPAN GREATER THAN 6'-O" (UNO).

8) L.V.L SHALL BE LAMINATED VENEER LUMBER: FB=2600 PSI, FV=285 PSI, E=1,900,000 PSI. P.S.L SHALL BE PARALLEL STRAND LUMBER: FB=2900 PSI FV=290 PSI, E=2,000,000 PSI. L.S.L SHALL BE LAMINATED STRAND LUMBER: FB=2250 PSI, FV=400 PSI, E=1,550,000 PSI. INSTALL ALL CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS.

9) ALL ROOF TRUSS AND I-JOIST LAYOUTS SHALL BE PREPARED IN ACCORDANCE WITH THE SEALED STRUCTURAL DRAWINGS. TRUSSES AND I-JOISTS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.

IO) ALL STRUCTURAL STEEL SHALL BE ASTM A-36. 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 SUPORT IS CONSIDERED ADEQUATE PROVIDED THE JOIST ARE TOE NAILED TO THE SOLE PLATE, AND SOLE PLATE IS NAILED OR BOLTED TO THE BEAM FLANGE @ 48" O.C. ALL STEEL TUBING SHALL BE ASTM A500.

12) FLITCH BEAMS SHALL BE BOLTED TOGETHER USING (2) ROWS OF 1/2" NAMETER BOLTS (ASTM A307) WITH WASHERS PLACED UNDER THE THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" O.C. (MAX). AND STAGGERED AT THE TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH 2 BOLTS LOCATED AT 6" FROM EACH END.

13) BRICK LINTELS SHALL BE 3 1/2"X3 1/2"X1/4" STEEL ANGLE FOR UP TO 6'-O" SPAN AND 6"X4"X5/16" STEEL ANGLE WITH 6" LEG VERTICAL FOR SPANS UP TO 9'-0" (UNO).

14) THE POSITIVE AND NEGATIVE DESIGN PRESSURE FOR DOORS AND WINDOWS SEE R301.2(6)

DWELLING / GARAGE SEPARATION

REFER TO SECTIONS R302.5, R302.6, AND R302.7 WALLS. A minimum 1/2" gypsum board must be installed on all walls supporting floor/ceiling assemblies used for separation required by this section. STAIRS. A minimum of 1/2" gypsum board must be installed on the underside and exposed sides of all stairways.

CEILINGS. A minimum of 1/2" gypsum must be installed on the garage ceiling if there are no habitable room above the garage. If there are habitable room above the garage a minimum of 5/8" type X gypsum board must be installed on the garage ceiling. OPENING PENETRATIONS. Openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 1 3/8 inches (35 mm) thick, or 20-minute

fire-rated doors. DUCT PENETRATIONS. Ducts in the garage and ducts penetrating the walls or ceilings separating the *dwelling* from the garage shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other *approved* material and shall have no openings

into the garage. OTHER PENETRATIONS. Penetrations through the separation required in Section R302.6 shall be protected as required by Section R302.11, Item 4.

I) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF

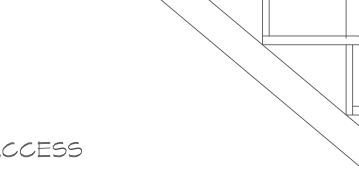
3) WALL BRACING: WALLS SHALL BE BRACED ALONG BRACED WALL LINES CODE AND SHALL BE VERIFIED AND/ORAPPROVED BY THE CODE OFFICIAL.

5) ALLOWABLE SOIL BEARING PRESSURE ASSUMED TO BE 2000 PSF. THE

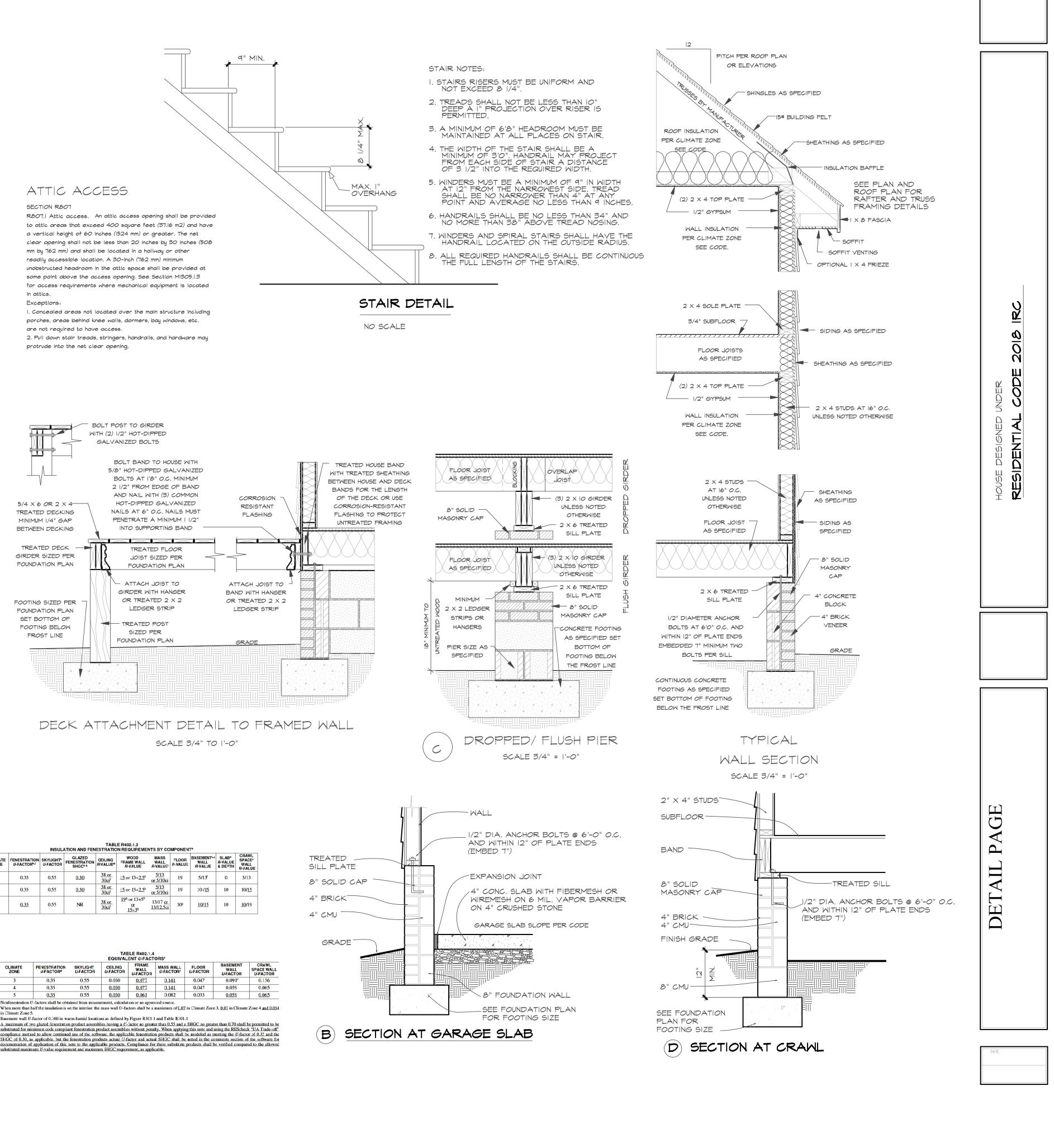
6) ALL FRAMING LUMBER SHALL BE SPF #2(FB = 875 PSI) UNLESS NOTED

II) REBAR SHALL BE DEFORMED STEEL. ASTM615, GRADE 60.

ATTIC ACCESS



MAX. I" OVERHANG



| TABLE R402.1.2 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT* | | | | | | | | | | |
|--|---|---|--|--|--|---------------------------------|--------------------------|---------------------------------|---|------------------------------------|
| CLIMATE ZONE | FENESTRATION U-FACTOR ^{b_i} | SKYLIGHT [®] <i>U</i> -FACTOR | GLAZED FENESTRATION SHGC ^{6, k} | CEILING R-VALUE ^m | WODD FRAME WALL <i>R</i> -VALUE | MASS WALL <i>R</i> -VALUE | FLOOR <i>R</i> -VALUE | BASEMENT SAS WALL R-VALUE | SLAB ^d <i>R</i> -VALUE & DEPTH | CRAWL SPACE° WALL R-VALUE |
| 3 | 0.35 | 0.55 | 0.30 | <u>38 or</u> <u>30ci</u> ¹ | 15 or 13+2.5 ^h | <u>5/13</u> or 5/10ci | 19 | 5/13 ^r | 0 | 5/13 |
| 4 | 0.35 | 0.55 | 0.30 | <u>38 or</u> <u>30ci</u> ¹ | <u>15</u> or 13+ <u>2.5</u> ^h | <u>5/13</u> or 5/10ci | 19 | 10/ <u>15</u> | 10 | 10/ <u>15</u> |
| 5 | <u>0.35</u> | 0.55 | NR | <u>38 or</u> <u>30ci¹</u> | <u>19ⁿ or 13+5^h</u> or 15+3 ^h | 13/17 <u>or</u> 13/12.5ci | 30 ⁸ | <u>10/15</u> | 10 | <u>10</u> /19 |

