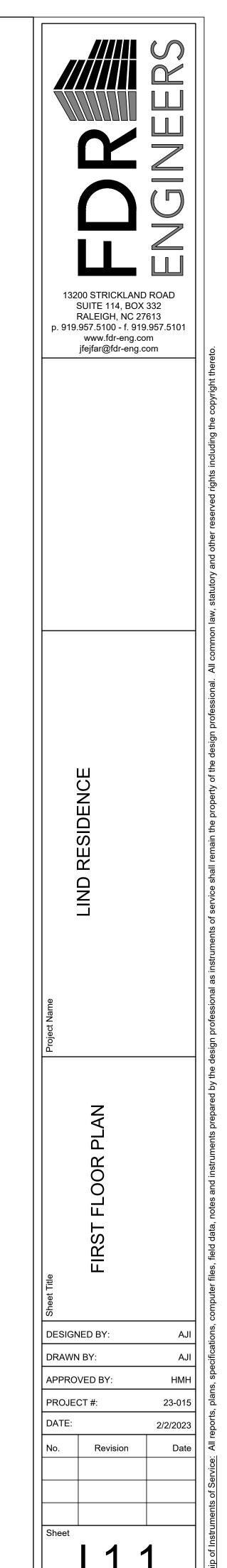


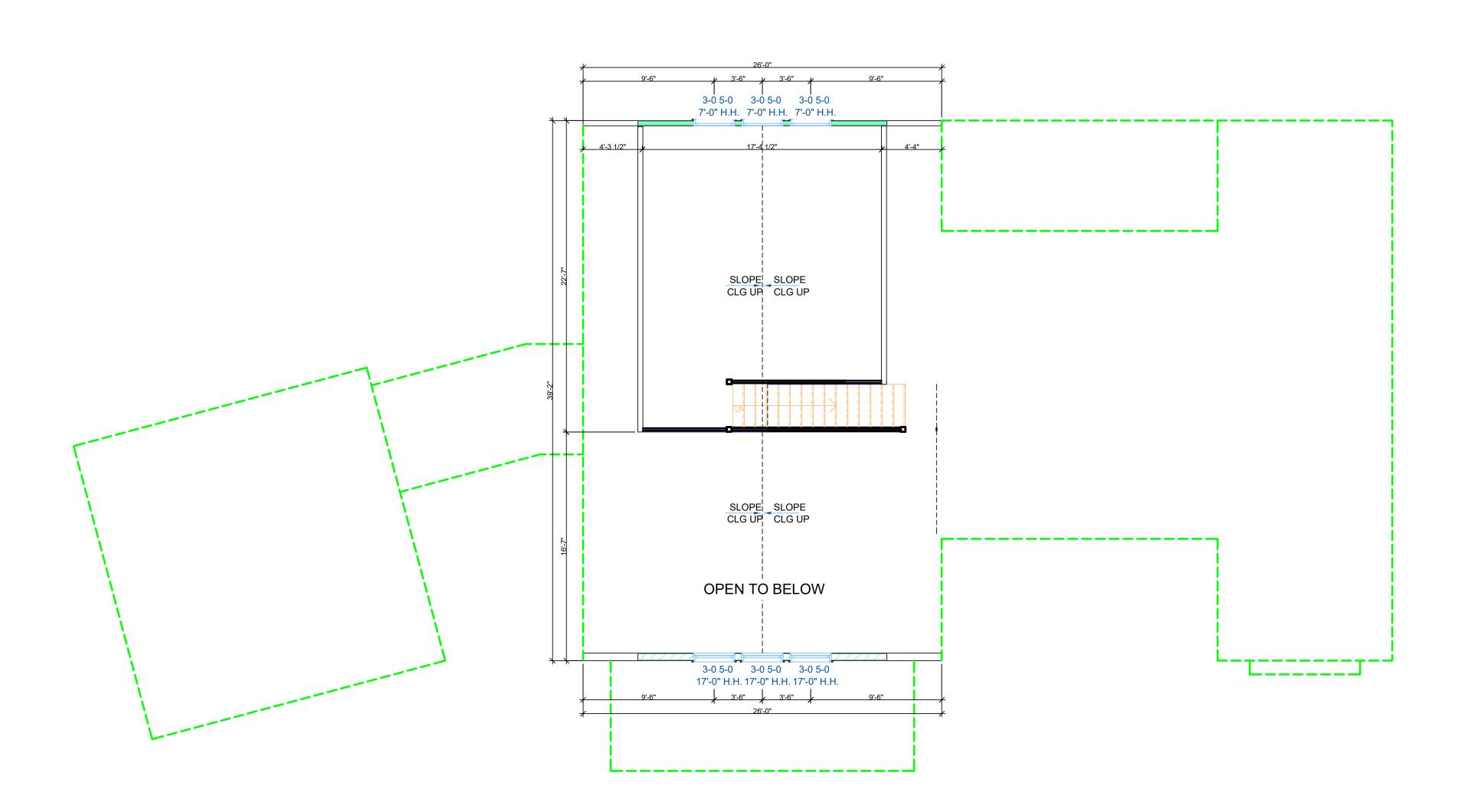
FIRST FLOOR PLAN

Scale: 3/16" = 1'-0"

## FRAMING NOTES:

- 1. ALL EXTERIOR DIMENSIONS ARE FROM FACE OF EXTERIOR SHEATHING.
- ALL INTERIOR DIMENSIONS ARE FROM FACE-OF-STUD TO FACE-OF STUD (DOES NOT INCLUDE DRYWALL).







FRAMING NOTES:

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2. ALL INTERIOR DIMENSIONS ARE FROM FACE-OF-STUD TO FACE-OF STUD (DOES NOT INCLUDE DRYWALL).

13200 STRICKLAND ROAD SUITE 114, BOX 332 RALEIGH, NC 27613 p. 919.957.5100 - f. 919.957.5101 www.fdr-eng.com jfejfar@fdr-eng.com RESIDENCE SECOND DESIGNED BY: DRAWN BY: APPROVED BY: PROJECT #: 23-015 2/2/2023

### LOCATION: ADDRESS BUFFALO LAKE, HARNETT CO., NC SQUARE FOOTAGE: HEATED SQ. FT. (1ST FLR.): 2153.3 SQ. FT. HEATED SQ. FT. (2ND FLR.): 392.4 SQ. FT. TOTAL HEATED AREA: 2545.7 SQ. FT. GARAGE: 484 SQ. FT. COVERED PORCH (COMBINED): 336 SQ. FT. TOTAL AREA UNDER ROOF: 3365.7 SQ. FT. DESIGN CODES: 2018 NORTH CAROLINA STATE RESIDENTIAL BUILDING CODE DESIGN LOADS: THE STRUCTURAL SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED WITH THE FOLLOWING SUPERIMPOSED LOADINGS: DESIGN LIVE LOADS: FLOOR 40 psf ROOF 20 psf BASIC WIND SPEED (3 SEC GUST) 115 mph **EXPOSURE CATEGORY** IMPORTANCE FACTOR BRACED WALL METHOD: CONTINUOUS SHEATHING - WOOD STRUCTURAL PANEL FOUNDATIONS: FOUNDATIONS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 2000 psi ON EXISTING SOILS. BEFORE CONSTRUCTION COMMENCES, SOIL BEARING CAPACITY SHALL BE VERIFIED BY A SUBSURFACE INVESTIGATION. 26'-4" **CONCRETE MATERIAL SPECIFICATIONS**: 10'-9" 7'-8" CONCRETE COMPRESSIVE STRENGTH: 3000 psi (28 DAY STRENGTH) 6"x6" P.T. POST CEMENT: I/II T.O.F. (-8'-0") ON 24"X24"X10" T.O.F. (-10'-0") T.O.F. (-5'-3") AIR TREATMENT: 5-7% IF EXPOSED TO WEATHER OR EARTH CONCRETE FTG. REINFORCEMENT STEEL: ASTM A615, GRADE 60 WELDED WIRE FABRIC: ASTM A185 P.T. (2)2X10 ANCHOR BOLTS: GRADE A36 12" O.C. JOIST CLASS B SPLICE LENGTH: GREATER OF 48 BAR DIAMETERS OR 24 INCHES W8X15 HEADER -SPACING BELOW **BEARING ON** MASONRY MATERIAL SPECIFICATIONS: CMU JAMBS CONCRETE MASONRY UNITS: ASTM C90 TYPE I, GRADE N, f'm=2000 psi MORTAR (BELOW GRADE): TYPE "M", ASTM C270 MORTAR (ABOVE GRADE): TYPE "S", ASTM C270 GROUT: 3000 psi PEA-GRAVEL CONCRETE, ASTM C476 @ 16" O.C. 、 WOOD MATERIAL SPECIFICATIONS: STRUCTURAL WOOD: 2X10 FJ,\_ SPRUCE-FINE-FIR (SPF) OR SOUTHERN YELLOW PINE (SYP) NO. 2 OR BETTER COPE AS REQ'D - 4" CONC. SLAB MODULAS OF ELASTICITY (E) 1,300,000 psi ON EARTH FILL ¬ BENDING (Fb) 850 psi 16" SQ. PIER ON 3'-0" − T.O.F. (-4'-9") SHEAR (Fv) 75 psi SQ. (MIN.) SPREAD-PRESSURE TREATING: AITC-109 FOOTING (TYP) WOOD FASTENERS: 2003 I.B.C. (TABLE 2304.9.1) U.N.O. LVL BEAMS: 1,900,000 psi MODULAS OF ELASTICITY (E) BENDING (Fb) 2,600 psi SHEAR (Fv) 285 psi @ 16" O.C. 、 @ 16" O.C. ENERGY COMPLIANCE: CLIMATE ZONE: 4 (HARNETT COUNTY) @ 16" O.C. \ @ 16" O.C. CAVITY INSULATION: WALLS: R-21 CEILING: R-40 THICKENED -CRAWL-SPACE: R-15 FOOTING – 2'-4" SQ. GLAZING: U-FACTOR: 0.32 UNDER LOAD FOOTING SHGC: 0.25 **BEARING WALL** 7'-0" 4'-3" T.O.F. (-4'-6") (2) 2X12 GIRDER (2) 2X12 GIRDER ON EARTH FILL -CONT. OVER 2 SPANS \_CONT. OVER 2 SPANS\_\_\_| ~ 4" CONC. SLAB ON EARTH FILL ~ · 12" O.C. JOIST SPACING **BELOW ISLAND** 12" TURN-DOWN SLAB ~ 4" CONC. SLAB ON EARTH FILL AT PORCH 13'-0" 22'-8" 19'-8" 1'-10" 59'-0"



FOUNDATION VENTS: 1173/150=7.82 SQ. FT. REQUIRED 7.82/0.88=9 VENTS

CONSTRUCTION SUMMARY:

FOUNDATION STRUCTURAL NOTES: (1) (2) 2x12 SPF #2 GIRDER, U.N.O

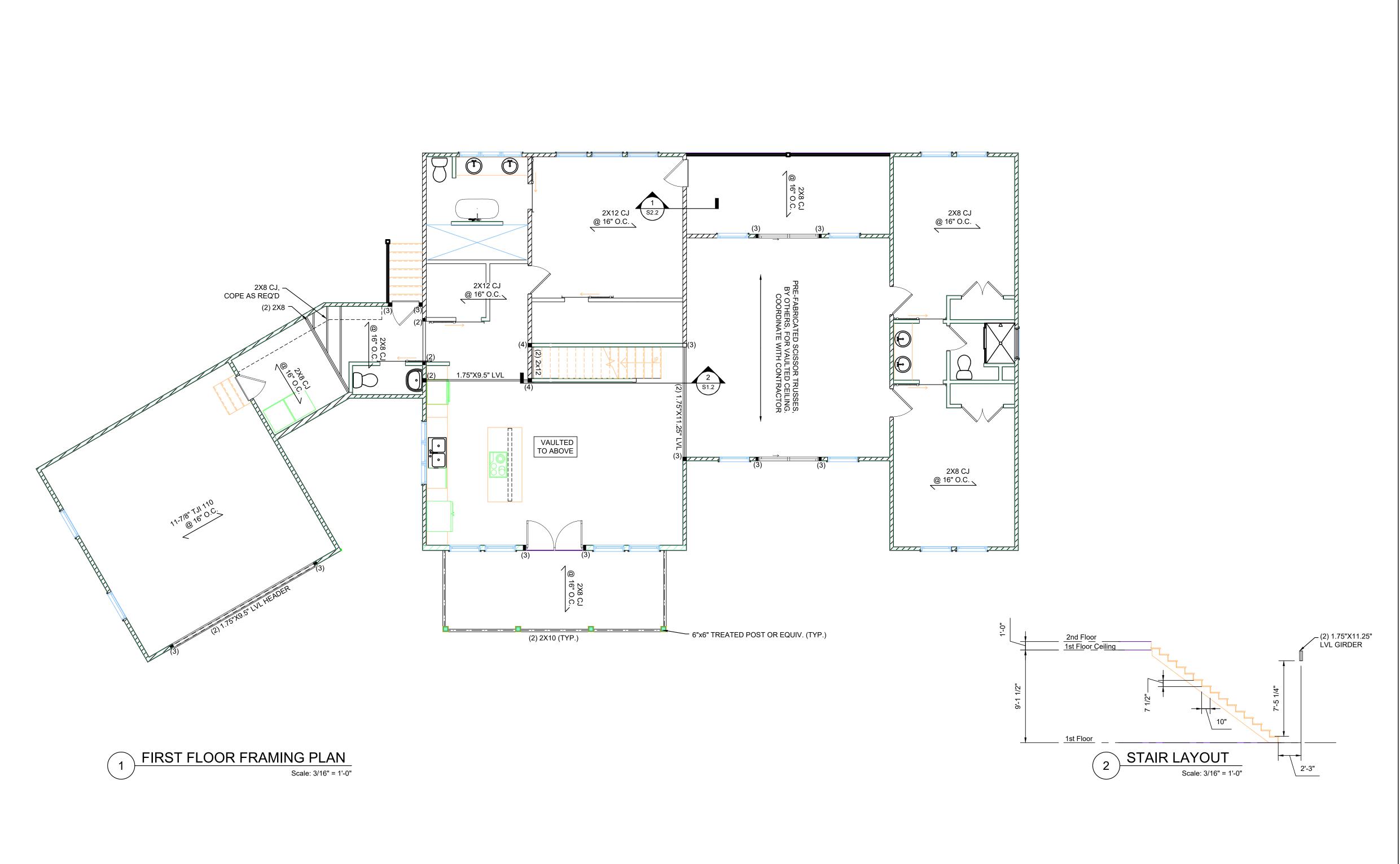
A VENT MUST BE WITHIN 3'-0" OF **EVERY CORNER** 

② WALL FOOTING: 24" WIDE X 12" DEPTH w/ (2) #4 CONT.

## FRAMING PLAN NOTES:

- DENOTES LOAD BEARING WALL. ALL EXTERIOR WALLS SHALL BE SHEATHED WITH 7/16" APA 24/0 SPAN RATED CDX PLYWOOD SHEATHING WITH EDGE BLOCKING. NAIL SHEATHING WITH 8d NAILS @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.
- ALL INTERIOR AND EXTERIOR WALL FRAMING TO BE 2x4, UNLESS NOTED
- ALL ROOF SHEATHING SHALL BE APA 32/16 SPAN RATED SHEATHING, 19/32" THICK
- (5/8" NOMINAL). PROVIDE H-CLIPS, U.N.O. ALL STRUCTURAL MEMBERS SHALL BE ATTACHED IN ACCORDANCE WITH TABLE
- R602.3 (FASTENER SCHEDULE FOR STRUCTURAL MEMBERS) OF THE 2012 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
- 4. (#) INDICATES NUMBER OF STUDS IN POST SUPPORTING FRAMING MEMBER. STUD POSTS SHALL EXTEND FROM BEARING DOWN TO SOLID FOUNDATION AND SHALL INCLUDE SOLID BLOCKING THROUGH FLOOR STRUCTURE DEPTH WHERE APPLICABLE. PROVIDE A MINIMUM OF (3) STUDS AT ALL BEAM BEARINGS UNLESS OTHERWISE NOTED ON PLAN.
- ALL EXTERIOR AND LOAD-BEARING HEADERS TO BE CONSTRUCTED w/ MIN. (2)-2x10 AND SUPPORTED BY (1) JACK STUDS AND (1) KING STUD UNLESS NOTED OTHERWISE. SEE HEADER SCHEDULE ON S3.1.
- PROVIDE SIMPSON H2.5A CLIPS AT THE ENDS OF ALL ROOF FRAMING MEMBERS

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FRAMING PLAN NOTES:

OTHERWISE.

12" O.C. AT INTERMEDIATE SUPPORTS.

OTHERWISE. SEE HEADER SCHEDULE ON S3.1.

DENOTES LOAD BEARING WALL. ALL EXTERIOR WALLS SHALL
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6. PROVIDE SIMPSON H2.5A CLIPS AT THE ENDS OF ALL ROOF FRAMING MEMBERS U.N.O.

(#) INDICATES NUMBER OF STUDS IN POST SUPPORTING FRAMING MEMBER.

ALL INTERIOR AND EXTERIOR WALL FRAMING TO BE 2x4, UNLESS NOTED

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SUITE 114, BOX 332
RALEIGH, NC 27613
p. 919.957.5100 - f. 919.957.5101
www.fdr-eng.com
jfejfar@fdr-eng.com

LIND RESIDENCE

FIRST FLOOR PLAN STRUCTURAL

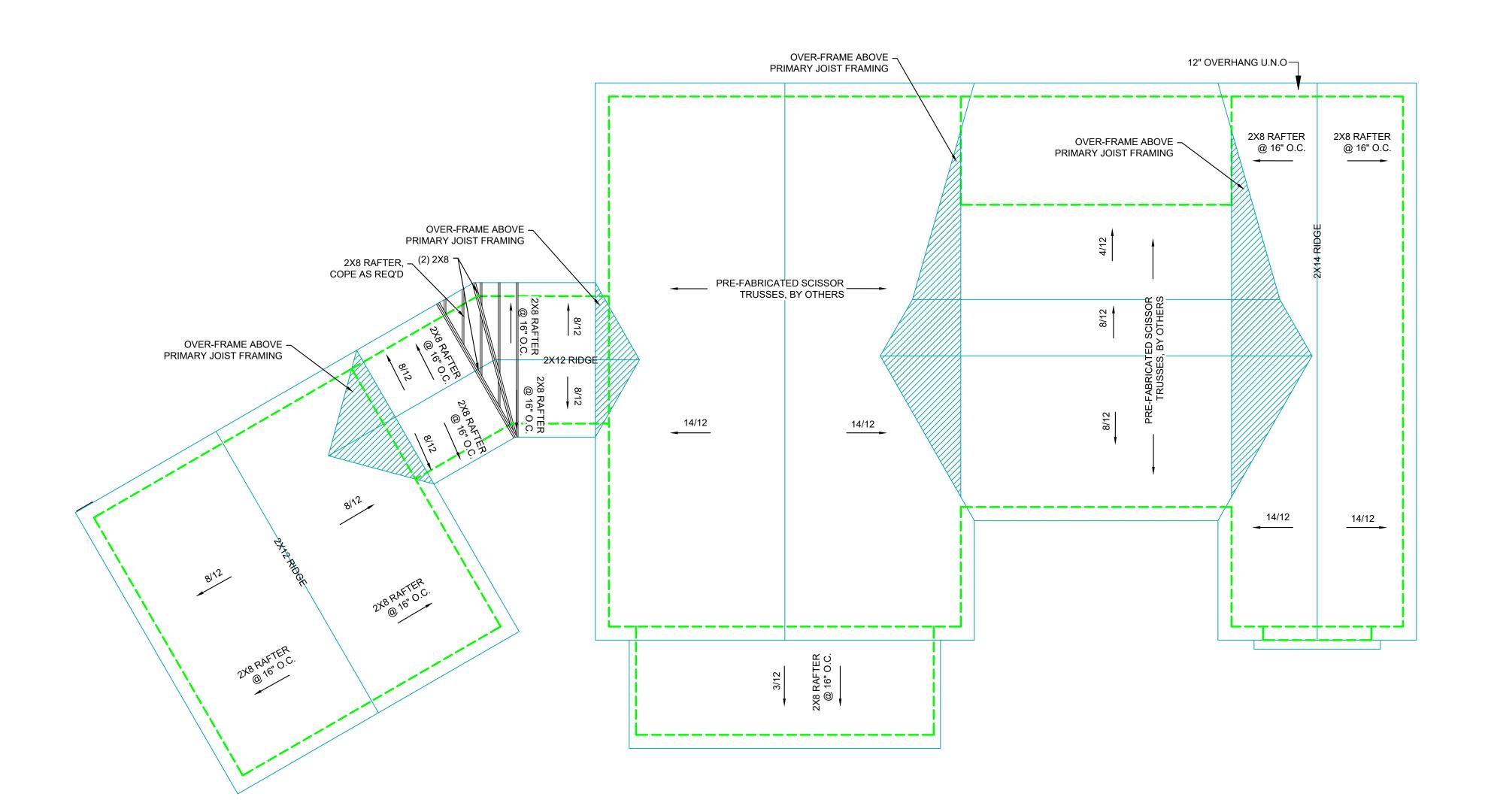
DESIGNED BY: AJI
DRAWN BY: AJI
APPROVED BY: HMH
PROJECT #: 23-015

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Revision Date

S1.2

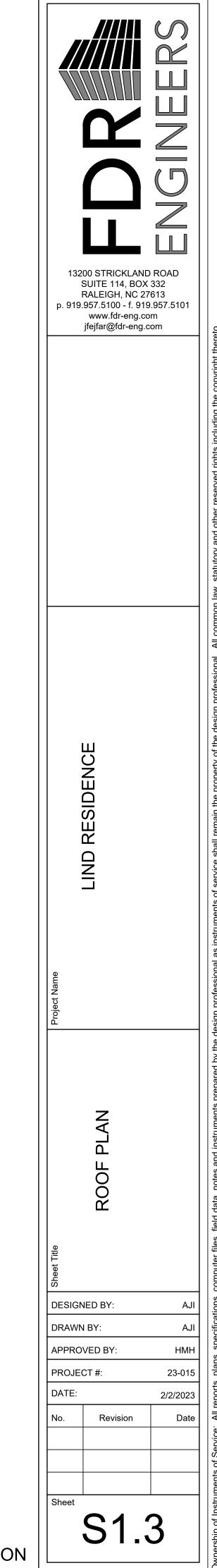
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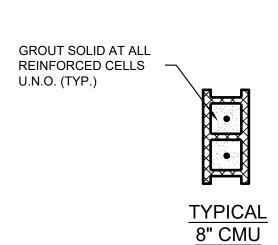




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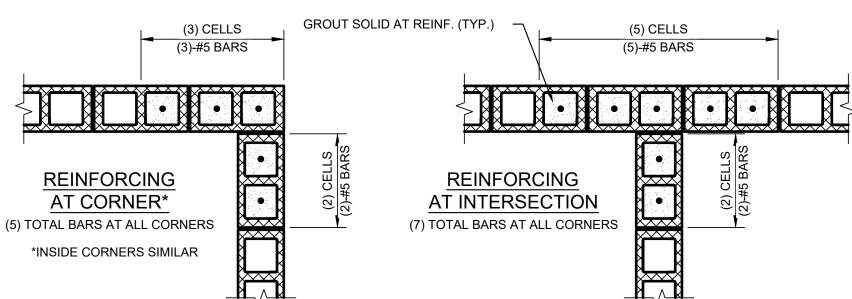




CMU WALL REINFORCING SCHEDULE			
APPLICATION	THICKNESS	VERT REINF	REMARKS
EXTERIOR WALLS	8" CMU	(1) #5 @ 32" O.C.	

- 1. ALL MASONRY SHALL BE LAID IN RUNNING BOND UNLESS NOTED OTHERWISE.
- 2. LAP SPLICES A MINIMUM OF 48 BAR DIAMETERS.
- 3. PROVIDE DUR-O-WALL (OR EQUAL) LADDER OR TRUSS HORIZONTAL JOINT REINFORCEMENT AT EACH SECOND COURSE IN RUNNING BOND, AND EACH COURSE IN STACKED BOND, UNLESS NOTED OTHERWISE. DISCONTINUE HORIZONTAL JOINT REINFORCEMENT AT CONTROL JOINTS.
- ⊦. PROVIDE BOND BEAMS REINFORCED WITH (2) #5 BARS EVERY 6'-0" OF VERTICAL WALL, AT TOPS OF ALL MASONRY WALLS, AND WHERE SHOWN ON DRAWINGS. FIRST BOND BEAM MAY BE PLACED AT TOP OF DOOR OPENINGS, 8'-0" MAX. AT BOND BEAM CORNERS AND TEE JOINTS, PROVIDE BENT BARS TO MATCH QUANTITY AND BAR SIZE IN THE BOND BEAM. LAPS IN BOND BEAMS SHALL BE 48 BAR DIAMETERS OR A MINIMUM OF 2'-0", WHICHEVER IS GREATER.

SCALE: 3/4" = 1'-0"



TYPICAL WALL REINFORCING -AS REQ'D. CMU LINTEL SCHEDULE MAX. OPENING | BLOCK SIZE | LINTEL DEPTH | REINFORCING GROUT SOLID OVER FULL -≤ 6'-4" 16" (2)-#5 CONT. 8" LINTEL SPAN + BEARING ≤ 4'-0" 8" (2)-#5 CONT. NOTES:
1. CMU LINTELS ARE PERMITTED AT INTERIOR NON-LOAD BEARING WALLS ONLY - ALL OTHER WALLS ARE TO USE STEEL LINTELS AS DETAILED. REINFORCING -2. LINTEL DESIGN ASSUMES ARCHING ACTION OF BLOCK. NO WALL PENETRATIONS SEE SCHEDULE. ARE PERMITTED WITHIN SPAN/2 OR 24", (WHICH EVER IS GREATER), MEASURED

FROM TOP OF LINTEL. SHOULD PENETRATIONS BE REQUIRED WITHIN THIS AREA, A STEEL LINTEL BEAM IS TO BE SUBSTITUTED PER THE PROVIDED DETAILS.

3. CMU LINTEL BEAMS ARE TO BEAR 8" (MIN.) ON EITHER SIDE OF OPENING. HORIZONTAL REINFORCING IS TO BE CONTINUOUS OVER THE FULL SPAN +

4. SEE DETAILS FOR TYPICAL JAMB REINFORCING. 5. REFER TO GENERAL REINGFORCING NOTES FOR ADDT'L. WALL CONSTRUCTION TYPICAL CMU LINTEL

ADDITIONAL REINFORCING AT CORNERS AND INTERSECTIONS

MASONRY LINTEL SCHEDULE SCALE: 3/4" = 1'-0"

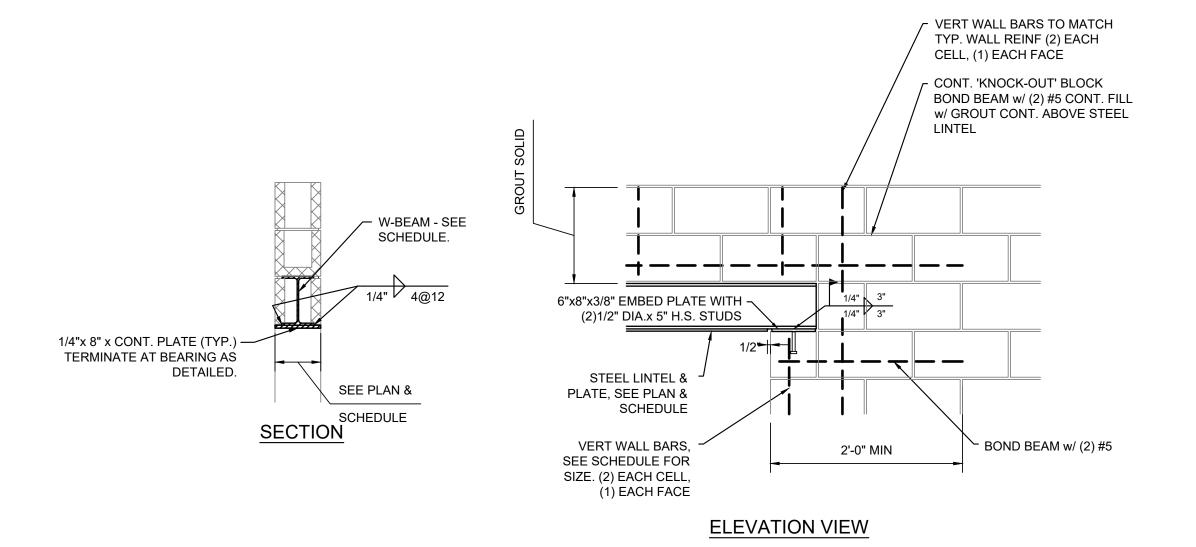
SCALE 3/4" = 1'-0"

TYPICAL LINTEL SCHEDULE LINTEL TYPE | BRG. @ ENDS MARK SIZE L1 8" CMU TYPE 1 W8x15

CMU WALL REINFORCING SCHEDULE

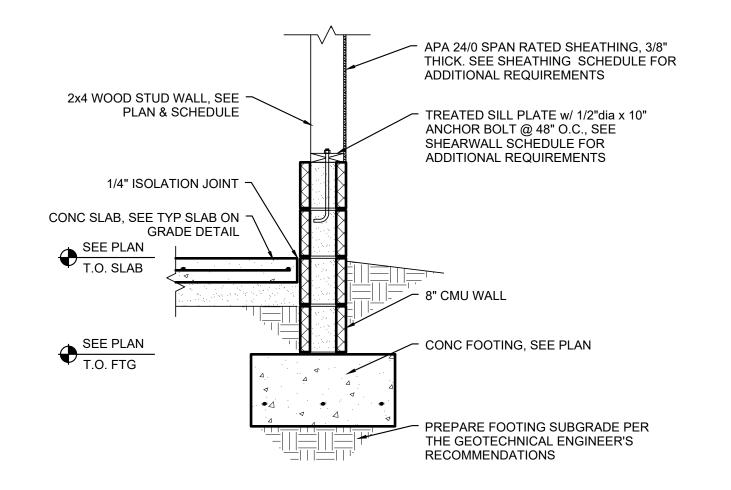
ABOVE.

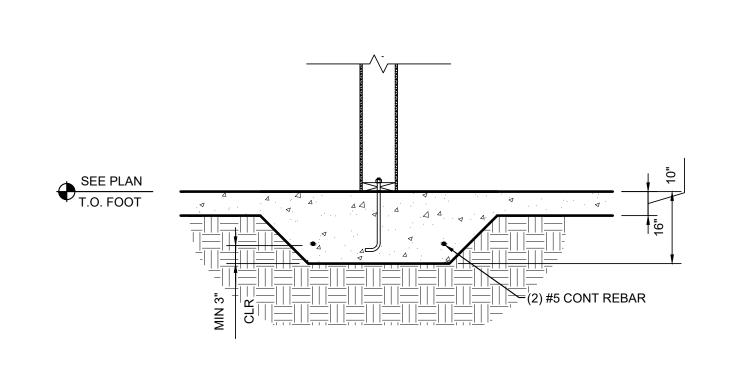
- I. LINTELS ARE REQUIRED FOR ALL OPENINGS IN MASONRY WALLS GREATER THAN 12" WIDE.
- 2. COORDINATE LENGTH AND ELEVATION w/ ARCH. & MECH. DRAWINGS. PROVIDE LINTELS AS PER SCHEDULE U.N.O. ON DRAWINGS.
- . ALL ANGLE LINTELS ARE TO HAVE LONG LEGS BACK TO BACK UNLESS NOTED OTHERWISE. WELD @ 12" O.C. OR BOLT @ 4'-0" O.C. ANGLE LINTELS @ OPENINGS GREATER THAN 4'-6".
- 4. PROVIDE 1/4" BOTTOM PLATES WHERE REQUIRED FOR SUPPORT, OR TO CONCEAL GAP BETWEEN LINTEL ELEMENTS. EXTEND FINISH PLATE ONLY TO EDGES OF OPENING.
- 5. FOR OPENINGS 6'-6" OR LESS, MASONRY BLOCK UNDER LINTEL BEARING TO BE FULLY GROUTED TO AT LEAST 24" BELOW @ 12" OUT FROM LINTEL BEARING ELEVATION.
- 6. FOR OPENINGS WHERE BEAMS ARE REQUIRED, PROVIDE REINFORCING STEEL AND FIXED OR EXPANSION BEARINGS.
- 7. PROVIDE 8" BOND BEAM LINTELS OVER ALL MECHANICAL PENETRATIONS 24" WIDE AND SMALLER. PROVIDE LINTELS OVER ALL MECH. OPENINGS OVER 24" WIDE AS SHOWN IN LINTEL SHCEDULE



# CMU LINTEL SCHEDULE AND DETAILS

SCALE: 3/4" = 1'-0"





GARAGE WALL FOOTING

SCALE 3/4" = 1'-0"

THICKENED FOOTING AT INTERIOR LOAD BEARING WALL SCALE 3/4" = 1'-0"

RE DESIGNED BY: DRAWN BY: APPROVED BY: PROJECT #: 23-015 2/2/2023

13200 STRICKLAND ROAD

SUITE 114, BOX 332

RALEIGH, NC 27613

p. 919.957.5100 - f. 919.957.5101

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jfejfar@fdr-eng.com

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