## **STRUCTURAL NOTES:** STRUCTURAL DESIGN CRITERIA **INDEX OF DRAWINGS** SHT NO: TITLE **UPLIFT CONNECTORS** WOOD CONSTRUCTION CODES: 2020 FLORIDA BUILDING CODE RESIDENTIAL 1. WOOD CONSTRUCTION SHALL CONFORM TO THE NDS "NATIONAL DESIGN 2020 FLORIDA FIRE PREVENTION CODE UPLIFT CONNECTORS SUCH AS HURRICANE CLIPS, TRUSS ANCHORS COVER SHEET 2020 FLORIDA ACCESSIBILITY CODE SPECIFICATION FOR WOOD CONSTRUCTION", 2018 EDITION. AND ANCHOR BOLTS ARE ONLY REQUIRED ON MEMBERS IN WALLS 2. ALL EXTERIOR WOOD STUD WALLS, BEARING WALLS, SHEAR WALLS AND NEC NFPA 70 & FBCEB THAT ARE EXPOSED TO UPLIFT FORCES. INTERIOR LOAD BEARING ACI 318-19 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE MISC. STRUCTURAL WOOD FRAMING MEMBERS, (I.E. BLOCKING OR GABLE WALLS ARE NOT ALWAYS EXPOSED TO UPLIFT FORCES. THE MEMBERS END BRACING ) SHALL BE EITHER SOUTHERN PINE, OR S.P.F. NUMBER ACI 301-19 SPECIFICATIONS FOR STRUCTURAL CONCRETE BUILDINGS OF THESE WALLS WOULD NOT NEED TO HAVE CONNECTORS APPLIED. 2 GRADE OR BETTER SHALL BE USED REGARDLESS OF SPECIES. ACI 530-19 BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES PLEASE CONSULT THE TRUSS ENGINEERING FOR THE LOCATION OF 3. ANY WOOD FRAME INTERIOR BEARING WALL STUDS THAT HAVE HOLES IN 2018 NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION THESE WALLS. THE CENTER OF THE STUD UP TO 1" DIA. SHALL HAVE STUD PROTECTION 2018 WOOD FRAMED CONSTRUCTION MANUAL FIELD REPAIR NOTES APA PLYWOOD DESIGN SPECIFICATION SHIELDS FOR ALL HOLES OVER 1" IN DIA. FOR PLUMBING LINES, ETC. ASCE/SEI 7-16 AMERICAN SOCIETY OF CIVIL ENGINEERS SHALL BE REPAIRED WITH SIMPSON HSS2 STUD SHOES, TYP., U.N.O. 4. FASTENERS FOR PRESSURE PRESERVATIVE AND FIRE-RETARDANT-TREATED 1. MISSED "J" BOLTS FOR WOOD BEARING WALLS MAY BE SUBSTITUTED WOOD SHALL BE OF HOT-DIPPED GALVANIZED STEEL, STAINLESS STEEL, W/ 1/2" DIA. EPOXY ANCHORS WITH 6" EMBEDMENT. SIMPSON 20 PSF (REDUCIBLE) **LIVE LOADS:** SILICON BRONZE OR COPPER. "SET" EPOXY ADHESIVE BINDER FOLLOWING ALL MANUFACTURERS 40 PSF RESIDENTIAL FLOOR, UNLESS OTHERWISE INDICATED RECOMMENDATIONS. SEE PLAN FOR EMBEDMENT DEPTH AT FLOOR 60 PSF BALCONIES

CONCRETE

STRENGTH

@ 28 DAYS

CONCRETE

STRUCTURAL

**WOOD ROOF** 

TRUSSES:

**WOOD FRAMING:** 

**MASONRY** 

UNITS:

STEEL:

**REINFORCING:** 

STAIRS

LIGHT PARTITIONS (DEAD LOAD), U.N.O.

ALL CONCRETE UNLESS OTHERWISE INDICATED

POLYPROPYLENE FIBERS FOR SLABS ON GRADE

SHOP AND FIELD WELDS: E70XX ELECTRODES

BEAMS, RAFTERS, JOIST, PLATES, ETC. U.N.O.

ROOF DECK: PLYWOOD C-C/C-D, EXTERIOR, or OSB

NO. 2 SOUTHERN YELLOW PINE (19% M.C.)

VERSA LAM BEAM Fb = 2900 PSI (2.0E)

WOOD COLS. PARALLAM 2.0E U.N.O.

**DESIGN LOADS:** 

DEAD LOAD.

TOP CHORD LIVE LOAD:

TOP CHORD DEAD LOAD:

BOTTOM CHORD DEAD LOAD:

BOTTOM CHORD ATTIC LIVE LOAD:

WELDED WIRE FABRIC SHALL CONFORM TO

ALL REINFORCING BARS

ALL STIRRUPS AND TIES

MORTAR TYPE "S" 1800 PSI

CONCRETE GROUT 3000 PSI

PEA GRAVEL CONCRETE FOR MASONRY CELLS ONLY

(DO NOT USE FOR CONCRETE COLUMNS OR TIE BEAMS)

ASTM C90-01, STANDARD WEIGHT UNITS, fm=1500 PSI

ALL BOLTS CAST IN CONCRETE: ASTM A36 OR ASTM A-307

FLOOR SHEATHING: T&G A-C GROUP 1 APA RATED (48/24)

SEE DRAWINGS FOR SPECIAL CONCENTRATED LOADS. DESIGN

FOR NEW WIND UPLIFT AS PER SPECIFIED CODES, DEDUCTING

A MAXIMUM OF 5 P.S.F. DEAD LOAD, BUT NOT EXCEEDING ACTUAL

WALL SHEATHING: PLYWOOD C-C/C-D, EXTERIOR OR OSB

CONTINUOUS MASONRY INSPECTION IS REQUIRED DURING CONSTRUCTION

SHINGLE ROOF:

20 PSF

10 PSF

10 PSF

ALL STRUCTURAL AND MISCELLANEOUS STEEL A36 36,000 PSI, U.N.O

STEPS. PREFABRICATED WOOD TRUSSES 1. ALL PREFABRICATED WOOD TRUSSES SHALL BE SECURELY FASTENED

WITH THE LATEST EDITION OF THE "NATIONAL DESIGN SPECIFICATION FOR STRESS-GRADE LUMBER AND ITS FASTENERS" AS RECOMMENDED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION. . TRUSS MEMBERS AND CONNECTIONS SHALL BE PROPORTIONED (WITH A MAXIMUM ALLOWABLE STRESS INCREASE FOR LOAD DURATION OF

TO THEIR SUPPORTING WALLS OR BEAMS WITH HURRICANE CLIPS OR

2. PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE

25%) TO WITHSTAND THE LIVE LOADS GIVEN IN THE NOTES AND TOTAL DEAD LOAD. 4. BRIDGING FOR PRE-ENGINEERED TRUSSES SHALL BE AS REQUIRED BY THE TRUSS MANUFACTURER UNLESS NOTED ON THE PLANS.

OF TRUSSES ONLY. WEB MEMBERS ARE NOT SHOWN, BUT SHALL BE DESIGNED BY THE TRUSS MANUFACTURER IN ACCORDANCE WITH THE FOLLOWING DESIGN LOADS:

TRUSS ELEVATIONS AND SECTIONS ARE FOR GENERAL CONFIGURATION

6. DESIGN SPECIFICATIONS FOR LIGHT WEIGHT METAL PLATE CONNECTED WOOD TRUSSES PER THE TRUSS PLATE INSTITUTE TPI LATEST EDITION. 7. PRE-ENGINEERED WOOD TRUSSES SHALL BE DESIGNED BY THE

MANUFACTURER IN ACCORDANCE WITH SPECIFIED LOADS AND GOVERNING CODES . SUBMITTALS SHALL INCLUDE TRUSS FRAMING PLANS AND DETAILS SHOWING MEMBER SIZES, BRACING, ANCHORAGE. CONNECTIONS, TRUSS LOCATIONS, AND PERMANENT BRACING AND/OR BRIDGING AS REQUIRED FOR ERECTION AND FOR THE PERMANENT STRUCTURE. EACH SUBMITTAL SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED STRUCTURAL ENGINEER. SUBMIT 2 COPIES FOR

REVIEW AND APPROVAL PRIOR TO FABRICATION. . THE TRUSS MANUFACTURER SHALL DETERMINE ALL SPANS WORKING POINTS, BEARING POINTS, AND SIMILAR CONDITIONS. TRUSS SHOP DRAWINGS SHALL SHOW ALL TRUSSES, ALL BRACING MEMBERS, AND ALL TRUSS TO TRUSS HANGERS.

## **SOIL BEARING VALUE:**

ANCHORS.

ASSUMED ALLOWABLE SOIL BEARING PRESSURE AFTER COMPACTION: 2000 PSF SEE SOILS REPORT AND SPECIFICATIONS FOR COMPACTION REOUIREMENTS IF SOIL CONDITIONS IN THE PROJECT DO NOT MEET OR EXCEED THE CAPACITY THE GENERAL CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO FOUNDATION POUR FOR VERIFICATION OF FOUNDATION DESIGN. SOIL TO BE COMPACTED TO AT LEAST 95% OF MAX. DRY DENSITY AS DETERMINED BY ASTM - D1557

2. FOR MISSED VERT. DOWELS DRILL A 3/4" DIAMETER HOLE 6" DEEP AT THE LOCATION OF THE OMITTED REBAR, AND INSTALL A 32" LONG #5

BAR INTO THE EPOXY FILLED HOLE. USE A TWO PART EMBEDMENT EPOXY ( SIMPSON "SET", EPOXY ), MIXED PER MANUFACTURER'S INSTRUCTIONS. ASSURE THAT ALL DUST AND DEBRIS FROM DRILLING ARE REMOVED FROM THE HOLE BY BRUSHING AND AND USING COMPRESSED AIR PRIOR TO APPLYING THE EPOXY. ALLOW THE EPOXY TO CURE TO MANUFACTURER'S SPECIFICATIONS, THEN FILL THE CELL IN THE NORMAL WAY DURING BOND BEAM POUR.

3. FOR MORTER JOINTS LESS THAN 1/4", PROVIDE (1) #5 VERT. IN CONC. FILLED CELL EACH SIDE OF THE JOINT ( BAR DOES NOT HAVE TO BE CONT. TO FOOTING)

4. MISSED LINTEL STRAPS FOR MASONRY CONSTRUCTION MAY BE SUBSTITUTED WITH (1) SIMPSON MTSM16 TWIST STRAP W/ (4) 1/4" X 21/4" TITENS TO MASONRY AND (7)-10d NAILS TO TRUSS FOR UPLIFTS LESS THAN 860 LBS (USE (2) MTSM16 FOR UPLIFTS LESS THAN 1720#). NO MORE THAN 10 STRAPS MAY BE SUBSTITUTED OR NO MORE THAN 3 IN A ROW. IF GIRDER TRUSS CONNECTIONS ARE MISSED CONTACT ENGINEER OF RECORD FOR SUBSTITUTION.

## **TERMITE SPECIFICATIONS:**

**SECTION R318 PROTECTION AGAINST TERMITES** 

TERMITE PROTECTION SHALL BE PROVIDED BY REGISTERED TERMITICIDES, INCLUDING SOIL APPLIED PESTICIDES, BAITING SYSTEMS, AND PESTICIDES APPLIED TO WOOD, OR OTHER APPROVED METHODS OF TERMITE PROTECTION LABELED FOR USE A PREVENTIVE TREATMENT TO NEW CONSTRUCTION (SEE SECTION 202, REGISTERED TERMITICIDE). UPON COMPLETION OF THE APPLICATION OF THE TERMITE PROTECTIVE TREATMENT A CERTIFICATE OF COMPLIANCE SHALL BE ISSUED TO THE BUILDING DEPARTMENT BY THE LICENSED PEST CONTROL COMPANY THAT CONTAINS THE FOLLOWING STATEMENT: "THE BUILDING HAS RECEIVED A COMPLETE TREATMENT FOR THE PREVENTION OF SUBTERRANEAN TERMITES. TREATMENT IS IN ACCORDANCE WITH RULES AND LAWS ESTABLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES."

## **RADON:**

WHERE PROJECT IS TO BE LOCATED IN KNOWN RADON GAS PREVALENT AREAS, APPENDIX "F" OF THE 2017 FLORIDA RESIDENTIAL BUILDING CODE IS TO BE IMPLEMENTED. CONCRETE STRENGTH IN THESE AREAS ARE TO BE A MINIMUM OF 3000 P.S.I.. THEREFORE, ANY AND ALL NOTES ON THESE PLANS THAT INDICATE 2500 PSI SHALL BE REPLACED WITH 3000 P.S.I. FOR THE CONCRETE STRENGTH.

NCRETE IGS CTURES	2	FLOOR PLAN ELEVATIONS FLOOR FRAMING PLAN
N	3	J-BOLT LAYOUT FOUNDATION PLAN ELECTRICAL PLAN
20 PSF (REDUCIBLE) 40 PSF 60 PSF 40 PSF 20 PSF 10 PSF ATTIC L.L. 2500 PSI 3000 PSI	S-1	TRUSS LAYOUT DETAILS
ASTM A1064/A1064M ASTM A615-40 40,000 PSI ASTM A615-40 40,000 PSI MINIMUM 1.5 LBS. OF FIBERS PER CUBIC YARD		
RUCTION .N.O		
UAL		

# **WIND LOADING CRITERIA**

ND SPEED (ULTIMATE)	130 MPH
ND SPEED (ALLOWABLE)	101 MPH
POSURE CATEGORY	В
ILDING CATEGORY	II
ILDING TYPE	V
CLOSURE CLASSIFICATION	ENCLOSED
TERNAL PRESSURE COEFFICIENT	+/- 0.18

# **NOTICE TO BUILDER**

THIS DRAWING AND DESIGN IS VALID FOR 12 MONTHS AFTER THE DATE IT IS SIGNED AND SEALED OR WHILE **CURRENT CODE IS VALID** 

IT IS THE INTENT OF THIS DESIGNER THAT THESE PLANS ARE ACCURATE AND ARE CLEAR ENOUGH FOR THE LICENSED PROFESS-ONAL TO CONSTRUCT THIS PROJECT. IN THE EVENT THAT SOMETHING IS UNCLEAR OR NEEDS CLARIFICATION..STOP..AND CALL THE DESIGNER LISTED IN THIS TITLE PAGE. IT IS THE RESPONSIBILITY OF THE LICENSED PROFESSIONAL THAT IS CONSTRUCTING THIS PROJECT TO FULLY REVIEW THESE DOCUMENTS BEFORE CONSTRUCTION BEGINS AND ANY AND ALL CORRECTIONS, IF NEEDED, TO BE MADE BEFORE ANY WORK IS DONE. \*DO NOT SCALE DRAWINGS FOR CRITICAL DIMENSIONS

INSTEAD CALL THE DESIGNER LISTED IN TITLE PAGE\*

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sign

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ounty Proj Thomas | 708 SW | Ft White, Columbia

hom: SHEET NO.

**USP AND SIMPSON CONNECTOR CROSS REFERENCE CHART** 

 REF. NO./NO. DE REF.
 USP
 REF. NO./NO. DE R

**CAST IN PLACE CONCRETE** 

STEEL CONFORMING TO ASTM A-615 GRADE 40.

CORNER BARS WITH A 2'-1" LAP PROVIDED

AND 4" FOR SLABS

BAR DIAMETERS TYP.

REINFORCING STEEL

INDICATED ON THE DRAWINGS:

FILLED CELL REINFORCING:

WELDED WIRE MESH:

PROHIBITED.

TEMPERATURE REINFORCING:

FTGS, WALLS, COLUMNS, BEAMS, SLABS:

**MASONRY WALL CONST.** 

WITHIN THE 6".

OF BEAMS.

FORM.

1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT

28 DAYS OF 2500 PSI, A SLUMP OF 3" FOR FOOTINGS/FOUNDATIONS

2. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET

3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. WWF SHALL

BE LAPPED AT LEAST 6" AND CONTAIN AT LEAST ONE CROSS WIRE

5. HORIZONTAL FOOTING BARS SHALL HAVE 1'-0" HOOK LENGTH OR

4. HOOKS SHALL BE PROVIDED AT DISCONTINUOUS ENDS OF ALL TOP BARS

6. MINIMUM LAP SPLICES ON ALL REINFORCING BAR SPLICES SHALL BE 40

ALL REINFORCING STEEL SHALL BE NEW DEFORMED BARS FREE FROM RUST,

SCALE & OIL & SHALL MEET ASTM A-615 REINFORCING FOR FOOTING SHALL

BE SUPPORTED ON PRE-CAST CONCRETE PADS, TOP REINFORCING SHALL BE

POSITIVELY SUPPORTED BY TEMPORARY STRINGERS. DOWELS FOR COLUMNS

WHERE PERMITTED SHALL BE THE FOLLOWING MINIMUM, UNLESS OTHERWISE

36 DIA. OR 2'-0" MIN.

40 DIA. OR 2'-1" MIN.

20 DIA. OR 1'-0" MIN.

8" LAP

& FILLED CELLS SHALL BE SECURED IN PLACE BY USING ADDITIONAL CROSS-

REINFORCING TIED TO FOOTING REINFORCING. SPLICES IN REINFORCING

1. HOLLOW LOAD BEARING UNITS SHALL BE NORMAL WEIGHT, GRADE N,

3. COARSE GROUT SHALL CONFORM TO ASTM C476 WITH A MAXIMUM

4. VERTICAL REINFORCEMENT SHALL BE AS NOTED ON THE DRAWINGS

BOTTOM AND AT A MAXIMUM SPACING OF 192 BAR DIAMETERS.

6. REINFORCING STEEL SHALL BE LAPPED A MINIMUM OF 40 BAR

DIAMETERS, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

AGGREGATE SIZE OF 3/8" AND A MINIMUM COMPRESSIVE STRENGTH

5. VERTICAL REINFORCEMENT SHALL BE HELD IN POSITION AT THE TOP AND

REINFORCEMENT SHALL BE PLACED IN THE CENTER OF THE MASONRY

7. GROUT STOPS SHALL BE PROVIDED BELOW BOND BEAM. PLASTIC SCREEN,

GROUT INTO CELLS BELOW. THE USE OF FELT PAPER AS A STOP IS

METAL LATH STRIP OR CAVITY CAPS MAY BE USED TO PREVENT THE FLOW

TYPE 2, CONFORMING TO ASTM C90, WITH A MINIMUM NET

COMPRESSIVE STRENGTH OF 1900 PSI (f'm = 1500 PSI)

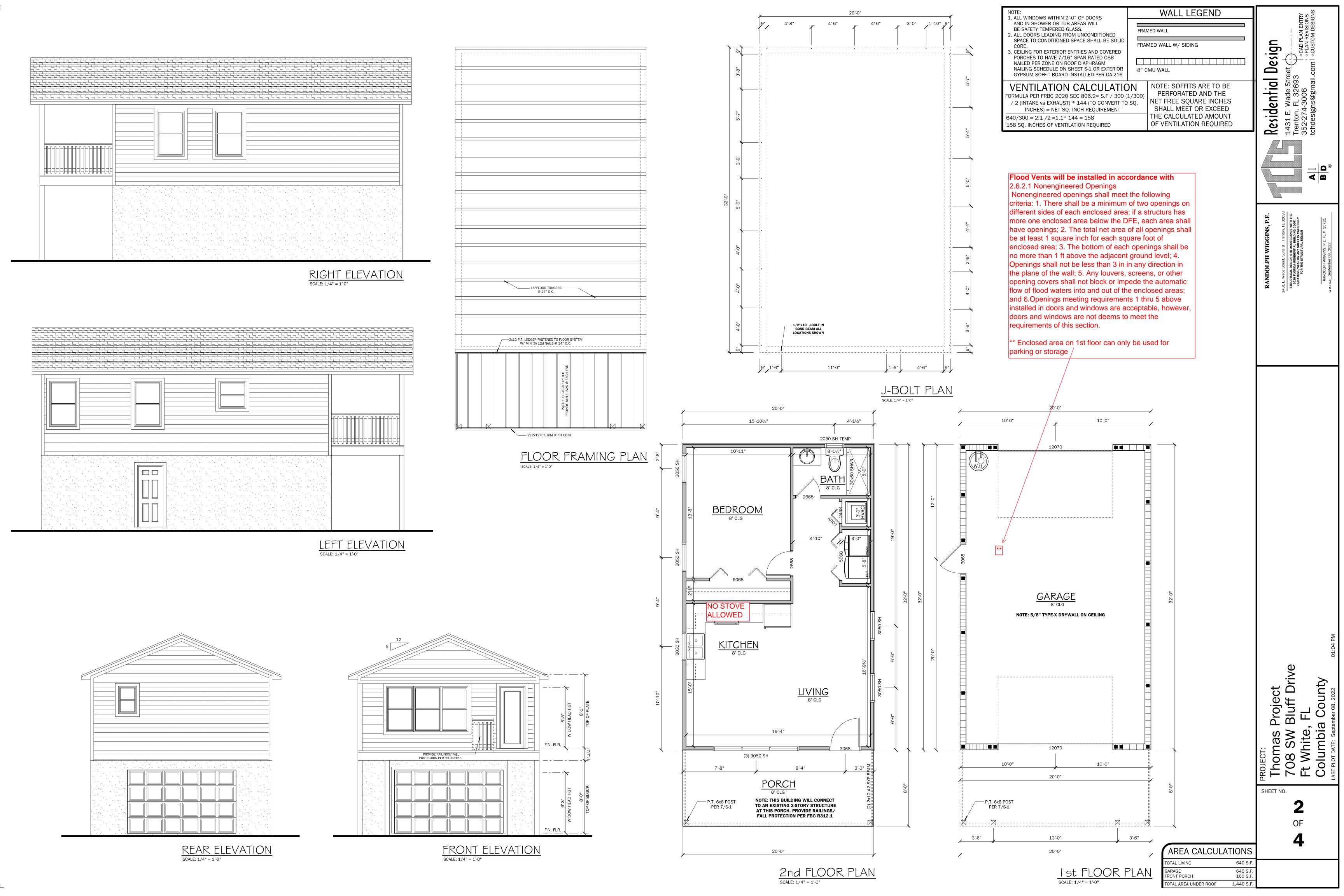
2. MORTAR SHALL BE TYPE "S", CONFORMING TO ASTM C270.

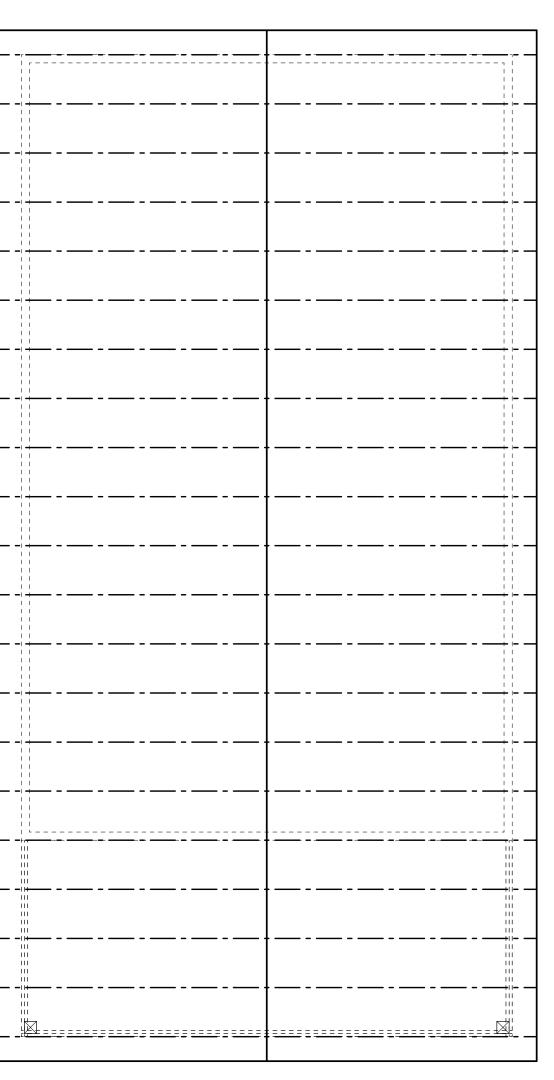
AT 28 DAYS OF 3000 PSI SLUMP 8" TO 11".

CELL TYPICAL UNLESS OTHERWISE NOTED.

WITH THE CELLS FILLED WITH COARSE GROUT.

7. CONCRETE COVER MIN. 3" WHEN EXPOSED TO EARTH OR 1 1/2" TO



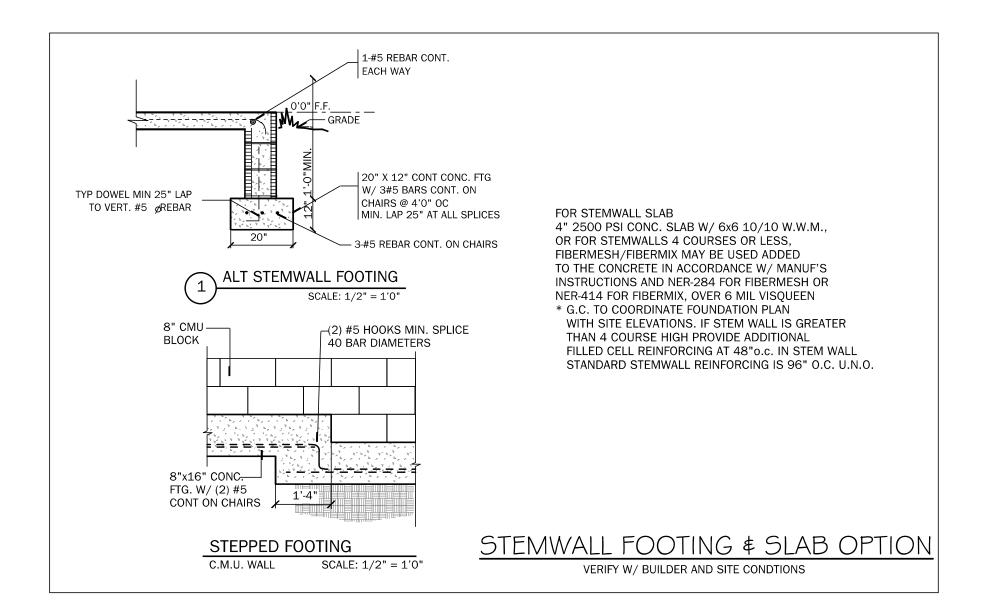


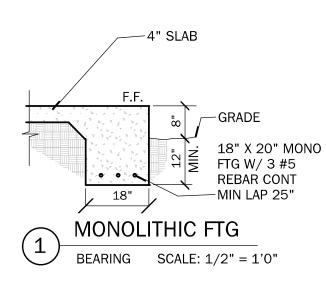
MARK	HOLD DOWN ANALYSIS	UPLIFT
	UNLESS NOTED OTHERWISE PROVIDE APPROPRIATE CONNECTOR PER CHART AND PROVIDED TRUSS ENGINEERING WOOD CONNECTIONS =	
	H2.5 W/ 10-8d NAILS H1 W/ 10-8d NAILS H10 W/ 16-8d NAILS OR MTS12 W/ 14-10dX1-1/2" NAILS HCP (HIP TRUSS) 12-10dX1-1/2" NAILS	365# 400# 850# 645#
$\langle A \rangle$	2 - MTS12 W/ 14 10dX1 1/2" NAILS	1720 #U
$\langle B \rangle$	2 - HTS20 W/ 20 - 10d	2900 #U
$\langle C \rangle$	HCP2 W/ 12-10d X 1 1/2" NAILS	520 #U
$\langle \overline{D} \rangle$	LGT2 W/30-16d SINKERS	1785 #U

NOTE: TYP. TRUSS TO FRAME CONNECTORS TO BE SIMPSON H10 TYP. U.N.O.

# Flood Vents will be installed in accordance with

- 2.6.2.1 Nonengineered Openings Nonengineered openings shall meet the following
- 1. There shall be a minimum of two openings on different sides of each enclosed area; if a structurs has more one enclosed area below the DFE, each area shall have openings;
- 2. The total net area of all openings shall be at least 1 square inch for each square foot of enclosed area; 3. The bottom of each openings shall be no more than 1 ft above the adjacent ground level;
- 4. Openings shall not be less than 3 in in any direction in the plane of the wall; 5. Any louvers, screens, or other opening covers shall not block or impede the automatic flow of flood waters into and out of the enclosed areas; and
- 6.Openings meeting requirements 1 thru 5 above installed in doors and windows are acceptable, however, doors and windows are not deems to meet the requirements of this section.





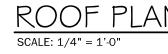
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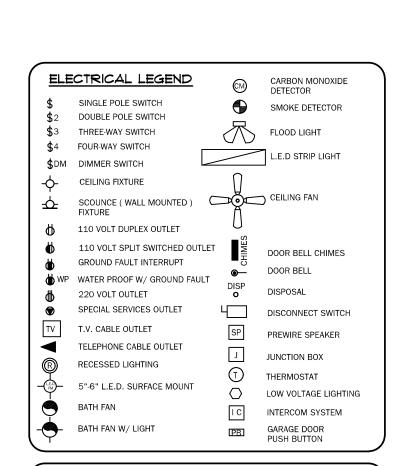
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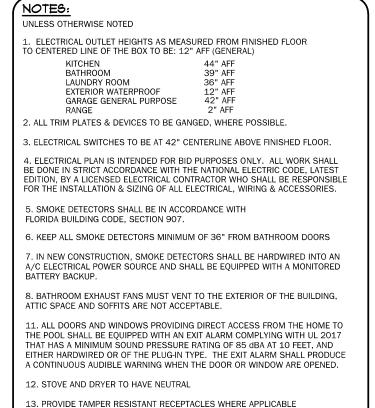
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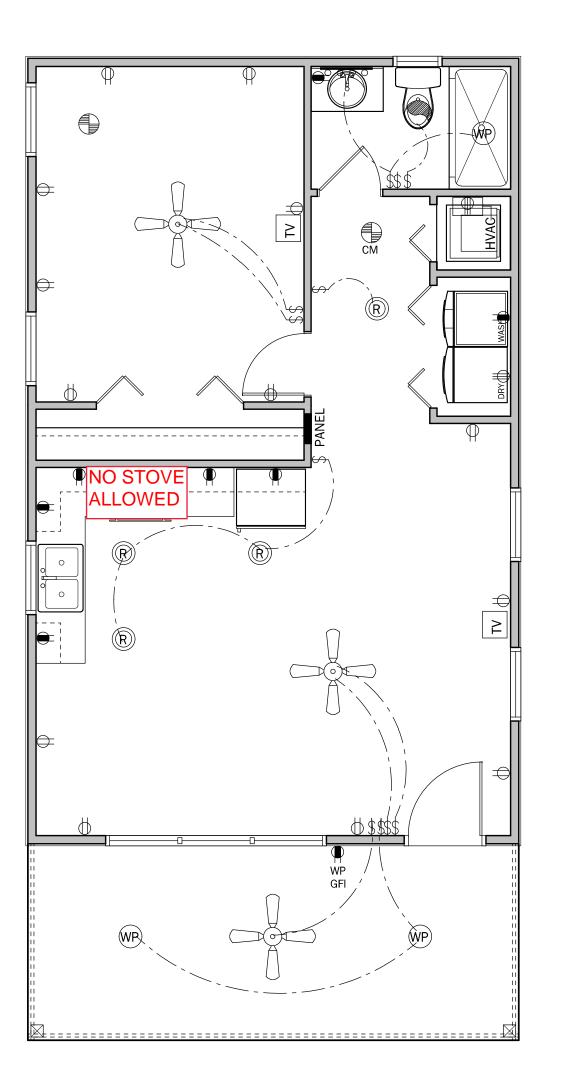


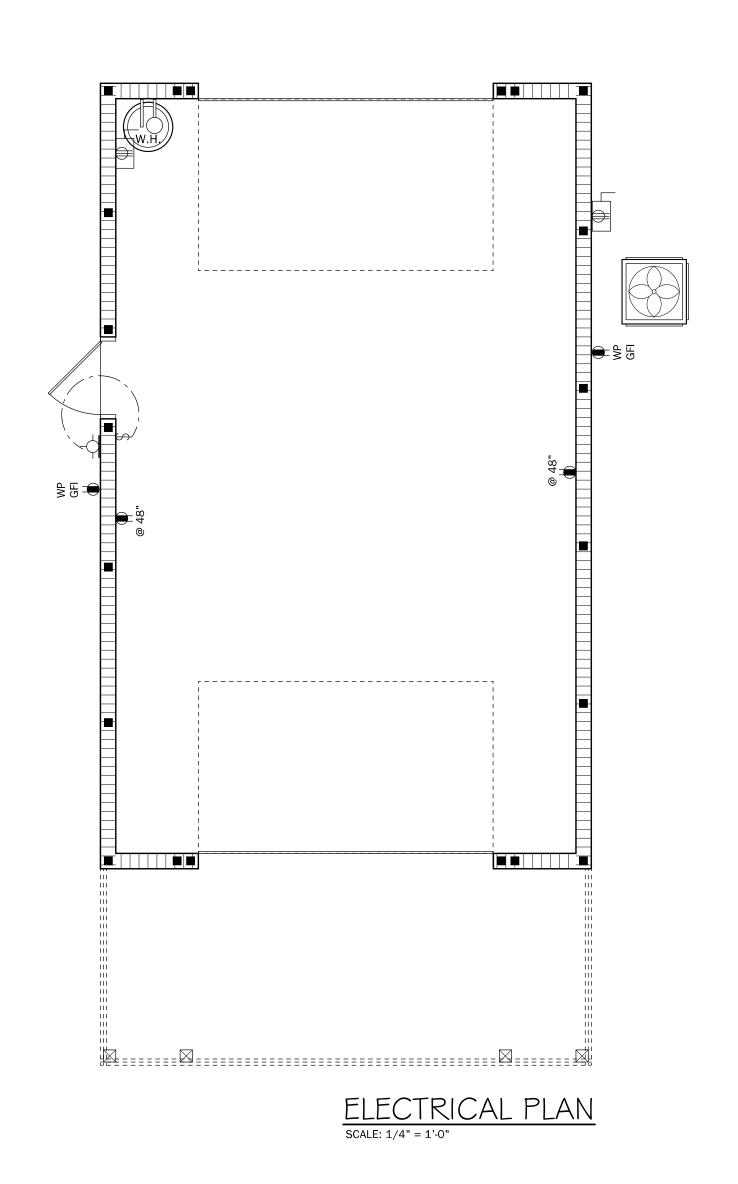


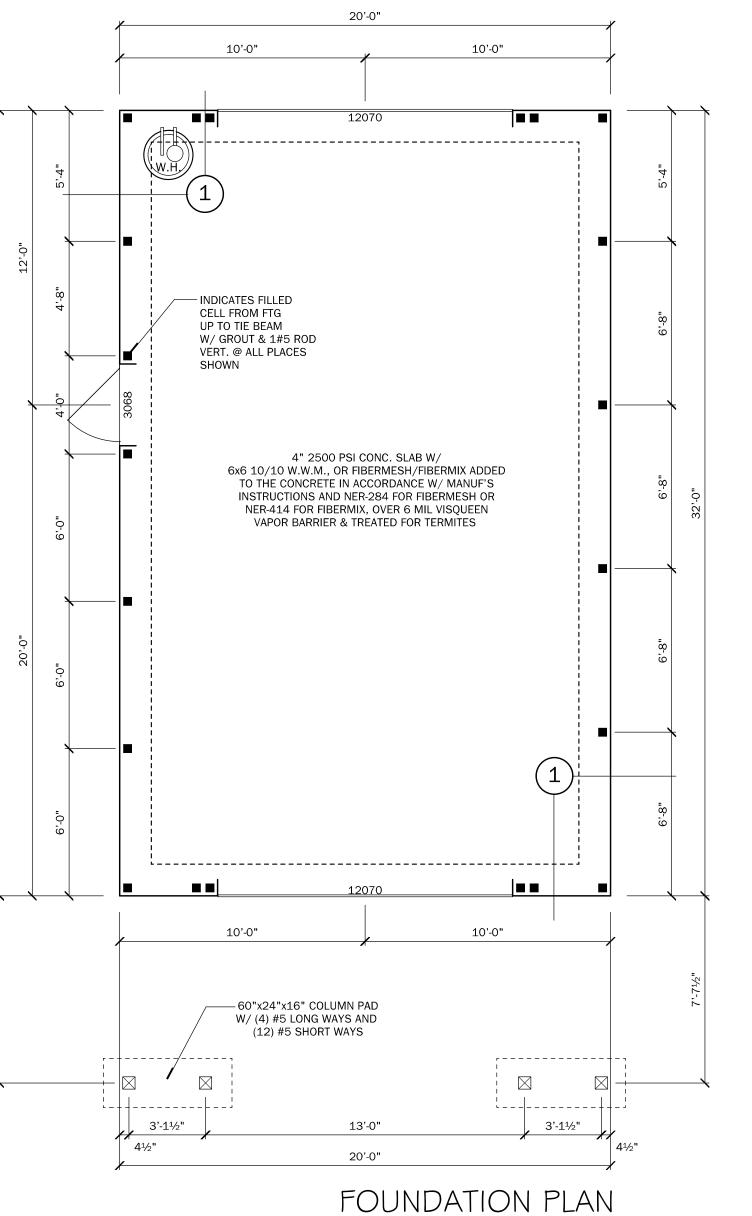


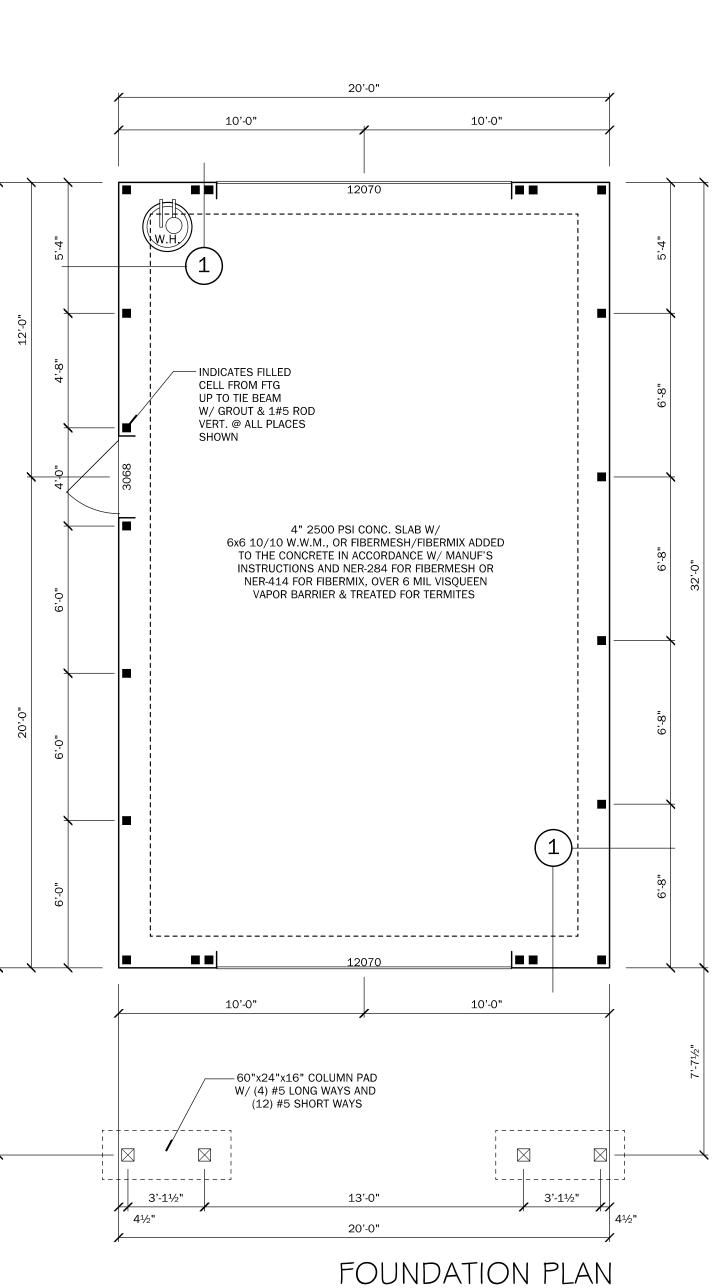
14. PROVIDE ARC-FAULT RECEPTACLES ON ALL 15 & 20 AMP NON

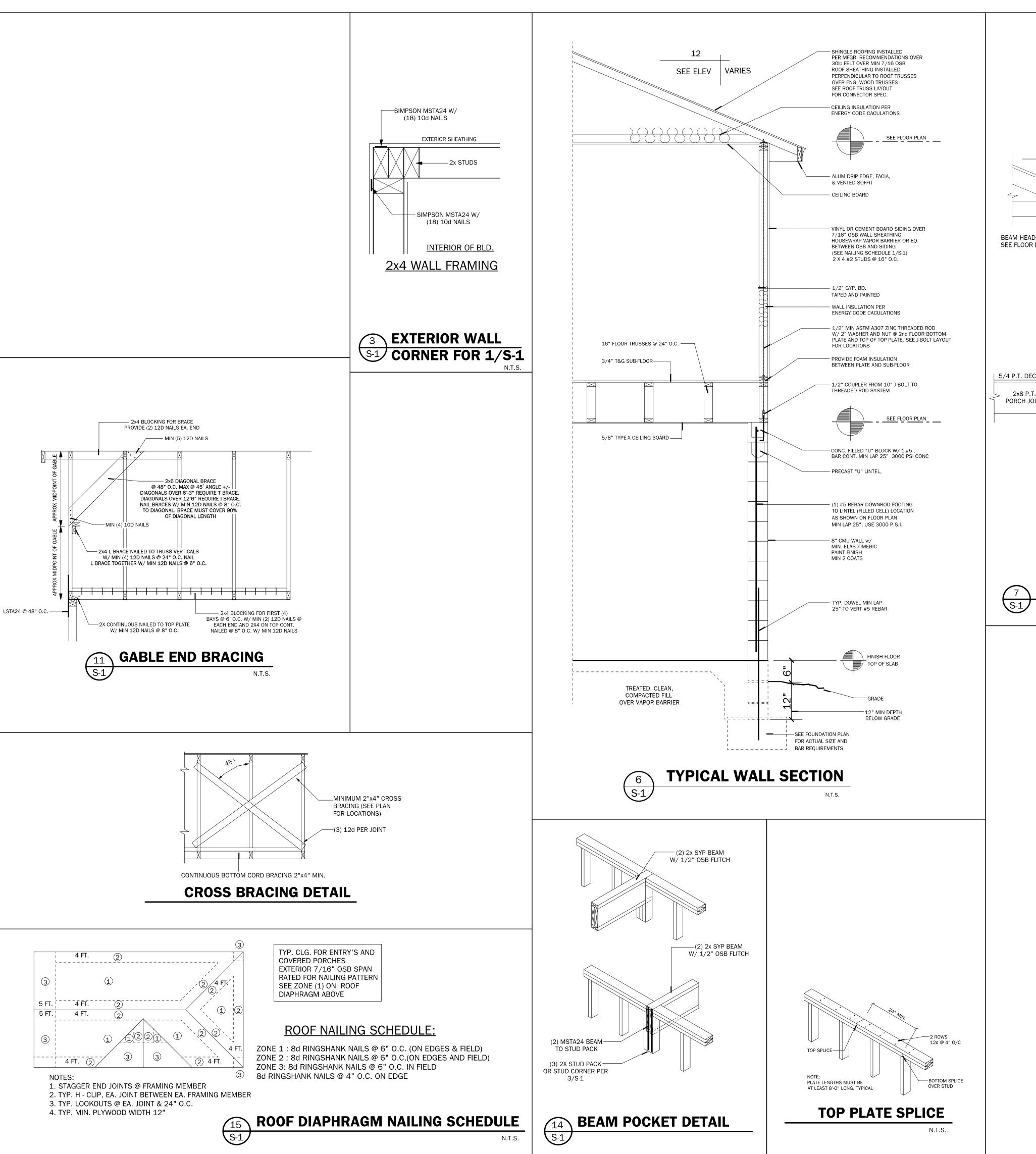
FCI PROTECTED CIRCUITS

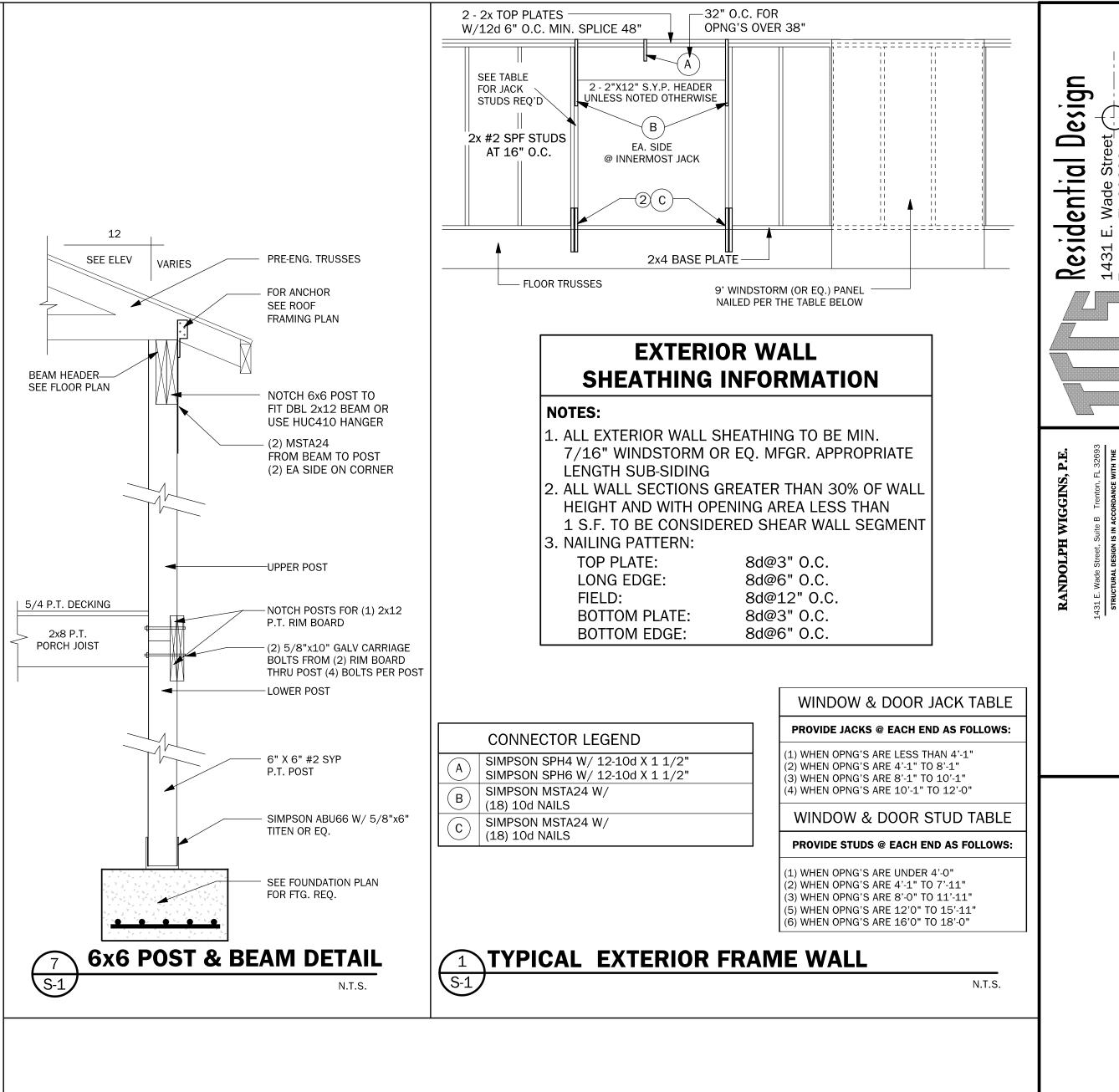












Thomas P 708 SW B Ft White, F Columbia

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