# **Residence for**

Garman Homes

| All construction must comply with curre<br>and is subject to field inspection and w |        |                |
|---|--------|----------------|
| APPROVED  |        | $\mathbf{C}$   |
| Permit holder responsible for<br>full compliance with the code                      | a Auto | Harnett        |
| 02/21/2023  | 800    | COUNTY         |
| 02/21/2023  |        | NORTH CAROLINA |

#### Special wall assembly

Lot 0075 Serenity Fuquay Varina, North Carolina

## **INDEX TO DRAWINGS**

S2

S3

- COVER SHEET
- FRONT & LEFT SIDE ELEVATIONS **REAR & RIGHT SIDE ELEVATIONS**
- FIRST & SECOND FLOOR PLANS
- FIRST & SECOND FLOOR FLECTRICAL PLANS
- FIRST & SECOND FLOOR MECHANICAL PLANS Μ
- FIRST FLOOR PLUMBING PLAN
- CONSTRUCTION DETAILS

# **GENERAL NOTES**

- 1. ALL WORK TO BE DONE IN STRICT ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTIAL BUILDING CODE, 2018 EDITION (HEREWITH SHOWN AS N.C.S.R.B.C.)
- 2. DIMENSIONS SHOWN ON DRAWINGS GOVERN OVER SCALE.
- 3. STUD WALL DESIGN SHALL CONFORM TO ALL N.C.S.R.B.C. REQUIREMENTS
- 4. CONTRACTOR SHALL USE TEMPERED SAFETY GLASS IN ALL LOCATIONS AS REQUIRED BY N.C.S.R.B.C., 2018 EDITION, SECTION R308.4
- 5. ANY HABITABLE ROOM SHALL MEET ALL LIGHT/VENTILATION AND EGRESS AS REQUIRED BY N.C.S.R.B.C. 2018 EDITION, SECTIONS R-303.1 AND R-310.1.
- 6. ALL EXTERIOR WALLS SHOWN ON FLOOR PLANS ARE 2X6 FRAME UNLESS NOTED OTHERWISE. ALL INTERIOR WALLS SHOWN ON FLOOR PLANS ARE 2X4 FRAME UNLESS NOTED OTHERWISE.
- 7. ALL ANGLED WALLS SHOWN ON FLOOR PLANS ARE 45 UNLESS NOTED OTHERWISE.
- 8. ALL WINDOWS SHALL HAVE A MINIMUM DPI RATING OF 25. BUILDER SHALL VERIFY WITH WINDOW MANUFACTURER THAT UNITS INSTALLED MEET THESE REQUIREMENTS AS PER N.C.S.R.B.C., 2018 EDITION, TABLE 301.2(4).
- 9. ENERGY EFFICIENCY REQUIREMENTS FOR THE SPECIFIC CLIMATE ZONE WHERE STRUCTURE IS BEING BUILT SHALL BE IN ACCORDANCE WITH CHAPTER 11 OF THE N.C.S.R.B.C., 2018 EDITION, AS SHOWN IN SECTION N1101.2.

# MATERIALS LEGEND

|  | EARTH/COMPACT FILL   | ۲.    | FINISH WOOD      |
|--|----------------------|-------|------------------|
|  | CONCRETE             | $\ge$ | ROUGH WOOD       |
|  | BRICK                |       | BLOCKING         |
|  | CONCRETE BLOCK/STONE |       | PLYWOOD          |
|  | STEEL                |       | BATT INSULATION  |
|  | ALUMINUM             |       | RIGID INSULATION |

#### ATTIC VENTILATION REQUIREMENTS

NATURAL ROOF VENTILATION MECHANICAL ROOF CALCULATIONS VENTILATION CALCULATIONS <u>1340 SQ. FT.</u> = 8.93 SQ. FT. <u>1340 SQ. FT.</u> = 4.47 SQ. FT. VENT REQ'D 150 300 VENT REQ'D **BUILDER TO PROVIDE** BUILDER TO PROVIDE APPROPRIATE VENTILATING AS APPROPRIATE VENTILATING AS **REQUIRED PER CODE** REQUIRED PER CODE

## FOUNDATION PLAN & FIRST FLOOR FRAMING PLAN

- SECOND FLOOR FRAMING PLAN & ROOF FRAMING PLAN
- GARAGE FOUNDATION PLAN, FIRST FLOOR & ROOF FRAMING PLANS STRUCTURAL DETAILS
- SD1 SPEC STRUCTURAL NOTES

#### **RESIDENTIAL BUILDING CODE SUMMARY**

1. PLANS ARE DESIGNED TO THE 2018 N.C.S.R.B.C.

2. HOUSE IS DESIGNED FOR 115 MPH ULTIMATE DESIGN WIND SPEED (89 MPH NOMINAL DESIGN WIND SPEED), EXPOSURE B.

3. ANCHOR BOLTS SHALL BE MIN. 1/2" DIAMETER AND SHALL EXTEND 7" MIN. INTO MASONRY OR CONCRETE. BOLTS TO BE NO MORE THAN 6' O.C. AND WITHIN 12" FROM THE CORNER.

- 4. MEAN ROOF HEIGHT: 29'-7"
- 5. COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOADS:

| MEAN ROOF HGT: | UP TO 30'  | 30'-1" TO 35' | <u>35'-1" TO 40'</u> | 40'-1" TO 45' |
|----------------|------------|---------------|----------------------|---------------|
| ZONE 1         | 16.5,-18.0 | 17.3,-18.9    | 17.3,-18.9           | 17.3,-18.9    |
| ZONE 2         | 16.5,-21.0 | 17.3,-22.1    | 17.3,-22.1           | 17.3,-22.1    |
| ZONE 3         | 16.5,-21.0 | 17.3,-22.1    | 17.3,-22.1           | 17.3,-22.1    |
| ZONE 4         | 18.0,-19.5 | 18.9,-20.5    | 18.9,-20.5           | 18.9,-20.5    |
| ZONE 5         | 18.0,-24.1 | 18.9,-25.3    | 18.9,-25.3           | 18.9,-25.3    |
|                |            |               |                      |               |

- 6. MINIMUM VALUES FOR ENERGY COMPLIANCE: Zone 4
- 7. MAXIMUM GLAZING U-FACTOR: .35

8. INSULATING VALUES: CEILING: R-38 / WALLS: R-15 / FLOOR: R-19 SLABS: R-10. CODE REFERENCE: TABLE N1102.1

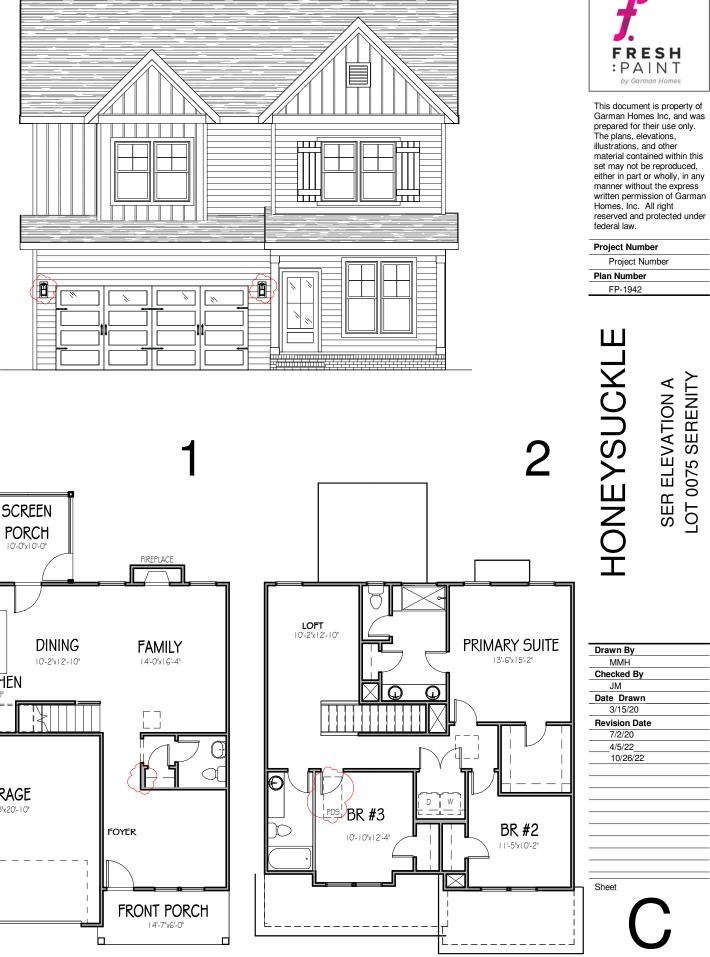
#### AREA CALCULATIONS

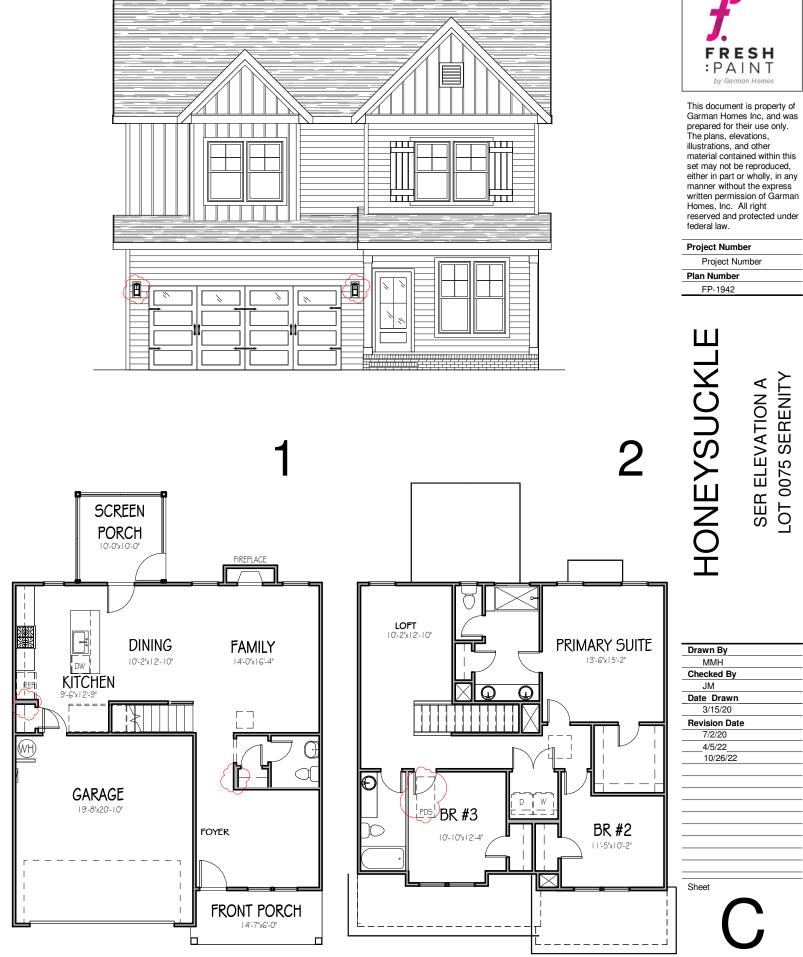
| HEATED (SQ. FT.)   |                                  | <u>UNHEATED (SQ. FT.)</u>                |                  | UNFINISHED (SQ. FT.)                            |                          |
|--|----------------------------------|--|------------------|---|--------------------------|
| BASEMENT:<br>1ST FLOOR:<br>2ND FLOOR:<br>ATTIC:<br>GARAGE:(OPTIONAL) | N/A<br>830<br>1112<br>N/A<br>N/A | FRONT PORCH:<br>GARAGE:<br>SCREEN PORCH: | 85<br>425<br>100 | BASEMENT:<br>1ST FLOOR:<br>2ND FLOOR:<br>ATTIC: | N/A<br>N/A<br>N/A<br>N/A |
| TOTAL:   | 1942                             | TOTAL:                                   | 525              | TOTAL:  | N/A                      |
|  |                                  |  |                  | OVERALL DIMENS                                  | IONS                     |
|  |                                  |  |                  | WIDTH:<br>DEPTH:                                | 34'-4"<br>50'-2"         |

#### FOUNDATION VENTILATION CALCULATIONS

(REFERENCE: N.C.S.R.B.C. 2018 EDITION SECTION R408.)

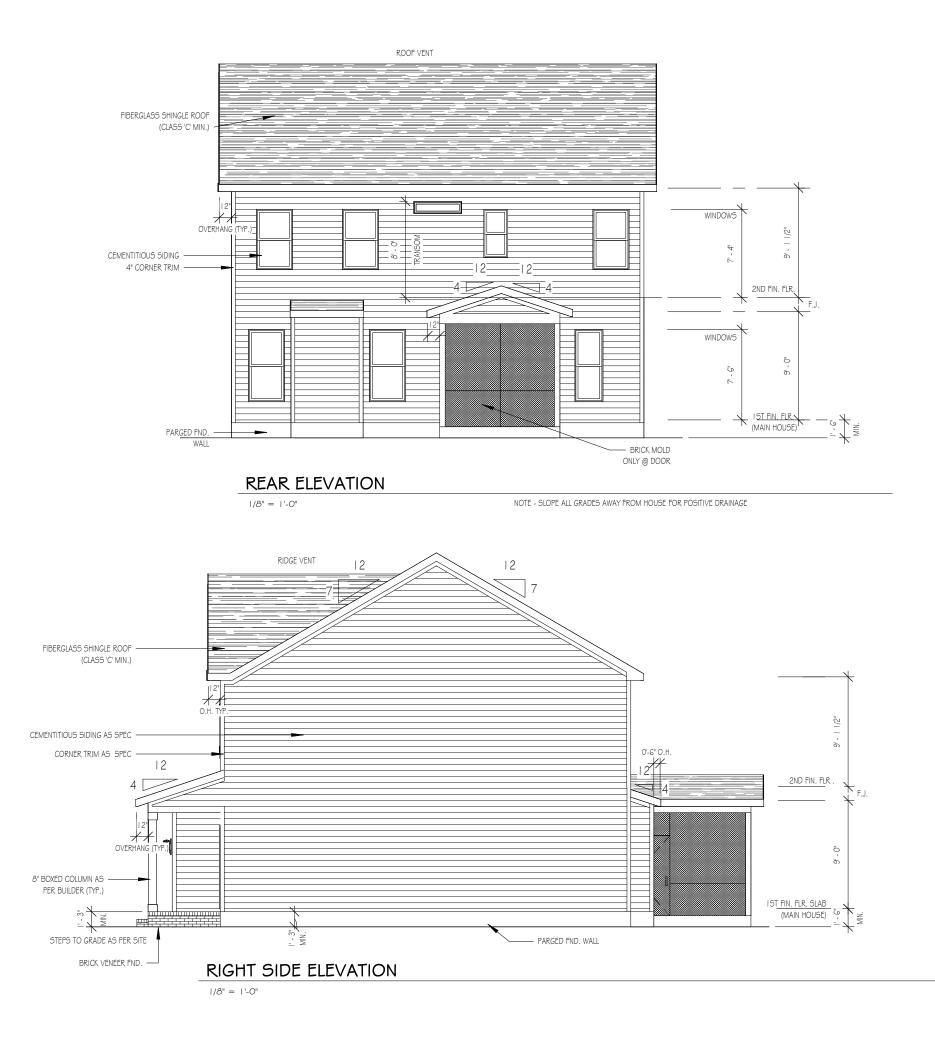
NOT APPLICABLE WITH SLAB FOUNDATIONS







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THE PURPOSE OF THESE DRAWINGS IS TO SHOW THE INTENT OF THE DESIGN AND CONSTRUCTION OF THIS HOME. CONTRACTOR SHOULD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. ONCE A PERMIT HAS BEEN ISSUED, CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY TO THE ACCURACY OF THE PLANS AND ANY CHANGES MADE DURING CONSTRUCTION.



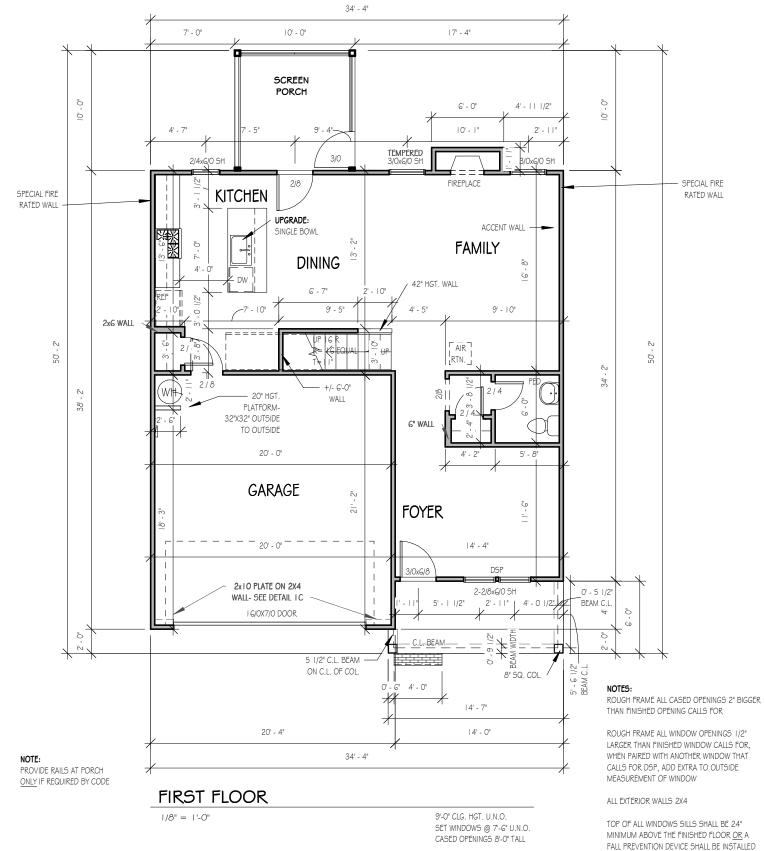
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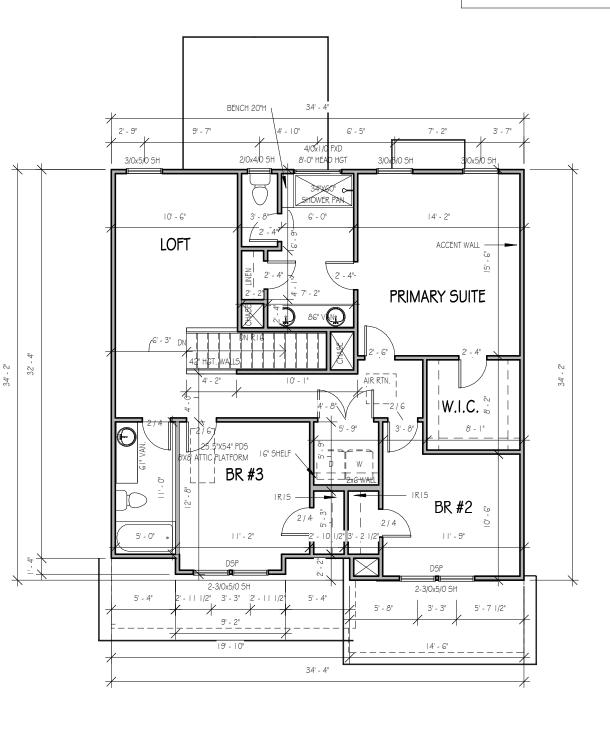
HONEYSUCKLE SER ELEVATION A LOT 0075 SERENITY

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#### SECOND FLOOR

1/8" = 1'-0"

9'-0" CLG. HGT. U.N.O. SET WINDOWS @ 7-4" U.N.O.

IN ACCORDANCE WITH SECTION R312.2 OF N.C.S.R.B.C., 2018 EDITION

GBG (GRILL BETWEEN GLASS) TO BE ADDED TO CORNER LOT WINDOWS

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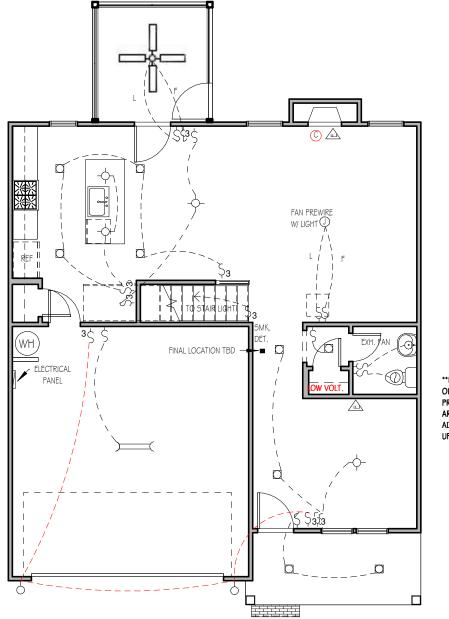


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HONEYSUCKLE SER ELEVATION A LOT 0075 SERENITY

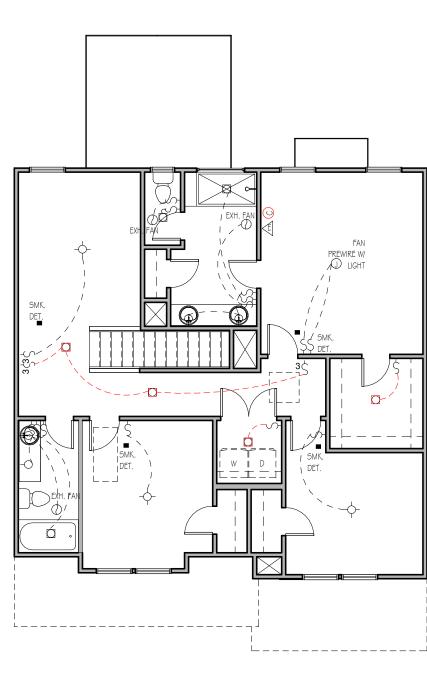
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# FIRST FLOOR ELECTRICAL PLANS

1/8" = 1'-0"

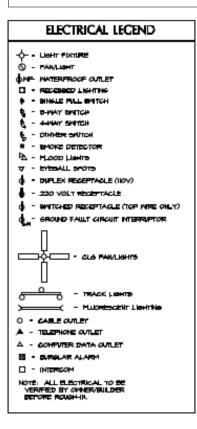
NOTE - ELECTRICAL RECEPTACLE AND SWITCH QUANTITIES AND LOCATIONS SHOWN ON PLAN ARE FOR ILLUSTRATION PURPOSES ONLY. ACTUAL NUMBER AN D LOCATIONS SHALL BE FIELD DETERMINED AS PER CLIENT AND BUILDER EXCEPT WHERE CODE REQUIREMENTS APPLY. \*\*NOTE: THREE ETHERNET OUTLETS IN THESE PREDETERMINED LOCATIONS ARE STANDARD. ANY ADDITIONAL OUTLETS ARE AN UPGRADE.



### SECOND FLOOR ELECTRICAL PLAN

|/8" = |'-0"

NOTE - ELECTRICAL RECEPTACLE AND SWITCH QUANTITIES AND LOCATIONS SHOWN ON PLAN ARE FOR ILLUSTRATION PURPOSES ONLY. ACTUAL NUMBER AN D LOCATIONS SHALL BE FIELD DETERMINED AS PER CLIENT AND BUILDER EXCEPT WHERE CODE REQUIREMENTS APPLY. THE PURPOSE OF THESE DRAWINGS IS TO SHOW THE INTENT OF THE DESIGN AND CONSTRUCTION OF THIS HOME. CONTRACTOR SHOULD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. ONCE A PERMIT HAS BEEN ISSUED, CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY TO THE ACCURACY OF THE PLANS AND ANY CHANGES MADE DURING CONSTRUCTION.



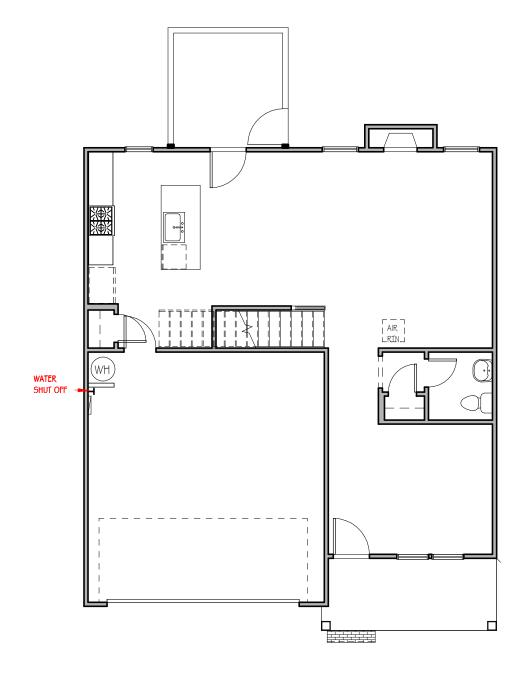


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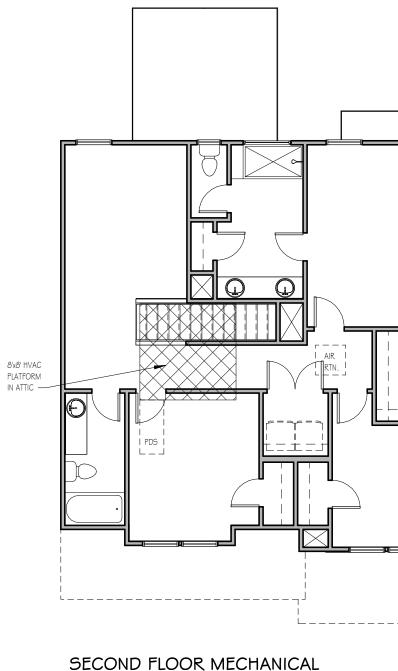
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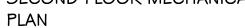
| <b>ER ELEVATION A</b> | <b>DT 0075 SERENITY</b> |
|-----------------------|-------------------------|
|                       | LOT                     |





1/8" = 1'-0"





1/8" = 1'-0"

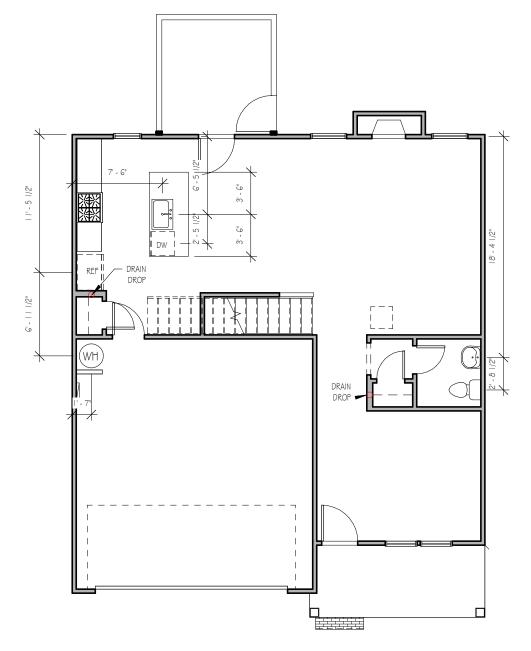
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FIRST FLOOR PLUMBING

|/8" = |'-0"

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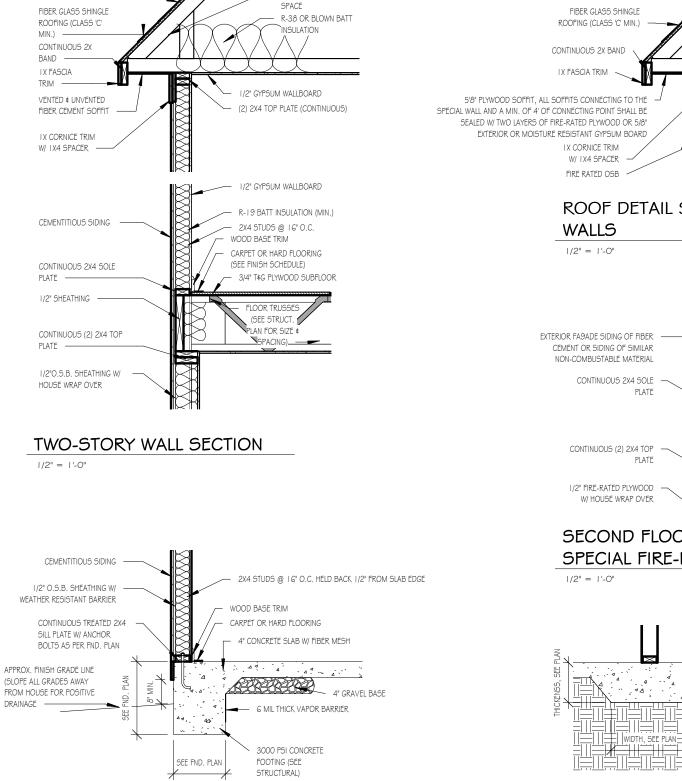


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ROOF TRUSSES PER TRUSS

MAINTAIN 2" CLEAR AIR

MANUFACTURER

# FOUNDATION DETAIL - SLAB

1/2" = 1'-0"

5/8" PLYWOOD

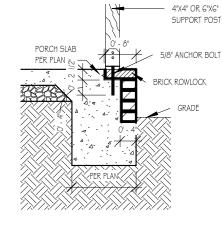
AT JOINTS

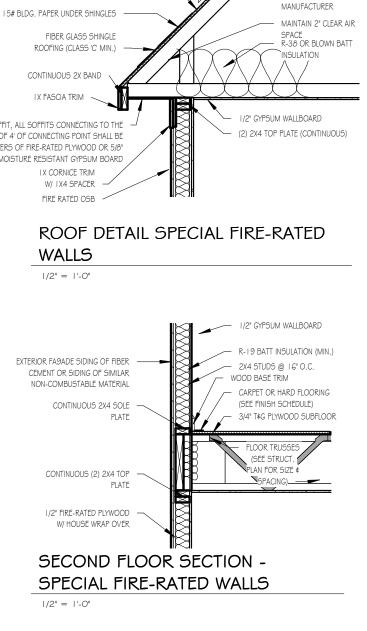
DECKING W/ PLY CLIPS

15# BLDG. PAPER

UNDER SHINGLES

1/2" = 1'-0"





ROOF TRUSSES PER TRUSS

1/2" FIRE-RATED PLYWOOD -

FROM WALL ASSEMBLY

DECKING W/ PLY CLIPS AT JOINTS

EXTENDING AMIN. OF 4' AWAY

1/2" = 1'-0"

# FRONT PORCH COLUMNS SUPPORT ATTACHMENT

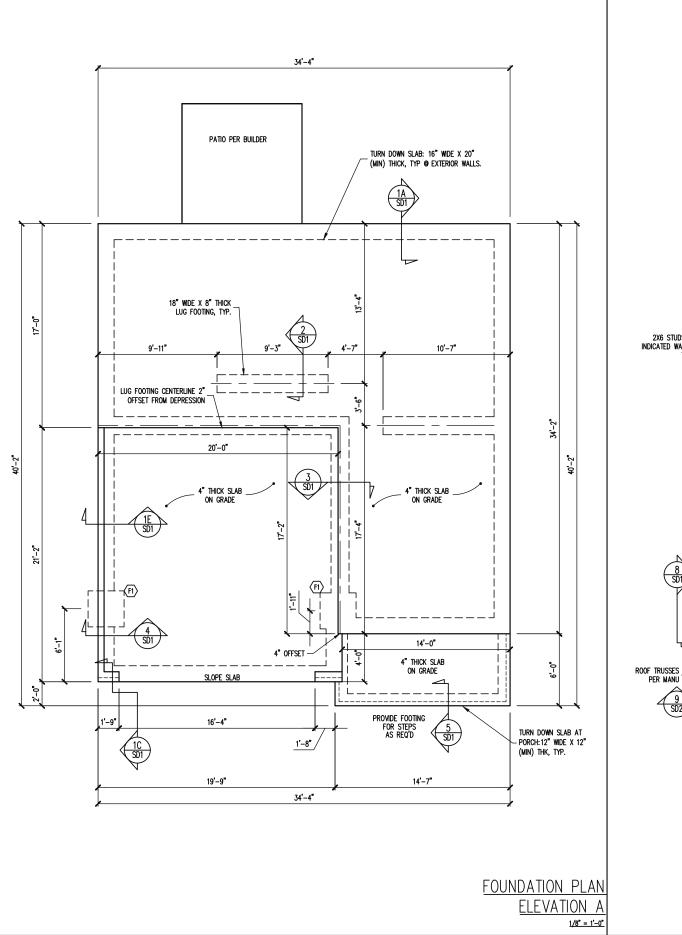
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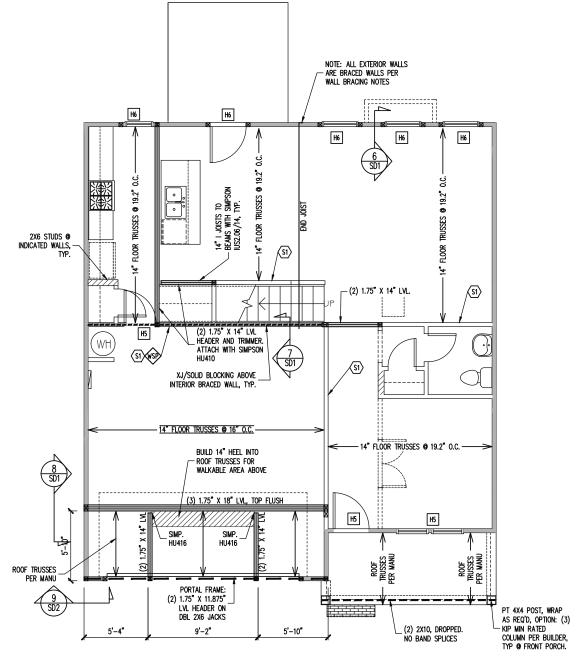
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| FRESH<br>: PAINT   |
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| • P A I IN I<br>by Garman Homes  |
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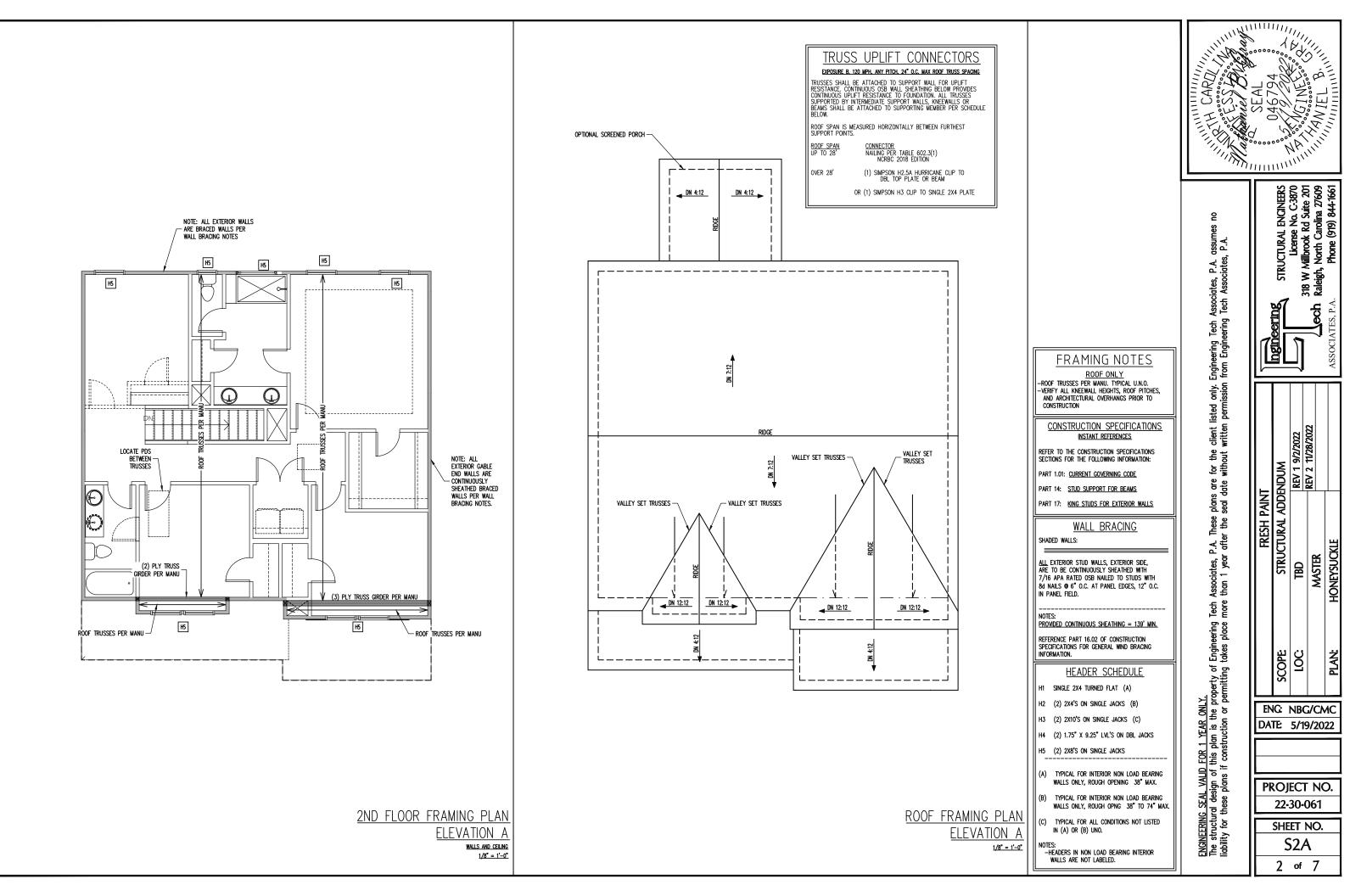
THE PURPOSE OF THESE DRAWINGS IS TO SHOW THE INTENT OF THE DESIGN AND CONSTRUCTION OF THIS HOME. CONTRACTOR SHOULD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. ONCE A PERMIT HAS BEEN ISSUED, CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY TO THE ACCURACY OF THE PLANS AND ANY CHANGES MADE DURING CONSTRUCTION.

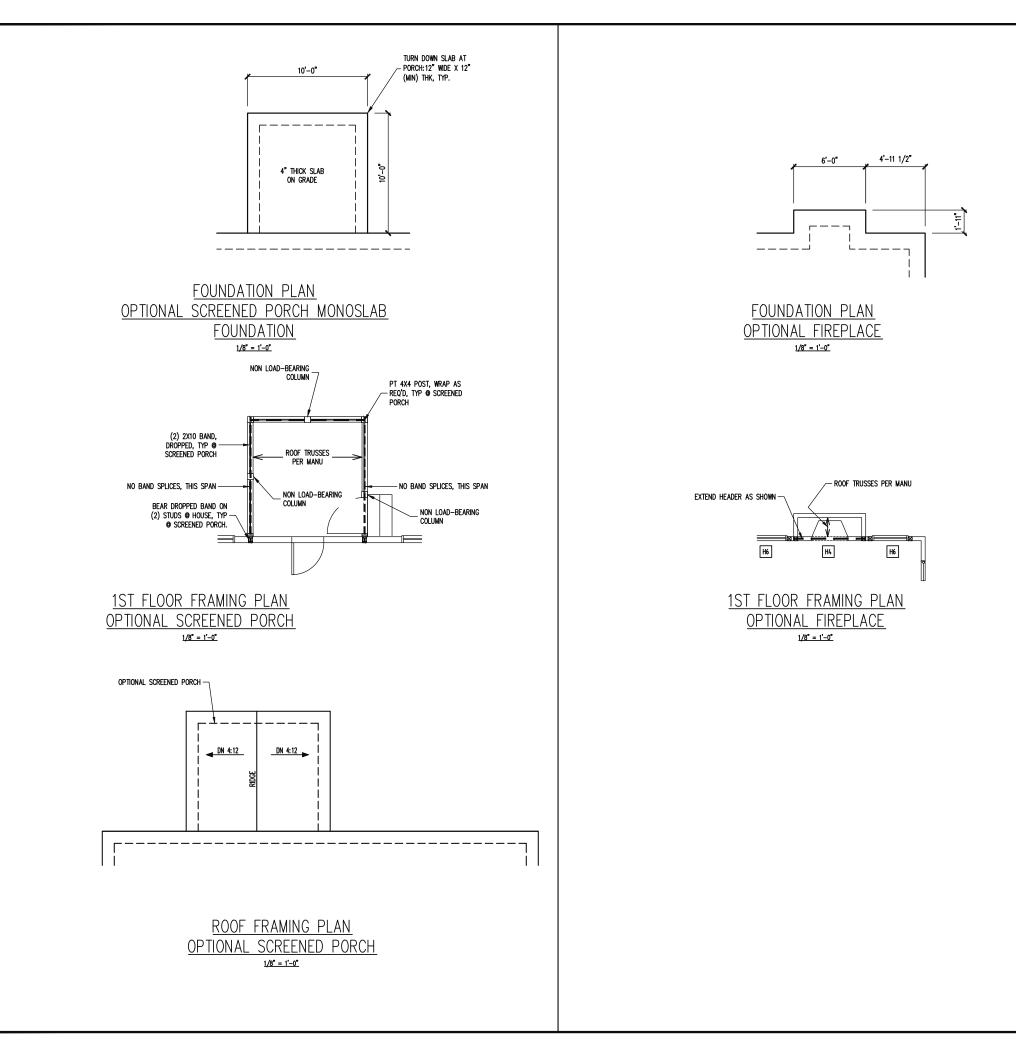


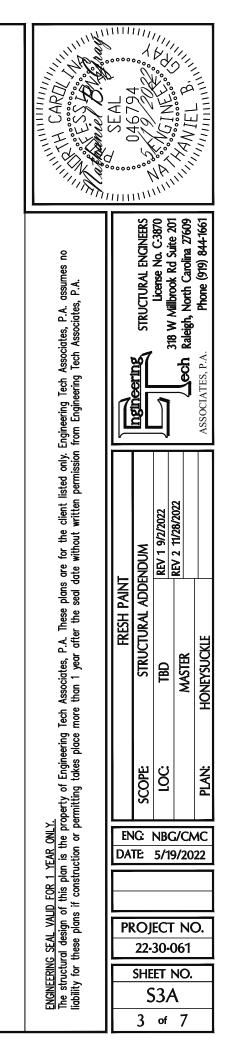


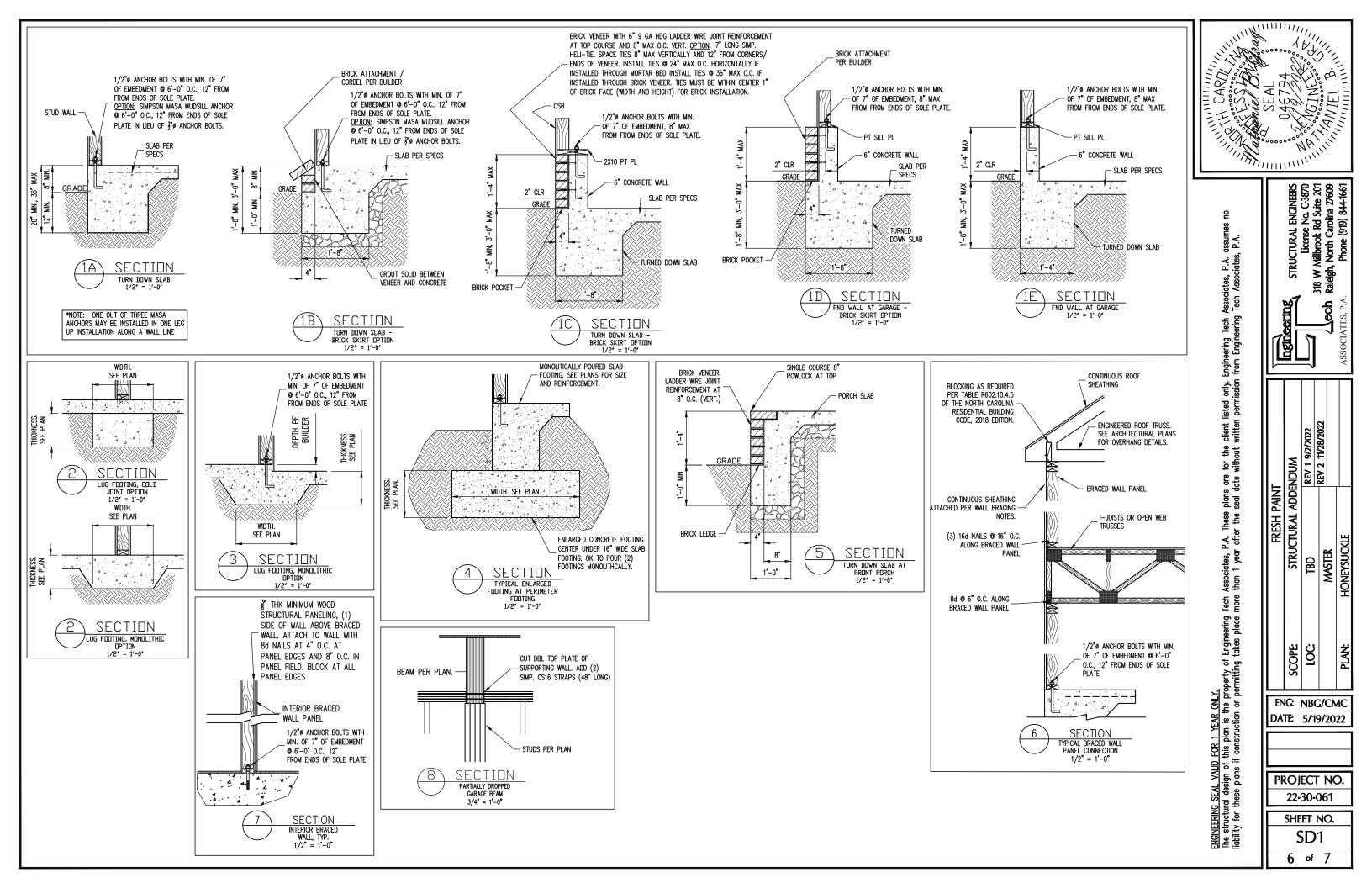
<u>1ST FLOOR FRAMING PLA</u> <u>ELEVATION</u> walls and cell 1/8" = 1'-

|                   | FRAMING SCEDULE<br>S1 INTERIOR LOAD BEARING WALL: SECURE TO<br>THICKENED SLAB BELOW WITH 1/2"# RED<br>HEADER ANCHOR (OR EQUAL) @ 6"-0" 0.C.,<br>12" MAX FROM ENDS / CORRENS OF WALL, 7"<br>MIN EMBEDMENT INTO SLAB BELOW.<br>JOIST SUBSTITUTION<br>14" FLOOR TRUSSES PERMITTED TO BE SUBSTITUTED  | SEAL  |
|-------------------|---|---|
|                   | WITH 14" 1-JOISTS.<br>MAINTAIN MINIMUM SPACING AS CALLED OUT ON<br>PLANS.<br>SIMP. IUS/ITS3.56/14 HANGERS TO BE SUBSTITUTED<br>WITH SIMP. IUS/ITS2.06/14 HANGER WHEN 1-JOISTS<br>HAVE BEEN INSTALLED.<br>CONSTRUCTION SPECIFICATIONS<br>INSTANT REFERENCES<br>REFER TO THE CONSTRUCTION SPECIFICATIONS<br>SECTIONS FOR THE FOLLOWING INFORMATION:<br>PART 1.01: CURRENT GOVERNING CODE<br>PART 14: STUD SUPPORT FOR BEAMS<br>PART 17: KING STUDS FOR EXTERIOR WALLS<br>SEE DETAIL / CONSTRUCTION SPECIFICATIONS<br>SHEETS FOR 1-JOISTS ALLOWABLE SUBSTITUTIONS<br>WALL BRACING  | Engineering Tech Associates, P.A. assumes no<br>from Engineering Tech Associates, P.A.<br><b>Ingineering</b> STRUCTURAL ENGINEERS<br><b>Ingineering</b> 378 W Millbrook Rd Suite 201<br>37609<br>ASSOCIATES, P.A. Phone (919) 844-1661  |
|                   | SHADED WALLS:<br>ALL EXTERIOR STUD WALLS, EXTERIOR SIDE,<br>ARE TO BE CONTINUOUSLY SHEATHED WITH<br>7/16 APA RATED OSB NAILED TO STUDS WITH<br>8d NAILS of 0°. O.C. AT PANEL EDGES, 12°. O.C.<br>IN PANEL FIELD.<br>WSP – ONE SIDE OF INTERIOR WALL OR INSIDE OF<br>EXTERIOR WALL WITH 3/8° MIN. THICKNESS<br>WOOD STRUCTURAL PANELING. ATTACH WSP<br>TO STUD WALL WITH 3/8° MIN. THICKNESS<br>WOOD STRUCTURAL PANELING. ATTACH WSP<br>TO STUD WALL WITH 8d NAILS of 4°. O.C. AT<br>PANEL EDGES, 8°. O.C. IN PANEL FIELD.<br>NOTES:<br>PROVIDED CONTINUOUS SHEATHING = 145° MIN.<br>REFERENCE PART 16.02 OF CONSTRUCTION<br>SPECIFICATIONS FOR GENERAL WIND BRACING<br>INFORMATION.<br>HEADER SCHEDULE<br>H1 SINGLE 2X4 TURNED FLAT (A)<br>H2 (2) 2X4°S ON SINGLE JACKS (B)<br>H3 (2) 2X10°S ON SINGLE JACKS (C)<br>H4 (2) 1.75° X 9.25° LVL'S ON DBL JACKS<br>H5 (2) 2X8°S ON SINGLE JACKS<br>H6 (2) 2X8°S ON DUBLE JACKS | FOR 1 YEAR ONLY.         this plan is the property of Engineering Tech Associates, P.A. These plans are for the client listed only.         f construction or permitting takes place more than 1 year after the seal date without written permission         TED       TESH PAINT         TED       TBD         RESH PAINT       REV 1 9/2/2022         TOC       TBD         REV 1 9/2/2022       MASTER         PLAN:       HONEYSUCKLE |
|                   | (B) TYPICAL FOR INTERIOR NON LOAD BEARING<br>WALLS ONLY, ROUGH OPNG 38" TO 74" MAX.<br>(C) TYPICAL FOR ALL CONDITIONS NOT LISTED<br>IN (A) OR (B) UNO.<br>NOTES:<br>-HEADERS IN NON LOAD BEARING INTERIOR<br>WALLS ARE NOT LABELED.<br>FOUNDATION SCHEDULE  | ││  |
| <u>N</u><br>A ≊ 9 | F1 ENLARGE FOOTING TO 36" SQ. X 12" THK<br>NOTES:<br>-HEIGHT AND BACKFILL LIMITATIONS FOR<br>FOUNDATION WALLS ARE TO BE GOVERNED<br>BY THE NCSBC, LATEST EDITION.   | PROJECT NO.<br>22-30-061<br>22-30-061<br>ENCINC EEXINC<br>SHEET NO.<br>SHEET NO.<br>SHEET NO.<br>SHEET NO.<br>1 of 7  |









| CONSTRUCTION   | SPECIFICATIONS   |  |  |
|--|--|--|--|
| PART 1: GENERAL<br>1.01 CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL<br>CODE, 2018 EDITION.<br>1.02 DIMENSIONS SHOWN SHALL GOVERN OVER SCALE ON THESE DRAWINGS.  | 1-WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM<br>SHALL BEAR FULL WIDTH ON THE SUPPORTING WALL INDICATED AND SHALL BE SUPPORTED<br>BY A MINIMUM OF THREE GANCED STUDS, OR A GANCED STUD COLUMN WITH A NUMBER<br>OF STUDD SUCH THAT THE STUD COLUMN IS AT LEAST AS WIDE AS THE RVE WIDTH OF<br>THE BEAM BEING SUPPORTED, WHICHEVER IS GREATER, TYP UND, FOR THE SKEWED<br>CONDITION PARTICULAR CARE SHALL BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON<br>THE BEAM  | (2) CONT. 2X TOP PLATES, EXTEND EACH END<br>INTO ADJACENT WALL. NAIL SPLICES WITH<br>8-16d NAILS PER SPLICE/LAP.<br>CONT. 2X PLATE WITH 10d NAILS AT   |  |
| 1.05       METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR, WHO SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.         PART 2: DESIGN LOADS         2.01       DESIGN LOADS SHALL CONFORM WITH THE TABLE BELOW:         USE       LIVE LOAD (PSF)         DEAD LOAD (PSF)  | 2-BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR<br>A MINIMUM OF 4 1/2° ONTO THE WALL AND BE SUPPORTED BY A TRPL STUD GANGED<br>COLUMN TYP UNO.<br>14.02 DIMENSIONAL LUMBER BEAMS BEARING ON A STUD WALL SHALL BEAR AS FOLLOWS:<br>1-WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM<br>SHALL BEAR FULL WIDTH ON THE SUPPORTING WALL INDICATED (LESS 1 1/2° TO ALLOW<br>FOR A CONTINUOUS RIM JOIST WHERE APPLICABLE) AND SHALL BE SUPPORTED BY A  | 16" O.C. INTO HEADER/BEAM  | MINIMUM<br>LENGTH  |
| BALCONIES, DECKS, ATTICS WITH FIXED STAIR<br>ACCESS, DWELLING UNITS INCLUDING ATTICS WITH<br>FIXED STAIR ACCESS, STAIRS, FIRE ESCAPES 40 10<br>GARAGES (PASSENGER CARS ONLY) 50<br>ATTICS (NO STORAGE, LESS THAN 5' HEADROOM) 10 10<br>ATTICS (WITH STORAGE) 20 10   | GANGED STUD COLUMN THE SAME WDTH AS THE DEAM TYP UNO. (E.G. AT TRIPLE 2X10 IS<br>TO BE SUPPORTED BY (3) STUDS). FOR THE SKEWED CONDITION PARTICULAR CARE SHALL<br>BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON THE BEAM<br>2-BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR<br>MININUM OF 3' ONTO THE WALL AND BE SUPPORTED BY A DBL STUD GANGED COLUMN<br>TYP UNO.<br>14.03 EXTRA JOISTS BEARING ON A STUD WALL PERPENDICULAR TO OR SKEWED RELATIVE TO<br>THE BEAM SHALL BE SUPPORTED BY ONE ADDITIONAL STUD.   | BLOCKING, ETC.) WITH 8d NAILS AT 6" O.C. AT<br>SHEET EDGES AND 12" O.C. IN THE FIELD.  | NAIL<br>AREA<br>3" 0.  |
| ROOF 20 10 (15 FOR VAULTS)<br>NOTES: - INDIVIDUAL STAIR TREADS ARE TO BE DESIGNED FOR THE UNIFORMLY DISTRIBUTED<br>LIVE LOAD OF 40 PSF OR A 300 LB. CONCENTRATED LOAD ACTING OVER AN AREA<br>OF 4 SQ. WHICHEVER PRODUCES THE GREATER STRESS.<br>- BUILDER TO VERIFY DEAD LOAD DOES NOT EXCEED 10 PSF WHEN HEAVY FLOOR OR<br>ROOF FINISHES SUCH AS TILE OR SLATE ARE UTILIZED. NOTIFY ENGINEERING UNDER<br>THESE CONDITIONS<br>2.02 INTERIOR WALLS: 5 PSF LATERAL   | 14.04 STUDS THAT ARE GANGED TO FORM A COLUMN SHALL HAVE ADJACENT STUDS WITHIN<br>THE COLUMN NAILED TOGETHER WITH ONE ROW OF 10d NAILS AT 8" O.C. (TWO ROWS<br>OF 10d NAILS @ 8" O.C., 3" APART, FOR 2X8 OR 2X10 STUDS) ALL COLUMNS SHALL<br>BE CONTINUOUS DOWN TO THE FOUNDATION OR OTHER PROPERLY DESIGNED<br>STRUCTURAL ELEMENT SUCH AS A BEAM. COLUMNS TRANSFERRING LOADS THROUGH<br>FLOOR LEVELS SHALL BE SOLIDLY BLOCKED FOR THE FULL WIDTH OF THE STUD COLUMN<br>WITHIN THE CANTY FORMED BY THE<br>FLOOR JOISTS.   | EXCEEDS 16", PROVIDE ADDITIONAL<br>STUDS AT 16" O.C. NAIL SHEATHING TO<br>ALL STUDS WITH 8d NAILS AT 3" O.C.<br>FOR A PANEL SPLICE (IF NEEDED),<br>PANEL EDGES SHALL OCCUR OVER AND<br>BE NAILED TO COMMON BLOCKING AND  | (2)<br>(2) Si<br>Straf<br>Inside   |
| 2.03 BASIC WIND DESIGN VELOCITY OF 120 MPH.<br>2.04 SOIL BEARING CAPACITY 2000 PSF (PRESUMPTIVE).<br>PART 5: CONCRETE AND SLABS ON GRADE   | PART 15: NAILING OF MULTI PLY WOOD BEAMS<br>15.01 SOLID SAWN LUMBER JOISTS THAT ARE GANGED TO FORM A BEAM SHALL HAVE<br>ADJACENT MEMBERS IN THE BEAM NAILED TOGETHER WITH THREE ROWS OF 100 NAILS<br>@ 16" O.C. FOR 2X10 OR LARGER, TWO ROWS OF 100 NAILS @ 16" O.C. FOR 2X8, ONE<br>ROW OF 100 NAILS @ 16" O.C. FOR 2X6 OR SMALLER. STAGGER ROWS 5" MIN.<br>15.02 LVL MEMBERS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS<br>IN THE BEAM FASTENED TOGETHER PER MANUFACTURERS RECOMMENDATIONS, TYP  | OCCUR WITHIN MIDDLE 24" OF WALL<br>HEIGHT. ONE ROW OF 3" O.C. NAILING<br>IS REQUIRED IN EACH PANEL EDGE.<br>7/16" O.S.B. OR 15/32" PLYWOOD<br>EXTERIOR WALL SHEATHING. AT SHADED   |  |
| <ul> <li>5.01 CAST IN PLACE CONCRETE SHALL BE OF NORMAL WEIGHT, 6% AIR ENTRAINMENT, AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS TYP UNO. ALL CONCRETE, INCLUDING CONCRETE FOR FOOTINGS, IS TO BE CAST IN PLACE, TYP UNO.</li> <li>5.03 SLABS ON GRADE, IF ANY, SHALL CONTAIN SYNTHETIC POLYPROPYLENE FIBRILLATED MICRO FIBERS, FIBER LENGTH 1 1/2", DOSAGE RATE 1 1/2 LBS/CU YO. SLAB TO BE PLACED ON A 6 MIL VAPOR BARRIER ON 2" MIN GRANULAR FILL ON SOIL WITH 90% MIN STANDARD PROCTOR DENSITY. VAPOR BARRIER MAY BE OMITTED FOR SLABS NOT IN ENCLOSED AREAS</li> <li>PART 7: MASONRY</li> </ul> | UNO PART 16: WALL FRAMING AND BRACING 16.01 STUD WALLS SHALL CONSIST OF 2X4 STUDS SPACED AT 16" O.C. UNO. STUDS SHALL BE CONTINUOUS FROM SOLE PLATE AT FLOOR TO DOUBLE TOP PLATE AT THE CEILING OR ROOF. NO INTERMEDIATE BANDS OR PLATES SHALL CAUSE DISCONTINUITES IN A STUD WALL EXCEPT AS REQUIRED FOR DOOR OR WINDOW OPENINGS. THE KING STUDS FOR SUCH OPENINGS SHALL BE CONTINUOUS, TYP UNO. MAX ALLOWABLE WALL HEIGHTS FOR EXTERIOR STUD WALLS, WITH SOLE PLATE AND DBL TOP PLATE AND 7/16" OSB EXTERIOR BRACING AND ROW OF 2X4 /  | AREAS NAIL SHEATHING TO ALL SUPPORTS<br>(STUDS, PLATES, BLOCKING, ETC.) WITH 8d<br>NAILS AT 3" O.C.<br>(2)2x STUD MIN. AT START AND END OF<br>WALL SEGMENTS EACH SIDE OF OPENING.<br>SEE PLANS FOR ADDITIONAL STUDS  | Conc<br>Maso<br>Shali<br>Of Th   |
| <ul> <li>7.03 MORTAR SHALL BE TYPE S. MORTAR AND GROUT SHALL CONFORM TO ASTM C476, MIN<br/>COMPRESSIVE STRENGTH OF 2000 PSI.</li> <li>7.05 LADDER WIRE REINFORCEMENT SHALL CONFORM TO ASTM A951. 6" MIN LAPS<br/>FOR CONTINUOUS WALL APPLICATIONS</li> <li>PART 8: BOLTS AND LAG SCREWS</li> <li>8.03 ANCHOR RODS AND BOLTS SHALL CONFORM TO ASTM F1554–15 GRADE 36 UNO. BENT<br/>ANCHOR BOLTS SHALL HAVE A 2" MIN HOOK UNO</li> <li>PART 9: DRIVEN FASTENERS</li> </ul>   | 2X6 PURLINS AT 8' HEIGHT (AND AT 16' HEIGHT FOR TALL WALLS), TYP UNO:<br>16.02 FOR WALL BRACING THE FOLLOWING SHALL APPLY:<br>-BLOCKING AT UNSUPPORTED PANEL EDGES IS REQUIRED TYP UNO.<br>-WALL BRACING IS BY ENGINEERED DESIGN AND NOT PRESCRIPTIVE PER SECTION<br>602.10 OF THE 2018 NCRC. CONTINUOUS SHEATHING HAS BEEN PROVIDED, ALONG<br>WITH ALTERNATIVE METHODS TO INSURE THE MINIMUM INTENT OF SECTION 602.10<br>OF THE 2018 NCRC HAS BEEN MET AND EXCERDED.<br>-BRACED WALL PANELS SHALL BE FASTENED IN ACCORDANCE WITH TABLE 602.3(1) TO<br>PROVIDE CONTINUOUS PANEL UPLIFT RESISTANCE AND COMPLIANCE WITH NCRBC<br>R602.35 AND R802.11 UNLESS NOTED OTHERWISE ON STRUCTURAL PLANS.<br>-MAY SUBSTITUTE WSP FOR GB | 2x4 P.T. PLATE WITH TWO 1/2" DIA x 7" EMBED<br>ANCHOR BOLTS WITH A 3/16"x2"x2" PLATE<br>WASHERS OR ADDITIONAL HOLDOWN PER PLANS.<br><u>OPTION: (2) 5/8" DIA. THREADED RODS</u><br><u>INSTALLED PER SECTION R602.10.4.3 OF THE</u><br><u>NCRBC, LATEST EDITION.</u>   |  |
| 9.01 NAILS, SPIKES AND STAPLES SHALL CONFORM TO ASTM F 1667- 05. NAILS ARE TO BE<br>COMMON WIRE OR BOX<br>PART 10: DIMENSIONAL LUMBER  | -SINGLE JOIST, CONTINUOUS RIM JOIST, OR BLOCKING OF EQUAL DEPTH IS REQUIRED<br>ABOVE AND BELOW ALL BRACED WALLS. NAIL BLOCKING ABOVE WALL TO TOP PLATE<br>WITH 164 TOE NAILS @ 6° O.C. NAIL SOLE PLATE OF BRACED WALL TO BLOCKING<br>BELOW WITH (3) 164 NAILS @ 16° O.C. BLOCKING AT HORIZONTAL JOINTS IN BRACED<br>WALL LINES ONLY REQUIRED AT SHADED WALLS, UNO.   | NOTES  |  |
| <ul> <li>10.01 SOLID SAWN WOOD FRAMING DESIGN IS BASED ON NO. 2 SPRUCE PINE FIR <u>OR</u> SYP #2 FOR JOISTS, RAFTERS, GIRDERS, BEAMS, STUDS, ETC.</li> <li><u>PART 11: ENGINEERED LUMBER</u></li> <li>11.01 LVL OR PSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS:<br/>E= 1.9 X 10E6 PSI, FD = 2600 PSI, FY = 285 PSI, FC = 750 PSI LSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS:<br/>E = 1.3 X 10E6 PSI, FD = 1700 PSI, FY = 400 PSI, FC = 680 PSI</li> </ul>   | PART 17: KING STUDS17.01KING STUDS FOR OPENINGS IN EXTERIOR WALLS SHALL BE AS FOLLOWS:NUMBER OF KING STUDSMAX OPENING WIDTH 5'-0" 9'-0" 13'-0" 17'-0" 21'-0"2X412345STUD SIZE2X6112222X811112  | FOLLOWING CONDITIONS ARE NOTED BEFORE OR DURING CONSTRUCTION:<br>1) THE WORKING PLANS DO NOT BEAR THE SEAL OF THE EOR<br>2) THE PLANS CONTAIN DISCREPANT OR INCOMPLETE INFORMATION<br>ANY ERRORS DUE TO A FAILURE TO FOLLOW THE ABOVE PROCEDURES SHALL NOT BE THE<br>RESPONSIBILITY OF THE FOR FURTHERMORE IT IS THE RESPONSIBILITY OF THE BUILDER TO<br>DIA DIA   | BOTH<br>BOTH ENDS<br>BETWEEN<br>CAST IN PLACE<br>CONCRETE<br>CONTINUOUS S<br>DIAMETER      |
| <ul> <li>11.02 LVL OR PSL MEMBERS MAY BE RIPPED FROM DEEPER MEMBERS TO MATCH THE MEMBER<br/>DEPTH SPECIFIED IN THE PLANS</li> <li><u>PART 12: PRESSURE TREATED LUMBER</u></li> <li>12.01 LUMBER IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE PRESSURE<br/>TREATED IN ACCORDANCE WITH AWPA STANDARD C-15. ALL OTHER EXPOSED LUMBER<br/>SHALL BE TREATED IN ACCORDANCE WITH AWPA STANDARD C-20 CR BY ANY METHOD<br/>GIVING EQUAL PROTECTION. THE BUILDING CODE OFFICE MAY ALSO APPROVE A NATURAL</li> </ul>  | PART 18: SUBSTITUTIONS<br>18.01 MATERIAL OR MEMBER SIZE SUBSTITUTIONS OR PLAN<br>DEVIATIONS REQUIRE THE WRITTEN AUTHORIZATION OF THE<br>DESIGNERS. UNAUTHORIZED DEVIATIONS ARE THE SOLE<br>RESPONSIBILITY OF THE CONTRACTOR.<br>PART 19: OWNERSHIP OF STRUCTURAL DESIGN  | ENSURE THAN ANY REVISIONS ISSUED BY THE EOR ARE PROMPLY DISTRIBUTED TO THE DJ D<br>SUBCONTRACTORS DSP<br>THE EOR DOES NOT PERFORM FENESTRATION OR VENTING CALCULATIONS OR ANY OTHER EQ E<br>CALCULATIONS THAT ARE NOT DIRECTLY RELATED TO STRUCTURAL ENGINEERING. FLG F  | DOUBLE<br>DOUBLE JOIST<br>DBL STUD POO<br>EQUAL<br>EACH<br>FLANGE<br>FLITCH PLATE<br>FLOOR |
| DECAY RESISTANT WOOD PER SECTION 19-6(A)<br>PART 14: STUD SUPPORTS FOR BEAMS<br>14.01 STEEL, ENGINEERED LUMBER, AND FLITCH PLATE BEAMS BEARING ON A STUD WALL<br>SHALL BEAR AS FOLLOWS:  | 19.01 THE STRUCTURAL DESIGN OF THIS PLAN IS THE PROPERTY<br>OF ENGINEERING TECH ASSOCIATES (ETA). THESE PLANS<br>ARE FOR THE ONE TIME USE AT THE LOCATION INDICATED<br>AND FOR THE CLENT LISTED. ETA ASSUMES NO LUABILITY<br>FOR THESE PLANS IF THEY ARE REPRODUCED, IN WHOLE OR<br>IN PART, FOR CONSTRUCTION AT ANY OTHER LOCATION<br>WITHOUT WRITTEN PERMISSION FROM ETA   | ALLOWABLE I-JOIST SUBSTITUTION<br>NOTE: MAINTAIN JOIST DEPTH, DIRECTION, AND SPACING SPECIFIED ON<br>PLANS.<br>MANUFACTURER DEPTH SERIES SIMPSON FACE SIMPSON TOP<br>FLANGE HGR  |  |
|  |  | BLUELINX         14"         BLI 40         IUS2.56/14         ITS2.56/14           BOISE         CASCADE         14"         BCI 5000s         IUS2.06/14         ITS2.06/14           BOISE         CASCADE         14"         BCI 6000S         IUS2.06/14         ITS2.06/14           LP         CORP         14"         BCI 6000S         IUS2.37/14         ITS2.56/14           NORDIC         14"         NI 40X         IUS2.56/14         ITS2.56/14           ROSEBURG         14"         RFPI 40S         IUS2.56/14         ITS2.56/14           WEYERHAEUSER         14"         TJI 210         IUS2.06/14         ITS2.56/14           WEYERHAEUSER         14"         EEI-20         IUS2.37/14         ITS2.73/14 |  |

JOISTS NOT LISTED IN THE ABOVE TABLE MAY BE USED PROVIDED THEY MEET OR EXCEED THE PROPERTIES OF THOSE LISTED. SUBSTITUTE USP BRAND HANGERS WITH EQUIVALENT VALUES AS DESIRED.

