### **Residence for**

### Garman Homes Lot 0158 Serenity Fuquay Varina, North Carolina

### **INDEX TO DRAWINGS**

### **COVER SHEET**

- FRONT & LEFT SIDE ELEVATIONS
- 2 REAR & RIGHT SIDE ELEVATIONS 3 FIRST & SECOND FLOOR PLANS
- E FIRST & SECOND FLOOR ELECTRICAL PLANS
- M FIRST & SECOND FLOOR MECHANICAL PLANS
- P FIRST FLOOR PLUMBING PLAN
- D CONSTRUCTION DETAILS

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  S2 FIRST FLOOR FRAMING PLAN
  - S3 SECOND FLOOR FRAMING
    S4 ROOF FRAMING PLAN
  - S4 ROOF FRAMING PLAN S5 OPTIONAL IN-LAW SUITE DETAILS
  - D1 STRUCTURAL DETAILS
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    D3 STRUCTURAL DETAILS
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### **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	FINISH WOOD
4	CONCRETE	ROUGH WOOD
	BRICK	BLOCKING
	CONCRETE BLOCK/STONE	PLYWOOD
	STEEL	BATT INSULATION
	ALUMINUM	RIGID INSULATION

### **TOILET ACCESSORIES LEGEND**

PROVIDE 2X4 BLOCKING IN THE WALL FOR THE FOLLOWING:

TB TOWEL BAR
TP TOILET PAPER HOLDER

TP TOILET PAPER HOLDE
TR TOWEL RING
MC MEDICINE CABINET

### 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 R
- 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'-3"
- 5. COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOADS:

MEAN ROOF HGT:	UP TO 30'	30'-1" TO 35'	35'-1" TO 40'	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	18.024.1	18.925.3	18.925.3	18.925.3

- 6. MINIMUM VALUES FOR ENERGY COMPLIANCE: Zone 4
- 7. MAXIMUM GLAZING U-FACTOR: .35
- 8. INSULATING VALUES: CEILING: R-49 / WALLS: R-15 / FLOOR: R-19 SLABS: R-10. CODE REFERENCE: TABLE N1102.1

### AREA CALCULATIONS

HEATED (SQ. FT.)		UNHEATED (S	Q. FT.)	UNFINISHED (SQ. FT.)		
	1ST FLOOR: 2ND FLOOR: TOTAL:	894 750 1644	GARAGE: FRONT PORCH: PATIO:	280 38 100	BASEMENT: 1ST FLOOR: 2ND FLOOR: ATTIC:	N/A N/A N/A N/A
			TOTAL:	418	TOTAL:	N/A
					OVERALL DIMEN	NSIONS
					WIDTH: DEPTH:	30'-0" 54'-0"

### FOUNDATION VENTILATION CALCULATIONS

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

NOT APPLICABLE WITH SLAB FOUNDATIONS

### ATTIC VENTILATION REQUIREMENTS

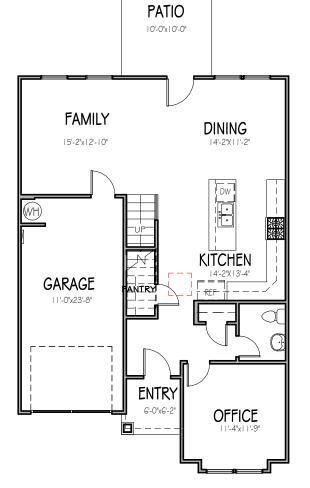
NATURAL ROOF VENTILATION CALCULATIONS | MECHANICAL ROOF VENTILATION CALCULATIONS

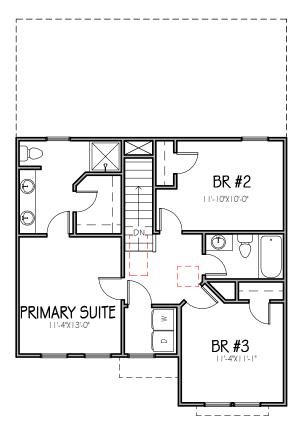
1212 SQ. FT. = 8.08 SQ. FT. VENT REQ'D

BUILDER TO PROVIDE APPROPRIATE VENTILATING AS REQUIRED PER CODE 1212 SQ. FT. = 4.04 SQ. FT. VENT REQ'D

BUILDER TO PROVIDE APPROPRIATE VENTILATING AS REQUIRED PER CODE









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### Project Number Project Number Plan Number FP-1644

### ON A NO

SER ELEVATION A LOT 0158 SERENITY

**-ORGE** 

Drawn By

MMH

Checked By

JM

Date Drawn

2/16/20

Revision Date

7/1/20

4/5/22

11/22/22

2/21/23

1 2

C



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Project Number
Project Number
Plan Number
FP-1644

FORGET ME NOT SER ELEVATION A LOT 0158 SERENITY

Drawn By
MH
Checked By
CM
Date Drawn
4/8/20

Revision Date 7/1/20 4/5/22

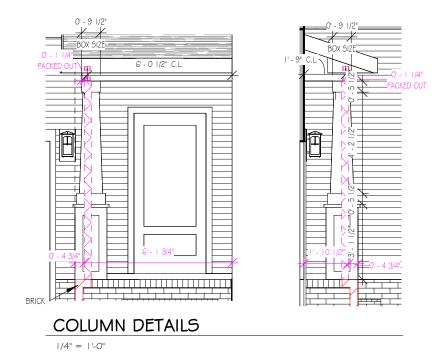
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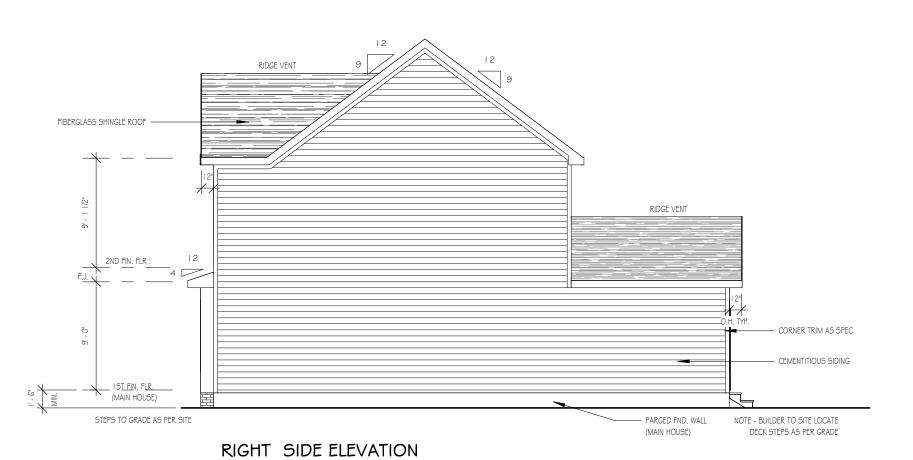
Sheet

1



NOTE - SLOPE ALL GRADES AWAY FROM HOUSE FOR POSITIVE DRAINAGE



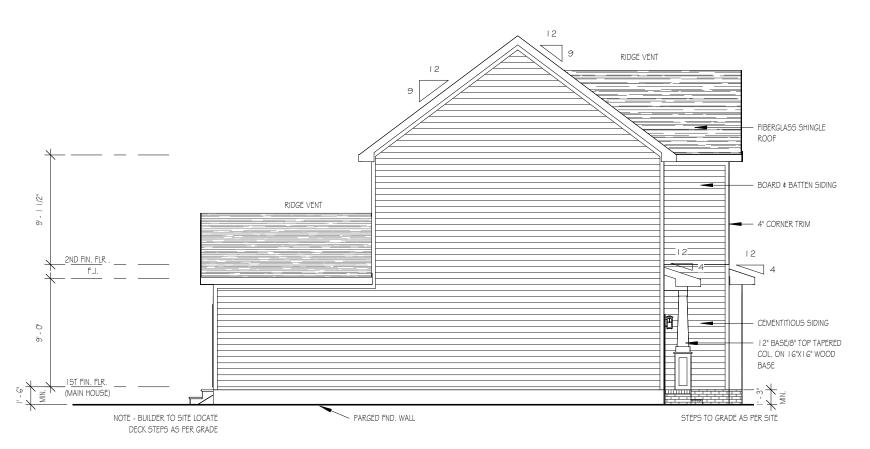


1/8" = 1'-0"

1/8" = 1'-0"

1/8" = 1'-0"

NOTE - SLOPE ALL GRADES AWAY FROM HOUSE FOR POSITIVE DRAINAGE



PROVIDE RAILS @ PORCH ONLY IF REQUIRED BY CODE

15" MIN. HGT. FOUNDATION FRONT GRADE TO FINISHED FRONT PORCH

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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Project Number Project Number Plan Number FP-1644

### FORGET ME NOT SER ELEVATION A LOT 0158 SERENITY

Drawn By МН Checked By CM Date Drawn 4/8/20 Revision Date 7/1/20 4/5/22 2/21/23 Sheet

### FIRST FLOOR

1/8" = 1'-0"

NOTE:

9'-0" CLG. HGT. U.N.O. SET WINDOWS @ 7'-6" U.N.O.

THE PURPOSE OF THESE DRAWINGS IS TO SHOW THE INTENT OF THE DESIGN AND CONSTRUCTION OF THIS HOME. CONTRACTOR SHOULD VERIFY ALL
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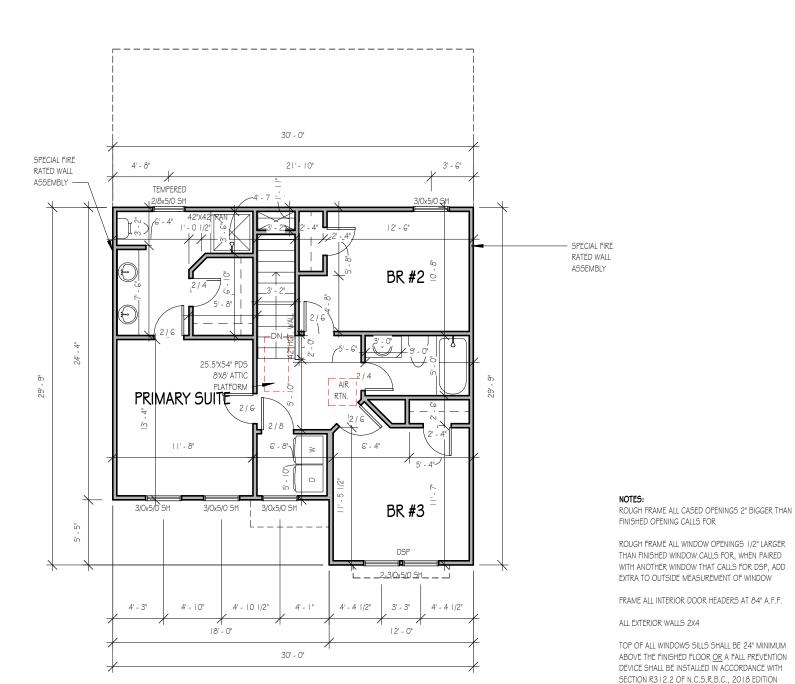
Project Number Project Number Plan Number FP-1644

# SER ELEVATION A LOT 0158 SERENITY

# FORGET ME NOT

Drawn By МН Checked By CM Date Drawn 4/8/20 Revision Date 7/1/20 4/5/22 2/21/23

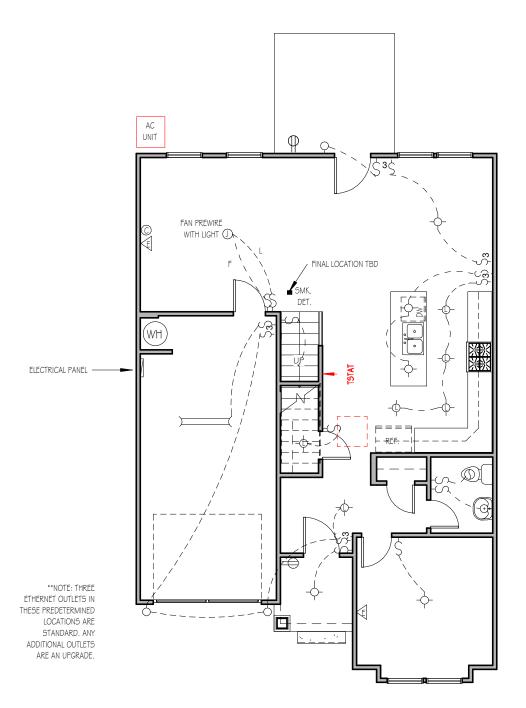
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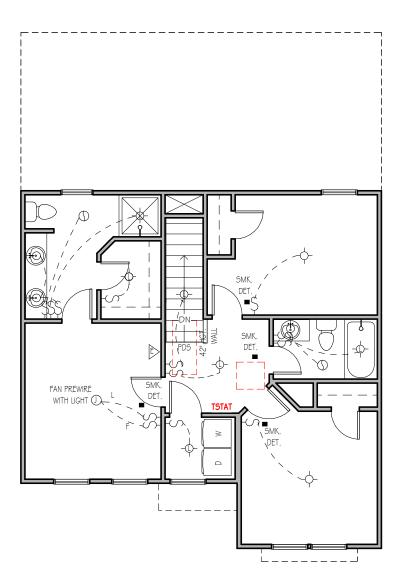


### SECOND FLOOR

1/8" = 1'-0"

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





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ELECTRICAL LEGEND

THERMOSTAT

D.B.

DOORBELL

- FLUSH MOUNT/PENDANT LIGHT

-- LED DISK LIGHT

-- KEYLESS LIGHT

◆FLOOD LIGHT

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0

 $\odot$ 

RECESSED CAN LIGHT WALL SCONCE

CEILING FAN

EXHAUST FAN

CABLE OUTLET

SMOKE DETECTOR FLOOR RECEPTACLE

ETHERNET OUTLET

DUPLEX RECEPTACLE

220 VOLT RECEPTACLE

3-WAY SWITCH DIMMER SWITCH

GFCI RECEPTACLE

ELECTRICAL PANEL



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Project Number Project Number

Plan Number FP-1644

SER ELEVATION A LOT 0158 SERENITY

### ME FORGET

Drawn By MH Checked By CM Date Drawn 4/8/20 Revision Date 7/1/20 4/5/22 2/21/23

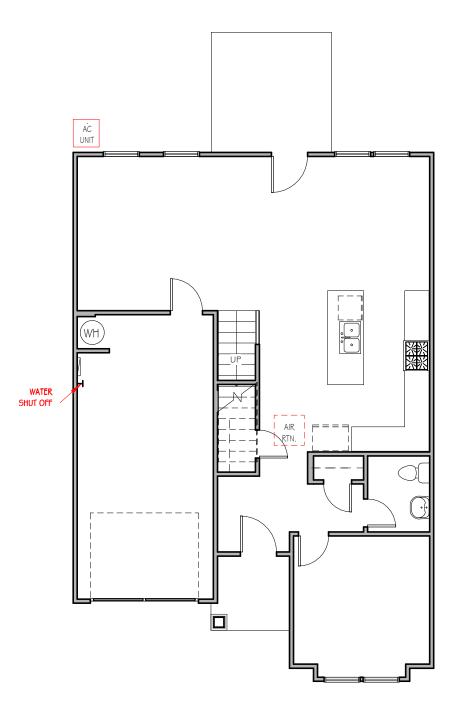
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SECOND FLOOR ELECTRICAL PLAN

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.

### FIRST FLOOR ELECTRICAL PLAN

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.



FIRST FLOOR MECHANICAL PAGE

1/8" = 1'-0"

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12'-0"x8'-0" HVAC ATTIC PLATFORM



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### SER ELEVATION A LOT 0158 SERENITY

## Drawn By MH Checked By CM Date Drawn 4/8/20 Revision Date 7/1/20 4/5/22 2/21/23

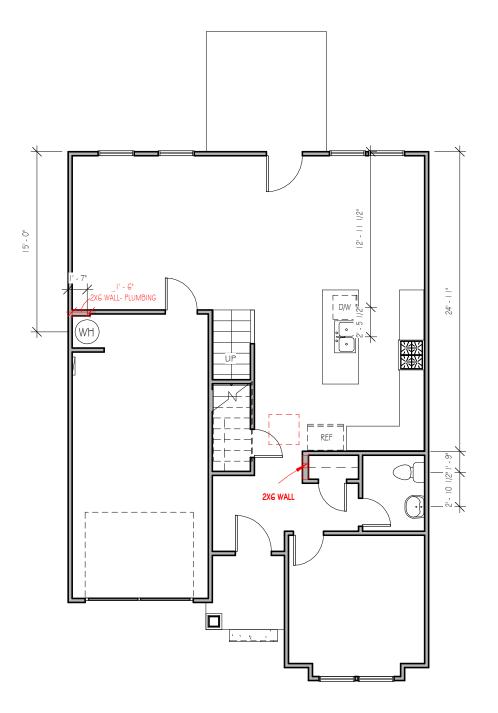
SECOND FLOOR MECHANICAL PAGE

17.02

1/8" = 1'-0"

FORGET ME NOT

Sheet



FIRST FLOOR PLUMBING

1/8" = 1'-0"

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.



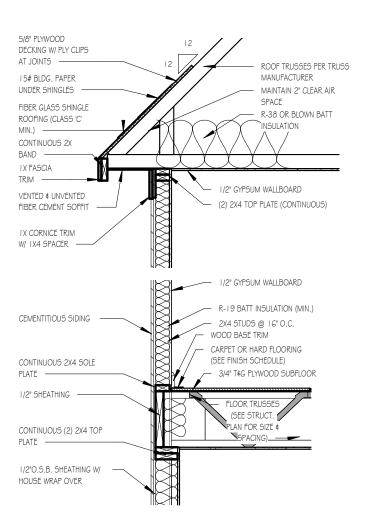
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# FORGET ME NOT SER ELEVATION A LOT 0158 SERENITY

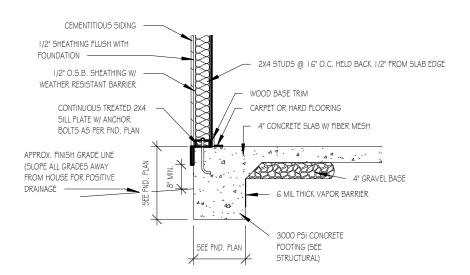
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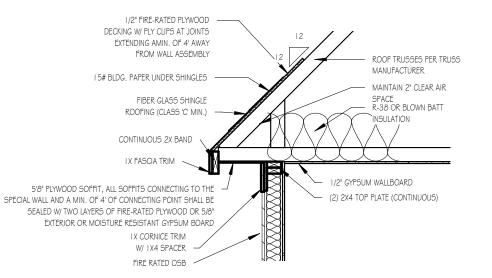
### TWO-STORY WALL SECTION

1/2" = 1'-0"



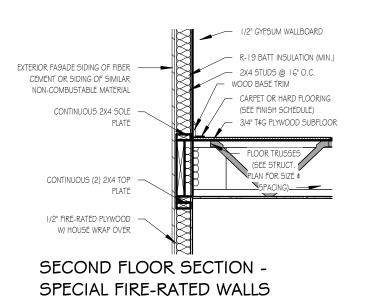
### FOUNDATION DETAIL - SLAB

1/2" = 1'-0"

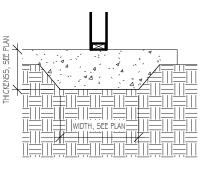


### ROOF DETAIL SPECIAL FIRE-RATED WALLS

1/2" = 1'-0"



1/2" = 1'-0"



### LUG FOOTING

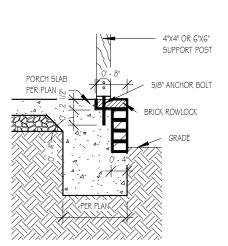
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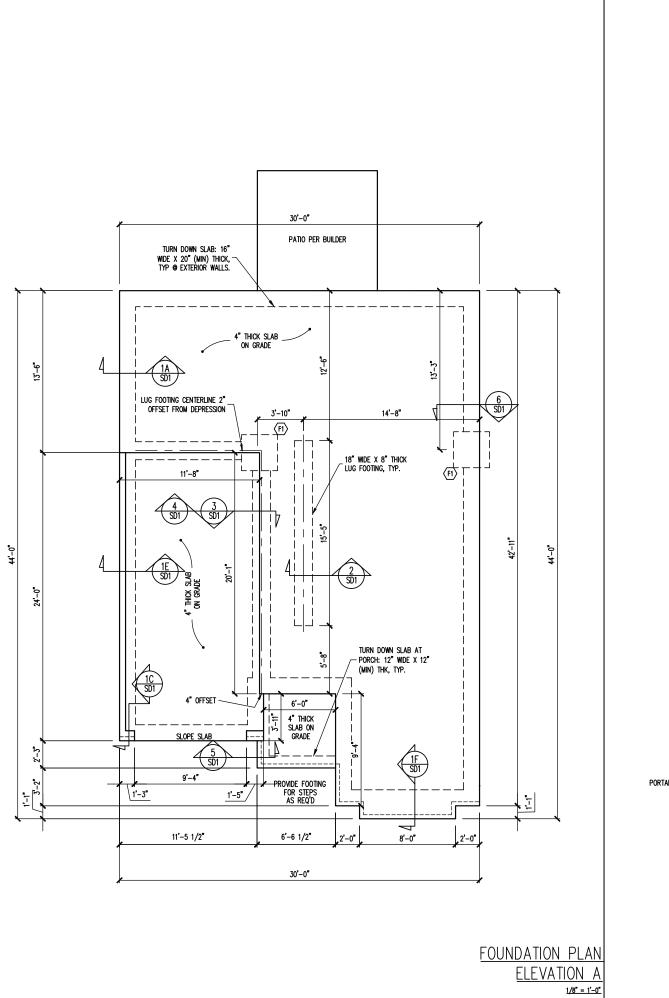
# SERENITY COLLECTION

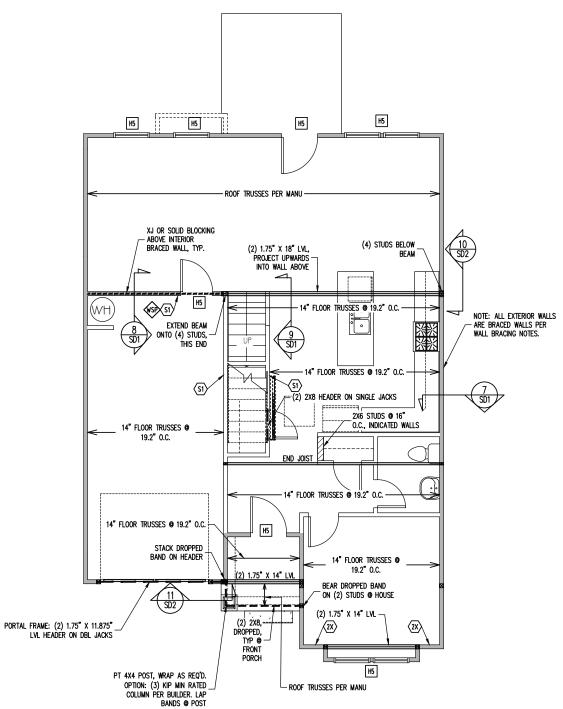


FRONT PORCH COLUMNS SUPPORT ATTACHMENT

Drawn By MMH Checked By JM Date Drawn 10/28/20 **Revision Date** 9/14/22 9/20/22

1/2" = 1'-0"





1ST FLOOR FRAMING PLAN **ELEVATION A** 

WALLS AND CEILING 1/8" = 1'-0"

### FRAMING SCEDULE

INTERIOR LOAD BEARING WALL: SECURE TO THICKENED SLAB BELOW WITH 1/2" RED HEADER ANCHOR (OR EQUAL) @ 6'-0" O.C., 12" MAX FROM ENDS / CORNERS OF WALL, 7" MIN EMBEDMENT INTO SLAB BELOW.

### JOIST SUBSTITUTION

14" FLOOR TRUSSES PERMITTED TO BE SUBSTITUTED WITH 14" I-JOISTS.

MAINTAIN MINIMUM SPACING AS CALLED OUT ON PLANS.

SIMP. IUS/ITS3.56/14 HANGERS TO BE SUBSTITUTED WITH SIMP. IUS/ITS2.06/14 HANGER WHEN I-JOISTS HAVE BEEN INSTALLED.

### CONSTRUCTION SPECIFICATIONS INSTANT REFERENCES

REFER TO THE CONSTRUCTION SPECIFICATIONS SECTIONS FOR THE FOLLOWING INFORMATION:

PART 1.01: CURRENT GOVERNING CODE

PART 14: STUD SUPPORT FOR BEAMS

PART 17: KING STUDS FOR EXTERIOR WALLS

SEE DETAIL / CONSTRUCTION SPECIFICATIONS SHEETS FOR I-JOISTS ALLOWABLE SUBSTITUTIONS

### WALL BRACING

SHADED WALLS:

<u>ALL</u> EXTERIOR STUD WALLS, EXTERIOR SIDE, ARE TO BE CONTINUOUSLY SHEATHED WITH 7/16 APA RATED OSB NAILED TO STUDS WITH 8d NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN PANEL FIELD.

- WSP ONE SIDE OF INTERIOR WALL OR INSIDE OF EXTERIOR WALL WITH 3/8" MIN. THICKNESS WOOD STRUCTURAL PANELING. ATTACH WSP TO STUD WALL WITH 8d NAILS @ 4" O.C. AT PANEL EDGES, 8" O.C. IN PANEL FIELD.
- Sheath Both Sides of Stud Wall with 76 APA RATED OSB, NAILED TO STUDS WITH 8d NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN PANEL FIELD.

PROVIDED CONTINUOUS SHEATHING = 155' MIN.

REFERENCE PART 16.02 OF CONSTRUCTION SPECIFICATIONS FOR GENERAL WIND BRACING INFORMATION.

### HEADER SCHEDULE

- SINGLE 2X4 TURNED FLAT (A)
- H2 (2) 2X4'S ON SINGLE JACKS (B)
- H3 (2) 2X10'S ON SINGLE JACKS (C)
- (2) 1.75" X 9.25" LVL'S ON DBL JACKS
- H5 (2) 2X8'S ON SINGLE JACKS
- TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPENING 38" MAX.
- TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPNG 38" TO 74" MAX.
- TYPICAL FOR ALL CONDITIONS NOT LISTED IN (A) OR (B) UNO.

-HEADERS IN NON LOAD BEARING INTERIOR
WALLS ARE NOT LABELED.

### FOUNDATION SCHEDULE

ENLARGE FOOTING TO 36" SQ. X 12" THK

-HEIGHT AND BACKFILL LIMITATIONS FOR FOUNDATION WALLS ARE TO BE GOVERNED BY THE NCSBC, LATEST EDITION.

SEAL 055544 051NE STRUCTURAL ENGINEERS
License No. C-3870
W Millbrook Rd, Suite 201
leigh, North Carolina 27609
Phone (919) 844-1661

W Mille leigh, No

MASTER

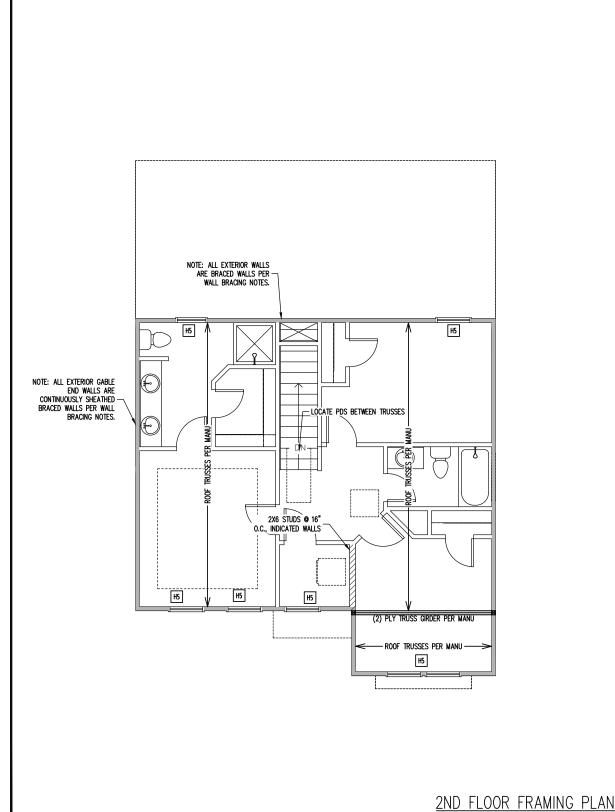
Engineering from Engine only. ission listed perm client li written for the without FRESH PAINT STRUCTURAL ADDENDUM plans are P.A. These TBD eering place Engin takes 00

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	ENG:	CMC
	DATE	4/10/2024
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PROJECT NO. 24-30-028

> SHEET NO. S<sub>1</sub>A 1 of 6

property of permitting t the pro VG SEAL VALID FOR 1 YEAR O urral design of this plan is the these plans if construction o ಕ್ರ ಕ್ರ



TRUSS UPLIFT CONNECTORS

RUSSES SHALL BE ATTACHED TO SUPPORT WALL FOR UPLIFT RESISTANCE. CONTINUOUS OSB WALL SHEATHING BELOW PROVIDES CONTINUOUS UPLIFT RESISTANCE TO FOUNDATION. ALL TRUSSES SUPPORTED BY INTERMEDIATE SUPPORT WALLS, KNEWALLS OR BEAMS SHALL BE ATTACHED TO SUPPORTING MEMBER PER SCHEDULE BELOW.

ROOF SPAN IS MEASURED HORIZONTALLY BETWEEN FURTHEST SUPPORT POINTS.

ELEVATION A

WALLS AND CEILING

1/8" = 1'-0"

DVER 28'

OR (1) SIMPSON H3 CLIP TO SINGLE 2X4 PLATE

- OPTIONAL SCREENED PORCH DN 4:12

DN 4:12 DN 4:12 TRUSSES TRUSSES <u>\_\_\_\_4:12\_\_</u> DN 12:12 DN 12:12

> ROOF FRAMING PLAN **ELEVATION A** 1/8" = 1'-0"

FRAMING NOTES

-ROOF TRUSSES PER MANU. TYPICAL U.N.O.
-VERIFY ALL KNEEWALL HEIGHTS, ROOF PITCHES,
AND ARCHITECTURAL OVERHANGS PRIOR TO CONSTRUCTION

### CONSTRUCTION SPECIFICATIONS INSTANT REFERENCES

REFER TO THE CONSTRUCTION SPECIFICATIONS SECTIONS FOR THE FOLLOWING INFORMATION:

PART 1.01: CURRENT GOVERNING CODE

PART 14: STUD SUPPORT FOR BEAMS

PART 17: KING STUDS FOR EXTERIOR WALLS

### WALL BRACING

SHADED WALLS:

ALL EXTERIOR STUD WALLS, EXTERIOR SIDE, ARE TO BE CONTINUOUSLY SHEATHED WITH 7/16 APA RATED OSB NAILED TO STUDS WITH 8d NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN PANEL FIELD.

PROVIDED CONTINUOUS SHEATHING = 119' MIN.

REFERENCE PART 16.02 OF CONSTRUCTION SPECIFICATIONS FOR GENERAL WIND BRACING INFORMATION.

### HEADER SCHEDULE

- SINGLE 2X4 TURNED FLAT (A)
- (2) 2X4'S ON SINGLE JACKS (B)
- (2) 2X10'S ON SINGLE JACKS (C)
- (2) 1.75" X 9.25" LVL'S ON DBL JACKS
- H5 (2) 2X8'S ON SINGLE JACKS
- TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPENING 38" MAX.
- TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPNG 38" TO 74" MAX.
- TYPICAL FOR ALL CONDITIONS NOT LISTED IN (A) OR (B) UNO.

-HEADERS IN NON LOAD BEARING INTERIOR WALLS ARE NOT LABELED.

STRUCTURAL ENGINEERS
License No. C-3870
8 W Millbrook Rd, Suite 201
aleigh, North Carolina 27609
Phone (919) 844-1661 318 W Millb Raleigh, No FRESH PAINT
STRUCTURAL ADDENDUM
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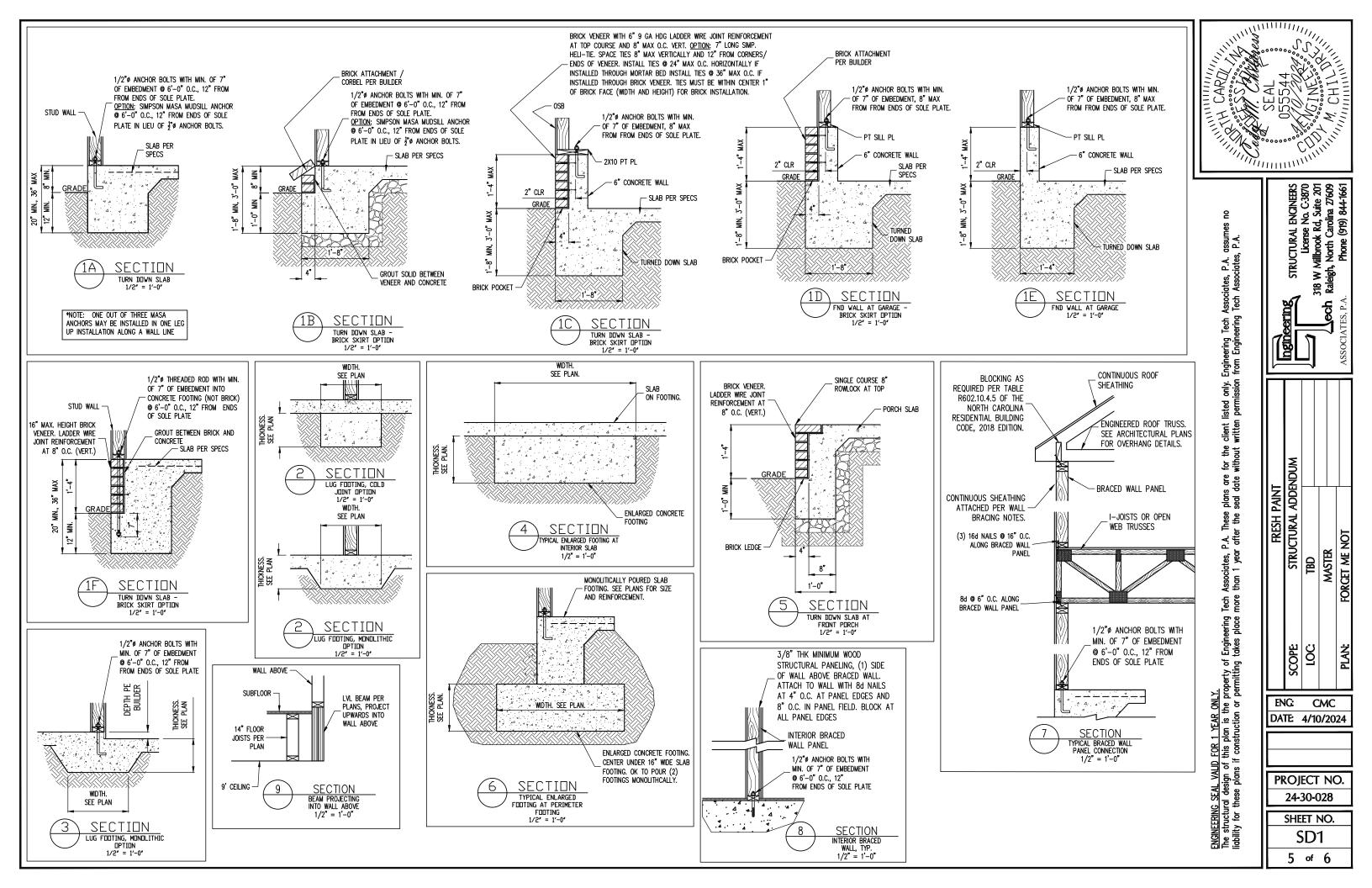
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DATE: 4/10/202	24

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PROJECT NO. 24-30-028

> SHEET NO. S2A 2 of 6

4:12



### CONSTRUCTION SPECIFICATIONS

LIVE LOAD (PSF) DEAD LOAD (PSF)

### PART 1: GENERAL

- CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE. 2018 EDITION.
- 1.02 DIMENSIONS SHOWN SHALL GOVERN OVER SCALE ON THESE DRAWINGS.
- 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

BALCONIES, DECKS, ATTICS WITH FIXED STAIR ACCESS, DWELLING UNITS INCLUDING ATTICS WITH FIXED STAIR ACCESS, STAIRS, FIRE ESCAPES	40	10
GARAGES (PASSENGER CARS ONLY)	50	
ATTICS (NO STORAGE, LESS THAN 5' HEADROOM)	10	10
ATTICS (WITH STORAGE)	20	10
ROOF	20	10 (15 FOR VAULTS)

- NOTES: INDIVIDUAL STAIR TREADS ARE TO BE DESIGNED FOR THE UNIFORMLY DISTRIBUTED LIVE LOAD OF 40 PSF OR A 300 LB. CONCENTRATED LOAD ACTING OVER AN AREA OF 4 SQ. WHICHEVER PRODUCES THE GREATER STRESS.

   BUILDER TO VERIFY DEAD LOAD DOES NOT EXCEED 10 PSF WHEN HEAVY FLOOR OR
  - ROOF FINISHES SUCH AS TILE OR SLATE ARE UTILIZED. NOTIFY ENGINEERING UNDER
- 2.02 INTERIOR WALLS: 5 PSF LATERAL
- 2.03 BASIC WIND DESIGN VELOCITY OF 120 MPH.
- SOIL BEARING CAPACITY 2000 PSF (PRESUMPTIVE).

### PART 5: CONCRETE AND SLABS ON GRADE

- 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
- SLABS ON GRADE, IF ANY, SHALL CONTAIN SYNTHETIC POLYPROPYLENE FIBRILLATED MICRO FIBERS, FIBER LENGTH 1 1/2", DOSAGE RATE 1 1/2 LBS/CU YD. SLAB TO BE PLACED ON A 6 MIL VAPOR BARRIER ON 2" MIN GRANULAR FILL ON SOIL WITH 90% ARD PROCTOR DENSITY. VAPOR BARRIER MAY BE OMITTED FOR SLABS NOT

### PART 7: MASONRY

- 7.03 MORTAR SHALL BE TYPE S. MORTAR AND GROUT SHALL CONFORM TO ASTM C476, MIN COMPRESSIVE STRENGTH OF 2000 PSI.
- LADDER WIRE REINFORCEMENT SHALL CONFORM TO ASTM A951. 6" MIN LAPS FOR CONTINUOUS WALL APPLICATIONS

### PART 8: BOLTS AND LAG SCREWS

8.03 ANCHOR RODS AND BOLTS SHALL CONFORM TO ASTM F1554-15 GRADE 36 UNO. BENT ANCHOR BOLTS SHALL HAVE A 2" MIN HOOK UNO

NAILS, SPIKES AND STAPLES SHALL CONFORM TO ASTM F 1667- 05. NAILS ARE TO BE

### PART 10: DIMENSIONAL LUMBER

SOLID SAWN WOOD FRAMING DESIGN IS BASED ON NO. 2 SPRUCE PINE FIR  $\underline{OR}$  SYP #2 FOR JOISTS, RAFTERS, GIRDERS, BEAMS, STUDS, ETC.

### PART 11: ENGINEERED LUMBER

- LVL OR PSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS: E= 1.9 X 10E6 PSl, Fb = 2600 PSl, Fv = 285 PSl, Fc = 750 PSl LSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS: E= 1.3 X 10E6 PSl, Fb = 1700 PSl, Fv = 400 PSl, Fc = 680 PSl
- 11.02 LVL OR PSL MEMBERS MAY BE RIPPED FROM DEEPER MEMBERS TO MATCH THE MEMBER

### PART 12: PRESSURE TREATED LUMBER

LUMBER IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA STANDARD C-15. ALL OTHER EXPOSED LUMBER SHALL BE TREATED IN ACCORDANCE WITH AWPA STANDARD C-2 OR BY ANY METHOD GIVING EQUAL PROTECTION. THE BUILDING CODE OFFICE MAY ALSO APPROVE A NATURAL DECAY RESISTANT WOOD PER SECTION 19-6(A)

### PART 14: STUD SUPPORTS FOR BEAMS

14.01 STEEL, ENGINEERED LUMBER, AND FLITCH PLATE BEAMS BEARING ON A STUD WALL

- 1-WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM SHALL BEAR <u>FULL WIDTH</u> ON THE SUPPORTING WALL INDICATED AND SHALL BE SUPPORTED BY A MINIMUM OF THREE GANGED STUDS, OR A GANGED STUD COLUMN WITH A NUMBER OF STUDS SUCH THAT THE STUD COLUMN IS AT LEAST AS WIDE AS THE TRUE WIDTH OF THE BEAM BEING SUPPORTED, WHICHEVER IS GREATER, TYP UNO. FOR THE SKEWED CONDITION PARTICULAR CARE SHALL BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON THE BEAM
  2-BEAMS BEARING ONTO THE END OF A STUD WALL PARTLEL TO THE BEAM SHALL BEAR A MINIMUM OF A 1.0° CONTO THE WALL AND BE SUPPORTED BY A TOPL STUD CANCED.
- A MINIMUM OF 4 1/2" ONTO THE WALL AND BE SUPPORTED BY A TRPL STUD GANGED

### 4.02 DIMENSIONAL LUMBER BEAMS BEARING ON A STUD WALL SHALL BEAR AS FOLLOWS:

- 1-when the beam is perpendicular to, or skewed relative to the wall, the beam shall bear <u>full width</u> on the supporting wall indicated (less 1 1/2" to allow for a continuous rim joist where applicable) and shall be supported by a GANGED STUD COLUMN THE SAME MOTH AS THE BEAM TYP UNO. (E.G. A TRIPLE 2XIO IS TO BE SUPPORTED BY (3) STUDS). FOR THE SKEWED CONDITION PARTICULAR CARE SHALL BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON THE BEAM 2-BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR A MINIMUM OF 3" ONTO THE WALL AND BE SUPPORTED BY A DBL STUD GANGED COLUMN
- 14.03 Extra joists bearing on a stud wall perpendicular to or skewed relative to the beam shall be supported by one additional stud.
- STUDS THAT ARE GANGED TO FORM A COLUMN SHALL HAVE ADJACENT STUDS WITHIN THE COLUMN NAILED TOGETHER WITH ONE ROW OF 10d NAILS AT 8" O.C. (TWO ROWS THE COLOMIN NATILED TOGETHER WITH ONE NOW OF TOG NAILS AT 8 JUL. (TWO ROWS OF TOG NAILS A 8 C.O., 3" APART, FOR 2X8 OR 2X10 STUDS) ALL COLUMNS SHALL BE CONTINUOUS DOWN TO THE FOUNDATION OR OTHER PROPERLY DESIGNED STRUCTURAL ELEMENT SUCH AS A BEAM. COLUMNS TRANSFERRING LOADS THROUGH FLOOR LEVELS SHALL BE SOUNLY BLOCKED FOR THE FULL WIDTH OF THE STUD COLUMN WITHIN THE CAVITY FORMED BY THE

### PART 15: NAILING OF MULTI PLY WOOD BEAMS

- SOLID SAWN LUMBER JOISTS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS IN THE BEAM NAILED TOGETHER WITH THREE ROWS OF 10d NAILS @ 16" O.C. FOR 2X10 OR LARGER, TWO ROWS OF 10d NAILS @ 16" O.C. FOR 2X8, ONE 15.01 ROW OF 10d NAILS @ 16" O.C. FOR 2X6 OR SMALLER. STAGGER ROWS 5" MIN.
- 15.02 LV. MEMBERS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS IN THE BEAM FASTENED TOGETHER PER MANUFACTURERS RECOMMENDATIONS, TYP

### PART 16: WALL FRAMING AND BRACING

- 6.01 STUD WALLS SHALL CONSIST OF 2X4 STUDS SPACED AT 16" O.C. UNO. STUDS SHALL STUD WALLS SHALL CONSIST OF ZXA 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 DISCONTINUITIES 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 ZXA /
  - 2X6 PURLINS AT 8' HEIGHT (AND AT 16' HEIGHT FOR TALL WALLS), TYP UNO
- 16.02 FOR WALL BRACING THE FOLLOWING SHALL APPLY:

  -BLOCKING AT UNSUPPORTED PANEL EDGES IS REQUIRED TYP UNO.

  -WALL BRACING IS BY ENGINEERED DESIGN AND NOT PRESCRIPTIVE PER SECTION 602.10 OF THE 2018 NCRC. CONTINUOUS SHEATHING HAS BEEN PROVIDED, ALONG WITH ALTERNATIVE METHODS TO INSURE THE MINIMUM INTENT OF SECTION 602.10
  - OF THE 2018 NCRC HAS BEEN MET AND EXCEEDED.

    -BRACED WALL PANELS SHALL BE FASTENED IN ACCORDANCE WITH TABLE 602.3(1) TO
  - -BRACED WALL PANELS SHALL BE FASTENED IN ACCORDANCE WITH TABLE 602.3(1) TO PROVIDE CONTINUOUS PANEL UPLIFT RESISTANCE AND COMPLIANCE WITH NCRBC R602.3.5 AND R802.11 UNLESS NOTED OTHERWISE ON STRUCTURAL PLANS.

    -MAY SUBSTITUTE WSP FOR 68
    -SINCLE JOIST, CONTINUOUS RIM JOIST, OR BLOCKING OF EQUAL DEPTH IS REQUIRED ABOVE AND BELOW ALL BRACED WALLS. NAIL BLOCKING ABOVE WALL TO TOP PLATE WITH 16d TOE NAILS @ 6" O.C. NAIL SOLE PLATE OF BRACED WALL TO BLOCKING BELOW WITH (3) 16d NAILS @ 16" O.C. BLOCKING AT HORIZONTAL JOINTS IN BRACED WALL INDIPED AT SHADED WALLS IN THE STRUCKING AT HORIZONTAL JOINTS IN BRACED WALL INDIPED AT SHADED WALLS. WALL LINES ONLY REQUIRED AT SHADED WALLS, UNO.

17.01 KING STUDS FOR OPENINGS IN EXTERIOR WALLS SHALL BE AS FOLLOWS:

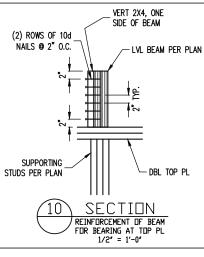
			NUMBE	R OF KIN	G STUDS	
MAX OPENIN	G WIDTH	5'-0"	9'-0"	13'-0"	17'-0"	21'-0"
	2X4	1	2	3	4	5
STUD SIZE	2X6	1	1	2	2	2
	2X8	1	1	1	1	2

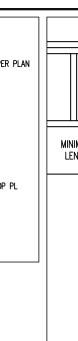
### PART 18: SUBSTITUTIONS

MATERIAL OR MEMBER SIZE SUBSTITUTIONS OR PLAN DEVIATIONS REQUIRE THE WRITTEN AUTHORIZATION OF THE DESIGNERS. UNAUTHORIZED DEVIATIONS ARE THE SOLE

### PART 19: OWNERSHIP OF STRUCTURAL DESIGN

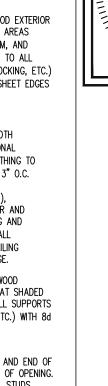
THE STRUCTURAL DESIGN OF THIS PLAN IS THE PROPERTY OF ENGINEERING TECH ASSOCIATES (ETA). THESE PLANS ARE FOR THE ONE TIME USE AT THE LOCATION INDICATED AND FOR THE CLIENT LISTED, ETA ASSUMES NO LIABILITY FOR THESE PLANS IF THEY ARE REPRODUCED, IN WHOLE OR IN PART, FOR CONSTRUCTION AT ANY OTHER LOCATION

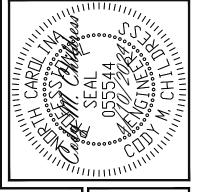




<u>• • /• /• /• /• /• /• /</u>• (2) CONT. 2X TOP PLATES, EXTEND EACH END - INTO ADJACENT WALL. NAIL SPLICES WITH 8-16d NAILS PER SPLICE/LAP. CONT. 2X PLATE WITH 10d NAILS AT 16" O.C. INTO HEADER/BEAM 7/16" O.S.B. OR 15/32" PLYWOOD EXTERIOR MINIMUM 3"x111/4" CONTINUOUS BEAM FULL WALL SHEATHING AT UNSHADED AREAS LENGTH OF FRAME, SEE PLANS FOR SIZE (BEAM, INFILL WALL ABOVE BEAM, AND CENTER WALL). NAIL SHEATHING TO ALL SUPPORTS (STUDS, PLATES, BLOCKING, ETC.) WITH 8d NAILS AT 6" O.C. AT SHEET EDGES NAIL THE SHEATHING IN SHADED AND 12" O.C. IN THE FIELD. AREA TO BEAM WITH 8d NAILS AT 3" O.C. EACH WAY 900 WHERE FULL HEIGHT PANEL WIDTH (2) ROWS 16d NAILS AT 3" O.C. EXCEEDS 16", PROVIDE ADDITIONAL STUDS AT 16" O.C. NAIL SHEATHING TO (2) SIMPSON CS16 x 48" LONG COIL ALL STUDS WITH 8d NAILS AT 3" O.C. STRAPS WITH 10d NAILS EACH HOLE ON -INSIDE FACE OF WALL FOR A PANEL SPLICE (IF NEEDED) PANEL EDGES SHALL OCCUR OVER AND BE NAILED TO COMMON BLOCKING AND OCCUR WITHIN MIDDLE 24" OF WALL HEIGHT. ONE ROW OF 3" O.C. NAILING PORTAL FRAME WALL IS REQUIRED IN EACH PANEL EDGE. 7/16" O.S.B. OR 15/32" PLYWOOD EXTERIOR WALL SHEATHING. AT SHADED AREAS NAIL SHEATHING TO ALL SUPPORTS CONCRETE OR MASONRY FND WALL. (STUDS, PLATES, BLOCKING, ETC.) WITH 8d MASONRY FND WALLS LESS THAN 48" NAILS AT 3" O.C. WIDE SHALL BE REINFORCED PER SECTION R602.10.4.3 OF THE NCRBC. (2)2x STUD MIN. AT START AND END OF LATEST EDITION WALL SEGMENTS EACH SIDE OF OPENING. SEE PLANS FOR ADDITIONAL STUDS 2x4 P.T. PLATE WITH TWO 1/2" DIA x 7" EMBED ANCHOR BOLTS WITH A 3/16"x2"x2" PLATE WASHERS OR ADDITIONAL HOLDOWN PER PLANS.

OPTION: (2) 5/8" DIA. THREADED RODS 4 INSTALLED PER SECTION R602.10.4.3 OF THE NCRBC, LATEST EDITION.





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<u>NOTES</u>		ABBREVIATION	S
THE BUILDER IS RESPONSIBLE FOR REVIEWING PLANS PRIOR TO CONSTRUCTION. THE BUILDER SHALL IMMEDIATELY CONTACT THE ENGINEER OF RECORD (EOR) BEFORE PROCEEDING IF THE FOLLOWING CONDITIONS ARE NOTED BEFORE OR DURING CONSTRUCTION:  1) THE WORKING PLANS DO NOT BEAR THE SEAL OF THE EOR  2) THE PLANS CONTAIN DISCREPANT OR INCOMPLETE INFORMATION  ANY ERRORS DUE TO A FAILURE TO FOLLOW THE ABOVE PROCEDURES SHALL NOT BE THE RESPONSIBILITY OF THE EOR. FURTHERMORE, IT IS THE RESPONSIBILITY OF THE BUILDER TO ENSURE THAN ANY REVISIONS ISSUED BY THE EOR ARE PROMPLY DISTRIBUTED TO THE SUBCONTRACTORS  THE EOR DOES NOT PERFORM FENESTRATION OR VENTING CALCULATIONS OR ANY OTHER CALCULATIONS THAT ARE NOT DIRECTLY RELATED TO STRUCTURAL ENGINEERING.  ROOF AND FLOOR TRUSSES TO BE DESIGNED BY AN ENGINEER REGISTERED BY THE STATE. FINA TRUSS DRAWING SHOULD BE SUBMITTED TO THE EOR FOR REVIEW	ABV ABOVE B. BOTH B.E. BOTH ENDS BTWM BETWEEN CIP CAST IN PLACE CONC CONCRETE CS CONTINUOUS SHEATHING DIA DIAMETER DBL DOUBLE DJ DOUBLE DJ DOUBLE JOIST DSP DBL STUD POCKET EQ EQUAL EA EACH FLG FLANCE FL PL FLITCH PLATE FLR FLOOR	FND FOUNDATION FTG FOOTING HDG HOT DIPPED GALVANIZED HGR HANGER LVL LAMINATED VENEER LUMBER NTS NOT TO SCALE O.C. ON CENTER PSL PARALLEL STRAND LUMBER PT PRESSURE TREATED QJ QUAD JOIST SP STUD POCKET SQ SQUARE	TJ TRIPLE JOIST TYP TYPICAL TRPL TRIPLE TSP TRIPLE STUD POCKET UNO UNLESS NOTED OTHERWISE XJ EXTRA JOIST

### ALLOWABLE I-JOIST SUBSTITUTION

NOTE: MAINTAIN JOIST DEPTH, DIRECTION, AND SPACING SPECIFIED ON PLANS.

MANUFACTURER	DEPTH	SERIES	SIMPSON FACE MOUNT HGR	SIMPSON TOP FLANGE HGR
BLUELINX BOISE CASCADE BOISE CASCADE LP CORP NORDIC ROSEBURG WEYERHAEUSER WEYERHAEUSER	14" 14" 14" 14" 14" 14" 14"	BLI 40 BCI 5000s BCI 6000S LPI 20+ NI 40X RFPI 40s TJI 210 EEI-20	IUS2.56/14 IUS2.06/14 IUS2.37/14 IUS2.56/14 IUS2.56/14 IUS2.56/14 IUS2.06/14 IUS2.37/14	ITS2.56/14 ITS2.06/14 ITS2.37/14 ITS2.56/14 ITS2.56/14 ITS2.56/14 ITS2.06/14 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

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P.A. Traffer

ENG: CMC DATE: 4/10/2024 PROJECT NO. 24-30-028 ತ್ರಕ್ಷ

FRESH STRUCTURAL

MASTER TBD

SHEET NO. SD2

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