### Residence for

### Garman Homes Lot 0045 Serenity Fuquay Varina, North Carolina

#### **INDEX TO DRAWINGS**

#### **COVER SHEET**

- FRONT & LEFT SIDE ELEVATIONS **REAR & RIGHT SIDE ELEVATIONS**
- FIRST & SECOND FLOOR PLANS
- FIRST & SECOND FLOOR FLECTRICAL PLANS
- FIRST & SECOND FLOOR MECHANICAL PLANS

**GENERAL NOTES** 

1. ALL WORK TO BE DONE IN STRICT ACCORDANCE WITH NORTH

2. DIMENSIONS SHOWN ON DRAWINGS GOVERN OVER SCALE.

3. STUD WALL DESIGN SHALL CONFORM TO ALL N.C.S.R.B.C.

4. CONTRACTOR SHALL USE TEMPERED SAFETY GLASS IN ALL

LOCATIONS AS REQUIRED BY N.C.S.R.B.C., 2018 EDITION, SECTION

5. ANY HABITABLE ROOM SHALL MEET ALL LIGHT/VENTILATION AND EGRESS AS REQUIRED BY N.C.S.R.B.C. 2018 EDITION, SECTIONS

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

8 ALL WINDOWS SHALL HAVE A MINIMUM DPI BATING 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).

EDITION, AS SHOWN IN SECTION N1101.2.

CAROLINA STATE RESIDENTIAL BUILDING CODE, 2018 EDITION

FIRST FLOOR PLUMBING PLAN

(HEREWITH SHOWN AS N.C.S.R.B.C.).

R-303.1 AND R-310.1.

NOTED OTHERWISE.

CONSTRUCTION DETAILS

### RESIDENTIAL BUILDING CODE SUMMARY

GARAGE FOUNDATION PLAN, FIRST FLOOR & ROOF FRAMING PLANS

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

STRUCTURAL DETAILS

STRUCTURAL NOTES

- 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: 28'-5"
- 5. COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOADS:

FOUNDATION PLAN & FIRST FLOOR FRAMING PLAN

SECOND FLOOR FRAMING PLAN & ROOF FRAMING PLAN

MEAN ROOF HGT:	<b>UP TO 30'</b>	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	18.0,-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.)		UNHEATED (SQ. FT.)		UNFINISHED (SQ. FT.)	
BASEMENT: 1ST FLOOR: 2ND FLOOR: ATTIC: GARAGE:(OPTIONAL) TOTAL:	N/A 830 1112 N/A N/A	FRONT PORCH: GARAGE: PATIO: SCREEN PORCH: (OPTIONAL)	85 425 N/A 100	BASEMENT: 1ST FLOOR: 2ND FLOOR: ATTIC: TOTAL:	N/A N/A N/A N/A
		TOTAL:	610	OVERALL DIMENS WIDTH: DEPTH:	SIONS 34'-4" 50'-2"

#### MATERIALS LEGEND

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

	EARTH/COMPACT FILL	FINISH WOOD
A - A -	CONCRETE	ROUGH WOOD
	BRICK	BLOCKING
	CONCRETE BLOCK/STONE	PLYWOOD
	STEEL	BATT INSULATION
	ALUMINUM	RIGID INSULATION

#### ATTIC VENTILATION REQUIREMENTS

NATURAL ROOF VENTILATION CALCULATIONS

1340 SQ. FT. = 8.93 SQ. FT. VENT REQ'D

BUILDER TO PROVIDE APPROPRIATE VENTILATING AS REQUIRED PER CODE

MECHANICAL ROOF VENTILATION CALCULATIONS

<u>1340 SQ. FT.</u> = 4.47 SQ. FT. VENT REQ'D

BUILDER TO PROVIDE APPROPRIATE VENTILATING AS REQUIRED PER CODE

#### FOUNDATION VENTILATION CALCULATIONS (REFERENCE: N.C.S.R.B.C. 2018 EDITION SECTION R408.)

NOT APPLICABLE WITH SLAB FOUNDATIONS



SCREEN PORCH

10'-0"x10'-0"

GARAGE

19'-8"x20'-10

DINING

10'-2"x12'-10'

**FAMILY** 

14'-0"x16'-4"

STUDY

FRONT PORCH

FOYER



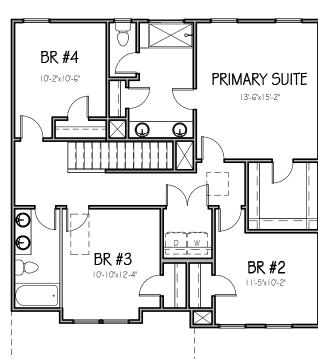
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#### Project Number

Project Number Plan Number

FP-1942

LOT 0045 SERENITY



Drawn Bv Checked By Date Drawn 3/15/20 **Revision Date** 7/2/20 4/5/22



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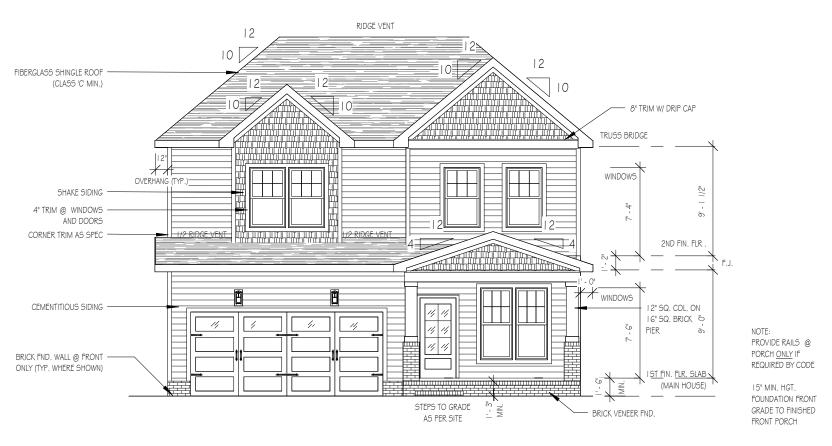
FP-1942

# Ш HONEYSUCKL

# SER ELEVATION B LOT 0045 SERENITY

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

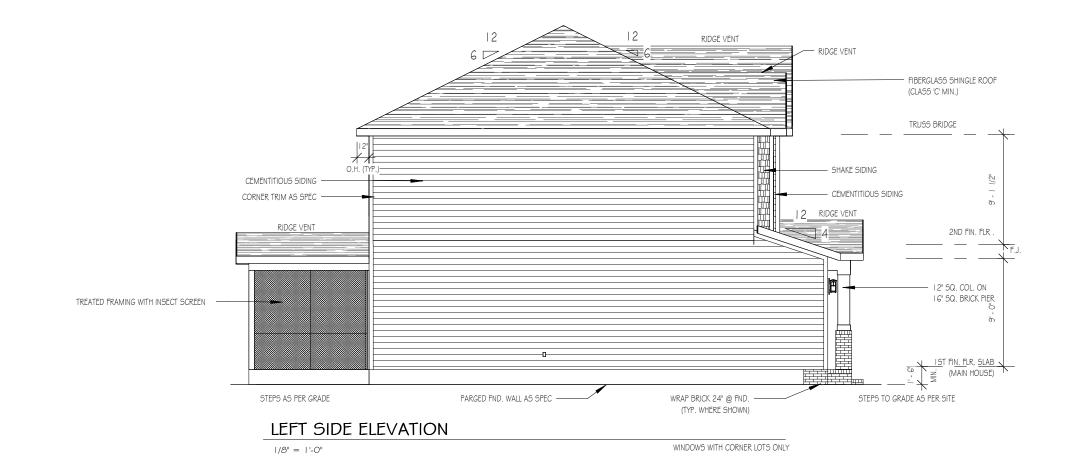
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#### FRONT ELEVATION

1/8" = 1'-0"

NOTE - SLOPE ALL GRADE AWAY FROM HOUSE FOR POSITIVE DRAINAGE

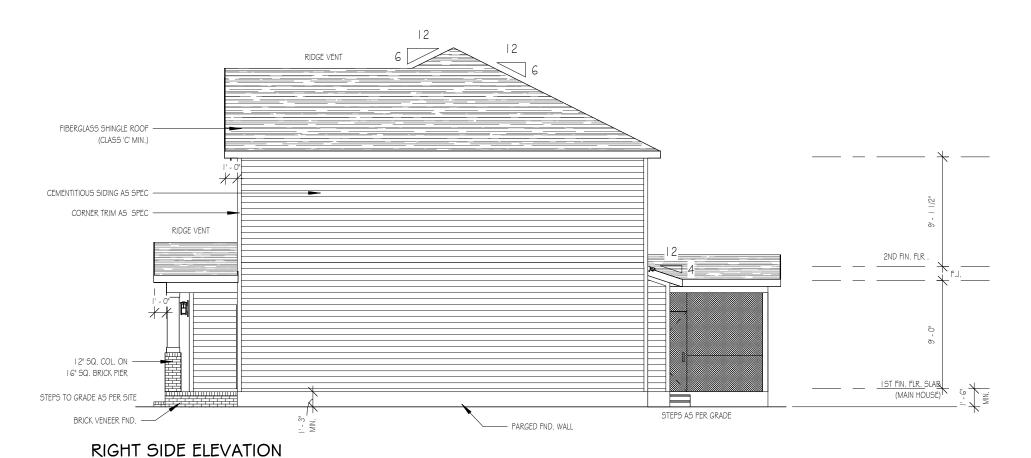


#### REAR ELEVATION

1/8" = 1'-0"

1/8" = 1'-0"

NOTE - SLOPE ALL GRADES AWAY FROM HOUSE FOR POSITIVE DRAINAGE



WINDOWS WITH CORNER LOTS ONLY

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.

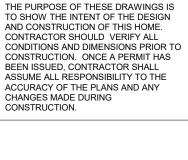


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## Project Number Project Number Plan Number FP-1942

# HONEYSUCKLE SER ELEVATION B LOT 0045 SERENITY

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Checked By
CM
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4/8/20
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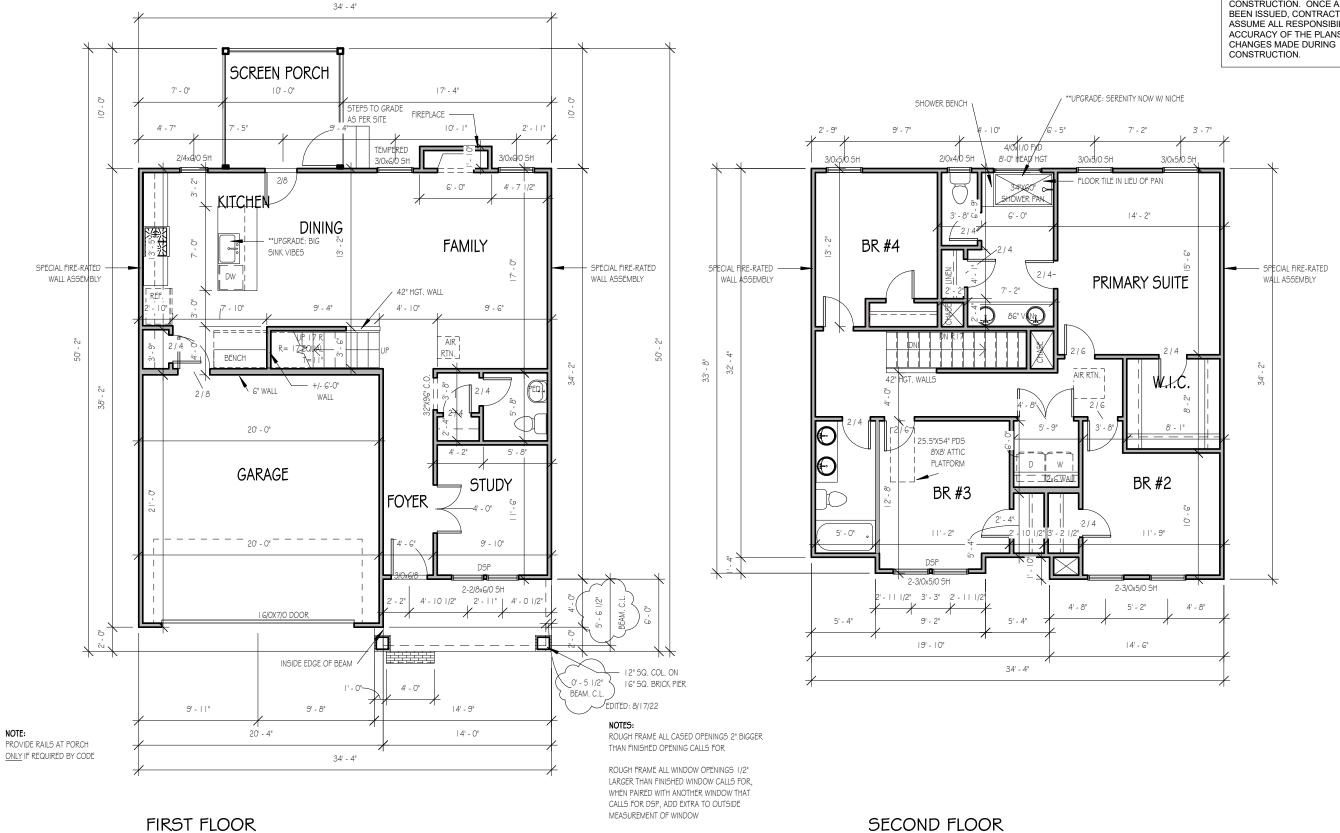
## HONEYSUCKLE SER ELEVATION B LOT 0045 SERENITY

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Sheet

9'-0" CLG. HGT. U.N.O.

SET WINDOWS @ 7'-4" U.N.O.



ALL EXTERIOR WALLS 2X4

N.C.S.R.B.C., 2018 EDITION

TOP OF ALL WINDOWS SILLS SHALL BE 24"

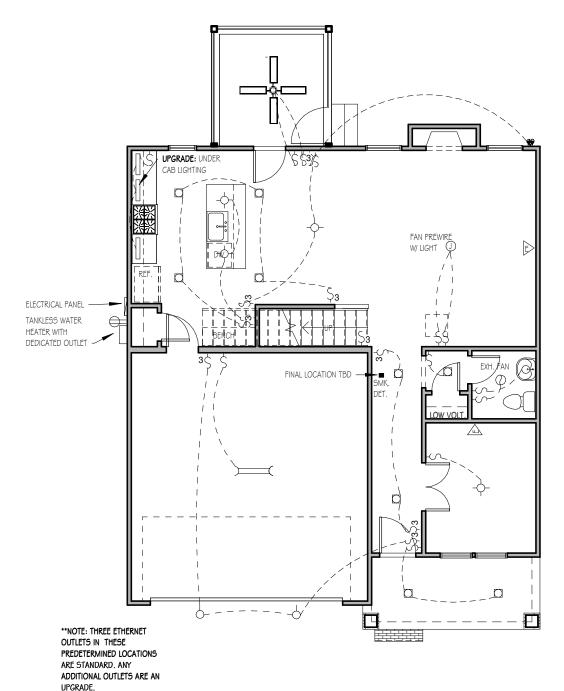
MINIMUM ABOVE THE FINISHED FLOOR OR A FALL PREVENTION DEVICE SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R312.2 OF

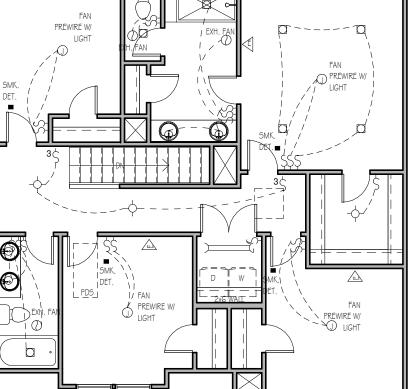
9'-0" CLG. HGT. U.N.O.

SET WINDOWS @ 7'-6" U.N.O.

CASED OPENINGS 8'-0" TALL

NOTE:





#### FIRST FLOOR ELECTRICAL PLAN

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.

#### SECOND FLOOR ELECTRICAL PLAN

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.

THE PURPOSE OF THESE DRAWINGS IS TO SHOW THE INTENT OF THE DESIGN AND CONSTRUCTION OF THIS HOME.
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ELECTRICAL LECEND

-∳- - Liett #ixtietë

MP- WATERPROOF GUILET

- RECESSED LIGHTING

\* - SINGLE FULL GATCH

& - D-WAY SMITCH

- DINHER SHITCH

В - НДООО НИНТВ

O - CABLE OVILET TELEPHONE OUTLET A - COMPUTER DATA CUILET

M - DURGLAR ALARM

NOTE: ALL BLECTRICAL TO SE VERIFIED BY OWNER/BUILDER BETORE ROUGH-IK.

W - EYEBALL SHOTS

- SMOKE DETECTOR

. DUPLEX RECEPTABLE (1697)

- ala PANUAHFS

- BWITCHED RECEPTAGLE (TOP WIRE ONLY)

- TRACK LIGHTS

- HUGRESGERT LIGHTING

**♦**,- GROUND FAULT CIRCUIT INTERRUPTOR

- .220 VOLT WEGETTACLE

O - FAVLUHT

## FRESH :PAINT

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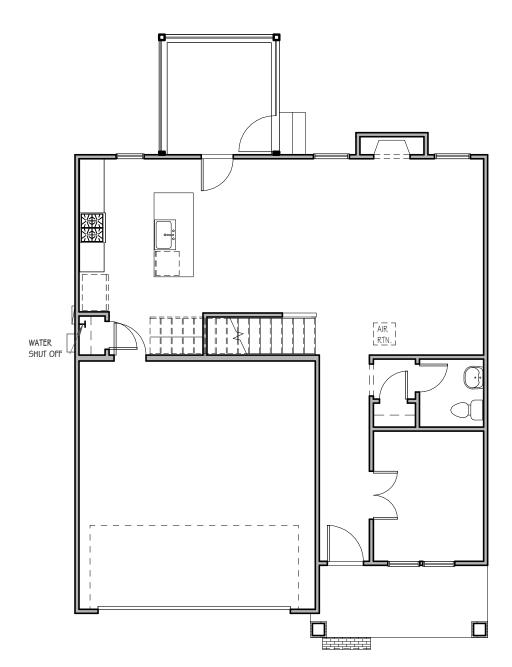
FP-1942

# HONEYSUCKL

SER ELEVATION B LOT 0045 SERENITY

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Date Drawn
4/8/20
Revision Date
7/1/20
4/5/22

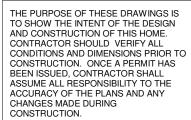


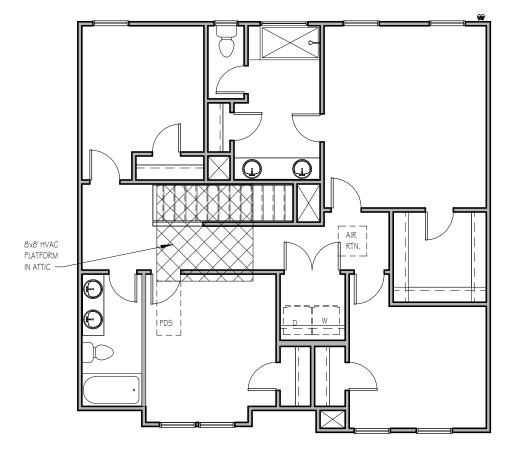


#### FIRST FLOOR MECHANICAL PLAN

1/8" = 1'-0"

ASSUME ALL RESPONSIBILITY TO THE ACCURACY OF THE PLANS AND ANY CHANGES MADE DURING CONSTRUCTION.





#### SECOND FLOOR MECHANICAL

PLAN

1/8" = 1'-0"



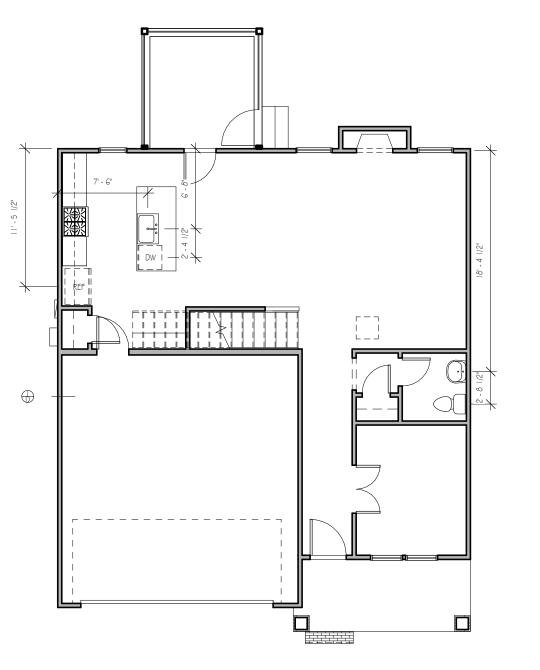
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Project Number Project Number Plan Number FP-1942

## HONEYSUCKLE SER ELEVATION B LOT 0045 SERENITY

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4/8/20	
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7/1/20	
4/5/22	

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#### FIRST FLOOR PLUMBING

1/8" = 1'-0"

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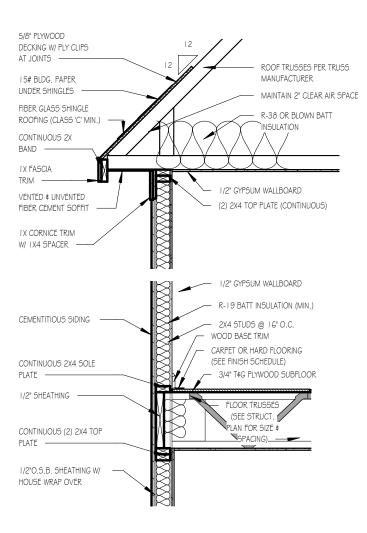
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Project Number	
Plan Number	
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# HONEYSUCKLE SER ELEVATION B LOT 0045 SERENITY

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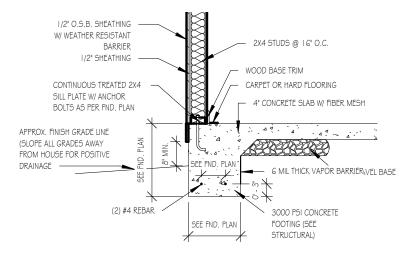
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#### TWO-STORY WALL SECTION

1/2" = 1'-0"

1/2" = 1'-0"



#### FOUNDATION DETAIL - SLAB

LUG FOOTING

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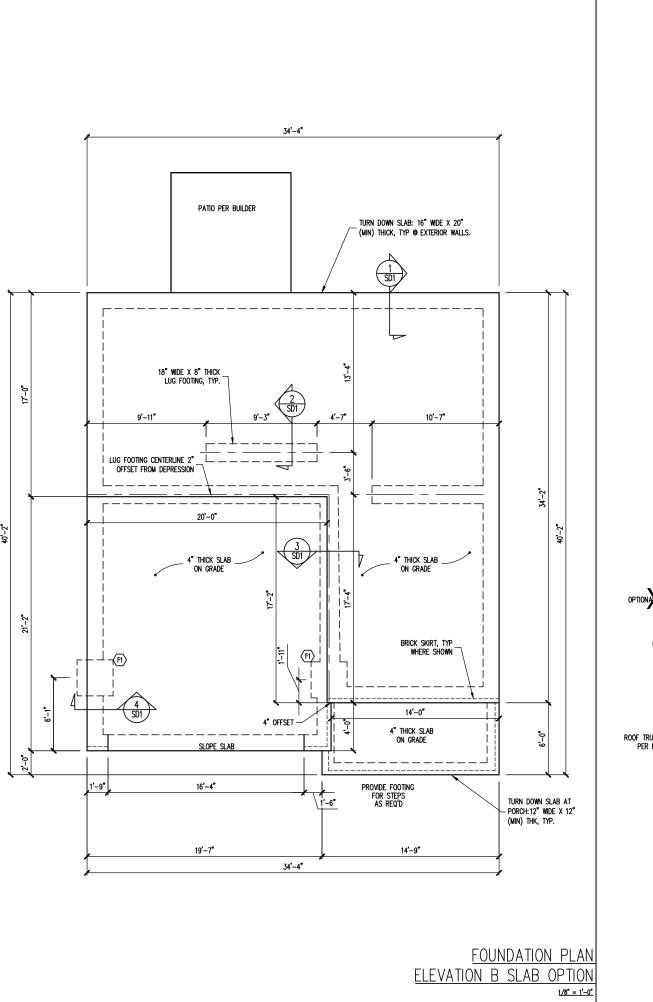
# TYPICAL DETAIL SHEET

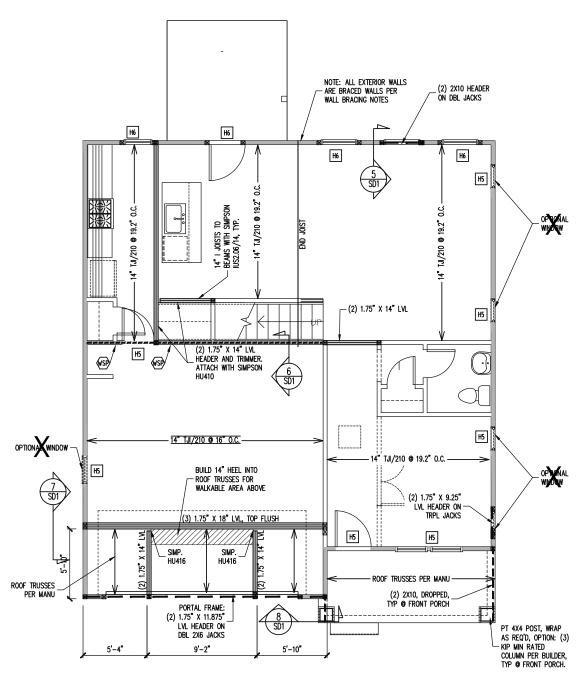
SERENITY COLLECTION

Drawn By

MMH
Checked By
CM
Date Drawn
10/28/20
Revision Date
4/26/22

1/2" = 1'-0"





TRUSS SUBSTITUTION

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

MAINTAIN MINIMUM SPACING AS CALLED OUT ON PLANS.

SIMP. IUS/ITS2.06/XX HANGERS TO BE SUBSTITUTED WITH SIMP. IUS/ITS3.56/XX HANGER WHEN FLOOR TRUSSES 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

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

#### 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.

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.

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

1ST FLOOR FRAMING PLAN

**ELEVATION B** 

WALLS AND CEILING

1/8" = 1'-0"

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

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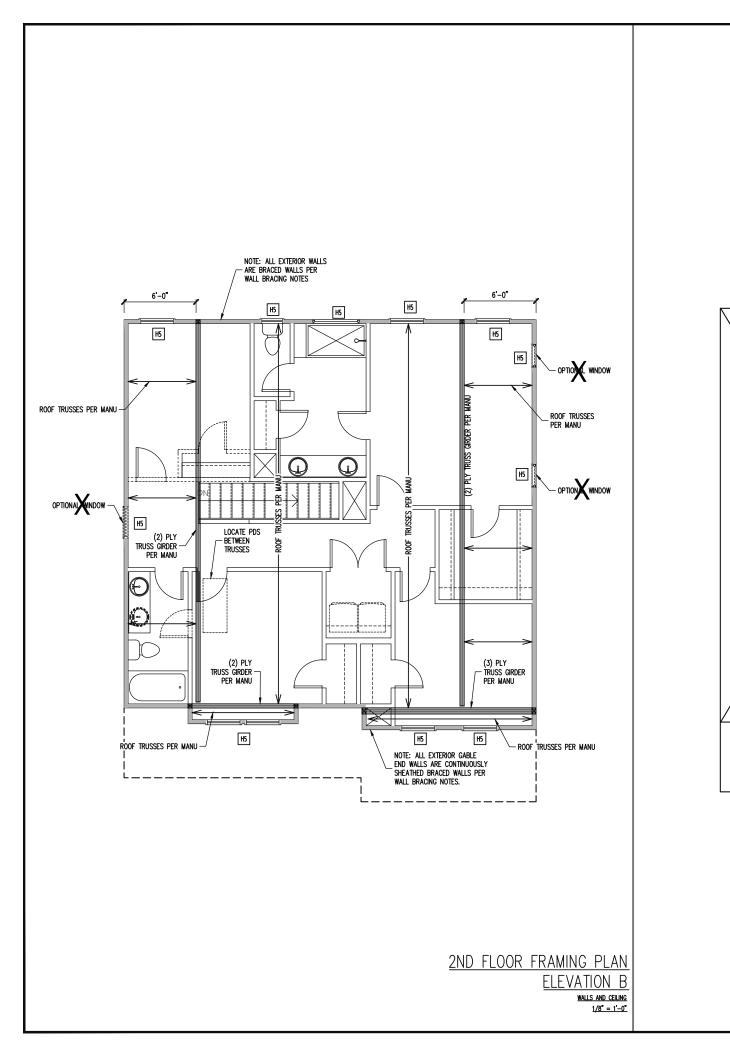
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leigh, North Carolina 27609
Phone (919) 844-1661 318 W A Raleigh, FRESH PAINT STRUCTURAL ADDENDUM TBD MASTER

NG:	NBG/CMC
ATE:	5/19/2022

PROJECT NO. 22-30-061

SHEET NO.

S<sub>1</sub>B 1 of 5



#### TRUSS UPLIFT CONNECTORS

TRUSSES 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, KNEEWALLS OR BEAMS SHALL BE ATTACHED TO SUPPORTING MEMBER PER SCHEDULE BELOW.

ROOF SPAN IS MEASURED HORIZONTALLY BETWEEN FURTHEST SUPPORT POINTS.

OVER 28'

OPTIONAL SCREENED PORCH -

DN 4:12

DN 4:12

(1) SIMPSON H2.5A HURRICANE CLIP TO DBL TOP PLATE OR BEAM

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

■ DN 10:12 DN 10:12 VALLEY SET TRUSSES -VALLEY - VALLEY SET TRUSSES TRUSSES DN 10:12 DN 10:12 DN 10:12 ■ DN 10:12 DN 4:12

- VALLEY SET TRUSSES

#### ROOF FRAMING PLAN **ELEVATION B** 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

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 = 139' 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)
- H4 (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 A Raleigh, FRESH PAINT
STRUCTURAL ADDENDUM
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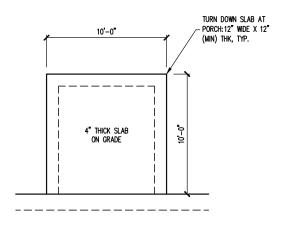
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> PROJECT NO. 22-30-061

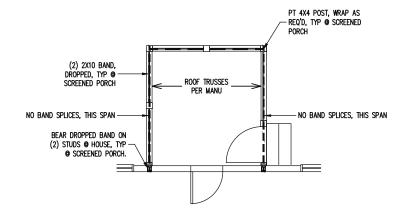
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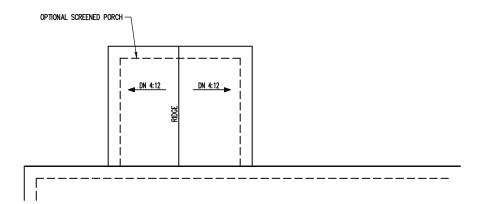
S<sub>2</sub>B 2 of 5



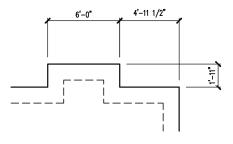
## FOUNDATION PLAN OPTIONAL SCREENED PORCH MONOSLAB FOUNDATION 1/8" = 1'-0'



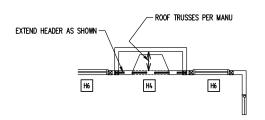
1ST FLOOR FRAMING PLAN
OPTIONAL SCREENED PORCH
1/8" = 1'-0'



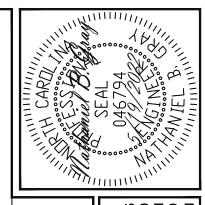
ROOF FRAMING PLAN
OPTIONAL SCREENED PORCH
1/8" = 1"-0"



FOUNDATION PLAN
OPTIONAL FIREPLACE
1/8" = 1'-0"



1ST FLOOR FRAMING PLAN
OPTIONAL FIREPLACE
1/8" = 1"-0"



318 W Mill Raleigh, No Engineering Tech A from Engineering 1 only. E Associates, P.A. These plans are for the client listed than 1 year after the seal date without written permit FRESH PAINT STRUCTURAL ADDENDUM TBD 10C ENG: NBG/CMC

ENG: NBG/CMC
DATE: 5/19/2022

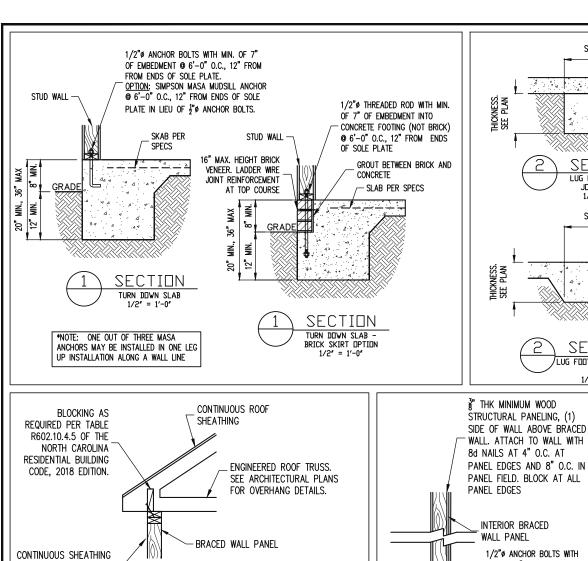
PROJECT NO.
22-30-061

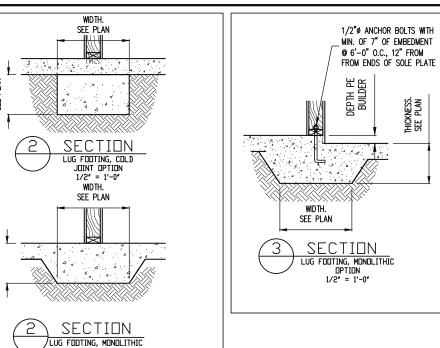
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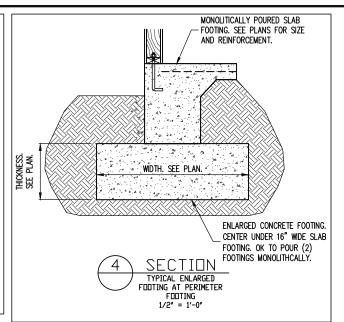
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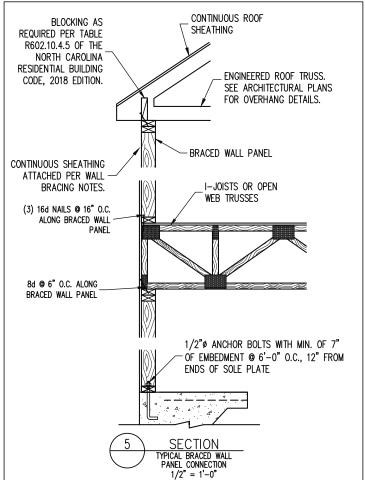
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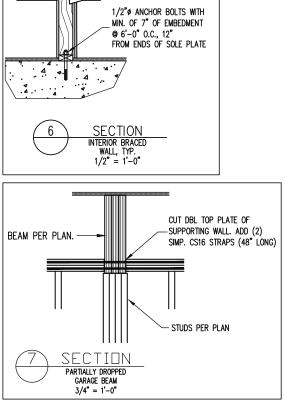
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The structural design of this plan is the property of Engineering liability for these plans if construction or permitting takes place

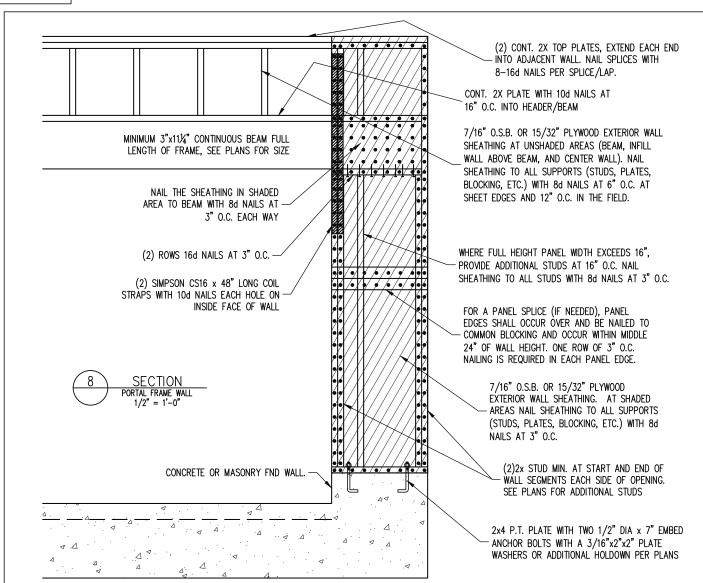


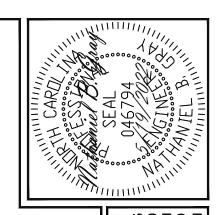












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Phone (919) 844-1661 318 W A Raleigh, Engineering T from Enginee only. listed permi client li written for the without STRUCTURAL ADDENDUM plans are seal date v FRESH PAINT ciates, P.A. These point of the second of th MASTER 180 180 eering place 1 Engine takes property of I FOR 1 YEAR ONLY. this plan is the prop if construction or pen ENG: NBG/CMC

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#### CONSTRUCTION SPECIFICATIONS

LIVE LOAD (PSF) DEAD LOAD (PSF)

#### PART 1: GENERAL

- 1.01 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. 1.05

2.01 DESIGN LOADS SHALL CONFORM WITH THE TABLE BELOW:

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.
- 2.04 SOIL BEARING CAPACITY 2000 PSF (PRESUMPTIVE).

#### PART 5: CONCRETE AND SLABS ON GRADE

- 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
- 5.02 REINFORCED CAST IN PLACE CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH THE SPECIFICATIONS OF ACI 318, LATEST EDITION.
- 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% MIN STANDARD PROCTOR DENSITY. VAPOR BARRIER MAY BE OMITTED FOR SLABS NOT IN FNCLOSED AREAS

#### PART 6: REBAR AND WIRE REINFORCEMENT

- 6.01 REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615 GRADE 60 TYP UNO
- LAP SPLICES SHALL BE CLASS B AS DEFINED BY ACI 318, TYP UNO
- 6.03 WIRE REINFORCEMENT SHALL BE 9 GA AND SHALL CONFORM TO ASTM A1064.

#### PART 7: MASONRY

- 7.01 CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 AND C55, NORMAL WEIGHT,
- 7.02 CLAY MASONRY UNITS SHALL CONFORM TO ASTM C62-17 GRADE SW
- 7.03 MORTAR SHALL BE TYPE S. MORTAR AND GROUT SHALL CONFORM TO ASTM C476, MIN

#### 7.04 MASONRY CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS OF ACI 530

7.05 LADDER WIRE REINFORCEMENT SHALL CONFORM TO ASTM A951. 6" MIN LAPS FOR CONTINUOUS WALL APPLICATIONS

#### PART 8: BOLTS AND LAG SCREWS

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

9.01 NAILS, SPIKES AND STAPLES SHALL CONFORM TO ASTM F 1667- 05. NAILS ARE TO BE COMMON WIRE OR BOX

#### PART 10: DIMENSIONAL LUMBER

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.

- LVL OR PSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS: E= 1,9  $\times$  10c6 PSl, Fb = 2600 PSl, Fv = 285 PSl, Fc = 750 PSl LSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS: E= 1.3  $\times$  10c6 PSl, Fb = 1700 PSl, Fv = 400 PSl, Fc = 680 PSl 11.01
- 11.02 LVL OR PSL MEMBERS MAY BE RIPPED FROM DEEPER MEMBERS TO MATCH THE MEMBER DEPTH SPECIFIED IN THE PLANS

#### 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 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 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 ON
- 2-BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR 2 DECIMING DEPARTMENT WITH THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BE. A MINIMUM OF 4 1/2" ONTO THE WALL AND BE SUPPORTED BY A TRPL STUD GANGED COLUMN TYP UNO.
- 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 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
- 4.03 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 STUDS THAT ARE GARGED TO FORM A COLUMN SHALL HAVE ADJACENT STUDS WITHIN THE COLUMN NAILED TOGETHER WITH ONE ROW OF 10d NAILS & 18" O.C. (TWO ROWS OF 10d NAILS & 8" O.C., 3" APART, FOR 2XB OR 2X10 STUDS) ALL COLUMNS SHALL BE CONTINUOUS DOWN TO THE FOUNDATION OR OTHER PROPERLY DESIGNED STRUCTURAL ELEMENT SUCH AS A BEAM. COLUMNS TRANSFERRIG LOADS THROUGH FLOOR LEVELS SHALL BE SOLIDLY BLOCKED FOR THE FULL WIDTH OF THE STUD COLUMN

#### WITHIN THE CAVITY FORMED BY THE FLOOR JOISTS.

- 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 ROW OF 10d NAILS @ 16" O.C. FOR 2X6 OR SMALLER, STAGGER ROWS 5" MIN.
- LVL 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

PART 15: NAILING OF MULTI PLY WOOD BEAMS

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 CELLING 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 STUD WALLS, WITH SOLE PLATE AND DBL TOP PLATE AND 7/16" OSB EXTERIOR BRACING AND ROW OF 2X4 / 2X6 PURLINS AT 8" HEIGHT (AND AT 16" HEIGHT FOR TALL WALLS), TYP UNO:

2X4 @ 16" O.C.: 112"-0" 2X6 @ 12" O.C.: 18"-8"

DBL 2X4 @ 16" O.C.: 13"-4" DBL 2X6 @ 16" O.C.: 21"-0"

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 NORC. CONTINUOUS SHEATHING HAS BEEN PROVIDED, ALONG
WITH ALTERNATIVE METHODS TO INSURE THE MINIMUM INTENT OF SECTION 602.10
OF THE 2018 NORC HAS BEEN MET AND EXCEEDED.

-BRACED WALL PANELS SHALL BE FASTENED IN ACCORDANCE WITH TABLE 602.3(1) TO
PROVIDE CONTINUOUS PANEL UPLIET RESISTANCE AND COMPULANCE WITH NORBC
R602.35 AND R802.11 UNLESS NOTED OTHERWISE ON STRUCTURAL PLANS.

-MAY SUBSTITUTE WSP FOR GB

-SINGLE 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" OC. NAIL SOLE PLATE OF BRACED WALL IO BLOCKING
BELOW WITH 3.1 JIGH NAILS @ 16" OC. BLOCKING AT HORIZONTAL JOINTS IN RRACED

BELOW WITH (3) 16d NAILS @ 16" O.C. BLOCKING AT HORIZONTAL JOINTS IN BRACED WALL LINES ONLY REQUIRED AT SHADED WALLS, UNO.

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

			NUMBE	r of Kin	ig studs	
IAX 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 RESPONSIBILITY OF THE CONTRACTOR. 18.01

#### PART 19: OWNERSHIP OF STRUCTURAL DESIGN

THE STRUCTURAL DESIGN OF THIS PLAN IS THE PROPERTY THE STROCTURAL DEASON 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 WITHOUT WRITTEN PERMISSION FROM ETA

#### NOTES

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, FINAL TRUSS DRAWING SHOULD BE SUBMITTED TO THE EOR FOR REVIEW

ABV ABOVE R F ROTH FNDS BTWN BETWEEN CAST IN PLACE CONC CONCRETE CONTINUOUS SHEATHIN DIA DIAMETER DOUBLE

DJ DOUBLE JOIST
DSP DBL STUD POCKET **EQUAL** EA EACH FLG FLANGE L PL FLITCH FLR FLOOR FLITCH PLATE

**ABBREVIATIONS** TJ TRIPLE JOIST FND FOUNDATION TYP TYPICAL HDG HOT DIPPED TRPI TRIPI F GALVANIZED TRIPLE STUD POCKET HGR HANGER UNO UNLESS NOTED LVL LAMINATED VENEER OTHERWISE XJ EXTRA JOIST NTS NOT TO SCALE O.C. ON CENTER PSL PARALLEL STRAND LUMBER PRESSURE TREATED OJ OLIAD JOIST

SP STUD POCKET

SQ SQUARE

#### 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	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	IUS2.37/14	ITS2.37/14
LP CORP	14"	LPI 20+	IUS2.56/14	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	ITS2.06/14
WEYERHAEUSER	14"	EEI-20	IUS2.37/14	ITS2.73/14

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

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