Residence for

Garman Homes Lot 0080 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 ELECTRICAL PLANS
- FIRST & SECOND FLOOR MECHANICAL PLANS
- FIRST FLOOR PLUMBING PLAN
- D CONSTRUCTION DETAILS

- FOUNDATION PLAN & FIRST FLOOR FRAMING PLAN SECOND FLOOR FRAMING PLAN & ROOF FRAMING PLAN
- SD1 STRUCTURAL DETAILS STRUCTURAL DETAILS SD2 STRUCTURAL NOTES

GENERAL NOTES

- . 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.
- 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 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

ļ∟			
a	À	CONCRETE	ROUGH WOOD
		BRICK	BLOCKING
		CONCRETE BLOCK/STONE	PLYWOOD
		STEEL	BATT INSULATIO
		ALUMINUM	RIGID INSULATIO
\vdash			

ATTIC VENTILATION REQUIREMENTS

NATURAL ROOF VENTILATION **CALCULATIONS**

<u>1165 SQ. FT.</u> = 7.77 SQ. FT. VENT REQ'D

BUILDER TO PROVIDE APPROPRIATE VENTILATING AS REQUIRED PER CODE MECHANICAL ROOF VENTILATION **CALCULATIONS**

/ FINISH WOOD

= 3.88 SQ. FT. VENT REQ'D

BUILDER TO PROVIDE APPROPRIATE VENTILATING AS REQUIRED PER CODE

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: 28'-8"
- 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	18.0,-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	<u>. FI.)</u>	UNHEATED (SC	<u>(. FT.)</u>	UNFINISHED	(SQ. FT.)
ST FLOOR: ND FLOOR:	745 699	FRONT PORCH: SCREEN PORCH: GARAGE:	120 100 300	1ST FLOOR: 2ND FLOOR:	N/A N/A
OTAL:	1444	TOTAL:	520	TOTAL:	N/A
				OVERALL DIME	NSIONS
				WIDTH: DEPTH:	34'-8" 49'-4"

FOUNDATION VENTILATION CALCULATIONS

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

NOT APPLICABLE WITH SLAB FOUNDATIONS





SCREENED PORCH

FAMILY

GARAGE

12'-0"X23'-8"

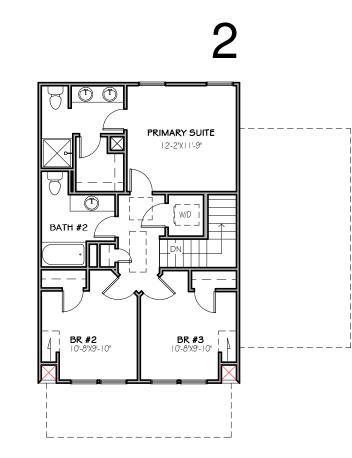
BREAKFAST

DINING

KITCHEN

FRONT PORCH 20'-6"X6'-0"

П



FRESH :PAINT

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Project Number Project Number Plan Number FP-1456

SER ELEVATION B LOT 0080 SERENITY

Drawn By MMH Checked By CM Date Drawn 2/16/20 **Revision Date** 7/1/20 4/5/22 11/8/22

FIBERGLASS SHINGLE ROOF (CLASS 'C' MIN.) I' - 4 I/2" C.L.-TRUSS BRIDGE 4" FRIEZE BOARD AS SPEC 0' - 2 3/4" PACKED OU SHAKE SIDING WINDOWS RIDGE VENT PACKED OUT 4" TRIM AS SPEC @ WINDOWS AND DOORS 2ND FIN. FLR CEMENTITIOUS SIDING WINDOWS PROVIDE RAILS @ CORNER TRIM AS SPEC PORCH ONLY IF 12" SQ. COL. ON REQUIRED BY CODE 16" SQ. BRICK PIER 15" MIN. HGT. FOUNDATION FRONT GRADE TO FINISHED BRICK VENEER FND. WALL STEPS TO GRADE AS PER SITE ROWLOCK REMOVED AT COLUMNS

FRONT ELEVATION

RIDGE VENT

NOTE - SLOPE ALL GRADE AWAY FROM HOUSE FOR POSITIVE DRAINAGE

LEFT SIDE ELEVATION

1/8" = 1'-0"

COLUMN DETAILS

1/4" = 1'-0"

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
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FP-1850

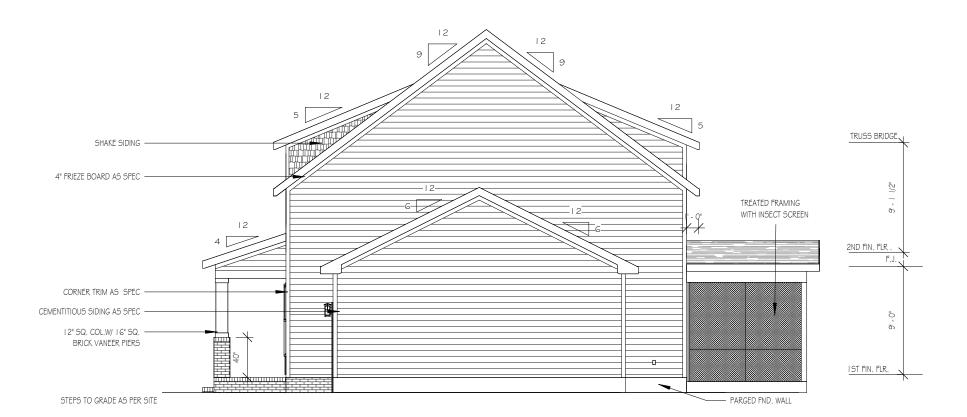
BUTTERCUP SER ELEVATION B LOT 0080 SERENITY

Drawn By	
MH	
Checked By	
CM	
Date Drawn	
4/8/20	
Revision Date	
7/1/20	
4/5/22	
8/17/22	

REAR ELEVATION

1/8" = 1'-0"

NOTE - SLOPE ALL GRADES AWAY FROM HOUSE FOR POSITIVE DRAINAGE



RIGHT SIDE ELEVATION

1/8" = 1'-O"

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.

THE PURPOSE OF THESE DRAWINGS IS TO SHOW THE INTENT OF THE DESIGN



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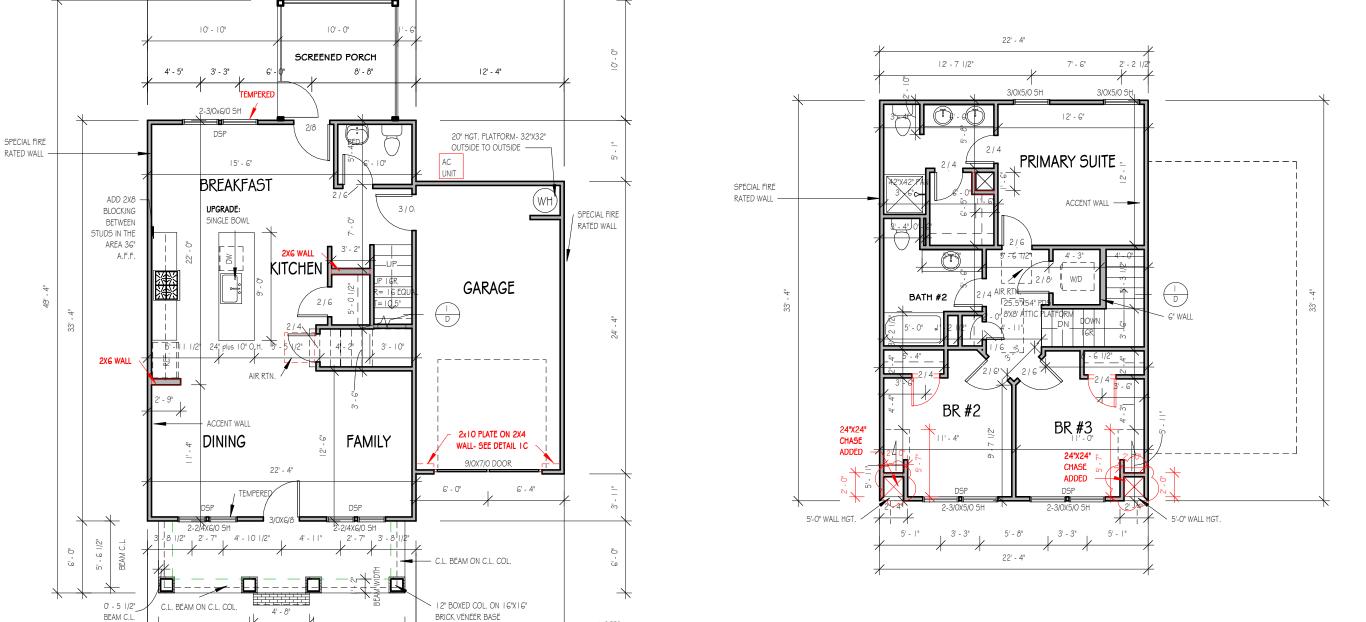
SER ELEVATION B LOT 0080 SERENITY

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

7/1/20 4/5/22

8/17/22

Sheet



FIRST FLOOR

7' - 6 1/2"

9'-0" CLG. HGT. U.N.O. 1/8" = 1'-0"

STEPS

5' - 4"

20' - 6"

22' - 4"

SET WINDOWS @ 7'-6" U.N.O. CASED OPENINGS 8'-0" TALL

12' - 4"

7' - 7 1/2"

34' - 8"

34' - 8"

12' - 4"

22' - 4"

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

ROUGH FRAME ALL CASED OPENINGS 2" BIGGER THAN FINISHED OPENING CALLS FOR

ROUGH FRAME ALL WINDOW OPENINGS 1/2"

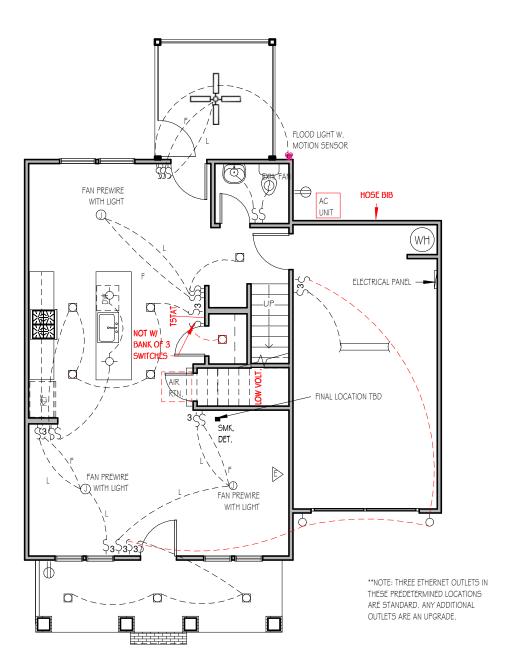
LARGER THAN FINISHED WINDOW CALLS FOR, WHEN PAIRED WITH ANOTHER WINDOW THAT

CALLS FOR DSP. ADD EXTRA TO OUTSIDE MEASUREMENT OF WINDOW

ALL EXTERIOR WALLS 2X4

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

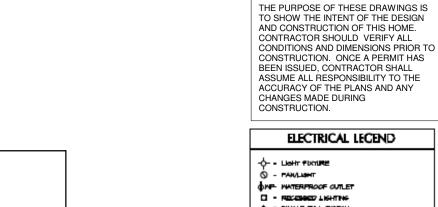
SECOND FLOOR

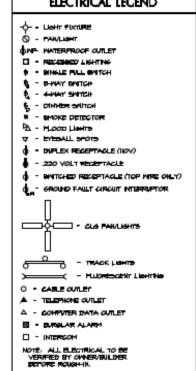


FIRST FLOOR ELECTRICAL PLAN

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.







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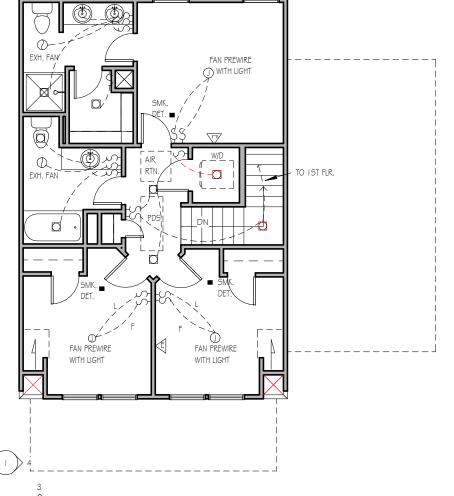
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BUTTERCUP SER ELEVATION B LOT 0080 SERENITY

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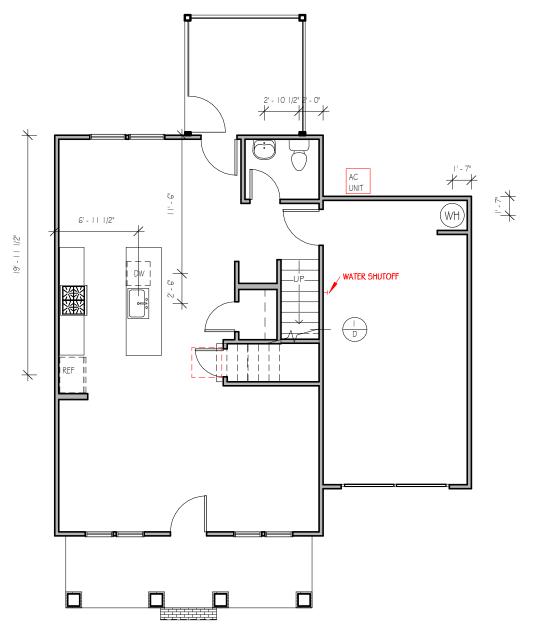
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SECOND FLOOR ELECTRICAL PLAN

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.



FIRST FLOOR PLUMBING

1/8" = 1'-0"

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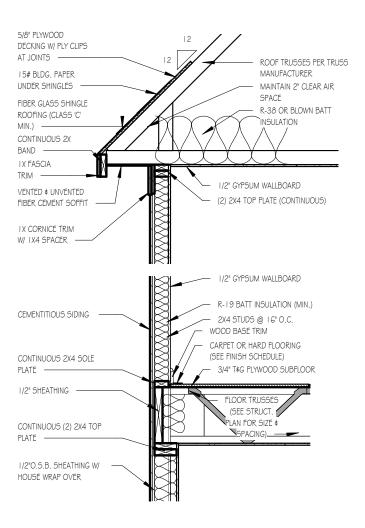
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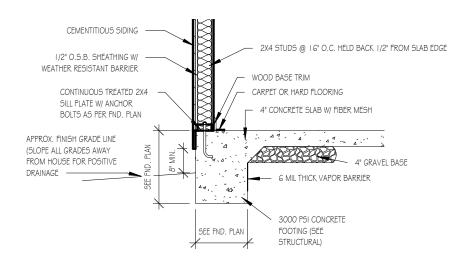
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TWO-STORY WALL SECTION

1/2" = 1'-0"

1/2" = 1'-0"



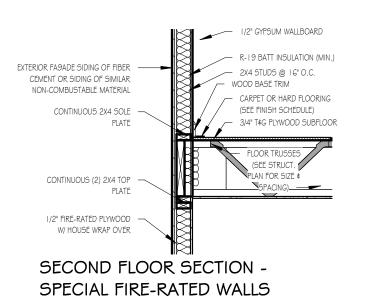
FOUNDATION DETAIL - SLAB

1/2" = 1'-0"

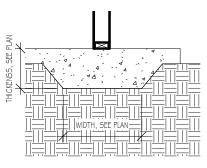
1/2" FIRE-RATED PLYWOOD -DECKING W/ PLY CLIPS AT JOINTS EXTENDING AMIN. OF 4' AWAY FROM WALL ASSEMBLY ROOF TRUSSES PER TRUSS MANUFACTURER 15# BLDG. PAPER UNDER SHINGLES MAINTAIN 2" CLEAR AIR FIBER GLASS SHINGLE SPACE R-38 OR BLOWN BATT ROOFING (CLASS 'C' MIN.) INSULATION CONTINUOUS 2X BAND LX FASCIA TRIM 1/2" GYPSUM WALLBOARD 5'8" PLYWOOD SOFFIT, ALL SOFFITS CONNECTING TO THE (2) 2X4 TOP PLATE (CONTINUOUS) SPECIAL WALL AND A MIN. OF 4' OF CONNECTING POINT SHALL BE SEALED W/ TWO LAYERS OF FIRE-RATED PLYWOOD OR 5/8" EXTERIOR OR MOISTURE RESISTANT GYPSUM BOARD IX CORNICE TRIM W/ IX4 SPACER FIRE RATED OSB

ROOF DETAIL SPECIAL FIRE-RATED WALLS

1/2" = 1'-0"



1/2" = 1'-0"



LUG FOOTING

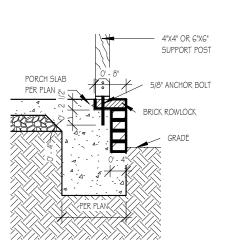
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I YPICAL DE LAIL SHEET SERENITY COLLECTION

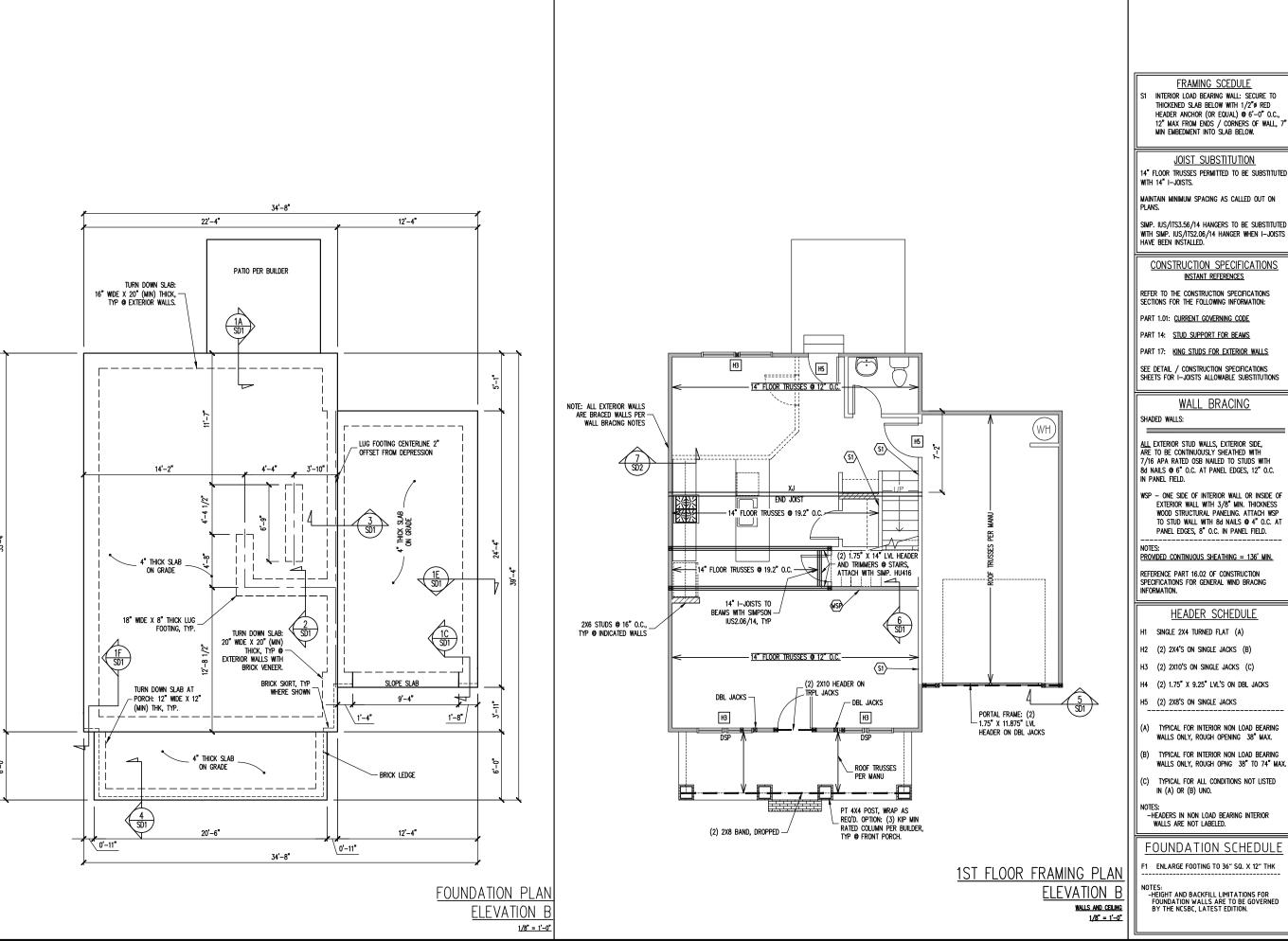


FRONT PORCH COLUMNS
SUPPORT ATTACHMENT

1/2" = 1'-0"

Drawn By	
MMH	
Checked By	
JM	
_Date Drawn	
10/28/20	
Revision Date	
9/14/22	
9/20/22	
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FRAMING SCEDULE

INTERIOR LOAD BEARING WALL: SECURE TO THICKENED SLAB BELOW WITH 1/2" Ø 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

MAINTAIN MINIMUM SPACING AS CALLED OUT ON PLANS.

WITH SIMP. IUS/ITS2.06/14 HANGER WHEN I-JOISTS

CONSTRUCTION SPECIFICATIONS

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

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.

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 = 136' MIN.

SPECIFICATIONS FOR GENERAL WIND BRACING INFORMATION.

HEADER SCHEDULE

- (2) 1.75" X 9.25" LVL'S ON DBL JACKS
- (A) 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.

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.

STRUCTURAL ENGINEERS
License No. C-3870
B W Millbrook Rd, Suite 201
aleigh, North Carolina 27609
Phone (919) 844-1661 listed perm

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plans are seal date

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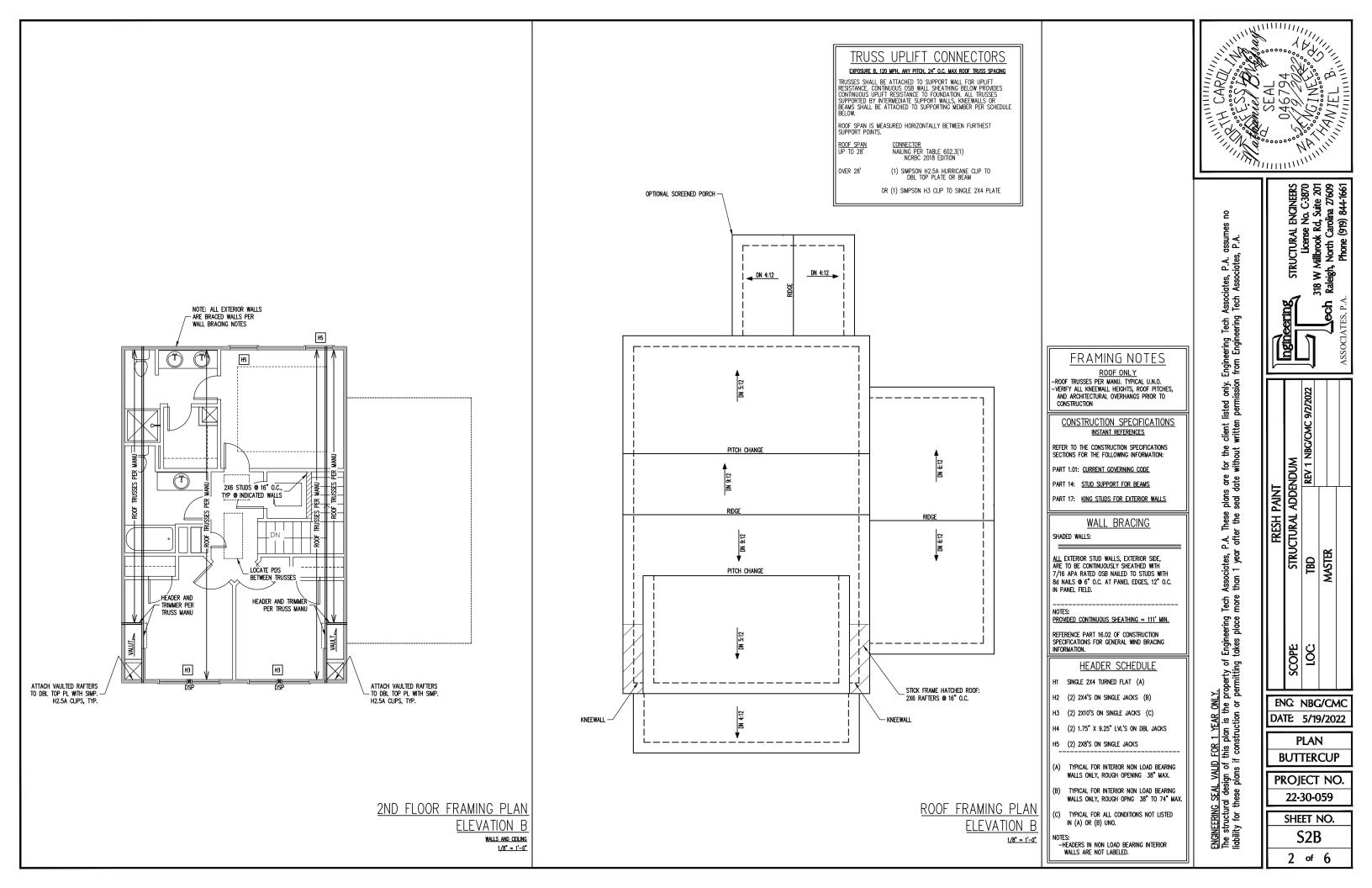
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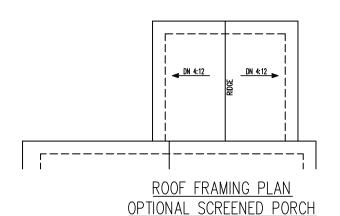
> **PLAN BUTTERCUP**

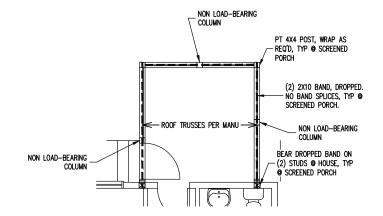
PROJECT NO. 22-30-059

SHEET NO.

S₁B 1 of 6

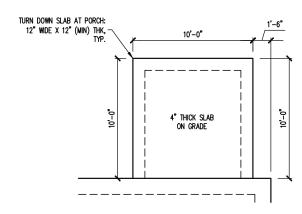




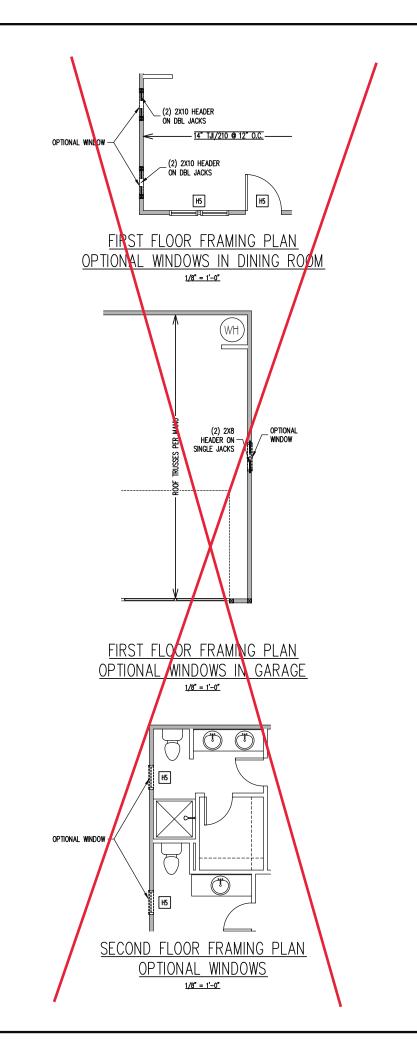


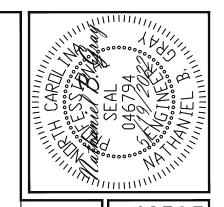
<u>1/8° = 1'-0°</u>

OPTIONAL SCREENED PORCH 1/8" = 1'-0"



FOUNDATION PLAN OPTIONAL SCREENED PORCH SLAB **FOUNDATION** $1/8^{\circ} = 1'-0^{\circ}$



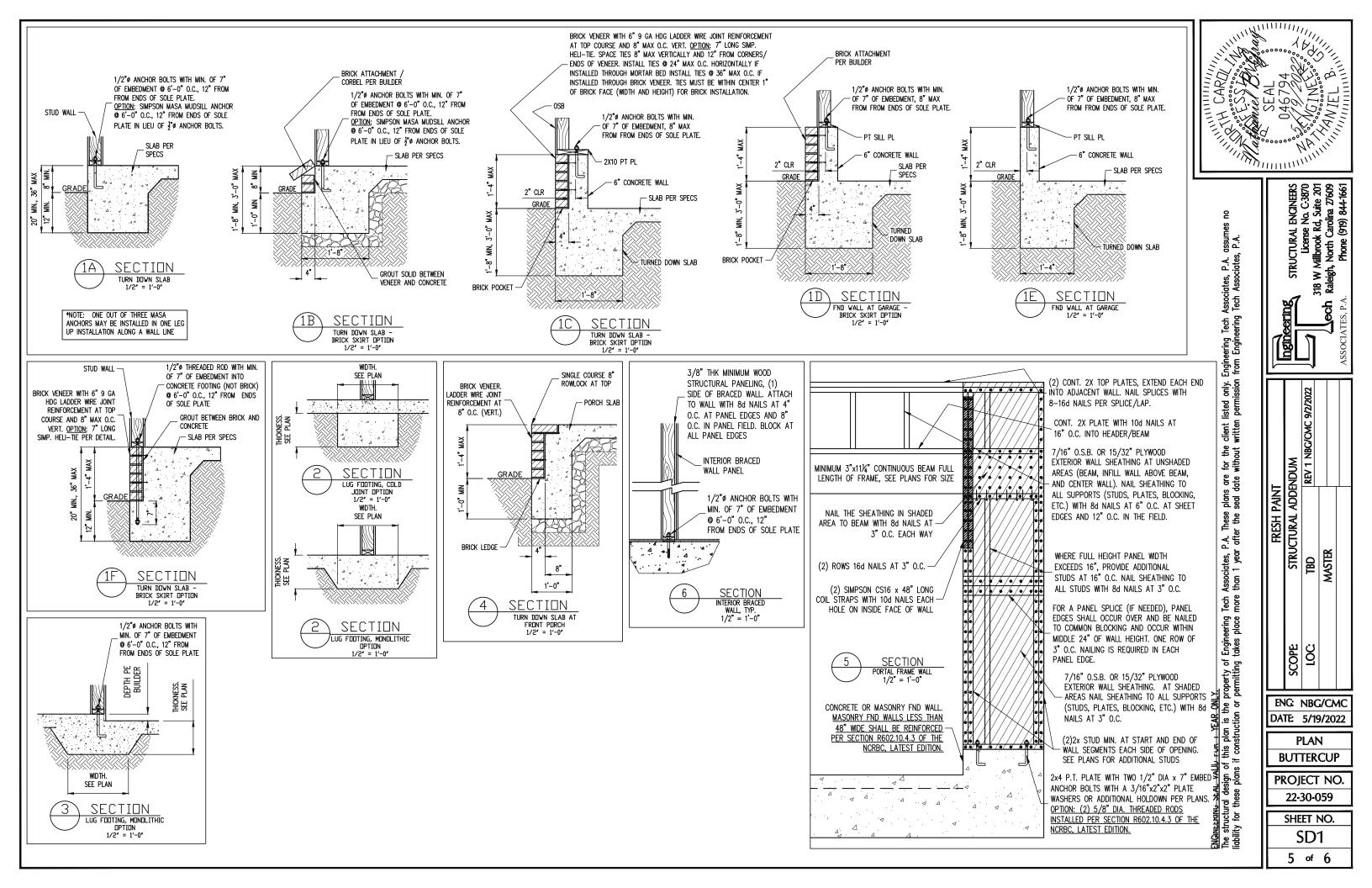


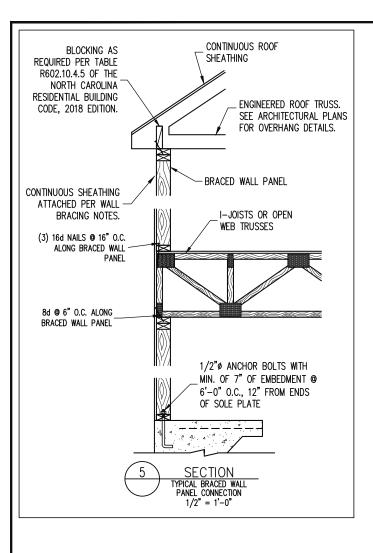
ngineering Engineering Tech A from Engineering 1 Associates, P.A. These plans are for the client listed only. than 1 year after the seal date without written permission STRUCTURAL ADDENDUM
TBD
REV 1 NBG/CMC 9/2
MASTER ENGINEERING SEAL VALID FOR 1 YEAR ONLY.
The structural design of this plan is the property of Engineering Tech ilability for these plans if construction or permitting takes place more 20 ENG: NBG/CMC DATE: 5/19/2022 **PLAN BUTTERCUP** PROJECT NO. 22-30-059

SHEET NO.

S₃B

3 of 6





CONSTRUCTION SPECIFICATIONS

LIVE LOAD (PSF) DEAD LOAD (PSF)

- 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.

 ANCHOR RODS AND BOLTS SHALL CONFORM TO ASTM F1554—15 GRADE 36 UNO. BENT ANCHOR BOLTS SHALL HAVE A 2° MIN HOOK UNO 1.05

PART 2: DESIGN LOADS

PART 1: GENERAL

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 VAUL

- 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

- 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 I ACCORDANCE WITH THE SPECIFICATIONS OF ACI 318, LATEST EDITION.
- 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 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

PART 6: REBAR AND WIRE REINFORCEMENT

- REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615 GRADE 60 TYP UNO
- 6.02 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.
- 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 COMPRESSIVE STRENGTH OF 2000 PSI.

NOTES

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 9: DRIVEN FASTENERS

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

SOLID SAWN WOOD FRAMING DESIGN IS BASED ON NO. 2 SPRUCE PINE FIR $\underline{\text{OR}}$ SYP #2 FOR JOISTS, RAFTERS, GIRDERS, BEAMS, STUDS, ETC. 10.01

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: 11.01 E= 1.3 X 10E6 PSI. Fb = 1700 PSI. Fv = 400 PSI. Fc = 680 PSI
- 1.02 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 12.01 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 FULL WIDTH 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 THE WIDTH OF THE BEAM BEING SUPPORTED, WHICHEVER IS GREATER, TYP UNO, FOR THE SKEWED COLUMN IS AT THE STUD COLUMN IS AT THE STEWED. CONDITION PARTICULAR CARE SHALL BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON
- 2-BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR 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 full width 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 WIDTH AS THE BEAM TYP UNO. (E.G. A TRIPLE 2X10 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
- 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 THE COLUMN NAILED TOGETHER WITH ONE ROW OF 10d NAILS AT 8" O.C. (TWO ROWS OF 10d NAILS ® 8" O.C., 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 SOLIDLY 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 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

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 DISCONTINUITIES IN A STUD WALL EXCEPT AS REQUIRED FOR DOOR OR WINDOW OPENINGS. THE KING STUDS FOR SUCH OPENINGS SHALL BE CONTINUOUS, TYP UND.

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 / AND DEL 10F FATE AND /10 USB EXTENSION BRACING AND NOW OF 2A4 / 286 PURLING AT 8' HEIGHT (AND AT 16' HEIGHT FOR TALL WALLS), TYP UNO: 2X4 @ 16" O.C.: 11'-0" 2X6 @ 16" O.C.: 17'-0" 2X6 @ 12" O.C.: 18'-8" DEL 2X4 @ 16" O.C.: 13'-4" DEL 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 NCRC HAS BEEN MET AND EXCEEDED.

OF THE 2018 NORC HAS BEEN MET AND EXCELUEU.

PRACED WALL PANELS SHALL BE FASTENED IN ACCORDANCE WITH TABLE 602.3(1) TO PROVIDE CONTINUOUS PANEL UPLIFT RESISTANCE AND COMPLIANCE WITH NORBC R602.3.5 AND R802.11 UNLESS NOTED OTHERWISE ON STRUCTURAL PLANS.—MAY SUBSTITUTE WSP FOR GB

SINGLE JUST, CONTINUOUS RIM JOIST, OR BLOCKING OF EQUAL DEPTH IS REQUIRED ABOVE AND BELOW ALL BRACED WALLS NAL 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 LINES ONLY REQUIRED AT SHADED WALLS, UNO.

PART 17: KING STUDS

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

		NUMBER OF KING 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 RESPONSIBILITY OF THE CONTRACTOR.

PART 19: OWNERSHIP OF STRUCTURAL DESIGN

19.01 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 WITHOUT WRITTEN PERMISSION FROM FTA

STRUCTURAL ENGINEERS License No. C-3870 W Millbrook Rd, Suite 201 leigh, North Carolina 27609 Phone (919) 844-1661 2 ering Engine ngli Engine

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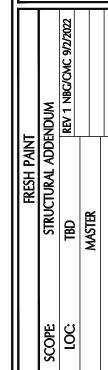
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SEAL SEAL BUILLING OF THE BUIL



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

> **PLAN** BUTTERCUP

PROJECT NO. 22-30-059

> SHEET NO. SD2 6 of 6

ABBREVIATIONS

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:

- 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

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 FND FOUNDATION TJ TRIPLE JOIST BOTH FTG FOOTING TYP TYPICAL BOTH ENDS HDG HOT DIPPED TSP TRIPLE STUD POCKET RTWN RFTWFFN GAI VANIZED CAST IN PLACE HGR HANGER UNO UNLESS NOTED CONC CONCRETE LVL LAMINATED VENEER OTHERWISE CS CONTINUOUS SHEATHING XJ EXTRA JOIST LUMBER NTS NOT TO SCALE DIAMETER DBL DOUBLE DJ DOUBLE JOIST O.C. ON CENTER PSL PARALLEL STRAND DBL STUD POCKET LUMBER PT PRESSURE TREATED EQ EQUAL EA EACH QJ QUAD JOIST FLG FLANGE FL PL FLITCH PLATE SP STUD POCKET SQ SQUARE FLR FLOOR

ALLOWABLE I-JOIST SUBSTITUTION

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

DEPTH	SERIES	SIMPSON FACE MOUNT HGR	SIMPSON TOP FLANGE HGR
14"	BLI 40	IUS2.56/14	ITS2.56/14
14"	BCI 5000s	IUS2.06/14	ITS2.06/14
14"	BCI 6000S	IUS2.37/14	ITS2.37/14
14"	LPI 20+	IUS2.56/14	ITS2.56/14
14"	NI 40X	IUS2.56/14	ITS2.56/14
14"	RFPI 40s	IUS2.56/14	ITS2.56/14
14"	TJI 210	IUS2.06/14	ITS2.06/14
14"	EEI-20	IUS2.37/14	ITS2.73/14
	14" 14" 14" 14" 14" 14" 14"	14" BLI 40 14" BCI 5000s 14" BCI 6000S 14" LPI 20+ 14" NI 40X 14" RFPI 40s 14" TJI 210	DEPTH SERIES MOUNT HGR 14" BLI 40 IUS2.56/14 14" BCI 5000s IUS2.06/14 14" BCI 6000S IUS2.37/14 14" LPI 204 IUS2.56/14 14" NI 40X IUS2.56/14 14" RFPI 40s IUS2.56/14 14" TJI 210 IUS2.06/14

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.