### BENSON II

BRIARWOOD BLUFF LOT 001A



PLAN ID 110122.0203

### 110 VILLAGE TRAIL SUITE 215 WOODSTOCK, GA. 30188

DRAWING INDEX			
A0.0	COVER SHEET		
A1.1	FRONT ELEVATIONS		
A2.1	SIDE & REAR ELEVATIONS		
A3.1	SLAB FOUNDATION		
A5.1	FIRST FLOOR PLANS & DETAILS		
A5.2	SECOND FLOOR PLANS & DETAILS		
A6.1	ROOF PLANS		
A7.2-A7.3	ELECTRICAL PLANS		

AREA TABULATION	
FIRST FLOOR	726
SECOND FLOOR	1087
TOTAL	1813
GARAGE	408
FRONT PORCH (COVERED)	76
REAR PATIO	120

### **GOVERNMENTAL CODES & STANDARDS**

HOME TO BE BUILT TO CONFORM TO ALL APPLICABLE LOCAL CODES, PRACTICES AND STANDARDS

### BUILDING CODE ANALYSIS / DESIGN CRITERIA

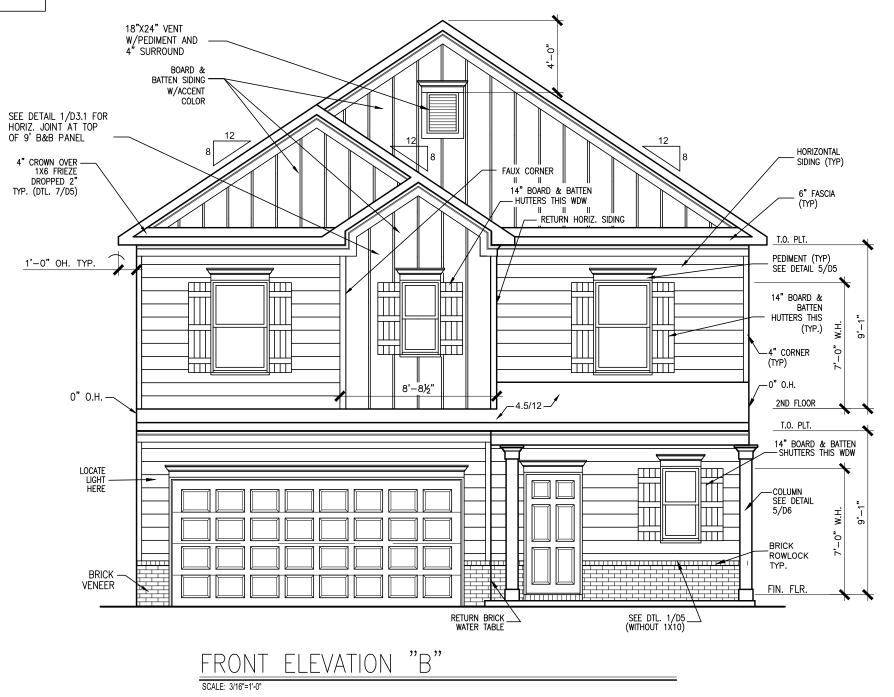
HOME TO BE BUILT TO MEET OR EXCEED ALL LOCAL CODES AND DESIGN CRITERIA

PLAN REVISIONS				
DATE	BY	REVISION	PAGE #	
12/9/2022	AW	Prototype walk revisions - see revision sheet	A5.1, A5.2, A5.2.1,A7.2, A7.3, A7.3.1	
9/21/2023	BB	Removed tub and shower sizes from all affected pages	A5.2, A5.2.1	
1/30/2025	LJ	PCR 6201 - added unfinished and finished basements, stair well width adjusted to accommodate basements	A3.1 - A5.2.1, A7.1-8.1	

ALL NON-MASONRY RETURNS TO BE HORIZONTAL SIDING

SEE SHEET D3 OF SDH TYPICAL DETAILS FOR SOFFIT DETAILS PER SOFFIT MATERIAL

### BRIARWOOD BLUFF LOT 001A



SMITH DOUGLAS HOMES QUALITY I INTEGRITY I VALUE

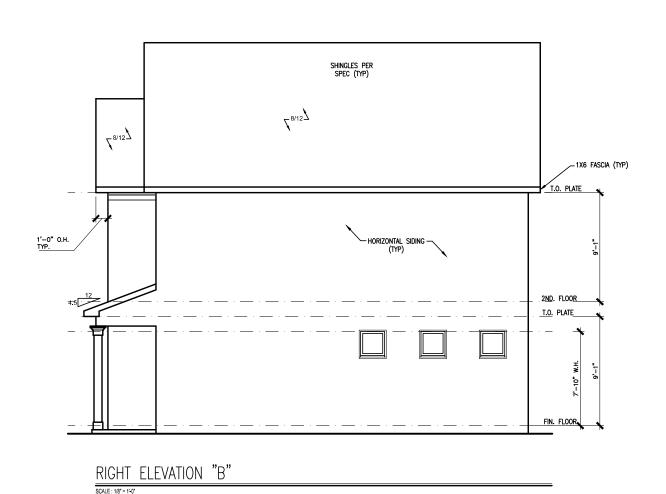
ELEVATIONS FRONT ELEVATION BENSON II

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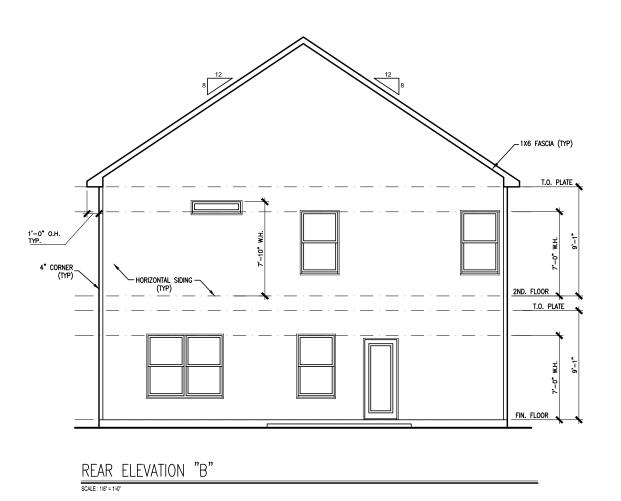
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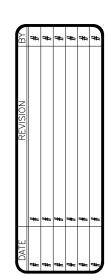


### SHINGLES PER SPEC (TYP) 7<sup>8/12</sup> T.O. PLATE 1'-0" O.H. TYP. - HORIZONTAL SIDING — (TYP) T.O. PLATE 2'-0" LEFT ELEVATION "B"



### **BRIARWOOD BLUFF** LOT 001A

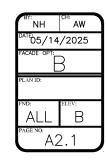


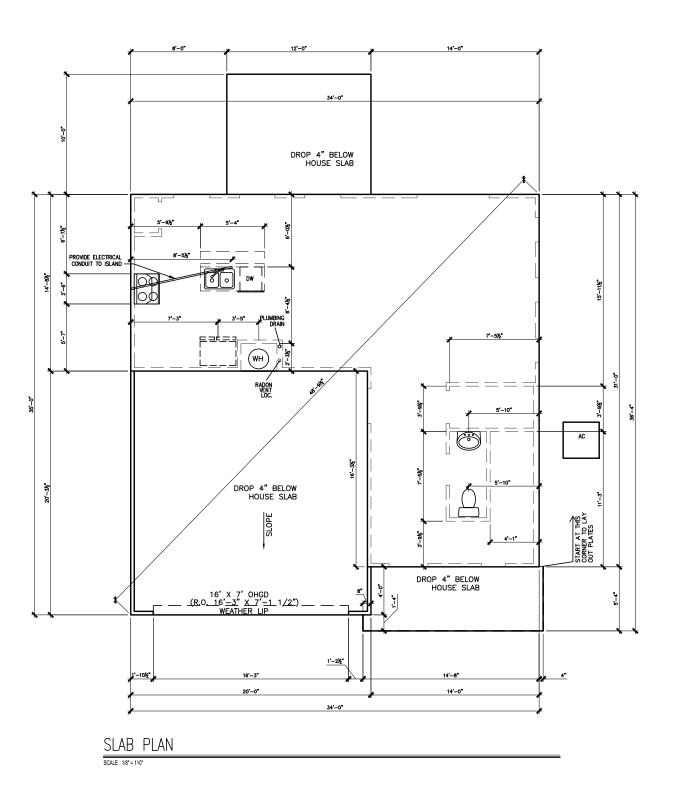




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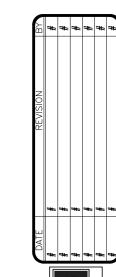
AND





\*RADON VENT PROVIDED PER LOCAL CODE

REFER TO DETAIL 3/D1 FOR BRICK LEDGE DETAIL WHEN BRICK VENEER IS CHOSEN



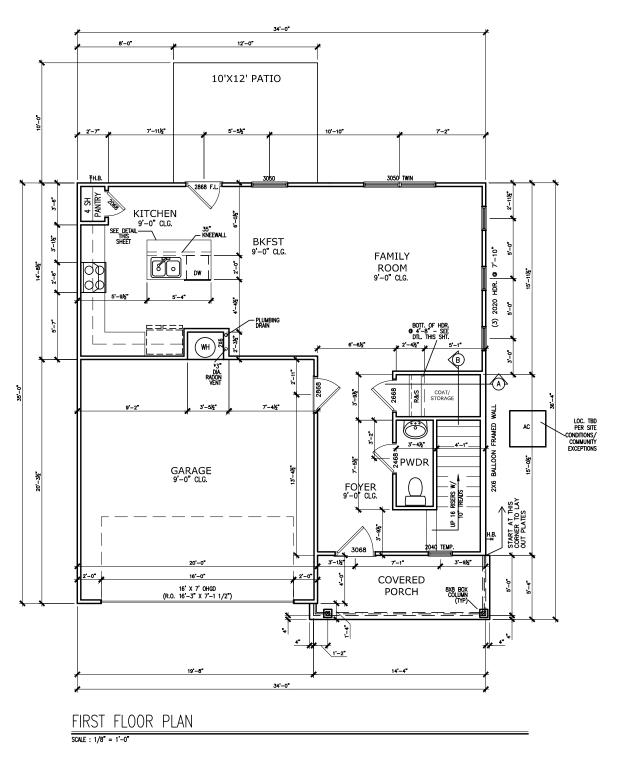
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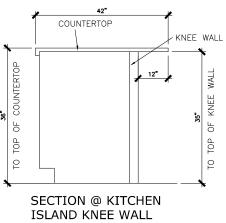
SLAB PLAN
BENSON II

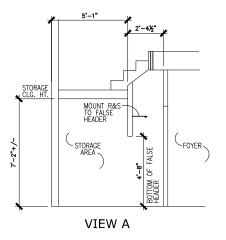
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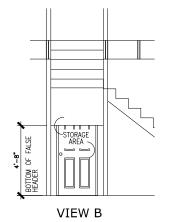
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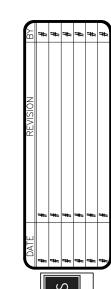






SECTIONS AT COAT/STORAGE CLOSET

\*RADON VENT PROVIDED PER LOCAL CODE



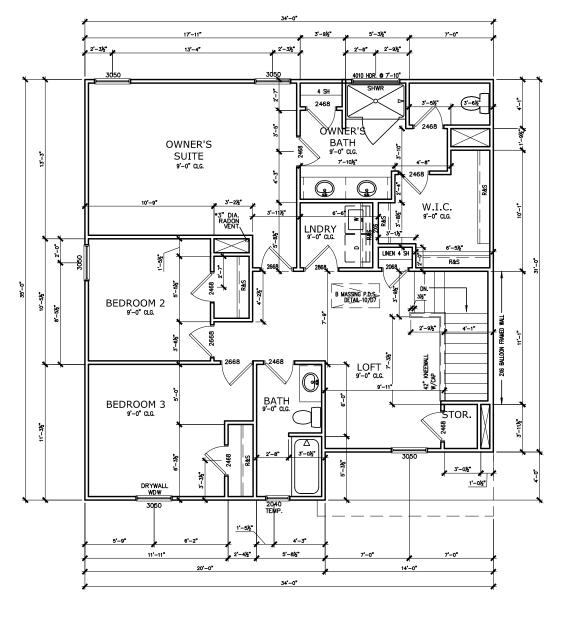




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SECOND FLOOR PLAN

SCALE : 1/8" = 1'-0"

\*RADON VENT PROVIDED PER LOCAL CODE

REFER TO MANUFACTURER'S SPECS. FOR DRAIN LOCATIONS ON DETAIL SHEETS D12, D12.1, D12.2 & D12.3

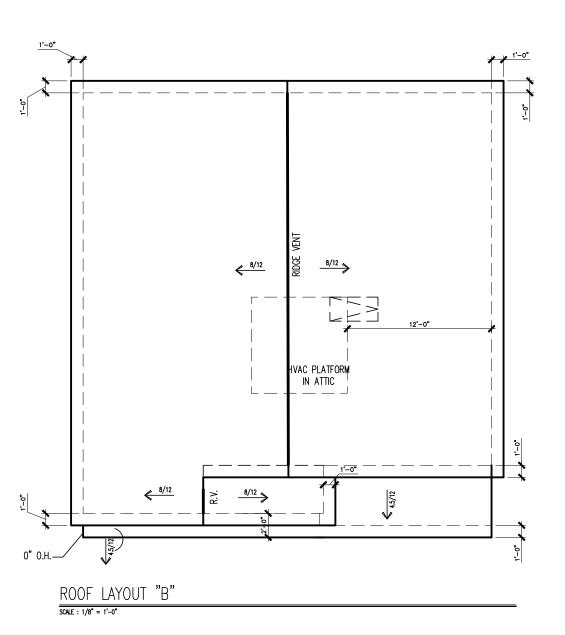
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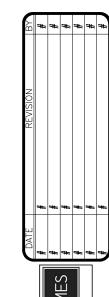
SECOND FLOOR BENSON II

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ROOF PLAN
ROOF PLAN
BENSON II

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### 10'X12' CENTER ON WINDOW BKFST FAMILY KITCHEN ROOM ELECTRICAL PROVIDED AS NEEDED PWDR GARAGE FOYER COVERED PORCH

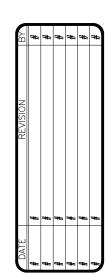
### FIRST FLOOR ELECTRICAL PLAN

SCALE : 1/8" = 1'-0"

### BRIARWOOD BLUFF LOT 001A

ELE	ectrical l	EGE	ND
\$	SWITCH		TV
\$3	3 WAY SWITCH	Ф	120V RECEPTACLE
\$4	4 WAY SWITCH	•	120V SWITCHED RECEPTACLE
Ø	CEILING FIXTURE	•	220V RECEPTACLE
$\phi_{\bar{K}}$	KEYLESS	P <sub>GFCI</sub>	GFCI OUTLET
ΨØ	WALL MOUNT FIXTURE	Pafci	ARCH FAULT CIRCUIT
0	CEILING FIXTURE	† <sub>GL</sub>	GAS LINE
•	FLEX CONDUIT	T <sub>WL</sub>	WATER LINE
СН	CHIMES	¥	HOSE BIBB
PH	TELEPHONE	Sb	FLOOD LIGHT
SD/Co	SMOKE DETECTOR & CARBON MONOXIDE		1x4 LUMINOUS FIXTURE
SO	SECURITY OUTLET		05:::::::::::::::::::::::::::::::::::::
	GARAGE DOOR OPENER		CEILING FAN
	EXHAUST FAN		ELECTRICAL WIRING
9	FAN/LIGHT		CEILING FIXTURE
ELEC.	TRICAL PLANS TO FOLLOW	ALL LOCAL	CODES
APPRC	X. FIXTURE HGTS (MEASUR	ED FROM B	OTTOM OF FIXTURE)
BREA	KFAST/DINING ROOM	63" ABO	VE FINISHED FLOOR
KITCHEN PENDANT LIGHTS		33" ABO	VE COUNTER TOP
TWO STORY FOYER FIXTURE 96" ABOVE FINISHED FLOOR			VE FINISHED FLOOR
CEILI	NG FAN	96" ABO	VE FINISHED FLOOR
FLOO	D LIGHT	10' MAX	. ABOVE FIN. FLOOR
		l	

NOTE: FINAL PLACEMENT OF PHONE/CABLE T.B.D. ON SITE BY THE BUILDER



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ELECTRICAL PLAN FIRST FLOOR BENSON II

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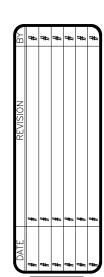
### OWNER'S SUITE OWNER'S W.I.C. BEDROOM 2 STOR. BEDROOM 3

### SECOND FLOOR ELECTRICAL PLAN SCALE: 1/8" = 1740"

### **BRIARWOOD BLUFF** LOT 001A

ELE	ectrical i	_EGE	ND
\$	SWITCH		TV
\$3	3 WAY SWITCH	φ	120V RECEPTACLE
\$4	4 WAY SWITCH	•	120V SWITCHED RECEPTACLE
Ø	CEILING FIXTURE	•	220V RECEPTACLE
- <b>∳</b> <sub>K</sub>	KEYLESS	P <sub>GFCI</sub>	GFCI OUTLET
₩X	WALL MOUNT FIXTURE	PAFCI	ARCH FAULT CIRCUIT
0	CEILING FIXTURE	† <sub>GL</sub>	GAS LINE
•	FLEX CONDUIT	T <sub>WL</sub>	WATER LINE
СН	CHIMES	¥	HOSE BIBB
PH	TELEPHONE	B	FLOOD LIGHT
SD/Cd ₩	SMOKE DETECTOR & CARBON MONOXIDE		1x4 LUMINOUS FIXTURE
SO	SECURITY OUTLET		
	GARAGE DOOR OPENER		CEILING FAN
≣	EXHAUST FAN		ELECTRICAL WIRING
9	FAN/LIGHT		CEILING FIXTURE
ELEC.	TRICAL PLANS TO FOLLOW	ALL LOCAL	CODES
APPRO	X. FIXTURE HGTS (MEASUR	ED FROM B	OTTOM OF FIXTURE)
BREA	KFAST/DINING ROOM	63" ABO	VE FINISHED FLOOR
KITCHEN PENDANT LIGHTS		33" ABOVE COUNTER TOP	
TWO STORY FOYER FIXTURE 9		96" ABO	VE FINISHED FLOOR
CEILING FAN		96" ABO	VE FINISHED FLOOR
FLOO	D LIGHT	10' MAX	. ABOVE FIN. FLOOR
		1	

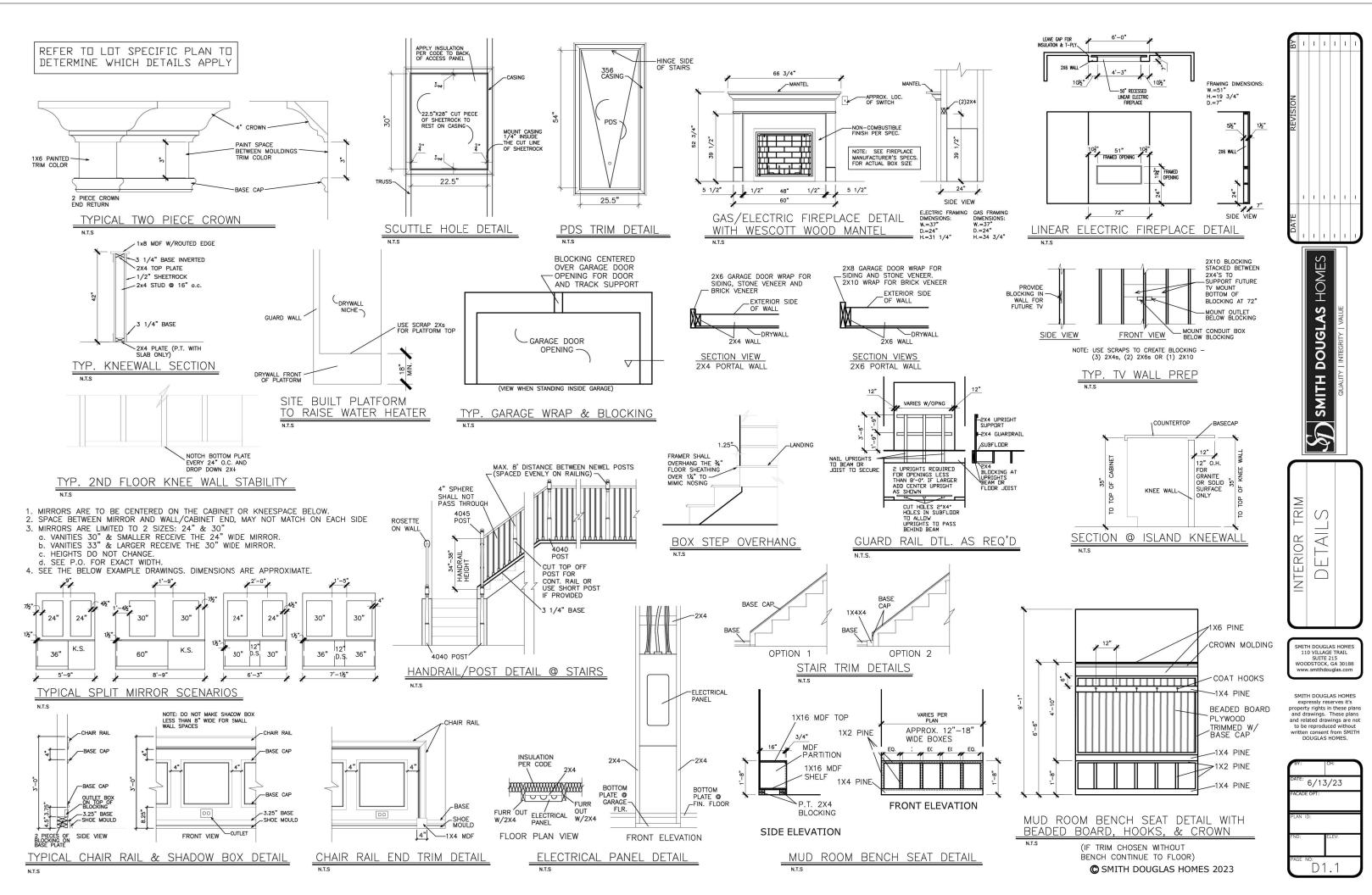
NOTE: FINAL PLACEMENT OF PHONE/CABLE T.B.D. ON SITE BY THE BUILDER



FLOOR BENSON SECOND

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### CONNECTION SPECIFICATIONS (TYP. U.N.O.)

DESCRIPTION OF BLDG. ELEMENT	3"x0.l3l" NAILS	3"x0.120" NAILS
JOIST TO SOLE PLATE	(3) TOENAILS	(3) TOENAILS*
SOLE PL. TO JOIST/RIM OR BLK'G	NAILS @ 4" o.c.	NAILS @ 4" o.c.
STUD TO PLATE	(4) TOENAILS/ (3)END NAILS	(4) TOENAILS/ (4)END NAILS*
RIM TO TOP PLATE	TOENAILS @ 6" o.c.	TOENAILS @ 4" o.c.*
BLK'G. BTWN. JOISTS TO TOP PL.	(3) TOENAILS EA. END	(3) TOENAILS EA. END*
DOUBLE STUD	NAILS @ 16" o.c.	NAILS @ 16" O.C.
DOUBLE TOP PLATE	NAILS @ 12" o.c.	NAILS @ 8" o.c.
DOUBLE TOP PLATE LAP SPLICE	(12) NAILS IN LAPPED AREA (24" MIN.)	(15) NAILS IN LAPPED AREA (24" MIN.)
TOP PLATE LAP @ CORNERS & INTERSECTING WALLS	(3) NAILS	(3) NAILS
RAFTER/TRUSS TO TOP PLATE	(4) TOENAILS + (I) SIMPSON H2.5T	(4) TOENAILS + (I) SIMPSON H2.5T
GAB, END TRUSS TO DBL, TOP PL.	TOENAILS @ 8" o.c.	TOENAILS @ 6" o.c.
R.T. w/ HEEL HT. 91/4" TO 12"	2xIO BLK EVERY 3RD BAY FASTENED TO DBL. TOP PLATE W/ TOENAILS @ 6" O.C.	2xIO BLK EVERY 3RD BAY FASTENED TO DBL. TOP PLATE W/ TOENAILS @ 4" O.C.
R.T. w/ HEEL HT. 12" TO 16"	2xI2 BLK EVERY 3RD BAY FASTENED TO DBL. TOP PLATE w/ TOENAILS @ 6" O.C.	2xI2 BLK EVERY 3RD BAY FASTENED TO DBL. TOP PLATE w/ TOENAILS @ 4" O.C.
R.T. w/ HEEL HT. UP TO 24"	LAP WALL SHTG. W/ DBL. TOP PL. & INSTALL ON TRUSS VERT FASTEN W/ NAILS @ 6" O.C.	LAP WALL SHTG. W/ DBL. TOP PL. \$ INSTALL ON TRUSS VERT FASTEN W/ NAILS @ 6" O.C.*
R.T. w/ HEEL HT. 24" TO 48"	LAP WALL SHTG, W/ DBL, TOP PL. & INSTALL ON TRUSS VERT FASTEN W/ NAILS @ 6" O.C. PROVIDE 2x BLK @ EA. BAY AT TOP OF HEEL	LAP WALL SHTG. W/ DBL. TOP PL. & INSTALL ON TRUSS VERT FASTEN W/ NAILS @ 6" O.C. PROVIDE 2x BLK @ EA. BAY AT TOP OF HEEL "
WALL TO FOUNDATION	WALL SHTG. LAP W/ SILL PL. & FASTENED PER SHEAR WALL FASTENING SPEC.	
<b>.</b>		

\* 2½", XO.113 IS AN ACCEPTABLE ALTERNATIVE TO A 3"XO.120", SAME SPACING OR NUMBER OF NAILS. ONLY ACCEPTABLE WHERE \* ARE SHOWN)

### ADDITIONAL NOTES FOR TRUSS & I-JOIST MANUFACTURER

ROOF TRUSS AND ENGINEERED JOISTS SHALL BE DESIGNED TO MEET THE DEFLECTION CRITERIA BELOW, UNLESS NOTED OTHERWISE ON PLAN. MULHERN & KULP CANNOT BE HELD RESPONSIBLE FOR ANY STRUCTURAL ISSUES RELATED TO ANY BUILDING COMPONENT IF COMPONENT SHOP DRAWINGS ARE NOT SUBMITTED TO M&K FOR REVIEW PRIOR TO FABRICATION, DELIVERY, OR INSTALL ATION.

TRUSSES/LIGISTS SHALL BE DESIGNED SO THAT DIFFERENTIAL DEFLECTION BETWEEN ADJACENT PARALLEL TRUSSES/JOISTS OR GIRDER TRUSSES/FLUS BEAMS DO NOT EXCEED THE FOLLOWING: A. ROOF TRUSSES:

- I/4" DEAD LOAD
- ATTIC TRUSSES, & I-JOISTS: 1/8" DEAD LOAD

ABSOLUTE DEAD LOAD DEFECTION OF ATTIC TRUSSES WHEN AD JACENT TO ELOOR FRAMING BY OTHERS SHALL BE LIMITED TO 3/16". (NOT DIFFERENTIAL DEFLECTION)

### VENEER LINTEL SCHEDULE

SPAN (MAX)	HEIGHT OF VENEER ABOVE LINTEL	STEEL ANGLE SIZE
3'-0"	20 FT. MAX	L3"x3"x¼"
	3 FT. MAX	L3"x3"x¼"
6'-0"	I2 FT. MAX	L4"x3"x¼"
	20 FT. MAX	L5"x3½"x5%"
8'-0"	3 FT, MAX	L4"x4"x½" *
	I2 FT. MAX	L5"x3½"x5%"
	I6 FT. MAX	L6"x3½"x3%"
9'-6"	I2 FT. MAX	L6"x3½"x5%"

- L LINIELS: SHALL SUPPORT 2 %" 3 ½" VENEER W 40 psf MAXIMUM WEIGHT IG' SHALL HAVE 4" MIN. BEARING IG' SHALL HAVE 8" MIN. BEARING IG' SHALL NOT BE FASTISHED BACK TO HEADER.

- 4 IO SHALL ROTE FASIBLED BACK TO HEAVEST 16 SHALLE FASIBLED BACK TO ROOD HEADER IN WALL #48°GC, w/ ½" DIA x 3 ½" LONG LAG SCREWS IN 2" LONG VERTICALLY SLOTTED HOLES. HAX YEBER IN APPLIES TO AN PROKING OF BRCK OVER THE OPENING. ALL LINTELS SHALL BE LONG LEG VERTICAL. WHEN SUPPORTING VEDERS (4") MUED FOR THE HORIZONTAL LEG MAY BE CUT IN THE FIELD TO BE 3 ½" NIDE OVER THE BEARING LENGTH ONLY. THIS IS TO ALLIN FOR NORTIKA JOINT RINGHING.
- TRUCTURAL PLANS FOR ANY LINTEL CONDITION NOT ENCOMPASSED BY THE
- 'ARAMETERS. FN VENEER USE I 4x3x½".

### GENERAL STRUCTURAL NOTES

### FOUNDATION

- DESIGN IS BASED ON 2018 NCSBC-RESIDENTIAL CODE \$ 2018 IRC WITH SOUTH CAROLINA AMENDMENTS
- FOOTING DESIGN 2,000 PSF NET ALLOWABLE SOIL BEARING PRESSURE IS ASSUMED, BUILDER/CONTRACTOR MUST VERIFY.
- FASTEN 2×4/6 SILL PLATES TO CONC FND WITH A MINIMUM OF 2 ANCHORS PER PLATE, 12" MAX. FROM PLATE ENDS - UTILIZING I/2" DIA. ANCHOR BOLTS @ 6'-0" O.C.7" MIN. EMBEDMENT
- FA4 ANCHOR STRAPS @ 6'-0" O.C
- EASTEN 2xIO SILL PLATES TO PRECAST BOMT WALLS WITH A MINIMUM OF 2 ANCHORS PER PLATE, 12" MAX. FROM PLATE ENDS - UTILIZING:
- I/2" DIA. BOLTS @ 2'-0" O.C
- ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT W PERIMETER FOUNDATION SHALL BE PRESERVATIVE TREATED SOUTHERN PINE #2.
- BUILDER TO VERIFY CORROSION-RESISTANCE COMPATIBILITY OF HARDWARE & FASTENERS IN CONTACT W/ PRESERVATIVE-TREATED WOOD, CONTACT LUMBER & HARDWARE SUPPLIERS TO COORD.
- FOUNDATION WALLS & FOOTINGS SHALL BE PLAIN CONCRETE, U.N.O
- CONCRETE DESIGN BASED ON ACI 318. CONCRETE SHALL ATTAIN THE FOLLOWING MIN. COMPRESSIVE STRENGTHS IN 28 DAYS, U.N.O.:
  - f'c = 4,000 psi: ...... FOUNDATION WALLS 3,000 psi: ...... FOOTINGS & INTERIOR SLABS ON GRADE 3,500 psi: ...... GARAGE & EXTERIOR SLABS ON GRADE = 60,000 psi
- BASEMENT FOUNDATION WALL DESIGN BASED ON:
  - . 8' OR 9' HEIGHT (AS NOTED ON PLANS) TALLER WALLS MUST BE ENGINEERED.
- BASEMENT WALL DESIGN IS BASED ON 30 OR 45 PCF BACKFILL SOIL TYPE CLASSIFICATIONS:
  - 30 PCF TYPE (GW, GP, SW, SP) 45 PCF TYPE (GM, GC, SM, SM-SC, ML)
  - IMPORTANT IF 60 PCF SOIL TYPE (SC, ML-CL, OR CL) IS UTILIZED FOR BACKELL, CONTACT MULHERN & KULP FOR FURTHER EVALUATION OF FOUNDATION DESIGN
- BASEMENT WALLS SHALL BE BRACED, PRIOR TO BACKFILLING, BY ADEQUATE TEMPORARY BRACING OR INSTALL 1st FLOOR DECK.
- ALL CONCRETE EXPOSED TO THE WEATHER SHALL NOT HAVE LESS THAN 5% OR MORE THAN 7% AIR ENTRAINMENT.
- ALL FOOTINGS SHALL BEAR BELOW FROST LINE (TYP.) OR 12" MIN IN REGIONS WHERE CODE FROST DEPTH IS NOT APPLICABLE. CONSULT SOILS REPORT OR BUILDING DEPT. FOR MINIMUM DEPTH BELOW
- FOOTINGS AND SLABS ON GRADE SHALL BEAR ON VIRGIN SOIL OR 95% COMPACTED FILL.
- PROVIDE CONTROL JOINTS AT ALL INSIDE CORNERS OF SLAB EDGES, AND OTHER LOCATIONS WHERE SLAB CRACKS ARE LIKELY TO DEVELOP.
- JOINTS SHALL BE LOCATED @ 10'-0" O.C. (RECOMMENDED) OR 15'-0" O.C. (MAXIMUM)
- JOINT GRID PATTERN SHALL BE AS CLOSE TO SQUARES AS POSSIBLE (I:I RATIO), WITH A MAXIMUM OF I:I.5 RATIO · CONTROL JOINTS SHALL NOT BE INSTALLED IN STRUCTURAL
- COVER WHERE CAST AGAINST FARTH LI/2" MIN CLEAR COVER AGAINST FORMS. LAP ALL REBAR 48 BAR DIAMETERS MIN. (24' FOR #4 BARS) & BEND BARS AND LAP AT CORNERS PROVIDE 6" HOOK INTO SUPPORTING FOOTINGS WHEN FOOTINGS INTERSECT.
- DIMENSIONS BY OTHERS, BUILDER TO VERIEY.

### LEGEND

R.T. NDICATES ROOF TRUSSES @ 24" O.C. PER ROOF. MANUE. (TYP. U.N.O.)

OF. NINDICATES TRUSS OVERFRAMING . 24" O.C. (TYP. U.N.O.)

INDICATES 14" DEEP FLOOR I-JOISTS @ 24" O.C. MAX JOIST SERIES AND SPACING SHALL BE THE RESPONSIBILITY OF THE MANUFACTURER NOTE: I4" FLOOR TRUSSES @ 24" O.C. MAX, IS AN ACCEPTABLE ALTERNATE FLOOR SYSTEM

- INDICATES LOCATIONS OF POTENTIAL TILE FLOOR - JOIST MANUFACTURER SHALL DESIGN FLOOR SYSTEM FOR ADD'L 10 PSF DEAD LOAD AT THESE LOCATIONS
- INTERIOR BEARING WALL
- □□□□□□ BEARING WALL ABOVE (B.W.A.)

- INDICATES POST ABOVE (P.A.) PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.

### LATERAL/WALL BRACING & WALL SHEATHING SPECIFICATIONS

THIS MODEL HAS BEEN DESIGNED TO RESIST LATERAL FORCES RESULTING FROM: IMPH WIND IN 2018 NCSBC:R

20MPH WIND IN 2018 IRC (120 MPH WIND SPEED IN ASCE 7 WIND MAP PER IRC R301211) EXP. B. RISK CAT. 2 & SEISMIC CAT. A/B.

THE DESIGN WAS COMPLETED PER 2015 & 2018 IBC SECTION 1609) & ASCE 7 AS PERMITTED BY R30113 DE THE 2018 NOSBO:RC & 2018 IRC. ACCORDINGLY THIS MODEL, AS DOCUMENTED AND DETAILED HEREWITHIN, IS ADEQUATE TO RESIST THE CODE REQUIRED LATERAL FORCES

DESIGN WIND UPLIFT LOADS HAVE BEEN CALCULATED UTILIZING ASCE 7 (ACCEPTED ENGINEERING PRACTICE) AS ALLOWED PER 2018 NCSBC:RC & 2018 IRC SECTION R802.II.I.I. THIS MODEL HAS BEEN DETAILED WHERE REQUIRED & ENGINEERED TO RESIST THE WIND UPLIET LOAD PATH PER SECTIONS R602.3.5¢ R802.II.

### EXT. WALL SHEATHING SPECIFICATION

- •7/16" OSB OR 15/32" PLYWOOD: FASTEN SHEATHING W/ 2 8"XO.II3 NAILS @ 6" O.C. AT EDGES & @ 12" O.C. IN THE PANEL FIELD. (TYP, U.N.O.)
- ALL SHEATHING PANELS SHALL BE ORIENTED

  VERTICALLY (LONG DIRECTION PARALLEL TO STUDS) AND INSTALLED FULL HEIGHT OF SHEAR WALL - OR -2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT ALL UNSUPPORTED PANEL EDGES & EDGE
- ALL EXT. WALLS SHALL BE CONTINUOUSLY SHEATHED AND ARE CONSIDERED SHEAR WALLS.
- ALT, STAPLE CONNECTION SPEC: 1 3/4 16 GA STAPLES (1/6" CROWN) @ 3" O.C. AT EDGES & @ 6" O.C IN FIELD.

### 3" O.C. EDGE NAILING

AT DESIGNATED AREAS - FASTEN PANEL EDGES OF WOOD STRUCTURAL WALL SHEATHING TO FRAMING W 2 3" x 0.113" NAILS @ 3" O.C. AND 12" O.C. IN THE PANEL FIELD NO STAPLE ALTERNATIVE AVAILABLE AT THIS SPEC. ALL SHEATHING PANELS SHALL BE ORIENTED VERTICALLY (LONG DIRECTION PARALLEL TO STUD) AND INSTALLED FULL HEIGHT OF SHEAR MALL - OR - 2X HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT UNSUPPORTED PANEL EDGES AND 3" OC FDGE FASTENING

### **NOTES**

- SEE CONNECTION SPECIFICATIONS CHART FOR STANDARD SHEAR TRANSFER DETAILING. IF ADDITIONAL CAPACITY IS REQUIRED BY DESIGN, IT WILL BE SPECIFICALLY NOTED ON PLAN.
- DESIGN ASSUMES 16" O.C MAX. STUD SPACING, U.N.O
- ALL STRUCTURAL PANELS ARE TO BE DIRECTLY APPLIED TO STUD FRAMING.
- PRE-MANUFACTURED PANELIZED WALLS: FASTEN TOGETHER END STUDS OF WALL PANELS SHEATHED w/ OSB OR PLYWOOD w/ 3" x 0.120 NAILS @ 4" O.C. (THRU ONE SIDE ONLY)

INDICATES EXTENT OF INT. OSB SHEARWALL, AND/OR 3" O.C. EDGE NAILING

NDICATES HOLDOWN

### NON-BEARING HEADER SCHEDULE

SPAN	2x4 NON-BEARING PARTITION WALL	2x6 NON-BEARING PARTITION WALL
UP TO 3'-0"	(I)2x4 FLAT	(I)2x6 FLAT
UP TO 6'-0"	(2)2x4	(3)2×4
UP TO 8'-0"	(2)2×6	(3)2x6

 ALL NON-BEARING INTERIOR STUD WALLS SHALL BE CONSTRUCTED WITH 2x 'STUD' GRADE MEMBERS SPACED @ 24" O.C. (MAX.)

### FLOOR FRAMING

- I-JOISTS SHALL BE DESIGNED BY MANUF, TO MEET OR EXCEED L/480 LIVE LOAD DEFLECTION CRITERIA. (EXCLUDES STONE/MARBLE OR WET BED CONSTRUCTED FLOORS - CONTACT M&K FOR EXCLUDED FLOOR DESIGNS)
- PER THE GUIDELINES OF THE TILE COUNCIL OF NORTH AMERICA (TCNA HANDBOOK), IT SHALL BE THE FLOOR FINISH INSTALLER'S RESPONSIBILITY TO VERIFY THAT THE FINISHES TO BE INSTALLED MATCH THE DESIGN CRITERIA NOTED ABOVE (UNDER "DESIGN
- FLOOR SYSTEMS & SHEATHING HAVE BEEN DESIGNED TO SUPPORT. ADDITIONAL DEAD LOAD FROM CERAMIC TILE (EXCLUDING MARBLE OR STONE). HOWEVER, IT SHALL BE THE FLOOR FINISH INSTALL FRO RESPONSIBILITY TO PROVIDE PROPER UNDERLAYMENT, UNCOUPLING MEMBRANE AND MORTAR/GROUT PER THE ASSEMBLY DESIGNATIONS IN THE TONA HANDBOOK (TILE COUNCIL OF NORTH AMERICA).
- AT I-JOIST FLOORS, PROVIDE I" MIN. OSB RIM BOARD.
- METAL HANGERS SHALL BE SPECIFIED BY MANUFACTURER, U.N.O. • I-JOIST SHOP DWGS. SHALL BE SUBMITTED TO ARCH. & ENG. FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY.
- FLOOR SHEATHING SHALL BE 23/32" A.P.A. RATED 'STURD-I-FLOOR 24" O.C., EXPOSURE I (OR APPROVED EQUAL) WITH TONGUE AND GROOVE EDGES. FASTEN TO FRAMING MEMBERS W GLUE AND
- 2 ½" x 0.131" NAILS @ 6"o.c. @ PANEL EDGES & @ 12"o.c. FIELD. 2 3" x 0.120" NAILS @ 4" O.C. @ PANEL EDGES & @ 8" O.C. FIELD.
- 2 🖁 × 0.113" NAILS @ 3" O.C. @ PANEL EDGES & @ 6" O.C. IN FIELD

### ROOF FRAMING

- ROOF SHEATHING SHALL BE 1/16" A.P.A. RATED SHEATHING 24/16 EXPOSURE I (OR APPROVED EQUAL). FASTEN TO FRAMING MEMBERS
- W/ 2 ½" × 0.131" NAILS @ 6"o.c. @ PANEL EDGES € @ 12" O.C. FIELD. - w/ 2 🖁 × 0.120" NAILS @ 4"o.c. @ PANEL EDGES & @ 8" O.C. FIELD. - w/ 2 🖣 × 0.113" NAILS @ 3"o.c. @ PANEL EDGES & @ 6" O.C. FIELD.
- WITHIN 48" OF ALL ROOF EDGES, RIDGES, & HIPS FASTEN ROOF SHEATHING FIELDS PER EDGE NAILING SPEC.
- FASTEN EACH ROOF TRUSS TO TOP PLATE W/ USP RTTA CLIP (OR APPROVED EQUAL) @ ALL BEARING POINTS. PROVIDE (2) RTTA CLIPS AT 2-PLY GIRDER TRUSSES, (3) RT7A CLIPS AT 3-PLY
- GIRDER TRUSSES & ROOF BEAMS AT ALL BEARING POINTS METAL HANGERS SHALL BE SPECIFIED BY THE MANUFACTURER, U.N.O.
- ROOF TRUSS SHOP DWGS. SHALL BE SUBMITTED TO ARCH & ENG.
  FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY ERECT AND INSTALL ROOF TRUSSES PER WTCA & TPI'S BCSI I "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING

OF METAL PLATE CONNECTED WOOD TRUSSES."

• SUPPORT SHORT SPAN ROOF TRUSSES w/2x4 LEDGER FASTENED TO FRAMING w/(2) 3" x 0.120" NAILS @ 16" O.C. (UP TO 7' SPAN).

### MEANS & METHODS NOTES

THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS FINISHED AND ALL PLAN, DETAIL, AND NOTE SPECIFICATIONS HAVE BEEN COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURES AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS, AND TIE-DOWNS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING REQUIRED TO STABILIZE AND PROTECT EXISTING AND ADJACENT STRUCTURES AND SYSTEMS DURING COURSE OF DEMOLITION AND CONSTRUCTION OF

STRUCTURAL DESIGN AND SPECIFICATIONS ASSUME THAT ALL SUPPORTING AND NON-SUPPORTING ELEMENTS IN CONTACT WITH FLOOR FRAMING ARE LEVEL, INCLUDING, BUT NOT LIMITED TO; FOUNDATIONS SLABS ON GRADE BEAMS WALLS AND NON-BEARING LEMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY LEVELNESS AND MAKE ADJUSTMENTS AS NECESSARY, INCLUDING CONSIDERATION OF THOSE AREAS THAT CONTRACTUAL, INDUSTRY, OR WARRANTY TOLERANCES.

### GENERAL STRUCTURAL NOTES

- DESIGN IS BASED ON 2018 NOSBC-RESIDENTIAL CODE & 2018 IRC WITH SOUTH CAROLINA AMENDMENTS
- WOOD FRAME ENGINEERING IS BASED ON NDS, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" - LATEST EDITION.

LIVE = 20 PSF DEAD = 1 PSF T.C., 10 PSF B.C. ROOF

LOAD DURATION FACTOR = 1.25 FLOOR LIVE = 40 PSF (30 PSF @ SLEEPING AREAS) DEAD = 10 PSF (I-JOISTS)

ADD'L IO PSF @ CERAMIC TILE IN BATHS & LAUND.

2,000 PSF ASSUMED ALLOWABLE BEARING PRESSURE (TO BE VERIFIED BY BUILDER)

### GENERAL FRAMING

- CONNECTIONS TABLE (IRC. TABLE R6023(I)) OR ON PLANS ALL NAILS SPECIFIED ARE MIN DIAMETER AND LENGTH REQUIRED FOR CONNECTION, ALL HANGER NAILS SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS FOR MAX CHARTED CAPACITY. NOTE: HANGERS USE COMMON NAIL DIAMETERS NOT TYPICAL FRAMING GUN NAILS.
- EXT. & INT. BEARING WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. SPF/SP "STUD" GRADE LUMBER, OR BETTER, U.N.O. WALLS OVER 12' TALL SHALL BE PER PLAN.
- ALL INTERIOR BEARING WALLS ARE ASSUMED TO BE SHEATHED W/ GYP WALL BOARD (ONE SIDE MIN.) OR PROVIDE MID HT. BLOCKING.
- ALL HEADERS, BEAMS & OTHER STRUCTURAL MEMBERS SHALL BE SPRUCE-PINE-FIR #2 (SPF) OR SOUTHERN PINE #2 (SP) LUMBER, OR BETTER. SUPPORT ALL HEADERS/ BEAMS W (1)2x JACK STUD & (1)2x
- THE NUMBER OF STUDS SPECIFIED AT A SUPPORT INDICATES THE NUMBER OF JACK STUDS REQUIRED, U.N.O.,

(I)2x4/6 FLAT @ OPENINGS UP TO 4', (2)2x4/6 FLAT UP TO 8'.

- ALL NON-BEARING INTERIOR STUD WALLS SHALL BE CONSTRUCTED WITH 2x 'STUD' GRADE MEMBERS SPACED @ 24" O.C. (MAX., U.N.O.) • HEADERS IN NON-LOAD BEARING WALLS SHALL BE:
- ALL FRAMING LUMBER SHALL BE DRIED TO 15% MC (KD-15)
- PENGINEERED LUMBER BEAMS TO MEET OR EXCEED THE FOLLOWING • 'LVL' - Fb=2600 psi; Fv=285 psi; E=2.0x10^6 psi
- ENGINEERED LUMBER POSTS TO MEET OR EXCEED THE FOLLOWING: • 'LVL' - Fb=2400 psi; FcII=2500 psi; E=I.8xI0^6 psi
- FOR 2 & 3 PLY BEAMS OF FOUAL 13/4" MAX, WIDTH, FASTEN PLIES TOGETHER WITH 3 ROWS OF 3"XO.120" NAILS @ 8" O/C OR 2 ROWS USP WS35 SCREWS (OR 3K" TRUSSLOK SCREWS) @ 16" O/C, USE A MINIMUM OF 4 ROWS FOR BEAM DEPTHS OF 14" OR GREATER APPLY FASTENING AT BOTH FACES FOR 3-PLY CONDITION. LOCATE TOP & BOTTOM NAILS/SCREWS 2" FROM EDGE. SOLID 3½" OR 5½" BEAMS ARE ACCEPTABLE, USE 2 ROWS OF NAILS FOR 2x6 & 2x8
- FOR 4 PLY BEAMS OF FOUAL 13/4" MAX WIDTH FASTEN PLIES SCREWS) @ 16" O/C. USE A MINIMUM OF 4 ROWS FOR BEAM DEPTHS OF 14" OR GREATER, APPLY FASTENING AT BOTH FACES (ONE SIDE ONLY FOR TRUSSLOK SCREWS). LOCATE TOP AND BOTTOM SCREWS 2" FROM EDGE, A SOLID 7" BEAM IS ACCEPTABLE.
- PROVIDE SOLID BLOCKING IN FLOOR SYSTEM UNDER ALL POSTS
- CONTINUOUS TO FND/BEARING. BLOCKING TO MATCH POST ABOVE. ALL EXTERIOR 4x4 WOOD POSTS SHALL HAVE USP BCS22-4 CAP \$ PA44E BASE, U.N.O.
- - BUILDER RESPONSIBLE TO DETERMINE CORROSION-RESISTANCE REQUIREMENTS AND COMPATIBILITY OF HARDWARE EASTENERS AND CONNECTORS FOR ENVIRONMENTAL EXPOSURE AND IN CONTACT W/ PRESERVATIVE-TREATED WOOD OF ACTUAL FINAL CONDITIONS AND SOURCED MATERIALS. CONTACT LUMBER & HARDWARE SUPPLIERS TO COORD.
- ALL FASTENERS AND CONNECTORS EXPOSED TO SALT WATER (WITHIN 300' OF SALT WATER SHORELINE, INCLUDING VENTED SPACES) SHALL BE STAINLESS STEEL.

MULHERN+KUL RESIDENTIAL STRUCTURAL ENGINEER! C-3825



Mulhern+Kulp project numbe 256-22019

SMK RAF issue date: 01.13.2023

REVISIONS

initial:

SMITH DOUGI HOMES

NOTES  $\Box$ MODI

STRUCTURAL BENSON GENERAL

ZONI

WIND

120 N

BRIARWOOD



MULHERN + KULP

RESIDENTIAL STRUCTURAL ENGINEERING

RESERVED FOR A SERVED SE A APPLAÇA SERVED

F. TO-TH-STALL \* APPLAÇA SERVED SE A APPLAÇA SERVED SE A APPLAÇA SERVED SER

-30"x30"x12" PLAIN CONC. FOOTING UNDER P.A.

PARTIAL MONO-SLAB FOUNDATION PLAN

BRICK ONLY @---ELEVS. B,D,F,G,H,I

SCALE: 1/4"=1'-0" ON 22x34

Mulhern+Kulp project number: 256-22019

SMK RAP issue date: 01.13.2023

REVISIONS:

I6"xI6"xI2"—— CONC. FOOTING UNDER P.A.

OPT. SIDE ENTRY CARAGE

BRIARWOOD

REFER TO SO.O FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

ALL ELEVS SIM.
SEE BASE ELEV. FOR ADD'L INFO.

LOT 1A

LEGEND

RT. INDICATES ROOF TRUSSES @ 24" O.C. PER ROOF. MANUF. (TYP. U.N.O.)

• INDICATES 14" DEEP FLOOR I-JOISTS • 24" O.C.

MAX. JOIST SERIES AND SPACING SHALL BE THE

RESPONSIBILITY OF THE MANUFACTURER

NOTE: 14" FLOOR TRUSSES • 24" O.C. MAX. IS AN

ACCEPTABLE ALTERNATE FLOOR SYSTEM

INDICATES LOCATIONS OF POTENTIAL TILE FLOOR. - JOIST MANUFACTURER SHALL DESIGN FLOOR SYSTEM FOR ADD'L 10 PSF DEAD LOAD AT THESE

OF. INDICATES TRUSS OVERFRAMING O 24" O.C. (TYP. U.N.O.)

LOCATIONS. INTERIOR BEARING WALL • CTTT BEARING WALL ABOVE (B.W.A.)

• # INDICATES POST ABOVE (P.A.) PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.

• --- BEAM/HEADER

• JL METAL HANGER

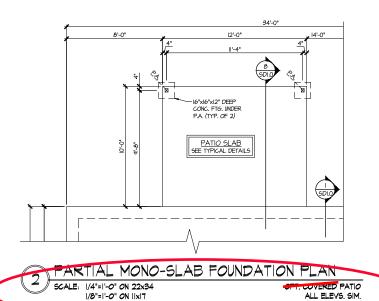
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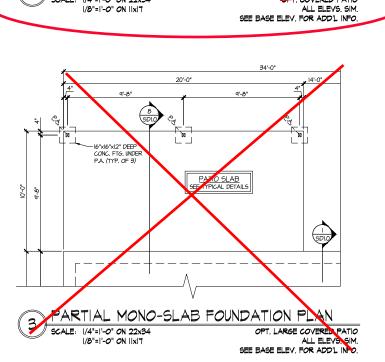
SMITH DOUGLAS HOMES

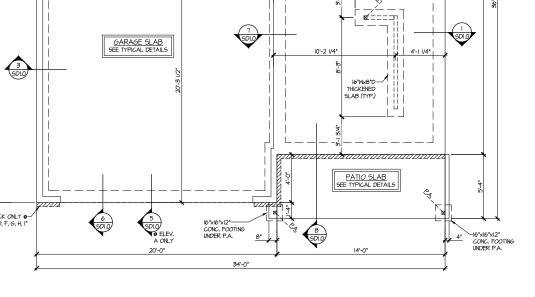
MODEL

FOUNDATION BENSON MONO-SLAB

120 MPH WIND ZONE NORTH CAROLINA







SLAB-ON-GRADE SEE TYPICAL DETAILS

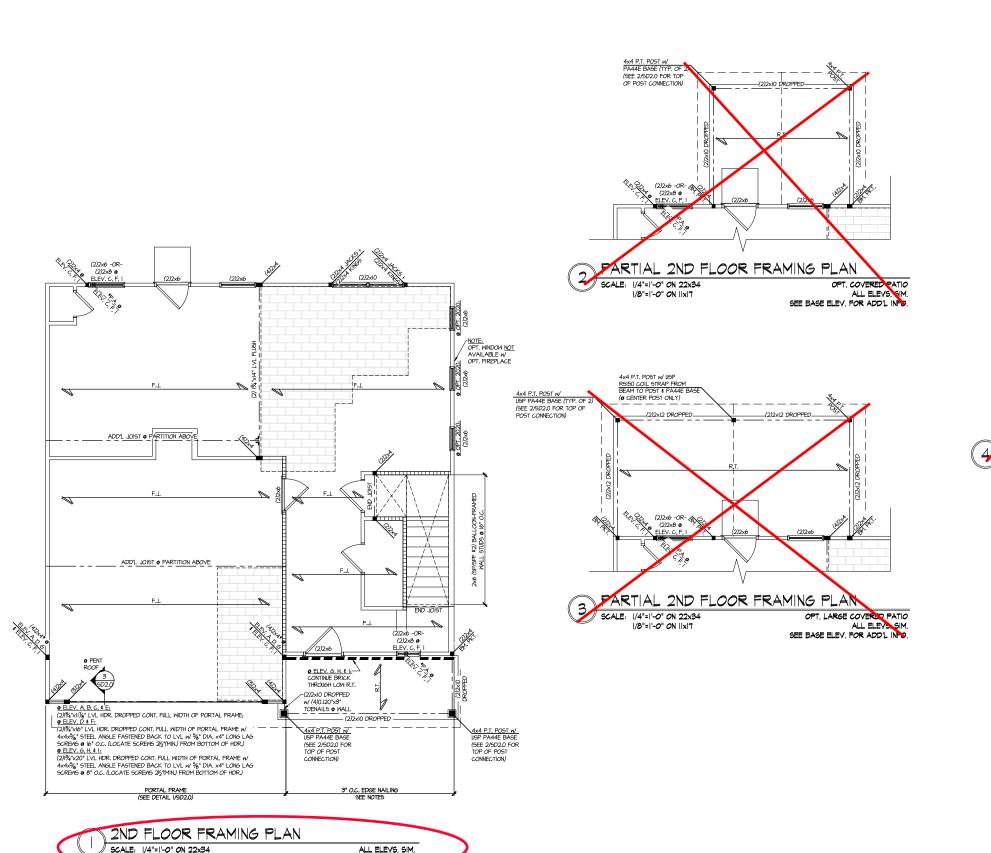
19'-8 1/2"

7 5DI.0

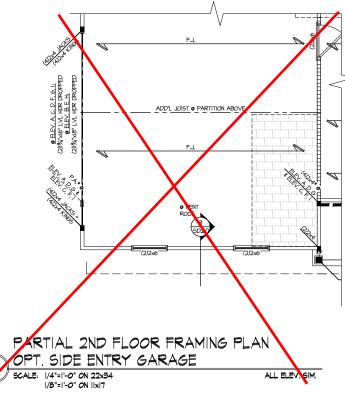


ALL ELEVS. SIM.

Q.P.



1/8"=1'-0" ON 11x17



### BRIARWOOD OT 1A

THIS LEVEL HAS BEEN DESIGNED FOR 9'-I" PLATE HEIGHT

REFER TO SO.O FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

### LEGEND

R.T. INDICATES ROOF TRUSSES @ 24" O.C. PER ROOF. MANUF. (TYP. U.N.O.)

OF. INDICATES TRUSS OVERFRAMING • 24" O.C. (TYP. U.N.O.)

F.J. INDICATES 14" DEEP FLOOR 1-JOISTS @ 24" O.C.
MAX. JOIST SERIES AND SPACING SHALL BE THE
RESPONSIBILITY OF THE MANUFACTURER NOTE: 14" FLOOR TRUSSES @ 24" O.C. MAX. IS AN ACCEPTABLE ALTERNATE FLOOR SYSTEM

INDICATES LOCATIONS OF POTENTIAL TILE FLOOR. - JOIST MANUFACTURER SHALL DESIGN FLOOR SYSTEM FOR ADD'L 10 PSF DEAD LOAD AT THESE LOCATIONS.

INTERIOR BEARING WALL

● □□□□□ BEARING WALL ABOVE (B.W.A.)

• --- BEAM/HEADER

• JL METAL HANGER

INDICATES POST ABOVE (P.A.) PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.

7/14/23

MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING

2855 medicide Perkway, Subje 1865 - Apha 2778-777-8874 - memberskapsem NC License # C-3825



Mulhern+Kulp project number: 256-22019

SMK RAP issue date: 01.13.2023

REVISIONS:

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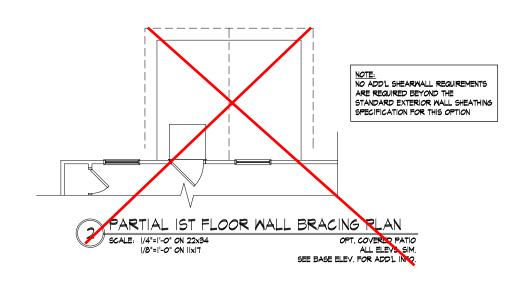
SMITH DOUGLAS HOMES

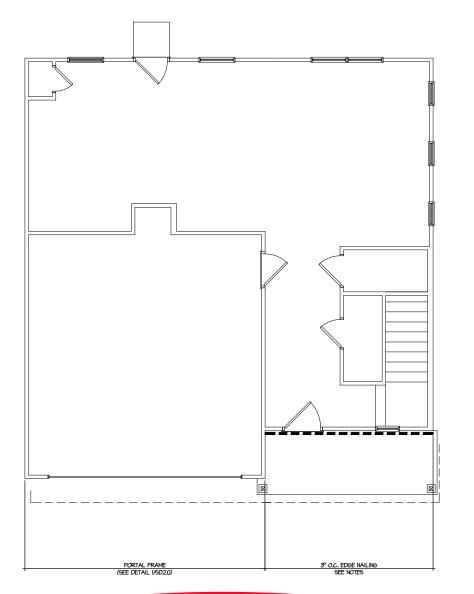
PLAN MODEL

FRAMING FLOOR BENSON 2ND

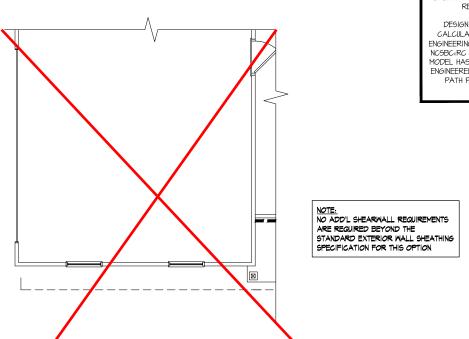
120 MPH WIND ZONE NORTH CAROLINA

**S2.0M** 

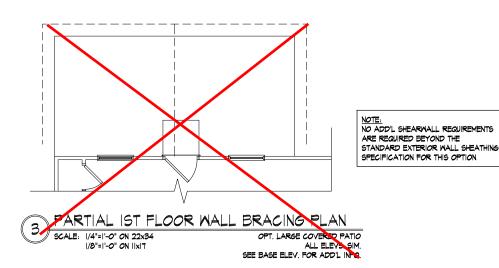




IST FLOOR WALL BRACING PLAN SCALE: 1/4"=1'-0" ON 22x34 ALL ELEVS. SIM. 1/8"=1'-0" ON 11x17



ALL ELEV. SIM



artial ist floor wall bracing plan

OPT. SIDE ENTRY GARAGE

SCALE: 1/4"=1"-0" ON 22x34

### SHEATHING SPECIFICATIONS

THIS MODEL HAS BEEN DESIGNED TO RESIST LATERAL FORCES RESULTING FROM: OMPH WIND IN 2018 NGSBC:RO

### **& 120MPH WIND IN 2018 IRC**

(120 MPH WIND SPEED IN ASCE 7 WIND MAP, PER IRC R301.2.1.1) EXP. B, RISK CAT. 2 & SEISMIC CAT. A/B.

THE DESIGN WAS COMPLETED PER 2015 \$ 2018 IBC (SECTION 1609) & ASCE 7, AS PERMITTED BY R301.1.3 OF THE 2018 NCSBC:RC & 2018 IRC. ACCORDINGLY THIS MODEL. AS DOCUMENTED AND DETAILED HEREWITHIN, IS ADEQUATE TO RESIST THE CODE REQUIRED LATERAL FORCES.

DESIGN WIND UPLIFT LOADS HAVE BEEN CALCULATED UTILIZING ASCE 7 (ACCEPTED ENGINEERING PRACTICE) AS ALLOWED PER 2018 NCSBC:RC & 2018 IRC SECTION R802.11.1.1. THIS MODEL HAS BEEN DETAILED WHERE REQUIRED & ENGINEERED TO RESIST THE WIND UPLIFT LOAD PATH PER SECTIONS R602.3.5\$ R802.II.

### ATERAL/WALL BRACING & WALL

7/16" *0*5B *0*R 15/32" PLYW0*0*D: FASTEN SHEATHING W/ 2 3 XO.113 NAILS @ 6" O.C. A EDGES & @ 12" O.C. IN THE PANEL FIELD. (TYP, U.N.) ALL SHEATHING PANELS SHALL BE ORIENTED

VERTICALLY (LONG DIRECTION PARALLEL TO STUDS AND INSTALLED FULL HEIGHT OF SHEAR WALL - OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT ALL UNSUPPORTED PANEL EDGES & EDGE

ALL EXT. WALLS SHALL BE CONTINUOUSLY SHEATHED AND ARE CONSIDERED SHEAR WALLS.

 ALT STAPLE CONNECTION SPEC: 1 3/1 16 GA STAPLES (1/6" CROWN) • 3" O.C. AT EDGES € • 6" O.C IN FIELD.

### 3" O.C. EDGE NAILING

AT DESIGNATED AREAS - FASTEN PANEL EDGES OF WOOD STRUCTURAL WALL SHEATHING TO FRAMING W/ 2 3 × 0.113" NAILS @ 3" O.C. AND 12" O.C. IN THE PANEL FIELD NO STAPLE ALTERNATIVE AVAILABLE
AT THIS SPEC. ALL SHEATHING PANELS SHALL BE ORIENTED VERTICALLY (LONG DIRECTION PARALLEL TO STUD) AND INSTALLED FULL HEIGHT OF SHEAR WALL - OR - 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT UNSUPPORTED PANEL EDGES AND 3" O.C. EDGE FASTENING.

### **NOTES**

- SEE CONNECTION SPECIFICATIONS CHART FOR STANDARD SHEAR TRANSFER DETAILING. IF ADDITIONAL CAPACITY IS REQUIRED BY DESIGN, IT WILL BE SPECIFICALLY NOTED ON PLAN.
- DESIGN ASSUMES 16" O.C MAX. STUD SPACING, U.N.O.
- ALL STRUCTURAL PANELS ARE TO BE DIRECTLY APPLIED TO STUD FRAMING
- PRE-MANUFACTURED PANELIZED WALLS: FASTEN TOGETHER END STUDS OF WALL PANELS SHEATHED W/ OSB OR PLYWOOD W/ 3" x 0.120" NAILS @ 4" O.C. (THRU ONE SIDE ONLY)

INDICATES EXTENT OF INT. OSB
SHEARWALL, AND/OR 3" O.C. EDGE NAILING

► INDICATES HOLDOWN

Mulhern+Kulp project number:

256-22019 SMK

RAF issue date: 01.13.2023

initial:

REVISIONS:

SMITH DOUGLAS HOMES

PLAN

BRACING

WALL

OOR

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S

THIS LEVEL HAS BEEN DESIGNED FOR 9'-1" PLATE HEIGHT

BRIARWOOD

OT 1A

REFER TO SO.O FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

### LEGEND

R.T. INDICATES ROOF TRUSSES @ 24" O.C. PER ROOF. MANUF. (TYP. U.N.O.)

OF. INDICATES TRUSS OVERFRAMING © 24" O.C. (TYP. U.N.O.)



LOCATIONS

BEAM/HEADER

• JL METAL HANGER

INDICATES POST ABOVE (P.A.) PROVIDE SOLID



F.J. NDICATES 14" DEEP FLOOR 1-JOISTS @ 24" O.C.
MAX. JOIST SERIES AND SPACING SHALL BE THE RESPONSIBILITY OF THE MANUFACTURER NOTE: 14" FLOOR TRUSSES @ 24" O.C. MAX. IS AN ACCEPTABLE ALTERNATE FLOOR SYSTEM

INDICATES LOCATIONS OF POTENTIAL TILE FLOOR. - JOIST MANUFACTURER SHALL DESIGN FLOOR SYSTEM FOR ADD'L 10 PSF DEAD LOAD AT THESE

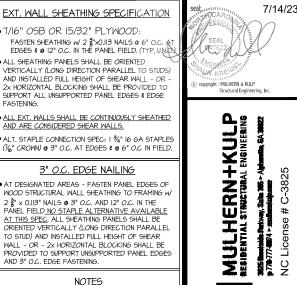
INTERIOR BEARING WALL

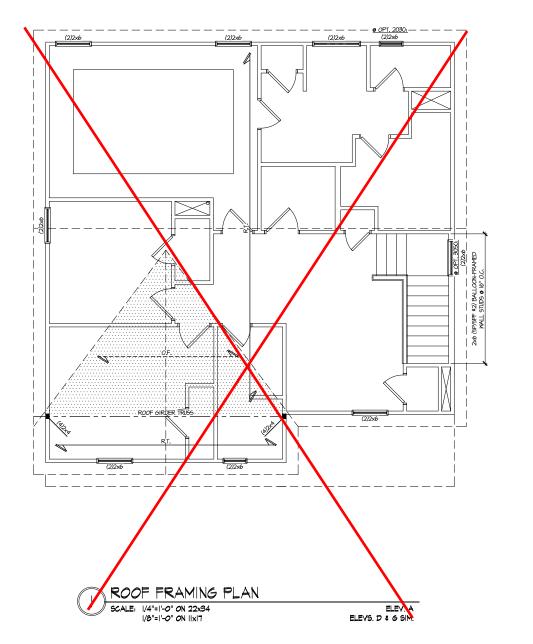
□□□□□ BEARING WALL ABOVE (B.W.A.)

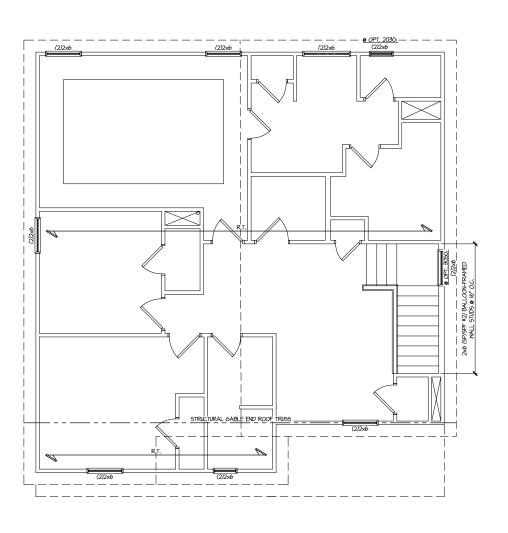
BLOCKING UNDER POST OR JAMB ABOVE.

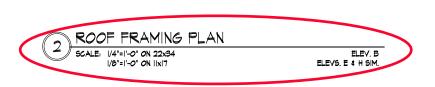
MODEL BENSON

ZONE Ina 120 MPH WIND Z NORTH CAROLII









### **BRIARWOOD** LOT 1A

THIS LEVEL HAS BEEN DESIGNED FOR 9'-I" PLATE HEIGHT

REFER TO SO.0 FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

### LEGEND

RT. INDICATES ROOF TRUSSES © 24" O.C. PER ROOF.
MANUF. (TYP. UNLO.)

OF. INDICATES TRUSS OVERFRAMING ©
24" O.C. (TYP. UNLO.)

F.J. INDICATES I4" DEEP FLOOR I-JOISTS @ 24" O.C.
MAX. JOIST SERIES AND SPACING SHALL BE THE
RESPONSIBILITY OF THE MANUFACTIRER
NOTE: I4" FLOOR TRUSSES @ 24" O.C. MAX. IS AN
ACCEPTABLE ALTERNATE FLOOR SYSTEM

INDICATES LOCATIONS OF POTENTIAL TILE FLOOR.
JOIST MANUFACTURER SHALL DESIGN FLOOR
SYSTEM FOR ADD'L 10 PSF DEAD LOAD AT THESE LOCATIONS.

- INTERIOR BEARING WALL
- □===□ BEARING WALL ABOVE (B.W.A.)
- — BEAM/HEADER
- JL METAL HANGER
- INDICATES POST ABOVE (P.A.) PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.

MUCHERNAL STRUCTURAL ENGINEERING
#ESTERIOR PROPERTY STRUCTURAL ENGINEERING
#TOTAL PROPERTY STRUC

Mulhern+Kulp project number: 256-22019

SMK RAP issue date: 01.13.2023

initial:

SMITH DOUGLAS HOMES

PLAN FRAMING |

BENSON II MODEL 120 MPH WIND ZONE NORTH CAROLINA

ROOF

**S3.0M** 

### SHEATHING SPECIFICATIONS

THIS MODEL HAS BEEN DESIGNED TO RESIST LATERAL FORCES RESULTING FROM: OMPH WIND IN 2018 NCSBC:R

### **& 120MPH WIND IN 2018 IRC**

(120 MPH WIND SPEED IN ASCE 7 WIND MAP, PER IRC R301.2.1.1) EXP. B, RISK CAT. 2 & SEISMIC CAT. A/B.

THE DESIGN WAS COMPLETED PER 2015 \$ 2018 IBC (SECTION 1609) & ASCE 7, AS PERMITTED BY R301.1.3 OF THE 2018 NCSBC:RC & 2018 IRC. ACCORDINGLY THIS MODEL, AS DOCUMENTED AND DETAILED HEREWITHIN, IS ADEQUATE TO RESIST THE CODE REQUIRED LATERAL FORCES.

DESIGN WIND UPLIFT LOADS HAVE BEEN CALCULATED UTILIZING ASCE 7 (ACCEPTED ENGINEERING PRACTICE) AS ALLOWED PER 2018 NCSBC:RC & 2018 IRC SECTION R802.11.1.1. THIS MODEL HAS BEEN DETAILED WHERE REQUIRED & ENGINEERED TO RESIST THE WIND UPLIFT LOAD PATH PER SECTIONS R602.3.5¢ R802.II.

### \_ATERAL/WALL BRACING & WALL

ALL SHEATHING PANELS SHALL BE ORIENTED VERTICALLY (LONG DIRECTION PARALLEL TO STUDS AND INSTALLED FULL HEIGHT OF SHEAR WALL - OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT ALL UNSUPPORTED PANEL EDGES & EDGE

EXT. WALL SHEATHING SPECIFICATION

FASTEN SHEATHING W/ 2 3 XO.113 NAILS @ 6" O.C. A EDGES & @ 12" O.C. IN THE PANEL FIELD. (TYP, U.N.

• ALL EXT. WALLS SHALL BE CONTINUOUSLY SHEATHED AND ARE CONSIDERED SHEAR WALLS.

• ALT. STAPLE CONNECTION SPEC: I  $^3\!\!4"$  I6 GA STAPLES ( $^1\!\!6"$  CROWN) • 3" O.C. AT EDGES & • 6" O.C IN FIELD.

### 3" O.C. EDGE NAILING

AT DESIGNATED AREAS - FASTEN PANEL EDGES OF WOOD STRUCTURAL WALL SHEATHING TO FRAMING W/ 2 3 × 0.113" NAILS @ 3" O.C. AND 12" O.C. IN THE PANEL FIELD NO STAPLE ALTERNATIVE AVAILABLE
AT THIS SPEC. ALL SHEATHING PANELS SHALL BE ORIENTED VERTICALLY (LONG DIRECTION PARALLEL TO STUD) AND INSTALLED FULL HEIGHT OF SHEAR WALL - OR - 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT UNSUPPORTED PANEL EDGES AND 3" O.C. EDGE FASTENING.

### **NOTES**

- SEE CONNECTION SPECIFICATIONS CHART FOR STANDARD SHEAR TRANSFER DETAILING. IF ADDITIONAL CAPACITY IS REQUIRED BY DESIGN, IT WILL BE SPECIFICALLY NOTED ON PLAN.
- DESIGN ASSUMES 16" O.C MAX. STUD SPACING, U.N.O.
- ALL STRUCTURAL PANELS ARE TO BE DIRECTLY APPLIED TO STUD FRAMING.
- PRE-MANUFACTURED PANELIZED WALLS: FASTEN TOGETHER END STUDS OF WALL PANELS SHEATHED W/ OSB OR PLYWOOD W/ 3" x 0.120" NAILS @ 4" O.C. (THRU ONE SIDE ONLY)

INDICATES EXTENT OF INT. OSB
SHEARWALL, AND/OR 3" O.C. EDGE NAILING

**BRIARWOOD** 

THIS LEVEL HAS BEEN DESIGNED FOR 9'-1" PLATE HEIGHT

REFER TO SO.O FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

LOT 1A

LEGEND

R.T. INDICATES ROOF TRUSSES @ 24" O.C. PER ROOF.

INDICATES 14" DEEP FLOOR 1-JOISTS @ 24" O.C.
MAX. JOIST SERIES AND SPACING SHALL BE THE
RESPONSIBILITY OF THE MANUFACTURER

INDICATES POST ABOVE (P.A.) PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.

NOTE: 14" FLOOR TRUSSES @ 24" O.C. MAX. IS AN ACCEPTABLE ALTERNATE FLOOR SYSTEM

INDICATES LOCATIONS OF POTENTIAL TILE FLOOR. JOIST MANUFACTURER SHALL DESIGN FLOOR SYSTEM FOR ADD'L 10 PSF DEAD LOAD AT THESE

MANUF. (TYP. U.N.O.)

LOCATIONS. INTERIOR BEARING WALL • □□□□□ BEARING WALL ABOVE (B.W.A.)

BEAM/HEADER

• JL METAL HANGER

OF. INDICATES TRUSS OVERFRAMING • 24" O.C. (TYP. U.N.O.)

▶ INDICATES HOLDOWN

### Mulhern+Kulp project number: 256-22019 issue date: 01.13.2023 REVISIONS:

MULHERN+KULP RESIDENTIAL STRUCTURAL ENGINEERINS

Stracking Parkway, Suite 186 > Agin 6.77,4874 > methankapaem C. License # C-3825

SMK

RAF

initial:

7/14/23

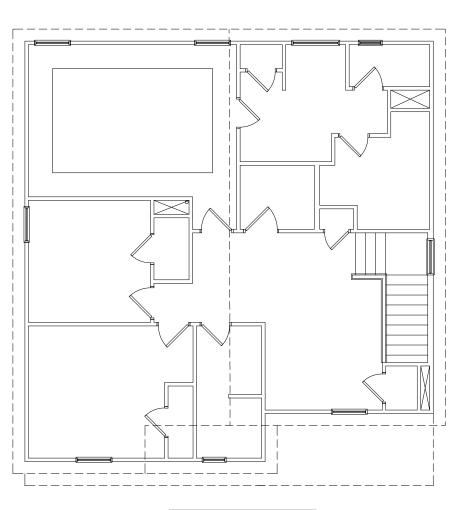
SMITH DOUGLAS HOMES

PLAN

BRACING MODI WALL FLOOR BENSON 2ND

120 MPH WIND ZONE NORTH CAROLINA

**S3.0L** 



2ND FLOOR WALL BRACING PLAN ELEV. B ELEVS. E & H SIM.

NOTE: NO ADD'L SHEARWALL REQUIREMENTS ARE REQUIRED BEYOND THE STANDARD EXTERIOR WALL SHEATHING SPECIFICATION FOR THIS ELEVATION

NO ADD'L SHEARWALL REQUIREMENTS

STANDARD EXTERIOR WALL SHEATHING SPECIFICATION FOR THIS ELEVATION

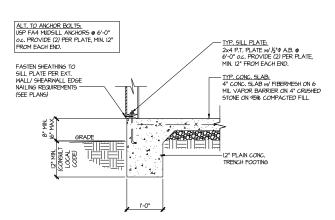
ELEV A ELEVS. D & G SM.

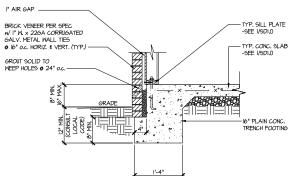
ARE REQUIRED BEYOND THE

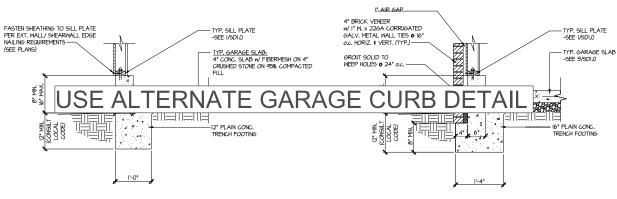
2ND FLOOR WALL BRACING PLAN

SCALE: 1/4"=1'-0" ON 22x34

1/8"=1'-0" ON 11x17







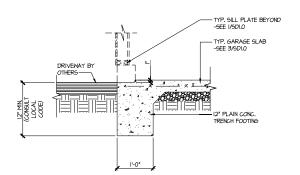
OPT. BRICK (SEE ARCH FOR LOCATIONS)

FASTEN SHEATHING TO-



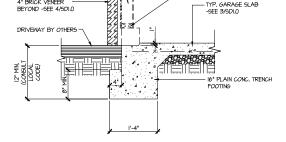


TYPICAL SLAB ON GRADE GARAGE 4 PERIMETER FOOTING w/ BRICK VENEER

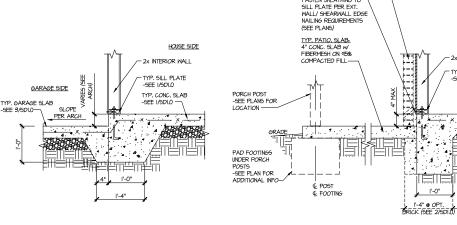


TYPICAL SLAB ON GRADE

PERIMETER FOOTING



-TYP. SILL PLATE BEYOND -SEE I/SDI.0



TYPICAL SLAB ON GRADE GARAGE 5 ENTRY @ PERIMETER FOOTING

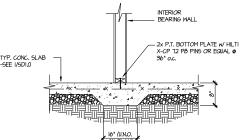




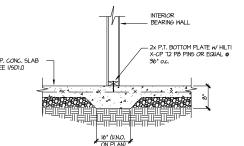
TYPICAL SLAB ON GRADE PERIMETER FOOTING @ PORCH/PATIO

TYP. CONC

SLAB -SEE I/SDI.0



TYPICAL THICKENED SLAB @ 9 INTERIOR BEARING WALL





7/14/23

MULHERN+KULP
RESIDENTIAL STRUCTURAL ENSINEERINS SECSION CONTROL OF STATE OF ST

Mulhern+Kulp project number: 256-22019 SMK

RAP issue date: 01.13.2023

REVISIONS: initial:

SMITH DOUGLAS HOMES

MODEL FOUNDATION DETAILS BENSON

ZONE

120 MPH WIND Z NORTH CAROLII

**SD1.0** 



## MULHERN+KULP RESIDENTIAL STRUCTURAL ENGINEERING

3625 Brookside Parkway, Suite 165, Alpharetta, GA 30022 🔻 p 770-777-0074 🔻 mulhernkulp.com

August 18, 2023

lody Hunt

Director of Product Development

### **SMITH DOUGLAS HOMES**

110 Village Trail, Suite 215 Woodstock, GA 30188

## **ALTERNATE GARAGE CURB DETAIL**

### Smith Douglas Homes

### Reference

Current Structural Plans prepared by Mulhern & Kulp

Jody:

Pursuant to your request, we have prepared this letter to address the "Alternate Garage Curb Details", prepared by Mulhern & Kulp for these are an acceptable alternative to the 6" wide curb at the garage per M&K foundation details 3 & 4 on sheet SD-1.0 at 2x4 garage Smith Douglas Homes shown below. The foundation details shown below call for a 4" wide curb with a maximum of 8" stem wall height; wall locations.

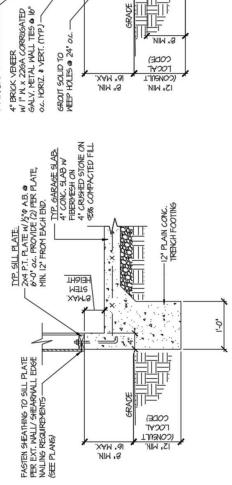
TYP. SILL PLATE.

2x4 P.T. PLATE W/K'O A.B. (B)
6'-O'. OZ. PRZVIDE (2) PER PLATE,
MIN. 12" FROM EACH BND.

8"MAX. STEM HEIGHT

GROUT SOLID TO WEEP HOLES № 24" oz

.XAM "&I



NIM .8

(3002€) | TOCYT | (CONFOITL | IS., WIN

A/ BRICK VENER TYPICAL SLAB ON GRADE GARAGE PERIMETER FOOTING m

Please feel free to call if you have any questions.

TYPICAL SLAB ON GRADE GARAGE PERIMETER FOOTING

**⟨⟨⟨⟨⟨** 

MANDER

Respectfully,

# **MULHERN & KULP STRUCTURAL ENGINEERING, INC.**

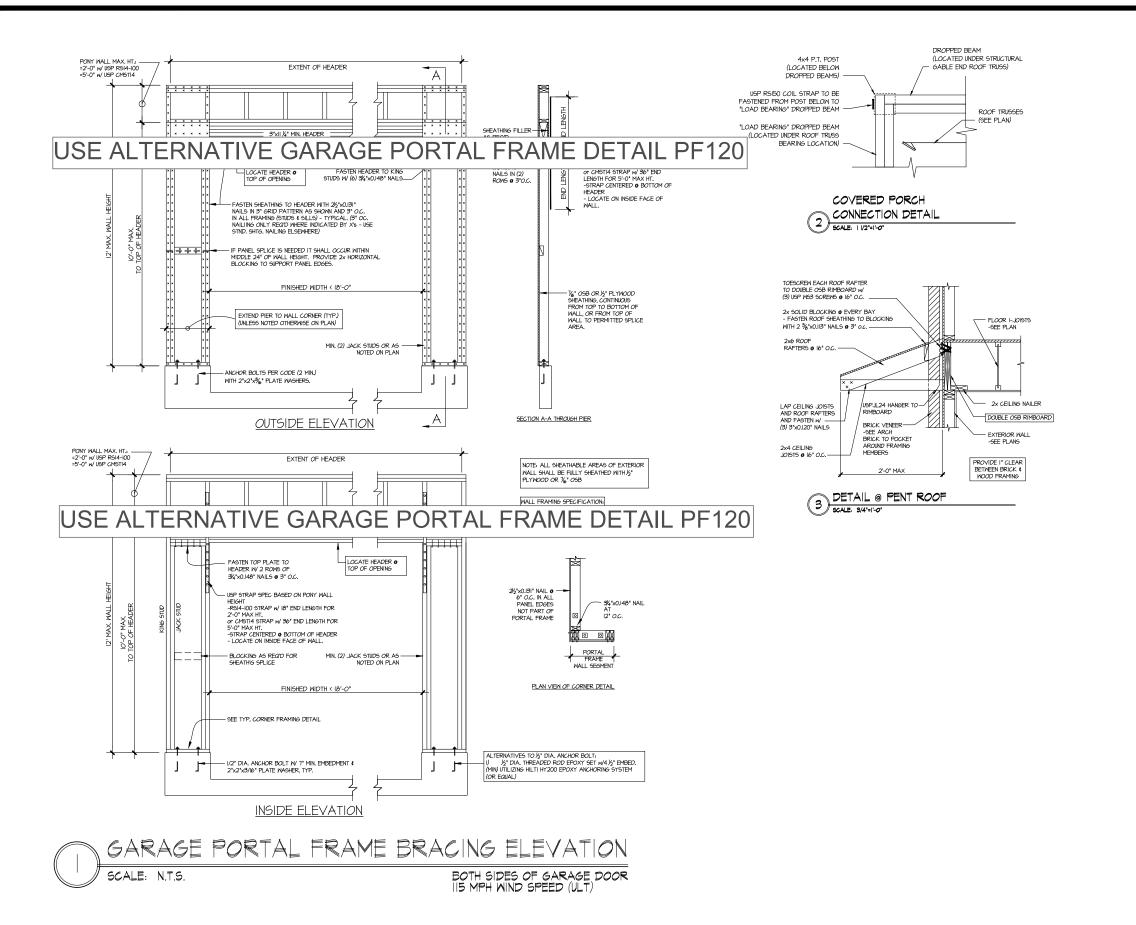
NC License # C-3825

Project Manager + Atlanta Office Director Shaun M. Kreidel, P.E.



P:|Client Files|256 - Smith Douglas Homes|2023|23000 - 2023 Client Admin|2023-08-17 - 4in Garage Curb Letter|Alternate Garage Curb Detail - Letter - NC.docx





MULHERN+KULP RESIDENTIAL STRUCTURAL ENSINEERINS SECTION STRUCTURAL ENSINEERINS PTRITTERS TRUCTURAL ENSINEERINS PTRITTERS TRUCTURAL ENSINEERINS NC LICENSE # C-3825

**Y** 

Mulhern+Kulp project number: 256-22019

project mgr: SMK drawn by: RAP issue date: 01.13.2023

initial:

REVISIONS:

date:

SMITH DOUGLAS HOMES

II MODEL

FRAMING DETAILS

BENSON II M

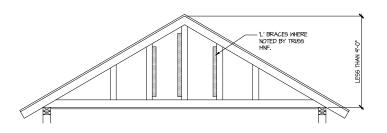
120 MPH WIND ZONE
NORTH CAROLINA

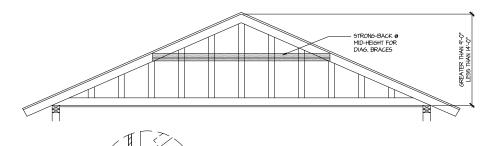
sheet:

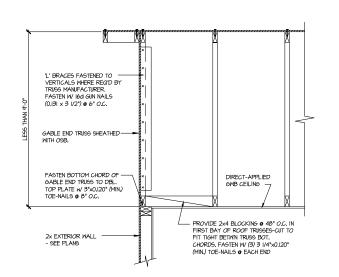
BRIARWOOD

LOT 1A

SD2.0







- 2x4 VERT. - FASTEN W/ (4) 3"x0.120" (MIN.) TO EACH GABLE TRUSS VERTICAL 2x4 HORIZ. - FASTEN W 3 I/4'x0.I20" (MIN.) 6 8" O.C. TO 2x6 VERTICAL 2x4 BLOCKING W (4) 3"x0.120" (MIN.) TOE-NAILS EACH END @ EACH DIAGONAL BRACE -2 3/8"x0.113" NAILS @ 2x6 DIAG, BRACE (w/ 2x4

T-BRACE IF LENGTH EXCEEDS 6),

SPACED • 4-0" O.C., MAX, FASTEN
2x4 TO 2x6 N 9" NO.120" (MIN)

NAILS • 8" O.C.,

YOUR PROPERTY OF THE . 名 A B STRONG-BACK ● MID-HEIGHT A STRONG-BACK ● MID-HEIGHT DIRECT-APPLIED GMB CEILING 7 — PROVIDE 2x4 BLOCKING @ 48" O.C. IN FIRST BAY OF ROOF TRUSSES-CUT TO FIT TIGHT BETWN TRUSS BOT. CHORDS. FASTEN W (4) 3"x0.120" (MIN.) TOE-NAILS @ EACH END 2x EXTERIOR WALL -SEE PLANS FOR SPECIFICATIONS

TYPICAL GABLE END BRACING DETAIL SCALE: NONE REQUIRED TRUSS

BRACE GABLE END TRUSSES PER ABOVE DETAIL WHEN GABLE HEIGHT IS LESS THAN 9-0'. 'L' BRACES REQUIRED WHERE NOTED BY TRUSS MANUFACTURER.

B TYPICAL GABLE END BRACING DETAIL SCALE: NONE REGO @ GABLE END TRUSS REQ'D & GABLE END TRUSS HEIGHT BETW'N 9'-0" TO 14'-0"

LETTERED DETAILS ARE TYPICAL FOR THIS HOME & SHALL BE IMPLEMENTED IN ALL APPLICABLE AREAS. THESE DETAILS ARE NOT "CUT" ON THE PLANS.

NUMBERED DETAILS ARE PLAN SPECIFIC AND ARE ONLY REQUIRED WHERE SPECIFICALLY INDICATED ("CUT") ON THE PLANS.

BRACE GABLE END TRUSSES PER ABOVE DETAIL WHEN GABLE HEIGHT EXCEEDS 9'-0'. 'L' BRACES NOT REQUIRED.

MULHERNHAL STRUCTURAL ENGINEERING
SES ENGINE REVOW, SER SE - Append, SA 2002
9.70-77-50-4 - Embracion Mulhern+Kulp project number: 256-22019 issue date: 01.13.2023 REVISIONS: SMITH DOUGLAS HOMES

7/14/23

SMK

RAP

initial:

MODEL FRAMING DETAILS BENSON II

**SD2.1** 

120 MPH WIND ZONE NORTH CAROLINA

BRIARWOOD LOT 1A



3625 Brookside Parkway, Suite 165, Alpharetta, GA 30022 🔻 p 770-777-0074 🔻 mulhernkulp.com

July 28, 2023

lody Hunt

Director of Product Development

### **SMITH DOUGLAS HOMES**

110 Village Trail, Suite 215 Woodstock, GA 30188

# **ALTERNATE GARAGE PORTAL FRAME DETAIL**

Smith Douglas Homes

**Reference** "Alternate Garage Portal Frame Detail" on sheet PF-120 & PF-130, prepared by Mulhern & Kulp dated 07/28/2023 - attached

Jody:

Pursuant to your request, we have prepared this letter to address the "Alternate Garage Portal Frame Detail", prepared by Mulhern & Kulp for Smith Douglas Homes.

Detail" on sheet "PF-130" is an acceptable alternative portal frame design for anywhere in North Carolina with a wind speed less than The "Atternate Garage Portal Frame Detail" on sheet "PF-120" is an acceptable alternative portal frame design for anywhere in North The "Alternate Garage Portal Frame or equal to 130mph ultimate wind speed per ASCE 7-16. These details only apply to structural plans that have been designed by Mulhern& Kulp. It is the responsibility of "SDH" to provide the correct "Alternate Garage Portal Frame Detail", to the building Carolina with a wind speed less than or equal to 120mph ultimate wind speed per ASCE 7-16. department that matches the jurisdiction's wind speed requirements.

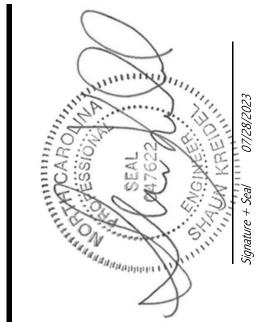
Please feel free to call if you have any questions.

Respectfully,

# **MULHERN & KULP STRUCTURAL ENGINEERING, INC.**

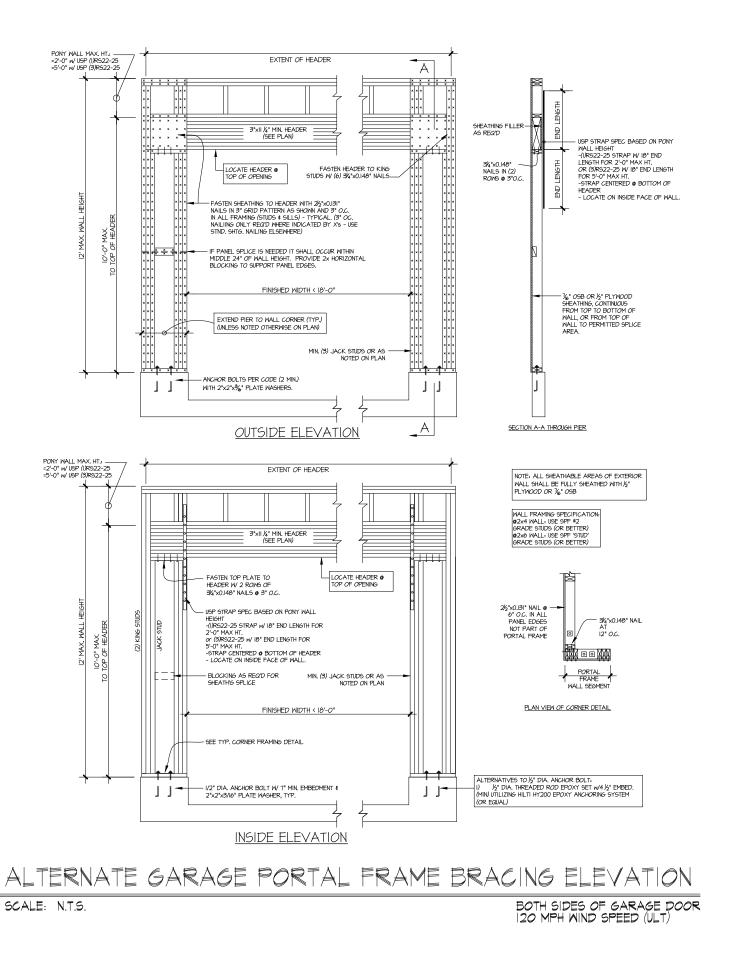
NC License # C-3825

Project Manager + Atlanta Office Director Shaun M. Kreidel, P.E.



P:|Client Files|256 - Smith Douglas Homes|2023|23000 - 2023 Client Admin|2023-07-28 - Alternate Portal Frame Letter|Alternate Garage Portal Frame Detail -Letter - RLH.docx

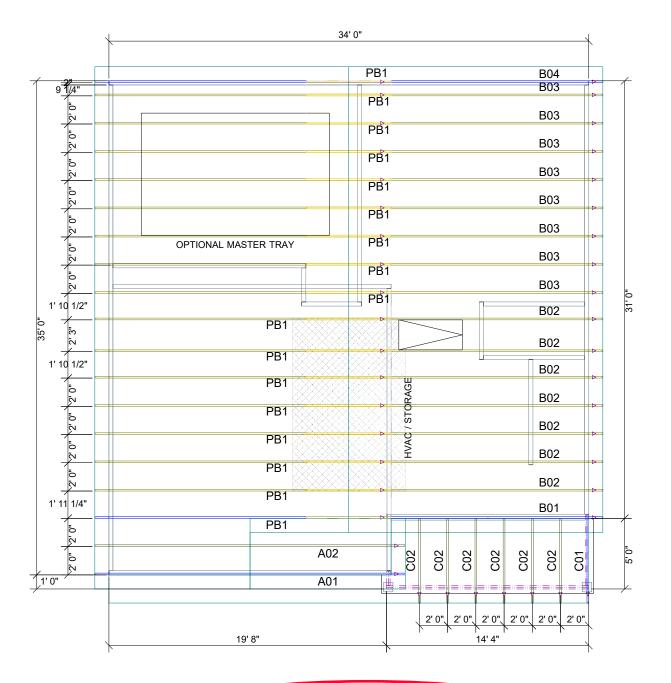


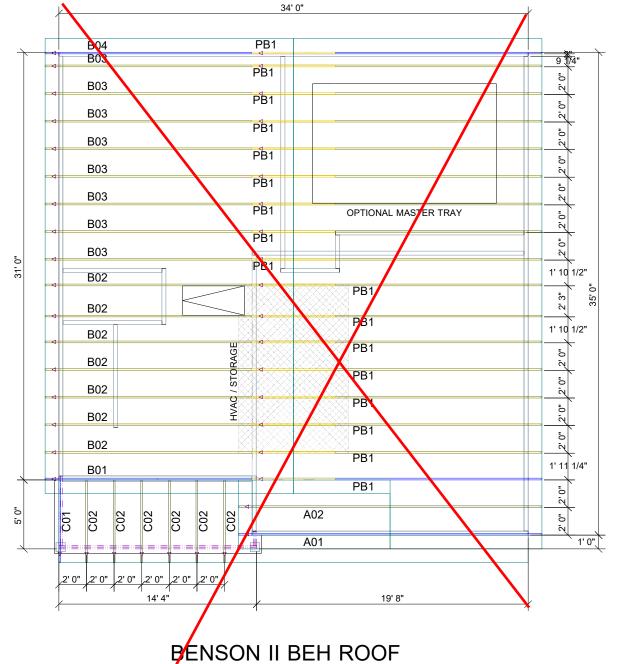


© copyright : MULHERN & KULP Structural Engineering, Inc. MULHERN+KULP RESIDENTIAL STRUCTURAL ENGINEERING STRUCTURAL AND STRUCTURAL ENGINEERING PASSESSERIE - REMAINS AND STRUCTURAL PROPERTY AND STRUCTURAL PARTY AND Mulhern+Kulp project number: 256-23000 SMK RAP issue date: 07.28.2023 REVISIONS: initial: SMITH DOUGLAS HOMES FRAME PORTAL FRAME ALTERNATE PORTAL PF-120

BRIARWOOD LOT 1A

### 72513801 1A BRIARWOOD





BENSON II BEH ROOF

**PLACEMENT PLAN** 

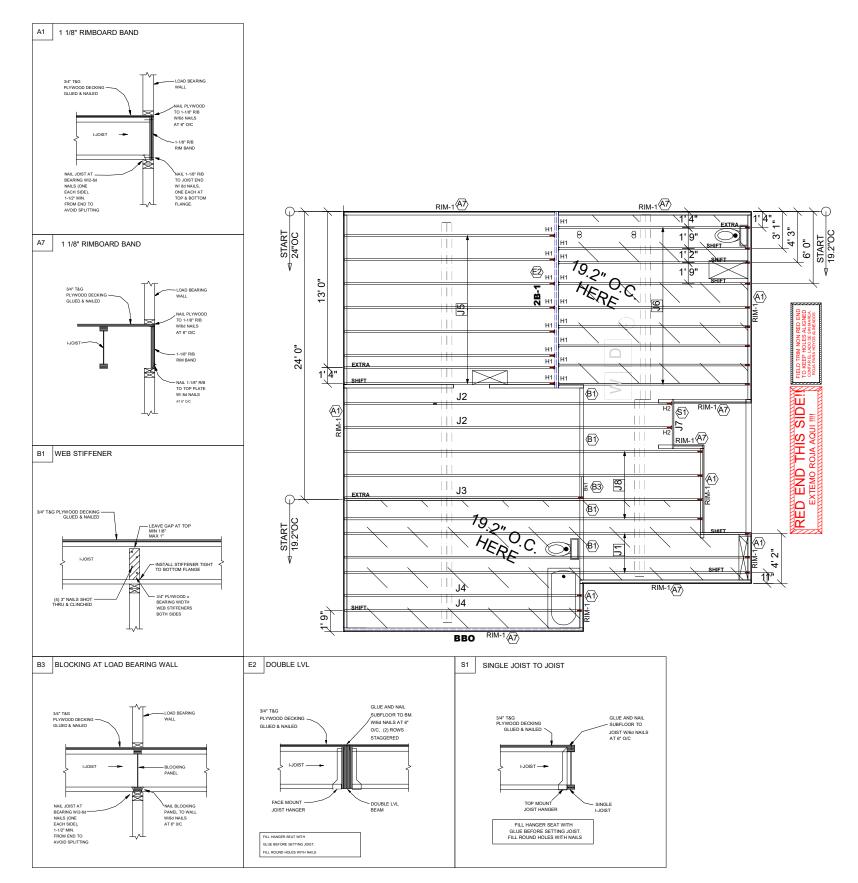
△ INDICATES LEFT END OF TRUSS SCALE: N.T.S

UFP SITE BUILT TRUSSIRAX DOUGLAS -SMITH **R00F** 

II BEH -BENSON

DESIGNER HATHCOCK LAYOUT DATE -04.07.2023 ARCH DATE

JOB #: -MASTER



		Products			
PlotID	Length	Product	Plies	Net Qty	Fab Type
J1	34' 0"	14" TJI® 110	1	3	MFD
J2	28' 0"	14" TJI® 110	1	2	MFD
J3	20' 0"	14" TJI® 110	1	1	MFD
J4	20' 0"	14" TJI® 110	1	2	MFD
J5	18' 0"	14" TJI® 110	1	8	MFD
J6	16' 0"	14" TJI® 110	1	9	MFD
J7	5' 0"	14" TJI® 110	1	1	MFD
J8	30' 0"	14" TJI® 210	1	4	MFD
2B-1	15' 0"	1 3/4" x 14" 2.0E Microllam® LVL	2	2	MFD
RIM-1	16' 0"	1 1/8" x 14" TJ® Rim Board	1	9	MFD
Bk1	2' 0"	14" TJI® 110	1	1	MFD

Connector Summary			
PlotID	Qty	Manuf	Product
H1	17	MiTek	IHFL1714
H2	2	MiTek	TFL1714

### **GENERAL NOTES:**

1.) TOP CHORD OF JOISTS ARE PAINTED RED AT NUMBERED END. PLACE PAINTED END AS

NOTED ON PLAN.

2.) FOLLOW SPECIAL SPACING AND LOCATION DIMENSIONS FOR EXTRAS OR SHIFTED JOISTS

AS SHOWN ON PLAN.
3.) ALL INTERIOR WALL PLATES MUST BE LEVEL WITH OUTSIDE WALL TOP PLATES.

WITH OUTSIDE WALL TOP TATES.

4.) DO NOT STACK CONSTRUCTION LOADS ON UN-BRACED JOISTS.

5.) PROVIDE SOLID SUPPORT BELOW ALL BEAM AND HEADER BEARING POINTS IN WALL AND JOIST SPACES CONTINUOUS DOWN TO THE FOUNDATION.

6.) LOCATE CRIPPLE STUDS IN JOIST SPACE DIRECTLY BELOW HEADER JACKS AT ALL FIRST FLOOR EXTERIOR DOOR LOCATIONS.

7.) INSTALL NAILS IN ALL HOLES PROVIDED IN JOIST HANGERS EXCEPT AT BOTTOM CHORD SEAT. PLACE A DAB OF GLUE IN THE HANGER SEAT BEFORE SETTING JOISTS.

8.) IMPORTANT NOTE! NO STRUCTURAL ANALYSIS OF CONVENTIONAL HEADERS HAS BEEN CONDUCTED IF NOT NOTED. THEY ARE CONSIDERED TO BE ADEQUATE TO SUPPORT THE APPLIED LOADS.

### FRAMER NOTE

\_ DENOTES DUCT HOLE RUNS

### FRAMER NOTE

. GLUE AND NAIL PLYWOOD HANGER. FILL ROUND HOLES WITH

### CRITICAL !!

IN FLOOR TRUSS SPACE **BELOW ALL EXTERIOR DOOR** HEADER JACKS. CUT 1/16" TALLER THAN TRUSS.

### PLAN LEGEND

\*INDICATES BEAM ABOVE TOP PLATE (FLUSH WITH FLOOR SYSTEM) 1B-, 2B-

H-, 1H-, GDH- INDICATES BEAM BELOW TOP PLATE (DROPPED BELOW FLOOR SYSTEM)

\*BEAMS MAY PROTRUDE ABOVE OR BELOW DECKING OR TOP PLATE RESPECTIVELY, REFER TO DETAIL IF BEAM IS A DIFFERENT DEPTH THAN FLOOR SYSTEM

SINGLE PLY BEAM (ADD LINE FOR EACH ADDITIONAL PLY)

PLUMBING, ALIGN W/WALL OR SUPPORT FURNITURE

A JOIST ADDED TO THE LAYOUT IN ADDITION TO THE ON CENTER JOISTS

DOUBLE

ALL DIMENSIONS TO CENTERLINE UNLESS OTHERWISE NOTED

• Avoid Plumbing Drops

SUBFLOOR TO BEAMS AND GIRDERS AT 6" O/C WHERE NO WALL IS ABOVE. 2. FILL HANGER SEAT WITH GLUE BEFORE SETTING JOIST IN

**INSTALL 2X4 SQUASH BLOCKS** 

### FIELD TRIM NON RED END TO KEEP HOLES ALIGNED CONTAR EL LADO DE SIN MARCA **ROJA PARA HOYOS ALINEADOS**

\_\_\_\_\_ **FIELD LOCATE PLUMBING DROPS/CAN LIGHTS, ETC... PRIOR** 

**TO JOIST SECUREMENT TO** AVOID INTERFERENCE.

### LAYOUT FOR 19.2" O/C

1= 19-3/16"	9= 172-13/16"
2= 38-3/8"	10= 192"
3=57-5/8"	11= 211-3/16"
4= 76-13/16"	12= 230-3/8"
5= 96"	13= 249-13/16"
6= 115-3/16"	14= 268-13/16"
7= 134-3/8"	15= 288"
8= 153-5/8"	

FIELD VERIFY DIMENSIONS TO **JOISTS LOCATED UNDER WALLS!!** 

2ND FLOOR LAYOUT

SCALE: 1/8"=1'

BUILT الله الله S | S



UFP

Lot 1A Briarwood Bluff

**Smith Douglas Homes** 

Benson B II 2nd Floor

Sanford, NC 27332

DESIGNER PB2 LAYOUT DATE 5/12/2025 **ARCH DATE** 9/1/2022 STRUC DATE 7/14/2023

JOB #: 25050865f2