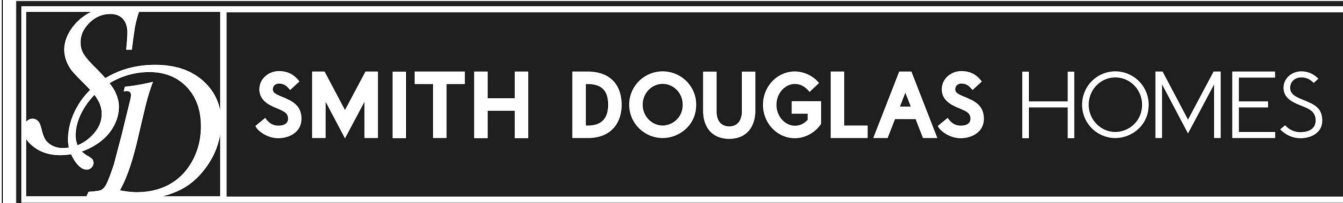


# BENSON II

HARRINGTON PLACE  
LOT 3

PLAN ID 110122.0101



QUALITY | INTEGRITY | VALUE

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 PAD	9

## 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

## GOVERNMENTAL CODES & STANDARDS

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

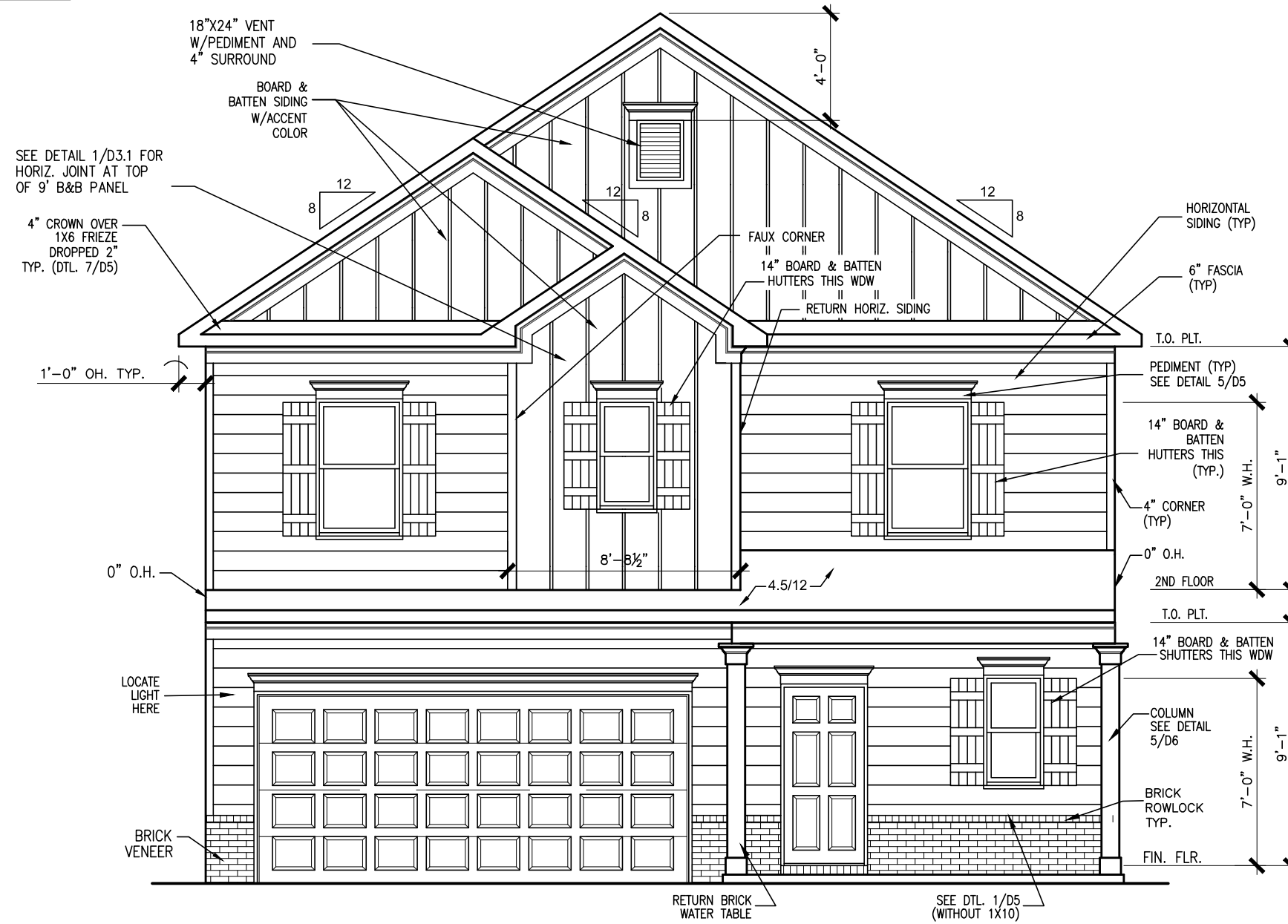
## BUILDING CODE ANALYSIS / DESIGN CRITERIA

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

ALL NON-MASONRY RETURNS TO BE HORIZONTAL SIDING

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

# HARRINGTON PLACE LOT 3



FRONT ELEVATION "B"

SCALE: 3/16"=1'-0"

BY	REVISION	DATE
#	#	#
#	#	#
#	#	#
#	#	#
#	#	#



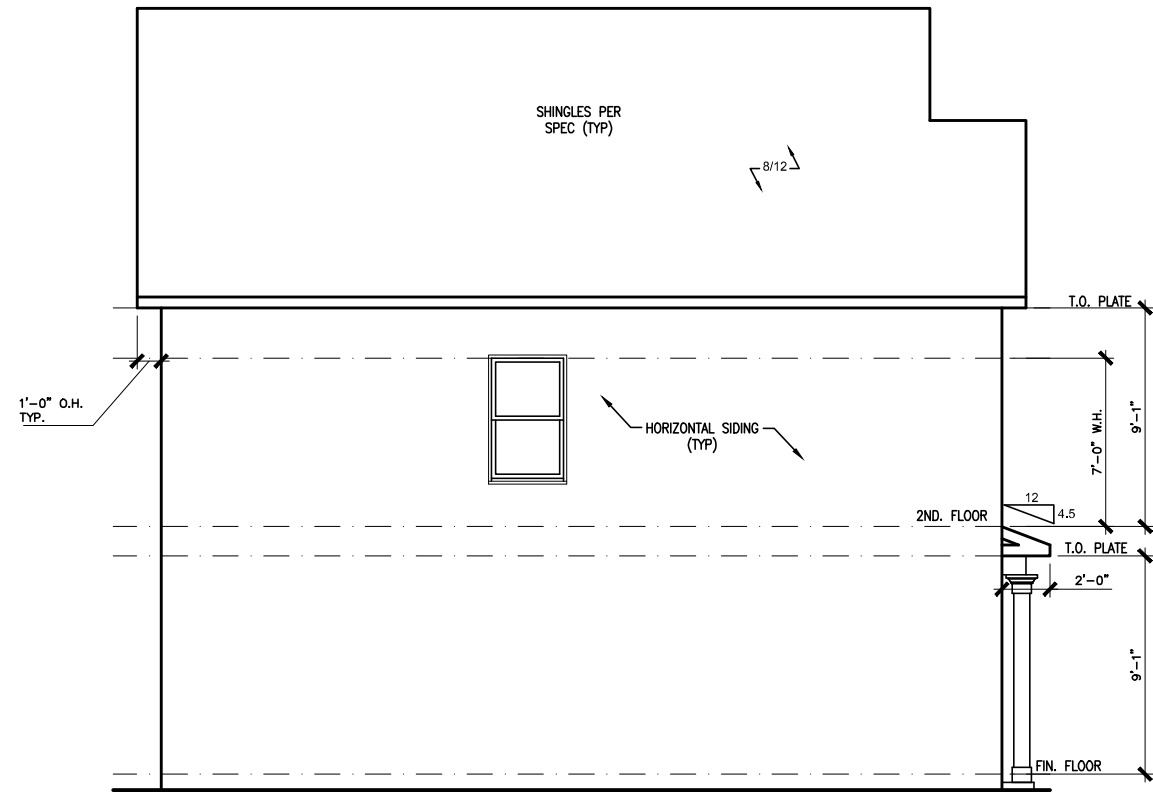
ELEVATIONS  
FRONT ELEVATION  
BENSON II

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SUITE 115  
WOODSTOCK, GA 30188  
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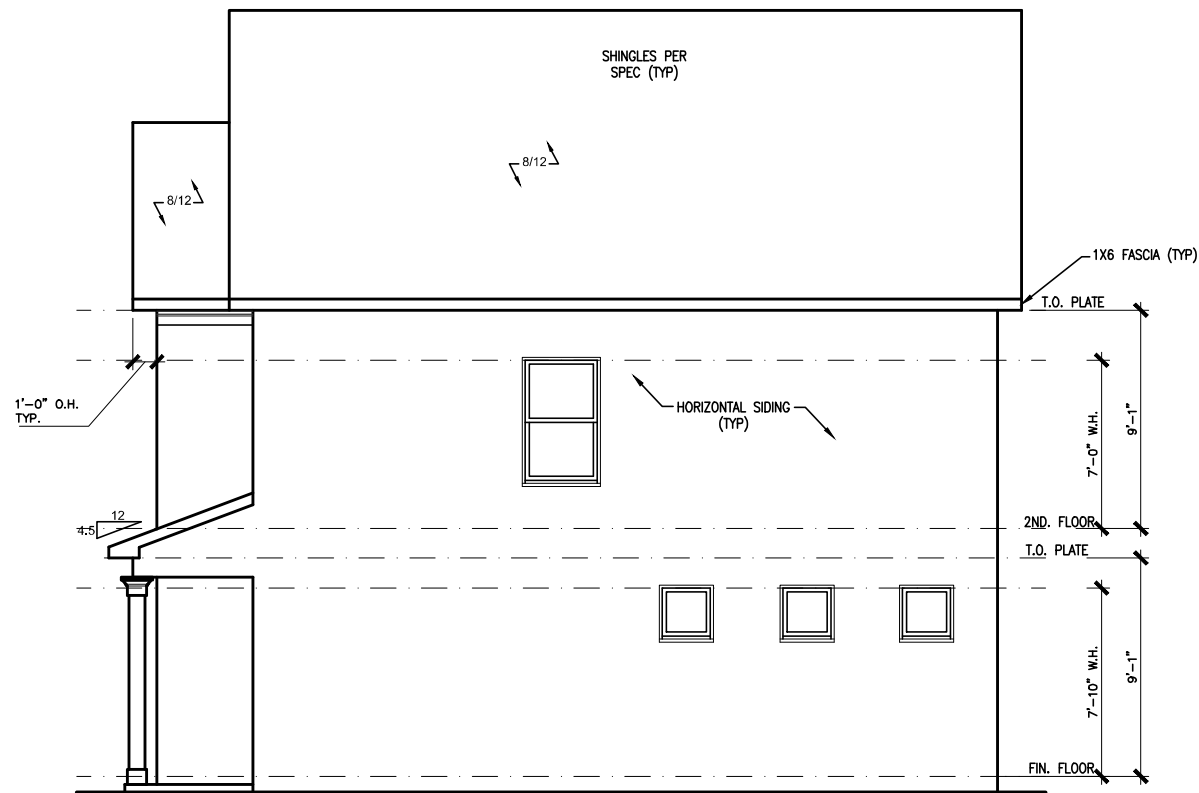
BY: SL	CH: AW
DATE: 8/28/2023	
FACADE OPT: B	
PLAN ID:	
FND: ALL	ELEV: B
PAGE NO: A1.1	

# HARRINGTON PLACE LOT 3



LEFT ELEVATION "B"

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



RIGHT ELEVATION "B"

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



REAR ELEVATION "B"

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

BY	REVISION	DATE

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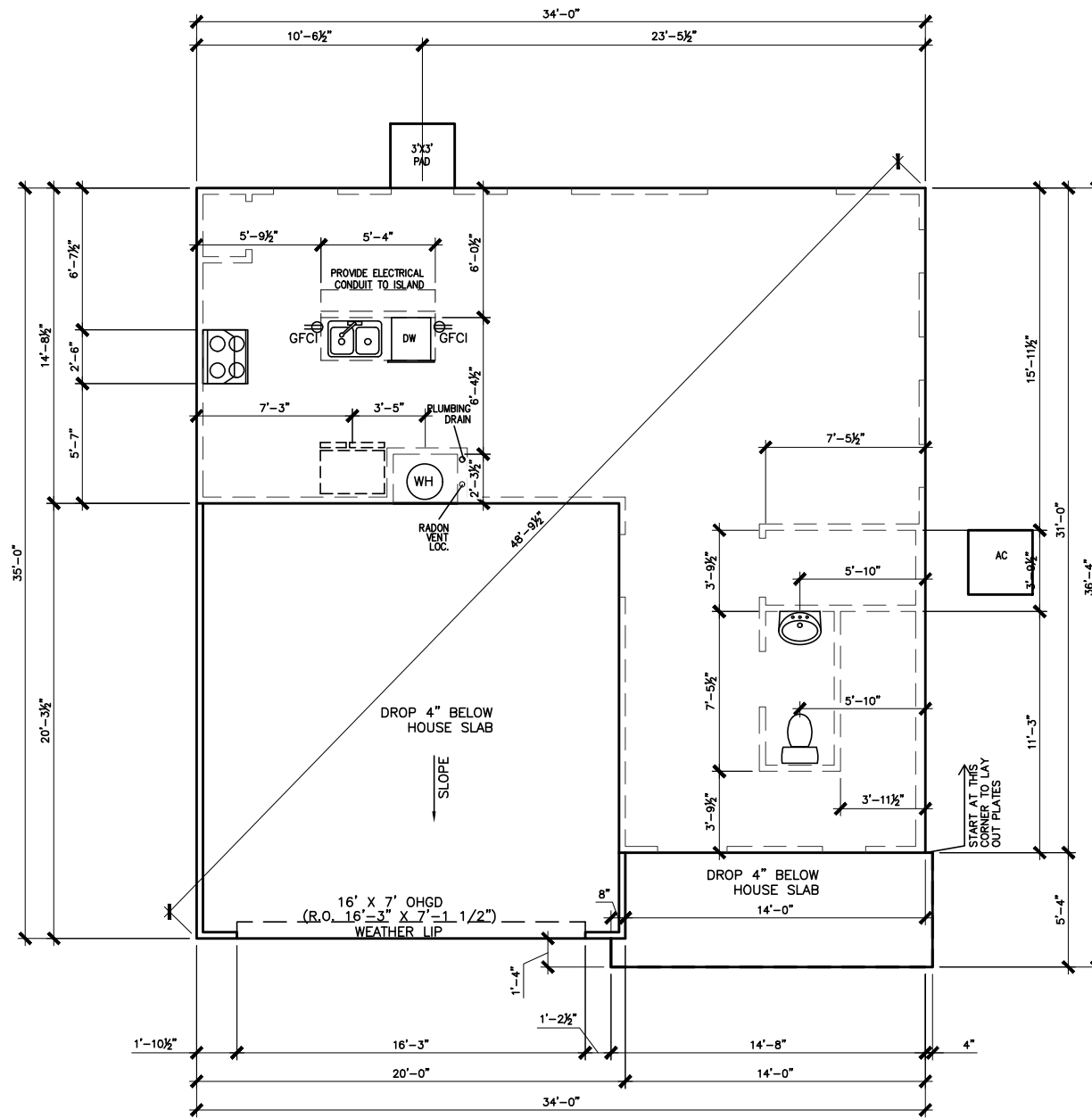
ELEVATIONS  
SIDES AND REAR  
BENSON II

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PLAN ID:	
PKD: ALL	ELEV: B
PAGE NO: A2.1	

# HARRINGTON PLACE LOT 3



SLAB PLAN

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

\*RADON VENT PROVIDED PER LOCAL CODE

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

DATE	REVISION	BY
#	#	#
#	#	#
#	#	#
#	#	#
#	#	#



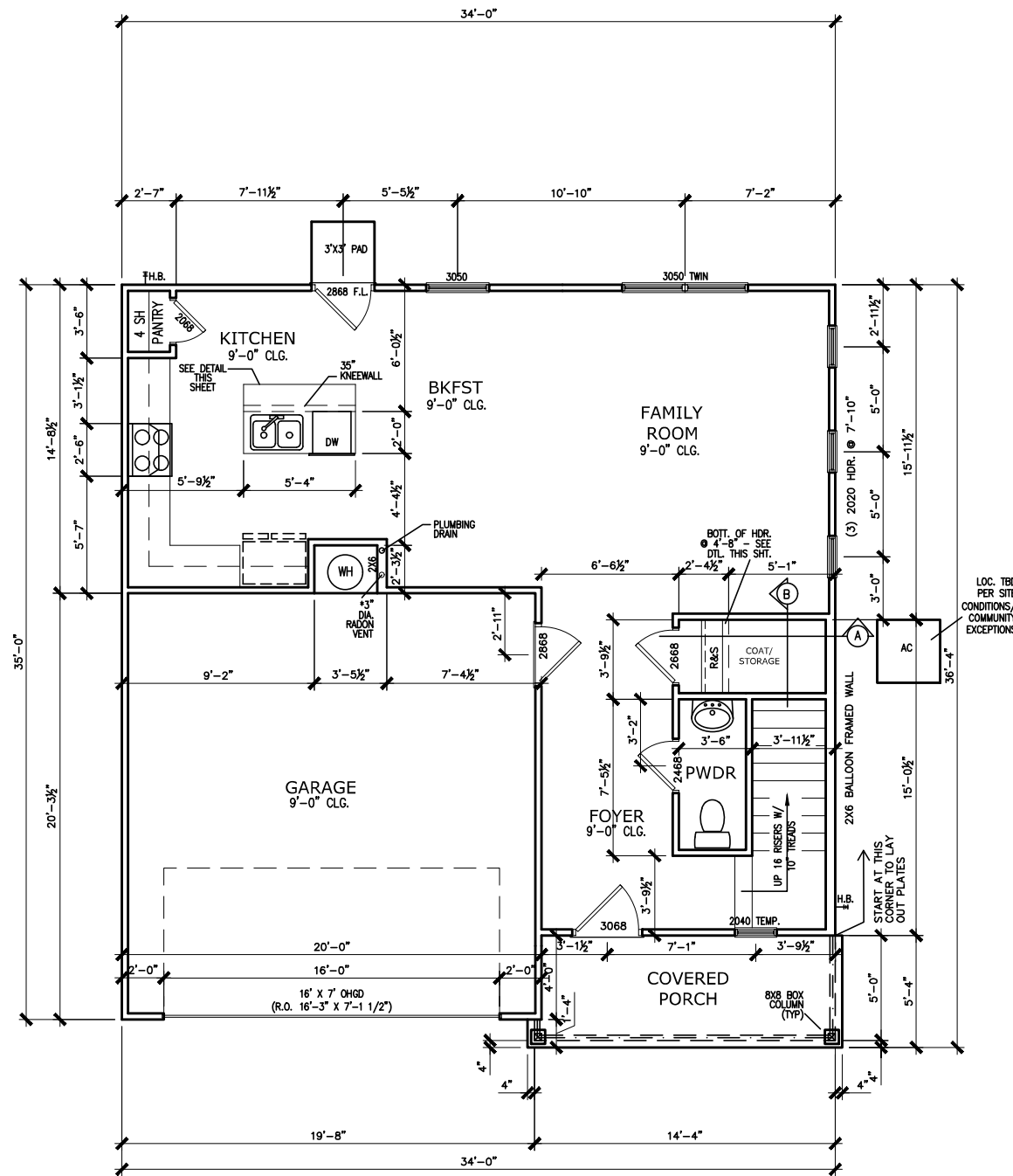
FOUNDATION PLAN  
SLAB PLAN  
BENSON II

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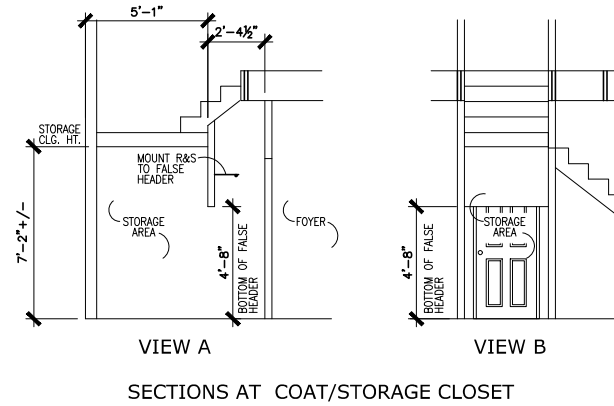
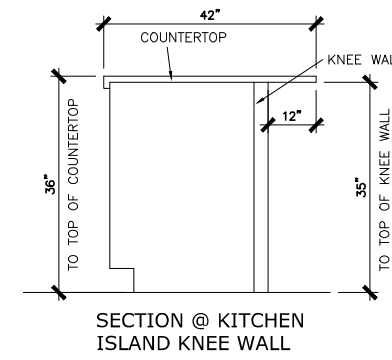
BY: SL	CH: AW
DATE: 8/28/2023	
FACADE OPT: B	
PLAN ID:	
FND: ALL	ELEV: B
PAGE NO: A3.1	

# HARRINGTON PLACE LOT 3



FIRST FLOOR PLAN

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



\*RADON VENT PROVIDED  
PER LOCAL CODE

DATE	REVISION	BY



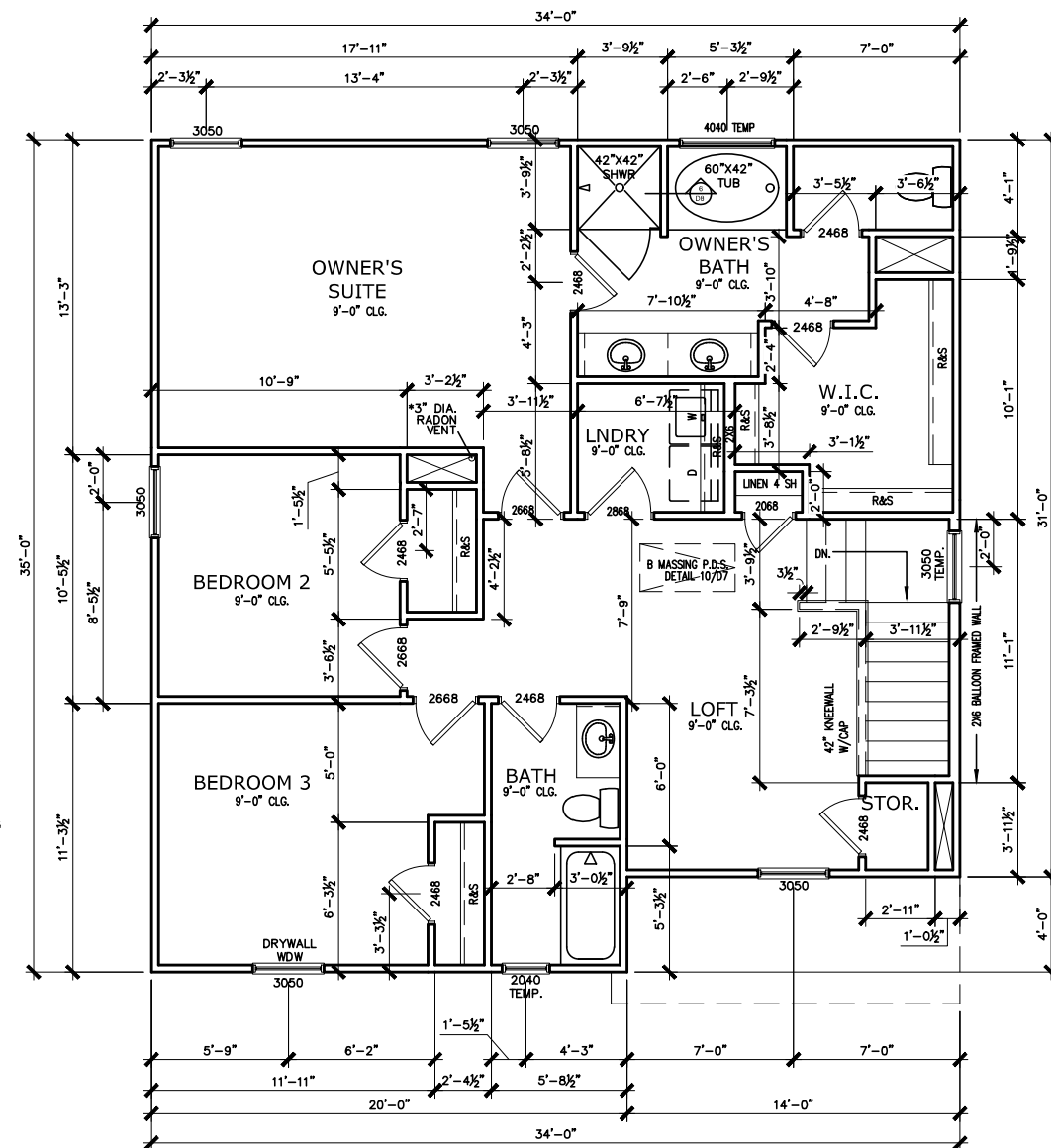
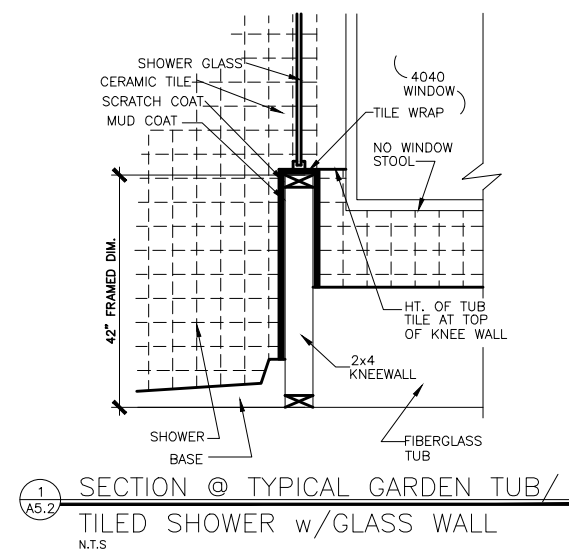
FLOOR PLAN  
FIRST FLOOR  
BENSON II

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FND: ALL	ELEV: B
PAGE NO: A5.1	

# HARRINGTON PLACE LOT 3



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

BY	#	DATE	REVISION	#



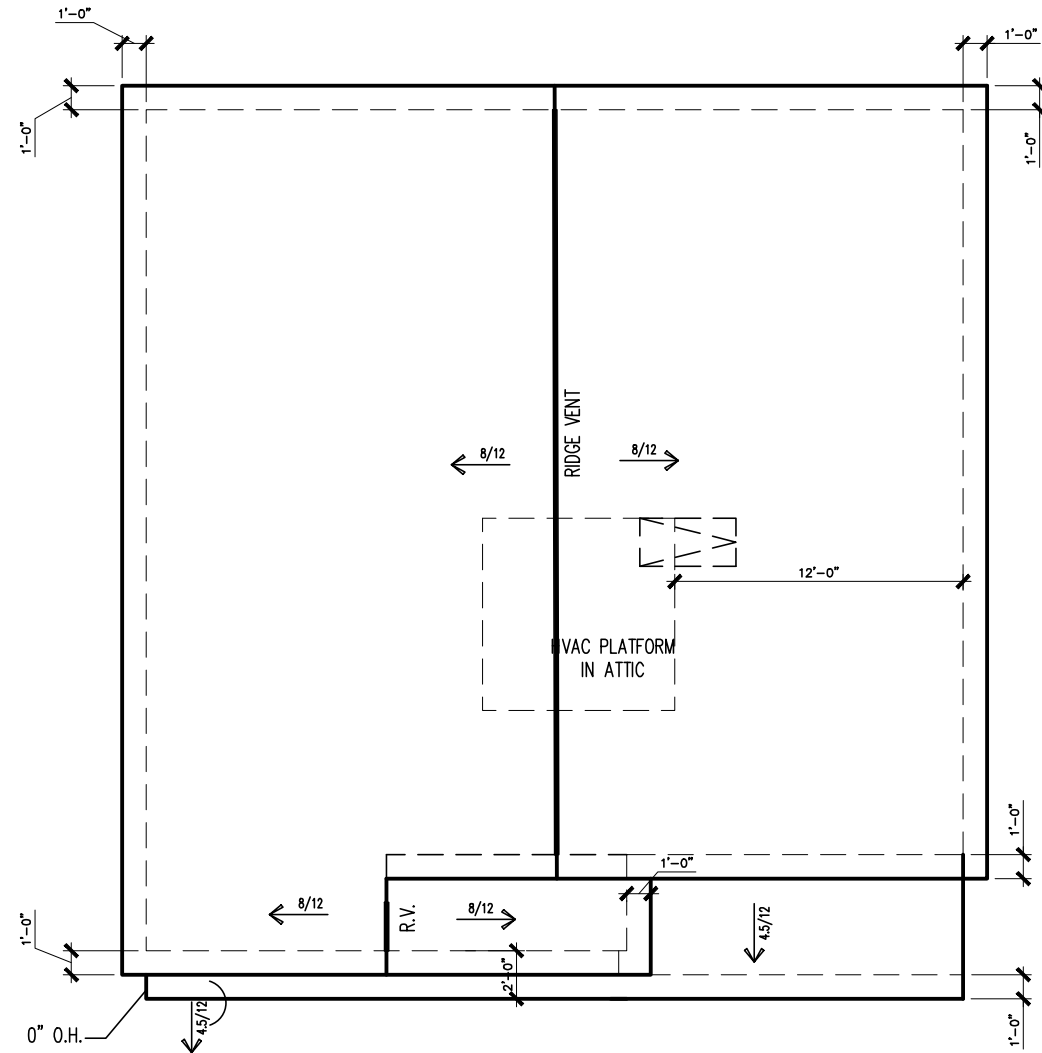
FLOOR PLAN  
SECOND FLOOR  
BENSON II

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PLAN ID:	
FND: ALL	ELEV: B
PAGE NO: A5.2	

# HARRINGTON PLACE LOT 3



ROOF LAYOUT "B"  
SCALE : 1/8" = 1'-0"

DATE	REVISION	BY
#	#	#
#	#	#
#	#	#
#	#	#
#	#	#



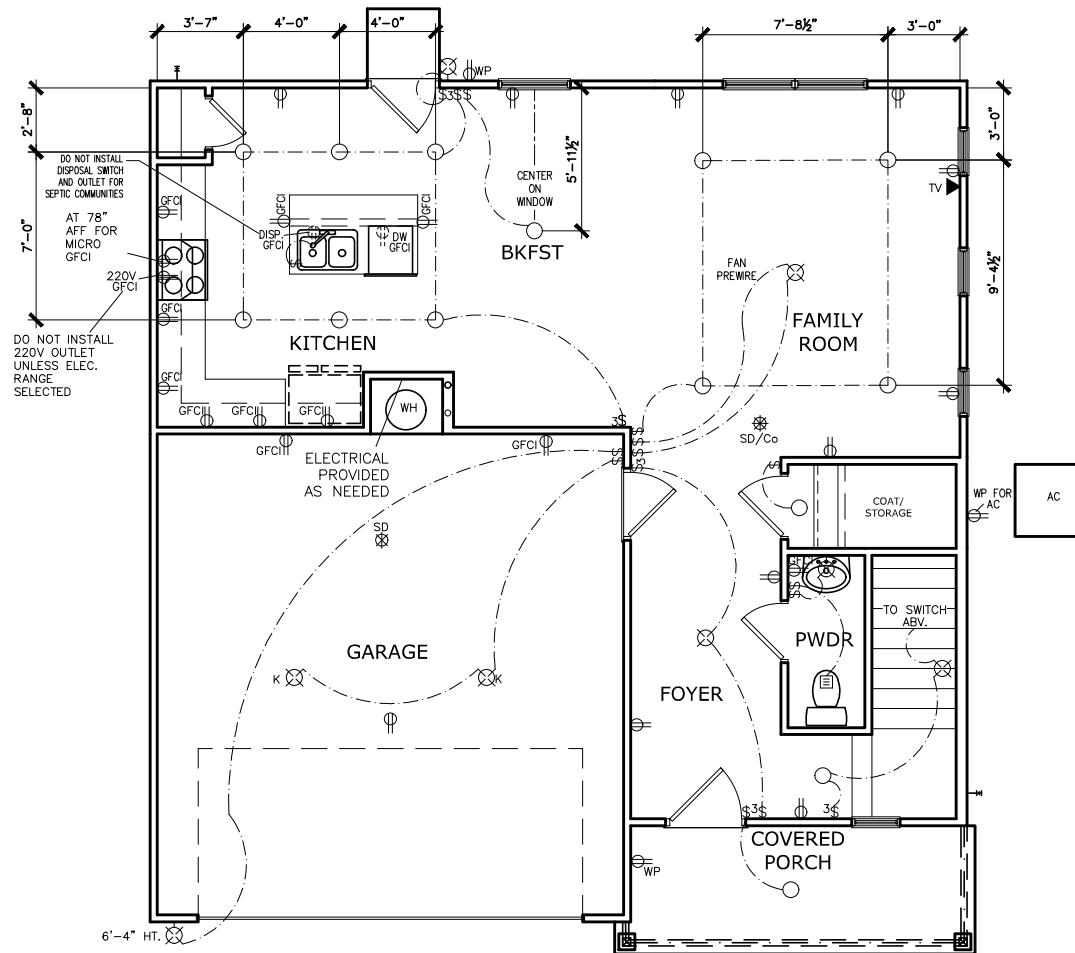
ROOF PLAN  
ROOF PLAN  
BENSON II

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FND: ALL	ELEV: B
PAGE NO: A6.1	

# HARRINGTON PLACE LOT 3



FIRST FLOOR ELECTRICAL PLAN

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

ELECTRICAL LEGEND			
\$	SWITCH	TV	TV
\$3	3 WAY SWITCH	⊕	120V RECEPTACLE
\$4	4 WAY SWITCH	⊕	120V SWITCHED RECEPTACLE
⊗	CEILING FIXTURE	⊕	220V RECEPTACLE
⊕	KEYLESS	⊕	GFCI OUTLET
⊗	WALL MOUNT FIXTURE	⊕	ARCH FAULT CIRCUIT INTERRUPTER
⊕	CEILING FIXTURE	†	GAS LINE
⊕	FLEX CONDUIT	†	WATER LINE
CH	CHIMES	⊕	HOSE BIBB
PH	TELEPHONE	⊕	FLOOD LIGHT
SD/Co	SMOKE DETECTOR & CARBON MONOXIDE	⊕	1x4 LUMINOUS FIXTURE
SO	SECURITY OUTLET	⊕	CEILING FAN
□	GARAGE DOOR OPENER	⊕	ELECTRICAL WIRING
⊕	EXHAUST FAN	⊕	CEILING FIXTURE
⊕	FAN/LIGHT		
ELECTRICAL PLANS TO FOLLOW ALL LOCAL CODES			
APPROX. FIXTURE HGTS (MEASURED FROM BOTTOM OF FIXTURE)			
BREAKFAST/DINING ROOM	63" ABOVE FINISHED FLOOR		
KITCHEN PENDANT LIGHTS	33" ABOVE COUNTER TOP		
TWO STORY FOYER FIXTURE	96" ABOVE FINISHED FLOOR		
CEILING FAN	96" ABOVE FINISHED FLOOR		

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

DATE	REVISION	BY	#



ELECTRICAL PLAN  
FIRST FLOOR  
BENSON II

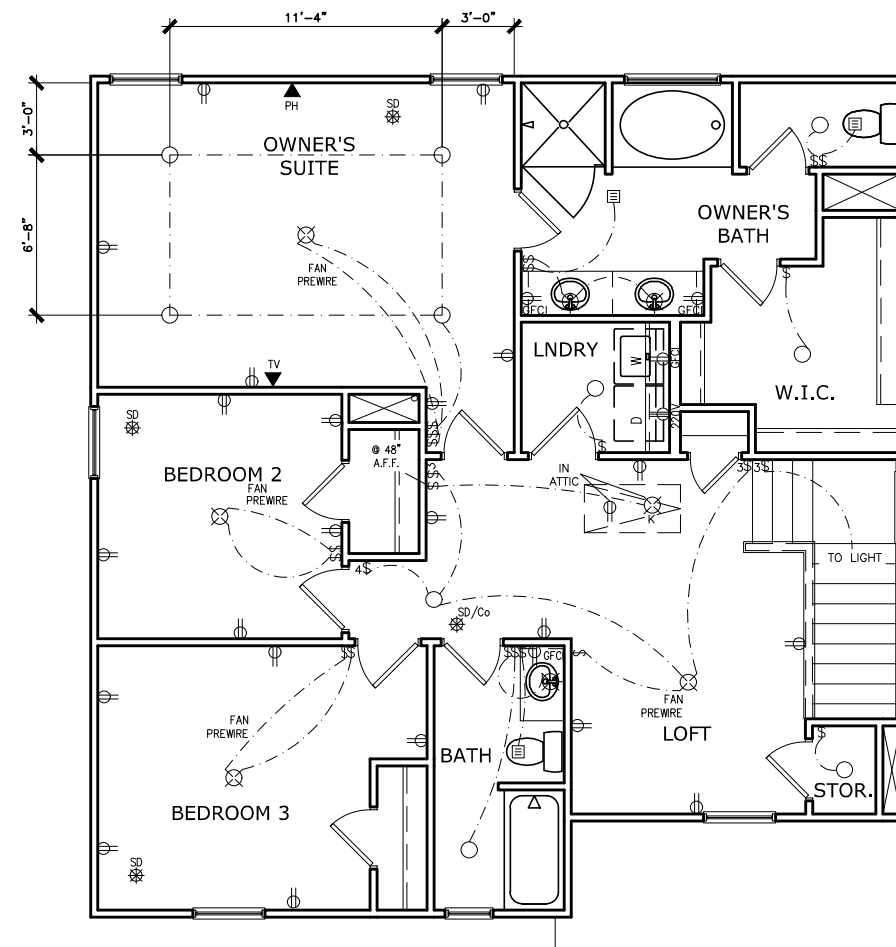
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PLAN ID:	
FND: ALL	BLV: B
PAGE NO: A7.2	



# HARRINGTON PLACE LOT 3



SECOND FLOOR ELECTRICAL PLAN

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

ELECTRICAL LEGEND			
§	SWITCH	TV	TV
§3	3 WAY SWITCH	⊕	120V RECEPTACLE
§4	4 WAY SWITCH	⊕	120V SWITCHED RECEPTACLE
⊗	CEILING FIXTURE	⊕	220V RECEPTACLE
⊕	KEYLESS	⊕	GFCI OUTLET
⊕	WALL MOUNT FIXTURE	⊕	ARCH FAULT CIRCUIT INTERRUPTER
○	CEILING FIXTURE	†	GAS LINE
●	FLEX CONDUIT	†	WATER LINE
CH	CHIMES	⊥	HOSE BIBB
PH	TELEPHONE	⊕	FLOOD LIGHT
SD/Co	SMOKE DETECTOR & CARBON MONOXIDE	⊕	1x4 LUMINOUS FIXTURE
SO	SECURITY OUTLET	⊕	CEILING FAN
□	GARAGE DOOR OPENER	—	ELECTRICAL WIRING
⊕	EXHAUST FAN	⊕	CEILING FIXTURE
⊕	FAN/LIGHT		
ELECTRICAL PLANS TO FOLLOW ALL LOCAL CODES			
APPROX. FIXTURE HGTS (MEASURED FROM BOTTOM OF FIXTURE)			
BREAKFAST/DINING ROOM	63" ABOVE FINISHED FLOOR		
KITCHEN PENDANT LIGHTS	33" ABOVE COUNTER TOP		
TWO STORY FOYER FIXTURE	96" ABOVE FINISHED FLOOR		
CEILING FAN	96" ABOVE FINISHED FLOOR		

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

DATE	REVISION	BY
#	#	#
#	#	#
#	#	#
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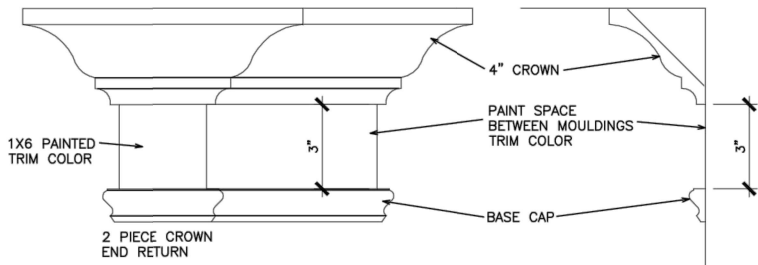
ELECTRICAL PLAN  
SECOND FLOOR  
BENSON II

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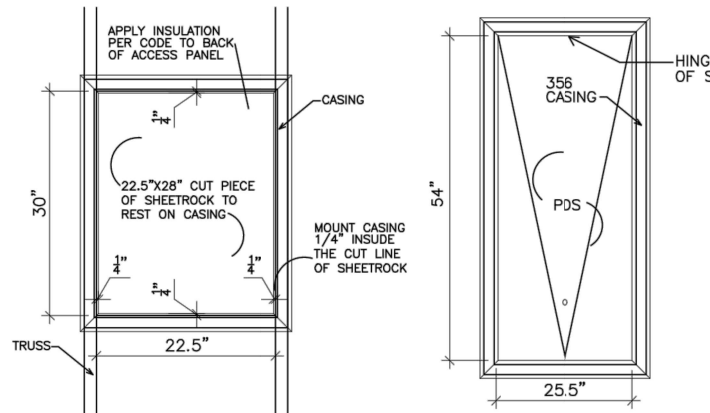
BY: SL	CH: AW
DATE: 8/28/2023	
FACADE OPT: B	
PLAN ID:	
FND: ALL	ELEV: B
PAGE NO: A7.3	

REFER TO LOT SPECIFIC PLAN TO DETERMINE WHICH DETAILS APPLY



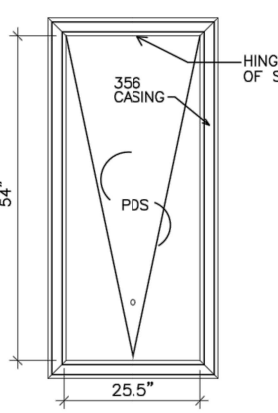
TYPICAL TWO PIECE CROWN

N.T.S.



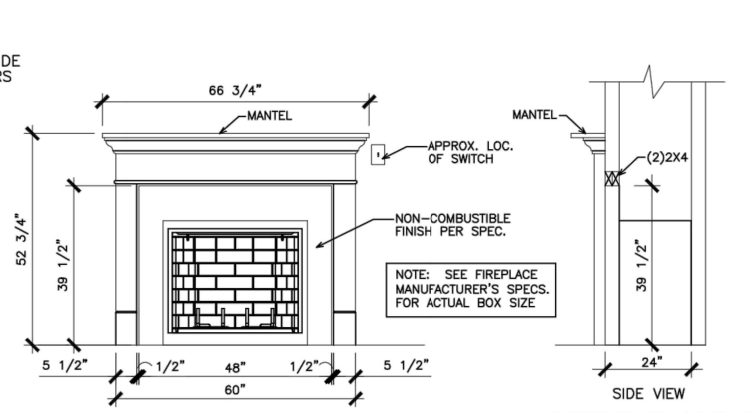
SCUTTLE HOLE DETAIL

N.T.S.



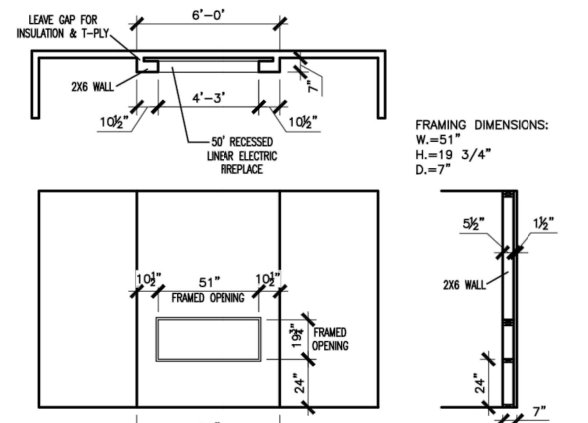
PDS TRIM DETAIL

N.T.S.



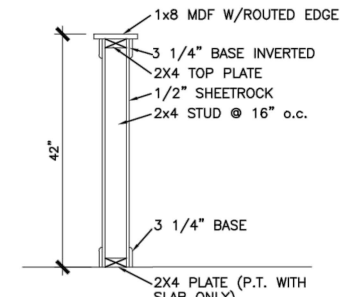
GAS/ELECTRIC FIREPLACE DETAIL WITH WESCOTT WOOD MANTEL

N.T.S.



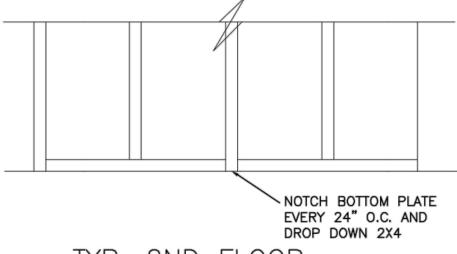
LINEAR ELECTRIC FIREPLACE DETAIL

N.T.S.



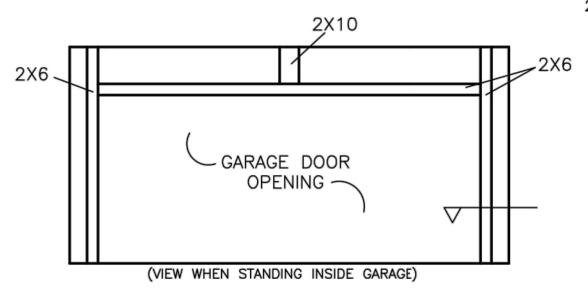
TYP. KNEEWALL SECTION

N.T.S.



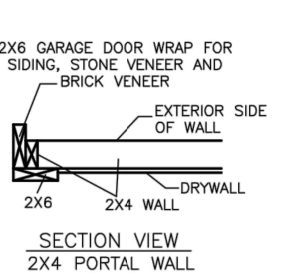
TYP. 2ND FLOOR KNEE WALL STABILITY

N.T.S.

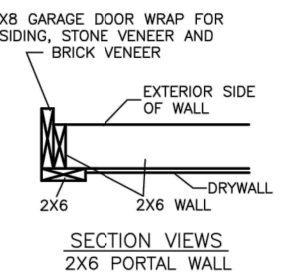


TYP. INTERIOR GARAGE "GOAL POST"

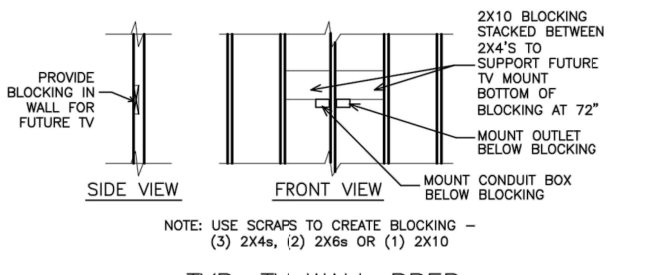
N.T.S.



SECTION VIEW 2X4 PORTAL WALL

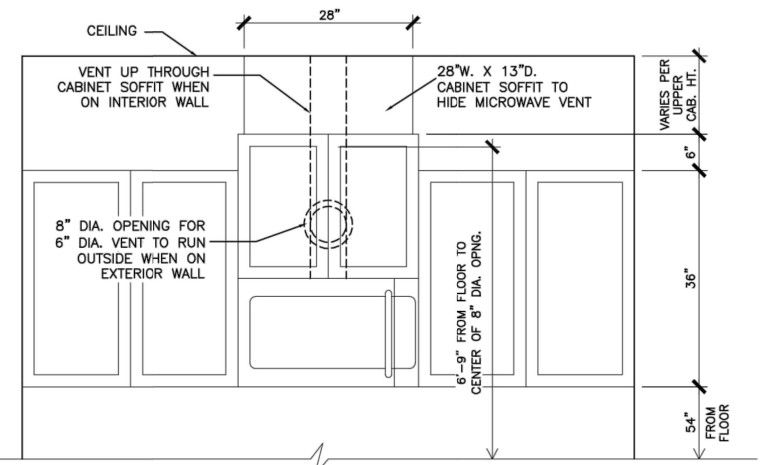


SECTION VIEWS 2X6 PORTAL WALL



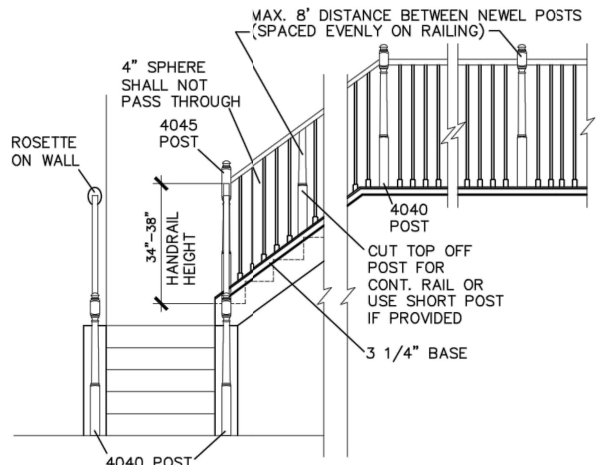
TYP. TV WALL PREP

N.T.S.



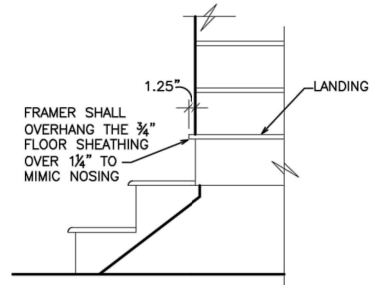
CABINET SOFFIT DETAIL ABOVE VENTED MICROWAVE W/CABINET ABOVE RANGE BUMPED UP & OUT

N.T.S.



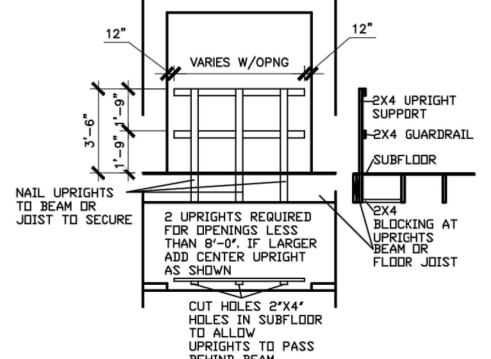
HANDRAIL/POST DETAIL @ STAIRS

N.T.S.



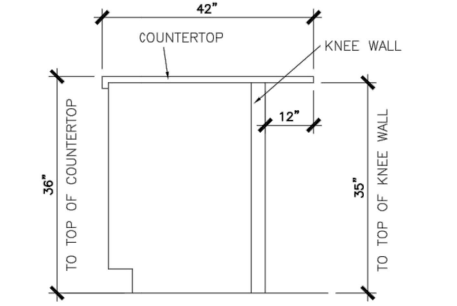
BOX STEP OVERHANG

N.T.S.



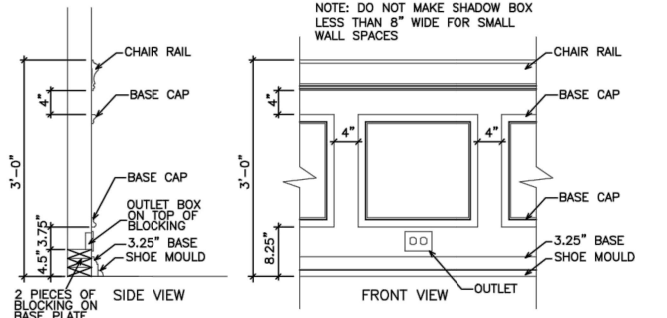
GUARD RAIL DTL. AS REQ'D

N.T.S.



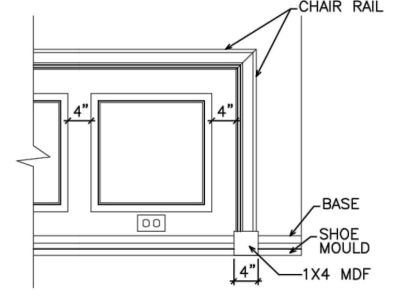
SECTION @ ISLAND KNEEWALL

N.T.S.



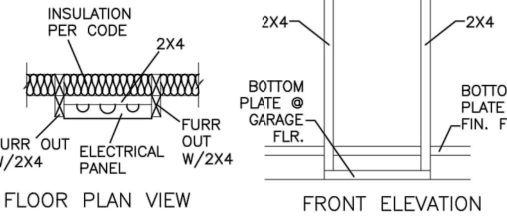
TYPICAL CHAIR RAIL & SHADOW BOX DETAIL

N.T.S.



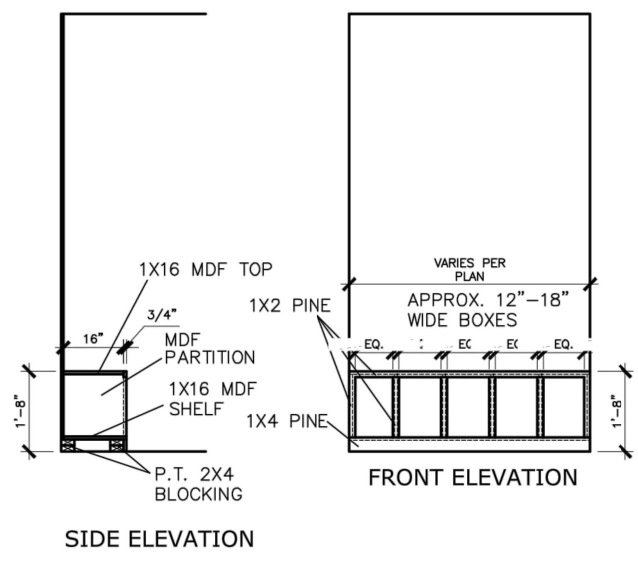
CHAIR RAIL END TRIM DETAIL

N.T.S.



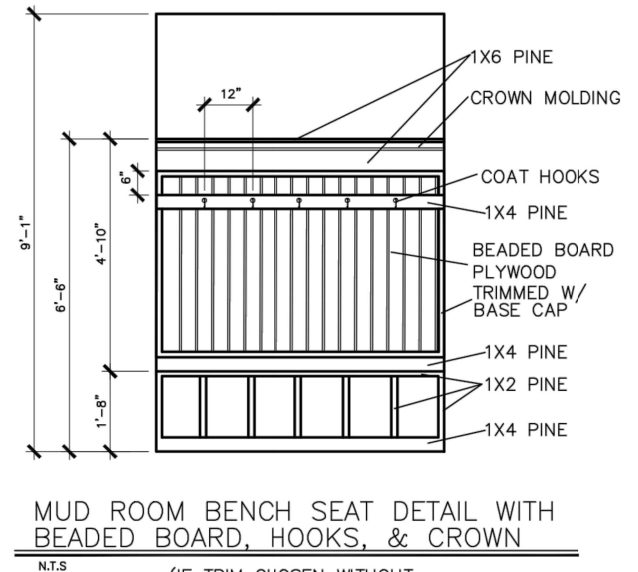
ELECTRICAL PANEL DETAIL

N.T.S.



MUD ROOM BENCH SEAT DETAIL

N.T.S.



MUD ROOM BENCH SEAT DETAIL WITH BEADED BOARD, HOOKS, & CROWN

N.T.S.

(IF TRIM CHOSEN WITHOUT BENCH CONTINUE TO FLOOR)

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BY	REVISION	DATE

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INTERIOR TRIM  
DETAILS

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DATE:	6/13/23
PLAN ID:	
END:	
PAGE NO.:	D1.1

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

DESCRIPTION OF BLDG. ELEMENT	3"x0.131" NAILS	3"x0.120" NAILS
JOIST TO SOLE PLATE	(3) TOENAILS NAILS @ 4" o.c.	(3) TOENAILS* NAILS @ 4" o.c.
SOLE PL. TO JOIST/RIM OR BLK'G 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 + (1) SIMPSON H25T TOENAILS @ 8" o.c.	(4) TOENAILS + (1) SIMPSON H25T TOENAILS @ 6" o.c.
GAB. END TRUSS TO DBL. TOP PL.	2x10 BLK EVERY 3RD BAY FASTENED TO DBL. TOP PLATE w/ TOENAILS @ 6" o.c.	2x10 BLK EVERY 3RD BAY FASTENED TO DBL. TOP PLATE w/ TOENAILS @ 4" o.c.
R.T. w/ HEEL HT. 9 1/4" TO 12"	2x12 BLK EVERY 3RD BAY FASTENED TO DBL. TOP PLATE w/ TOENAILS @ 6" o.c.	2x12 BLK EVERY 3RD BAY FASTENED TO DBL. TOP PLATE w/ TOENAILS @ 4" o.c.
R.T. w/ HEEL HT. 12" TO 16"	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. UP TO 24"	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*
R.T. w/ HEEL HT. 24" TO 48"	WALL SHTG. LAP w/ SILL PL. & FASTENED PER SHEAR WALL FASTENING SPEC.	

\* 2 1/2"x0.113 IS AN ACCEPTABLE ALTERNATIVE TO A 3"x0.120", 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 MK FOR REVIEW PRIOR TO FABRICATION, DELIVERY, OR INSTALLATION.

TRUSSES/JOISTS SHALL BE DESIGNED SO THAT DIFFERENTIAL DEFLECTION BETWEEN ADJACENT PARALLEL TRUSSES/JOISTS OR GIRDER TRUSSES/FLUSH BEAMS DO NOT EXCEED THE FOLLOWING:

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

ABSOLUTE DEAD LOAD DEFLECTION OF ATTIC TRUSSES WHEN ADJACENT TO FLOOR 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"x1/4"
	3 FT. MAX	L3"x3"x1/4"
6'-0"	12 FT. MAX	L4"x3"x1/4"
	20 FT. MAX	L5"x3 1/2"x3/8"
8'-0"	3 FT. MAX	L4"x4"x1/4" *
	12 FT. MAX	L5"x3 1/2"x3/8"
	16 FT. MAX	L6"x3 1/2"x3/8"
9'-6"	12 FT. MAX	L6"x3 1/2"x3/8"

ALL LINTELS:  
 - SHALL SUPPORT 2 1/2" - 3 1/2" VENEER w/ 40 psf MAXIMUM WEIGHT.  
 - 1/2" SHALL HAVE 4" MIN. BEARING  
 - 1" SHALL HAVE 8" MIN. BEARING  
 - 1 1/2" SHALL HAVE 12" MIN. BEARING  
 - 1 1/2" SHALL NOT BE FASTENED BACK TO HEADER  
 - 1 1/2" SHALL BE FASTENED BACK TO WOOD HEADER IN WALL @ 48" o.c. w/ 1/2" DIA. x 3 1/2" LONG LAG SCREWS IN 2" LONG VERTICALLY SLOTTED HOLES  
 - MAX. VENEER HT. APPLIES TO ANY PORTION OF BRICK OVER THE OPENING.  
 - ALL LINTELS SHALL BE LONG LEG VERTICAL.  
 - WHEN SUPPORTING VENEER & 9" WIDE THE EXTERIOR TOE OF THE HORIZONTAL LEG MAY BE CUT IN THE FIELD TO BE 3/4" WIDE OVER THE BEARING LENGTH ONLY. THIS IS TO ALLOW FOR HORIZONTAL JOINT FINISHING.  
 - SEE STRUCTURAL PLANS FOR ANY LINTEL CONDITION NOT ENCOMPASSED BY THE ABOVE PARAMETERS.  
 \* FOR QUEEN VENEER USE L4"x3/4".

**GENERAL STRUCTURAL NOTES**

**FOUNDATION**

- DESIGN IS BASED ON 2018 NCSBG-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 2x4/6 SILL PLATES TO CONC FND WITH A MINIMUM OF 2 ANCHORS PER PLATE, 12" MAX. FROM PLATE ENDS - UTILIZING:
  - 1/2" DIA. ANCHOR BOLTS @ 6'-0" O.C., 7" MIN. EMBEDMENT
  - FA4 ANCHOR STRAPS @ 6'-0" O.C.
- FASTEN 2x10 SILL PLATES TO PRECAST BSMT WALLS WITH A MINIMUM OF 2 ANCHORS PER PLATE, 12" MAX. FROM PLATE ENDS - UTILIZING:
  - 1/2" 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 = 4000 psi: FOUNDATION WALLS
  - 3000 psi: FOOTINGS & INTERIOR SLABS ON GRADE
  - 3500 psi: GARAGE & EXTERIOR SLABS ON GRADE
  - fy = 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 (GM, GP, SM, SP)
  - 45 PCF TYPE (GM, GC, SM, SM-SC, ML)
  - IMPORTANT - IF 60 PCF SOIL TYPE (SC, ML-CL, OR CL) IS UTILIZED FOR BACKFILL, 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 1% 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 GRADE.
- 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 (1:1 RATIO), WITH A MAXIMUM OF 1:1.5 RATIO
  - CONTROL JOINTS SHALL NOT BE INSTALLED IN STRUCTURAL SLABS
- TYPICAL REINFORCEMENT DETAILS: PROVIDE 3" MIN. CLEAR COVER WHERE CAST AGAINST EARTH, 1 1/2" 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 VERIFY.

**LEGEND**

- RT 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 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 ADDL. 10 PSF DEAD LOAD AT THESE LOCATIONS.
- INTERIOR BEARING WALL
- BEARING WALL ABOVE (B.W.A.)
- BEAM/HEADER
- M METAL HANGER
- 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:  
**120MPH WIND IN 2018 NCSBG:RC & 120MPH WIND IN 2018 IRC**  
 (120 MPH WIND SPEED IN ASCE 7 WIND MAP, PER IRC R301.2.11)  
 EXP. B, RISK CAT. 2 & SEISMIC CAT. A/B.

THE DESIGN WAS COMPLETED PER 2015 & 2018 IBC (SECTION 1604) & ASCE 7, AS PERMITTED BY R301.3 OF THE 2018 NCSBG: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 NCSBG:RC & 2018 IRC SECTION R202.11.1.1. THIS MODEL HAS BEEN DETAILED WHERE REQUIRED & ENGINEERED TO RESIST THE WIND UPLIFT LOAD PATH PER SECTIONS R602.3.54 R202.11.

**EXT. WALL SHEATHING SPECIFICATION**

- 1/16" OSB OR 15/32" PLYWOOD: FASTEN SHEATHING w/ 2 3/8"x0.113 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 FASTENING.
- 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 3/8" 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 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 HOLDDOWN

**NON-BEARING HEADER SCHEDULE**

SPAN	2x4 NON-BEARING PARTITION WALL	2x6 NON-BEARING PARTITION WALL
UP TO 3'-0"	(1)2x4 FLAT	(1)2x6 FLAT
UP TO 6'-0"	(2)2x4	(3)2x4
UP TO 8'-0"	(2)2x6	(3)2x6

NOTES:  
 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 NET BED CONSTRUCTED FLOORS - CONTACT MK 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 LOADS").
- 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 INSTALLER'S RESPONSIBILITY TO PROVIDE PROPER UNDERLAYMENT, UNCOUPLING MEMBRANE AND MORTAR/GROUT PER THE ASSEMBLY DESIGNATIONS IN THE TCNA HANDBOOK (TILE COUNCIL OF NORTH AMERICA).
- AT I-JOIST FLOORS, PROVIDE 1" 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 1 (OR APPROVED EQUAL) WITH TONGUE AND GROOVE EDGES. FASTEN TO FRAMING MEMBERS w/ GLUE AND:
  - 2 1/2" x 0.131" NAILS @ 6" o.c. @ PANEL EDGES @ @ 12" o.c. FIELD.
  - 2 3/8" x 0.120" NAILS @ 4" o.c. @ PANEL EDGES @ @ 8" o.c. FIELD.
  - 2 3/8" x 0.113" NAILS @ 3" o.c. @ PANEL EDGES @ @ 6" o.c. IN FIELD.

**ROOF FRAMING**

- ROOF SHEATHING SHALL BE 7/16" A.P.A. RATED SHEATHING 24/16 EXPOSURE 1 (OR APPROVED EQUAL). FASTEN TO FRAMING MEMBERS:
  - w/ 2 1/2" x 0.131" NAILS @ 6" o.c. @ PANEL EDGES @ @ 12" o.c. FIELD.
  - w/ 2 3/8" x 0.120" NAILS @ 4" o.c. @ PANEL EDGES @ @ 8" o.c. FIELD.
  - w/ 2 3/8" x 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 RTIA CLIP (OR APPROVED EQUAL) @ ALL BEARING POINTS. PROVIDE (2) RTIA CLIPS AT 2-PLY GIRDER TRUSSES, (3) RTIA 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 WTC & TPI'S BC51 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 THE PROJECT.

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 ELEMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LEVELNESS AND MAKE ADJUSTMENTS AS NECESSARY, INCLUDING CONSIDERATION OF THOSE AREAS THAT MAY BE WITHIN CONTRACTUAL, INDUSTRY, OR WARRANTY TOLERANCES.

**GENERAL STRUCTURAL NOTES**

- DESIGN IS BASED ON 2018 NCSBG-RESIDENTIAL CODE & 2018 IRC WITH SOUTH CAROLINA AMENDMENTS
- WOOD FRAME ENGINEERING IS BASED ON NDS, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" - LATEST EDITION.
- DESIGN LOADS:
  - ROOF: LIVE = 20 PSF  
DEAD = 7 PSF T.C., 10 PSF B.C.  
LOAD DURATION FACTOR = 1.25
  - FLOOR: LIVE = 40 PSF (30 PSF @ SLEEPING AREAS)  
DEAD = 10 PSF (I-JOISTS)
  - ADDL. 10 PSF @ CERAMIC TILE IN BATHS & LAUND.
  - SOIL: 2,000 PSF ASSUMED ALLOWABLE BEARING PRESSURE (TO BE VERIFIED BY BUILDER)

**GENERAL FRAMING**

- ALL TYP. NAIL FASTENER REQUIREMENTS ARE NOTED IN STANDARD CONNECTIONS TABLE (IRC TABLE R602.3(1)) 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 KING STUD, MINIMUM. - THE NUMBER OF STUDS SPECIFIED AT A SUPPORT INDICATES THE NUMBER OF JACK STUDS REQUIRED, U.N.O.
- 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: (1)2x4/6 FLAT @ OPENINGS UP TO 4'; (2)2x4/6 FLAT UP TO 8'.
- ALL FRAMING LUMBER SHALL BE DRIED TO 15% MC (KD-15).
- ENGINEERED LUMBER BEAMS TO MEET OR EXCEED THE FOLLOWING:
  - 'LVL' - Fb=2600 psi; Fv=285 psi; E=2.0x10<sup>6</sup> psi
- ENGINEERED LUMBER POSTS TO MEET OR EXCEED THE FOLLOWING:
  - 'LVL' - Fb=2400 psi; Fc||=2500 psi; E=1.8x10<sup>6</sup> psi
- FOR 2 & 3 PLY BEAMS OF EQUAL 1 1/2" MAX. WIDTH, FASTEN PLIES TOGETHER WITH 3 ROWS OF 3"x0.120" NAILS @ 8" o.c. OR 2 ROWS USP #535 SCREWS (OR 3 1/2" 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 3 1/2" OR 5 1/4" BEAMS ARE ACCEPTABLE. USE 2 ROWS OF NAILS FOR 2x6 & 2x8 MEMBERS.
- FOR 4 PLY BEAMS OF EQUAL 1 1/2" MAX. WIDTH, FASTEN PLIES TOGETHER WITH 3 ROWS OF USP #56 SCREWS (OR 6 3/4" TRUSSLOK 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 BC522-4 CAP & PA44E BASE, U.N.O.
- CORROSION NOTES:
  - BUILDER RESPONSIBLE TO DETERMINE CORROSION-RESISTANCE REQUIREMENTS AND COMPATIBILITY OF HARDWARE, FASTENERS 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+KULP**  
 RESIDENTIAL STRUCTURAL ENGINEERING  
 3625 Remondino Parkway, Suite 105 - Alpharetta, GA 30022  
 770-777-4074 - mulhern+kulp.com  
 NC License # C-3825

Mulhern+Kulp project number:  
**256-22019**

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

REVISIONS:  
 date: initial:

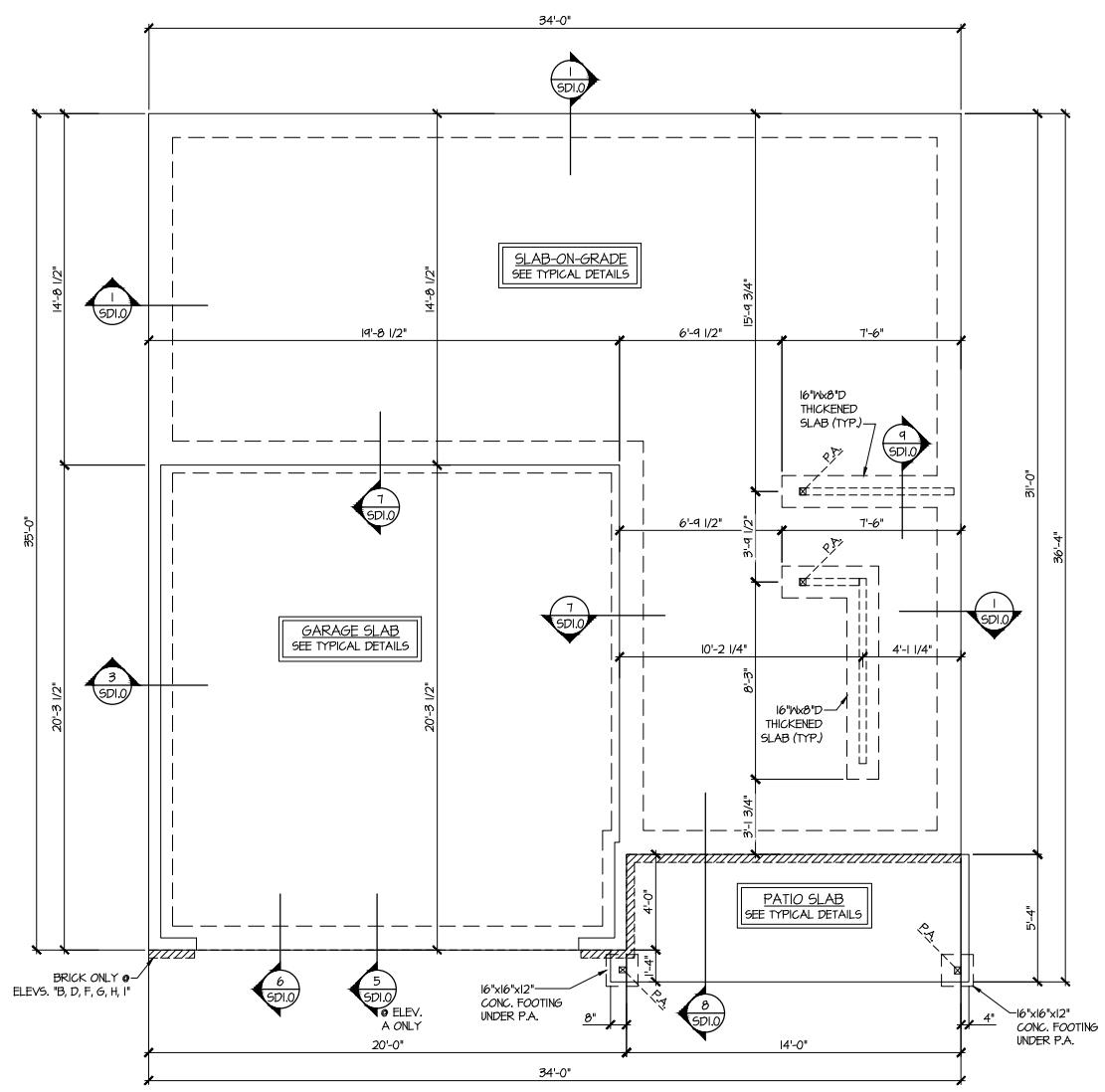
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**SMITH DOUGLAS HOMES**

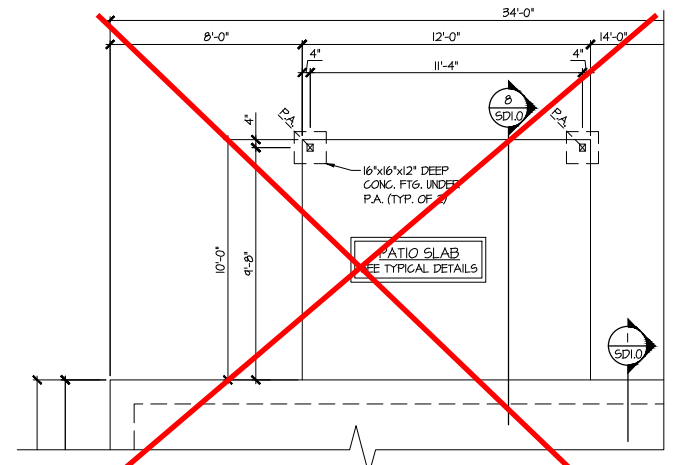
**GENERAL STRUCTURAL NOTES**  
**BENSON II MODEL**  
 120 MPH WIND ZONE  
 NORTH CAROLINA

**Harrington Lot 3**

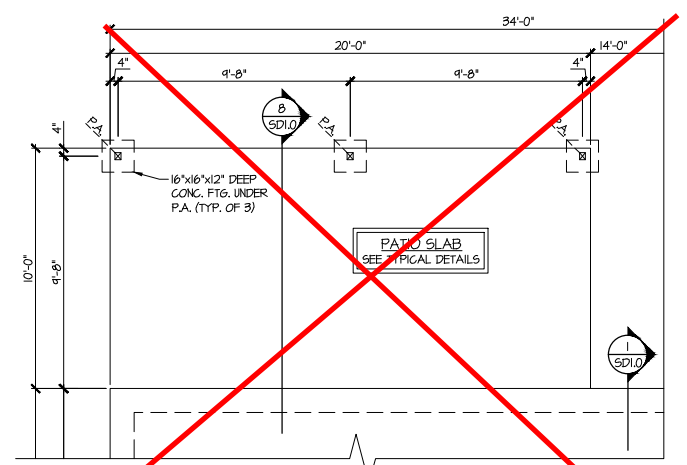
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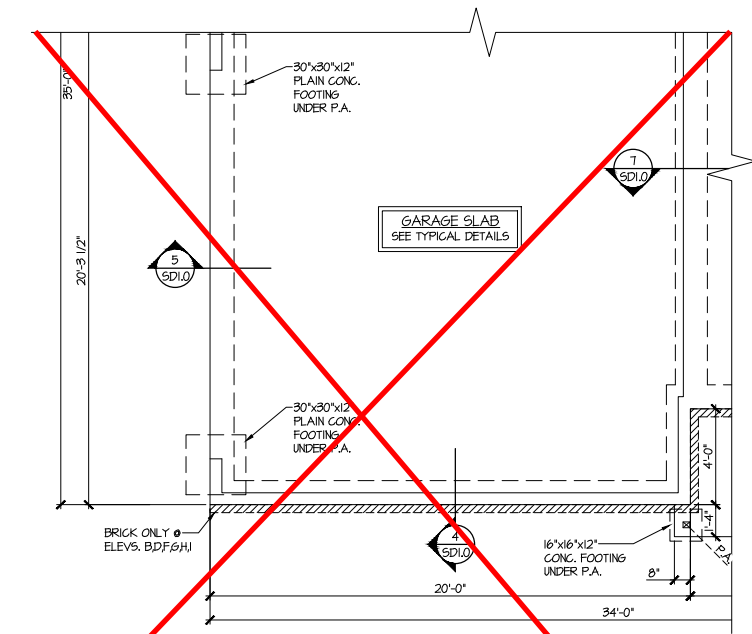
**1 MONO-SLAB FOUNDATION PLAN**  
 SCALE: 1/4"=1'-0" ON 22x34  
 1/8"=1'-0" ON 11x17  
 ALL ELEV. SIM.



**2 PARTIAL MONO-SLAB FOUNDATION PLAN**  
 SCALE: 1/4"=1'-0" ON 22x34  
 1/8"=1'-0" ON 11x17  
 OPT. COVERED PATIO  
 ALL ELEV. SIM.  
 SEE BASE ELEV. FOR ADD'L INFO.



**3 PARTIAL MONO-SLAB FOUNDATION PLAN**  
 SCALE: 1/4"=1'-0" ON 22x34  
 1/8"=1'-0" ON 11x17  
 OPT. LARGE COVERED PATIO  
 ALL ELEV. SIM.  
 SEE BASE ELEV. FOR ADD'L INFO.



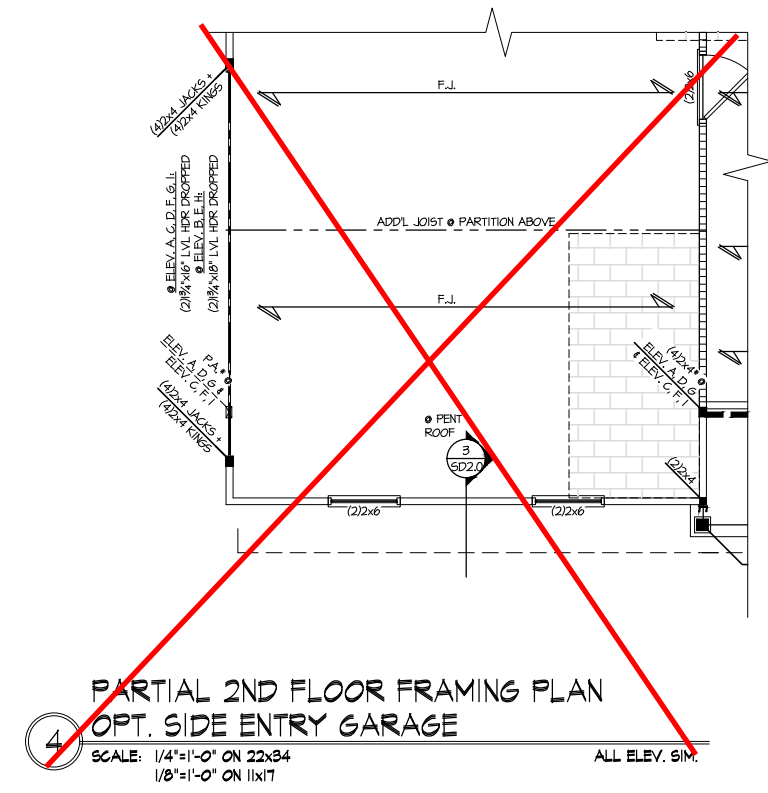
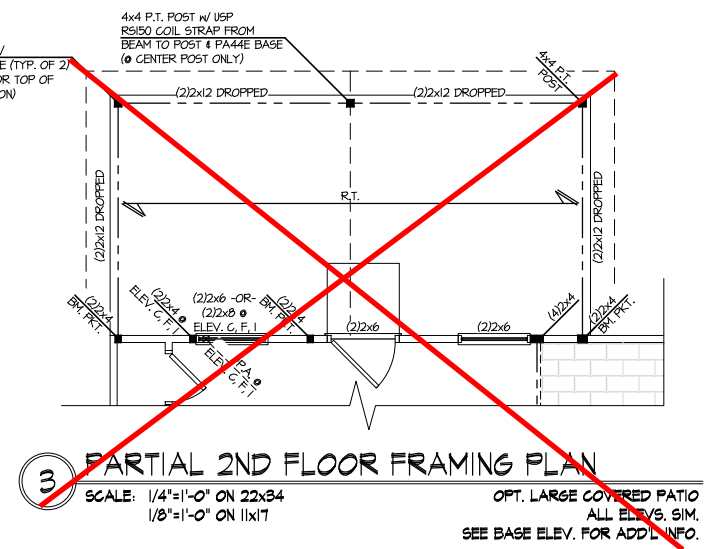
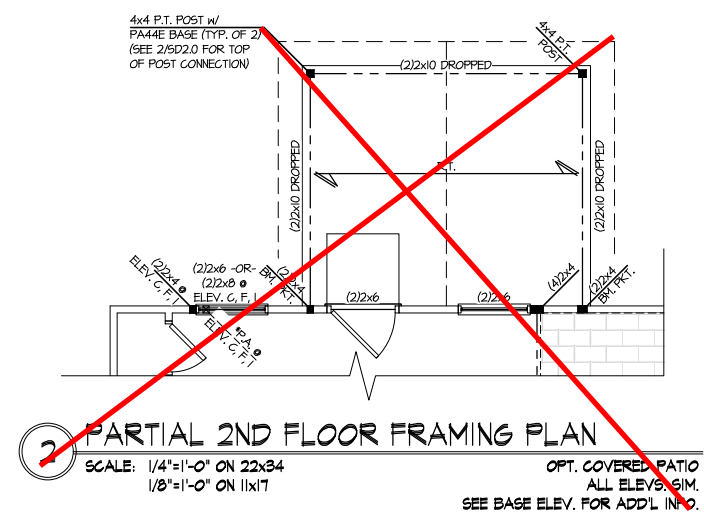
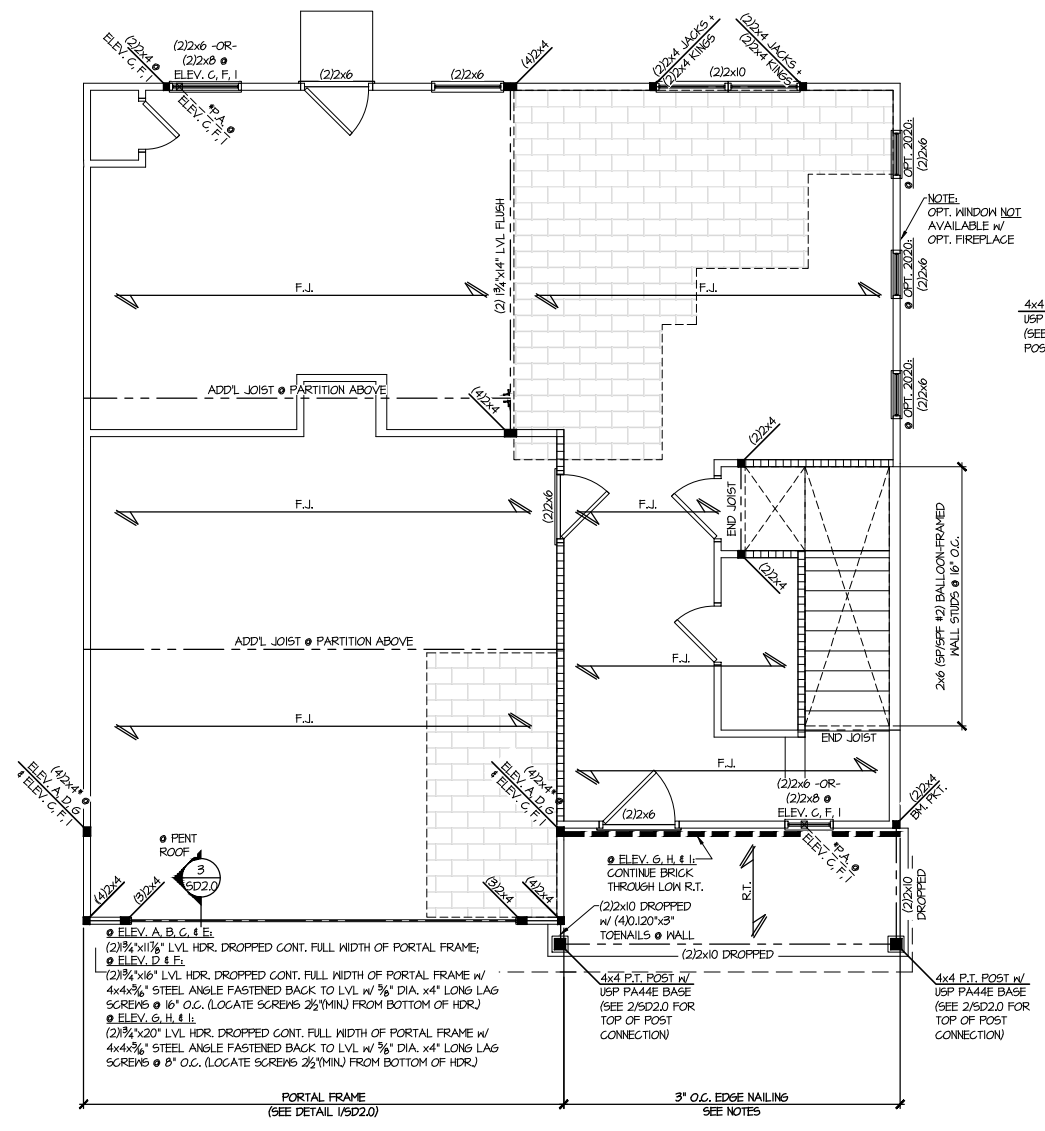
**4 PARTIAL MONO-SLAB FOUNDATION PLAN**  
 SCALE: 1/4"=1'-0" ON 22x34  
 1/8"=1'-0" ON 11x17  
 OPT. SIDE ENTRY GARAGE  
 ALL ELEV. SIM.  
 SEE BASE ELEV. FOR ADD'L INFO.

**Harrington  
 Lot 3**

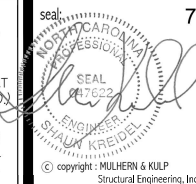
REFER TO S.O. FOR TYPICAL  
 STRUCTURAL NOTES & SCHEDULES

**LEGEND**

- R.T. INDICATES ROOF TRUSSES @ 24" O.C. PER ROOF. MANUF. (TYP. U.N.O.)
- O.F. INDICATES TRUSS OVERFRAMING @ 24" O.C. (TYP. U.N.O.)
- F.L. 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 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.



**1 2ND FLOOR FRAMING PLAN**  
 SCALE: 1/4"=1'-0" ON 22x34  
 1/8"=1'-0" ON 11x17  
 ALL ELEVS. SIM.



**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING  
3825 Matthews Parkway, Suite 105 - Alpharetta, GA 30022  
770-777-8874 - mulhern+kulp.com  
NC License # C-3825

Mulhern+Kulp project number:  
**256-22019**  
project mgr: **SMK**  
drawn by: **RAP**  
issue date: **01.13.2023**  
REVISIONS:  
date: initial:

SMITH DOUGLAS  
HOMES

1ST FLOOR WALL BRACING PLAN  
BENSON II MODEL  
120 MPH WIND ZONE  
NORTH CAROLINA

sheet:  
**S2.0LM**

**LATERAL/WALL BRACING & WALL SHEATHING SPECIFICATIONS**

THIS MODEL HAS BEEN DESIGNED TO RESIST LATERAL FORCES RESULTING FROM:  
**120MPH WIND IN 2018 NC SBC:RC & 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 NC SBC: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 NC SBC:RC & 2018 IRC SECTION R602.1.1.1.1. THIS MODEL HAS BEEN DETAILED WHERE REQUIRED & ENGINEERED TO RESIST THE WIND UPLIFT LOAD PATH PER SECTIONS R602.3.54 & R602.11.

**EXT. WALL SHEATHING SPECIFICATION**

- 1/16" OSB OR 15/32" PLYWOOD:  
FASTEN SHEATHING w/ 2 3/8"x0.113 NAILS @ 6" O.C. AT EDGES & @ 12" O.C. IN THE PANEL FIELD. (TYP. UNO.)
- 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 FASTENING.
- ALL EXT. WALLS SHALL BE CONTINUOUSLY SHEATHED AND ARE CONSIDERED SHEAR WALLS.
- ALT. STAPLE CONNECTION SPEC: 1 3/4" 16 GA STAPLES (1/16" CROWN) @ 3" O.C. AT EDGES & @ 6" O.C. IN FIELD.

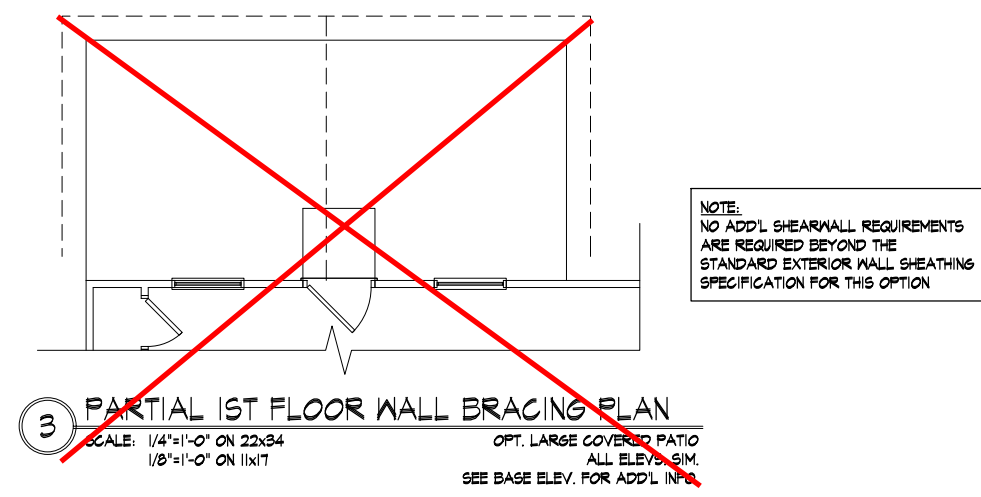
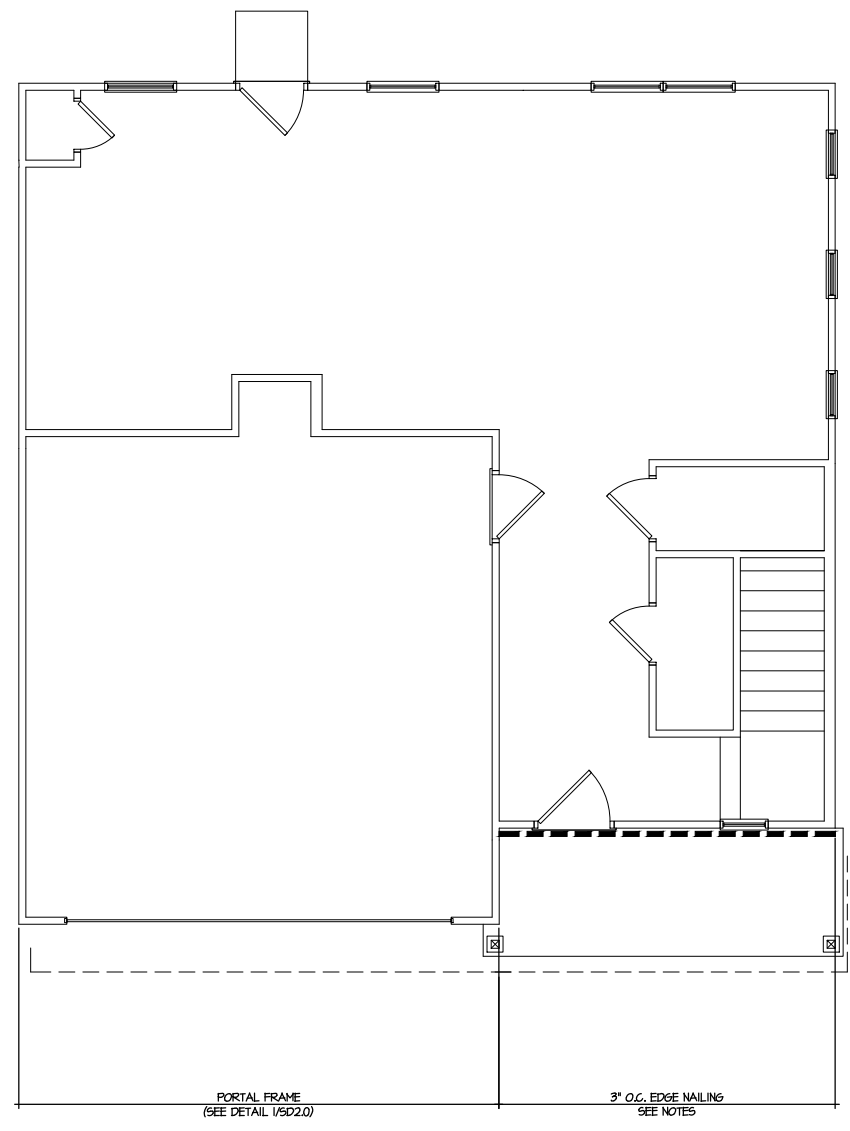
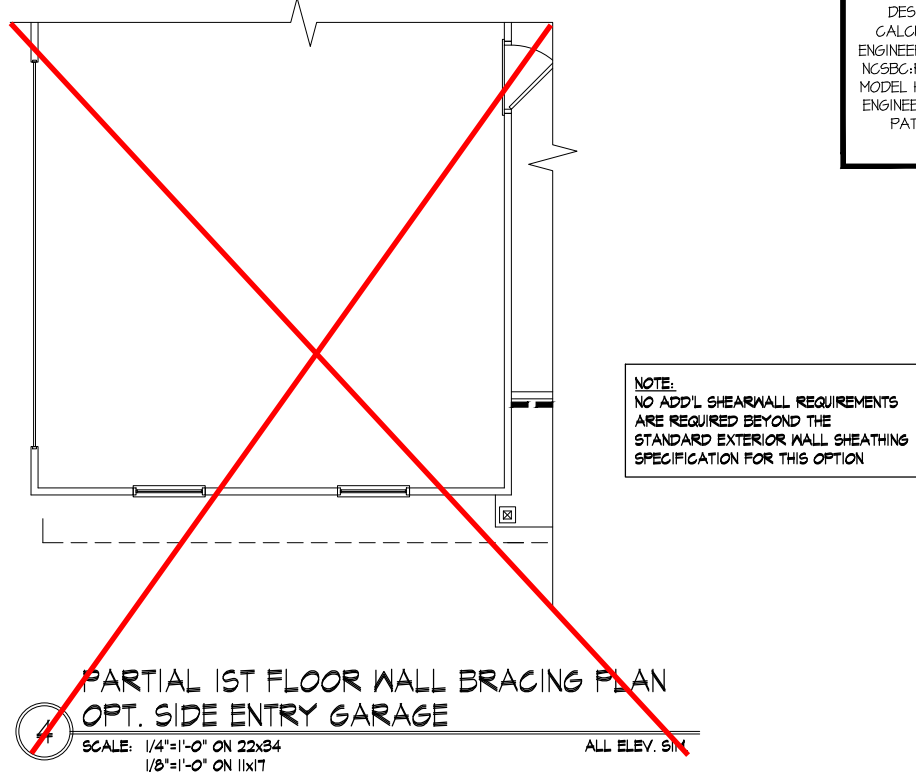
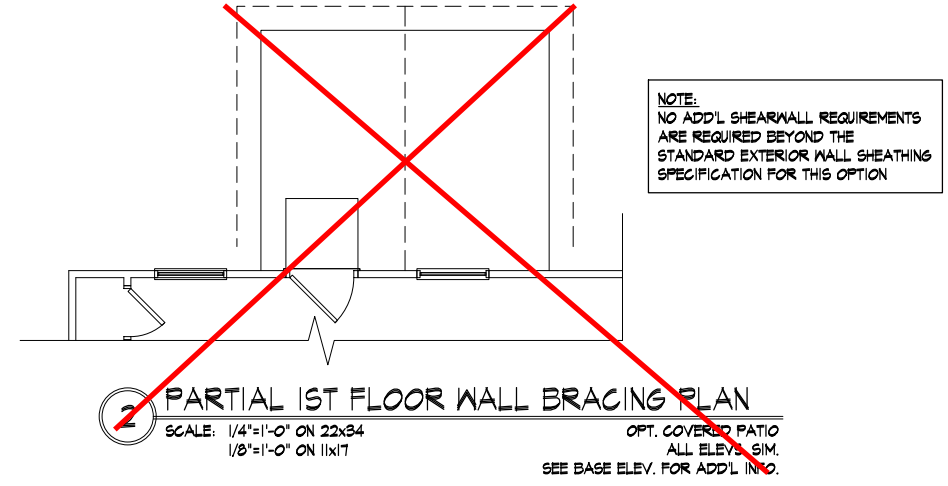
**3" O.C. EDGE NAILING**

- AT DESIGNATED AREAS - FASTEN PANEL EDGES OF WOOD STRUCTURAL WALL SHEATHING TO FRAMING w/ 2 3/8" 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 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, UNO.
- 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 HOLDDOWN



**Harrington Lot 3**

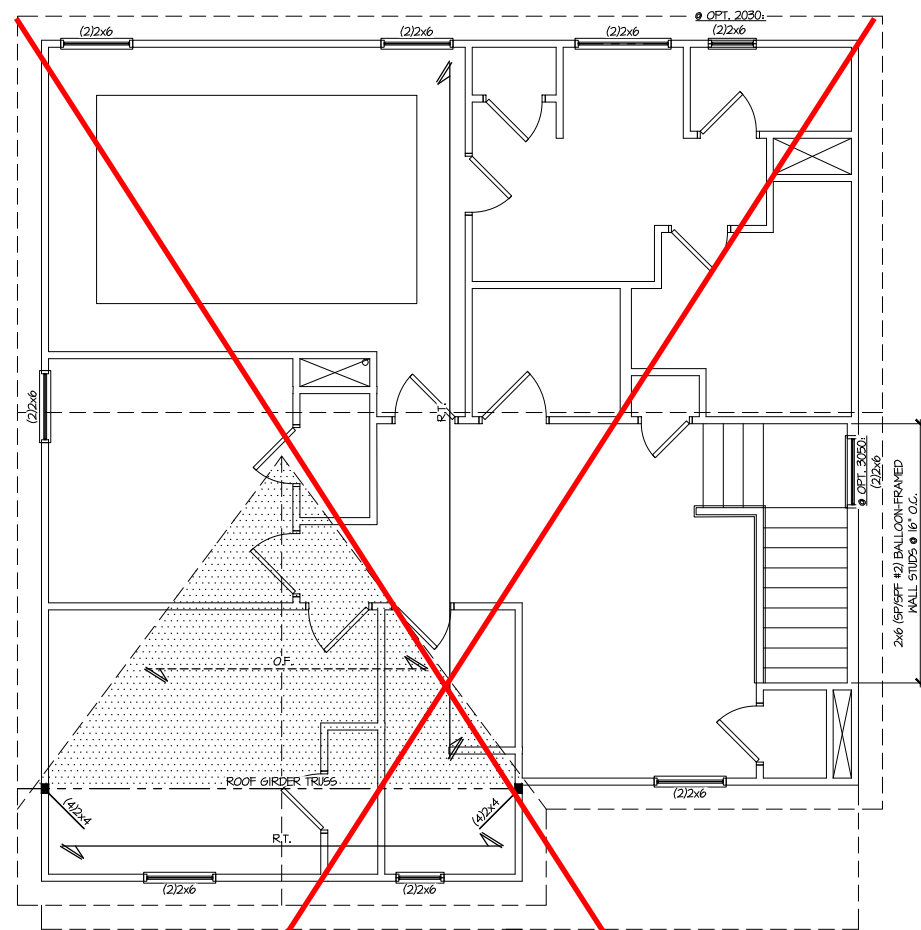
THIS LEVEL HAS BEEN DESIGNED FOR 9'-1" PLATE HEIGHT  
REFER TO S.O. FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

**LEGEND**

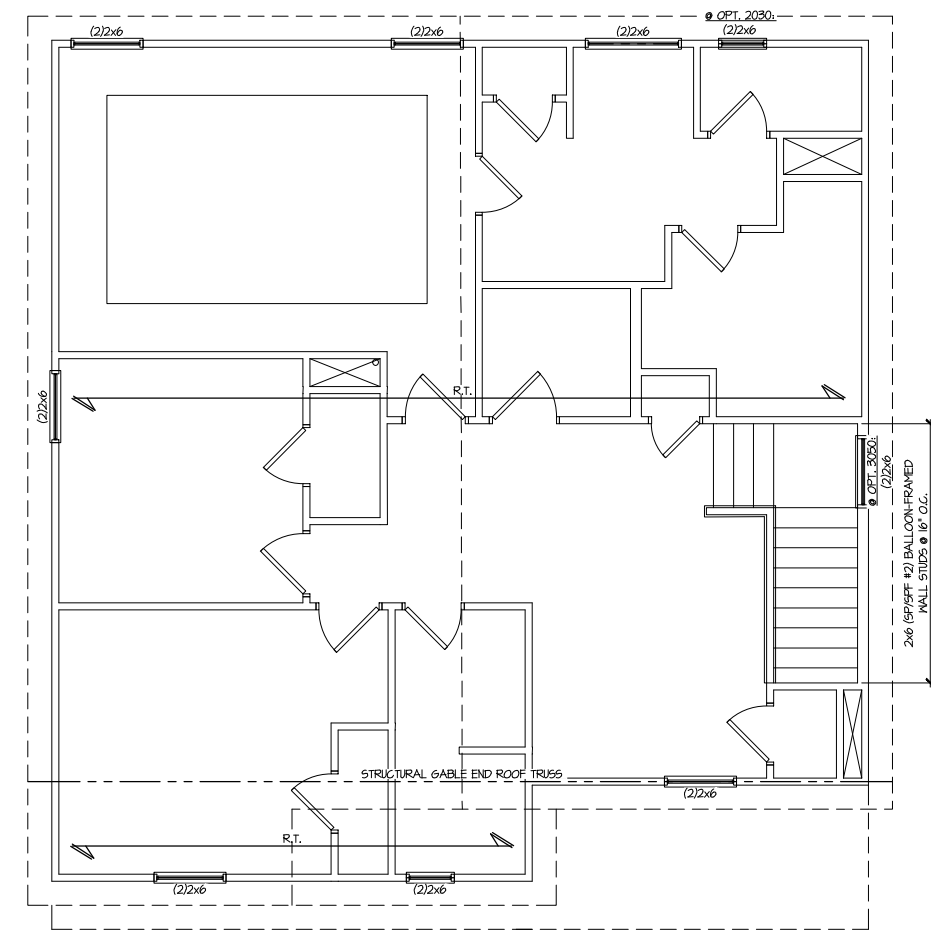
- R.T. INDICATES ROOF TRUSSES @ 24" O.C. PER ROOF. MANUF. (TYP. UNO.)
- O.F. INDICATES TRUSS OVERFRAMING @ 24" O.C. (TYP. UNO.)
- F.L. INDICATES 14" DEEP FLOOR I-JOISTS @ 24" O.C. MAX. JOIST SERIES AND SPACING SHALL BE THE RESPONSIBILITY OF THE MANUFACTURER. NOTE: 14" FLOOR TRUSSES @ 24" O.C. MAX. IS 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 LOCATIONS.
- [Symbol] INTERIOR BEARING WALL
- [Symbol] BEARING WALL ABOVE (B.W.A.)
- [Symbol] BEAM/HEADER
- [Symbol] METAL HANGER
- \* INDICATES POST ABOVE (P.A.) PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.

Harrington  
 Lot 3

THIS LEVEL HAS BEEN DESIGNED  
 FOR 9'-1" PLATE HEIGHT  
 REFER TO S.O. FOR TYPICAL  
 STRUCTURAL NOTES & SCHEDULES



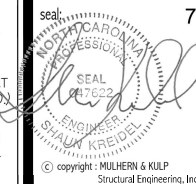
**ROOF FRAMING PLAN**  
 SCALE: 1/4"=1'-0" ON 22x34  
 1/8"=1'-0" ON 11x17  
 ELEV. A  
 ELEVS. D & G SIM.



**2 ROOF FRAMING PLAN**  
 SCALE: 1/4"=1'-0" ON 22x34  
 1/8"=1'-0" ON 11x17  
 ELEV. B  
 ELEVS. E & H SIM.

**LEGEND**

- R.T. INDICATES ROOF TRUSSES @ 24" O.C. PER ROOF. MANUF. (TYP. U.N.O.)
- O.F. INDICATES TRUSS OVERFRAMING @ 24" O.C. (TYP. U.N.O.)
- F.L. 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.
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- 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.



**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING  
3025 Matthews Parkway, Suite 105 - Alpharetta, GA 30022  
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NC License # C-3825

Mulhern+Kulp project number:  
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date: initial:

**SMITH DOUGLAS  
HOMES**

**2ND FLOOR WALL BRACING PLAN**  
**BENSON II MODEL**  
120 MPH WIND ZONE  
NORTH CAROLINA

sheet:  
**S3.0LM**

**LATERAL/WALL BRACING & WALL SHEATHING SPECIFICATIONS**

THIS MODEL HAS BEEN DESIGNED TO RESIST LATERAL FORCES RESULTING FROM:  
**120MPH WIND IN 2018 NC SBC:RC & 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 NC SBC: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 NC SBC: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 R602.3.54 R802.11.

**EXT. WALL SHEATHING SPECIFICATION**

- 1/16" OSB OR 15/32" PLYWOOD:  
FASTEN SHEATHING w/ 2 3/8"x0.113 NAILS @ 6" O.C. AT EDGES & @ 12" O.C. IN THE PANEL FIELD. (TYP. UNO.)
- 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 FASTENING.
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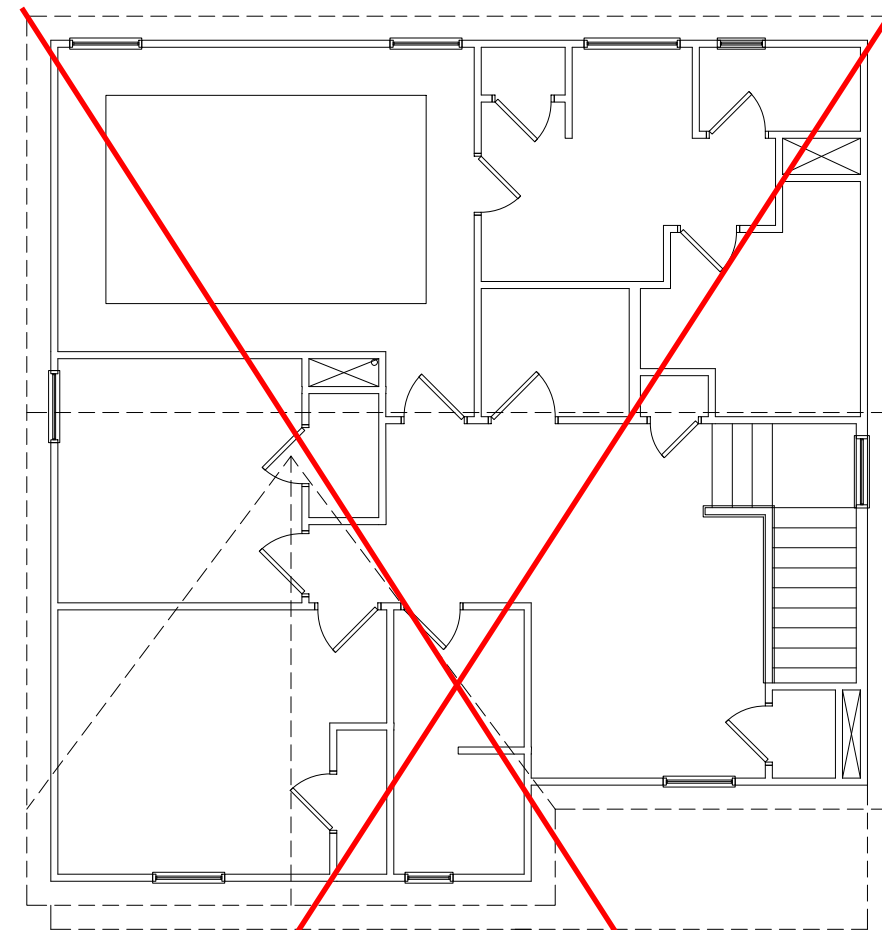
**3" O.C. EDGE NAILING**

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**NOTES**

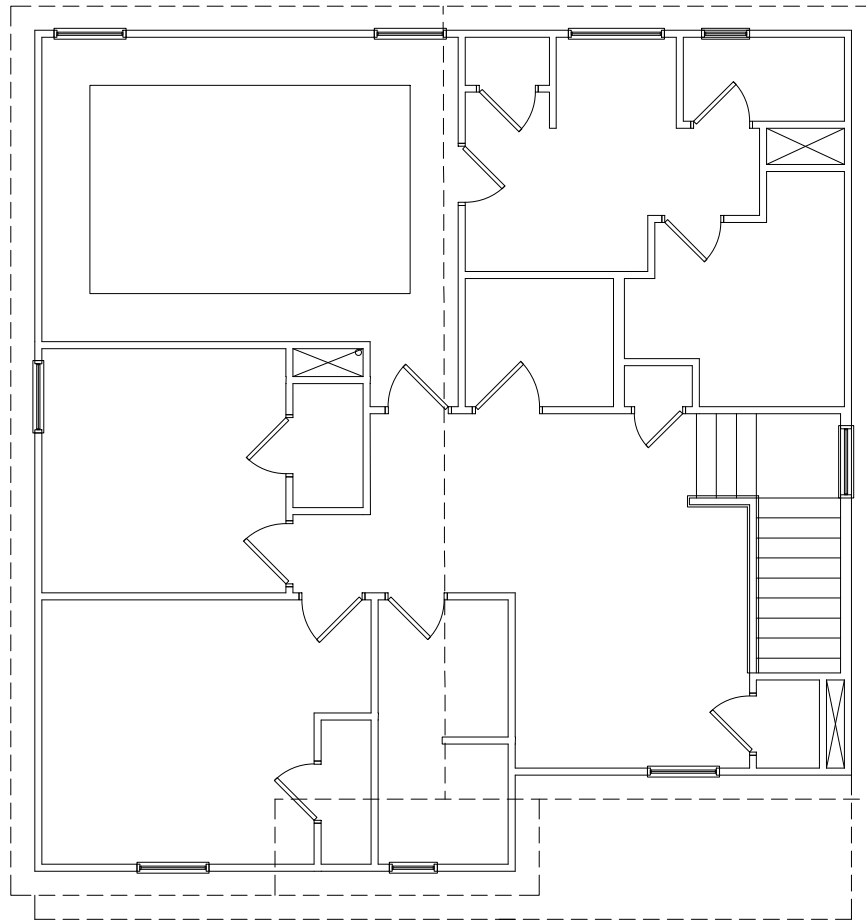
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--- INDICATES EXTENT OF INT. OSB SHEARWALL, AND/OR 3" O.C. EDGE NAILING  
▶ INDICATES HOLDDOWN



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

**2ND FLOOR WALL BRACING PLAN**  
SCALE: 1/4"=1'-0" ON 22x34  
1/8"=1'-0" ON 11x17  
ELEV. A  
ELEVS. D & G SIM.



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

**2ND FLOOR WALL BRACING PLAN**  
SCALE: 1/4"=1'-0" ON 22x34  
1/8"=1'-0" ON 11x17  
ELEV. B  
ELEVS. E & H SIM.

**Harrington  
Lot 3**

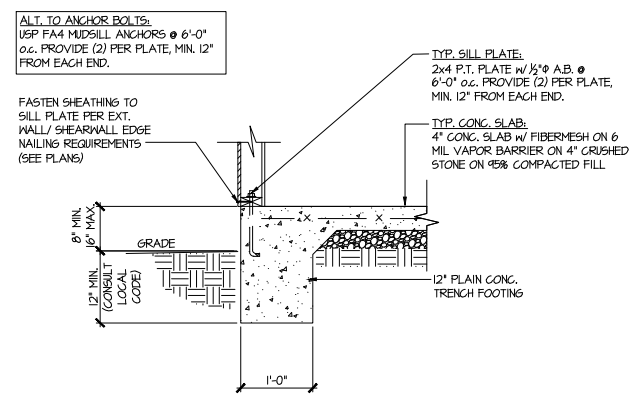
THIS LEVEL HAS BEEN DESIGNED FOR 9'-1" PLATE HEIGHT

REFER TO S.O. FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

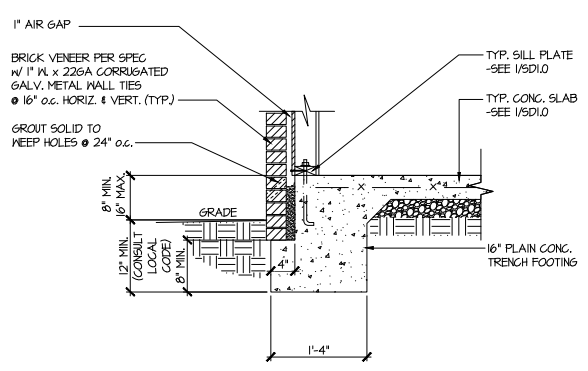
**LEGEND**

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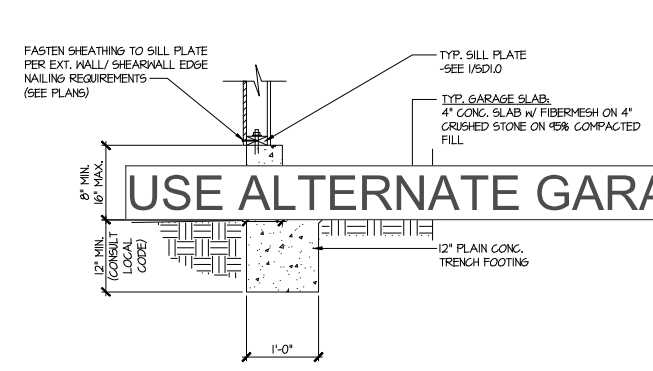




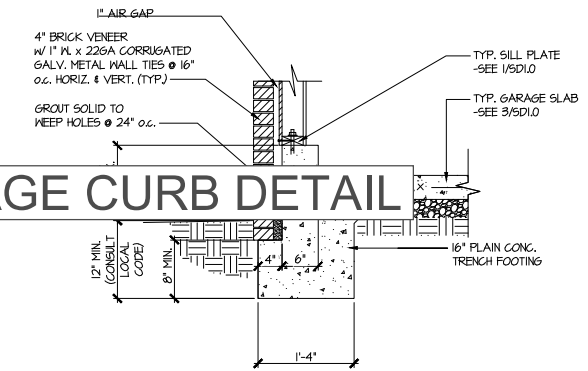
1 TYPICAL SLAB ON GRADE PERIMETER FOOTING



2 TYPICAL SLAB ON GRADE PERIMETER FOOTING w/ BRICK VENEER

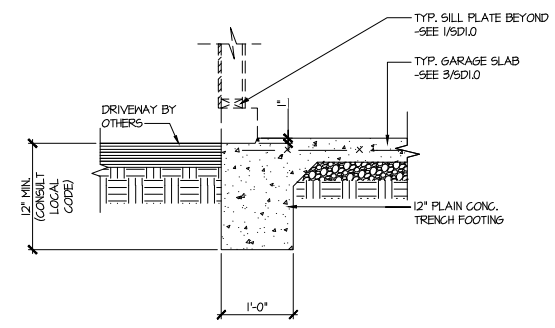


3 TYPICAL SLAB ON GRADE GARAGE PERIMETER FOOTING

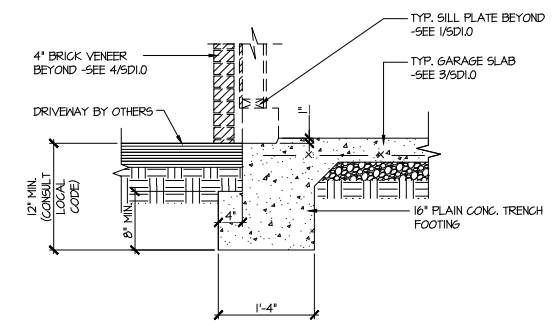


4 TYPICAL SLAB ON GRADE GARAGE PERIMETER FOOTING w/ BRICK VENEER

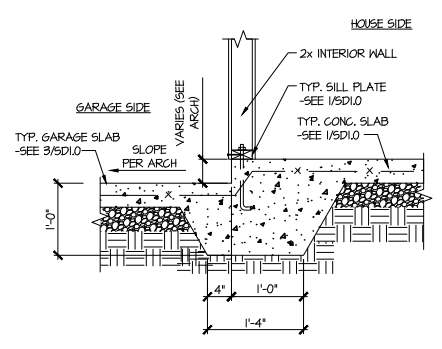
USE ALTERNATE GARAGE CURB DETAIL



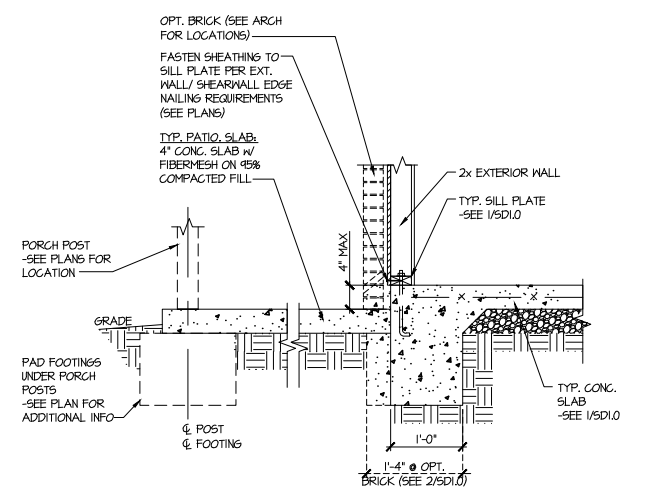
5 TYPICAL SLAB ON GRADE GARAGE ENTRY @ PERIMETER FOOTING



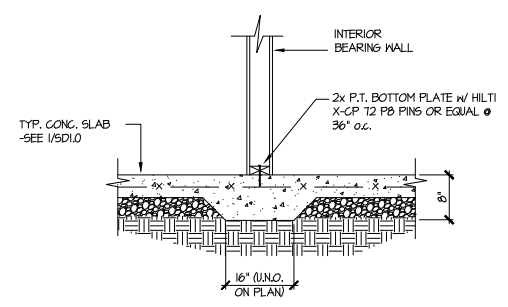
6 TYPICAL SLAB ON GRADE GARAGE ENTRY @ PERIMETER FOOTING w/ BRICK VENEER



7 TYPICAL MONOLITHIC INTERIOR GARAGE FOOTING



8 TYPICAL SLAB ON GRADE PERIMETER FOOTING @ PORCH/PATIO



9 TYPICAL THICKENED SLAB @ INTERIOR BEARING WALL

**MULHERN+KULP**  
 RESIDENTIAL STRUCTURAL ENGINEERING  
 3825 Shallowford Parkway, Suite 105 - Alpharetta, GA 30022  
 770-777-8974 - mulhern+kulp.com  
 NC License # C-3825

Mulhern+Kulp project number:  
 256-22019

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

REVISIONS:  
 date: initial:

SMITH DOUGLAS  
 HOMES

FOUNDATION DETAILS  
 BENSON II MODEL  
 120 MPH WIND ZONE  
 NORTH CAROLINA

Harrington  
 Lot 3

sheet:  
**SD1.0**



**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING

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

August 18, 2023

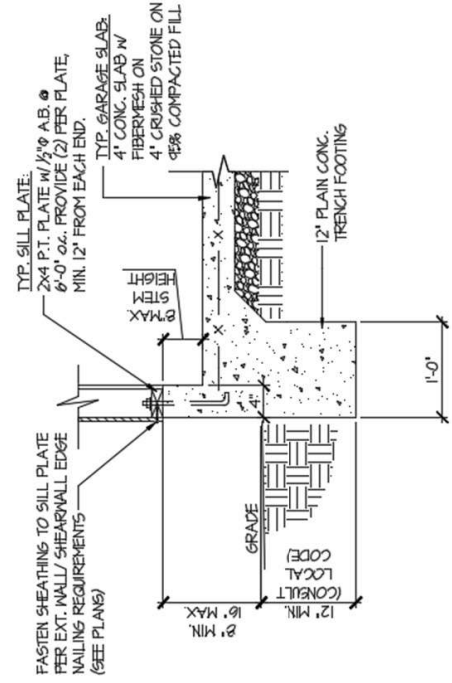
Jody Hunt  
Director of Product Development  
**SMITH DOUGLAS HOMES**  
110 Village Trail, Suite 215  
Woodstock, GA 30188

**ALTERNATE GARAGE CURB DETAIL**  
Smith Douglas Homes

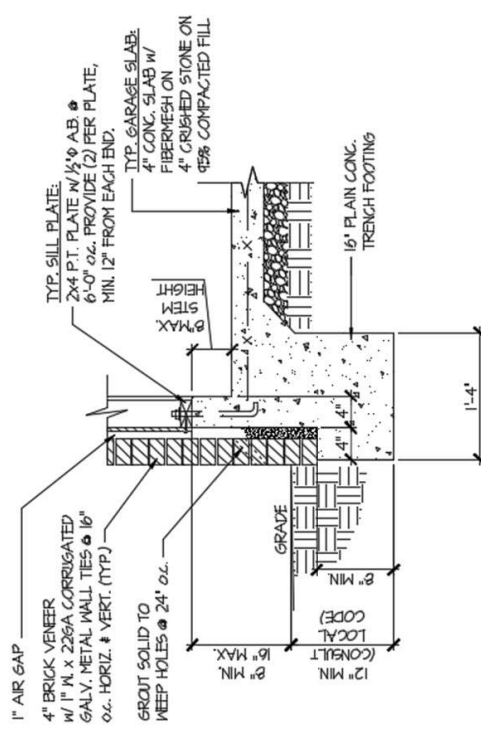
*Reference*  
*Current Structural Plans prepared by Mulhern & Kulp*

Jody:

Pursuant to your request, we have prepared this letter to address the “Alternate Garage Curb Details”, prepared by Mulhern & Kulp for Smith Douglas Homes shown below. The foundation details shown below call for a 4” wide curb with a maximum of 8” stem wall height; 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 wall locations.



**(A)** TYPICAL SLAB ON GRADE GARAGE PERIMETER FOOTING



**(B)** TYPICAL SLAB ON GRADE GARAGE PERIMETER FOOTING

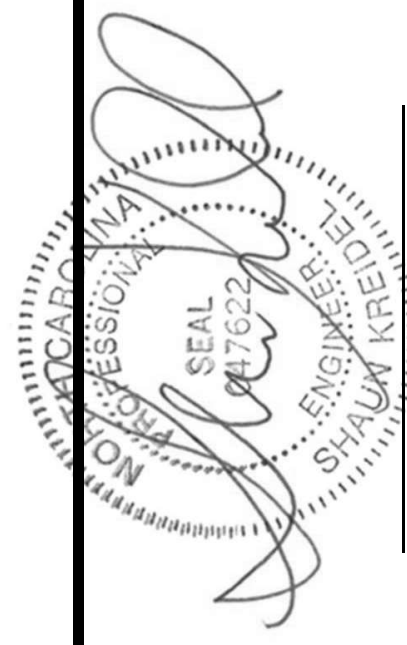
Please feel free to call if you have any questions.

Respectfully,

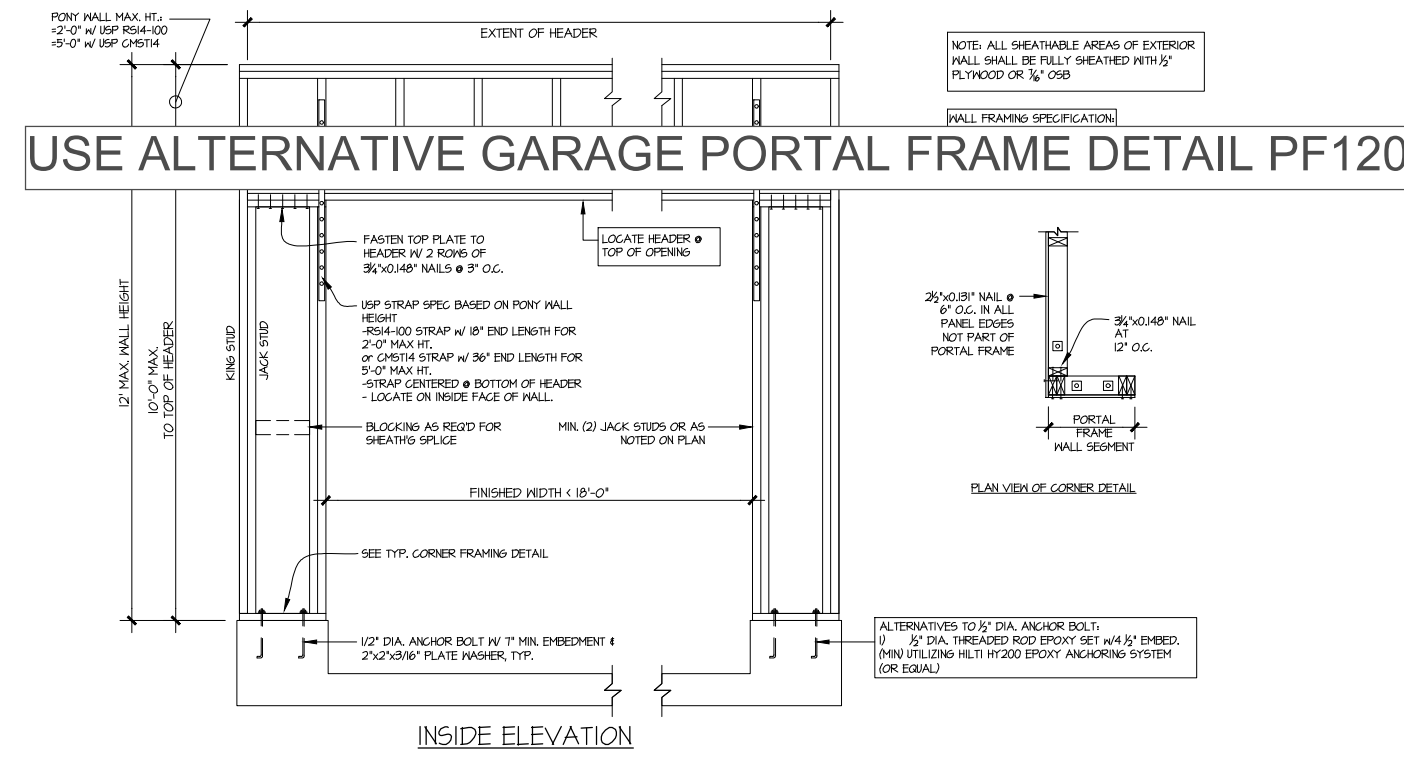
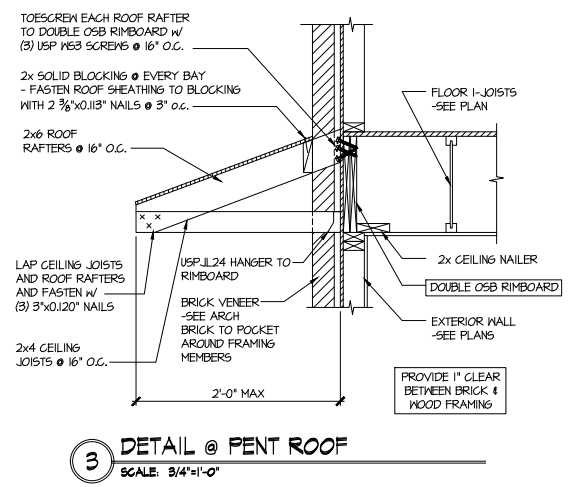
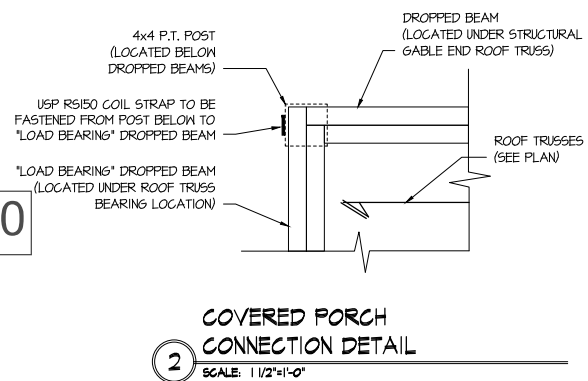
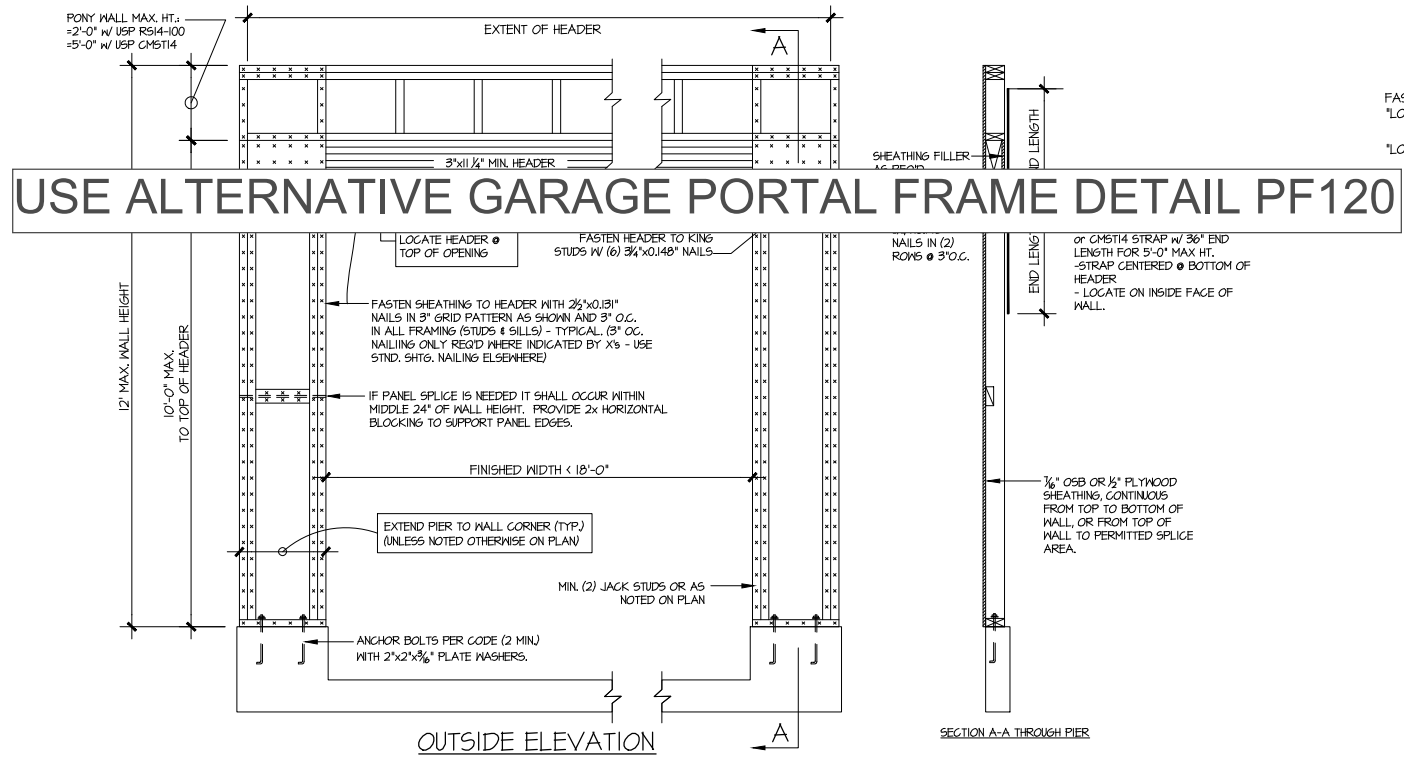
**MULHERN & KULP STRUCTURAL ENGINEERING, INC.**

NC License # C-3825

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



Signature + Seal 08/18/2023



**1 GARAGE PORTAL FRAME BRACING ELEVATION**  
 SCALE: N.T.S.  
 BOTH SIDES OF GARAGE DOOR  
 115 MPH WIND SPEED (ULT)

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project mgr: SMK  
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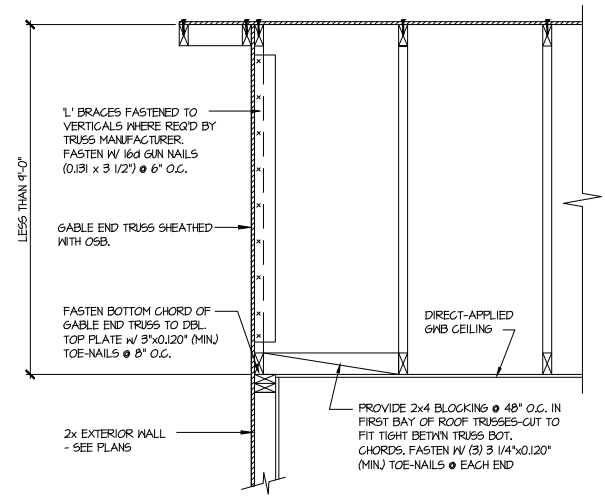
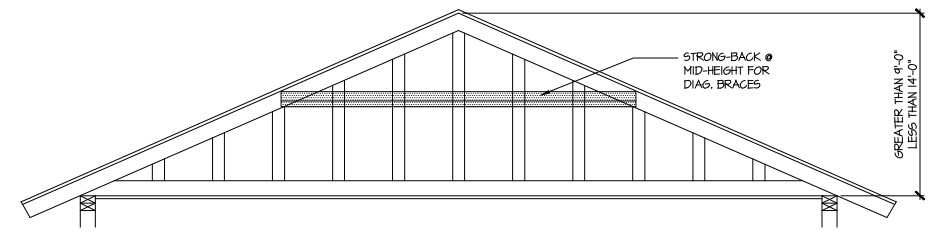
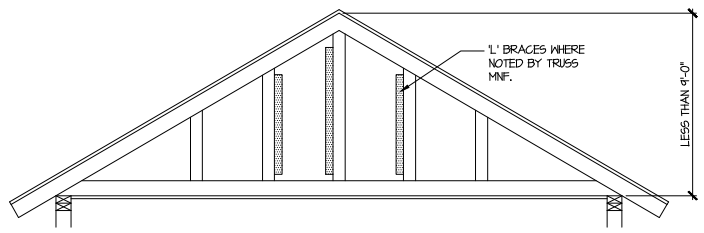
REVISIONS:  
 date: initial:

SMITH DOUGLAS  
 HOMES

FRAMING DETAILS

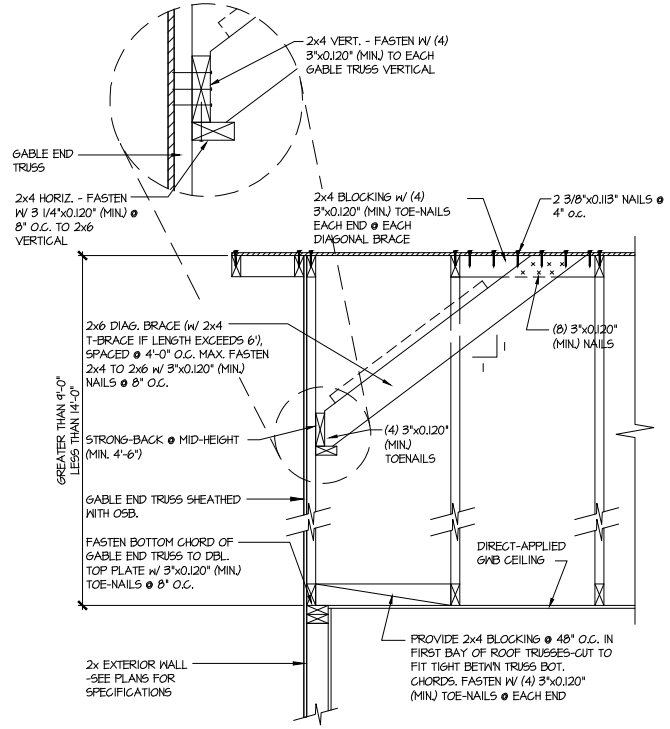
**BENSON II MODEL**

120 MPH WIND ZONE  
 NORTH CAROLINA



**A** TYPICAL GABLE END BRACING DETAIL  
 SCALE: NONE  
 REQ'D @ GABLE END TRUSS HEIGHT UP TO 9'-0"

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  
 REQ'D @ GABLE END TRUSS HEIGHT BETWEEN 9'-0" TO 14'-0"

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

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.

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SMITH DOUGLAS  
 HOMES

FRAMING DETAILS  
 BENSON II MODEL  
 120 MPH WIND ZONE  
 NORTH CAROLINA

Harrington  
 Lot 3

sheet:  
**SD2.1**



**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING

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

July 28, 2023

Jody 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.

The "Alternate Garage Portal Frame Detail" on sheet "PF-120" is an acceptable alternative portal frame design for anywhere in North Carolina with a wind speed less than or equal to 120mph ultimate wind speed per ASCE 7-16. The "Alternate Garage Portal Frame Detail" on sheet "PF-130" is an acceptable alternative portal frame design for anywhere in North Carolina with a wind speed less than 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 department that matches the jurisdiction's wind speed requirements.

**Please feel free to call if you have any questions.**

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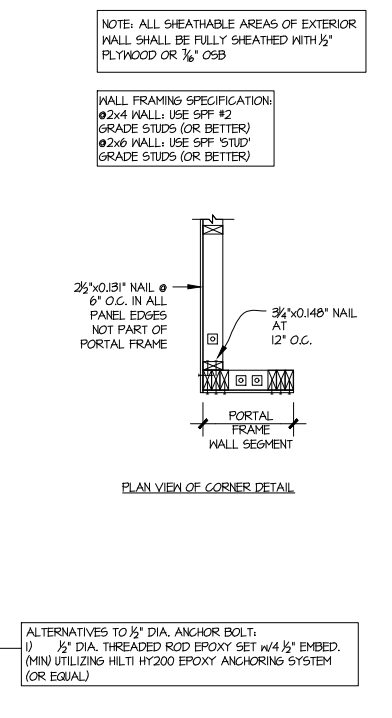
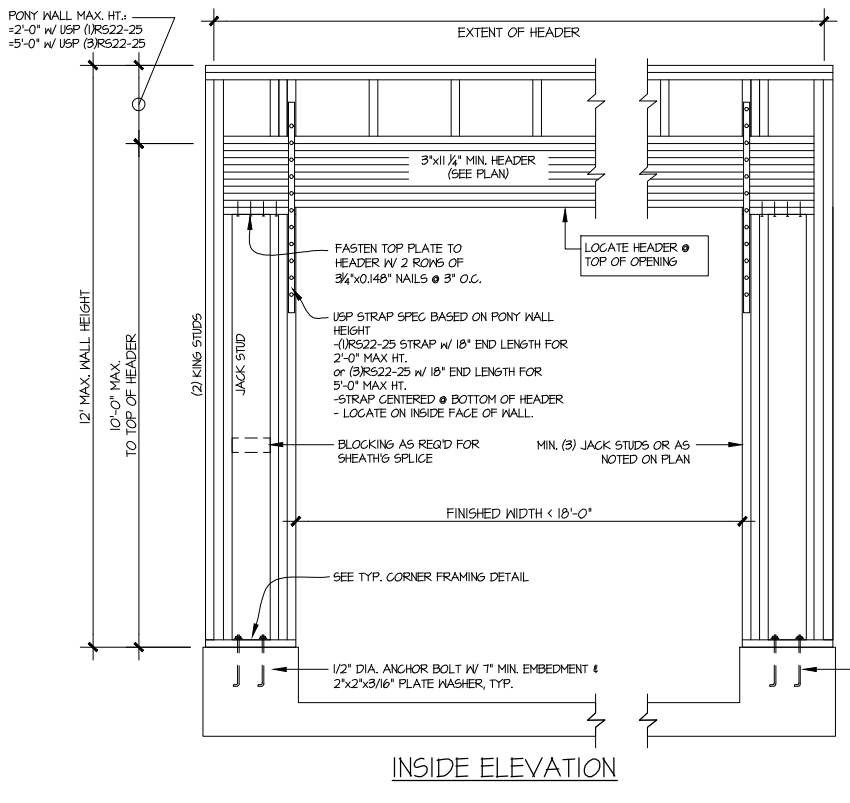
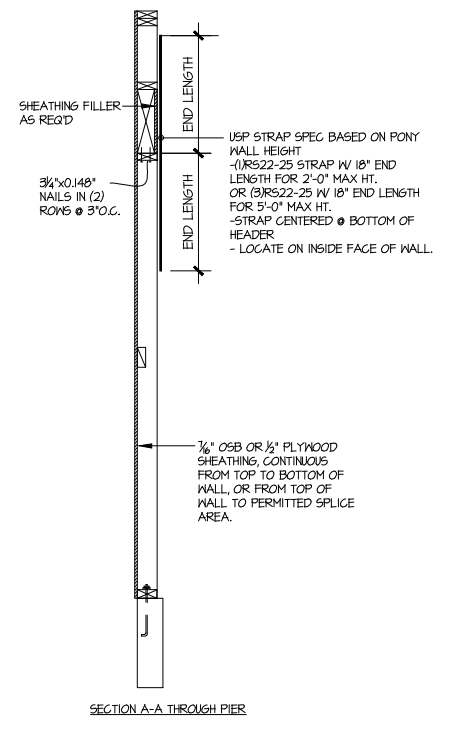
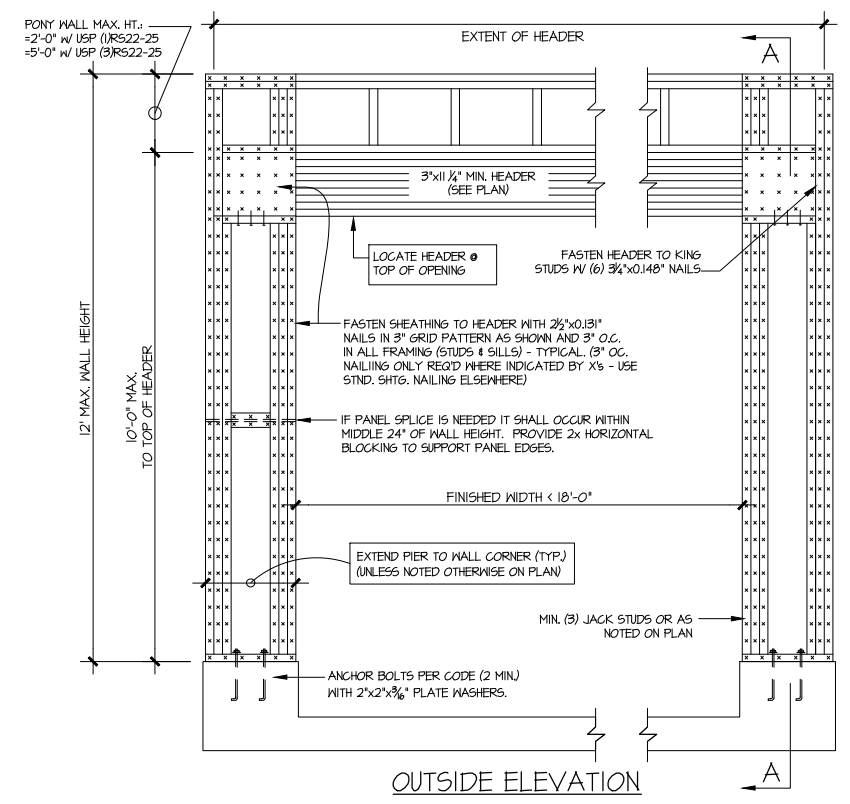
Respectfully,

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

NC License # C-3825

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

Signature + Seal 07/28/2023

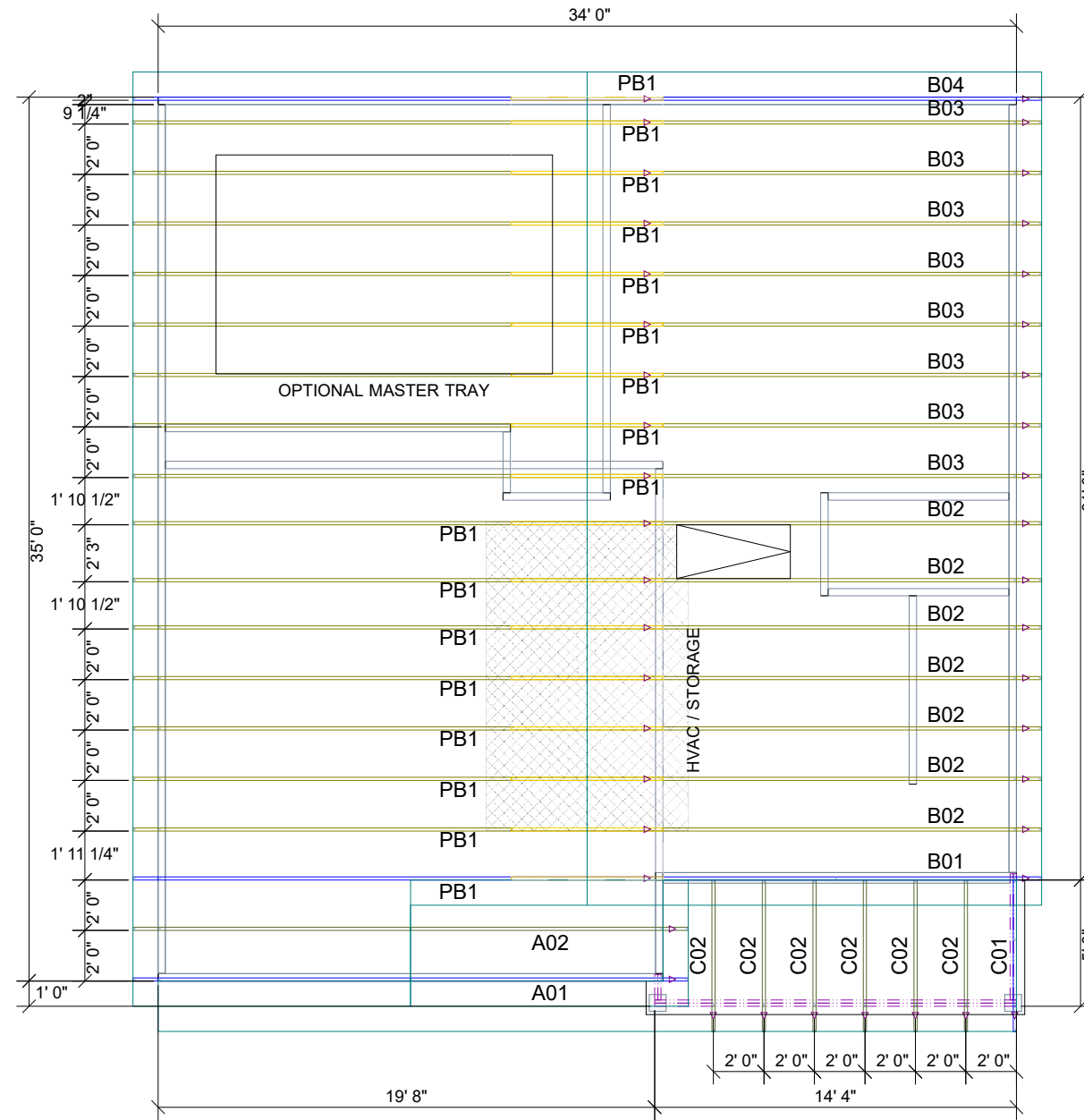


ALTERNATIVES TO 1/2" DIA. ANCHOR BOLT:  
1) 1/2" DIA. THREADED ROD EPOXY SET w/4 1/2" EMBED.  
(MIN) UTILIZING HILTI HY200 EPOXY ANCHORING SYSTEM  
(OR EQUAL)

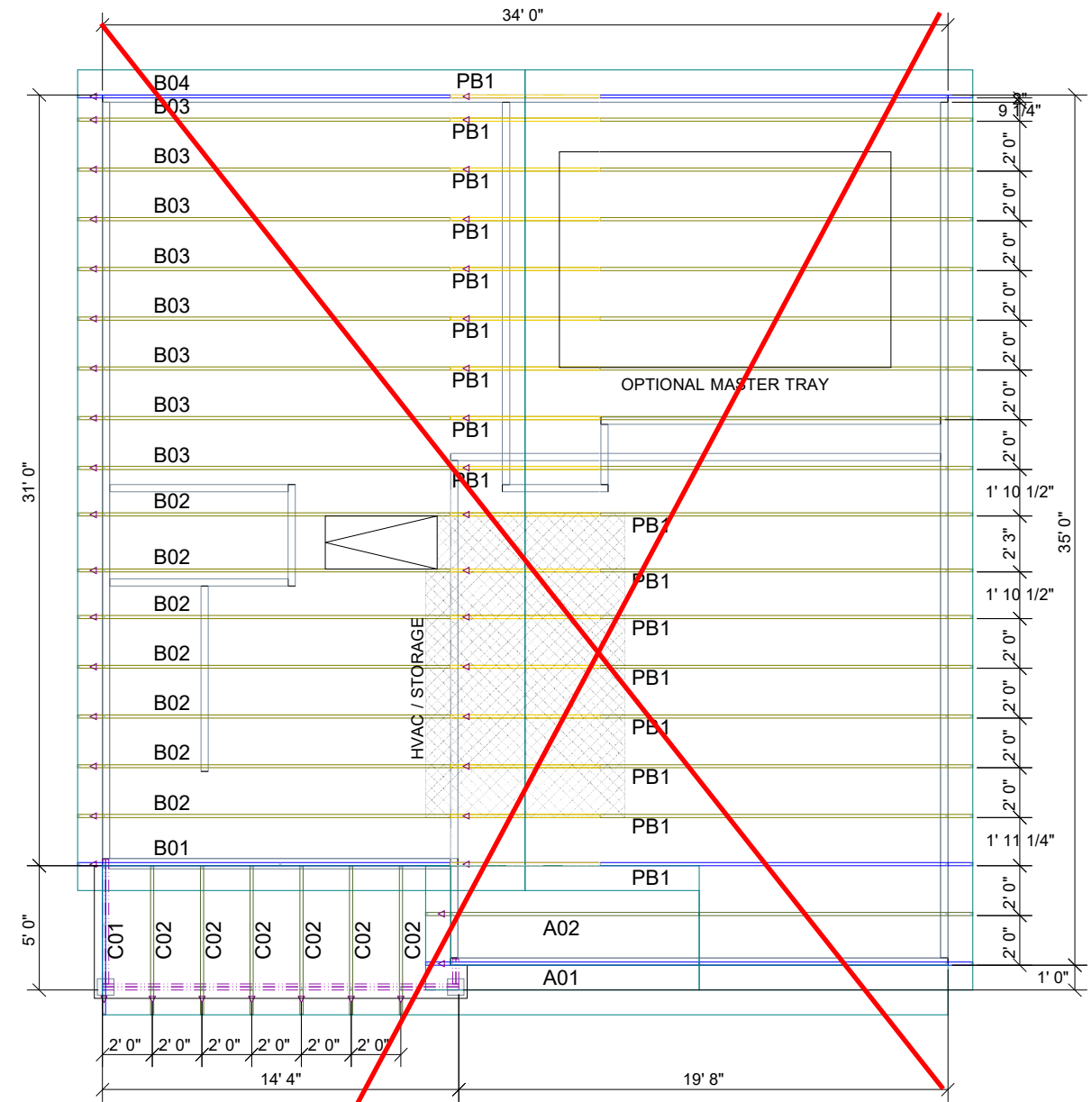
**A** ALTERNATE GARAGE PORTAL FRAME BRACING ELEVATION  
SCALE: N.T.S. BOTH SIDES OF GARAGE DOOR 120 MPH WIND SPEED (ULT)

Harrington  
Lot 3

THIS IS A TRUSS PLACEMENT DIAGRAM (TPD) ONLY, NOT AN ENGINEERED DOCUMENT. Trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual truss design drawings (TDDs) for each truss design identified on the TPD. The Contractor is responsible for the temporary bracing of the roof and floor system, and the building designer is responsible for the permanent bracing of the roof and floor system and the overall structure. The design of the support structure including but not limited to headers, beams, walls, and columns is also the responsibility of the building designer. For general guidance regarding installation and bracing, consult "Building Component Safety Information" (BCSI) available from the SBC Association (www.sbcassociations.com). It is the responsibility of the General Contractor to verify that the provided component layout matches the final intended construction plans, loading conditions, and use. If they do not, it is the responsibility of the General Contractor to notify UFP and provide plans containing the latest specifications and designs. UFP will not be responsible for plan changes by others after final approval of shop drawings, or for errors or modifications made on-site during construction. DO NOT CUT, NOTCH, DRILL, OR OTHERWISE "REPAIR" MANUFACTURED TRUSSES IN ANY WAY WITHOUT PRIOR WRITTEN AUTHORIZATION BY A LICENSED PROFESSIONAL DESIGNATED BY UFP. The Framing is responsible to verify all dimensions, including adjusting member spacing within tolerances to allow for the drop and rise of plumbing/HVAC, unless noted otherwise. Truss-to-wall connections, if shown, are for uplift only and do not consider lateral loads. All connectors on this project are to be installed per the connector manufacturer's specifications. All connectors shown that are not truss-to-truss are suggestions only and are to be verified by the Building Designer or Engineer of Record for suitability to this particular project. UFP accepts no responsibility for the specific application or suitability of any connector that is not truss-to-truss as they apply to this specific structure.



**BENSON II BEH ROOF**



**BENSON II BEH ROOF**

**PLACEMENT PLAN**

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

REVISIONS	DATE	DESCRIPTION	DSN

DESIGNER  
LAYOUT DATE  
ARCH DATE  
STRUC DATE  
JOB # - MASTER

**-SMITH DOUGLAS**

**-BENSON II BEH ROOF**

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

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

**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)

SHIFT JOIST TO MISS PLUMBING, ALIGN W/WALL OR SUPPORT FURNITURE

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

TWO JOISTS SIDE BY SIDE (ONLY ASSEMBLED IF NOTED)

**SHIFT**

**EXTRA**

**DOUBLE**

**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**

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

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

# 2ND FLOOR LAYOUT

**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.
- 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

ALL DIMENSIONS TO CENTERLINE UNLESS OTHERWISE NOTED

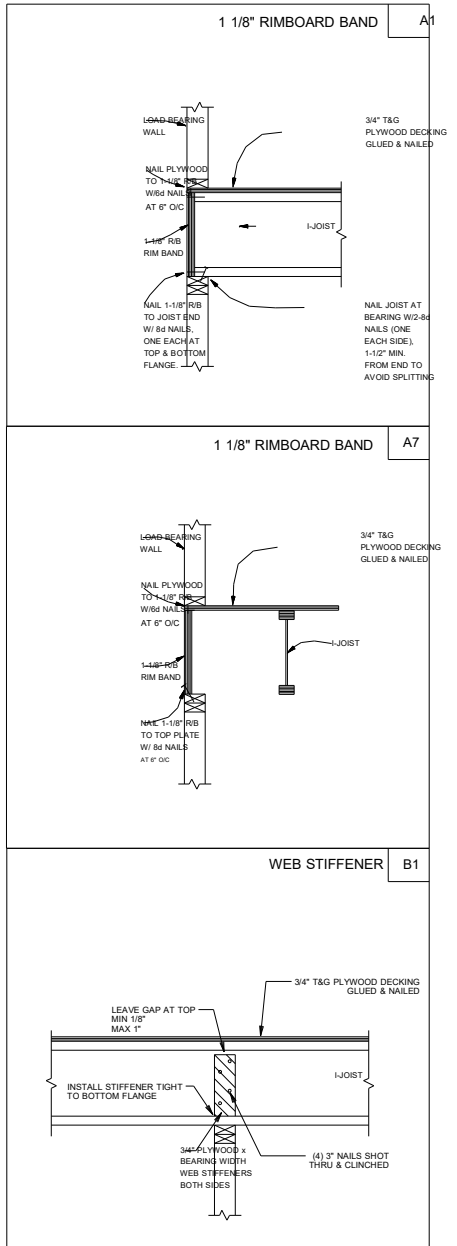
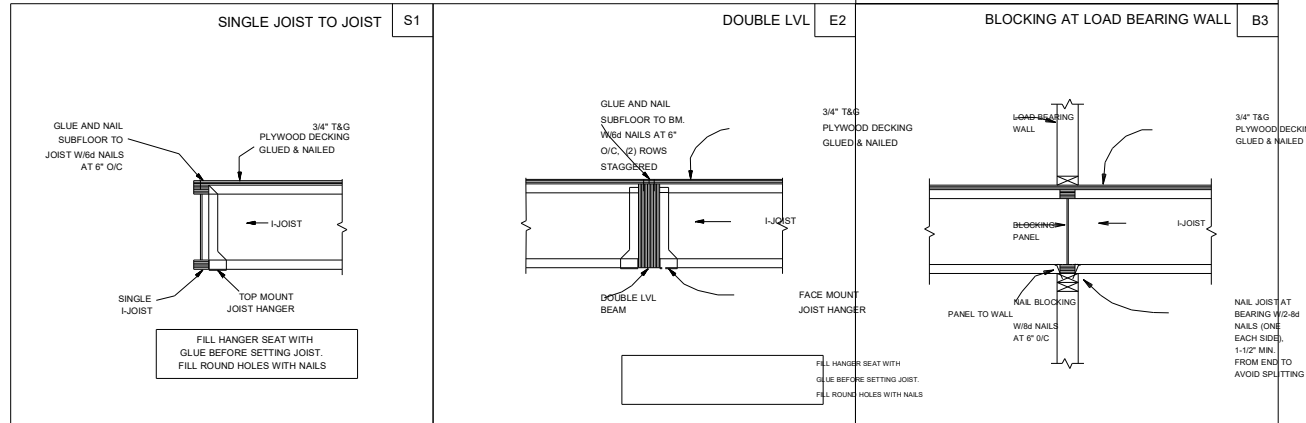
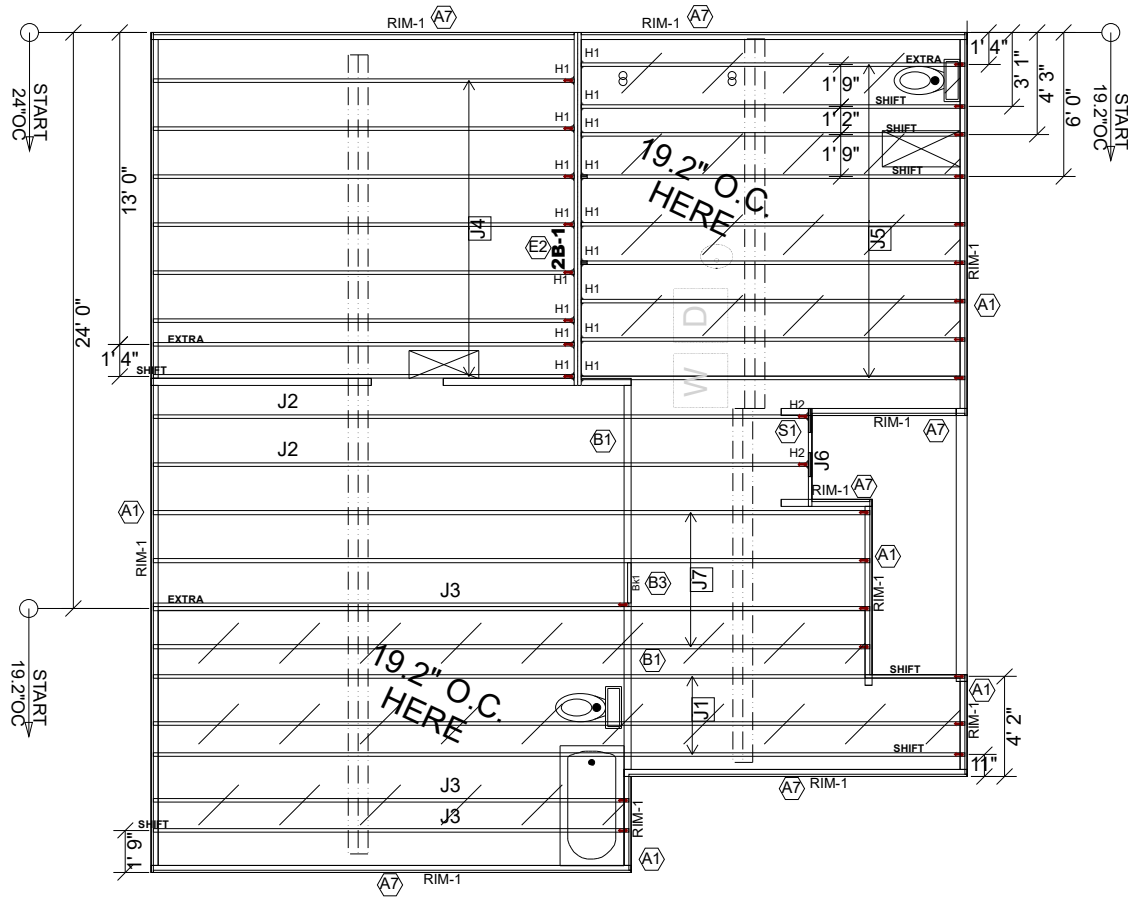
Avoid Plumbing Drops

**FRAMER NOTE**

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

**CRITICAL !!**

INSTALL 2X4 SQUASH BLOCKS IN FLOOR TRUSS SPACE BELOW ALL EXTERIOR DOOR HEADER JACKS. CUT 1/16" TALLER THAN TRUSS.



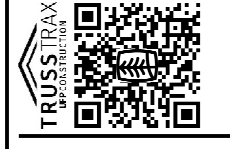
**FLOOR PLACEMENT PLAN**

SCALE: 3/16"=1'

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**SMITH DOUGLAS**

**BENSON II**

REVISIONS	DATE	DESCRIPTION	DSN

DESIGNER CP3  
 LAYOUT DATE 6/29/23  
 ARCH DATE 11/1/22  
 STRUC DATE -  
 JOB #: 23010481JF2