- ALL WALLS SHOWN ON THE FLOOR PLANS ARE DRAWN AT 4" UNLESS NOTED OTHERWISE.
- 3. ALL ANGLED WALLSHOWN ON THE PLANS ARE 45 DEGREES UNLESS NOTED
- 4. STUD WALL DESIGN SHALL CONFORM TO ALL NORTH CAROLINA STATE BUILDING CODE REQUIREMENTS.
- DO NOT SCALE PLANS. DRAWING SCALE MAY BE DISTORTED DUE TO COPIER IMPERFECTIONS.
- 6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NORTH CAROLINA RESIDENTIAL STATE BUILDING CODE, 2018 EDITION.

SQUARE FOOTAGE

<u>HEATED SQUARE FOOTAGE</u>		<u>UNHEATED SQUARE F</u>	OOTA
FIRST FLOOR=	857	GARAGE=	396
SECOND FLOOR=	1088	FRONT PORCH=	60
THIRD FLOOR=	N/A	COV'RD. PORCH=	137
BASEMENT=	N/A	DECK=	N/A
		STORAGE=	N/A

TOTAL HEATED= 1945 TOTAL UNHEATED= 593

CRAWL SPACE VENTILATION CALCULATIONS

-VENT LOCATIONS MAY VARY FROM THOSE SHOWN ON THE PLAN BUT SHOULD BE PLACED TO PROVIDE ADEQUATE VENTILATION AT ALL POINTS TO PREVENT DEAD AIR POCKETS.

-100% VAPOR BARRIER MUST BE PROVIDED WITH 12" MIN. LAP JOINTS.

-THE TOTAL AREA OF VENTILATION OPENINGS MAY BE REDUCED TO 1/1500 AS LONG AS REQUIRED OPENINGS ARE PLACED SO AS TO PROVIDE CROSS-VENTILATION OF THE SPACE. THE INSTALLATION OF OPERABLE LOUVERS SHALL NOT BE PROHIBITED. (COMPLY WITH NC CODE MIN. WITH REGARD TO VENT PLACEMENT FROM CORNERS)

SQ. FT. OF CRAWL SPACE/1500

.57 SQ. FT. OF REQUIRED VENTILATION

PROVIDED BY: 3 VENTS AT 0.45 SQ. FT. NET FREE

VENTILATION EACH= 1.35 SQ. FT. OF VENTILATION

**FOUNDATION DRAINAGE- WATERPROOFING PER SECTIONS 405 & 406.

ATTIC VENTILATION CALCULATIONS

- CALCULATIONS SHOWN BELOW ARE BASED ON VENTILATORS USED AT LEAST 3 FT. ABOVE THE CORNICE VENTS WITH THE BALANCE OF VENTIALTION PROVIDED BE EAVE VENTS.

- CATHEDRAL CEILINGS SHALL HAVE A MIN. 1" CLEARANCE BETWEEN THE BOTTOM OF THE ROOF DECK AND THE INSULATION.

1755 SQ. FT. OF ATTIC/300= 5.85

EACH OF INLET AND OUTLET REQUIRED.

*WALL AND ROOF CLADDING DESIGN VALUES

- WALL CLADDING IS DESIGNED FOR A 24.1 SQ. FT. OR GREATER POSITIVE AND NEGATIVE PRESSURE.

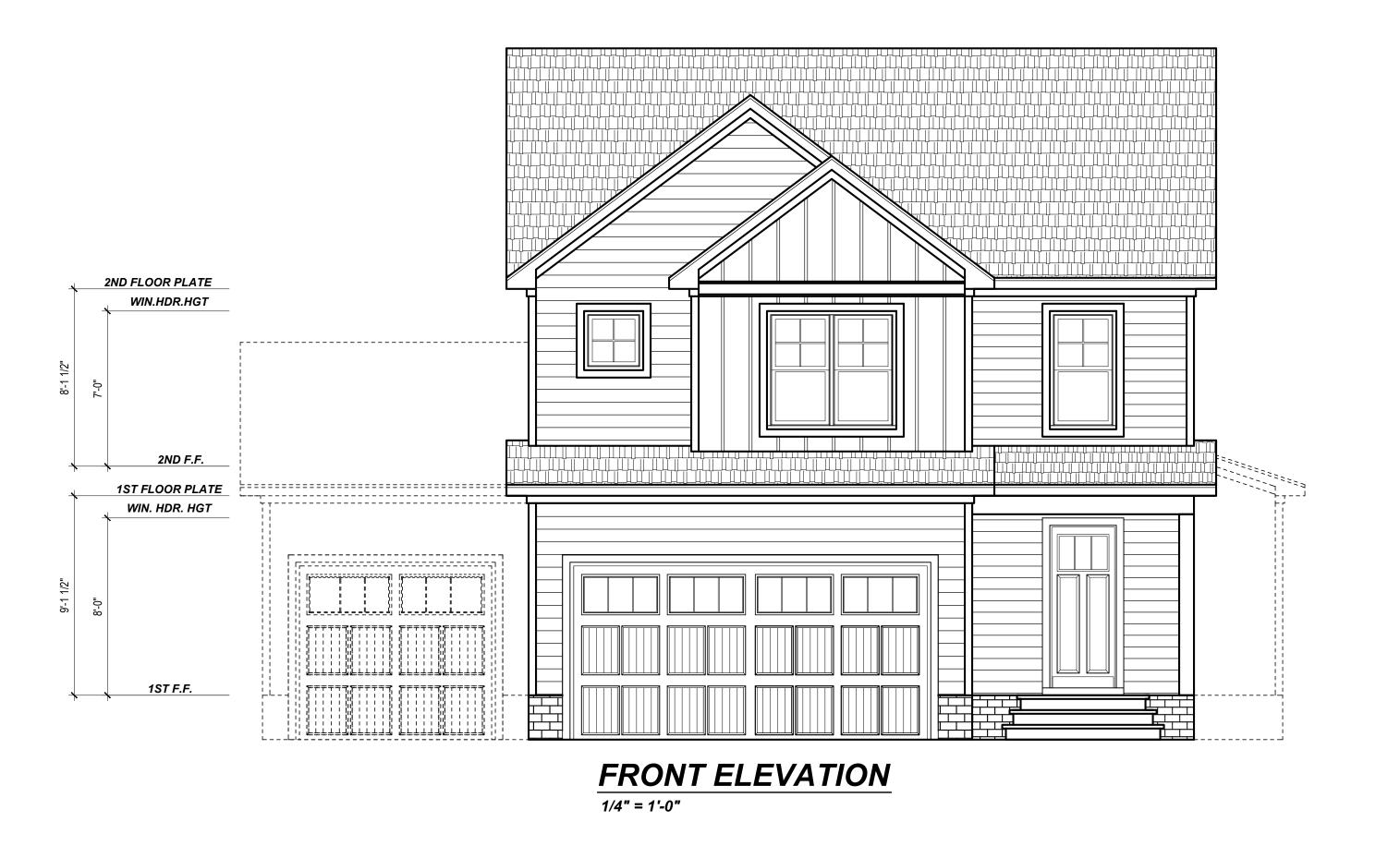
- ROOF VALUES BOTH POSITVE AND NEGATIVE SHALL BE AS FOLLOWS:

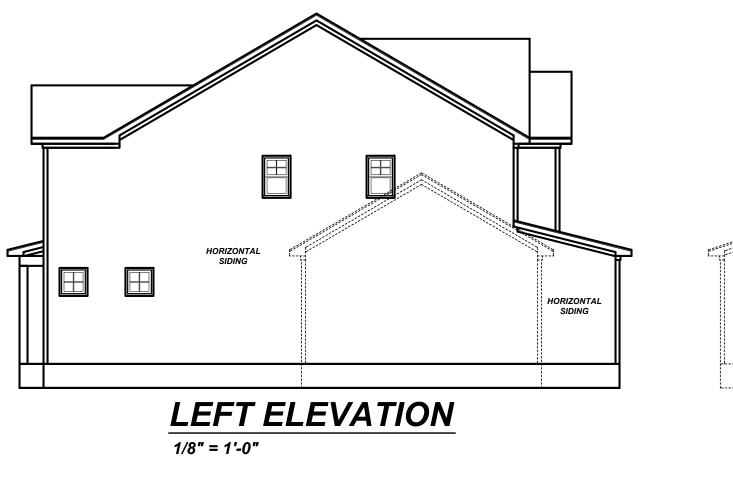
45.5 LBS. PER SQ. FT. FOR ROOF PITCHES OF 0/12 TO 2.25/12

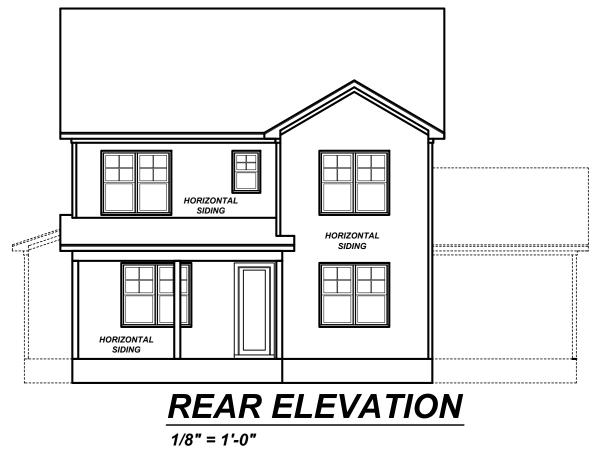
34.8 LBS. PER SQ. FT. FOR ROOF PITCHES OF 2.25/12 TO 7/12

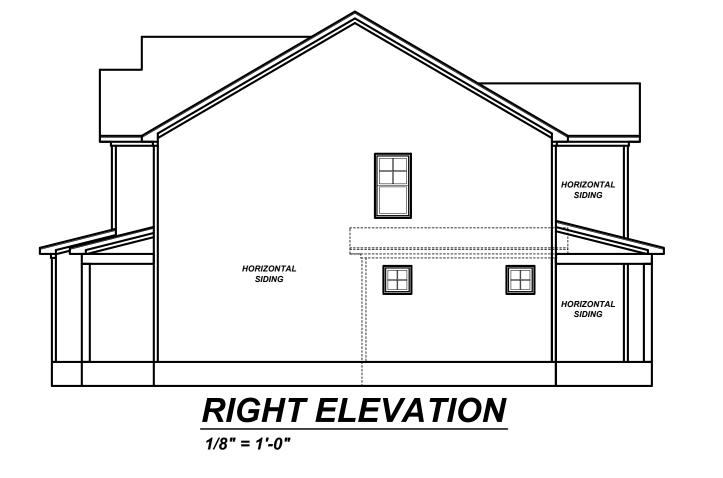
21 LBS. PER SQ. FT. FOR ROOF PITCHES OF 7/12 TO 12/12

** MEAN ROOF HEIGHT 30' OR LESS









ELEVATIONS

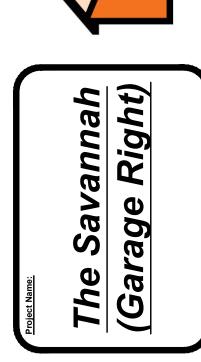
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Project #: 23-314

8-1-23

Drawn/Design By:

KBB

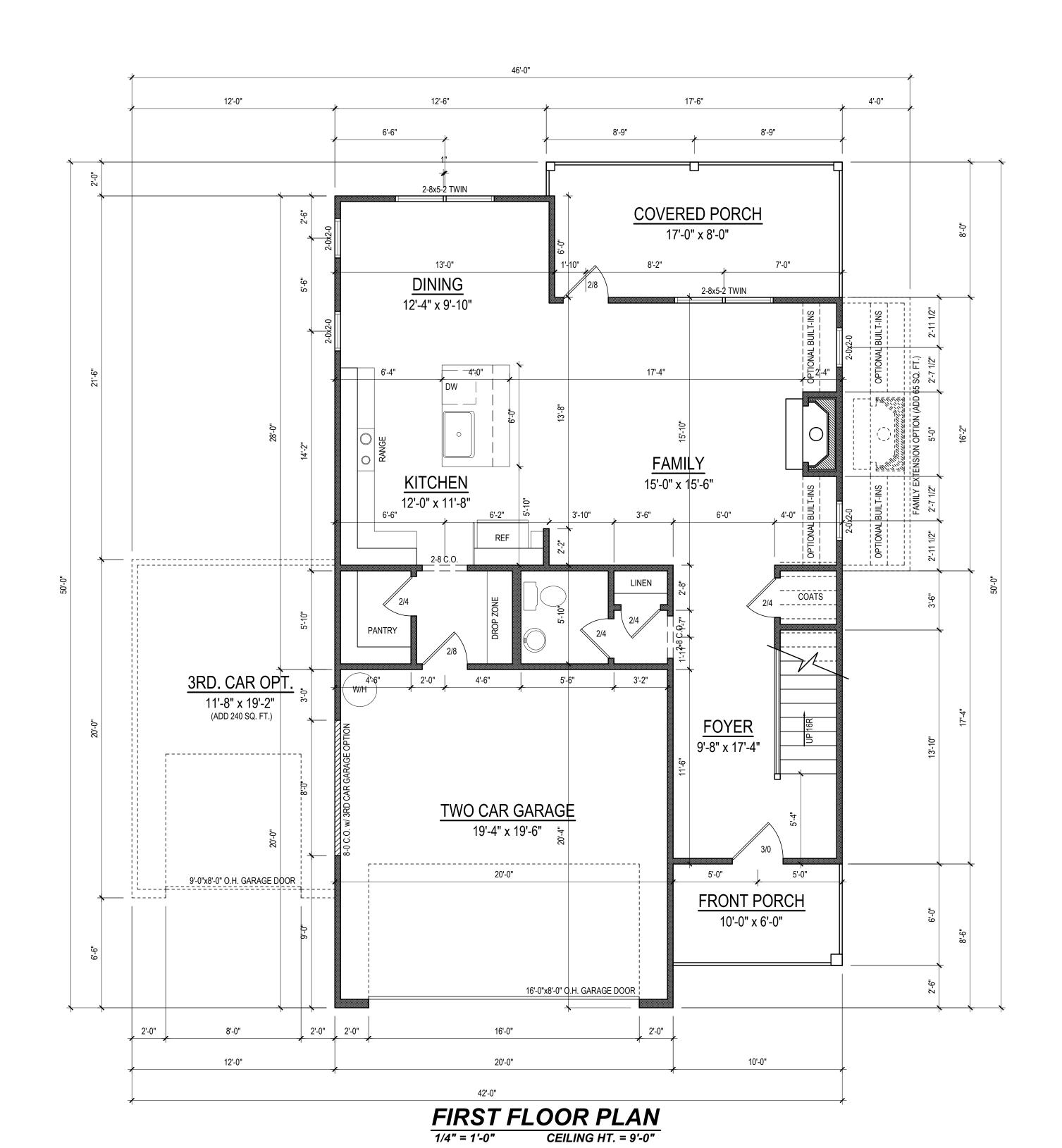


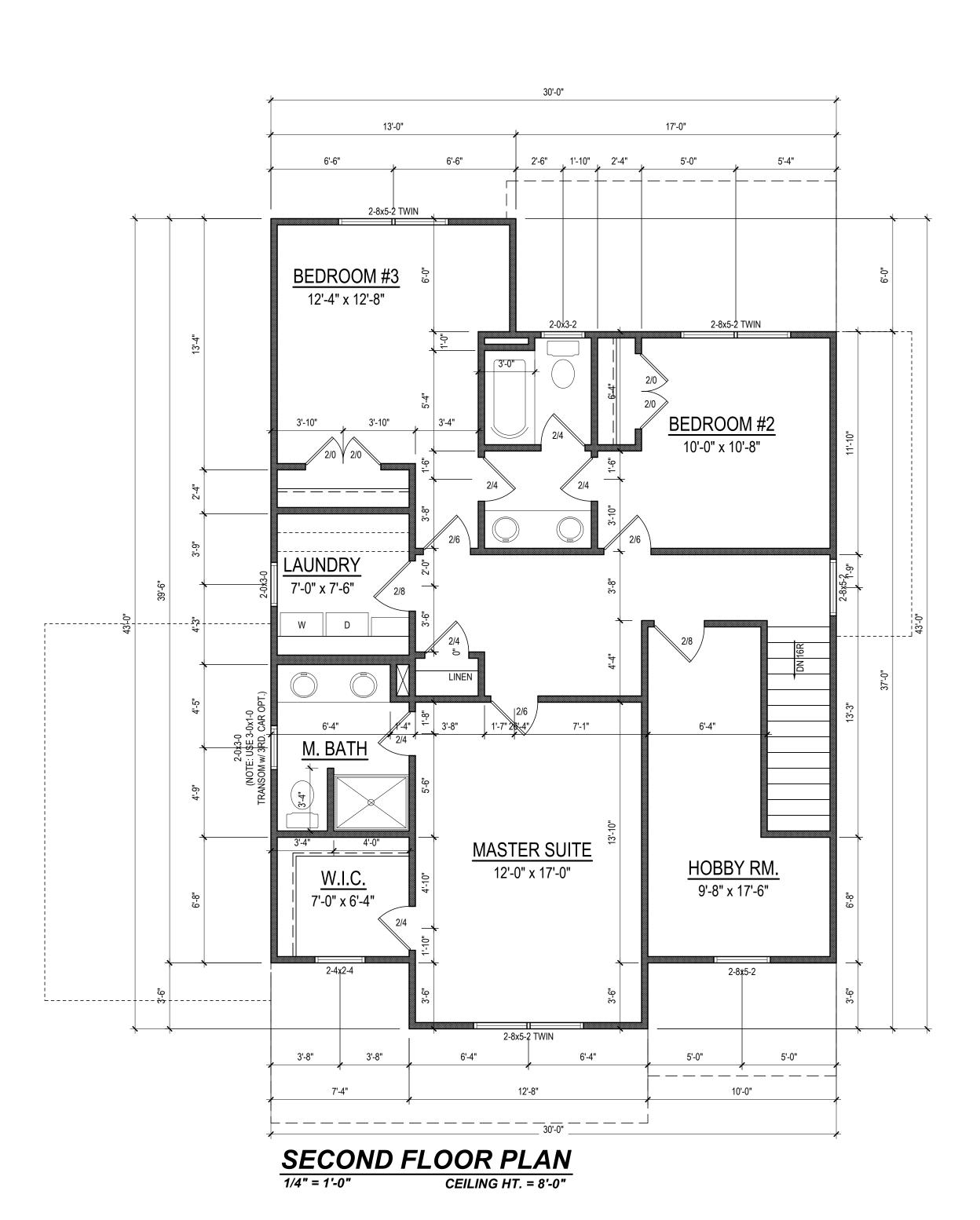
Southern Touch Homes
P.O. Box 2135
Angier, NC 27501

FIRST & SECOND FLOOR

Sheet Number

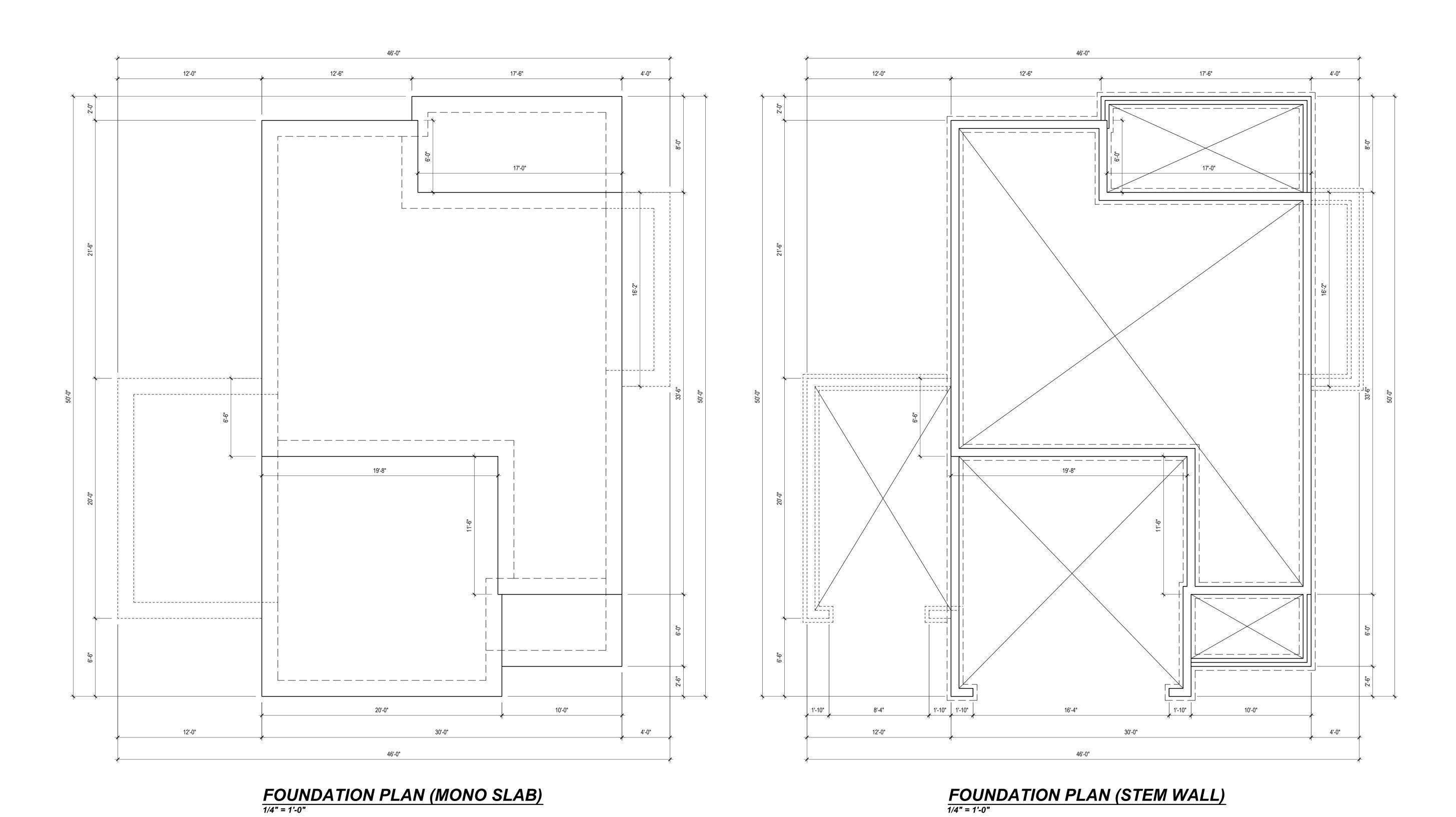
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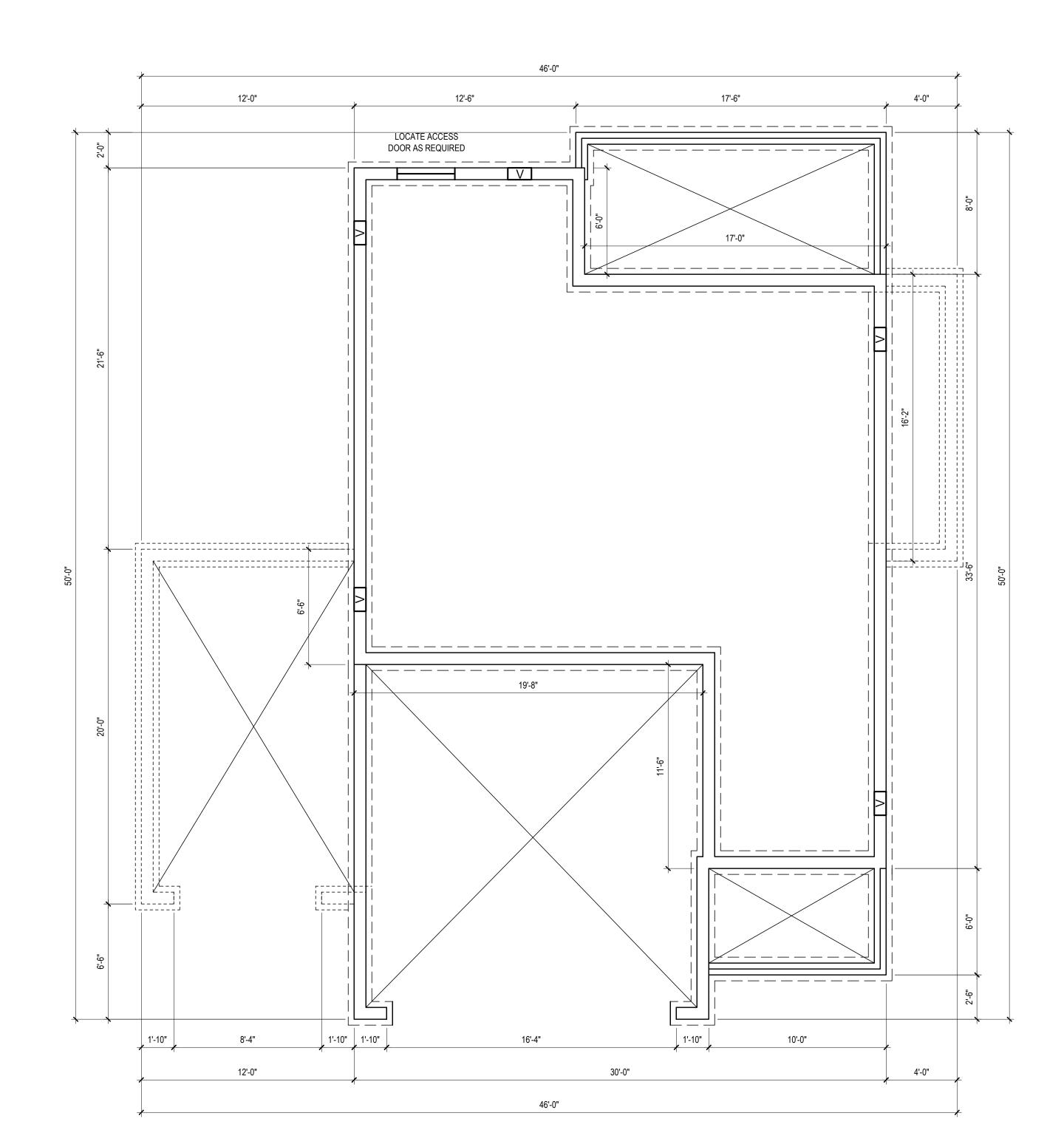
FOUNDATIONS

Sheet Number

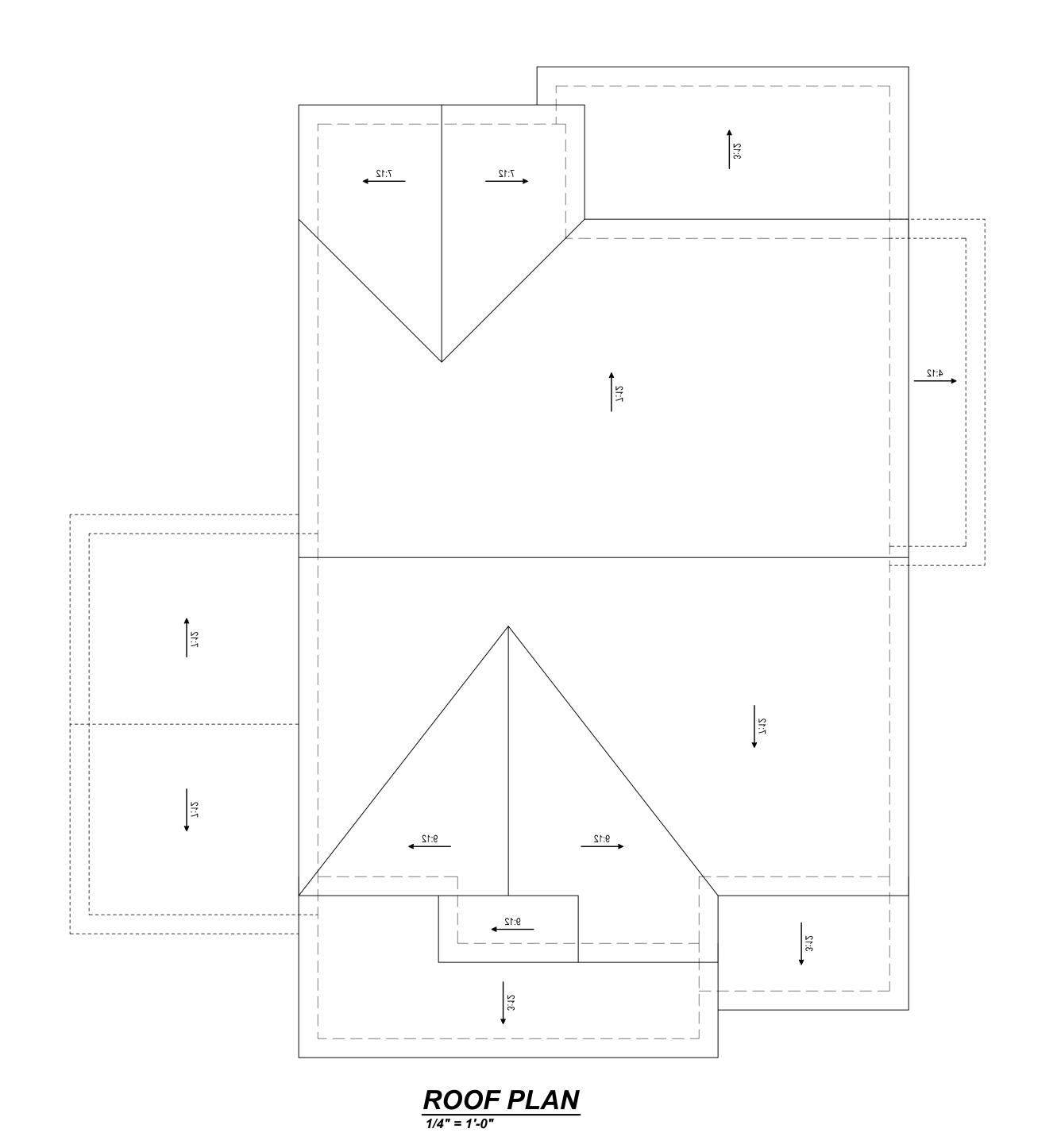


FOUNDATION & ROOF LAYOUT

Sheet Number



FOUNDATION PLAN (CRAWLSPACE)





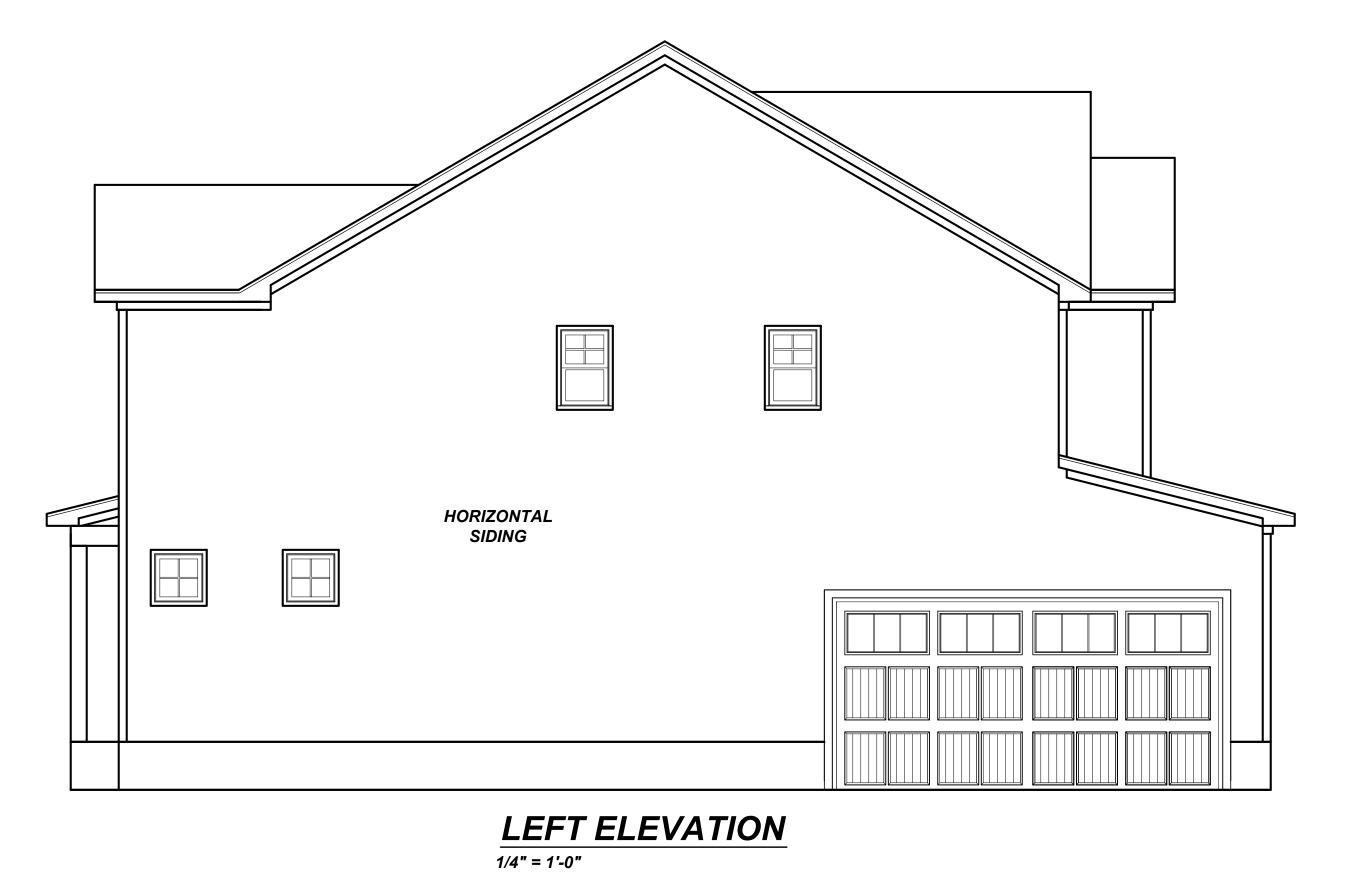


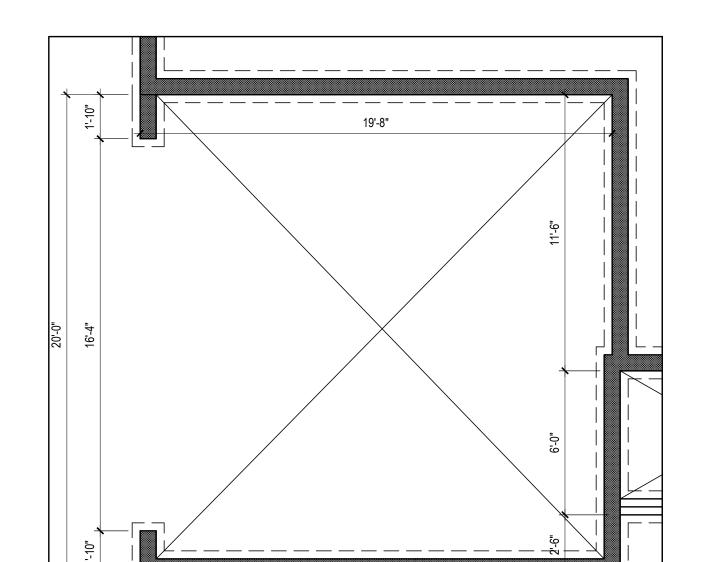
Southern Touch Home P.O. Box 2135 Angier, NC 27501

SIDE LOAD OPTION

Sheet Number

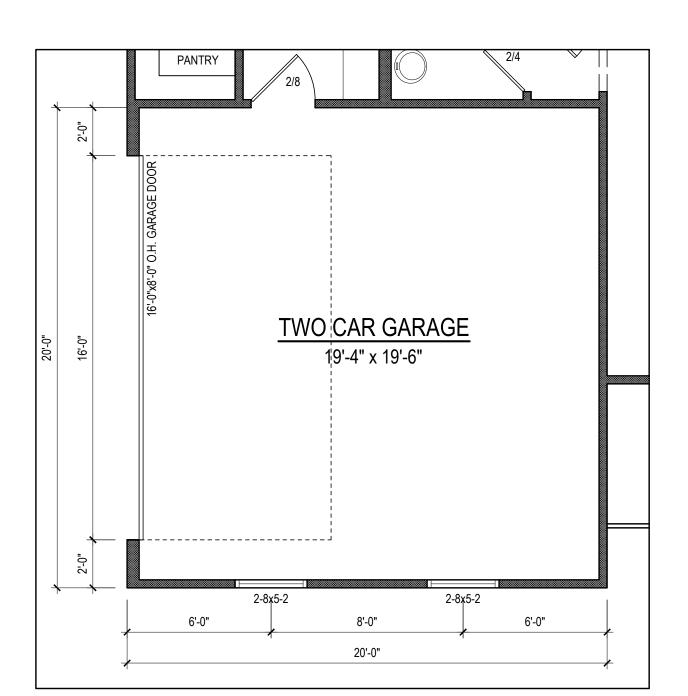








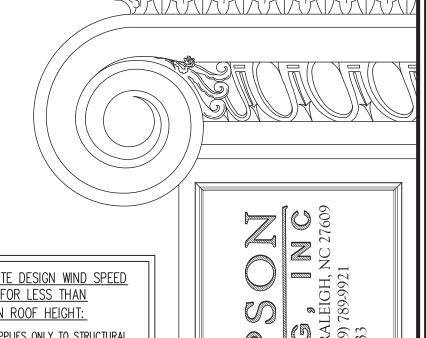
20'-0"



FIRST FLOOR PLAN (SIDE LOAD OPT.)

1/4" = 1'-0"

CEILING HT. = 9'-0"



120 MPH ULTIMATE DESIGN WIND SPEED NOTES FOR LESS THAN 30' MEAN ROOF HEIGHT:

6 x 6 TRTD. POST MIN. _ON 18" x 18" x 8" CONC. FTG. (TYP.)

4'-0"

2'-10" TO NEXT PIER 4'-8 1

OPTIONAL FAMILY

ROOM EXTENSION

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL
- WITHIN 1'-0" FROM END OF EACH CORNER. ANCHOR BOLTS MUST EXTEND A MINIMUM OF 7" INTO MASONRY OR CONCRETE. LOCATE BOLT WITHIN MIDDLE THIRD OF PLATE WIDTH.
- PSF (+/- INDICATE POSITIVE / NEGATIVE PRESSURE (TYP).
- ROOF CLADDING DESIGNED FOR +14.2 PSF AND -18
- 9. ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE
- . ALL FRAMING LUMBER TO BE #2 SPF (UNO). ALL TREATED LUMBER TO BE #2
- UNDER WALLS PARALLEL TO FLOOR JOISTS WHERE NOTED ON THE PLANS.
- 3. SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR
- 5. INSTALL LADDER WIRE @ 16" O.C. TO SECURE MULTIPLE WYTHE FOUNDATION
- ADDITIONAL STRUCTURAL INFORMATION.

ſ		
		LEGEND
	CONT	CONTINUOUS
	XJ	EXTRA JOIST
	DJ	DOUBLE JOIST
	TJ	TRIPLE JOIST
	EA	EACH
	FDN	FOUNDATION
	FTG	FOOTING
	OC	ON CENTER
	SPF	SPRUCE PINE FIR
	SYP	SOUTHERN YELLOW PINE
	TRTD	PRESSURE TREATED
	TYP	TYPICAL
	LINO	LINLESS NOTED OTHERWISE

THE SAVANNAH

THERN TOUCH H

DATE: AUGUST 14, 2023

DRAWN BY: K&A HOME DESIGN

S-1a

CRAWL FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

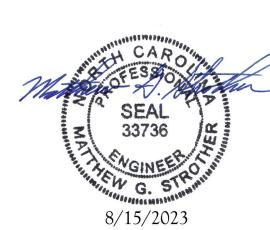
ENGINEERED BY: JAG

- LAYOUT INCLUDING ROOF SYSTEM.
 . STRUCTURAL DESIGN PER NORTH CAROLINA
- RESIDENTIAL CODE, 2018 EDITION. INSTALL 1/2" ANCHOR BOLTS 6'-0" O.C. AND
- 4. MEAN ROOF HEIGHT IS LESS THAN 30 FEET. 5. EXTERIOR WALLS DESIGNED FOR 120 MPH WINDS. 6. WALL CLADDING DESIGNED FOR +15.5 PSF AND -20
- PSF FOR ROOF PITCHES 7/12 TO 12/12 AND +10 PSF AND -36 PSF FOR ROOF PITCHED 2.25/12 TO
- 8. INSTALL 7/16" OSB SHEATHING ON ALL EXTERIOR WALLS OF ALL STORIES IN ACCORDANCE WITH SECTION R602.10.3 OF THE NCRC, 2018 EDITION. SEE THE WALL BRACING NOTES AND DETAILS SHEET FOR MORE INFORMATION.
- WITH CHAPTER 11 OF THE NCRC, 2018 EDITION. 10. REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

STRUCTURAL NOTES:

- SYP (UNO.) INSTALL AN EXTRA OR DOUBLE JOIST
- FOUNDATION. 4. SHADED PIERS TO BE FILLED SOLID.
- WALLS TOGETHER.
- . REFER TO NOTES AND DETAIL SHEETS FOR

		LEGEND
	CONT	CONTINUOUS
	XJ	EXTRA JOIST
	DJ	DOUBLE JOIST
	TJ	TRIPLE JOIST
	EA	EACH
	FDN	FOUNDATION
	FTG	FOOTING
	OC	ON CENTER
	SPF	SPRUCE PINE FIR
	SYP	SOUTHERN YELLOW PINE
	TRTD	PRESSURE TREATED
	TYP	TYPICAL
	UNO	UNLESS NOTED OTHERWISE
Į		



CONC. FTG. (TYP.) 30" x 30" x 10" CONC. FTG. (3) 2 x 10 GIRDER_ CONC. FTG. 16" x 16" CMU PIER ON 30" x 30" x 10" ─ CONC. FTG. (TYP.) 6'-4 3/4" 30" x 30" x 10" ___ CONC. FTG. CONC. FTG. GROUT ALL CELLS BELOW -POINT LOAD AND (2) CELLS AWAY EA. DIRECTIÒN SOLID SEE WALL BRACING DETAIL SHEET FOR FOUNDATION DETAILS

> 24" x 24" x 10"_ CONC. FTG.

> > 30'-0"

16'-4"

20'-0"

30'-0"

(2) 2 x 10 TRTD (TYP.)

12'-6"

_24" x 24" x 10"

8" FND. ON 16" WIDE

BY 8" DEEP CONT. —

6 x 6 TRTD. POST MIN.

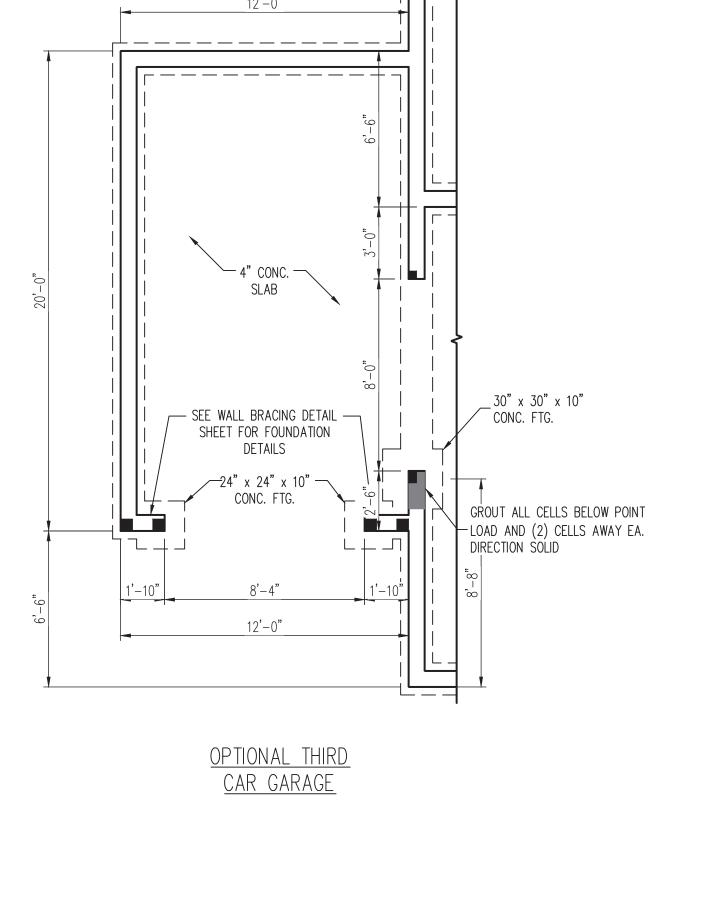
ON 18" x 18" x 8"—

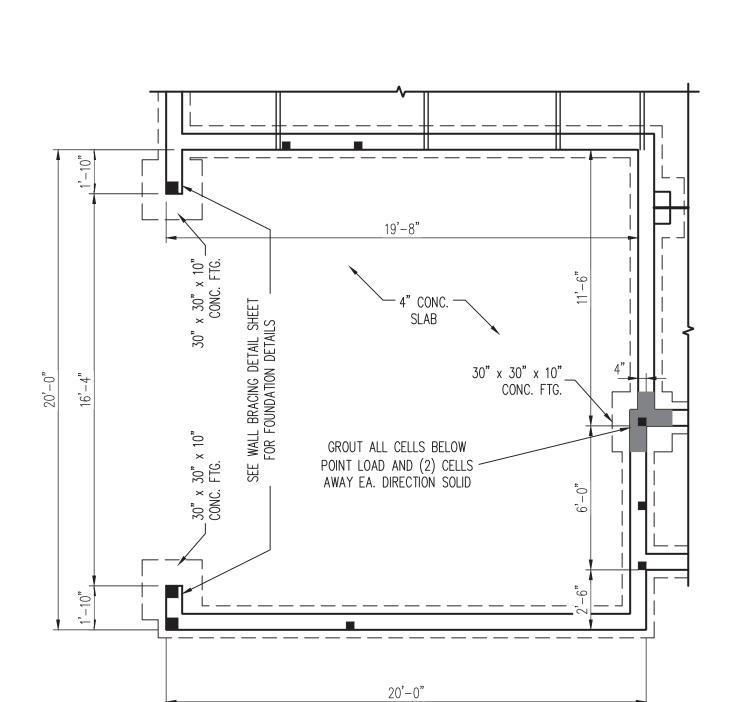
CONC. FTG. (TYP.)

17'-6"

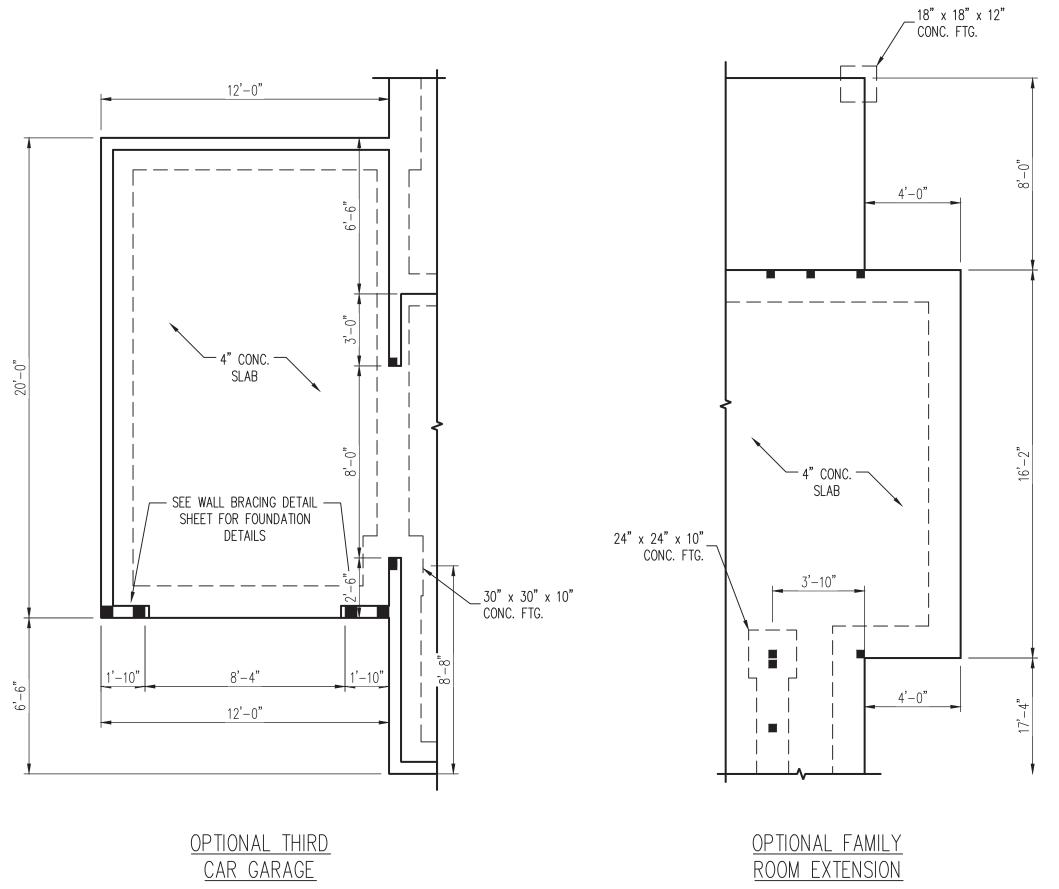
8'-9"

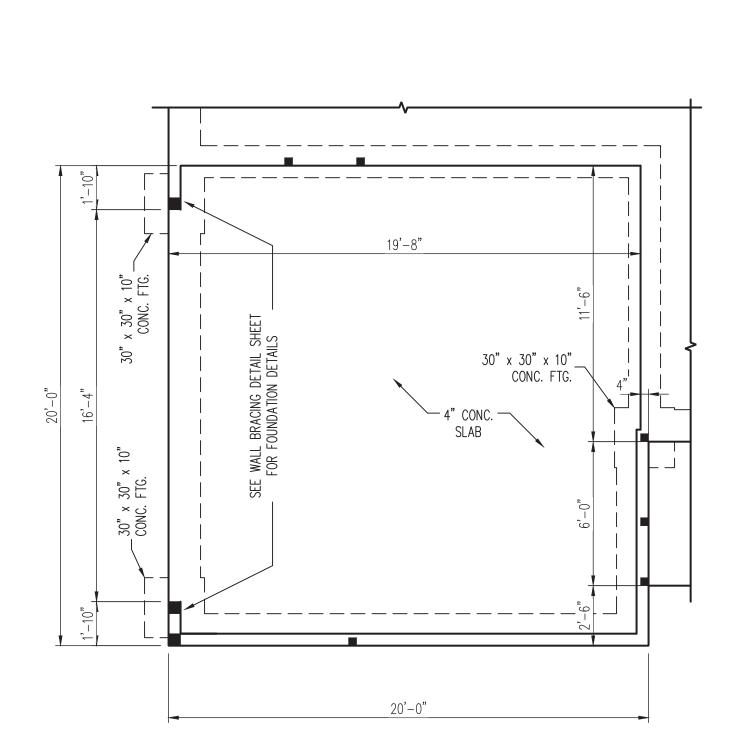
10'-0"



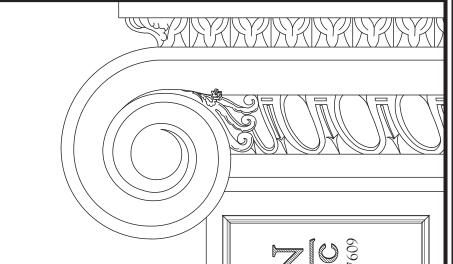


OPTIONAL SIDE LOAD GARAGE





OPTIONAL SIDE LOAD GARAGE



120 MPH ULTIMATE DESIGN WIND SPEED NOTES FOR LESS THAN 30' MEAN ROOF HEIGHT:

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM.

 STRUCTURAL DESIGN PER NORTH CAROLINA

 PEGEPENTAL CORP. 2010 ENTITLE CAROLINA

 PEGEPENTAL C
- RESIDENTIAL CODE, 2018 EDITION.
- 3. INSTALL 1/2" ANCHOR BOLTS 6'-0" O.C. AND
 WITHIN 1'-0" FROM END OF EACH CORNER.
 ANCHOR BOLTS MUST EXTEND A MINIMUM OF 7"
 INTO MASONRY OR CONCRETE. LOCATE BOLT WITHIN MIDDLE THIRD OF PLATE WIDTH.
- 4. MEAN ROOF HEIGHT IS LESS THAN 30 FEET.
 5. EXTERIOR WALLS DESIGNED FOR 120 MPH WINDS.
 6. WALL CLADDING DESIGNED FOR +15.5 PSF AND -20 PSF (+/- INDICATE POSITIVE / NEGATIVE
- PRESSURE (TYP). . ROOF CLADDING DESIGNED FOR +14.2 PSF AND -18 PSF FOR ROOF PITCHES 7/12 TO 12/12 AND +10
 PSF AND -36 PSF FOR ROOF PITCHED 2.25/12 TO
- 8. INSTALL 7/16" OSB SHEATHING ON ALL EXTERIOR WALLS OF ALL STORIES IN ACCORDANCE WITH SECTION R602.10.3 OF THE NCRC, 2018 EDITION.
 SEE THE WALCOMATION
- FOR MORE INFORMATION.

 9. ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 11 OF THE NCRC, 2018 EDITION.

 10. REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

	LEGEND
CONT	CONTINUOUS
XJ	EXTRA JOIST
DJ	DOUBLE JOIST
TJ	TRIPLE JOIST
EA	EACH
FDN	FOUNDATION
FTG	FOOTING
OC	ON CENTER
SPF	SPRUCE PINE FIR
SYP	SOUTHERN YELLOW PINE
TRTD	PRESSURE TREATED
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE

THE SAVANNAH SOUTHERN TOUCH HOMES

DATE: AUGUST 14, 2023

SCALE: 1/4" = 1'-0" DRAWN BY: K&A HOME DESIGN

ENGINEERED BY: JAG

S-1b MONO SLAB FOUNDATION PLAN



30'-0"

18" x 18" x 12" __ CONC. FTG.

___30" x 30" x 10" CONC. FTG.

— SEE WALL BRACING DETAIL SHEET —— FOR FOUNDATION DETAILS

16'-4"

16" WIDE BY 9" DEEP __ THICKENED SLAB (TYP.) 24" x 24" x 10" __ CONC. FTG.

30" x 30" x 10"_ CONC. FTG.

30'-0"

SEE MONOLITHIC SLAB DETAIL

SHEET FOR FND. OPTIONS.

8'-9"

17'-6"__

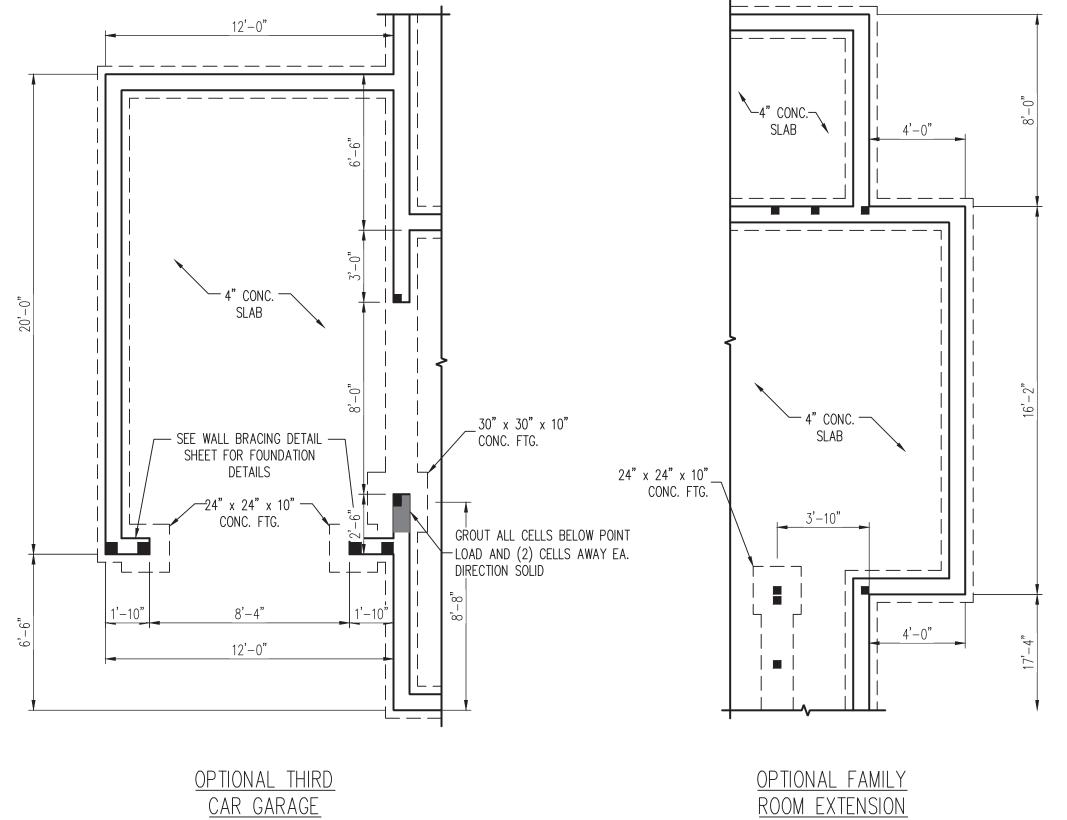
__30" x 30" x 10" CONC. FTG.

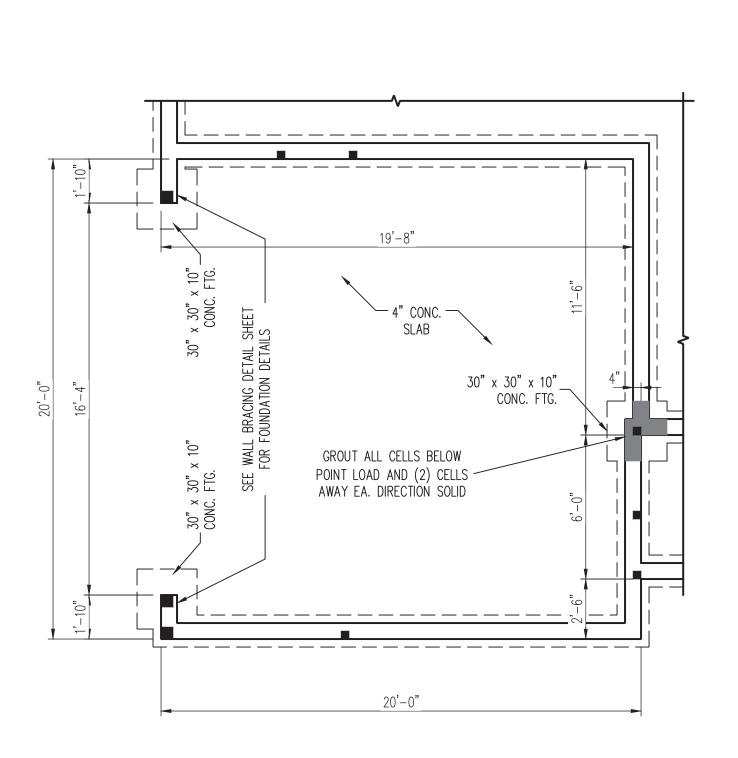
24" x 24" x 10" __ CONC. FTG.

18" x 18" x 12" ____ CONC. FTG.

10'-0"_

8'-9"





OPTIONAL SIDE LOAD GARAGE



NOTES FOR LESS THAN

30' MEAN ROOF HEIGHT:

ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL

COMPONENTS. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM.

2. STRUCTURAL DESIGN PER NORTH CAROLINA

RESIDENTIAL CODE, 2018 EDITION.

3. INSTALL 1/2" ANCHOR BOLTS 6'-0" O.C. AND WITHIN 1'-0" FROM END OF EACH CORNER.
ANCHOR BOLTS MUST EXTEND A MINIMUM OF 7" INTO MASONRY OR CONCRETE. LOCATE BOLT WITHIN

MIDDLE THIRD OF PLATE WIDTH.

4. MEAN ROOF HEIGHT IS LESS THAN 30 FEET.

5. EXTERIOR WALLS DESIGNED FOR 120 MPH WINDS.

6. WALL CLADDING DESIGNED FOR +15.5 PSF AND -20 PSF (+/- INDICATE POSITIVE / NEGATIVE

PRESSURE (TYP).

7. ROOF CLADDING DESIGNED FOR +14.2 PSF AND -18
PSF FOR ROOF PITCHES 7/12 TO 12/12 AND +10
PSF AND -36 PSF FOR ROOF PITCHED 2.25/12 TO 7/12.

8. INSTALL 7/16" OSB SHEATHING ON ALL EXTERIOR WALLS OF ALL STORIES IN ACCORDANCE WITH SECTION R602.10.3 OF THE NCRC, 2018 EDITION. SEE THE WALL BRACING NOTES AND DETAILS SHEET FOR MORE INFORMATION.

9. ENERGY EFFICIENCY COMPLIANCE AND INSULATION

VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 11 OF THE NCRC, 2018 EDITION.

10. REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

LEGEND	
CONT	CONTINUOUS
XJ	EXTRA JOIST
DJ	DOUBLE JOIST
TJ	TRIPLE JOIST
EA	EACH
FDN	FOUNDATION
FTG	FOOTING
OC	ON CENTER
SPF	SPRUCE PINE FIR
SYP	SOUTHERN YELLOW PINE
TRTD	PRESSURE TREATED
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE

8/15/2023

THE SAVANNAH UTHERN TOUCH HOMES

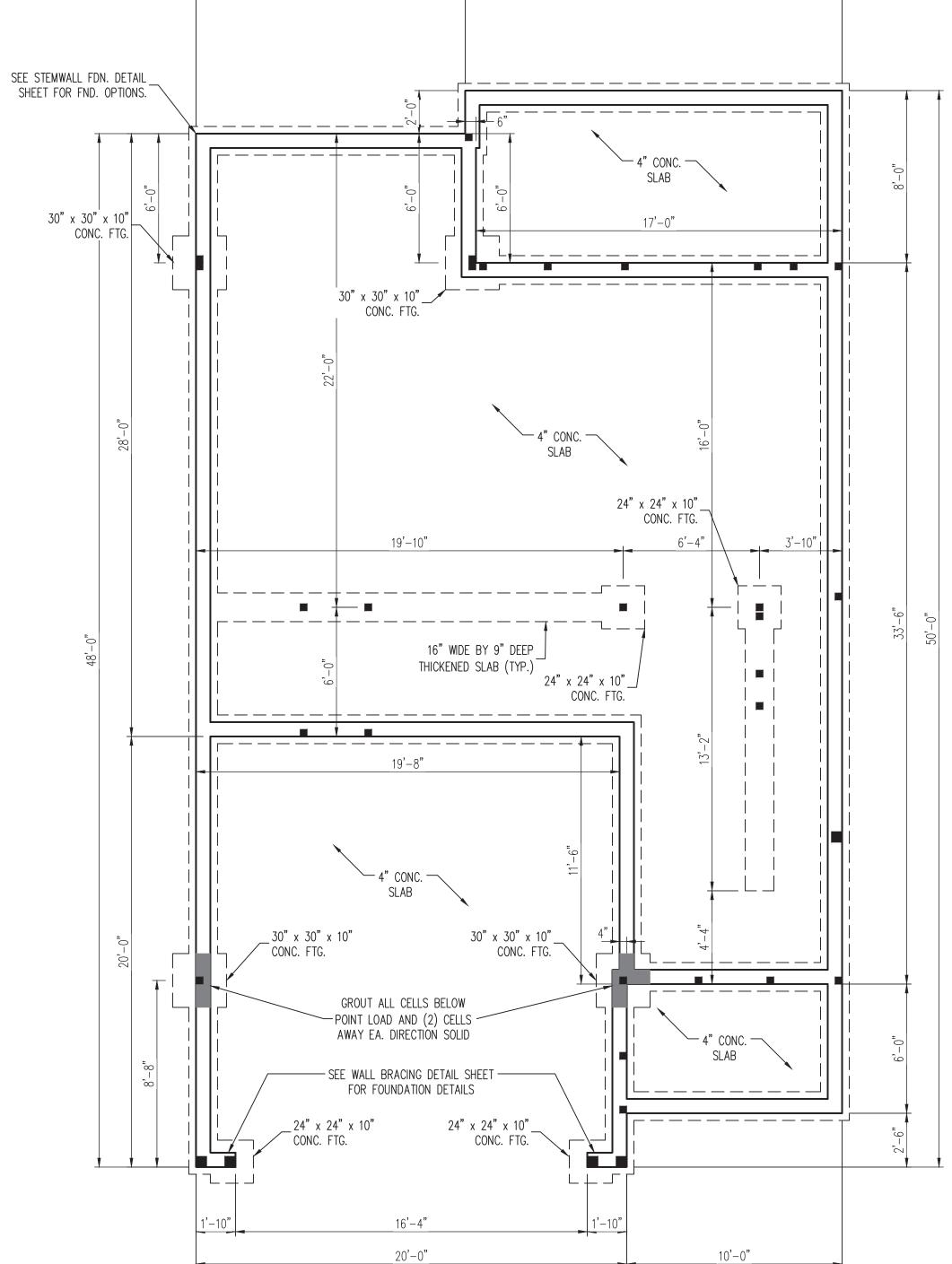
DATE: AUGUST 14, 2023

SCALE: 1/4" = 1'-0"

DRAWN BY: K&A HOME DESIGN
ENGINEERED BY: JAG

S-1c stem wall foundation plan

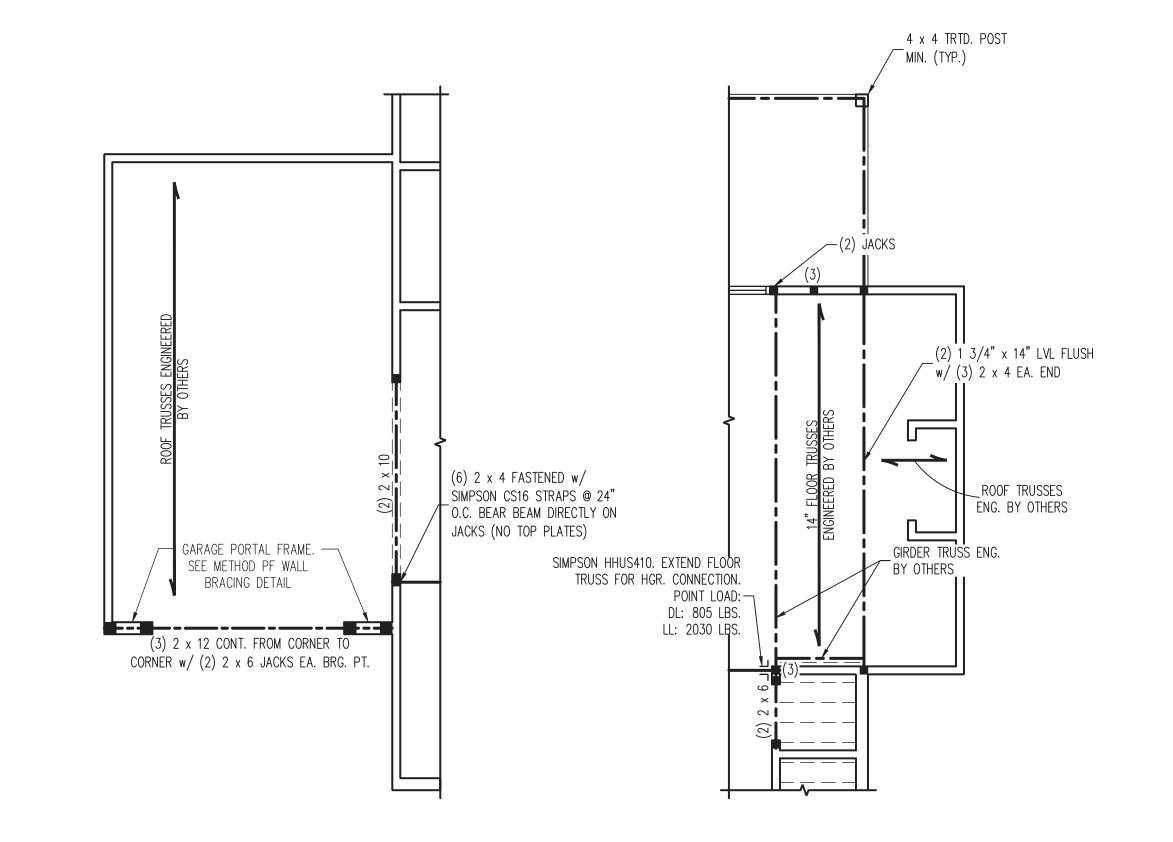




30'-0"

30'-0"___

17'-6"



OPTIONAL FAMILY

ROOM EXTENSION

BRACED WALL DESIGN NOTES:

- . BRACED WALL DESIGN PER SECTION R602.10.5 "WALL BRACING BY ENGINEERED DESIGN" OF THE NCRC 2018 EDITION USING BRACING MATERIALS AND METHODS LISTED IN TABLE R602.10.1 ALONG WITH ALTERNATIVE MATERIALS AND METHODS THAT COMPLY WITH ACCEPTED ENGINEERING PRACTICE. BRACED WALL DESIGN IS NOT PRESCRIPTIVE.
- 2. SHEATH ALL EXTERIOR WALLS w/ 7/16" OSB TO PROVIDE CS-WSP WALL BRACING THAT WILL BRACE THE STRUCTURE FOR ALL LATERAL LOADS AS REQUIRED BY THE NCRC 2018 EDITION.
- 3. CS-WSP REFERS TO "CONTINUOUSLY SHEATHED WOOD STRUCTURAL PANELS." CONTRACTOR IS TO INSTALL 7/16" OSB ON ALL EXTERIOR WALLS ATTACHED w/ 8d NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD. 4. GB REFERS TO "GYPSUM BOARD." CONTRACTOR IS TO INSTALL 1/2" (MIN.)
- GYPSUM BOARD ON BOTH SIDES OF WALL WHERE NOTED ON THE PLANS ATTACHED WITH 1 1/4" LONG #6 SCREWS OR 1 5/8" LONG 5d COOLER NAILS SPACED 7" O.C. ALONG PANEL EDGES AND IN THE FIELD.
- . BRACED WALL DESIGN APPLIED IN WIND ZONES UP TO 130 MPH. FOR HIGH WIND ZONES, BRACED WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 45 OF THE NCRC 2018 EDITION.
- 6. SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL BRACED WALL INFORMATION.

STRUCTURAL NOTES:

- ALL FRAMING LUMBER TO BE SPF #2 (UNO). ALL TREATED LUMBER TO BE SYP #2 (UNO.)
- ALL LOAD BEARING HEADERS TO BE (2) 2 x 6 (UNO). INSTALL 2 x 4 @ 16" O.C. BLOCKING BETWEEN ADJACENT TRUSSES UNDER WALLS PARALLEL TO FLOOR TRUSSES WHERE WALL LENGTH EXCEEDS 1/3 OF TRUSS SPAN (SEE DETAIL THIS SHEET). TRUSS DESIGNER TO DESIGN ADJACENT TRUSSES FOR ADDITIONAL LOADING FROM WALLS.
- WINDOW AND DOOR HEADERS TO BE SUPPORTED w/ (1) JACK STUD AND (1) KING STUD EA. END (UNO.). SEE TABLE R602.7.5 FOR ADDITIONAL KING STUD REQUIREMENTS. SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID
- BLOCKING TO GIRDER OR FOUNDATION. ALL SQUARES TO BE (2) STUDS (UNO.) ALL 4 x 4 POSTS SHALL BE ANCHORED TO SLABS w/ SIMPSON
- ABU44 POST BASES (OR EQUAL) AND 6 x 6 POSTS w/ ABU66 POST BASES (OR EQUAL) (UNO). ALL 4 x 4 AND 6 x 6 POSTS TO BE INSTALLED WITH 700 LB CAPACITY UPLIFT CONNECTORS AT TOP (UNO.)
- FOR FIBERGLASS, ALUMINUM, OR COLUMN ENG. BY OTHERS, SECURE TO SLAB w/(2) METAL ANGLES USING 2" CONC. SCREWS. FASTEN ANGLES TO COLUMNS w/ 1/4" THROUGH BOLTS w/ NUTS AND WASHERS. LOCATE ANGLES ON OPPOSITE SIDES OF COLUMN. THROUGH BOLTS MUST BE INSTALLED PRIOR TO SETTING COLUMN.
- REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.



TABLE R602.7.5 MINIMUM NUMBER OF FULL HEIGHT KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

AT LACIT LIND OF	TILADERS IN EXTERIOR WA
HEADER SPAN (FEET)	MINIMUM NUMBER OF FULL HEIGHT STUDS (KINGS)
UP TO 3'	1
> 3' TO 6'	2
> 6' TO 9'	3
> 9' TO 12'	4
> 12' TO 15'	5

LEGEND
CONTINUOUS
EXTRA JOIST
DOUBLE JOIST
TRIPLE JOIST
EACH
NUMBER OF STUDS
DOUBLE STUD POCKET
TRIPLE STUD POCKET
ON CENTER
SPRUCE PINE FIR
SOUTHERN YELLOW PINE
PRESSURE TREATED
TYPICAL
UNLESS NOTED OTHERWISE

DATE: AUGUST 14, 2023 SCALE: 1/4" = 1'-0" DRAWN BY: K&A HOME DESIGN ENGINEERED BY: JAG

THE SAVANNAH

SECOND FLOOR FRAMING PLAN

(6) 2 x 4 FASTENED w/ SEE ME DETAIL SIMPSON CS16 STRAPS @ 24" O.C. BEAR BEAM DIRECTLY ON JACKS (NO TOP PLATES) (3) 1 3/4" x 24" LVL SET TOP FLUSH w/ TOP OF JOISTS GE PORTAL PF WALL E -SIMPSON HGU5.50-SDS ' ─SIMPSON U414 __14" FLOOR TRUSSES ENG. BY OTHERS (2) 2 x 10

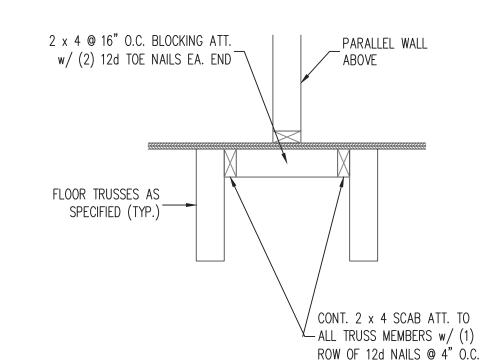
OPTIONAL THIRD

CAR GARAGE

OPTIONAL SIDE LOAD GARAGE

BEAM MAY BE CHAMFERED TO

MATCH ROOF LINE. MIN 6" REMAIN



TRUSS BLOCKING DETAIL (SEE NOTE 3 FOR ADDITIONAL INFORMATION)

(2) 1 3/4" x 14" LVL FLUSH w/ (5) 2 x 4 EA. END w/ (2) JACKS EA. END GIRDER TRUSS ENG. SIMPSON HHUS410. EXTEND BY OTHERS FLOOR TRUSS FOR HGR. CONNECTION. POINT LOAD: DL: 805 LBS. LL: 2030 LBS. __ 2 x 6 @ 16" O.C. BALLOON FRAMED WALL GIRDER TRUSS ENG. BY OTHERS (6) 2×4 FASTENED w/ SIMPSON CS16 STRAPS @ 24" O.C. BEAR BEAM DIRECTLY ON JACKS (NO TOP PLATES) (6) 2×4 FASTENED w/ SIMPSON CS16 STRAPS @ 24" (3) 1 3/4" x 24" LVL O.C. BEAR BEAM DIRECTLY ON SET TOP FLUSH w/ TOP OF JOISTS JACKS (NO TOP PLATES) -SIMPSON U414 __14" FLOOR TRUSSES ENG. BY OTHERS (2) 1 3/4" x 14" LVL FLUSH (2) 2 x 10 (TYP.) -SIMPSON U414 4 x 4 TRTD. POST

> (3) 1 3/4" x 11 7/8" LVL CONT. CORNER TO CORNER w/(2) 2 x 6 JACKS EA. BRG. PT.

- GARAGE PORTAL FRAME. SEE METHOD -PF WALL BRACING DETAIL

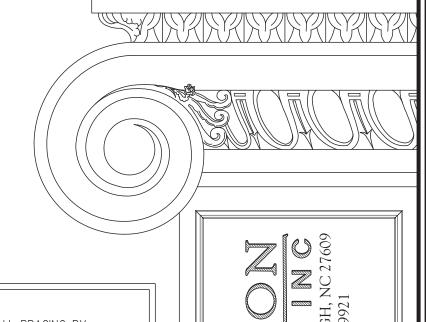
BEAM MAY BE CHAMFERED TO MATCH ROOF LINE. MIN 6" REMAIN

4 x 4 TRTD. POST

MIN. (TYP.)

MIN. (TYP.)

(2) 2 x 10 (TYP.)



BRACED WALL DESIGN NOTES:

INFORMATION.

- BRACED WALL DESIGN PER SECTION R602.10.5 "WALL BRACING BY ENGINEERED DESIGN" OF THE NCRC 2018 EDITION USING BRACING MATERIALS AND METHODS LISTED IN TABLE R602.10.1 ALONG WITH ALTERNATIVE MATERIALS AND METHODS THAT COMPLY WITH ACCEPTED ENGINEERING PRACTICE. BRACED WALL DESIGN IS NOT PRESCRIPTIVE.
 SHEATH ALL EXTERIOR WALLS w/ 7/16" OSB TO PROVIDE CS-WSP WALL
- BRACING THAT WILL BRACE THE STRUCTURE FOR ALL LATERAL LOADS AS REQUIRED BY THE NCRC 2018 EDITION.

 3. CS-WSP REFERS TO "CONTINUOUSLY SHEATHED WOOD STRUCTURAL"
- PANELS." CONTRACTOR IS TO INSTALL 7/16" OSB ON ALL EXTERIOR WALLS
 ATTACHED w/ 8d NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12"
 O.C. IN THE FIELD.

 4. GB REFERS TO "GYPSUM BOARD." CONTRACTOR IS TO INSTALL 1/2" (MIN.)
- GYPSUM BOARD ON BOTH SIDES OF WALL WHERE NOTED ON THE PLANS

 ATTACHED WITH 1 1/4" LONG #6 SCREWS OR 1 5/8" LONG 5d COOLER

 NAILS SPACED 7" O.C. ALONG PANEL EDGES AND IN THE FIELD.

 5. BRACED WALL DESIGN APPLIED IN WIND ZONES UP TO 130 MPH. FOR HIGH
- WIND ZONES, BRACED WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 45 OF THE NCRC 2018 EDITION.

 6. SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL BRACED WALL

STRUCTURAL NOTES:

- ALL FRAMING LUMBER TO BE #2 SPF (UNO).
 ALL LOAD BEARING HEADERS TO BE (2) 2 x 6
- 3. WINDOW AND DOOR HEADERS TO BE SUPPORTED w/ (1) JACK STUD AND (1) KING STUD EA. END (UNO.). SEE TABLE R602.7.5 FOR ADDITIONAL
- KING STUD REQUIREMENTS.

 SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION.

 SQUARES TO BE (2) STUDS (UNO.)
- REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

TABLE R602.7.5 MINIMUM NUMBER OF FULL HEIGHT KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

HEADER SPAN (FEET)	MINIMUM NUMBER OF FU HEIGHT STUDS (KINGS
UP TO 3'	1
> 3' TO 6'	2
> 6' TO 9'	3
> 9' TO 12'	4
> 12' TO 15'	5

	LEGEND
CONT	CONTINUOUS
XJ	EXTRA JOIST
DJ	DOUBLE JOIST
TJ	TRIPLE JOIST
EA	EACH
()	NUMBER OF STUDS
DSP	DOUBLE STUD POCKET
TSP	TRIPLE STUD POCKET
OC	ON CENTER
SPF	SPRUCE PINE FIR
SYP	SOUTHERN YELLOW PINE
TRTD	PRESSURE TREATED
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE

THE SAV. SOUTHERN TC

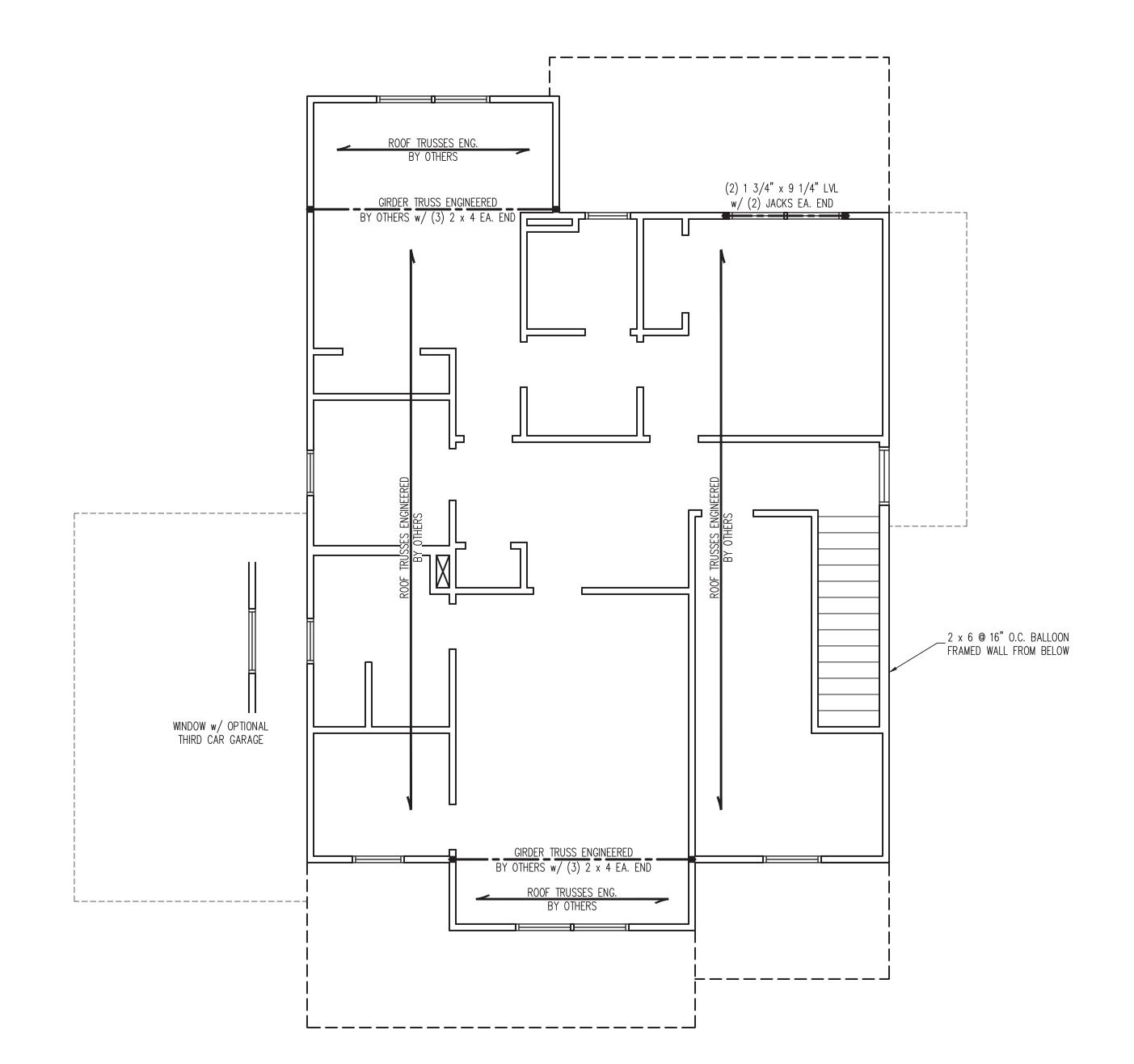
TER CHANGE

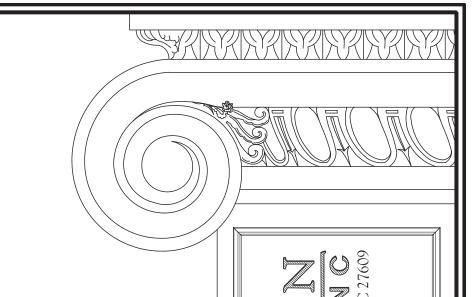
DATE: AUGUST 14, 2023 SCALE: 1/4" = 1'.0"

DRAWN BY: K&A HOME DESIGN

ENGINEERED BY: JAG

S-3
ATTIC FLOOR
FRAMING PLAN





STRUCTURAL NOTES:

- ALL FRAMING LUMBER TO BE #2 SPF (UNO).
- 2. CIRCLES DENOTE (3) 2 x 4 POSTS FOR ROOF SUPPORT.
 3. STICK FRAME OVER-FRAMED ROOF
- SECTIONS W/ 2 x 8 RIDGES, 2 x 6
 RAFTERS @ 16" O.C. AND FLAT 2 x 10
 VALLEYS.

 4. FASTEN FLAT VALLEYS TO RAFTERS
 WITH SIMPSON H2.5A HURRICANE TIES
- TIES THROUGH NOTCH IN ROOF
 SHEATHING. EACH RAFTER IS TO BE
 FASTENED TO THE FLAT VALLEY WITH
 A MIN. OF (6) 12d TOE NAILS.
 REFER TO SECTION R802.11 OF THE

@ 32" O.C. MAX. PASS HURRICANE

RESISTANCE AT RAFTERS.
REFER TO NOTES AND DETAIL SHEETS
FOR ADDITIONAL STRUCTURAL
INFORMATION.

2018 NCRC FOR REQUIRED UPLIFT

NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR ROOF PITCHES, PLATE HEIGHTS, DIMENSIONS, OVERHANG WIDTHS, AND ATTIC VENT CALCS.

	LEGEND
XT	EXTRA TRUSS
TS	TRUSS SUPPORT
XR	EXTRA RAFTER
RS	RAFTER SUPPORT
CONT	CONTINUOUS
EA	EACH
OC	ON CENTER
SPF	SPRUCE PINE FIR
SYP	SOUTHERN YELLOW PINE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE

THE SAVANNAH SOUTHERN TOUCH HOMES

SEAL 33736

SEAL 33736

SEAL 33736

SEAL 33736

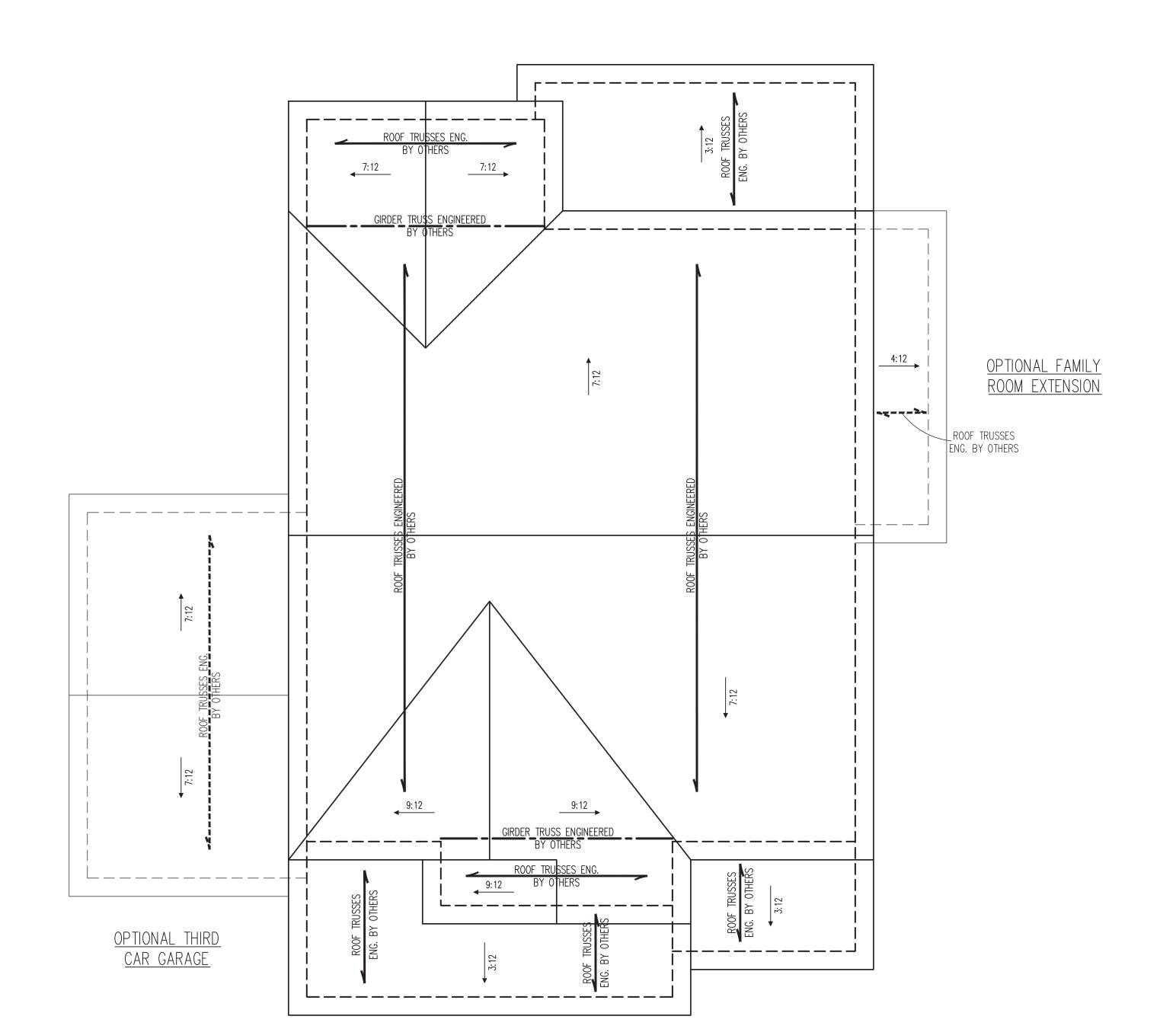
DATE: AUGUST 14, 2023 SCALE: 1/4" = 1'-0"

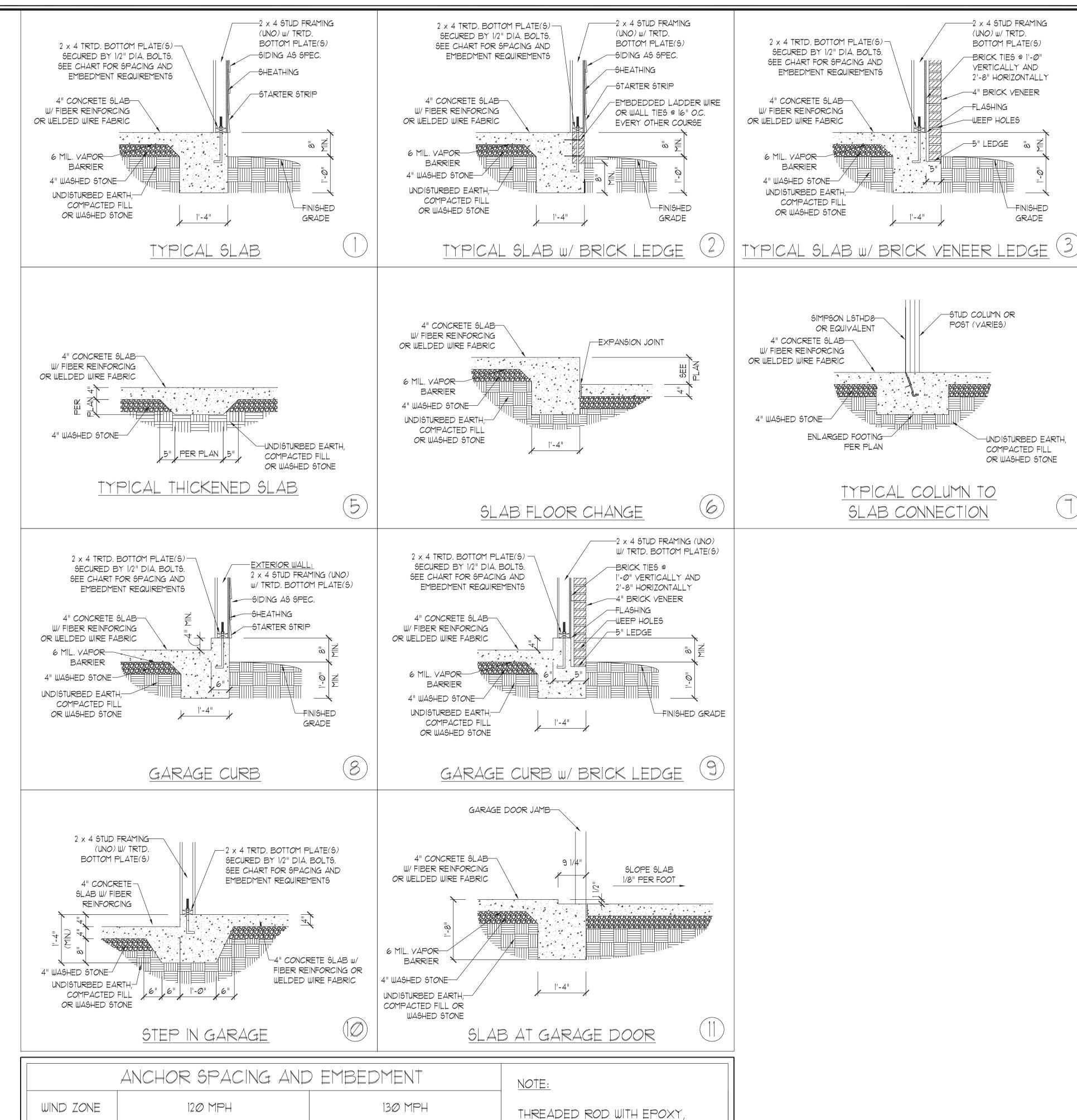
ENGINEERED BY: JAG

DRAWN BY: K&A HOME DESIGN

 $\mathcal{C} A$

S-4 ROOF FRAMING PLAN





SIMPSON TITEN HD, OR APPROVED

ANCHORS SPACED AS REQUIRED

ANCHOR BOLTS MAY BE USED IN

ANCHORAGE TO 1/2" DIAMETER

TO PROVIDE EQUIVALENT

LIEU OF 1/2" ANCHOR BOLTS.

6'-0" O.C.

INSTALL MIN. (2) ANCHORS PER

PLATE SECTION AND (1)

ANCHOR WITHIN 12" OF CORNERS

7"

SPACING

EMBEDMENT

4'-Ø" O.C.

INSTALL MIN. (2) ANCHORS PER

PLATE SECTION AND (1)

ANCHOR WITHIN 12" OF CORNERS

15" INTO MASONRY

7" INTO CONCRETE

-TREATED POST PER PLAN 4" CONCRETE SLAB POST BASE PER PLAN W/ FIBER REINFORCING OR WELDED WIRE FABRIC -FINISHED GRADE 4" WASHED STONE UNDISTURBED EARTH, COMPACTED FILL OR WASHED STONE PORCH/SCREEN PORCH

SLAB ETAIL MONOLITHIC S FOUNDATION DE

8/15/2023

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DATE: AUGUST 30, 2022 SCALE: NTS DRAWN BY: JST

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FOUNDATION DETAILS

DATE: AUGUST 30, 2022 SCALE: NTS

DRAWN BY: JST

ENGINEERED BY: JST

FOUNDATION DETAILS

2 x 4 STUD FRAMING (UNO)— W/ TRTD. BOTTOM PLATE(S) 2 x 4 TRTD. BOTTOM PLATE(S)— -SIDING AS SPEC. SECURED BY 1/2" DIA. BOLTS. SEE CHART FOR SPACING AND -SHEATHING EMBEDMENT REQUIREMENTS -LADDER WIRE IN TOP TWO COURSES (W/ VENEER ONLY) THICKENED SLAB--OPTIONAL BRICK VENEER NOT REQUIRED -FINISHED GRADE 4" CONCRETE SLAB-W/ FIBER REINFORCING OR WELDED WIRE FABRIC 6 MIL. VAPOR-EVERY OTHER 4" WASHED STONE COURSE UNDISTURBED EARTH, COMPACTED FILL OR WASHED STONE TOP TWO COURSES OF STEM WALL AND--WALL REINFORCEMENT, SEE ALL CELLS w/ REINFORCEMENT TO BE CHART FOR SPACING FILLED SOLID. H6" WIDE BY 8" DEEP CONT. CONC. FTG.

STEM WALL FON. DETAIL

BRICK TIES @

2'-8" HORIZONTALLY

LADDER WIRE

EVERYMOTHER

-12" CMU BLOCK

COURSE

-WALL REINFORCEMENT, SEE

CHART FOR SPACING

-20" WIDE BY 8" DEEP

CONT. CONC. FTG.

-4" BRICK VENEER

WEEP HOLES

-FLASHING

2 x 4 STUD FRAMING (UNO)

W/ TRTD. BOTTOM PLATE(S)

2 x 4 TRTD. BOTTOM PLATE(S)

SECURED BY 1/2" DIA. BOLTS.

EMBEDMENT REQUIREMENTS

SEE CHART FOR SPACING AND

4" CONCRETE SLAB

6 MIL. VAPOR-

UNDISTURBED EARTH,

COMPACTED FILL

TOP TWO COURSES OF STEM WALL AND-

ALL CELLS W/ REINFORCEMENT TO BE

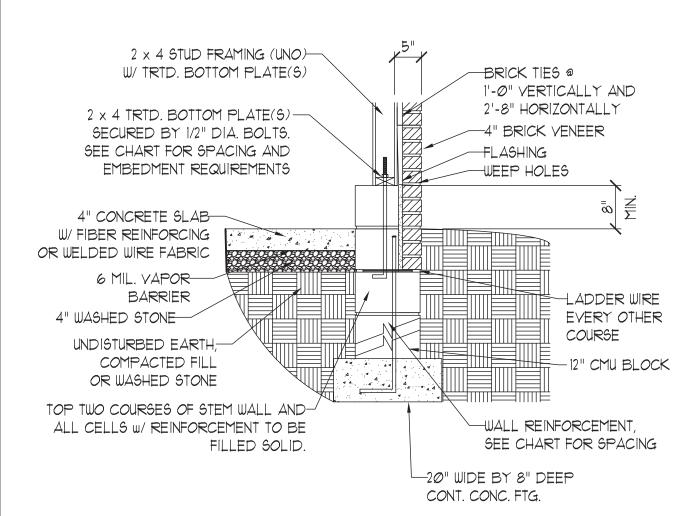
FILLED SOLID.

OR WASHED STONE

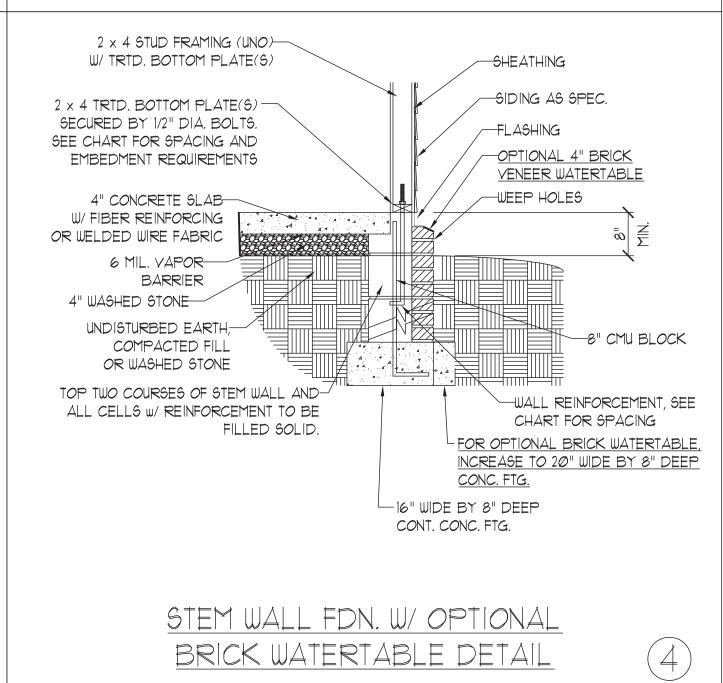
4" WASHED STONE

BARRIER

W/ FIBER REINFORCING
OR WELDED WIRE FABRIC



STEM WALL FDN. W/ BRICK AND CURB (2)



ANCHOR SPACING AND EMBEDMENT				
WIND ZONE	120 MPH	130 MPH		
SPACING	6'-0" O.C. INSTALL MIN. (2) ANCHORS PER PLATE SECTION AND (1) ANCHOR WITHIN 12" OF CORNERS	4'-Ø" O.C. INSTALL MIN. (2) ANCHORS PER PLATE SECTION AND (1) ANCHOR WITHIN 12" OF CORNERS		
EMBEDMENT	7"	15" INTO MASONRY 7" INTO CONCRETE		

STEM WALL FDN. W/ BRICK DETAIL

NOTE:

THREADED ROD WITH EPOXY, SIMPSON TITEN HD, OR APPROVED ANCHORS SPACED AS REQUIRED TO PROVIDE EQUIVALENT ANCHORAGE TO 1/2" DIAMETER ANCHOR BOLTS MAY BE USED IN LIEU OF 1/2" ANCHOR BOLTS.

BRICK WATERTABLE DETAIL

	MASONRY	MASONRY STEMWALL SPECIFICATIONS		
WALL HEIGHT		MASONRY WALL TYPE		
(FEET)	8" CMU	4" BRICK AND 4" CMU	4" BRICK AND 8" CMU	12" CMU
2 AND BELOW	UNGROUTED	GROUT SOLID	UNGROUTED	UNGROUTED
3	UNGROUTED	GROUT SOLID	UNGROUTED	UNGROUTED
4	GROUT SOLID	GROUT SOLID w/ #4 REBAR @ 48" O.C.	GROUT SOLID	GROUT SOLID w/ #4 REBAR @ 64" O.C.
5	GROUT SOLID w/ #4 REBAR @ 36" O.C.	NOT APPLICABLE	GROUT SOLID w/ #4 REBAR @ 36" O.C.	GROUT SOLID w/#4 REBAR @ 64" O.C.
6	GROUT SOLID w/ #4 REBAR @ 24" O.C.	NOT APPLICABLE	GROUT SOLID w/ #4 REBAR @ 24" O.C.	GROUT SOLID w/#4 REBAR @ 64" O.C.
7 AND GREATER	ENGINEERED DESIGN BASED ON SITE CONDITIONS			

STRUCTURAL NOTES:

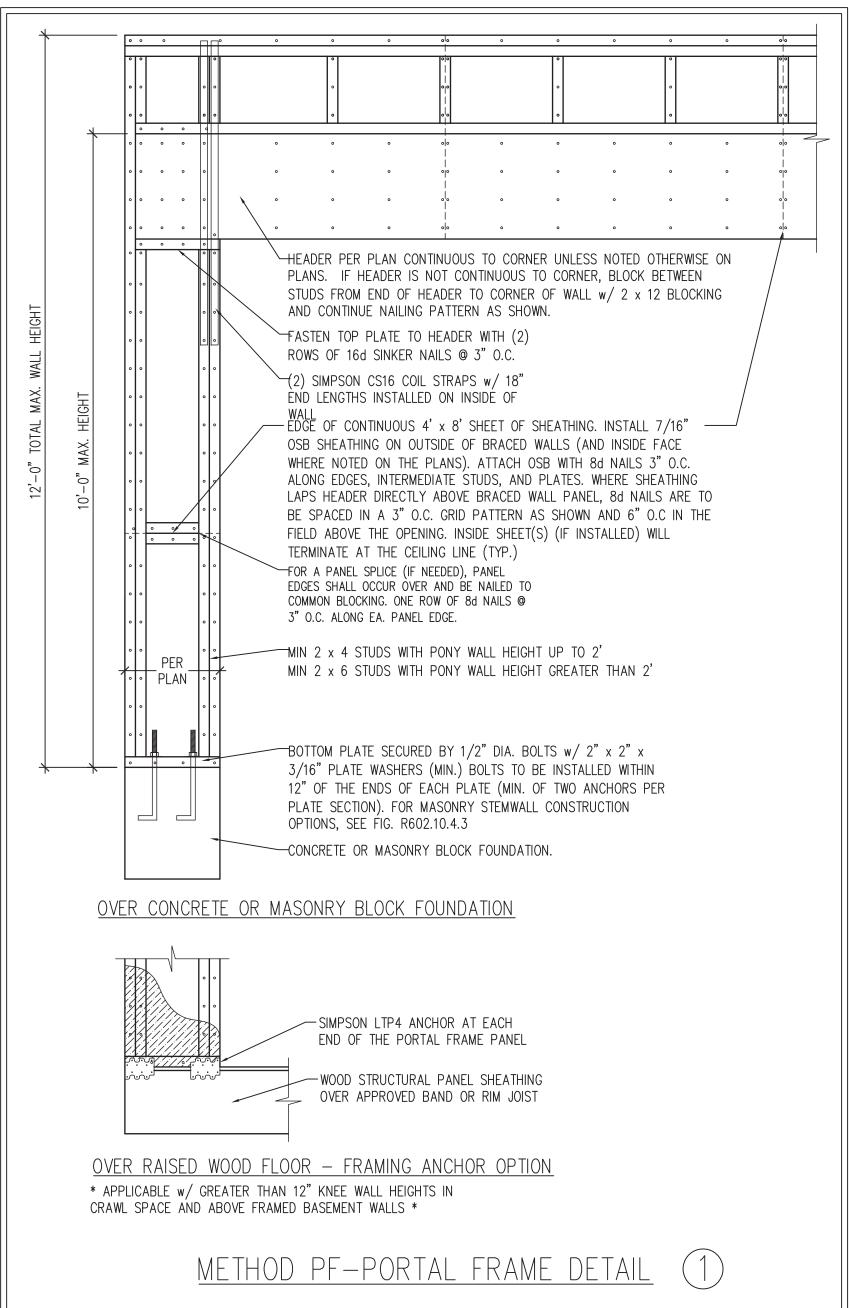
- 1) WALL HEIGHT MEASURED FROM TOP OF FOOTING TO TOP OF THE WALL.
- 2) TIE MULTIPLE WYTHES TOGETHER WITH LADDER WIRE AT 16" O.C. VERTICALLY.
- 3) CHART APPLICABLE FOR HOUSE FOUNDATION ONLY. CONSULT ENGINEER FOR DESIGN OF GARAGE FOUNDATION NOT COMMON TO HOUSE.
- 4) BACKFILL OF CLEAN #51 / #61 WASHED STONE IS ALLOWABLE.
- 5) BACKFILL OF WELL DRAINED OR SAND GRAVEL MIXTURE SOILS (45 PSF/FT BELOW GRADE) CLASSIFIED AS GROUP I ACCORDING TO UNIFIED SOILS CLASSIFICATION SYSTEM IN ACCORDANCE WITH TABLE R405.1 OF THE 2018 NORTH CAROLINA RESIDENTIAL CODE ARE ALLOWABLE.
- 6) PREP SLAB PER <u>R506.2.1</u> AND <u>R506.2.2</u> BASE AND <u>EXCEPTION</u> OF 2018 NORTH CAROLINA RESIDENTIAL CODE.
- 1) MINIMUM 24" LAP SPLICE LENGTH.
- 8) LOCATE REBAR IN CENTER OF FOUNDATION WALL.
- 9) WHERE REQUIRED, FILL BLOCK SOLID WITH TYPE "S" MORTAR OR 3000 PSI GROUT. USE OF "LOW LIFT GROUTING" METHOD REQUIRED WHEN FILLING WALLS WITH GROUT AT HEIGHTS OF 5' AND GREATER.

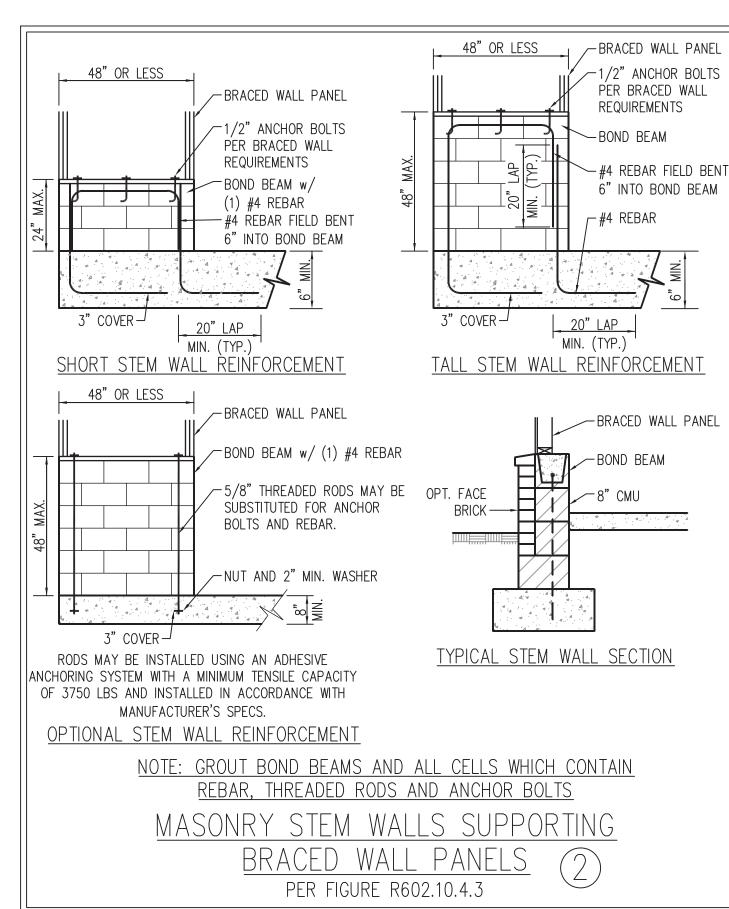


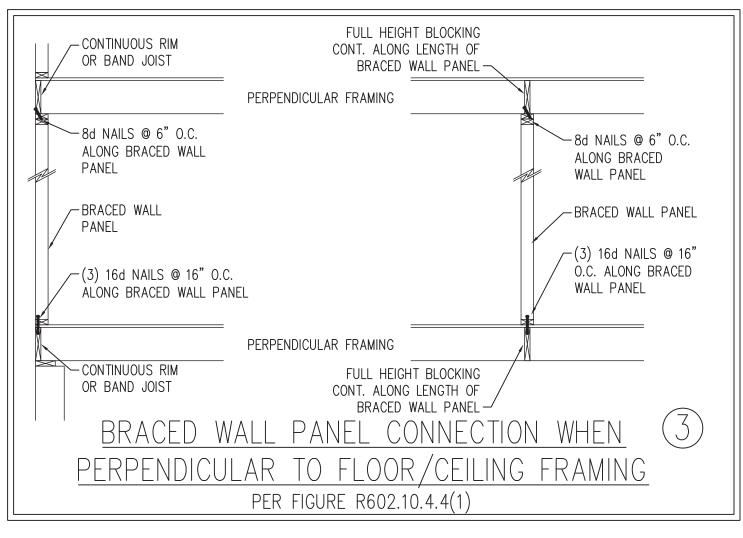
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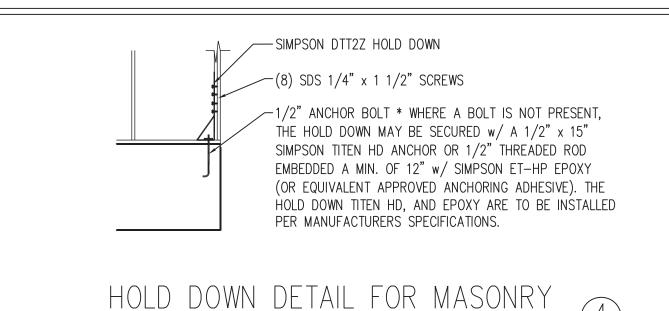
GENERAL WALL BRACING NOTES:

- WALL BRACING DESIGNED IN ACCORDANCE WITH CHAPTER 6 OF THE 2018 NC RESIDENTIAL BUILDING CODE (NCRC). TABLES AND FIGURES REFERENCED ARE FROM THE 2018 NCRC.
- SEE THIS SHEET FOR GENERAL DETAILS. REFER TO THE 2018 NCRC FOR ADDITIONAL INFORMATION AS NEEDED BRACED EXTERIOR WALLS SUPPORTING ROOF TRUSSES AND RAFTERS, INCLUDING STORIES BELOW THE TOP FLOOR, HAVE BEEN DESIGNED PER R602.3.5 (3). WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST COMBINED UPLIFT AND SHEAR FORCES IN ACCORDANCE WITH ACCEPTED ENGINEERED PRACTICE.
- . SEE STRUCTURAL SHEETS FOR BRACED WALL LOCATIONS, DIMENSIONS, HOLD DOWN TYPE AND LOCATIONS, BRACED WALL LINE KEY WITH WALL DESIGN SUMMARY OF REQUIRED/PROVIDED TOTALS FOR EACH WALL LINE AND ANY SPECIAL NOTES OR REQUIREMENTS 5. ALL EXTERIOR WALLS ARE TO BE SHEATHED WITH CS-WSP IN ACCORDANCE WITH SECTION R602.10.3 UNLESS NOTED OTHERWISE.
- 6. ALL EXTERIOR AND INTERIOR WALLS TO HAVE 1/2" GYPSUM INSTALLED. WHEN NOT USING METHOD "GB", GYPSUM TO BE FASTENED PER TABLE R702.3.5. METHOD GB TO BE FASTENED PER TABLE R602.10.1
- 7. CS-WSP REFERS TO THE "CONTINUOUS SHEATHING WOOD STRUCTURAL PANELS" WALL BRACING METHOD. 7/16" OSB SHEATHING IS TO BE INSTALLED ON ALL EXTERIOR WALLS ATTACHED w/ 6d COMMON NAILS OR 8d (2 1/2" LONG x 0.113" DIAMETER) NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD (U.N.O.).
- B. GB REFERS TO THE "GYPSUM BOARD" WALL BRACING METHOD. 1/2" (MIN.) GYPSUM WALL BOARD IS TO BE INSTALLED ON BOTH SIDES OF THE BRACED WALL FASTENED WITH 1 1/4" SCREWS OR 1 5/8" NAILS SPACED 7" O.C. ALONG PANEL EDGES INCLUDING TOP AND BOTTOM PLATES AND INTERMEDIATE SUPPORTS (U.N.O.). VERIFY ALL FASTENER OPTIONS FOR 1/2" AND 5/8" GYPSUM PRIOR TO CONSTRUCTION. FOR INTERIOR FASTENER OPTIONS SEE TABLE R702.3.5. FOR EXTERIOR FASTENER OPTIONS SEE TABLE R602.3(1). EXTERIOR GB TO BE INSTALLED VERTICALLY.
- REQUIRED BRACED WALL LENGTH FOR EACH SIDE OF THE CIRCUMSCRIBED RECTANGLE ARE INTERPOLATED PER TABLE R602. 10.3. METHOD CS-WSP CONTRIBUTES ITS ACTUAL LENGTH, METHOD GB CONTRIBUTES .5 ITS ACTUAL LENGTH, AND METHOD PF CONTRIBUTES 1.5 TIMES ITS ACTUAL LENGTH.









FOUNDATION OR MONOLITHIC SLAB

* APPLICABLE ONLY WHERE SPECIFIED ON PLAN *

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- CONTINUOUS RIM OR BAND JOIST

8d NAILS @ 6" O.C. ALONG

BRACED WALL PANEL

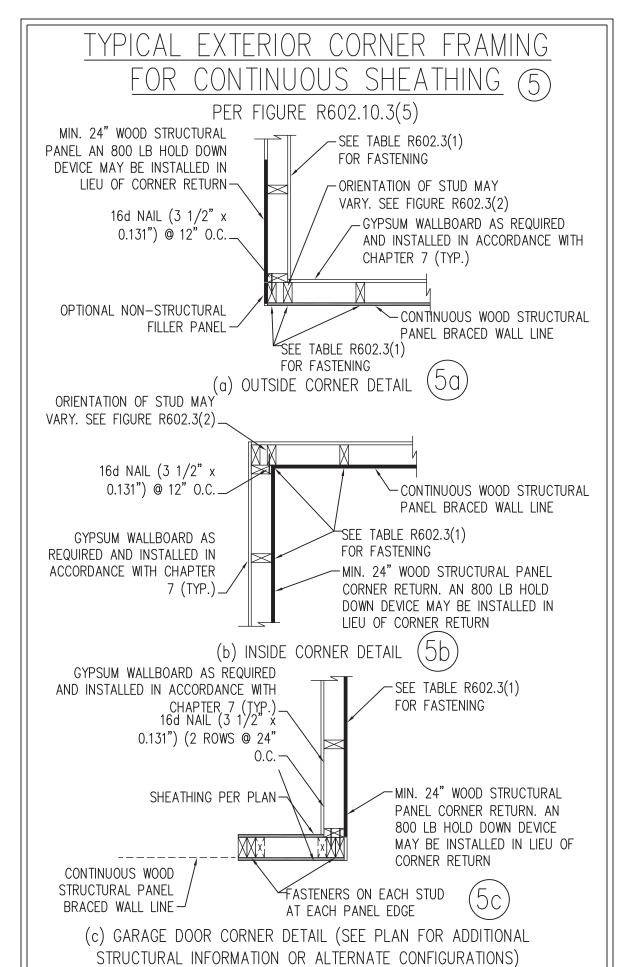
BRACED WALL PANEL

-(3) 16d NAILS @ 16" O.C.

ALONG BRACED WALL PANEL

CONTINUOUS RIM w/ FINGER

JOISTS OR DBL. BAND JOIST



BRACED WALL PANEL CONNECTION WHEN PARALLEL (6)

MEMBER DIRECTLY ABOVE

-8d NAILS @ 6" O.C. ALONG

√(3) 16d NAILS @ 16" O.C.

ADDITIONAL FRAMING

BRACED WALL PANEL

MEMBER DIRECTLY BELOW

ALONG BRACED WALL PANEL

BRACED WALL PANEL

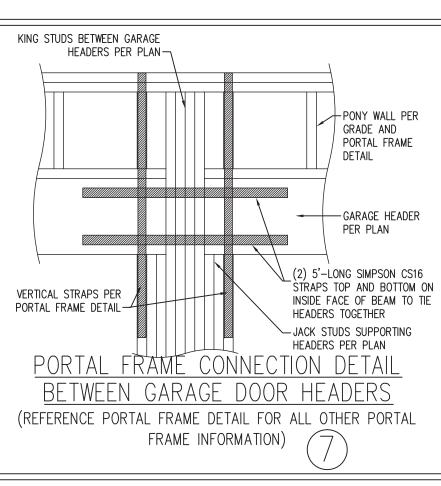
BRACED WALL PANEL

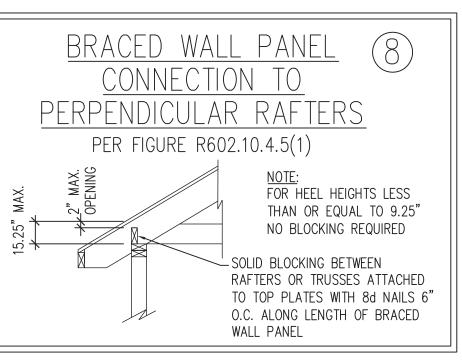
→ BRACED WALL PANEL

TO FLOOR/CEILING FRAMING

PER FIG. R602.10.4.4(2)

ADDITIONAL FRAMING





FULL HEIGHT BLOCKING @

BRACED WALL PANEL

TOE NAIL (3) 8d NAILS AT

EA. BLOCKING MEMBER

-BRACED WALL PANEL

 \sim (3) 16d NAILS @ 16"

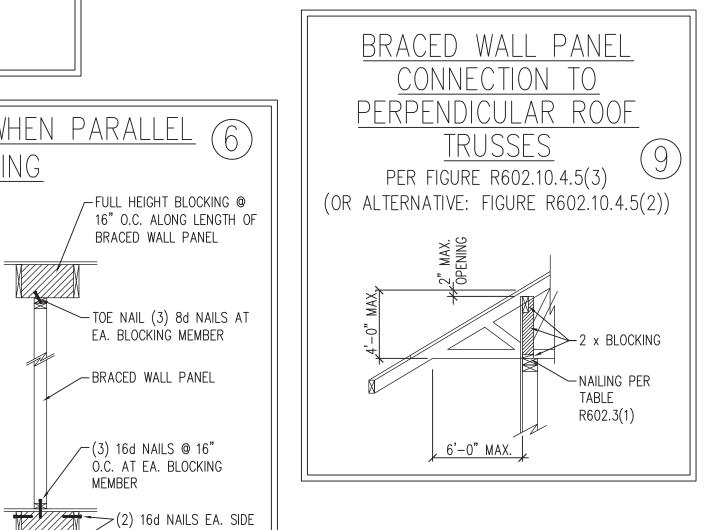
FULL HEIGHT BLOCKING @

BRACED WALL PANEL

16" O.C. ALONG LENGTH OF

MEMBER

O.C. AT EA. BLOCKING



DATE: AUGUST 30, 2022 SCALE: 1/4" = 1'-0" DRAWN BY: JST ENGINEERED BY: JST

> BRACED WALL NOTES AND DETAILS AND PF DETAIL

8/15/2023

ANI BRACING

GENERAL NOTES

- 1. ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPS, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS, HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIERS, GIRDER SYSTEM AND FOOTING. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OF ARCHITECTURAL LAYOUT INCLUDING ROOF. ENGINEER'S SEAL DOES NOT APPLY TO I—JOIST OR FLOOR/ROOF TRUSS LAYOUT DESIGN AND ACCURACY.
- 2. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE (NCRC), 2018 EDITION, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK. NOR WILL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTORS FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 3. STRUCTURAL DESIGN BASED ON THE PROVISIONS OF THE NCRC, 2018 EDITION (R301.4 R301.7)

DESIGN CRITERIA:	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (IN)
ATTIC WITH LIMITED STORAGE	20	10	L/240 (L/360 w/ BRITTLE FINISHES)
ATTIC WITHOUT STORAGE	10	10	L/360
DECKS	40	10	L/360
EXTERIOR BALCONIES	40	10	L/360
FIRE ESCAPES	40	10	L/360
HANDRAILS/GUARDRAILS	200	10	L/360
PASSENGER VEHICLE GARAGE	50	10	L/360
ROOMS OTHER THAN SLEEPING ROOM	40	10	L/360
SLEEPING ROOMS	30	10	L/360
STAIRS	40	10	L/360
WIND LOAD	(BASED ON TABLE R301.2(4) WIND ZONE AND EXPOSURE)		
GROUND SNOW LOAD: Pg	20 (PSF)	, in the second	

- I-JOIST SYSTEMS DESIGNED WITH 12 PSF DEAD LOAD AND DEFLECTION (IN) OF L/480 - FLOOR TRUSS SYSTEMS DESIGNED WITH 15 PSF DEAD LOAD

- 4. FOR 115 AND 120 MPH WIND ZONES, FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION R403.1.6 OF THE NCRC, 2018 EDITION. FOR 130 MPH, 140 MPH, AND 150 MPH WIND ZONES, FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION 4504 OF THE NCRC, 2018 EDITION.
- 5. ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 11 OF THE NCRC, 2018 EDITION.

FOOTING AND FOUNDATION NOTES

- 1. FOUNDATION DESIGN BASED ON A MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 PSF. CONTACT GEOTECHNICAL ENGINEER IF BEARING CAPACITY IS NOT ACHIEVED.
- 2. FOR ALL CONCRETE SLABS AND FOOTINGS, THE AREA WITHIN THE PERIMETER OF THE BUILDING ENVELOPE SHALL HAVE ALL VEGETATION, TOP SOIL AND FOREIGN MATERIAL REMOVED. FILL MATERIAL SHALL BE FREE OF VEGETATION AND FOREIGN MATERIAL. THE FILL SHALL BE COMPACTED TO ASSURE UNIFORM SUPPORT OF THE SLAB, AND EXCEPT WHERE APPROVED, THE FILL DEPTHS SHALL NOT EXCEED 24" FOR CLEAN SAND OR GRAVEL. A 4" THICK BASED COURSE CONSISTING OF CLEAN GRADED SAND OR GRAVEL SHALL BE PLACED. A BASE COURSE IS NOT REQUIRED WHERE A CONCRETE SLAB IS INSTALLED ON WELL—DRAINED OR SAND—GRAVEL MIXTURE SOILS CLASSIFIED AS GROUP 1, ACCORDING TO THE UNITED SOIL CLASSIFICATION SYSTEM IN ACCORDANCE WITH TABLE R405.1 OF THE NCRC, 2018 EDITION.
- 3. PROPERLY DEWATER EXCAVATION PRIOR TO POURING CONCRETE WHEN BOTTOM OF CONCRETE SLAB IS AT OR BELOW WATER TABLE. IF APPLICABLE, 3/4" 1" DEEP CONTROL JOINTS ARE TO BE SAWED WITHIN 4 TO 12 HOURS OF CONCRETE FINISHING AND WALL LOCATIONS HAVE BEEN MARKED. ADJUST WHERE NECESSARY.
- 4. CONCRETE SHALL CONFORM TO SECTION R402.2 OF THE NCRC, 2018 EDITION. CONCRETE REINFORCING STEEL TO BE ASTM A615 GRADE 60. WELDED WIRE FABRIC TO BE ASTM A185. MAINTAIN A MINIMUM CONCRETE COVER AROUND REINFORCING STEEL OF 3" IN FOOTINGS AND 1 1/2" IN SLABS. FOR POURED CONCRETE WALLS, CONCRETE COVER FOR REINFORCING STEEL MEASURED FROM THE INSIDE FACE OF THE WALL SHALL NOT BE LESS THAN 3/4". CONCRETE COVER FOR REINFORCING STEEL MEASURED FROM THE OUTSIDE FACE OF THE WALL SHALL NOT BE LESS THAN 1 1/2" FOR #5 BARS OR SMALLER, AND NOT LESS THAN 2" FOR #6 BARS OR LARGER.

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- 5. MASONRY UNITS TO CONFORM TO ACE 530/ASCE 5/TMS 402. MORTAR SHALL CONFORM TO ASTM C270.
- 6. THE UNSUPPORTED HEIGHT OF MASONRY PIERS SHALL NOT EXCEED FOUR TIMES THEIR LEAST DIMENSION FOR UNFILLED HOLLOW CONCRETE MASONRY UNITS AND TEN TIMES THEIR LEAST DIMENSION FOR SOLID OR SOLID FILLED PIERS. PERS MAY BE FILLED SOLID WITH CONCRETE OR TYPE M OR S MORTAR. PIERS AND WALLS SHALL BE CAPPED WITH 8" OF SOLID MASONRY.
- 7. THE CENTER OF EACH OF THE PIERS SHALL BEAR IN THE MIDDLE THIRD OF ITS RESPECTIVE FOOTING. EACH GIRDER SHALL BEAR IN THE MIDDLE THIRD OF THE PIERS.
- 8. ALL CONCRETE AND MASONRY FOUNDATION WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION R404 OF THE NCRC, 2018 EDITION OR IN ACCORDANCE WITH ACI 318, ACI 332, NCMA TR68—A OR ACE 530/ASCE 5/TMS 402. MASONRY FOUNDATION WALLS ARE TO BE REINFORCED PER TABLE R404.1.1(1), R404.1.1(2), R404.1.1(3), OR R404.1.1(4) OF THE NCRC, 2018 EDITION. CONCRETE FOUNDATION WALLS ARE TO BE REINFORCED PER TABLE R404.1.1(5) OF THE NCRC, 2018 EDITION. STEP CONCRETE FOUNDATION WALLS TO 2 x 6 FRAMED WALLS AT 16" O.C. WHERE GRADE PERMITS (UNO).

FRAMING NOTES

- 1. ALL FRAMING LUMBER SHALL BE #2 SPF MINIMUM (Fb = 875 PSI, Fv = 375 PSI, E = 1600000 PSI) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE #2 SYP MINIMUM (Fb = 975 PSI, Fv = 175 PSI, E = 1600000 PSI) UNLESS NOTED OTHERWISE (UNO).
- 2. LAMINATED VENEER LUMBER (LVL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb = 2600 PSI, Fv = 285 PSI, E = 1900000 PSI. LAMINATED STRAND LUMBER (LSL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb = 2325 PSI, Fv = 310 PSI, E = 1550000 PSI. PARALLEL STRAND LUMBER (PSL) UP TO 7" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fc = 2500 PSI, E = 1800000 PSI. PARALLEL STRAND LUMBER (PSL) MORE THAN 7" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fc = 2900 PSI, E = 2000000 PSI. INSTALL ALL CONNECTIONS PER MANUFACTURER'S SPECIFICATIONS.
- 3. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS

A. W AND WT SHAPES: ASTM A992

B. CHANNELS AND ANGLES: ASTM A36

C. PLATES AND BARS: ASTM A36

D. HOLLOW STRUCTURAL SECTIONS: ASTM A500 GRADE B

E. STEEL PIPE: ASTM A53, GRADE B, TYPE E OR S

4. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" AND FULL FLANGE WIDTH (UNO). PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED AT THE BOTTOM FLANGE TO EACH SUPPORT AS FOLLOWS (UNO):

A. WOOD FRAMING

B. CONCRETE

C. MASONRY (FULLY GROUTED)

D. STEEL PIPE COLUMN

(2) 1/2" DIA. x 4" LONG LAG SCREWS

(2) 1/2" DIA. x 4" WEDGE ANCHORS

(2) 1/2" DIA. x 4" LONG SIMPSON TITEN HD ANCHORS

(4) 3/4" DIA. A325 BOLTS OR 3/16" FILLET WELD

LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOISTS ARE TOE NAILED TO THE 2x NAILER ON TOP OF THE STEEL BEAM, AND THE 2x NAILER IS SECURED TO THE TOP OF THE STEEL BEAM w/ (2) ROWS OF SELF TAPPING SCREWS @ 16" O.C. OR (2) ROWS OF 1/2" DIAMETER BOLTS @ 16" O.C. IF 1/2" BOLTS ARE USED TO FASTEN THE NAILER, THE STEEL BEAM SHALL BE FABRICATED w/ (2) ROWS OF 9/16" DIAMETER HOLES @ 16" O.C.

- 5. SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. SHADED SQUARES DENOTE POINT LOADS FROM ABOVE WHICH REQUIRE SOLID BLOCKING TO SUPPORTING MEMBER BELOW.
- 6. ALL LOAD BEARING HEADERS TO CONFORM TO TABLE R602.7(1) AND R602.7(2) OF THE NCRC, 2018 EDITION OR BE (2) 2 x 6 WITH (1) JACK AND (1) KING STUD EACH END (UNO), WHICHEVER IS GREATER ALL HEADERS TO BE SECURED TO EACH JACK STUD WITH (4) 8d NAILS. ALL BEAMS TO BE SUPPORTED WITH (2) STUDS AT EACH BEARING POINT (UNO). INSTALL KING STUDS PER SECTION R602.7.5 OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
- 7. ALL BEAMS, HEADERS, OR GIRDER TRUSSES PARALLEL TO WALL ARE TO BEAR FULLY ON (1) JACK OR (2) STUDS MINIMUM OR THE NUMBER OF JACKS OR STUDS NOTED. ALL BEAMS OR GIRDER TRUSSES PERPENDICULAR TO WALL AND SUPPORTED BY (3) STUDS OR LESS ARE TO HAVE 1 1/2" MINIMUM BEARING (UNO). ALL BEAMS OR GIRDER TRUSSES PERPENDICULAR TO WALL AND SUPPORTED BY MORE THAN (3) STUDS OR OTHER NOTED COLUMN ARE TO BEAR FULLY ON SUPPORT COLUMN FOR ENTIRE WALL DEPTH (UNO). BEAM ENDS THAT BUTT INTO ONE ANOTHER ARE TO EACH BEAR EQUAL LENGTHS (UNO).
- 8. FLITCH BEAMS SHALL BE BOLTED TOGETHER USING 1/2" DIAMETER BOLTS (ASTM A307) WITH WASHERS PLACED AT THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" CENTERS (MAXIMUM), AND STAGGERED AT TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH (2) BOLTS LOCATED AT 6" FROM EACH END (UNO).
- 9. ALL I—JOIST OR TRUSS LAYOUTS ARE TO BE IN COMPLIANCE WITH THE OVERALL DESIGN SPECIFIED ON THE PLANS. ALL DEVIATIONS ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO INSTALLATION.
- 10. BRACED WALL PANELS SHALL BE CONSTRUCTED ACCORDING TO THE NORTH CAROLINA RESIDENTIAL CODE 2018 EDITION WALL BRACING CRITERIA. THE AMOUNT, LENGTH, AND LOCATION OF BRACING SHALL COMPLY WITH ALL APPLICABLE TABLES IN SECTION R602.10.
- 11. PROVIDE DOUBLE JOIST UNDER ALL WALLS PARALLEL TO FLOOR JOISTS. PROVIDE SUPPORT UNDER ALL WALLS PARALLEL TO FLOOR TRUSSES OR I—JOISTS PER MANUFACTURER'S SPECIFICATIONS. INSTALL BLOCKING BETWEEN JOISTS OR TRUSSES FOR POINT LOAD SUPPORT FOR ALL POINT LOADS ALONG OFFSET LOAD LINES.
- 12. FOR ALL HEADERS SUPPORTING BRICK VENEER THAT ARE LESS THAN 8'-0" IN LENGTH, REST A 6" x 4" x 5/16" STEEL ANGLE WITH 6" MINIMUM EMBEDMENT AT SIDES FOR BRICK SUPPORT (U.N.O). FOR ALL HEADERS 8'-0" AND GREATER IN LENGTH, BOLT A 6" x 4" x 5/16" STEEL ANGLE TO HEADER WITH 1/2" LAG SCREWS AT 12" O.C. STAGGERED FOR BRICK SUPPORT. FOR ALL BRICK SUPPORT AT ROOF LINES, BOLT A 6" x 4" x 5/16" STEEL ANGLE TO (2) 2 x 10 BLOCKING INSTALLED w/ (4) 12d NAILS EA. PLY BETWEEN WALL STUDS WITH (2) ROWS OF 1/2" LAG SCREWS AT 12" O.C. STAGGERED AND IN ACCORDANCE WITH SECTION R703.8.2.1 OF THE NCRC, 2018 EDITION.
- 13. FOR STICK FRAMED ROOFS: CIRCLES DENOTE (3) 2 x 4 POSTS FOR ROOF MEMBER SUPPORT. HIP SPLICES ARE TO BE SPACED A MINIMUM OF 8'-0". FASTEN MEMBERS WITH THREE ROWS OF 12d NAILS AT 16" O.C. FRAME DORMER WALLS ON TOP OF DOUBLE OR TRIPLE RAFTERS AS SHOWN (UNO).
- 14. FOR TRUSSED ROOFS: FRAME DORMER WALLS ON TOP OF 2 x 4 LADDER FRAMING AT 24" O.C. BETWEEN ADJACENT ROOF TRUSSES. STICK FRAME OVER-FRAMED ROOF SECTIONS WITH 2 x 8 RIDGES, 2 x 6 RAFTERS AT 16" O.C. AND FLAT 2 x 10 VALLEYS (UNO).
- 15. ALL 4 x 4 AND 6 x 6 POSTS TO BE INSTALLED WITH 700 LB CAPACITY UPLIFT CONNECTORS TOP AND BOTTOM (UNO.) POSTS MAY BE SECURED USING ONE SIMPSON H6 OR LTS12 UPLIFT CONNECTOR FASTENED TO THE BAND AT THE BOTTOM AND THE BEAM AT THE TOP OF EACH POST. ONE 16" SECTION OF SIMPSON CS16 COIL STRAPPING WITH (8) 8d HDG NAILS AT EACH END MAY BE USED IN LIEU OF EACH TWIST STRAP IF DESIRED. FOR MASONRY OR CONCRETE FOUNDATION USE SIMPSON POST BASE.

FRUCTURAL NOTI

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DATE: AUGUST 30, 2022

ENGINEERED BY: JST

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STRUCTURAL NOTES