- 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

HEATED SQUARE I	<u>FOOTAGE</u>	<u>UNHEATED SQUARE F</u>	<u>OOTA (</u>
FIRST FLOOR=	857	<i>GARAGE</i> =	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:

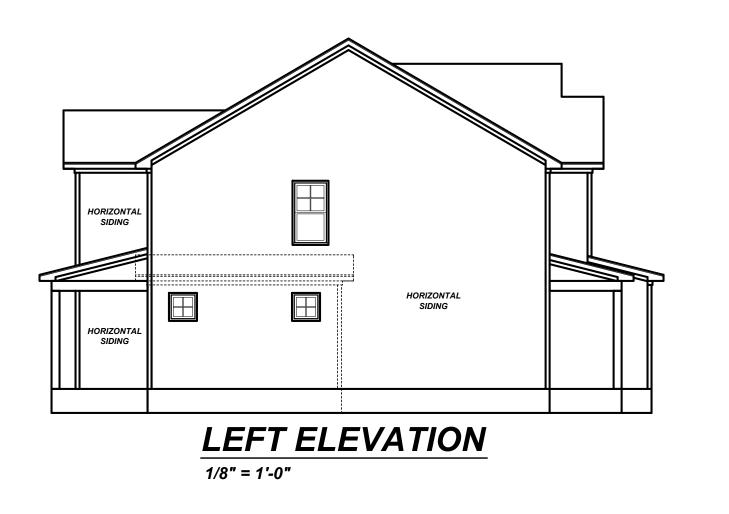
45.5 LBS. PER SQ. FT. FOR ROOF PITCHES OF 0/12 TO 2.25/12

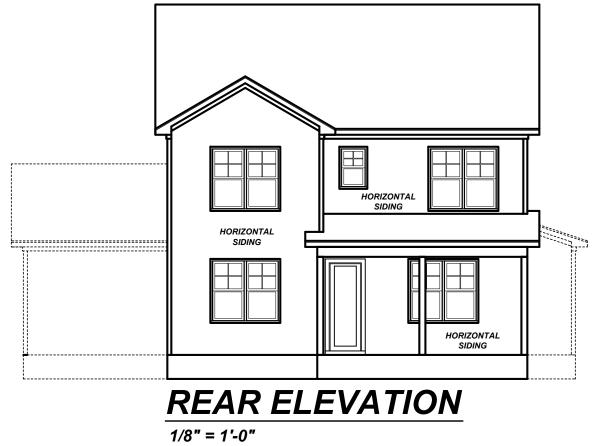
34.8 LBS. PER SQ. FT. FOR ROOF PITCHES OF 2.25/12 TO 7/12

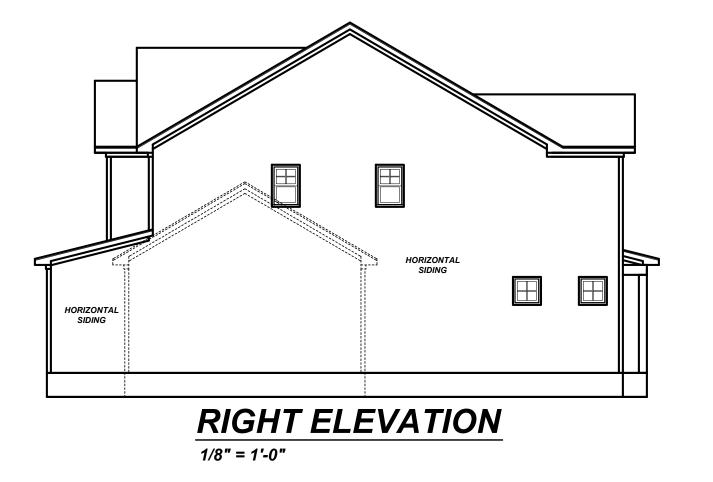
21 LBS. PER SQ. FT. FOR ROOF PITCHES OF 7/12 TO 12/12

** MEAN ROOF HEIGHT 30' OR LESS









ELEVATIONS

1

Project #: 23-314

8-1-23

Drawn/Design By:

KBB

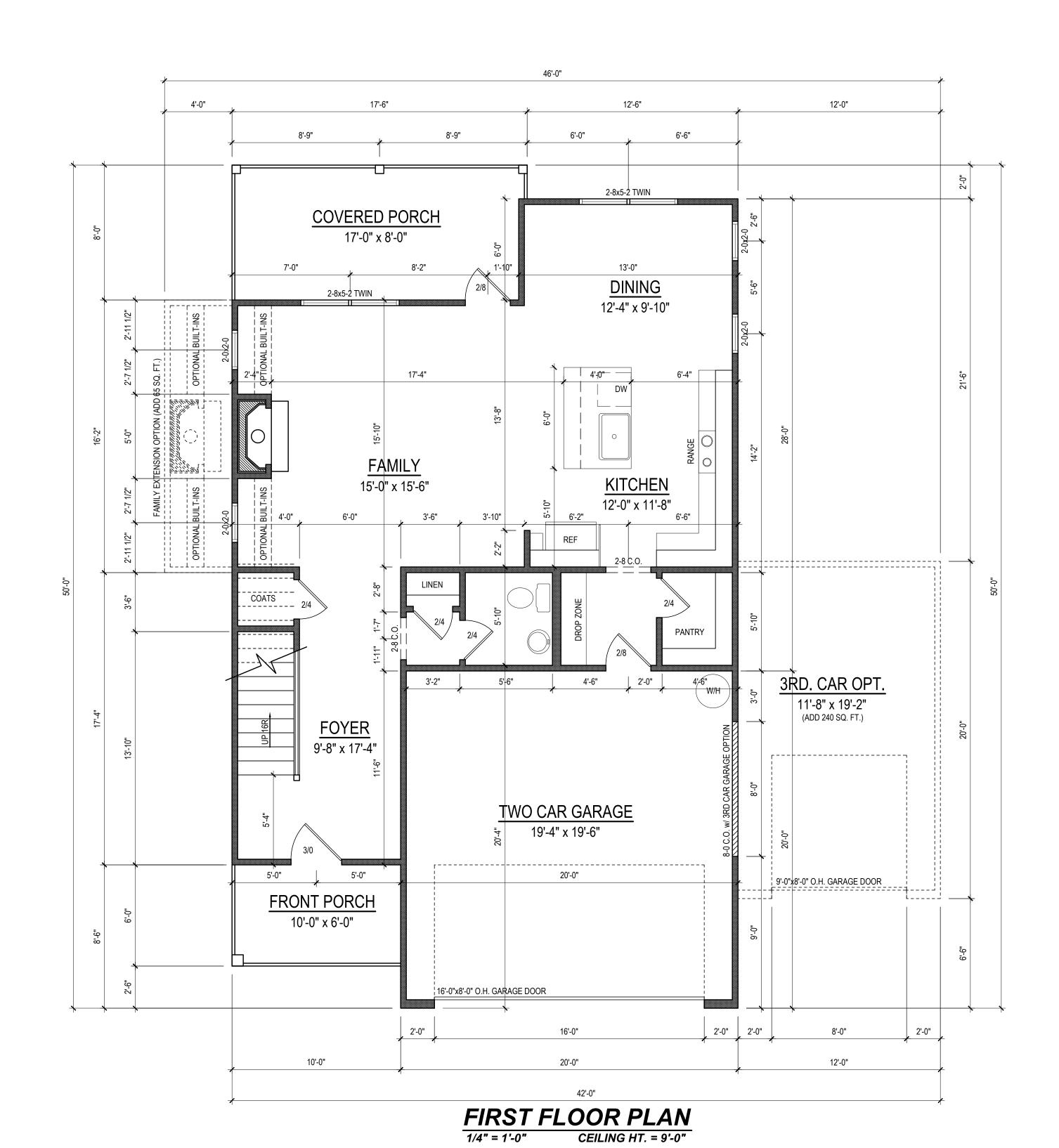
Scale: 1/4" = 1'-0"

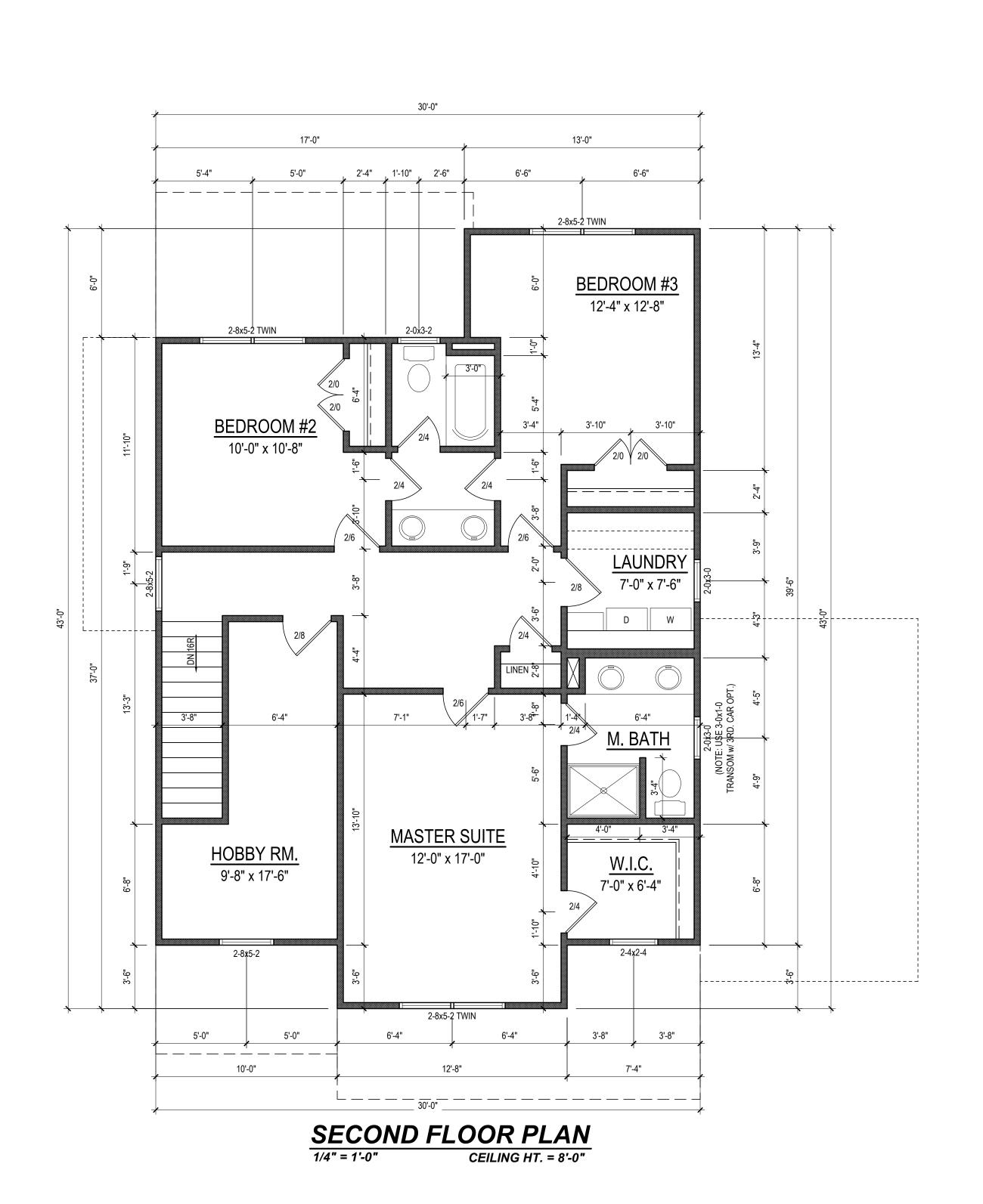
Southern Touch Homes
P.O. Box 2135
Angier, NC 27501

FIRST & SECOND FLOOR

Sheet Number

2





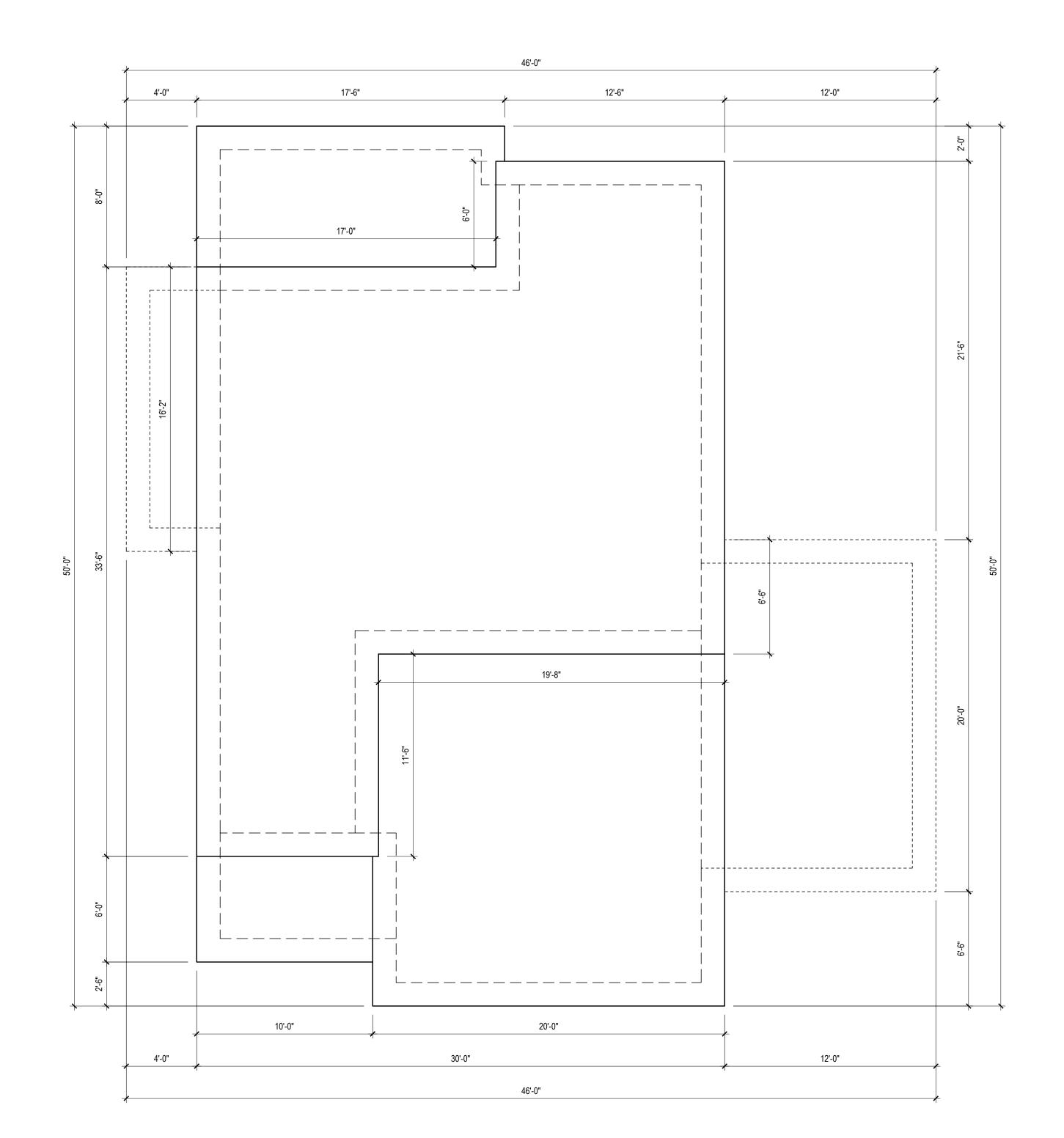
8-1-23

KBB

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

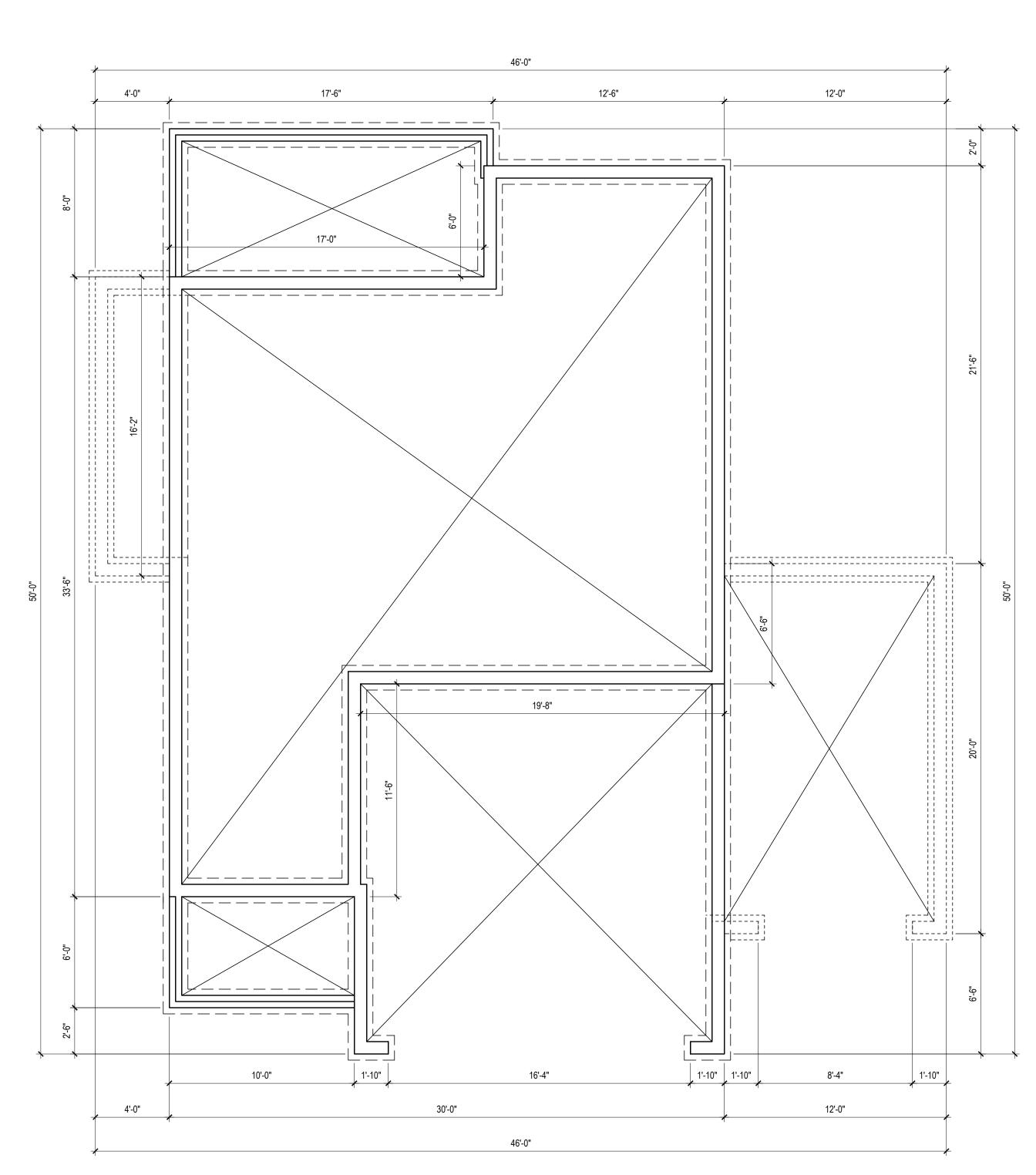
Sheet Number

3



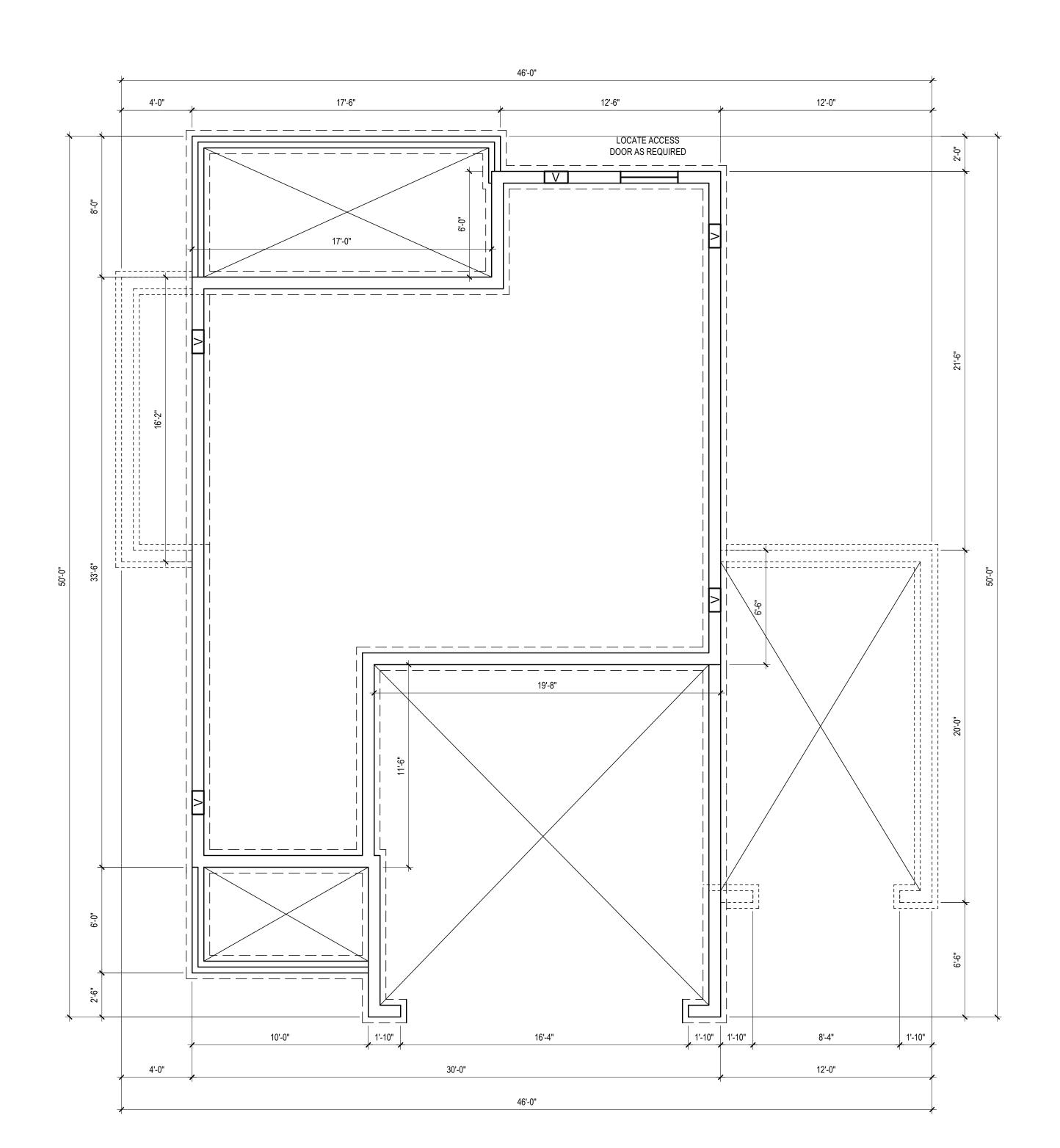
FOUNDATION PLAN (MONO SLAB)

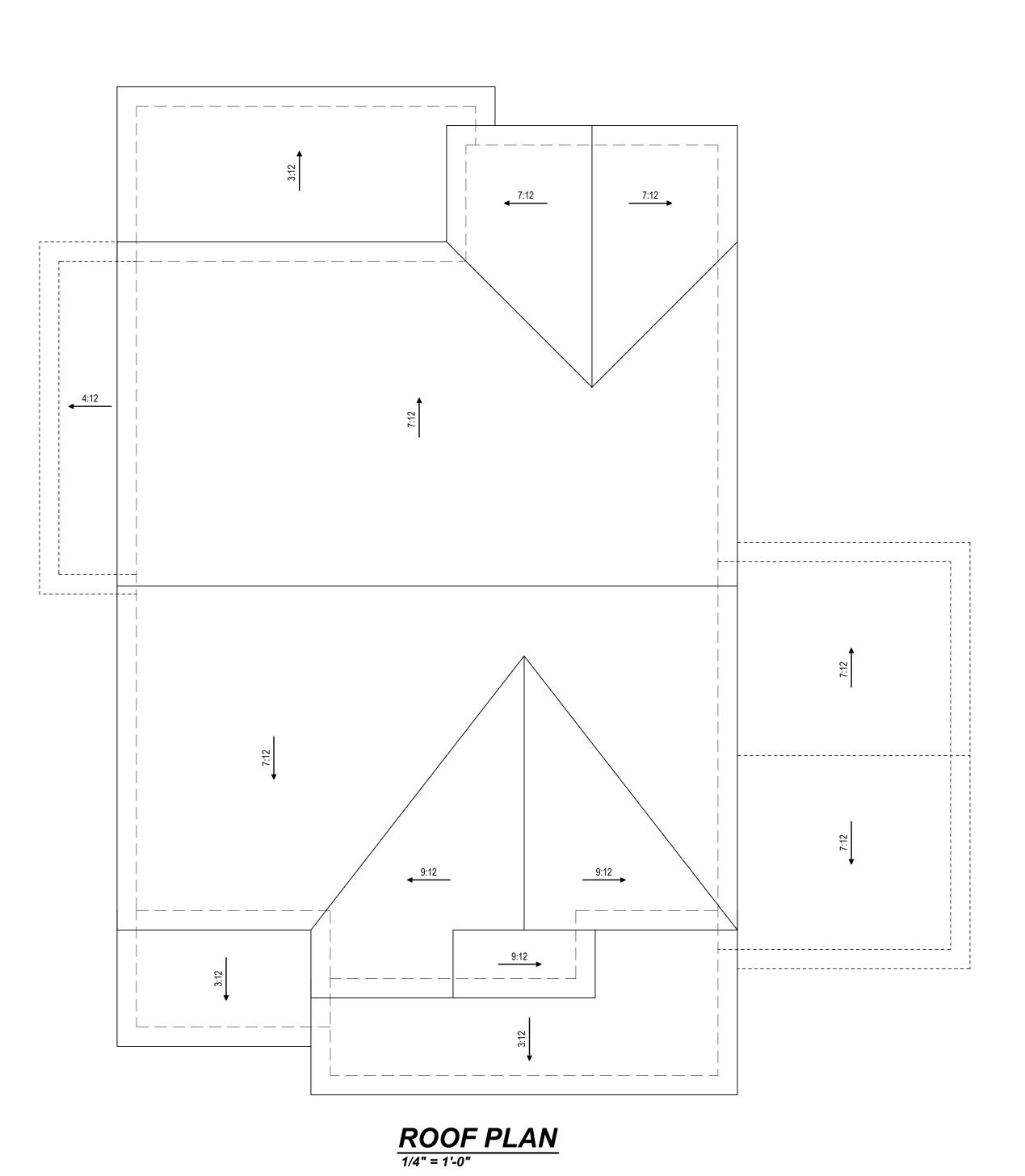
1/4" = 1'-0"



FOUNDATION PLAN (STEM WALL)

FOUNDATION & ROOF





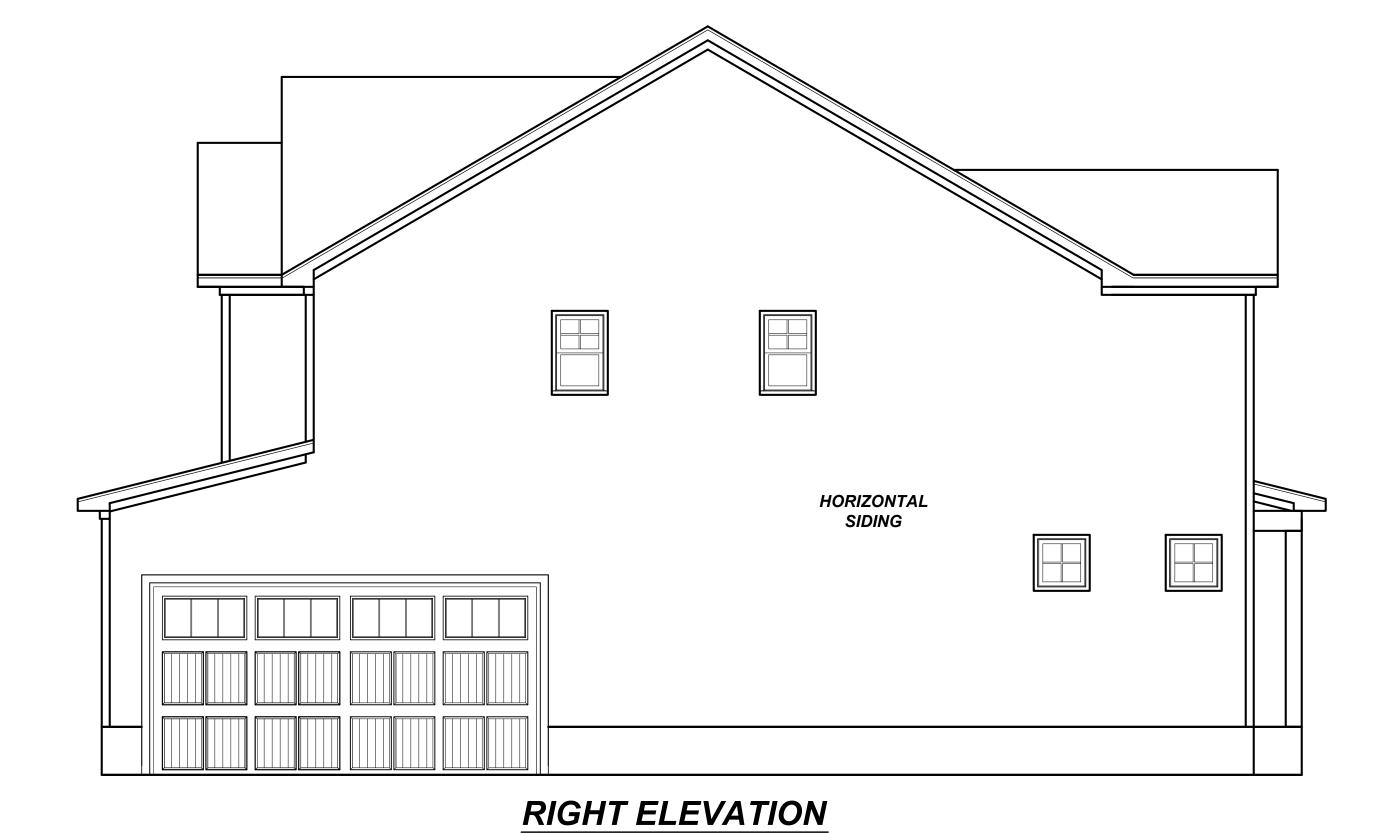
FOUNDATION PLAN (CRAWLSPACE)

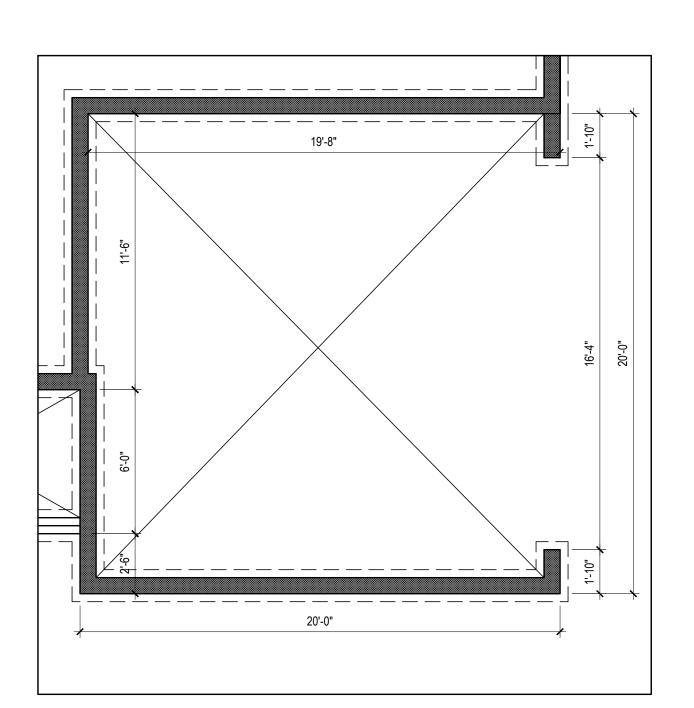
SIDE LOAD OPTION

Sheet Number

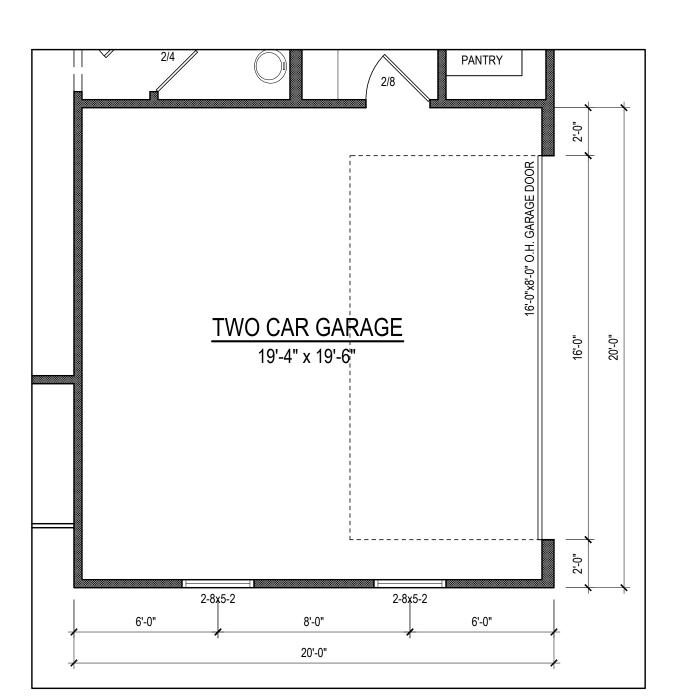
FRONT ELEVATION

1/4" = 1'-0"







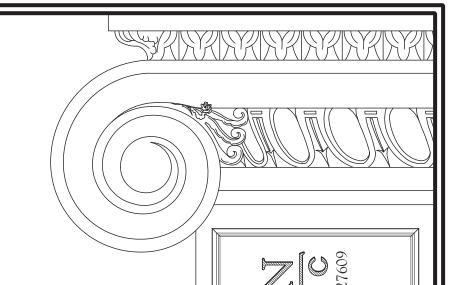


1/4" = 1'-0"

FIRST FLOOR PLAN (SIDE LOAD OPT.)

1/4" = 1'-0"

CEILING HT. = 9'-0"



120 MPH ULTIMATE DESIGN WIND SPEED NOTES FOR LESS THAN

- COMPONENTS. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL
- LAYOUT INCLUDING ROOF SYSTEM.
 . STRUCTURAL DESIGN PER NORTH CAROLINA

30'-0"

6 x 6 TRTD. POST MIN.

8" FND. ON 16" WIDE

__ 30" x 30" x 10"

CONC. FTG.

—BY 8" DEEP CONT.

CONC. FTG. (TYP.)

_ON 18" x 18" x 8"

CONC. FTG. (TYP.)

6'-4 3/4"

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

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

GROUT ALL CELLS BELOW
POINT LOAD AND (2) CELLS—
AWAY EA. DIRECTION SOLID

- SEE WALL BRACING DETAIL SHEET -FOR FOUNDATION DETAILS

16'-4"

20'-0"

8'-9"

(2) 2 x 10 TRTD (TYP.)

(3) 2 x 10 GIRDER

DROPPED (TYP.)

16" x 16" CMU PIER

6'-4 3/4"

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

_24" x 24" x 10"

CONC. FTG.

30'-0"

└ON 30" x 30" x 10"

CONC. FTG. (TYP.)

17'-6"

8'-9"

- 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
- 5. EXTERIOR WALLS DESIGNED FOR 120 MPH WINDS. 6. WALL CLADDING DESIGNED FOR +15.5 PSF AND -20 PSF (+/- INDICATE POSITIVE / NEGATIVE
- PSF AND -36 PSF FOR ROOF PITCHED 2.25/12 TO
- 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.

- SYP (UNO.)
- UNDER WALLS PARALLEL TO FLOOR JOISTS WHERE NOTED ON THE PLANS.
- 3. SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR
- 4. SHADED PIERS TO BE FILLED SOLID.
- SECURE MULTIPLE WYTHE FOUNDATION WALLS TOGETHER.
- 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 OTHERWIS

30' MEAN ROOF HEIGHT:

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL
- RESIDENTIAL CODE, 2018 EDITION.
- MIDDLE THIRD OF PLATE WIDTH. 4. MEAN ROOF HEIGHT IS LESS THAN 30 FEET.
- PRESSURE (TYP). ROOF CLADDING DESIGNED FOR +14.2 PSF AND -18 PSF FOR ROOF PITCHES 7/12 TO 12/12 AND +10
- 8. INSTALL 7/16" OSB SHEATHING ON ALL EXTERIOR WALLS OF ALL STORIES IN ACCORDANCE WITH
- 9. ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE

STRUCTURAL NOTES:

- . ALL FRAMING LUMBER TO BE #2 SPF (UNO). ALL TREATED LUMBER TO BE #2 . INSTALL AN EXTRA OR DOUBLE JOIST
- FOUNDATION.
- 5. INSTALL LADDER WIRE @ 16" O.C. TO
- . 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

8/15/2023

THE S/ THERN

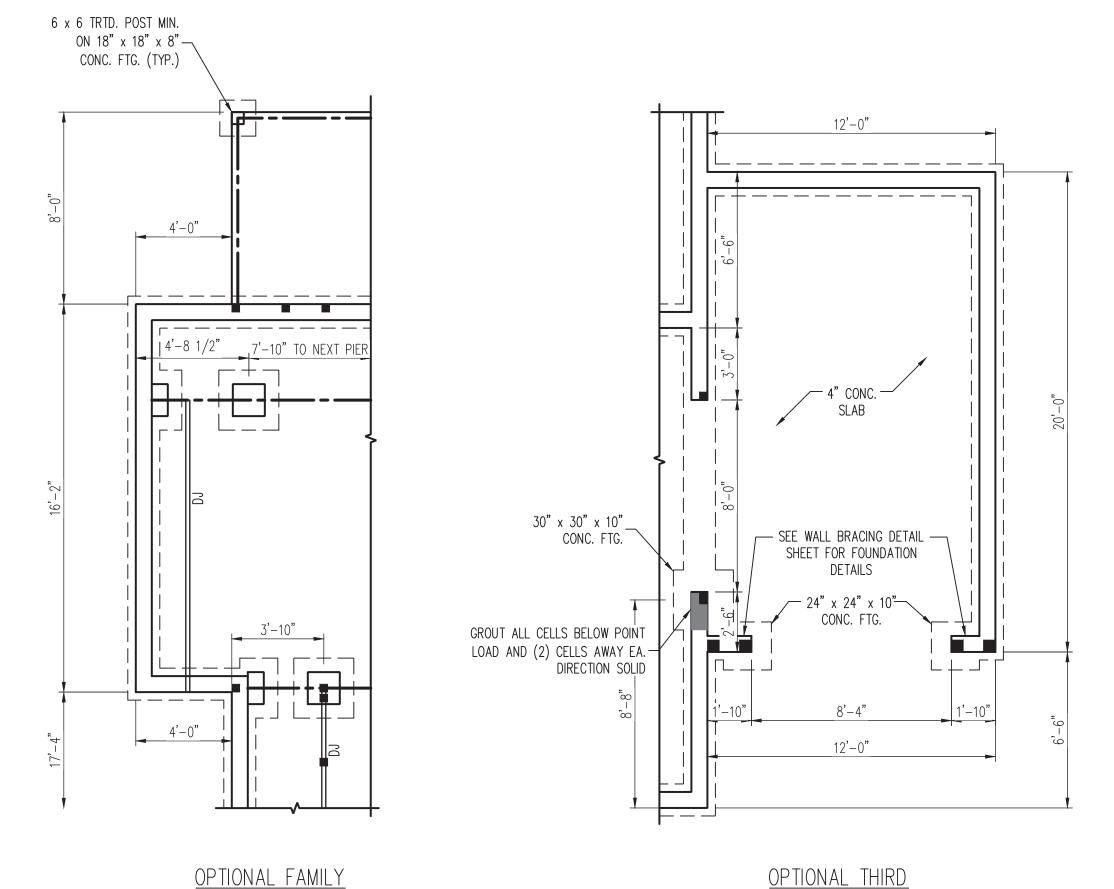
DATE: AUGUST 14, 2023

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

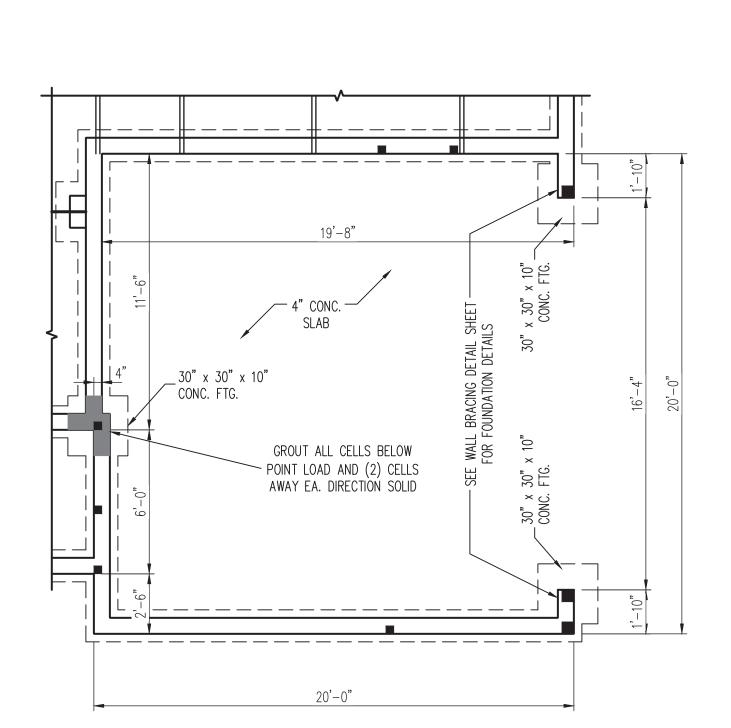
ENGINEERED BY: JAG

DRAWN BY: K&A HOME DESIGN

S-1a CRAWL FOUNDATION PLAN

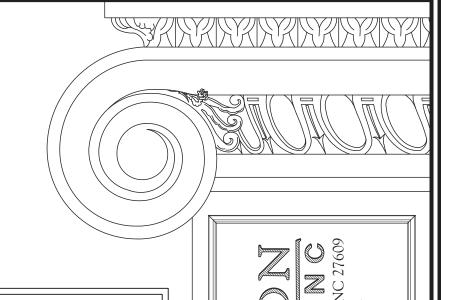


ROOM EXTENSION



CAR GARAGE

OPTIONAL SIDE LOAD GARAGE



120 MPH ULTIMATE DESIGN WIND SPEED NOTES FOR LESS THAN

- 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
- 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.
- 5. EXTERIOR WALLS DESIGNED FOR 120 MPH WINDS. 6. WALL CLADDING DESIGNED FOR +15.5 PSF AND -20
- 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
- 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.

, ,,,	DOTTIONAL OTT	OUTOTOTALE THE OTHER CITIES.
_		
		LEGEND
		LLGLIND
	CONT	CONTINUOUS
	XJ	EXTRA JOIST
	DJ	DOUBLE JOIST

30' MEAN ROOF HEIGHT:

RESIDENTIAL CODE, 2018 EDITION.

4. MEAN ROOF HEIGHT IS LESS THAN 30 FEET.

PSF (+/- INDICATE POSITIVE / NEGATIVE PRESSURE (TYP).

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

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

19'-8" __30" x 30" x 10" CONC. FTG. 20'-0"_

__24" x 24" x 10" CONC. FTG.

30" x 30" x 10"__ CONC. FTG.

12'-0"

SEE WALL BRACING DETAIL — SHEET FOR FOUNDATION

DETAILS

8'-4"

OPTIONAL THIRD

CAR GARAGE

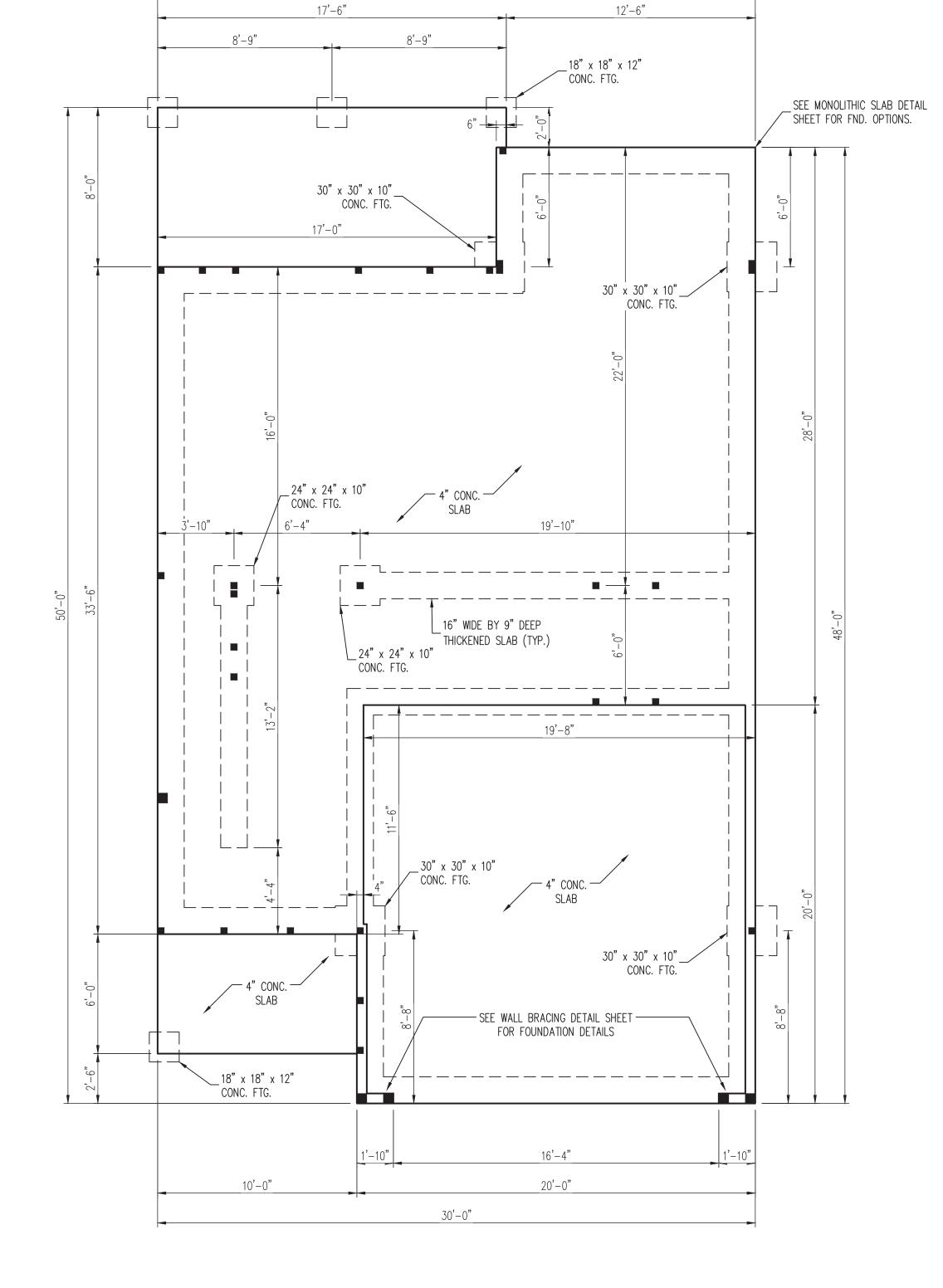
18" x 18" x 12" __ CONC. FTG.

4'-0"

OPTIONAL FAMILY

ROOM EXTENSION

OPTIONAL SIDE LOAD GARAGE



30'-0"___



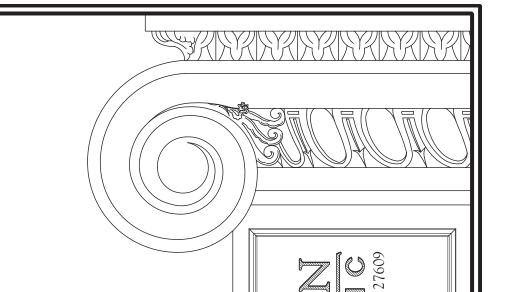
DATE: AUGUST 14, 2023

THE SAVANNAH SOUTHERN TOUCH HOMES

DRAWN BY: K&A HOME DESIGN

ENGINEERED BY: JAG

S-1b MONO SLAB FOUNDATION PLAN



120 MPH ULTIMATE DESIGN WIND SPEED NOTES FOR LESS THAN

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL
- RESIDENTIAL CODE, 2018 EDITION. 6. 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"
- 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).
- 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.
- 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
L		

30' MEAN ROOF HEIGHT:

- LAYOUT INCLUDING ROOF SYSTEM. STRUCTURAL DESIGN PER NORTH CAROLINA
- INTO MASONRY OR CONCRETE. LOCATE BOLT WITHIN MIDDLE THIRD OF PLATE WIDTH.
- 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
- SEE THE WALL BRACING NOTES AND DETAILS SHEET FOR MORE INFORMATION. 9. ENERGY EFFICIENCY COMPLIANCE AND INSULATION

		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.		

19'-8" CONC. FTG. GROUT ALL CELLS BELOW POINT LOAD AND (2) CELLS AWAY EA. DIRECTIÒN SOLID 20'-0"

OPTIONAL SIDE

LOAD GARAGE

30" x 30" x 10" ____ CONC. FTG.

GROUT ALL CELLS BELOW POINT LOAD AND (2) CELLS AWAY EA.— DIRECTION SOLID

__24" x 24" x 10" __CONC. FTG.

— SEE WALL BRACING DETAIL — SHEET FOR FOUNDATION

DETAILS

CONC. FTG.

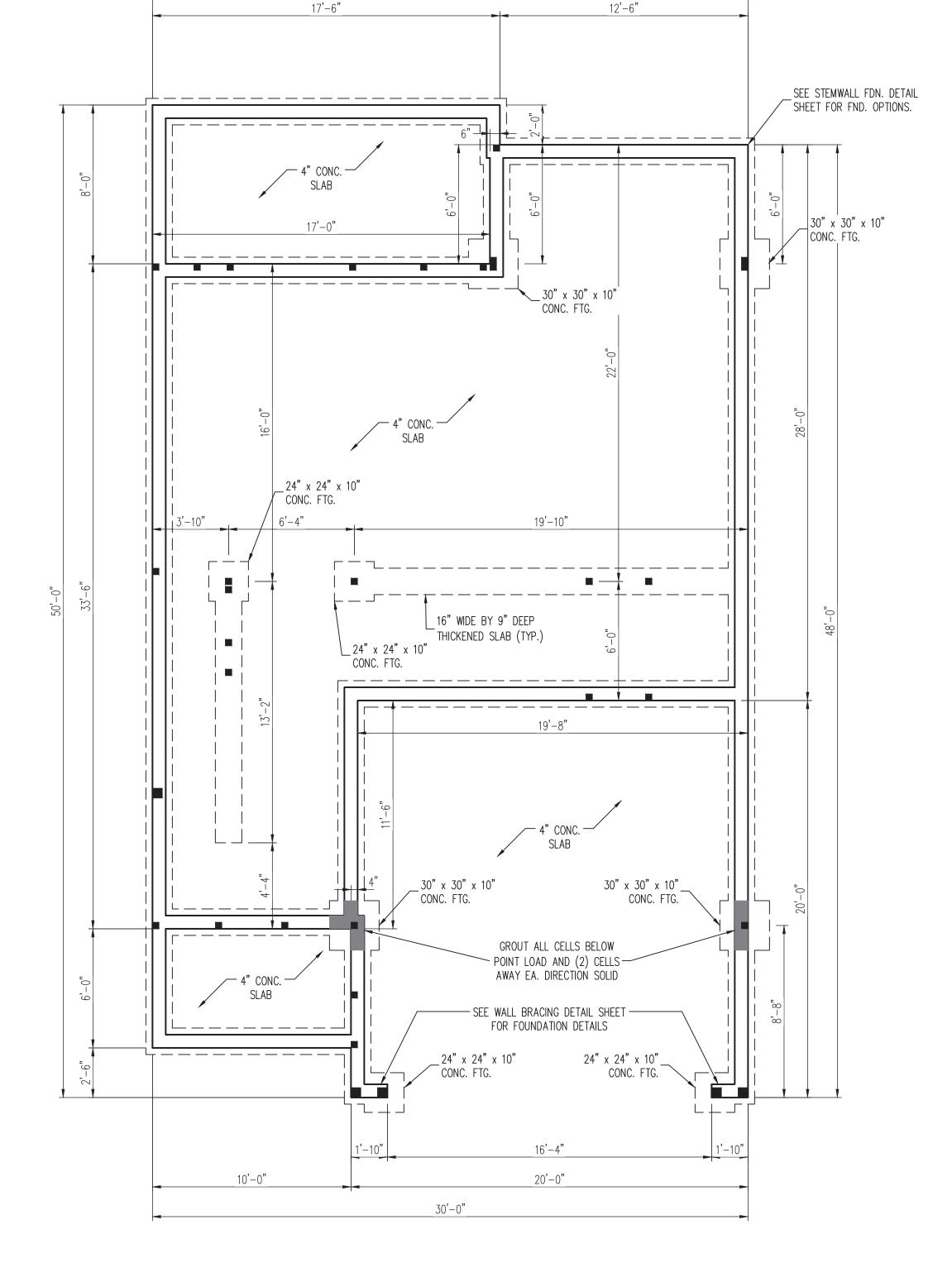
OPTIONAL THIRD

-4" CONC.-

∕ 4" CONC. ∕ SLAB

OPTIONAL FAMILY

ROOM EXTENSION



30'-0"

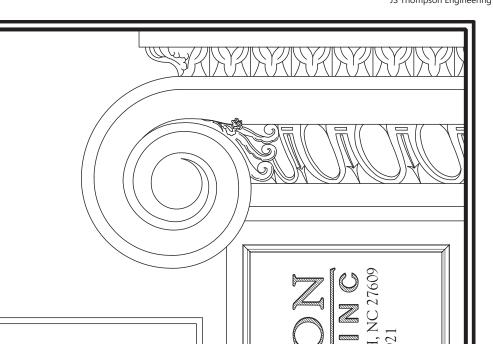
8/15/2023

DATE: AUGUST 14, 2023

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

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

S-1c STEM WALL FOUNDATION PLAN



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.
- 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 |

4. GB REFERS TO "GYPSUM BOARD." CONTRACTOR IS TO INSTALL 1/2" (MIN.)

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 ENOTE LIND OF	TIENDERS 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 OTHERWIS

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

ENGINEERED BY: JAG

THE SAVANNAH IHERN TOUCH H

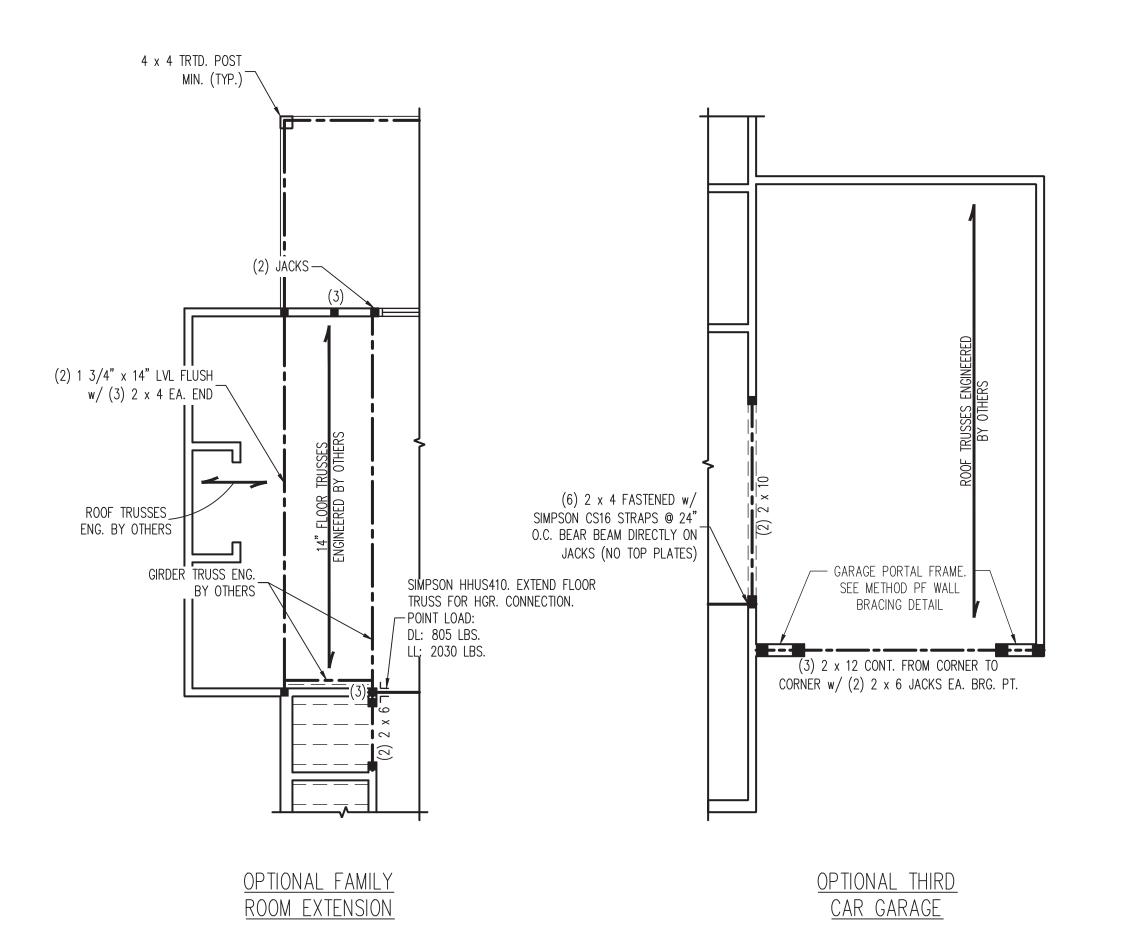
SECOND FLOOR

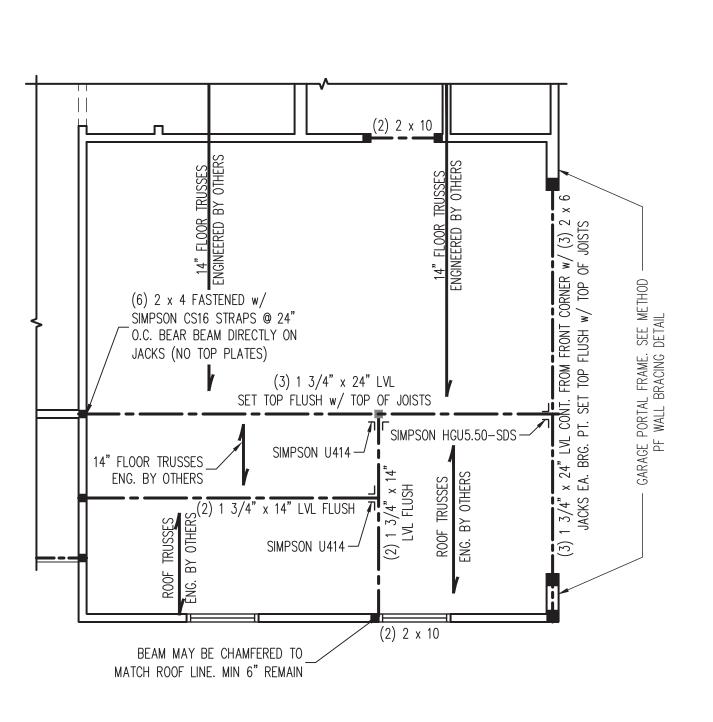
FRAMING PLAN

TRUSS BLOCKING DETAIL (SEE NOTE 3 FOR ADDITIONAL INFORMATION)

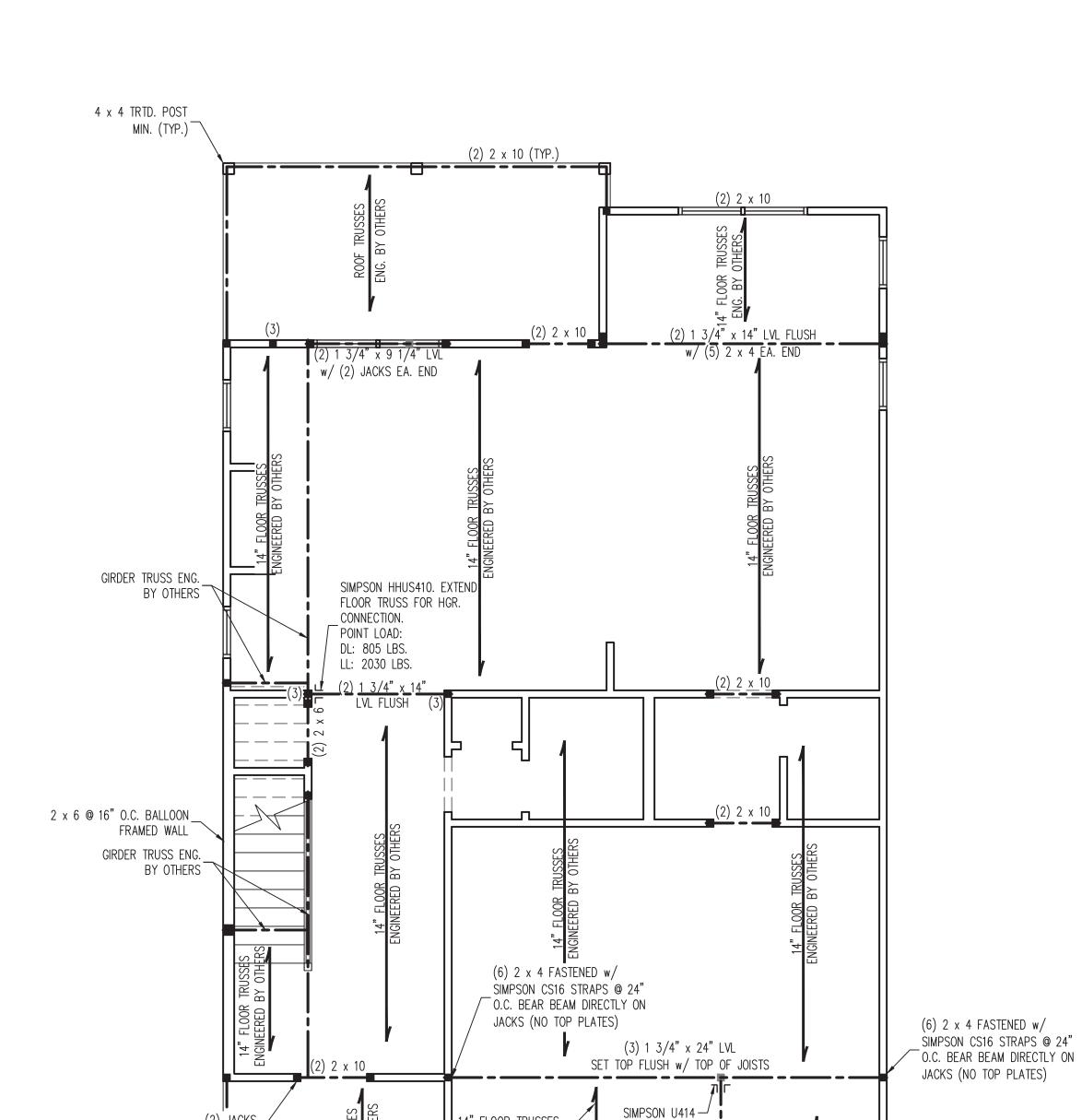
ALL TRUSS MEMBERS w/ (1)

ROW OF 12d NAILS @ 4" O.C.





OPTIONAL SIDE LOAD GARAGE



14" FLOOR TRUSSES_

(2) 2 x 10 (TYP.)

4 x 4 TRTD. POST

MIN. (TYP.)

ENG. BY OTHERS

(2) 1 3/4" x 14" LVL FLUSH

(3) 1 3/4" x 11 7/8" LVL CONT. CORNER TO

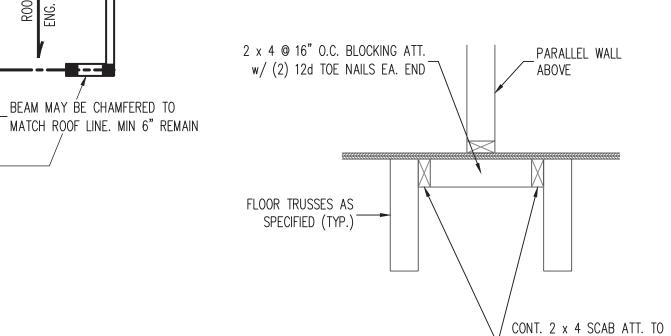
CORNER w/(2) 2 x 6 JACKS EA. BRG. PT.

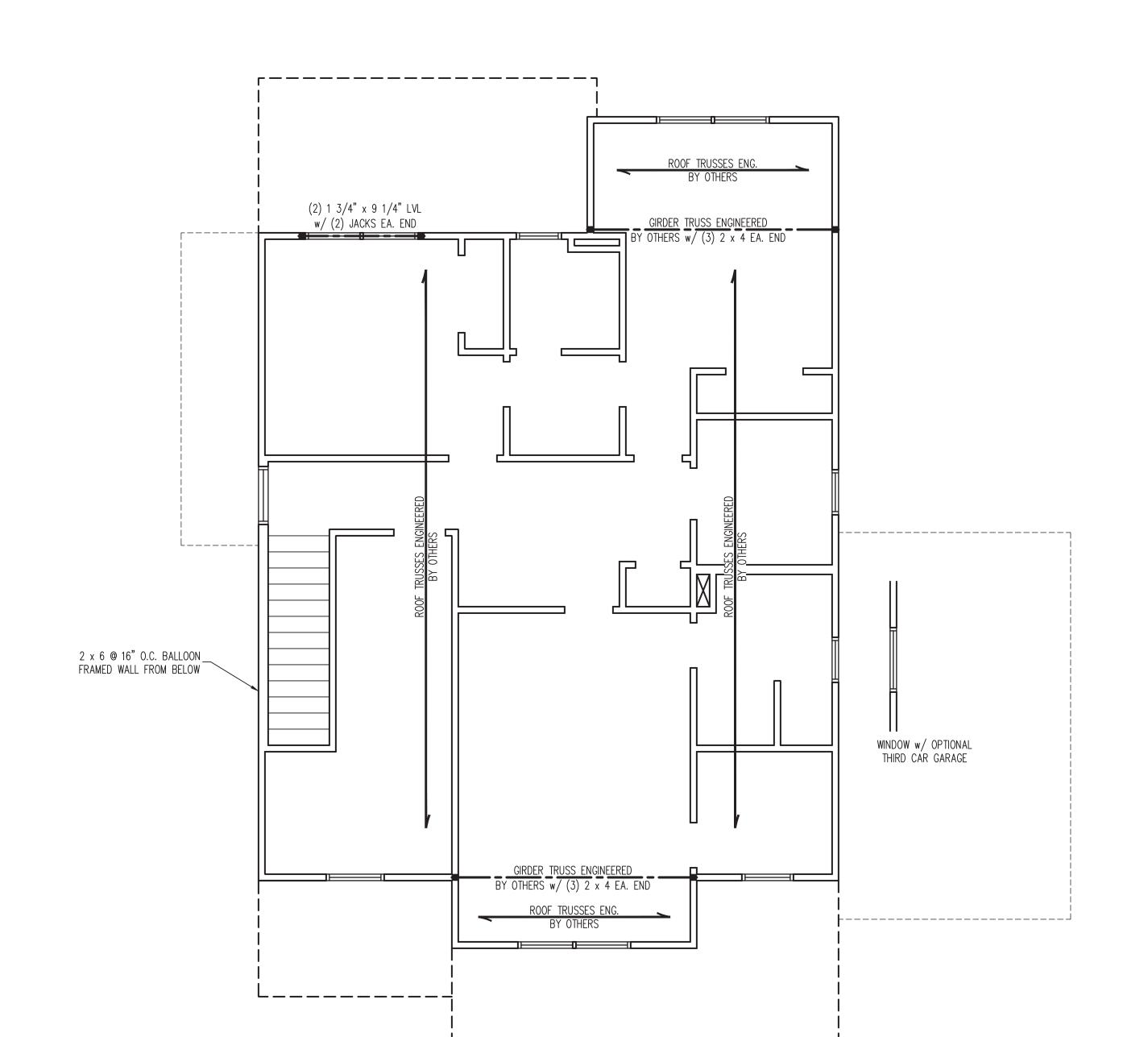
SIMPSON U414

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

BEAM MAY BE CHAMFERED TO

8/15/2023





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:

- 1. ALL FRAMING LUMBER TO BE #2 SPF (UNO).
 2. 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.

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

 SQUARES TO BE (2) STUDS (UNO.)
- 5. 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 F HEIGHT STUDS (KING
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



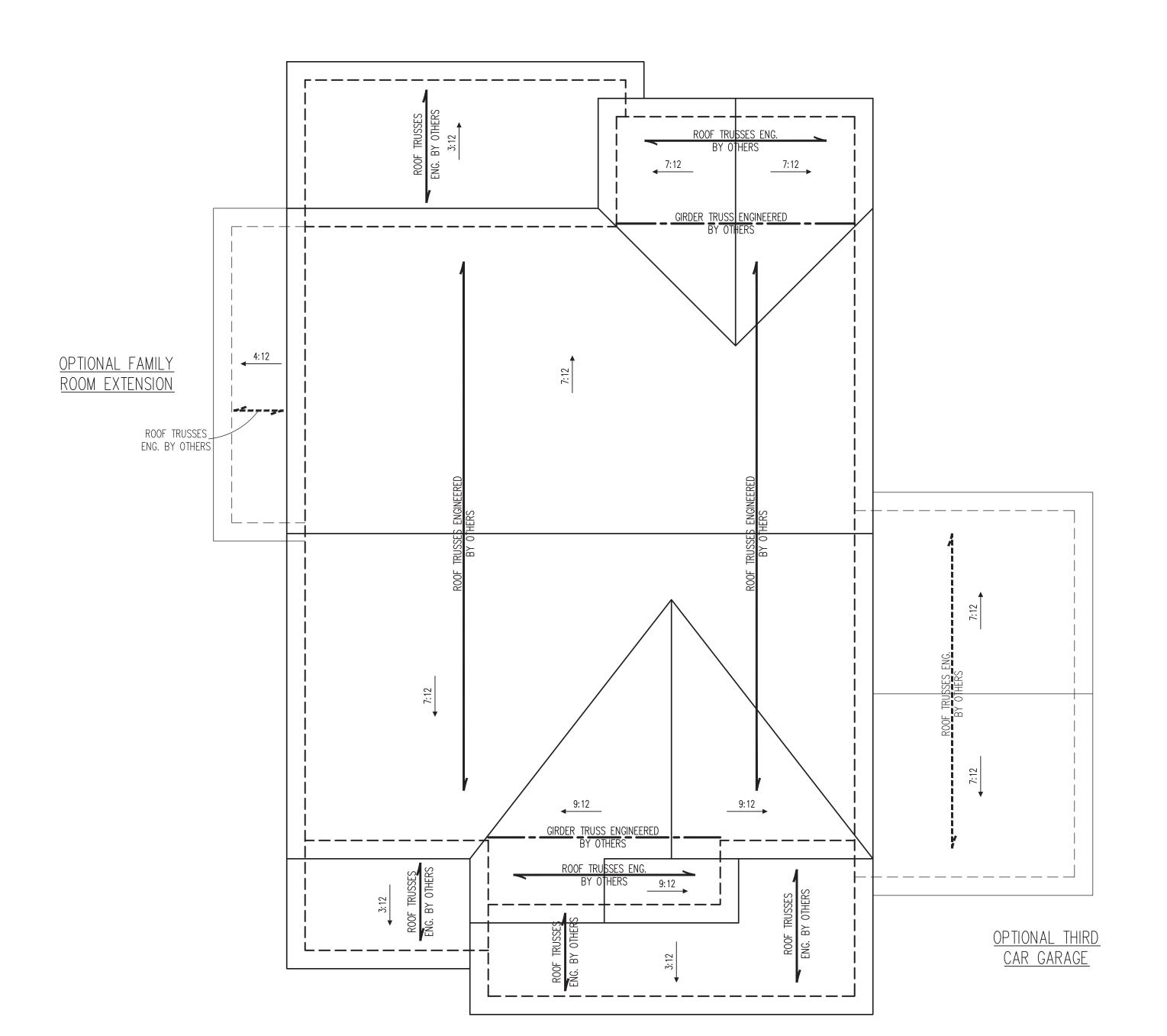
DATE: AUGUST 14, 2023

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

DRAWN BY: K&A HOME DESIGN

ENGINEERED BY: JAG

S-3
ATTIC FLOOR
FRAMING PLAN





- ALL FRAMING LUMBER TO BE #2 SPF
- 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 @ 32" O.C. MAX. PASS HURRICANE TIES THROUGH NOTCH IN ROOF SHEATHING. EACH RAFTER IS TO BE FASTENED TO THE FLAT VALLEY WITH A MIN. OF (6) 12d TOE NAILS.

 5. REFER TO SECTION R802.11 OF THE 2018 NCRC FOR REQUIRED UPLIFT
- RESISTANCE AT RAFTERS.

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

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

LEGEND EXTRA TRUSS TRUSS SUPPORT
TRUSS SUPPORT
EXTRA RAFTER
RAFTER SUPPORT
CONTINUOUS
EACH
ON CENTER
SPRUCE PINE FIR
SOUTHERN YELLOW PINE
TYPICAL
UNLESS NOTED OTHERWISE

THE SAVANNAH SOUTHERN TOUCH HOMES

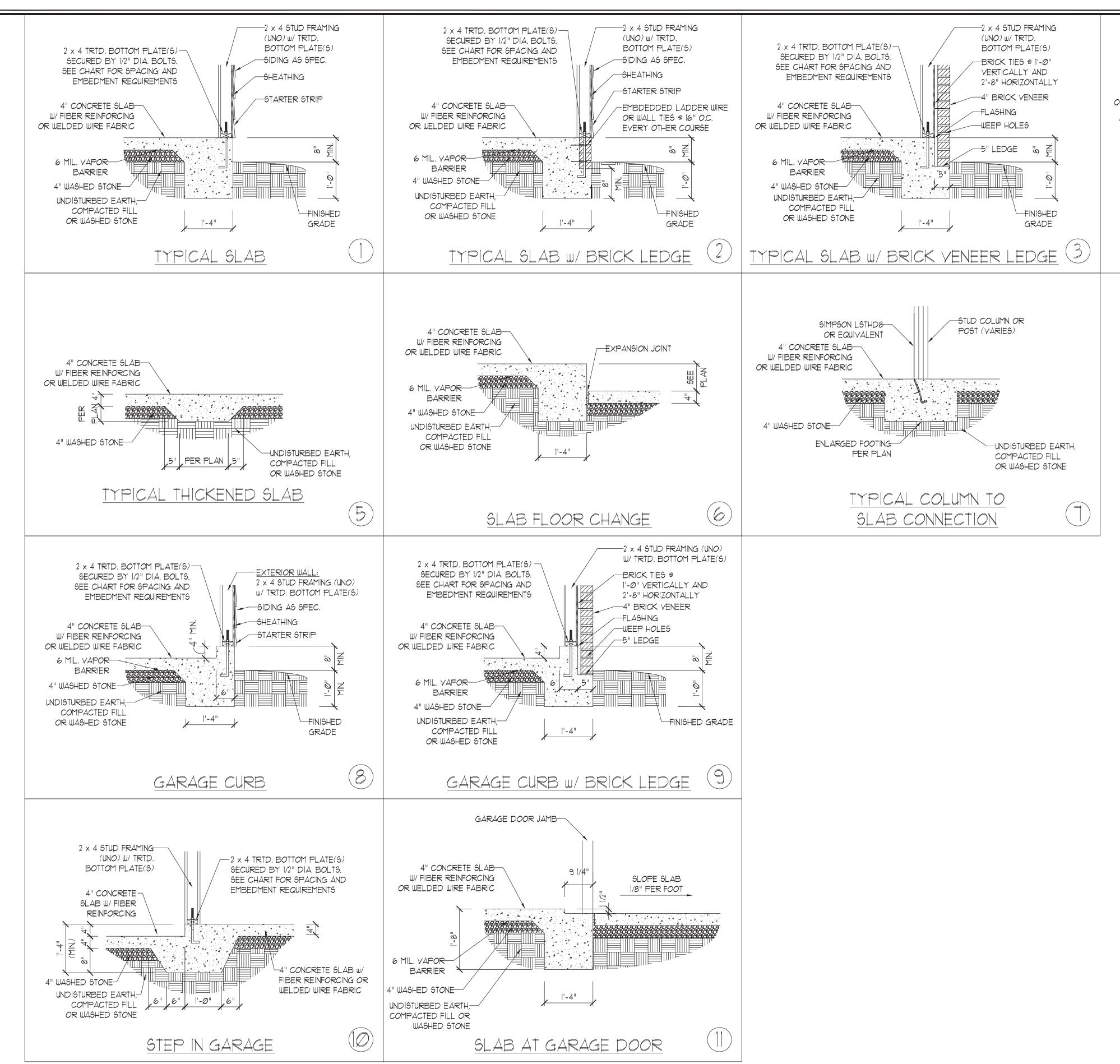
DATE: AUGUST 14, 2023

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

DRAWN BY: K&A HOME DESIGN

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S-4 ROOF FRAMING PLAN



NOTE:

THREADED ROD WITH EPOXY,

TO PROVIDE EQUIVALENT

LIEU OF 1/2" ANCHOR BOLTS.

SIMPSON TITEN HD, OR APPROVED

ANCHORS SPACED AS REQUIRED

ANCHOR BOLTS MAY BE USED IN

ANCHORAGE TO 1/2" DIAMETER

130 MPH

4'-Ø" O.C.

INSTALL MIN. (2) ANCHORS PER

PLATE SECTION AND (1)

ANCHOR WITHIN 12" OF CORNERS

15" INTO MASONRY

7" INTO CONCRETE

ANCHOR SPACING AND EMBEDMENT

120 MPH

6'-0" O.C.

INSTALL MIN. (2) ANCHORS PER

PLATE SECTION AND (1)

ANCHOR WITHIN 12" OF CORNERS

7"

WIND ZONE

SPACING

EMBEDMENT

-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



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D	
DATE	E: AUGUST 30, 2022
SCAL	.E: NTS
DRAV	WN BY: JST

ENGINEERED BY: JST

FOUNDATION DETAILS

ENGINEISO RALEIGH, NC 276
PHONE: (919) 789-9919 FAX: (919) 789-9921

STEM WALL FOUNDATION DETAILS

DATE: AUGUST 30, 2022

DATE: AUGUST 30, 2022 SCALE: NTS

DRAWN BY: JST

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8/15/2023

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EOLINDATION

FOUNDATION DETAILS

MASONRY STEMWALL SPECIFICATIONS 2 x 4 STUD FRAMING (UNO) MASONRY WALL TYPE W/ TRTD. BOTTOM PLATE(S) BRICK TIES @ 1'-0" VERTICALLY AND WALL HEIGHT 2'-8" HORIZONTALLY 4" BRICK AND 2 x 4 TRTD. BOTTOM PLATE(6)-4" BRICK AND (FEET) 12" CMU 8" CMU -4" BRICK VENEER SECURED BY 1/2" DIA. BOLTS. SEE CHART FOR SPACING AND EMBEDMENT REQUIREMENTS WEEP HOLES 2 AND UNGROUTED GROUT SOLID UNGROUTED UNGROUTED BELOW 4" CONCRETE SLAB-W/ FIBER REINFORCING OR WELDED WIRE FABRIC UNGROUTED GROUT SOLID UNGROUTED UNGROUTED 6 MIL. VAPOR-BARRIER LADDER WIRE GROUT SOLID w/ #4 GROUT SOLID w/ #4 EVERY OTHER 4" WASHED STONE GROUT SOLID GROUT SOLID REBAR @ 48" O.C. COURSE REBAR @ 64" O.C. UNDISTURBED EARTH, COMPACTED FILL -12" CMU BLOCK GROUT SOLID w/ #4 GROUT SOLID w/ #4 GROUT SOLID w/ #4 OR WASHED STONE NOT APPLICABLE REBAR @ 36" O.C. REBAR @ 36" O.C. REBAR @ 64" O.C. TOP TWO COURSES OF STEM WALL AND--WALL REINFORCEMENT, ALL CELLS W/ REINFORCEMENT TO BE GROUT SOLID w/ #4 GROUT SOLID w/ #4 GROUT SOLID w/ #4 SEE CHART FOR SPACING FILLED SOLID. NOT APPLICABLE REBAR @ 24" O.C. REBAR @ 24" O.C. REBAR @ 64" O.C. -20" WIDE BY 8" DEEP CONT. CONC. FTG. 7 AND ENGINEERED DESIGN BASED ON SITE CONDITIONS GREATER

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 <u>ONLY</u>. CONSULT ENGINEER FOR DESIGN OF GARAGE FOUNDATION NOT COMMON TO HOUSE.
- 4) BACKFILL OF CLEAN #57 / #67 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 <u>TABLE R405.1</u> 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.
- 7) 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.

STEM WALL FDN. DETAIL	
2 × 4 STUD FRAMING (UNO) W/ TRID. BOTTOM PLATE(S) 2 × 4 TRID. BOTTOM PLATE(S) 3 × 4 TRID. BOTTOM PLATE(S) 4 " BRICK TIES 6 1 - Ø" VERTICALLY AND 2 - 8" HORIZONTALLY 4 " BRICK VENEER 4 " BRICK VENEER 4 " BRICK VENEER 4 " BRICK TIES 6 1 - Ø" VERTICALLY AND 2 - 8" HORIZONTALLY 4 " BRICK VENEER 4 " BRICK VENEER 4 " BRICK VENEER LASHING A " BRICK TIES 6 I - Ø" VERTICALLY AND 2 - 8" HORIZONTALLY 4 " BRICK VENEER LASHING A " BRICK TIES 6 I - Ø" VERTICALLY AND 2 - 8" HORIZONTALLY 4 " BRICK TIES 6 I - Ø" VERTICALLY AND 2 - 8" HORIZONTALLY 4 " BRICK TIES 6 I - Ø" VERTICALLY AND 2 - 8" HORIZONTALLY 4 " BRICK TIES 6 I - Ø" VERTICALLY AND 2 - 8" HORIZONTALLY 4 " BRICK VENEER LASHING A " BRICK TIES 6 I - Ø" VERTICALLY AND 2 - 8" HORIZONTALLY 4 " BRICK VENEER LASHING EVERYMOT COURSE 1 - Ø" VETTICALLY 4 " BRICK VENEER 1 - Ø" BRICK TIES 6 I - Ø" VETTICALLY 4 " BRICK TIES 6 I - Ø" VETTICALLY 4 " BRICK VENEER 1 - Ø" BRICK TIES 6 I - Ø" VETTICALLY 4 " BRICK TIES 6 I - Ø" VETTICALLY 4 " BRICK TIES 6 I - Ø" VETTICALY 4 " BRICK TIES 6 I - Ø" BRICK TIES 6 I - Ø" VETTICALLY 4 " BRICK TIES 6 I - Ø" VETTICALLY 4 " BRICK TIES 6 I - Ø" BRICK TIES 6	THER OCK TO A

STEM WALL FDN. W/ BRICK DETAIL

2 x 4 STUD FRAMING (UNO)— W/ TRTD. BOTTOM PLATE(S)

2 x 4 TRTD. BOTTOM PLATE(S)—

SECURED BY 1/2" DIA. BOLTS.

SEE CHART FOR SPACING AND

THICKENED SLAB-

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

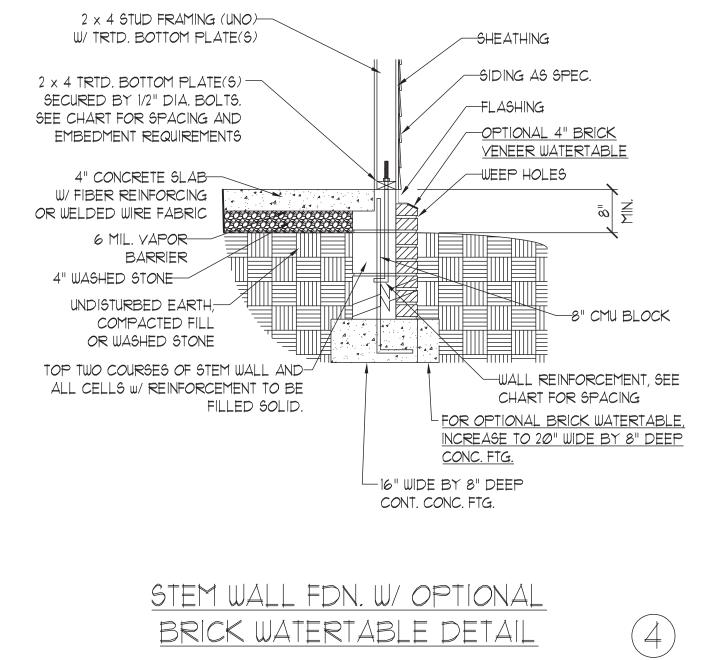
W/ FIBER REINFORCING

OR WELDED WIRE FABRIC

4" WASHED STONE

NOT REQUIRED

EMBEDMENT REQUIREMENTS



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

		NOTE:		
	WIND ZONE	120 MPH	130 MPH	THREADED ROD SIMPSON TITEN A ANCHORS SPAC TO PROVIDE EG ANCHORAGE TO ANCHOR BOLTS LIEU OF 1/2" ANC
	SPACING	6'-0" O.C. INSTALL MIN. (2) ANCHORS PER PLATE SECTION AND (1) ANCHOR WITHIN 12" OF CORNERS	4'-0" O.C. INSTALL MIN. (2) ANCHORS PER PLATE SECTION AND (1) ANCHOR WITHIN 12" OF CORNERS	
	EMBEDMENT	7"	15" INTO MASONRY 7" INTO CONCRETE	

-SIDING AS SPEC.

-LADDER WIRE IN TOP TWO

-OPTIONAL BRICK VENEER

COURSES (W/ VENEER ONLY)

-FINISHED GRADE

EVERY OTHER

—8" CMU BLOCK

COURSE

-WALL REINFORCEMENT, SEE

CHART FOR SPACING

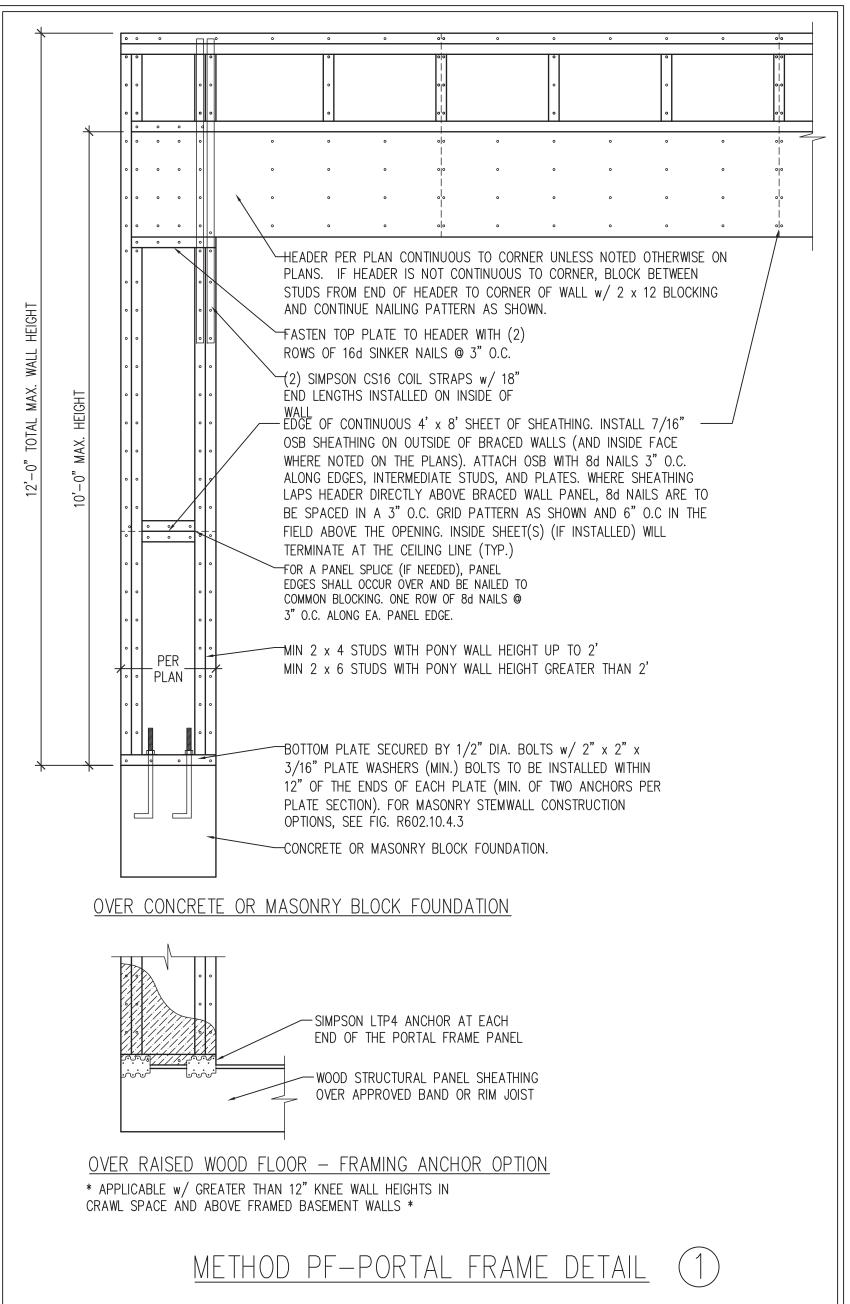
-16" WIDE BY 8" DEEP

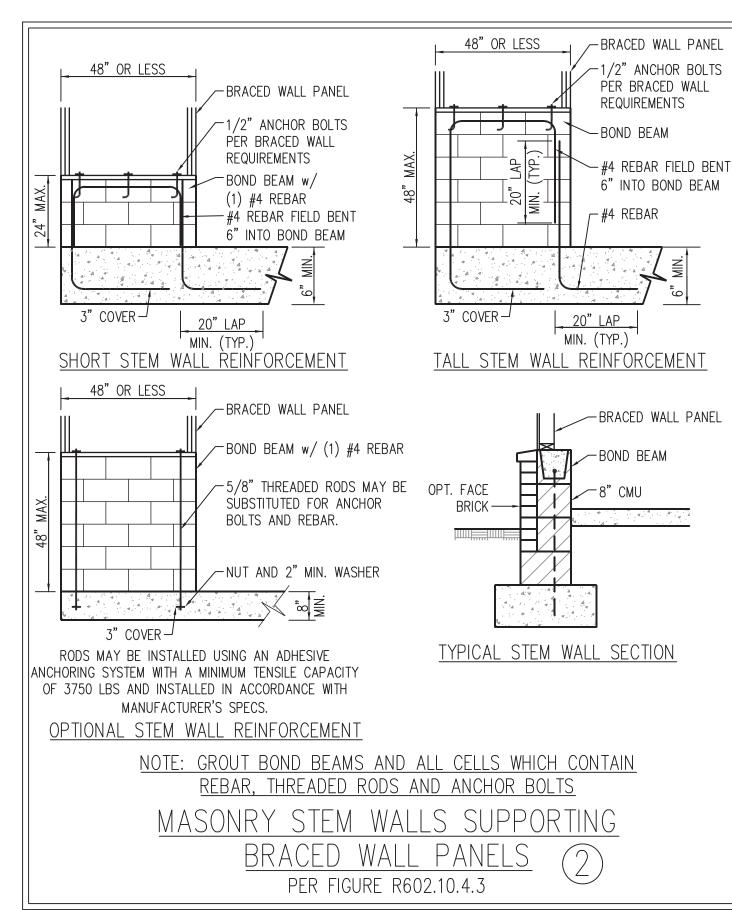
CONT. CONC. FTG.

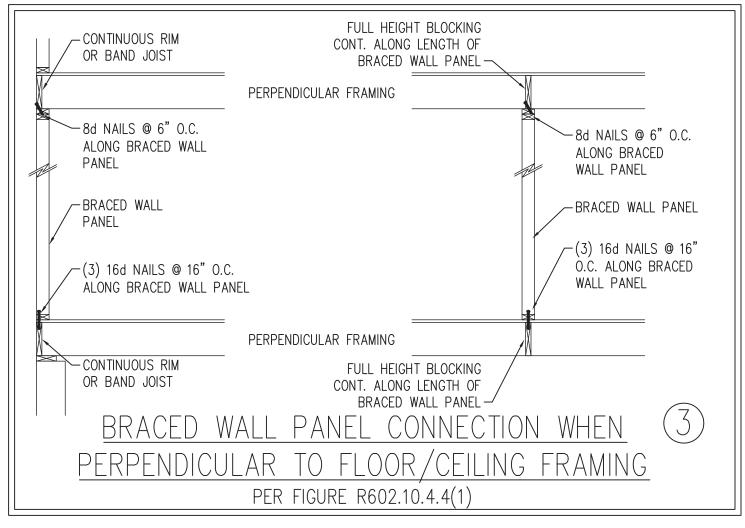
SHEATHING

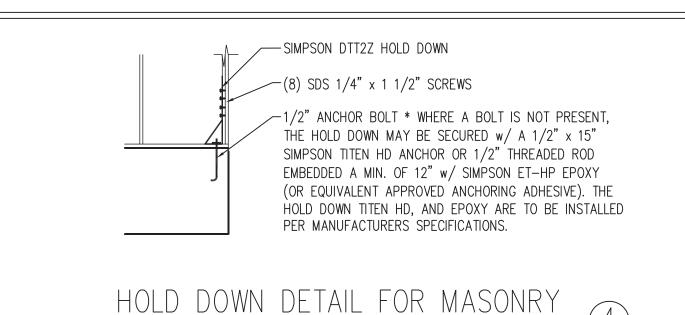
THREADED ROD WITH EPOXY,
SIMPSON TITEN HD, OR APPROVED
ANCHORS SPACED AS REQUIRED
TO PROVIDE EQUIVALENT
ANCHORAGE TO 1/2" DIAMETER
ANCHOR BOLTS MAY BE USED IN
LIEU OF 1/2" ANCHOR BOLTS.

- 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.

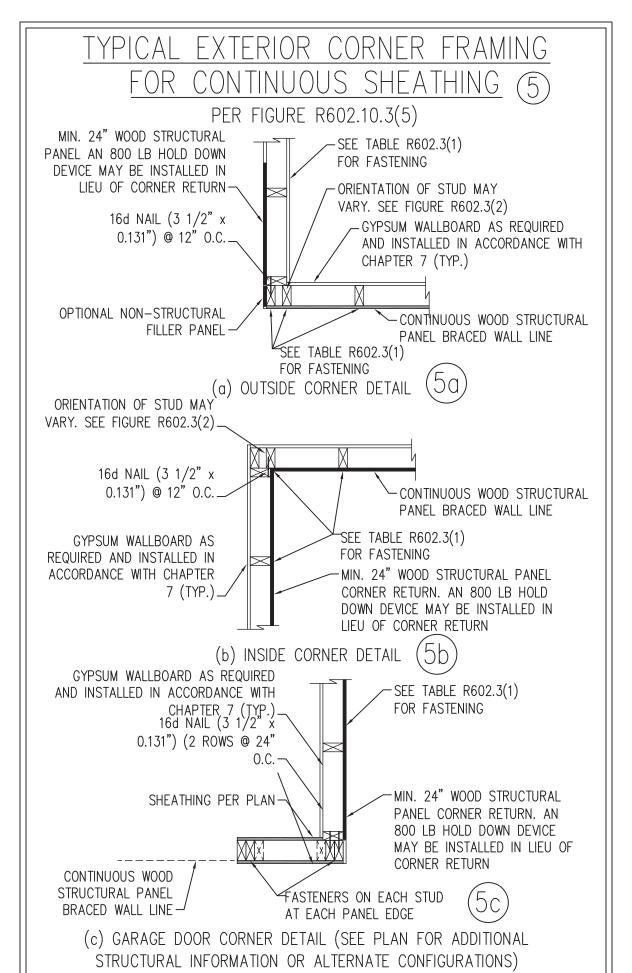








FOUNDATION OR MONOLITHIC SLAB * APPLICABLE ONLY WHERE SPECIFIED ON PLAN *



TO FLOOR/CEILING FRAMING

PER FIG. R602.10.4.4(2)

ADDITIONAL FRAMING

MEMBER DIRECTLY ABOVE

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

√(3) 16d NAILS @ 16" O.C.

ADDITIONAL FRAMING

BRACED WALL PANEL

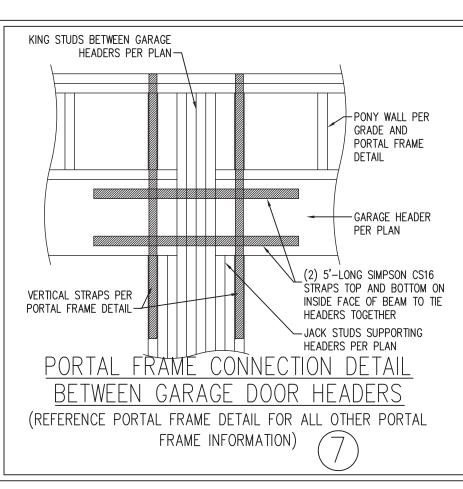
MEMBER DIRECTLY BELOW

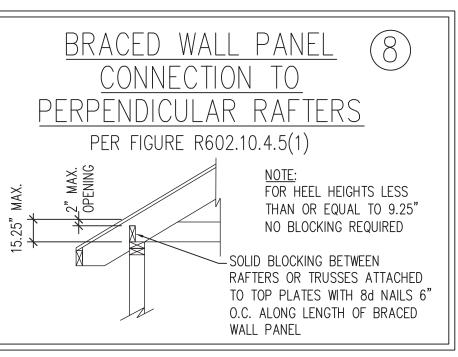
ALONG BRACED WALL PANEL

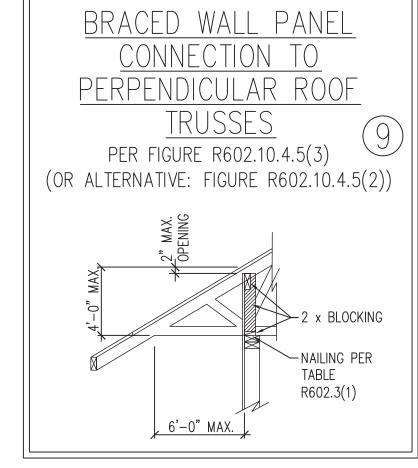
BRACED WALL PANEL

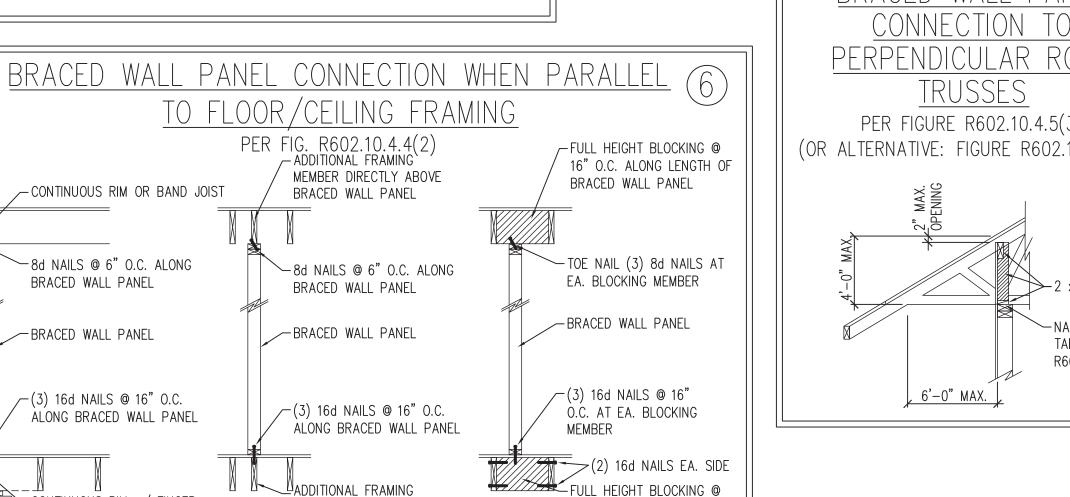
BRACED WALL PANEL

→ BRACED WALL PANEL









16" O.C. ALONG LENGTH OF

BRACED WALL PANEL

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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



ANI BRACING

DATE: AUGUST 30, 2022 SCALE: 1/4" = 1'-0"

DRAWN BY: JST ENGINEERED BY: JST

BRACED WALL NOTES AND

DETAILS AND PF DETAIL

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.

FANDARD STRUCTURAL NOTES

SEAL 33736

WINDOWS TRANSPORTED TO THE SEAL STRUCTURE TO THE SEAL

DATE: AUGUST 30, 2022

DRAWN BY: JST

ENGINEERED BY: JST

STRUCTURAL

NOTES