



**SONOMA II B-SL** 

CHECKED \_ DATE PROJ. NO. <u>11/30/22</u> PRINTED

REVISION NO. DESCRIPTION 04/05/23 05/23/23 REVISIONS 4 5 6 A4/B4 ELEVATIONS 06/28/23 OPT GUEST SUITE 11/06/23 **SLIDER CORRECTION**  "THESE PLANS, DRAWINGS AND/OR DOCUMENTS AND THE INFORMATION CONTAINED THEREIN ARE CONFIDENTIAL AND PROPRIETARY TO GREAT SOUTHERN HOMES AND ARE "TRADE SECRETS" AS DEFINED BY S.C. CODE ANN.§39-8-20 COPYRIGHT © 2022

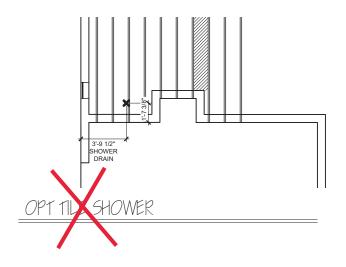
GREATSOUTHERN HOMES CAN NOT GUARANTEE AGAINST ERRORS AND OMISSIONS WITHIN THESE PLANS. THE CONTRACTOR MUST VERIFY ALL DIMINSIONS AND MAY ADJUST THE CONSTRUCTION ACCORDINGLY TO STANDARDS

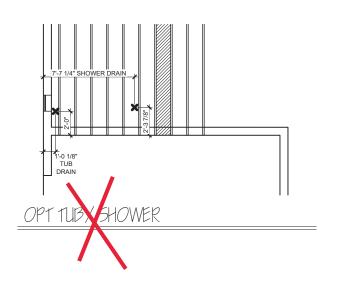
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FIRST FLOOR: 1652
SECOND FLOOR: 1481
GARAGE: 462
FRONT PORCH: 89
PATIO: 168
TOTAL HEATED: 3133

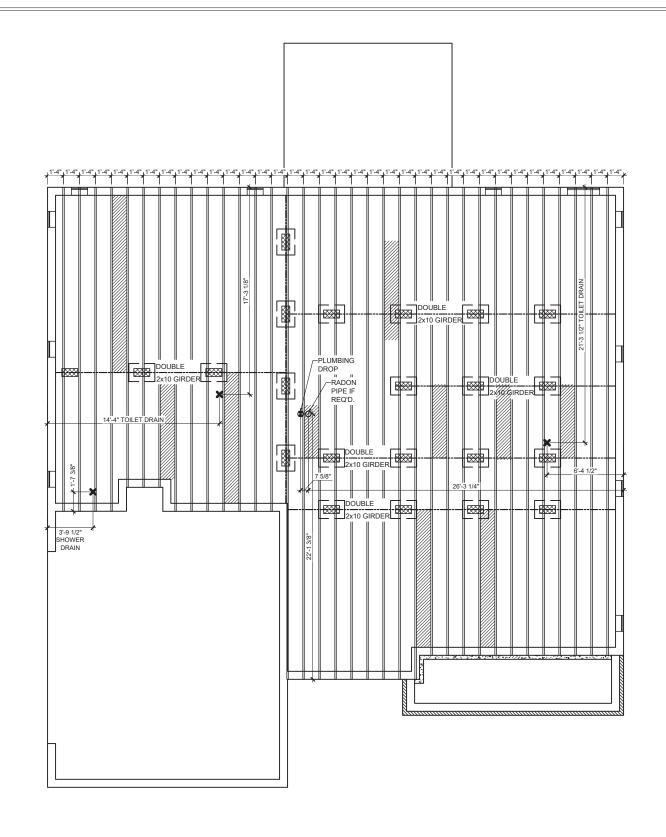
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DRAWING TITLE CRAWL FOUNDATION

F-3







CRAWL SPACE FRAMING PLAN



SONOMA II B - SL

DRAWN EBP/TW/JSC
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5 06/28/23
6 11/06/23

 ON
 DESCRIPTION

 23
 REVISIONS

 23
 A4/B4 ELEVATIONS

 23
 OPT GUEST SUITE

 23
 SLIDER CORRECTION

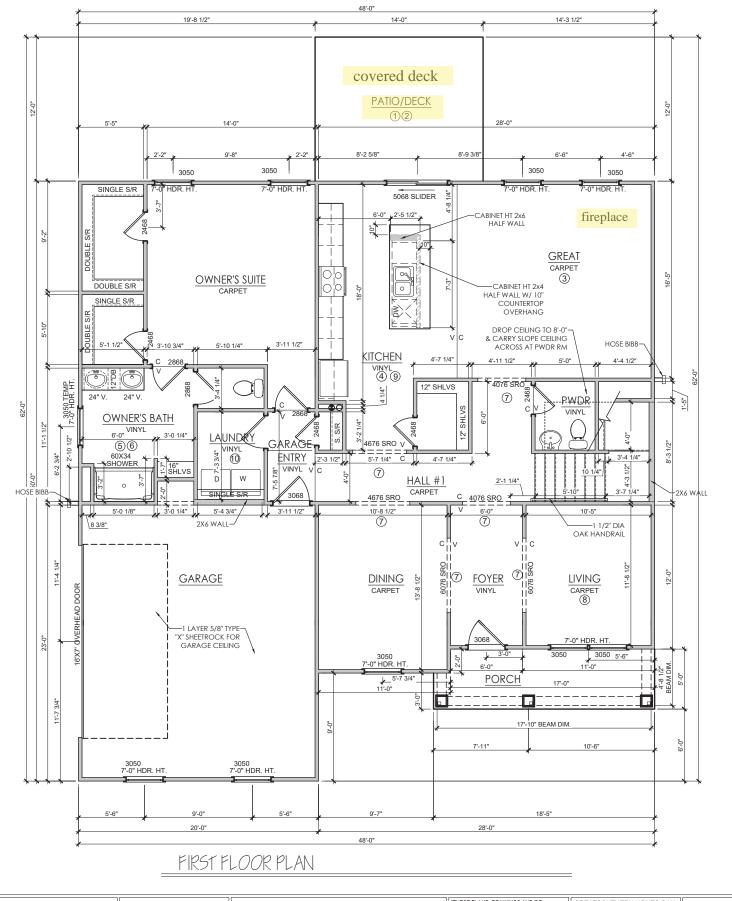
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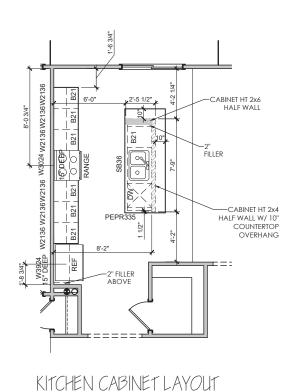
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DRAWNG TITLE
CRAWL FRAMING

GARAGE LEFT







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 OPT GUEST SUITE

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 11/06/23
 SLIDER CORRECTION

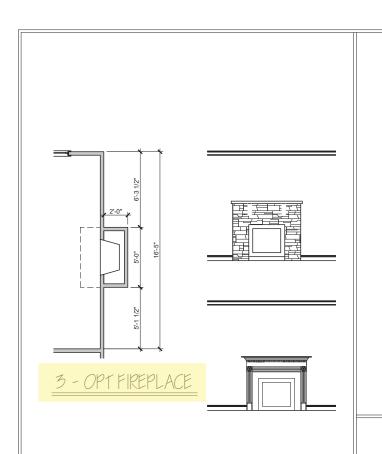
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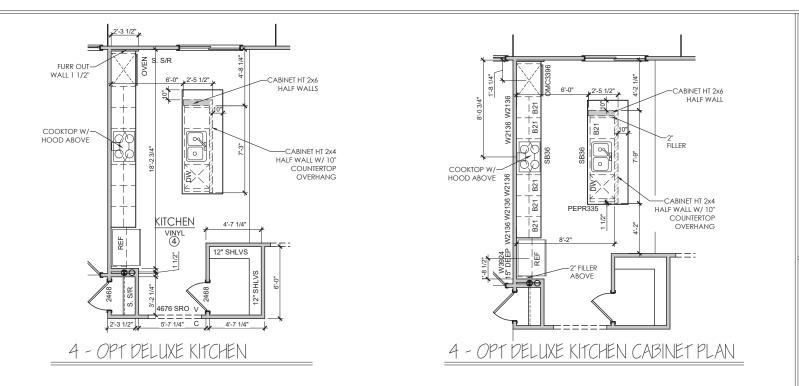
GREATSOUTHERN HOMES CAN
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ACCORDINGLY TO STANDARDS

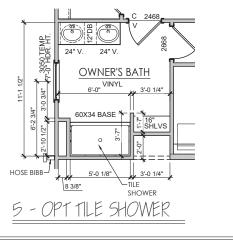
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GARAGE: 462
FRONT PORCH: 89
PATIO: 168
TOTAL HEATED: 3133

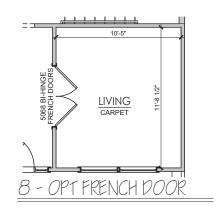
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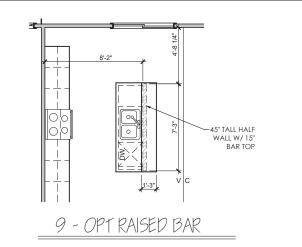
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FIRST FLOOR PLAN

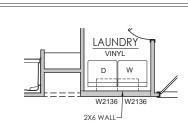








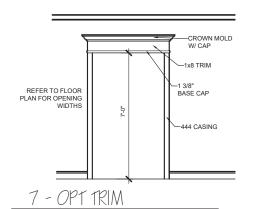


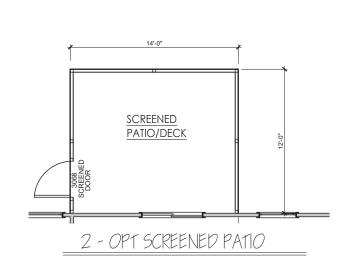


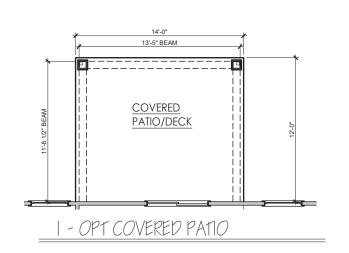
10 - OPT LAUNDRY CABINETS



6 - OPT TUB/ SHOWER









**SONOMA II B-SL** 

EBP/TW/JSC CHECKED DATE PROJ. NO. <u>11/30/22</u> PRINTED

REVISION NO. 04/05/23 4 5 6 05/23/23 06/28/23 11/06/23

DESCRIPTION

A4/B4 ELEVATIONS

OPT GUEST SUITE

**SLIDER CORRECTION** 

REVISIONS

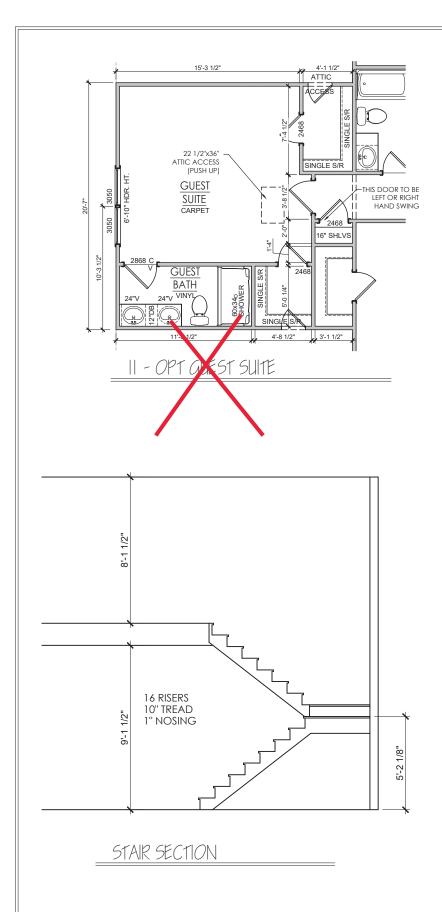
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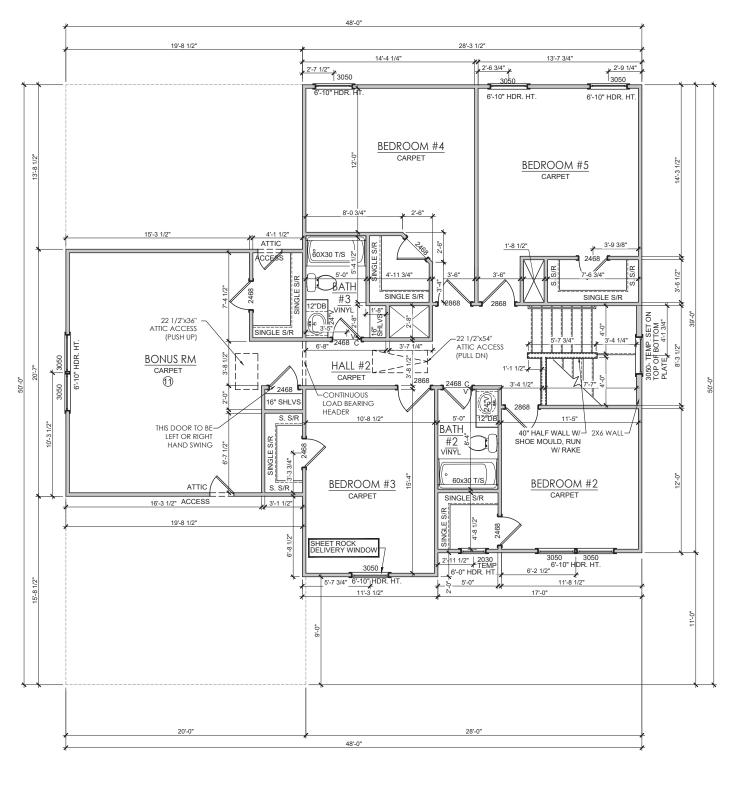
GREATSOUTHERN HOMES CAN NOT GUARANTEE AGAINST ERRORS AND OMISSIONS WITHIN THESE PLANS. THE CONTRACTOR MUST VERIFY ALL DIMNSIONS AND MAY ADJUST THE CONSTRUCTION ACCORDINGLY TO STANDARDS

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**GARAGE LEFT** 

DRAWING TITLE 0P15





SECOND FLOOR PLAN



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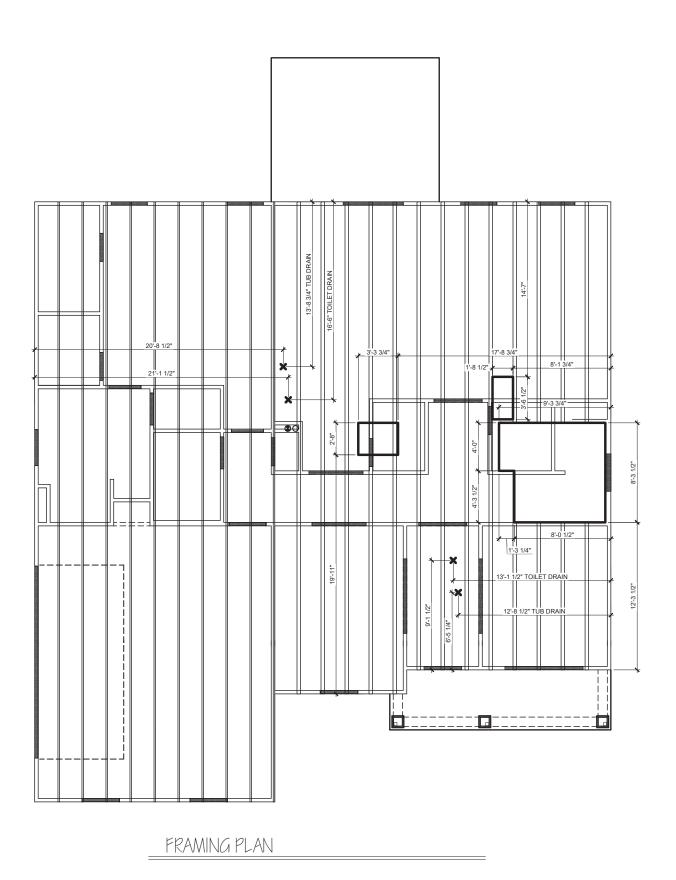
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SECOND FLOOR: 1481
GARAGE: 462
FRONT PORCH: 89
PATIO: 168
TOTAL HEATED: 3133

GARAGE LEFT

DRAWING TITLE SECOND FLOOR PLAN



GREAT HOMES PRO +

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DESCRIPTION REVISIONS A4/B4 ELEVATIONS OPT GUEST SUITE SLIDER CORRECTION (5)(a)(b)."

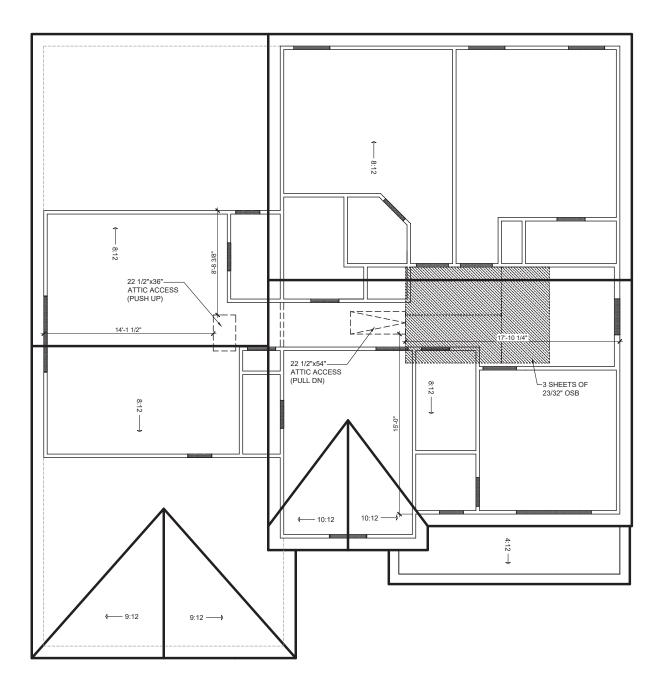
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GARAGE: 462
FRONT PORCH: 89
PATIO: 168
TOTAL HEATED: 3133

**GARAGE LEFT** 

DRAWING TITLE FRAMING PLAN



ROOF PLAN



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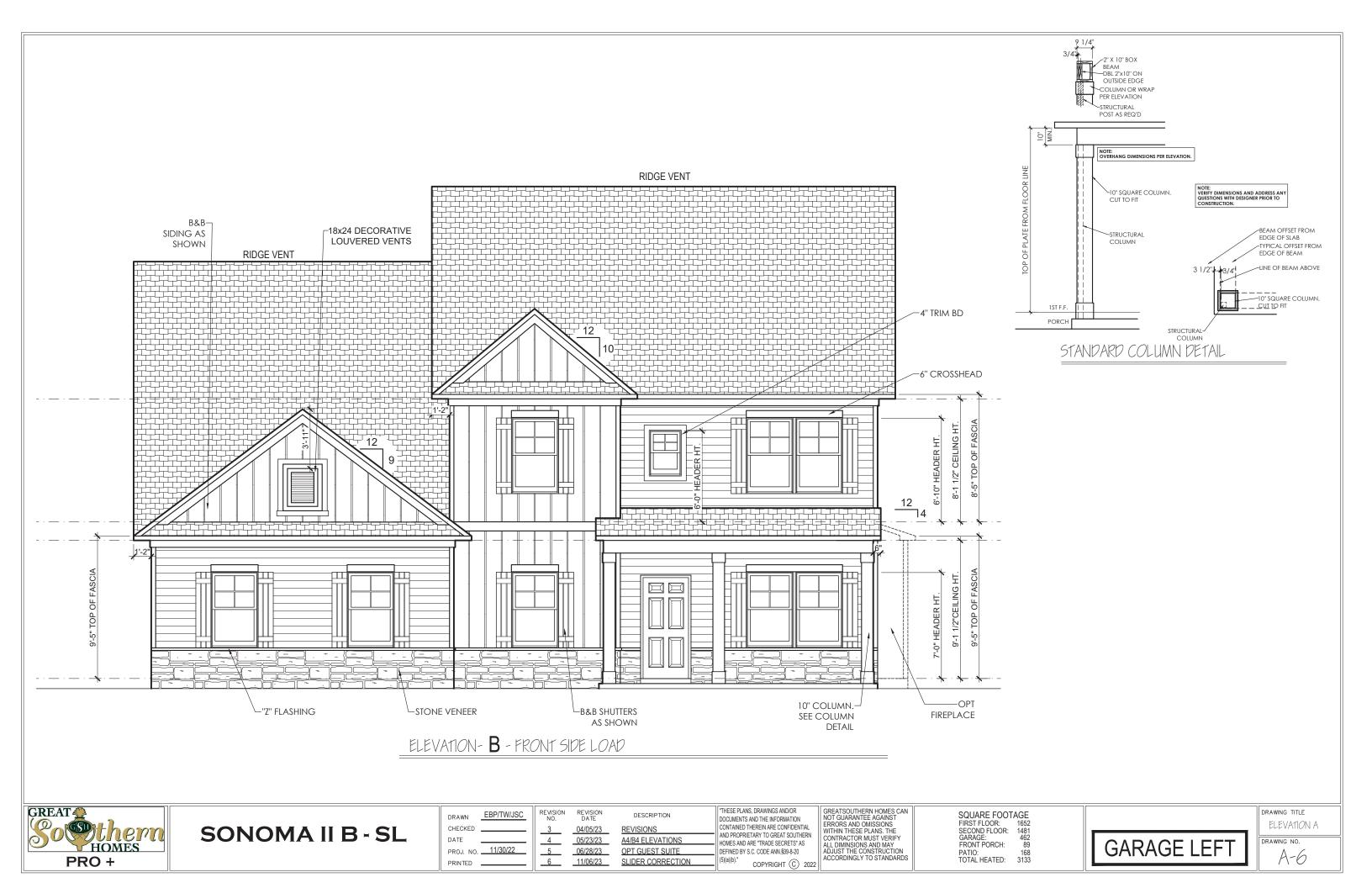
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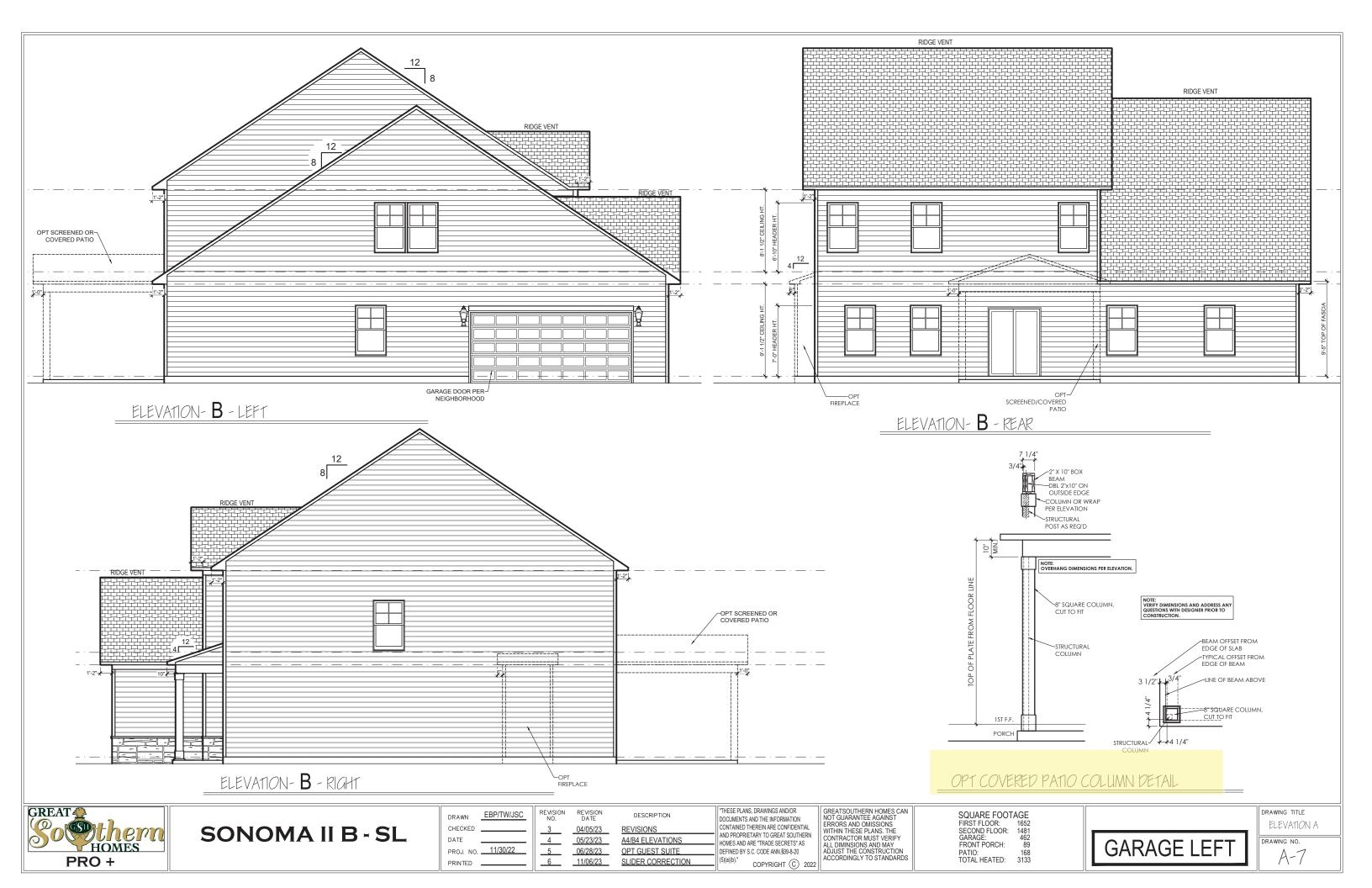
GREATSOUTHERN HOMES CAN NOT GUARANTEE AGAINST ERRORS AND OMISSIONS WITHIN THESE PLANS. THE CONTRACTOR MUST VERIFY ALL DIMINSIONS AND MAY ADJUST THE CONSTRUCTION ACCORDINGLY TO STANDARDS

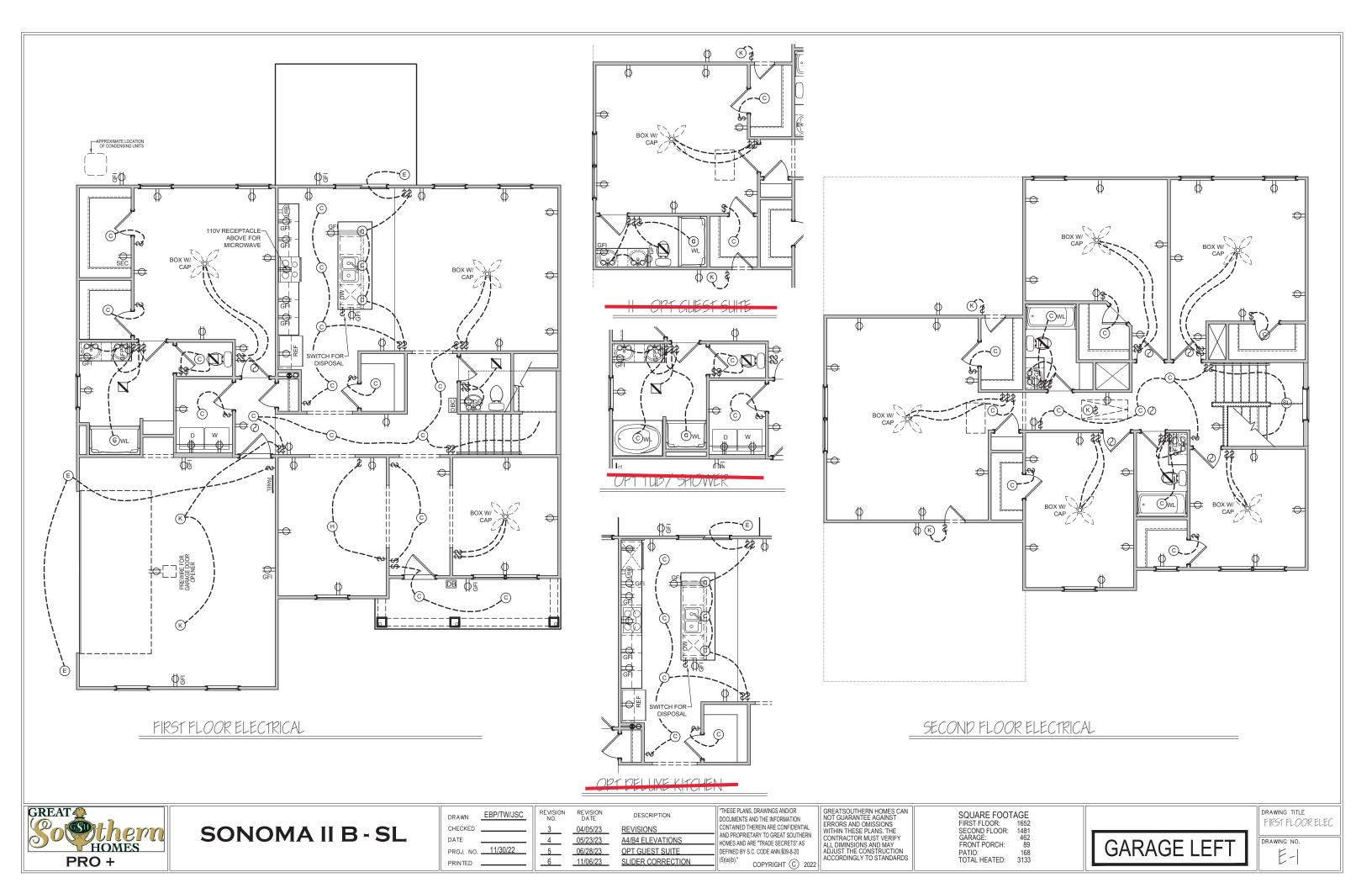
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GARAGE: 462
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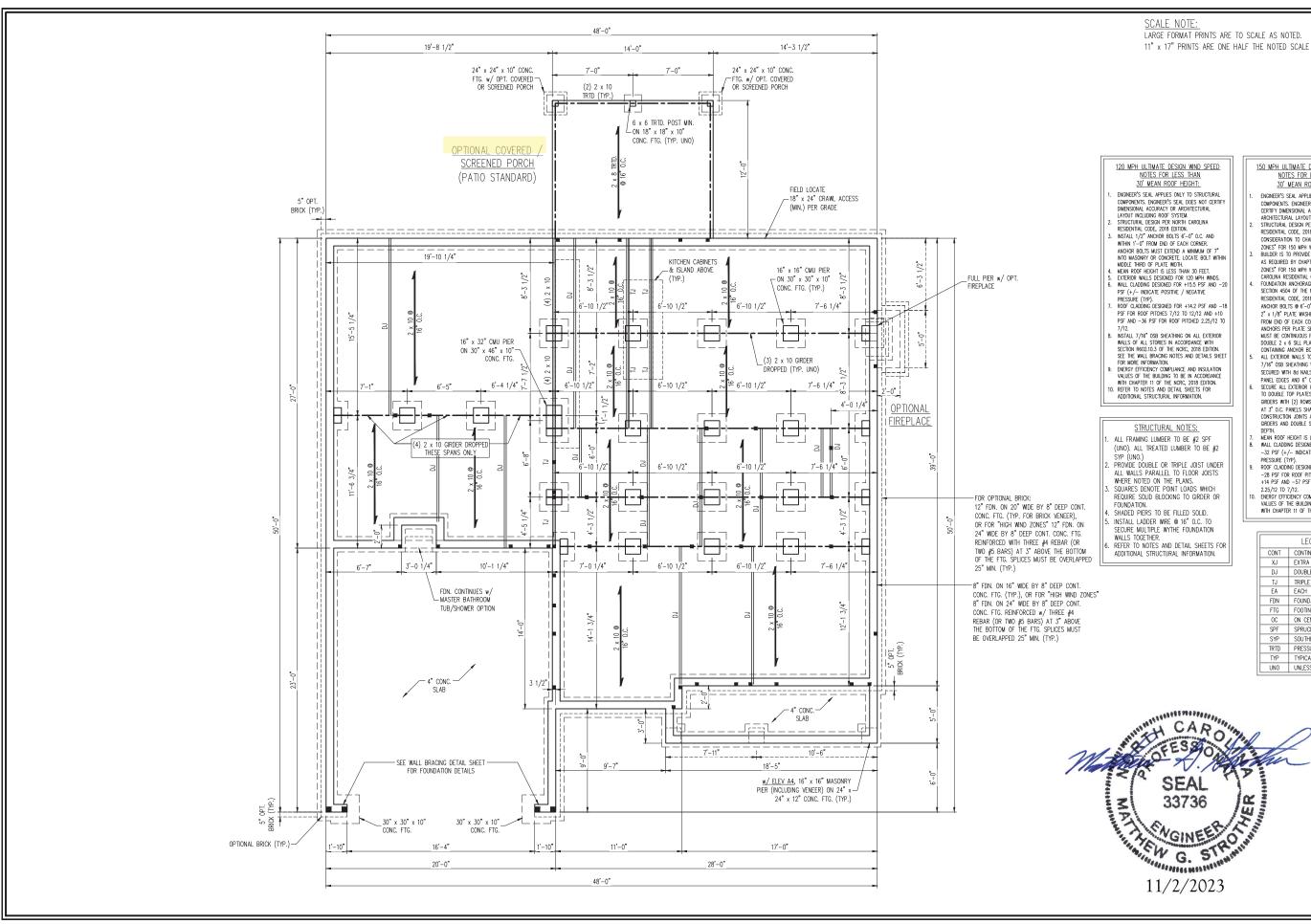
DRAWING TITLE ROOF PLAN DRAWING NO.

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**©** ∑

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S. TE

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

ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL ENGINEER'S SEAL APPLIES ONLY 10 STRUCTURAL COMPONENTS ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM. STRUCTURAL DESION PER NORTH CARGLINA RESIDENTIAL CODE, 2018 EDITION WITH SPECIAL CONSIDERATION TO CHAPTER 45 ("HIGH WIND CARGES" OF AUGUST AU

CONSIDERATION TO CHAPTER 45 (HIGH WIND ZONES" FOR 150 MPH MINDS).
BUILDER IS TO PROVIDE FRAMING CONNECTIONS AS REQUIRED BY CHAPTER 45 ("HIGH WIND ZONES" FOR 150 MPH WINDS) OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
FOUNDATION ANCHORAGE TO COMPLY WITH

SECTION 4504 OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION. INSTALL 1/2" ANCHOR BOLTS @ 6'-0" O.C. w/ NUT AND 2" o 2" x 1/8" PLATE WASHER AND WITHIN 1'-0" 2 x 1/8 PLAIE WASHER AND MIHIN 1-O FROM END OF EACH CORNER MIH MIN. (2) ANCHORS PER PLATE SECTION. ANCHOR BOLTS MUST BE CONTINUOUS FROM THE FOOTING TO A DOUBLE 2 x 6 SILL PLATE. ERGOUT CELLS CONTAINING ANCHOR BOLTS SOUD. ALL EXTERIOR WALLS TO BE SHEATHED WITH 2/6° COR LANDING MIN. LOTTE BLOCKED MIN.

7/16" OSB SHEATHING WITH JOINTS BLOCKED AN PANEL EDGES AND 6" O.C. IN THE FIELD.
SECURE ALL EXTERIOR WALL SHEATHING PANELS
TO DOUBLE TOP PLATES, BANDS, JOISTS, AND

GIRDERS WITH (2) ROWS OF 8d NAILS STAGGERED AT 3" O.C. PANELS SHALL EXTEND 12" BEYOND CONSTRUCTION JOINTS AND SHALL OVERLAP GROBERS AND DOUBLE SILL PLATES THEIR FULL

GRODES AND DOUBLE SILL PLATES THEIR PULL
DEPTH.

MEAN ROOF HEIGHT IS LESS THAN 30 FEET.

MALL CLADDING DESIGNED FOR +24.3 PSF AND

-32 PSF (+/- INDICATE POSITIVE / NEGATIVE
PRESSURE (TYP).

ROOF CLADDING DESIGNED FOR +22.2 PSF AND

-28 PSF FOR ROOF PITCHES 7/12 TO 12/12 AND

+14 PSF AND -57 PSF FOR ROOF PITCHED

-35 AS 10.7 SE

2.25/12 TO 7/12.
ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 11 OF THE NCRC, 2018 EDITION.

	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

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

SONOMA II - N.C. GREAT SOUTHERN HOMES

DRAWN BY: JES INEERED BY: WFB

S-1.1a CRAWL FOUNDATION PLAN

SCALE NOTE: LARGE FORMAT PRINTS ARE TO SCALE AS NOTED. 11" x 17" PRINTS ARE ONE HALF THE NOTED SCALE



I.S. THOMPSON
ENGINEERING, INC
333 EASTSIX (PORTS ROAD-1909) 783-9991
N.C. LIGENSE NO. LICENSE NO. C. LICENSE NO. C. CLOSNES NO. C. CLOSNES NO. C. CLOSNES NO. C. CLOSNES NO. C. C. CONTO.

SONOMA II - N.C. GREAT SOUTHERN HOMES

DATE: NOVEMBER 2, SCALE: 1/4" = 1'.0"

DRAWN BY: JES
ENGINEERED BY: WFB

S-1.1b crawl foundation plan

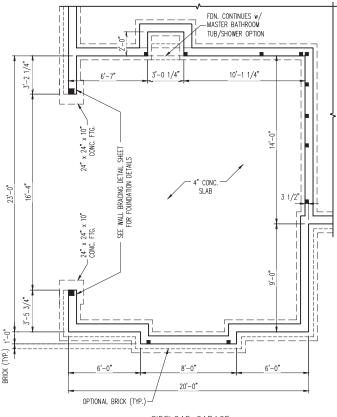
COUNCINAL BRICK (LAL).

CONCONDINCE MALL BRANDO DETAIL SHEET

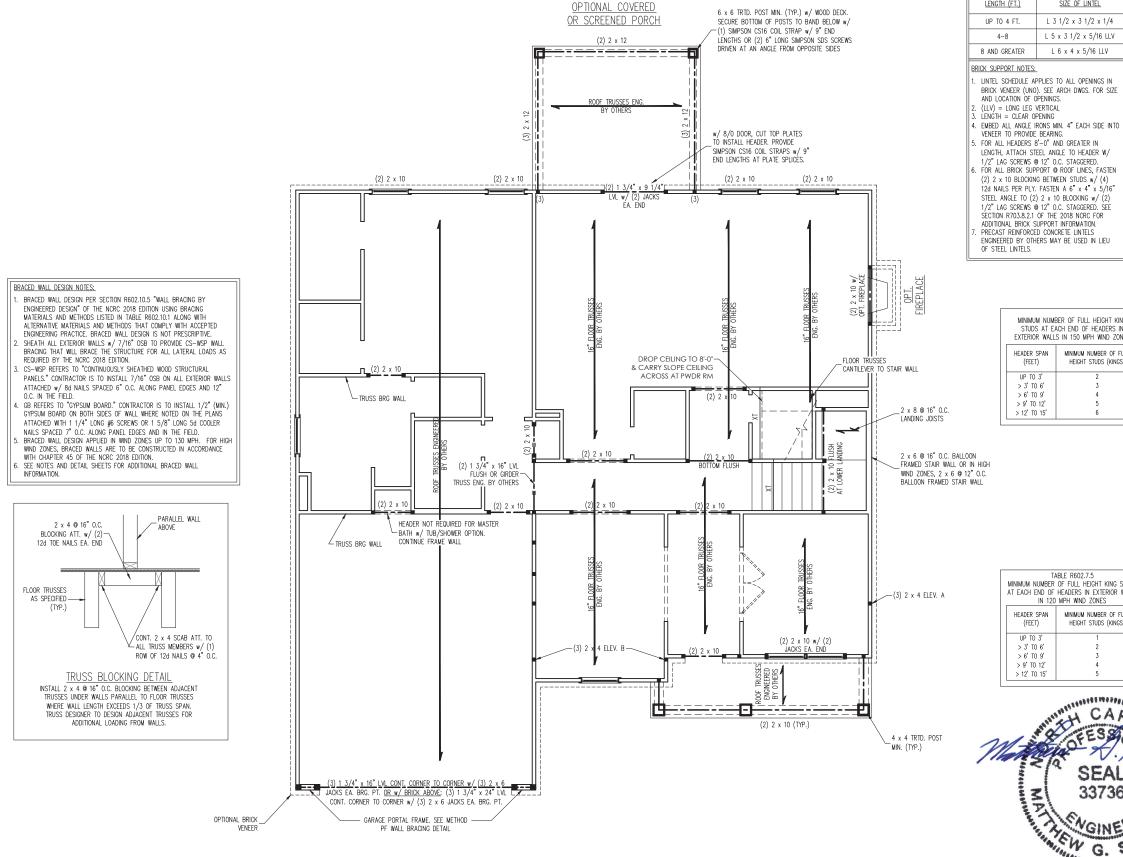
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SIDELOAD GARAGE



SIDELOAD GARAGE ELEVATION A SEAL 33736 & G. STRAMENTON BELLINGINGER OF STRAMENTON BELLINGINGER OF STRAMENTON BELLINGING BELLING BELLINGING BELLINGING BELLING BELLING BELLINGING BELLI



LINTEL SCHEDULE FOR

BRICK/NATURAL STONE SUPPORT

L 3 1/2 x 3 1/2 x 1/4

L 5 x 3 1/2 x 5/16 LLV

1 6 x 4 x 5/16 HV

MINIMUM NUMBER OF FULL HEIGHT KING

STUDS AT EACH END OF HEADERS IN

EXTERIOR WALLS IN 150 MPH WIND ZONES

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

IN 120 MPH WIND ZONES

MINIMUM NUMBER OF FULL HEIGHT STUDS (KINGS)

MINIMUM NUMBER OF FULL

HEADER SPAN

> 3' TO 6'

> 6' TO 9'

> 9' TO 12'

> 12' TO 15'

HEADER SPAN

(FEET)

> 6' TO 9'

> 9' TO 12' > 12' TO 15' LARGE FORMAT PRINTS ARE TO SCALE AS NOTED. 11" x 17" PRINTS ARE ONE HALF THE NOTED SCALE 

### 150 MPH ULTIMATE DESIGN WIND SPEED STRUCTURAL NOTES

- ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CHAPTER 45 OF THE 2018 NCRC
- 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.
- EXTERIOR WINDOW AND DOOR HEADERS TO BE SUPPORTED w/ (1) JACK STUD AND (2) KING STUDS EA. END (UNO.). SEE TABLE THIS SHEET FOR ADDITIONAL KING STUD REQUIREMENTS.
- SOUARES 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 1000 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.
- ALL EXTERIOR WALLS TO BE SHEATHED WITH 7/16" OSB SHEATHING WITH JOINTS BLOCKED AND SECURED WITH 8d NAILS AT 3" O.C. ALONG PANEL EDGES AND 6" O.C. IN THE FIELD.
- SECURE ALL EXTERIOR WALL SHEATHING PANELS TO DOUBLE TOP PLATES. BANDS, JOISTS, AND GIRDERS WITH (2) ROWS OF 8d NAILS STAGGERED AT 3" O.C. PANELS SHALL EXTEND 12" BEYOND CONSTRUCTION JOINTS AND SHALL OVERLAP GIRDERS AND DOUBLE SILL PLATES THEIR FULL DEPTH.
- REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

### 120 MPH ULTIMATE DESIGN WIND SPEED 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

44444179477777 CARO SEAL EW G.

11/2/2023

LEGEND		
CONT	CONTINUOUS	
XT	EXTRA TRUSS	
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	
	<u></u>	

NEERED BY: WFB

S-2a SECOND FLOOR FRAMING PLAN

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> I.C. HOMES ONOMA II - N.( SOUTHERN I

ATE: NOVEMBER 2, 2023 CALE: 1/4" = 1'-0" DRAWN BY: JES

SCALE NOTE: LARGE FORMAT PRINTS ARE TO SCALE AS NOTED. 11" x 17" PRINTS ARE ONE HALF THE NOTED SCALE

J.S. THOMPSON

ENGINEERING, INC.
333 RATSIX POOR: (919) 789-99-11
N.C. LICENSE NO. LICENSE NO. C. LICENSE NO. C. CIT33

SONOMA II - N.C. GREAT SOUTHERN HOMES

DATE: NOVEMBER 2 SCALE: 1/4" = 1'.0"

DRAWN BY: JES

ENGINEERED BY: WFB

S-2b second floor framing plan

HEADER NOT REQUIRED FOR MASTER
BATH W/ TUB/SHOWER OPTION.

TRUSS BRG WALL

TRUSS BRG WALL

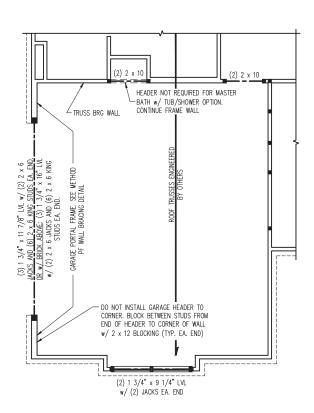
TRUSS BRG WALL

ON NOT INSTALL GARAGE HEADER TO
CONGREDE

ON NOT INSTALL GARAGE HEADER TO
CORNER BLOCK BETWEEN STUDS FROM
END OF HEADER TO CORNER OF WALL
W/T BLOCK MASTER
MAT BLOCK BETWEEN STUDS FROM
END OF HEADER TO CORNER OF WALL
W/ 2 x 12 BLOCKING (TYP. EA. END)

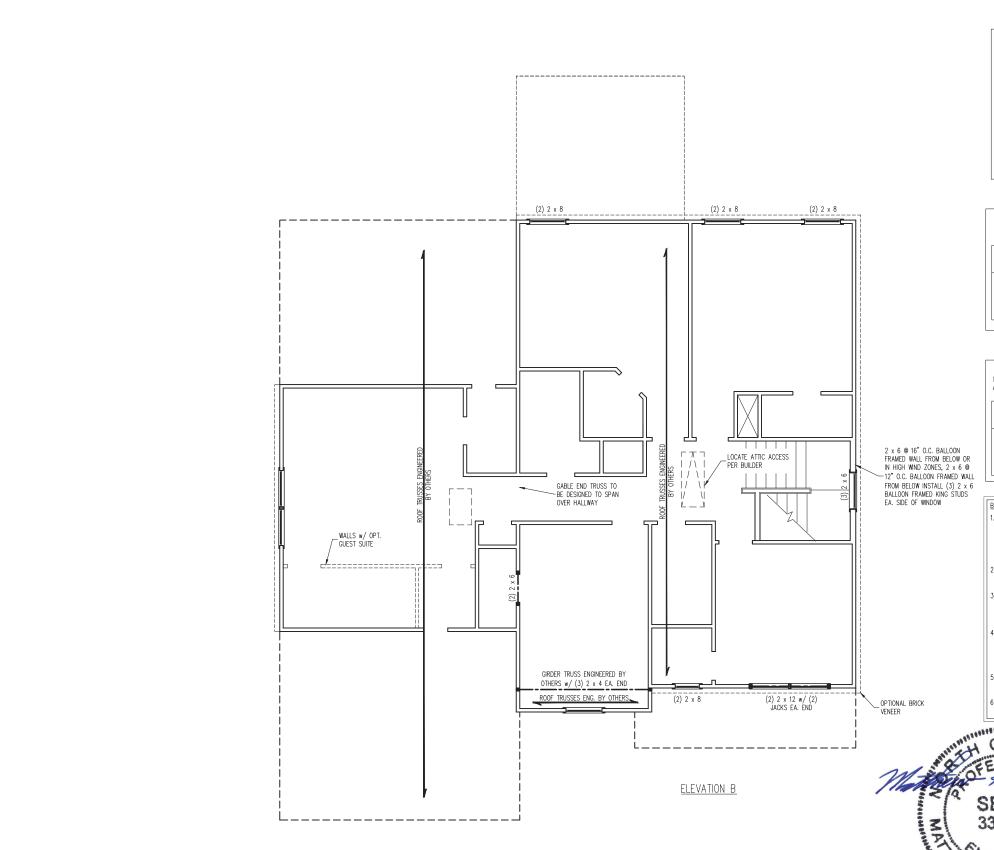
(2) 2 x 10

SIDELOAD GARAGE ELEVATION B



SIDELOAD GARAGE ELEVATION A





LARGE FORMAT PRINTS ARE TO SCALE AS NOTED. 11" x 17" PRINTS ARE ONE HALF THE NOTED SCALE

LEGEND			
CONT	CONTINUOUS		
XT	EXTRA TRUSS		
TS	TRUSS SUPPORT		
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		
TVD	TVDICAL		

UNO UNLESS NOTED OTHERWISE

MINIMUM NUMBER OF FULL HEIGHT KING

STUDS AT EACH END OF HEADERS IN

EXTERIOR WALLS IN 150 MPH WIND ZONES

MINIMUM NUMBER OF FULL HEIGHT STUDS (KINGS)

HEADER SPAN

(FEET)

UP TO 3

> 3' TO 6'

> 6' TO 9'

> 12' TO 15

# 150 MPH ULTIMATE DESIGN WIND SPEED STRUCTURAL NOTES

- ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CHAPTER 45 OF THE
- 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).
- . EXTERIOR WINDOW AND DOOR HEADERS TO BE SUPPORTED w/ (1) JACK STUD AND (2) KING STUDS EA. END (UNO.). SEE TABLE THIS SHEET 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 EXTERIOR WALLS TO BE SHEATHED WITH 7/16" OSB SHEATHING WITH JOINTS BLOCKED AND SECURED WITH 8d NAILS AT 3" O.C. ALONG PANEL FDGES AND 6" O.C. IN THE FIFLD.
- SECURE ALL EXTERIOR WALL SHEATHING PANELS TO DOUBLE TOP PLATES, BANDS, JOISTS, AND GIRDERS WITH (2) ROWS OF 8d NAILS STAGGERED AT 3" O.C. PANELS SHALL EXTEND 12" BEYOND CONSTRUCTION JOINTS AND SHALL OVERLAP GIRDERS AND DOUBLE SILL PLATES THEIR FULL DEPTH.
- REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL

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

IN 120 MPH WIND ZONES			
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		

#### 120 MPH ULTIMATE DESIGN WIND SPEED STRUCTURAL NOTES:

- ALL FRAMING LUMBER TO BE #2 SPF (UNO).
- ALL LOAD BEARING HEADERS TO BE (2) 2 x 6 (UNO).
- 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
- 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

BRACED WALL DESIGN NOTES:

11/2/2023

- 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
- SHEATH ALL EXTERIOR WALLS w/ 7/16" OSB TO PROVIDE CS-WSF WALL BRACING THAT WILL BRACE THE STRUCTURE FOR ALL LATERAL LOADS AS REQUIRED BY THE NCRC 2018 EDITION.
- 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.

  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.
- 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. SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL BRACED WALL INFORMATION.

LINTEL SCHEDULE FOR BRICK/NATURAL STONE SUPPORT			
LENGTH (FT.)	SIZE OF LINTEL		
UP TO 4 FT.	L 3 1/2 x 3 1/2 x 1/4		
4-8	L 5 x 3 1/2 x 5/16 LLV		
8 AND GREATER	L 6 x 4 x 5/16 LLV		

### BRICK SUPPORT NOTES:

- LINTEL SCHEDULE APPLIES TO ALL OPENINGS IN BRICK VENEER (UNO). SEE ARCH DWGS. FOR SIZE AND LOCATION OF OPENINGS.
- (LLV) = LONG LEG VERTICAL LENGTH = CLEAR OPENING
- EMBED ALL ANGLE IRONS MIN. 4" EACH SIDE INTO VENEER TO PROVIDE BEARING. FOR ALL HEADERS 8'-0" AND GREATER IN
- LENGTH, ATTACH STEEL ANGLE TO HEADER W/ 1/2" LAG SCREWS @ 12" O.C. STAGGERED.
  FOR ALL BRICK SUPPORT @ ROOF LINES, FASTEN
- (2) 2 x 10 BLOCKING BETWEEN STUDS w/ (4) 12d NAILS PER PLY. FASTEN A 6" x 4" x 5/16" STEEL ANGLE TO (2) 2 x 10 BLOCKING w/ (2) 1/2" LAG SCREWS @ 12" O.C. STAGGERED. SEE SECTION R703.8.2.1 OF THE 2018 NCRC FOR
- ADDITIONAL BRICK SUPPORT INFORMATION.
  PRECAST REINFORCED CONCRETE LINTELS
  ENGINEERED BY OTHERS MAY BE USED IN LIEU OF STEEL LINTELS.

ATE: NOVEMBER 2, 2023

SONOMA II - N.C. GREAT SOUTHERN HOMES

INEERED BY: WFB

ATTIC FLOOR

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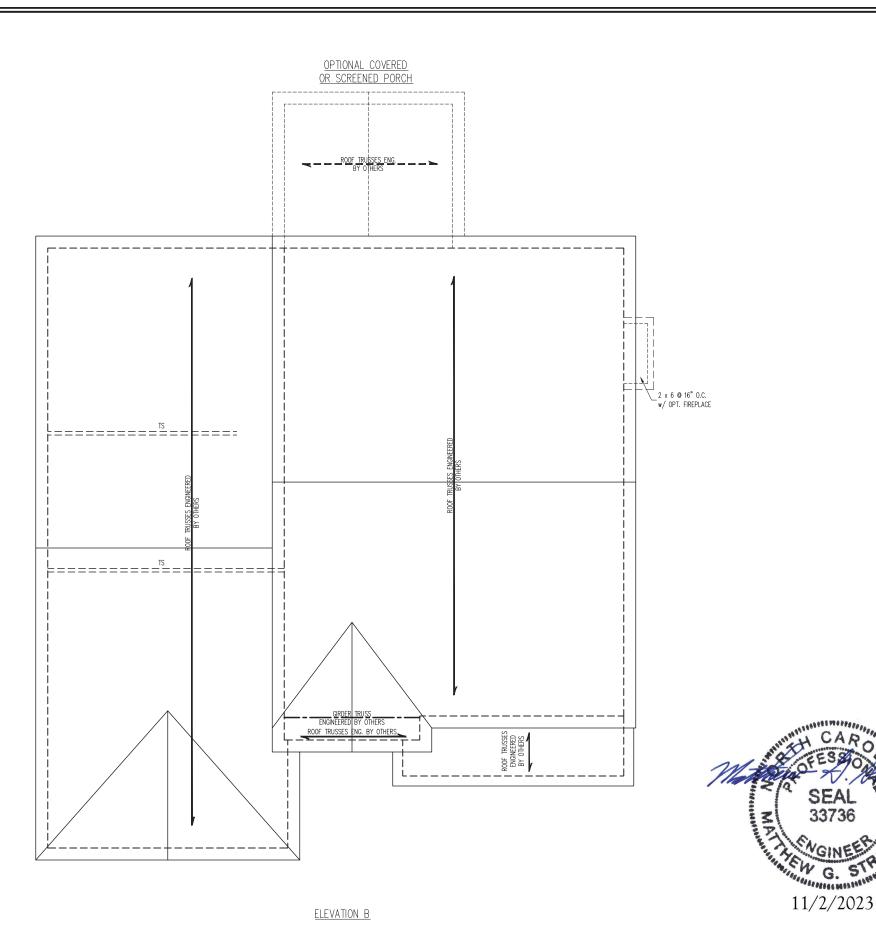
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CALE: 1/4" = 1'-0" RAWN BY: JES

S-3b FRAMING PLAN



LARGE FORMAT PRINTS ARE TO SCALE AS NOTED. 11" x 17" PRINTS ARE ONE HALF THE NOTED SCALE

BRICK SUPPORT NOTE:

- FASTEN (2) 2 x 10 BLOCKING BETWEEN WALL STUDS w/ (4) 12d NAILS PER PLY. FASTEN A 6" x 4" x 5/16" STEEL ANGLE TO (2) 2 x 10 BLOCKING w/ (2) 1/2" LAG SCREWS @ 12" O.C. STAGGERED. SEE SECTION R703.8.2.1. OF THE 2018 NCRC FOR ADDITIONAL BRICK SUPPORT
- INFORMATION.

  WHERE ROOF SLOPES EXCEED 7:12, INSTALL 3" x 3" x 1/4" STEEL PLATE STOPS AT 24" O.C. PER SECTION R703.8.2.1 OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.

# 150 MPH ULTIMATE DESIGN WIND SPEED ROOF STRUCTURAL NOTES:

- ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CHAPTER 45 OF THE 2018 NCRC.
- . ALL FRAMING LUMBER TO BE #2 SPF (UNO). . SECURE EA. RAFTER OR TRUSS TO BEARING WALL w/
- (2) SIMPSON H2.5A OR (1) SIMPSON H10A HURRICANE TIE (OR EQUAL) UNLESS NOTED OTHERWISE BY TRUSS ENGINEER BASED ON DESIGN UPLIFT FOR EA. TRUSS.
- ROOF SHEATHING PANELS TO BE 7/16" MINIMUM THICKNESS. SECURE PANELS TO RAFTERS OR TRUSSES w/ 10d NAILS AT 6" O.C. ALONG EDGES AND 12" O.C. IN THE FIELD.ATTACH SHEATHING TO GABLE FRAMING AT 4" O.C.. INSTALL 2x BLOCKING AT SHEATHING JOINTS,
- INCLUDING RIDGES, IN THE END TWO RAFTER OR
- RIGGS SPACES.

  RIDGES, 2 x 6 RAFTERS @ 16" O.C. AND FLAT 2 x 10 VALLEYS OR USE VALLEY TRUSSES.

  FASTEN FLAT VALLEYS TO RAFTERS OR TRUSSES 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.
  REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

# 120 MPH ULTIMATE DESIGN WIND SPEED ROOF STRUCTURAL NOTES:

- ALL FRAMING LUMBER TO BE #2 SPF (UNO).
- STICK FRAME OVER-FRAMED ROOF SECTIONS W/ 2 x 8 RIDGES, 2 x 6 RAFTERS @ 16" O.C. AND FLAT 2 x 10 VALLEYS.
  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.
  REFER TO SECTION R802.11 OF THE 2018 NCRC FOR
- REQUIRED UPLIFT RESISTANCE AT RAFTERS.
  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		
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	

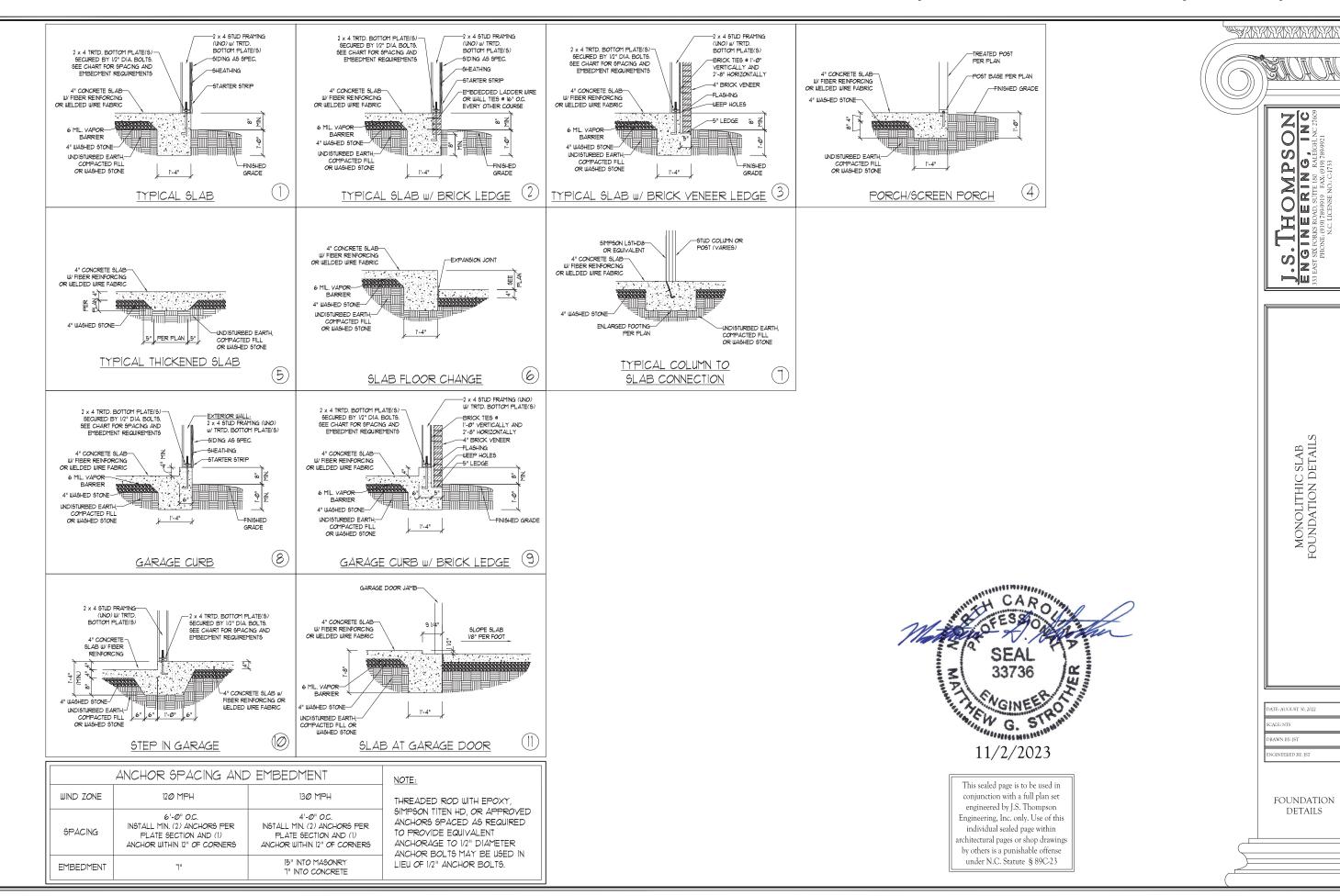
LEGEND		
XT	EXTRA TRUSS	
TS	TRUSS SUPPORT	
XR	EXTRA RAFTER	
RS	RAFTER SUPPORT	
ONT	CONTINUOUS	
EA	EACH	
0C	ON CENTER	
SPF	SPRUCE PINE FIR	
SYP	SOUTHERN YELLOW PINE	
ΓΥP	TYPICAL	
INO	LINLESS NOTED OTHERWISE	

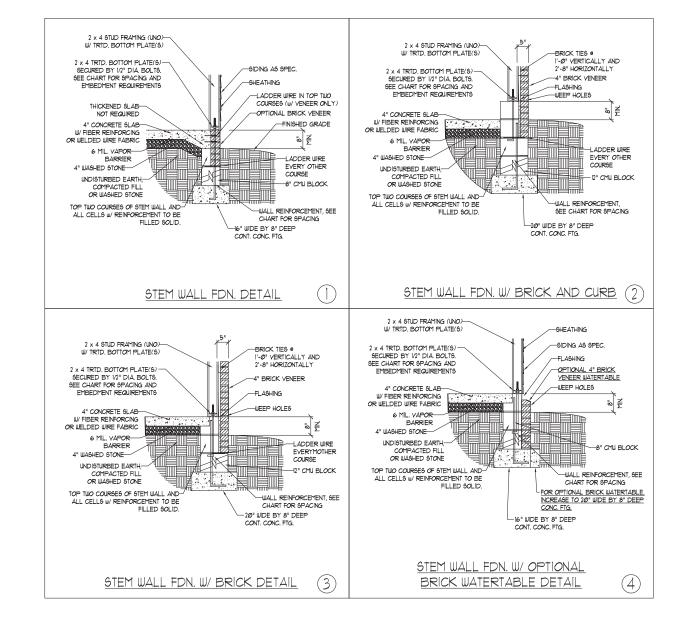
SON INC. INC. I.S. THOMPS ENGINEERING,

SONOMA II - N.C. GREAT SOUTHERN HOMES

DATE: NOVEMBER 2, 2023 CALE: 1/4" = 1'-0" DRAWN BY: JES INEERED BY: WFB

> S-4b ROOF FRAMING PLAN





130 MPH

4'-0" O.C.

INSTALL MIN. (2) ANCHORS PER

PLATE SECTION AND (1)

ANCHOR WITHIN 12" OF CORNERS

15" INTO MASONRY

1" INTO CONCRETE

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

ANCHOR SPACING AND EMBEDMENT

120 MPH

6'-0" O.C.

INSTALL MIN. (2) ANCHORS PER

PLATE SECTION AND (1)

ANCHOR WITHIN 12" OF CORNERS

WIND ZONE

SPACING

**EMBEDMENT** 

	MASONRY S	STEMWALL SPI	ECIFICATIONS	
WALL HEIGHT - (FEET)		MASONRY WALL TYPE		
	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.
1 AND GREATER	ENGIN	IEERED DESIGN BAS	ED ON SITE CONDITI	<u>ONS</u>

### 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  $\underline{\text{R5062.1}}$  AND  $\underline{\text{R50622}}$  BASE AND  $\underline{\text{EXCEPTION}}$  OF 2018 NORTH CAROLINA RESIDENTIAL CODE.
- 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.

11/2/2023

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RAWN BY: JST NEERED BY: JST

STEM WALL FOUNDATION DETAILS

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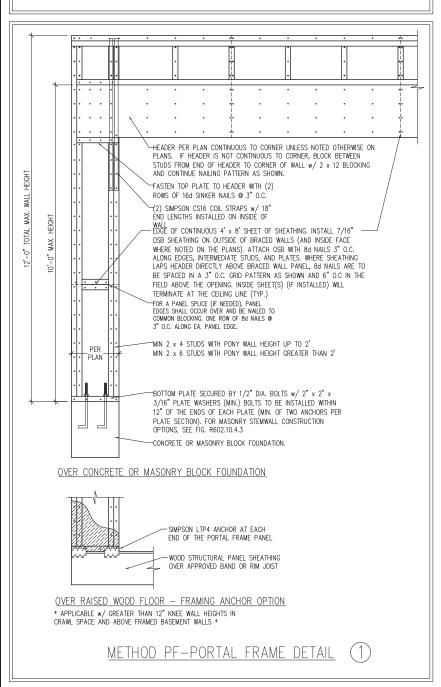
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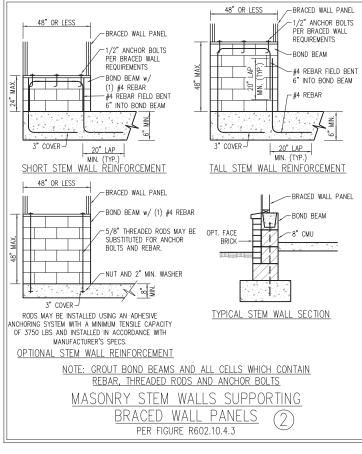
FOUNDATION DETAILS

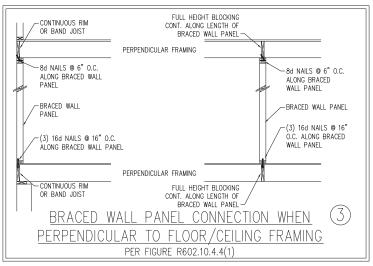
# GENERAL WALL BRACING NOTES:

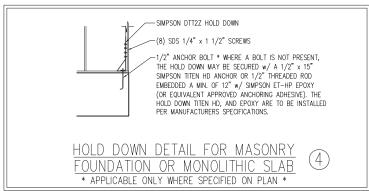
- WALL BRACING DESIGNED IN ACCORDANCE WITH CHAPTER 6 OF THE 2018 NC RESIDENTIAL BUILDING CODE (NCRC). TABLES AND FIGURES REFERENCED ARE FROM THE 2018 NORC.
  SEE THIS SHEET FOR GENERAL DETAILS. REFER TO THE 2018 NORC FOR ADDITIONAL INFORMATION AS NEEDED.
- BRACED EXTERIOR WALLS SUPPORTING ROOF TRUSSES 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. 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
- THE RABLE RIJUS.3.3. METHOU SET OF THE REPORT OF THE RABLE ROUZE. THE 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.).

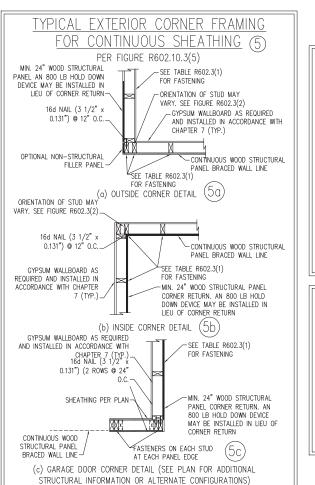
  GB REFERS TO THE "GYPSUM BOARD" WALL BRACING METHOD. 1/2" (MIN.) GYPSUM WALL BOARD IS TO BE INSTALLED ON BOTH
  SIDES OF THE BRACED WALL FASTENED WITH 1 1/4" SCREWS OR 1 5/8" NAILS SPACED 7" O.C. ALONG PANEL EDGES INCLUDING TOP AND BOTTOM PLATES AND INTERMEDIATE SUPPORTS (U.N.O.). VERIFY ALL FASTENER 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.











BRACED WALL PANEL CONNECTION WHEN PARALLEL

TO FLOOR/CEILING FRAMING

PER FIG. R602.10.4.4(2)

MEMBER DIRECTLY ABOVE BRACED WALL PANEL

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

BRACED WALL PANEL

-BRACED WALL PANEL

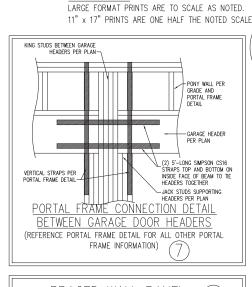
-(3) 16d NAILS @ 16" O.C.

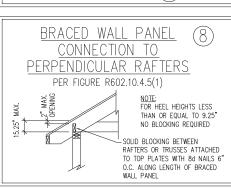
ADDITIONAL FRAMING

BRACED WALL PANEL

MEMBER DIRECTLY BELOW

ALONG BRACED WALL PANEL





FULL HEIGHT BLOCKING @

TOE NAIL (3) 8d NAILS AT

FA BLOCKING MEMBER

-BRACED WALL PANEL

-(3) 16d NAILS @ 16"

MEMBER

O.C. AT EA. BLOCKING

(2) 16d NAILS EA. SIDE

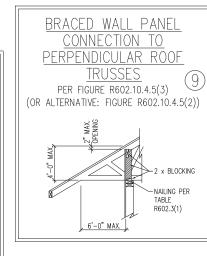
FULL HEIGHT BLOCKING @

16" O.C. ALONG LENGTH OF

BRACED WALL PANEL

BRACED WALL PANEL

6" O.C. ALONG LENGTH OF



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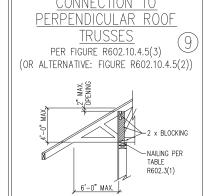
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BRACING NOTES AND DETAILS

BRACED WALL NOTES AND



DETAILS AND PF DETAILS

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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

NTINUOUS RIM w/FINGER

JOISTS OR DBL. BAND JOIST

LARGE FORMAT PRINTS ARE TO SCALE AS NOTED.

11" x 17" PRINTS ARE ONE HALF THE NOTED SCALE

# 

### GENERAL NOTES

- 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 OF
- 2. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE (NORC), 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)		

- 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 NE 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—GRAVE MIXTURE SOILS CLASSIFIED AS GROUP 1, ACCORDING TO THE UNITED SOIL CLASSIFICATION SYSTEM IN ACCORDANCE WITH TABLE R405.1 OF THE NORC, 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.
- 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 SOULD OR SOULD FILED PIERS. PERS MAY BE FILLED SOULD 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 (UND).

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### FRAMING NOTES

- 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 MANUFACTUREPS'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 A503, 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 (2) 1/2" DIA. x 4" LONG LAG SCREWS
B. CONCRETE (2) 1/2" DIA. x 4" REDGE ANCHORS
C. MASONRY (FULLY GROUTED) (2) 1/2" DIA. x 4" LONG SIMPSON TITEN HD ANCHORS
D. STEEL PIPE COLUMN (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.

- 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 NEWBER RELOW.
- 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 FOILAL JENGTHS (INO)
- 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 NORC. 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'-O". 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.

J.S. THOMPSON
ENGINEERING, INC.
RASEASTAN STORKS ROADS JULIENS RAGED NO. LICENSE NO. C. LICENSE

STANDARD STRUCTURAL NOTES

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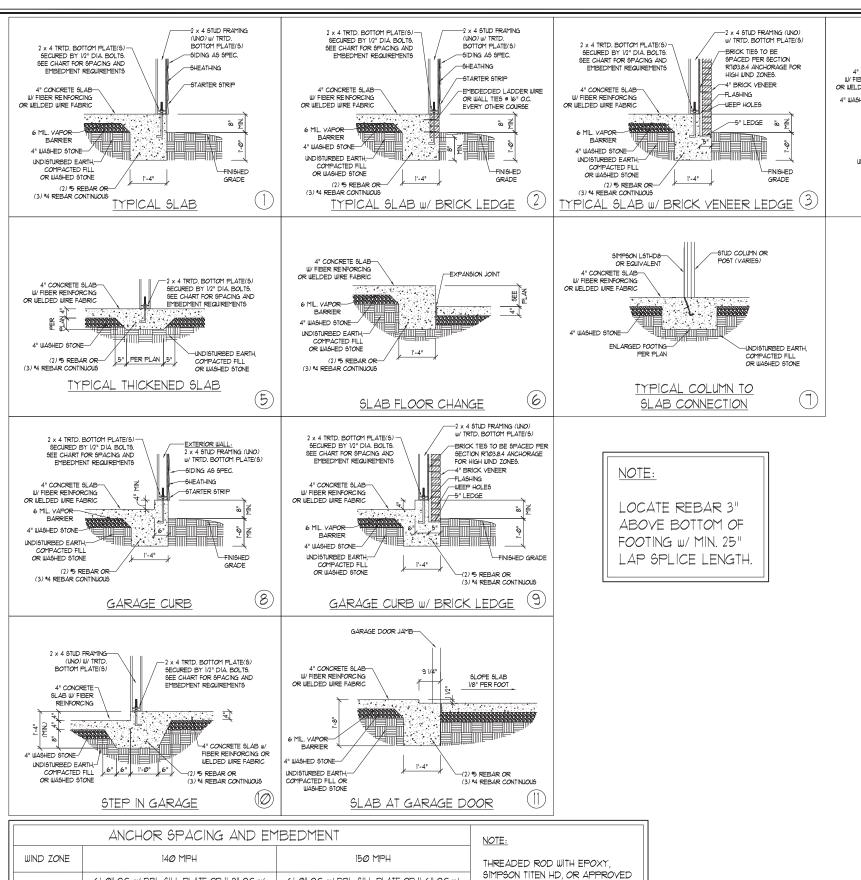
11/2/2023

DATE: AUGUST 30, 2022

DRAWN BY: IST

ENGINEERED BY: IST

STRUCTURAL
NOTES



6'-0" OC W/ DBI SILL PLATE OR 1'-6" OC W/

SINGLE SILL PLATE W/ 2" x 2" x 1/8" WASHERS

INSTALL MIN. (2) ANCHORS PER PLATE SECTION

AND (1) ANCHOR WITHIN 12" OF CORNERS

ANCHORS SPACED AS REQUIRED

ANCHOR BOLTS MAY BE USED IN

ANCHORAGE TO 1/2" DIAMETER

LIEU OF 1/2" ANCHOR BOLTS.

TO PROVIDE EQUIVALENT

6'-0" OC W/ DBL SILL PLATE OR 1'-9" OC W/

SINGLE SILL PLATE w/ 2" x 2" x 1/8" WASHERS

INSTALL MIN. (2) ANCHORS PER PLATE SECTION

AND (1) ANCHOR WITHIN 12" OF CORNERS

SPACING

EMBEDMENT

TREATED POST PER PLAN 4" CONCRETE SLAB-POST BASE PER PLAN W/ FIBER REINFORCING OR WELDED WIRE FABRIC 4" WASHED STONE 1'-4" COMPACTED FILL -(2) 5 REBAR OR OR WASHED STONE (3) \*4 REBAR CONTINUOUS PORCH/SCREEN PORCH

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> WIND SPEED DETAILS MPH - 150 MPH ULTIMATE DESIGN TO MONOLITHIC SLAB FOUNDATION 40

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FOUNDATION DETAILS

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11/2/2023

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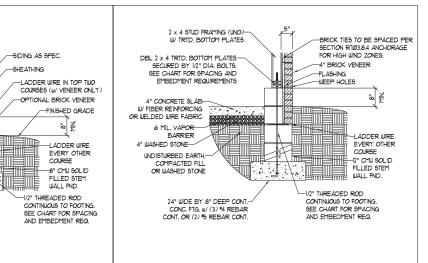
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DATE: AUGUST 30, 202

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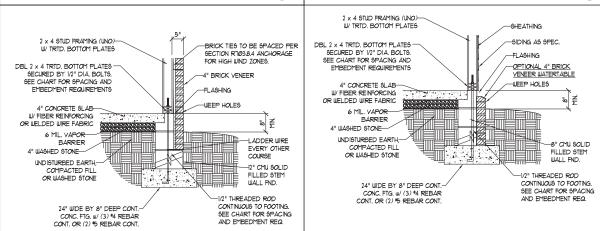
FOUNDATION DETAILS



# STEM WALL FON. DETAIL (1) STEM WALL FON. W/ BRICK AND CURB (2)

RODS CONTINUOUS FROM FOOTING UP THROUGH

SILL PLATE W/ 1" MINIMUM CONCRETE EMBEDMENT



STEM WALL FON. W/ OPTIONAL
BRICK WATERTABLE DETAIL

NOTE:

THREADED ROD WITH EPOXY 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.

(4)

	MASONRY STEMWALL SPECIFICATIONS				
WALL HEIGHT	MAGONRY 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.	
1 AND GREATER	ENGINEERED DESIGN BASED ON SITE CONDITIONS			<u>ON6</u>	

# STRUCTURAL NOTES:

- I) 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 151 / 161 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 R4051</u> OF THE 2018 NORTH CAROLINA RESIDENTIAL CODE ARE ALLOWABLE.
- 6) PREP \$LAB PER R50621 AND R50622 BASE AND EXCEPTION 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 "9" MORTAR OR 3000 PSI GROUT, USE OF "LOW LIFT GROUTING" METHOD REQUIRED WHEN FILLING WALLS WITH GROUT AT HEIGHTS OF 5' AND GREATER

NOTE:

LOCATE REBAR 3"
ABOVE BOTTOM OF
FOOTING W/ MIN. 25"
LAP SPLICE LENGTH.

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ANCHOR SPACING AND EMBEDMENT			BEDMENT	
	WIND ZONE	140 MPH	150 MPH	
	SPACING	1'-9" O.C. w/ DBL, SILL PLATE w/ 2" x 2" x 1/8" WASHERS INSTALL MIN, (2) ANCHORS PER PLATE SECTION AND (1) ANCHOR WITHIN 12" OF CORNERS	I'-6" O.C. w/ DBL. SILL PLATE w/ 2" x 2" x 1/8" WASHERS INSTALL MIN. (2) ANCHORS PER PLATE SECTION AND (1) ANCHOR WITHIN 12" OF CORNERS	

STEM WALL FDN. W/ BRICK DETAIL

RODS CONTINUOUS FROM FOOTING UP THROUGH

SILL PLATE W/ 7" MINIMUM CONCRETE EMBEDMENT

2 x 4 STUD FRAMING (UNO)-W/ TRTD. BOTTOM PLATES

DBL 2 x 4 TRTD. BOTTOM PLATES-SECURED BY 1/2" DIA. BOLTS. SEE CHART FOR SPACING AND

THICKENED SLAE

4" CONCRETE SLAB-

UNDISTURBED EARTH, COMPACTED FILL

OR WASHED STONE

24" WIDE BY 8" DEEP CONT.— CONC. FTG. w/ (3) \*4 REBAR CONT. OR (2) \*5 REBAR CONT.

W/ FIBER REINFORCING OR WELDED WIRE FABRIC

4" WASHED STONE

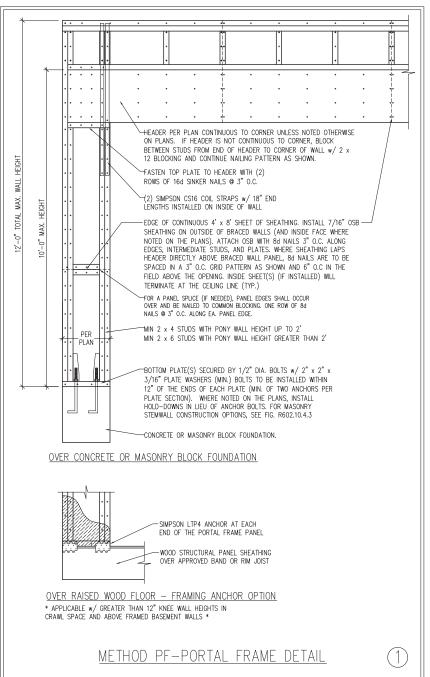
**EMBEDMENT** 

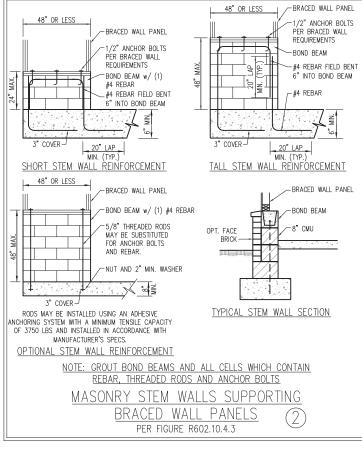
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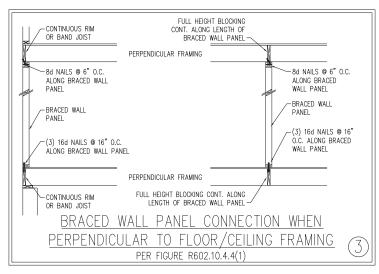
EMBEDMENT REQUIREMENTS

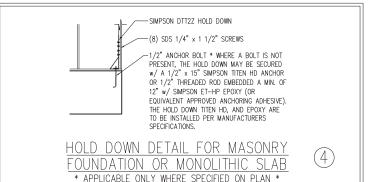
# GENERAL WALL BRACING NOTES:

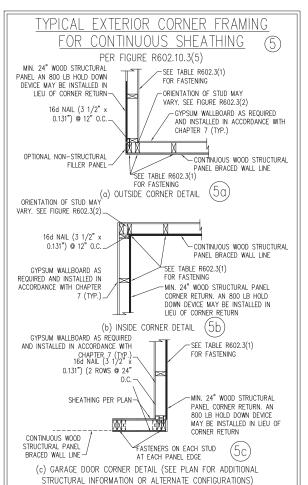
- WALL BRACING DESIGNED IN ACCORDANCE WITH CHAPTER 6 AND CHAPTER 45 OF THE 2018 NC RESIDENTIAL BUILDING CODE (NCRC). TABLES AND FIGURES REFERENCED ARE FROM THE 2018 NCRC.
  SEE THIS SHEET FOR GENERAL DETAILS. REFER TO THE 2018 NCRC FOR ADDITIONAL INFORMATION AS NEEDED.
- SEE STRUCTURAL SHEETS FOR BRACED WALL LOCATIONS, DIMENSIONS, HOLD DOWN TYPE AND LOCATIONS, AND ANY SPECIAL NOTES OR REQUIREMENTS.
- 4 ALL EXTERIOR WALLS ARE TO BE SHEATHED WITH 7/16" OSB WITH BLOCKING AT ALL SHEATHING JOINTS AND 84 NAILS AT 3" O.C. ALONG EDGES AND 6" O.C. IN THE FIELD UNLESS NOTED OTHERWISE.
- 5. SECURE ALL EXTERIOR WALL SHEATHING PANELS TO DOUBLE TOP PLATES, BAND JOISTS, AND GIRDERS WITH (2) ROWS OF 8d NAILS STAGGERED AT 3" O.C.. PANELS SHALL EXTEND 12" BEYOND CONSTRUCTION JOINTS AND SHALL OVERLAP GIRDERS AND
- 6. ALL EXTERIOR WALLS TO BE SHEATHED ON INSIDE FACE WITH 1/2" GYPSUM BOARD PER TABLE R702.3.5 (UNO).











-CONTINUOUS RIM w/ FINGER

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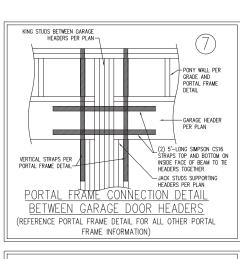
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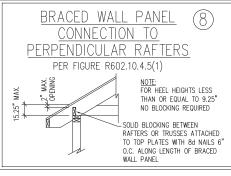
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JOISTS OR DBL. BAND JOIST

BRACED WALL PANEL





BRACED WALL PANEL CONNECTION TO PERPENDICULAR ROOF <u>TRUSSES</u> PER FIGURE R602.10.4.5(3) (OR ALTERNATIVE: FIGURE R602.10.4.5(2)) 2 x BLOCKING TABLE R602.3(1) 6'-0" MAX.

FULL HEIGHT BLOCKING @ \*\*\*\*\*\*\*\*\*\*\*\*\* 16" O.C. ALONG LENGTH OF CARO SEAL VGINEE YEW G. 11/2/2023

RAWN BY: JST EERED BY: IST

MPH ULTIMATE DESIGN WIND BRACING NOTES AND DETAILS

MPH - 150 WALL I

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<u>a</u> 9 ½

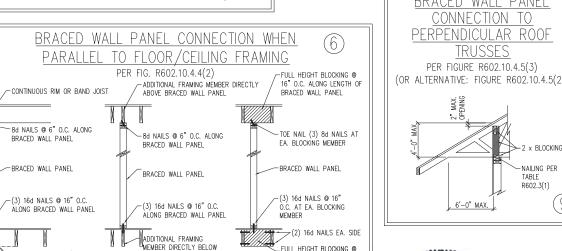
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D-2 BRACED WALL NOTES AND DETAILS AND PF DETAILS



BRACED WALL PANEL

SCALE NOTE: LARGE FORMAT PRINTS ARE TO SCALE AS NOTED

11" x 17" PRINTS ARE ONE HALF THE NOTED SCALE

> 0 ഗ 9 OM

> > STRUCTURAL STANDARD

AWN BY: JST

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
- 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.
- 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)		

- 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
- 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.
- 4. CONCRETE SHALL CONFORM TO SECTION R402.2 OF THE NCRC. 2018 FDITION. CONCRETE REINFORCING STEFL TO BE ASTM A615 GRADE 60. WELDED WRE 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.
- 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
- 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).

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## 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
- 3. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS.

W AND WT SHAPES: CHANNELS AND ANGLES ASTM A36 PLATES AND BARS: ASTM A36 HOLLOW STRUCTURAL SECTIONS: ASTM A500 GRADE B 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 (2) 1/2" DIA. x 4" LONG LAG SCREWS B. CONCRETE (2) 1/2" DIA. x 4" WEDGE ANCHORS C. MASONRY (FULLY GROUTED) (2) 1/2" DIA. x 4" LONG SIMPSON TITEN HD ANCHORS D. STEEL PIPE COLUMN (4) 3/4" DIA. A325 BOLTS OR 3/16" FILLET WELD

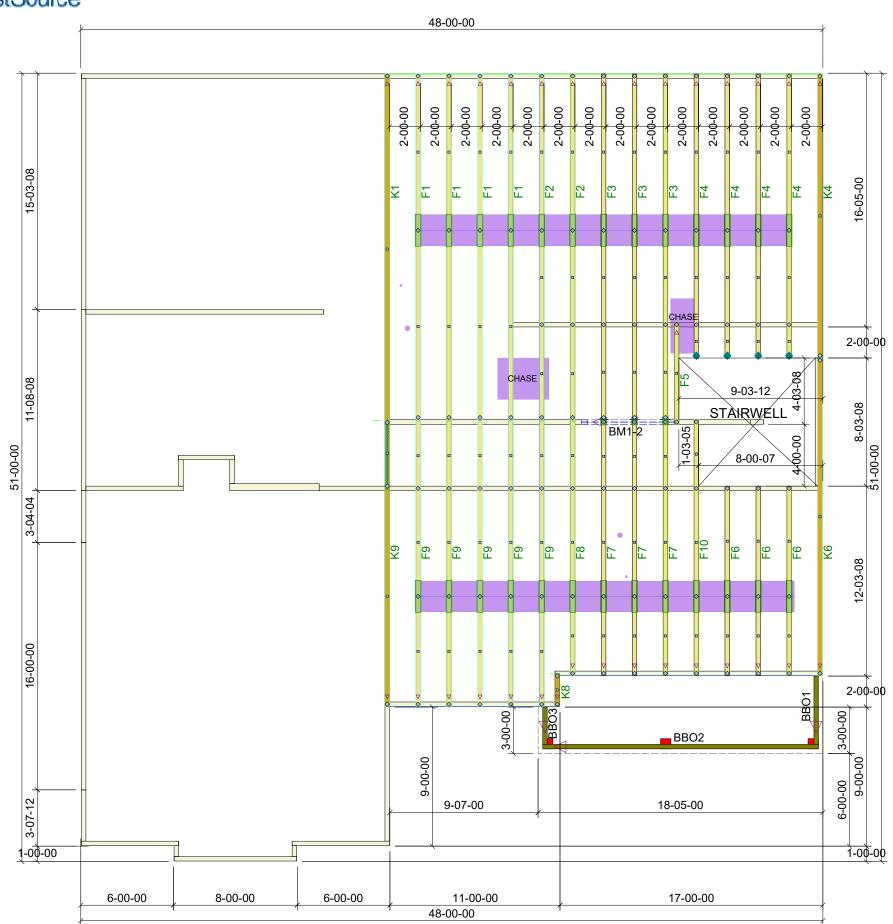
LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOISTS ARE TOE NAILED TO THE 2x NAILER ON TOP OF THE STEEL BEAM, AND THE 2x NAILER IS SECURED TO THE TOP OF THE STEEL BEAM W/ (2) ROWS OF SELF TAPPING SCREWS @ 16" O.C. OR (2) ROWS OF 1/2" DIAMETER BOLTS ® 16" O.C. IF 1/2" BOLTS ARE USED TO FASTEN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

- 5. SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. SHADED SQUARES DENOTE POINT LOADS FROM ABOVE
- 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
- 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 FACH REAR FOLIAL LENGTHS (LINO)
- 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
- 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. BRACFD 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 LINDER ALL WALLS PARALLEL TO FLOOR JOISTS. PROVIDE SUPPORT LINDER 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
- 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
- 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).
- 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.

STRUCTURAL NOTES

11/2/2023





		Products			
PlotID	Length	Product	Plies	Net Qty	Fab Type
BM1-2	6-00-00	1 3/4"x 9 1/4" LVL	2	2	MFD
BBO2	18-00-00	3-08 x 9-04 Generic Material	1	1	MFD
BBO1	6-00-00	3-08 x 9-04 Generic Material	1	1	MFD
BBO3	4-00-00	3-08 x 9-04 Generic Material	1	1	MFD

Truss Connector Total List					
Manuf	Product	Qty			
Simpson	LUS48	3			

GREAT SOUTHERN HOMES

LT 8 - GRIFFON PT.

2nd FLOOR - LEFT

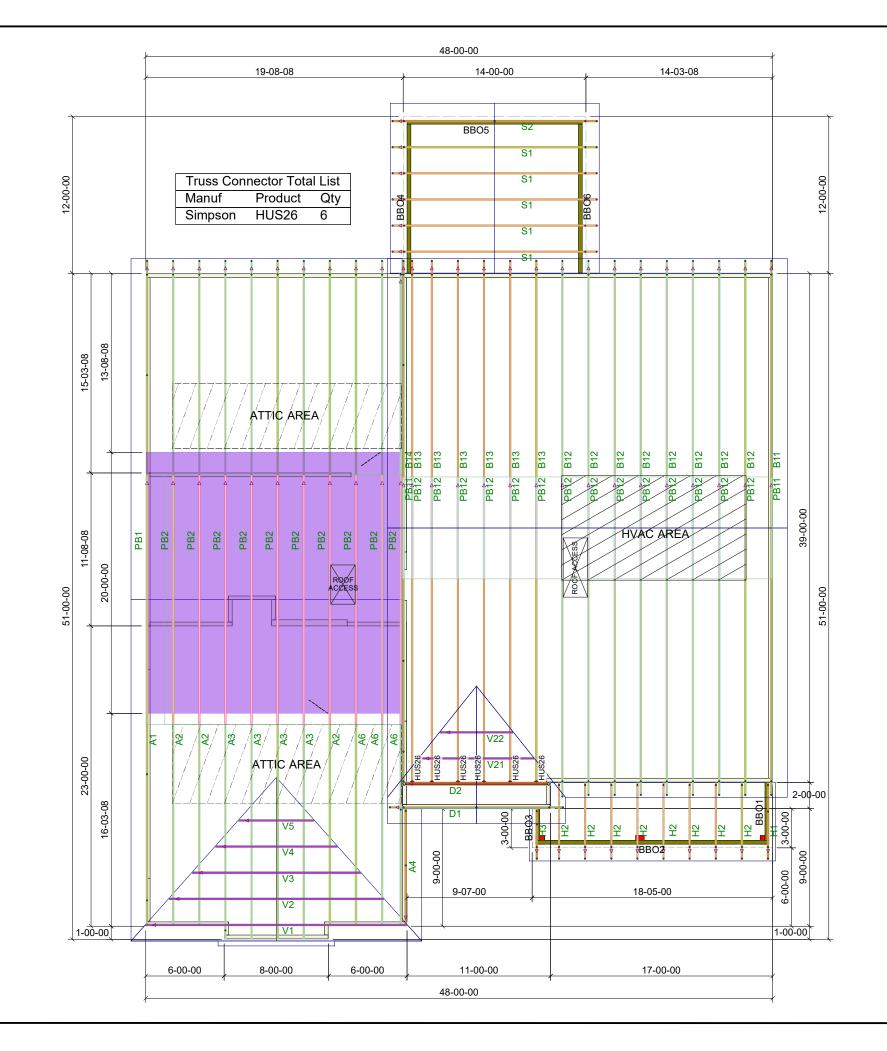
**Builders** FirstSource

Customer:

B HAYES

Plan/Model: SONOMA - ELEV. B 3904199





GREAT SOUTHERN HOMES Customer:

LT 8 - GRIFFON PT.

ROOF LAYOUT - LEFT

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**Builders** FirstSource

Plan/Model: SONOMA - ELEV. B 3904191 HAYES