DEVON-RALE

RALEIGH - LOT 00.0091 THE FARM AT NEILL'S CREEK

ELEVATION 8 - GL

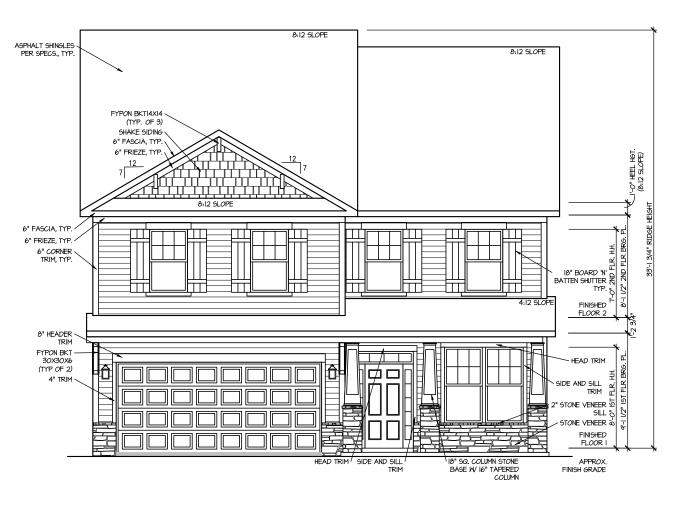
(MODEL# 1615) 29 WINDING CREEK DR.

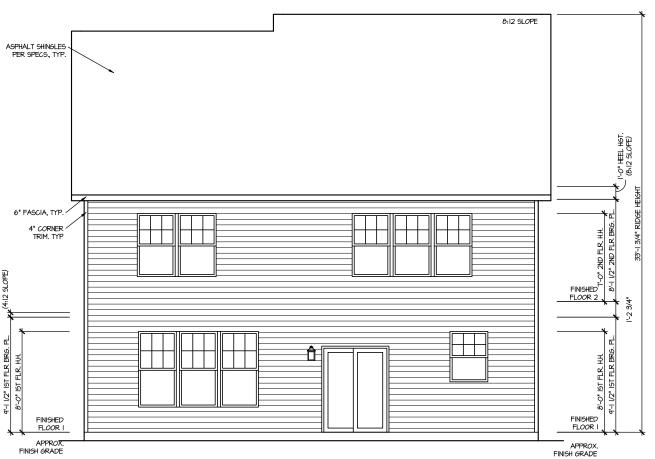
<u>INDEX</u>



<u>area calculations</u>			
		COVERED / UNHEATED	
ELEVATION 8	HEATED	UNHEATED	UNCOVERED
FIRST FLOOR	1017 SF		
GARAGE		380 SF	
FRONT PORCH - ELEVATION 8		103 SF	
THORIT ORDIT ELEVATION O		100 01	
SECOND FLOOR	1338 SF		
SECOND FLOOR	1336 5F		
TOTAL	2355 SF	483 SF	
	+		
	-		

LOT	SPECIFIC	
1	LOT 00.0091	THE FARM AT NEILL'S CREEK
		DEVON REV. RALE 3 ELEVATION 8
2	ADDRESS	29 WINDING CREEK DR LILLINGTON, NC 27546
	<u> </u>	





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

FRONT ELEVATION 8

FRONT & REAR ELEVATIONS

UPDATED DATE 08-09-2022

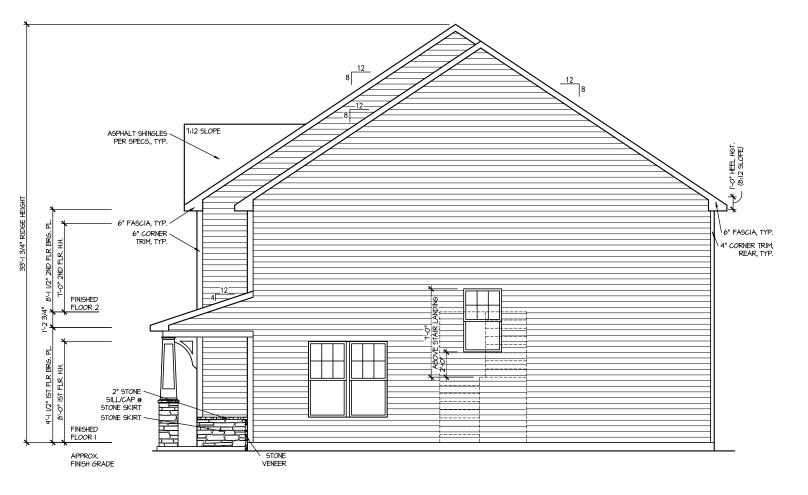
DRAWN BY:

DATE: 09/27/2022

PLAN NO. 1615

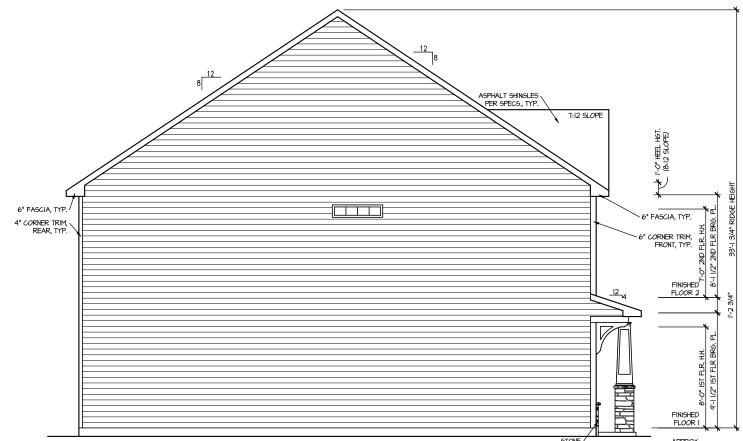
HOUSE NAME:
DEVON
DRAWING TITLE SHEET No.

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



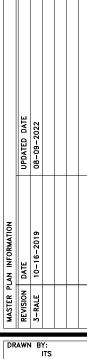
RIGHT ELEVATION 8

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



LEFT ELEVATION 8

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



DATE: 09/27/2022 PLAN NO. 1615

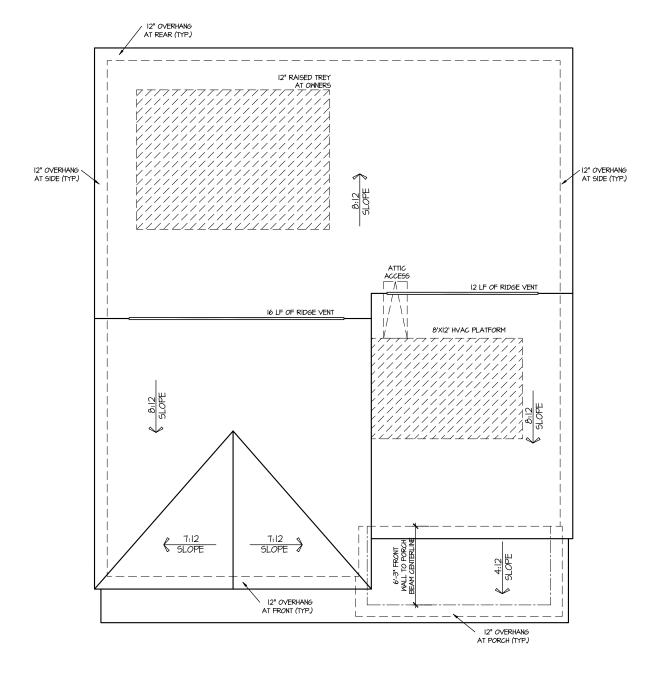


RIGHT & LEFT ELEVATIONS

HOUSE NAME:
DEVON
DRAWING TITLE

ROOF VENTILATION CALCULATIONS: ROOF AREA = 1412 SQ. FT.
OVERALL REQUIRED VENTILATION:
1 TO 150 = 4.41 SQ. FT.
1 TO 300 = 4.1 SQ. FT.
50-80% IN TOP THIRD = 2.35 - 3.16 FT. (1 TO 300) NET FREE AREA OF VENTED SOFFIT = 5.7 SQ. IN / LINEAR FT. NET FREE AREA OF RIDGE VENT = 18 SQ. IN/ LINEAR FT. LONER VENTING: (BOTTOM 2/3 RDS)
51 LINEAR FEET OF SOFFIT X 5.1 SQ. IN. = 2.00 SQ. FT.

UPPER VENTING: (TOP 1/3 RD)
34 LINEAR FEET OF RIDGE X IB SQ. IN = 4.25 SQ. FT.
4.25 SQ. FT. BETNEEN 50% - 80%
(I TO 300 ALLOWED)
TOTAL ROOF VENTILATION: 6.25 SQ. FT. > 4.70 SQ. FT. (RQD)



DRAWN BY: DATE: 09/27/2022

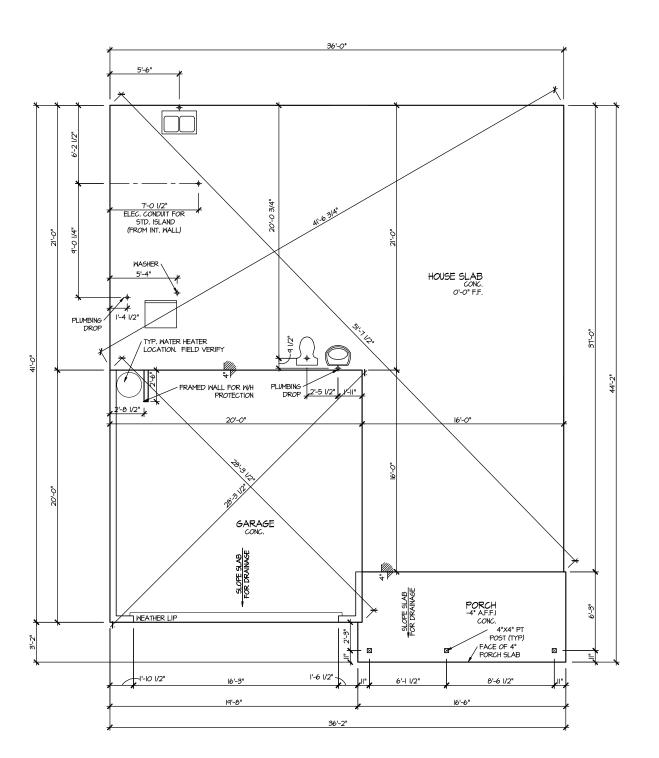
PLAN NO. 1615



HOUSE NAME: DEVON DRAWING TITLE PLAN

SHEET No.

ROOF PLAN ELEV 8
SCALE: 1/8' = 1'-0'



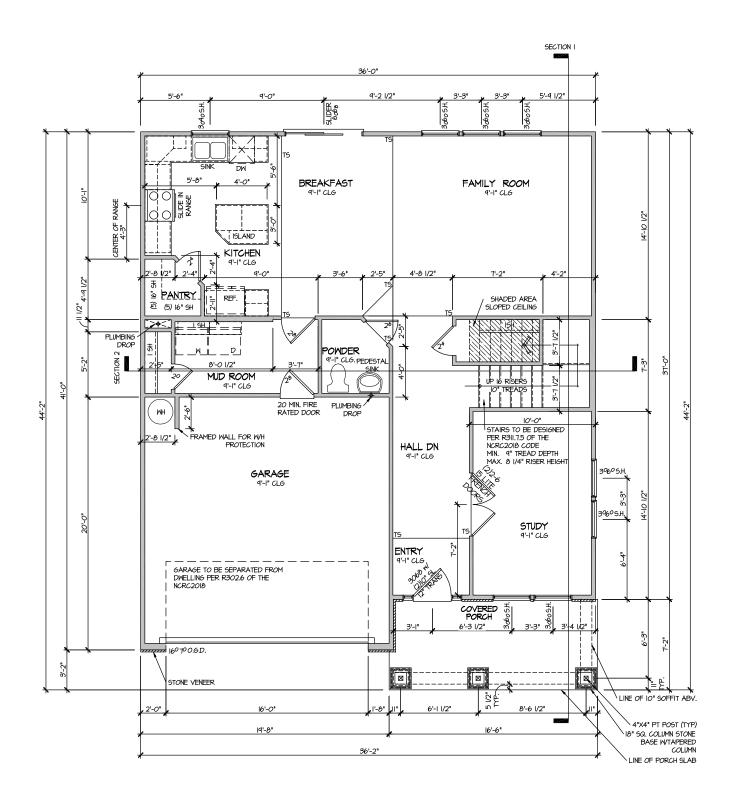
ELEVATION 8 SLAB PLAN SCALE: 1/8" = 1'-0"



DRAWN BY:
ITS
DATE:
09/27/2022
PLAN NO.
1615

UPDATED DATE 08-09-2022

HOUSE NAME:
DEVON
DRAWING TITLE
SLAB PLAN



ELEVATION 8 FIRST FLOOR PLAN SCALE: 1/8" = 1'-0"

LE: Lot 00.0091.dwg DATE: 9/27/2022 10:17 AM

PLAN NO. 1615

UPDATED DATE 08-09-2022

DRAWN BY:

DATE: 09/27/2022

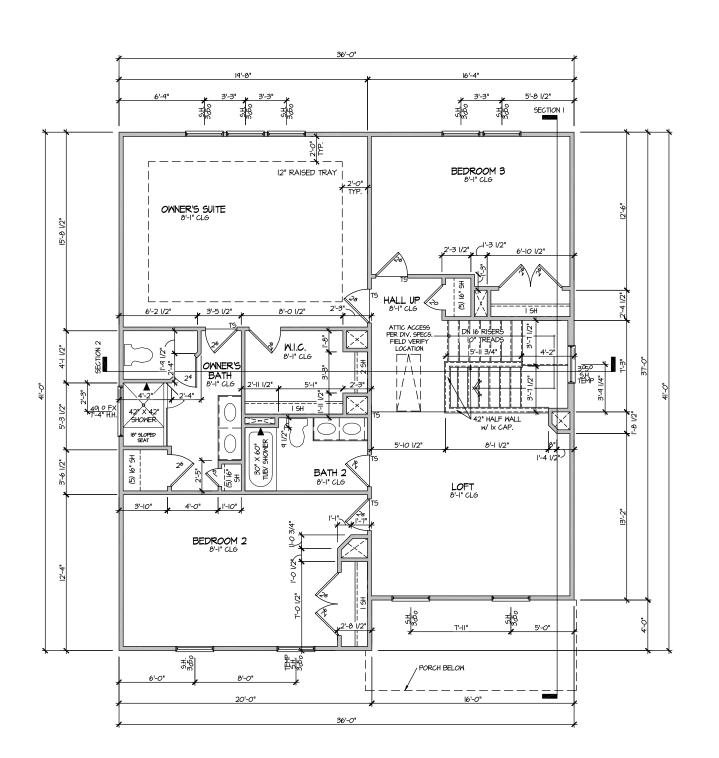
HOUSE NAME:

DEVON

DRAWING TITLE

FIRST FLOOR PLAN

SHEET No. A3.1



ELEVATION 8 SECOND FLOOR PLAN SCALE: 1/8" = 1'-0"

i. Lot 00.0091.dwg DATE: 9/27/2022 10:17 AM

DRAWN BY:
ITS
DATE:
09/27/2022
PLAN NO.
1615

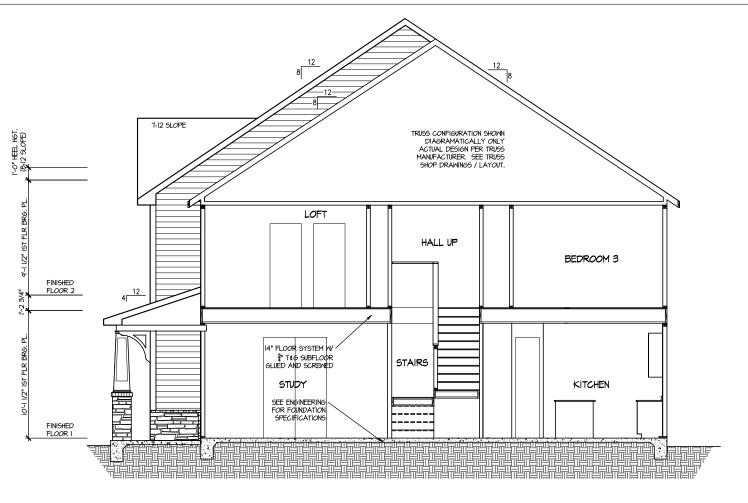
UPDATED DATE 08-09-2022

HOUSE NAME:

DEVON
DRAWING TITLE

SECOND FLOOR PLAN

SHEET No. A3.2



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

	IOM E

UPDATED DATE 08-09-2022

DRAWN BY:

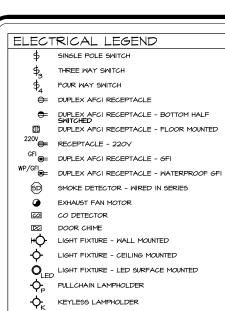
DATE: 09/27/2022 PLAN NO. 1615

SECTION 2

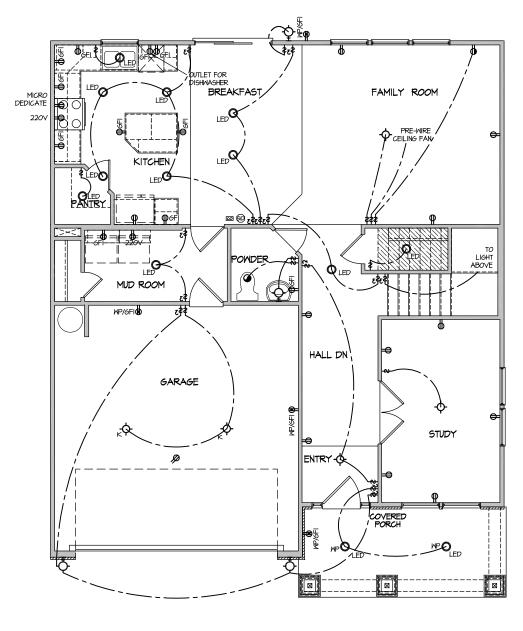
SHEET No.

HOUSE NAME: DEVON DRAWING TITLE

BUILDING SECTION



NOTE: ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE ADOPTED VERSION OF THE NATIONAL ELECTRICAL CODE, THE LOCAL POWER COMPANY AND TO ALL APPLICABLE LOCAL REGULATIONS.



ELECTRICAL PLAN FIRST FLOOR - ELEV. 8

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

/ FILE: Lot 00.0091.dwg DATE: 9/27/2022 10:17 AM

FIRST FLOOR ELECTRICAL

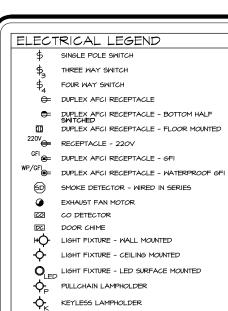
HOUSE NAME:
DEVON
DRAWING TITLE
FIRST FLOOR

UPDATED DATE 08-09-2022

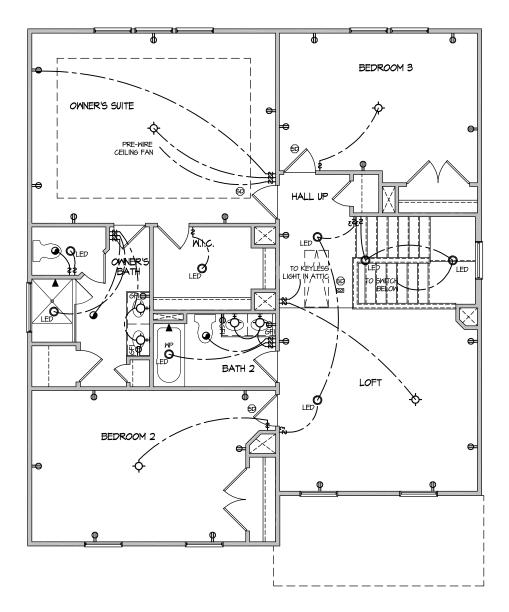
DRAWN BY:

DATE: 09/27/2022

PLAN NO. 1615



NOTE: ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE ADDPTED VERSION OF THE NATIONAL ELECTRICAL CODE, THE LOCAL POWER COMPANY AND TO ALL APPLICABLE LOCAL REGULATIONS.



ELECTRICAL PLAN SECOND FLOOR - ELEV. 8 SCALE: 1/8" = 1'-0" | MASTER PLAN INFORMATION | MASTER PLAN INFO

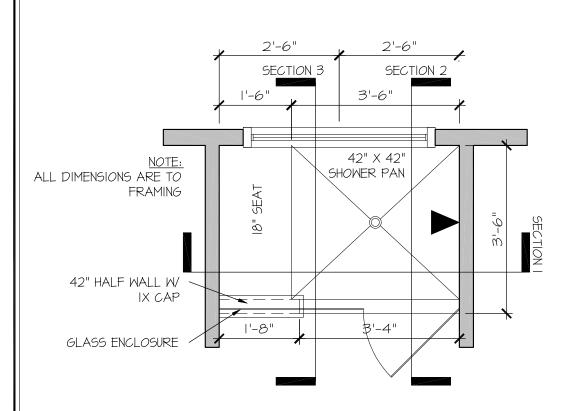


SECOND FLOOR ELECTRICAL

HOUSE NAME:
DEVON
DRAWING TITLE

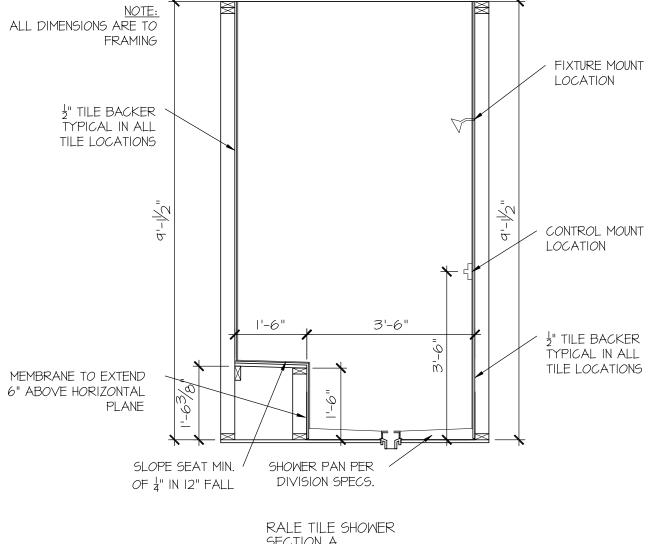
SHEET No.

EI.2



RALE TILE SHOWER 42" X 42" W 18" SEAT

SCALE: 1/2" = 1'-0"



SECTION A

SCALE: 1/2" = 1'-0"

CONSULTANT LOGO

DRAWN BY: L. BEAVERS DATE: 9/1/22 PLAN NO.

11 X 17 SCALE

24 X 36 SCALE



DETAIL SHOWER RALE



SEAL

DRAWN BY:
L. BEAVERS

DATE: 9/1/22
PLAN NO.

11 X 17 SCALE

24 X 36 SCALE

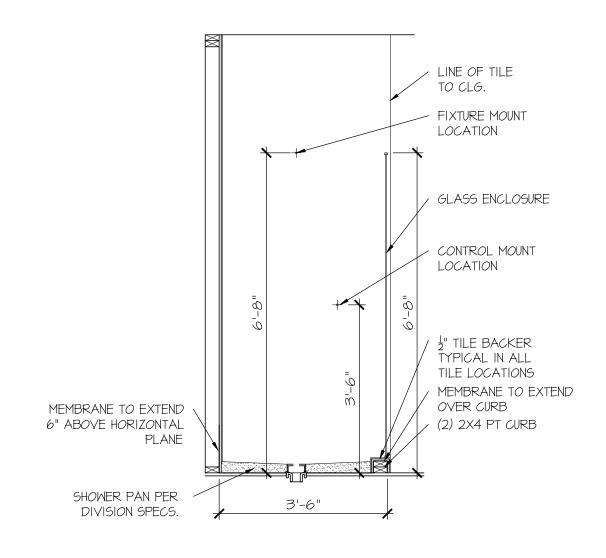


E SHOWER DETAIL

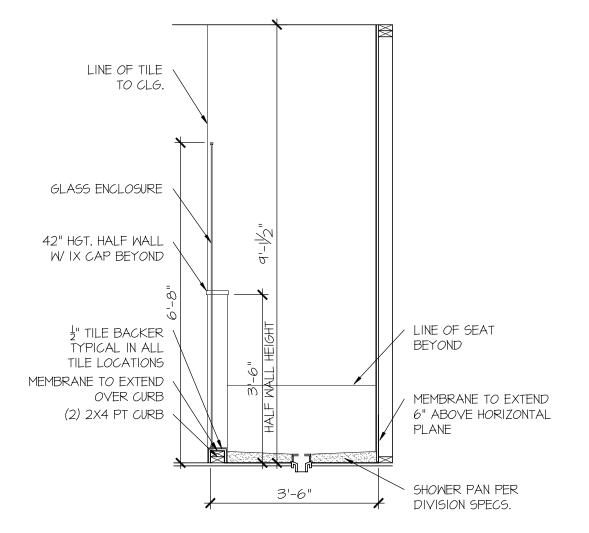
SAWING TITLE

SHEET No.

P | 2

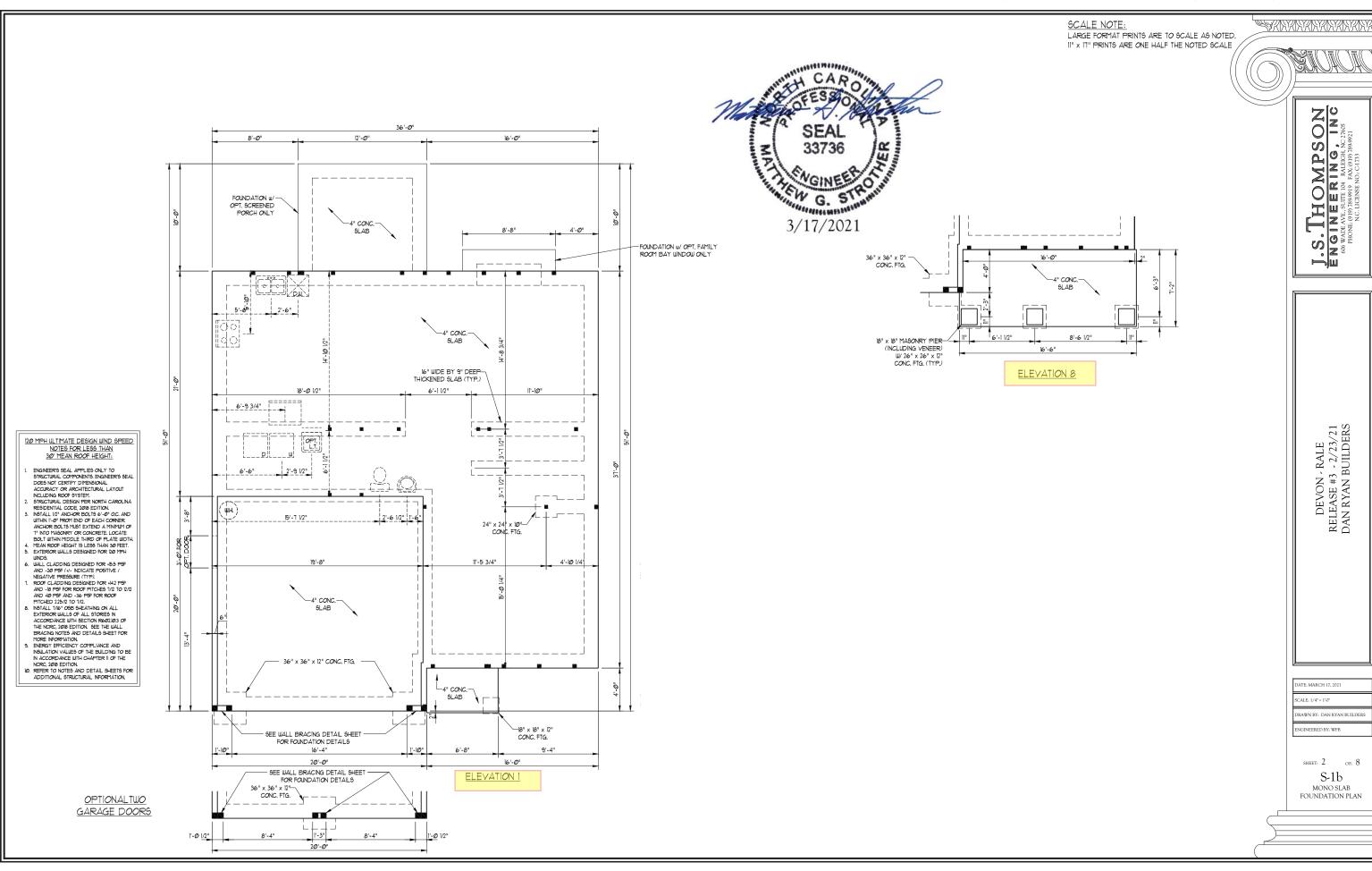


RALE TILE SHOWER SECTION B SCALE: 1/2" = 1'-0"



RALE TILE SHOWER SECTION C

SCALE: 1/2" = 1'-0"



BCI 5000s-1.8 JOISTS MAY BE USED IN LIEU OF

TJI 210 JOISTS AND BCI 60006-18 JOISTS MAY

DEPTH AND SPACING NOTED ON THE PLANS.

(3) 1 3/4" x 18" LVL CONT. CORNER TO CORNER W/ (4) 2 x 6 EA. BEARING POINT

GARAGE PORTAL FRAME. SEE

METHOD PF WALL BRACING DETAIL

2'-0"

NOTE:

STRUCTURAL NOTES: ALL FRAMING LUMBER TO BE SPF 12 (UNO). ALL TREATED LUMBER TO BE 5YP 12 (UNO.) ALL LOAD BEARING HEADERS TO BE (2) 2 x 10 SPF *2 OR SYP *2 (KILN DRIED) (UNO). HEADERS HAVE BEEN DESIGNED BASED ON CALCULATED LOADS. CODE TABLES HAVE NOT BEEN USED INSTALL AN EXTRA JOIST UNDER
WALLS PARALLEL TO FLOOR JOISTS WHERE NOTED ON THE PLANS. WINDOW AND DOOR HEADERS TO BE SUPPORTED w/(1) JACK STUD AND (1 KING STUD EA, END (UNO.), SEE TABLE R602.15 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 100 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. SCREUS 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

> 'DSP' - DOUBLE STUD POCKET 'TSP' - TRIPLE STUD POCKET

FOR ADDITIONAL STRUCTURAL

INFORMATION.

REFER TO NOTES AND DETAIL SHEETS

MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

	HEADER SPAN (FEET)	MAXIMUM STUD SPACING (INCHES) (PER TABLE R602.3(5)		
П		16	24	
П	UP TO 31	1	1	
П	4'	2	1	
П	8'	3	2	
П	121	5	3	
П	16'	6	4	

BRACED WALL DESIGN

RECTANGLE A

SIDE 1A METHOD: CS-WSP/GB/PF TOTAL REQUIRED LENGTH: 11.691 TOTAL PROVIDED LENGTH: 13.58 SIDE 2A METHOD: C5-WSP TOTAL REQUIRED LENGTH: 11.69' TOTAL PROVIDED LENGTH: 16.85

SIDE 3A METHOD: C6-W6P TOTAL REQUIRED LENGTH: 10.26' TOTAL PROVIDED LENGTH: 34.42' METHOD: CS-WSP

TOTAL REQUIRED LENGTH: 10.261 TOTAL PROVIDED LENGTH: 38,33 BRACED IIIALL DESIGN NOTES:

- BRACED WALL DESIGN PER SECTION R602.10 OF THE
- NCRC 2018 EDITION.
 C5-USP REFERS TO "CONTINUOUS SHEATHING WOOD
 STRUCTURAL PANELS" CONTRACTOR IS TO INSTALL 1/16" 05B 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 WALL BOARD WHERE NOTED ON THE PLANS. FASTEN GB WITH 1 1/4" SCREWS OR 1 5/8" NAILS SPACED T" O.C. ALONG PANEL EDGES AND IN THE FIELD INCLUDING TOP AND BOTTOM PLATES.

 BRACED WALL DESIGN APPLIED IN WIND ZONES UP TO 130 MPH.
- FOR HIGH WIND ZONES, BRACE WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 45 OF THE NORC 2018 EDITION. SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL BRACED

WALL INFORMATION.

BRACED WALL DESIGN

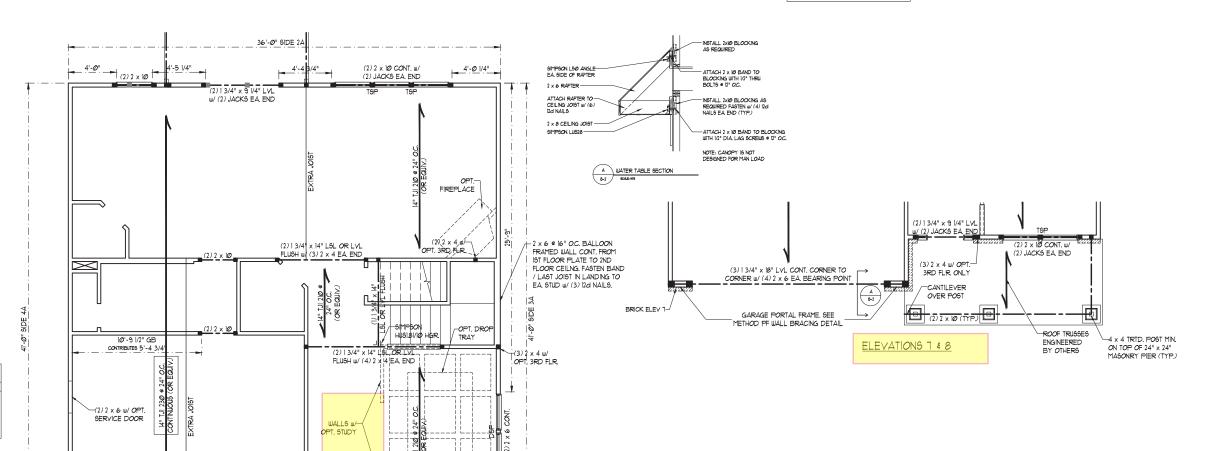
RECTANGLE B

SIDE IB METHOD: PF/CS-WSP TOTAL REQUIRED LENGTH: 2.51' TOTAL PROVIDED LENGTH: 6.0" SIDE 2B METHOD: CS-WSP

TOTAL REQUIRED LENGTH: 2.51'
TOTAL PROVIDED LENGTH: 8.33' SIDE 3B/4A COMBINED METHOD: CS-WSP

TOTAL REQUIRED LENGTH: 12.26'
TOTAL PROVIDED LENGTH: 19.0' SIDE 4B METHOD: CS-WSP

TOTAL REQUIRED LENGTH: 201 TOTAL PROVIDED LENGTH: 22.0'



ATE: MARCH 17, 2021

VOTED.

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THOMPS

S

CALE

RAWN BY: DAN RYAN BUILI

DEVON - RALE LEASE #3 - 2/23/21 N RYAN BUILDERS

RELEASE #3 DAN RYAN I

INEERED BY: WFB

S-2 SECOND FLOOR FRAMING PLAN

3/17/2021 (REVISED 12/13/2021)

-OPT. COFFERED CEILING

YEW G.

THE WHITE WASHINGTON

CARO

(2) 1 3/4" x 9 1/4" LVI w/ (2) JACKS EA. END

2'-0"

36 -0" SIDE IA RECTANGLE A

ITRIBUTES 3'-0"

(2) 2 x 10 CONT. w/

3RD FLR. ONLY

ENG. BY OTHERS

-4 x 4 TRTD. POST

MIN. (TYP.)

(2) JACKS EA. END 2'-4 1/2"

BRACED WALL DESIGN NOTES:

- BRACED WALL DESIGN PER SECTION R602.10 OF THE
- BRACED WALL DESIGN FER SECTION REGISTRO OF THE
 NCRC 2019 EDITION.
 C5-W5P REFERS TO "CONTINUOUS SHEATHING WOOD
 STRUCTURAL PANELS" CONTRACTOR IS TO INSTALL TIME" 05B
 ON ALL EXTERIOR WALLS ATTACHED W 8d NAILS SPACED 6"
 OC. ALONG PANEL EDGES AND 12" OC. IN THE FIELD.
 GB REFERS TO "GYPSUM BOARD" CONTRACTOR IS TO INSTALL
 WINDOWS AND 12" BOARD WINDERS NATTOR 15 TO INSTALL
- 1/2" (MIN) GYPSUM WALL BOARD WHERE NOTED ON THE PLANS, FASTEN GB WITH I 1/4" SCREWS OR 15/8" NAILS SPACED "I" OC. ALONG PANEL EDGES AND IN THE FIELD INCLUDING TOP AND BOTTOM PLATES.
 BRACED WALL DESIGN APPLIED IN WIND ZONES UP TO 130 MPH.
- FOR HIGH WIND ZONES, BRACE WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 45 OF THE NCRC 20/8 EDITION. SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL BRACED
- WALL INFORMATION.

- PER SECTION R602.10.3.2 OF THE 2018 NCRC, THE AMOUNT OF BRACING ON THE SECTION PROOF EXCEEDS THE AMOUNT REQUIRED FOR THE FIRST FLOOR AND NO BRACED WALL ANALYSIS IS REQUIRED.

 SHEATH ALL EXTERIOR WALLS WITH 1/16" OSB SHEATHING ATTACHED WITH
- 8d NAILS AT 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD.

ALL 4 x 4 AND 6 x 6 POSTS TO BE INSTALLED WITH 100 LB CAPACITY UPLIFT CONNECTORS TOP AND BOTTOM (UNO.) SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. SQUARES TO BE (2) STUDS (UNO.) REFER TO NOTES AND DETAIL SHEETS

STRUCTURAL NOTES:

ALL FRAMING LUMBER TO BE *2 SPF

ALL LOAD BEARING HEADERS TO BE (2) 2 x 10 (UNO).

WINDOW AND DOOR HEADERS TO BE SUPPORTED W/ (1) JACK STUD AND (1) KING STUD EA. END (UNO.). SEE TABLE R602.1.5 FOR ADDITIONAL KING STUD

(UNO),

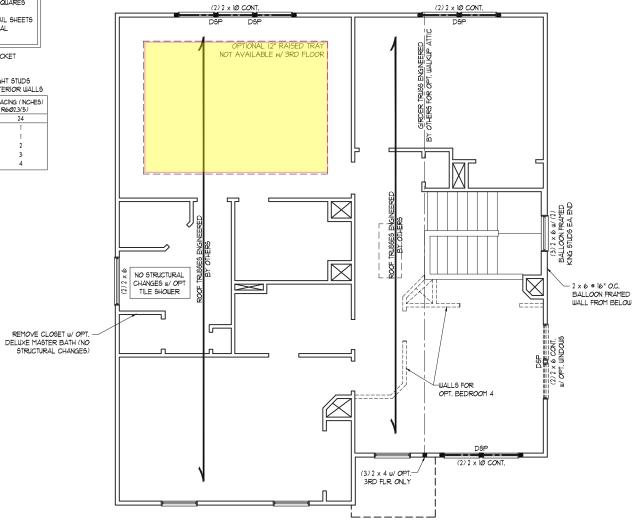
REQUIREMENTS.

FOR ADDITIONAL STRUCTURAL INFORMATION.

'DSP' - DOUBLE STUD POCKET

TABLE R602.15 MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

	HEADER SPAN (FEET)	MAXIMUM STUD SPACING (INCHES) (PER TABLE R602.3(5)		
		16	24	
	UP TO 31	1	1	
	4'	2	1	
	8'	3	2	
	12'	5	3	
	16'	6	4	



ELEVATION I

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

DEVON - RALE RELEASE #3 - 2/23/21 DAN RYAN BUILDERS

DATE: MARCH 17, 2021

DRAWN BY: DAN RYAN BUILDER

SINEERED BY: WFB

SHEET: 5 OF: 8

S-3 ATTIC FLOOR FRAMING PLAN

3/17/2021

-(3) 2 x 4 III/ OPT ELEVATIONS 7 & 8

STRUCTURAL NOTES:

- ALL FRAMING LUMBER TO BE *2 SPF (UNO). CIRCLES DENOTE (3) 2 x 4 POSTS FOR ROOF SUPPORT.
- FRAME DORMER WALLS ON TOP OF DOUBLE OR TRIPLE RAFTERS. HIP SPLICES ARE TO BE SPACED A MIN. OF 8'-0". FASTEN
- A PIN. CF 5-0". FASIEN

 MEMBERS WITH THREE ROWS OF

 IZM NAILS & IS" O.C. (TTP.)

 STICK FRAME OVER-FRAMED

 ROOF SECTIONS W. 2 x 8 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 SECTION R802,11 OF THE 2018 NCRC FOR REQUIRED UPLIFT RESISTANCE AT RAFTERS AND TRUSSES
- REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

3/17/2021 (REVISED 12/13/2021)

- STICK FRAMING FOR OPTIONAL WALKUP ATTIC ONLY. IF NO WALKUP, ROOF TRUSSES ENG. BY OTHERS.

SEE WATER TABLE— SECTION SHEET 5-2

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

DEVON - RALE RELEASE #3 - 2/23/21 DAN RYAN BUILDERS

- STICK FRAMING FOR OPTIONAL WALKUP ATTIC ONLY. IF NO WALKUP, ROOF TRUSSES ENG. BY OTHERS.

GIRDER TRUSS ENGINEERED OTHERS FOR OPT. WALKUP A RAFTER SUPPORT FOR OPT. WALK-UP ATTIC 2 x 10 RIDGE RAFTER SUPPORT FOR OPT. WALK-UP ATTIC

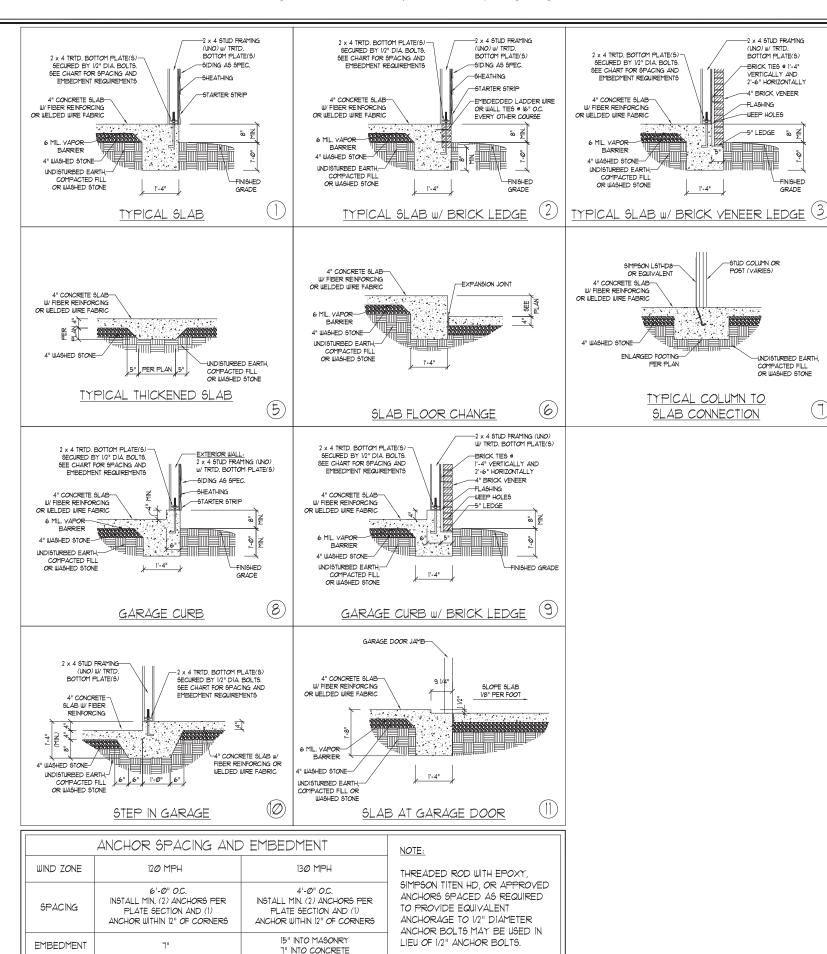
ELEVATIONS 7 & 8

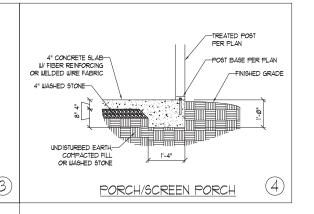
DATE: MARCH 17, 2021

DRAWN BY: DAN RYAN BUILDI

SINEERED BY: WFB

S-5b ROOF FRAMING PLAN





I.S. THOMPSON
ENGINEERING, INC
606 WADE ATE, SUITE 104 RALEGH, NC 27605
PHONE, 1097 1589991
N.C. I LTENSE NO. C. 1733.

SEAL 33736 W. G. STROMMAN

3/17/2021

DATE: NOVEMBER 1, 2018

NEERED BY: JST

MONOLITHIC SLAB FOUNDATION DETAILS

DRAWN BY: JST

FOUNDATION DETAILS

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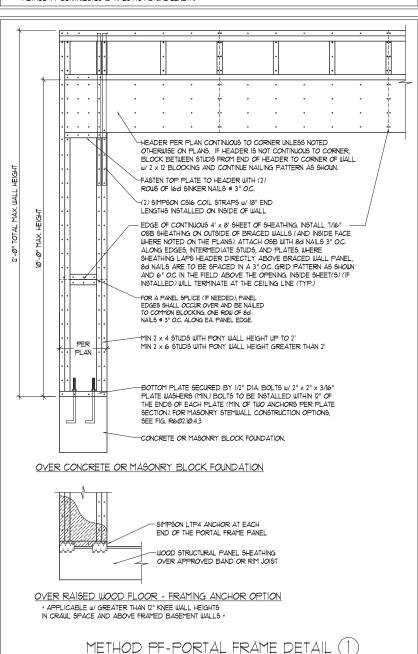
LARGE FORMAT PRINTS ARE TO SCALE AS NOTED

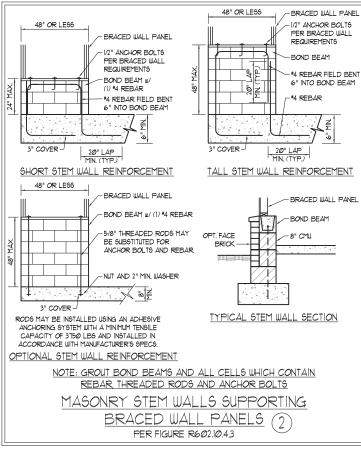
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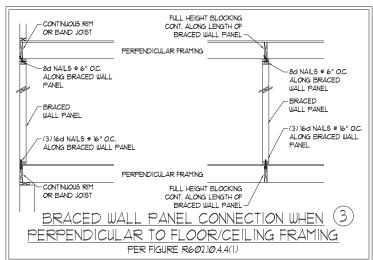
GENERAL WALL BRACING NOTES:

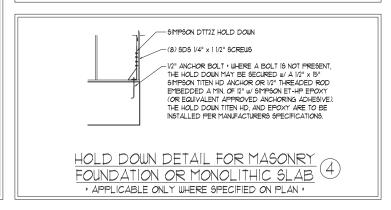
- WALL BRACING DESIGNED IN ACCORDANCE WITH CHAPTER 6 OF THE 2018 NC RESIDENTIAL BUILDING CODE (NCRC). TABLES AND FIGURES REFERENCED ARE FROM THE 2018 NCRC.
- SEE THIS SHEET FOR GENERAL DETAILS. REFER TO THE 2018 NCRC FOR ADDITIONAL INFORMATION AS NEEDED.
 BRACED EXTERIOR WALLS SUPPORTING ROOF TRUSSES AND RAFTERS, INCLUDING STORIES BELOW THE TOP FLOOR, HAVE
- BEEN DESIGNED PER R6Ø235 (3), WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST COMBINED UPLIFT AND SHEAR FORCES IN ACCORDANCE WITH ACCEPTED ENGINEERED PRACTICE. 4 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 03 UNLESS NOTED
- 6. ALL EXTERIOR AND INTERIOR WALLS TO HAVE 1/2" GYPSUM INSTALLED, WHEN NOT USING METHOD "GB", GYPSUM TO BE FASTENED PER TABLE R10/23.5 METHOD GB TO BE FASTENED PER TABLE R6/02/10/1 CS-USP REFERS TO THE "CONTINUOUS SHEATHING - WOOD STRUCTURAL PANELS" WALL BRACING METHOD. 1/1/6" OSB
- SHEATHING IS TO BE INSTALLED ON ALL EXTERIOR WALLS ATTACHED W/ 6d COMMON NAILS OR 8d (2 1/2" LONG x Ø.113" DIAMETER NAILS SPACED 6" OC. ALONG PANEL EDGES AND 12" OC. IN THE FIELD (UNO.).

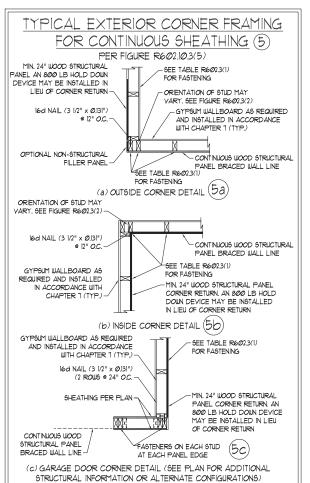
 8. GB REFERS TO THE "GYPSUM BOARD" WALL BRACING METHOD. 1/2" (MIN.) GYPSUM WALL BOARD IS TO BE INSTALLED ON
- BOTH SIDES OF THE BRACED WALL FASTENED WITH 1/4" SCREWS OR 15/8" NAILS SPACED TOC. ALONG PANEL EDGES INCLUDING TOP AND BOTTOM PLATES AND INTERMEDIATE SUPPORTS (UNO.). VERIFY ALL FASTENER OPTIONS FOR 1/2" AND 5/8" GYPAIM PRIOR TO CONSTRUCTION FOR INTERIOR FASTENER OPTIONS SEE TABLE R10/35. 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 C6-W6P CONTRIBUTES ITS ACTUAL LENGTH, METHOD GB CONTRIBUTES 5 ITS ACTUAL LENGTH, AND METHOD PF CONTRIBUTES 15 TIMES ITS ACTUAL LENGTH.

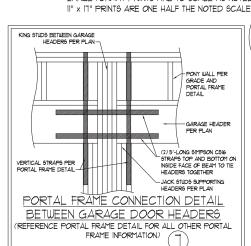


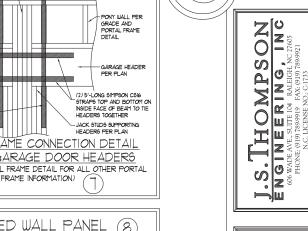


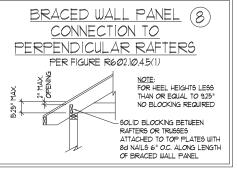


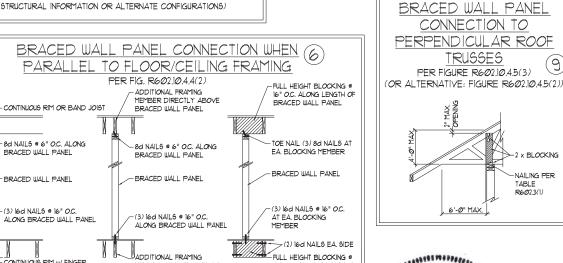












16" O.C. ALONG LENGTH OF BRACED WALL PANEL SEAL VGINES EW G. S (4) 81 828 64 WASH 3/17/2021 ATE: MAY 30, 2020 RAWN BY: JST EERED BY: IST

NOTES AND DETAILS

BRACING

WALL

BRACED WALL NOTES AND DETAILS AND PF DETAILS

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JOISTS OR DBL. BAND JOIST

MEMBER DIRECTLY BELOW

BRACED WALL PANEL

LARGE FORMAT PRINTS ARE TO SCALE AS NOTED. II" x IT" PRINTS ARE ONE HALF THE NOTED SCALE

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GENERAL NOTES

- FINGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS HIPS VALLEYS RIDGES FLOORS HALLS 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 1-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 R301.1)

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
DECK\$	40	10	L/36Ø
EXTERIOR BALCONIES	40	10	L/36Ø
FIRE ESCAPES	40	10	L/36Ø
HANDRAILS/GUARDRAILS	200 LB OR 50 (PLF)	10	L/36Ø
PASSENGER VEHICLE GARAGE	5Ø	10	L/36Ø
ROOMS OTHER THAN SLEEPING ROOM	40	10	L/36Ø
SLEEPING ROOMS	3Ø	10	L/36Ø
STAIRS	4Ø	10	L/36Ø
WIND LOAD	(BASED ON TABLE R3012(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 HIND 70NES FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION R40316 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 IL OF THE NORC 2018 EDITION

FOOTING AND FOUNDATION NOTES

- I. 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 INFORM 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 SOLLS CLASSIFIED AS GROUP I ACCORDING TO THE UNITED SOIL CLASSIFICATION SYSTEM IN ACCORDANCE WITH TABLE RAPS OF THE NORG. 2018 EDITION
- 3. PROPERI Y DEIJIATER EXCAVATION PRIOR TO POURING CONCRETE JUHEN BOTTOM OF CONCRETE SLAB IS AT OR BELIQUI JUATER TABLE. IF ABLE, 3/4" - I" 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 R4022 OF THE NCRC, 2018 EDITION. CONCRETE REINFORCING STEEL TO BE ASTM A615 GRADE 60. WELDED WIRE FABRIC TO BE ASTM AIRS. MAINTAIN A MINIMUM CONCRETE COVER AROUND REINFORCING STEEL OF 3" IN FOOTINGS AND LIZE" IN SLABS. FOR POURED CONCRETE WALLS, CONCRETE COVER FOR REINFORCING STEEL MEASURED FROM THE INSIDE FACE OF THE WALL SHALL 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 I 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 COMFORM
- 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 5 MORTAR PIERS AND WALLS SHALL BE CAPPED WITH 8" OF SOLID MASONRY
- 1. 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.I.(1), R404.I.(2), R404.I.(3), OR R404.I.(4) OF THE NCRC, 2018 EDITION. CONCRETE FOUNDATION WALLS ARE TO BE REINFORCED FER TABLE R404.1(5) OF THE NCRC, 2018 EDITION. STEP CONCRETE FOUNDATION WALLS TO 2×6 FRAMED WALLS AT 16" O.C. WHERE GRADE PERMITS (UNO).

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FRAMING NOTES

- ALL FRAMING LUMBER SHALL BE #2 SPE MINIMUM (Fb = 875 PSLEV = 375 PSLEV = 16000000 PSL) UNLESS NOTED OTHERWISE (UNO) ALL TREATED LUMBER SHALL BE 12 SYP MINIMUM (Fb = 9.15 PS), Fv = 115 PSI, E = 1600000 PSI) UNLESS NOTED OTHERWISE (UNO)
- LAMINATED VENEER LUMBER (LVL.) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Pa =2600 PSLEV = 285 PSLEV = 19000000 PSL 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 1" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: F $_c$ = 2500 PSI, E =1800000 PSI. PARALLEL STRAND LUMBER (PSL) MORE THAN T" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fc = 2900 PSI, E = 20000000 PSI, INSTALL ALL CONNECTIONS PER MANUFACTURER'S SPECIFICATIONS.
- 3. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS

W AND WT SHAPES: ASTM A992 ASTM A36 CHANNELS AND ANGLES: PLATES AND BARS: ASTM A36 ASTM A500 GRADE B HOLLOW STRUCTURAL SECTIONS: 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 ELANGE 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 (2) 1/2" DIA, x 4" WEDGE ANCHORS B. CONCRETE

C. MASONRY (FULLY GROUTED) (2) 1/2" DIA. x 4" LONG SIMPSON TITEN HD ANCHORS

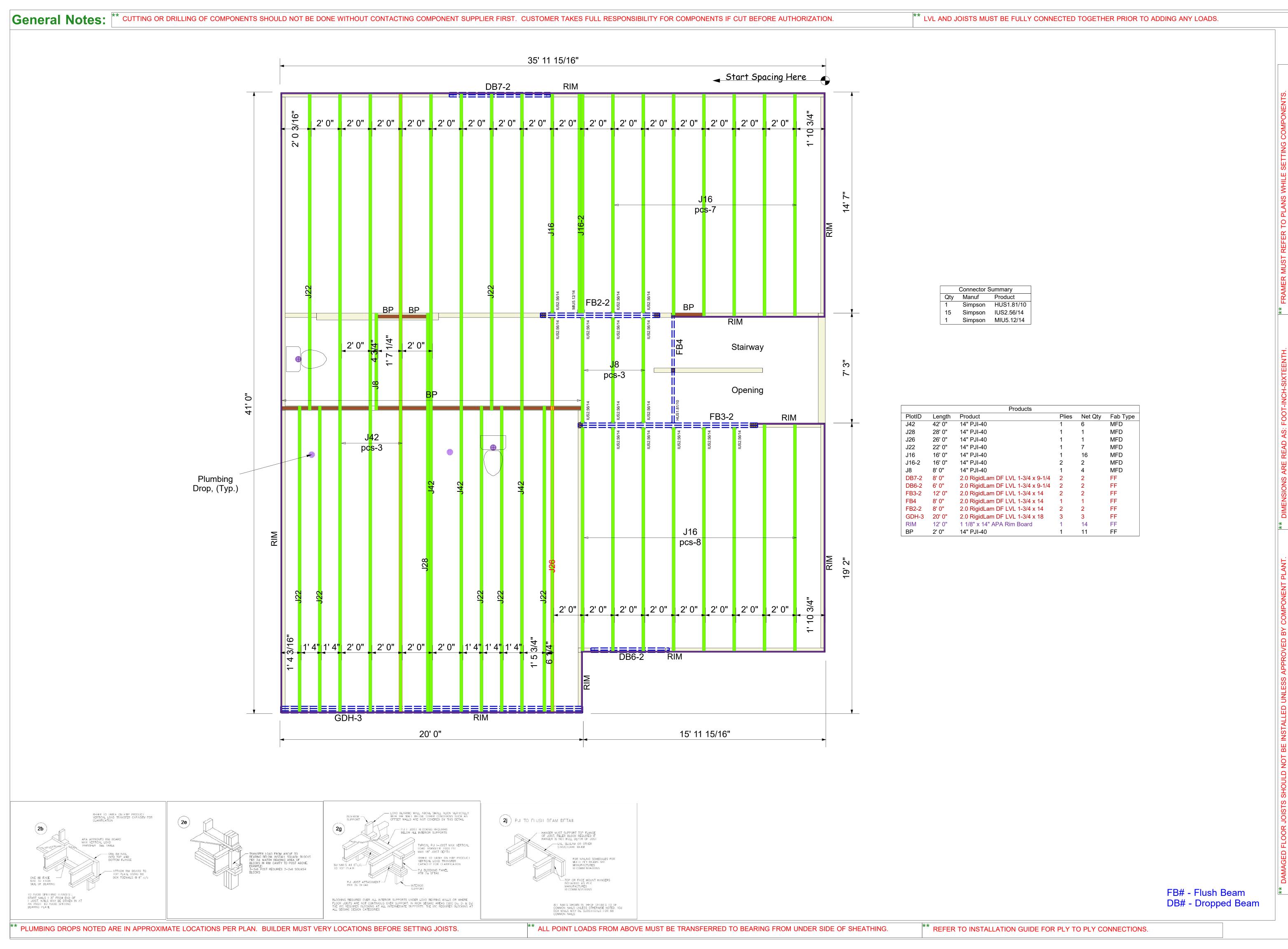
LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOISTS ARE TOE NAILED TO THE 2x NAILER ON TOP OF THE STEEL BEAM, AND THE 2x NAILER IS SECURED TO THE TOP OF THE STEEL BEAM w/ (2) ROUS OF SELF TAPPING SCREWS @ 16" O.C. OR (2) ROUS OF 1/2" DIAMETER BOLTS @ 16" O.C. IF 1/2" BOLTS ARE USED TO FASTEN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

- 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 R602.15 OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
- 1. 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 I 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 A301) 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
- 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.
- PROVIDE DOUBLE JOIST UNDER ALL WALLS PARALLEL TO FLOOR JOISTS. PROVIDE SUPPORT UNDER ALL WALLS PARALLEL TO FLOOR IRUSSES OR 1-JOISTS PER MANUFACTURER'S SPECIFICATIONS. INSTALL BLOCKING BETWEEN JOISTS OR TRUSSES FOR POINT LOAD SUPPORT FOR ALL POINT LOADS ALONG OFFSET LOAD LINES.
- 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 (UNO). 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 RT03.8.2.1 OF THE NCRC, 2018 EDITION.
- FOR STICK FRAMED ROOFS: CIRCLES DENOTE (3) 2×4 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
- 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 100 LB CAPACITY UPLIFT CONNECTORS TOP AND BOTTOM (UNO.) POSTS MAY BE SECURED USING ONE SIMPSON HE OR LISIZ 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.

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> STRUCTURAL STANDARD

TE: OCTOBER 29, 2018 WN BY: JES INEERED BY: IST STRUCTURAL NOTES



Revisions 00/00/00 Name 00/00/00 Name 00/00/00 Name 00/00/00 Name

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10.03.2022 Designer: RKW Project Number: 22090050 Sheet Number:

