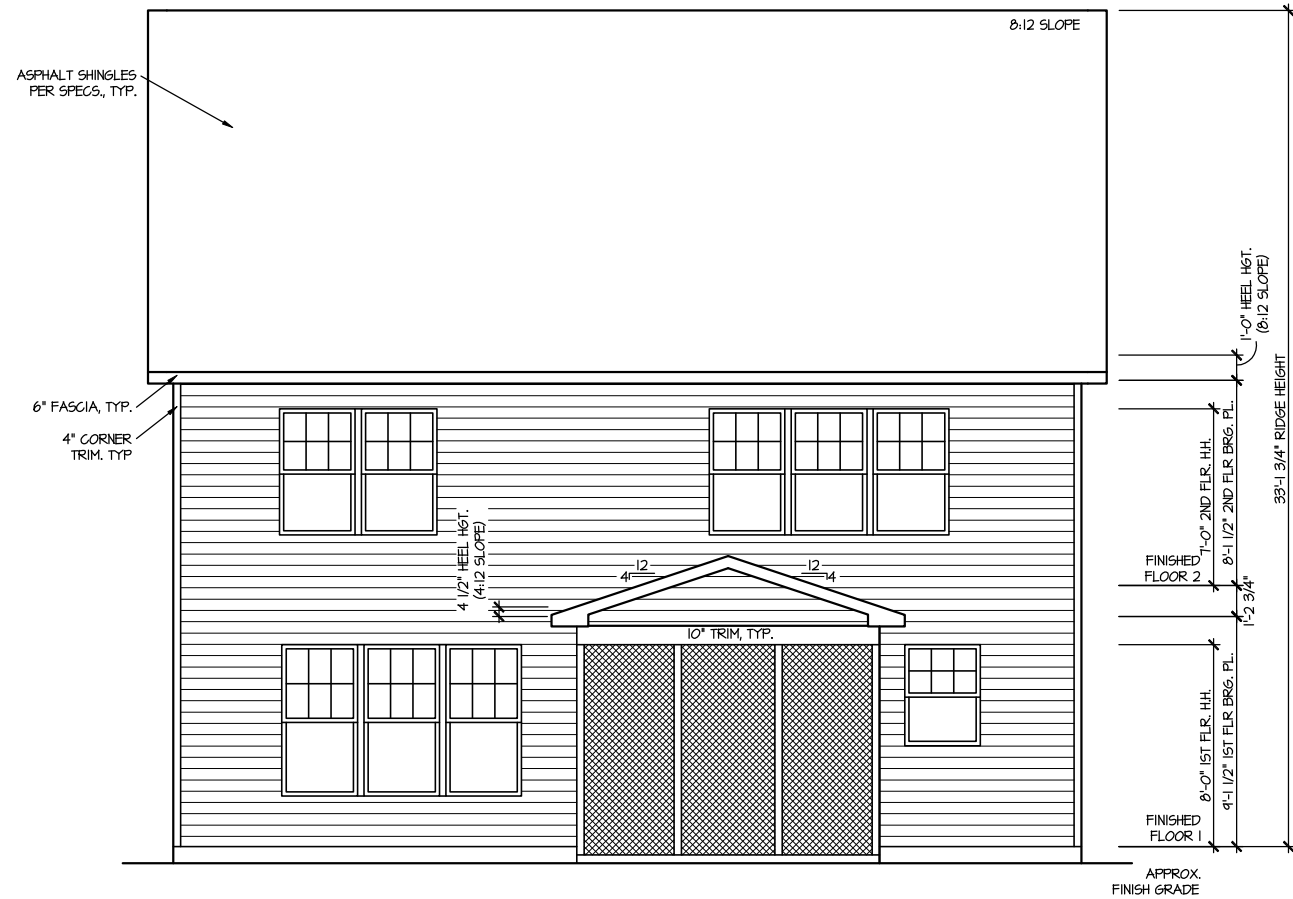


FRONT ELEVATION 2

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



REAR ELEVATION 2

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

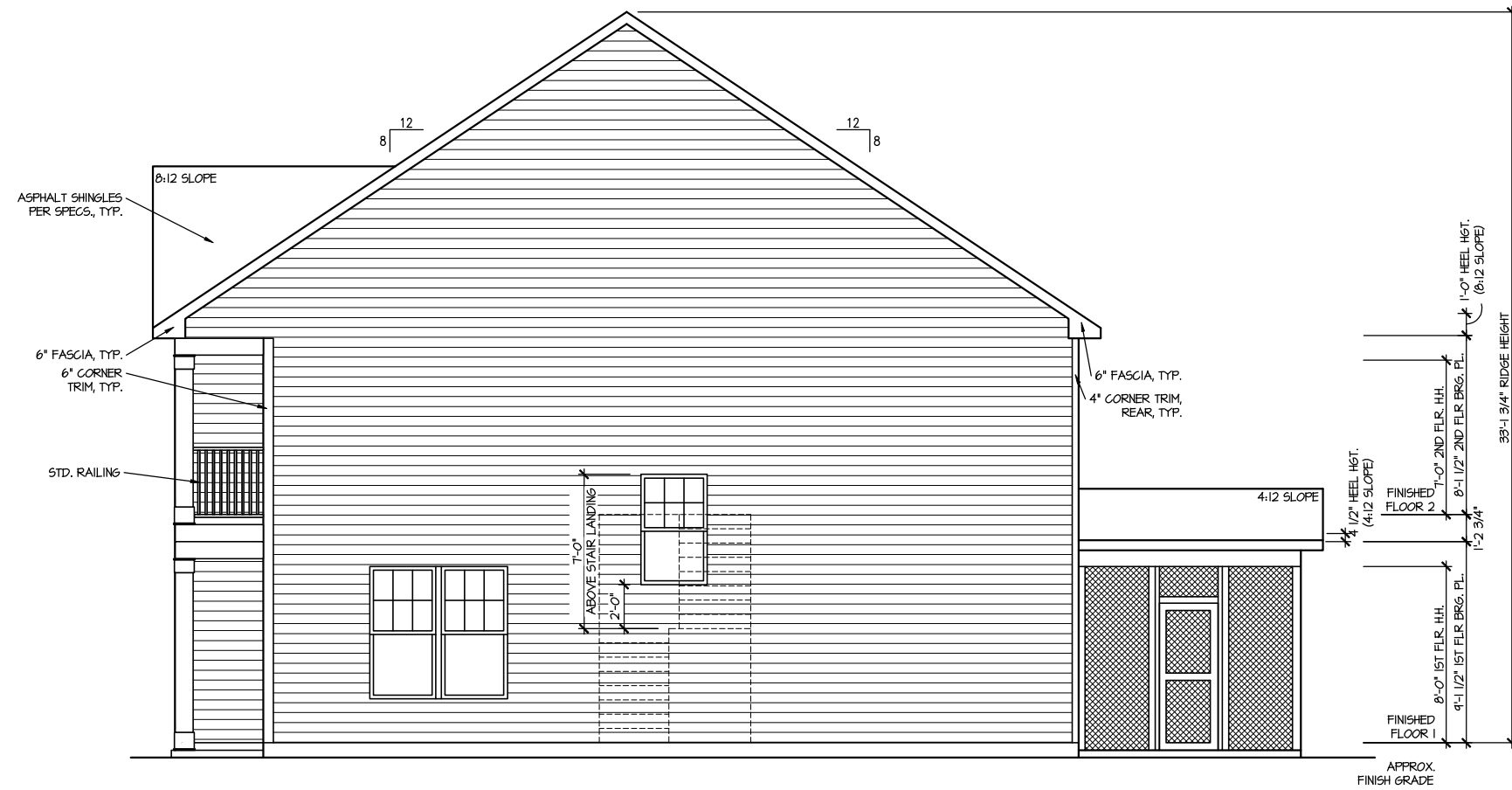
MASTER PLAN INFORMATION	
REVISION	DATE
3-RALE	10-16-2019
UPDATED DATE	08-09-2022

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



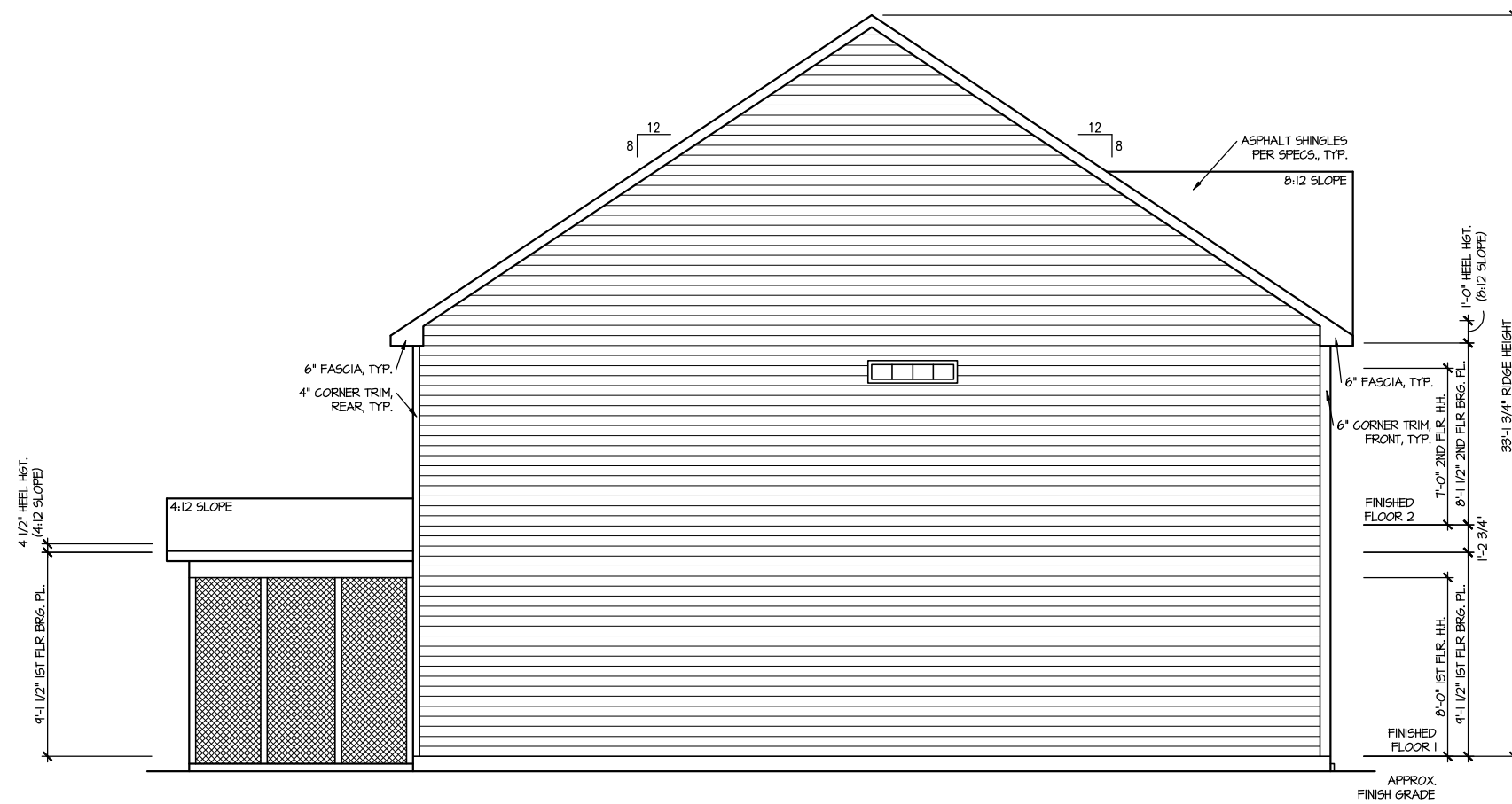
HOUSE NAME:	DEVON
DRAWING TITLE	FRONT & REAR ELEVATIONS

SHEET No.	A.1
-----------	-----



RIGHT ELEVATION 2

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



LEFT ELEVATION 2

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

UPDATED DATE  
08-09-2022

MASTER PLAN INFORMATION  
REVISION DATE  
3-RALE 10-16-2019

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

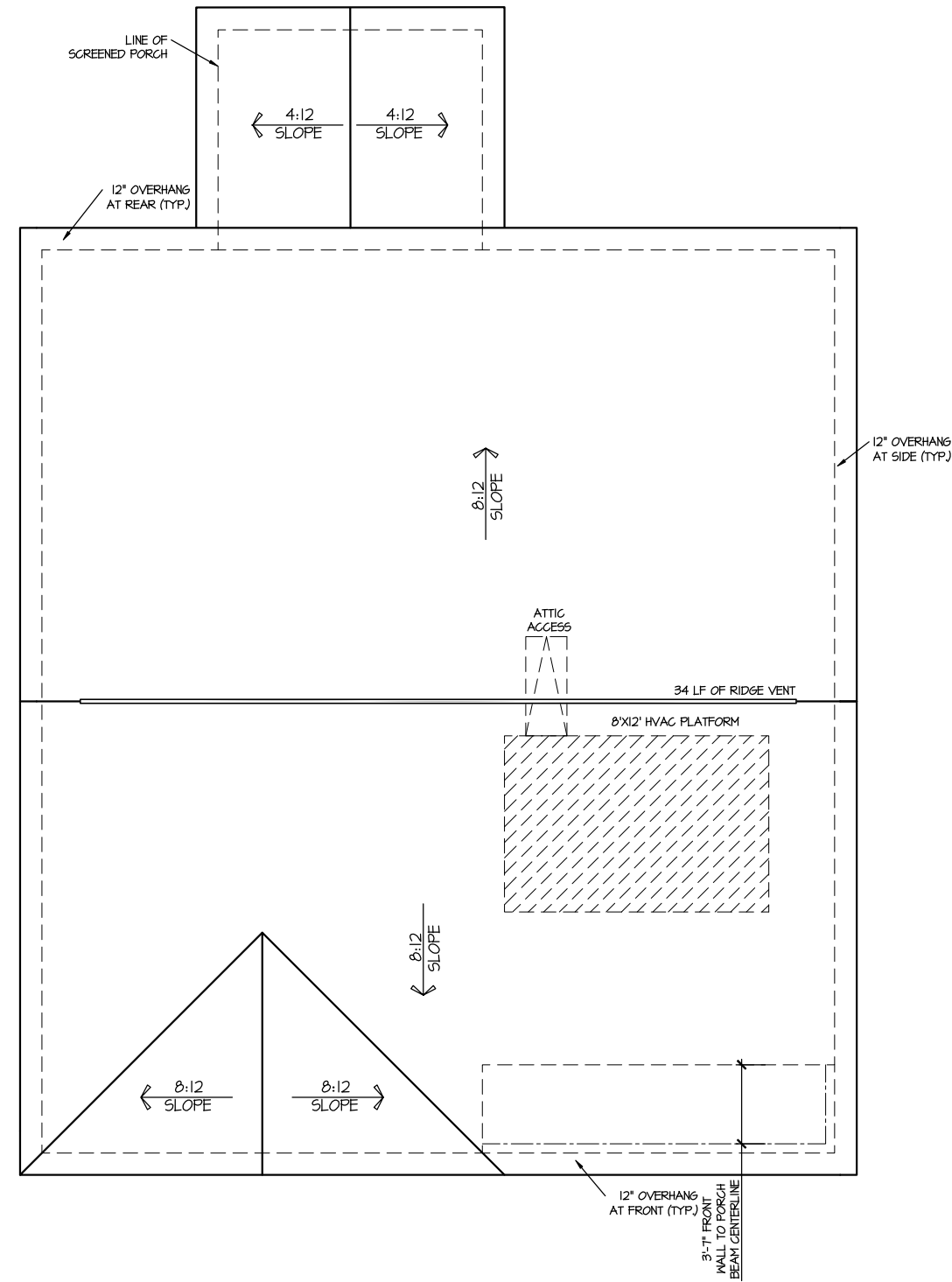


HOUSE NAME:  
DEVON  
DRAWING TITLE  
RIGHT & LEFT ELEVATIONS

SHEET No.  
A1.2

**ROOF VENTILATION CALCULATIONS:**

ROOF AREA = 1412 SQ. FT.  
**OVERALL REQUIRED VENTILATION:**  
 1 TO 150 = 4.41 SQ. FT.  
 1 TO 300 = 4.17 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.  
**LOWER VENTING: (BOTTOM 2/3 RDS)**  
 51 LINEAR FEET OF SOFFIT X 5.7 SQ. IN. = 2.00 SQ. FT.  
**UPPER VENTING: (TOP 1/3 RD)**  
 34 LINEAR FEET OF RIDGE X 18 SQ. IN. = 4.25 SQ. FT.  
 3.5 SQ. FT. BETWEEN 50% - 80%  
 (1 TO 300 ALLOWED)  
 TOTAL ROOF VENTILATION: 6.25 SQ. FT. > 4.17 SQ. FT. (REQ'D)



**ROOF PLAN ELEV. 2**

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

UPDATED DATE  
08-09-2022

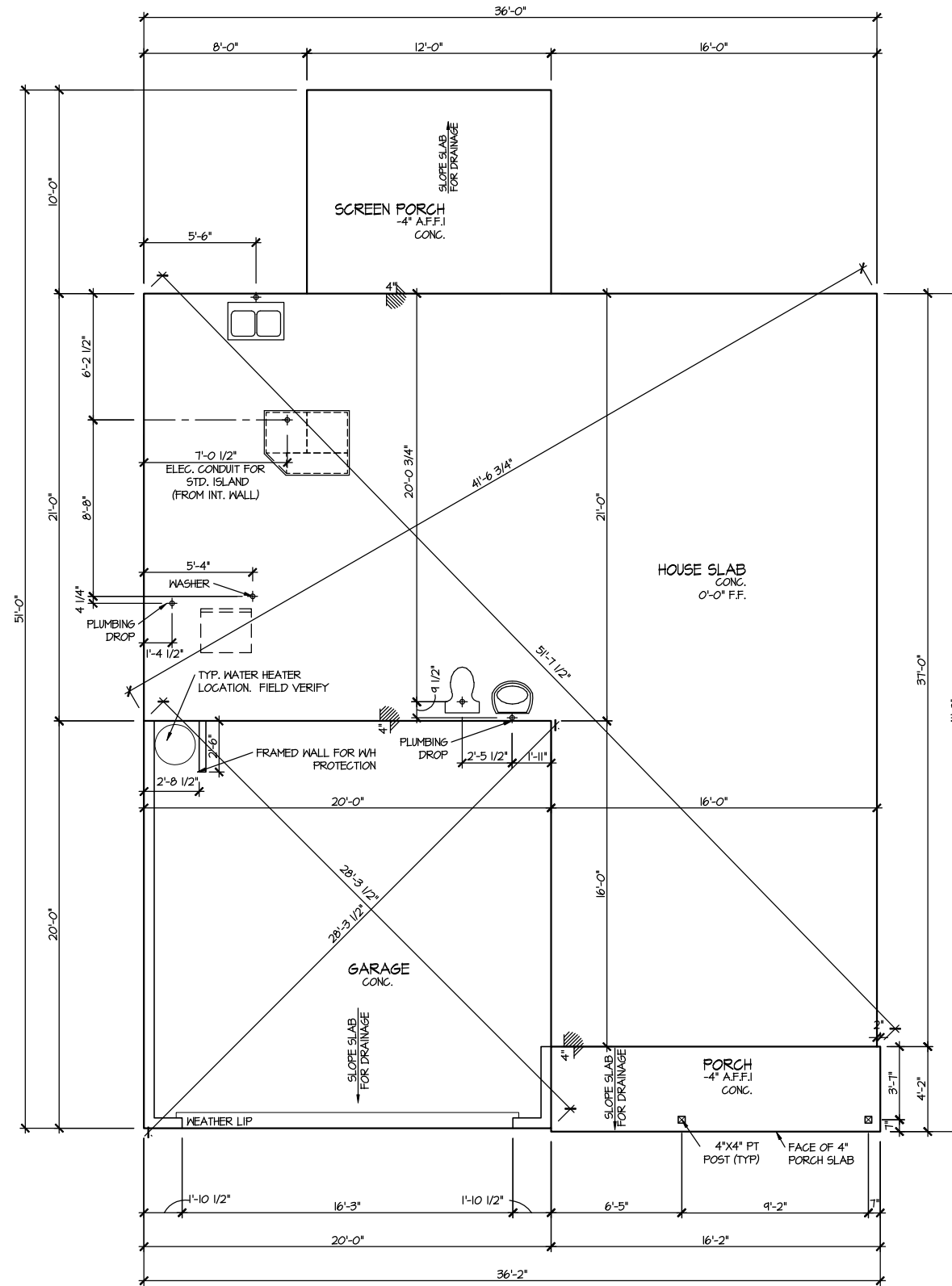
MASTER PLAN INFORMATION	
REVISION	DATE
3-RALE	10-16-2019

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



HOUSE NAME:  
**DEVON**  
 DRAWING TITLE  
ROOF PLAN

SHEET No.  
**A1.3**



**ELEVATION 2  
SLAB PLAN**

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

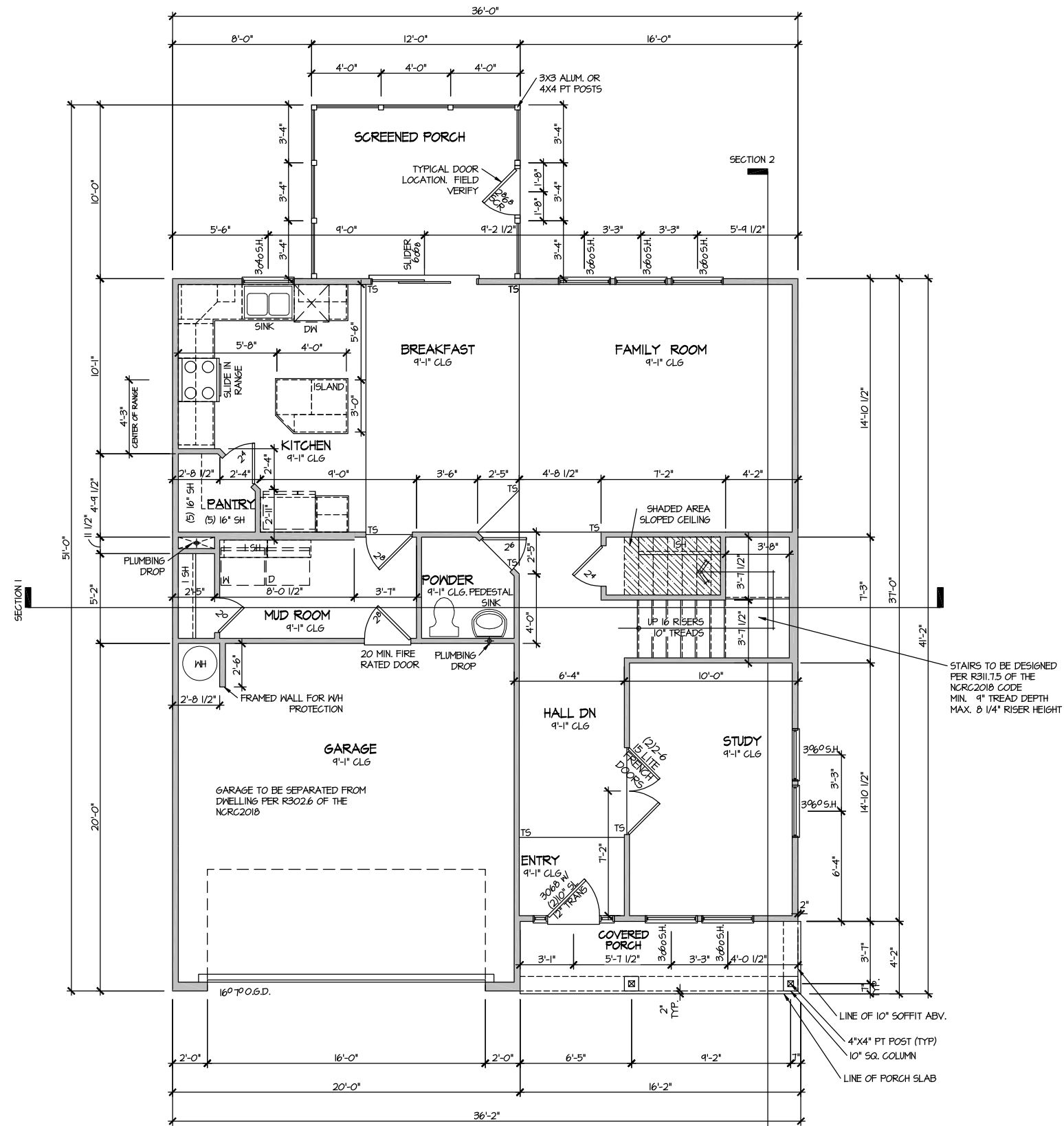
MASTER PLAN INFORMATION	
REVISION	DATE
3-RALE	10-16-2019
UPDATED DATE	08-09-2022

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



HOUSE NAME:	DEVON
DRAWING TITLE	SLAB PLAN

SHEET No.  
**A2.1**



ELEVATION 2  
FIRST FLOOR PLAN

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

UPDATED DATE  
08-09-2022

MASTER PLAN INFORMATION  
REVISION DATE 10-16-2019  
3-RALE

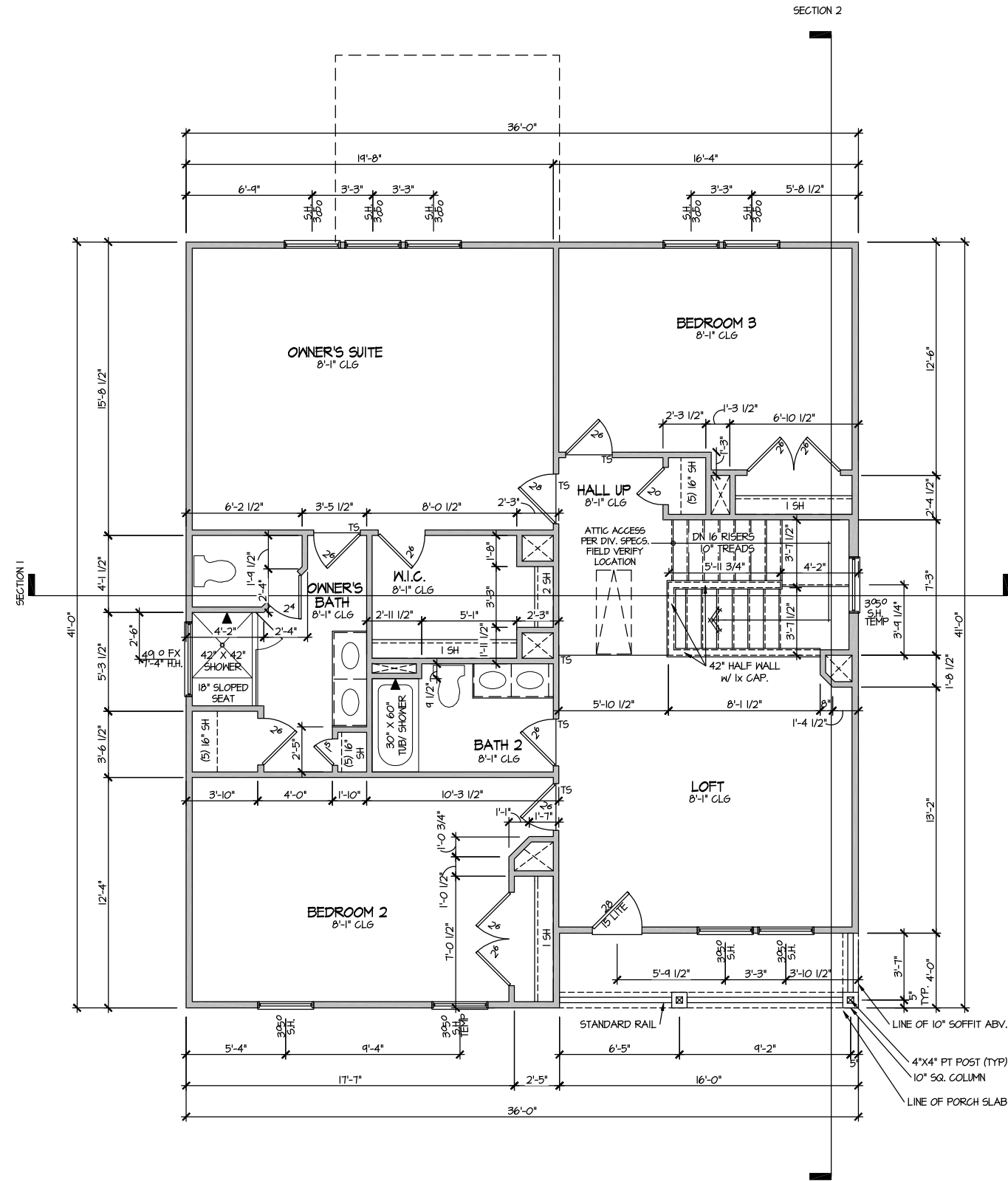
DRAWN BY: ITS  
DATE: 09/27/2022  
PLAN NO. 1615



HOUSE NAME: DEVON  
DRAWING TITLE: FIRST FLOOR PLAN

SHEET No. A3.1

FILE: Lot 00.0087.dwg DATE: 9/27/2022 10:17 AM



ELEVATION 2  
SECOND FLOOR PLAN

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

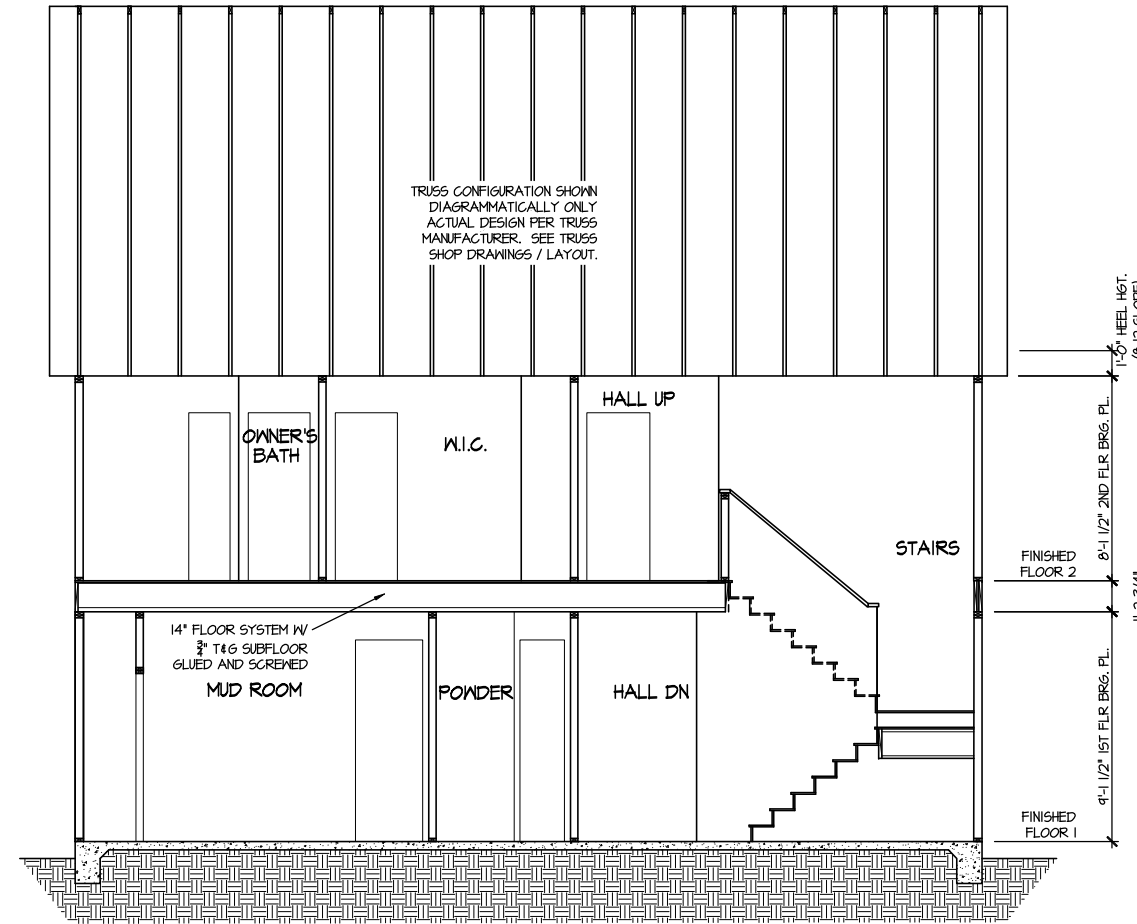
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REVISION	DATE
3-RALE	10-16-2019
	UPDATED DATE
	08-09-2022

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



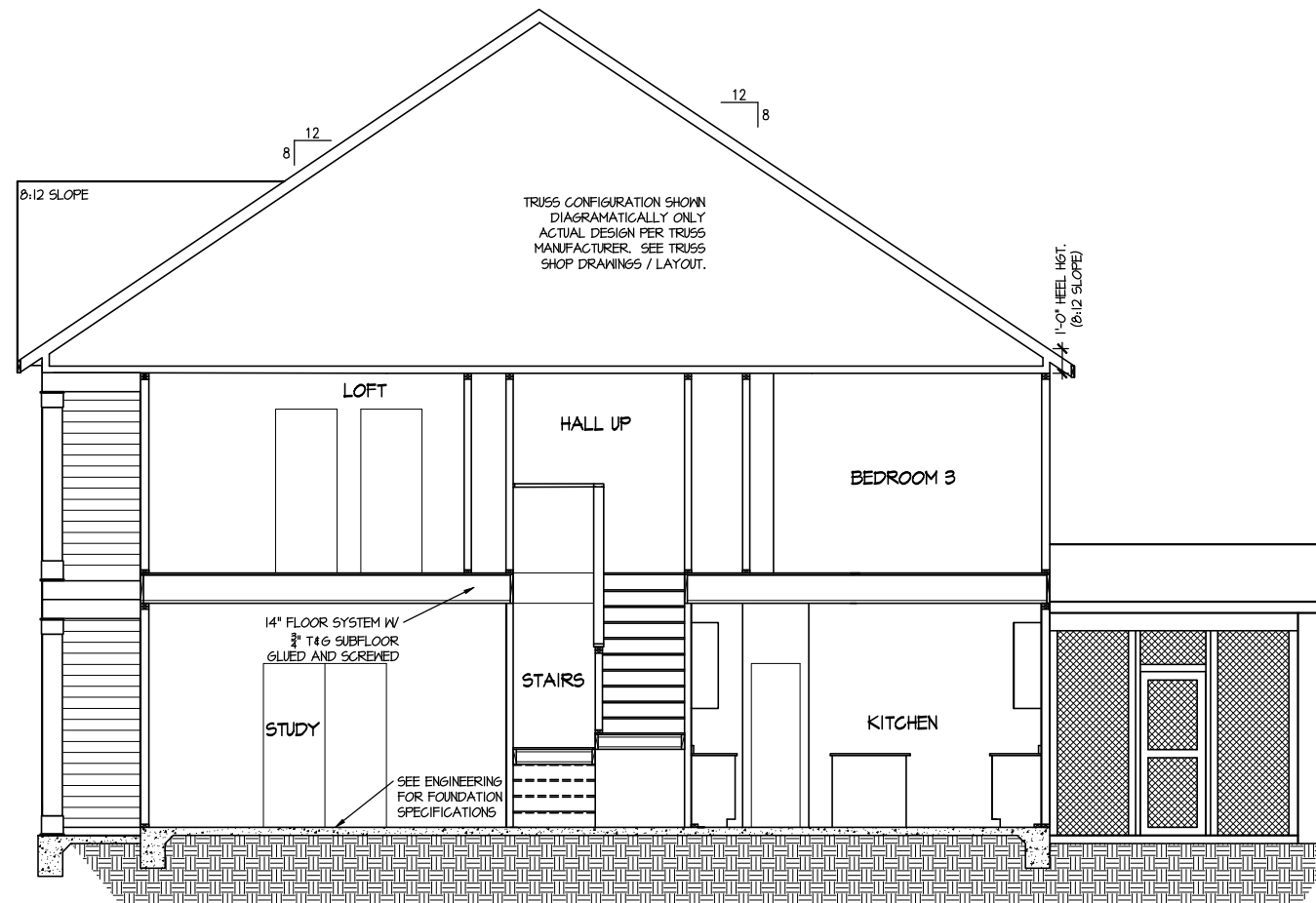
HOUSE NAME:	DEVON
DRAWING TITLE	SECOND FLOOR PLAN

SHEET No.	A3.2
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SECTION 1

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



SECTION 2

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

UPDATED DATE  
08-09-2022

MASTER PLAN INFORMATION  
REVISION DATE  
3-RALE 10-16-2019

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



HOUSE NAME:  
DEVON  
DRAWING TITLE  
BUILDING SECTION

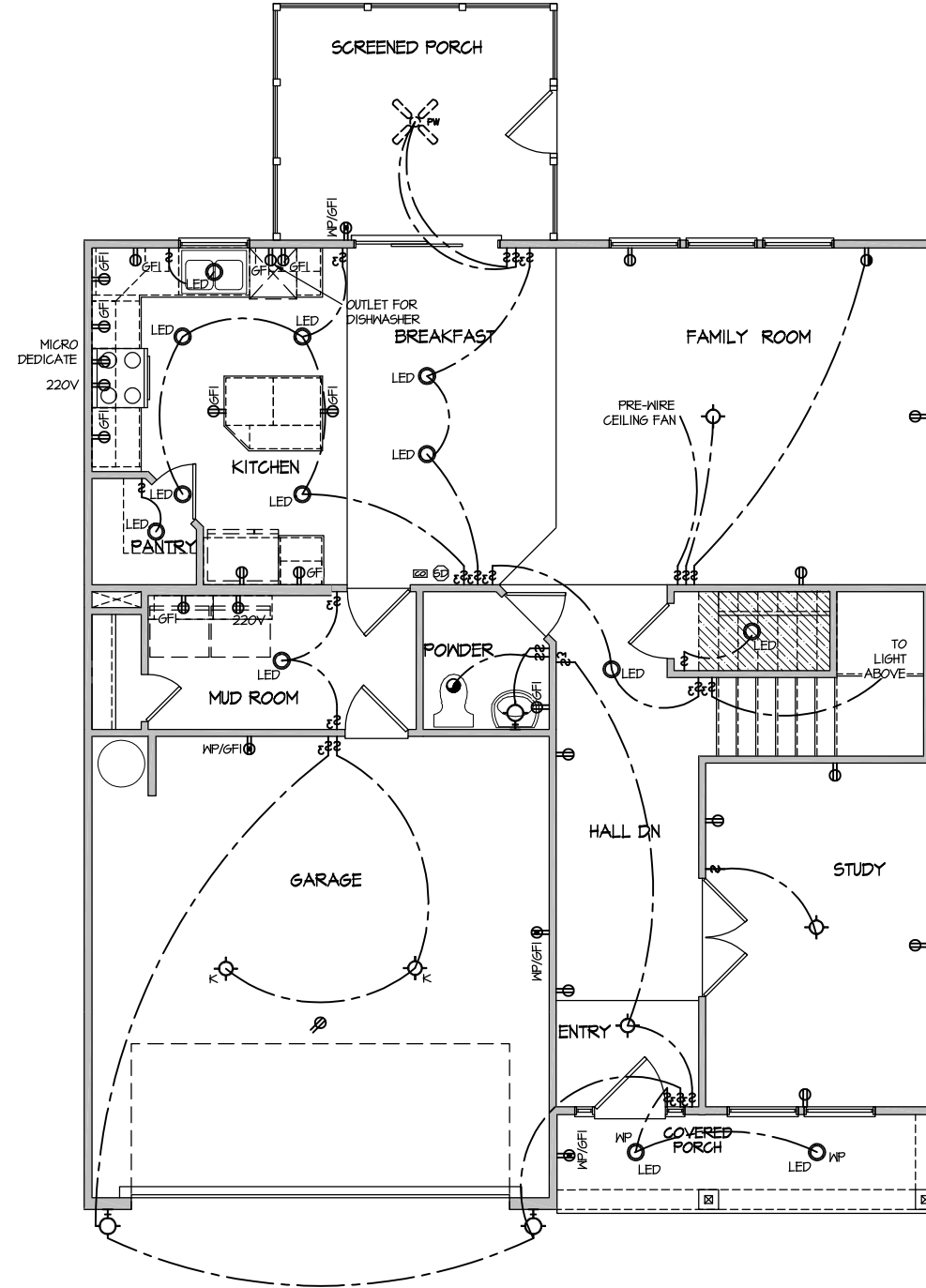
SHEET No.  
A4.1



**ELECTRICAL LEGEND**

- Ⓢ SINGLE POLE SWITCH
- Ⓢ<sub>3</sub> THREE WAY SWITCH
- Ⓢ<sub>4</sub> FOUR WAY SWITCH
- ⓈⓈ DUPLEX AFCI RECEPTACLE
- ⓈⓈ<sub>B</sub> DUPLEX AFCI RECEPTACLE - BOTTOM HALF SWITCHED
- ⓈⓈ<sub>F</sub> DUPLEX AFCI RECEPTACLE - FLOOR MOUNTED
- 220V Ⓢ RECEPTACLE - 220V
- GFI Ⓢ DUPLEX AFCI RECEPTACLE - GFI
- WP/GFI Ⓢ DUPLEX AFCI RECEPTACLE - WATERPROOF GFI
- Ⓢ(SD) SMOKE DETECTOR - WIRED IN SERIES
- Ⓢ(EF) EXHAUST FAN MOTOR
- Ⓢ(CO) CO DETECTOR
- Ⓢ(DC) DOOR CHIME
- Ⓢ(L) LIGHT FIXTURE - WALL MOUNTED
- Ⓢ(C) LIGHT FIXTURE - CEILING MOUNTED
- Ⓢ(LED) LIGHT FIXTURE - LED SURFACE MOUNTED
- Ⓢ(P) FULLCHAIN LAMPHOLDER
- Ⓢ(K) KEYLESS LAMPHOLDER

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. 2**  
SCALE: 1/8" = 1'-0"

MASTER PLAN INFORMATION	
REVISION	DATE
3-RALE	10-16-2019
UPDATED DATE	08-09-2022

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



HOUSE NAME:	DEVON
DRAWING TITLE	FIRST FLOOR ELECTRICAL

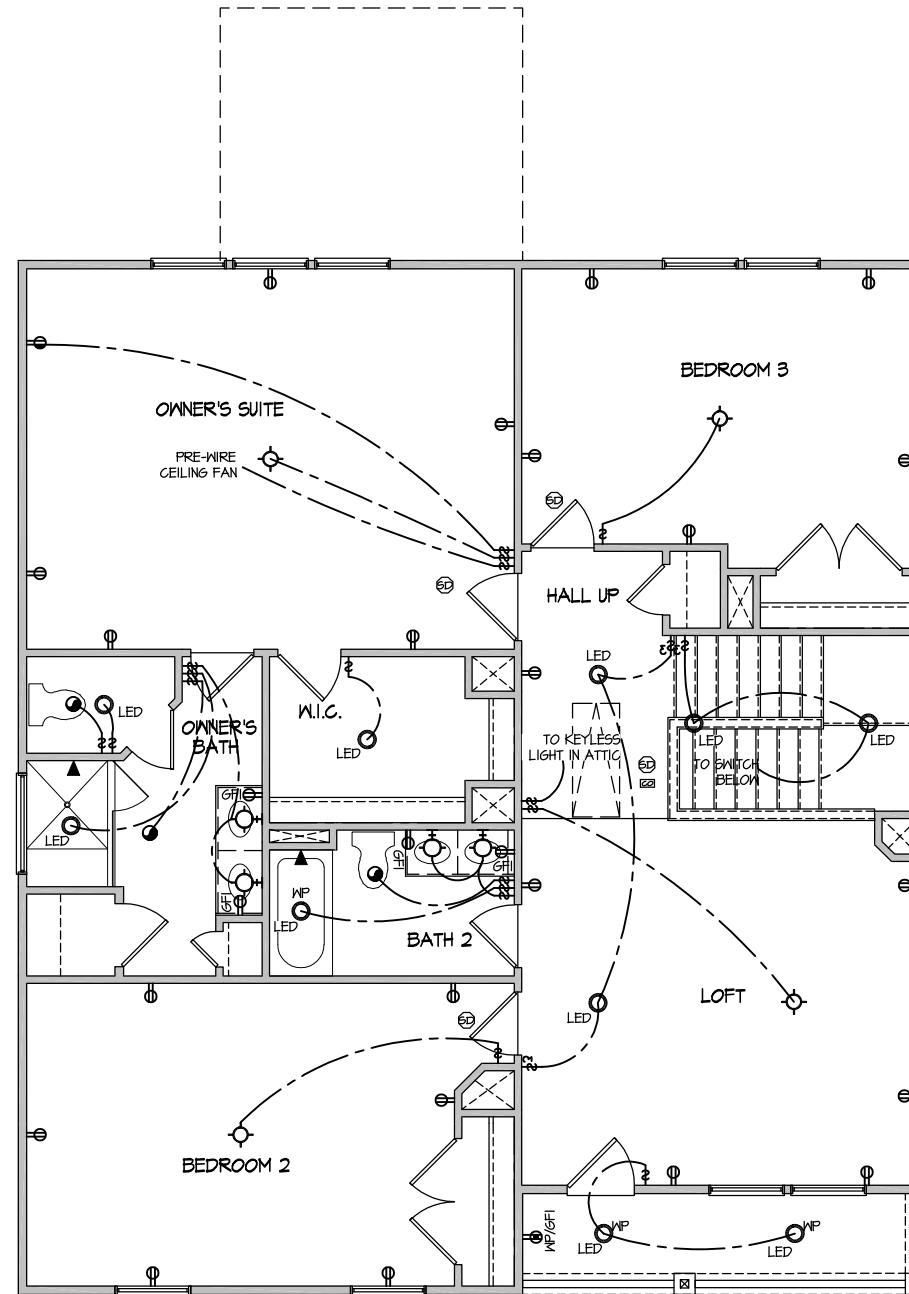
SHEET No.	E.I.
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FILE: Lot 00.0087.dwg DATE: 9/27/2022 10:17 AM

**ELECTRICAL LEGEND**

- ⊕ SINGLE POLE SWITCH
- ⊕<sub>3</sub> THREE WAY SWITCH
- ⊕<sub>4</sub> FOUR WAY SWITCH
- ⊕- DUPLEX AFCI RECEPTACLE
- ⊕- DUPLEX AFCI RECEPTACLE - BOTTOM HALF SWITCHED
- ⊕- DUPLEX AFCI RECEPTACLE - FLOOR MOUNTED
- 220V ⊕ RECEPTACLE - 220V
- GFI ⊕ DUPLEX AFCI RECEPTACLE - GFI
- WP/GFI ⊕ DUPLEX AFCI RECEPTACLE - WATERPROOF GFI
- ⊕- SMOKE DETECTOR - WIRED IN SERIES
- ⊕- EXHAUST FAN MOTOR
- ⊕- CO DETECTOR
- ⊕- DOOR CHIME
- ⊕- LIGHT FIXTURE - WALL MOUNTED
- ⊕- LIGHT FIXTURE - CEILING MOUNTED
- ⊕- LED LIGHT FIXTURE - LED SURFACE MOUNTED
- ⊕- FULLCHAIN LAMPHOLDER
- ⊕- KEYLESS LAMPHOLDER

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**  
**SECOND FLOOR - ELEV. 2**  
 SCALE: 1/8" = 1'-0"

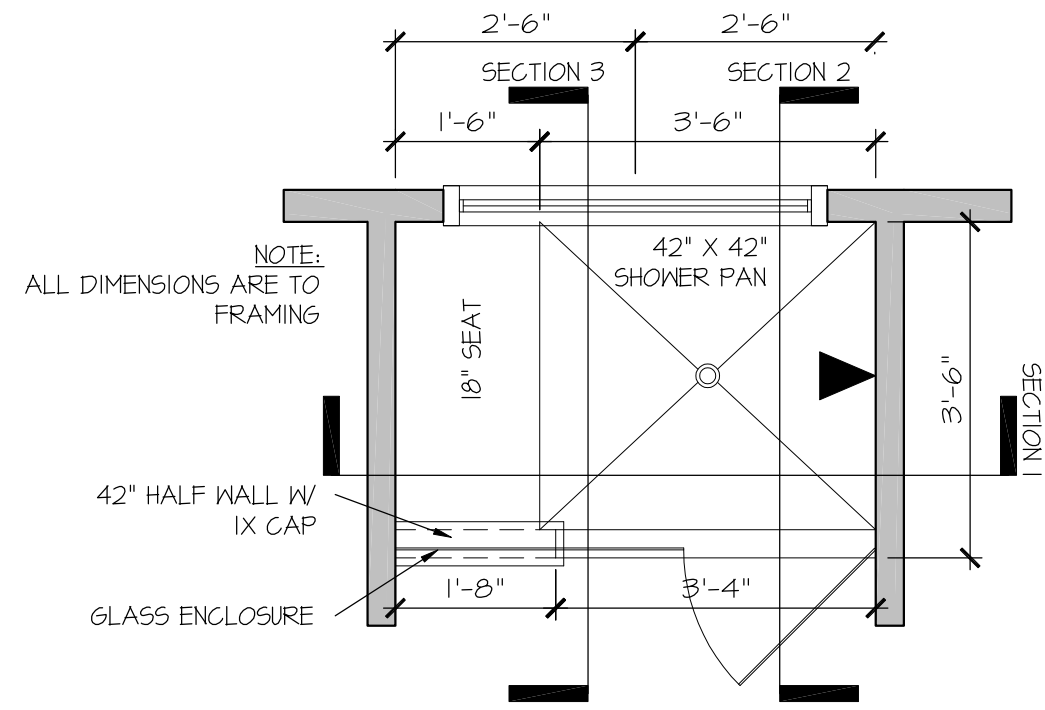
MASTER PLAN INFORMATION	
REVISION	DATE
3-RALE	10-16-2019
UPDATED DATE	08-09-2022

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

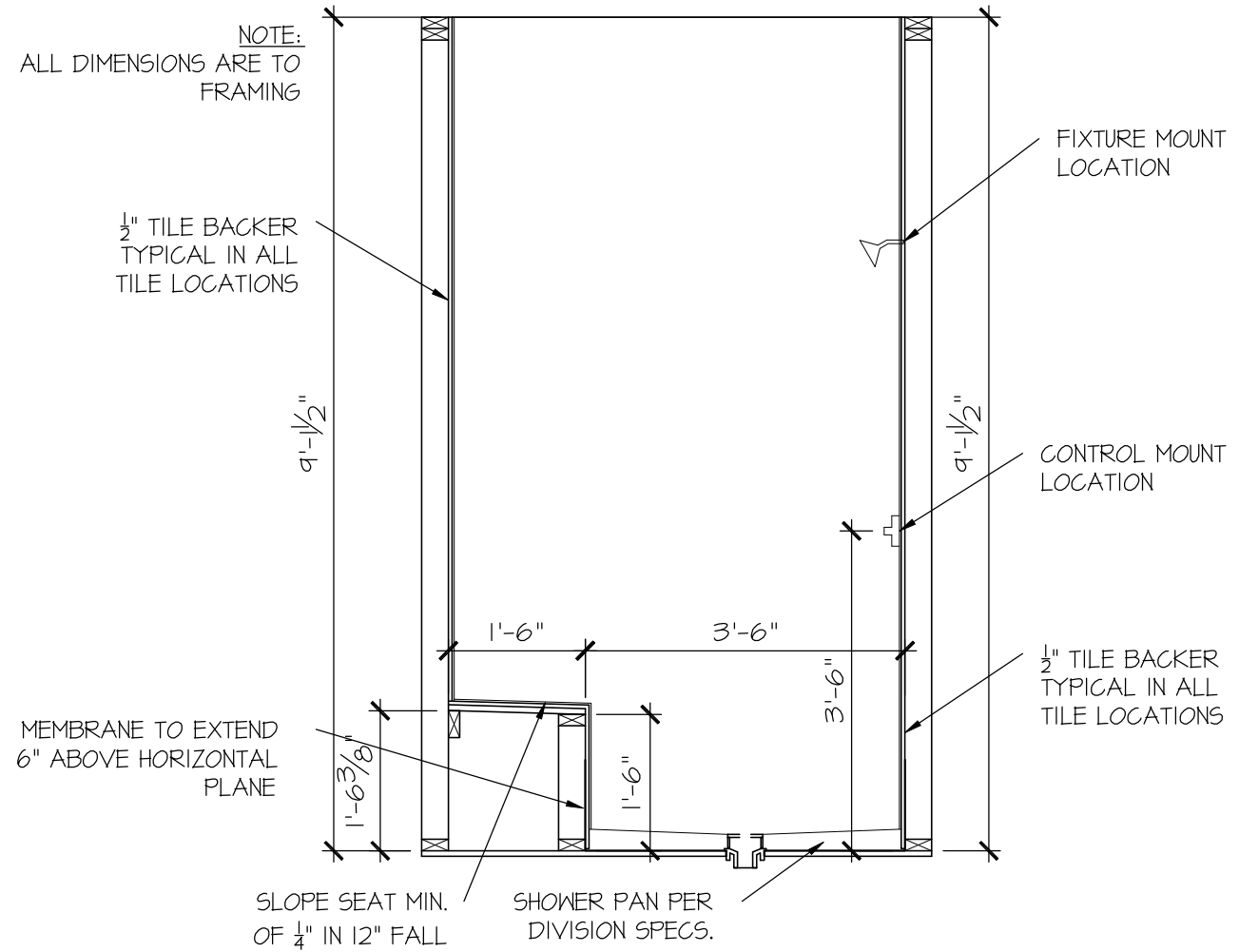


HOUSE NAME:	DEVON
DRAWING TITLE	SECOND FLOOR ELECTRICAL

SHEET No.	E1.2
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RALE TILE SHOWER  
42" X 42" W 18" SEAT  
SCALE: 1/2" = 1'-0"



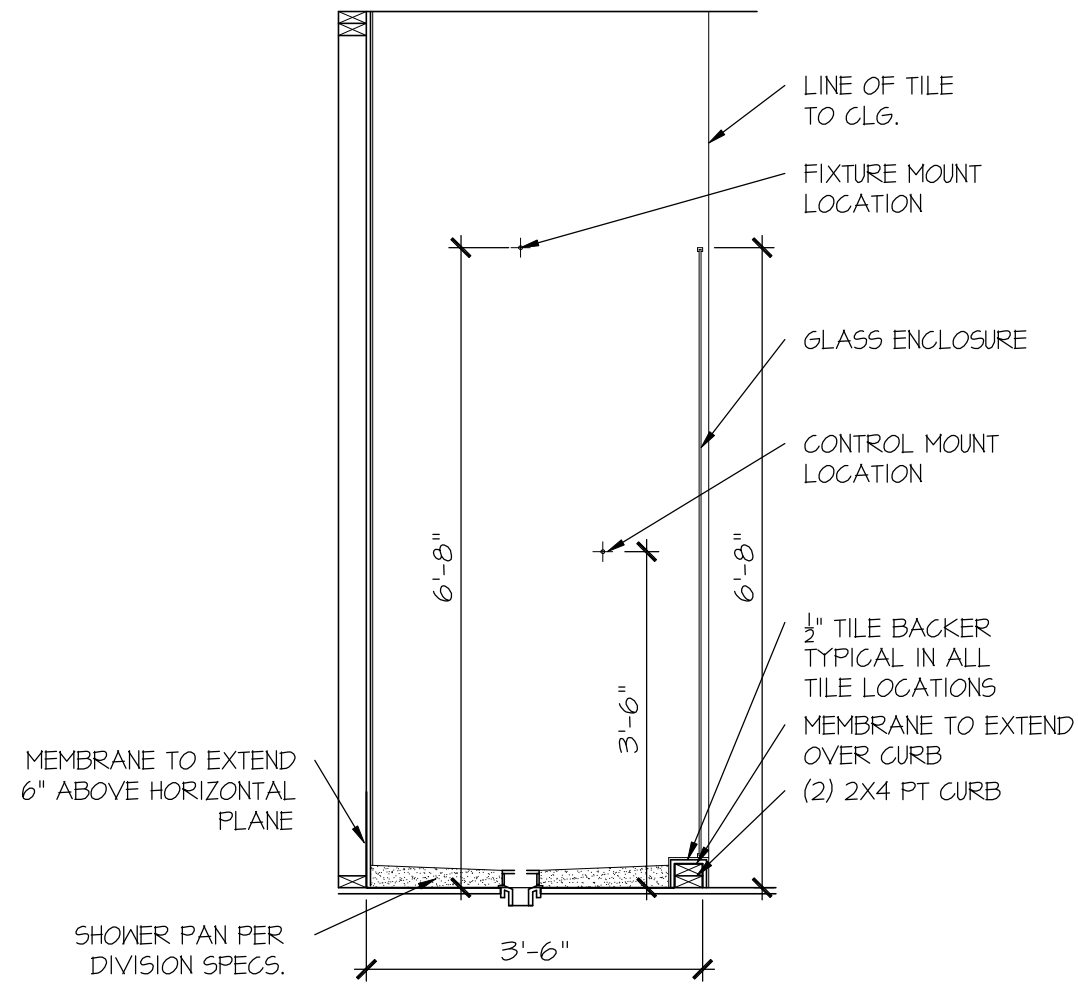
RALE TILE SHOWER  
SECTION A  
SCALE: 1/2" = 1'-0"

DRAWN BY:  
L. BEAVERS  
DATE: 9/1/22  
PLAN NO.  
11 X 17 SCALE  
24 X 36 SCALE

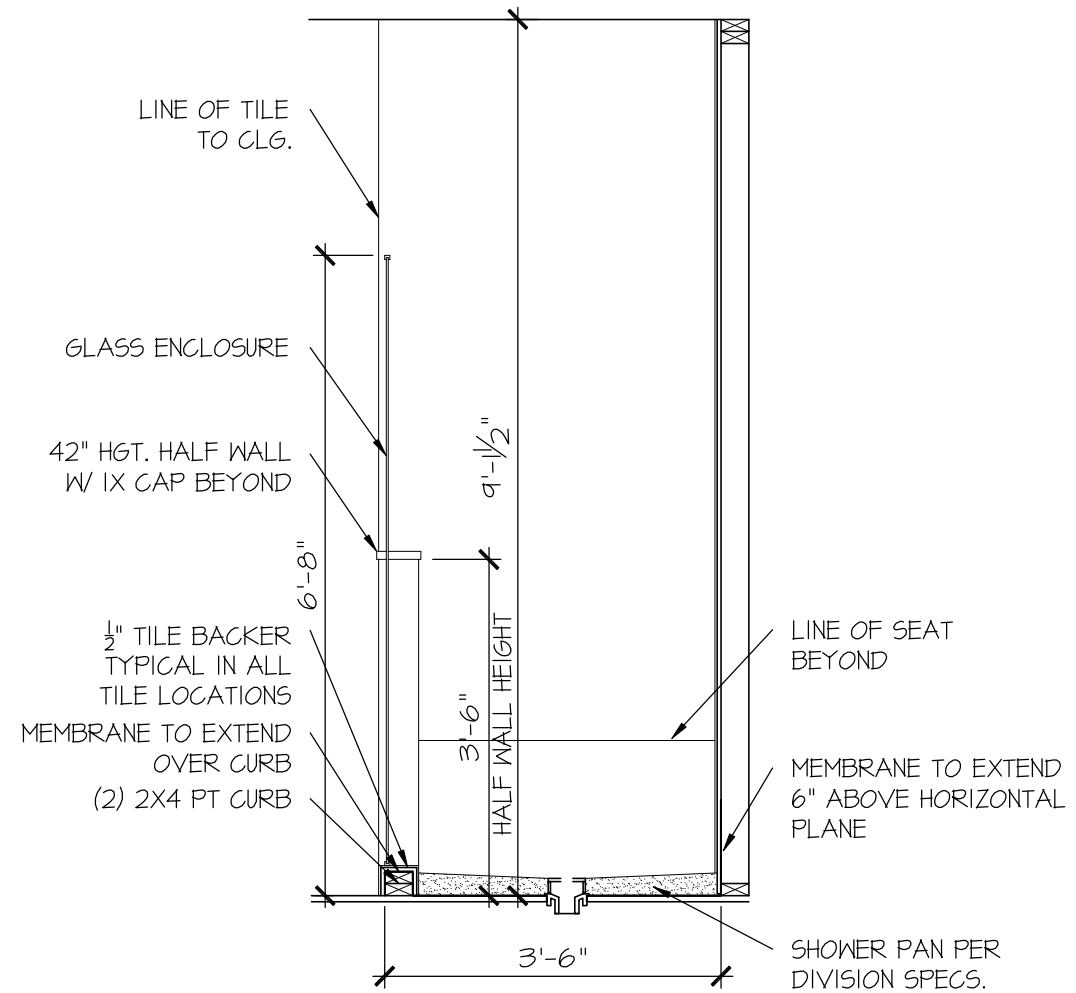


HOUSE NAME:  
DRAWING TITLE  
RALE TILE SHOWER DETAIL

SHEET No.  
01.12



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



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

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



**J.S. THOMPSON**  
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N.C. LICENSE NO. C-1733

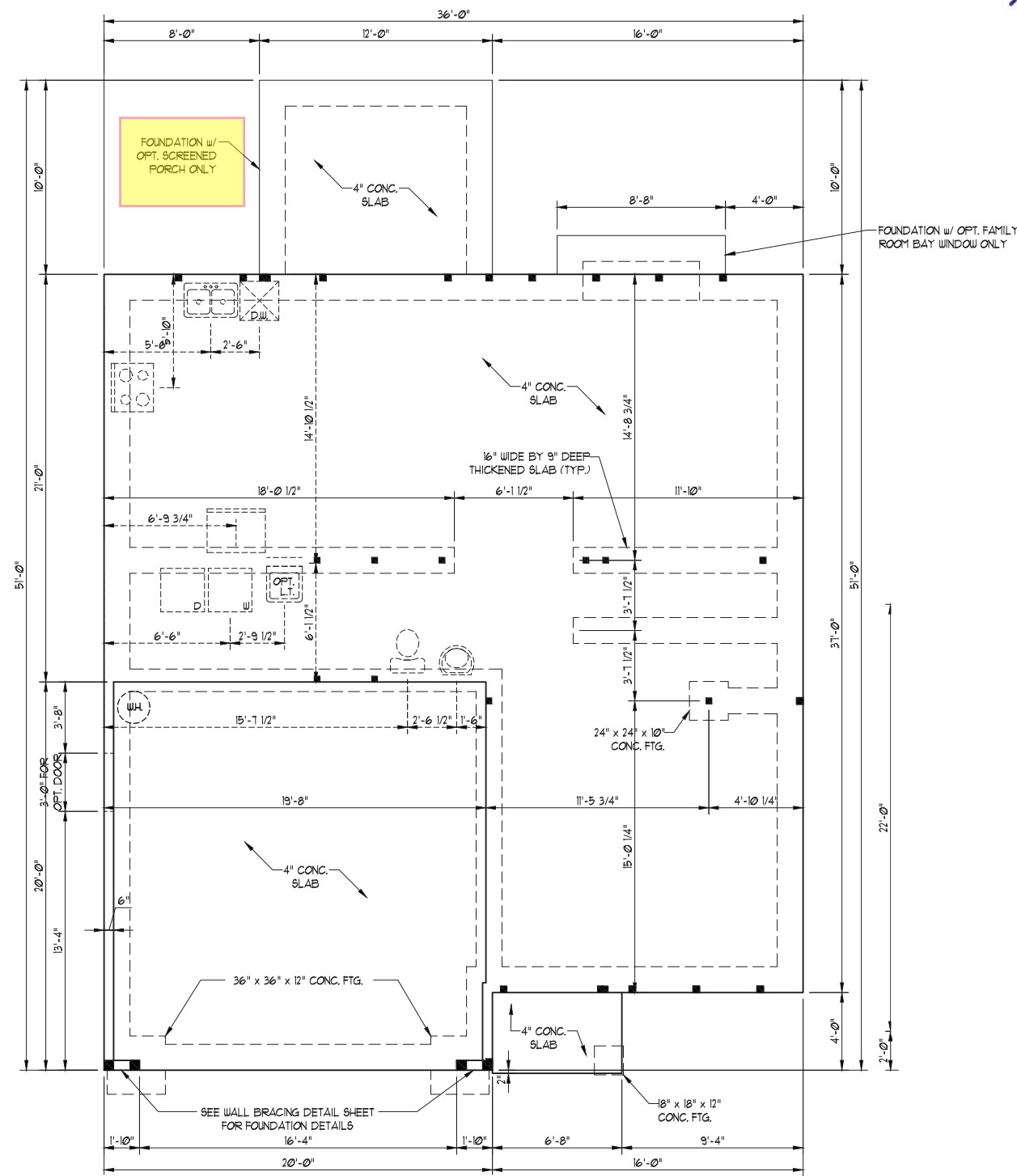
DEVON - RALE  
RELEASE #3 - 2/23/21  
DAN RYAN BUILDERS

DATE: MARCH 17, 2021  
SCALE: 1/4" = 1'-0"  
DRAWN BY: DAN RYAN BUILDERS  
ENGINEERED BY: WFB

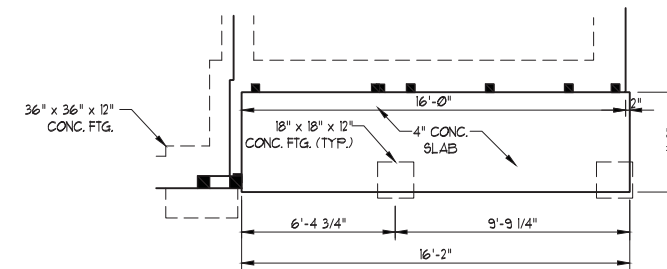
SHEET 2 OF 8  
S-1b  
MONO SLAB  
FOUNDATION PLAN

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

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM.
- STRUCTURAL DESIGN PER NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
- INSTALL 1/2" ANCHOR BOLTS 6'-0" O.C. AND WITHIN 1'-0" FROM END OF EACH CORNER. ANCHOR BOLTS MUST EXTEND A MINIMUM OF 1" INTO MASONRY OR CONCRETE. LOCATE BOLT WITH MIDDLE THIRD OF PLATE WIDTH.
- MEAN ROOF HEIGHT IS LESS THAN 30 FEET.
- EXTERIOR WALLS DESIGNED FOR 120 MPH WINDS.
- WALL CLADDING DESIGNED FOR +5.5 PSF AND -20 PSF (+/- INDICATE POSITIVE / NEGATIVE PRESSURE (TYP.)).
- ROOF CLADDING DESIGNED FOR 44.2 PSF AND -18 PSF FOR ROOF PITCHES 1/12 TO 12/12 AND 40 PSF AND -36 PSF FOR ROOF PITCHES 2.25/12 TO 1/12.
- INSTALL 1/8" OSB SHEATHING ON ALL EXTERIOR WALLS OF ALL STORIES IN ACCORDANCE WITH SECTION R602.10.3 OF THE NRC, 2018 EDITION. SEE THE WALL BRACING NOTES AND DETAILS SHEET FOR MORE INFORMATION.
- ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 11 OF THE NRC, 2018 EDITION.
- REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.



ELEVATION 1



ELEVATION 2





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

- BRACED WALL DESIGN NOTES:**
- BRACED WALL DESIGN PER SECTION R602.10 OF THE NCRC 2018 EDITION.
  - CS-USP REFERS TO "CONTINUOUS SHEATHING - WOOD STRUCTURAL PANELS" CONTRACTOR IS TO INSTALL 1/16" 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 WALL BOARD WHERE NOTED ON THE PLANS. FASTEN GB WITH 1 1/4" SCREWS OR 1 5/8" NAILS SPACED 1" O.C. ALONG PANEL EDGES AND IN THE FIELD INCLUDING TOP AND BOTTOM FLATES.
  - 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 2018 EDITION. SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL BRACED WALL INFORMATION.

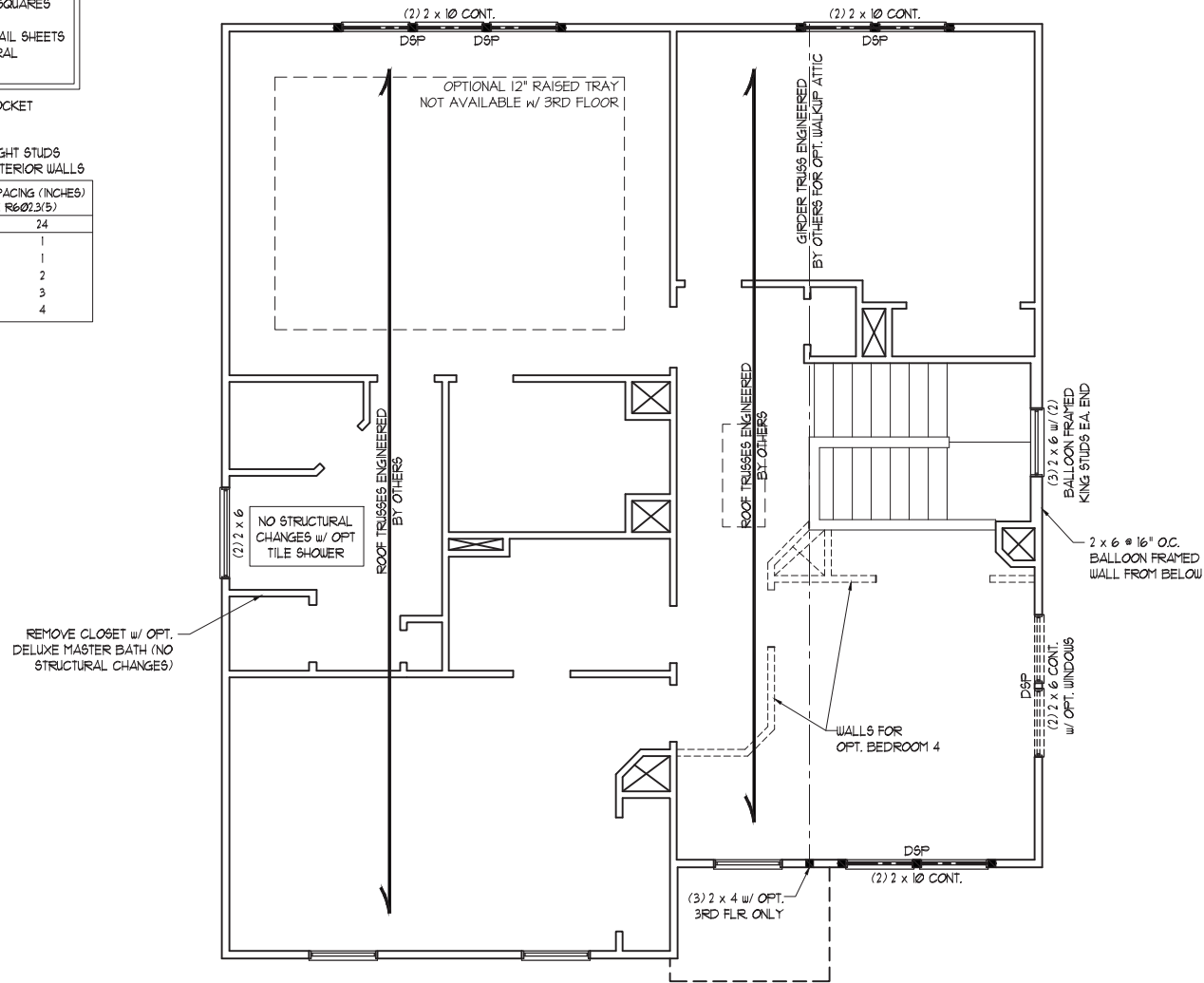
- NOTE:**
- PER SECTION R602.10.3.2 OF THE 2018 NCRC, THE AMOUNT OF BRACING ON THE SECOND FLOOR EXCEEDS THE AMOUNT REQUIRED FOR THE FIRST FLOOR AND NO BRACED WALL ANALYSIS IS REQUIRED.
  - SHEATH ALL EXTERIOR WALLS WITH 1/16" OSB SHEATHING ATTACHED WITH 8d NAILS AT 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD.

- STRUCTURAL NOTES:**
- ALL FRAMING LUMBER TO BE #2 SFF (UNO).
  - 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 R602.15 FOR ADDITIONAL KING STUD REQUIREMENTS.
  - 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 FOR ADDITIONAL STRUCTURAL INFORMATION.

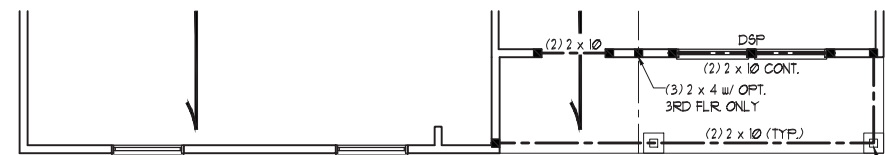
DSP - DOUBLE STUD ROCKET

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 3'	1	1
4'	2	1
8'	3	2
12'	5	3
16'	6	4



ELEVATION 1



ELEVATION 2

4 x 4 TRTD. POST (MIN) w/ PAIR OF SIMPSON LCE4 POST CAPS AT CORNER POST AND AC4 POST CAPS AT INTERMEDIATE POST. PROVIDE (2) PIECES OF SIMPSON CS16 COIL STRAPS w/ 9" END LENGTHS TO CONNECT POST TO BAND BELOW.



3/17/2021

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N.C. LICENSE NO. C-1733

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

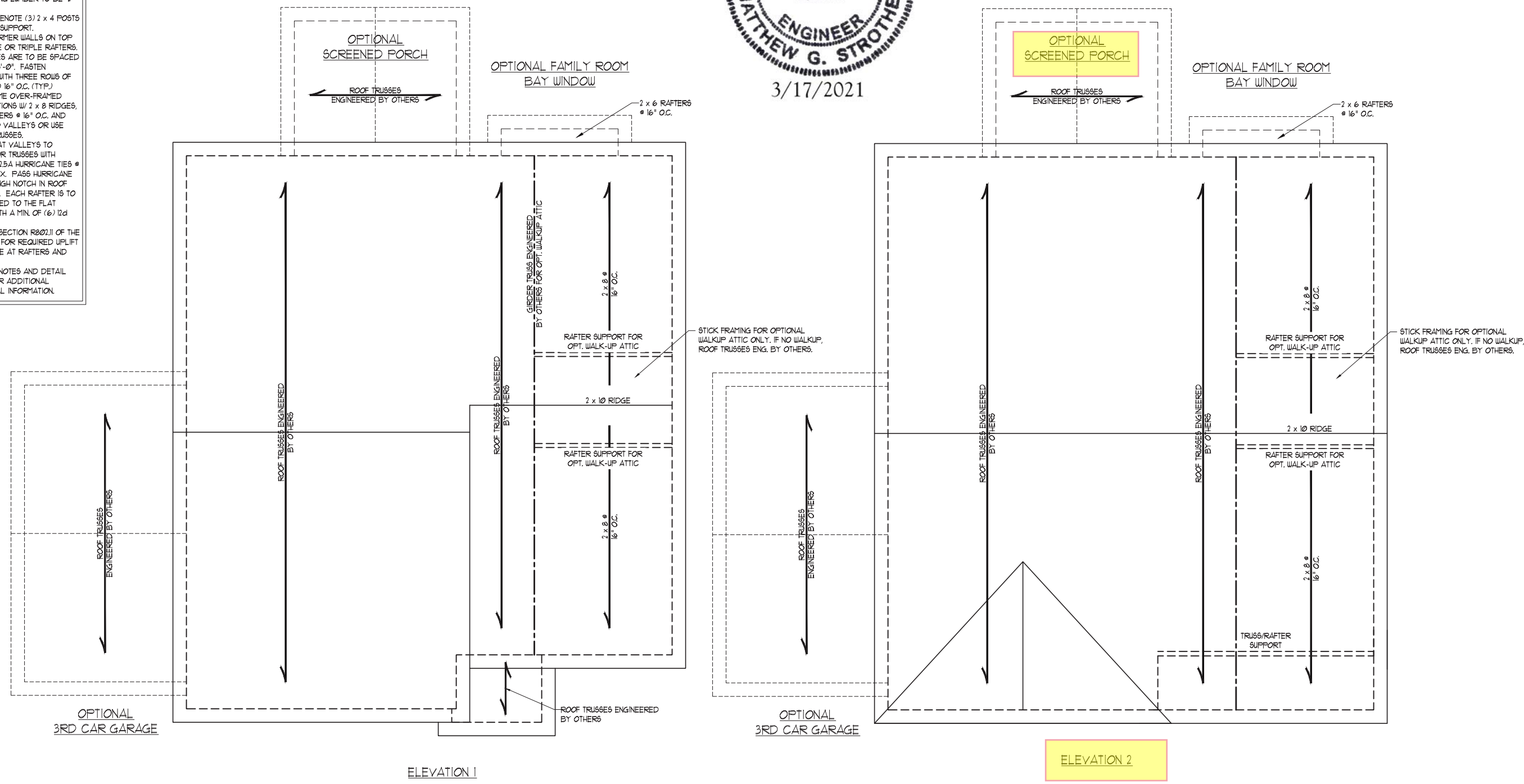
DATE: MARCH 17, 2021  
SCALE: 1/4" = 1'-0"  
DRAWN BY: DAN RYAN BUILDERS  
ENGINEERED BY: WFB

SHEET 5 OF 8  
S-3  
ATTIC FLOOR FRAMING PLAN

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



- STRUCTURAL NOTES:**
- ALL FRAMING LUMBER TO BE #2 SFF (INO).
  - 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 MEMBERS WITH THREE ROWS OF 12d NAILS @ 16" O.C. (TYP.)
  - 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 R202.11 OF THE 2018 NRC FOR REQUIRED UPLIFT RESISTANCE AT RAFTERS AND TRUSSES.
  - REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.



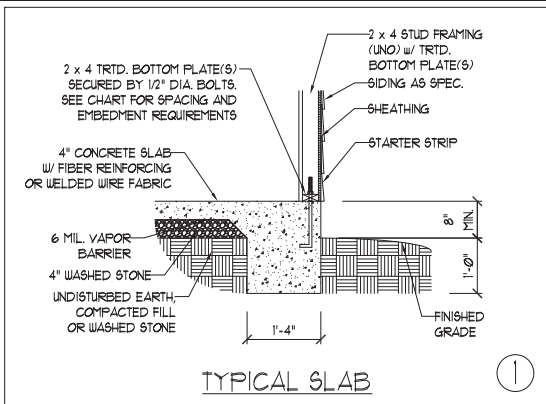
**J.S. THOMPSON ENGINEERING, INC**  
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DEVON - RALE  
 RELEASE #3 - 2/23/21  
 DAN RYAN BUILDERS

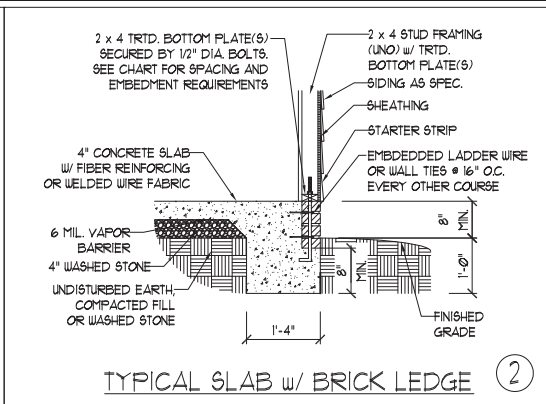
DATE: MARCH 17, 2021  
 SCALE: 1/4" = 1'-0"  
 DRAWN BY: DAN RYAN BUILDERS  
 ENGINEERED BY: WFB

SHEET 7 OF 8  
 S-5a  
 ROOF FRAMING PLAN

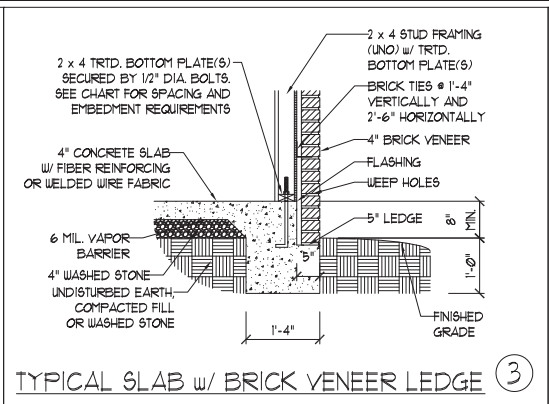




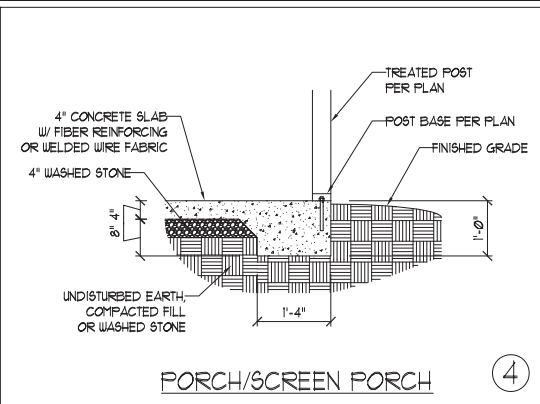
TYPICAL SLAB ①



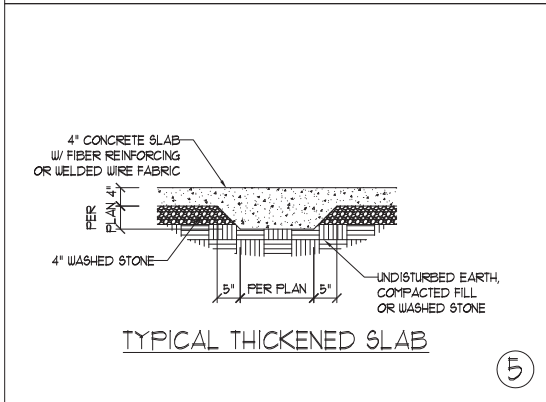
TYPICAL SLAB w/ BRICK LEDGE ②



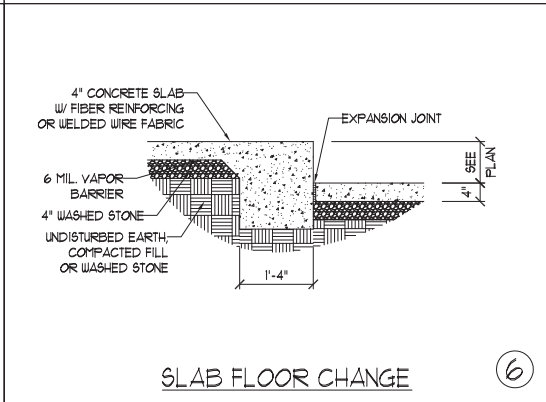
TYPICAL SLAB w/ BRICK VENEER LEDGE ③



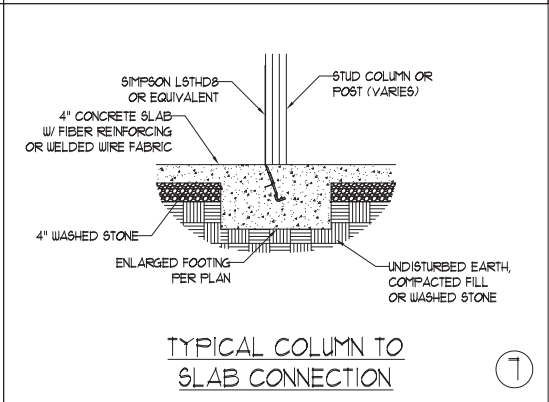
PORCH/SCREEN PORCH ④



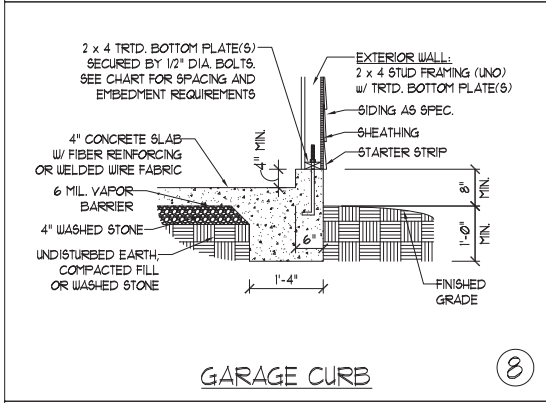
TYPICAL THICKENED SLAB ⑤



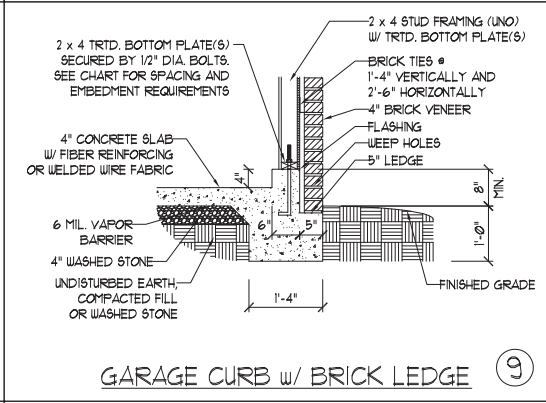
SLAB FLOOR CHANGE ⑥



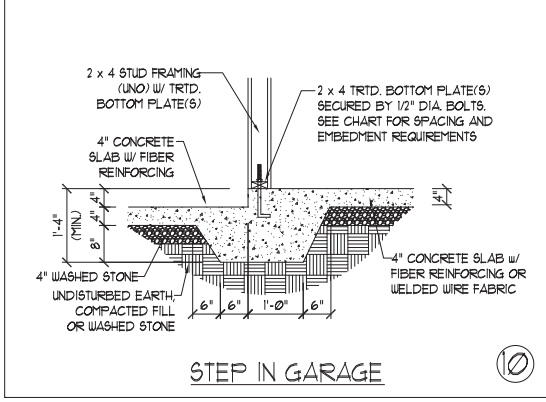
TYPICAL COLUMN TO SLAB CONNECTION ⑦



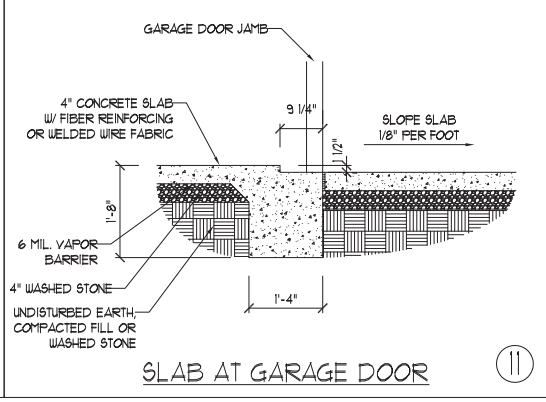
GARAGE CURB ⑧



GARAGE CURB w/ BRICK LEDGE ⑨



STEP IN GARAGE ⑩



SLAB AT GARAGE DOOR ⑪

ANCHOR SPACING AND EMBEDMENT		NOTE: THREADED ROD WITH EPOXY, SIMPSON TITEN HD, OR APPROVED ANCHORS SPACED AS REQUIRED TO PROVIDE EQUIVALENT ANCHORAGE TO 1/2\"/>
WIND ZONE	120 MPH	
SPACING	6'-0\"/>	
EMBEDMENT	7\"/>	



3/17/2021

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 N.C. LICENSE NO.: C-1733

MONOLITHIC SLAB  
 FOUNDATION DETAILS

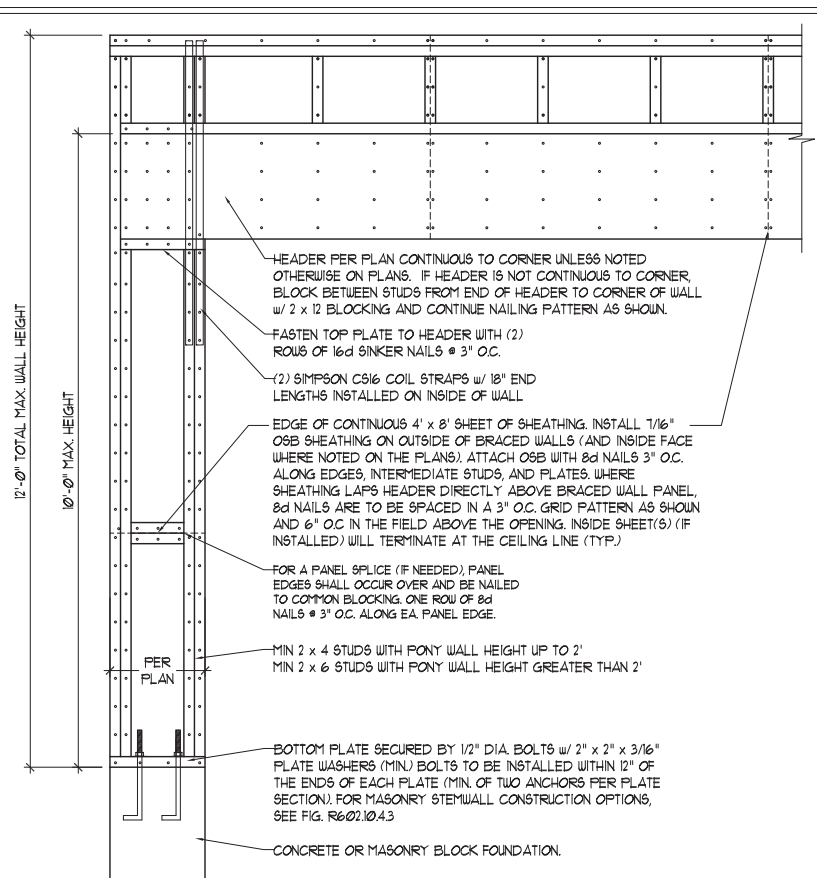
DATE: NOVEMBER 1, 2018  
 SCALE: NTS  
 DRAWN BY: JST  
 ENGINEERED BY: JST

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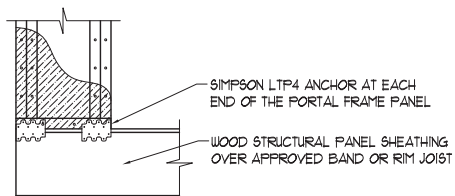
FOUNDATION DETAILS

**GENERAL WALL BRACING NOTES:**

1. WALL BRACING DESIGNED IN ACCORDANCE WITH CHAPTER 6 OF THE 2018 NC RESIDENTIAL BUILDING CODE (NRC). TABLES AND FIGURES REFERENCED ARE FROM THE 2018 NRC.
2. SEE THIS SHEET FOR GENERAL DETAILS. REFER TO THE 2018 NRC FOR ADDITIONAL INFORMATION AS NEEDED.
3. 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 ENGINEERING 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.
5. ALL EXTERIOR WALLS ARE TO BE SHEATHED WITH CS-WSP IN ACCORDANCE WITH SECTION R602.10.3 UNLESS NOTED OTHERWISE.
6. ALL EXTERIOR AND INTERIOR WALLS TO HAVE 1/2" GYPSUM INSTALLED. WHEN NOT USING METHOD "GB", GYPSUM TO BE FASTENED PER TABLE R102.3.5. METHOD GB TO BE FASTENED PER TABLE R602.10.1.
7. CS-WSP REFERS TO THE "CONTINUOUS SHEATHING - WOOD STRUCTURAL PANELS" WALL BRACING METHOD. 7/16" OSB SHEATHING IS TO BE INSTALLED ON ALL EXTERIOR WALLS ATTACHED w/ 6d COMMON NAILS OR 8d (2 1/2" LONG x Ø13" DIAMETER) NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12" O.C. 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 1/4" SCREWS OR 1 5/8" NAILS SPACED 1" O.C. ALONG PANEL EDGES INCLUDING TOP AND BOTTOM PLATES AND INTERMEDIATE SUPPORTS (UNO). VERIFY ALL FASTENER OPTIONS FOR 1/2" AND 5/8" GYPSUM PRIOR TO CONSTRUCTION. FOR INTERIOR FASTENER OPTIONS SEE TABLE R102.3.5. FOR EXTERIOR FASTENER OPTIONS SEE TABLE R602.3(1). EXTERIOR GB TO BE INSTALLED VERTICALLY.
9. 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 15 TIMES ITS ACTUAL LENGTH.

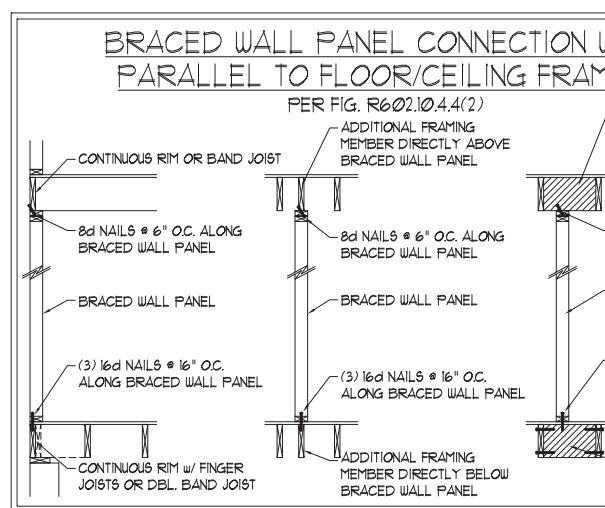
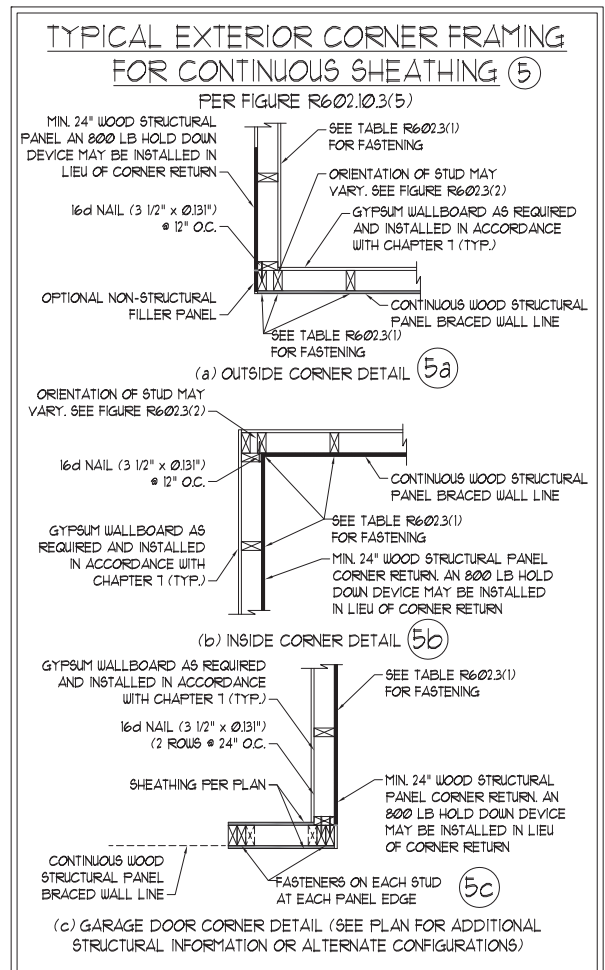
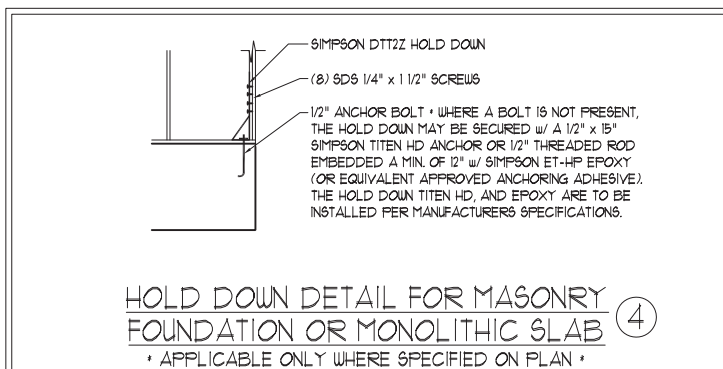
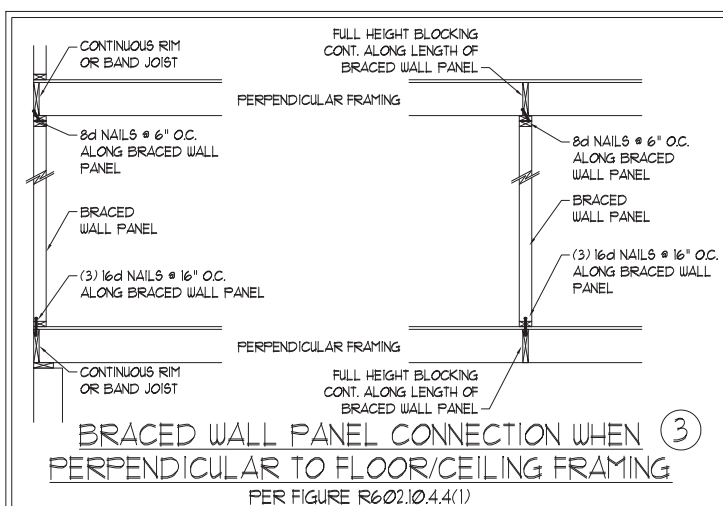
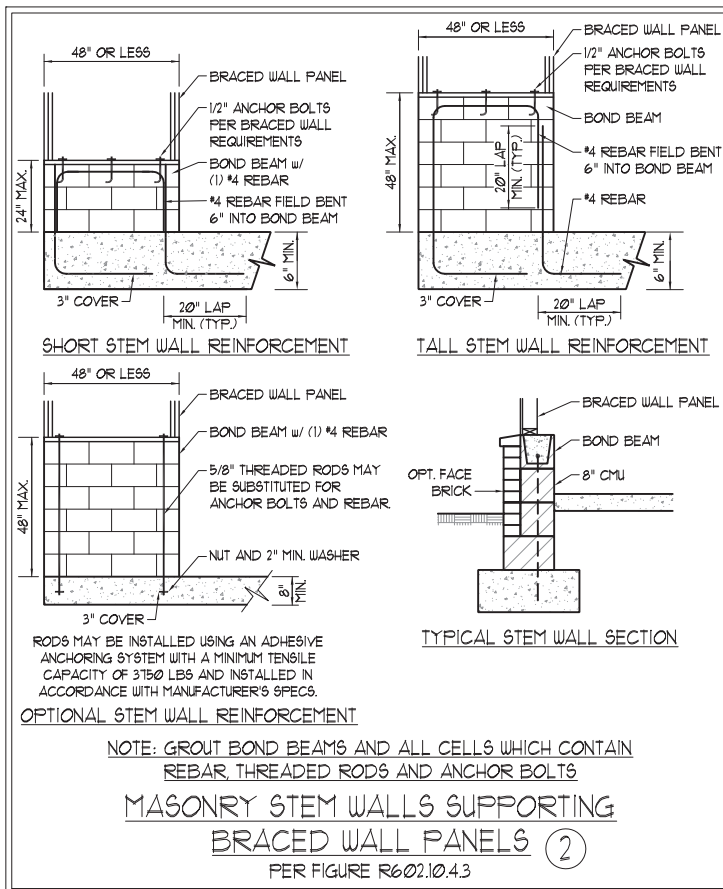


OVER CONCRETE OR MASONRY BLOCK FOUNDATION

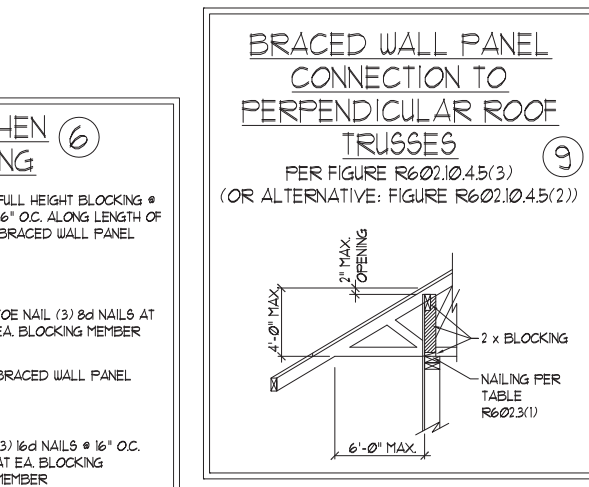
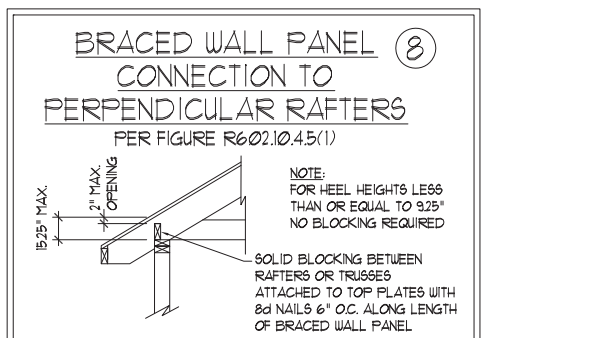
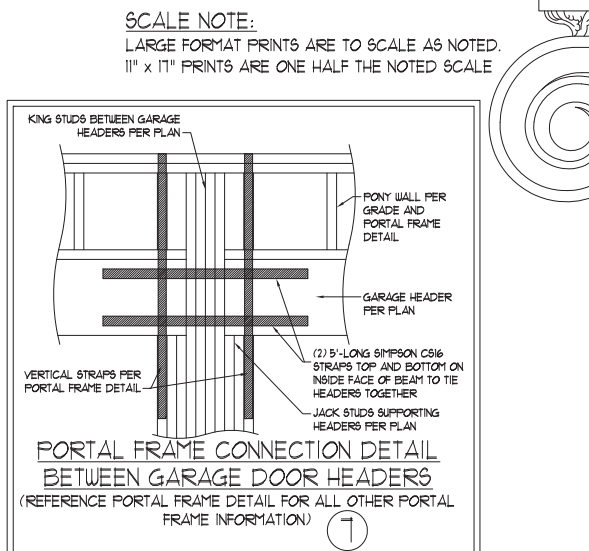


OVER RAISED WOOD FLOOR - FRAMING ANCHOR OPTION  
 \* APPLICABLE w/ GREATER THAN 12" KNEE WALL HEIGHTS  
 IN CRAWL SPACE AND ABOVE FRAMED BASEMENT WALLS \*

**METHOD PF-PORTAL FRAME DETAIL ①**



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DATE: MAY 30, 2020  
 SCALE: 1/4" = 1'-0"  
 DRAWN BY: JST  
 ENGINEERED BY: JST

**SEAL**  
 33736  
 ENGINEER  
 MATTHEW G. STROTHER

3/17/2021

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WALL BRACING NOTES AND DETAILS

BRACED WALL NOTES AND DETAILS AND PF DETAILS



SCALE NOTE:  
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.
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE (NRC), 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 NRC, 2018 EDITION (R301.4 - R301.1)

DESIGN CRITERIA:	LIVE LOAD (P&F)	DEAD LOAD (P&F)	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 LB OR 50 (PLF)	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: P <sub>g</sub>	20 (P&F)		

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

- FOR 15 AND 20 MPH WIND ZONES, FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION R403.16 OF THE NRC, 2018 EDITION. FOR 30 MPH, 40 MPH, AND 50 MPH WIND ZONES, FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION 4504 OF THE NRC, 2018 EDITION.
- ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 11 OF THE NRC, 2018 EDITION.

**FOOTING AND FOUNDATION NOTES**

- FOUNDATION DESIGN BASED ON A MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 PSF. CONTACT GEOTECHNICAL ENGINEER IF BEARING CAPACITY IS NOT ACHIEVED.
- 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 34" 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 R403.1 OF THE NRC, 2018 EDITION.
- 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 SAILED WITHIN 4 TO 12 HOURS OF CONCRETE FINISHING AND WALL LOCATIONS HAVE BEEN MARKED. ADJUST WHERE NECESSARY.
- CONCRETE SHALL CONFORM TO SECTION R402.2 OF THE NRC, 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.
- MASONRY UNITS TO CONFORM TO ACE 530/ASCE 5/TMS 402. MORTAR SHALL CONFORM TO ASTM C170.
- 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 FILLED PIERS. PIERS MAY BE FILLED SOLID WITH CONCRETE OR TYPE M OR S MORTAR. PIERS AND WALLS SHALL BE CAPPED WITH 8" OF SOLID MASONRY.
- 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.
- ALL CONCRETE AND MASONRY FOUNDATION WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION R404 OF THE NRC, 2018 EDITION OR IN ACCORDANCE WITH ACI 318, ACI 332, NCMAT 688-A OR ACE 530/ASCE 5/TMS 402. MASONRY FOUNDATION WALLS ARE TO BE REINFORCED PER TABLE R404.1(1), R404.1(2), R404.1(3), OR R404.1(4) OF THE NRC, 2018 EDITION. CONCRETE FOUNDATION WALLS ARE TO BE REINFORCED PER TABLE R404.1(5) OF THE NRC, 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**

- ALL FRAMING LUMBER SHALL BE #2 SFF MINIMUM (F<sub>b</sub> = 875 PSI, F<sub>v</sub> = 375 PSI, E = 1600000 PSI) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE #2 SYP MINIMUM (F<sub>b</sub> = 975 PSI, F<sub>v</sub> = 175 PSI, E = 1600000 PSI) UNLESS NOTED OTHERWISE (UNO).
- LAMINATED VENEER LUMBER (LVL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: F<sub>b</sub> = 2600 PSI, F<sub>v</sub> = 285 PSI, E = 1900000 PSI. LAMINATED STRAND LUMBER (LSL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: F<sub>b</sub> = 2325 PSI, F<sub>v</sub> = 310 PSI, E = 1500000 PSI. PARALLEL STRAND LUMBER (PSL) UP TO 1" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: F<sub>c</sub> = 2500 PSI, E = 1800000 PSI. PARALLEL STRAND LUMBER (PSL) MORE THAN 1" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: F<sub>c</sub> = 2920 PSI, E = 2000000 PSI. INSTALL ALL CONNECTIONS PER MANUFACTURER'S SPECIFICATIONS.
- STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS
 

A. W AND WT SHAPES:	ASTM A992
B. CHANNELS AND ANGLES:	ASTM A36
C. PLATES AND BARS:	ASTM A36
D. HOLLOW STRUCTURAL SECTIONS:	ASTM A500 GRADE B
E. STEEL PIPE:	ASTM A53, GRADE B, TYPE E OR S

- 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

- |                            |  |
|----------------------------|--|
| 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 |

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 MEMBER BELOW.
- ALL LOAD BEARING HEADERS TO CONFORM TO TABLE R602.1(1) AND R602.1(2) OF THE NRC, 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.
- ALL BEAMS, HEADERS, OR GIRDER TRUSSES PARALLEL TO WALL ARE TO BEAR FULLY ON (1) JACK OR (2) STUDS MINIMUM OR THE NUMBER OF JACKS OR STUDS NOTED. ALL BEAMS OR GIRDER TRUSSES PERPENDICULAR TO WALL AND SUPPORTED BY (3) STUDS OR LESS ARE TO HAVE 1 1/2" MINIMUM BEARING (UNO). ALL BEAMS OR GIRDER TRUSSES PERPENDICULAR TO WALL AND SUPPORTED BY MORE THAN (3) STUDS OR OTHER NOTED COLUMN ARE TO BEAR FULLY ON SUPPORT COLUMN FOR ENTIRE WALL DEPTH (UNO). BEAM ENDS THAT BUTT INTO ONE ANOTHER ARE TO EACH BEAR EQUAL LENGTHS (UNO).
- 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).
- 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.
- 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 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.
- 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 R103.2(1) OF THE NRC, 2018 EDITION.
- FOR STICK FRAMED ROOFS: CIRCLES DENOTE (3) 2 x 4 POSTS FOR ROOF MEMBER SUPPORT. HIP SPLICES ARE TO BE SPACED A MINIMUM OF 8'-0". FASTEN MEMBERS WITH THREE ROWS OF 12d NAILS AT 16" O.C. FRAME DORMER WALLS ON TOP OF DOUBLE OR TRIPLE RAFTERS AS SHOWN (UNO).
- 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 H6 OR L7512 UPLIFT CONNECTOR FASTENED TO THE BAND AT THE BOTTOM AND THE BEAM AT THE TOP OF EACH POST. ONE 16" SECTION OF SIMPSON C516 COIL STRAPPING WITH (8) 8d HDG NAILS AT EACH END MAY BE USED IN LIEU OF EACH TWIN STRAP IF DESIRED. FOR MASONRY OR CONCRETE FOUNDATION USE SIMPSON POST BASE.

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STANDARD STRUCTURAL NOTES



DATE: OCTOBER 29, 2018  
DRAWN BY: JES  
ENGINEERED BY: JST

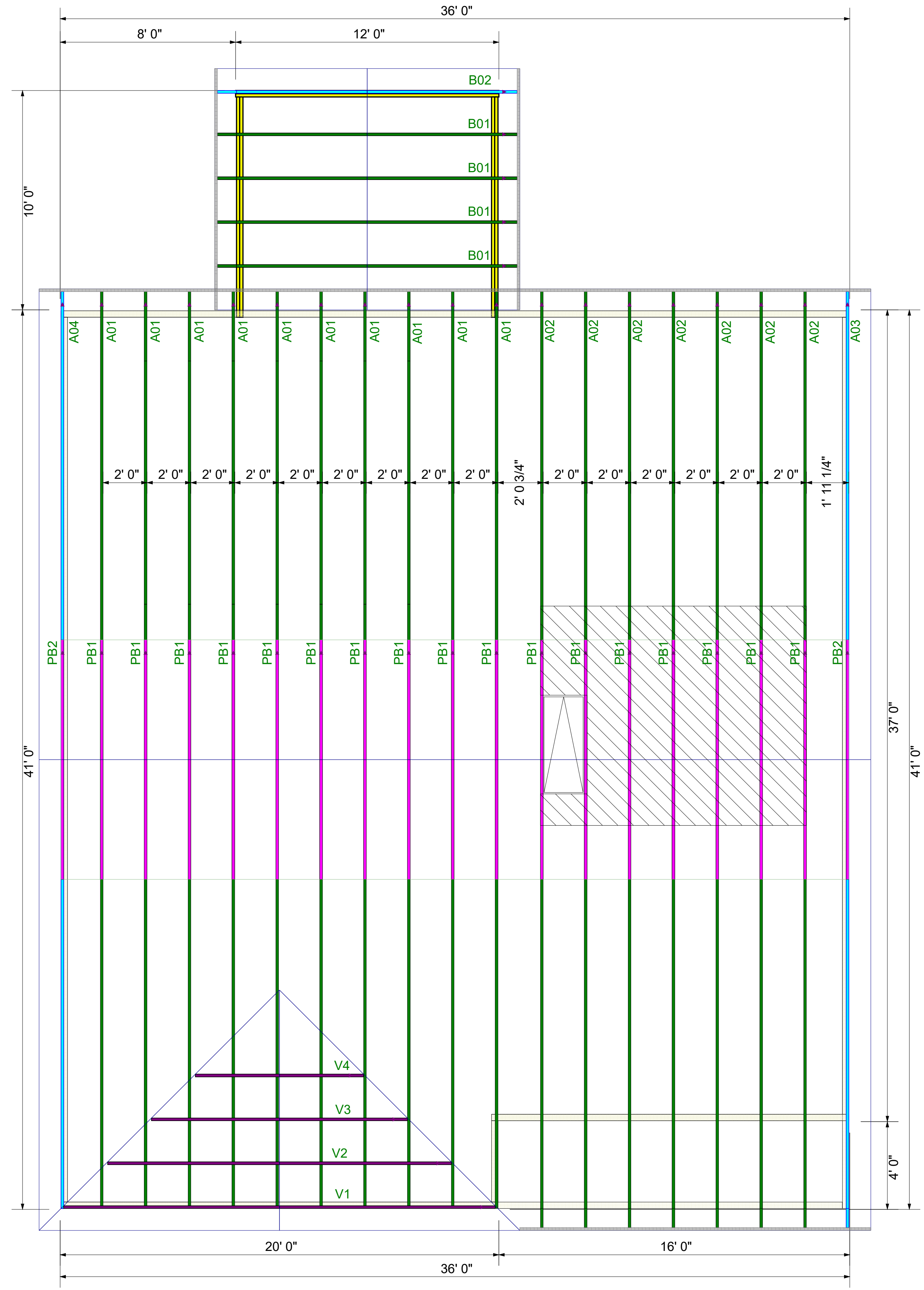
SHEET:  
STRUCTURAL NOTES

3/17/2021





**General Notes:** \*\* CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION. \*\* ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS.



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

**THIS IS A TRUSS PLACEMENT DIAGRAM ONLY.** These trusses are designed as individual components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor systems and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding the bracing, consult "Bracing of Wood Truss" available from the Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53179.



DRB HOMES NC  
DEVON 2 - 87 FaNC  
**COMPONENT PLACEMENT PLAN**

Scale: NTS  
Date: 10/5/2022  
Designer: ND  
Project Number: 22090052  
Sheet Number:

**1/1**

\*\* DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH. \*\* TRUSS TO TRUSS CONNECTIONS ARE TOE-NAILED, UNLESS NOTED OTHERWISE. \*\* GIRDERS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS. \*\*

\*\* FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS. \*\* DAMAGED COMPONENTS SHOULD NOT BE INSTALLED UNLESS TOLD TO BY THE COMPONENT PLANT. \*\* TRIANGULAR SYMBOL NEAR END OF TRUSS INDICATES LEFT END OF TRUSS AS SHOWN ON INDIVIDUAL TRUSS DRAWINGS. \*\* PLUMBING DROPS NOTED ARE IN THE APPROXIMATE LOCATIONS PER PLAN. BUILDER TO VERIFY LOCATIONS BEFORE SETTING TRUSSES. \*\* REFER TO FINAL TRUSS ENGINEERING SHEETS FOR PLY TO PLY CONNECTIONS.

