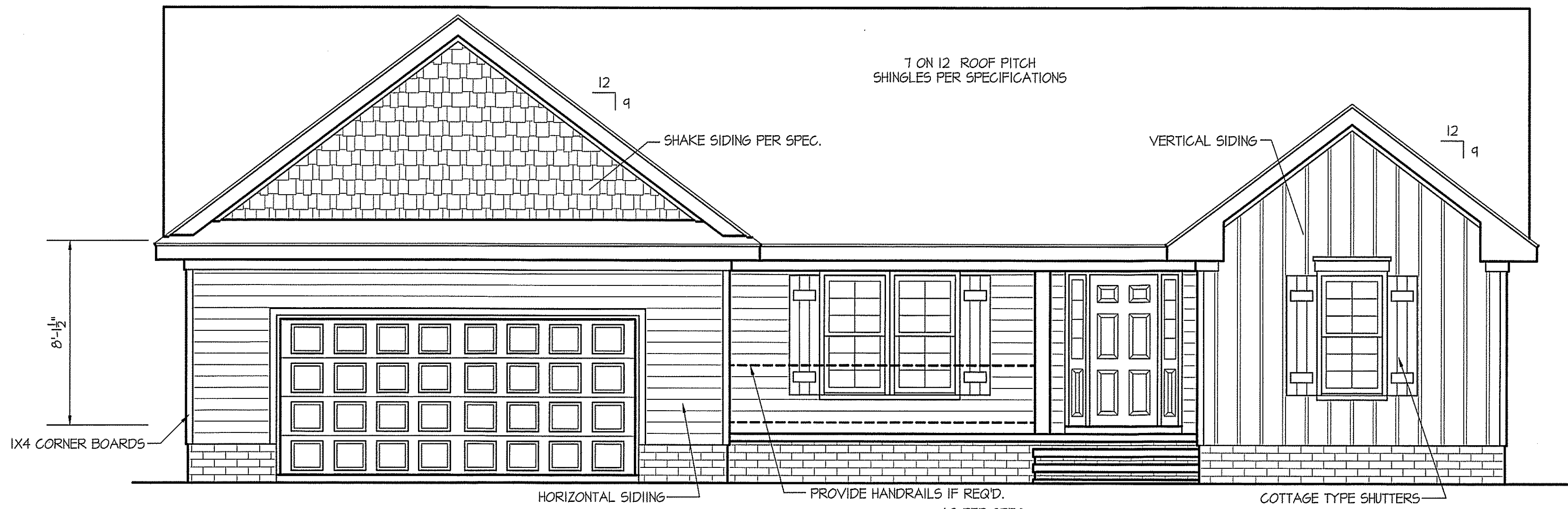


THIS PLAN IS DESIGNED TO MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE 2018 EDITION

DATE:  
APRIL 26, 2019



**FRONT ELEVATION**

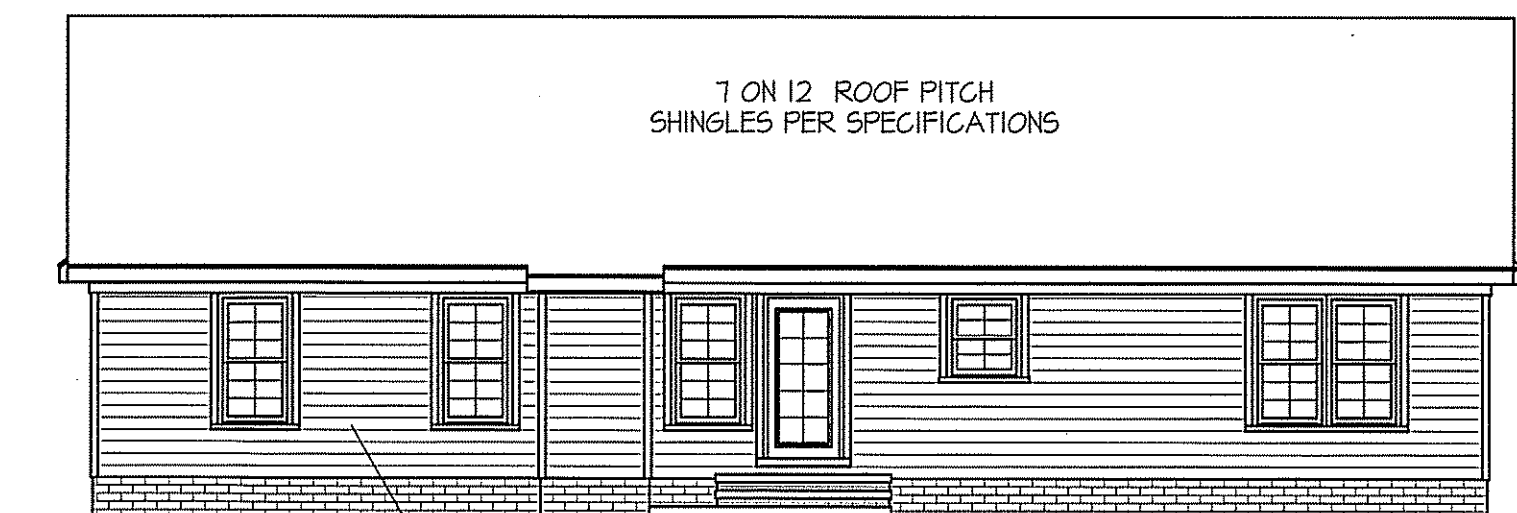
SCALE: 1/4" = 1'-0"

WIND ZONES (PER TABLE R301.2(4))

COUNTY	MPH
HARNETT	120
JOHNSTON	120
SAMPSON	130
WAKE	115

ROOF VENTILATION REQ'MTS.  
2357 ATTIC SQ. FT. / 300 = 7.85

PROVIDED ON PLAN  
95 L.F. RIDGE VENT = 17.81  
133 L.F. SOFFIT VENT = 8.31  
TOTAL = 26.12 S.F. FREE NET AREA



**REAR ELEVATION**

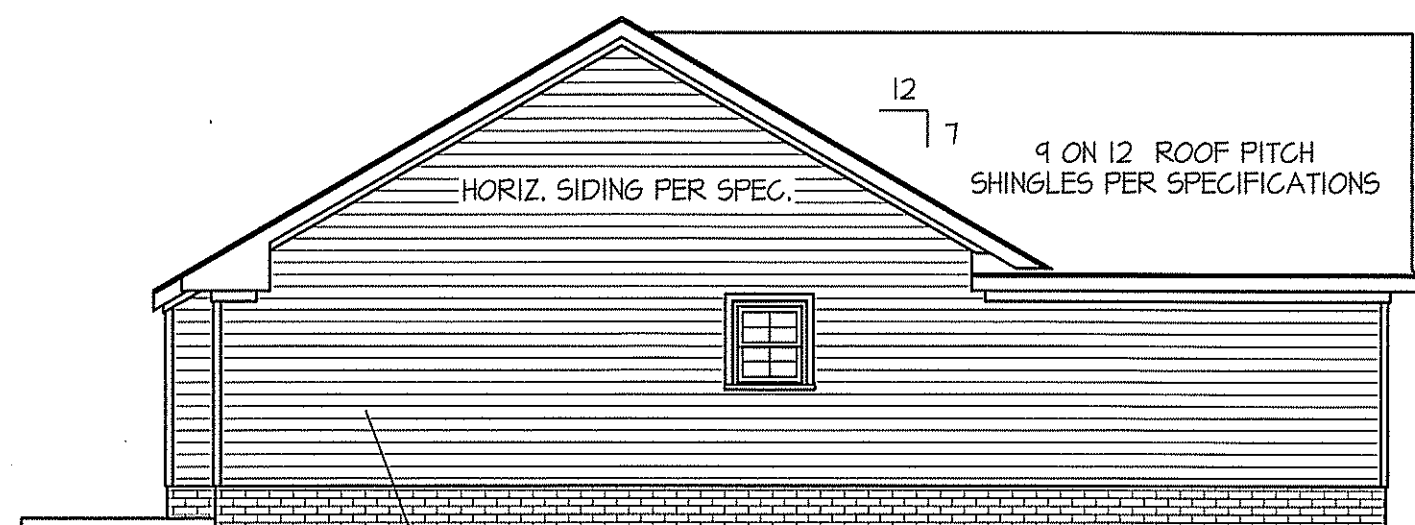
SCALE: 1/8" = 1'-0"

INSULATION and FENESTRATION REQUIREMENTS

CLIMATE ZONE	ZONE-3	ZONE-4
FENESTRATION U-FACTOR	0.35	0.35
GLAZED FENESTRATION SHGC	0.30	0.30
MINIMUM CEILING R-VALUE	R-38	R-38
MINIMUM WALL R-VALUE	R-15, 13+2.5	R-15, 13+2.5
MINIMUM FLOOR R-VALUE	R-19	R-19
MIN. CRAWL SPACE WALL R-VALUE	5/13	10/15
MIN. SLAB R-VALUE	0	R-10

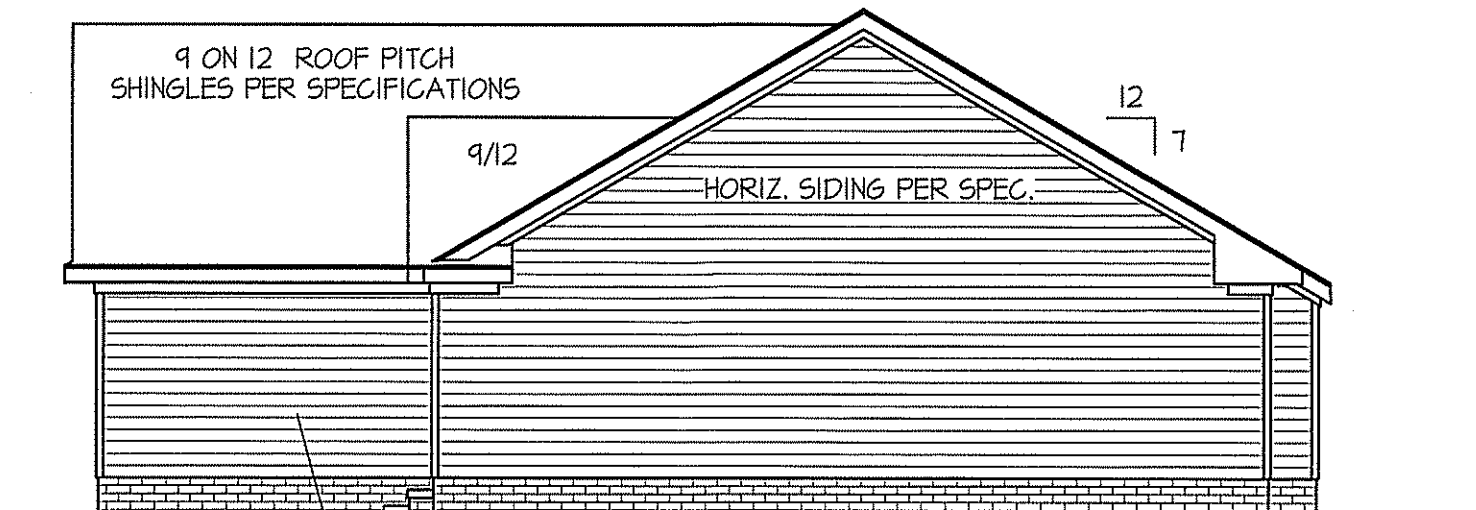
PROVIDE STEPS AS REQUIRED  
GRADE MAY VARY - BUILDER TO VERIFY

ALL EXTERIOR WALLS TO BE SHEATHED WITH CS-WSP (7/16" OSB) IN ACCORDANCE WITH SECTION R602.10.3 UNLESS OTHERWISE NOTED.



**LEFT ELEVATION**

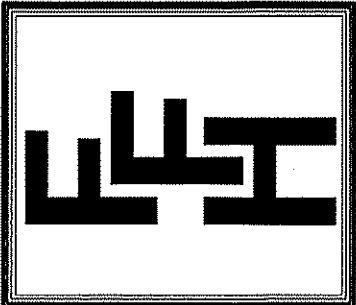
SCALE: 1/8" = 1'-0"



**RIGHT ELEVATION**

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

**FREEDOM FAMILY HOMES**  
P.O. BOX 608  
DUNN, N.C. - 28335  
O: (910) 892-1231 FAX: (910) 892-5680  
© 2019, FREEDOM FAMILY HOMES



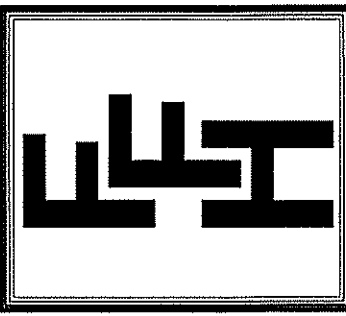
EXCLUSIVE PLAN FOR  
FREEDOM FAMILY HOMES  
**BENSON**  
REVERSED

SHEET NO.  
**1**

WIND ZONES (PER TABLE R301.2(4))	
COUNTY	MPH
HARNETT	120
JOHNSTON	120
SAMPSON	130
WAKE	115

DATE:  
APRIL 26, 2019

**FREEDOM FAMILY HOMES**  
P.O. BOX 608  
DUNN, N.C. - 28335  
O: (910) 892-1231 FAX: (910) 892-5680  
© 2019, FREEDOM FAMILY HOMES



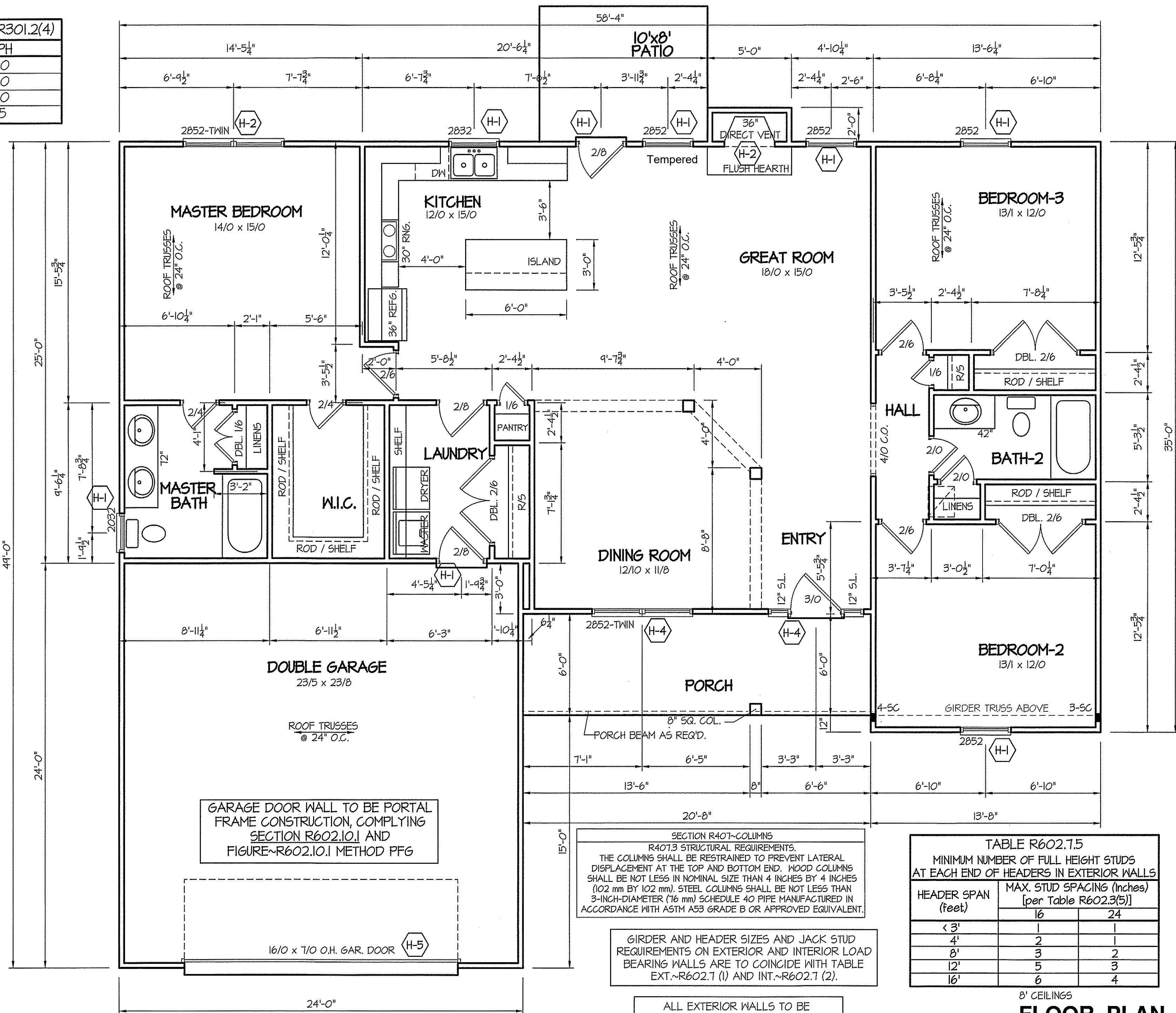
EXCLUSIVE PLAN FOR  
FREEDOM FAMILY HOMES  
**BENSON**  
REVERSED

SHEET NO.  
**2**

HEADER SCHEDULE		
SYMBOL #	SIZE	JACKS
H-1	(2) 2x10	1
H-2	(2) 2x10	2
H-3	(2) 2x8	2
H-4	(2) 3/4" x 9 1/4" LVL	2
H-5	(2) 3/4" x 11 7/8" LVL	3

ALL INTERIOR AND EXTERIOR  
LOAD BEARING HEADERS  
WILL BE 2x10 #2 SPF  
UNLESS OTHERWISE NOTED.

COMPUTER FILE: BENSON 2018 UPDATED - APRIL-2019



GARAGE DOOR WALL TO BE PORTAL  
FRAME CONSTRUCTION, COMPLYING  
SECTION R602.10.1 AND  
FIGURE-R602.10.1 METHOD PFG

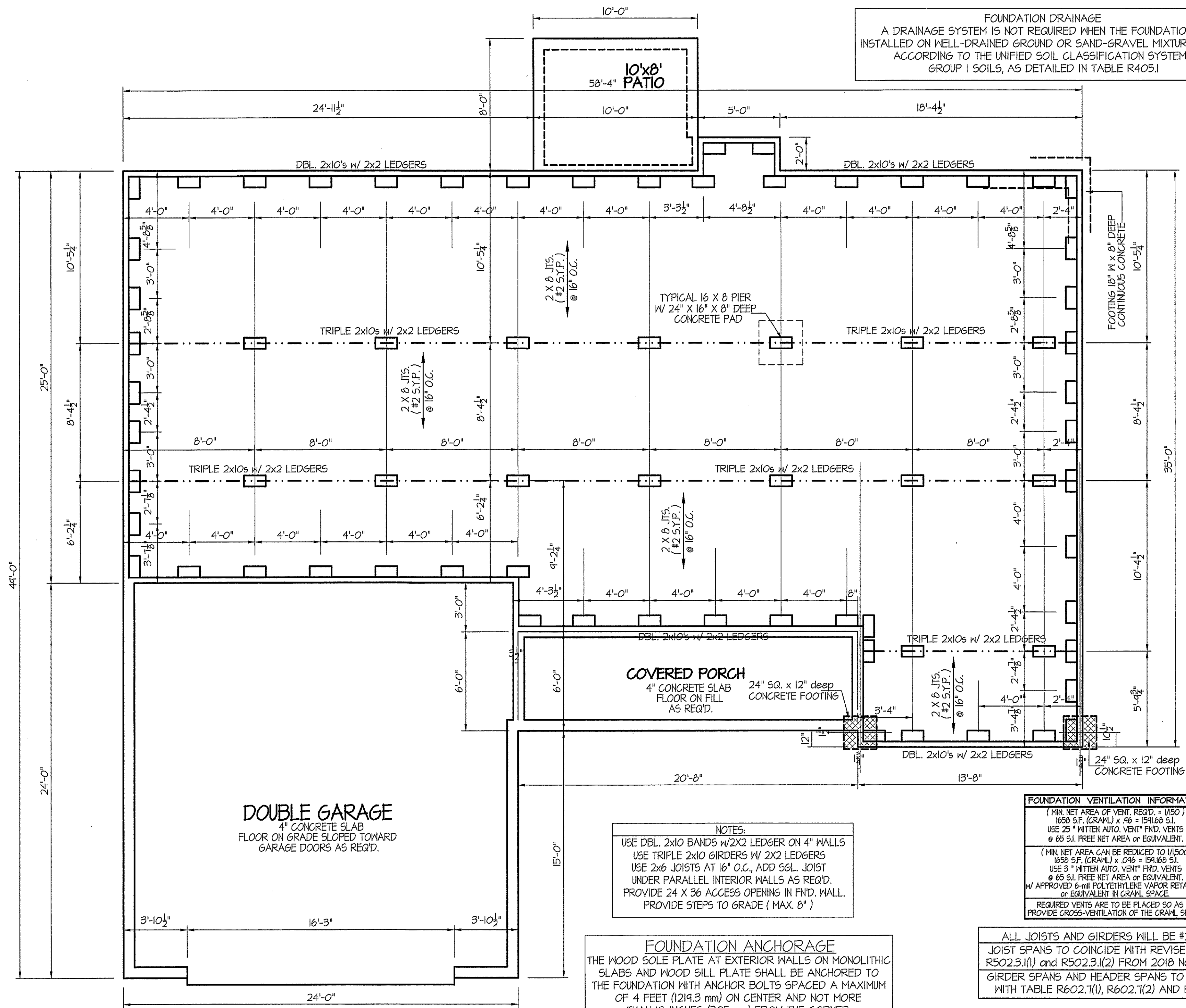
SECTION R407-COLUMNS  
R407.3 STRUCTURAL REQUIREMENTS.  
THE COLUMNS SHALL BE RESTRAINED TO PREVENT LATERAL  
DISPLACEMENT AT THE TOP AND BOTTOM END. WOOD COLUMNS  
SHALL BE NOT LESS IN NOMINAL SIZE THAN 4 INCHES BY 4 INCHES  
(102 mm BY 102 mm). STEEL COLUMNS SHALL BE NOT LESS THAN  
3-INCH-DIAMETER (76 mm) SCHEDULE 40 PIPE MANUFACTURED IN  
ACCORDANCE WITH ASTM A53 GRADE B OR APPROVED EQUIVALENT.

GIRDER AND HEADER SIZES AND JACK STUD  
REQUIREMENTS ON EXTERIOR AND INTERIOR LOAD  
BEARING WALLS ARE TO COINCIDE WITH TABLE  
EXT.-R602.7 (1) AND INT.-R602.7 (2).

ALL EXTERIOR WALLS TO BE  
SHEATHED WITH CS-WSP (7/16" OSB)  
IN ACCORDANCE WITH SECTION  
R602.10.3 UNLESS OTHERWISE NOTED.

TABLE R602.7.5 MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS		
HEADER SPAN (feet)	MAX. STUD SPACING (Inches) [per Table R602.3(5)]	
	16	24
< 3'	1	1
4'	2	1
8'	3	2
12'	5	3
16'	6	4

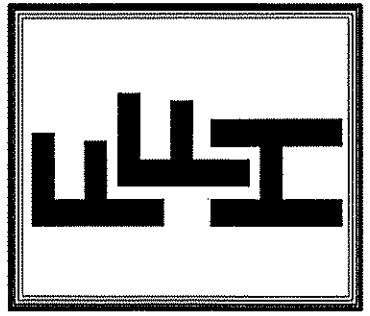
8' CEILINGS  
**FLOOR PLAN**  
SCALE: 1/4" = 1'-0"  
1658 SQUARE FEET - HEATED (FRAME)



**FOUNDATION DRAINAGE**  
 A DRAINAGE SYSTEM IS NOT REQUIRED WHEN THE FOUNDATION IS INSTALLED ON WELL-DRAINED GROUND OR SAND-GRAVEL MIXTURE SOILS ACCORDING TO THE UNIFIED SOIL CLASSIFICATION SYSTEM, GROUP I SOILS, AS DETAILED IN TABLE R405.1

DATE:  
 APRIL 26, 2019

**FREEDOM FAMILY HOMES**  
 P.O. BOX 608  
 DUNN, N.C. - 28335  
 O: (910) 892-1231 FAX: (910) 892-5680  
 © 2019, FREEDOM FAMILY HOMES



EXCLUSIVE PLAN FOR  
 FREEDOM FAMILY HOMES  
**BENSON**  
 REVERSED

SHEET NO.  
**3**

**NOTES:**  
 USE DBL. 2x10 BANDS w/2x2 LEDGER ON 4" WALLS  
 USE TRIPLE 2x10 GIRDERS w/ 2x2 LEDGERS  
 USE 2x6 JOISTS AT 16" O.C., ADD SGL. JOIST UNDER PARALLEL INTERIOR WALLS AS REQ'D.  
 PROVIDE 24 X 36 ACCESS OPENING IN FIN'D. WALL. PROVIDE STEPS TO GRADE ( MAX. 8" )

**FOUNDATION ANCHORAGE**  
 THE WOOD SOLE PLATE AT EXTERIOR WALLS ON MONOLITHIC SLABS AND WOOD SILL PLATE SHALL BE ANCHORED TO THE FOUNDATION WITH ANCHOR BOLTS SPACED A MAXIMUM OF 4 FEET (1219.3 mm) ON CENTER AND NOT MORE THAN 12 INCHES (305 mm) FROM THE CORNER. BOLTS SHALL BE AT LEAST 1/2 INCH (12.7 mm) IN DIAMETER AND SHALL EXTEND A MINIMUM OF 15 INCHES INTO MASONRY OR CONCRETE.

**FOUNDATION VENTILATION INFORMATION**  
 ( MIN. NET AREA OF VENT. REQ'D. = 1/150 )  
 1658 S.F. (CRAWL) x .46 = 1541.68 S.I.  
 USE 25 " MITTEN AUTO. VENT" FND. VENTS @ 65 S.I. FREE NET AREA or EQUIVALENT.  
 ( MIN. NET AREA CAN BE REDUCED TO 1/1500 )  
 1658 S.F. (CRAWL) x .046 = 154.168 S.I.  
 USE 3 " MITTEN AUTO. VENT" FND. VENTS @ 65 S.I. FREE NET AREA or EQUIVALENT.  
 w/ APPROVED 6-mil POLYETHYLENE VAPOR RETARDER or EQUIVALENT IN CRAWL SPACE.  
 REQUIRED VENTS ARE TO BE PLACED SO AS TO PROVIDE CROSS-VENTILATION OF THE CRAWL SPACE.

ALL JOISTS AND GIRDERS WILL BE #2 S.Y.P.  
 JOIST SPANS TO COINCIDE WITH REVISED TABLES R502.3.1(1) and R502.3.1(2) FROM 2018 NCR CODES  
 GIRDER SPANS AND HEADER SPANS TO COINCIDE WITH TABLE R602.7(1), R602.7(2) AND R602.7(3).

PIER and CURTAIN  
**FOUNDATION PLAN**  
 SCALE: 1/4" = 1'-0"  
 1658 SQUARE FEET - HEATED (FRAME)

DATE:  
APRIL 26, 2019

**FREEDOM FAMILY HOMES**  
P.O. BOX 608  
DUNN, N.C. - 28335  
O: (910) 892-1231 FAX: (910) 892-5680  
© 2019, FREEDOM FAMILY HOMES

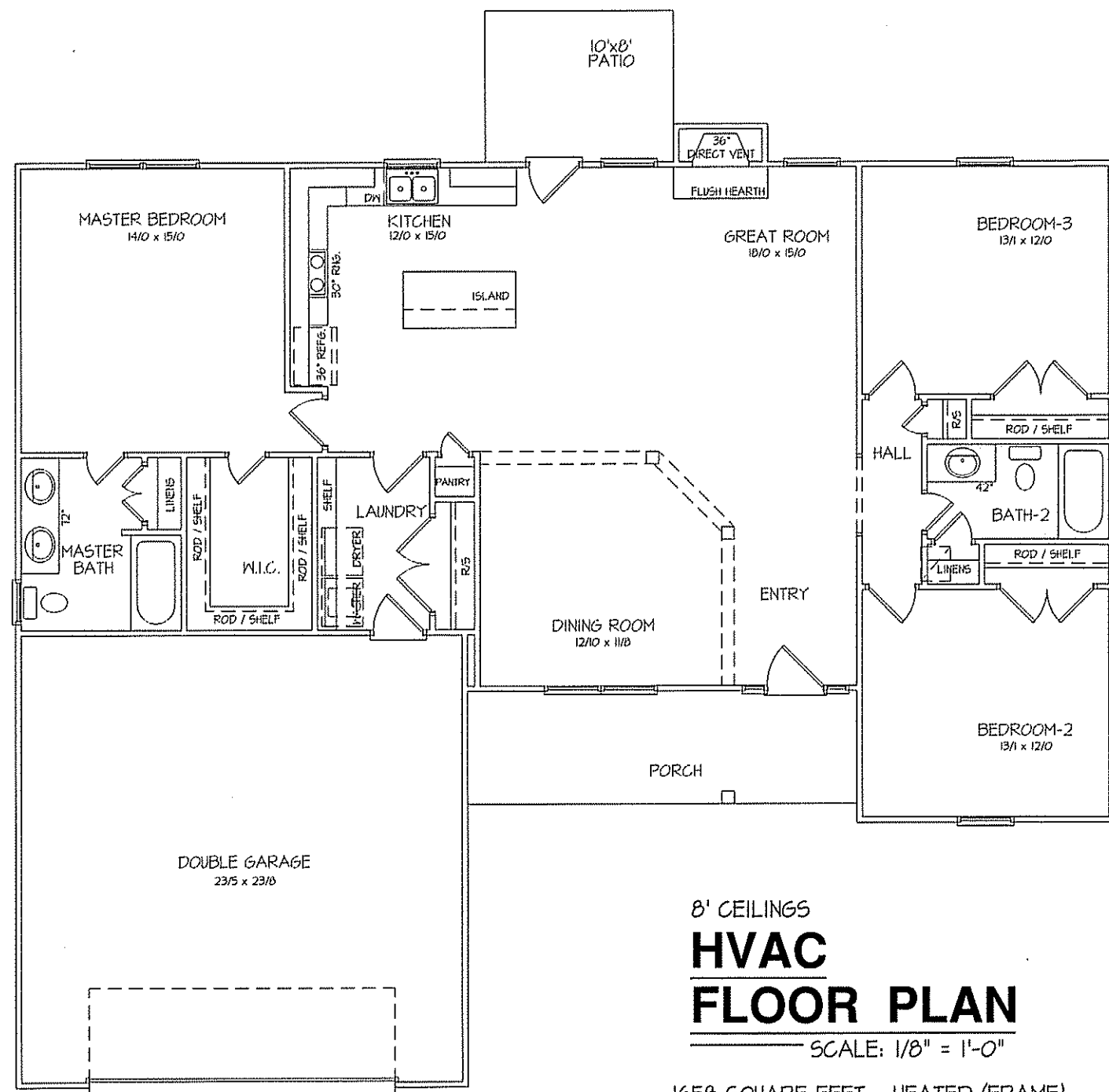


EXCLUSIVE PLAN FOR  
FREEDOM FAMILY HOMES  
**BENSON**  
REVERSED

PLAN:

SHEET NO.

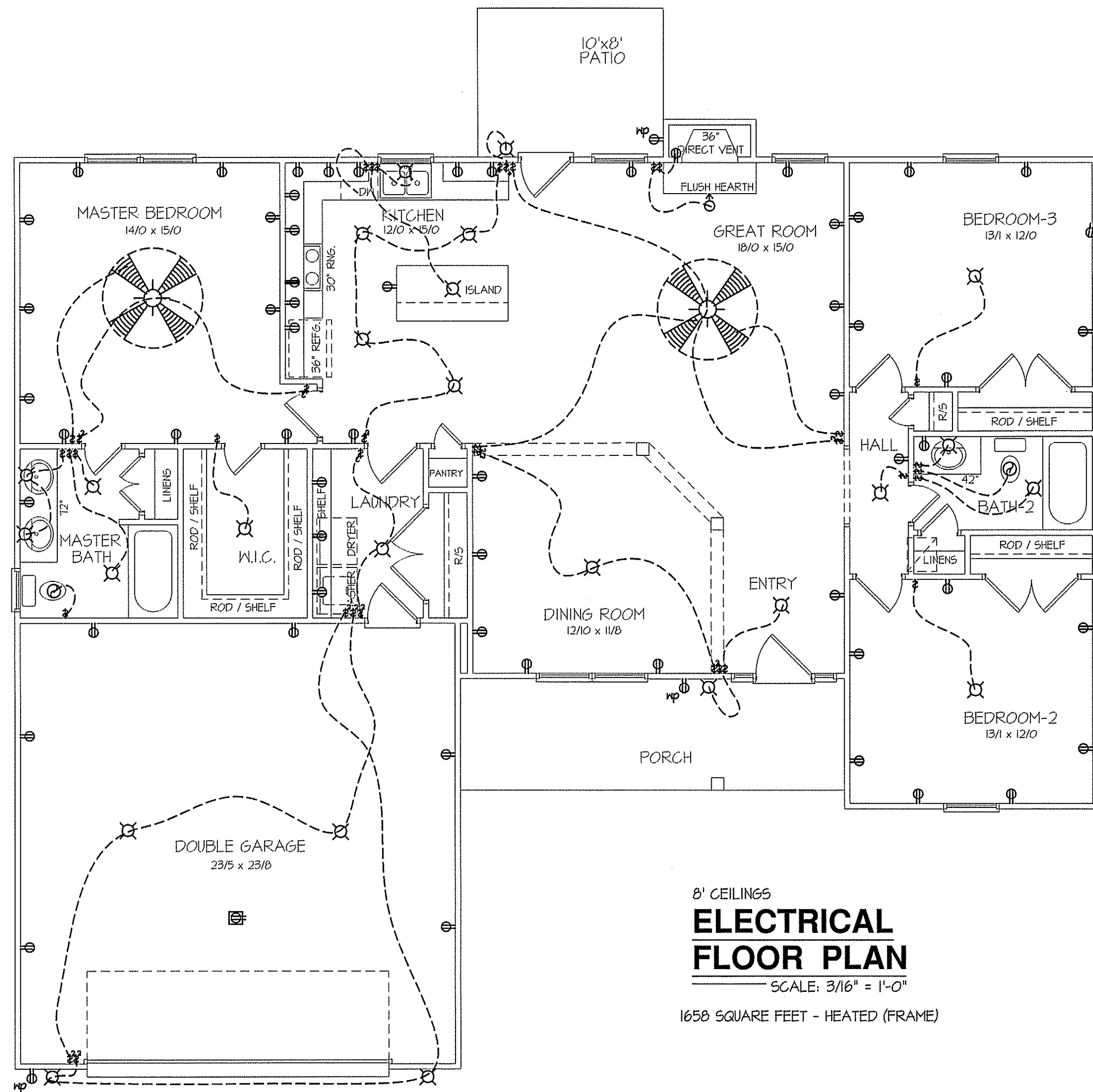
**4**



8' CEILINGS  
**HVAC  
FLOOR PLAN**  
SCALE: 1/8" = 1'-0"  
1650 SQUARE FEET - HEATED (FRAME)

TOTAL HEAT GAIN = 35,150 B.T.U.H.  
TOTAL HEAT LOSS = 51,895 B.T.U.H.

**NOTE:**  
HVAC CONTRACTOR TO VERIFY and PROVIDE OWNERS and BUILDER UNIT INFORMATION, BTUH REQUIREMENTS, and DUCT LAYOUTS BEFORE CONSTRUCTION BEGINS.



8' CEILINGS  
**ELECTRICAL  
FLOOR PLAN**  
SCALE: 3/16" = 1'-0"  
1650 SQUARE FEET - HEATED (FRAME)

**ELECTRICAL LEGEND**

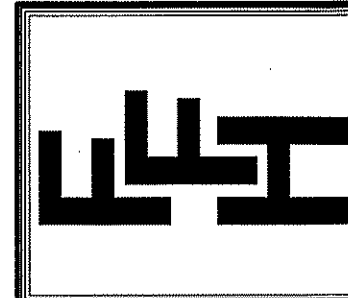
PROVIDE BURGLAR/SMOKE AND FIRE DETECTORS AS PER MANUFACTURER'S SPECIFICATIONS.  
PROVIDE CENTRAL VACUUM SYSTEM AS PER MANUFACTURER'S SPECIFICATIONS.  
ALL FANS ARE TO BE CONTROLLED BY VAR/SPEED AND DIRECTIONAL SWITCHES

⊕ SURF. MOUNTED LIGHT	⊕ TYPICAL WALL RECEP.	⊕ TYPICAL SWITCH
○ RECESSED LIGHT	⊕ TOP 1/2 HOT W/SWITCH	⊕ 3-WAY SWITCH
⊕ EYEBALL LIGHT	⊕ CEILING RECEPTACLE	⊕ 4-WAY SWITCH
⊕ FAN/LIGHT COMB.	⊕ FLOOR RECEPTACLE	⊕ DIMMER SWITCH
— FLUORESCENT TUBE	⊕ WATERPROOF RECEP.	⊕ ELEC. PANEL BOX
□ FLUOR. LIGHT FIXTURE	⊕ GROUND FAULT	⊕ T.V. CABLE RECEP.
⊕ EXHAUST FAN	⊕ DISPOSAL UNIT	⊕ TELEPHONE JACK
⊕ CL'G. FAN	⊕ 220 VOLT RECEPTACLE	⊕ COMPUTER JACK
⊕ FLOOD LIGHT		

DATE:

APRIL 26, 2019

**FREEDOM FAMILY HOMES**  
 P.O. BOX 608  
 DUNN, N.C. - 28335  
 O: (910) 892-1231 FAX: (910) 892-5680  
 © 2019, FREEDOM FAMILY HOMES

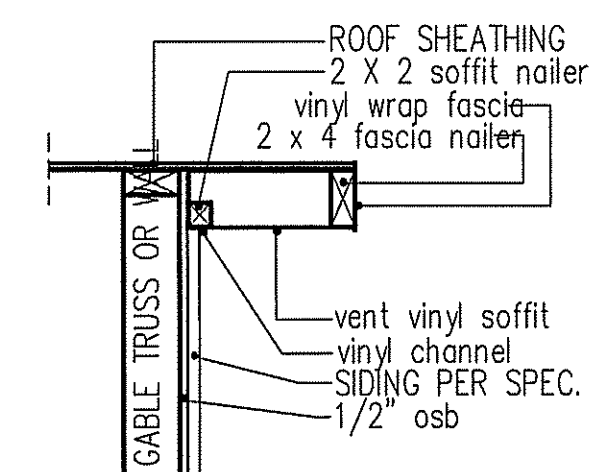
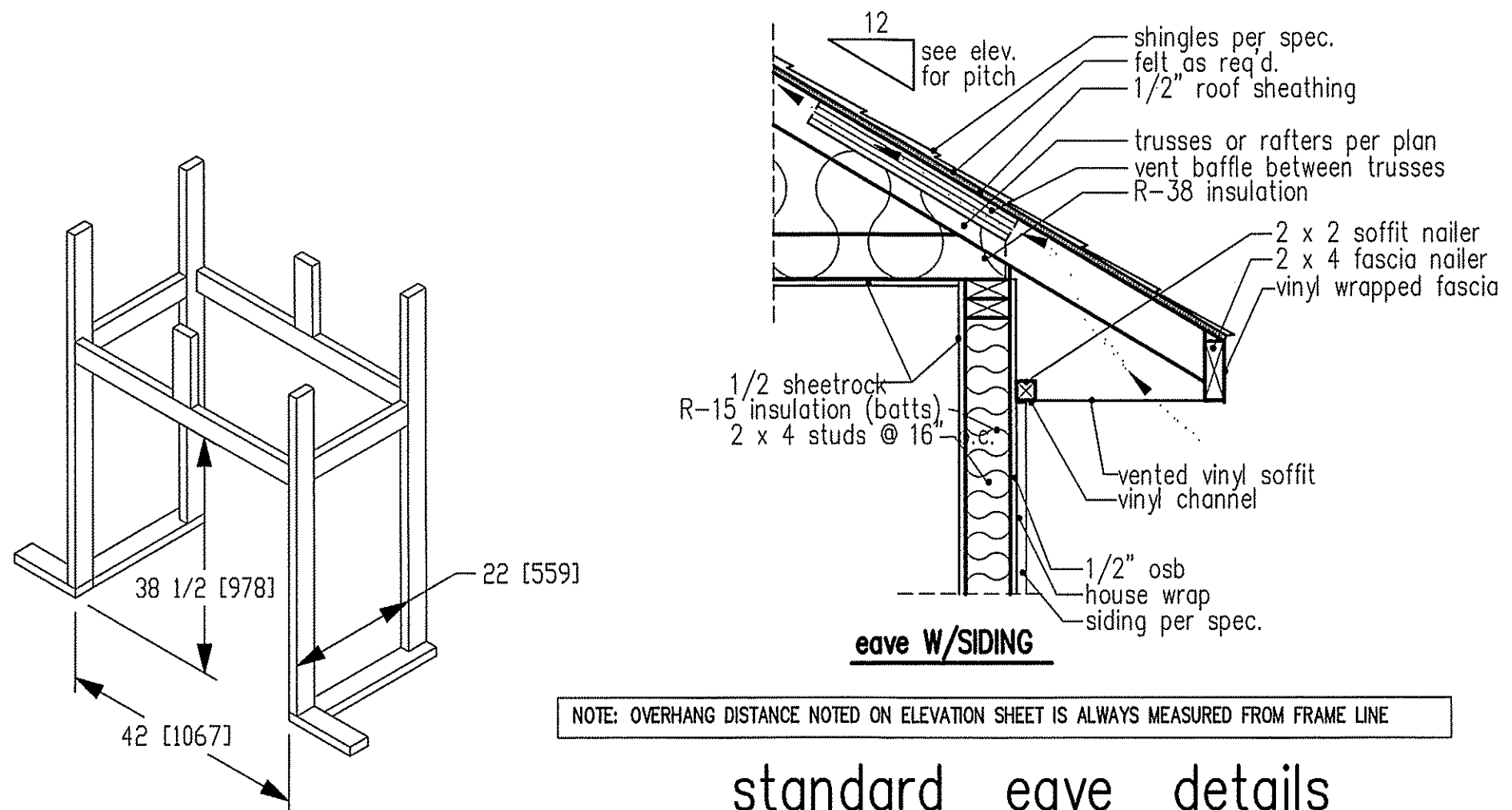


**EXCLUSIVE PLAN FOR  
 FREEDOM FAMILY HOMES  
 BENSON**

PLAN:

SHEET NO.

**5**



**RAKE w/SIDING**

NOTE: OVERHANG DISTANCE NOTED ON ELEVATION SHEET IS ALWAYS MEASURED FROM FRAME LINE

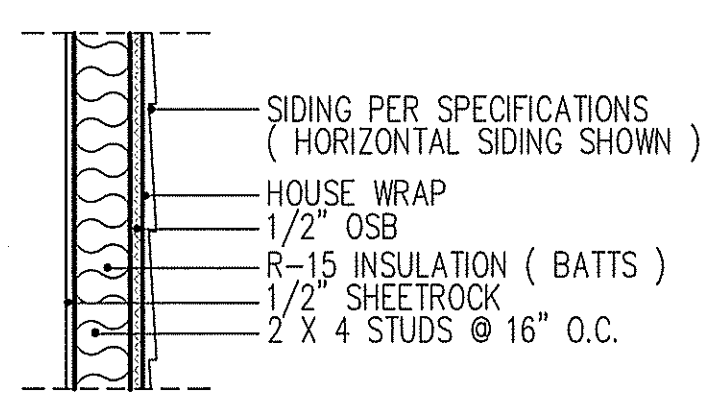
NOTE: OVERHANG DISTANCE NOTED ON ELEVATION SHEET IS ALWAYS MEASURED FROM FRAME LINE

**standard eave details**

DIMENSIONS IN [ ] ARE MM

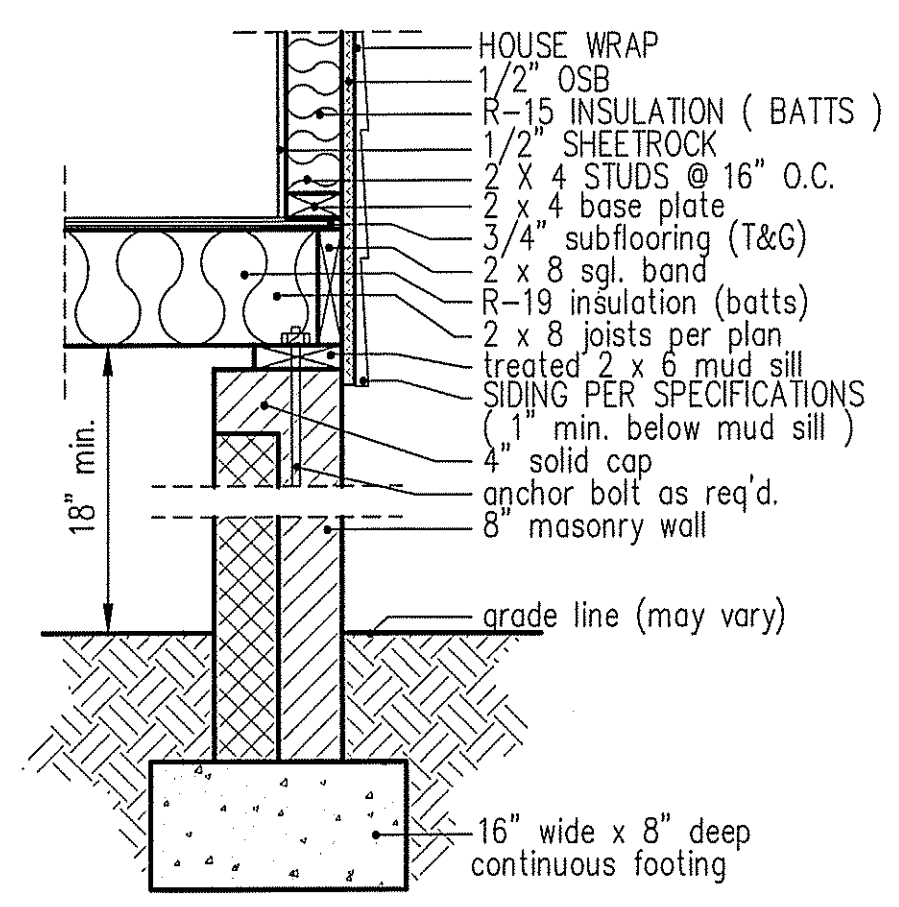
Model 6000-TR	Height		Front Width		Back Width		Depth		Glass Size	BTU Input
	Actual	Framing	Actual	Framing	Actual	Framing	Actual	Framing		
Inches	38	38-1/2	41	42	28-1/2	42	21-1/2	22		

Reference dimensions only. We recommend measuring individual units at installation.

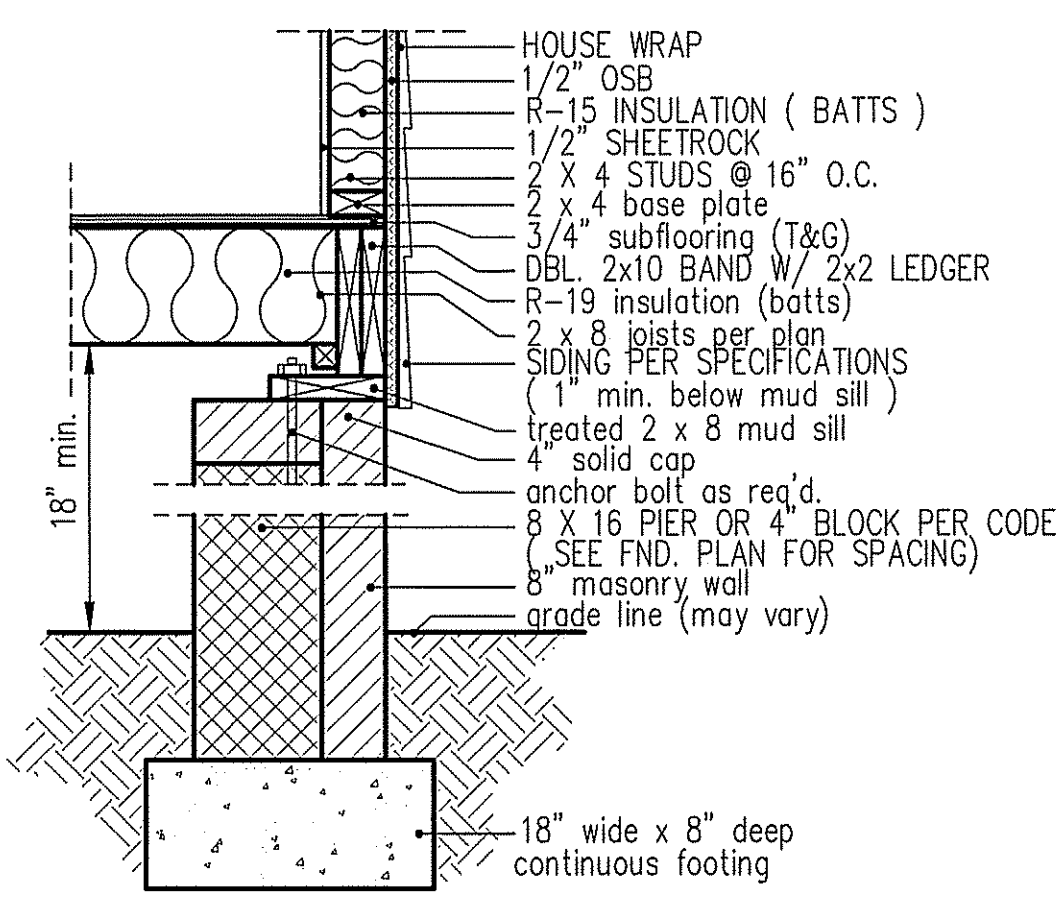


**WALL W/siding**

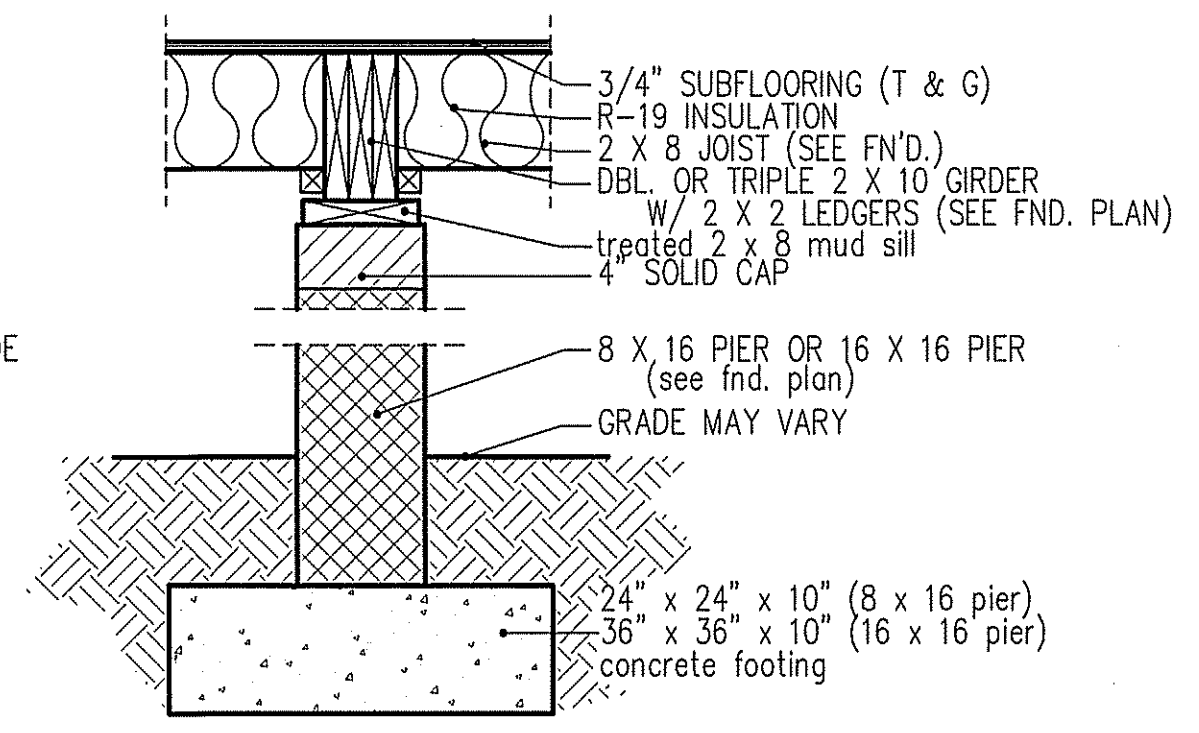
**intermediate  
 wall details**



**8" BOX SILL  
 FOUNDATION WALL**



**PIER and CURTAIN  
 FOUNDATION WALL**



**PIER and GIRDER  
 DETAIL**

COMPUTER FILE: BENSON 2018 UPDATED - APRIL-2019



**ROOF & FLOOR TRUSSES & BEAMS**

Reilly Road Industrial Park  
Fayetteville, N.C. 28309  
Phone: (910) 864-8787  
Fax: (910) 864-4444

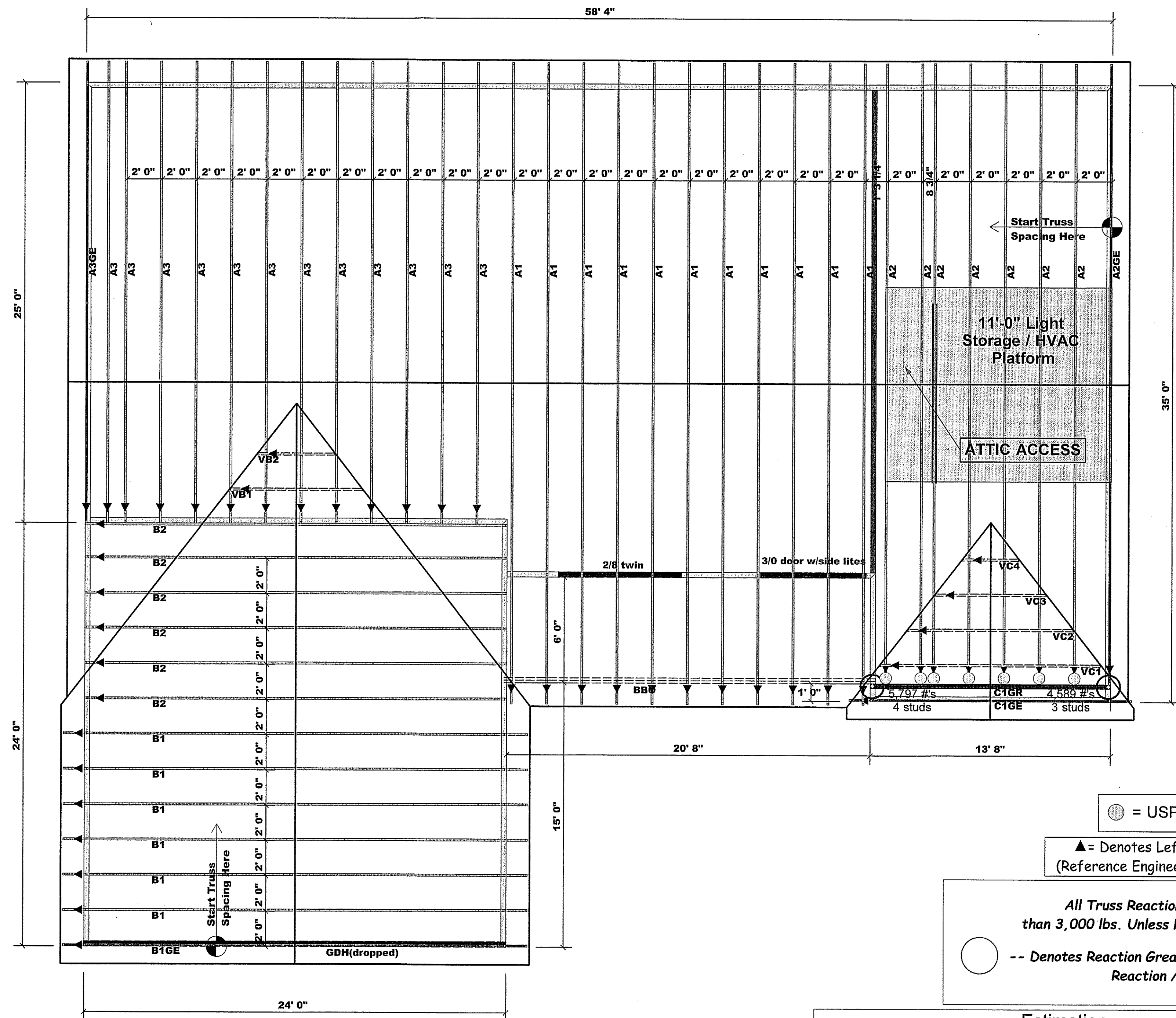
Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables (derived from the prescriptive Code requirements) to determine the minimum foundation also and number of wood studs required to support reactions greater than 3000# but not greater than 16000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 16000#.

Signature Lenny Norris  
Lenny Norris

**LOAD CHART FOR JACK STUDS**

(BASED ON TABLES R202.2(1) & (2))  
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (UP TO)	NO. OF JACK STUDS FOR (C/R)/HEADER	END REACTION (UP TO)	NO. OF JACK STUDS FOR (C/R)/HEADER	END REACTION (UP TO)	NO. OF JACK STUDS FOR (C/R)/HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				



**Truss Placement Plan**  
**SCALE: 1/4" = 1'-0"**

● = USP (HUS28) Qty. (7)

▲ = Denotes Left End of Truss  
(Reference Engineered Truss Drawing)

All Truss Reactions are Less than 3,000 lbs. Unless Noted Otherwise.

○ -- Denotes Reaction Greater than 3,000 lbs. Reaction / # of Studs

Estimation			
Name	Selection	Formula	Calculation
Roof Area	1st Floor	Roof Area	3092.77
Roof Decking	1st Floor	Roof Decking	106 sheets

BEAM LEGEND				
PlotID	Length	Product	Plies	Net Qty
2/8 twin	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
3/0 door w/side lites	6' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
GDH(dropped)	24' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2

CITY / CO.	Harnett Co. / Harnett
ADDRESS	Lot 41 Planters Glen
MODEL	ROOF
DATE REV.	/ /
DRAWN BY	Lenny Norris
SALES REP.	Lenny Norris

BUILDER	Freedom Constructors, Inc.
JOB NAME	Lot 41 Planters Glen
PLAN	BENSON
SEAL DATE	Seal Date
QUOTE #	Quote #
JOB #	J0519-2249

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building 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 system 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 bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbciindustry.com