CHAMPION
4055 HIGHWAY 401 SOUTH
LILLINGTON, NC 27546

"23-3276-16 061720"

3 BEDROOM 3 BATH
2305 SQ. FT.

A HOME DESIGNED FOR:

PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

5/12, 130 Vult MAX

SHEET INDEX

SHEET INDEX-CONT.

NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.
APPROVED
Limited building only review
Permit holder responsible for full compliance with the code
02/07/2022
Harnett COUNTY NORTH CAROLINA

THIS MODEL NOT DESIGNED FOR OCEAN HIGH HAZARD AREAS OR SPECIAL MOUNTAIN REGIONS OR FLOOD ZONES OR SPECIAL WIND REGIONS.

CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

PROJECT

TITLE:
COVER SHEET
MODEL:
23-3276-16 061720
30'-4" x 76'-0" 3 BEDROOM 3 BATH
DATE: 6-17-20
SCALE:
DRAWN BY: TT
REVISED:
REVISIONS
SHEET NO:
CP-101
PAGE:

STATE	GENERAL:	ELECTRICAL:	PLUMBING:	MECHANICAL:	ENERGY:
NC CODES	2018 NC RESIDENTIAL CODE	2017 NC ELECTRICAL CODE	2018 NC PLUMBING CODE	2018 NC MECHANICAL CODE	2018 NORTH CAROLINA ENERGY CONSERVATION CODE
					N1102.1.2 and Appendex E used for code compliance

GENERAL NOTES

- ALL GLAZING WITHIN 24 INCH ARC OF DOORS, WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR, AND ALL GLAZING IN DOORS SHALL BE SAFETY, TEMPERED or ACRYLIC PLASTIC SHEET.
- OCCUPANT LOAD IS BASED ON 1 PERSON PER 200 SQUARE FEET OF FLOOR AREA.
- ALL STEEL STRAPS REFERENCED ON FLOOR PLAN SHALL BE 1.5 INCH x 26 GA. MIN.
- CEILING FANS SHALL BE 80 INCHES MIN. FROM BOTTOM OF BLADES TO FINISH FLOOR.
- MINIMUM CORRIDOR WIDTH IS 36 INCHES
- ALL WINDOWS SHALL BE DOUBLE GLAZED.
- EXTERIOR DOORS SHALL HAVE AN INSULATION VALUE OF R-1.66 MINIMUM.
- FIRE STOPPING AND AIR INFILTRATION BARRIER BETWEEN UNITS SHALL BE PROVIDED BY DRAFTSTOP BRAND NONCOMBUSTIBLE FILLER COMPOUND OR EQUAL MEETING ASTM-E136, R602.8
- HOMES GOING INTO RADON AREAS WILL HAVE A 3" VTR AND SWITCH LEG TO SWITCH LABELED "RADON" ON TRIM PLATE. LOCATION MAY VARY PER MODEL
- THIS HOME DESIGNED FOR ,UP TO, CLIMATE ZONE 4 FOR NC & SC AND CLIMATE ZONE 4A FOR VA THE MANUFACTURER MUST BE INFORMED IF HOME IS TO BE LOCATED IN HIGHER CLIMATE ZONE.
- THE MANUFACTURER MUST BE INFORMED IF THE HOME IS TO BE LOCATED IN THE CITY OF CHARLESTON, S.C.
- THE MANUFACTURER MUST BE INFORMED IF THE HOME IS TO BE LOCATED IN ANY SPECIAL MOUNTIAN REGION.
- THIS PLAN MAY BE FLIPPED END TO END AND/OR MIRRORED

PLUMBING NOTES

- THIS UNIT MUST BE CONNECTED TO PUBLIC WATER SUPPLY AND SEWAGE SYSETM IF THESE SERVICES ARE AVAILABLE
- ALL PLUMBING FIXTURES SHALL HAVE SEPERATE SHUT-OFF VALVES.
- WATER HEATER SHALL HAVE A SAFETY PAN WITH 1 INCH DRAIN TO EXTERIOR.
- WATER PIPES INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE LOCATED ON THE HEATED SIDE OF THE WALL INSULATION. WATER PIPING INSTALLED IN AN UNCONDITIONED ATTIC SHALL BE INSULATED WITH AN INSULATION OF R-6.5 MINIMUM.
- DWV SYSTEM SHALL EITHER ABS or PVC -DWV
- WATER SUPPLY LINES SHALL BE POLYETHYLENE (PEX), CPVC, OR COPPER, WHEN POLYETHYLENE (PEX), SUPPLY LINES ARE INSTALLED THE MAXIMUM WATER HEATER SETTING IS 180 deg F. THE POLYETHYLENE PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURES LIMITATIONS AND INSTRUCTIONS.
- BUILDING DRAIN AND CLEANOUTS ARE DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL.
- TUB ACCESS PROVIDED UNDER HOME UNLESS OTHERWISE NOTED.
- SHOWER STALLS SHALL BE COVERED w/ NON-ABSORBANT MATERIAL TO A HEIGHT OF 72 INCHES ABOVE FINISH FLOOR.
- T&P RELIEF VALVE w/DRAIN TO EXTERIOR AND SHUT-OFF WITH-IN 3' of WATER SUPPLY AT WATER HEATER
- WATER HAMMER ARRESTERS SHALL BE INSTALLED AT EACH QUICK CLOSING VALVE ie. ICE MAKERS, DISH WASHERS, AND CLOTHES WASHERS (WHEN REQUIRED).
- WATER HEATERS LIST ON Q.C. 04.01.01
- ALL PLUMBING FIXTURES/PIPING SHALL COMPLY WITH SECTIONS: P2608, P2701 & TABLES P2701.1, P2904.4.1 & P2904.6 OF INTERNATIONAL RESIDENTIAL CODE OR SECTIONS 303, 402 & TABLES 605.3, 605.4, 605.5 OF NORTH CAROLINA PLUMBING.
- ALL TUBS AND SHOWER SHALL HAVE TEMPERATURE LIMITING VALVES PER IRC AND NC PLUMBING.

ELECTRICAL NOTES

- ALL CIRCUITS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE APPROPRIATE ARTICLES OF THE NATIONAL ELECTRIC CODE (NEC).
- WHEN LIGHT FIXTURES ARE INSTALLED IN CLOSETS THEY SHALL BE SURFACE MOUNTED OR RECESSED. INCANDESCENT FIXTURES SHALL HAVE COMPLETELY ENCLOSED LAMPS. SURFACE MOUNTED INCANDESENT FIXTURES SHALL HAVE A MINIMUM OF 12 INCHES AND ALL OTHER FIXTURES SHALL HAVE A CLEARANCE OF 6 INCHES FROM "STORAGE" AREA AS DEFINED BY NEC 410-16(C)
- WHEN WATER HEATERS, DISH WASHERS, AND WALL OVENS ARE INSTALLED, THEY SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS. THE BRANCH CIRCUIT SWITCH OR CIRCUIT BREAKER SHALL BE PERMITTED TO SERVE AS THE DISCONNECTING MEANS ONLY WHERE THE SWITCH OR CIRCUIT BREAKER IS WITHIN SIGHT FROM THE APPLIANCE OR IS CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
- HVAC EQUIPMENT SHALL BE PROVIDED w/ READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE EQUIPMENT SERVED. A UNIT SWITCH WITH A MARKED "OFF" POSITION THAT IS PART OF THE HVAC EQUIPMENT AND DISCONNECTS ALL UNGROUNDED CONDUCTORS SHALL BE PERMITED AS THE DISCONNECTING MEANS WHERE OTHER DISCONNECTING MEANS ARE ALSO PROVIDED BY A READILY ACCESSIBLE CIRCUIT BREAKER.
- PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM THE INTERRUPTING RATING OF THE MAIN BREAKER MUST BE DESIGNED AND VERIFIED AS BEING IN COMPLIANCE WITH SECTION 110-9 OF THE NEC BY LOCAL ELECTRICAL CONSULTANT.
- THE MAIN ELECTRICAL PANEL(DISCONNECT) AND FEEDERS ARE DESIGNED BY OTHERS, SITE INSTALLED AND SUBJECT TO LOCAL JURISDICTION APPROVAL.
- SMOKE DETECTORS SHALL BE WIRED SO THAT THE OPERATION OF ANY ONE SMOKE DETECTOR WILL CAUSE SIMULTANEOUS ACTIVATION OF ALL OTHERS.
- ALL CIRCUITS CROSSING OVER MODULE MATING LINE(S) SHALL BE SITE CONNECTED IN APPROVED ACCESSIBLE JUNCTION BOXES OR WITH APPROVED CABLE CONNECTIONS.
- ALL WIRING SHALL BE NMC
- ANY STRIP RECEPT MOUNTED BENEATH A COUNTER SHALL BE WITHIN 6" OF THE EDGE
- ALL BRANCH CIRCUITS SUPPLYING 15 & 20 AMPRE OUTLETS IN LIVING AREAS ARE PROTECTED BY AN ARC-FAULT CIRCUIT INTERUPTER IN ACCORDANCE WITH SECTION 210.12. NEC
- ALL ELECTRICAL FIXTURES/WIRING SHALL COMPLY WITH SECTION E3303.3 (SC & VA)
- IT IS THE BUILDERS RESPONSIBILITY TO PROVIDE ELECTRICAL PROVISIONS FOR ANY "MOBILE" WORKSTATION IF IT IS PERMANENTLY MOUNTED.
- FACTORY INSTALLED SUB PANEL BOX SHALL HAVE 2" MIN. CONDUIT FOR WIRE FEEDERS

MECHANICAL NOTES

- ALL AIR SUPPLY REGISTERS ARE ADJUSTABLE EXCEPT WHERE OTHERWISE SPECIFIED
- INTERIOR DOORS SHALL BE UNDERCUT 1" MIN ABOVE FINISHED FLOOR FOR AIR RETURN
- BATHROOMS SHALL BE PROVIDED WITH A WINDOW OR A MIN. 50 CFM VENT FAN. VA. REQUIRES A MINIMUM OF .35 AIR CHANGE EVERY HOUR.
- BATH VENT FANS SHALL BE DUCTED TO THE EXTERIOR AND TERMINATE AT AN APPROVED VENT CAP
- HVAC EQUIPMENT SHALL BE EQUIPPED WITH OUTSIDE FRESH AIR INTAKES BY OTHERS.
- HVAC SUPPLY DUCTS AND CALCULATIONS DESIGNED AND INSTALLED BY OTHERS
- ALL DUCTS SHALL HAVE A MIN. OF R-8 INSULATION
- ALL REGISTER BOOTS SHALL BE TAPED OR SEALED OTHERWISE.
- ALL RETURN GRILLS BY FACTORY UNLESS SPECIFIED
- ✱ OPTIONAL FURNACE TO BE FACTORY INSTALLED. OPTIONAL FURNACE KW SIZING TO BE VERIFIED BY OTHERS WITH SITE PROVIDED MANUAL D & J.
- ✱ OPTIONAL FURNACE USED FOR SUPPLEMENTAL HEATING ONLY. FOR OPTIMAL EFFICIENCY, A HEAT PUMP SHOULD BE INSTALLED.

ON-SITE CONNECTIONS

- ON-SITE STRUCTURAL CONNECTIONS:
  FOR SITE CONNECTIONS REFER TO SECTION DRAWINGS, FOUNDATION PLANS, AND TIE DOWN PLAN (ON-FRAME)
- ON-SITE ELECTRICAL CONNECTIONS:
  MULTI-SECTION UNITS WILL HAVE THE ELECTRICAL CROSSOVERS LOCATED EITHER IN THE FLOOR NEAR THE MARRIAGE LINE OR IN THE ENDWALLS NEAR THE CENTER OF THE UNIT. LOCATE THE JUNCTION BOXES AND CONNECT THE CONDUCTORS TOGETHER. THE CONDUCTORS SHOULD BE COLOR CODED OR MARKED FOR EASY IDENTIFICATION. DO NOT INTERCONNECT CIRCUITS OR CROSS CONDUCTORS.
- ON-SITE PLUMBING CONNECTIONS:

WATER LINES:

- LOCATE AND CONNECT WATER LINE CROSS-OVERS LOCATED UNDER THE FLOOR AT THE MARRIAGE LINE. TURN THE WATER ON AND CHECK FOR LEAKS.

DRAIN LINES:

- CONNECT DRAIN DROP-OUTS TO THE MAIN DRAIN. BE SURE ALL CONNECTIONS ARE MADE TO COMPLY WITH LOCAL PLUMBING CODES.

TWO STORY DESIGNS:

- SOME 2 STORY MODELS WILL REQUIRE ADDITIONAL VERTICAL CONNECTIONS SEE PLAN SHEETS FOR LOCATIONS AND ACCESS POINTS
- INTEGRITY OF MARRIAGE LINE RIDGE BEAM SHALL NOT BE COMPROMISED UNLESS SPECIFICALLY DESIGNED FOR AND SHOWN ON APPROVED PLANS.

ON-SITE GAS CONNECTIONS (IF APPLICABLE):

- LOCATE "QUICK DISCONNECT" AND CONNECT. THE "QUICK DISCONNECT" IS LOCATED UNDER THE FLOOR AT THE MARRIAGE LINE. VERIFY THAT ALL CONNECTIONS ARE TIGHT AND HAVE BEEN CHECKED FOR LEAKS.

ATTENTION LOCAL INSPECTIONS DEPARTMENT

THE FOLLOWING ITEMS HAVE NOT BEEN COMPLETED
BY CHAMPION HOMES, HAVE NOT BEEN INSPECTED
BY P.F.S., AND ARE NOT CERTIFIED BY THE
STATE MODULAR CERTIFICATION LABEL. CODE COMPLIANCE
MUST BE DETERMINED AT THE LOCAL LEVEL.

SITE CONNECTION OF ROOFS,FLOORS,WALLS(setup manual pages 11-13, pages AP-101, SE-101-102, CALCULATION SHEETS in plan set)
FOUNDATIONS, PORCHES, DECKS, EXTERIOR STAIRS
ELECTRICAL CONNECTIONS ON SITE(pages 26-28 setup manual), PLUMBING CONNECTIONS ON SITE(pages 23-25 setup manual),
4X10 REGISTERS/BOOTS PROVIDED IN TYPICAL LOCATIONS (SEE AP-101)
TRUNKLINE ,MANUAL D & J BY OTHERS ON SITE. DRYER VENTING BY OTHERS (page 20 setup manual).
✱ BLOWER DOOR TEST TO BE COMPLETED BY OTHERS ON SITE.

**ON BASEMENT ENTRY HOMES, FLOOR INSULATION IS NOT PROVIDED BY FACTORY.
ALL BASEMENT WORK, INCLUDING FOUNDATION DESIGN, STAIRS, HVAC AND
CONNECTION OF SMOKE DETECTOR AND REQUIRED OUTLETS, DONE BY OTHERS.
PROVISIONS FOR EGRESS FROM BASEMENT MUST BE PROVIDED ON SITE BY OTHERS.
ALL ENERGY COMPLIANCE FOR BASEMENTS MUST BE DONE ON SITE BY OTHERS
✱ RODENT PROOFING TO BE COMPLETED ON-SITE BY OTHERS PER RP-101 (IN HOME OWNERS PACKET)
IN WINDBORNE DEBRIS AREAS, WINDOW/DOOR PROTECTION PROVIDED BY OTHERS PER LOCAL CODE
ANY SITE INSTALLED ATTIC ACCESS SHOWN ON AP-101
NO SPRINKLER SYSTEMS REQUIRED FOR UNIT. A FIRE EXTIGUISHER TO BE PROVIDED ON SITE BY OTHERS
SEE ENERGY CODE INSPECTION CHECKLIST FOR FACTORY COMPLETED ITEMS AND SITE COMPLETED ITEMS

ALL FALL PROTECTION DEVICES REQUIRED PER R312.2, MUST BE INSTALLED ON SITE BY OTHERS

ATTENTION LOCAL INSPECTIONS DEPARTMENT

SET-UP INSTRUCTIONS ARE INCLUDED ON THE PLAN SHEETS & IN SET-UP MANUAL INCLUDED IN HOMES.
SEE NOTES, CROSS SECTION AND FOUNDATION PAGES (ITEMS NOT COMPLETE AT FACTORY MARKED WITH✱ ON CROSS SECTION)
IF CHAMPION HOMES INSTALLATION MANUAL IS NOT INCLUDED THESE PLANS ARE INCOMPLETE.

ATTENTION LOCAL INSPECTIONS DEPARTMENT

IF THIS STRUCTURE IS IN A THERMAL ZONE MORE STRINGENT THAT THAT LISTED ON THESE PLANS,IS SET ON PILINGS, OR IS INSTALLED AT A MOUNTAIN REGION OR COASTAL HGH HAZARD SITE SUCH THAT WIND OR OTHER DESIGN PARAMETERS ARE INCREASED, THE DESIGN MUST BE DETERMINED TO BE ADEQUATE FOR ACTUAL SITE CONDITIONS. ALTERATIONS MAY BE REQUIRED TO BRING THE HOME INTO COMPLIANCE WITH THE MORE STRINGENT CONDITIONS.

ANY MODEL DESIGNED FOR 150 MPH Vult MAY BE LOCATED IN AREAS OF 4500 FT OR ABOVE

ALL OPERABLE WINDOWS TO INCLUDE INSECT SCREENS.
ALL PATIO AND ATRIUM DOORS TO INCLUDE INSECT SCREENS.

IF HOME IS EQUIPPED WITH WOOD BURNING FIREPLACE, SEE PAGE 22 OF SET UP MANUAL AND MANUFACTURE'S INSTALLATION MANUAL FOR REQUIRED SITE INSTALLATION.

VIRGINIA MODS TO HAVE ICE DAM PROTECTION AS REQUIRED BY STATE/LOCAL CODES.

APPROVAL STAMP

PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

DESIGN INFORMATION

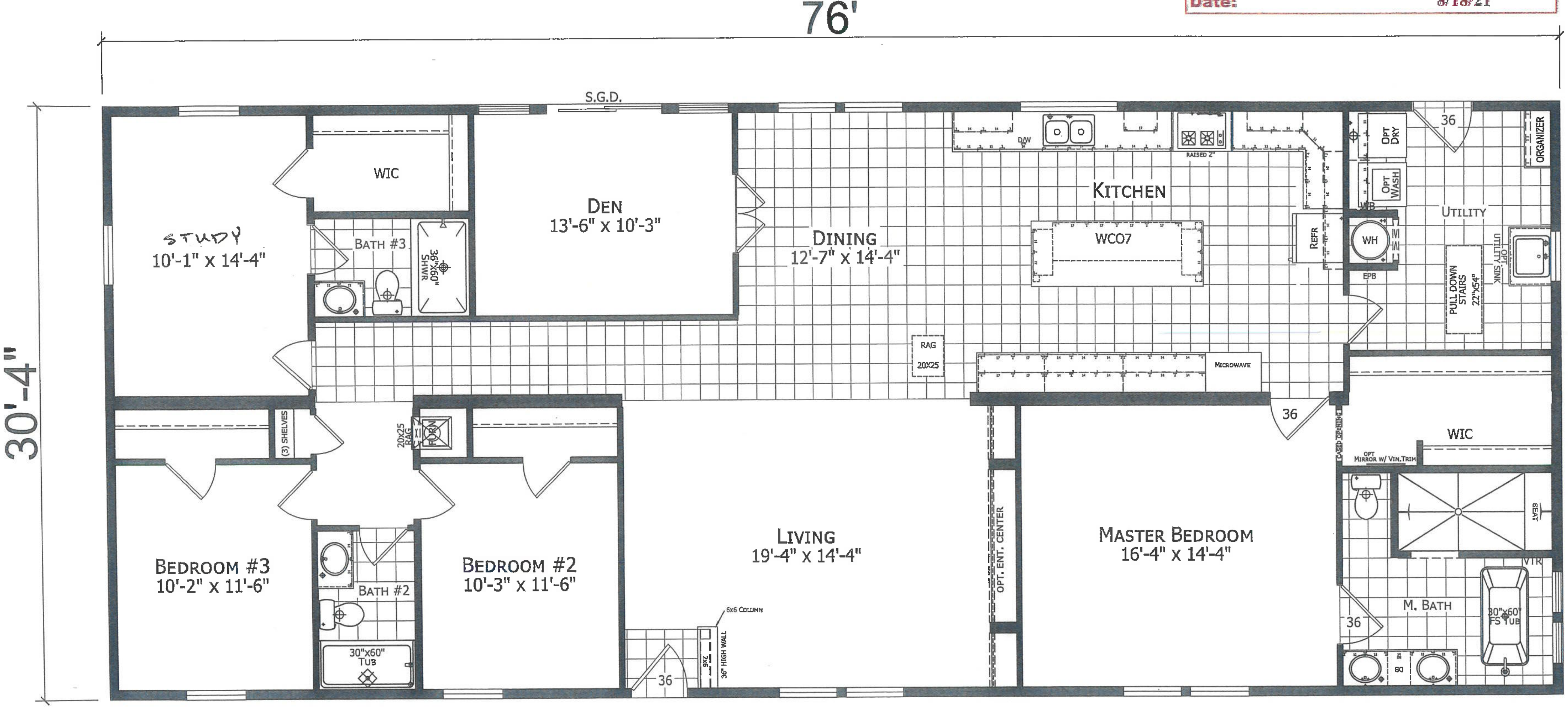
OCCUPANCY	SINGLE FAMILY
CONSTRUCTION TYPE	VB UNP
MAXIMUM WIND SPEED	130 MPH Vult
WIND EXPOSURE	C
SEISMIC CATEGORY	C
FLOOR LIVE LOAD	40 PSF
2ND FLOOR LIVE LOAD (for homes with fixed walkup staircases)	30 PSF
FLOOR DEAD LOAD	10 PSF
ROOF LIVE LOAD	20 PSF STANDARD
ROOF DEAD LOAD	10 PSF
GROUND SNOW LOAD	30 PSF STD(24" o.c.)
FIRE RATING EXT WALL	0 Hrs.
TENANT SEPARATION	0 Hrs.
MAX MEAN ROOF HT.	20.00'

NOTE: ALL HIGH WIND DESIGNS, CONSTRUCTION, FASTENING, ETC, BUILT PER CALCULATION MANUAL OR SPECIFIC ENGINEERING (MEETING OR EXCEEDING CHAPTER 45- NC)

CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

TITLE:	NOTES
MODEL:	ANY MODEL
DATE:	04-15-03
SCALE:	NOT TO SCALE
DRAWN BY:	CDB
REVISED:	
REVISIONS	
SHEET NO:	GE-101
PAGE:	

PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21



23-3276-16 061720
4 BEDROOM 3 BATH
76'-0" x 30'-4"
2305 SQ. FT.

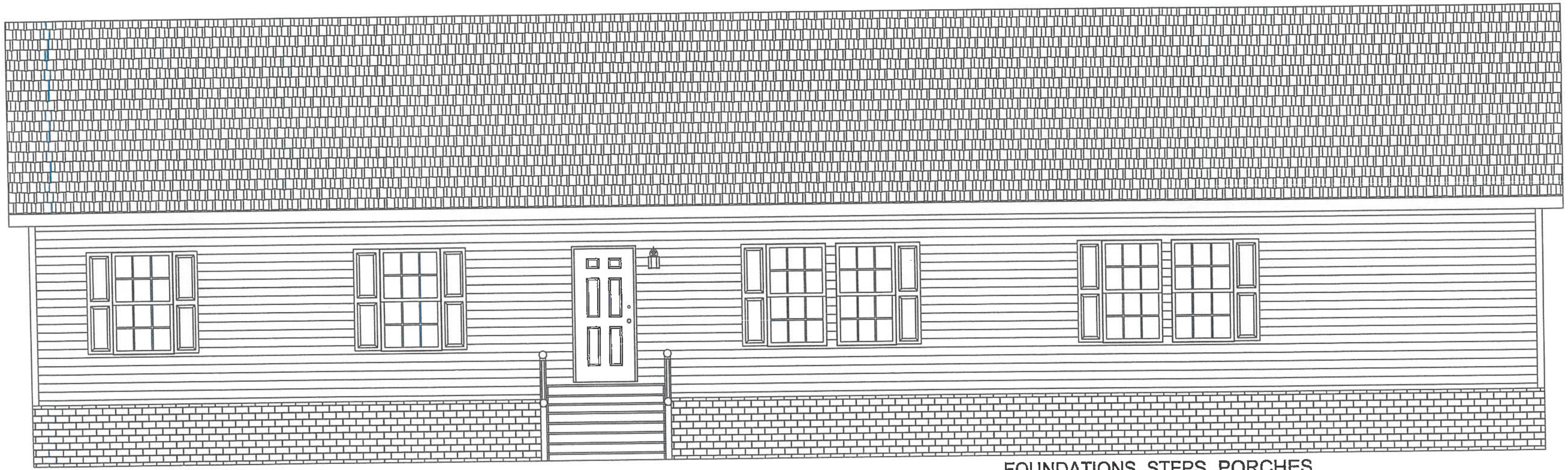
CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

PROJECT

TITLE:
LITERATURE PLAN
MODEL:
23-3276-16 061720
30'-4" x 76'-0" 4 BEDROOM 3 BATH
DATE: 6-17-20
SCALE:
DRAWN BY: TT
REVISED:
REVISIONS
SHEET NO:
L-101
PAGE:

PFS CORPORATION
Approval Limited to Factory Built Portion Only

State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21



SHOWN WITH 5/12 PITCH
SHOWN WITH STANDARD DOOR & WINDOW CONFIGURATION

FOUNDATIONS, STEPS, PORCHES
AND RAILS DONE ON SITE BY OTHERS

FRONT ELEVATION

CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

PROJECT

TITLE:
ELEVATIONS

MODEL:
23-3276-16 061720
30'-4" x 76'-0" 3 BEDROOM 3 BATH

DATE: 6-17-20
SCALE: NTS
DRAWN BY: TT
REVISED:

REVISIONS

SHEET NO:
EV-101

PAGE:

PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

REAR ELEVATION

CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

PROJECT

TITLE:
ELEVATIONS

MODEL:
23-3276-16 061720
30'-4" x 76'-0" [illegible]BEDROOM 3 BATH

DATE: 6-17-20
SCALE: NTS
DRAWN BY: TT
REVISED:

REVISIONS

SHEET NO:
EV-102

PAGE:

PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

RIGHT ELEVATION

CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

PROJECT

TITLE:
ELEVATIONS

MODEL:
23-3276-16 061720
30'-4" x 76'-0" 3 BEDROOM 3 BATH

DATE: 6-17-20
SCALE: NTS
DRAWN BY: TT
REVISED:

REVISIONS

SHEET NO:
EV-103

PAGE:

PFS CORPORATION
Approval Limited to Factory Built Portion Only

State: North Carolina
Signature: Tim
Title: Staff Plan Reviewer
Date: 8/18/21

RIGHT ELEVATION

CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

PROJECT

TITLE: ELEVATIONS
MODEL: 23-3276-16 061720
30'-4" x 75'-0" 3 BEDROOM 3 BATH
DATE: 6-17-20
SCALE: NTS
DRAWN BY: TT
REVISED:
REVISIONS
SHEET NO: EV-104
PAGE:

PFS
PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

▨ RANCH SHEARWALLS

WIND VELOCITY SHEARWALLS
REFERENCED TO ATTACHED CALCULATIONS
FROM BARLOW ENGINEERING

TRUSSES LOCATED IN CALCULATION MANUAL, SECTION 6 PAGES 1-3

ALL BEAMS REFERENCED TO CHAMPION HOMES OF LILLINGTON SYSTEM PACKAGE L/180, "UNIFORM BEAM CHARTS" SECTION 6, PAGE 15 WITH L/240, "UNIFORM BEAM CHARTS" SECTION 6, PAGE 15 AS PREPARED BY BARLOW ENGINEERING

MATEWALL
LIVE LOAD (L/240) = 198 PLF TOTAL LOAD (L/180) = 367 PLF

DESCRIPTION	GLAZED SQ. FT.	VENTING SQ. FT.	DESIGN PRESSURE	SHGC	U-VALUE	MANUFACTURER
WINDOWS (9750 SERIES)						
36" x 61" EGRESS opt. SAFETY GLAZED	12.2	6.14	DP 50 / DP 66	.29	.34	KINRO
30" x 61"	9.95	5.85	DP 50	.29	.34	KINRO
30" x 36" opt. SAFETY GLAZED	5.55	2.76	DP 66	.29	.34	KINRO
46" x 61" EGRESS	16.07	8.01	DP 25	.29	.34	KINRO
30" x 72" FIXED PANEL SAFETY GLAZED	13.1	0	DP 50	.32	.35	KINRO
24" x 48" opt. SAFETY GLAZED	4.85	2.44	DP 66	.29	.34	KINRO
14" x 40" opt. SAFETY GLAZED	2.48	1.29	DP 66	.32	.34	KINRO
42" x 34" BLOCK GLASS	6.28	0	DP 50	.56	.45	HY-LITE
62" x 40" PICTURE	14.35	6.11	DP 50	.29	.34	KINRO
46" x 38" ARCH SAFETY GLAZED	8.26	3.58	DP 50	.32	.34	KINRO
30" x 8" TRANSOM	1.3	0	DP 66	.32	.35	KINRO
36" x 8" TRANSOM (MAY FLIP)	1.7	0	DP 66	.32	.34	KINRO
46" x 8" TRANSOM						
72" x 8" TRANSOM	2.9	0	DP 66	.32	.35	KINRO
EXTERIOR DOORS						
36" x 80" EXTERIOR DOOR	0	0	DP 50	.01	.17	LIPPERT
36" x 80" EXTERIOR DOOR with 9 LITE WINDOWS	4.40	19.45	DP 50	.09	.29	LIPPERT
36" x 80" EXTERIOR DOOR with 15 LITE WINDOWS	14.68	19.45	DP 50	.17	.28	LIPPERT
72" x 80" SLIDING GLASS	34.37	19.45	DP 50	0.29	0.32	LIPPERT
74" x 80" ATRIUM DOOR with 15 LITE WINDOWS	24.96	19.45	DP 50	0.30	0.35	LIPPERT

ATTIC VENTALATION:
SEE WORKSHEET #1 CALCULATIONS

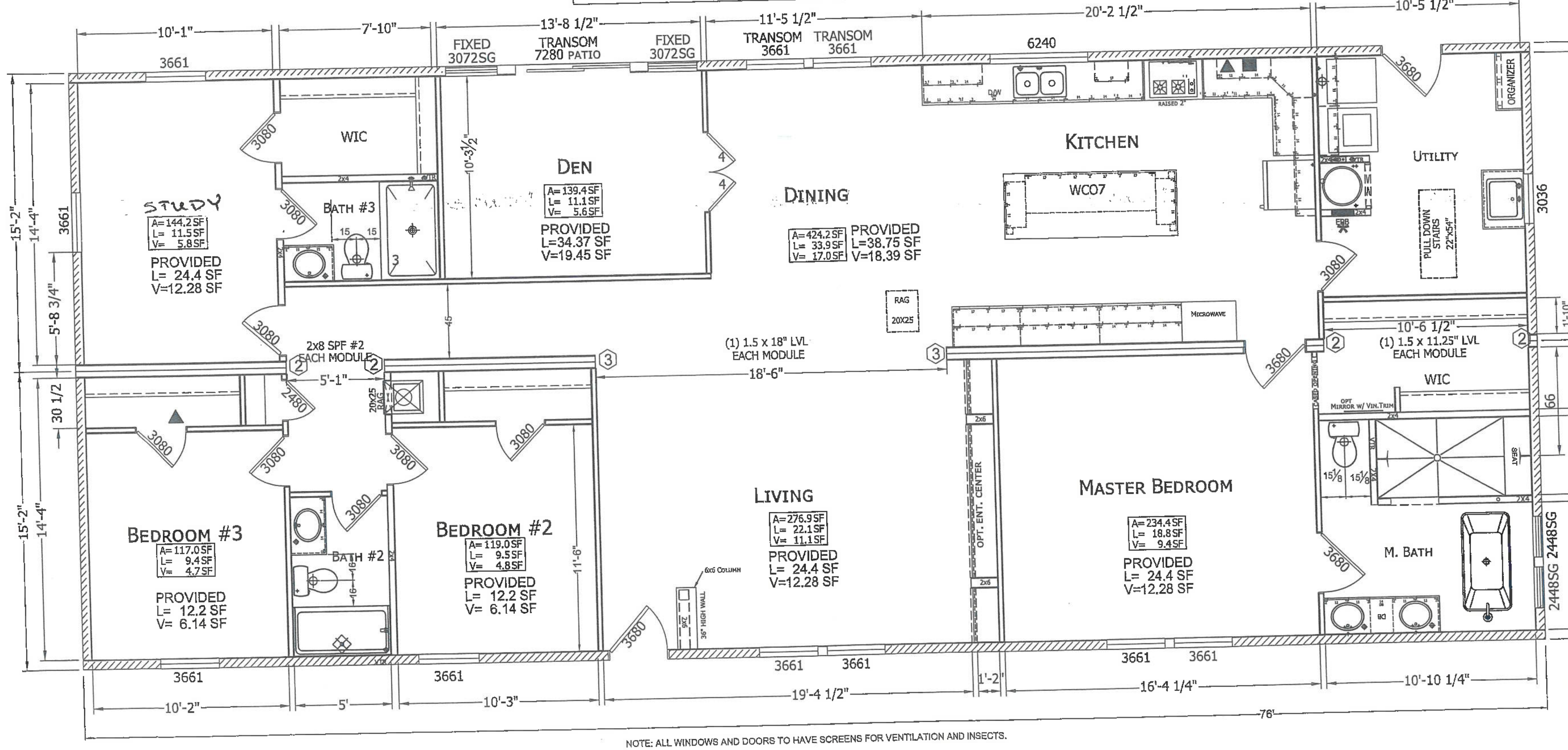
DRYER VENT TO BE INSTALLED ONSITE

■ DATA PLATE

✱ ENERGY CERTIFICATION LABEL

▲ LABEL LOCATIONS
(STATE & PFS)

COLUMN SUPPORT	AREA
① 1-2x4's ② 2-2x4's ③ 3-2x4's	1st FLOOR 2305 SQ. FT
ALL COLUMN STUDS SHALL BE GLUED TOGETHER WITH 100% PVA GLUE COVERAGE	2nd FLOOR N/A
EACH COLUMN STUDS SHALL BE NAILED TO ADJACENT COLUMN STUD WITH .131 x 2½" NAILS SPACED 4" O.C. STAGGERED OR APPROVED ALTERNATE FASTENING.	GLAZING
RIDGE BEAMS TO CONTINUOUS PAST COLUMN STUDS	
STUDS SHALL BE MINIMUM SPF#2	



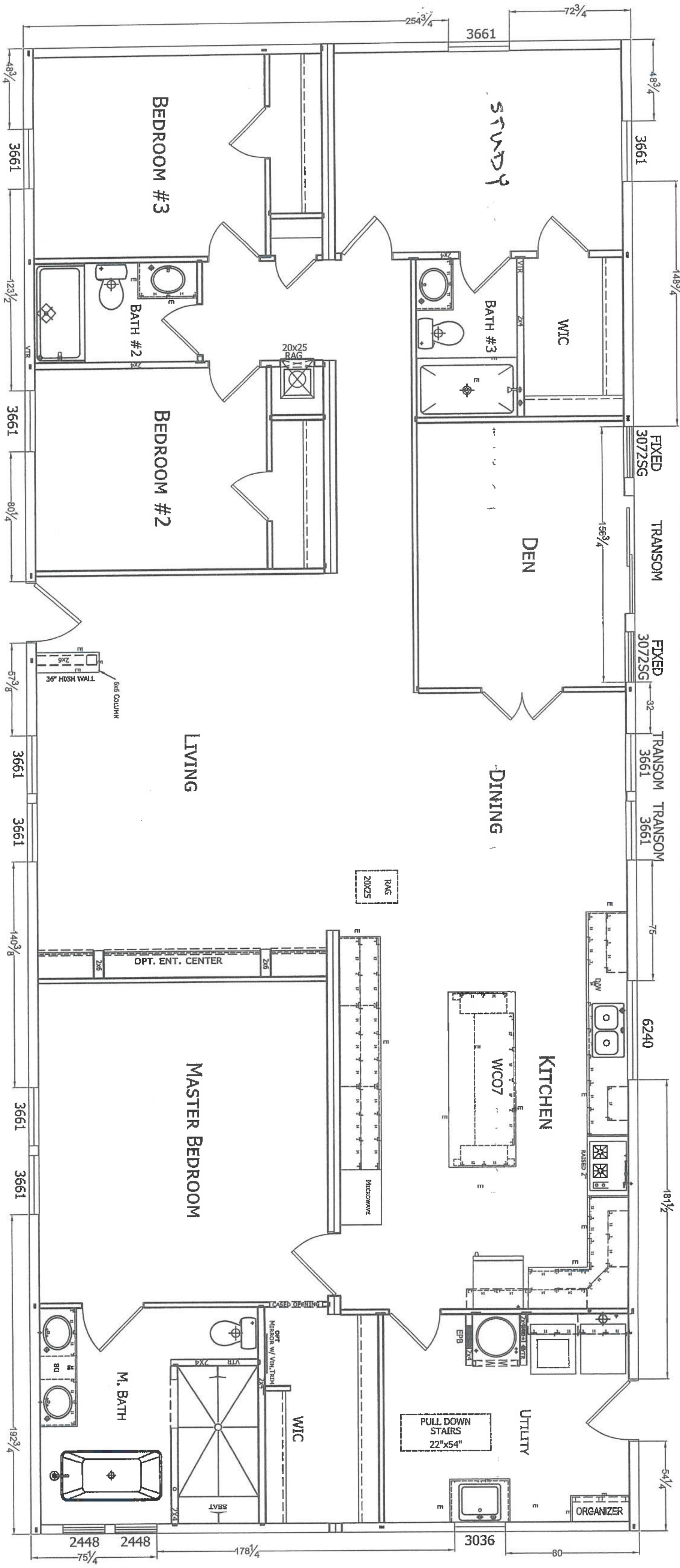
NOTE: ALL WINDOWS AND DOORS TO HAVE SCREENS FOR VENTILATION AND INSECTS.

CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

PROJECT

TITLE:	FLOOR PLAN
MODEL:	23-3276-16 061720 30'-4" x 76'-0" 3 BEDROOM 3 BATH
DATE:	6-17-20
SCALE:	3/16" = 1'-0"
DRAWN BY:	TT
REVISED:	
REVISIONS	
SHEET NO:	AP-101
PAGE:	

ENDWALL #2 CONNECTION SUMMARY # F/S 2



SIDEWALL # 1 CONNECTION SUMMARY # F3

SIDEWALL # 2 CONNECTION SUMMARY # F4

ENDWALL #1 CONNECTION SUMMARY # F/S 1

SEE STRUCTURAL BRACING SUMMARY AP202 FOR MORE DETAILS

PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Drake
Title: Staff Plan Reviewer
Date: 8/18/21

TITLE: STRUCTURAL BRACING & CONNECTIONS
MODEL: 23-3276-16 061720
30'-4" x 76'-0" 3 BEDROOM 3 BATH
DATE: 6-17-20
SCALE: 1/8" = 1'-0"
DRAWN BY: TT
REVISED:
REVISIONS
SHEET NO: AP-201
PAGE:

PROJECT

CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

SHEAR CALCULATIONS
PFS CORPORATION
Approval Limited to Factory Built Portion Only

State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

MODEL No.: 23-3276-16 061720
SERIAL No.:
WIND SPEED.: 130 VULT
ROOF 5 /12

SIGNED BY .: CHAMPION HOMES
DATE .: 8/9/2021
CHECKED BY .: JPT

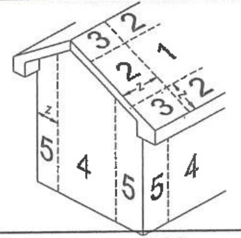
~~SHEARWALL DIAPHRAGM PANEL SUMMARY~~

BY	CHK'D	LOCATION	EDGE FASTENING* 8D	EDGE FASTENING* 16 GA.	FIELD FASTENING* 8D	FIELD FASTENING* 16 GA.	NOTES			CONN. #
		ENDWALL #1 (HITCH)	4.0	4.0	8.0	8.0	7/16" OSB BLOCKED	71 FHS	(MASTER BED / BATH)	F/S1
		ENDWALL #2 (REAR)	6.0	6.0	12.0	12.0	7/16" OSB BLOCKED	90 FHS	(BEDROOM 2 & 3)	F/S2
		SIDEWALL #1 (A MODULE)	6.0	6.0	12.0	78.0	7/16" OSB BLOCKED	71 FHS	(LIVING)	F3
		SIDEWALL #2 (B MODULE)	6.0	6.0	12.0	12.0	7/16" OSB BLOCKED	59 FHS	(KITCHEN / DINING)	F4
		ROOF SHEATHING	6.0	6.0	12.0	12.0	7/16" OSB UNBLOCKED			F5
		INCREASE TO	6.0	6.0	8.0	12.0	7/16" OSB BLOCKED			
		WITH	6.0	3.0			O.C. FASTENERS AT PERIMETER			
		BLOCKING DISTANCE	0'		0'		FROM ENDWALLS	(ROOF DIAPHRAGM SHEATHNING CONNECTION : 170 PLF)		
			5D		5D					
		CEILING SHEATHING	7.0		7.0		1/2" GWB UNBLOCKED (FOAM ADHESIVE MEETS REQUIRED FASTENING)			F7
			8D	15 GA.	8D	15 GA.				
		FLOOR SHEATHING	6.0	2.0	12.0	5.0	19/32" OSB MIN.			F8

* 8D COMMON NAILS (.131" x 2.5")
*ROOF (16 GA. STAPLES)
*FLOOR (8D COMMON NAILS (.131" x 2.5"))

[1] 16 GA. STAPLE (REF. SEC 16 PG. 14 8D TO 16GA. (Z))
[1]ROOF (16 GA. STAPLE (REF. SEC 16 PG. 15 14GA. TO 16GA. (Z))
[1]FLOOR (15 GA. STAPLE (REF. SEC 16 PG. 14 10D TO 15GA. (Z))

SUCTION FASTENER SPACING MUST BE NO GREATER THAN SHEAR DIAPHRAGM FASTENER SPACING

BY	CHK'D	LOCATION	FASTENING *	ALT. FASTENER[1]	NOTES
		ROOF ZONE 1	12	5	
		ROOF ZONE 2	11	5	
		ROOF ZONE 3	7	3	
		ROOF ZONE 3 O/H	6	2	
		WALL ZONE 4	12	5	
		WALL ZONE 5	12	5	
		EDGE DIMENSION (Z)	4'	4'	

* 8D COMMON NAILS (.131" x 2.5")

[1] 16 GA. STAPLE (1" MIN. PEN) (REF. SEC 16 PG. 15 8D TO 16GA. (W))

UPLIFT CONNECTIONS

BY	CHK'D	LOCATION	UPLIFT #	FASTENING *			ALT. FASTENING *	CONN. #
		TRUSS TIE DOWN	148	(1) SIMPSON SDWC 15600		-	(1) SIMPSON H8 565# UP 0# LAT**	F9
		TRUSS TIE DOWN (FLAT STRAP)	148	(1) 1 1/2 x 20GA STRAP W/ (4) 0.113 NAILS				
		STUD TO TOP PLATE/CEILING BAND	99	(1) 1 1/2 x 20GA STRAP W/ (2) 0.113 NAILS		STRAP CAPACITY 379.72 LBS		F10
		STUD TO TOP PLATE (ALTERNATE)	99	2	16 GA STAPLES EA. STUD	OR	(2) 15 GA STAPLES EA STUD	
		STUD TO FLOOR BAND	13	(1) 1 1/2 x 20GA STRAP W/ (4) 0.113 NAILS		STRAP CAPACITY 379.72 LBS		F11
		STUD TO FLOOR BAND (ALTERNATE)	13	2	16 GA STAPLES EA. STUD	OR	(2) 15 GA STAPLES EA. STUD	

* QUANTITIES ARE EACH END

** C-2019-2021 ED. SIMPSON CATALOG
(REF. SEC 18 PG. 17 20GA. STRAP/NAILS)
(REF. SEC 18 PG. 17 20GA. STRAP/NAILS)

LATERAL CONNECTIONS

BY	CHK'D	LOCATION	LOAD (PLF)	AT IN. O.C.	LOAD (LBS)	FASTENING *	ALT. FASTENING *	CONN. #
		TRUSS TO TOP PLATE	248	24	496	(6) .131 TOE NAIL OR (3) #10 X 5" TSCREW EA TRUSS	(3) #10 X 5" TSCREW EA TRUSS	F12
		PLATE TO PLATE	248	5	103.34	15GA. x 2 1/2" STAPLES AT 5" O.C	FACE NAILED	F13
		PLATE TO STUD	248	16	330.67	(6) 15GA. x 2 1/2" STAPLES EACH END	END NAILED	F14
		BOTTOM PLATE TO FLOOR	248	5	103.34	15GA. x 2 1/2" STAPLES AT 5" O.C.	FACE NAILED	F15

* STRAP NAIL/STAPLE QUANTITIES ARE EACH END

(SUBSTITUTION REF. SEC 16 PG. 14 .162 TO .113 & 15GA. (Z))
(SUBSTITUTION REF. SEC 16 PG. 14 .131 TO 15 GA. (Z))
(SUBSTITUTION REF. SEC 16 PG. 14 .131 TO #8 WS (Z))

TOP PLATE SPLICES

BY	CHK'D	LOCATION	FASTENING	NOTES	CONN. #
		PLATE TO PLATE	(2) ROWS 15GA. X 2 1/2" STAPLES AT 1" O.C.	FACE NAILED 3' MIN SPLICE	F16

(SUBSTITUTION REF. SEC 16 PG. 15 .162 TO 15 GA. (Z))

UNIT SHEAR & UPLIFT CONNECTIONS

BY	CHK'D	LOCATION / LOAD	FASTENING	CONN. #
		ENDWALLS	SHEATHING SHEAR CONN. TO FLOOR BAND AND BOTTOM CHORD W/ (1) ROWS OF 16GA. STAPLES AT (2) IN O.C.	F17
		ENDWALLS	SHEATHING UPLIFT CONN. TO FLOOR BAND AND BOTTOM CHORD W/ (1) ROWS OF 16GA. STAPLES AT (2) IN O.C.	F18
		ENDWALLS	BOTTOM CHORD TO TOP PLATE W/ .131 x 3" TOENAILS AT 6" IN O.C.	F19
		SIDEWALLS	SHEATHING SHEAR CONN. TO FLOOR BAND W/ (1) ROWS OF 16GA. STAPLES AT (6) IN O.C.	F20
		SIDEWALLS	SHEATHING UPLIFT CONN. TO FLOOR BAND W/ (1) ROWS OF 16GA. STAPLES AT (6) IN O.C.	F21

(SUBSTITUTION REF. SEC 16 PG. 14 .131 TO 16 GA. (Z))
(SUBSTITUTION REF. SEC 20 PG. 14 .162 TO .113 (Z))

CORNER CONNECTIONS

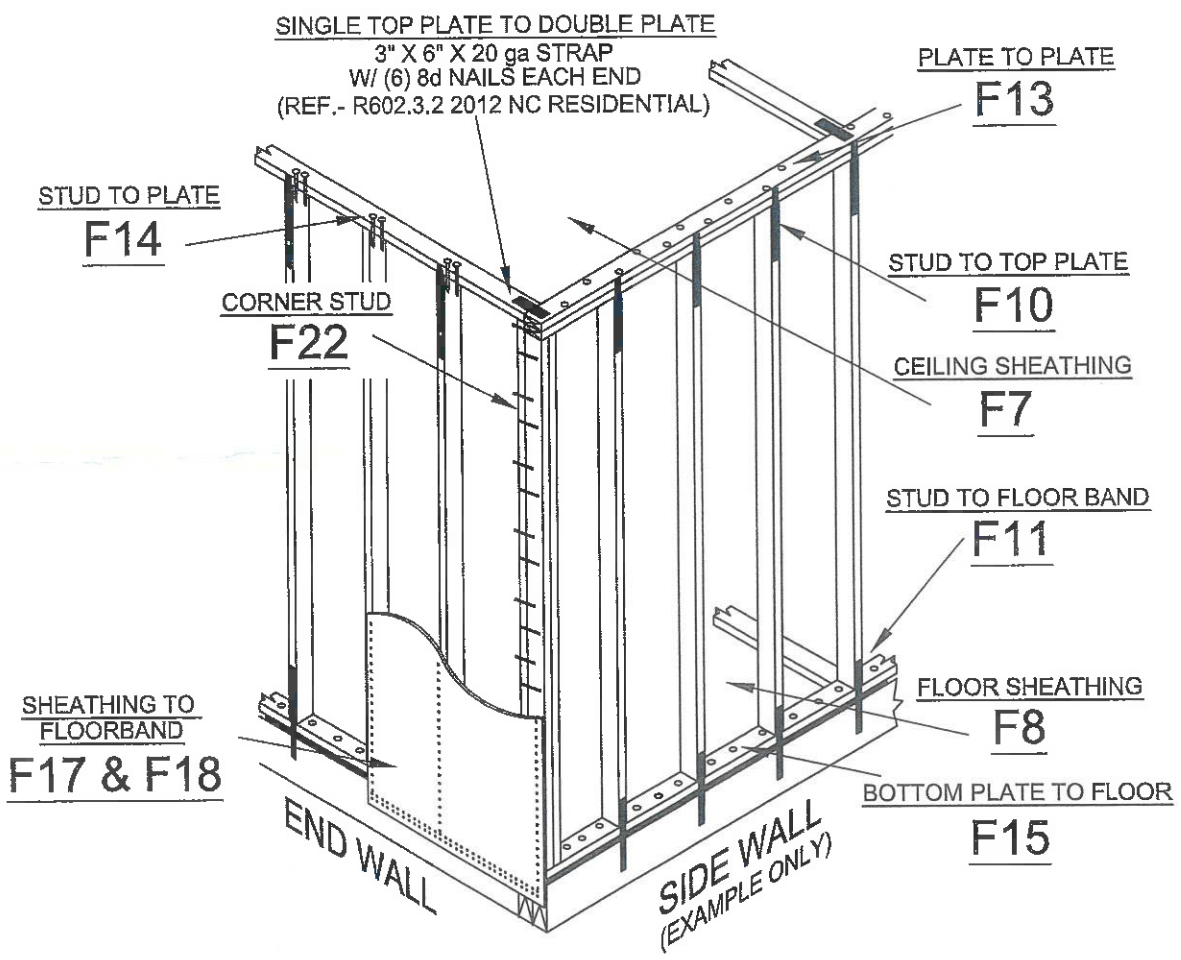
BY	CHK'D	LOCATION	FASTENING *	NOTES	CONN. #
		ALL EXTERIOR WALL INTERSECTIONS	(1) ROW(S) #8 SCREWS AT 6.2" O.C	FACE NAILED/SCREWED	F22
		ALTERNATE FASTENER	(1) ROW(S) 3/8" LAG AT 9.3" O.C		

(SUBSTITUTION REF. SEC 16 PG. 13 LATERAL (Z))
(3/8 LAG REF. SEC 2 PG. 2 LATERAL (Z-1.6 CD))

CORNER HOLDOWNS

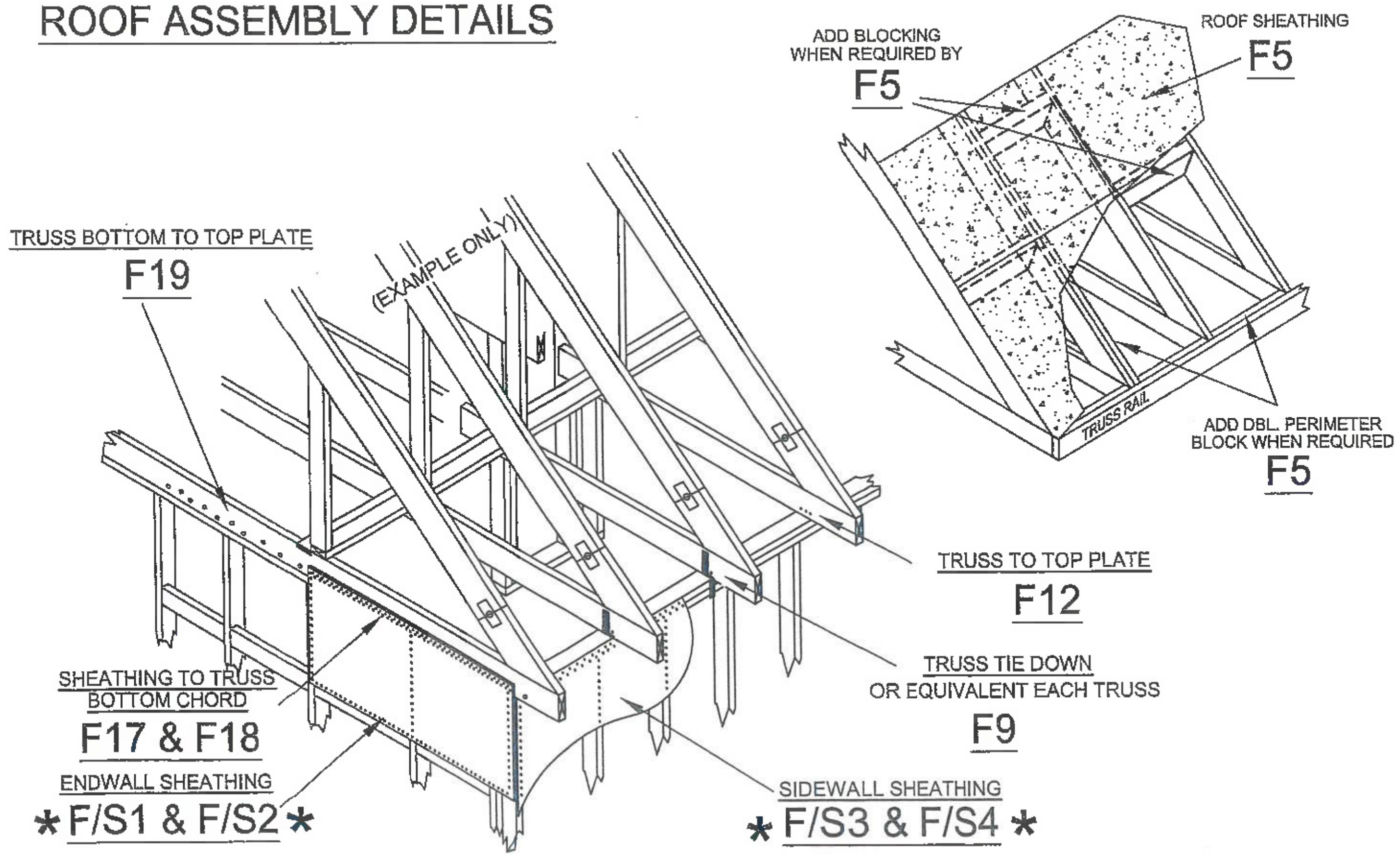
BY	CHK'D	LOCATION	FASTENING *	NOTES	CONN. #
		ALL EXTERIOR WALL CORNERS	4600 LBS MAX UPLIFT MINUS 6650 LBS Σ OF DEAD LOAD = 0 LBS	NO HOLD DOWNS REQUIRED	F23

SIDEWALL/ENDWALL DETAIL

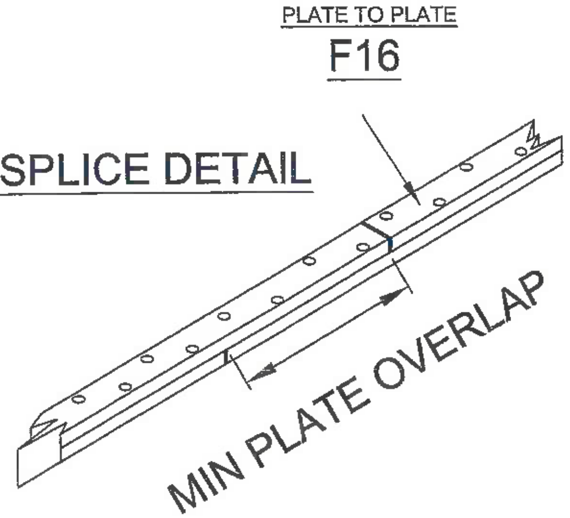


PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

ROOF ASSEMBLY DETAILS



TOP PLATE SPLICE DETAIL



CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

PROJECT

TITLE:
WALL FASTENING

MODEL:
23-3276-16 061720
30'-4" x 76'-0" 3 BEDROOM 3 BATH

DATE: 6-17-20
SCALE: 1/8" = 1'-0"
DRAWN BY: TT
REVISED:
REVISIONS

SHEET NO:
AP-203

PAGE:

SEE Q/A MANUAL FOR APPROVED
ELECTRICAL FIXTURES
SECTION 4 PAGE 4

NC NOTE:
PER NC ECC 404.1, A MINIMUM OF 75% OF LAMPS INSTALLED IN PERMANENTLY INSTALLED FIXTURES MUST BE HIGH-EFFICIENT LAMPS (EXAMPLE. CFL'S)
ALL BULBS TO BE PROVIDED ON SITE BY OTHERS.

- RECEPT TO BE INSTALLED FOR WHIRLPOOL TUB WITHIN 12" OF ACCESS IN DIRECT VIEW FOR DISCONNECT OF APPLIANCE.
- BREAKER LOCKOUT TO BE INSTALLED FOR DISHWASHER, WATER HEATER
- RANGE HOOD EXHAUST FAN IS A NON VENTED RECIRCULATION TYPE (CHARCOAL)
- CO/SMOKE DETECTOR COMPLIES WITH UL 217 AND UL 2034 FIRST ALERT MODEL #SC9120B (NC,SC)

PFS
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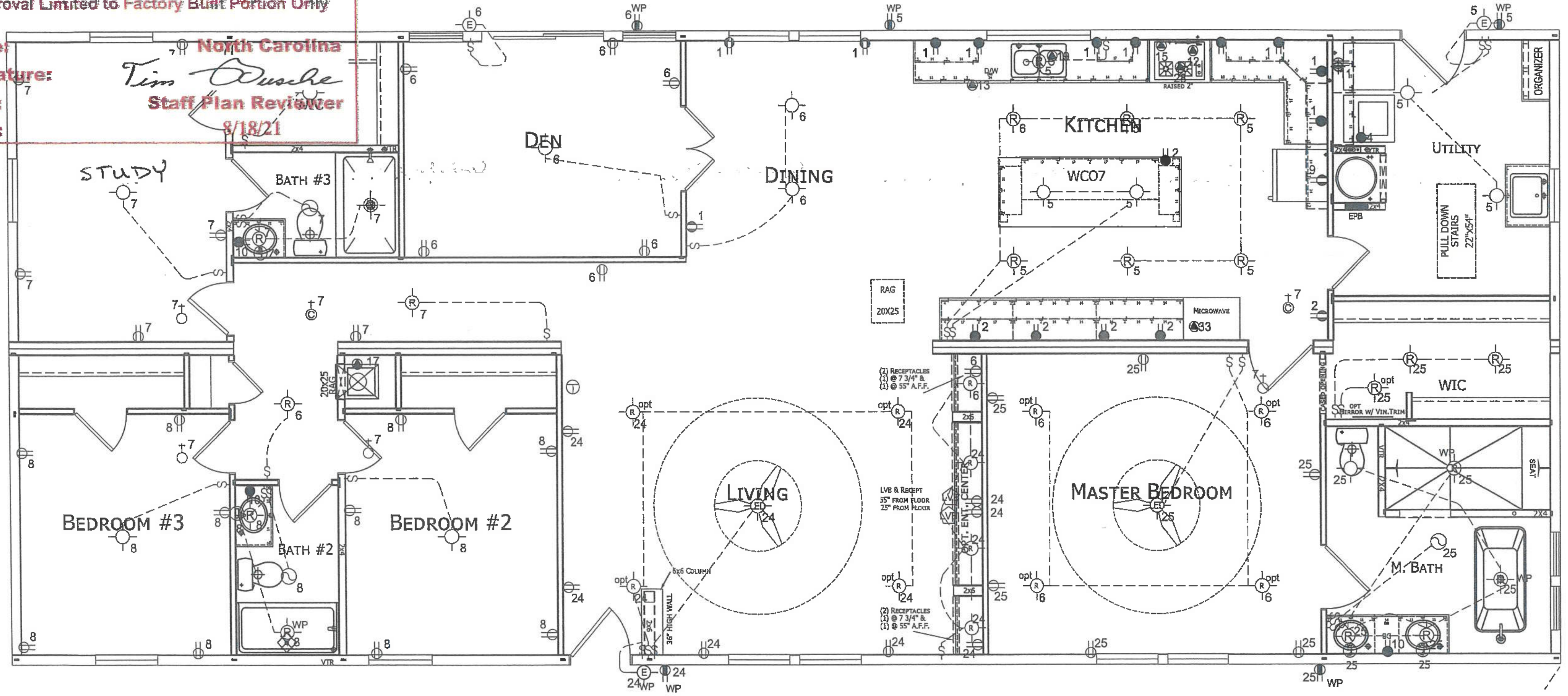
State: North Carolina
Signature: Tim Duscha
Title: Staff Plan Reviewer
Date: 8/18/21



FURNACE NOTE: 17KW NORDYNE E6 FURNACE WITH 57,000 BTUH PROVIDED BY CHAMPION HOMES.

ELECTRICAL LEGEND

⏀	GENERAL RECEPTACLE 120 VOLT - 15 AMP	-◯- or ◎	CEILING LIGHT	▯	FLUORESCENT LIGHT	▷	PHONE JACK
⏀	G.F.I. PROTECTED RECEP. 120 VOLT-15 AMP	-◯-	WALL LIGHT	●	DIRECTLY WIRED CONNECTION	TV	TV/CABLE JACK
⏀	120 VOLT - 20 AMP	-◯-	CEILING VENT FAN W/LIGHT (2 SWITCHES)	⊖	THERMOSTAT	⏀	HEAT TAPE RECEPT 120 VOLT-15 AMP
●	120 VOLT - 20 AMP G.F.I. PROTECTED	◯	EXHAUST FAN	◯ or SD	SMOKE DETECTOR	J	JUNCTION BOX
⏀	220 VOLT RECEPT.	$	SINGLE POLE SWITCH	▮	MAIN PANEL	R or C	RECESSED LIGHT
E	WATERPROOF EXTERIOR LIGHT	◯	FLOOD LIGHT	▬	TRACK LIGHTING	◎ or SC	SMOKE DETECTOR/ CO COMBINATION

NOTE:
1. CIRCUIT NUMBERS MAY VARY AND NOT ALL CIRCUITS ARE IN USE
2. ARC-FAULT CIRCUIT INTERRUPTERS SHALL BE IN ACCORDANCE WITH SECTION 210.12 (A) OF THE CURRENT NEC.
3. OPTIONAL 220 VOLT RECEPTACLE PROVIDED FOR RANGE AND DRYER.
4. POWER RANGE HOOD STANDARD.
5. ALL CLOSET LIGHTS TO BE A MIN. 12" OFF OF SHELF.
6. DWELLING UNIT RECEPTACLE MUST BE RATED AS TAMPER RESISTANT ACCORDANCE WITH SECTION 406.12, NEC
7. WATER PROOF COVERS REQUIRED FOR OUTDOOR SWITCHES AND RECEPTACLE ACCORDANCE WILL SECTION 404.4 AND 404.9, NEC
8. OUTLET, DEVICE, PULL, AND JUNCTION ARE IN ACCORDANCE TO ARTICLE 314
9. ATTIC LIGHT TO BE INSTALLED, IF ATTIC TO BE USED FOR STORAGE, ON SITE

ELECTRICAL SCHEDULE

BRKR	CIR #	NOMENCLATURE	VOLTS	WIRE
20 AF	1 GFI	PORTABLE APPLIANCE	120	12/2
20 AF	2 GFI	PORTABLE APPLIANCE	120	12/2
20	3 GFI	PORTABLE APPLIANCE	120	12/2
20	4 GFI	WASHER	120	12/2
15	5 AF	KITCHEN/UTILITY	120	14/2
15	6 AF	DINING/DEN	120	14/2
15 SD	7 AF	BDR#4/BATH 3	120	14/2
15	8 AF	BDR#2/#3/BATH 2	120	14/2
20	9 GFI	PORTABLE APPLIANCE	120	12/2
20	10 GFI	BATH GFI's	120	12/2
30	11	DRYER	240	10/3
20	12	WALL OVEN	240	10/3
15	13 OPT	DISH WASHER	120	14/2
20	14	WATER HEATER	240	12/2
30	15	COUNTER TOP RANGE	240	8/3
15	16 OPT	FURNACE (GAS)	120	14/2
20/20	17	FURNACE (ELECTRIC)	240	6/6/8
20	18 OPT	TRASH COMPACTOR	120	12/2
15	19 OPT	DISPOSAL	120	14/2

ELECTRICAL SCHEDULE – CONT –

BRKR	CIR #	NOMENCLATURE	VOLTS	WIRE
15	24 AF	LIVING ROOM	120	14/2
15	25 AF	MASTER BEDROM	120	14/2
OPT	26 GFI	OUTDOOR HYDRO MASSAGE SPA	PER MANF	
20	27 OPT	FREEZER	120	12/2
15	28 OPT	GEN LIGHTING	120	14/2
20 OPT	29 GFI	INDOOR HYDRO MASSAGE SPA	120	12/2

WIRE SIZING MAY INCREASE DUE TO DISTANCE FROM PANEL BOX

*GFI GROUND FAULT PROTECTED
*AF ARC FAULT PROTECTED
*SD SMOKE DETECTOR
*OPT OPTIONAL

ARC FAULT FOR VA BEDROOMS ONLY

PANEL SIZING

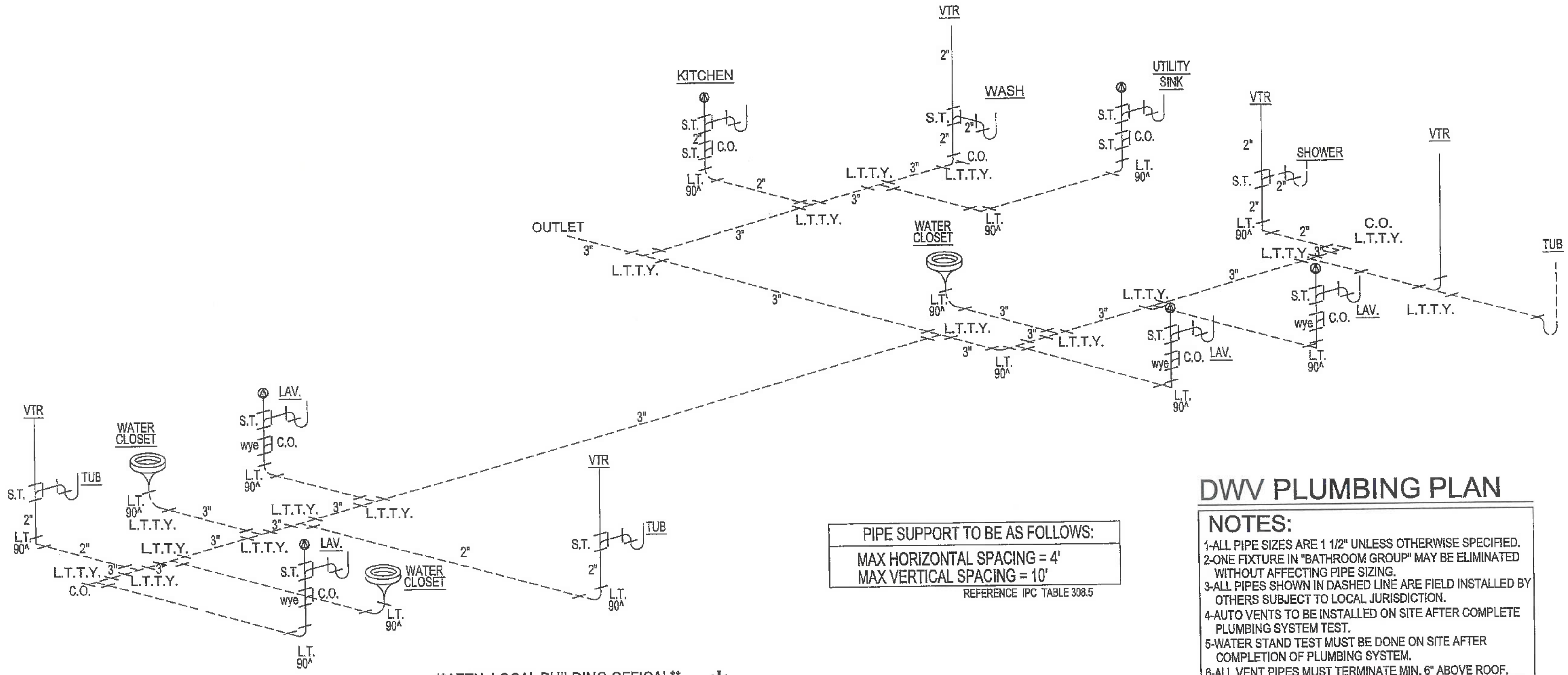
DESCRIPTION	KVA
MAX. FLOOR AREA 2305 X 3VA. /1000	6.9 KVA
2 SMALL APPLIANCES @ 1500VA. / 1000	3 KVA
COOK TOP	7.6 KVA
WATER HEATER @ 4.5 KW.	4.5 KVA
DISH WASHER @ 1.4 KW.	1.4 KVA
WASHER @ 1500VA. / 1000	1.5 KVA
DRYER @ 5.0 KW.	5.0 KVA
DISPOSAL @ 1.4 KW.	1.4 KVA
W/P TUB @ 1500VA. / 1000	1.5 KVA
W/P TUB @ 1500VA. / 1000	1.5 KVA
2 SMALL APPLIANCES @ 1500VA. / 1000 FOR MAX LOAD USED FOR CALCULATION PURPOSES	3 KVA
WALL OVEN	4.5 KVA
–	
TOTAL LOAD	41.7 KVA
1st 10 KVA @ 100%	10 KVA
REMAINDER @ 40%	12.68 KVA
HVAC @ 100%	10.5 KVA

TOTAL 33.18
33.18 X 1000 /240 = 138.3
INSTALL 200 AMP PANEL

CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

PROJECT

TITLE:
ELECTRICAL PLAN
MODEL:
23-3276-16 061720
30'-4" x 76'-0" 3 BEDROOM 3 BATH
DATE: 6-17-20
SCALE: 3/16" = 1'-0"
DRAWN BY: TT
REVISED:
REVISIONS
SHEET NO:
EP-101
PAGE:



DWV PLUMBING PLAN

NOTES:

1-ALL PIPE SIZES ARE 1 1/2" UNLESS OTHERWISE SPECIFIED.
2-ONE FIXTURE IN "BATHROOM GROUP" MAY BE ELIMINATED WITHOUT AFFECTING PIPE SIZING.
3-ALL PIPES SHOWN IN DASHED LINE ARE FIELD INSTALLED BY OTHERS SUBJECT TO LOCAL JURISDICTION.
4-AUTO VENTS TO BE INSTALLED ON SITE AFTER COMPLETE PLUMBING SYSTEM TEST.
5-WATER STAND TEST MUST BE DONE ON SITE AFTER COMPLETION OF PLUMBING SYSTEM.
6-ALL VENT PIPES MUST TERMINATE MIN. 6" ABOVE ROOF. WITH APPROVED WATER TIGHT FLASHING. (P904.1 & P904.3)
7-IF HOME LOCATED IN AREA WHERE 97.5% FOR OUTSIDE DESIGN TEMPERATURE IS 0° OR LESS, EVERY VENT EXTENSION SHALL BE MIN. 3". THIS TO BE DONE ON SITE BY OTHERS. (P904.2)
8-RODENT PROOFING AT ALL SHOWERS, TUBS, TUB/SHOWER TO BE COMPLETED ON SITE BY OTHERS AFTER PLUMBING TEST COMPLETED.

SEE Q/A MANUAL FOR APPROVED PLUMBING FIXTURES SECTION 4 PAGE 5

PIPE SUPPORT TO BE AS FOLLOWS:
MAX HORIZONTAL SPACING = 4'
MAX VERTICAL SPACING = 10'
REFERENCE IPC TABLE 308.5

ATTN. LOCAL BUILDING OFFICAL *

ALL P-TRAPS AT TUBS, SHOWERS & TUB/SHOWERS MUST BE RODENT PROOFED AND FINAL FIRE BLOCKING COMPLETED ON SITE BY OTHERS AFTER COMPLETION OF ALL PLUMBING TESTS. ALL OTHER RODENT PROOFING AND FIRE BLOCKING AT FLOOR LEVEL DONE AT FACTORY. (REFERENCE IRC R302.11 FOR CORRECT METHODS)

SEE PAGE AE-101 IN SETUP MANUAL IN HOME FOR DETAILS (SECTION 5, PG 36 QA MANUAL).

SEE Q/A MANUAL FOR APPROVED PLUMBING FIXTURES SECTION 4 PAGE 5

①	1 1/2" PVC OR ABS
②	2" PVC OR ABS
③	3" PVC OR ABS
⊘	APPROVED AUTOVENT
S/O	STUB OUT
VTR	VENT THROUGH ROOF
-------	INSTALLED ON SITE

PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

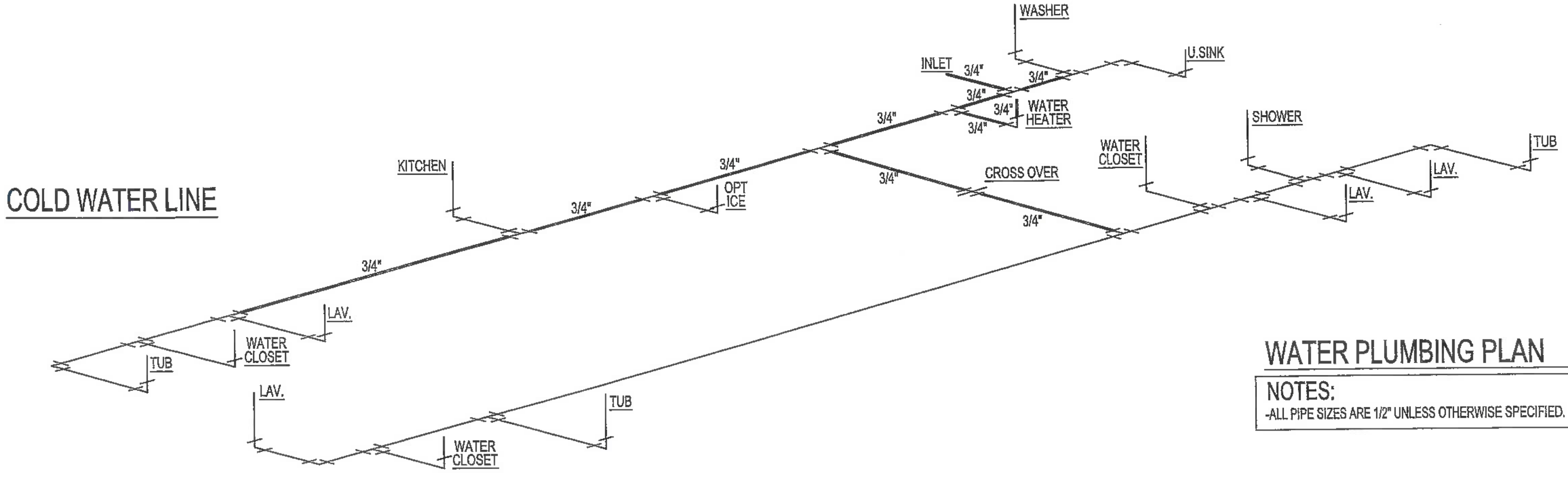
CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

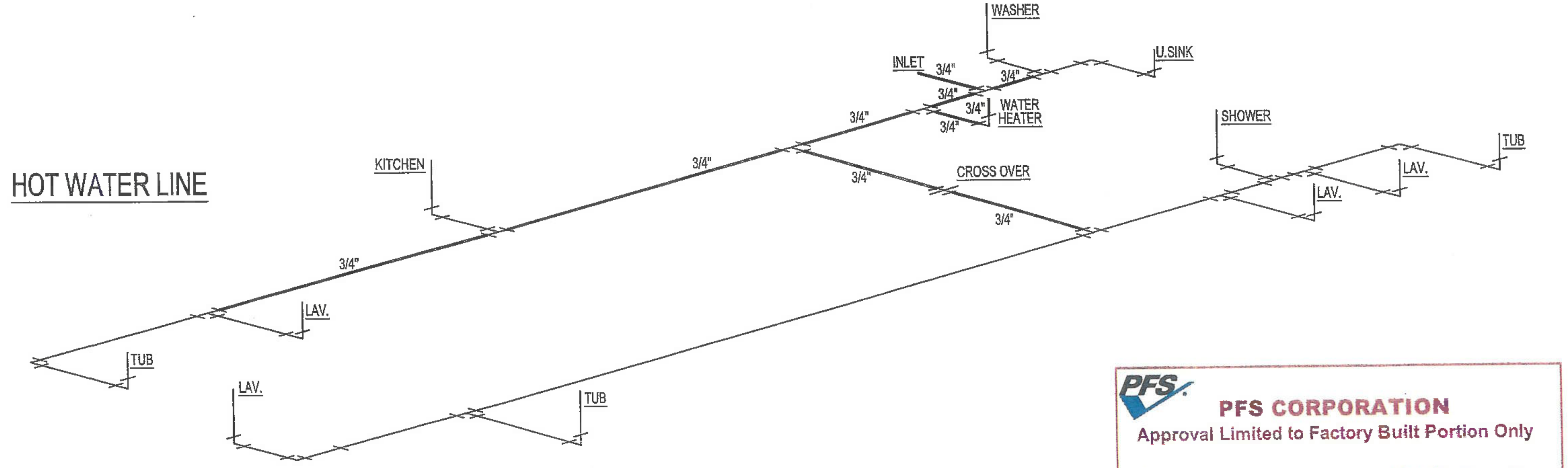
PROJECT

TITLE: DWV PLAN OFF-FRAME
MODEL: 23-3276-16 061720
30'-4" x 76'-0" 4 BEDROOM 3 BATH
DATE: 6-17-20
SCALE: NTS
DRAWN BY: TT
REVISED:
REVISIONS
SHEET NO: PP-101
PAGE:

WATER PLUMBING PLAN

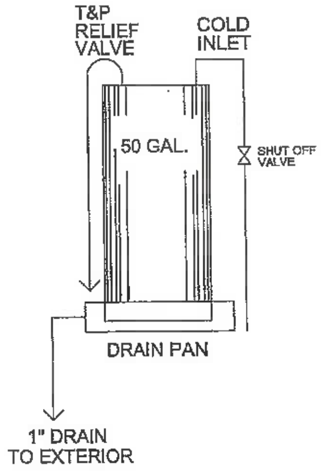
NOTES:
-ALL PIPE SIZES ARE 1/2" UNLESS OTHERWISE SPECIFIED.





WATER HEATER SECURED IN PLACE
FOR TRANSIT WITH METAL SHIPPING
STRAPS FROM WALL TO WALL

STATE WATER HEATER
MODEL # SC 152 DORTE 3 (ELECTRIC)
CO1094 IM 50 NHDST 2 (GAS)
MANF. INFORMATION LOCATED
IN Q.A. MANUAL, SECTION 4,
PAGE 04.01.01



SUPPLY AT WATER HEATER

1. ALL PLUMBING FIXTURES HAVE SEPARATE SHUTOFF VALVES.
2. WATER HEATER SHALL HAVE A SAFETY PAN WITH 1 INCH DRAIN TO EXTERIOR.
3. WATER PIPES INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE LOCATED ON THE HEATED SIDE OF THE WALL INSULATION. WATER PIPING INSTALLED IN AN UNCONDITIONED ATTIC OR CRAWL SPACE SHALL BE INSULATED WITH AN INSULATION OF R-3 MINIMUM ON SITE BY OTHERS.
4. DWV SYSTEM SHALL EITHER ABS or PVC -DWV
5. WATER SUPPLY LINES SHALL BE POLY-ETHYLENE (PEX), CPVC, OR COPPER, WHEN POLYETHYLENE SUPPLY LINES ARE INSTALLED THE MAXIMUM WATER HEATER SETTING IS 180 deg F. THE POLYETHYLENE PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURES LIMITATIONS AND INSTRUCTIONS.
6. BUILDING DRAIN AND CLEANOUTS ARE DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL.
7. TUB ACCESS PROVIDED UNDER HOME UNLESS OTHERWISE NOTED.
8. SHOWER STALLS SHALL BE COVERED w/ NON-ABSORANT MATERIAL TO A HEIGHT OF 72 INCHES ABOVE FINISH FLOOR.
9. T&P RELIEF VALVE w/DRAIN TO EXTERIOR OR PAN and SHUT-OFF WITHIN 3' of WATER SUPPLY AT WATER HEATER
10. THIS UNIT MUST BE CONNECTED TO PUBLIC WATER SUPPLY AND SEWAGE SYSTEM IF THESE ARE AVAILABLE
11. WATER PIPE DESIGNED FOR MAXIMUM INLET PRESSURE OF 80 PSI. SEE SETUP MANUAL SECTION 6.1

SEE Q/A MANUAL FOR APPROVED PLUMBING FIXTURES SECTION 4 PAGE 5

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Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

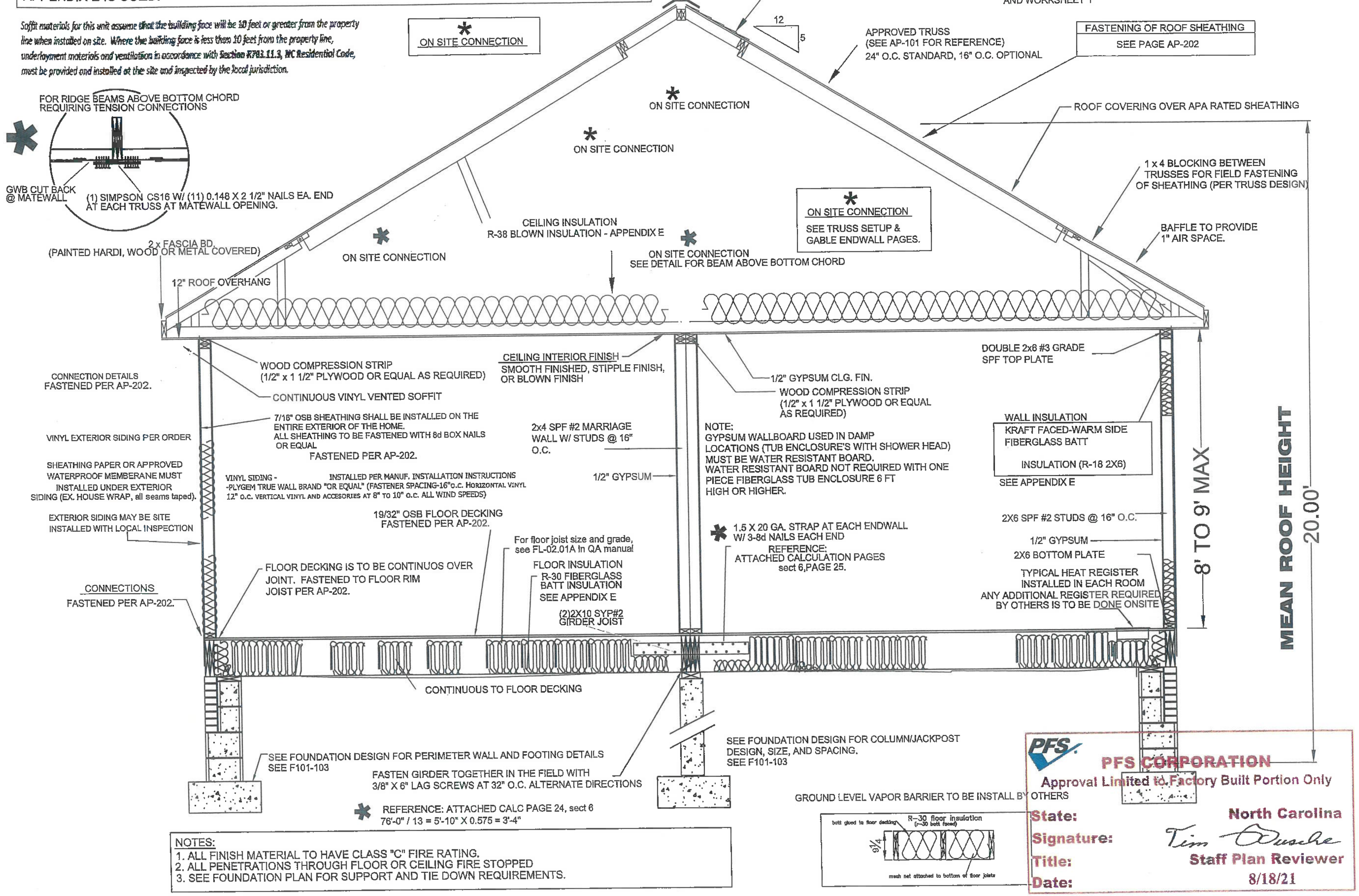
PROJECT

TITLE:
WATER LINE PLAN
MODEL:
23-3276-16 061720
30'-4" x 76'-0" 3 BEDROOM 3 BATH
DATE: 6-17-20
SCALE: NTS
DRAWN BY: TT
REVISED:
REVISIONS
SHEET NO:
WP-101
PAGE:

* ATTN LOCAL BUILDING OFFICAL:
SEE INSULATION CERTIFICATE AT PANEL BOX FOR ACTUAL INSULATION VALUE USED.
APPENDIX E IS USED.

Soffit materials for this unit assume that the building face will be 10 feet or greater from the property line when installed on site. Where the building face is less than 10 feet from the property line, underlayment materials and ventilation in accordance with Section R703.11.3, NC Residential Code, must be provided and installed at the site and inspected by the local jurisdiction.

ATTIC VENTILATION REQUIREMENT OF 1/300th OF TOTAL ROOF AREA IS ACCOMPLISHED WITH 50% OR MORE OF THE NET VENT AREA PROVIDED THROUGH ROOF VENTILATORS, RIDGE VENTS OR GABLE VENTS LOCATED IN THE UPPER 1/3 OF THE TRUSS HEIGHT AND THE REMAINDER OF THE NET VENT AREA PROVIDED BY SOFFIT VENTS. SEE NOTE ON AP101 AND WORKSHEET 1



NOTES:
1. ALL FINISH MATERIAL TO HAVE CLASS "C" FIRE RATING.
2. ALL PENETRATIONS THROUGH FLOOR OR CEILING FIRE STOPPED
3. SEE FOUNDATION PLAN FOR SUPPORT AND TIE DOWN REQUIREMENTS.

PFS
PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

PROJECT

TITLE:
OFF FRAME
CROSS SECTION

MODEL:
23-3276-16 061720
30"-4" x 76'-0" [illegible] BEDROOM 3 BATH

DATE: 10/7/03
SCALE: 1/8" = 1'-0"
DRAWN BY: JPT
REVISED: 04-13-04

REVISIONS	
CDB	ADDED DORMER INFORMATION
SFA	ADDED P-TRAP RODENT PROOF

SHEET NO:
SE-101

PAGE:

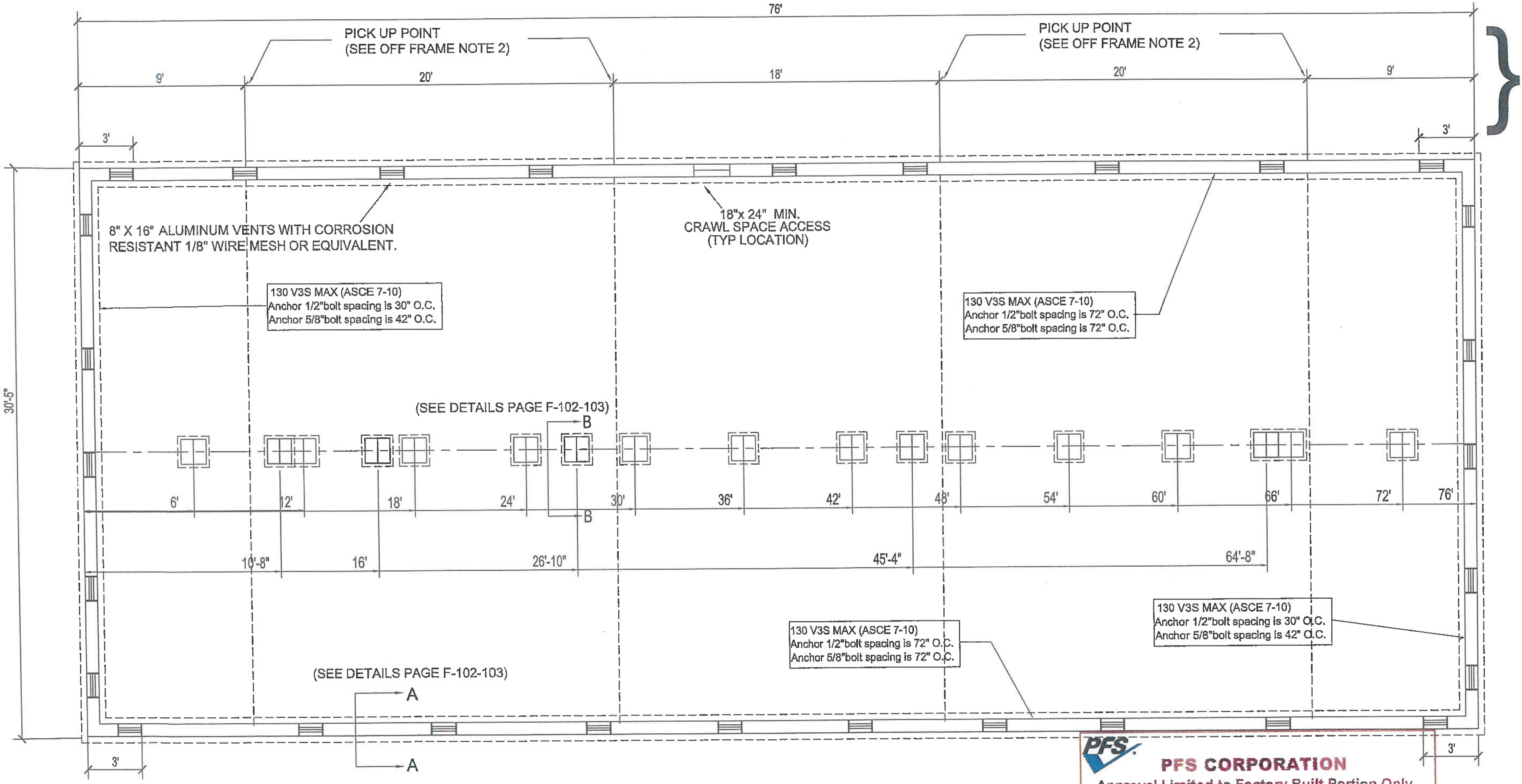
FOUNDATION VENT TO PROVIDE 1sf OF VENT PER EACH 150sf OF CRAWL SPACE AREA

2305 SF / 150 SF = 15.4

8"x16" (TYP) VENT= APPROX .5 SF
15.4 / .5 = APPROX. 31 VENTS

NOTES:
1. SPLICES IN MATE LINE GIRDERS MUST FALL ON A SUPPORT PIER.
2. PIERS OR POSTS TO BE SPACED PER CHART AND LOCATED UNDER OPENING COLUMN SUPPORTS WHEN OPENING WIDTH IS 4' OR GREATER.
3. FOR SEISMIC DESIGN CATEGORY D0, D1 & D2 FOUNDATION DESIGNED BY OTHERS

OFF FRAME LIFTING NOTES:
1. IF LIFTING POINTS ARE MORE THAN 32' FEET APART (TYPICAL OF UNIT LENGTHS GREATER THAN 64'), A THIRD AND FOURTH LIFTING POINT IS REQUIRED. THIRD AND FOURTH LIFTING POINT IS TO BE BETWEEN OUTER LIFTING POINTS AND MEET THE REQUIREMENTS OF NOTE 2.
2. PICK UP POINT MUST NOT BE LOCATED UNDER A WALL OPENING.
IF AN OPENING CANNOT BE AVOIDED, A TEMPORARY WALL MUST BE INSTALLED.



NOTE:
1" ADDED TO OVERALL WIDTH TO ACCOMMODATE LIFT STRAPS

PFS
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State: North Carolina
Signature: Tim Duncke
Title: Staff Plan Reviewer
Date: 8/18/21

CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

PROJECT

TITLE:
PERIMETER FOUNDATION PLAN

MODEL:
23-3276-16 061720
30'-4" x 76'-0" 3 BEDROOM 3 BATH

DATE: 6-17-20
SCALE: NTS
DRAWN BY: TT
REVISED:
REVISIONS

SHEET NO:
F-101

PAGE:

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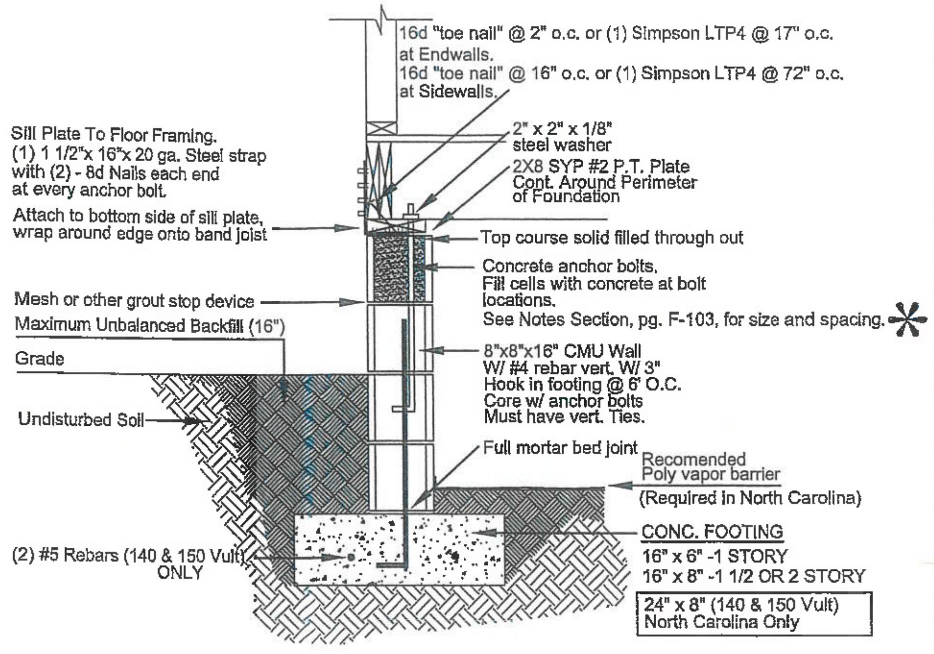
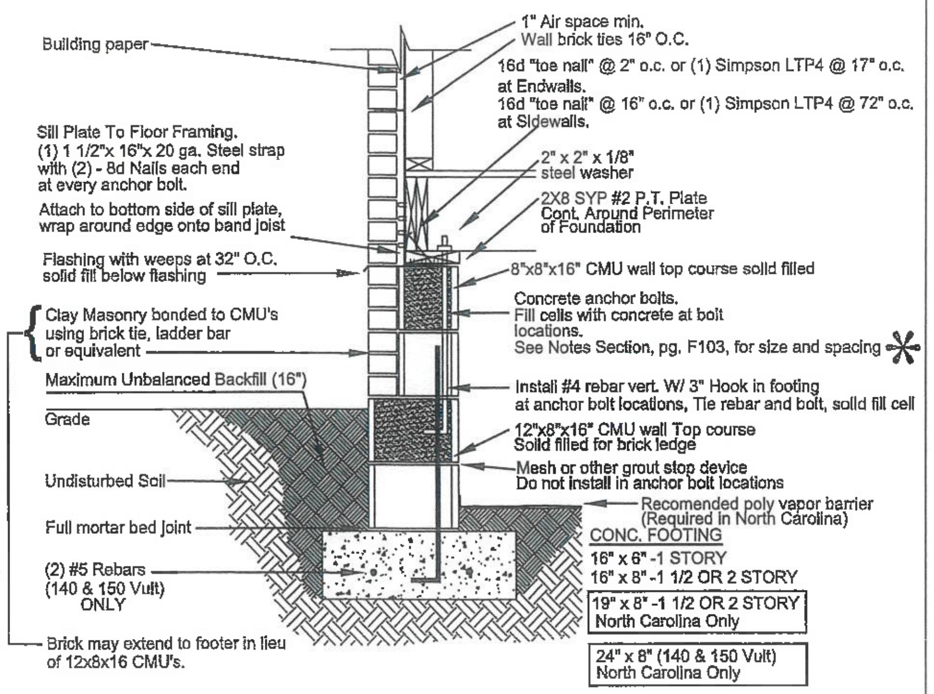


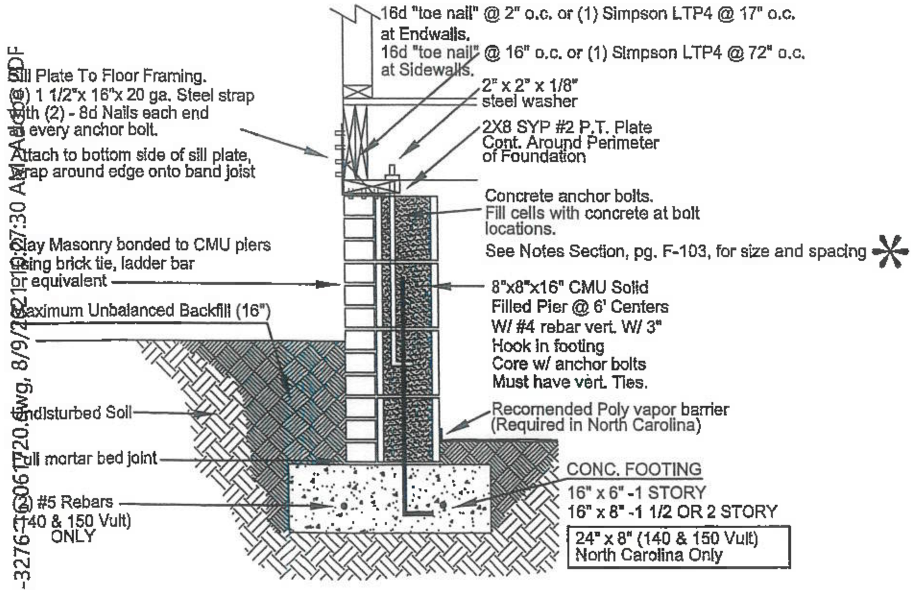
● If nail spacing is 2" or less, plates are recommended, since plate splitting may occur.

SECTION A-A
BLOCK WALL



● If nail spacing is 2" or less, plates are recommended, since plate splitting may occur.

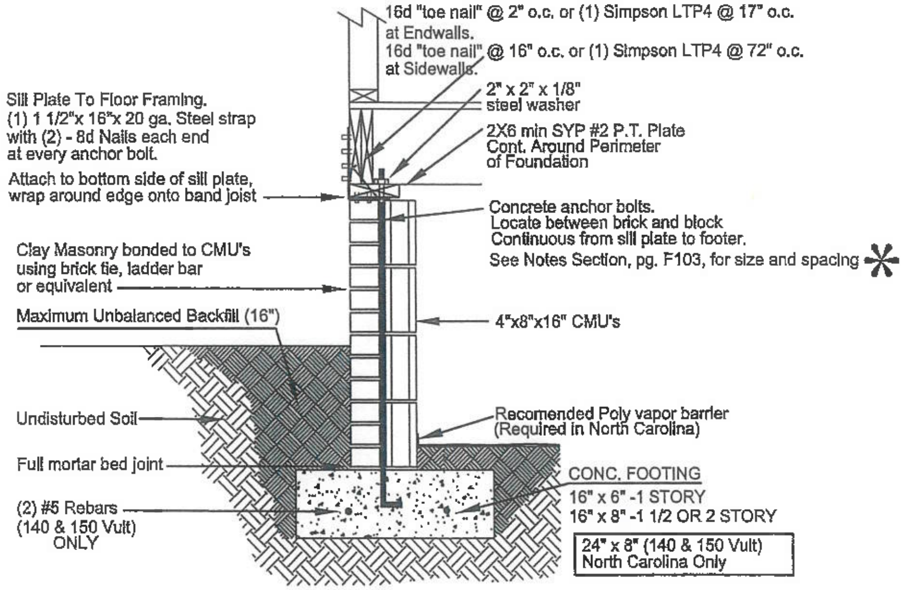
SECTION A-A
BRICK VENEER WALL



MAX 48" HEIGHT

● If nail spacing is 2" or less, plates are recommended, since plate splitting may occur.

SECTION A-A
PIER & CURTAIN WALL



● If nail spacing is 2" or less, plates are recommended, since plate splitting may occur.

SECTION A-A
CONTINUOUS 8" MASONRY WALL

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State: North Carolina
Signature: Tim Duscle
Title: Staff Plan Reviewer
Date: 8/18/21

CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

PROJECT

TITLE: PERIMETER FOUNDATION DETAILS
MODEL: 23-3276-16 061720
30'-4" x 76'-0" 3 BEDROOM 3 BATH
DATE: 6-17-20
SCALE: NTS
DRAWN BY: TT
REVISED:
REVISIONS
SHEET NO: F-102
PAGE:

REFERENCE STRUCT. MANUAL SECTION 20

TYPICAL FOUNDATION NOTES :

- Foundation and its structural elements shall be capable of accommodating all superimposed live, dead, and other loads in accordance with applicable codes and all lateral loads in accordance with accepted design practices.
- Lots shall be provided with adequate drainage and shall be graded so as to drain surface water away from foundation walls - by lot owner.
- Materials shall conform to applicable standards and codes.
- Concrete subject to weathering shall have a minimum compressive strength and air content in accordance with code - 2500 psi concrete minimum.
- All exterior walls, bearing walls, columns, and piers shall be supported on continuous solid concrete footings which shall be of sufficient design to support safely the loads imposed as determined from the character of the soil, and shall in all cases, extend below the frost line. Top surface shall be level and bottom not exceeding 1 in 40 slope. Footings shall be not less than shown on drawings for 2000 psf soil.
- Foundation walls shall be constructed in accordance with the code and not less than as shown on the Drawings.
- Foundations shall extend not less than 12 inches below the finished natural grade or engineered fill and in no case less than the frost line depth. Footings on soil with a lower allowable soil pressure shall be designed in accordance with accepted engineering practice. However, where there is evidence that the groundwater table can rise to within 6 inches of the finished grade at the building perimeter or where there is evidence that the surface water does not readily drain from the building site, the building official may require that the grade in the under-floor space be as high as the outside finished grade, unless an approved drainage system is provided. Termite shields and/or protection shall be provided as per code. Local and state requirements for footings may exceed that shown on drawings. If there are any questions, contact your local building inspections department.
- Crawl space ventilation and access space shall be by openings in the foundation walls {cross-ventilation as required by code and/or as follows}. Provide 1 sq. Ft. of ventilation area for each 150 sq. Ft. of crawl space floor area. Use 8"x16" foundation vents with corrosion resistant wire mesh (1/8" mesh) or equal.
- Mortar shall be type "m" or "s".
- Minimum soil bearing capacity shall be 2000 psf.
- Anchorbolt length to be: masonry wall-20",
- Poured concrete footing w/two #5 rebar (120 & 130 only) continuous w'a minimun 25" lap. Place bars 3" from bottom.
- This foundation plan is provided for reference as a typical. Actual foundation conditions must be evaluted for applicability if this plan is to be used. Alternate foundation plans may be designed by others in accordance with the requirements of the jurisdiction having authority.

* Vertical wall reinforcement or continuous anchorage is as follows:

- Sidewall anchor bolt spacing see F-101
- Endwall anchor bolt spacing see F-101

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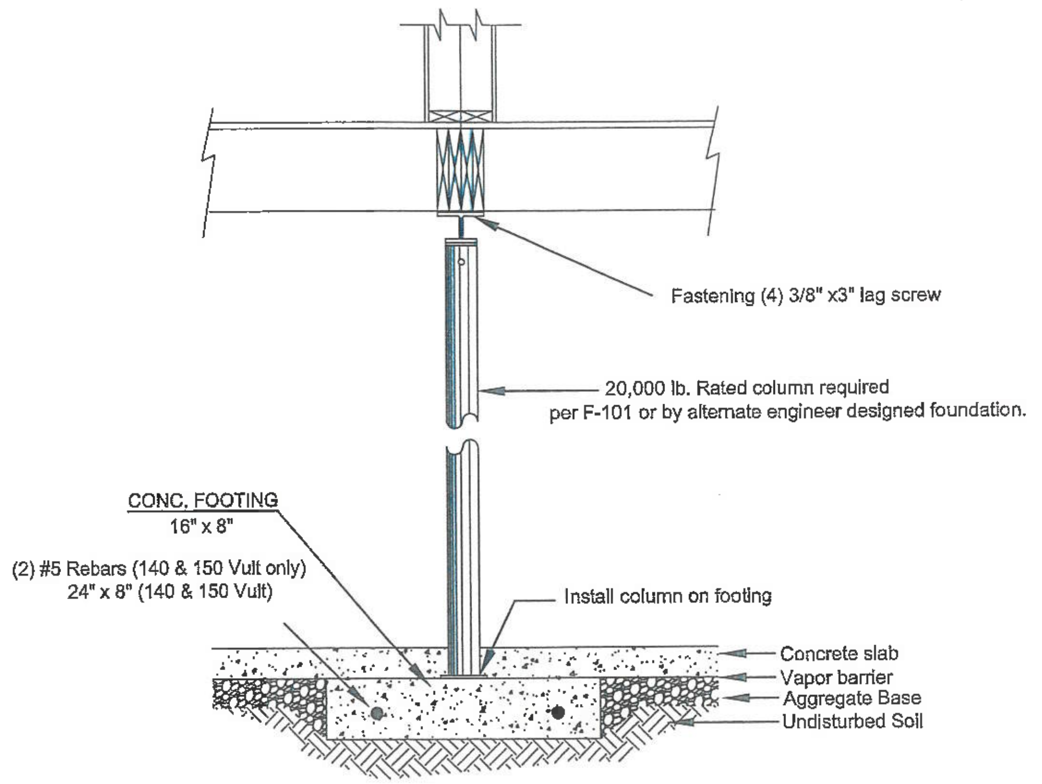
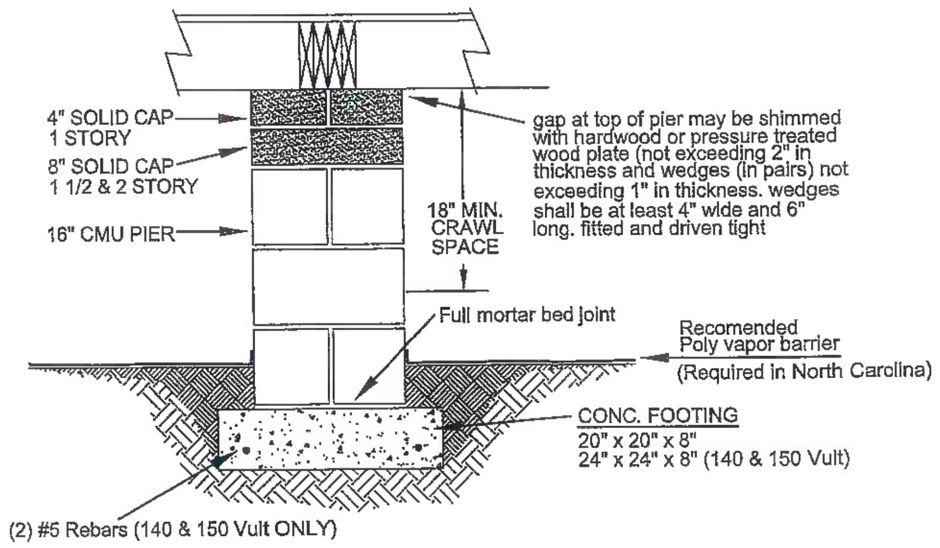
There shall be a minimum of (2) bolts per sill plate section, with one bolt located not more than 12" from each end of the plate section.



SECTION B-B

BASEMENT WALL



SECTION B-B

PIER & CURTAIN WALL, BLOCK WALL
& BRICK VENEER WALL
(where required on module mate lines)

CHAMPION
4055 HWY. 401 SOUTH LILLINGTON, NC 27546

PROJECT

TITLE:
PERIMETER FOUNDATION DETAILS
MODEL:
23-3276-16 061720
30'-4" x 76'-0" 3 BEDROOM 3 BATH
DATE: 6-17-20
SCALE: NTS
DRAWN BY: TT
REVISED:
REVISIONS
SHEET NO:
F-103
PAGE:

BUILDER MUST FINISH APPENDIX, FACTORY DONE MARKED IN RED

APPENDIX E

(E-1 THROUGH E-4) RESIDENTIAL REQUIREMENTS FOR ENERGY CONSERVATION

This appendix is a North Carolina addition and not part of the 2015 *International Residential Code.*
There will be no underlined text.

(The provisions contained in this appendix are adopted as part of this code.)

APPENDIX E-1 Energy Efficiency Certificate (Section N1101.14)

ENERGY EFFICIENCY CERTIFICATE (N1101.14)

Builder, Permit Holder or Registered Design Professional

Print Name:

Signature:

Property Address:

Date:

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Insulation Rating – List the value covering largest area to all that apply	**R-Value**
Ceiling/roof:	R- 38
Wall:	R- 18
Floor:	R- 30
Closed crawl space wall:	R-
Closed crawl space floor:	R-
Slab:	R-
Basement wall:	R-
Fenestration:	
U-Factor	0.34
Solar Heat Gain Coefficient (SHGC)	0.29
Building Air Leakage	
☐ Visually inspected according to N1102.4.2.1 OR	
☐ Building air leakage test results (Sec. N1102.4.2.2) ACH50 [Target: 5.0] or CFM50/SFSA [Target: 0.30]	
Name of Tester/Company: Date: Phone:	
Ducts:	
Insulation	R-
Total duct leakage test result (Sect. N1103.3.3) Circle one: Total duct leakage test (CFM25 Total/100SF) [Target: 5] or Duct leakage to the outside test (CFM25 Total/100SF) [Target: 4]	
Name of Tester or Company: Date: Phone:	
Certificate to be displayed permanently	

APPENDIX E-2
INSULATION AND AIR SEALING DETAILS

APPENDIX E-2.1

N1102.2.1 Ceilings with attic spaces: Exception for fully enclosed attic floor systems

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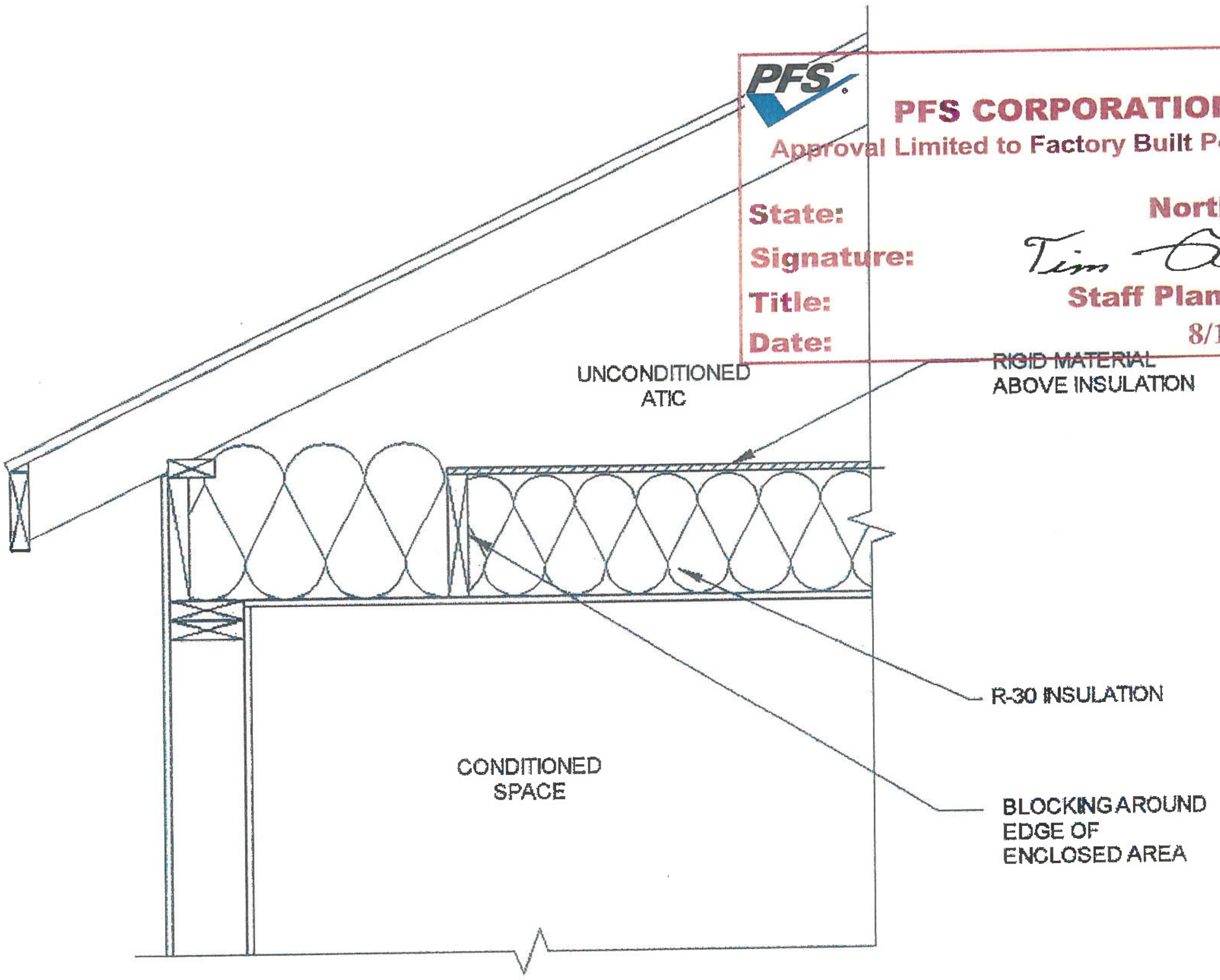
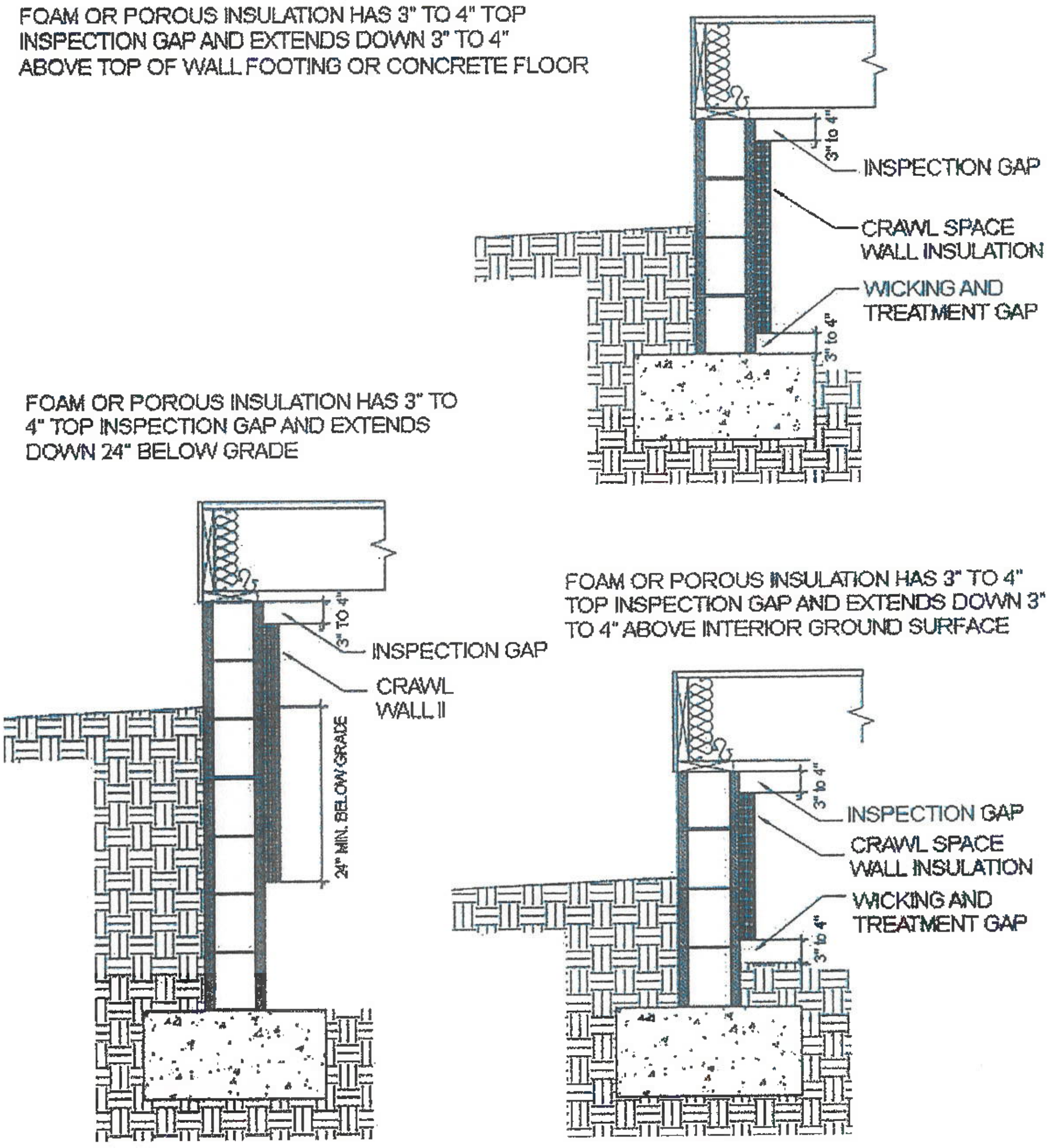


SECTION VIEW OF CEILING WITH ATTIC SPACE

APPENDIX E-2.2

N1102.2.11 Closed crawl space walls. Insulation illustrations


FOAM OR POROUS INSULATION HAS 3" TO 4" TOP INSPECTION GAP AND EXTENDS DOWN 3" TO 4" ABOVE TOP OF WALL FOOTING OR CONCRETE FLOOR

FOAM OR POROUS INSULATION HAS 3" TO 4" TOP INSPECTION GAP AND EXTENDS DOWN 24" BELOW GRADE

FOAM OR POROUS INSULATION HAS 3" TO 4" TOP INSPECTION GAP AND EXTENDS DOWN 3" TO 4" ABOVE INTERIOR GROUND SURFACE

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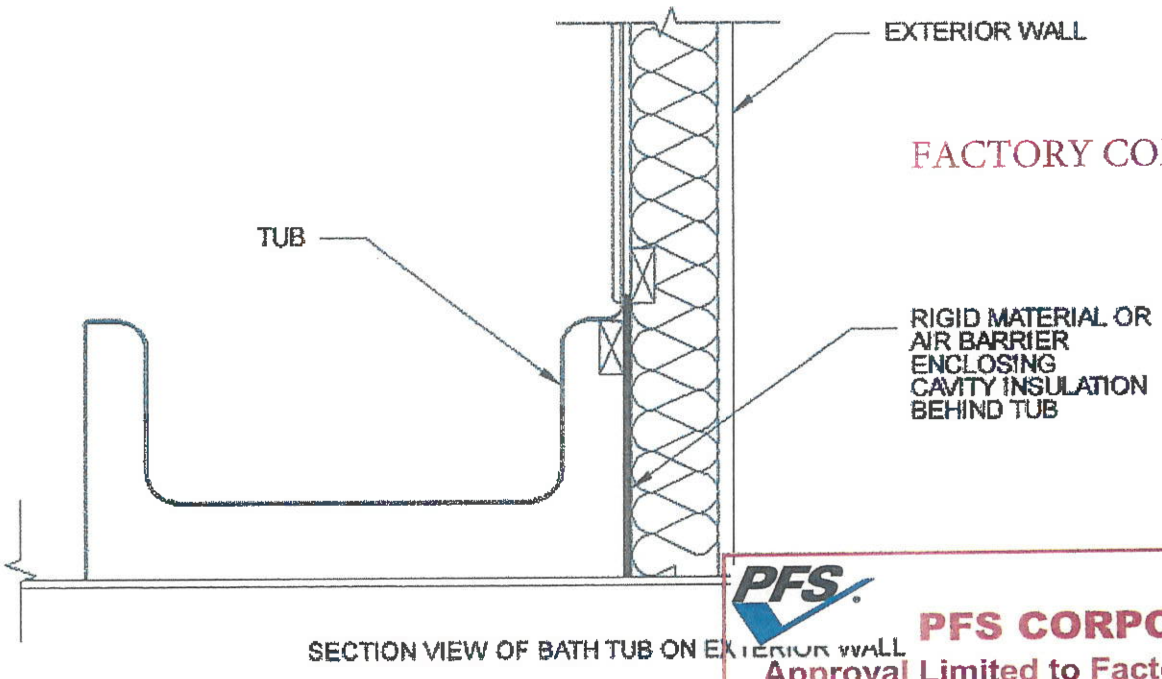
APPENDIX E-2.3

N1102.2.14 Framed cavity walls. Insulation enclosure—1. Tubs



FACTORY COMPLETED

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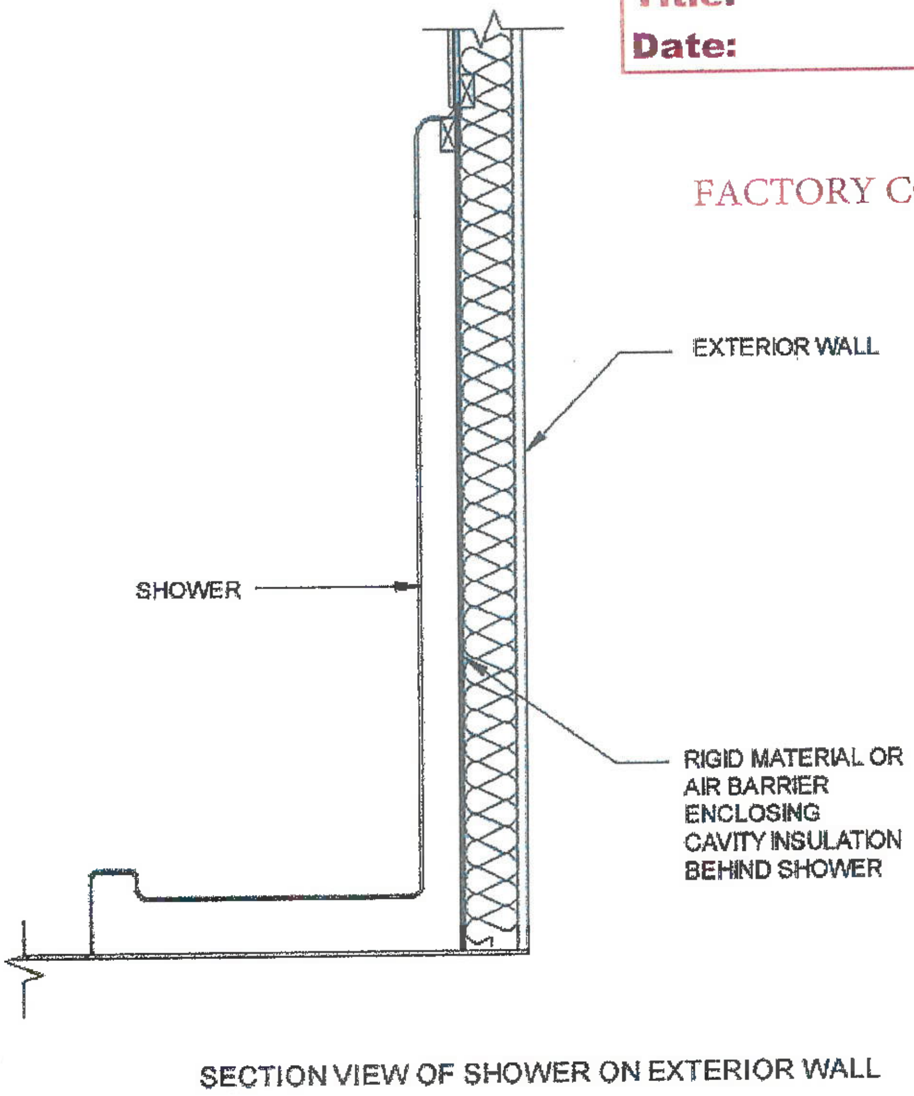
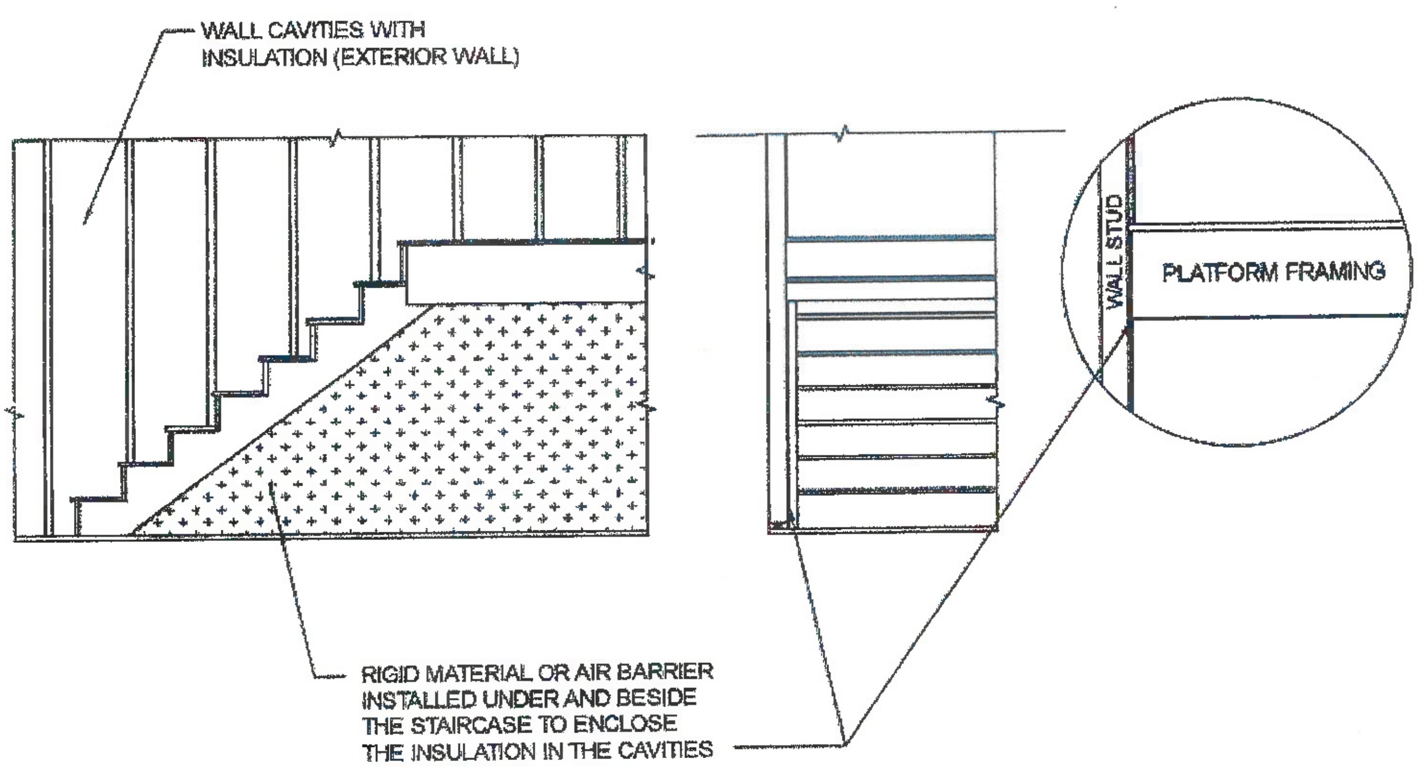
N1102.2.14 Framed cavity walls. Insulation enclosure—2. Showers

FACTORY COMPLETED



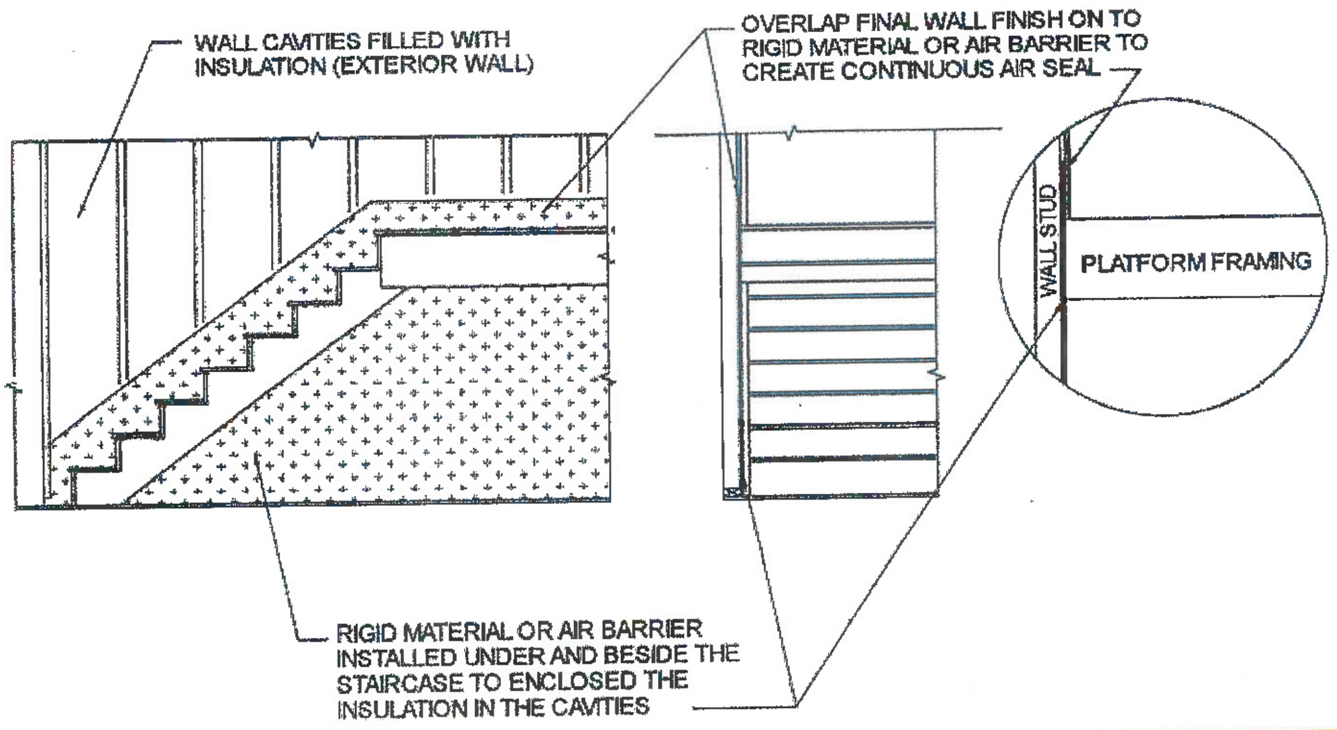
N1102.2.14 Framed cavity walls. Insulation enclosure—3. Stairs

FACTORY COMPLETED, IF APPLICABLE



SECTION VIEW OF INTERIOR STAIRCASE ON EXTERIOR WALL (OPTION 1)

N1102.2.14 Framed cavity walls. Insulation enclosure—3. Stairs



SECTION VIEW OF INTERIOR STAIRCAS IOR WALL (OPTION 2)

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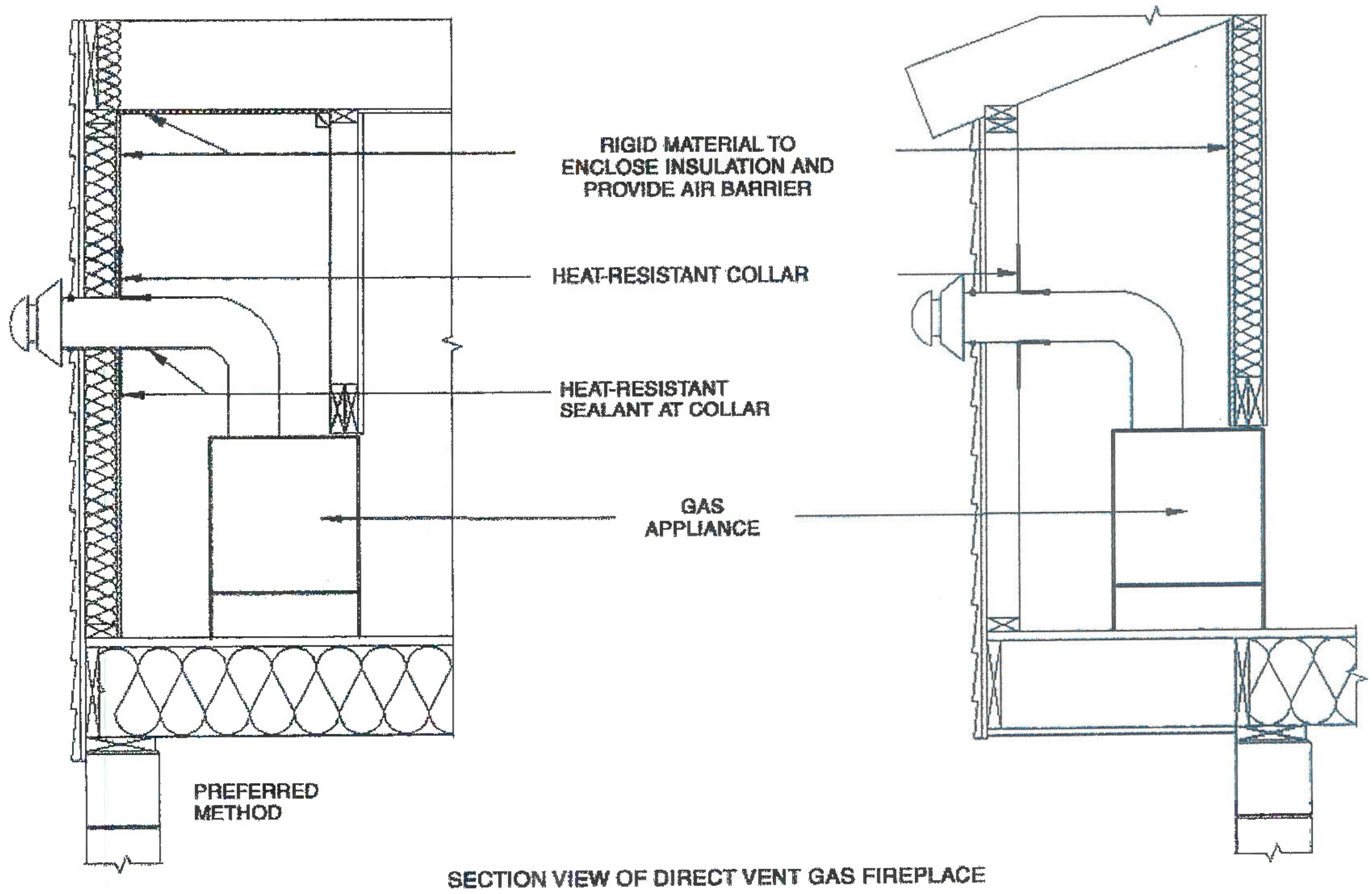
N1102.2.14 Framed cavity wall. Insulation enclosure—4. Direct vent gas fireplace

N/A BY FACTORY



SECTION VIEW OF DIRECT VENT GAS FIREPLACE

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Signature: Tim Dusche
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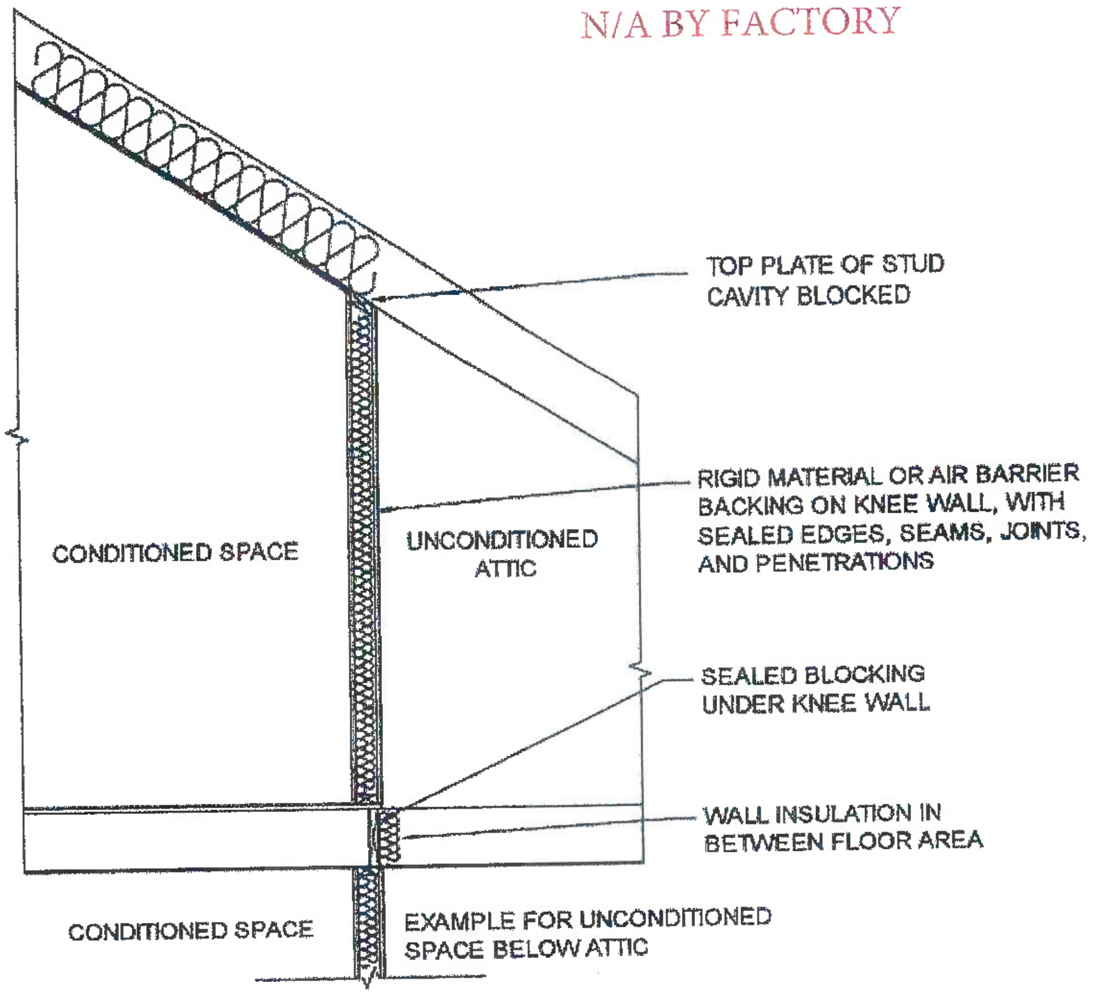
Date: 8/18/21

N1102.2.15 Framed cavity walls. Insulation enclosure—5. Walls that adjoin attic spaces



N/A BY FACTORY

SECTION VIEW OF WALL ADJOINING ATTIC SPACE WITH STICK FRAMED ROOF

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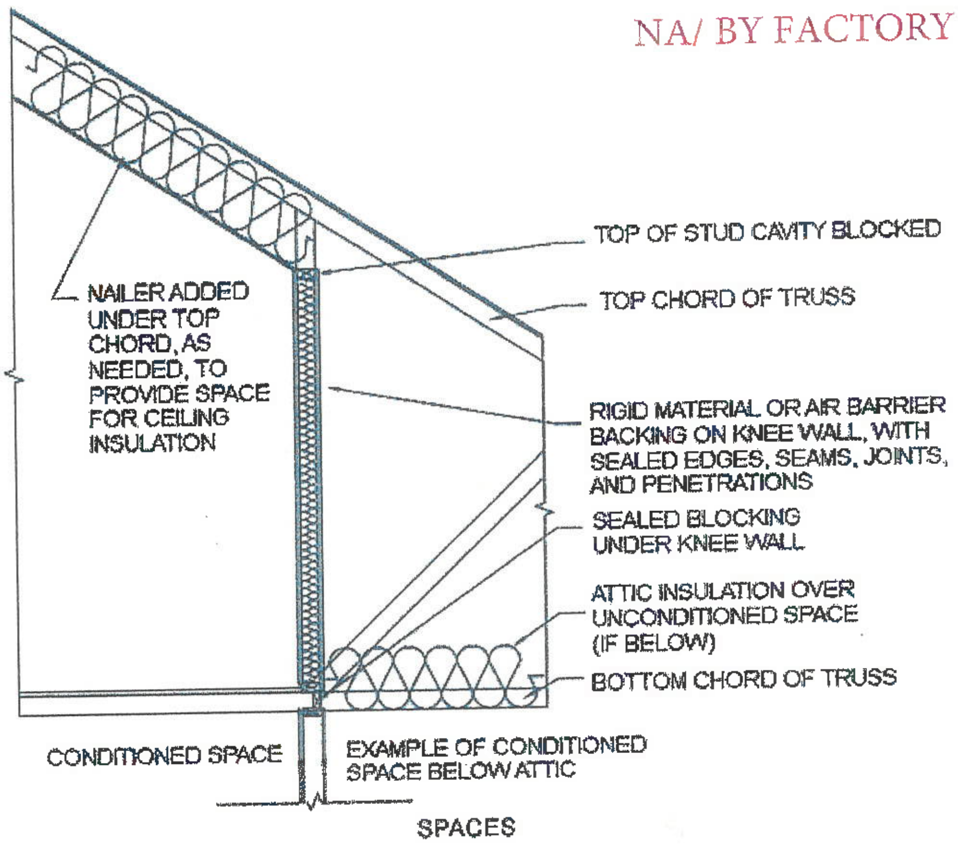
Title: Staff Plan Reviewer
Date: 8/18/21

N1102.2.15 Framed cavity walls. Insulation enclosure—5. Walls that adjoin attic spaces

NA/ BY FACTORY

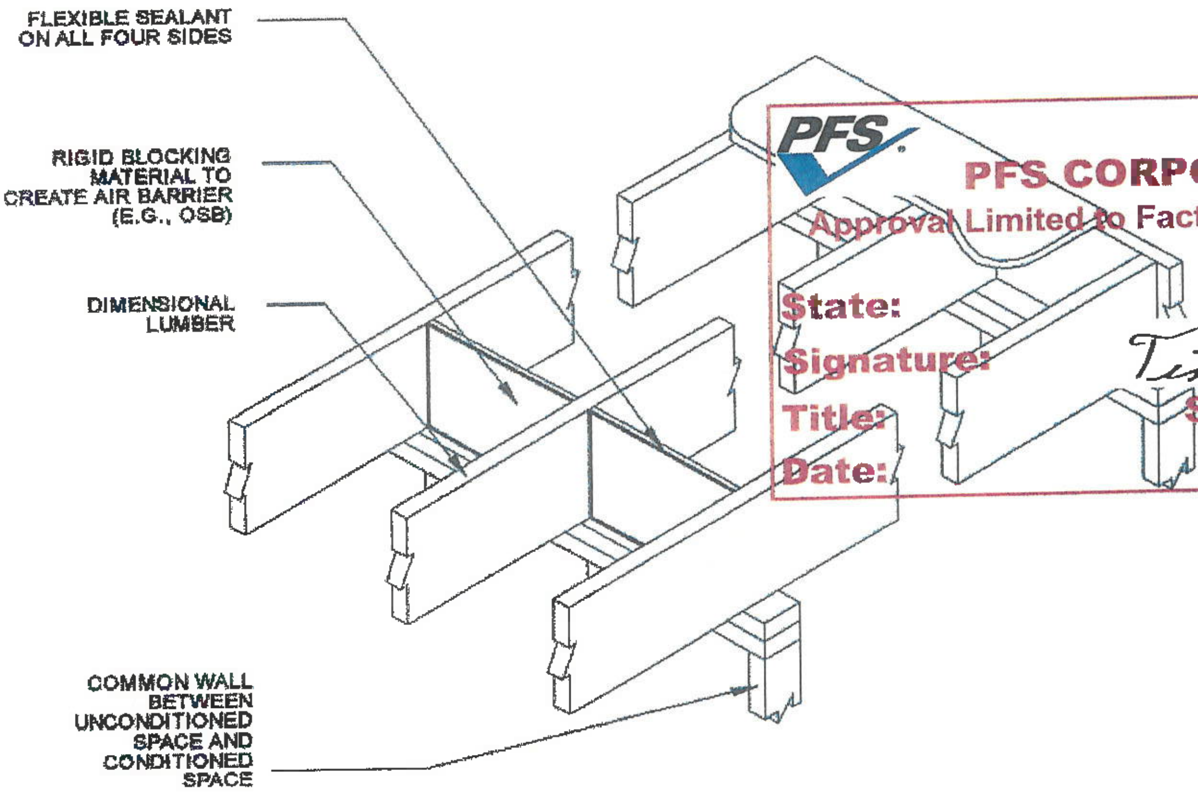


SECTION VIEW OF WALL ADJOINING ATTIC SPACE WITH TRUSS ROOF

APPENDIX E-2.4

N1102.4.1 Building thermal envelope.—1. Block and seal floor/ceiling systems

N/A BY FACTORY



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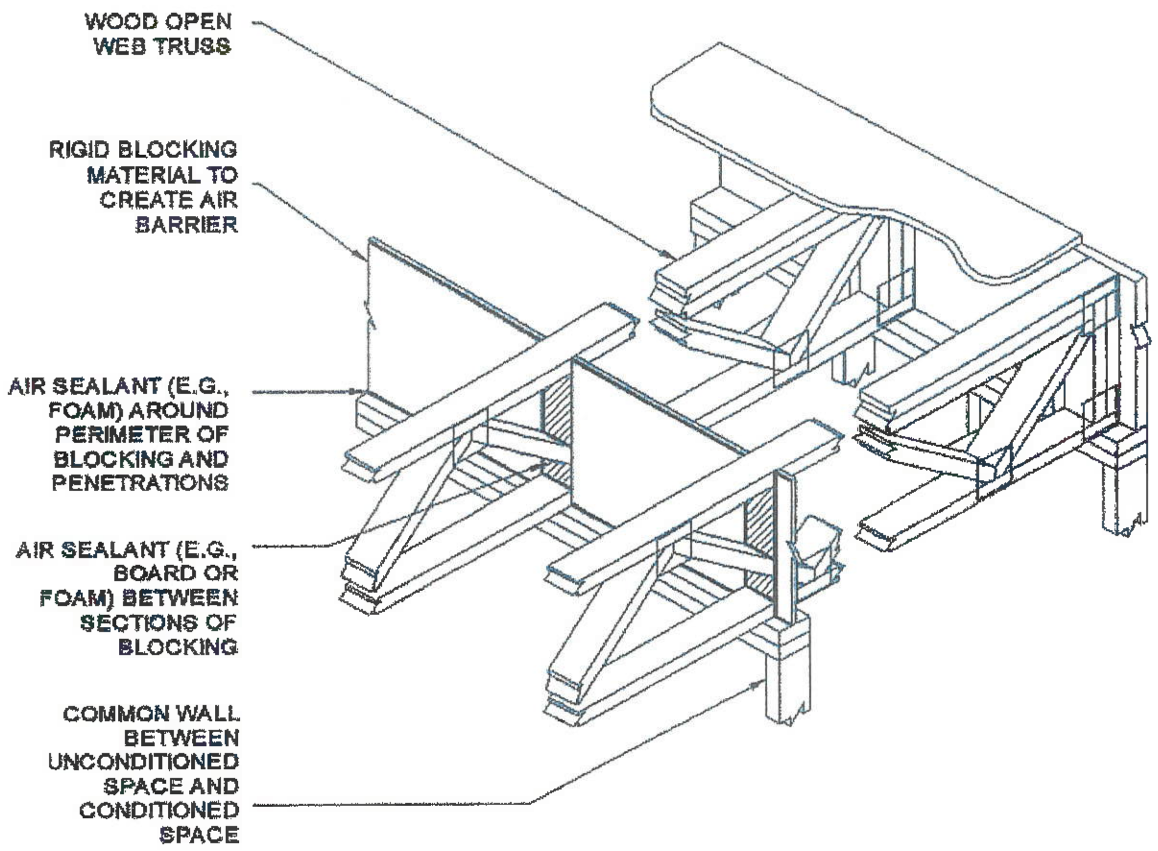
Date: 8/18/21

ISOMETRIC VIEW OF DIMENSIONAL LUMBER FLOOR/CEILING SYSTEM ABOVE COMMON WALL BETWEEN UNCONDITIONED AND CONDITIONED SPACE

N1102.4.1 Building thermal envelope.—1. Block and seal floor/ceiling systems

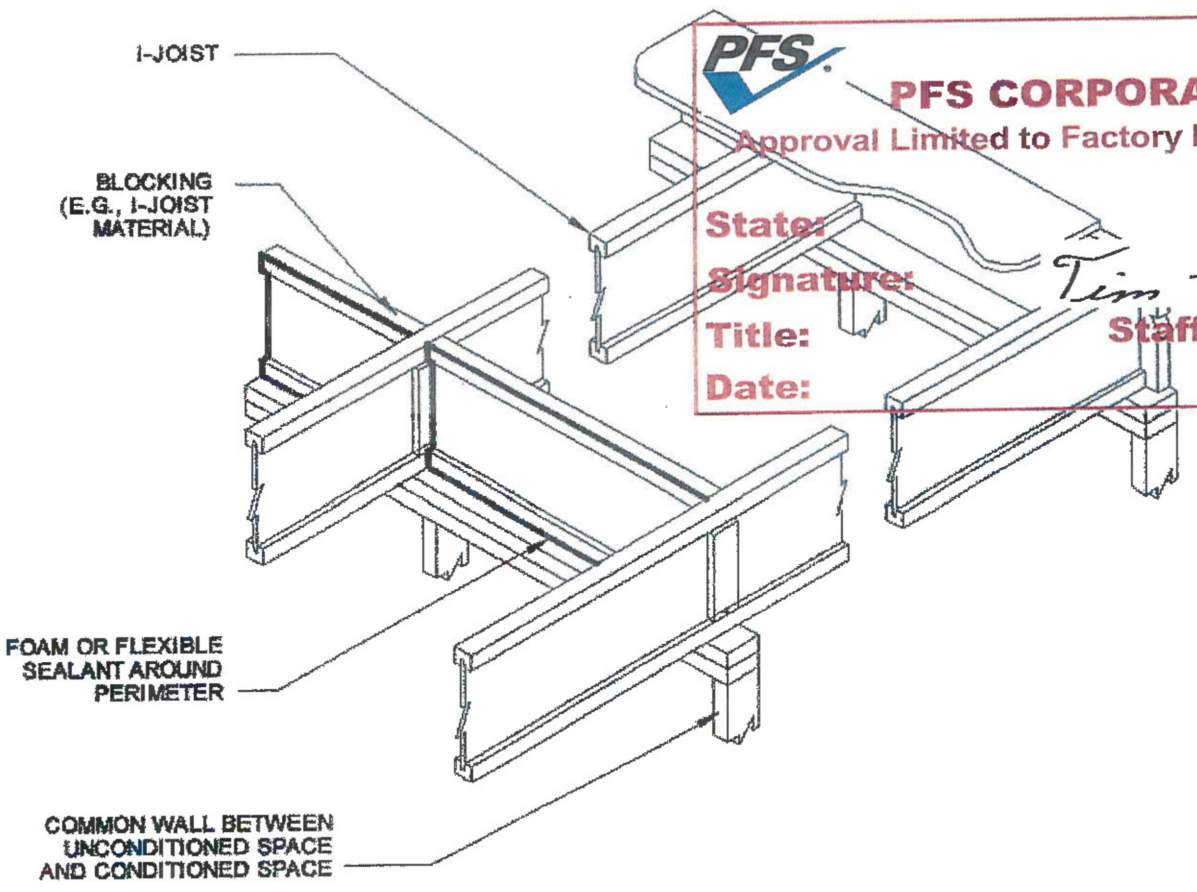
N/A BY FACTORY



ISOMETRIC VIEW OF WOOD TRUSS FLOOR/CEILING SYSTEM ABOVE COMMON WALL BETWEEN UNCONDITIONED AND CONDITIONED SPACE

N1102.4.1 Building thermal envelope. —1. Block and seal floor/ceiling systems

N/A BY FACTORY



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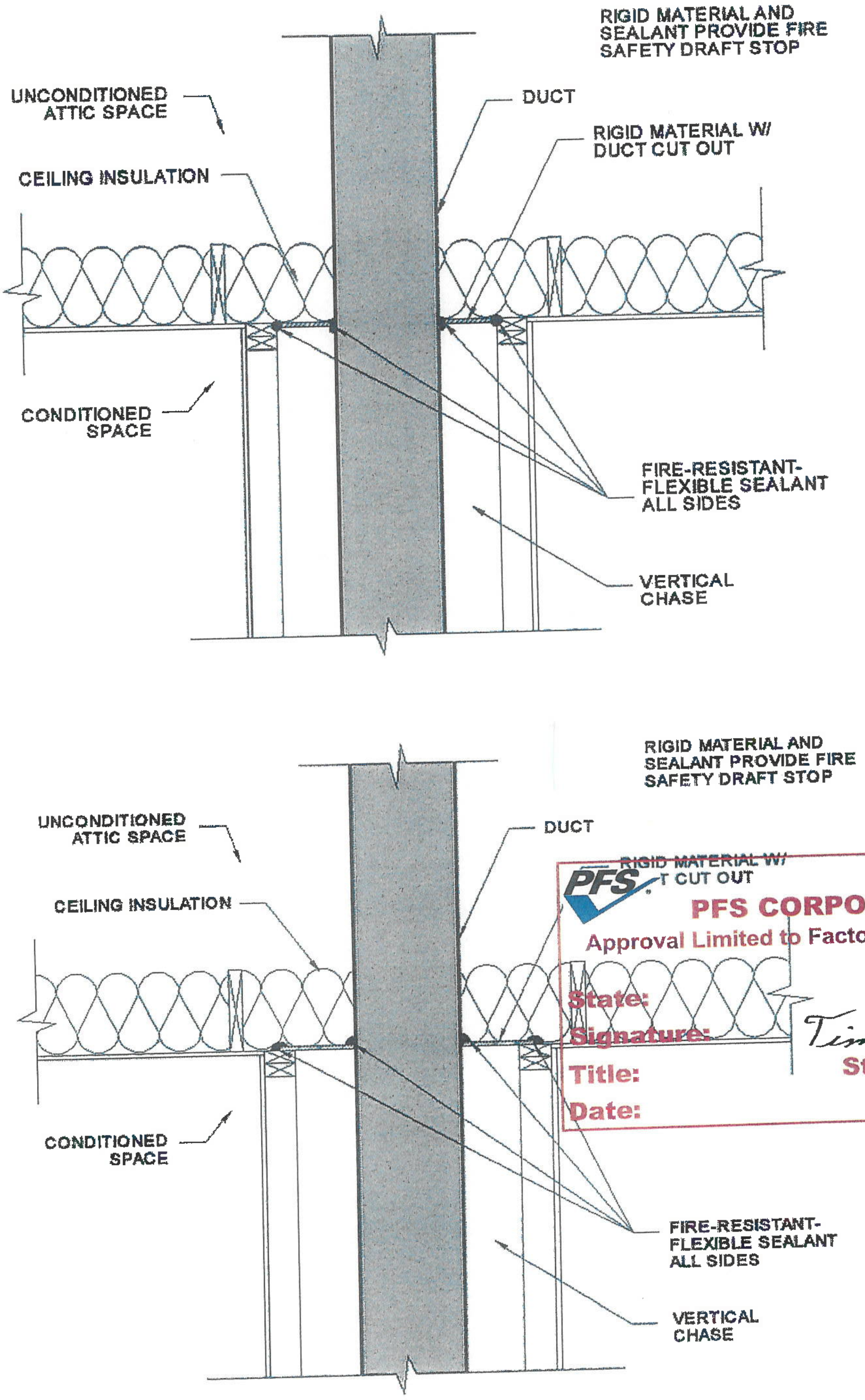
Title: Staff Plan Reviewer
Date: 8/18/21

ISOMETRIC VIEW OF I-JOIST FLOOR/CEILING SYSTEM ABOVE COMMON WALL BETWEEN UNCONDITIONED AND CONDITIONED SPACE

N1102.4.1 Building thermal envelope—2. Cap and seal shafts and chases

BY OTHERS IF APPLICABLE



SECTION VIEWS OF DUCT PENETRATING INTO ATTIC

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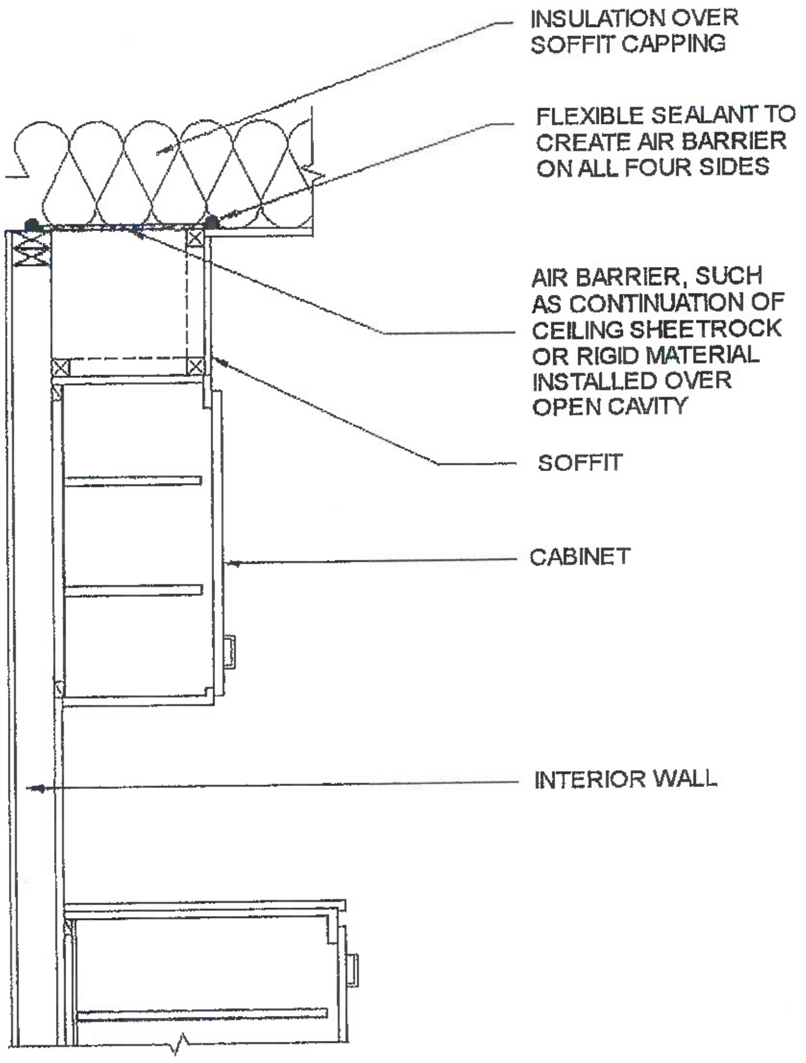
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

N1102.4.1 Building thermal envelope. —3. Cap and seal soffit or dropped ceiling N/A



SECTION VIEW OF SOFFIT OVER CABINET

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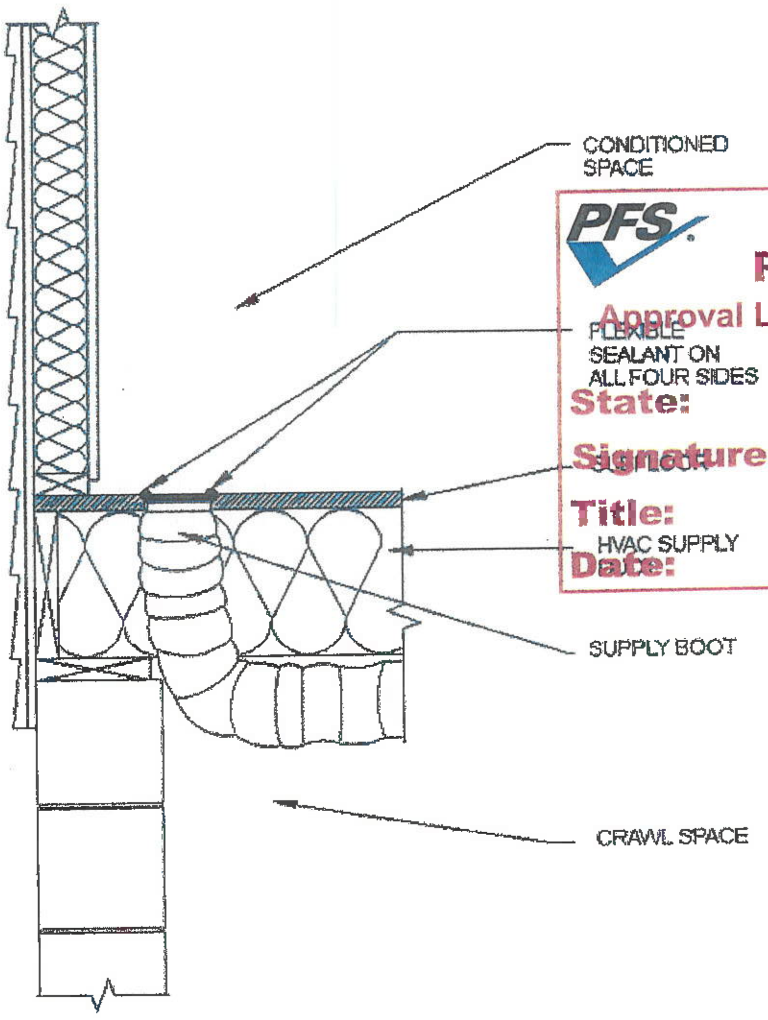
Title: Staff Plan Reviewer
Date: 8/18/21

N1102.4.1 Building thermal envelope.—4. Seal HVAC boot penetration—floor

FACTORY COMPLETED



SECTION VIEW OF FLOOR HVAC BOOT PENETRATION

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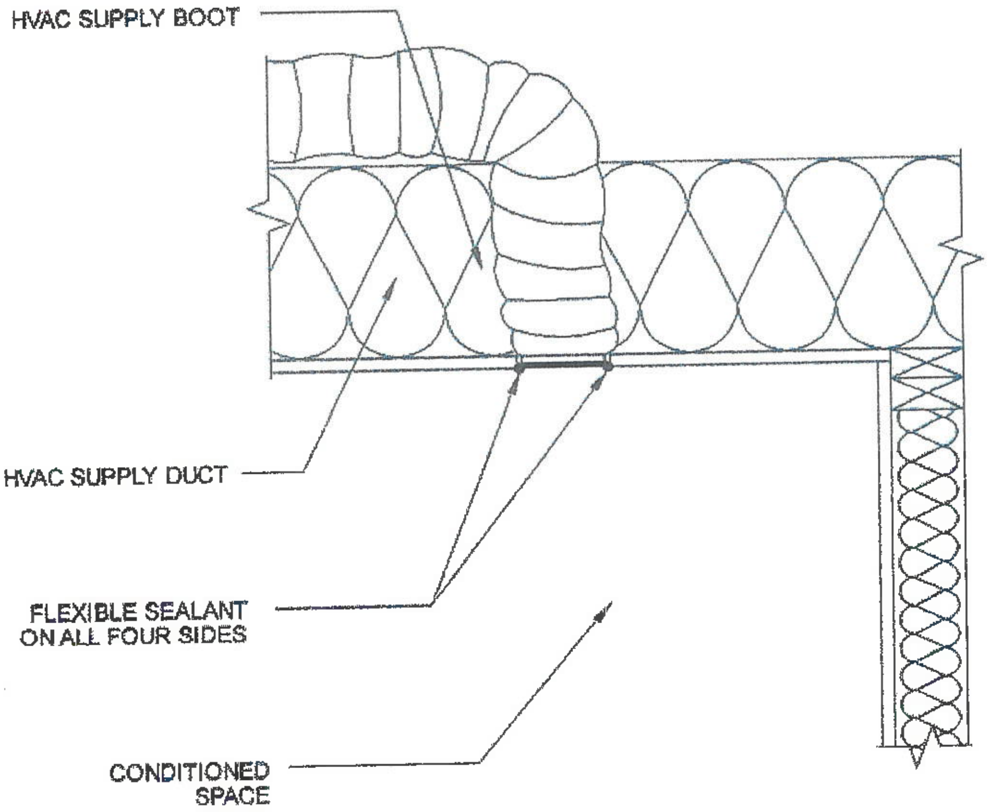
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

N1102.4.1 Building thermal envelope.—4. Seal HVAC boot penetration—ceiling

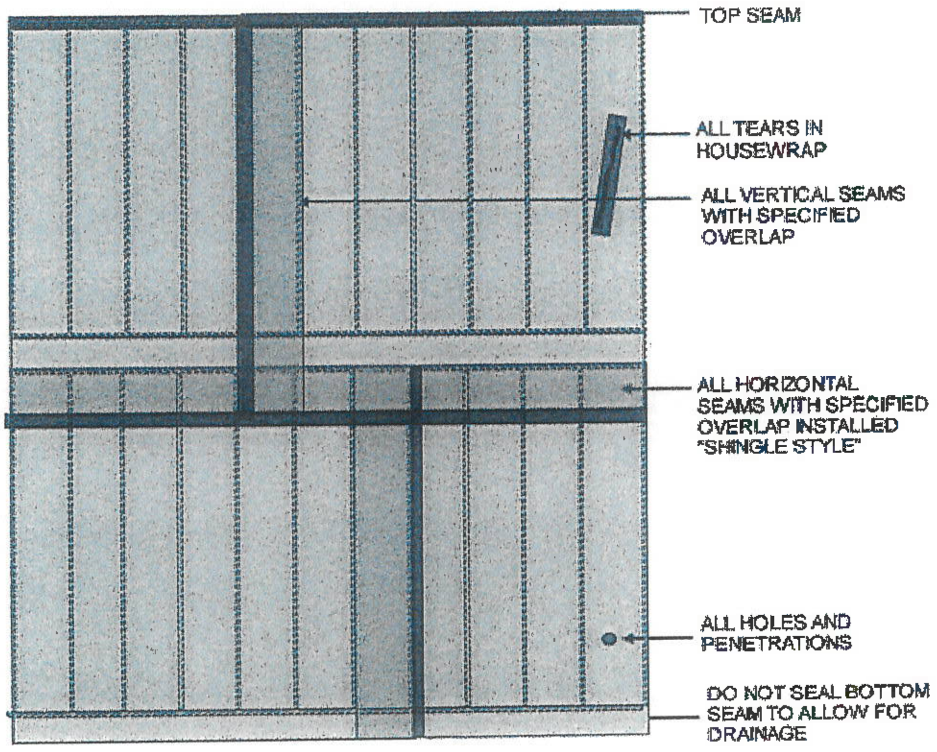


SECTION VIEW OF CEILING HVAC BOOT PENETRATION

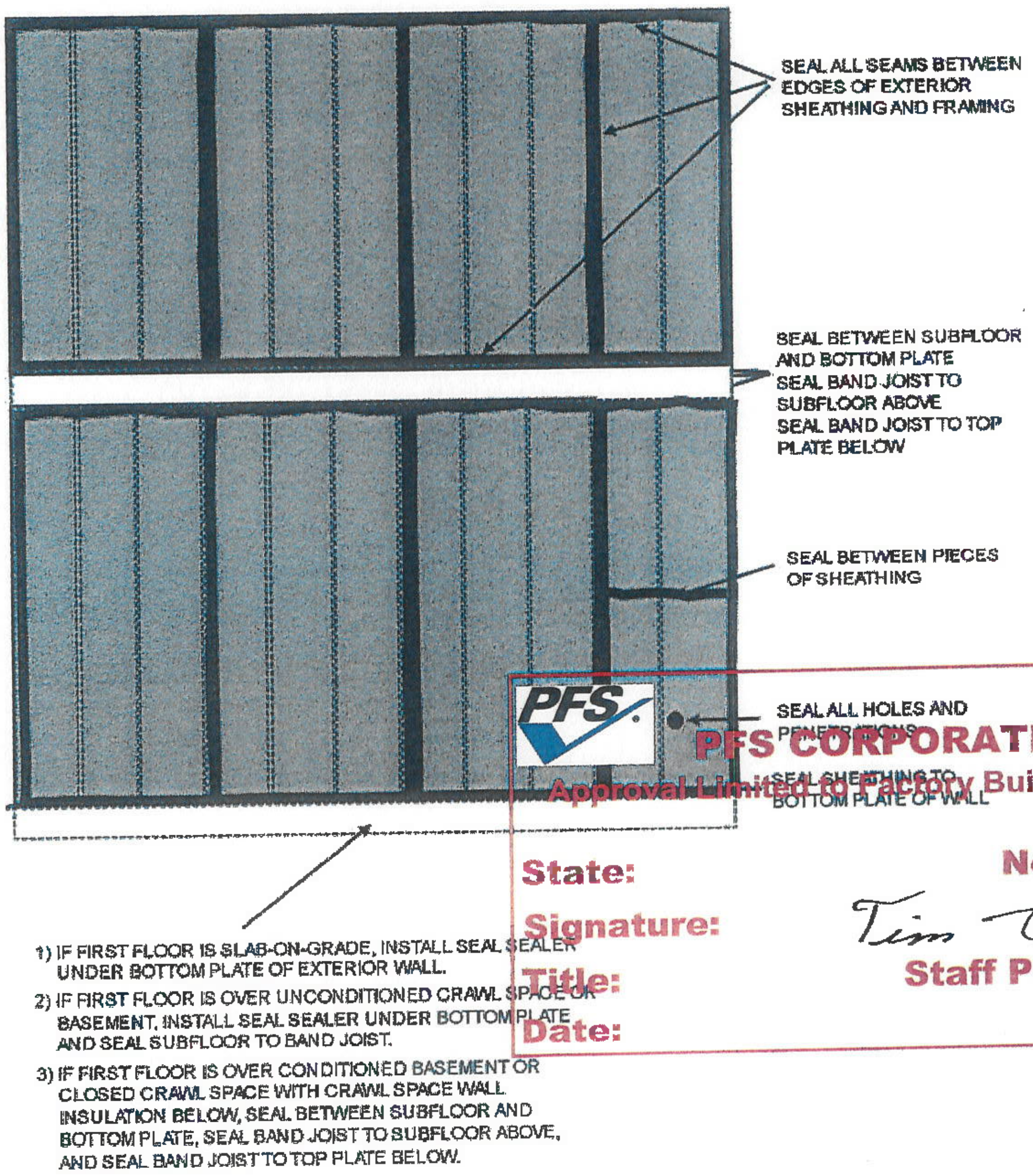
MUST BE INSPECTED ON SITE BY OTHERS FOR TEARS

N1102.4.1 Building thermal envelope.—5. Sealed exterior air barrier with housewrap

Follow manufacturer's instructions for sealing air barrier-rated housewrap, including choice of materials, to provide an exterior air barrier at the following locations:



N1102.4.1 Building thermal envelope.—5. Sealed exterior air barrier with sheathing



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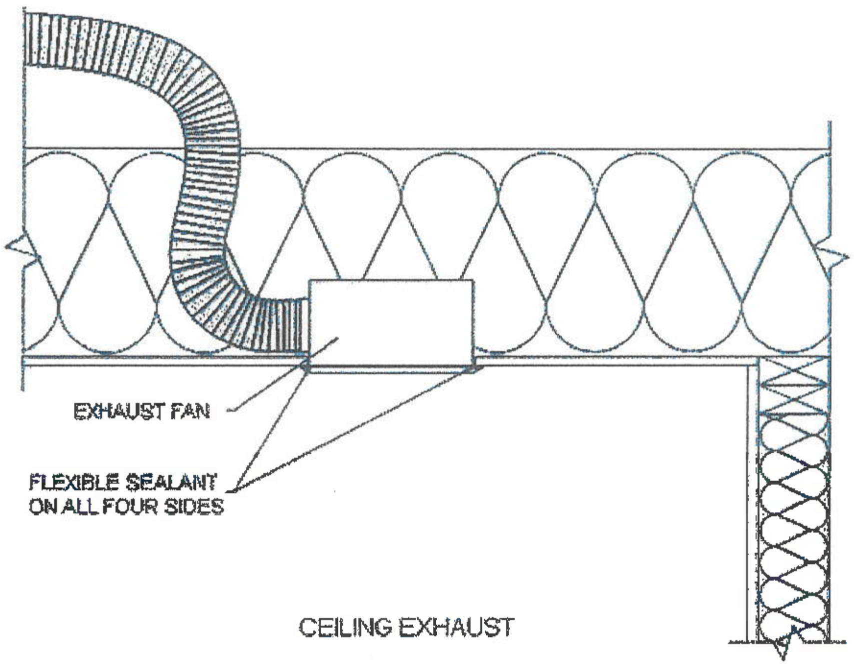
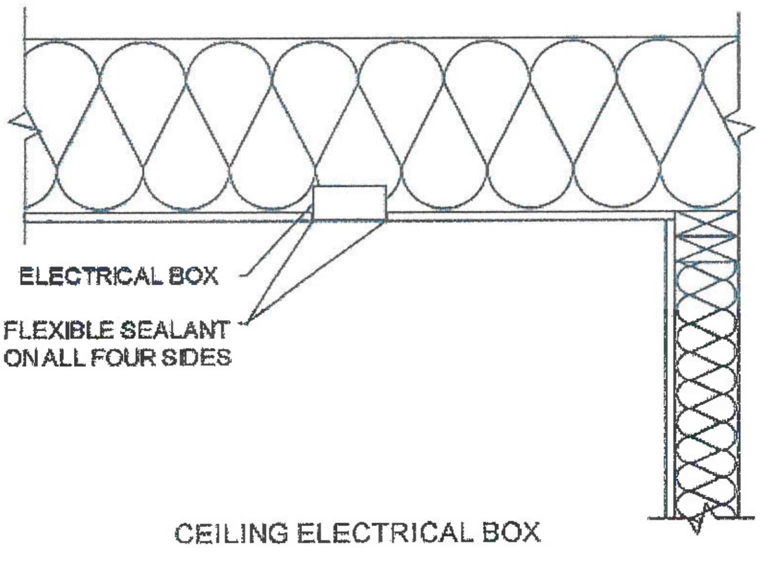
Signature: Tim
Title: Staff Plan Reviewer
Date: 8/18/21

N1102.4.2.1 Visual inspection option. —Table N1102.4.2 Seal ceiling mechanical box penetrations

FACTORY COMPLETED



N1102.4.2.1 Visual inspection option. — Table N1102.4.2 Seal ceiling electrical box penetrations FACTORY COMPLETED



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State: North Carolina
Signature: Tim
Title: Staff Plan Reviewer
Date: 8/18/21

MUST BE COMPLETED BY BUILDER ON SITE

APPENDIX E-3:
SAMPLE WORKSHEETS FOR RESIDENTIAL AIR AND DUCT LEAKAGE TESTING

APPENDIX E-3A
AIR SEALING: VISUAL INSPECTION OPTION (Section N1102.4.2.1)

SAMPLE WORKSHEET

N1102.4.2 Air sealing. Building envelope air tightness shall be demonstrated by Section N1102.4.2.1 or N1102.4.2.2.

N1102.4.2.1 Visual inspection option. Building envelope tightness shall be considered acceptable when items providing insulation enclosure in Section N1102.2.14 and enclosure and air sealing in Section N1102.2.15 and air sealing in Section N1102.4.1 are addressed and when the items listed in Table N1102.4.2, applicable to the method of construction, are certified by the builder, permit holder or *registered design professional* via the certificate in Appendix E-1.

TABLE N1102.4.2
AIR BARRIER INSPECTION

COMPONENT	CRITERIA
factory done Ceiling/attic	Sealants or gaskets provide a continuous air barrier system joining the top plate of framed walls with either the ceiling drywall or the top edge of wall drywall to prevent air leakage. Top plate penetrations are sealed. For ceiling finishes that are not air barrier systems such as tongue-and-groove planks, air barrier systems (for example, taped house wrap), shall be used above the finish. **Note:** It is acceptable that sealants or gaskets applied as part of the application of the drywall will not be observable by the code official.
Walls	Sill plate is gasketed or sealed to subfloor or slab. factory done
Windows and doors	Space between window and exterior door jambs and framing is sealed. factory done
Floors (including above-garage and cantilevered floors)	Air barrier system is installed at any exposed edge of insulation. factory done
Penetrations	Utility penetrations through the building thermal envelope, including those for plumbing, electrical wiring, ductwork, security and fire alarm wiring, and control wiring, shall be sealed. factory done
Garage separation	Air sealing is provided between the garage and conditioned spaces. An air barrier system shall be installed between the ceiling system above the garage and the ceiling system of interior spaces.
Ceiling penetrations	Ceiling electrical box penetrations and ceiling mechanical box penetrations shall be caulked, gasketed, or sealed at the penetration of the ceiling finish. See Appendix E-2.4. factory done **Exception:** Ceiling electrical boxes and ceiling mechanical boxes not penetrating the building thermal envelope
Recessed lighting	Recessed light fixtures are air tight, IC rated, and sealed to drywall. factory done **Exception:** Fixtures in conditioned space.

Attic Access insulated and weatherstripped per N1102.2.2.4

Property Address:

____

N1102.4.2.1 Visual Inspection Option. The inspection information including tester name, date, and contact shall be included on the certificate described in Section N1101.14.

____
Signature

Date

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State: North Carolina
Signature: Tim
Title: Staff Plan Reviewer
Date: 8/18/21

MUST BE COMPLETED BY BUILDER ON SITE

APPENDIX E-3B
Air sealing: Testing option (Section N1102.4.2.2)
Sample Worksheet

N1102.4.2 Air sealing. Building envelope air tightness shall be demonstrated by Section N1102.4.2.1 or N1102.4.2.2:

N1102.4.2.2 Testing option. Building envelope tightness shall be considered acceptable when items providing insulation enclosure in Section N1102.2.14 and enclosure and air sealing in Section N1102.2.15 and air sealing in Section N1102.4.1 are addressed and when tested air leakage is less than or equal to one of the two following performance measurements:

1. 0.30 CFM50/Square Foot of Surface Area (SFSA) or
2. Five (5) air changes per hour (ACH50)

When tested with a blower door fan assembly, at a pressure of 33.5 psf (50 Pa). A single point depressurization, not temperature corrected, test is sufficient to comply with this provision, provided that the blower door fan assembly has been certified by the manufacturer to be capable of conducting tests in accordance with ASTM E779—03. Testing shall occur after rough in and after installation of penetrations of the building envelope, including penetrations for utilities, plumbing, electrical, ventilation and combustion appliances. Testing shall be reported by the permit holder, a North Carolina licensed general contractor, a North Carolina licensed HVAC contractor, a North Carolina licensed Home Inspector, a *registered design professional*, a certified *BPI Envelope Professional* or a certified *HERS rater*.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed;
2. Dampers shall be closed, but not sealed, including exhaust, backdraft, and flue dampers;
3. Interior doors shall be open;
4. Exterior openings for continuous ventilation systems, air intake ducted to the return side of the conditioning system, and energy or heat recovery ventilators shall be closed and sealed;
5. Heating and cooling system(s) shall be turned off; and
6. Supply and return registers shall not be sealed.

The air leakage information, including building air leakage result, tester name, date, and contact information, shall be included on the certificate described in Section N1101.14.

For Test Criteria 1 in this section, the report shall be produced in the following manner: Perform the blower door test and record the *CFM50* ___________. Calculate the total square feet of surface area for the building thermal envelope, all floors, ceilings, and walls (this includes windows and doors) and record the area_____________. Divide *CFM50* by the total square feet and record the result below. If the result is less than or equal to **[0.30 CFM50/SFSA]** the envelope tightness is acceptable; or

For Test Criteria 2, the report shall be produced in the following manner: Perform a blower door test and record the *CFM50* ___________. Multiply the *CFM50* by 60 minutes to create CFHour50 and record _____________. Then calculate the total conditioned volume of the home and record_______________. Divide the CFH50 by the total volume and record the result below. If the result is less than or equal to **[5 ACH50]** the envelope tightness is acceptable.

Property Address: ____

Fan attachment location ______________________ Company Name ______________________

Contact Information: ____

____

Signature of Tester ___________________________ Date ___________________

Permit Holder, NC Licensed General Contractor, ~~ed HVAC Contractor,~~
NC Licensed Home Inspector, *Register* *Professional*,
Certified *BPI Envelope Professional*, or Certified *HERS Rater*
(circle one).

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State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

MUST BE COMPLETED BY BUILDER ON SITE

APPENDIX E-3C
Duct sealing. Duct air leakage test (Section N1103.2.2 & Section N1103.3.3)
Sample Worksheet

N1103.3.2 Sealing (Mandatory Requirements). Ducts, air handlers, filter boxes, and building cavities used as ducts shall be sealed. Joints and seams shall comply with either the *International Mechanical Code* or *International Residential Code*, as applicable.

N1103.3.3 Duct leakage (Prescriptive) and duct testing (Mandatory). Duct testing and duct leakage shall be verified by compliance with either Section N1103.3.3.1 or N1103.3.3.2. Duct testing shall be verified using one of the two following methods:

N1103.3.3.1 Total duct leakage. Total duct leakage shall be less than or equal to 5 CFM (12 L/min) per 100 ft^2 ($9.29 m^2$) of conditioned floor area served by that system when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure.

During testing:

1. Block, if present, ventilation air duct(s) connected to the conditioning system.
2. The duct air leakage testing equipment shall be attached to the largest return in the system or to the air handler.
3. The filter shall be removed and the air handler power shall be turned off.
4. Supply boots or registers and return boxes or grilles shall be taped, plugged, or otherwise sealed air tight.
5. The hose for measuring the 25 Pascals of pressure differential shall be inserted into the boot of the supply that is nominally closest to the air handler.
6. Specific instructions from the duct testing equipment manufacturer shall be followed to reach duct test pressure and measure duct air leakage.

N1103.3.3.2 Duct leakage to the outside. Conduct the test using fan pressurization of distribution system and building at a fixed reference pressure for combined supply and return leaks. Duct leakage to the outside shall be less than or equal to 4 CFM (12 L/min) per 100 ft^2 ($9.29 m^2$) of conditioned floor area served by that system when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, relative to the outside, including the manufacturer's air handler enclosure.

During testing:

1. Block, if present, the ventilation air duct(s) connected to the conditioning system.
2. The duct air leakage testing equipment shall be attached to the largest return in the system or to the air handler.
3. The filter shall be removed and the air handler power shall be turned off.
4. Supply boots or registers and return boxes or grilles shall be taped, plugged, or otherwise sealed air tight or as tight as possible.
5. The hose for measuring the 25 Pascals of pressure differential shall be inserted into the boot of the supply that is nominally closest to the air handler.
6. Open all interconnecting doors in the building, close dampers for fireplaces and other operable dampers.
7. Set up an envelope air moving/flow-regulating/flow measurement assembly, such as a blower door, following the manufacturer's prescribed procedure.
8. Specific instructions from the duct testing equipment manufacturer shall be followed to reach duct test pressure and measure duct air leakage used in combination with a blower door. Typical steps are as follows:
   a. Depressurize the ductwork system to 25 Pa using the measurement hose in Step 5 above.
   b. Depressurize the house to 25 Pa using an envelope air moving/flow-regulating/flow measurement assembly, such as a blower door.
   c. Correct the duct pressure to measure 0 Pa of pressure differential between the house and the ductwork system.
   d. Read the CFM of duct leakage using the procedures for the specific equipment being used. (Note that most automatically calculating pressure gauges cannot compute the CFM25 automatically with a duct-to-house difference in pressure of 0 Pa, so the gauge setting should be set to read CFM instead of CFM25).

Testing shall be performed and reported by the permit holder, a North Carolina licensed general contractor, a North Carolina licensed HVAC contractor, a North Carolina licensed Home Inspector, a registered design professional, a certified BPI Envelope Professional or a certified HERS rater. A single point depressurization, not temperature corrected, test is sufficient to comply with this provision, provided that the duct testing fan assembly(s) has been certified by the manufacturer to be capable of conducting tests in accordance with ASTM E1554-07.

[illegible] duct leakage information, including duct leakage [illegible] [illegible], and contact information, shall be included on the certificate described in Section N1101.14.

For the Test Criteria, the report [illegible] the following manner: per [illegible] test and record the CF [illegible] t of Conditioned Floor Area [illegible] served by that system. Multiply CFM25 by 100, divide the result by the CFA and

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record the result. If the result is less than or equal to 5 CFM25/100SF for the "Total duct leakage test" or less than or equal to 4 CFM25/100SF for the "Duct leakage to the outside" test, then the HVAC system air tightness is acceptable.

Complete one duct leakage report for each HVAC system serving the home:

Property Address: ____

Test Performed: Total duct leakage or Duct leakage to the outside (circle one)

HVAC System Number: _________ Describe area of home served: ______________________________

CFM25 Total _________. Conditioned Floor Area (CFA) served by system: __________ s.f.

CFM25 × 100 divided by CFA = ____ CFM25/100SF (e.g. 100 CFM25 × 100/2,000 CFA = 5 CFM25/100SF)

Fan attachment location ____

Company Name ____

Contact Information: ____

____

______________________________ ______________________________

Signature of Tester Date

Permit Holder, NC Licensed General Contractor, NC Licensed HVAC Contractor,
NC Licensed Home Inspector, *Registered Design Professional*,
Certified *BPI Envelope Professional*, or Certified *HERS Rater*
(circle one)

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E-4D:

SAMPLE WORKSHEETS FOR RESIDENTIAL AIR AND DUCT LEAKAGE TESTING

E-4D.1

AIR SEALING: TESTING

(Section N1102.4.2.2)

Sample Worksheet for Alternative Residential Energy Code for Higher Efficiency

Air sealing. Building envelope air tightness shall be demonstrated by Section N1102.4.2.2:

Air sealing: Testing option (Section N1102.4.2.2) Sample Worksheet for Alternative Residential Energy Code for Higher Efficiency

N1102.4.2.2 Testing. Building envelope tightness shall be considered acceptable when items providing insulation enclosure in Section N1102.2.14 and enclosure air sealing in Section N1102.2.15 and air sealing in Section N1102.4.1 are addressed and when tested air leakage is less than or equal to one of the two following performance measurements:

1. 0.24 CFM50 (6.8 L/min)/square foot of surface area (SFSA) or
2. Four (4) air changes per hour (ACH50)

When tested with a blower door fan assembly, at a pressure of 0.2 inches water gauge (50 Pa), a single point depressurization, not temperature corrected, test is sufficient to comply with this provision, provided that the blower door fan assembly has been certified by the manufacturer to be capable of conducting tests in accordance with ASTM E779—03. Testing shall occur after rough in and after installation of penetrations of the building envelope, including penetrations for utilities, plumbing, electrical, ventilation and combustion appliances. Testing shall be reported by the permit holder, a North Carolina licensed general contractor, a North Carolina licensed HVAC contractor, a North Carolina licensed Home Inspector, a *registered design professional*, a certified *BPI Envelope Professional* or a certified *HERS rater*.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed;
2. Dampers shall be closed, but not sealed, including exhaust, backdraft, and flue dampers;
3. Interior doors shall be open;
4. Exterior openings for continuous ventilation systems, air intake ducted to the return side of the conditioning system, and energy or heat recovery ventilators shall be closed and sealed;
5. Heating and cooling system(s) shall be turned off; and
6. Supply and return registers shall not be sealed.

The air leakage information, including building air leakage result, tester name, date, and contact information, shall be included on the certificate described in Section N1101.14.

For Test Criteria 1 in this section, the report shall be produced in the following manner: Perform the blower door test and record the *CFM50*___________. Calculate the total square feet of surface area for the building thermal envelope, all floors, ceilings, and walls (this includes windows and doors) and record the area______________. Divide *CFM50* by the total square feet and record the result below. If the result is less than or equal to **[0.24 CFM50/SFSA]** the envelope tightness is acceptable; or

For Test Criteria 2, the report shall be produced in the following manner: Perform a blower door test and record the *CFM50* = ___________. Multiply the *CFM50* by 60 minutes to create CF/Hour50 and record = ______________. Then calculate the total conditioned volume of the home and record = ________________cubic feet. Divide the CF/Hour50 by the total volume and record the result = ____________________ ACH50. If the result is less than or equal to **[4 ACH50]** the envelope tightness is acceptable.

Property Address: ____

Fan attachment location ____________________ Company Name ____________________

Contact Information: ____

____

Signature of Tester Date

Permit Holder, NC Licensed General Contractor, NC Licensed HVAC Co
NC Licensed Home Inspector, *Registered Design Professional*,
Certified *BPI Envelope Professional*, or Certified *HERS Rater*
(circle one)

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E-4D.2
DUCT SEALING. Duct air leakage test
(Section N1103.3.3)
Sample Worksheet for Alternative Residential Energy Code for Higher Efficiency

N1103.3.3 Duct leakage (Prescriptive) and duct testing (Mandatory). Duct testing and duct leakage shall be verified by compliance with either Section N1103.3.3.1 or N1103.3.3.2. Duct testing shall be performed and reported by the permit holder, a NC licensed general contractor, a NC licensed HVAC contractor, a NC licensed Home Inspector, a *registered design professional*, a certified *BPI Envelope Professional* or a certified *HERS rater*. A single point depressurization, not temperature corrected, test is sufficient to comply with this provision, provided that the duct testing fan assembly(s) has been certified by the manufacturer to be capable of conducting tests in accordance with ASTM E1554—07.

The duct leakage information, including duct leakage test selected and result, tester name, date, and contact information, shall be included on the certificate described in Section N1101.3.

For the Test Criteria, the report shall be produced in the following manner: perform the HVAC system air leakage test and record the CFM25. Calculate the total square feet of Conditioned Floor Area (CFA) served by that system. Multiply CFM25 by 100, divide the result by the CFA and record the result. If the result is less than or equal to 4 CFM25/100SF for the "Total duct leakage test or less than or equal to 3 CFM25/100SF for the Duct leakage to the outside" test, then the HVAC system air tightness is acceptable.

Exceptions to testing requirements:

1. Duct systems or portions thereof inside the building thermal envelope shall not be required to be leak tested.
2. Installation of a partial system as part of replacement, renovation or addition does not require a duct leakage test.

1103.3.3.1 Total duct leakage. Total duct leakage less than or equal to 4 CFM (113 L/min) per 100 ft^2 (9.29 m^2) of conditioned floor area served by that system when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. During testing:

1. Block, if present, ventilation air duct(s) connected to the conditioning system.
2. The duct air leakage testing equipment shall be attached to the largest return in the system or to the air handler.
3. The filter shall be removed and the air handler power shall be turned off.
4. Supply boots or registers and return boxes or grilles shall be taped, plugged, or otherwise sealed air tight.
5. The hose for measuring the 25 Pascals of pressure differential shall be inserted into the boot of the supply that is nominally closest to the air handler.
6. Specific instructions from the duct testing equipment manufacturer shall be followed to reach duct test pressure and measure duct air leakage.

1103.3.3.2 Duct leakage to the outside. Conduct the test using fan pressurization of distribution system and building at a fixed reference pressure for combined supply and return leak. Duct leakage to the outside shall be less than or equal to 3 CFM (85 L/min) per 100 ft^2 (9.29 m^2) of conditioned floor area served by that system when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, relative to the outside, including the manufacturer's air handler enclosure.

During testing:

1. Block, if present, the ventilation air duct(s) connected to the conditioning system.
2. The duct air leakage testing equipment shall be attached to the largest return in the system or to the air handler.
3. The filter shall be removed and the air handler power shall be turned off.
4. Supply boots or registers and return boxes or grilles shall be taped, plugged, or otherwise sealed air tight or as tight as possible.
5. The hose for measuring the 25 Pascals of pressure differential shall be inserted into the boot of the supply that is nominally closest to the air handler.
6. Open all interconnecting doors in the building, close dampers for fireplaces and other operable dampers.
7. Set up an envelope air moving/flow-regulating/flow measurement assembly, such as a blower door, following the manufacturer's prescribed procedure.
8. Specific instructions from the duct testing equipment manufacturer shall be followed to reach duct test pressure and measure duct air leakage used in combination with a blower door. Typical steps are as follows:
    a. Depressurize the ductwork system to 25 Pa using the measurement hose in Step 5 above.
    b. Depressurize the house to 25 Pa using an envelope air moving/flow-regulating/flow measurement assembly, such as a blower door.
    c. Correct the duct pressure to measure 0 Pa of pressure differential between the house and the ductwork system.
    d. Read the CFM of duct leakage using the procedures for the specific equipment being used. (Note that most automatically calculating pressure gauges cannot compute the CFM25 automatically with a duct-to-house difference in pressure of 0 Pa, so the gauge setting should be set to read

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Complete one duct leakage report for each HVAC system serving the home:

Property Address: ____

HVAC System Number: ________ Describe area of home served: ________________

CFM25 Total ________. Conditioned Floor Area (CFA) served by system: _________ s.f.

CFM25 × 100 divided by CFA = _____ CFM25/100 SF

(e.g. 50 CFM25 × 100/ 2,000 CFA = 2.5 CFM25/100SF)

Fan attachment location ________________

Company Name ____

Contact Information: ____

____

______________________________ ______________________

Signature of Tester Date

Permit Holder, NC Licensed General Contractor, NC Licensed HVAC Contractor,
NC Licensed Home Inspector, *Registered Design Professional*,
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(circle one)

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Required Ventilation

Model Number: 23-3276-16

Floor Length: 76 ft.

Floor Type

○ 28 Wide ● 32 Wide ○ Triple Wide ○ T-Ranch

☐ Check if pod

Manufactor Specifications

Ridge Vent: **18 sq. in. per lf.**

Soffit Vent: **5.89 sq. in. per lf.**

House Required Ventilation

Required Ventilation for House:	1106.56	sq. in.
Inches Required for Soffit Ventilation:	553.28	sq. in.
Inches Required for Ridge Ventilation:	553.28	sq. in.
Number of Ridge Vents Required:	7.684444	pc.
	30.73778	**lf. of Ridge Vent**

Ventilatioin in House

Soffit Ventilation in house:	874	sq. in.
Ridge Ventilatiion in house:	576	sq. in.
Number of Ridge Vents in house:	8	pc.
	32	**lf. of Ridge Vent**

52.05% through Ridge Vent

Code can be found at R806.2 in the NC Residential and the IRC

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WORKSHEET 1

Champion Homes Engineered Shear Wall Calculations

23-3276-16

a) House Mean Roof Height	20'	Max. Mean Roof Height = 33'-0"
b) Number of Stories	1	Max. Number of Stories = 3
c) House Length	76	Max. Length = 80'-0"
d) House Width	30.3	Min. Width = Mean Roof Hei 20'
e) House Aspect Ratio = L / W	2.508251	Min. Ratio = 1:4
f) House Vertical Offset		
g) Floor Diaphragm Aspect Ratio = L /W	2.508251	
h) House Floor Diaphram Opening Width	0	Max. = 12'-0"
House Floor Diaphram Opening Length	0	Max. = 12'-0"
I) Max. Shearwall Plan Offset	0	(If wall offset is more than 4'-0", count as 2 different shear walls)
j) Min. Shearwall Segment = h/3.5	2.571429	
k) Wall Height	9	Max. Wall Height = 10'
l) Roof Diaphram Aspect Ratio = L / W	2.508251	Max. Ratio = 4:1
m) Roof Slope	5/12	Min. 0/12 Max. 12/12

House meets all applicability limits.
(Calculation sheet referenced to structural package)
USE 26.417 FOR 28 WIDES
USE 32.083 FOR 32 WIDES

Front Sidewall	USE PG. 55	71	% of Sheathing
Rear Sidewall	USE PG. 55	59	% of Sheathing
Right Endwall	USE PG 41	71	% of Sheathing
Left Endwall	USE PG 38	90	% of Sheathing

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WORKSHEET 2

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Signature: Tim Dusche

Title: Staff Plan Reviewer

Date: 8/18/21

SECTION 6

TRUSS HM773855

JAMES BARLOW 20829

11879 JAMES J. BARLOW

No. 19584 JAMES J. BARLOW

James Joseph Barlow Lic. No. 035206

07/22/19

190284

Job	Truss	Truss Type	Qty	Ply	Champion Homes 315 NC
89373	HM773855	HINGE MONO	1	1	Ref. #3157316

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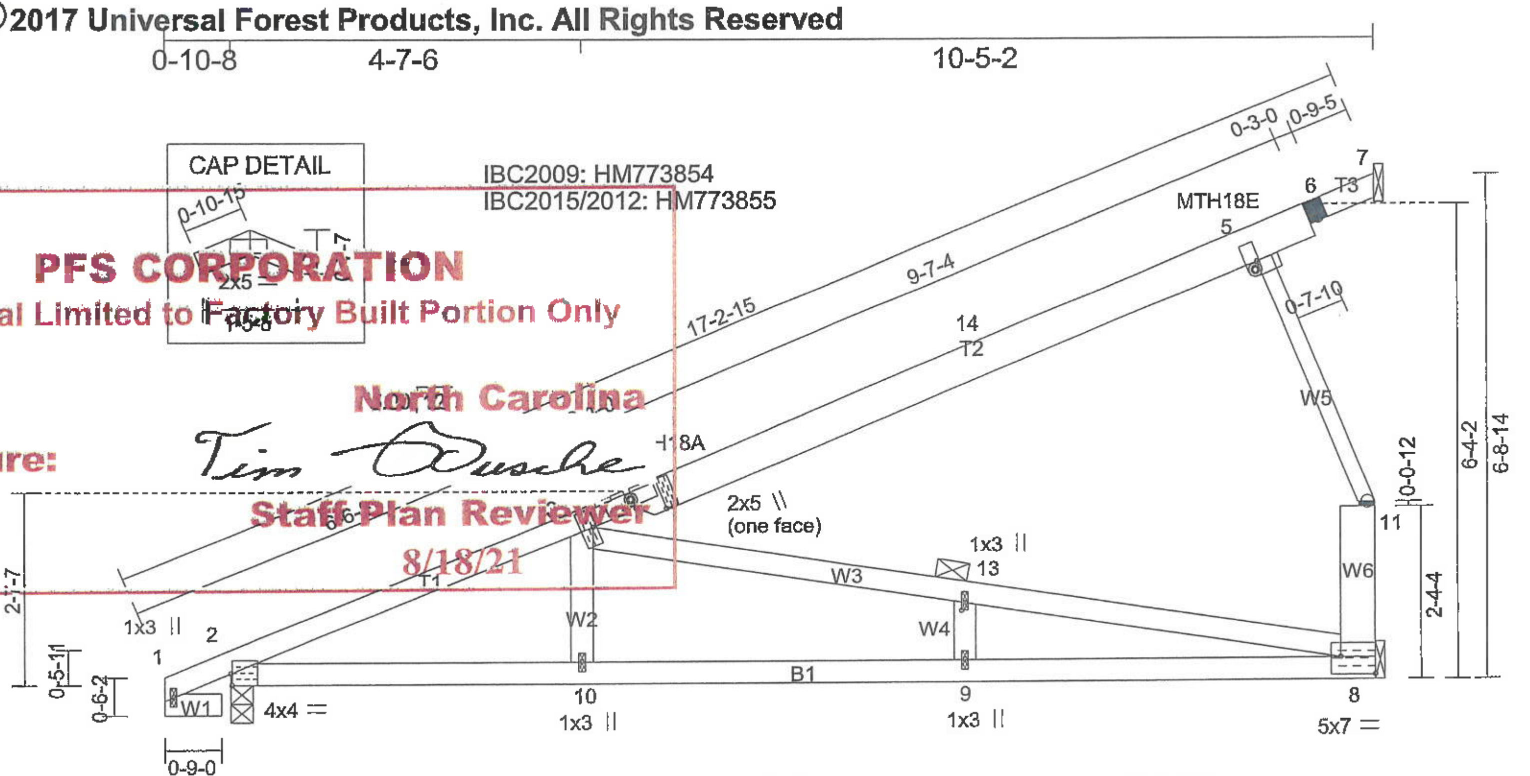

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Plate Offsets (X,Y)-- [2:0-0-3,Edge], [3:0-3-0,0-0-8], [4:0-0-5,0-1-9], [4:0-1-15,0-4-6], [5:0-0-11,0-1-2], [8:Edge,0-2-12], [13:0-1-4,0-0-8]

SPACING-: 2-0-0		SPACING-: 1-4-0		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
LOADING (psf)		LOADING (psf)		Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.22	8-9	>808	240	MT20	197/144
TCLL	23.1	TCLL	34.7	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.40	8-9	>442	180	MT18HS	197/144
(Ground Snow=30.0)		(Ground Snow=45.0)		Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.02	8	n/a	n/a		
TCDL	10.0	TCDL	15.0	Code IBC2015/TPI2014 IBC2012/TPI2007		Matrix-R							Weight: 83 lb	
BCLL	0.0	BCLL	0.0										FT = 0%	
BCDL	10.0	BCDL	15.0											

LUMBER-

TOP CHORD	2x4 SP No.1 *Except* T2: 2x6 SP No.1 or 2x6 SPF No.2, T3: 2x4 SPF No.2
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.2 *Except* W3: 2x4 SP No.2 or 2x4 SPF No.2 W6: 2x6 SP No.1 or 2x6 SPF No.2, W5: 2x3 SPF Stud W1: 2x4 SPF Stud

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 5-2-10 oc bracing.
JOINTS	1 Brace at Jt(s): 11, 13

REACTIONS. (lb/size) 2=721/0-3-8 (min. 0-1-8), 8=622/Mechanical, 7=-0/Mechanical
Max Horz 2=419(LC 9), 7=-62(LC 14)
Max Uplift 2=-392(LC 9), 8=-497(LC 9)
Max Grav 2=752(LC 14), 8=733(LC 14)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/21, 2-15=-1319/623, 3-15=-1219/625, 3-16=-326/0, 16-17=-322/0, 4-17=-318/0, 4-14=-338/22, 5-14=-225/32, 5-6=-111/49, 6-7=-70/57, 8-11=-404/414
BOT CHORD 2-10=-960/1108, 9-10=-960/1108, 8-9=-960/1108
WEBS 3-10=0/330, 3-13=-973/825, 8-13=-975/815, 5-11=-433/443, 9-13=0/76

REQUIRED FIELD JOINT CONNECTIONS - Maximum Compression (lb)/ Tension (lb)/ Shear (lb)/ Moment (lb-in)
6=86/55/38/0, 11=433/443/157/0

NOTES-
1) Dado: 0-2-10 length x 0-0-12 deep dado, 0-2-4 to right edge from joint 4 on the top face.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph @24in o.c.; TCDL=4.0psf; BCDL=4.0psf; (Alt. 180mph @16in o.c.; TCDL=6.0psf; BCDL=6.0psf); h=30ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

The professional engineering seal indicates that a licensed professional has reviewed the design under the standards referenced within this document, not necessarily the current state building code. The engineering seal is not an approval to use in a specific state. The final determination on whether a truss design is acceptable under the locally adopted building code rest with the building official or designated appointee.

GEORGIA REGISTERED No.26639 PROFESSIONAL ENGINEER KEVIN W. FREEMAN
2/22/2019

WARNING - *Verify design parameters and READ NOTES*

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2801 EAST BELTLINE RD, NE
GRAND RAPIDS, MI 49525

Truss shall not be cut or modified without approval of the truss design engineer.
This component has only been designed for the loads noted on this drawing. Construction and lifting forces have not been considered. The builder is responsible for lifting methods and system design. Builder responsibilities are defined under TPI1. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult BCSI 1-06 from the Wood Truss Council of America and Truss Plate Institute Recommendation available from WTCA, 6300 Enterprise LN, Madison, WI 53719 J:\support\MitekSupp\templates\ufp.tpe

Job	Truss	Truss Type	Qty	Ply	Champion Homes 315 NC
89373	HM773855	HINGE MONO	1	1	Ref. #3157316

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3) TCLL: ASCE 7-10; Pg=30.0 psf (ground snow); Ps=23.1 psf (roof snow); Category II; Exp C; Partially Exp.; Ct=1.1
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 19.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
7) All plates are MT20 plates unless otherwise indicated.
8) See HINGE PLATE DETAILS for plate placement.
9) Provisions must be made to prevent lateral movement of hinged member(s) during transportation.
10) All additional member connections shall be provided by others for forces as indicated.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 392 lb uplift at joint 2 and 497 lb uplift at joint 8.
13) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
14) This truss is designed in accordance with the 2012 IBC Sec 2306.1 and referenced standard ANSI/TPI 1
15) Take precaution to keep the chords in plane, any bending or twisting of the hinge plate must be repaired before the building is put into service.
16) The field-installed members are an integral part of the truss design. Retain a design professional to specify final field connections and temporary supports. All field-installed members must be properly fastened prior to applying any loading to the truss. This design anticipates the final set position.
17) Based on: HM773854
18) Revision: IBC2015/2012 Version

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⚠ WARNING - *Verify design parameters and READ NOTES*

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GRAND RAPIDS, MI 49525

Truss shall not be cut or modified without approval of the truss design engineer.
This component has only been designed for the loads noted on this drawing. Construction and lifting forces have not been considered. The builder is responsible for lifting methods and system design. Builder responsibilities are defined under TPI1. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult BCSI 1-06 from the Wood Truss Council of America and Truss Plate Institute Recommendation available from WTCA, 6300 Enterprise LN, Madison, WI 53719 J:\support\MitekSupp\templates\ufp.tpe 190284

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Job	Truss	MFG	Customer
89373	HM773855	315	CHAMPION HOMES

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STATE OF KENTUCKY
KEVIN W. FREEMAN
PE 22214
LICENSED PROFESSIONAL ENGINEER

STATE OF MARYLAND
KEVIN W. FREEMAN
No. 25531
PROFESSIONAL ENGINEER

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 25531, Expiration Date: 10/20/2020.

NORTH CAROLINA PROFESSIONAL
SEAL
026074
ENGINEER
KEVIN W. FREEMAN

SOUTH CAROLINA REGISTERED
20654
PROFESSIONAL ENGINEER
KEVIN W. FREEMAN

KEVIN WESLEY FREEMAN
REGISTERED ENGINEER
No. 00107044
STATE OF TENNESSEE

COMMONWEALTH OF VIRGINIA
KEVIN W. FREEMAN
Lic. No. 034518
PROFESSIONAL ENGINEER

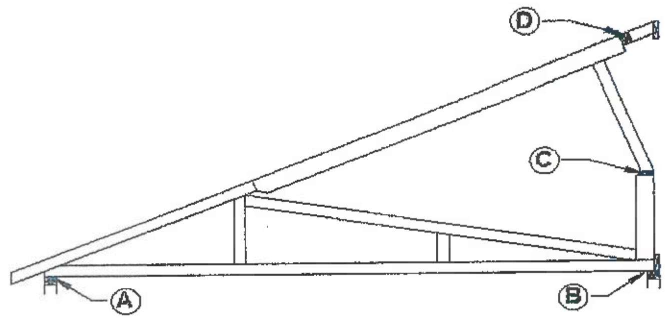
KEVIN WESLEY FREEMAN
REGISTERED
14691
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

PFS CORPORATION
Approval Limited to Factory Built Portion Only

State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

TRUSS CONNECTIONS

TRUSS NUMBER : **HM773855**
PROJECT NUMBER : **190127**
TRUSS PITCH : **5/12**
TRUSS SPAN : **15'-2"**
UNIT WIDTH : **30'-4"**



UPLIFT CONNECTIONS (MWFRS LOADS):

150 / 119 mph									
CONDITION "A" - EXTERIOR WALL:			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON H8 TWIST STRAP
392	WIND	1.6	OK	3	4	OK	2	4	OK
ALTERNATE:	(5) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (3) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD								
ALTERNATE:	(1) SIMPSON SDWC15600 SCREW								
ALTERNATE:	(2) #10 x 5" WOOD SCREW WITH MINIMUM 2 in PENETRATION								
CONDITION "B" - MATING WALL (PER SIDE):			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs / PER SIDE)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON CS20 STRAP
497	WIND	1.6	NO GOOD	N/A	N/A	OK	2	5	OK
ALTERNATE:	(6) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (4) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD								
130 / 101 mph (ADJUSTED)									
CONDITION "A" - EXTERIOR WALL:			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON H3 TWIST STRAP
294	WIND	1.6	OK	2	3	OK	2	3	OK
ALTERNATE:	(4) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (3) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD								
ALTERNATE:	(1) SIMPSON SDWC15600 SCREW								
ALTERNATE:	(2) #10 x 5" WOOD SCREW WITH MINIMUM 2 in PENETRATION								
CONDITION "B" - MATING WALL (PER SIDE):			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs / PER SIDE)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON H8 TWIST STRAP
373	WIND	1.6	OK	3	4	OK	2	4	OK
ALTERNATE:	(5) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (3) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD								
115 / 90 mph (ADJUSTED)									
CONDITION "A" - EXTERIOR WALL:			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON H3 TWIST STRAP
231	WIND	1.6	OK	2	3	OK	2	3	OK
ALTERNATE:	(3) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (2) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD								
ALTERNATE:	(1) SIMPSON SDWC15600 SCREW								
ALTERNATE:	(2) #10 x 5" WOOD SCREW WITH MINIMUM 2 in PENETRATION								
CONDITION "B" - MATING WALL (PER SIDE):			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs / PER SIDE)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON H3 TWIST STRAP
292	WIND	1.6	OK	2	3	OK	2	3	OK
ALTERNATE:	(4) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (3) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD								

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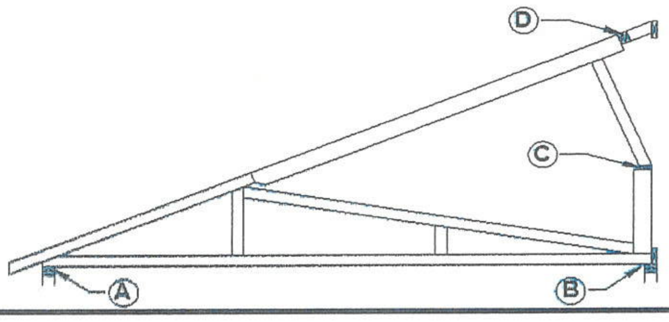
BARLOW ENGINEERING, P.C.
6512 SIX FORKS RD., SUITE 203-B
RALEIGH, NC 27615

TRUSS CONNECTIONS

TRUSS NUMBER : **HM773855**
PROJECT NUMBER : **190127**
TRUSS PITCH : **5/12**
TRUSS SPAN : **15'-2"**
UNIT WIDTH : **30'-4"**



MAXIMUM OF DL + LL + 30 psf GSL & 150 / 119 mph WIND										
CONDITION "C" - KNEEWALL TO WEB MEMBER:			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END
TENSION (lbs)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON CS20 STRAP	10 d NAILS
443	SNOW	1.15	OK	4	5	OK	2	5	OK	5
SHEAR (lbs)	CASE	CD								
157	SNOW	1.15	USE (3) 8 d NAILS TOENAILED KNEEWALL TO PLATE AND WEB MEMBER TO PLATE							
CONDITION "D" - TOP CHORD FLIP:										
TENSION (lbs)	CASE	CD								
55	SNOW	1.15	USE (2) 6 d NAILS THROUGH SHEATHING EACH SIDE							
		ALTERNATE:	USE (2) 16 ga STAPLE THROUGH SHEATHING EACH SIDE							
SHEAR (lbs)	CASE	CD								
38	SNOW	1.15	USE (2) 16 d NAILS TOENAILED EACH END PLUS USE 10 d NAILS AT 24 in O.C. THROUGH PLATES							

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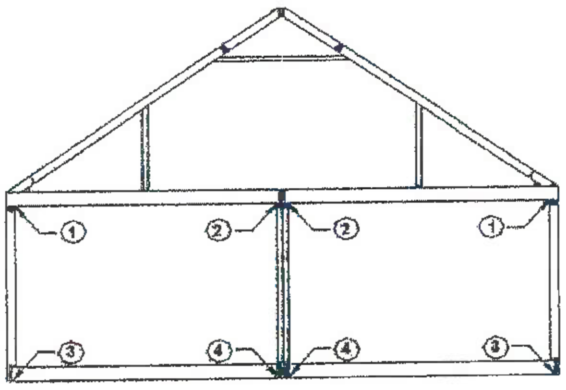
COMPONENT LOAD SUMMARY

EXTERIOR WALL DEAD LOAD = 12 psf x 10 ft = 120 plf
MATING WALL DEAD LOAD = 8 psf x 10 ft = 80 plf
FLOOR DEAD LOAD = 10 psf x 15.16 ft / 2 = 75.8 plf
FLOOR LIVE LOAD = 40 psf x 15.16 ft / 2 = 303.2 plf
CEILING DEAD LOAD = 5 psf x 15.16 ft / 2 = 37.9 plf

* CROSS SECTION IS FOR REFERENCE ONLY
AND MAY NOT REFLECT ACTUAL TRUSS



LOCATION 1 = EXT. WALL HEADER & EXT. WALL STUD
LOCATION 2 = M. WALL HEADER & M. WALL STUD
LOCATION 3 = PERIMETER BAND
LOCATION 4 = CENTER GIRDER
LOCATIONS 3 & 4 MAY BE USED TO GENERATE FOUNDATION LOADS

TRUSS HM773855, 5/12 PITCH, 15'-2" WIDTH

COMPONENT LOADS (lbs/ft)

30 psf GROUND SNOW (MATING WALL LOADS ARE PER SIDE OF LINE)

LOCATION	1	2	3	4
DEAD LOAD	175	171	371	327
LIVE LOAD	201	196	505	500
TOTAL LOAD	376	367	876	827

C & C UPLIFT

LOCATION	1	2	3	4
UPLIFT (0.6) DEAD LOAD	105	103	223	196
150 / 119 mph UPLIFT	196	249	-	-53
130 / 101 mph UPLIFT	147	187	-	-
115 / 90 mph UPLIFT	116	146	-	-

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101/130 mph **WIND, 5/12 PITCH, FIELD PRESSURE** (27.47 psf)

HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)
8 ft	2 x 4 SPF STUD GRADE	12	755	0.227	9 ft	2 x 4 SPF STUD GRADE	12	295	0.372	10 ft	2 x 4 SPF STUD GRADE	12	**NG**	-
		16	295	0.303			16	**NG**	-			16	**NG**	-
		19.2	295	0.364			19.2	**NG**	-			19.2	**NG**	-
		24	**NG**	-			24	**NG**	-			24	**NG**	-
	2 x 4 SPF #2	12	1565	0.195		2 x 4 SPF #2	12	1035	0.319		2 x 4 SPF #2	12	660	0.495
		16	1265	0.26			16	740	0.426			16	**NG**	-
		19.2	1035	0.312			19.2	**NG**	-			19.2	**NG**	-
		24	685	0.39			24	**NG**	-			24	**NG**	-
	2 x 4 SYP #2	12	1395	0.195		2 x 4 SYP #2	12	865	0.319		2 x 4 SYP #2	12	490	0.495
		16	1045	0.26			16	510	0.426			16	**NG**	-
		19.2	765	0.312			19.2	**NG**	-			19.2	**NG**	-
		24	320	0.39			24	**NG**	-			24	**NG**	-
	2 x 6 SPF STUD GRADE	12	4790	0.059		2 x 6 SPF STUD GRADE	12	3605	0.096		2 x 6 SPF STUD GRADE	12	2610	0.149
		16	4180	0.078			16	2940	0.128			16	1915	0.198
		19.2	3705	0.094			19.2	2420	0.154			19.2	1340	0.238
		24	2995	0.117			24	1605	0.192			24	375	0.298
	2 x 6 SPF #2	12	7380	0.05		2 x 6 SPF #2	12	5625	0.082		2 x 6 SPF #2	12	4275	0.128
		16	6810	0.067			16	5055	0.11			16	3720	0.17
		19.2	6380	0.08			19.2	4625	0.132			19.2	3300	0.204
		24	5770	0.1			24	4010	0.164			24	2685	0.255
	2 x 6 SYP #2	12	7285	0.05		2 x 6 SYP #2	12	5450	0.082		2 x 6 SYP #2	12	4075	0.128
		16	6635	0.067			16	4815	0.11			16	3455	0.17
		19.2	6150	0.08			19.2	4330	0.132			19.2	2980	0.204
		24	5455	0.1			24	3635	0.164			24	2275	0.255

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101/130 mph WIND, 5/12 PITCH, EDGE PRESSURE (33.35 psf)

HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)
8 ft	2 x 4 SPF STUD GRADE	12	470	0.276	9 ft	2 x 4 SPF STUD GRADE	12	**NG**	-	10 ft	2 x 4 SPF STUD GRADE	12	**NG**	-
		16	295	0.368			16	**NG**	-			16	**NG**	-
		19.2	**NG**	-			19.2	**NG**	-			19.2	**NG**	-
		24	**NG**	-			24	**NG**	-			24	**NG**	-
	2 x 4 SPF #2	12	1370	0.237		2 x 4 SPF #2	12	845	0.387		2 x 4 SPF #2	12	**NG**	-
		16	1020	0.316			16	**NG**	-			16	**NG**	-
		19.2	735	0.379			19.2	**NG**	-			19.2	**NG**	-
		24	**NG**	-			24	**NG**	-			24	**NG**	-
	2 x 4 SYP #2	12	1170	0.237		2 x 4 SYP #2	12	640	0.387		2 x 4 SYP #2	12	**NG**	-
		16	745	0.316			16	**NG**	-			16	**NG**	-
		19.2	385	0.379			19.2	**NG**	-			19.2	**NG**	-
		24	**NG**	-			24	**NG**	-			24	**NG**	-
	2 x 6 SPF STUD GRADE	12	4395	0.071		2 x 6 SPF STUD GRADE	12	3175	0.116		2 x 6 SPF STUD GRADE	12	2160	0.181
		16	3670	0.095			16	2380	0.155			16	1300	0.241
		19.2	3095	0.114			19.2	1725	0.186			19.2	530	0.289
		24	2205	0.142			24	625	0.233			24	295	0.361
	2 x 6 SPF #2	12	7005	0.061		2 x 6 SPF #2	12	5250	0.1		2 x 6 SPF #2	12	3915	0.155
		16	6350	0.081			16	4595	0.133			16	3265	0.206
		19.2	5855	0.098			19.2	4095	0.16			19.2	2770	0.248
		24	5140	0.122			24	3370	0.2			24	2025	0.31
	2 x 6 SYP #2	12	6860	0.061		2 x 6 SYP #2	12	5035	0.1		2 x 6 SYP #2	12	3670	0.155
		16	6115	0.081			16	4300	0.133			16	2945	0.206
		19.2	5555	0.098			19.2	3735	0.16			19.2	2375	0.248
		24	4740	0.122			24	2900	0.2			24	1505	0.31

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EXTERIOR WALL HEADER - 1 STORY (LOCATION 1)
TRUSS HM773855
5/12 PITCH, 30.33 ft UNIT WIDTH, 30 psf GROUND SNOW LOAD

2x3 FOR (1) MEMBER HEADERS
2x4 FOR (2) MEMBER HEADERS
2x6 FOR (3) MEMBER HEADERS

MEMBER	QUANTITY	HEADER LL (plf)	HEADER TL (plf)	MAXIMUM SPAN	LIMITED BY	MID-SPAN DEFLECTION (in)	MIN. NUMBER OF JACKSTUDS REQ'D EACH END SPF #2	SYP #2	SPF STUD	UPLIFT (plf)	UPLIFT REACTION (lbs)
2 x 4 SPF #2	1	201	378	2 ' - 10"	Lb	0.075	1	1	1	196	280
2 x 6 SPF #2	1	201	378	4 ' - 2"	Lb	0.088	2	2	2	196	409
2 x 8 SPF #2	1	201	378	5 ' - 3"	Lb	0.1	2	2	2	196	518
2 x 10 SPF #2	1	201	378	6 ' - 5"	Lb	0.107	2	2	2	196	633
2 x 12 SPF #2	1	201	378	7 ' - 5"	Lb	0.108	2	2	2	196	734
2 x 4 SYP #2	1	201	378	2 ' - 7"	Lb	0.053	1	1	1	196	256
2 x 6 SYP #2	1	201	378	3 ' - 10"	Lb	0.068	2	2	2	196	383
2 x 8 SYP #2	1	201	378	4 ' - 11"	Lb	0.078	2	2	2	196	487
2 x 10 SYP #2	1	201	378	5 ' - 10"	Lb	0.074	2	2	2	196	577
2 x 12 SYP #2	1	201	378	7 ' - 1"	Lb	0.09	2	2	2	196	702
1.5 x 3.5 LVL	1	201	378	4 ' - 0"	Lb	0.206	2	2	2	196	393
1.5 x 5.5 LVL	1	201	378	6 ' - 2"	Lb	0.304	2	2	2	196	609
1.5 x 7.25 LVL	1	201	378	8 ' - 1"	Lb	0.387	2	2	2	196	795
1.5 x 9.25 LVL	1	201	378	10 ' - 3"	Lb	0.479	2	2	3	196	1007
1.5 x 11.25 LVL	1	201	378	12 ' - 4"	Lb	0.568	3	3	3	196	1217
1.5 x 12 LVL	1	201	378	13 ' - 2"	Lb	0.6	3	3	3	196	1295
1.5 x 14 LVL	1	201	378	15 ' - 4"	Lb	0.687	3	3	3	196	1503
1.5 x 16 LVL	1	201	378	17 ' - 5"	Lb	0.771	3	3	3	196	1711
1.5 x 18 LVL	1	201	378	19 ' - 6"	Lb	0.854	3	3	3	196	1917
1.5 x 20 LVL	1	201	378	21 ' - 7"	Lb	0.936	3	3	3	196	2123
1.5 x 22 LVL	1	201	378	[illegible]	[illegible]	1.017	3	3	3	196	2328
1.5 x 24 LVL	1	201	378	[illegible]	[illegible]	1.097	3	3	3	196	2532
2 x 4 SPF #2	2	201	378	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	196	396
2 x 6 SPF #2	2	201	378	5 ' - 10"	Lb	0.177	1	1	1	196	578
2 x 8 SPF #2	2	201	378	7 ' - 5"	Lb	0.2	1	1	1	196	733
2 x 10 SPF #2	2	201	378	9 ' - 1"	Lb	0.214	1	1	2	196	896
2 x 12 SPF #2	2	201	378	[illegible]	[illegible]	0.215	2	[illegible]	[illegible]	196	1039
2 x 4 SYP #2	2	201	378	3 ' - 8"	Lb	0.106	[illegible]	[illegible]	[illegible]	196	362
2 x 6 SYP #2	2	201	378	[illegible]	[illegible]	0.136	[illegible]	[illegible]	[illegible]	196	542
2 x 8 SYP #2	2	201	378	7 ' - 0"	Lb	0.155	[illegible]	[illegible]	[illegible]	196	688
2 x 10 SYP #2	2	201	378	[illegible]	Lb	0.148	1	1	[illegible]	196	817
2 x 12 SYP #2	2	201	378	10 ' - 1"	Lb	0.18	2	2	2	196	993
1.5 x 3.5 LVL	2	201	378	[illegible]	Lb	0.411	1	[illegible]	1	196	556
1.5 x 5.5 LVL	2	201	378	8 ' - 9"	Lb	0.609	1	1	2	196	861
1.5 x 7.25 LVL	2	201	378	11 ' - 5"	Lb	0.775	2	2	2	196	1125
1.5 x 9.25 LVL	2	201	378	14 ' - 6"	Lb	0.957	2	2	2	196	1424
1.5 x 11.25 LVL	2	201	378	17 ' - 6"	Lb	1.135	2	2	3	196	1721
1.5 x 12 LVL	2	201	378	18 ' - 8"	Lb	1.2	2	2	3	196	1831
1.5 x 14 LVL	2	201	378	21 ' - 8"	Lb	1.373	3	3	3	196	2126
1.5 x 16 LVL	2	201	378	24 ' - 8"	Lb	1.542	3	3	3	196	2419
1.5 x 18 LVL	2	201	378	27 ' - 7"	Lb	1.708	3	3	3	196	2711
1.5 x 20 LVL	2	201	378	30 ' - 7"	Lb	1.872	3	3	3	196	3002
1.5 x 22 LVL	2	201	378	33 ' - 7"	Lb	2.034	3	3	3	196	3292
1.5 x 24 LVL	2	201	378	36 ' - 6"	Lb	2.194	3	3	3	196	3581
2 x 4 SPF #2	3	201	378	4 ' - 11"	Lb	0.226	1	1	1	196	485
2 x 6 SPF #2	3	201	378	7 ' - 2"	Lb	0.265	1	1	1	196	708
2 x 8 SPF #2	3	201	378	9 ' - 1"	Lb	0.3	1	1	1	196	898
2 x 10 SPF #2	3	201	378	11 ' - 2"	Lb	0.321	1	1	1	196	1097
2 x 12 SPF #2	3	201	378	12 ' - 11"	Lb	0.323	1	1	1	196	1272
2 x 4 SYP #2	3	201	378	4 ' - 6"	Lb	0.159	1	1	1	196	444
2 x 6 SYP #2	3	201	378	6 ' - 9"	Lb	0.205	1	1	1	196	664
2 x 8 SYP #2	3	201	378	8 ' - 7"	Lb	0.233	1	1	1	196	843
2 x 10 SYP #2	3	201	378	10 ' - 2"	Lb	0.222	1	1	1	196	1000
2 x 12 SYP #2	3	201	378	12 ' - 4"	Lb	0.27	1	1	1	196	1216
1.5 x 3.5 LVL	3	201	378	6 ' - 11"	Lb	0.617	1	1	1	196	681
1.5 x 5.5 LVL	3	201	378	10 ' - 9"	Lb	0.913	1	1	1	196	1054
1.5 x 7.25 LVL	3	201	378	14 ' - 0"	Lb	1.162	1	1	1	196	1378
1.5 x 9.25 LVL	3	201	378	17 ' - 9"	Lb	1.436	1	1	1	196	1744
1.5 x 11.25 LVL	3	201	378	21 ' - 6"	Lb	1.703	1	1	1	196	2107
1.5 x 12 LVL	3	201	378	22 ' - 10"	Lb	1.801	1	1	1	196	2243
1.5 x 14 LVL	3	201	378	26 ' - 6"	Lb	2.06	1	1	2	196	2604
1.5 x 16 LVL	3	201	378	30 ' - 2"	Lb	2.313	1	1	2	196	2963
1.5 x 18 LVL	3	201	378	33 ' - 10"	Lb	2.561	2	1	2	196	3320
1.5 x 20 LVL	3	201	378	37 ' - 6"	Lb	2.808	2	2	2	196	3677
1.5 x 22 LVL	3	201	378	41 ' - 1"	Lb	3.052	2	2	2	196	4032
1.5 x 24 LVL	3	201	378	44 ' - 9"	Lb	3.291	2	2	2	196	4386

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P:\2019\190284\HM773855\EXWALLHDR-JACK

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Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

ALL WINDS, ALL PITCHES, LATERAL PRESSURE (5 psf)

HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)
8 ft	2 x 3 SPF STUD GRADE	12	610	0.114	9 ft	2 x 3 SPF STUD GRADE	12	435	0.186	10 ft	2 x 3 SPF STUD GRADE	12	310	0.288
		16	540	0.151			16	370	0.248			16	295	0.385
		19.2	490	0.182			19.2	320	0.298			19.2	295	0.461
		24	420	0.227			24	295	0.372			24	**NG**	-
	2 x 3 SPF #2	12	830	0.097		2 x 3 SPF #2	12	615	0.159		2 x 3 SPF #2	12	465	0.247
		16	775	0.13			16	565	0.213			16	415	0.33
		19.2	735	0.156			19.2	525	0.255			19.2	385	0.395
		24	680	0.195			24	475	0.319			24	335	0.494
	2 x 3 SYP #2	12	800	0.097		2 x 3 SYP #2	12	585	0.159		2 x 3 SYP #2	12	435	0.247
		16	740	0.13			16	530	0.213			16	385	0.33
		19.2	695	0.156			19.2	485	0.255			19.2	345	0.395
		24	630	0.195			24	430	0.319			24	295	0.494
	2 x 4 SPF STUD GRADE	12	1920	0.041		2 x 4 SPF STUD GRADE	12	1450	0.068		2 x 4 SPF STUD GRADE	12	1110	0.105
		16	1810	0.055			16	1345	0.09			16	1010	0.14
		19.2	1725	0.066			19.2	1265	0.108			19.2	940	0.168
		24	1605	0.083			24	1155	0.136			24	830	0.21
	2 x 4 SPF #2	12	2495	0.035		2 x 4 SPF #2	12	1905	0.058		2 x 4 SPF #2	12	1485	0.09
		16	2400	0.047			16	1815	0.077			16	1400	0.12
		19.2	2330	0.057			19.2	1750	0.093			19.2	1340	0.144
		24	2230	0.071			24	1660	0.116			24	1255	0.18
	2 x 4 SYP #2	12	2450	0.035		2 x 4 SYP #2	12	1855	0.058		2 x 4 SYP #2	12	1440	0.09
		16	2340	0.047			16	1755	0.077			16	1345	0.12
		19.2	2260	0.057			19.2	1685	0.093			19.2	1280	0.144
		24	2150	0.071			24	1585	0.116			24	1185	0.18
	2 x 6 SPF STUD GRADE	12	6495	0.011		2 x 6 SPF STUD GRADE	12	5520	0.017		2 x 6 SPF STUD GRADE	12	4600	0.027
		16	6345	0.014			16	5340	0.023			16	4405	0.036
		19.2	6230	0.017			19.2	5205	0.028			19.2	4260	0.043
		24	6065	0.021			24	5010	0.035			24	4060	0.054
	2 x 6 SPF #2	12	9150	0.009		2 x 6 SPF #2	12	7445	0.015		2 x 6 SPF #2	12	6055	0.023
		16	8980	0.012			16	7260	0.02			16	5870	0.031
		19.2	8855	0.015			19.2	7125	0.024			19.2	5735	0.037
		24	8670	0.018			24	6935	0.03			24	5545	0.046
	2 x 6 SYP #2	12	9325	0.009		2 x 6 SYP #2	12	7490	0.015		2 x 6 SYP #2	12	6040	0.023
		16	9125	0.012			16	7280	0.02			16	5835	0.031
		19.2	8970	0.015			19.2	7125	0.024			19.2	5685	0.037
		24	8760	0.018			24	6910	0.03			24	5480	0.046

***** LOADS AND QUANTITIES ARE PER SIDE OF MATING WALL**

THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS
EVEN IF RATIO MEETS CODE REQUIREMENTS

MATING WALL HEADER - 1 STORY (LOCATION 2)
TRUSS HM778355
5/12 PITCH, 30.33 ft UNIT WIDTH, 30 psf GROUND SNOW LOAD

2x3 FOR (1) MEMBER HEADERS
2x4 FOR (2) MEMBER HEADERS
2x6 FOR (3) MEMBER HEADERS

MEMBER	QUANTITY	HEADER LL (plf)	HEADER TL (plf)	MAXIMUM SPAN	LIMITED BY	MID-SPAN DEFLECTION (in)	MIN. NUMBER OF JACKSTUDS REQ'D EACH END SPF #2	SYP #2	SPF STUD	UPLIFT (plf)	UPLIFT REACTION (lbs)
2 x 4 SPF #2	1	198	367	2 ' - 10"	Lb	0.078	1	1	1	249	361
2 x 6 SPF #2	1	198	367	4 ' - 2"	Lb	0.091	2	2	2	249	527
2 x 8 SPF #2	1	198	367	5 ' - 4"	Lb	0.103	2	2	2	249	668
2 x 10 SPF #2	1	198	367	6 ' - 6"	Lb	0.11	2	2	2	249	816
2 x 12 SPF #2	1	198	367	7 ' - 7"	Lb	0.111	2	2	2	249	947
2 x 4 SYP #2	1	198	367	2 ' - 7"	Lb	0.055	1	1	1	249	330
2 x 6 SYP #2	1	198	367	3 ' - 11"	Lb	0.07	2	2	2	249	494
2 x 8 SYP #2	1	198	367	5 ' - 0"	Lb	0.08	2	2	2	249	627
2 x 10 SYP #2	1	198	367	5 ' - 11"	Lb	0.076	2	2	2	249	744
2 x 12 SYP #2	1	198	367	7 ' - 3"	Lb	0.093	2	2	2	249	905
1.5 x 3.5 LVL	1	198	367	4 ' - 0"	Lb	0.212	2	2	2	249	507
1.5 x 5.5 LVL	1	198	367	6 ' - 3"	Lb	0.314	2	2	2	249	785
1.5 x 7.25 LVL	1	198	367	8 ' - 2"	Lb	0.399	2	2	2	249	1025
1.5 x 9.25 LVL	1	198	367	10 ' - 5"	Lb	0.493	2	2	3	249	1298
1.5 x 11.25 LVL	1	198	367	12 ' - 7"	Lb	0.585	3	3	3	249	1569
1.5 x 12 LVL	1	198	367	13 ' - 4"	Lb	0.618	3	3	3	249	1670
1.5 x 14 LVL	1	198	367	15 ' - 6"	Lb	0.707	3	3	3	249	1938
1.5 x 16 LVL	1	198	367	17 ' - 8"	Lb	0.794	3	3	3	249	2205
1.5 x 18 LVL	1	198	367	19 ' - 10"	Lb	0.879	3	3	3	249	2471
1.5 x 20 LVL	1	198	367	21 ' - 11"	Lb	0.964	3	3	3	249	2737
1.5 x 22 LVL	1	198	367	24 ' - 1"	Lb	1.048	3	3	3	249	3001
1.5 x 24 LVL	1	198	367	26 ' - 2"	Lb	1.13	3	3	3	249	3265
2 x 4 SPF #2	2	198	367	4 ' - 1"	Lb	0.155	1	1	1	249	510
2 x 6 SPF #2	2	198	367	5 ' - 11"	Lb	0.182	1	1	1	249	745
2 x 8 SPF #2	2	198	367	7 ' - 7"	Lb	0.206	1	1	1	249	945
2 x 10 SPF #2	2	198	367	9 ' - 3"	Lb	0.221	1	1	2	249	1155
2 x 12 SPF #2	2	198	367	10 ' - 9"	Lb	0.222	2	2	2	249	1339
2 x 4 SYP #2	2	198	367	3 ' - 9"	Lb	0.109	1	1	1	249	467
2 x 6 SYP #2	2	198	367	5 ' - 7"	Lb	0.141	1	1	1	249	699
2 x 8 SYP #2	2	198	367	7 ' - 1"	Lb	0.16	1	1	1	249	887
2 x 10 SYP #2	2	198	367	8 ' - 5"	Lb	0.152	1	1	1	249	1053
2 x 12 SYP #2	2	198	367	10 ' - 3"	Lb	0.185	1	1	2	249	1280
1.5 x 3.5 LVL	2	198	367	5 ' - 9"	Lb	0.423	1	1	1	249	717
1.5 x 5.5 LVL	2	198	367	8 ' - 10"	Lb	0.627	1	1	2	249	1110
1.5 x 7.25 LVL	2	198	367	11 ' - 7"	Lb	0.798	2	2	2	249	1450
1.5 x 9.25 LVL	2	198	367	14 ' - 8"	Lb	0.986	2	2	2	249	1836
1.5 x 11.25 LVL	2	198	367	17 ' - 9"	Lb	1.169	2	2	3	249	2218
1.5 x 12 LVL	2	198	367	18 ' - 11"	[illegible]	1.236	2	2	3	249	2361
1.5 x 14 LVL	2	198	367	22 ' - 0"	[illegible]	[illegible]	[illegible]	3	3	249	2741
1.5 x 16 LVL	2	198	367	25 ' - 0"	Lb	1.588	3	3	3	249	3119
1.5 x 18 LVL	2	198	367	28 ' - 0"	Lb	1.759	3	3	3	249	3495
1.5 x 20 LVL	2	198	367	31 ' - 1"	Lb	1.928	3	3	3	249	3870
1.5 x 22 LVL	2	198	367	34 ' - 1"	Lb	2.095	3	[illegible]	3	249	4245
1.5 x 24 LVL	2	198	367	37 ' - 1"	Lb	2.26	[illegible]	[illegible]	[illegible]	249	4617
2 x 4 SPF #2	3	198	367	5 ' - 0"	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	249	625
2 x 6 SPF #2	3	198	367	7 ' - 3"	Lb	0.273	[illegible]	[illegible]	[illegible]	249	913
2 x 8 SPF #2	3	198	367	9 ' - 3"	Lb	0.309	1	[illegible]	[illegible]	249	1158
2 x 10 SPF #2	3	198	367	11 ' - 4"	Lb	0.331	1	1	1	249	1414
2 x 12 SPF #2	3	198	367	13 ' - 2"	Lb	0.333	1	1	1	249	1640
2 x 4 SYP #2	3	198	367	4 ' - 7"	Lb	0.164	1	1	1	249	572
2 x 6 SYP #2	3	198	367	6 ' - 10"	Lb	0.211	1	1	1	249	856
2 x 8 SYP #2	3	198	367	8 ' - 8"	Lb	0.24	1	1	1	249	1087
2 x 10 SYP #2	3	198	367	10 ' - 4"	Lb	0.229	1	1	1	249	1289
2 x 12 SYP #2	3	198	367	12 ' - 7"	Lb	0.278	1	1	1	249	1568
1.5 x 3.5 LVL	3	198	367	7 ' - 0"	Lb	0.635	1	1	1	249	878
1.5 x 5.5 LVL	3	198	367	10 ' - 11"	Lb	0.941	1	1	1	249	1359
1.5 x 7.25 LVL	3	198	367	14 ' - 3"	Lb	1.197	1	1	1	249	1776
1.5 x 9.25 LVL	3	198	367	18 ' - 0"	Lb	1.479	1	1	1	249	2248
1.5 x 11.25 LVL	3	198	367	21 ' - 9"	Lb	1.754	1	1	1	249	2717
1.5 x 12 LVL	3	198	367	23 ' - 2"	Lb	1.855	1	1	1	249	2892
1.5 x 14 LVL	3	198	367	26 ' - 11"	Lb	2.121	1	1	2	249	3357
1.5 x 16 LVL	3	198	367	30 ' - 8"	Lb	2.382	1	1	2	249	3820
1.5 x 18 LVL	3	198	367	34 ' - 4"	Lb	2.638	1	1	2	249	4281
1.5 x 20 LVL	3	198	367	38 ' - 0"	Lb	2.892	2	2	2	249	4740
1.5 x 22 LVL	3	198	367	41 ' - 9"	Lb	3.143	2	2	2	249	5198
1.5 x 24 LVL	3	198	367	45 ' - 5"	Lb	3.39	2	2	2	249	5655

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PERIMETER BAND - 1 STORY (LOCATION 3)
TRUSS HM773855
5/12 PITCH, 30.33 ft UNIT WIDTH, 30 psf GROUND SNOW LOAD

MEMBER	QUANTITY	HEADER LL (plf)	HEADER TL (plf)	MAXIMUM SPAN	LIMITED BY	MID-SPAN DEFLECTION (in)	UPLIFT (plf)	UPLIFT REACTION (lbs)
2 x 8 SPF #2	1	505	878	3 ' - 5"	Lb	0.043	0	0
2 x 10 SPF #2	1	505	878	4 ' - 2"	Lb	0.046	0	0
2 x 12 SPF #2	1	505	878	4 ' - 11"	Lb	0.046	0	0
2 x 8 SYP #2	1	505	878	3 ' - 3"	Lb	0.033	0	0
2 x 10 SYP #2	1	505	878	3 ' - 10"	Lb	0.032	0	0
2 x 12 SYP #2	1	505	878	4 ' - 8"	Lb	0.039	0	0
1.5 x 7.25 LVL	1	505	878	5 ' - 3"	Lb	0.167	0	0
1.5 x 9.25 LVL	1	505	878	6 ' - 8"	Lb	0.206	0	0
1.5 x 11.25 LVL	1	505	878	8 ' - 1"	Lb	0.244	0	0
2 x 8 SPF #2	2	505	878	4 ' - 10"	Lb	0.086	0	0
2 x 10 SPF #2	2	505	878	5 ' - 11"	Lb	0.092	0	0
2 x 12 SPF #2	2	505	878	6 ' - 11"	Lb	0.093	0	0
2 x 8 SYP #2	2	505	878	4 ' - 7"	Lb	0.067	0	0
2 x 10 SYP #2	2	505	878	5 ' - 5"	Lb	0.064	0	0
2 x 12 SYP #2	2	505	878	6 ' - 7"	Lb	0.077	0	0
1.5 x 7.25 LVL	2	505	878	7 ' - 6"	Lb	0.333	0	0
1.5 x 9.25 LVL	2	505	878	9 ' - 6"	Lb	0.412	0	0
1.5 x 11.25 LVL	2	505	878	11 ' - 6"	Lb	0.489	0	0
2 x 8 SPF #2	3	505	878	6 ' - 0"	Lb	0.129	0	0
2 x 10 SPF #2	3	505	878	7 ' - 4"	Lb	0.138	0	0
2 x 12 SPF #2	3	505	878	8 ' - 6"	Lb	0.139	0	0
2 x 8 SYP #2	3	505	878	5 ' - 7"	Lb	0.1	0	0
2 x 10 SYP #2	3	505	878	6 ' - 8"	Lb	0.096	0	0
2 x 12 SYP #2	3	505	878	8 ' - 1"	Lb	0.116	0	0
1.5 x 7.25 LVL	3	505	878	9 ' - 2"	Lb	0.5	0	0
1.5 x 9.25 LVL	3	505	878	11 ' - 8"	Lb	0.618	0	0
1.5 x 11.25 LVL	3	505	878	14 ' - 1"	Lb	0.733	0	0

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CENTER GIRDER - 1 STORY (LOCATION 4)
TRUSS HM778355
5/12 PITCH, 30.33 ft UNIT WIDTH, 30 psf GROUND SNOW LOAD

MEMBER	QUANTITY	HEADER LL (plf)	HEADER TL (plf)	MAXIMUM SPAN	LIMITED BY	MID-SPAN DEFLECTION (in)	UPLIFT (plf)	UPLIFT REACTION (lbs)
2 x 8 SPF #2	1	500	827	3 ' - 6"	Lb	0.046	53	95
2 x 10 SPF #2	1	500	827	4 ' - 4"	Lb	0.049	53	116
2 x 12 SPF #2	1	500	827	5 ' - 0"	Lb	0.049	53	134
2 x 8 SYP #2	1	500	827	3 ' - 4"	Lb	0.035	53	89
2 x 10 SYP #2	1	500	827	3 ' - 11"	Lb	0.034	53	106
2 x 12 SYP #2	1	500	827	4 ' - 10"	Lb	0.041	53	128
1.5 x 7.25 LVL	1	500	827	5 ' - 5"	Lb	0.177	53	145
1.5 x 9.25 LVL	1	500	827	6 ' - 11"	Lb	0.219	53	184
1.5 x 11.25 LVL	1	500	827	8 ' - 4"	Lb	0.259	53	222
2 x 8 SPF #2	2	500	827	5 ' - 0"	Lb	0.091	53	134
2 x 10 SPF #2	2	500	827	6 ' - 2"	Lb	0.098	53	164
2 x 12 SPF #2	2	500	827	7 ' - 1"	Lb	0.098	53	190
2 x 8 SYP #2	2	500	827	4 ' - 8"	Lb	0.071	53	126
~~2 x 10 SYP #2~~	~~2~~	~~500~~	~~827~~	~~5 ' - 7"~~	~~Lb~~	0.068	53	149
~~2 x 12 SYP #2~~	~~2~~	~~500~~	~~827~~	~~6 ' - 10"~~	~~Lb~~	0.082	53	182
1.5 x 7.25 LVL	2	500	827	7 ' - 9"	Lb	0.354	53	206
1.5 x 9.25 LVL	2	500	827	9 ' - 9"	Lb	0.438	53	260
1.5 x 11.25 LVL	2	500	827	11 ' - 10"	Lb	0.519	53	315
2 x 8 SPF #2	3	500	827	6 ' - 2"	Lb	0.137	53	164
2 x 10 SPF #2	3	500	827	7 ' - 6"	Lb	0.147	53	201
2 x 12 SPF #2	3	500	827	8 ' - 9"	Lb	0.148	53	233
2 x 8 SYP #2	3	500	827	5 ' - 9"	Lb	0.106	53	154
2 x 10 SYP #2	3	500	827	6 ' - 10"	Lb	0.101	53	183
2 x 12 SYP #2	3	500	827	8 ' - 4"	Lb	0.123	53	222
1.5 x 7.25 LVL	3	500	827	9 ' - 6"	Lb	0.531	53	252
1.5 x 9.25 LVL	3	500	827	12 ' - 0"	Lb	0.656	53	319
1.5 x 11.25 LVL	3	500	827	14 ' - 6"	Lb	0.778	53	385

***** LOADS AND QUANTITIES ARE PER SIDE OF MATING LINE**

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	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
UPLIFT CONNECTIONS:				
MRH ADJUSTMENT FACTOR (C_{MRH})	1.208	1.208	1.208	(TABLE 2.1.3.1, pp. 15)
UPLIFT CONNECTION LOADS FROM WIND :	58	74	98	plf (TRUSS SHEETS)
REQUIRED TRUSS TIE DOWN :				
AT 12" O.C.:	58	74	98	lbs AT 12" O.C.
CONNECTOR EACH TRUSS:	#10 x 5" WOOD SCREW (TOENAILED)	#10 x 5" WOOD SCREW (TOENAILED)	#10 x 5" WOOD SCREW (TOENAILED)	
AT 16" O.C.:	78	99	131	lbs AT 16" O.C.
CONNECTOR EACH TRUSS:	#10 x 5" WOOD SCREW (TOENAILED)	#10 x 5" WOOD SCREW (TOENAILED)	(1) SIMPSON SDWC15600 SCREW	
AT 19.2" O.C.:	93	119	157	lbs AT 19.2" O.C.
CONNECTOR EACH TRUSS:	#10 x 5" WOOD SCREW (TOENAILED)	#10 x 5" WOOD SCREW (TOENAILED)	(1) SIMPSON SDWC15600 SCREW	
AT 24" O.C.:	116	148	196	lbs AT 24" O.C.
CONNECTOR EACH TRUSS:	#10 x 5" WOOD SCREW (TOENAILED)	(1) SIMPSON SDWC15600 SCREW	(1) SIMPSON SDWC15600 SCREW	
1ST FLOOR STUD TO TOP PLATE / CEILING BAND				
AT 12" O.C.:	58	74	98	lbs AT 12" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	2	
8d COMMON NAIL (FACE NAILED)	2	2	2	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	1	1	1	
QTY OF 16 ga. STAPLES EACH END	2	2	3	
AT 16" O.C.:	78	99	131	lbs AT 16" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	2	
8d COMMON NAIL (FACE NAILED)	2	2	2	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	1	1	2	
QTY OF 16 ga. STAPLES EACH END	2	3	3	
AT 19.2" O.C.:	93	119	157	lbs AT 19.2" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	3	
8d COMMON NAIL (FACE NAILED)	2	2	2	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	1	1	2	
QTY OF 16 ga. STAPLES EACH END	2	3	4	
AT 24" O.C.:	116	148	196	lbs AT 24" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	3	3	
8d COMMON NAIL (FACE NAILED)	2	2	3	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	1	2	2	
QTY OF 16 ga. STAPLES EACH END	3	4	5	
REQUIRED DOUBLE TOP PLATE SPLICE LENGTH :	6	6	6	ft
w/ (2) ROWS 16d COMMON NAILS AT	12	12	12	in O.C.
OR	6	6	6	ft
w/ (2) ROWS 16d COMMON NAILS AT	9	9	9	in O.C.
OR	4	4	4	ft
w/ (2) ROWS 16d COMMON NAILS AT	6	6	6	in O.C.
OR	2	2	2	ft
w/ (2) ROWS 16d COMMON NAILS AT	3	3	3	in O.C.
1st FLOOR STUD TO FLOOR BAND CONNECTION :				
AT 12" O.C.:	0	10	34	lbs AT 12" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	2	
8d COMMON NAIL (FACE NAILED)	2	2	2	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	0	1	1	
QTY OF 16 ga. STAPLES EACH END	0	1	1	
AT 16" O.C.:	0	13	45	lbs AT 16" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	2	
8d COMMON NAIL (FACE NAILED)	2	2	2	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	0	1	1	
QTY OF 16 ga. STAPLES EACH END	0	1	1	
AT 19.2" O.C.:	0	16	54	lbs AT 19.2" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	2	
8d COMMON NAIL (FACE NAILED)	2	2	2	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	0	1	1	
QTY OF 16 ga. STAPLES EACH END	0	1	2	
AT 24" O.C.:	0	19	67	lbs AT 24" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	2	
8d COMMON NAIL (FACE NAILED)	2	2	2	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	[illegible]	
QTY OF 8d NAILS EACH END	0	1	[illegible]	
QTY OF 16 ga. STAPLES EACH END	0	1	[illegible]	
FLOOR BAND TO SILL PLATE CONNECTION:	0	0	0	
ANCHOR BOLT UPLIFT AT 72 in (MAX) SPACING	0	0	10	plf
CONNECTOR EACH STUD WRAPPED AROUND SILL	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	0	0	0	
QTY OF 16 ga. STAPLES EACH END	0	0	0	
CHECK BENDING IN RIMBAND:				
DBL. 2x10 SPF #2 RIMBAND DESIGN VALUES:	OK FOR BENDING	OK FOR BENDING	OK FOR BENDING	

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	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
LATERAL CONNECTIONS:				
LATERAL LOADS AT ROOF/CEILING DIAPHRAGM				
WALL HEIGHT ADJUSTMENT FACTOR (C_{WH}) :	1.125	1.125	1.125	(H / 8)
WIND PERPENDICULAR TO RIDGE:				
w_{l-per} :	78	84	111	plf (TABLE 2.5A, pp. 68)
w_{l-per}' x C_{MRH} x C_{WH} =	107	115	151	plf
WIND PARALLEL TO RIDGE:				
w_{l-para} :	78	94	125	plf (TABLE 2.5B, pp. 69)
w_{l-para}' x C_{MRH} x C_{WH} =	107	129	171	plf
LATERAL LOADS AT FLOOR DIAPHRAGM				
WIND PERPENDICULAR TO RIDGE:				
FL_{l-per} :	148	189	251	plf (TABLE 2.5A, pp. 68)
FL_{l-per}' x C_{MRH} x C_{WH} =	202	257	342	plf
WIND PARALLEL TO RIDGE:				
FL_{l-para} :	100	128	171	plf (TABLE 2.5B, pp. 69)
FL_{l-para}' x C_{MRH} x C_{WH} =	136	174	233	plf
LATERAL FRAMING CONNECTION LOADS FROM WIND				
w_{l-wall} :	80	102	136	plf (TABLE 2.1, pp. 62)
W_{l-wall}' x C_{MRH} =	97	124	165	plf
TRUSS TO TOP PLATE CONNECTION FOR LATERAL LOAD :				
AT 12" O.C.:				
QTY OF #10 x 5" WOOD SCREW (TOENAILED) REQUIRED	97	124	165	lbs AT 12" O.C.
IN ADDITION TO THE #10 x 5" WOOD SCREW (TOENAILED)	1	1	1	TOENAILS
AT 16" O.C.:				
QTY OF #10 x 5" WOOD SCREW (TOENAILED) REQUIRED	130	166	220	lbs AT 16" O.C.
IN ADDITION TO THE #10 x 5" WOOD SCREW (TOENAILED)	1	1	6	TOENAILS
AT 19.2" O.C.:				
QTY OF #10 x 5" WOOD SCREW (TOENAILED) REQUIRED	156	199	264	lbs AT 19.2" O.C.
IN ADDITION TO THE #10 x 5" WOOD SCREW (TOENAILED)	1	2	7	TOENAILS
AT 24" O.C.:				
QTY OF #10 x 5" WOOD SCREW (TOENAILED) REQUIRED	194	248	330	lbs AT 24" O.C.
IN ADDITION TO THE #10 x 5" WOOD SCREW (TOENAILED)	2	6	8	TOENAILS
PLATE TO PLATE CONNECTION AND BOTTOM PLATE TO FLOOR CONNECTION:				
QTY OF 15 ga. STAPLE (FACE) REQUIRED	9	7	5	in O.C.
PLATE TO STUD CONNECTION:				
AT 12" O.C.:	97	124	165	lbs AT 12" O.C.
QTY OF 15 ga. STAPLE (FACE) REQUIRED :	2	2	3	FACE
AT 16" O.C.:	130	166	220	lbs AT 16" O.C.
QTY OF 15 ga. STAPLE (FACE) REQUIRED :	2	3	4	FACE
AT 19.2" O.C.:	156	199	264	lbs AT 19.2" O.C.
QTY OF 15 ga. STAPLE (FACE) REQUIRED :	3	3	4	FACE
AT 24" O.C.:	194	248	330	lbs AT 24" O.C.
QTY OF 15 ga. STAPLE (FACE) REQUIRED :	3	4	5	FACE

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	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
ROOF SHEATHING SUCTION CONNECTION				
FOR ZONE 1 (FIELD) PRESSURE:	14.7	18.7	25	psf (TABLE 2.4, pp. 67)
x C_{MRH} =	18	23	31	psf
AT 12" O.C.:	18	23	31	lbs AT 12" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 16" O.C.:	24	31	41	lbs AT 16" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 19.2" O.C.:	29	37	50	lbs AT 19.2" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 24" O.C.:	36	46	62	lbs AT 24" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
FOR ZONE 2 (EDGE) PRESSURE:	24.6	31.5	41.9	psf (TABLE 2.4, pp. 67)
x C_{MRH} =	30	39	51	psf
AT 12" O.C.:	30	39	51	lbs AT 12" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 16" O.C.:	40	52	68	lbs AT 16" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 19.2" O.C.:	48	62	82	lbs AT 19.2" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	10	in O.C.
AT 24" O.C.:	60	78	102	lbs AT 24" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	11	8	in O.C.
FOR ZONE 3 (CORNER) PRESSURE:	37	47.3	63	psf (TABLE 2.4, pp. 67)
x C_{MRH} =	45	58	77	psf
AT 12" O.C.:	45	58	77	lbs AT 12" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	11	in O.C.
AT 16" O.C.:	60	77	103	lbs AT 16" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	11	8	in O.C.
AT 19.2" O.C.:	72	93	123	lbs AT 19.2" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	9	7	in O.C.
AT 24" O.C.:	90	116	154	lbs AT 24" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	9	7	5	in O.C.
FOR ZONE 3OH (CORNER OVERHANG) PRESSURE:	46	58.8	78.3	psf (TABLE 2.4, pp. 67)
x C_{MRH} =	56	72	95	psf
AT 12" O.C.:	56	72	95	lbs AT 12" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	9	in O.C.
AT 16" O.C.:	75	96	127	lbs AT 16" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	11	9	7	in O.C.
AT 19.2" O.C.:	90	115	152	lbs AT 19.2" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	9	7	5	in O.C.
AT 24" O.C.:	112	144	190	lbs AT 24" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	7	6	4	in O.C.
WALL SHEATHING SUCTION CONNECTION:				
FOR ZONE 4 (FIELD) PRESSURE:	15.9	20.3	27.1	psf (TABLE 2.4, pp. 67)
x C_{MRH} =	20	25	33	psf
AT 12" O.C.:	20	25	33	lbs AT 12" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 16" O.C.:	27	33	44	lbs AT 16" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 19.2" O.C.:	32	40	53	lbs AT 19.2" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 24" O.C.:	40	50	66	lbs AT 24" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
FOR ZONE 5 (EDGE) PRESSURE:	19.6	25.1	33.4	psf (TABLE 2.4, pp. 67)
x C_{MRH} =	24	31	41	psf
AT 12" O.C.:	24	31	41	lbs AT 12" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 16" O.C.:	32	41	55	lbs AT 16" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 19.2" O.C.:	38	50	66	lbs AT 19.2" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 24" O.C.:	48	62	82	lbs AT 24" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	10	in O.C.

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	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
ROOF DIAPHRAM:				(TABLE A-3.12A, pp. 193)
REQUIRED SHEATHING THICKNESS:				
AT 12" O.C.:	3/8	3/8	3/8	FOR 12" O.C.
AT 16" O.C.:	3/8	3/8	3/8	FOR 16" O.C.
AT 19.2" O.C.:	3/8	3/8	7/16	FOR 19.2" O.C.
AT 24" O.C.:	3/8	7/16	19/32	FOR 24" O.C.
ROOF SHEATHING DIAPHRAM CONNECTION:				(TABLES 2.5-1 & 2, pp. 70-
V_{roof} =				
AT 30 ft LENGTH:	53	64	85	plf AT 30 ft LENGTH
AT 35 ft LENGTH:	62	74	99	plf AT 35 ft LENGTH
AT 40 ft LENGTH:	71	85	113	plf AT 40 ft LENGTH
AT 45 ft LENGTH:	79	96	127	plf AT 45 ft LENGTH
AT 50 ft LENGTH:	88	106	141	plf AT 50 ft LENGTH
AT 55 ft LENGTH:	97	117	155	plf AT 55 ft LENGTH
AT 60 ft LENGTH:	106	128	169	plf AT 60 ft LENGTH
AT 65 ft LENGTH:	115	138	183	plf AT 65 ft LENGTH
AT 70 ft LENGTH:	123	149	197	plf AT 70 ft LENGTH
AT 75 ft LENGTH:	132	159	211	plf AT 75 ft LENGTH
AT 80 ft LENGTH:	141	170	226	plf AT 80 ft LENGTH
USE HORIZONTAL DIAPHRAM ASSEMBLIES (WFCM 2015 TABLE 2C, pp. 272)				
TO DETERMINE APPLICABLE ROOF SHEATHING FASTENING				
HORIZONTAL FLOOR DIAPHRAM CONTINUITY:				
V_{floor}=				
AT 30 ft LENGTH:	100	127	169	plf AT 30 ft LENGTH
AT 35 ft LENGTH:	117	148	197	plf AT 35 ft LENGTH
AT 40 ft LENGTH:	133	169	226	plf AT 40 ft LENGTH
AT 45 ft LENGTH:	150	191	254	plf AT 45 ft LENGTH
AT 50 ft LENGTH:	167	212	282	plf AT 50 ft LENGTH
AT 55 ft LENGTH:	183	233	310	plf AT 55 ft LENGTH
AT 60 ft LENGTH:	200	254	338	plf AT 60 ft LENGTH
AT 65 ft LENGTH:	216	275	366	plf AT 65 ft LENGTH
AT 70 ft LENGTH:	233	297	395	plf AT 70 ft LENGTH
AT 75 ft LENGTH:	250	318	423	plf AT 75 ft LENGTH
AT 80 ft LENGTH:	266	339	451	plf AT 80 ft LENGTH

JAMES J. BARLOW
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07/23/2020

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	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
MODULE TO MODULE CONNECTION AT FLOOR RIMBAND: (ALONG MATE LINE):				
TO ATTACH MODULE TO MODULE ALONG MATE LINE:				
V_f =				
AT 30 ft LENGTH:	2273	2892	3848	lbs AT 30 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	4	5	7	
MAXIMUM BOLT SPACING:	72	72	56	
AT 35 ft LENGTH:	2652	3374	4489	lbs AT 35 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	5	6	8	
MAXIMUM BOLT SPACING:	72	72	56	
AT 40 ft LENGTH:	3030	3855	5130	lbs AT 40 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	5	7	9	
MAXIMUM BOLT SPACING:	72	72	57	
AT 45 ft LENGTH:	3409	4337	5772	lbs AT 45 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	6	7	10	
MAXIMUM BOLT SPACING:	72	72	57	
AT 50 ft LENGTH:	3788	4819	6413	lbs AT 50 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	7	8	11	
MAXIMUM BOLT SPACING:	72	72	57	
AT 55 ft LENGTH:	4167	5301	7054	lbs AT 55 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	7	9	12	
MAXIMUM BOLT SPACING:	72	72	57	
AT 60 ft LENGTH:	4545	5783	7695	lbs AT 60 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	8	10	13	
MAXIMUM BOLT SPACING:	72	72	58	
AT 65 ft LENGTH:	4924	6265	8337	lbs AT 65 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	8	11	14	
MAXIMUM BOLT SPACING:	72	72	58	
AT 70 ft LENGTH:	5303	6747	8978	lbs AT 70 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	9	11	15	
MAXIMUM BOLT SPACING:	72	72	58	
AT 75 ft LENGTH:	5682	7229	9619	lbs AT 75 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	10	12	16	
MAXIMUM BOLT SPACING:	72	72	58	
AT 80 ft LENGTH:	6060	7710	10260	lbs AT 80 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	10	13	17	
MAXIMUM BOLT SPACING:	72	72	58	

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	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
MODULE TO MODULE CONNECTION AT FLOOR RIMBAND: (ALONG ENDWALLS):				
T =				
AT 30 ft LENGTH:	391	501	670	lbs AT 30 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	4	4	6	
QTY OF 16 ga. STAPLES EACH END	9	11	14	
AT 35 ft LENGTH:	336	429	575	lbs AT 35 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	3	4	5	
QTY OF 16 ga. STAPLES EACH END	7	9	12	
AT 40 ft LENGTH:	294	376	503	lbs AT 40 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	3	3	4	
QTY OF 16 ga. STAPLES EACH END	7	8	11	
AT 45 ft LENGTH:	261	334	447	lbs AT 45 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	3	3	4	
QTY OF 16 ga. STAPLES EACH END	6	7	10	
AT 50 ft LENGTH:	235	301	402	lbs AT 50 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	3	4	
QTY OF 16 ga. STAPLES EACH END	5	7	9	
AT 55 ft LENGTH:	214	273	366	lbs AT 55 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	3	3	
QTY OF 16 ga. STAPLES EACH END	5	6	8	
AT 60 ft LENGTH:	196	251	335	lbs AT 60 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	2	3	
QTY OF 16 ga. STAPLES EACH END	5	6	7	
AT 65 ft LENGTH:	181	231	310	lbs AT 65 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	2	3	
QTY OF 16 ga. STAPLES EACH END	4	5	7	
AT 70 ft LENGTH:	168	215	288	lbs AT 70 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	2	3	
QTY OF 16 ga. STAPLES EACH END	4	5	6	
AT 75 ft LENGTH:	157	201	268	lbs AT 75 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	2	3	
QTY OF 16 ga. STAPLES EACH END	4	5	6	
AT 80 ft LENGTH:	147	188	252	lbs AT 80 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	2	2	
QTY OF 16 ga. STAPLES EACH END	4	4	6	

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	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
FOR BUILDING LENGTH = 80 ft:				
WITH 30% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(2) ROWS AT 2 in O.C.	(2) ROWS AT 2 in O.C.	(3) ROWS AT 2 in O.C.	
WITH 35% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(2) ROWS AT 3 in O.C.	(2) ROWS AT 2 in O.C.	(2) ROWS AT 2 in O.C.	
WITH 40% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(2) ROWS AT 3 in O.C.	(2) ROWS AT 3 in O.C.	(2) ROWS AT 2 in O.C.	
WITH 45% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 2 in O.C.	(1) ROWS AT 2 in O.C.	(2) ROWS AT 3 in O.C.	
WITH 50% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 2 in O.C.	(1) ROWS AT 2 in O.C.	(2) ROWS AT 3 in O.C.	
WITH 55% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 2 in O.C.	(1) ROWS AT 2 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 60% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 3 in O.C.	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 65% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 3 in O.C.	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 70% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 75% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 4 in O.C.	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	
WITH 80% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 5 in O.C.	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	
WITH 85% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 5 in O.C.	(1) ROWS AT 5 in O.C.	(1) ROWS AT 4 in O.C.	
WITH 90% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 4 in O.C.	
WITH 95% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 5 in O.C.	
WITH 100% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 5 in O.C.	

PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
TRUSS BOTTOM CHORD TO TOP PLATE CONNECTION:				
V_{MAX} =				
AT 30 ft SIDEWALL LENGTH:	1605	1725	2265	lbs AT 30 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	18	17	13	
OR SPACING OF (1) SIMPSON LTP4 PLATE	72	72	72	
AT 35 ft SIDEWALL LENGTH:	1873	2013	2643	lbs AT 35 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	16	15	11	
OR SPACING OF (1) SIMPSON LTP4 PLATE	72	72	72	
AT 40 ft SIDEWALL LENGTH:	2140	2300	3020	lbs AT 40 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	14	13	10	
OR SPACING OF (1) SIMPSON LTP4 PLATE	72	72	69	
AT 45 ft SIDEWALL LENGTH:	2408	2588	3398	lbs AT 45 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	12	11	8	
OR SPACING OF (1) SIMPSON LTP4 PLATE	72	72	61	
AT 50 ft SIDEWALL LENGTH:	2675	2875	3775	lbs AT 50 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	11	10	8	
OR SPACING OF (1) SIMPSON LTP4 PLATE	72	72	55	
AT 55 ft SIDEWALL LENGTH:	2943	3163	4153	lbs AT 55 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	10	9	7	
OR SPACING OF (1) SIMPSON LTP4 PLATE	71	66	50	
AT 60 ft SIDEWALL LENGTH:	3210	3450	4530	lbs AT 60 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	9	8	6	
OR SPACING OF (1) SIMPSON LTP4 PLATE	65	60	46	
AT 65 ft SIDEWALL LENGTH:	3478	3738	4908	lbs AT 65 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	8	8	6	
OR SPACING OF (1) SIMPSON LTP4 PLATE	60	55	42	
AT 70 ft SIDEWALL LENGTH:	3745	4025	5285	lbs AT 70 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	8	7	5	
OR SPACING OF (1) SIMPSON LTP4 PLATE	55	51	39	
AT 75 ft SIDEWALL LENGTH:	4013	4313	5663	lbs AT 75 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	7	7	5	
OR SPACING OF (1) SIMPSON LTP4 PLATE	52	48	36	
AT 80 ft SIDEWALL LENGTH:	4280	4600	6040	lbs AT 80 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	7	6	5	
OR SPACING OF (1) SIMPSON LTP4 PLATE	48	45	34	

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	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
RIMBAND TO SILL PLATE CONNECTION:				
V_{MAX} = AT 30 ft SIDEWALL LENGTH:	3878	4617	6113	lbs AT 30 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	7	6	4	
OR SPACING OF (1) SIMPSON LTP4 PLATE	53	45	34	
AT 35 ft SIDEWALL LENGTH:	4525	5387	7132	lbs AT 35 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	6	5	4	
OR SPACING OF (1) SIMPSON LTP4 PLATE	46	38	29	
AT 40 ft SIDEWALL LENGTH:	5170	6155	8150	lbs AT 40 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	5	4	3	
OR SPACING OF (1) SIMPSON LTP4 PLATE	40	34	25	
AT 45 ft SIDEWALL LENGTH:	5817	6925	9170	lbs AT 45 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	5	4	3	
OR SPACING OF (1) SIMPSON LTP4 PLATE	35	30	22	
AT 50 ft SIDEWALL LENGTH:	6463	7694	10188	lbs AT 50 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	4	3	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	32	27	20	
AT 55 ft SIDEWALL LENGTH:	7110	8464	11207	lbs AT 55 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	4	3	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	29	24	18	
AT 60 ft SIDEWALL LENGTH:	7755	9233	12225	lbs AT 60 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	3	3	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	26	22	17	
AT 65 ft SIDEWALL LENGTH:	8402	10003	13245	lbs AT 65 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	3	3	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	24	20	15	
AT 70 ft SIDEWALL LENGTH:	9048	10772	14263	lbs AT 70 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	3	2	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	23	19	14	
AT 75 ft SIDEWALL LENGTH:	9695	11542	15282	lbs AT 75 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	3	2	1	
OR SPACING OF (1) SIMPSON LTP4 PLATE	21	18	13	
AT 80 ft SIDEWALL LENGTH:	10340	12310	16300	lbs AT 80 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	2	2	1	
OR SPACING OF (1) SIMPSON LTP4 PLATE	20	17	12	

PFS CORPORATION

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Signature: Tim Dusche

Title: Staff Plan Reviewer

Date: 8/18/21

	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
SILL PLATE TO FOUNDATION CONNECTION:				
V_{MAX} =				
AT 30 ft LENGTH:	3878	4617	6113	lbs AT 30 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS.	72	72	67	
SPACING OF 5/8" ANCHOR BOLTS.	72	72	72	
AT 35 ft LENGTH:	4525	5387	7132	lbs AT 35 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS.	72	67	56	
SPACING OF 5/8" ANCHOR BOLTS.	72	72	72	
AT 40 ft LENGTH:	5170	6155	8150	lbs AT 40 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS.	72	67	48	
SPACING OF 5/8" ANCHOR BOLTS.	72	72	67	
AT 45 ft LENGTH:	5817	6925	9170	lbs AT 45 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS.	67	56	42	
SPACING OF 5/8" ANCHOR BOLTS.	72	72	56	
AT 50 ft LENGTH:	6463	7694	10188	lbs AT 50 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS.	56	48	37	
SPACING OF 5/8" ANCHOR BOLTS.	72	67	56	
AT 55 ft LENGTH:	7110	8464	11207	lbs AT 55 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS.	56	42	33	
SPACING OF 5/8" ANCHOR BOLTS.	72	67	48	
AT 60 ft LENGTH:	7755	9233	12225	lbs AT 60 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS.	48	42	30	
SPACING OF 5/8" ANCHOR BOLTS.	67	56	42	
AT 65 ft LENGTH:	8402	10003	13245	lbs AT 65 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS.	48	37	28	
SPACING OF 5/8" ANCHOR BOLTS.	67	56	42	
AT 70 ft LENGTH:	9048	10772	14263	lbs AT 70 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS.	42	33	26	
SPACING OF 5/8" ANCHOR BOLTS.	56	48	37	
AT 75 ft LENGTH:	9695	11542	15282	lbs AT 75 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS.	37	33	24	
SPACING OF 5/8" ANCHOR BOLTS.	56	48	33	
AT 80 ft LENGTH:	10340	12310	16300	lbs AT 80 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS.	37	30	22	
SPACING OF 5/8" ANCHOR BOLTS.	56	42	33	

PFS CORPORATION
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State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
FOR BUILDING LENGTH = 70 ft:				
FOR 30 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 35 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 40 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 45 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 50 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 55 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 60 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 65 PERCENT ENDWALL SHEATHING :	19.314	** NG **	** NG **	
FOR 70 PERCENT ENDWALL SHEATHING :	18.52	19.905	** NG **	
FOR 75 PERCENT ENDWALL SHEATHING :	17.673	18.994	** NG **	
FOR 80 PERCENT ENDWALL SHEATHING :	16.9	18.163	23.849	
FOR 85 PERCENT ENDWALL SHEATHING :	16	17.196	22.579	
FOR 90 PERCENT ENDWALL SHEATHING :	15.191	16.327	21.438	
FOR 95 PERCENT ENDWALL SHEATHING :	14.307	15.376	20.19	
FOR 100 PERCENT ENDWALL SHEATHING :	13.52	14.531	19.079	
FOR BUILDING LENGTH = 75 ft:				
FOR 30 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 35 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 40 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 45 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 50 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 55 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 60 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 65 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 70 PERCENT ENDWALL SHEATHING :	19.846	** NG **	** NG **	
FOR 75 PERCENT ENDWALL SHEATHING :	18.938	20.353	** NG **	
FOR 80 PERCENT ENDWALL SHEATHING :	18.109	19.463	** NG **	
FOR 85 PERCENT ENDWALL SHEATHING :	17.145	18.427	24.194	
FOR 90 PERCENT ENDWALL SHEATHING :	16.278	17.495	22.971	
FOR 95 PERCENT ENDWALL SHEATHING :	15.331	16.477	21.634	
FOR 100 PERCENT ENDWALL SHEATHING :	14.487	15.57	20.444	
FOR BUILDING LENGTH = 80 ft:				
FOR 30 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 35 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 40 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 45 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 50 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 55 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 60 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 65 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 70 PERCENT ENDWALL SHEATHING :	21.166	** NG **	** NG **	
FOR 75 PERCENT ENDWALL SHEATHING :	20.198	21.708	** NG **	
FOR 80 PERCENT ENDWALL SHEATHING :	19.314	20.758	** NG **	
FOR 85 PERCENT ENDWALL SHEATHING :	18.286	19.653	** NG **	
FOR 90 PERCENT ENDWALL SHEATHING :	17.361	18.659	24.5	
FOR 95 PERCENT ENDWALL SHEATHING :	16.351	17.573	23.074	
FOR 100 PERCENT ENDWALL SHEATHING :	15.451	16.606	21.805	

PFS CORPORATION

Approval Limited to Factory Built Portion Only

State: North Carolina

Signature: Tim Dusche

Title: Staff Plan Reviewer

Date: 8/18/21

	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
FOR BUILDING LENGTH = 70 ft:				
FOR 30 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 35 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 40 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 45 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 50 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 55 PERCENT ENDWALL SHEATHING :	15.951	** NG **	** NG **	
FOR 60 PERCENT ENDWALL SHEATHING :	15.356	16.504	** NG **	
FOR 65 PERCENT ENDWALL SHEATHING :	14.698	15.797	** NG **	
FOR 70 PERCENT ENDWALL SHEATHING :	14.094	15.148	19.889	
FOR 75 PERCENT ENDWALL SHEATHING :	13.449	14.454	18.979	
FOR 80 PERCENT ENDWALL SHEATHING :	12.861	13.822	18.149	
FOR 85 PERCENT ENDWALL SHEATHING :	12.176	13.086	17.183	
FOR 90 PERCENT ENDWALL SHEATHING :	11.56	12.424	16.314	
FOR 95 PERCENT ENDWALL SHEATHING :	10.887	11.701	15.364	
FOR 100 PERCENT ENDWALL SHEATHING :	10.288	11.058	14.519	
FOR BUILDING LENGTH = 75 ft:				
FOR 30 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 35 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 40 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 45 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 50 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 55 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 60 PERCENT ENDWALL SHEATHING :	16.455	17.685	** NG **	
FOR 65 PERCENT ENDWALL SHEATHING :	15.75	16.927	** NG **	
FOR 70 PERCENT ENDWALL SHEATHING :	15.102	16.231	** NG **	
FOR 75 PERCENT ENDWALL SHEATHING :	14.411	15.489	20.337	
FOR 80 PERCENT ENDWALL SHEATHING :	13.781	14.811	19.447	
FOR 85 PERCENT ENDWALL SHEATHING :	13.047	14.022	18.411	
FOR 90 PERCENT ENDWALL SHEATHING :	12.387	13.313	17.481	
FOR 95 PERCENT ENDWALL SHEATHING :	11.666	12.539	16.463	
FOR 100 PERCENT ENDWALL SHEATHING :	11.025	11.849	15.558	
FOR BUILDING LENGTH = 80 ft:				
FOR 30 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 35 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 40 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 45 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 50 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 55 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 60 PERCENT ENDWALL SHEATHING :	17.55	** NG **	** NG **	
FOR 65 PERCENT ENDWALL SHEATHING :	16.797	18.053	** NG **	
FOR 70 PERCENT ENDWALL SHEATHING :	16.107	17.311	** NG **	
FOR 75 PERCENT ENDWALL SHEATHING :	15.37	16.519	21.691	
FOR 80 PERCENT ENDWALL SHEATHING :	14.698	15.797	20.742	
FOR 85 PERCENT ENDWALL SHEATHING :	13.915	14.955	19.637	
FOR 90 PERCENT ENDWALL SHEATHING :	13.212	14.199	18.644	
FOR 95 PERCENT ENDWALL SHEATHING :	12.443	13.373	17.559	
FOR 100 PERCENT ENDWALL SHEATHING :	11.758	12.637	16.593	

PFS CORPORATION

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State: North Carolina

Signature: Tim Dusche

Title: Staff Plan Reviewer

Date: 8/18/21

	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
FOR BUILDING LENGTH = 80 ft:				
WITH 30% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 5 in O.C.	
WITH 35% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 40% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 45% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 50% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 55% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 60% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 65% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 70% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 75% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 80% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 85% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 90% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 95% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 100% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	

PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
RIMBAND TO SILL PLATE CONNECTION:				
SHEARWALL REACTION (R_{end}) =	1623	1957	2594	lbs
V_{MAX} =	3170	3937	5245	lbs
V =				
AT 30 ft LENGTH:	106	132	175	plf AT 30 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	9	7	5	
SPACING OF (1) SIMPSON LTP4 PLATE:	65	52	39	
AT 35 ft LENGTH:	91	113	150	plf AT 35 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	10	8	6	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	61	46	
AT 40 ft LENGTH:	80	99	132	plf AT 40 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	12	10	7	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	69	52	
AT 45 ft LENGTH:	71	88	117	plf AT 45 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	14	11	8	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	58	
AT 50 ft LENGTH:	64	79	105	plf AT 50 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	15	12	9	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	65	
AT 55 ft LENGTH:	58	72	96	plf AT 55 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	17	13	10	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	71	
AT 60 ft LENGTH:	53	66	88	plf AT 60 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	18	15	11	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	72	
AT 65 ft LENGTH:	49	61	81	plf AT 65 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	20	16	12	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	72	
AT 70 ft LENGTH:	46	57	75	plf AT 70 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	21	17	13	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	72	
AT 75 ft LENGTH:	43	53	70	plf AT 75 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	23	18	14	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	72	
AT 80 ft LENGTH:	40	50	66	plf AT 80 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	24	19	15	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	72	
SILL PLATE TO FOUNDATION CONNECTION:				
V_{MAX} =	3170	3937	5245	lbs
SPACING OF 1/2" ANCHOR BOLTS:	72	72	72	
SPACING OF 5/8" ANCHOR BOLTS:	72	72	72	

PFS CORPORATION

Approval Limited to Factory Built Portion Only

State: North Carolina

Signature: Tim Dusche

Title: Staff Plan Reviewer

Date: 8/18/21

	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
PERFORATED SHEARWALL LENGTH REQUIREMENTS				
WALL CONSTRUCTION:				
EXTERIOR: 7/16" OSB (BLOCKED) FASTENED w/ 16 ga. STAPLES 6" EDGE / 12" FIELD				
INTERIOR:1/2" GWB FASTENED w/ 5D NAILS 7" EDGE / 10" FIELD				
V_{ALLOW} =	277	277	277	plf
SIDEWALL - FULL HEIGHT SHEATHING REQUIRED (ft):				
FOR 30 PERCENT SIDEWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 35 PERCENT SIDEWALL SHEATHING :	10.463	** NG **	** NG **	
FOR 40 PERCENT SIDEWALL SHEATHING :	10.102	** NG **	** NG **	
FOR 45 PERCENT SIDEWALL SHEATHING :	9.765	11.769	** NG **	
FOR 50 PERCENT SIDEWALL SHEATHING :	9.45	11.389	** NG **	
FOR 55 PERCENT SIDEWALL SHEATHING :	9.084	10.948	14.513	
FOR 60 PERCENT SIDEWALL SHEATHING :	8.745	10.539	13.972	
FOR 65 PERCENT SIDEWALL SHEATHING :	8.37	10.088	13.373	
FOR 70 PERCENT SIDEWALL SHEATHING :	8.026	9.673	12.823	
FOR 75 PERCENT SIDEWALL SHEATHING :	7.659	9.231	12.237	
FOR 80 PERCENT SIDEWALL SHEATHING :	7.324	8.827	11.701	
FOR 85 PERCENT SIDEWALL SHEATHING :	6.934	8.357	11.078	
FOR 90 PERCENT SIDEWALL SHEATHING :	6.583	7.934	10.518	
FOR 95 PERCENT SIDEWALL SHEATHING :	6.2	7.472	9.906	
FOR 100 PERCENT SIDEWALL SHEATHING :	5.859	7.061	9.361	

PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
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Title: Staff Plan Reviewer
Date: 8/18/21

	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
FIRST FLOOR CORNER HOLDDOWN				
CORNER STUD CONNECTION:				
ENDWALL:				
SHEARWALL REACTION (Rend):				
AT 30 ft SIDEWALL LENGTH:	1605	1725	2265	lbs
AT 35 ft SIDEWALL LENGTH:	1873	2013	2643	lbs
AT 40 ft SIDEWALL LENGTH:	2140	2300	3020	lbs
AT 45 ft SIDEWALL LENGTH:	2408	2588	3398	lbs
AT 50 ft SIDEWALL LENGTH:	2675	2875	3775	lbs
AT 55 ft SIDEWALL LENGTH:	2943	3163	4153	lbs
AT 60 ft SIDEWALL LENGTH:	3210	3450	4530	lbs
AT 65 ft SIDEWALL LENGTH:	3478	3738	4908	lbs
AT 70 ft SIDEWALL LENGTH:	3745	4025	5285	lbs
AT 75 ft SIDEWALL LENGTH:	4013	4313	5663	lbs
AT 80 ft SIDEWALL LENGTH:	4280	4600	6040	lbs
DEAD LOAD REACTION (DL):	1328	1328	1328	lbs
SIDEWALL:				
SHEARWALL REACTION (Rend):	1623	1957	2594	lbs
DEAD LOAD REACTION (DL):				
AT 30 ft SIDEWALL LENGTH:	1996	1996	1996	lbs
AT 35 ft SIDEWALL LENGTH:	2328	2328	2328	lbs
AT 40 ft SIDEWALL LENGTH:	2661	2661	2661	lbs
AT 45 ft SIDEWALL LENGTH:	2993	2993	2993	lbs
AT 50 ft SIDEWALL LENGTH:	3326	3326	3326	lbs
AT 55 ft SIDEWALL LENGTH:	3659	3659	3659	lbs
AT 60 ft SIDEWALL LENGTH:	3991	3991	3991	lbs
AT 65 ft SIDEWALL LENGTH:	4324	4324	4324	lbs
AT 70 ft SIDEWALL LENGTH:	4656	4656	4656	lbs
AT 75 ft SIDEWALL LENGTH:	4989	4989	4989	lbs
AT 80 ft SIDEWALL LENGTH:	5322	5322	5322	lbs

wrightsoft®

Load Short Form

Entire House

AMS Of Indiana, Inc

3933 East Jackson Blvd., Elkhart, IN 46516

Job: 23-3276-16 061720
Date: 8/5/21
By: AMS of Indiana, Inc.

PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

Project Information

For: Champion Home Builders
Lillington, NC

Design Information

	Htg	Clg
Outside db (°F)	10	96
Inside db (°F)	70	75
Design TD (°F)	61	21
Daily range	-	M
Inside humidity (%)	50	50
Moisture difference (gr/lb)	49	51

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	1 (Average)

HEATING EQUIPMENT

Make	Generic	
Trade		
Model	AFUE 100	
AHRI ref		
Efficiency	100 AFUE	
Heating input	11.6	kW
Heating output	39658	Btuh
Temperature rise	31	°F
Actual air flow	1191	cfm
Air flow factor	0.034	cfm/Btuh
Static pressure	0.50	in H2O
Space thermostat		

COOLING EQUIPMENT

Make	Generic	
Trade		
Cond	SEER 14.0	
Coil		
AHRI ref		
Efficiency	12.2 EER, 14 SEER	
Sensible cooling	23454	Btuh
Latent cooling	10052	Btuh
Total cooling	33505	Btuh
Actual air flow	1191	cfm
Air flow factor	0.056	cfm/Btuh
Static pressure	0.50	in H2O
Load sensible heat ratio	0.75	

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
B4	158	3788	1953	130	108
C4	49	0	0	0	0
BA3	45	691	292	24	16
DEN	154	3744	2635	128	146
H	126	0	0	0	0
DR\KT	476	5961	3842	204	213
U	140	3266	1251	112	69
BA1	138	2942	1154	101	64
LR	324	4417	3247	151	180
B2	160	2086	1678	71	93
BA2	48	742	271	25	15
B3	160	3282	1946	112	108
C1	70	837	311	29	17
B1	244	3083	2878	105	160

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Entire House Other equip loads Equip. @ 1.01 RSM Latent cooling	2291	34839 4819	21456 1697 23453 7801	1191	1191
TOTALS	2291	39658	31254	1191	1191

PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Project Summary
Entire House
AMS Of Indiana, Inc.

Job: 23-3276-16 061720
Date: 8/5/21
By: AMS of Indiana, Inc.

3933 East Jackson Blvd., Elkhart, IN 46516

Project Infor

For: Champion Home Builders
Lillington, NC

Notes:

PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

Design Information

Weather: Winston-Salem Reynolds AP, NC, US

Winter Design Conditions

Outside db	10	°F
Inside db	70	°F
Design TD	61	°F

Heating Summary

Structure	31459	Btuh
Ducts	3380	Btuh
Central vent (75 cfm)	4819	Btuh
Outside air		
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	39658	Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	1 (Average)

	Heating	Cooling
Area (ft²)	2291	2291
Volume (ft³)	20623	20623
Air changes/hour	0.38	0.16
Equiv. AVF (cfm)	130	55

Heating Equipment Summary

Make	Generic
Trade	
Model	AFUE 100
AHRI ref	

Efficiency	100	AFUE
Heating input	11.6	kW
Heating output	39658	Btuh
Temperature rise	31	°F
Actual air flow	1191	cfm
Air flow factor	0.034	cfm/Btuh
Static pressure	0.50	in H2O
Space thermostat		

Summer Design Conditions

Outside db	96	°F
Inside db	75	°F
Design TD	21	°F
Daily range	M	
Relative humidity	50	%
Moisture difference	51	gr/lb

Sensible Cooling Equipment Load Sizing

Structure	19861	Btuh
Ducts	1594	Btuh
Central vent (75 cfm)	1697	Btuh
Outside air		
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	1.01	
Equipment sensible load	23453	Btuh

Latent Cooling Equipment Load Sizing

Structure	3259	Btuh
Ducts	2006	Btuh
Central vent (75 cfm)	2536	Btuh
Outside air		
Equipment latent load	7801	Btuh
Equipment Total Load (Sen+Lat)	31254	Btuh
Req. total capacity at 0.70 SHR	2.8	ton

Cooling Equipment Summary

Make	Generic
Trade	
Cond	SEER 14.0
Coil	
AHRI ref	

Efficiency	12.2 EER, 14 SEER	
Sensible cooling	23454	Btuh
Latent cooling	10052	Btuh
Total cooling	33505	Btuh
Actual air flow	1191	cfm
Air flow factor	0.056	cfm/Btuh
Static pressure	0.50	in H2O
Load sensible heat ratio	0.75	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

PFS CORPORATION

Approval Limited to Factory Built Portion Only

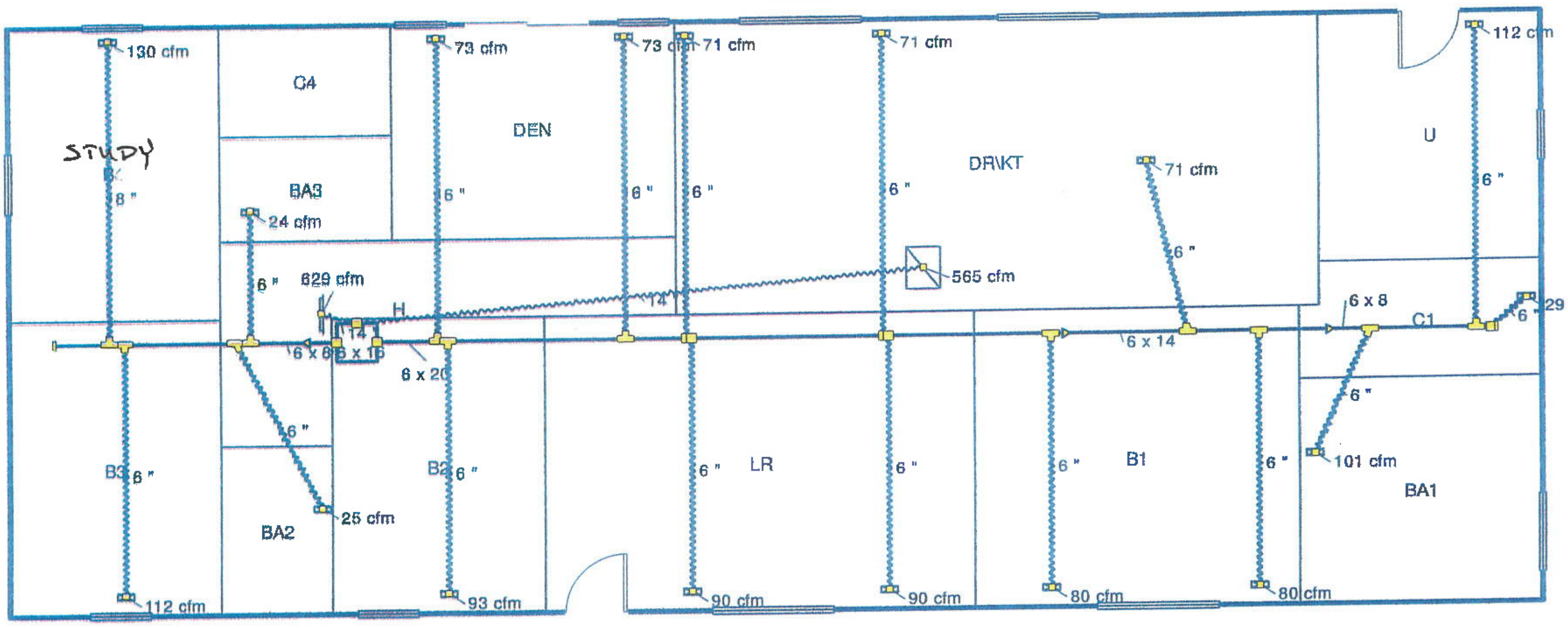
State: North Carolina

Signature: Tim Dusche

Title: Staff Plan Reviewer

Date: 8/18/21

Sheet 1



Job #: 23-3276-16 061720
Performed by AMS of Indiana, Inc. for:
Champion Home Builders

Lillington, NC

AMS Of Indiana, Inc.

3933 East Jackson Blvd.
Elkhart, IN 46516

Scale: 1 : 131

Page 1
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Duct System Summary
Entire House
AMS Of Indiana, Inc.

3933 East Jackson Blvd., Elkhart, IN 46516

Job: 23-3276-16 061720
Date: 8/5/21
By: AMS of Indiana, Inc.

Project Information

For: Champion Home Builders
Lillington, NC

	Heating		Cooling	
External static pressure	0.50	in H2O	0.50	in H2O
Pressure losses	0.26	in H2O	0.26	in H2O
Available static pressure	0.24	in H2O	0.24	in H2O
Supply / return available pressure	0.170 / 0.070	in H2O	0.170 / 0.070	in H2O
Lowest friction rate	0.079	in/100ft	0.079	in/100ft
Actual air flow	1191	cfm	1191	cfm
Total effective length (TEL)	303 ft			

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
B1	c 1439	53	80	0.094	6.0	0x 0	VIFx	56.5	125.0	st1A
B1-A	c 1439	53	80	0.106	6.0	0x 0	VIFx	46.3	115.0	st1
B2	c 1678	71	93	0.105	6.0	0x 0	VIFx	16.5	145.0	st1
B3	h 3282	112	108	0.107	6.0	0x 0	VIFx	23.5	135.0	st2A
B4	h 3788	130	108	0.112	8.0	0x 0	VIFx	26.8	125.0	st2A
BA1	h 2942	101	64	0.083	6.0	0x 0	VIFx	55.8	150.0	st1B
BA2	h 742	25	15	0.110	6.0	0x 0	VIFx	14.5	140.0	st2A
BA3	h 691	24	16	0.109	6.0	0x 0	VIFx	11.0	145.0	st2A
C1-A	h 837	29	17	0.088	6.0	0x 0	VIFx	57.3	135.0	st1B
DEN	c 1318	64	73	0.104	6.0	0x 0	VIFx	18.5	145.0	st1
DEN-A	c 1318	64	73	0.099	6.0	0x 0	VIFx	27.8	145.0	st1
DR\KT	c 1281	68	71	0.100	6.0	0x 0	VIFx	30.8	140.0	st1
DR\KT-A	c 1281	68	71	0.100	6.0	0x 0	VIFx	40.5	130.0	st1
DR\KT-B	c 1281	68	71	0.092	6.0	0x 0	VIFx	49.0	135.0	st1A
LR	c 1623	76	90	0.104	6.0	0x 0	VIFx	28.5	135.0	st1
LR-A	c 1623	76	90	0.104	6.0	0x 0	VIFx	38.3	125.0	st1
U	h 3266	112	69	0.079	6.0	0x 0	VIFx	69.8	145.0	st1B

PFS
PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: North Carolina
Signature: Tim Dusche
Title: Staff Plan Reviewer
Date: 8/18/21

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st2A	Peak AVF	291	248	0.107	872	***9.0***	***8*** x ***6***	RectFbg	st2
st1A	Peak AVF	362	302	0.079	620	***10.4***	***14*** x ***6***	RectFbg	st1
st1B	Peak AVF	241	151	0.079	723	***8.9***	***8*** x ***6***	RectFbg	st1A
st1	Peak AVF	900	944	0.079	1132	***14.9***	***20*** x ***6***	RectFbg	
st2	Peak AVF	291	248	0.107	436	9.0	16 x 6	RectFbg	

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb2	0x 0	565	562	88.1	0.079	529	14.0	0x 0		VIFx	
rb1	0x 0	626	629	61.8	0.113	589	14.0	0x 0		VIFx	

PFS CORPORATION

Approval Limited to Factory Built Portion Only

State: **North Carolina**

Signature: Tim Dusche

Title: **Staff Plan Reviewer**

Date: 8/18/21

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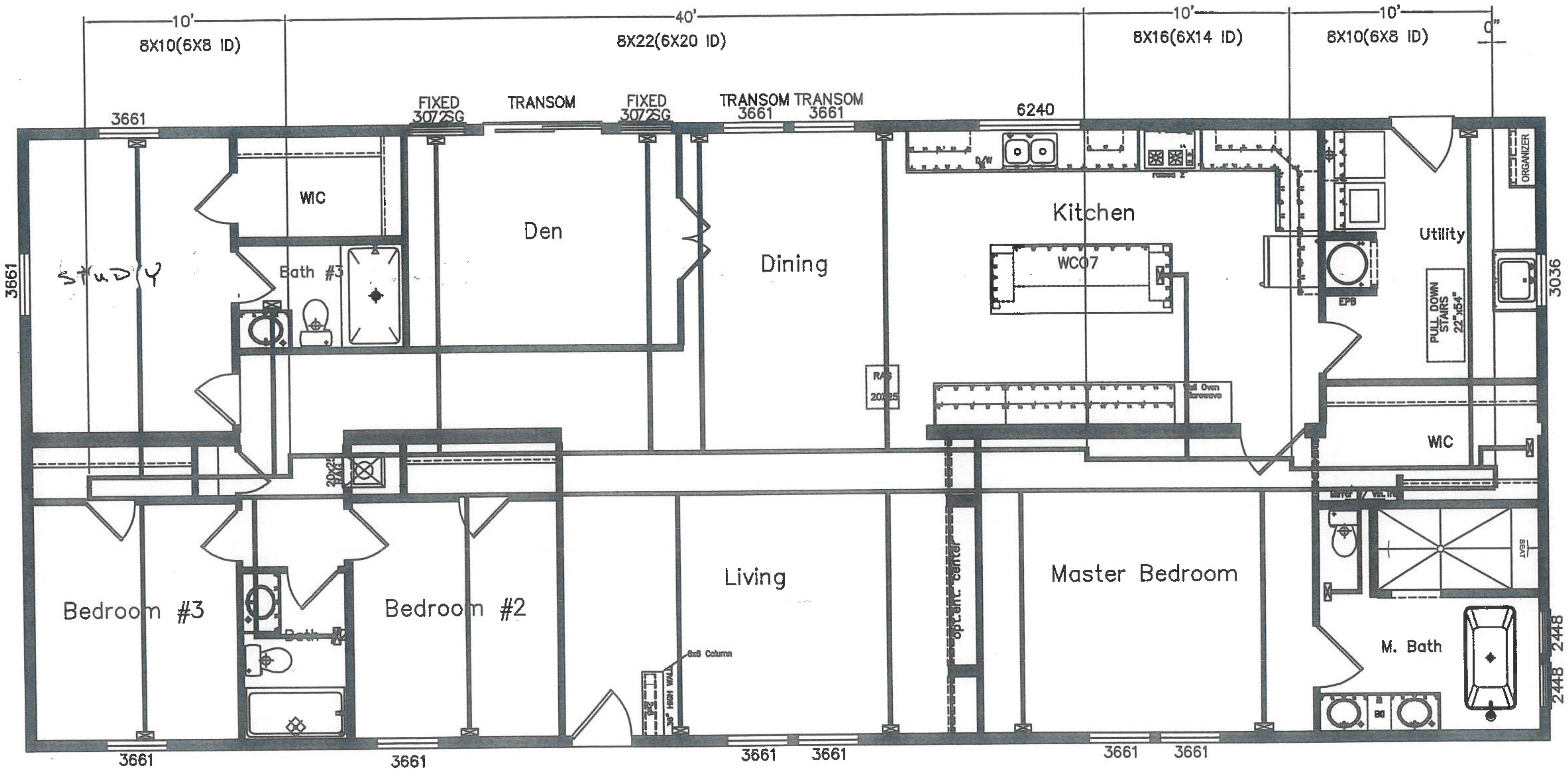
061720



PFS

PFS CORPORATION

Approval Limited to Factory Built Portion Only

State: North Carolina

Signature: Tim Dusche

Title: Staff Plan Reviewer

Date: 8/18/21

THE AMS GROUP ELKHART, IN.	CUSTOMER: CHAMPION HOME BUILDER
DESCRIPTION: PERIMETER	SCALE:
MODEL: 23-3276-16	
DRAWN: BPW	DATE: 8/5/21
CAD FILENAME: DS\CHAMPION LILLINGTON	

PFS·TECO
PFS Corporation d/b/a PFS TECO
An Employee-Owned Company

August 18, 2021

Mr. Mike Hamm, P.E.
Chief Building Code Consultant
North Carolina Department of Insurance - OSFM
325 North Salisbury Street
Raleigh, NC 27603

RE: Champion Home Builders #23
Lillington, NC
Model: 23-3276-16 (061720)

Dear Mr. Hamm:

Enclosed is one set of PFS accepted documents for the above referenced manufacturer. PFS has reviewed these documents and to the best of our knowledge have found them to conform to the North Carolina codes:

2018 NC Residential Code w/Amendments (includes plumbing, mechanical, & energy codes – Chapter 11)
2017 NC Electrical Code w/Amendments

If you have any questions, please contact us.

Sincerely,

Ian Lehrer, P.E.
Agency Engineer

Enclosure: As Stated

cc: Ryan Duke
File

PFS Corporation has reviewed and approved the above referenced material and to the best of our knowledge these documents conform to the referenced codes.

Construction Review
Ian Lehrer, P.E.

Structural Review
Ian Lehrer, P.E.

Plumbing Review
Ian Lehrer, P.E.

Mechanical Review
Ian Lehrer, P.E.

Electrical Review
Ian Lehrer, P.E.

N//A

Quality Control Review
Ian Lehrer, P.E.

PFS·TECO

Date Received at PFS: 8-10-2021
IBC Transmittal No. (by PFS):
Project No. (by PFS): 21005336

ADDITIONAL OR MODIFIED ACCEPTANCE (MODULARS/PANELIZED)

This form is to be used only when the manufacturer is seeking acceptance of an additional model, modified model or model name change which uses a previously accepted building system.

Current PFS Building System Acceptance #:
Model Name/ No. 23-3276-16 061720
Manufacturer's Name: CHAMPION HOME BUILDERS
Plant(s) at which model will be produced PLANT #23 LILLINGTON, NC

Check One: Y NEW MODEL ____ Revised Model*

TECHNICAL DATA

	Conforms Yes	Conforms No	Conforms N/A
Floor Plan Showing:			
Braced Wall Method or Shearwalls	Y		
Building Size (LxW Dimensions)	Y		
Room Sizes, Light & Ventilation Schedule	Y		
Exit Requirements	Y		
Electrical Outlet Spacing & Smoke Detector	Y		
Location of Labels & Data Plates	Y		
Use Group, Type Const., Total Sq.Ft. Area	Y		
Plumbing System Design or Reference No. (PROVIDED ON PP-101)	Y		
Heat Loss Calculations or Reference No. (PROVIDED ON RS-101)	Y		
HVAC/Furnace Size/Model No. (BY OTHERS)	Y		
Thermal Performance Calculations or Reference No. (PROVIDED ON RS-101)	Y		
Electrical Load Calculations or Reference No. (PROVIDED ON EP-101)	Y		
Service Size and Location (200A/UTILITY)	Y		
Applicable Building Codes SEE GE-101	Y		

Submit model to the followingstates: NC

*Description of Modification:

Requested by: JON TYNDALL Date: 8-9-21
(designer)

For PFS Use

Staff Plan Reviewer Tim Busche Certification #: B5002446-R3 Date: 8-18-2021

Structural Calculation(s) Reviewed By: P.E. #: Date:
Remarks:

***(1) copy sent to IBC within 15 days of approval.*

VERBAL APPROVAL GIVEN ☐ By Whom: To Whom Date:
MODEL WAS DEVIATED ☒ Revision Number:

THIS FORM SHALL BE FILLED OUT COMPLETELY WITH EACH MODEL ACCEPTANCE OR MODIFICATION PRIOR TO SUBMITTAL TO PFS.

cc: file, NC
\forms\form-m
Rev 05/26/16 ds

NORTH CAROLINA
MODULAR PLANS REVIEW CHECKLIST

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Manufacturer CHAMPION HOME BUILDERS
Model number/name 23-3276-16 061720
3rd Party PFS Corporation
Review Date
Reviewer

	Plan Sheet Page # and NOTES
QC MANUAL (current and complete)	APPROVED ON 2-28-12
APPENDIX B (required and attached)	N/A
PLAN SHEETS	
Each plan sheet third-party stamped with approver's name	
Each plan sheets is numbered and/or indexed	
GENERAL (cover sheet)	
Code References	GE-101
Statement regarding connection to public utilities	GE-101
Statement regarding bathrooms if not included	N/A
Construction type	GE-101
Occupancy classification	GE-101
Fire resistance ratings (if required)	GE-101
Floor live load	GE-101
Roof live load	GE-101
Design wind velocity	GE-101
Seismic information (commercial projects)	GE-101
Thermal zones	RS-101/GE-101 UNDER GENERAL NOTES
Notice to inspections department regarding items to be site inspected	GE-101
FLOOR PLANS	
Interior and exterior wall layouts	AP-101
Door and window schedule	AP-101
Light and Ventilation requirements	AP-101
Attic access (size and location)	AP-101
Non-prescriptive headers	AP-101, SECTION 9, PAGES 1-12
Safety glazing requirements	AP-101
Fire rating of Exterior walls (if applicable)	N/A
EXTERIOR ELEVATIONS	
Exterior materials	EV-101-104/SE-101
Attic ventilation requirements	SE-101/AP-101/ WORKSHEET 1
PLUMBING	
Plan	PP-101/WP-101
All fixtures furnished by mfg. shown on plans	PP-101/WP-101/GE-101(REFERENCE TO COMPLIANCE)
Materials (water supply & distribution, DWV, storm drainage)	PP-101/WP-101
Supply and waste risers, including DWV system (generic) beneath the building.	PP-101/WP-101
Water heater (type and capacity)	QA MANUAL 04.01.01

NORTH CAROLINA
MODULAR PLANS REVIEW CHECKLIST

		PAGE 2 of 3 revised May 2011
		Plan Sheet Page # and NOTES
	MECHANICAL	
	Design calculations	BY OTHERS
	Installed unit capacity	BY OTHERS
	Supply and returns (locations and sizes)	AP-101 (RETURNS BY MANUFACTURER)
	Duct sizes	BY OTHERS
	Specifications (units, ducts)	BY OTHERS
	All appliances furnished by mfg. shown on plans	QA MANUAL 04.01.01
	ELECTRICAL	
	Plan	EP-101
	Location of all electrical boxes	EP-101
	Electrical panel location	EP-101
	Note regarding main disconnect (if applicable)	GE-101
	Exterior lighting and receptacles	EP-101
	Ground level receptacles (if applicable)	BY OTHERS
	Smoke detector location(s)	EP-101
	Electrical load calculations	EP-101
	Electrical panel layout (breaker and wire sizes, circuit schedule)	EP-101
	Panel and service entrance sizes	GE-101/EP-101
	All fixtures furnished by mfg. shown on plans	EP-101
	ACCESSIBILITY	
	(for other than 1 & 2 family dwellings)	
	Entrances and means of egress	N/A
	Doors, doorways, and door hardware	N/A
	Stairs and handrails	N/A
	Toilet rooms, plumbing fixtures, grab bars, etc	N/A
	Bathrooms and shower rooms	N/A
	Occupancy specific requirements	N/A
	Multi-family dwellings: Type A and B units	N/A
	FLOOR X-SECTION	
	Joists and beam sizes and spacing	SE-101/ STRUCT. MANUAL SECTION 20 PGS 1-2
	Materials species and grade	SE-101 STRUCT. MANUAL SECTION 20 PGS 1-2
	Sheathing, decking, and concrete as applicable	SE-101
	Fastening instructions	SE-101/ STRUCT. MANUAL SECTION 20 PGS 1-2
	Insulation	SE-101
	Details as required for clarification	SE-101
	WALL X-SECTION	
	Stud and column sizes and spacing	SE-101
	Materials species and grade	SE-101
	Sheathing and bracing	AP-101/SE-101
	Headers and lintels	AP-101/SE-101
	Finishes	SE-101
	Fastening instructions	SE-101/SEE AP-101 FOR SHEARWALL SECTION-PAGE REFERENCE
	Insulation	SE-101
	Details as required for clarification	SE-101

NORTH CAROLINA
MODULAR PLANS REVIEW CHECKLIST

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	Plan Sheet Page # and NOTES
CEILING / ROOF X-SECTION	
Truss, rafter, and beam spacing	AP-101/SE-101/ STRUCT. MANUAL SECTION 3 PAGES 1-38
Lumber species and grade	SE-101/ STRUCT. MANUAL SECTION 3 PAGES 1-38
Sheathing and decking	SE-101/ STRUCT. MANUAL SECTION 4 PAGES 1-36
Finishes	SE-101
Fastening instructions	SE-101/ STRUCT. MANUAL SECTION 4 PAGES 1-36
Insulation	SE-101
Details including NC sealed truss designs or manual reference	STRUCT. MANUAL SECTION 3 PAGES 1-38
FOUNDATION PLAN	
Footings, pier, and curtain wall locations and specifications	F-101
X-sections with dimensions	F-101
Anchorage - sill plate to piers and curtain wall	F-102-103
Anchorage - building to sill plate	F-102-103
Anchorage - tie downs (lateral and longitudinal)	N/A
Soil bearing capacity	F-103
Minimum concrete compressive strength	F-103
Mortar type	F-103
Ventilation requirements (with and without vapor barrier)	F-101
Crawl space access requirements	F-101
ENERGY COMPLIANCE	
Demonstrated compliance	RS-101
SET-UP INSTRUCTIONS	
Floor and ceiling connections	GE-101/SE-101/SETUP MANUAL PAGES 12-13
Marriage wall connections	N/A
Roof set-up and connection	GE-101/SE-101/SETUP MANUAL PAGES 12-13
Plumbing connections	GE-101/SE-101/SETUP MANUAL PAGES 23-24
Mechanical connections	GE-101/SE-101/SETUP MANUAL PAGES 21,25,28,29
Electrical connections	GE-101/SE-101/SETUP MANUAL PAGES 25-28
Fire stopping	GE-101/SE-101/SETUP MANUAL
Air infiltration elimination	GE-101/SE-101/SETUP MANUAL PAGE 11
Notice to inspections department attachment if set-up instructions are by attachment	GE-101/SE-101
ITEMS NOT INSPECTED IN PLANT	
List of items not inspected by 3rd. Party	GE-101
Notice to inspections department	GE-101