



INTERNATIONAL
CODE
COUNCIL®



September 27, 2024
Franklin Structures, LLC
10655 Hwy 43, South
Russellville, AL 35653

RE: MFT-10886-5091-82-4-32-4-FL
NTA JOB NUMBER: FH092524-30

Dear Ms. Melissa Wood,

The referenced manufactured building has been reviewed and approved. ICC NTA LLC certifies this plan is in compliance with 8th Edition (2023) Florida Codes with 2024 Supplement 1 – as referenced in the approved drawings. This approval covers the factory-built structure only. Any alterations to the factory-built structure, on site, voids the approval. This plan is subject to the following limitations:

1. This plan is **NOT** approved for High Velocity Hurricane Zone (i.e., Broward and Dade Counties).
2. Signed and sealed plans are on file with ICC NTA, LLC
3. The Chapter 633 Plan Review and Inspection shall be conducted by the local fire safety inspector.
4. Items installed on site are subject to review and approval by the local authority having jurisdiction. Please reference the list of site installed items on the approved plans.
5. This review included products for compliance with 553.8425 or FAC Chapter 61G20-3.

If you have any additional questions or comments regarding this matter, please contact me at your convenience at (574) 773-7975.

Respectfully,

Michael Faller

Michael Faller SMP-056
Account Manager
ICC NTA, LLC

Notes:
1. These plans comply with the 2020 NATIONAL ELECTRICAL CODE (NFPA 70) 8th Edition (2023) Florida Residential Building Code WITH 2024 SUPPLEMENTS 1 8TH EDITION (2023) FLORIDA ENERGY CONSERVATION CODE, 2024 SUPPLEMENTS 1 FAC 61-41 MANUFACTURED BUILDINGS
2. Plans comply with Rule 61G20-3.006 for product approval.
3. The raised seal set (or electronic sealed set) of plans are on file in the third agency's office as directed by DBPR.
4. This building is subject to review and approval of the fire inspector on-site w/compliance to Chapter633 Fire Safety Code.
5. The manufacturer's data sheet and the state (DBPR) insignia are permanently mounted to or about the electrical panel.
6. This building has been designed for erection or installation on a site built permanent foundation and is not designed to be moved once so erected or installed.

SPECIAL CONDITIONS & REQUIREMENTS:
1. Engineer seal applies ONLY to FACTORY MANUFACTURED portion of the building. Seal does not apply to site installed elements or portions built on site such as, but not limited to; foundation, bracing tie down to foundation, exterior steps, or other site works. Site work must be designed BY OTHERS for site conditions, under local jurisdiction.
2. THIS BUILDING HAS NOT BEEN DESIGNED OR APPROVED FOR PLACEMENT IN HIGH HURRICANE ZONES (HVHZ) (I.E DADE AND BROWARD COUNTIES)

INDEX TO DRAWINGS DESCRIPTION: SHEET NUMBER

INDEX TO DRAWINGS AND NOTES.....1 of 7

ELEVATIONS.....2 of 7

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WATER SCHEMATIC.....5 of 7

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TYPICAL ON-FRAME CROSS SECTION.....7 of 7

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY
NIA INC.

Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Vult, 95 Vasd, EXP. C
Fire Rating of Ext. Walls: 0 Hr.
Plan No.: MFT-10886-5091-82-4-32-4
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

INDEX TO ADDENDUMS

BRACEWALLS & WHOLE HOUSE STRUCTURAL CALCULATIONS.....24 PAGES

ENERGY FORMS.....5 PAGE

HVAC CALCULATIONS (WRIGHTSOFT).....8 PAGES

FLORIDA PRODUCT APPROVAL SPEC SHEET.....1 PAGE

TRUSS PRINTS.....4 PAGES

Notes:
9. Vult wind speed = EXPOSURE-C AT Vult=120 MPH & Vasd = 95 MPH
10. RISK CATEGORY=II
11. Building Mean Roof Height 20'
12. Roof live load = 20 psf
13. Floor live load = 40 psf
14. Seismic Zone = A, B or C
15. Building Category = Type 5B, Unprotected, Wood Construction.
16. Use Group = Single Family Dwelling
17. Roof Interior (zone 1) = +17.5/-33.4 psf
18. Roof Exterior (zone 2) = +17.5/-53.3 psf
19. Roof Corner (zone 3) = +17.5/-63.3 psf
20. Wall Interior (zone 4) = +23.5/-25.5 psf
21. Wall Exterior (zone 5) = +23.5/-31.4 psf
22. Roof Overhang (zone 1) = -43.4 psf
23. Roof Overhang (zone 2) = -63.3 psf
24. Roof Overhang(Zone 3) = -97.1 psf.
25. Site address per FRC R319.1
26. Internal pressure coefficient = +/- 0.18 psf

COMPONENTS & CLADDING PRESSURES ARE SHOWN AS ALLOWABLE STRENGTH PRESSURES BASED ON ULTIMATE LOADS

SITE INSTALLED ITEMS

NOTE: THAT THIS LIST DOES NOT NECESSARILY LIMIT THE ITEMS OF WORK AND MATERIALS THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION.
ALL SITE RELATED ITEMS ARE SUBJECT TO LOCAL BUILDING OFFICIAL REVIEW AND APPROVAL
REQUIRING TO BE IN COMPLIANCE WITH THE FLORIDA BUILDING CODE
DATE 9/27/2024 CERT. NO SMP-056
PLAN NUMBER MFT-10886-5091-82-4-32-4
APPROVED BY Michael Faller

1) THE COMPLETE FOUNDATION SUPPORT AND TIE DOWN SYSTEM
2) RAMPS, STAIRS, AND GENERAL ACCESS TO THE BUILDING
3) PORTABLE FIRE EXTINGUISHER(S)
4) BUILDING DRAINS, CLEAN OUTS AND HOOKUP TO PLUMBING SYSTEM
5) ELECTRICAL SERVICE HOOKUP, INCLUDING THE FEEDERS, TO THE BUILDING
6) THE MAIN ELECTRICAL PANEL AND SUB-FEEDERS
7) CONNECTION OF ELECTRICAL CIRCUITS CROSSING OVER MODULE MATE LINES (MULTI-UNITS ONLY)
8) STRUCTURAL AND AESTHETIC INTERCONNECTIONS BETWEEN MODULES (MULTI-UNITS ONLY)
9) ANY SITE FLASHING OR SHINGLES INSTALLED AT SITE REFER TO ARMA PUBLICATION " RESIDENTIAL ASPHALT ROOFING MANUAL", IN GUIDE LINES WITH FBC CODE
10) ALL FOUNDATION WORK WILL BE COMPLETED ON SITE. IS THE RESPONSIBILITY OF THE LOCAL CONTRACTOR AND IS SUBJECT TO LOCAL JURISDICTION.
11) MANDATORY BLOWER DOOR TEST MUST BE COMPLETED PER FLORIDA ENERGY CODE
12) MAIN DISCONNECT WILL BE INSTALLED ON-SITE AND SUBJECT TO LOCAL CODES
13) FIRE PLACE UNIT AND CHIMNEY PIPE (IF APPLICABLE) AND SUBJECT TO LOCAL CODES
14) HVAC EQUIPMENT AN RETURN (IF APPLICABLE) SUBJECT TO LOCAL CODES
15) ANY WIND BORNE DEBRIS PROTECTION TO BE PROVIDED ON-SITE BY OTHERS AND SUBJECT TO LOCAL CODES
a.) Wood structural panels to be provided for all glazed openings per R301.2.1.2
16) ANY RADON CONTROL(IF APPLICABLE) TO BE PROVIDED ON-SITE BY OTHERS AND SUBJECT TO LOCAL CODES
17) ANY GAS LINES (IF APPLICABLE) TO BE SIZED AND INSTALLED ON-SITE BY OTHERS AND SUBJECT TO LOCAL CODES

PHYSICAL ADDRESS

SPRINGS ROAD
FORT WHITE, FL 32038
COLUMBIA COUNTY

FRANKLIN STRUCTURES LLC
10655 HWY. 43 SOUTH
RUSSELLVILLE, ALABAMA 35653

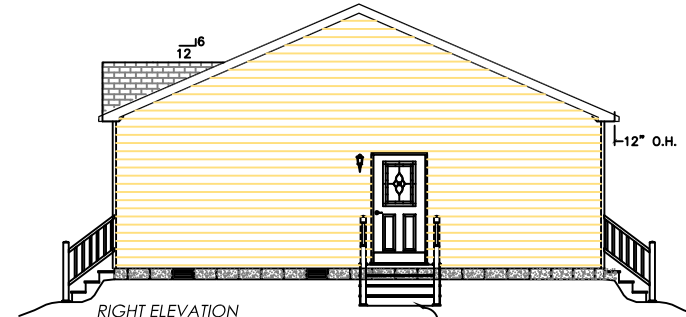
FLORIDA
MODULAR

BY: DATE: TITLE:
DRAWN: M.W.W 12/1/22 MODULAR INDEX

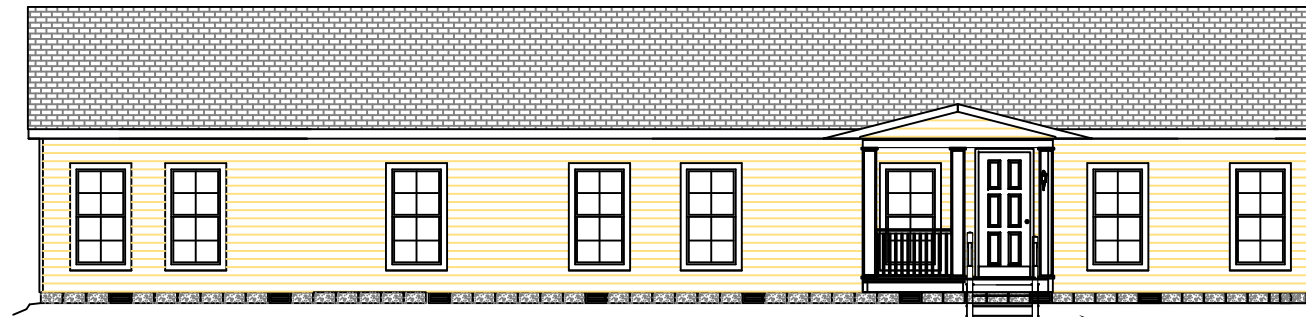
GRAPHIC SCALE 0 1' 2' 3' 4' 5' NO: MFT-10886-5091-82-4-32-4 REV: SHEET: 1 of 7



LEFT ELEVATION
HANDICAP RAMP(S), STAIRS(S), AND HANDRAILS
ARE SITE INSTALLED, DESIGNED BY OTHERS,
AND SUBJECT TO LOCAL JURISDICTION.

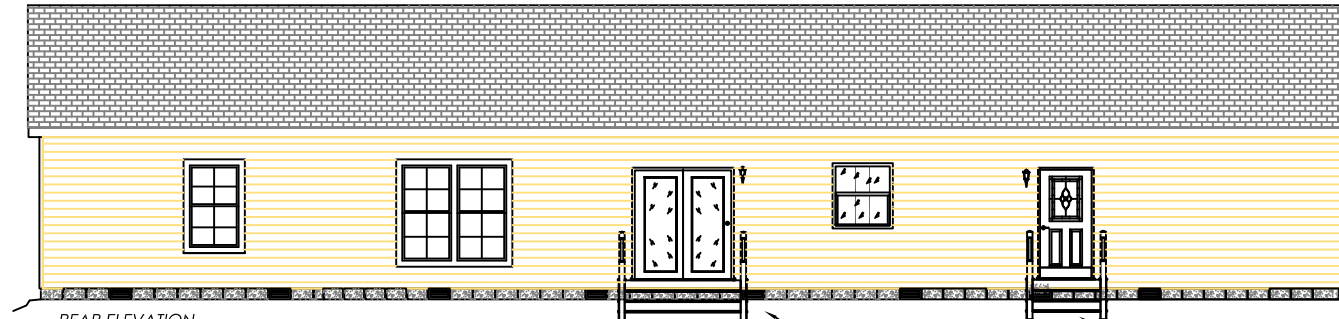


RIGHT ELEVATION
HANDICAP RAMP(S), STAIRS(S), AND HANDRAILS
ARE SITE INSTALLED, DESIGNED BY OTHERS,
AND SUBJECT TO LOCAL JURISDICTION.



FRONT ELEVATION

HANDICAP RAMP(S), STAIRS(S), AND HANDRAILS
ARE SITE INSTALLED, DESIGNED BY OTHERS,
AND SUBJECT TO LOCAL JURISDICTION.



REAR ELEVATION

HANDICAP RAMP(S), STAIRS(S), AND HANDRAILS
ARE SITE INSTALLED, DESIGNED BY OTHERS,
AND SUBJECT TO LOCAL JURISDICTION.

HANDICAP RAMP(S), STAIRS(S), AND HANDRAILS
ARE SITE INSTALLED, DESIGNED BY OTHERS,
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These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:

APPROVED BY
NIA INC.

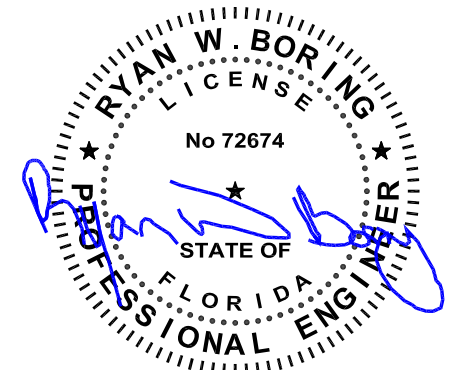
Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Vult. 95 Vast. EXP. C
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MFT-10886-5091-82-4-32-4
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

NOTES!!

1. EXTERIOR COVERING IS VINYL LAP SIDING INSTALLED PER MFR'S SPECIFICATIONS. (OTHER APPROVED EXTERIOR COVERINGS MAY BE INSTALLED PER MFR'S SPECIFICATIONS.) EXTERIOR COVERINGS FOR ENDWALLS ARE SUPPLIED BY FRANKLIN HOMES AND INSTALLED ON-SITE BY LOCAL CONTRACTOR.
2. ROOF COVERING IS 240# FIBERGLASS SHINGLES OR METAL. SHINGLES FOR RIDGE ARE SUPPLIED BY FRANKLIN STRUCTURES, INSTALLED ON-SITE BY LOCAL CONTRACTOR.
3. WINDOWS ARE VINYL CLAD THERMOPANE.
4. MINIMUM ATTIC VENTILATION VIA CONTINUOUS VENTILATED SOFFIT & WHIRLY BIRD VENTS IS 7.8 SQ.FT PER 2340 SQ.FT. OF HOME DIVIDED BY 300 SQ.FT. OF CONTINUOUS VENTILATION
5. CRAWL SPACE VENTILATION SHALL CONFORM TO REQUIREMENTS OF 1/150 { BY OTHERS}
6. FOUNDATIONS INSTALLED BY LOCAL CONTRACTOR PER LOCAL CODE REQUIREMENTS.
7. SHUTTERS SHOWN ARE NON-STRUCTURAL (AVAILABLE AS OPTION).

REVISION:		BY:	DATE:

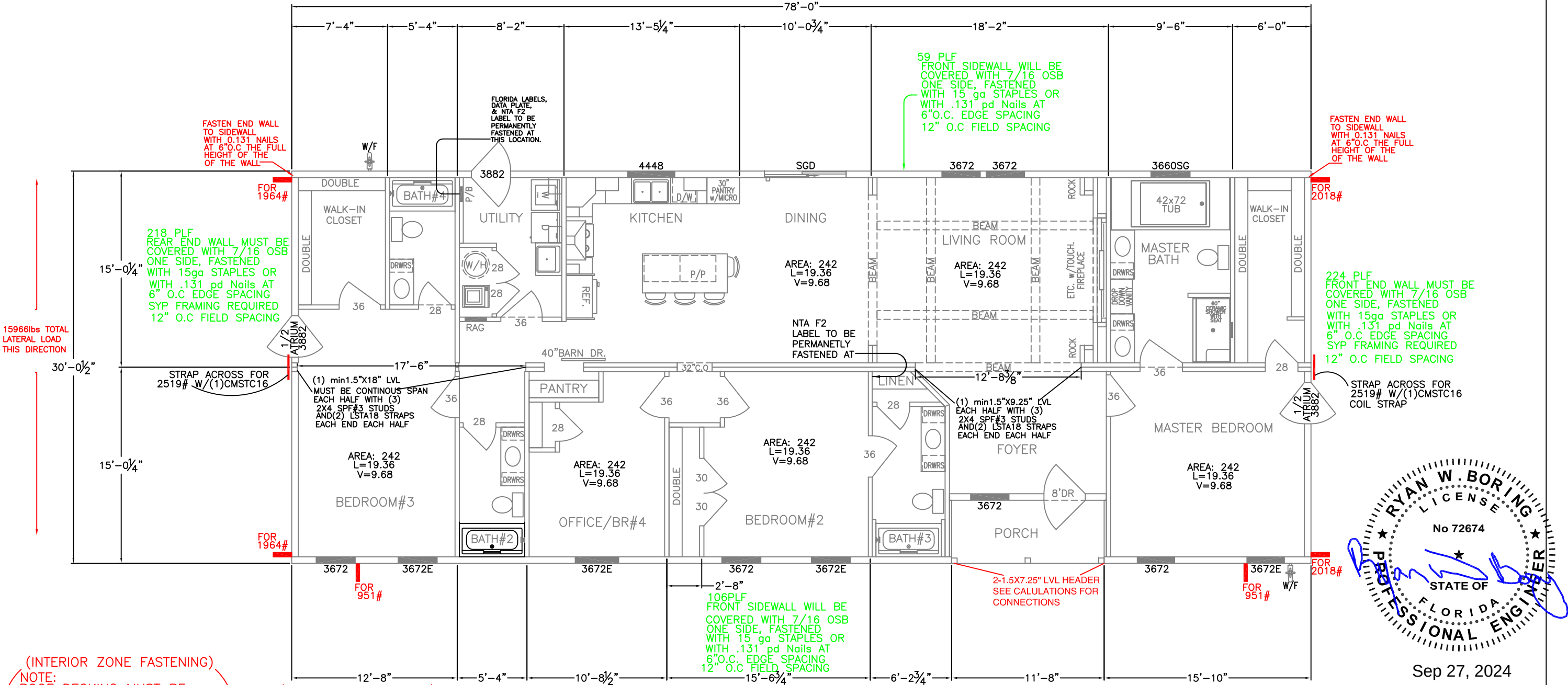
		FRANKLIN STRUCTURES, LLC. 10655 HWY. 43 SOUTH RUSSELLVILLE, ALABAMA 35653		FLORIDA MODULAR			
BY:		DATE:		TITLE:			
DRAWN: M.W.W		11/29/22		ELEVATIONS			
GRAPHIC SCALE		0 1' 2' 3' 4' 5'		NO: MFT-10886-5091-82-4-32-4		REV:	
						SHEET: 2 of 7	



Sep 27, 2024

ALL TIE DOWN FORCES
ARE REQUIRED IN
TENSION AND
COMPRESSION

7071lbs TOTAL
LATERAL LOAD
THIS DIRECTION



(INTERIOR ZONE FASTENING)
NOTE:
ROOF DECKING MUST BE
FASTENED WITH 15ga STAPLES
6" O.C BOUNDARY
6" O.C EDGE
6" O.C FIELD

(END ZONE FASTENING)
NOTE:
ROOF DECKING MUST BE
FASTENED WITH 15ga STAPLES
4" O.C BOUNDARY
4" O.C EDGE
4" O.C FIELD

NOTES!!
Plan may be built Flip image (Front end to Rear end) or reverse image (top side to bottom side) without specific plan showing each arrangement using standard model approved

WINDOW SCHEDULE	DOOR SCHEDULE	U.Values	SHGC
4448 VINYL THERMOPANE	24"X80" HOLLOW CORE	N/A	N/A
3672 VINYL THERMOPANE SG	28"X80" HOLLOW CORE	N/A	N/A
3672 VINYL THERMOPANE	30"X80" HOLLOW CORE	N/A	N/A
3672 VINYL THERMOPANE (E)*	32"X80" HOLLOW CORE	N/A	N/A
3660 VINYL THERMOPANE SG	36"X80" HOLLOW CORE	N/A	N/A
	40"X80" BARN DR	N/A	N/A
	38"X82" 1/2 ATRIUM DOOR	0.33	0.30
	38"X96" STEEL DOOR	.25	0.1
	72"X75" SGD	0.43	0.30
9'-0" SIDEWALLS			

U-Values=0.34
SHGC=0.21
(E) = EGRESS WINDOW
(S.G.) = SAFETY GLAZED

NOTES!!

- ATTIC ACCESS (22"X30" MINIMUM)
- ALL GLAZING TO BE THERMOPANE.
- APA RATED SHEATHING FASTENED PER APA GUIDELINES TO ACHIEVE REQUIRED PLF's.
- REFER TO ATTACHED CALCULATIONS FOR BRACEWALLS AND STRUCTURAL REQUIREMENTS
- RADON CONTROL PER APPENDIX-F(FBC)(IF APPLICABLE) ON SITE BY OTHERS
- TRUSSES FOR THIS MODEL ARE 24" O.C



FRANKLIN STRUCTURES, LLC.
10655 HWY. 43 SOUTH
RUSSELLVILLE, ALABAMA 35653

FLORIDA
MODULAR



BY:	DATE:	TITLE:
DRAWN: M.W.W	1/1/21	FLOORPLAN
GRAPHIC SCALE	0 1' 2' 3' 4' 5'	NO: MFT-10886-5091-82-4-32-4
		REV: SHEET: 3 of 7

CIR#	DESCRIPTION	BREAKER	POLES	WIRE
1**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
2**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
3**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
4**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
5	WATER HEATER	NOTE 1		
6	WASHER	20 AMP/AFI/GFI	1	12-2 W/G
7	PORTABLE APPLIANCE	20 AMP/AFI/GFI	1	12-2 W/G
8	PORTABLE APPLIANCE	20 AMP/AFI/GFI	1	12-2 W/G
9&9A	FURNACE	NOTE 2		
10	DRYER	30 AMP/GFI		10-3 W/G
11	RANGE	40 AMP/GFI	2	8-3 W/G
11A	GAS RANGE TIMER	15 AMP/AFI/GFI	1	12-2 W/G
12**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
13**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
14	COOKTOP	40 AMP	2	8-3 W/G
14A	GAS COOKTOP IGNITER	15 AMP/AFI/GFI	1	12-2 W/G
15	DBL.OVEN OR OVEN MICROWAVE	40 AMP	2	8-3 W/G
16	DISHWASHER	NOTE 3/AFI/GFI		
17	OPT. WHIRLPOOL	20 AMP/AFI/GFI	1	12-2 W/G
18	RANGE VENT	20 AMP/AFI	1	12-2 W/G
19	MICROWAVE	20 AMP/AFI	1	12-2 W/G
20	BATH RECEPTACLES	20 AMP/AFI/GFI	1	12-2 W/G
21	PORTABLE APPLIANCE	20 AMP/AFI/GFI	1	12-2 W/G

CIR#	DESCRIPTION	BREAKER	POLES	WIRE
22	UTILITY CIRCUIT	20 AMP/AFI/GFI	1	12-2 W/G
23	ON DEMAND EXTERIOR GAS W/H	20 AMP/AFI/GFI	1	12-2 W/G
24	SMOKE DETECTORS	15 AMP/AFI	1	14-2 W/G
40**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
41**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
42**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
43**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
44**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
45**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
46**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
47**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
48**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
49**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
50**	GENERAL LIGHTING	15 AMP/AFI	1	14-2 W/G
51	ELECTRIC FIRE PLACE	20 AMP/AFI	1	12-2 W/G
60	REFRIGERATOR CIRCUIT	20 AMP/AFI	1	12-2 W/G

THIS HOME IS BUILT
FOR THE 2020 N.E.C!!

*ALL RECEPTACLES MUST
BE LISTED AS TAMPER
RESISTANT

*ALL CEILING BOXES MUST
BE LISTED ABLE TO
SUPPORT 50lbs.

SYMBOLS:			
S - SWITCH		☼ - LIGHT\VENT FAN	☼ - FLOOD LIGHT
⦿ - 15 AMP RECEPTACLE		☼ - C/L=CAN LIGHT	☼ - 2' FLUORESCENT
⦿ - 20 AMP RECEPTACLE		☼ - TELEPHONE	☼ - 4' FLUORESCENT
⦿ - 30 AMP RECEPTACLE		☼ - TELEVISION	☼ - OPT.CEILING FAN W/LIGHT
⦿ - 40 AMP RECEPTACLE		Ⓜ - THERMOSTAT	
⦿ - 15 AMP RECEPTACLES LOCATED ABOVE CABINETS FOR OPT. LGTS		GFI* - MASTER GFI	
☼ - LIGHT FIXTURE		P/B - PANEL BOX	
☼ - LAVLIGHT&PORCH LIGHT		W/P - WATERPROOF	
☼ - SMOKE DETECTOR			
S.D.			

NOTE: ALL CIRCUITS MAY NOT BE USED, SEE APPROVAL DRAWINGS FOR SPECIFIC CIRCUITS

1980 SQ.FT. @ 3 WATTS/SQ.FT. = 5940 W
SMALL APPLIANCES, 3 @ 1500 W = 4500 W
WATER HEATER = 4500 W
WASHER = 1500 W
DRYER = 5000 W
RANGE = 13000 W
DISHWASHER = 1200 W
MICROWAVE = 1200 W
36840 W

FIRST 10000 W @ 100% = 10000 W
REMAINDER @ 40% (26840)(.4) = 10736 W
FURNACE (HVAC) = 20000 W
40736 W

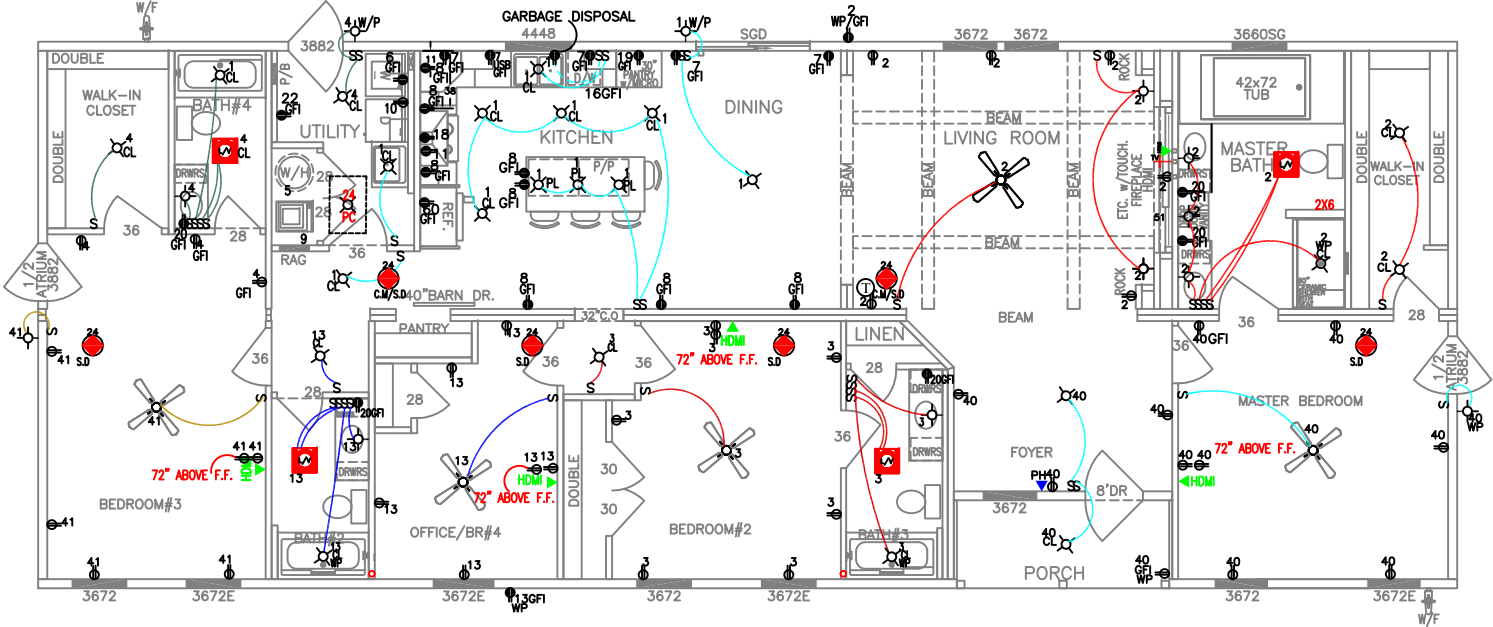
CALCULATED LOAD FOR SERVICE SIZE
40736 WATTS / 240 VOLTS = 170 AMPERES
200 AMP SERVICE STANDARD

NOTE:
THE REFERENCED ELECTRICAL
LOAD AND LAYOUT DO NOT
INCLUDE ANY ELECTRICAL
REQUIREMENTS OR LOADS
FOR THE ELEVATOR, THIS WILL
BE AN ON-SITE ITEM AND IT IS
SUBJECT TO LOCAL
JURISDICTION.

* SELECTION IS BASED ON APPLIANCE LOAD AND MANUFACTURER'S
INSTALLATION INSTRUCTIONS.

** GENERAL LIGHTING CIRCUITS MAY BE WIRED WITH
12-2 W/G AND 20 AMP BREAKERS

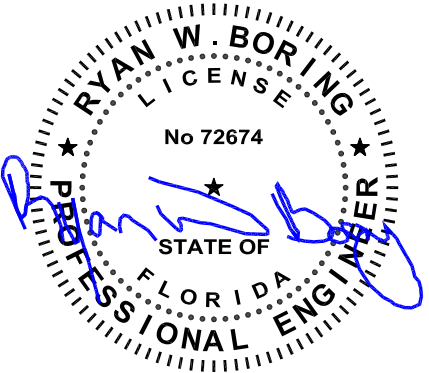
- NOTES!!
- a)20 AMP; 2 POLE; 12-2 w/G or
b)25 AMP; 2 POLE; 10-2 w/G or
c)30 AMP; 2 POLE; 10-2 w/G
 - a)10KW: 60 AMP; 2 POLE; 4-4-6
b)15KW: 60 AMP; 2 POLE; 4-4-6 and 30 AMP; 2 POLE; 10-2 W/G
c)20KW: (2) 60 AMP; 2 POLE; 4-4-6
d)23KW: (2) 60 AMP; 2 POLE; 4-4-6
 - a)15 AMP; 1 POLE; 14-2 w/G or
b)20 AMP; 1 POLE; 12-2 w/G
 - a)15 AMP; GFI.; 1 POLE; 14-2 w/G or
b)20 AMP; GFI.; 1 POLE; 12-2 w/G
 - CIRCUIT NUMBERS SHOWN HERE ARE USED FOR IDENTIFICATION OF CIRCUITS SHOWN ON ELECTRICAL DIAGRAMS SUBMITTED FOR APPROVALS. CIRCUIT IDENTIFICATION IN THE DISTRIBUTION PANEL BOXES WILL BE ACCOMPLISHED BY DESCRIBING EACH CIRCUIT (EG. WATER HEATER, LIGHTING, ETC.). IT IS PREFERRED THAT CIRCUIT NUMBERS ON DISTRIBUTION PANEL MATCH THOSE SHOWN ON THIS CHART, BUT IT IS NOT A REQUIREMENT.
 - SERVICE ENTRANCE WIRE SIZE IS (3)-#2/0 WITH (1)-#4 COPPER GROUND.
 - ALL FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSET, HALLWAYS, KITCHEN, LAUNDRY OR SIMILAR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER DEVICE OF THE COMBINATION TYPE.



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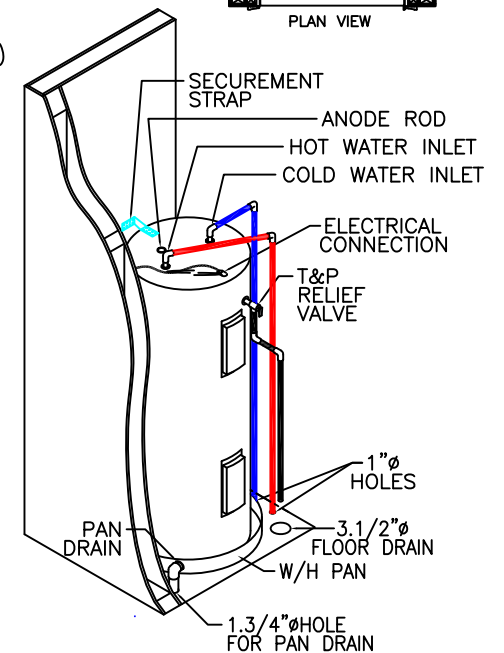
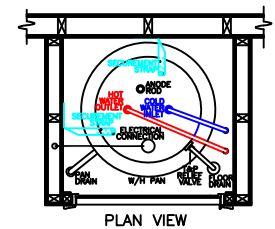
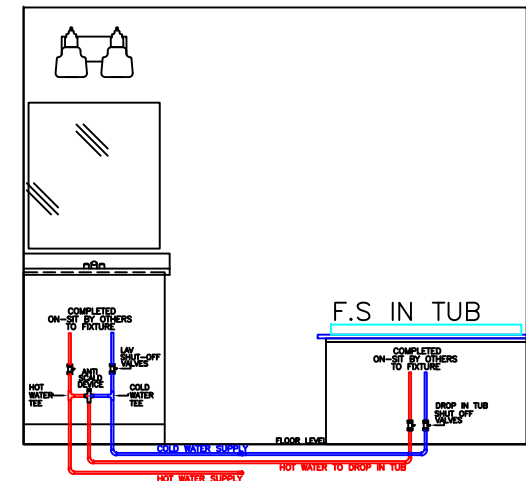
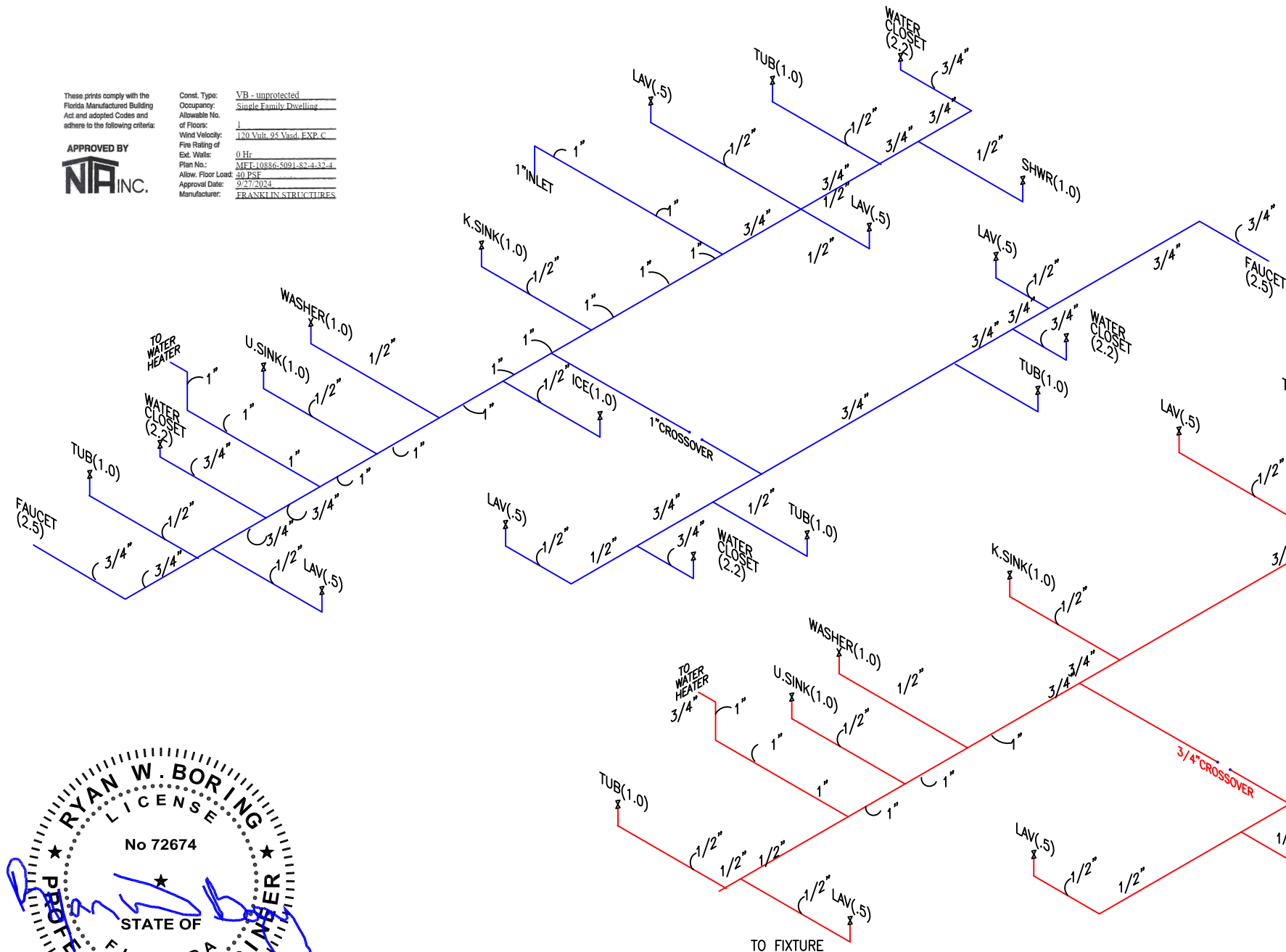
* TYPE 1 OR 2 SURGE PROTECTION DEVICE FOR SERVICE
SUPPLY TO BE INSTALLED ON-SITE PER
2020 NEC 230.67 SUBJECT TO LJHA!

* OUTDOOR EMERGENCY DISCONNECT INSTALLED
ON-SITE BY OTHERS PER 2020 NEC 230.85 SUBJECT TO LJHA!

FRANKLIN STRUCTURES, LLC. 10655 HWY. 43 SOUTH RUSSELLVILLE, ALABAMA 35653	FLORIDA MODULAR
BY: SAM DATE: 8/15/24 DRAWN: SAM GRAPHIC SCALE: 0 1' 2' 3' 4' 5'	TITLE: ELECTRICAL NO: MFT-10886-5091-82-4-32-4 REV: 4 SHEET: 7

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Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES



HOT WATER PIPE INSULATION WITH A MINIMUM THERMAL RESISTANCE OF R-3 SHALL APPLIED TO THE FOLLOWING PER SECTION: N1103.5.3 OF THE 2018 IECC

R403.5.3 OF THE IRC

- * PIPING 3/4" OR LARGER IN NOMINAL DIAMETER
- * PIPING LOCATED OUTSIDE OF THE CONDITIONED SPACE
- * PIPING SERVING MORE THAN ONE DWELLING UNIT
- * PIPING FROM THE WATER HEATER TO A DISTRIBUTION MANIFOLD
- * PIPING LOCATED UNDER FLOOR SLAB
- * BURIED PIPING
- * SUPPLY AND RETURN PIPING IN RECIRCULATION SYSTEMS OTHER THAN DEMAND RECIRCULATION SYSTEMS

FRONT VIEW ISOMETRIC

Sep 27, 2024

TOTAL FIXTURE UNITS ON COLD WATER SUPPLY: 20.1

TOTAL FIXTURE UNITS ON HOT WATER SUPPLY: 10

TOTAL FIXTURE UNITS (INLET): 30.1

MAXIMUM FIXTURE UNITS PER TABLE P2903.6

FOR 50-60 PSI AND 100' COLUMN MAXIMUM ALLOWABLE LENGTH PER 2023 FBC-R (APPENDIX P) TABLE AP201.1

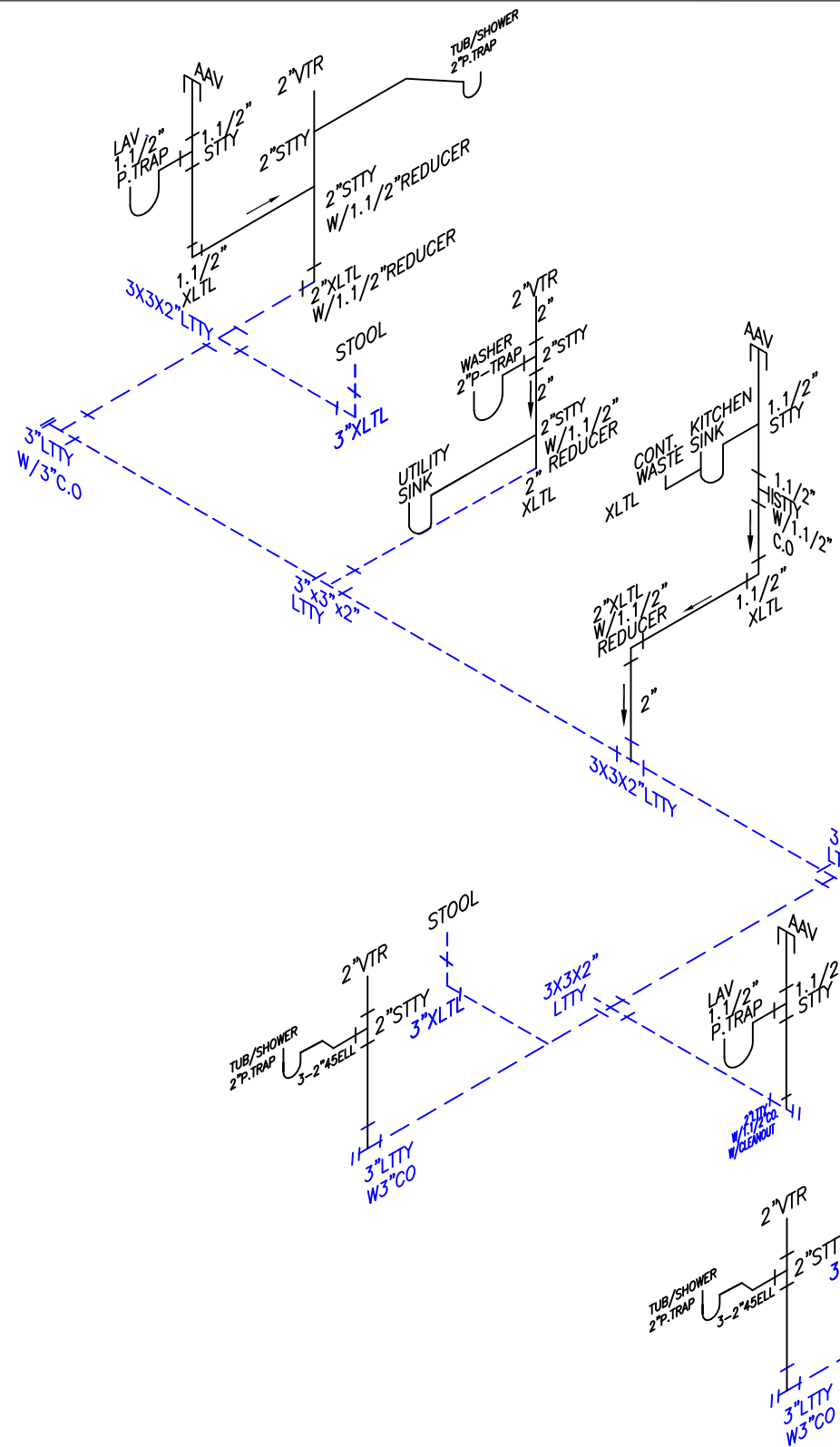
$$1/2'' = 2.0$$
$$3/4'' = 8.5$$
$$1'' = 32$$

NOTES!!

1. 50 GAL. 4500 WATT ELECTRIC WATER HEATER.
2. THE PAN DRAIN SHALL EXTEND TO THE EXTERIOR OF THE BUILDING AND TERMINATE NOT LESS THAN 6 INCHES OR MORE THAN 24 INCHES ABOVE THE ADJACENT GROUND SURFACE.
3. ALL WATER LINES ARE MADE USING (CROSSLINKED POLYETHYLENE) PEX WITH INSERT FITTING
4. WATER HAMMER ARRESTORS TO BE INSTALLED WHERE QUICK CLOSING VALVES ARE UTILIZED. ARRESTORS SHALL CONFORM TO ASSE 1010.

REVISION:		BY:	DATE:

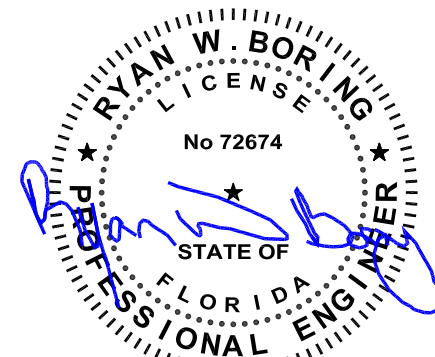
 FRANKLIN STRUCTURES LLC 10655 HWY. 43 SOUTH RUSSELLVILLE, ALABAMA 35653		FLORIDA MODULAR	
BY:	DATE:	TITLE:	
DRAWN: M.W.W	11/30/22	WATER SCHEMATIC	
GRAPHIC SCALE	0' 1' 2' 3' 4' 5' 	NO: MFT-10886-5091-84-4-32-1	REV: SHEET: 5 of 7



These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY
NIA INC.

Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 mph 95 Year EXP. C
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MFT-10886-5091-S7-4-32-4
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES



Sep 27, 2024

NOTES!!

1. AIR ADMITTANCE VALVES MEET ASSE 1051 REQUIREMENTS
2. AIR ADMITTANCE VALVES SHALL BE LOCATED PER MANUFACTURERS SPECS. OR A MIN. OF 4" ABOVE THE FIXTURE DRAIN
3. ALL DWV LINES ARE SCHEDULE 40 PVC.

ELL = 90° VENT ELL or 90° ELL
XLTL = 90° LONG TURN ELL
45° St. ELL = 45° St. ELL or 45° ELL
45° ELL = 45° St. ELL or 45° ELL
STTY = SANITARY TEE
LTTY = LONG RADIUS TEE or WYE with 1/8th BEND COMBINATION
→ = FLOW DIRECTION

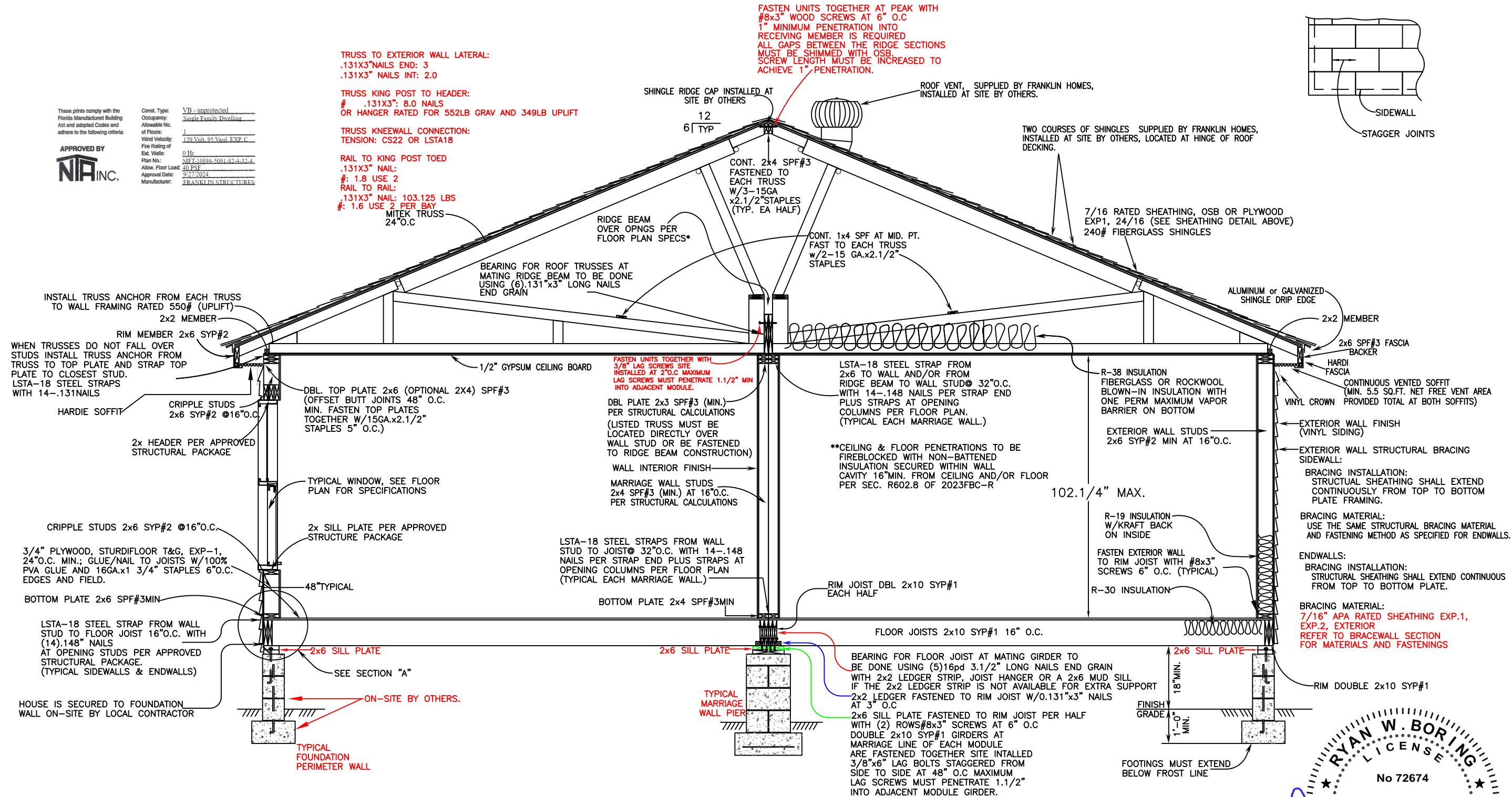
DBL. ELL = DOUBLE ELL
VTR = VENT THRU ROOF
CO = CLEANOUT ADAPTER WITH PLUG
ALL P-TRAPS SHALL BE P-TRAP WITH UNION JOINT.
SHOWER STALLS & WASHER P-TRAPS SHALL BE 2";
ALL OTHER P-TRAPS SHALL BE 1.1/2" MIN.
RE-VENTING MAY BE REPLACED WITH INDIVIDUAL VTR'S.
4. - - - - - = FIELD INSTALLED PLUMBING.
5. - - - - - = PLUMBING VENTS IN THE CEILING.

		FRANKLIN STRUCTURES LLC			
		10655 HWY. 43 SOUTH RUSSELLVILLE, ALABAMA 35653			
BY:	M.W.W	DATE:	11/30/22	TITLE:	DRAIN SCHEMATIC
DRAWN:	M.W.W	NO:	MFT-10886-5091-84-4-32-4	REV:	SHEET: 6 of 7
GRAPHIC SCALE	0 1' 2' 3' 4' 5'				

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 130 Ymph, 95 Ymph, EXP. C
Fire Rating of Ext. Walls: 0 Hr.
Plan No.: MTF-10886-5091-82-4-32-4
Allow. Floor Load: 30 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

APPROVED BY
NIA INC.



RIDGE BEAM CONSTRUCTION

1 LAYER 1.1/2"x18" MICROLAM, EACH MODULE.

NOTES:

- MICROLAM GRADE 2.0
- MICROLAM MUST BE CONTINUOUS OVER CLEARSPAN(S) AND EXTEND PAST OPENING STUDS.
- BEAMS SUPPORTED BY ENDWALL COLUMNS MUST EXTEND CONTINUOUS OVER COLUMNS TO EXTERIOR FACE OF ENDWALL.
- INSTALL (2x4) X 20" RIDGE BEAM STIFFENER OVER SUPPORT COLUMNS WHEN SPECIFIED ON FLOOR PLAN; FASTEN THE FACE OF THE STIFFENER TO THE RIDGE BEAM WITH 100% GLUE COVERAGE AND 6-16GA. STAPLES WITH 3/4" MINIMUM PENETRATION INTO MICROLAM BEAM.
- FIREBLOCKING TO BE INSTALLED AT ALL MODULE MATE LINES AT THE MARRIAGE WALL CEILING HEIGHT AND AT THE FLOOR SYSTEM WITH 2" NOMINAL LUMBER PER SECTION R602.8 OF 2023 FBC-R.

GENERAL CROSS SECTION NOTES

- UNLESS OTHERWISE SPECIFIED, ALL STEEL MUST COMPLY WITH ASTM A36, YIELD STRENGTH = 36 KSI.
- ALL LAG SCREWS MUST COMPLY WITH ASTM A307.
- SEE FOUNDATION PLAN FOR PIER AND TIE DOWN STRAPPING LOCATIONS, ORIENTATIONS, AND SPECIFICATIONS.
- ALL GRADE LUMBER IS MINIMUM SPECS.

INTERIOR FINISH MATERIAL

CEILING-1/2" MINIMUM GYPSUM BOARD INSTALLED PER MANUFACTURER'S SPECIFICATIONS. (CLASS-A)

WALL -1/2" VC GYPSUM BOARD THROUGH OUT (CLASS-A)

FLOOR -VINYL IN BATHS, UTILITY RM, KITCHEN & BREAKFAST RM-CARPET ALL OTHER AREAS.

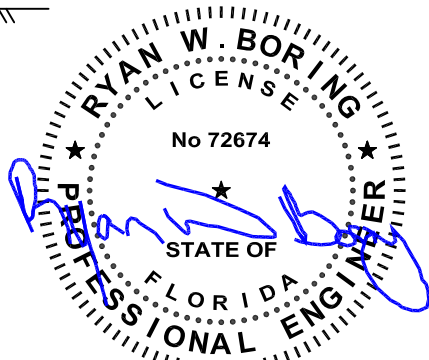
EXTERIOR FINISH MATERIAL

ROOF -FIBERGLASS ROOF SHINGLES INSTALLED ON ROOFS WITH LESS THAN 4/12 ROOF PITCH SHALL HAVE TWO LAYERS OF #15 FELT

WALL -VINYL LAP SIDING

*FASTEN RIDGE BEAM TO EACH TRUSS W/6-.131"x3" NAILS INTO SIDE GRAIN; FASTEN 2x6 TO EACH TRUSS W/6-.131"x3" NAILS W/MIN. 2 NAILS INTO SIDEGRAIN.

		FRANKLIN STRUCTURES, LLC. 10655 HWY. 43 SOUTH RUSSELLVILLE, ALABAMA 35653			
BY:	DATE:	TITLE:			
DRAWN: MW.W.	3/17/22	TYPICAL OFF-FRAME CROSS SECTION			
SCALE:	N.T.S.	NO:	MTF-10886-5091-82-4-32-4	REV:	SHEET: 7 of 7



Sep 27, 2024

Franklin Structures, LLC

MFT-10886-5091-82-4-32-4 (17982)

Width: 30' - 1/2"

Length: 78'

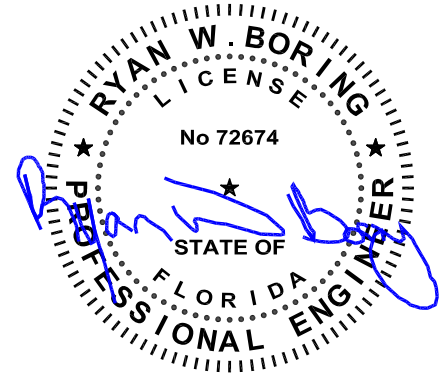
Roof Live Load: 20psf Roof LL

Wind Speeds: 120mph Vult

Wind Exposure: C

Wall Height: 9'

Max Mean Roof Height: 20'



Sep 27, 2024

Page	Description
1-4	Design Criteria and Load Cases (C&C page 1)
5	Matewall Headers
6-7	Matewall Columns
8	Sidewall Headers
9-10	Sidewall Columns (King & Jack)
11-12	Uplift Straps
13	Sill Plates and Lateral Only Sill/Header Connection (Sill must also be installed at top of window/door)
14-16	Shearwalls and Diaphragms
17-18	Connections
19-21	Floor
22-23	Porch Members and Connections

NOTE:

- These calculations are applicable only to the structural elements and loading criteria specifically noted herein.
- Structural elements not contained herein are to be constructed in accordance with the prescriptive requirements of the adopted building code or designed by other registered design professionals.
- Specified design criteria are based solely on information provided by the client and must be verified and approved by the LAHJ.
- Ryan W. Boring, P.E. is not responsible for fabrication or erection.

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:



Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Vult. 95 Vast. EXP. C
Fire Rating of Ext. Walls: 0 Hr.
Plan No.: MFT-10886-5091-82-4-32-4
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

Wind Pressures for Low-rise buildings or buildings with h<60ft

ASCE 7-22:

Wind Speed:	130 MPH	Roof Style:	Gable (Gable or Hip)
Wind Exposure:	C	Roof Pitch:	6 /12
Mean Roof Height:	20 FT	Roof Angle:	26.6
Elevation:	0 FT	Max Width:	30.04 ft
Ke:	1.00		
Kd:	0.85		
Kzt:	1		
kt:	0.90		
qh:	33.17 psf		
Building Type:	Enclosed		
Gcpi:	0.18		
	-0.18		
Min net pressure:	16 psf		

Roof									
GCP	Area	Pos	Neg		Pressure	Area	Pos	Neg	
Zone 1		Min	0.7	-1.5	Zone 1		Min	29.2	-55.7
		100	0.7	-0.98			100	29.2	-38.5
Zone 2		Min	0.7	-2.5	Zone 2		Min	29.2	-88.9
		100	0.7	-1.2			100	29.2	-45.8
Zone 3		Min	0.7	-3	Zone 3		Min	29.2	-105.5
		100	0.7	-1.4			100	29.2	-52.4
OH Z1		Min		-2	OH Z1		Min		-72.3
		100		-1.9			100		-69.0
OH Z2		Min		-3	OH Z2		Min		-105.5
		100		-2			100		-72.3
OH Z3		Min		-4.7	OH Z3		Min		-161.9
		100		-2.4			100		-85.6

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY
NIA INC.

Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Vult. 95 Vult. EXP. C
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MFT-0886-5091-S7-4-S2-4
Allow. Floor Load: 30 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

Walls								
Gcp	Area	Pos	Neg	Pressure	Area	Pos	Neg	
Zone 4		10	1	-1.1	Zone 4	10	39.1	-42.5
		100	0.825	-0.93		100	33.3	-36.6
Zone 5		10	1	-1.4	Zone 5	10	39.1	-52.4
		100	0.825	-1.1		100	33.3	-42.5

Design Pressures

Pressure	Area	Pos	Neg	
Zone 1		Min	17.5	-33.4
		100	17.5	-23.1
Zone 2		Min	17.5	-53.3
		100	17.5	-27.5
Zone 3		Min	17.5	-63.3
		100	17.5	-31.4
OH Z1		Min		-43.4
		100		-41.4
OH Z2		Min		-63.3
		100		-43.4
OH Z3		Min		-97.1
		100		-51.3
Zone 4		10	23.5	-25.5
		100	20.0	-22.0
Zone 5		10	23.5	-31.4
		100	20.0	-25.5

Note: Min area provides the highest loads, 10 sq. ft could have a lower load

MWFRS

Transverse

	1	2	3	4	1e	2e	3e	4e
+GCpi	12.26	-9.26	-20.80	-18.93	18.17	-12.28	-25.37	-23.71
-Gcpi	24.20	2.68	-8.86	-6.99	30.11	-0.34	-13.43	-11.77
Max	24.20	-9.26	-20.80	-18.93	30.11	-12.28	-25.37	-23.71

Longitudinal

	1	2	3	4	5	6	1e	2e	3e	4e	5e	6e
+GCpi	-20.89	-28.85	-18.24	-20.89	7.30	-15.59	-21.89	-41.46	-23.55	-21.89	14.26	-20.23
-Gcpi	-8.95	-16.91	-6.30	-8.95	19.24	-3.65	-9.95	-29.52	-11.61	-9.95	26.20	-8.29
Max	-20.89	-28.85	-18.24	-20.89	19.24	-15.59	-21.89	-41.46	-23.55	-21.89	26.20	-20.23

	Vertical				Horz			
	End		Int		End		Int	
	WW	LW	WW	LW	Roof	Wall	Roof	Wall
Trans	-12.28	-25.37	-9.26	-20.80	-32.844	-29.8213	13.09	41.88
Long	-41.46	-23.55	-28.85	-18.24	-32.844	-	-17.91	34.49

Design Loading

	Vertical						Horz			
	End		Int		Overhang		End		Int	
	WW	LW	WW	LW	End	Int	Roof	Wall	Roof	Wall
Trans	-7.37	-15.22	-5.55	-12.48	-19.71	-17.89	7.85	25.13	6.93	18.71
Long	-24.87	-14.13	-17.31	-10.94	-40.79	-33.23	7.85	20.70	6.93	13.73

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:



Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Mph, 95 Vasd, EXP C
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MFT-10886-5091-S2-4-32-4
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

Design Criteria:

Total Width:	30.04 ft	Top chord DL:	10 psf	Vult:	130 mph
Unit Width:	15.02 ft	Bottom chord DL:	10 psf		
Pitch:	6 /12	Bottom chord LL:	0 psf	Exposure: C	
Roof Angle:	26.6 deg	Stories:	1	Internal Press:	0.18
Wall height:	9 ft	Floor Live Load:	40 psf	End zone, 2a:	6.00833333 ft
Overhang:	12 in	Floor Dead Load:	10 psf		
Blocking Height:	36 in	Wall Dead Load:	5 psf		
Eave Height:	10.00 ft	Ceiling R value:	35		
Min Mean Roof ht:	20 ft	Framing Rafters?:	no		
Mean Roof Height:	16.76 ft	Truss Spacing:	24 in oc		
Snow Loading:					
Ground Snow Load:	10 psf	Wind Loading:			
Snow Thermal factor:	1.1	WW	LW	WWOH	
Snow exposure factor:	1	Transverse End:	-7.37	-15.22	-19.71
Snow importance Factor:	1	Interior:	-5.55	-12.48	-17.89
Flat Roof Snow, Pf:	7.7 psf	Long End:	-24.87	-14.13	-40.79
Sloped Roof Snow Ps:	7.7 psf	Interior:	-17.31	-10.94	-33.23
Unbalanced Roof Load:	18.18 psf				
Minimum Roof Lr:	18 psf				

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY

NIA INC.

Const. Type: VB - unprotected

Occupancy: Single Family Dwelling

Allowable No. of Floors: 1

Wind Velocity: 120 Vult. 95 Vasd. EXP. C

Fire Rating of Ext. Walls: 0 Hr

Plan No.: MFT-10686-5091-S2-4-32-4

Allow. Floor Load: 40 PSF

Approval Date: 9/27/2024

Manufacturer: FRANKLIN STRUCTURES

Truss Reactions

Gravity Matewall: 552 lbs Uplift: Matewall: 349 lbs
 Sidewall: 667 lbs Sidewall: 211 lbs
 Truss Spacing: 24 in oc.

Load Cases for Ranch		Roof			Roof and 1 Story			LDF
Load Case		Sidewall	Matewall	Endwall	Sidewall	Matewall	Endwall	
1	D	160	150	30	280	270	85	0.9
2	S	66	58	15	66	58	15	1.15
3	Su	36	126	36	36	126	36	1.15
4	Lr	173	135	36	173	135	36	1.25
5	L	0	0	0	300	300	40	1
6	Wp	0	0	0	0	0	0	1.6
7	Wn	-202	-265	-66	-202	-265	-66	1.6
8	.75(L+Lr)	130	101	27	355	327	57	1.25
9	.75(L+S)	49	43	12	274	269	42	1.15
10	.75(L+Su)	27	94	27	252	320	57	1.15
11	.75(L+S+Wp)	49	43	12	274	269	42	1.6
12	D+L	160	150	30	581	571	125	1
13	D+Lr	334	285	66	454	406	121	1.25
14	D+S	226	208	45	346	328	100	1.15
15	D+Su	196	276	66	316	396	121	1.15
16	D+.75(L+Lr)	290	252	57	636	597	142	1.25
17	D+.75(L+S)	209	194	42	555	539	127	1.15
18	D+.75(L+Su)	187	245	57	532	590	142	1.15
19	D+.75(L+S+Wp)	209	194	42	555	539	127	1.6
20	.6D+Wn	-106	-175	-48	-33	-102	-15	1.6
Dead Load:		160	150	30	280	270	85	
Dead LC:		D	D	D	D	D	D	
Live Load:		173	135	36	355	327	57	
Live LC:		Lr	Lr	Su	.75(L+Lr)	.75(L+Lr)	.75(L+Su)	
Total Load:		334	285	66	636	597	142	
Total LC:		D+Lr	D+Lr	D+Su	D+.75(L+Lr)	D+.75(L+Lr)	D+.75(L+Su)	
Uplift Load:		-106	-175	-48	-33	-102	-15	
Uplift LC:		.6D+Wn	.6D+Wn	.6D+Wn	.6D+Wn	.6D+Wn	.6D+Wn	
Design Load:		334	285	66	581	571	125	
Design LC:		D+Lr	D+Su	D+Su	D+L	D+L	D+L	
Design LDF:		1.25	1.15	1.15	1	1	1	

Floor Load only

Live	300	300	1
Dead	75	75	0.9

Combined Loading:

Max Bending:

1 D	160	150	30	280	270	85 plf
2 D+Wp	160	150	30	280	270	85 plf
Max down	160	150	30	280	270	85 plf
Lateral	18.06	5	18.06	18.06	5	18.06 psf

Max Axial

1 D+.75(L+Lr)	290	252	57	636	597	142 plf
2 D+.75(L+S)	209	194	42	555	539	127 plf
3 D+.75(L+Su)	187	245	57	532	590	142 plf
4 D+.75(L+S+Wp)	209	194	42	555	539	127 plf
Max down	290	252	57	636	597	142 plf
Lateral	13.55	3.75	13.55	13.55	3.75	13.55 psf

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:



Const. Type: VB - unprotected
 Occupancy: Single Family Dwelling
 Allowable No. of Floors: 1
 Wind Velocity: 120 Ymph, 95 Ymph EXP. C
 Fire Rating of Ext. Walls: 0 Hr
 Plan No.: MET-10886-5091.82.4-32.4
 Allow. Floor Load: 40 PSF
 Approval Date: 9/27/2024
 Manufacturer: FRANKLIN STRUCTURES

Matewall Headers Supporting Roof
No splices considered in span
Vertical Load
Dead Load: 150 plf D
Live Load: 135 plf Lr
Total Load: 285 plf D+Su
Uplift Load: -175 plf .6D+Wn

Cr: 1.15 LL defl L/ 240
Cd: 1.25 TL defl L/ 180

Location: Matewall
Supporting: Roof

Wall height: 108 in
Min sill height: 18 in
LVL: Microllam
LVL MOE (E): 2000000 psi
E min: 1016411 psi
Fb: 2750 psi
Fv: 285 psi
Fcperp: 750 psi
Volume effect exp (e): 0.136
Cr (LVL): 1.04

Vertical

	Qty.	B	D	Species	Grade	Direction	Cfu	Cfb	Fb	Fv	Fcperp	E	Emin	Fb'	Fv'	A	S	I
1	1	1.5	9.25	SPF	#2	Edge	1	1.1	875	135	425	1400000	510000	1203	169	13.9	21.4	98.9
2	1	1.5	9.25	SYP	#2	Edge	1	1.0	800	175	565	1400000	510000	1000	219	13.9	21.4	98.9
3	1	1.5	9.25	LVL		Edge	1	1.0	2750	285	750	2000000	1016411	3561	285	13.9	21.4	98.9
4	1	1.5	11.25	LVL		Edge	1	1.0	2750	285	750	2000000	1016411	3468	285	16.9	31.6	178.0
5	1	1.5	14	LVL		Edge	1	1.0	2750	285	750	2000000	1016411	3366	285	21.0	49.0	343.0
6	1	1.5	16	LVL		Edge	1	1.0	2750	285	750	2000000	1016411	3306	285	24.0	64.0	512.0
7	1	1.5	18	LVL		Edge	1	0.9	2750	285	750	2000000	1016411	3253	285	27.0	81.0	729.0
8	1	1.5	5.5	SPF	#2	Edge	1	1.3	875	135	425	1400000	510000	1422	169	8.3	7.6	20.8
9																		
10																		

	Shear	Moment	LL def	TL def
1	150	93	158	150
2	189	85	158	150
3	240	160	178	169
4	292	192	216	205
5	364	236	269	256
6	415	267	308	292
7	467	298	346	329
8	89	60	94	89
9				
10				

Member	Max Span	Reactions (lbs)		Bearing (in)	.131x3"		# nails		# .131x3" nails per header
		Gravity	Uplift		Grav	Uplift	Grav	Uplift	
1 (1) 2x 10 SPF #2	93 in	1200	-680	1.9	69.1	lb	17.37	7.69	18
2 (1) 2x 10 SYP #2	84 in	1000	-620	1.5	88.4	lb	14.47	7.01	15
3 (1) 2x 9.25 LVL	160 in	2000	-1170	1.1			28.95	13.23	29
4 (1) 2x 11.25 LVL	192 in	2300	-1400	1.1			33.29	15.83	34
5 (1) 2x 14 LVL	235 in	2800	-1710	1.1			40.52	19.34	41
6 (1) 2x 16 LVL	266 in	3200	-1940	1.1			46.31	21.94	47
7 (1) 2x 18 LVL	297 in	3600	-2160	1.1			52.10	24.42	53
8 (1) 2x 6 SPF #2	60 in	800	-440	1.9			11.58	4.98	12
9									
10									

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY


Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Valt. 95 Vast. EXP C
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MFT-10886-5001-S2-d-32-d
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

Matewall Columns													Location: Matewall Supporting: Roof				
<u>Vertical Load</u>				<u>Lateral Load</u>				<u>Combined Vert and Lat (max Lat)</u>				Wall height: 108 in					
NDS Load:	285	plf	D+Su	Lateral only				Vertical: 150 plf				0 Top/Btm Plate (tp): 4.5 in					
Total Load:	285	plf	D+Lr	Stud area: 27.0 ft^2				Lateral: 5 psf W				LVL: Microllam					
Uplift Load:	-175	plf	.6D+Wn	Lateral: 5 psf W				<u>Combined Vert and Lat (max Vert)</u>				LVL MOE (E): 2000000 psi					
def=.7 C&C								Vertical: 252 plf 0				E min: 1016411 psi					
								Lateral: 3.8 psf .75W				Fb: 2750 psi					
								<u>Combined Uplift and Lat</u>				Fv: 285 psi					
								Vertical: -175 plf .6D+Wn				Fcperp: 750 psi					
ateral deflection L/ 120								Lateral: 3.8 psf W				Vol eff (e): 0.136					
								Cr (LVL): 1.04									
Vertical																	
Spacing	B	D	Species	Grade	c	le/D	Cfb	CfC	Fb	Fc (grav)	Fc (comb)	Fcperp	E	Emin	FcE	Ft	
1	16	1.5	3.5	SPF	#3	0.8	29.6	1.5	1.15	500	650	650	425	1200000	4400000	414	250
										Cp	0.42	0.32					
Bearing length: 1.5										Allowable:	1200	361	379	425	1200000	4400000	600
Non braced (between spans)																	
														69	35	23	
														76	304	684	
														0.08673	0.322732	0.6074	
# of Studs				1	2	3	4	5	6	7	8	9	10	1	2	3	
<u>Properties</u>																	
Area in^2				5.3	10.5	15.8	21.0	26.3	31.5	36.8	42.0	47.3	52.5	5.3	10.5	15.8	
Sx in^3				3.1	6.1	9.2	12.3	15.3	18.4	21.4	24.5	27.6	30.6	3.1	6.1	9.2	
Ix in^4				5.4	10.7	16.1	21.4	26.8	32.2	37.5	42.9	48.2	53.6	5.4	10.7	16.1	
<u>Axial Loading</u>																	
Fc compression				80	159	239	319	399	478	558	638	718	797	16	122	346	
Fc Perp compression				40	80	121	161	201	241	281	322	362	402				
Tension				217	433	650	866	1083	1300	1516	1733	1950	2166				
<u>Combined Loading</u>																	
Uplift/Lateral				217	433	650	866	1083	1300	1516	1733	1950	2166				
Vert/Lateral max Lat				71	252	401	551	704	857	1011	1165	1321	1476				
Vert/Lateral Max Vert				68	155	245	336	427	519	612	705	798	891				
<u>Deflection Check</u>				L/	802	1604	2406	3208	4009	4811	5613	6415	7217	8019			
				OK	OK	OK	OK	OK	OK	OK	OK	OK	OK				
				40	80	121	161	201	241	281	322	362	402				
<u>Max Span</u>																	
Max Trib				Max Side Opening						Max Center opening (total distance of both spans)							
1	40 in			62 in = 5 ft - 2 in						23 in = 1 ft - 11 in							
2	80 in			141 in = 11 ft - 9 in						115 in = 9 ft - 7 in							
3	121 in			220 in = 18 ft - 3 in						173 in = 14 ft - 4 in							
4	161 in			299 in = 24 ft - 11 in						231 in = 19 ft - 3 in							
5	201 in			378 in = 31 ft - 6 in						289 in = 24 ft - 0 in							
6	241 in			457 in = 38 ft - 1 in						347 in = 28 ft - 11 in							
7	281 in			536 in = 44 ft - 7 in						405 in = 33 ft - 9 in							
8	322 in			615 in = 51 ft - 3 in						463 in = 38 ft - 7 in							
9	362 in			694 in = 57 ft - 10 in						521 in = 43 ft - 4 in							
10	402 in			773 in = 64 ft - 5 in						578 in = 48 ft - 1 in							
Notes: Center column is total span on both sides of column. Side column is total clear span.																	
All studs are to be braced in weak axis by gypsum or sheathing.																	
Center column must be in center 1/3 of span.																	
Studs must be as wide as header.																	
These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria: APPROVED BY  Const. Type: VB - unprotected Occupancy: Single Family Dwelling Allowable No. of Floors: 1 Wind Velocity: 120 Vult. 95 Vast. EXP. C Fire Rating of Ext. Walls: 0 Hr Plan No.: MFF-10886-5091-82-4-32-d Allow. Floor Load: 40 PSF Approval Date: 9/27/2024 Manufacturer: FRANKLIN STRUCTURES																	

Location: Matewall
Supporting: Roof

Matewall Columns

Vertical Load		Lateral Load		Combined Vert and Lat (max Lat)		Wall height:	
NDS Load:	285 plf	D+Su	Lateral only	Vertical:	150 plf	0 Top/Btm Plate (tp):	108 in
Total Load:	285 plf	D+Lr	Stud area: 27.0 ft^2	Lateral:	5 psf W	LVL: Microllam	4.5 in
Uplift Load:	-175 plf	.6D+Wn	Lateral: 5 psf W	Combined Vert and Lat (max Vert)		LVL MOE (E):	2000000 psi
				Vertical:	252 plf 0	E min:	1016411 psi
				Lateral:	3.8 psf .75W	Fb:	2750 psi
				Combined Uplift and Lat		Fv:	285 psi
				Vertical:	-175 plf .6D+Wn	Fcperp:	750 psi
				Lateral:	3.8 psf W	Vol eff (e):	0.136
						Cr (LVL):	1.04

def=.7 C&C
Cr: 1
Cd: 1.6
Cd grav: 1.15
lateral deflection L/ 120

Vertical	Spacing	B	D	Species	Grade	c	le/D	Cfb	CfC	Fb	Fc (grav)	Fc (comb)	Fcperp	E	Emin	FcE	Ft
1	16	1.5	3.5	SPF	#3	0.8	29.6	1.5	1.15	500	650	650	425	1200000	4400000	414	250
										Cp	0.42	0.32					
										Allowable:	1200	361	379	425	1200000	4400000	600

Bearing length: 3

Non braced (between spans)
69 35 23
76 304 684
0.08673 0.322732 0.6074

# of Studs	1	2	3	4	5	6	7	8	9	10	1	2	3
Properties													
Area in^2	5.3	10.5	15.8	21.0	26.3	31.5	36.8	42.0	47.3	52.5	5.3	10.5	15.8
Sx in^3	3.1	6.1	9.2	12.3	15.3	18.4	21.4	24.5	27.6	30.6	3.1	6.1	9.2
Ix in^4	5.4	10.7	16.1	21.4	26.8	32.2	37.5	42.9	48.2	53.6	5.4	10.7	16.1

Axial Loading

Fc compression	80	159	239	319	399	478	558	638	718	797	16	122	346
Fc Perp compression	80	161	241	322	402	482	563	643	724	804			
Tension	217	433	650	866	1083	1300	1516	1733	1950	2166			

Combined Loading

Uplift/Lateral	217	433	650	866	1083	1300	1516	1733	1950	2166			
Vert/Lateral max Lat	71	252	401	551	704	857	1011	1165	1321	1476			
Vert/Lateral Max Vert	68	155	245	336	427	519	612	705	798	891			

Deflection Check

L/	802	1604	2406	3208	4009	4811	5613	6415	7217	8019
OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
68	155	239	319	399	478	558	638	718	797	

Max Span

Max Trib

		Max Side Opening			Max Center opening (total distance of both spans)		
1	68 in	119 in	=	9 ft - 10 in	23 in	=	1 ft - 11 in
2	155 in	291 in	=	24 ft - 11 in	176 in	=	14 ft - 7 in
3	239 in	457 in	=	38 ft - 1 in	344 in	=	28 ft - 8 in
4	319 in	615 in	=	51 ft - 3 in	459 in	=	38 ft - 3 in
5	399 in	773 in	=	64 ft - 5 in	574 in	=	47 ft - 10 in
6	478 in	931 in	=	77 ft - 6 in	688 in	=	57 ft - 4 in
7	558 in	1089 in	=	90 ft - 9 in	803 in	=	66 ft - 11 in
8	638 in	1247 in	=	103 ft - 11 in	918 in	=	76 ft - 6 in
9	718 in	1405 in	=	117 ft - 0 in	1033 in	=	86 ft - 0 in
10	797 in	1563 in	=	130 ft - 3 in	1148 in	=	95 ft - 8 in

Notes: Center column is total span on both sides of column. Side column is total clear span.

All studs are to be braced in weak axis by gypsum or sheathing.

Center column must be in center 1/3 of span.

Studs must be as wide as header.

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:

APPROVED BY
NIA INC.

Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Vult. 95 Vaud. EXP. C
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MFF-10886-5091-82-4-32-d
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

Sidewall Headers Supporting Roof U-Headers
 For Lateral Loading See Sill Plate, This calculation is only for vertical load and a sill plate must be used at the top of the opening

Location: Sidewall
 Supporting: Roof

Vertical Load
 Dead Load: 160 plf D
 Live Load: 173 plf Lr
 Total Load: 334 plf D+Lr
 Uplift Load: -106 plf .6D+Wn

Wall height: 108 in
 Min sill height: 18 in
 LVL: Microllam
 LVL MOE (E): 2000000 psi
 E min: 1016411 psi
 Fb: 2750 psi
 Fv: 285 psi
 Fcperp: 750 psi
 Volume effect exp (e): 0.136
 Cr (LVL): 1.04

Cr: 1.15 LL defl L/ 240
 Cd: 1.25 TL defl L/ 180

Vertical

	Qty.	B	D	Species	Grade	Direction	Cfu	Cfb	Fb	Fv	Fcperp	E	Emin	Fb'	Fv'	A	S	I
1	2	1.5	2.5	SPF	#2	Edge	1	1.5	875	135	425	1400000	510000	1641	169	7.5	3.1	3.9
2	2	1.5	3.5	SPF	#2	Edge	1	1.5	875	135	425	1400000	510000	1641	169	10.5	6.1	10.7
3	2	1.5	5.5	SPF	#2	Edge	1	1.3	875	135	425	1400000	510000	1422	169	16.5	15.1	41.6
4	2	1.5	7.25	SPF	#2	Edge	1	1.2	875	135	425	1400000	510000	1313	169	21.8	26.3	95.3
5	2	1.5	2.5	SYP	#2	Edge	1	1.0	1100	175	565	1400000	510000	1375	219	7.5	3.1	3.9
6	2	1.5	3.5	SYP	#2	Edge	1	1.0	1100	175	565	1400000	510000	1375	219	10.5	6.1	10.7
7	2	1.5	5.5	SYP	#2	Edge	1	1.0	1100	175	565	1400000	510000	1375	219	16.5	15.1	41.6
8	2	1.5	7.25	SYP	#2	Edge	1	1.0	925	175	565	1400000	510000	1156	219	21.8	26.3	95.3
9																		
10																		

	Shear	Moment	LL def	TL def
1	66	38	49	48
2	92	54	69	67
3	145	79	109	106
4	191	100	144	139
5	84	35	49	48
6	117	49	69	67
7	184	77	109	106
8	243	94	144	139
9				
10				

Member	Max Span	Reactions (lbs)		Bearing (in)	.131x3"		# nails		# .131x3" nails per header
		Gravity	Uplift		Grav	Uplift	Grav	Uplift	
1 (2) 2x 3 SPF #2	38 in	600	-170	0.5	69.1	lb	4.34	0.96	5
2 (2) 2x 4 SPF #2	53 in	800	-240	0.5	88.4	lb	5.79	1.36	6
3 (2) 2x 6 SPF #2	78 in	1100	-350	0.5			7.96	1.98	8
4 (2) 2x 8 SPF #2	99 in	1400	-440	0.5			10.13	2.49	11
5 (2) 2x 3 SYP #2	35 in	500	-160	0.4			3.62	0.90	4
6 (2) 2x 4 SYP #2	49 in	700	-220	0.4			5.07	1.24	6
7 (2) 2x 6 SYP #2	77 in	1100	-340	0.4			7.96	1.92	8
8 (2) 2x 8 SYP #2	93 in	1300	-410	0.4			9.41	2.32	10
9									
10									

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY


Const. Type: VB - unprotected
 Occupancy: Single Family Dwelling
 Allowable No. of Floors: 1
 Wind Velocity: 120 Mph 95 Yr. Exp. C
 Fire Rating of Ext. Walls: 0 Hr
 Plan No.: MFT-10886-5001-S2-4-32-4
 Allow. Floor Load: 40 PSF
 Approval Date: 9/27/2024
 Manufacturer: FRANKLIN STRUCTURES

Sidewall Studs (King)															Location: Sidewall Supporting: Roof				
<u>Vertical Load</u>					<u>Lateral Load</u>					<u>Combined Vert and Lat (max Lat)</u>					Wall height: 108 in				
NDS Load:	334	plf	D+Lr	Lateral only					Vertical:	160	plf	0	Top/Btm Plate (tp): 4.5 in						
Total Load:	334	plf	D+Lr	Stud area: 27.0 ft^2					Lateral:	25	psf	W	Header height: 80 in						
Uplift Load:	-106	plf	.6D+Wn	Zone 5: 28 psf W					<u>Combined Vert and Lat (max Vert)</u>					LVL: Microllam					
				Zone 4: 24 psf W					Vertical:	290	plf	0	LVL MOE (E): 2000000 psi						
				def=.7 C&C					Lateral:	18.8	psf	.75W	E min: 1016411 psi						
									<u>Combined Uplift and Lat</u>					Fb: 2750 psi					
Cr:	1								Vertical:	-106	plf	.6D+Wn	Fv: 285 psi						
Cd:	1.6								Lateral:	18.8	psf	W	Fcperp: 750 psi						
Cd grav:	1.25			ateral deflection L/ 120										Vol eff (e): 0.136					
Vertical															Cr (LVL): 1.04				
Trib	B	D	Species	Grade	c	le/D	Cfb	CfC	Fb	Fc (grav)	Fc (comb)	Fcperp	E	Emin	FcE	Ft	Fv		
1	16	1.5	5	SYP	#2	0.8	20.7	1.0	1.00	1000	1400	1400	565	1400000	510000	978	600	175.0	
									Cp	0.47	0.39								
									Allowable:	1600	829	868	565	1400000	510000		960		

<u>Single King Stud</u>															
Opening:	16	in	Lateral Only			Vertical Only			<u>Combined Max Lat</u>			<u>Combind Max Vert</u>			
			Fb:	676	psi	Fc:	59	psi	CSI:	0.44	CSI:	0.34	Max CSI:	0.44	OK

Check Single stud for a max given max opening
Then check jacks and kings seperately and take controlling number , say calc 1 king for wind and it spans X distance and it takes 3 jacks to span that
give results for different combinations

											King Studs End Zone					King Studs Int Zone				
											1	2	3	4	5	1	2	3	4	5
<u>Properties</u>																				
Area	in^2										7.5	15.0	22.5	30.0	37.5	7.5	15.0	22.5	30.0	37.5
Sx	in^3										6.3	12.5	18.8	25.0	31.3	6.3	12.5	18.8	25.0	31.3
Ix	in^4										15.6	31.3	46.9	62.5	78.1	15.6	31.3	46.9	62.5	78.1
<u>Lateral Only (trib)</u>											1	2	3	4	5	1	2	3	4	5
Moment at Center											38	76	114	151	189	45	90	135	180	224
Moment at Header											51	101	152	203	253	60	120	180	240	301
Shear											86	171	257	343	429	102	203	305	407	508
<u>Combined Loading</u>																				
Max Lat											383	878	1368	1857	2346	383	878	1368	1857	2346
Max Vert											226	498	769	1038	1308	226	498	769	1038	1308
<u>Deflection Check</u>											L/	203	203	203	203	203	171	171	171	171
												OK	OK	OK	OK	OK	OK	OK	OK	OK
Max Span											38	76	114	151	189	45	90	135	180	224

<u>Max Span</u>		End Zone						Interior Zone					
1		59 in =	4	ft -	11 in			73 in =	6	ft -	0 in		
2		135 in =	11	ft -	3 in			163 in =	13	ft -	7 in		
3		211 in =	17	ft -	6 in			253 in =	21	ft -	0 in		
4		286 in =	23	ft -	9 in			343 in =	28	ft -	6 in		
5		362 in =	30	ft -	2 in			432 in =	36	ft -	0 in		

All studs are to be braced in weak axis by gypsum or sheathing.
Center column must be in center 1/3 of span.
Studs must be as wide as header.

Note: ripped lumber must be reggraded

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY



Const. Type: VB - unprotected

Occupancy: Single Family Dwelling

Allowable No. of Floors: 1

Wind Velocity: 120 Vult. 95 Vast. EXP. C

Fire Rating of Ext. Walls: 0 Hr

Plan No.: MFT-10886-5091-S2.4.32.4

Allow. Floor Load: 40 PSF

Approval Date: 9/27/2024

Manufacturer: FRANKLIN STRUCTURES

Sidewall Studs (Jack)

Location: Sidewall
Supporting: Roof

Vertical Load

NDS Load: 334 plf D+Lr
Total Load: 334 plf D+Lr
Uplift Load: -106 plf .6D+Wn

Wall height: 108 in
Top/Btm Plate (tp): 4.5 in
LVL: Microllam
LVL MOE (E): 2000000 psi
E min: 1016411 psi
Fb: 2750 psi
Fv: 285 psi
Fcperp: 750 psi
Vol eff (e): 0.136
Cr (LVL): 1.04

Cr: 1
Cd: 1.6
Cd grav: 1.25
lateral deflection L/ 120

Vertical	Spacing	B	D	Species	Grade	c	le/D	Cfb	CfC	Fb	Fc (grav)	Fc (comb)	Fcperp	E	Emin	FcE	Ft		
	1	16	1.5	5	SYP	#2	0.8	20.7	1.0	1.00	1000	1400	1400	565	1400000	510000	978	600	
											Cp	0.47	0.39						
											Allowable:	1600	829	868	565	1400000	510000		
	Header width:			1.5	in														
			3	in															
			4.5	in															

Header width: 1.5 in
3 in
4.5 in

# of Studs	1	2	3	4	5	6	7	8	9	10
Properties										
Area in^2	7.5	15.0	22.5	30.0	37.5	45.0	52.5	60.0	67.5	75.0
Sx in^3	6.3	12.5	18.8	25.0	31.3	37.5	43.8	50.0	56.3	62.5
Ix in^4	15.6	31.3	46.9	62.5	78.1	93.8	109.4	125.0	140.6	156.3

Axial Loading

Fc compression	224	447	671	895	1119	1342	1566	1790	2014	2237
Fc Perp compression 1.5 in	46	91	137	183	229	274	320	366	412	457
Fc Perp compression 3 in	91	183	274	366	457	549	640	732	823	915
Fc Perp compression 4.5 in	137	274	412	549	686	823	961	1098	1235	1372
Tension	819	1638	2457	3276	4095	4914	5733	6552	7371	8190

Trib taken by King stud: 0 in Increase of span: 0

Max Span

	Double Headers	Triple Headers
1	176 in = 14 ft - 7 in	268 in = 22 ft - 3 in
2	353 in = 29 ft - 5 in	536 in = 44 ft - 7 in
3	530 in = 44 ft - 1 in	805 in = 67 ft - 0 in

Note: ripped lumber must be regraded

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:



Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Vult. 95 Vast. EXP. C
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MFB-10886-5091-S2-4-32-4
Allow. Floor Load: 40 PSF
Approval Date: 9-27-2024
Manufacturer: FRANKLIN STRUCTURES

Uplift Straps: Sidewall

Uplift: -106 plf

Stud Spacing: 16 in

Strapping

Strap All: 1110 lbs LSTA18

fasteners: 14 .148x 2.5"

Strap Spacing: 10.52 ft (MAX SPACING USE 32" OC)

At openings

Span (in)

# of straps	Side opening	center opening
1	236	252
2	488	504
3	740	756
4	994	1010
5	1246	1262
6	1498	1514
7	1750	1766
8	2004	2020
	total span	

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:



Const. Type:	VB - unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	1
Wind Velocity:	120 Vult. 95 Vast. EXP. C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT-10686-5091-S2-d-32-4
Allow. Floor Load:	40 PSF
Approval Date:	9/27/2024
Manufacturer:	FRANKLIN STRUCTURES

If sheathing is being used for uplift NOT at openings:

Max OSB per E510A:	1500 plf
.131 Nail:	108 lb
15ga:	82 lb

Spacing from OSB to rail:

.131 Nail:	12.28 " oc
15ga:	9.33 " oc

fasteners into Studs:

.131 Nail:	1.3 lb
15ga:	1.7 lb

Uplift Straps: Matewall

Uplift: -175 plf

Stud Spacing: 16 in

Strapping

Strap All: 1110 lbs LSTA18

fasteners: 14 .148x 2.5"

Strap Spacing: 6.36 ft (MAX SPACING USE 32" OC)

At openings

Span (in)

# of straps	Side opening	center opening
1	136	152
2	288	304
3	440	456
4	594	610
5	746	762
6	898	914
7	1052	1068
8	1204	1220
	total span	

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:



Const. Type:	VB - unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	1
Wind Velocity:	120 Vult. 95 Vast. EXP. C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT-10686-5091-S2-d-32-4
Allow. Floor Load:	40 PSF
Approval Date:	9/27/2024
Manufacturer:	FRANKLIN STRUCTURES

If sheathing is being used for uplift NOT at openings:

Max OSB per E510A:	1500 plf
.131 Nail:	108 lb
15ga:	82 lb

Spacing from OSB to rail:

.131 Nail:	7.43 " oc
15ga:	5.64 " oc

fasteners into Studs:

.131 Nail:	2.2 lb
15ga:	2.8 lb

Page 13 of 23

Wind Pressures for Low-rise buildings or buildings with h<60ft
ASCE 7-22 Chapter 30 Part I:

Wind Speed, Vult:	120 MPH	Roof Style:	Gable
Wind Exposure:	C	Roof Pitch:	6 /12
Mean Roof Height:	20 FT	Roof Angle:	26.6
Elevation:	0 FT	Width	30.04 ft
Ke:	1.00	2a:	6 ft
Kd:	0.85	Wall Height:	9 ft
Kzt:	1	Heel Ht:	6 in
kt:	0.90	Roof Ht:	7.51 ft
qh:	28.26 psf	Stud Spacing:	16 "oc
Building Type:	Enclosed	Overhang:	12 "
Gcpi:	0.18	Int. Shearwall:	NO
	-0.18		
Min net pressure:	16 psf		

MWFRS

Transverse

	1	2	3	4	1e	2e	3e	4e
+GCpi	10.4	-7.9	-17.7	-16.1	15.5	-10.5	-21.6	-20.2
-Gcpi	20.6	2.3	-7.6	-6.0	25.7	-0.3	-11.4	-10.0
Max	20.6	-7.9	-17.7	-16.1	25.7	-10.5	-21.6	-20.2

Longitudinal

	1	2	3	4	5	6	1e	2e	3e	4e	5e	6e
+GCpi	-17.8	-24.6	-15.5	-17.8	6.2	-13.3	-18.7	-35.3	-20.1	-18.7	12.2	-17.2
-Gcpi	-7.6	-14.4	-5.4	-7.6	16.4	-3.1	-8.5	-25.2	-9.9	-8.5	22.3	-7.1
Max	-17.8	-24.6	-15.5	-17.8	16.4	-13.3	-18.7	-35.3	-20.1	-18.7	22.3	-17.2

	Vertical				Horz			
	End		Int		End		Int	
	WW		LW		Roof		Wall	
Trans	-10.5	-21.6	-7.9	-17.7	-25.4	11.2	35.7	9.8
Long	-35.3	-20.1	-24.6	-15.5	-28.0	-15.3	29.4	-9.0

Design Loading

	Vertical						Horz			
	End		Int		Overhang		End		Int	
	WW		LW		End		Roof		Wall	
Trans	-6.3	-13.0	-4.7	-10.6	-16.8	-15.2	6.7	21.4	5.9	15.9
Long	-21.2	-12.0	-14.8	-9.3	-34.8	-28.3	6.7	17.6	5.9	11.7

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY



Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Vult. 95 Vaud. EXP. C
Fire Rating of Ext. Walls: 0 Hr.
Plan No.: MFT-10886-5091-S2-4-32-4
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

Shearwalls:

Left Endwall:

End Zone: Yes
Trib: 39 ft
End Roof: 302 lb
End Wall: 642 lb
Int Roof: 1463 lb
Int Wall: 2631 lb
Total force: 5037 lb
Sheathing Thickness: 7/16 in
Fastener: 15ga staple
Wall Length: 30.04 ft
FHS Length: 26.10 ft
Wall Height: 9 ft
Tallest Opening: 2h/3
r: 0.91
Co: 0.88
Perf or Segmented: P
Blocked: YES
PLF required: 218.26
Framing: SYP
Required Spacing: 6 " OC
Tiedown: 1964.3 lb
Strap for: 2519 lb

Right Endwall:

End Zone: Yes
Trib: 39 ft
End Roof: 302 lb
End Wall: 642 lb
Int Roof: 1463 lb
Int Wall: 2631 lb
Total force: 5037 lb
Sheathing Thickness: 7/16 in
Fastener: 15ga staple
Wall Length: 30.04 ft
FHS Length: 25.71 ft
Wall Height: 9 ft
Tallest Opening: 2h/3
r: 0.90
Co: 0.87
Perf or Segmented: P
Blocked: YES
PLF required: 224.20
Framing: SYP
Required Spacing: 6 " OC
Tiedown: 2017.8 lb
Strap for: 2519 lb

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:



Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Vult. 95 Vast. EXP. C
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MFT-10886-5091-87-d-32-d
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

Top Sidewall:

End Zone: Yes
Trib: 15.02 ft
End Wall: 835 lb
Int Wall: 1475 lb
Total force: 2310 lb
Sheathing Thickness: 7/16 in
Fastener: 15ga staple
Wall Length: 78.00 ft
FHS Length: 55.59 ft
Wall Height: 9 ft
Tallest Opening: 5h/6
r: 0.75
Co: 0.70
Perf or Segmented: P
Blocked: YES
PLF required: 59.46
Framing: SPF
Required Spacing: 6 " OC
Tiedown: 535.1 lb

Bottom Sidewall:

End Zone: Yes
Trib: 15.02 ft
End Wall: 835 lb
Int Wall: 1475 lb
Total force: 2310 lb
Sheathing Thickness: 7/16 in
Fastener: 15ga staple
Wall Length: 78.00 ft
FHS Length: 38.48 ft
Wall Height: 9 ft
Tallest Opening: 5h/6
r: 0.54
Co: 0.57
Perf or Segmented: P
Blocked: YES
PLF required: 105.66
Framing: SPF
Required Spacing: 6 " OC
Tiedown: 950.9 lb

Sidewall interconnection: 6 "oc .131 Nails
Capacity: 130 lbs per nail
Total Capacity: 2340 lbs

Summary:	Fastener	Edge Spacing	Tiedown Force	Perf/Segment	Corner Connection**
Left Endwall	15ga staple	6 "OC	1964 lb	P	
Right Endwall	15ga staple	6 "OC	2018 lb	P	
Top Sidewall	15ga staple	6 "OC	535 lb	P	YES
Bottom Sidewall	15ga staple	6 "OC	951 lb	P	YES

0.131"x2" nails may be used in place of the 15ga staples in a 1:1 substitution

** 6 "oc .131 nails from sidewall to endwall where both walls have tiedown at the corner, then the sidewall is transferec

Diaphragm:

Max Force:	5037.2 lbs
Load:	167.7 plf
Sheathing:	7/16 in
Fastener:	.131 Nail
Framing:	SPF
Unblocked Capacity:	294.4 plf
Blocked:	200.9 plf
Blocking distance:	0.0 ft

0 ft blocked each end with .131 Nail @ 6"OC edge and field

Notes:

- all 15ga staples minimum length of 1.5"
- all .131 nails minimum length of 2"

Lateral Foundation Loads:

Endwalls:	15966 lb
Sidewalls:	7071 lb

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:



Const. Type:	<u>VB - unprotected</u>
Occupancy:	<u>Single Family Dwelling</u>
Allowable No. of Floors:	<u>1</u>
Wind Velocity:	<u>120 Mph, 95 Mph, EXP C</u>
Fire Rating of Ext. Walls:	<u>0 Hr</u>
Plan No.:	<u>MFT10886-5091-S2-d-32-d</u>
Allow. Floor Load:	<u>40 PSF</u>
Approval Date:	<u>9/27/2024</u>
Manufacturer:	<u>FRANKLIN STRUCTURES</u>

Connections

Truss to exterior wall uplift:

Uplift Force: 211 lb
H2.5A: 535 lb
MTS18: 1030 lb

Truss to exterior wall Lateral:

End: 31.4 psf
Int: 25.5 psf
Height: 9 ft
Spacing: 24 in oc
Load:
End: 283.0 lb
Int: 229.2 lb
.131 nail: 114.84 lb
.131x3"Nails End: 2.5
.131xx3" Nails Int: 2.0

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:

APPROVED BY


Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Mph, 95 Mph, EXP. C
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MFT-10886-5091-S2-4-32-4
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

Truss king post to Header:

Uplift: 349 lb
Gravity: 552 lb
.131 nail EG: 88.44 lb
.131 nail EG LL: 69.09 lb

.131x3": 8.0 Nails

Or hanger rated for 552lb grav and 349lb uplift

Stud to Plate:

End: 28.41 psf (reduced for stud area)
Int: 23.96 psf
Height: 9 ft
Spacing: 16 in oc
Load:
End: 170.5 lb
Int: 143.7 lb
.131 nail: 88.44 lb
Nails End: 1.9
Nails Int: 1.6

Use (3) .131x3" nails to connect studs to plates.

Plate to floor and plate interconnection (top plate):

End:	28.4 psf
Int:	24.0 psf
Height:	9 ft
Load:	127.8439 plf
.131 Nailx3":	108 lb
Spacing of .131 nail:	10.1 " OC int and end zones
15gax2.5" staple:	72 lb
Spacing of 15ga:	6.76 " OC int and end zones

Sheathing Suction Connections (wall and roof)

	End	Int	
Wall:	-28.4	-25.5	psf
Roof:	-63.3	-33.4	psf
.131x2.5:	66	66	lbs
15gax2.5" staple:	56.8	56.8	lbs
Wall			
Member spacing:	16	16	" oc
Nail:	12.0	12.0	" oc
Staple:	12.0	12.0	" oc
Roof			
Member spacing:	24	24	" oc
Nail:	6.3	11.8	" oc
Staple:	5.4	10.2	" oc

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:



Const. Type:	VB - unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	1
Wind Velocity:	120 Mph, 95 Yr. Exp. C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MT-10886-5091-S2-4-32-4
Allow. Floor Load:	40 PSF
Approval Date:	9/27/2024
Manufacturer:	FRANKLIN STRUCTURES

Note End zone is 3ft from the end of the house and from eave/ridge on roof
This spacing is a minimum for edge AND field fastening.

Truss Kneewall Connection:

Tension:	352 lb	Compare to truss print,
Shear:	165 lb	Must be higher then truss.
Tension:		

CS 22/LSTA18: 845 lb

Shear:

Rail to king post toed
.131x3" nail: 89.71875 lb
#: 1.8 Use 2
Rail to rail:
.131x3" nail: 103.125 lbs
#: 1.6 Use 2 per bay

Floor Joist Calculation at 16"oc

Vertical Load

Dead Load:	13 plf	D
Live Load:	53 plf	L
Total Load:	67 plf	D+L
Uplift Load:	0 plf	

Cr:	1.15	LL defl L/ 360
Cd:	1	TL defl L/ 240

Vertical

	Qty.	B	D	Species	Grade	Direction	Cfu	Cfb	Fb	Fv	Fcperp	E	Emin	Fb'	Fv'	A	S	I
1	1	1.5	9.25	SYP	#1	Edge	1	1.0	1050	175	565	1600000	580000	1050	175	13.9	21.4	98.9
2	1	1.5	7.25	SYP	#1	Edge	1	1.0	1250	175	565	1600000	580000	1250	175	10.9	13.1	47.6
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

	Shear	Moment	LL def	TL def
1	603	180	197	217
2	472	154	154	170
3				
4				
5				
6				
7				
8				
9				
10				

Member	Max Span	Reactions (lbs)		Bearing (in)
		Gravity	Uplift	
1 (1) 2x 10 SYP #1	180 in	500	0	0.6
2 (1) 2x 8 SYP #1	153 in	500	0	0.6
3				
4				
5				
6				
7				
8				
9				
10				

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY

NIA INC.

Const. Type: VB - unprotected

Occupancy: Single Family Dwelling

Allowable No. of Floors: 1

Wind Velocity: 120 Vult. 95 Vaid. EXP. C

Fire Rating of Ext. Walls: 0 Hr.

Plan No.: MET-10886-5091-S2-4-32-4

Allow. Floor Load: 40 PSF

Approval Date: 9/27/2024

Manufacturer: FRANKLIN STRUCTURES

Matewall Headers Supporting Roof & 1 Floor

Location: Matewall
Supporting: Roof & 1 Floor

Vertical Load

Dead Load:	270 plf	D
Live Load:	327 plf	.75(L+Lr)
Total Load:	571 plf	D+L
Uplift Load:	-102 plf	.6D+Wn

Wall height:	108 in
Min sill height:	18 in
LVL: Microllam	
LVL MOE (E):	2000000 psi
E min:	1016411 psi
Fb:	2750 psi
Fv:	285 psi
Fcperp:	750 psi
Volume effect exp (e):	0.136
Cr (LVL):	1.04

Cr:	1.15	LL defl L/ 360
Cd:	1	TL defl L/ 240

Vertical

	Qty.	B	D	Species	Grade	Direction	Cfu	Cfb	Fb	Fv	Fcperp	E	Emin	Fb'	Fv'	A	S	I
1	1	1.5	9.25	SYP	#1	Edge	1	1.0	1050	175	565	1600000	580000	1050	175	13.9	21.4	98.9
2	1.5	1.5	9.25	SYP	#1	Edge	1	1.0	1050	175	565	1600000	580000	1050	175	20.8	32.1	148.4
3	2	1.5	9.25	SYP	#1	Edge	1	1.0	1050	175	565	1600000	580000	1050	175	27.8	42.8	197.9
4																		
5																		
6																		
7																		
8																		
9																		
10																		

	Shear	Moment	LL def	TL def
1	87	61	107	110
2	121	75	123	125
3	155	87	135	138
4				
5				
6				
7				
8				
9				
10				

Member	Max Span	Reactions (lbs)		Bearing (in)
		Gravity	Uplift	
1 (1) 2x 10 SYP #1	61 in	1500	-270	1.8
2 (1.5) 2x 10 SYP #1	75 in	1800	-330	1.2
3 (2) 2x 10 SYP #1	86 in	2100	-370	0.9
4				
5				
6				
7				
8				
9				
10				

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY



Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Vult. 95 Vast. EXP. C
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MFC10886-5091-S2-4-32-4
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

Matewall Girders Supporting Floor Load Only

Location: Matewall
Supporting: Roof & 1 Floor

Vertical Load
Dead Load: 75 plf D
Live Load: 301 plf L
Total Load: 376 plf D+L
Uplift Load: 0 plf

Wall height: 108 in
Min sill height: 18 in
LVL: Microllam
LVL MOE (E): 2000000 psi
E min: 1016411 psi
Fb: 2750 psi
Fv: 285 psi
Fcperp: 750 psi
Volume effect exp (e): 0.136
Cr (LVL): 1.04

Cr: 1.15 LL defl L/ 360
Cd: 1 TL defl L/ 240

Vertical	Qty.	B	D	Species	Grade	Direction	Cfu	Cfb	Fb	Fv	Fcperp	E	Emin	Fb'	Fv'	A	S	I
1	1	1.5	9.25	SYP	#1	Edge	1	1.0	1050	175	565	1600000	580000	1050	175	13.9	21.4	98.9
2	1.5	1.5	9.25	SYP	#1	Edge	1	1.0	1050	175	565	1600000	580000	1050	175	20.8	32.1	148.4
3	2	1.5	9.25	SYP	#1	Edge	1	1.0	1050	175	565	1600000	580000	1050	175	27.8	42.8	197.9
4																		
5																		
6																		
7																		
8																		
9																		
10																		

	Shear	Moment	LL def	TL def
1	122	76	110	122
2	173	93	126	139
3	225	107	139	153
4				
5				
6				
7				
8				
9				
10				

Member	Max Span	Reactions (lbs)		Bearing (in)
		Gravity	Uplift	
1 (1) 2x 10 SYP #1	75 in	1200	0	1.5
2 (1.5) 2x 10 SYP #1	92 in	1500	0	1.0
3 (2) 2x 10 SYP #1	107 in	1700	0	0.8
4				
5				
6				
7				
8				
9				
10				

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY



Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Vult. 95 Vasd. EXP. C
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MFC10886-5091-S2-4-32-4
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

Porch Headers sidewall

Location: Sidewall

Supporting: Roof

Vertical Load

Dead Load: 160 plf D
Live Load: 173 plf Lr
Total Load: 334 plf D+Lr
Uplift Load: -130 plf .6D+Wn

Cr: 1.15 LL defl L/ 240

Cd: 1.25 TL defl L/ 180

Wall height: 108 in

Min sill height: 18 in

LVL: Microllam

LVL MOE (E): 2000000 psi

E min: 1016411 psi

Fb: 2750 psi

Fv: 285 psi

Fcperp: 750 psi

Volume effect exp (e): 0.136

Cr (LVL): 1.04

Vertical

	Qty.	B	D	Species	Grade	Direction	Cfu	Cfb	Fb	Fv	Fcperp	E	Emin	Fb'	Fv'	A	S	I
1	2	1.5	7.25	SYP	#1	Edge	1	1.0	1250	175	565	1600000	580000	1563	219	21.8	26.3	95.3
2	2	1.5	7.25	SPF	#2	Edge	1	1.2	875	135	425	1400000	510000	1313	169	21.8	26.3	95.3
3	1	1.5	7.25	LVL		Edge	1	1.1	2750	285	750	2000000	1016411	3681	285	10.9	13.1	47.6
4	1	1.5	9.25	LVL		Edge	1	1.0	2750	285	750	2000000	1016411	3561	285	13.9	21.4	98.9
5	2	1.5	7.25	LVL		Edge	1	1.1	2750	285	750	2000000	1016411	3681	285	21.8	26.3	95.3
6	2	1.5	9.25	LVL		Edge	1	1.0	2750	285	750	2000000	1016411	3561	285	27.8	42.8	197.9
7	1	1.5	7.25	SYP	#1	Edge	1	1.0	1250	175	565	1600000	580000	1563	219	10.9	13.1	47.6
8	1	1.5	7.25	SPF	#2	Edge	1	1.2	875	135	425	1400000	510000	1313	169	10.9	13.1	47.6
9																		
10																		

	Shear	Moment	LL def	TL def
1	243	109	150	145
2	191	100	144	139
3	163	118	128	124
4	208	148	164	159
5	312	167	162	157
6	398	209	206	200
7	129	77	119	115
8	103	70	114	110
9				
10				

Connections:

Connect truss to header with LTS18 strap: capacity 650lbs.

Max Truss reaction for header @24" is 260==> OK

Header to Column:

BC4 Bracket: capacity 605lbs.

(2) LSTA18 Straps: 2220lbs

Total: 2825lbs

Max reaction for header @ 12ft: 1560lb OK

Member	Max Span	Reactions (lbs)		Bearing
		Gravity	Uplift	(in)
1 (2) 2x 8 SYP #1	108 in	1600	-590	1.0
2 (2) 2x 8 SPF #2	99 in	1400	-540	1.3
3 (1) 2x 7.25 LVL	118 in	1700	-640	1.5
4 (1) 2x 9.25 LVL	148 in	2100	-810	1.5
5 (2) 2x 7.25 LVL	156 in	2200	-850	0.8
6 (2) 2x 9.25 LVL	199 in	2800	-1080	0.8
7 (1) 2x 8 SYP #1	76 in	1100	-420	1.9
8 (1) 2x 8 SPF #2	70 in	1000	-380	2.6
9				
10				

Column to Floor:

BC-40 Bracket: 510lbs

(2) LSTA18 Straps: 2220lbs

Total: 2730lbs

Max reaction for header @ 12ft: 1560lb OK

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY

NIA INC.

Const. Type: VB - unprotected

Occupancy: Single Family Dwelling

Allowable No. of Floors: 1

Wind Velocity: 120 Vult. 95 Yead. EXP. C

Fire Rating of Ext. Walls: 0 Hr

Plan No.: MFT-10886-5001-S2-d-32-d

Allow. Floor Load: 40 PSF

Approval Date: 9/27/2024

Manufacturer: FRANKLIN STRUCTURES

Porch Column

Supporting: Roof

Vertical Load				Lateral Load				Combined Vert and Lat (max Lat)				Combined Vert and Lat (max Vert)				Combined Uplift and Lat			
NDS Load:	334	plf		D+Lr				Vertical:	150	plf		Vertical:	334	plf	0	Vertical:	-130	plf	
Total Load:	334	plf		D+Lr				Lateral:	5	psf	W	Lateral:	3.8	psf	.75W	Lateral:	3.8	psf	W
Uplift Load:	-130	plf		.6D+Wn				Combined Vert and Lat (max Lat)				Combined Uplift and Lat							
								Stud area:	27.0	ft^2		Vertical:	334	plf	0	Vertical:	-130	plf	.6D+Wn
								Lateral:	79	psf	W	Lateral:	3.8	psf	.75W	Lateral:	3.8	psf	W
								def=.7 C&C											
Cr:	1																		
Cd:	1.6																		
Cd grav:	1.25							Lateral deflection L/ 120											
Vertical																			
Spacing	B	D	Species	Grade	c	le/D	Cfb	CfC	Fb	Fc (grav)	Fc (comb)	Fcperp	E	Emin	FcE	Ft			
1	16	3.5	3.5	SYP	#2	0.8	30.9	1.0	1.00	1100	1450	1450	565	1400000	510000	440	675		
									Cp	0.23	0.18								
Header	1.5	inches						Allowable:	1760	416	422	565	1400000	510000		1080			

# of Studs	1
<u>Properties</u>	
Area in^2	12.3
Sx in^3	7.1
Ix in^4	12.5
<u>Axial Loading</u>	
Fc compression	183
Fc Perp compression	106
Tension	1221
Fcperp	
<u>Combined Loading</u>	
Uplift/Lateral	1221
Vert/Lateral max Lat	398
Vert/Lateral Max Vert	180
<u>Deflection Check</u>	
L/	121
	OK
	106

Max Span		Max Trib		Max Side Opening				Max Center opening			
1		106 in		209 in	=	17	ft -	5 in	153 in	=	12
											ft -
											9 in

Notes: Center column is total span on both sides of column. Side column is total clear span
 All studs are to be braced in weak axis by gypsum or sheathing.
 Center column must be in center 1/3 of span.
 Studs must be as wide as header.

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY



Const. Type: VB - unprotected
 Occupancy: Single Family Dwelling
 Allowable No. 1
 of Floors: 1
 Wind Velocity: 120 Mph 95 Year EXP C
 Fire Rating of 0 Hr
 Ext. Walls: MFC10886-5091-S2-d-32-d
 Plan No.: 40 PSF
 Allow. Floor Load: 9/27/2024
 Approval Date: FRANKLIN STRUCTURES
 Manufacturer:

FLORIDA BUILDING CODE, ENERGY CONSERVATION	
Residential Building Thermal Envelope Approach	
R-Value Computation Method	
FORM R402—2023	Florida Climate Zone 2
	BUILDER: Franklin Structures
PROJECT NAME AND ADDRESS:	PERMITTING OFFICE:
MFT-10886-5091-84-4-32-4 FORT WHITE, FL 32038	JURISDICTION NUMBER:
OWNER: clayton homes of lake city	PERMIT NUMBER:
PERMIT TYPE: Residential	NUMBER OF UNITS: 2
WORST CASE?	CONDITIONED FLOOR AREA:2284

Scope: Compliance with [Section R402.1.2](#) of the *Florida Building Code, Energy Conservation*, shall be demonstrated by the use of Form R402 for single- and multiple-family residences of three stories or less in height, additions to existing residential buildings, alterations, renovations and building systems in existing buildings, as applicable. To comply, a building must meet or exceed all of the energy efficiency requirements and applicable mandatory requirements summarized on this form. If a building does not comply with this method, or by the UA Alternative method, it may still comply under [Section R405](#) or [R406](#) of the *Florida Building Code, Energy Conservation*.

General Instructions:

- 1.Fill in all the applicable spaces of the “INSTALLED” row in the INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT table with the information requested. All “INSTALLED” values must be equal to or more efficient than the required levels. “AVG” indicates an area weighted average is allowed; “LOWEST” indicates the lowest *R*-value to be installed must be entered.
- 2.Complete the tables for air infiltration and installed equipment.
- 3.Read the MANDATORY REQUIREMENTS table and check each box to indicate your intent to comply with all applicable items.
4. 4.Read, sign and date the “Prepared By” certification statement at the bottom of this form. The owner or owner’s agent must also sign and date the form.

INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT¹

REQUIREMENT S	FENESTRATION U-FACTOR _{2, 3, 4}	SKYLIGHT ² U - FACTOR	GLAZEDFENESTRATIONSHG C _{2, 3}	CEILINGR - VALUE	WOODFRAMEWALL R-VALUE ⁵	MASS WALLR- VALUE _{5, 6}	FLOORR -VALUE	BASEMENTWALL R-VALUE	SLAB ⁷ R -VALUE &DEPTH	CRAWLSPACEWALL R-VALUE
CLIMATE ZONE 1	NR	0.75	0.25	30	13	3/4	13	0	0	0
CLIMATE ZONE 2	0.40	0.65	0.25	38	13	4/6	13	0	0	0
VALUE	AVG	AVG	AVG	LOWEST	LOWEST	LOWEST	LOWEST	LOWEST	LOWES T	LOWEST
INSTALLED:	.34		.22 for grid/.23 NC Grid	38	19		30			

R-Value Calculation Method - [PASS / FAIL]

For SI: 1 foot = 304.8 mm; NR = No requirement.

- (1)*R*-values are minimums. *U*-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed *R*-value of the insulation shall not be less than the *R*-value specified in the table.
- (2)The fenestration *U*-factor column excludes skylights. The SHGC column applies to all glazed fenestration. Exception: Skylights may be excluded from glazed fenestration SHGC requirements in Climate Zones 1 through 3 where the SHGC for such skylights does not exceed 0.30.
- (3)For impact rated fenestration complying with [Section R301.2.1.2](#) of the *Florida Building Code, Residential* or [Section 1609.1.2](#) of the *Florida Building Code, Building*, the maximum *U*-factor shall be 0.65 in Climate Zone 2. An area-weighted average of *U*-factor and SHGC shall be accepted to meet the requirements, and up to 15 square feet of glazed fenestration area are exempted from the *U*-factor and SHGC requirement based on [Section R402.3.1](#), [R402.3.2](#) and [R402.3.3](#).
- (4)One side-hinged opaque door assembly up to 24 square feet is exempted from this *U*-factor requirement based on [Section R402.3.4](#).
- (5)*R*-values are for insulation material only as applied in accordance with manufacturer’s installation instructions.
- (6)The second *R*-value applies when more than half the insulation is on the interior of the mass wall.
- (7)*R*-5 shall be added to the required slab edge *R*-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Climate Zones 1 through 3 for heated slabs.

Air infiltration:	Blower door test is required on the building envelope to verify leakage ≤ 7 ACH50; test report must be provided to code official before CO is issued. <i>Florida Building Code, Energy Conservation</i> Section R402.4.1.2 testing exception may apply for additions, alterations, or renovations.
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FORM R402—continued EQUIPMENT REQUIREMENTS AND INSTALLED VALUES

Fill in the “INSTALLED EFFICIENCY LEVEL” column with the information requested. For multiple systems of the same type, indicate the minimum efficient system. All “INSTALLED” values must be equal to or more efficient than the required level. If a listed “SYSTEM TYPE” is not to be installed, write in “N/A” for not applicable.

SYSTEM TYPE	MINIMUM EFFICIENCY LEVEL REQUIRED	INSTALLED EFFICIENCY LEVEL
Air distribution system¹	Not allowed in attic	Location: on-site
Air handling unit	Factory Sealed	Factory Sealed? yes
Duct R-value	= R-8 (Ducts in unconditioned attics, Diameter ≥ 3 in.)	R-Value (In unc. attic) =
	= R-6 (Ducts in unconditioned non attics, Diam. ≥ 3 in.)	R-Value (In unc. non attics) =
	= R-6 (Ducts in unconditioned attics, Diameter < 3 in.)	R-Value (Small ducts in attic) =
	= R-4.2 (Ducts in unconditioned not attics, Diam. < 3 in.)	R-Value (Small ducts in unc) =
	All ducts are in conditioned space (No minimum)	All in conditioned space ?
Air leakage/Duct test	Air handler installed: Total leakage = 4 cfm/100 s.f.	
	Air handler not installed: Total leakage = 3 cfm/100 s.f.	Total leakage = _____ cfm/100 s.f.
		Air handler installed? Yes
Duct testing	Test not required if all ducts and AHU are within the building thermal envelope and for additions or alterations where ducts extended from existing heating and cooling system through unconditioned space are < 40 linear ft.	Test report required? yes
Air conditioning systems:	Minimum federal standard required by NAECA²:	On-site

<u>Central system < 45,000 Btu/h</u>	<u>SEER2 14.3</u>	<u>Cap.(Btu/h) =</u>
<u>Central system ≥ 45,000 Btu/h</u>	<u>SEER2 13.8</u>	<u>SEER2 (Min) =</u>
<u>Central heat pump</u>	<u>SEER2 = 14.3</u>	<u>SEER2 (Min) =</u>
<u>PTAC, PTHP, SPVAC or SPVHP</u>	<u>EER [from Table C403.2.3(3)]</u>	<u>Type =Cap. (Btu/h) =EER (Min) =</u>
Other:	See <u>Tables C403.2.3(1)–(11)</u>	Type =Effic. (min) =
Heating systems:	Minimum federal standard required by NAECA ² :	
<u>Electric resistance</u>	<u>Not allowed in Climate Zone 2</u>	
<u>Heat pump</u>	<u>HSPF ≥ 7.5</u>	<u>HSPF2 (Min) =</u>
<u>Gas furnace, nonweatherized</u>	<u>AFUE ≥ 80%</u>	<u>AFUE (Min) =</u>
<u>Oil furnace, nonweatherized</u>	<u>AFUE ≥ 83%</u>	<u>AFUE (Min) =</u>
<u>PTHP or SPVHP</u>	<u>COP_H [from Table C403.2.3(3)]</u>	<u>Type =Cap. (Btu/h) =COP_H (Min) =</u>
<u>Other:</u>	<u>See Tables C403.2.3(1)–(16)</u>	<u>Type =Effic. (min) =</u>
Water heating system (storage type):	Minimum federal standard required by NAECA ² :	Capacity =
<u>Electric</u> ^{3, 6}	<u>UEF 40 gal.: 0.931; 50 gal.: 0.930; 60 gal.: 2.176</u>	<u>UEF (Min) =</u>
<u>Gas fired</u> ^{4, 6}	<u>UEF 40 gal.: 0.64; 50 gal.: 0.627; 60 gal.: 0.789</u>	<u>UEF (Min) =</u>
Other (describe) ^{5, 6} :		Effic. (min) =

Equipment Efficiency—[PASS / FAIL]

- (1)Ducts & AHU installed “substantially leak free” per [Section R403.3.2](#). Test required by either individuals as defined in Section 553.993(5) or (7), [Florida Statutes](#), or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i), [Florida Statutes](#). The total leakage test is not required for ducts and air handlers located entirely within the building thermal envelope, and for additions where ducts from an existing heating and cooling system extended to the addition through unconditioned space are less than 40 linear ft.
- (2)Minimum efficiencies are those set by the *National Appliance Energy Conservation Act* of 1987 for typical residential equipment and are subject to NAECA rules and regulations. For other types of equipment, see Tables C403.2.3 [\(1\)](#)–[\(11\)](#) of the Commercial Provisions of the *Florida Building Code, Energy Conservation*.
- (3)For electric storage volumes ≤ 55 gallons, minimum UEF = 0.9349 – (0.0001 * volume). For electric storage volumes > 55 gallons, minimum UEF = 2.2418 – (0.0011 * volume).
- (4)For natural gas storage volumes ≤ 55 gallons, minimum UEF = 0.692 – (0.0013 * volume). For natural gas storage volumes > 55 gallons, minimum UEF = 0.8072 – (0.0003 * volume).
- (5)For electric tankless, min. UEF = 0.92. For natural gas tankless, min. UEF = 0.81.
- (6)Referenced UEFs shown are for high draw pattern value provided by manufacturer.

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:



Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No.
of Floors: 1
Wind Velocity: 120 Vult. 95 Yead. EXP. C
Fire Rating of
Ext. Walls: 0 Hr
Plan No.: MFT-0886-5091-S7-4-57-d
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

OTHER REQUIREMENTS			
Component	Section	Summary of Requirements	Check
Air leakage	R402.4	To be caulked, gasketed, weather stripped or otherwise sealed per Table R402.4.1.1 . Recessed lighting IC-rated as having ≤ 2.0 cfm tested to ASTM E283.Windows and doors: 0.3 cfm/sq.ft (swinging doors: 0.5 cfm/sf) when tested to NFRC 400 or AAMA/WDMA/CSA 101/I.S. 2/A440 .Fireplaces: Tight-fitting flue dampers & outdoor combustion air	X
Programmable thermostat	R403.1.2	A programmable thermostat is required for the primary heating or cooling system.	X
Air distribution system	R403.3.2 R403.3.4	Ducts shall be tested as per Section R403.3.2 by either individuals as defined in Section 553.993(5) or (7), Florida Statutes , or individuals licensed as set forth in Section 489.105(3) (f), (g) or (i), Florida Statutes . Air handling units are not allowed in attics.	ON-SITE
Water heaters	R403.5	Comply with efficiencies in Table C404.2 . Hot water pipes insulated to ≥ R-3 to kitchen outlets, other cases. Circulating systems to have an automatic or accessible manual OFF switch. Heat trap required for vertical pipe risers.	X
Cooling/heating equipment	R403.7	Sizing calculation performed & attached. Special occasion cooling or heating capacity requires separate system or variable capacity system.	X
Swimming pools & spas	R403.10	Spas and heated pools must have vapor-retardant covers or a liquid cover or other means proven to reduce heat loss except if70% of heat from site-recovered energy. Off/timer switch required. Gas heaters minimum thermal efficiency is 82%. Heat pump pool heaters minimum COP is 4.0.	N/A
Lighting equipment	R404.1	All permanently installed luminaires, excluding those in kitchen appliances, shall have an efficacy of at least 45 lumens-per-watt or shall utilize lamps with an efficacy of not less than 65 lumens-per-watt.	ON-SITE

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:



Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Mph, 95 Wind, EXP. C
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MTT-10886-5091-S2-4-32.d
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

I hereby certify that the plans and specifications covered by this form are in compliance with the *Florida Building Code, Energy Conservation*.
PREPARED

BY: Melissa Wood Date: 1/23/24

PREPARED BY SIGNATURE: *Melissa A Wood*
I hereby certify that this building is in compliance with the *Florida Building Code, Energy Conservation*.

OWNER/AGENT: _____ Date: _____

OWNER/AGENT SIGNATURE: _____

Review of plans and specifications covered by this form indicate compliance with the Florida Building Code, Energy Conservation. Before construction is complete, this building will be inspected for compliance in accordance with Section 553.908, F.S.CODE

OFFICIAL: _____ Date: _____

CODE OFFICIAL SIGNATURE: _____

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY
NIA INC.

Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Vult. 95 Vast. EXP. C
Fire Rating of Ext. Walls: 0 Hr.
Plan No.: MFT-10886-5091-S2-4-32-4
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES



Load Short Form Entire House

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:



Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Vult. 95 Vast. EXP. C
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MFT-10886-5091-S2-4-32-4
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

Job: MFT-10886-17982-5091-82-...
Date: 8/19/24
By: AMS of Indiana, Inc.

Project Information

For: FRANKLIN STRUCTURES, MFT-10886-17982-5091-82-4-32UFL

Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	23	98	Method	Simplified
Inside db (°F)	70	75	Construction quality	Average
Design TD (°F)	47	23	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	19	56		

HEATING EQUIPMENT

Make	Generic
Trade	
Model	AFUE 100
AHRI ref	
Efficiency	100 AFUE
Heating input	9.8 kW
Heating output	33497 Btuh
Temperature rise	25 °F
Actual air flow	1200 cfm
Air flow factor	0.039 cfm/Btuh
Static pressure	0.30 in H2O
Space thermostat	

COOLING EQUIPMENT

Make	Generic
Trade	
Cond	SEER2 14.3
Coil	
AHRI ref	
Efficiency	12.2 EER2, 14.3 SEER2
Sensible cooling	29025 Btuh
Latent cooling	12439 Btuh
Total cooling	41464 Btuh
Actual air flow	1200 cfm
Air flow factor	0.045 cfm/Btuh
Static pressure	0.30 in H2O
Load sensible heat ratio	0.79

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
C3	76	1614	711	63	32
BA4	55	587	301	23	13
U	95	1349	807	53	36
KT\DR	356	4241	4456	166	199
LR	263	2846	2824	111	126
BA1	150	1522	1238	60	55
C1	86	1878	823	73	37
B1	229	4411	4174	173	187
FOY	125	1959	1772	77	79
BA3	69	1074	510	42	23
LN	17	0	0	0	0
B2	187	2406	2979	94	133
B4	161	1867	2012	73	90
C2	26	0	0	0	0

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



Right-Suite® Universal 2023 23.0.05 RSU02009

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...nklin\17000\MFT-10886-17982-5091-82-4-32UFL.rup Calc = MJ8 Front Door faces: N

Page 1

A	19	0	0	0	0
BA2	58	646	340	25	15
H	54	0	0	0	0
B3	244	4258	3869	167	173
Entire House	2270	30658	26814	1200	1200
Other equip loads		2839	1392		
Equip. @ 1.03 RSM			29024		
Latent cooling			7479		
TOTALS	2270	33497	36503	1200	1200

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:



Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Mph. 95 Wind. EXP. C
Fire Rating of Ext. Walls: 0 Hr.
Plan No.: MFT-10886-5091-82-4-32-4
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

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



Right-Suite® Universal 2023 23.0.05 RSU02009

2024-Aug-19 12:47:35

Page 2

...nklin\17000\MFT-10886-17982-5091-82-4-32UFL.rup Calc = MJ8 Front Door faces: N

Project Information

For: FRANKLIN STRUCTURES, MFT-10886-17982-5091-82-4-32UFL

Design Conditions

Location:

Gainesville, FL, US
 Elevation: 123 ft
 Latitude: 30°N

Outdoor:

Dry bulb (°F)
 Daily range (°F)
 Wet bulb (°F)
 Wind speed (mph)

Heating

23
 -
 -
 15.0

Cooling

98
 18 (M)
 79
 7.5

Indoor:

Indoor temperature (°F)
 Design TD (°F)
 Relative humidity (%)
 Moisture difference (gr/lb)

Heating

70
 47
 30
 18.7

Cooling

75
 23
 50
 56.0

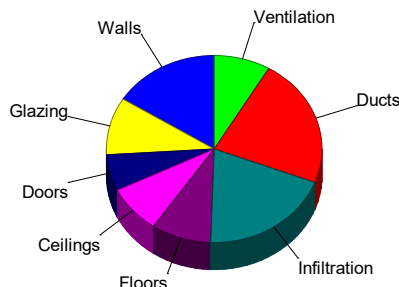
Infiltration:

Method
 Construction quality
 Fireplaces

Simplified
 Average
 1 (Average)

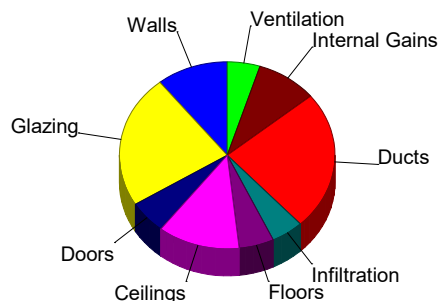
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.2	5369	16.0
Glazing	15.9	3329	9.9
Doors	16.3	2104	6.3
Ceilings	1.2	2756	8.2
Floors	1.3	3025	9.0
Infiltration	3.2	6595	19.7
Ducts		7478	22.3
Piping		0	0
Humidification		0	0
Ventilation		2839	8.5
Adjustments		0	
Total		33497	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.8	3030	10.7
Glazing	31.0	6498	23.0
Doors	12.4	1597	5.7
Ceilings	1.5	3479	12.3
Floors	0.7	1483	5.3
Infiltration	0.7	1366	4.8
Ducts		6781	24.0
Ventilation		1392	4.9
Internal gains		2580	9.1
Blower		0	0
Adjustments		0	
Total		28206	100.0



Latent Cooling Load = 7479 Btuh

Overall U-value = 0.056 Btuh/ft²-°F, Window / Floor Area = 9.2 %

Data entries checked.

These prints comply with the
 Florida Manufactured Building
 Act and adopted Codes and
 adhere to the following criteria:

APPROVED BY


Const. Type: VB - unprotected
 Occupancy: Single Family Dwelling
 Allowable No. of Floors: 1
 Wind Velocity: 120 Vult. 95 Vult. EXP. C
 Fire Rating of Ext. Walls: 0 Hr.
 Plan No.: MFT-10886-5091-82-4-32-4
 Allow. Floor Load: 40 PSF
 Approval Date: 9/27/2024
 Manufacturer: FRANKLIN STRUCTURES

Project Information

For: FRANKLIN STRUCTURES, MFT-10886-17982-5091-82-4-32UFL

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 123 ft		Design TD (°F)		47	23
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		18.7	56.0
Outdoor:	Heating	Cooling	Infiltration:		
Dry bulb (°F)	23	98	Method	Simplified	
Daily range (°F)	-	18 (M)	Construction quality	Average	
Wet bulb (°F)	-	79	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12E-0sw: Frm wall, vnl ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	294	0.068	19.0	3.18	934	1.79	527
	e	571	0.068	19.0	3.18	1814	1.79	1023
	s	294	0.068	19.0	3.18	934	1.79	527
	w	532	0.068	19.0	3.18	1689	1.79	953
	all	1691	0.068	19.0	3.18	5369	1.79	3030

Partitions

(none)

Windows

2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	e	66	0.340	0	15.9	1043	27.9	1835
	w	144	0.340	0	15.9	2286	27.9	4023
	all	210	0.340	0	15.9	3329	27.9	5858

Doors

Door, wd sc type	n	21	0.330	0	15.4	324	11.7	246
	e	21	0.340	0	15.9	333	12.1	253
	e	42	0.430	0	20.1	843	15.2	640
	s	21	0.330	0	15.4	324	11.7	246
	w	24	0.250	0	11.7	280	8.86	213
	all	129	0.250	0	16.3	2104	12.4	1597

Ceilings

16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		2270	0.026	38.0	1.21	2756	1.53	3479
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Floors

19A-30cscp: Flr floor, frm flr, 8" thkns, carpet flr fnsh, r-30 cav ins, tight crwl ovr		2270	0.034	30.0	1.33	3025	0.65	1483
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These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY


Const. Type: VB - unprotected
 Occupancy: Single Family Dwelling
 Allowable No. of Floors: 1
 Wind Velocity: 120 Mph, 95 Yr. Exp. C
 Fire Rating of Ext. Walls: 0 Hr.
 Plan No.: MFT-10886-5091-82-4-32-4
 Allow. Floor Load: 40 PSF
 Approval Date: 9/27/2024
 Manufacturer: FRANKLIN STRUCTURES

Project Information

For: FRANKLIN STRUCTURES, MFT-10886-17982-5091-82-4-32UFL

Notes: HVAC DUCT MATERIAL USED IN CALC IS R8 MINIMUM

Design Information

Weather: Gainesville, FL, US

Winter Design Conditions

Outside db 23 °F
Inside db 70 °F
Design TD 47 °F

Summer Design Conditions

Outside db 98 °F
Inside db 75 °F
Design TD 23 °F
Daily range M
Relative humidity 50 %
Moisture difference 56 gr/lb

Heating Summary

Structure 23179 Btuh
Ducts (R-8.0) 7478 Btuh
Central vent (56 cfm) 2839 Btuh
Outside air
Humidification 0 Btuh
Piping 0 Btuh
Equipment load 33497 Btuh

Sensible Cooling Equipment Load Sizing

Structure 20034 Btuh
Ducts (R-8.0) 6781 Btuh
Central vent (56 cfm) 1392 Btuh
Outside air
Blower 0 Btuh
Use manufacturer's data n
Rate/swing multiplier 1.03
Equipment sensible load 29024 Btuh

Infiltration

Method Simplified
Construction quality Average
Fireplaces 1 (Average)

Latent Cooling Equipment Load Sizing

Structure 3267 Btuh
Ducts 2106 Btuh
Central vent (56 cfm) 2106 Btuh
Outside air
Equipment latent load 7479 Btuh

	Heating	Cooling
Area (ft²)	2270	2270
Volume (ft³)	20430	20430
Air changes/hour	0.38	0.16
Equiv. AVF (cfm)	129	54

Equipment Total Load (Sen+Lat) 36503 Btuh
Req. total capacity at 0.70 SHR 3.5 ton

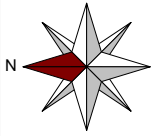
Heating Equipment Summary

Make Generic
Trade
Model AFUE 100
AHRI ref
Efficiency 100 AFUE
Heating input 9.8 kW
Heating output 33497 Btuh
Temperature rise 25 °F
Actual air flow 1200 cfm
Air flow factor 0.039 cfm/Btuh
Static pressure 0.30 in H2O
Space thermostat

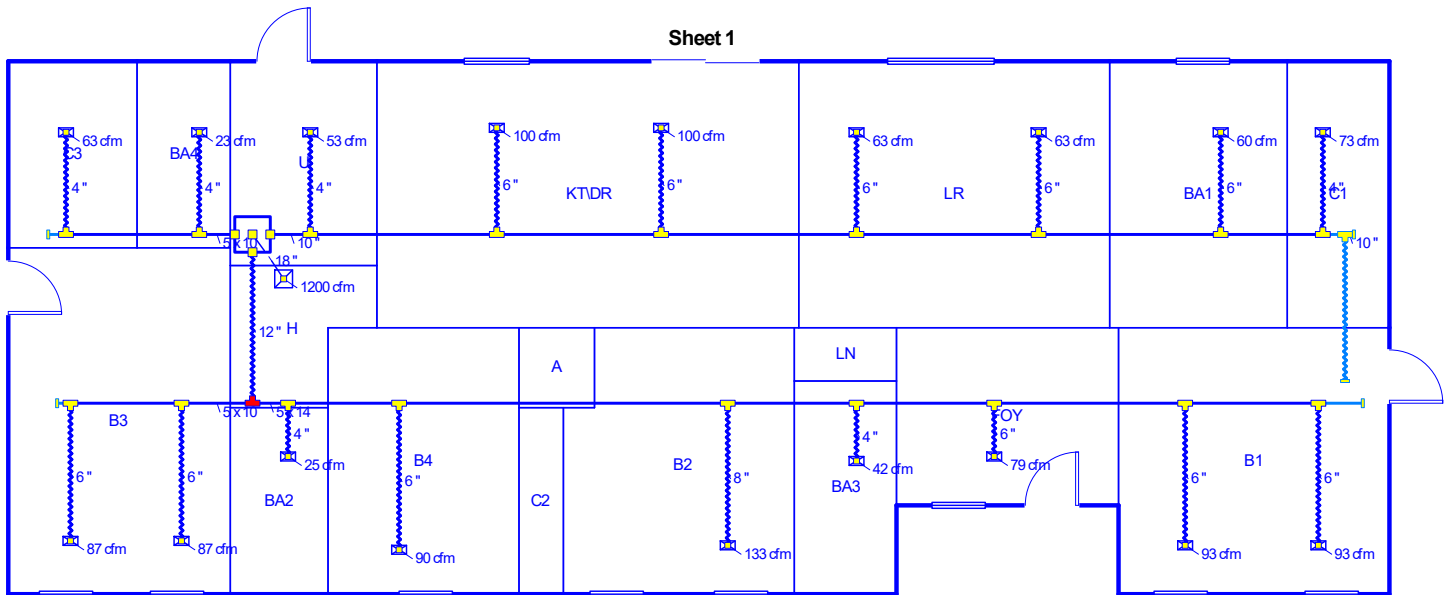
Cooling Equipment Summary

Make Generic
Trade
Cond SEER2 14.3
Coil
AHRI ref
Efficiency 12.2 EER2, 14.3 SEER2
Sensible cooling 29025 Btuh
Latent cooling 12439 Btuh
Total cooling 41464 Btuh
Actual air flow 1200 cfm
Air flow factor 0.045 cfm/Btuh
Static pressure 0.30 in H2O
Load sensible heat ratio 0.79

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



Sheet 1



These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:

APPROVED BY
NIA INC.

Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Mph, 95 Vasd, EXP. C
Fire Rating of
Ext. Walls: 0 Hr
Plan No.: MFT-10886-5091-82-4-32UFL
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

Job #: MFT-10886-17982-5091-82-4-32UFL
Performed by AMS of Indiana, Inc. for:
FRANKLIN STRUCTURES

Scale: 1 : 130

Page 1
Right-Suite® Universal 2023
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...-10886-17982-5091-82-4-32UFL.rup

Project Information

For: FRANKLIN STRUCTURES, MFT-10886-17982-5091-82-4-32UFL

	Heating	Cooling
External static pressure	0.30 in H ₂ O	0.30 in H ₂ O
Pressure losses	0 in H ₂ O	0 in H ₂ O
Available static pressure	0.30 in H ₂ O	0.30 in H ₂ O
Supply / return available pressure	0.247 / 0.053 in H ₂ O	0.247 / 0.053 in H ₂ O
Lowest friction rate	0.084 in/100ft	0.084 in/100ft
Actual air flow	1200 cfm	1200 cfm
Total effective length (TEL)	357 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 2087	86	93	0.084	6.0	0x0	VIFx	69.0	225.0	st7
B1-A	c 2087	86	93	0.085	6.0	0x0	VIFx	76.5	215.0	st7
B2	c 2979	94	133	0.084	8.0	0x0	VIFx	43.3	250.0	st7
B3	c 1935	83	87	0.102	6.0	0x0	VIFx	26.5	215.0	st6
B3-A	c 1935	83	87	0.101	6.0	0x0	VIFx	20.3	225.0	st6
B4	c 2012	73	90	0.087	6.0	0x0	VIFx	25.0	260.0	st7
BA1	h 1522	60	55	0.118	6.0	0x0	VIFx	59.3	150.0	st1
BA2	h 646	25	15	0.090	4.0	0x0	VIFx	13.5	260.0	st7
BA3	h 1074	42	23	0.085	4.0	0x0	VIFx	45.8	245.0	st7
BA4	h 587	23	13	0.167	4.0	0x0	VIFx	7.8	140.0	st3
C1	h 1878	73	37	0.120	4.0	0x0	VIFx	65.0	140.0	st1
C3	h 1614	63	32	0.170	4.0	0x0	VIFx	15.3	130.0	st3
FOY	c 1772	77	79	0.086	6.0	0x0	VIFx	53.3	235.0	st7
KTDR	c 2228	83	100	0.127	6.0	0x0	VIFx	18.8	175.0	st1
KTDR-A	c 2228	83	100	0.122	6.0	0x0	VIFx	28.0	175.0	st1
LR	c 1412	56	63	0.121	6.0	0x0	VIFx	38.8	165.0	st1
LR-A	c 1412	56	63	0.118	6.0	0x0	VIFx	49.0	160.0	st1
U	h 1349	53	36	0.135	4.0	0x0	VIFx	8.0	175.0	st1

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY
NIA INC.

Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Vult. 95 Vult. EXP. C
Fire Rating of Ext. Walls: 0 Hr.
Plan No.: MFT-10886-5091-82-4-32-4
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

Bold/italic values have been manually overridden

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st6	Peak AVF	167	173	0.101	499	7.1	10 x 5	ShtMetl	st2
st3	Peak AVF	86	45	0.167	248	5.0	10 x 5	ShtMetl	
st1	Peak AVF	463	454	0.118	849	10.0	0 x 0	ShtMetl	
st7	Peak AVF	484	527	0.084	1085	10.8	14 x 5	ShtMetl	st2
st2	Peak AVF	650	700	0.084	892	12.0	0 x 0	VinlFlx	

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
rb1	0x 0	1200	1200	63.1	0.084	679	18.0	0x 0		ShMt	

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY
NIA INC.

Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Mph, 95 Vasd, EXP. C
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MFT-10886-5091-82-4-32-d
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

Bold/italic values have been manually overridden



wrightsoft®
A Milltek® / Berkshire Hathaway Company

Right-Suite® Universal 2023 23.0.05 RSU02009

...nklin17000MFT-10886-17982-5091-82-4-32UFL.rup Calc = MJ8 Front Door faces: N

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Page 2



PRODUCT APPROVAL SPECIFICATION SHEET

Manufacturer: Franklin Structures, LLC. **Plan #:** MFT10866-4388-84-4-47

UPDATED 2/7/2024 RKG CC/QAM

As required by Florida Statute 553.842 and Florida Administrative Code 61G20-3.006 please provide the information and the product approval number(s) on the building components listed below if they will be utilized on the manufactured building for which you are applying for a DBPR insignia. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. More information about statewide product approval can be obtained at www.floridabuilding.org.

Category	Manufacturer	Product Description	Approval #(s)
EXTERIOR DOORS			
Swinging	Dunbarton	Achiever Steel Frame	15362-R4
Swinging	Dunbarton	Atrium Frame	15362.1-R4
9231.1, 15362.1, 15362.3,15362.9, 15362.12,			
Sliding	Lippert	Sliding Glass Door	31609-R4
WINDOWS			
Single Hung	Kinro	Windows	993 R-19
ROOFING PRODUCTS			
Metal roof	Roof Mart LLC	26 GA PBR ROOF PANEL	12718-R4
Underlayments	Epilay	ROOFING UNERLAYMENT	16850-R8
Asphalt Shingles	Owens Corning	Oakridge	10674-R19
PANEL WALL			
Siding	Hardie Lap		13192-R8
Siding	Hardie Panel		13223-R8
Siding	Royal Vinyl		15935-R7
Soffits	LP Smart Soffit		9103-R8
Soffits	Hardie Soffit		13265-R7
STRUCTURAL COMPONENTS			
Wood Connector / Anchor	Simpson	HDU11-SDS2.5	10441-R9
Wood Connector / Anchor	Simpson	H2.5T	10446.16
Wood Connector / Anchor	Simpson	HD3B	11496-R7
Wood Connector / Anchor	Simpson	HDQ8	10441-R9
Wood Connector / Anchor	Simpson	CMSTC16	13872-R5
Wood Connector / Anchor	Simpson	LSTA18	10456.15-R8
Wood Connector / Anchor	Simpson	STHD14	10441.12-R9
Truss Plates	MiTek	MT18 & MT20	2197-R11
Engineered Lumber	Trusjoist	LVL	
Engineered Lumber	Versa-lam	LVL	1644-R11

The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following information must be available to the inspector at the manufacturing plant: (1) Copy of the product approval from the Local or State Building Commission, or supply all of the information listed on Form No. 9B-72.130(5). (2) Copy of the applicable manufacturers' installation requirements.

I understand these products may have to be removed if approval cannot be demonstrated during inspection.

Melissa Wood

Manufacturer's Authorized Agent Signature

Melissa Wood

Printed Name

6/6/2024

Date



Lumber design values are in accordance with ANSI/TPI 1 section 6.3
These truss designs rely on lumber values established by others.

RE: MH7281R58 -

MiTek, Inc.

16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200

Site Information:

Customer Info: . Project Name: . Model: .
Lot/Block: . Subdivision: .
Address: ., .
City: . State: .

Name Address and License # of Structural Engineer of Record, If there is one, for the building.

Name: . License #: .
Address: .
City: . State: .

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: FBC2023/TPI2014 Design Program: MiTek 20/20 8.7
Wind Code: N/A Wind Speed: 140 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 2 individual, Truss Design Drawings and 0 Additional Drawings.
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date
1	I62648625	A1	12/19/23
2	I62648626	A1P	12/19/23

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:



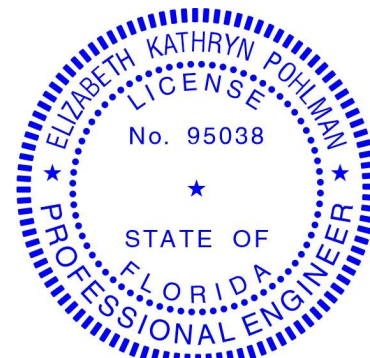
Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Mph, 95 Wind, EXP. C
Fire Rating of Ext. Walls: 0 Hr.
Plan No: MFT-10836-5091-S2-4-32-4
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

This item has been electronically signed and sealed by Pohlman, Elizabeth, PE using a Digital Signature.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision based on the parameters
provided by Franklin Structures, LLC..

Truss Design Engineer's Name: Pohlman, Elizabeth
My license renewal date for the state of Florida is February 28, 2025.

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.



Elizabeth Kathryn Pohlman PE No. 95038
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road
Chesterfield, MO 63017
Date:

December 19, 2023

Pohlman, Elizabeth

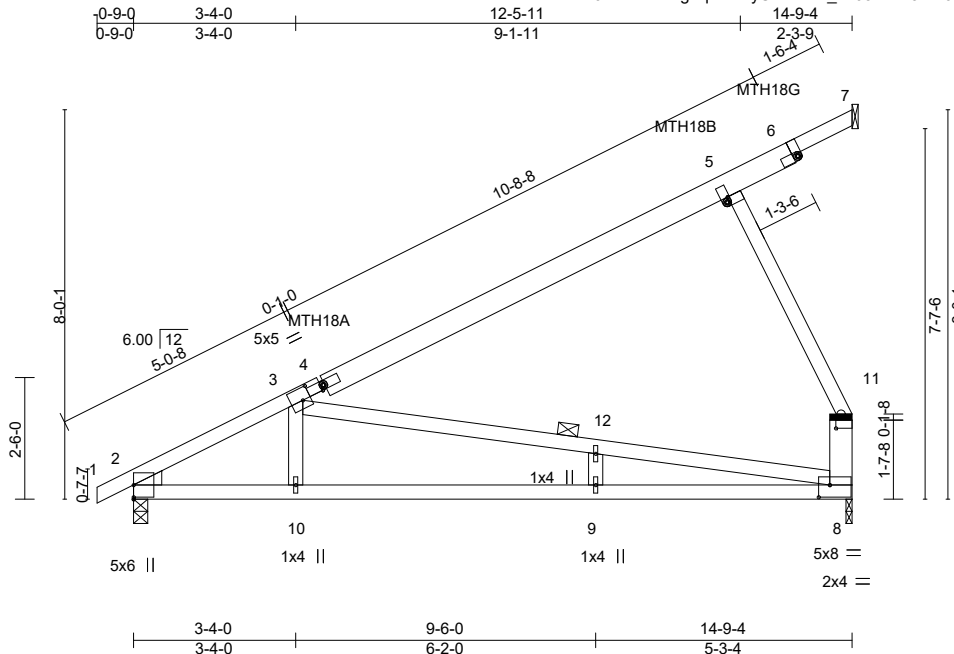
1 of 1

Job	Truss	Truss Type	Qty	Ply	
MH7281R58	A1	HINGED MONO	1	1	162648625

Franklin Structures, LLC.,

Russellville, AL - 35653,

8.730 s Nov 16 2023 MiTek Industries, Inc. Tue Dec 19 13:31:53 2023 Page 1
ID:BRaPv9Nif1RAr?agFqcHTAyUDZv-Ez_uaJ5WLD3t?PJUTpDKWF4PIlh3om1OJNEvTLy7O9K



Scale = 1:47.4

Plate Offsets (X,Y)-- [3:0-2-0,0-3-0], [4:0-0-11,0-1-2], [5:0-0-11,0-1-2], [6:0-2-7,15-4-6], [8:0-2-12,0-3-0], [8:0-1-8,1-2-0]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) I/defl L/d			PLATES GRIP		
TCLL	20.0	Plate Grip DOL 1.25		TC	0.50	Vert(LL)	-0.31	9	>557	240	MT20 197/144
TCDL	10.0	Lumber DOL 1.25		BC	0.70	Vert(CT)	-0.58	9-10	>299	180	MT18HS 197/144
BCLL	0.0 *	Rep Stress Incr YES		WB	0.76	Horz(CT)	0.02	8	n/a	n/a	
BCDL	10.0	Code FBC2023/TPI2014		Matrix-MS							Weight: 68 lb FT = 0%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-6: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF Stud *Except*
8-11: 2x6 SPF No.2, 3-8: 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

REACTIONS.

(size) 2=0-3-8, 8=0-1-8, 7=Mechanical
Max Horz 2=383(LC 10), 7=77(LC 10)
Max Uplift 2=-211(LC 10), 8=-349(LC 10)
Max Grav 2=667(LC 1), 8=552(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1080/207, 3-4=-336/0, 4-5=-343/40, 8-11=-299/317
BOT CHORD 2-10=-518/874, 9-10=-509/878, 8-9=-509/878
WEBS 3-10=0/333, 3-12=-742/365, 8-12=-749/358, 5-11=-332/352

REQUIRED FIELD JOINT CONNECTIONS

- Maximum Compression (lb)/ Maximum Tension (lb)/ Maximum Shear (lb)/ Maximum Moment (lb-in)
11=332/352/152/0

NOTES-

- Wind: ASCE 7-22; Vult=140mph (3-second gust) Vasd=108mph; TCDL=6.0psf; BCDL=6.0psf; h=24ft; Cat. II; Exp C; Encl., GCpi=0.18; 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
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are MT20 plates unless otherwise indicated.
- See HINGE PLATE DETAILS for plate placement.
- Provisions must be made to prevent lateral movement of hinged member(s) during transportation.
- All additional member connections shall be provided by others for forces as indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 8.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 211 lb uplift at joint 2 and 349 lb uplift at joint 8.

BRACING-

TOP CHORD Sheathed or 5-2-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-11-6 oc bracing.
WEBS 1 Row at midpt 3-8

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY
NIA INC.

Const. Type: VB - unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 120 Mph 95 Vasd, EXP C
Free Rating of Ext. Walls: 0 Hr
Plan No.: MFT-10886-5091-S2-4-32-4
Allow. Floor Load: 40 PSF
Approval Date: 9/27/2024
Manufacturer: FRANKLIN STRUCTURES

This item has been electronically signed and sealed by Pohlman, Elizabeth, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Elizabeth Kathryn Pohlman PE No. 95038
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road
Chesterfield, MO 63017
Date:

December 19, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcsccomponents.com)

MiTek®

16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	1	62648626
MH7281R58	A1P	HINGED MONO	1			

Franklin Structures, LLC.,
Russelville, AL - 35653,

8.730 s Nov 16 2023 MiTek Industries, Inc.
Tue Dec 19 13:32:04 2023
Page 1
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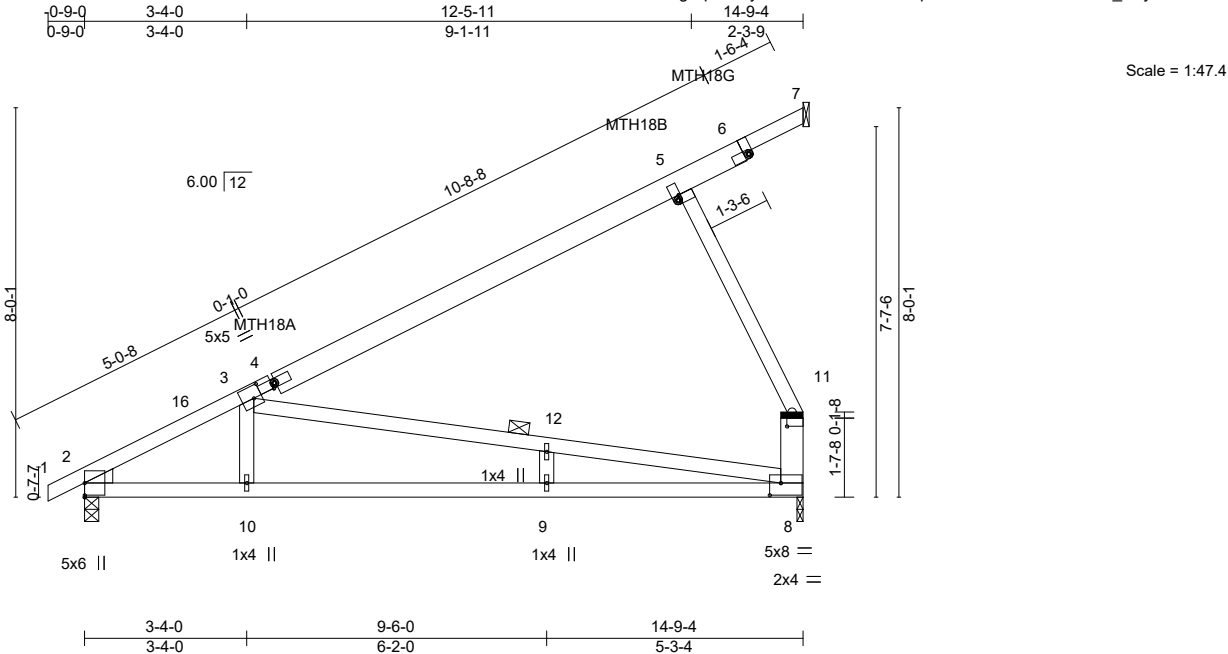


Plate Offsets (X,Y)--		[3:0-2-0,0-3-0], [4:0-0-11,0-1-2], [5:0-0-11,0-1-2], [6:0-2-7,15-4-6], [8:0-2-12,0-3-0], [8:0-1-8,1-2-0]	
LOADING (psf)	SPACING-	2-0-0	CSL
TCLL 20.0	Plate Grip DOL	1.25	TC 0.50
TCDL 10.0	Lumber DOL	1.25	BC 0.70
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.76
BCDL 10.0	Code	FBC2023/TPI2014	Matrix-MS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.45 9 >392 240
			Vert(CT) -0.58 9-10 >299 180
			Horz(CT) -0.02 8 n/a n/a
			PLATES GRIP
			MT20 197/144
			MT18HS 197/144
			Weight: 68 lb FT = 0%

LUMBER-	BRACING-
TOP CHORD	TOP CHORD
2x4 SPF No.2 *Except*	Sheathed or 5-4-4 oc purlins, except end verticals.
4-6: 2x6 SPF No.2	BOT CHORD
BOT CHORD	Rigid ceiling directly applied or 5-2-14 oc bracing.
2x4 SPF No.2	WEBS
WEBS	1 Row at midpt 3-8
2x4 SPF Stud *Except*	
8-11: 2x6 SPF No.2, 3-8: 2x4 SPF No.2	
WEDGE	
Left: 2x4 SPF No.2	

REACTIONS.	(size) 2=0-3-8, 8=0-1-8, 7=Mechanical	These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:	Const. Type: VB - unprotected
Max Horz	2=383(LC 10), 7=77(LC 10)	Occupancy: Single Family Dwelling	Allowable No. of Floors: 1
Max Uplift	2=-260(LC 7), 8=-356(LC 7)	Wind Velocity: 120 Vult. 95 Vast. EXP. C	Fire Rating of Ext. Walls: 0 Hr
Max Grav	2=667(LC 1), 8=552(LC 1)	Plan No.: MTF-10886-5091-S2-4-32-4	Allow. Floor Load: 40 PSF
		Approval Date: 9/27/2024	Manufacturer: FRANKLIN STRUCTURES
		APPROVED BY	
		MTA INC.	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-16=-1080/848, 3-16=-1016/861, 3-4=-336/0, 4-5=-343/40, 8-11=-299/317
BOT CHORD	2-10=-1081/874, 9-10=-1090/878, 8-9=-1090/878
WEBS	3-10=-192/333, 3-12=-742/952, 8-12=-749/963, 5-11=-332/352

REQUIRED FIELD JOINT CONNECTIONS	- Maximum Compression (lb)/ Maximum Tension (lb)/ Maximum Shear (lb)/ Maximum Moment (lb-in)
11=332/352/152/0	

NOTES-	
1) Wind: ASCE 7-22; Vult=140mph (3-second gust) Vasd=108mph; TCDL=6.0psf; BCDL=6.0psf; h=24ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C 14-6-8 to 14-6-8 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60	
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.	
3) All plates are MT20 plates unless otherwise indicated.	
4) See HINGE PLATE DETAILS for plate placement.	
5) Provisions must be made to prevent lateral movement of hinged member(s) during transportation.	
6) All additional member connections shall be provided by others for forces as indicated.	
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.	
9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 8.	
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 260 lb uplift at joint 2 and 356 lb uplift at joint 8.	

This item has been electronically signed and sealed by Pohlman, Elizabeth, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Elizabeth Kathryn Pohlman PE No. 95038
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road
Chesterfield, MO 63017
Date:

December 19,2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

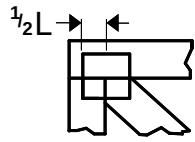
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

MiTek®

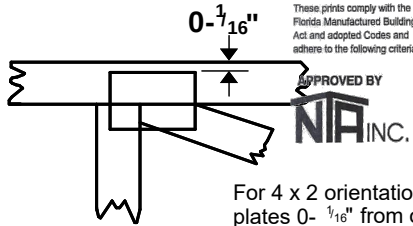
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.



This symbol indicates the required direction of slots in connector plates.

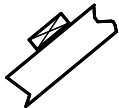
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

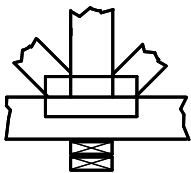
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

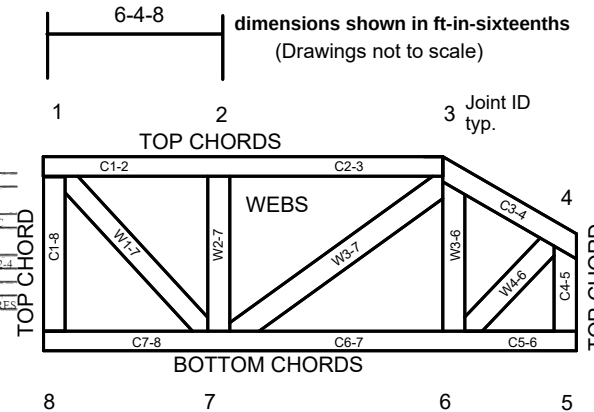


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.