



305 N. OAKLAND AVE. ● P.O. BOX 490 ● NAPPANEE, IN 46550 ● P: 574.773.7975 ● F: 574.773.2732 ● ICC-NTA.ORG

March 5, 2020

Mr. Mike Hamm, P.E. NC Dept. of Insurance Manufactured Building Division 322 Chapanoke Rd. / Suite 200 Raleigh, NC 27603

Re: R-Anell Housing Group

Model Submital 2R2007-R2 for NC

Dear Mr. Hamm:

Attached please find one (1) copy of each of the above-mentioned projects for your review. This project have been reviewed by NTA and found to be in compliance with the North Carolina State requirements.

Should you have any questions or comments, please contact me at your earliest convenience.

Sincerely,

David J. Barts

David J. Barts Account Manager ICC-NTA LLC



A MEMBER OF THE ICC FAMILY OF SOLUTIONS

Adopted Codes: State of North Carolina

2018 North Carolina Residential Code 2017 North Carolina Electrical Code 2018 North Carolina Energy Code 2018 North Carolina Mechanical Code 2018 North Carolina Plumbing Code .

Project Location:

3300 Jefferson Davis Hwy. Sanford, NC 27330 Lee County

Occupancy:

Occupancy:IRC - Single Family Dwelling
Construction Type:5B (Wood Frame - Unprotected)

Number of Stories:One Story Cape

Design Load:

Insulation

Reference RESCheck for Requirements.

Attention Local Inspection Departments:

- 1. Set-up instructions for this modular unit are included by attachment to these plans. Any plans set that does not include an attachment entitled "MODULAR HOME INSTALLATION MANUAL" is incomplete.
- 2. The following items are not completed by the home manufacturer, are not inspected by in-factory third party inspectors, and are not certified by the modular compliance label: (A) Components or connections for heating or air conditioning systems which are NOT part of the factory installation. (B) Below floor ducts. (C) Electrical service disconnect. (D) Foundation designs and attachments. In order to verify that all required systems connections are complete, refer to the "Inspection Check Sheet" in the manufacturer's modular home installation manual. Regardless of factory or site installation, the furnace, water heater, and all elements of heating system must be per applicable codes, (refer to ResCheck if applicable).
- 3. Site installed furnace must meet IECC Energy Efficiency Certificate if applicable.
- 4. This unit must be connected to a public water supply and sewer system if these are available.
- 5. If this structure is in a thermal zone more stringent than that listed on these plans, is set on pilings, or is installed at a mountain region or coastal high hazard site such that wind or other design parameters are increased, the design must be determined to be adequate for actual site conditions. Alterations may be required to bring the home into compliance with the more stringent conditions.
- 6. Soffit materials for this unit assume that the building face will be 10 feet or greater from the property line when installed on site. Where the building face is less than 10 feet from the property line, underlayment materials and ventilation in accordance with **Section R302.1.1, NC Residential Code**, must be provided and installed at the site and inspected by the local jurisdiction.
- 7. If after installation of this home, the lowest part of the clear opening of any window is more than 72" above the finished grade, guards will be required to be installed onsite in accordance with **Section R312**; subject to local inspection.
- 8. Partial plumbing installation (stubbed in) requires full DWV testing in field. Testing of factory portion of DWV is not required unless partial testing is mandated by code.
- 9. Smoke detectors required by code that are not shown on the plan will be site installed by others and are subject to inspection by the authority having jurisdiction.

Model: 2R2007-R2

Customer: STOCK Builder: HBV

Manufacturer:

R-Anell Housing Group, LLC

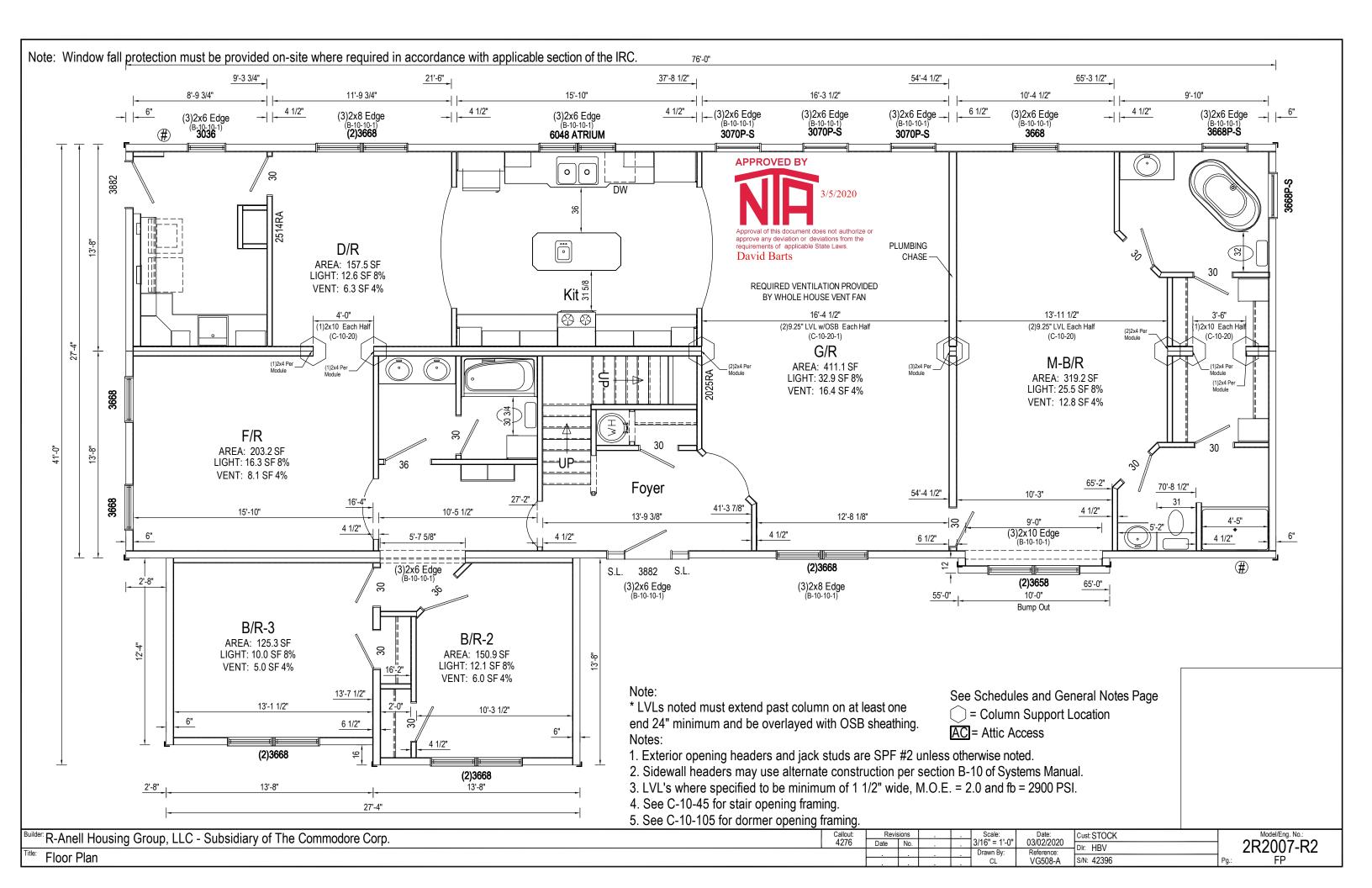
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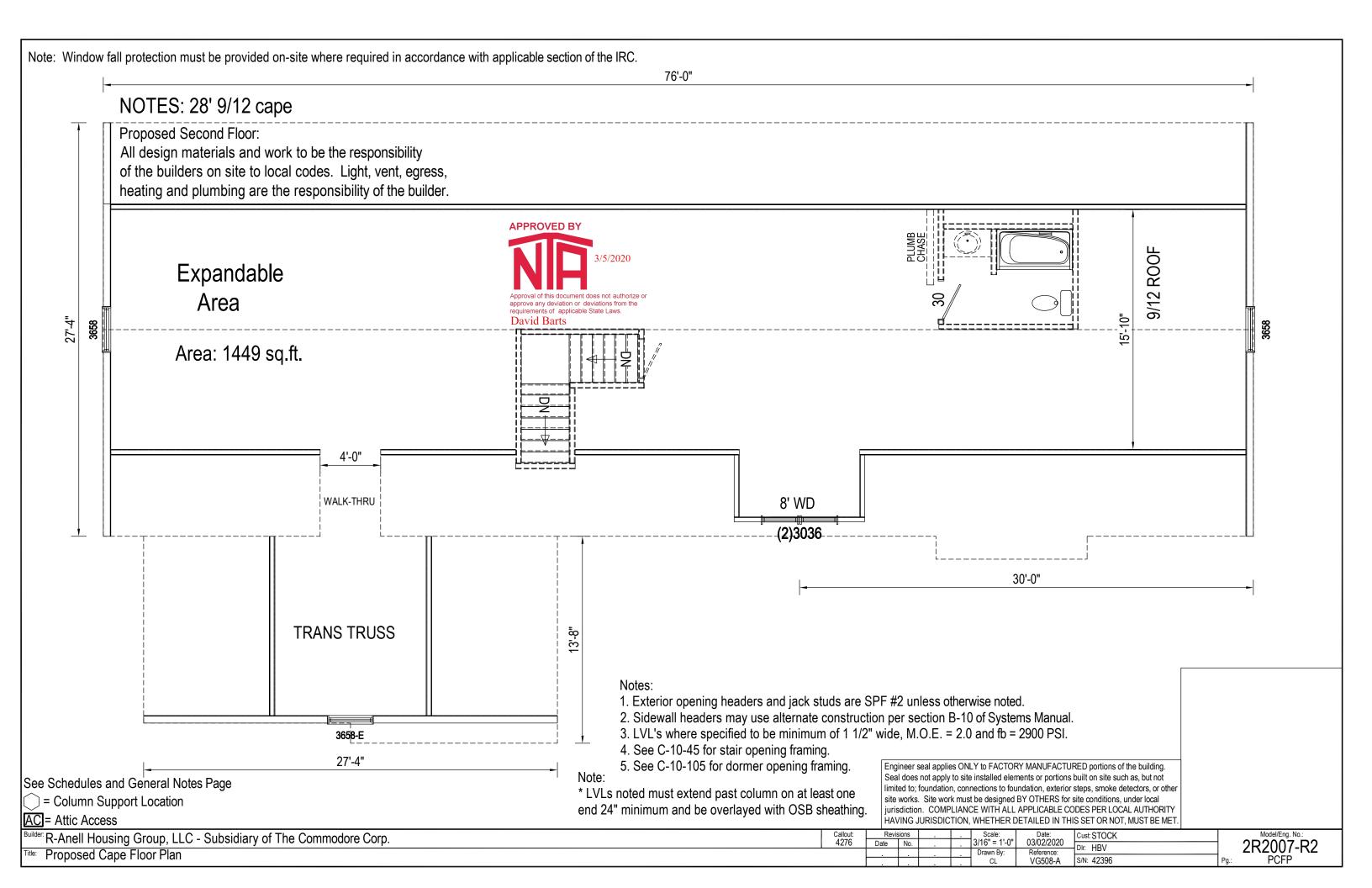
235 Anthony Grove Rd. Crouse, NC 28033

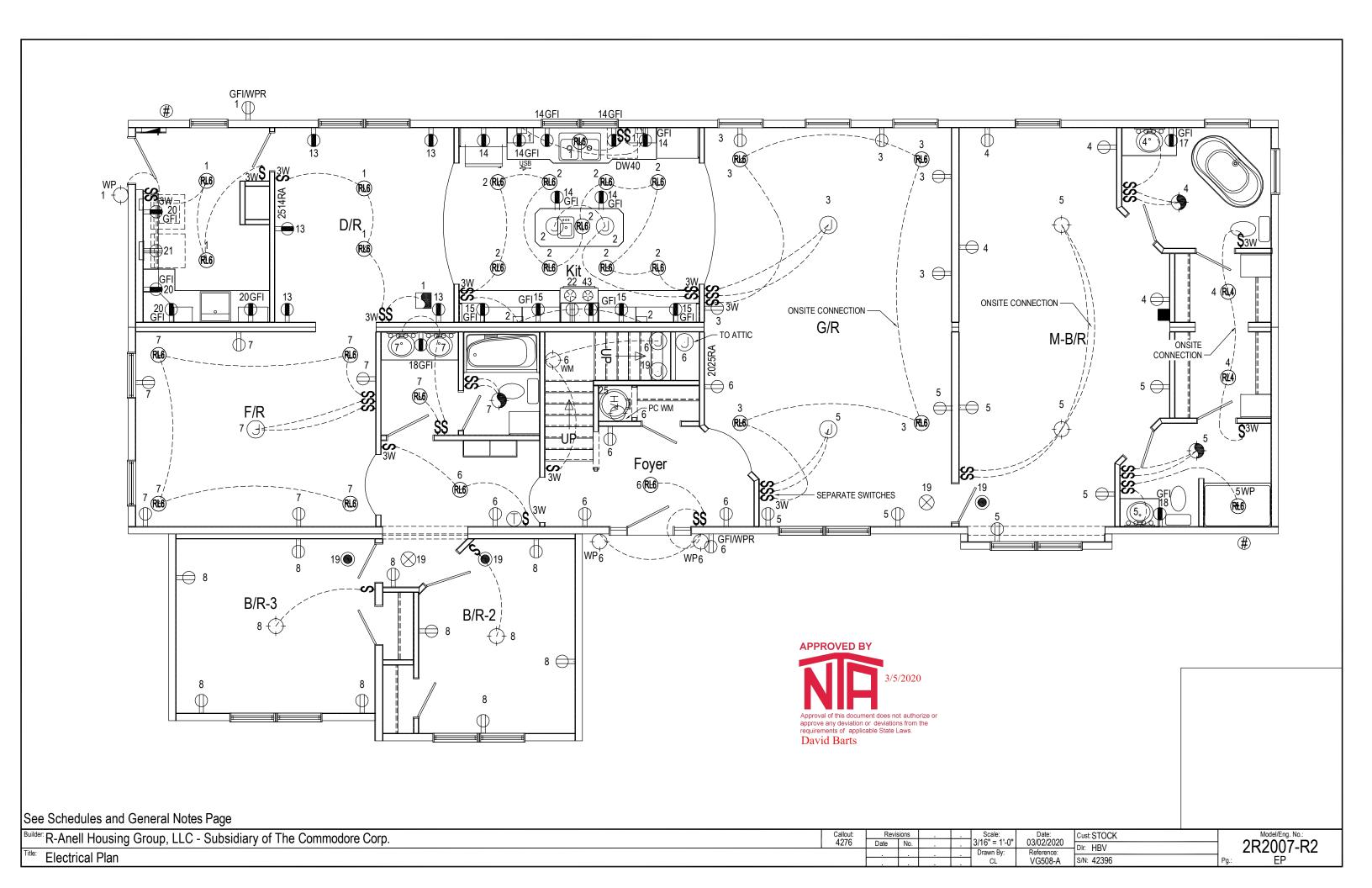


Drawing Index						
Title	Page					
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Proposed Cape Floor Plan	PCFP					
Electrical Plan	EP					
Schedules and General Notes	NG					
Elevations	EL					
Cross Section	XS					
Hot Water Lines	WH					
Cold Water Lines	WC					
DWV System	DL					
DWV Notes	DN					
Braced Walls-Prescriptive	BWP					
Foundation 2x10 Marriage Line without Stair	FD20#					
ResCheck	ATTACHED					
UFP Rigid Collar Tie Connection Details	UFP-EB05-02					
Truss Diagram	ATTACHED					









Optional Method Load Calculation for One-Family Dwe	llings		del # 07-R2	
1 General Lighting and Receptacle Loads 220.82(B)(1) Do not include open porches, garages, or unused or (ft² using outside dufinished spaces not adaptable for future use.	= imensions)	1	11676	=15 AM RECPT
2 Small-Appliance Branch Circuits 220.82(B)(2) At least two small-appliance branch circuits must be (minimum of included, 210.11(C)(1)	=	2	4500	RECPT
3 Laundry Branch Circuits(s) 220.82(B)(2) 1500 x 1 At least one laundry branch circuit must be included. (minimum of 210.11(C)(2)	= one)	3	1500	=UNDE
•	volt-amps of ISTED BLEOW	4	33100	S=SWITCH -STAN
connected to a specific circuit), (1) Electric Dryer 5.4 KVA (5) Vent Fans 1) Microwave 1) Dishwashe	1.5	KVA KVA KVA	VENTIL PHON JACK
and clothes dryers. Convert any (0) Electric Wal Oven (S) 0 KVA nameplate rating given in amperes (0) Electric Wal Oven (D) 0 KVA to volt-amperes by multiplying (3) Bath Circ's 4.5 KVA	i) Distiwastie		KVA KVA KVA	GFI =GROUND WP =WET LOC
the amperes by the rated voltage. 5 Apply 220.82(B) demand factor to the total of lines 1 through 4. 50776 - 10,000 = 40776 x 40% = 16310	+ 10,000 =	26	310	● =IONIZATI ⊗ =SMOKE
(total of lines 1-4) 6 Heating or Air-Conditioning System 220.82(C). Use the nameplate ratings in volt-amperes for all applicable systems in lines a through e. a) Air-conditioning and cooling systems, including heat omit the compressor.	equipment fo	or heat-pum 0%. <i>If the hed</i>	at-pump	
pumps without any supplemental electric heating: 0 x 65 %: 6000 x 100 % = a) 6000 d) Electric space-heating equipm)	
b) Electric thermal storage & other heating systems where the usual load is expected to be continuous at full nameplate value. Systems qualifying under this selection			000	
shall not be figured under any other selection in 220.82(C). seperately controlled units: 0 x 100 % = b) 0 0 x 40 %: 7 Total Volt-Ampere 13000 + 26310 =	e)	()	
Demand Load: (Largest VA rating, 6a - 6e) (Line 5) 8 Minimum Amperes Divide the total volt- 39310 ÷ 240 = 164 9	7 Minimum Size Service or		310 Installed	If an atta
amperes by voltage. (line 7) (voltage) (min. amperes) F 10 Size the Service or Feeder Conductors. Use 310.15(B)(6) to find the service conduct up to 400 amperes. Ratings in excess of 400 amperes shall comply w/ Table 310.16. 310.15(B)(6) also applies to feeder conductors serving as the main power feeder.	eeder 240.6(A) Minimum Size Conductors		opper PR minum	a self-cl Clothes applicat ventilati

LEGEND					
=15 AMP =20 AMP =20 AMP FLOOR RECPT D FLOOR RECPT	CIRCUIT ID NO.	LOAD	AMPS	POLES REQ'D	WIRE SIZE
WE IN THE PROPERTY OF THE PROP	1-12	General Lighting	15	1	NM14-2/WG
=SWITCHED # =220 VOLT RECPT WPR = WEATHERPROOF ENCLOSURE WITH WEATHE RESISTANT RECPT	13-16	Small Appliance	20	1	NM12-2/WG
	17-18	Bath (GFCI)	20	1	NM12-2/WG
-=STD LIGHT R=RECESSED LIGHT RA =RECESSED 4" RA =RECESSED 6" LED LIGHT LED LIGHT	19	Smoke Alarms	15	1	NM14-2/WG
FLOURESCENT 48" FLOURESCENT 24" STRIPLIGHT = PULL CHAIN LIGHT	20	Laundry	20	1	NM12-2/WG
E SOLL CHAIN LIGHT	21	Electric Dryer	30	2	NM10-3/WG
=UNDER CABINET LIGHT / WALL LIGHT = UNDER CABINET STEREO	22	Electric Range	50	2	NM6-3/WG
SWITCH S ^{DM} =DIMMER SWITCH S ^{3W} =3-WAY SWITCH S ^{3DM} =3-WAY DIMMER SWITCH	23	Electric Cooktop	40	2	NM8-3/WG
	24	Electric Wall Oven	20	2	NM12-2/WG
→ =STANDARD VENT ()=WIRE - =DOORBELL JIJ =CHIMES		Electric Wall Oven	40	2	NM8-2/WG
= WHOLE HOUSE STANDARD STANDARD FAN	25	Electric W/H	20	2	NM12-2/WG
=WHOLE HOUSE =STANDARD =STANDARD FAN WILIGHT	25.1	Electric W/H	20	1	NM12-2/WG
$\langle \rangle \langle \rangle$	44	Electric W/H	25	2	NM10-2/WG
=PHONE	26	Gas Furnace	15	1	NM14-2/WG
=GROUND FAULT CIRCUIT INTERRUPTER 🐎 =BULLET =PANEL BOX	27	Electric Furnace	60/30	4	NM4-2/WG
=WET LOCATION ⊕=SPEAKER =AV JACK □ =MEDIA RECEPT		Electric Furnace	60/60	4	NM4-2/WG
	28-37	Electric BB Heat	20	2	NM12-2/WG
=IONIZATION SMOKE ALARM	38	A/C	50	2	NM6-2/WG
=SMOKE/CO ALARM	39	Freezer	20	1	NM12-2/WG
-	40	Dishwasher	15	1	NM14-2/WG
	41	Disposal	15	1	NM14-2/WG
	42	Whirlpool Tub (GFCI)	20	1	NM12-2/WG
	43	Microwave Oven	20	1	NM12-2/WG
	44	Garage (GFCI)	20	1	NM12-2/WG
				F	ELECTRICAL PLAN

Doors Exterior										
Door Type	Size	Width	Height	RO SF		Light	Vent	Desig	gn Load	Air Infil
9 Lite	3476	2'-10"	6'-4"	17.94		-	-		50	0.27
6 Panel Fire Rated	3680	3'-1"	6'-9 1/8"	20.85		-	-		50	0.04
2 Lite	3882	3'-2"	6'-10"	21.64		0.51	20		50	0.27
Oval	3882	3'-2"	6'-10"	21.64		5.73	20		50	0.27
9 Lite	3882	3'-2"	6'-10"	21.64	4	1.378	20		50	0.27
Sunburst	3882	3'-2"	6'-10"	21.64	().893	20		50	0.27
15 Lite	3882	3'-2"	6'-10"	21.64	7	7.073	20		50	0.27
Slider	7280	6'-0"	6'-8"	40.00	3	32.13	16.2		50	0.13
Exterior Door	3482	2'-10"	6'-10"	20.00		-	-		50	0.27
Atrium	7582	6'-3"	6'-8"	42.70	1	14.69	19.45		50	0.11
Atrium	7276	6'-3 1/2"	6'-4 1/4"	39.98		18.5	17.72		50	0.30
French	7282	6'-3 5/8"	6'-10 1/4"	43.15		18.4	38.4		18	0.10
Side Light	1782	1'-4 1/2"	6'-10"	10.25		1.85	-		50	0.10
Half Lite	3882	3'-2"	6'-10 1/4"	21.70		9.25	19.13		0	0.00
Atrium	7280	6'-3 1/8"	6'-10"	42.78		18.4	19.2		35	0.04
1-Lite	3882	3'-2"	6'-10 1/4"	21.70		5.45	19.125		50	0.27
1617 KD Patio	9868	9'-7 3/4"	6'-8"	64.31	4	16.83	22.74		35	0.90
6 Panel	3882	3'-2"	6'-10 1/2"	21.73		-	-		50	0.27
STAIRWAYS						Door	s Inter	ior		
<u> </u>						Door T	vpe	Size	Width	Height
RISER HEIGHT - 8 1/4" MAX.										
TREAD DEF	TREAD DEPTH - 9" MIN.					Int. Pa		24	2'-2 1/8"	6'-11"
···· · · · · · · · · · · · · · ·					- 1	lint Pa	ans 22	28	2'-6 1/8"	6'-11"

HEAD ROOM 80" MIN.

NOTE: THE STAIRWELL GEOMETRY IN THIS HOME HAS BEEN DESIGNED TO THE CRITERIA ABOVE. IF IRC STAIR GEOMETRY IS REQUIRED OR DESIRED, PLEASE CONTACT THE PLANT OF

MANUFACTURE FOR PLAN ADJUSTMENTS.

Int. Passage 30 2'-8 1/8" 6'-11" Int. Passage 32 2'-10 1/8" 6'-11" nt. Passage 36 3'-2 1/8" 6'-11" Int. Passage 48 4'-1" 6'-11"

ELECTRICAL PLAN NOTES BASED ON NEC 2017:

- ALL KITCHEN AND BATHROOM COUNTER RECEPTS TO BE GFCI PROTECTED.
- ALL CLOSET LIGHTS TO BE ENCLOSED SURFACE MOUNT FIXTURES, 12" MIN. FROM STORAGE SPACE.
- ALL RECEPTS TO BE GROUNDING TYPE, PER 210-7/NEC.
- SPECS, WIRING, INSTALLATIONS, ETC. TO COMPLY WITH NEC REGULATIONS.
- SERVICE PANEL MAY BE LOCATED IN GARAGE.
- ALTERNATE GAS APPLIANCES MAY BE USED.
- ALL SMOKE ALARMS TO HAVE BATTERY BACK-UP AND TO BE INTERCONNECTED WITH A 14 GA. MIN. INTERCONNECTION WIRE, 14-3 CABLE, OR EQUIVALENT PER MFG.S RECOMMENDATIONS.
- EXTERIOR LIGHT AT GARAGE SIDE MAY BE REPLACED.
- GAS APPLIANCES MAY BE SUBSTITUTED FOR ELECTRIC APPLIANCES WHERE APPLICABLE. WHEN GAS APPLIANCES ARE INSTALLED, ALL GAS PIPING, CONNECTIONS, HOOK-UPS, ETC, TO BE INSTALLED ON SITE BY OTHERS. THE OPTIONAL GARBAGE DISPOSAL CONNECTED TO INDEPENDENT RECEPTACLE AND WALL SWITCH.
- 200 AMP PANEL BOX INSTALLED
- ALL 120v GENERAL USE RECEPTS ARE TAMPER RESISTANT UNLESS MOUNTED AT LEAST 66" ABOVE FLOOR, OR ARE PART OF A LISTED LIGHT FIXTURE OR APPLIANCE, OR WHERE CORD & PLUG APPLIANCE IN DEDICATED SPACE IS NOT EASILY MOVED FOR
- ALL EXTERIOR RECEPTACLES ARE GEL TAMPER RESISTANT AND LISTED FOR WET LOCATIONS.
- COMBINATION TYPE AFCI BREAKERS ARE REQUIRED FOR ALL 120 V CIRCUITS EXCEPT THOSE SERVING BATHROOMS, GARAGE UNFINISHED BASEMENTS AND OUTDOORS
- ALL ELECTRICAL BOXES SUPPORTING LIGHTING FIXTURES MUST BE RATED @ 50# AND IDENTIFIED ON THE BOX. WHIRLPOOL RECEPTACLES MUST BE GFCI, TAMPER RESISTANT AND READILY ACCESSIBLE PER NEC 680.71
- A CIRCUIT BREAKER LOCKING DEVICE SHALL BE PROVIDED TO LOCK THE APPLICABLE BREAKERS IN THEIR "OFF" POSITION. THIS APPLIES TO CIRCUIT BREAKERS WHICH SERVE AS THE DISCONNECT FOR ELECTRIC WATER HEATERS, ELECTRIC BASEBOARD HEATERS, AND ANY APPLIANCE RATED OVER 300 WATTS OR 1/8 HORSEPOWER, WHICH ARE NOT LOCATED WITHIN CLEAR SIGHT OF THEIR DISCONNECT
- A RECEPTACLE OUTLET IS REQUIRED FOR PORCHES, BALCONIES OR DECKS WHICH ARE ACCESSIBLE FROM THE INSIDE OF THE DWELLING UNIT REGARDLESS OF THE SIZE OF THE PORCH, BALCONY OR DECK.
- NON-SWITCHED CIRCUIT NEUTRAL CONDUCTOR MUST BE PRESENT AT EACH WALL SWITCH. RE-IDENTIFIED CONDUCTORS WITH WHITE, GREY OR THREE STRIPE INSULATION MAY ONLY BE USED AS SUPPLY TO SWITCH AND NOT FOR HOT RETURN TO FIXTURE.
- 120v 15 OR 20 AMP RECEPTS LOCATED WITHIN 6' FROM ANY DWELLING UNIT SINK MUST BE GFCI PROTECTED.

Cust: STOCK

DIr: HBV

S/N: 42396

Date: 03/02/2020

VG508-A

20. IF THE PERIMETERS OF THE AREAS OF THE ON-SITE INSTALLED STOOPS, PORCHES OR DECKS ARE NOT UNDER THE EXTERIOR ELECTRICAL RECEPTACLES SHOWN IN THE ELECTRICAL FLOOR PLAN, THEN ADDITIONAL RECEPTACLES SHALL BE SITE INSTALLED WITHIN THESE AREAS BY THE CONTRACTOR

an attached garage is to be added to this home, the entrance door to the home from the garage must be self-closing fire rated door per applicable code.

othes dryer vents may need to be completed to the exterior of the home on site. Refer to sections of oplicable local codes and to Section 8 of the home installation manual for required completion of dryer ntilation as necessary.

FOR PERMANENTLY CONNECTED APPLIANCES RATED AT OVER 300 VOLT-AMPERES OR 1/8 HP, THE BRANCH CIRCUIT BREAKER SHALL BE PERMITTED TO SERVE AS THE DISCONNECTING MEANS WHERE THE CIRCUIT BREAKER IS WITHIN SIGHT FROM THE APPLIANCE OR IS CAPABLE OF BEING LOCKED IN THE OPEN POSITION. THE LOCKING MEANS SHALL REMAIN IN PLACE WITH OR WITHOUT THE LOCK INSTALLED. MAIN DISCONNECT SHALL BE LOCATED ON THE EXTERIOR OF THE HOME.

WINDOW SCHEDULE - MOD SINGLE HUNG

S SUFFIX DENOTES SAFETY GLAZING / E SUFFIX DENOTES EGRESS

REFER TO RESCHECK FOR DOOR AND WINDOW U-VALUES

Mfg	Label	Width R/O	Height R/O	R/O SF	Light	Vent	Room SF	U Value	Egr		Design Load	SHGC w/o Grids	SHGC w/ Grids	Air Infil
LUNDO	0040 ATDU INA				44.00	5.00			No	Yes				
KINRO	6048 ATRIUM	61	49	20.75	14.00	5.28	132.00	0.35	•		35	0.35	0.32	0.10
KINRO	3668P-S	36.5	68.5	17.36	15.08	0.00	0.00	0.33	•		50	0.32	0.30	0.10
KINRO	3036	30.5	36.5	7.62	5.55	2.64	66.00	0.35	•		66	0.33	0.30	0.10
KINRO	3658	36.5	58.5	14.66	11.76	5.76	144.00	0.35		•	50	0.33	0.30	0.10
KINRO	3658-E	36.5	58.5	14.66	11.76	5.76	144.00	0.35		•	50	0.33	0.30	0.10
KINRO	3668	36.5	68.5	17.18	14.00	6.92	173.00	0.35		•	50	0.33	0.30	0.10
KINRO	(2)3036	61	36.5	15.29	11.10	5.28	132.00	0.35	•		50	0.33	0.30	0.10
KINRO	(2)3658	73	58.5	29.43	23.52	11.52	288.00	0.35		•	50	0.33	0.30	0.10
KINRO	(2)3668	73	68.5	34.45	28.00	13.84	346.00	0.35		•	50	0.33	0.30	0.10
MI	3070P-S	36.25	84.25	21.21	17.00	0.00	0.00	0.32	•		50	0.24	0.00	0.06

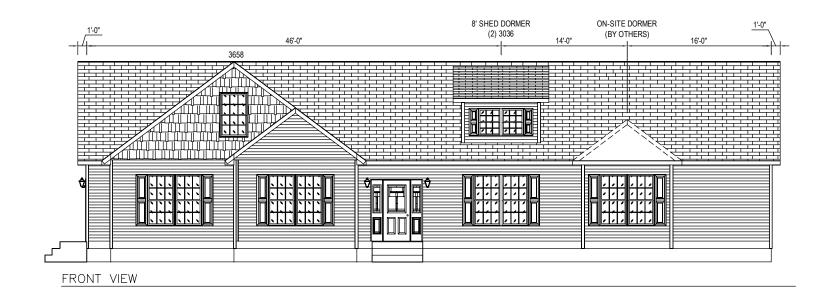
APPROVED BY Approval of this document does not authorize o approve any deviation or deviations from the **David Barts**

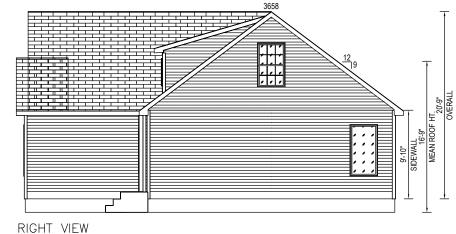
Callout: 4276 Scale: N.T.S. ^{lder} R-Anell Housing Group, LLC - Subsidiary of The Commodore Corp. Date No. Schedules and General Notes

2R2007-R2

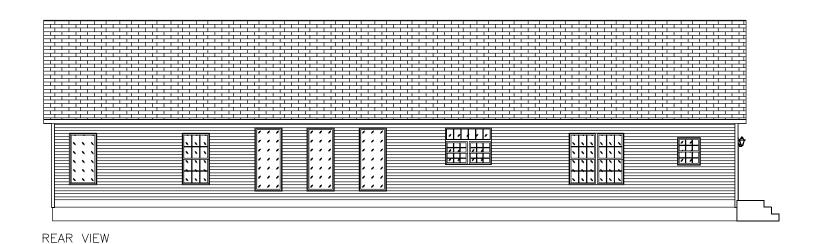
ELEVATIONS SHOWN ON THIS PAGE REPRESENT BASIC COMPONENTS AND ARE NOT INTENDED TO BE ALL INCLUSIVE, NOR DO THESE ELEVATIONS DETAIL EVERY CODE REQUIRED ASPECT OF THIS BUILDING. SITE BUILT STOOPS, STEPS, DECKS, PORCHES, HANDRAILS AND/OR SIMILAR ITEMS MUST BE PROVIDED BY OTHERS ON SITE FOR COMPLIANCE WITH APPLICABLE CODES. COMPLIANCE WITH ALL APPLICABLE CODES PER LOCAL AUTHORITY HAVING JURISDICTION, WHETHER DETAILED IN THIS SET OR NOT, MUST BE MET.

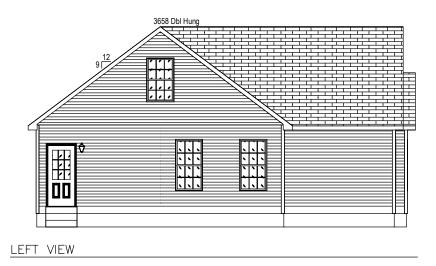
Note: Window fall protection must be provided on-site where required in accordance with applicable section of the IRC.











- FOUNDATION SHALL BE DESIGNED AND CONSTRUCTED BY OTHERS WHERE "OTHERS" REFERS TO THE DEALER BUILDER.
- GUTTERS AND LEADERS SHALL BE INSTALLED BY OTHERS.
- TYPICAL 12" OR 15" VINYL SHUTTERS PROVIDED BY MANUFACTURERS.
- ALL FOOTINGS, RAILINGS AND STEPS SHALL BE FIELD INSTALLED IN COMPLIANCE WITH APPLICABLE STATE AND LOCAL CODES.
- SIDING SHALL BE VINYL SIDING WITH VINYL TRIM, AND MAY BE PARTIALLY INSTALLED ON SITE.
- EXTERIOR LIGHTS MAY BE SHIPPED LOOSE FOR INSTALLATION ON SITE.
- ROOFING SHINGLES MAY BE PARTIALLY SITE INSTALLED.
- PORCH RAILINGS ARE PVC. TREATED LUMBER PORCH POSTS MAY BE COVERED WITH VINYL. PORCH DECKING SHALL BE TREATED.
- ALL EXTERIOR COVERINGS SHALL BE WEATHER AND DECAY RESISTIVE TO PROVIDE PROPER PROTECTION FOR UNTREATED MATERIALS.

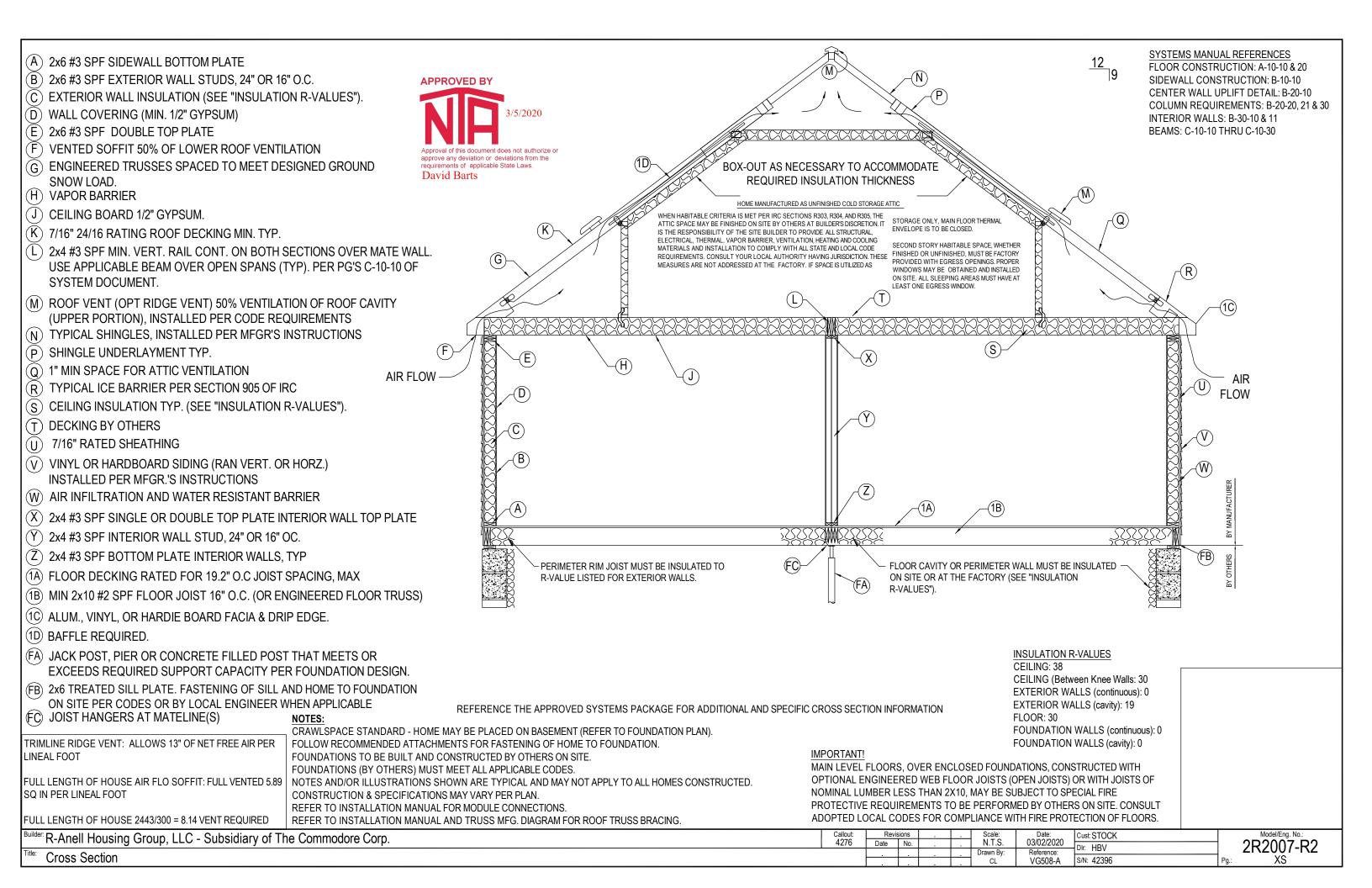
- HOMES SITED ON BASEMENTS MUST BE EQUIPPED WITH AT LEAST ONE BASEMENT EMERGENCY ESCAPE AND RESCUE OPENING TO THE OUTSIDE IN ACCORDANCE WITH IRC R310. EVERY SLEEPING ROOM MUST HAVE AN EMERGENCY ESCAPE AND RESCUE OPENING PROVIDED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES
- HOMES WITH ATTIC SPACE QUALIFYING AS HABITABLE. MUST BE EQUIPPED WITH EMERGENCY ESCAPE AND RESCUE OPENINGS REGARDLESS OF WHETHER ATTIC AREA IS FINISHED OR UNFINISHED. OPENINGS MAY OCCUR AT END WALL OF ATTIC AND/OR AT ROOF DORMERS IN WHATEVER ARRANGEMENT NECESSARY TO INSURE THAT ANY SLEEPING ROOM HAS AT LEAST ONE EGRESS

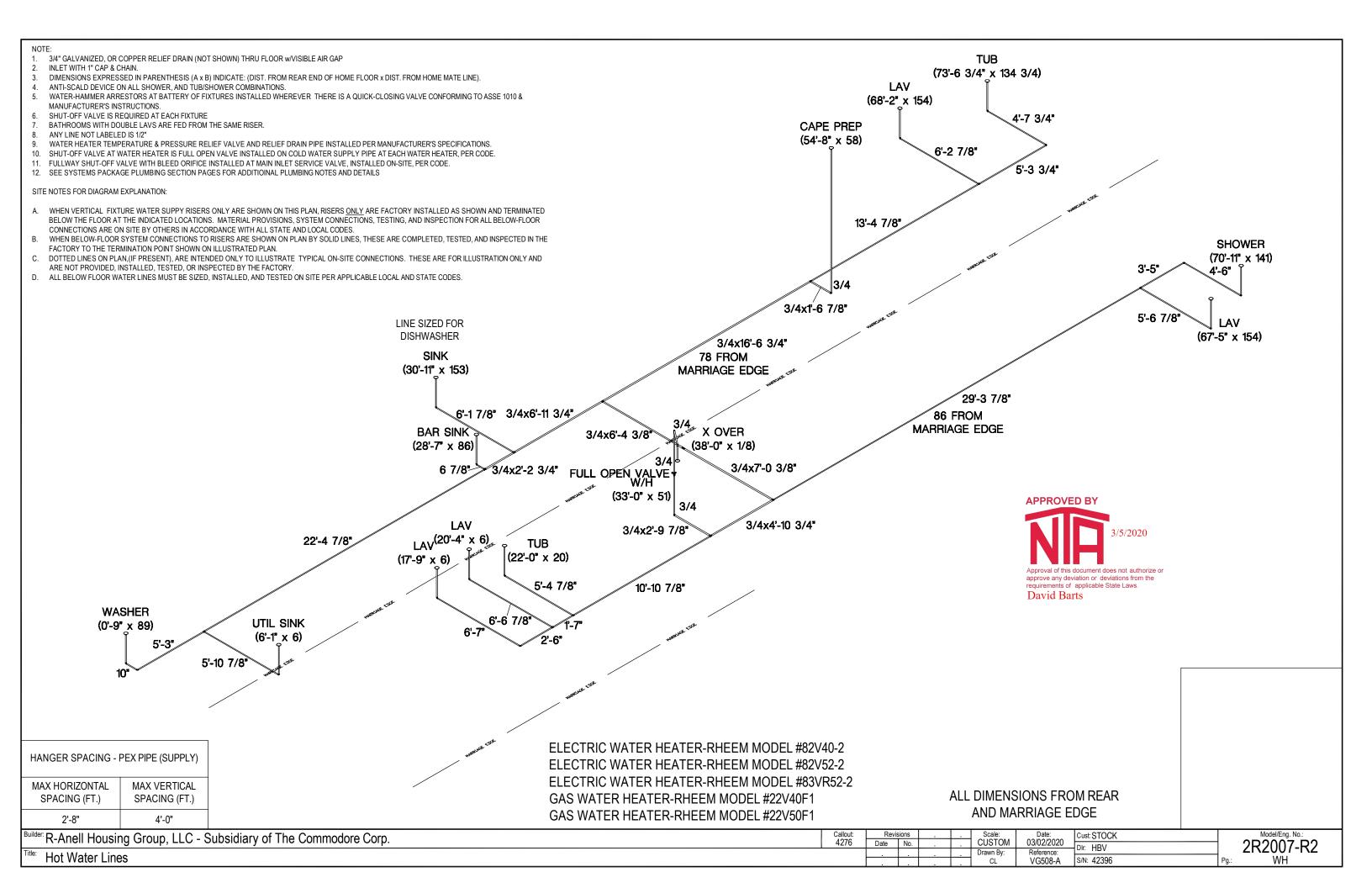
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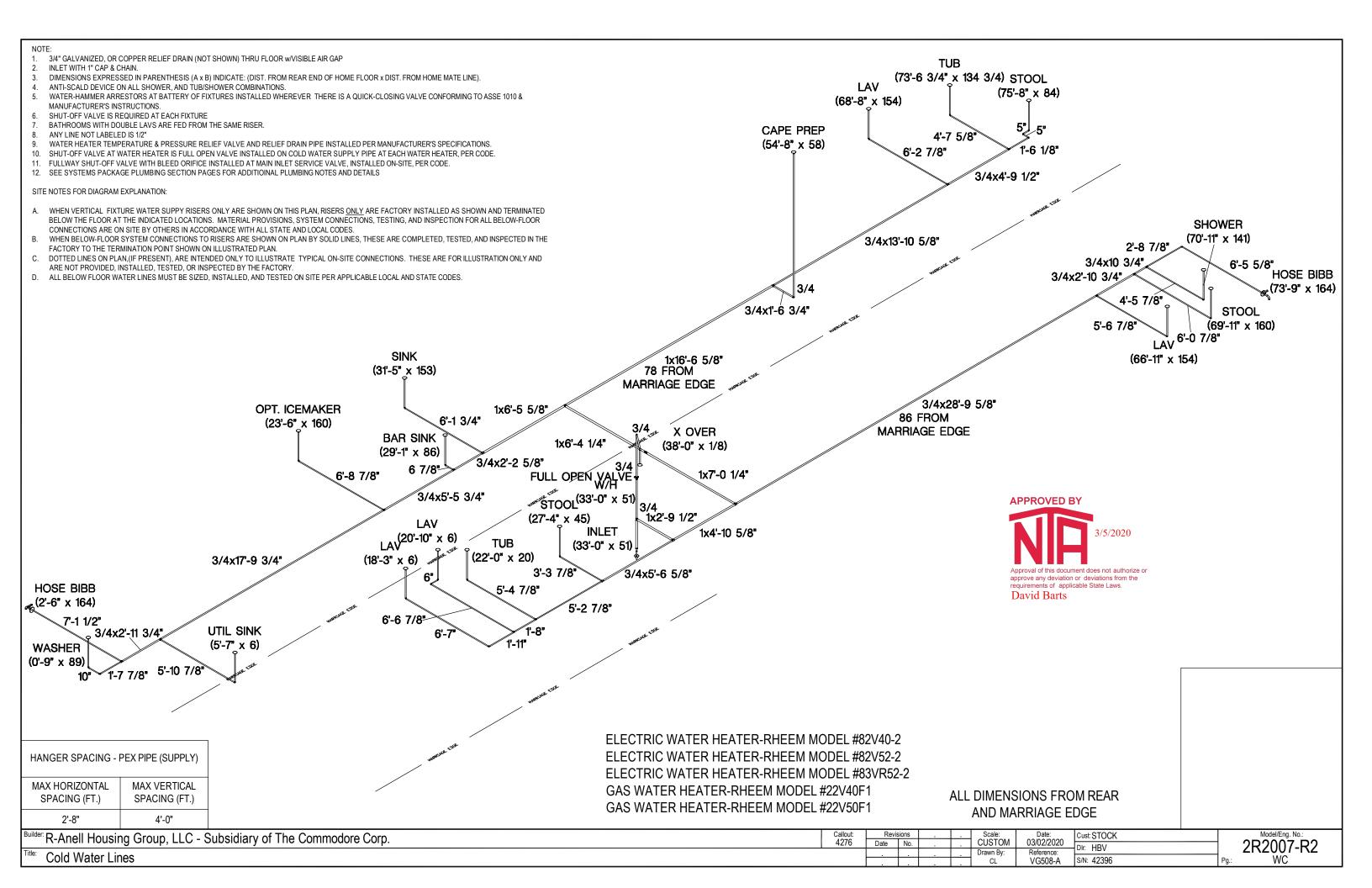
Elevations

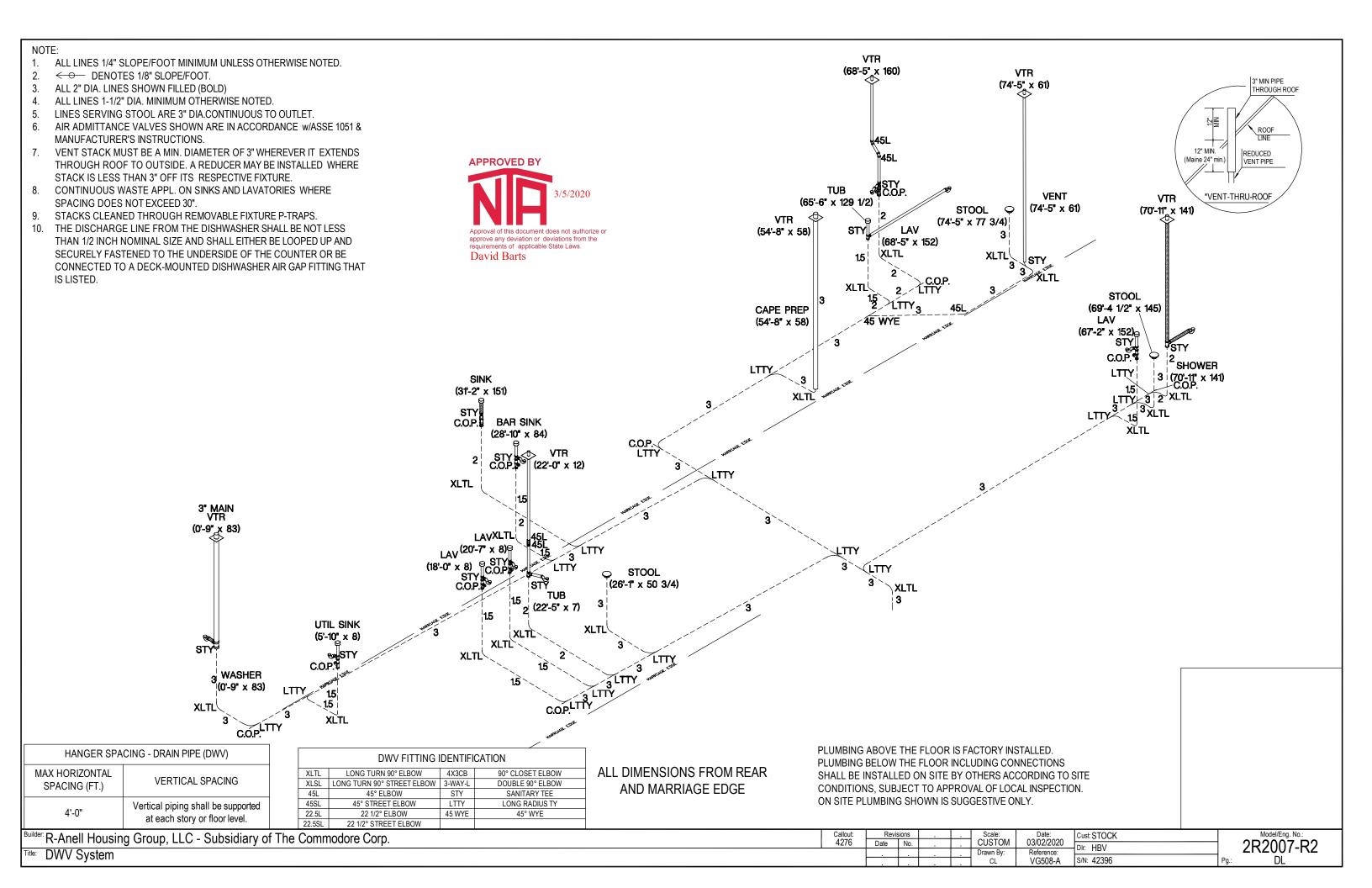
Callout: 4276 Scale: N.T.S. Date: 03/02/2020 Cust: STOCK DIr: HBV VG508-A S/N: 42396

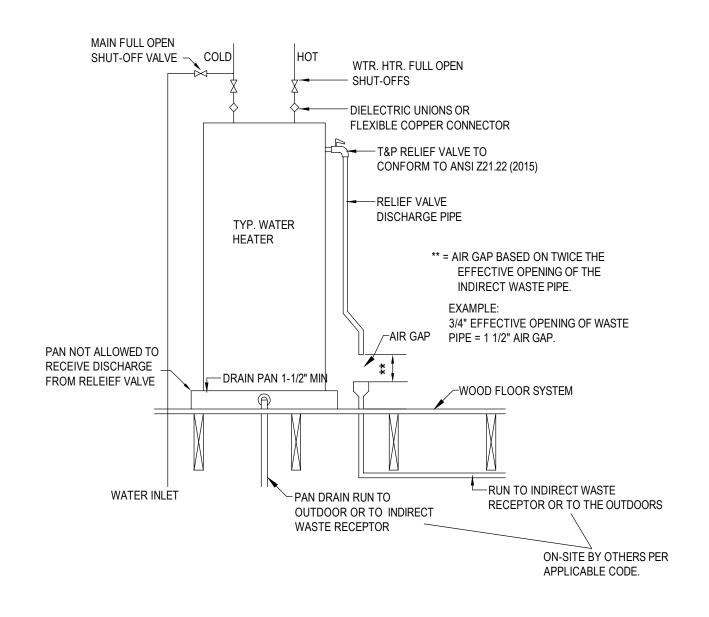
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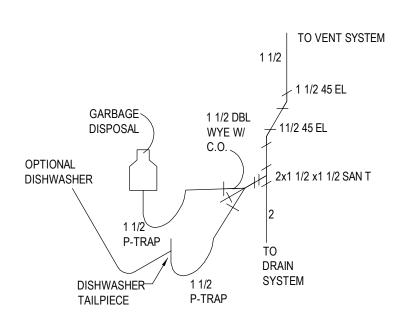












PIPE SUPPORT:
VERTICAL PIPING:
SUPPORTS AT 10' O.C. MAX.
OR BETWEEN FLOOR

HORIZONTAL PIPING: SUPPORTS AT 4' O.C. MAX.

AND/OR DIRECTION.

CLOSE TO TRAP AS

VENT EXCEEDS 3'.

SUPPORT LOCATED AS

POSSIBLE WHEN TRAP TO

TRAP ARMS:

ENDS OF BRANCHES, AND

AT CHANGES IN ELEVATION

LEVELS.

OPTIONAL GARBAGE DISPOSAL PLUMBING ILLINOIS MODELS ONLY - USE DETAIL ABOVE FOR OPTIONAL GARBAGE DISPOSAL.

Approval of this document does not authorize approve any deviation or deviations from the requirements of applicable State Laws. David Barts

NOTES:

ALL BELOW FLOOR PLUMBING BY OTHERS. ALL FITTINGS BELOW BOTTOM CAN BE SHIPPED LOOSE.

ALL BELOW FLOOR PLUMBING ILLUSTRATIONS ARE RECOMMENDATIONS ONLY. ON-SITE CONDITIONS AND/OR RESTRICTIONS MAY REQUIRE SOME MODIFICATIONS.

OPT. GARBAGE DISPOSAL TO BE LOCATED ON KITCHEN SINK WASTE ASSEMBLY. ALL VENTS THRU ROOF TO BE 3", 12" MIN. ABOVE AND BELOW ROOF PENETRATION.

ALL P-TRAPS TO BE 1 1/2" UNLESS NOTED.

HORIZONTAL VENT SLOPE: 1/8" PER FOOT

HORIZONTAL DRAIN SLOPE: 1/4" PER FOOT

DRAIN, WASTE, AND VENT PLUMBING TO BE PVC PLASTIC OR EQUAL, APPROVED FOR DWV APPLICATIONS.

ANY TRANSITIONS TO MATERIALS, OTHER THAN THE SPECIFIED MATERIAL, MUST INCORPORATE AN APPROVED FITTING FOR CONNECTION

ALL TUBS WITH WHIRLPOOL MUST BE PROVIDED WITH ACCESS TO MOTOR. ALL PLUMBING TO MEET OR EXCEED CURRENT ADOPTED PLUMBING CODES.

IN CONCEALED SPACES WHERE PIPING IS INSTALLED THRU HOLES OR NOTCHES IN STUDS, JOISTS, TRUSSES, OR SIMILAR MEMBERS LESS THAN 1 1/2" FROM NEAREST EDGE OF THE MEMBER, THE PIPE SHALL BE PROTECTED BY SHIELD PLATES. PROTECTIVE SHIELD PLATES SHALL BE A MINIMUM OF 16 GA. STEEL. PLATES SHALL COVER AREA OF THE PIPE WHERE THE MEMBERS ARE NOTCHED OR BORED, AND SHALL EXTEND A MINIMUM OF 2" ABOVE SOLE PLATES AND RELIGIOUS TORRILL AT STATES.

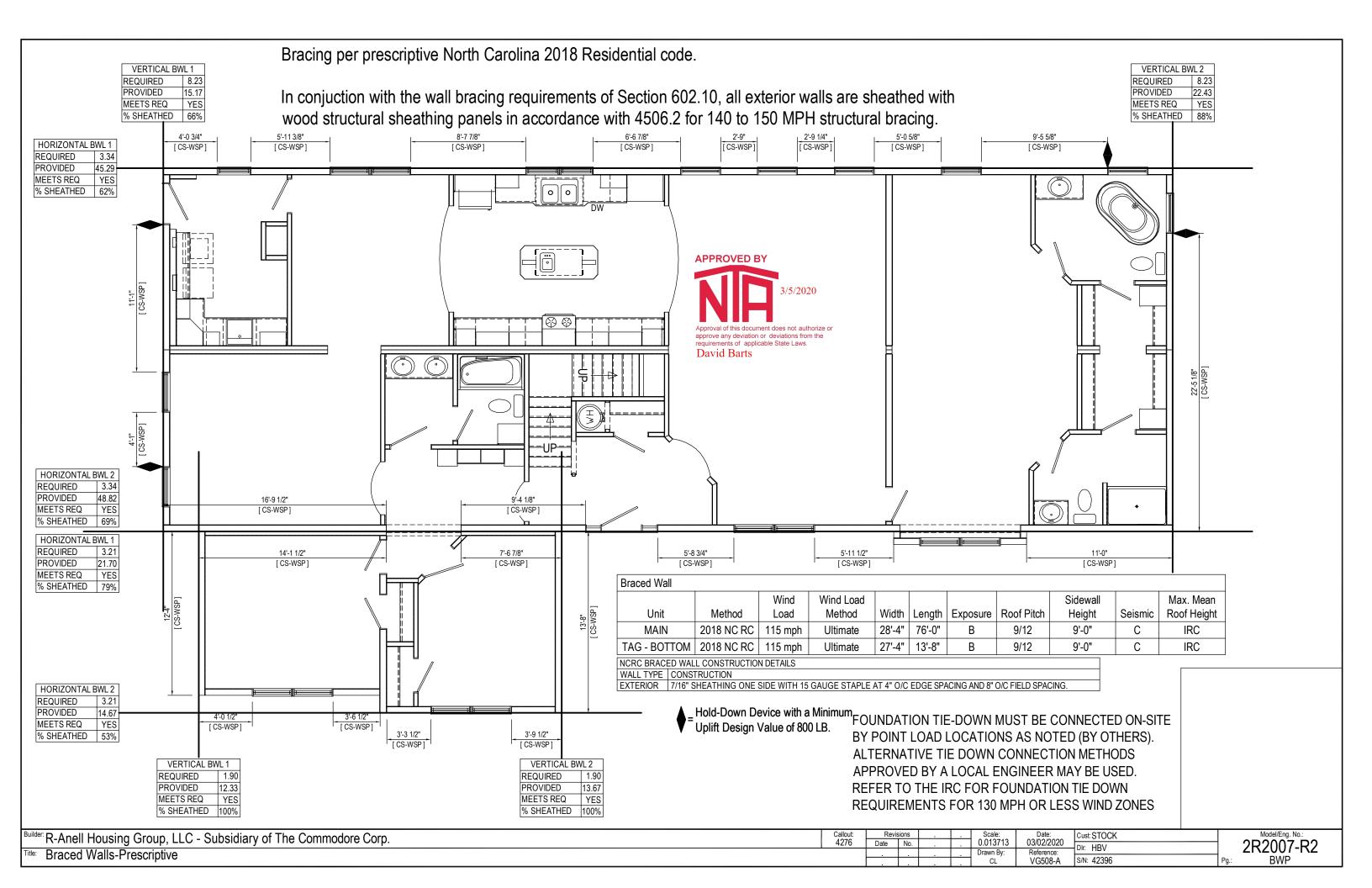
ALL WATER HEATERS AND WATER HEATER PLUMBING TO BE SUPPLIED AND INSTALLED IN BASEMENT BY OTHERS IN ACCORDANCE WITH ALL RECOGNIZED PLUMBING CODES.

AIR ADMITTANCE VALVES MAY SUBSTITUTE ROOF VENTS AT VARIOUS LOCATIONS PER APPLICABLE STATE AND LOCAL PLUMBING CODES. THE 3" MAIN VENT MUST BE VENTED THRU THE ROOF AND CANNOT BE MECHANICALLY VENTED.

Builder: R-Anell Housing Group, LLC - Subsidiary of The Commodore Corp.

Title: DWV Notes

| Callout: | Revisions | Scale: | Date: | O3/02/2020 | O1/15 | O1/1



Footing	Footing ma	Footing max. load (lbs.) for 8" x16" pier					
size (in.)	1500 PSF	2000 PSF	2500 PSF				
*16x16x6	2.5K	3.4K	4.3K				
*20x20x6	4.0K	5.3K	6.7K				
24x24x8	5.6K	7.6K	9.6K				
30x30x10	8.5K	11.7K	14.8K				
36x36x12	12.4K	16.7K	20.7K				
42x42x14	16.5K	22.4K	28.2K				
48x48x14	21.2K	N/A	N/A				

* = A 4" thick pre-cast footer of equivalent width and length may be used in place of a 6" thick cast in place footer Footer size must be designed by others to site conditions if noted kip load exceeds capacities listed above

YOUR HOME DATA PLATE FOR APPLICABLE ZONES CONCRETE COMPRESSIVE STRENGTH (FC'): 2500 PSI MINIMUM.

Foundation 2x10 Marriage Line without Stair

SQ. FT. OF FOUNDATION AREA)

COLUMNS & FOOTINGS GROUND SNOW LOAD **MUST BE RATED TO MEET THE CENTER LINE LOADS LISTED**

VENTS IN CRAWLSPACE WALLS WOULD MANDATE INSULATING THE FLOOR SYSTEM PER APPLICABLE THERMAL CALCULATIONS. REFER TO IRC 408.2 (1 SQ. FT. NET PER EACH 150

FOUNDATION CONSTRUCTION AND TIE DOWN REQUIREMENTS FOR HOMES LOCATED IN 90 MPH OR LESS WIND ZONES MAY USE IRC GUIDELINES UNLESS NOTED OTHERWISE.

uilder: R-Anell Housing Group, LLC - Subsidiary of The Commodore Corp.

20 PSF

Kip loads noted are based on allowable stress design (ASD). Capacity of supports (columns, footings, etc.) must exceed noted Kip loads. FOR CONNECTION OF THE HOME TO FOUNDATION AT BRACING WALLS, REFER TO "BRACED WALLS-CALCULATED" PAGE, IF APPLICABLE. WHEN THIS PAGE IS PRESENT, HORIZONTAL AND OVERTURNING (RACKING) LOADS AT BRACING WALL LOCATIONS ARE INDICATED FOR THESE FOUNDATION CONNECTIONS. THESE LOADS MAY BE RECALCULATED AND REDESIGNED PER LOCAL CODES TO CONFORM TO SITE CONDITIONS AS REQUIRED. REFER TO CHAPTER 3 (3.9 TIE DOWN TO FOUNDATION) OF THE "MODULAR HOME INSTALLATION MANUAL" FOR ADDITIONAL INFORMATION. REFER TO IRC GUIDELINES FOR CONNECTION OF HOME TO FOUNDATION WHEN "BRACED WALLS-PRESCRIPTIVE" PAGE IS APPLICABLE.

Callout: 4276

Date No.

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

Date: 03/02/2020

VG508-A

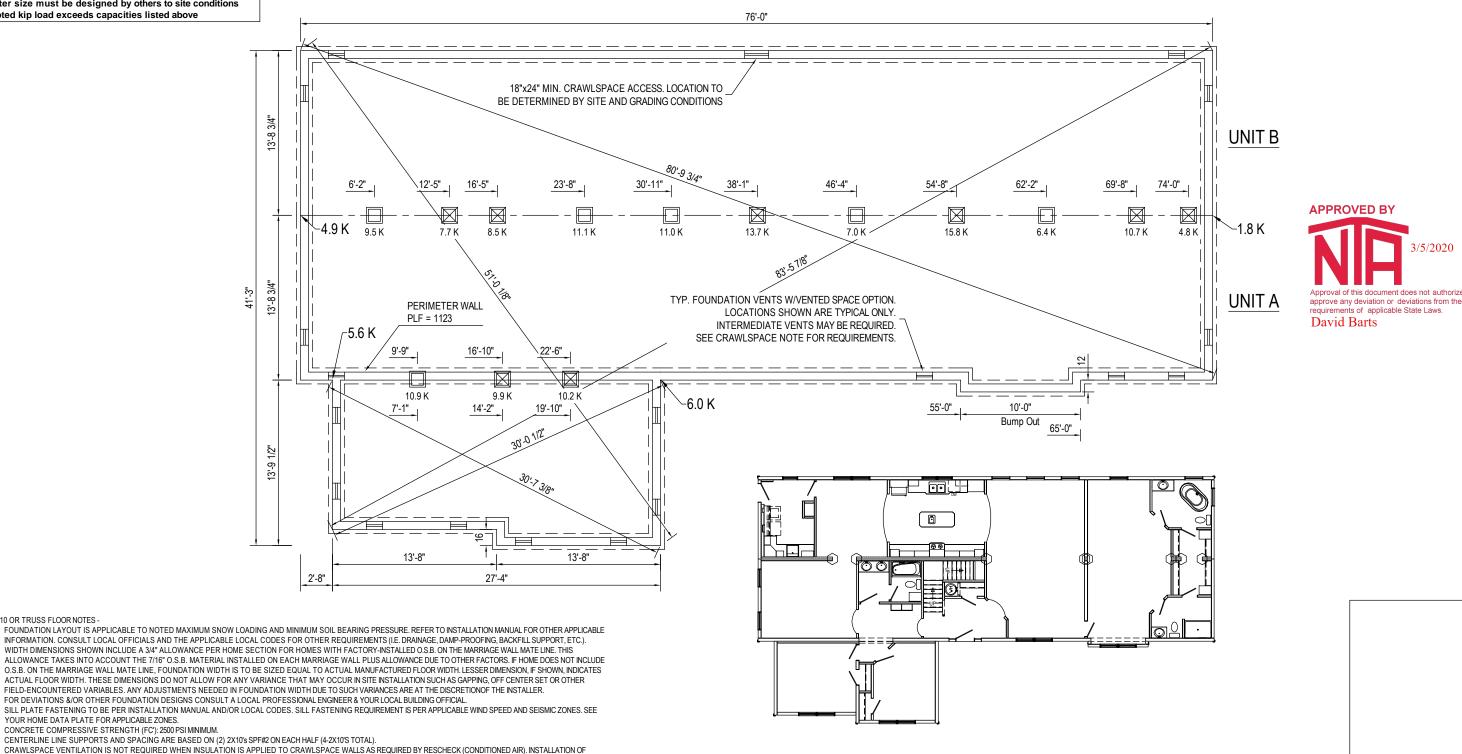
Cust: STOCK

DIr: HBV

S/N: 42396

FOUNDATION SHOWN MUST BE DESIGNED BY OTHERS TO THE SITE CONDITIONS. THIS INCLUDES SEISMIC DESIGN AND ATTACHING THE HOME TO THE FOUNDATION, ALONG WITH RESISTANCE TO LATERAL, LONGITUDINAL SHEAR, UPLIFT AND DOWNLIFT FORCES IN BOTH DIRECTIONS.

2R2007-R2



REScheck Software Version 4.7.0 Compliance Certificate

Project 2R2007-R2

Energy Code: 2015 IECC

Location: Lee County, North Carolina

Construction Type: Single-family
Project Type: New Construction

Conditioned Floor Area: **2,443 ft2** Glazing Area **15%**

Climate Zone: **4 (3499 HDD)**

Permit Date: Permit Number:

Construction Site:

3300 Jefferson Davis Hwy.
Sanford, North Carolina 27330

Owner/Agent:
STOCK
HBV

Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

David Barts

Designer/Contractor:
R-Anell Housing Group, LLC
Subsidiary of The Commodore
Corporation
235 Anthony Grove Pd

235 Anthony Grove Rd. Crouse, NC 28033

Compliance: Passes using UA trade-off

Compliance: 4.8% Better Than Code Maximum UA: 434 Your UA: 413 Maximum SHGC: 0.40 Your SHGC: 0.30

The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules. It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	U-Factor	UA
Wall 1 [1walls]: Wood Frame, 16" o.c.	2,306	19.0	0.0	0.060	114
Door - Hinged - Exterior - Half Lite - DSL - Brighton - RA {Qty 1}: Solid	37			0.380	14
Door - Hinged - Exterior - 9 Lite {Qty 1}: Solid	22			0.250	6
Window - (2) Kinro 3658 {Qty 1}: Vinyl Frame:Double Pane with Low-E SHGC: 0.30	29			0.350	10
Window - Kinro 3668 {Qty 3}: Vinyl Frame:Double Pane with Low-E SHGC: 0.30	52			0.350	18
Window - (2) Kinro 3668 {Qty 4}: Vinyl Frame:Double Pane with Low-E SHGC: 0.30	138			0.350	48
Window - MI 3070 Picture {Qty 3}: Vinyl Frame:Double Pane with Low-E SHGC: 0.30	64			0.320	20
Window - (2) Kinro 3036 wTrans - 6048 {Qty 1}: Vinyl Frame:Double Pane with Low-E SHGC: 0.32	21			0.350	7
Window - Kinro 3668 Picture Saftey {Qty 2}: Vinyl Frame:Double Pane with Low-E SHGC: 0.30	35			0.330	12
Window - Kinro 3036 {Qty 1}: Vinyl Frame:Double Pane with Low-E SHGC: 0.30	8			0.350	3
Floor 1: All-Wood Joist/Truss:Over Outside Air	2,443	30.0	0.0	0.033	81
Ceiling 1: Flat Ceiling or Scissor Truss	1,098	38.0	0.0	0.030	33

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Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	U-Factor	UA
Ceiling 2 [Between knee walls]: Flat Ceiling or Scissor Truss	1,345	30.0	0.0	0.035	47

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2015 IECC requirements in REScheck Version 4.7.0 and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.

Cameron LeCount3/2/20Name - TitleSignature



Project Title: 2R2007-R2 Report date: 03/02/20

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REScheck Software Version 4.7.0 Inspection Checklist Energy Code: 2015 IECC

Requirements: 0.0% were addressed directly in the REScheck software

Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Pre-Inspection/Plan Review	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
103.1, 103.2 [PR1] ¹	Construction drawings and documentation demonstrate energy code compliance for the building envelope. Thermal envelope represented on construction documents.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
103.1, 103.2, 403.7 [PR3] ¹	Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the IECC Commercial Provisions.			□Complies □Does Not □Not Observable □Not Applicable	
302.1, 403.7 [PR2] ²	Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other methods approved by the code official.	Heating: Btu/hr Cooling: Btu/hr	Heating: Btu/hr Cooling: Btu/hr	□Complies □Does Not □Not Observable □Not Applicable	

Additional Comments/Assumptions:



1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Foundation Inspection	Complies?	Comments/Assumptions
303.2.1 [FO11] ²	protect exposed exterior insulation	□Complies □Does Not	
•	and extends a minimum of 6 in. below grade.	□Not Observable □Not Applicable	
403.9 [FO12] ²	Snow- and ice-melting system controls installed.	□Complies □Does Not	
•		□Not Observable □Not Applicable	

Additional Comments/Assumptions:



1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.3.4 [FR1] ¹	Door U-factor.	U	U	□Complies □Does Not	See the Envelope Assemblies table for values.
()			 	□Not Observable □Not Applicable	1
402.1.1, 402.3.1,	Glazing U-factor (area-weighted average).	U	U	□Complies □Does Not	See the Envelope Assemblies table for values.
402.3.3, 402.5 [FR2] ¹				□Not Observable □Not Applicable	
303.1.3 [FR4] ¹	U-factors of fenestration products are determined in accordance			☐Complies ☐Does Not	1 1 1 1 1
•	with the NFRC test procedure or taken from the default table.			□Not Observable □Not Applicable	
402.4.1.1 [FR23] ¹	Air barrier and thermal barrier installed per manufacturer's			□Complies □Does Not	
•	instructions.			□Not Observable □Not Applicable	
402.4.3 [FR20] ¹	Fenestration that is not site built is listed and labeled as meeting AAMA /WDMA/CSA 101/I.S.2/A440			☐Complies ☐Does Not	
•	or has infiltration rates per NFRC 400 that do not exceed code limits.	APPROVED BY	3/5/2020	□Not Observable □Not Applicable	
402.4.5 [FR16] ²	IC-rated recessed lighting fixtures sealed at housing/interior finish	NIH		☐Complies ☐Does Not	
	and labeled to indicate ≤2.0 cfm leakage at 75 Pa.	Approval of this document approve any deviation or crequirements of applicable	eviations from the	□Not Observable □Not Applicable	
403.3.1 [FR12] ¹	Supply and return ducts in attics insulated >= R-8 where duct is >= 3 inches in diameter and >=	David Barts		□Complies □Does Not	
•	R-6 where < 3 inches. Supply and return ducts in other portions of the building insulated >= R-6 for diameter >= 3 inches and R-4.2 for < 3 inches in diameter.			□Not Observable □Not Applicable	
403.3.5 [FR15] ³	Building cavities are not used as ducts or plenums.			□Complies □Does Not	
•				□Not Observable □Not Applicable	
403.4 [FR17] ²	HVAC piping conveying fluids above 105 °F or chilled fluids	R	R	\square Complies \square Does Not	
•	below 55 $^{\Omega}$ F are insulated to \geq R-3.			□Not Observable □Not Applicable	
403.4.1 [FR24] ¹	Protection of insulation on HVAC piping.			□Complies □Does Not	
②				□Not Observable □Not Applicable	1 1 1 1 1
403.5.3 [FR18] ²	Hot water pipes are insulated to ≥R-3.	R	R	□Complies □Does Not	
•			 	□Not Observable □Not Applicable	1 1 1 1 1
403.6 [FR19] ²	Automatic or gravity dampers are installed on all outdoor air			□Complies □Does Not	
	intakes and exhausts.			□Not Observable □Not Applicable	

2 Medium Impact (Tier 2) Project Title: 2R2007-R2 Report date: 03/02/20

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1 High Impact (Tier 1)

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3 Low Impact (Tier 3)

Additional Comments/Assumptions:



1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Project Title: 2R2007-R2

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1 [IN13] ²	All installed insulation is labeled or the installed R-values provided.			□Complies □Does Not	
•				□Not Observable □Not Applicable	
402.1.1, 402.2.6 [IN1] ¹	Floor insulation R-value.	R Wood Steel	R Wood Steel	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
303.2, 402.2.7 [IN2] ¹	Floor insulation installed per manufacturer's instructions and in substantial contact with the underside of the subfloor, or floor framing cavity insulation is in contact with the top side of sheathing, or continuous insulation is installed on the underside of floor framing and extends from the bottom to the top of all perimeter floor framing members.			□Complies □Does Not □Not Observable □Not Applicable	
402.1.1, 402.2.5, 402.2.6 [IN3] ¹	Wall insulation R-value. If this is a mass wall with at least ½ of the wall insulation on the wall exterior, the exterior insulation requirement applies (FR10).	R	R	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
303.2 [IN4] ¹	Wall insulation is installed per manufacturer's instructions.			□Complies □Does Not	
				□Not Observable □Not Applicable	1

Additional Comments/Assumptions:



1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.2.1, 402.2.2, 402.2.6 [FI1] ¹	Ceiling insulation R-value.	R	R	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
303.1.1.1, 303.2 [FI2] ¹	Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft ² .			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.2.3 [FI22] ²	Vented attics with air permeable insulation include baffle adjacent to soffit and eave vents that extends over insulation.			□Complies □Does Not □Not Observable □Not Applicable	
402.2.4 [FI3] ¹	Attic access hatch and door insulation ≥R-value of the adjacent assembly.	R	R	□Complies □Does Not □Not Observable □Not Applicable	
402.4.1.2 [FI17] ¹	Blower door test @ 50 Pa. <=5 ach in Climate Zones 1-2, and <=3 ach in Climate Zones 3-8.	ACH 50 =	ACH 50 =	□Complies □Does Not □Not Observable □Not Applicable	
403.3.4 [FI4] ¹	Duct tightness test result of <=4 cfm/100 ft2 across the system or <=3 cfm/100 ft2 without air handler @ 25 Pa. For rough-in tests, verification may need to occur during Framing Inspection.	cfm/100 ft ²	cfm/100 ft ²	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.3 [FI27] ¹	Ducts are pressure tested to determine air leakage with either: Rough-in test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the system including the manufacturer's air handler enclosure if installed at time of test. Postconstruction test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the entire system including the manufacturer's air handler enclosure.	cfm/100 ft ²	cfm/100 ft ²	□Complies □Does Not □Not Observable □Not Applicable	
403.3.2.1 [FI24] ¹	Air handler leakage designated by manufacturer at <=2% of design air flow.	APPROVED BY	3/5/2020	□Complies □Does Not □Not Observable □Not Applicable	
403.1.1 [FI9] ²	Programmable thermostats installed for control of primary heating and cooling systems and initially set by manufacturer to code specifications.	Approval of this document of approve any deviation or direquirements of applicable	oes not authorize or eviations from the	□Complies □Does Not □Not Observable □Not Applicable	
403.1.2 [FI10] ²	Heat pump thermostat installed on heat pumps.	David Barts		□Complies □Does Not □Not Observable □Not Applicable	
403.5.1 [FI11] ²	Circulating service hot water systems have automatic or accessible manual controls.			□Complies □Does Not □Not Observable □Not Applicable	
	1 High Impact (Tier	1) 2 Medium	Impact (Tier 2)	3 Low Impact (Ti	er 3)

Project Title: 2R2007-R2

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Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
	All mechanical ventilation system fans not part of tested and listed HVAC equipment meet efficacy and air flow limits.			□Complies □Does Not □Not Observable □Not Applicable	
	Hot water boilers supplying heat through one- or two-pipe heating systems have outdoor setback control to lower boiler water temperature based on outdoor temperature.			□Complies □Does Not □Not Observable □Not Applicable	
[FI28] ²	Heated water circulation systems have a circulation pump. The system return pipe is a dedicated return pipe or a cold water supply pipe. Gravity and thermossyphon circulation systems are not present. Controls for circulating hot water system pumps start the pump with signal for hot water demand within the occupancy. Controls automatically turn off the pump when water is in circulation loop is at set-point temperature and no demand for hot water exists.	Approval of this document of approve any deviation or derequirements of applicable and David Barts	viations from the	□Complies □Does Not □Not Observable □Not Applicable	
[FI29] ²	Electric heat trace systems comply with IEEE 515.1 or UL 515. Controls automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping.			□Complies □Does Not □Not Observable □Not Applicable	
[FI30] ²	Water distribution systems that have recirculation pumps that pump water from a heated water supply pipe back to the heated water source through a cold water supply pipe have a demand recirculation water system. Pumps have controls that manage operation of the pump and limit the temperature of the water entering the cold water piping to $104^{\circ}F$.			□Complies □Does Not □Not Observable □Not Applicable	
403.5.4 [FI31] ²	Drain water heat recovery units tested in accordance with CSA B55.1. Potable water-side pressure loss of drain water heat recovery units < 3 psi for individual units connected to one or two showers. Potable waterside pressure loss of drain water heat recovery units < 2 psi for individual units connected to three or more showers.			□Complies □Does Not □Not Observable □Not Applicable	
	75% of lamps in permanent fixtures or 75% of permanent fixtures have high efficacy lamps. Does not apply to low-voltage lighting.			□Complies □Does Not □Not Observable □Not Applicable	
404.1.1 [FI23] ³	Fuel gas lighting systems have no continuous pilot light.			□Complies □Does Not □Not Observable □Not Applicable	
	1 High Impact (Tier	1) 2 Medium	Impact (Tier 2)	3 Low Impact (Ti	er 3)

 $\label{lem:project} \begin{tabular}{ll} Project Title: 2R2007-R2 \\ Data filename: N:\R-Anell\2R\2R2007-R2.\Compliance\2R2007-R2.\rxl \\ \end{tabular}$ Report date: 03/02/20

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
401.3 [FI7] ²	Compliance certificate posted.			□Complies □Does Not	
				□Not Observable □Not Applicable	
303.3 [FI18] ³	Manufacturer manuals for mechanical and water heating systems have been provided.			□Complies □Does Not	
	•			□Not Observable □Not Applicable	

Additional Comments/Assumptions:



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Insulation Rating	R-Value	
Above-Grade Wall	19.00	
Below-Grade Wall	0.00	
Floor	30.00	
Ceiling / Roof	30.00	
Ductwork (unconditioned spaces):		
Glass & Door Rating	U-Factor	SHGC
Window	0.35	0.30
Door	0.38	
Heating & Cooling Equipment	Efficiency	
Heating System:	_	
Cooling System:		
Water Heater:		
Name:	Date:	

Comments

Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

David Barts

A098601

Truss Type

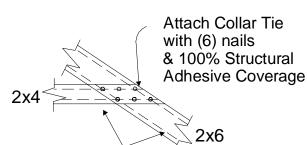
RIGID COLLAR TIE CONNECTION DETAILS

ty

UFP ENGINEERING 1 Bulletin 05-02

Universal Forest Products Inc., Grand Rapids, MI 49525,

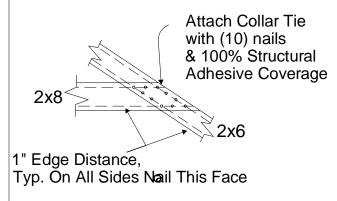
2x4 Collar Tie Nailed to 2x6 Chord



1" Edge Distance, Typ. On All Sides Nail This Face

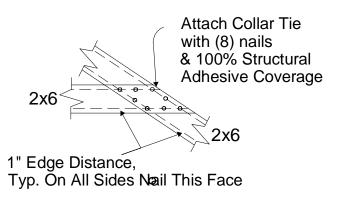
Detail (A)

2x8 Collar Tie Nailed to 2x6 Chord



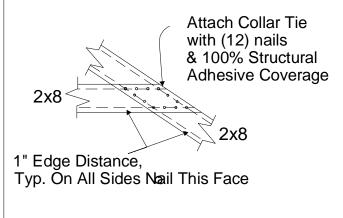
Detail (D)

2x6 Collar Tie Nailed to 2x6 Chord



Detail (B)

2x8 Collar Tie Nailed to 2x8 Chord



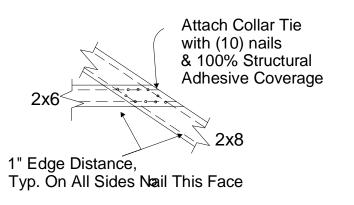
Detail (E)

Power Driven Nails Rigid Collar Tie Connection Details

A) Side member shall be fastened with structural adhesive that meets the requirements of ASTM-2559. Maximum wood to wood gap = 1/16".

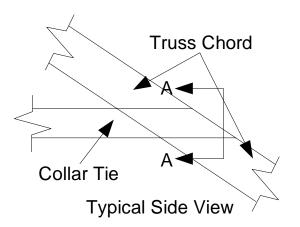
B) Bostitch .131" Dia. x 3" nails (or equal)

2x6 Collar Tie Nailed to 2x8 Chord

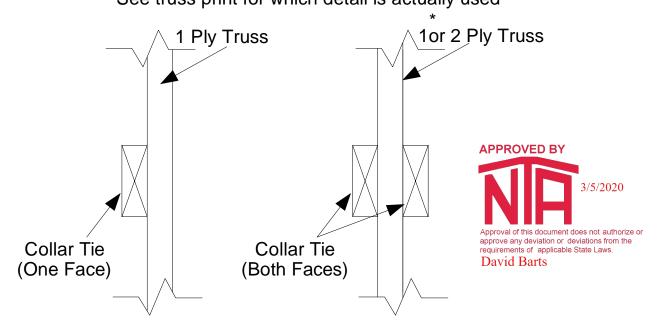


Detail (C)

This Bulletin to be used only in conjunction with UFPI truss designs which specifically refer to this Bulletin by number for collar tie field fastening.



Acceptable Alternate Applications See truss print for which detail is actually used



Section A-A Section A-A

* FOR 1 PLY, OFFSET NAILS WITH RESPECT TO EACH FACE.

▲ WARNING - Verify design parameters and READ NOTES

niversal Forest Products, Inc. 2801 EAST BELTLINE RD, NE

This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult QST-88 Quality Standard, DSB-89 Bracing Specification, and HIB-91 Handling Installing and Bracing Recommendation available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719



98929

Truss

Truss Type

HINGED ATTIC

Qty

Commodore 315 NC R28C9F^

Ref. #10005457

Universal Forest Products Inc., Grand Rapids, MI 49525, Weston Gorby

CCB34335

8.220 e Aug 13 2018 MiTek Industries, Inc. Thu Oct 17 08:11:22 2019 Page 1 of 2

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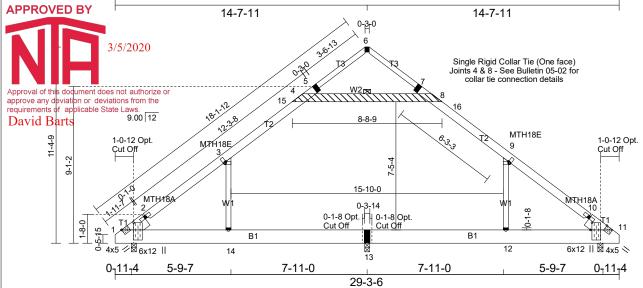


Plate Offsets (X,Y)-- [1:0-5-0,0-8-7], [2:0-0-5,0-0-8], [3:0-0-11,0-1-2], [9:0-0-11,0-1-2], [10:0-0-5,0-0-8], [11:0-7-5,Edge], [11:0-5-0,0-0-15]

SPACING-: 2-0-0 LOADING (psf) TCLL	SPACING-: 1-4-0 LOADING (psf) TCLL 34.7 (Ground Snow=45.0) TCDL 10.5	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IBC2018/TF	2-0-0 1.15 1.15 YES	CSI. TC BC WB Matri:	0.58 0.78 0.72	DEFL. Vert(LL) Vert(CT) Horz(CT) Attic	in (loc) 0.36 13-14 0.33 13-14 0.01 11 -0.23 12-13	I/defl L/d >450 240 >499 180 n/a n/a 841 360	PLATES MT20 MT18HS Weight: 212	GRIP 137/130 137/130
BCLL 0.0	BCLL 0.0	LCode IBC2018/TF		Matri	(-R	Attic	-0.23 12-13	841 360	Weight: 212 FT = 0%	2 lb
BCDL 10.0	BCDL 15.0	1502013/11	12014						FT - 070	

TOP CHORD

BOT CHORD

WEBS

LUMBER-BRACING-

TOP CHORD 1-1/2X9-1/4 LP-LSL TC 1.75E *Except*

T2: 2x6 SP No.2 or 2x6 SPF No.2

T3: 2x4 SP No.2 or 2x4 SPF No.2 2x10 SP No.2 or 2x10 SPF No.2

BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except* WFBS W2: 2x6 SP No.2 or 2x6 SPF No.2

REACTIONS. (lb/size) 1=992/0-3-8 (min. 0-1-11), 11=992/0-3-8 (min. 0-1-11), 13=352/0-3-8 (min. 0-1-8)

Max Horz 1=-715(LC 7)

Max Uplift 1=-669(LC 9), 11=-672(LC 10), 13=-173(LC 9) Max Grav 1=1069(LC 3), 11=1070(LC 4), 13=999(LC 13)

FORCES. (lb) - Maximum Compression/Maximum Tension

1-2=-1053/679, 2-3=-905/674, 3-15=-898/764, 4-15=-765/768, 4-5=-295/176, 5-6=-162/189, TOP CHORD

6-7=-160/187, 7-8=-299/176, 8-16=-763/765, 9-16=-900/760, 9-10=-902/669, 10-11=-1053/674

1-14=-360/700, 13-14=-360/700, 12-13=-360/700, 11-12=-360/700 **BOT CHORD**

WFBS 9-12=-240/524, 3-14=-243/526, 4-8=-607/749

REQUIRED FIELD JOINT CONNECTIONS - Maximum Compression (lb)/ Tension (lb)/ Shear (lb)/ Moment (lb-in 4=607/749/138/5858, 5=252/181/157/0, 6=137/191/157/0, 7=254/178/158/0, 8=607/749/138/5815, 12=240/524/0/0, 13=360/700/500/0, 14=243/526/0/0

NOTES-

- 1) Wind: ASCE 7-16; Vult=165mph (3-second gust) Vasd=130mph @24in o.c.; TCDL=2.8psf; BCDL=4.0psf; (Alt. 180mph @16in o.c.; TCDL=4.2psf; BCDL=6.0psf); h=30ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 1-1-0 to 4-1-0, Interior(1) 4-1-0 to 11-7-2, Exterior(2R) 11-7-2 to 17-7-2, Interior(1) 17-7-2 to 25-2-6, Exterior(2E) 25-2-6 to 28-2-6 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pg=30.0 psf; Ps=23.1 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Roof design snow load has been reduced to account for slope.

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



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2801 EAST BELTLINE RD, NE GRAND RAPIDS, MI 49525

Structural wood sheathing directly applied or 6-0-0 oc

4-8

Rigid ceiling directly applied or 6-10-3 oc bracing.

1 Row at midpt

Truss shall not be cut or modified without approval of the truss design engineer.

This component has only been designed for the loads noted on this drawing. Construction and lifting forces have not been considered. The builder is responsible for lifting methods and system design. Builder responsibilities are defined under TPI1. This design is based only upon parameters shown, and is for

an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding

fabrication, quality control, storage, delivery, erection and bracing, consult BCSI 1-06 from the Wood Truss Council of America and Truss Plate Institute Recommendation available from WTCA, 6300 Enterprise LN, Madison, WI 53719 J:\support\MitekSupp\templates\ufp.tpe



Job Truss Type Truss Qty Commodore 315 NC 98929 CCB34335 HINGED ATTIC Ref. #10005457

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- 4) Unbalanced snow loads have been considered for this design.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) See HINGE PLATE DETAILS for plate placement.
- 7) Provisions must be made to prevent lateral movement of hinged member(s) during transportation.
- 8) All additional member connections shall be provided by others for forces as indicated.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * 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.
- 11) Ceiling dead load (5.0 psf) on member(s). 3-4, 8-9, 4-8
- 12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 13-14, 12-13
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 669 lb uplift at joint 1, 672 lb uplift at joint 11 and 173 lb uplift at joint 13.
- 14) Fixity of member 4 8 has been changed.
- 15) This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 16) Attic room checked for L/360 deflection.
- 17) This truss is designed in accordance with the 2015 IBC Sec 2306.1 and referenced standard ANSI/TPI 1
- 18) Take precaution to keep the chords in plane, any bending or twisting of the hinge plate must be repaired before the building is put into service.
- 19) The field-installed members are an integral part of the truss design. Retain a design professional to specify final field connections and temporary supports. All field-installed members must be properly fastened prior to applying any loading to the truss. This design anticipates the final set
- 20) Based on: CCB34331 21) Revision: Updated Code



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

WARNING - Verify design parameters and READ NOTES Universal Forest Products, Inc. PHONE (616)-364-6161 FAX (616)-365-0060

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





Universal Forest Products°

Job	Truss	MFG	Customer
98929	CCB34335	315	COMMODORE

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









Job

99333

Truss CCB34513 Truss Type

HINGED ATTIC

Qty

Commodore 315 NC (R274G9F^) 27'4" w 9/12 transverse (IBC2018/2015)

Ref. #10005792

Universal Forest Products Inc., Grand Rapids, MI 49525, Weston Gorby

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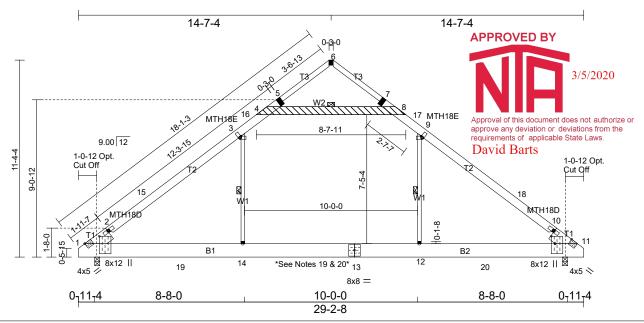


Plate Offsets (X,Y)-- [1:0-5-1,0-10-2], [2:0-0-11,0-0-0], [3:0-0-11,0-1-2], [9:0-0-11,0-1-2], [10:0-0-11,0-0-0], [11:0-7-5,Edge], [11:0-5-1,0-2-11]

SPACING-: 2-0-0 LOADING (psf)	SPACING-: 1-4-0 LOADING (psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 23.	TCLL 34.7	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	0.45 12-14	>718	240	MT20	137/130
(Ground Snow=30.0)	(Ground Snow=45.0)	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.49 12-14	>666	180	MT18HS	137/130
1 (-	(-	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.02 11	n/a	n/a		
TCDL 7.		Code IBC2018/TI	PI2014	Matri	x-R	Attic ` ´	-0.13 12-14	977	360	Weight: 21	12 lb
BCLL 0.	† BCLL 0.0	IBC2015/TI		I Widaii	```	7 11110	0.10 12 11	0	000	FT = 0%	
BCDL 10.	BCDL 15.0	1002013/11	12014							11-070	

BRACING-

TOP CHORD

BOT CHORD

WEBS

LUMBER-

TOP CHORD 1-1/2X9-1/4 LP-LSL TC 1.75E *Except*

T2: 2x6 SP No.1, T3: 2x4 SP No.2 or 2x4 SPF No.2

2x10 SP No.2 or 2x10 SPF No.2

BOT CHORD WEBS 2x3 SP No.2 or 2x3 SPF Stud *Except*

W2: 2x6 SP No.2 or 2x6 SPF No.2

REACTIONS. (lb/size) 1=1136/0-3-8 (min. 0-2-5), 11=1136/0-3-8 (min. 0-2-5)

Max Horz 1=-713(LC 7)

Max Uplift 1=-765(LC 9), 11=-767(LC 10) Max Grav 1=1471(LC 3), 11=1472(LC 4)

FORCES. (lb) - Maximum Compression/Maximum Tension

1-2=-1612/961, 2-15=-1608/868, 3-15=-1497/882, 3-16=-1186/956, 4-16=-1163/964, 4-5=-293/176, TOP CHORD

5-6=-162/189, 6-7=-160/187, 7-8=-297/176, 8-17=-1160/964, 9-17=-1187/956, 9-18=-1497/883,

10-18=-1608/868, 10-11=-1612/961

BOT CHORD 1-19=-460/1208, 14-19=-460/1208, 13-14=-459/1211, 12-13=-459/1211, 12-20=-458/1208,

11-20=-458/1208

WEBS 9-12=-338/681, 3-14=-338/681, 4-8=-1118/997

REQUIRED FIELD JOINT CONNECTIONS - Maximum Compression (lb)/ Tension (lb)/ Shear (lb)/ Moment (lb-in 4=1118/997/36/0, 5=252/181/157/0, 6=137/191/157/0, 7=255/178/158/0, 8=1118/997/36/0,

12=338/681/0/0, 14=338/681/0/0

 Wind: ASCE 7-16; Vult=165mph (3-second gust) Vasd=130mph @24in o.c.; TCDL=2.8psf; BCDL=4.0psf; (Alt. 180mph @16in o.c.; TCDL=4.2psf; BCDL=6.0psf); h=30ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 1-1-0 to 4-1-0, Exterior(2N) 4-1-0 to 11-6-11, Corner(3R) 11-6-11 to 17-6-11, Exterior(2N) 17-6-11 to 25-1-8, Corner(3E) 25-1-8 to 28-1-8 zone; cantilever left and right exposed :C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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



11/21/2019

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Structural wood sheathing directly applied or 2-2-0 oc

9-12, 3-14, 4-8

Rigid ceiling directly applied or 8-11-2 oc bracing.

1 Row at midpt

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



Job Truss Type Truss Qty Commodore 315 NC (R274G9F[^]) 99333 CCB34513 HINGED ATTIC 27'4" w 9/12 transverse (IBC2018/2015) Ref. #10005792

Universal Forest Products Inc., Grand Rapids, MI 49525, Weston Gorby

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- 2) TCLL: ASCE 7-16; Pg=30.0 psf; Ps=23.1 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Roof design snow load has been reduced to account for slope.
- 4) Unbalanced snow loads have been considered for this design.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) See HINGE PLATE DETAILS for plate placement.
- 7) Provisions must be made to prevent lateral movement of hinged member(s) during transportation.
- 8) All additional member connections shall be provided by others for forces as indicated.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * 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, with BCDL = 10.0psf.
- 11) Ceiling dead load (5.0 psf) on member(s). 3-4, 8-9, 4-8
- 12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 12-14
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 765 lb uplift at joint 1 and 767 lb uplift at joint 11.
- 14) This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 15) Attic room checked for L/360 deflection.
- 16) This truss is designed in accordance with the 2015 IBC Sec 2306.1 and referenced standard ANSI/TPI 1
- 17) Take precaution to keep the chords in plane, any bending or twisting of the hinge plate must be repaired before the building is put into service.
- 18) The field-installed members are an integral part of the truss design. Retain a design professional to specify final field connections and temporary supports. All field-installed members must be properly fastened prior to applying any loading to the truss. This design anticipates the final set
- 19) Temporary supports are required to maintain the bottom chord in a level position during storage, transportation, and setup. Retain a design professional to specify all temporary bracing to support the truss until setup is complete. Temporary support(s) must not be removed until all field connections are completed.
- 20) The bottom chord must be laterally braced during shipment and setup to prevent damage to the splice plate.
- 21) Based on: CCB34502
- 22) Revision: IBC2018/2015 version



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





Universal Forest Products°

Job	Truss	MFG	Customer
99333	CCB34513	315	COMMODORE

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







Job

98929

Truss

P1595207

Truss Type KINGPOST Qty

Commodore 315 NC R14C9T[^] 13'8" w 9/12 double hinge (165mph X-C)

Ref. #10005457

Universal Forest Products Inc., Grand Rapids, MI 49525, Weston Gorby

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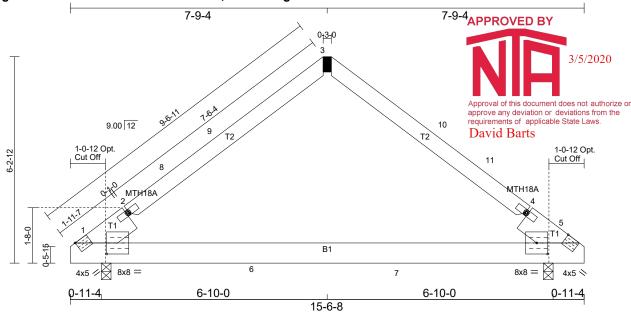


Plate Offsets (X,Y)-- [1:0-11-7,0-4-0], [2:0-0-5,0-0-8], [4:0-0-5,0-0-8], [5:0-3-15,0-4-0], [5:0-7-5,Edge]

SPACING-: 2-0-0 LOADING (psf)	SPACING-: 1-4-0 LOADING (psf)	SPACING- Plate Grip DOL	2-0-0 1.15	CSI.	0.57	DEFL. Vert(LL)	in -0.33	(loc) 1-5	l/defl >485	L/d 240	PLATES MT20	GRIP 137/130
TCLL 23. (Ground Snow=30.0)	TCLL 34.7 (Ground Snow=45.0)	Lumber DOL Rep Stress Incr	1.15 YES	BC WB	0.86	Vert(CT) Horz(CT)	-0.57 0.00	1-5	>285 n/a	180 n/a	MT18HS	137/130
TCDL		Code IBC2018/TI	PI2014	Matri		11012(01)	0.00	J	11/4	11/4	Weight: 10	01 lb
BCDL 10.0	BCDL 15.0	1002013/11	12014								F1 - U%	

LUMBER-**BRACING-**

TOP CHORD 1-1/2X9-1/4 LP-LSL TC 1.75E *Except* TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc

T2: 2x6 SP No.2 or 2x6 SPF No.2 **BOT CHORD** BOT CHORD 2x8 SP No.2 or 2x8 SPF No.2 Rigid ceiling directly applied or 4-8-6 oc bracing.

REACTIONS. (lb/size) 1=581/0-3-8 (min. 0-1-8), 5=581/0-3-8 (min. 0-1-8)

Max Horz 1=-375(LC 7)

Max Uplift 1=-371(LC 9), 5=-373(LC 10) Max Grav 1=694(LC 3), 5=695(LC 4)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-589/416, 2-8=-448/365, 8-9=-351/372, 3-9=-345/383, 3-10=-343/382, 10-11=-349/370,

4-11=-445/363, 4-5=-590/416

BOT CHORD 1-6=-167/272, 6-7=-167/272, 5-7=-167/272

REQUIRED FIELD JOINT CONNECTIONS - Maximum Compression (lb)/ Tension (lb)/ Shear (lb)/ Moment (lb-in)

3=283/387/311/0

- 1) Wind: ASCE 7-16; Vult=165mph (3-second gust) Vasd=130mph @24in o.c.; TCDL=4.0psf; BCDL=4.0psf; (Alt. 180mph @16in o.c.; TCDL=6.0psf; BCDL=6.0psf); h=30ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 1-0-5 to 4-0-5, Interior(1) 4-0-5 to 4-8-11, Exterior(2R) 4-8-11 to 10-8-11, Interior(1) 10-8-11 to 11-6-3, Exterior(2E) 11-6-3 to 14-6-3 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown: Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pg=30.0 psf; Ps=23.1 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Roof design snow load has been reduced to account for slope.

from WTCA, 6300 Enterprise LN, Madison, WI 53719 J:\support\MitekSupp\templates\ufp.tpe

- 4) Unbalanced snow loads have been considered for this design.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) See HINGE PLATE DETAILS for plate placement.

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



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



Job Truss Type Truss Qty Commodore 315 NC R14C9T[^] 98929 P1595207 KINGPOST 13'8" w 9/12 double hinge (165mph X-C) Ref. #10005457

Universal Forest Products Inc., Grand Rapids, MI 49525, Weston Gorby

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- 7) Provisions must be made to prevent lateral movement of hinged member(s) during transportation.
- 8) All additional member connections shall be provided by others for forces as indicated.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * 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, with BCDL = 10.0psf.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 371 lb uplift at joint 1 and 373 lb uplift at joint 5.
- 12) This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 13) This truss is designed in accordance with the 2015 IBC Sec 2306.1 and referenced standard ANSI/TPI 1
- 14) Take precaution to keep the chords in plane, any bending or twisting of the hinge plate must be repaired before the building is put into service.
- 15) The field-installed members are an integral part of the truss design. Retain a design professional to specify final field connections and temporary supports. All field-installed members must be properly fastened prior to applying any loading to the truss. This design anticipates the final set position.
- 16) Based on: P1595202 17) Revision: Updated Code



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

WARNING - Verify design parameters and READ NOTES Universal Forest Products, Inc. PHONE (616)-364-6161 FAX (616)-365-0060

2801 EAST BELTLINE RD, NE GRAND RAPIDS, MI 49525

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





Universal Forest Products°

Job	Truss	MFG	Customer
98929	P1595207	315	COMMODORE

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







	NOF	RTH CAROLINA						
	MODULAR PLANS REVIEW CHECKLIST							
1	array of his 11 % 1 had	PAGE 1 of 3 revised MAY 201						
Manufa	ıacturer	R-Anell Housing Group						
	number/name	2R2007-R2						
3rd Par		NTA						
Review		3/4/20						
Review		DAND BARIS						
1011011		Plan Sheet Page # and NOTES						
	QC MANUAL (current and complete)							
	(Control of the Control of the Contr							
	APPENDIX B (required and attached)	N/A - Does Not Apply to Residential Modulars						
	Taxabas and Asia and							
	PLAN SHEETS							
	Each plan sheet third-party stamped with approver's name							
	Each plan sheet is numbered and/or indexed							
	GENERAL (cover sheet)							
	Code References	Cover sheet						
	Statement regarding connection to public utilities	Cover sheet						
	Statement regarding bathrooms if not included	NA						
	Construction type	Cover sheet - 5B (Wood Frame - Unprotected)						
	Occupancy classification	Cover sheet - Single Family Residential						
	Fire resistance ratings (if required)	INA						
	Floor live load	Cover sheet						
	Roof live load	Cover sheet						
	Design wind velocity	Cover sheet						
	Seismic information (commercial projects)	NA						
	Thermal zones	Cover sheet						
	Notice to inspections department regarding items to be site							
	installed	Cover sheet						
	FLOOR PLANS							
	Interior and exterior wall layouts	Page FP						
	Door and window schedule	Schedules and General Notes Page						
	Light and Ventilation requriements	Schedules and General Notes Page						
	Attic access (size and locaiton)	Page FP						
	Non-prescriptive headers	IN/A						
	Safety glazing requirements	Shown on floor plan with "S" symbol						
	Fire rating of Exterior walls (if applicable)	NA						
	,							
	EXTERIOR ELEVATIONS							
	Exterior materials	Page EL						
	Attic ventilation requirements	Page XS						
	the state of the s	· · · · · · · · · · · · · · · · · · ·						
	PLUMBING							
	Plan	Pages WH, WC, DL, DN, & GA						
	All fixtures furnished by mfg. shown on plans	Pages WH, WC, DL, DN, GA (references design manual						
	Materials (water supply & distribution, DWV, storm	, , , ,						
	drainage)	Pages WH, WC, DL, DN, & GA						
	Supply and waste risers, including DWV system	Pages WH, WC, DL, DN, & GA						
	(generic) beneath the building.	j. 1911; 170] maj ottij st stri						
	1, 9, 7 22:1220: 1:12 22:12:13							
	Water heater (type and capacity)	Electric 50 gal						

		ORTH CAROLINA	
	MODULAR P	LANS REVIEW CHECKLIST	
+		PAGE 2 of 3	revised MAY 2
_		Plan Sheet Page	# and NOTES
M	IECHANICAL		
D	esign calculations	N/A	
ln	stalled unit capacity	ResCheck	
Si	upply and returns (locations and sizes)	Pages HS & HR	
Di	uct sizes	Page HS	
Sı	pecifications (units, ducts)	Page HS (reference design manual)	***************************************
Al	ll appliances furnished by mfg. shown on plans	Page FP	
H _E	LECTRICAL		
	lan	Page EP	
	ocation of all electrical boxes	Page EP	
	lectrical panel location	Page EP	
	ote regarding main disconnect (if applicable)	Page NG	
	xterior lighting and receptacles	Page EP	
	round level receptacles (if applicable)	Page EP	
	moke detector location(s)	Page EP	
	lectrical load calculations	Page NG	
	lectrical panel layout (breaker and wire sizes, circuit	1. 4.30 1.10	
	chedule)	Page NG	•
	anel and service entrance sizes	Page NG	
	Il fixtures furnished by mfg. shown on plans	Page EP	
	mean of tarmorroa by ring, one with on plane	, 490 L1	
	CCESSIBILITY		
	or other than 1 & 2 family dwellings)		
	ntrances and means of egress	N/A	
	oors, doorways, and door hardware	N/A	
	tairs and handrails	N/A	
	oilet rooms, plumbing fixtures, grab bars, etc	N/A	
	athrooms and shower rooms	N/A	
	ccupancy specifica requirements	N/A	
Mı	ulti-family dwellingsL Typa A and B units	N/A	
FL	LOOR X-SECTION		
	oist and beam sizes and spacing	Page XS	
	aterials species and grade	Page XS	
Sh	neathing, decking, and concrete as applicable	Page XS	
	astening instructions	Page XS	
	sulation	ResCheck	
De	etails as required for clarification	N/a	
- W	ALL X-SECTION		
	tud and column sizes and spacing	Page XS	
	aterials species and grade	Page XS	
	neathing and bracing	Page XS	
	eaders and lintels	Page XS	
	nishes	Page XS	
	astening instructions	Cover Sheet (references Installation Manua	21/
	sulation	ResCheck	ai <i>j</i>
line			

	PLANS REVIEW CHECKLIST PAGE 3 of 3 revised
	PAGE 3 of 3 revised
	Plan Sheet Page # and NOTES
CEILING/ROOF X-SECTION	
Truss, rafter, and beam spacing	Page XS, Cover Sheet, truss dwgs.
Lumber species and grade	Design Manual
Sheathing and decking	Page XS
Finishes	Page XS
Fastening instructions	Installation Manual
Insulation	ResCheck
Details including NC sealed truss designs or manual reference	Design Manual
FOUNDATION PLAN	
Footings, pier, and curtain wall locations and specification	Day 5000# 0 1 1 1 1 1
X-sections with dimensions	
Anchorage - sill plate to piers and curtain wall	Page FD20# & Installation Manual Page FD20# & Installation Manual
Anchorage - building to sill plate	
Anchorage - building to siii plate Anchorage - tie downs (lateral and longitudinal)	Page FD20# & Installation Manual
Soil bearing capacity	Page FD20# & Installation Manual
Minimum concrete compressive strength	Page FD20# & Installation Manual
Motar type	Page FD20# & Installation Manual
iviotal type	Page FD20# & Installation Manual
Ventilation requirements (with	B
Ventilation requirements (with a vapor barrier)	Page FD20# & Installation Manual
Crawl space access requirements	Page FD20# & Installation Manual
ENERGY COMPLIANCE	
Demonstrate compliance	ResCheck
SET-UP INSTRUCTIONS	
Floor and ceiling connections	Page 32 of Installation Manual
Marriage wall connections	Page 32 of Installation Manual
Roof set-up connections	Page 32 of Installation Manual
Plumbing connections	Pages 48-50 of Installation Manual
Mechanical connections	Page 50 of Installation Manual
Electrical connections	Page 46-48 of Installation Manual
Fire stopping	not specifically addressed in installtion manual (inherent in design)
Air infiltration elimination	not specifically addressed in installtion manual (part of IRC requirements
Notice to inspections department attachment if set-up	
instructions are by attachment	Cover Sheet
ITEMS NOT INSPECTED IN PLANT	
List of items not inspected by 3rd. Party	Cover Sheet
Notice to inspections department	Code page