



REScheck Software Version 4.6.0
Compliance Certificate

Project Title: M25KSF2A_TNCHR-168

Energy Code: **2006 IECC**
 Location: **Knoxville, Tennessee**
 Construction Type: **Single Family**
 Project Type: **New construction**
 Conditioned Floor Area: **917 ft2**
 Glazing Area Percentage: **8%**
 Heating Degree Days: **3611**
 Climate Zone: **4**

Construction Site: _____ Owner/Agent: _____ Designer/Contractor:
 Cory Chumley
 Clayton Homes

Compliance: Passes on UA trade-off

Compliance: **33.0% Better Than Code** Maximum UA: **206** Your UA: **138** Maximum SHGC: **0.40** Your SHGC: **0.28**
 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.

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Glazing or Door U-Factor	UA
Ceiling 1: Flat Ceiling or Scissor Truss	917	45.0	0.0		25
Wall 1: Wood Frame, 16" o.c.	1134	21.0	3.0		48
Window 1: Vinyl Frame:Double Pane with Low-E SHGC: 0.28	87			0.310	27
Door 1: Solid	44			0.190	8
Floor 1: All-Wood Joist/Truss:Over Unconditioned Space	917	30.0	0.0		30

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 2006 IECC requirements in REScheck Version 4.6.0 and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.

Name - Title _____ Signature _____ Date _____

Project Notes:

- 26'-8" x 36'-4"
- Off Frame
- Required floor insulation to be site installed per attached Rescheck.



Clayton Homes Rutledge (Plant 925)
 395 HWY 11W SOUTH Rutledge, TN 37861
 PH: 865.828.5771 FAX: 865.828.8097
 TN# CHR-168



REScheck Software Version 4.6.0 Inspection Checklist

Energy Code: **2006 IECC**
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Ceilings:

- Ceiling 1: Flat Ceiling or Scissor Truss, R-45.0 cavity insulation

Comments: _____

Above-Grade Walls:

- Wall 1: Wood Frame, 16" o.c., R-21.0 cavity + R-3.0 continuous insulation
 Continuous insulation specified for this above-grade wall has consistent R-value rating across full area of the wall

Comments: _____

Windows:

- Window 1: Vinyl Frame:Double Pane with Low-E, U-factor: 0.310, SHGC: 0.28,
 For windows without labeled U-factors, describe features:
 #Panels ____ Frame Type _____ Thermal Break? ____ Yes ____ No

Comments: _____

Note: Up to 15 sq.ft. of glazed fenestration per dwelling is exempt from U-factor and SHGC requirements.

Doors:

- Door 1: Solid, U-factor: 0.190

Comments: _____

Floors:

- Floor 1: All-Wood Joist/Truss:Over Unconditioned Space, R-30.0 cavity insulation

Comments: _____

Floor insulation is installed in permanent contact with the underside of the subfloor decking.

Solar Heat Gain Coefficient:

- Solar Heat Gain Coefficient (SHGC) values are determined in accordance with the NFRC test procedure or taken from the default table.

Air Leakage:

- Joints, penetrations, and all other such openings in the building envelope that are sources of air leakage are sealed.
- Recessed lights are either 1) Type IC rated with enclosures sealed/gasketed against leaks to the ceiling, or 2) Type IC rated and ASTM E283 labeled, or 3) installed inside an air-tight assembly with a 0.5" clearance from combustible materials and a 3" clearance from insulation.

Sunrooms:

- Sunrooms that are thermally isolated from the building envelope have a maximum fenestration U-factor of 0.50 and the maximum skylight U-factor of 0.75. New windows and doors separating the sunroom from conditioned space meet the building thermal envelope requirements.

Materials Identification and Installation:

- Materials and equipment are installed in accordance with the manufacturer's installation instructions.
- Insulation is installed in substantial contact with the surface being insulated and in a manner that achieves the rated R-value.
- Materials and equipment are identified so that compliance can be determined.



- Manufacturer manuals for all installed heating and cooling equipment and service water heating equipment have been provided.
- Insulation R-values and glazing U-factors are clearly marked on the building plans or specifications.

Duct Insulation:

- Ducts in unconditioned spaces or outside the building are insulated to at least R-8.
- Ducts in floor trusses above unconditioned spaces or above the outdoors are insulated to at least R-6.

Duct Construction:

- Air handlers, filter boxes, and duct connections to flanges of air distribution system equipment or sheet metal fittings are sealed and mechanically fastened.
- All joints, seams, and connections are made substantially airtight with tapes, gasketing, mastics (adhesives) or other approved closure systems. Tapes and mastics are rated UL 181A or UL 181B.
- Building framing cavities are not used as supply ducts.
- Automatic or gravity dampers are installed on all outdoor air intakes and exhausts.
- Additional requirements for tape sealing and metal duct crimping are included by an inspection for compliance with the International Mechanical Code.

Temperature Controls:

- Thermostats exist for each separate HVAC system. A manual or automatic means to partially restrict or shut off the heating and/or cooling input to each zone or floor is provided.

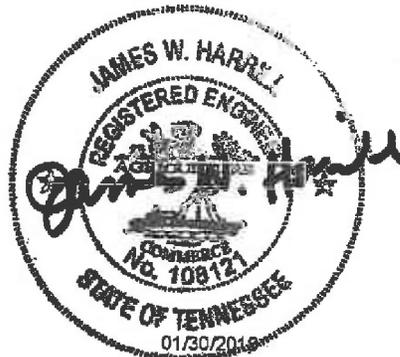
Circulating Service Hot Water Systems:

- Circulating service hot water pipes are insulated to R-2.
- Circulating service hot water systems include an automatic or accessible manual switch to turn off the circulating pump when the system is not in use.

Certificate:

- A permanent certificate is provided on or in the electrical distribution panel listing the predominant insulation R-values; window U-factors; type and efficiency of space-conditioning and water heating equipment.

NOTES TO FIELD: (Building Department Use Only)



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2006 IECC Energy Efficiency Certificate

Insulation Rating	R-Value
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Ceiling / Roof	45.00
Wall	24.00
Floor / Foundation	30.00
Ductwork (unconditioned spaces):	_____

Glass & Door Rating	U-Factor	SHGC
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Window	0.31	0.28
Door	0.19	NA

Heating & Cooling Equipment	Efficiency
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Heating System: _____	_____
Cooling System: _____	_____
Water Heater: _____	_____

Name: _____ Date: _____

Comments:



Clayton Homes Rutledge (Plant 925)

395 HWY 11W SOUTH Rutledge, TN 37861

PH: 865.828.5771 FAX: 865.828.8097

TN# CHR-168

Job	Truss	Truss Type	Qty	Ply	CMH MANUFACTURING, INC. - NORRIS II	126788245
WPL-989-0215-005_(14W)	M962-09F	HINGED TRUSS	1	1	ETN-M962-P3 ; 5/12 HUD/MOD - 09	
WoodPerfect, Guin, AL 33563					Job Reference (optional)	

7,640 s Nov 10 2015 MTek Industries, Inc. Wed Mar 09 10:07:04 2016 Page 1
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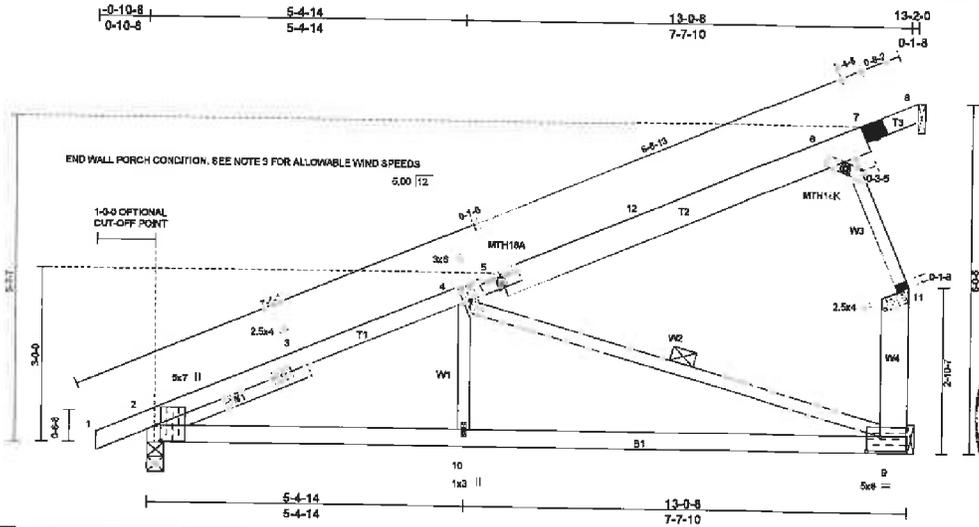
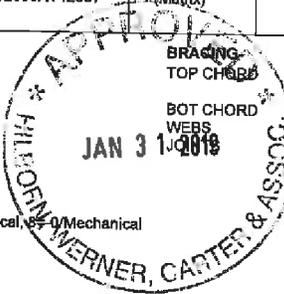


Plate Offsets (X,Y) - [2,0-3,4,0,0-14], [5,0-0-11,0,1-2], [8,0-0-11,0,1-2], [9,0-10-14,2,0-11], [9,0-2-12,0,3-0]

SPACING-: 2-0-0	SPACING-: 1-4-0	SPACING-: 2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
LOADING (psf)	LOADING (psf)	Plate Grip DOL	TC	Vert(LL)	0.25	9-10	>620	MT20	197/144
TCLL 23.1	TCLL 34.7	Lumber DOL	BC	Vert(TL)	-0.22	9-10	>684	MT18HS	197/144
(Ground Snow=30.0)	(Ground Snow=45.0)	Rep Stress Incr	WB	Horz(TL)	-0.03	9	n/a		
TCDL 11.0	TCDL 16.5	Code IBC2009/TPI2007	(Matrix)						
BCLL 0.0 *	BCLL 0.0 *								
BCDL 10.0	BCDL 15.0								

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
 5-7: 2x6 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF Stud *Except*
 9-11: 2x6 SPF Stud
 SLIDER Left 2x3 SPF Stud 2-9-7



BRACING
 TOP CHORD Structural wood sheathing directly applied or 5-1-9 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 3-7-8 oc bracing.
 WEBS 1 Row at midpt 4-9
 Brace at J(s): 11

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer installation guide.

REACTIONS. (lb/size)

2=650/0-3-8 (min. 0-1-8), 9=557/Mechanical, 9=0/Mechanical
 Max Horz 2=372(LC 9), 8=58(LC 14)
 Max Uplift 2=629(LC 9), 9=684(LC 9)
 Max Grav 2=675(LC 14), 9=648(LC 14)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/14, 2-3=883/1426, 3-13=-864/1440, 4-13=-863/1442, 4-14=-251/0, 5-14=-245/0, 5-15=-267/13, 15-16=-237/16,
 12-16=-202/20, 6-12=-183/30, 6-7=-96/48, 7-8=-66/56, 9-11=-308/318
 BOT CHORD 2-10=-1620/783, 9-10=-1620/783
 WEBS 4-10=-600/295, 4-9=-709/1588, 6-11=-327/338

REQUIRED FIELD JOINT CONNECTIONS

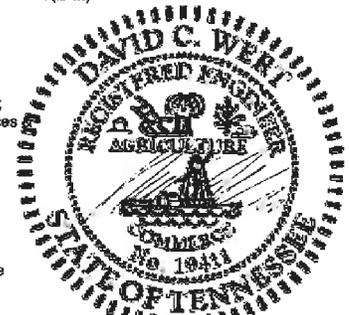
7=81/54/37/0, 11=327/339/0/0 - Maximum Compression (lb)/ Maximum Tension (lb)/ Maximum Shear (lb)/ Maximum Moment (lb-in)

NOTES-

- 1) Dado: 0-2-12 length x 0-0-12 deep dado, 0-0-0 to right edge from joint 5 on the top face.
- 2) Dado: 0-2-12 length x 0-0-12 deep dado, 0-0-0 to left edge from joint 5 on the top face.
- 3) Wind: ASCE 7-05; 120mph @24in o.c.; TCDL=4.4psf; BCDL=4.0psf; (Alt. 147mph @16in o.c.; TCDL=6.6psf; BCDL=6.0psf); h=22ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; porch left exposed; C-C for members and forces MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 4) TCLL: ASCE 7-05; Pg=30.0 psf (ground snow); Ps=23.1 psf (roof snow); Category II; Exp C; Partially Exp.; Ct=1.1
- 5) Roof design snow load has been reduced to account for slope.
- 6) Unbalanced snow loads have been considered for this design.
- 7) This truss has been designed for greater of min roof live load of 19.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- 8) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 9) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 10) All plates are MT20 plates unless otherwise indicated.
- 11) See HINGE PLATE DETAILS for plate placement.
- 12) Provisions must be made to prevent lateral movement of hinged member(s) during transportation.

Continued on page 2

Clayton Homes Rutledge (Plant 925)
 395 HWY 11W SOUTH Rutledge, TN 37861
 PH: 865.828.5771 FAX: 865.828.8097
 TN# CHR-168



March 9, 2016

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIL-7473 rev. 10/3/2015 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 ANS/ITPI Quality Criteria, D58-97 and BCSI Building Component Safety Information available from Truss Plate Institute, 216 N. Lee Street, Suite 312, Alexandria, VA 22314.



16223 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	CMH MANUFACTURING, INC. - NORRIS II	129188245
WPL-969-0215-005_(14W)	M982-09F	HINGED TRUSS	1	1	ETN-M982-P3 : 5/12 HUDMOD - 09 Job Reference (optional)	

WoodPerfect, Gwin, AL 33563

7,640 s Nov 10 2015 MITek Industries, Inc. Wed Mar 09 10:07:04 2016 Page 2
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NOTES-

- 13) All additional member connections shall be provided by others for forces as indicated.
- 14) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 15) * 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.
- 16) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 629 lb uplift at joint 2 and 684 lb uplift at joint 9.
- 17) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



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Date:
January 24, 2019

TYPE : MODULAR

MODEL PLAN INDEX

Model # - M25KSF2A_TN	State Label	
Manufacturer - CMH Manufacturing, Inc.	TN	
Unit Size - 26'-8" x 36'-4"		
Description - Residential		
Drawn by - Cory C.		
	Approx. Height	15'-0"
	# of Stories	1
	Sq. Ft.	917

Category	Document Description	Page or Sheet #
<i>Index</i>	<i>Index and Information Sheet</i>	C-1
Tech Sheet	REScheck w/ Checklist	See Attached
Model Plan	Cover Sheet	C-2
Model Plan	Floor Plan	A-1
Model Plan	Front & Rear Elevations	A-2
Model Plan	Left & Right Elevations	A-3
Model Plan	Electrical Plan	E-1
Model Plan	HVAC / Ridgebeam Layout	M-1
Model Plan	DWV Lines	P-1
Model Plan	Supply Lines	P-2
Model Plan	Off Frame Foundation	F-2
Model Plan	Off Frame Cross Section	X-2
Model Plan	Cross Section Details	D-1
Tech Sheet	Off Frame Foundatin Notes & Details	See Attached

TRUSS INFORMATION		
TRUSS	Truss Job #	Manual Page #
OPT. TRUSS/TRUSSES	M962-09F	See Attached
DORMER TRUSSES		
OPT.(S)		

ELECTRICAL PANEL SIZE					
Box:	Width	26.67'			
	Length	36.33'			
Electrical Appliances Standards			Gas Appliances Standards		
Floor Area	917 sq. ft.	2.8 KVA	Floor Area	917 sq. ft.	2.8 KVA
Small Appliance Circuits	3	4.5 KVA	Small Appliance Circuits	3	4.5 KVA
Range @	11.1 kw	11.1 KVA	Range @	11.1 kw	11.1 KVA
Water Heater @	3.8 kw	4.5 KVA	Washer @	1500 wa	1.5 KVA
Washer @	1500 wa	1.5 KVA	Dryer @	5 kw	5.0 KVA
Dryer @	5 kw	5.0 KVA	Dishwasher @	1.4 kw	1.4 KVA
Dishwasher @	1.4 kw	1.4 KVA	Garbage Disposal @	1.4 kw	1.4 KVA
Garbage Disposal @	1.4 kw	1.4 KVA	Spa @	N/A	N/A
Spa @	N/A	N/A	Blower @	0.8 kw	0.8 KVA
Total Load		32.6 KVA	Total Load		28.6 KVA
First 10 KVA @ 100%		10.0 KVA	First 10 KVA @ 100%		10.0 KVA
Remainder @ 40%		9.0 KVA	Remainder @ 40%		7.4 KVA
HVAC @ 100%		16.6 KVA			
Total		34.0 KVA	Total		17.4 KVA
Total Amps		141.7 AMPS	Total Amps		72.5 AMPS
Install a		200 AMP Panel	Install a		100 AMP Panel



JAMES HARRILL PE
P.O. BOX 8780
Maryville, TN 37802

P.E. SEAL

THIRD PARTY SEAL

Clayton Homes Rutledge (Plant 925)
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TN# CHR-168

INDEX AND
INFORMATION SHEET

SHEET:
C-1

PROJECT # M25KSF2A_TN
SCALE: 3/16" = 1' - 0"
JOB # 1869-0012

HILDEBORN, WERNER, CARTER,
AND ASSOCIATES, INC.
1827 SOUTH MYRTLE AVE.
CLEARWATER, FL 33766

Clayton - Plant 925
395 Hwy 11W South, Rutledge, TN 37861
PH: 865.828.5771 FAX: 865.828.8097

TN# CHR-168
STATE LABEL(S): TN

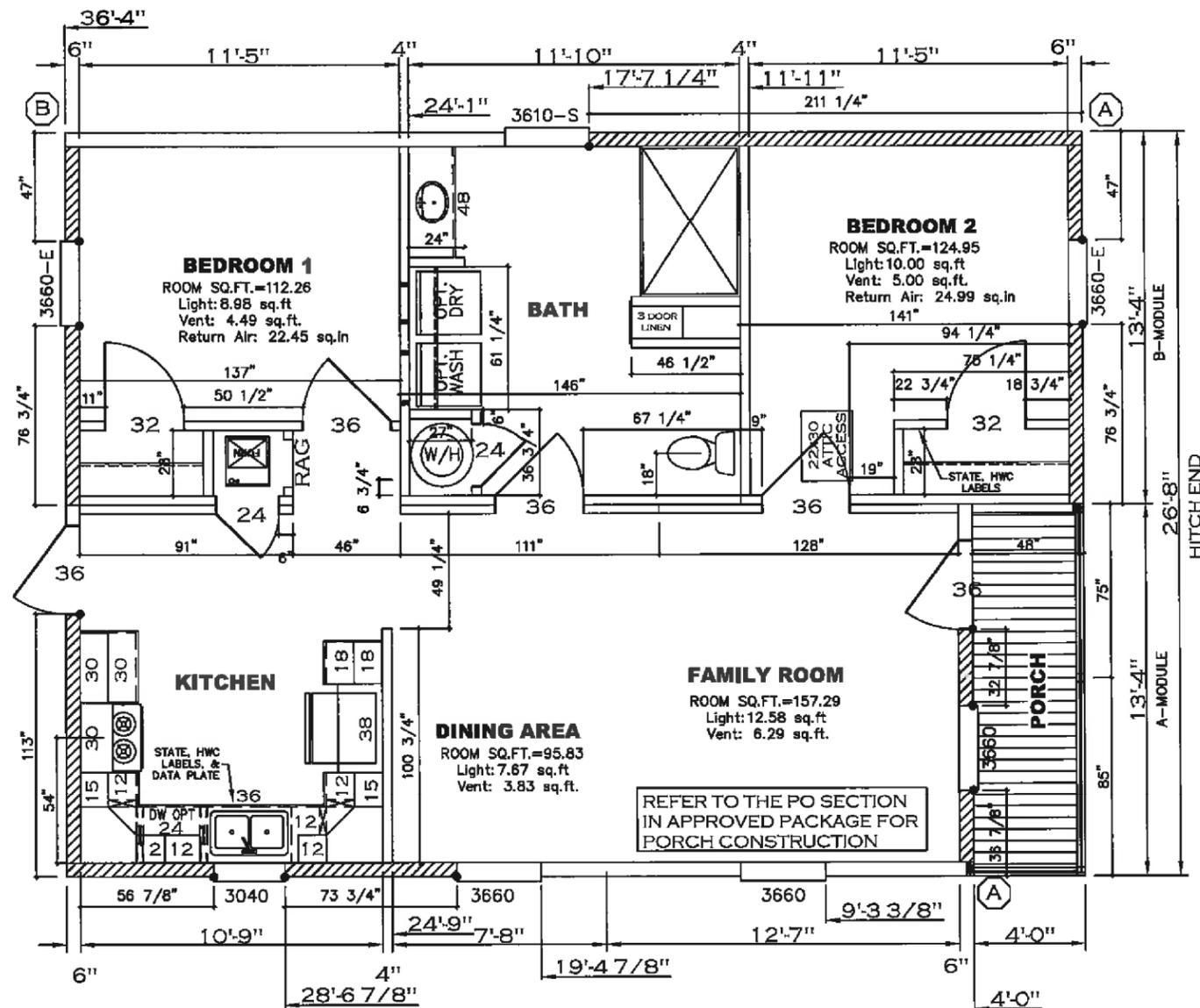
ELECTRICAL NOTES: NEC, 2008 EDITION w/TN AMENDMENTS	MECHANICAL NOTES: 2006 IRC	GENERAL NOTES: 2006 IRC	PLUMBING NOTES: 2006 IRC
<ol style="list-style-type: none"> ALL CIRCUITS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE APPROPRIATE ARTICLES OF THE NEC. WHEN LIGHT FIXTURES ARE INSTALLED IN CLOSETS THEY SHALL BE SURFACE MOUNTED OR RECESSED. INCANDESCENT FIXTURES SHALL HAVE COMPLETELY ENCLOSED LAMPS. SURFACE MOUNTED INCANDESCENT FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 12 INCHES AND ALL OTHER FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 6 INCHES FROM "STORAGE AREA" AS DEFINED BY NEC 410.2. WHEN WATER HEATERS ARE INSTALLED THEY SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE WATER HEATERS SERVED. THE BRANCH CIRCUIT SWITCH OR CIRCUIT BREAKER SHALL BE PERMITTED TO SERVE AS THE DISCONNECTING MEANS ONLY WHERE THE SWITCH OR CIRCUIT BREAKER IS WITHIN SIGHT FROM THE WATER HEATER OR IS CAPABLE OF BEING LOCKED IN THE OPEN POSITION. HVAC, WHIRLPOOL, GARBAGE DISPOSAL, DISHWASHER SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE EQUIPMENT SERVED. A UNIT SWITCH WITH A MARKED "OFF" POSITION THAT IS A PART OF THE APPLIANCE AND DISCONNECTS ALL UNGROUNDED CONDUCTORS SHALL BE PERMITTED AS THE DISCONNECTING MEANS WHERE OTHER DISCONNECTING MEANS ARE ALSO PROVIDED BY A READILY ACCESSIBLE CIRCUIT BREAKER. PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM THE INTERRUPTING RATING OF THE MAIN BREAKER MUST BE DESIGNED AND VERIFIED AS BEING IN COMPLIANCE WITH SECTION 110-9 OF THE N.E.C. BY LOCAL ELECTRICAL CONSULTANT. THE MAIN ELECTRICAL PANEL AND FEEDERS ARE DESIGNED BY OTHERS, SITE INSTALLED AND SUBJECT TO LOCAL JURISDICTION APPROVAL. ALL CIRCUITS CROSSING OVER MODULE MATING LINE(S) SHALL BE SITE CONNECTED WITH APPROVED ACCESSIBLE JUNCTION BOXES OR CABLE CONNECTORS. SMOKE DETECTORS SHALL BE WIRED SO THAT THE OPERATION OF ANY ONE SMOKE DETECTOR WILL CAUSE SIMULTANEOUS ACTIVATION OF ALL OTHERS. SMOKE DETECTORS SHALL HAVE BATTERY BACKUP. SMOKE DETECTORS SHALL BE PHOTO-ELECTRIC OR SILENCING WITHIN 20 FT. OF ANY COOKING APPLIANCE. ALL RECEPTACLES INSTALLED IN WET LOCATIONS (EXTERIOR) SHALL BE WEATHER RESISTANT (WR) AND IN WEATHER PROOF (WP) ENCLOSURES, THE INTEGRITY OF WHICH IS NOT AFFECTED WHEN AN ATTACHMENT PLUG IS INSERTED OR REMOVED. 	<ol style="list-style-type: none"> DUCT DESIGN PER HVAC/RIDGEBEAM DETAIL SHEET. INTERIOR DOORS MAY BE UNDERCUT 1.5 INCHES ABOVE FINISHED FLOOR FOR AIR RETURN OR RETURN AIR VENTS INSTALLED. BATHROOM VENT FANS SHALL PROVIDE EXHAUST DIRECTLY TO THE EXTERIOR. CAPABLE OF 50 CFM FOR INTERMITTENT VENTILATION OR 20 CFM FOR CONTINUOUS VENTILATION. KITCHEN VENT FANS SHALL PROVIDE EXHAUST DIRECTLY TO THE EXTERIOR. CAPABLE OF 100 CFM FOR INTERMITTENT VENTILATION OR 25 CFM FOR CONTINUOUS VENTILATION. VENT FANS SHALL BE DUCTED TO THE EXTERIOR AND TERMINATE AT AN APPROVED VENT CAP. HVAC EQUIPMENT SHALL BE EQUIPPED WITH OUTSIDE FRESH AIR INTAKE. THIS BUILDING DESIGN COMPLIES WITH OR EXCEEDS MINIMUM REQUIREMENTS FOR TENNESSEE CLIMATE ZONE 4. FOR COMBUSTION AIR AND VENTING REQUIREMENTS ON GAS APPLIANCES, SEE MANUFACTURER'S INSTALLATION MANUAL. GAS WATER HEATERS SHALL BE THE DIRECT VENT TYPE. HVAC MAY BE SITE INSTALLED BY OTHERS. HEAT LOSS & GAIN ANALYSIS IS IN COMPLIANCE WITH THE 2006 INTERNATIONAL ENERGY CONSERVATION CODE. ALL FLEX DUCTS ARE TO BE A MINIMUM OF R-6 DUCT WHEN DUCT IS WITH-IN THE BUILDING ENVELOPE. 	<ol style="list-style-type: none"> ALL GLAZING WITHIN 24 INCH ARC OF DOORS, WHOSE BOTTOM EDGE IS LESS THAN 80 INCHES ABOVE THE FLOOR, AND ALL GLAZING IN DOORS SHALL BE SAFETY, TEMPERED OR ACRYLIC PLASTIC SHEET. FLOOR DESIGN LIVE LOAD-40PSF. ROOF LIVE LOAD-20PSF. GROUND SNOW LOAD 20PSF. MAXIMUM WIND SPEED - 90 MPH EXP. C SEISMIC DESIGN CATEGORY C. OCCUPANCY IS RESIDENTIAL (ONE & TWO FAMILY DWELLING) OCCUPANT LOAD IS BASED ON ONE PERSON PER 200 SQUARE FEET OF FLOOR AREA. CONSTRUCTION IS TYPE VB, UNPROTECTED, AND UNSPRINKLERED. CEILING FANS SHALL BE 80 INCHES MINIMUM FROM BOTTOM OF BLADES TO FINISH FLOOR. MINIMUM CORRIDOR WIDTH IS 36 INCHES. ONE EXTERIOR DOOR TO BE 36" x 80". OTHER EXTERIOR HINGED OR SLIDING DOORS SHALL NOT BE REQUIRED TO COMPLY WITH THESE MINIMUM DIMENSIONS. BUILDING MAY BE MIRRORED END FOR END. ALL WINDOWS SHALL BE VERTICAL SLIDING, DOUBLE GLAZED, CLEAR GLASS, AND VINYL FRAMES UNLESS OTHERWISE NOTED. EXTERIOR WALLS ARE BUILT WITH 2X6 STUDS. SAFETY GLAZING MATERIAL, TENN. TITLE 68, CHAPTER 120, PART 3 (TENN. CODE ANN. 68-120-301 ET. SEQ). ALL DOOR CALL-OUTS ARE LABELED IN INCHES. 	<ol style="list-style-type: none"> ALL PLUMBING FIXTURES SHALL HAVE SEPARATE SHUT-OFF VALVES. WATER HEATER SHALL HAVE A 1 1/2" DEEP SAFETY PAN WITH 1 INCH DRAIN TO EXTERIOR, T&P RELIEF VALVE WITH DRAIN TO EXTERIOR, AND A SHUT-OFF VALVE WITHIN 3 FEET ON THE COLD WATER SUPPLY LINE. WATER PIPES INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE LOCATED ON THE HEATED SIDE OF THE WALL INSULATION. WATER PIPING INSTALLED IN AN UNCONDITIONED ATTIC SHALL BE INSULATED WITH AN INSULATION OF R-6.5 MINIMUM. WATER SUPPLY LINES SHALL BE CPVC OR QUESTPEX. WHEN QUESTPEX SUPPLY LINES ARE INSTALLED THE MAXIMUM WATER HEATER TEMPERATURE SETTING IS 180°F. THE QUESTPEX PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS LIMITATIONS AND INSTRUCTIONS. BUILDING DRAIN AND CLEANOUTS ARE DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL. TUB ACCESS PROVIDED UNDER HOME UNLESS OTHERWISE NOTED. SHOWER STALLS SHALL BE COVERED WITH NON-ABSORBENT MATERIAL TO A HEIGHT OF 72 INCHES ABOVE FINISHED FLOOR. THERMAL EXPANSION DEVICE REQUIRED BY WATER HEATER INSTALLED AND IF NOT SHOWN ON PLUMBING PLAN IS DESIGNED AND SITE INSTALLED BY OTHERS SUBJECT TO LOCAL APPROVAL. SHOWERS SHALL BE CONTROLLED BY AN APPROVED MIXING VALVE WITH A MAXIMUM WATER OUTLET TEMPERATURE OF 120°F (48.8°C). DWV SHALL BE EITHER ABS OR PVC - DWV. THIS UNIT MUST BE CONNECTED TO A PUBLIC WATER SUPPLY AND SEWER SYSTEM IF THESE ARE AVAILABLE. PIPING IN UNCONDITIONED SPACES MUST BE PROTECTED WITH INSULATION HAVING A MINIMUM R FACTOR OF 3. ALL GAS LINES TO BE STRAIGHT DROPS. ALL OTHER LINES TO BE COMPLETED ON SITE. SUBJECT TO LOCAL APPROVAL. WATER HEATER MAY BE SITE INSTALLED BY OTHERS.



Clayton Homes Rutledge (Plant 925)
 395 HWY 11W SOUTH Rutledge, TN 37861
 PH: 865.828.5771 FAX: 865.828.8097
 TN# CHR-168

JAMES HARRILL, PE
 P.O. BOX 8790
 Maryle, TN 37802

CLAYTON HOMES		10/22/04
CODES: SEE NOTES	REVISIONS	BY DATE
STATE LABEL(S): TN	Revised notes under Mechanical & Electrical note #8 Added CO Note under Electrical section.	AW 9/8/09 SMW 9/17/09
SCALE: N.T.S.	Plumbing notes code changed to 2006 Revised note #3 & 12	JDC 9/18/09 JDC 11/5/09
TENNESSEE COVER SHEET		PLAN# XX-X TN# CHR-168 SHEET C-2



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IF HOME IS PLACED ON SITE WHERE ANY WINDOW SILL IS LESS THAN 24" ABOVE FINISHED FLOOR AND 72" OR GREATER ABOVE THE EXTERIOR GRADE, A WINDOW GUARD MUST BE INSTALLED THAT COMPLIES WITH ASTM F2006 OR ASTM F2090.

SHEAR WALL DESIGN METHOD ENGINEERED SIDE WALL SHEAR WALL CONSTRUCTED TO 195 PLF

90-MPH SHEARWALL INFO PLF CONST. PER SW SECTION IN STATE APPROVED PKG.
 (A) = 195 PLF
 (B) = 195 PLF

SEE SW-195 IN APPROVED MANUAL FOR SHEARWALL PLF CONSTRUCTION REFERENCE SW CHARTS SW-31.10_I.A.C.17_[78].1-2

● = FREE END HOLD DOWNS PER SW PACKAGES IN APPROVED MANUAL 237E CLADDING AND SHEAR DIAPHRAGM DESIGN

COLUMN STRAPPING SCHEDULE

(A) (2) 2x4 SPF #2 THIS HALF	(B) (2) 2x4 SPF #2 EACH HALF
(C) (3) 2x4 SPF #2 THIS HALF	(D) (3) 2x4 SPF #2 EACH HALF
(E) (4) 2x4 SPF #2 THIS HALF	(F) (4) 2x4 SPF #2 EACH HALF
(G) (5) 2x4 SPF #2 THIS HALF	(H) (5) 2x4 SPF #2 EACH HALF

- * INDICATE BEARING STIFFENERS NOTES:
- ALL COLUMN STUDS SHALL BE GLUED/NAILED TOGETHER PVA GLUE WITH 80% COVERAGE SHALL BE USED.
 - INSTALL 2 STEEL STRAPS AT EACH END OF EACH STUD IN COLUMN.
 - COLUMN MAY NOT BE NOTCHED OR DRILLED.
 - MARRIAGEWALL HEIGHT = 9'-0" MAX.

WINDOW SYMBOLS WITH THE LETTERS 'E' OR 'S' BESIDE THEM DESIGNATE THAT WINDOW AS BEING EITHER AN 'EGRESS' OR 'SAFETY GLAZED' WINDOW
 ex. 3660-E for EGRESS
 3660-S for SAFETY GLAZED

ZONES	INSULATION PACKAGE R VALUES			FURNACE KW	SECTION #
	FLOOR	WALL	CEILING		
4	30	21+3	45	15	MI-1.0

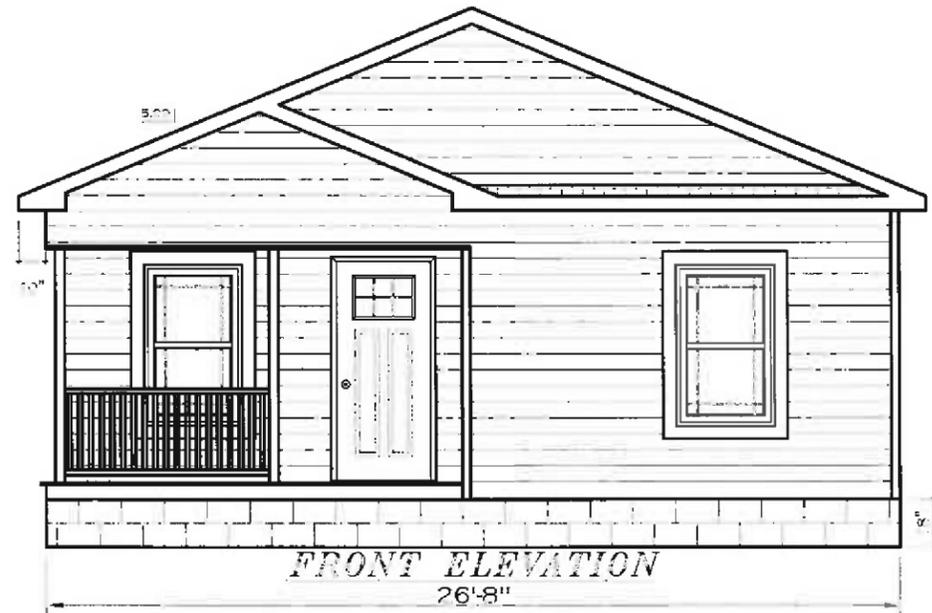
SIZE	EXTERIOR DOOR		INTERIOR DOOR		EXTERIOR WINDOW			
	U-VALUE	SHGC	CALL NUMBER	SIZE	U-VALUE	SHGC	LIGHT	VENT
3660	.31	.28	3660	36"	.31	.28	12.20	6.14
3040	.31	.28	32"	36"	.31	.28	6.28	3.14
3610	.31	.28	24"	24"	.31	.28	0.95	N/A

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 P.O. BOX 9780
 Maryville, TN 37802



PROJECT #M25KSF2A_TN
 SCALE: 3/16"=1'-0"
 JOB #1869-0012
 HILBORN, WERNER, CARTER, AND ASSOCIATES, INC.
 1627 SOUTH MYRTLE AVE.
 CLEARWATER, FL 33756
 TN# CHR-168
 STATE LABEL(S): TN
 FLOOR PLAN
 SHEET: A-1

3D PARTY SEAL



ELEVATION NOTES: TYPICAL

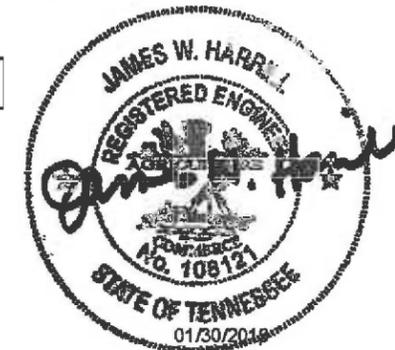
SEE 0-1 PAGE FOR METHOD OF ROOF VENTILATION.

ACCESSIBLE RAMP(S), STAIRS(S), AND HANDRAILS ARE NOT INSTALLED, DESIGNED BY OTHERS, AND SUBJECT TO LOCAL JURISDICTION.

FOUNDATION ENCLOSURE (WHEN PROVIDED) MUST HAVE 1 SQUARE FOOT NET VENT AREA PER 1/150TH OF THE FLOOR AREA, AND A 18" X 24" MINIMUM CLEAR SPACE ACCESS, SITE INSTALLED BY OTHERS SUBJECT TO LOCAL JURISDICTION.

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- SITE WORK:**
1. LEFT AND RIGHT SIDE VINYL SIDING INSTALLATION.
 2. SHINGLES TO COMPLETE PEAK.

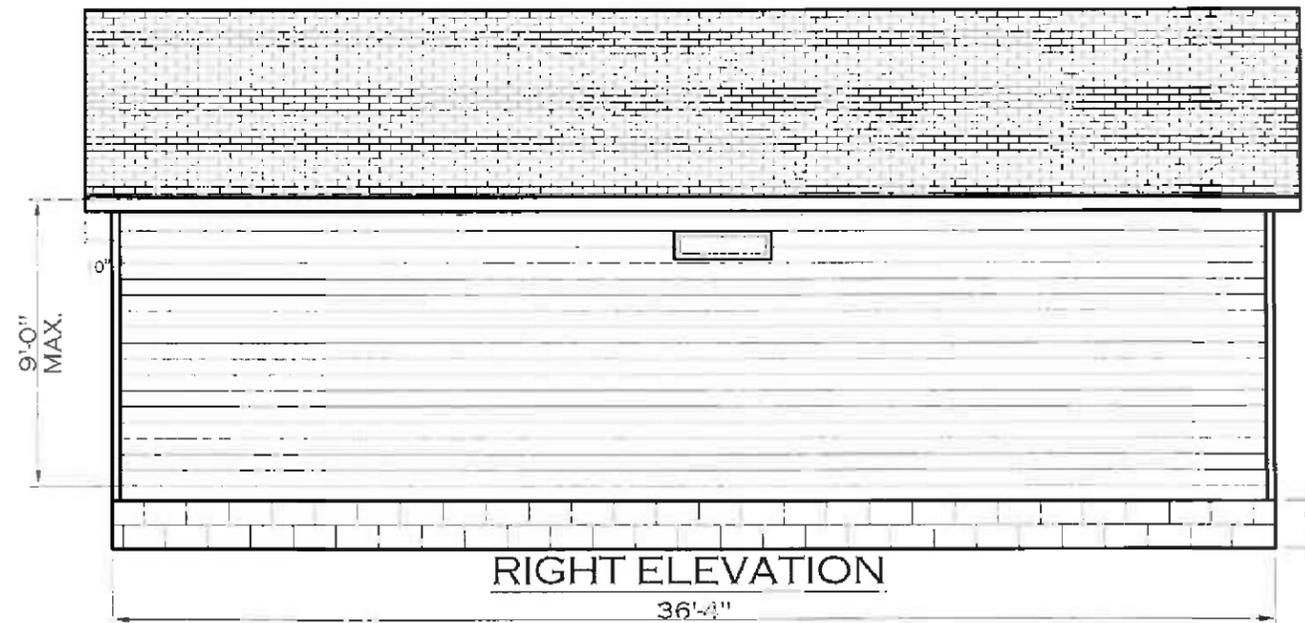
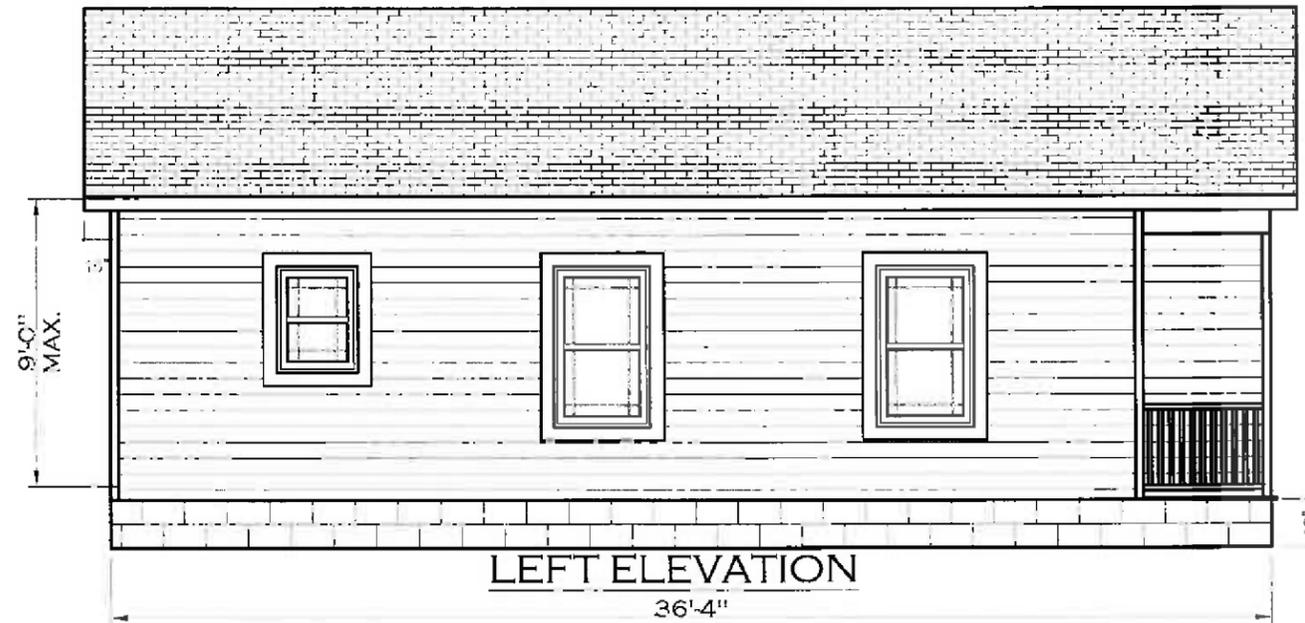


|| P.E. SEAL

|| THIRD PARTY SEAL

Clayton Homes Rutledge (Plant 925)
395 HWY 11W SOUTH Rutledge, TN 37861
PH: 865.828.5771 FAX: 865.828.8097
TN# CHR-168

PROJECT #M25KSF2A _TN	TN# CHR-168
SCALE: 3/16" = 1'-0"	STATE LABEL(S): TN
JOB #18689-0012	
HILBORN WERNER, CARTER, AND ASSOCIATES, INC. 1827 SOUTH WYRTLE AVE. CLEARWATER, FL 33735	
Clayton - Plant 925 395 Hwy 11W South, Rutledge, TN 37861 PH: 865.828.5771 FAX: 865.828.8097	
FRONT AND REAR ELEVATIONS	
A-2	



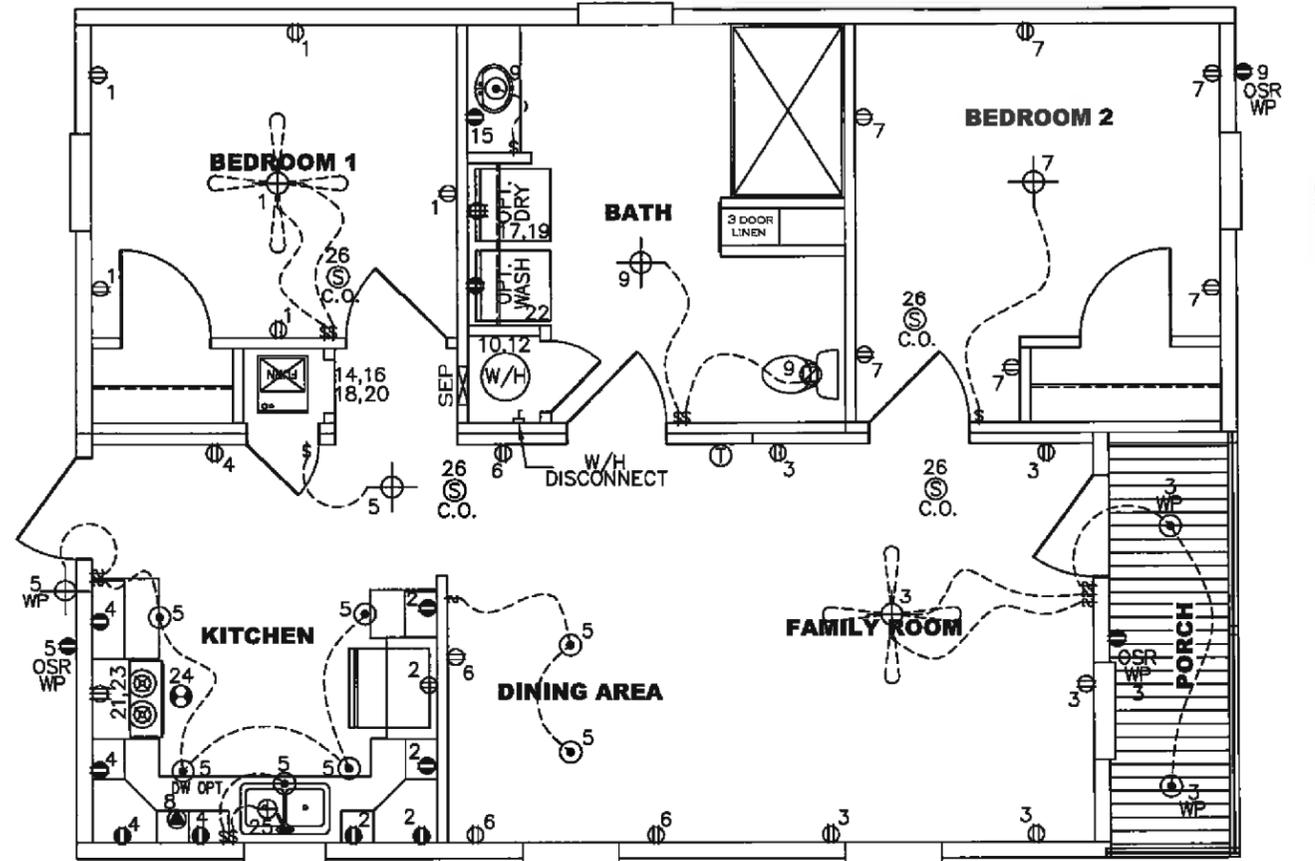
JAMES HARRELL, PE
P.O. BOX 8780
Murfreesboro, TN 37002

P.E. SEAL

THIRD PARTY SEAL

Clayton Homes Rutledge (Plant 925)
395 HWY 11W SOUTH Rutledge, TN 37861
PH: 865.828.5771 FAX: 865.828.8097
TN# CHR-168

PROJECT #M25KSF2A_TN	TN# CHR-168
SCALE: 3/16" = 1'-0"	STATE LABEL(S): TN
JOB #1689-0012	
HILBORN, WERNER, CARTER, AND ASSOCIATES, INC. 1827 SOUTH WYRTLE AVE CLEARWATER, FL 33756	
Clayton - Plant 925 395 Hwy 11W South, Rutledge, TN 37861 PH: 865.828.5771 FAX: 865.828.8097	
LEFT AND RIGHT ELEVATIONS	
SHEET: A-3	



ELECTRICAL SCHEDULE					NOMENCLATURE	CIRCUIT #	VOLTS	WIRE	BREAKER	NOMENCLATURE	CIRCUIT #	VOLTS	WIRE	BREAKER
					DRYER	17,19	240	10-3	30-DP	SMOKE DETECTOR	26	120	14-3	15-SP AFCI
LIGHT/RECEPT.	3,5,9	120	14-2	15-SP AFCI	WATER HEATER	10,12	240	12-2	20-DP	RANGE HOOD / OPT. MICROWAVE	24	120	12-2	20-SP
BEDROOM	1,7	120	14-2	15-SP AFCI	RANGE	21,23	220	8-3	40-DP	OPT. FREEZER	N/A	120	14-2	15-SP
DINING	8	120	12-2	20-SP AFCI	FURNACE	14,18 18,20	240	#10 NM-B 4-4-8 SE	30-DP 60-DP					
BATHROOM GFI	15	120	12-2	20-SP GFI	OPT. D/WASH	8	120	14-2	15-SP	SMOKE DETECTOR				
KITCHEN	2,4	120	12-2	20-SP	OPT. G/DISP	25	120	14-2	15-SP	GFI RECEPTACLE 120 V.				
WASHER	22	120	12-2	20-SP	OPT. SPA OR WP OR JAC	N/A	120	12-2	20-SP/GFI	DUPLX RECEPTACLE 120 V.				

SYMBOLS	
⊙	RECESSED CAN LIGHT
⊙	DISH WASHER
⊙	THERMOSTAT
⊙	FLUORESCENT FIXTURE WITH 2- 40W TUBES
⊙	EXIT SIGNS
⊙	JUNCTION BOX (NON POWERED UNLESS CIRCUIT NO. IS SHOWN)
⊙	TELEPHONE JACK
⊙	SUPPLY AIR REGISTER
⊙	RETURN AIR REGISTER
⊙	FLOOD LIGHT 2-150W BULBS
⊙	SWITCH & 3 WAY SWITCH
⊙	EMERGENCY LIGHT WITH BATTERY BACKUP
⊙	GARBAGE DISPOSAL
⊙	INCANDESCENT LIGHT WITH 1- 60 W. BULB
⊙	VENT FAN
⊙	COMB. VENT FAN & LIGHT

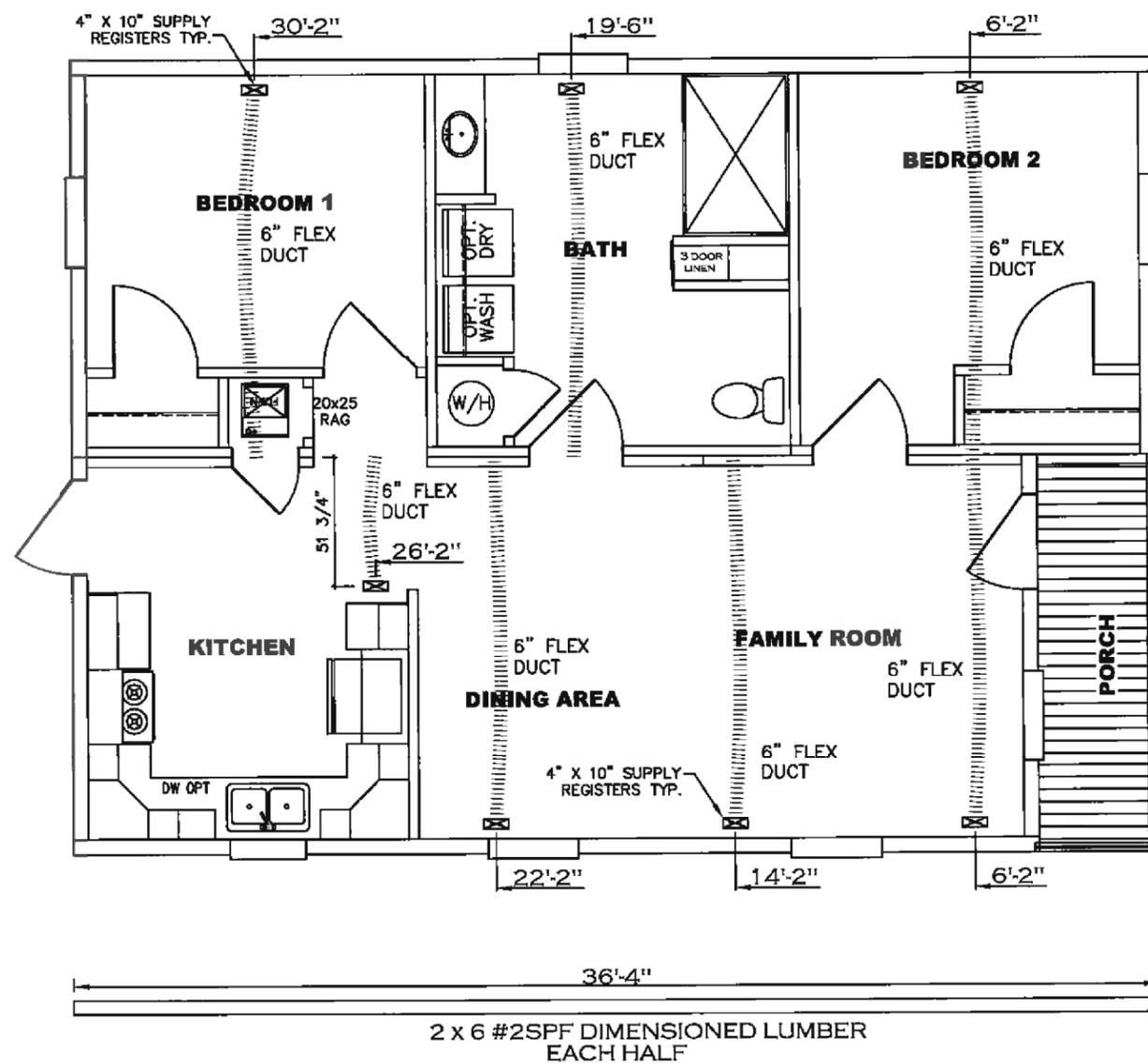
JAMES HARRILL PE
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Moryville, TN 37802



Clayton Homes Rutledge (Plant 925)
395 HWY 11W SOUTH Rutledge, TN 37861
PH: 865.828.5771 FAX: 865.828.8097
TNW CHR-168

PROJECT # M25KSF2A _TN
SCALE: 3/16" = 1'-0"
JOB # 1869-0012
HILBORN, WERNER, CARTER, AND ASSOCIATES, INC.
1627 SOUTH MYRTLE AVE.
CLEARWATER, FL 33756
Clayton - Plant 925
395 Hwy 11W South, Rutledge, TN 37861
PH: 865.828.5771 FAX: 865.828.8097
ELECTRICAL PLAN
SHEET: E-1

*** MAIN DUCT TO BE SITE INSTALLED ***



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 PH: 865.828.5771 FAX: 865.828.8097
 TNH CHR-168

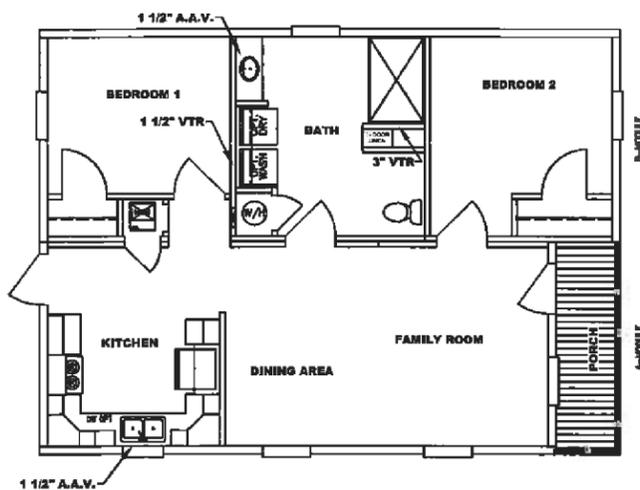
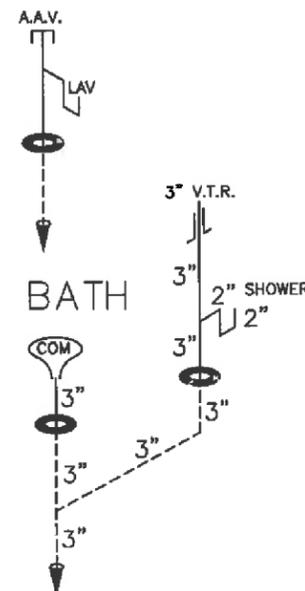
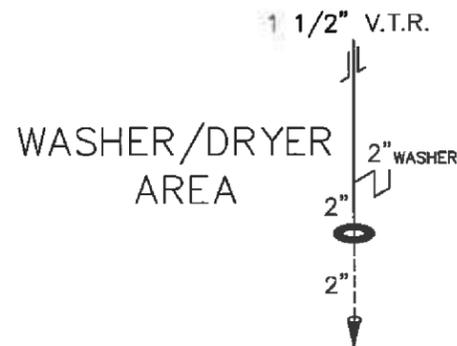
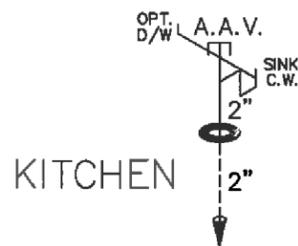


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 P.O. BOX 9790
 Maryville, TN 37802

P.E. SEAL

THIRD PARTY SEAL

PROJECT # M25KSF2A _TN	TN# CHR-168
SCALE: 3/16"=1'-0"	STATE LABEL(S): TN
JOB # 1869-0012	
HILBORN, WERNER, CARTER, AND ASSOCIATES, INC. 1627 SOUTH MYRTLE AVE. CLEARWATER, FL 33756	
Clayton Clayton - Plant 925 395 Hwy 11W South, Rutledge, TN 37861 PH: 865.828.5771 FAX: 865.828.8097	
HVAC AND RIDGEBEAM LAYOUT	
SHEET:	M-1



ALL DASHED LINES ON D.W.V.
ARE FIELD INSTALLED.

SITE WORK:
1. UNDER FLOOR DWV

***ALL DWV LINES
1 1/2" UNLESS
OTHERWISE NOTED.**

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Mayville, TN 37802



Clayton Homes Rutledge (Plant 925)
395 HWY 11W SOUTH Rutledge, TN 37861
PH: 865.828.5771 FAX: 865.828.8097
TN# CHR-168

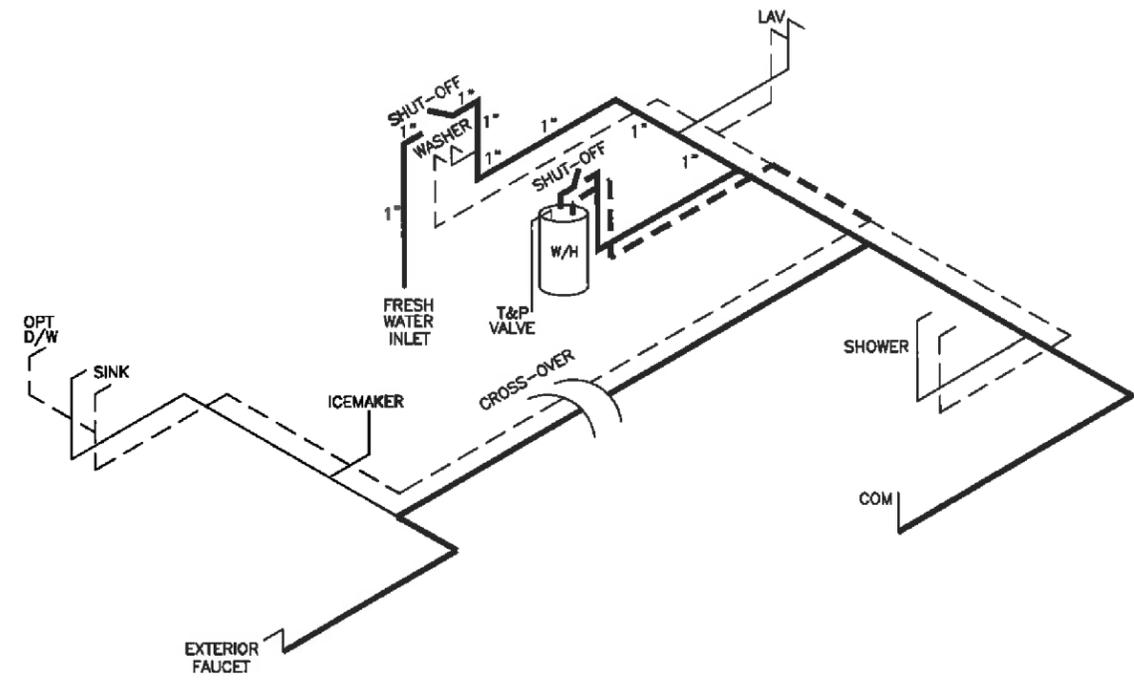
PROJECT #:	M25KSF2A - TN
SCALE:	3/16" = 1'-0"
JOB #:	1869-0012
HILBORN, WERNER, CARTER, AND ASSOCIATES, INC. 1627 SOUTH MYRTLE AVE. CLEARWATER, FL 33756	
Clayton Plant 925 395 Hwy 11W South Rutledge, TN 37861 PH: 865.828.5771 FAX: 865.828.8097	
D.W.V. LINES	
SHEET:	P-1
TN#:	CHR-168
STATE LABEL(S):	TN

THIRD PARTY SEAL

NOTE:
 DASHED LINES INDICATE HOT WATER
 SOLID LINES INDICATE COLD WATER

— = 3/4"
 — = 1/2"
 ** 1" PIPE SIZE NOTED

MDL = 38'
 SUPPLY LINE SIZING IS BASED ON AN ASSUMED AVAILABLE PRESSURE OF 40 TO 49 PSI AT MAIN INLET AND SHOULD BE VERIFIED PRIOR TO CONSTRUCTION.



PROJECT #:	M25KSF2A - TN
SCALE:	3/16" = 1' - 0"
JOB #:	1869-0012
TN#:	CHR-168
STATE LABEL(S):	TN
SUPPLY LINES	
SHEET: P-2	

HILBORN, WERNER, CARTER, AND ASSOCIATES, INC.
 1827 SOUTH MYRTLE AVE.
 CLEARWATER, FL 33756

Clayton
 Clayton - Plant 925
 995 Hwy 11W South, Rutledge, TN 37861
 PH: 865.828.5771 FAX: 865.828.8097

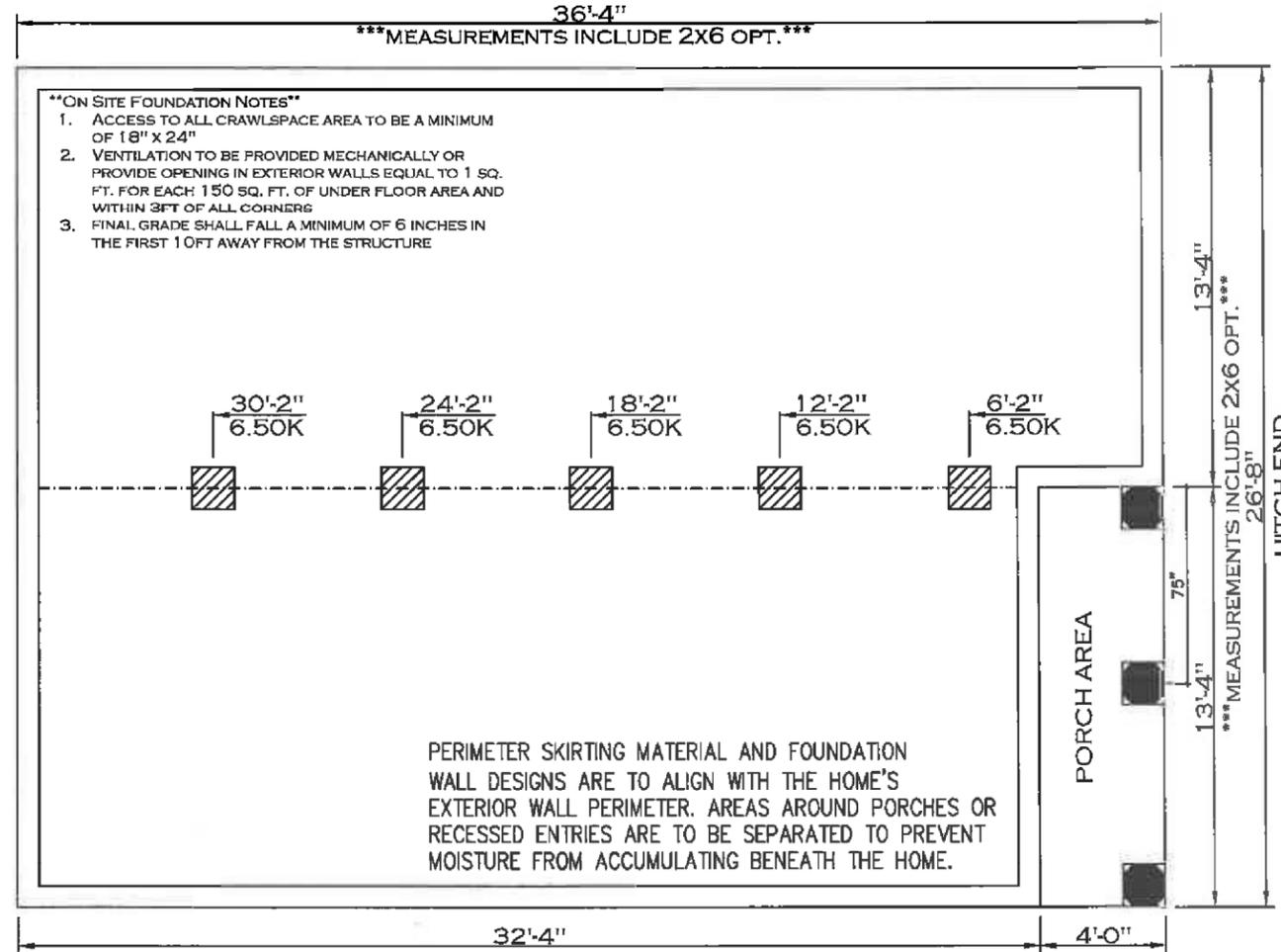
Clayton Homes Rutledge (Plant 925)
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 TN# CHR-168

JAMES HARRILL PE
 P.O. BOX 9790
 Maryville, TN 37802



|| P.E. SEAL

|| THIRD PARTY SEAL



PIER LEGEND	
	= SUPPORT UNDER MATING OPENING
	= SUPPORT AT MATING COLUMN
	= SUPPORT UNDER MATING WALL
	= PIER PORCH/RECESSED ENTRY
	= PIER MAIN BEAM
	= PIER PERIMETER
	= TIE-DOWN SUPPORT (QTY PER TBL. M, SEE DETAIL D-6 IN FOUND. PKG.)

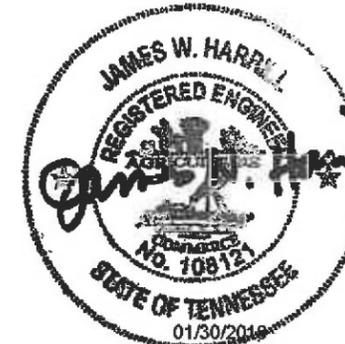
SEE FOUNDATION PACKAGE FOR ADDITIONAL DETAILS AND INFORMATION

FOUNDATION WIDTH IS NOMINAL AND DOES NOT TAKE INTO ACCOUNT THE OSB, SIDING, OR CABLES IN THE MATELINE AREA. WIDTH MAY NEED TO BE ADJUSTED ACCORDINGLY.

FOUNDATION DESIGN SPECIFICATIONS

- SEISMIC DESIGN CATEGORY = C
- GROUND SNOW LOAD = 20 PSF MAX
- MATING LINE GIRDER BEAM = (4) 2x10 #2 SP
- GIRDER BEAM SPLICE PLATE = 6" x 8" MIN.

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TN# CHR-168

OFF FRAME
FOUNDATION

SHEET:
F-2

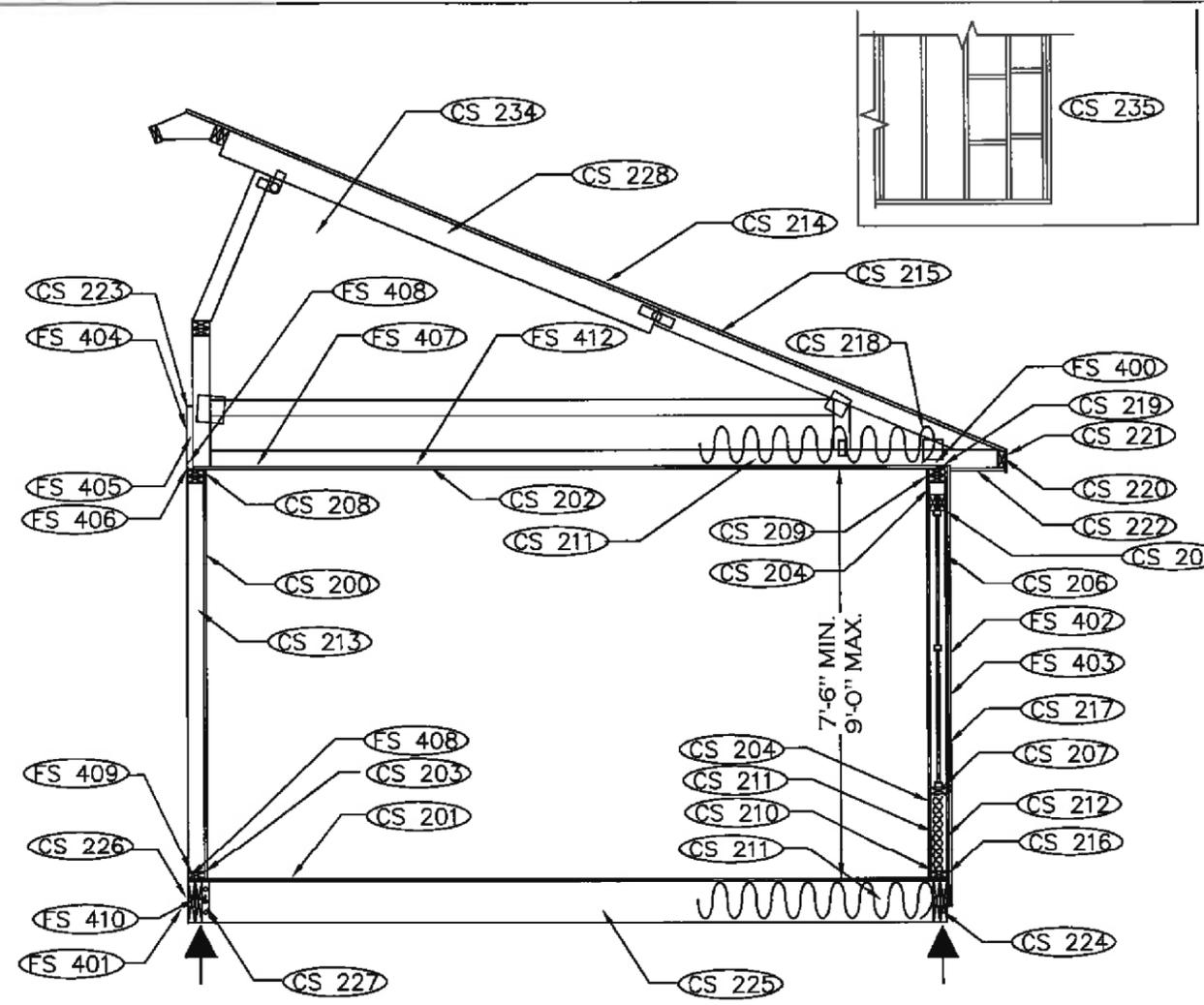
PROJECT # M25KSF2A - TN
SCALE: 3/16" = 1'-0"
JOB # 1869--0012

HILBORN, WERNER, CARTER,
AND ASSOCIATES, INC.
1627 SOUTH MYRTLE AVE.
CLEARWATER, FL 33756

Clayton
Clayton - Plant 925
395 Hwy 11W South, Rutledge, TN 37861
PH: 865.828.5771 FAX: 865.828.8097

TN# CHR-168
STATE LABEL(S): TN

Jan 17, 2019 - 2:22pm R:\MODULAR TYPICALS\Typical Off-Frame Cross Section KSF2A.dwg



- FS 400 - ROOF TRUSS ATTACHMENT TO TOP PLATE PER RC-30.0 IN APPROVED PACKAGE.
- FS 401 - EXTERIOR WALL STRAPPING AND FASTENING PER EW-31.0 IN APPROVED PACKAGE.
- FS 402 - EXTERIOR STRUCTURAL SHEATHING PER SW-10.0 OR SW-35.0, WHICH EVER IS WORST CASE OF, APPROVED STATE PACKAGE.
- FS 403 - RESERVED FOR FUTURE USES
- FS 404 - SITE SET UP CONNECTION: 3/8" LAG BOLT WITH 1" MIN. PENETRATION LAG SCREW SPACED 16" O.C. STAGGERED FROM SIDE TO SIDE. ALT. 1/2" DIA. BOLT WITH 1 3/8" WASHER SPACED 24" O.C. MAX.
- FS 405 - FASTEN RIDGE BEAM TO EACH TRUSS PER RC-60.0 IN APPROVED PACKAGE.
- FS 406 - RIDGEBEAM FASTENED TO TOP PLATE WITH #8x4" SCREWS 16" O.C.
- FS 407 - INTERIOR PARTITIONS FASTENED TO TRUSS OR LAYFLATS IN ROOF AND FLOOR PER PT-40.0 IN APPROVED PACKAGE.
- FS 408 - MARRIAGE WALL STRAPPING AND FASTENING PER MW-30.0 IN APPROVED PACKAGE. (TYPICAL EACH MARRIAGE WALL)

- FS 409 - EXTERIOR WALLS FASTENED TO FLOOR PER EW-31.0 IN APPROVED PACKAGE.
- FS 410 - SITE SET UP CONNECTION: 3/8" LAG SCREWS STAGGERED FROM SIDE TO SIDE AT 48" O.C. MAXIMUM. LAG SCREWS MUST PENETRATE 1.75" MINIMUM INTO ADJACENT MODULE RIM JOIST OR SITE INSTALL 1/2" X 4" BOLTS INTO PRE-DRILLED HOLES AT 48" O.C. MAX.
- FS 412 - ENDWALL TRUSS TO PLATE AND PLATE TO FLOOR PER SW SECTION IN APPROVED STATE MANUAL.

- CS 200 - 3/8" VINYL COVERED GYPSUM BOARD THROUGHOUT INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
OPT. 1/2" GYPSUM BOARD TAPED, SANDED AND FINISHED MAY BE SUBSTITUTED IN ANY LOCATION FOR THE 3/8" VINYL COVERED GYPSUM.
- CS 201 - 19/32" MINIMUM T&G OSB, EXP. 1, 24/16 OR 5/8" T&G PLYWOOD, STURD-I-FLOOR EXP. 1. ALL ENDS ARE BUTT JOINTS. INSTALLED PERPENDICULAR TO JOIST.
- CS 202 - 1/2" MINIMUM GYPSUM BOARD INSTALLED PER MANUFACTURER'S SPECIFICATIONS. (ACOUSTICALLY TREATED) (WHEN SUPPORTS ARE 24" O.C. AND WET SPRAY-ON FINISH IS USED GYPSUM BOARD SHALL BE 5/8" INCH THICK OR GOLD BOND 1/2" INCH HIGH STRENGTH CEILING BOARD OR EQUAL SHALL BE USED). SPRAY APPLIED VAPOR BARRIER (ONE PERM MAX.).
- CS 203 - BOTTOM SOLE PLATE 2X3 #3 SPF MIN.
- CS 204 - CRIPPLE STUD 2X6 #2 SPF MIN. 16" O.C.
- CS 205 - 2x HEADER PER EW-20.0 IN APPROVED PACKAGE.
- CS 206 - TYPICAL WINDOW OR DOOR SEE FLOOR PLAN FOR SPECIFICATIONS.
- CS 207 - WINDOW SILL PLATE MIN. 2x6 SPF #2
- CS 208 - DOUBLE TOP PLATE MIN. 2X3 #3 SPF
- CS 209 - DOUBLE TOP PLATE MIN. 2X6 #3 SPF
- CS 210 - BOTTOM SOLE PLATE 2X6 #3 SPF MIN.
- CS 211 - INSULATION W/ VAPOR BARRIER-SEE ATTACHED RESCHECKS OR FLOOR PLAN FOR R - VALUE.
- CS 212 - EXTERIOR WALL STUDS 2X6 SPF #2 AT 16" O.C. OR SP #2 @ 12" O.C. WITHIN 36" CORNER ZONES & 16" O.C. ELSEWHERE.
- CS 213 - MARRIAGE WALL STUDS MIN 2X3 SPF #3 AT 16" O.C.
- CS 214 - 7/16" OSB SHEATHING RATED EXP 1, 24/16
- CS 215 - ASPHALT OR FIBERGLASS SHINGLES OVER TWO LAYERS OF 15# FELT FOR PITCHES UP TO 4:12 AND ONE LAYER FOR 4:12 OR STEEPER INSTALLED PER MANUFACTURER'S SPECIFICATIONS. UNDERLAYMENT SHALL CONFORM WITH ASTM D 226, TYPE I, OR ASTM D 4869, TYPE I. CLOSED VALLEY FLASHING SHALL COMPLY WITH ASTM D 6380 TYPE II OR TYPE III. ASTM D 1970 MAY BE USED IN LIEU OF LINING MATERIAL.

- CS 216 - 7/16" OSB SHEATHING RATED EXP. 1, 24/16 WITH WEATHER RESISTIVE BARRIER BELOW ALL EXT. FINISH MATERIAL. CORROSION-RESISTANT FLASHING REQUIRED AT ALL LOCATIONS AS SHOWN ON APPROVED MANUAL DETAILS
- CS 217 - LAP BOARD, WOOD OR VINYL SIDING, HARDI SIDING, OR EXPOSED SHEATHING FOR ON SITE EXTERIOR FINISH INSTALLATION.
- CS 218 - MAINTAIN 1" MIN. SPACE BETWEEN INSULATION AND ROOF SHEATHING.
- CS 219 - COMPRESSION STRIP SHIM (2" CONTINUOUS)
- CS 220 - 2X MIN. SPF #3 RIM
- CS 221 - ALUMINUM OR HARDI FASCIA MATERIAL
- CS 222 - CONTINUES VENTILATED SOFFIT
- CS 223 - RIDGE BEAM PER RC-60.0 IN APPROVED PACKAGE
- CS 224 - FLOOR RIM JOIST PER EL-100.0 IN APPROVED PACKAGE
- CS 225 - FLOOR JOIST PER EL-100.0 IN APPROVED PACKAGE
- CS 226 - MATE LINE FLOOR RIM JOIST PER EL-100.0 IN APPROVED PACKAGE
- CS 227 - JOIST HANGER PER EL-120.0 IN APPROVED PACKAGE
- CS 228 - ENGINEERED TRUSSES PER C-1 SHEET
- CS 229 - ENDWALL OVERHANG DETAIL PER RC-10.0 DETAIL(S)
- CS 230 - RESERVED FOR FUTURE USES
- CS 231 - RESERVED FOR FUTURE USES.
- CS 232 - RESERVED FOR FUTURE USES
- CS 233 - RESERVED FOR FUTURE USES
- CS 234 - GABLE ENDWALL FRAMING PER RC-21.0 DETAIL(S).
- CS 235 - 2x FULL DEPTH BLOCKING PER FL-100.0 AT ALL ENDWALL LOCATIONS WHEN AN UNBALANCED BACKFILL OCCURS.

NOTE:
1. BUILDING IS SYMMETRICAL.
2. FLOOR INSULATION MAY BE SITE INSTALLED.

JAMES HARRILL PE
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Maryville, TN 37802



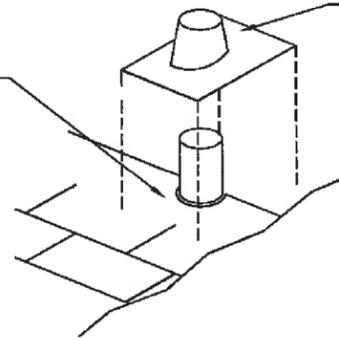
Clayton Homes Rutledge (Plant 925)
395 HWY 11W SOUTH Rutledge, TN 37861
PH: 865.828.5771 FAX: 865.828.8097
TN# CHR-168

...IRD PARTY SEAL

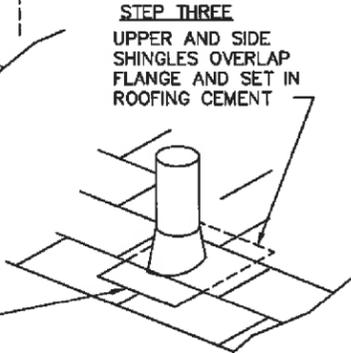
DRAWN BY: B. RUSSELL
 TN# CHR-168
 STATE LABEL(S): TN
 SCALE: N.T.S.
 HILBORN, WERNER, CARTER, AND ASSOCIATES, INC.
 1627 SOUTH MYRTLE AVE.
 CLEARWATER, FL 33756
 CMH MANUFACTURING, INC.
 Clayton - Plant 925
 395 Hwy 11W South, Rutledge, TN 37861
 PH: 865.828.5771 FAX: 865.828.8097
 OFF FRAME CROSS SECTION
 SHEET: X-2

ROOF PENETRATIONS

STEP ONE
SHINGLE CUT TO FIT OVER PIPE AND SET IN ROOFING CEMENT



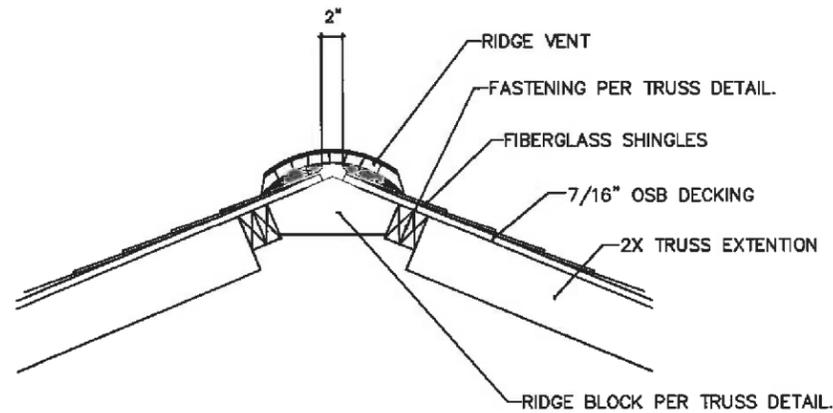
STEP TWO
FLANGE INSTALLED OVER PIPE ACCORDING TO MANUFACTURERS INSTRUCTIONS



STEP THREE
UPPER AND SIDE SHINGLES OVERLAP FLANGE AND SET IN ROOFING CEMENT

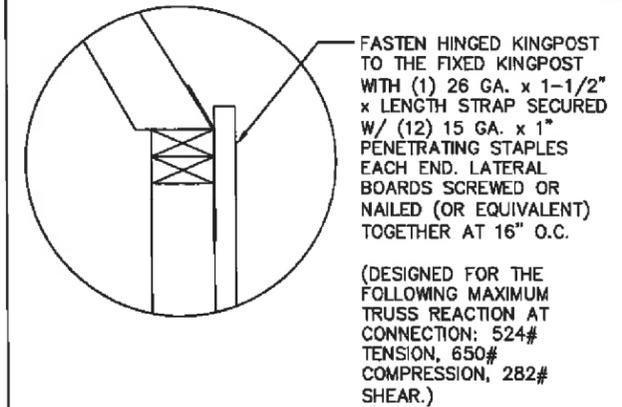
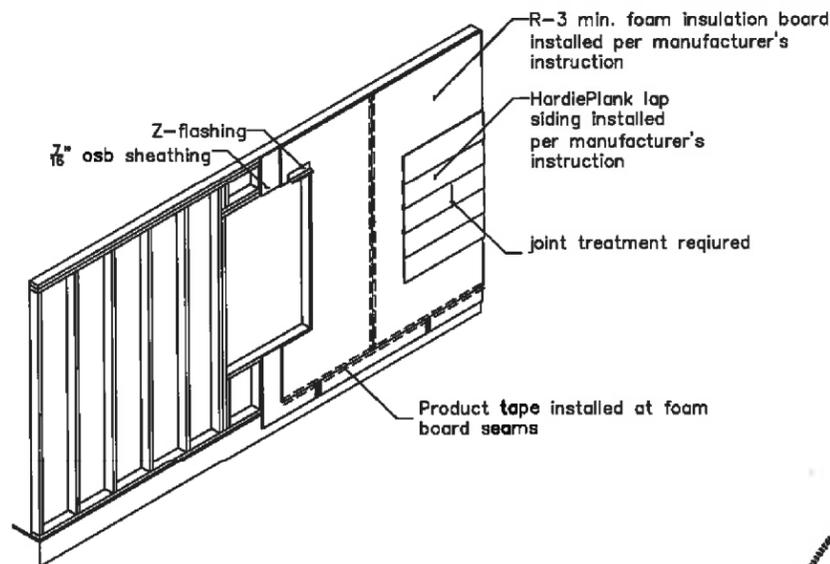
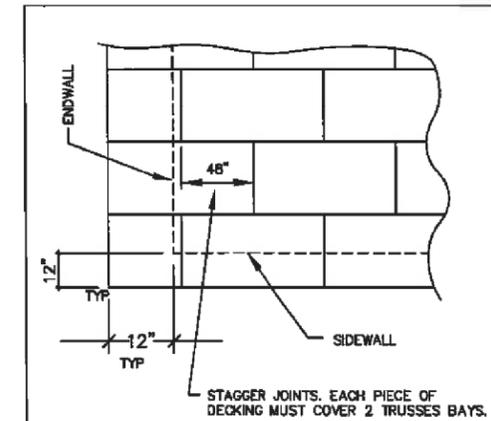
LOWER PART OF FLANGE OVERLAPS LOWER SHINGLES

- NOTES:**
1. WHEN ROOF DECKING IS PENETRATED, THE AREA PENETRATED MAY BE 1/2" +/- 1/4" LARGER THEN ITEM PROTRUDING THRU OR PER THE MANUFACTURERS INSTALLATION INSTRUCTIONS.
 2. ALL SHINGLES PENETRATIONS TO BE SEALED IN ACCORDANCE WITH THE FLASHING MANUFACTURER INSTALLATION INSTRUCTIONS WHEN APPLICABLE. OTHERWISE USE DETAIL ABOVE.
 3. DO NOT USE PETROLEUM BASED SEALANTS ON BASE OF FLASHING WHEN USING A NO CAULK FLASHING.
 4. PLUMBING VENT PENETRATION SHALL EXTEND A MINIMUM OF 6" ABOVE ROOF FINISH.
 5. CHIMNEYS TO BE LOCATED BETWEEN TRUSSES TO MAINTAIN MINIMUM REQUIRED DISTANCES FROM COMBUSTIBLE MATERIAL.
 6. DETAILS APPLICABLE TO PLUMBING VENTS, FLUES AND CHIMNEYS, AND ELECTRICAL MASTS.



Ridge Cap Vent Length			
Floor Width	26.67	% High Vent	0.80
Floor Length	36.33	% Low Vent	0.20
Attic Area	917	Sq. Ft.	
Required Vent	352	Sq. In.	
Ridge Cap Vent Length of Ridge Cap	18	Sq. In. per Ft.	
	20	Ft.	

LOW VENT WILL BE HANDLED BY SOFFIT VENTING



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IIRD PARTY SEAL

PROJECT #M25KSF2A_TN
SCALE: 3/16" = 1'-0"
JOB #1869-0012
HILBORN, WERNER, CARTER, AND ASSOCIATES, INC.
1627 SOUTH MYRTLE AVE.
CLEARWATER, FL 33756
Clayton - Plant 925
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CROSS SECTION DETAILS
SHEET: D-1