HWC

ENGINEERING • INSPECTIONS
CERTIFICATIONS • TESTING

March 28, 2014

Jacobsen Homes
600 Packard Street
Safety Harbor, FL 34695

RE: Manufacturer: Jacobsen Homes
S/N Size & Occupancy: Model M818; 30'-8" x 60'-0"; R-3
HWC Plan#: 2540-0055F

To Whom It May Concern:

This is to certify that the plans for the referenced manufactured building have been reviewed and approved as being in compliance with the 2010 Florida Codes and Standards with 2012 Supplement, as noted on the approved drawings, subject to the following limitations:

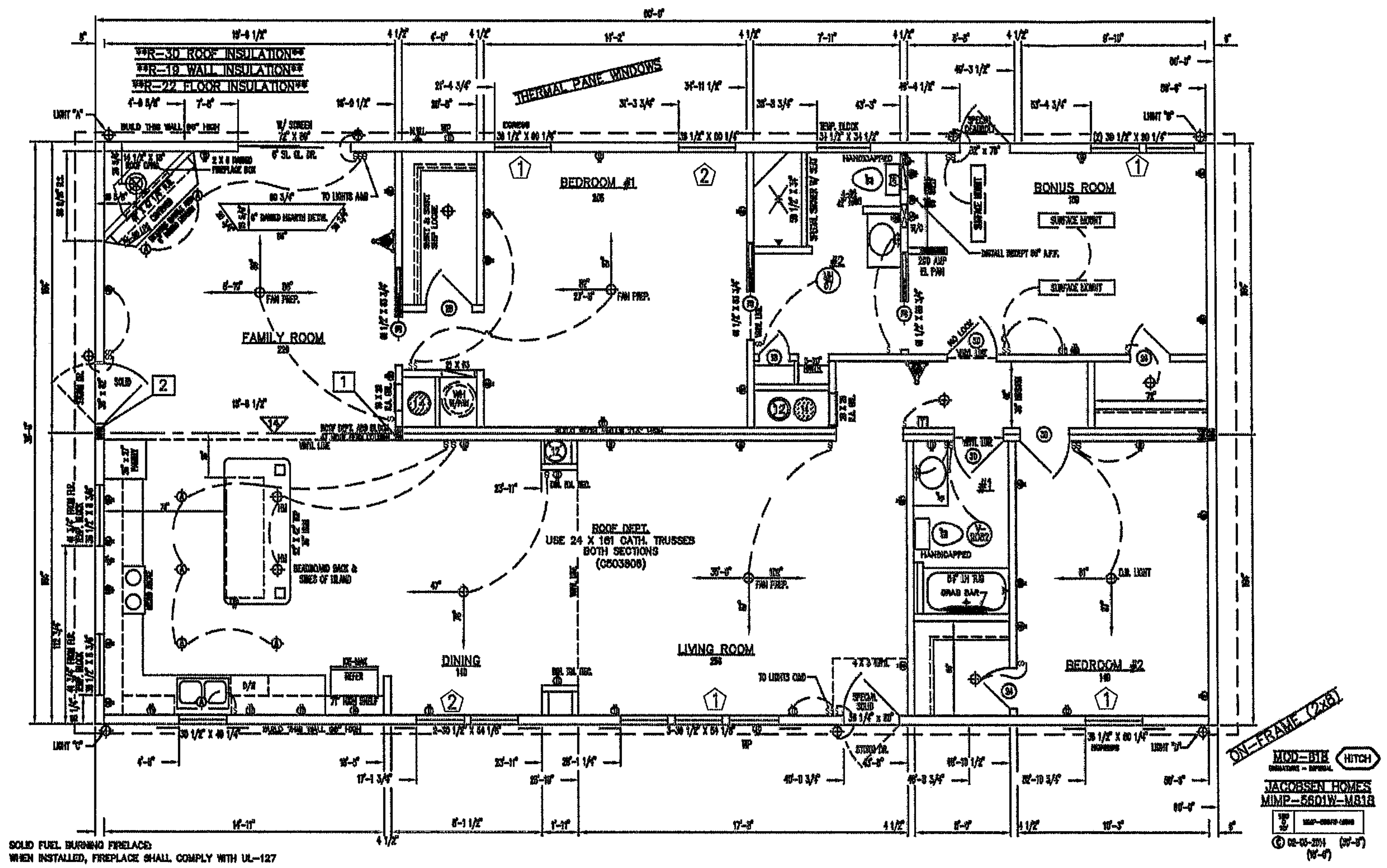
1. Approval covers factory-built structure only. (Note: Any alterations to factory built structure on site voids state approval)
2. Items installed at the site are subject to review, approval, and inspection by the local authority having jurisdiction.
3. The Chapter 633 Plan Review and Inspection shall be conducted by the local fire safety inspector.
4. Signed and sealed plans shall be on file with HWC Engineering.
5. NOT Approved for High Velocity Hurricane Zone (i.e. Broward and Dade Counties)

COLUMBIA COUNTY BUILDING DEPARTMENT
Received for FILE COPY
Code Compliance
PLANS EXAMINER

Sincerely,
HILBORN, WERNER, CARTER & ASSOCIATES, INC.

Plan Reviewer

HILBORN, WERNER, CARTER AND ASSOCIATES, INC.
1627 SOUTH MYRTLE AVENUE CLEARWATER, FLORIDA 33756
(727) 584-8151
FAX: (727) 586-3343 / (727) 595-2392 / (727) 587-0447
Modular Dapia Inspection



SOLID FUEL BURNING FIRELACE:
WHEN INSTALLED, FIREPLACE SHALL COMPLY WITH UL-127

ON & OFF-FRAME

FLOOR PLAN

7/16" SHEATHING (OSB) – ONE SIDE ONLY
FASTEN OSB EDGES W/ MIN. – 16 GA. STAPLE @ 4 IN. O.C. MAX.
FLOOR/WALL/CEILING = 0.131" x 3 1/2" NAIL @ 5.33" O.C. MAX.
MIN. (1) 1.25" x 0.035" STRAP (EACH LABELED LOCATION)
MIN. 3 FLOOR JOISTS BELOW WALL

WHEN FOUNDATION PLANS ARE DESIGNED BY OTHERS, JACOBSEN HOMES AND ITS THIRD PARTY APPROVAL AGENCY(S) ALONG WITH THE ARCHITECT AND/OR ENGINEER OF THE BUILDING PLANS SHALL NOT BE HELD RESPONSIBLE OR LIABLE FOR THE FOUNDATION DESIGN AND/OR CONSEQUENTIAL PERFORMANCE OF THE SUPERSTRUCTURES STRUCTURAL COMPONENTS & SYSTEMS RELATING THERETO.

INTERIOR DOOR SCHEDULE

WINDOW SCHEDULE (KINRO 9750 THERMAL PANE – LOW E WINDOWS)			
WINDOW SIZE W x L	AREA (SQ. FT.)	LIGHT PROVIDED (SQ. FT.)	VENT PROVIDED (SQ. FT.)
12 x 66	5.761	4.868	0
14 x 38	3.862	3.274	0
14 x 40	4.053	2.48	1.84
14 x 60	5.982	3.92	2.06
14 x 66	6.598	4.34	2.06
24 x 12	2.094	1.772	0
24 x 40	6.648	4.55	2.46
24 x 54	9.209	6.82	3.46
24 x 60	10.26	7.89	3.93
30 x 18	3.918	3.331	0
30 x 27	5.772	3.9	1.9
30 x 40	8.62	5.28	3.14
30 x 54	11.472	8.82	4.44
30 x 60	12.761	9.95	5.03
34 x 34	8.208	6.975	0
38 x 18	4.630	3.986	0
38 x 40	10.202	7.71	3.82
38 x 60	15.271	12.2	6.14
36 x 8	3.862	3.274	0
72 x 13	5.761	4.868	0

DOOR SCHEDULE			
DOOR SIZE W x L	AREA (SQ. FT.)	LIGHT PROVIDED (SQ. FT.)	VENT PROVIDED (SQ. FT.)
38 x 82	21.639	0	0
38 x 82	21.639	4.7381	0
38 x 82	21.639	8.7	0
72 x 80	40	32.54	16.06
108 x 80	57.182	48.81	24.09

WHEN ANY DWELLING IS INSTALLED SUCH THAT THE DISTANCE FROM GRADE TO THE BOTTOM OF ANY WINDOW SILL EXCEEDS SIX FEET, THEN WINDOWS WITH SILLS THAT ARE LESS THAN 24 IN. ABOVE THE INTERIOR FINISHED FLOOR SHALL HAVE WINDOW GUARDS MEETING THE REQUIREMENTS SET FORTH IN SECTION R613 OF THE FLORIDA RESIDENTIAL CODE INSTALLED ON-SITE, BY OTHERS.

FLOOR PLAN NOTES:

ON-FRAME NOTE

2x8 MINIMUM FLOOR SYSTEM REQUIRED

* PERIMETER AND MATING LINE PIERS ARE REQUIRED.
** ALL SHEAR WALLS SHALL HAVE A PIER INSTALLED AT BOTH THE SIDEWALL AND THE MATING LINE AREAS, AS WELL AS AT THE END OF EACH SHEAR SEGMENT.

*** ALL I-BEAM (CHASSIS) LOCATIONS SHALL HAVE PIERS ADEQUATE TO SUPPORT ALL INDUCED LOADS. FOUNDATION AND TIE-DOWN SYSTEMS ARE BY OTHERS (NOT JACOBSEN). FOUNDATION PER FBC AND STD. ENGINEERING PRACTICES.

OFF-FRAME NOTE

2x10 MINIMUM FLOOR SYSTEM REQUIRED

* PERIMETER AND MATING LINE PIERS ARE REQUIRED.
** ALL SHEAR WALLS SHALL HAVE A PIER INSTALLED AT BOTH THE SIDEWALL AND THE MATING LINE AREAS, AS WELL AS AT THE END OF EACH SHEAR SEGMENT.

LIGHT AND VENT CALCULATIONS						
ROOM NAME	ROOM AREA (SQ. FT.)	LIGHT REQ'D (SQ. FT.)	LIGHT PROV'D (SQ. FT.)	VENT REQ'D (SQ. FT.)	VENT PROV'D (SQ. FT.)	PASS / FAIL
BEDROOM #1	205	16.4	24.4	8.2	12.23	PASS
BEDROOM #2	149	11.92	12.2	5.96	6.14	PASS
BONUS ROOM	169	13.52	24.4	6.76	12.3	PASS
FAMILY ROOM	229	18.32	32.54	9.16	16.06	PASS
LIVING ROOM	256	21.2	26.5	10.6	13.3	PASS
DINING ROOM	140	11.2	12.6	5.6	2.46	PASS

LEGEND – FLOOR PLAN SYMBOLS	
(symbol)	12" OR 14" RETURN AIR DROP (TYP.)
(symbol)	12" DUCT RISER LOCATION (TYP.)
(symbol)	AIR HANDLER LOCATION (TYP.)
(symbol)	SHEARWALL
(symbol)	SHEARWALL DESIGNATOR (SEE TABLE)
(symbol)	COLUMN LOCATION (SEE TABLE)
(symbol)	11 7/8", 14" OR 16 7/8" RIDGE BEAM
(symbol)	SMOKE ALARMS (WALL & CEILING)
(symbol)	COMB. Co/SMOKE ALARM(S)

COLUMN SUPPORTS
MAXIMUM MW HEIGHT: 108"
DESIGN ROOF LOAD: 30 PSF
DESIGN WIND SPEED: 150 MPH – Vult (Ultimate)
MEAN ROOF HEIGHT (MRH): 15 FEET
Exposure CATEGORY: C

COL. NUM.	COL. TYPE	STUD NUM.	STUD TYPE	BRG. BLOCK OR TRUSS	SPAN (FEET)	COMBINED UPLIFT LOAD (POUNDS)	COL. NUM.	COL. TYPE	STUD NUM.	STUD TYPE	BRG. BLOCK OR TRUSS	SPAN (FEET)	COMBINED UPLIFT LOAD (POUNDS)
1	2	2	2x4	N	17.83	1906	5	0	0	0	N	0	0
	2	2	2x4	N	17.83			0	0	0	N	0	
2	2	2	2x4	N	17.83	1906	6	0	0	0	N	0	0
	2	2	2x4	N	17.83			0	0	0	N	0	
3	0	0	0	N	0	0	7	0	0	0	N	0	0
	0	0	0	N	0			0	0	0	N	0	
4	0	0	0	N	0	0	8	0	0	0	N	0	0
	0	0	0	N	0			0	0	0	N	0	

SHEARWALL DESIGN SPEC'S:
UNLESS OTHERWISE SPECIFIED: THE OVERTURNING FORCE IS AT EACH END OF ALL SHEARWALL SEGMENTS.

MWFRS LOADS: A = 32.61 PSF; B = 10.81 PSF; C = 21.88 PSF; D = 10 PSF

1	DESIGN SHEAR VALUE: 139.196 PLF; OVERTURNING FORCE: 1322 LBS	5	DESIGN SHEAR VALUE: 0 PLF; OVERTURNING FORCE: 0 LBS
2	DESIGN SHEAR VALUE: 223.863 PLF; OVERTURNING FORCE: 2127 LBS	6	DESIGN SHEAR VALUE: 0 PLF; OVERTURNING FORCE: 0 LBS
3	DESIGN SHEAR VALUE: 0 PLF; OVERTURNING FORCE: 0 LBS	7	DESIGN SHEAR VALUE: 0 PLF; OVERTURNING FORCE: 0 LBS
4	DESIGN SHEAR VALUE: 0 PLF; OVERTURNING FORCE: 0 LBS	8	DESIGN SHEAR VALUE: 0 PLF; OVERTURNING FORCE: 0 LBS

AREA RESERVED FOR LISTING AGENCY APPROVAL STAMPS:

APPROVED • HILBORN, WERNER, CARTER & ASSOCIATES, INC. • 3-28-14 HWC

CONSTRUCTION TYPE: V-B
OCCUPANCY: R-3
WIND VELOCITY: 150 MPH
WIND EXPOSURE CATEGORY: C
MAX. MEAN ROOF HEIGHT: 15 FEET
ALLOWABLE FLOOR LOAD: 40 PSF
ALLOWABLE ROOF LOAD: 30 PSF
HIGH VELOCITY HURRICANE ZONE: NO
MANUFACTURER: JACOBSEN HOMES
PLAN NO.: MIMP-5601W-M818

COMPLIES W/ 2010 FLORIDA RES. CODE, INCLUDING ALL 2012 AMENDMENTS

MICHAEL TOMK P.E.
Florida License No. 63802
22020 COUNTY ROAD 18, SUITE
GOSHEN, IN 46528
(574) 830-5315
3/28/2014

MIMP-5601W-M818
150 MPH – Vult (Ultimate)

FLOOR PLAN LAYOUT

Revisions	By	Date
	C.YOUNG	8/1/2013

Drawn: NTA-CMS
Checked: NTA
Date: 8/19/2013
Scale: NTS

Sheet: 2 OF 15
WEC: Exposure C
DWs: 150 MPH
Model: MOD-818

ELECTRICAL LOAD CALCULATION:GENERAL ELECTRICAL NOTES:

BUILDING SIZE: 1840 Sq. Ft.

1. MINIMUM NUMBER OF GENERAL LIGHTING / GENERAL USE CIRCUITS REQUIRED: 4 MINIMUM
   (Sq. Ft. x 3 VA / 120 VOLTS / 15 AMPERES = MIN. NUM. OF GENERAL LIGHTING / USE CIRCUITS REQ'D)

2. GENERAL LIGHTING AND GENERAL USE RECEPTACLES AT 3 VOLT-AMPERES PER BUILDING SQUARE FOOT:

GENERAL LIGHTING / GENERAL USE:	= 1840 x 3 VA =	5220	VA
TOTAL VOLT-AMPERES:	=	5520	VA

3. SMALL APPLIANCE AND LAUNDRY LOAD AT 1,500 VOLT-AMPERES PER 20 AMPERE CIRCUIT:

SMALL APPLIANCE LOAD:	3 x 1,500.00 VA =	4500	VA
LAUNDRY LOAD:	1 x 1,500.00 VA =	1500	VA
TOTAL VOLT-AMPERES:	=	6000	VA

4. NAMEPLATE RATING OF ALL FIXED APPLIANCES (IN VOLT-AMPERES):

CLOTHES DRYER:	=	5800	VA
RANGE:	=	9600	VA
COOK TOP:	=	0	VA
WALL OVEN:	=	2400	VA
MICROWAVE OVEN:	=	2400	VA
DISHWASHER:	=	1380	VA
GARBAGE DISPOSAL:	=	1080	VA
WATER HEATER:	=	4750	VA
OTHER:	=	0	VA
OTHER:	=	0	VA
OTHER:	=	0	VA
OTHER:	=	0	VA
TOTAL VOLT-AMPERES:	=	27410	VA

5. NAMEPLATE RATING OF MOTOR AND LOW-POWER-FACTOR LOADS (IN AMPERES):

RANGE HOOD(S):	1 x 1.1	AMPERES =	1.1	AMPERES
EXHAUST FAN(S):	0 x 0.7	AMPERES =	0	AMPERES
CEILING FAN(S):	5 x 1	AMPERES =	5	AMPERES
FURNACE BLOWER (GAS / OIL):	0 x 8	AMPERES =	0	AMPERES
		TOTAL AMPERES: =	6.1	AMPERES
		MULTIPLY x	120.00	VOLTS
		TOTAL VOLT-AMPERES: =	732	VA

6. TOTAL HEATING AND AIR-CONDITIONING LOAD:
   (USE THE LARGEST OF THE FOLLOWING SIX SELECTIONS – (A) THRU (F) – IN VOLT-AMPERES):

A. 100% OF THE NAMEPLATE RATING(S) OF THE AIR-CONDITIONING AND / OR COOLING (VOLT-AMPERES):	1 x 14400 x 100% =	14400	VA	LARGEST
B. 100% OF THE NAMEPLATE RATING(S) OF THE HEATING WHEN A HEAT PUMP IS USED WITHOUT ANY SUPPLEMENTAL ELECTRIC HEATING (VOLT-AMPERES):	1 x 12000 x 100% =	12000	VA	
C. 100% OF THE NAMEPLATE RATING(S) OF ELECTRICAL THERMAL STORAGE AND OTHER HEATING SYSTEMS WHERE THE USUAL LOAD IS EXPECTED TO BE CONTINUOUS AT THE FULL NAMEPLATE VALUE. SYSTEMS QUALIFYING UNDER THIS SECTION SHALL NOT BE CALCULATED UNDER ANY OTHER SECTION IN 220.82(C) (VOLT-AMPERES)	0 x 0 x 100% =	0	VA	
D. 100% OF THE NAMEPLATE RATING(S) OF THE HEAT PUMP COMPRESSOR AND 65% OF THE SUPPLEMENTAL ELECTRIC HEATING SYSTEMS. IF THE HEAT PUMP COMPRESSOR IS PREVENTED FROM OPERATING AT THE SAME TIME AS THE SUPPLEMENTAL HEAT, IT DOES NOT NEED TO BE ADDED TO THE SUPPLEMENTARY HEAT FOR THE TOTAL CENTRAL SPACE HEATING LOAD (VOLT-AMPERES):	HEAT PUMP 0 x 0 x 100% =	0	VA	
	SUPPLEMENTAL ELECTRIC HEATING SYSTEM 0 x 0 x 100% =	0	VA	
	TOTAL LOAD (6D): =	0	VA	
E. 65% OF THE NAMEPLATE RATING(S) OF ELECTRIC SPACE HEATING IF LESS THAN FOUR SEPARATELY CONTROLLED UNITS (VOLT-AMPERES):	0 x 0 x 65% =	0	VA	
F. 40% OF THE NAMEPLATE RATING(S) OF ELECTRIC SPACE HEATING IF FOUR OR MORE SEPARATELY CONTROLLED UNITS (VOLT-AMPERES):	0 x 0 x 40% =	0	VA	
USE THIS VOLT-AMPERE RATING FOR THE TOTAL OF THE HEATING AND AIR-CONDITIONING LOAD:	=	14400	VA	

7. TOTAL CALCULATED LOAD (LOADS AS CALCULATED IN 2 THRU 5 ABOVE):

TOTAL GENERAL LIGHTING / USE CIRCUITS (2):	=	5220	VA
TOTAL SMALL APPLIANCE AND LAUNDRY LOAD (3):	=	6000	VA
TOTAL NAMEPLATE RATING OF ALL FIXED APPLIANCES(4):	=	27410	VA
TOTAL NAMEPLATE RATING OF MOTOR & L-P-F LOADS (5):	=	732	VA
TOTAL VOLT-AMPERES (COMBINED TOTALS 2-5 ABOVE):	=	39362	VA

8.	TOTAL COMBINED LOAD (FROM 7 ABOVE):	=	39362	VA
	FIRST 10KVA AT 100%	–	10000	VA
	SUBTRACT THE FIRST 10KVA FROM TOTAL COMBINED LOAD:	=	29362	VA
9.	FIRST 10KVA AT 100%:	=	10000	VA
	(FROM 8 ABOVE) 29362 VA – REMAINDER AT 40%:	=	11745	VA
	SUBTOTAL OF BOTH LOAD COMBINATIONS:	=	21745	VA
10.	TOTAL COMBINED LOAD (FROM 9 ABOVE):	=	21745	VA
	TOTAL HEATING AND AC LOADS (6) – LARGEST OF (A) THRU (F):	=	14400	VA
	SUBTOTAL:	=	36145	VA
	SUBTOTAL DIVIDED BY – VOLTS:	/	240.00	VOLTS
	MINIMUM CALCULATED AMPERES REQUIRED:	=	150.6	AMPERES

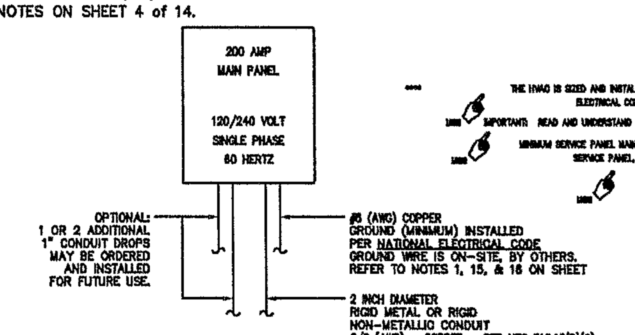
1 ELECTRIC SERVICE PANEL

1. A LICENSED ELECTRICAL CONTRACTOR (LICENSED / CERTIFIED IN THE STATE OF FLORIDA) SHALL MAKE ALL REQUIRED ON-SITE ELECTRICAL CONNECTIONS. ALL OF THE ON-SITE CONNECTIONS ARE SUBJECT TO LOCAL INSPECTIONS AND APPROVAL.
2. ALL INSTALLED CIRCUITS AND / OR EQUIPMENT SHALL BE INSTALLED & GROUNDED IN ACCORDANCE WITH ALL THE APPROPRIATE ARTICLES OF THE NATIONAL ELECTRICAL CODE (NEC) ADOPTED BY THE STATE OF FLORIDA, AT THE TIME OF CONSTRUCTION OF THE BUILDING / STRUCTURE.
3. WHEN WATER HEATERS ARE INSTALLED, THEY SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE WATER HEATER(S) BEING SERVED. THE BRANCH CIRCUIT SWITCH OR CIRCUIT BREAKER SHALL BE PERMITTED TO BE USED AS THE DISCONNECTING MEANS ONLY WHERE THE SWITCH OR CIRCUIT BREAKER IS WITHIN SIGHT OF THE WATER HEATER(S) OR IS CAPABLE OF BEING LOCKED IN THE OPEN POSITION. WHEN THE WATER HEATER(S) IS NOT INSTALLED AT THE FACTORY, THE MEANS OF DISCONNECT SHALL BE DESIGNED AND INSTALLED ON-SITE, BY OTHERS AND SHALL BE SUBJECT TO APPROVAL BY THE LOCAL AUTHORITY HAVING JURISDICTION AT THE INSTALLATION SITE OF THE BUILDING / STRUCTURE.
4. HVAC SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE EQUIPMENT THAT IS BEING SERVED. A UNIT SWITCH WITH A MARKED "OFF" POSITION THAT IS PART OF THE HVAC EQUIPMENT AND DISCONNECTS ALL OF THE UNGROUNDED CONDUCTORS SHALL BE PERMITTED TO SERVE AS THE DISCONNECTING MEANS, WHERE OTHER DISCONNECTING MEANS ARE ALSO PROVIDED BY A READILY ACCESSIBLE CIRCUIT BREAKER. THIS REQUIRED DISCONNECT SHALL BE INSTALLED ON-SITE, BY OTHERS.
5. CERTIFIED ELECTRICAL CONTRACTOR SHALL VERIFY THE ELECTRICAL LOAD CALCULATIONS AFTER THE HEATING AND AIR-CONDITIONING SYSTEMS HAVE BEEN INSTALLED (BY OTHERS).
6. ALL ELECTRICAL COMPONENTS SHALL BE UL LISTED AND SHALL BE INSTALLED IN ACCORDANCE WITH THAT LISTING.
7. ALL WIRING IS NM CABLE, UNLESS OTHERWISE SPECIFIED IN THESE PLANS.
8. ALL CIRCUITS CROSSING OVER MODULE MATING LINE(S), SHALL BE CONNECTED ON-SITE WITH APPROVED ACCESSIBLE JUNCTION BOXES OR CABLE CONNECTORS (BY—OTHERS).
9. WHEN THE MAIN ELECTRICAL SERVICE PANEL IS NOT INSTALLED / INSPECTED AT THE FACTORY, THE ELECTRICAL SERVICE PANEL AND ALL FEEDERS SHALL BE DESIGNED / CALC'D BY OTHERS, SITE INSTALLED, AND SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE LOCAL AUTHORITY HAVING JURISDICTION.
10. PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM, THE INTERRUPTING RATING OF THE MAIN SERVICE BREAKER SHALL BE VERIFIED AS BEING IN COMPLIANCE WITH SECTION 110-9 OF THE NATIONAL ELECTRICAL CODE (NEC), BY A CERTIFIED ELECTRICAL CONTRACTOR (ON-SITE, BY OTHERS).
11. ALL 120-VOLT, SINGLE PHASE, 15- AND 20- AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS IN ALL BEDROOMS LIVING ROOMS, DENS, FAMILY ROOMS, CLOSETS, HALLS, DINING ROOMS, & SIMILAR AREAS SHALL BE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION TYPE INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.
12. ALL SMOKE ALARMS SHALL BE INTERCONNECTED SO THAT THE ACTIVATION OF ANY ONE ALARM WILL CAUSE SIMULTANEOUS ACTIVATION OF ALL OTHER SMOKE ALARMS. ALL SMOKE ALARMS SHALL BE EQUIPPED WITH A BATTERY BACK-UP FEATURE IN CASE OF PRIMARY POWER FAILURE AND / OR INTERRUPTION. ALL SMOKE ALARMS ARE EQUIPPED WITH A "HUSH" BUTTON.
13. CEILING FANS SHALL BE INSTALLED SO THAT THE BOTTOM OF THE BLADES TO THE FINISHED FLOOR LEVEL WILL BE 80 INCHES MINIMUM.
14. SWITCHES, RECEPTACLES, AND / OR OTHER FIXTURES MAY BE RELOCATED FROM THE AREA SHOWN ON THESE APPROVED PLANS / DETAILS DUE TO CONSTRUCTION RESTRAINTS. ALL LOCATIONS SHALL COMPLY WITH APPLICABLE SECTIONS OF THE NATIONAL ELECTRICAL CODE (NEC).
15. THE DISHWASHER AND GARBAGE DISPOSAL MAY BE INSTALLED ON ONE (1) 20 AMPERE (12-2) CIRCUIT.
16. ALL RECEPTACLE OUTLETS LOCATED WITHIN SIX FEET OF A SINK OR BASIN SHALL BE EQUIPPED WITH GFCI PROTECTION FOR PERSONNEL. ALL RECEPTACLE OUTLETS SERVING COUNTERTOPS, LOCATED IN THE KITCHEN SHALL BE EQUIPPED WITH GFCI PROTECTION FOR PERSONNEL.
17. ALL RECEPTACLE OUTLETS INSTALLED ON THE EXTERIOR OF THE BUILDING SHALL BE EQUIPPED WITH A WEATHER PROOF (WP) ENCLOSURE (COVER), THE INTEGRITY OF WHICH IS NOT EFFECTED WHEN AN ATTACHMENT PLUG IS INSERTED OR REMOVED FROM THE RECEPTACLE OUTLET.
18. GFCI PROTECTION MAY BE PROVIDED BY EITHER A BREAKER OR A GFCI RECEPTACLE.
19. FOR A ONE-FAMILY DWELLING AND EACH UNIT OF A TWO-FAMILY DWELLING THAT IS AT GRADE LEVEL, AT LEAST ONE RECEPTACLE OUTLET ACCESSIBLE AT GRADE LEVEL AND NOT MORE THAN 6 1/2 FEET ABOVE GRADE SHALL BE INSTALLED ON THE FRONT AND THE BACK OF THE DWELLING.
20. FOR EACH DWELLING UNIT OF A MULTIFAMILY DWELLING WHERE THE DWELLING UNIT IS LOCATED AT GRADE LEVEL AND PROVIDED WITH INDIVIDUAL EXTERIOR ENTRANCE / EGRESS, AT LEAST ONE RECEPTACLE OUTLET ACCESSIBLE FROM GRADE LEVEL AND NOT MORE THAN 6 1/2 FEET ABOVE GRADE SHALL BE INSTALLED ON THE FRONT AND THE BACK OF THE DWELLING.
21. IN DWELLING UNITS, HALLWAYS OF 10 FEET OR MORE IN LENGTH SHALL HAVE AT LEAST ONE RECEPTACLE.
22. IN DWELLING UNITS, AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED IN BATHROOMS WITHIN 36 INCHES (3 FEET) OF THE OUTSIDE EDGE OF EACH BASIN. THE RECEPTACLE OUTLET SHALL BE LOCATED ON A WALL OR PARTITION THAT IS ADJACENT TO THE BASIN OR THE BASIN COUNTERTOP.
23. LIGHTING OUTLETS REQUIRED: AT LEAST ONE WALL SWITCH-CONTROLLED LIGHTING OUTLET SHALL BE INSTALLED IN EVERY HABITABLE ROOM AND BATHROOM.

200 AMPERE ELECTRIC SERVICE PANEL

CALCULATIONS PER NATIONAL ELECTRICAL CODE 220-82
OPTIONAL CALCULATION – DWELLING UNIT

24. LUMINAIRES (FIXTURES) IN CLOTHES CLOSETS:
    A. LUMINAIRE (FIXTURE) TYPES PERMITTED:
       (1) A SURFACE-MOUNTED OR RECESSED INCANDESCENT LUMINAIRE (FIXTURE) WITH A COMPLETELY ENCLOSED LAMP.
       (2) A SURFACE-MOUNTED OR RECESSED FLUORESCENT LUMINAIRE (FIXTURE).
    B. LUMINAIRE (FIXTURE) TYPES NOT PERMITTED:
       (1) INCANDESCENT LUMINAIRES (FIXTURES) WITH OPEN OR PARTIALLY ENCLOSED LAMPS AND PENDANT LUMINAIRES (FIXTURES) OR LAMP HOLDERS SHALL NOT BE PERMITTED.
    C. LOCATION: LUMINAIRES (FIXTURES) IN CLOTHES CLOSETS SHALL BE PERMITTED TO BE INSTALLED AS FOLLOWS:
       (1) SURFACE-MOUNTED INCANDESCENT LUMINAIRES (FIXTURES) INSTALLED ON THE WALL ABOVE THE DOOR OR ON THE CEILING, PROVIDED THERE IS A MINIMUMCLEARANCE OF 12 INCHES BETWEEN THE LUMINAIRE (FIXTURE) AND THE NEAREST POINT OF A STORAGE SPACE.
       (2) SURFACE-MOUNTED FLUORESCENT LUMINAIRES (FIXTURES) INSTALLED ON THE WALL ABOVE THE DOOR OR ON THE CEILING, PROVIDED THERE IS A MINIMUMCLEARANCE OF 6 INCHES BETWEEN THE LUMINAIRE (FIXTURE) AND THE NEAREST POINT OF A STORAGE SPACE.
       (3) RECESSED INCANDESCENT LUMINAIRES (FIXTURES) INSTALLED ON THE WALL ABOVE THE DOOR OR ON THE CEILING, PROVIDED THERE IS A MINIMUMCLEARANCE OF 6 INCHES BETWEEN THE LUMINAIRE (FIXTURE) AND THE NEAREST POINT OF A STORAGE SPACE.
       (4) RECESSED FLUORESCENT LUMINAIRES (FIXTURES) INSTALLED ON THE WALL ABOVE THE DOOR OR ON THE CEILING, PROVIDED THERE IS A MINIMUMCLEARANCE OF 6 INCHES BETWEEN THE LUMINAIRE (FIXTURE) AND THE NEAREST POINT OF A STORAGE SPACE.
25. BATHTUB AND SHOWER AREAS: NO PARTS OF A CORD-CONNECTED LUMINAIRES (FIXTURES), CHAIN-CABLE-,OR CORD-SUSPENDED-LUMINAIRES (FIXTURES), LIGHTING TRACK, PENDANTS, OR CEILING-SUSPENDED (PADDLE) FANS SHALL BE LOCATED WITHIN A ZONE MEASURED 3 FEET HORIZONTALLY AND 8 FEET VERTICALLY FROM THE TOP OF THE BATHTUB RIM OR SHOWER THRESHOLD. THIS ZONE IS ALL ENCOMPASSING AND INCLUDES THE ZONE DIRECTLY OVER THE TUB OR SHOWER STALL. LUMINAIRES (LIGHTING FIXTURES) LOCATED IN THIS ZONE SHALL BE LISTED FOR DAMP LOCATIONS, OR LISTED FOR WET LOCATIONS WHERE SUBJECT TO SHOWER SPRAY.
26. FAN / LIGHT COMBINATIONS SHALL BE INSTALLED WITH SEPARATE SWITCHES.
27. THE MAIN ELECTRICAL SERVICE PANEL IS WIRED UTILIZING THE MAIN ELECTRICAL SERVICE PANEL IS WIRED UTILIZING AN ISOLATED NEUTRAL/GROUND (4 WIRE SYSTEM) FROM THE FACTORY. IT IS THE RESPONSIBILTY OF THE LICENSED ELECTRICAL CONTRACTOR TO PROVIDE THE BONDING BETWEEN THE NEUTRAL AND THE GROUND IF REQUIRED.
28. ANY BUILDING HAVING A FOSSIL-FUEL-BURNING HEATER OR APPLIANCE, A FIREPLACE, OR AN ATTACHED GARAGE SHALL HAVE AN OPERATIONAL CARBON MONOXIDE (CO) ALARM INSTALLED WITHIN 10 FT. OF EACH ROOM USED FOR SLEEPING PURPOSES.
29. REFER TO ADDITIONAL NOTES ON SHEET 4 of 14.



THE HVAC IS SIZED AND INSTALLED ON-SITE, BY A QUALIFIED, STATE CERTIFIED, ELECTRICAL CONTRACTOR – INSPECTED BY LOCAL JURISDICTION.

IMPORTANT: READ AND UNDERSTAND ALL NOTES ON THIS SHEET AND SHEET .

MINIMUM SERVICE PANEL MAIN BREAKER CAPACITY: 146.33 AMPERES
SERVICE PANEL MAIN BREAKER SIZE: 200 AMPERES

200 AMP ELECTRICAL RISER DIAGRAM

1 ELECTRIC SERVICE PANEL

THE SERVICE PANEL MAIN BREAKER SIZE MAY BE INCREASED FROM THAT SHOWN HERE. IF THE BREAKER SIZE IS INCREASED, THE WIRE SIZES (GROUNDING AND ENTRANCE WIRES) SHALL BE INCREASED TO THE CORRECT SIZE BASED ON THE CURRENT NEC THAT IS IN EFFECT AT THE TIME. THIS IS ON-SITE, BY OTHERS AND IS SUBJECT TO INSPECTION AND APPROVAL BY THE LOCAL AUTHORITY HAVING JURISDICTION.

AREA RESERVED FOR LISTING AGENCY APPROVAL STAMPS:

APPROVED • HILBORN, WERNER, CARTER & ASSOCIATES, INC. • 3-28-14 • HWC

CONSTRUCTION TYPE:	V-B	SEISMIC LOAD:	0
OCCUPANCY:	R-3	FIRE RATING OF EXTERIOR WALLS:	0
WIND VELOCITY:	150 MPH	TOTAL NUMBER OF STORIES:	1
WIND EXPOSURE CATEGORY:	C	HIGH VELOCITY HURRICANE ZONE:	NO
MAX. MEAN ROOF HEIGHT:	15 FEET	MANUFACTURER:	JACOBSEN HOMES
ALLOWABLE FLOOR LOAD:	40 PSF	PLAN NO.:	MIMP-5601W-M818
ALLOWABLE ROOF LOAD:	20 PSF		

SECTION 553.38 (1)(4), FS, SPECIFICALLY EXEMPTS STATE APPROVED MANUFACTURED (MODULAR) BUILDINGS, BEARING THE DBPR INSIGNIA, FROM FURTHER PLAN REVIEW BY ANY LOCAL CODE ENFORCING AGENCY(IES). THE INSIGNIA ISSUED BY THE FLORIDA DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATIONS (DBPR) ATTESTS THAT THE PLANS HAVE BEEN REVIEWED & THE BUILDING HAS BEEN INSPECTED BY A STATE APPROVED THIRD PARTY AGENCY & FOUND TO BE COMPLIANT WITH THE FLORIDA BUILDING CODE(S) LISTED.

COMPLIES W/ 2010 FLORIDA RES. CODE,
INCLUDING ALL 2012 AMENDMENTS

3/28/2014

MICHAEL G. TOMKO • LICENSE No 63802 • STATE OF FLORIDA • PROFESSIONAL ENGINEER

MICHAEL TOMKO P.E.
Florida License No63802

22020 COUNTY ROAD 18, SUITE
GOSHEN, IN 46528
(574) 830-5315

THIS STRUCTURE HAS BEEN DESIGNED FOR ERECTION AND / OR INSTALLATION ON A SITE-BUILT PERMANENT FOUNDATION AND IS NOT DESIGNED TO BE MOVED ONCE SO ERECTED OR INSTALLED.

MIMP-5601W-M818
150 MPH – Vult (Ultimate)

ELECTRICAL CALC'S & NOTES

Revisions

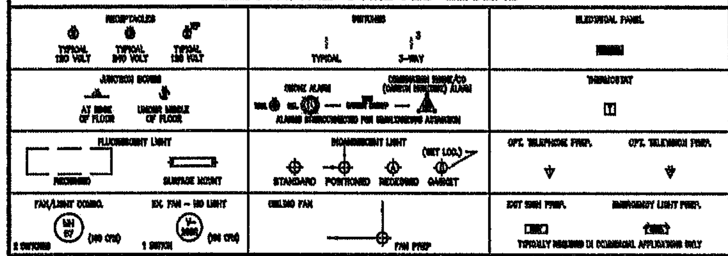
	By	Date
△	C.YOUNG	8/1/2013
△		
△		
△		
△		
△		

Drawn:	NTA-CMS
Checked:	NTA
Date:	8/19/2013
Scale:	NTS

Sheet:
3 OF 15

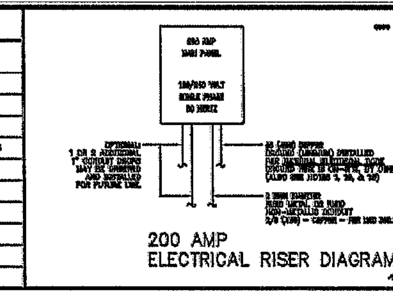
WEC:	Exposure C
DWs:	150 MPH
Model:	MOD-818

ELECTRICAL SYMBOLS LEGEND



ELECTRICAL CIRCUIT SCHEDULE

CIRCUIT #	NOMENCLATURE (CIRCUIT DESCRIPTION)	BREAKER SIZE (AMPERES)	WIRE SIZE (CU.)	CIRCUIT #	NOMENCLATURE (CIRCUIT DESCRIPTION)	BREAKER SIZE (AMPERES)	WIRE SIZE (CU.)	CIRCUIT #	NOMENCLATURE (CIRCUIT DESCRIPTION)	BREAKER SIZE (AMPERES)	WIRE SIZE (CU.)
1	SMALL APPLIANCE	20	12-2	11	RESERVED – CIRCUIT NOT USED	NA	NA	21	RESERVED – CIRCUIT NOT USED	NA	NA
2	SMALL APPLIANCE	20	12-2	12	RESERVED – CIRCUIT NOT USED	NA	NA	22	RESERVED – CIRCUIT NOT USED	NA	NA
3	OPT. MICROWAVE	15	12-2	13	EXT. RECEPTS (GFCI)	GFCI – 20	12-2	23	RESERVED – CIRCUIT NOT USED	NA	NA
4	SMALL APPLIANCE – ARC FAULT	AF – 20	12-2	14	BATH RECEPTS (GFCI)	GFCI – 20	12-2	24	SMOKE ALARMS (INTERCONNECTED/AF)	AF – 15	14-3
5	GENERAL PURPOSE – ARC FAULT	AF – 15	14-2	15	WATER HEATER	25	12-2	25	RESERVED – CIRCUIT NOT USED	NA	NA
6	GENERAL PURPOSE – ARC FAULT	AF – 15	14-2	16	ELECTRIC RANGE	40	8-3	26	RESERVED – CIRCUIT NOT USED	NA	NA
7	GENERAL PURPOSE – ARC FAULT	AF – 15	14-2	17	OPT. DISHWASHER	15	14-2	27	RESERVED – CIRCUIT NOT USED	NA	NA
8	GENERAL PURPOSE – ARC FAULT	AF – 15	14-2	18	OPT. GARBAGE DISPOSAL	15	14-2	28	RESERVED – CIRCUIT NOT USED	NA	NA
9	GENERAL PURPOSE – ARC FAULT	AF – 15	14-2	19	LAUNDRY (CLOTHES WASHER)	20	12-2	29	RESERVED – CIRCUIT NOT USED	NA	NA
10	GENERAL PURPOSE – ARC FAULT	AF – 15	14-2	20	LAUNDRY (CLOTHES DRYER)	30	10-3	30	RESERVED – CIRCUIT NOT USED	NA	NA



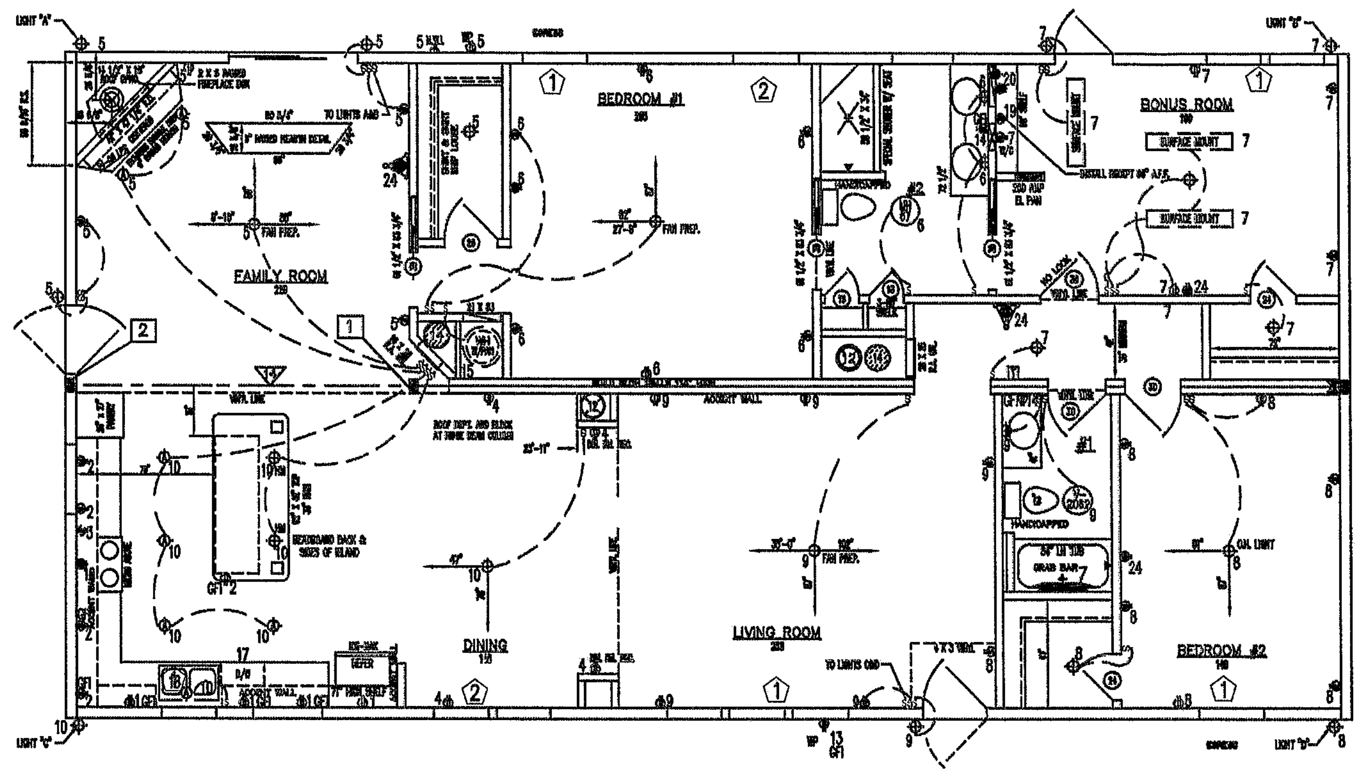
THE HVAC IS SIZED AND INSTALLED ON-SITE, BY A QUALIFIED, STATE CERTIFIED, ELECTRICAL CONTRACTOR -- INSPECTED BY LOCAL JURISDICTION.

LOOK! IMPORTANT: READ AND UNDERSTAND ALL NOTES ON THIS SHEET AND SHEET 3 OF 15.

LOOK! MINIMUM SERVICE PANEL MAIN BREAKER CAPACITY: 145.33 AMPERES
SERVICE PANEL MAIN BREAKER SIZE: 200 AMPERES

LOOK! THE SERVICE PANEL MAIN BREAKER SIZE MAY BE INCREASED FROM THAT SHOWN HERE. IF THE BREAKER SIZE IS INCREASED, THE WIRE SIZES (GROUNDING AND ENTRANCE WIRES) SHALL BE INCREASED TO THE CORRECT SIZE BASED ON THE CURRENT NEC THAT IS IN EFFECT AT THE TIME. THIS IS ON-SITE, BY OTHERS AND IS SUBJECT TO INSPECTION AND APPROVAL BY THE LOCAL AUTHORITY HAVING JURISDICTION.

TOTAL NUMBER OF CIRCUITS USED = 19
TOTAL NUMBER OF STD. BREAKER SLOTS USED = 22
(NOT INCLUDING DUAL OR PIGGY BACK BREAKERS)



HVAC ELECTRICAL INFORMATION / GENERAL NOTES:

LOOK!

1. A SERVICE RECEPTACLE SHALL BE INSTALLED WITHIN 25' OF THE HVAC EQUIPMENT (UNIT). THIS REQUIRED RECEPTACLE SHALL BE INSTALLED ON-SITE, BY OTHERS (BY A CERTIFIED ELECTRICAL CONTRACTOR).
2. HVAC SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE EQUIPMENT THAT IS BEING SERVED. A UNIT SWITCH WITH A MARKED "OFF" POSITION THAT IS PART OF THE HVAC EQUIPMENT AND DISCONNECTS ALL OF THE UNGROUNDED CONDUCTORS SHALL BE PERMITTED TO SERVE AS THE DISCONNECTING MEANS, WHERE OTHER DISCONNECTING MEANS ARE ALSO PROVIDED BY A READILY ACCESSIBLE CIRCUIT BREAKER. THIS REQUIRED DISCONNECT SHALL BE INSTALLED ON-SITE, BY OTHERS.
3. CERTIFIED ELECTRICAL CONTRACTOR SHALL VERIFY THE ELECTRICAL LOAD CALCULATIONS AFTER THE HEATING AND AIR-CONDITIONING SYSTEMS HAVE BEEN INSTALLED (BY OTHERS).
4. THE HVAC UNIT & REQ'D. ELEC. IS SUPPLIED & INSTALLED ON-SITE, BY OTHERS. The sizing and installation of the main breaker for the HVAC system, as well as any required emergency/quick disconnect, shall be completed by a qualified, Florida Licensed, Electrical Contractor and is subject to inspection and approval by the local jurisdiction having authority. This Electrical Contractor shall also verify proper panel and breaker sizing and installation of the entire building, before any power is supplied to the main electrical panel or any portion of the building.

OPTIONAL ELECTRICAL LAYOUT

REQUIRED EXTERIOR OUTLETS AT GRADE LEVEL:

1. FOR A ONE-FAMILY DWELLING AND EACH UNIT OF A TWO-FAMILY DWELLING THAT IS AT GRADE LEVEL, AT LEAST ONE RECEPTACLE OUTLET ACCESSIBLE AT GRADE LEVEL AND NOT MORE THAN 6 1/2 FEET ABOVE GRADE SHALL BE INSTALLED ON THE FRONT AND THE BACK OF THE DWELLING. IF THIS UNIT IS TO BE INSTALLED IN AN ELEVATED CONDITION, ANY REQUIRED EXTERIOR OUTLETS (AT GRADE LEVEL) SHALL BE INSTALLED ON-SITE, BY OTHERS.

LOOK!

SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATION(S):

1. IN EACH SLEEPING ROOM.
2. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
3. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS. IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT INTERVENING DOOR BETWEEN THE ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL.

WHEN MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT.

ALL SMOKE ALARMS SHALL BE LISTED AND INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THE FBC AND THE HOUSEHOLD FIRE WARNING EQUIPMENT PROVISIONS OF NFPA 72.

THE REQUIRED SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING WHEN SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE, AND WHEN PRIMARY POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVER CURRENT PROTECTION.

ALL TV, PHONE, AND FAN PREPS ARE OPTIONAL.
SOME ITEMS SHOWN MAY BE OPTIONAL, CHECK WITH YOUR SALES REP. FOR SPECIFICS.

ELECTRICAL NOTES:

1. A LICENSED ELECTRICAL CONTRACTOR (LICENSED / CERTIFIED IN THE STATE OF FLORIDA) SHALL MAKE ALL REQUIRED ON-SITE ELECTRICAL CONNECTIONS. ALL OF THE ON-SITE CONNECTIONS ARE SUBJECT TO LOCAL INSPECTION AND APPROVAL.
2. DWELLINGS –ALL 120-VOLT, SINGLE PHASE, 15- AND 20- AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS IN ALL BEDROOMS LIVING ROOMS, DENS, FAMILY ROOMS, CLOSETS, HALLS, DINING ROOMS, & SIMILAR AREAS SHALL BE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION TYPE INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.
3. ALL SMOKE ALARMS SHALL BE INTERCONNECTED SO THAT THE ACTIVATION OF ANY ONE ALARM WILL CAUSE SIMULTANEOUS ACTIVATION OF ALL OTHER SMOKE ALARMS. ALL SMOKE ALARMS SHALL BE EQUIPPED WITH A BATTERY BACK-UP FEATURE IN CASE OF PRIMARY POWER FAILURE AND / OR INTERRUPTION. ALL SMOKE ALARMS ARE EQUIPPED WITH A "HUSH" BUTTON.
4. SMOKE ALARMS AND CARBON MONOXIDE ALARMS MAY BE WALL OR CEILING MOUNTED (IN ACCORDANCE WITH THEIR LISTINGS).
5. ANY ADDITION OF A FOSSIL-FUEL-BURNING HEATER OR APPLIANCE, OR AN ATTACHED GARAGE REQUIRES THE INSTALLATION OF AN OPERATIONAL CARBON MONOXIDE ALARM WITHIN 10 FEET OF ANY ROOM USED FOR SLEEPING PURPOSES (BY OTHERS).
6. LIGHTING OUTLETS REQUIRED: AT LEAST ONE WALL SWITCH-CONTROLLED LIGHTING OUTLET SHALL BE INSTALLED IN EVERY HABITABLE ROOM AND BATHROOM.
7. ALL RECEPTACLE OUTLETS LOCATED WITHIN SIX FEET OF A SINK OR BASIN SHALL BE EQUIPPED WITH GFCI PROTECTION FOR PERSONNEL. ALL RECEPTACLE OUTLETS SERVING COUNTERTOPS, LOCATED IN THE KITCHEN SHALL BE EQUIPPED WITH GFCI PROTECTION FOR PERSONNEL.
8. ALL RECEPTACLE OUTLETS INSTALLED ON THE EXTERIOR OF THE BUILDING SHALL BE EQUIPPED WITH A WEATHER PROOF (WP) ENCLOSURE (COVER), THE INTEGRITY OF WHICH IS NOT EFFECTED WHEN AN ATTACHMENT PLUG IS INSERTED OR REMOVED FROM THE RECEPTACLE OUTLET.
9. GFCI PROTECTION MAY BE PROVIDED BY EITHER A BREAKER OR A GFCI RECEPTACLE.
10. IN ALL BUILDINGS, AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED IN BATHROOMS WITHIN 36 INCHES (3 FEET) OF THE OUTSIDE EDGE OF EACH BASIN. THE RECEPTACLE OUTLET SHALL BE LOCATED ON A WALL OR PARTITION THAT IS ADJACENT TO THE BASIN OR THE BASIN COUNTERTOP.
11. THE DISHWASHER AND GARBAGE DISPOSAL MAY BE INSTALLED ON ONE (1) 20 AMPERE (12-2) CIRCUIT.
12. FAN / LIGHT COMBINATIONS SHALL BE INSTALLED WITH SEPARATE SWITCHES.
13. CEILING FANS SHALL BE INSTALLED SO THAT THE BOTTOM OF THE BLADES TO THE FINISHED FLOOR LEVEL WILL BE 80 INCHES MINIMUM. CEILING FANS HAVE BEEN INCLUDED IN THE ELEC. LOAD CALCS IN EVERY ROOM, THEREFORE THEY CAN BE INSTALLED WITHOUT ANY PLAN REAPPROVAL.
14. SWITCHES, RECEPTACLES, AND / OR OTHER FIXTURES MAY BE RELOCATED FROM THE AREA SHOWN ON THESE APPROVED PLANS / DETAILS DUE TO CONSTRUCTION RESTRAINTS. ALL LOCATIONS SHALL COMPLY WITH APPLICABLE SECTIONS OF THE NATIONAL ELECTRICAL CODE (NEC).
15. FOR "ON-FRAME" MODULAR PLANS, THE MAIN ELECTRICAL PANEL SHALL ALSO BE BONDED TO THE CHASSIS OF THE SECTION ON WHICH IT IS INSTALLED. A BONDING "JUMPER" SHALL ALSO BE INSTALLED BETWEEN ALL CHASSIS SECTIONS FOR THE ENTIRE UNIT OR UNITS CONNECTED. ALL REQUIRED BONDING/GROUND CONNECTIONS SHALL BE MADE BY A CERTIFIED (LICENSED) ELECTRICAL CONTRACTOR (ON-SITE, BY OTHERS) AND ARE SUBJECT TO INSPECTION BY THE LOCAL JURISDICTION.
16. THE MAIN ELECTRICAL SERVICE PANEL IS WIRED UTILIZING AN ISOLATED NEUTRAL/GROUND (4 WIRE SYSTEM) FROM THE FACTORY. IT IS THE RESPONSIBILTY OF THE LICENSED ELECTRICAL CONTRACTOR TO PROVIDE THE BONDING BETWEEN THE NEUTRAL AND GROUND IF REQUIRED.
17. SOME ITEMS SHOWN MAY BE OPTIONAL OR REQUIRE INSTALLATION ON-SITE.

AREA RESERVED FOR LISTING AGENCY APPROVAL STAMPS:

APPROVED 3-28-14 HWC — HILBORN, WERNER, CARTER & ASSOCIATES, INC.

COMPLIES W/ 2010 FLORIDA RES. CODE, INCLUDING ALL 2012 AMENDMENTS

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MICHAEL G. TOMKO LICENSE No 63802 STATE OF FLORIDA PROFESSIONAL ENGINEER
3/28/2014

MIMP-5601W-M818
150 MPH – Vult (Ultimate)

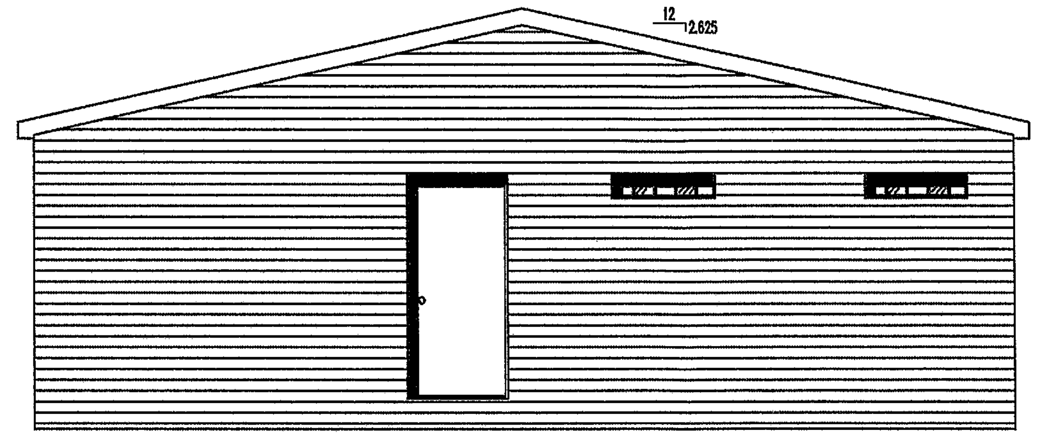
ELECTRICAL LAYOUT

Revisions	By	Date
1	C.YOUNG	8/1/2013
2		
3		
4		
5		

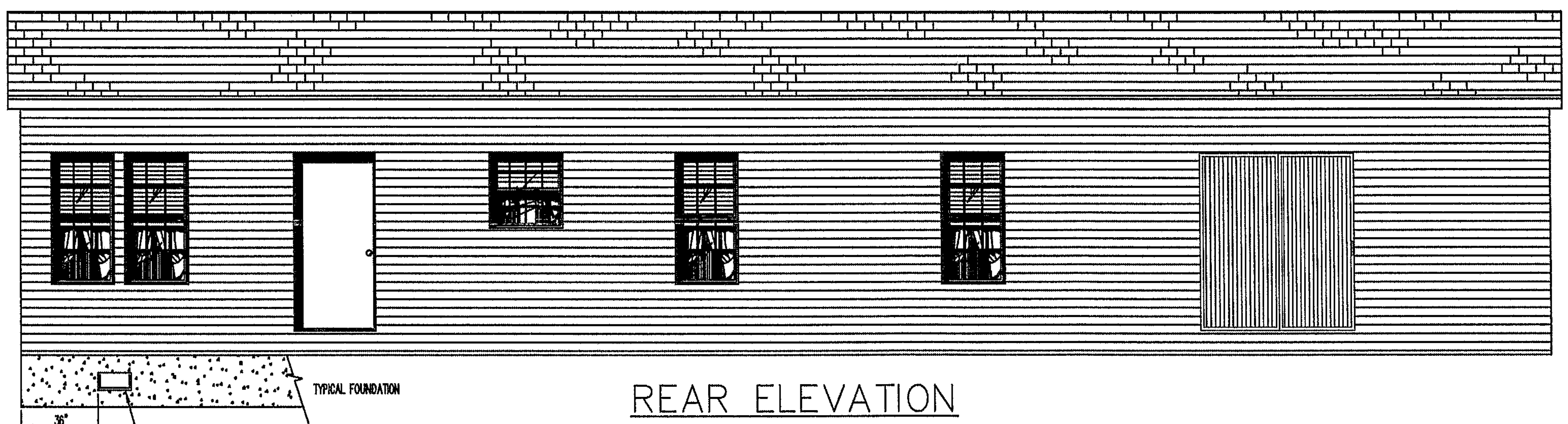
Drawn:	NTA-CMS
Checked:	NTA
Date:	8/19/2013
Scale:	NTS

Sheet: 4A OF 15

WEC: Exposure C
DWs: 150 MPH
Model: MOD-818



LEFT ELEVATION



REAR ELEVATION

16" X 8" TYPICAL VENT-FOUNDATION VENTILATION

ELEVATION NOTES:
SEE CROSS-SECTION FOR ROOF VENTILATION

FOUNDATION SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL CODES AND JURISDICTION.

MICHAEL G. TOMKO LICENSE No. 63802 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

3/28/2014

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Florida License No63802

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MIMP-5601W-M818
150 MPH – Vult (Ultimate)

EXTERIOR ELEVATIONS

Revisions

	By	Date
1	C.YOUNG	8/1/2013
2		
3		
4		
5		

JACOBSEN HOMES

600 Packard Court,
Safety Harbor, FL 34695
727-726-1138

ELEVATION NOTES:

1. FOUNDATION IS INSTALLED ON-SITE, BY OTHERS AND IS SUBJECT TO ALL STATE AND LOCAL CODES AND INSPECTIONS.
2. SOME ITEMS SHOWN MAY BE ON-SITE, BY OTHERS. SITE ITEMS MAY VARY, NOT COVERED BY THESE APPROVED PLANS.
3. WHEN INSTALLED, THE GARAGE FLOOR AND REQ'D FOUNDATION ARE ON-SITE, BY OTHERS.
4. ANY STEPS AND RAILS ARE ON-SITE, BY OTHERS.
5. LANDSCAPING TYPICAL, ON-SITE, BY OTHERS.
6. AC AND HEATING UNITS ARE INSTALLED ON-SITE, BY OTHERS AND MAY BE RELOCATED FROM SHOWN.
7. ELEVATION IS TYPICAL ONLY. ON-SITE PORTIONS OF EXTERIOR MAY BE CHANGED BY THE BUILDING CONTRACTOR, SUBJECT TO LOCAL APPROVAL.
8. ROOF VENTILATION MAY BE ACCOMPLISHED THROUGH THE USE OF EITHER VENTILATED EAVES OR ROOF VENTS. EITHER OF THESE METHODS MAY BE USED SEPARATELY OR IN COMBINATION.
9. ROOF OVERHANG (EAVE) SIZES MAY VARY. TYPICAL FRONT AND REAR EAVES ARE 13 1/2" AND SIDE EAVES VARY FROM 10" TO 6" NOMINAL SIZES.
10. BATH EXHAUST FANS SHALL BE VENTED TO THE EXTERIOR OF THE BUILDING AND SHALL NOT EXHAUST INTO THE ROOF CAVITY OR OTHER CONCEALED SPACE.
11. THIS BUILDING MAY BE MIRRORED WITHOUT ANY RE-APPROVAL OF THESE PLANS (MAY BE "FLIPPED" SIDE TO SIDE AND/OR END TO END).
12. FOUNDATION VENTS ARE TYPICAL ONLY. ALL FOUNDATION VENTILATION IS ON-SITE, BY OTHERS.
13. SOME ITEMS SHOWN MAY BE OPTIONAL.
14. SOME ITEMS SHOWN MAY REQUIRE SITE INSTALLATION.
15. SOME ITEMS SHOWN MAY BE ON-SITE, BY OTHERS.
16. THESE ELEVATIONS ARE TYPICAL ARCHITECTURAL DESIGNS AND MAY VARY FROM THE ACTUAL ELEVATION OF THE FINAL STRUCTURE. ITEMS SUCH AS SIDING TYPE, SHINGLE TYPE, SHUTTERS, DECORATIVE ITEMS, ETC.. MAY VARY FROM THESE ELEVATIONS SHOWN.
17. STEPS AND RAILS ARE ON-SITE, BY OTHERS.
18. ENGINEERING FOR SITE ITEMS, BY OTHERS.
19. ALL ITEMS RELATING TO ACCESSIBILITY ON THE SITE ARE DESIGNED AND INSTALLED BY OTHERS (NOT JACOBSEN) AND ARE SUBJECT TO INSPECTION AND APPROVAL BY THE LOCAL JURISDICTION HAVING AUTHORITY.
20. MAY BE MIRRORED WITHOUT RE-APPROVAL OF PLANS.

WHEN FOUNDATION PLANS ARE DESIGNED BY OTHERS, JACOBSEN HOMES AND ITS THIRD PARTY APPROVAL AGENCY(S) ALONG WITH THE ARCHITECT AND/OR ENGINEER OF THE BUILDING PLANS SHALL NOT BE HELD RESPONSIBLE OR LIABLE FOR THE FOUNDATION DESIGN AND/OR CONSEQUENTIAL PERFORMANCE OF THE SUPERSTRUCTURES STRUCTURAL COMPONENTS AND SYSTEMS RELATING THERETO.

AREA RESERVED FOR LISTING AGENCY APPROVAL STAMPS:

APPROVED • HILBORN, WERNER, CARTER & ASSOCIATES, INC. • 3-28-14 HWC

CONSTRUCTION TYPE:	V-B	SEISMIC LOAD:	0
OCCUPANCY:	R-3	FIRE RATING OF EXTERIOR WALLS:	0
WIND VELOCITY:	150 MPH [illegible]	TOTAL NUMBER OF STORIES:	1
WIND EXPOSURE CATEGORY:	C	HIGH VELOCITY HURRICANE ZONE:	NO
MAX. MEAN ROOF HEIGHT:	16 FEET	MANUFACTURER:	JACOBSEN HOMES
ALLOWABLE FLOOR LOAD:	40 PSF	PLAN NO.:	
ALLOWABLE ROOF LOAD:	20 PSF		MIMP-5601W-M818

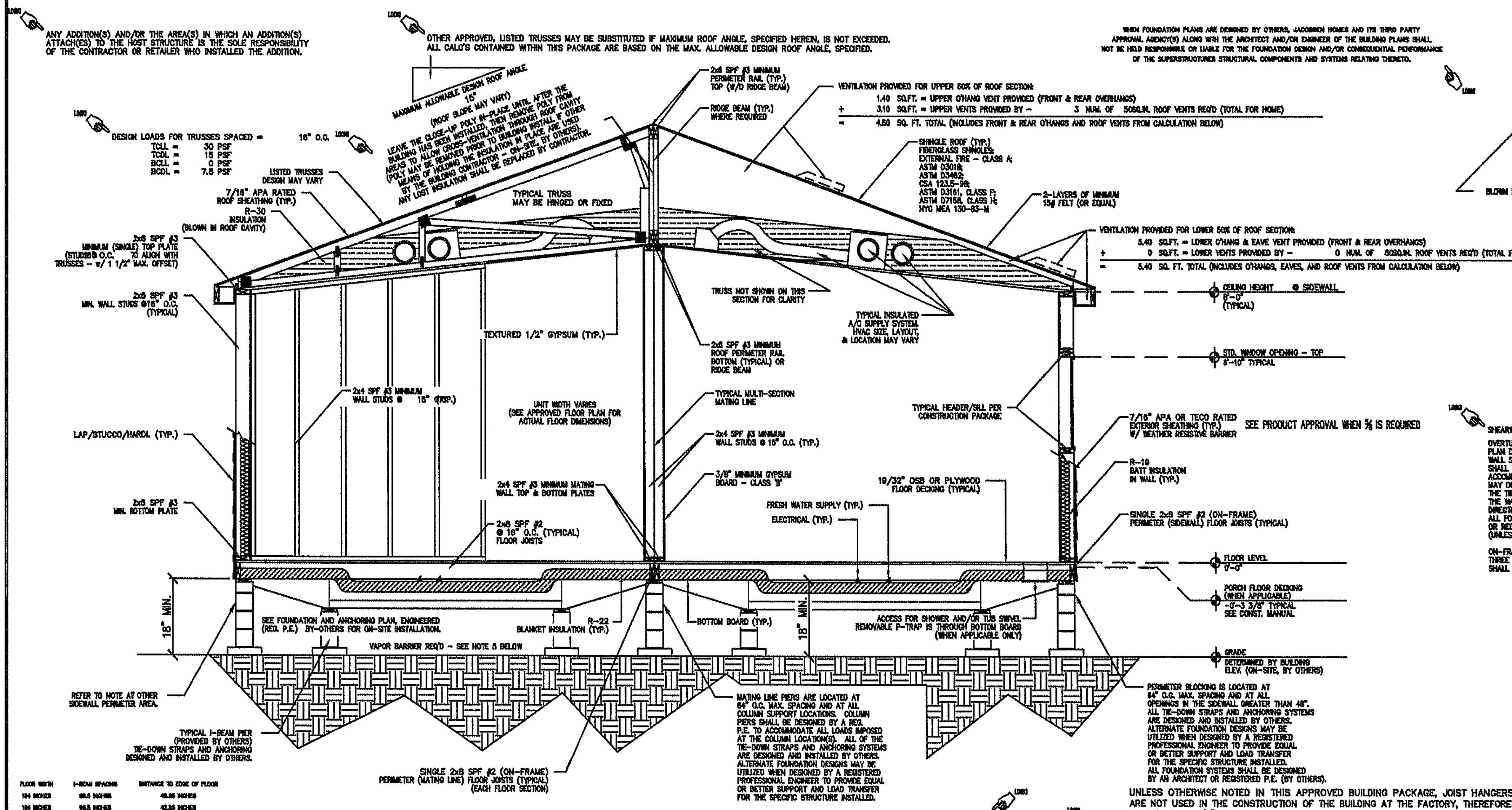
SECTION 553.38 (1) (d), FS, SPECIFICALLY EXEMPTS STATE APPROVED MANUFACTURED (MODULAR) BUILDINGS, BEARING THE DBPR INSIGNIA, FROM FURTHER PLAN REVIEW BY ANY LOCAL CODE ENFORCING AGENCY(IES). THE INSIGNIA ISSUED BY THE FLORIDA DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATIONS (DBPR) ATTESTS THAT THE PLANS HAVE BEEN REVIEWED & THE BUILDING HAS BEEN INSPECTED BY A STATE APPROVED THIRD PARTY AGENCY & FOUND TO BE COMPLIANT WITH THE FLORIDA BUILDING CODE(S) LISTED.

COMPLIES W/ 2010 FLORIDA RES. CODE,
INCLUDING ALL 2012 AMENDMENTS

Drawn:	NTA-CMS
Checked:	NTA
Date:	8/19/2013
Scale:	NTS

Sheet:
6 OF 15

WEC:	Exposure C
DWs:	150 MPH
Model:	MOD-818



UNLESS OTHERWISE NOTED IN THIS APPROVED BUILDING PACKAGE, JOIST HANGERS ARE NOT USED IN THE CONSTRUCTION OF THE BUILDING AT THE FACTORY, THEREFORE, A MINIMUM 1 1/2" BEARING SHALL BE PROVIDED FOR ALL FLOOR JOISTS BY THE FOUNDATION SYSTEM. ALL FOUNDATION DESIGNS SHALL INCLUDE THIS MINIMUM 1 1/2" BEARING. ALL FOUNDATION DESIGNS ARE BY OTHERS.

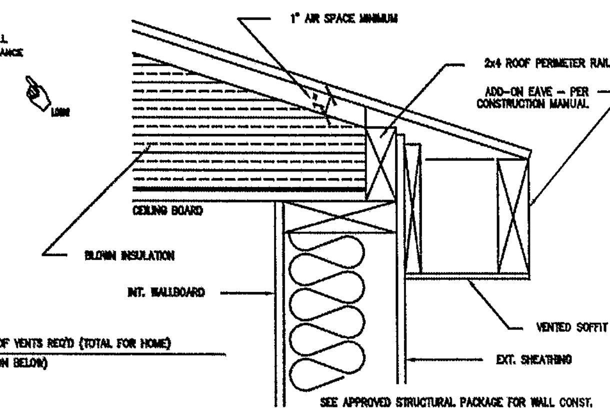
UNIT WIDTHS VARY, SEE APPROVED FLOOR PLAN FOR SPECIFIC UNIT WIDTH(S).

THIS STRUCTURE HAS BEEN DESIGNED FOR ERECTION OR INSTALLATION ON A SITE BUILT PERMANENT FOUNDATION AND IS NOT DESIGNED TO BE MOVED ONCE SO ERECTED OR INSTALLED

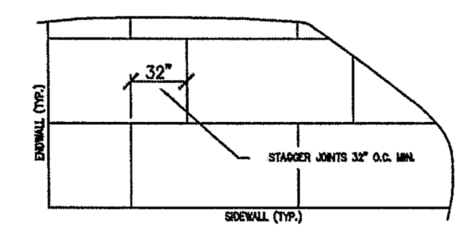
(SHOWN AS TYPICAL DOUBLE WIDE 20'-0", 24'-0" 26'-0", 28'-0", 29'-0" & 32'-0" INCLUDED)

MOD-818

TYP. CROSS-SECTION
P14
SCALE: NTS



2 AIR SPACE DETAIL
P14
SCALE: NTS



REFER TO APPROVED CONSTRUCTION PACKAGE/DETAILS FOR FASTENING

3 ROOF SHEATHING
P14
SCALE: NTS

ROOF SYSTEM SQUARE FOOTAGE / 300 (w/ VAPOR BARRIER)	= 1840 SQ. FT. / 300	=	6.13	SQ. FT. TOTAL REQUIRED VENT (TOTAL UPPER & LOWER)
TOTAL UPPER VENT ACTUALLY PROVIDED:		=	4.50	SQ. FT. (INCLUDES O'HANGS AND VENTS) 1.40 SQ.FT. = UPPER O'HANG VENT PROVIDED 3.10 SQ.FT. = UPPER ROOF VENTS PROVIDED 3 NUM. OF 50SQ.IN. UPPER ROOF VENTS REQ'D (TOTAL FOR HOME)
MINIMUM UPPER VENT REQUIRED (50% OF THE TOTAL):		–	3.46	SQ. FT. (TOTAL REQ'D VENT x 0.50)
DIFFERENCE BETWEEN REQ'D & ACTUAL:		=	2.06 PASS	SQ. FT.
TOTAL LOWER VENT ACTUALLY PROVIDED:		=	7.56	SQ. FT. (INCLUDES O'HANGS AND EAVES) 5.40 SQ.FT. = LOWER O'HANG & EAVE VENT PROVIDED 0 SQ.FT. = LOWER ROOF VENTS PROVIDED 0 NUM. OF 50SQ.IN. LOWER ROOF VENTS REQ'D (TOTAL FOR HOME)
MINIMUM LOWER VENT REQUIRED (50% OF THE TOTAL):		–	3.46	SQ. FT. (TOTAL REQ'D VENT x 0.50)
DIFFERENCE BETWEEN REQ'D & ACTUAL:		=	4.10 PASS	SQ. FT.

4 ROOF VENT CALC
P14
SCALE: NTS

NOTES:

1. ALL STEEL MUST COMPLY WITH ASTM A-36 (36 KSI MINIMUM).
2. ALL LAG SCREWS MUST COMPLY WITH ASTM A-307
3. FOR FOUNDATION SPECIFICS, REFER TO THE FOUNDATION PLAN DESIGNED AND ENGINEERED BY OTHERS.
4. ALL FASTENERS INTO TREATED LUMBER SHALL BE APPROVED FOR INSTALLATION INTO TREATED LUMBER.
5. WHEN THE AREA BENEATH THE BUILDING/STRUCTURE IS ENCLOSED, MIN. 6 MIL. POLY VAPOR BARRIER REQ'D OVER AREA BELOW THE BUILDING OR STRUCTURE (ON-SITE, BY OTHERS). THIS VAPOR BARRIER IS REQUIRED BY JACOBSEN HOMES REGARDLESS OF CODE REQUIREMENTS AND/OR SPECIFICATIONS. OMITTING THE VAPOR BARRIER WILL EFFECT ANY WARRANTY OFFERED OR IMPLIED BY JACOBSEN HOMES.

MASTER MODEL

"OFF FRAME UNIT": THE FACTORY TRANSPORTATION CARRIER IS REMOVED FROM THE STRUCTURE DURING THE BUILDING'S INSTALLATION.

"ON FRAME UNIT": THE FACTORY TRANSPORTATION CARRIER IS LEFT ATTACHED TO THE STRUCTURE AND IS UTILIZED AS A STRUCTURAL COMPONET OF FLOOR SYSTEM AFTER THE INSTALLATION OF THE BUILDING/STRUCTURE.

CONSTRUCTION SPECIFICATIONS:

FLOOR AND TRANSPORTATION CARRIER (CHASSIS/FRAME) INFO: — MASTER MODEL

TOTAL NUMBER OF AXLES:	6	MIN. NUMBER OF BRAKE AXLES:	1 BRAKE AXLE MIN.	FLOOR JOISTS:	2x8 SPF #2	FLOOR INSULATION:	R-22
CHASSIS I-BEAM HEIGHT:	12"	HITCH TYPE:	REMOVABLE	FLOOR DECKING:	19/32" OSB OR PLYWOOD	FLOOR COVERING:	LINO/TILE/CARPET
		FLOOR JOIST SPACING:	16" O.C.	PORCH JOISTS:	NA	PORCH DECKING:	NA

WALLS / WINDOWS / DOORS – INFO:

EXTERIOR STUDS:	2x6 SPF #3	BOTTOM PLATE (EXT.):	2x6 SPF #3	WINDOWS:	9750 SERIES	WALL INSULATION:	R-19
TOP PLATE (EXT.):	2x6 SPF #3	EXT. SHEATHING:	7/16" APA OR TECO RATED	EXT. DOORS:	STEEL – FOAM CORE (SOLID OR W/ GLASS)	INT. DOORS:	HOLLOW CORE

EXTERIOR AND ROOF INFO:

EXT. WALL FINISH:	LAP/STUCCO/HARDI. (TYP.)	ROOFING:	SHINGLES OR METAL (TYP.)	CEILING:	TEXTURED 1/2" GYPSUM (TYP.)	ROOF INSULATION:	R-30
SHUTTERS:	NOT STRUCTURAL (OPT.)	ROOF SHEATHING:	7/16" APA RATED	TRUSSES:	LISTED (CALC'D) TRUSS UNIVERSAL FOREST PRODUCTS	TRUSS SPACING:	16" O.C.

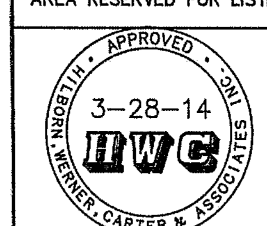
AIR CONDITIONING AND HEATING (HVAC) INFO: — (DUCTED RETURN AIR SYSTEM)

A/C TYPE:	REFER TO ENERGY CALCS	MIN. SEER:	REFER TO ENERGY CALCS	RISER:	12"	# OF RISER DROPS:	2
HEAT TYPE	REFER TO ENERGY CALCS	UNIT TYPE:	REFER TO ENERGY CALCS	RETURN:	14"	# OF RETURN DROPS:	1

RESTROOMS / OTHER INFORMATION:

NUMBER OF BATHS:	2	# OF ACCESSIBLE LAVS:	0	# MEDICINE CABS W/ MIRROR:	0	# OF WATER HEATERS:	1
# OF ACCESSIBLE BATHS:	0	# OF STANDARD WATER CLOSETS:	2	# MEDICINE CABS W/ LIGHT:	0	WATER HEATER SIZE:	40 GALLON
# OF STANDARD LAVS:	2	# OF ACCESSIBLE WATER CLOSETS:	0	# MIRRORS:	2	WATER HEATER TYPE:	ELECTRIC

AREA RESERVED FOR LISTING AGENCY APPROVAL STAMPS:



CONSTRUCTION TYPE:	V-B	SEISMIC LOAD:	0
OCCUPANCY:	R-3	FIRE RATING OF EXTERIOR WALLS:	0
WIND VELOCITY:	150 MPH	TOTAL NUMBER OF STORIES:	1
WIND EXPOSURE CATEGORY:	C	HIGH VELOCITY HURRICANE ZONE:	NO
MAX. MEAN ROOF HEIGHT:	15 FEET	MANUFACTURER:	JACOBSEN HOMES
ALLOWABLE FLOOR LOAD:	40 PSF	PLAN NO.:	MIMP-5601W (M818*)
ALLOWABLE ROOF LOAD:	30 PSF		

COMPLIES W/ 2010 FLORIDA RES. CODE, INCLUDING ALL 2012 AMENDMENTS

MICHAEL TOMKO P.E.
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22020 COUNTY ROAD 18, SUITE
GOSHEN, IN 46528
(574) 830-5315

3/28/2014

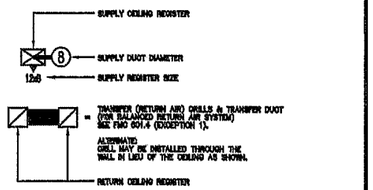
MIMP-5601W (M818*)
150 MPH – Vult (Ultimate)

TYPICAL CROSS-SECTION (ON-FRAME)

Revisions	By	Date
1		
2		
3		
4		
5		

Drawn:	C. MYRICE
Checked:	M.T./N.T.
Date:	11/13/2013
Scale:	3/16" = 1'-0"

Sheet:
8 OF 15
WEC: Exposure C
DWs: 150 MPH
Model: MOD-818



MECHANICAL NOTES:

1. ALL AIR SUPPLY REGISTERS ARE ADJUSTABLE, EXCEPT WHERE OTHERWISE SPECIFIED ON THE PLANS.
2. INTERIOR DOORS SHALL BE UNDERCUT 1" ABOVE THE FINISHED FLOOR FOR RETURN AIR AND/OR AS SPECIFICALLY NOTED ON THE PLANS.
3. RESIDENTIAL APPLICATIONS: RESTROOM VENT FANS SHALL PROVIDE 50 CFM MINIMUM OF VENTILATION.
4. COMMERCIAL APPLICATIONS: RESTROOM VENT FANS SHALL PROVIDE 75 CFM MINIMUM OF VENTILATION.
5. BATH VENT FANS SHALL BE DUCTED TO THE EXTERIOR OF THE BUILDING.
6. HVAC EQUIPMENT SHALL BE EQUIPPED WITH OUTSIDE FRESH AIR INTAKE(S) PROVIDING 20 CFM FOR EACH OCCUPANT OR 50 CFM FOR EACH WATER CLOSET AND/OR URINAL, WHICHEVER IS GREATER. THIS IS REQUIRED TO BE INSTALLED ON-SITE, BY OTHERS.
7. A SERVICE RECEPTACLE SHALL BE INSTALLED WITHIN 25' OF THE HVAC EQUIPMENT (UNIT). THIS REQ'D RECEPTACLE IS REQUIRED TO BE INSTALLED ON-SITE, BY A CERTIFIED ELECTRICAL CONTRACTOR. A LISTED QUICK DISCONNECT SHALL ALSO BE INSTALLED AS REQUIRED BY THE NEC OR OTHER APPLICABLE CODE(S); ON-SITE, BY AN CERTIFIED ELECTRICAL CONTRACTOR.

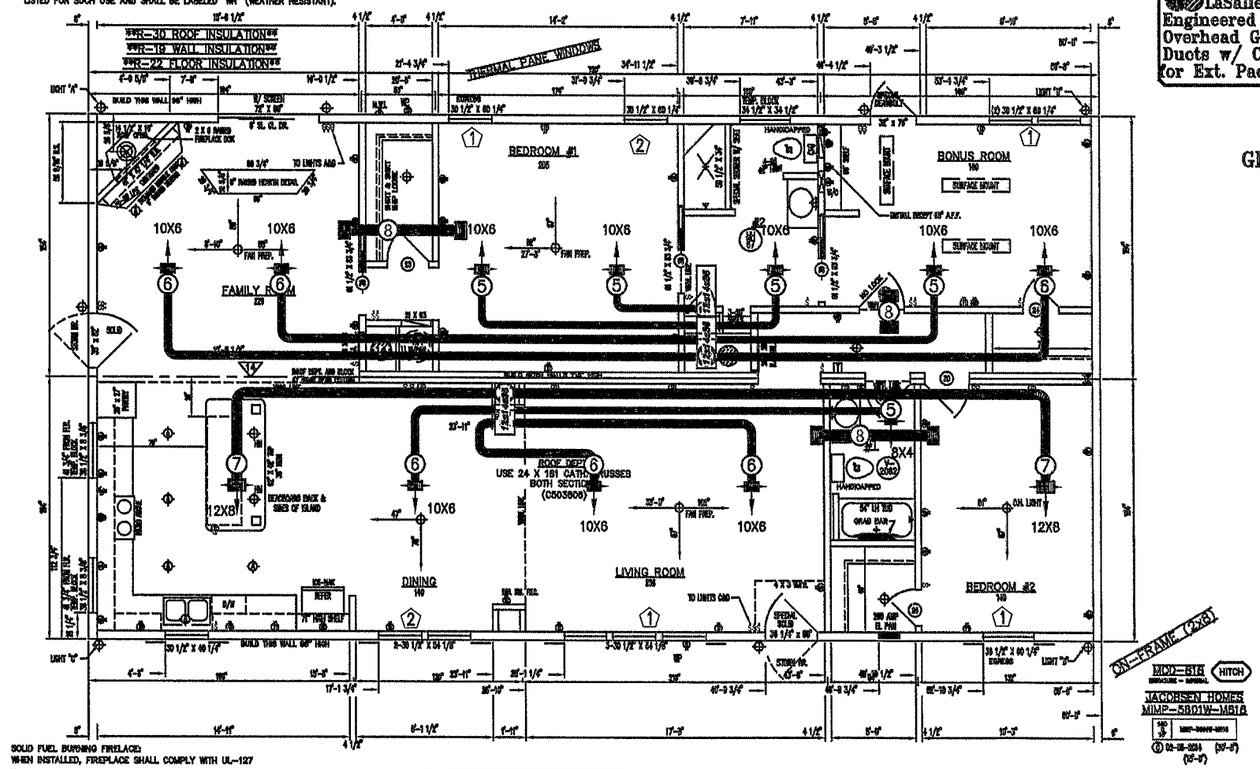
MECHANICAL NOTES: (CONTINUED):

8. ALL DUCTS AND DUCT SYSTEM COMPONENTS INSTALLED IN THE ATTIC AREA WITH INSULATION, SHALL HAVE A MINIMUM R-VALUE OF R-8.0.
9. ALL DUCTS AND DUCT SYSTEM COMPONENTS INSTALLED ON THE EXTERIOR OF THE BUILDING, SHALL HAVE A MINIMUM R-VALUE OF R-8.0 OR AS ALLOWED BY TABLE 13-410.1.ASD.2.2 (SEE TABLE NOTES) IN THE FL. ENERGY CODE.
10. ALL HVAC COMPONENTS INSTALLED ON-SITE, SHALL BE INSTALLED BY A LICENSED HVAC CONTRACTOR.
11. ANY AIR HANDLER / RETURN AIR COMPARTMENTS SHALL BE FIRE STOPPED AND SEALED IN ACCORDANCE WITH THE FBC, ON-SITE, BY OTHERS.
12. SOME BUILDINGS MAY REQUIRE DUCT WORK TO BE INSTALLED AND/OR COMPLETED ACROSS THE MATING LINE AREA(S) OF THE BUILDING, IT IS THE RESPONSIBILITY OF THE INSTALLATION CONTRACTOR TO INSURE THAT THIS WORK IS COMPLETE BEFORE THE BUILDING IS CLOSED-UP AND THIS WORK CANNOT EASILY BE COMPLETED.
13. OPT. FACTORY BUILT FIREPLACES INSTALLED IN ACCORDANCE w/ FMC.

MINIMUM REQUIRED EQUIPMENT SPECS: ALL CLIMATE ZONES:

1. PROGRAMMABLE THERMOSTAT IS REQUIRED TO BE INSTALLED.
2. REFER TO THE FLORIDA ENERGY CALCULATIONS INCLUDED WITHIN THIS APPROVED DRAWING PACKAGE FOR MINIMUM SPECIFICATIONS. IN ALL CASES, THE MINIMUM EQUIPMENT SPECIFIED SHALL BE INSTALLED.
3. FAILURE TO INSTALL HEATING OR COOLING EQUIPMENT THAT PRODUCES THE TOTAL DESIGN CFM FOR THIS BUILDING (REFER TO APPLICATION ENGINEERING FOR HEATING AND COOLING AND/OR THE FLORIDA ENERGY CALCULATIONS -- ATTACHMENTS) MAY RESULT IN AN UNBALANCED DUCT SYSTEM. A MANUAL-J FORM IS REQUIRED TO BE COMPLETED BY A LICENSED HVAC CONTRACTOR ONCE THE BUILDING IS INSTALLED ON-SITE TO INSURE THAT THE AC/HEATING EQUIPMENT IS PROPERLY SIZED (THIS IS REQUIRED AND IS ON-SITE, BY OTHERS -- NOT JACOBSEN HOMES).

1. ALL EXTERIOR DEVICES SHALL BE INSTALLED WITH A LISTED WEATHER PROOF AND/OR WEATHER RESISTANT COVER(S) -- INCLUDING ALL EXT. RECEPTACLES & LIGHT FIXTURES.
2. ALL RECEPTACLES INSTALLED ON THE EXTERIOR OF THE DWELLING UNIT SHALL BE LISTED FOR SUCH USE AND SHALL BE LABELED "WR" (WEATHER RESISTANT).



SOLID FUEL BURNING FIRELACE:
WHEN INSTALLED, FIREPLACE SHALL COMPLY WITH UL-127

LaSalle Air Systems Engineered System Using Overhead Graduated Flex Ducts w/ Ceiling Diffusers for Ext. Package A/C(H/P)

N
GREEN

ON-FRAME NOTE

2x8 MINIMUM FLOOR SYSTEM REQUIRED

* PERIMETER AND MATING LINE PIERS ARE REQUIRED.
** ALL SHEAR WALLS SHALL HAVE A PIER INSTALLED AT BOTH THE SIDEWALL AND THE MATING LINE AREAS,
*** ALL I-BEAM (CHASSIS) LOCATIONS SHALL HAVE PIERS ADEQUATE TO SUPPORT ALL INDUCED LOADS. FOUNDATION AND TIE-DOWN SYSTEMS ARE BY OTHERS (NOT JACOBSEN). FOUNDATION PER FBC AND STD. ENGINEERING PRACTICES.

OFF-FRAME NOTE

2x10 MINIMUM FLOOR SYSTEM REQUIRED

* PERIMETER AND MATING LINE PIERS ARE REQUIRED.
** ALL SHEAR WALLS SHALL HAVE A PIER INSTALLED AT BOTH THE SIDEWALL AND THE MATING LINE AREAS,

HVAC LAYOUT

SOLID FUEL BURNING FIRELACE:
FIREPLACE SHALL COMPLY WITH UL-127

AREA RESERVED FOR LISTING AGENCY APPROVAL STAMPS:

APPROVED · HILBORN · 3-28-14 · WERNER CARTER & ASSOCIATES, INC. · IIWC

CONSTRUCTION TYPE	V-B	DESIGN LOAD	0
OCCUPANCY	R-3	FIRE RATING OF EXTERIOR WALLS	0
WIND VELOCITY	150 MPH (ULTIMATE)	TOTAL NUMBER OF STORIES	1
WIND EXPOSURE CATEGORY	C	HIGH VELOCITY HURRICANE ZONE	NO
MAX. MEAN ROOF HEIGHT	30 FEET	MANUFACTURER	JACOBSEN HOMES
ALLOWABLE FLOOR LOAD	40 PSF	PLAN NO.	MIMP-5801W-M618
ALLOWABLE ROOF LOAD	30 PSF		

COMPLIES W/ 2010 FLORIDA RES. CODE, INCLUDING ALL 2012 AMENDMENTS

3/28/2014

MICHAEL G TOMKO LICENSE No 63802 STATE OF FLORIDA PROFESSIONAL ENGINEER

MICHAEL TOMKO P.E.
Florida License No63802
22020 COUNTY ROAD 18, SUITE
GOSHEN, IN 46528
(574) 830-5315

MIMP-5601W-M818
150 MPH - Vult (Ultimate)

HVAC SYSTEM LAYOUT

Revisions		
1	C.YOUNG	8/1/2013
2		
3		
4		
5		
6		

Drawn:	NTA-CMS
Checked:	NTA
Date:	8/19/2013
Scale:	NTS

Sheet:
9 OF 15

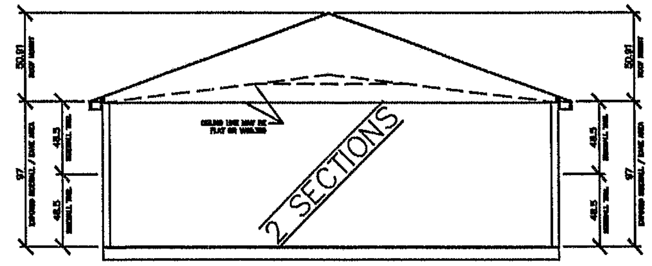
WEC:	Exposure C
DWs:	150 MPH
Model:	MOD-616

FLOOR PLAN SHEARWALL EVALUATION:

JACOBSEN HOMES

PLAN NUMBER:	MIMP-5601W (M818*)	ALLOWABLE STRESS DESIGN WIND PRESSURES (ASD-WP):	INTERIOR ZONE: 21.68 PSF; END ZONE: 32.61 PSF (ASD = ULT * 0.6)
DESIGN WIND SPEED:	150 MPH – Vult (Ultimate)	TOTAL EXPOSED SIDEWALL/EAVE AREA:	97 INCHES / 12.0 = 8.083 FEET
MAX. MEAN ROOF HEIGHT (MRH):	15 FEET	SIDEWALL TRIB. (TOTAL EXPOSED / 2.0):	48.5 INCHES / 12.0 = 4.042 FEET
EXPOSURE:	C	ROOF PITCH WITH SELECTED TRUSS:	2.52 / 12
WIND IMPORTANCE FACTOR:	Iw = 1.0, Risk Category: II	ROOF ANGLE WITH SELECTED TRUSS:	11.856° (DEGREES)
INTERNAL PRESSURE COEFFICIENT:	GCpi = 0.18 (Enclosed)	MAXIMUM ALLOWED DESIGN ROOF ANGLE:	15° (DEGREES) OR 3.22 / 12
HIGH VELOCITY HURRICANE ZONE:	NO	TOTAL DESIGN ROOF HEIGHT:	50.91 INCHES / 12.0 = 4.243 FEET

OTHER APPROVED, LISTED TRUSSES MAY BE SUBSTITUTED IF MAXIMUM ROOF ANGLE, SPECIFIED ABOVE, IS NOT EXCEEDED. ALL CALC'S CONTAINED WITHIN THIS PACKAGE ARE BASED ON THE MAX. ALLOWABLE DESIGN ROOF ANGLE, SPECIFIED ABOVE.



THIS STRUCTURE HAS BEEN DESIGNED FOR ERECTION OR INSTALLATION ON A SITE BUILT PERMANENT FOUNDATION AND IS NOT DESIGNED TO BE MOVED ONCE SO ERECTED OR INSTALLED.

WHEN FOUNDATION PLANS ARE DESIGNED BY OTHERS, JACOBSEN HOMES AND ITS THIRD PARTY APPROVAL AGENCY(S) ALONG WITH THE ARCHITECT AND/OR ENGINEER OF THE BUILDING PLANS SHALL NOT BE HELD RESPONSIBLE OR LIABLE FOR THE FOUNDATION DESIGN AND/OR CONSEQUENTIAL PERFORMANCE OF THE SUPERSTRUCTURE'S STRUCTURAL COMPONENTS AND SYSTEMS RELATING THERETO.

MASTER MODEL

MINIMUM ALLOWABLE SHEARWALL LENGTH: SHEARWALL HEIGHT (IN.) 96 / 3.5 = MIN. SHEARWALL LENGTH 27.429 INCHES / 12.0 = MIN. SHEARWALL LENGTH 2.286 FEET

WALL 1:

WALL SECTION:	184 INCHES
WALL SECTION:	184 INCHES
WALL SECTION:	0 INCHES
WALL SECTION:	0 INCHES
WALL SECTION:	0 INCHES
WALL SECTION:	0 INCHES
TOTAL LENGTH OF WALL:	368 INCHES
DIVIDED BY: /	12.000 INCHES
TOTAL LENGTH OF WALL:	30.667 FEET

TOTAL TRIBUTARY SPAN: 30 FEET
END ZONE DISTANCE: 7.68 FEET
INTERIOR ZONE DISTANCE: 22.32 FEET

7/16" APA OR TECO RATED SHEATHING – ONE SIDE ONLY. FASTEN w/ 16 GA. STAPLE – 1.75 IN. LENGTH @ 6 IN. O.C. SINGLE STUD ONLY AT VERTICAL PANEL SEAMS

WALL TO FLOOR/WALL/CEILING FAST.: USE 0.131" x 3 1/2" NAILS @ 8" O.C. MAX. SPACING

	(FEET) DISTANCE	x	(FEET) SIDEWALL TRIB. OR ROOF HT.	x	(PSF) DWP	=	LOAD IN POUNDS
WALL END ZONE LOADS:	7.68	x	4.042	x	32.61	=	1012.296 POUNDS
WALL INTERIOR ZONE LOADS:	22.32	x	4.042	x	21.68	=	1955.914 POUNDS
ROOF END ZONE LOADS:	7.68	x	4.243	x	10.81	=	352.257 POUNDS
ROOF INTERIOR ZONE LOADS:	22.32	x	4.243	x	10	=	947.038 POUNDS
TOTAL LOAD FOR SHEARWALL:						=	4267.507 POUNDS
TOTAL LENGTH OF SHEARWALL:						/	30.667 FEET
DESIGN SHEAR VALUE (DSV):						=	139.156 PLF
SHEARWALL HEIGHT:						x	9.5 FEET
OVERTURNING POINT LOAD:						=	1322 POUNDS

SHEARWALL FASTENING TO FLOOR JOISTS (BRACKET/STRAPS)

SHEARWALL SEGMENT TIE-DOWN (BRACKET OR STRAPPING): BRACKET = SIMPSON HDU5-SDS2.5 — FL. PRODUCT APPROVAL – FL[illegible]
OR 1.25" x 0.0394" x 24" STRAP = 1; 0.148x2.5 NAILS EACH END OF STRAP = 8 — LOCAL PRODUCT APPROVAL FOR STRAPPING (REFER TO HTA LISTING REPORT ATTACHED)
OR 1.5" x 0.0394" x 16" STRAPS = 3; 0.148x2.5 NAILS EACH END OF STRAP = 8 — LOCAL PRODUCT APPROVAL FOR STRAPPING (REFER TO HTA LISTING REPORT ATTACHED)

WALL 2:

WALL SECTION:	140 INCHES
WALL SECTION:	32.75 INCHES
WALL SECTION:	56 INCHES
WALL SECTION:	0 INCHES
WALL SECTION:	0 INCHES
WALL SECTION:	0 INCHES
TOTAL LENGTH OF WALL:	228.75 INCHES
DIVIDED BY: /	12.000 INCHES
TOTAL LENGTH OF WALL:	19.063 FEET

TOTAL TRIBUTARY SPAN: 30 FEET
END ZONE DISTANCE: 7.68 FEET
INTERIOR ZONE DISTANCE: 22.32 FEET

7/16" APA OR TECO RATED SHEATHING – ONE SIDE ONLY. FASTEN w/ 16 GA. STAPLE – 1.75 IN. LENGTH @ 4 IN. O.C. SINGLE STUD ONLY AT VERTICAL PANEL SEAMS

WALL TO FLOOR/WALL/CEILING FAST.: USE 0.131" x 3 1/2" NAILS @ 6.700" O.C. MAX. SPACING OR 2 NAILS @ 13.[illegible]" O.C. MAX. – STAGGERED

	(FEET) DISTANCE	x	(FEET) SIDEWALL TRIB. OR ROOF HT.	x	(PSF) DWP	=	LOAD IN POUNDS
WALL END ZONE LOADS:	7.68	x	4.042	x	32.61	=	1012.296 POUNDS
WALL INTERIOR ZONE LOADS:	22.32	x	4.042	x	21.68	=	1955.914 POUNDS
ROOF END ZONE LOADS:	7.68	x	4.243	x	10.81	=	352.257 POUNDS
ROOF INTERIOR ZONE LOADS:	22.32	x	4.243	x	10	=	947.038 POUNDS
TOTAL LOAD FOR SHEARWALL:						=	4267.507 POUNDS
TOTAL LENGTH OF SHEARWALL:						/	19.063 FEET
DESIGN SHEAR VALUE (DSV):						=	223.863 PLF
SHEARWALL HEIGHT:						x	9.5 FEET
OVERTURNING POINT LOAD:						=	2127 POUNDS

SHEARWALL FASTENING TO FLOOR JOISTS (BRACKET/STRAPS)

SHEARWALL SEGMENT TIE-DOWN (BRACKET OR STRAPPING): BRACKET = SIMPSON HDU5-SDS2.5 — FL. PRODUCT APPROVAL – FL[illegible]
OR 1.25" x 0.0394" x 24" STRAPS = 1; 0.148x2.5 NAILS EACH END OF STRAP = 8 — LOCAL PRODUCT APPROVAL FOR STRAPPING (REFER TO HTA LISTING REPORT ATTACHED)
OR 1.5" x 0.0394" x 16" STRAPS = 3; 0.148x2.5 NAILS EACH END OF STRAP = 8 — LOCAL PRODUCT APPROVAL FOR STRAPPING (REFER TO HTA LISTING REPORT ATTACHED)

WALL 3: (NOT USED)

WALL SECTION: 0 INCHES (x6); TOTAL LENGTH OF WALL: 0 INCHES; DIVIDED BY: / 12.000 INCHES; TOTAL LENGTH OF WALL: 0 FEET

TOTAL TRIBUTARY SPAN: 0 FEET; END ZONE DISTANCE: 0 FEET; INTERIOR ZONE DISTANCE: 0 FEET

7/16" APA OR TECO RATED SHEATHING – ONE SIDE ONLY. WALL TO FLOOR/WALL/CEILING FAST.: 7/16" APA OR TECO RATED SHEATHING – ONE SIDE ONLY

	(FEET) DISTANCE	x	(FEET) SIDEWALL TRIB. OR ROOF HT.	x	(PSF) DWP	=	LOAD IN POUNDS
WALL END ZONE LOADS:	0	x	4.042	x	32.61	=	0 POUNDS
WALL INTERIOR ZONE LOADS:	0	x	4.042	x	21.68	=	0 POUNDS
ROOF END ZONE LOADS:	0	x	4.243	x	10.81	=	0 POUNDS
ROOF INTERIOR ZONE LOADS:	0	x	4.243	x	10	=	0 POUNDS
TOTAL LOAD FOR SHEARWALL:						=	0 POUNDS
TOTAL LENGTH OF SHEARWALL:						/	0 FEET
DESIGN SHEAR VALUE (DSV):						=	0 PLF
SHEARWALL HEIGHT:						x	0 FEET
OVERTURNING POINT LOAD:						=	0 POUNDS

WALL 4: (NOT USED)

WALL SECTION: 0 INCHES (x6); TOTAL LENGTH OF WALL: 0 INCHES; DIVIDED BY: / 12.000 INCHES; TOTAL LENGTH OF WALL: 0 FEET

TOTAL TRIBUTARY SPAN: 0 FEET; END ZONE DISTANCE: 0 FEET; INTERIOR ZONE DISTANCE: 0 FEET

	(FEET) DISTANCE	x	(FEET) SIDEWALL TRIB. OR ROOF HT.	x	(PSF) DWP	=	LOAD IN POUNDS
WALL END ZONE LOADS:	0	x	4.042	x	32.61	=	0 POUNDS
WALL INTERIOR ZONE LOADS:	0	x	4.042	x	21.68	=	0 POUNDS
ROOF END ZONE LOADS:	0	x	4.243	x	10.81	=	0 POUNDS
ROOF INTERIOR ZONE LOADS:	0	x	4.243	x	10	=	0 POUNDS
TOTAL LOAD FOR SHEARWALL:						=	0 POUNDS
TOTAL LENGTH OF SHEARWALL:						/	0 FEET
DESIGN SHEAR VALUE (DSV):						=	0 PLF
SHEARWALL HEIGHT:						x	0 FEET
OVERTURNING POINT LOAD:						=	0 POUNDS

WALL 5: (NOT USED)

WALL SECTION: 0 INCHES (x6); TOTAL LENGTH OF WALL: 0 INCHES; DIVIDED BY: / 12.000 INCHES; TOTAL LENGTH OF WALL: 0 FEET

TOTAL TRIBUTARY SPAN: 0 FEET; END ZONE DISTANCE: 0 FEET; INTERIOR ZONE DISTANCE: 0 FEET

	(FEET) DISTANCE	x	(FEET) SIDEWALL TRIB. OR ROOF HT.	x	(PSF) DWP	=	LOAD IN POUNDS
WALL END ZONE LOADS:	0	x	4.042	x	32.61	=	0 POUNDS
WALL INTERIOR ZONE LOADS:	0	x	4.042	x	21.68	=	0 POUNDS
ROOF END ZONE LOADS:	0	x	4.243	x	10.81	=	0 POUNDS
ROOF INTERIOR ZONE LOADS:	0	x	4.243	x	10	=	0 POUNDS
TOTAL LOAD FOR SHEARWALL:						=	0 POUNDS
TOTAL LENGTH OF SHEARWALL:						/	0 FEET
DESIGN SHEAR VALUE (DSV):						=	0 PLF
SHEARWALL HEIGHT:						x	0 FEET
OVERTURNING POINT LOAD:						=	0 POUNDS

WALL 6: (NOT USED)

WALL SECTION: 0 INCHES (x6); TOTAL LENGTH OF WALL: 0 INCHES; DIVIDED BY: / 12.000 INCHES; TOTAL LENGTH OF WALL: 0 FEET

TOTAL TRIBUTARY SPAN: 0 FEET; END ZONE DISTANCE: 0 FEET; INTERIOR ZONE DISTANCE: 0 FEET

	(FEET) DISTANCE	x	(FEET) SIDEWALL TRIB. OR ROOF HT.	x	(PSF) DWP	=	LOAD IN POUNDS
WALL END ZONE LOADS:	0	x	4.042	x	32.61	=	0 POUNDS
WALL INTERIOR ZONE LOADS:	0	x	4.042	x	21.68	=	0 POUNDS
ROOF END ZONE LOADS:	0	x	4.243	x	10.81	=	0 POUNDS
ROOF INTERIOR ZONE LOADS:	0	x	4.243	x	10	=	0 POUNDS
TOTAL LOAD FOR SHEARWALL:						=	0 POUNDS
TOTAL LENGTH OF SHEARWALL:						/	0 FEET
DESIGN SHEAR VALUE (DSV):						=	0 PLF
SHEARWALL HEIGHT:						x	0 FEET
OVERTURNING POINT LOAD:						=	0 POUNDS

WALL 7: (NOT USED)

WALL SECTION: 0 INCHES (x6); TOTAL LENGTH OF WALL: 0 INCHES; DIVIDED BY: / 12.000 INCHES; TOTAL LENGTH OF WALL: 0 FEET

TOTAL TRIBUTARY SPAN: 0 FEET; END ZONE DISTANCE: 0 FEET; INTERIOR ZONE DISTANCE: 0 FEET

	(FEET) DISTANCE	x	(FEET) SIDEWALL TRIB. OR ROOF HT.	x	(PSF) DWP	=	LOAD IN POUNDS
WALL END ZONE LOADS:	0	x	4.042	x	32.61	=	0 POUNDS
WALL INTERIOR ZONE LOADS:	0	x	4.042	x	21.68	=	0 POUNDS
ROOF END ZONE LOADS:	0	x	4.243	x	10.81	=	0 POUNDS
ROOF INTERIOR ZONE LOADS:	0	x	4.243	x	10	=	0 POUNDS
TOTAL LOAD FOR SHEARWALL:						=	0 POUNDS
TOTAL LENGTH OF SHEARWALL:						/	0 FEET
DESIGN SHEAR VALUE (DSV):						=	0 PLF
SHEARWALL HEIGHT:						x	0 FEET
OVERTURNING POINT LOAD:						=	0 POUNDS

WALL 8: (NOT USED)

WALL SECTION: 0 INCHES (x6); TOTAL LENGTH OF WALL: 0 INCHES; DIVIDED BY: / 12.000 INCHES; TOTAL LENGTH OF WALL: 0 FEET

TOTAL TRIBUTARY SPAN: 0 FEET; END ZONE DISTANCE: 0 FEET; INTERIOR ZONE DISTANCE: 0 FEET

	(FEET) DISTANCE	x	(FEET) SIDEWALL TRIB. OR ROOF HT.	x	(PSF) DWP	=	LOAD IN POUNDS
WALL END ZONE LOADS:	0	x	4.042	x	32.61	=	0 POUNDS
WALL INTERIOR ZONE LOADS:	0	x	4.042	x	21.68	=	0 POUNDS
ROOF END ZONE LOADS:	0	x	4.243	x	10.81	=	0 POUNDS
ROOF INTERIOR ZONE LOADS:	0	x	4.243	x	10	=	0 POUNDS
TOTAL LOAD FOR SHEARWALL:						=	0 POUNDS
TOTAL LENGTH OF SHEARWALL:						/	0 FEET
DESIGN SHEAR VALUE (DSV):						=	0 PLF
SHEARWALL HEIGHT:						x	0 FEET
OVERTURNING POINT LOAD:						=	0 POUNDS

REFER TO OTHER DETAILS FOR SHEARWALL SHEATHING / PLF TABLE

SHEARWALL DESIGN SPEC'S:

MWFRS LOADS: A = 32.61 PSF; B = 10.81 PSF; C = 21.68 PSF; D = 10 PSF

Wall	Design Shear Value	Overturning Force	Wall	Design Shear Value	Overturning Force
1	139.156 PLF	1322 LBS	5	0 PLF	0 LBS
2	223.863 PLF	2127 LBS	6	0 PLF	0 LBS
3	0 PLF	0 LBS	7	0 PLF	0 LBS
4	0 PLF	0 LBS	8	0 PLF	0 LBS

FLORIDA STRUCTURAL LOAD DESIGN CRITERIA:

2010 FLORIDA RES. CODE – 2012 AMENDMENTS

DESIGN SPECIFICATIONS:
1. MEAN ROOF HEIGHT (MRH): 15 FEET MAXIMUM
2. FLOOR LIVE LOAD: 40 PSF
3. ROOF LIVE LOAD: 20 PSF
4. BASIC WIND SPEED: 150 MPH – Vult (Ultimate)
5. WIND IMPORTANCE FACTOR: Iw = 1.0, Risk Category: II
6. WIND EXPOSURE CATEGORY: C
7. INTERNAL PRESSURE COEFFICIENT: GCpi = 0.18 (Enclosed)

C & C LOADS: NOM. DESIGN WIND PRES. ALLOW. STRESS DESIGN (Vasd)
8. DESIGN WIND PRESSURES FOR COMPONENTS AND CLADDING (PSF): (EFFECTIVE WIND AREA = 10 SQ.FT.)
   - Pr = ROOF COMPONENT & CLADDING LOAD:
     - ZONE 1 = 16.91 PSF Vasd; −26.86 PSF Vasd
     - ZONES 2 & 3 = 16.91 PSF Vasd; −69.26 PSF Vasd
   - ROOF OVERHANG:
     - ZONE 2 = −54.93 PSF Vasd
     - ZONE 3 = −92.32 PSF Vasd
   - PW = WALL COMPONENT AND CLADDING LOAD: WALL / SIDING:
     - ZONE 4 = 29.41 PSF Vasd; −31.87 PSF Vasd
     - ZONE 5 = 29.41 PSF Vasd; −39.35 PSF Vasd

MWFRS LOADS:
9. DESIGN WIND PRESSURES FOR THE MAIN WIND FORCE RESISTING SYSTEMS (MWFRS) – SHEARWALLS:
   - A = 32.61 PSF (END ZONE OF WALL)
   - B = 10.81 PSF (END ZONE OF ROOF)
   - C = 21.68 PSF (INT. ZONE OF WALL)
   - D = 10 PSF (INT. ZONE OF ROOF)

MOD-818 RESIDENTIAL CODE SUMMARY

STATE:	STATE OF FLORIDA
BUILDING:	2010 FRC, 2012 AMENDMENTS
ELECTRICAL:	2008 NEC
MECHANICAL:	2010 FRC
PLUMBING:	2010 FRC
ENERGY:	2010 FRC

NOTES

1. SINCE ALL CALCULATIONS ARE BASED ON THE MAXIMUM ALLOWABLE DESIGN ROOF ANGLE, ANY APPROVED, LISTED TRUSS EQUAL TO OR LESS THAN THAT MAXIMUM DESIGN ROOF ANGLE MAY BE USED.
2. OVERTURNING POINT LOADS OCCUR AT EACH END OF EVERY SHEARWALL SEGMENT SHOWN ON THE FLOOR PLAN DRAWING CONTAINED WITHIN THIS PACKAGE. THESE LOADS SHALL BE TRANSFERRED TO THE FOUNDATION SYSTEM BY THE REGISTERED ENGINEER WHO DESIGNS THE FOUNDATION SYSTEM (BY-OTHERS).

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GOSHEN, IN 46528
(574) 830-5315

MICHAEL G TOMKO, LICENSE No 63802, STATE OF FLORIDA, PROFESSIONAL ENGINEER
3/28/2014

MIMP-5601W (M818*) 150 MPH – Vult (Ultimate)

SHEARWALL CALCULATIONS

Revisions	By	Date
1		
2		
3		
4		
5		
6		

Drawn:	C. MYRICK
Checked:	NTA
Date:	11/13/2013
Scale:	3/16" = 1'-0"

Sheet: 11 OF 15

WEC: Exposure C
DWs: 150 MPH
Model: MOD-818

CONSTRUCTION SPECIFICATIONS:

FLOOR AND TRANSPORTATION CARRIER (CHASSIS/FRAME) INFO.: TOTAL NUMBER OF AXLES: 8; CHASSIS I-BEAM HEIGHT: 12"; MIN. NUMBER OF BRAKE AXLES: 1 BRAKE AXLE MIN.; HITCH TYPE: REMOVABLE; FLOOR JOIST SPACING: 16" O.C.; FLOOR JOISTS: 2x6 SPF #2; FLOOR DECKING: 19/32" OSB OR PLYWOOD; PORCH DECKING: NA; FLOOR INSULATION: R-22; FLOOR COVERING: LINO/TILE/CARPET; PORCH DECKING: NA

WALLS / WINDOWS / DOORS – INFO.: EXTERIOR STUDS: 2x6 SPF #2; TOP PLATE (EXT.): 2x6 SPF #2; BOTTOM PLATE (EXT.): 2x6 SPF #2; EXT. SHEATHING: 7/16" APA OR TECO RATED; WINDOWS: 3700 SERIES; EXT. DOORS: STEEL – FOAM CORE (SOLID OR W/ GLASS); WALL INSULATION: R-13; INT. DOORS: HOLLOW CORE

EXTERIOR AND ROOF INFO.: EXT. WALL FINISH: LAP/STUCCO/HARDI. (TYP.); SHUTTERS: NOT STRUCTURAL (OPT.); ROOFING: SHINGLES OR METAL (TYP.); ROOF SHEATHING: 7/16" APA RATED; CEILING: TEXTURED 1/2" GYPSUM (TYP.); TRUSSES: LISTED (CALC'D) TRUSS, UNIVERSAL FOREST PRODUCTS; ROOF INSULATION: R-30; TRUSS SPACING: 16" O.C.

AIR CONDITIONING AND HEATING (DUCTS) INFO.: A/C TYPE: REFER TO ENERGY CALCS; HEAT TYPE: REFER TO ENERGY CALCS; (DUCTED RETURN AIR SYSTEM) MIN. SEER: REFER TO ENERGY CALCS; UNIT TYPE: REFER TO ENERGY CALCS; RISERS: 12"; RETURNS: 14"; # OF RISER DROPS: 2; # OF RETURN DROPS: 2

BATHROOMS / OTHER INFORMATION: NUMBER OF BATHS: 2; # OF ACCESSIBLE BATHS: 0; # OF STANDARD LAVS: 2; # OF ACCESSIBLE LAVS: 0; # OF STANDARD WATER CLOSETS: 2; # OF ACCESSIBLE WATER CLOSETS: 0; # MEDICINE CABS W/ MIRROR: 2; # MEDICINE CABS W/ LIGHTS: 0; # MIRRORS: 2; # OF WATER HEATERS: 1; WATER HEATER SIZE: 40 GALLON; WATER HEATER TYPE: ELECTRIC

AREA RESERVED FOR LISTING AGENCY APPROVAL STAMPS:

APPROVED — HILBORN, WERNER, CARTER & ASSOCIATES, INC. — 3-28-14 — HWC

CONSTRUCTION TYPE: V-B; OCCUPANCY: R-3; WIND VELOCITY: 150 MPH Vult (Ultimate); WIND EXPOSURE CATEGORY: C; MAX. MEAN ROOF HEIGHT: 15 FEET; ALLOWABLE FLOOR LOAD: 40 PSF; ALLOWABLE ROOF LOAD: 20 PSF; SEISMIC LOAD: 0; FIRE RATING OF EXTERIOR WALLS: 0; TOTAL NUMBER OF STORIES: 1; HIGH VELOCITY HURRICANE ZONE: NO; MANUFACTURER: JACOBSEN HOMES; PLAN NO.: MIMP-5601W (M818*)

COMPLIES W/ 2010 FLORIDA RES. CODE, INCLUDING ALL 2012 AMENDMENTS

JACOBSEN HOMES
600 Packard Court,
Safety Harbor, FL 34695
727-726-1138

THIS BUILDING/STRUCTURE IS DESIGNED FOR ERECTION AND/OR INSTALLATION ON A SITE CONSTRUCTED PERMANENT FOUNDATION SYSTEM AND IS NOT DESIGNED TO BE MOVED ONCE SO ERECTED OR INSTALLED.

THE FOUNDATION PLANS ARE DESIGNED BY OTHERS, JACOBSEN HOMES AND ITS THIRD PARTY APPROVAL AGENCY(S) ALONG WITH THE ARCHITECT AND/OR ENGINEER OF THE BUILDING PLANS SHALL NOT BE HELD RESPONSIBLE OR LIABLE FOR THE FOUNDATION DESIGN AND/OR CONSEQUENTIAL PERFORMANCE OF THE SUPERSTRUCTURES STRUCTURAL COMPONENTS AND SYSTEMS RELATING THERETO.

TYPICAL TRUSS MAY BE HINGED OR FIXED

MAXIMUM ALLOWABLE DESIGN ROOF ANGLE 15° (ROOF SLOPE MAY VARY)

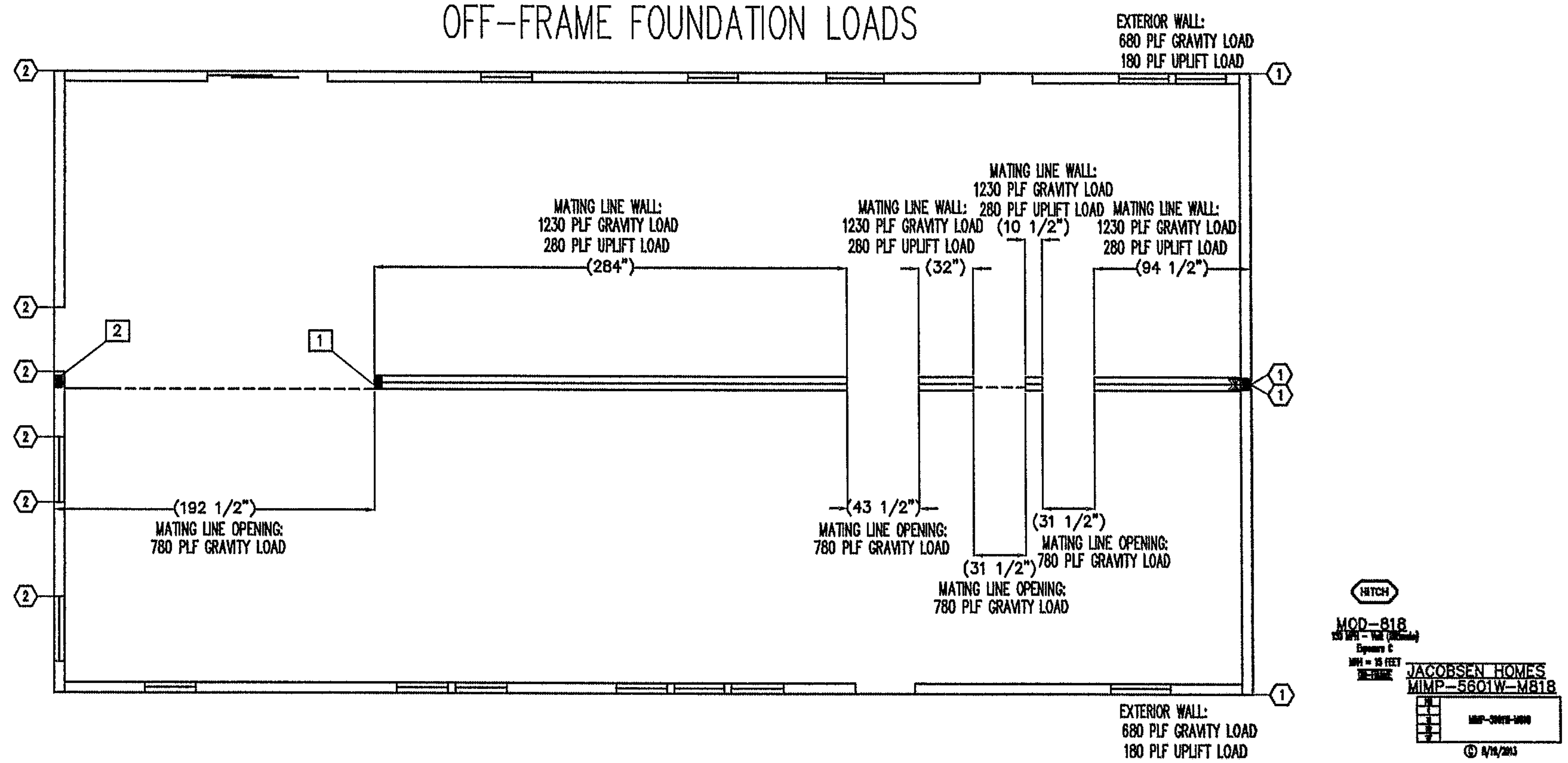
WARNING:

INSTALLING A MODULAR STRUCTURE/BUILDING CAN BE EXTREMELY DANGEROUS. ONLY QUALIFIED PERSONNEL SHOULD ATTEMPT TO INSTALL A MODULAR STRUCTURE/BUILDING. IMPROPER PROCEDURES OR TECHNIQUES COULD RESULT IN SERIOUS INJURY OR DEATH. IN ADDITION TO THE DANGER TO PERSONNEL, IMPROPER INSTALLATION COULD RESULT IN EXTENSIVE DAMAGE TO THE BUILDING/STRUCTURE. NEVER ATTEMPT INSTALLATION IF YOU ARE NOT QUALIFIED OR DO NOT HAVE THE PROPER TOOLS AND/OR EQUIPMENT.

CAUTION:

MODULAR BUILDINGS/STRUCTURES CAN WEIGH SEVERAL TONS. IT IS VERY IMPORTANT THAT ALL PERSONNEL, ON THE JOB SITE, BE QUALIFIED AND PROPERLY/ADEQUATELY TRAINED. A CERTIFIED BUILDING CONTRACTOR IS REQUIRED TO BE RESPONSIBLE FOR ALL SAFETY INITIATIVES, PROGRAMS, POLICIES, OR PROCEDURES THAT MAY BE MANDATED BY OSHA AND/OR OTHER LOCAL, STATE, AND/OR FEDERAL CODES AND/OR REQUIREMENTS. THE CONTRACTOR SHOULD INSURE/REQUIRE THAT SAFE AND PROPER TECHNIQUES ARE USED.

OFF-FRAME FOUNDATION LOADS



[1] GRAVITY LOADS 4410 LBS

[2] GRAVITY LOADS 4100 LBS

220 PLF LATERAL LOAD AT BASE OF ALL EXT. WALLS.

MATELINE LOADS ARE PER HALF

ANY ATTACHMENTS TO THIS STRUCTURE SHALL BE COMPLETELY SELF SUPPORTING AND SHALL NOT TRANSFER AND/OR INDUCE LOADS AND/OR OTHER FORCES ONTO THIS BUILDING/STRUCTURE.

(1) 7/16" SHEATHING (OSB) – ONE SIDE ONLY
FASTEN OSB EDGES W/ MIN. – 16 GA. STAPLE @ 4 IN. O.C. MAX.
FLOOR/WALL/CEILING = 0.131" x 3 1/2" NAIL @ 5.33" O.C. MAX.
MIN. (1) 1.25" x 0.035" STRAP (EA. LABELED LOCATION)
MIN. 3 FLOOR JOISTS BELOW WALL

(2) 7/16" SHEATHING (OSB) – ONE SIDE ONLY
FASTEN OSB EDGES W/ MIN. – 16 GA. STAPLE @ 4 IN. O.C. MAX.
FLOOR/WALL/CEILING = 0.131" x 3 1/2" NAIL @ 5.33" O.C. MAX.
MIN. (1) 1.25" x 0.035" STRAP (EA. LABELED LOCATION)
MIN. 3 FLOOR JOISTS BELOW WALL

OFF-FRAME

PERIMETER AND MATING LINE PIERS ARE REQUIRED.

* PERIMETER AND MATING LINE PIERS ARE REQUIRED.
** ALL SHEAR WALLS SHALL HAVE A PIER INSTALLED AT BOTH THE SIDEWALL AND THE MATING LINE AREAS, AS WELL AS AT THE END OF EACH SHEAR SEGMENT.

*** ALL I-BEAM (CHASSIS) LOCATIONS SHALL HAVE PIERS ADEQUATE TO SUPPORT ALL INDUCED LOADS. FOUNDATION AND TIE-DOWN SYSTEMS ARE BY OTHERS (NOT JACOBSEN). FOUNDATION PER FBC AND STD. ENGINEERING PRACTICES.

COLUMN SUPPORTS
MAXIMUM MW HEIGHT: 108"
DESIGN ROOF LOAD: 20 PSF
DESIGN WIND SPEED: 150 MPH – Vult (Ultimate)
MEAN ROOF HEIGHT (MRH): 15 FEET
Exposure CATEGORY: C

COL. NUM.	COL. TYPE	STUD NUM.	STUD TYPE	BRG. BLOCK OR TRUSS	SPAN (FEET)	COMBINED UPLIFT LOAD (POUNDS)	COL. NUM.	COL. TYPE	STUD NUM.	STUD TYPE	BRG. BLOCK OR TRUSS	SPAN (FEET)	COMBINED UPLIFT LOAD (POUNDS)
1	2	2	2x4	N	17.83	1908	5	0	0	0	N	0	0
	2	2	2x4	N	17.83			0	0	0	N	0	
2	2	2	2x4	N	17.83	1908	6	0	0	0	N	0	0
	2	2	2x4	N	17.83			0	0	0	N	0	
3	0	0	0	N	0	0	7	0	0	0	N	0	0
	0	0	0	N	0			0	0	0	N	0	
4	0	0	0	N	0	0	8	0	0	0	N	0	0
	0	0	0	N	0			0	0	0	N	0	

SHEARWALL DESIGN SPEC'S:
UNLESS OTHERWISE SPECIFIED: THE OVERTURNING FORCE IS AT EACH END OF ALL SHEAR-WALL SEGMENTS.

MWFRS LOADS: A = 30.3 PSF; B = 0 PSF; C = 30.3 PSF; D = 0 PSF

1	DESIGN SHEAR VALUE: 170 PLF; OVERTURNING FORCE: 1534 LBS	5	DESIGN SHEAR VALUE: 0 PLF; OVERTURNING FORCE: 0 LBS
2	DESIGN SHEAR VALUE: 179 PLF; OVERTURNING FORCE: 1607 LBS	6	DESIGN SHEAR VALUE: 0 PLF; OVERTURNING FORCE: 0 LBS
3	DESIGN SHEAR VALUE: 0 PLF; OVERTURNING FORCE: 0 LBS	7	DESIGN SHEAR VALUE: 0 PLF; OVERTURNING FORCE: 0 LBS
4	DESIGN SHEAR VALUE: 0 PLF; OVERTURNING FORCE: 0 LBS	8	DESIGN SHEAR VALUE: 0 PLF; OVERTURNING FORCE: 0 LBS

AREA RESERVED FOR LISTING AGENCY APPROVAL STAMPS:

APPROVED 3-28-14 HILBORN, WERNER, CARTER & ASSOCIATES, INC. HWC

COMPLIES W/ 2010 FLORIDA RES. CODE, INCLUDING ALL 2012 AMENDMENTS

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3/28/2014

MIMP-5601W-M818
150 MPH – Vult (Ultimate)

FOUNDATION LOAD DETAILS

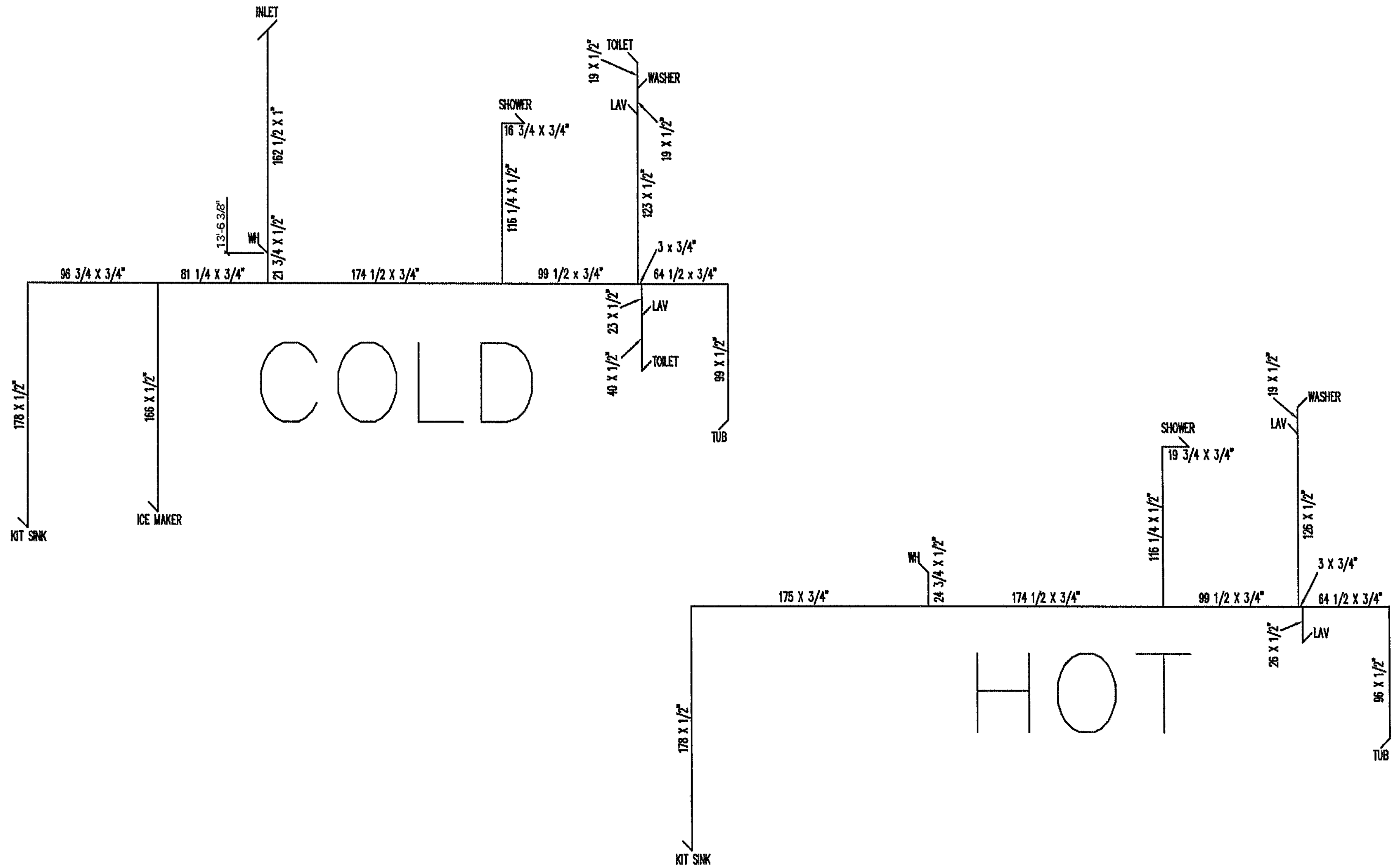
Revisions

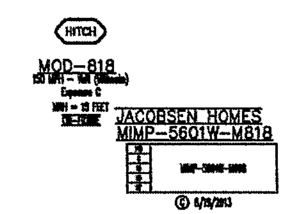
△	By	Date
△	C.YOUNG	8/1/2013
△		
△		
△		
△		

Drawn:	NTA-CMS
Checked:	NTA
Date:	8/19/2013
Scale:	NTS

Sheet: 13 OF 15

WEC: 0
DWs: 150 MPH
Model: MOD-818





1) WATER SUPPLY PIPPING SHALL BE TYPE "L COPPER , CPVC,CROSS LINKED POLYETHLENE OR OTHER MATERIALS APPROVED FOR USAGE PER STATE AND LOCAL CODE.
2) INTERCONNECTION OF SUPPLY PIPING BELOW FLOOR BETWEEN UINTS TO BE COMPLETED ON SITE BY OTHERS TO STATE AND LOCAL CODES
3) EXTERIOR FAUCETS HOSE BIBS OR WALL HYDRANTS (WATER SUPLY OUTLETS WITH HOSE THREADS) SHALL BE EQUIPPED WITH A VACUM BREAKER , INSTALLED PER MANUFACTURES INSRUCTIONS.EXTERIOR FAUCETS ARE INSTALLED BY OTHERS ON SITE.
4) SHOWERS, BATH TUBS AND TUB/SHOWRES COMBINATIONS SHALL BE EQUIPED WITH CONTROL VALES OF THE PRESSURE BALANCE THERMOSTATIC MIXING OR COMINATION PRESSURE BALANCE / THERMOSTATIC MIXING WITH HIGH LIMIT STOPS THAT SHALL BE SET TO LIMIT WATER TEMPERATURE TO A MAXIMUM OF 120 DEGRESS.
5)MAIN SHUT OFF VALVE TO BE A FULL WAY VALVE PROVIDEED AND INSTALLED BY OTHERS AT SITE.
6)WATER HEATERS SHALL CONFORM 0 THE ENERGY REQUIREMENTS OF APPLICAL CODE
7)WATER HEATERS SHALL BE PROTECTED BY A SEPARATE PRESSURE-RELIEF VALVE AND SEPARATE TEMPERATURE RELIEF VALVE OR COMBANATION
8)INSTALL WATER HAMMER ARRESTORS AT ALL LOCATIONS WHERE QUICK CLOSING VALES ARE UTILIZED

AREA RESERVED FOR LISTING AGENCY APPROVAL STAMPS:

APPROVED · HILBORN, WERNER, CARTER & ASSOCIATES INC. · 3-28-14 · HWC

CONSTRUCTION TYPE:	V-B	SEISMIC LOAD:	0
OCCUPANCY:	R-3	FIRE RATING OF EXTERIOR WALLS:	0
WIND VELOCITY:	150 MPH	TOTAL NUMBER OF STORIES:	1
WIND EXPOSURE CATEGORY:	C	HIGH VELOCITY HURRICANE ZONE:	NO
MAX. MEAN ROOF HEIGHT:	15 FEET	MANUFACTURER:	JACOBSEN HOMES
ALLOWABLE FLOOR LOAD:	40 PSF		
ALLOWABLE ROOF LOAD:	20 PSF	PLAN NO.:	MIMP-5601W-M818

COMPLIES W/ 2010 FLORIDA RES. CODE, INCLUDING ALL 2012 AMENDMENTS

3/28/2014

MICHAEL G TOMKO · LICENSE No 63802 · STATE OF FLORIDA · PROFESSIONAL ENGINEER

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THIS STRUCTURE HAS BEEN DESIGNED FOR ERECTION AND / OR INSTALLATION ON A PERMANENT FOUNDATION AND IS NOT DESIGNED TO BE MOVED ONCE ERECTED.

MIMP-5601W-M818
150 MPH - Vult (Ultimate)

POTABLE WATER SUPPLY SYSTEM

Revisions

	By	Date
1	C.YOUNG	8/1/2013
2		
3		
4		
5		

Drawn:	NTA-CMS
Checked:	NTA
Date:	6/19/2013
Scale:	NTS

Sheet:
15 OF 15
WEC: Exposure C
DWs: 150 MPH
Model: MOD-818

APPROVED • HILBORN, WERNER, CARTER & ASSOCIATES, INC. • 3-28-14 HWC

STATE OF FLORIDA

DEPARTMENT OF COMMUNITY AFFAIRS

"Dedicated to making Florida a better place to call home"

CHARLIE CRIST
Governor

THOMAS G. PELHAM
Secretary

BUILDING CODES & STANDARDS

MEMORANDUM

From: Robert Lorenzo, Manufactured (Modular) Buildings Program

To: Building Officials, Manufacturers & Third Party Agencies

Subject: Raised Seals on Plans for Manufactured (Modular) Buildings

Date: September 15, 2008

Section 553.80(1),(d) F.S., (also chapter 106.3, Exemption #1, FBC) specifically exempts state approved manufactured (modular) buildings bearing the DCA insignia, from further plan review by local code enforcing agencies. Rule 9B-1, FAC and the Florida Building Code (FBC) do not require original signed and sealed plans for manufactured (modular) buildings to be submitted to local jurisdictions to obtain a building permit. The state (DCA) insignia issued by this Department attests that the plans have been reviewed and the buildings inspected by a state approved Third Party Agency and found to be compliant with the FBC.

However, any code requirements not completed at the factory are considered site related and are subject to local plan review and inspection in accordance with the FBC and local requirements. Signing and sealing of these plans should follow local procedures. All site-related installation requirements (e.g. marriage walls, hinged roofs, foundation, electrical hook-up, plumbing, etc.) are specifically and entirely reserved to the local authority having jurisdiction (local building department).

The State of Florida Manufactured (Modular) Buildings Program requires its approved Third Party Agencies to maintain a hardcopy set of signed and sealed plans that have been reviewed and approved by a Florida licensed Modular Plans Reviewer. Inspection reports conducted at the manufacturing facility by Florida licensed design professional or Modular Inspectors are also required to be on file. Local jurisdictions may require copies of the approved plans with the permit application or may rely on the plans on file at www.floridabuilding.org.
For additional information, please contact Robert Lorenzo at 850-410-1566 or E-mail. robert.lorenzo@dca.state.fl.us

Robert Lorenzo
Manufactured Buildings Program

2555 SHUMARD OAK BOULEVARD • TALLAHASSEE, FL 32399-2100
850-488-8466 (p) • 850-921-0781 (f) • Website: www.dca.state.fl.us
• COMMUNITY PLANNING 850-488-2356 (p) 850-488-3309 (f) •
• HOUSING AND COMMUNITY DEVELOPMENT 850-487-2213 (p) 850-922-5623 (f) •

ULTIMATE Design Wind Speed: 150 mph
Wind Exposure Category: C
Mean Roof Height: 15 ft.

FLORIDA PRODUCT APPROVAL SPECIFICATION SHEET:

C&C Loads Based On Allowable Stress Design as converted from the Ultimate or Strength Design

As required by Florida Statute 553.842 and the Florida Administrative Code 61-G20-3 (formerly 9B-72), the information and approval numbers on the building components are listed below:

Category/ Subcategory		Manufacturer	Product Description	FL Product Approval Number(s)	Pass / Fail
1. Exterior Doors					
A	Swinging	Dunbarton Corp.	In-swing Exterior Door - Solid	FL 15362.1	PASS - INT/END ZONES
	Swinging	Dunbarton Corp.	In-swing Exterior Door - Oval	FL 15362.1	PASS - INT/END ZONES
	Swinging	Dunbarton Corp.	In-swing Exterior Door - 9 Lite	FL 15362.1	PASS - INT/END ZONES
	Swinging	Dunbarton Corp.	2 Panel In-swing or Outswing - IMPACT	FL 15341.3	PASS - INT/END ZONES
	Swinging	Dunbarton Corp.	6 Panel In-swing or Outswing - IMPACT	FL 15341.3	PASS - INT/END ZONES
	Swinging	Jeld-Wen	Single or Double - Outswing - IMPACT	FL 14569.1-R2	PASS - INT/END ZONES
	Sliding	Kinro, Inc.	Sliding Glass Door - Exterior	FL 2865 - R6	PASS - INT/END ZONES
C	French (Single)	Custom Windows, Inc.	8700-SD Single French - IMPACT	FL 14850.1-R1	PASS - INT/END ZONES
	French (Double)	Custom Windows, Inc.	8750-FD Double French - IMPACT	FL 14850.1-R1	PASS - INT/END ZONES
2. Windows					
A	Single Hung	Custom Windows, Inc.	8100 - SH IMPACT Resistant - HD - Low E	FL5823.4 - R5	PASS - INT/END ZONES
	Single Hung	Custom Windows, Inc.	8100 - SH IMPACT Resistant - Low E	FL5823.2 - R5	PASS - INT/END ZONES
	Single Hung	Kinro, Inc.	9750 Series - Insulated - Low E	FL 993.2 - R10	PASS - INT/END ZONES
B	Fixed	Hy-Lite Products, Inc.	Acrylic Block Window - 6" BLOCK	FL 185.1-R5	PASS - INT/END ZONES
	Fixed	Hy-Lite Products, Inc.	Acrylic Block Window - 8" BLOCK	FL 185.2-R5	PASS - INT/END ZONES

Category/ Subcategory		Manufacturer	Product Description	FL Product Approval Number(s)	Pass / Fail
D	Metal Roofing	Advanced Aluminum	Advantage Panel - 26 Ga.	FL 1763.1 - R1	PASS - INT/END ZONES
E	Tubular Skylight	Sun-Tek	Tube (self flashing) 10", 14" or 21"	FL13488.10 - R2	PASS - INT/END ZONES
5. Structural Comp.					
A	Wood Connectors	Tie-down Engineering	Coil Strap	Local Approval	PASS - INT/END ZONES
	Wood Connectors	Oliver Technologies	Coil Strap	Constellation Tech.	PASS - INT/END ZONES
	Wood Connectors	Master Craft Eng.	Metal Strap	Report - A131394	PASS - INT/END ZONES
	Wood Connectors	Master Craft Eng.	Metal Strap	FL 9159.4 - R3	PASS - INT/END ZONES
	Wood Connectors	Master Craft Eng.	Metal Strap	FL 9159.4 - R3	PASS - INT/END ZONES
B	Truss Plate	MiTek	Truss connector plates	FL 2197 - R4	PASS - INT/END ZONES
C	Engineered Lumber	GP	GP-Lam	FL 2023.1 - R4	PASS - INT/END ZONES

APPLICATION ENGINEERING
FOR HEATING AND COOLING

JACOBSEN HOMES
901 4th St North
Safety Harbor, FL 34695

Manufacturer's Model #: MIMP-5601W-M818
HVAC System Type: OVERHEAD GRAD FLEX FOR EXT PACKAGE UNIT

Prepared By LaSalle Air Systems 3/20/2014 (Method & Output © 2014)

Calculations on this page are based on design peremeters set forth in ASHRAE and ACCA Manuals J and D. System registers are located for best distribution based on Manual T. Design calculations are based on ACTUAL orientation. Room loads may vary based on actual conditions.

ENTIRE HOUSE VALUES - DESIGN ZONE: FL, Region 2A (2010)

COOLING LOAD: 25,376 Btuh based on outside temp of 96 ° F (35 C) with inside temp reduced to 75 ° F (23 C)

HEATING LOAD: 34,810 Btuh based on outside temp of 17 ° F (-9 C) with inside temp raised to 72 ° F (22 C)

Crawlspace is not heated by the primary air handler.

CONSTRUCTION DETAILS & U / SHGC VALUES: (22-19-30) GREEN ORIENTATION

Total Cond. Floor Area:	1840.00	s.f.	TRUE Outside Perimeter:		181.33	ft			
Level 1 Ceiling:	90 to 108 in.		Level 2 Ceiling:	0 to 0 in.	Level 3 Ceiling:	0 to 0 in.			
NET Ext. Wall Area:	1165.64	s.f.	ROOF:	0.035	FLOOR DUCTS (U):	0			
TOTAL Low-E window	129.58	s.f.	WALLS:	0.059	ATTIC DUCTS (U):	0.125			
TOTAL S.G D.	40.00	s.f.	FLOOR:	0.044	EXT. DUCTS (U):	0.125			
TOTAL Glass Block	12.25	s.f.	Low-E wi	0.350 / 0.28	ATTIC DUCT AREA:	164.1	s.f exposed		
TOTAL Skylite	0.00	s.f.	S.G.D.	0.460 / 0.39	EXT. DUCT AREA:	216.25	s.f exposed		
TOTAL Door1 Area:	56.53	s.f.	Glass Blc	0.630 / 0.51	PEOPLE:	3			
TOTAL Door2 Area:	0.00	s.f.	Skylite	0.790 / 0.64	FIREPLACES:	1			
All Glass % of Floor:	9.86	%	Door 1:	0.460	DUCT GAIN:	@ 9.1 %	4527	Btuh	@ 94 TD/ 49 TD
All Glass % of Wall:	12.93	%	Door 2:	0.670	DUCT LOSS:		6777	Btuh	@ 110 TD
LATENT GAIN:	2549	Btuh			SUMMER INFILTR:		88.4	cfm	
Mech. Ventilation :	0	cfm	Altitude:	40 ft	WINTER INFILTR:		182.5	cfm	@ Semi-Tight

ROOM BY ROOM VALUES:

727.6 FPM, max velocity in trunk #: 3
0.15 Max pressure at A/H

Heat Exiting Furnace: 111 deg A/C Exiting : 48 deg

Actual heating and cooling required in each room and flow set to maximum of either heating or cooling

ROOM NAME		HEATING LOSS (Btu)	COOLING GAIN (Btu)	CFM DIST	Cooling Air Values for 2.5 ton unit CFM	Btuh	Heating Air Values for 90 % Gas/Oil CFM	40 Btuh	E	12.5 KW Elec Btuh	Maximum A/C capacity Calibrated Blower Test Btuh (alt adj)
Living Room	c	5,183	4,093	136	170	4,858	162	5,883		6,969	7,429
Dining	c	2,608	2,276	85	89	2,555	85	3,094		3,666	3,908
Kitchen	h	4,387	2,595	102	129	3,697	123	4,477		5,304	5,634
Family Room	c	8,148	4,810	161	167	4,775	159	5,783		6,851	7,303
WIC	c	584	300	27	-	-	-	-		-	-
Bedroom #1	c	3,785	3,012	99	113	3,218	107	3,897		4,616	4,925
Bath #2	c	2,097	1,595	61	57	1,640	55	1,986		2,353	2,510
Bonus Room	h	5,395	3,681	126	141	4,038	135	4,890		5,794	6,178
Bedroom #2	c	3,338	2,258	83	122	3,499	117	4,237		5,020	5,333
Bath #1	h	1,286	756	30	49	1,404	47	1,701		2,015	2,150
TOTALS		34,810	25,376	910	1,038	29,684	991	35,947		42,567	45,370

APPLICATION ENGINEERING
EQUIPMENT SELECTION AND SIZING WORKSHEET (MANUAL S)

Manufacturer: JACOBSEN HOMES
901 4th St North
Safety Harbor, FL 34695

Model #: MIMP-5601W-M818
HVAC System Type: OVERHEAD GRAD FLEX FOR EXT PACKAGE UNIT
Design Zone: FL, Region 2A (2010)

RESULTS FROM MANUAL-J CALCULATIONS: *Actual Orientation*

HEATING LOAD:	34,810	Btuh at	17 °	**REQ'D BLOWER CFM:**	1,038	cfm at altitude of	40	ft
SENSIBLE CLG LOAD:	22,827	Btuh at	96 °	**Entering Air DRY Bulb:**	75.0 °	**Mech. Ventilation :**	0	
LATENT CLG LOAD:	2,649	Btuh at	96 °	**Entering Air WET Bulb:**	59.0 °	**Entering Air RH:**	45	%
GRAINS DIFFERENCE:	40			**Outside wet bulb:**	83.0 °	**outside RH:**	68.3	%

FILL IN THE DATA FROM THE H.V.A.C. EQUIPMENT DATA CHARTS: (Do not use ARI Ratings!)

Air handler model #:_____ Condenser model #:_____

☐ *Blower Data* Select blower speed in COOLING mode: _____
Blower CFM is from 851 _____ to 1152 for Total (External) Static Pressure of 0.6_____ to 0.8

☐ *Electric, Gas or Oil Furnace* Select blower speed in HEATING mode: _____ Output Btuh is from 36550_____ to 48734
Blower CFM is from 609 _____ to 720 for Temp. rise of 55-65
Blower CFM is from 720 _____ to 880 for Temp. rise of 45-55
Blower CFM is from 880 _____ to 1132 for Temp. rise of 35-45

☐ *Cooling Equipment* S/T Ratio = 0.89 Leaving Temp = 52.9 ° TD = 22.1 °
At 96F outside, Total A/C output from 25884 btuh _____ to 29183 btuh is GOOD.
At 96F outside, Total A/C output from 29183 btuh _____ to 30452 btuh is MARGINAL.

Sensible Capacity is from 21552 btuh _____ to 24101 btuh
Latent Capacity is from 2498 btuh _____ to 3823 btuh

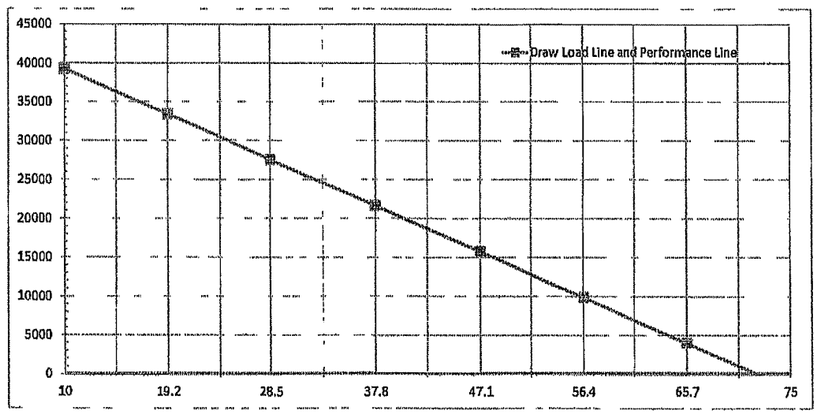
APPROVED • HILBORN, WERNER, CARTER & ASSOCIATES, INC. • 3-28-14 HWC

Mechanical Ventilation is 0 % of blower cfm. Dry bulb increases by: 0 ° Wet bulb increases by: 0 °

☐ *Heat Pump with Supplemental Heating Coils*

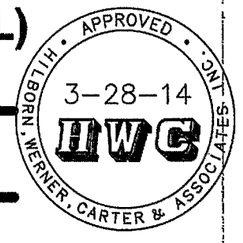
Data from performace charts
_____ btuh at _____ F outside
_____ btuh at _____ F outside

Data from load calculation
0 btuh at 72 F outside
34,810 btuh at 17 F outside



At winter design temperature of 17 F outside, the distance between the lines is _____ btuh
which is the Supplemental Heat divided by 3400 = _____ KW.

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD



ESTIMATED ENERGY PERFORMANCE INDEX* = 69

The lower the EnergyPerformance Index, the more efficient the home.

, Lake City, FL, -

1. New construction or existing		New (From Plans)
2. Single family or multiple family		Single-family
3. Number of units, if multiple family		1
4. Number of Bedrooms		2
5. Is this a worst case?		No
6. Conditioned floor area (ft²)		1840
7. Windows**	Description	Area
a. U-Factor:	Dbl, U=0.35	181.61 ft²
SHGC:	SHGC=0.30	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
d. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		0.500 ft.
Area Weighted Average SHGC:		0.300

8. Floor Types	Insulation	Area
a. Crawlspace	R=22.0	1840.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

9. Wall Types	Insulation	Area
a. Frame - Wood, Exterior	R=19.0	1450.70 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

10. Ceiling Types	Insulation	Area
a. Cathedral/Single Assembly (Vented)	R=30.0	1840.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

11. Ducts	R	ft²
a. Sup: Attic, Ret: Attic, AH: 1st Floor	6	50

12. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	42.0	SEER:13.50

13. Heating systems	kBtu/hr	Efficiency
a. Electric Strip Heat	7.7	COP:1.00

14. Hot water systems	
a. Electric	Cap: 40 gallons EF: 0.92
b. Conservation features None	
15. Credits	Pstat

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: _____ Date: _____

Address of New Home: _____ City/FL Zip: _____

*Note: This is not a Building Energy Rating. If your index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida EnergyGauge Rating. Contact the EnergyGauge Hotline at (321) 638-1492 or see the EnergyGauge web site at energygauge.com for information and a list of certified Raters. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section 303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

Michael Tomko

Digitally signed by Michael Tomko
DN CN = Michael Tomko C = US O = DTI
Date 2014.03.28 08:36:46 -04'00'

PROJECT

Title:	M818	Bedrooms:	2	Address Type:	Street Address
Building Type:	User	Conditioned Area:	1840	Lot #	
Owner:		Total Stories:	1	Block/SubDivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:		Rotate Angle:	0	Street:	
Permit Office:		Cross Ventilation:		County:	Columbia
Jurisdiction:		Whole House Fan:		City, State, Zip:	Lake City , FL , -
Family Type:	Single-family				
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

√	Design Location	TMY Site	IECC Zone	Design Temp 97.5 %	Design Temp 2.5 %	Int Design Temp Winter	Int Design Temp Summer	Heating Degree Days	Design Moisture	Daily Temp Range
____	FL, Gainesville	FL_GAINESVILLE_REGI	2	32	92	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	1840	14720

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	1st Floor	1840	14720	Yes	3	2	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Exposed Perl/Wall Ins. R-Value	Area	Floor Joist R-Value	Tile	Wood	Carpet
____	1	Crawlspace	1st Floor	7.25 ft 0	1840 ft²	22	0	0	1

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
____	1	Gable or shed	Composition shingles	1995 ft²	230 ft²	Medium	0.98	No	0.9	No	0	14

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
____	1	Full attic	Vented	300	1840 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
____	1	Cathedral/Single Assembly (Vented)	1st Floor	30	1840 ft²	0.11	Wood

HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
	1	Electric	None	1st Floor	0.92	40 gal	60 gal	120 deg	None

SOLAR HOT WATER SYSTEM

√	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
	None	None			ft²		

DUCTS

√	#	Supply Location	Supply R-Value	Supply Area	Return Location	Return Area	Leakage Type	Air Handler	CFM 25	Percent Leakage	QN	RLF	HVAC # Heat	HVAC # Cool
	1	Attic	6	80 ft²	Attic	30 ft²	Default Leakage	1st Floor	(Default)	(Default) %			1	1

TEMPERATURES

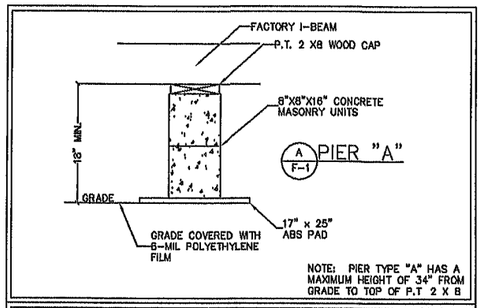
Programable Thermostat: Y

Ceiling Fans:

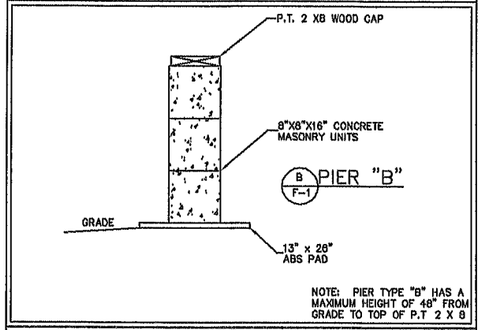
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cooling	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[X]	[X]	[ ]	[ ]	[ ]
Heating	[X]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]
Venting	[ ]	[ ]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[ ]

Thermostat Schedule: HERS 2006 Reference

Schedule Type		Hours 1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM	78	78	78	78	78	78	78	78	80	80	80	80
	PM	80	80	78	78	78	78	78	78	78	78	78	78
Cooling (WEH)	AM	78	78	78	78	78	78	78	78	78	78	78	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM	66	66	66	66	66	68	68	66	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66
Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66



NOTE: PIER TYPE "A" HAS A MAXIMUM HEIGHT OF 34" FROM GRADE TO TOP OF P.T 2 X 8



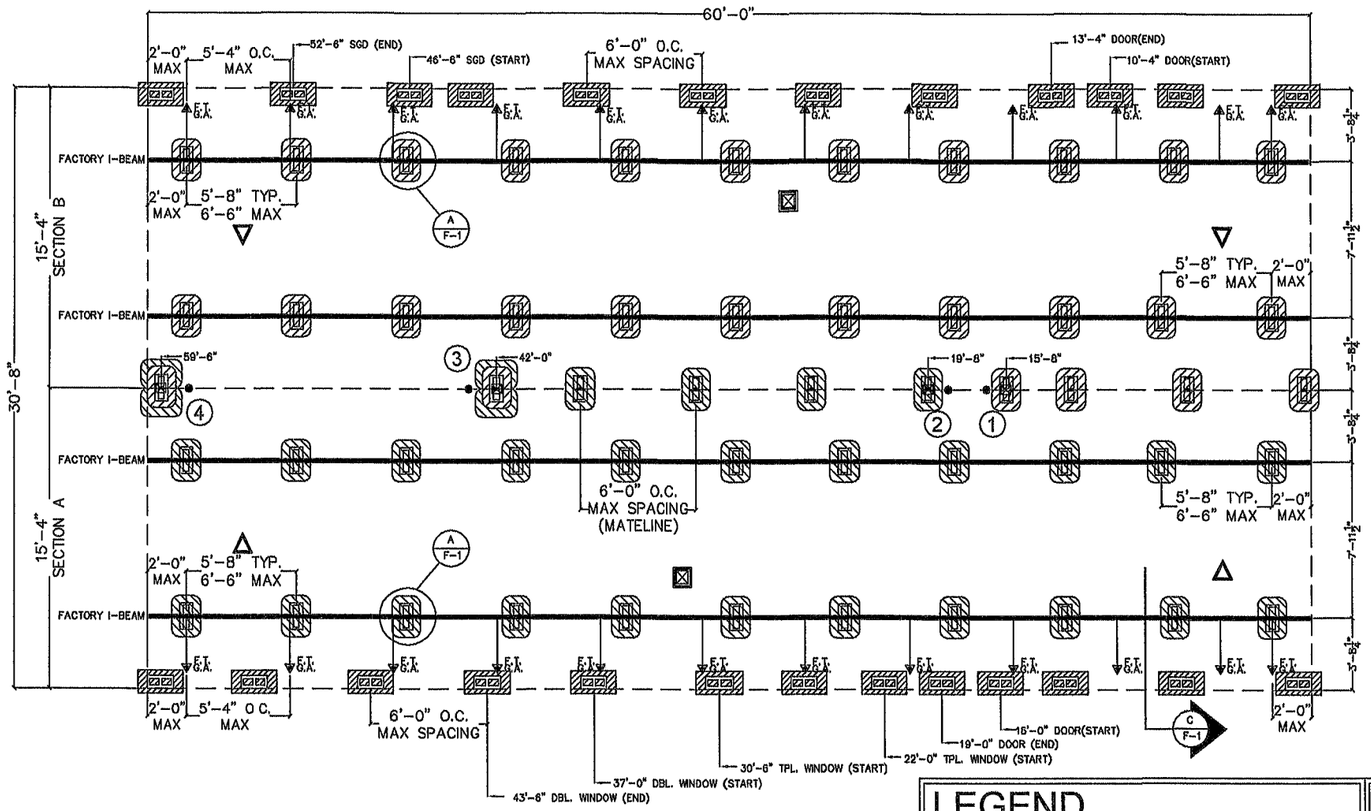
NOTE: PIER TYPE "B" HAS A MAXIMUM HEIGHT OF 48" FROM GRADE TO TOP OF P.T 2 X 8

STRUCTURAL LOAD LIMITATIONS:

CODE EDITION 2010 FLORIDA BUILDING CODE & ASCE 7-10

1 ULTIMATE DESIGN WIND SPEED.
130 mph WIND SPEED
2 NOMINAL DESIGN WIND SPEED:
101 mph WIND SPEED
3 WIND EXPOSURE CATEGORY- 'B'

4 IMPORTANCE FACTOR. 1.0
6. INTERNAL PRESSURES:
+25.9 -29.4 INTERIOR
+25.9 -31.6 END
6. DESIGN ROOF LIVE LOAD:
20 PSF
7 DESIGN FLOOR LIVE LOAD
40 PSF
8 MIN. ASSUMED SOIL BEARING CAPACITY 1000 PSF
9 OCCUPANCY CLASSIFICATION R3
10. CONSTRUCTION TYPE VB
11 THIS BUILDING IS NOT DESIGNED FOR PLACEMENT IN A HIGH VELOCITY HURRICANE ZONE AS DEFINED BY THE FBC.
12. THIS BUILDING IS NOT DESIGNED TO BE SUBMERGED OR SUBJECTED TO WAVE ACTION WHEN LOCATED IN A FLOOD PRONE OR ZONE AREA. THE BOTTOM OF THE STRUCTURAL I-BEAM MUST BE LOCATED ABOVE THE BUILDING SITE FLOOD PLANE LEVEL FOR THIS BUILDING TO BE LOCATED IN A FLOOD PRONE OR ZONE AREA OR THE THE GRADE AT THE BUILDING SITE MUST BE ABOVE THE FLOOD PLANE LEVEL.



COLUMN LOADS

① = 1181 LBS.
② = 1181 LBS.
③ = 5312 LBS.
④ = 5312 LBS.

LEGEND

17.5"x25.5" ABS PAD = 3000 LBS. CAPACITY

13"x26" ABS PAD = 2375 LBS. CAPACITY

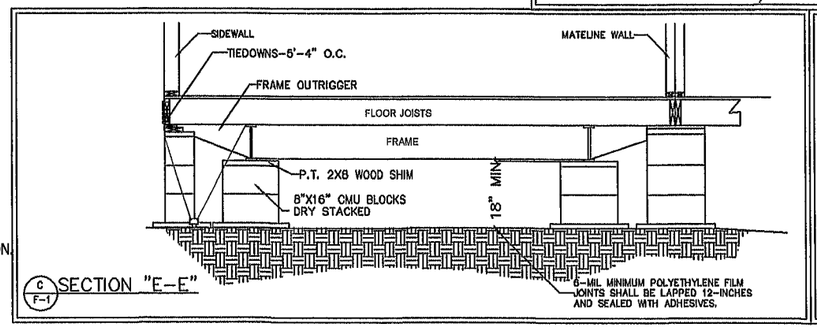
(3) 17.5"x25.5" ABS PAD = 6000 LBS. CAPACITY (TOP PAD IS LAID IN THE OPPOSITE DIRECTION TO THE BOTTOM PADS)

SYMBOLS

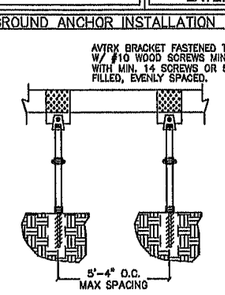
▽ F.T. -FRAME TIE-DOWN FASTENED TO G.A. GROUND ANCHOR.
● -COLUMN ANCHOR STRAP FASTENED TO GROUND ANCHOR
△ -OLIVER TECHNOLOGIES OR EQUIVALENT LONGITUDINAL & LATERAL BRACING SYSTEM
⊠ -OLIVER TECHNOLOGIES OR EQUIVALENT LATERAL BRACING SYSTEM ONLY

FOUDATION NOTES.

1. BLOCKING SPACING BASED ON 20PSF LIVE LOAD ON ROOF AND 1000 PSF SOIL BEARING CAPACITY.
2. CONCRETE BLOCKS ARE ONLY RATED AT 8000 POUNDS, 8000 POUND PIERS OR HIGHER MUST BE DOUBLE BLOCKED.
3 STABILIZER SYSTEM PER OLIVER TECHNOLOGIES, INC., OR EQUIVALENT AND ALL SIDEWALL ANCHORS ARE SPACED PER PLAN FOUR FOOT GROUND ANCHOR MAY BE USED.
4. THE MODEL 1101 "V"(LONGITUDINAL & LATERAL PROTECTION) ELIMINATES THE NEED FOR MOST STABILIZER PLATES AND FRAME TIES. EACH SYSTEM IS REQUIRED TO HAVE A FRAME TIE AND STABILIZER ATTACHED AT EACH LATERAL ARM STABILIZING LOCATION. THIS FRAME TIE AND STABILIZER PLATE MUST BE LOCATED WITHIN 18" FROM CENTER OF GROUND PAN
5. WOOD SHIMS MAY BE INSTALLED WHEN NECESSARY BETWEEN THE I-BEAM AND THE TOP OF THE PIER. SHIMS SHALL BE FREE OF KNOTS, SPLITS, AND SIMILAR IMPERFECTIONS. SHIMS SHALL BE OF P.T. LUMBER, CEDAR, OR ABS AND BEARG AT ALL CONTACT POINTS SHALL NOT BE LESS THAN 2/3 OF THE BEARING PRIOR TO ADDING THE SHIMS.
6 ALL TIE DOWN ANCHORS SHALL HAVE A MINIMUM 4,725 LB. CAPACITY AND SHALL BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS
7. THE STEEL FRAME OF HOME IS NOT FOR USE OF RELOCATION OF HOME AFTER SETUP, AND IS INTENDED FOR USE AS A PERMANENT FOUNDATION.
8 ALL PIERS SHALL BE CONSTRUCTED OF 8" X 8" X 16" CONCRETE MASONRY UNITS CONFORMING TO ASTM C90.
9 INSTALL BLOCK PIER ON EACH SIDE OF ALL EXTERIOR DOOR OPENINGS.
10. I-BEAM SUPPORT PIERS MAY BE INSTALLED LATERALLY (90 DEGREES FROM THE ORIENTATION SHOWN ON THE FOUNDATION PLAN). MUST BE LOCATED DIRECTLY BELOW THE I-BEAM CENTERLINE.
11. ALL MASONRY PIERS MAY BE INSTALLED IN A DRY STACK SUBJECT TO LOCAL JURISDICTION



GROUND ANCHOR INSTALLATION



ALL TIE-DOWN STRAPS, ETC., SHALL BE TYPE 1 FINISH B, GRADE 1, STEEL STRAPPING 109,000 MINIMUM YIELD STRENTH, .035" MINIMUM THICKNESS (PLUS OR MINUS .002 IN. - 0.05MM) FINISH B -- HOT-DIPPED GALVANIZED ZINC COATING (ASTM STANDARD 123-88A); .8 OUNCES PER SQUARE FOOT, PER SURFACE, 4750 POUNDS MINIMUM BREAK STENGTH, MARKED EVERY 12 TO 15 INCHES (MANUFACTURER'E NAME AND ASTM SPEC. D3953-91), 1 1/4" WIDTH.

GROUND ANCHORS SHOULD BE CERTIFIED BY A PROFESSIONAL ARCHITECT, ENGINEER AND/OR NATIONALLY RECOGNIZED TESTING LABORITORY THE MINIMUM WORKING LOAD CAPACITY SHOULD BE AT LEAST EQUAL TO 4725 LBS. ANCHORS SHOULD BE EMBEDDED BELOW THE FROST LINE AND AT LEAST 12" ABOVE THE WATER TABLE.

Senyb Engineering Services
318 S Scenic Hwy, Ste. 100
Lake Wales, FL 33853
Phone 863-589-5980
Fax 1-866-865-2044

THESE STANDARDS AND PLANS MEET THE 2010 F.B.C. - RESIDENTIAL

V_{ULT} =ULTIMATE DESIGN WIND SPEED = 130 MPH (RISK CATERGORY II BUILDING)
V_{ASD} =NOMINAL DESIGN WIND SPEED = 101 MPH (CATERGORY II BUILDING) (TABLE 1609.3 1)

3/5/14
DATE

LEONARD G. WOOD P.E #47377
318 S SCENIC HWY, STE. 100
LAKE WALES, FL 33853
OFFICE. 863-589-5980

LEONARD G. WOOD
REGISTERED PROFFESSIONAL ENGINEER # 47377

JACOBSEN HOMES

SES ENGINEERING SERVICES
An Engineering and Design Company

DRAWING INFORMATION	
NAME:	M.B.J
DATE:	03-05-2014
SCALE:	NOT PRINTED TO SCALE

CUSTOMER: MARY SISTRUNK
ADDRESS: 344 SW Stewart Loop, Lake City, FL 32024
Model # UNKNOWN
JACOBSEN HOMES-30'-8" X 60'-0"
FOUNDATION PLAN AND DETAILS
PROVIDED BY
SENYB ENGINEERING SERVICES
Lake Wales, Florida 33853

DESIGNED FOR 20 PSF ROOF LIVE LOAD AND 1000 PSF SOIL BEARING CAPACITY

F-1

SHEET 1 OF 1