RES*check* Package Generator
Compliance Report

Location: **Greensboro**, **North Carolina**

Construction Types: **Single Family**

Code: **1995 MEC**

HDD: **3865**

Builder Name: Careful Builders, Inc. Date: 10/23/2002

Builder Address: 120 "W" St., Greensboro, North Carolina 27411

Building Address: 1010 Construction Ave., Greensboro, North Carolina

Submitted By: John Doe Careful Phone Number: 704−321−9445

PROPOSED	REQUIRED

Glazing Area

Glazing area is less than 15.0 %.

15.0%
Maximum Glazing Area

R−Value

Description	Comments	Proposed R−Value	Minimum R−Value
Ceiling		R−**30.0**	R−**30.0**
Wall Cavity		R−**13.0**	R−**13.0**
Wall Continuous		R−**0.0**	R−**0.0**
Floor		R−**19.0**	R−**19.0**
Slab on Grade	Unheated 24 inch depth	**n/a**	**n/a**

U−Factor

Description	Comments	Proposed U−Factor	Maximum U−Factor
Window		U−**0.5**	U−**0.5**
Door	Front door exempt	U−**0.35**	U−**0.35**

Statement of Compliance: The proposed building design represented in these documents is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the requirements of the 1995 Model Energy Code.

Builder/Designer _____ Company Name _____ Date _____

MEC*check* Inspection Checklist
1995 MEC

Air Leakage:

[ ] Joints, penetrations, and all other such openings in the building envelope that are sources of air leakage must be sealed.

[ ] Recessed lights must be Type IC rated and installed with no penetrations, or Type IC or non−IC rated installed inside an appropriate air−tight assembly with a 0.5" clearance from combustible materials and 3" clearance from insulation.

Vapor Retarder:

[ ] Required on the warm−in−winter side of all non−vented framed ceilings, walls, and floors.

Materials Identification:

[ ] Materials and equipment must be identified so that compliance can be determined.

[ ] Manufacturer manuals for all installed heating and cooling equipment and service water heating equipment must be provided.

[ ] Insulation R−values and glazing U−factors must be clearly marked on the building plans or specifications.

Duct Insulation:

[ ] Ducts in unconditioned spaces must be insulated to R−5.

[ ] Ducts outside the building must be insulated to R−6.5.

Duct Construction:

[ ] All ducts must be sealed with mastic and fibrous backing tape. Pressure−sensitive tape may be used for fibrous ducts. Duct tape is not permitted.

[ ] The HVAC system must provide a means for balancing air and water systems.

Temperature Controls:

[ ] Thermostats are required 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 shall be provided.

Circulating Hot Water Systems:

[ ] Insulate circulating hot water pipes to the levels in Table 1.

Swimming Pools:

[ ] All heated swimming pools must have an on/off heater switch and require a cover unless over 20% of the heating energy is from non−depletable sources. Pool pumps require a time clock.

Heating and Cooling Piping Insulation:

[ ] HVAC piping conveying fluids above 120 ºF or chilled fluids below 55 ºF must be insulated to the levels in Table 2.

Table 1: ***Minimum Insulation Thickness for Circulating Hot Water Pipes.***

	Insulation Thickness in Inches by Pipe Sizes			
Heated Water	Non−Circulating Runouts		Cirulating Mains and Runouts	
Temperature (F)	Up to 1"	Up to 1.25"	1.5" to 2.0"	Over 2"
170−180	0.5	1.0	1.5	2.0
140−160	0.5	0.5	1.0	1.5
100−130	0.5	0.5	0.5	1.0

Table 2: ***Minimum Insulation Thickness for HVAC Pipes. Hot Water Pipes.***

	Fluid Temp.	Insulation Thickness in Inches by Pipe Sizes			
Piping System Types	Range (F)	2" Runouts	1" and Less	1.25" to 2"	2.5" to 4"
Heating Systems					
Low Pressure/Temperature	201−250	1.0	1.5	1.5	2.0
Low Temperature	120−200	0.5	1.0	1.0	1.5
Steam Condensate (for feed water)	Any	1.0	1.0	1.5	2.0
Cooling Systems					
Chilled Water, Refrigerant,	40−55	0.5	0.5	0.75	1.0
and Brine	Below 40	1.0	1.0	1.5	1.5