
EQUIPMENT SIZING SUMMARY

Date:	May 16, 2011	Rating No.:	159-0574
Building Name:	505 LR	Rating Org.:	Trinity Environmental
Owner's Name:		Phone No.:	608-332-5609
Property:	505 Lavern Ridge Rd	Rater's Name:	Laura Paprocki
Address:	Mount Horeb, WI 53572	Rater's No.:	159
Builder's Name:	TimberLane Builders		
Weather Site:	Madison, WI	Rating Type:	Projected Rating
File Name:	159-0574.blg	Rating Date:	05/16/2011

505 LR

HEATING

Calculated Peak Load (kBtu/hr)	38.8
Infiltration	4.0
Envelope	34.8
Sizing Factor (%)	115.0

HEATING EQUIPMENT CAPACITY (kBtu/hr)

Required	44.6
Specified	70.0

COOLING

Calculated Peak Load (kBtu/hr)	21.8
Sensible	17.5
Latent	4.2
Sizing Factor (%)	100.0

COOLING EQUIPMENT CAPACITY (kBtu/hr)

Required Total	21.8
Specified Total	30.0

Required Sensible	17.53
Specified Sensible	21.00

Required Latent	4.24
Specified Latent	9.00

ENERGY CODE INSPECTION CHECKLIST

Date:	May 16, 2011	Rating No.:	159-0574
Building Name:	505 LR	Rating Org.:	Trinity Environmental
Owner's Name:		Phone No.:	608-332-5609
Property:	505 Lavern Ridge Rd	Rater's Name:	Laura Paprocki
Address:	Mount Horeb, WI 53572	Rater's No.:	159
Builder's Name:	TimberLane Builders		
Weather Site:	Madison, WI	Rating Type:	Projected Rating
File Name:	159-0574.blg	Rating Date:	05/16/2011

Building Information:

Conditioned Area (sq ft): 3169
Conditioned Volume (cubic ft): 28286
Insulated Shell Area (sq ft): 7139

The items below will be inspected for energy code certification. Any deviation from these specifications should be brought to the attention of Laura Paprocki, as soon as possible to assure that the project will still comply with energy code requirements.

Ceilings:

[] 1. Attic: R44 Attic ***** (1100 s.f.)
R-33.0 continuous insulation, R-11.0 cavity insulation.
Name: Flat Insulation Grade: I II III Face / Inset

Comments/Location_____

[] 2. Vaulted: R40 Cathedral***** (500 s.f.)
R-0.0 continuous insulation, R-40.0 cavity insulation.
Name: Cathedral Insulation Grade: I II III Face / Inset

Comments/Location_____

Above-Grade Walls:

[] 1. Wall: R19 (2x6 16oc) R5***** (1882 s.f.), Between conditioned space and ambient
R-5.0 continuous insulation, R-19.0 cavity insulation.
Name: Exterior AG Insulation Grade: I II III Face / Inset

Comments/Location_____

[] 2. Wall: R19 (2x6 16oc) R5***** (576 s.f.), Between conditioned space and attic
R-5.0 continuous insulation, R-19.0 cavity insulation.
Name: AG to Attic Insulation Grade: I II III Face / Inset

ENERGY CODE INSPECTION CHECKLIST

Comments/Location_____

- [] 3. Wall: R19 (2x6 16oc) R5***** (319 s.f.), Between conditioned space and garage
R-5.0 continuous insulation, R-19.0 cavity insulation.
Name: B/t house & garage Insulation Grade: I II III Face / Inset

Comments/Location_____

Windows and Skylights:

Window-to-Wall Area Ratio: 0.10

- [] 1. Window: NFRC .28 / .32***** (8 s.f., North), U-Value: 0.280, SHGC: 0.320
For windows without labeled U-factors, describe features:
Name: Orientation: North

Comments/Location_____

- [] 2. Window: NFRC .28 / .32***** (8 s.f., North), U-Value: 0.280, SHGC: 0.320
For windows without labeled U-factors, describe features:
Name: Orientation: North

Comments/Location_____

- [] 3. Window: NFRC .28 / .32***** (38 s.f., West), U-Value: 0.280, SHGC: 0.320
For windows without labeled U-factors, describe features:
Name: Orientation: West

Comments/Location_____

- [] 4. Window: NFRC .28 / .32***** (19 s.f., South), U-Value: 0.280, SHGC: 0.320
For windows without labeled U-factors, describe features:
Name: Orientation: South

Comments/Location_____

- [] 5. Window: NFRC .28 / .32***** (20 s.f., West), U-Value: 0.280, SHGC: 0.320
For windows without labeled U-factors, describe features:
Name: Orientation: West

Comments/Location_____

- [] 6. Window: NFRC .28 / .32***** (71 s.f., East), U-Value: 0.280, SHGC: 0.320

ENERGY CODE INSPECTION CHECKLIST

For windows without labeled U-factors, describe features:

Name: Orientation: East

Comments/Location_____

- [] 7. Window: NFRC .28 / .32***** (14 s.f., East), U-Value: 0.280, SHGC: 0.320

For windows without labeled U-factors, describe features:

Name: Orientation: East

Comments/Location_____

- [] 8. Window: NFRC .28 / .32***** (8 s.f., East), U-Value: 0.280, SHGC: 0.320

For windows without labeled U-factors, describe features:

Name: Orientation: East

Comments/Location_____

- [] 9. Window: NFRC .28 / .32***** (84 s.f., East), U-Value: 0.280, SHGC: 0.320

For windows without labeled U-factors, describe features:

Name: Orientation: East

Comments/Location_____

Doors:

- [] 1. Door: FG 1.75" R12 w/St (20 s.f.), R-Value 12.0

Comments/Location_____

- [] 2. Door: FG 1.75" R12 w/St (20 s.f.), R-Value 12.0

Comments/Location_____

Foundation Walls:

- [] 1. Wall: 8-12"C R0 R5 F (576 s.f.), Between conditioned space and ambient/ground
R-0.0 interior continuous insulation, R-0.0 interior cavity insulation, R-5.0 exterior insulation.

Name: Insulation Grade: I II III Face / Inset

Comments/Location_____

- [] 2. Wall: 8-12"C R11 R5 F*0***** (38 s.f.), Between conditioned space and ambient/ground
R-0.0 interior continuous insulation, R-11.0 interior cavity insulation, R-5.0 exterior insulation.

ENERGY CODE INSPECTION CHECKLIST

Name: Insulation Grade: I II III Face / Inset

Comments/Location_____

- [] 3. Wall: 8-12"C R0 R5 F (38 s.f.), Between conditioned space and ambient/ground
R-0.0 interior continuous insulation, R-0.0 interior cavity insulation, R-5.0 exterior insulation.

Name: Insulation Grade: I II III Face / Inset

Comments/Location_____

- [] 4. Wall: 8-12"C R11 R5 F*0***** (17 s.f.), Between conditioned space and ambient/ground
R-0.0 interior continuous insulation, R-11.0 interior cavity insulation, R-5.0 exterior insulation.

Name: Insulation Grade: I II III Face / Inset

Comments/Location_____

- [] 5. Wall: 8-12"C R0 R5 F (45 s.f.), Between conditioned space and ambient/ground
R-0.0 interior continuous insulation, R-0.0 interior cavity insulation, R-5.0 exterior insulation.

Name: Insulation Grade: I II III Face / Inset

Comments/Location_____

- [] 6. Wall: 8-12"C R0 R5 F (194 s.f.), Between conditioned space and garage/ground
R-0.0 interior continuous insulation, R-0.0 interior cavity insulation, R-5.0 exterior insulation.

Name: unfin gar Insulation Grade: I II III Face / Inset

Comments/Location_____

- [] 7. Wall: 8-12"C R11 R5 F*0***** (88 s.f.), Between conditioned space and garage/ground
R-0.0 interior continuous insulation, R-11.0 interior cavity insulation, R-5.0 exterior insulation.

Name: fin gar Insulation Grade: I II III Face / Inset

Comments/Location_____

Slab Floors:

- [] 1. Slab: R5 Per, R5 Und 30' (1585 s.f.)
R-5.0 perimeter insulation, R-5.0 under slab insulation.

Name: Insulation Grade: I II III Face / Inset

Comments/Location_____

Rim and Band Joists:

ENERGY CODE INSPECTION CHECKLIST

505 LR

Page 5

[] 1. Joist: (150 s.f.), Between conditioned space and ambient
R-5.0 continuous insulation, R-18.0 cavity insulation.
Name: Insulation Grade: I II III Face / Inset

Comments/Location _____

[] 2. Joist: (32 s.f.), Between conditioned space and garage
R-5.0 continuous insulation, R-18.0 cavity insulation.
Name: Insulation Grade: I II III Face / Inset

Comments/Location _____

Mechanical Equipment:

[] 1. Heating: Fuel-fired air distribution, Natural gas, 92.0 AFUE.

Make and Model Number: _____

[] 2. Cooling: Air conditioner, Electric, 13.0 SEER.

Make and Model Number: _____

[] 3. Water Heating: Conventional, Natural gas, 0.65 EF, 50.0 Gal.

Make and Model Number: _____

Mechanical Ventilation System:

[] Mechanical ventilation system rated for, and capable of, providing continuous ventilation.
System shall include automatic timing controls.
System type: Exhaust Only, 62 cfm, 24.0 hrs/day, 23.0 watts.

System description(make): _____

Air Leakage Control:

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

[] Recessed light fixtures must be type IC rated, air tight, and sealed to drywall; or, installed inside conditioned space.

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 conditioned space must be insulated to R-0.0.
- [] Ducts in conditioned space must be insulated to R-0.0.

Duct Construction:

- [] All ducts, air handlers, filter boxes, and building cavities used as ducts shall be sealed. Joints and seams shall comply with the International Residential Code.
- [] 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.
- [] Programmable Thermostat

Circulating Hot Water Systems:

- [] All circulating service hot water piping shall be insulated to at least R-2. Circulating hot water systems shall include an automatic or readily accessible manual switch that can turn off the hot water circulating pump when the system is not in use.

Heating and Cooling Piping Insulation:

- [] Mechanical system piping capable of carrying fluids above 105F or below 55F shall be insulated to a minimum of R-3.

ENERGY CODE INSPECTION CHECKLIST

505 LR

Page 7

NOTES

Wisconsin Uniform Dwelling Code 2009 Energy Cost Compliance

Date:	May 16, 2011	Rating No.:	159-0574
Building Name:	505 LR	Rating Org.:	Trinity Environmental
Owner's Name:		Phone No.:	608-332-5609
Property:	505 Lavern Ridge Rd	Rater's Name:	Laura Paprocki
Address:	Mount Horeb, WI 53572	Rater's No.:	159
Builder's Name:	TimberLane Builders		
Weather Site:	Madison, WI	Rating Type:	Projected Rating
File Name:	159-0574.blg	Rating Date:	05/16/2011

	Annual Energy Cost (\$)	
	Wisconsin 2009	As Designed
Heating:	811	580
Cooling:	129	111
Water Heating:	185	170
SubTotal - Used to Determine Compliance:	1124	861
Lights & Appliances:	1328	1319
Photovoltaics:	-0	-0
Service Charge:	239	239
Total:	2691	2419 *

Window Maximum U-Factor Allowed (per COMM 22.36)

Window U-Factor (Design must be lower):	0.400	0.280
---	-------	-------

This home MEETS the annual energy cost requirements in accordance with the Wisconsin Uniform Dwelling Code 2009 (COMM Chapter 22, Subchapter V.) based on Wisconsin Zone 1. This home surpasses UDC requirements by 23.5%.

* Design energy cost is based on the following systems:
 Heating: Fuel-fired air distribution, 70.0 kBtuh, 92.0 AFUE.
 Cooling: Air conditioner, 30.0 kBtuh, 13.0 SEER.
 Water Heating: Conventional, Gas, 0.65 EF.
 Window-to-Floor Area Ratio: 0.09
 Blower door test: Htg: 0.20 Clg: 0.20 ACHnat

In accordance with the Uniform Dwelling Code, building inputs, such as setpoints, infiltration rates, and window shading system efficiencies are set to the requirements in Table 22.53-1 of the Uniform Dwelling Code. These standards are subject to change, and software updates should be obtained periodically to ensure the compliance calculations reflect current federal minimum standards.