
QUANTUM MECHANICAL CONSULTING SERVICES

Sheet Metal and Mechanical Contractors
840 Carl Davis Rd. NW
Monroe, GA 30656

Mr. Ben Mur
408 Baptist Grove Rd.
Fuquay-Varina, NC

RE: Manual J HVAC Report

Dear Ben,

I am pleased to offer the report on the above referenced project. The calculations were made using a current Wrihrsoft Manual J program. The breakdown is as follows;

1. The orientation of the house is due southeast.
2. The roof color is dark.
3. Considerations were taken for the roof overhang.
4. The windows are inert gas filled double paned vinyl.
5. The walls will have R-19 batt insulation.n
6. The ceiling will have R-30 blown in insulation.
7. The total wall composition.
8. The latitude and longitude of the residence.
9. The fact the most of the upper level is above a controlled space or a garage.
10. The amount of door openings per day.
11. A Delta T of 95 degrees / 75 degrees.
12. The amount of glass facing each direction.
13. The amount of wall space facing each direction.
14. Infiltration.
15. Ventilation.

Considering all of these factors, we arrived at a total sensible BTU number of 32,400. This required a three ton unit and we selected a Trane 4TWR036D1 heat pump condenser with a constant volume air handler TEM4AOB30 AHRI# 7553520. I hope this clears up any misunderstanding and I wish you good luck completing your project.

Sincerely,

Gary W. Clements