



ENERGY SOLUTIONS FOR PRODUCTION BUILDERS

Date: April 3, 2007

To: Southern Nevada Building Officials:

Jim Shummon, P.E. and Tony Martinez, CEA/CEPE of ConSol performed a technical review of the MICROPAS Software v 7.30 produced by Enercomp, Inc. to determine if the software met the intent of Chapter 4 of the International Code Councils 2006 International Energy Conservation Code. As part of the review, the software was compared with the amendments adopted by the Southern Nevada Building Officials as part of the 2006 Southern Nevada Energy Code.

We have the following findings based on a review of the software provided:

1. For development, MICROPAS follows the amendments in the Southern Nevada Energy code in addition to the provisions of the 2006 IECC.
2. The Standard Building assumptions used by MICROPAS are consistent with Table 404.52 (1) of the IECC.
3. The software incorporates the hard limits on glazing SHGC requirements as specified in Section 402.6 of the IECC.
4. The software requires that duct insulation R-value be no less than R-6.0 for ducts in unconditioned space. Ducts in conditioned space are not required to be insulated.
5. The software has the ability to model annual energy use based on Section 402.4.2 and provides energy use information on the heating system, cooling system and water heating system.
6. The software calculates "source" energy verses "energy costs" based on the amendments to the 2006 IECC. Source energy places more emphasis on energy efficiency features that effect cooling verses those that effect heating.
7. The software provides documentation per Section 404.4 and provides data on both the Standard and Proposed design.

Recommendations

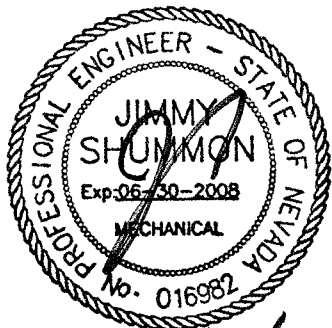
ConSol has the following recommended criteria for using MICROPAS for compliance with the Energy Conservation Code of Southern Nevada:

1. Have error message in software when:
 - a. Duct insulation is less than R-6.0 in unconditioned space
 - b. Setback Thermostat is selected

2. Capability to run HERS Ratings for above code compliance (i.e. Energy Star or other builder energy savings program)

Respectfully,

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DATE: 4/3/07

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