Energy Efficiency in Residential Buildings

1. What is being required prior to the issuance of permit?
   - Brent provided an *Energy Efficiency Plan Review Check List*, a page discussing compliance methods and a slab on grade floor insulation detail sheet. The *Check List* details what should be submitted for plan review. It is important that the compliance document, plans and load calculations (Manual J) are consistent. The U-factors, R-values etc should be the same on all documents!
   - Apparently some jurisdictions *incorrectly* do not allow use of the ‘Performance’ method to show compliance with the Energy Code. RemRate is a program that correctly completed meets the requirement of IECC 404.
   - Apparently other jurisdictions *incorrectly* mandate that only ResCheck can be used to show compliance-
   - Watch for compliance documents that leave components of the thermal envelope off the calculation or document, in order the get the building to pass. ALL components of the thermal envelope MUST be accounted for.
   - Mechanical design documents; Manual D duct designs, hydronic designs, geothermal or other mechanical designs should also be submitted for review.

2. What are we looking at when we inspect?
   - Roger ‘Dad’ Evans sent a *Residential Energy Inspection Check List* along with a few sheets detailing requirements to follow when inspection spray foam insulation products.
   - A proper inspection cannot be made if the energy compliance documents, the plans, the load calculations and system design documents are not on site for inspections.
   - There are manufacturers that have not had their windows NFRC certified. Roger provided a directory of manufacturer’s that produce NFRC certified fenestrations products. Also provided was an example of a window that was not NFRC certified.

OTHER DISCUSSION:
   - Roger sent guidelines and a ‘Top 10 List’ for Commercial Compliance- Chapter 5.
   - Very few are enforcing the window requirements for site-built, store front type glass. *If the NFRC certification procedure for site built windows and doors is not followed/completed, the default values must be used from Tables 102.1.3(1), (2) & (3)*. Window contractor and manufacturers are regularly submitting a COG-Center of Glass U factor on compliance documents. An aluminum framed store front window assembly with glass having a COG U-factor of 0.32 will typically have an overall U factor for the whole assembly of .67 to .75 or higher. The aluminum frames have poor thermal performance characteristics.