

BUILDERS PLAN

FEBRUARY, 2008

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ASHTABULA COUNTY BUILDERS ASSOCIATION

"The Voice of the Industry in Ashtabula County"

MARK YOUR CALENDAR

February 14th Ashtabula Builders Expo

Elks Club

March 13th General Meeting

Elks Club

April 10th General Meeting

Elks Club

May 8th General Meeting

Elks Club

June 12th Steak Fry

Elks Club

July 10th Golf Outing

To Be Announced

August 14th Summer Social

To Be Announced

September 11th General Meeting

Elks Club

October 9th General Meeting

Elks Club

November 13th General Meeting

Elks Club

December 11th Christmas Party

Elks Club

Happy hour is 6:00pm - 7:00pm

Dinner 7:00pm

RSVP by Monday prior to meeting date and if you need to cancel please call by Tuesday evening.

LETTER FROM PRESIDENT

Our January meeting was as advertised, A "Grand" evening indeed. Good times were shared by old friends and new. Thanks to all who came and shared.

O.K. Builder's, it's February and it's cold outside, a fine time to roll up our sleeves and get some work done. To help get some of that work done, our February program will be one of a "table top" presentation. Featuring many of our local suppliers showing their latest and hottest, models and trends for the fast approaching building season.

We call it "The Ashtabula Builders Expo" (Yes, it might be small this year, but I'm working on it) and with all the new and exciting things available to you, I'm sure that there will be something for everyone to explore. So come have dinner, take a walk around and get the information you need to have a better build this year. I look forward to seeing you there.

Frank

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Page 5 Update on Ohio's Interim Home Sewage Disposal System Regulations

(H.B. 119)

NOTICE

Regarding Growth Partnership;

Although Growth Partnership is a beneficial asset and continues to be a positive force for growth in and for Ashtabula County. The Board of Directors have voted to discontinue our financial support effective January 24, 2008.

As always we encourage them to continue in their quest of bringing prosperity to Ashtabula County and applaud all the personal and corporate sponsors who continue their support.

BOARD OF TRUSTEES

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2006 International Energy Conservation Code (IECC) compliance

It is most likely that the 2006 IECC will become effective as enforced by the Ohio Board of Building Standards (OBBS) on January 1, 2008.

The following are memorandum from the OBBS that summarizes the code and explains the three methods to comply – prescriptive packages, trade-off, and performance.

Residential Energy Code Update

e three methods of demonstrating compliance with the IECC: the prescriptive method, the UA alternative method (sometimes called the trade-off method), and the simulated energy performance analysis method. The prescriptive path utilizes a published table of mandatory insulation R-values and fenestration values for the various building envelope components based upon climate zone. This method is the fastest and simplest, but most conservative and therefore, usually the most costly. The UA alternative, as compared to the prescriptive method, requires more time to complete the calculations, but allows the code user to calculate the total building thermal envelope UA (the sum of the proposed component U values times the component areas) which would have to be lower than the total UA resulting from using the U factors provided in a table. This allows for trade-offs in the building envelope insulation and fenestration values. The popular REScheck software is available for free to download from the US DOE website,

www.energycodes.gov, and allows the user to perform the UA alternative calculation method. Finally, the simulated energy performance analysis methodology is the most flexible method, offering credits for favorable building orientation, low infiltration rates, shading, high efficiency mechanical equipment and lighting, and other renewable energy sources. The performance method utilizes one of many computer software packages that are available on the market for this purpose. These software packages typically require specialized knowledge and familiarization with its use.

A tip about the REScheck software as it applies to the UA alternative method of the 2006 IECC

Remember that if the prescriptive method is used, the values in Table 402.1.1 are absolutely mandatory. If, on the other hand, the Total UA alternative method is used as permitted in section 402.1.4, then the prescriptive values presented in Table 402.1.1 are presumed to be met as long as the calculations are performed as specified in section 402.1.4. Practically, this means that the prescriptive values are permitted to be modified, as long as the overall UA calculations are performed as specified in section 402.1.4. The U values specified in Table 402.1.3 supplement the UA alternative calculation method requirements of section 402.1.4. As previously mentioned, REScheck is probably the most popular tool for calculating the overall UA of the building. The REScheck software automatically accounts for the U-values from Table 402.1.3. When REScheck for the 2006 IECC does its initial UA calculation, it is only doing envelope UA calculations. Equipment efficiencies are not accounted for when doing an envelope UA calculation. If the building passes on REScheck's first envelope UA calculation, then section 402.1.4 has been strictly complied with and the building is considered in compliance with Table 402.1.1. However, if REScheck performs its envelope UA calculation and determines that the building fails, it will then perform another calculation which is more of a watered down performance type calculation described in section 404. This calculation differs from the UA envelope calculation because it is considering building orientation and equipment efficiencies. If the building passes upon this second REScheck calculation, then the building is "deemed to comply". This situation technically would be considered a compliance method somewhere between the UA alternative method and the performance method. REScheck is what we call a "deemed to comply" method that the BBS and most other states and jurisdictions accept. It doesn't strictly meet the code requirements when allowing orientation and equipment trade-offs, but we accept it anyway. Keep in mind that the REScheck report is just one option or method of showing compliance to the 2006 IECC. Therefore, building department personnel should not be requiring a REScheck report unless the owner or owner's representative states that they are using REScheck to demonstrate compliance.

APPENDIX E ENERGY CONSERVATION

The contents of this appendix to the Administrative Code is not adopted material but is approved by the Board of Building Standards (BBS) and provided as a reference for users.

The Board of Building Standards recognizes that a number of methods and compliance tools have been developed to aid in determining energy code compliance for commercial and residential buildings. The following methods and compliance tools have been reviewed by the BBS staff and are considered acceptable methods of demonstrating compliance with Chapter 13 of the Ohio Building Code (OBC):

<u>Prescriptive Packages Method:</u> This method is, by far, the simplest and fasted method of demonstrating code compliance. However, it is also quite conservative, has several limitations and restrictions for its use, and sometimes, is not the most economical.

The user simply follows the predefined requirements listed in a table, or group of tables and the mandatory requirements specified in the code text. The table(s) lists the required R-values for fenestration (U-factor), skylights (U-factor), ceilings, walls, floors, basement walls, slabs, crawl space walls, based on climate zones. Sections 402.1 through 402.3 of the 2006 International Energy Conservation Code (IECC) offer simplified predefined prescriptive requirements that can be used for detached one, two, and three family dwellings and for Group R-2, R-3, and R-4 occupancies less than or equal to 3 stories in height above grade. For all other occupancies, Chapter 5 of the IECC and Sections 5.5 and Chapters 6-10 of the ASHRAE 90.1-2004 offer predefined prescriptive requirements for the envelope and mechanical and lighting/electrical systems.

To demonstrate code compliance using the predefined prescriptive packages method, one would simply identify on the construction documents that the prescriptive method was selected and ensure that sections and elevations are provided that adequately illustrate and identify the climate zone; the glazing areas; insulation R-values, dimensions, and thicknesses; and equipment efficiencies that correspond to the requirements shown in the code. Prescriptive package worksheets are available on the website of the U.S. Department of Energy (DOE), Building Energy Codes Program (BECP), at www.energycodes.gov. These worksheets, along with the construction documents, must be submitted to the building department for approval.

The DOE website listed above also offers the user the option to create their own prescriptive packages on-line. Using the residential or commercial prescriptive package generators, the user can vary the insulation and glazing values and the on-line software will immediately calculate whether the generated package meets code.

<u>Trade-off Method:</u> This method is the most popular method of demonstrating energy code compliance. It is a bit more involved but less restrictive than the prescriptive packages method.

This method of compliance allows for limited building component trade-offs. In other words, the user is permitted to reduce energy efficiencies of certain building components as long as the efficiencies of other building components are increased to compensate for the reductions. The idea is that the overall total building envelope UA as calculated using a method consistent with the ASHRAE Handbook of Fundamentals is less than or equal to the total UA as calculated by using the U-factors from the 2006 IECC Table 402.1.3 and multiplying them by the corresponding areas of the components. This trade-off method, called the Total UA alternative and described in Section 402.1.4 of the 2006 IECC, can be used for detached one, two, and three family dwellings and for Group R-2, R-3, and R-4 occupancies less than or equal to 3 stories in height above grade. For all other occupancies, Section 5.6 of the ASHRAE 90.1-2004 allows for trade-offs between building envelope components only.

The previously popular paper trade-off worksheets that were used in the past to manually demonstrate compliance using the component Trade-off Method have almost completely been superceded by the more popular and easier to use software packages and convenient fill-in-the-box type on-line tools that have been developed to demonstrate compliance.

The most popular component trade-off software and on-line software packages are available at www.energycodes.gov. ble software and the REScheck-WEB on-line software tool permits residential building component trade-offs as described in Section 402.1.4 of the 2006 IECC. The COMcheck software and the COMcheck-WEB on line software tool permits commercial building envelope component trade-offs as described in the Section 5.6 of the ASHRAE 90.1-2004.

<u>Performance Method:</u> This method is the most time consuming of the three compliance methods. However, this method also allows for the most flexibility because it evaluates the big picture, the entire building system, not just the components. It takes into account many more variables that affect energy efficiency such as window orientation, shading coefficients, types of mechanical equipment and lighting/power systems and offers credit for renewable energy sources such as solar, fuel cells, thermal energy storage. This method is the only method that can be used to show energy compliance when using nontraditional or unusual building design features or components. It works by comparing the proposed building design to that of a known building design of acceptable annual energy usage. The proposed building is acceptable if it can be demonstrated that the proposed design is at least as energy efficient as the known design. Section 404 of the 2006 IECC offers a performance method called the Simulated Performance Alternative approach that can be used for detached one, two, and three family dwellings and for Group R-2, R-3, and R-4 occupancies less than or equal to 3 stories in height above grade. For all other occupancies, Section 506 of the 2006 IECC offers a Total Building Performance approach and Chapter 11 of the ASHRAE 90.1-2004 offers the Energy Cost Budget Method or Whole Building Performance option. Due to the complexity of the performance method analysis, various manufacturers representatives and governmental agencies have developed software packages that must be used to demonstrate compliance. For the residential Simulated Performance Alternative approach (IECC Section 404), REM/Design, REM/Rate, EnergyGauge, and DOE-2 are a few of the acceptable software packages available on the market. For the Total Building Performance Approach (Section 506 of the 2006 IECC) and the Energy Cost Budget Method-Whole Building Performance Option (Chapter 11 of ASHRAE 90.1-2004), the following examples are a few of the acceptable simulation tools used to demonstrate compliance: DOE-2, BLAST, EnergyPlus, ESP-r, Energy-10, Trane Trace, and Carrier HAP.

In all cases, whether using downloaded or online software, the user must be careful to input into the software the specific edition of the energy code referenced by the OBC (i.e. 2006 edition of the IECC or the 2004 edition of the ASHRAE 90.1). Remember the old cliché...Garbage in =Garbage out! All of these software packages should have the ability to print out data input and compliance reports (which indicate the specific edition of the referenced energy code) that can be submitted to the building official for approval.

UPDATE ON OHIO'S "INTERIM" HOME SEWAGE DISPOSAL SYSTEM REGULATIONS (H.B. 119)

On January 1, 2007 new and more stringent home sewage treatment rules took effect in the State of Ohio. These new regulations were viewed by some members of the public as too costly and complicated. In response to public concerns expressed throughout the State of Ohio pertaining to the cost of implementing these new regulations, House Bill 119 was passed by the State Legislature.

The primary intention of House Bill 119 was to convene a statewide committee to recommend and develop new home sewage disposal regulations to the Ohio Department of Health by July 2008. In addition, House Bill 119 was intended to provide a mechanism to allow local health departments to temporarily implement sewage treatment rules that were in effect prior to January 1, 2007. If desired, Health Departments also had the option to retain the new sewage treatment rules. The Ashtabula County Health Department decided to return to implementing home sewage disposal rules that were in effect prior to January 1, 2007.

Although House Bill 119 appears to provide a mechanism for local health departments to implement sewage treatment rules that were in effect prior to January 1, 2007, the reality is that the Ohio Department of Health has placed several restrictions on local health departments that fully prevent local health departments from returning to the said regulations. Moreover, House Bill 119 also contains a restriction pertaining to discharging systems that is lockstep with home sewage treatment rules that took effect on January 1, 2007 but were then rescinded in July 1, 2007.

There are many changes and implications of House Bill 119 that are beyond the scope of a brief summary of House Bill 119. However, a number of major components of House Bill 119 that impact builders, realtors, health departments and the general public are identified below.

Some of the major provisions of House Bill 119 include:

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- Temporary suspension of new and more stringent home sewage treatment rules that were in effect from January 1, 2007 to June 30, 2007.
- Permits local health departments to administer most home sewage disposal rules that were in effect prior to January 1, 2007.
- Creates a new home sewage study commission that is to develop new regulations by July 2008.
- Requires that new Home Sewage Treatment Rules must be adopted by the Ohio Department of Health by July 1, 2009; or the home sewage treatment rules that went into effect on January 1 2007 will go back into effect.
- Requires that cost data on home sewage treatment systems be collected across the state to determine how much home sewage treatments systems cost in different parts of the state.
 - Retains a home sewage technical advisory committee that evaluates and promotes new cost-effective home sewage treatment disposal systems and/or their components in the State of Ohio.
 - Requires OEPA/NPDES discharge permits for discharging systems (OEPA will issue NPDES permits for replacement home sewage treatment systems on small lots and not for new home construction).

UNRESOLVED ISSUES OF HOUSE BILL 119

- Ohio Department of Health has interpreted House Bill 119 to restrict the use of filter bed-leach field systems because they are not watertight and are in contact with the seasonal water table. This is in direct conflict with Senator. Grendell's position.
- The Ashtabula County Health Department has traditionally used filter bed-leach field systems but has been unable to use them since passage of House Bill 119 on July 1, 2007.
- The Ashtabula County Health Department can still use traditional home sewage treatment systems such as leach field systems (in well drained soils only) and aeration pre-treatment to shallow leach field systems. Non-traditional home sewage treatment systems may also be used under House Bill 119 such as drip distribution systems, mound sewage treatment systems and elevated leach field systems with pretreatment.
- The Ashtabula County Health Department has requested that the Ohio Department of Health allow use of the filter bed-leach field system. The Ohio Department of Health is currently evaluating our request.
- Senator Grendell, a co-sponsor of House Bill 119, has been strident in his intention to allow local health departments to fully
 implement home sewage disposal system rules that were in effect prior to January 1, 2007.
- Between now and July 1, 2009, many changes will likely occur as the Ohio Department of Health must either adopt new regulations or readopt the regulations that went into effect January 1, 2007 but were rescinded on July 1, 2007. Hopefully, the best of the sewage regulations that were in effect prior to January 1, 2007 can be combined with the best elements of the Sewage Treatment System Rules that were adopted on January 1, 2007. Stay tuned for new developments in this area.