



# Energy & LEED: History, Case Studies, Future Legal Issues

Getting it Done

2300 Wilson Boulevard, 7<sup>th</sup> Floor

Arlington, Va. 22201

703 525-4000

[www.beankinney.com](http://www.beankinney.com)

[www.valanduseconstructionlaw.com](http://www.valanduseconstructionlaw.com)



# Energy & LEED: Methodology

---

- Recent press/public commentary
- Dig deeper into case studies
- Transition toward implications
  - Risk impacts
  - Liability Exposure
  - Potential unintended consequences

# Details, Details

ABOUT SERVICES CONTACT ARCHIVES

## VIRGINIA REAL ESTATE, LAND USE & CONSTRUCTION LAW BLOG

Insight & commentary on real estate, land use and construction law in Virginia.



Home > Green > New York Times, LEED and GSA: The Ghost of LEED Past?

### New York Times, LEED and GSA: The Ghost of LEED Past?

Posted on September 13, 2009 by Timothy R. Hughes



The legal blogosphere has been active the last two weeks with discussion of the recent article in the New York Times

Email This  
Print  
Comments (7)  
Trackbacks

published by  
**BEAN, KINNEY & KORMAN, P.C.**

#### About Us

Welcome to Bean, Kinney & Korman's Virginia Real Estate, Land Use and Construction Law Blog. Please hit "more" to learn MORE.

ABOUT SERVICES CONTACT ARCHIVES

## VIRGINIA REAL ESTATE, LAND USE & CONSTRUCTION LAW BLOG

Insight & commentary on real estate, land use and construction law in Virginia.



Home > LEED > Energy, Post-Occupancy & Codes: The Ghosts of LEED Present

### Energy, Post-Occupancy & Codes: The Ghosts of LEED Present

Posted on September 18, 2009 by Timothy R. Hughes

The recent New York Times piece criticizing LEED (discussed previously) has reignited discussion of the potential for decertification after initial issuance of LEED certification. Some previously pointed to the USGBC addition of extended energy reporting for five years after occupancy as a "Minimum Performance Requirement" and the threat of decertification as an enforcement mechanism. More recently, commentators have predicted recertification programs. Rich Cartledge even called for a wedding between LEED for New Construction and LEED for



Email This  
Print  
Comments (4)  
Trackbacks

published by  
**BEAN, KINNEY & KORMAN, P.C.**

#### About Us

Welcome to Bean, Kinney & Korman's Virginia Real Estate, Land Use and Construction Law Blog. Please hit "more" to learn MORE.

#### Topics

- ADR
- Mediation
- Accessibility
- ADA
- Fair Housing
- Affordable Housing
- Architects and Engineers
- Brokers
- Codes and Regulations
- Constitutional Law
- Contracts
- Economic Development

ABOUT SERVICES CONTACT ARCHIVES

## VIRGINIA REAL ESTATE, LAND USE & CONSTRUCTION LAW BLOG

Insight & commentary on real estate, land use and construction law in Virginia.



Home > Contracts > LEEDing to Unintended Consequences - The Ghost of LEED Future

### LEEDing to Unintended Consequences - The Ghost of LEED Future

Posted on September 21, 2009 by Timothy R. Hughes



As discussed previously, USGBC has imposed extended reporting requirements as part of its minimum program requirements for LEED. It appears the extended reporting already adopted may only be an initial step. We may see extended

Email This  
Print  
Comments (7)  
Trackbacks

published by  
**BEAN, KINNEY & KORMAN, P.C.**

#### About Us

Welcome to Bean, Kinney & Korman's Virginia Real Estate, Land Use and Construction Law Blog. Please hit "more" to learn MORE.

#### Topics

published by  
**BEAN, KINNEY & KORMAN, P.C.**

#### About Us

Welcome to Bean, Kinney & Korman's Virginia Real Estate, Land Use and Construction Law Blog. Please hit "more" to learn MORE.

#### Topics

- ADR
- Mediation
- Accessibility
- ADA
- Fair Housing
- Affordable Housing
- Architects and Engineers
- Brokers
- Codes and Regulations
- Constitutional Law
- Contracts
- Economic Development
- Economy
- Eminent Domain
- Employment
- General Assembly
- Government Contracts
- Green
- LEED
- Waiston-Markley
- Historic Preservation
- Labor
- Land Use/Zoning
- Law and Legal Profession
- Licensing
- Litigation
- Errors and Omissions
- Local Government
- Mechanics' Liens
- Payment Bonds
- Products Liability
- Real Estate
- Safety

### LEED and Energy Models Continued: The Illinois Regional Study

Posted on November 13, 2009 by Timothy R. Hughes

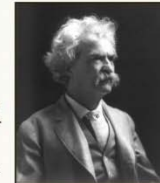


As discussed previously, USGBC has imposed extended reporting requirements as part of its minimum program requirements for LEED. It appears the extended reporting already adopted may only be an initial step. We may see extended

Email This  
Print  
Comments  
Trackbacks

“ There are three kinds of lies: lies, damned lies, and statistics.

Mark Twain, paraphrasing Benjamin Disraeli



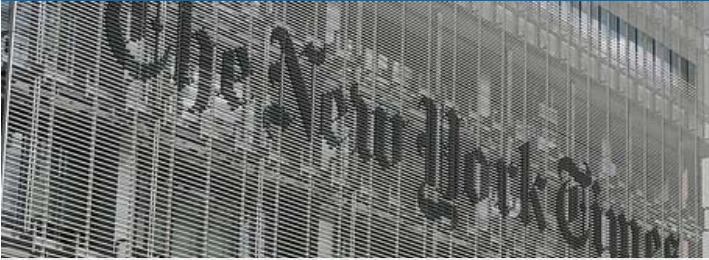
We have a new and very interesting recent report on green building to examine, the Regional Green Building Case Study Project: A post-occupancy study of LEED projects in Illinois. The Illinois report studied a mix of projects of various certifications levels, certified under various versions of LEED, with various applications, that used various baselines, and that used various reporting methods for utilities. The small sample and disparate projects involved lends itself towards a scattershot of data.

The study found a range of cost premiums for green construction (after grants and incentives) at 0.6% to 6.9% of project cost with 3.8% increase as the mean. The Illinois report found that projects focusing on energy efficiency tended to have better energy efficiency (quite a V-8 moment I am sure). Interestingly, the Illinois report found no meaningful correlation between the level of LEED certification and the energy performance of the buildings involved ... this may be an off-shoot of the limited sample size.

The most interesting point from the Illinois study was in the details regarding energy modeling. Sixteen projects used energy design models. Of these sixteen projects, twelve projects performed worse than design models ... six of them using 100% to a whopping 250% more energy than anticipated in the model. Seventeen projects used at least baseline models and remarkably seven of the projects showed actual energy use above the baseline!

To me, to have energy use of these structures exceed the original baseline is flat out staggering. Looking into the project details, one big factor was more intensive use and occupancy figures than modeled. This continues to point out the flaw of expecting too much from energy modeling that we have previously discussed. In addition, we continue to see the problem of trying to draw averages from lumping apples

# New York Times Firestorm



“But the building is hardly a model of energy efficiency ... the building’s cooling system, a major gas guzzler, was on culprit”



# Reality or NYT Slant?

---

- Federal Building Reality:
  - No EA-1 Points requested
  - Urban brownfield site, previously paved
  - Reduction of impervious surface 58%
  - 72% waste recycled
  - 62% local materials
  - Not 75 pts to qualify for Energy Star, but a respectable 58 pts
  - Every other GSA study project was Energy Star

# Illinois Regional Study

## Regional Green Building Case Study Project: A post-occupancy study of LEED projects in Illinois

---

Year 1 Final Report  
Fall 2009

A collaboration between



Chicago



Sustainable Communities  
Attainable Results



With the generous support of

GRAND VICTORIA  
FOUNDATION

# Illinois Findings 1, 2, 3

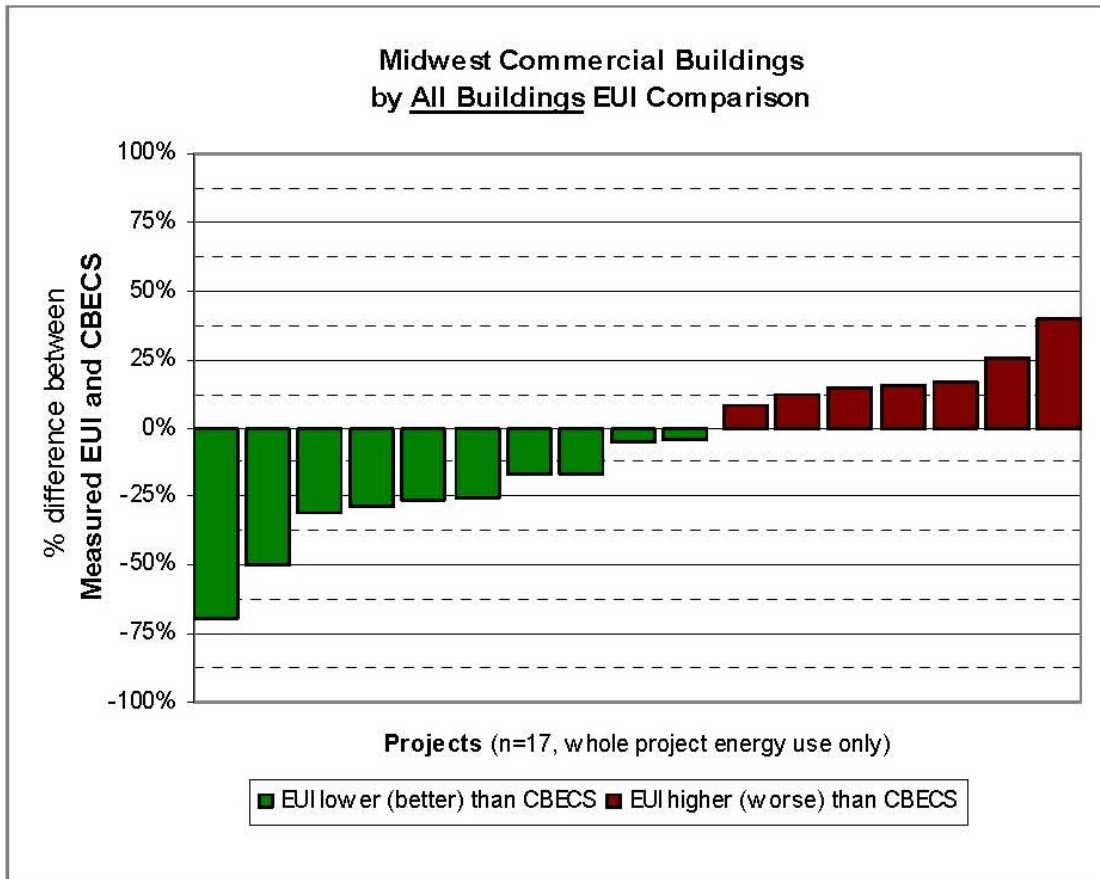


Figure 10: EUI performance compared to CBECS All Buildings

Source: CBECS Table C5. Consumption and Gross Energy Intensity by Census Region for sum of Major Fuels for Non-Mall Buildings, 2003. Midwest Region.

# Illinois Findings 1, 2, 3

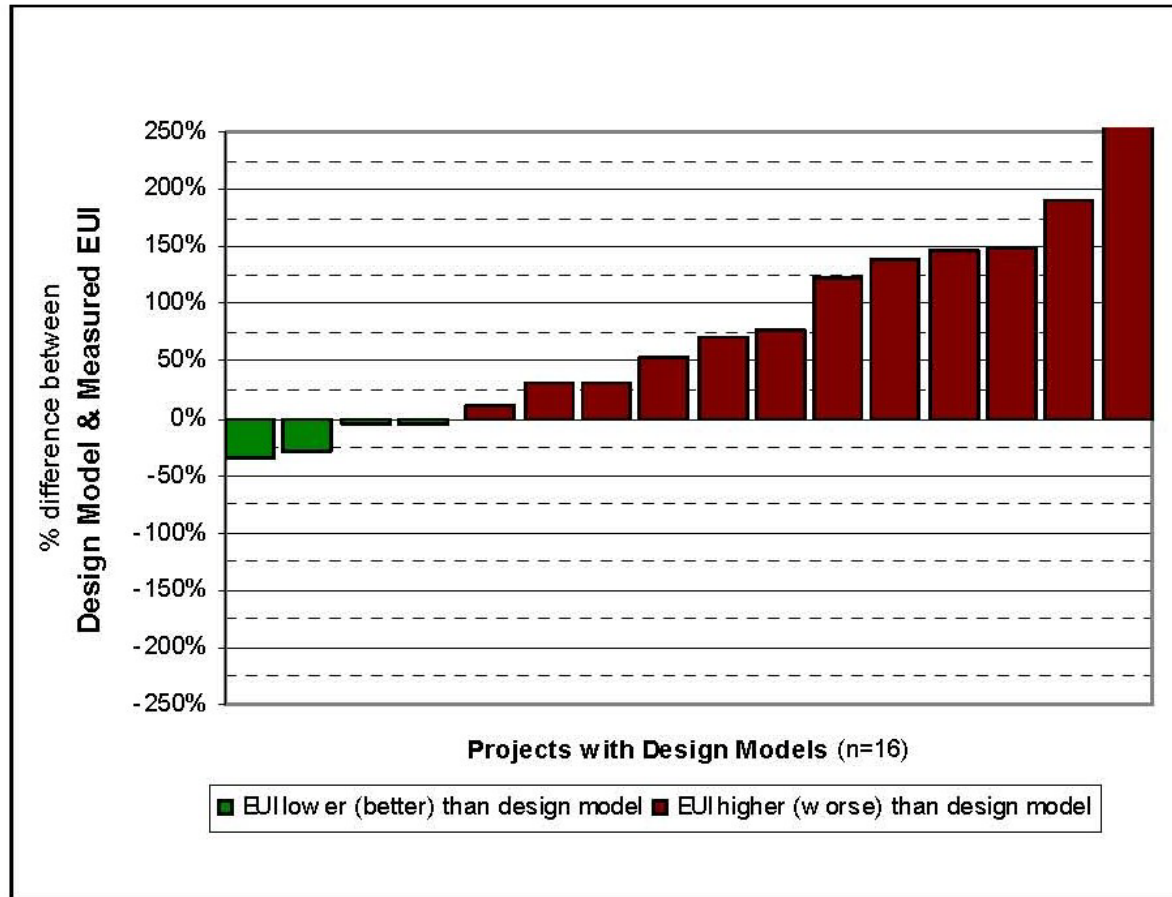


Figure 14: Design Model and Measured EUI Comparison



# Illinois Findings 1, 2, 3

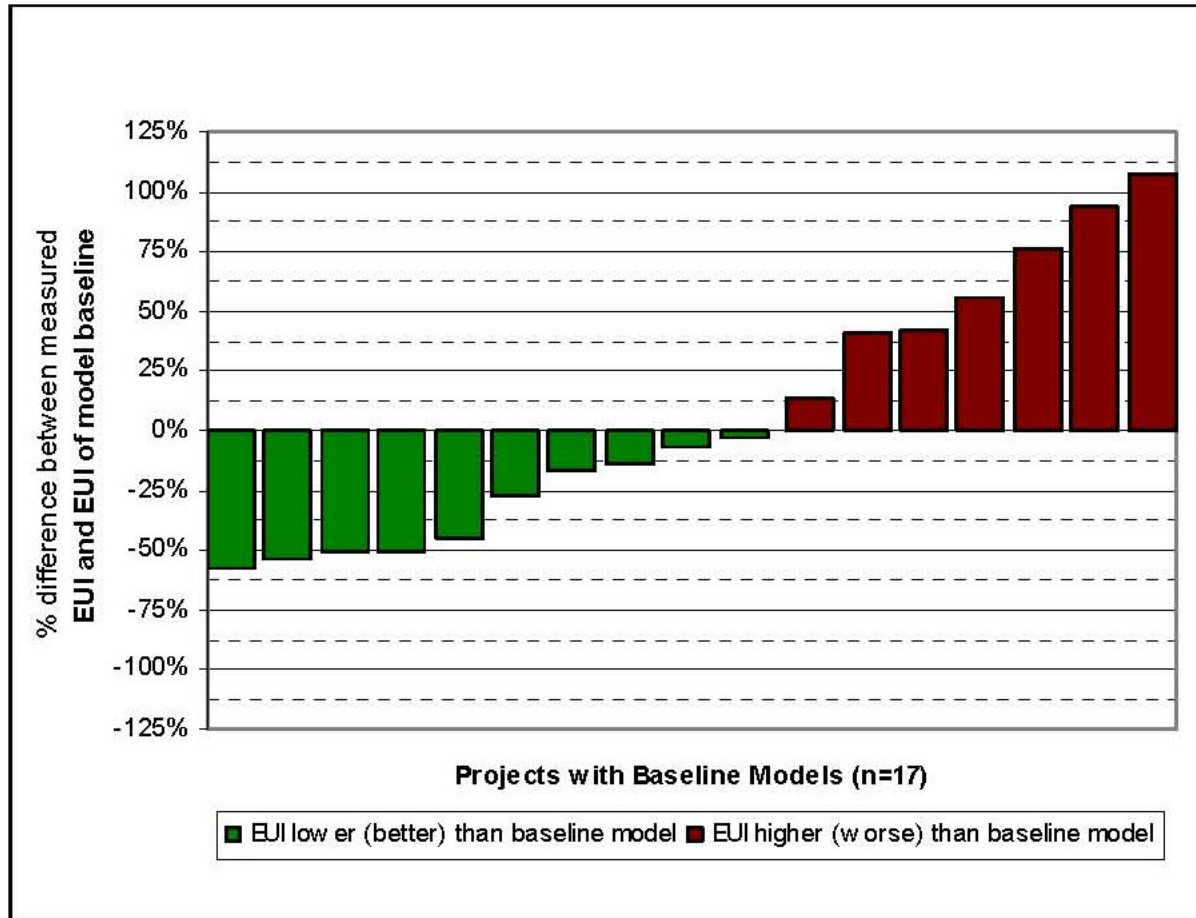


Figure 15: Baseline Model and Measured EUI Comparison

# Why the Baseline Disconnect?

---

- Model assumptions on uses
- Examples:
  - Glenview Park – taken over and opened for drop-in visits and open in winter
  - Children’s Discovery Museum – wildly successful, higher occupancy, more rental events, more exhibits
  - Imp. Note: unlike the Federal Bldg, these projects sought extensive EA-1 credits

# Lessons

---

- Modeling Has its Limits
  - Garbage in, garbage out
  - Design v. Baseline? Or Performance v. Performance without Energy Measures?
- Performance Measures Gaining Steam

# USGBC Changes

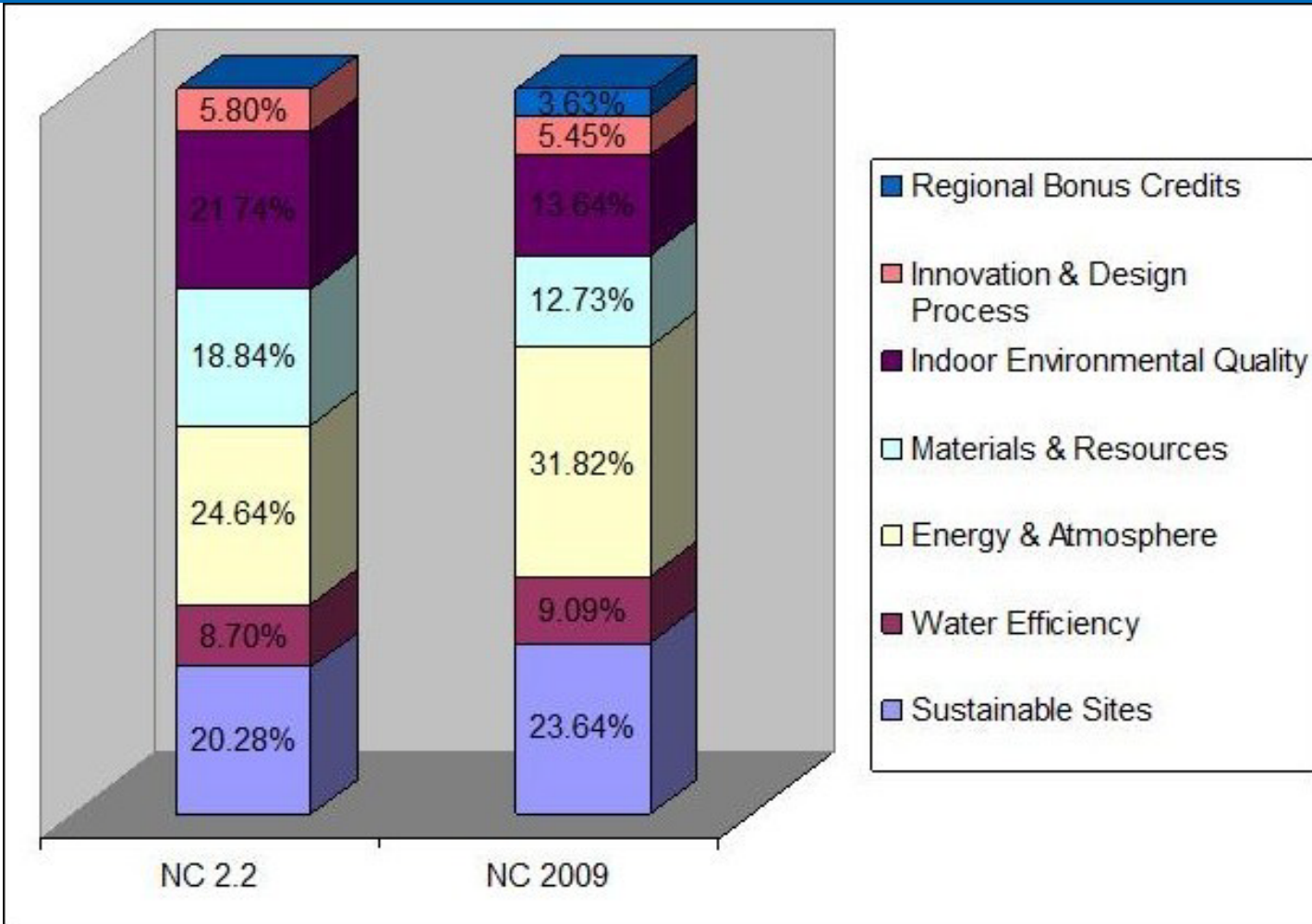
---

- 2.2 to 3.0
  - Significant changes in credit emphasis
  - Percentage weighting
  - Reflects that USGBC members have seen the importance of energy and anticipated performance questions for some time

# Total Credit Comparison

Topic	Points 2.2	Points 2009
Sustainable Sites	14	28
Water Efficiency	6	10
Energy & Atmosphere	17	35
Materials & Resources	13	14
Indoor Environmental Quality	15	15
Innovation & Design Process	4	6
Bonus Points	-	4
<b>Total</b>	<b>69</b>	<b>110</b>

# Percentage Weighting



# On-going Reporting

---

- New “Minimum Program Requirement”:

“All certified projects must commit to sharing with USGBC and/or GBCI all available actual whole-project energy and water usage data for a period of at least 5 years ... [T]his commitment must carry forward if the building or space changes ownership or lessee.”

# The Big Stick

---

- NOTE: CERTIFICATION MAY BE REVOKED FROM ANY LEED PROJECT UPON GAINING KNOWLEDGE OF NON-COMPLIANCE WITH ANY APPLICABLE MPR. IF SUCH A CIRCUMSTANCE OCCURS, REGISTRATION AND/OR CERTIFICATION FEES WILL NOT BE REFUNDED.



# MPR/Decertification Fallout

---

- Eruption across green legal community regarding potential for decertification
- Threat of revocations of certifications carries serious implications
  - Timing: Post-occupancy
  - Accrual of limitations periods
  - Increased recoverable damages
  - Impacts on tenancies
  - Impacts on approvals, occupancy

# LEED as Yardstick

---

- LEED becoming widespread yardstick
  - GSA
  - Reference in MD and VA
  - Locality examples:
    - City of Alexandria
    - Fairfax County
    - Arlington County
  - Tie-ins to bonus density, site plan and SUP approvals

# Risks and Claims

---

- Limited litigation thus far
  - Shaw Development
  - City of Albuquerque
- Construction = risk = inevitability
- Anticipate not much different than other construction litigation
- Increased risk short term – new players, new standards, code v. voluntary interplay

# Bonding Interplay

---

- Bonds and sureties may act as limiting factor on green building growth
- DC statute – requires bond product that does not exist
- Some rumblings that surety companies reluctant to bond projects with performance guaranties

# Energy, LEED and the Future

---

- Shifting towards reporting tip hat towards future moves
  - Aggressive de-certifications?
  - Tweaking/improvement of modeling and standards?
  - Influence of code bodies on energy, ICC and ASHRAE green standards
  - Move to performance requirements
  - Merging of LEED-NC and LEED-EB

---

# Virginia Real Estate, Land Use & Construction Law Blog

[www.valanduseconstructionlaw.com](http://www.valanduseconstructionlaw.com)