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## **Green Building: Where Are We Going and How Will We Get There?**

By Jamie Qualk



Last year was the biggest year so far for green building. This is especially true in the commercial sector, where for the first time Leadership in Energy and Environmental Design (LEED) registered floor area is expected to exceed the total floor area of new construction starts. 2009 was also the year where the House of Representatives passed H.R. 2454, the American Clean Energy and Security Act of 2009, which includes a <u>National Building Code</u>. Already, more than a dozen Federal departments, over 30 states and well over a 100 cities require LEED certification for publically funded projects, with many of those providing incentives for private developers to pursue green building. The conversation surrounding green building is now moving to "<u>Net</u> <u>Zero</u>" and a few <u>smaller buildings</u> have already achieved this impressive accomplishment. These and many other trends indicate that green building is now a priority that requires consideration in all decision making processes related to the design, construction and operations of buildings.

So now that the green building movement has arrived, where is it going? What will a final National Building Code look like once the <u>Senate takes up the vote</u>? How quickly will the U.S. Green Building Council (USGBC) raise the performance bar moving forward with subsequent revisions and improvements to LEED?



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While a very few still believe that green building or LEED is nothing more than a trend or a fad, the rest of us are starting to understand that what has been accomplished so far is only the beginning. The business case demonstrating the <u>positive impacts to the bottom line related to</u> <u>pursuing LEED certification</u> and overall utility use reduction strategies is well documented. But consider the fact that the use of a truly <u>holistic and integrated design or decision making</u> <u>approach</u> is rarely utilized. The process of design and construction is still pretty much the same as it has been for decades. The true potential of green building cannot be reached until the delivery of new buildings includes an approach where sustainability is one of the first programming decisions made and all stake holders in the design and construction of a building are included in the initial meeting to kick-off the project.

Voluntary and mandatory pursuits of LEED and the application of codes and standards have created broad multidimensional benefits for those who have embraced these concepts thus far. But what will it take to truly improve the process of design and construction so that no opportunity to reduce energy and materials use is overlooked or missed? Will an even greener building future come out of code requirements or mandates? Or will the change be more generational as younger architects and engineers take the lead on the projects of the future?

The tools we have at our disposal today have generated landmark results and a great deal of benefits that many might not have thought possible just a few years ago. But everything we have accomplished so far still pales in comparison to where the future of green building might take us if current trends continue. While LEED is destined to raise the bar further and codes are certain to become more widely required, we still have a long way to go before the eco-impact of our built environment is neutralized, not to mention regenerative. Technology and software that can aide in making the best choices in this process are on the way as <u>Building Information Modeling</u> (<u>BIM</u>), <u>energy modeling</u> software and <u>Lifecycle Cost Analysis (LCA</u>) is more broadly and proficiently used by project teams. A universally understood and utilized integrated design and construction approach is the next step we can strive to achieve. And who knows, we may even

get to a point someday where LEED certification is no longer necessary to know if a building is green – they'll all be green.



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You can read more from Jamie at the *environmental design* + *construction* Enviro-Blog and follow him on Twitter.