

Green Perspectives on Space Users, Owners-Investors, Developers, World-Changing Paradigm Shifts, New Technologies and Processes

In November 2009, Myla Wilson (University of San Diego) conducted an opinion-based survey of the *Journal of Sustainable Real Estate's* Advisory Board group to get their views on various "green" issues. Survey respondents were advised to respond only to questions they were comfortable with and leave the other questions blank. Responses were then compiled by Myla Wilson to include the best quotes directed at answering the question. Questions were formulated by Norm Miller, Senior Editor of the *Journal of Sustainable Real Estate*.

Respondent names/titles/short bios:

Aaron Binkley

*AMB Property Corporation Director
Sustainability Programs*

Aaron G. Binkley is Director of Sustainability Programs for AMB Property Corporation. Binkley is an expert throughout the AMB organization on matters associated with LEED Certification, energy efficiency and environmental sustainability.

Dale R. Dekker, AIA, AICP

*Dekker/Perich/Sabatini
Principal*

As a founder of D/P/S, Dekker has over 30 years of experience as a registered architect and planner. His extensive experience includes high-tech, one-of-a-kind research facilities for Sandia National Laboratory, award-winning school designs for Albuquerque Public Schools and socially responsible designs of assisted living facilities for the elderly. As an experienced architect and planner, Dekker is committed to building a better state and community.

Lydia Jacobs-Horton

*Proctor & Gamble
Director, Global Facilities & Real Estate*

Lydia Jacobs-Horton is Director of Proctor & Gamble's Global Facilities & Real Estate (F&RE) Organization, within Global Business Services. F&RE leads corporate real estate strategy, operations and outsourcing relationship management for P&G's global portfolio.

Kent Jeffreys

*Office of Global Public Policy
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Kent Jeffreys is the Staff Vice President for the Office of Global Public Policy of the International Council of Shopping Centers. Jeffreys participates in the development of ICSC's policy positions and communicates those positions to members of Congress, federal agencies and state and local officials. He has primary responsibility for the direction and administration of ICSC's federal legislative and regulatory activities on environmental, energy and land-use policy issues. Jeffreys received his law degree from the University of Mississippi.

Jerry Yudelson PE, MS, MBA, LEED AP

Professional Engineer, Sustainability Consultant

Jerry Yudelson is widely recognized as one of the leading green building experts in the United States. He is a professional engineer and a sustainability consultant for leading real estate development companies. On behalf of the U.S. Green Building Council (USGBC), he chaired the Steering Committee for Greenbuild 2004 through 2008 and has trained nearly 3,500 people in the LEED rating system. Yudelson has authored nine leading-edge green building books, along with numerous articles and research papers. In 2007, the International Council of Shopping Centers named Yudelson as its first Research Scholar for Real Estate Sustainability.

1. Space Users (Owners or Tenants and the Decision-Making Process)

- a. Do we understand yet how space users view the importance of environment when it comes to space decisions? Who typically drives the decisions to go into greener space?

Binkley: Each space user is unique, and their perspective on the importance of environmental impacts can vary considerably. At this point, it is difficult to generalize, although awareness and interest is increasing in many markets. Green space attributes are still viewed in most cases as an amenity or a deal-sweetener, but still secondary to operational and location requirements. The decision to move into greener space seems to be driven by senior decision-makers who are able to empower their real estate team to procure environmentally preferable space.

- b. Do we have enough experience yet to be able to value greener space? Most tenants say they won't pay more, but evidence from academic studies suggests otherwise. Can you explain this?

Binkley: Valuing higher performing “green” buildings in fundamentally feasible lower operating costs and higher occupant productivity can be measured in many cases. However, translating this information into property value is currently not an efficient or standardized process. This is in part because green buildings can mean many things—water efficiency, energy efficiency, or building re-use for instance—which cannot necessarily be translated into economic value in a consistent way. Where this value does not outweigh operational requirements, its value tends to be discounted in the eyes of many space users.

The leasing process also tends to distill the differences between properties down to one or a few key negotiating points—often focusing on base rental rates or tenant improvement allowances. At this point the incremental value of green space may be

somewhat overlooked. This is more likely in situations where both sides of the negotiation are not “green experts.” The value of a green property tends to be distilled down to a single, perhaps oversimplified, designation such as “Class A” or “energy efficient.”

- c. Is it simply a matter of saving energy and operating expenses or do space users really care about carbon footprints?

Jeffreys: The carbon footprint issue is largely a creation of politics. The carbon footprint of any single building is so insignificant in regard to global climate change that it becomes a detached, abstract concept. However, energy efficiency provides an immediate economic feedback that readily fits into existing business practices. It should be noted, of course, that “efficiency” does not mean simply using less in all cases. Efficiency means using the “right” amount of resources in the context of both the tasks required and the competing demands on those same resources.

- d. Have green leases gone mainstream? What features or types of agreements are most important in a green lease?

Binkley: Green leases are not yet widespread for industrial properties, but they are gaining momentum, particularly on new green developments. Energy conservation investment is becoming more commonly incorporated into existing building leases but true green leases that address a comprehensive suite of operational and behavioral considerations are not yet the norm.

Editor’s Note: Green leases generally have clauses that deal with:

1. Energy consumption and after-work lighting, day or night cleaning, maintenance and operation of meters and sub-meters, replacement of lights and the roles of the landlord and tenant in each of these areas;
2. Water resources, meters and sub-meters, recycling of water from internal facilities, rainwater capture and re-use, ground based capture and stormwater capture;
3. Solid waste recycling policies and integrated waste management practices;
4. Indoor air quality monitoring and measurements, HVAC equipment management and integration of any self-generation of power systems, replacement of equipment and parts and again the responsibilities, both financially and operationally, for the landlord and the tenant;
5. Construction waste and remodeling or retrofit waste recycling;

6. LEED certification and the maintenance of such both for new construction, existing buildings, core and shell and commercial interiors; and
7. Energy Star scores and the responsibilities to report and maintain minimum performance.

2. Owners-Investor Perspectives

- a. Surveys of the typical real estate owner-investor suggest very high return thresholds for investments in new technologies that save energy or water with payback in over five years often considered too slow. A 10-year payback equates to about a 7.2% rate of return, not that different from unlevered returns achieved for larger-scale real estate investors over the past decade, and a five-year back pay equates to about a 15% rate of return, which beats most investors' track records for fairly predictable returns. So why the high threshold? Is it because owners do not trust the current estimates on payback or is it the risk of investing in something that may soon become obsolete?

Jeffreys: First, if you cannot borrow the additional dollars required for the upgrade (or finance it internally), you will not be able to afford any increase in costs. Second, many developers can only finance their project in the first place if they can lease the space quickly or sell it to the ultimate landlord toward the end of the construction stage. If either the tenants or the purchaser refused to accept the slightly higher cost associated with up-front efficiency improvements, the original developer is unlikely to add them. Additionally, in multi-tenant retail properties there are often “split incentives” under traditional triple-net leases so that the landlord pays for the improvement and the tenant receives the benefits (in the form of lowered utility bills). This obstacle is being addressed throughout the industry, but will take years to fully address.

- b. Many owners, especially non-profits and some universities, claim that their buildings would meet LEED standards, but they do not like the certification process and fees and see no reason, other than bragging rights, to go through this process. Do you feel that a simpler, less-expensive LEED process is likely in the future for owner-occupants or will other cheaper certification processes become an option?

Jeffreys: USGBC does not seem capable of producing a simpler or more streamlined process. However, given that the LEED system is specifically tailored to demonstrate “leadership”—rather than improve baseline resource efficiency goals—there is really no reason that USGBC should be expected to do so.

The real problem seems to arise from the conflation of “LEED” with “green building.” Many types of design can produce greener buildings, while only a few may

achieve LEED certification. The (nearly) perfect should not become the enemy of the good.

- c. Do appraisers have any idea how to value green features or a state-of-the-art high-performance building? What will it take to educate this important lynchpin for real estate financing?

Dekker: I do believe the appraisers can be educated. It will take an organization like BOMA to create document and reporting standards for reporting actual energy usage and building systems performance. REITS are another vehicle for establishing value. Considering the fact that 72% of the commercial building stock was built before 1990, the big challenge will be in figuring out how to decrease the value of the energy pigs and increase the value of buildings that have been “greened up.”

- d. Are real estate lenders starting to understand how to value greener buildings? Wells Fargo is one of the few that seems to give some value credits for green features, but are there others out there that are viewing greener properties as lower-risk?

Dekker: Not that we have seen. However, in the build-to-suit market it appears that there is corporate real estate awareness around LEED and high-performance buildings.

- e. Firms like Hines, Prologis and Liberty Property Trust, to name a few, have made a commitment to invest in LEED buildings, even if the costs are a little higher. Will these leaders in the industry receive an economic payback or are they altruistic, triple bottom line types? Are there others making similar bets?

Yudelson: They are already getting a huge dividend through reputational capital gains, higher rents, greater occupancy, etc. Plenty of firms are making similar bets.

3. Developer Perspectives

- a. Trade associations like NAIOP are against carbon cap and trade proposals and view them as too expensive and disruptive to the economy. Are they correct that a cap and trade system will drive up costs at a time when the economy can't afford to be stifled? Could we achieve the same goals with incentives instead of regulation?

Binkley: Property owners stand to benefit from carbon cap and trade. One component of carbon emission reductions is continued and expanded energy conservation

incentives. These will permit property owners to reduce energy consumption. This is likely to actually result in a net savings for commercial properties in a relatively short time frame.

Carbon cap and trade is unlikely to directly affect commercial properties. Regulations will likely be focused on large carbon emitters—power plants, factories, refineries, and the like. Trickle-down higher costs from these upstream producers will be years in the future—long after the economy recovers—and will therefore be difficult to quantify, especially compared to already-realized energy conservation savings.

Incentives will spur progressive and first-mover companies, but not the entire market. Regulations may be required to drive market-wide carbon emission reductions in the future. The European Union is a precedent, where building energy performance requirements have been put in place.

- b. There are hundreds of legislative proposals to regulate the development of new buildings or the retrofitting of old buildings across the United States. These include building codes or waste recycling or water use, among others. We see fewer regulatory proposals in other countries (like Germany or Brazil) and more national-level regulations. Is this rush to enact localized regulations a hindrance for national developers that must now face a new process of hoops to jump through in every market? Why don't the politicians ever coordinate on overlapping legislation and work together? Is there any chance for a U.S. national building code or even a statewide code?

Binkley: A national code would provide the ability to standardize policies, specifications and procedures that are currently specific to each market's patchwork of regulations. But a national code would still have limitations. Because of the varied climates in the United States, region-by-region modifications would likely be required to make the national regulations work effectively. This could reduce the value of having a national building code.

- c. Have you seen any enlightened local governments that make it easier to go green instead of harder and provide incentives (such as bonus densities and faster entitlements)? Can you provide any examples?

Dekker: Albuquerque is implementing a new Green Building Code. Buildings pursuing Silver LEED certification can go through the Green Path building permit review process, which is like a three-day turnaround. Also, impact fees were reduced

to 0 for buildings going through the Green Path process. (Nobody has figured out how they are going to ask for money back if the buildings used all of the Green Path incentives, but did not achieve a LEED Certification.)

4. World Changing Paradigm Shifts, New Technologies and Processes

- a. What new products that save energy or reduce water consumption or the carbon impact when produced and/or are totally renewable that you have seen or read about that blow you away?

Binkley: Interesting technologies and solutions for continuous commissioning; district combined-heat-and-power; fuel cells; white asphalt overlay coatings (polymer composite micro-overlays, for instance) are promising emerging technologies.

- b. Will natural gas fuel cells ever become widespread? What about hydrogen and oxygen fuel cells? What bio-fuels make sense? Will better batteries allow widespread use of electric cars? When will an electric car win the Indy 500 and thereafter possibly be banned from the competition?

Yudelson: You can't get away from the laws of thermodynamics, meaning that you can't create energy out of nothing. Electric cars by definition require electricity, and at this point that means from fossil fuels, so you've just shifted the problem. This is "Manhattan Project" or "Moon Shot" time and nothing less than a concerted and sustainable decade-long national effort will do.

- c. We understand that you can poorly manage a green building or well manage a non-green building. What are some examples of great management or operational decisions that save money for tenants and landlords alike?

Horton: For the first time, we (Proctor & Gamble) are significantly scaling back building operations during the holiday weeks. We generally reduce dining and convenience services to match lower populations (at work), but we are piloting near-weekend operations at a number of our sites during the days preceding and following the Christmas holiday. This program was successfully implemented in our Athens, Greece office during the heavy summer vacation weeks (when no one works). Now, we will do the same at larger sites for low-occupancy periods throughout the year.

This requires good alignment of communication well in advance of the scaleback dates. But, the plan is simple and compelling, so acceptance is fast.

- d. LEED seems to be evolving. LEED does not measure building adaptability and flexibility, nor does it weigh the five major categories based on localized costs. How do you see LEED changing in the future? What other measurement systems incorporate scoring factors you would like to see in LEED?

Yudelson: The key movement for LEED will be to move from “relative improvement” to “absolute performance.” The salient fact is that American buildings vastly underperform compared with European buildings. We need to start measuring and labeling buildings in terms of absolute energy use, kWh/sq.ft./year.

Editor’s Note: Some markets have already implemented such energy consumption disclosures, but they are strictly localized and not national.

5. Research Questions That Need to be Answered

- a. What research questions would you like to see addressed, that have not yet been fully vetted?

Dekker: Transportation and land use will be the next big deal for the development industry. With over 40% of our oil coming from hostile nations, we have a strategic imperative as a country to figure out how not to send billions of dollars to countries that basically use our addiction to oil to threaten our security and way of life.

Yudelson: What determines energy performance in existing buildings: relative roles of building type, behavioral characteristics, hours of operation, climate, etc., and what can be done to dramatically reduce energy use, while still preserving other green building benefits, such as better health, higher productivity, etc.?

Binkley: What is the value of infill location as it pertains to carbon emissions and transportation efficiency and community impacts (externalities)? How will net zero energy buildings, particularly the integration of renewable energy systems, be achieved so they become financially viable as well as environmentally beneficial?

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