

METRICS GUIDE BUILDING PLANS

These criteria can help evaluate investment options in a new or renovated facility

BY MARC MARGULIES

In a world that increasingly demands “measurable performance” of real estate teams, what are the most appropriate metrics against which we should all be judged?

For members of the real estate team to contribute in a meaningful way to the bottom line, they must be able to gauge the true value of real estate decisions. The success of an Olympic track star is based on crossing the finish line first; but what if neither the coach nor the runner knew where that line was? How would the athlete set a pace, or know if the race is a sprint or a marathon?

Real estate is increasingly seen as another component of the financial landscape; the extreme volatility in the global financial markets now has direct and deep impact on all major real estate decisions. As credit markets tighten, lending to the real estate world becomes less available; as

the credit-worthiness of even highly rated prospective tenants is brought into question, the uncertainty of otherwise low-risk real estate decisions rises. In that environment, it is all the more important to make the best real estate decisions.

Real estate expenditures can be divided into six general categories, beginning with the original acquisition, progressing through design or renovation, and finishing with measures to provide benefits during occupancy and operation. Each of these categories can be evaluated according to at least four common criteria. (See “Gauging the Long-Term Impact of Real Estate Decisions” below.) This evaluation process can help corporate real estate executives clearly define their goals and articulate them to the entire team — including architects, vendors, contractors, engineers and other consultants. Real estate represents a major investment, and it is critically important that all members of the team understand both the short- and long-

GAUGING THE LONG-TERM IMPACT OF REAL ESTATE DECISIONS

<p>“Risk” and “Reward” are often mostly seen as financial, but must also include legal and environmental issues, as well as considerations of how the facility will be perceived. Criterion “C” is important in circumstances of strictly finite resources, which need not be specifically financial: Limited management or labor availability would also be included. Lastly, criterion “D” represents the multifaceted vagaries of the larger marketplace, such as energy prices, rapidly changing financing markets or a tightening credit market. The example shown is a matrix used to help make a decision about the relocation of a corporate headquarters to a neighboring community in Massachusetts.</p>		1. ASSET ACQUISITION/ DEVELOPMENT	2. POSITION IN THE MARKET: DEVELOPMENT, RENOVATION AND REPOSITIONING
	A. RISK: CONSEQUENCE OF FAILURE	Failure to perform according to pro forma, through higher capital or lease costs	Inadequate or inappropriate space could hinder R&D or growth
	B. REWARD: POTENTIAL VALUE OF SUCCESS	Higher ROI than other investment opportunities	High quality property will reflect well on corporate image
	C. IMPORTANCE: RELATIVE BENEFIT OF RESOURCE ALLOCATION VS. OTHER OPTIONS	Can a higher return on capital be realized elsewhere?	Real estate image is a symbol of a company's priorities
	D. COMPETITIVE ENVIRONMENT: PERSPECTIVE OF THE GLOBAL MARKETPLACE	This location is in a high growth, first class location with educated workforce	Location in Massachusetts is perceived as part of the “Technology Highway”

term ramifications of choices made during planning, design and construction.

1. Asset Acquisition/Development. The place to start is the asset acquisition/development phase. In the standard due diligence process, the financial metrics are easily determined, but other factors, if relevant, also need to be identified by the real estate executive and shared with the rest of the team. If image is important, are there extraordinary costs associated with meeting image expectations? Do either internal or external politics play a vital role? Are there unacceptable risks from permitting, environmental, or financial circumstances that the consultants need to understand? Are there external factors in the global marketplace like volatile energy prices or rapidly changing financing hurdles that would sway decisions one way or another?

Thanks to technology, the design process can be interactive: The financial modeling effort can involve not only the architect but the owner, engineer, users and other design project team members as well — creating a truly collaborative environment for the real estate decision-making process. Working closely together to design in almost real time has many advantages, including a shorter turnaround time and the ability to create a virtual model in 3-D. Ideally, the team would have simultaneous illustrations of the standard measures of quality, schedule and cost established in a linked format so that the impact that one has on the other two is evident.

Probably the hardest components to measure are risks, of which there are, of course, infinite varieties. Nonetheless, the team should help to identify, prioritize, and evaluate the potential pitfalls. Not only is it critical that the team clearly grasps the owner's level of risk tolerance for possible problems (cost overrun vs. schedule, for example) but each of the team members should understand what the other members' concerns might be to help them anticipate and proactively



3. COST-SAVING UPGRADES	4. CORPORATE/CIVIC RESPONSIBILITY	5. OPERATIONS & PREVENTIVE MAINTENANCE	6. EMPLOYEE PERFORMANCE
Greater efficiency of HVAC and electrical systems unrealized	Poor neighborhood relations; future projects jeopardized	Failure at critical times could jeopardize life safety, business continuity	Diminished employee comfort, satisfaction, convenience could reduce productivity
Energy efficiency saves money and environment	Perceived community leadership makes future development easier	Increased comfort, efficiency, and cost effective service	Workspace that is a tool for productivity will increase profitability
Can the money be spent differently in areas like R&D or pay with greater return (e.g., R&D or benefits)?	What are other opportunities to improve business and community?	Is time spent being proactive less than being reactionary?	Is employee satisfaction better addressed through other benefits?
LEED certification is seen as good for recruitment and environmental stewardship	Receptivity to other industries can be a stimulus that attracts complementary businesses	Is the status of basic infrastructure a hindrance or an allure to the company's relocation?	Are benefits, costs of living, and lifestyle more or less attractive than elsewhere?

try to avoid them. Legal counsel in particular needs to be a part of this effort, as the regulatory and contract issues are unique to every project and client.

2. Position in Marketplace: Development, Renovation and Repositioning. For the development, renovation or repositioning of a building, it is essen-

tial to analyze comparable properties, trends, demographics and resources to develop realistic returns on investment. Architects, engineers, brokers and contractors should also understand the standard of expectation — for things like size of spaces, quality of materials and amenities — in the region and industry. These factors are vital to de-

isions on when to build, buy or lease, as well as to choices about how to upgrade existing properties.

If a property is a candidate for capital improvement, what are the priorities for spending that money? Is infrastructure more valuable than cosmetics? Or is a sub-standard image the greatest deficit? Only if the real estate executive and the rest of the team are in sync on their understanding of the real estate context can they create the right proposals.

One set of contemporary queries that must be answered is whether or not there are cultural considerations, especially in a diverse and global marketplace. Historically, real estate has been designed and developed to be responsive to local needs and traditions. As ownership is increasingly physically disconnected from the asset itself, owners should pay attention to local expectations. The norm in one country or community may not be what is normal in another.

3. Operating Cost-Saving Upgrades.

Some real estate decisions are straightforward, and can be made with fairly simple calculations. For example, accepting the payback on the upgrade of mechanical equipment that is within corporate guidelines for capital investment might not be complicated for a company that takes a long-term view of its finances. On the other hand, it may be an insurmountable challenge in an organization where cash flow is a primary driver. The lesson: For success, don't ignore the organization's financial pressure points.

There are some cost-saving upgrades that are less obvious. Refurbishing furniture is one example: The immediate economy of recycling older furniture to meet current functional and aesthetic expectations may not be completely evident. New furniture is efficiently manufactured and heavily discounted, and often the cost to remove and reinstall old furniture is substantial. While the cost savings may be minimal, environmental factors — reducing the consumption of resources, including fuel for transportation, and the amount of material dumped in a landfill, plus the opportunity to qualify for LEED points on some projects — can make the effort worthwhile. Most designers do not advocate compromising productivity

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EFFICIENCY

BIM And Ongoing Operations

One technology development that has potentially enormous impact on long-term operating costs and upkeep is BIM (Building Information Modeling) software. BIM allows designers to incorporate specific information about a building's components and systems at the earliest stages of design.

BIM allows (and requires) that architects and engineers build the drawings from what amounts to a kit of parts. A door in a drawing, for example, has built-in information such as height, width, material, fire rating, hardware, matching frame, and perhaps cost and availability, just as if it were being selected off a shelf in a store. Mechanical and electrical components would include information about operating parameters and cost, maintenance schedule, and compatibility with other systems, as well as factors like energy use, photometrics, or LEED status.

When the entire team uses BIM to its full potential, a virtual building is constructed that allows everyone to understand how it is going to perform in the future — like taking a car out for a test drive. Value-engineering decisions can be made with a much better understanding of what the long-term cost trade-offs would be if one material or system is substituted for another.

Clearly the team should understand the organization's perspective on the cost of money over time to be able to make the appropriate recommendations, but BIM gives everyone a tool that simply was not available several years ago.

— Marc Margulies

or functionality to find a use for old furniture, but there are many companies that can locally modify older products or parts of older systems to fulfill all the identified needs.

4. Corporate/Civic Responsibility. Some cost/benefit analyses are more complex. The costs may not be large or the payback may not be clearly quantifiable, but nonetheless some decisions might simply be well-suited to the company's mission or sense of corporate responsibility: the choice to build sustainable or LEED-certified space, for instance, or simply to try to reduce the carbon footprint. Another example is when certain strategies have public relations value, or serve the interests of a larger demographic in ways that reflect well on the owner as a corporate citizen. Most companies understand their role as neighbors and cultural leaders. Real estate executives must share those values with their team members so that they can advocate accordingly.

5. Operations and Preventive Maintenance. The real estate team should understand the ability and resources of the owner to manage ongoing operating costs. A technical review of the systems should incorporate recommendations that are reflected in the project budget and evaluated according to the same criteria as other line items. What is the risk of not prioritizing these costs? Is the potential downtime or business disruption worth hazarding? Do the engineers understand the owner's level of willingness or reluctance to be faced with unanticipated costs

and problems? What is the owner's budgeting process for operating expenses relative to capital costs? Are there tax or cost of money implications to spending versus delaying outlay?

6. Employee Productivity. Perhaps the most difficult factor to quantify has the largest potential return on investment: the effect a workspace has on employee morale and motivation. Much discussion has centered on the difference between the three generations currently in the workforce: the Baby Boomers, Generation X and Generation Y. Much of the workspace currently in inventory was built for the Baby Boomers. Gen X employees have the reputation of being more demanding and more mobile. They are known to see their jobs as more of a series of individual projects. They are harder to retain, more susceptible to being affected by their environment and more aware of their professional alternatives. They are more demanding of an environmentally responsible, or green, office.

Another factor is pivotal to the evaluation of workspace design direction: What kind of atmosphere do a company's peers provide their employees? Companies focused on attracting and retaining the best employees pay close attention to what their staff might be attracted to elsewhere. While the type of office space is not the primary driver behind an employee's decision about where to work, the subtle (and not-so-subtle) messages about how management wants its employees to work, interact, collaborate, socialize, and generally be inspired to excel, is easily perceived through the workspace. The two extremes of the spectrum perhaps illustrate the point most clearly: one kind of employee is most productive in a busy, open, dynamic workspace; while others prefer a quiet, calm, enclosed atmosphere. The design and finances of any project should be suitable for the intended employee profile.

Recently, a bright young corporate employee explained how much he disliked his job. He felt discouraged and demoralized by the fact that he worked, in relative isolation in a cubicle with high walls, limited access to natural light, amongst a sea of similar anonymous workstations. This individual's creative potential was being sapped by his environment. His productivity undoubtedly suffered. Many studies have shown that the cost of office real estate is less than 10 percent of the cost of salary and benefits of employees. While those studies have struggled to quantify the direct relationship between the cost of facilities upgrades and increased employee productivity, it nonetheless stands to reason that leveraging a less than 10:1 payback is still a good investment.

Ideally, the team that any real estate executive assembles brings all the right tools to help make him or her be as successful as possible. Only with a clear awareness of the metrics by which their efforts are measured can the team be successful. Those metrics may vary from company to company, or from project to project, but if they are clearly outlined from the beginning, and the project performance against those measures is monitored to on an ongoing basis, the right real estate decisions can be made. **BOM**

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