



A MAiSPACE White Paper

## **Integrated Furniture Systems as Solutions to High Real Estate and Construction Costs**

Soaring rentals for office space are forcing medium-sized businesses to seek out “bargains” in Class B and C buildings.

These same businesses find added challenges in negotiating with landlords or securing contractors to fit out their spaces.

The latest generation of systems furniture can bring affordable style to these spaces without sacrificing quality or value. Benefits include taking control of your workspace, providing an attractive and comfortable environment and increased flexibility.

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## Introduction:

By the latter half of 2007, with few exceptions rents were on the rise in the commercial real estate market. In Manhattan, for example, squeezed by rising rents and vanishing space, office leasing activity dropped off 12.3 percent for the first three quarters of the year compared to 2006, but rents and investment sales continued to soar.<sup>1</sup>

*Chicago Business* reported on April 9 that “rents for office space downtown and in the suburbs inched upward for the second straight quarter and may be poised for a bigger jump in coming months.”

Bill Goade, CEO of corporate real estate advisors CresaPartners LLC notes that while the speed at which the pendulum is swinging back in favor of landlords differs from region to region there is clear evidence that the overall commercial real estate market is rebounding. “Upward rent pressure is also coming from rapidly rising construction costs which require higher tenant improvement allowances and makes new speculative building prohibitively expensive.” He noted that options for tenants to be proactive in negotiating early lease renewals and flexible terms and concessions remain “but there are ever fewer options.”<sup>2</sup>

Yet offices and people continue to be on the move, according to a recent CoreNet Global survey. Of corporate end-users surveyed, nearly two-thirds reported at least 10 relocation projects in development, while one-fifth have more than 100 projects planned for the next 12 months. Access to customers and markets is the key location factor among corporate end-users, followed by cost savings and access to innovation.<sup>3</sup> Other studies show that the average churn rate for most companies is 40% per year but can go as high as 200%.

While all this might be interpreted as good news for landlords, it poses real challenges for owners of small to medium-sized businesses without the “clout” to negotiate favorable terms for their expansion plans. They must strike a balance between “affordable space” while providing workplace amenities that attract and hold qualified staff. Lofts, warehouses, underperforming retail malls and similar class C spaces in older, unrenovated buildings help with the former.

Achieving the latter is fraught with further challenges.

That’s because, as owners of smaller businesses are quick to learn, locating suitable space is only part of the problem. Furnishing it without breaking the budget can be equally vexing.

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<sup>1</sup> *Commercial Property News*, October 2, 2007

<sup>2</sup> <http://www.cresapartners.com/tenantguide.asp>

<sup>3</sup> *Commercial Investment Real Estate*, September-October 2007

In its 2006 Trends Recap, *Today's Facility Manager* noted that “manufacturers must be in tune with the needs of facility managers, many of whom have smaller spaces and tighter budgets to work with when purchasing office furniture. Practicality is a necessity, and the trends of 2006 in furniture design reflect this requirement.”

*TFM's* recap stated that cubicles still reign supreme in offices, but they are changing. Furniture should accommodate changes in technology. Versatility should be a key purchasing decision because work styles demand that furniture adapt quickly and easily. Among factors driving furniture trends are space, budget constraints, people, and technology. “Facility managers should keep an eye out for the factors that will determine purchases for their specific organizations,” the article recommended.<sup>4</sup>

In an article titled “Why Silicon Valley is Rethinking the Cubicle Office,” Don Clark reports that the privacy needs of companies are varied and change over time across organizations.<sup>5</sup> The article suggests the need for flexible interiors that can be comprised of stacking/de-stacking panels that can extend all the way to the ceiling when complete privacy is required.

While few will argue with these conclusions, the simple truth is that in today's market, real estate brokers and landlords are not interested in discussing furnishings or build-outs with tenants occupying small spaces when they can concentrate on those leasing 50 thousand to 100 thousand square feet and more. That effectively excludes the nearly 25% of business owners leasing less than 10,000 square feet of office space.<sup>6</sup> Even if the small business succeeded in negotiating a deal, costs upwards of \$80 per square foot would apply either up front or tacked onto the lease.

In some regions \$80 per square foot is on the low side as build-out expenses continue to increase – as much as 10% - 20% in the last 18 months, according to an article in *Crain's New York Business*. The article cites raw materials and tight labor markets as reasons, along with oil price increases impacting the cost of plastics in construction materials. This contrasts to renovation price tags that can range from \$25 to \$75 per square foot, depending on how extensive they are.<sup>7</sup>

Opting for renovating existing space or fitting out a new location is one part of a solution. The other is finding an independent contractor willing to take on the job. Like brokers and landlords, most are not interested in small projects. Even if one were located the work seldom yields satisfaction because business owners immediately lose control in terms of quality, cost overruns and missed completion dates.

The right solution to the fitting-out challenge is a new type of smart and sophisticated systems furniture. Properly planned and sourced, these integrated interior solutions can

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<sup>4</sup> *Today's Facility Manager*, December 2006 “Looking Back...2006 Trends Recap”

<sup>5</sup> *The Wall Street Journal*, October 15, 2007

<sup>6</sup> A 2006 study by Equity Office reported in “Who are your Future Tenants?” by John Burns Consulting Company for the National Association of Realtors, January 2007.

<sup>7</sup> “More firms stay put rather than face build-out costs.” *Crain's NY Business* October 27, 2007

be installed at less than half the price of a contractor build-out while at the same time providing factory-assured quality, increased flexibility and a guarantee of on-time completion

This MAiSPACE White Paper will help business owners and operators make smart choices in systems furniture for their offices.

### **Meeting Systems Furniture Challenges**

Stackable panel systems with floor-to-ceiling and off modular capabilities can be the common denominator to not only attractively fitting out lower cost Class B and C office space but also in meeting the technology and versatility requirements today and in the future. While large companies have the financial resources to either staff for or contract out to providers of turn-key office solutions, owners of small to mid-sized businesses face the cold reality of making this happen with the resources at hand. Challenges include:

- Optimizing floor plans by a mix of full walls and stackable panels
- Balancing quality and price
- Achieving eye appeal through colors, fabrics, glass, woods and textures
- Fostering staff satisfaction and performance through ergonomic design
- Accommodating changing workplace technology requirements
- Adapting to relocations, moves, adds and changes
- Assuring compatibility with future purchases
- Minimizing need for space-wasting design with efficient storage options
- Maximizing tax benefits with accelerated depreciation
- Improving sound control and minimizing distraction
- Identifying competent designers, suppliers and installers

Putting pencil to paper is the first step in addressing these challenges. Take time to sketch out a rough floor plan showing where you are today and where you want to be in an existing or new facility. This can save headaches down the road. An aid in design can be found in the National Association of Realtors study. It shows typical office space for employee, including common areas such as conference and storage, ranges from 175 to 225 square feet<sup>8</sup>. At the same time, the Urban Land Institute and PWC reported that corporations continue to reduce space per employee.<sup>9</sup>

But the reduction may not be across the board even within a single organization. A Bureau of Labor Statistics Report looking ahead to 2014 shows office support staff (translated smaller office space) is expected to increase relatively slowly because of technology changes. Faster growth will be in higher-level occupations suggesting that the amount of office space per employee may increase.<sup>10</sup>

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<sup>8</sup> Ibid page 36

<sup>9</sup> Ibid page 33

<sup>10</sup> Ibid page 4

What to believe? In your favor is the fact that stackable panel systems are flexible – even to the extent of providing floor-to-ceiling enclosed workspaces. This means that they can expand, contract or reconfigure to accommodate changing needs - in many instances without disrupting the entire workplace. The industry term is moves, adds and changes (MACs) and a system’s ability or inability to accommodate MACs is an important long-term cost consideration.

Having this information at hand will facilitate discussions with suppliers. But from this point on, paths to suppliers diverge widely so it is important to look at systems from the perspective of performance and price.

First, there are several manufacturers of stackable panel systems and moveable walls. And unlike real estate brokers, landlords and building contractors, they are willing and ready to fit out smaller office spaces. Second and more important, pricing from some of these manufacturers can be three to four times that of others who are capable of providing equal or better quality, versatility and features. Conversely, shopping on price alone can yield shoddy workmanship, frequent repairs and replacements and unwieldy, unreliable technology to bring intelligence to the desktop.

In today’s competitive systems furniture marketplace superior quality need not be expensive, nor is there a need to hire costly third-party consultants to formalize an office layout. Global sourcing and supply chain management coupled with local warehousing and distribution provide dramatic cost-savings across the board. Layout and floor plan challenges are solved by manufacturers that provide free CAD services to purchasing customers.

Instead, differences and potential pitfalls lie within the systems themselves, covering the gamut of stackable frame design and floor-to-ceiling interface to tiling and component options and the cable management that brings information technology to the desktop. Each of these system components must work in harmony with the others to assure fast, smooth assembly from day one to the MACs that are sure to come later. The durability and performance of each of these system components has a direct relationship to what is called the lifetime cost of ownership that is associated with supporting the MACs.

College Loan Corporation, a West Coast-based financial services organization, evaluated systems furniture from several suppliers prior to consolidating its nationwide call center from multiple locations into a 135,000 square foot renovated warehouse facility. Criteria included colorful and attractive design; durable construction; ease of installation, and user-friendly electrical, voice and data cabling management. A comprehensive matrix was prepared to assist the organization in comparing all the important features and capabilities from various vendors. The result was furnishing 486 workstations in 6 x 6 and 10 x 12-foot configurations at \$12.00 per square foot installed.

Start with the basics

Smart shopping for sophisticated, stylish stackable panel systems starts with a look beneath the surface. As steel beams, concrete and exterior walls are integral to modern building construction, so are framing and tiling the keys to lifetime performance in a modular office furniture system. Look for framing fabricated of 16-gauge cold-rolled steel to provide strength and rigidity when in use and remain distortion-free during MACs.

The load-bearing capability of stackable framing systems is a strength and safety issue given the weight of binders and other office equipment stored in bins and on shelves. The highest load capability in the industry as measured by Underwriters Laboratories is 2.5 tons. This was achieved in a panel configuration composed of 8-foot panel frames stacked 10 feet high and supported by two, 24-inch return panels. There was no counterbalancing provided.

Properly designed framing supports intelligence to the desktop by providing unrestricted cable pathways for electrical, voice, data and video cable runs. Components should support design flexibility by enabling construction of walls from 30 inches to 14 feet in height. They also facilitate reconfiguring wall height within these boundaries without disturbing the office cabling system.

Other framing features to look for include off-modular design, which allows flexibility in workspace size, configuration and in locating bins, shelves and divider panels. Knockdown and ready-to-assemble (RTA) framing components equipped with self-leveling connections simplify moving elements into and throughout the building, reduce assembly costs and can reduce the number of framing components required. With this feature, frames can be added or removed without disturbing adjacent structures.

Tile or panel segments should be a minimum 24-gauge steel to remain distortion free during installation and later moves, and together with framing provide walls or panels that are 3-1/2 inches thick. This also contributes to noise reduction and provides an affective barrier to radio frequency (RF) interference. They should be easily removed and replaced to facilitate access to the cable management system.

Floor-to-ceiling panels for use as private office and conference room walls should have a minimum sound transmission class (STC) rating of 35 to provide an acceptable level of sound privacy. Partial height panel walls should have a minimum of .70 noise reduction coefficient (NRC) for sound absorption contributing to worker comfort and productivity in open plan environments.

### Provide the Intelligence

If framing and tiling comprise the structure of office furniture systems, cabling is the lifeline providing electrical power plus voice, data and video circuits to the workspace via Local Area Networks (LANs). In static office layouts, cabling for the most part can be straightforward, so long as capacity requirements are achieved and codes met.

Not so in modular office systems where MACs large or small could severely disrupt LAN performance as a cable runs are removed or rerouted. Avoiding such disruption is achieved through plug-and-play cable management systems integrated with stackable panel systems.

In such systems electrical power cabling is separated from voice and data cabling. Lay-in jumpers enable fast and easy changes for power runs above or below work surfaces. Each workspace should be equipped with at least one 4-circuit, 8-wire system and a dedicated circuit for computer equipment Duplex receptacles should be easily installed and removed to support MACs by trained office technology personnel.

Horizontal voice and data cabling serving workspaces is configured as a zone distribution system employing plug-and-play factory terminated and tested modular cable connectors and assemblies in copper or optical fiber. These are laid in behind lift-off panel segments for easy access to simplify adding capacity or rerouting networks. The system conforms to applicable industry standards such as TIA/EIA-568-B.1, TIA/EIA-568-B.2, and TIA/EIA-568-B.3 <sup>11</sup>.

With such a cabling system reconfiguring an office floor plan can be accomplished in hours instead of days without disrupting the entire office LAN. Moreover, the work can be done by in-house personnel after a minimum of training.

Wireless LANs provide an option to provide intelligence to the desktop as earlier concerns about reliability, capacity and network security have largely been resolved. Wireless (or Wi-Fi) is more expensive however and the flexibility issue becomes less relevant with a plug-and-play cabling system. Both options should be evaluated by a company's IT staff.

### Add Aesthetics and Comfort

There is no question that attractive surroundings contribute to worker morale, productivity and support the recruitment process. Today, dramatic designs and a wide variety of colors and textures are affordable options in systems furniture. Modern manufacturing and assembly techniques, when coupled with state-of-the-art approaches to supply chain strategies and distribution systems, put beauty, durability, functionality and choice within reach of what otherwise would be considered modest budgets.

There are several examples of affordably priced features and options that enhance the workspace. These include perforated steel panels to improve air flow and marker boards to relay information, work surfaces and components in matching wood grain finishes, painted, fabric, wood veneer and stainless steel tiles, and sandwich glass panels for privacy and sound management. One manufacturer now uses post-consumer PET, a

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<sup>11</sup> Telecommunications Industry Association/Electronics Industry Association [www.tiaonline.org](http://www.tiaonline.org)



material composed of 100% plastic recycled bottles, instead of fiberglass in tackable and acoustical tiles. These too are offered in a variety of colors and textures.

Other examples include mobile pedestals with cushion tops and tables that can be transported to other workstations or meeting areas in a “hoteling” environment, personal movable or permanent storage towers, adjustable panel-mounted task lights, paper-management segments and ergonomically designed chairs and workstation surfaces that adjust up or down.

Modern manufacturing techniques put fine wood finishes within reach of modest budgets. Thermo-formed membrane technology, for example, produces elegant one-piece curvilinear table and workstation tops and edges in a seamless design. The ergonomically designed cascade edge matches the forearm of the user to provide comfort while reducing fatigue.

### Compare Manufacturers

Because costs can vary widely from one manufacturer to another careful consideration must be given to evaluating features and performance. A minimum system performance specification should include the following:

- Stackable/De-Stackable Frames
- 16 Gauge Steel Frame
- Off Modular Design: Panels, Worksurfaces and Components
- Floor-to-Ceiling Furniture Panels
- Lay-in Cabling
- UL Listed System
- Multiple Tile Options, including steel, fabric, tackable/acoustical, glass, veneer, airflow, slat wall and white board tiles.
- 8 Circuit Power Distribution
- Desk Height Power and Data Access
- 35 STC/.80NRC
- Ergonomically Designed Worksurfaces with Cascade or Sloped Front Edge
- Fiber Glass Free Product
- 18/20 Gauge Steel Components
- Full Extension Box and File Drawers
- Broad range of panel mounted and freestanding storage options

Subject to the system meeting the above minimum performance guidelines, workstation types including private office stations may be selected from the myriad of manufacturers’ standards that are best suited to your budget and business requirements. A realistic budget for an integrated systems solution with all the furniture elements should be in the \$15 to \$30 range per square foot of useable floor space depending on the product lines and finishes selected.



Based on your selection a layout should be requested incorporating all your additional requirements such as executive, reception and conference room furniture, and seating. Careful attention should be paid to the quality and features of each manufacturer's products to avoid any baiting and switching to cheaper inferior lines.

Once all the product has been agreed upon a total price should be provided for all the elements on the floor plan including delivery and installation. A separate price should be requested for cabling and electrical hook if available. This will save time and aggravation involved in interfacing with and coordinating the various tradesmen.

In addition, if architectural or interior design services are required make sure that this is clearly spelled out in the proposal with a "not to exceed" condition before you sign the agreement.

#### Check the Warranties and Guarantees

System furniture buyers, especially ones that are experiencing growth, are legitimately concerned with product longevity when making long-term investments. A reasonable expectation is that products purchased today will be available for at least ten years, and that products purchased in the future will be backwards compatible.

Earlier in this paper attention was drawn to the unreliability of outside contractors completing office build-outs on time and on budget. Systems vendors should be selected in part on their ability to guarantee their deliveries anywhere in North America to assure you that you get the product when you need it.

Lastly, when dealing with a systems vendor ask if they warrant their products as free from defects in materials and workmanship under normal use for as long as you, as the original purchaser, own them.

#### **Conclusion**

If Class B and C space solves office requirements for businesses requiring in the area of 5,000 to 10,000 square feet, stackable panel systems can solve build-out issues. The time spent in evaluating systems vendors and their offerings is time well spent. Quality of construction, design flexibility, data handling capability, aesthetics, ergonomics and cost are areas of concern that must be addressed by business owners and managers. Check, too, into a vendor's ability to guarantee delivery and provide compatible products as your business expands.

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