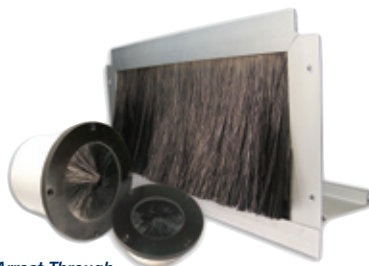
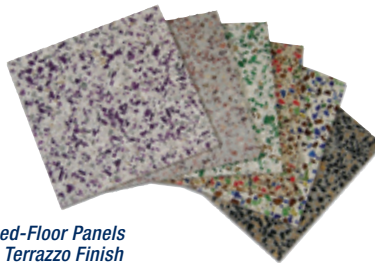


TATE 2008 | IFMA WORLD WORKPLACE
PRESS KIT



AirArrest Through-Wall Sealing Solutions



Raised-Floor Panels with Terrazzo Finish



Underfloor Service Distribution System

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VISIT US AT BOOTH #1200

Welcome to the 2008 IFMA World Workplace Conference & Expo

We look forward to meeting you and your colleagues over the three jam-packed days of this highly informative show. Be sure to stop by our booth to see our wide variety of solutions for creating high performance, sustainable buildings.

Who is Tate®?

The leading authority in the research & development, manufacturing, sales, and distribution of raised access floors. Tate brings 45 years of experience to your projects.

Company Facts

- Largest manufacturer of access flooring in North America with over 450 million square feet of raised floor installed in commercial office buildings, computer rooms, and clean room around the world.
- Headquartered in Jessup, Maryland (south of Baltimore) with manufacturing plants in Jessup, Red Lion, Pennsylvania and Oakville Ontario.
- Acquired ASPmaxcess a leading access floor manufacturer in Canada to form TateASP, providing local sales, support, expanded production, and distribution in Canada.
- Member of the Kingspan Group of companies, a global manufacturer of specialized building products based in Ireland with facilities throughout the world.
- Offering sustainable building products and methods that help achieve LEED points for supporting a Green Building design.
- Proud members of the United States Green Building Council (USGBC), the Canadian Green Building Council (CaGBC), EPA Climate Leaders, and the Center for the Built Environment.

Access Flooring At-A-Glance

- Access floor systems assure strength, stability, consistency and efficiency, which substantially contribute to a building's structural integrity and value.
- Provider of underfloor service distribution systems and LEED certified commercial offices, multi-tenant offices, education, library, government, casino and data storage facilities.



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What is the Tate® Underfloor Service Distribution System?

Tate's Underfloor Service Distribution System is designed to facilitate the service distribution flexibility demanded by today's ever-changing technologies, constant organizational shifts, and new environmental regulations. By following best practice guidelines for the design and construction, these high performance underfloor air distribution systems will provide improved indoor air quality, enhanced comfort control, daylighting opportunities, and significant energy savings. The underfloor wire & cable solution with modular 'plug & play' connections provide point-of-use termination through PVD Servicecenters™ at any location on the floor plate and can be reconfigured using low-cost in-house labor resources.

The ConCore® access floor panels are made in the United States and are fabricated of over 30% recycled content. Steel is stamped and welded to form a unitized shell, and then filled with a highly controlled mixture of cement. These rigid, solid panels create a solid floor that is free from any floor or plenum-generated noise.

Through the underfloor distribution of power, voice & data cabling, and HVAC services the Tate Underfloor Service Distribution System contributes to obtaining points in three categories of the LEED® rating system – indoor air quality, materials and resources, and energy and atmosphere.

Key environmental and economic benefits of Tate's Underfloor Service Distribution System include:

- Improved Indoor Air Quality
- Improved occupant comfort and health
- Increased daylighting opportunities
- Reduced natural resource consumption
- Reduced waste

Key environmental and economic benefits (continued)

- Lower initial build costs
- Reduced operating costs
- Reduced churn cost
- Reduced absenteeism

Tate's products provide service distribution solutions in general office, education, equipment/server, government, library, laboratory, and clean room facilities.



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FOR IMMEDIATE RELEASE

Tate® Introduces New AirArrest™ Through-Wall Wire Sealing Solution
Air Arrest™ Helps Ensure Plenum Integrity with Underfloor Air Distribution

JESSUP, MD, October 2, 2008 – Tate® introduces AirArrest™ a through-wall wire sealing solution for data centers, office buildings, and other structures that feature raised access floors with underfloor air distribution (UFAD). Designed to seal cable and wire access holes, AirArrest uses patent-pending brush technology to prevent leakage of pressurized air around power and data cables that pass from room to room via through-wall cut-outs.

“One of the most important design considerations for project teams working with UFAD is ensuring that there are no air leakage issues,” said Tate director, Bill Reynolds. “Pre-bid meetings, detailed documentation and construction team oversight are vital to that success, but products like AirArrest are the kinds of engineered solutions that ease the process for everyone involved.”

AirArrest™ takes underfloor air distribution to new levels of flexibility while still maintaining plenum integrity. This unique sealing solution leverages the use of thousands of polygonal shaped filaments that nest together with little or no interstitial space. The edges of the filaments prevent them from moving past one another, thereby eliminating gaps that allow air leakage.

Constructed of an anodized aluminum frame and patent-pending Dyna-Seal™ brush technology, AirArrest accommodates wall cut-out sizes ranging from 4" and 6" diameter round holes to a larger 6" x 14" rectangular hole. Installed during initial construction or added to existing buildings, the design allows for the addition and removal of wires and cables without the need to reseal or add new poke-through holes in order to accommodate future growth or changes in technology. It offers the benefit of convenience, while significantly reducing the potential for air leakage throughout the life of a building.



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AirArrest creates a tight seal that prevents air from escaping into mechanical rooms, walls or other spaces that would constitute undesirable leakage. It is mounted on the air conditioned side of the wall and can be installed with screws, double-sided tape or other bonding agents, saving significant time and money over traditional sealing methods.

Whether a project calls for passing large bundles of power and communications cabling through a space or smaller amounts of wiring, AirArrest offers flexible and reliable solutions that ensure a tight seal.

For more information about the Tate AirArrest through-wall sealing solution visit www.tateaccessfloors.com or call (410) 799-4200.

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FOR IMMEDIATE RELEASE

Tate® Contributes to Success of 2008 Project Innovation Award Winners

JESSUP, MD, September 19, 2008 — Two of the three new construction category winners featured in the October 2008 “Project Innovations” issue of *Buildings* magazine credit Tate as a major contributor to their success. The Center for the Intrepid and University of Houston’s Science, Engineering Research and Classroom Complex both specified Tate raised access floors with underfloor air and service distribution.

The 65,000 sq. ft. Center for the Intrepid took Grand Prize in the new construction category. Based at the Brooke Army Medical Center at Fort Sam Houston near San Antonio, Texas, this four-story domed edifice is as impressive technologically as it is visually. Its computer-assisted rehabilitative environment (CAREN) is at the very core of the center’s program. CAREN features a 21 ft. diameter dome and 300-degree viewing screen that create virtual environments, and is used in the physical and mental treatment programs for military patients and veterans with severe extremity injuries, amputations and burns.

Special attention was paid to the elements such as acoustics, lighting and climate control – all of which contribute to the effectiveness of the virtual environment CAREN works to create. It is in this area of the center where Tate solutions are provided. Ventilation is supplied from beneath the raised floor of the CAREN to cool the motion platform upon which patients stand. Supply air rises from the floor plenum through a 6-in. gap between the edges of the circular motion platform, creating a displacement effect inside CAREN’s simulation dome.

“The decision to use underfloor air distribution for the CAREN was integral to the success of the space design,” said John Samson, a senior mechanical engineer at SmithGroup commenting on the design of an installation by SmithGroup and Syska Hennessy.

“By delivering cold air under the floor and letting it slowly stratify upwards toward the ceiling, the design team simultaneously cooled concealed floor equipment, delivered fresh air directly to



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the patient, and maintained the theatre-quality ambience of the space. It's cool on so many levels!"

The University of Houston's \$76 million Science and Engineering Research and Classroom Complex is the other Project Innovations award-winner using Tate solutions. This 200,000 sq. ft. complex is the brainchild of world renowned architect Cesar Pelli. It features five floors of uniquely designed open laboratory space that will be home to nearly forty different research labs. Bio-nanotechnology, DNA chips, protein chips, synthetic medicinal chemistry, and optoelectronics are just a few examples of the type of research that will take place in this new facility.

The complex also includes a two-story, 32,360 sq. ft. classroom wing containing a 250-person classroom, two 180-person classrooms, two 100-person classrooms and six smaller classrooms.

Buildings' Project Innovations Awards recognizes North America's most prestigious projects. They are reviewed by a jury of building owners, facilities executives, architects, interior designers, and the editorial staff of *Buildings* magazine. Winning projects are awarded citations of excellence or named grand prize winners in four different categories including, New Construction, Modernization, Design, and Greener Facility. Winning projects – including those described above – will be featured in the October 2008 issue of *Buildings* magazine.

For more information about Tate products and services call (410) 799-4200 or visit www.tateaccessfloors.com.

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FOR IMMEDIATE RELEASE

Tate® Relaunches Website with Enhanced Layout and Navigation
Site Offers Easier Access to Evaluation Tools, Profiles & Green Building Resources

JESSUP, MD, August 13, 2008 — Tate® relaunches its company website today (www.tateaccessfloors.com) with a new design that aims to quickly put valuable information and resources at the fingertips of site visitors. Primary enhancements to the site include a more streamlined home page, prominent access to green building tools and resources useful in the product selection and specification process, and an enhanced online portfolio of project profiles.



“A wide range of visitors frequent our site, including architects, engineers, building owners, developers, and others,” said Ralph Mannion, general manager, Tate. “Many come in search of specific product information, some want to learn how raised access floors contribute to LEED® credits, and still others need details or guidance on specifying underfloor air plenum integrity. The challenge with the new site was to create an enhanced user experience that is equally intuitive and easy to navigate for every visitor.”

Tate accomplished just that with a home page offering clean graphics and succinct text that communicates to the user at-a-glance – quickly pointing the way to more details. The prominent placement of phrases like “Green Building,” “High-Performance Building,” “Sustainability,” and of course “Access Floors,” does more than benefit those going directly to the site, it is also intended to eventually help the Tate website surface more often in search engines when those keywords are used.



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“Our new site design does a great job of highlighting the most valuable areas of the website, right up front,” adds Scott Alwine, marketing manager, Tate. “Downloads of our underfloor air plenum integrity guides for architects, general contractors and commissioning agents, for example, have been popular as everyone awaits the new guidelines from ASHRAE. We don’t want that type of information to be the least bit difficult to locate.”

Other resources like an interactive, integrated building design cost model, used to provide comparisons between overhead service distribution methods vs. Tate’s Building Technology Platform® are easily accessible from the menu bar. Technical bulletins for specifiers and Tate’s complete Design & Specifications Guide can also be reached from the Resources link on every page.

The addition of a sustainability section provides content for users to stay informed of Tate’s continual advancements in becoming a more sustainable company. Later this year Tate will release its first ever sustainability report which will also be posted in this section. Under this link, site visitors can also learn how underfloor service distribution technology by Tate can contribute to credits for LEED-NC. The documentation found there clearly outlines how the proper use of each component can help attain prerequisites and contribute towards LEED points in the categories of Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, and Innovation in Design. Additional information found in the LEED Support Documents page and Tate’s *Green Building Solutions* brochure posted in the same location, makes it quick and easy for designers and specifiers to qualify Tate’s sustainable attributes.

Perhaps one of the most significant enhancements is the way that project profiles are displayed. The new site now uses a gallery of top-level images to summarize project content in a way that lets viewers choose the category of projects or building types.

Not only are building images larger than in the past, but with the new site they also include a wide selection of interior shots which gives a greater appreciation for the scope of the overall project. Each image within a category is also accompanied by a brief description about the project, and a U.S. Green Building Council (USGBC) logo, where applicable, identifying the LEED certification level.

For more information about Tate or its products and services please visit the new website at www.tateaccessfloors.com or call (410) 799-4200.

(more)



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FOR IMMEDIATE RELEASE

Tate® Brings the Natural Beauty and Durability of Terrazzo to Raised Access Floors *New Finish Meets Demands of High Traffic Applications*

JESSUP, MD – April 1, 2008 — Tate® brings the natural beauty and durability of terrazzo to its expansive and exciting selection of raised access floor finishes.

Tate's Terrazzo floor finish is manufactured and poured at the Floorazzo factory in Silver City, NC. Natural marble, granite or quartz aggregate or eco-friendly recycled glass is embedded in a flexible resin matrix and then polished to a high-gloss shine with Italian polishing abrasives. When installed, the 24 x 24-inch tiles achieve the monolithic look of traditional terrazzo and bring durability and low life cycle costs to high traffic applications, including lobbies, hallways and corridors.

Tate offers architects and designers a choice of 20 standard colors in the Terrazzo marble line. The gem line combines both marble and recycled glass chips in 10 different color combinations. Additional looks can be achieved by mixing and matching marble or glass chips with various background colors in the lines or introducing new chips or pigments to the backgrounds.

In addition to unlimited design possibilities, the marble and gem lines provide designers with an easy-to-care-for finish that can withstand excessive foot traffic and continual cleaning and maintenance. Routine maintenance is as simple as damp-mopping the floor with a neutral nonabrasive cleaner. Installation is simple too, as Tate Terrazzo tiles are factory laminated on top of access floor panels, providing a floor covering that maintains the flexibility of the system with easy access to the area below the raised floor.



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In addition to Terrazzo, Tate offers a variety of finishes – from luxury vinyls to woods, cork and rubber – to complete a design. Traditional high-pressure laminates, static control vinyls, PosiTile® carpet and hard tile finishes are also available to create a unique and coordinated look while still maintaining the versatility and convenience that an access floor offers.

For more information about Tate or its products and services please visit www.tateaccessfloors.com/finishes or call (410) 799-4200.

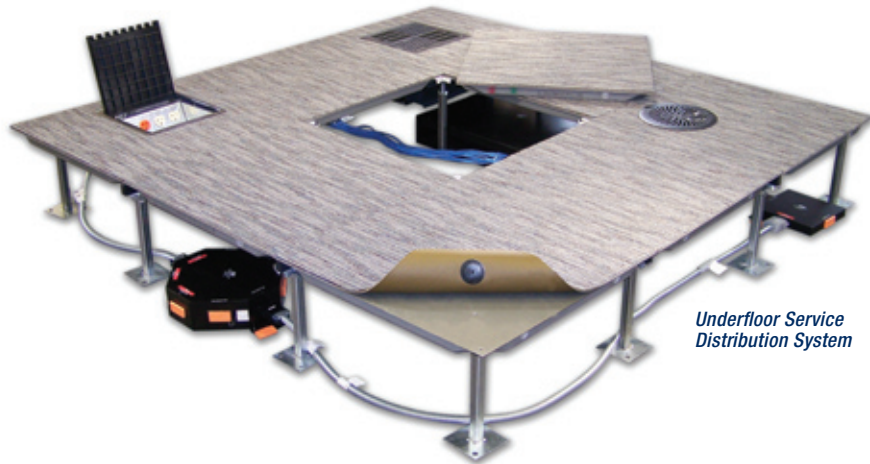
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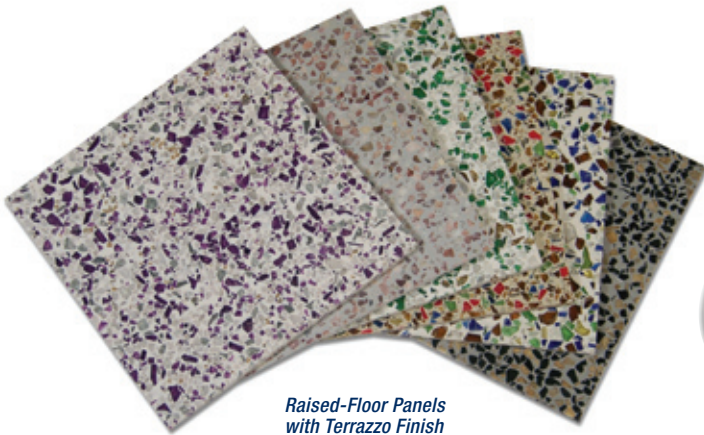
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*Underfloor Service
Distribution System*



*Raised-Floor Panels
with Terrazzo Finish*



*AirArrest Through-
Wall Sealing Solutions*

Averitt Express Call Center Cookeville, TN

Owner Occupied

50,000 sq ft (gross)
48,000 sq ft (access floors)

Owner:
Averitt Express, Inc.

Architect:
Gresham Smith & Partners

MEP Design:
Oliver-Rhoads & Associates

General Contractor:
DF Chase

M&P Install Contractor:
Lee Company



A “Devil in the Details” Approach to Underfloor Air

How Averitt Express Planned (...and Planned) for Success

As a leading provider of freight transportation and supply chain management services, Averitt Express meets the challenges of its own self-imposed sustainability goals on a daily basis. It operates more than 100 service centers throughout the U.S. and specializes in less-than truckload and truckload delivery, importing/exporting and a variety of other distribution and transportation management services.

The Cookeville, Tennessee-based company is serious about taking responsibility for the impact it makes on the environment. With more than ten different fuel-efficiency initiatives including the use of biodiesel in select markets, the installation of sophisticated electronic engine technology to track and measure fuel economy, and leading-edge software to plan the most efficient routes, Averitt is bent on driving an eco-friendly message through all levels of its business and corporate culture.

As Averitt wisely understands, while the environmental impact of the transportation sector can be significant, there are other areas that need to be addressed simultaneously.

Buildings, for example, represent 39% of energy consumption in the United States according to the U.S. Department of Energy. They are also among the largest consumers of natural resources and produce a significant percentage of the greenhouse gas emissions that contribute to climate change. In fact, according the Energy Information Agency, U.S. buildings account for nearly 40% of all CO₂ emissions.

When time came for Averitt to design and construct its two story 50,000 ft² call center at the campus headquarters, it endeavored to reduce environmental impact and improve energy efficiency, indoor air quality, and personal comfort for the occupants. Central to meeting all of these objectives was the decision to include the use of underfloor air distribution (UFAD) in conjunction with underfloor service distribution for power, voice and data.

“This type of building called for a lot of flexibility to aid with churn,” said Dean Oliver, engineering manager at Oliver-Rhoads, the firm tasked with MEP design for the call center. “Raised floors provided the ultimate flexibility with the power and phone/data wiring, and as a plus the underfloor air distribution platform can be easily re-arranged to facilitate this.”

The successful implementation of UFAD requires a unique level of coordination and planning from the earliest stages of design and construction. If the building process neglects this, the result is air leakage in the underfloor plenum, and a loss of anticipated energy efficiency gains. The team at Oliver-Rhoads wanted to maximize plenum integrity and therefore take advantage of two key green advantages derived from this type of system: energy savings on cooling through economizer operation, and fan energy savings.

UFAD accommodates higher supply air discharge temperatures (58-60 F vs. 53-55 F), and therefore the economizer mode can be used more often. Averitt’s new call center uses dual enthalpy economizers with sensors that measure temperature and humidity inside and outside of the building. If outside conditions permit, 100% outside air is used to cool the building instead of cooling with the evaporator coil, resulting in significant energy savings. This “free cooling” method along with the use of higher supply air temperatures allows for a marked reduction in compressor operation.

Fan energy savings come from a combination of the reduced total air volume requirements and reduced static pressure requirements associated with underfloor air distribution. With UFAD systems, less total air volume is required because the effective occupied zone is considered as only 0-6' above the floor. The space above that is not factored in the air calculation quantity. Also, the static pressure of the underfloor plenum is only 0.05" w.g. and involves significantly less branch ductwork. Since less static pressure is needed at the fan, the amount of horsepower needed to drive the fan motor is also reduced. The total energy savings attributed to these two factors – cooling and fan energy – is estimated at approximately 40% compared to a conventional overhead air distribution system.

Averitt made sure it would be able to reap these and other benefits through careful planning and dogged persistence. When members of the project team were asked what most contributed to the success of the UFAD implementation, nearly all responded that it was the pre-construction meetings that stressed the importance of plenum integrity.

“The engineers had some great help from York International¹ and Tate, whose equipment we used for this particular project.” said Oliver. “Tate stressed to the trades the crucial nature of a tight underfloor air plenum to minimize leakage. The suppliers also assisted engineers on ideas for air distribution under the floors so that the entire underfloor would get even distribution to the air diffusers in the floor panels.”

Oliver added that the importance of sealing all penetrations was also stressed with the sub-contractors at the pre-construction meeting. This not only included extending walls and column wraps to the slab, it also meant sealing any open ended conduits to prevent air leakage. It also helped that the sequence of operation and control points for the system were provided for in the construction documents.

Felix Bryan, senior project manager for Lee Company, the mechanical and plumbing contractor that handled the installation, also noted the benefit of having early input and support from experienced vendors. “We had two meetings with suppliers on the front end

¹ York International is now part of Johnson Controls, Inc.

and they provided a complete overview of the system, how it operated, what the pitfalls were, and what could get us in trouble if it was not properly constructed.”

Bryan added, “We made sure we spent the time upfront discussing how we were going to approach it, how the general contractor was going to seal the perimeters, seal the walls, and how we were going to handle routing. Also, because we did have a small amount of underfloor duct, it required some pretty detailed coordination so that everybody would have proper access and routing.”

Walter Crawford, real estate and development manager at Averitt, recalls that the design for a lot of the power distribution and underfloor air had been completed even before the building envelope was addressed. It was his idea to call for the early planning meetings which also included general contractor DF Chase. “We brought in the construction management team to really look at full building systems so that we all understood how important it was to cut down on air leaks,” said Crawford. “The superintendent worked closely with the framing crews, the drywall crews, the electricians, and plumbers to keep the building from leaking air. Things were made very clear up front that if you make a hole you close a hole.”

All of the planning certainly paid off for the construction crew. Prior to this project, Lee Company had done only one other UFAD project and this was the very first for design team, Oliver-Rhoads. Still, with the support and consultation of the suppliers throughout design and installation, the building passed its leakage test the first time around with measured leakage rates of only 7% – well below the 15% recommended threshold for acceptable category 1 air leakage.

“We built such an airtight building that we actually had some over-pressurization issues post-construction,” Crawford said. In the end that was a problem that was easy to address and resolve. It was also a great lesson learned, and an important one too for the team to keep in mind for future UFAD projects. “In these systems,” Crawford said, “powered exhaust is an important consideration to take into account.”

“Exhaust fans with VFDs were installed on the roof to relieve the pressure of the 100% outside air during economizer mode,” Oliver added. “Powered exhaust should be included within the unit itself instead of relying on barometric relief.”

Even distribution of air to all zones was another contingency for which the designers planned. A small amount of rifle ductwork beneath the floor was put into place to reach the far corners. A maximum distance of 50 ft. from supply duct opening to perimeter corners was maintained to ensure good underfloor air distribution.

Pressure sensors located under the floor communicate directly with the unit supplying air to each particular zone. When properly calibrated, the sensors will govern the unit’s fan motor, causing it to speed up or slow down as needed to satisfy the required air flow to that particular zone.

Of course, the toughest measure of a systems efficiency comes with the arrival of energy bills during the peak summer months. That was not a problem for the new call center. Averitt saw significant savings compared to the costs of the previous building. “In the hottest month on record last year, our electric costs to operate the building were less than a quarter (\$0.25) per square foot,” said Crawford, who was also quick to point out that portions of the building operate 24/7.

Achieving a high level of energy efficiency was important, but not the only measure of success according to Averitt. The owner also wanted raised access floors because of the added personal comfort it affords the associates who spend long hours inside the building. The idea was to maximize the climate control that its 350 occupants have in their individual workspaces. Using modular floors with built-in air diffusers that can be placed in any location on the floor plate made that a simple proposition.

Crawford recalls that the building previously operating as the call center used a traditional overhead system and did not have the luxury of personalized comfort. “In the past you had a hot-natured person sitting next to a cold-natured person and things never would work out,” he observed. “Now we are able to better customize environments and one person can increase air flow at his desk, while the person next to him can close hers off.” Better temperature control and improved air quality derived from UFAD were important

pluses based on experiences at the previous location, and it became a major requirement for the owner.

By supplying cool air from the floor using natural convection, occupants gain the added benefit of improved indoor air quality (IAQ). UFAD essentially eliminates mixing fresh air with the existing indoor air pollutants typically associated with overhead systems.

Dense call centers are also occupied by a considerable number of computers, phones, printers, copiers, fax machines and other equipment. They too share the common need for ease of expansion and reconfiguration as staffing and technology upgrades evolve. For Averitt, that meant coming up with a flexible design that would accommodate change in a sustainable and efficient manner.

Tate offered a modular zone wiring and cabling solution with its access floors, providing a flexible and adaptive service distribution system that can effortlessly respond to organizational and technological changes. Placing wiring and cables beneath the floors lends the ability to terminate cables wherever needed, with complete flexibility, accessibility and virtually unlimited capacity. In addition to reducing first costs associated with wires and cables, it reduces waste through re-usable parts.

Averitt was able to reap a number of other green and sustainable advantages as a result of installing raised floors with underfloor air and service distribution. In addition to improved IAQ, and energy efficiency gains, the new call center claims less waste with plug-and-play wire and cable services, which allow for materials reuse during workstation reconfiguration. There is also a significant reduction in HVAC ductwork and drop downs.

Creating sustainable, high-performance buildings like the Averitt Express Call Center depends on an integrated design approach in which the project team is encouraged to think holistically early on in the process. That approach is best-served when lead by the collaborative efforts of the owner and the design team, and when it is consistently driven through the entire project.

In its post-occupancy surveys, Oliver-Rhoads found the tenants and owner to be extremely satisfied with thermal comfort and energy savings. The engineering firm is proud of its first UFAD project and was recently awarded a new corporate headquarters project.

“We are scheduling a tour of the Averitt Call Center for the owners on the new project,” said Oliver. “We plan to have another successful UFAD project with that facility.”

###



Bowie Corporate Center

Bowie, MD

Developer/Multi-Tenant Project

132,000 sq ft (gross)

125,000 sq ft (access floors)

Owner:

Buchanan Partners

Architect:

Barry Dunn & Associates

General Contractor

Hubert Construction

Engineering Firm:

EPIC Consultants



Silver Turns Gold in the Olympics of Building Green

Bowie Corporate Center Scores High Marks with Tate UFAD

When Buchanan Partners, LLC of Gaithersburg, MD broke ground in 2005 for its 132,000-square-foot Class A office building in Bowie, Maryland, the commercial real estate developer set its sights on a Leadership in Energy and Environmental Design (LEED) Silver certification from the U.S. Green Building Council (USGBC). Eighteen months later, the completed Bowie Corporate Center earned a LEED Gold certification and became one of the first buildings in the United States to achieve Gold certification within the USGBC's Core and Shell program, designed specifically for new and speculative commercial building construction.

According to Buchanan Partners Project Manager Wendy Weiss, the building's underfloor air distribution (UFAD) system figured prominently in the quest for LEED certification. "Underfloor air was one of our primary focuses for the building. The energy savings and the efficiency an underfloor air distribution system offers really drove the building design and made a significant contribution to the LEED certification," she said.

The Core and Shell program Weiss referenced deals specifically with the base building and does not include the “build out” specified by building tenants. She also noted that while including regional materials (i.e. construction materials from within 500 miles of the project) added to the total point value required to achieve Gold certification, the inclusion of underfloor air in the building’s design represented one of the largest portions of point accumulation.

Catching Air

The Bowie Corporate Center represents Buchanan Partners first venture into LEED certification. “Buchanan Partners has always taken the environment and the community into consideration. Our principals have consistently led us that way. It’s not just the PR thing to do. They’re concerned about the environment, and they always have been,” expounded Weiss.



Completed and open for business in December 2006, the building currently houses 600 occupants with its largest tenant, MedAssurant, Inc., set to move into the remainder of the space, some 96,000 square feet, this summer. A key component of the building’s Gold certification, the underfloor air distribution system, was supplied by Tate Access Floors, which provided the Building Technology Platform® that delivers conditioned air throughout the five-story office building. “We liked a lot of things about Tate, including the construction of the floor tiles, the sturdiness of the

pedestal system and the fact that Tate seemed to have a good handle on controlling air leakage,” said Weiss.

As building systems go, UFAD is still somewhat in its infancy on this side of the Atlantic, which means finding industry professionals with the required knowledge to

address the special needs of a system that can be extremely sensitive. Thermal decay, air leakage, and thermal comfort are all critical aspects of the specification and implementation of an underfloor system. Despite all of the hype about these issues, whether or not they become factors in the success of the system really depends upon the experience and skill level of the project team. It is truly a “top down” effort—from the owner and architect all the way to the skilled trades involved—and noteworthy research from such sources as the Center for the Built Environment (University of California, Berkeley) repeatedly emphasizes the importance of the design, specification and construction of the underfloor plenums comprising these systems.

Two critical events that must occur in order to achieve the successful installation of UFAD are thorough sealing measures and air leakage testing. Vigen A. Yedigarian, president of EPIC Consulting, the engineering firm for the Bowie project, explained, “The underfloor air distribution system of the Bowie Corporate Center relies heavily on a tight and leakage-free underfloor plenum. This was achieved by sealing all of the floor and partition joints, voids between the pipes, conduits, slab and wall junctions, and the void between the ducts and partitions and floors at the points of penetration.”

Yedigarian also noted that even minor joints left unsealed could cause air to leak uncontrollably from the underfloor plenum, which in turn has a detrimental effect on the operation of the HVAC system. As a result, more fan energy must then be used to move more air to compensate for leaks, thus defeating a major energy-saving advantage of the underfloor system. Tate considers this type of leakage so critical that it recommends all trades working in the plenum space be given proper education prior to construction, including building a mock-up, on how to seal edges and plenum wall penetrations to prevent leaks.

Once the UFAD system was expertly installed and sealed inside the Bowie building, Buchanan Partners conducted a comprehensive test to evaluate air leakage rates outside of the occupied zone. The preparation for testing ensured all floor tiles were in place, diffusers were installed and sealed closed, no power/voice/data boxes were installed, and area exhaust and return fans were operating at normal speeds. A



differential pressure sensor was then used to record differential pressure. Once the system was stabilized all seals were checked and data was recorded. Ultimately, the results of the air leakage test at the Bowie Corporate Center exceeded expectations with a leakage rate of 3.9 percent when compared to design airflow.

Attaining such a favorable performance rating on these tests required careful planning and forethought by all teams involved in the project. Overall, the development team devoted more than a year to researching and analyzing the design, costs and benefits of a wide array of environmentally friendly products, materials, systems and construction methods—a major factor in the building’s success.

“Prior to starting we looked at two other projects to see how the underfloor air distribution systems were being successfully implemented,” said Yedigarian. “We also included detailed notes and drawings in the documentation for the Bowie project to address every area of plenum penetration.”

After the office building is completely occupied, Weiss anticipates the UFAD system will provide tenants with comfortable, healthier air and increased energy savings. Shortly following MedAssurant’s occupation of the largest portion of the building, Buchanan Partners will also conduct a thermal comfort report to gauge heating and cooling conditions, air quality, and related issues as they are actually experienced by the tenants.

In addition to the comfort report, Buchanan Partners is actively educating its tenants about the benefits of this unique building design. “We’ve taken steps to inform the tenants about the features of the building, to include producing a ‘Features and Benefits’ brochure that we share with them. Our property manager has also been discussing the features of the building with individual tenants as they take occupancy,” said Weiss.

The access floor system of the Bowie Corporate Center accommodates power, voice and data utilities, providing flexibility in the future if spaces need to be reconfigured. Other features of the building include a heating and cooling system that works with the underfloor air distribution system to help reduce building energy use by



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more than 30 percent, enhanced exterior sun louvers and low-E tinted glass windows that reduce solar heat load while admitting natural light through the main vision panels, low emitting materials and water-conserving plumbing features—all of which were designed to contribute LEED points and promote sustainability.

In addition to its LEED certification, Bowie Corporate Center received recognition as the best Suburban Office Building of 2007 and Best Environmentally Friendly Building by the Maryland/DC Chapter of the National Association of Industrial and Office Properties.

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SUSTAINABILITY MISSION STATEMENT

Social and environmental responsibility have long been key corporate objectives for Tate. Since founded in 1962 this guiding philosophy has enabled us to continuously improve upon and strengthen our *ability to sustain* the environment, customers, community and our company.

The steps required to foster a better environment are not taken lightly. Many of the initiatives that we at Tate execute to improve our sustainability actually took shape long before the push to “go green” became popularized. We constantly investigate and implement new ways to reduce the environmental impact of the manufacturing process and business operations through improved energy efficiency, automation, and environmentally friendly solutions.

Tate makes it a priority to continually search for improvements that will reduce its environmental footprint while maintaining an ability to deliver superior products and services to customers. This commitment to providing the best quality access floor solutions that are also more sustainable is equally important to our customers – allowing them to claim less environmental impact related to the acquisition of project materials. Customers are further served through Tate’s continued adoption of new sustainable technologies, to increase production capacity and ensure that customer needs are met quickly and efficiently, providing them with on-time shipment of material at a rate needed to support any size installation.

Our customers enjoy additional sustainable and high-performance benefits by using Tate solutions in their buildings. Some of those benefits include:

- Improved energy efficiency
- Healthier indoor environmental quality
- Reduction of material use
- Design possibilities that allow for a more flexible and adaptable built environment
- Reuse of service distribution materials during reconfiguration

Beyond the environment and our customers, Tate embraces its role as part of a larger corporate and social community, and sees it as crucial to any corporate sustainability commitment. Tate is an advocate of high-performance and sustainable construction, and thereby supports both the business and local community through active participation in key organizations, ethical procurement, supply chain management and social responsibility. Its affiliations and charitable contributions to causes that support or raise awareness of environmentally friendly organizations help Tate contribute to a growing list of practical solutions.

As a company, Tate ensures its own sustainability through graduate recruitment and mentoring programs, and by offering employees the appropriate training on environmental and job related subjects. Everyone from key suppliers to installation contractors is fully involved living, promoting, and guarding the *SustainAbility* mission of Tate, its customers, the environment, and the community at large.

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