The Interior Design/Build-out of the Future

Ware Malcomb

DLR Group

Dekker/Perich/Sabatini

2201 Cooperative Way, Suite 300
Herndon, VA 20171
703.904.7100
www.naiop.org
Picture an office interior filled with self-luminous walls and ceilings, desks equipped with stationary bicycles or treadmills as well as chairs, ergonomic furniture embedded with noise-cancelling technology, napping and conversation pods and “smart” glass panels that make computer screens and televisions obsolete. According to the three winners of NAIOP’s 2014 Interior Design/Build-out of the Future competition, this is what the office space of the future will look like.

Each of this year’s three winners took a different approach to designing the workplace of 2020. To frame their vision, the DLR Group created a “persona” of a typical company and how its workspace might look. Ware Malcomb convened a focus group of corporate users, furniture system experts and consultants who help companies set metrics for gauging readiness for change. Dekker/Perich/Sabatini (D/P/S) turned to Clifton-Larson Allen, a national accounting firm, to tap into both its knowledge of office workspaces and its experiences with a variety of clients. To “keep it real,” D/P/S then asked Developing Leaders (NAIOP members age 35 and under) on its own staff to develop the research into a submission that reflects a millennial perspective.

While each of the three winning designs offers unique elements, they also feature several universal themes expected to characterize the office interior of the future:

- Functional, flexible areas;
- Individual control;
- Sustainability; and
- Wellness and connections to nature.

### Functional, Flexible Areas

Space will be designated by the function of the work to be done, rather than by the status of the employee. Zones and “hives” of activity replace private offices and cubicle bullpens. Areas for individual, focused work are separated from those designed for more active collaboration and socializing, with the support of sound-masking systems and materials. Workers can retreat from work or even grab a quick nap in dedicated “quiet zones.” For more active renewal, social areas feature gaming areas, coffee bars and fully equipped private dining rooms with cooking facilities. D/P/S broadens the scope of the office space concept, transforming it into a microcommunity for workers with an array of shared amenities.

### Individual Control

To optimize use of the various workspaces and increase employee satisfaction, all of the spaces are designed to be user friendly and intuitive. Technology supports “free addressing,” with employees choosing to work wherever they want, depending on the tasks they need to accomplish, and drop-in scheduling of workspaces. Throughout each space, workers can control the lighting, operable windows and interior air flow to suit their personal preferences.

### Sustainability

As Ware Malcomb observes, “The next generation of worker will demand … an even more sustainable interior with built-in flexibility for decades of the building’s life.” This organic view of sustainability will be reflected in a desire to redevelop existing buildings (as D/P/S proposes) whenever possible, and to create offices with durable, flexible furnishings and spaces that will have a long life and will not need to be repurchased or redesigned on a regular basis. The workplace will feature more natural materials and finishes that reduce even low amounts of electric and magnetic fields as well as air pollutants.

During the spring and summer of 2014, NAIOP conducted a design competition in which it sought concepts for the Interior Design/Build-out of the Future. NAIOP invited architects to conceptualize and design “the optimal interior build-out for Class A office space within a multitenant building in a growing market” in the year 2020. An independent panel of judges evaluated the submissions against an objective set of criteria and selected three winners.

The winning firms are Ware Malcomb, with offices across North America; the DLR Group, with 22 offices in the U.S. and Shanghai; and Dekker/Perich/Sabatini, with offices in Albuquerque and Las Cruces, New Mexico; Arizona; and Amarillo, Texas. Presentations made by the winners at Development ‘14 in Denver will be available at www.naiop.org.
Ware Malcomb

In the Zones

Ware Malcomb organized its two-story concept into four different zones that support the work to be done: Focus, for undisturbed work that requires concentration; Collaborative, for informal/formal interaction; Team, for groups that work together each day; and Quiet, for getting away from it all.

Work will take place at one of three types of workstations:

- The standard five-by-five-foot workstation, easily expanded to a five-by-10-foot manager-type office, which is furnished with a mobile personal storage locker, a chair and a desktop with a “SMART panel” surface — an electrified, glasslike material that can function as a personal computer, among other uses.
- The “cone of silence” workstation, for a quiet, more focused working environment.
- The active workstation, with a standing desk that incorporates a treadmill or stationary bicycle.

Retractable walls fabricated with an electrified glasslike material that Ware Malcomb calls “SMART glass” are used to create flexible private workspaces that can be transformed from a 10-by-14-foot office into a 10-person conference room.

Wellness and Connections to Nature

Wellness is a core value of the millennial workforce, so it makes sense that the office build-out of the future will incorporate elements that support health and well-being. “Active desk” options range from standing desks to workstations with slow-moving treadmills or stationary bicycles. Office spaces include fitness centers with showers, multistory walking paths, bike storage, quiet zones/sleep pods and healthy food options in community cafes. Biomorphic elements like planted walls bring greenery inside, to filter the air and provide a connection with nature. When necessary, workers can communicate remotely with health care professionals in private “tele-med” rooms or visit an on-site pharmacy.

The objective of all three winning designs is to keep workers on-site, engaged and satisfied with their surroundings. As DLR Group notes, “Everything the design can do to improve occupant productivity is worth the investment.”

Retractable walls fabricated with an electrified glasslike material that Ware Malcomb calls “SMART glass” are used to create flexible private workspaces that can be transformed from a 10-by-14-foot office into a 10-person conference room.
At the Core
Using a grid system layout, five-by-five-foot flexible room modules can be reconfigured into anything from a 10-by-14-foot office to a 10-person conference room. Retractable room dividers made of the same SMART panels used in the workstation spaces can be concealed in the ceiling when not needed. Because hard wall construction is kept to a minimum, the grid can reduce build-out costs and will continue to offer flexibility to new tenants.

Bright Ideas in Lighting
Innovations in lighting and electrical systems will provide workers with a more comfortable and energy-efficient work environment. Flexible lighting controls will allow for daylight sensing and occupancy sensing will turn off lights in empty spaces. Energy use will be monitored and adjusted as diagnostic programs identify opportunities to do so. Wall and ceiling surfaces made of flexible organic light-emitting diode (OLED) sheets will light themselves. The lighting, electrical power, daylighting and HVAC systems will become seamlessly integrated, offering greater comfort and improving energy efficiency. Ceiling grid systems with integral power also will contribute to energy efficiency while making reconfiguring workspaces relatively easy. Traditional AV systems (projectors, LED screens, etc.) will give way to more flexible, lightweight, energy-efficient OLED surfaces.

Mechanical Systems
Occupant comfort will continue to be the key to a successful office environment. A dedicated outside air system will deliver 100 percent filtered and conditioned outdoor air directly to all occupied areas to maximize indoor air quality. High-efficiency central heating and cooling plants will provide loops of chilled and heated water throughout the building. A combination of active and passive chilled beams (utilizing the water loops) will provide radiant and induced convective cooling. This system reduces the amount of duct space and distribution units needed, potentially allowing for lower floor-to-floor heights, which could lower building costs. In cooler climates, perimeter beams will carry heated water to neutralize exterior envelope heat losses. Integrated controls will synchronize chilled beam operation with operable windows for natural ventilation during mild weather. Finally, daylight-controlled window coverings will deploy automatically to minimize solar heat gain or reduce glare, making thermostat wars a thing of the past.

Employees can choose to work at a standard five-by-five-foot workstation equipped with a desktop and dividers made of SMART glass panels, an active workstation featuring a treadmill or stationary bicycle, or a “cone of silence” for projects that require intense concentration.

A “team zone” floor plan illustrates workspaces where employees can tackle projects that require teamwork and collaboration. Teamwork areas are shown in dark blue while areas for quiet work and collaboration are in medium and light blue, respectively.
The Office as Magnet

The DLR Group’s submission, dubbed “the Magnet,” proposes that the workplace of the future will actively draw people together in a “hub of social energy.” As employees and visitors enter the Magnet, they will encounter a high-activity zone staffed by a concierge and an “IT barista,” who will help them use the facility. Reservations for space — from formal meeting rooms to an individual workbench — will be managed through a company app.

Hives and Quiet Zones
Within the Magnet, space is organized intentionally, with high-activity areas toward the center of the floor plan and individual and small-team spaces at each end. “Team Hives” can be reserved for special projects and for long-term use by departments that require a consistent setting. Focused work is done in “Privacy Hives,” which feature ergonomic furniture with noise-cancelling technology in the headrest of each chair. Glass partitions controlled by a handheld device can display personalized images or work programs. Undulating outer walls around each Team and Privacy Hive area connect them visually, while also minimizing disruption by workers walking to the “Quiet Zones” located at the two pointed tips of the floor.

Let There Be Light
To optimize daylighting opportunities in the Magnet, all regularly occupied spaces are located around the building perimeter; infrequently occupied spaces are located in the building core. The main productivity zone, located close to the south facade, gives seated employees the greatest connectivity to outside views. Hoteling stations are located along the south windows to allow employees to work there at times when glare is not an issue. Team Hives are located along the east and west orientations. Because these areas are used sporadically, the more extreme fluctuation in daylighting levels will affect fewer workers.

Artificial lighting throughout the Magnet tracks available daylight, using sensors and automatic dimming to provide high levels of visual comfort and reduce energy use. All desks are equipped with Philips Hue “smart bulb” task lighting. Overhead, Coelux light panels mimic skylights and emulate natural sunlight.

Within the Magnet, high-activity areas are located toward the center of the floor plan and individual and small team spaces are placed at each end. The two pointed ends of each floor feature quiet zones for relaxation. Hexagonal “Privacy Hives” and “Team Hives” provide space for focused and collaborative work, respectively.
When the NAIOP Developing Leaders at Dekker/Perich/Sabatini (D/P/S) envisioned the office build-out of the future, they saw it as an opportunity to rejuvenate an aging 1980s-era office building in an up-and-coming urban location in Albuquerque, New Mexico, and transform it into a vibrant microcommunity and mixed-use Class A office building.

D/P/S sees repurposing existing space as the most practical and sustainable way to support communities. Its concept creates a microcommunity that also includes retail, residential and coworking space, and that is rich with shared amenities. As its submission states: “The office spaces of the 1980s were designed to display the success of the organization. Today, office spaces need to refocus in order to improve the employee experience.” This approach also aims to help employees attract the best talent and boost worker productivity.

**Biowalls and O₂ Factories**

Heavily glazed exteriors, although popular and dramatic, create large variations in heating and cooling loads. To decrease that effect, DLR Group proposes a dedicated outside air system to supply ventilation to the interior workspace while satisfying any additional heating and cooling loads with strategically placed biowalls and fan cooling units. Philodendrons are planted directly into air filters in the biowalls and automatically watered by a hydroponic loop. Air is drawn in through the filter to the return plenum and also directed back out to the occupied space. These so-called “O₂ factories” are intended to improve indoor air quality, save energy and provide a calming ambiance by bringing nature into the office.

**Community dining areas and other building amenities encourage workers to spend more time in the workplace and offer opportunities for socializing and collaborating with coworkers.**

DLR Group (continued)
More Amenities
By including an array of shared and employee-only amenities, D/P/S’s design makes it possible to reduce dedicated tenant space and increase shared space, so more people have more access to more amenities.
Food and beverage options range from a coffee/wine bar to community dining areas, attracting building occupants around the clock and stretching the boundaries of the workday from daytime into the evening. Within the office space, a private dining area equipped with a buffet counter provides an area that can be used for working lunches, client presentations and other office meetings.

In-building services like day care, pet walking and grooming, an integrative pharmacy and a deli-grocery are designed to enable employees to spend less time driving and accomplish more personal errands on-site. Within the office space itself, amenities such as a “tele-med room” allow workers to conference with their doctors and other health care professionals with the click of a button, in a private setting. A “mother’s room” provides a dedicated private space for nursing mothers.

Next-level Wellness
Wellness in the office of the future goes far beyond a fitness room and showers. In D/P/S’s concept, a multistory walking path wraps around the structure, travelling up the south face of the building, then rounding the rooftop and winding its way back down. On the rooftop, residents and office workers can grow vegetables, herbs and fruit in small raised garden beds and even prepare dinner on the grill. Office and social events can be held in the spacious seating areas and on the lit dance floor. At the end of the workday, employees can gather to watch the sunset from the rooftop and enjoy conversation with coworkers, family and friends in this vibrant new microcommunity.

By Sheila Vertino, former editor-in-chief of Development magazine and a freelance writer based in the Washington, D.C., area.
In 2014, Ware Malcomb opened offices in Seattle and New York. Our 16 offices throughout North America are ready to provide you with expertise in the design of commercial sites, buildings, and interior spaces.