

# Setting a New Standard

*A world-renowned engineering society builds a cutting-edge home on Technology Parkway*



**Y**ou may not know what **ASHRAE** is, but you know its work: the clean and comfortable air we all take for granted inside many modern buildings.

The international professional society's standards are behind everything from the filtering of airplane cabin air to the energy efficiency of office buildings that mitigates climate change and dependence on foreign oil. Today, it's a major authority in the COVID-19 fight, penning standards for halting the coronavirus's spread through HVAC

systems that are promoted by the Centers for Disease Control and Prevention.

And now ASHRAE is your neighbor, having recently moved into a new \$20 million global headquarters on Technology Parkway meant to be a living laboratory for "walking the talk" on energy efficiency.

"We harness the collective wisdom of the world's experts and bring that wisdom to bear on some of these challenges," said **Jeff Littleton**, ASHRAE's executive vice president, in a recent interview.

ASHRAE (pronounced "ash-ray") is the easier-on-the-tongue version of the group's full name, the **American Society of Heating, Refrigeration and Air-Conditioning Engineers**. The society traces its history back to 1894,

when a group of heating and air-conditioning engineers convened in New York City. A merger with a society of refrigeration engineers in 1959 produced the current organization.

Today, ASHRAE has more than 55,000 members in around 130 countries. It offers training and professional certifications for those in the HVAC and refrigeration industries, and stages conferences that attract up to 75,000 attendees. It funds research at universities and specialty labs to the tune of \$5 million a year.

But ASHRAE's most influential role is writing industry standards that are taken so seriously, some of them become law. ASHRAE isn't a trade association designed to promote its industry; it's a professional society with a nonprofit mission of promot-



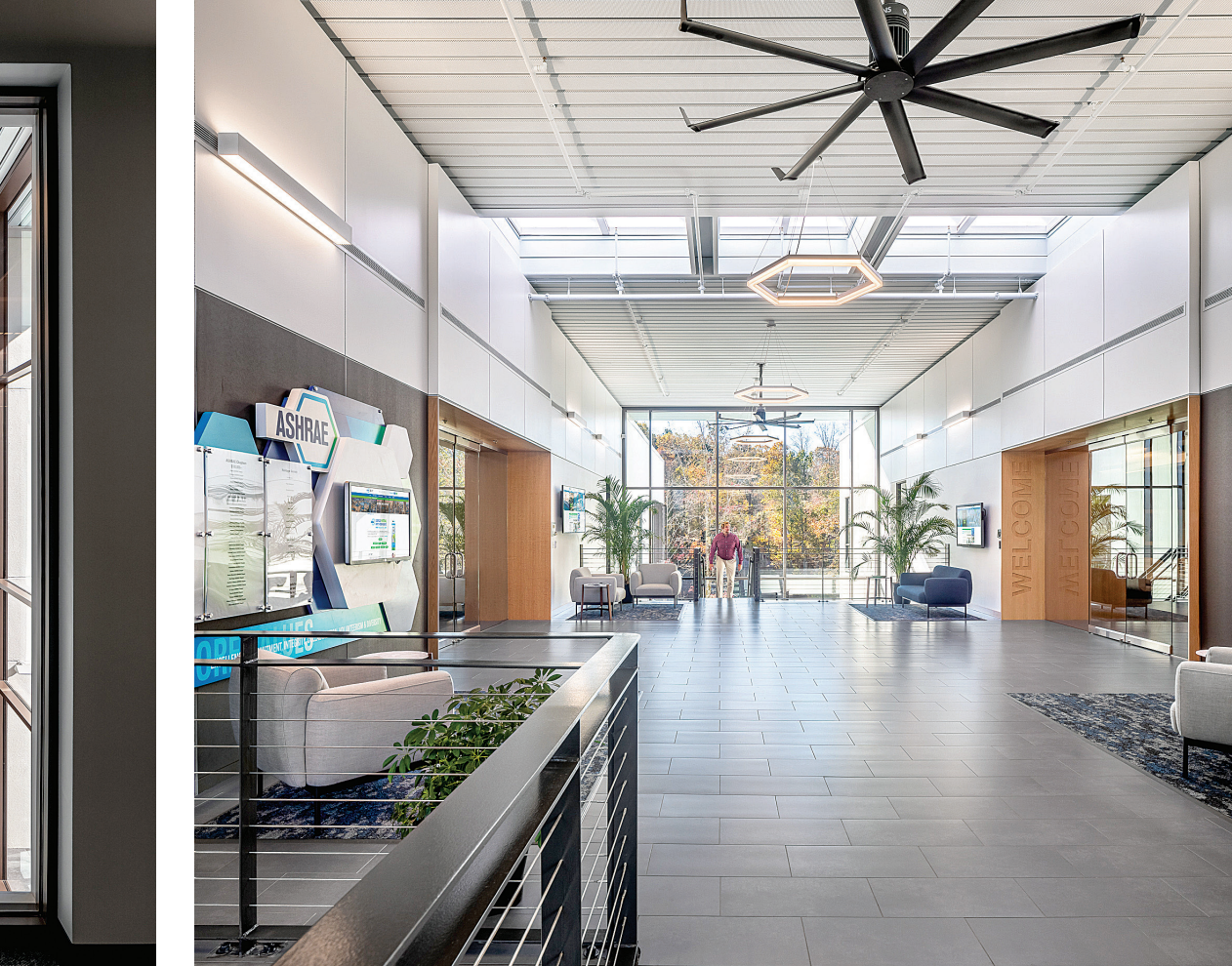
Jeff Littleton

ing the public good. ASHRAE's priority is not what might make your HVAC contractor the biggest paycheck, Littleton said, but what will best ensure "health and human comfort."

"We have an obligation to serve the public trust," said Littleton. "... We are a true-blue professional society, and that drives a lot of what we do."

By John Ruch





PHOTOS COURTESY OF ASHRAE

The energy efficiency of buildings is a major standard set by ASHRAE, whose word has been federal law for decades.

“Back in the 1970s, when the oil embargoes caused oil and gas shortages in the U.S. and lines at gas stations and all that, the U.S. Department of Energy came to ASHRAE and said..., ‘The built environment in the United States is

burning too much energy and we need to cut back on that,’” said Littleton.

The result was a regularly updated code for commercial buildings in federal law that has been adopted by many state and local jurisdictions as well. On such standards, ASHRAE goes beyond heating and cooling to virtually every “building technol-

ogy” related to energy usage.

It’s one of the ways, Littleton said, that ASHRAE is a “really big player in trying to mitigate climate change.” He noted that while motor vehicles are often depicted as the villains of climate change, buildings are major factors: 35% of the world’s final-customer energy use and 40% of energy-related green-

house gas emissions, according to ASHRAE.

Last year, ASHRAE responded to another national crisis: the COVID-19 pandemic. “People started calling us [asking], ‘What do we do? What do we do when we find out someone in our 10-story office building had

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COVID?” Littleton recalled.

ASHRAE quickly formed a pandemic task force and sub-committees with more than 100 members, including not only industry experts, but also medical doctors and epidemiologists. In some ways, it’s familiar turf for the society, which writes standards for hospital ventilation systems and how to prevent outbreaks of some specific bugs, like the air-conditioning-loving bacteria that causes Legionnaires’ disease.

For COVID, the society is regularly devising best practices and rules for preventing the coronavirus from blowing around inside buildings, with everything from air filters to virus-zapping ultraviolet systems addressed. “Right now, we’re developing a ... guidance document on outdoor dining because we’re getting requests from jurisdictions that want to get those open as soon as possible,” said Littleton.

While ASHRAE always develops its standards and practices with public input and review, one way it makes money is keeping the final documents exclusive and selling them to authorities and organizations. But not with COVID guidance. All pandemic-related material is

free to view and download from the society’s website.

“We certainly don’t want to profit from the fact that the pandemic is going on,” said Littleton. The society finds it rewarding enough that its task force experts “have really risen to that challenge. It’s really had a big impact. ... We’re really proud of that work as an organization.”

ASHRAE aims to live up to its own standards. It did so when it moved in 1984 from New York to metro Atlanta, building a high-efficiency headquarters in DeKalb County near I-85 and North Druid Hills Road. That site is now in the young city of Brookhaven and neighboring Children’s Healthcare of Atlanta, which has a \$1 billion hospital project that made it clear it was time to move again. The society looked around for a site to set a new standard with its headquarters — and found it in Peachtree Corners.

Littleton said the attractions were plentiful. Hotels, green space and restaurants for the many visiting students and experts. A “high-tech look” and fellow cutting-edge infrastructure enthusiasts, like the Technology Parkway autonomous vehicle test track.

ASHRAE now calls home an

old office building at 130 Technology Parkway that dates to 1978. Instead of tearing it down, the society retrofitted it into a futuristic, hyper-efficient HQ. Its interior is heated and cooled with a “hydronic” system of fluid-filled panels instead of duct-blown air, and by the end of April the site will be studded with solar panels. The goal is a “net-zero-energy” building, meaning it will create as much energy as it burns. In short, ASHRAE is doing what it tells everyone else to do.

“If we, as a society, are really going to reduce the energy consumption in the built environment that contributes to climate change and all of that, we have to deal with existing buildings,” said Littleton. “... So ASHRAE is walking the talk.”

In the society’s public spirit, the building is also an experiment, “a learning lab, a showcase to demonstrate what’s possible.” Eventually the building will have an online dashboard publicly displaying its energy performance to see if it’s living up to its promise.

“A lot of building experts around the world are watching very closely,” said Littleton. “You throw enough money at any building, you can get there. But can we demonstrate that we can

do it in an economical way?”

Much of that experiment is on temporary hold in the pandemic, which has already taken the wind out of what was supposed to be a banner year for ASHRAE. In 2020, the society planned to celebrate its 125th anniversary — counting from an 1895 debut annual meeting of its ancestor organization — and to have a major grand opening celebration at the new headquarters. Now health concerns have the society shying away from even a ribbon-cutting, and most of the 110 staff members remain working from home to avoid COVID.

But that, too, shall pass, and ASHRAE is looking forward to enjoying its new home and setting new standards.

“We’re excited to be here in Peachtree Corners. It’s a cool place. It’s got hotels and restaurants and everything close by,” said Littleton. “Working with the folks from the city of Peachtree Corners has been great. They’re very responsive.

“It’s just ironic that we’re not really using the building right now, but it’s going to be really neat.”

For more about ASHRAE and its work, see [ashrae.org](http://ashrae.org). ■