

CASE STUDY

When the Perkins and Will architectural firm's Toronto studio relocated to the city's downtown core, they renovated their new space to create a work environment focused on employee health, wellness and happiness. And by using products recognized for their transparency efforts and reduction of harmful materials – including cabling from Superior Essex – their renovation earned both LEED v4 Gold and FitWel 2-Star certification, creating a sustainable, intelligent space that exemplifies design excellence.

Perkins&Will

WHEN THE EXPERTS DESIGN FOR THEMSELVES

COMMUNICATIONS CABLE FROM SUPERIOR ESSEX CONNECTS PERKINS AND WILL'S NEW, SUSTAINABLE, SELF-DESIGNED TORONTO STUDIO

DOWNSIZING TO UPGRADE

When the leaders of the Perkins and Will Toronto studio were first considering renovating their office back in 2017, they decided to open up the floor – quite literally – to input from their own team of architectural experts. Their interdisciplinary design studio is full of forward-thinking individuals who believe in the power of design to transform people's lives – by transforming the places in which they live, learn, work and play – and they take pride in shaping communities at every scale, even their own. By sourcing ideas from their own experts, what the team landed upon was a collective idea greater than what any of them could have designed alone.

As a result, Perkins and Will moved their Toronto studio to a midcentury tower located in the heart of downtown Toronto – downsizing from 14,000 sq. ft. to 8,500 sq. ft., making their office far more accessible to employees and clients alike and creating a space that prioritizes employee health, wellness and happiness. Completed in late 2018, and all connected by Superior Essex Communications cable, the new Toronto studio of Perkins and Will has become a sustainable, living lab and a gallery capable of simultaneously showcasing the design studio's work and enriching the lives of their people.



As one of the top architectural firms in the world, Perkins and Will is a known leader in designing gorgeous, Sustainable Intelligent Buildings, and they gladly applied their 85 years of design knowledge and experience to create a sustainable, market-leading built environment for their own Toronto studio.

SUSTAINABLE DESIGN, WITH EVERYONE IN MIND

At the outset of this project, the design team at Perkins and Will conducted a survey internally within their Toronto studio to gauge the needs and wants of their community of designers. What they learned as a result was that most of their employees were already living downtown, so they decided to relocate their office there to make it easier for their designers to come to work. "This move was part of a grander initiative to try to move people to a more central location to better serve our clients, as well as provide people with better access to public transit to come to work using more environmentally friendly options," said Zeina Elali, Senior Sustainability Advisor at Perkins and Will Toronto.

Moreover, the team also knew from the very beginning that they wanted to go after both LEED and Fitwel certification with this renovation, thereby showcasing their dedication to sustainability within their own home as well. As Elali said, "We believe that an integral part of being a good designer is considering the immediate environment and the people in them in terms of the health and wellness of the spaces that we create." Thus, developed for and by a studio that leads the industry in sustainable design, this project was conceived as a transformation not only of a workplace but of a design environment and culture.

"We are especially prioritizing Superior Essex products for projects seeking LEED certification, courtesy of the environmental information available for them. We're working with building contractors to get Superior Essex products in, as they are the only cable manufacturer we know of that has EPDs, HPDs and is Red List Free compliant."

// Zeina Elali, Senior Sustainability Advisor, Perkins and Will Toronto



Where the architects want to work – Perkins and Will's own employees got the rare opportunity to create their own office, and they used data-informed design to maximize their space for both utility and sustainability.



The studio's material concept celebrates the existing architecture by exposing the concrete floor, columns, waffle slab and mechanical systems. The introduction of soft, natural finishes creates a striking contrast with the raw structural elements and makes for a timeless palette.

21,000 FT

SUPERIOR ESSEX
10GAIN® CAT 6A CABLE



4,000 FT

SUPERIOR ESSEX
SERIES 77 CAT 6 CABLE



42%

REDUCTION IN
LIGHTING POWER DENSITY

50%

(APPROXIMATE)
REDUCTION IN OVERALL
ENERGY CONSUMPTION

41%

REDUCTION IN
WATER CONSUMPTION



Despite downsizing to a smaller office, employees have reported being far happier now, courtesy of the design team's smart use of various types of available spaces, enabling the employees to make the most of them for getting work done together.

CREATING A HAPPIER AND HEALTHIER WORK HOME

The studio's move from their previous location and subsequent office renovation were driven by three key goals: To prioritize accessibility, to continually inspire their designers with a new environment and to "walk the talk" as an office that truly embodies sustainable design excellence.

CHALLENGES

Connecting with the Design World, Both Local and Afar

Inspiring Their Employees by Meeting Their Needs

Meeting the Sustainability Certification Criteria

SOLUTIONS

Relocate to a new, smaller space – and then renovate it to make better use of it

- After conducting a survey of their employees to learn from where they were traveling to come in to the office, the design team selected a building more centrally located – in the heart of downtown Toronto – to be closer to home for their employees and more accessible for their clients.
- Plus, in moving to their new space, Perkins and Will actually downsized from 14,000 sq. ft. (for 64 employees) to 8,500 sq. ft. (for 82 employees). As Elali said, "People actually like it quite a bit, which had nothing to do with the actual square footage and everything to do with the types of spaces available and how people felt about them."

Focus on employee health, wellness and happiness by way of data-informed design

- Prior to the renovation of their new space, the Perkins and Will design team gathered data from survey responses and usage patterns throughout their previous office space. By noting the occupancy rates and frequency of use for the employee workstations and the meeting rooms, the team learned that a maximum of 60% of their office was occupied at any given time. Thus, there was no need for a dedicated space for every single person at all times.
- Instead, they created a free-address workstation system where employees can claim a workstation anywhere on the floor that fits the needs of their work that day when they are in the office. This system was complemented by numerous, flexible, multi-functional spaces and meeting rooms. As a result, Perkins and Will is now hosting many more internal and industry events. "It's about designing a space that makes better use of the space that we have, and employee satisfaction has had an amazing bump as a result," as Elali pointed out.
- In addition, the design team also paid close attention to the employees' needs in terms of lighting, air quality and sustainability.

Work with Superior Essex and other sustainability-focused partners

- "Sustainability was of high importance for our employees, both in terms of being in an environment that considers their health and wellness, and one that also minimizes our impact on the overall environment," said Elali. As a result, Perkins and Will designed a forward-thinking space and program that incorporated LEED v4 ID+C criteria from the project's onset and took a rigorous approach to transparency to create an environment that is sustainable, healthy, adaptable and inspirational.
- To achieve this, Perkins and Will started by focusing on the right kind and amount of lighting available throughout the space, while always keeping energy conservation in mind. Their lighting designer created a flexible, full-LED lighting system paired with occupancy sensors in all the spaces. The team also did a day light analysis to know how much to expect in their space at different times of the year, and then they prioritized that and adjusted accordingly with the use of artificial lighting.
- Perkins and Will also screened 100% of materials and finishes against the firm's own Precautionary List – which they pioneered in 2008 and notes 53 common chemicals in building materials that are harmful to occupants and the overall environment – and then eliminated them to the greatest extent possible. They also sought out products that promoted transparency by way of Environmental and Health Product Declarations (EPDs and HPDs), of which Superior Essex had many.

WHY SUPERIOR ESSEX?

While attending an industry event, Elali learned that Superior Essex manufactures Red List Free products and proudly participates in transparency efforts – namely EPDs and HPDs. So, after meeting with Elaine Kasperek, Regional Sales Manager in Canada, and Annie Bevan, Global Head of Sustainability, they all saw how aligned Superior Essex and Perkins and Will were in terms of sustainability.

“Historically, we had never thought about communication wiring as having any harmful ingredients or even being reviewed for its health factors. But, when we started digging and found that Superior Essex actually has the EPD and HPD information readily available for a number of their cable and wiring products, that was excellent. We also found that their products were Red List Free compliant, which was excellent because it was right in line with our Precautionary List of ingredients that we were trying to avoid.”

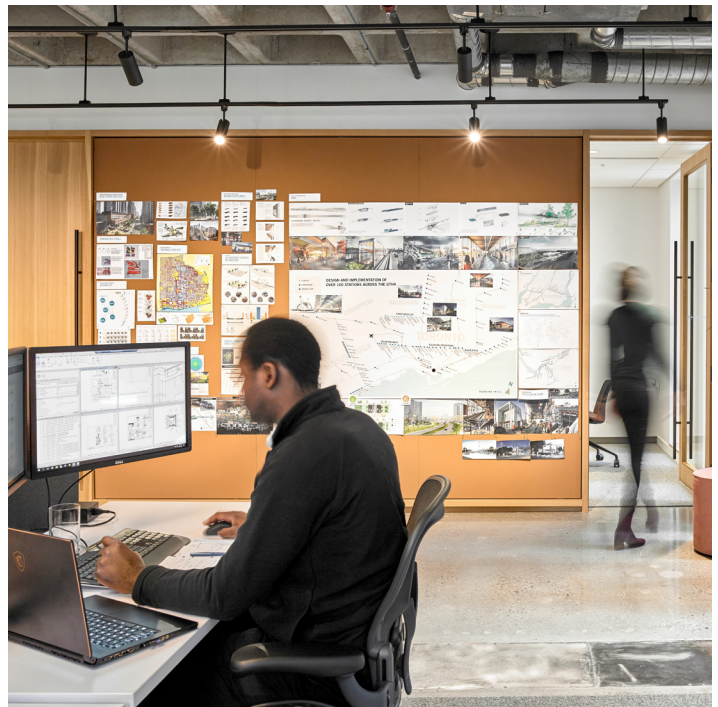
// Zeina Elali, Senior Sustainability Advisor, Perkins and Will Toronto

As a result, the Perkins and Will team deployed a total of over 25,000 ft. of Superior Essex 10Gain CAT 6A and Series 77 CAT 6 cabling products for high-bandwidth, structured networking applications throughout the office to help bring their space to life.

When speaking on her experience working with members of the Superior Essex team, “I loved working with them both,” Elali said of Kasperek and Bevan. “They are incredibly helpful and quite honest about their current and ongoing sustainability initiatives. We were very happy to see that their products were right in line with what Perkins and Will was trying to achieve in our office.”



Perkins and Will has designed a forward-thinking space and program that incorporated LEED v4 ID+C criteria from the project’s onset and took a rigorous approach to transparency to create an environment that is sustainable, healthy, adaptable and inspirational.



Free-address workstations allow staff to gather with their teams and choose where and how they work each day. All workstations are height adjustable and have direct access to daylight, views and vegetation.

ENJOYING THE COLLABORATIVE BENEFITS

By maintaining a design philosophy that was open and collaborative – as exhibited by data-informed design (occupant satisfaction surveys and documented usage patterns) in conjunction with visioning sessions, staff interviews, pilot programs and prototyping – the Perkins and Will Toronto studio realized numerous benefits from their renovation – for occupants, environment and company alike.

Benefits for the Occupants

• Downsized into a new, multi-functional, adjustable space

- Created the types of workspaces that employees wanted and would feel both good about and productive while working within them
- Flexible, free-addressable (unassigned) seating/ workspaces/desks for associates
- Numerous, varied, adaptable gathering/public/ meeting spaces
- Introduction of new social spaces has fostered the development of a rich office culture

• Site ecology and biophilia

- Integration of lush plantings and generous greenery throughout the space
- A variety of lighting styles brings a sense of nature and biophilia given the project's dense, urban, downtown location

• Location and proximity

- New location encourages active transport while also providing access to a wide variety of healthy food options, gyms and other services – enabling healthier lifestyles even when employees are not at work
- 50% increase in employees walking, biking and taking public transit to work

• Material strategies ensure a healthy indoor environment

- Abided by Perkins and Will's own Precautionary List of product ingredients
- Made great use of Red List Free products
- Obtained EPDs and HPDs for the 20 most-used products throughout



Purposefully located in a highly accessible area in downtown Toronto – with access by subway, buses, bicycle network and walking – the new studio space accommodates alternate modes of transportation and prioritizes employee wellbeing.



The kitchen/lounge is the heart of the office. It serves as an informal workspace, a social space for staff and a welcome area for clients and visitors.



The introduction of new social spaces has fostered the development of a rich and collaborative office culture.

Benefits for the Environment

- **Project awarded sustainability certifications**

- LEED v4 ID+C Gold
- Fitwel 2-Star

- **Materials strategies to reduce waste**

- 80% of construction materials diverted from landfill
- 14% of materials made from recycled content
- 20% of materials extracted and manufactured locally
- 26 metric tons of materials to be reused or recycled
- All wood is FSC-certified

- **Meets AIA 2030 Commitment**

- Evaluates the impact of project design on energy performance to aid all new buildings, developments and major renovations to be carbon-neutral by 2030
- Carbon-neutral space (by purchasing carbon offsets) for the next 5 years



The numerous conference rooms and huddle spaces throughout the office are equipped with 100%-LED lighting, occupancy sensors, network connectivity and A/V capabilities – all connected by Superior Essex cable.

Benefits for the Company

- **Happier, healthier, more inspired, more productive employees**

- **40-50% overall reduction in energy consumption costs from previous campus**

- 42% reduction in lighting power density by using 100% LED lighting fixtures
- Occupancy sensors are used for 100% of connected lighting loads; daylight sensors are used for 75% of connected loads
- Water fixtures are immensely low-flow (1.4L/min.) as well as the very first in Canada to be this efficient
- 98% of all new equipment is EnergyStar rated

- **Less overhead by moving to a smaller, better-fitting campus**

- 25% reduction in floor area while dramatically expanding the range of spaces and the flexibility of program offerings

ONWARD TO THE NEXT INNOVATION

By combining cutting-edge workplace design, holistic health and wellness strategies, inclusivity, sustainability and timeless materials and craft, the Perkins and Will design team leveraged the raw quality of the base building to create an inspiring studio environment. And they plan to repeat this time and time again.

To date, the Toronto studio of Perkins and Will has designed and built a total of 53 Sustainable Building projects (either certified or to-be certified by one or more sustainable rating systems) of the 782 total across the entire international firm. And their next developments are moving ever closer toward net-zero projects and resilient buildings with RELi certification from CaGBC, which takes into account future-proof planning and design. “We are dedicated to sustainable design,” said Elali, “and we remain trendsetters in this space because we are constantly looking to improve, and we evaluate our practices regularly.”

Perkins and Will’s focus on transparency and material health began in force in 2008. In fact, the firm’s website claims to have more LEED accredited professionals than any other design firm in North America, and, appropriately, every single member working on a building project is required to have LEED certification. Thus, when they plan to continue specifying Superior Essex products for future design projects, it’s a powerful stamp of approval.

By relocating to a smaller, better-fitting office – and then renovating it while keeping sustainability in mind at every step along the way – the Perkins and Will team designed and outfitted their own Toronto Design Studio into a sustainable, market-leading built environment focused on employee health, wellness and happiness. And by using products known for their incorporation of healthy materials and transparency efforts, including cabling from Superior Essex, their renovation earned both LEED v4 Gold and FitWel 2-Star certification, thereby showcasing a combination of holistic sustainability thinking and inspirational expression that exemplifies design excellence and demonstrates their sustainable leadership. //



After the complete gutting and sustainability-focused renovation of their new office space, the Perkins and Will Toronto studio reduced their carbon footprint by 25%, cut their overall energy consumption approximately in half and drastically increased their employees’ health, happiness and wellbeing.