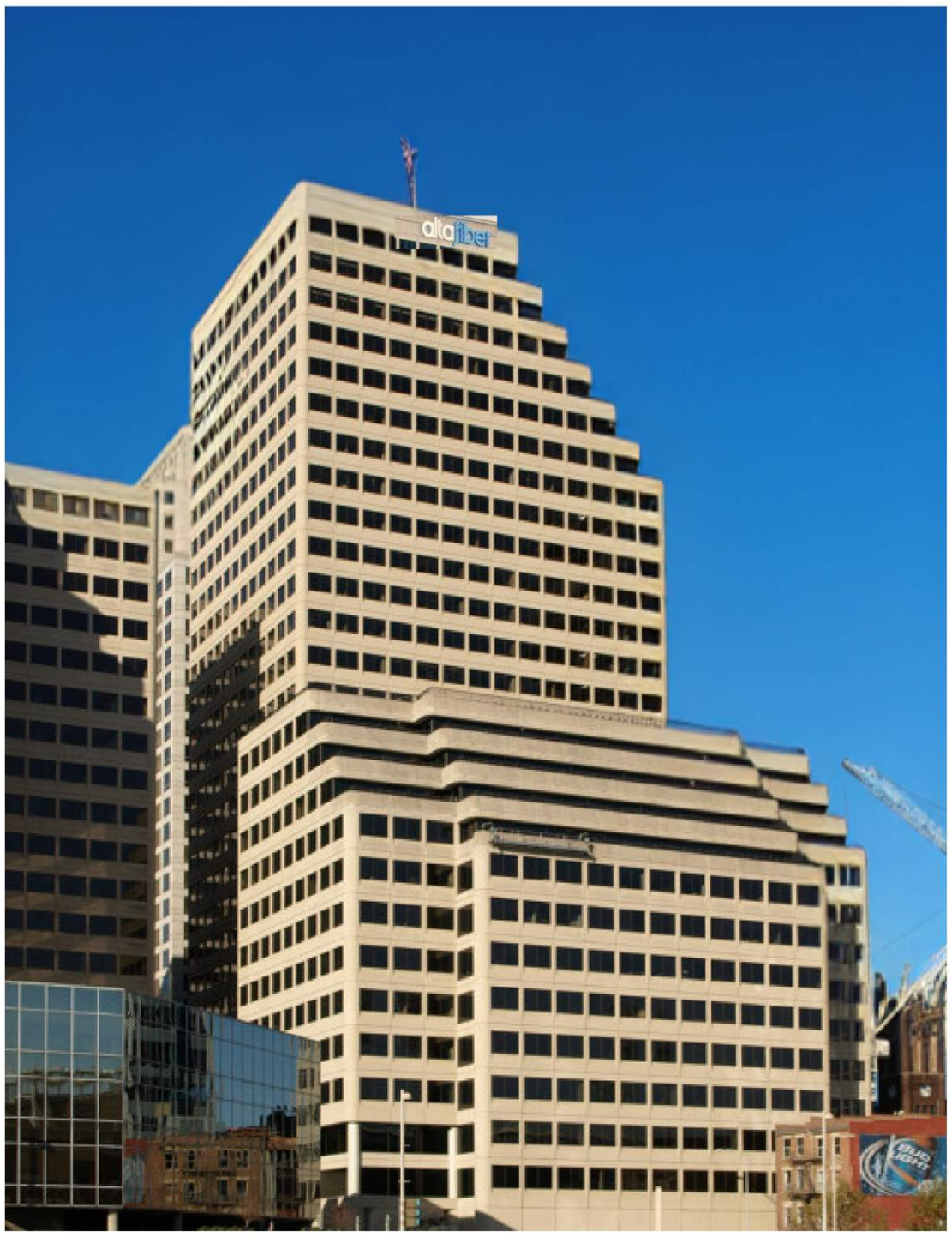
LEED for Interior Design & Construction (ID+C) Commercial Interiors (CI), version 4 Case Study

altafiber's HQ: A Green Office Renovation Case Study



Project Overview

altafiber is a telecommunications network provider of high-speed internet, video, voice and data headquartered in Cincinnati, Ohio. In 2023 altafiber consolidated its HQ offices from seven floors to two at the Atrium II building, a class A, LEED Gold O+M (2016) certified office tower. Inspired by altafiber's work model that emerged from the Covid pandemic, the renovation created a modern work environment focused on transparency and connectivity for a hybrid workforce. The HQ is designed to keep and retain top talent via technology, openness, flexibility and comfort.

Sustainability priorities

altafiber enrolled its Atrium II office in the Cincinnati 2030 District in 2018, committing alongside other District members to reduce its energy, transportation and water use and optimize the indoor environment for occupant health by 2030. While modernizing the workplace, the renovation also achieved all commitments of the 2030 District and LEED Silver certification.

Snapshot

- Address: 221 E 4th street Cincinnati OH
- Start date: sept. 2022
- Where: Floors 9 and 10
- GSF renovated: 69,350 square feet
- FTE approx. daily: 166
- Daily average visitors: 15
- Peak visitors: 45

End Results

- Reduced lighting power use by 40%
- 89% of appliances are ENERGY STAR.
- Reused 35% of furniture
- Protected indoor air quality with increased ventilation, improved air filters, and careful selection of low-emitting interior finishes
- Reduced indoor water use by 30%
- Diverted 81% of demolition and renovation waste from the landfill
- Selected "green" materials with chemical transparency, end-of-life recycling, and recycled or bio-based content.

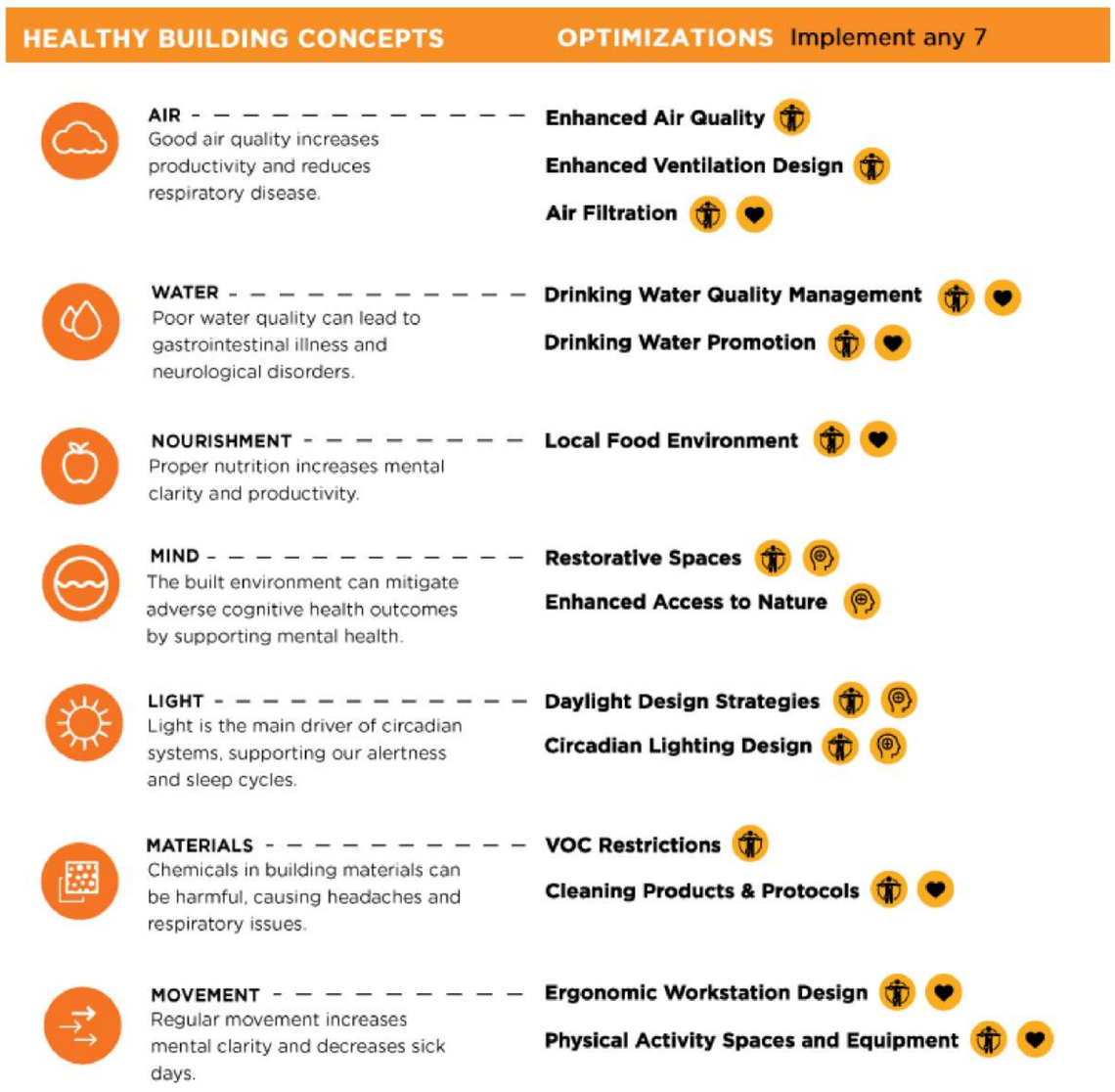
LEED Credit Achievement

Category	Points
Integrative Process	2/2
Location and Transportation	16/18
Water Efficiency	5/12
Energy and Atmosphere	12/38
Materials and Resources	6/13
Indoor Environmental Quality	4/17
Innovation	5/6

Cincinnati 2030 District

The Cincinnati 2030 District works with members to reduce energy and water use and transportation related emissions by 50% - areas in which Atrium II scored high points. In 2022 the District also became the first to establish a "healthy building model" for its members, asking them to implement at least seven healthy building "optimizations" (see graphic) in their offices. The design of the new altafiber HQ meets the criteria for enhanced ventilation design, air filtration, drinking water promotion, enhanced access to nature, daylight design strategies, VOC restrictions, and ergonomic workstation design. Specific criteria met are available in the District's Occupant Health Guide.

Meeting these requirements allowed us to address and improve indoor air quality, promote wellness and improve the health of building occupants via proven design strategies.



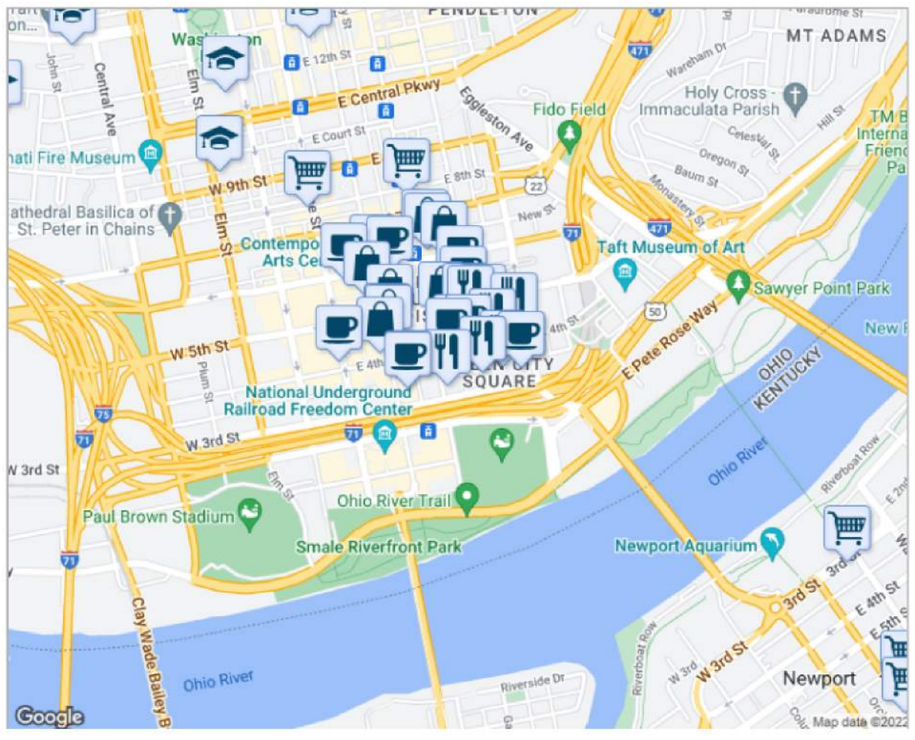
LEED V4 ID+C: CI

Performance and Strategies

Integrative Process

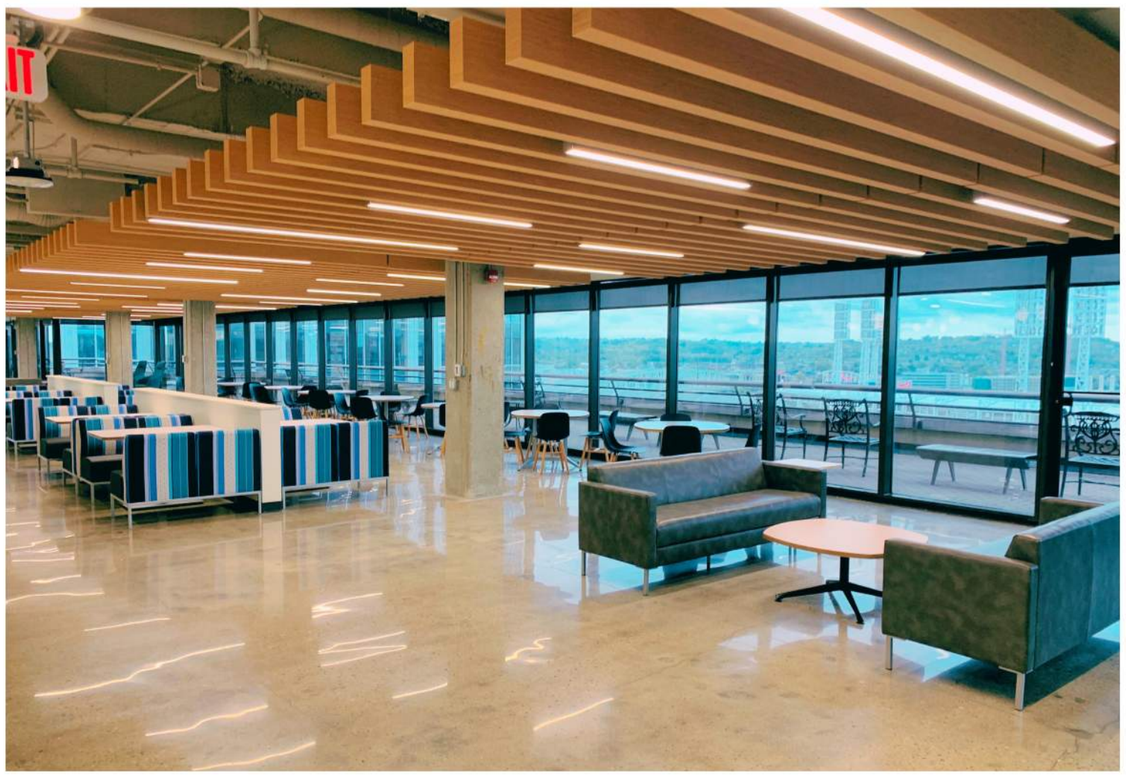
The Atrium II renovation followed a collaborative, integrative design process, where aspects of sustainability were considered across all program elements: layout, lighting, HVAC, building plug load, existing site conditions such as transportation, and lighting levels. As an integrated team of designers, engineers, owners, and specialists, we considered and analyzed different scenarios of layout, configuration, water use, energy use, indoor environmental quality, ergonomics and health. For example, through multiple design iterations we arrived at an open layout connected via a monumental main staircase maximizing efficiency, daylight, accessibility and views. Furnishings, a living wall and live plants provide comfort, ergonomics and a connection with nature. Our integrative process earned two LEED points.

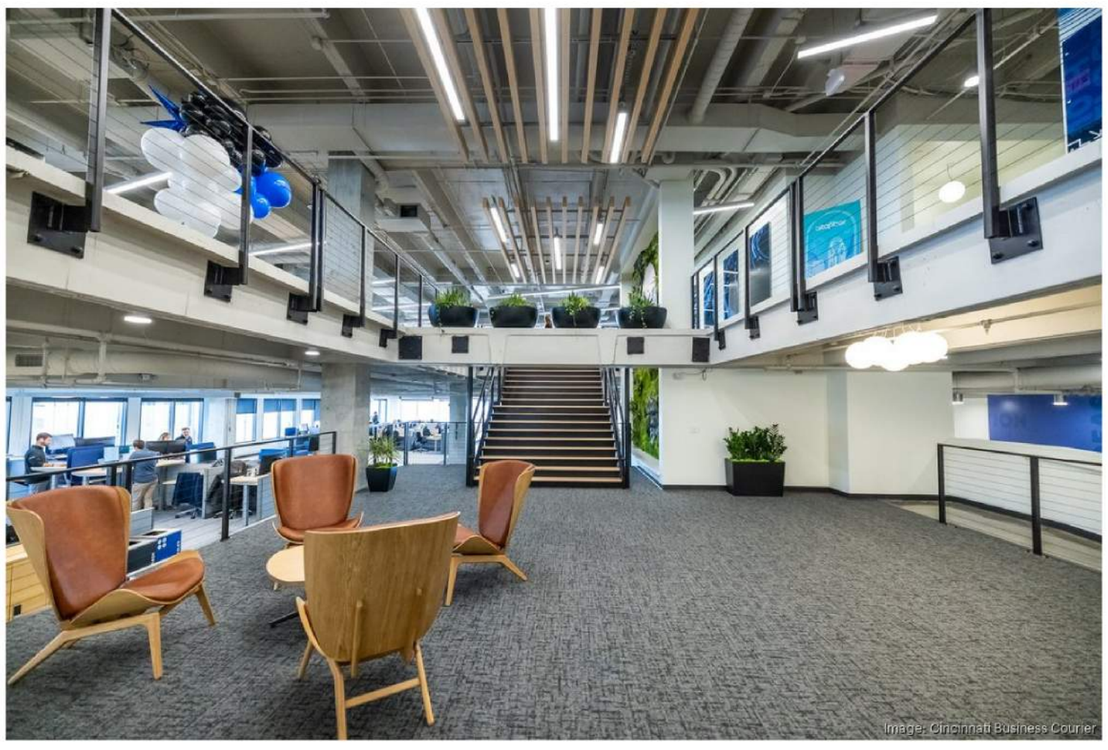
Location and Transportation



Atrium II is within easy walking or biking distance of variety of amenities including food, shopping, and exercise. This aspect of a building (surrounding density and diverse uses) can reduce driving and increase employee wellness.

Our building received a Walk Score of 90, making it a "walkers paradise" meaning daily chores do not need a vehicle. Access to quality public transit is another important piece. Nearby public transit routes, frequency, hours of operation, and ease of use were analyzed. The central bus hub is 1/5th of a mile from our building, all coming together to give this location a transit score of 82 and a bike score of 62, meaning it has excellent convenient transit and some bike infrastructure. This earned us eight LEED points.





Water Efficiency

Atrium II achieved water efficiency by using low-flow and WaterSense certified bathroom and kitchen fixtures, from the faucets and dishwasher to the toilets. Our dishwashers and ice machines are best-in-class energy and water saving ENERGY STAR appliances. These measures reduce our annual water use by 88,800 gallons, giving us a 30% reduction. This earned us four LEED points. We also provided drinking fountains with bottle filling stations to encourage drinking tap water and reducing plastic waste.

Energy and Atmosphere

All of Atrium II's mechanical, electrical, and plumbing systems went through a comprehensive commissioning process to ensure they are operating as designed at with optimal energy efficiency. This process included ensuring aspects such as energy performance, load management, and resiliency. Periodic visits were made to document proper installation as well as to complete functional testing.

Atrium II uses 89% ENERGY STAR equipment. In addition, by using LED lighting and occupancy sensors, we reduced energy use for lighting needs by 40%.

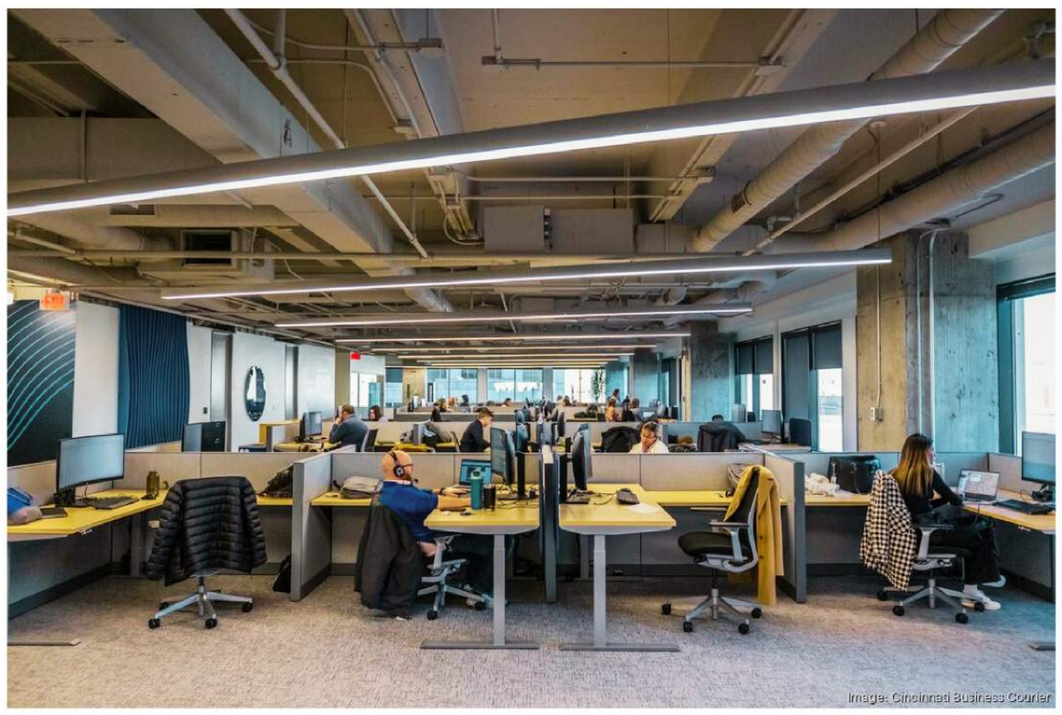
This building also does not use CFC refrigerants, which are damaging to the ozone, and refrigerants are properly managed to avoid global warming potential caused by refrigerant leaks. These strategies earned us twelve LEED points.

Materials and Resources

In the demolition and renovation process, we carefully diverted 83% of waste away from the landfill by reusing, recovering, and recycling materials.

The new altafiber HQ is also built and furnished with thoughtfully selected "green" materials including flooring, ceiling tiles and panels, paints, wall systems, drywall, furniture, and insulation. We procured products and materials that provided chemical transparency and disclosure, end-of-life recycling, and meet environmental criteria such as recycled or bio-based content.

In addition, our system furniture was re-skinned and reused, which both lowered costs and avoided the environmental impacts of purchasing new workstations. These strategies earned five LEED points.



Indoor Environmental Quality

Air quality was a concern from construction through occupancy. To ensure construction debris did not impact our air quality, any air filters used during construction were replaced with high-grade filters prior to occupancy. To eliminate any opportunity for mold growth all absorptive materials like carpet and ceiling tile were kept dry, covered and stored above-grade on dunnage until installed. Housekeeping and ventilation measures were enforced.

To further protect indoor air quality all furniture, paints, flooring, wall panels, ceiling tiles and insulation were carefully selected and tested to emit no or low volatile organic compounds (VOCs) in the air.

The ventilation to our renovated floors was rebalanced and commissioned to assure ample fresh, outdoor air circulates, entering our space through high-grade filters into rooms with live plants that provide the best air quality for altafiber employees. These strategies earned us four LEED points.

The work environment also provides views to the out-of-doors from every workstation, and adjustable height work surfaces and ergonomic chairs.

Innovation

We have chosen to innovate in ways that show our commitment to environmental sustainability and to the best work environment for altafiber employees. We created green educational signage which our employees can access in different spots all around the office. The QR codes on the signs (examples left) can be scanned to read through more info about our green office or green living practices. In addition, we earned exemplary performance points for green and low-emitting materials.