

# ISO New England Campus Earns U.S. Green Building Council Gold Certification



ISO New England's two-building campus in Holyoke, Massachusetts, is the first commercial corporate headquarters in New England to be awarded gold certification from the U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Green Building Rating System™. This consensus-based program encourages and helps facilitate the design, construction, and operation of high-performance green buildings. The LEED™ program rates buildings according to a four-tier system—certified, silver, gold, platinum—evaluating key elements of human and environmental health, such as site sustainability, water and energy efficiency, materials use, indoor environmental quality, and other innovations.

ISO New England remodeled its existing facility and constructed an adjoining building in 2006 and 2007. LEED™ accredited designers and contractors developed the following features that earned the ISO campus gold-level certification.

## Innovation and Exemplary Performance

- During construction and renovation, 96% of the waste materials from existing wall, floor, and roof elements were recycled, diverting 6,894 tons of construction waste from landfills.
- While only 5% recycled content was needed to earn LEED™ points, 16% of the building materials used—including 90% of the steel structure, aluminum parts, gypsum wallboard, irrigation pipe, sheet rock, ceiling tiles, carpet, glass, and pine bark mulch—were manufactured from recycled content.
- The roofs were covered with an Energy-star-rated material that reduces “heat island effect”
- A green housekeeping program was established. This involved developing a policy statement, generating a list of the cleaning materials to be used, and training workers.
- Renewable energy credits were purchased totaling more than 2 million kilowatt hours, or two years worth of the buildings' electricity consumption, to help avoid production of carbon dioxide emissions by power plants.

## Materials/Resources Conservation and Recycling

- Forty percent of the materials used in the construction and renovation project were manufactured within 500 miles of the project site.
- Appropriately sized areas within the campus are dedicated for collecting and storing recycling materials, including cardboard, paper, plastic, glass, and metals.

## Energy and Water Efficiency and Protection of the Atmosphere

- The buildings comply with applicable energy performance codes and are **35.6% more energy efficient than the minimum standard** set by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE).
- Energy-efficiency measures include improved wall and roof insulation; high-performance windows; low power densities for installed lighting; occupant-sensor lighting controls; premium efficiency motors; high-efficiency boilers; demand-controlled ventilation; and evaporatively cooled heating, ventilation, air conditioning (HVAC) units.
- HVAC and refrigeration systems contain no chlorofluorocarbon-based refrigerants.

- The buildings' complex systems were commissioned to ensure that they function according to design, installation, and maintenance requirements.
- Per the International Performance Measurement and Verification Protocol, the energy and water efficiency of the equipment and systems—including lighting, motor and cooling loads, ventilation air volumes, boiler operation, kitchen and computer process energy, and gas and water use—was verified using the current best practice techniques available.
- Low-flow lavatories, kitchen sinks, and showers consume 26% less potable water than standard systems.

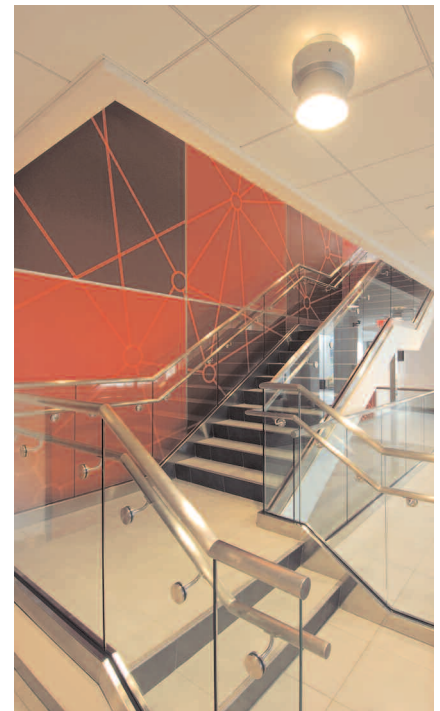
## Indoor Environmental Quality (IAQ) Protection

- The buildings comply with IAQ performance requirements of the ASHRAE standard.
- During construction and renovation, applicable guidelines of the Sheet Metal and Air Conditioning Contractors' National Association were followed. Air-handling equipment was sealed and not operated during construction. The appropriate level of filtration was installed, and a two-week air-quality flush out was conducted prior to occupancy.
- When applied, paints, sealants, and adhesives emitted low levels of volatile organic compounds (VOC), per the appropriate Green Seal environmental certification standard and other standards.
- Carpet systems comply with the VOC limits of the Carpet and Rug Institute Green Label testing program.
- All indoor composite wood materials contain no urea-formaldehyde.
- Smoking is prohibited inside; designated smoking areas are located away from building openings and air intakes.
- Carbon dioxide levels are monitored.
- Indoor-chemical and pollutant-source control measures are in place.
- A permanent temperature and humidity monitoring system maintains thermal comfort within the ranges established by ASHRAE.

## Outdoor Site-Sustainability

- Erosion and sedimentation are controlled per the applicable U.S. Environmental Protection Agency (EPA) standard.
- Stormwater runoff is managed via EPA's best practices for removing total suspended solids and total particulates.
- The landscaping includes native and drought-tolerant plants.
- The irrigation system consumes 89% less potable water than standard systems.
- Bicycle storage is available for 5% of employees, with amenities available for showering and changing.
- Preferred carpool parking spaces are available for 5% of employees
- The parking area includes 32 electric-vehicle recharging spaces (5.7% of total vehicle capacity).
- The parking capacity does not exceed minimum zoning requirements.
- Exterior lighting was designed per applicable Illuminating Engineering Society of North America guidelines for minimizing light pollution.

ISO New England is dedicated to maintaining practical and ecological facilities-management, waste-management, and purchasing programs to ensure it continually makes wise use of resources. The ISO also has an employee "Green Team" that develops ideas and plans for advancing additional sustainability initiatives.



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