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L.L.Bean to open LEED built data center - designed by Integrated Design Group

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L.L.Bean's new Data Center continues the merchant's commitment to build all new structures according to the US Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED). The USGBC's LEED program is a voluntary rating system designed to encourage companies to build environmentally sustainable, high-performance buildings. Designed by the architecture and engineering firm Integrated Design Group Inc. (idGroup) of Boston, the Data Center is expected to obtain LEED Silver certification, becoming one of the first LEED Silver certified data center in N.E.

"Designing a LEED built data center is an enormous feat. Data centers are industrial buildings that don't fit easily into the LEED concept," said Stafford Soule, director of L.L.Bean's information infrastructure. "idGroup was able to create a concept and design that incorporated our technical and environmental criteria."

Beginning with a conceptual design process, and the investigation of several sites, the idGroup design evolved to suit L.L.Bean's developing program. On a site adjacent to an existing L.L.Bean facility, the new 18,000 s/f Data Center meets the criteria of both LEED Silver and the American Society of Heating Air Conditioning Engineering (ASHRAE). Examples of LEED elements include regional sourcing of materials, minimized site disturbance and the recycling of 50% of all construction waste. The wood used for the structure's distinctive N.E. style shingles was harvested within a 500-mile radius, using sustainable forestry practices. Further ensuring LEED criteria was met, Chris Schafner and Erik Ruoff of The Green Engineer, based in Concord, Mass. consulted on the project.

"IdGroup is proud to work with L.L.Bean to design its first LEED built data center, which is the first of its kind in Maine, and in N.E.," said Brad Gray, idGroup project manager. "L.L.Bean's new Data Center combines the company's sustainability requirements with a design aesthetic that reflects its outdoor heritage."

The Data Center was designed to hold up to 144 racks to contain servers that support L.L.Bean's growing internet business. Each 4.2KW rack in a data center of this type produces 1400 watts of heat per s/f - 500 kilowatts total, or the equivalent of 340 hair dryers running nonstop. The Building Management System (BMS) informs the Computer Rack Air Conditioning (CRAC) units to absorb the appropriate amount of warm air generated by the racks and cool it over a series of coils, returning cool air into the room.