By David Lavender

LEED: SAVVY CONTRACTORS CAN PLAY A CRITICAL ROLE

Global warming, sustainability and LEED. These words that have emerged into popular culture are coming soon to your next project. What began with the environmental movement of the '60s, the oil embargo of the 70s and the energy crisis of the '80s, has now arrived as Sustainable Design in this next millennium. This is a chance for savvy contractors to offer unique, value-added services to their customers.

Prior to 2000, green buildings were designed for environment-related organizations as experiments in energy conservation, or as the product of building research. With the formation of the U.S. Green Building Council in 1993, the Canada Green Building Council in 2002, and the creation of the LEED system in 2002, a broad framework of measurable objectives for the development of sustainable building projects was made available for the first time.

The fundamental success of this program can be attributed to the high visibility of environmental concerns, on the part of the public, which has resulted in government organizations and commercial businesses mandating LEED building design requirements for political and marketing purposes.

Today, while only a small portion of the buildings constructed are LEED certified, the demand for LEED certification is growing. Public and private building owners are willing to invest in higher capital costs in exchange for improved operation and lifecycle costs, public relations and /or green market share. Material suppliers promote their products as a means to achieve LEED points, and are willing to provide additional support services for designers and contractors for buildings registered for LEED certification.

ABOUT LEED – FACTS & FIGURES

LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

LEED projects are in progress in 41 countries.

In the five years since LEED was first launched, more than 2,700 buildings and building projects have registered for certification under the rating system. Nearly 400 buildings have completed certification. (U.S.)

As of October 2007, 83 projects have received LEED certification in Canada.

Key sources: Canada Green Building Council (www.cagbc.org) and U.S. Green Building Council (www.usgbc.org)

Currently the CaGBC offers certification for only new construction and major renovations, including multi-family residential buildings and commercial interiors. Certification standards for core and shell buildings, retail, health care, laboratories, schools, and single family homes, are being developed by the USGBC. A two-year lag for adaptation for application in Canada should be expected.

Contractors have the choice to opt out of this market if there is enough standard building work, or invest in understanding the nature of sustainable design. Here are three areas where contractors can play a critical role.

DESIGN:

In the past, buildings were designed and constructed with a distinct separation between the architecture and the engineering. Separation of trades and the various building systems was also common, so that the minimum possible interaction was required between the trades. The resulting buildings frequently suffered from performance inefficiencies.

An Integrated Design Process (IDP) promotes the participation of building owners and occupants, design consultants, contractors, and material/building systems suppliers in the design process to collectively maximize the skills of each party and achieve the highest possible number of LEED points within the client's budget. This early involvement provides the contractor with an opportunity to bring their knowledge and experience regarding local construction practices, capabilities of trades, sources and performance of materials and building systems, to influence the design process. Bringing these skills to the design early ultimately saves time and money in the construction process, while improving performance of the building.

Some options for conditions of participation in these pre-construction services may include: exchange for being on a selected bidder's list, consulting fees, or under contract to construct the building as the sole source under a cost-plus fee format with fixed labor rates, or guaranteed maximum price.

BID:

Contractors should expect specifications that clearly describe each LEED goal and the responsibilities of each party for the requirements described in each LEED Template (certification submittal document), and then be prepared to comply.

Especially where the IDP is not used, contractors may be requested to provide additional bidding for alternative LEED procedures such as the graduated levels of: waste recycling, reuse of salvaged materials, and use of materials with recycled content. Alternative building systems may also be proposed that increase bidding difficulty.

CONSTRUCTION:

The verification process of LEED is demanding. Verifiable documentation of the origins, weights, and costs of materials with recycled, renewable, or salvaged characteristics and all other materials must be identified, collected, organized and calculated to achieve certain LEED points. Specific protection of delivered materials, and constructed assemblies, and the segregation of site, demolition, and construction waste and its diversion to recycling facilities are common requirements. Commissioning of more building systems by independent consultants/contractors is a pre-requisite to participation in LEED certification.

In order to meet these new requirements, contractors may need to designate and train at least one employee in excess of site supervision to manage the information and comply with LEED construction methods. As an alternative, the contractor may choose to hire a LEED consultant to administer their responsibilities for the project. In addition, each supervisor of a trade with a LEED requirement should be assisted and provided with sufficient information to successfully participate.

Compliance with LEED requirements is critical to obtaining certification. There is significantly more resistance to deviation from the bid documents during construction because of the impact to criteria set in the design stage to achieve LEED points both in the proposed change, and other related LEED characteristics of the design. Therefore, a quick evaluation or approval of a proposed change by the design consultant is

unlikely. When there is a compelling need for change, the information required from the contractor to justify the change and the implications for other LEED criteria may be extensive.

Constructing buildings with integrated materials and building systems designed to sustainable principles is more demanding in terms of understanding and technical ability until this process becomes more common. Traditionally, when higher quality skills are in demand, higher fees may be charged. The bottom line is that for contractors willing to increase their level of participation, and partner with designers and owners, LEED projects offer an opportunity for development of a marketable skill set and greater financial profits.

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RECRUITMENT DRIVE REACHES NEW HEIGHTS

Kelowna, B.C. – In its bid to outsmart the current skills shortage in the Okanagan region, FormaShape, a manufacturer of composite fibreglass, has constructed a 25 by 70 ft. recruitment notice on its roof. The company is targeting passengers/potential employees seated on flights into the nearby international airport. The unemployment rate in the region is only 3.7%.