PULTRON COMPOSITES MIDDLE EAST

	48	69
Sustainable Sites	9	14
Water Efficiency	4	5
Energy & Atmosphere	13	17
Materials & Resources	6	13
Indoor Environmental	12	15
Innovation & Design	4	5

Points Achieved Points Available

LEED POINT ACHIEVEMENT

FAST FACTS

LEED Certification: Gold, New Construction (NC) V2.2
Square Feet: 17,350 sq ft / Office & Factory
Neighborhood: Jebel Ali Free Zone, Dubai, UAE
Construction Cost: $84.03 / square foot
Completed: April 2010
Date of Certification: October 28, 2010

BENEFITS

- 41.4% Savings on Energy Use
- 38.9% Savings on Potable Water Use
- 32.87% Materials Use with Recycled Content

PROJECT BACKGROUND

A new resolution on the implementation of green building specifications and standards in the emirates of Dubai has been issued by H.H. Sheikh Mohammed bin Rashid Al Makhtoum, Vice-President and Prime Minister of UAE and ruler of Dubai. As per the new resolution, effective on January 2008, all owners of residential and commercial buildings and properties in the emirates of Dubai must comply with the internationally recognized environment friendly specifications to turn Dubai into a healthy city that meets the demands of best practices and benchmarks of pollution-free sustainable development.

Implementing this resolution, Dubai becomes the first city in the Middle East to adopt green building specifications and requirements. The resolution falls in line with Sheikh Mohammed's keen interest in dealing with the current environmental challenges.

In response to this resolution, we are proud to inform that "PULTRON COMPOSITES FZE" has been awarded with Prestigious LEED Gold Certification established by the U.S. Green Building Council and verified by the Green Building Certification Institute (GBCI). It is the sixth project in the UAE to achieve the LEED NC 2.2 Gold Certification.

PROJECT PROFILE

PULTRON COMPOSITES MIDDLE EAST, JAFZA Dubai, UAE

THE NEW BUILDING

Pultron Composites Middle East in Jebel Ali Free Zone, Dubai is a subsidiary of Pultron Composites Ltd -New Zealand. The total built-up area of 17,350 sq ft composed of office and factory facility as office to be used for white-collar plant staff as well as technical staff.

The Pultron Composite Group is a leading partner in the automotive and commercial vehicle original-equipment and replacement markets in the Middle East.

The new office and warehouse construction is designed in accordance with the managements' vision and principles to work towards environmental sustainability.

INDOOR ENVIRONMENTAL QUALITY

Superior environmental quality was achieved by Pultron Composites through many design features and in compliance with the minimum requirements of ASHRAE Std 62.1-2004, Ventilation for Acceptable IAQ. The building has strategically placed carbon dioxide monitors, and the ventilation system automatically increases fresh air intake if CO2 concentrations exceed specified level. Increased breathing zone, outdoor air ventilation rates to all occupied spaces by 30% is above the minimum required by ASHRAE Stds 62.1-2004. Temperature and humidity controllability are available for all shared occupant spaces, meeting ASHRAE 55-2004 accepted comfort standards. The facility uses building finish materials with low emission of volatile organic compounds (VOC) for adhesives, sealants, paints and coatings. The Factory & Office windows are design to harvest daylight as well as provides direct line of sight views for 100% of all regularly occupied areas.

ENERGY EFFICIENCY AND RENEWABLE ENERGY

Pultron Composites achieved an energy cost savings of 41.40% using the ASHRAE 90.1-2004 Appendix G methodology.

Energy efficiency measures includes:

- High efficiency HVAC equipment with VAV units
- Improved thermal envelope
- High efficiency glazing
- Reduced lighting power density through the use of LED lights both for the Factory and Office Area
- Occupancy sensors in corridor and timer control for both external and internal lights
- Incorporated Solar Hot Water System to further reduced energy consumption

MATERIALS & RESOURCES

The building has a designated recycling storage and collection areas. A construction waste management plan was developed and implemented which diverted more than 75% construction waste from landfill. The Project used construction materials with recycled content of about 32.87% of the construction materials cost and regional materials of about 27.51%.

OTHER GREEN FEATURES INCLUDE

100% of the on-site parking stalls are located under cover and 100% of non-roof impervious surfaces have been constructed with high-albedo materials, which meets exemplary performance requirement. It also provides vehicle access to support car and vanpooling as well as providing preferred parking for low-emitting and fuel efficient vehicle. Exemplary performance for maximize open space, which exceeds local zoning requirements by 50%, was met by planting with either native or adaptive plants and trees.

LESSONS LEARNED

- Project team submitted 49 credits and achieved 48 credits. It was a 98% of acceptance.
- Teamwork and dedication certainly paved the way for it to achieve the certification.
- Early decision and implementation of the LEED process is required for the success of a sustainable project.
- Proper documentation and delegation of work is needed.

THE TEAM

Owner: Pultron Composites Middle East

Design Consultant: Orion Engineering Consultants

Contractor: Fujairah National Construction

Green Building Consultant: Middle East Centre for Sustainable Development (MECSD), Dubai, UAE

LEED AP: Ms. Melanie Bacho & Mr. Ashraf Khan

Commissioning Authority: Pacific Control Systems

Photograph Courtesy of: MECSD