



CRUISE TERMINAL @ MINA RASHID



	38	69
Sustainable Sites	6	14
Water Efficiency	3	5
Energy & Atmosphere	8	17
Materials & Resources	6	13
Indoor Environmental	10	15
Innovation & Design	5	5

Points Achieved Points Available

LEED POINT ACHIEVEMENT

FAST FACTS

LEED Certification: Silver, New Construction (NC) V2.2
Square Feet: 55,530 sqft / Terminal Building
Neighborhood: Mina Rashid, Dubai, UAE
Construction Cost: \$148 / square foot
Completed: March 2010
Date of Certification: July 6, 2010

BENEFITS

- 24.7% Savings on Energy Use
- 44.2% Savings on Potable Water Use
- 30.50% 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 Maktoum, 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 "CRUISE TERMINAL @ MINA RASHID" has been awarded with **Prestigious LEED Silver Certification** established by the U.S.Green Building Council and verified by the Green Building Certification Institute (GBCI). It is the **first cruise terminal project in the Middle East** to achieve the LEED NC 2.2 Silver Certification.





PROJECT PROFILE

CRUISE TERMINAL, MINA RASHID, Dubai, UAE

THE NEW BUILDING

A new **CRUISE TERMINAL at Mina Rashid** is a 55,530 square feet government owned (DTCM) port terminal facility that will cater to the growing number of cruise tourists in Dubai. The facility was occupied on March 2010.

The new terminal is designed to handle four ships simultaneously and cater to the increased number of ship calls. This building functions as the terminal building for the in-coming and the out-going passengers traveling through cruise ships in Dubai.

Through the development of Dubai Cruise Terminal as a sustainable facility, the DTCM, with the cooperation and assistance of its guests, is contributing to the reduction of Carbon Footprint of Dubai.

INDOOR ENVIRONMENTAL QUALITY

To provide a comfortable and healthy indoor environment, Cruise Terminal includes filtered, conditioned, outside air rates at least 30% greater than those recommended by applicable standards.

The MERV 13 filters installed in the facility are able to remove 90% of the dust particles that are harmful to the occupants health. Dust and other contaminants are also kept out by permanently installed grates at the building's main entrance.

To improve occupant comfort, guests rooms were provided with an Energy Management System (EMS) which operates in 5 different modes, including lighting and temperature control.

ENERGY EFFICIENCY AND RENEWABLE ENERGY

MESCD Sustainability Consultant for Cruise Terminal, has created an energy model to evaluate the effectiveness of the building's energy conservation measures.

The following are the Energy Conservation Measures incorporated in the Cruise Terminal project:

- Energy saving switches to control lighting and AC
- High-performance building envelope
- High-performance glazing
- Over 30% of energy is saved from lighting.
- Highly efficient chillers with higher COP
- Heat recovery and VAV systems
- High efficiency fans, pumps and motors
- Variable speed pumps on the chilled water and domestic water systems

The Cruise Terminal offsets 0.78% of its energy consumption from Solar Hot Water Panels - an on-site renewable energy source.

OTHERS GREEN FEATURES INCLUDE

The Cruise Terminal earned an exemplary performance in water efficiency credit by using efficient sanitary fixtures. About 30.50% of materials with recycled content are used in the project that earned them the innovation point.

LESSONS LEARNED

- Early involvement with the project team are necessary to secure the certification
- Identify strategies early and set green building goals
- Develop working relationship and teamwork, it plays a vital role in achieving the certification

THE TEAM

Owner: DTCM (Dubai Department of Tourism and Commerce Marketing)

Design Consultant: Dubai Civil Engineering (DCE)

Contractor: Dubai Civil Engineering (DCE)

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

LEED AP: Mr. Pushkar Dwivedi

Commissioning Authority: Pacific Control Systems

Photograph Courtesy of: Dubai Civil Engineering (DCE)