

Grandweld Shipyards

Plot No. SR1&2, Dubai Maritime City, Dubai, U.A.E.



LEED® for New Construction v2.2

Gold 44*

Sustainable Sites	7/14
Water Efficiency	3/05
Energy & Atmosphere	13/17
Material & Resources	6/13
Indoor Environmental Quality	10/15
Innovation in Design	5/05

*Out of Possible 69 points

FAST FACTS

LEED Certification: USGBC LEED NC Gold Certified Building

Build Up Area: 178,142.7 sq.ft.

Location: Dubai Maritime City, Dubai, UAE

Completed: 2012

Date of Certification: 23rd August 2012

LEED HIGHLIGHTS

- More than 60% Reduction in Total Irrigation Water consumption
- More than 40% Reduction in Annual Energy Costs
- More than 3.5% of total building energy harnessed through solar systems
- More than 44% Reduction in Annual Water Usage through Efficient Water Fixtures
- More than 40% of total materials used are recycled
- More than 41% of total materials used are harvested/manufactured regionally
- Use of albedo materials for roofing, pavements, car parking shade to reduce heat island effect
- Use of eco-friendly materials for construction
- Improved Indoor Environmental Quality and Thermal Comfort
- Improved daylight and outdoor views

PROJECT BACKGROUND

The Project is a shed for ship building and G+2 office block.

The Project has been designed, developed and will be operated as per local regulatory Environment Health and Safety Division (EHS) guidelines and United States Green Building Council (USGBC) - Leadership in Energy & Environmental Design (LEED) Green Building Requirements for New Construction LEED NCv2.2.

Grandweld Shipyards

BUILDING

Grandweld Shipyards is located at Dubai Maritime City that is regulated by Trakhees of Ports and Custom Free Zone Corporation (PCFC) of Dubai Government, and as a part of the local regulatory building engineering design and permitting process, it is lawfully required to adhere to the Trakhees's – Environmental Health and Safety (EHS) Division's Green Building Regulations.

SUSTAINABLE SITES

- Encourages the employees to practice car and van pooling
- Provided -100% Covered parking for car parks
- Provided -100% Roofing materials meet the SRI requirements
- Provided -100% Hardscaping material meet SRI requirements

ENERGY AND ATMOSPHERE

- High-efficiency HVAC equipment
- Efficient lighting controls & systems
- High-performance building envelope and insulation

GREEN EDUCATION

The Grandweld Shipyards is engaging in an on-going initiative to educate all of their own employees, professional organizations and the general public to continuously promote awareness and increase adoption of sustainable products and design process.

OTHER GREEN FEATURES INCLUDE

- The Project installed low flow features for toilets, urinals, faucets and showers to reduce water consumption in this water constrained region.
- The project has achieved the breathing zone outdoor air ventilation rates to all occupied spaces as per the minimum rates required by ASHRAE 62.1-2004.
- The project uses low emitting materials for its construction
- Construction materials used in the project contain more than 40% of recycled content
- More than 40% of construction materials used in the project are harvested/manufactured regionally

LESSONS LEARNED

- Incorporating green building requirements early on design stage
- Involvement of all the stakeholders in green building requirements to secure the certification
- Be sure to gain expert assistance in energy analysis

THE TEAM

Owner: Grandweld Shipyards

Lead Consultant: Orbit Engineering Consultants

MEP Consultant: Crown Home Consultants

Contractor: Amana Steel Building Contracting Co. LLC

MEP Sub-contractor: Blue Star Electromechanical Works LLC

Green Building Consultant: GlobalTech Safety & Environmental Consultancy

Commissioning Authority: GlobalTech Safety & Environmental Consultancy

LEED AP: Firoz Khan & Vishal Nair

Photograph Courtesy of: Orbit Engineering Consultants