

PROJECT PROFILE



LEED® Facts

Kennedy Space Center
Building M6-0490 Life Support Facility
Kennedy Space Center, FL

LEED® for New Construction - Version 2.1
Certification Awarded April 29, 2009

Silver 36*

Sustainable Sites 7/14

Water Efficiency 4/5

Energy & Atmosphere 6/17

Materials & Resources 6/13

Indoor Environmental Quality 9/15

Innovation & Design 4/5

*Out of a possible 69 points

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LEED for New Construction

11% Recycled Content

46% Reduced Potable Water Use

23% Less Energy

60% FSC-Certified Wood Products

88% Construction Waste Diverted

100% Reduced Landscape Water Use

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Building M6-0490 Life Support Facility

KSC Takes Steps to Reduce Carbon Footprint



“The new facility provides several process enhancements that will increase worker productivity, and benefit health and morale.”

MIKE BENIK, NASA KENNEDY SPACE CENTER, DIRECTOR OF CENTER OF OPERATIONS

PROJECT DESCRIPTION

This Life Support Facility serves as the operation center for the Self Contained Atmospheric Protective Ensemble (SCAPE) procedures at the Kennedy Space Center and is uniquely equipped with a monorail system to move the SCAPE suits throughout the various areas to be washed, dried, inspected, repaired and stored. The facility uses high efficiency heating and cooling systems as well as photosensors and occupancy sensors to decrease energy usage of the interior lighting systems. Nine photovoltaic street lights are used in the parking areas.

SUSTAINABLE SITES (7/14)

The facility provides alternative fuel vehicles with preferred parking and charging stations to accommodate nearly 7% of the building occupants. Bicycle storage and shower facilities are also provided to encourage bicycle commuting and exercising. Open space equal to the size of the building footprint is located adjacent to the building, which will be conserved for the life of the facility. The membrane roof is in 100% compliance with solar reflective and emissivity requirements to reduce heat island effect.

WATER EFFICIENCY (4/5)

Potable water usage in the facility has been reduced by 46% compared to the calculated baseline through the installation of waterless urinals, dual-flush water closets and low-flow lavatories and shower heads. Outdoors, the landscape design utilizes native plants which do not require an irrigation system, therefore reducing potable irrigation water usage by 100%.

ENERGY & ATMOSPHERE (6/17)

The facility reduced energy consumption by 23% from the ASHRAE 90.1-1999 requirements through efficient HVAC components, occupancy-controlled lighting, PV street lights and the purchase of renewable energy credits. The facility also underwent an additional commissioning process. None of the HVAC components contain CFCs, HCFCs or Halons. Additionally, the facility has a one-year purchase agreement for Green-e certified energy equal to 150% of the project's regulated annual electric energy consumption.

MATERIALS & RESOURCES (6/13)

The project diverted 88% of on-site generated construction waste from landfills and 11% of construction materials contained recycled content. 22% of all building materials consist of local materials made less than 500 miles from the site and 51% of those materials were extracted regionally. Of the wood used on construction, 60% came from FSC-Certified forests.

INDOOR ENVIRONMENTAL QUALITY (9/15)

Additionally, the ventilation system allows for moisture control and carbon dioxide monitoring to ensure sufficient fresh air is provided. The design also includes permanent entryway systems, isolated chemical use areas with independent exhaust ventilation, and enhanced plumbing features in spaces where chemical mixing occurs. The project design included an Indoor Air Quality plan and the project procured low emitting sealants, adhesives, paints, carpets, and composite wood.

INNOVATION IN DESIGN (4/5)

The project was recognized for innovative design for Green Housekeeping procedures, cleaning products, and custodial training, providing alternative fuel vehicles for occupants and purchasing over 100% of the building's energy use in renewable energy credits.



The interior of the facility contains customized work spaces including SCAPE, office areas, and processing rooms.

Owner: NASA Kennedy Space Center
Architect: Jones Edmunds & Associates, Inc. (JEA)
Structural Engineer: JEA
MEP Engineer: JEA
Commissioning Authority: EXP (formerly X-nth, Inc.)
Contractor: RUSH Construction, Inc.
Project Size: 22,100 SF
Project Cost: \$6,500,000
Completion: July 2008
Photography: NASA

ABOUT LEED

The LEED Green Building Rating System is the national benchmark for the design, construction, and operations of high-performance green buildings. Visit the U.S. Green Building Council's Web site at www.usgbc.org and the Central Florida Chapter of USGBC at www.usgbc-cf.org to learn more about how you can make LEED work for you.