



ONE DEKORTE PARK PLAZA • PO BOX 640
LYNDHURST, NJ • 07071
201.460.1700 • NJSEA.COM



LIVE. EXPERIENCE. SUSTAIN.

NJSEA CENTER FOR ENVIRONMENTAL AND SCIENTIFIC EDUCATION AND THE WILLIAM D. MC DOWELL OBSERVATORY

A NEW JERSEY SPORTS AND EXPOSITION AUTHORITY FACILITY OPERATED BY RAMAPO COLLEGE OF NEW JERSEY
3 DE KORTE PARK PLAZA ✪, LYNDHURST ✪, NJ ✪, 07071 ✪, 201-460-8300 ✪, NJSEA.COM





*The First
LEED Platinum
Certified Public
Facility in New
Jersey.*



NJSEA CENTER FOR ENVIRONMENTAL AND SCIENTIFIC EDUCATION



The NJSEA (New Jersey Sports and Exposition Authority) Center for Environmental and Scientific Education provides increased educational opportunities and experiences for the more than 40,000 residents, tourists and students who visit the Meadowlands Environment Center (MEC) every year.

The 10,000 square foot building is an expansion of the MEC. Established in 1982, the MEC is operated by Ramapo College of New Jersey. The MEC provides a diverse lineup of artistic and environmental activities and workshops as well as a comprehensive environmental educational program for students in grades K through 12. The MEC education programs teach children about the value of the Meadowlands, incorporating hands-on educational instruction, which supplements core curriculum content standards taught in our schools.

The idea for the new Center began when members of the NJSEA staff visited a private school in Somerset County

designed using U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) principles. Staff decided it would be a worthwhile endeavor to provide a learning environment where green building elements could be incorporate into school curriculum and highlight sustainability for children within the Meadowlands District and beyond.

The Center is a strong example of how the NJSEA has become a leader in green building design. The building itself contains classrooms, a wet lab, and a multi-purpose room and is the first LEED Platinum Certified, state operated facility in New Jersey.

The NJSEA Center for Environmental and Scientific Education will serve as an example for municipalities and businesses in the District that seek to incorporate green building practices in their own projects. The NJSEA also offers incentives to developers and property owners in the Meadowlands District who build to LEED, or other recognized green building standards.

THE CENTER AS A GREEN SCHOOL

In keeping with the NJSEA's commitment to renewable energy and environmental stewardship, the children who utilize the center will learn by seeing how this building works to be energy efficient and environmentally friendly. LEED standards emphasize state-of-the-art strategies in six areas:

SUSTAINABLE SITE DEVELOPMENT

NJSEA Landscape Architects developed an overall landscape layout incorporating the building into the grounds of Richard W. DeKorte Park, with its sustainable landscape of native plants.

WATER SAVINGS

- Infrared sensors on bathroom sinks
- Use of low-flow toilets and fixtures and waterless urinals

ENERGY EFFICIENCY

- 165 rooftop solar panels to generate electricity for a portion of the building's power needs
- Motion-sensitive lighting controls that automatically shut off lights when rooms are not in use
- Solar tubes in the ceiling to allow natural light to come into the Center and reduce reliance on traditional power sources

MATERIALS AND RESOURCES SELECTION

- Use of Forest Stewardship Council (FSC) certified wood
- Use of recycled and specialized building materials
- Use of materials extracted, processed, and manufactured regionally
- Use of low-emitting volatile organic compound (VOC) building materials

INDOOR ENVIRONMENTAL QUALITY

- Energy-efficient heating, ventilation and air-conditioning systems
- Fume hood in chemistry lab

INNOVATION & DESIGN PROCESS

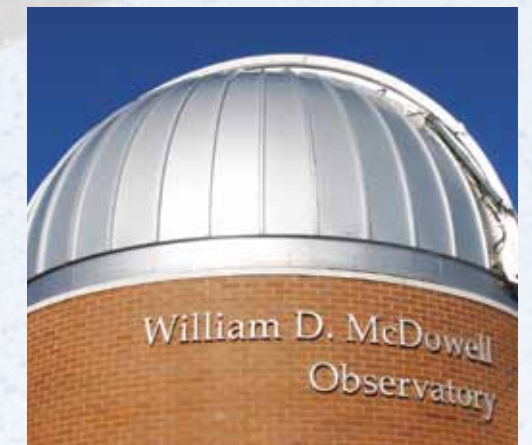
- LEED Accredited Professional Advisor
- Green housekeeping program utilizes only environmentally friendly cleaning supplies
- Educational Outreach Programs
- Exemplary performance for on-site renewable energy
- Exemplary performance for projected water savings

EDUCATION AT THE CENTER

The Center for Environmental and Scientific Education, in conjunction with the Meadowlands Environment Center, provides a comprehensive environmental education program for schools and the general public.

Environmental Educational programming spans the spectrum of K-12, undergraduate, graduate and continuing education. There are also programs for people living with disabilities, providing participants with hands-on educational opportunities within the core sciences and astronomy.

Ramapo educators teach the K through 12 programs, which meet New Jersey Core Curriculum Content Standards, providing a valuable supplement to the student's education. Students have the opportunity to study ecology, chemistry, biology, physics, natural history and geology. Outdoor field-based lessons centered on the Meadowlands marsh ecosystem inspire awareness and stewardship of the region and its wildlife. Students observe plants and animals specific to our environment which in turn fosters an interest in science and increases their scientific literacy. Those who utilize the Center for Environmental and Scientific Education will learn by example how the building works to be energy efficient and environmentally friendly.



WILLIAM D. MCDOWELL OBSERVATORY

The William D. McDowell Observatory is a critical component of the Science Center. The Observatory's namesake was appointed as the first Executive Director of the New Jersey Meadowlands Commission (now part of the NJSEA) in 1969.

The Observatory's state-of-the-art telescope, contained within a six-meter retractable dome, has special filters designed to help minimize the effects of the area's light pollution. This research-grade instrument is equipped with a variety of tools: specialized cameras to photograph various astronomical objects, a photometer to measure the brightness of stars and study how they vary over time and a spectroscope to analyze wavelengths of light to determine the chemical composition of light-emitting objects.

The Center hosts astronomy classes for students from local schools as well as free open viewings for the public, twice a week. People can look directly through the telescope or view real-time display images on two eight-by-eight-foot screens in the Center. Individuals of all ages are welcome to become amateur astronomers with a visit to the McDowell Observatory.

