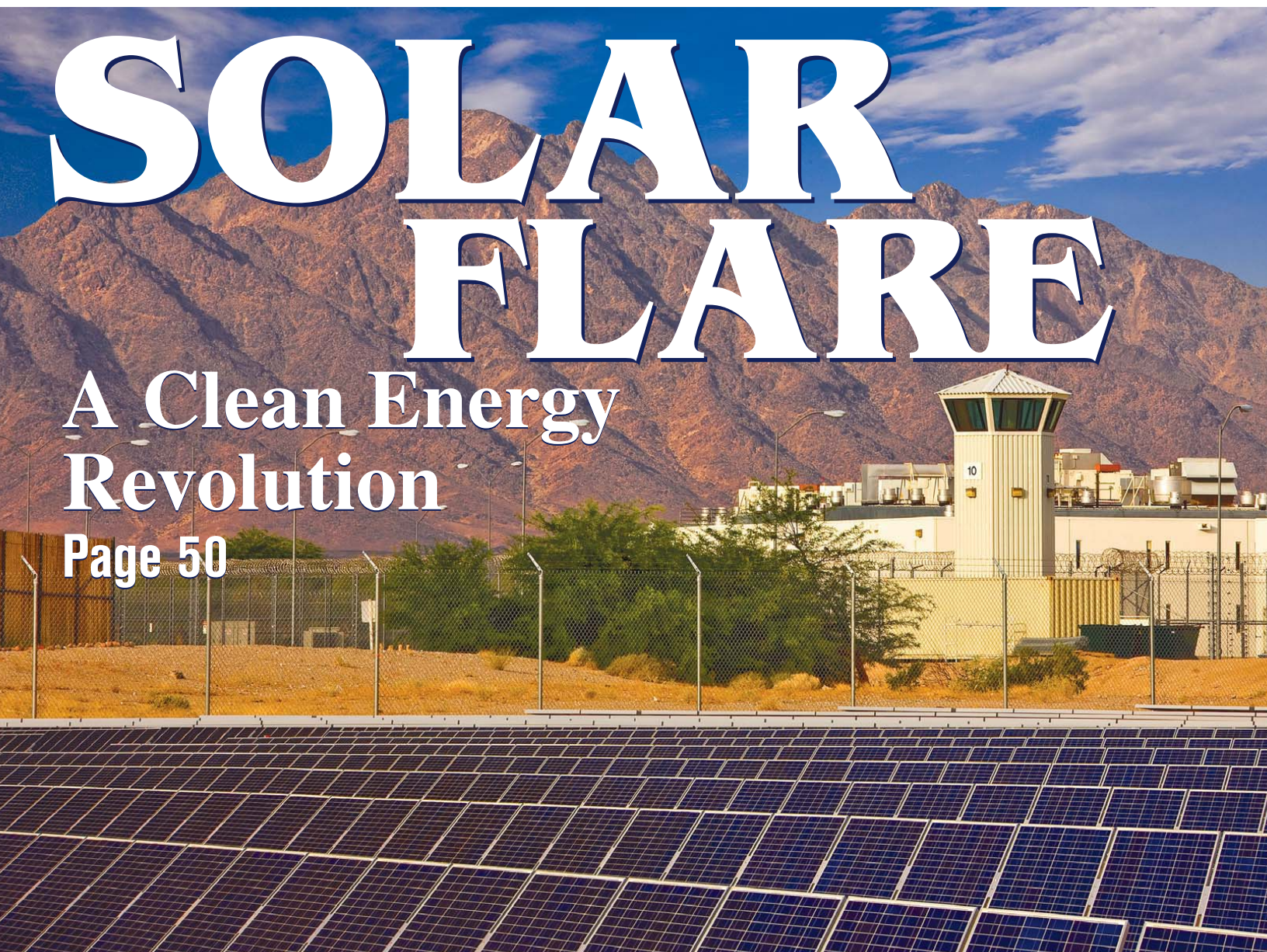


SOLAR FLARE

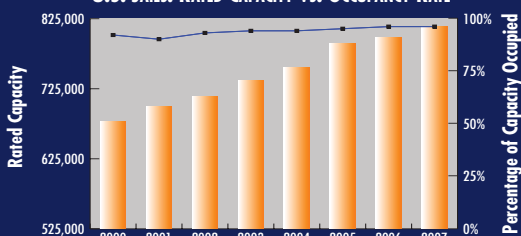
A Clean Energy Revolution

Page 50



Data Delivery

U.S. JAILS: RATED CAPACITY VS. OCCUPANCY RATE



Source: Bureau of Justice Statistics

Spotlight

New York DOCS tackles its graying prison population with dedicated unit designed to manage special-needs inmates with dementia.

Page 40

Design

Gregory J. Offner, of DMJM H+N, and Jim Mueller, of KMD, discuss the emergence of evidence-based design in corrections.

Page 32



AIA 2008 Justice Facilities Review

Page 58

Greening Corrections Fosters Health, Productivity

By Bryna Cosgriff Dunn, LEED AP

Some of the most important benefits of green building design are often overlooked because they are the most difficult to quantify, but safety, health and productivity of correctional officers in particular may be motivating factors in greening correctional facilities.

Indoor Air Quality

Concern over indoor air quality continues to grow. The EPA estimates that the levels of indoor pollutants may be as much as five times higher than outdoor levels. Among these indoor pollutants are allergens and potential carcinogens that can lead to a variety of illnesses, sick days and decreased productivity. Seventeen substantial studies identified by the Carnegie Mellon building performance program all showed positive health impacts with improved air quality.

There are several strategies for maximizing indoor air quality in correctional facilities. One key to indoor air quality is proper ventilation, which can be achieved by increasing the amount of air entering a building or by installing carbon dioxide sensors that alert the HVAC system to bring more air into occupied spaces.

Properly filtering the air that circulates throughout correctional facilities is also important. Filters with a high minimum efficiency reporting value (MERV) are preferred. The higher the MERV, the smaller the particles filtered.

Material selection can also greatly impact indoor air quality. Selecting adhesives, sealants, paints, coatings and carpeting that are low-emitting can prevent volatile organic compounds, such as formaldehyde, from entering the facility air stream.

Daylight and Views

Quantifying the effects of access to natural light and views on building occupants can be extremely difficult, if not impossible, but who wouldn't rather work in a space with plenty of daylight and views to the outdoors than in a room with no windows?

While it has been suggested that day-lit spaces with access to views lead to increased energy, improved mood and better work performance, studies have yet to determine the exact effects of these features on building occupants. However, in a review of 17 studies, the consensus findings concluded that good lighting reduced off-task behavior.

When designing spaces in correctional facilities, features such as large windows, clerestories and skylights should not be excluded as design strategies because security is a concern.

Thermal Comfort

When building occupants are focusing on how hot or cold they are in a space, they aren't focusing on their work.

In order to provide optimum thermal comfort, designers should carefully consider all of the features that can affect building temperature. Temperature control starts with the building envelope and

mechanical system. A tight envelope and efficient mechanical system better regulate temperature within facilities, thereby cutting energy costs and helping to keep occupants more comfortable.

Daylighting strategies should be carefully planned and designed so they do not negatively affect space temperature. South-facing windows should be shaded

or outfitted with light shelves to prevent direct sunlight penetration, which can create uncomfortable hot spots. Providing facility occupants with the ability to control space temperature may also contribute to greater occupant comfort.

Regardless of whether health, safety and productivity can be quantified, they are important considerations for those

designing and building green correctional facilities. The measure of a successfully designed and constructed facility is the comfort and satisfaction of those who work within.

Bryna Cosgriff Dunn is vice president and director of environmental research and planning at Moseley Architects. Dunn serves on the LEED Steering Committee for the U.S. Green Building Council. Visit www.moseleyarchitects.com.

Your single-source supplier of integrated security systems



Trussbilt

Leading Innovator of Security Products for Over 80 Years

Featuring TrussWall®...lighter and thinner than concrete cell systems



- Reduces construction costs and ongoing operational costs
- Installed after building enclosed for scheduling flexibility and early completion
- Excellent for retrofits
- Stackable, de-mountable and reusable

Trussbilt security products are designed for maximum safety and durability



Visit us at: www.trussbilt.com
 Contact Sales at: 651.633.6100
 ISO: 9001:2000 CERTIFIED