DESIGNING FOR EDUCATION

Compendium of Exemplary Educational Facilities 2011

OECD Centre for Effective Learning Environments
This new school demonstrates the benefits of community involvement in an educational project. The local community was involved in the planning, design and construction of this school, and now makes use of the facilities outside of school hours. There is a strong sense of community ownership, with a high demand for places and no incidences of theft or vandalism.

All stakeholders were invited to participate in the project. Learners were involved through a series of creative workshops. Educators took part in an interactive workshops. Parents and other community members contributed to the design process through public meetings.

Many of the design elements, such as the circular buildings and thatched roofs, reflect the local vernacular architecture. The choice of materials and construction systems were informed by audits conducted within local
Sustainability
The plans incorporated several features that reduce the environmental impact of the school, and these were all implemented for little or no extra cost. The main teaching blocks have been carefully oriented to take full advantage of the seasonal and daily solar cycles. All learning and administrative areas are well insulated to improve the thermal comfort levels. Though the rooms make full use of natural light, glare and heat gain are reduced through appropriately positioned shades and light shelves.

These passive solar design strategies ensure that classrooms are cool in summer and warm throughout the icy Kokstad winter. Their effectiveness is monitored by sensors that measure room temperatures, light levels and energy consumption. Live weather data is recorded so that the thermal performance of the buildings can be monitored.

The school takes various steps to use water efficiently. Rainwater is collected from all impermeable surfaces throughout the school and stored in an underground reservoir. A windmill pumps this grey water to header tanks from where it is gravity-fed to flush toilets. Low-consumption water fittings and appliances have been installed.

Teaching spaces
There are a variety of spaces for teaching and learning. Many classrooms have mezzanine or loft areas that provide breakaway spaces for creative teaching and for project work. Several outdoor spaces can be used for teaching when the weather is good. There are three multipurpose rooms for creative and cultural activities. These rooms have been built using traditional methods.

The library and computer rooms have been housed in a separate block to create an information hub. This is situated at the heart of the school and is easily accessed by the students and the local community.

C: Loft areas provide additional spaces in some classrooms.
D: Ground floor plan.
Community engagement

Seven Fountains School has become a valued resource for local residents. It is a venue for community meetings and social gatherings. Adult education programmes are run in the classrooms and computer centre. Volunteers assist in the school programmes and in the school garden, with some of the produce distributed to local poor families. The sports fields are also available for community use.

1 General classroom
2 Mezzanine classroom
3 Multipurpose room
4 School readiness classroom
5 Computer laboratory
6 Media centre and library
7 Office
8 Kitchen
9 Reception
10 Playground