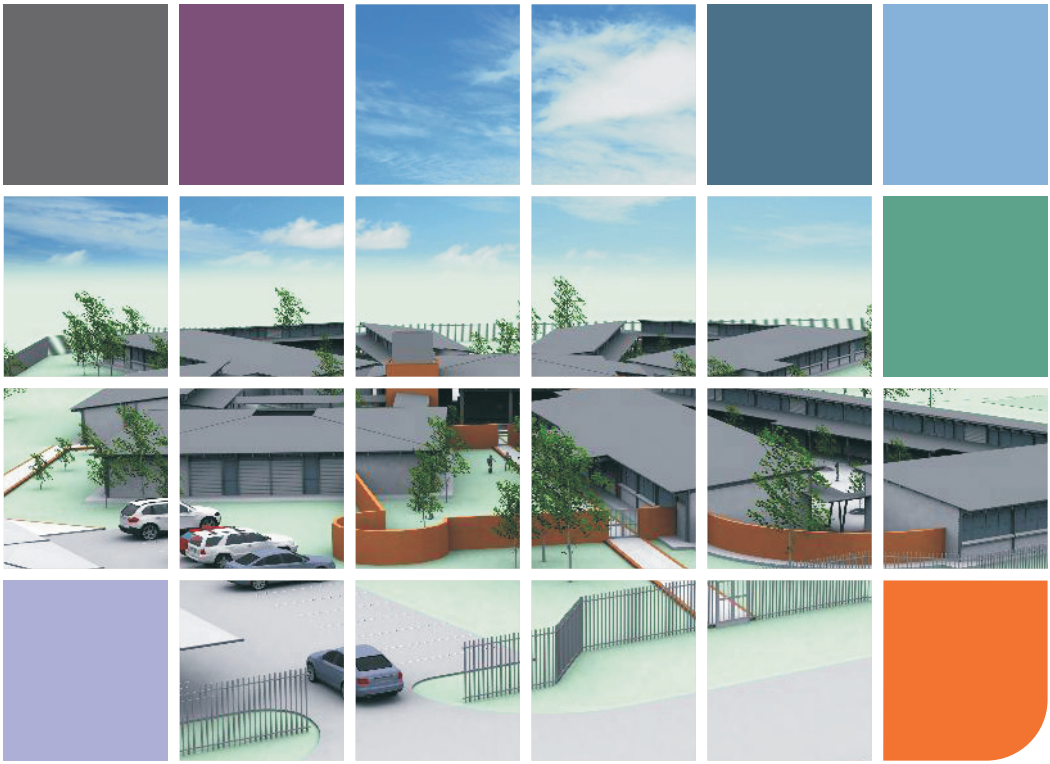
basic education
Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

ArcelorMittal
Foundation

Programme



Ceremonial handover of
Mandela Park Primary School
17 July 2013

transforming
tomorrow

Technical facts

School profile

Mandela Park Primary School was designed to easily accommodate 1 100 learners at any given time. The site where the new school is built currently has 1066 learners, most of who were accommodated in an old hall, divided into classrooms by dilapidated partitions. The rest of the learners were crammed into three classrooms erected by the community and a couple of old prefabricated structures.

The school did not have waterborne sewage or a reliable water supply and an intermittent electrical supply was just sufficient to power a couple of lights and electrical outlets.

Celebration of steel

The design used in the construction of the new school celebrates the use of steel in construction and won the 2010 SAISC Steel Award in the category for Community Development.

The professional team and contractors in the Eastern Cape were exposed to new technologies not normally found in domestic- or school buildings, such as:

- Alternative foundations to suit the rocky conditions.
- Steel portal frames to carry the ceiling and roof which form a carcass to which the external Arval cladding and internal divisions made from lightweight steel construction are attached. This method of construction allows work to continue under cover which is ideal for the rainy conditions of Mthatha.
- Internal divisions made from cladded lightweight steel framing allows for the easy change of rooms in future so that internal spaces can be adapted to any future requirements.
- Arval's insulated steel clad panelling is complemented by Windcolor steel windows and flashings.

Buildings

The new school consists of:

- An administration building with meeting rooms, offices for the Principal and 2 Vice Principals, staff room, reception, kitchen, toilets and sick room.
- A media centre which includes a computer room and library.
- Classrooms which can accommodate 1 200 learners.
- A laboratory.
- An ablution building near the sports fields
- A delivery yard, workshop and store
- A Nutrition Centre which includes a kitchen and storeroom.
- Vegetable tunnels to augment the Department of Basic Education's feeding scheme
- Sports fields with sporting equipment
- Fully restored terrain with indigenous landscaping
- Grade R play area using natural elements and providing the children freedom within limits.
- Reclamation and upgrading of the old hall to make it fit for purpose.

Although the school is constructed on a steeply sloping site, ramps and paved pathways makes it accessible to the handicapped.

The school was constructed in adverse weather conditions without a single man-day lost due to injury.

Holistic approach

The site, structures, engineering systems and end use of the buildings form part of an integrated design approach and are viewed as one "whole building" rather than as separate independent systems and so enhance sustainability by using green design attributes.

These include:

- The layout of the school which makes optimal use of natural sunlight in order to reduce electrical costs and enhance natural convection to ventilate the classrooms, ensuring a pleasant learning environment in summer and winter.
- The harvesting of storm water from all hard surfaces to a new dam constructed in a corner of the site from where the water is used for the sports field and gardens.
- The use of solar power to heat the water required for showers in the ablutions at the sport field

This holistic approach was championed by the ArcelorMittal Foundation and is not only observed in the physical attributes of the school but can also be noticed in elements that will not be noticed during a casual visit to this new facility.

Water tank is used to conserve potable water so that the school can continue functioning during the regular water cuts that effect this area.

The fully equipped kitchen uses gas for cooking purposes to ensure that learners can be fed a healthy meal with fresh vegetables from their own garden even when the electrical supply to the area is interrupted.

The pupil of Mandela Park Primary School will also receive the best educational support with the latest tablet computers having been provided for their computer laboratory. The school has a full year FREE IT support to ensure that the computers are always in working order.

Everything was provided with only one purpose in mind: to provide the learners attending the Mandela Park Primary School with an iron-clad future.