

COMPRESSED EARTH BLOCKS

Project

Manufacturing of compressed earth blocks

Project Concept

- ▶ The main aim of this project is to build on the existing success of compressed earth block (CEB) construction being developed in the eThekweni Municipality Building with CEB's providing cost advantages in terms of both materials and the building process and creates a thermally-efficient, sustainable green building structure that is superior to existing building methods and materials
- ▶ The additional benefit of the project is that one is able to utilise a 30% blend of crushed builder's rubble into the blocks and still maintain average block strength at least double that of concrete blocks
- ▶ The builder's rubble is inert and thus safe to use, but its diversion from landfill provides an additional benefit as an available resource that is utilised whilst saving on landfill space
- ▶ Durban landfills in the region of 200 000 tons of rubble a year at a cost of ZAR 150 per ton – this diverted material could be used to build an additional 10 000 houses per year in a city where the current backlog in affordable housing is in the region of 170 000 housing units



Location

- ▶ The project is based in the eThekweni Metro

Current Status

The project remains at the conceptual stage

Feasibility Study

- ▶ Work done on the project has, thus far, been limited to materials testing which has proved the technology. Several demonstration units have been built,



each obtaining all the local regulatory certification and approvals

- ▶ The next requirement is to scale this up to a full production unit and implement construction at several levels, to entrench this as a preferred building process that could be applied to any municipal application in the country

Business Plan

The draft business plan has been completed

Required Investment

- ▶ ZAR 10 million (USD 1.1 million)



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