



Labour-based methods and technologies for employment-intensive construction works

A cidb guide to best practice



“Like slavery and apartheid, poverty is not natural. It is man made and it can be overcome and eradicated by the actions of human beings.”

Nelson Mandela, 2005 Global Campaign for Action against Poverty.

Confronting joblessness - an industry-wide commitment

This set of best practice guidelines for labour-based construction represents a significant investment of leadership by the South African Construction Industry “to spearhead job creation and skills development so that our growing economy is increasingly accessible to all citizens”

(Minister Stella Sigcau,
SA Construction Industry Status Report 2004).

In finalising this set as a tool for designers and practitioners, the Construction Industry Development Board (cidb) has assembled the knowledge and experience given freely by industry through a consultative process that commenced in 1996 through an initiative between the Minister of Public Works and Captains of Industry.

Taking forward this process, the cidb has published these guidelines in fulfilment of its mandate to “establish and promote best practice... and the improved performance of... participants in the construction delivery process”.

Background to the guidelines

Initial conceptual work was taken forward by the Inter-ministerial Task Team on Construction Industry Development, which built on the experience of pilot public works projects and developed a preliminary set of guidelines.

Further drawing on local and international experience, the cidb has expanded the application of technologies and methods to increase the employment generated per unit of expenditure. A focus group of industry specialists and stakeholders has reviewed and refined these guidelines, which are now recommended by the Expanded Public Works Programme in the delivery of national, provincial and municipal infrastructure.

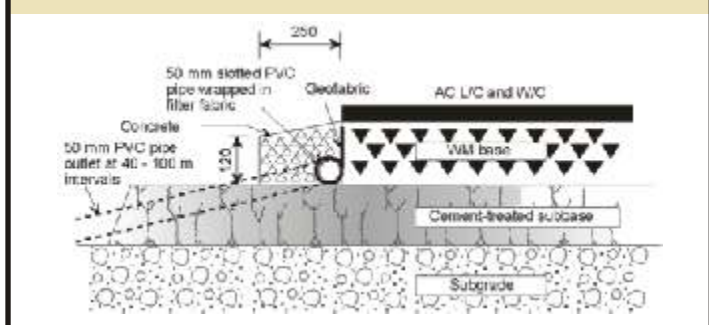


What the guidelines are about?

The cidb best practice guidelines are premised on the understanding that employment opportunities can be optimised by adopting, where technically and economically feasible:

- labour-based methods of construction and manufacture where labour, utilising hand tools and light equipment, is preferred to the use of heavy equipment for specific activities; and
- labour-based technologies where there is a shift in balance between labour and equipment in the way the work is specified and executed for selected works components.

Figure 9: Concrete edge-restraint and side-drain detail



Source: Best Practice Guideline - Part 4-7, Water bound macadam, pg. 9

The guidelines present current state-of-the-art practices in a wide range of labour based construction methods, manufacturing methods and technologies which have been successfully utilised in South Africa in recent years.

They provide appropriate specifications and technical information, enabling clients and practitioners to make confident and informed choices in project design and implementation.

Direct benefits of labour-based methods

- Increased employment
- Skills transfer to the unskilled and semi-skilled
- Enhanced local construction capacity
- Community and local economic development



First published in Government Gazette No 26825 of October 2004, Labour-based methods and technologies for employment intensive construction works includes the following guidelines:

Part 1

An overview of labour-based technologies and methods in infrastructure projects

Part 2

Labour based construction methods

2.1 Labour-based construction methods for earthworks

Part 3

Labour based methods for materials manufacture

3.1 Precast concrete products, bricks and block making

3.2 The BESA building system

Part 4

Labour based construction technologies

4.1 Labour-based open channel flow technology

4.2 Rubble masonry dam construction technology

4.3 Rubble masonry concrete arch bridge construction technology

4.4 Foamed bitumen gravel

4.5 Cast in-situ block pavement

4.6 Emulsion treated gravel

4.7 Waterbound Macadam

4.8 Slurrybound and composite Macadam construction

4.9 Methods for unsealed roads

The guidelines can be downloaded from the cidb website www.cidb.org.za free of charge. For hard copies at the cost of printing and postage, contact cidb - Tel: (012) 481 9030, Fax: (012) 343 7154 or e-mail kotlim@cidb.org.za, or the South African Institution of Civil Engineering (SAICE), website www.civils.org.za, Tel: (011) 805 5947.

This best practice guide has been developed by the Construction Industry Development Board (cidb) in collaboration with the South African construction industry.

How to get your set of guidelines:

The guidelines can be downloaded from the cidb website www.cidb.org.za free of charge and can be obtained on CD or in hard-copy from cidb or the South African Institution of Civil Engineers (SAICE) at the cost of printing and postage.

Also available from cidb:

- Status Report 2004 - Synthesis review on the SA Construction industry and its development
- Construction Contracts: the 3Rs Basic Guide for SME's
- Construction Procurement Best Practice Library – available on CD

“We have made the firm commitment to confront the challenges of poverty and joblessness. We have made the solemn pledge that we will do everything possible to achieve the goal of a better life for all our people.”

Thabo Mbeki, 2004 launch of the Expanded Public Works Programme



These best practice guidelines are supported by the Expanded Public Works Programme (EPWP), which directs a significant and increasing proportion of South Africa's public investment towards a labour intensive programme of construction, drawing the unemployed into productive work and providing access to skills development.

ENGINEERS
AGAINST
POVERTY

The guidelines draw on international experience and are endorsed by Engineers Against Poverty (EAP), an international development NGO. EAP is working to ensure that the engineering industry remains at the forefront of efforts to reduce and eventually eliminate global poverty.



cidb is a public entity established in terms of the CIDB Act, 2000 to provide strategic direction for sustainable growth, reform and improvement of the construction sector and its enhanced role in the country's economy. In pursuit of this aim cidb partners with stakeholders and regulates the construction industry around a common development agenda underpinned by best practice procurement and project processes.