

# **CURRICULUM VITAE**

**FIDELIS BERNARD SAKWA**  
**B.sc. Eng. (Civil)**

**July 2016**

**[A] PERSONAL DETAILS**

NAME : FIDELIS BERNARD SAKWA  
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DATE OF BIRTH : 19 February 1972  
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MARITAL STATUS : Married  
SEX : Male

**[B] PROFESSIONAL BODIES MEMBERSHIP**

INSTITUTION OF ENGINEERS OF KENYA : Graduate Member  
ENGINEERS REGISTRATION BOARD OF KENYA : Graduate Member  
CONCRETE SOCIETY OF SOUTHERN AFRICA : Member

**[C] PAPERS PRESENTED**

Position Paper on the Status of : International Conference on Transport  
Hydraulic Road Binders in Kenya and Road Research - 2016  
and Study of The Potential Mombasa, Kenya  
(Joint Paper with Norken International)

Concrete Roads Development - : Concrete Roads Conference - 2011  
Kenya Case Study Lusaka, Zambia

The Development and Use of Ready : Institution of Engineers of Kenya  
Mix Concrete in Construction Annual Conference : 2008

Common Cement Standards : Uganda Institution of Professional  
Engineers : 2008

The Design and Construction of a : Institution of Engineers of Kenya  
Continuously Reinforced concrete Annual Conference : 2007  
Pavement Section at Gilgil Weighbridge

Design and Construction of : Institution of Engineers of Kenya  
Mbagathi Road Concrete Overlay Project. Annual Conference : 2006

**[D] PROFESSIONAL TRAINING**

2013 : PROJECT MANAGEMENT  
STRATHMORE UNIVERSITY

2007 : MANAGEMENT DEVELOPMENT PROGRAM  
GORDON INSTITUTE OF BUSINESS SCIENCE  
UNIVERSITY OF PRETORIA, SOUTH AFRICA

2004 : ADVANCED CONCRETE TECHNOLOGY (ACT)  
CEMENT & CONCRETE INSTITUTE OF SOUTH AFRICA

2002 : CONCRETE TECHNOLOGY FOR ENGINEERS  
CEMENT & CONCRETE INSTITUTE OF SOUTH AFRICA

**[E] ACADEMIC BACKGROUND**

1990-1996 : B.SC. Eng. (CIVIL)  
UNIVERSITY OF NAIROBI

1986 – 1989 : KENYA CERTIFICATE OF SECONDARY EDUCATION (KCSE)  
LENANA SCHOOL

1978 – 1985 : KENYA CERTIFICATE OF PRIMARY EDUCATION (KCPE)  
HESHIMA ROAD PRIMARY SCHOOL

## [F] PROFESSIONAL EXPERIENCE

March  
2015 to  
Date

(Key Additional responsibilities)

### **BAMBURI SPECIAL PRODUCTS (BSP) - Quality Control Manager**

June  
2012  
to Dec  
2013

- ❖ Head quality control function at BSP ready mix concrete and precast concrete products.
- ❖ Developed innovative self compacting concrete for pile works.
- ❖ Developed high strength –Class 50 self compacting concrete in conjunction with LafargeHolcim Research Center for 65 storey Hass Tower in UpperHill, Nairobi. Product used Fly Ash, an imported extender for the first time in Bamburi Special Products Operations.
- ❖ Developed and implemented technical development program and streamlined operations for team of Quality Control Engineers.
- ❖ Modernised quality laboratory and equipped it in conjunction with LafargeHolcim Research Center in Lyon, France with modern contemporary state of the art equipment and software to maintain an edge over competition.
- ❖ Installation of contemporary LafargeHolcim batching software – BCMIX and LABMIX in the concrete batching plants to automate and fully control all batching processes. Remote batching made possible.

2007  
to  
date

### **BAMBURI CEMENT LTD.**

**Product Development Manager/Product and Construction Specialist –  
Lafarge East Africa/LafargeHolcim EA**

#### Key accountabilities

- ❖ Identify, conduct research of market development projects aimed at developing new cements/cement based products or diversify usage of existing to diversify product range, profitability, optimisation (higher cement extenders) and enhance the organisation's innovation.
- ❖ Liaise with Government, Universities, technical institutions, Standards

Bureaus and other stakeholders on adoption, testing and development of Standards for Products & Applications, manuals and specifications to further cement/concrete applications.

- ❖ Develop and implement strategy for influencing/ lobbying external stakeholders (policy makers, specifiers, consumers and investors) to grow cement consumption by introduction of new applications in the region (Kenya, Uganda & export markets).
- ❖ Preparation of long term and annual budgets for the Product Development Division.
- ❖ Offer technical support to the sales and marketing teams for new/existing cements and concrete products (ready mix concrete, precast concrete etc) through market campaigns and lobbying stakeholders for acceptance.
- ❖ Set and review Internal Product Quality Indicators (IQP performance bands) for adherence by all plants and monitors the quality of cement internally and in the market in line with market expectations, customer requirements & National /Regional Standards as well as competitor comparative performance.
- ❖ Staff development for the commercial team including training.
- ❖ As secretary of the LEA - 'Product Development Committee', plan & influence senior management (EXCOM) and implement strategic change in products and market approach. Required to constantly challenge the status quo.

### Key specific activities

#### **2015/16    Development of soil stabilized blocks**

- ❖ Developed soil stabilized blocks as a cost effective construction material in conjunction with LafargeHolcim Research Center in France, Lyon.
- ❖ Blocks under manufacture for an elaborate school upgrading project encompassing early childhood center, primary and secondary school and

vocational training institute for Mama Sara Obama Foundation in Kogelo, Siaya.

- 2015      Launch of innovative mobile concrete laboratory**
- ❖ Developed, designed, procured and equipped a mobile concrete laboratory with state of the art equipment. The lab was the first ever in the region and has the ability to test fresh and hardened concrete as well as its constituents directly in any construction site countrywide.
  - ❖ Sourced for resources to man the mobile lab.
  - ❖ Oversee all activities of the lab in terms of site visits, technical advice to customers and query resolution.
- 2015      Represent the East Africa Cement Producers Association (EACPA) in pushing a change cement standards**
- ❖ Appointed by EACPA to spearhead the change of EA cement standards to the most current European Norm Standards EN 197 - 2011.
  - ❖ Actively collected, reviewed and collated comments from individual EA cement producers, built consensus and pushed agenda through Kenya Bureau of Standards in Kenya and thereafter in harmonization at the EA Standards Technical Committee in Kigali, Rwanda.
- 2013      Project Leader – Transformational Project**
- ❖ Lead project through initiating and implementing culture and mindset change in Market Leadership of organisation with specific reference to Technical Prescriptive Selling.
- 2010      Project leader - Launch of CEM II/A-P 42,5 Powermax in Hima Plant Uganda for Ugandan and exports market.**
- ❖ Spearheaded research activities, business case preparation, Industrial process laboratory trials, industrial trials, field tests ultimately culminating

in commercial production of a pozzolana blended cement product with performance similar to Ordinary Portland Cement (OPC).

- ❖ Conducted Technical stakeholder presentations on the product to internal staff, dealers, architects, engineers, quantity surveyors, contractors and property developers regionally.

2009

- ❖ Spearheaded change of base product from CEM II/B-P 32,5 to CEM IV/B-P 32,5 incorporating laboratory and Industrial trials for Hima Plant, Uganda. New product with better margins and benefits to business.

2009  
to  
date

- ❖ Member of National Steering Committee of The Ministry of Roads tasked with supervision of EGIS BCEOM consultants awarded the tender to review existing Design Manuals and Specifications for Roads and Bridges.

2008  
to  
2009

#### **Project Manager – set up of Bamburi Ready Mix Concrete Business Unit**

- ❖ Overall responsibility in the setting up of a greenfield strategic vertically integrated concrete production facility at Athi River Nairobi.
- ❖ Research, feasibility studies, preparation of business case and CAPEX requirements.
- ❖ Preparation of tender documents, evaluation and award for project consultant and contractor.
- ❖ Supervision and progress evaluation of all civil works encompassing plant set up (cement silos and supports, aggregate delivery ramp, aggregate bins supports, operations control center, pressed steel water tank, road works, generator, transformer and control rooms, street lighting on concrete poles and ancillary structures (gatehouse, weighbridge office, ablution block etc)
- ❖ Supervision of all building services incorporating electrical and mechanical works.
- ❖ Procurement of ready mix concrete batching unit, transit truck mixers, wheel loader and concrete pump.
- ❖ Staff recruitment and operations launch.

**2008**      **Project leader - Launch of CEM II/A-L 42,5 Powermax cement in Mombasa Plant**

- ❖ Guided the Industrial and Commercial process including laboratory trials, industrial trials, market trials etc. ultimately culminating in commercial production of a limestone bended cement product with performance similar to Portland Cement (OPC) .
- ❖ Technical stakeholder awareness sessions on the product for awareness creation to internal staff, dealers, architects, engineers, quantity surveyors, contractors and property developers regionally.

**2006  
to  
2007**      **BAMBURI CEMENT LTD.  
Commercial Project Manager**

- ❖ Overall coordination of Mbagathi Way Concrete road development project between Ministry of Roads and the East African cement producers association (EACPA)
- ❖ Involved in the design process in conjunction with Ministry of Roads, Materials Department.
- ❖ Preparation of tender documents and project specifications.
- ❖ Procured design review team and site supervisor from Siyenza International of South Africa to assist in implementation.
- ❖ Supervision of construction, quality assurance and control.

**2006  
to  
2007**      **Project leader - Development of Plastaplast masonry cement product**

Masonry cement involved a complete paradigm shift in the launch of the product.

- ❖ Market surveys - Usage and attitude (U&A) and Conjoint variate analysis (CVA) for viability assessment.
- ❖ Product formulation laboratory trials, industrial trials, risk assessment, packaging designs and procurement, Awareness creation internally and



externally.

**2001  
to  
2006**

**BAMBURI CEMENT LTD.**

**Technical Services Engineer**

- ❖ Supervision of a roller compacted concrete road trial section in Karatu, Gatundu.
- ❖ Technical support to commercial through resolution of customer queries and advice to clients on proper use of cement and concrete.
- ❖ Coordination of concrete poles development for electricity transmission and street lights for Bett Company (Kenya). Project involved coordination with Kenya Bureau of Standards for adoption of local concrete pole standards, liaison with Kenya Power and Lighting and assistance in factory set-up.

**1996  
to  
2001**

**HOWARD HUMPHREYS CONSULTING ENGINEERS (KENYA) LTD.**

**(A member of BROWN & ROOT and HALLIBURTON GROUP of COMPANIES)**

**Assistant Engineer**

- ❖ Responsible to lead engineers for technical aspects and quality of work within the structural disciplines for assigned projects undertaken by the firm.
- ❖ Preliminary and detailed design of Nairobi Grinding Plant for Bamburi Cement Ltd. and preparation of computer analysis models (finite element analysis of containment hoppers and 3D frames)
- ❖ The project involved extensive detailed design in structural steelwork to support grated platforms, walkways, various machinery, portal framed sheds and conveyor structures as well as reinforced concrete design of the main production units and ancillary buildings/ structures.
- ❖ Structural analysis and design of building structures using computer programs and propriety software (AUTOCAD, STAAD III, PROKON and CADS 8110).

- ❖ Structural design of miscellaneous details for 4 storeyed Kitisuru flats for National Social Security Fund of Kenya (NSSF)
- ❖ Structural design of miscellaneous details of Jumbo Brewery for South African Breweries at Thika, Kenya.
- ❖ Structural design of miscellaneous details of Times Tower, a 38 storeyed building for Central Bank of Kenya.
- ❖ Design and detailing of 6 storey headquarters building for Credit Finance Corporation Bank (CFC) of Kenya.

1998  
to  
1999

- ❖ Detailed structural design for Tis Abay II Hydro Power Project in Ethiopia  
The project involved reinforced concrete design of water canals, penstocks, switchyard and a hydro-electric power station forming the project's core unit with a substructure 30m underground and a superstructure 10 metres high comprising of twin generating units capable of producing 75MW of power.
- ❖ Detailed structural design of Olkaria II geothermal power project in Naivasha Kenya for Kenya Electricity Generating Company (Kengen)  
Olkaria II Geothermal Power Project involved extension of the then current power station at Olkaria and construction of a new geothermal power station that was built within 4 years.

The project included roads, housing, steamfields, substations and a powerhouse with twin generators capable of producing 64MW of power and associated works. Detailed structural design for Olkaria III Early Generation Geothermal Power Project in Naivasha, Kenya.

Structural design work included design of foundations for electro-mechanical equipment, design of the support structures for all buildings.

**[G] PROFESSIONAL REFEREES**

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