



FROM THE MANAGING PARTNER'S DESK

Welcome to the second edition of CETRIC TIMES. This month's publication will be focused on sustainability of architectural and engineering professions in the built industry through local patronage. For all efforts made, sustainability has become a major concern of the contemporary architectural and engineering firms of Nigeria due to fundamental issues.

In this quarter newsletter, we will be reviewing the construction journey so far in Nigeria, its effects, challenges and recommendation for sustainability.

In addition, we want to ensure that this newsletter continues to be a platform for discussing trends in the Architectural and Engineering Industry. Based on this, we will be reviewing the 2019 trends in construction industry.

Emerging technology such as 3D printing and advanced digital revolution makes this an exciting time to address all fundamental issues and be more involved in engineering and architecture.

We are determined to reflect our industry achievement, Creativity & Innovation, Excellence, Team work, Reliability, Integrity and Courage (CETRIC) values through this newsletter.

Relax and read as we build a nation that supports development and sustainability.

PROJECT FOCUS: REGAL COURT, 4, TEMPLE ROAD, IKOYI



In one of the high brow developing neighbourhood of Ikoyi, at the intersection of the famous Oba Adeyinka Oyekan Ave. and Olu Holloway lies a Medium rise residential block of apartments called "REGAL COURT". The name was coined by a group of friends with the objective of creating a retirement home that will meet their long standing aspirations. The design concept in the realization of the client's dream was to create an 'introvert' planning concept in which all the external activities of the apartment blocks revolves around an open private court where all...

... recreation facilities such as swimming pool, gymnasium, bar, children play area are located for social interaction.

The apartment block designs is also unique and quite different from typical apartment blocks. There are two blocks of apartments on six floors comprising of five numbers of four bedroom and a two bedroom apartment on the Ground floor. Each Apartment occupies 450 sqm on each floor but with a distinctive separation of public areas and private areas. The Living, Kitchen, Dining, Visitor's Bedroom located in one wing (225 sqm) whereas, the mirror image comprising of Three bedrooms and a family living room is situated on the other wing of the same floor.

The Apartment blocks features alcove windows, plain and simple facade; provides luxury living spaces and generous bedroom spaces in an elegant modern trend.



The scope of structural engineering services involves the design and construction supervision of the foundation and the structural members such as columns, beams and slabs. The six floor building was founded on 172 piles comprising 100Nos. of 600mm dia and 72Nos. of 800 dia bored piles to 15m depth. The substructure loads were transferred to the piles through pile caps for pile groups. The columns vary from 230 x 600mm to 230 x 230mm, and were partly used with lift shaft RC walls to resist shear from wind effect. The floors were made from 250mm thick slab (composed of 200mm high by 325mm wide classic clay pots and 150mm wide ribs) and reinforced concrete beams as transfer elements to the column. The floors were designed to sustain the expected loads from the expected usage of the building. The ancillary buildings such as service building,

security/gate house and swimming pool were founded on raft foundation comprising 200mm thick slab and 900mm deep ground beams.

The scope of Electrical and ELV systems comprising; External and internal lighting systems, Public utility and Emergency power supply, small power and miscellaneous services, Central TV, Fire Detection and Alarm, CCTV etc. The sanitary appliances are connected to hot and cold water systems, with water supply and distribution through a main pressurized pump, or a duty pump and another standby pump. The duty and standby pumps are alternated with a cyclic controller, ensuring that both pumps are equally utilized. The pent floors have dedicated back up pressurized pumps. The building deploys a single stack drainage system for soil and waste water pipe works. Other mechanical services include HVAC system using mini-split units and extractor fans, borehole and water treatment plant, sewage treatment plant, swimming pool equipment, diesel oil storage and distribution, Firefighting system using Dry Riser System and Fire Hose Reel System. Each residential block also uses a passenger/goods lift for vertical circulation.



IN THE NEWS

Autodesk organizes BIM discovery and planning workshop with CCP for stronger multi-disciplinary collaboration

Kingsway Tower has attained practical completion

CCP multi-disciplinary departments (Architecture, Structure, MEP, QS, PM) engaged in the design and supervision of the ongoing construction of White Orchid House

2019 INDUSTRY TRENDS

3D Printing, an emerging technology in the Construction Industry is a credible structural solution to prototyping, component manufacture to full scale printing of house components.

UP COMING EDITION

Building collapse, Who is to be blamed?

QUOTE OF THE QUARTER

“As an architect, you design for the present with an awareness of the past for a future which is essentially unknown.”
Norman Foster

SUSTAINABILITY OF ARCHITECTURAL AND ENGINEERING PROFESSION FOR THE BUILT INDUSTRY IN NIGERIA THROUGH LOCAL PATRONAGE

The development of a country is relatively determined by the status of the infrastructure prevalent within the country which is ingeniously designed and developed by Architects and Engineers. The contributions of these professions to the development of a nation cannot be over emphasized; therefore the need to ensure the sustainability of these professions over time is paramount to the successful existence of any nation.

Nigeria, over the years has been inundated with many development programs by various Governments (Military or Civilian) in an effort to encourage development and local professional participation in the infrastructural development of the nation. Previously, Architects and Engineers were encouraged to participate in the infrastructural development of the nation through private and government patronage. This led to capacity building of various firms which invariably collaborated or employed foreign consultants to assist them to execute large and complex projects. In the nineties, President Muhammadu Buhari, as the chairman of Petroleum Trust Fund, ensured that all PTF projects were executed by indigenous (local) consultants. This created a lot of employment of professional staff as well better control of the built environment. The regulatory institutions, COREN and ARCON also played a role in controlling the influx of foreign unlicensed professionals.

The current trend today is the proliferation of building and infrastructural development by unlicensed and unregistered local or foreign professionals practicing in the shores of our country thereby causing problems such as Increase in the number of collapsed buildings, degeneration of our built environment due to poorly designed or executed building or infrastructure, violation of building codes affecting the health and safety of inhabitants, low patronage of local consultants thereby reducing job opportunities, unemployment of young graduates, indiscriminate flagrant abuse of the country's laws and regulations, distortion of built environment which is detrimental to safety of lives and property of Nigerians.

Rather than having local consultants in the forefront of infrastructural development in the country, the unfortunate situation is that they have been relegated to play second fiddle to unlicensed foreign professionals to the detriment of the host country and in defiance of Ethics and Code of Professional Conduct. The need to stem this act of illegal incursion of foreign consultants as well as the unregistered consultants (quacks) is paramount in order to forestall the indiscriminate development of our towns and cities.

There is need to curb the poor conditions of Nigerian environment and nurture a culture of self reliance, manage human resources to deliver an enduring legacy for future generations.

The law enforcement agencies require the support of all professionals to enable them actively engage and sanction all offenders.

The regulatory bodies such as ARCON (Architects Registration Council) and COREN (Council for the Regulation of Engineering in Nigeria) should proactively be involved in the forefront of preventing the practice of Architecture/Engineering by unlicensed professionals.

It is known that the federal and some state government actively participate in the patronage of foreign consultants in executing construction projects. We therefore appeal to all levels of Government to encourage local content. When the Federal and State Governments actively participate in patronage of foreign consultants in executing construction projects, local content is not developed. If local consultants are well patronized, it will curb the current rise in graduate unemployment thereby contributing to the growth of the built industry in Nigeria and the Nations economy at large. It will also ensure the sustainability of the two professions overtime.

In conclusion, the Federal Government through the regulatory bodies should actively engage in promoting local consultants in the infrastructural development of the country.