

# CHALLENGES OF BUILDING CONSTRUCTION AND MAINTENANCE ON RECLAIMED LAND

(A case study of Lekki, Lagos State.)

BY

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# A DISSERTATION SUBMITTED TO THE DEPARTMENT OF BUILDING TECHNOLOGY, COLLEGE OF SCIENCE AND TECHNOLOGY, COVENANT UNIVERSITY, OTA, OGUN STATE, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF POSTGRADUATE DIPLOMA IN BUILDING TECHNOLOGY/CONSTRUCTION MANAGEMENT.

## MAY, 2017. ACCEPTANCE

This is to testify that this dissertation was accepted in partial fulfillment of the requirements for the award of Postgraduate Diploma in Building Technology/Construction Management.

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### DECLARATION

I, ADEDOYIN, Olayinka Enitan hereby declare that this research was entirely carried out by me under the supervision of Prof. O.I FAGBENLE of the Department of Building Technology, Covenant University, Ota, Ogun State, Nigeria. The dissertation has not been presented, either wholly or in parts, for any degree elsewhere. All sources of scholarly information used were dully acknowledged.

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# CERTIFICATION

We hereby certify that this project was carried out by ADEDOYIN OLAYINKA ENITAN, matric No 15PCB00070 of the department of Building Technology, Covenant University, Ota, Ogun State and is adequate in scope and quality for the partial fulfilment of the requirements for the award of Postgraduate Diploma in Building Technology/Construction Management.

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# DEDICATION

This project is wholly dedicated to God. He had sustained me through this entire programme.

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## ABSTRACT

Many coastal areas have been intensively urbanized because people living and working on or near coastlines are increasing. Land reclamation from the sea and high-rise buildings are common approaches to satisfying the growing needs for more housing and other land use. Using a coastal area in Lagos state, Lekki peninsula as a case study, buildings so constructed on these reclaimed land are faced with various challenges and difficulties, such as portable water production problem, flooding and waste management problem and hydroconsolidation effect leading to building settlement. The aim of this research work is to proffer possible measures to ameliorating the various constraints. Literatures and journal on identified factors affecting buildings constructed on reclaimed land were consulted, together with proper and adequate field survey. The data gathered via a well-structured set of questionnaires were evaluated and analysed using Statistical Package for Social Sciences (SPSS). The method of used was Relative Importance Index (RII) to measure the level of occurrence of the identified difficulties and ascertain the efficiency of the proffered measures. It was concluded that the major problems of reclaimed land building are basically a resultant effect of failure to engaged the proper method of construction suitable for this type of land and failure to consider the appropriate maintenance measures laid down to have a challenge free environment. In additional, it is recommended that proper method of land reclamation must first be engaged in reclamation when so is desired to be carried out by private bodies, the appropriate professionals in the construction industry must be engaged, stagnation of water should be as much as possible prevented around buildings erected on reclaimed land and adequate and intense supervision must be done at all point of constructing on reclaimed land. These mentioned above will create a functioning and reliable living in reclaimed land buildings.