PRIMETECH

Mechanical, Electrical & Piped Services



www.primetech-solutions.com

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OUTDOOR AIR

Overview

PrimeTech MEP is a team of design engineers with decades of inherited and own experience, providing reliable, innovative and efficient Mechanical, Electrical & Piped Services (MEP) Solutions for the construction of buildings, industries and infrastructure.

With formidable local and international partnerships, **Prime**Tech MEP has the capacity to execute complex engineering design projects in record time, and in agreement with clients' requirements, using integrated 5D BIM collaboration for synchronous work across the different components and stages of projects.

The team has, deliberately and over time, invested in the development capacity and competencies in its business segments. It has also invested in the individual team members to be able to consistently deliver best -in -class standards for the satisfaction of clients, be it in technical consultancy, Front -End Engineering Design (FEED) or detailed engineering design.

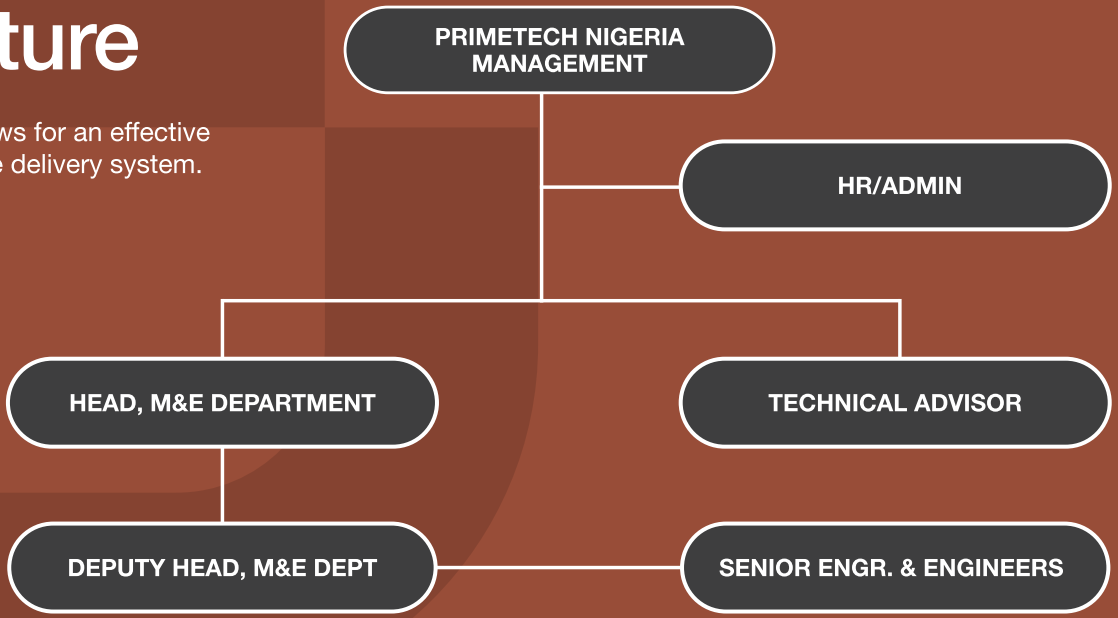


***Prime**Tech's vision is to be the design and engineering partner of choice in Nigeria by securing clients' success through excellence and value.*



Structure

Our structure allows for an effective and efficient value delivery system.





Corporate Culture



PRECISION

Thorough preparation, carefully planned design & engineering solutions, structured processes and pinpoint execution



PARTNERSHIP

Mutually agreed, ambitious but realistic goals achieved through utmost value for professional and collaborative cooperation



INNOVATION

Development of creative solutions and continuous upgrade of technical capacities and support facilities



QUALITY

Balancing aesthetics, function, environment, human, and economic considerations to find solutions



INVESTED

Committed to project goals, staff and community development



EMPLOYEE DRIVEN

Quality delivery cycle beginning and thriving upon employee-related policies



RESPECT

Stimulating respect to boost productivity, collaboration, fairness and employee satisfaction, which extends to clients and partners

MEP
Services



PrimeTech MEP has specialists who provide design optimisation, commissioning and related services for heating, ventilation and air conditioning (HVAC) as well as electrical, plumbing and fire protection systems for a wide range of industrial commercial and residential buildings, including data centres and healthcare centres.

The team also offers consultancy in the design and management of MEP installations. It uses BIM technology for effective collaboration with other disciplines, allowing for accuracy in design and prompt response to project requirements.


LG

Mechanical Services

- Air-conditioning and ventilation systems
- Fire suppression and smoke control systems
- Sanitary/plumbing systems – drainage, water supply and distribution systems
- Engineering for lifts
- Bill of engineering measurement and evaluation
- Supervision and commissioning of installation works

Electrical Services

- Power distribution systems
- Lighting systems and control
- Earthing and lightning protection systems
- CCTV and multimedia systems
- Access control and handicap call system
- Solar energy systems
- Fire and smoke detection systems
- Bill of engineering measurement and evaluation
- Supervision and commissioning of installation works


rZ-TKT
wilo
wilo



PrimeTech MEP team has executed a wide ranging array of design development and supervision of projects with conformance to all International Codes and Standards.

HVAC

PrimeTech MEP has the capability to deliver HVAC detailed drawings and 3D models as per international standards for all types of infrastructure including hospitals, data centres, stadiums, airports, commercial & residential buildings as well as mixed-use developments.

KEY SERVICES INCLUDE:

• Equipment modelling and layout • Duct modelling and layout
• Equipment selection and sizing • Heat load calculations
• Schematics, schedules, legends, and control diagrams
• Mechanical equipment layouts, submittals and elevation drawings • FEED and detailed design drawings • MEP renderings and walkthroughs



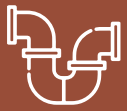


ELECTRICAL

PrimeTech MEP has delivered customised electrical solutions to its clientele based upon the asset requirements.

The team has good domain expertise where not only modelling elements are taken into consideration but also the constructability and coordination between other services.

KEY SERVICES INCLUDE:
• Layout modelling as per schedules • FEED and Detailed design drawings • Detailing of light fixtures • Preparation of single line diagrams • Cable tray routing and calculations • Distribution layouts • Power, containment, lighting, telephone, security system, fire alarm and BMS plans



PLUMBING

PrimeTech MEP has the expertise to deliver plumbing (water and drainage) models and detailed drawings as per global standards and client requirements.

With years of experience, the team has developed know-how in all kinds of plumbing systems and has the capability to offer customizations to impact cost and timelines.

KEY SERVICES INCLUDE:
• Equipment layouts and product installation drawings • Hot and cold piping systems • Water services schematics and layouts • Sizing and selection of equipment • FEED and detailed design drawings • Water and Drainage schematics • Drainage systems design • Water treatment and sewage treatment plant design



FIRE PROTECTION

The **Prime**Tech MEP team has the capability to model fire protection systems according to building codes and types of buildings.

Due to the criticality of the service, **Prime**Tech MEP ensures that the team is abreast with the latest Fire Codes and safety principles. The validation of the Fire Protection plan is as per the client requirements and building type/ area safety requirements.

KEY SERVICES INCLUDE:
• Fire Extinguishers • Automatic Fire Sprinkler Systems – Dry, Wet and Deluge Systems • Fire Suppression Systems and Hydrant and Hose Reel Systems • Fire Water Storage • Fire Pumps Selection and Pump Head Calculations • Fire Alarm and Detection Systems • Smoke Control/ Exhaust Systems

Building Information Modelling (BIM)

Building Information Modelling (BIM) is changing how buildings, infrastructure, and utilities are planned, designed, built, and managed.

PTN BIM team employs market leading modelling software to transform design representation and help turn information into a 3D parametric environment. By modelling every step in the building lifecycle, we accelerate productivity, mitigate risks, promote innovation and help you visualise critical processes to solve business problems.

PTN provides fully integrated Virtual Design and Construction (VD&C) models for projects, including the Product (i.e., facilities), Work Processes and Organization of the design, construction, operation teams in order to support explicit and public business objectives.

PTN VD&C solutions enhance the design collaboration and communication between members of AEC industry.

Integrated **5D BIM**

3D



3D MODELLING

- Constructability studies.
- Drawings and document extraction.
- Clash/Conflict detection and resolutions.
- Presentation materials.

4D



4D MODELLING

- Model based Scheduling.
- 4D Sequencing/ Animation.

5D



5D MODELLING

- Model based quantity take-offs and estimation model based cost planning.

Project **Portfolio**

PrimeTech MEP Projects

1. Ebocha Farm Production and Camp, Rivers
2. Office Building, Lagos
3. Minister House 11, Abuja
4. Commercial Building, Port Harcourt
5. Abuja Office Complex
6. Marine Control Building, Bonny
7. Data Centre, Abuja
8. Rivers State Government Clinic
9. Consulate Building, Bonny
10. Port Harcourt Ecumenical Center
11. Port Harcourt Government Admin & Finance Building
12. Villa 3 Project, Port Harcourt
13. Hotel Development, Maiduguri
14. Mixed-Use Building, Warri
15. Golf Clubhouse, Bonny
16. Chancellery, Abuja

Ebocha Farm Production and Camp, Rivers





Construction of an agricultural production facility and residential Life Camp on a 166-hectare farm plot along Omok-Ebocha road, Rivers State. The agricultural production facility is to cater for fish production, poultry, aquaculture, oil production, grain silos, feed mills and greenhouses, while the Life Camp provides for housing and recreational facilities.

PrimeTech MEP was responsible for the MEP design of all buildings and related facilities, water supply, drainage services, heating systems, HVAC systems, electrical services like lighting, earthing and lightning, pumping facilities and also a greenhouse etc.



Office Building, Lagos





This private 9-floor office building offers breathtaking 360-degree views of both Victoria Island (VI) and Eko Atlantic. The tower caters to a variety of essential services, including flexible and contemporary office spaces, a vibrant restaurant, a well-equipped gym, and more.

The building implements robust fire-fighting strategies, incorporating state-of-the-art fire suppression systems, well-planned fire exits, and stringent safety protocols to prioritise occupant safety and wellbeing.

To minimise its environmental impact, the tower integrates sustainable design elements, such as energy-efficient technologies and the potential inclusion of green spaces.



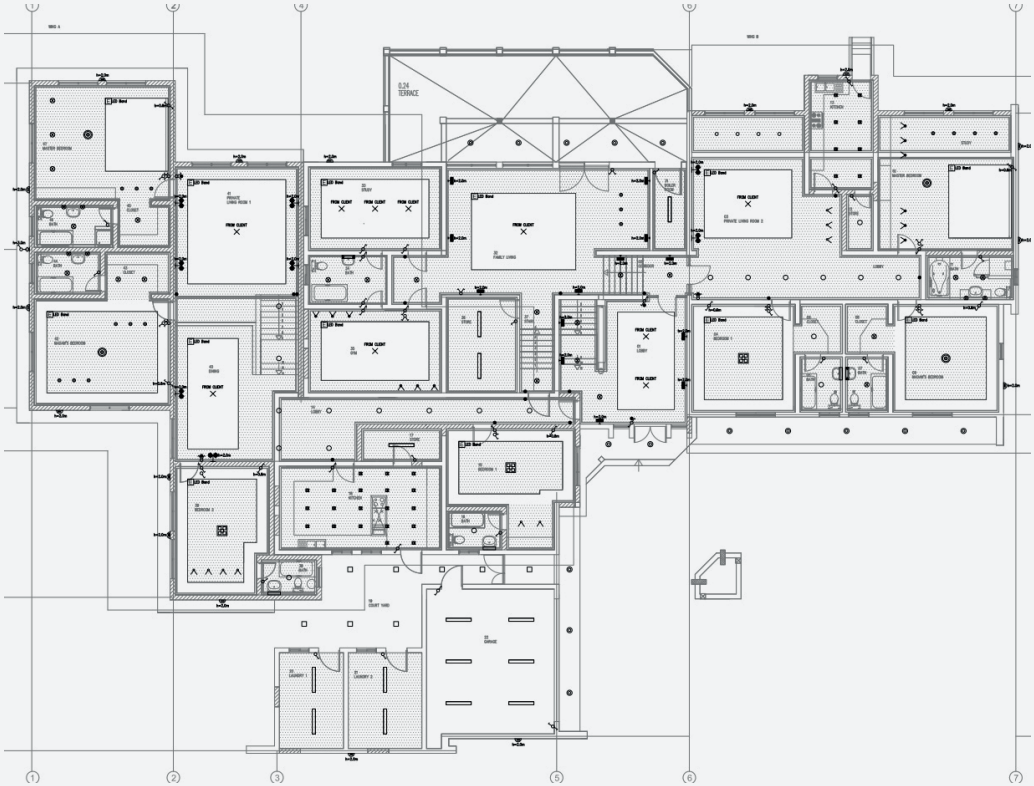
Minister House 11, Abuja

This rehabilitation and renovation project entailed a comprehensive MEP design solution, meticulously planned to ensure the safety, efficiency, and comfort fit for a modern living environment.

Our electrical services cover the design and implementation of power supply and distribution systems plus lighting solutions. Additionally, we incorporated earthing and lightning protection systems to safeguard the property. Extra Low Voltage services include the integration of fire detection and alarm systems for enhanced safety.

We also provided expert design and supervision of HVAC systems, ensuring optimal climate control and energy efficiency throughout the development. Our plumbing services cover both water supply and drainage systems, designed to meet the highest standards of functionality and reliability.




TERRACE
FAMILY LIVING
GARAGE

Commercial Building, Port Harcourt

The project was the design of a multi-use commercial centre housing many retail centres, cinemas, restaurants, and spa and wellness centre.

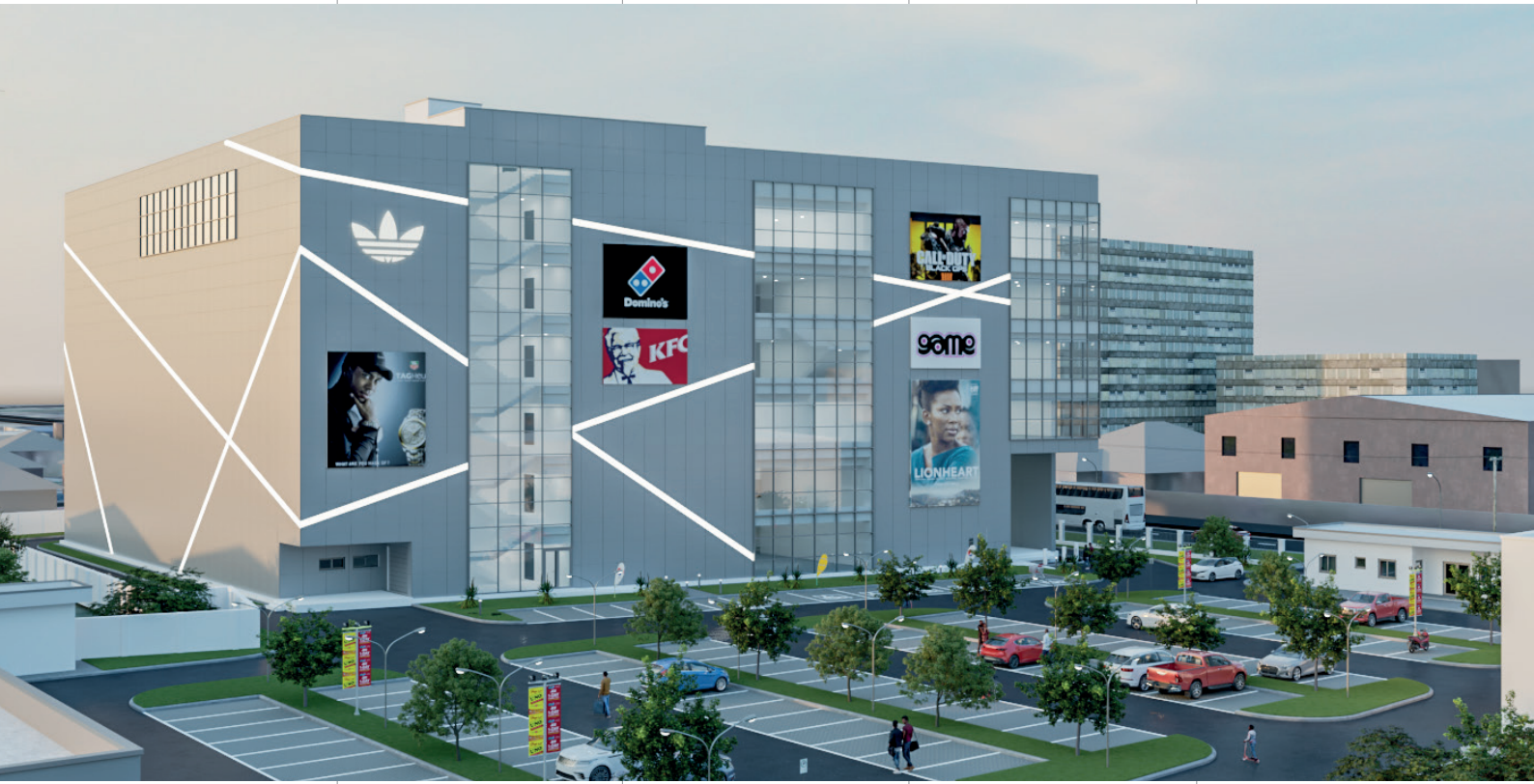
PrimeTech MEP was responsible for the MEP design including elevators, escalators, water supply, drainage services, multimedia, HVAC systems, and electrical services like lighting, earthing and lightning, fire detection and suppression system including fire sprinklers.

A lot of input was made to ensure the harmonisation of all MEP services with the architectural concepts.

Design made use of BIM processes to ensure clash detection, BOQ extraction and services coordination.





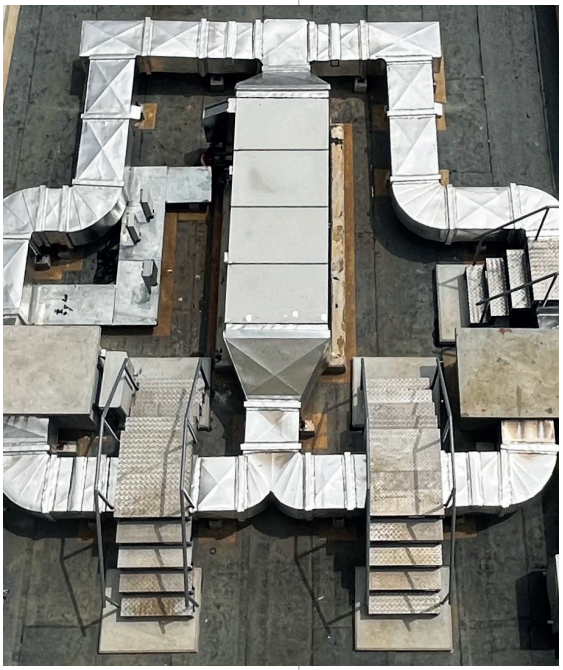

Domino's
KFC
game
LIONHEART

Abuja Office Complex

The building is a three-floor office development that consist of a data control centre, training centre, auditorium with gallery, lifts as well as open-plan and closed-plan offices.

The MEP scope covered the lighting, earthing and lightning protection, multimedia, HVAC, fire detection and suppression, as well as sanitary services.

Design made use of BIM processes to ensure slash detection, BOQ extraction and services coordination.





Marine Control Building, Bonny

The objective of the building is to provide a system for the efficient monitoring of the LNG/LPG Jetty waterfront activities, fairway buoy and Bonny River channel.

The building houses a vessel traffic monitoring information and tracking system integrated with weather monitoring for the safe passage of the vessels utilising the Bonny Channel and to enhance emergency response capability for incidents in the channel.

PrimeTech MEP team worked on the building's lighting, earthing and lightning protection; data and internet, multi-media, VTIMS radar system, HVAC, fire detection and suppression, plus sanitary services.







Data Centre, Abuja





The public infrastructure is a technology building, data command, communication and control centre. It was built to serve as a hub for the management of important personal data.

In addition to the Data Command and Control Centre, the building consists of auditorium gallery, lifts as well as open-plan and closed-plan offices.

PrimeTech MEP team worked on the building's emergency generator, lighting, earthing and lightning protection, data and internet, multi-media, HVAC, fire detection and suppression plus sanitary services.


NIGERIA IMMIGRATION SERVICE

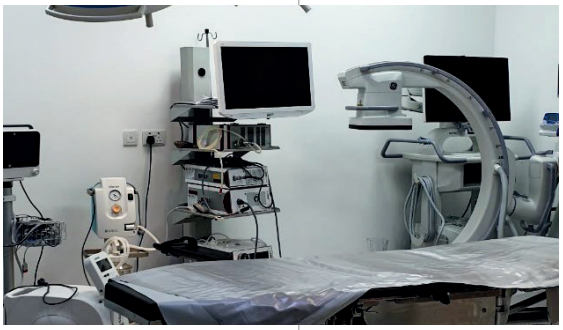
Rivers State Government Clinic

The scope includes the design and supervision for a VIP Clinic at the behest of Rivers State Government.

The hospital is furnished with sophisticated state of the art medical equipment including MRI, X-ray, CT-Scan, state of the art operation theatre, sterilization room, etc.

Our scope covered a dynamic UPS, emergency generator, lighting, IT network earthing system, normal earthing and lightning protection, hospital bed head unit, data and internet, multi-media, HVAC, medical gas piping, fire detection and suppression plus sanitary services.







Consulate Building, Bonny





The building design references the old Bonny Consulate Building, which was the seat of British colonial administration in 1897. The new building now houses Bonny FM Radio Station, the office of the King of Bonny, a library, museum, cafe, movie hall, seminar/ exhibition hall, souvenir shop and ancillary offices.

Our scope covered the lighting, earthing and lightning protection, multimedia, HVAC, fire detection and suppression, as well as sanitary services.

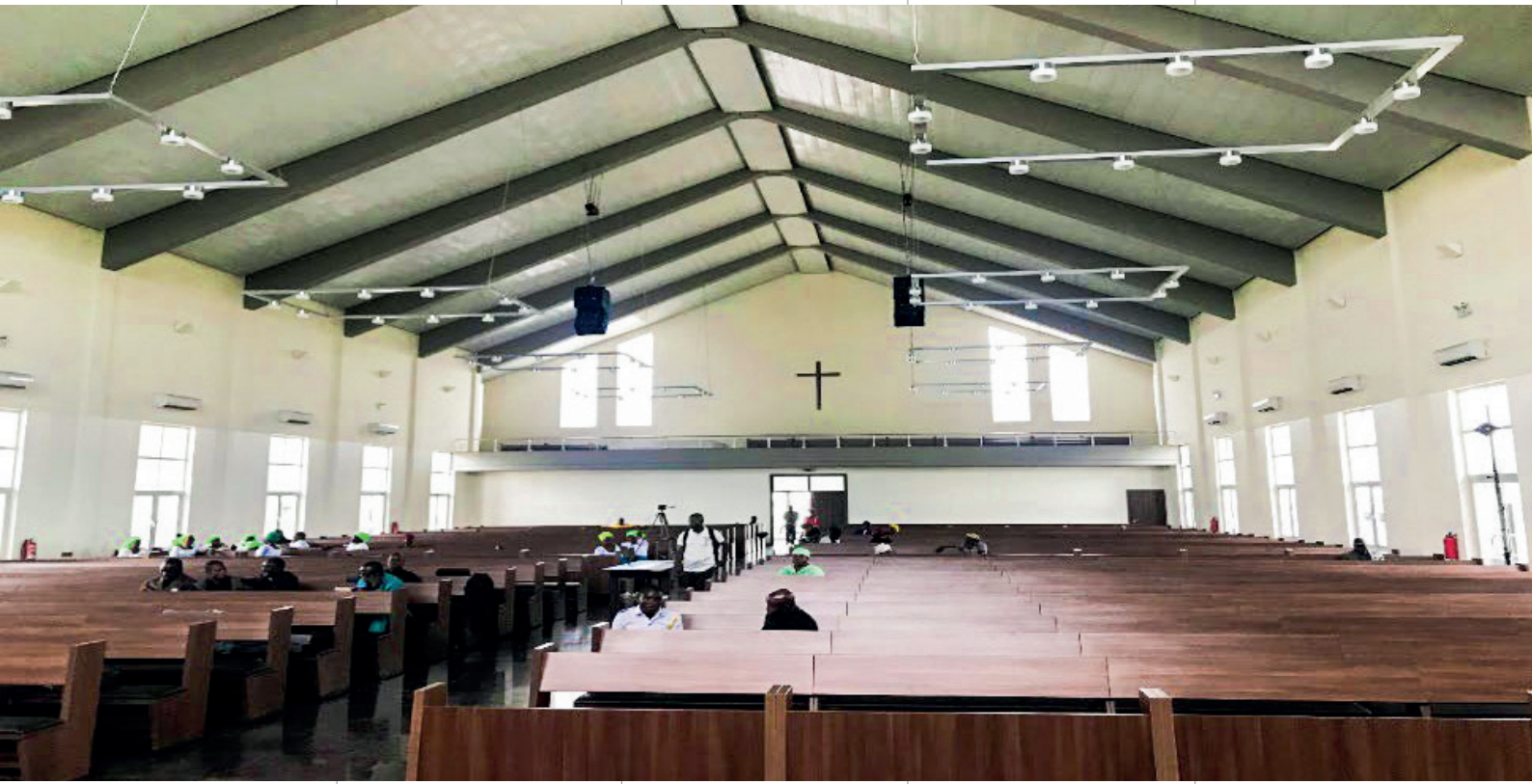

BONNY CONSULATE

Port Harcourt Ecumenical Center



The ecumenical centre is designed as a single-bay church with a gallery. It is designed to house over 1000 worshippers at a time and also has offices for the chaplain and other staff.

The building has a total gross floor area of 1,385sqm and **Prime**Tech MEP's scope covered lighting, earthing and lightning protection, multi-media, HVAC, fire detection and suppression plus sanitary services.

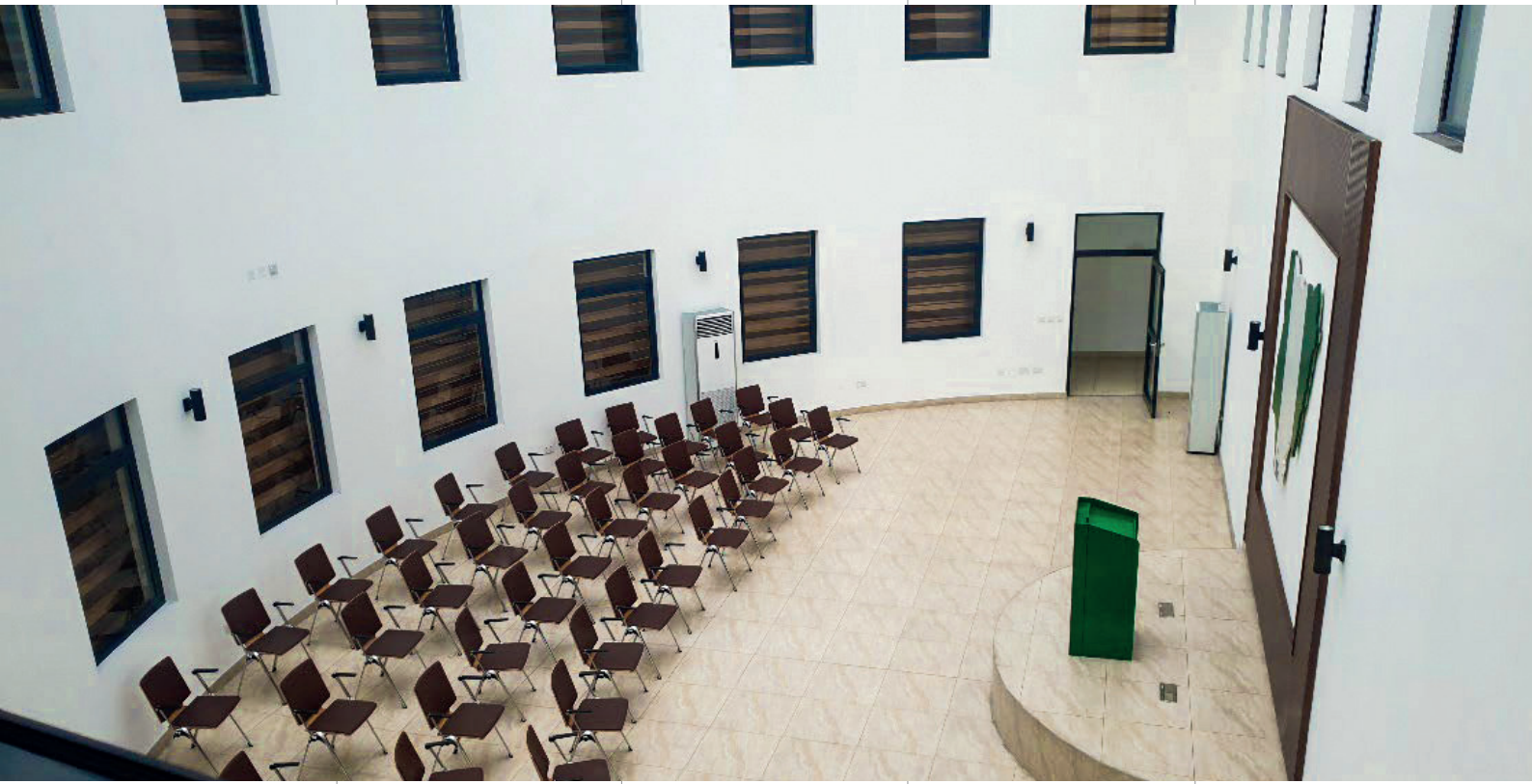


Port Harcourt Government Admin & Finance Building



The project was an office building housing the Administrative and Finance Department of the Rivers State Government. It has a courtyard auditorium, Conference, a 140-seater internal auditorium, a bullet proof strong room, press centre, open-plan and private offices.

Our MEP scope covered lighting, earthing and lightning protection, data and internet, multi-media, HVAC, fire detection and suppression plus sanitary services.



Villa 3 Project, Port Harcourt





The project is for a luxury apartment building and ancillaries that include swimming pool and equipment.

The building and its ancillary structures was fully coordinated using the BIM software before construction.

Our MEP scope covered emergency generator, architectural lighting, earthing and lightning protection, HVAC, water supply and drainage services, fire detection and suppression.



Hotel Development, Maiduguri





This hotel project boasts 75 well-appointed guest rooms and suites, each equipped with modern amenities for a comfortable stay. With a diverse range of dining options, guests can indulge in various cuisines at the on-site restaurant. The hotel features multiple lounges where guests can relax and socialise, along with a stylish bar for entertainment. State of-the-art meeting and event facilities are available for corporate gatherings and social occasions.

Our scope covered the design of VRC HVAC system, lighting systems, lightning and earthing system, water supply and drainage as well as firefighting and fire suppression systems. Our design focus on this project was to prioritise client and environmental interests by tendering energy solutions.



Mixed-Use Building, Warri

This project entails the construction of a multi-purpose building development. It features a hotel, office spaces and residential apartments.

A terrace connects the hotel and office building on the upper floor, fostering interaction. It aims to promote economic growth, attract tourists, and enhance the local real estate market.

The highlight of our MEP Services is the integration of Building Management System (BMS) into our design, adhering to company standard sustainable design practices. Other services covered on this project include; the design of lighting, earthing, LV power & ELV systems, HVAC, plumbing water supply & drainage, fire-fighting and suppression systems.







Golf Clubhouse, Bonny

The proposed golf clubhouse places a strong emphasis on passive design strategies to enhance sustainability and energy efficiency. The structure is carefully oriented to optimise solar benefits and reduce direct sunlight penetration.

The incorporation of shading elements and vegetative cooling techniques further reduces solar heat gain. Additionally, the roof slope is optimised to accommodate solar panels for alternative power generation. The clubhouse includes various spaces: an indoor restaurant, gathering area, golf shop, and other supporting facilities. By providing a comfortable environment and minimising energy consumption and environmental impact, the clubhouse strives to fulfil its purpose while embracing sustainable design principles.







Chancellery, Abuja

This chancellery building in Abuja is designed with a focus on security and public accessibility. It features bulletproof walls and windows for passive security, along with active security measures.

The building's orientation maximises natural light in internal spaces. Existing elements like trees are preserved and extensive planting, including an outdoor garden, is added to enhance staff comfort and maintain habitats, paying tribute to the host's gardening tradition.

The chancellery incorporates secure zones in the mid and rear areas, while public and semi-public spaces are situated towards the front. Overall, the building aims to provide a secure, well-lit, and eco-friendly environment that balances security needs with public accessibility and staff well-being.







PrimeTech Design and Engineering
Nigeria Ltd.

Abuja Office:
Plot 305 Idu Industrial Area 1B
Idu 900 102 | FCT Abuja
RC No. 973930

Lagos office:
4th Floor – Julius Berger Office Complex
No 15 Ijora Causeway
Opp Water Corporation
Ijora Olopa 101253 | Lagos

Phone: +234 803 906 7000

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