

**TERMS OF REFERENCE**  
(Individual Contract Agreement)

**Title: Senior Geotechnical Engineer**

**Project: Health Facilities Assessment and Design (8No) and Rehabilitation (3No)**

**Duty Station: Freetown, Sierra Leone**

**Section/Unit: AFR GMCO - Infrastructure Unit**

**Contract Level: ICS11 / LICA 11**

**Supervisor: Infrastructure Specialist / Project Manager**

### **1. General Background**

United Nations Office for Project Services (UNOPS) Ghana Multicountry Office (GMCO), located in Accra, Ghana is responsible for projects in Anglophone West Africa, covering Ghana, Gambia, Liberia, Nigeria and Sierra Leone. GMCO is responsible for managing strategic and operational risks associated with a subset of the regional portfolio of engagements, developing and delivering cost effective services contributing to partners' sustainable results and achievements of UNOPS management results.

UNOPS has been established in Sierra Leone since 2000 and currently has 65 personnel in country, operating out of 3 main locations – in Freetown and the other district Field Offices.

During the last 15 years, UNOPS has delivered a variety of infrastructure projects nationwide, particularly in the fields of health and security infrastructure, and has procured a variety of vehicles, non-medical health related items and medical equipment.

The Senior **Geotechnical Engineer** is part of the Infrastructure/ Engineering Team, with Primary Supervisor (Infrastructure Specialist) based in GMCO and direct reporting line to the Project Manager on the day-to-day operations of the Project. He/she is expected to meet and exceed the organization's performance and delivery goals.

### **2. Purpose and Scope of Assignment**

The Government of Sierra Leone (GoSL) embarked on a series of improvements in the health sector in 2010 through the National Health Sector Strategic Plan (NHSSP). With the launch of Free Health Care Initiative (FHCI) in 2010, GoSL took an ambitious approach to reducing financial barriers by introducing health care systems strengthening across all pillars (Governance, Communications, M&E, Drugs and Medical Supplies, Infrastructure, Health Workforce, and Financing). The FHCI was found to be one important factor contributing to improved health care, in particular to coverage and equity of coverage of essential services for mothers and children.

GoSL is committed to advancing such an approach to help ensure that people get affordable, quality health care in the country. In support of this initiative, the Government of Sierra Leone has been working with its development partners in implementing interventions under the Performance Based Financing (PBF) Scheme, aimed at achieving SDG targets by 2030, reduce the global maternal mortality ratio, end preventable deaths of newborns and children under 5 years of age. The Performance Based Financing was launched in Sierra Leone in April 2011, to strengthen the Free

Health Care Initiative. Between 2011 and 2016, the GoSL, through the Ministry of Health & Sanitation (MoHS) implemented a nation-wide “National Performance Based Financing” scheme.

In support of the Ministry of Health & Sanitation of the Government of Sierra Leone and to strengthen its capacity in the provision of healthcare services, the World Bank Group (WBG), through the PBF scheme, intends to improve the existing infrastructure of eight (8) health facilities in the District of Kailahun before scaling up nation-wide.

The **Senior Geotechnical Engineer** shall be responsible for accuracy, interpretation, analysis of all data received and for the conclusion and recommendations in their report. The scope of work to be carried by he/she shall broadly include but not limited to the functions detailed below:

### **3. Functional Responsibilities**

#### **i. Technical**

##### **(a) Desk Study**

- Desk review of available data
- Define scope of field study to be undertaken

##### **(b) Field Study**

- Carry out Geotechnical investigation to assess the suitability of the site for the project and provide the geotechnical parameters, which include bearing capacity, soil properties and groundwater conditions required for the safe and economy of design of the structures.
- Carry out Laboratory Testing in relation to the below
  - Soil samples retrieved from the various drilled holes will be sent to the Laboratory for further testing. The laboratory test will be conducted in accordance with relevant portions of the British Standards BS 1377-90 to aid in the description and classification of the soil profile.
  - Groundwater samples encountered will be tested for their pH, Chloride and sulphate contents. This will aid in determining the chemical composition of the ground water for recommendations on the type of concrete to be used.

#### **ii. Reporting**

- Raw and analyzed data; presented in a format that can be interrogated for sufficiency and accuracy
- Photos, sketches or marked up drawings to support data
- Record of stakeholder Management activities carried for the purpose of obtaining relevant information and confirming assessment requirements, standards and best practice
- Final Report of findings and recommendations
- Produce any appropriate documentation identified by the Project Manager

**iii. Knowledge Sharing**

- Contribute to the project evaluation process; highlight challenges associated with the project and feedback into a continuous improvement cycle.
- Provide training and knowledge transfer where required.
- Contribute to the dissemination and sharing of best practices and lessons learned for development planning and knowledge building

**iv. Monitoring and control**

The Senior Geotechnical Engineer shall work diligently with the team in Sierra Leone in meeting the below checkpoints to assure the deliverables of the assignment are on time and to the desired quality.

Specific duties and responsibilities may include, but are not limited to:

- An Inception Report describing among other things, the scope of assessment and approach and standards to which assessment is to be carried out.
- Field visit reports detailing findings. A standard assessment form should be created and used to capture the necessary information collected in the Field Visits including relevant supporting sketches.
- Submission of Final Report detailing the sites inspected, analysis and recommendations for design.
- Undertake additional tasks as required by the Project.

**4. Impact of Results**

The effective and successful achievement of results by the **Senior Geotechnical Engineer** directly impacts the successful delivery of the project on time, budget and above all the expectations of all stakeholders. This consequently reinforces the visibility and image of UNOPS as an effective service provider in project services and management and strengthens its competitive position as a partner of choice in sustainable development and project services.

**5. Qualifications and Experience:****A. Education:**

- Advanced university degree (master or equivalent) in Civil Engineering with a major in Geotechnical/ Materials Engineering is required.
- University Degree (bachelor's degree / first level) in Civil Engineering with a major in Geotechnical/ Materials Engineering with two (2) additional years of relevant work experience will be accepted in lieu of the educational requirement outlined above.

**B. Work Experience:**

- A minimum of seven (7) years' experience with at least five (5) years of specific experience in relevant Geotechnical/Materials Engineering field is required

**C. Language:**

- Fluency in English is required.
- Knowledge of Krio and/or other local languages is an advantage.

#### D. Key Competencies:



Develops and implements sustainable business strategies, thinks long term and externally in order to positively shape the organization. Anticipates and perceives the impact and implications of future decisions and activities on other parts of the organization. **(Applicable only for levels ICS-10 and above)**



Treats all individuals with respect; responds sensitively to differences and encourages others to do the same. Upholds organizational and ethical norms. Maintains high standards of trustworthiness. Role model for diversity and inclusion.



Acts as a positive role model contributing to the team spirit. Collaborates and supports the development of others. **For people managers only:** Acts as positive leadership role model, motivates, directs and inspires others to succeed, utilising appropriate leadership styles



Demonstrates understanding of the impact of own role on all partners and always puts the end beneficiary first. Builds and maintains strong external relationships and is a competent partner for others (if relevant to the role).



Efficiently establishes an appropriate course of action for self and/or others to accomplish a goal. Actions lead to total task accomplishment through concerted quality in all areas. Sees opportunities and takes the initiative to act on them. Understands that responsible use of resources maximizes our impact on our beneficiaries.



Open to change and flexible in a fast paced environment. Effectively adapts its own approach to suit changing circumstances or requirements. Reflects on experiences and modifies own behaviour. Performance is consistent, even under pressure. Always pursues continuous improvements.



Evaluates data and courses of action to reach logical, pragmatic decisions. Takes an unbiased, rational approach with calculated risks. Applies innovation and creativity to problem-solving.



Expresses ideas or facts in a clear, concise and open manner. Communication indicates a consideration for the feelings and needs of others. Actively listens and proactively shares knowledge. Handles conflict

effectively, by overcoming differences of opinion and finding common ground.

## **E.Skills and Certifications**

### **Certifications**

- Project Management certification (PRINCE2® Foundation, PMP) is desirable.
- Active membership in a professional engineering body will be an added advantage.

### **Project Management Skills**

- Stakeholder Management
- Health and Safety
- Knowledge Management
- Quality Management
- Scoping studies
- Sustainable development
- Reporting
- Capacity Building

### **Contextual Skills**

- Experience in Infrastructure in developing country context
- Data Analysis and Interpretation
- Disaster Risk Reduction

Project Authority (Name/Title):		Contract holder (Name/Title):	
Signature	Date	Signature	Date