



Kumasi Centre for Collaborative Research in Tropical Medicine

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# **TENDER DOCUMENT**

## **Procurement of Works**

### **Contract (LUMP SUM)**

#### **FABRICATION OF A CERTIFIED TURNKEY ANIMAL BIOSAFETY LEVEL 3 (ABSL-3) MODULAR LABORATORY**

*FOR*

**KUMASI CENTRE FOR COLLABORATIVE RESEARCH IN  
TROPICAL MEDICINE**

**JULY 2026**

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## ABBREVIATIONS

Abbreviation	Full Meaning
KCCR	Kumasi Centre for Collaborative Research in Tropical Medicine
KNUST	Kwame Nkrumah University of Science and Technology
ABSL - 3	Animal Biosafety Level 3
CIF	Cost, Insurance and Freight
ITT	Invitation To Tenders
TDS	Tender Data Sheet
HVAC	Heating, Ventilation, and Air Conditioning
BIBO	Bag-In/Bag-Out
BMBL	Biosafety in Microbiological and Biomedical Laboratories
AHU	Air Handling Unit
BMS	Building Management System
WHO	World Health Organization: for standards such as WHO GMP or biosafety guidance.
PDF	Portable Document Format
ISO	International Organization for Standardization
CDC	Centers for Disease Control and Prevention
NIH	National Institutes of Health
GMP	Good Manufacturing Practice: quality standard for manufacturing
O&M	Operation & Maintenance
CIC	Certificate of Conformity
CII	Certificate of Insurance
SAT	Site Acceptance Test (or Site Acceptance Trial)
T&C	Testing and Commissioning
CCTV	Closed-Circuit Television
F7	EU Classification for a fine filter (e.g., F7)
G4	EU Classification for a coarse filter (e.g., G4)
H13/H14	EU Classifications for HEPA filters (H13, H14)
LED	Light-Emitting Diode
ACH	Air Changes per Hour
HEPA	High-Efficiency Particulate Air [Filter]
N+1	A form of redundancy (N = needed, +1 = one extra)
mm	Millimetre(s)
m <sup>2</sup>	Square Metre(s)
Pa	Pascal(s) (unit of pressure)
Pcs	Pieces
PPE	Personal Protective Equipment
Qty	Quantity
SUS	Stainless Steel (often written as "SUS 304")
UV	Ultraviolet
Z275	A designation for a zinc coating weight of 275 g/m <sup>2</sup> on steel
IP	Ingress Protection
MCB	Miniature Circuit Breaker
EPO	Emergency Power Off
MP	Megapixel
BoQ	Bills of Quantities
AC	Alternating Current

## **DEFINITIONS**

<b>Tender</b>	means a Tender for the provision of the Works submitted by a Tenderer in response to these Tender Documents
<b>Tender Security</b>	means the security a Tenderer may be required to furnish as part of its Tender
<b>Tenderer</b>	means any eligible entity or person, including any associate of such eligible entity or person, that submits a Tender
<b>Tender Documents</b>	means Sections I-X of these documents, including any amendments that may be made, prepared by the Employer for the selection of the Contractor
<b>TDS</b>	means the Tender Data Sheet in Section II of these Tender Documents that reflects specific requirements and/or conditions.
<b>Intended Completion Date</b>	means the date on which the Contractor is intended to complete the Works as specified in the TDS.
<b>Bill of Quantities</b>	means the priced and completed Bill of Quantities forming part of the Tender
<b>Confirmation</b>	means confirmation in writing
<b>Contract</b>	means the contract entered into between the Employer and the Contractor, including all the documents specified in IFT and any attachments, appendices, and all documents incorporated by reference therein
<b>Contract Price</b>	means the price stated in the Award Letter and thereafter as adjusted in accordance with the provisions of the Contract.
<b>Contractor</b>	means the entity or person, including any Associate that provides the Works to the Employer under the Contract.
<b>Day</b>	means a calendar day
<b>Employer</b>	means the entity identified in the ITF, the party with which the Contractor signs the Contract for the provision of the Works
<b>Fraud and Corruption</b>	means any of those actions defined in the TCFC (including the phrases “coercive practice,” “collusive practice,” “corrupt practice,” “fraudulent practice,” “obstructive practice,” and “prohibited practice” as defined in TCFC Clause 7), according to which action may be taken against the Tenderer, the Contractor, the Employer or any of their respective personnel.
<b>Intended Completion Date</b>	means the date on which it is intended that the Contractor shall complete the Works as specified in IFT
<b>in writing</b>	means communicated in written form (e.g., by mail, e-mail, or facsimile) delivered with proof of receipt
<b>Project Manager/Engineer</b>	means the person named in the TCFC (or any other competent person appointed by the Employer and notified to the Contractor, to act as the Project

Manager/Engineer under the terms of the Contract) who is responsible for supervising the execution of the Works and administering the Contract.

<b>TCFT</b>	means the Tender Conditions for Contractors
<b>Subcontractor</b>	means any person or entity to whom a Tenderer intends to subcontract any part of the Works
<b>Taxes</b>	has the meaning given to the term in the Contract
<b>Works</b>	means what the Contract requires the Contractor to construct, install, and turn over to the Employer
<b>Performance Security</b>	means a financial guarantee provided by the successful tenderer after the award of the contract.
<b>Advance Payment Guarantee</b>	means a financial guarantee issued by a bank or insurance company on behalf of a contractor or supplier to assure the client that any advance payment received will be properly used for the project.

## **SECTION I - INVITATION TO TENDER**

## INVITATION TO TENDER

REF: KCCR/WKS/2026/WUE4

1. The Kumasi Centre for Collaborative Research in Tropical Medicine, hereinafter referred to as ‘**The Employer**’, in collaboration with Charité Centre for Global Health, intends to construct an Animal Biosafety Laboratory using modular structure systems. The facility shall house laboratory animals and biological agents classified under Biosafety Level 3, in compliance with applicable national and international biosafety standards.
2. The Works and the Contract expected to be awarded under this ITT is **FABRICATION OF A CERTIFIED TURNKEY ANIMAL BIOSAFETY LEVEL 3 (ABSL-3) MODULAR LABORATORY AT KCCR, KNUST**, and to be completed **within eight (8) calendar months**.
3. The ***KUMASI CENTRE FOR COLLABORATIVE RESEARCH IN TROPICAL MEDICINE*** now invites sealed Tenders (“Tenders”) from eligible and qualified entities or persons (“Tenderers”) to provide the works referenced above.
4. This ITT is open to all eligible and qualified Tenderers who wish to respond to the relevant “Tender Documents”. **Qualification requirements are as described in clause 8.**
5. It is intended to award the contract for the Works as detailed in the attached Drawings, Specifications, Scope of Works, and Bill of Quantities (BoQ) included in the Tender Documents accompanying this ITT.
6. A contractor will be selected under a competitive Tendering method through the evaluation procedure, which is described in the **Tender Documents**.
7. **The Tender Documents consist of;**

SECTION I	-	The Tender Invitation
SECTION II	-	Tender Data Sheet and Qualification Criteria
SECTION III	-	General Scope of Works and Specification
SECTION IV	-	Tender Condition
SECTION V	-	General Company Information Form
SECTION VI	-	Specimen of Advance Payment Bank Guarantee
SECTION VII	-	Form of Taking-Over Certificate
SECTION VIII	-	Declaration of Tenders
SECTION IX	-	Bill of Quantities -in duplicate -PDF and editable
SECTION X	-	Drawings in <i>PDF and an editable AutoCAD version</i>

- No A101. General Layout of KCCR
- Drawing No A102. Overview & B
- Drawing No A103. Floor Plan
- Drawing No. A104. Room pressure/GMP requirement

- Drawing No A105. Sockets and Air Curtain Layout
- Drawing No A106. Proposed Lighting Layout
- Drawing No A107. Plumbing Layout
- Drawing No. A108. Camera and Disinfection Light Layout
- Drawing No. A109. Instruments Layout
- Drawing No. A110. Foundation Plan

8. It is mandatory that Tenderers provide the following documents in their tender:

**Part 1: - Company Information**

- a) Valid Certificate to Commence Business
- b) Valid Labour Clearance Certificate (Optional)
- c) Valid Tax Clearance Certificate
- d) Certificate of Incorporation
- e) Valid Certificate of Registration of VAT
- f) Auditors' Report or last Financial Statements
- g) Company Profile
- h) Similar ABSL-3 or BSL -3 turnkey projects executed within the last 5years. Copies of completion certificates and client references must be provided.
- i) Qualifications and CVs of Key Personnel

**Part 2: Technical information**

- a) Concept design of;
  - Modular structural units with load calculations
  - HVAC and Electrical systems with load calculations and cable list
- b) Data sheets and specifications of components/products and equipment.
- c) Installation Methodology
- d) Detailed Work Programme of;
  - Manufacture or Sourcing and supply lead times
  - Estimated arrival at Tema Port
  - On-site assembly start and completion dates
  - Testing, Training, commissioning, and handover date

**Part 3: Financial information**

- a) Priced Bill of Quantities
- b) Payment Terms
- c) Tender security

9. A complete set of the tender documents shall be made available electronically via the designated procurement platform.

## 10. The Tender Submission Structure

The Tender submission structure shall be a **Three–Envelope–Electronic**. Tenderers shall upload documents under three separate electronic folders.

Envelope	Details
Envelope 1	<ul style="list-style-type: none"> <li>• The Tender</li> <li>• Company Information “as listed under ITT clause 8, part 1”</li> </ul>
Envelope 2	<ul style="list-style-type: none"> <li>• Technical Information “as listed under ITT clause 8, part 2”</li> </ul>
Envelope 3	<ul style="list-style-type: none"> <li>• Financial Information “as listed under ITT clause 8, part 3”</li> </ul>

10.1 All Bids shall be digitally signed and stamped by a duly authorized representative of the Tender using a valid and verifiable digital signature. The digital signature shall comply with applicable electronic transaction and procurement regulations and must be issued by a recognized certification authority.

### The Tenderer shall ensure that:

- The digital signature is valid for the entire bid submission period and at the time of opening.
- All submitted documents, including forms, schedules, and annexes, are duly signed and, where applicable, stamped.
- The integrity and authenticity of the Bid are maintained, and any alteration after signing shall render the Bid liable for rejection.

### Failure to comply with the above requirements may result in the disqualification of the Tender.

11. All enquiries about this project shall be submitted in writing via email to the address provided in the TDS no later than ten (10) days before the bid submission deadline.
12. Questions received from Tenderers, together with their corresponding responses, shall be compiled and circulated to all Tenderers to ensure transparency, fairness, and uniform access to information during the tendering process. Any clarifications or additional information provided shall form part of the tender documentation and must be taken into consideration in the preparation and submission of tenders.
13. If the Bill of Quantities provides for a division of the Works into separate lots, the Employer reserves the right to award separate contracts for those lots.
14. If you intend to execute the Works, you are required to submit the duly completed and signed Tender together with all annexes via the emails mentioned in TDS, not later than the submission deadline stated on the TDS.

15. A Tender Security must accompany all Tenders in the form and amount specified in the TDS.
16. The period for submission of Tender shall expire on the date and time mentioned in the TDS. Tenders may withdraw their bid submitted before the deadline by a formal notification through the same submission email.
17. The period of adjudication begins with the submission/opening date and expires on **30th September 2026**. The Tenderer is bound to his Tender until this date.
18. The Tender Opening shall be conducted electronically, three (3) days after the submission deadline, **14th August 2026**.
19. The opening session shall be held via a video conference to enable real-time virtual attendance by authorized representatives of Tenderers through a shared link.

## **SECTION II – TENDER DATA SHEET AND EVALUATION & QUALIFICATION CRITERIA**

## A. TENDER DATA SHEET

<b>1. General</b>	
<b>Definitions</b>	“Employer” means: <b><i>Kumasi Centre for Collaborative Research in Tropical Medicine PMB, UPO, KNUST, KUMASI Ghana</i></b>
<b>1. 1</b>	The Work for which the Tender Document has been issued is:  <b>FABRICATION OF A CERTIFIED TURNKEY ANIMAL BIOSAFETY LEVEL 3 (ABSL-3) MODULAR LABORATORY AT KCCR, KNUST</b>  The number and identification of the lot (contract) comprising this ITT is: <b><i>KCCR/WKS/2026/WUE4</i></b>
<b>1. 2</b>	The Intended Completion Date of the Works is: <b>Eight (8) calendar months from the date of Contract Award.</b>
<b>1. 3</b>	The contract type includes Design, Supply, Installation, Assembly, and Commissioning
<b>1. 4</b>	The information required from Tender in IFT Clause 7 is modified as follows: <b><i>Part 1</i></b> <ul style="list-style-type: none"> <li>• Valid Certificate to commence Business</li> <li>• Valid Labour Clearance Certificate (Optional)</li> <li>• Valid Tax Clearance Certificate</li> <li>• Certificate of Incorporation</li> <li>• Valid Certificate of Registration of VAT</li> <li>• Auditors' Report or last Financial Statements (If available)</li> <li>• Company Profile</li> <li>• Similar ABSL-3 or BSL -3 turnkey projects executed within the last 5years. Copies of completion certificates and client references must be provided.</li> <li>• CVs of Key Personnel</li> </ul>
<b>1. 5</b>	If the Tenderer is a joint venture or consortium, all members <b>shall</b> be jointly and severally liable for the execution of the Contract in accordance with the Contract terms.
<b>1. 6</b>	Subcontractors’ experience and resources <b>shall not</b> be considered.
<b>1. 7</b>	The employer shall not organize a site visit.
<b>2. Tender Documents</b>	
<b>2. 1</b>	For purposes of <b>clarification on the Tender</b> , kindly reach out to this email: <b><u><a href="mailto:f.boakyewaa@kccr.de">f.boakyewaa@kccr.de</a></u>, <u><a href="mailto:kavehm@kccr.de">kavehm@kccr.de</a></u>, <u><a href="mailto:philip.el-duah@charite.de">philip.el-duah@charite.de</a></u></b>  The minimum number of days before the deadline for submission of Tenders to receive any request for clarification: <b>10 days i.e. 2nd August 2026.</b>  The minimum number of days before the deadline for submission of Tenders that the Employer will respond: <b>5 days i.e. 6<sup>th</sup> August 2026.</b>  <b>The responses shall not be posted on the Employer’s website</b>

<b>3. Preparation of Tenders</b>	
<b>3.1</b>	Tenders shall be submitted in the following languages: “ <b>English</b> ”
<b>3.2</b>	<p>The Tenderer shall submit with its Tender the following additional documents:</p> <p><b>Part 2</b></p> <ul style="list-style-type: none"> <li>• Concept design</li> <li>• Data sheets and specifications of components/products and equipment.</li> <li>• Installation Methodology</li> <li>• Detailed Work Programme</li> </ul> <p><b>Part 3</b></p> <ul style="list-style-type: none"> <li>• Priced Bill of Quantities</li> <li>• Payment Terms</li> <li>• Tender security</li> </ul>
<b>3.3</b>	<p>Tenders <i>are</i> being invited for the following lot:</p> <p><b><i>FABRICATION OF A CERTIFIED TURNKEY ANIMAL BIOSAFETY LEVEL 3 (ABSL-3) MODULAR LABORATORY AT KCCR, KUNST</i></b></p>
<b>3.4</b>	<p>The currency(ies) of the Tender shall be as follows: <b>EURO (€)</b></p> <p>The currency (ies) of the payment shall be as follows: <b>EURO (€)</b></p>
<b>3.5</b>	The Tender validity period shall be <b>60 days</b> from the deadline for Tender submission.
<b>3.6</b>	<p>A Tender Security <b>shall be</b> required.</p> <p>The form of the Tender Security shall be: ‘<b>Unconditional Bank Guarantee’ or a Reputable Insurance Company acceptable to the Employer.</b></p>
<b>3.7</b>	The amount and currency of the Tender Security shall be: <b>2% of the contract sum in euros.</b>
<b>3.8</b>	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of: a <b>Power of Attorney.</b>
<b>4. Submission of Tenders</b>	
<b>4.1</b>	Tenderers must submit their Tenders electronically through <a href="mailto:e.essilfie@kccr.de">e.essilfie@kccr.de</a> and <a href="mailto:henrietta.addai@kccr.de">henrietta.addai@kccr.de</a>
<b>4.2</b>	<p>In the case of physical submission, the submission address is:</p> <p><b>Attention:</b></p> <p><b>HEAD OF LOGISTICS/PROCUREMENT</b></p> <p><b>KUMASI CENTRE FOR COLLABORATIVE RESEARCH IN TROPICAL MEDICINE (KCCR)</b></p> <p><b>PMB, UPO, KNUST, KUMASI - GHANA</b></p>

4.3	<p>The deadline for Tender submission is:</p> <p><b>Date: 11<sup>TH</sup> AUGUST 2026</b></p> <p><b>Time: 5:00 PM</b></p>
<p><b>5. Tender Opening and Evaluation</b></p>	
5.1	<p>The tender opening session shall be conducted via video conference. Access details and the meeting link will be circulated to all registered tenderers in due course.</p> <p>For physical participation, the opening shall take place at: <b>BOARD ROOM KUMASI CENTRE FOR COLLABORATIVE RESEARCH IN TROPICAL MEDICINE (KCCR), KNUST, KUMASI, GHANA. ADMINISTRATION BLOCK, FIRST FLOOR.</b></p> <p><b>Date: 14<sup>TH</sup> AUGUST 2026</b></p> <p><b>Time: 10:00AM</b></p>
<p><b>6. Award of Contract</b></p>	
6.1	<p>The Performance Security shall be <b>30% of the Accepted Contract Amount in the form of an Unconditional Bank Guarantee from a recognized Bank acceptable to the Employer.</b></p>
6.2	<p>The Advance Payment shall be limited to <b>30%</b> of the Contract Price.</p>

## B. EVALUATION AND QUALIFICATION CRITERIA

This section outlines the criteria to be used by the Employer in the qualification of Tenderers. To demonstrate compliance, the Tenderer shall provide all required information and supporting documentation as specified.

<b>1. Experience</b>					
	<b>Requirement</b>	<b>Tender</b>			
		<b>Single Entity</b>	<b>Joint Venture or Association</b>		
			<b>All members combined</b>	<b>Each member</b>	<b>At least one member</b>
<b>1.1 Similar Construction Experience</b>	<p>Demonstrate proven experience in the execution of at least three (3) ABSL-3 /BSL-3 or GMP laboratory projects, or equivalent high-containment facilities, undertaken within the last five (5) years before the submission deadline. Experience may be in the capacity of main contractor, subcontractor, or management contractor.</p> <p>The evaluation shall consider.</p> <ul style="list-style-type: none"> <li>• Demonstrated similarity in size, technical requirements, and operational complexity to the current project</li> <li>• Extent to which previous projects align with the proposed ABSL-3 facility requirements</li> <li>• Experience in HVAC containment systems, Pressure zoning, and directional airflow control; compliance with biosafety standards and guidelines; performance record (quality, timeliness, defect history)</li> <li>• Evidence of satisfactory project delivery, including Quality of workmanship, Adherence to project timelines, Minimal defects, and effective defect rectification.</li> <li>• Completion certificates and Client references or recommendation letters</li> </ul>	Must meet requirement	Must meet requirement	Must meet requirement	Must meet requirement as member to past or existing joint venture

2. Technical Solution (Design, HVAC, BMS)					
	Requirement	Tender			
		Single Entity	Joint Venture or Association		
			All members combined	Each member	At least one member
<b>2.1 HVAC Design Concept</b>	<p>The Technical proposal of the HVAC solution shall be evaluated to determine the adequacy, compliance, and robustness of the proposed design solution in meeting the functional and regulatory requirements of an ABSL-3. Emphasis shall be placed on biosafety integrity, system reliability, and operational efficiency.</p> <p>Evaluation shall assess the following:</p> <ul style="list-style-type: none"> <li>• Adherence to applicable ABSL-3 / BSL-3 design guidelines, codes, and international best practices for high-containment laboratories</li> <li>• Detailed assessment of the environmental control systems, including, Air Change Rates (ACH) appropriate for containment requirements, Provision and specification of HEPA filtration systems</li> <li>• Pressure differentials and directional airflow to ensure containment and prevent cross-contamination</li> <li>• BMS Integration: Effectiveness of the proposed control and monitoring systems, with Real-time monitoring and control of critical environmental parameters, Alarm systems for fault detection and emergency response and System redundancy to ensure uninterrupted operation.</li> <li>• Energy Efficiency and System Reliability: Optimization of energy consumption without compromising biosafety requirements, and provision of reliable systems capable of continuous operation.</li> <li>• Clarity, completeness, and technical adequacy of submitted design drawing, specifications, and engineering calculations.</li> </ul>	Must meet requirement	Must meet requirement	Must meet requirement	Must meet requirement as member to past or existing joint venture

3. Proposed Methodology and Implementation Timeline					
	Requirement	Tender			
		Single Entity	Joint Venture or Association		
			All members combined	Each member	At least one member
<b>3.1 Methodology</b>	<p>The methodology shall be evaluated to determine the feasibility, efficiency, and completeness of the contractor's approach to executing the project within the required timeframe, while maintaining quality and biosafety compliance.</p> <p>Evaluation shall consider the following:</p> <ul style="list-style-type: none"> <li>• <b>Work Methodology and Sequencing:</b> clarity and logical arrangement of construction activities, including coordination of civil, mechanical, electrical, and specialized containment systems.</li> <li>• <b>Resource Allocation:</b> Adequacy and appropriateness of proposed resources, including labour, plant, equipment, and materials, aligned with the project schedule.</li> <li>• <b>Risk Management and Mitigation:</b> Identification of potential project risks (technical, logistical, environmental) and provision of practical mitigation measures</li> <li>• <b>Commissioning and Validation Approach:</b> Detailed procedures for testing, commissioning, and validation of systems, particularly in HVAC containment performance, HVAC containment performance, Functional testing of integrated systems.</li> </ul>	Must meet requirement	Must meet requirement	Must meet requirement	N/A
<b>3.2 Timelines</b>	<p>The proposed project timeline shall be evaluated to determine its realism and feasibility, including the extent to which it presents a clearly defined and achievable implementation schedule with well-structured milestones, identified critical path activities, and specified completion deadlines.</p>	Must meet requirement	Must meet requirement	Must meet requirement	N/A

4. Qualifications of Key Personnel					
	Requirement	Tender			
		Single Entity	Joint Venture or Association		
			All members combined	Each member	At least one member
<b>4.1 Key Personnel</b>	<p>The qualifications and competence of proposed key personnel shall be evaluated to determine their ability to successfully deliver the complexity of the ABSL-3 laboratory project in compliance with technical and biosafety requirements. The Tenderer shall demonstrate the availability and suitability of personnel for the key positions based on the following criteria:</p> <ul style="list-style-type: none"> <li>• Relevant academic background and professional certifications or memberships demonstrating technical competence of personnel.</li> <li>• Proven experience in the design, construction, commissioning, or supervision of biosafety laboratories (ABSL-3 / BSL-3) or equivalent high-containment facilities, with emphasis on similar project scale and complexity.</li> <li>• Clear organizational structure indicating roles, reporting lines, and specific responsibilities of each key personnel within the project execution framework.</li> <li>• <b>Key Personnel Requirements:</b> The proposed team shall, at a minimum, include: <ul style="list-style-type: none"> <li>✓ Project Manager</li> <li>✓ HVAC Specialist</li> <li>✓ BMS/Controls and Electrical Engineer</li> <li>✓ Biosafety Consultant</li> <li>✓ Modular System Specialist</li> </ul> </li> </ul>	Must meet requirement	Must meet requirement	N/A	N/A

## **SECTION III – GENERAL SCOPE OF WORKS AND SPECIFICATION**

## **GENERAL SCOPE OF WORKS AND SPECIFICATION**

### **1. Project Overview**

The project involves the design, fabrication, supply, installation, assembly, testing, and commissioning of a certified Animal Biosafety Level 3 (ABSL-3) Modular Laboratory, constructed using modular structural systems. The facility shall support safe handling and housing of laboratory animals and biological agents classified under Biosafety Levels, in compliance with applicable national and international biosafety standards. The facility will be constructed at the premises of KCCR, located behind the existing BSL Building, and will occupy approximately 60 square meters of the designated site.

The specific requirements for the Animal Holding Area, BSL-3, and ABSL-3 facilities, including the stipulated indoor environmental conditions, shall be in accordance with the approved specifications and guidelines conforming to the recommendations of the World Health Organization (WHO). These requirements shall apply to the ABSL-3 modular laboratory facility to be delivered under this tender on a turnkey basis, covering the design, engineering, procurement, manufacture, supply, installation, testing, commissioning, and validation of the complete facility.

Environment, Safety & Health Protection (EHS) is an integral part of our work culture. We are committed to protecting the environment in which we operate and ensuring the health of employees, visitors, and the community.

The facility shall comprise a modular structural unit, integrated with HVAC, electrical and control systems, water supply and drainage systems, sanitary installations, furniture and equipment, air curtain installations, and a BMS automation, and controls system required for maintaining the ABSL -3 laboratory internal environment as well as recommended fire safety and emergency systems complete in all respect to maintain the desire **Temperature** and require **NEGATIVE** pressure cascade.

A wall/ceiling surface disinfection lamp shall be provided inside the ABSL 3 laboratory, which will be interconnected with the BMS/automation system to enable monitoring of its operational status (on/off). The facility shall also be equipped with a CCTV camera system that shall be monitored through the centralized surveillance systems.

#### **This section comprises:**

- i. Scope of Works
- ii. General Specification of
  - a. Modular wall panels
  - b. Structural works
  - c. The floor
  - d. Door and windows
  - e. Pass boxes
  - f. HVAC system

- g. Electrical systems
- h. Water supply and drainage
- i. Disinfections
- j. Backup power
- iii. Laboratory Testing Schedule
- iv. List of room instruments and required pressure
- v. Standards and Regulations

## 2. General Scope of Work

The Tenderer is responsible for:

- a. Design, fabricate, install, deliver, assemble, test, and commission a certified “TURNKEY” fully functional ABSL 3 modular Laboratory according to the design, regulations, and requirements of the Employer.
- b. Submission of a detailed design package of the modular structural unit, electrical, and HVAC systems of the provided drawings, which form part of this Tender document.
- c. Incorporating a dedicated service zone or a technical area for HVAC ductwork, insulated piping systems, and an electrical distribution board, backup batteries, ensuring no reduction in required room sizes.
- d. Integration of HVAC, electricals, plumbing, fire, and emergency systems.
- e. Sea freight to Tema Port, Ghana
- f. On-site Assembling of Components
- g. Testing, commissioning, validation, and handover documentation.
- h. Training of Employer’s Operational Staff.

### 2.1 Exclusion

The Employer shall be responsible for:

- a. All primary civil works associated with the foundation and structural base of the ABSL 3 facility, as shown in the drawings. The Tenderer shall review the provided civil and structural information and shall explicitly identify, in their design package, any additional civil works required to accommodate their proposed design, equipment, or system.
- b. **Clearing all exported ABSL goods at the designated port of entry (TEMA PORT)**, including payment of applicable import duties, taxes, customs charges, and port handling fees.

## 3. General Specifications

### 3.1 Modular Wall Panels

- The modular wall panel units must be self-supported, “**prefabricated 50mm thick double skin magnesium oxysulfide sandwich type**” of 5-6mm thickness face boards on both sides, suitable for laboratory and animal research use, with in-built factory-fitted cut-outs necessary for doors, windows, hatch openings, power/communication, sockets, switches etc.
- Structurally robust and compatible for future additional works, expansion, relocation, or reconfiguration without compromising structural integrity or biosafety containment.
- Required fire resistance, thermal insulation, and acoustic performance, anti-vibration for sensitive equipment, and be fully enclosed within non-combustible boards and protected from moisture.
- Factory-finished components to minimize on-site construction activities.
- Structural framing and flooring designed for animal housing loads and laboratory equipment.
- Seamless wall panels with sealed joints and penetrations for all service installations.
- Modular wall panels shall be installed on approved galvanized steel framing, complete with all fixings, joint treatments, sealing, and finishing.
- The structure shall be designed and constructed to be airtight, preventing any unintended air infiltration or leakage throughout all areas of the laboratory

### 3.2 Structural System

- A durable steel framing system, suitable for laboratory applications, shall be constructed using **GALVANIZED STEEL MEMBERS** capable of supporting laboratory equipment, animal housing systems, and associated mechanical services. The framing system shall be fully integrated with the **ROOF STRUCTURE** and designed to provide complete structural support for the facility.
- A dedicated area or a **SERVICE ZONE** shall be constructed and fully enclosed with modular wall panels to accommodate HVAC ducting, insulation piping system, and associated building services, ensuring that the functional room sizes and operational spaces within the laboratory are not compromised.
- The material for the framing system shall be corrosion-resistant, allow precise installation of the modular panels, and be suitable for humid and disinfectant-rich environments.

### 3.3 The Floor

- **Industrial-grade vinyl flooring with a minimum thickness of 2.5 mm** bonded with approved adhesive, heat-welded joints, shall be supplied and installed in laboratory rooms, preferably in a light or clear colour. Installation shall be carried out after proper surface preparation, including treatment of the existing substrate and application of a self-leveling compound or screed to achieve a smooth, even, and defect-free floor surface. The flooring material shall be seamless, smooth, non-

porous, chemical-resistant, abrasion-resistant, and resistant to microbial growth, making it suitable for laboratory and controlled environment applications.

- The floor skirting shall be formed with **coved junctions between the wall and floor** to facilitate ease of cleaning and effective decontamination. The skirting height shall be not less than 100 mm and not more than 200 mm.

### 3.4 Doors and Windows

- **Doors:** Double skin PUF Clean Room compatible Doors should be designed to fit flush into the 50 mm thick wall panel system on both sides and are supplied in different dimensions with observation windows/vision panels as per drawings. Doors are to be fabricated from a **magnesium oxysulfide sandwich**. The door shutter shall be fabricated from **sheet metal with a thickness of 1.2 mm**, and the **standard 50 mm door panel** shall be provided with a **frame width of 50 mm**. The door assembly shall be supplied complete with all necessary accessories, including **ironmongery, door locks, handles, and door closer hardware**. Door sizes are 1200 mm and 800mm wide at 2100 high, which includes a 50 mm-thick frame on both sides. Doors must have an interlocked mechanism integrated with an access control device and equipped with emergency deactivation mechanisms to allow safe evacuation. All doors opening to the atmosphere should be air leak-proof.
- **Windows:** All windows shall be double-glazed, 5/6 mm thick tempered glass, installed flush with the wall panels to ensure an airtight and leak-proof seal. The windows shall be provided in various shapes and dimensions as specified in the approved drawings and BoQ.

### 3.5 Pass boxes

- **Static:** The static pass box shall be constructed of **SUS 304L stainless steel** for both internal and external surfaces, with inner dimensions of 600 × 600 × 600 mm and outer dimensions of 770 × 680 × 730 mm. It shall feature gasketed, airtight doors and an electronic interlocking mechanism that ensures one door is fully closed and sealed before the opposite door can be opened, maintaining room pressure differentials and preventing cross-contamination. The pass box shall also include an integrated UV-C sterilization lamp with timer-controlled operation for automated decontamination.
- **Dynamic:** The dynamic pass box shall be constructed of **SUS 304L stainless steel** with inner dimensions of 600 × 600 × 600 mm and outer dimensions of 780 × 680 × 1200 mm. The unit shall include a differential pressure gauge, domestic fan, double-layer steel screen-printed glass inner door, electronic interlock system, and sterilization lamp. The pass box shall be provided with gasketed, airtight doors to ensure proper containment and maintain room pressure differentials.

### 3.6 HVAC

- The design must unequivocally demonstrate the capability to individually control and maintain the air pressure of each listed room (e.g., Main Laboratory, Microscopy Room, Sterile Storage, Cleaning/Preparation Room) as per the drawings, and to any **set point within the range of -150 Pa to +150 Pa** relative to adjacent areas. The pressure regime matrix must be with the tender.
- **Air Handling Unit (AHU):** the AHU shall be a double-skinned of a non-recirculating 100% fresh air system with G4 Primary Filters and F7 Secondary classification effect Filters, and Redundancy N+1 for supply fans. The design must:
  - a) Determine total airflow based on room volumes and required air-changes per hour (typically 12 ACH for ABSL-3).
  - b) Ensure 100 % outdoor air with HEPA filtration on supply and exhaust.
  - c) Size to handle the calculated total airflow and pressure drops through filters, coils, and ductwork.
  - d) AHU must be designed to have Primary Filters, Secondary, and scannable HEPA Filters
- **Hepa Filters:** HEPA filters must be rated at H13/H14 classification for the exhaust air to ensure the highest level of protection. All HEPA filters must be individually leak-tested on-site post-installation. The "liquid sealed" frame is a good requirement for airtight installation, and they must be installed in housings that allow for decontamination (e.g., via a chemical port) and safe change-out (BIBO).
- **Chiller:** Calculate cooling load from sensible & latent heat gains of equipment, lighting, occupants, and process loads. Add a safety margin (10-20 %) for ABSL-3 operational reliability. Select a chiller with a capacity matching the total cooling load and an appropriate water temperature regime.
- **Exhaust System:** Provide dedicated HEPA-filtered exhaust for biosafety containment. Ensure negative pressure cascading (e.g., Pressure differentials of 5 Pa in animal rooms). Size exhaust fans for the required flow and pressure to maintain directional airflow.
- **BIBO (Bag-In-Bag-Out) System:** must be designed for safe removal of biohazardous waste through bag-in-bag-out in HEPA-filtered containment. The BIBO housing must be of welded construction and leak-tested to the same standard as the ductwork. **Specify the internal containment chamber size and airflow** to maintain the required negative pressure during operations. The housing shall allow contaminated filter removal without exposure to maintenance personnel or the environment. The bagging mechanism must not compromise the airtight seal during filter changes. The BIBO must be scan testable during the HEPA Filter Integrity Test. The BIBO housing must be supplied with an H14 HEPA filter, a manometer for differential pressure monitoring (connected to the BMS), and a decontamination

port. The housing must be installed in a location with adequate access for safe filter change-out procedures.

- **Dampers:** Specify leakage class to be better than the SMACNA Class 3 (e.g., 0.1% leakage at 1000 Pa). They must be interlocked with the BMS to close during the decontamination cycle, isolating the laboratory ductwork from the AHU and exhaust fans. They are essential for containing the decontamination gas (e.g., vaporized hydrogen peroxide).
- **Ductworks:** All ductwork serving containment rooms must be constructed to SMACNA (or equivalent) Class A (high-pressure) airtightness standards and leak-tested after installation. Internal acoustic and thermal insulation should be avoided where possible; if used, it must be sealed, non-shedding, and cleanable to prevent it from becoming a biological or particulate contamination source. External insulation is preferred.
- **BMS (Building Management System):** should be integrated to monitor and control the HVAC System, pressure differentials, alarms, and safety interlocks. Implement automated logging and alerts for biosafety parameters (pressure, temperature, airflow). The BMS must feature a graphical user interface displaying real-time pressure for each room, allow for individual **set-point adjustment (-150 Pa to +150 Pa)**, record historical data, and provide audible and visual alarms for pressure deviations. A touch-screen room pressure monitoring system shall be provided for each containment room, such as the Main Laboratory, Microscopy Room, etc. The monitor shall display the current pressure differential, set point, and alarm status, and shall be capable of recording and storing historical pressure data. The system shall be equipped with audible and visual alarms that automatically activate when the pressure deviates beyond a user-defined tolerance **±5 Pa** to ensure continuous monitoring and maintenance of the required pressure regime.

### 3.7 Electrical Systems

In Ghana, the public electricity supply generally has the following power supply characteristics:

Nominal Voltage (Single Phase)	<b>230 Volts</b>
Nominal Voltage (Three Phase)	<b>400 Volts</b>
Frequency	<b>50Hertz (Hz)</b>
Supply System	<b>AC (Alternating Current)</b>
Earthing System	<b>TN-C-S or TT system</b>

The power supply system shall be in accordance with Ghana laws and standards. The required supply voltage for the laboratory shall be three (3) phases. All lights must have a cleanroom lighting system with a backup power of at least 60 minutes. Socket outlets shall be of a multi-configuration type, compatible with the plugs of the

laboratory equipment. They shall be installed in accordance with the electrical layout indicated in the drawings. The camera shall be positioned to capture the entrance of the designated room and provide coverage of at least 90% of the entire room area. Air Curtain shall be wall or ceiling-hung and installed above the exterior of the main entrance, exit, and quarantine room doors. and Wall Disinfection System Installations. Emergency exit signage shall be illuminated and integrated into the electrical system to ensure safe and clear evacuation during emergencies. Adequate lighting levels are suitable for laboratory and animal care activities.

### **3.8 Water Supply and Drainage Systems**

Treated soft water (to be provided by IISc) connection from the available resources should be connected to the Wash/Autoclave room as per the site conditions. For the use of water inside the critical lab area, only a portable water arrangement will be provided. 12mm diameter UPVc pipe is suitable for Interior water supply lines while 32mm diameter UPVc pipe is suitable for drainage piping systems. Both the inlet and outlet water shall be treated and purified using a UV disinfection system. Plumbing system shall be designed and installed in compliance with applicable biosafety and environmental requirements.

### **3.9 Disinfection system**

The laboratory shall house a ceiling mounted "surface disinfection lamp of UV 254 nm wavelength", with a control panel, timer, safety interlock integration to enable the door access control system to automatically turn off the UV lamps if a door is opened to prevent human exposure, warning indicators, and mounting accessories.

### **3.10 Backup Power Supply System**

- **Genset:** A proposed 50 kVA diesel generator set rated at 400/230 V, 50 Hz, 0.8 power factor, three-phase, complete with Automatic Voltage Regulator (AVR) and Automatic Transfer Switch (ATS) to provide backup power to the ABSL Laboratory in the event of a main power failure.
  
- **Backup Batteries:** The facility, in addition, shall house a backup battery system (UPS) with a minimum backup duration of 10 –15 minutes to ensure uninterrupted power supply to critical loads during mains failure and generator start-up/transition periods. The UPS system shall be sized to support the BMS, room pressure monitoring systems, damper actuators (to maintain their position), and the access control system for the specified duration. The system shall also include a wall-mount change of switch, complete with mechanically interlocked switches or breakers, to allow safe isolation and bypass of the UPS for maintenance without interrupting power to the critical loads.

#### **4.0 Laboratory testing schedules**

Upon completion of the ABSL 3 laboratory, the Contractor shall carry out an “**AS BUILT**” air-tightness test of the complete modular envelope and ductwork system to verify the following parameters, **AND SUMMIT A REPORT.**

- a. Leakage rates are within the specified limits to support the -150 Pa to +150 Pa pressure regime
- b. Particle count for biological laboratory cleanliness
- c. HEPA filter installation integrity leak DOP test
- d. Differential Pressure check in coordination with air flow direction
- e. Room Temperature  $22\pm 1^{\circ}\text{C}$
- f. Room Humidity  $60\pm 5\%$
- g. ACPH as per actual flow rate
- h. Room Illumination test
- i. Lab Room differential pressure cascade check
- j. Door interlock system check
- k. BMS Interlocks / Alarm

#### **5.0 Applicable Standards and Regulations**

The works shall comply with, but not be limited to, the following:

- a) National building codes and local authority regulations
- b) Occupational health and safety regulations
- c) Animal welfare and ethical use regulations
- d) WHO GMP Laboratory Biosafety Manual (latest edition)
- e) CDC/NIH Biosafety in Microbiological and Biomedical Laboratories (BMBL), ABSL-2 requirements
- f) Relevant ISO standards for modular construction and laboratory environments
- g) Fire safety and emergency regulations

## 6.0 ROOM EQUIPMENT LIST AND REQUIRED PRESSURE

Room No.	Room Name	Equipment (Provided by the Employer)	Pressure PK
A	<b>Buffer-IN Entrance</b>	-SLS-Sink (L50 cm surgical water tap, Elbow Operated) -Co2 cylinder connected to Main Lab (C)	+10
B	<b>Ante Room</b>	-Static Pass-Box (45cm+UV) - lab locker cabinet (cloth) -lab locker cabinet (gown) -lab locker cabinet (shoe) -lab locker cabinet (mask)	-50
C	<b>Main Lab</b>	-BSC-Class II (Type A2) -Lab Freezer -80 -Lab Freezer -20 -Lab refrigerator +5 -High Speed Centrifuge1 -High Speed Centrifuge2 -Lab Co2 Incubator -Lab Scale -ELISA-Microplate-Reader -PCR Unit 96 Wells	-50
D	<b>Animal Quarantine</b>	-Dynamic Pass-Box (45cm+UV) connect to Animal CTRL Room (E) -Individually Ventilated Caging System (IVCS) HEPA filtration, and +/- pressure HVAC system	-55
E	<b>Animal CTRL</b>	-Individually Ventilated Caging System (IVCS) HEPA filtration, and +/- pressure HVAC system	-55
F	<b>Animal Treatment</b>	-Individually Ventilated Caging System (IVCS) HEPA filtration, and +/- pressure HVAC system	-55
G	<b>Sterile Storage</b>	-Rack for storing sterile animal cages -lab cabinet (consumable)	-50
H	<b>Necropsy</b>	-BSC-Class II (Type A2) -Lab Microtome -lab cabinet (consumable)	-50
I	<b>Cleaning &amp; Preparation</b>	-Dynamic Pass-Box (45cm+UV) connect to Sterile Storage Room (G) -SLS-Sink (L70 +/- 10 cm surgical water tap, Elbow Operated) -Autoclave (single/3Phase) -Shower -SLS- Lead-Lined Bins Waste container -lab locker cabinet (gown, mask, shoe, consumables)	-50
J	<b>Buffer-OUT Exit</b>	-lab cabinet Etc	+10

## **SECTION IV - TENDER CONDITIONS FOR CONTRACTOR**

## **TENDER CONDITIONS FOR CONTRACTORS**

### **1. General**

- 1.1 The Tender must comply with the following conditions and instructions. Failure to do so may result in the rejection of the Tender.
- 1.2 “Tenderer” means any person or persons, partnership, firm, or company being prequalified and submitting a fully priced Bill of Quantities in accordance with the Tender.
- 1.3 All recipients of the Tender Documents shall, whether they submit a Tender or not, treat the details of these documents as confidential.

### **2. Tender Documents**

- 2.1 The Tender must contain the forms provided in the Tender Documents, duly completed in ink or in print. The Bill of Quantities must be fully priced, totalled, checked arithmetically, and the total must follow the sum entered in the Tender. Tender and Contract Documents must be kept intact.
- 2.2 The Tender Documents and accompanying documents shall be signed by the Tenderer or his legally authorized representative and be returned to the address mentioned in the "TDS”
- 2.2 The Tender must be accompanied by:
  - (a) A copy of each Circular Letter issued to Tenderers by the Employer – here, KCCR. Each copy of such Circular Letter must be endorsed by the Tenderer.
  - (b) The Form of Tender with Appendix to Tender (if applicable), and the Form of Bid Bond (if any), together with the Bill of Quantities, fully priced and summarized.

Any missing document may result in the rejection of the Tender.

Prices must be quoted for all items in the Bill of Quantities, where applicable, or a clear indication must be given that the values of the Works described under items left unpriced are allowed for elsewhere.

### **3. Examination of the site**

Tenderers may visit the site of the Works and obtain for themselves all information that may be necessary for completing their Tenders and for entering a contract with the Employer. Tenderers shall acquaint themselves with the requirements of the contract, e. g., characteristics of the site and its surroundings, e.g. hydrological and climatic conditions.

Tenderers shall acquaint themselves with the conditions of

- (a) existing access roads or other means of communication and access to the site of works, incl. police regulations concerned therewith,
- (b) available land for storage, workshops, toilets, and site office(s),
- (c) available connections to electricity and water for construction,

- (d) the soil and subsoil to be excavated, stored or removed from site.
- (e) The availability of local labour, their quarters on site (if necessary), local materials and other local resources shall also be considered.

#### **4. Shelter, Accommodation and Subsistence**

Accommodation for the Contractor's supervisory and engineering staff shall be provided by the Employer. Accordingly, the cost of such accommodation **shall not** be factored in the unit price.

#### **5. Modifications / Additional offers**

- 5.1 The Tender may contain only the prices and statements required in the Tender Documents and shall be signed by a duly authorized person. Any addition to, deletion from, or alteration of the Tender Documents may result in the rejection of the Tender.
- 5.2 Additional offers/proposals for modifications which, from the technical point of view, deviate from the Engineer's Specification or entail a demand for other conditions of payment, execution deadlines or price reserves, shall only be admitted in connection with the submission of the base Tender.
- 5.3 Proposals for modifications and additional offers shall be made in a separate annex and must be clearly marked as such.
- 5.4 Modifications by the Tenderer concerning prices quoted or statements made shall be unambiguous. Samples and patterns submitted with the Tender must be clearly marked as about the Tender.

#### **6. Prices**

- 6.1 All prices (unit price) shall be stated **without** tax (turnover tax, value added tax, or alike). The amount of applicable tax shall be based on the national valid tax rates and shall be added as the last item on the summary sheet of the Tender or BoQ.
- 6.2 The offer of a discount based on the observance of certain payment deadlines described by the Tenderer shall be taken into account in the evaluation only if the Tenderer declares that such a discount shall apply to all payments on account and the final payment, providing that the deadlines set for payments leave a reasonable time for their processing.

#### **7. Circular Letter**

- 7.1 If the Employer sends Circular Letters to the Tenderers during the tendering period to comment, clarify, or modify the Contract Documents, these Circular Letters shall become an integral part of the Contract Documents, and it shall be assumed that they have been taken into account by the Tenderers in drawing up their Tender.
- 7.2 The Tenderer shall confirm the receipt of a Circular Letter to the Employer immediately. No Circular Letter shall be dispatched within 8 days before the submission date for the Tender, except one that confirms a due postponement of the original submission date.

## **8. Prohibited Agreements**

Agreements restricting the competition are not permitted, especially arrangements and negotiations with other Tenderers in respect of

- submitting or not submitting a tender,
- the prices to be demanded and profit rates,
- binding arrangements for other compensation,
- processing cost margins and other price components,
- terms of payment, delivery, and other conditions of the contract insofar as they influence the prices directly or indirectly,
- indemnity or compensation payments for non-participation or limited participation in the competition, and
- profit-sharing.

## **9. Subcontractors**

If parts of the Works are intended to be executed by subcontractor(s), the Tenderer shall indicate the nature and scope of such parts of the Works and state the name and address of the subcontractor(s) considered.

## **10. Submission of Tender**

10.1 The Tender shall be submitted via email as stated in the TDS.

10.2 Tenders received after the date and time of submission will not be considered.

## **11. Opening of Tenders**

11.1 Tenderers shall be free to attend the opening session of the Tenders either in person or via video conferencing. Access details for the virtual session shall be communicated to all tenderers in advance.

11.2 The session shall be held for opening and reading out the Tenders. Until this session, all Tenders received shall be kept under lock and key with the envelopes unopened and marked with the date of receipt only. For the Opening Session, the following procedure shall be observed and laid down in the minutes of the meeting, stating the place, date, and time of the opening:

- (a) The chairman of the proceedings shall establish whether the seals  
Some of the envelopes are intact.
- (b) Samples and patterns submitted with any Tender shall be on hand  
and duly marked.
- (c) The Tenders shall be opened one after another, and all major parts

marked. The names and addresses of the Tenderers and the final amounts of their Tenders or of individual sections, as well as other particulars concerning the price, shall be read out. It shall be announced if and by whom proposals for modifications and/or additional offers have been submitted. Other details of the contents shall not be made known.

- (d) The minutes taken of the opening session shall be read out, shall contain a note to the effect that they have been read out aloud and
- (e) that it has been acknowledged as correct or shall specify what objections have been raised by whom.
- (f) The minutes shall be signed by the chairman of the proceedings.
- (g) During the session, the procurement officer displays the list of bidders.
- (h) **Only Envelope 1 (Company Information)** is opened and read out. Envelopes 2 & 3 remain sealed.
- (i) A detailed, signed, and witnessed set of **minutes of the digital opening** is generated.

11.3 Tenders which were not received before the submission time and date shall be specified separately in the minutes or addendum thereto. The time of receipt and the reason for the delay in receipt shall be noted. Envelopes and other means of proof shall be kept in safe custody.

11.4 The Tenderers and their authorized representatives shall be permitted to inspect the minutes of the opening session and addenda thereto (if any). The minutes of the opening session shall not be published.

## 12. Evaluation of Tenders

12.1 The following Tenders shall be excluded:

- (a) Tenders received after the opening date and time.
- (b) Tenders submitted by Tenderers who have entered into an agreement which constitutes a prohibited restriction of competition.

12.2 In selecting the Tenders to be considered for the award of the contract, only those Tenderers who offer the necessary security for the performance of the contractual obligations will be considered. This shall entail the necessary expertise and experience, performance capacity and capability, reliability, as well as technical and financial means and resources.

12.3 Tenders, of which the prices are obviously disproportionate to the Works concerned, will be disregarded. Only such Tenders from which proper execution and covering of the defect liability period can be expected with due regard to rational and thrifty construction operations and efficient management will be considered. From those tenders, the award will be made to the one that appears to be the most acceptable in all technical, functional, environmental and economic aspects.

12.4 Any arithmetical error by the Tenderer in pricing the Bill of Quantities or in the additions or in carrying forward subtotals to the summary or to the Tender shall be corrected during the evaluation of the Tenders. In such cases the Tender sum shall be adjusted accordingly, and the Tenderer shall be informed. It shall be assumed that the unit price rates entered in the Bill of Quantities are correct.

12.5 The Employer does neither bind himself to accept the lowest Tender or any Tender, nor will he be responsible or pay for expenses or losses which may be incurred by any Tenderer with the preparation of his Tender.

### **13. Cancellation of The Tendering Action**

13.1 The Tendering Action can be cancelled if

- (a) no Tender has been received which corresponds to the Tender Conditions,
- (b) there have been substantial changes to the basis of the Tendering Action, or
- (c) there are other serious reasons for such a cancellation.

13.2 The Tenderers shall be informed without delay of the cancellation of the Tendering Action to the Employer or his Engineer of the reasons.

### **14 Standstill Period and Debriefing Clause**

Following the decision to award, all unsuccessful Tenderers will be notified in writing a **standstill period of 10-15 working days** will be observed before the contract is signed, allowing unsuccessful bidders to request a debriefing on the reasons for their non-selection. This is a standard good practice in public procurement and allows for any concerns to be addressed before a binding contract is signed.

## **SECTION VI - SPECIMEN OF ADVANCE PAYMENT**

### **BANK GUARANTEE**

[The specimen of the Advance Payment Bank Guarantee is a standard form that shall be completed by the *Bank of the successful Tenderer* only after the evaluation of tenders has been completed and upon request for an advance payment]

**ADVANCE PAYMENT GUARANTEE**

Employer/Beneficiary: Kumasi Center for Collaborative Research in Tropical Medicine,  
KNUST, South-End Asuogya Road, UPO Kumasi - KNUST/SMS

Consultant: .....

Contract Date: .....

Contract No.: .....

Project No.: .....

Object of services/performance/  
works\*: .....

Advance payment pursuant to  
the contract: (Currency) .....

We hereby undertake vis-à-vis the Employer to guarantee independently repayment of the  
advance payment stipulated above, including any incidental claims, up to the amount of  
(Currency) .....  
(inwords: .....)

Explicitly waiving all objections and defences, we undertake to render said payment upon  
receipt of the Beneficiary’s first written demand, provided that the latter states that the  
Consultant has failed to observe all or part of his contractual obligations.

This guarantee shall become effective with the first advance payment made by the Employer  
and shall expire when the advance payment has been repaid in full.

The Employer shall return this guarantee to us as soon as its validity expires.

.....,  
.....

(Signature of the guarantor)

## **SECTION VII – TAKING OVER CERTIFICATE FORM**

[The taking over certificate form is a standard form that shall be filled by the successful Tenderer after completion of the project]

**TAKING - OVER CERTIFICATE**

**Project No.:** KCCR/WKS/2026/WUE4  
**Project Title:** **Fabrication of a Certified Turnkey Animal Biosafety Level 3 (ABSL-3) Modular Laboratory**  
**Contract No.:** *KCCR/WKS/2026/WUE4* **Commencement dated:**  
**Contractor:** **Completion dated:**

This is to certify that the Works of the subject contract incl. its supplement(s) have been completed to the satisfaction of the representatives named below and are being taken over as of

.....20.....

Following a joint inspection of the building(s)/installation(s) by the persons named below, it has been ascertained that they have been carried out according to the Contract. Faults and defects and/or outstanding works have/have not been determined as listed on the attached sheet. The following persons participated in the joint inspection as representatives for

the Employer .....  
the Engineer .....  
the Contractor .....

(insert names in printed letters)

The faults and defects found and listed shall be eliminated and the outstanding Works/missing items (if any) shall be completed/installed without delay, not later than

..... 20.....

All rights on the part of the Employer concerning liability and maintenance shall remain unaffected. The Employer reserves the right to avail himself of the contract penalty clause insofar as this has been agreed.

The execution of the Works has been completed as of ..... With the building(s)/installation(s) completed and taken over at the date stated above the Defects Liability Period commences at that same date and ends at .....

This Certificate shall be drawn up in three identical copies with one copy each for the three representatives signing below

.....  
Employer's Representative    Supervising Engineer    Contractor's Representative

Encl.: List of defects and/or outstanding works

## **SECTION IX – BILL OF QUANTITIES**

## **SECTION X – DRAWINGS**