REPUBLIC OF RWANDA

Kigali, ... 19 MAR 2026
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RWANDA TRANSPORT DEVELOPMENT AGENCY
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KIGALI

REQUEST FOR EXPRESSIONS OF INTEREST
(CONSULTING SERVICES -FRAMEWORK AGREEMENT – FIRMS SELECTION)

RWANDA
KIGALI LOGISTICS PLATFORM CONNECTIVITY PROJECT/KLP
Credit No.: **7531-RW / 7530-RW**

Assignment Title: Feasibility study for RTDA Center of Excellence in material testing through Kigali Logistics Platform Connectivity Project (KLP Connect)
Reference No. (as per Procurement Plan): ***Refer to Umucyo E-procurement system***

The Government of Rwanda (GoR) has received financing from the World Bank toward the cost of the Kigali Logistics Platform Connectivity Project, and intends to apply part of the proceeds for consulting services.

The consulting services ("**Feasibility study for RTDA Center of Excellence in material testing through Kigali Logistics Platform Connectivity Project**") include determining how best to develop RTDA's Center of Excellence (CoE) in Material Testing, and provide a detailed roadmap for its implementation. The task is expected to take (13) months ensuring full consistency with the TOR attached or referred to this REOI.

The terms of Reference (TOR) for the primary procurement stage for the assignment are attached to this request for expression of interest or can be found at the following website: www.rtda.gov.rw or ***Refer to Umucyo E-procurement system***.

The Government of Rwanda (GoR) through Ministry of Trade and Industry (MINICOM) and Rwanda Transport Development Agency (RTDA) in collaboration with World Bank (WB), are implementing the Kigali Logistic Platform Connectivity Development Project (KLP Connect) now invites eligible consulting firms("Consultants") to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services. The shortlisting criteria are:

- Firm's eligibility supported by trade license or certificate of incorporation.
- Have general experience in consultancy related to establishment of centers of excellence in infrastructure development engineering material testing.
- Have successfully completed similar feasibility studies over the years.

- Having Experience in project management.
- The technical and managerial organization of the firm. (Provide only the structure of the organization, general qualifications and number of key staff. Do not provide CV of staff).

Key Experts will not be evaluated at the shortlisting stage.

The shortlist will contain five (5) to eight (8) firms.

The attention of interested Consultants is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" September 2023 ("Procurement Regulations"), setting forth the World Bank's policy on conflict of interest.

Consultants may associate with other firms to enhance their qualifications, but should indicate clearly whether the association is in the form of a joint venture and/or a sub-consultancy. In the case of a joint venture, all the partners in the joint venture shall be jointly and severally liable for the entire contract, if selected.

A Consultant will be selected in accordance with the Framework Agreement arrangements described in the Procurement Regulations and to be specifically set out in the Request for Proposals.

Further information can be obtained at the address below during office hours *from 0900 to 1700 hours* or via ***Umucyo E-procurement system***.

Expressions of interest must be delivered only via ***Umucyo E-procurement system*** by date indicated in ***Umucyo E-procurement system***.

Done in Kigali on ..19../..03../2026

Sincerely;

Imena MUNYAMPENDA
Director General

Rwanda Transport Development Agency

TERMS OF REFERENCE

FEASIBILITY STUDY FOR RTDA CENTER OF EXCELLENCE IN MATERIAL TESTING

1. BACKGROUND

The Government of Rwanda (GoR) received financing from the World Bank under the Kigali Logistics Platform Connectivity Development Project. Part of the project financing intends to cover eligible payments to establish a Center of Excellence in Material Testing within the Rwanda Transport Development Agency (RTDA).

This initiative responds to the growing need for high-quality infrastructure and construction materials testing in Rwanda and the East African region. Currently, RTDA operates the Quality Control and Research Unit (often referred to as National Laboratory for Public Works) that provides testing of soils, aggregates, bitumen, cement, and concrete for quality control purposes. The laboratory's services are open to both public and private entities, ensuring that construction materials meet required standards before use. However, to support Rwanda's ambitious infrastructure development goals and ensure long-term durability of road construction approaches, climate-proof materials, etc., there is a recognized need to upgrade this facility into a regional Center of Excellence.

Establishing a Center of Excellence in Material Testing aligns with Rwanda's national strategic objectives of improving construction quality, safety, and regional integration. It also complements the country's Quality Infrastructure framework, which includes standards, testing, and certification systems to promote trade and consumer safety. A Center of Excellence at RTDA would build on this foundation, focusing on construction and engineering materials (such as concrete, asphalt, steel, soils, and other infrastructure components) and elevating the capabilities to an advanced level.

2. CONTEXT AND JUSTIFICATION

Rwanda's rapid development has increased demand for reliable material testing. High-profile infrastructure projects (roads, bridges, industrial parks) require stringent quality assurance to prevent failures and reduce maintenance costs. Currently, specialized tests such rheological tests on bitumen and mechanical tests on asphalt samples might need to be sent abroad or to other institutions, incurring delays and costs. A local Center of Excellence would address the challenges of capacity building, equipment upgrading, space optimization and data digitalization by providing state-of-the-art testing services domestically.

Regionally, the Center could serve the broader East African Community (EAC) by becoming a regional hub for material testing and research. It would foster harmonization of standards and testing methods across the Region and support neighboring countries.

3. PROJECT LOCATION

The CoE is intended to be constructed in the existing laboratory land under the plot No.: UPI:1/03/02/02/12754 (Plot can be checked via Kigali Master Plan Portal) located on government land near Gikondo Magerwa Joakali, in Ihuriro Village, Karambo Cell, Gatenga Sector, Kicukiro District, Kigali City.

The biophysical environment of Magerwa area is characterized by a gently undulating topography with localized low lying valleys. Soils are predominantly clayey to alluvial, with moderately bearing capacity but susceptibly to poor drainage and localized flooding. Natural vegetation is highly modified with limited green cover due to urban and logistics facility development. However, currently the issue of poor drainage and vegetation cover in the part of Gikondo wetland is under restoration through Kigali wetlands restoration project under implementation by Rwanda Environment Management Authority (REMA).

On social aspect, MAGERWA project area is a mixed-use urban area combining residential settlements, logistics warehouses, and commercial activities. The area benefits from strategic connectivity to major transport corridors, supporting economic activity and employment. However, key social challenges include high population density, traffic congestion, pressure on housing and basic services, and limited availability of public open spaces. The surrounding wetland under restoration will serves as public open and green space.

4. OBJECTIVES

The primary objective of the feasibility study is to determine how best to develop the RTDA's Center of Excellence (CoE) in Material Testing, and provide a detailed roadmap for its implementation. This involves both short-term goals (upgrading facilities, equipment, and skills) and long-term goals (sustainability, regional leadership, and continuous innovation). Key objectives include:

a. **Assess Viability and Demand:** Evaluate the current and future demand for advanced material testing services in Rwanda and the region. This includes identifying the needs of the construction industry (public and private), infrastructure projects, and regulatory bodies for high-level testing, research, and certification services. The study will quantify how a CoE can meet these needs and attract usage locally and within the region.

b. **Define the Center's Vision and Scope:** Clearly articulate what it means to be a "Center of Excellence" in material testing in the Rwandan/East African context. Internationally, centers of excellence are characterized by cutting-edge capabilities, broad service offerings, and thought leadership. The RTDA CoE should aim to not only test materials but also serve as a reference institution for research, knowledge sharing, and development of good practices in construction materials. The feasibility study will refine this vision – e.g., whether the Center will focus

Rwanda Transport Development Agency

primarily on civil engineering materials (cement, concrete, asphalt, steel, soils), or expand to other domains (e.g., polymer materials, advanced composites), and whether it will include a research and short course training wing for engineers, technologists and technicians.

c. **Ensure Quality and Accreditation:** Define the quality standards and certifications the Center should achieve. A key objective is to meet **international laboratory accreditation standards (ISO/IEC 17025)** for testing and calibration laboratories, to instill confidence in the results. Achieving such accreditation and possibly additional recognitions (for example, being accredited by regional or international bodies like East African Accreditation or ILAC (International Laboratory Accreditation Cooperation) will be an important goal. The RTDA CoE should likewise target accreditation, ensuring its test reports are globally accepted. Moreover, the CoE should set up a Quality Management System (QMS) and procure a Laboratory Information Management System (LIMS) to ensure standards compliance and traceability. The Center will need to have processes in place for continuous monitoring, data analysis, and feedback loops to identify bottlenecks and drive ongoing optimizations.

d. **Capacity Building and Center Operations:** define how the Center will build human and systemic technical capacity by, implying human-skills and the enabling environment, the state-of-the-art equipment, standards and certifications, Regulatory framework, compliance issues etc. The feasibility study shall propose the caliber of professionals and or skills-set. The feasibility study should also consider how the Center can provide advisory and training services to the industry; for example, workshops on new material standards or best practices in construction quality control. Objectives include training and hiring skilled personnel (materials engineers, lab technicians, quality control managers) and establishing partnerships with academic institutions for knowledge exchange. The Center should become a training ground for the next generation of Rwandan material scientists and engineers through internships, research projects, and collaboration with universities and other higher learning institutions.

e. **Support Innovation and Research:** Beyond routine testing, an excellent center often engages in research and development. Thus, one objective is to evaluate the potential for the Center to conduct applied research on materials. This might include developing or adapting construction materials suitable for local conditions (e.g. exploring new asphalt mixes for Rwanda's climate, testing local alternative cementitious materials for sustainability, etc.). By doing so, the Center can contribute to innovation in the construction sector and publish findings that benefit the region. The long-term vision could mirror institutions like Germany's BAM, which is a *"world-leading center of excellence"* integrating research and assessment in material science and engineering. While the scale will differ, the RTDA CoE should strive for a similar integration of testing with research and expert consultation services over time.

f. **Economic and national Development:** The feasibility study will also assess how the Center can be financially sustainable and contribute to economic development. Objectives here

include exploring revenue streams (such as fee-for-service testing for private companies, certification programs, consulting services) and cost-recovery models so that the Center can maintain operations and continuous upgrades without solely relying on government subvention. Additionally, the CoE is expected to stimulate economic benefits by reducing the need for expensive foreign testing, speeding up project delivery (through faster local test results), and potentially attracting testing work from neighboring countries. The anticipated CoE aims to boost confidence in Rwandan infrastructure, reduce failures, and raise the country's profile as a regional hub for quality assurance.

In summary, the objectives of the feasibility study are to provide a clear plan to transform the existing laboratory into a CoE that guarantees material quality, research for development, enhances safety, fosters innovation, and serves both Rwanda and regional needs. This includes technical, institutional, and economic dimensions, all grounded in a vision of excellence and sustainability.

5. SCOPE OF WORK

The scope of work defines the tasks and activities that the consulting team will undertake during the feasibility study. It ensures that all critical areas are examined and that the resulting plan is comprehensive. The scope of work for this feasibility study will include, but not be limited to the following components:

5.1. **Baseline Assessment of Existing Facilities:** Review the existing RTDA's and RSB's laboratories and non-laboratory facilities including the existing operations: existing buildings, services, equipment, staff, space, institutional organization structures, work processes and workflows. The consultant will inventorise/profile existing testing equipment and evaluate their condition, capacity, and adequacy. They will also review current tests conducted and identify gaps in relation to what a Center of Excellence should offer. This includes assessing laboratory space, the surrounding biophysical and social environment described above in the section 3, utilities and safety measures.

5.2. **Needs Analysis and Stakeholder Consultation:** Engage with key stakeholders to gather requirements and expectations for the Center. Stakeholders include but are not limited to RTDA, the Ministry of Infrastructure (MININFRA), Rwanda Housing Authority (RHA), Rwanda Standards Board (RSB)-MTLU (Material Testing Laboratories Unit), construction companies, contractors, engineering consulting firms, academic institutions, and IER (Institute of Engineering Rwanda). Through workshops, interviews, and surveys, the study will document the type of tests and services most needed.

5.3. **Benchmarking and International Good Practices:**

The benchmarking study tour for the entire 3 weeks, one week for each country and analyze leading regional, national, and internationally recognized material testing centers to identify best practices applicable to the RTDA's Center of Excellence. This will involve four staff members who will be appointed by RTDA, whose costs should be included in the firm's financial proposal.

The benchmarking study tour will cover institutions below or any other institution as the consultant may find fit and agree with the client:

- **Istituto Meccanica dei Materiali SA (IMM), Switzerland** – provides research, training, testing, certification, and advisory services.
- **Transport Research Laboratory (TRL), UK** – renowned for testing, consultancy, and standards development.
- **Federal Institute for Materials Research and Testing (BAM), Germany** – integrates diverse research and testing functions and is a global reference in materials testing.

The consulting team will extract lessons on laboratory management models, accreditation processes, financing mechanisms, and the balance between commercial services and public-good research. These insights will inform the Rwandan Center's performance targets, including turnaround times, test offerings, and accreditation scope.

5.4. **Market and Demand Study:** Analyze the demand for material testing services in Rwanda and the Region. This involves estimating the volume of tests currently done (and projected growth), identifying potential clients (construction firms, government projects, materials manufacturers, etc.) and understanding the competitive landscape (e.g. RTDA National laboratory, RSB-MTLU, private labs or university labs in the Region). The study should segment demand by material type; geotechnical tests for road subgrades, concrete strength tests for buildings, metallurgical tests for structural steel, etc. For instance, if Rwanda is embarking on major regional transport corridors or energy(dams) projects, the materials (like specialized concrete or asphalt mixes) will require continuous testing – the Center should handle such demand. The consultant will also investigate if neighboring countries (Burundi, Eastern DRC, Uganda, etc.) have sufficient testing facilities or if they would patronize a Rwandan Center for certain advanced tests. Quantifying demand will feed into sizing the Center (staffing, number of equipment needed) and forecasting revenue.

5.5. **Technical Feasibility and Services Definition:** Define the range of tests and services the Center should offer, including both conventional and advanced or specialised construction material tests, outline any new equipment required to perform these tests and assess the feasibility of acquiring and maintaining such equipment based on the market demands, benchmarking and international good practices. It will also cover facility needs like

establishing climate-controlled labs, cement and concrete lab, asphalt lab, geotechnical lab and possibly a research lab for developing new materials. As the existing building space is limited, the study will propose options for the construction of new buildings. Technical feasibility also entails planning for quality management systems in line with ISO 17025 to ensure reliable results.

5.6. **Develop the conceptual design**, including but not limited to site analysis with preliminary surveys (both geotechnical and engineering surveys), technical studies including architectural and structural designs, geologic and seismic assessment, laws and regulation conformity review, infrastructure pre-programming, site master plan and context, site layouts, workflow diagrams, space allocation /surface areas by functional unit, functional plans and functional architectural orientations, technical program and technical specifications.

5.7. **Organizational and Institutional Framework:** Propose the management and operational structure for the CoE. Different models will be evaluated – for instance, keeping it under RTDA ensures direct alignment with the road agency needs, whereas a more autonomous National Materials Institute could allow it to serve a broader mandate (roads, buildings, possibly industrial materials). The consultants will recommend a structure, possibly including a steering or advisory board (with members from government, private sector, academia) to guide the Center's strategic direction. They will also outline internal organization: divisions or departments within the Center (e.g., testing services division, research and innovation division, quality assurance unit, training and outreach unit).

5.8. **Human Resource and Capacity Plan:** Identify the expertise and staffing requirements to run the Center, including detailing the personnel and requisite qualifications. The study will consider current staff at the RTDA lab and any gaps in skills. A plan for capacity building will be provided-e.g., training existing staff on new equipment, attracting post-docs and top-notch scientists to undertake and or lead research efforts, and establishing exchange programs. The study might propose partnerships with established international labs for staff sandwich training or invite experts from IMM SA TRL, BAM or other internationally accredited and recognised labs for short courses in Rwanda or in their facilities. The study will also recommend a continuous training and knowledge-sharing program to ensure that the CoE staff maintain up-to-date skills and expertise.

5.9. **Economic and Social Benefit Analysis:** As part of feasibility, the study will qualitatively and quantitatively outline the broader benefits of the Center. This includes how improved material testing will lead to better construction quality and longevity of infrastructure improved safety, and economic benefits. Rwandan manufacturers of construction materials (cement, rebar, etc.) in collaboration with mandated organs could get their products tested and certified at the Center, enabling them to export within East Africa by meeting EAC

standards, this boosts industrial growth. The study will also consider the knowledge spillover: having a high-level lab can spur local innovation (e.g., researchers using the lab to experiment with more sustainable materials like volcanic ash in cement, which could yield environmental and cost benefits).

5.10. **Risk Assessment and Mitigation:** Identify potential risks or challenges in establishing and operating the Center and propose mitigation measures. Risks could include: staff attrition rate, under-utilization and or exploitation of the lab, equipment maintenance and downtime and financial sustainability. The study will provide a risk matrix and contingency plans.

5.11. **Implementation Roadmap and Business Plan:** The consultants/firm will develop an implementation roadmap including short-term, medium-term, and long-term actions to realize the Center of Excellence. This will include a business plan detailing the financial resources needed at every stage and how they can be satisfied.

5.12. **Under Legal Framework Analysis:** Undertake a detailed legal due diligence of all foreseeable legal requirements including; i) potential legislative and/or regulatory changes required to ensure compliance of the project to international norms, ii) legal risks and changes that can potentially affect public facilities and may require mitigation across the lifecycle of the project, iii) national and international licenses required to meet local, regional, and international laboratory accreditation requirements, iv) materials like highly dangerous agents, equipment and services that may require specific permits for manufacturing, shipping, and using for the purpose of the RTDA-CoE, and v) developing a plan stating at which stage and which licenses need to be obtained to ensure a timely completion and-eventually phased-commissioning.

5.13. **Conceptual services plan** (water, wastewater and decontamination systems, electricity, IT, etc.), air flow control techniques (HVAC), and breathing air supply system, laboratory security and safety conceptual plans including access control, material selection and definition (conceptual specifications book) and finally the conceptual Bills of Quantities (BoQ) with cost estimates.

5.14. Conduct the environmental and social impact assessment (ESIA), including detailed OHS (Occupational Health and Safety) plan and standards requirements, stakeholder engagement plan (SEP), etc.

5.15. Identifying additional energy and sustainability measures to be considered in the designs including a rough estimate of their effectiveness and cost to increase the environmental sustainability of the project.

5.16. Preparation of the tender dossiers for next stages of procurement.

By encompassing these tasks, the scope of work ensures the feasibility study will produce a holistic plan addressing technical, financial, economic, environmental, social, engineering and organizational aspects of the Center of Excellence. The consultants are expected to use evidence-based analysis, stakeholder inputs, and global good practices throughout these tasks.

6. DELIVERABLES

The Terms of Reference specify a set of deliverables that the consulting team must produce during the feasibility study. These deliverables serve as checkpoints and final outputs, and they must be prepared in a professional, comprehensive manner. The proposed indicative duration of the assignment is (equivalent to 13 months) from the commencement date of the service order. The main deliverables shall be:

6.1 Inception Report: Detailing methodology and understanding of the assignment. This also includes visit plan to existing facilities of good practices such as Institution Meccanica dei Materiali SA(IMM) in Switzerland, BAM (Federal Institute for Materials Research and Testing), Transport Research Laboratory (TRL), UK, Federal Institute for Materials Research and Testing (BAM), Germany. Consultant shall present the inception report to all stakeholders. The purpose of this workshop is to approve the inception report and allow the consultant to move to the next steps.

6.2 Draft feasibility study and conceptual design report: which shall detail the accomplished work and actual progress made while undertaking the various tasks. The draft detailed design, conceptual design and bills of quantities shall be presented to all stakeholders for validation.

6.3 Preparation of environmental and social safeguards related documents: Considering that the intended construction of Center of Excellence in material testing, will consist on demolishing the existing laboratory facility and building a new facility; in line with the Ministerial order No 001/2019 of 15/04/2019 establishing the list of projects that must undergo environmental impact assessment, instructions, requirements and procedures to conduct environmental impact assessment; the construction of this laboratory facility is categorized among the buildings with activities which can cause hazards; warehouses for storage of hazardous materials and perishables, which are required to undergo environmental and social Impact Assessment (ESIA). Therefore, the ESIA for this project should detail the management plans that will be required to be developed and implemented to mitigate all anticipated negative impact from the construction of this facility. As the land under which the facility will be built belong to the government, there will be no new land acquisition and compensation. However, considering the multi services and business activity in the vicinity of the project area, the Stakeholder Engagement Plan (SEP) will be also required to identify and map potential stakeholders to be engaged in the monitoring of the construction of the laboratory facility.

Rwanda Transport Development Agency

6.3 Final feasibility study and conceptual design report: The consultant shall prepare and submit a Final Feasibility Study and Conceptual Design Report for the proposed project, building upon the approved inception findings, baseline data, and stakeholder consultations. The report shall provide a comprehensive and integrated technical, economic, financial, environmental, social and institutional assessment to confirm the viability, and readiness of the proposed investment.

6.4 Final report: The consultant shall prepare and submit a Final Report that consolidates, refines, and finalizes all analyses, findings, and recommendations developed throughout the assignment. The Final Report shall incorporate comments received from the Client, stakeholders, and development partners on the draft deliverables and shall present a complete, coherent, and implementation-ready basis for decision-making and subsequent project preparation stages.

7. PAYMENT MODALITIES

No.	Deliverables	Schedule of Submission	Payment (%)
1	**Inception Report**	Within 3 months after commencement date of the services	10%
2	**Draft feasibility study and conceptual design report**	4 months following the stakeholder's validation for inception report	25%
3	**Final feasibility study and conceptual design report**	Within 2.5months following the stakeholder's validation workshop on the draft report.	30%
4	**Environmental and Social Impact Assessment (ESIA) and Stakeholders Engagement Plan (SEP).**	Within 2 months with RDB certificate.	10%
5	**Final report and tender document for the study.**	Within a maximum of 1.5 months after incorporation all the comments. The tender document should indicate the Environmental and Social Technical Clauses that the contractor is responsible for as might be revealed by the ESIA study.	25%

8. WORKSHOP ARRANGEMENTS AND INCENTIVE PAYMENTS

The consultant shall cover all costs related to the organization and validation workshops.

This includes, but not limited to:

- Logistical arrangements, such as venue booking to accommodate about 20 – 30 people, provision of workshop materials, refreshments, and related services.
- Ensuring effective coordination with RTDA for participant mobilization and communication.
- The consultant shall arrange for an office locally, transport and accommodation and will charge the cost thereof in the financial proposal.

9. REQUIRED EXPERTISE

Executing this feasibility study requires a multidisciplinary team with a range of expertise. Below is an elaboration of the key expertise and roles needed:

No.	Position / Title	Key Responsibilities	Minimum Qualifications and Experience
1	**Team Leader / Project Manager (Senior Materials or Civil Engineer)**	• Lead and coordinate the study, ensuring quality and timely delivery of all outputs. • Serve as the primary liaison with RTDA and other stakeholders. • Oversee feasibility study design, review deliverables, and ensure engineering soundness of recommendations.	• Advanced degree in Civil or Materials Engineering. • Minimum 15 years of professional experience in infrastructure or laboratory-related projects. • Proven experience in feasibility studies and project preparation. • Experience in laboratory establishment, management, or accreditation. • Strong leadership and coordination skills. • Experience with donor-funded projects (e.g., World Bank, etc…) desirable.
2	**Materials Testing Laboratory Specialist**	• Assess current laboratory operations and define technical requirements. • Specify equipment, layout, and quality management processes. • Advise on latest technologies and modern testing methods.	• Degree in Materials or Civil Engineering. • At least 10years of experience in materials testing laboratory operations. • In-depth knowledge of ISO/IEC 17025. • Experience in lab design and equipment specification. • Familiarity with advanced testing technologies.
3	**Quality Assurance / Accreditation Expert**	• Develop a roadmap for ISO 17025 accreditation. • Assess current practices and	• Advanced degree in Quality Management, Engineering, or related field.

No.	Position / Title	Key Responsibilities	Minimum Qualifications and Experience
		identify corrective actions. • Guide on proficiency testing, documentation, and quality control systems.	• Minimum 10years of experience in laboratory accreditation and QA systems. • Proven experience implementing ISO 17025. • Knowledge of uncertainty analysis, internal audits, and proficiency testing. • Experience with international accreditation bodies desirable.
4	**Institutional / Organizational Development Specialist**	• Review governance structures, institutional frameworks, and HR requirements. • Recommend sustainable management models and legal/Regulatory frameworks. • Develop organizational structures and capacity-building strategies.	• Advanced degree in Public Administration, Organizational Development, or related field. • Minimum 10 years of experience in organizational design. • Knowledge of governance frameworks and policy analysis. • Familiarity with national quality infrastructure systems. • Strong analytical and writing skills.
5	**Architect (Building, Interior Design, Landscape)**	• Prepare detailed architectural designs and specifications for approval and tendering. • Integrate design inputs from other consultants. • Provide support during construction as "Assistant Engineer."	• Degree in Architecture or equivalent. • Minimum 10years of professional experience. • Registered with Rwanda Institute of Architects (RIA) or equivalent. • Experience in laboratory or institutional building design preferred.
6	**Civil / Structural Engineer**	• Prepare civil and structural designs, drawings, and specifications. • Support tender document preparation and construction supervision. • Serve as "Assistant Engineer" during construction.	• Degree in Civil or Structural Engineering. • Minimum 10years of relevant experience. • Registered with a recognized engineering body. • Experience in institutional or laboratory infrastructure preferred.
7	**Electrical Engineer**	• Design electrical systems, prepare drawings and specifications. • Provide cost estimates and	• Degree in Electrical Engineering. • Minimum 10 years of experience in electrical design and supervision.

No.	Position / Title	Key Responsibilities	Minimum Qualifications and Experience
		support tender and construction phases. • Serve as "Assistant Engineer" during construction.	• Registered with a recognized engineering body. • Experience in institutional/laboratory electrical systems preferred.
8	**Mechanical Engineer**	• Design and specify HVAC, plumbing, and other mechanical systems. • Support preparation of tender documents and construction supervision. • Serve as "Assistant Engineer" during construction.	• Degree in Mechanical Engineering. • Minimum 10 years of experience in mechanical systems design. • Registered with a recognized engineering body. • Experience with laboratory mechanical systems preferred.
9	**Economic Analyst**	• Conduct economic and financial analyses to justify investments. • Perform cost-benefit analysis, revenue projections, and expenditure forecasts. • Assess affordability, sustainability, and innovative financing options.	• Advanced degree in Economics, or Development Economics. • Minimum 10 years of experience in economic/financial analysis of infrastructure projects. • Proven experience in establishing ERR related to infrastructure development. • Experience with World Bank or donor-funded appraisals would be an added value
10	**Quantity Surveyor**	• Prepare detailed cost estimates, Bills of Quantities, and tender documents. • Ensure compliance with financing body and government procurement rules. • Serve as "Assistant Engineer" during construction.	• Degree in Quantity Surveying or Quantitative economic or related field. • Minimum 10years of relevant experience. • shall be registered with a recognized professional body. • Experience in institutional or laboratory projects preferred.
11	**Environmental Specialist.**	• Assess environmental and social impacts of the proposed Center. • Ensure compliance with national and international environmental standards. • Prepare Environmental and Social Management Plans (ESMPs).	• Degree in Environmental Science, • Minimum 10years of experience in environmental and social assessments. • Knowledge of national environmental laws and World Bank ESF. • Experience in waste management and occupational

Rwanda Transport Development Agency

No.	Position / Title	Key Responsibilities	Minimum Qualifications and Experience
			safety desirable.
12	**Social Specialist.**	• Assess social impacts of the proposed Center. • Ensure compliance with national and international social standards • Prepare Stakeholder Engagement Plan (SEP) for the project.	• Degree in Social Sciences, development studies, • Minimum 10 years of experience in social assessments and community engagement; • Knowledge of national environmental laws and World Bank ESF. • Experience in environmental and social safeguards, stakeholder consultation and facilitation, social assessment and communication skills, Grievance Redress mechanism, SEP leadership.

10. SUPERVISION STRUCTURE

It clarifies the roles of various bodies or persons in guiding the study and reviewing deliverables. A clear supervision structure ensures accountability and smooth communication. The expanded details are as follows:

a. **Client and Contracting Authority:** The Rwanda Transport Development Agency (RTDA) will be the primary client for this study. Officially, the *Contracting Authority* might be RTDA's Director General or a Project Manager within RTDA.

b. **Project Coordinator/Manager:** RTDA will assign a focal person to serve as the day-to-day counterpart for the consultants. This person ensures the consultants have access to information, coordinates meetings, and monitors progress. For instance, the Project Engineer could serve as the focal point, given their technical knowledge and stake in the outcome. The consultants will work closely with this focal person and provide regular updates (weekly or bi-weekly briefs) or as deemed necessary.

c. **Technical Committee:** To ensure strategic oversight and alignment with national priorities, a Steering Committee may be formed. The committee may include representatives from major stakeholder organizations involved in or affected by the study:

- RTDA
- Rwanda Standards Board,
- Rwanda Housing Authority

- University of Rwanda-CST/Science (linking to research and innovation agenda).
- Private Sector Federation (PSF)
- Institute of Engineering Rwanda (IER)

d. **Reporting and Communication Lines:** The consultants will be required to present their findings to these oversight bodies regularly. At minimum, the consultant should provide:

- Brief progress updates (written or verbal) every month highlighting work done, any issues, and plans for next period.
- Minutes of key stakeholders' meetings to be shared with the client.
- All deliverables to be submitted to RTDA.

a. **Decision-Making Authority:** The ultimate decision-maker for approving the study's recommendations will be RTDA based on Steering Committee advice.
b. **Field Visits:** The client will avail to the consultant introductory letter to the relevant institutions such as RSB's lab or university labs or any other lab to gauge local capacity to ease data collections and site visit
c. **Conflict Resolution:** The supervision structure will aid the resolution of any issues that may emerge during the study; for example, if the consultant is facing delays due to information not being provided, the coordinator should assist; if the consultant's work is not satisfactory, the client will raise it through this structure to get it corrected.
The consultant will organize all validation workshops and the necessary logistical support. All related cost shall be included in the consultant's financial proposal during the bidding process.

11. CONFIDENTIALITY TERMS

In carrying out the feasibility study, the consultants will have access to sensitive information and will produce proprietary analyses. Thus, the Terms of Reference include a Confidentiality clause to protect the interests of the client (RTDA and the Rwandan Government) and any stakeholders providing information. The expanded details of confidentiality terms are as follows:

a. **Non-Disclosure of Information:** The consultants (and their personnel) are required to treat all information gathered during the study as confidential and use it solely for the purpose of the feasibility study. This means that data on, for example, the RTDA lab's testing records, internal budget figures, or stakeholder insights, cannot be disclosed to any third parties or used in other projects. If the consultants need to share certain data with outside parties (maybe an international expert or a sub-consultant), they must obtain permission from RTDA. All data, reports, and materials developed are the property of the client. For instance, laboratory usage statistics or market survey responses gathered are to be handed over to RTDA and not published elsewhere.

b. **Protection of Proprietary and Personal Data:** All data collected from private companies (like contractors sharing their failure rates or material sources) or individuals (surveying engineers, etc.), the consultants must ensure such data are handled confidentially.

c. **Report Usage and Publication:** The feasibility report and its findings cannot be published or distributed without the client's consent. Since this study might feed into government decision-making and possibly competitive procurement for the Center's implementation, premature release of information could be detrimental.

d. **Intellectual Property Rights:** All outputs of the study (text, data, diagrams, drawings) will be owned by the client. The consultants cannot claim intellectual property rights or reuse the materials for other purposes. If the study, for instance, devises a novel approach to running a Regional lab network, that approach in the report is owned by RTDA. More so, all documents and software developed under this assignment shall be the property of the Client.

e. **Consultant Team Compliance:** The Team Leader is responsible for ensuring all team members (including any subcontractors or support staff) comply with confidentiality requirements.