



**GOVERNMENT OF THE PEOPLE'S REPUBLIC
OF BANGLADESH**

Ministry of Environment, Forest and Climate Change

'Development of an Improved Agarwood Inoculation Technique' Project

Bangladesh Forest Research Institute

Sholashahar, Chattogram-4211.

Request for Application

For

**Selection of Local Consulting Firm against Performing for Drawing,
Design & Supervision**

Terms of Reference

For the Drawing, Design, Tender Schedule Preparation and Supervision up to Handover Consultancy Service for Agarwood Research Laboratory Building under ‘Development of an Improved Agarwood Inoculation Technique’ Project under the Ministry of Environment, Forest and Climate Change at Bangladesh Forest Research Institute, Sholoshahar, Chattogram-4211.

1. Background

The ‘Development of an Improved Agarwood Inoculation Technique’ Project (The Client) under the Ministry of Environment, Forest and Climate Change at Bangladesh Forest Research Institute, Sholoshahar, Chattogram-4211, financed by the GOVERNMENT OF THE PEOPLE’S REPUBLIC OF BANGLADESH, aims to build a multipurpose building with the objective of- (a) To invent an artificial inoculum and application technique that will produce quality agar-resin within a short period by establishing a specialized laboratory; (b) Arranging quality testing and quality assurance facilities for easy entry of Bangladeshi agar-wood, oil and agarwood-products into the foreign markets and (c) To disseminate the invented artificial agar-resin production technology among the stakeholders.

2. Objective of the Assignment

The Client is seeking a local Engineering Consulting Firm to prepare detailed designs and the tendering documents, obtain all licenses, permits, NOCs, certificates, clearances necessary for the construction of the building and supervise the construction work to ensure adequate completion.

The main objective of this consultancy is threefold:

Objective 1: The Firm shall prepare detailed architectural and structural designs for constructions and prepare all relevant tender documents for the selection of the contractors, in close coordination with The Client

Objective 2: The Firm shall aid the tendering process, participating in the site visits, and support The Client in answering questions that may be raised by contractors during the pre-bid meeting.

Objective 3: The Firm shall obtain all permits, NOCs, licenses, certificates and clearances necessary for the construction and completion of the building and conduct all testing necessary until the completion and handover of the building.

Objective 3: The Firm shall supervise all construction work to ensure adequate completion of civil, electrical, mechanical and other works, in close coordination with The Client.

3. Scope of Services, Tasks (Components) and Expected Deliverables

3.1. Scope of services

3.1.1. The scope of work includes the architectural and structural design and supervision of construction of one 6-storied multipurpose building at the Bangladesh Forest Research Institute, Sholoshahar, Chattogram. The final location of the building will be provided at the shortlisting- stage.

3.1.2. The Firm shall undertake all engineering and administrative services by preparing all detailed designs, bill of quantities (BoQ), costing of required works; perform soil tests and securing all necessary permits (Building License, Fire License, Environmental Clearance Certificate, etc.); preparing tender documents for works; support and assist the work tendering process; supervise the works being done by the selected contractors; recommend contract variations when needed; and certify that works have been carried out according to specifications ensuring successful completion of works in the project site.

3.2. Tasks (Components)

The Firm' tasks under this consultancy includes the following two main phases:

- ***Phase-1: Soil test, building design, approval and tender documents preparation***
- ***Phase-2: Obtaining all licenses, permits, NOC, certificates and clearances***
- ***Phase-3: Supervision and site management of construction work and all testing***
- ***Phase-4: Completion report submission and handover of the completed building.***

1: Design and tender documents preparation

3.2.1.1. Design Activity A: Program Analysis

- The Firm shall gather any additional data that is needed for project design, supervision and site management. The Firm shall confirm that the activities are justifiable and feasible according to PWD-2018 or later rate schedule.

Requirements for Program Analysis submittal include the following for the site:

- a. Topographic plan for the site of the project which, at minimum, consists of the following:
 - (1) Existing structures and buildings
 - (2) Site boundaries
 - (3) Existing underground and over ground services, including water, gas, electricity, drainage, internet, telephone and others
 - (4) Roads in the vicinity of the site, their size, existing elevation and conditions and planned elevations
 - (5) Setbacks approved by the local and relevant authority
 - (6) Status of all adjacent lands and their elevations related to the site
 - (7) Limits of contract
 - (8) Photographs
- b. Space itemization including function and size, number and classification of occupants, type and quantity of movable furniture and equipment.
- c. Total of all program areas including circulation, mechanical and other functions.
- d. Cost estimates according to PWD-2018 or later rate schedule.
- e. Permits, information and regulations necessary for preparing the study, regional planning roles and those related to services and infrastructure (Local Government Division, Fire Service and Civil Defense Department, Department of Environment, Department of Archeology, Chattogram Development Authority, Bangladesh Airforce and all other relevant authorities). A report shall be prepared by the Firm regarding all required regulatory agencies and authorities' reviews and permits.
- f. The Firm shall submit and assist The Client with the appropriate number of implementation contracts, interfaces and coordination required to execute the projects.
- g. A schedule of implementation for this case is required.
- h. Resolve in consultation with The Client any discrepancies in the project scope or budget prior to proceeding the preliminary design.

3.2.1.2. Design Activity B - Site Layout Design

Requirements for the Site Layout Design submittal for the selected site shall include the following:

- a. Site layout and services proposal.
- b. Topographic plan as above.

- c. Preliminary architectural and structural design of the project according to the basic requirements and cost estimate (Site plans, floor plans, sections in land and building and all other related plans). The design must facilitate the optimum use of daylight, minimizing energy consumption on lighting, cooling & heating; incorporate renewable energy sources, green roof, rainwater harvesting, weathering-proof exterior and other energy conserving measures where applicable.

The Firm shall not proceed beyond Site Layout Design until provided with a written approval of The Client.

3.2.1.3. Design Activity C - Preliminary Design

This activity encompasses the preparation of preliminary design submittal based on the accepted and modified Site Layout submittal. Submittal shall illustrate the resolution of all building and site elements, fix and illustrate the scope, scale and relationship of the project component for structural, mechanical and electrical systems, identify materials and specify performance characteristics and quality standards. The environmental requirements are to be reflected in design; The Client will review and ensure concurrence of the requirements.

Requirements for the preliminary design submittal for the selected site shall include the following:

- a. Detailed site layout and services.
- b. Topographic plan as above.
- c. Site investigation report, analysis and evaluation of the soil condition and recommended type of foundation according to The Client.
- d. Vertical and horizontal extensions possibilities, their alternatives and the advantages and disadvantages of these alternatives.
- e. Fixed and movable furniture and equipment in tabular form and their connection to utilities.
- f. The firms(s) shall advise The Client on the number of lots to be prepared considering the contractors' capacity and the geographic distribution of the sites.
- g. Price analysis report according to the actual labor & materials costs.
- h. Pre-final copy of the tender documents for all projects, which, at minimum, consists of the following for each individual project or group of projects.

Bidding documents shall be prepared in accordance with the Public Procurement Act 2006 and Public Procurement Rules 2008 following PWD-2018 or later rate schedule. The applicable standard bidding documents will be shared with the selected engineering firm once the design, drawings, technical specifications and BoQ for each contract are completed.

The Firm shall not proceed beyond preliminary design until provided with a written approval of The Client which shall include all agreed upon revisions to the preliminary design submittal.

3.2.1.4. Design Activity D - Detailed and Final Design

The Firm shall prepare detailed final drawings and tender documents based on the accepted

preliminary design submittal, including all agreed upon revisions according to the following requirements in compliance with the Public Procurement Act 2006 and Public Procurement Rules 2008 and submit them to The Client for final review.

Where anticipated the environmental requirements are to be reflected in design; The Client will review and ensure concurrence of the requirements. The Client may engage another agency to review the designs and documents at this stage.

- a. Each set of discipline drawings should be separated from each other
- b. Priced bills of quantities (.CSV format) and standard bidding documents.
- c. Detailed booklet of the quantity calculations on Excel sheet for every item of work.
- d. Price analysis report.
- e. Proposed Construction Program for the project.
- f. Color scheme for the project.

Booklet of the engineering calculations and shall at minimum include the following:

Chapter 1: Policy and Method for Structural Design

- a. Objectives of Structural Design
- b. Regulations and Standards
- c. Buildings Subject to Structural Design
- d. Proposed Structural System of the Buildings
- e. Plans and Framing of the Buildings
- f. Structural Design
- g. Loads Calculations
- h. Structural Analysis and Calculations. (loads, stresses, shear force and bending moment diagrams for each member including external works)

Chapter 2: Design of Members

- a. Design of Slabs
- b. Design of Beams and Frames
- c. Design of Columns
- d. Design of Retaining Walls
- e. Design of Foundation
- f. Design of other members and structures.
- g. Load Plans for all columns at every floor and at foundation level.

Chapter 3: Mechanical Design

Chapter 4: Electrical Design

Chapter 6: Fire Safety plan

The Firm shall update the bidding document in compliance with the all GoB requirements;

- The Client will review and approve the bidding documents to ensure the firm has embedded all the requirements correctly.
- The Client will review the drawings, bills of quantities and other documents - within period allocated in the signed contract and special conditions of contract- from the date of submission and inform the Firm in writing, of any comment.
- The Firm shall reflect all the agreed comments with The Client on all tender documents especially the drawings and the Bill of Quantities.

3.2.1.5. Design Activity E - Tender Documents

After making all corrections and before the reproduction of all copies of the final Tender Documents to The Client, the Firm shall prepare and submit the corrected final detailed drawings, Bill of Quantities and other tender documents in only one copy for quick check, after which the Firm will get the written approval and submit complete set of documents for each site as per the Table of reports and deliverables section 5 of this TOR and also considering the following:

- a. Color scheme.
- b. The programs used in design should be considered and approved by The Client.
- c. The title and all tender information included in the documents (drawings & other volumes) should be obvious and re-writable.
- d. All drawings to be submitted shall be dated, sealed, stamped and signed by the Firm according to the following criteria (Approved by, checked by, designed by, Drawn by). Other tender documents shall be sealed, stamped and signed by the project manager.

Other Design Activities and Requirements

Permits

The Firm shall prepare engineering drawings and other documents, as required, for obtaining construction licenses, certificates, NOCs, clearances and permits from relevant authorities. The Firm will pay all fees required, with no exceptions. The Firm will follow up and help to obtain the license on behalf of The Client before submitting the Tender Documents.

Drawings

- (1) Unless otherwise specifically required by The Client, project documentation is to be made in conformity to The Client requirements.
- (2) Drawing sheets size shall be A4 or any other size approved by The Client.
- (3) Drawings shall be to a high standard and submitted all in original copies (no photocopies.)
- (4) No handwriting is to be used.
- (5) Scales are to be mentioned in the task lists.
- (6) It should be mentioned that the book of details is attached (if any) in the drawings main cover.
- (7) A title block shall appear at the bottom right hand side of the drawing including:

- a. The Client on the top broad line;
 - b. The project name and tender number (to be provided by The Client).
 - c. The drawing name and number
 - d. All other necessary information
- (8) Drawings shall have a serial number stating also the total number of sheets.
 - (9) All sheets shall contain a graphic scale. Each plan sheet shall indicate north with an arrow.
 - (10) Match lines shall be used to identify portions of buildings or site shown on separate sheets. Match lines shall be consistent throughout drawing set.
 - (11) All floor plans and partial floor plans shall show consistent column grid line indications, room names and numbers and shall be to the same scale. Larger scale plans of special areas such as toilets, special rooms, stairs, kitchen, shall be provided as necessary to show details of the work.
 - (12) The elevation of the finished floor shall be indicated under the title for each floor level.
 - (13) All details shown on drawings shall be applicable to the project. Details shall be drawn to scale and may be bound separately.
 - (14) Designation for sections, details, etc. shall denote detail and sheet number on which it is cut and sheet number on which it is detailed.
 - (15) Items shown on the drawings that are not a part of contract shall be labeled as NIC (not in contract).
 - (16) Assign a number or name to all buildings, rooms, corridors, etc. for reference purposes. Ensure that they are identical for all drawings.
 - (17) A key plan in the lower right-hand corner of the drawing shall be used to locate a building, a portion of a building or portion of a site in relation to the larger unit.

The following are the minimum requirements for Key Drawings:

(I) Architectural Drawing(s)

- (1) Site Layout (Site Development Plan) scale 1/200
- (2) Topographic site layout (existing)
- (3) Proposed and existing building's access roads.
- (4) Parking, entrances etc.
- (5) Topography - show all new topography, contours, grades and levels.
- (6) Planting, Gardens & Green area.
- (7) Boundary walls and limits of the contract.
- (8) Profiles and cross sections for sidewalks and curbs and details of expansion joints.
- (9) Show Full Dimensions.
- (10) Architectural Plans Set (for existing and Proposed building and works)
 - Floor Plans 1/100
 - Roof Deck plan 1/100
 - Elevations 1/100
 - Doors Schedule
 - Windows Schedule

- Staircase Details and full sections 1/20
- (11) Detailed plan and interior elevations of toilets
- (12) Furniture plans and details of fixed furniture
- (13) Proposed color scheme of the project
- (14) Architectural Details: 1/50, 1/20, 1/10, 1/5
 - Flooring
 - Roof
 - Toilet Flooring
 - Expansion joints
 - Doors, Windows, protection rails, hand rails, etc.)
 - Miscellaneous details, sections, and enlarged plans as necessary to effectively communicate the design (to be included in the book of details).
- (15) Finishing Works Schedules
- (16) Exterior Works Plans and Details.
- (17) All architectural details shall be included in the Book of Details.
- (18) Green roofs plan
- (19) Renewable energy plan
- (20) Accessibility features for especially abled persons
- (21) Recreation facilities (table tennis, treadmill, cycling machine, etc.
- (22) Pantry area

(II) Structural Drawing(s)

- (1) (Structural general notes which shall also include governing structural code, design loads, net allowable soil bearing capacity, strength of all structural materials and general details
- (2) Plans of foundations and columns and their sections and details (show overall dimensions, center lines, location of members and offsets and show all columns on grids).
- (3) Plans of slabs, stairs, beams, frames and expansion joints and their sections and details.
- (4) Schedule (as required) footings, columns, beams girders, slabs, lintels and reinforcement.
- (5) Plans for the structural details of the exterior works (retaining walls with grouped sections, boundary walls, reservoirs, tanks, etc.). Retaining walls shall be drawn on the site plan showing the height, width and length of each section
- (6) All structural details shall be included in the Book of Details.
- (7) Air ducts plan
- (8) Ventilation plan

(III) Mechanical Drawings (M)

- (1) General notes and Legends

- (2) Floor Plan - Plumping with Riser Diagram (water lines 1/50
- (3) Floor Plan Plumping - Waste with Riser Diagram
- (4) Rainwater harvesting plan
- (5) Exterior Works' Drain Plans. Also showing invert elevation of all sewers, manholes and catch basins, frame and grade elevation of manholes and catch basins.

(IV) Sanitary Details

- (1) Eastern W.C installation Details
- (2) Western W.C installation Details
- (3) Lavatory installation Details
- (4) Floor drain installation Details
- (5) Clean out Details
- (6) Laboratories and other special room's details.
- (7) Central Heating Plans and Details (if required).
- (8) Details of the gas supply system.
- (9) Drinking fountain and details
- (10) All mechanical details shall be included in the Book of Details.

(V) Electrical Drawings (E)

- (1) General notes & legend at all plans
- (2) Electrical site plan
- (3) Floor plan lighting layout with dimensions.
- (4) Floor plan power layout with dimensions.
- (5) Main and sub-main distribution boards with single line diagram.
- (6) Lighting fixture schedule.
- (7) Wiring devices schedule.
- (8) Earthing system with details.
- (9) Public address system (sound and calling system) layout with distribution diagram.
- (10) All electrical details shall be included in the Book of Details

Phase 2- Supervision & site Management of construction work

3.2.1.6. Tendering and Supervision Activity A- Tendering

This activity has the following requirements:

- (1) All tender documents require the approval of The Client prior to the Firm printing the documents. Upon approval the Firm shall sign, seal and date drawings and other documents. Dates shall reflect the most recent state of completion.
- (2) The Firm might be requested to conduct a pre-qualification process for the contractors. When requested such, the Firm shall perform this pre-qualification with no additional cost.
- (3) Site Visits: The Firm shall arrange and attend the site visits, record all questions and answers and prepare minutes to be discussed at the pre-bid meeting.
- (4) Pre-Bid Meeting: When a pre-bid meeting is scheduled, the Firm shall prepare for and attend this meeting with all engineers participated in the preparation of the project, prepare the meeting minutes and ensure is issued to all participating contractors. The Client will coordinate with the Firm to identify the environmental management requirements to the contractors and answer their inquiries.
- (5) Addenda:
 - The Firm shall prepare all required addenda
 - All addenda shall be sequentially numbered and dated.
 - All addenda, including revised drawings and sections, must be approved by The Client prior to the distribution to the Tenderers.
 - The drawings shall have the changes clearly noted and identified. Make notation in the revision column of the drawing indicating the change letter, the date of the change, and a brief description of the change.
 - All changes shall be incorporated into the original drawings. Changes are not to be issued from marked up or copies or additional drawings.
- (6) Tender Opening and Analysis:
 - The Firm shall attend the tender opening for the project unless specifically excused by The Client.
 - The Firm shall review all unit prices submitted and provide written recommendation or rejection and aid The Client to identify the apparent successful Tenderers.

3.2.1.7. Tendering and Supervision Activity B- Supervision of construction works

This activity entails the following sub-activities and requirements:

- (1) Pre-Construction Meeting: The Firm shall schedule and arrange a pre-construction meeting within at least 10 calendar days before the commencement of the construction works. Attendance is mandatory for the Firm and the contractors. The meeting will be held at The Client main offices.

- (2) Completion of the Contractual Agreement with the Contractor: The Firm shall prepare all documents necessary for signing the construction agreement with the contractor. The Firm shall check, verify and ensure the completeness of the contractual procedures and documents including the environmental requirements and their compliance with the legal and the contractual conditions and obligations of both parties of the works contract.

3.2.1.8. Site Handing Over and Commencement of Works:

- (1) The Firm shall hand over the sites to the contractors and submit a hand over report to The Client signed by all parties
- (2) The Firm shall issue the order to commence the works upon assuring that the contractor has fulfilled his prior contractual obligations and identify the exact date for starting the works;
- (3) The Firm shall follow up with The Client and the related authorities to assure that the sites are clear of any obstacles which might affect the progress of the works before issuing the order of commencement;
- (4) Financial Control: The Firm shall check the accuracy of the quantities of all items before the end of the second month of the project and report to The Client. The Firm shall assure cost control all over the project period; keep records, justify amounts and variances, and advise The Client on all financial payments of the contractors as per the signed contracts with the Firm and the contractor.
- (5) Quality Control: The Firm shall be responsible of all quality related issues related to the construction works and as detailed in the projects' tender documents including but not limited to:
 - Observation of the Works;
 - Site Meetings;
 - Redesign Works;
 - Contractor's Representative and Personnel;
 - Accuracy of Measurements and Alignments
 - Fencing and Safety
 - Construction checking and material testing
- (6) The Firm shall assign a site engineer for the site as per the number of lots prepared by the Firm and size of construction work at the site and as agreed with The Client.
- (7) Prepare detailed supervision formats and templates to be used between supervision and the contractor during all stages of projects implementation.
- (8) Make sure that all required laboratory tests and quality control measures are done in a professional manner and provide scientific and engineering opinion on them before being sent to The Client.
- (9) Quality Control: technical and administrative (specs, testing, interpretation of test reports, taking the proper decision, sampling procedures, the roles, and responsibilities of testing labs, etc.). Dealing with Shop drawings and As-built drawings.
- (10) Provisional Acceptance and Completion: The Firm shall be responsible for certifying

the completion of all contracts as detailed in the projects' tender documents

3.3. Environmental Aspects during the Implementation of the project

Throughout the project's implementation, the Firm should supervise the contractor to ensure that the contractor submits the environmental deliverables and implement its environmental obligations under the contract in compliance with the environmental requirements.

This includes, but is not limited to the following:

- (1) The Firm will oversee labor and occupational health and safety performance and mitigating risks on a daily basis,
- (2) Ensure that Occupational Health and Safety (OHS) standards are met at the construction site in line with the requirements of The Client.
- (3) Ensure that contractor prepares its labor management procedure and gets it approved by The Client.
- (4) Ensure the contractor is conducting all the works in compliance with the labor management plan, waste management plan and OHS plan.
- (5) Conduct periodic supervision visits to check and report to The Client the compliance, mitigation taken, noncompliance, environmental notes, follow up required
- (6) Undertake, as required, audits, supervisions and/or inspections of any sites where the contractor is undertaking activities under its contract, to verify the contractor's compliance with The Client requirements.
- (7) Ensure that the contractor's actual reporting (content and timeliness) is in accordance with the contractor's contractual obligations;

Environmental reporting: The Firm shall:

- (1) Notify The Client of any failure by the contractor to comply with the environmental safeguards, failure to implement mitigation measures;
- (2) Immediately notify The Client of any allegation, incident or accident, which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, The Client's Personnel, contractor personnel or experts. The Firm shall provide full details of such incidents or accidents to The Client within the timeframe agreed with The Client.

4. Team Composition and Qualification Requirements for the Key Experts

The following categories of personnel are to be assigned for the design works by the Firm as appropriate. The descriptions given below are for reimbursable staff. No other personnel will be reimbursed unless the Firm wish to propose other specialists in which case they must be listed and included in the proposal and approved by The Client. CVs must be submitted for the types of staff that the Firm might decide to use on this project as follows:

Sl	Required Team Members	Required Qualifications	Minimum Years of Experience
Phase 1- Design and tender documents preparation			
1	Project Manager	Registered professional architect (head of the architectural specialization)	10
2	Architect	Registered professional architect with experience in design of schools and/or similar assignment	5
3	Civil Engineer	Registered engineer with experience design of schools and/or similar assignment	10
4	Electrical engineer	Registered engineer	5
5	Mechanical engineer	Registered engineer	5
6	Surveyor	Registered surveyor	5
7	Quantity Surveyor		5
8	Draftsman	Technical school certificate	5
9	Environmental Specialist	At least Master's degree in Environmental Engineering, Environmental Management or any other related field. Minimum 5-year experience in conducting environmental risks assessment, and experience as a Safeguard Specialist, with technical knowledge in both environmental safeguards processes and compliance in similar projects Experience in occupational health and safety Experience in working and drafting environmental reports according to the GoB Policies and Environmental Framework. Excellent knowledge of English and Bangla (both spoken and written) and excellent communication skills.	5
Phase 2- Tendering support and supervision of construction work			
1	Project Manager (Representative of the engineering consulting Firm)	A part time per site and full time for all sites registered professional engineer, member of the Firm's office, civil engineer, and experience in the design, management and supervision of construction projects. The	07

		project manager will represent the Firm and will be responsible for managing the project. The project manager responsibilities start with signing the consulting services contract and continue up to issuing the final acceptance certificate.	
2	Mechanical Engineer	Part- time registered mechanical engineer with experience in design and supervision of sanitary installations to supervise all sites. preferred that this engineer would be the head of the mechanical specialization at the firm or his assistant. This engineer will make the needed site visits as per the specific needs of each site and shall be considered as lump sum per site. If more visits are needed then the engineer shall make these visits free of charge.	7
3	Electrical Engineer	Part- time registered electrical engineer with experience in design and supervision of electrical installation and wiring for buildings and will cover all sites. Preferred that this engineer would be the head of the electrical specialization at the firm or his assistant. This engineer will make the needed site visits as per the specific needs of each site and shall be considered as lump sum.	7
4	Quantity Surveyor (Non-resident)	A part-time registered civil engineer or Architect or A Polytechnique graduate in quantity surveying or related subject, 3 years for engineer, 5 years community college degree graduate.	2
5	Surveyor (Non - resident)	Part -time registered professional surveyor professional experience in the field of the assignment.	7
6	Resident Personnel Resident Engineers	Full time registered civil engineer with experience in design and supervision of construction projects including an experience in at least one similar project. Minimum 01resident Engineers should be provided in construction site for full time during the working hours (from 8:00 am to 6:00 pm) during working days (from Saturday to	7

		Thursday). The Client shall deduct the amount stated in the signed contract and the special conditions of contract for each non-justified absence day or part of a day from the payment due to the Firm.	
7	Administrative Staff	Qualified administrative staff to Prepare reports, instructions and correspondence to The Client and the contractor.	2

5. Reporting Requirements and Time Schedule for Deliverables

5.1. Timeframe: Expected Completion Date

<i>Phase</i>	<i>Activities</i>	<i>Timeline</i>
Phase 1	Soil test, building design, approval and tender documents preparation	90 calendar days
Phase 2	Obtaining all licenses, permits, NOC, certificates and clearances	90 calendar days
Phase 3	Supervision and site management of construction work and all testing	2.5 years
Phase 4	Completion report submission and handover of the completed building.	1.5 years

Delivery Schedule

SI	Report Name Details	Copies	Submission Time	
Phase 1- Design and tender documents preparation				
1	Program Analysis Report	Refer 3.2 Activity (A) of this TOR	1 hard copy & 1 computerized (on USB)	10 days after effectiveness date
2	Site Layout Proposals	Refer 3.2 Activity (B) of this TOR	1 copy for each of the documents mentioned in this phase (see 3.2.2 of this TOR)	25 days after effectiveness date
3	Preliminary Design Report	Refer 3.2 Activity (C) of this TOR	2 copies Detailed booklet of quantities	45 days after effectiveness

			calculations 1 hard & 1 soft copy of the tender documents for all sites mentioned in this phase (see 3.2.3. of this TOR)	date
4	Final Design Report	Refer 3.2 Activity (D) of this TOR	<p>(1 hard & 1 soft copy of volume V. each set of discipline drawings should be separated from each other)</p> <p>(1) copy soft & hard (excel sheets) of the Priced bills of quantities GoB Standard Bidding Documents</p> <p>(2) copies Detailed booklet of the quantities calculations on Excel sheet for every item of work.</p> <p>(1) copy of the price analysis report.</p> <p>(1) copy of the booklet of the engineering calculations.</p>	80 days after effectiveness date
5	Site Layout Proposals	Refer 3.2 Activity (B) of this TOR	1 copy for each of the documents mentioned in this phase (see 3.2.2 of this TOR)	25 days after effectiveness date
6	Tender Documents	Refer 3.2 (E) of this TOR	<p>12 copies of the full package of GoB Standard Bidding Documents 1 copy of the priced bills of quantities.</p> <p>1 hard copy & 1 soft</p>	90 days after effectiveness date

			<p>copy of the Price analysis report according to the actual labor & materials costs (soft & hard) excel sheet.</p> <p>1 copy booklet of the engineering calculations.</p> <p>1 copy booklet of the quantities calculations on Excel sheet for every item of work, please note that the measurement sheet must be very accurate according to the drawings and to the method of measurement. The Client will refer back to these sheets when the contractor submits the final payment.</p> <p>Proposed Construction Program</p> <p>One electronic copy saved on 2GB flash memory of all Tender Documents, Drawings, Report, etc.</p> <p>Color Scheme</p> <p>4 additional copies of all the tender documents (2 of them should be folded to A4 size) and one electronic copy</p>	
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			1 copy of the construction permits and related drawings.	
	Revised Tender Documents	Revised drawings and other tender documents to reflect all addenda issued. These copies shall be sealed, signed, dated and marked with “FOR CONSTRUCTION”	4 copies	2 weeks after pre-bid meeting.
	Final Report at the completion of Phase 1	The work performed by the Firm Recommendations regarding future similar works for The Client		90 days after effectiveness date
Phase 2- Tendering support and supervision of construction works				
1	Forms	Prepare all the forms to be used during the implementation of the project such as daily report form, monthly report form, variation order form, site meeting form, site visit form, approving forms, inspection forms and other forms and get the approval of The Client on these forms. In case that The Client has ready standard forms, the Firm must use these standard forms.		
2	Records	Record all the activities of the project including, but not limited to weather condition, nature and location of the work being performed, verbal interpretation and other details.		
3	Monthly Report	Prepare and submit standard monthly progress reports to The Client in English as requested by The Client. The monthly report shall be		

		<p>submitted to the Client as per the timelines stated in the signed contract and special conditions of contracts. These reports shall consist of, but not limited to the following:</p> <ul style="list-style-type: none"> ▪ Photographs demonstrating the progress of the works; ▪ Completed works due; ▪ Percentage of the completion and general progress of the works, obstacles; comments and recommendations ▪ Variation orders issued due; ▪ Payments due; ▪ A tentative work schedule and cash flow for the coming months and comparing it to the approved work schedule; ▪ Tests performed; ▪ Samples approved; ▪ Site visits; ▪ Contractor's personnel and plants; 		
4	Site Meeting Reports	<p>The Firm shall submit weekly site meeting report. This report shall, at minimum, include but not limited to number of the meeting, date, attendees, purpose of the visit, contractors' workforce, progress of the work, items inspected, tests witnessed, observations, problems resolved and solutions suggested.</p> <p>The Firm shall be responsible for drafting the minutes of any meeting, take the signatures of all parties concerned and distribute the reports</p>		<p>one week from the date of the visit. In case of problems which need immediate decisions from The Client, the Firm shall promptly notify The Client, follow up and expedite the action.</p>

		accordingly		
5	Final Report	<ul style="list-style-type: none"> ▪ General Information ▪ Project Description ▪ Description of Site ▪ Type of Construction and Specifications ▪ Schedule of Interim Payments ▪ Executed Works and Payments on Account ▪ Work Schedule, Obstacles and Remarks ▪ Visits to Site ▪ Actual Duration of Activities and Remarks ▪ Materials Approved and Dates ▪ Quality Control ▪ Environmental compliance section ▪ Appendix “A”: Summary of Approved Variations ▪ Appendix “B”: ▪ Events and Correspondence 	5 copies	one month from the date of the provisional acceptance or the termination

6. Firm Selection Method and Type of Contract

The firm will be selected in accordance with Public Procurement Act 2006 and Public Procurement Rules 2008. The selection method is – Fixed Budget

The Firm is expected to sign a single lump-sum contract for the following activities:

- *Phase-1: Soil test, building design, approval and tender documents preparation*
- *Phase-2: Obtaining all licenses, permits, NOC, certificates and clearances*
- *Phase-3: Supervision and site management of construction work and all testing*
- *Phase-4: Completion report submission and handover of the completed building.*

7. Additional Requirements



Government of the People's Republic of Bangladesh
Office of the Project Director
Development of an Improved Agarwood Inoculation Technique
Bangladesh Forest Research Institute, Chattogram-4211.



Request for Expression of Interest (EOI)

(Consulting Services - Firm Selection)

Selection of Local Consulting Firm against Performing for Drawing, Design & Supervision of Agarwood Research Laboratory Building (According to the DPP) in Bangladesh Forest Research Institute, Sholashahar, Chattogram-4211 under the Project.

Ministry/ Division	: Ministry of Environment, Forest and Climate Change
Agency	: Bangladesh Forest Research Institute (BFRI)
Procuring Entity Name	: Project Director, Development of an Improved Agarwood Inoculation Technique, BFRI, Chattogram-4211.
Reference No.	: 22.04.0000.039.05.000.2022/178, Date: 03 August, 2022
Procurement Method	: Fixed Budget
Source of Found	: GOB
EOI Closing / Submission Date & Time	: 21 August, 2022, 5:00 pm
EOI Submission Place	Office of the Project Director, Development of an Improved Agarwood Inoculation Technique, BFRI, Chattogram-4211.
Brief Description of Assignment	Review of the Existing Proposal, Design and Estimation Detail Architectural and Engineering Design Preparation of Tender Documents Construction Supervision up to handover Obtaining licenses/ clearances/ NOCs/ certificates/ permits Conducting all necessary testing
Experiences, Resources and Delivery Capacity Required	1) At least 5 years' general experience of the firm, 2) Experience of completing similar projects/services which reflect the capability of the firm. 3) Availability of appropriate experts among staffs and logistics, 4) Updated Trade License, VAT & Income Tax Certificate, 5) Joint Venture Agreement (If applicable).
Address & Contact of Official Inviting EOI	Office of the Project Director, Development of an Improved Agarwood Inoculation Technique, Bangladesh Forest Research Institute, Sholashahar, Chattogram-4211. Tel: 02-334482587, Email: awrl.org@gmail.com, www.bfri.gov.bd; www.awrl.org.

(Dr. Mohammad Jakir Hossain)
Project Director

The details of the project, requirements of the consulting firm and the TOR of the works are available at www.bfri.gov.bd