



PLANNING AND DEVELOPMENT OFFICE

TERMS OF REFERENCE

**DESIGN AND BUILD SCHEME INFRASTRUCTURE
PROJECT:**

**CONSTRUCTION AND SITE IMPROVEMENT OF THE
BENGUET AGRI-PINOY PROCESSING CENTER (BAPTC)
MINIMAL PROCESSING AND PACKAGING FACILITY
BSU STRAWBERRY FIELDS, LA TRINIDAD, BENGUET
2601 PHILIPPINES**

I. BACKGROUND

The **BENGUET AGRI-PINOY PROCESSING CENTER (BAPTC) MINIMAL PROCESSING AND PACKAGING FACILITY** through the approved allocation for General Appropriations Act 2020 (GAA) intends to apply the sum of **TWENTY MILLION PESOS (₱20,000,000.00)** being the approved budget for the procurement and implementation of the project **CONSTRUCTION AND SITE IMPROVEMENT** utilizing the **Design and Build Scheme** with the project duration of **NINETY (90) Calendar Days**.

II. PROJECT DESCRIPTION AND LOCATION

The project will involve the Design and Build Scheme leading to the Construction and Site Improvement of the Benguet Agri-Pinoy Processing Center (BAPTC) Minimal Processing and Packaging Facility, BSU Strawberry Fields, La Trinidad, Benguet 2601 Philippines, pursuant to the technical specifications indicated in this Terms of Reference, and the National Building Code Standards (PD 1096) and Specifications, enclosed herein.

The abovementioned facility including all pertinent improvements thereon will be located within the Benguet Agri-Pinoy (BAPTC) Complex, BSU Strawberry Fields, La Trinidad, Benguet, 2601 Philippines (kindly refer to the attached site map and proposed layout schemes). The total lot area of **700 square meters** will be utilized in the implementation of the abovementioned project.

The project has an Approved Budget for the Contract (ABC) of **TWENTY MILLION PESOS (₱ 20,000,000.00)** which shall include all taxes and applicable permits, licenses and clearances, for the project mentioned above where a maximum of **3% shall be allocated for the Design** and the balance for the architectural and civil works.



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III. CONCEPTUAL DESIGN

The Construction Project - Design and Build Scheme

The structured design shall conform to the provisions of the National Building Code of the Philippines (PD 1096), Accessibility Law (BP 344), National Structural Code of the Philippines, Electrical Engineering Law (RA 7920), Mechanical Engineering Law (RA 5336), Plumbing Code (RA 1378, 1993-1994 Revisions), Fire Code (RA 9514) and other laws and regulations covering environmental concerns and local ordinances and regulations whichever is applicable.

Site Development includes the Following Scope of Works

A. BAPTC MINIMAL PROCESSING AND PACKAGING FACILITY

The BAPTC Minimal Processing and Packaging Facility shall consist of the following:

CONSTRUCTION OF THE FACILITY

- i. A Warehouse Type Structure with dimensions of 15 meters (W) x 24 meters (L) x 7.4 (H) meters will be adopted in the implementation of the project. Included therein is a mezzanine that will enclose an Administrator's office and a Conference room.
- ii. At the ground level of the proposed Warehouse Type Structure, it should be able to contain machineries and/or equipment to be purchased for its operations. The list of the proposed machineries and/or equipment is herein attached as Annex " 1 " for perusal. Moreover, comfort rooms for men, women, PWD's and lactating/diaper changing room should be strategically located within the proposed warehouse.
- iii. The floor elevation of the proposed warehouse should be at least 0.5 meters high from grade line with reinforced slab-on-fill concrete with thickness of at least 0.15 meters. A semi-rough concrete finish should be observed within the periphery of the proposed warehouse with thermoplastic pavement markings as indicated in the proposed layout scheme herein attached and marked as Annex " 2 ".
- iv. Pre-fabricated walls, dividers and other related structures should be installed observing the industry standards. A PVC type sliding windows will be installed in each side of the facility for ventilation and natural lighting purposes.
- v. Electrical plan Design must consider a three (3) phase power source considering the machineries/equipment to be installed. A tentative list of machineries/equipment to be procured is herein attached and marked as Annex " 1 " .
 - 1.1 All electrical outlets/receptacles should be weatherproof with cover and be placed at least 0.7 meters above floor finish.
 - 2.1 Lighting switches should be placed at least 1.370 meters above floor finish and be strategically located near the entrance and exit points of the structure.



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- 3.1 Panel boards for each operating area should have a height of at least 1.7 meters above floor finished and be strategically located within the structure.
- 4.1 All other utility outlets should be placed at least 0.7 meters above floor finish.
- vi. Floor drains connecting to the storm drainage should be strategically located within the structure considering the intended usage of the proposed facility.
- vii. A gauge 0.6mm Rib-type, long span pre-painted colored roofing should be installed. The roofing structure of the facility should be insulated except for some areas wherein polycarbonate roofing will be strategically installed for natural lighting purposes.
- viii. Aluminum or Galvanized Roll-up (motorized) doors should be installed in the main entrance and exit points of the facility.
- ix. All other relevant components of the structure not mentioned herein will be presented by prospective bidders in their submitted designs.

IMPROVEMENT AND LANDSCAPING OF REMAINING AREAS

- i. All other areas within the 700 square meter lot allocation of the project and are not included in the area where the proposed BAPTC Minimal Processing and Packaging Facility will be erected will be subjected for improvement.
- ii. Areas for parking within the allotted area should able to contain at least four (4) slots for six (6) wheeler delivery trucks and the other remaining areas for other type of vehicles.
- iii. Areas for parking should be properly marked with thermoplastic pavement markings and other signages needed in the area. A solar-powered lighting system should be installed in the said parking area.
- iv. The allotted parking area should observe the Pervious Concrete Pavement (PCP) thickness of 0.30 meters and with box culverts installed.
- v. External periphery of the proposed facility should at least contain plant boxes and other structures for aesthetic purposes of the area.
- vi. All other needed edifices will be presented by the prospective bidder respective designs.

B. DETAILED ENGINEERING, DESIGN AND CONSTRUCTION (To be submitted by the winning bidder)

- 1. Preparation of the following Detailed Design Drawings (see Checklist of Drawing Requirements) based on the approved Design Development Drawings and Design Parameters including any revisions and refinements as approved and required by **BENGUET STATE UNIVERSITY**:
 - a) Architectural Design Plans and Details (refer to Checklist of Drawings Requirements and Design Parameters).
 - b) Structural Design and Computations, including Field Density Test Results for Road Design Computations.
 - c) Electrical Design Plans and details to include analysis (refer to Checklist of Drawings Requirements and Design Parameters)



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- d) Plumbing Design and Details, to include Storm Drain System (refer to Checklist of Drawings Requirements and Design Parameters).
- e) Mechanical and Fire Safety Layout Details
- f) Detailed Bill of Quantities, Cost Estimates including a summary sheet indicating the unit prices of construction materials, labor rates and equipment rentals.
- g) General Notes and Technical Specifications describing type and quality of materials and equipment to be used, manner of construction and the general conditions under which the project is to be constructed.
- h) Summary of Works.

CHECKLIST OF DRAWINGS REQUIREMENTS AND DESIGN

A. ARCHITECTURAL DESIGN PARAMETERS

Codes and Standards

The Architectural Works shall be in accordance with the following Philippine laws, Codes and Standards.

- **PHILIPPINE LAWS AND CODES**
 - a) National Building Code of the Philippines and its Latest and Amended IRR
 - b) RA 9266 or Architectural Law and its Latest and Amended IRR
 - c) BP 344 or Accessibility Law and its Latest and amended IRR
 - d) AO 35, s. 1994 or, AO Pertaining to the Control of Radiation Hazards
 - e) RA 9514 New Fire Code of the Philippines
 - f) Existing Local Codes and Ordinances.
 - g) And other Laws that applies to the projects

- **STANDARDS**
 1. Bureau of Product Standards (BPS)
 2. Underwriters Laboratory (UL)

II. Proposal should include the following:

1. Perspective, Site Development Plan, Vicinity Map/Location Plan
2. Floor Plans (scale 1:100 minimum) including proposed furniture layout
3. Roof Plan/s showing downspouts (scale 1:100 minimum), including detail of gutter downspout, etc.
4. Elevations
5. Sections
6. Spot Details
7. Schedule of Doors
8. Schedule of Windows
9. Schedule of Finishes

B. STRUCTURAL/CIVIL WORKS DESIGN PARAMETERS

Codes and Standards

The Civil/Structural Design shall be in accordance with the following Philippine laws, Codes and Standards.



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▪ **PHILIPPINE LAWS AND CODES**

1. National Structural Code the Philippines (NSCP) 2010
2. National Building Code of the Philippines and its revised IRR
3. Accessibility Law
4. Local Codes and Ordinances

▪ **STANDARDS**

1. Bureau of Product Standards (BPS)
2. Philippine National Standards (PNS)
3. DPWH Blue Book
4. American Concrete Institute (ACI)
5. American Society for Testing Materials (ASTM)
6. American Welding Society (AWS)

II. Proposal should include the following:

- General Notes and construction Standards
 - a. Foundation Plan/s (scale 1:100m minimum)
 - b. Floor Framing Plans
 - c. Roof Framing Plan/s (scale 1:100m minimum)
 - d. Schedule and Detail of Footings and Columns
 - e. Details of Trusses
 - f. Other Spot Details
 - g. Structural and technical specifications
 - h. Structural Scope of Works
 - i. Structural Bill of Quantities
 - j. Cost Analysis
 - k. Geotechnical Analysis

C. SANITARY/PLUMBING DESIGN PARAMETERS

Codes and Standards

The Sanitary/Plumbing Design shall be in accordance with the following Philippine laws, Codes and Standards.

▪ **PHILIPPINE LAWS AND CODES**

1. National Building Code of the Philippines and its New IRR
2. Fire Code of the Philippines
3. National Plumbing Code of the Philippines (NPCP)
4. Sanitation Code of the Philippines
5. Existing Local Codes and Ordinances

▪ **STANDARDS**

1. Bureau of Product Standards (BPS)
2. Philippine National Standards for Drinking-Water



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3. Underwriters Laboratory (UL)
4. DOH National/Laboratory (NRL)
5. DOH Health Care Waste Management Manual
6. National Water Resources Board (NWRB)
7. National Plumbers Association of the Philippines (NAMPA)
8. Philippine Society of Sanitary Engineers, Inc., (PSSE)

II. Proposal should include the following:

- General Notes and Legends
- Location and Site Plan
- Storm Drainage Layout (scale 1:100m minimum) including actual length of tapping line to Main Drainage line
- Water line Layout (scale 1:100m minimum) including actual length of tapping line from main water source when applicable
- Sewer line Layout (scale 1:100m minimum) including actual length of tapping line to septic tank or existing sewer line
- Isometric Layout, showing waterline, sewer line and drainage line
- Details of connections catch basins, downspouts, etc.
- Plumbing Analysis

D. MECHANICAL WORKS DESIGN PARAMETERS

Codes and Standards

The Mechanical Design shall be in accordance with the following Philippine laws, Codes and Standards.

▪ **PHILIPPINE LAWS AND CODES**

1. National Building Code of the Philippines and its New IRR
2. New Fire Code the Philippines
3. Mechanical Engineering Code of the Philippines (ME Code)
4. Existing Local Government Codes and Ordinances

▪ **STANDARDS**

1. Bureau of Product Standards (BPS)
2. Philippine National Standards (PNS)
3. Underwriters Laboratory (UL) and Factory Mutual (FM)
4. International Electro-Technical Commission (IEC) 1988
5. National Fire Protection Association (NFPA)
6. National Fire Protection Association (NFPA) 99 Standard for Health Care Facilities.
7. American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE).
8. Center for Disease Control and Prevention (CDC) Manual.



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- Mechanical and Fire Protection Layout and details

E. ELECTRICAL DESIGN PARAMETERS

Codes and Standards

The Electrical System Design Parameters shall be in accordance with the following Philippine laws, Codes and Standards.

- **PHILIPPINE LAWS AND CODES**
 1. Philippine Electrical Code
 2. National Electrical Code
 3. New Fire Code of the Philippines
 4. National Building Code of the Philippines and Its new IRR
 5. Existing Local Codes and Ordinances

- **STANDARDS**
 1. Bureau of Product Standards (BPS)
 2. Underwriters Laboratory (UL)
 3. National Fire Protection Association
 4. International Electro Technical Commission (IEC)
 5. Illumination Engineering Society (IES)
 6. National Electrical Manufacturer's Association (NEMA)

II. Proposal should include the following:

- General Notes and Legends
- Location and Site Plan
- Lighting Layout (scale 1:100m minimum) including details
- Power Layout (scale 1:100m minimum) including details
- Schedule and Details of Loads
- Riser Diagram
- Other Detail
- Electrical Computation
- Design Analysis
- Electrical Technical Specifications
- Electrical Scope of Work Electrical Bill of Quantities
- Cost Analysis

IV. SELECTION OF DESIGN AND BUILD CONTRACTOR

The procurement and implementation of the project using the "**Design and Build**" scheme shall be in accordance with the provisions of RA 9184, specifically, its Annex G. Bidding process shall be conducted by the Bids and Awards Committee (BAC) to be assisted by the TWG. The BENGUET AGRI-PINOY TRADING CENTER (BAPTC) with the aid of the BENGUET STATE UNIVERSITY shall prepare the design brief and performance specifications and parameters, review the detailed



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engineering design, and assist the BAC in the evaluation of technical and financial proposals in accordance with the criteria set.

A. Eligibility Requirements

The eligibility requirements in the Design and Build for infrastructure projects shall comply with the applicable provisions of Section 23-24 of the IRR of RA 9184.

a. Eligibility Documents

Class "A" Documents

- i. PhilGEPs Registration Membership in accordance with Section 8.5.2 of the IRR, except for foreign bidders participating in the procurement by a Philippine Foreign Service Office or Post, which shall submit their eligibility documents under Section 23.1 of the IRR, provided, that the winning bidder shall register with the PhilGEPs in accordance with Section 37.1.4 of the IRR;
- ii. Registration from the Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives;
- iii. Mayor's permit issued by the city or municipality where the principal of business of the prospective bidders is located;
- iv. Statement of all its on-going and completed government and private contracts within five (5) years from the submission of bids;
- v. Statement of the Bidder's SLCC similar to the contract to be bid, in accordance with ITB Clause 5.4. The two statements required shall indicate for each contract the following:
 - a. Name of the contract;
 - b. Date of the contract;
 - c. Contract duration;
 - d. Owner's name and address;
 - e. Nature of work;
 - f. Contractor's role (whether sole contractor, subcontractor, or partner in a JV) and percentage of participation;
 - g. Total contract value at award;
 - h. Date of completion or estimated completion time;
 - i. Total contract value at completion, if applicable;
 - j. Percentages of planned and actual accomplishments, if applicable; and
 - k. Value of outstanding works, if applicable.

The statement of the Bidder's SLCC shall be supported by the Notice of Award and/or Notice to Proceed, Project Owner's Certificate of Final Acceptance issued by the Owner other than the Contractor or the Constructors Performance Evaluation System (CPES) Final Rating, which must be at least satisfactory. In case of contracts with the private sector, an equivalent document shall be submitted;

- vi. PCAB licenses and registration for the type and cost of the contract for this project (Small B – License Category C & D) and contractor's registration certificate from DPWH;
- vii. Audited financial statement, stamped "received" by the BIR for the preceding calendar year;
- viii. Tax Clearance



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- ix. Statement of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; and
- x. Unless otherwise provided in the **BDS**, a valid special PCAB License in case of joint ventures, and registration for the type and cost of the contract for this Project; and
- xi. NFCC computation in accordance with ITB Clause 5.5.

Class "B " Documents

b. Technical Documents

- 1) Joint Venture Agreement, if applicable;
- 2) Bid Security (in any form) in accordance with ITB Clause 18. If the Bidder opts to submit the bid security in the form of:
 1. A bank draft/guarantee or an irrevocable letter of credit issued by a foreign bank, it shall be accompanied by a confirmation from a Universal or Commercial Bank; or
 2. Surety bond accompanied by a certification coming from the Insurance Commission that the surety or insurance company is authorized to issue such instruments.
- 3) Project Requirements, which shall include the following:
 1. Organizational chart for the contract to bid;
 2. Design and Construction Method
 3. Value engineering analysis of design and construction method. Prospective bidders shall prepare a value engineering analysis report of their proposed design and construction method to be applied for the PROJECT. Importance shall be made on the following criteria:
 - Cost-saving, measured on a per square meter average figure
 - Time-saving in design and construction duration, measured using the HOPE approved PERTCPM of the project.
 - Operational efficiency to take advantage of natural lighting and ventilation in some areas and use of efficient toilet.
 4. List of Contractor's Personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data. These personnel must meet the required minimum years of experience set in the BDS; and
 5. List of Contractor's Equipment units, which are owned, leased, and/or under purchase agreements, supported by certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case maybe, which must meet the minimum requirements for the contract set in the **BDS**; and
 6. Manpower Schedule
 7. Equipment Utilization Schedule
 8. Construction Schedule and S-curve
 9. Construction Safety and Health Program
 10. PERT-CPM
- 4) Omnibus Sworn Statement in accordance with Section 25.3 of the IRR of RA 9184 and using the form prescribed in Section IX. Bidding Forms.
- 5) Drawing will be placed in an A3 paper included in the eligibility & technical documents.



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c. Financial Component

- 1) Unless otherwise stated in the BDS, the financial component of the bid shall contain the following:
 - a. Financial Bid Form, which includes bid prices and the bill of quantities, in accordance with **ITB** Clauses 15.1 and 15.3: and any other document related to the financial component of the bid as stated in the **BDS**.
 - b. Bill of Quantities;
 - c. Detailed Cost Estimates which includes a summary Sheet indicating the unit prices of materials, labor rates and equipment rental;
 - d. Cash Flow and Payment schedule
- 2) Unless otherwise stated in the BDS, all Bids that exceed the BC shall not be accepted.
- 3) Unless otherwise stated in the BDS, for foreign-funded procurement, a ceiling may be applied to bid prices provided the following conditions are met:
 - i. Bidding Documents are obtainable free of charge on a freely accessible website. If payment of Bidding Documents is required by the procuring entity, payment could be made upon the submission of bids.
 - ii. The procuring entity has procedures in place to ensure that the ABC is based on recent estimates made by the engineer or the responsible unit of the procuring entity and that the estimates are based on adequate detailed engineering (in the case of infrastructure projects) and reflect the quality, supervision and risk and inflationary factors, as well as prevailing market prices, associated with the types of works or goods to be procured.
 - iii. The procuring entity has trained cost estimators on estimating prices and analyzing bid variances. In the case of infrastructure projects, the procuring entity must also have trained quantity surveyors.
 - iv. The procuring entity has established a system to monitor and report bid prices relative to ABC and engineer's/procuring entity's estimate.
 - v. The procuring entity has established a monitoring and evaluation system for contract implementation to provide a feedback on actual total costs of goods and works.

d. Additional Requirements

Authorized Representative must present the following documents;

1. Authorization letter / Special Power of Attorney
2. Letter of Intent

Note: Non – compliance of the additional requirements (1 & 2) shall not be subjected for the failure or disqualification of the Prospective bidder. These requirements are for the compliance for the statutory and regulatory documents.

3. Presentation of Architectural Design and Estimates



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B. Eligibility Criteria

- a) The eligibility of design and build contractors shall be based on the legal, technical and financial requirements above-mentioned. In the technical requirements, the design and build contractor (as solo or in joint venture/consortia) should be able to comply with the experience requirements under the IRR of RA 9184, where one of the parties (in a joint venture/consortia) should have at least one similar project, both in design and construction, with at least 50% of the cost of the Approved Budget for the Contract (ABC).
- b) If the bidder has no experience in design and build projects on its own, it may enter into subcontracting, partnerships or joint venture with design or engineering firms for the design portion of the contract.
- c) The relevant provisions under Section 23.5.2 of the IRR of RA 9184 on eligibility requirements shall be observed.

V. LIST OF REQUIRED MACHINERIES AND EQUIPMENTS (minimum)

1. Transit Mixer (5-6 cubic yard capacity)
2. Plate Compactor
3. Truck Mounted Crane – 20-25 metric tons
4. Backhoe - .80 cubic meter/1.04 cubic yard capacity
5. Dump Truck—12 cubic yard capacity
6. Boom Truck – 2-5 metric tons
7. 5 units Welding Machines
8. Concrete Vibrator (Flexible Shaft Type 2" Head Ø with 5A Gasoline Drive Unit)
9. Bar Cutter (25mm Maximum Rebar Ø [Grade 40], Single Phase)
10. Bar Bender (25mm Maximum Rebar Ø, Three Phase)
11. Cutting Outfit
12. Lighting System (Tower Height = 28 ft.; No. of Lights = 4 x 1000 watts; HP = 10.50; Generator = 5kW)

. The Design and Build Contractor may include additional equipment deemed necessary for the implementation of the project. The bidder shall furnish Certified True Copies of Ownership, Lease agreement, and/or under Purchase Agreement.

VI. FOR DESIGN PERSONNEL

The key professionals and the respective qualifications of the DESIGN PERSONNEL shall be as follows:

A. Design Architect

The Design Architect must be duly-licensed with at least five (5) years of experience in the design of residential, academic or institutional facilities, and shall preferably be knowledgeable in the application of Green Design Technology in school construction.



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B. Structural Engineer

The Structural Engineer must be a duly-licensed Civil Engineer with at five (5) years of experience in structural design and shall preferably be knowledgeable in the application of Green Design Technology in school construction.

C. Electrical Engineer

The Electrical Engineer must be a registered Professional Electrical Engineer with at least five (5) years of experience in the design of lighting, power distribution and preferably knowledgeable in developments in emergent efficient lighting technologies and energy management.

D. Sanitary Engineer

The Sanitary Engineer must be duly-licensed with at least five (5) years of experience in the design of building water supply and distribution, plumbing, and preferably knowledgeable in waste water management/treatment, and emergent, alternative effluent collection and treatment systems, and DENR AO 36 s. 2004 (DAO 92-29 "Hazardous Waste Management)

E. Mechanical Engineer

The Mechanical Engineer must be a registered Professional Mechanical Engineer with at least three (3) years of experience in the design.

The key professionals listed are required. **The DESIGN & BUILD CONTRACTOR** may, as needed and at its own expense, add additional professionals and/or support personnel for the optimal performance of all Architectural and Engineering Design Services, as stipulated in this Terms of Reference for the PROJECT. Prospective bidders shall attach everyone's resume and PRC license of the (professional) staff.

VI. CONSTRUCTION PERSONNEL

The key professionals and the respective qualifications of the **CONSTRUCTION PERSONNEL** shall include the following.

A. Project Manager

The Project Manager shall be a licensed architect or engineer with at least five (5) years relevant experience on similar and comparable projects in different locations. The Project Manager should have a proven record of managerial capability through the directing/managing of major civil engineering works, including projects of a similar magnitude.

B. Project Engineer/ Architect

The Project Engineer/Architect shall be a licensed architect or engineer with at least five (5) years of experience in similar and comparable projects and shall preferably be knowledgeable in the application of rapid construction technologies.



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C. Materials Engineer

The Materials Engineer must be duly accredited with at least five (5) years of experience in similar and comparable projects and shall preferably be knowledgeable in the application of rapid construction technologies.

D. Electrical Engineer

The Electrical Engineer must be a registered Professional Electrical Engineer with at least five (5) years of experience in the design of lighting, power distribution and preferably knowledgeable in developments in emergent efficient lighting technologies and energy management.

E. Sanitary Engineer

The Sanitary Engineer must be duly-licensed with at least five (5) years of experience in similar and comparable projects in the installation of building water supply and distribution, plumbing.

F. Foreman

The Foreman must have at least five (5) years of experience in similar and comparable projects and shall preferably be knowledgeable in the application of Green Building technologies.

G. Safety Officer

The safety officer must be an accredited safety practitioner by the Department of Labor and Employment (DOLE) and has undergone the prescribed 40- hour Construction Safety and Health Training (COSH).

The above key personnel listed are required. The **DESIGN & BUILD CONTRACTOR** may, as needed and at its own expense, add additional professionals and/or support personnel for the optimal performance of all Construction Services, as stipulated in these Terms of Reference, for the PROJECT. Prospective bidders shall attach each individual's resume and PRC license of the (professional) staff, proof of qualifications, and related documents as necessary.

VIII. PROCEDURE AND CRITERIA FOR EVALUATION

The procedure for bid evaluation will be based on the provisions of Annex G of 2016 IRR of RA 9184. For the detailed evaluation of the design and build proposals, the BAC shall adopt a two-steps procedure.

1. First –Step Procedure

- a. Compliance of a Bidder in the submission of the Checklist of Technical and Financial Documents using a non-discretionary "Pass/Fail" criteria. Only those Bidders which pass the checklist shall be eligible for the next activity.
- b. Review of the preliminary conceptual designs and track record submitted by the contractor
- c. Technical Evaluation of design and Build Bid Requirements. A bidder shall be evaluated based on compliance and submission of the technical requirements using a point system.



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2. Second- Step Procedure

- a. Only those bids that passed the above criteria shall be subjected to the second step of evaluation.
- b. The BAC shall open the Financial proposal of each "passed" bidder and shall evaluate it using non-discretionary criteria- including arithmetical corrections for computational errors- as stated in the biddings documents, and thus determine the correct total calculated prices.
- c. The BAC shall automatically disqualify any total calculated bid prices exceeding the ABC.
- d. The BAC shall review the bid prices of eligible bidders and determine the Lowest Calculated Bid (LCB).

3. STANDARD PROJECT SCORING SHEET

*Instructions: Indicate **N/A** in the "Remarks column" if the project does not require the given descriptive criteria.*

Scoring for each item shall be as follows:

- 1 = Incomplete**
- 2 = Complete but with lacking requirements**
- 3 = Complete**

A score of "2" shall be interpreted that the documents submitted are complete in "form" but not in substance. However, this shall be construed that the substance needed in such documents can be supplemented and/or corrected immediately.

A prospective bidder who incurred "1" as a score in any of the applicable criterions shall be automatically disqualified.

Likewise, prospective bidders who have incurred the score of "2" in more than five (5) applicable criterions will also be disqualified.

Total scores of each prospective bidder shall be final. A prospective bidder who garnered the highest score shall be declared as the winning bidder. In cases that 2 or more prospective bidders garnered the same total scores, the scoring body's majority decision thru voting will take place.

Score Sheet:

No.	Item Description	Points	Remarks
1	DRAWINGS AND PLANS		
1.0	Building Plans / Construction Drawings on Standard Form as per PD1096 (**Refer to PD1096: National Building Code of the Philippines Figure III.1. and Figure III.2.		
1.1	Architectural Plans/Drawings		
1.1.a.	Vicinity Map/Location Plan within a 2.00 kilometer radius for commercial, industrial, and institutional complex and within a half-kilometer radius for residential buildings, at any convenient scale showing prominent landmarks or major thoroughfares for easy reference.		



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No.	Item Description	Points	Remarks
1.1.b.	Site Development Plan showing technical description, boundaries, orientation and position of proposed building/structure in relation to the lot, existing or proposed access road and driveways and existing public utilities/services. Existing buildings within and adjoining the lot shall be hatched and distances between the proposed and existing buildings shall be indicated.		
1.1.c.	Perspective drawn at a convenient scale and taken from a vantage point (bird's eye view or eye level).		
1.1.d.	Floor Plans drawn to scale of not less than 1:100 showing: gridlines, complete identification of rooms or functional spaces.		
1.1.e.	Elevations, at least four (4), same scale as floor plans showing: gridlines; natural ground to finish grade elevations; floor to floor heights; door and window marks, type of material and exterior finishes; adjoining existing structure/s, if any, shown in single hatched lines.		
1.1.f.	Sections, at least two (2), showing: gridlines; natural ground and finish levels; outline of cut and visible structural parts; doors and windows properly labeled reflecting the direction of opening; partitions; built-in cabinets, etc.; identification of rooms and functional spaces cut by section lines.		
1.1.g.	Reflected ceiling plan showing: design, location, finishes and specifications of materials, lighting fixtures, diffusers, decorations, air conditioning exhaust and return grills, sprinkler nozzles, if any, at scale of at least 1:100.		
1.1.h.	Details, in the form of plans, elevations/sections:		
	Accessible ramps		
	Accessible stairs		
	Accessible lifts/elevators		
	Accessible entrances, corridors and walkways		
	Accessible functional areas/comfort rooms		
	Accessible switches, controls		
	Accessible drinking fountains		
	Accessible public telephone booths		
	Accessible audio visual and automatic alarm system		
	Accessible access symbols and directional signs		
	Reserved parking for disabled persons		
	Typical wall/bay sections from ground to roof		
	Stairs, interior and exterior		
	Fire escapes/exits		
	Built-in cabinets, counters and fixed furniture		
	All types of partitions		
	Reserved parking for disabled persons		
1.1.i.	Schedule of Doors and Windows showing their types, designations/marks, dimensions, materials, and number of sets.		



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No.	Item Description	Points	Remarks
1.1.j.	Schedule of Finishes, showing in graphic form: surface finishes specified for floors, ceilings, walls and baseboard trims for all building spaces per floor level.		
1.1.k.	Details of other major Architectural Elements.		
1.1.l.	Architectural Interiors/Interior Design		
	Space Plan/s or layout/s of architectural interior/s.		
	Architectural interior perspective/s.		
	Furniture/furnishing/equipment/process layout/s.		
	Access plan/s, parking plan/s and the like.		
	Detail design of major architectural interior elements.		
	Plan and layout of interior, wall partitions, furnishing, furniture, equipment/appliances at a scale of at least 1:100.		
	Interior wall elevations showing: finishes, switches, doors and convenience outlets, cross window sections with interior perspective as viewed from the main entrance at scale of at least 1:100.		
	Floor/ceiling/wall patterns and finishing details.		
	List of materials used.		
	Cost Estimates.		
1.1.m.	Plans and specific locations of all accessibility facilities of scale of at least 1:100.		
1.1.n.	Detailed design of all such accessibility facilities outside and around buildings/structures including parking areas, and their safety requirements all at scale of 1:50 or any convenient scale.		
1.1.o.	Fire Safety Documents		
1.1.p.	Layout plan of each floor indicating the fire evacuation route to safe dispersal areas, standpipes with fire hose, fire extinguishers, first aid kits/cabinets, fire alarm, fire operations room, emergency lights, signs, etc.		
1.1.q.	Details of windows, fire exits with grilled windows and ladders.		
1.1.r.	Details of fire-resistive construction of enclosures for vertical openings.		
1.1.s.	Details of fire-resistive construction materials and interior decorative materials with fire-resistive / fire-retardant/fire-spread ratings		
1.1.t.	Other Related Documents		
1.2.	Civil/Structural Documents		
1.2.a.	Site Development Plan. Site Development Plan showing technical description, boundaries, orientation and position of proposed non-architectural horizontal structure such as: sewerage treatment plan (STP), silos, elevated tanks, towers, fences, etc. building/structure in relation to the lot, existing or proposed access road and driveways and existing public utilities/services. Existing buildings within and adjoining the lot shall be hatched and distances between the proposed and existing buildings shall be indicated.		
1.2.b.	Structural Plans		
	Foundation Plans and Details at scale of not less than 1:100.		
	Floor/Roof Framing Plans and Details at scale of not less than 1:100.		
	Schedule/Details of Footings/ Columns/ Girders/Beams/ Slabs		
	Details of Trusses/Connections		



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No.	Item Description	Points	Remarks
	Details of Shear Walls/Elevator Shaft		
	Details of Stair(s)		
	Details and Schedules of structural and civil works elements including those for deep wells, water reservoir, pipe lines and sewer system.		
1.2.c.	Structural Analysis and Design for all buildings/structures except for one storey and single detached building/structure with a total floor area of 20.00 sq. meters or less. The following must be indicated:		
	Design Criteria		
	Drawing of Structural Model		
	Gravity Load Analysis		
	Seismic Analysis		
	Wind Analysis		
	Footings		
	Columns		
	Beams and Girders		
	Suspended Slabs		
	Shear/ Retaining Walls		
	Trusses		
	Stairs		
1.2.d.	Boring and Load Tests. Buildings or structures of three (3) storeys and higher, boring tests and, if necessary, load tests shall be required in accordance with the applicable latest approved provisions of the National Structural Code of the Philippines (NSCP). However, adequate soil exploration (including boring and load tests) shall also be required for lower buildings/structures at areas with potential geological/geotechnical hazards. The written report of the civil/geotechnical engineer including but not limited to the design bearing capacity as well as the result of tests shall be submitted together with the other requirements in the application for a building permit. Boring test or load test shall also be done according to the applicable provisions of the NSCP which set forth requirements governing excavation, grading and earthwork construction, including fills and embankments for any building/structure and for foundation and retaining structures.		
1.3.	Electrical Documents		
1.3.a.	Electrical plans and technical specifications containing the following:		
	Location and Site Plans		
	Legend or Symbols		
	General Notes and/or Specifications		
	Electrical Layout		
	Schedule of Loads, Transformers, Generating/UPS Units (Total kVA for each of the preceding items shall be indicated in the schedule)		
	Design Analysis		
	One Line Diagram		



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No.	Item Description	Points	Remarks
1.4.	Mechanical Documents		
1.4.a.	Location Plan and Key Plan		
1.4.b.	General Layout Plan for each floor, drawn to a scale of not less than 1:100, indicating the equipment in heavier lines than the building outline with names of machinery and corresponding brake horsepower shall be indicated.		
1.4.c.	Longitudinal and Transverse Sections of building and equipment base on the section lines drawn to scale of at least 1:100 showing inter-floor relations and defining the manner of support of machines/equipment. Sections shall run longitudinally and transversely through the building length or width other than particularly detailed section for each machinery/equipment (fired and unfired pressure vessel, elevator, escalator, dumbwaiter, etc.).		
1.4.d.	Isometric drawing of gas, fuel, oil system showing: Assembly of pipes on racks and supports, Legend and General Notes, Capacity per outlet and Complete individual piping system.		
1.4.e.	Plans drawn to scale of 1:100 indicating location of store rooms, fuel tanks, fire extinguishing systems, fire doors, fire escape ladders and other protective facilities.		
1.4.f.	Detailed drawings of all duct work installations, indicating dampers, controls, filters, fireproofing, acoustical and thermal insulation.		
1.4.g.	Detailed Plans of machinery foundations and supports drawn to scale of at least 1:50.		
1.4.h.	Detailed Plans of boilers and pressure vessels with a working pressure of above 70 kPa regardless of kilowatt rating.		
1.4.i.	Design Computations and Detailed Plans of elevators, escalators, and the like drawn to scale of 1:50.		
1.4.j.	For all installations, additions or alterations involving machinery of at most 14.9 kW, the signature of a duly licensed Mechanical Engineer shall be sufficient except fired and unfired pressure vessels, elevators, escalators, dumbwaiters, central/split/package type air conditioners and piping systems of steam, gas or fuels.		
1.4.k.	Detailed plans of fire suppression systems, location of automatic and smoke detectors and alarm and initiating devices use to monitor the conditions that are essential for the proper operation including switches for the position of gate valves as well as alert and evacuation signals; the detailed layout of the entire safe area to be protected and the heat/smoke ventilation system.		
1.5.	Sanitary Documents		
1.5.a.	For deep well, water purification plants, water collection and distribution systems, reservoirs, drainage and sewer systems, sewage treatment plants, malaria control structures, and sewage disposal systems:		
	Location Plan and Site Plan		
	Detailed Plan and layout drawings of minimum scale 1:100		
	Design Analysis and Technical Specifications		



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No.	Item Description	Points	Remarks
1.5.b.	For pest and vermin control, sanitation, and pollution control facilities:		
	Detailed plan, layout and drawing of abatement and control device of minimum scale 1:100		
	Design analysis and technical specification		
1.6.	Plumbing Documents		
	For all plumbing installations, additions and/or alterations involving hot and cold water supply, fixtures, sewage drainage and vent system, storm drainage and sewerage system within or adjacent to the building:		
1.6.a.	Location Plan and Site Plan of minimum scale 1:2000		
1.6.b.	Plumbing Plans, Layouts and Details, of minimum scale 1:50		
1.6.c.	Legend and General Notes		
1.6.d.	Isometric drawings of the systems		
1.6.e.	Design analysis and technical specifications		
1.7.	Electronics Documents		
	Electronic plans and technical specifications for wired or wireless telecommunications systems, broadcasting systems, including radio and TV broadcast equipment for commercial and training purposes, cable or wireless television systems, information technology (IT) systems, security and alarm systems, electronic fire alarm systems, sound-reinforcement systems, navigational aids and controls, indoor and outdoor signages, electronically-controlled conveyance systems, electronic/computerized process controls and automation systems, building automation, management and control systems, including, but not limited to the following:		
1.7.a.	General layout plans with legends		
1.7.b.	Single line diagram		
1.7.c.	Riser diagram		
1.7.d.	Isometry of the system		
1.7.e.	Equipment specifications		
1.7.f.	Design analysis, as applicable		
2.0.	Program of Works		
	Program of works must be compliant to DPWH Department Order 197 Series of 2016		
2.a.	Summary of Program of Work		
2.b.	Volume computation per item of work		
2.c.	Detailed cost estimates per item of work. Must be compliant to DPWH Department Order No.05 Series of 2017		
2.d.	Unit cost derivation with time and motion analysis		
2.e.	Construction Schedule (PERT-CPM/Gantt Chart and S-curve)		
2.f.	Manpower and Equipment Utilization Schedules		
	TOTAL SCORE		



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IX. PRELIMINARY DESIGN AND CONSTRUCTION STUDIES

No bidding and award of design and build contracts shall be made unless the required preliminary design and construction studies have been sufficiently carried out and duly approved by the Head of the Procuring Entity that shall include, among others, the following:

- a) Project Description
- b) Conceptual Design
- c) Performance Specifications and Parameters
- d) Preliminary Survey and Mapping
- e) Preliminary Investigations
- f) Utility Locations
- g) Approved Budget for the Contract
- h) Proposed Design and Construction Schedule
- i) Minimum requirements for a Construction Safety and Health Program for the project being considered
- j) Tender/Bidding Documents, including Instructions to Bidders and Conditions of Contract

The above data are for reference only. The procuring entity does not guarantee that these data are fully correct, up to date, and applicable to the project at hand. The contractor is responsible for the accuracy and applicability of all data, including the above, that it will use in its design and build proposal and services.

The acquisition of right-of-way and the conduct of eminent domain proceedings shall still be the responsibility of the procuring entity, which shall include a preliminary budget for this purpose.

X. DETAILED ENGINEERING REQUIREMENT

1. Upon award of the design and build contract within a period of Ten (10) Calendar Days, the winning bidder shall be responsible for the preparation and submission of all necessary detailed engineering investigations, surveys and designs in accordance with the provisions of Annex "A" of this IRR (with the exception of the Bidding Documents and the ABC).
2. The procuring entity shall ensure that all the necessary schedules with regard to the submission, confirmation and approval of the detailed engineering design and the details of the construction methods and procedures shall be included in the contract documents.
3. The procuring entity shall review, order rectification, and approve or disapprove – for implementation only - the submitted plans within these schedules. All instructions for rectification shall be in writing stating the reasons for such rectification. The design and build contractor shall be solely responsible for the integrity of the detailed engineering design and the performance of the structure irrespective of the approval/confirmation by the procuring entity.



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XI. SCOPE OF WORKS AND PROJECT

IMPLEMENTATION

A. Design

The **BENGUET AGRI-PINOY TRADING CENTER (BAPTC)**, with the aid of **BENGUET STATE UNIVERSITY**, shall provide the design brief description of the project in accordance to RA9184 Annex G Sec. 11.

In compliance with the design and build Terms of Reference, the **DESIGN AND BUILD CONTRACTOR** shall submit a detailed program of work within **TEN (10) calendar days** after the issuance of the Notice to Proceed for approval by the procuring entity that shall include, among others:

- a. The order in which it intends to carry out the work including anticipated timing for each stage of design/detailed engineering and construction;
- b. Periods for review of specific outputs and any other submissions and approvals;
- c. Sequence of timing for inspections and tests as specified in the contract documents;
- d. General description of the design and construction methods to be adopted;
- e. Number and names of personnel to be assigned for each stage of the work;
- f. List of equipment required on site for each major stage of the work;
- g. Description of the quality control system to be utilized for the project
- h. The existing geotechnical/soil investigation report as basis for the computation of structural analysis of the building.
- i. The approved schematic design documents, prepare the complete construction drawings and detailed technical specifications, cost estimates and the bill of quantities, setting forth in detail the work required for the architectural, structural, civil, landscape architecture, electrical, plumbing/sanitary, mechanical and other service-connected equipment, utilities, site planning aspects and related works, electronic and communications and the site development plan of the PROJECT's immediate environment.
- j. Prepared layouts, specifications and estimates of all furniture and equipment required for the fit-out of the buildings, specifically items that are owner-furnished materials.
- k. Prepared scope of work for construction based on the prepared bill of quantities and cost estimates while fitting within the approved budget.
- l. Value engineering analysis on all prepared construction documents.
- m. Coordinate with all offices and agencies concerned, within and outside the University regarding utility connections, permits and other requirements needed.
- n. Periodically coordinates and presents the status of the design phase to the University President and the BSU-Planning and Development Office.

All drawings included in the contract documents should be drawn using **CAD software** and plotted on 20" x 30" sheets and A3 size (7 Copies). All other textual submittals shall be printed and ring-bound on A4-sized sheets. Where required, design components shall be designed in coordination with the agencies concerned (e.g., coordinate with electric company for power lines and concerned company/agency for water and sewage lines).



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Partial and earlier submission of the construction drawings, such as those affecting the preliminary stages of construction (site works, foundation works, etc.) shall be allowed. The DESIGN & BUILD CONTRACTOR may only proceed with the CONSTRUCTION PHASE after the approval of the BENGUET STATE UNIVERSITY including drawings, designs, and bill of estimates as recommended by the technical personnel of the University and upon accomplishing all necessary PRE-CONSTRUCTION tasks.

B. Pre-Construction

- a. Secures all necessary building permits prior to construction. All incidental fees shall be included in the cost estimate of the building.
- b. Prepares the PERT-CPM of the construction phase.
- c. Provides all other necessary documents that shall be required by BENGUET STATE UNIVERSITY.

C. Construction Phase

- a) Implements all works indicated in the approved construction drawings and documents. All revisions and deviation from the approved plans, especially if it shall impact the overall cost of the project, shall be subject for approval.
- b) Provides soil filling, grading and other soil protection measures of the building and other elements of the site, in response to the results of soil and materials testing.
- c) Construct the building and other necessary structures, complete with utilities and finishes, resulting in operable and usable structures.
- d) Provides protection or relocation of existing trees indigenous to the area, and proper removal and replacement of all introduced trees and vegetation affected by the construction.
- e) Layouts piping, conduits, manholes, boxes and other lines for utilities including tapping to existing utility lines. Facilitate the connection of all utilities (power, water, sewer, structured cabling and telephone) with their corresponding utility companies. All application fees shall be included in the project cost.
- f) Prepares shop-drawings for approval.
- g) Coordinates with the BENGUET STATE UNIVERSITY regarding scheduling of delivery and installation of all owner-furnished materials and equipment during construction.
- h) Conducts all necessary tests and issue reports of results.
- i) Rectifies punch-listing works to be inspected and issued by the BENGUET STATE UNIVERSITY through to its Monitoring and Inspection Team for Infrastructures.
- j) Complies with the D O L E - O S H requirements and submit periodic reports concerning occupational safety and health.
- k) Provides all other necessary documents that shall be required by the BSU – Planning and Development Office.

D. Post Construction Phase

- a. Prepares as-built plans
- b. Turn-overs of all manuals, certificates and warranties of installed items.
- c. Secures building certificate of occupancy and fire safety inspection certificate



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E. Variation Orders

Any errors, omissions, inconsistencies, inadequacies or failure submitted by the contractor that do not comply with the requirements shall be rectified, resubmitted and reviewed at the contractor's cost. If the Contractor wishes to modify any design or document which has been previously submitted, reviewed and approved, the contractor shall notify the procuring entity within a reasonable period and shall shoulder the cost of such changes.

- a) As a rule, changes in design and construction requirements shall be limited only to those that have not been anticipated in the contract documents prior to contract signing and approval. The following guidelines shall govern approval for change or variation orders:
 - i. Change Orders resulting from design errors, omissions or non-conformance with the performance specifications and parameters and the contract documents by the contractor shall be implemented by the contractor at no additional cost to the procuring entity.
 - ii. Provided that the contractor suffers delay and/or incurs costs due to changes or errors in the procuring entity's performance specifications and parameters, he shall be entitled to either one of the following:
 1. an extension of time for any such delays under Section 10 of Annex "E"; or
 2. Payment for such costs as specified in the contract documents, provided, that the cumulative amount of the variation order does not exceed ten percent (10%) of the original contract

F. DEFECTS AND LIABILITY

- a. All design and build projects shall have a minimum Defects Liability Period of one (1) year after contract completion or as provided for in the contract documents. This is without prejudice, however, to the liabilities imposed upon the engineer/architect who drew up the plans and specification for a building sanctioned under Section 1723 of the New Civil Code of the Philippines.
- b. The contractor shall be held liable for design and structural defects and/or failure of the completed project within the warranty periods specified in Section 62.2.3.217 of the IRR.

XII. OVERALL PROJECT TIME SCHEDULE

The DESIGN & BUILD CONTRACTOR shall propose the most reasonable time schedule for the completion of the project. It is expected that this period will not exceed **NINETY (90) Calendar Days** from the date of the issuance of the Notice to Proceed (NTP): **TEN (10) Calendar Days** for the Design Phase and **EIGHTY (80) Calendar Days** for the Construction Phase.



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XIII. THE IMPLEMENTING AGENCY'S GENERAL RESPONSIBILITY

The implementing agency for the project is the **BENGUET AGRI-PINOY TRADING CENTER (BAPTC)** with final approval for all decisions and actions from the **BENGUET STATE UNIVERSITY**. The **BENGUET STATE UNIVERSITY** shall:

- a. Prepare the design brief for the project in accordance with government policies, existing codes, traditions, standards, and the conditions and design criteria enumerated in the Terms of Reference.
- b. Coordinate with **DESIGN & BUILD CONTRACTOR**, and the Chief Operating Officer (COO) of the **BAPTC** with regard to the design and implementation of the project.
- c. Assist in the coordination of the **DESIGN & BUILD CONTRACTOR** with various utility agencies during the detailed design and implementation phases of the project.
- d. Conduct regular coordination meetings between and among the **DESIGN & BUILD CONTRACTOR**, **BENGUET AGRI-PINOY TRADING CENTER** and the **BENGUET STATE UNIVERSITY** to facilitate the implementation of the project.

XIV. THE DESIGN & BUILD CONTRACTOR'S GENERAL RESPONSIBILITY

- a) The **DESIGN & BUILD CONTRACTOR** shall certify that he has, at his own expense, inspected and examined the proposed project site, its surroundings and existing infrastructure and facilities related to the execution of the work and has obtained all the pieces of information that are considered necessary for the proper execution of the work covered under these Terms of Reference.
- b) The **DESIGN & BUILD CONTRACTOR** shall ensure that all works at the stages of design, construction, restoration of affected areas, and testing and commissioning shall be carried out efficiently and effectively.
- c) The **DESIGN & BUILD CONTRACTOR** shall provide **BENGUET AGRI-PINOY TRADING CENTER AND BENGUET STATE UNIVERSITY** with complete reports such as technical analysis, maps and details regarding the existing conditions and proposed improvements within the site.
- d) The **DESIGN & BUILD CONTRACTOR** shall consider critical dates and occasions within **BENGUET AGRI-PINOY TRADING CENTER**, if any, in order to align his work schedule in order to avoid unnecessary disruption of trading activities due to construction undertakings such as closure of water and power supply and non-usage of the existing roads.
- e) The **DESIGN & BUILD CONTRACTOR** shall inform **BENGUET AGRI-PINOY TRADING CENTER** of critical events, if any, during construction, especially when such events can potentially disrupt trading activities.
- f) The **DESIGN & BUILD CONTRACTOR** shall be **PCAB** accredited and shall have a **Construction Safety and Health Program** approved by **DOLE** and designed specifically for the **SITE DEVELOPMENT PHASE**.
- g) The **DESIGN & BUILD CONTRACTOR** will be held accountable for accidents that might occur during the execution of the project. The **DESIGN & BUILD CONTRACTOR** is required to install warning signs and barriers for the safety of the public and the avoidance of any accidents and provide appropriate and approved type personal protective equipment for their construction personnel.



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- h) The DESIGN & BUILD CONTRACTOR shall be professionally liable for the design and shall submit a signed and sealed copy of the approved construction documents to form part of the Contract Documents.
- i) Only the plans approved by the Head of Procuring Entity (HOPE) shall be signed and sealed by the DESIGN & BUILD CONTRACTOR, and thereafter shall be the plans used for construction.
- j) All works designed and constructed should be guaranteed to seamlessly fit into the overall system general design standards as agreed upon.

XV. PROJECTED SUBMITTALS DURING THE PROJECT

The following submittals and accomplished documents shall be duly completed and turned-over by the DESIGN & BUILD CONTRACTOR for the project:

A. FOR THE DESIGN PHASE

- a. Construction plans (signed and sealed) that include Architectural, Civil, Structural, Electrical, Structured Cabling, Mechanical, Fire Protection and Plumbing plans (7 sets hard copy and soft copy)
- b. Technical specifications (7 sets hard copy and soft copy)
- c. Detailed cost estimate (7 sets hard copy and soft copy)
- d. Bill of quantities (7 sets hard copy and soft copy)
- e. Site survey, topographic survey, survey of existing trees and all other pertinent data related to the conditions of the project site
- f. Documents required for securing the Building Permit
- g. Drawings and reports that the BENGUET STATE UNIVERSITY may require for the periodic update concerning the status of the design phase.

B. FOR THE CONSTRUCTION PHASE (7 copies each)

- a. As-built plans (hard copy and soft copy)
- b. All necessary permits (Fees shall be included in the contract)
- c. Shop drawings (hard copy and soft copy)
- d. PERT-CPM
- e. Test results
- f. Guarantees, warranties and other certificates
- g. Fire and Life Safety Assessment Report 2 and 3 (FALAR 2 and 3)

C. FOR THE POST-CONSTRUCTION PHASE (7 copies each)

- a. Certificate of Occupancy
- b. Fire Safety Inspection Certificate
- c. All other necessary documents to be required by B&D Committee

XVI. CODES AND STANDARDS

The project shall be designed, engineered, installed, tested, commissioned and handed over in conformity with the latest editions of the National Building Code of the Philippines,



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the National Structural Code of the Philippines, the Philippine Electrical Code, Philippine Mechanical Code, the National Plumbing Code of the Philippines, National Fire Code of the Philippines and other relevant codes and standards.

XVII. INSTALLATION AND WORKMANSHIP

Personnel of the DESIGN & BUILD CONTRACTOR should be specialists highly skilled in their respective trades, performing all labor according to first-class standards. A full time Project Engineer/Architect and Construction Safety Engineer shall be assigned by the DESIGN & BUILD CONTRACTOR at the job site during the construction of the project.

All works to be subcontracted shall be declared by the DESIGN & BUILD CONTRACTOR and shall be approved by the BENGUET STATE UNIVERSITY and its respective technical offices. However, subcontracting of any portion shall not relieve the DESIGN & BUILD CONTRACTOR from any liability or obligation that may arise from the contract for this project.

Tapping for utilities such as power supply, water supply and sewage drainage shall be coordinated with their respective utilities/ service provider/ companies, and all works involved, including access to utilities tapping point, excavation, removal of obstructions, concrete breaking, backfilling and restoration of affected areas, shall be coordinated and included in the scope of work and cost of the project.

Errors, omissions, inconsistencies, inadequacies or failure submitted by the DESIGN & BUILD CONTRACTOR that do not comply with the requirements shall be rectified, resubmitted and reviewed at the DESIGN & BUILD CONTRACTOR'S cost. If the DESIGN & BUILD CONTRACTOR wishes to modify any design or document which has been previously submitted, reviewed and approved, the DESIGN & BUILD CONTRACTOR shall notify the procuring entity within a reasonable period of time and shall shoulder the cost of such changes.

XVIII. MATERIALS

All materials and equipment to be used shall be standard products of manufacturers engaged in the production of such materials and equipment and shall be the manufacturer's latest standard design.

The materials and workmanship supplied shall be of the best grade and constructed and/ or installed in a practical and first-class manner. It will be completed in operation, nothing being omitted in the way of labor and materials required and it will be delivered and turned over in good condition, complete and perfect in every respect.

All materials shall be in conformance with the latest standards and with inspection and approval from BENGUET AGRI-PINOY TRADING CENTER AND BENGUET STATE UNIVERSITY.

XIX. MODE OF PAYMENT

- A. The BENGUET AGRI-PINOY TRADING CENTER THROUGH BENGUET STATE UNIVERSITY shall pay the winning DESIGN & BUILD CONTRACTOR progress



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payments based on billings for actual works accomplished, as certified by BENGUET STATE UNIVERSITY-Monitoring and Inspection Committee. In no case shall progress billing be made more than once every thirty (30) calendar days. Materials or equipment delivered on the site but not completely put in place or used in the project shall not be included for payment.

- B. The total retention money shall be released only upon Final Acceptance of the Project. The winning DESIGN & BUILD CONTRACTOR may, however, request for its release prior to Final Acceptance subject to the guidelines set forth in R.A. 9184 and its Implementing Rules and Regulations.
- C. The DESIGN & BUILD CONTRACTOR may request in writing which must be submitted to form part of the Contract Documents, for an advanced payment equivalent to fifteen percent (15%) of the total Contract Price. The advance payment shall be made once the DESIGN & BUILD CONTRACTOR issues its irrevocable standby letter of credit from a reputable bank acceptable to BENGUET STATE UNIVERSITY, or a Surety Bond of equivalent value, within fifteen (15) days from the signing of the Contract Agreement to cover said advanced payment.
- D. First Payment/Billing shall have an accomplishment of at least 20% of the construction phase.
- E. The following documents must be submitted to the BENGUET STATE UNIVERSITY before processing of payments to the DESIGN & BUILD CONTRACTOR can be made:
 - i. Progress Billing
 - ii. Detailed Statement of Work Accomplished (SWA)
 - iii. Request for payment by the DESIGN & BUILD CONTRACTOR
 - iv. Pictures/photographs of original site conditions (for First Billing only)
 - v. Pictures/photographs of work accomplished
 - vi. Payment of utilities (power and water consumption)
 - vii. DESIGN & BUILD CONTRACTOR's affidavit (if accomplishment is more than sixty percent)

Note: The DESIGN & BUILD CONTRACTOR can bill the BENGUET AGRI-PINOY TRADING CENTER THROUGH THE BENGUET STATE UNIVERSITY of up to a maximum of 90% accomplishment.



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BAPTC MINIMAL PROCESSING AND PACKAGING FACILITY PROJECT

Benguet Agri-Pinoy Trading Center
 BSU Strawberry Fields, La Trinidad, Benguet

ANNEX " 1 "

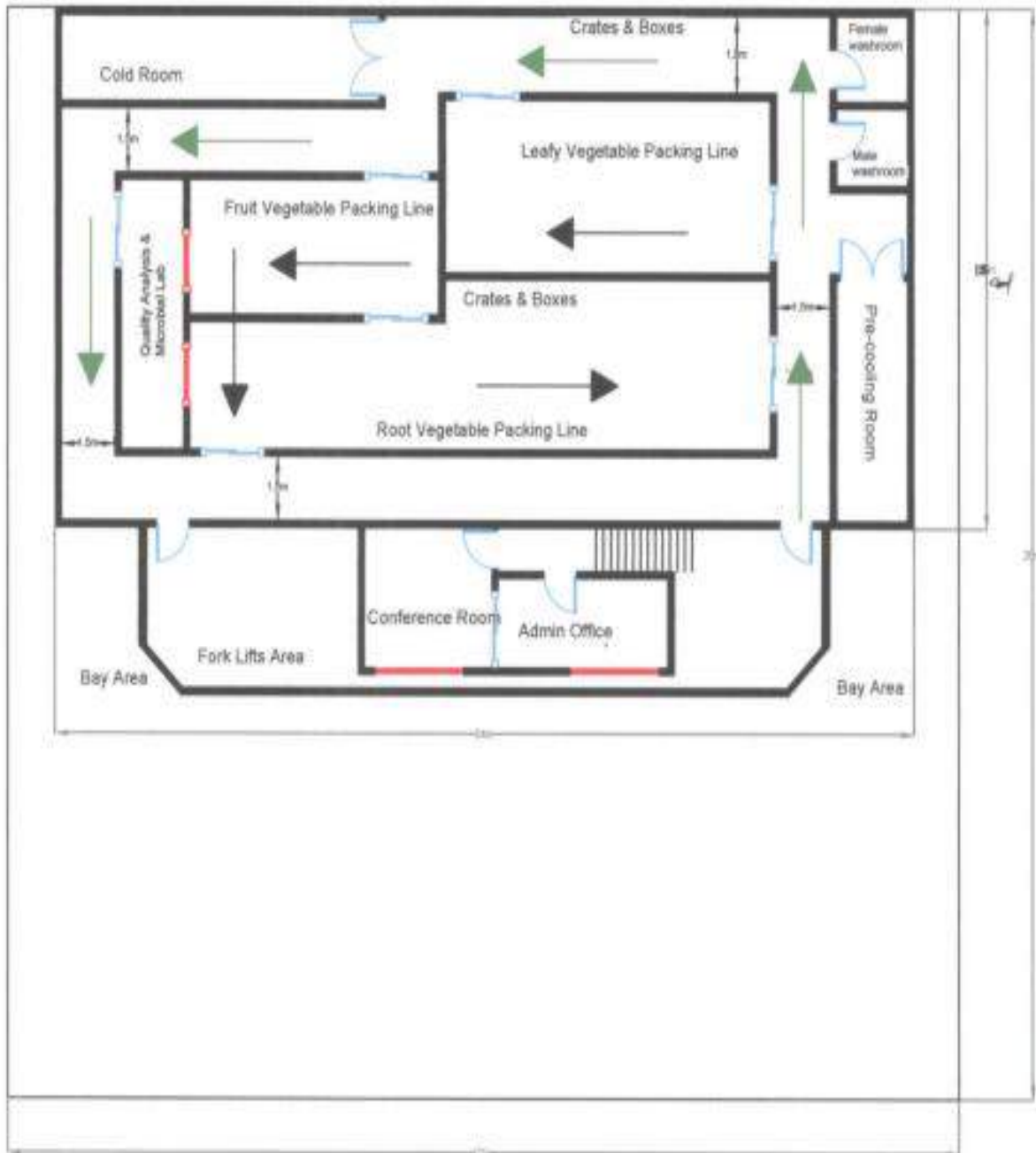
NO.	PROCESSING MACHINES	SPECIFICATIONS
1	Fruit Vegetable Sorting, Grading and Packing Line	Model FGI-DN; 10,000 pcs/hr sorting speed; 9 grading; 10g- 1500g sorting weight; 1.5kw power; 220V, 50hz voltage; 7.6m*1.8m*1.2m dimension; 1Ton Weight
2	Potato / Sweetpotato Washing Machine	Model FDYB-800; 800kg/hr capacity; 220V, 50hz voltage; 1.1kw power; 260kg weight; 1580mm*750mm*800mm dimension; \$2,380 EXW Price (USD)
3	Potato / Sweetpotato Washing Machine	Model FDYB-1200; 1200kg/hr capacity; 220V, 50hz voltage; 1.5kw power; 300kg weight; 2120mm*910mm*1020mm dimension; \$2,380 EXW Price (USD)
4	Fruit & Vegetable Potato Sorter Grader Sorting Machine Grading by Size	SYGS Fruit Grading Machine Model, Sorter type, 380V voltage, 0.75KW power, Stainless Steel/ Carbon Steel material, customized, export standard
5	Fruit & Vegetable Potato Sorter Grader Sorting Machine Grading by Size	SYGS Fruit Grading Machine Model, Sorter type, 380V voltage, 0.75KW power, Stainless Steel/ Carbon Steel material, customized, export standard
6	Vegetable and Fruit Wash Line	QX-2800 Model; 1000kg/hr; 220V, 50hz voltage; 2.6kw Power; 304 stainless steel material
7	Vegetable and Fruit Wash Line	QX-2800 Model; 1500kg/hr; 220V, 50hz voltage; 2.6kw Power; 304 stainless steel material
8	Vegetable and Fruit Washing Machine, Bubble Washer Type	QX-2800 Model; 1500kg/hr; 220V, 50hz voltage; 2.6kw Power; 304 stainless steel material
9	Commercial Vegetable Fruit Washer	1000kg-1200kg/hr Capacity; 220V, 50hz voltage; 1.5kw Power; 304 stainless steel material; Customized; 350kg weight; 1200mm x 3000mm size; automatic control; bubble in-pressure cold water cleaning method
10	Commercial Vegetable Fruit Washing Line	1000kg-1200kg/hr Capacity; 220V, 50hz voltage; 1.5kw Power; 304 stainless steel material; Customized; 350kg weight; 1200mm x 3000mm size; automatic control; bubble in-pressure cold water cleaning method
11	Fruit Vegetable Bagger Packer Machine	
12	Band Sealers, Vacuum Packers, Carton Strapping Machines	
13	Microbial Analytical Equipment	
14	Fork Lifters for Moving	



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ANNEX " 2 "

PROPOSED LAYOUT AND PLAN BAPTC MINIMAL PROCESSING AND PACKAGING FACILITY



30 x 24