PHILIPPINE BIDDING DOCUMENTS

Procurement of INFRASTRUCTURE PROJECTS

Government of the Republic of the Philippines

Sixth Edition
July 2020

Preface

These Philippine Bidding Documents (PBDs) for the procurement of Infrastructure Projects (hereinafter referred to also as the "Works") through Competitive Bidding have been prepared by the Government of the Philippines for use by all branches, agencies, departments, bureaus, offices, or instrumentalities of the government, including government-owned and/or -controlled corporations, government financial institutions, state universities and colleges, local government units, and autonomous regional government. The procedures and practices presented in this document have been developed through broad experience, and are for mandatory use in projects that are financed in whole or in part by the Government of the Philippines or any foreign government/foreign or international financing institution in accordance with the provisions of the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

The PBDs are intended as a model for admeasurements (unit prices or unit rates in a bill of quantities) types of contract, which are the most common in Works contracting.

The Bidding Documents shall clearly and adequately define, among others: (i) the objectives, scope, and expected outputs and/or results of the proposed contract; (ii) the eligibility requirements of Bidders; (iii) the expected contract duration; and (iv)the obligations, duties, and/or functions of the winning Bidder.

Care should be taken to check the relevance of the provisions of the PBDs against the requirements of the specific Works to be procured. If duplication of a subject is inevitable in other sections of the document prepared by the Procuring Entity, care must be exercised to avoid contradictions between clauses dealing with the same matter.

Moreover, each section is prepared with notes intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They shall not be included in the final documents. The following general directions should be observed when using the documents:

a. All the documents listed in the Table of Contents are normally required for the procurement of Infrastructure Projects. However, they should be adapted as necessary to the circumstances of the particular Project.

b. Specific details, such as the "*Central Bicol State University of Agriculture*" and "*BAC Office, Ground Floor, International Building, CBSUA, San Jose Pili, Camarines Sur*," should be furnished in the Instructions to Bidders, Bid Data Sheet, and Special Conditions of Contract. The final documents should contain neither blank spaces nor options.

c. This Preface and the footnotes or notes in italics included in the Invitation to Bid, BDS, General Conditions of Contract, Special Conditions of Contract, Specifications, Drawings, and Bill of Quantities are not part of the text of the final document, although they contain instructions that the Procuring Entity should strictly follow.

d. The cover should be modified as required to identify the Bidding Documents as to the names of the Project, Contract, and Procuring Entity, in addition to date of issue.

e. Modifications for specific Procurement Project details should be provided in the Special Conditions of Contract as amendments to the Conditions of Contract. For easy completion, whenever reference has to be made to specific clauses in the Bid Data Sheet or Special Conditions of Contract, these terms shall be printed in bold typeface on Sections I (Instructions to Bidders) and III (General Conditions of Contract), respectively.

f. For guidelines on the use of Bidding Forms and the procurement of Foreign-Assisted Projects, these will be covered by a separate issuance of the Government Procurement Policy Board.

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Glossary of Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

Bid – A signed offer or proposal to undertake a contract submitted by a bidder in response to and in consonance with the requirements of the bidding documents. Also referred to as *Proposal* and *Tender.* (2016 revised IRR, Section 5[c])

Bidder – Refers to a contractor, manufacturer, supplier, distributor and/or consultant who submits a bid in response to the requirements of the Bidding Documents. (2016 revised IRR, Section 5[d])

Bidding Documents – The documents issued by the Procuring Entity as the bases for bids, furnishing all information necessary for a prospective bidder to prepare a bid for the Goods, Infrastructure Projects, and/or Consulting Services required by the Procuring Entity. (2016 revised IRR, Section 5[e])

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

Consulting Services – Refer to services for Infrastructure Projects and other types of projects or activities of the GOP requiring adequate external technical and professional expertise that are beyond the capability and/or capacity of the GOP to undertake such as, but not limited to: (i) advisory and review services; (ii) pre-investment or feasibility studies; (iii) design; (iv) construction supervision; (v) management and related services; and (vi) other technical services or special studies. (2016 revised IRR, Section 5[i])

Contract – Refers to the agreement entered into between the Procuring Entity and the Supplier or Manufacturer or Distributor or Service Provider for procurement of Goods and Services; Contractor for Procurement of Infrastructure Projects; or Consultant or Consulting Firm for Procurement of Consulting Services; as the case may be, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

Contractor – is a natural or juridical entity whose proposal was accepted by the Procuring Entity and to whom the Contract to execute the Work was awarded. Contractor as used in these Bidding Documents may likewise refer to a supplier, distributor, manufacturer, or consultant.

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

Foreign-funded Procurement or Foreign-Assisted Project – Refers to procurement whose funding source is from a foreign government, foreign or international financing institution as specified in the Treaty or International or Executive Agreement. (2016 revised IRR, Section 5[b]).

GFI – Government Financial Institution.

GOCC – Government-owned and/or –controlled corporation.

Goods – Refer to all items, supplies, materials and general support services, except Consulting Services and Infrastructure Projects, which may be needed in the transaction of public businesses or in the pursuit of any government undertaking, project or activity, whether in the nature of equipment, furniture, stationery, materials for construction, or personal property of any kind, including non-personal or contractual services such as the repair and maintenance of equipment and furniture, as well as trucking, hauling, janitorial, security, and related or analogous services, as well as procurement of materials and supplies provided by the Procuring Entity for such services. The term "related" or "analogous services" shall include, but is not limited to, lease or purchase of office space, media advertisements, health maintenance services, and other services essential to the operation of the Procuring Entity. (2016 revised IRR, Section 5[r])

GOP – Government of the Philippines.

Infrastructure Projects – Include the construction, improvement, rehabilitation, demolition, repair, restoration or maintenance of roads and bridges, railways, airports, seaports, communication facilities, civil works components of information technology projects, irrigation, flood control and drainage, water supply, sanitation, sewerage and solid waste management systems, shore protection, energy/power and electrification facilities, national buildings, school buildings, hospital buildings, and other related construction projects of the government. Also referred to as *civil works or works*. (2016 revised IRR, Section 5[u])

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

Procurement Project – refers to a specific or identified procurement covering goods, infrastructure project or consulting services. A Procurement Project shall be described, detailed, and scheduled in the Project Procurement Management Plan prepared by the agency which shall be consolidated in the procuring entity's Annual Procurement Plan. (GPPB Circular No. 06-2019 dated 17 July 2019)

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

Section I. Invitation to Bid

Notes on the Invitation to Bid

The Invitation to Bid (IB) provides information that enables potential Bidders to decide whether to participate in the procurement at hand. The IB shall be posted in accordance with Section 21.2 of the 2016 revised IRR of RA No. 9184.

Apart from the essential items listed in the Bidding Documents, the IB should also indicate the following:

a. The date of availability of the Bidding Documents, which shall be from the time the IB is first advertised/posted until the deadline for the submission and receipt of bids;

b. The place where the Bidding Documents may be acquired or the website where it may be downloaded;

c. The deadline for the submission and receipt of bids; and

d. Any important bid evaluation criteria.

The IB should be incorporated into the Bidding Documents. The information contained in the IB must conform to the Bidding Documents and in particular to the relevant information in the Bid Data Sheet.

ISO CERTIFIED

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CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE
San Jose, Pili, Camarines Sur 4418
Website: ***www.cbsua.edu.ph***
Email Address: ***op@cbsua.edu.ph***
Trunkline: (054) 871-5531-33 local 101

Invitation to Bid for *Design and Build/Establishment of CBSUA Climate Resilient and Agri-Small Farming Technology (CBSUA CRAFT) Center (Infra-22-01)*

1. The *Central Bicol State University of Agriculture*, through the *GAA for 2022* intends to apply the sum of *Forty Three Million Pesos (Php. 43,000,000.00)* being the Approved Budget for the Contract (ABC) to payments under the contract for *Design and Build/Establishment of CBSUA Climate Resilient and Agri-Small Farming Technology (CBSUA CRAFT) Center (Infra-22-01)* being the Approved Budget for the Contract (ABC) to payments under the contract for each lot. Bids received in excess of the ABC for each lot shall be automatically rejected at bid opening.

2. The *Central Bicol State University of Agriculture* now invites bids for the above Procurement Project. Completion of the Works is required *300 calendar days* Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).

3. Bidding will be conducted through open competitive bidding procedures using non-discretionary ***"pass/fail"*** criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

4. Interested bidders may obtain further information from *Central Bicol State University of Agriculture* and inspect the Bidding Documents at the address given below from Monday to Friday *8:00 A.M to 5:00 P.M.*.

5. A complete set of Bidding Documents may be acquired by interested bidders on *February 21 to March 10, 2022* from given address and website/s below at the *BAC Office, Ground Floor International Building, CBSUA, an Jose, Pili, Camarines Sur, upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of Twenty Five Pesos (Php. 25,000.00)*.The Procuring Entity shall allow the bidder to present its proof of payment for the fees *personally.*

6. The *Central Bicol State University of Agriculture* will hold a Pre-Bid Conference[1] on *March 3, 2022 at 9:00 A.M.* at BAC Office, Ground Floor International Building, CBSUA, an Jose, Pili, Camarines Sur., which shall be open to prospective bidders.

[1] May be deleted in case the ABC is less than One Million Pesos (PhP1,000,000) where the Procuring Entity may not hold a pre-bid conference.

7. Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below, on or before *March 10, 2022 at 9:30 AM.* Late bids shall not be accepted.

8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 16.

9. Bid opening shall be on *March 10, 2022 at 9:35 AM* at the given address below *BAC Office, Ground Floor International Building, CBSUA, an Jose, Pili, Camarines Sur,* Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

10. *[Insert such other necessary information deemed relevant by the Procuring Entity such as the use of a back-up data or cloud storage for large files uploaded for online bid submissions]*

11. The *Central Bicol State University of Agriculture* reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.

12. For further information, please refer to:

    Atilano A. Abilay
    Head,BAC Secretariate
    BAC Office, Ground Floor International Bldg., CBSUA, an Jose, Pili, Camarines Sur
    atilanoabilay@yahoo.com
    09995626040

SGD. CESARARMANDO S.CAMBA,SR.
[Insert Name and Signature of the BAC Chairperson or Authorized Representative]

Section II. Instructions to Bidders

Notes on the Instructions to Bidders

This Section on the Instruction to Bidders (ITB) provides the information necessary for bidders to prepare responsive bids, in accordance with the requirements of the Procuring Entity. It also provides information on bid submission, eligibility check, opening and evaluation of bids, post-qualification, and on the award of contract.

1. Scope of Bid

The Procuring Entity, *Central Bicol State University of Agriculture* invites Bids for the *Design and Build/Establishment of CBSUA Climate Resilient and Agri-Small Farming Technology (CBSUA CRAFT) Center* with Project Identification Number *(Infra-22-01)*,

[Note: The Project Identification Number is assigned by the Procuring Entity based on its own coding scheme and is not the same as the PhilGEPS reference number, which is generated after the posting of the bid opportunity on the PhilGEPS website.]

The Procurement Project (referred to herein as "Project") is for the construction of Works, as described in Section VI (Specifications).

2. Funding Information

2.1. The GOP through the source of funding as indicated below for *Fund 101 (GAA) FY 2022* in the amount of *Forty Three Million Pesos (Php. 43,000,000.00)*.

2.2. The source of funding is:

a. *Fund 101 (GAA) FY 2022*

3. Bidding Requirements

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manual and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof.

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or invitation to bid by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have inspected the site, determined the general characteristics of the contracted Works and the conditions for this Project, such as the location and the nature of the work; (b) climatic conditions; (c) transportation facilities; (c) nature and condition of the terrain, geological conditions at the site communication facilities, requirements, location and availability of construction aggregates and other materials, labor, water, electric power and access roads; and (d) other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

4. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices

The Procuring Entity, as well as the Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and

obstructive practices defined under Annex "I" of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

5. Eligible Bidders

5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.

5.2. The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the PSA's CPI, except under conditions provided for in Section 23.4.2.4 of the 2016 revised IRR of RA No. 9184.

A contract is considered to be "similar" to the contract to be bid if it has the major categories of work stated in the **BDS**.

5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.

5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

6. Origin of Associated Goods

There is no restriction on the origin of Goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN.

7. Subcontracts

7.1. The Bidder may subcontract portions of the Project to the extent allowed by the Procuring Entity as stated herein, but in no case more than fifty percent (50%) of the Project.

The Procuring Entity has prescribed that:
[*Select one, delete other/s*]

a. Subcontracting is allowed. The portions of Project and the maximum percentage allowed to be subcontracted are indicated in the **BDS,** which shall not exceed fifty percent (50%) of the contracted Works.

b. Subcontracting is not allowed.

7.1. *[If Procuring Entity has determined that subcontracting is allowed during the bidding , state:]* The Bidder must submit together with its Bid the documentary requirements of the subcontractor(s) complying with the

eligibility criterial stated in **ITB** Clause 5 in accordance with Section 23.4 of the 2016 revised IRR of RA No. 9184 pursuant to Section 23.1 thereof.

7.2. *[If subcontracting is allowed during the contract implementation stage, state:]* The Supplier may identify its subcontractor during the contract implementation stage. Subcontractors identified during the bidding may be changed during the implementation of this Contract. Subcontractors must submit the documentary requirements under Section 23.1 of the 2016 revised IRR of RA No. 9184 and comply with the eligibility criteria specified in **ITB** Clause 5 to the implementing or end-user unit.

7.3. Subcontracting of any portion of the Project does not relieve the Contractor of any liability or obligation under the Contract. The Supplier will be responsible for the acts, defaults, and negligence of any subcontractor, its agents, servants, or workmen as fully as if these were the Contractor's own acts, defaults, or negligence, or those of its agents, servants, or workmen.

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address {*[insert if applicable]* and/or through videoconferencing/webcasting} as indicated in paragraph 6 of the **IB.**

9. Clarification and Amendment of Bidding Documents

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the **IB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

10. Documents Comprising the Bid: Eligibility and Technical Components

10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.

10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.

10.3. A valid PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for

this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.

10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.

10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

11. Documents Comprising the Bid: Financial Component

11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.

11.2. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.

11.3. For Foreign-funded procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

12. Alternative Bids

Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic technical design as indicated in the drawings and specifications. Unless there is a value engineering clause in the **BDS**, alternative Bids shall not be accepted.

13. Bid Prices

All bid prices for the given scope of work in the Project as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as determined by the NEDA and approved by the GPPB pursuant to the revised Guidelines for Contract Price Escalation guidelines.

14. Bid and Payment Currencies

14.1. Bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.

a. *Payment of the contract price shall be made in:* Philippine Pesos.

15. Bid Security

15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.

15.2. The Bid and bid security shall be valid until *One Year* Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

Each Bidder shall submit Three (3) copies (1Original copy, Copy 1 and 2) of the first and second components of its Bid. It should be properly sealed with signed. Properly labelled. Any Bid that does not follow the proper labelling, tagging, sealing, will be automatically disqualified.

17. Deadline for Submission of Bids

The Bidders shall submit on the specified date and time physically on the specified address and dates as indicated in paragraph 7 of the **IB.**

18. Opening and Preliminary Examination of Bids

18.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance and be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

18.2. The preliminary examination of Bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

19. Detailed Evaluation and Comparison of Bids

19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*" using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of 2016 revised IRR of RA No. 9184.

19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 15 shall be submitted for each contract (lot) separately.

19.3. In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

20. Post Qualification

Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS), and other appropriate licenses and permits required by law and stated in the **BDS**.

21. Signing of the Contract

The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.

Section III. Bid Data Sheet

Notes on the Bid Data Sheet (BDS)

The Bid Data Sheet (BDS) consists of provisions that supplement, amend, or specify in detail, information, or requirements included in the ITB found in Section II, which are specific to each procurement.

This Section is intended to assist the Procuring Entity in providing the specific information in relation to corresponding clauses in the ITB and has to be prepared for each specific procurement.

The Procuring Entity should specify in the BDS information and requirements specific to the circumstances of the Procuring Entity, the processing of the procurement, and the bid evaluation criteria that will apply to the Bids. In preparing the BDS, the following aspects should be checked:

a. Information that specifies and complements provisions of the ITB must be incorporated.

b. Amendments and/or supplements, if any, to provisions of the ITB as necessitated by the circumstances of the specific procurement, must also be incorporated.

Bid Data Sheet

ITB Clause	
5.2	For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be: *Design and Build*
7.1	*[Specify the portions of Works and the maximum percentage allowed to be subcontracted, which shall not be significant or material components of the Project as determined by the Procuring Entity.]*
10.3	*PCAB license*
10.4	The key personnel must meet the required minimum years of experience set below: <u>Key Personnel</u> <u>General Experience</u> <u>Relevant Experience</u> <u>(Please see Terms of Reference)</u>
10.5	The minimum major equipment requirements are the following: <u>Equipment</u> <u>Capacity</u> <u>Number of Units</u> <u>(Please see Terms of Reference)</u>
12	*[Insert Value Engineering clause if allowed.]*
15.1	The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts: a. The amount of not less than _____ *[Insert two percent (2%) of ABC],* if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; b. The amount of not less than _____ *[Insert five percent (5%) of ABC]* if bid security is in Surety Bond.
19.2	Partial bids are allowed, as follows: *[Insert grouping of lots by specifying the items and the quantity for every identified lot.]*
20	*[List licenses and permits relevant to the Project and the corresponding law requiring it, e.g. Environmental Compliance Certificate, Certification that the project site is not within a geohazard zone, etc.]*
21	Additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity, such as construction schedule and S-curve, manpower schedule, construction methods, equipment utilization schedule, construction safety and health program approved by the DOLE, and other acceptable tools of project scheduling.

Section IV. General Conditions of Contract

Notes on the General Conditions of Contract

The General Conditions of Contract (GCC) in this Section, read in conjunction with the Special Conditions of Contract in Section V and other documents listed therein, should be a complete document expressing all the rights and obligations of the parties.

Matters governing performance of the Contractor, payments under the contract, or matters affecting the risks, rights, and obligations of the parties under the contract are included in the GCC and Special Conditions of Contract.

Any complementary information, which may be needed, shall be introduced only through the Special Conditions of Contract.

1. Scope of Contract

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

2. Sectional Completion of Works

If sectional completion is specified in the **Special Conditions of Contract (SCC)**, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date shall apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

3. Possession of Site

3.1 The Procuring Entity shall give possession of all or parts of the Site to the Contractor based on the schedule of delivery indicated in the **SCC,** which corresponds to the execution of the Works. If the Contractor suffers delay or incurs cost from failure on the part of the Procuring Entity to give possession in accordance with the terms of this clause, the Procuring Entity's Representative shall give the Contractor a Contract Time Extension and certify such sum as fair to cover the cost incurred, which sum shall be paid by Procuring Entity.

3.2 If possession of a portion is not given by the above date, the Procuring Entity will be deemed to have delayed the start of the relevant activities. The resulting adjustments in contract time to address such delay may be addressed through contract extension provided under Annex "E" of the 2016 revised IRR of RA No. 9184.

4. The Contractor's Obligations

The Contractor shall employ the key personnel named in the Schedule of Key Personnel indicating their designation, in accordance with **ITB** Clause 10.3 and specified in the **BDS**, to carry out the supervision of the Works.

The Procuring Entity will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are equal to or better than those of the personnel listed in the Schedule.

5. Performance Security

5.1. Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR.

5.2. The Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to RA No. 3688 against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

6. Site Investigation Reports

The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the **SCC** supplemented by any information obtained by the Contractor.

7. Warranty

7.1. In case the Contractor fails to undertake the repair works under Section 62.2.2 of the 2016 revised IRR, the Procuring Entity shall forfeit its performance security, subject its property(ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding. All payables of the GOP in his favor shall be offset to recover the costs.

7.2. The warranty against Structural Defects/Failures, except that occasioned-on force majeure, shall cover the period from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity. Specific duration of the warranty is found in the **SCC**.

8. Liability of the Contractor

Subject to additional provisions, if any, set forth in the **SCC**, the Contractor's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

If the Contractor is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

9. Termination for Other Causes

Contract termination shall be initiated in case it is determined *prima facie* by the Procuring Entity that the Contractor has engaged, before, or during the implementation of the contract, in unlawful deeds and behaviors relative to contract acquisition and implementation, such as, but not limited to corrupt, fraudulent, collusive, coercive, and obstructive practices as stated in **ITB** Clause 4.

10. Dayworks

Subject to the guidelines on Variation Order in Annex "E" of the 2016 revised IRR of RA No. 9184, and if applicable as indicated in the **SCC**, the Dayworks rates in the Contractor's Bid shall be used for small additional amounts of work only when the Procuring Entity's Representative has given written instructions in advance for additional work to be paid for in that way.

11. Program of Work

11.1. The Contractor shall submit to the Procuring Entity's Representative for approval the said Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works. The submissions of the Program of Work are indicated in the **SCC.**

11.2. The Contractor shall submit to the Procuring Entity's Representative for approval an updated Program of Work at intervals no longer than the period stated in the **SCC.** If the Contractor does not submit an updated Program of Work within this period, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.

12. Instructions, Inspections and Audits

The Contractor shall permit the GOP or the Procuring Entity to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors of the GOP or the Procuring Entity, as may be required.

13. Advance Payment

The Procuring Entity shall, upon a written request of the Contractor which shall be submitted as a Contract document, make an advance payment to the Contractor in an amount not exceeding fifteen percent (15%) of the total contract price, to be made in lump sum, or at the most two installments according to a schedule specified in the **SCC**, subject to the requirements in Annex "E" of the 2016 revised IRR of RA No. 9184.

14. Progress Payments

The Contractor may submit a request for payment for Work accomplished. Such requests for payment shall be verified and certified by the Procuring Entity's Representative/Project Engineer. Except as otherwise stipulated in the **SCC**, materials and equipment delivered on the site but not completely put in place shall not be included for payment.

15. Operating and Maintenance Manuals

15.1. If required, the Contractor will provide "as built" Drawings and/or operating and maintenance manuals as specified in the **SCC.**

15.2. If the Contractor does not provide the Drawings and/or manuals by the dates stated above, or they do not receive the Procuring Entity's Representative's approval, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from payments due to the Contractor.

Section V. Special Conditions of Contract

Notes on the Special Conditions of Contract

Similar to the BDS, the clauses in this Section are intended to assist the Procuring Entity in providing contract-specific information in relation to corresponding clauses in the GCC found in Section IV.

The Special Conditions of Contract (SCC) complement the GCC, specifying contractual requirements linked to the special circumstances of the Procuring Entity, the Procuring Entity's country, the sector, and the Works procured. In preparing this Section, the following aspects should be checked:

a. Information that complements provisions of the GCC must be incorporated.

b. Amendments and/or supplements to provisions of the GCC as necessitated by the circumstances of the specific purchase, must also be incorporated.

However, no special condition which defeats or negates the general intent and purpose of the provisions of the GCC should be incorporated herein.

Special Conditions of Contract

GCC Clause	
2	*[If different dates are specified for completion of the Works by section, i.e. "sectional completion," these dates should be listed here.]*
4.1	*[Specify the schedule of delivery of the possession of the site to the Contractor, whether full or in part.]*
6	The site investigation reports are: *Site Inspection Report*
7.2	*In case of permanent structures, such as buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures:* Fifteen (15) years.
10	Dayworks are applicable at the rate shown in the Contractor's original Bid.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within *10* days of delivery of the Notice of Award.
11.2	The amount to be withheld for late submission of an updated Program of Work is [*insert amount*].
13	The amount of the advance payment *shall not exceed 15% of the total contract price and schedule of payment*
14	Materials and equipment delivered on the site but not completely put in place shall be included for payment.
15.1	The date by which operating and maintenance manuals are required is *[date]*. The date by which "as built" drawings are required is *[date]*.
15.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is *[amount in local currency]*.

Section VI. Specifications

Notes on Specifications

A set of precise and clear specifications is a prerequisite for Bidders to respond realistically and competitively to the requirements of the Procuring Entity without qualifying or conditioning their Bids. In the context of international competitive bidding, the specifications must be drafted to permit the widest possible competition and, at the same time, present a clear statement of the required standards of workmanship, materials, and performance of the goods and services to be procured. Only if this is done will the objectives of economy, efficiency, and fairness in procurement be realized, responsiveness of Bids be ensured, and the subsequent task of bid evaluation facilitated. The specifications should require that all goods and materials to be incorporated in the Works

be new, unused, of the most recent or current models, and incorporate all recent improvements in design and materials unless provided otherwise in the Contract.

Samples of specifications from previous similar projects are useful in this respect. The use of metric units is mandatory. Most specifications are normally written specially by the Procuring Entity or its representative to suit the Works at hand. There is no standard set of Specifications for universal application in all sectors in all regions, but there are established principles and practices, which are reflected in these PBDs.

There are considerable advantages in standardizing General Specifications for repetitive Works in recognized public sectors, such as highways, ports, railways, urban housing, irrigation, and water supply, in the same country or region where similar conditions prevail. The General Specifications should cover all classes of workmanship, materials, and equipment commonly involved in construction, although not necessarily to be used in a particular Works Contract. Deletions or addenda should then adapt the General Specifications to the particular Works.

Care must be taken in drafting specifications to ensure that they are not restrictive. In the specification of standards for goods, materials, and workmanship, recognized international standards should be used as much as possible. Where other particular standards are used, whether national standards or other standards, the specifications should state that goods, materials, and workmanship that meet other authoritative standards, and which ensure substantially equal or higher quality than the standards mentioned, will also be acceptable. The following clause may be inserted in the SCC.

Sample Clause: Equivalency of Standards and Codes

Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national, or relate to a particular country or region, other authoritative standards that ensure a substantially equal or higher quality than the standards and codes specified will be accepted subject to the Procuring Entity's Representative's prior review and written consent. Differences between the standards specified and the proposed alternative standards shall be fully described in writing by the Contractor and submitted to the Procuring Entity's Representative at least twenty-eight (28) days prior to the date when the Contractor desires the Procuring Entity's Representative's consent. In the event the Procuring Entity's Representative determines that such proposed deviations do not ensure substantially equal or higher quality, the Contractor shall comply with the standards specified in the documents.

These notes are intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They should not be included in the final Bidding Documents.

Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO

CERTIFIED TERMS OF REFERENCE

Project Title : Design and Build/ Establishment of CBSUA-Climate Resilient and Agri-Smart Farming Technologies (CBSUA-CRAFT) Center Location : CBSUA Compound, San Jose Pili, Camarines Sur Total Cost : Php 43,000,000.00 Duration : 300 calendar days 1. PROJECT BACKGROUND Industry 4.0 or the fourth industrial revolution requires the need for further innovation to technologies by means of upgrading and automating systems such that they can communicate without requiring too much human intervention. As a university which envisions to become a national research university especially in agriculture, CBSUA must respond to the need of upgrading its technologies to help attain the objectives of the Industry 4.0 which are to increase productivity and product competitiveness. In the Philippines, introduction of various technologies for the agriculture sector are also expected in order to attain the aforementioned objectives. Among these technologies which are anticipated to grow and be developed are the smart farming technologies which integrates modern information and communication technologies into farming. As an institution whose mission is to develop and generate viable agri-industrial technologies, CBSUA must also gear towards the objectives of the fourth industrial revolution. Technologies which will showcase the preparedness of the university for Industry 4.0 in terms of instruction, research, extension and entrepreneurial development must be at the forefront of its priority programs. Hence, the CBSUA – Climate - Resilient and Agri - smart Farming Technologies (CBSUA - CRAFT) Center which will showcase smart agricultural technologies, including indoor gardening, hydroponics, aeroponics and aquaponics systems to be installed both in indoor and outdoor environments, is being proposed. 2. OBJECTIVES The CBSUA – Climate - Resilient and Agri - smart Farming Technologies (CBSUA - CRAFT) Center will serve as a demonstration and experiment farm and advisory station for modern agricultural technologies such as the hydroponics, aeroponics and aquaponics system. It will will serve as a platform for modern agricultural technologies and a venue for instruction, research and development. The center will also serve as a means to provide technical assistance to various stakeholders regarding the technologies developed and even as an agri - tourism destination. Page 2 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED Other objectives of the CBSUA – Climate - Resilient and Agri - smart Farming Technologies (CBSUA - CRAFT) Center are: a.) To provide technologies that will aid in educational programs of the university. b.) To allow the students, faculty and staff of the university who will be engaging in activities utilizing the technologies for instruction, research, extension and entrepreneurial development. c.) To provide support to the millennium goal of food security. 3. SUGGESTED ARCHITECTURAL PLANS (see attached architectural design) 4. PROJECT COMPONENTS The Building design shall conform with the provisions of National Building Code of the Philippines (PD 1096), Accessibility Law (BP 344), National Structural Code of the Philippines 2015 Edition, 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. The Building shall be finished and functional. Its design must feature modern minimalist accents with materials indicated. Specifically: 4.1. GENERAL DRAWING GUIDELINES 4.1.1. General a. All drawings shall be computer-drafted. Drawings shall be submitted both in printed and editable electronic copies for the institution. b. Keep the same orientation for all plans. The North orientation shall be indicated in all

architectural floor plans. The orientation of the architectural plans shall be consistent with all the engineering plans. c. Existing buildings and new works shall be clearly indicated and labeled in the site plans. d. Detailed plans shall have a scale not smaller than 1:20 meters. e. Spot detailed plans, elevations, and sections shall have a scale not smaller than 1:10 meters. f. Avoid notes such as “see architectural detail or see structural”, refer with a callout to this specific detail drawing and sheer number. Page 3 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED 4.1.2. Perspective a. In the most appreciable scale, show the entire structures façade or prominent feature/s; include appropriate elements to scale the structures’ volume (e.g., human figures, vehicles, trees and vegetations, adjacent structure/s). b. Present walk-in through 3D presentation via Lumion or Revit in a separate presentation. 4.1.3. Site Development Plan The site development plan shall have a scale not smaller than 1:400 meters and shall show the structures in relation to each other and its natural or built surroundings. 4.1.4. Vicinity Map/Location Plan Locate the project site in a vicinity map (at least 2-kilometer radius) showing districts/political subdivision, major landmarks, institutions, major thoroughfares. Locate the project site in a location map (at most 2-kilometer radius) showing major and minor road networks, establishment, markers, etc. 4.1.5. Floor Plan All floor plans shall use a minimum scale of 1:100 meters. The same scale shall be used for the rest of the architectural, structural, sanitary, plumbing, electrical and mechanical plans, except for each trade’s site plan, detailed plans and spot details. Unless areas are indicated for blow-up details, indicate dimensions for all floor plan elements. Include furniture/fixture, equipment layout in the plan. Indicate with boxed room callout numbers, including the callout for floor finishes and wall finishes. Elevations callouts shall be indicated on entire floor plans shall be consistent with the elevations drawing. Section line callout shall be consistent with the section drawing. Detail callouts shall be consistent with the blow-up/spot detail drawings. Other callouts may be used for toilets, stairs, cabinets, etc. Floor elevations shall be indicated in the floor plans. This shall be in reference to the natural grade line or the established finished floor lines of the adjoining existing buildings. Page 4 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED The floor plan shall include the following: SPACE LOCATION SPACE REQUIREMENTS SUGGESTED FLOOR AREA UNIT I. Ground Floor Entry Porch 9.30 sq. m. Main Entrance/ Exit 1.00 unit PWD Ramp 1.00 lot Lobby 68.15 sq. m. Information Desk 13.66 sq. m. Lounge/ Waiting Area 8.58 sq. m. Corridor@ Lobby 96.58 sq. m. Stairwell @ Lobby 8.25 sq. m. Exit 4.00 units Molecular Laboratory Room 66.22 sq. m. Soil Laboratory Room 66.22 sq. m. Electrical Room 8.60 sq. m. Restroom Male Restroom 14.48 sq. m. Female Restroom 11.80 sq. m. PWD Restroom 3.46 sq. m. Lecture Room 91.43 sq. m. Ante Room 8.19 sq. m. Corridor@ Indoor Green House 89.67 sq. m. Indoor Green House a. Grow Rooms (8 units) 20.00 sq. m. b. Sowing and Hardening Room 18.65 sq. m. c. Packaging Room 19.59 sq. m. d. Storage Room 13.47 sq. m. e. Display Room 35.16 sq. m. f. Stairwell to Mezzanine Floor @ Indoor Green House 8.94 sq. m. II. Mezzanine Floor Control Room / Viewing Room 48.49 sq. m. Office 16.51 sq. m. III. Second Floor Office 33.12 sq. m. a. Lounge 8.39 sq. m. b. Pantry 8.39 sq. m. Page 5 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED Director’s Office 16.32 sq. m. Conference Room 33.11 sq. m. Restroom Male Restroom 10.49 sq. m. Female Restroom 10.79 sq. m. Storage Room 3.21 sq. m. Fire Exit 1.00 lot Corridor 61.46 sq. m. IV. Roof Deck Roof Deck Area 144.44 sq. m. Solar Panel

Control Room 33.00 sq. m. Overhead Elevated Water Tank 1.00 lot Ground Floor Total Area : 811.10 sq.m. Second Floor Total Area : 185.28 sq.m. Mezzanine Floor Total Area : 65.00 sq.m. Roof Deck Floor Total Area : 177.44 sq.m. Grand Total Floor Area : 1,238.82 sq.m. 4.1.6. Elevations Provide at least four elevations. However, if a structure is clustered (polygonal or with interior openings), provide elevations for all exterior walls. Indicate measurements for finish floor levels and notable building heights (e.g., roof/s, parapet/s, canopies, spires, towers and other projections) when capable. Indicate measurements for each other surface features/elements. Finish floor lines and top of truss/roof deck lines shall be consistent to all the elevations, sections and structural plans and details. The height from the ground line to finish ground floor line shall be higher than the recorded flood level of the area for the past five (5) years or standard residential heights. Indicate all wall finishes, detail callouts for spot details. 4.1.7. Sections Provide at least two sections. However, if the structure is clustered (polygonal or with interior openings), provide additional Page 6 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED sections to show notable features. Indicate measurements for finish floor levels, ceiling heights, wall heights and other notable dimensions. Indicate interior wall finishes, detail callouts. 4.1.8. Ceiling Plan Indicate on plan ceiling finishes, lighting and other ceiling fixtures and accessories. Ceiling height relative and in reference to the finish floor line shall be indicated in the reflected ceiling plan in each room with boxed dimensions. This is to ensure that the ceiling heights of all rooms are established whether or not reflected in the sections. Ceiling cassette type exhaust fans with integral air diffuser shall be provided in all toilets. The description and location of the fixtures (e.g., lighting, smoke detectors, air condition vents, exhaust fans, etc.) in the reflected ceiling plan shall be consistent with the electrical and mechanical plans. Provide details for ceiling features. 4.1.9. Stairs, Fire Escape Exit, and Ramps Present blow-up plan including detailed section elevation and spot details for all stairs, fire exits, and ramps on a scale of not smaller than 1:50 m. indicate dimensions and finishes. a. Ramps for persons with disability shall have a slope not higher than 1:12. Handrails and clearances shall conform to the requirements of BP 344 in IRR. b. Regular and Fire Stairs could have a maximum riser at 200mm and tread at 250mm. handrails shall be 1100mm high. Clearances shall conform to the requirements of the Fire Code of the Philippines. c. Corridors should be unobstructed and be measured clear from the surface of the finished wall and not the center of the rough CHB wall. d. Concrete ramp with stainless railing and rubberized rib floor finished shall be constructed to accommodate PWD/transient and guests. e. Corridors and exit doors shall conform to the requirements of the Fire Code of the Philippines. Page 7 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED 4.1.10. Toilets, Baths, and Washing area/room Present blow-up plan including detail section/elevations (to show all sides of the room) and spot details on a scale of not smaller than 1:50m. Indicate dimensions, elevations, clearances, center lines, slopes, fixture type, finishes, and accessories. Provide fixture detail and accessories including mounting heights from finish floor levels. Provisions for plumbing fixtures and accessories shall conform to the standard plumbing code. Provision for toilets/comfort rooms and wash area/room for all gender and PWDs shall comply to the RA 9710 or Magna Carta for Women and other Gender and Development related laws and other applicable laws. 4.1.11. Specialized Design Provide detailed/shop drawings for built-up or preassembled partitions, cabinets, closets, counters, lockers, etc. All furniture must be in placed upon turnover of the project. 4.1.12. Bay Section Provide bay sections of scale not smaller than 1:50m for exterior

walls showing in details, systems, connections for the entire vertical length from basement ground to topmost elements (roof, parapet, deck). 4.1.13. Doors and Windows Provide door and window schedules indicating the type of door or window, the number of sets, the locations of the door or windows, the materials and accessories and other special specifications, e.g., color or finish, operation system and the detailed elevation and plan. 4.1.14. Water Tank and Rainwater Harvesting System Provide a stainless-steel water tank for potable water supply that can contain 1500 gallons. The rain collector shall be uPVC steel belted tanks capable to hold 10,000 liters of water Page 8 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED with separate steel platforms. The rainwater harvesting system must have 4 different filtration system and it must have booster pump that pumps the filtrated rain water to the stainless steel water tank. 4.1.15. Installation of Various Office and Laboratory Equipment LOCATION EQUIPMENT SPECIFICATIONS PCS A. Power House Generator Set (for the whole building) tbd Manual Transfer Switch tbd B. Equipment per room · Grow room Air-conditioning Unit (inverter type) tbd 2 sets UV Lights (with own panel) tbd 1 set Normal Light tbd 1 set Sensors (temperature, humidity, CO2, EC, pH,…) tbd 1 set each Misting System tbd 1 set · Sowing room/ Nursery Air-conditioning Unit (inverter type) tbd 2 sets UV Lights (with own panel) tbd 1 set Normal Light tbd 1 set Sensors (temperature, humidity, CO2, EC, pH,..) tbd 1 set each Seed Precision Gamet divider tbd 1 set Soil type divider tbd 1 set Top Loading Balance tbd 1 unit Analytical Balance tbd 1 unit Purity work Board tbd 1 set Seed Germinator tbd 2 sets Cabinet Germinator tbd 4 sets Page 9 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED Sand Sterilizer tbd 2 sets Incubators tbd 1 set Refrigerator tbd 1 set Gel Electrophoresis Unit tbd 1 unit Sterilizer tbd 1 set Oven tbd 2 sets Autoclave tbd 1 set (5 layer) adjustable boltless metal rack/ storage shelves with lighting system (red, blue, green light) 6 sets Laboratory Table · Package Room Air-conditioning Unit (inverter type) tbd Fruits & Vegetable Washer (water bubble) tbd 1 set Four-wheel Transport Trolley tbd tbd Digital Weighing Scale tbd 1 set Plastic Crates tbd Tbd tbd 1 set · Ante Room Sprayer/Misting System (disinfection) tbd 1 set · Control Room Control Panels for Green house Control Panel for Hybrid Solar Power System Hybrid Inverter · Laboratory · Lecture Room Projector tbd 1 set · Office Air-conditioning Unit (inverter type) tbd 1 set · Conference Room Air-conditioning Unit (inverter type) tbd 1 set Audio Visual System tbd 1 set Page 10 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED LED TV tbd 1 set · Roof Deck Photovoltaic Modules/ Solar Panels tbd 1 set Battery Bank C. Water Supply Rainwater Harvester tbd 1 set Water Filter tbd 1 set Irrigation tbd 1 set D. CCTV System tbd Whole bldg. E. Data/Voice System tbd Whole bldg. 4.2. STRUCTURAL/CIVIL WORKS 4.2.1 Building a. The Establishment of CBSUA Climate-Resilient and AgriSmart Farming Technologist Center should be designed using seismic importance factor of 1.50 for the immediate occupancy category. Buildings should be designated in accordance with NSCP requirements up to Magnitude 8.4 for those near seismic source Type A. Seismic gaps between buildings (old and new) should be properly observed. b. The Establishment of CBSUA Climate-Resilient and AgriSmart Farming Technologist Center should be designed based on revised provision of NSCP 2015 pertaining to wind load (especially for design of trusses/roofing system). Concrete gutters and parapet walls should be provided as additional protection to the roofing system during strong typhoons. c. The Structural Designer should

verify the Philippine Volcanology and Seismology (PHILVOCS) the distance of the proposed building to nearest active fault lines and with the DENR for geo-hazard mapping. d. Soil investigation should be conducted to determine soil bearing capacity and recommended foundation design (applicable even for the One-storey structure). e. The structural designer is encouraged to use fire-resistive and non-toxic materials. Page 11 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED 4.2.2. Details The following shall be provided: a. Connection details of beams and columns following the requirements of NSCP 2015 on confined areas. b. Connection of trusses to beams and columns. c. Splicing details of reinforcing bars on columns and beams and the required bar cut-off points. 4.2.3. Summary of Materials a. Concrete shall be Portland cement and conforming to ASTM Specification C150, Type I to Type II. b. Coarse aggregate shall consist of washed gravel, crushed stone or rock or a combination thereof conforming to ASTM C33. c. Concrete hollow blocks shall be a standard product of recognized manufacturers conforming to PNS 16 with at least 350 psi strength. d. Reinforcing bars shall conform with PNS Grade 60 for 16mm diameter and above and PNS Grade 40 for 12mm diameter and below. e. Structural steel shall conform with ASTM A36/A36M. f. Bolts and studs shall conform with ASTM A325 g. Welding electrodes shall be E60 or E70 and conform with AWS. 4.2.4. Site Works The Site works shall provide complete layout of the following: a. Storm Drainage Network, indicating Drainage Manholes and Pipe Culvert (if applicable); b. Sewerage Pipe Network and Hazardous Chemical Waste Pipe Network, indicating Sewage Manholes, Sewage Pipes and the location of the Sewage Treatment Plant; c. Water Supply Network, indicating the location of Water Service entrance, Cisterns, Elevated Water Tank and Pump House and main water lines; d. Storm Drainage Network shall accommodate the magnitude of peak rates of surface run-off including drainage coming from the buildings. The system shall be capable of handling the design flows routing to the designated outfall; e. The Sewerage Pipe Network and Hazardous Chemical Waste Pipe Network design shall accommodate all sewage coming Page 12 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED from all facilities and laboratories, conveyed by gravitational flow leading to the provision Sewage Treatment Plant. f. The Water Supply Network shall include the provision of Fire Hydrants, accessible faucets that will serve as testing points for safe and potable water supply. 4.3. SANITARY/PLUMBING SYSTEM 4.3.1. Sewer Line and Vent System Provide complete sewer line and vent system from all plumbing fixtures and floor drains; laid by gravity flow or pumping from lift or transfer station leading to the Sewerage System. 4.3.2. Wastewater Line and Vent System For all areas dealing with Laboratory activities and generating infectious or hazardous waste, provide separate Waste Line and Vent System routing into a Neutralization prior to discharge to the Sewerage System. For all Wash Areas dealing and generating with oil/grease, provide a separate Waste Line and Vent System and solely tap to the Grease Trap and then connect its effluent to the provision Sewerage System. 4.4. WATERLINE SYSTEM Provide complete cold-water supply pipes to all plumbing fixtures. From the main water source to cistern, the water shall be pumped to the Elevated Water Tank and conveyed to the fixtures by gravity system and/or distributed to fixtures by transfer pumped with constant pressure through a Pneumatic Storage Tank to plumbing fixture, whichever is feasible. 4.5. STORM DRAINAGE SYSTEM Complete Storm Drainage System shall be provided for all roofs, canopies, concrete ledges and balconies including condensate drains laid for gravity flow connected to a leader pipe line leading to the natural ground level storm drainage network. Page 13 of 40 Republic of the Philippines CENTRAL

BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED 4.6. DRY STANDPIPE SYSTEM The dry standpipe system must composed of the following: a. It must have a Siamese twin connection (4" x 2-1/2" x 2-1/2") b. The pipes to be used must be BI (Black Iron) Pipes. c. It must have fire hose cabinets, fire extinguishers and fire extinguisher cabinets. 4.7. FIRE DETECTION AND ALARM SYSTEM a. The Fire Detection and Alarm System shall be in accordance with the Fire Code of the Philippines b. The system shall consist of full integration automatic fire detection. c. The system shall consist of control station, mimic panel initiating and indicating devices, control modules and system of wirings. d. Actuation of the protective signaling system shall occur by manual pull station, automatic smoke or heat detector, sprinkler flow switch and tamper switch. 4.8. SECURITY SYSTEM Design, supply, installation and commissioning of an electronic surveillance system. It shall include intrusion detection and alarm, CCTV, access Control and other devices and equipment as may be required. 4.9. ELECTRICAL DISTRIBUTION SYSTEM 4.9.1 Electrical Design a. The Electrical System Design must be in accordance with the Philippine Electrical Code, Fire Code of the Philippine and National Building Code b. Electrical Plan must be signed and sealed by a Professional Electrical Engineer c. Design Analysis must be provided which includes: o Illumination Levels calculations especially the lighting required for indoor greenhouse o Design calculation for Branch circuits, subfeeders, feeder, busways and service entrance Page 14 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED o Types, ratings and trip settings of overload protective devices o Short circuit current calculations for overcurrent protection devices; o Calculation of voltage drops d. The Grounding System must be indicated. e. The electrical system must be ready for installation of generator system and Hybrid Solar Power System f. Energy Efficiency Standards of the Department of Energy must be considered which includes Building Energy Efficiency Index, Lighting Power Density and Illuminance Level on different areas of the building. 4.9.2 Lighting and Power System The following must be shown: a. Location of lighting fixtures and control switches for each or group of lighting fixtures. b. Lighting Fixtures shall be as indicated on the Reflected Ceiling Plan with the consideration of proper illumination. The use of LED lighting systems is recommended. c. Other Special Lighting requirements shall be as approved by the implementing agency. d. Location of receptacle outlets and appliances to be served and their rating. e. Complete wiring of the emergency power system. f. Convenience outlets intended for Air-conditioning units should be Special Purpose Outlet (SPO). For airconditioning units with outdoor equipment, a provision for circuit breaker in NEMA 3R enclosure must be included. g. Provision for special outlets for laboratory equipment shall be included h. Sizes and location of service drop, service equipment and nearest pole of the utility company; location of the service. kW–hr meter as well as sizes of service entrance wires, conduits, main switchboard, layout of feeders and distribution panels or switches and their sizes, types and ratings must be shown. Page 15 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED 4.9.3 Schedule of Loads The following must be shown: a. Lighting and receptacle loads, motor loads and other electrical, mechanical and auxiliary loads as numbered in the layouts. b. Proper phase and load distribution c. Sizes and ratings of main and branch overcurrent protective devices. d. Sizes of main and service feeders (conductors and conduit or raceway). 4.9.4 Single Line Diagram The following must be shown: a. Schematic diagram for lighting and receptacles, panel boards showing mains and branch circuit rating: size of conductors for

feeders. b. Motor loads indicating its rating in kilowatt/kilovolt ampere or Horsepower, full load current, locked rotor current, phase connection for 1–phase or 3–phase, rated voltage, numbered consecutively to correspond to its numbers in the power layout. c. Feeders and Sub–feeders shall indicate labeling or identification of said feeders, size and type of wires and raceways; protective devices and controls; and allowable capacity of the conductor over the designed load current expressed as a ratio and indicated alongside the conductor. d. Identification and labeling of load center showing type and rating of transformer, switches, circuit breakers and other related devices, incoming and outgoing feeders, type, size and voltage; equipment grounding. Page 16 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED 4.9.5 Panel Boards and Circuit breakers a. Panel boards and Circuit Breakers: The Panel board and Circuit Breakers shall be equipped with moldedcase circuit breakers with 3-phase 3-wire system. ● Provide molded-case circuit breakers of frame, trip rating and interrupting capacity. The circuit breakers shall be quick-make, quick break, thermalmagnetic, trip-indicating and shall have a common trip on all multiple breakers with internal trip mechanism. ● All current-carrying parts of the panel boards shall be plated. Provide solid neutral (S/N) assembly when required. The assembly shall be isolated from the enclosure. 4.9.6 Power House a. Provision for Power House must be included. The powerhouse shall be enclosed with masonry and steel louver type of wall. ‘ b. The power House will also serve as the housing of Generator set. Provision for Generator Set connection must be provided including the Automatic Transfer Switch. 4.9.7 Hybrid Solar Photovoltaic System The deliverables include: a. Detailed engineering design and structural safety assessment b. Procurement of unit components and other materials c. Construction of frames and brackets d. Set up and installation e. Testing and commissioning f. Development and handover of operations manual and delivery of capacity building training for personnel-incharge of operations and maintenance All system components must meet guarantee/warranty terms and high-quality standards (provide certification) to ensure long-term sustainability of the PV system. Page 17 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED 4.9.8 Energization g. Electrical supply will be sourced from the local electric utility company (CASURECO II) which includes 3- Phase Distribution Transformers provided by the contractor with the corresponding rating as per load calculation based on the Electrical Plan signed and sealed by a Professional Electrical Engineer. 4.10. STRUCTURED CABLING AND TELEPHONE SYSTEM a. Provision of Cat5e cable for direct telephone lines to PABX or as required for the building by ICT of CBSUA-Pili. b. Provision of Cat6 cable for LAN connections or as required for the building by ICT of CBSUA-Pili. c. Final details of the cabling for ICT and telephone system shall follow specific requirements, quantity and type of service. 5. DETAILED DESIGN DRAWINGS TO BE SUBMITTED BY THE PROSPECTIVE BIDDER The preparation of the following Detailed Design Drawings will be based on the approved Design Development Drawings and Design Parameters including any revisions and refinements as approved and required by the University President: a. Detailed Architectural Plans b. Detailed Structural Plans c. Detailed Electrical Plans d. Detailed Storm Drain, Sanitary, Plumbing Plans, and Rain Water Harvester/Collector e. Detailed Mechanical Plans Note: The Prospective Bidder must present their design based on the concept of the Design and Build Committee of the University which serves as reference. f. Structural Computations, including Soil Boring Test Results and Seismic Analysis and Electrical Design Computations. g. General Notes and Technical Specifications describing the 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. Detailed Bill of Quantities, Detailed Cost Estimates including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals. Page 18 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED i. PERT-CPM, S-curve, Gantt Chart, Cash Flow, and Summary of Bid Prices. 6. CHECKLIST OF DRAWING REQUIREMENTS AND DESIGN PARAMETERS 6.1. ARCHITECTURAL WORKS DESIGN PARAMETERS The Architectural Works Design shall be in accordance with the following Philippine Laws, Codes and Standards, namely: National Building Code of the Philippines and its Latest and Amended IRR; RA 9266 or Architectural Law and its Latest Amended IRR; BP 344 or Accessibility Law and its Latest Amended IRR; AO 35, s. 1994 or, AO Pertaining to the Control of Radiation Hazards; RA 9514 New Fire Code of the Philippines; Existing Local Codes and Ordinances; Bureau of Product Standards (BPS), Underwriters Laboratory (UL); RA 9710 or Magna Carta for Women and other Gender and Development related laws; and other applicable laws. The proposed Design should include Perspective, Site Development Plan, Vicinity Map/Location Plan. The Site Development Plan shall include the following: a. Contour and survey of the lot, including bearing and distance of the property line; b. Road network and curbs and sidewalks; c. Parking spaces; d. Reference location of existing trees; e. Reference location and footprint of existing utilities e.g., in the corresponding building names and dimensions, including distances between adjacent buildings, and distances between buildings and the nearest property line; f. Reference location of utilities, e.g., water reservoirs, septic tank, wastewater treatment plant, powerhouse, transformers, waste storage area, security outposts and waiting sheds; g. Site furniture and other site features: ● Identify building/structure name and its corresponding number of storage/levels; and ● Reflect modules and total dimensions of structures; Indicate dimensions of all other site elements. h. Floor Plans (scale 1:100 minimum) including proposed furniture layout; i. Roof Plan/s showing downspouts (scale 1:100 minimum), including detail of gutter downspout, etc. j. Reflected Ceiling Plan/s (scale 1:100 minimum), including details; k. Details of Stairs, Fire Escapes/Exits, Accessible Ramps etc., in the forms of plans evaluation/section; l. Details of Toilets (scale 1:50 minimum) including accessible toilets in the form of plans, evaluation/section; Page 19 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED m. Details of specialized design features (scale 1:50 minimum) such as partition cabinets, etc. and accessible design features (if applicable); n. Detail of Typical Bay Section from ground to roof (scale 1:50 minimum); o. Details of rooms/laboratories (scale 1:50 minimum) in the form from floor to roof; p. Schedule of Doors, Gates Emergency Exits, et., (scale 1:50 minimum), including specifications for materials and hardware; q. Elevations (Front, Rear, Right Side, Left Side); r. Schedule of finishes for interior and exterior floors, walls ceilings; s. Architectural Interior Design Technical Specifications; t. Architectural Interior Design Scope of Works; u. Architectural Interior Design Bill of Quantities; v. Design for Material Recovery Facility; w. Cost Analysis; and x. Plan/s signed and sealed by a Licensed and Registered Architect 6.2. STRUCTURAL/CIVIL WORKS DESIGN PARAMETERS The Civil/Structural Works Design shall be in accordance with the following Philippine Laws, Codes and Standards, namely: National Building Code of the Philippines and its Latest and Amended IRR; National Structural Code of the Philippines (NSCP 2015); BP 344 or Accessibility Law and its Latest Amended IRR; Bureau of Product Standards (BPS); Philippine National Standards (PNS); DPWH Blue Book; American Concrete Institute (ACI);

American Society for Testing Materials (ASTM); and American Welding Society (AWS); RA 9710 or Magna Carta for Women and other Gender and Development related laws, and other applicable laws. The proposed Design should include the following: a. General Notes and Construction Standards; b. Site Development Plan; c. Foundation Plan/s (scale 1:100 minimum); d. Floor Framing Plan/s (scale 1:100 minimum); e. Roof Framing Plan/s (scale 1:100 minimum); f. Schedule and Detail of Footings and Columns; g. Schedule and Detail of Beams and Floor Slabs; h. Detail of Trusses; i. Details of Stairs, Ramps, Fire/Emergency Exits; j. Other Spot Details; k. Details of Material Recovery Facility l. Structural Analysis and Design (for 2-Storey Building and higher); m. Seismic Analysis; n. Geotechnical/Soil Analysis; Page 20 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED o. Structural and Technical Specifications; p. Structural Scope of Works; q. Structural Bill of Quantities; r. Cost Analysis; and s. Plan signed and sealed by a Licensed and Registered Structural Engineer or Civil Engineer 6.3. SANITARAY/PLUMBING WORKS DESIGN PARAMETERS The Sanitary/Plumbing Works Design shall be in accordance with the following Philippine Laws, Codes and Standards, namely: National Building Code of the Philippines and its Latest and Amended IRR; Fire Code of the Philippines; Sanitation Code of the Philippines; Existing Local Codes and Ordinances; National Plumbing Code of the Philippines (NPCP); Bureau of Product Standards (BPS); Philippine National Standards for Drinking-Water; Underwriters Laboratory (UL); DOH National/Laboratory (NRL); DOH Health Care Waste Management Manual; National Water Resources Board (NWRB); National Plumbers Association of the Philippines (NAMPAP); and Philippine Society of Sanitary Engineers, INC., (PSSE); RA 9710 or Magna Carta for Women and other Gender and Development related laws and other applicable laws. The proposed Design should include the following: a. General Notes and Legends; b. Location and Site Plan; c. Storm Drainage Layout (scale 1:100 minimum) including actual length of tapping line to Main Drainage line; d. Water Line Layout (scale 1:100 minimum) including actual length of tapping line from Main Water Source when applicable; e. Sewer Line Layout (scale 1:100 minimum) including actual length of tapping line to septic tank or existing sewer line; f. Rain Water Harvester/Collector Line Layout (scale 1:100 minimum) including actual length of Distribution System to transport the rainwater from the catchment to the storage reservoir to supply cooling tower, fire suppression systems, toilet flushing, landscape irrigation and other installations; g. Infectious/Hazardous Waste Chemical Waste Line Layout (scale 1:100 minimum) including actual length of tapping line to Neutralization for chemical waste prior to Sewage Treatment plant; h. Isometric Layout, showing waterline, sewer line, and drainage line; i. Details of connection catch basins, downspouts, etc.; j. Details of Septic Tank/Sewerage System; k. Details for Material Recovery Facility; l. Design Analysis; Page 21 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED m. Sanitary Technical Specifications; n. Sanitary Scope of Works; o. Sanitary Bill of Quantities; p. Cost Analysis; q. Plan signed and sealed by a Licensed and Registered; and r. Sanitary Engineer or Registered Master Plumber. 6.4. MECHANICAL WORKS DESIGN PARAMETERS The Mechanical Works Design shall be in accordance with the following Philippine Laws, Codes and Standards, namely: National Building Code of the Philippines and its Latest and Amended IRR; Fire Code of the Philippines; Mechanical Engineering Code of the Philippines (ME Code); Existing Local Codes and Ordinances; Bureau of Product Standards (BPS); Philippine National Standards (PNS); Underwriters Laboratory (UL) and Factory Mutual (FM); International Electro-Technical Commission (IEC) 1988; National Fire

Protection Association (NFPA); National Fire Protection Association (NFPA) 99 Standard for Health Care Facilities; American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE); and Center for Disease Control and Prevention (CDC) Manual; RA 9710 or Magna Carta for Women and other Gender and Development related laws; and other applicable laws. The proposed Design should include the following: a. General Notes and Legends, Site Development Plan, Location Plan; b. Floor Plans/Isometric Drawings (scale 1:100 minimum) showing Ventilation, Air-Conditioning Systems and other installations and details; c. Floor Plans/Isometric Drawings (scale 1:100 minimum) of Fire Suppression Systems, Fire Sprinkler System, Wet and Dry Stand Pipe and other installations; d. Details of Water Tank Flow Diagram (scale 1:50 minimum); e. Details of Underground Cistern Flow Diagram (scale 1:50 minimum); f. Details of Rain Water Harvester/Collector Flow Diagram (scale 1:50 minimum); g. Details of Firewater Supply System (scale 1:50 minimum); h. Technical Specifications; i. Mechanical Scope of Works; j. Mechanical Bill of Quantities; k. Design Analysis; l. Cost Analysis; and m. Plan signed and sealed by a Licensed and Registered Mechanical Engineer. Page 22 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED 6.5. ELECTRICAL WORKS DESIGN PARAMETERS The Electrical Design shall be in accordance with the following Philippine Laws, Codes and Standards, namely: National Building Code of the Philippines and its Latest and Amended IRR; Philippine Electrical Code; National Electrical Code; New Fire Code of the Philippines; Existing Local Codes and Ordinances; Bureau of Product Standards (BPS); Underwriters Laboratory (UL); National Fire Protection Association; International Electro-Technical Commission (IEC); Illumination Engineering Society (IES); and National Electrical Manufacturers Association (NEMA); RA 9710 or Magna Carta for Women and other Gender and Development related laws and other applicable laws. The proposed design should include the following: a. General Notes and Legends; b. Location and Site Plan; c. Lighting Layout (scale 1:100 minimum) including details; d. Power Layout (scale 1:100 minimum) including details; e. Power Layout for air-conditioning system (scale 1:100 minimum) including details; f. Auxiliary System Layout (scale 1:100 minimum) including details (Telephone System with Intercom, WAN and LAN System, Fire Alarm System, Audio, Video and others); g. Schedule and Details of Loads; h. Riser Diagram; i. Other Details; j. Computation; k. Design Analysis; l. Electrical Technical Specifications; m. Electrical Scope of Works; n. Electrical Bill of Quantities; o. Cost Analysis; and p. Electrical Plan signed and sealed by a Licensed and Registered Professional Electrical Engineer 7. 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 Annex “G” of RA 9184 – Guidelines for the Procurement and Implementation of Contracts for Design and Build Infrastructure Projects. Bidding process shall be conducted by the Bids and Awards Committee (BAC) to be assisted by the Technical Working Group (TWG) and Design and Build Committee (DBC). The DBC shall be composed of highly technical personnel in the field of architecture and engineering/construction. The DBC shall assist the Project Management Office (PMO) in the preparation of the Page 23 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED conceptual design and performance specifications and parameters, review of detailed engineering design and supervision of the project. The BAC-TWG for Infrastructure with the assistance of the DBC shall prepare the design brief and performance specifications and parameters, and review the detailed engineering design. The latter shall also assist the former in the evaluation of technical

proposals in accordance with the criteria set by the BAC. 8. 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 and the additional requirements as provided in Annex G of the same. 8.1. Eligibility Documents Class “A” Documents Legal Documents a. PhilGEPs Registration Platinum; b. Registration from the Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives; Mayor’s permit issued by the city or municipality where the principal of business of the prospective bidder is located; c. PCAB licenses and registration for the type and cost of the contract for this project (Medium A – License Category B); d. Audited financial statement, stamped “received” by the BIR for the preceding calendar year; and e. Tax Clearance. Technical Documents f. Relevant statements of all on-going, completed, awarded but not yet started design/ design and build related contracts, curriculum vitae of key staff, partners or principal officers (with attached NOA, NTP, and Contract) g. Valid licenses issued by the Professional regulation Commission for design professionals; h. CPES rating or Certificate of Completion SLCC (50% of the ABC with attached Notice of Award, Notice to Proceed, and Contract); Page 24 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED i. NFCC computation at least 10% of the ABC; j. Preliminary Conceptual Design Plans in accordance with the degree of details specified by the Build and Design Committee; k. Design and Construction Method; l. Value engineering analysis, if applicable, of design and construction method; m. Prospective bidder 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 PERT/CPM of the project by the Contractor; and ● Operational efficiency to take advantage of natural lighting and ventilation in some areas and use of efficient toilets. n. Organizational Chart; o. List of design and construction personnel, to be assigned to the contract to be bid, with their complete qualification and experience data; p. 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; q. Equipment Utilization Schedule; r. Construction Safety and Health Program; s. PERT-CPM; t. Omnibus Sworn Statement; and u. Site inspection Financial Documents a. Bid Security b. Financial Bid Form c. Bill of Quantities d. Detailed Cost Estimates e. Summary Sheet indicating the unit prices of materials, labor rates and equipment rental f. Payment Schedule g. Cash flow h. Manpower Schedule i. Bar Chart and S-curve j. Gantt Chart (for 250 days only) Page 25 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED k. Methodology in discount: if the discount will be offered, it must be reflected in the methodology justified by value engineering analysis. Class “B” Documents a. Joint Venture Agreement, if applicable 9. ELIGIBILITY CRITERIA 9.1. The eligibility of the prospective bidder 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). 9.2. For the detailed evaluation of the design and build proposals, bidders will undergo a two-step

procedure, which may be undertaken with the assistance of the DBC. The relevant provisions under Section 23.5.2 of the IRR of RA 9184 eligibility requirements shall be observed. 9.3. The first step of the evaluation shall involve the review of the legal requirements and preliminary conceptual designs and track record submitted by the contractor as indicated in the Bidding documents using a non-discretionary "pass/fail" criterion that involve compliance with the following requirements: 9.3.1. Adherence of preliminary design plans to the required performance specifications and parameters and degree of details (perspective, floor plan, elevation, section site development plan, roof plan, reflected ceiling plan, stair and fire escape, toilets, baths, washing area/room, water tank and rain collector, specialized design, furniture and fixture); 9.3.2. Concept of approach and methodology for detailed engineering, design and construction with emphasis on the clarity, feasibility, innovativeness, and comprehensiveness of the plan approach, and the quality of interpretation of project problems, risks, and suggested solutions (electrical, plumbing sewerage, structural and seismic analysis, mechanical, fire sprinkler and AC system); Page 26 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED 9.3.3. Quality of personnel to be assigned to the project which covers suitability of key staff to perform the duties of the particular assignments and general qualifications and competence including education and training of the key staff (education, training, and experience) 9.4. Only those bids that passed the above criteria shall be subjected to the second step of evaluation. 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 Bidding Documents, and thus determine the correct total calculated bid prices. The BAC shall automatically disqualify any total calculated bid price which exceeds the ABC. The total calculated bid prices (not exceeding the ABC) shall be ranked, in ascending order, from lowest to highest. The bid with the lowest total calculated bid price shall be identified as the Lowest Calculated Bid (LCB). 10. FOR DESIGN PERSONNEL The key professionals and the respective qualifications of the Design Personnel shall as follow: 10.1. Design Architect The Design Architect must be duly-licensed with at least ten (10) 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. 10.2. Structural/Civil Engineer The Structural Engineer must be duly-licensed Civil Engineer with at least ten (10) years of experience in structural design and shall preferably be knowledgeable in the application of Green Design Technology in school construction. 10.3. Electrical Engineer The Electrical Engineer must be a registered Professional Electrical Engineer with at least ten (10) years of experience in the design of lighting, power distribution and preferably knowledgeable in developments in emergent efficient lighting technologies and energy management. Page 27 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED 10.4. Electronics Engineer The Electronics Engineer must be a registered Professional Electronics Engineer with at least ten (10) years of experience in the related field knowledgeable in communication systems (specifically structured and local area network cabling, PABX), building management systems. 10.5. Mechanical Engineer The Mechanical Engineer must be duly-licensed Mechanical Engineer with at least ten (10) years of experience in HVAC and fire protection systems preferably knowledgeable in emergent, alternative energy-efficient HVAC technologies. 10.6. Sanitary Engineer The Sanitary Engineer must be duly-licensed with at least ten (10) 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). The key professionals listed are required. The 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 these Terms of Reference for the PROJECT. Prospective bidders shall attach each individual’s resume and PRC license of the (professional) staff. 11. FOR CONSTRUCTION PERSONNEL The key professionals and the respective qualifications of the CONSTRUCTION PERSONNEL shall be as follows: 11.1. Project Manager The Project Manager shall be a licensed architect or engineer with at least ten (10) 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. Page 28 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED 11.2. Project Engineer/Architect The Project Engineer/Architect shall be licensed architect or engineer with at least ten (10) years of experience in similar and comparable projects and shall preferably be knowledgeable in the application of rapid construction technologies. 11.3. Materials Engineer The Materials Engineer must be duly accredited with at least ten (10) years of experience in the similar and comparable projects and shall preferably be knowledgeable in the application of rapid construction technologies. 11.4. Electrical Engineer The Electrical Engineer must be a registered Professional Electrical Engineer with at least ten (10) years of experience in the design of lighting, power distribution and preferably knowledgeable in developments in emergent efficient lighting technologies and energy management. 11.5. Electronics Engineer The Electronics Engineer must be a registered Professional Electronics Engineer with at least ten (10) years of experience in the related field knowledgeable in communication systems (specifically structured and local area network cabling, PABX), building management systems. 11.6. Mechanical Engineer The Mechanical Engineer must be duly-licensed Mechanical Engineer with at least ten (10) years of experience in similar and comparable projects in the installation of HVAC and fire protection. 11.7. Sanitary Engineer The Sanitary Engineer must be duly-licensed with at least ten (10) years of experience in the similar and comparable projects in the installation of building water supply, distribution, and plumbing. Page 29 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED 11.8. Foreman The Foreman must have at least ten (10) years of experience in similar and comparable projects and shall preferably be knowledgeable in the application of Green Building technologies. 11.9. Safety Officer The Safety Officer must be an accredited safety practitioner by the Department of Labor and Employment (DOLE) and has undergone the prescribed 48-hour Construction Safety and Health Training (COSH). The above listed key personnel are required for the project. The 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. 12. 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 University President that shall include the following: a. Project Description b. Conceptual Design c. Performance Specifications and

Parameters d. Preliminary Survey and Mapping e. Preliminary Investigations: ● Utility Locations; ● Approved Budget for the Contract; ● Proposed Design and Construction Schedule; ● Minimum requirements for Construction Safety and Health Program for the project being considered; and ● Tender/Bidding Documents, including Instructions to Bidders and Conditions of Contract. The above data are for reference only. The University President 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 rightof-way and the conduct of eminent domain proceedings shall still be the Page 30 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED responsibility of the University President, which shall include a preliminary budget for this purpose. 13. DETAILED ENGINEERING REQUIREMENT 13.1. Upon award of the design and build contract, the winning bidder shall be responsible for the rectification and submission of all necessary detailed engineering investigations/analysis, surveys, tests, and designs and other relevant plans/ documents based on the recommendation of the BAC-TWG and in accordance with the provisions of Annex "A" of RA 9184 Implementing Rules and Regulations. 13.2. The University President through its Design and Build Committee shall ensure that all the necessary schedules with regard to the submission, confirmation and approval of the detailed engineering design and details of the construction methods and procedures shall be included in the contract documents. 13.3. The University President with the assistance from BAC-TWG and Design and Build Committee 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 University President. 13.4. All instructions for rectification shall be in writing stating the reasons for such rectification. The 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 University President/ Design and Build Committee. 14. SCOPE OF WORKS AND PROJECT IMPLEMENTATION 14.1. Design In compliance with the Design and Build Terms of Reference (TOR) the Contractor shall submit a revised detailed program of work within three (3) calendar days after the conduct of post-qualification activity by the BAC, subject to review and endorsement by the Design Page 31 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED and Build Committee and approval by the University President, which shall include: 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 test 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. Utilize the existing geotechnical/soil investigation report basis for the computation of structural analysis of the building; i. From 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 environs. j. Prepare 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. Prepare the scope of work for construction based on the prepared bill of quantities and cost estimates while fitting within the approved budget. l. Provide value engineering analysis on all prepared construction documents. m. Coordinate with all offices and agencies concerned, within and outside the Campus regarding utility connections, permits and other requirements needed. n. Periodically coordinates and presents the status of the design phase to the University President and/or the Design and Build Committee. All drawings included in the contract documents should be drawn using CAD software and plotted on 20"x 30" sheets and A3 size (7 Page 32 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED Copies each). 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). 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 Contractor may only proceed with the Construction Phase after recommendation by the Design and Build Committee and upon approval by the University President of the construction drawings, designs, and bill of estimates. In addition, it may proceed with the works upon accomplishing all necessary Pre-construction tasks. 14.2. Pre-Construction The Contractor shall: a. Secure all necessary permits and/or clearances prior to construction (building permits, certificates, ECC, analysis, tests, etc.). All incidental fees shall be included in the cost estimate of the building. b. Prepare the PERT-CPM of the construction phase. c. Provide all other necessary documents that shall be required by the Design and Build Committee. 14.3. Construction Phase The Contractor shall: a. Implement all works indicated in the approved Building Design/ Plan and Detailed Engineering 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 by the University President; b. Provide 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 buildings and other necessary structures, complete with utilities and finishes, resulting in operable and usable structures; d. Provide 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. Layout piping, conduits, manholes boxes and other lines for utilities including tapping to existing utility lines. Facilitate the Page 33 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED 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. Install fire protection systems and fixtures, fire extinguishers, emergency lights and lighted fire exit signs; g. Install rainwater harvester/collector system based on water supply and demand of the building for human consumption and environmental conservation; h. Install air-conditioning system including equipment; i. Provide Material Recovery facility; j. Prepare shop-drawings for approval; k. Coordinate with the Design and Build Committee regarding scheduling of delivery and installation of all owner-furnished materials and equipment during

construction; l. Conduct all necessary test/s to be required by the Design and Build Committee (e.g., soil test, soil boring) and issue report of results; m. Rectify punch-listing works to be inspected and issued by the Design and Build Committee and/or the End-user. n. Comply with the DOLE-OSH requirements and submit periodic reports concerning occupational safety and health. o. Provide all other necessary documents that shall be required by the Design and Build Committee. 14.4. Post Construction Phase The Contractor shall: a. Prepare as-built plans. b. Turn-over all manuals, certificates and warranties of installed items. c. Secure bidding certificate of occupancy and fire safety inspection certificate. d. Be responsible for demobilization and disposal of waste materials. e. Include landscaping work in immediate open areas near entrance, exit, and perimeter area of the building. 14.5. Variation Orders Any errors, omissions, inconsistencies, inadequacies or failures submitted by the contractor that do not comply with the agreed 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, it shall notify the University through the Project Management Page 34 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED Office at least five (5) days prior to modifications and shall shoulder the cost of such changes. 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: a. 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; and b. 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 an extension of time for any such delays under Section 10 of Annex "E" (RA 9184) or 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. 14.6. 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 and other related or applicable Philippine laws. 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 of RA 9184. 15. OVERALL PROJECT TIME SCHEDULE The Contractor shall propose the most reasonable time schedule for the completion of the project, from the date of the issuance of the Notice to Proceed (NTP), provided that it shall not exceed 300 calendar days. Any biddings documents indicating beyond this project completion period shall consider the prospective bidder ineligible or disqualified to bid. If the bidder with lowest calculated bid passes all the criteria for postqualification and is considered the Lowest Calculated Responsive Bid, the Page 35 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED bidder shall be given at least three (3) days to rectify the design per recommendation by the TWG and DBC, if any. 16. THE CBSUA's RESPONSIBILITY The implementing agency for the project is CBSUA-Pili with final approval for all decisions and actions from the University President upon recommendation by the CBSUA Project Management Office (PMO). CBSUA

shall: a. Prepare the design brief for the project in accordance with National Building Code of the Philippines and other applicable laws; policies, existing codes, traditions, standards, and the conditions and design criteria enumerated in this Terms of Reference; b. Coordinate with Contractor, and other concerned persons with regards to the design and implementation of the project; c. Assist in the coordination of the Contractor with various utility agencies during the detailed design and implementation phases of the project; and d. Conduct regular coordination meetings between the Contractor and the Committee to facilitate the implementation of the project. 17. THE DESIGN AND BUILD CONTRACTOR'S RESPONSIBILITY The Contractor shall: a. 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 this Terms of Reference. b. 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. Provide CBSUA-Pili with complete reports such as technical analysis, maps and details regarding the existing conditions and proposed improvements within the site. d. Consider the academic calendar and critical dates and occasions within CBSUA-Pili, in order to align his work schedule with the academic calendar of the school to avoid unnecessary disruption of school activities due to construction activities such as closure of water and power supply and non-usage of the existing roads. e. Inform CBSUA-Pili of critical events during construction, especially when such events can potentially disrupt school activities. Page 36 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED f. Ensure that organization is a PCAB accredited and shall have a Construction Safety and Health Program approved by DOLE and designed specifically for the CBSUA – Climate - Resilient and Agri - smart Farming Technologies (CBSUA - CRAFT) Center. g. Be accountable for accidents that might occur during the execution of the project. The Contractor is required to install warning signs and barriers for the safety of the general public and the avoidance of any accidents and provide appropriate and approved type personal protective equipment for their construction personnel. h. 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. Follow the plans approved by the University President and/or Design and Build Committee. Should there be deviation from the original design it shall seek approval to the University President. j. Ensure that all works designed and constructed should be guaranteed to seamlessly fit into the overall system general design standards of the National Building Code of the Philippines and other applicable laws. 18. PROJECTED SUBMITTALS DURING THE PROJECT The following submittals and accomplished documents shall be duly completed and turned-over by the Contractor for the project: 18.1. 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 DBC may require for the periodic update concerning the status of the design phase. 18.2. 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) Page 37 of 40 Republic of the Philippines CENTRAL BICOL STATE

UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED d. PERT-CPM e. Test results f. Guarantees, warrantees and other certificates g. Fire and Life Safety Assessment Report 2 and 3 (FALAR 2 and 3) 18.3. 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 the DBC 19. CODES AND STANDARDS The project shall be designed, engineered, installed, tested, commissioned and handed over in conformity with the latest editions of the National Green Building Code of the Philippines, 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. 20. INSTALLATION AND WORKMANSHIP Personnel of the Contractor should be specialists highly skilled in their respective trades, performing all labor according to existing standards. A full time Project Engineer/Architect and Construction Safety Engineer shall be assigned by the Contractor at the job site during the construction of the project. All work to be subcontracted shall be declared by the Contractor and shall be approved by the University President. However, subcontracting of any portion shall not relieve the 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 the obstructions, concrete breaking, backfilling and restoration of affected areas, shall be coordinated and included in the scope of work and cost of the project. Any errors, omissions, inconsistencies, inadequacies or failures 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 Page 38 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED wishes to modify any design or document which has been previously submitted, reviewed and approved, the Contractor shall notify the University within 3 days and shall shoulder the cost of such damages. 21. PROJECT/ CONSTRUCTION MATERIALS AND EQUIPMENT All materials and equipment 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 in accordance with the existing guidelines and standards and constructed and/or installed in practical and acceptable manner based on existing standards. It will be completed in operation, nothing being omitted in the way of labor and materials required and it will be delivered and tuned over in good condition, complete and perfect in every respect. Materials and systems for structured cabling shall be in accordance with the prevailing Philippine laws, guidelines and standards. All materials shall be in conformance with the latest standards and with inspection and approval from the Design and Build Committee. 22. MODE OF PAYMENT a. The University shall pay the winning Contractor progress payments based on billings for actual works accomplished in construction phase, as certified by the Project Management Office. In no case shall progress billing be made more than once every thirty (30) calendar days. Material or equipment delivered on the site but not completely put in place or used in the project shall be included for payment. b. All progress payment shall be subject to retention of ten percent (10%) based on the amount due to the winning Contractor prior to any deduction. The total retention money shall be released only upon Final Acceptance of the Project. The winning 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 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 Contractor issues its irrevocable standby letter of credit from a reputable bank acceptable to the CBSUA System, or 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. Page 39 of 40 Republic of the Philippines CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur 4418 Website: www.cbsua.edu.ph Email Address:op@cbsua.edu.ph Trunkline: (054) 871-5531-33 local 101 ISO CERTIFIED e. The following documents must be submitted to the Project Management Office before processing of any payments to the Contractor can be made: ● Progress billing; ● Detailed Statement of Work Accomplishment (SWA); ● Request for payment by the Contractor; ● Pictures/photographs of original site conditions (for First Billing only); ● Pictures/photographs of work accomplished; ● Payment utilities (power and water consumption); and ● Contractor's sworn affidavit containing percentage of accomplishment based on S-Curve, PERT-CPM, and Gantt Chart Note: Once the project reaches an accomplishment of ninety five percent (95%) of the total contract amount, the Inspectorate Team shall make preliminary inspection and submit a punch-list to the contractor in preparation for the final turnover of the project. Said punch-list will contain, among others, the remaining works, work deficiencies for necessary corrections, and the specific duration/time to fully complete the project considering the approved remaining contract time. This, however, shall not preclude the procuring entity's claim for liquidated damages. 23. PROJECT ACCEPTANCE AND TURN-OVER a. The Project Management Office shall ensure that completed work is in accordance with the For-Construction contract documents (Plans and Specification) approved by the University President. b. Should the Project Management Office/ Composite Inspection Team notice minor defects after completing the punch-list, new items may be added to the list which the contractor shall immediately correct/ repair prior to final acceptance. Major defects should be addressed immediately by the Contractor with prior notice to the University President or Project Management Office. c. Upon final acceptance of the project the retention money for the project shall be released accordingly, upon the request and posting of the req

Section VII. Drawings

Plans and drawings will be available upon buying of Bid docs.

Section VIII. Bill of Quantities

Notes on the Bill of Quantities

Objectives

The objectives of the Bill of Quantities are:

a. to provide sufficient information on the quantities of Works to be performed to enable Bids to be prepared efficiently and accurately; and

b. when a Contract has been entered into, to provide a priced Bill of Quantities for use in the periodic valuation of Works executed.

In order to attain these objectives, Works should be itemized in the Bill of Quantities in sufficient detail to distinguish between the different classes of Works, or between Works of the same nature carried out in different locations or in other circumstances which may give rise to different considerations of cost. Consistent with these requirements, the layout and content of the Bill of Quantities should be as simple and brief as possible.

Daywork Schedule

A Daywork Schedule should be included only if the probability of unforeseen work, outside the items included in the Bill of Quantities, is high. To facilitate checking by the Entity of the realism of rates quoted by the Bidders, the Daywork Schedule should normally comprise the following:

a. A list of the various classes of labor, materials, and Constructional Plant for which basic daywork rates or prices are to be inserted by the Bidder, together with a statement of the conditions under which the Contractor will be paid for work executed on a daywork basis.

b. Nominal quantities for each item of Daywork, to be priced by each Bidder at Daywork rates as Bid. The rate to be entered by the Bidder against each basic Daywork item should include the Contractor's profit, overheads, supervision, and other charges.

Provisional Sums

A general provision for physical contingencies (quantity overruns) may be made by including a provisional sum in the Summary Bill of Quantities. Similarly, a contingency allowance for possible price increases should be provided as a provisional sum in the Summary Bill of Quantities. The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic supplementary approvals as the future need arises. Where such provisional sums or contingency allowances are used, the SCC should state the manner in which they will be used, and under whose authority (usually the Procuring Entity's Representative's).

The estimated cost of specialized work to be carried out, or of special goods to be supplied, by other contractors should be indicated in the relevant part of the Bill of Quantities as a particular provisional sum with an appropriate brief description. A separate procurement procedure is normally carried out by the Procuring Entity to select such specialized contractors. To provide an element of competition among the Bidders in respect of any facilities, amenities, attendance, etc., to be provided by the successful Bidder as prime Contractor for the use and convenience of the specialist contractors, each related provisional sum should be followed by an item in the Bill of Quantities inviting the Bidder to quote a sum for such amenities, facilities, attendance, etc.

Signature Box

A signature box shall be added at the bottom of each page of the Bill of Quantities where the authorized representative of the Bidder shall affix his signature. Failure of the authorized representative to sign each and every page of the Bill of Quantities shall be a cause for rejection of his bid.

These Notes for Preparing a Bill of Quantities are intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They should not be included in the final documents.

Section IX. Checklist of Technical and Financial Documents

Notes on the Checklist of Technical and Financial Documents

The prescribed documents in the checklist are mandatory to be submitted in the Bid, but shall be subject to the following:

a. GPPB Resolution No. 09-2020 on the efficient procurement measures during a State of Calamity or other similar issuances that shall allow the use of alternate documents in lieu of the mandated requirements; or

b. any subsequent GPPB issuances adjusting the documentary requirements after the effectivity of the adoption of the PBDs.

The BAC shall be checking the submitted documents of each Bidder against this checklist to ascertain if they are all present, using a non-discretionary "pass/fail" criterion pursuant to Section 30 of the 2016 revised IRR of RA No. 9184.

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Documents

⬜ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);
or

⬜ (b) Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document;
and

⬜ (c) Mayor's or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas;
and

⬜ (e) Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).

Technical Documents

⬜ (f) Statement of the prospective bidder 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**

⬜ (g) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules;
and

⬜ (h) Philippine Contractors Accreditation Board (PCAB) License;
or
Special PCAB License in case of Joint Ventures;
and registration for the type and cost of the contract to be bid; **and**

⬜ (i) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;
or
Original copy of Notarized Bid Securing Declaration; **and**

(j) Project Requirements, which shall include the following:

⬜ a. Organizational chart for the contract to be bid;

⬜ b. List of contractor's key 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;

⬜ c. List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**

⬜ (k) Original duly signed Omnibus Sworn Statement (OSS);

and if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

☐ ***(l)*** The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; **and**

☐ (m) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

Class "B" Documents

☐ (n) If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence;
or
duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

II. FINANCIAL COMPONENT ENVELOPE

☐ (o) Original of duly signed and accomplished Financial Bid Form; **and**

Other documentary requirements under RA No. 9184

☐ (p) Original of duly signed Bid Prices in the Bill of Quantities; **and**

☐ (q) Duly accomplished Detailed Estimates Form, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; **and**

☐ (r) Cash Flow by Quarter.


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