Republic of the Philippines
ROMBLON STATE UNIVERSITY
Odiongan, Romblon
Email: romblonstateu@gmail.com
bacrsu2016@gmail.com
URL: rsu.edu.ph

Design and Build Scheme Infrastructure Project for the Proposed Construction of Two-Storey Data Center of Romblon State University-Main Campus

Solicitation No.: RSU-2022-10-088

Source of Fund: 164

QTY: 1 Lot

ABC: PhP15,000,000.00

Pre-Bid Conference	**:**	**02 November 2022 (10:30 AM)**
Submission of Bid Docs	**:**	**On or Before 14 November 2022, (01:00 PM)**
Opening of Bid Docs	**:**	**14 November 2022 (01:00 PM)**
Venue	**:**	**BAC Office, Community Outreach Center, Romblon State University, Brgy. Liwanag, Odiongan, Romblon**

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 "*name of the Procuring Entity*" and "*address for bid submission*," 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.

Invitation to Bid for the Procurement of *DESIGN AND BUILD SCHEME INFRASTRUCTURE PROJECT FOR THE PROPOSED CONSTRUCTION OF TWO-STOREY DATA CENTER OF ROMBLON STATE UNIVERSITY-MAIN CAMPUS*

1. The **ROMBLON STATE UNIVERSITY**, through the ***General Appropriations Act*** intends to apply the sum of ***Fifteen Million Pesos Only (PhP15,000,000,00)*** being the Approved Budget for the Contract (ABC) to payments under the contract for ***Design and Build Scheme Infrastructure Project for the Proposed Construction of Two-Storey Data Center of Romblon State University-Main Campus RSU-2022-10-088***. Bids received in excess of the ABC shall be automatically rejected at bid opening.

2. The **ROMBLON STATE UNIVERSITY** now invites bids for the above Procurement Project. Completion of the Works is required ***within 104 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 **ROMBLON STATE UNIVERSITY** and inspect the Bidding Documents at the address given below from ***8:00 AM to 5:00 PM*.**

5. A complete set of Bidding Documents may be acquired by interested bidders on ***November 14, 2022*** from given address and website/s below {*Insert if necessary: and 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 Thousand Pesos Only (*PhP25*,000.00)*.** The Procuring Entity shall allow the bidder to present its proof of payment for the fees *[specify the manner if it will be presented in person, by facsimile, or through electronic means.]*}

6. The **ROMBLON STATE UNIVERSITY** will hold a Pre-Bid Conference[1] on ***02 November 2022*** at ***BAC Office, Community Outreach Center, Romblon State University - Main Campus, Manuel L. Quezon St., Brgy. Liwanag, Odiongan, Romblon.*** and/or through ***ZOOM***, which shall be open to prospective bidders.

7. Bids must be duly received by the BAC Secretariat through (i) manual submission at the office address as indicated below, ***BAC Office, Community Outreach Center, Romblon State University - Main Campus, Manuel L. Quezon St., Brgy. Liwanag, Odiongan, Romblon*** *and through* online or electronic submission as indicated below, **bacrsu2016@gmail.com** on or before ***November 14, 2022, 01:00 PM***. Late bids shall not be accepted.

[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.

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 ***November 14, 2022, 01:00 PM*** at the given address below ***BAC Office, Community Outreach Center, Romblon State University - Main Campus, Manuel L. Quezon St., Brgy. Liwanag, Odiongan, Romblon.*** and/or through ***Video Conferenccing (Zoom)*** Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

10. The **ROMBLON STATE UNIVERSITY** 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.

11. For further information, please refer to:

    *(SGD)**MS. VEE F. FRANCISCO***
    Head, BAC Secretariat
    Romblon State University, Odiongan, Romblon 5505
    Email Address: bacrsu2016@gmail.com
    Telephone Number: 042-567-5952
    *Website: **www.rsu.edu.ph***

12. You may visit the following websites:
    www.rsu.edu.ph

October 26, 2022

(SGD)**ATTY. NIÑO GLENN M. SARTILLO**
BAC Chairperson

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, **ROMBLON STATE UNIVERSITY** invites Bids for the ***Design and Build Scheme Infrastructure Project for the Proposed Construction of Two-Storey Data Center of Romblon State University-Main Campus,*** with Project Identification Number ***RSU-2022-10-088***.

[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 *2022* in the amount of ***Fifteen Million Pesos Only.***

2.2. The source of funding is:

a. NGA, the General Appropriations Act or Special Appropriations.

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:

a. Subcontracting is not allowed.

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 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. In case of joint ventures, a special PCAB License, and registration for the type and cost of the contract for this Project, shall be required. 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.

14.2. *Payment of the contract price shall be made in:*

a. 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 ***March 14, 2023.*** 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 one copy of the first and second components of its Bid.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

If the Procuring Entity allows the submission of bids through online submission to the given website or any other electronic means, the Bidder shall submit an electronic copy of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

17. Deadline for Submission of Bids

The Bidders shall submit on the specified date and time and either at its physical address or through online submission 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. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise 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 16 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: *[provide description/clarification of what are major categories of work]*.
7.1	*Subcontracting is not allowed.*
10.3	*[Specify if another Contractor license or permit is required.*
10.4	FOR DESIGN PERSONNEL For the Pre-Detailed Design and Detailed Design Portion of the contract, the bidder is required to provide the minimum number if professionals as shown below:
	1. Design/Principal Architect a. Licensed Architect b. Preferably at least five (5) years of experience in the design of residential, academic or institutional facilities, and shall preferable be knowledgeable in applying Green Design Technology in school construction. Proficient in AutoCAD software 2. **Structural/Civil Engineer** a. Licensed Structural/Civil Engineer b. Preferably at least five (5) years of experience in structural design and shall be knowledgeable in applying Green Design Technology in school construction. c. Proficient in Design and AutoCAD software 3. **Electrical Engineer** a. Licensed Professional Electrical Engineer (PEE) b. Preferably at least five (5) years of experience in lighting design power distribution, preferably knowledgeable in emergent, alternative lighting technologies and energy management developments. c. Proficient in Design and AutoCAD software 4. Mechanical Engineer a. Licensed Professional Mechanical Engineer (PME) b. Preferably at least five (5) years of experience in HVAC and fire protection system and preferably knowledgeable in emergent, alternative energy – efficient HVAC technologies c. Proficient in Design and AutoCAD software 5. Sanitary Engineer a. Licensed Sanitary Engineer b. Preferably at least five (5) years of experience in the design of building water supply and distribution, plumbing, and preferably knowledgeable in wastewater management/treatment, and emergent, alternative effluent collection and treatment systems, and DENR AO 36 s. 2004 (DAO 92-29 “Hazardous Waste Management). c. Proficient in Design and AutoCAD software 6. Electronics Engineer a. Licensed Professional Electronics Engineer (PERE) b. Preferably at least five (5) years of experience in design of the network and structured cabling systems, Fire Detection and Alarm System (FDAS), and Closed Circuit Television (CCTV) System. c. Proficient in Design and AutoCAD software

	7. **CADD Operator** (preferably one for Architecture and one for each engineering specialty) a. At least Bachelor's Degree in Architecture or Engineering b. Proficient in Design and AutoCAD software 8. Other personnel as required for the project The key professionals listed are required. The Design and Build Contractor may as needed and 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.
	CONSTRUCTION PERSONNEL The key professionals and the respective qualification of the CONSTRUCTION PERSONNEL, shall be as follows:
	A. Project Manager a. Licensed architect or engineer b. Preferably at least five (5) years relevant experience on similar and comparable projects in different locations c. Proven record of managerial capability through the directing/managing of major civil engineering works, including projects of a similar magnitude. C. Project Engineer/ Architect a. Licensed architect or engineer b. Preferably at least five (5) years of experience on similar and comparable projects c. Knowledgeable in the application of rapid construction technologies. D. Materials Engineer a. Duly accredited Material Engineer b. Preferably at least five (5) years of experience on similar and comparable projects c. Knowledgeable in the application of rapid construction technologies. E. Electrical Engineer a. Registered Electrical Engineer b. Preferably at least five (5) years of experience in lighting design, power distribution c. Knowledgeable in development in emergent efficient lighting technologies and energy management. F. Mechanical Engineer a. Duly – license Mechanical Engineer b. Preferably at least five (5) years of experience in similar and comparable projects in installing HVAC and fire protection G. Sanitary Engineer a. Duly – license Sanitary Engineer b. Preferably at least five (5) years of experience in similar and comparable projects in installing water supply, distribution, and plumbing. H. Electronics Engineer a. Registered Electronics Engineer b. Preferably at least five (5) years of experience installing network cabling systems and structured cabling, FDAS, and CCTV systems. I. Foreman

	a. Preferably at least five (5) years of experience in similar and comparable projects and preferably knowledgeable in applying Green Building technologies. J. Safety Officer a. Accredited safety practitioner by the Department of Labor and Employment (DOLE) has undergone the prescribed 40-hour Construction Safety and Health Training (COSH). K. First Aider a. Must completed the (4) four-day Occupational First Aid Training with BLS CPR AED in compliance to DOLE Requirements DO No. 198-18 and Do No. 235-22 L. Welder b. Preferably at least five (5) years of experience in similar and comparable projects and preferably knowledgeable in applying Green Building technologies. c. Certified NCII, SMAW or TIG Welder The above key personnel listed are required. The DESIGN & BUILD CONTRACTOR may, as needed and at its own expense, add additional professionals and/or support personnel for the optimal performance of all Construction Services, as stipulated in these Terms of Reference, for the Project. Prospective bidders shall attach each individual's resume and PRC license of the (professional) staff, proof of qualifications, and related documents as necessary. *Note: Please seek signed approval to the Procuring Entity for changes in key personnel.*
10.5	The minimum major equipment requirements are the following: Equipment Capacity Number of Units **Backhoe 0.80cu.m 1** **Mini Dump Truck 830cu.m 1**
12	*No Further Instructions*
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 **PhP300,000.00** *[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 **PhP750,000.00** *[Insert five percent (5%) of ABC]* if bid security is in Surety Bond.
19.2	Partial bids are not allowed.
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

4.1. 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.

4.2. 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	No further instructions.
4.1	No further instructions.
6	The site investigation reports are: *[list here the required site investigation reports.]*
7.2	*[Select one, delete the other.]* *[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. *[In case of semi-permanent structures, such as buildings of types 1, 2, and 3 as classified under the National Building Code of the Philippines, concrete/asphalt roads, concrete river control, drainage, irrigation lined canals, river landing, deep wells, rock causeway, pedestrian overpass, and other similar semi-permanent structures:]* Five (5) years. *[In case of other structures, such as bailey and wooden bridges, shallow wells, spring developments, and other similar structures:]* Two (2) years.
10	*[Select one, delete the other:]* a. Dayworks are applicable at the rate shown in the Contractor's original Bid. b. No dayworks are applicable to the contract.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within *[insert number]* 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 is *[insert amount as percentage of the contract price that shall not exceed 15% of the total contract price and schedule of payment]*.
14	*[If allowed by the Procuring Entity, state:]* 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.

SPECIFICATIONS

Item	Specification	Statement of Compliance
A	**Construction Requirements** ***General Requirements*** Buildings proposed for construction shall comply with all the regulations and specifications herein, governing quality, characteristics and properties of materials, methods of design and construction, type of occupancy, and classification. All other matters relative to the structural design of all buildings and other structures not provided shall conform with the provisions of the National Structural Code of Buildings, as adopted and promulgated by the Board of Civil Engineering pursuant to RA 544, as amended, otherwise known as the "Civil Engineering Law". ***Construction Type*** **Type IV** – The building shall be steel, iron, concrete, or masonry construction. The walls, ceilings, and permanent partitions shall be incombustible **2-fire – resistive construction**. *Except* for that, permanent non-bearing partitions of one-hour fire-resistive construction may use fire-retardant-treated wood within the framing assembly. **Category of Construction** Category 1 Essential Facilities – Public School Building. ***Changes in Types*** No revision in the type of construction shall be made. This revision would place the building in a different sub-type or type of construction unless such structure is made to comply with such sub-type of construction requirements. Except for that, the Building Official approves the changes upon showing that the new or proposed construction is less hazardous, based on the life and fire risk than the existing construction. **Construction Method** 1. Technical personnel assigned to the project should be knowledgeable and responsible enough. 2. Shall establish the Project Supervision and hierarchy first. 3. Shall do Construction methods for each work indicated in the design. 4. The material shall pass the required specification. 5. Should do quality control on all work items as construction progresses. 6. Shall use Proper equipment for each work item. 7. Materials quantity shall be well provided. Scarcity of one material can be the basis of delay for each work that may affect other items' schedules.	

	Quality Control Quality control works consist of all work elements carried out by the manager or those in his organization, which contribute to the quality of the organization's output. Quality Control procedures include: ***Selection of Materials.*** Information regarding the source of the materials to the incorporated into the work may be represented by the following: • Raw materials such as soil, sand, and bank or river gravel (with little or no processing) • Materials that are processed without changing their properties, such as washed/manufactured sand, crushed rock, gravel, etc. • Combination of materials that may be partly or totally manufactured (e.g., Bituminous and Portland cement concrete) ***Handling and Storage of Materials.*** Materials should be placed in a safe place protected from contamination or the action of water to avoid damages. Protection of materials is significant and should be accessible to the project site. ***Sampling Testing of Materials.*** All material for testing requires proper sampling. These are indicated in AASHTO and ASTM. Quality control also required proper testing, construction method, and workmanship. **Contractor's Material Engineer** Department Order 11 Series of 2017 requires the Contractor to provide minimum testing equipment in the technical component of the bid. The Materials Engineer must secure this, and his Contractor shall provide it. Department Order 13, Series of 1987 states that the Material Engineer shall be in-charge in sampling the testing of the materials. He shall accompany him in the actual testing by the Government Materials Engineer or a representative of the implementing office who will witness their assurance. Department Order 213, Series of 2004 states that the materials shall be tested prior to incorporating the works. The materials engineer shall ensure that the materials conform to the specifications and requirements of DPWH and should be used. **Primary Duties and Responsibilities of Contractor's Material Engineer** 1. Responsible for the sampling, testing inspection, and submission of quality control report data. 2. Prepare design mixes for concrete. 3. Accomplish, update, and keep the test report records such as materials logbook. 4. Ensure that the samples are properly cured according to standard procedures. 5. Ensure that the field tests are adequately equipped so that the process of work will not be impeded by laboratory testing, and non-performance of the test should not be the	

cause of delay in project implementation.

6. Recommended whether the quality of materials used in the project is acceptable and passes the requirement of DPWH standard Specifications (Volumes 2 and 3).

7. Recommended corrective and remedial measures to improve the quality and correct the unsatisfactory condition of materials.

8. Recommended corrective measures to improve the quality of completed works.

9. Recommend the acceptance of the completed works as well as advise the Project Engineer (Government or Contractor's side)

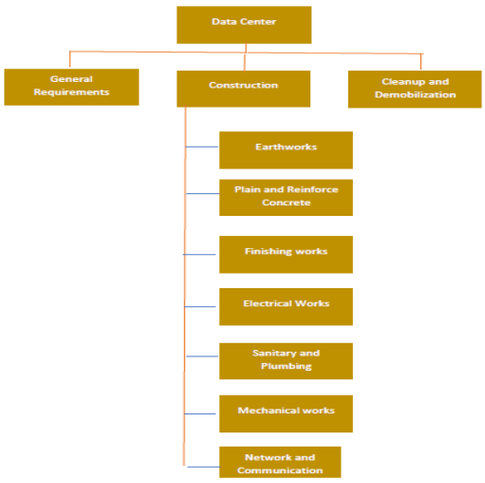
Fire – Resistive Requirements in Construction

All materials of construction and assemblies or combinations therefor shall be classified according to their fire-retardant or flame-spread ratings as determined by generally accepted testing methods.

Fire – resistive time rating is the length of time a material can withstand burning: one hour; two – hours, three hours, four hours, etc.

All materials need to submit a fire testing certificate.

Work Breakdown Structure



Part 1 General Requirements

1. *Mobilization/Demobilization, (including Bonds, Permits, (Fine) & Clearances.* Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not required or included in the contract from the site, including the disassembly, removal, and site cleanup of offices, building, and other facilities assembled on the site specifically for this contract.

2. *Temporary Facilities, Warehouse, Boards.* The temporary buildings for housing workers or the erection of tents or other forms of protection will be permitted only at such places as the owner shall designated. If no particular area is selected, the contractor may use his discretion in determining such areas in consultation with the owner. The sanitary condition of the project site shall always be maintained in a manner satisfactory to the owner.

	3. *PPE.* The equipment worn to minimize hazards that cause serious workplace injuries and illnesses. 4. *Signages.* Workplace safety signage is a requirement on all construction sites. Highly visible safety signs can help prevent injuries and ensure that all staff and visitors are aware of any dangerous hazards. 5. *Fences.* These shall be built of an approved material, not less than 2.40 meters in height above grade, and placed on the side of the walkway nearest to the building site. Fences shall enclose the building site entirely. Openings in such barriers shall be provided with doors and kept closed at all times. 6. *Canopies.* The protective canopy shall have a clear height of 2.40 meters above the railway and shall be structurally safe. Every canopy shall have a solid fence build along its entire length on the construction site. If materials are stored, or work is done on top of the canopy, the edge along the street shall be protected by a tight curb board not less than 30 millimeters high. The entire structure shall be designed to carry the loads imposed upon it. Provided that the live load shall be not less than 600 kilograms per square meter. 7. *Maintenance and Removal of Protective Devices.* All protective devices shall be adequately maintained in placed and kept in good order for the entire length of time pedestrians may be endangered. 8. *Removal.* Every protective fence or canopy shall be removed within 30 days after the protection is no longer required as determined by the Building official. 9. *Minimum Testing Requirements.* Quantity stated in the program of works is the basis of the minimum testing requirements for each project. The requirements specify the kind and number of tests for each item and size; this would indicate only the minimum and shall not be the basis of several trials. When a government representative inspected a project, and there is a doubt in the test, he can do another testing immediately. **Part II: Civil, Electrical, Sanitary/Plumbing, & Mechanical Works** **1. Earthworks** **2. Site Preparation Works, Demolition/Clearing** **3. Excavation Works.** **a.** Excavation or fills for building or structures shall be constructed or protected not to endanger life or property. **b.** When the excavation would affect the stability of the lateral and subjacent support of the adjoining property or existing structure, the person undertaking or causing the excavation shall be responsible for the expense of underpinning or extending the foundation or footing of the property, as mentioned earlier. **c.** Excavation and other similar disturbances made on public property shall, unless otherwise excluded by the Building Official, be restored	

	immediately to its former condition within 48 hours from the start of such excavation and disturbances by whosoever caused such excavation or disturbance. • Backfilling Works, ABC • Boulders 6 • Gravel Bedding, G1 • Soil Poisoning • Plain and Reinforced Concrete Works (Class A, 28 days) • Steel Reinforcement Works (Grade 40 & 60) • *Steel Decking Works (Gauge 50)* • Forms & Scaffolding Works • Finishing Works • Masonry Works • Plastering Works • Carpentry Works, Ceiling, CR Ceiling & Phenolic boards CR Partition • Welding Works, Stair handrail & Fire exit handrails all levels two sides, I-beams • *Mill Works (Doors and Windows) with a complete glass and glazing hinges & locksets* • Tiles work, beads, and moldings on all levels, including corridors • *Painting works, preparation, treatment, and surface correction up to complete coatings* • *Water Proofing Works, all wet areas with concrete toppings 2 thick.* • Ceiling all levels, Gypsum board, T runner • Electrical Works, pipes, wires, and fixtures • Sanitary/Plumbing Works, pipes to fixture • *Elevated Water S/S w/pipelines from deep well w/pressure tank & motor* • *Deep Well Drilling Works, 5 O B1 Pipes with motor 1.5 HP & pipelines from well up to elevated tanks* • Septic Tank & Cistern Tank, • *Fire Protection: Dry stand pipelines, firehose on cabinets, fire extinguisher, fire alarm bell, the smoke detector on all levels, Jockey Pumps, Booster pump, and Sprinkler system.* **4. The enclosure of Vertical Openings** *General.* Vertical openings shall be enclosed be depending upon the fire resistive requirements of a particular type of construction as outlined in this Code. **Part III General Requirements, Cleanup, and Demobilization**	
B	**DESIGN PARAMETERS** **ARCHITECTURAL DESIGN PARAMETERS**	

	• Shall provide accessibility for the disabled in the design of the building. • The design of the building shall incorporate provision to maximize energy efficiency and conservation (natural lighting). • The building shall be oriented appropriately considering sun, wind, site water run down, and specifically typhoon wind direction. • The building shall be in an open area beside the Main Library • The building shall adhere to architectural principles of beauty, strength, and utility. • The building shall be designed considering the ease of maintenance, including durability, function. • Must include the provision for fire escape in the design of the building under the new fire code of the Philippines. • Shall observe the design requirements of the national building code of the Philippines (PD 1096), B.P. 344 Accessibility Law, Fire Code of the Philippines. • Building design should follow the Latest NSCP requirements, up to magnitude 8.4 for those near the seismic source type A. • Other considerations shall be access road, lighting provision, and building information. • Consider HGDG Standards. 1.1 General • All drawings shall be computer – drafted. These shall be submitted both in printed and electronic copies. • Keep the same orientation for all plans. It shall indicate the north orientation in all architectural floor plans. The orientation of the architectural plans shall be consistent with all the engineering plans. • Existing buildings and new works shall be indicated and labeled in the site plans. • Detailed plans shall have a scale not smaller than 1:50 meters. • Spot detailed plans, elevations, and sections shall have a scale not smaller than 1:10 meters. • Avoid notes such as “see architectural detail” or “see structural”. Always refer with a callout to the specific detail drawing and number. 1.2 Site Plans • The site plans shall have a scale not smaller than 1:400 meters. 1.3 Floor Plans • All plans shall have a scale not smaller than 1:200 meters. The contractor shall use the same scale 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. • He shall indicate the elevation callouts on the floor plans and be consistent with the elevation drawing. • Section line callouts on the floor plans shall be consistent with the section drawing. • Floor plans shall be indicated with boxed room callout numbers, including the callout for floor finishes and wall finishes. • He shall indicate the floor elevations in the floor plans. The elevation shall be in reference to the natural grade line or the established finished floor lines of the adjoining existing buildings. • He shall indicate the location of mechanical equipment, e.g., air conditioning, in the floor plans. It shall be consistent with the mechanical and electrical plans. • Door callouts shall be in circles with the proper numbering, e.g., D-01. • Windows callouts shall be hexagons with the proper numbering. e.g., W-01. • Indicate the column grid lines in the plan. 1.4 Elevations and Sections • Finish floor lines and roof lines shall be consistent in all the elevations, sections, structural plans, and details. • Architectural annotation or exterior finishes proper label in the drawing. 1.5 Reflected Ceiling Plans • Reflected ceiling plans shall be indicated with boxed room callout numbers, including the callout for ceiling finishes and lighting fixtures. • The Contractor shall include the Ceiling height relative to the finish floor line in the reflected ceiling plans in each room with boxed dimensions. • The description and locations of the fixtures, e.g., lighting, smoke detectors, air conditioning vents, exhaust fans, in the reflected ceiling plans shall be consistent with the electrical and mechanical plans. • Indicate the drawing a point used for setting out the ceiling. 1.6 Doors and Windows • Door and window schedules shall indicate the type of door or window, the number of sets, the location/s of the door and window, the materials and accessories included, and other special specifications, e.g., color or finish. • Provide the dimension of the doors and windows	

	and the height of the window sill from the finish floor level. (PLEASE INDICATE DETAILED SPECS FOR MECH DOOR FOR SERVER ROOM) 1.7 Details • Provide a minimum of one (1) bay section of a scale not smaller than 1:50 meters for each major building, preferably cut along the area with a special construction design. • Provide spot detail plans, elevations, and sections of a scale not smaller than 1:10 meters for special designs with aesthetic treatment and ornamentation. • Provide spot detailed plans of a scale not smaller than 1:50 for all areas needing tile pattern, e.g., corridor, entrance walk, showing the position and pattern of tiles. • The Contractor shall indicate the centerline location of plumbing fixtures in detailed plans with lines of reference and its corresponding dimensions to show the exact areas of the plumbing/sanitary roughing-ins. 1.8 Building Architectural Works Floor Plans 1. The structural, sanitary, plumbing, electrical, and mechanical designs must refer to the architectural plans and specifications in case of discrepancies. 2. The architectural and engineering plans shall be consistent throughput in terms of dimensions and locations of columns, beams, walls, roofline, conduits, ducts, pipes, and fixtures, among others. Column and beam gridlines shall also be consistent in all the architectural and engineering plans. 3. Verify and coordinate floor plans with the mechanical, electrical, and sanitary design concerning mechanical rooms, electrical rooms, pipe chase, and other engineering requirements. 4. Public toilets shall have provisions and fixtures for person with disability as required by BP 344. If enough space allows toilets specially made and designated for persons with disabilities are preferable. Walls 1. Exterior walls shall be 200 mm thick, while interior walls shall be 150 mm thick. The finished wall thickness includes plastering and tile works. 2. All wall tiles' layout and work must be aligned, plumb, level, and square. 3. All toilet tiles' edges, corners, and intersections, including topmost tile not reaching ceiling, shall be provided with polyvinyl chloride tile trims. 4. All concrete-finished walls are painted with appropriate colors. The color and design shall be approved first before installation.	

	5. Plaster works shall be finished level, plumb, square and true to line within the tolerance of 3mm in 3.0 meters. Plaster walls are without cracks, waves, blisters, pits, discoloration projections, and other imperfections. Floors 1. Suppose floor tiles in two adjacent rooms with different materials, colors, or designs meet at the door opening. In that case, the contractor can use a threshold at the door to have a good termination between different materials. Provide floor pattern design showing the tile setting out point. 2. Floor to floor elevation shall be 3.80 m. 3. Floor at the openings of toilets for PWD shall be sloping. Indicate the plans and sections. 4. The size of the toilet floor tiles shall be 300 mm x 300 mm. Indicate the pattern. Submit material approval providing sample or product description. 5. The size of floor tiles of the offices shall be 600mm x 600mm, or more considerable depending on the proportion to the size of the room. Indicate the tile pattern. Submit material approval providing sample or product description. 6. The size of the floor tiles of the lobby and receptionist shall be 600mm x 600mm, Indicate the pattern. Submit material approval providing sample or product description. 7. The size of the floor tiles outdoor entrance walk shall be 600mm x 600mm. Indicate the pattern. Submit material approval providing sample or product description. 8. All exterior tiles are in matt finish and provide a setting out plan for approval. 9. All stairway steps are provided with anti-slip nosing, tiles with built- in anti-slip features, aluminum or brass metal nosing. 10. The layout and work on the wall and floor tiles must be aligned, plumb, level and square. 11. Tile color and design shall be approved first before installation. Doors and Windows 1. Server room that requires security shall have sturdy doors, e.g., Solid Mechanical Door. 2. Main entrance door, Network Operation Center access door shall be see-through, e.g., Glass Door. 3. Toilet Doors shall be wood door. 4. Pantry Door shall be wood and seamless through the wall design of the receptionist. 5. Fire escape door should be provided with panic hardware and door closers and shall conform to the requirements of the Fire Code of the Philippines. 6. The door finish and color shall be approved first before application. 7. Toilet window sills shall be slightly sloped outwards to prevent damage to windows and paint due to water seepage.	

	Section details shall be required to show this slope. 8. Main entrance door shall swing outwards and as required by the Fire Code of the Philippines. 9. All door jamb width is same as the width of the plastered wall and encases with an architrave on both sides. Provide details. 10. All Doors and windows shall have reinforced concrete lintel beams. Provide details. Stair and Ramps 1. Ramps for persons with disabilities shall have a slope not higher than 1:12. Stainless Steel Handrails and clearances shall conform to the requirements of BP 344. 2. Regular stairs have risers at 180mm high and thread at 300 mm wide. Fire exit stairs could have minimum riser at 150mm high and thread at 300mm. handrails shall be 1100mm high. 3. Clearance shall conform to the requirements of the Fire Code of the Philippines. 4. Exit door shall conform to the requirements of the Fire Code of the Philippines. Fixtures and Accessories 1. Three-way electrical light switches shall be provided at the foot and the top of the stairs per floor. 2. Electrical light switches shall be located by the knob side of the door. 3. Electrical switches and outlets shall be installed plumb and level. 4. Public toilet shall always be provided with stainless handrails in conformity to the requirements of BP 344. All plumbing fixtures must be submitted for approval. Roofing Works 1. Provide membrane-type waterproofing for the roof deck, toilets, and other wet areas. Submit details of water-proofing. Submit material sample or product supplier and on-site mock-up for approval if required. 2. Parapets, designed for roof protection from winds, must be designed to satisfy the preceding parameters. 3. Submit material sample or product supplier and on on-site mock-up for approval if required. Painting 1. The painted ceiling shall be flat latex. 2. Painted interior walls shall be in semi-gloss finish. 3. Painted exterior walls shall be in moisture-resistant/water-repellent solvent-based paint finish, textured or smooth unless otherwise specified. 4. Paint color and shade shall be approved first before application. 5. Submit a schedule of rooms for painting applications, including walls and ceilings. Start with surface preparation to finish the application. Need a material approval	

	submission. 1.9 Specific Requirements Provide spot detail plans and sections of the following: 1. Eaves and parapet 2. Ceiling cover light, special connections, design, mouldings. 3. Stairs-handrail, and baluster design. 4. Ramps – handrail design and floor pattern 5. Doors, windows and gates – grille works, 6. Special architectural treatment and design, e.g., façade design, special window, and door. 7. Special Carpentry Works, e.g., partitions, cabinet 8. Details of roof drain 9. Other information as may be required. 1.10 Summary of Materials • Materials to be used shall be fire-resistant, non-toxic, moisture-resistant, and termite-resistant, e.g., fiber cement board, light-gauge steel frame, polyvinyl chloride ceiling panels, metal spar. • Wet areas, e.g., toilets, and kitchens, shall use non-skid/ non-slip vitrified ceramic floor tiles. • Ramps and stairs shall use non-skid/non-slip floor tiles materials as specified. • Aluminum T-runners shall be powder coated. • Metal rod hangers with adjustable clips and not galvanized iron wires shall support and suspend the aluminum T-runners and light gauge metal furrings. **Structural Design** • The Designer shall prepare the necessary structural analysis/calculation and design of the structural members (Foundation, Columns, Girders, Beams, Slabs, and others) under the National Building Code of the Philippines with its referral code such as the National Structural Code of the Philippines. The Designer must design the roof slab considering the loads for future office use. The Design of the structure shall take into account, among other things, the seismic requirements of the area to determine the optimum safety of the whole structure and to minimize possible earthquake damage. The Design must consider the occurrence of flooding in the site and the Typhoon strength for the MIMAROPA Region. • The Designer shall perform Site Investigations, topographical/engineering, soil investigation, a survey of existing site conditions, the seismic requirements of the area, and other investigation	

	required to obtain the data necessary to ensure safety of the structure. • The seismicity of the location belongs to zone 4. The Two (2) Storey Data Center with Roof Slab (considering loads for 3rd floor area for future office use) should be design using seismic importance factor of 1.5 for the occupancy Category I (Essential Facilities) – Public School). Buildings should be designated in accordance with the NSCP requirements up to Magnitude 8.4 for those near seismic source Type A. Seismic gaps between buildings (old and new) should be appropriately observe. Its structural system or Lateral – Resisting System Description shall be based on Special – Moment Resisting Frame (SMRF) • The structural Designer must verify the distance of the proposed Two (2) Storey Data Center with Roof Slab to the nearest active fault lines from the PHILVOLCS and DENR geo-hazard mapping. • The Building should also be design using a wind importance factor of 1.0, a basic wind speed of 300kph, and at Exposure B. • All Structural Steel works shall be according with latest AISC specifications in so far as they do not conflict with local building requirement. • It is required that the interpretation and evaluation of the results of the foundation investigation upon completion shall be made by the registered civil engineer, experienced and knowledgeable in the field of geotechnical engineering. Soil classification shall be based on observation and any necessary tests of the materials disclosed by borings or excavation made in appropriate location. Allowable Bearing Capacity shall be found on the Boring Test at the building site. (Refer to ANNEX E: PRELIMINARY INVESTIGATIONS (FOUNDATION DESIGN AND RECOMMENDATIONS)) • The structural designer is encouraged to use fire-resistive and non-toxic materials. • The Dead Loads to be considered in the design must conform to the Section 204 of NSCP 2015 and must include the equipment to be installed in the building. • The live loads to be considered in the design must conform to Section 205 of NSCP 2015 that are not limited to the following: i) Ground Floor – Office use, Exit facilities, Rest Rooms ii) Second Floor – (5 racks) data cabinets with	

	estimated weight of 1000kg per rack, control room iii) Roof Slab with Bituminous Water Proofing Membrane and future provision of office use • During construction the contractor shall poured first a lean concrete equal to the thickness of the concrete cover of the foundation prior to fabrication of steel reinforcement of all reinforced structural concrete that will rest in the ground. 2.1 Details – the following shall provided: • Connection details of foundations, columns and beams following the requirements of NSCP on confined areas. • Detailing Requirements in seismic Zone 4 shall include the provision of confinement/hoops proportioned to resist earthquake-induced shear force. • All welds types, sizes lengths and strengths. • All bolt sizes, locations, quantities and grades. • All plate and angle sizes, thicknesses, dimensions and grades. • All work point locations and related information. 2.2 Summary of Materials • All Concrete shall use Portland cement and conform to ASTM Specifications C150, Type I to Type II and shall develop a minimum compressive strength at 28 days of 4000Psi. • Coarse Aggregates shall consist of washed gravel, crashed stone and rock, or a combination thereof to ASTM C33. • Concrete Hallow blocks shall be a standard product of recognized manufacturers conforming to PNS 16 with 400Psi minimum compressive strength for non-load bearing while 750Psi minimum compressive strength for load bearing blocks. • Reinforcing Steel bar shall conform to ASTM 615 Grade 60 for 16mm diameter and above and Grade 40 for 12mm diameter and below. Mill Certificate of the reinforcement shall be submitted for review of the structural engineer. • Structural steel shall conform with ASTM A36/A36M • Bolt and Studs shall conform with ASTM A325 • All welding of reinforcement shall be conformed to the provisions of the structural Welding code reinforcing steel AWS and electrodes shall be E60 or E70. • Columns and Beams shall use I-beams/H beams as steel reinforcement with ties and poured with concrete conforming to the standards. (composite Columns and Beams)	

	• Slab shall design using steel decking with reinforcement steel bar. **Sanitary and Plumbing Works Design** • The designer shall carry out a detailed design for the building's water supply, drainage, and sewer system. The design should based in the results of the hydrological study and the drainage survey taking into consideration the general and problems such as the source and the volume of water supply, water consumption, piping network, drainage discharge area, and conveyance and treatment of sewer flow, in accordance with the applicable laws, rules, and regulations governing health safety and sanitation. • All Plumbing Works included shall be executed according to the provision of The National Plumbing Code of the Philippines and Local Rules and Regulation. • All vertical piping shall be supported at every one (1) meter interval • All horizontal piping shall be supported by stiff metal backing hangers in its entire length for small size tubing up to 38mm diameter and without backing but with spaced metal hangers at approved for larger-size tubing. • Plumbing fixtures shall be manufactured of dense, durable, non- sorbent materials and have smooth, impervious surfaces, free from unnecessary concealed fouling surfaces, except as permitted elsewhere in this code, all fixtures shall conform in quality and national recognized applicable standards. • Water supply will be sourced from the University or Local Water sources. • Water outlets should be provided in convenient locations for the cleaning / flushing. • All valves which are concealed and or installed in the ceiling shall be provided with access manhole. • Main water tapping point is clearly identified on the plan. (gate valve, y-strainer, water meter, check valve) 3.1 Building facilities Sanitary/Plumbing System Sewer line and Vent System • Provide complete Sewer line and vent System from all plumbing fixtures and floor drains; laid by gravity flow leading to the Septic Tank. • Waste water lines shall use Unplasticized Polyvinyl Chloride (UPVC) Series 1000 brown/orange pipes and fittings. • All ACCU units located at the right side of the Powerhouse shall be provided with sufficient drains. • All FCU drains are tapped at storm/drain pipes. • Change in direction of drainage piping shall be made by the appropriate use of approved fittings. • For Drainage Fixtures Units, refer to Chapter 7,	

	Table &-2, NPCP. • Septic tank shall be made of 200mm thick reinforce concrete wall with water proofing and covered of reinforced concrete slab with manhole provision. • The septic tank dimensions shall be design based on computation stated in the NPCP. • The septic tank shall be composed of (3) three chambers such as (1) digestive chambers with concrete flooring, (1) leaching chamber with rubbles flooring, (1) cleansing chamber with charcoal flooring. The septic tank cover and outlet pipes shall be elevated from the finish floor line minimum of 1 ft. Water line System • Provide complete cold water supply pipes to all plumbing fixtures. From the main water source and the water shall be stored in a concrete base tank and shall pumped by electric water pump to the stainless water tank located roof deck and conveyed to the fixtures by a gravity system. • Water Supply lines shall use Polypropylene random Co-Polymer Type 3 Pipes, gate valves and fittings. • Water tank shall be made of 200mm thick reinforce concrete wall with water proofing and covered of reinforced concrete slab with manhole provision. • Water storage tanks size shall be calculated based on the standards. Storm Drainage System • Complete Storm Drainage System shall be provided for the roof deck, canopies, and balconies, including drains laid for gravity flow connected to a leader/pipeline leading to the natural Ground level storm drainage network. • Provision shall be made for the future installation of rainwater collection systems in compliance with R.A. No. 6716. **Water line System** Provide complete cold water supply pipes to all plumbing fixtures. From the main water source and the water shall be stored in a concrete base tank and shall pumped by electric water pump to the located roof deck and conveyed to the fixtures. **Storm Drainage System** Complete Storm Drainage System shall be provided for the roof deck, canopies, and balconies, including drains laid for gravity flow connected to a leader/pipeline leading to the natural Ground level storm drainage network. Provision shall be made for the future installation of rainwater collection systems in compliance with R.A. No. 6716.	

	Electrical Works Design • The Designer shall prepare a design for the building's electrical and power supply system following the Philippine Electrical Code, Fire Code of the Philippines, and the National Building Code of the Philippines • The Designer shall prepare a design for the electrical and power supply system considering ease of maintenance and preventing illegal connections. • The Designer shall Private Poles and shall be tapped in the existing TIELCO primary line 3 phase 13.kV, 60Hz • Private pole must have a Load Break Switch, Power Fuses, Lighting Arrester, CT's, PT's for metering system with complete pole accessories. • The Main Transformer shall be fed by underground cable via concrete pedestal and duct bank. • The main transformer shall be 250kVA, 3 phase, 13.2kV/400V (wye secondary), 60Hz pad mounted and must be placed inside the Power House • Generating unit, Changeover switch are excluded (by others) see drawings details • Supply and installation of cables and raceway from transformer to changeover switch are included. • The secondary system voltage shall be 3-phase 4 wire, 400V, 60Hz • Neutral Side must be bonded in the grounding system. • The Electrical System must have grounding system with the earth resistance below 5 Ohms • Office room illumination and ventilation shall pass the illumination and ventilation standards/requirements • Provisions for emergency lighting systems **Mechanical Works Design** • The Designer shall prepare a design for the Automatic Fire Sprinkler System, Ventilation, Air Conditioning System and Temperature Monitoring System inside the Server Room in accordance with the National Building Code of the Philippines and its new IRR, Fire Code of the Philippines, and Mechanical Engineering Code of the Philippines (ME Code) and Design Standards of a Data Center. 5.1 Fire Detection • The Fire Detection and Alarm System shall be composed of multiplex, microprocessor-controlled addressable or semi-addressable, zonal conventional fire detection, alarm, and communication systems. • The alarm system shall be on every floor level. • The system shall consist of full integration automatic fire detection, voice alarm	

	communication, and a fire-fighter's telephone system. • The system shall monitor the status of flow switches and supervisory switches installed at the sprinkler system risers. These monitoring points are also addressable or the conventional zone in the same way the detectors make them easily recognizable at the control panel. • Occupant notification shall be accomplished automatically. Notification is a general, audible alarm type complying with the appropriate sectioned NFPA – Standard for Portable Fire Extinguishers (1 unit of portable fire extinguishers per room/office). • The system shall be installed with provisions for future connection to the nearest fire service station in the locality. • Installation of Class III Fire Cabinet and Cistern tank with pump. 5.2 Automatic Fire Sprinkler System • The Fire Sprinkler System for all of the spaces except the Server and Control room shall be Firewater system. • The Fire Sprinkler System for the Server Room and Control Room shall be CO2 fire suppression system. The automatic fire sprinkler system shall be composed of complete plans and drawings of the following: • Site Development Plan and Vicinity Map (e.g., location of the buildings, firewater reserved tank, firewater line, yard loop, and private fire hydrant) • General Notes, Legends, and Symbols including Schematic Diagram of the Fire Sprinkler System and Schematic Diagram of Alarm Monitoring System. • Floor Layout and Isometric Layout of the Automatic Fire Sprinkler System (e.g., pipe sizes, location of the pipes, valves, sprinkler heads, riser nipples, fire hose cabinets, main sprinkler riser, drainpipes, cross mains, branch lines, inspector's test connections, hangers, and sway braces) • Equipment Schedule • Detail drawings (Architectural, Structural, Electrical, and Plumbing drawings of the Firewater Tank and Pump House) o An automatic fire sprinkler shall be provided. o Hazard Classification shall be Light Hazard Occupancy. o The protection area per sprinkler head shall be 20 square meters at 2.2 meters minimum distance between sprinklers and 4.2 meters maximum spacing. o All floor control valves shall be equipped with a supervisory switch, water flow detector, and	

	drain system. o Minimum number of fire pump and jockey pump must be 2. o Provide sequence of operation for FP1 and FP2. o Show the location of fire pump and jockey pump control panel at fire pump room. o Fire pump with concrete accessories. (Vertical turbine for negative suction or horizontal split-case for positive suction.) o Controller shall monitor pump running, loss of phase or line power, low reservoir, level alarms shall be individually displayed in front of panel by lighting of visual lamps. o Jockey pump with complete accessories. (Submersible jockey pump for negative suction of vertical multi-stage pump for positive suction.) o Firewater reserve tanks shall be ground-level monolithic concrete tank size for a minimum of 1 hour. o Hydraulic calculations report shall be based on NFPA-13 format. 5.3 Ventilation and Air Conditioning System • The ventilation and air conditioning system shall be composed of complete plans and drawings of the following: • General Notes, Legends, and Symbols including Schematic Diagram of the Ventilation and Air Conditioning System. • The floor layout of the ventilation and air-conditioning system indicates the capacity and location of the air conditioners and fans. • Refrigerant piping layout (e.g., pipe sizes, location of valves, hangers, and sway braces) • Equipment Schedule and Details drawings of Air conditioners and Ventilating Systems. • Cooling Load Calculations report shall be a manual or computer-generated, hourly analysis program that includes heat transmission coefficients, solar heat gain factors, and corrected cooling load temperature different calculations. • Split-type air conditioners shall be used in areas with exterior wall exposures. • Ceiling cassette-type exhaust fans with integral air diffusers shall be provided in all toilets. • Air conditioning systems shall be Inverter Type Spit-Type in the offices spaces. • VRF Systems should use R-410A refrigerant or any approved equal as the heat transfer fluid and the working fluid to achieve minimum energy efficiency ratio (EER) of 13. **Network and Communication Works Design Parameters**	

	The Designer shall design the entire building's network cabling system, FDAS, and CCTV system. The design shall be composed of complete plans and drawings like • General Notes, Legends, and Symbols, including Schematic Diagrams. • Floor Layout of the System indicating the capacity and location.	

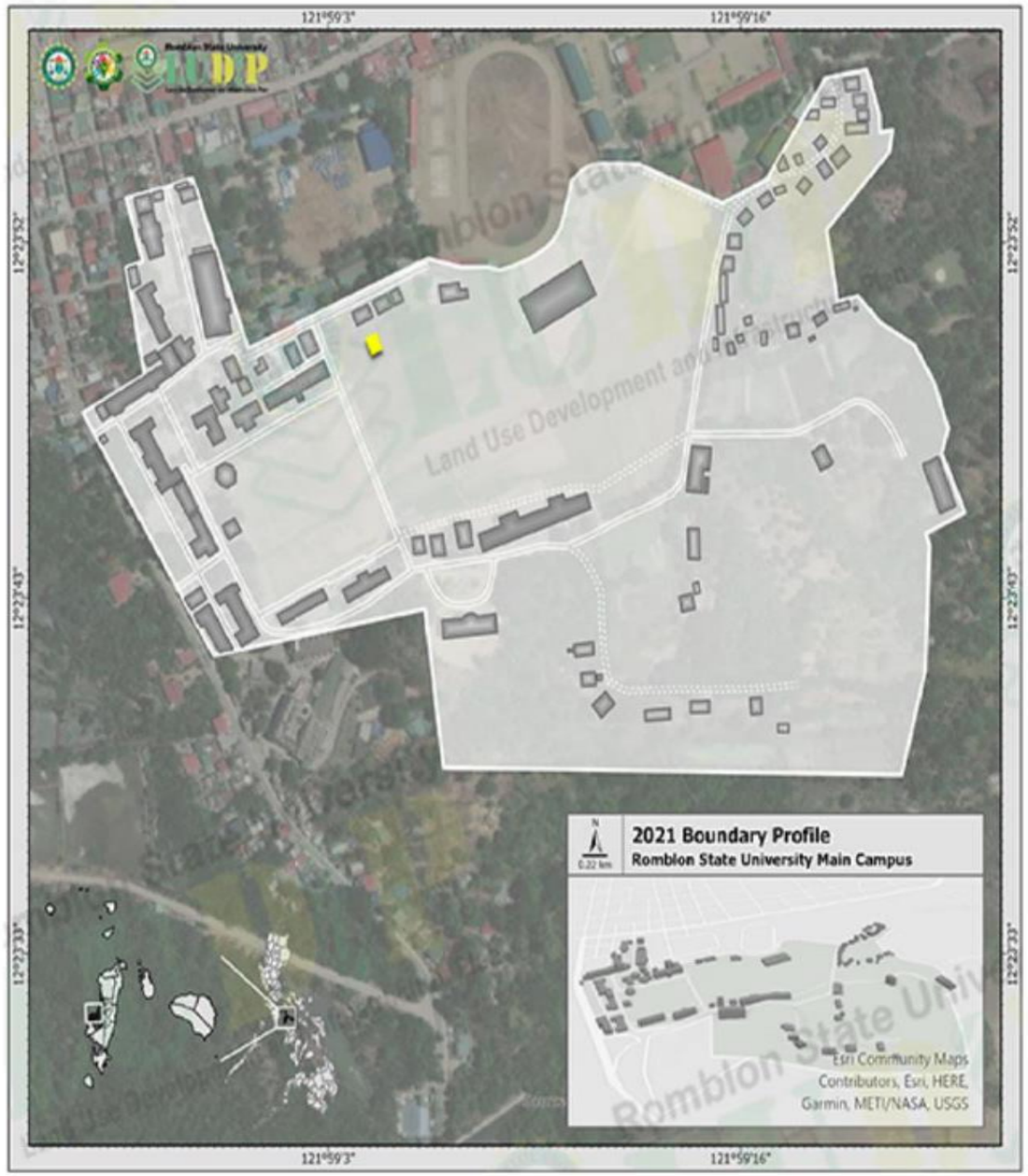
Item No.	Description	QTY	FLOOR AREA (sqm)	TOTAL FLOOR AREA (sqm)	STATEMENT OF COMPLIANCE
Ground Floor Level					
1	PWD Ramp	1	19.5	19.5	
2	Entrance Walk	1	17.375	17.375	
3	Lobby	1	35.55	35.55	
4	Receptionist	1	25.075	25.075	
5	Public Common Toilet Room	1	3.6432	3.6432	
6	Pantry	1	12.10618	12.10618	
7	Staff Common Toilet Room	1	5.02205	5.02205	
8	Network Operation Center with Main Staircase	1	27.85	27.85	
9	Void (under the Emergency Exit Stairs)	1	13.40388	13.40388	
Second Floor Level					
10	Working Station	1	52.10163		
11	Control Room	1	19.325		
12	Server Room	1	41.76563		

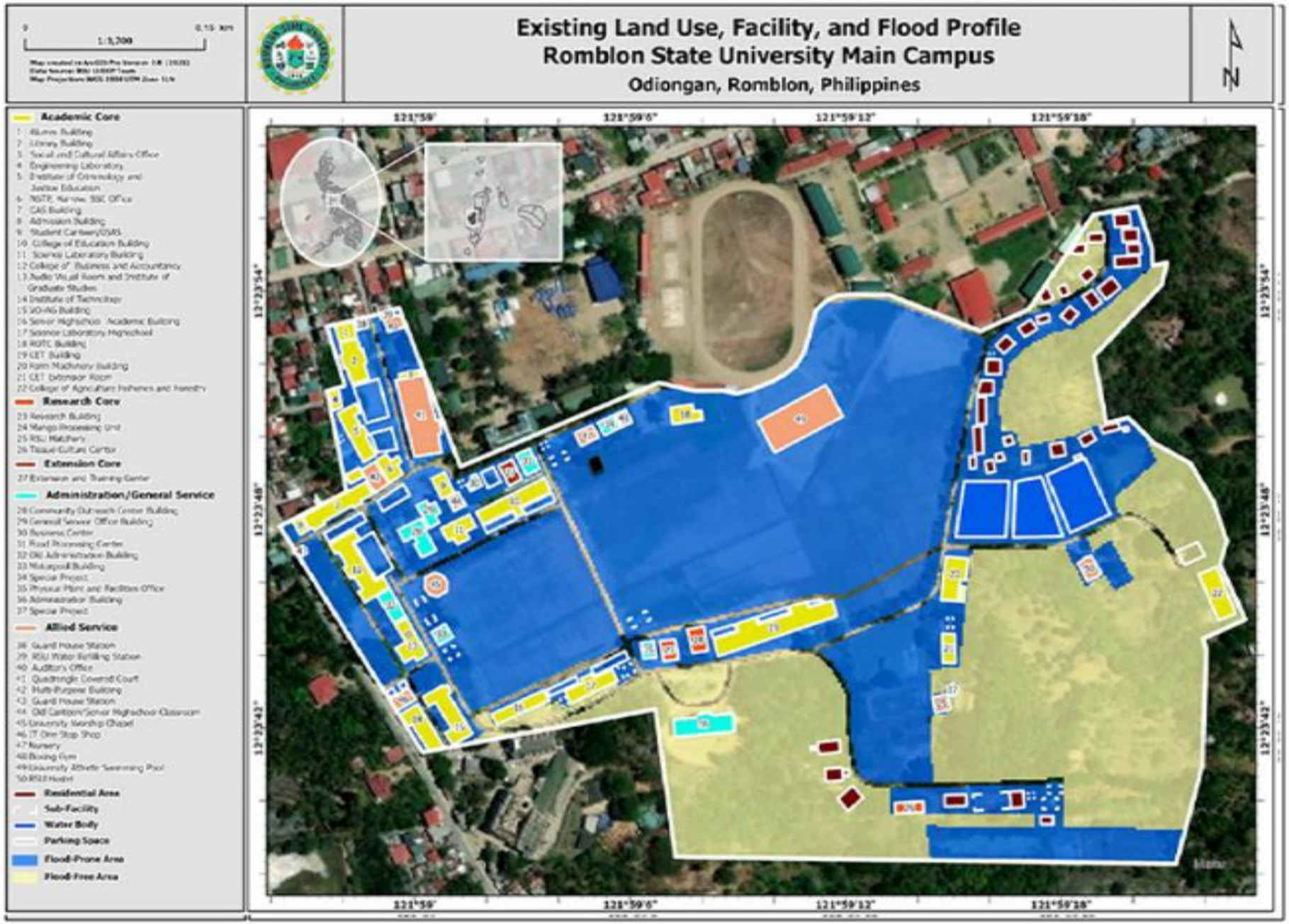
13	Emergency Exit Stairs	1	13.40388	52.10163	
Separated Powerhouse					
14	Powerhouse	1	36	13.40388	

Section VII. Drawings

A. BOUNDARY PROFILE

PROPOSED SITE





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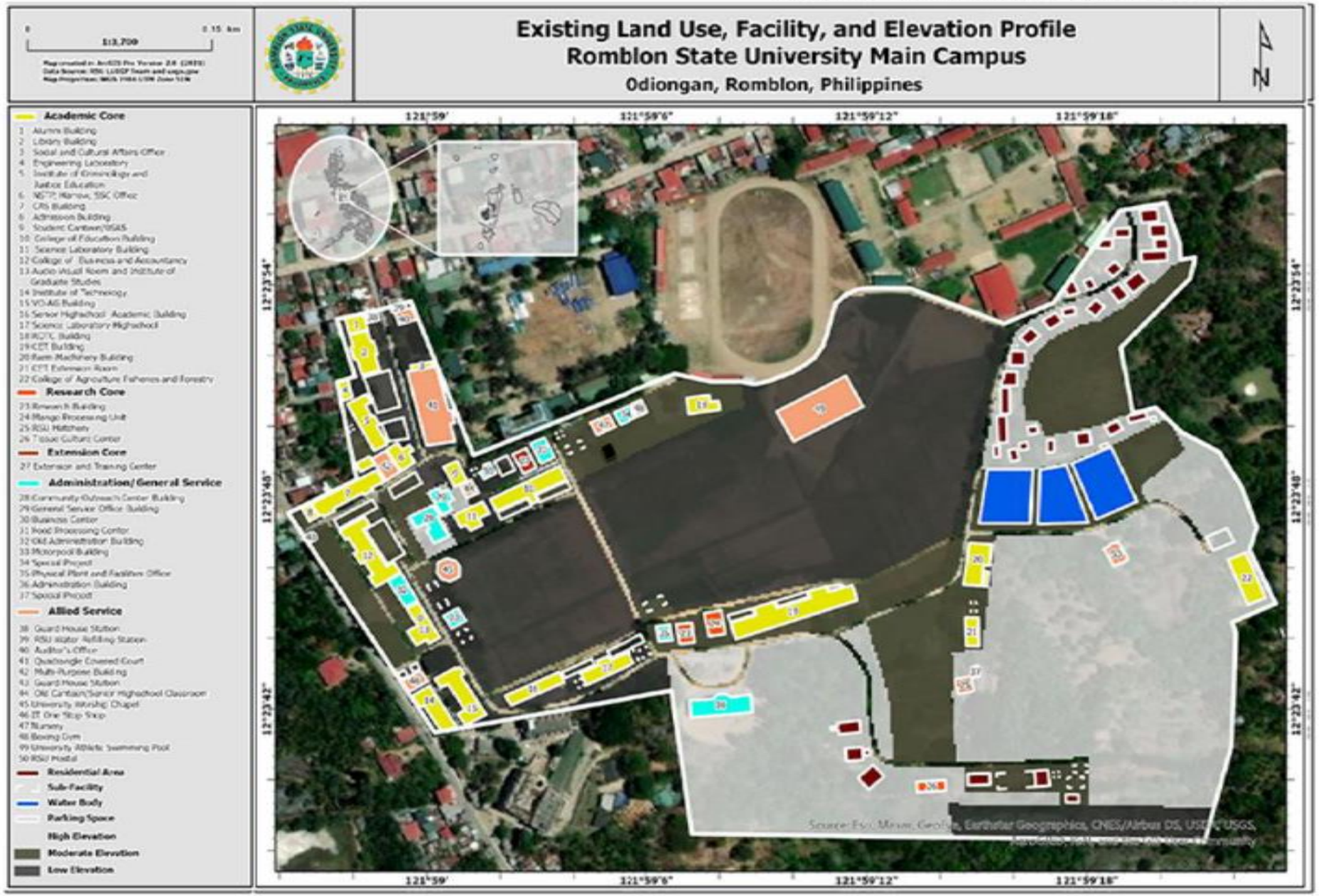
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Existing Land Use, Facility, and Elevation Profile
Romblon State University Main Campus
Odiongan, Romblon, Philippines
A2
Academic Core
1 Alumni Building
2 Library Building
3 Social and Cultural Affairs Office
4 Engineering Laboratory
5 Institute of Criminology and Justice Education
6 NSTP, Marove, SSC Office
7 CAS Building
8 Admission Building
9 Student Canteen/OSAS
10 College of Education Building
11 Science Laboratory Building
12 College of Business and Accountancy
13 Audio-Visual Room and Institute of Graduate Studies
14 Institute of Technology
15 VO-AG Building
16 Senior Highschool - Academic Building
17 Science Laboratory Highschool
18 ROTC Building
19 CET Building
20 Farm Machinery Building
21 CFT Extension Room
22 College of Agriculture, Fisheries and Forestry
Research Core
23 Research Building
24 Mango Processing Unit
25 RSU Hatchery
26 Tissue Culture Center
Extension Core
27 Extension and Training Center
Administration/ General Service
28 Community Outreach Center Building
29 General Service Office Building
30 Business Center
31 Food Processing Center
32 Old Administration Building
33 Motorpool Building
34 Special Project
35 Physical Plant and Facilities Office
36 Administration Building
37 Special Project
Allied Service
38 Guard House Station
39 RSU Water Refilling Station
40 Auditor's Office
41 Quadrangle Covered Court
42 Multi-Purpose Building
43 Guard House Station
44 Old Canteen/Senior Highschool Classroom
45 University Worship Chapel
46 IT One Stop Shop
47 Nursery
48 Boxing Gym
49 University Athletic Swimming Pool
50 RSU Postal
Residential Area
Sub-Facility
Water Body
Parking Space
High Elevation
Moderate Elevation
Low Elevation
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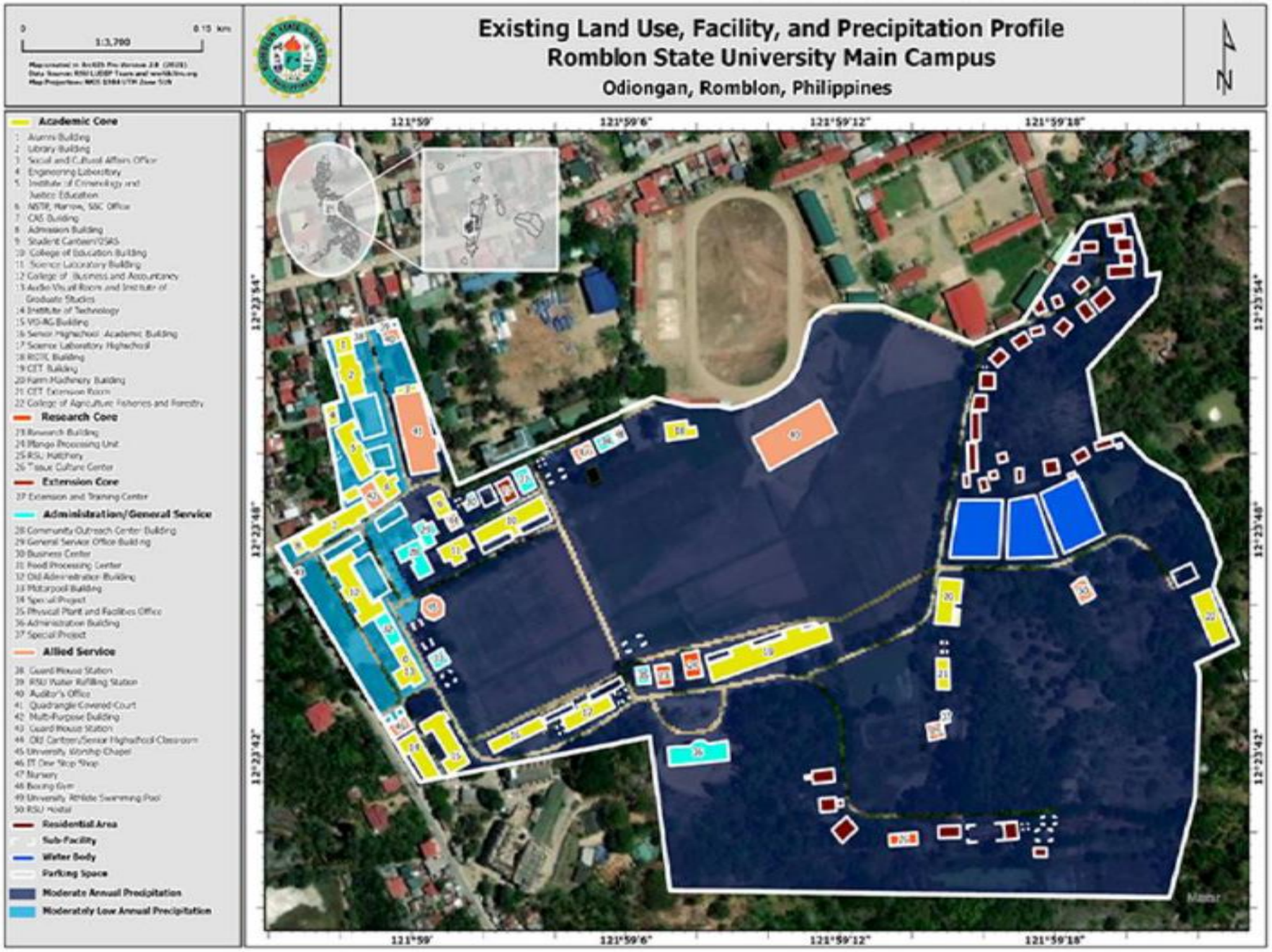
12°23'42"
PROPOSED SITE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Odiongan, Romblon, Philippines
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48 Boxing Gym
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Residential Area
Sub-Facility
Water Body
Parking Space
Moderate Annual Precipitation
Moderately Low Annual Precipitation
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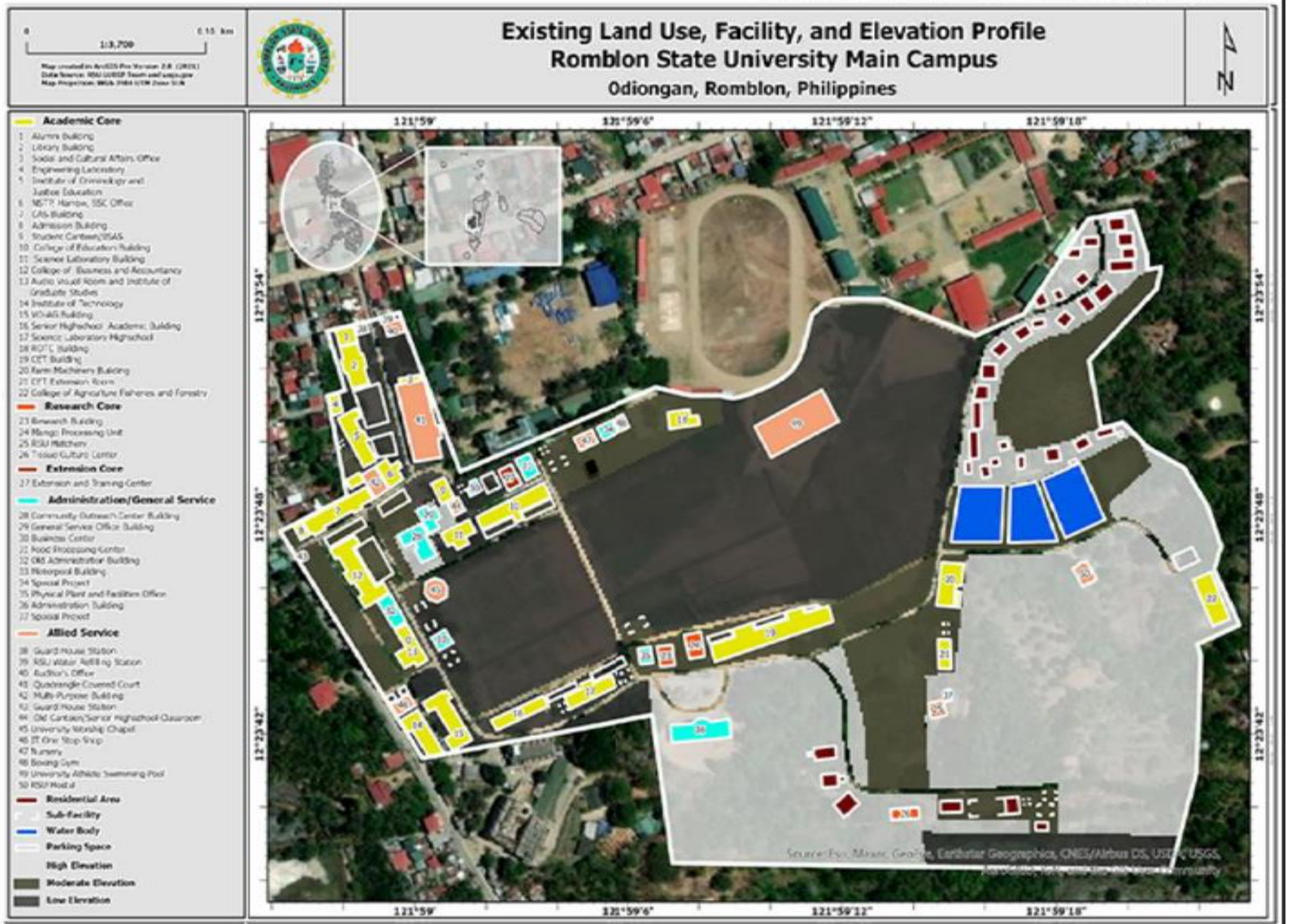

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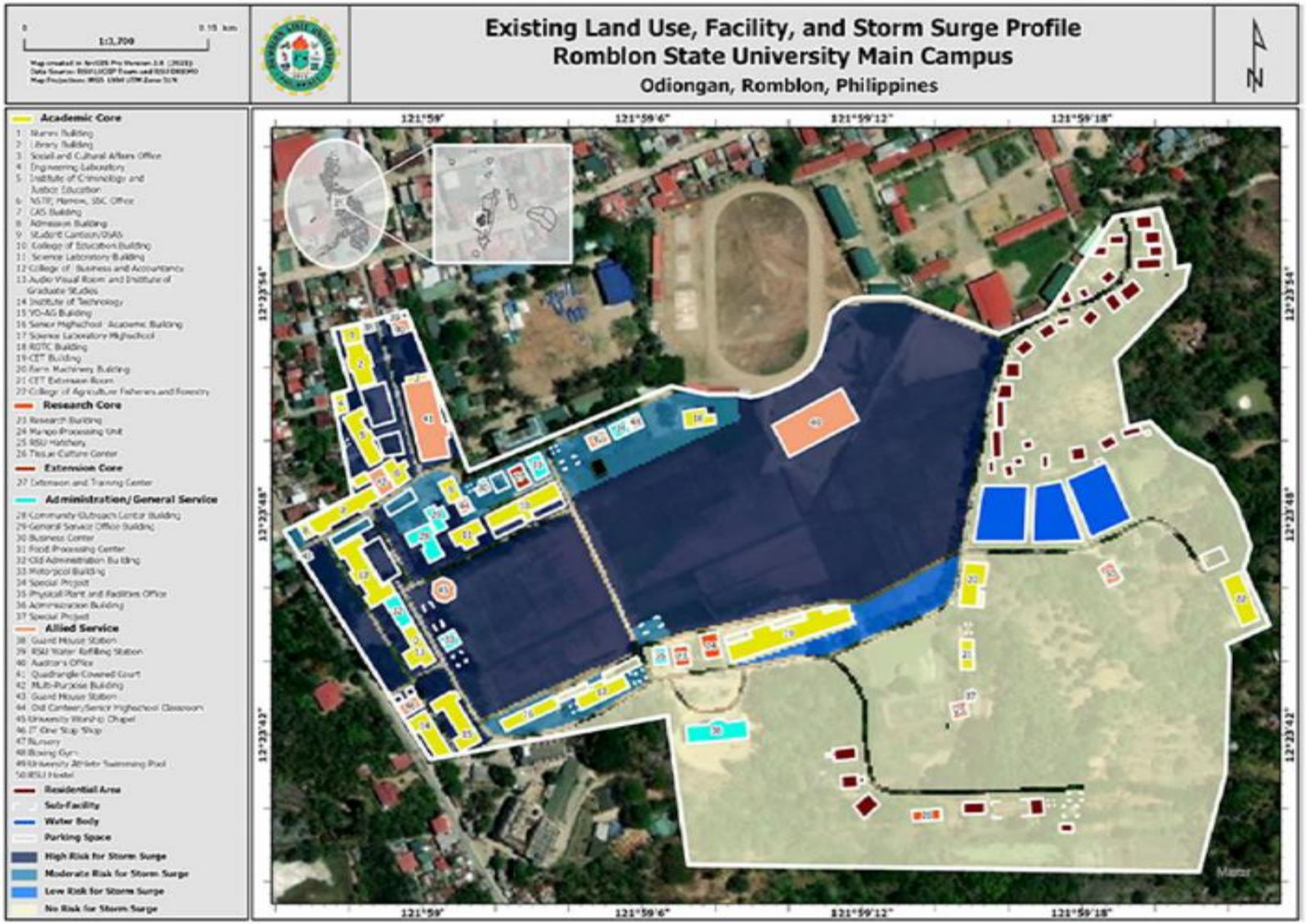

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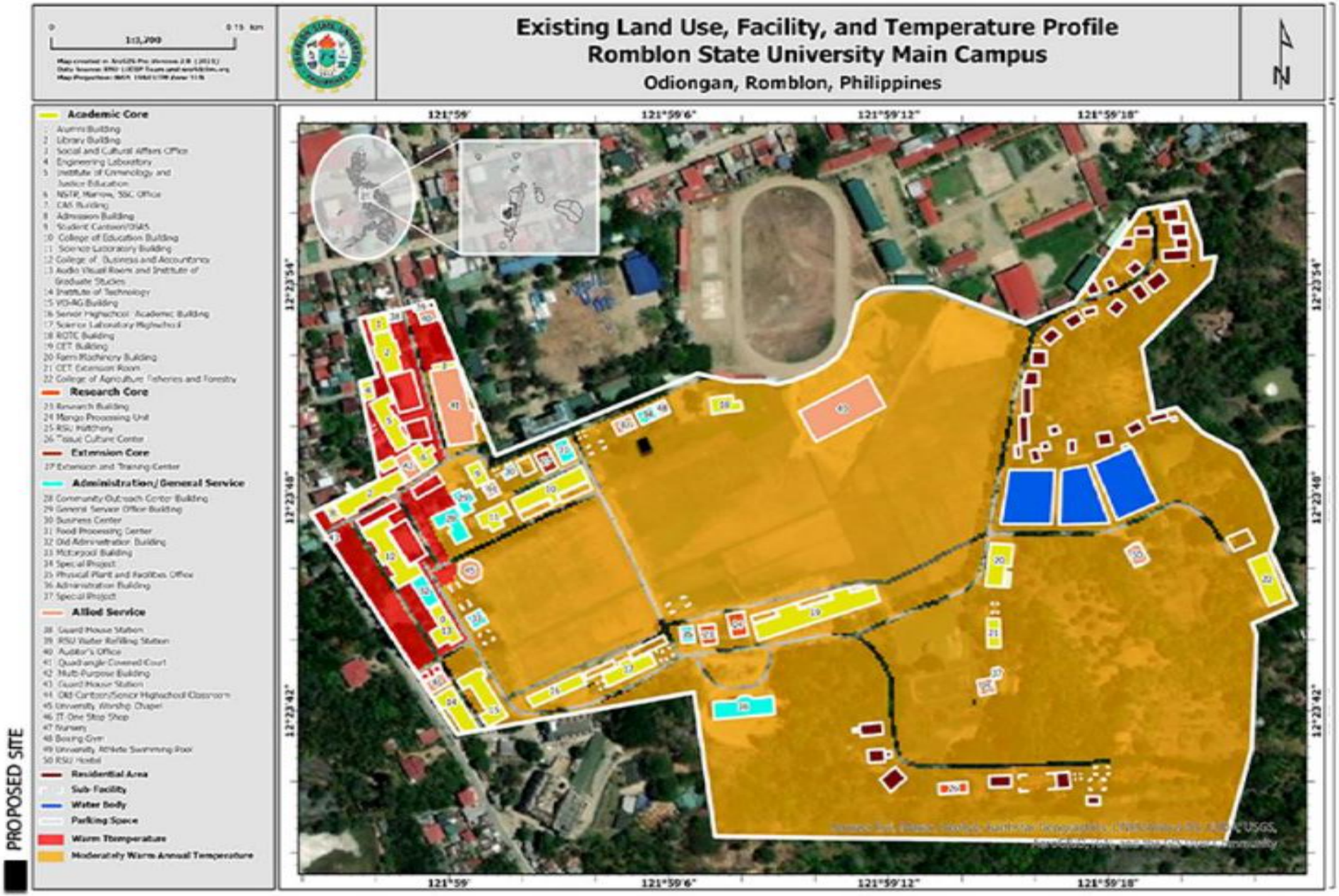
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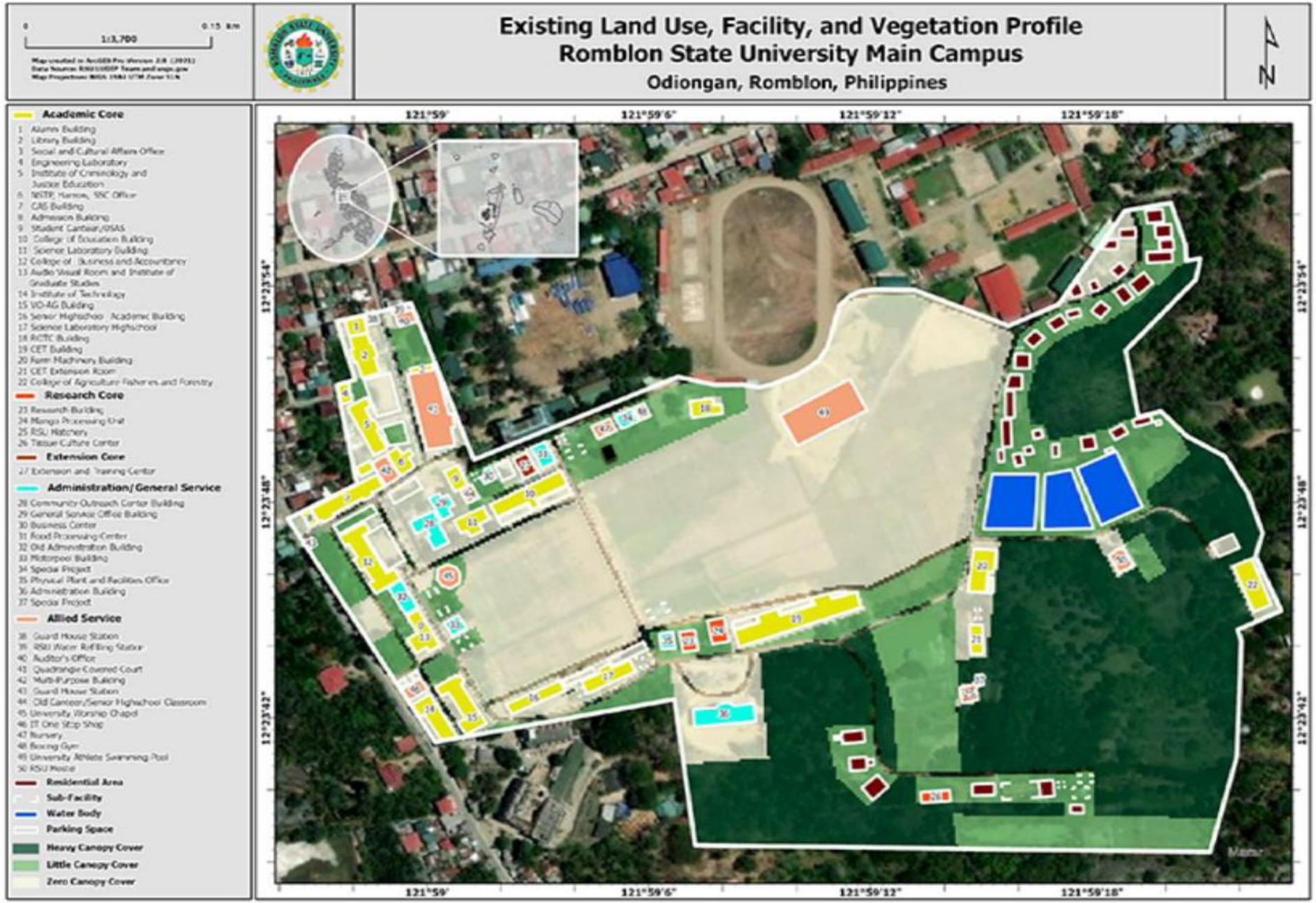
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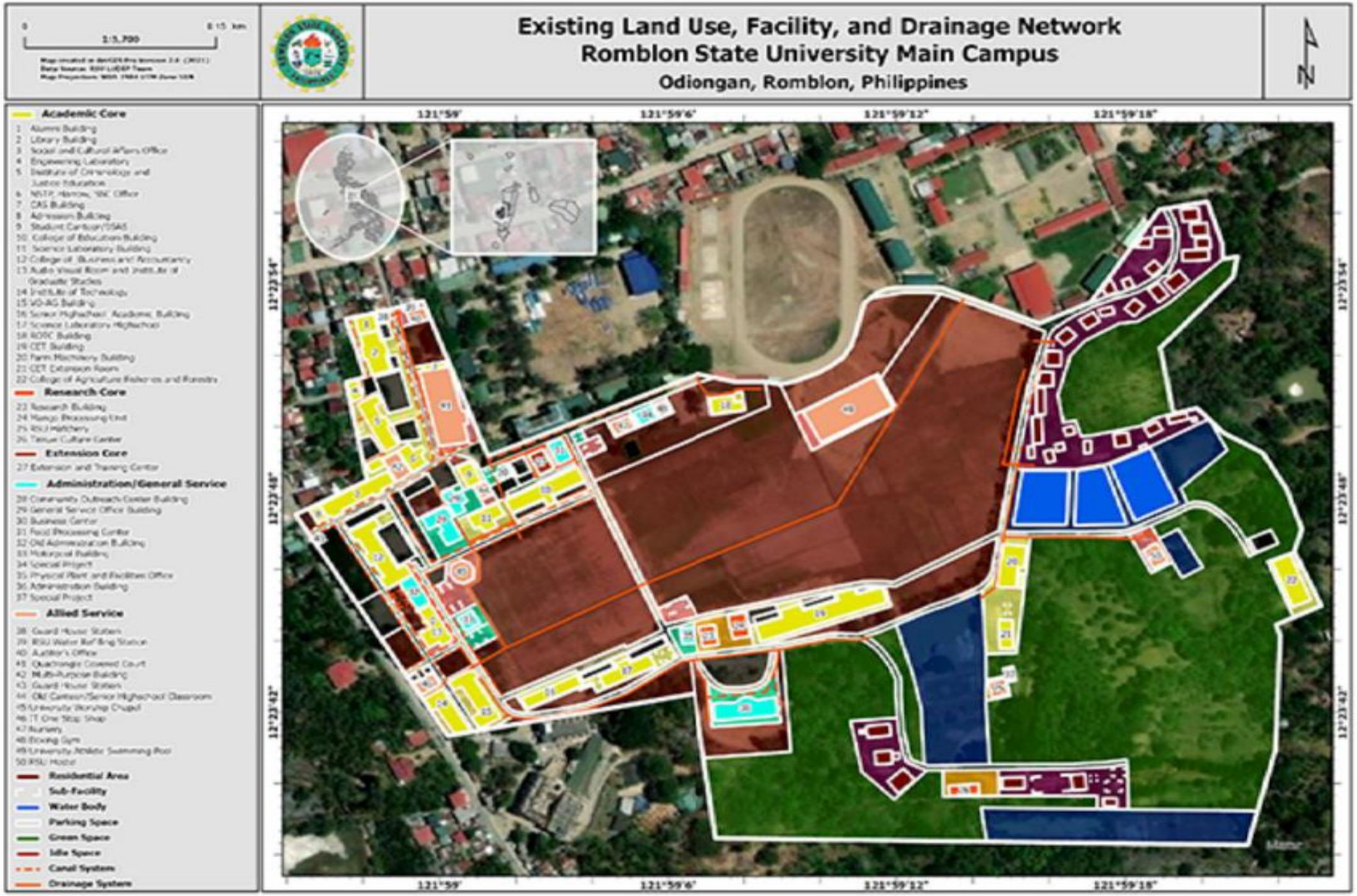
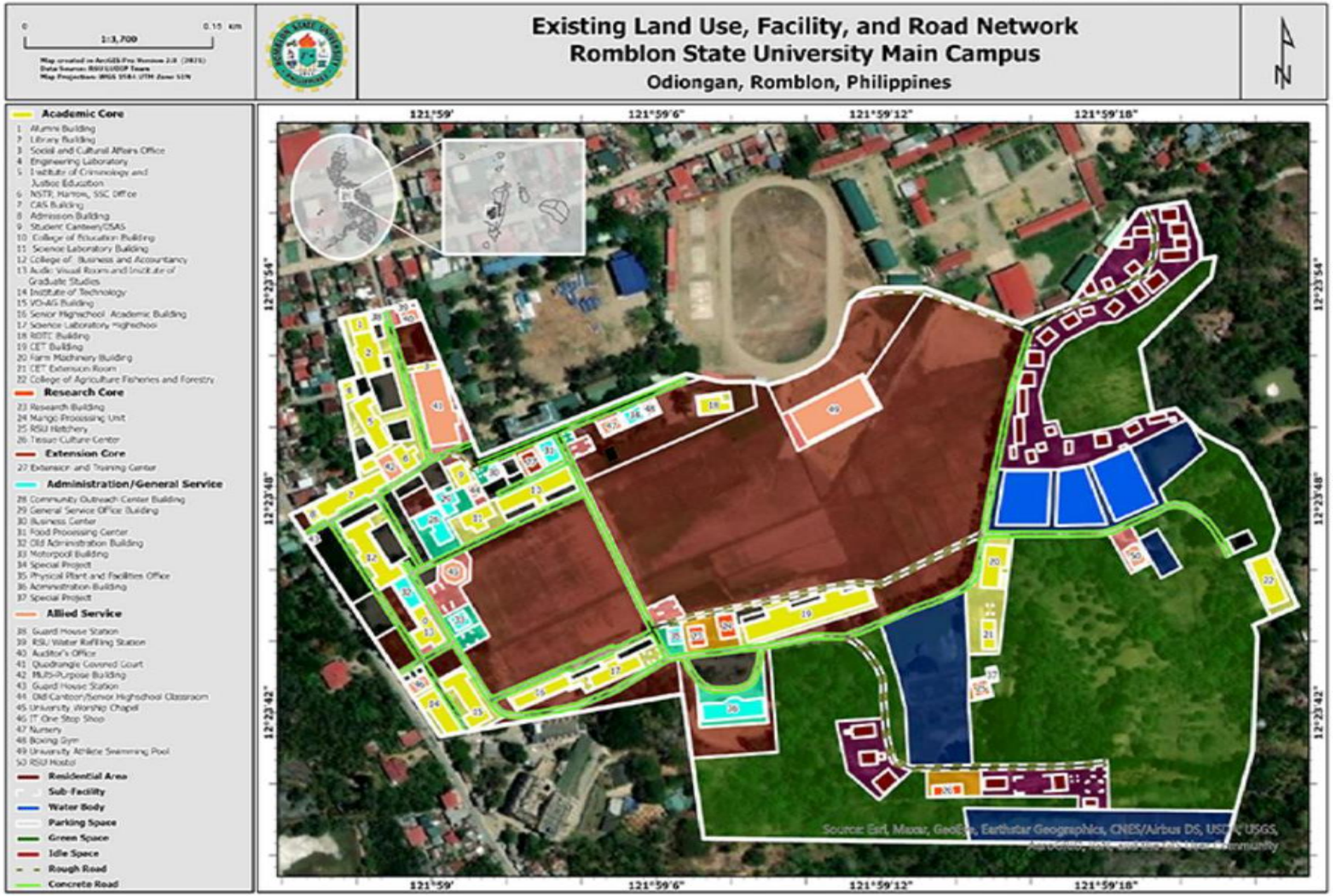
47 Nursery
48 Boxing Gym
49 University Athlete Swimming Pool
50 RSU Hostel
Residential Area
Sub-Facility
Water Body
Parking Space
Heavy Canopy Cover
Little Canopy Cover
Zero Canopy Cover
PROPOSED SITE
121°59'
121°59'6"
121°59'12"
121°59'18"
12°23'54"
12°23'48"
12°23'42"

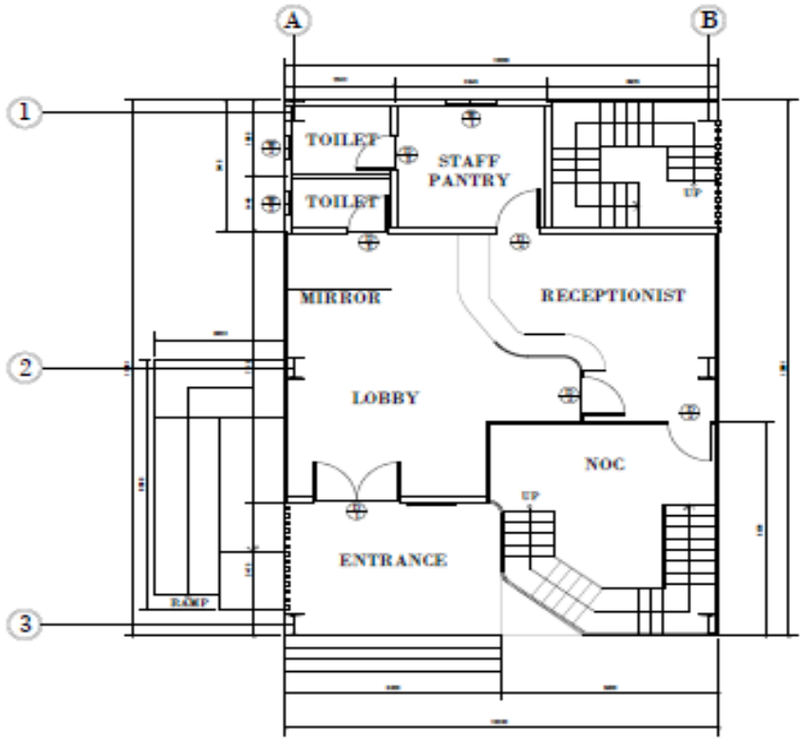
ANNEX F - UTILITY LOCATION



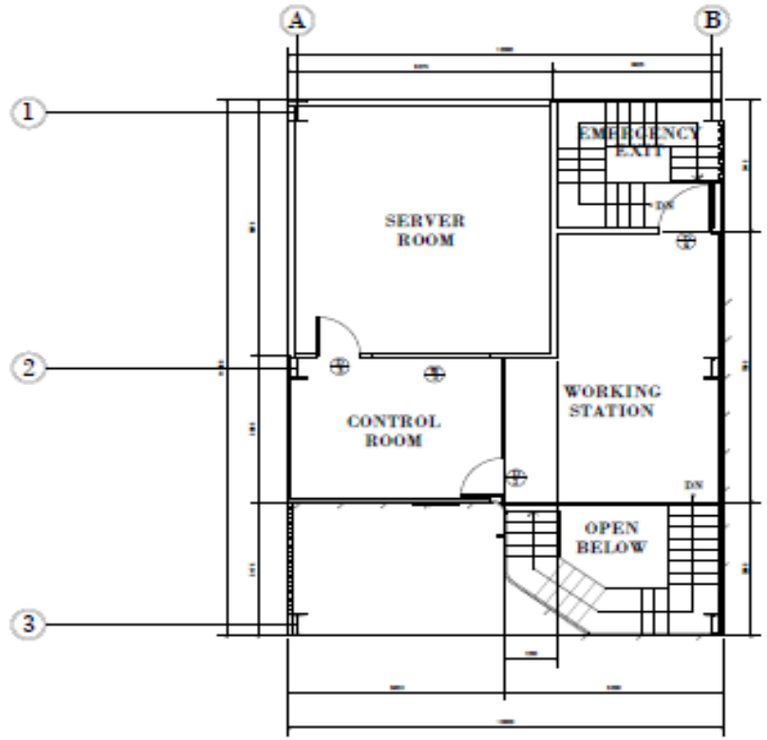
ANNEX F - UTILITY LOCATION


0
0.15 km
1:3,700
Existing Land Use, Facility, and Road Network
Romblon State University Main Campus
Odiongan, Romblon, Philippines
N
Academic Core
1 Alumni Building
2 Library Building
3 Social and Cultural Affairs Office
4 Engineering Laboratory
5 Institute of Criminology and Justice Education
6 NSTP, Marines, SSC Office
7 CAS Building
8 Admission Building
9 Student Canteen/OSAS
10 College of Education Building
11 Science Laboratory Building
12 College of Business and Accountancy
13 Audio Visual Room and Institute of Graduate Studies
14 Institute of Technology
15 VCHAS Building
16 Senior Highschool Academic Building
17 Science Laboratory Highschool
18 ROTC Building
19 CET Building
20 Farm Machinery Building
21 CET Extension Room
22 College of Agriculture Fisheries and Forestry
Research Core
23 Research Building
24 Mango Processing Unit
25 RSU Hatchery
26 Tissue Culture Center
Extension Core
27 Extension and Training Center
Administration/General Service
28 Community Outreach Center Building
29 General Service Office Building
30 Business Center
31 Food Processing Center
32 Old Administration Building
33 Motorpool Building
34 Special Project
35 Physical Plant and Facilities Office
36 Administration Building
37 Special Project
Allied Service
38 Guard House Station
39 RSU Water Refilling Station
40 Auditor's Office
41 Quadrangle Covered Court
42 Multi-Purpose Building
43 Guard House Station
44 Old Canteen/Senior Highschool Classroom
45 University Worship Chapel
46 IT One Stop Shop
47 Nursery
48 Boxing Gym
49 University Athlete Swimming Pool
50 RSU Hostel
Residential Area
Sub-Facility
Water Body
Parking Space
Green Space
Idle Space
Rough Road
Concrete Road
PROPOSED SITE
121°59'
121°59'6"
121°59'12"
121°59'18"
12°23'54"
12°23'48"
12°23'42"
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,

ANNEX F - UTILITY LOCATION

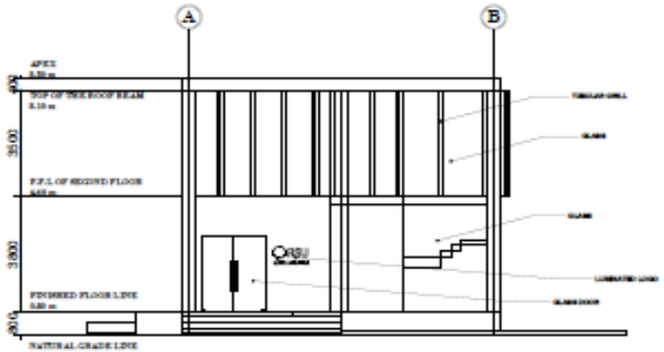


A1 GROUND FLOOR PLAN
SCALE: NTS

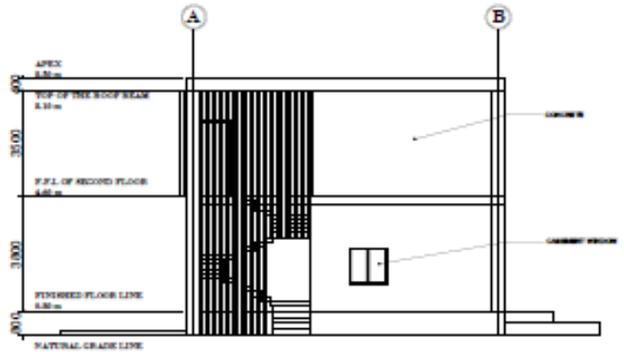


A2 SECOND FLOOR PLAN
SCALE: NTS

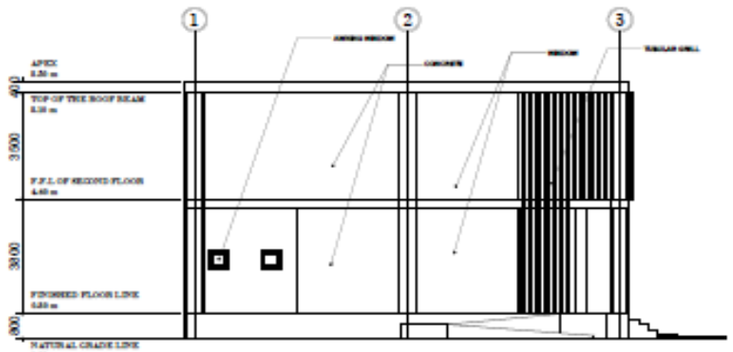
ROMBLON STATE UNIVERSITY Physical Plant and Facilities Office	CIVIL ENGINEER: [illegible]	CHECKED BY: Engr. Jason F. Rufon	PROJECT TITLE: PROPOSED DATA CENTER	SHEET CONTENT: AS SHOWN	SHEET NO: A1
	PRC REG No: [illegible] Validity:	APPROVED BY: MERIAN P. CATAJAY-MANI Ed. D., CESE	LOCATION: MAIN CAMPUS – LUWANAG, ODIONGAN, ROMBLON	DRAWN BY: HANNAH MORTA	
	PTR No: Date:				
	Place Issued: TIN No:				



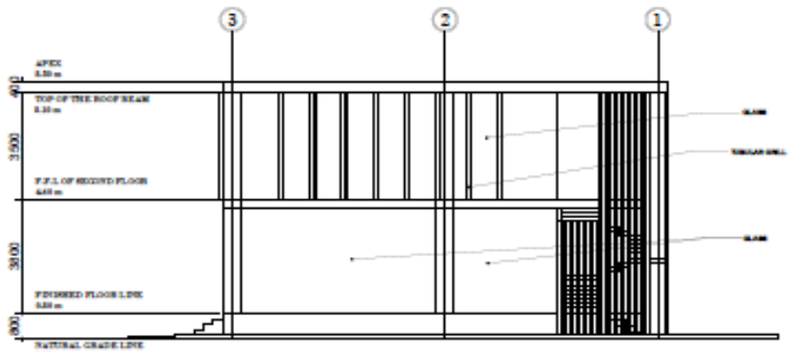
A/1 FRONT ELEVATION
SCALE: NTS



A/2 REAR ELEVATION
SCALE: NTS

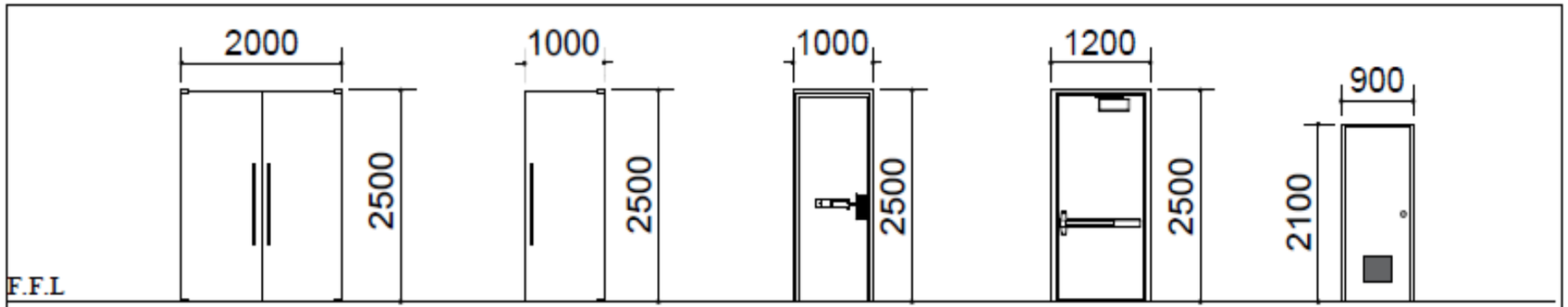


A/3 LEFT ELEVATION
SCALE: NTS



A/4 RIGHT ELEVATION
SCALE: NTS

ROMBLON STATE UNIVERSITY Physical Plant and Facilities Office	CIVIL ENGINEER: [illegible]	CHECKED BY: Engr. Jason F. Rufon	PROJECT TITLE: PROPOSED DATA CENTER	SHEET CONTENT: AS SHOWN	SHEET NO: A2
	PRC REG No: [illegible] Validity:	APPROVED BY: MERIAN P. CATAJAY-MANI Ed. D., CESE	LOCATION: MAIN CAMPUS – LIWANAG, ODIONGAN, ROMBLON	DRAWN BY: HANNAH MORTA	
	PTR No: [illegible] Date:				
	Place Issued: [illegible] OR No:				



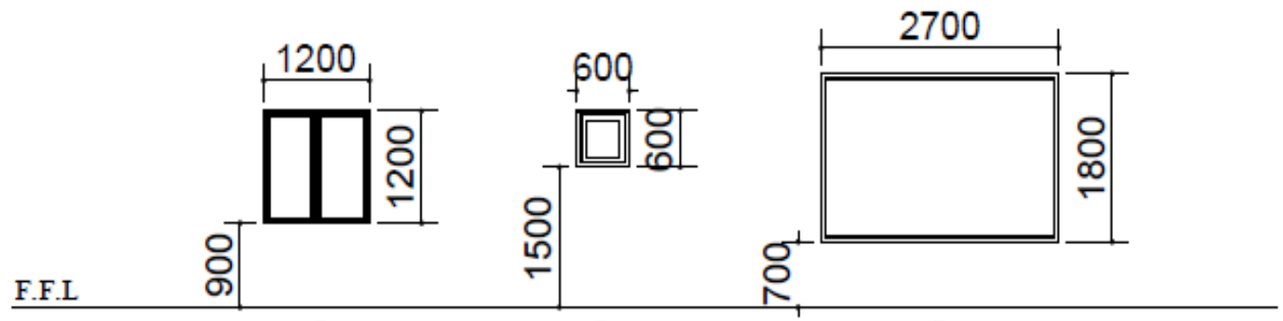
D1 GLASS DOUBLE PANEL DOOR (2.0 X 2.5)

D2 GLASS SINGLE PANEL DOOR (1.0 X 2.5)

D3 METAL SINGLE PANEL DOOR (1.0 X 2.5)

D4 METAL SINGLE PANEL DOOR (1.2 X 2.5)

D5 POLY DOOR (0.9 X 2.1)



W1 CASEMENT TYPE GLASS WINDOW (1.2 X 1.2)

W2 AWNING TYPE WINDOW (0.6 X 0.6)

W3 FIXED TYPE WINDOW (2.7 X 1.8)

A1 SCHEDULE OF DOORS AND WINDOWS
SCALE: NTS

ROMBLON STATE UNIVERSITY Physical Plant and Facilities Office	CIVIL ENGINEER	CHECKED BY: Engr. Jason F. Rufon	PROJECT TITLE: PROPOSED DATA CENTER	SHEET CONTENT: AS SHOWN	SHEET NO: A3
		APPROVED BY: MERIAN P. CATAJAY-MANI Ed. D., CESE	LOCATION: MAIN CAMPUS– LIWANAG, CONGNAN, ROMBLON	DRAWN BY: HANNAH MORTA	

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.

BILL OF QUANTITIES

Project Title: Design and Build Scheme Infrastructure Project for the Proposed Construction of Two-Storey Data Center of Romblon State University-Main Campus (ABC: PhP15,000,000.00, QTY: 1 lot)
Location: RSU, Main Campus
Duration: **104** Calendar Days

LOCATION: RSU,Main Campus Unit Cost _____

Item No:	Description	No. Qty.	Unit	Unit Cost	Amount (Php.)	Total
I.	**General Requirements**	**1**	**lot**			
	a. Mobilization/Demobilization					
	b. Soil Analysis and Design Analysis					
	c. Preparation of Complete set of Proposed Plans with Sign and Seal of Professionals					
	d. Preparation of Complete set of As-Built Plans with Sign and Seal of Professionals					
	e. Permits (Building Permit, Occupancy Permit and Other necessary permits and Clearances)					
	f. Safety and Health Requirements (Safety Officer, Safety and Health Program, PPE etc.)					
	g. Temporary Facilities and Site Utilities (Water, electricity, Telephone etc)					
	h. Material Testing					
	i. Bond and Insurances					
	j. Project Bill Board					
II.	**Site Development and Earthworks**	**1**	**lot**			
	a. Excavation Works					
	b .Backfilling & Compaction					
	c .Gravel Bedding					
	d . Earthfill for design elevation					
	e. Termite Poisoning					
	f. Concreting of Access Roads, Parking Area, Catch Basin and Drainage canal, and Stone Masonry Embankment Protection					
III.	**Structural Works**	**1**	**lot**			
	a. Footing (column footing, tie beam and wall footing)					

	b. Composite Columns					
	c. Stairs					
	d. Composite Beams and Girders					
	e. Slab on Grade and Suspended Slabs with Water Profing (using Steel decking)					
	f. Reinforced Concrete Cistern and Septic tank with Water Proofing					
	g. RC wall					
IV.	**Masonry and Plastering Works**	**1**	**lot**			
	a. CHB Wall					
	b. Plastering (interior and exterior)					
V.	**Tile Works**	**1**	**lot**			
VI.	**Ceiling Works**	**1**	**lot**			
VII.	**Carpentry Works**	**1**	**lot**			
	a. Reception Desk in Laminate Finish					
	b. Office Tables in Laminate Finish					
	c. Cabinets in Laminate Finish					
	d. Wood Seamless Door					
VIII.	**Plumbing/Sanitary Works**	**1**	**lot**			
IX.	**Mechanical Works and Fire Protection System (Automatic Fire Sprinkling System, Emergency Lights & Signages, Fire Extinguishers, fire exit doors, etc) and CCTV with complete harwares and accessories including Testing and Commissioning**	**1**	**lot**			
X.	**Electrical Works including Testing and Commissioning**	**1**	**lot**			
XI.	**Stainless Steel and G.I Railing Works**	**1**	**lot**			
XII.	**Water Proofing**	**1**	**lot**			
XIII.	**Painting Works**	**1**	**lot**			
XIV.	**Glass Works**	**1**	**lot**			
XV.	**Forms and Scaffolding Works**	**1**	**lot**			

Note: For further informations of Project requirements see Terms of Reference

_____

Name and Signature of the Bidder/Authorized Representative

_____

Name of the Company

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) in accordance with Section 8.5.2 of the IRR;

Technical Documents

☐ (b) 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**

☐ (c) 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**

☐ (d) Special PCAB License in case of Joint Ventures;
and registration for the type and cost of the contract to be bid; **and**

☐ (e) 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**

(f) 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**

☐ (g) 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

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

Class "B" Documents

☐ (i) 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

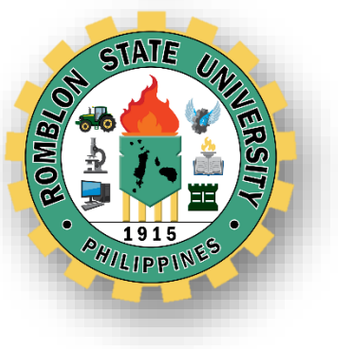
☐ (j) Original of duly signed and accomplished Financial Bid Form; **and**

Other documentary requirements under RA No. 9184

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

☐ (l) 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**

☐ (m) Cash Flow by Quarter.


ROMBLON STATE UNIVERSITY
1915
PHILIPPINES