Republic of the Philippines
DEPARTMENT OF HEALTH
PHILIPPINE CHILDREN'S MEDICAL CENTER
Bids and Awards Committee
Quezon Avenue, Quezon City 1100
website: www.pcmc.gov.ph email: pcmcbac@gmail.com
Trunkline: 8588-9900 local 361/355 Telefax No.: 8924-0870

SECTION I

Invitation to Bid

One (1) Lot Design and Build of PCMC's New Powerhouse

IB-2021-042

Republic of the Philippines
DEPARTMENT OF HEALTH
PHILIPPINE CHILDREN'S MEDICAL CENTER
Quezon Avenue, Quezon City 1100
website: www.pcmc.gov.ph email: officeofthedirector@pcmc.gov.ph
Trunkline: 588-9900 DirectLine: 924-0836 Fax No: 924-0840

INVITATION TO BID

1. The **Philippine Children's Medical Center (PCMC)** through the **GAA (DOH HFEP 2018)** intends to apply the sum of **Thirty-Two Million Pesos (Php 32,000,000.00)** being the Approved Budget for the Contract (ABC) to payments under the following Invitation to Bid. Bids received in excess of the ABC shall be automatically rejected at bid opening.

IB NUMBER	QTY	UNIT	ITEM DESCRIPTION	*APPROVED* BUDGET FOR THE CONTRACT	COST OF BIDDING DOCUMENTS
IB-2021-042	1	lot	Design and Build of PCMC's New Powerhouse	32,000,000.00	25,000.00

2. The **Philippine Children's Medical Center (PCMC)** now invites bids for the above Procurement Project. Completion of the Works is required in Six (6) months. 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 a non-discretionary "*pass/fail*" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) 9184.

4. Interested bidders may obtain further information from PCMC and inspect the Bidding Documents at the address given below during office hours (Mondays thru Fridays from 8AM to 5PM).

5. A complete set of Bidding Documents may be acquired by interested Bidders on **February 2, 2021** from given address and website below and upon payment of the applicable fee stated above. The Procuring Entity shall allow the bidder to present its proof of payment for the fees by presenting the Official Receipt.

6. The Philippine Children's Medical Center will hold a Pre-Bid Conference on **February 24, 2021** at 2:00 P.M. through video conferencing via *google meet* which shall be open to prospective bidders.

7. Bids must be duly received by the BAC Secretariat through manual submission on or before **March 8, 2021, 1:30 P.M., Guard-on-Duty, 3rd Floor, Procurement Division Area, PCMC Main Building.** Late bids shall not be accepted.

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

9. Bid opening shall be on **March 8, 2021, 2:00 P.M. 3rd Floor, Function Hall, PCMC Main Building**. Bids will be opened in the presence of the Bidders' representatives who choose to attend the activity. In compliance to social distancing and to support the government's effort to mitigate, if not contain the transmission of COVID-19, we will strictly allow only one authorized representative per bidder company to enter the venue during opening of bids. Provided further, that said authorized representative shall wear PPE and shall pass the triage areas as required prior entering PCMC Premises.

10. The **Philippine Children's Medical Center (PCMC)** 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 IRR of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.

11. For further information, please refer to:

PCMC BAC Secretariat
3rd Floor, Procurement Division
PCMC Main Building
Quezon Avenue, cor. Agham Road Quezon City
Trunkline : 8588-9900 Loc 361 / 355
Fax Number: 924-0870
Email : pcmcbac@gmail.com

12. You may visit the following websites:

For downloading of Bidding Document : www.pcmc.gov.ph
www.philgeps.gov.ph

February 01, 2021

MARIA ROSARIO S. CRUZ, MD
Chairman, Bids & Awards Committee

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SECTION II

Instructions to Bidders

One (1) Lot Design and Build of PCMC's New Powerhouse

IB-2021-042

1. Scope of Bid

The Procuring Entity, **Philippine Children's Medical Center (PCMC)** invites Bids for the **One (1) Lot Design and Build of PCMC's New Powerhouse**, with Project Identification Number **IB-2021-042**.

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 ***DOH HFEP 2018*** in the amount of ***Thirty-Two Million Pesos (Php32,000,000.00)***.

2.2. The source of funding is:

a. GOCC and GFIs, the Corporate Operating Budget.

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

8. Pre-Bid Conference

The Philippine Children's Medical Center will hold a Pre-Bid Conference on **February 24, 2021 at 2:00 P.M.** through video conferencing via google meet which shall be open to prospective bidders, as indicated in paragraph 6 of the **IB.**

9. Clarification and Amendment of Bidding Documents

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

10. Documents Comprising the Bid: Eligibility and Technical Components

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

10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must

be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.

10.3. A valid PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.

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

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

11. Documents Comprising the Bid: Financial Component

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

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

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

12. Alternative Bids

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

13. Bid Prices

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

14. Bid and Payment Currencies

14.1. Bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid

evaluation, Bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.

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 ***120 calendar days.*** 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

Use of indelible ink color blue shall be used by the authorized signatory in signing the required forms. ***Strictly NO using of staple wire and thick materials for tab***

The **First (1st) Envelope**, shall contain the following Technical Documents accomplished in five (5) sets, **each set filed in a folder**

The **Second (2nd) Envelope** shall contain the Financial Component accomplished in five (5) sets, **each set filed in a folder**

All copies should be certified as true copy

COLOR CODING OF FOLDERS/ENVELOPES	**BROWN**

LABEL ON THE ENVELOPE/S:
Name of PROCURING ENTITY
Name of CONTRACT TO BE BID
IB Number
DATE of Bid Opening
Name of the Bidder Company
Address of the Bidder Company

IDENTIFY THE ENVELOPES:
as: > Technical Component Requirements
(original, copy 1, 2, 3 & 4)
> Financial Component Requirement
(original, copy 1, 2, 3 & 4)

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**.

CONFORME:

_____
Authorized Signatory
Signature over printed name

_____
Name of Company/Firm

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SECTION III

Bid Data Sheet

One (1) Lot Design and Build of PCMC's New Powerhouse

IB-2021-042

Bid Data Sheet

<table>
<tr><th>ITB Clause</th><th></th></tr>
<tr><td>5.2</td><td>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].
(Construction of Powerhouse (At least 34.5KV) or High voltage substation with at least 50% of the Approved Budget for the Contract)</td></tr>
<tr><td>7.1</td><td>Subcontracting is allowed only for the following works:
1. Civil Works
2. Excavation Works</td></tr>
<tr><td>10.3</td><td>Size Range : SPECIALTY: SP-EE (ELECTRICAL WORKS) CATEGORY A

In case of Joint Venture a Special PCAB License - License Category B, Medium A Specialty – Electrical Works Category A</td></tr>
<tr><td>10.4</td><td>The key personnel must meet the required minimum years of experience set below:

<table>
<tr><th>FOR DESIGN</th><th>FOR CONSTRUCTION</th></tr>
<tr><td>Project Coordinator</td><td>Project Manager (PEE)</td></tr>
<tr><td>Structural/ Civil Engineer</td><td>Project Engineer (REE)</td></tr>
<tr><td>Professional Electrical Engineer</td><td></td></tr>
<tr><td>Professional Mechanical Engineer</td><td></td></tr>
<tr><td>Sanitary Engineer or Master Plumber</td><td></td></tr>
<tr><td>Others as required for the project</td><td></td></tr>
</table></td></tr>
<tr><td>10.5</td><td>The minimum major equipment requirements are the following:

<table>
<tr><th>Equipment</th><th>Capacity</th><th>Number of Units</th></tr>
<tr><td>Dump Truck</td><td>5 Cubic Meter</td><td>1</td></tr>
<tr><td>Boom Truck</td><td></td><td>1</td></tr>
<tr><td>Backhoe</td><td></td><td>1</td></tr>
</table></td></tr>
<tr><td>12</td><td>Value engineering shall analyze alternative schemes of achieving the projects objectives in order to delete or reduce non-essential features and lessen the life cycle costs of the projects without sacrificing the quality and integrity of the structure, while maintaining its essential function, performance, and safety</td></tr>
<tr><td>15.1</td><td>The bid security shall be in any of the following forms and amounts:

a. Bid Securing Declaration [use of Form No. DOBA-PCMC-BDF5 is required]

b. The amount of not less than <u>Php640,000.00</u> (2% of the ABC) if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank; or

c. The amount of not less than <u>Php1,600,000.00</u> (5% of the ABC), if bid security is in the form of Surety Bond callable upon demand issued by a surety or insurance company duly certified by Insurance Commission as authorized to issue such security.</td></tr>
</table>

19	The evaluation of Bids shall follow the provisions of Annex "G" of IRR of RA9184 on the **Guidelines for the Procurement and Implementation on Contracts for Design and Build Infrastructure Projects.** For the detailed evaluation of the design and build proposals a two-step procedure shall be adopted by the BAC and TWG. 1. **First-Step Procedure** *i.* The first step of the evaluation shall involve the review of the preliminary conceptual designs and track record submitted by the contractor as indicated in the Bidding Documents using a non-discretionary "pass/fail" criteria that involve compliance with the following requirements: a. Adherence of preliminary design plans to the required performance specifications and parameters and degree of details: 30% b. Concept of approach and methodology for detailed engineering, design and construction with emphasis on the clarity, feasibility, innovativeness and comprehensiveness of the plan approach, and the *quality of interpretation of project problems, risks, and* suggested solutions: 30% c. Quality of personnel to be assigned to the project which covers suitability of key staff to perform the duties of the particular assignments and general qualifications and competence including education and training of the key staff: 40% *ii.* Eligible bidders may be required to make an oral presentation within Seven (7) calendar days after the deadline for submission of technical proposal. **Minimum Passing Rate of Eighty 80 points.** 2. **Second-Step Procedure** *Only those bids that passed the above criteria shall be subjected to* the second step of evaluation. The BAC shall open the financial proposal of each "passed" bidder and shall evaluate it using non-discretionary criteria - including arithmetical corrections for computational errors - as stated in the Bidding Documents, and thus determine the correct total calculated bid prices. The BAC shall automatically disqualify any total calculated bid price which exceeds the ABC. The total calculated bid prices (not exceeding the ABC) shall be ranked, in ascending order, from lowest to highest. The bid with the lowest total calculated bid price shall be identified as the Lowest Calculated Bid (LCB).
19.2	Partial bid is not allowed. The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.

20	➢ Certificate of Final Electrical Inspection (Quezon City) ➢ Certificate of Electrical Inspection ➢ Fire Safety Evaluation Certificate ➢ Fire Safety Inspection Certificate ➢ Meralco's approval ➢ Building Permit ➢ Electrical Permit ➢ Mechanical Permit ➢ Sanitary Permit
21	➢ Affidavit of Site Inspection (*use of Form no.* ***DOBA-PCMC-SIF22*** *is required)* ➢ Signed *conforme* on All Drawing Plans issued by PCMC. ➢ Manpower Utilization Schedule (*use of Form No.* ***DOBA-PCMC-MUF13*** *is required).* ➢ Construction Schedule through Gantt Chart (for construction activities) and S-Curve (for financial requirements) ➢ Equipment Utilization Schedule (*use of Form No.* ***DOBA-PCMC-EUF21*** *is required).* ➢ Construction Safety and Health Program ***Note: Must be in accordance with the rules and regulations and other orders and issuances by the DOLE*** ➢ PERT – CPM ➢ Valid ISO Certificate ➢ Certificate of Performance in letterhead of their clients indicating the contact numbers and email addresses signed by the authorized head of the Department from three (3) clients of the bidder issued within the last six (6) months prior to bid opening. *Note:* Certification issued by PCMC – Procurement Section must be included if bidder had done business with us. Certification of which should be of same category (e.g. equipment/supplies) of project being bided.

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SECTION IV

General Conditions of Contract

One (1) Lot Design and Build of PCMC's New Powerhouse

IB-2021-042

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.

CONFORME:

_____
Authorized Signatory
Signature over printed name

_____
Name of Company

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SECTION V

Special Conditions of Contract

One (1) Lot Design and Build of PCMC's New Powerhouse

IB-2021-042

Special Conditions of Contract

GCC Clause	
2	*None*
4.1	The site will be turned over to the contractor simultaneously upon receipt of Notice to Proceed
6	The site investigation reports are: • Preliminary Design and Construction Study
7.2	*[In case of permanent structures, such as buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures:]* Fifteen (15) years.
10	a. Dayworks are applicable at the rate shown in the Contractor's original Bid.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within *Fourteen (14)* 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 *2% of the ABC.*
13	The amount of the advance payment is *Fifteen percent (15%) of the ABC or Four Million Eight Hundred Thousand Pesos (Php4,800,000.00)*
14	Materials and equipment delivered on the site but not completely put in place shall be included for payment.
15.1	The date by which operating and maintenance manuals are required is *Upon Project Completion and this document is part of the requirement for final payment* The date by which "as built" drawings are required is *Upon project completion*
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 2% of the total contract price *[amount in local currency].*

Republic of the Philippines
PHILIPPINE CHILDREN'S MEDICAL CENTER
Bids and Awards Committee
Quezon Avenue, Quezon City 1100
588-9900 loc 361 Website: www.pcmc.gov.ph email: bac@pcmc.gov.ph

SECTION VI

Specifications

One (1) Design and Build of PCMC's New Powerhouse

IB-2021-042

SECTION VII: SPECIFICATION

PROJECT	**: DESIGN AND BUILD OF PHILIPPINE CHILDREN'S MEDICAL CENTER NEW POWER HOUSE**
OWNER	**: PHILIPPINE CHILDREN'S MEDICAL CENTER**
LOCATION	**: Quezon Ave. corner Agham Road, Quezon City, Phil.**

OUTLINE SPECIFICATIONS FOR GENERAL CONSTRUCTION

INTENT AND APPLICATION OF THE PROVISIONS OF THIS SECTION

The Scope of Work covered within these Specifications is the complete construction of **PCMC NEW POWER HOUSE** located at Quezon City, Philippines.

A. This section is prepared in a concise manner, the intention of which is to save time and effort in locating important contents within these Specifications.

B. Execution of this Section shall be coordinated and correlated to each corresponding elaborated section of these same specifications.

C. In case discrepancies exist between this Section and its corresponding elaborated sections, notify the Owner and their decision shall be final. The Design Build Contractor shall bear the responsibility of checking all the numbers and units as may be indicated on the Specifications. It is understood that the Contractor shall supply and install the actual required units as approved on the Plans.

D. Substitution of materials or equipment or makes other than those specified in the contract Documents will be approved by the Owner for the following reasons only:

1. That the materials or equipment proposed for substitution is equal or superior to the materials or equipment specified in construction efficiency and utility, provided that any and all costs relative thereof shall be shouldered by the Contractor.

2. Or that the materials or equipment specified cannot be delivered to the job site on time to complete the work of the other Contractors due to conditions beyond the control of the Design Build Contractor.

3. In case of a price difference, the PCMC shall receive all benefits of the difference in cost involved in any substitution and the Contract shall be altered by Change Order to credit the PCMC with any savings so obtained.

E. To receive consideration, request(s) for substitution shall be accompanied by documentary proof of equality or difference in price and delivery, if any, in the form of Certified quotations and guaranteed date of delivery from suppliers of either the proposed substituted materials or equipment.

DIVISION 1: SCOPE OF WORK

A. The Design Build Contractor shall conduct thorough ocular inspection of the existing job site conditions

B. The Design and Build contractor shall closely coordinate at all times with the PCMC Engineering Office and shall comply with all of the requirements.

C. The Design Build Contractor shall prepare all necessary Detailed Architectural and Engineering Design based on the approved lay-out, details and outline specification prepared during the design phase.

D. The scope of work shall include all additions necessary in order to implement the whole set of approved Plans, Working Drawings and Specifications.

E. The Design Build Contractor shall secure all the necessary pertinent Permitting and Approval requirements from MERALCO and various National and Local agencies prior to commence Mobilization and Construction Work activities (Fees shall be at the Contractor's Account).

F. The Design Build Contractor shall supply all necessary materials, equipment and labor in Architectural, Structural, Electrical, Sanitary/ Plumbing, Mechanical, Fire Protection works in accordance with the Plans and Specifications for the completion of the contract. All items shown on the Plans but not mentioned in the Specifications shall be included. Discrepancies shall be verified with the Owner.

G. The Design Build Contractor shall prepare and submit all detailed architectural and engineering design, working drawings, and shop drawings, templates, and schedules required for the coordination of the work of the various trades. Drawings should include information on all working dimensions, arrangement and sectional views, connections and materials to be reviewed and approved by PCMC.

H. The Design Build Contractor shall be responsible and compliance to the Safety, Security and Sanitary/ Health working practices and high standards of all respective sub-contractors, workers, suppliers, visitors and agents.

I. The PCMC may at any time without invalidating the Contract make changes by altering, adding to or deducting from the work as covered by the drawings, specifications, and general scope in written instructions. Provisions under General Conditions of the contract cover such circumstances.

J. All employees and workers of the Design Build Contractor shall observe proper construction attire and dress code.

K. The Design Build Contractor shall comply to all necessary labor code and laws for wages benefits and insurance.

L. The contractor Design Build Contractor shall maintain and observed the highest standard of quality workmanship. All defective workmanship shall be rejected by the Owner or his/her representative and will be rectified before acceptance.

M. The Design Build Contractor shall deliver and install construction materials that satisfy and pass international and local standards. All defective materials found to be sub-standard shall be disapproved and rejected by the Owner.

N. Lay-out of temporary facilities for the construction like storage, material stockpiling close and open spaces, housing, utilities and access road shall be approved by the Owner or his/her representative.

O. The Design Build Contractor shall use efficient quality tools, equipment, machineries, and fuel to be used in the execution of work. Any defective and harmful tools, machineries and fuel shall be outright rejected by the Owner or his/her representative.

P. Stockpiling of Construction Materials, Tools, Equipment and other supplies for the construction work shall be stored in organize proper places at the site as approved by the Owner.

Q. The Design Build Contractor shall install all necessary international and local standards graphic signage, way finding for Safety, Health and Security at the construction and also a Sign Board information of the project: White 8' x 8', 70 DPI resolution, Helvetica letter font, main information 3" letter size, sub-information 1" letter size, letter color is black.

Signboard Information Data:

Project Name
Implementing Agency Unit, Office or Division
Brief Description
Contractor
Mode of Procurement
Funding Source
Contract Cost or Approve Budget Cost
Project Start
Project Target Completion
Project Location

DIVISION 2: SITE WORK

A. VISIT AND ACCEPT SITE, AS IS. The following works shall be included:

1. **Removal of existing fence (portion only)** necessary to permit construction and other work as indicated. Owner must be consulted prior to any demolition. Rubbish shall be legally and properly disposed by way of standby dumpster and other storing facilities before offsite disposal.

2. **Provision of temporary barricade along the property line.**

3. **Construction of slope protection structure.** The design build contractor shall select a type of slope protection structure that may suit to the condition of site. Structure may either a RIPRAP or GABIONS.

B. SITE SAFETY, SANITATION AND SECURITY REQUIREMENTS:

1. The Design Build Contractor shall observe the necessary safety, security and sanitation measures required by the Owner or his/her representative on the jobsite.

   1.1. Board up: The Design Build Contractor shall, maintain a temporary perimeter fence at the construction site for the protection, security and for the proper execution of site up-keeping. Such board up shall be built for its full length except for such openings

as may be necessary for the proper execution of the work, in such case, openings shall be provided with doors which shall be kept closed at all times except in actual use. Board up shall be installed for site enclosure which shall be made of plywood or G.I. Sheet on structurally stable steel or wood frames (or as preferred by the Design Build Contractor but approved by the Owner).

1.2. Access Provision: The Design Build Contractor shall provide and maintain temporary access elements such as ramps, stairs, ladders, walkways and bridges as may be reasonably required within the site. Such elements shall be constructed and be made of sufficient strength and stability to ensure the safety of visiting Owner.

1.3. Temporary chute: The Design Build Contractor shall install Chutes for the necessary waste and debris disposal for infection control of the hospital.

1.4. Portable toilet facilities: The Design Build Contractor shall install portable toilet facilities for their staffs and workers at designated areas to be approved by the Owner.

1.5. Waste management: The Design Build Contractor shall observe waste management procedures for the construction by installing necessary collecting Bins and standby dumpster or a 20 footer container van open on top for various construction waste.

C. TEMPORARY FACILITIES REQUIREMENTS:

The Design Build Contractor shall provide the Owner and their personnel temporary working facilities that include the following;

1. Field office with a minimum of 40 square meters in area. Provide lights, power, telephone communication and wired Internet connection.

2. Toilet facilities. (Portalet)

3. Furnishings- Filing Cabinet

1-conference table
6-conference chairs
3-Work table with Chairs
1-Plan rack
1-White board
3-Computers
1-Printer

Other Temporary Provisions:

- The Design Build Contractor shall provide all temporary lighting, power, water supply and all necessary facilities sufficient enough for the simultaneous use of all possible fields of work to complete the project.

- The Design Build Contractor shall provide the necessary number of warehousemen and security guards to ensure security of construction site.

- The Design Build Contractor shall provide a minimum of four (4) units of Fire extinguishers.

- The Design Build Contractor shall provide Billboards for precautions for Public Safety.

- The Design Build Contractor shall provide Billboard for Project Information. Data shown on billboard must at least include perspective, project name, architect, engineers and contractor.
- Other provisions as required by the National Building Code and BESC.
- All others required as discussed in the Pre-Bid Conference or as issued Bid Bulletins

Miscellaneous:

CONSTRUCTION FENCE shall be supplied and installed by the Design Build Contractor. Fence shall be made of Materials approved by both Design Build Contractor and PCMC on steel or wood framing. Painting, Safety and Graphical sign are also part of Contractor's scope of work. The Design Build Contractor should have an Infection Control Risk Assessment Plan (ICRA). Vacuums, Noise and Vibration Control Suppressant and other.

D. MATERIALS RESOURCES

1. Design Build Contractor shall consider using reusable and rapidly renewable materials including steel, concrete products, and similar to non-finishing items.
2. Design Build Contractor shall use materials that are locally harvested and use local raw materials.
3. Design Build Contractor shall use materials readily available at a given time.

E. STORAGE AND FILING OF MATERIALS

1. **Delivery:** General Contractor shall ensure that materials are properly turned over and delivered on site in good quality and condition. A time and delivery record shall be available.
2. **Storage:** General Contractor shall designate and/or allot a space to sub-contractors for storage of their materials and for erection of their sheds and tool houses (if necessary). Materials shall be arranged properly and accordingly in terms of sizes, quality, quantity, category and time of use.
3. Warehouse shall be maintained properly by a designated person of the General Contractor.
4. All cement, lime and other materials affected by moisture shall be stored on platforms and protected from weather. Materials shall be stored as to insure the preservation of their quality and fitness for their work. Stored materials shall be located so as to facilitate prompt inspection.
5. Should it be necessary at any time to move materials, sheds or storage platforms, the Contractor shall do so at his own expense.

DIVISION 3: CONCRETE

A. STRUCTURAL CONCRETE

1. Footing, Column and Roof Beam

Gravel:	as specified in the structural drawings
Sand:	S1, washed, clean and greenish in color
Cement:	Portland Cement, Type 1
Mortar:	One part "Portland"cement and two parts sand and water
Mixture Class:	Class A

2. Concrete Hollow Block: use 6"CHB for all walls

Mortar:	One part "Portland"cement and two parts sand and water

DIVISION 4: REINFORCING STEEL BAR

A. Footing, Column and Roof Beam

1. REBAR SIZE : as specified in the structural drawing

2. **REBAR STRENGHT:** All sizes shall be at 275Mpa (intermediate bar)

DIVISION 5: METAL

A. TRUSSES

1. STRUCTURAL STEEL AND FRAMING SYSTEM

1.1. All structural steel sections shall conform to AISC Specifications for Design, Fabrication and Erection of Structural Steel for Buildings and meet the required structural design criteria.
1.2. All metals shall be true in size and schedule, refer to structural drawings and details.
1.3. Tests shall be conducted on welded construction. Certified by an accredited third party agency.
1.4. All Structural Steel shall be painted with two (2) coats of epoxy primer/ zinc chromate primer.
1.5. Design Build Contractor shall submit Fabrication drawings and other steel framing details to PCMC for approval before any fabrication shall be done.

B. METAL DOORS

1. DOOR PANEL:
1.1. Shall be louver type full length

2. HINGES AND LOCKSET
2.1. Lever type knob and lockset
2.2. Hinges shall be stainless S316 type heavy duty

DIVISION 6: THERMAL AND MOISTURE PROTECTION

A. APPLICATION

All applications shall be strictly as per Manufacturer's Specifications. It shall strictly be performed by licensed or certified applicators / waterproofing contractor representing waterproofing manufacturer or insulation company specified herein. The Architect shall be furnished with pertinent literature and detailed drawings.

1. WATERPROOFING OF WALLS

Furnish all labor, materials, equipment, plant and other facilities required to complete all waterproofing work as shown on the drawings and herein specified. All applications shall be strictly performed by an approved waterproofing Contractor representing waterproofing manufacturing brands approved by the Owner.

All materials shall be Environmental Protection Agency (EPA) certified and approved.

Testing: Test waterproofed area by forty-eight (48) hours and check for any seepages.

USE:

Elastomeric Wall Coating – on all Perimeter RC or CHB walls without EIFS System, Verify Architectural plans.

2. ROOFING AND INSULATION

1. Pre-painted GA 24 Long Span Rib Type or approve equivalent
2. Polyethylene Bubble Film 10mm thick with single side aluminum

DIVISION 7: PAINTING WORKS

A. APPLICATION

All materials shall be Environmental Protection Agency (EPA) certified and approved.

1. All sample paint shall be submit on at least 300-mm x 300-mm plywood panel, color and shade for approval of PCMC.

2. Application shall be as per paint Manufacturer's specification and recommendation.

3. Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works.

4. All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications. All surfaces including masonry wall shall be thoroughly cleaned, puttied, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.

5. All exposed finish hardware, lighting fixtures and accessories, glass and the like shall be adequately protected so that these are not stained with paint and other painting

materials prior to painting works. All other surfaces endangered by stains and paint marks should be taped and covered with craft paper or equal.

Extra coats shall be applied to achieve satisfactory finished work.

B. PAINTING MATERIALS

1. Submit various painting materials specification data and sample to be used for approval of PCMC.

2. All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.

3. Painting materials including its application must be covered with minimum of five- (5) year guarantee to be rendered by the painting manufacturer.

C. PAINTING SCHEDULE:

1. **Exterior**

   a. **Paint Finish**: Finishing coat only for all exterior painted surfaces. Make sample for approval of PCMC.

   b. **Reflectorized Traffic Paint on Plain Cement Finish**: Parking Slots Designation, Ramp, Driveway, Curbs and Column Surfaces, Bumper Guards

   c. **Latex Paint Finish**: For all exterior walls of Power House.

2. **Interior**

   a. **Interior Concrete or Masonry Painted** - Three (3) coats **water-based epoxy** masonry plain semi-gloss finish / flat or matte finish.

   b. **Exposed Steel Framing, Metal Pipes and other metal works unless otherwise indicated:** Two (2) coats **of Epoxy Primer** and Two (2) coats

4. **Galvanized Iron Surfaces or Metal**: Hot Dipped Galvanized iron materials shall be as is, retouching if required shall be of suitable paint material preferably epoxy based.

5. **Epoxy Paint**: Moisture, heat and chemical resistant.

DIVISION 6: MECHANICAL

A. Ventillation System

B. Diesel fuel Storage tank (30,000 liter) with concrete saddle support and pump

DIVISION 7: ELECTRICAL SPECIFICATION

1.0 GENERAL DESCRIPTION AND SCOPE

1.1 The work to be done under this DIVISION of the Specifications consist of the fabrication, furnishing delivery and installation, complete in all details of the Electrical Work, at the subject premises and all work materials incidental to the proper completion of the installation, except those portions of the work which are expressly stated to be done by others. All work shall be done in accordance with the governing Codes and Regulations and with the Specifications, except where same shall conflict with such codes etc., which latter shall then govern. The requirements with regards to materials and workmanship specify the required standard for the furnishing of all labor, materials and appliances necessary for the complete installation of the work specified herein and indicated on the drawings.

1. LAWS/CODES and REGULATIONS:

The work under this DIVISION shall be executed in accordance with the latest requirements of the following:

- Building Code of the Philippines
- Philippine Electrical Code
- Laws, ordinances, and regulations of the locality having jurisdiction over the project.
- Power and telephone utility companies
- UAP Doc. 301

The requirements of the above mentioned governing laws/codes and the requirements of the companies having involvement/participation are hereby made part of this Specifications and is required to comply with the same.

This does not relieve the Design Build Contractor from complying with requirements of specifications or drawings in excess of above laws and ordinances, codes and requirements which are not prohibited by the same.

2. GUARANTEE

The Design Build Contractor shall guarantee that the electrical system is free from all grounds and defective materials and workmanship for a period of one (1) year from the date of acceptance of the work. All defects arising within the guarantee period shall be reminded by the at his own expense Design Build Contractor.

The Design Build Contractor shall indemnify and save harmless the Owner from and against all claims, suits, actions, or liabilities for damages arising from injuries, disabilities or loss of life to persons or damage to public or private properties resulting from fault or any act of contractor or his representative in the execution of this work.

The partial acceptance of the work for the purpose of making partial payments, based on the estimated cost satisfactorily completed by the Design Build Contractor, shall not be considered as final acceptance of that portion of the work.

3. DRAWINGS & SPECIFICATIONS

2.1. The electrical plans, which constitute an integral part of these Specifications, shall serve as the working drawings. The plans indicate the general layout and arrangement of the complete electrical system and other works.

2.2. The drawings and specifications are meant specifically to be complementary to each other and where it is called for by one shall be binding as if called for by both. Anything which is basically required to complete the installation for proper operation but not expressly mentioned on the drawings and/or specifications shall be furnished and installed by the Design Build Contractor at no extra cost to the Owner as specifically stipulated or shown in both.

4.3 The Owner shall have the final decision on any apparent between the drawings and specifications or on any under and controversial point in either or both.

4.4. All dimensions and locations shown on the plans are approximate and shall be verified in the field, as actual locations, distances, and levels are governed by actual conditions.

5. SCOPE OF WORK

5.1 Work Included

The work to be done under this DIVISION shall include the furnishing of all tools, labor, equipment, fixtures and materials, each complete and in proper working condition unless one or other is specifically excluded or stated otherwise in these Specifications but not limited to the following principal items of work:

5.1. Private pole plus load breaker.
5.2. Duct bank with manhole from private pole to power house. Number of manhole shall be in conformance to Meralco's specification or Quezon City Building Office requirement. Design shall be approved by Meralco.
5.3. The medium voltage switchgear shall have a capacity of 4 Mega Volt Ampere and has a slot and complete terminal lugs of four (4) panel minimum.
5.4. The design shall ensure protection of the medium switchgear device in the event of non compliance transformer supplied by other contractor.
5.5. Fuel underground tanker shall have a capacity of 30,000 liter with complete system and pump.
5.6. Sychronizing panel_– slot of 3 unit 1,000.00 KW Electric Generating set
5.7. Automatic Transfer Switch will be 4 unit (2 units for 3200A, 2 units for 1600A) and 1 unit 3200A for future loads (Provision of Wire only). Total of 5 unit ATS to be designed.

6. PROCEDURE

6.1. Workmanship

The **Design Build Contractor** shall execute the work in the most thorough, prompt and workmanlike manner and in accordance with the plans and specifications. The installations shall be done thru standard methods and good engineering practices.

6.2. Materials

All materials to be installed shall be brand new except as otherwise noted on the plans or specifications. The materials shall be as specified. No substitution of materials is allowed. Should the Design Build Contractor find it necessary to use another type/brand of materials instead of the specified item, he shall first obtain approval from PCMC prior to installation.

6.3. Coordination

It is the sole responsibility of the Design Build Contractor to conduct coordination of his activities with the following:

6.3.1 Other trades and suppliers

6.3.2 Owner

6.3.3 MERALCO

6.3.4. Local Government Authority

7. DEVIATION FROM THE PLANS

No deviation from the Owner plans is to be made unless given notice for approval.

8. RECORD DRAWING & AS-BUILT PLAN

The Design Build Contractor is required to keep an active record of the actual installation during the progress of the job. This shall be the reference in the preparation of the 'As-Built' plans which shall include all pertinent information, complete in all aspect of the actual installation, and all new information not originally shown in the contract drawings. The 'As-Built' plans shall be prepared by the Design Build Contractor at his expense and shall be submitted to the for approval upon the completion of the work. The approval of the 'As-Built' drawings shall be a pre-requisite for the final acceptance of the electrical works.

Submit five (5) copies of the "As-Built" drawings signed and dry sealed by the Design Build Contractor Professional Electrical Engineer. Original tracing/reproducible copy shall also be submitted to the Owner.

9. SAMPLE AND SHOP DRAWINGS

9.1. 30 days prior to the installation or fabrication of materials the Design Build Contractor shall submit to the Owner the following for approval.

9.2. Shop drawings of panel boards showing arrangements of circuit breakers, bus bar sizes, lugs, etc. Indicate all dimensions.

9.3. Shop drawings or samples required as noted in the drawings.

9.4. Samples and catalogs of materials intended to be installed.

9.5. The Design Build Contractor shall also submit to the Owner without delay shop drawings and other submittals which may be required by the Owner during the progress of construction.

9.6. The above requirements shall be submitted at the earliest possible time to give Owner allowance for checking and verification. These shall be complete in all aspects.

9.7. Submit four (4) sets of each shop drawings.

10. ELECTRIC POWER

The Design Build Contractor shall be responsible for his own electric power needed for the execution of the job.

11. TEST

Conduct tests on all electrical conductors installed in the presence of the Owner.

11.1. check for grounds

11.2. insulation resistance test

11.3. continuity test for all outlets

11.4. voltage level test

11.5. phase relationship

11.6. Check circuit connections at panel boards, all single phase circuit shall be connected to phase as shown in the load schedule.

12. SUBMIT REPORTS ON TESTS

12.1. All reports must be formal, typewritten and properly identified

12.2. All defects found during the test shall be repaired immediately by the Design Build Contractor.

12.3. All tools, equipment and instruments needed to conduct tests shall be on the account of the Design Build Contractor.

13. METHODS & MATERIALS

13.1 Conduits

13.2 Intermediate Metal Conduit (IMC):

a. Standard trade sizes, hot dipped galvanized with inside enamel or epoxy coating.

b. Joints-threaded coupling for joints.

c. Use for power & lighting.

13.3. Installation of Conduits

a. Installation is in accordance with PEC and of good engineering practice.

b. Use standard trade sizes locknut and bushing at each end terminating in boxes/panel boards. Ensure electrically continuous conduit system.

c. Provide independent conduits supports using hangers, supports or fastenings spaced in accordance with good engineering practice and PEC.

d. Use adjustable trapeze hangers for horizontal parallel runs. Submit shop drawings for approval.

e. Conduits bends shall not be more than the equivalent of three (3) 90 Degree bends between pulling points.

f. Conduit threads cut on job shall have same effective lengths, thread dimensions, and taper as factory threads.

g. Cut ends of conduit square with hand or power saw and ream to remove burrs and sharp edges. Do not use wheel cutter.

h. Clamps shall be galvanized malleable iron one-hole straps, beam clamps or other approved device with necessary bolts and expansion shields.

i. Trapeze hangers shall be used for parallel runs of conduits. Install conduit clamps at end of each run and at each elbow. Paint hangers one prime coat of red lead or zinc chromate, and one finish coat of an approved color. Hangers are not detailed but must be adequate to support combined weight of conduit, conductors and hangers. Submit shop drawings for approval.

j. All underground conduits installed shall be provided with concrete encasement at least 8cm. thick outer face of conduit.

13.4 Wires

a. Wires shall be annealed copper, 98% or better conductivity, insulated, single, except as noted in the drawings.

b. 600 volt class type.

c. Wires greater than no. 8 mm2 shall be strand.

d. Minimum size shall be #3.5 TW for power and lighting circuits.

e. Telephone wires shall be no. 22 AWG jacketed type, 4 wires.

f. Use standard methods in pulling wires.

g. Splices of wires/cables shall be done inside junction boxes or auxiliary gutters using standard connectors. No wires shall be spliced inside conduits.

13.5. Devices

All lighting devices shall be LED.

13.6. Connectors

Use solderless mechanical pressure - type lugs, copper

13.7. Insulation

All splices shall be properly insulated using 3M Brand electrical tape. Application of insulation tape shall be equivalent to the insulation of the wire concerned. Use filler compound, "Scotch fill", or approved equal, at sharp edges to provide smooth surface before taping.

13.8. Panel board & Circuit Breaker

a. NEMA type/enclosure unless noted, PEC rules and regulations, circuit breaker type shall be 230V, number of pole as required.

b. Panel boards shall contain a single brand of circuit breakers.

c. All circuit breakers used as main shall be "Bolt on" type molded case, thermal magnetic protective, quick make, quick break, trip free from handle, trip indicating, number and size as shown in the schedule. Internal common trip for 2 and 3 pole breakers.

d. Breaker minimum interrupting capacities shall be based on NEMA and UL test procedures.

e. 230 volt breakers - 10,000 rms. Symmetrical amperes at 240V A/C (minimum)

f. All circuit breakers used as branches rated at below 100 AT and specifically installed in lighting panel boards shall be 'plug-in' type; otherwise it shall be 'bolt-on'

g. Word "space" indicated in the schedule shall mean that complete bus, insulators, etc. shall be included ready to accept future circuit breaker of the same frame size as the largest branch circuit breaker.

DIVISION 8: PLUMBING/SANITARY WORKS

1.0 SCOPE OF WORKS

1.1 The work to be undertaken under this section shall consist of the furnishing of all materials, labor tools, equipment and other facilities and the satisfactory performance of all work necessary for the complete installation, testing and operation of the plumbing system accordance with the applicable drawing and this section of that specifications consisting of, but not necessarily limited to the following:

a. Water service connection from main water distribution system.

b. Water distribution and supply piping to fixtures, equipment and hose Bibbs.

c. All work shall be performed in accordance with the requirements of all applicable laws of the Republic of the Philippines and all local codes and ordinances.

1.2. Installation and Workmanship:

a. All labor shall be performed in a first-class, neat and workman like manner by mechanic skilled in their work shall be satisfactory to the Owner.

b. No piping in any location shall be closed up, furred in or covered before testing and examination of the Owner.

2.0 STORM DRAINAGE

A. Pipes and Fittings:

1. Pipes and fittings shall be PVC pipes series 1000 Atlanta or approve equivalent. Joint packing for PVC Pipes shall be solvent cement. As specified
2. Storm Drainage HDPE Pipes 24" towards Sedimentation Area and Cistern.

B. Drains:

1. Roof drains shall be dome type and shall have duco-cast iron body with strainer and shall be provided with suitable flashing collar to suit roof deck construction.
2. Area drain and all other drains shall be of the size and kind indicated or best suited for the purpose intended and as approved by the Owner.

C. Downspouts;

1. Downspouts shall be PVC pipes series 1000

3.0 HANGERS, INSERTS AND PIPE SUPPORTS

A. Provide suitable and substantial hangers and supports for all piping.

B. Support horizontal piping in accordance with the following schedule Max. Hanger

Pipe Size	Spacing	Rod Size
65 and smaller	2000 mm	10 mm
75 to 150 mm	3000 mm	16 mm
200 mm & larger	3000 mm	20 mm

C. Support hangers from approve concrete inserts where concrete slabs exists. On inserts with space for nuts of all sizes. On inserts for pipe 75mm (3") to 150 mm (6") and 200 mm (8") and larger in sizes, insert a concrete reinforcing rod 13 mm (5/8) and 120mm (3/4") in diameter respectively through slot provided for this purpose,

place all insets in forms for all pipes which are to be hung, in ample time to allow the concrete work to be performed on schedule.

D. Support vertical risers from the building construction be means of pipe clamps, at very floor or as required. Provide channels of approved sizes where pipe clamps are too short to connect to the building construction.

PSW 4.0 EXECUTION

5.0 GENERAL INSTALLATION OF PIPES

A. Install pipes approximately as shown on the drawings, as straight and direct as possible forming right angles parallel lines with walls and other pipes, and neatly spaced unless otherwise indicated. Care shall be taken not to weaken the structural portions of the building.

B. Maintain minimum slope of 3mm (1/8 inch fall per foot) on all soil, waste and drain lines 100mm in diameter.

C. Do not install pipes or other apparatus in a manner which will interfere with full swing of the doors and windows.

D. The arrangement, position and connection of pipe fixtures, drains, valves and the like indicated on the drawings shall be followed as closely as possible, the right is reserved by the architect to change location and elevations to accommodate conditions which may arise during the progress of the work prior to installation, without additional cost of the Owner for such changes. The responsibility for accurately laying out of the work rests with this Contractor. Should be found that any work if laid out caused interference, the matter shall be reported to the Engineer before connecting the work.

E. Ream all screwed pipes smooth before installation. Do not bend, flatten, split or injure pipes in any way.

F. Use reducing fittings, in making reduction in size of pipe. Bushing will not be allowed unless specifically approved.

G. Where chrome plated piping is installed, cut and thread pipe. Bushing will not be allowed unless specifically approved.

H. Carry fixture connections, concealed in building constructions, to points above floor, break out close to underside of fixture and rise exposed to fixture.

I. No piping shall be installed which will provide a cross or interconnection between a distribution supply of drinking water of Domestic use and pollution or waste pipe, the water line shall be placed above the waste pipe in ground installation.

6.0 INSTALLATION OF WATER SUPPLY PIPES AND FITTINGS

A. The piping shall be extended to all fixtures, outlets and equipment. Ends of pipes and outlets shall be capped or plugged and left ready for future connections.

B. Branch pipe from service line may take off of main, bottom of main, or side of main, using such cross over fittings as may be required by structural or installation conditions.

All service pipes, valves and fittings shall be kept at sufficient distance from other work to permit finished covering not less than 12.7mm (1/2") from such other work and not less than 12.7mm between finished coverings on the different services. No water piping shall be buried in floors until after they have been inspected and approved.

C. Where the branch serves more than one fixture, the branch shall be increased in size in proportion to sizes as shown on the drawings.

D. Upon completion of water system, flush out lines and all valve sets to clear system of particles and dirt.

E. Air chambers: All individual branches to fixtures and/or equipment shall be provided with air chambers shock absorbers as shown on the drawings or as required.

B. The system shall hold this water for a full thirty (30) minutes during which time there shall be no drop more than four inches 100mm (4").

C. If and when the Engineer decides that an additional test is needed, such as an air or smoke test on the drainage system, the Contractor shall perform such test without additional cost to PCMC.

DIVISION 9: FIRE PROTECTION

1. General

1. General Description

1.1. The scope of work to be done this division of the specification consist of the fabrication, complete in all details, of fire protection works at the subject premises, the installation, except those portions shall be in accordance with governing Codes and Regulations and with the specifications, except where the same shall conflict with the codes, etc. which, later shall be govern. The requirements in regards to materials and workmanship specify the required standards for the furnishing of all labor, materials and appliances necessary for the complete installation of the work specified herein and indicated on the drawings.

1.2. The Design Build Contractor shall submit all Fire Protection Drawings and specification to the Bureau of Fire Protection (BFP) for approval. A Fire Safety Inspection Certificate (FSIC) shall be secured from the same Bureau after completion of work.

1.3. The Design and Build Contractor at the completion of the Fire Protection Scope shall secure Fire Safety Inspection Certificate from BFP at no cost to PCMC.

2. Drawing and Specifications

2.1 The contract drawing and specifications are complementary to each other and any labor or material for by either, whether or not called for both if necessary for the successful operation of any of the particular type of the equipment furnished and installed without additional cost to PCMC.

2.2 All dimensional locations of piping's, equipment, risers and pipes chase shall be verified on the architectural drawings and manufacturers catalogue.

SCOPE OF WORK

I. DESIGN PHASE

GENERAL REQUIREMENT

1. Mobilization and Demobilization
2. Detailed Architectural and Engineering Design
3. Permits
   - Meralco's Approval
   - Certificate of Final Electrical Inspection
   - Building Permit
   - Electrical Permit
   - Mechanical Permit
4. DOLE, Health and Safety requirement
5. Temporary Facility for workers and material storage

II. CONSTRUCTION PHASE

CIVIL WORKS

1.0 SITE DEVELOPMENT / SOIL PROTECTION
- Gabions/Riprap

2.0 EXCAVATION
- Footing
- Duct Bank and Manhole
- Fuel Storage Tank

3.0 POWER HOUSE STRUCTURE

4.0 DUCT BANK AND MANHOLE

3.0 CONCRETE PAD(GENSET/TRANSFORMER)

ELECTRICAL WORKS

1.0 CABLE WIRES

2.0 FIRST PRIVATE POLE WITH

ACCESSORIES

3.0 MEDIUM VOLTAGE SWITCHGEAR

4.0 SYNCHRONIZING PANEL

5.0 AUTOMATIC TRANSFER SWITCH, 3200A

6.0 AUTOMATIC TRANSFER SWITCH 1600A

7.0 MISCELLANEOUS (TO BE DEFINED BY BIDDER)

MECHANICAL WORKS

1.0 Ventillation System

2.0 Diesel fuel Storage tank (30,000 liter) with concrete saddle support and complete with pump

FIRE PROTECTION

1.0 Dry suppression - extinguishers

SANITARY/PLUMBING WORKS

1.0 Storm Drainage System

2.0 Fuel Interceptor / Water fuel separator

3.0 Water supply system

TESTING & COMMISSIONING

a. Feeder line from power house to new STP
b. Electrical supply of pumps at new sump pit.

PRELIMINARY DESIGN AND CONSTRUCTION STUDY

I. PROJECT DESCRIPTION

The Design and Build of PCMC's New Power House aims to provide power supply for the 8 Storey Building, Pediatric Brain Center and Cancer Center that will provide quality healthcare to sick children. The said powerhouse should be completed within 6 months or prior to the completion of the 3 buildings.

II. CONCEPTUAL DESIGN

A conceptual design was prepared by PCMC, however, this design shall serve as reference only. PHMC does not guarantee that the data is fully correct, updated, and applicable to the project at hand. The winning bidder is responsible for the accuracy and applicability of all data. The conceptual design and plans are hereto attached as Annex "A".

III. PERFORMANCE SPECIFICATION AND PARAMETERS

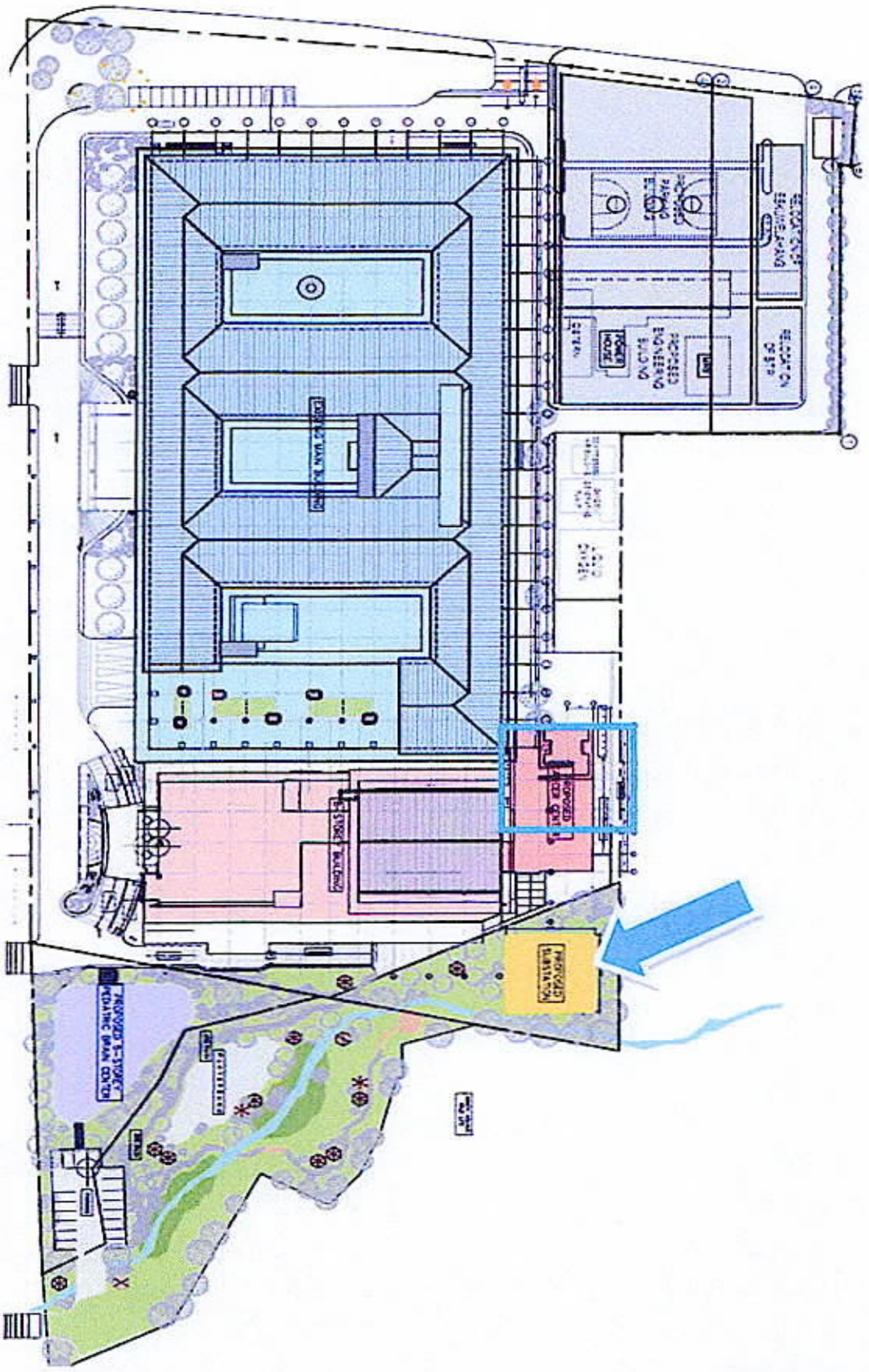
The project shall conform to the provisions of the Philippine Electrical Code, Electrical Engineering Law (RA 7920), National Building Code of the Philippines (PD 1096), Accessibility Law (BP 344), National Structural Code of the Philippines, Mechanical Engineering Law (RA 5336), Plumbing Code (RA 1378, 1993-1994 Revisions), Fire Code (RA 9514), Philippine Green Building Code and other applicable laws and regulations.

IV. MINIMUM REQUIREMENT FOR CONSTRUCTION SAFETY AND HEALTH PROGRAM

Every construction project shall have a suitable Construction and Safety Program, which must be in accordance with the rules, and other orders and issuances issued by the DOLE, the Project In-Charge, or an equally responsible officer, shall be *responsible for the compliance of the Program.*

a. Contractor shall assign/deploy an accredited Safety Officer during construction.
b. Contractor shall have health insurance for all its personnel and workmen.
c. Contractor has the sole responsibility for the safety of its workmen. PCMC holds no liability for any injuries, loss of life during construction.

V. PRELIMINARY SURVEY AND MAPPING



VI. PRELIMINARY INVESTIGATION

a. Hazard Assessment;

Republic of the Philippines
Department of Science and Technology
PHILIPPINE INSTITUTE OF VOLCANOLOGY AND SEISMOLOGY
PHIVOLCS Bldg., C.P. Garcia Ave., University of the Philippines Campus, Diliman, Quezon City
Tels. 426-1468 to 79; 926-2611; 927-1095; 929-9254; 927-4524; 920-7058; 928-3757
Fax: 929-8366; 927-1087; 926-3225

GGRD-HASS-QF-04

HAS-May-17-567

DATE	02 May 2017
FOR	**PHILIPPINE CHILDREN'S MEDICAL CENTER**
REPRESENTED BY	**JULIUS A. LECCIONES**
PURPOSE	DOH requirement

EARTHQUAKE HAZARD ASSESSMENT

LOT DESCRIPTION, PROJECT NAME, LOCATION	GROUND RUPTURE	LIQUEFACTION	EARTHQUAKE-INDUCED LANDSLIDE	
Lot RP-3-B-4-B-1-B-3-C-3, Psd-128681; Lot RP-3-B-4-B-1-D-4-C, Bsd-22019; Proposed Cancer Building; Agham Road corner Quezon Avenue, Diliman, Quezon City	**Safe; Approximately 4.2 kilometers west of the West Valley Fault**	**Safe**	**Safe**	

EXPLANATION AND RECOMMENDATION

- ✓ All hazard assessments are based on the latest available hazard maps and on the location indicated in the vicinity map provided.
- ✓ Ground rupture hazard assessment is the distance to the nearest known active fault. The recommended buffer zone, or Zone of Avoidance, against ground rupture hazard is at least 5 meters on both sides of the active fault or from its zone of deformation.
- ✓ All sites may be affected by strong ground shaking.
- ✓ Ground shaking hazard can be mitigated by following the provisions of the National Building Code and the Structural Code of the Philippines.
- ✓ This hazard assessment supersedes previous assessment made by this office regarding the site.

Assessed by	Abigail C. Pidlaoan	Officer-of-the-Day
Verified by	Maria Lynn P. Melosantos	Hazard Assessment Services Officer
Approved by	**RENATO U. SOLIDUM, JR.**	**Undersecretary for DRR and CC, DOST** *and* **Officer-in-Charge, PHIVOLCS**

V1-2016-06-01

b. Geotechnical Investigation Report of Infrastructure Project Near the project site (Please see Annex "B")

VII. UTILITY LOCATIONS

The proposed site of Powerhouse is located approximately 150 meters away from the power and 50 meters away from water supply.

VIII. APPROVED BUDGET FOR THE PROJECT

The total approved budget cost for the Projects is Thirty-Two Million Pesos (Php32,000,000.00). Proposals exceeding the ABC shall be automatically rejected.

IX. PROPOSED DESIGN AND CONSTRUCTION SCHEDULE

The Design and BuildContractor is required to complete the Project within an indicative period as shown below, to start upon the Design and Build Contractor receipt and signing of Notice to Proceed. The time frame to be followed for the project is as follows:

Design and Construction Schedule:

ACTIVITY	Months					
	1	2	3	4	5	6
Detailed Design	→	→				
Construction including Application and issuance of Building Permit			→	→	→	→

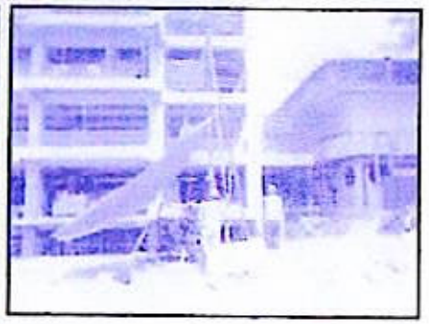
The above data are for reference only. The Procuring Entity does not guarantee that these data are fully correct, up to date and applicable to the project at hand. The contractor is responsible for the accuracy and applicability of all data, including the above, that it will be use in the design and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

GEOTECHNICAL INVESTIGATION REPORT OF INFRASTRUCTURE PROJECT NEAR THE PROJECT SITE

ANNEX "A'

ASTEC MATERIALS TESTING CORPORATION No. 20 Mapagbigay St., Pinyahan, Quezon City Tel. No. (02) 351-6545 Telefax No. (02) 822-4160 E-mail Add: astec.testing@yahoo.com Website: www.astectesting.com	PROJECT TITLE **PROPOSED 4-STOREY CANCER CENTER BUILDING WITH 1-BASEMENT (LINAC BUNKER)** LOCATION **Philippine Children's Medical Center, Quezon Avenue Corner Agham Road, Quezon City**	SHEET CONTENT **BOREHOLE LOCATION PLAN**	PROJECT REFERENCE NO. **ASTEC-SI-2104-19** SITE NAME **LINAC Bunker - PCMC**	FIGURE NO. **3**

BH – 1



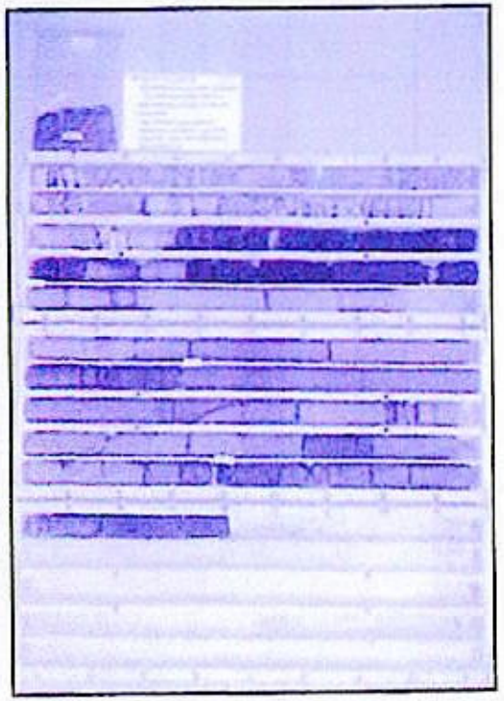
BH – 2

BH – 3

ASTEC MATERIALS TESTING CORPORATION No. 20 Mapagbigay St., Pinyahan, Quezon City Tel. No. (02) 351-6845 Telefax No. (02) 922-4160 E-mail Add: astec_testing@yahoo.com Website: www.astectesting.com	PROJECT TITLE PROPOSED 4-STOREY CANCER CENTER BUILDING WITH 1-BASEMENT (LINAC BUNKER) LOCATION Philippine Children's Medical Center, Quezon Avenue Corner Agham Road, Quezon City	SHEET CONTENT DRILLING OPERATIONS	PROJECT REFERENCE NO. ASTEC-SI-2104-19 SITE NAME LINAC Bunker - PCMC	FIGURE NO. 4

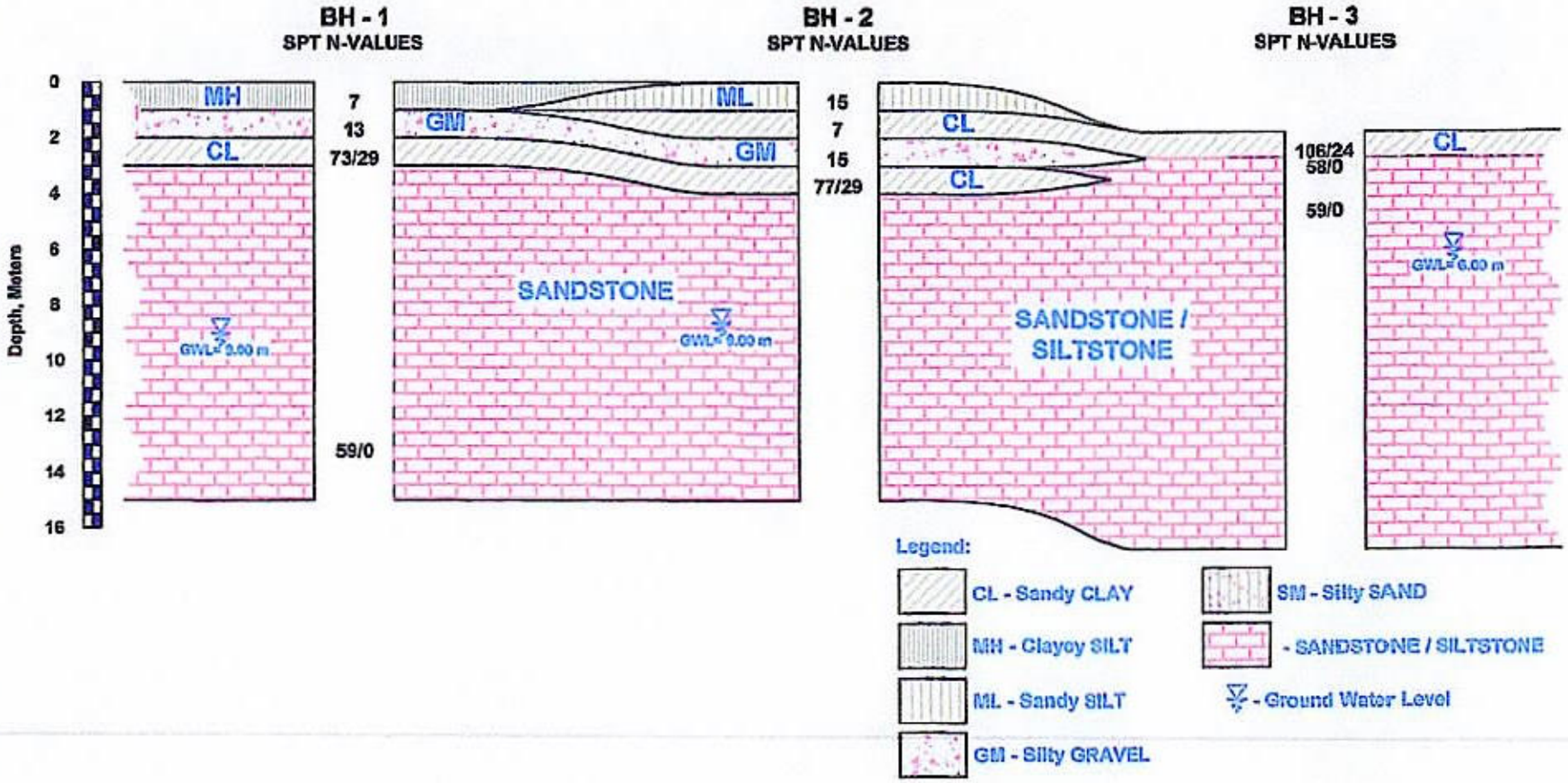
BH–1

BH–2



BH–3

ASTEC MATERIALS TESTING CORPORATION No. 23 Mapagbigay St., Pinyahan, Quezon City Tel. No. (02) 351-6645 Telefax No. (02) 922-4150 E-mail Add: astec.testing@yahoo.com Website: www.astectesting.com	PROJECT TITLE **PROPOSED 4-STOREY CANCER CENTER BUILDING WITH 1-BASEMENT (LINAC BUNKER)** LOCATION **Philippine Children's Medical Center, Quezon Avenue Corner Agham Road, Quezon City**	SHEET CONTENT **SPT SOIL & ROCK CORE SAMPLES**	PROJECT REFERENCE NO. **ASTEC-SI-2104-19** SITE NAME **LINAC Bunker - PCMC**	FIGURE NO. **5**



ASTEC MATERIALS TESTING CORPORATION No. 20 Mapagbigay St., Pinyahan, Quezon City Tel. No. (02) 351-6545 Telefax No. (02) 922-4160 E-mail Add: astec.testing@yahoo.com Website: www.astectesting.com	PROJECT TITLE PROPOSED 4-STOREY CANCER CENTER BUILDING WITH 1-BASEMENT (LINAC BUNKER) LOCATION Philippine Children's Medical Center, Quezon Avenue Corner Agham Road, Quezon City	SHEET CONTENT GENERALIZED SUBSOIL PROFILE	PROJECT REFERENCE NO. ASTEC-SI-2104-19 SITE NAME LINAC Bunker - PCMC	FIGURE NO. 6

A Geotechnical and Materials Testing Laboratory
No. 20 Mapagbigay Street, Pinyahan, Quezon City
Telephone: (02) 351-8645 / Telefax: (02) 922-4160

SUMMARY OF SOIL TEST RESULTS

Project: PROPOSED 4-STOREY CANCER CENTER BUILDING WITH 1-BASEMENT (LINAC BUNKER)
Borehole No: ONE (01)

Sample No.			SPT - 1	SPT - 2	SPT - 3	CS - 1	CS - 2	CS - 3
SAMPLE DEPTH (m)			0.55 1.00	1.55 2.00	2.55 2.99	2.99 4.50	4.50 6.00	6.00 7.50
GRAIN SIZE ANALYSIS	% PASSING SIEVE 3/4"			68	100			
	3/8"		100	48	92			
	# 4		98	41	85			
	# 10		96	37	80			
	# 40		89	31	69			
	#200		70	22	51			
CONSISTENCY	Liquid Limit, LL (%)		53	Nil	47			
	Plastic Limit, PL (%)		29	Nil	12			
	Plasticity Index, PI		24	NP	35			
	Shrinkage Limit, SL, %							
Soil Classification (A S T M)			MH	GM	CL			
Specific Gravity, Gs								
Natural Moisture Content, %			33.00	24.00	33.00			
Organic Content, %								
Wet Unit Weight, (g/cm³)								
Dry Unit Weight, (g/cm³)								
Natural Void Ratio, eo								
Degree of Saturation, Sr (%)								
CONSOLIDATION TEST	Preconsolidation Pressure, pc (kg/ cm²)							
	Compression Index, Cc							
UNCONFINED COMPRESSION TEST	Unconfined Compressive Strength, qu (kg/cm²)	1				15.45	18.76	4.33
		2						
	Strain, E (%)	1						
		2						
Triaxial Compression Test (Cu)	Cohesion, Cu (kg/cm2)							
	Angle of Internal Friction Øu (deg)							
REMARKS								

A Geotechnical and Materials Testing Laboratory
No. 20 Mapagbigay Street, Pinyahan, Quezon City
Telephone: (02) 351-6645 / Telefax: (02) 922-4160

SUMMARY OF SOIL TEST RESULTS

Project: PROPOSED 4-STOREY CANCER CENTER BUILDING WITH 1-BASEMENT (LINAC BUNKER)
Borehole No: ONE (01)

Sample No.			CS - 4	CS - 5	CS - 6	CS - 8		
SAMPLE DEPTH (m)			7.50 9.00	9.00 10.50	10.50 12.00	13.50 15.00		
GRAIN SIZE ANALYSIS	% PASSING SIEVE 3/4"							
	3/8"							
	# 4							
	# 10							
	# 40							
	#200							
CONSISTENCY	Liquid Limit, LL (%)							
	Plastic Limit, PL (%)							
	Plasticity Index, PI							
	Shrinkage Limit, SL, %							
Soil Classification (A S T M)								
Specific Gravity, Gs								
Natural Moisture Content, %								
Organic Content, %								
Wet Unit Weight, (g/cm³)								
Dry Unit Weight, (g/cm³)								
Natural Void Ratio, eo								
Degree of Saturation, Sr (%)								
CONSOLIDATION TEST	Preconsolidation Pressure, pc (kg/ cm²)							
	Compression Index, Cc							
UNCONFINED COMPRESSION TEST	Unconfined Compressive Strength, qu (kg/cm²)	1	16.56	45.57	19.09	23.66		
		2						
	Strain, E (%)	1						
		2						
Triaxial Compression Test (Cu)	Cohesion, Cu (kg/cm2)							
	Angle of Internal Friction Øu (deg)							
REMARKS								

A Geotechnical and Materials Testing Laboratory
No. 20 Mapagbigay Street, Pinyahan, Quezon City
Telephone: (02) 351-6645 / Telefax: (02) 922-4160

SUMMARY OF SOIL TEST RESULTS

Project: PROPOSED 4-STOREY CANCER CENTER BUILDING WITH 1-BASEMENT (LINAC BUNKER)
Borehole No: TWO (02)

Sample No.			SPT - 1	SPT - 2	SPT - 3	SPT - 4	CS - 1	CS - 2
SAMPLE DEPTH (m)			0.55 1.00	1.55 2.00	2.55 3.00	3.55 3.99	3.99 4.50	4.50 6.00
GRAIN SIZE ANALYSIS	% PASSING SIEVE 3/4"		100	100	42	100		
	3/8"		95	89	28	87		
	# 4		87	85	27	77		
	# 10		79	77	24	71		
	# 40		67	66	20	62		
	#200		54	53	16	51		
CONSISTENCY	Liquid Limit, LL (%)		40	49	Nil	48		
	Plastic Limit, PL (%)		32	27	Nil	22		
	Plasticity Index, PI		8	22	NP	26		
	Shrinkage Limit, SL, %							
Soil Classification (A S T M)			ML	CL	GM	CL		
Specific Gravity, Gs								
Natural Moisture Content, %			25.00	30.00	18.00	15.00		
Organic Content, %								
Wet Unit Weight, (g/cm³)								
Dry Unit Weight, (g/cm³)								
Natural Void Ratio, eo								
Degree of Saturation, Sr (%)								
CONSOLIDATION TEST	Preconsolidation Pressure, pc (kg/ cm²)							
	Compression Index, Cc							
UNCONFINED COMPRESSION TEST	Unconfined Compressive Strength, qu (kg/cm²)	1					39.78	26.19
		2						
	Strain, E (%)	1						
		2						
Triaxial Compression Test (Cu)	Cohesion, Cu (kg/cm2)							
	Angle of Internal Friction Øu (deg)							
REMARKS								

A Geotechnical and Materials Testing Laboratory
No. 20 Mapagbigay Street, Pinyahan, Quezon City
Telephone: (02) 351-6645 / Telefax: (02) 922-4160

SUMMARY OF SOIL TEST RESULTS

Project: PROPOSED 4-STOREY CANCER CENTER BUILDING WITH 1-BASEMENT (LINAC BUNKER)
Borehole No: TWO (02)

Sample No.			CS - 3	CS - 4	CS - 5	CS - 6	CS - 7	CS - 8
SAMPLE DEPTH (m)			6.00 - 7.50	7.50 - 9.00	9.00 - 10.50	10.50 - 12.00	12.00 - 13.50	13.50 - 15.00
GRAIN SIZE ANALYSIS	% PASSING SIEVE 3/4"							
	3/8"							
	# 4							
	# 10							
	# 40							
	#200							
CONSISTENCY	Liquid Limit, LL (%)							
	Plastic Limit, PL (%)							
	Plasticity Index, PI							
	Shrinkage Limit, SL, %							
Soil Classificaton (A S T M)								
Specific Gravity, Gs								
Natural Moisture Content, %								
Organic Content, %								
Wet Unit Weight, (g/cm³)								
Dry Unit Weight, (g/cm³)								
Natural Void Ratio, eo								
Degree of Saturation, Sr (%)								
CONSOLIDATION TEST	Preconsolidation Pressure, pc (kg/ cm²)							
	Compression Index, Cc							
UNCONFINED COMPRESSION TEST	Unconfined Compressive Strength, qu (kg/cm²)	1	17.54	5.78	13.99	39.78	17.02	30.12
		2						
	Strain, E (%)	1						
		2						
Triaxial Compression Test (Cu)	Cohesion, Cu (kg/cm2)							
	Angle of Internal Friction Øu (deg)							
REMARKS								

A Geotechnical and Materials Testing Laboratory
No. 20 Mapagbigay Street, Pinyahan, Quezon City
Telephone: (02) 351-6645 / Telefax: (02) 922-4160

SUMMARY OF SOIL TEST RESULTS

Project: PROPOSED 4-STOREY CANCER CENTER BUILDING WITH 1-BASEMENT (LINAC BUNKER)
Borehole No: THREE (03)

Sample No.			CS - 8	CS - 9	CS - 10			
SAMPLE DEPTH (m)			10.50 - 12.00	12.00 - 13.50	13.50 - 15.00			
GRAIN SIZE ANALYSIS	% PASSING SIEVE 3/4"							
	3/8"							
	# 4							
	# 10							
	# 40							
	#200							
CONSISTENCY	Liquid Limit, LL (%)							
	Plastic Limit, PL (%)							
	Plasticity Index, PI							
	Shrinkage Limit, SL, %							
Soil Classification (A S T M)								
Specific Gravity, Gs								
Natural Moisture Content, %								
Organic Content, %								
Wet Unit Weight, (g/cm³)								
Dry Unit Weight, (g/cm³)								
Natural Void Ratio, eo								
Degree of Saturation, Sr (%)								
CONSOLIDATION TEST	Preconsolidation Pressure, pc (kg/ cm²)							
	Compression Index, Cc							
UNCONFINED COMPRESSION TEST	Unconfined Compressive Strength, qu (kg/cm²)	1	22.80	10.71	4.77			
		2						
	Strain, E (%)	1						
		2						
Triaxial Compression Test (Cu)	Cohesion, Cu (kg/cm2)							
	Angle of Internal Friction Øu (deg)							
REMARKS								

PHILIPPINE CHILDREN'S MEDICAL CENTER
Quezon Avenue, Quezon City

TERMS OF REFERENCE

1.0 PROJECT TITLE:
Design and Build of Philippine Children's Medical Center (PCMC) New Power House

2.0 TYPE OF SERVICES:
Design and Build for Civil/Structural of Power House and Electrical Works.

3.0 PROJECT LOCATION:
Quezon Avenue, cor. Agham Road, Quezon City

4.0 PROJECT BACKGROUND RATIONALE:

PCMC has initiated its massive expansion aim to upgrade and expand the whole hospital complex to match the standards of the larger private hospitals in Metro Manila, to address its healthcare needs of a growing patients 'population. The ongoing expansion projects are;

1. Construction of 8-Storey Building
2. Construction of 4-storey Cancer Building with LINAC Bunker
3. Construction of 4-storey Brain Center

This Design and Build Project is intended to thoroughly assess our electrical power supply needs and to provide a well designed POWER HOUSE including all its electrical devices needed. To provide a sound power supply system including emergency power supply for the three main PCMC expansion project stated above.

"All the data provided by PCMC for this design and build project does not guarantee the correctness, up to date and applicability for the project at hand. The contractor shall be responsible for the applicability of all the data to be used for the design and build proposal."

5.0 COVERAGE & SCOPE OF THE DESIGN

1. To produce detailed overall design of Power House/ high voltage electrical substation layouts; to create design documents, technical specifications, prepare design calculations, (BOQ) bill of quantities, (DUPA) detailed unit price analysis or detailed bill of materials and equipment specification.

   The "Design" shall include the whole package of equipment for sub-station; this is to include all the required wires for the following stages;

   a. First private pole and load breaker.
   b. ***Pedestal Column
   c. ***Duct Bank

d. 4.0 MVA Medium Voltage Switchgear (RMU or equivalent)
e. ***Transformer: (with structural provision for one unit Transformer 1000KVA for future expansion)
    a. 2 unit 1000KVA for 8-Storey Building
    b. 1 unit 1000KVA for Cancer Building
    c. 1 unit 500KVA for Brain Center Building
f. Synchronizing Panel
g. ***2 units of Generator 1000KVA (structural provision for one unit Generator 1000KVA for future expansion)
h. Low Voltage Switchgear 400volts
i. Bus Duct System
j. 4 units Automatic Transfer Switch (structural provision for one unit ATS for future expansion)
k. Safety Devices:
    - Lightning Arrestor
    - Surge Suppressor
    - Bonded Grounding System

Note: *** For technical specifications please refer to PCMC engineering office

2. Includes standard structural and architectural plans for Power House Building and 10,000L Fuel Tank Reservoir.

6.0 RESPONSIBILITY of PRINCIPAL ELECTRICAL DESIGN ENGINEER

The following are the main responsibilities of the principal designer for power house / high voltage electrical substation, but not limited to;

1. To deliver an accurate design of high voltage electrical substation and meet the hospital needs in conformance to Philippine Electrical Code (PEC).
2. Ensure that the design should meet the following:
    2.1. Environmental Requirements
    2.2. Facility Zoning
    2.3. Engineering Cable Management
    2.4. Emergency Preparedness Code
    2.5. Compliance to Quality and Safety Code (Electrical and Radiation)
3. Act as Principal Design Engineer for powerhouse and high voltage substation.
4. Ensure that the design resources are working effectively and efficiently.
5. Shall be accountable and responsible for the integrity of the overall design.
6. Ensure that all equipment supplied by "other contractor" should comply in the design specifications.
7. Shall ensure safe integration and compatibility of all equipment in the design.
8. Should act as lead person to decide and recommend to the HOPE for resolution to addressed technical problem arises during project implementation.

7.0 EQUIPMENT TO BE SUPPLIED FOR THIS CONTRACT –

The project calls for the Design and Build of Power House including the following;

1. Concrete power house (Floor Area = 400sqm)
2. First private pole and load breaker
3. 4.0 MVA Medium Voltage Switchgear (RMU or equivalent)
4. Fuel above-ground tanker (10,000 liters)
5. Synchronizing panel
6. Low Voltage Switchgear 400 volts
7. Bus Duct System
8. 4 units Automatic Transfer Switch
9. Safety Devices:
   - Lightning Arrestor
   - Surge Suppressor
   - Bonded Grounding System
10. Remote Monitoring System

8.0 PROJECT DESIGN CRITERIA:

Minimum design specification:

1. Concrete power house shall have the following characteristic;
   a. 6" thick CHB wall all around.
   b. 100mm thick concrete roof slab
   c. Wall, column and flooring shall be painted with fire rated materials.
   d. Door and window is made up of metal louver full height with 2"x5"tubular jamb.
   e. Shall have work station room (Monitoring System)
   f. Provision of adequate airflow "IN and OUT" ventilation system ducted type of 3000cfm capacity or higher.
   g. Power house shall have a relative humidity level of at least 40%-60%.
   h. Power house shall have a minimum area of 400sqm.
   i. Minimum clear height from finished floor line to bottom or roof beam is 4.0 meter
2. The design shall include private pole plus load breaker.
3. Design of duct bank with manhole from private pole to power house. Number of manhole shall be in conformance to Meralco's specification or Quezon City Building Office requirement. Design shall be approved by Meralco.
4. The medium voltage switchgear shall have a capacity of 34.5 KV and has a slots with complete terminal lugs of five (5) panels minimum with protection device.
5. The design shall ensure protection for the medium switchgear device in the event of non-compliance transformer supplied by other contractor.
6. Fuel aboveground tanker shall have a capacity of 10,000 liter with complete system and transfer fuel pump.
7. Sychronizing panel – slot of 3 unit 1,000.00 KW Electric Generating set. Shall be open system to all modalities of generator system
8. Low Voltage Switchgear – 400volts

9. Automatic Transfer Switch shall be used for secondary voltages 400 volts and 230 volts.

9.0 PRE-DETAILED DESIGN WORK:

Preparation of schematic drawings based on the design criteria and conceptual plan prepared by PCMC.

a. Perspective Views
b. At least 2 view Section Plan
c. Structural Plan
d. Mechanical Plan
e. Electrical Plan
f. Sanitary Plan

10.0 DESIGN WORK/DESIGN PHASE

1. Detailed Power House to include but not limited to the following plans signed and sealed;
   a. Detailed Architectural Plan
   b. Detailed Structural Plan
   c. Detailed Electrical Plan
   d. Detailed Mechanical Plan
   e. Detailed Sanitary Plan
   f. Master Schedule (S-Curve/PERT CPM)
   g. Proposed schedule of payment
   h. Bill of Quantities (BOQ)
   i. Derivation of BOQ its either detailed estimate format or detailed unit price analysis

2. Permits

   Contractor shall secure the following permits before construction at its own expense;

   - Certificate of Final Electrical Inspection (Quezon City)
   - Certificate of Electrical Inspection
   - Fire Safety Evaluation Certificate
   - Fire Safety Inspection Certificate
   - Meralco's approval
   - Building Permit
   - Electrical Permit
   - Mechanical Permit
   - Sanitary Permit

11.0 CONSTRUCTION WORK PHASE:

As a rule, contract implementation guidelines for procurement of infrastructure projects shall comply with Annex "E" and guidelines for the implementation of contracts for DESIGN AND BUILD infrastructure projects shall comply with Annex "G" of IRR, RA 9184. The following provisions shall supplement these procedures:

1. The contractor shall commence work upon issuance of Building Permit for the project by the Building Official. The works execution shall be in accordance with reviewed and approved documents.

2. The Design Build Contractor shall be responsible for obtaining all necessary information as to risks, contingencies and other circumstances which may affect the works and shall prepare and submit all necessary documents specified in the contract documents.

3. The contractor shall submit a detailed program of works, S-Curve, PERT-CPM or Master Schedule within (14) calendar days after the issuance of the Notice to Proceed for approval by the procuring entity that shall include, but will not be limited to:

    a. The order in which it intends to carry out the work including anticipated timing for each stage of detailed planning and construction;
    b. Periods for review of specific outputs and any other submissions and approvals;
    c. Sequence of timing for inspection and tests;
    d. General description of the design and construction methods to be adopted;
    e. Number and names of personnel to be assigned for each stage of the work;
    f. List of equipments required on site for each stage of the work; and
    g. Description of the quality control system to be utilized for the project.

4. The Design Build Contractor, Project Manager, and PCMC shall schedule a Kick Off Meeting before Construction Day 1 to set construction prerequisites, deliverables, clear and approved Master Schedule of the project signed by all parties.

5. Any error, omission, inconsistencies, inadequacies or failure submitted by the contractor that do not comply with the requirements shall be rectified, resubmitted and reviewed at the contractor's cost. If the contractor wishes to modify design or documents which has been previously submitted, reviewed and approved, the contractor shall notify PCMC within a reasonable period of time and shall shoulder the cost of such changes.

6. As a rule, changes in design and construction requirements shall be limited only to those that have not been anticipated in the contract documents prior to contract signing and approval. The following guidelines shall govern approval for change orders:

    a. Change orders resulting from design errors, omissions or non-conformance with the performance specifications and parameters and the contract documents by the contractor shall be implemented by the contractor at no additional cost to PCMC.

b. Provided that the contractor suffers delay and/or incurs costs due to changes in the PCMC performance specifications and parameters, the contractor shall be entitled to either one of the following:

1. An extension of time for any such delays under Section 10 of Annex " E" of IRR (RA 9184); or

2. Payment for such costs as specified in the contract documents, provided, that the cumulative amount of the variation order does not exceed ten percent (10%) of the original project cost.

c. The contract documents shall include the manner and schedule of payment specifying the estimated contract amount and installments in which contract will be paid.

d. The contractor shall be entitled to advance payment subject to the provisions of Section 4 of Annex "E" of IRR (RA 9184).

e. The contractor shall provide all necessary equipment, personnel, instruments, documents and others to carry out specified tests.

f. This Design and Build project shall have maximum Defects Liability Period of one (1) year after the contract completion or as provided for in the contract documents. This is without prejudice to the liabilities imposed upon engineer/architect who drew up the plans and specifications for the Plant as sanctioned under Section 1723 of the New Civil Code of the Philippines.

g. The contractor shall be held liable for design and structural defects and/or failure of the completed project within the warranty period of 15 years for permanent structures/buildings as specified in Section 62.2.3.2. of the IRR (RA 9184).

12.0 REQUIREMENT FOR CABLING LAYOUT

a. High Voltage (XLPE) and Low Voltage Cable layout shall conform to the local regulatory standards (Quezon City Electrical Department).

b. Design shall be checked and approved by Meralco prior to implementation.

13.0 SCOPE OF WORKS FOR CABLING LAYOUT

a. Inclusion:

1. Termination of XLPE cable from first private pole to medium voltage switchgear located inside the power house.
2. Supply and cabling layout from medium voltage switchgear to transformer.
3. Supply and cabling layout from transformer to Automatic Transfer Switch (ATS).
4. Supply, cabling layout and termination from synchronizing panel to ATS.
5. Supply and cabling layout from synchronizing panel to generator.

b. Exclusion:

1. Supply of XLPE cable and cabling layout.
2. Construction of pedestal and duct bank with manhole.
3. Termination of cable to medium voltage switchgear and transformer.
4. Termination of cable to transformer and ATS.
5. Termination of cable to synchronizing panel and generator.

14.0 REQUIRED TESTING & CERTIFICATION

The following certification shall be complied by the design and build contractor whenever applicable;

1. **Certificate of Manufacturer** showing that the contractor, if not the manufacturer, is authorized to market and distribute the product.

2. **Short Circuit Design Analysis** to be submitted by the designer signed and sealed by a professional electrical engineer if required by the local authority.

3. **Certificate of Distributorship** showing that the contractor is authorized to distribute the product in the Philippines.

4. **Certificate of Product Origin** showing the place of origin and authenticity of the product.

5. **Certificate of Factory Coupling with 60 days fresh from Manufacturing-** showing the quality assurance guarantee that the product is brand-new and state-of-the-art technology.

6. **Certificate of Manufacturer Service Center in the Philippines** showing that the contractor and the manufacturer, if the contractor is not such, shall provide utmost after sales services, including warranty claims.

7. **ISO certification at least ISO 9001-2015 and ISO 14001-2015** or any equivalent showing that the contractor and the manufacturer, if the contractor is not such, complies with international standards on product quality on manufacturing, management and services.

8. **Certificate/License of Original Equipment Manufacturer (OEM) from Manufacturer of Engine**

9. **Certificate/License of Original Equipment Manufacturer (OEM) from Manufacturer of Generator Set Controller**

10. **In case of foreign contractors / supplier, all the above documents should be authenticated at the Philippine Consular Office in their country of origin.**

11. **Earth Ground Resistant Test Result** to be submitted by the contractor after the equipment installation.

12. **XLPE Cable Product Test and Certification**

14.0 WARRANTY:

1. Contractor shall maintain the Power House for two (2) years from its completion. Defective units/parts discovered and consumable parts, excluding diesel, needed for replacement during the defects liability period, or one year from its completion, shall be provided by the Contractor without charge to PCMC. Labor services mentioned below must be applied during the comprehensive one (1) year warranty period.
   The remaining one (1) year shall be free of charge for "labor only" pertaining to the following.
   a. Repair services (Technician must be available 24 hours 7 days a week)
   b. Preventive Maintenance Report – on quarterly basis
   c. Calibration Report if any or if needed
2. Contractor shall provide list of parts and schedule of replacement.
3. All mechanical, electrical and electronic equipment/devices shall have a warranty of two (2) years starting from the date of completion of the project, and issuance of certificate of completion by PCMC.
4. Warranty Terms & Condition
   a. Equipment – Two (2) years comprehensive warranty
   b. Infrastructure – In reference to RA 9184 Sec. 62.2.3.2 - Fifteen (15) years Structural Warranty

15.0 IMPLEMENTATION ARRANGEMENT:

A. Coordination and Accountability
   a. The design and build contractor shall coordinate to the supplier of transformer and generator.
   b. The design and build contractor shall be solely responsible for the integration and compliance of the transformer and generator.
   c. The design and build contractor shall supervise the termination works of cable to be performed by other contractors.
   d. The design and build contractor shall ensure specification compliance and system compatibility of the transformer and generator supplied by other contractor.

B. Reporting Protocol
   a. Pre-Detailed Design Report, and Detailed Plans (whether preliminary or final), design and build contractor shall furnish a copy to PCMC Engineering Section. Final detailed plan will be submitted to PCMC in 6 sets of copy for approval.
   b. Technical queries will be submitted to PCMC for action.

16.0 ELIGIBILITY REQUIREMENT:

A. Basic

1. The eligibility requirements for Design and Build Scheme shall comply with all provisions of Section 33-24 of IRR of RA 9184.
2. A modified set of requirements integrating eligibility documents and criteria for infrastructure projects and consulting services shall be adopted in accordance with Annex G – Guidelines for the Procurement and implementation of Contracts for Design and Build Infrastructure Projects Annex "G" of IRR of RA 9184.

B. Specialized

1. For the Pre-Detailed Design and Detailed Design phase of the contract, If the Bidder is into partnership or joint venture, there should be a Memorandum of Agreement (MOA) with an Architectural Firm and Engineering Firm which both will assign professionals for the project as shown below:

   1.1. Project Coordinator (1)
      i. Licensed Engineer
      ii. At least 5 years of experience in project coordination
      iii. Superb oral and written communication skills, organization skills and excellent administrative abilities.

   1.2. Structural/Civil Engineer(1)
      i. Licensed Structural/Civil Engineer
      ii. At least 5 years of experience in structural design in related project
      iii. Proficient in Autocad software

   1.3. Professional Electrical Engineer (1)
      i. Licensed Professional Electrical Engineer
      ii. At least 2 completed project in design of high voltage substation
      iii. At least 10 years experience
      iv. Proficient in Autocad software

   1.4. Professional Mechanical Engineer (1)
      i. Licensed Professional Mechanical Engineer
      ii. At leat 5 years of experience in related projects
      iii. Proficient in Autocad software

   1.5. Master Plumber (1)
      i. Licensed Professional Mechanical Engineer
      ii. At leat 5 years of experience in related projects
      iii. Proficient in Autocad software

2. For the construction phase, the bidder must assign to the project professionals as shown:

   2.1. Project Manager (1)
      i. Licensed Professional Electrical Engineer
      ii. At least 5 years of experience in related project

iii. At least has completed 2 project of High Voltage Substation

2.2. Project Engineer (1)
- i. Professional Electrical Engineer
- ii. At least 5 years of experience in related project
- iii. At least 5 years experience

2.3. Civil Engineer (1)
- i. Licensed Civil Engineer

2.4. Mechanical Engineer (1)
- i. Licensed Mechanical Engineer

APPROVED BUDGET COST:

The total approved budget cost for the Project is (Php 32,000,000.00)

18.0 TIME FRAME:

The Contractor is required to complete the Project (Design and Build) within Six (6) Months, to start upon the Contractor's receipt and signing of Notice to Proceed.

Item	Activity	Duration (Month)					
		1	2	3	4	5	6
1	**Detailed Architectural and Eng'g Design Phase** 1. Detailed Design for Power House; 1.1. Architectural Plan 1.2. Structural Plan 1.3. Mechanical Plan 1.4. Electrical Plan 1.5. Sanitary Plan 2. Technical Specifications 3. All Detailed Plan and Technical Specifications shall be submitted to PCMC for approval 4. Detailed Estimate and Bill of Quantities 5. Master Schedule- Materials and Labor Cost with S-Curved. 6. PERT-CPM 7. Approval by PCMC						
2	**Pre-Construction Phase** 1. Permitting 2. All necessary government licenses and permits						
3	**Construction Phase**						

4	**Post Construction Phase** 1. Punchlisting/Rectification 2. Commissioning and Testing 3. Submission of As-Built Plan 4. Start up- Operation 5. Submission of necessary permits. 6. Fire Safety Inspection Certification						

19.0 SCHEDULE OF PAYMENT:

1. 15% - Advance Payment
2. 5% - Upon approval of Detailed Architectural and detailed estimate/bill of quantities and submission of all necessary permits from Quezon City Government.
3. The balance is through monthly progress billing per work accomplished.

20.0 GOVERNING APPLICABLE LAWS

All works shall comply with the following laws:

1. PD 1096 –National Building Code of the Philippines and its Implementing Rules and Regulations.
2. PD 1185 – Fire Code of the Philippines and its Implementing Rules and Regulations.
3. PD 856 – Code of Sanitation of the Philippines and its Implementing Rules and Regulations.
4. RA 1378 – National Plumbing Code of the Philippines and its Implementing Rules and Regualtions.
5. RA 184 – Electrical Code of the Philippines and its Implementing Rules and Regulations.
6. RA 9275 – Philippine Clean Water Act of 2004 and its Implementing Rules and Regulations.
7. RA 8749 – Philippine Clean Air Act of 1999 and its Implementing Rules and Regulations.
8. RA 6969 – Toxic Substances and Hazardous and Nuclear Waste Control Act of 1990 and its Implementing Rules and Regulations.

9. PD 1586 – Environmental Impact Statement (EIS) of 1978 and its Implementing Rules and Regulations.

21.0 OBLIGATION OF THE CONTRACTOR:

1. To comply with the requirement as set forth in the PCMC bidding documents as provided for on RA 9184 and its IRR and other applicable rules and regulations related to the project.

2. To conduct site inspection before participating the bidding to consider all conditions that may directly or indirectly affect the implementation of the project, including verification of measurements and site dimensions of the project.

3. To provide guarantee the highest quality of workmanship. All works must comply with the standard, approved plans, scope of works and technical specifications provided for by PCMC. Non-acceptable works must be corrected without cost to PCMC.

4. Provide the following on his own accounts/expense;

    a. All necessary permits and other documents required ahead of time before commencement of work.

    b. Suitable Staging, temporary office at specified location inside the PCMC grounds for his workmen.

    c. Suitable and approved fences/barricades around the project working area to safeguard his workmen and the public against accidents.

    d. Proper PPE, uniform and first aid kits for his workmen while inside PCMC premises.

    e. Record and logbook for daily attendance of its workmen and activities.

5. To provide licensed engineer that will constantly coordinate with PCMC authorized representative to decide on normal and critical condition during the construction phase. There should be a weekly meeting (or more often when necessary) for both parties to discuss the progress and other matters related to the project.

6. To seek approval, at all times, from PCMC Representative regarding tapping of electrical works.

7. To submit complete sets of as-built plan, requirement for the release of final payment.
8. To submit detailed shop drawings, detailed estimate and adjusted work schedule in any additional works, change order/variation order. Shop drawing shall be signed and sealed. Implementation shall be subject to verification and recommendation of Engineering Section and shall be approved by PCMC.

9. To comply with PCMC's standard operating procedures, policies and regulations, such as but not limited to:

   a. All deliveries of materials must pass through PCMC Property and Supply Section-Receiving area, duly supported by a delivery receipt/sales invoice. PCMC Engineering shall check conformity of specifications before acceptance.

   b. All tools and equipment to be brought in must pass through PCMC security office for issuance of entry pass. Pull out of tools and equipment must be with corresponding gate pass issued by the Property and Supply Section.

   c. Tools and materials must be delivered 100% to finish the project as per plans and specifications. All excess scrap materials will become the property of PCMC.

   d. Safekeeping and safeguarding of tools, equipment and materials shall be the accountability of the Contractor.

   e. Avoid any act/s that will cause disruption of hospital operation. The contractor shall be held liable for all damages incurred during construction. Restoration of damages shall at their own expense.

   f. Entry and exit of workmen is subject for inspection by PCMC guard.

   g. Secure work permit at engineering section before commencement of work.

   h. Policies and regulations reflected on approved work permit shall be complied at all time.

CONFORME :

_____

AUTHORIZED REPRESENTATIVE
Signature over printed name

_____

NAME OF COMPANY

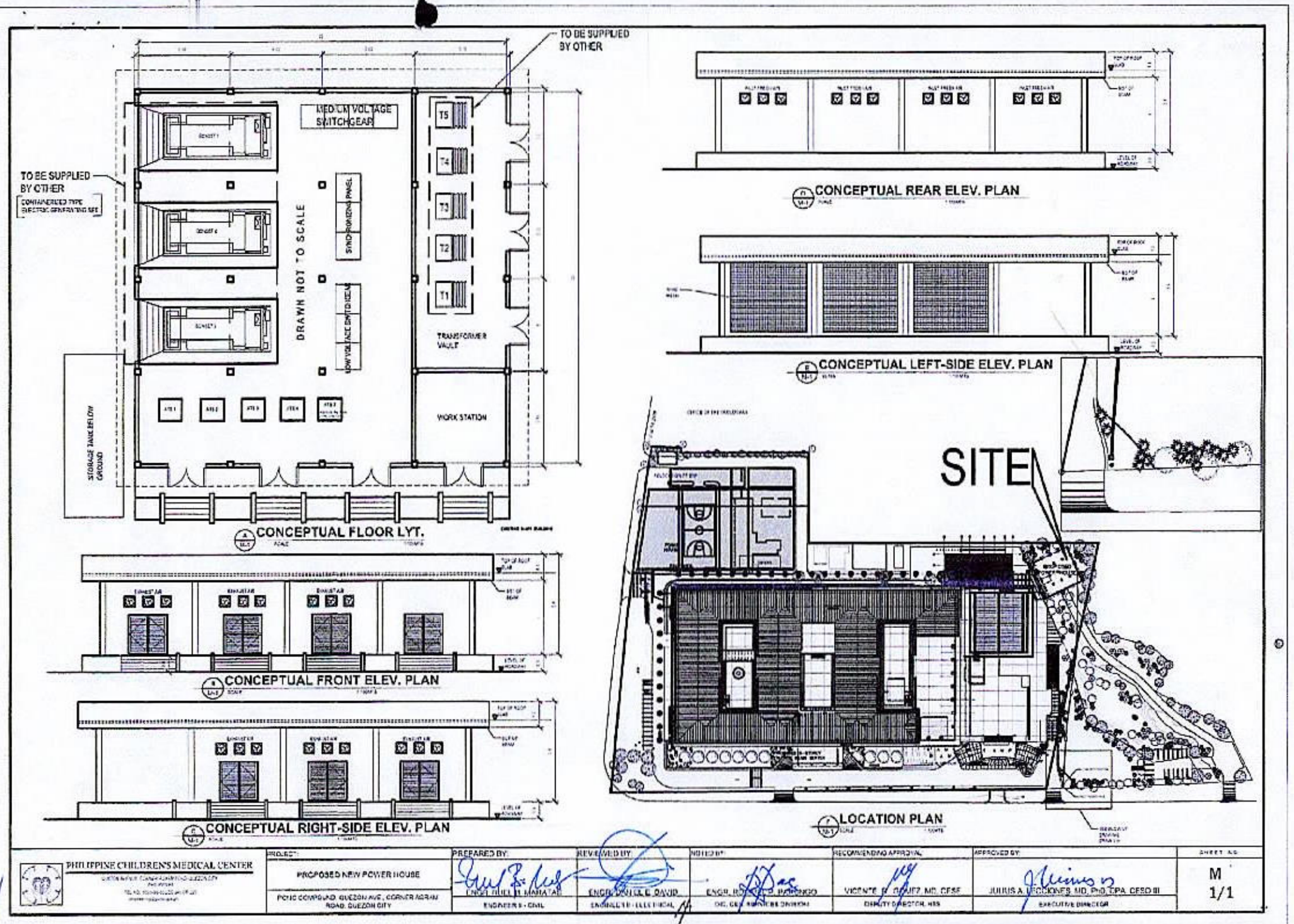
Republic of the Philippines
PHILIPPINE CHILDREN'S MEDICAL CENTER
Bids and Awards Committee
Quezon Avenue, Quezon City 1100
924-6601 to 25 Website: www.pcmc.gov.ph email: hiss@pcmc.gov.ph

SECTION VII

Drawings

One (1) Lot Design and Build of PCMC's New Powerhouse

IB-2021-042


TO BE SUPPLIED BY OTHER
MEDIUM VOLTAGE SWITCHGEAR
T5
T4
T3
T2
T1
TO BE SUPPLIED BY OTHER
CONTAINERIZED TYPE ELECTRIC GENERATING SET
DRAWN NOT TO SCALE
SYNCHRONIZING PANEL
LOW VOLTAGE SWITCHGEAR
TRANSFORMER VAULT
WORK STATION
STORAGE TANK BELOW GROUND
CONCEPTUAL FLOOR LYT.
CONCEPTUAL REAR ELEV. PLAN
CONCEPTUAL LEFT-SIDE ELEV. PLAN
SITE
CONCEPTUAL FRONT ELEV. PLAN
CONCEPTUAL RIGHT-SIDE ELEV. PLAN
LOCATION PLAN
PHILIPPINE CHILDREN'S MEDICAL CENTER
PROJECT:
PROPOSED NEW POWER HOUSE
PCMC COMPOUND, QUEZON AVE., CORNER AGHAN ROAD, QUEZON CITY
PREPARED BY:
ENGR. RUEL H. MAMATAR
ENGINEER II - CIVIL
REVIEWED BY:
ENGR. JOSE E. DAVID
NOTED BY:
ENGR. ROLANDO B. BARRIOS
RECOMMENDING APPROVAL:
VICENTE B. CRUZ, MD, CESE
DEPUTY DIRECTOR, HSS
APPROVED BY:
JULIUS A. LECCIONES, MD, PhD, CPA, CESO III
EXECUTIVE DIRECTOR
SHEET NO.
M
1/1

Republic of the Philippines
PHILIPPINE CHILDREN'S MEDICAL CENTER
Bids and Awards Committee
Quezon Avenue, Quezon City 1100
588-9900 loc 361 Website: www.pcmc.gov.ph email: bac@pcmc.gov.ph

SECTION VIII

Bill of Quantities

One (1) Lot Design and Build of PCMC's New Powerhouse

IB-2021-042

COST ESTIMATE FORM

Project : One (1) Lot Design and Build of PCMC's New Powerhouse
Location : Philippine Children's Medical Center, Agham Road corner Quezon Avenue Quezon City
Owner : Philippine Children's Medical Center
Bidder : _____
Date : _____

Item No.	Description	Qty	Unit	Materials		Labor		Total Direct Cost	Mark-Up		VAT	Total Indirect Cost	Total Cost	Unit Cost
				Unit Cost	Total Amount	Unit Cost	Total Amount		OCM	Profit				
A	*DESIGN PHASE*													
I	GENERAL REQUIREMENT													
	1. Mobilization and Demobilization	1.00	lot											
	2. Detailed Architectural and Engineering Design	1.00	lot											
	3. Permits	1.00	lot											
	Meralco's Approval													
	Certificate of Final Electrical Inspection (Quezon City)													
	Certificate of Electrical Inspection													
	Fire Safety Evaluation Certificate													
	Fire Safety Inspection Certificate													
	Building Permit													
	Electrical Permit													
	Mechanical Permit													
	Sanitary Permit													
	4. DOLE, Health and Safety requirement	1.00	lot											
	5. Temporary Facility for workers and material storage	1.00	lot											
B	*CONSTRUCTION PHASE*													
I	CIVIL WORKS													
	1.0 SITE DEVELOPMENT / SOIL PROTECTION	1.00	lot											
	2.0 EXCAVATION	1.00	lot											
	3.0 POWER HOUSE STRUCTURE	1.00	lot											
	4.0 CONCRETE PADS (GENSET/TRANSFORMER)	1.00	lot											
II	ELECTRICAL WORKS													
	1.0 CABLE WIRES	1.00	lot											
	2.0 FIRST PRIVATE POLE WITH ACCESSORIES	1.00	unit											
	3.0 MEDIUM VOLTAGE SWITCHGEAR	1.00	set											
	4.0 SYNCHRONIZING PANEL	1.00	set											
	5.0 AUTOMATIC TRANSFER SWITCH, 3200A	2.00	unit											
	6.0 LOW VOLTAGE SWITCHGEAR	1.00	lot											
	6.0 AUTOMATIC TRANSFER SWITCH 1600A	2.00	unit											
	7.0 MISCELLANEOUS (TO BE DEFINED BY BIDDER)	1.00	lot											
III	MECHANICAL WORKS													
	1.0 Ventillation System	1.00	lot											
	2.0 Diesel fuel Storage tank (30,000 liter) with concrete	1.00	lot											
	saddle support and complete with pump													

_____
Signature over printed name
Authorized Representative
Position : _____
Name of Bidder : _____

Item No.	Description	Qty	Unit	Materials		Labor		Total Direct Cost	Mark-Up		VAT	Total Indirect Cost	Total Cost	Unit Cost
				Unit Cost	Total Amount	Unit Cost	Total Amount		OCM	Profit				
IV	FIRE PROTECTION													
	1.0 Dry suppression - extinguishers	1.00	lot											
V	SANITARY/PLUMBING WORKS													
	1.0 Storm Drainage System	1.00	lot											
	2.0 Fuel Interceptor / Water fuel separator	1.00	lot											
	3.0 Water supply system	1.00	lot											
VI	**TESTING & COMMISSIONING**	1.00	lot											
	GRAND TOTAL													

Signature over printed name
Authorized Representative
Position : _____
Name of Bidder : _____

Republic of the Philippines
DEPARTMENT OF HEALTH
PHILIPPINE CHILDREN'S MEDICAL CENTER
Bids and Awards Committee
Quezon Avenue, Quezon City 1100
website: www.pcmc.gov.ph email: bac@pcmc.gov.ph
Trunkline: 588-9900 local 361/355 Telefax No.: 924-0870

SECTION IX

Checklist of Technical and Financial Documents

One (1) Lot Design and Build of PCMC's New Powerhouse

IB-2021-042

Checklist of Technical and Financial Documents

The Bidder shall submit the following **TECHNICAL COMPONENT ENVELOPE (ARRANGED, NUMBERED AND TABBED)** *[Strictly NO using of staple wire and thick materials for tabs]* as enumerated below:

Use of indelible ink color blue shall be used by the authorized signatory in signing the required forms.

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Documents

☐ (a) Valid PhilGEPS Registration Certification (Platinum Membership) and its Annex A.

OR

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

and

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

and

☐ (d) Tax Clearance per Executive Order 398, series of 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).

Note:

In the event the bidder opted to submit only Requirement Nos. 2 to 4 Legal Documents, the Certificate of PhilGEPS Registration (Platinum Membership) shall remain a post-qualification requirement to be submitted in accordance with Section 34.2 of the 2016 Revised IRR of RA 9184 (Pursuant to GPPB Circular 07-2017 dated 31 July 2017)

Technical Documents

☐ (f) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid. *(Use of Form No. DOBA-PCMC-SCF3b is required)*

and

☐ (g) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid **(Refer to Bid Data Sheet ITB Clause 5.2)**, except under conditions provided under the rules (*use of Form No. **DOBA-PCMC-SCF3a** is required*).

☐ (h) Philippine Contractors Accreditation Board (PCAB) License;

or

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

☐ (i) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission (**Refer to Bid Data Sheet ITB Clause 15.1**);

or

Original copy of Notarized Bid Securing Declaration; **and**

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

a. Organizational Chart for the contract to be bid *(Use of the Form No. **DOBA-PCMC-SQF24** as the guide)*

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;

Supporting documents shall be the following:

i. Statement of the Qualifications of the Key Personnel Proposed to be assigned to the contract (*use of the Form No. **DOBA-PCMC-SQF17** is required*)
ii. Contractor's letter - Certificate to the Procuring Entity (*use of the Form No. **DOBA-PCMC-CCF23** is required)*
iii. Key Personnel's Certificate of Employment *use of the Form No.* (***DOBA-PCMC-KCF18** is required*)
iv. Bio-Data of each of the key personnel *(use of the Form No. **DOBA-PCMC-BPF16** is required*)

c. 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 (*use of Form No. **DOBA-PCMC-LEF20** is required);* **and**

d. List of Requirements per Bid Data Sheet ITB Clause 21.

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

Financial Documents

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

The Audited Financial Statement **shall be complete** which includes the following:

a) Balance Sheet or Statement of Financial Position;
b) Income Statement or Statement of Comprehensive Income;
c) Statement of Changes of Equity;
d) Cash Flow Statement and
e) Notes to Financial Statement

and

☐ (m) The prospective bidder's computation of the Net Financial Contracting Capacity (NFCC) (*Use of Form No. DOBA–PCMC–NFF4 is required);*

Class "B" Documents

☐ (n) If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence;

or

duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

II. FINANCIAL COMPONENT ENVELOPE

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

Other documentary requirements under RA No. 9184

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

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

Note: Bidder shall return to PCMC the issued USB Flash Drive containing the soft copy of their accomplished Bill of Quantities and Detailed Price Schedule (in excel format). Any discrepancies between the submitted hard copy and soft copy of the Bill of Quantities and Detailed Estimates, the hard copy will prevail.

and

☐ (r) Cash Flow by Quarter and payments schedule (*use of Form No. **DOBA-PCMC-CFF27** as the guide*)

☐ (s) Duly accomplished Certificate of Undertaking

☐ (t) Signed *Conforme* on Section II. Instructions to Bidders on all pages

☐ (u) Signed *Conforme* on Section III. Bid Data Sheet on all pages

☐ (v) Signed *Conforme* on Section IV. General Conditions of the Contract on all pages

☐ (w) Signed *Conforme* on Section V. Special Conditions of the Contract on all pages

☐ (x) Signed *Conforme* on Section VI. Specifications on all pages (including Terms of Reference)

CONFORME:

_____
Authorized Signatory
Signature over printed name

_____
Name of Company/Firm