



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 I

Invitation to Bid

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

IB No. 2020-099



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
IB 2020-099

The **Philippine Children's Medical Center**, through **GAA (DOH HFEP 2018)** intends to apply the sum of **Thirty-Two Million Pesos (Php32,000,000.00)** being the Approved Budget for the Contract (ABC) to payment under the contract for the following project. Bids received in excess of the ABC shall be automatically rejected at bid opening.

Item Description	Approved Budget for the Contract	Cost of Bidding Documents
One (1) Lot Design and Build of PCMC's New Powerhouse	32,000,000.00	25,000.00

The PCMC, through its Bids and Awards Committee now invites bids for the above-mentioned project. Completion of the Works is required in six (6) months. Bidders should have completed a contract similar to the Project as specified in **ITB** Clauses 5.4 and 12.1. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II. Instructions to Bidders.

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, otherwise known as the "Government Procurement Reform Act".

Bidding is restricted to Filipino citizens/sole proprietorships, cooperatives, and partnerships or organizations with at least Sixty percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines.


All Bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 18. Bids will be opened in the presence of the bidders' representatives who choose to attend at the address below. Late bids shall not be accepted.

SCHEDULE OF ACTIVITIES

1. Availability of Bidding Documents (start) : September 8, 2020
2. Pre-bid Conference : October 15, 2020
2:00 P.M. Video Conference
3. Submission of Eligibility, Technical and Financial Requirements : On or before October 27, 2020
1:30 P.M., **Guard-on-Duty, 3rd flr, Procurement Division**
4. Opening of Bids : October 27, 2020, 2:00 P.M.,
3rd flr. Proc. Division Area / Function Hall

The Philippine Children's Medical Center 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 Section 41 of RA9184 and its IRR, without thereby incurring any liability to the affected bidder or bidders.

Interested bidders may obtain further information and inspect details for the Pre-Bid Video Conference at PCMC-BAC Secretariat Office (Procurement Division) thru e-mail to [pcmcbac@gmail.com/](mailto:pcmcbac@gmail.com) bac@pcmc.gov.ph, and with Tel. No. 8924-0870 or 8588-9900 local 361 from 8:00 am to 5:00 pm.


MARIA ROSARIO S. CRUZ, MD
Chairperson, Bids and Awards Committee

PhilHealth Accredited





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SECTION III

Bid Data Sheet

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

IB No. 2020-099

Bid Data Sheet

ITB Clause	
1.1	<p>The Procuring Entity is</p> <p><i>PHILIPPINE CHILDREN'S MEDICAL CENTER (PCMC)</i></p>
1.2	<p>The name of the Contract is:</p> <p><i>Design and Build of PCMC's New Powerhouse</i></p> <p>The identification number of the Contract is <i>IB-2020-099</i></p> <p>The lot(s) and reference is/are:</p> <p><i>Design and Build of PCMC's New Powerhouse</i></p>
2.	<p>The Funding Source is:</p> <p>The Government of the Philippines (GOP) through <i>DOH HFEP 2018</i> in the amount of <i>Thirty-Two Million Pesos (Php32,000,000.00)</i></p> <p>The name of the Project is:</p> <p><i>Design and Build of PCMC's New Powerhouse</i></p> <p>The Philippine Children's Medical Center reserves the right to reject bids, declare failure of bidding or not to award the contract without incurring any liability in accordance to Section 41 of the RA 9184 and its IRR. <i>(e.g. if the funds/allotments for the said project have been withheld or reduced through no fault of its own)</i></p>
3.1	No further instructions.
5.1	No further instructions.
5.2	Bidding is restricted to eligible bidders as defined in ITB Clause 5.1.
5.4(b)	<p>The Design Build Contractor (as Solo or in joint venture/ consortia) must have completed a Power House in the amount of at least fifty percent (50%) of the approved budget cost in the last five (5) years. Where one of the parties (in a joint venture/consortia) should have at least one similar project, both in design and construction, with at least 50% of the cost of the ABC.</p> <p>For this purpose, similar contracts shall refer to <i>Design and Build of Power House (At least 34.5KV) or High voltage substation</i></p>
8.1	<p>Subcontracting is allowed only for the following works:</p> <ol style="list-style-type: none"> 1. Civil Works 2. Excavation Works <p>Only a maximum of 50% of the works may be subcontracted. However, subcontracting of any portion shall not relieve the bidder from any liability or obligation that may arise from the contract of this Project.</p> <p>Subcontractors must submit the documentary requirements under ITB Clause 12 (BDS 12.1) and comply with the eligibility criteria specified in the BDS</p> <ol style="list-style-type: none"> 1. Registration Certificate from SEC, Department of Trade and Industry (DTI) for sole proprietorship, or CDA for cooperatives, or any proof of such registration.

	<ol style="list-style-type: none"> 2. Mayor's permit issued by the city or municipality where the principal place of business of the prospective bidder is located. 3. Tax Clearance per Executive Order 398, series of 2005, as finally reviewed and approved by the BIR. 4. PCAB License Small B Category C and D <p>In the event that any subcontractor is found by the Procuring Entity to be ineligible, the subcontracting of such portion of the Works shall be disallowed.</p> <p>The Bidder may identify the subcontractor to whom a portion of the Works will be subcontracted at any stage of the bidding process or during contract implementation. If the Bidder opts to disclose the name of the subcontractor during bid submission, the Bidder shall include the required documents as part of the technical component of its bid. Subcontractor(s) shall be approved by PCMC.</p>
8.2	<p>Eligibility criteria for subcontractor:</p> <ol style="list-style-type: none"> 1) At least one (1) Similar contract with at least 50% of the bid for the following works and must be duly supported with client's acceptance <ol style="list-style-type: none"> a. Power House and Transformer Vault b. Electrical High Voltage Substation 2) Track Record of the Company
9.1	<p>The Procuring Entity will hold a pre-bid conference for this Project on: <i>Refer to Invitation to Bid/Bid Bulletin</i></p>
10.1	<p>Requests for clarification(s) on any part of the Bidding Documents or for an interpretation must be in writing and submitted to the BAC of the Procuring Entity concerned at least ten (10) calendar days before the deadline set for the submission and receipt of bids.</p> <p>The Procuring Entity's address is: <i>Quezon Avenue corner Agham Road, Quezon City</i></p> <p><i>BAC Secretariat 8924-0870 or 8588-9900 local 361, 355</i></p> <p>The Supplier's address for Notices is:</p> <p>_____</p> <p><i>Address</i></p> <p>_____</p> <p><i>name of contact</i></p> <p>_____</p> <p><i>fax and telephone number</i></p>

12.1

The Bidder shall submit the following **ELIGIBILITY AND TECHNICAL DOCUMENTS 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.

(a) Eligibility Documents

Class "A" Documents

1. Registration Certificate from SEC, Department of Trade and Industry (DTI) for sole proprietorship, or CDA for cooperatives.
2. 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.
In cases of recently expired Mayor's/Business permits, it shall be accepted together with the official receipt as proof that the bidder has applied for renewal within the period prescribed by the concerned local government unit, provided that the renewed permit shall be submitted as a post-qualification requirement in accordance with Section 34.2 of this IRR.
3. Valid Tax Clearance per Executive Order 398, series of 2005, as finally reviewed and approved by the BIR.

Note:

a. Bidders may still submit the Class "A" Eligibility Documents required to be uploaded and maintained current and updated in the PhilGEPS pursuant to Section 8.5.2 of the 2016 Revised IRR; or

b. If already registered in the PhilGEPS under Platinum category, the Certificate of Registration and Membership in lieu of the uploaded file of Class "A" Eligibility Documents; or

c. A combination thereof in case any of the earlier uploaded Class "A" Eligibility Documents has been expired.

In the event the bidder opted to submit only the Class "A" Eligibility 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)

4. 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)*

Note:

Failure to include an immaterial on-going contract or failure to disclose complete information in the statement of contracts shall result to the following:

- a. Disqualification of the bidder for non-compliance with the eligibility requirement under Section 23.1 of the revised IRR.
- b. Blacklisting under Section 65.3 (a) or (b) of the revised IRR

5. Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid (Refer to ITB Clause 5.4) within five (5) years from date of bid opening (use of Form No. DOBA-PCMC-SCF3a is required).

The statement of the Bidder's SLCC shall be supported by:

- a. Notice of Award and/or Notice to Proceed, Project Owner's Certificate of Final Acceptance issued by the Owner other than the Contractor or the Constructors Performance Evaluation System (CPES) Final Rating, **which must be at least satisfactory.** In case of contracts with the private sector, an equivalent document shall be submitted
- b. Must submit Certificate of Satisfactory Completion issued by PCMC if done business with us at any one time.

6. Valid Philippine Contractor's Accreditation Board (PCAB) License and registration:

- Size Range : Medium A, Licensed Category B
SPECIALTY: SP-EE (ELECTRICAL WORKS)

In case of Joint Venture a Special PCAB License - License Category B, Medium A Specialty – Electrical Works

7. The prospective bidder's **CY 2019** Audited Financial Statements, showing, among others, the prospective bidder's total 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 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

8. The prospective bidder's computation of the Net Financial Contracting Capacity (NFCC) that must be at least equal to the ABC to be bid (*Use of Form No. DOBA-PCMC-NFF4 is required*);

Class "B" Documents

9. *In case of Joint Venture Agreement (JVA) the JV bidders shall submit a JVA in accordance with R.A. 4566 and its IRR, Section*

38.

Each partner of the joint venture shall submit their respective PhilGEPS Certificates of Registration in accordance with Section 8.5.2 of this IRR. The submission of technical and financial eligibility documents by any of the joint venture partners constitutes compliance: Provided, That the partner responsible to submit the NFCC shall likewise submit the Statement of all of its ongoing contracts and Audited Financial Statements.(a)

(b) Technical Documents

1. Bid Security (as provided for on BDS Clause 18.1)
2. Project requirements to be prepared by the Bidder shall include:
 - a. Preliminary Conceptual Design Plans in accordance with the degree of details specified by the PCMC. *Submit in A3 the following:*
 - Perspective Views of Power House
 - Floor plans, two (2) sections and four (4) elevations,
 - Complete space allocation
 - Engineering Plans, Layout and Schematic Diagram
 - b. Design and construction method;
 - c. Value Engineering analysis of design and construction method
3. Company Profile of Contractor and joint venture companies. Company printed brochure may be included.
4. Contractor's Organizational Chart for the contract to be bid (*Use of the Form No. DOBA-PCMC-SQF24 as the guide*)
5. List of Contractor's personnel and joint venture contractor's personnel to be assigned to the contract to be bid with supporting documents.

For Design: Project Coordinator Structural/ Civil Engineer Professional Electrical Engineer Professional Mechanical Engineer Sanitary Engineer or Master Plumber Others as required for the Project	For Construction: Project Manager (PEE) Project Engineer (EE)
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Supporting documents shall be the following:

- a. 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*)
- b. Contractor's letter - Certificate to the Procuring Entity (*use of the Form No. DOBA-PCMC-CCF23 is required*)
- c. Key Personnel's Certificate of Employment *use of the Form No. (DOBA-PCMC-KCF18 is required)*
- d. Bio-Data of each of the key personnel (*use of the Form No. DOBA-PCMC-BPF16 is required*)
6. Affidavit of Site Inspection (*use of Form no. DOBA-PCMC-SIF22 is required*).
7. Signed *conforme* on Section VII. Conceptual Plans, Site Plans and

	<p>Preliminary Elevations and Perspectives issued by PCMC.</p> <ol style="list-style-type: none"> 8. List of 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 (<i>use of Form No. DOBA-PCMC-LEF20 is required</i>). 9. Manpower Utilization Schedule (<i>use of Form No. DOBA-PCMC-MUF13 is required</i>). 10. Construction Schedule through Gantt Chart (for construction activities) and S-Curve (for financial requirements) 11. Equipment Utilization Schedule (<i>use of Form No. DOBA-PCMC-EUF21 is required</i>). 12. Construction Safety and Health Program Note: Must be in accordance with the rules and regulations and other orders and issuances by the DOLE 13. PERT - CPM 14. Omnibus Sworn Statement (<i>Use of the Form provided is required</i>) 15. Valid ISO Certification of the Bidder 												
12.1 (a) (iii)	No further instructions.												
12.1(b)(ii.2)	The minimum work experience requirements for key personnel (<i>refer to Terms of Reference</i>)												
12.1(b)(ii.3)	<p>The minimum major equipment requirements are the following:</p> <table border="1"> <thead> <tr> <th><u>Equipment</u></th> <th><u>Capacity</u></th> <th><u>Number of Units</u></th> </tr> </thead> <tbody> <tr> <td>i. Dump Truck</td> <td>5cu.m</td> <td>1</td> </tr> <tr> <td>ii. Boom Truck</td> <td></td> <td>1</td> </tr> <tr> <td>iii. Backhoe</td> <td></td> <td>1</td> </tr> </tbody> </table>	<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>	i. Dump Truck	5cu.m	1	ii. Boom Truck		1	iii. Backhoe		1
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ii. Boom Truck		1											
iii. Backhoe		1											
13.1(b)	<p>The Bidder shall submit the following <u>FINANCIAL COMPONENT, ARRANGED AND TABBED:</u></p> <p><i>Use of indelible ink color blue shall be used by the authorized signatory in signing the required forms.</i></p> <ol style="list-style-type: none"> 1. Duly Accomplished and Signed Bid Form. 2. Bid prices in Section VIII. Bill of Quantities in the prescribed Bid Form and should be supported by signed detailed estimates including a summary sheet indicating the unit prices of construction materials, labor rates and equipment rentals used in coming up with the Bid. 3. Cash Flow by period (depending on the duration of the project) and payments schedule (<i>use of Form No. DOBA-PCMC-CFF27 as the guide</i>) 4. Duly accomplished Certificate of Undertaking 5. Signed <i>Conforme</i> on Section III. Bid Data Sheet on all pages 6. Signed <i>Conforme</i> on Section V. Special Conditions of the Contract on all pages 7. Signed <i>Conforme</i> on Section VI. Specifications on all pages 8. One (1) CD-RW containing the exact copy of the accomplished forms under no. 2 requirement (Section VIII. Bill of Quantities and detailed estimates). The contents of the CD should be exactly the same as the hard copy of the forms submitted. <p>Note: Any discrepancies between the submitted hard copy and soft copy of the Bill of Quantities and Detailed Estimates, the hard copy will prevail.</p>												
13.2	<p>The ABC is <u>Thirty-Two Million Pesos (Php32,000,000.00).</u></p> <p>Any bid with a financial component exceeding this amount shall not be accepted.</p>												

14.2	“No further instructions.”		
15.2	The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Bids not addressing or providing all of the required items in the Bidding Documents including, where applicable, Bill of Quantities, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the Government, except those required by law or regulations to be provided for.		
16.1	The bid prices shall be quoted in Philippine Pesos.		
16.3	No further instruction		
17.1	Bids will be valid until <i>One Hundred Twenty (120) calendar days</i> from the submission and opening of bids		
18.1	The bid security shall be in any of the following forms and amounts: <ol style="list-style-type: none"> 1. Bid Securing Declaration [<i>use of Form No. DOBA-PCMC-BDF5 is required</i>] 2. The amount of not less than <u>Php640,000.00 (2% of the ABC)</u> 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 3. The amount of not less than <u>Php1,600,000.00 (5% of the ABC)</u>, 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. 		
18.2	The bid security shall be valid until <i>One Hundred Twenty (120) calendar days from opening of bids.</i>		
20.3	<p>Use of indelible ink <u>color blue</u> shall be used by the authorized signatory in signing the required forms.</p> <p>The First (1st) Envelope, properly sealed and marked shall contain the following:</p> <ol style="list-style-type: none"> a) <u>Eligibility Components</u> accomplished in five (5) sets, each set filed in brown data binder <p>Note: Separate data binder for each partner in Joint-Venture Agreement.</p> <ol style="list-style-type: none"> b) <u>Technical Components</u> accomplished in five (5) sets, each set filed in a brown data binder <p>The Second (2nd) Envelope shall contain the <u>Financial Component</u> accomplished in five (5) sets, each set filed in a brown data binder</p> <p>All copies should be certified as true copy</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">COLOR CODING OF FOLDERS/ENVELOPES</td> <td style="text-align: center;">BROWN</td> </tr> </table>	COLOR CODING OF FOLDERS/ENVELOPES	BROWN
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	<p>LABEL ON THE ENVELOPE/S: IDENTIFY THE ENVELOPES: Name of PROCURING ENTITY as:> Eligibility/Technical Requirements Name of CONTRACT TO BE BID (original, copy 1, 2, 3 & 4) IB Number > Financial Component Requirement DATE of Bid Opening original, copy 1, 2, 3, & 4) Name of the Bidder Company Address of the Bidder Company</p>
21	<p>The address for submission of bids is</p> <p><i>Executive Director's Office 3rd Floor, Philippine Children's Medical Center Quezon Avenue corner Agham Road, Quezon City</i></p> <p>The deadline for submission of bids is : <i>Refer to Invitation to Bid/ Bid Bulletin</i></p>
24.1	<p>The place of bid opening: <i>Refer to Invitation to Bid/ Bid Bulletin</i></p> <p>The date and time of bid opening: <i>Refer to Invitation to Bid/ Bid Bulletin</i></p>
24.2	No further instructions.
24.3	No further instructions.
27.3	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.
27.4	<p>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.</p> <p>For the detailed evaluation of the design and build proposals a two-step procedure shall be adopted by the BAC and TWG.</p> <p>1. First-Step Procedure</p> <p><i>i.</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:</p> <p style="padding-left: 40px;">a. Adherence of preliminary design plans to the required performance specifications and parameters and degree of details: 30%</p> <p style="padding-left: 40px;">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%</p> <p style="padding-left: 40px;">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%</p>

	<p><i>ii.</i> Eligible bidders may be required to make an oral presentation within Seven (7) calendar days after the deadline for submission of technical proposal.</p> <p>Minimum Passing Rate of Eighty 80 points.</p> <p>2. Second-Step Procedure</p> <p>Only those bids that passed the above criteria shall be subjected to the second step of evaluation.</p> <p>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).</p>
28.2	<p>The <u>Lowest Calculated Bidder</u> and <u>In case of a Joint Venture Agreement, each of its partner</u> shall submit the following documentary requirements within a non-extendible period of five (5) calendar days from receipt of the notification that contain the following:</p> <ol style="list-style-type: none"> 1. CY 2019 Income Tax Returns filed and taxes paid through the BIR Electronic Filing and Payment System (EFPS) 2. Valid and current Certificate of PhilGEPS Registration 3. Latest Income and Business Tax Returns filed and paid through the BIR Electronic Filing (EFPS). 4. Articles of Incorporation and General Information Sheet (GIS), in case the bidder has submitted a SEC registration as part of Eligibility Documents <p>Failure of the Bidder declared as LCB to duly submit the requirements stated above or a finding against the veracity of such shall be ground for forfeiture of the bid security and disqualify the Bidder for award.</p>
31.4(f)	<p><i>Additional contract documents:</i></p> <ul style="list-style-type: none"> • <i>Health program approved by the Department of Labor and Employment</i>

32.2	The Performance Security shall be accepted in any of the following forms:	
	FORM OF PERFORMANCE SECURITY	AMOUNT OF PERFORMANCE SECURITY (Equal to Percentage of the Total Contract Price)
a) Cash or cashier's/ manager's check issued by a Universal or Commercial Bank		
b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank		Ten percent (10%)
c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.		Thirty percent (30%)
<p><u>Contract Agreement</u> for this purpose shall be submitted within ten (10) calendar days from receipt of NOA.</p>		
<p style="text-align: center;">NOTE: The Lowest Calculated and Responsive Bidder will be required to submit five (5) copies of Instructions to Bidders (ITB) and General Conditions of the Contract (GCC) with signed <i>conforme</i> on all pages</p>		

CONFORME:

 Authorized Signatory
 Signature over printed name

 Name of Company/Firm



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 V

Special Conditions of Contract

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

IB No. 2020-099

Special Conditions of Contract

GCC Clause	
1.17	The Intended Completion Date is within six (6) months
1.22	The Procuring Entity is PHILIPPINE CHILDREN'S MEDICAL CENTER Quezon Avenue, corner Agham Road, Quezon City
1.23	The Procuring Entity's Representative JULIUS A. LECCIONES, M.D., PhD, DPA, CESO III Executive Director
1.24	The Site is located at Quezon Avenue, cor. Agham Road, Quezon City
1.28	The Start Date is <i>Seven (7) Calendar days upon receipt of Notice to Proceed (NTP)</i>
1.31	The Works consist One (1) Lot Design and Build of Philippine Children's Medical Center's (PCMC) New Powerhouse
2.2	There is no sectional completion. The project will be completed within six (6) months
5.1	The Procuring Entity shall give possession of all parts of the Site to the Contractor on the actual start date.
6.5	The Contractor shall employ the following Key Personnel : Pre-Detailed Design & Detailed Design Phase <ul style="list-style-type: none"> (1) Project Coordinator (1) Structural/ Civil Engineer (1) Professional Electrical Engineer (1) Professional Mechanical Engineer (1) Sanitary Engineer or Master Plumber Others as required for the Project Construction Phase <ul style="list-style-type: none"> (1) Project Manager (Professional Electrical Engineer) (1) Project Engineer (Registered Electrical Engineer) (1) Civil Engineer (1) Mechanical Engineer
7.4 (c)	Submission of As Built Plans- Four (4) copies
7.7	No Further instructions.
8.1	No Further instructions.
10	The site investigation reports are: <ul style="list-style-type: none"> • Preliminary Origin and Construction Study
12.3	No further instructions.

12.5	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.
13	“Partners to the joint venture shall be jointly and severally liable to the Procuring Entity.”
18.3 (h)(i)	No further instructions.
21.2	The Arbiter is <i>(to be agreed upon by both parties):</i>
29.1	Dayworks are applicable at the rate shown in the Contractor’s original Bid.
31.1	The Contractor shall submit a detailed Program of Works, S-Curve, PERT-CPM or Master Schedule to the Procuring Entity’s Representative within fourteen (14) days from receipt of Notice to Proceed for approval
31.3	The period between Program of Work updates is seven (7) days/ weekly. The amount to be withheld for late submission of an updated Program of Work is <i>ten percent (10%)</i> of progress billing.
34.3	The Funding Source is the DOH HFEP 2018
39.1	The amount of the mobilization fund is not to exceed fifteen percent (15%) of the total contract price to be made in lump sum.
40.1	Materials and equipment delivered on the site but not completely put in place shall <u>NOT</u> be included for payment.
40.4	Progress payment shall be based on actual completion of the infrastructure project or a specific segment or portion thereof using the following schedule: <i>Refer to Section VI. Specification</i> <i>(Terms of Reference: 19.0 Schedule of Payment)</i>
51.1	The date by which “as built” drawings and operating and maintenance manuals are required is five (5) days upon completion.
51.2	“As built” drawings and operating and maintenance manuals are pre-requisite for the release of final payment.

CONFORME:

Authorized Signatory
Signature over printed name

Name of Company/Firm



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) Lot Design and Build of PCMC's New Powerhouse

IB No. 2020-099

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 STRENGTH: 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. Synchronizing 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

<u>Pipe Size</u>	<u>Spacing</u>	<u>Rod Size</u>
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 by means of pipe clamps, at every 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.

CONFORME:

Authorized Signatory
Signature over printed name

Name of Company/ Firm

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. **(See Section VII. Drawings)**

III. PERFORMANCE SPECIFICATION AND PARAMETERS

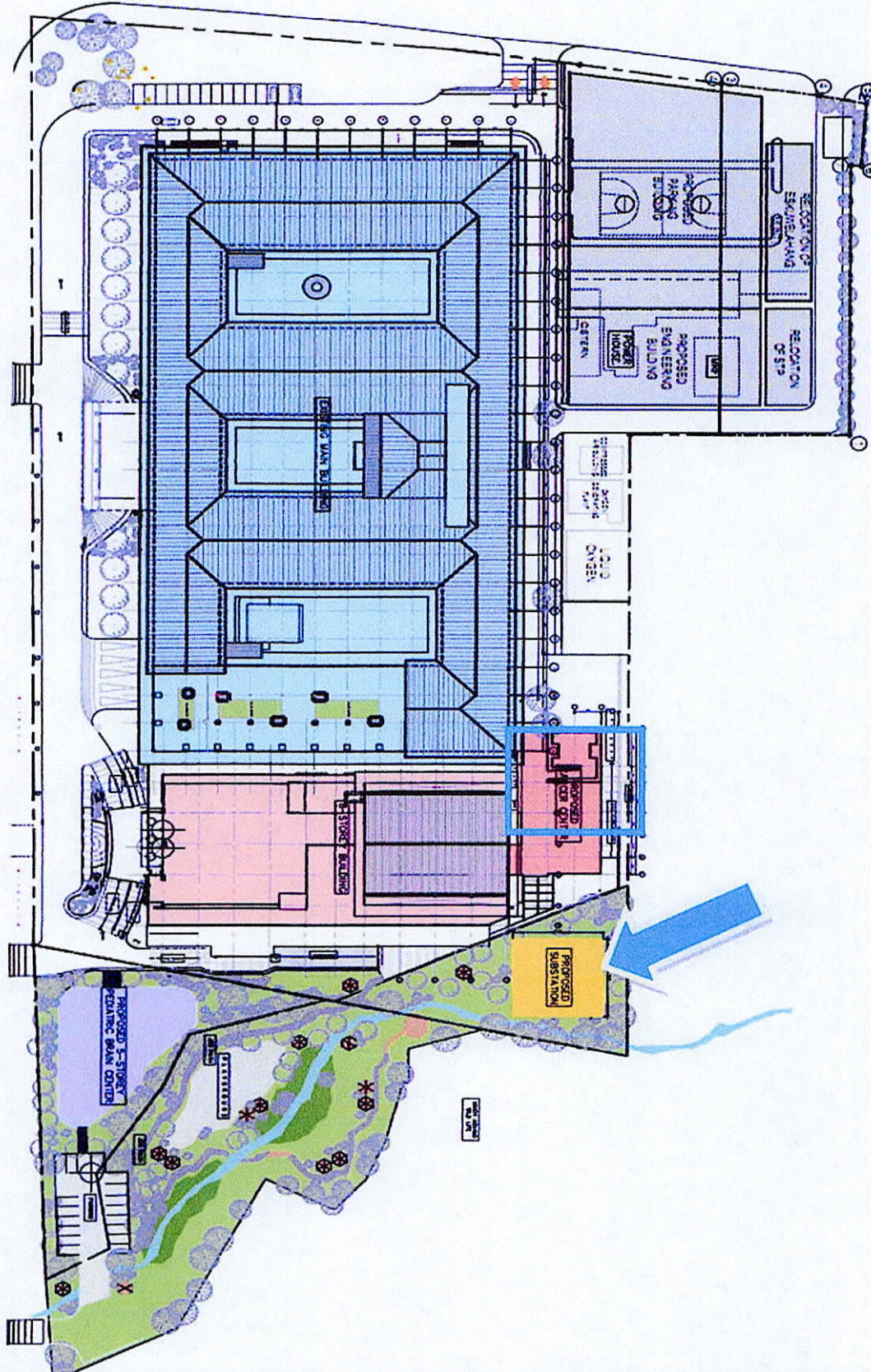
The project shall conform to the provisions of the Philippine Electrical Code, Electrical Engineering Law (RA 7920), National Building Code of the Philippines (PD 1096), Accessibility Law (BP 344), National Structural Code of the Philippines, Mechanical Engineering Law (RA 5336), Plumbing Code (RA 1378, 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. 426-1488 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. Pidlaon 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 (Annex "A")

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 Build Contractor 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.

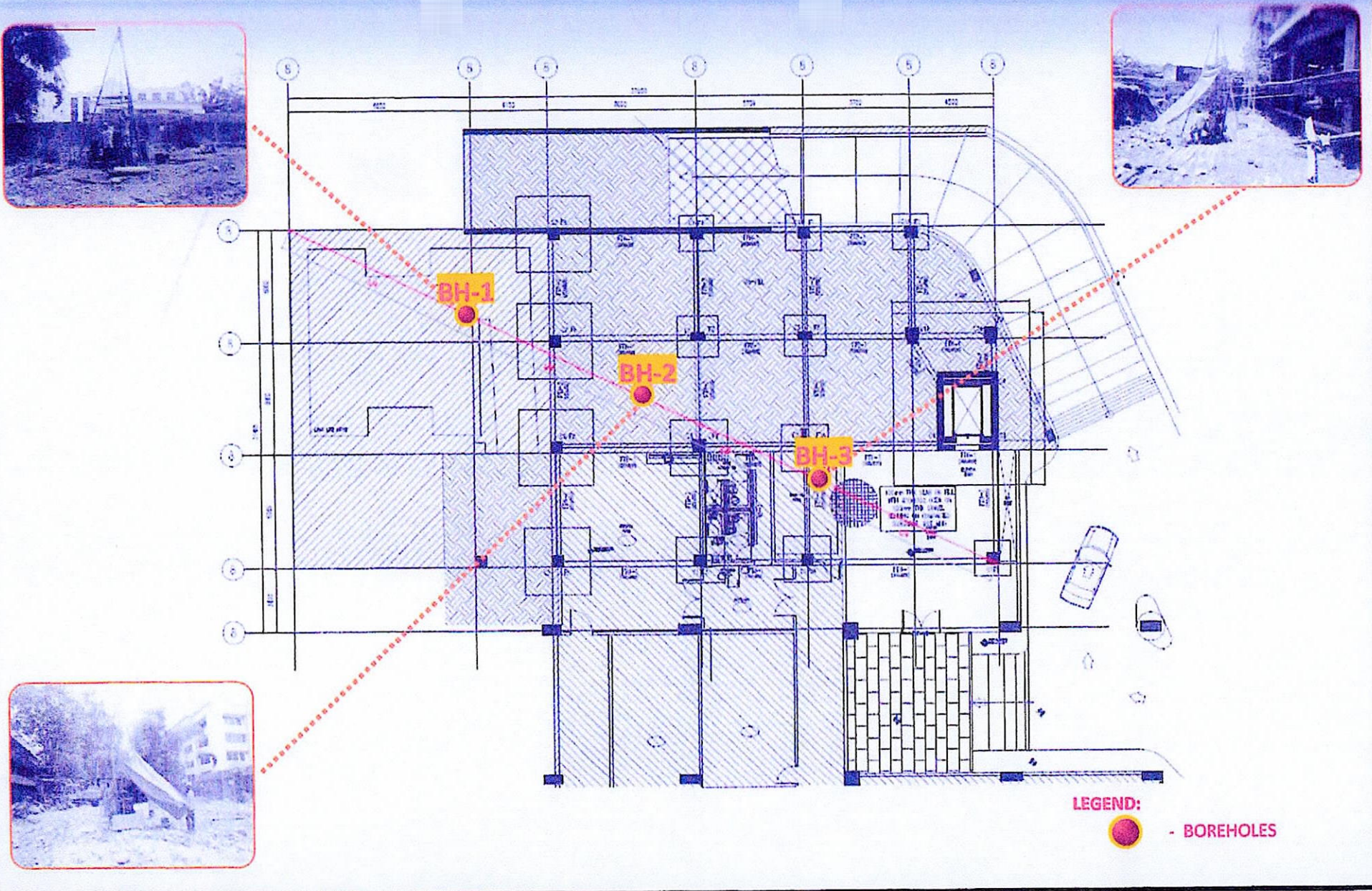
CONFORME :


 Authorized Signatory
 Signature over printed name

 Name of Company/ Firm

**GEOTECHNICAL INVESTIGATION
REPORT OF INFRASTRUCTURE
PROJECT NEAR THE PROJECT SITE**

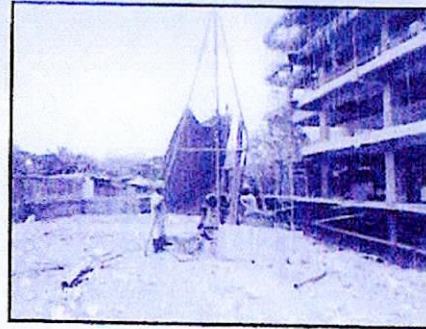
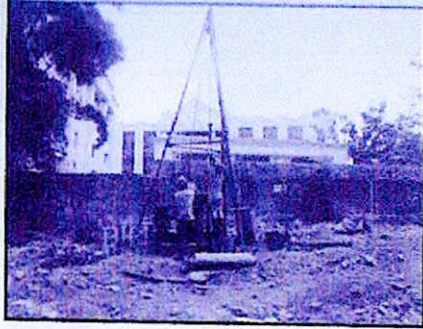
ANNEX "A"



 ASTEC MATERIALS TESTING CORPORATION No. 20 Mapagbigay St., Pinyahan, Quezon City Tel. No. (02) 351-8845 Telefax No. (02) 922-4160 E-mail Add: astec.testing@yahoo.com Website: www.astectesting.com	PROJECT TITLE	SHEET CONTENT	PROJECT REFERENCE NO.	FIGURE NO. 3
	PROPOSED 4-STOREY CANCER CENTER BUILDING WITH 1-BASEMENT (LINAC BUNKER)	BOREHOLE LOCATION PLAN	ASTEC-SI-2104-19	
	LOCATION		SITE NAME	
	Philippine Children's Medical Center, Quezon Avenue Corner Agham Road, Quezon City		LINAC Bunker - PCMC	



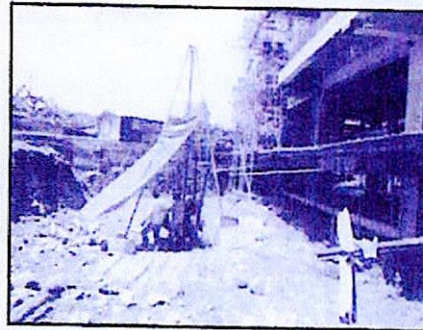
BH - 1




BH - 2



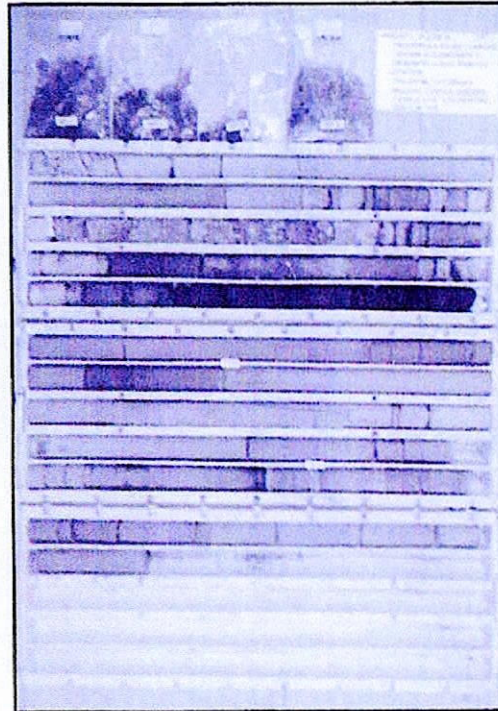
BH - 3



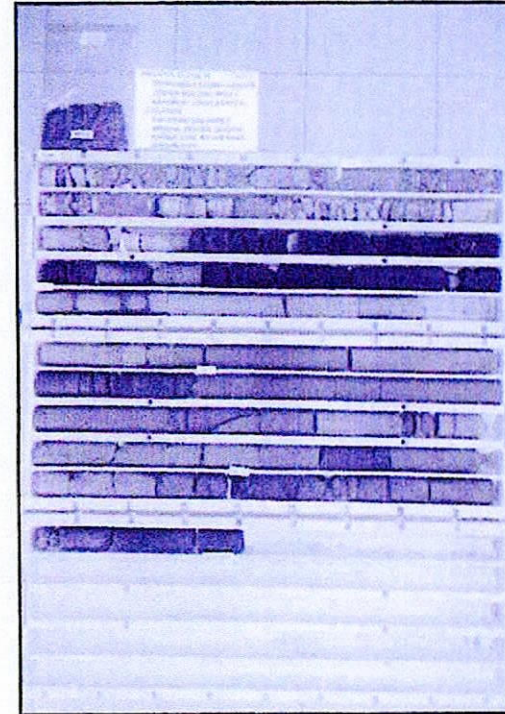
 ASTEC MATERIALS TESTING CORPORATION No. 20 Mapagbigay St., Pinyahan, Quezon City Tel. No. (02) 351-6646 Telefax No. (02) 922-4160 E-mail Add: astec.testing@yahoo.com Website: www.astectesting.com	PROJECT TITLE	SHEET CONTENT	PROJECT REFERENCE NO.	FIGURE NO.
	PROPOSED 4-STOUREY CANCER CENTER BUILDING WITH 1-BASEMENT (LINAC BUNKER)	DRILLING OPERATIONS	ASTEC-SI-2104-19	4
	LOCATION		SITE NAME	
	Philippine Children's Medical Center, Quezon Avenue Corner Agham Road, Quezon City		LINAC Bunker - PCMC	




BH-1

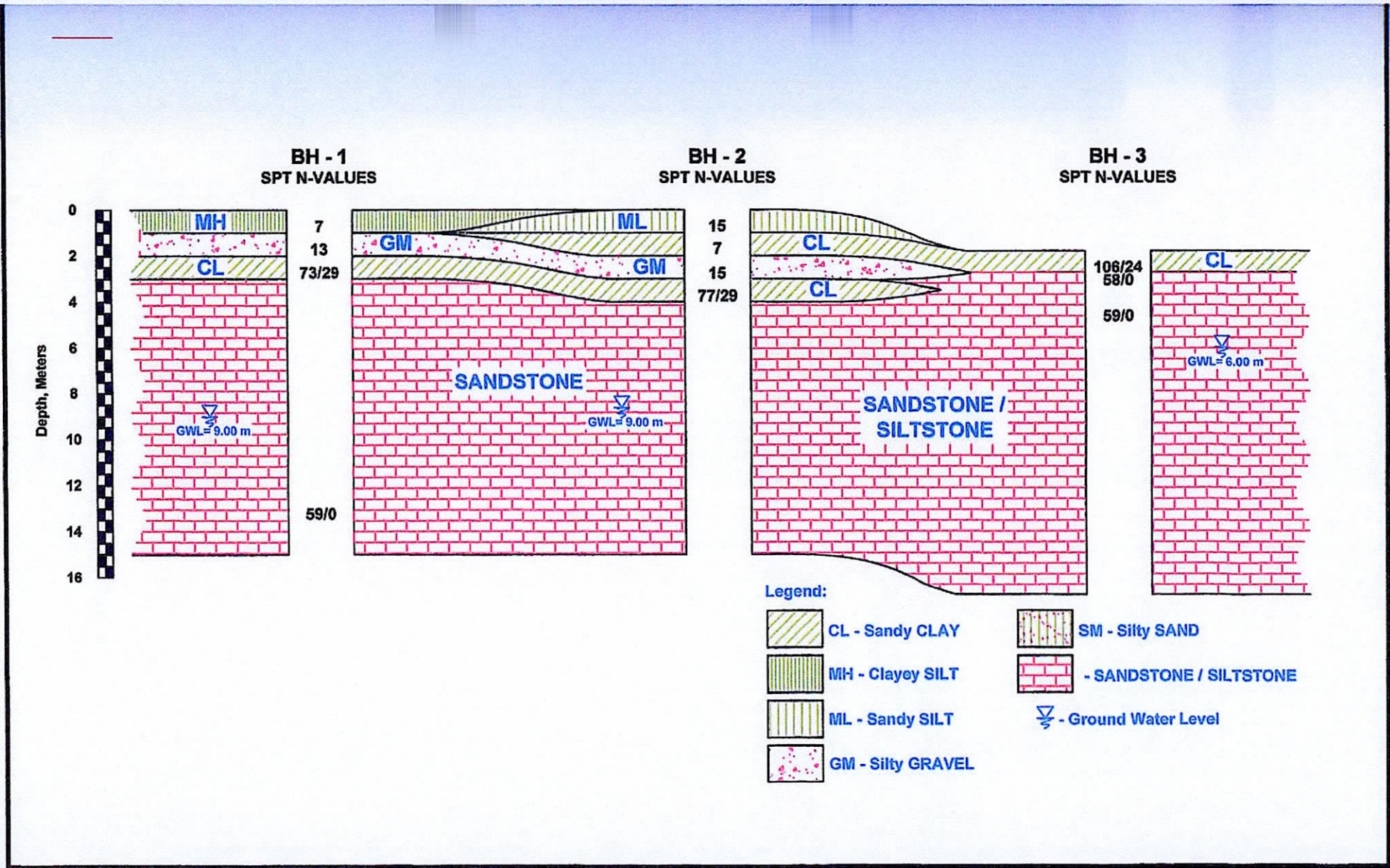



BH-2



BH-3

 <p>ASTEC MATERIALS TESTING CORPORATION No. 20 Mapagbigay St., Pinyahan, Quezon City Tel. No. (02) 351-8845 Telefax No. (02) 922-4180 E-mail Add: astec.testing@yahoo.com Website: www.astectesting.com</p>	PROJECT TITLE	SHEET CONTENT	PROJECT REFERENCE NO.	FIGURE NO.
	PROPOSED 4-STOREY CANCER CENTER BUILDING WITH 1-BASEMENT (LINAC BUNKER)	SPT SOIL & ROCK CORE SAMPLES	ASTEC-SI-2104-19	5
	LOCATION		SITE NAME	
Philippine Children's Medical Center, Quezon Avenue Corner Agham Road, Quezon City	LINAC Bunker - PCMC			



 ASTEC MATERIALS TESTING CORPORATION No. 20 Mapagbigay St., Pinyasan, Quezon City Tel. No. (02) 381-8845 Telefax No. (02) 922-4160 E-mail Add: astec.testing@yahoo.com Website: www.astectesting.com	PROJECT TITLE	SHEET CONTENT	PROJECT REFERENCE NO.	FIGURE NO.
	PROPOSED 4-STOREY CANCER CENTER BUILDING WITH 1-BASEMENT (LINAC BUNKER)	GENERALIZED SUBSOIL PROFILE	ASTEC-SI-2104-19	6
	LOCATION		SITE NAME	
	Philippine Children's Medical Center, Quezon Avenue Corner Agham Road, Quezon City		LINAC Bunker - PCMC	



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.		SPT - 1	SPT - 2	SPT - 3	CS - 1	CS - 2	CS - 3
SAMPLE DEPTH		0.55	1.55	2.55	2.99	4.50	6.00
(m)		1.00	2.00	2.99	4.50	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/cm ³)							
Dry Unit Weight, (g/cm ³)							
Natural Void Ratio, eo							
Degree of Saturation, Sr (%)							
CONSOLIDATION TEST	Preconsolidation Pressure, pc (kg/ cm ²)						
	Compression Index, Cc						
UNCONFINED COMPRESSION TEST	Unconfined Compressive Strength, qu (kg/cm ²)				15.45	18.76	4.33
	Strain, E (%)						
Triaxial Compression Test (Cu)	Cohesion, Cu (kg/cm ²)						
	Angle of Internal Friction Øu (deg)						
REMARKS							



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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		7.50	9.00	10.50	13.50		
(m)		9.00	10.50	12.00	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/cm ³)							
Dry Unit Weight, (g/cm ³)							
Natural Void Ratio, eo							
Degree of Saturation, Sr (%)							
CONSOLIDATION TEST	Preconsolidation Pressure, pc (kg/ cm ²)						
	Compression Index, Cc						
UNCONFINED COMPRESSION TEST	Unconfined Compressive Strength, qu (kg/cm ²)	1	16.56	45.57	19.09	23.86	
		2					
COMPRESSION TEST	Strain, E (%)	1					
		2					
Triaxial Compression Test (Cu)	Cohesion, Cu (kg/cm ²)						
	Angle of Internal Friction Øu (deg)						
REMARKS							



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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		0.55	1.55	2.55	3.55	3.99	4.50
(m)		1.00	2.00	3.00	3.99	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/cm ³)							
Dry Unit Weight, (g/cm ³)							
Natural Void Ratio, eo							
Degree of Saturation, Sr (%)							
CONSOLIDATION TEST	Preconsolidation Pressure, pc (kg/ cm ²)						
	Compression Index, Cc						
UNCONFINED COMPRESSION TEST	Unconfined Compressive Strength, qu (kg/cm ²)					39.78	26.19
	Strain, E (%)						
Triaxial Compression Test (Cu)	Cohesion, Cu (kg/cm ²)						
	Angle of Internal Friction Øu (deg)						
REMARKS							



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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		6.00	7.50	9.00	10.50	12.00	13.50	
(m)		7.50	9.00	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/cm ³)								
Dry Unit Weight, (g/cm ³)								
Natural Void Ratio, eo								
Degree of Saturation, Sr (%)								
CONSOLIDATION TEST	Preconsolidation Pressure, pc (kg/ cm ²)							
	Compression Index, Cc							
UNCONFINED COMPRESSION TEST	Unconfined Compressive Strength, qu (kg/cm ²)	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/cm ²)							
	Angle of Internal Friction Øu (deg)							
REMARKS								



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SUMMARY OF SOIL TEST RESULTS

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

Sample No.		SPT - 1	CS - 3	CS - 4	CS - 5	CS - 6	CS - 7
SAMPLE DEPTH		0.55	3.00	4.50	6.00	7.50	9.00
(m)		0.94	4.50	6.00	7.50	9.00	10.50
GRAIN SIZE ANALYSIS	% PASSING SIEVE 3/4"						
	3/8"	100					
	# 4	87					
	# 10	81					
	# 40	70					
CONSISTENCY	#200	56					
	Liquid Limit, LL (%)	27					
	Plastic Limit, PL (%)	16					
	Plasticity Index, PI	11					
Shrinkage Limit, SL, %							
Soil Classification (A S T M)		CL					
Specific Gravity, Gs							
Natural Moisture Content, %		30.00					
Organic Content, %							
Wet Unit Weight, (g/cm ³)							
Dry Unit Weight, (g/cm ³)							
Natural Void Ratio, eo							
Degree of Saturation, Sr (%)							
CONSOLIDATION TEST	Preconsolidation Pressure, pc (kg/ cm ²)						
	Compression Index, Cc						
UNCONFINED COMPRESSION TEST	Unconfined Compressive Strength, qu (kg/cm ²)	1	16.75	20.80	52.41	11.51	21.04
		2					
	Strain, E (%)	1					
		2					
Triaxial Compression Test (Cu)	Cohesion, Cu (kg/cm ²)						
	Angle of Internal Friction Øu (deg)						
REMARKS							



ASTEC

A Geotechnical and Materials Testing Laboratory
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 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		10.50	12.00	13.50			
(m)		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/cm ³)							
Dry Unit Weight, (g/cm ³)							
Natural Void Ratio, eo							
Degree of Saturation, Sr (%)							
CONSOLIDATION TEST	Preconsolidation Pressure, pc (kg/ cm ²)						
	Compression Index, Cc						
UNCONFINED COMPRESSION TEST	Unconfined Compressive Strength, qu (kg/cm ²)	1	22.80	10.71	4.77		
		2					
	Strain, E (%)	1					
		2					
Triaxial Compression Test (Cu)	Cohesion, Cu (kg/cm ²)						
	Angle of Internal Friction Øu (deg)						
REMARKS							

PHILIPPINE CHILDREN'S MEDICAL CENTER
Quezon Avenue, Quezon City

TERMS OF REFERENCE

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

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 on-going 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. Provide a sound power supply system including emergency power supply for the PCMC expansion projects stated above.

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

COVERAGE & SCOPE OF THE DESIGN

1. Produce a detailed overall design of Power House/ high voltage electrical substation layouts; to create design documents, technical specifications, prepare design calculations, bill of quantities (BOQ) (limited for the equipment included in this contract), 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 includes 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- Ring Main Unit)
- e. Transformer:
 - a. 2 unit 1000KVA for 8-Storey Building
 - b. 1 unit 500KVA for Cancer Building
 - c. 1 unit 500KVA for Brain Center Building
 - d. 1 unit 1000KVA for future load

- f. Synchronizing panel
 - g. Low Voltage Switchgear 400volts
 - h. Bus Duct System
 - i. 4 units Automatic Transfer Switch plus 1 unit ATS for future expansion
 - j. Safety Devices:
 - Lightning Arrestor
 - Surge Suppressor
 - Bonded Grounding System
2. Includes structural and architectural plan for power house building and underground fuel tank.

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. Deliver an accurate design of high voltage electrical substation to 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
 - 2.5. Compliance to quality and safety (Electrical and Radiation)
3. Ensure design resources are working effectively and efficiently.
4. Act as Principal Design Engineer for powerhouse and high voltage substation.
5. Accountability and responsibility on the integrity of the overall design.
6. Ensure that all equipment supplied by other contractor will comply in the design specification.
7. Ensure smooth integration and compatibility of all equipment in the design.
8. Act as point person to decide and recommend to the HOPE for resolution to addressed technical problem arises during project implementation.

EQUIPMENT TO BE SUPPLIED FOR THIS PROJECT

The project calls for the design and build of a Power House that includes the following;

1. Concrete power house (Floor Area = 400sqm)
2. First private pole and load breaker
3. 4.0 MVA Medium Voltage Switchgear (RMU- Ring Main Unit)
4. Fuel underground tanker (30,000 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

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 air flow IN and OUT ventilation system ducted type of 5000cfm capacity or higher.
 - g. Power house shall have a relative humidity level of at least 40 to 60%.
 - h. Powerhouse 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 slot and complete terminal lugs of five (5) panel minimum with protection device.
5. The design shall ensure protection of the medium switchgear device in the event of noncompliance transformer supplied by other contractor.
6. Fuel underground tanker shall have a capacity of 30,000 liter with complete system and transfer fuel pump.
7. Synchronizing panel – slot of 3 unit 1,000.00 KW Electric Generating set. Shall be open system to all modalities of Genset
8. Low Voltage Switchgear – 400volts
9. Automatic Transfer Switch shall be used for secondary voltages 400 volts and 230 volts.

PRE-DETAILED DESIGN WORK:

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

- a. Perspective Views
- b. 2 view Section Plan
- c. Structural Plan

- d. Mechanical Plan
- e. Electrical Plan
- f. Sanitary Plan

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
- Building Permit
- Electrical Permit
- Mechanical Permit
- Sanitary Permit

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 Design and Build 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 and 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 Design and Build 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 equipment 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 and 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 Design and Build contract documents shall include the manner and schedule of payment specifying the estimated contract amount and instalment in which contract will be paid.
- d. The Design and Build contractor shall be entitled to advance payment subject to the provisions of Section 4 of Annex "E" of IRR (RA 9184).
- e. The Design and Build contractor shall provide all necessary equipment, personnel, instruments, documents and others to carry out specified tests.
- f. This 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 Design and Build 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).

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.

SCOPE OF WORKS FOR CABLING LAYOUT

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.

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**

WARRANTY:

1. Contractor shall operate and maintain the Power House for three (3) years from its completion and acceptance by PCMC. Defective parts discovered and consumable parts needed for replacement during the defects liability period or one (1) year from its completion shall be provided by the Contractor without charge to PCMC. The remaining two (2) years shall be free of charge for labor only for the following:
 - a. Repair services
 - 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 equipment and electrical, electronic devices shall have a warranty of two (2) Years, from the completion of the project and acceptance by PCMC, against manufacturer's defect.

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.

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

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 Sequential Batch Reactor Wastewater Treatment Plant; 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.

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 Regulations.
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.

OBLIGATION OF THE CONTRACTOR:

1. 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. 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. 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 the contractor's 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. 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. Seek approval, at all times, from PCMC Representative regarding tapping of electrical works.
 7. Submit complete sets of as-built plan, requirement for the release of final payment.
 8. 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. 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. Secure medical clearances for their workers and submit to the PCMC Clinic for review and evaluation
- i. Policies and regulations reflected on approved work permit shall be complied at all time.

CONFORME:

Authorized Signatory
Signature over printed name

Name of Company/Firm



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 No. 2020-099

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													
	Fire Safety Evaluation Certificate (Fuel Tanker & Electrical)													
	Building Permit													
	Electrical Permit													
	Mechanical 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 Ventilation System	1.00	lot											
	2.0 Diesel fuel Storage tank (30,000 liter) with concrete saddle support and complete with pump	1.00	lot											
IV	FIRE PROTECTION													

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

