



## PHILIPPINE CANCER CENTER

6512 Quezon Avenue, Lung Center of the Philippines Compound, Diliman, Quezon City

### TERMS OF REFERENCE

Design & Build Infrastructure Projects

- Project Title:** Design of the Philippine Cancer Center Complex and Build of the Redevelopment Works for the existing 3-storey building
- Project Description:** 1. Master Plan and Detailed Design of the following:
- a. New 6-storey PCC Specialty Hospital with semi-covered Roof Deck and Basement;
  - b. New 3-storey Service Building; and
  - c. Existing 3-storey Building
2. Redevelopment Works for existing 3-storey building.
- Location:** 6512 Quezon Avenue, Lung Center of the Philippines Compound, Brgy. Pinyahan, Diliman, Quezon City

## I. INTRODUCTION

### A. Background and Rationale:

Pursuant to Republic Act (RA) 11215 or the National Integrated Cancer Control Act, the Philippine Cancer Center (PCC) shall serve as the premiere hub in improving cancer care research and development, and capacity development. With this, the Center shall lead, promote, encourage and engage in ethical scientific research on prevention and diagnosis of cancer and the care and treatment of cancer patients and related activities. In addition, the Center is also mandated to stimulate and underwrite scientific research on the biological, demographic, social, economic, physiological aspects of cancer, its abnormalities and control and to assist universities, hospitals and research institutions in their studies of cellular anomalies, including rare cancers to encourage advanced training on matters of, or affecting the human cell, and related fields and to support educational programs of value to general health.

The Center is planning the Conversion and Redevelopment of the existing Three Thousand Three Hundred square meters (3,300sq.m.) Dr. Jose Fabella Memorial Hospital (DJFMH) Annex Building situated in an approximately Five Thousand square meters (5,000sq.m.) parcel of land under usufruct between the Lung Center of the Philippines (LCP) and the PCC. Once the conversion is complete, a portion will serve as the PCC Management Office while the rest will be dedicated to the Research Laboratory with teaching and training facilities. Meanwhile, the PCC Specialty Hospital and other essential service facilities will be erected on the vacant portion of the lot.

### B. Project Description

The Project calls for the planning and design of the Philippine Cancer Center (PCC) Development Plan inclusive of the following main facilities:



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1. PCC Management Office;
2. PCC Research Laboratory; and
3. PCC 100-bed Specialty Hospital

It also includes the construction and redevelopment works for the existing 3-storey building which is to house the PCC Management Office and the PCC Research Laboratory.

The building design requires expertise in healthcare and hospital planning, design of mechanical systems for healthcare services, maintenance of indoor air quality (humidity and temperature control), and clean room design and finish specifications as well as operating systems for waste treatment and disposal.

**Specific Objectives:** To engage the services of the Contractor on the following:

1. To prepare the Schematic Plans for the above mentioned projects;
2. To prepare the Master Plan and complete Detailed Architectural & Engineering Design (DAED) of the project based on the approved schematic plans and following the PCC requirements; and
3. To prepare and submit to the PCC the final Bill of Quantities including the Detailed Estimates for evaluation prior to approval of the final DAED.
4. To do complete construction/renovation/alteration works for the existing 3-storey building as per finalized and approved DAED.
5. To submit As-built plans to the PCC upon substantial work completion (95% accomplishment or beyond).

## II. PROJECT REQUIREMENTS

### A. Preliminary Information for Design and Construction

<b>Site:</b>	Interior Lot at 6512 Quezon Avenue, Lung Center of the Philippines Compound, Brgy. Pinyahan, Diliman, Quezon City
<b>Total Lot Area:</b>	5,000.00 square meters (approximate)
<b>Projected Total Floor Area:</b>	3,300.00 square meters (existing building) 15,000.00 square meters (new building)
<b>Types of Building:</b>	New Six (6) Storey Main Building with semi-covered Roof Deck and Basement Level; New Three (3) Storey Service Building; and Existing Three (3) Storey Building



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### III. PROJECT COMPONENTS

#### A. General Codes, Standards, and Criteria for Design

The design and construction of the proposed PCC complex buildings shall conform to the provisions of the following:

- P.D. 1096 – National Building Code of the Philippines and Its Implementing Rules and Regulations
- NSCP 2015 – National Structural Code of the Philippines
- P.D. 1185 – Fire Code of the Philippines and Its Implementing Rules and Regulations
- P.D. 856 – Code on Sanitation of the Philippines and Its Implementing Rules and Regulations
- B.P. 344 – Accessibility Law and Its Implementing Rules and Regulations
- R.A. 1378 – National Plumbing Code of the Philippines and Its Implementing Rules and Regulations
- R.A. 184 – Philippine Electrical Code
- Manual on Technical Guidelines for Hospitals and Health Facilities Planning and Design. Department of Health, Manila. 1994
- Signage Systems Manual for Hospitals and Offices. Department of Health, Manila. 1994
- Health Facilities Maintenance Manual. Department of Health, Manila. 1995
- Manual on Hospital Waste Management. Department of Health, Manila. 1997
- Guidelines for Construction and Equipment of Hospital and Medical Facilities. American Institute of Architects, Committee on Architecture for Health. 1992
- De Chiara, Joseph. Time-Saver Standards for Building Types. McGraw-Hill Book Company. 1980
- and other laws and regulations covering environmental concerns and local ordinances and regulations.

Moreover, the facilities shall be planned with respect to the following design criteria:

- Environment: Health facilities shall be so located that it is readily accessible to the community and reasonably free from undue noise, smoke, dust, foul odor, flood, and shall not be located adjacent to railroads, freight yards, children's playgrounds, airports, industrial plants, disposal plants.
- Occupancy: A building designed for other purposes shall not be converted into a hospital. The location of a hospital shall comply with all local zoning ordinances.
- Safety: Health facilities shall provide and maintain a safe environment for patients, personnel and public. The building shall be of such construction so that no hazards to the life and safety of patients, personnel and public exist. It shall be capable of withstanding weight and elements to which they may be subjected.
- Security: Health facilities shall ensure the security of all persons and properties within the facility.
- Patient Movement: Spaces shall be wide enough for free movement of patients, whether they are on beds, stretchers, or wheelchairs. Circulation routes for transferring patients from one area to another shall be available and free at all times.
- Lighting: All areas shall be provided with sufficient illumination to promote comfort, healing and recovery of patients and to enable personnel in the performance of work.
- Ventilation: Adequate ventilation shall be provided to ensure comfort of patients, personnel and public.



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- **Auditory and Visual Privacy:** A hospital and other health facilities shall observe acceptable sound level and adequate visual seclusion to achieve the acoustical and privacy requirements in designated areas allowing the unhampered conduct of activities.
- **Water Supply:** A hospital and other health facilities shall use an approved public water supply system whenever available. The water supply shall be potable, safe for drinking and adequate, and shall be brought into the building free of cross connections.
- **Waste Disposal:** Liquid waste shall be discharged into an approved public sewerage system whenever available, and solid waste shall be collected, treated and disposed of in accordance with applicable codes, laws or ordinances.
- **Sanitation:** Utilities for the maintenance of the sanitary system, including approved water supply and sewerage system, shall be provided through the buildings and premises to ensure a clean and healthy environment.
- **Housekeeping:** A hospital and other health facilities shall provide and maintain a healthy and aesthetic environment for patients, personnel and public.
- **Maintenance:** There shall be an effective building maintenance program in place. The buildings and equipment shall be kept in a state of good repair. Proper maintenance shall be provided to prevent untimely breakdown of buildings and equipment.
- **Material Specification:** Floors, walls and ceilings shall be of sturdy materials that shall allow durability, ease of cleaning and fire resistance.
- **Segregation:** Wards shall observe segregation of sexes. Separate toilet shall be maintained for patients and personnel, male and female, with a ratio of one (1) toilet for every eight (8) patients.
- **Fire Protection:** There shall be measures for detecting fire such as fire alarms in walls, peepholes in doors or smoke detectors in ceilings. There shall be devices for quenching fire such as fire extinguishers or fire hoses that are easily visible and accessible in strategic areas.
- **Signage.** There shall be an effective graphic system composed of a number of individual visual aids and devices arranged to provide information, orientation, direction, identification, prohibition, warning and official notice considered essential to the optimum operation of a hospital and other health facilities.
- **Parking.** A hospital and other health facilities shall provide a minimum of one (1) parking space for every twenty-five (25) beds.
- **Zoning:** The different areas of a hospital shall be grouped according to zones as follows:
  - Outer Zone - areas that are immediately accessible to the public;
  - Second Zone - areas that receive workload from the outer zone;
  - Inner Zone - areas that provide nursing care and management of patients;
  - Deep Zone - areas that require asepsis to perform prescribed services; and
  - Service Zone - areas that provide support to hospital activities.
- **Function:** The different areas of a hospital shall be functionally related with each other.
- **Space:** Adequate area shall be provided for the people, activity, furniture, equipment and utility. Following are minimum standard space requirement for certain areas:
  - 0.65sq.m./person – Unit area per person occupying an open space for regular gatherings with heavy traffic such as, Lobby and Waiting areas;
  - 5.02sq.m./staff – Work area per office staff that includes space for one (1) desk and one (1) chair, space for occasional visitor, and space for aisle;
  - 1.40sq.m./person – Unit area per person occupying an open space for temporary gatherings with specific activities such as, Dining Room and Pantry;



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- o 7.43sq.m./bed – Clear floor area per bed that includes space for one (1) bed, space for occasional visitor, and space for passage of equipment; and
- o 1.08sq.m./stretcher – Clear floor area per stretcher that includes space for one (1) stretcher.

### B. Pre-Detailed Design

#### 1. Engineering Surveys and Investigations

- 1.1 Surveys and investigations of the site includes boundaries of the property, elevations and contours (at 0.5m interval), geotechnical investigation/tests, location, dimension, floor elevations, and other pertinent data on existing buildings and improvements (roads, parking areas, mature trees) and existing utility lines (e.g. water, telephone, power).

#### 2. Design Development Drawings

- 2.1 Preparation of the following drawings for design development based on the schematic plans prepared by the PCC.
  - i. Perspective View - One (1) exterior and Two (2) interior
  - ii. Master Site Development Plan
  - iii. Floor Plans, two (2) sections, and four (4) elevations, including complete space allocation.

### C. Detailed Design

- 1. Preparation of the following Detailed Design Drawings **listed in the PCC Checklist of Drawing Requirements** and based on the Design Development Drawings and Design Parameters. **(Upon completion and approval, these drawings shall be deemed as the property of the PCC):**
  - a. Detailed Architectural Plans (refer to Checklist of Drawings Requirements and Design Parameters).
  - b. Detailed Structural Plans (refer to Checklist of Drawings Requirements and Design Parameters).
  - c. Detailed Electrical Plans (refer to Checklist of Drawings Requirements and Design Parameters).
  - d. Detailed Electronic Plans (refer to Checklist of Drawings Requirements and Design Parameters).
  - e. Detailed Sanitary Plans (refer to Checklist of Drawings Requirements and Design Parameters).
  - f. Detailed Mechanical Plans (refer to Checklist of Drawings Requirements and Design Parameters).



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- g. Structural Computations, Soil Boring Test Results and Seismic Analysis (if applicable) and Electrical Design Computations.
- h. General Notes and Technical Specifications describing type and quality of materials and equipment to be used, manner of construction and the general conditions under which the project is to be constructed.
- i. Detailed Bill of Quantities, Cost Estimates including a summary sheet indicating the unit prices of construction materials, labor rates and equipment rentals.
- j. Summary of Works

### D. Construction

**Scope of construction shall be the existing 3-storey building of the Philippine Cancer Center.** 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. No works shall commence unless the contractor has submitted the prescribed documentary requirements and the PCC has given written approval. Work execution shall be in accordance with reviewed and approved documents.
- 2. The 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 by the concerned Building Officials to meet all regulatory approvals as specified in the contract documents.
- 3. The contractor shall submit a detailed program of works within seven (7) calendar days after the issuance of the Notice to Commence for approval by the procuring entity that shall include, among others:
  - a. The order in which it intends to carry out the work including anticipated timing for each stage of design/detailed engineering and construction;
  - b. Periods for review of specific outputs and any other submissions and approvals;
  - c. Sequence of timing for 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. Any errors, omissions, inconsistencies, inadequacies or failure submitted by the contractor that do not comply with the requirements shall be rectified, resubmitted and reviewed at the contractor's cost. If the contractor wishes to modify and design a document which has been previously submitted, reviewed and approved, the contractor shall notify the PCC within a reasonable period of time and shall shoulder the cost of such changes.





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5. As a rule, changes in design and construction requirements shall be limited only to those that have not been anticipated in the contract documents prior to contract signing and approval. The following guidelines shall govern approval for change or variation orders:
- a. Change Orders resulting from design errors, omissions or non-conformance with the performance specifications and parameters and the contract documents by the contractor shall be implemented by the contractor at no additional cost to the PCC.
  - b. Provided that the contractor suffers delay and/or incurs costs due to changes or errors in the PCC performance specifications and parameters, the contractor shall be entitled to either one of the following:
    - i. An extension of time for any such delays under Section 10 of Annex "E" of IRR. (RA 9184); or
    - ii. Payment for such costs as specified in the contract documents, provided that the cumulative amount of the variation order does not exceed ten percent (10%) of the original project cost.
  - c. The contract documents shall include the manner and schedule of payment specifying the estimated contract amount and installments in which the contract will be paid.
  - d. The contractor shall be entitled to advance payment subject to the provisions of Section 4 of Annex "E", IRR. (RA 9184).
  - e. The PCC shall define the quality control procedures for the design and construction in accordance with the PCC guidelines and shall issue the proper certificates of acceptance for sections of the works or whole of the works as provided for in the contract documents.
  - f. The contractor shall provide all necessary equipment, personnel, instruments, documents and others to carry out specified tests.
  - g. This design and build projects shall have a minimum Defects Liability Period of one (1) year after contract completion or as provided for in the contract documents. This is without prejudice to the liabilities imposed upon the architect/engineer who drew up the plans and specification for building sanctioned under Section 1723 of the New Civil Code of the Philippines.
  - h. The building shall be provided with water, drainage and power supply upon completion.
  - i. The contractor shall be held liable for design and structural defects and/or failure of the completed project within the warranty period of fifteen (15) years for permanent structures/buildings as specified in Section 62.2.3.2 of the IRR (RA 9184).



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### E. Implementation Arrangement

#### 1. Reporting Protocol

- a. Pre-Detailed Design Reports, and Detailed Plans (whether preliminary or final), will be submitted to the Philippine Cancer Center, attention to the Executive Director, for review and approval. The Final Detailed Plans shall be copy furnished the Health Facilities Enhancement Program (HFEP).
- b. Technical queries will be submitted to the PCC for action, copy furnished the Health Facility Development Bureau (HFDB).
- c. Billing Statements with supporting documents during design and construction will be submitted to the PCC for action, copy furnished DOH Accounting Department.

#### 2. Contact Persons

- a. **Melissa T. Sena, MD, MPH**  
Interim Division Chief, PCC – Management Office  
E-mail: mtsena@doh.gov.ph
- b. **Danielle M. Imperio, RN**  
Development Management Officer IV, PCC – Management Office  
E-mail: dimperio.doh@gmail.com
- c. **Ralph Anthony R. Galvez, UAP, RMP**  
Development Management Officer III, PCC – Management Office  
E-mail: antongalvez.pcc@gmail.com

### F. Eligibility Requirements

#### 1. Basic

- a. The eligibility requirements for Design and Build Scheme shall comply with the applicable provisions of Sections 23 - 24 of IRR of RA 9184.
- b. 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.
- c. The DESIGN & BUILD CONTRACTOR must have completed projects in the amount of at least fifty percent (50%) of the project construction cost and must have the network and resources in place to mobilize the Design and Build Services.
- d. The DESIGN & BUILD CONTRACTOR shall be:
  - i. A firm/company providing DETAILED ARCHITECTURAL AND ENGINEERING DESIGN services and CONSTRUCTION services, duly registered with the Security and Exchange Commission (SEC) or the Department of Trade and Industry (DTI), owned and managed by





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professionals qualified to undertake work in ARCHITECTURAL AND ENGINEERING DESIGN;

- ii. An Architectural Firm, at least 60% owned by a Filipino Architect, who must be registered and licensed to practice architecture in the Philippines, in full compliance with R.A. No. 9266 (Architecture Act of 2004), registered under Philippine Laws, a sole proprietorship, partnership or corporate entity;
  - iii. An Architectural and Engineering (A&E) Firm, partly owned by a Filipino Architect, registered and licensed to practice architecture in the Philippines, in compliance with R.A. No. 9266, registered under Philippine Laws, a sole proprietorship, partnership or corporate entity, provided that said Architect shall be nominated in the bid documents as the professional responsible to lead the team in the design and who shall be tasked with signing all contract and permit documents;
  - iv. Or a Joint Venture (JV), Association or Consortium of Firms where the lead firm must be an architect or architectural and engineering firm, following the same conditions cited above, provided that all member firms of said JV, association or consortium shall satisfy the pertinent eligibility requirements.
- e. The DESIGN & BUILD CONTRACTOR shall have demonstrated competency and creativity to address the design problem for projects of similar complexity, use, and character.
- The DESIGN & BUILD CONTRACTOR shall show previous experience in design and build of a hospital.
- The DESIGN & BUILD CONTRACTOR shall indicate in his technical proposal, a description of all completed, on-going, awarded but not yet constructed design and build projects of healthcare in nature of use, especially those contracted under the Philippine Government, citing features and merits of particular projects where the above mentioned requirements have been fulfilled.
- f. The DESIGN & BUILD CONTRACTOR must be operational for at least five (5) years and shall have proven capacity to complete the project and provide the appropriate experts and project staffing.

## 2. Specialized

- a. The Pre-Detailed Design and Detailed Design portion of the contract must be done by an eligible licensed architect or architectural firm with a joint venture agreement with the DESIGN & BUILD CONTRACTOR and with the minimum number of professionals as described below:
  - i. Project Coordinator
    - Licensed Architect or Engineer
    - At least ten (10) years experience in overall project management
    - Superb oral and written communication skills, organization skills and excellent administrative abilities



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**ii. Architect**

- Licensed Architect
- At least five (5) years experience in healthcare design and related projects
- Proficient in the use of AutoCAD and other 3D modelling softwares

**iii. Structural/Civil Engineer**

- Licensed Civil Engineer
- Preferably with at least five (5) years experience in healthcare design and related projects
- Regular Member or Fellow of Association of Structural Engineers of the Philippines
- Proficient in the use of AutoCAD and other 3D modelling softwares

**iv. Electrical Engineer**

- Licensed Professional Electrical Engineer
- Preferably with at least five (5) years experience in healthcare design and related projects
- Proficient in the use of AutoCAD and other modelling softwares

**v. Mechanical Engineer**

- Licensed Professional Mechanical Engineer
- Preferably with at least five (5) years experience in healthcare design and related projects
- Proficient in the use AutoCAD softwares

**vi. Sanitary Engineer**

- Licensed Sanitary Engineer
- Preferably with at least five (5) years experience in healthcare design and related projects
- Proficient in the use AutoCAD softwares

**vii. CAD Operator (preferably one for architecture and one for each engineering specialty)**

- At least with a Bachelor's Degree in Architecture or Engineering
- Proficient in the use of AutoCAD and other modelling softwares

**viii. Safety Officer**

- Accredited safety practitioner by the Department of Labor and Employment (DOLE)
- Must have undergone the prescribed forty (40) hour Construction Safety and Health Training (COSH)

**b. The DESIGN & BUILD CONTRACTOR may assign tasks of Project Key Personnel to professionals outside of his firm or organization provided that the necessary documents to support the agreement between the DESIGN & BUILD CONTRACTOR and Key Personnel are submitted with the Bid.**

**c. The DESIGN & BUILD CONTRACTOR may assign other support personnel in addition to those listed below, for the optimal performance of all DETAILED**



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ARCHITECTURAL AND ENGINEERING DESIGN & BUILD SERVICES at no additional cost to the PCC.

d. The DESIGN & BUILD CONTRACTOR shall provide the Curriculum Vitae (CVs) of their KEY AND SUPPORT personnel staff clearly showing the relevant skills, work experience, training and professional certifications issued by the respective organization/association. The CVs must be accompanied with certified true copy of the following:

- i. Professional Regulation Commission (PRC) License and Current Professional Tax Receipt (PTR);
- ii. Diploma for college degree
- iii. Diploma for post graduate degree, if applicable
- iv. Professional certifications issued by the respective organization/ association
- v. Certificate of Employment for the last five (5) years stating satisfactory performance of the employee
- vi. Job Description/s on the projects handled
- vii. Professional Indemnity Insurance coverage for all the manpower requirements.

3. PCAB (Philippine Contractors Accreditation Board) License

The DESIGN & BUILD CONTRACTOR must have a valid PCAB license under General Building Classification, Category A with Thirty Million (30,000,000) minimum net worth.

4. Minimum Equipment Requirement

Equipment	Capacity	Number of Units
Manual Loading Concrete Mixer	200 Liters	One (1) unit
Welding Machine	220-240V	Two (2) units
Electric Drill	220-240V	Two (2) units
Circular Saw	220-240V	Two (2) units
Air Compressor	220-240V	Two (2) units

**G. Subcontracts**

The Bidder may subcontract portions of the Works to an extent as indicated in the following, or as may be approved by the Procuring Entity:

- a. Specialty Design works typically done by service providers such as Fire Safety System Design; Security System Design; etc.
- b. Specialty Construction works typically done by service providers such as Sprinkler System Installation; Security System Installation; etc.

However, subcontracting of any portion/services mentioned above neither shall not exceed Twenty Five (25%) percent of the Total Contract Price, nor shall it relieve the DESIGN & BUILD CONTRACTOR from any liability or obligation that may arise from the contract for this Project.



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In the event that any subcontractor is found by the Procuring Entity to be ineligible, the subcontracting of such portion of the Works to said subcontractor shall be disallowed.

The DESIGN & BUILD CONTRACTOR 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.

#### H. Approved Budget Cost

The total Approved Budget for the Contract (ABC) for the following Design & Build Project is Eighty Million Pesos (PhP80,000,000.00) for the Design of the Philippine Cancer Center Complex and Build of the Redevelopment Works for the existing 3-storey building.

#### I. Timeframe

The project shall be carried out within the duration herein specified:

1. Design Phase, which shall include the Detailed Architectural and Engineering Drawings, including presentation and approvals as well as Permit Acquisitions: One Hundred (100) Calendar Days; and
2. Construction Phase for 3-storey existing building, which encompasses all works stipulated in the TOR as well as post construction evaluation: Two Hundred Forty (240) Calendar Days.

The Total Project Duration is Three Hundred Forty (340) Calendar Days.

**Table 1. Submission Requirements & Schedule for Design Works**

Stage	Submission Schedule	Review and Approval Schedule	Output	Format	Progress Billing Payment
<b>Project Inception</b>	Due 5 CD after NTP	Max 5 CD after receipt of Inception Report	Project Inception and Site Analysis Report: Project Methodology <ul style="list-style-type: none"> <li>Project Timetable &amp; Schedule</li> <li>Review of Project Data</li> <li>Initial Site Analysis</li> <li>Photo Survey of the site</li> <li>Initial recommendations</li> </ul>	3 copies of bound A3 size report, OTG USB containing an electronic file in PDF	15%
			Presentation of Findings	PowerPoint/Visual Presentation	
<b>Conceptual Framework Plan Stage</b>	Due 10 CD after receipt of the approved Inception Report	Max 5 CD after receipt of Conceptual Framework Plan Report	Conceptual Framework Plan Report	3 copies of bound A3 size report, OTG USB containing an electronic file in PDF	10%



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			Presentation of the Conceptual Framework Plans	PowerPoint/Visual Presentation	
<b>Schematic Design Stage</b>	Due 15 CD after receipt of the approved Conceptual Framework Plan Report	Max 5 CD after receipt of Schematic plans and design	Schematic Design Stage Report	3 copies of bound A3 size report, OTG USB containing an electronic file in PDF	10%
			Presentation of the Schematic Designs	Visual Presentation in PowerPoint and Poster Boards formats	
<b>Design Development Stage</b>	Due 15 CD after receipt of approved Schematic plans and design	Max 10 CD after receipt of Design Development Report	Design Development Report	3 copies of bound A3 size report, OTG USB containing an electronic file in PDF	30%
			Presentation of the Design Development Plans	Visual Presentation in PowerPoint and Poster Boards formats	
<b>Final Report and Final Contract Documents Submission</b>	Max 20 CD after receipt of the approved Design Development Report	Max 10 CD after receipt of Contract Documents	Presentation of the Final Report and Final Contract Documents	Visual Presentation in PowerPoint and Poster Boards formats	35%
			Architectural and Engineering construction plans and detailed drawings	7 copies of A1 size Blueprints with 1 set of Tracing Paper prints and electronic files of CAD drawings	
			Technical Specifications	7 copies Bound A4 size report, electronic file in Word format and PDF	
			Bill of Materials and Cost Estimates	7 copies Bound A4 size report, electronic file in excel format and PDF	
			Blank Forms for Proposal of Bidders/Contractors	1 copy of bound A4 size report	
<b>TOTAL number of Calendar Days (CD)</b>	<b>65 Calendar Days</b>	<b>35 Calendar Days</b>	<b>*100 Calendar Days</b>		<b>100%</b>

*\*Design Works should not exceed the One Hundred (100) Calendar Day Timeframe otherwise, liquidated damages shall be applied.*



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**Table 2. Work Accomplishment and Progress Billing Schedule**

Work Accomplishment	Progress Billing Payment
Within 5 Calendar Days upon delivery of Notice to Proceed	15%
Upon 40% Completion of Construction Works	40%
Upon 65% Completion of Construction Works	65%
Upon 90% Completion of Construction Works	90%
*Upon turnover of 100% Complete Construction Works, and submission of As-Built Plans	<b>100%</b>

*\*Construction Works should not exceed the Three Hundred Sixty Five (365) Calendar Day Timeframe otherwise, liquidated damages shall be applied.*

### **J. Retention Money**

Progress payments are subject to retention of ten percent (10%) referred to as the "retention money." Such retention shall be based on the total amount due to the contractor prior to any deduction and shall be retained from every progress payment until fifty percent (50%) of the value of works, as determined by the procuring entity, are completed. If, after fifty percent (50%) completion, the work is satisfactorily done and on schedule, no additional retention shall be made; otherwise, the ten percent (10%) retention shall be imposed.

The total "retention money" shall be due for release upon final acceptance of the works. The contractor may, however, request the substitution of the retention money for each progress billing with irrevocable standby letters of credit of from a commercial bank, bank guarantees or surety bonds callable on demand, of amounts equivalent to the retention money substituted for and acceptable to Government, provided that the project is on schedule and is satisfactorily undertaken. Otherwise, the ten percent (10%) retention shall be made. Said irrevocable standby letters of credit, bank guarantees and/or surety bonds, to be posted in favor of the Government shall be valid for a duration to be determined by the concerned implementing office/agency or procuring entity and will answer for the purpose for which the ten percent (10%) retention is intended, i.e., to cover uncorrected discovered defects and third party liabilities.

### **K. Liquidated Damages**

In the event that the DESIGN & BUILD CONTRACTOR fails to deliver the contracted consulting services, and infrastructure projects within the stipulated timeframe, they shall be subjected to the payment of liquidated damages.

As per Section 68 of the revised IRR of RA 9184, the amount of the liquidated damages shall be at least equal to one-tenth of one percent (0.1%) of the cost of the unperformed portion for every day of delay for the procurement of goods, infrastructure projects, and consulting services.

A similar provision is found in Section 3.1 of Annex "D" of the same IRR, which states that "the supplier shall be liable for damages for the delay and shall pay the procuring entity liquidated damages, not by way of penalty, in an amount equal to one-tenth (1/10) of one percent (1%) of the cost of delayed goods scheduled for delivery for everyday of delay until such goods are finally delivered and accepted by the procuring entity concerned.





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Based on the foregoing, the basis for the computation of liquidated damages is the cost of the unperformed portion or the cost of the delayed goods scheduled for delivery instead of the actual contract price.

#### **L. Timeframe and Approval**

Oral/Visual presentation meetings shall be scheduled with the PCC at least 2 working days after the submission of the report to be presented.

Succeeding revisions in schemes and design development plans including revised cost estimates, resulting from consultations with the Client, should be submitted in bound A3 size compilations, but need not contain full report contents, to be attached in the original report as "ANNEXES.

The PCC shall designate personnel responsible for plan review and approval. All plans submitted shall use the PCC recommended title blocks, with the following signatories;

- (a) the PCC Executive Director
- (b) the PCC Division Chief

Prior to progressing to succeeding stages of design, a final copy of the plans should be submitted for signature of the above PCC personnel.

#### **M. Minimum Requirements for Construction Safety and Health**

##### **General Requirements**

No Contractor or subcontractor shall require any employee to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous to his health or safety.

In order to meet this general requirement, the contractor must:

1. Initiate and maintain programs (written or otherwise) to comply with this general requirement.
2. Provide frequent and regular inspections of the job sites by competent persons.
  - a. Competent person means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to prompt corrective measures to eliminate them.
3. Prohibit the use of any machinery, tool, material, or equipment that is not in compliance with applicable requirements.
4. Permit only those employees adequately trained to operate machinery or equipment.
5. Provide training for all employees in:
  - a. Recognition and avoidance of unsafe conditions;
  - b. Workplace safety and health requirements;



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- c. Applicable hazards, safe handling, and personal protective equipment necessary for handling poisons, caustics, flammables, and other harmful substances relevant to their job duties; and
  - d. Specific hazards and procedures for entering confined spaces if applicable.
- 6. Provide provisions for medical care and first aid.
- 7. Develop an effective fire protection and prevention plan.
- 8. Ensure appropriate housekeeping measures including clear walkways and removal of combustible scrap and debris.
- 9. Require the wearing of appropriate personal protective equipment such as hard hats, safety glasses, steel toe shoes, or other appropriate protective equipment in all operations where there is an exposure to hazardous conditions.
- 10. Develop an emergency action plan covering designated actions employers and employees must take to ensure employees safety from fire and other emergencies.
  - a. Plan must be in writing for employers with greater than ten (10) employees
  - b. All employees must be trained upon initial assignment on the parts of the plan the employee needs to know in the event of an emergency.
- 11. Provide access to hand washing facilities, toilets, and an adequate supply of drinking water.
- 12. Provide safety and health signs that are clearly visible to construction workers and the public.
- 13. Conduct regular safety meetings.

**N. Contractor's Responsibility: Temporary Utilities, Facilities and Controls**

The facilities and controls specified in this section are considered minimum for the Project. The DESIGN & BUILD CONTRACTOR may provide additional facilities and controls for the proper execution of the Work and to meet Contractor's responsibilities for protection of persons and property.

The DESIGN & BUILD CONTRACTOR must comply with applicable requirements specified in other sections of the Specifications.

- 1. Maintain and operate temporary facilities and systems to assure continuous service.
- 2. Modify and extend systems as Work progress requires.
- 3. Completely remove temporary materials and equipment when their use is no longer required.
- 4. Restore existing facilities used for temporary services to specified or original condition.



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### **Temporary Utilities**

The DESIGN & BUILD CONTRACTOR must secure the following in obtaining Temporary Service:

- a. Make arrangements with utility service companies for temporary services.
- b. Abide by rules and regulations of the utility service companies or authorities having jurisdiction.
- c. Be responsible for utility service costs until the Work is substantially complete. Included are power, light, water and other utility services necessary for execution, completion, testing, and initial operation of the Work.
- d. Provide emergency telephone service at the Contractor's field office, or by mobile telephone, for use by Contractor personnel and others performing work.
- e. Provide and maintain sanitary facilities for persons on the job site; comply with the standard health and sanitation regulations.

Prior to the commencement of actual construction works, the contractor must have prepared appropriate measures to secure the following:

1. Security
  - a. Protect all Work materials, equipment, and property from loss, theft, damage, and vandalism. Contractor's duty to protect property includes Owner's property.
  - b. If existing fencing or barriers are breached or removed for purposes of construction. Provide and maintain temporary security fencing equal to existing.
2. Field Office
  - a. The Contractor must provide a field office manned from at least 8am-5pm Mondays through Fridays.
3. Storage of Materials
  - a. Provide adequately ventilated, watertight storage facilities with floor above ground level for materials and equipment susceptible to weather damage.
  - b. Storage of materials not susceptible to weather damage may be on blocks off the ground.
  - c. Store materials in a neat and orderly manner. Place materials and equipment to permit easy access for identification, inspection and inventory.
  - d. Contractor is responsible for materials and equipment stored on and off site.
4. Protection of Installed Products
  - a. Provide protection of installed products to prevent damage from subsequent operations. Remove protection facilities when no longer needed, prior to completion of Work.
5. Roads and Parking
  - a. Prevent interference with traffic and Owner operations on existing roads.
  - b. Designate temporary parking areas to accommodate construction personnel.
6. Pollution Control
  - a. Provide methods, means, and facilities required to prevent contamination of soil, water or atmosphere by discharge of noxious substances from construction operations.



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- b. Provide equipment and personnel to perform emergency measures required to contain any spillage, and to remove contaminated soils or liquids. Excavate and dispose of any contaminated earth off-site.
- c. Take special measures to prevent harmful substances from entering public waters. Prevent disposal of wastes, effluents, chemicals, or other such substances adjacent to streams, or in sanitary or storm sewers.
- d. Provide systems for control of atmospheric pollutants. Prevent toxic concentrations of chemicals and harmful dispersal of pollutants into the environment.
- e. Burning of rubbish, debris or waste materials is not permitted.

**7. Noise Control**

- a. Provide vehicles, equipment, and construction activities that minimize noise to the greatest degree practicable. In no case will noise levels be permitted which create a nuisance in the surrounding facilities.
- b. Conduct construction operations during daylight hours except as approved by the Philippine Cancer Center Representative.

**8. Dust Control**

- a. Control objectionable dust caused by operation of vehicles and equipment. Apply water or use other methods which will control the amount of dust generated.

**O. Confidentiality of Data**

The ownership of all designs, drawings, specifications and copies thereof including electronic files, prepared and furnished by the DESIGN & BUILD CONTRACTOR in the performance of the services subject to this Agreement shall be vested with the Philippine Cancer Center.

**P. Warranties of the Design & Build Firm**

1. The DESIGN & BUILD CONTRACTOR warrants that it shall conform strictly with the details stated in this Terms of Conditions.
2. The DESIGN & BUILD CONTRACTOR warrants, represents and undertakes reliability of the service required to the satisfaction of the PCC. It shall employ highly skilled, well behaved and honest employees with company uniform and ID displayed conspicuously while working within the compound. It shall not employ PCC employees to work in any category.
3. The DESIGN & BUILD CONTRACTOR shall comply with the laws, governing employees' compensation, rules and regulations applicable to its personnel employed on account of contract services. The DESIGN & BUILD CONTRACTOR shall pay its personnel not less than the minimum wage and benefits mandated by law.
4. The DESIGN & BUILD CONTRACTOR in the performance of its service shall secure and maintain at its own expense all registration, license or permits required by national or local laws and shall comply with the rules, regulations and directives of the regulatory Authorities and Commissions.
5. The DESIGN & BUILD CONTRACTOR personnel shall take all necessary precautions for the safety of all persons and properties at or near their area of work and shall comply with all the standards and established safety regulations, rules and practices.



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6. The DESIGN & BUILD CONTRACTOR shall coordinate with authorized and/or designated PCC personnel in the performance of their jobs.
7. The DESIGN & BUILD CONTRACTOR shall be liable for loss; damage or injury as may be due directly through the fault or negligence of its personnel. It shall assume responsibility thereof and the PCC shall be specifically released from any responsibility arising therefrom.
8. The DESIGN & BUILD CONTRACTOR shall comply with all documents to be required by the Commission on Audit even after completion of the project at no additional cost to the PCC.
9. The DESIGN & BUILD CONTRACTOR shall tender service at no cost to the PCC in case of any extension of the contract duration.

#### **Q. Documentary Requirements**

##### **Documentary Requirements to be submitted by the bidder during the Submission of Bids**

Duly accomplished and signed Project Requirements, which shall include the following:

1. Organizational chart for the contract to be bid;
2. DESIGN PHASE
  - a. List of contractor's and joint venture contractor's personnel for the Design Portion of the Contract (pre-Detailed and Detailed Design) (Project coordinator, Architect(s), Structural/Civil Engineer, Professional Electrical Engineer, Professional Mechanical Engineer, Sanitary Engineer, and Electronics and Communications Engineer (and others that may be needed for the project), to be assigned to the project, with the following attachments:
    - i. Summary matrix showing complete qualification and experience data but not limited to the following: name, proposed position in the project, educational attainment, training, and experience;
    - ii. Curriculum Vitae; and
    - iii. Copy of updated licenses or proof of renewal of their licenses, if expired.;
  - b. Affidavit/Certification of Site Inspection issued by the DOH PCC;
  - c. Duly signed Terms of Reference of the project issued by the DOH;
  - d. Duly signed Conceptual Plans issued by the DOH;
  - e. Duly signed Site Plan (showing location of building) issued by DOH;



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- f.** Preliminary Elevations (four sides) and Perspectives (interior and exterior) in accordance with the conceptual plans - to be prepared by the bidder;
- g.** Design and construction methods - to be prepared by the bidder;
- h.** Two full cross sections of the building (showing departmental floor assignment) and floor to floor heights - to be prepared by the bidder; and
- i.** Value engineering analysis of design and construction method - to be prepared by the bidder.

**3. CONSTRUCTION PHASE**

- a.** List of contractor's personnel to be assigned to the construction, with their complete qualification and experience data, shown in matrix with CV including copy of updated licenses or proof of renewal of their licenses, if expired. The list must contain the name, educational attainment, training, professional license and work experience of personnel;
- b.** List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project;

**Documentary Requirements to be submitted by the bidder during the Signing of Contract**

Duly accomplished and signed Project Requirements, which shall include the following:

**1. CONSTRUCTION PHASE**

- a.** Construction Schedule and S-Curve;
- b.** Manpower Schedule;
- c.** Construction Methodology in narrative form;
- d.** Equipment Utilization Schedule;
- e.** Construction Safety and Health Program;
- f.** PERT/CPM;
- g.** Detailed Architecture and Engineering Plans, Scope of Works and Technical Specifications; and
- h.** Planned subcontracted work, if any, of not more than Twenty five percent (25%).

**---END OF SCHEME---**