

Republic of the Philippines Department of Science and Technology PHILIPPINE NUCLEAR RESEARCH INSTITUTE

# **BID DOCUMENTS**

# INNOVATING NUCLEAR MEDICINE RESEARCH AND SERVICES: DEVELOPMENT OF EMERGING PET RADIOPHARMACEUTICALS FOR EARLY CANCER STAGING ASSESSMENT OF BIOLOGIC FUNCTIONS IN CANCER CELLS (DESIGN AND BUILD CY 2020)

PNRI BIDS AND AWARDS COMMITTEE Commonwealth Avenue, Diliman, Quezon City

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# Glossary of Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

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

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

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

**BIR** – Bureau of Internal Revenue.

**BSP** – Bangko Sentral ng Pilipinas.

**CDA** – Cooperative Development Authority.

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

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

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

**CPI** – Consumer Price Index.

**DOLE** – Department of Labor and Employment.

**DTI** – Department of Trade and Industry.

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

**GFI** – Government Financial Institution.

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

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

**GOP** – Government of the Philippines.

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

**LGUs** – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

**PCAB** – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

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

**PSA** – Philippine Statistics Authority.

- **SEC** Securities and Exchange Commission.
- **SLCC** Single Largest Completed Contract.
- **UN** United Nations.

## Section I. Invitation to Bid

Republic of the Philippines Department of Science and Technology PHILIPPINE NUCLEAR RESEARCH INSTITUTE Commonwealth Avenue, Diliman, Quezon City

## INVITATION TO BID FOR INNOVATING NUCLEAR MEDICINE RESEARCH AND SERVICES: DEVELOPMENT OF EMERGING PET RADIOPHARMACEUTICALS FOR EARLY CANCER STAGING AND ASSESSMENT OF BIOLOGIC FUNCTIONS IN CANCER CELLS (DESIGN AND BUILD CY 2020)

- The Philippine Nuclear Research Institute, through the General Appropriations Act (GAA) for 2020 intends to apply the sum of *Fifty One Million Twelve Thousand Eight Hundred Seventy Three Pesos and Ninety Nine Centavos (₱51,012,873.99)* being the Approved Budget for the Contract (ABC) to payments under the contract for the project *Innovating Nuclear Medicine Research and Services: Development of Emerging PET Radiopharmaceuticals for Early Cancer Staging and Assessment of Biologic Functions in Cancer Cells (Design and Build CY 2020)* under *PR No. 20-09-0571.* Bids received in excess of the ABC shall be automatically rejected at bid opening.
- 2. The Philippine Nuclear Research Institute now invites bids for the above Procurement Project. Completion of the Works is *two hundred eighty (280) government working days*. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
- 3. Bidding will be conducted through open competitive bidding procedures using nondiscretionary "*pass/fail*" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.
- 4. Interested bidders may obtain further information from the Philippine Nuclear Research Institute and inspect the Bidding Documents at the address given below.
- 5. A complete set of Bidding Documents may be acquired by interested Bidders from 9:00 am to 5:00 pm on October 07 29, 2020, Monday thru Friday, from the Philippine Nuclear Research Institute and upon payment of a non-refundable fee, pursuant to the latest Guidelines issued by the GPPB, in the amount of Fifty Thousand Pesos (₱50,000.00) to the PNRI Cash Section, FAD.

It may also be downloaded from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Philippine Nuclear Research Institute, provided that bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

- 6. The Philippine Nuclear Research Institute will hold a Pre-Bid Conference on *October* 15, 2020, *Thursday*, 10:00 AM through videoconferencing/webcasting via Microsoft Teams, which shall be open to prospective bidders.
- 7. Bids must be duly received by the BAC Secretariat through manual submission at the *Auditorium, NART Building, PNRI Compound*, on or before *October 30, 2020, Friday, 10:00 AM.* Late bids shall not be accepted.
- 8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 16.
- 9. Bid opening shall be on *October 30, 2020, 10:00 AM* at the *Auditorium, NART Building, PNRI Compound.* Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
- 10. The Philippine Nuclear Research Institute reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
- 11. For further information, please refer to:

PHILIPPINE NUCLEAR RESEARCH INSTITUTE Hershy Lou C. Santos, Administrative Officer V Head BAC Secretariat 929-6011 to 19 Loc. 259/Fax. 920-8760 hcsantos@pnri.dost.gov.ph

12. You may visit the following websites for downloading of Bidding Documents:

http://www.philgeps.gov.ph http://www.pnri.dost.gov.ph

> **Lucille V. Abad, Ph.D.** Chief Science Research Specialist and Chairperson, PNRI-BAC

# Section II. Instructions to Bidders

#### 1. Scope of Bid

The Philippine Nuclear Research Institute invites Bids for the project Innovating Nuclear Medicine Research and Services: Development of Emerging PET Radiopharmaceuticals for Early Cancer Staging and Assessment of Biologic Functions in Cancer Cells (Design and Build CY 2020) under PR No. 20-09-0571.

The Procurement Project (referred to herein as "Project") is for both Design and Construction Works, as described in Section VI (Specifications).

#### 2. Funding Information

- 2.1. The GOP through the source of funding as indicated below for 2020 in the amount of *Fifty One Million Twelve Thousand Eight Hundred Seventy Three Pesos and 99/100 (₱51,012,873.99)*.
- 2.2. The source of funding is:

NGA, the General Appropriations Act or Special Appropriations.

#### 3. Bidding Requirements

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

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

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

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

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

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

#### 5. Eligible Bidders

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

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

- 5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

#### 6. Origin of Associated Goods

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

#### 7. Subcontracts

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

The Procuring Entity has prescribed that Subcontracting is not allowed.

- 7.1. *[If Procuring Entity has determined that subcontracting is allowed during the bidding*, *state:]* The Bidder must submit together with its Bid the documentary requirements of the subcontractor(s) complying with the eligibility criterial stated in **ITB** Clause 5 in accordance with Section 23.4 of the 2016 revised IRR of RA No. 9184 pursuant to Section 23.1 thereof.
- 7.2. [If subcontracting is allowed during the contract implementation stage, state:] The Supplier may identify its subcontractor during the contract implementation stage. Subcontractors identified during the bidding may be changed during the implementation of this Contract. Subcontractors must submit the documentary requirements under Section 23.1 of the 2016 revised

IRR of RA No. 9184 and comply with the eligibility criteria specified in **ITB** Clause 5 to the implementing or end-user unit.

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

#### 8. **Pre-Bid Conference**

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

#### 9. Clarification and Amendment of Bidding Documents

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

#### 10. Documents Comprising the Bid: Eligibility and Technical Components

- 10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in Section IX. Checklist of Technical and Financial Documents.
- 10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.
- 10.3. A valid PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
- 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.

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

#### 11. Documents Comprising the Bid: Financial Component

- 11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.
- 11.2. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.3. For Foreign-funded procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

#### **12.** Alternative Bids

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

#### 13. Bid Prices

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

#### 14. Bid and Payment Currencies

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

#### 15. Bid Security

- 15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.
- 15.2. The Bid and bid security shall be valid for *one hundred twenty (120) days*. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

#### 16. Sealing and Marking of Bids

Each Bidder shall submit one copy of the first and second components of its Bid.

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

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

#### **17.** Deadline for Submission of Bids

The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph 7 of the **IB**.

#### **18.** Opening and Preliminary Examination of Bids

18.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

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

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

#### **19.** Detailed Evaluation and Comparison of Bids

19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*" using non-discretionary pass/fail criteria. The BAC

shall consider the conditions in the evaluation of Bids under Section 32.2 of 2016 revised IRR of RA No. 9184.

- 19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 16 shall be submitted for each contract (lot) separately.
- 19.3. In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

#### 20. Post Qualification

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

#### 21. Signing of the Contract

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

# Section III. Bid Data Sheet Bid Data Sheet

ITB Clause	
5.2	<ul> <li>The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC. The Bidder should be a <i>Contractor Designer</i>. Further, bidders whose offices are not based in Metro Manila should have completed projects within Metro Manila similar to the project to bid, so that the Philippine Nuclear Research Institute can verify the quality of workmanship.</li> <li>For this purpose, contracts similar to the Project refer to Design and Build Projects</li> </ul>
7.1	Subcontracting is not allowed.
10.3	The Bidder must be a PCAB licensed contractor with <i>License Classification</i> on <i>General Building</i> at least <i>Category B</i> . The Bidder must also be a registered contractor for government projects with Size Range at least <i>Medium A</i> for <i>Building and Industrial Plant</i> .
10.4	The minimum work experience requirements of key personnel to be assigned for the project shall be provided in the Key Personnel (Format of Bio-Data) form.
10.5	The minimum major equipment requirements for the project shall be provided in the List of Equipment, Owned or Leased and/or under Purchase Agreements, Pledged to the Proposed Contract form.
12	No further instructions.
15.1	<ul> <li>The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:</li> <li>a. The amount of not less than ₱1,020,257.48, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit;</li> <li>b. The amount of not less than ₱2,550,643.70 if bid security is in Surety Bond.</li> <li>If a surety bond will be used, the following are the requirements: <ul> <li>a. Must have the original receipt;</li> <li>b. Must be callable on demand;</li> <li>c. Certified by the Insurance Commission that the surety company is authorized to issue such security.</li> </ul> </li> </ul>

19.2	Partial bids are not allowed.
20	No further instructions.
21	Additional contract documents relevant to the Project to be submitted by the successful bidder: (1) Construction Schedule and S-curve (2) Manpower Schedule (3) Construction Methods (4) Equipment Utilization Schedule (5) Construction Safety and Health Program approved by the DOLE (6) PERT/CPM and (7) All Risk Insurance

# Section IV. General Conditions of Contract

#### **1.** Scope of Contract

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

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

#### 2. Sectional Completion of Works

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

#### **3. Possession of Site**

- 3.1 The Procuring Entity shall give possession of all or parts of the Site to the Contractor based on the schedule of delivery indicated in the SCC, which corresponds to the execution of the Works. If the Contractor suffers delay or incurs cost from failure on the part of the Procuring Entity to give possession in accordance with the terms of this clause, the Procuring Entity's Representative shall give the Contractor a Contract Time Extension and certify such sum as fair to cover the cost incurred, which sum shall be paid by Procuring Entity.
- 3.2 If possession of a portion is not given by the above date, the Procuring Entity will be deemed to have delayed the start of the relevant activities. The resulting adjustments in contract time to address such delay may be addressed through contract extension provided under Annex "E" of the 2016 revised IRR of RA No. 9184.

#### 4. The Contractor's Obligations

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

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

#### 5. **Performance Security**

- 5.1. Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR.
- 5.2. The Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to RA No. 3688 against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

#### 6. Site Investigation Reports

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

#### 7. Warranty

- 7.1. In case the Contractor fails to undertake the repair works under Section 62.2.2 of the 2016 revised IRR, the Procuring Entity shall forfeit its performance security, subject its property(ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding. All payables of the GOP in his favor shall be offset to recover the costs.
- 7.2. The warranty against Structural Defects/Failures, except that occasioned-on force majeure, shall cover the period from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity. Specific duration of the warranty is found in the **SCC**.

#### 8. Liability of the Contractor

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

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

#### 9. Termination for Other Causes

Contract termination shall be initiated in case it is determined *prima facie* by the Procuring Entity that the Contractor has engaged, before, or during the implementation of the contract, in unlawful deeds and behaviors relative to contract

acquisition and implementation, such as, but not limited to corrupt, fraudulent, collusive, coercive, and obstructive practices as stated in **ITB** Clause 4.

#### 10. Dayworks

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

#### **11. Program of Work**

- 11.1. The Contractor shall submit to the Procuring Entity's Representative for approval the said Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works. The submissions of the Program of Work are indicated in the **SCC**.
- 11.2. The Contractor shall submit to the Procuring Entity's Representative for approval an updated Program of Work at intervals no longer than the period stated in the **SCC**. If the Contractor does not submit an updated Program of Work within this period, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.

#### 12. Instructions, Inspections and Audits

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

#### **13.** Advance Payment

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

#### 14. **Progress Payments**

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

#### 15. Operating and Maintenance Manuals

- 15.1. If required, the Contractor will provide "as built" Drawings and/or operating and maintenance manuals as specified in the **SCC**.
- 15.2. If the Contractor does not provide the Drawings and/or manuals by the dates stated above, or they do not receive the Procuring Entity's Representative's approval, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from payments due to the Contractor.

# Section V. Special Conditions of Contract Special Conditions of Contract

GCC Clause	
1	The Work Consist of Design and Built of a PNRI Cyclotron Facility.
2	Sectional Completion of works is required.
3.1	No further instructions.
4	The Contractor shall employ the following <b>Key Personnel:</b>
	<ul> <li>a) Registered &amp; Licensed Architect</li> <li>b) Registered &amp; Licensed Civil/Structural Engineer</li> <li>c) Registered &amp; Licensed Electrical Engineer</li> <li>d) Registered &amp; Licensed Electronics and Communication Engineer</li> <li>e) Registered &amp; Licensed Mechanical Engineer</li> <li>f) Registered &amp; Licensed Sanitary Engineer</li> <li>g) Consultant with experience in Design and Built of Cyclotron Facility</li> <li>h) Foreman (with 5 years supervisory experience)</li> <li>i) Skilled Workers (Carpenter, Mason, Electrician and Plumber with at least 5 year experience)</li> </ul>
	The Contractor's Foreman is required to be present on site throughout the duration of the contract
5	Within ten (10) calendar days from receipt of the Notice of Award, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR or a Performance Securing Declaration.
6	A Site Inspection is required to prospective bidders. A Certificate of Site Inspection shall be issued by PNRI and will form part of Eligibility Requirements.
7.2	<ul> <li>Warranty:</li> <li>The warranty shall be based on prescribed warranty provisions of the 2016 Revised IRR of RA 9184.</li> <li>1. From the time project construction commenced up to final acceptance, the contractor shall assume full responsibility for the following: <ul> <li>a) any damage or destruction of the works except those occasioned by force majeure ; and</li> <li>b) safety, protection, security, and convenience of his personnel, third parties, and the public at large, as well as the works, equipment, installation and the like to be</li> </ul> </li> </ul>

	affected by his construction work.
	2. One (1) year from project completion up to final acceptance or the defects liability period.
	The contractor shall undertake the repair works, at his own expense, of any damage to the infrastructure on account of the use of materials of inferior quality, within ninety (90) days from the time the HoPE has issued an order to undertake repair. In case of failure or refusal to comply with this mandate, the Procuring Entity shall undertake such repair works and shall be entitled to full reimbursement of expenses incurred therein upon demand.
	The warranty against Structural Defects and Failures shall be covered for Five (5) years from final acceptance, except those occasioned by force majeure.
10	Day works are applicable at the rate shown in the Contractor's original bid.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within <i>five (5) days</i> of delivery of the Notice of Award.
11.2	The period between Program of Work updates should not be longer than ten (10) days
	The amount to be withheld for late submission of an updated Program of Work is <i>Twenty Thousand Pesos (P20,000.00)</i> .
13	The amount of the advance payment shall not exceed 15% of the total contract price. Payment shall be made upon the completion and approval of the Final Drawings, Specifications and other relevant documents.
14	Materials and equipment delivered on the site but not completely put in place shall be included for payment.
15.1	The Contractor shall furnish the Procuring Entity, at its own expense, one (1) set original copy and five (5) sets Blue Print Plan of 20" x 30" As-built Drawings signed by a registered Civil Engineer, Electrical Engineer, Mechanical Engineer, Sanitary Engineer and Structural Engineer. Format of As-built Drawing is attached in Section VII. Drawings. "As built" drawings are required upon completion of the project.
15.2	The Final Payment shall be withheld for failing to produce "as built" drawings.

# Section VI. Specifications

#### I. SCOPE OF WORK

- **A.** General Requirements (Mobilization/Demobilization (Manpower, Tools, materials and equipment, Bonds/Insurance, Temporary Facilities and Fencing, As-Built plan, Project Billboard).
- **B**. Design Outputs (Detailed Engineering Study)
- C. Preparation of Design Drawings and Documents Based on Term of Reference (Design Codes and based on IAEA Technical Report Series No. 471)
- D. The Contractor shall deliver to the PNRI the following outputs of the Detailed Architectural and Engineering Design (DAED) of the Project Based on Terms of Reference (TOR), IAEA Technical Report Series No. 471 and Design Codes, signed and sealed by Licensed Professional Engineers.
- E. Permits
  - 1. Building Permits
  - 2. Structural Permits
  - 3. Electrical Permit
  - 4. Mechanical Permit
  - 5. Sanitary Permit
  - 6. Zoning Permit
  - 7. ECC Permit
  - 8. Fire Safety Permit
- F. Construction (Architectural, Civil, Mechanical & Electrical Works)
  - 1. Site Works
  - 2. Structural Works
  - 3. Masonry Works
  - 4. Steel Works
  - 5. Tinsmithry Works
  - 6. Carpentry Works
  - 7. Plumbing Works
  - 8. Comfort Rooms
  - 9. Mechanical Works
  - 10. Electrical Works
  - 11. Communication Works

#### II. TERMS OF REFERENCE (TOR)

#### 1. PURPOSE

The purpose of the Minimum Performance Standards and Specifications is to establish the minimum requirements that the Contractor must comply with in order to design and construct the Project.

#### 2. PROJECT DESCRIPTION

The project shall cover the design and build of the Innovating Nuclear Medicine Research and Services: Development of Emerging PET Radiopharmaceuticals for Early Cancer Staging and Assessment of Biologic Functions in Cancer Cells. The lot has an area of 8,999.20 square meters and for the design requirement covering a total area of 3,200.00 square meters of building. The site clearing will cover 4,500.00 square meters of the total lot area and the construction part will involve **1,380.00** square meters of total building floor area. The project should follow the <u>IAEA Technical Report Series No. 471 Cyclotron Produced Radionuclides: Guidelines for setting up a facility</u> as reference and shall be compliant to the Philippine Green Building Code requirements.

#### 3. DESIGN OUTPUTS

The detailed engineering study shall include but not limited to the following works:

The Contractor shall undertake the following surveys, analysis and design works:

- (1) Topographic Survey
- (2) Geotechnical Investigation and Test
- (3) Drainage Surveys, Hydrologic, Hydraulic Studies, Soil Investigation & Soil Bearing Capacity Test
- (4) Foundation and Pavement Design Analysis
- (5) Seismic Analysis
- (6) Architectural Works
- (7) Structural Design and Analysis
- (8) Electrical Design and Analysis
- (9) Mechanical Design and Analysis
- (10) Detailed design on HVAC and Ventilation System
- (11) Detailed design of Fire Alarm & Detection, & Sprinkler System

#### 4. DESIGN CODES

The DAED of the Project shall comply with the relevant provision of the following codes:

- a. DPWH Design Guidelines, Criteria, and Standards for Public Works and Highways.
- b. Presidential Decree (PD) No. 1096, National Building Code of the Philippines (NBCP) and its Revised Implementing Rules and Regulations (IRR)
- c. Republic Act (RA) No. 9154, Fire Code of the Philippines of 2008.

- d. Batas Pambansa (BP) Blg. 344, An Act to Enhance the mobility of Disabled Persons by Requiring Certain Public Buildings, Institution, Establishment and Public Utilities to Install Facilities, and Other Devices.
- e. Bureau of Product Standards (BPS) Department of Trade and Industry (DTI)
- f. Philippine Green Building Code.
- g. Architectural Code of the Philippines
- h. Architecture Act of 2004 (RA 9266)
- i. National Structural Code of the Philippines (NSCP), 2015.
- j. Philippine Electrical Code (PEC), 2017.
- k. Sanitation Code of the Philippines.
- 1. Revised National Plumbing Code of the Philippines.
- m. Philippine Mechanical Code 2012.
- n. Philippine Electronics Code.
- o. Republic Act 10066, National Cultural Heritage Act of 2009.
- p. Clean Air Act (RA 8749)
- q. Philippine Clean Water Act (RA 9275)
- r. Water Code of the Philippines (PD 1067)
- s. American Institute of Steel Construction (AISC)
- t. American Concrete Institute (ACI)
- u. American Iron and Steel Institute (AISI)
- v. American Welding Society (AWS)
- w. American National Standards Institute (ANSI)
- x. American Society of Heating, Refrigeration and Air-conditioning Engineers (ASHRAE)
- aa. Ecological Solid Waste Management Act of 2009 (RA 9003
- bb. DPWH Design Guidelines Criteria and Standards (DGCS) 2015 Edition Volume 6 Public Buildings and Other Related Structures and,
- cc. All applicable Laws, Issuance, Regulations, and Ordinances.
- dd. Project Billboard

#### 5. PREPARATION OF DESIGN DRAWINGS AND DOCUMENTS

#### **5.1 Schematic Design Phase**:

- a) The design and build contractor will confer with the Owner on the terms of reference to ascertain and confirm the requirements of the project.
- b) Prepares schematic design studies based on the terms of reference and project requirements leading to a recommended solution including a general description of the project for approval by PNRI.

#### **5.2 Design Development Phase**

- a) Prepares from approved schematic design study, the design developments consisting of plans, elevation and other drawings to illustrate the size and character of the project.
- b) Prepares an outline specifications showing the kind of materials intended to be used and the structural concept, the types of utility system and equipment to be installed and the other items of work that may be required based on

requirements of Term of Reference (TOR)

c) Provides the owner (PNRI) two sets of design development for review and approval by the owner. One shall be properly signed and approved by the owner and returned to the contractor of design and build.

#### **5.3 Contract Document Phase**

- a) The design and build contractor prepares from the approved design developments documents, the complete construction drawings, specifications setting forth in detail the work required for the Architectural engineering design and other service connected equipment, utilities and related works, based on the requirements of the Terms of Reference (TOR) of the project
- b) Submit breakdown of detailed cost estimate of the project based on quantities, areas, volumes and weight as parameters based on the requirements of Terms of Reference (TOR) of the project.
- 6. The Contractor shall deliver to the PNRI the following outputs of the Detailed Architectural and Engineering Design (DAED) of the Project. Signed and Sealed by Licensed Professional Engineers including Bill of Quantities of Materials Estimate and other necessary documents required by the project.
  - a. General:
    - (1) Cover Sheets
    - (2) General Index
    - (3) Vicinity and Key Map
    - (4) Location Plan/Lay out
    - (5) Legend, Abbreviation, and Symbols
    - (6) General Notes
  - b. Infrastructure Plans:
    - 1. Architectural Plans
    - 2. Civil Works
    - 3. Structural Plans
    - 4. Electrical Plans
    - 5. Mechanical Plans
    - 6. Air conditioning and Ventilation Plans
    - 7. Plumbing and Sanitary Plans
    - 8. ECE Plans
    - 9. Fire Alarm and Fire Protection System
    - 10. Building Management System (BMS) Plans
    - 11. Interior Design Plans
    - 12. As-Built Plans

-The contractor shall provide seven (7) sets of copy of plans and the original. In addition, the electronic copy of plans (CAD files).

-All copies of plans necessary for the application of permits shall be printed in minimum standard size of 20" x 30", signed and sealed by a Licensed Professional Engineers including Bill of Quantities of Materials Estimate and other necessary documents required by the project.

-As-Built Plans for Occupancy Permit, Service/Utilities Application, Mechanical Permit, and other government related applications.

- c. Design Analysis and Computations.
- d. Source of Construction Materials attached in the proposed Quality Control Program.
- e. Performance Specification for Materials and Equipment.

The DAED Reports in electronic files (.DWG, .DOC, .XLS, etc. whatever applicable) and hard copies for the work prepared must be submitted by the Design and Build (DB) Contractor to the director of PNRI for review and approval. The DAED Report shall include the computer programs or software used in preparation of plans.

#### **III. GENERAL DESIGN REQUIREMENTS AND FACILITY CONSIDERATIONS**

The following are points to consider in the design of a radioisotope production facility. These are divided into general considerations and functional areas such as the laboratory, cyclotron vault, etc. They should serve as a starting point to ensure that the necessary utilities and amenities are present. The list is not comprehensive, but may serve as a starting point to think about what is needed in each room or area.

#### General facility considerations:

- Utility shut-off controls should be located outside the laboratory.
- Laboratories should have an abundant number of electrical supply outlets to eliminate the need for extension cords and multi-plug adapters.
- Electrical panels should be placed in an accessible area not likely to be obstructed.
- Ground fault circuit interrupters should be installed near sinks and wet areas.
- Environmental chambers where evacuation or other alarms cannot be heard should be equipped with strobe lighting or additional alarms.
- Central vacuum systems should not be used, since they are vulnerable to contamination. Local vacuum pumps are preferable.
- $\circ\,$  All vacuum lines should have cold traps or filters or both to prevent contamination.
- Chilled water loops should be available for equipment in need of cooling.
- $\circ\,$  Loops help to avoid excessive wastewater. Supply and returns should be insulated to minimize condensation.
- Wall thickness: be sure the walls are thick enough to provide adequate shielding for present and potential future uses.
- Trenches: to supply present and potential access for cables and lines.
- o 208, 440 V electrical service for expanded electrical usage.

- $\circ$  Expanded normal voltage service (230 V) for equipment, tools.
- Power supplies and electronics: easy access, adequate water and air conditioning services.
- Cryogen storage: separate area if possible.
- Control room: cable trenches, computer floor, adequate metering, extra normal voltage outlets (220 V or 110 V).
- Spare parts storage: one spare of most major components, stock of expendables.
- Shop space, electronic and mechanical: size and equipment.
- o Radioactive parts storage: radioactive decay before disposal.
- RF shielding of the area around the cyclotron and power transmission.
- Magnetic field shielding if required.
- Extensive communication equipment to PET and laboratory.
- Overhead electric cranes for equipment moving.
- Chemistry laboratory: the size, number of sinks, utilities.
- Reagent storage, refrigerators: number and type.
- Synthesis module room: separate if possible, shielded from other areas.
- Quality assurance: space for test equipment, low background.
- Radionuclide generator storage: separate if possible.
- Gas cylinder storage: near laboratory and loading dock.
- Hazardous waste storage: outside laboratory.
- Supply storage: gloves, laboratory coats.
- Record storage: fire resistant room if possible, computer records.
- Communication to PET and cyclotron.
- Safety shower: decontamination area and supplies.
- Area for sterile set up for radiopharmaceuticals.
- Equipment transportation, unloading and installation area.
- Floor loading (including access routes).
- Ceiling heights: sufficient for all equipment and cranes.
- Access for cryogens.
- o Controlled access to areas of possible radioactivity.
- Air turnover in vault areas and laboratories.
- Pressure gradients in the facility.
- Shielding in the accelerator vault.
- Shielding around the synthesis modules.
- Monitoring equipment in the facility (portal).
- Stack monitoring and location of monitors.
- Electronics in high radiation areas should be radiation resistant.
- Robotics for synthesis, target manipulation.
- Decontamination facilities and supplies.
- Air conditioning: general area, computer areas, humidity, filtration.
- Water supply and floor drains, sinks with holding tanks.
- Chilled water supply.
- Establish controlled areas.
- Fire detection and safety.

	_	_	_	_	_	_	0			0	0	_	00	_	0	0	00	0	0	0	_	00	0	00	0	_	0	00	0	0	00	0	0	[		$\square$
RH	(%)	NA	NA	NA	NA	NA	40-60	NA	0	40-60	40-60	NA	40-60	NA	40-60	40-60	40-60	40-60	40-60	40-60	NA	40-60	40-60	40-60	40-60	NA	40-60	40-60	40-60	40-60	40-60	40-60	40-60		5.0 µm	29,000
Temp.	(°C)	25	25	NA	NA	25	NA	NA	25	25	25	25	25	25	25	25	25	18-22	18-22	18-22	25	25	18-22	18-22	18-22	0	25	25	18-22	18-22	18-22	18-22	18-22		5.0	29,
Diff pres.	(Pa)	0	0	0	0	0			0	-5 -	0	0	0	0	0	+5	+10	+10	0	+5	-5	0	-10	-5	-10	0	-30	-30	-60	-10	-10	-10	-30		0.5 µm	3,520,000
Air changes	per hour	ACU	ACU	NA	NA	ACU			5	5	5	5	5	5	5	5	5-10	5-10	5	5-10	NA	5	5-10	5-10	5-10	NA	1-5	10-20	10-20	5-10	10-20	5-10	5-10	-	_	D
Cleanroom grade class	(A/B/C/D/NA)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		5.0 µm	2,900
Cleanroom	(A/B/C	Z	z	z	z	Z	Z	Z	V	z	Z	z	Z	2	z	z	Z	Z	z	V	Z	Z	Z	V	Z	Z	Z	Z	V	Z	Z	2	2		0.5 µm	352,000
Radioactive	area (Y/N)	Z	z	z	z	z	z	N	Z	٢	z	z	z	z	z	z	z	z	z	N	Z	z	z	N	N	N	Y	N	Y	Z	z	z	٢		5	U
Cleanroom	area (Y/N)	z	z	z	z	z	z	v	z	z	z	z	z	z	z	z	z	z	z	Z	z	z	z	Z	N	N	Z	N	Z	z	z	z	N	cles per m <sup>3</sup> )	5.0 µm	29
Controlled	(V/N)	z	z	z	z	z	z	Z	z	۲	z	z	z	z	z	٢	٨	7	۲	٢	Z	z	٢	٢	٢	N	٢	٢	٢	٢	٢	٢	٢	rements (partic	0.5 µm	3,520
Name of area		Sleeping quarters	Staff Room	Toilet shower male	Toilet shower female	Pantry	HVAC Room	Electrical Distribution Room	Corridor	HPGe room (tentative)	Equipment Warehouse	Building Monitoring System	Laboratory Equipment Farm	Receiving Area	Quarantine Area	Warehouse Corridor	Laboratory supplies warehouse	Chemicals warehouse	Warehouse passthrough	Chemical Prep Room	Chemical waste storage room	Washing and Drying room	Quality Control room	Lab gown gowning room	Corridor	Gas Farm	Cyclotron Equipment	UPS	Cyclotron vault	Target prep room	Workshop	Control room	Service corridor	Legend for At-rest cleanroom particle requirements (particles per ${\mathfrak m}^3)$	m 5.0 µm	
Room	#	1	2	S	4	2	9	7 Ele	8	6	10 E	11 Bui	12 Lab	13	14	15	16	17	18 W	19	20 Cher	21 Wi	22	23 La	24	25	26	27	28	29	30	31	32	Legend for At-r	0.5 µm	A 3,520

#### General Design Requirements (HVAC):

33	F18 Hot cell room	٢	۲	z	C	20-40	+25	18-22	40-60
34	Radiometals Hot cell room	γ	٢	z	С	20-40	+25	18-22	40-60
35	Research Hot cell room	Y	Y	N	С	20-40	+25	18-22	40-60
36	Preparation room radiochemistry	٨	Y	Y	D	5-10	-10	18-22	40-60
37	Packaging room	٨	z	٨	NA	5-10	-10	18-22	40-60
38	Sample Retention Room	۲	z	٨	NA	5-10	-25	25	40-60
39	Grade C corridor	γ	۲	z	J	20-40	+15	18-22	40-60
40	Grade C gowning room	٢	۲	z	J	20-40	+5	18-22	40-60
41	Grade D corridor	٢	۲	z	D	10-20	0	18-22	40-60
42	Grade D gowning room	۲	۲	z	D	10-20	Ŷ	18-22	40-60
43	Sterile gowning room	٢	۲	z	В	40-80	+15	18-22	40-60
44	Sterility testing room	٢	۲	۲	B	40-80	+25	18-22	40-60
45	Sterilization room	٢	۲	z	C	20-40	+15	18-22	40-60
46	Nonradioactive prep room	٢	٢	z	D	10-20	+5	18-22	40-60
47	Microbiological Radioactive	γ	z	Y	NA	5-10	-25	25	40-60
2	Interim Storage			2		20		8	
48	Micro gowning	Y	Z	N	NA	5-10	-5	25	40-60
49	General micro lab	γ	Z	Y	NA	5-10	-10	25	40-60
50	Incubation room	٢	Z	٢	NA	5-10	-10	25	40-60
51	Pickup area	Z	N	z	NA	NA	0	NA	NA
52	Storage Room 1 (precursor development lab)	٨	z	z	NA	5-10	-10	18-22	40-60
53	Storage Room 2 (Cell and molecular biology lab)	٨	z	٨	NA	5-10	-10	16-20	30-50
54	Storage Room 3 (MicroPET)	Y	z	۲	NA	5-10	-10	16-20	30-50
55	Storage Room 4 (Animal facility)	٨	z	Y	NA	10-20	-10	16-20	30-50
56	Decontamination room	٨	z	۲	NA	NA	-25	none	none
57	Radioactive waste room	γ	Z	٢	NA	NA	-25	none	none
58	Personnel decontamination	Y	N	γ	NA	5-10	-10	none	none
59	Shower area	٢	z	٢	NA	NA	-10	none	none

#### General Design Requirements (HVAC):

# 1			5000		NOTT IN IDDITION	INIM IO IAGUINN
1 2			Requirement	sockets (10A)	sockets (10A)	dedicated
1 2			(none otherwise if specified)			breaker
2	Sleeping quarters	-	204	4	0	0
	Staff Room			12	0	0
ŝ	Toilet shower male			1	0	0
4	Toilet shower female			1	0	0
5	Pantry			Э	0	0
9	HVAC Room					
7	Electrical Distribution Room					
∞			-	N/A		
6	HPGe room (proposed alternative)	High Purity Germanium		1	0	0
		detector system				
10	Equipment Warehouse	RO water system	400 V / 3 phase			
		WFI water system	400 V / 3 phase			
		Liquid nitrogen production	2 kW	0	0	ŝ
		system	200 VAC 3			
			phase			
11	Building Monitoring System					
12	Laboratory Equipment Farm	Horizontal Industrial type	24 kW	0	0	1
	400 1 454 . 100 .	autoclave	220 VA 3 phase			
13	Receiving Area			1	0	0
14	Quarantine Area			N/A		
15	Warehouse Corridor			N/A		
16	Laboratory supplies warehouse			N/A		
17	Chemicals warehouse	Explosion-proof refrigerator		1	0	0
18	Warehouse passthrough			N/A		
19	Chemical Prep Room	Chemical fume hood	100W, 32A			
		Analytical balance		ŝ	c	
		pH meter		7	n	T
		Type I/II DI water				
20	Chemical waste storage room		-	N/A		
21	Washing and Drying room	Drying oven		1	0	0
22	Quality Control room	Chemical fume hood	100W, 32A	9	0	1
gend for	Legend for At-rest cleanroom particle requirements (particles per $m^3$ )	ients (particles per m <sup>3</sup> )			2 20 24	1
0	0.5 µm 5.0 µm	0.5 µm 5.0 µm	0.5 µm	5.0 µm	0.5 µm	5.0 µm
A	3,520 0 B	3,520 29	C 352,000	2,900	D 3,520,000	29,000

#### General Design Requirements (Electrical):

						N/A	N/A	V/N							N/A	1 0 *	5 A	1 0 *	5 A		* 0 0	each 1 0 2		N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 0 0		2 0 2			0.5 um 5.0 um 0.5 um 5.0 um
																	258W, 8.5 A		258W, 8.5 A	**		100W, 32A each										**		**		0
 GC/MS	LC/MS	HPLC/UV	HPLC/UV/Radiometric	RadioTLC	Dose calibrator											Hot cells	Vertical laminar flow cabinet	Hot cells	Vertical laminar flow cabinet	Laminar passbox	Hot cells	Chemical fume hood (x2)	Dose calibrator								Biosafety cabinet	Laminar passbox	Batch type autoclave (x2)	Laminar flow passbox	ments (particles per m <sup>3</sup> )	0.5 µm 5.0 µm
						l ah gown gowning room	Corridor	Gas Farm	Cvclotron Equipment	UPS	Cyclotron vault	Target prep room	Workshop	Control room	Service corridor	F18 Hot cell room		Radiometals Hot cell room			Research Hot cell room	Preparation room radiochemistry		Packaging room	Sample Retention Room	Grade C corridor	Grade C gowning room	Grade D corridor	Grade D gowning room	Sterile gowning room	Sterility testing room		Sterilization room		egend for At-rest cleanroom particle requirements (particles per m <sup>3</sup> )	0.5 µm 5.0 µm
						33	74	75	26	27	28	29	30	31	32	33		34			35	36		37	38	39	40	41	42	43	44		45		Legend for	

#### General Design Requirements (Electrical):

N/A           ZEFT         N/A           ZEFT         N/A           ZEFT         N/A           Pio         4           Pio         4           Pio         4           Pio         7           Pio         2           Pio         1	46	Nonradioactive prep room		Undercounter refrigerator						<u>~</u>
Intersect         N/A           Biorefrigerator with freezer         N/A           Biorefrigerator with freezer         N/A           Biorefrigerator with freezer         N/A           Microscope         Microscope           Microscope         Microscope           Cooling Incubators (x2)         4           Incubators (x2)         N/A           Biosafety cabinet         A           Cooling counter         N/A           Colony counter         N/A           Contrast microscope         7           Mater bath         7           Mater bath         2           Mater bath         2           Microsolator ventilated cage         2           Biosafety cabinet         1.07KW           Microsolator ventilated cage         2           Microsolator ventilated cage         2           Microsolator ventilated cage         2           Microsolator ventilated cage         1           Microsolator ventilated cage         2	101100			I op loading balance						
NIA           Biorefrigerator with freezer         NIA           Microscope         Microscope           Microscope         Microscope           Micropidators (x2)         4           Posafest/cabinet         4           Biosafest/cabinet         N/A           Sor         N/A           Add         Biosafest/cabinet           Biosafest/cabinet         N/A           Sor         N/A           Sor         N/A           Colony counter         N/A           Sor         N/A           Sor         N/A           Colony counter         N/A           Sor         N/A           Sort         N/A           Colony counter         N/A           Sort         N/A           Colony counter         N/A           Sortwall clean com         1.07KW           Nater bath         Biosafety cabinet           Biosafety cabinet         2           Microsolator ventilated cage         N/A           Sortwall clean com         1.07KW           Microsolator ventilated cage         2           Biosafety cabinet         2           Biosafety cabinet         2	47	Micro Radioactive Interim Stora	age			N/A				_
Bionefrigerator with freezer         Image: Figure freezer         Figure freezer         Image: Figure freezer         Figure freezer <td>48</td> <td>Micro gowning</td> <td></td> <td></td> <td></td> <td>N/A</td> <td></td> <td></td> <td></td> <td></td>	48	Micro gowning				N/A				
Microscope         Microscope           Microplate absorbance         +           Recoplate absorbance         +           Microplate absorbance         +           Recoling linubators (x2)         +           Biosafety cabinet         -           Cooling linubators (x2)         -           Biosafety cabinet         -           Colony counter         -           Soft         -           Refrigerator         -           Phase contrast microscope         -           Nater babinet         -           Nater babinet         -           Biosafety cabinet         -           Nater babinet         -           Biosafety cabinet         -           Nater babinet         -           Biosafety cabinet         -	49	General micro lab		Biorefrigerator with freezer		4		0	0	
Microplate absorbance reader         Immediation         Imme				Microscope						
reader         reader         4         4           Cooling Incubators (x2)         Incubators (x2)         4         4           Incubators (x2)         Biosafety cabinet         A         4           Sor         Ecolony counter         N/A         A           Sor         Refrigerator         N/A         A           Mater bath         Biomedical freezer         7         7           Mater bath         Mater bath         2         2           Mater bath         Biosafety cabinet         1.07kW         2           Micro spect/pet/ct         1.07kW         2         2           Mater bath         Micro spect/pet/ct         1.07kW         2           Micro spect/pet/ct         1.07kW         2         2           Mater bath         Biosafety cabinet         2         2           Micro spect/pet/ct         1.07kW         2         2           Micro spect/pet/ct         258W, 8.5 A         2         2           Micro spect/pet/ct         2         2         2           Micro spect/pet/ct         258W, 8.5 A         2         2           Micro spect/pet/ct         2         2         2           Micro spect/pet				Microplate absorbance						
Cooling Incubators (x2)         4           Incubators (x2)         Incubators (x2)           Biosafety cabinet         N/A           sor         Biomedical freezer           Refrigerator         N/A           Biomedical freezer         N/A           Refrigerator         N/A           Phase contrast microscope         7           Colory counter         7           Mase contrast microscope         7           Continge         1.07kW           Continge         2           Micro spect/orabinet         1.07kW           Micro spect/orabinet         2           Micro spect/orabinet         1.07kW           Micro spect/orabinet         2           Micro spect/orabinet         1.07kW           Micro spect/orabinet         1.07kW           Micro spect/orabinet         2           Micro spect/orabinet         2           Micro spect/orabinet         2           Micro spect/orabinet         3.07kW           Micro spect/orabin				reader						
Incubators (x2)         Incubators (x2)           Bioardety cabinet         NA           sor         Biomedical freezer         NA           sor         Biomedical freezer         NA           sor         Biomedical freezer         NA           eed)         Biomedical freezer         NA           bioardety cabinet         T         7           Phase contrast microscope         T         7           Colony contrast microscope         Incubator (x2)         NA           Vater bath         Biosafety cabinet         1.07kW           Nicro spect/predinet         Incrykw         2           Micro spect/perfort         Incrykw         2           Micro spect/perfort         Incrykw         2           Micro spect/perfort         Incrykw         2           Micro spect/perfort         Incrykw         1           Micro spectry cabinet         Incrykw	50	Incubation room		Cooling Incubators (x2)		4		0	0	
				Incubators (x2)						
Colony counter         N/A           seci         Biomedical freezer         N/A           seci         Biomedical freezer         T           nd         Biomedical freezer         T           hd         Biomedical freezer         T           phase contrast microscope         -         T           restrigerator         -         -           Phase contrast microscope         -         -           Continubator (x2)         -         -           Water bath         Biosafety cabinet         -           Noticro spect/pet/ct         -         -           Micro spect/pet/ct         -         -           Biosafety cabinet         -         -           Micro spect/pet/ct         -         -           Biosafety cabinet         -         -           Microsolator ventilated cage         -         -           Softw				Biosafety cabinet						
sor         N/A           sor         sor         N/A           sed)         Biomedical freezer         7         7           nd         Refrigerator         7         7         7           n         Refrigerator         7         7         7           n         Refrigerator         7         7         7           n         Centrifuge         1.07kW         2         7           Nater bath         Nater bath         1.07kW         2         7           Microsoletor ventilated cage         1.07kW         2         7         7           m         Costwall cleanroom         1.07kW         2         7         7           m         Costwall cleanroom         1.07kW         2         7         7           m         Softwall cleanroom         1.07kW         2         7         7           m         Softwall cleanroom         1.07kW         3         2         7				Colony counter						
sor sed) Biomedical freezer bed) Biomedical freezer Centrifuge Contrast microscope ET) Phase contrast microscope Centrifuge CO2 incubator (x2) Water bath Biosafety cabinet Biosafety cabinet Biosafety cabinet Amesthesia system Amesthesia system Amesthesia system Amesthesia system Amesthesia system Cility) Biosafety cabinet Biosafety ca	51	Pickup area				N/A				-
sed)         Biomedical freezer         T         T           0         Biomedical freezer         T         T           1         Refrigerator         T         T           1         Phase contrast microscope         T         T           1         Phase contrast microscope         T         T           1         Phase contrast microscope         T         T           1         Diversion         1.07kW         2           1         Biosafety cabinet         1.07kW         2           1         Micro spect/pet/ct         Biosafety cabinet         2           1         Micro spect/pet/ct         1.07kW         2           1         Microsolator ventilated cage         2         1           1         Microsolator ventilated cage         1         1           1         Microsolator ventilated cage         1         1           1         Microsolator ventilated cage         1         1           1         Micros	52	Storage Room 1 (precursor						10		_
Ind         Biomedical freezer         Image         7         7           Image         Refrigerator         Image		development lab, proposed)	)							
Image ()         Refrigerator         Image ()	53	Storage Room 2 (Cell and	2	Biomedical freezer	2	7		0	0	
$ \begin{array}{                                    $		molecular biology lab)		Refrigerator						
$ \begin{array}{                                    $				Phase contrast microscope						
$ \begin{array}{                                    $				Centrifuge						
$\begin{tabular}{ c                                   $				CO2 incubator (x2)						
$\begin{tabular}{ c c c c } \hline Eliosafety cabinet \\ \hline ET \ Softwall clean coom 1.07kW 2 \ Softwall clean coom 1.07kW 2 \ Softwall clean com 1.07kW 2 \ Blosafety cabinet 2 \ Softwall clean com 1.07kW 2 \ Nicroisolator ventilated cage 258W, 8.5 A \ Softwall clean com 1.07kW 2 \ Nicroisolator ventilated cage 258W, 8.5 A \ Softwall clean com 1.07kW 1.07kW 2 \ Nicroisolator ventilated cage 2.55W 1.07kW 2 \ Nicroisolator ventilated cage 2.55W 2 \ Nicroisolator ventilated cage 2.50W 2 \ Nicroisolator 2.5$				Water bath						
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$				Biosafety cabinet						
$ \begin{array}{                                    $	54	Storage Room 3 (MicroPET)		Softwall cleanroom	1.07kW	2		0	2	_
$ \begin{array}{                                    $				Micro spect/pet/ct						
				Biosafety cabinet						
Including the control of the cont				Anesthesia system						
Biosafety cabinet         258W, 8.5 A           Biosafety cabinet         258W, 8.5 A           N/A         N/A           M         Chest freezer         1.07kW         N/A           M         Chest freezer         255W         1.07kW         N/A           M         Chest freezer         230V 60Hz         1         1           M         UpS         230V 60Hz         N/A         1           Intervention         0.05 μm         5.0 μm         5.0 μm         0	55	Storage Room 4 (Animal facilit	ty)	Microisolator ventilated cage		2		0	1	
m         Softwall cleanroom         1.07kW         N/A           m         Chest freezer         255W         N/A           m         Chest freezer         230V 60Hz         1           tion         Hand and Foot Monitor w/         230V 60Hz         1           N/A         N/A         1         1           requirements         0.05         N/A         1		1990 - 19900 - 19900 - 19900 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 -		Biosafety cabinet	258W, 8.5 A					
m         N/A           m         Chest freezer         255W         1           tion         Hand and Foot Monitor w/ UPS         230V 60Hz         1           ion         Hand and Foot Monitor w/ UPS         230V 60Hz         1           requirements         N/A         N/A				Softwall cleanroom	1.07kW					
m         Chest freezer         255W         1           tion         Hand and Foot Monitor w/ UPS         230V 60Hz         1           rion         UPS         N/A         N/A           requirements (particles per m <sup>3</sup> )         N/A         1           B         3,520         29         0.5 μm         0.5 μm         0	56	Decontamination room				N/A				
ion Hand and Foot Monitor w/ 230V 60Hz N/A	57	Radioactive waste room		Chest freezer	255W	1		0	0	
requirements (particles per m <sup>3</sup> ) B 3,520 29 C 352,000 D	58	Personnel decontamination	_	Hand and Foot Monitor w/ UPS	230V 60Hz					
requirements (particles per m <sup>3</sup> )	59	Shower area				N/A				1
Experimentation         Definition         5.0 μm         5.0 μm         0.5 μm         5.0 μm         0           B         3,520         29         C         352,000         2,900         D	t puer	or At-rast clashroom harticla radi	iron	aante (nartielee ner m3)						r .
U.5 µm         J.0 µm<	Print				0.5	E 0 1100		0.5	E 0	
3,520 0 B 3,520 29 C 352,000 2,900 D	-	und o.c	1			und n.c		und c.u	und n.c	_
	_	0	8			2,900	D	3,520,000	29,000	_

#### General Design Requirements (Electrical):

Front		200	20	20	20	20	20
Right		200	20	20	20	20	0
Left		200	20	0	0	20	0
Back		200	0	0	0	20	0
Type of partition	Boron containing paraffin or polyethylene	Low iron Concrete (density =2,400kg/m <sup>3</sup> )	Modular type Cleanroom partition, powder	coated steel sandwich panel bonded to	polyurethane	Concrete slab	Modular type Cleanroom partition, powder coated steel sandwich panel bonded to polvurethane (facing the gowning room)
Description	Cucloteon usult	Cyclotion vauit	F18 hot cell	Radiometal hot cell	Research hot cell	Preparation room	radiochemistry
Room #	oc	07	33	34	35	36	

General Design Requirements (Scenario A: Unshielded Cyclotron -Approximate Partitioning and Wall Thickness special considerations (cm) ):

Approximate partitioning and wall thickness special considerations (cm)

Scenario A: unshielded cyclotron

Room #	Description	Load requirement	Area (m <sup>2</sup> )	Type of flooring	Thickness (cm)
		Unshielded cyclotron – 25 tons		Self-leveling heavy-duty epoxy	1-2
28	Cyclotron vault	Vault wall – approx. 960 tons	144	Concrete with load bearing structural reinforcements	40-50
				Self-leveling epoxy resin (cleanroom grade)	1
33	F18 hot cell	3 hot cells – approx. 25 tons	26	Concrete with load bearing structural	20
				reinforcements	
-				Self-leveling epoxy resin (cleanroom grade)	1
34	Radiometal hot cell	3 hot cells – approx. 25 tons	26	Concrete with load bearing structural	20
				reinforcements	
				Self-leveling epoxy resin (cleanroom grade)	1
35	Research hot cell	3 hot cells – approx. 25 tons	26	Concrete with load bearing structural	20
				reinforcements	
20	Prep room	1 firms hand with load anoth	3C C1	Self-leveling epoxy resin (cleanroom grade)	1
20	radiochemistry	T INTHE NOOD WITH IEAD CASHE	C7.71	Concrete	10

# Total floor pressure – 3825 to 13050 kp per 15 x 15 cm2 plate x 4 = 15300 to 52200 kp

Approximate floor and floor thickness for heavy stationary loads

General Design Requirements (Scenario A: Unshielded Cyclotron -Approximate Floor Area and Floor Thickness for Heavy stationary loads):

-	Description	Type of partition	Back	Left	Right	Front
1	Cudatron unult	Boron containing paraffin or polyethylene			6	
		Low iron Concrete (density =2,400kg/m <sup>3</sup> )	170	170	170	170
1	F18 hot cell	Modular type Cleanroom partition, powder	0	20	20	20
-	Radiometal hot cell	coated steel sandwich panel bonded to	0	0	20	20
	Research hot cell	polyurethane	0	0	20	20
2	Preparation room	Concrete slab	20	20	20	20
	radiochemistry	Modular type Cleanroom partition, powder	0	0	0	20
		coated steel sandwich panel bonded to				
-		polvurethane (facing the gowning room)				

General Design Requirements (Scenario B: Based on GE PETTrace 800 self-shielded cyclotron site planning guide - Approximate Partitioning and Wall Thickness special considerations (cm) ):

Scenario B. Based on GE PETTrace 800 self-shielded cyclotron site planning guide

Approximate partitioning and wall thickness special considerations (cm)

General Design Requirements ((Scenario B: Based on GE PETTrace 800 self-shielded cyclotron site planning guide - Approximate Floor Area and Floor Thickness for Heavy stationary loads) ):

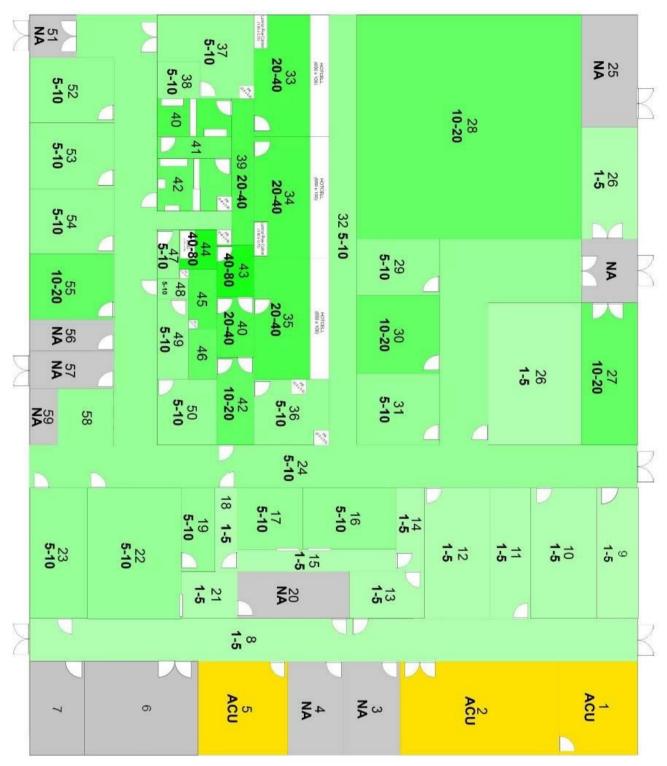
()

10221					
Room #	Description	Load requirement	Area (m <sup>2</sup> )	Type of flooring	Thickness (cm)
		Shielded cyclotron – 100 tons		Self-leveling heavy-duty epoxy	1-2
28	Cyclotron vault	Vault wall – approx. 849.6 tons	144	Concrete with load bearing structural reinforcements	40-50
				Self-leveling epoxy resin (cleanroom grade)	1
33	F18 hot cell	3 hot cells – approx. 25 tons	26	Concrete with load bearing structural	20
				reinforcements	
				Self-leveling epoxy resin (cleanroom grade)	1
34	Radiometal hot cell	3 hot cells – approx. 25 tons	26	Concrete with load bearing structural	20
				reinforcements	
				Self-leveling epoxy resin (cleanroom grade)	1
35	Research hot cell	3 hot cells – approx. 25 tons	26	Concrete with load bearing structural	20
				reinforcements	
36	Prep room	1 from bood with lond control	31 75	Self-leveling epoxy resin (cleanroom grade)	1
00	radiochemistry	ד ומוווב ווססמ אומו ובפמ רפצמב	C7.7T	Concrete	10

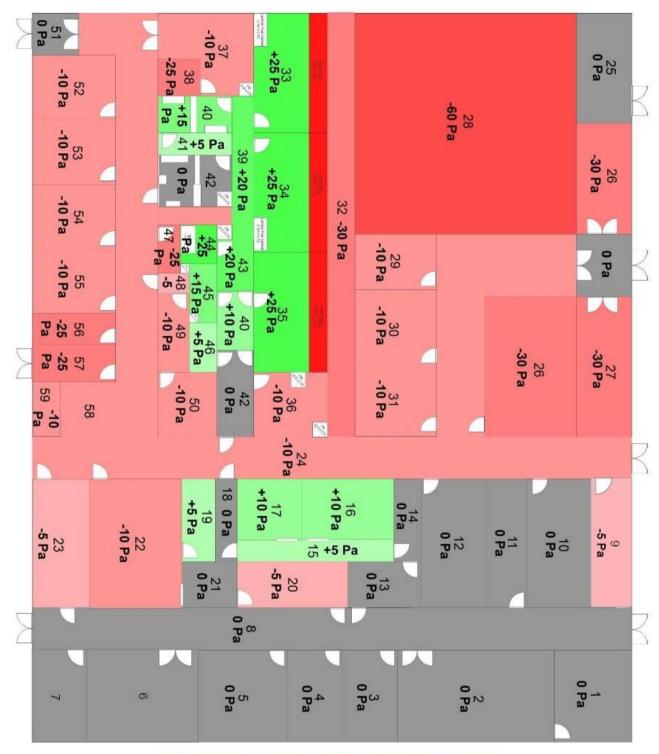
Total floor pressure – 4837.5 to 14062.5 kp per 15 x 15 cm2 plate x 4 = 19350 to 56250 kp

The finished surface must withstand 800 to 900 kg/cm2

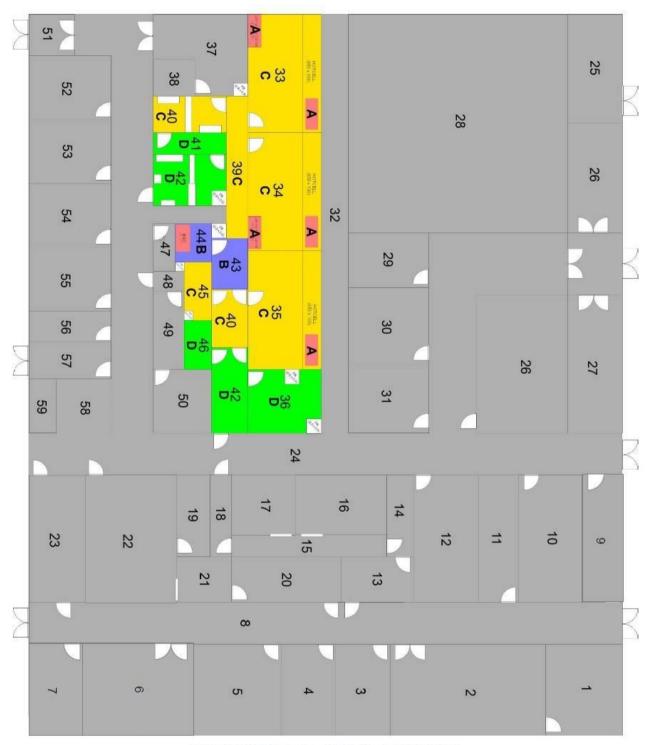
Approximate floor and floor thickness for heavy stationary loads



**AIR CHANGE RATE SCHEME** 



**PRESSURE DIFFERENTIAL LAYOUT** 



### **CLEANROOM AREA SCHEME**

Red – Grade A | Blue – Grade B | Yellow – Grade C | Green – Grade D Gray - Unclassified

### **IV. DRAWINGS AND SPECIFICATIONS**

- 1.0 In case of discrepancies between the figures and drawings, the matter shall be referred immediately to PNRI, before any adjustment is made by the CONTRACTOR. The decision of PNRI in the adjustment of discrepancies so as to conform to the real intent of the drawings shall govern and shall be followed by the CONTRACTOR.
- 2.0 Any discrepancies/errors/omission found by PNRI between the drawings and specifications shall be immediately reported to the CONTRACTOR, who will promptly correct such discrepancies at the Contractor's expense.
- 3.0 After completion of work as described herein, the CONTRACTOR shall furnish PNRI at his own expense, one (1) original copy and seven (7) copies of plans of 20" x 30" "As-built Plan" signed by a Civil Engineer, Electrical Engineer, Sanitary Engineer, Structural Engineer, Mechanical Engineer, Electronics and Communication Engineer.

### V. CONTRACT COMPLETION TIME

The contractor shall commence the work within Seven (7) days upon receipt of the Notice to proceed and complete the project within the period of **Two Hundred Eighty** (280) Government Working Days:

### **COMPLETION OF THE DESIGN**

1. The contractor shall prepare the preliminary surveys, analysis and structural design, plans/drawings and other relevant documents to complete the design of the project within **Sixty (60) Government working days** upon receipt of the Notice to proceed.

Final drawings, Specifications and other relevant documents shall be submitted within **Twenty (20) Government working days** after the Owner's approval of the preliminary plans/drawings. "Relevant Documents" Shall include such documents as may be reasonably required by the Director's for the completion of the project

### CONSTRUCTION

2. The Contractor shall complete the project within **Two Hundred (200) Government working days** from Owner's approval of the final design/plans, drawings and other relevant documents. All work shall be executed in accordance with the terms and condition of the detailed plans and agreement and the acceptance thereof by the Owner to its full satisfaction.

### VI. WARRANTY

The warranty shall be based on prescribed warranty provisions of the 2016 Revised IRR of RA 9184.

1. From the time project construction commenced up to final acceptance, the contractor shall assume full responsibility for the following:

a) any damage or destruction of the works except those occasioned by force majeure; and

b) safety, protection, security, and convenience of his personnel, third parties, and the public at large, as well as the works, equipment, installation and the like to be affected by his construction work.

2. One (1) year from project completion up to final acceptance or the defects liability period.

The contractor shall undertake the repair works, at his own expense, of any damage to the infrastructure on account of the use of materials of inferior quality, within ninety (90) days from the time the HoPE has issued an order to undertake repair. In case of failure or refusal to comply with this mandate, the Procuring Entity shall undertake such repair works and shall be entitled to full reimbursement of expenses incurred therein upon demand.

3. The warranty against Structural Defects and Failures shall cover the following periods from final acceptance, except those occasioned by force majeure:

a) Permanent Structures: Fifteen (15) years

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;

b) Semi-Permanent Structures: Five (5) years

Buildings of types 1, 2, and 3 as classified under the National Building Code of the Philippines, concrete/asphalt roads, concrete river control, drainage, irrigation lined canals, river landing, deep wells, rock causeway, pedestrian overpass, and other similar semi-permanent structures; and

c) Other Structures: Two (2) years

Bailey and wooden bridges, shallow wells, spring developments, and other similar structures.

### VII. CLEANING OF PREMISES

The Contractor shall clean and clear the whole premises of all debris and unused materials upon completion of the project.

## Section VII. Drawings

[In a separate folder]

# Section VIII. Bill of Quantities

ITEM	DESCRIPTION	COST
А.	GENERAL REQUIREMENTS	
B.	DESIGN OUTPUTS	
	(Detailed Engineering Study)	
C.	Preparation of Design drawings and documents	
	based on Term of Reference	
	(Design Codes and based on IAEA Technical	
	Report Series No. 471)	
D.	Architectural and Engineering Design (DAED)	
	Details Drawings and Documents of the project	
	Based on Terms of Reference	
	(Design Codes and based on IAEA Technical	
	Report Series No. 471)	
Е.	PERMITS	
F.	CONSTRUCTION	
	(ARCHITECTURAL, CIVIL & ELECTRICAL	
	WORKS)	
1.	SITE WORKS	
2.	STRUCTURAL WORKS	
3.	MASONRY WORKS	
4.	STEEL WORKS	
5.	TINSMITHRY WORKS	
6.	CARPENTRY WORKS	
7.	PLUMBING WORKS	
8.	COMFORT ROOMS	
9.	MECHANICAL WORKS	
10.	ELECTRICAL WORKS	
11.	COMMUNICATION WORKS	
	TOTAL DIRECT COST:	
	TOTAL DIRECT COST.	
	<b>INDIRECT COST :</b>	
	CONTINGENCY	
	OH/SUPERVISION	
	PROFIT	
	TOTAL MARK-UP:	
	VAT (5%):	
	TOTAL INDIRECT COST:	
	TOTAL DIRECT & INDIRECT COST:	
	TOTAL PROJECT COST:	

## Section IX. Checklist of Technical and Financial Documents

## **Checklist of Technical and Financial Documents**

### I. TECHNICAL COMPONENT ENVELOPE

### Class "A" Documents

### Legal Documents

- (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages); or
- (b) Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document; and
- □ (c) Mayor's or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas;

### and

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

### **Technical Documents**

- □ (e) Statement of the prospective bidder of all its ongoing, awarded but not yet started government and private design and build contracts; **and**
- □ (f) Statement of the bidder's Single Largest Completed Contract (SLCC) for both design and build contract; **and**
- (g) Philippine Contractors Accreditation Board (PCAB) License;
   <u>or</u> Special PCAB License in case of Joint Ventures;

and registration for the type and cost of the contract to be bid; and

□ (h) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;

### <u>or</u>

Original copy of Notarized Bid Securing Declaration; and

- $\Box$  (i) Project Requirements, which shall include the following:
  - $\Box$  1. Organizational chart for the contract to be bid;
  - □ 2. List of contractor's key personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data;
  - List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; and

□ (j) Original duly signed Omnibus Sworn Statement (OSS);

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

### Financial Documents

- □ (k) The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; and
- □ (1) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

### Class "B" Documents

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

or

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

### Additional documentary requirements under Annex "G" of RA 9184

- (n) Preliminary Conceptual Design Plans in accordance with the degree of details specified by the procuring entity;
- $\Box$  (o) Design and construction methods;
- □ (p) List of design and construction personnel to be assigned to the contract to be bid, with their complete qualification and experience data and valid licenses issued by the Professional Regulatory Commission (PRC) for design professionals;
- $\Box$  (q) Value engineering analysis of design and construction method

### **II. FINANCIAL COMPONENT ENVELOPE**

 $\Box$  (r) Original of duly signed and accomplished Financial Bid Form; <u>and</u>

### Other documentary requirements under Annex "G" of RA No. 9184

- □ (s) Lump sum bid prices, which include the detailed engineering cost, in the prescribed Bid Form; **and**
- □ (t) Duly accomplished Detailed Estimates Form, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; and
- $\Box$  (u) Cash Flow by Quarter and payment schedule

# **Bidding Forms**

LIST OF ALL ONGOING CONTRACTS	53
STATEMENT OF SLCC	54
BID SECURING DECLARATION	55
ORGANIZATION CHART	57
LIST OF CONTRACTOR'S KEY PERSONNEL	58
LIST OF EQUIPMENT	60
OMNIBUS SWORN STATEMENT	61
Authority of Signatory (Secretary' Cert.)	63
Authority of Signatory (SPA)	65
NFCC	66
BID FORM	67

### REPUBLIC OF THE PHILIPPINES ) CITY OF \_\_\_\_\_\_ ) S.S.

х-----х

### **BID-SECURING DECLARATION Project Identification No.:** [Insert number]

To: [Insert name and address of the Procuring Entity]

I/We, the undersigned, declare that:

- 1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid-Securing Declaration.
- 2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration within fifteen (15) from the receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Section 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f), of the IRR of RA No. 9184, without prejudice to other legal action the government may undertake.
- 3. I/We understand that this Bid-Securing Declaration shall cease to be valid on the following circumstances:
  - (a) Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
  - (b) I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
  - (c) I am/we are declared as the bidder with the Lowest Calculated and Responsive Bid, and I/we have furnished the performance security and signed the Contract.

**IN WITNESS WHEREOF**, I/We have hereunto set my/our hand/s this \_\_\_\_\_ day of [month] [year] at [place of execution].

# [Insert NAME OF BIDDER'S AUTHORIZED

**REPRESENTATIVE**]

[Insert signatory's legal capacity] Affiant

[Jurat] [Format shall be based on the latest Rules on Notarial Practice] Procuring Entity: PHILIPPINE NUCLEAR RESEARCH INSTITUTE Name of the Project: Innovating Nuclear Medicine Research and Services: Development of Emerging

PET Radiopharmaceuticals for Early Cancer Staging and Assessment of Biologic

Functions in Cancer Cells (Design and Built CY 2020) Location of the Project: PNRI Compound, Commonwealth Avenue, Diliman, Quezon City

### **Contractor's Organizational Chart for the Contract**

Submit Copy of the Organizational Chart that the Contractor intends to use to execute the Contract if awarded to him. Indicate in the chart the names of the Project Manager, Project Engineer, Bridge Engineer, Structural Engineer, Materials and Quality Control Engineer, Foreman and other Key Engineering Personnel.

Attached the required Proposed Organizational Chart for the contract as stated above

#### Procuring Entity: PHILIPPINE NUCLEAR RESEARCH INSTITUTE

Name of the Project: Innovating Nuclear Medicine Research and Services: Development of Emerging

PET Radiopharmaceuticals for Early Cancer Staging and Assessment of

Biologic Functions in Cancer Cells (Design and Built CY 2020)

Location of the Project: PNRI Compound, Commonwealth Avenue, Diliman, Quezon City

#### **KEY PERSONNEL** (FORMAT OF BIO-DATA)

Give the detailed information of the following personnel who are scheduled to be assigned as fulltime field staff for the project. <u>Fill up a form for each person.</u>

- Authorized Managing Officer / Representative
- Sustained Technical Employee

1.	Name	:				
2.	Date of Birth	:				
3.	Nationality	:		-		
4.	Education and Degrees	:		-		
5.	Specialty	:		-		
6.	Registration	:		-		
7.	Length of Service with the Firm	:		r from		
8.	Years of Experience	:				
9.	If Item 7 is less than ten (10 employers for a ten (10)-year pe					previous
	Name and Address of Employer		_ yea	g <u>th of Servi</u> r(s) from r(s) from	 to to	

10. Experience:

This should cover the past ten (10) years of experience. (Attached as many pages as necessary to show involvement of personnel in projects using the format below).

\_\_\_\_\_ year(s) from

\_\_\_\_\_ to \_\_\_\_

1. Name

:

2.	Name and Address of Owner	:			
3.	Name and Address of the Owner's Engineer	:			
	(Consultant)				
4.	Indicate the Features of Project (particulars of the project components and any other parti interest connected		wit	:h tho	e project):
5.	Contract Amount Expressed in Philippine Currency	:			
6.	Position	:			
7.	Structures for which the employee was responsible	:			
8.	Assignment Period	:	from	(months)	;) (years)
		:	to	(months)	) (years)

Name and Signature of Employee

It is hereby certified that the above personnel can be assigned to this project, if the contract is awarded to our company.

\_

(Place and Date)

(The Authorized Representative)

### **Omnibus Sworn Statement**

REPUBLIC OF THE PHILIPPINES)CITY/MUNICIPALITY OF \_\_\_\_\_) S.S.

### AFFIDAVIT

I, [Name of Affiant], of legal age, [Civil Status], [Nationality], and residing at [Address of Affiant], after having been duly sworn in accordance with law, do hereby depose and state that:

### 1. Select one, delete the other:

*If a sole proprietorship:* I am the sole proprietor of *[Name of Bidder]* with office address at *[address of Bidder]*;

If a partnership, corporation, cooperative, or joint venture: I am the duly authorized and designated representative of [Name of Bidder] with office address at [address of Bidder];

### 2. Select one, delete the other:

*If a sole proprietorship:* As the owner and sole proprietor of *[Name of Bidder]*, I have full power and authority to do, execute and perform any and all acts necessary to represent it in the bidding for *[Name of the Project]* of the *[Name of the Procuring Entity]*;

If a partnership, corporation, cooperative, or joint venture: I am granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the [Name of Bidder] in the bidding as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate issued by the corporation or the members of the joint venture)];

3. *[Name of Bidder]* is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;

- 4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
- 5. [*Name of Bidder*] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

### 6. Select one, delete the rest:

If a sole proprietorship: I am not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

If a partnership or cooperative: None of the officers and members of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

If a corporation or joint venture: None of the officers, directors, and controlling stockholders of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

- 7. [Name of Bidder] complies with existing labor laws and standards; and
- 8. [Name of Bidder] is aware of and has undertaken the following responsibilities as a Bidder:
  - a) Carefully examine all of the Bidding Documents;
  - b) Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract;
  - c) Made an estimate of the facilities available and needed for the contract to be bid, if any; and
  - d) Inquire or secure Supplemental/Bid Bulletin(s) issued for the [Name of the Project].
- 9. [Name of Bidder] did not give or pay directly or indirectly, any commission, amount, fee or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.
- 10. In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting
- any

payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.

**IN WITNESS WHEREOF**, I have hereunto set my hand this \_\_\_\_ day of \_\_\_\_, 20\_\_\_ at \_\_\_\_, Philippines.

### [Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE] [Insert signatory's legal capacity] Affiant

[*Jurat*] [Format shall be based on the latest Rules on Notarial Practice]

Procuring Entity: PHILIPPINE NUCLEAR RESEARCH INSTITUTE Name of the Project: Innovating Nuclear Medicine Research and Services: Development of Emerging

PET Radiopharmaceuticals for Early Cancer Staging and Assessment of Biologic

**Example 2** Functions in Cancer Cells (Design and Built CY 2020) Location of the Project: PNRI Compound, Commonwealth Avenue, Diliman, Quezon City

### **AUTHORITY OF SIGNATORY**

### SECRETARY'S CERTIFICATE

I,		/	а	duly	elected	and	qualified	Corporate
Secretary of	(Name of the Bidder)	, а с	orpo	ration	duly org	janize	d and exis	sting under
and by virtue of	the law of the	-	_			, [	O HEREB	Y CERTIFY,
that:								

I am familiar with the facts herein certified and duly authorized to certify the same;

At the regular meeting of the Board of Directors of the said Corporation duly convened and held on \_\_\_\_\_\_ at which meeting a quorum was present and acting throughout, the following resolutions were approved, and the same have not been annulled, revoked and amended in any way whatever and are in full force and effect on the date hereof:

(Name of the Bidder) be, as it hereby is, authorized to RESOLVED, that participate in the biddina of (Name of the Contract) \_ by the \_\_\_\_(*Name of the Procuring Entity*)\_\_\_; and that if awarded the Contract shall enter into a contract with the \_\_\_\_\_(Name of the Procuring Entity) ; and in connection therewith hereby appoints \_\_\_\_\_(Name of Representative) \_\_\_\_\_, acting as duly authorized and designated representatives of <u>(Name of the Bidder)</u>, and granted full power and authority to do, execute and perform any and all acts necessary and/or to represent \_\_\_\_\_(Name of the Bidder) \_\_\_\_\_ in the bidding as fully and effectively as the (Name of the Bidder) might do if personally present with full power of substitution and revocation and hereby satisfying and confirming all that my said representative shall lawfully do or cause to be done by virtue hereof;

RESOLVED FURTHER THAT, the Board hereby authorizes its President to:

(1) execute a waiver of jurisdiction whereby the <u>(Name of the Bidder)</u> hereby submits itself to the jurisdiction of he Philippine government and hereby waives its right to question the jurisdiction of the Philippine courts; (2) execute a waiver that the <u>(Name of the Bidder)</u> shall not seek and obtain writ of injunctions or prohibition or restraining order against the AFP or any other agency in connection with this Contract to prevent and restrain the bidding procedures related thereto, the negotiating of and award of a contract to a successful bidder, and the carrying out of the awarded contract.

WITNESS	the	signature	of	the	undersigned	as	such	officer	of	the	said
				1	this						

(Corporate Secretary)

### ACKNOWLEDGMENT

SUBSCRIBED AND SWORN to before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ affiant exhibited to me his/her Community Tax Certificate No. \_\_\_\_\_ issued on \_\_\_\_\_ at \_\_\_\_\_, Philippines.

Notary Public
Until 31 December 20
PTR No
Issued at:
Issued on:
TIN No

Doc. No. \_\_\_\_\_ Page No. \_\_\_\_\_ Book No. \_\_\_\_\_ Series of \_\_\_\_\_ Procuring Entity: PHILIPPINE NUCLEAR RESEARCH INSTITUTE Name of the Project: Innovating Nuclear Medicine Research and Services: Development of Emerging PET Radiopharmaceuticals for Early Cancer Staging and Assessment of

Biologic

Functions in Cancer Cells (Design and Built CY 2020)

Location of the Project: PNRI Compound, Commonwealth Avenue, Diliman, Quezon City

### **AUTHORITY OF SIGNATORY**

### **SPECIAL POWER OF ATTORNEY**

I,	porated under the at d	/	President	of		, а
corporation incor	porated under the	laws of				with its
registered office	at			/	by virtue d	of Board
Resolution No	d	ated		_, has mad	de, constitu	ited and
appointed			true and i	awiui allor	ney, lor it	and its
name, place and	stead, to do, execu	•			•	•
					bidding	-
		as fully				
	nt with full power o ve shall lawfully do				<sup>,</sup> confirming	j all that
	IESS WHEREOF, 20 at					day of
Signed in the Pre			MENT			
	,					
REPUBLIC OF TH	E PHILIPPINES )					
QUEZON CITY	)	SS.				
	ME, a Notary Publi , 20, perse		on City, Pł	nilippines, th	nis	_ day of
<u>1</u>	IAME	CTC NO.	ISSU	IED AT/ON		
					_	

known to me and known to be the same person who executed the foregoing instrument consisting of \_\_\_\_\_\_ ( ) pages, including the page whereon the acknowledgments is written and acknowledged before me that the same is his free and voluntary act and deed and that of the Corporation he represents.

WITNESS MY HAND AND NOTARIAL SEAL, at the place and on the date first above written.

Notary Public	
Until 31 December 20	
PTR No	
Issued at:	
Issued on:	
TIN No	

Doc. No. \_\_\_\_\_ Page No. \_\_\_\_\_ Book No. \_\_\_\_\_ Series of \_\_\_\_\_

Procuring Entity: **PHILIPPINE NUCLEAR RESEARCH INSTITUTE** Name of the Project: **Innovating Nuclear Medicine Research and Services: Development of Emerging** 

PET Radiopharmaceuticals for Early Cancer Staging and Assessment of Biologic

Functions in Cancer Cells (Design and Built CY 2020)

Location of the Project: PNRI Compound, Commonwealth Avenue, Diliman, Quezon City

### FINANCIAL DOCUMENTS FOR ELIGIBILITY CHECK

A. Summary of the Applicant Firm's/Contractor's assets and liabilities on the basis of the attached income tax return and audited financial statement, stamped "RECEIVED" by the Bureau of Internal Revenue or BIR authorized collecting agent, for the immediately preceding year and a certified copy of Schedule of Fixed Assets particularly the list of construction equipment.

		Year 20
1.	Total Assets	
2.	Current Assets	
3.	Total Liabilities	
4.	Current Liabilities	
5.	Total Net Worth (1-3)	
6.	Current Net Worth or Net Working Capital (2-4)	

B. The Net Financial Contracting Capacity (NFCC) based on the above data is computed as follows:

NFCC = [Current Asset – Current Liabilities] (15) minus value of all outstanding works or uncompleted portions of the project under ongoing contracts including, awarded contracts yet to be started coinciding with the contract to be bid.

The values of the domestic bidder's current assets and current liabilities shall be based on the latest Audited Financial Statements submitted to the BIR

Submitted by:

Name of Firm / Contractor

Signature of Authorized Representative Date : \_\_\_\_\_

NOTE:

### **Bid Form**

Date: \_\_\_\_\_

Project Identification No: \_\_\_\_\_

To: [name and address of PROCURING ENTITY]

Address: [insert address]

Having examined the Philippine Bidding Documents (PBDs) including the Supplemental or Bid Bulletin Numbers [*insert numbers*], the receipt of which is hereby duly acknowledged, we, the undersigned, declare that:

- (a) We have examined and have no reservation to the Bidding Documents, including Addenda, for the Contract *[insert name of contract]*;
- (b) We offer to execute the Works for this Contract in accordance with the PBDs;
- (c) The total price of our Bid in words and figures, excluding any discounts offered below is: *[insert information]*;
- (d) The discounts offered and the methodology for their application are: *[insert information]*;
- (e) The total bid price includes the cost of all taxes, such as, but not limited to: *[specify the applicable taxes e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties],* which are itemized herein and reflected in the detailed estimates;

<sup>1.</sup> If Partnership or Joint Venture, each Partner or Member Firm of Joint Venture shall submit the above requirements.

- (f) Our Bid shall be valid within the period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;
- (g) If our Bid accepted, we commit to obtain a Performance Security in the amount of [insert percentage amount] percent of the Contract Price for the due performance of the Contract, or a Performance Securing Declaration in lieu of the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines for this purpose;
- (h) We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;
- (i) We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and
- (j) We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.
- (k) We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the [Name of Project] of the [Name of the Procuring Entity].
- (I) We acknowledge that failure to sign each and every page of this Bid Form, including the Bill of Quar

Name:
In the capacity of:
Signed:
Duly authorized to sign the Bid for and on behalf of:
Date: