PROJECT : Innovating Nuclear Medicine Research and Services: Development of Emerging PET Radiopharmaceuticals for Early Cancer Staging and Assessment of Biologic Functions in Cancer Cells CY 2020

LOCATION : PNRI Compound, Commonwealth Avenue, Diliman, Quezon City

OWNER : Philippine Nuclear Research Institute (PNRI) SUBJECT : DETAILED COST ESTIMATE

				MATERIA	L COST	LABOR	COST	ESTIMATED	MARK	-UPS IN PE	RCENT	TOTAL	MARK-UP		TOTAL	TOTAL	UNIT
Item No.	ITEM/DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	DIRECT COS	CONT.	осм	PROFIT	%	VALUE	VAT	INDI. COST	COST	COST
Α	GENERAL REQUIREMENTS																
1	Mobilization/Demobilization (Manpower, Tools, materials and equipment	1.00	lot														
2	Bonds/Insurance	1.00	lot														
3	Temporary Facilities and Fencing	1.00	lot														
4	As-Built plan	1.00	lot														
5	Project Billboard	1.00	lot														
	Sub-total																
B.	DESIGN OUTPUTS (Detailed Engineering Study)																
I	The Contractor shall undertake the following surveys, analysis and design works of the building with a total floor area of 3,200 sq. m.	1.00	lot														
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																
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																
	Sub-total																
C.	Preparation of Design Drawings and Documents Based on Term of Reference (Design Codes)																
1	SCHEMATIC DESIGN PHASE	1.00	lot														
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.																

		-			1		1		1		1	
2	DESIGN DEVELOPMENT PHASE	1.00	lot									
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.											
	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.											
		1.00										 <u> </u>
3	CONTRACT DOCUMENT PHASE	1.00	lot	 								
										 		 ļ
	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 lengineering design and other service connected equipment, utilities and related works, based on the requirements of the Terms of Reference (TOR) of the project.											
												1
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.											
	Sub-total											
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) Design Codes (Signed and Sealed) By Professional Engineers											
a.	GENERAL	1.00	lot									
1	Cover Sheet											
2	General Index											
3	Vicinity and Key Plan											
4	Location Plan/Layout											
5	Legend, Abbreviation and Symbols											
6	General Notes											
												<u> </u>
b.	OTHER INFRASTRUCTURE PLANS	1.00	lot	 						 		
1	Architectural Plans											
2	Civil Works											<u> </u>
4												1

			-		1	1		1				
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											
	Sub-total											
E.	PERMITS											
	BUILDING PERMITS, Including Professional fees, Other required Construction and Operation Permits, Certificate of inspection etc. (Building Permit, Structural Permit, Electrical Permit, Sanitary Permit, Zoning Permit, ECC Permit & Fire Safety Permit, etc.)	1.00	lot									
	Sub-total											
F.	CONSTRUCTION (ARCHITECTURAL & CIVIL WORKS)											
	TOTAL LOT AREA (Siite Clearing)	4,500.00	Sq.m									
	TOTAL BUILDING FLOOR AREA (Construction)	1,380.00	Sq.m									
1	SITE WORKS (includes site clearing and earth works)											
1.1	Site clearing (Total lot area)	1.00	lot									
a.	Clearing and grubbing											
b.	Removal of trees											
1.2	Earth works (total building floor area = 1,380 sqm)	1.00	lot									
a.	Excavation											
b.	Filing											
c.	Backfilling											
d.	Grading											
e.	Gravel bedding											
f.	Compaction											
g.	Disposal of Surplus Excavated materials											
h.	Soil poisoning/Termite treatment											
2	STRUCTURAL WORKS											
	This work includes the construction of Structural elements such as Column footing, CHB Footing, Tie Bearn, 1st layer bearn, 2nd layer bearn, root bearn, columns, ground floor suspended slab w/ bearns & lintel bearn, (Provide necessary steel dowel)	1.00	lot									
L										[<u> </u>

	The minimum design strength for structural reinforced concrete and reinforcing steel bars shall be in accordance with the Revised Implementing Rules and Regulations (IRR) of the NBCP and the latest edition of the NSCP, Volume I, 2015 and standard reference (Section III - 3.2 Reference Standard)									
	Ready Mixed Concrete									
Α.	Column Footings									
A.1	Concrete									
A.2	Rebars									
В.	Columns									
B.1	Concrete w/ forms									
B.2	Rebars									
C.	Tie Beam									
C.1	Concrete w/ forms									
C.2	Rebars									
D.	Ground floor (Slab on Fill)									
D.1	Concrete w/ forms									
D.2	Rebars									
E	1st layer Beam									
E.1	Concrete w/ forms									
E.2	Rebars									
F	2nd Layer Beam									
F.1	Concrete w/ forms									
F.2	Rebars									
G	Lintel Beams									
G.1	Concrete w/ forms									
G.2	Rebars									
н.	Roof Beam									
H.1	Concrete w/ forms									
H.2	Rebars									
١.	CHB Footing									
I.1	Concrete									
1.2	Rebars		1				1			
			1				1			
3	MASONRY WORKS	1.00	lot				1			
Α.	Exterior building perimeter wall (6" thk CHB w/ mortar & rebar) atleast 4.50m minimum height from finish floor line									
В.	Interior concrete partition wall (6" thk CHB w/ mortar & rebar) atleast 3.00m minimum height from finish floor line									
C.	Interior Reinforce concrete walls (3.00m minimum height)									
D.	Rough plastering at interior & exterior concrete walls on both side inbcluding columns and beams									
4	STEEL WORKS (Roof Frame)	1.00	lot							
Α.	Steel trusses with steel purlins, sagrod, cross brace, girt and other structural support.									

						-			-	-	-	,
В.	Steel façade frame and support											L
5	TINSMITHRY WORKS	1.00	lot									
Α.	Pre-painted long span roofing and accessories											
В.	Pre-painted metal spandrel façade & accessories											
С.	Roof insulation w/ G.I. wire screen support											
6	CARPENTRY WORKS	1.00	lot									
Α.	Interior Ceiling w/ metal frame and hanger support											
	Exterior Ceiling w/ metal frame and hanger support and metal ceiling ventilation grill											
7	PLUMBING WORKS	1.00	lot									
	Complete interior waterlines (PPR pipes fittings, & values)											
	Complete interior sewerlines (PVC pipes & fittings)											
С.	Septic tank including PVC pipes & fittings											
8	COMFORT ROOMS (Male, Female & Shower Rooms)	1.00	lot									
Α.	Complete fixtures and accessories											
В.	Doors and windows w/ accessories											
С.	Floor & Wall tiles (Granite w/ Design)											
D.	Hardwars & Accessories											
E.	Phenolic Board Wall Partition											
9	MECHANICAL WORKS											
	Supply and installation of Ductwork for HVAC	1.00	lot									
10	ELECTRICAL WORKS	1.00	lot									
	Supply and installation of service entrance including piping, cables, enclosures, main circuit breaker at the central avenue, and other main distribution panelboards at the main electrical room.											
	COMMUNICATION WORKS (Data, Telephone & CCTV)	1.00	lot									
	Supply and installation of Data, Telephone and CCTV system.											
	Sub-total											
	TOTAL											

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