Republic of the Philippines
CAVITE STATE UNIVERSITY
Don Severino delas Alas Campus
Indang, Cavite

BILL OF QUANTITIES

PROJECT: IMPROVEMENT OF ELECTRICAL POWER SYSTEM OF MARAGONDON CAMPUS
ABC: ₱ 1,653,822.19 **Bill of Quantities**
COLLEGE/UNIT/CAMPUS: MARAGONDON CAMPUS

Item No.	Description	Unit	Quantity	Unit Price (Pesos)	Amount (Pesos)
I	MOBILIZATION (Pesos _____ _____ _____ and _____ centavos)				
II	ELECTRICAL WORKS (Pesos _____ _____ _____ and _____ centavos)				
	GRAND TOTAL				_____
	Write grand total in words	_____ _____ _____			

Submitted by: Date: _____
Name of Bidder/Bidder's Representative: _____
(Signature over Printed Name)
Position: _____
Construction Company/Contractor: _____

SCOPE OF WORK:

A. **IMPROVEMENT OF ELECTRICAL POWER SYSTEM OF MARAGONDON CAMPUS**

GENERAL NOTES:

1. The project should be finished in 45 calendar days.
2. Site inspection is a must. Verify actual site condition.
3. This set of specifications shall govern the methods of construction and the kinds of materials to be used for the proposed project shown in the plans and detailed drawings.
4. All parts of the construction shall be finished with first class workmanship, to the fullest talent and meaning of the plans and these specifications, and to the entire satisfaction of the project inspector and the end-user.

B. Technical Description

I. Site Clearing and Mobilization

A. Mobilization/Demobilization

Provide the following:

1. Billboard with project information
2. Bunkhouse with office
3. Temporary comfort rooms
4. Site temporary enclosure may be blue sack or any suitable materials that may enclose the workplace.
5. Demobilization includes cleaning up of site, clearing, hauling and disposal of waste and construction debris.
6. The area should be cleared/cleaned before and after construction work at least six meters away from the building line. Notify the end-user regarding the properties that need to be hauled away from the site prior to construction.

II. Electrical Works

1. Dismantling of electrical devices and equipment needed to be replaced.
2. Supply and installation of panel board and circuit breakers.
   a. MDP - Main (500AT, 600AF, 3P, 230V, MCCB) and Branches (2-300 AT 3P, 2-100 AT 2P and 2 - spare)
   b. ACP1 - Main (300AT, 400AF, 3P, 230V, MCCB) and Branches (16-40 AT 2P)
   c. ACP2 - Main (300 AT, 400AF, 3P, 230V, MCCB) and Branches (16-40 AT 2P)
   d. DISCONNECTING MEAN - Main (500AT, 600 AF, 3P, 230V, ECB)
   e. 40 AT, 2P, 230V Circuit breaker with NEMA 3r Panel enclosure for ACUs (32 sets)

   Note: Bolt-on type, NEMA standard should be used.
3. Provide scaffolding for chipping of concrete walls for conduit pipe raceway.
4. Supply and installation of copper conductor wires, PVC & RSC conduits, from Main electrical panels to electrical sub-panels and equipment in accordance with the plan. See E-2 and E-6 for reference.
   a. Use RSC or IMC conduit pipe for service entrance.
   b. Use PVC orange conduit pipe.
   c. Use THHN/THWN copper wire. Phelp dodge or approved equal. Refer to Schedule of loads for proper color coding of wires.
   d. Support brackets/ hangers, clamps and rods should be galvanized steel.
   e. Include tapping to primary lines, energization, testing and commissioning of transformers.
5. Restoration and repainting of all damaged walls is also included in this work.
6. Supply and installation of concrete pedestal, conduit pipes, conductor wires and electrical accessories. See plan E-4 and E-5 for specifications and details.
7. Include tapping to the source, electrical testing and commissioning.
   a. Phase sequence test
   b. Continuity test
   c. Insulation test
8. Consult inspectors for details and extent of work.

   Note: Electrical testing and guarantee, electrical supervision and final electrical inspection report should be signed and sealed by Professional Electrical Engineer with notary public.

C. Contractor of the said project must provide an as-built plan of the project at the end of the contract as a requirement for the release of their final billing.

D. Contractor's PCAB license should have specialization in electrical works.

E. For color/types of any fixtures or materials to be used on site, consult the end-user and the inspector for approval. Consult the plan and the scope of work for the extent of tasks of the contract. If possible, let the end-user sign your sample as proof of approval.

F. The plans, detailed drawings and these specifications shall be considered as complementing each other, so that what is mentioned or shown in one, although not mentioned or shown in the other, shall be considered as appearing on both. **In case of conflict between the two, generally, the scope of work prevails.**

G. Resident site engineer is a must for the projects to be undertaken by the contractor of the university. In cases where there are electrical works, it is required that an electrical engineer or a master electrician be a part of the contractor's team to supervise all electrical works. Safety engineer is a must as per DOLE requirement. **Note: All key personnel should be included in the list of personnel for submission.**

H. In cases of participation in two or more projects, the set of workers and foreman shall be different per project, however, the set of engineers and equipment may be reused**.**

I. Construction safety and health program as well as construction schedule (PERT/CPM/S-Curve) shall be provided by the winning bidder.

J. All public utilities used by the winning contractor in the construction of the project, such as electricity, water, telephone, etc., shall be for the sole account of the contractor.

K. See plans/consult the end-user and project inspector for details and extent of work. The silence of specifications, plans, special provisions and supplementary specifications as to any detail, or the apparent omission therein of detailed description or definition of the quality of materials and workmanship shall be regarded to mean that only materials and workmanship of first class quality are to be used or employed.