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BIDS AND AWARDS COMMITTEE

SUPPLEMENTAL BID/BID BULLETIN NO. 2021-06

Completion of Administration Building

To: All Prospective Bidders of the Above Project

This Supplemental Bis/Bid Bulletin is issued to clarify, modify or amend items in the Bid Documents for the completion of the Administration Building for the Technological University of the Philippines – Cavite Campus. This shall form as integral part of the Bid Documents.

Items under Section VI (Specifications)

Please see attached file which now include the following:

IV. Carpentry Works (Previously Electrical Works)

XIII. Mechanical Works

XIV. Electronics and Other Technical Works

For the information and guidance of all concerned.

EDMUNDO G. FRIAS
BAC Chairperson, TUP Cavite

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GENERAL SPECIFICATIONS

A. COMPLETION OF ADMINISTRATION BUILDING

I. CONCRETE/MASONRY WORKS

All concrete works shall be done according to standard specifications for concrete, in accordance with the National Building Code.

1. CEMENT

Portland cement shall conform to the "Standard Specifications for Portland Cement" (ASTM C-150).

2. CONCRETE AGGREGATES

Concrete aggregates shall be well graded, clean and hard particles of gravel crushed rocks.

a. Fine aggregates shall be white sand or any washed sand of approve type as approved by the PMC.

b. Coarse aggregates shall be of first class machine crushed stone gravel. Coarse aggregate shall be well graded as to size ranging from 20 mm in size for slabs, beams and columns and 25 mm for foundation works and footings.

3. WATER

Water to be used in mixing concrete shall be clean and free from injurious amount of oil, acids, alkali, organic materials and other deleterious substances.

4. REINFORCING STEEL

All reinforcing steel bars to be used shall be new, and free from rust, oil, defects, grease, or kinks.

All rebars shall be billet steel, structural grade, ASTM A-15 deformed bars, Fy = 230 MPa

All column dowels shall be extended by a minimum of 1 meter from the second floor slab with epoxy primer coating.

5. QUALITY OF CONCRETE

Strength of concrete shall be attained after twenty-eight (28) days with a compressive stress of 20.7 MPa for structural components such as footing, columns, beams and 17.24 MPa for slab on fill.

Proportioning of concrete shall be as follows:

a. Class "A" (1:2:4) for all concrete footings, columns, and beams.

b. Class "B" (1:2½ :5) for all concrete slabs on fill.

c. Mixture of 1:3 and 1:5 is to be used for plastering and mortar respectively.

6. CONSISTENCY, MIXING, DEPOSITING AND CURING OF CONCRETE

a. Concrete shall be machine mixed and be done in a batch mixer of approved type and will ensure uniform distribution of materials throughout the mass. Job mixing will be allowed only when approved by the IDO and with closed supervision.

b. Continuous and monolithic pouring is preferred for all slabs and beams. Whenever possible, no construction joint shall be allowed on any parts of the structure without the approval of the engineer in charge of construction. Before depositing concrete, debris shall be removed from the space to be occupied by the concrete and forms shall be thoroughly wetted and buttered.

c. Exposed surfaces of concrete shall be protected from premature drying by covering with canvass, earth sand and other satisfactory materials and kept thoroughly wetted for a period of at least 10 days after being deposited.

7. MASONRY - All concrete hollow blocks shall be sound and free from cracks or other defects that would interfere with the proper placing of the unit or impair the strength of construction. Sizes of blocks shall be 5"x8"x16" unless other specified.

All concrete hollow blocks shall be laid plumb, true to the line and in accurately spaced courses, and shall reveal corners plumb and true and with each course breaking

joint halfway with the course below. Units shall be wetted before laying. Joint shall be 3/8". The mortar on both the horizontal and vertical joints shall be buttered on the block at the time of laying and not flush or grouted in place.

Reinforcement shall consist of 12mm vertical bars at 0.80 meters on center and 12mm horizontal bars placed at every third layer. Reinforcing bars shall have a lap of 40 bar diameter. All cells of concrete hollow blocks shall be filled with 1:5 concrete mortar.

III. FORMS/SCAFFOLDINGS WORKS

Use steel scaffoldings or any approved equal for all scaffolding works for concreting, carpentry, steel works and other elevated portions of building.
Plywood form of ½" thick shall be used for columns and beams.

IV. CARPENTRY WORKS

1) Use metal furring and fiber cement boards for ceiling on lobby, waiting area, hallways and eaves. For all the offices, use t-runners and fiber cement boards for the ceiling. See Reflected Ceiling Plan for details.
2) For office wall partitions, construction of CHB wall up to 1.0 meters from floor to top of wall. Dry wall composed of fiber cement boards and metal furring.

V. ELECTRICAL WORKS

All works shall comply with the provisions of the latest approved edition of the Philippine Electrical Code.

1. MATERIALS

a. Feeder wiring shall be rigid steel conduit (RSC) and for branch circuit, it shall be made of PVC
b. Minimum size of conductor shall be 3.5 mm^2 THWN+1.2mm^2 rated for 230 V and conduit shall be 15 mmø PVC trade size unless otherwise noted or indicated.
c. All switches, convenience outlets and plates shall be National or any approved equal.
d. All convenience outlets to be used shall be water proof duplex.
e. Circuit breaker shall be with its total number of circuits as indicated on the plan.
f. Panel board shall be bolt-on type

2. INSTALLATION

No branch circuit running shall have a load of more than 80% of its rating. Boxes shall be provided if necessary although not seen in the layout. All splices shall be properly insulated and shall be done only inside boxes. Wall switches shall be installed 1.37m (4' 6") and convenience outlet at 0.30m (12") above floor unless otherwise specified or shown in the plans.

VI. PLUMBING WORKS AND FINISHES

1. Fixtures like lavatory and water, closet, urinals and sink to be used shall be of approved type and as requested by the owner.
2. Ceramic tiles (24"x24") shall be used for all toilets and shall be as approved by the IDO.
3. Toilet walls shall be finished with Ceramic tiles (24"x24") up to a height of 1.8 meters from the finished floor elevation. There is a designated accent wall to be coordinated with the IDO.
4. Use phenolic doors and cubicles for all toilets with partitions. Color shall be appoved by the IDO before installation.
4. Roughing-in for pipes shall be carried along with the building construction. Correctly located openings of proper sizes shall be provided where required in the walls and floors for the passage of pipes. All items to be embedded in concrete shall be thoroughly clean and free from dust scale and paint. All works shall be done in accordance with the National Plumbing Code.
5. Check installed rough-in pipe (sewer and water supply) before the installation of fixtures.

MATERIALS:

a. Use ½" (12mm) PVC pipe for water lines and ¾" (18mm) PVC pipe for riser or any approved equal as approved by the supervising Engineer.
b. Use PVC fittings or any approved equivalent.
c. Use 2" ,3" and 4" Neltex PVC pipe for waste line or any approved equal.

VII. STRUCTURAL STEEL WORKS

This work shall consist of furnishing, fabricating, erecting and painting structural steel used to complete the structures in accordance with the plans and the specifications.

1. MATERIALS
   - All structural steel angle bars shall conform to ASTM A-36 (fy = 36000 psi). Roof trusses shall be made of 3/16"x3"x3" and 3/16"x2 ½"x2 ½" angle bars.
   - Materials for stair railing, balcony, ramp railings, and steel platform shall be as specified on plans.
   - Acrylic build-up signage shall be installed at exterior front wall with dimensions specified on plans.

2. FABRICATION
   All fabrication including workmanship, cutting, assembling, welding, finishing and tolerances shall be accomplished in accordance with the National Building Code and the National Structural Code of the Philippines. Welding electrodes shall be E 70 XX series.
3. ERECTION
   In no case shall any part of the load of a steel superstructure be transferred to a "Concrete Masonry" substructure before the 7th day after the date on which the pouring of the substructure unit is completed.

VIII. FENESTRATIONS

1. DOORS & WINDOW
   a. All doors and windows shall be of as specified on the schedule of doors and windows on plan.

IX. FLOOR / WALL FINISHES

INTERIOR:

TILES	DESCRIPTION	LOCATION
FLOOR	24"X24"ceramic tiles	First and second floor
FLOOR	24" x 24" ceramic tiles	Comfort Room floor
WALL	24" x 24" ceramic wall tiles	Comfort Room
WALLS FRONTING THE HALLWAYS	CHB wall as base with dry wall and glass partition	Offices

EXTERIOR:

DESCRIPTION	LOCATION
Painted plain cement plaster finish	Exterior wall
Aluminum Composite Panel	Entrance (Accent wall from natural ground floor to top)
Painted C-purlins on Steel Tubular Frames	Brise Soleil as Sun buffers (façade)
2-2"x6" C-purlins to serve as posts	Vertical Posts as Brise Soleil (façade)

X. EXTERIOR MISCELLANEOUS FINISHES

TUP LOGO

Material to be used shall be acrylic build up with light. Diameter as shown in the detail drawings.

XI. FINISHING HARDWARES

All hardware shall be suitable to the services required to fully equip all satisfactions of doors, windows, toilet, etc. Whenever available, locally made meeting these specifications are preferred although equivalent imported brands may be accepted and used.

Lockset, door hinges, showerhead, shower valve, faucets, hose bib, etc. shall be based on the recommendation of the engineer or the owner.

XII. PAINTING

PREPARATION

1. All surfaces to be painted shall be examined carefully before beginning any work and see that all work of other trades or subcontractor are installed in workmanlike condition to achieved paint, stain or particular finish.
2. Before proceeding with any painting or finishing, thoroughly clean, sand, and seal if necessary by removing from all surfaces all dust, dirt, grease, or other foreign substances which would affect either the satisfactory execution or permanency of the work. Such cleaning of shall be done after the general cleaning executed under the separate division of the work.
3. Only skilled painter shall be employed in the work. All workmanship shall be executed in accordance with best acceptable practices.
4. Finish hardware , lighting fixtures , plates and other similar item shall be removed by workmen skilled in these trades , or otherwise protected during painting operation or reposition upon completion of each space.
5. Neither paint nor any other finish treatment shall be applied over wet or damp surfaces. Allow at least two (2) days from drying preceding coat before applying succeeding coat.
6. Begin work only when resident IDO representative inspected and approved prepared surface otherwise no credit for coat applied shall be given. The contractor shall assume responsibility to recoat work in question. Notify IDO when particular coat applied is complete, ready for inspection and approval.

Schedule of painting shall be as follows:

1. All masonry wall cement-finished surface – one (1) coat neutralizer and two (2) coats of latex paint.
2. Fiber cement surface ceiling or wall partitions – two (2) coats of semi-gloss enamel.
3. Wooden doors and door jambs shall be coated by putty.
4. Steel and metal works – one (1) coat epoxy primer and two (2) coats quick-drying enamel.
5. Paint color should be approved by the IDO first before execution.
6. The paint to be used shall be Boysen or any approved equal.

XIII. MECHANICAL WORKS

PWD Lift – Minimum Specifications:

1) DRIVE SYSTEM: MAX Capacity 150kg / 1-2 Persons
2) CAPACITY: TRAVEL: Standard: Up to 4500mm
3) NO of FLOORS: Standard: 2 Maximum with intermediate landing option
4) SUPPLY VOLTAGE: 240v 1PH 50HZ

For all other mechanical works refer to working drawings and estimate

XIV. ELECTRONICS AND OTHER TECHNICALWORKS

Please refer to Cost Estimates for the specifications. For approval of the IDO.

Prepared by:

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