



MARIANO MARCOS STATE UNIVERSITY

Bids and Awards Committee

INVITATION TO MAKE AN OFFER: Negotiated Procurement

2022-01

THE PROJECT: Refurbishment of Physics Laboratory Room, MMSU-CAS
Number of Working Days: 30 calendar days
ABC: P347,061.75

1. The Mariano Marcos State University (MMSU), with offices at Quiling Sur, City of Batac, Ilocos Norte, invites the public to make an offer to furnish all labor, materials, tools and equipment necessary and proper for the implementation of the above Project as per approved designs, plans and drawings.
2. This process is in accordance with Section 53 of R.A. 9184, the Government Procurement reform Act and Section 53.9 of the Implementing Rules and Regulations where interested and qualified contractors are to submit proposals.
4. The offer must be in writing submitted at the address below on or before **January 11, 2021; 2:00 PM** together with the following documents:
 - a) The amount of the offer in writing duly signed by the person making the offer, indicated in numbers and figures.
 - b) The particulars of the offer as to labor, materials, tools, equipment and other work details.
 - c) Documents in support of the legal, technical and financial capability of the person making the offer, which documents shall be confirmed and verified (3 copies).
5. It is understood that any offer may be accepted or rejected, or the process invalidated, at any time prior to contract award, without liability to anyone.
6. Documents for this procurement may be secured from the MMSU BAC Secretariat at the address below or downloaded from the MMSU website or from the Philippine Government Electronic Procurement System (PhilGEPS) website.
7. For questions and inquiries, please write or email the University President, thru the BAC Chair, at the address indicated below.

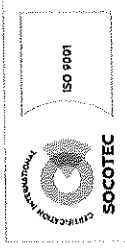
Mariano Marcos State University
Quiling Sur, City of Batac
www.mmsu.edu.ph

January 6, 2021


NATHANIEL R. ALIBUYOG
BAC CHAIR

Received: _____ Received: _____ Received: _____

Rm105 FEM Hall, MMSU, #16S Quiling Sur, City of Batac, Ilocos Norte
 bac@mmsu.edu.ph ☎ (077) 600-0459 www.mmsu.edu.ph





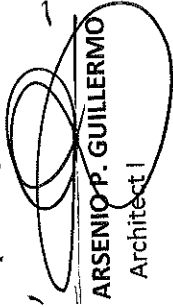
Republic of the Philippines
MARIANO MARCOS STATE UNIVERSITY
City of Batac, 2906, Ilocos Norte

BILL OF QUANTITIES

Project Title: Refurbishment of Physics Laboratory Room, MMSU-CAS

Item No.	Description	Quantity	Unit
1.0	Tileworks Tiling of flooring and laboratory counter	110.10	sq. mtrs.
2.0	Ceiling Works Replacement of ceiling with hardiflex board on metal furring frame	108.00	sq. mtrs.
3.0	Plumbing Works Construction of laboratory counter, roughing-in and fixture installation	1.00	lot
4.0	Electrical Works Reinstallation of lighting fixtures and additional power outlets	1.00	lot

Prepared By:


ARSENIO P. GUILLERMO
Architect I


JACOBO SANTILLAN
Engineer I, EE

Checked by:


AIDA V. CABANG
Architect IV, Chief Planning

Recommending Approval:


ROMEO R. DULAY-BUÑAO
Director, PPDO

Republic of the Philippines
 MARIANO MARCOS STATE UNIVERSITY
 City of Batac, Ilocos Norte

REFURBISHMENT OF PHYSICS LABORATORY ROOM

ITEM NO.	DESCRIPTION
I.	<p>TILEWORKS Coverage: Tiling of flooring and laboratory counter</p> <p>Materials: 60cm x 60cm Polished Granite Tiles (floor) 60cm x 60cm Polished Granite Tiles (counter) Tile Adhesive (20kgs) Tile Grout (2kgs.) Portland Cement (40kgs.) Fine Sand-S-1 Diamond Cutting Disk</p>
II	<p>CEILING WORKS Coverage: Replacement of ceiling with hardiflex board on metal furring frame.</p> <p>Materials: 19mmx50mmx0.4mm thk Furring Channel 12mmx38mmx0.8mm thk Carrying Channel 25mmx25mmx0.4mm thk Wall Angle W-Clip Blind Rivet Concrete Nail 1" Hardiflex Board (4ftx8ftx4.5mm)</p>
III	<p>Plumbing Works Coverage: 1. Construction of laboratory counter 2. Installation of plumbing fixtures and roughing-in. 3. Tapping of water line to the existing water source</p> <p>Materials: A. Laboratory Counter Concrete Hollow Block 4"x8"x16" Portland Cement (40kgs) Mixed Gravel and Sand 10mm dia. Reinf. Steel Bars Tie Wire #16 1/4" thk Ordinary Plywood 2"x2"x12ft Local Tanguile</p>

Common Wire Nail 2"
 Common Wire Nail 3"
B. Fixtures, Pipes and Fittings
 Single Bowl Deep Sink
 Gooseneck Faucet
 Flexible Hose 1/2" dia.
 Angle Valve Supply 1/2" dia.
 20mm dia. PP-r Female Adapter
 20mm dia. PP-r Pipe PN20
 Teflon Tape 1"
 20mm dia. PP-r Elbow
 20mm dia. PP-r Coupling
 20mm dia. PP-r Tee
 2" dia. PVC P-Trap
 2" dia PVC Elbow 1/4 bend
 2" dia PVC Elbow 1/8 bend
 2" dia PVC Tee
 2" dia PVC Wye
 200cc Solvent Cement
 2" dia. PVC Pipe S1000

IV

Electrical Works

Building Part/Material

Pipes, Conduits and Fittings
 Conductors

Wiring Devices

Specification

uPVC, Thick Wall (Vendex or approved-equal)
 Lead free, 99% Copper (Phelps Dodge, Philflex
 or approved-equal)
 Duplex Outlet, GFCI, Floor Mounted w/ Grounding
 and Cover (Panasonic or approved-equal)

Prepared By:

ARSENIO P. GUILLERMO

Architect

JACOB P. SANTILLAN
 Engineer I, EE

Checked by:

AIDA V. CABANG

Architect IV, Chief Planning

Recommending Approval:

ROMEO P. DUDOLAO

Director, PPDO

Republic of the Philippines
MARIANO MARCOS STATE UNIVERSITY
Batac, Ilocos Norte

PROJECT INFORMATION DOCUMENT

Project Title : Refurbishment of Physics Laboratory Room
Project Location : MMSU CAS- City of Batac, Ilocos Norte

GENERAL INSTRUCTIONS

The project calls for the furnishing of all materials, labor, tools and equipment needed for the refurbishment of physics laboratory room. The proposed project is located at the MMSU CAS Bldg., City of Batac, Ilocos Norte. The said project shall be done in strict conformity with the designs, plans, drawings and other details, as well as the specifications, this Project Information Document and other related contract documents prepared and approved for this project. It is highly recommended that the contractor shall conduct site inspection for them to have an idea on the existing condition of the building.

It also calls for the employment of men power with the appropriate skills and expertise to undertake the specific items of work and to enable the contractor to produce and deliver to the satisfaction of the owner the needed services and output required of this undertaking. The contractor shall provide a site engineer, electrical practitioner and shall have adequate and readily available construction equipment to be utilized during the construction activities.

General Instructions

The contractor shall ensure that the construction activities must not interfere, obstruct and disturb any on-going operation of the building and other facilities; hence, the contractor shall isolate the working area from the other portions of the building. In addition, the contractor shall be required to provide its own water and power supply system needed in the proper execution of the various works for the duration of the contract.

I. TILEWORKS

1. Furnish all labor, materials, tools, equipment and services necessary for and reasonably incidental to complete the tile work as shown on the drawings or specified.
2. Materials to be used shall be 60cm x 60cm Polished granite tiles for flooring and laboratory counters.
3. Prior to installation, all samples shall be subject for approval of the end user and designing architect.
4. Examine substrates where tile will be installed for compliance with requirements for installation tolerances and other conditions effecting performance of installed tile. Before tiling concrete surfaces saturated dry (SSD), free of standing water verify that

- substrates for setting tile are well cured, structurally sound dry, clean, and free from oil or waxy films, curing compounds or other coatings and surface treatments.
5. Coverage of work shall be the flooring and laboratory counter.

II. CEILING WORKS

1. This scope of work includes removal of existing ceiling and replace with fiber cement board on metal furring frames. (*See details on the approved plans*)
2. All ceiling frames shall be properly anchored to avoid sagging of ceiling.
3. Maximum possible elevation of ceiling shall be considered following the approved plans and specification.
4. Coverage of ceiling shall be the whole area of the physics lab.

III. PLUMBING WORKS

This item shall consist of construction of laboratory counter including plumbing roughing-in and fixture. The contractor shall provide samples on all materials to be installed, subject for approval of the end user and Project in Charge. Water line shall be tapped to the existing water source.

Pipes shall be of quality made by reputable manufacturers free from defects, and shall be true, smooth and cylindrical. Pipes and fittings for sanitary lines shall be Unplasticized Polyvinyl Chloride Series 1000. Pipes and fittings for Water lines shall be Polypropylene (PP-r) PN20.

After the installation of any, or all, of the plumbing fixtures, keep them clean and in working order but disallow all use until the building has been turned over and accepted by the Owner.

IV. ELECTRICAL WORKS

- a. Electrical works shall be done by a duly accredited electrician (NC II) under the direct supervision of a licensed electrical practitioner PEE / REE / RME with PCAB license specialized in the electrical installation of feeders and electrical equipment.
- b. The contractor shall provide and present supporting documents that will be submitted to the university inspection team or technical committee to verify that the contractor have (one) 1 licensed electrical practitioner PEE/REE/RME on the job site as resident project supervisor for the electrical works. No installation shall be done without the presence of the project supervisor.
- c. Before starting any works, the contractor must provide its own temporary power supply either from local utility provider (INEC) or any source of power supply aside from the university, for all the power consumptions needed within the construction of the building.
- d. Sample of each wires, wiring devices, circuit breakers, panel boards, conduits and mouldings or any electrical related materials shall be submitted for approval by the technical committee or inspection committee of the University prior to their installation. No installation shall be made without the approval of materials by the technical committee/project in charge of the University.
- e. Conduits and mouldings shall be installed in a workman like manner, it should be painted the same color as the surface it is installed.
- f. All wires shall be copper 99%, plastic insulated for 600V type THW/THHN or as specified in the approved plans and specifications, lead free, stranded, or approved

equal brand by the end-user/technical committee/project in charge. USE ONLY 1 (One) Brand of WIRE.

- g. No termination of wires inside conduits shall be done.
- h. Color coding of wires shall be observed following the latest PEC: Line A (red), Line B (yellow), Line C (blue), and Ground (green).
- i. All convenience outlets shall be wide series and shall be rated in 15 amperes respectively. Convenience outlet shall be in duplex 3 wire universal with grounding type. All floor outlets shall be duplex GFCI type.
- j. The mounting heights of wiring devices shall be as follows:
 - Light switches – 1.4m above finished floor
 - Convenience outlet – 0.4m above finished floor or as required
 - SPO/ convenience outlet – 0.4m above counter tops or as required
- k. Conduits/moldings shall be properly supported for permanent connection following the latest PEC and/or refer to approved plans.
- l. All existing conduits running on the ceiling shall be removed and reinstalled to be concealed on the approved ceiling plan. Observe proper bending of conduits.
- m. All existing lighting fixtures shall be removed and reinstalled into its old locations based on the approved ceiling plan.
- n. All existing conduits running in the walls shall be removed and shall be properly installed. Observe proper bending of conduits.
- o. Outlets locations shall be referred to the approved plans. The contractor shall verify the actual location of the laboratory tables in order for the power outlets to be properly aligned with the location of the laboratory tables.
- p. Grounding system. All exposed non-current-carrying metallic parts of electrical equipment, metallic raceway system, grounding conductor and neutral conductor or wiring system shall be properly grounded.
- q. Existing electrical system shall remain functional and normal operation until the new electrical system is ready to be energized.
- r. All wiring shall be tested for circuit continuity and shall be tested to assure that the wiring system is free from short-circuit, accidental grounding or other defects prior to normal system operation.
- s. Tests shall be performed after all wiring is completed and connected ready for the attachment of the fixtures and equipment and again after fixture and equipment is connected ready for use. Test shall be made with an instrument capable of measuring accurately the resistance involved and having a voltage rating of 500 volts. Reading shall be taken after the voltage has been applied continuously for one minute. The insulation resistance between the conductors and between each conductor and ground shall be measured.
- t. Tests shall be done for each item of control equipment will function not less than five times. All tests shall be performed in the presence of the university inspection or technical committee. All tests results shall be submitted in three copies.
- u. Energize the systems. After the contractor has assured himself that the wiring systems are free of faults, the Contractor shall energize the systems from their normal power sources and confirm that all systems are operational as required by the contract documents, prior to final inspection.
- v. In case that a conflict arise in specifications and quality of materials, installation procedure and in the plans and drawings as well as in the other contract documents before and during the implementation stage, the same should be referred to the end user for proper resolution of the said conflict.

After all the works have been completed, the surrounding immediate areas affected in the prosecution of the project shall be cleaned and cleared of all excess materials and debris, temporary structures, facilities and utilities used during the construction period. All spillages and scattered caused by the painting works, grouts, adhesives, as well as markings and signage shall likewise be removed to the full satisfaction of the Owner.

A. Time is a very important factor in the implementation of this project and as such, all works indicated in the plans, specifications and in this document shall be fully completed within **30 calendar days** from receipt of the Notice to Proceed.

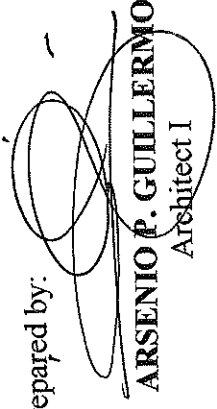
B. Before final acceptance by the end-user, the Contractor shall post a warranty security in accordance with the following schedule as prescribe in Section 62.2.3.3 of RA 9184

Form of Warranty Security	Amount of Warranty Security (Equal to percentage of the Total Contract Price)
a) Cash or Letter of Credit issued by a Universal or Commercial Bank: Provided, however, that the LC shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.	Five percent (5%)
b) Bank guarantee confirmed by a Universal or Commercial Bank.	Ten percent (10%)
c) Surety bond callable upon demand issue by GSIS or a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.	Thirty percent (30%)

to cover warranty against structural defects to cover the following periods as follows in accordance with Section 62.2.3.2

- C. Permanent Structures (15 years)
 - D. Semi-Permanent Structures (5 years)
 - E. Other Structures (2 years)
- C. The Approved Budget for the Project to be bid is **Three Hundred Forty Seven Thousand Sixty One and 75/100 Only (Php. 347,061.75)**

Prepared by:

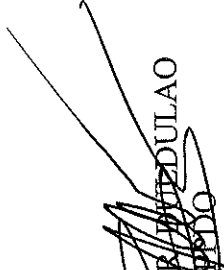

ARSENIO P. GUILLERMO
Architect I


JACOB H. SANTILLAN
Engineer I, EE

Checked by:

AIDA V. CABANG ^{M/cent}
Architect IV, Chief Planning

Noted by:


ROMEO R. MENDULAO
Director



Republic of the Philippines
MARIANO MARCOS STATE UNIVERSITY
 City of Batac, 2906, Ilocos Norte

BLANK FORM

Item No.: 1	Quantity:
Description: TILEWORKS	Unit: sq. mtrs.

Description	Quantity	Unit	Unit Price	Sub-Total
MATERIALS COST				
60cm x 60cm Polished Granite Tiles (floor)		pcs.		-
60cm x 60cm Polished Granite Tiles (counter)		pcs.		-
Tile Adhesive (20kgs)		bags		-
Tile Grout (2kgs.)		bags		-
Portland Cement (40kgs.)		bags		-
Fine Sand-S-1		cu. M		-
Diamond Cutting Disk		pcs.		-
Total Materials Cost			Sub-Total	-
			Unit Cost	
EQUIPMENT COST				
Description	Quantity	Unit	Unit Price	Sub-Total
Angle Grinder @ 300/day		days		-
Total Equipment Cost			Sub-Total	-
			Unit Cost	
LABOR COST				
Description	Quantity	Unit	Unit Price	Sub-Total
Foreman		days		-
Tile Setter		days		-
Helper		days		-
Total Labor Cost			Sub-Total	-
			Unit Cost	

DIRECT COST: -
 DIRECT UNIT COST: -

Plus Indirect Cost:
 ___% OCM
 ___% CP
 ___% VAT
 Indirect Unit Cost: -

Total Direct and Indirect Cost:



BLANK FORM

Item No.: II	Quantity:
Description: CEILING WORKS	Unit: sq. mtrs.

Description	Quantity	Unit	Unit Price	Sub-Total
19mmx50mmx0.4mm thk Furring Channel		pcs.		-
12mmx38mmx0.8mm thk Carrying Channel		pcs.		-
25mmx25mmx0.4mm thk Wall Angle		pcs.		-
W-Clip		pcs.		-
Blind Rivet		box		-
Concrete Nail 1"		kgs.		-
Hardiflex Board (4fx8fx4.5mm)		pcs.		-
Total Materials Cost			Sub-Total Unit Cost	-
EQUIPMENT COST				
Description	Quantity	Unit	Unit Price	Sub-Total
Electric Drill @200/day		days		-
Total Equipment Cost			Sub-Total Unit Cost	-
LABOR COST				
Description	Quantity	Unit	Unit Price	Sub-Total
Foreman		days		-
Skilled		days		-
Helper		days		-
Total Labor Cost			Sub-Total Unit Cost	-

DIRECT COST: -
 DIRECT UNIT COST: -

Plus Indirect Cost:
 ___ % OCM
 ___ % CP
 ___ % VAT
 Indirect Unit Cost: -

Total Direct and Indirect Cost:



Republic of the Philippines
MARIANO MARCOS STATE UNIVERSITY
 City of Batac, 2906, Ilocos Norte

BLANK FORM

Item No.: III	Quantity:	1.00
Description: PLUMBING WORKS	Unit:	Lot

Description	Quantity	Unit	Unit Price	Sub-Total
MATERIALS COST				
A. Laboratory Counter				
Concrete Hollow Block 4"x8"x16"		pcs.		-
Portland Cement (40kgs)		bags		-
Mixed Gravel and Sand		cu. mtrs.		-
10mm dia. Reinf. Steel Bars		pcs.		-
Tie Wire #16		kg.		-
1/4" thk Ordinary Plywood		pcs.		-
2"x2"x12ft Local Tanguile		bd. Ft		-
Common Wire Nail 2"		kg.		-
Common Wire Nail 3"		kg.		-
B. Fixtures, Pipes and Fittings				
Single Bowl Deep Sink		sets		-
Gooseneck Faucet		set		-
Flexible Hose 1/2" dia.		pcs.		-
Angle Valve Supply 1/2" dia.		pcs.		-
20mm dia. PP-r Female Adapter		pcs.		-
20mm dia. PP-r Pipe PN20		pcs.		-
Teflon Tape 1"		roll		-
20mm dia. PP-r Elbow		pcs.		-
20mm dia. PP-r Coupling		pcs.		-
20mm dia. PP-r Tee		pcs.		-
2" dia. PVC P-Trap		pcs.		-
2" dia PVC Elbow 1/4 bend		pcs.		-
2" dia PVC Elbow 1/8 bend		pcs.		-
2" dia PVC Tee		pcs.		-
2" dia PVC Wye		pcs.		-
200cc Solvent Cement		can		-
2" dia. PVC Pipe S1000		pcs.		-
Total Materials Cost			Sub-Total	-
			Unit Cost	-
EQUIPMENT COST				
Description	Quantity	Unit	Unit Price	Sub-Total
Fusion Machine		day		-
Total Equipment Cost			Sub-Total	-
			Unit Cost	-

[Handwritten signature]

LABOR COST		Description	Quantity	Unit	Unit Price	Sub-Total
		Plumber		days		-
		Skilled		days		-
		Helper		days		-
		Total Labor Cost			Sub-Total	-
					Unit Cost	-

DIRECT COST: -
DIRECT UNIT COST: -

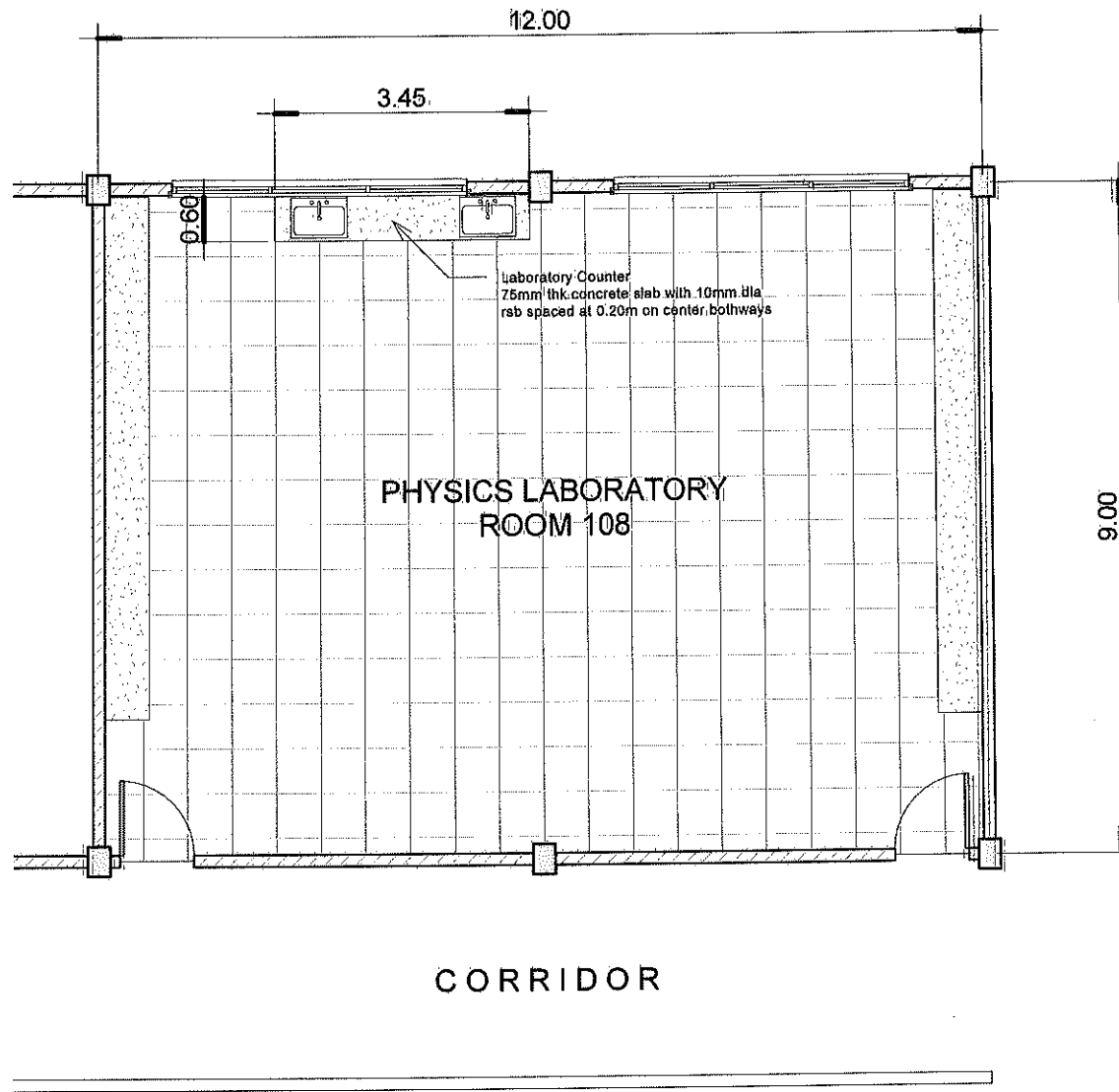
Plus Indirect Cost:
___% OCM -
___% CP -
___% VAT -
Indirect Unit Cost: -

Total Direct and Indirect Cost: -




BLANK FORM

Item No.:	Description:	IV Electrical Works	Quantity:		Unit		Sub-Total	
			Unit:	Quantity	Unit	Unit Price	Sub-Total	Unit Price
		I. Pipes, Conduits and Fittings						
		uPVC Adapter with Locknut (Orange)			pcs			
		20mm Ø, 2.2mm thk						
		uPVC Pipe with Locknut (Orange) Thick Wall			pcs			
		20mm Ø, 2.2mm thk						
		uPVC Mini Long Elbow (Orange) Thick Wall			pcs			
		20mm Ø, 2.2mm thk						
		SUB TOTAL (I. Pipes, Conduits and Fittings)						
		II. Conductors, Lead Free						
		5.5 mm ² THHN			m			
		3.5 mm ² THHN			roll			
		SUB TOTAL (II. Conductors, Lead Free)						
		III. Wiring Devices						
		Square Box (4'x4')			pcs			
		Electrical Tape (Mini, Big)			rolls			
		Duct Seal			lb			
		PVC Solvent Cement			can			
		GI Wire #16			kls			
		Floor Mounted GFCI Duplex Convenience Outlet w/ Grounding Wide Series			sets			
		SUB TOTAL (III. Wiring Devices)						
		Total Materials Cost						
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			
					Quantity			
					Unit Price			
					Sub-Total			
					Unit Cost			

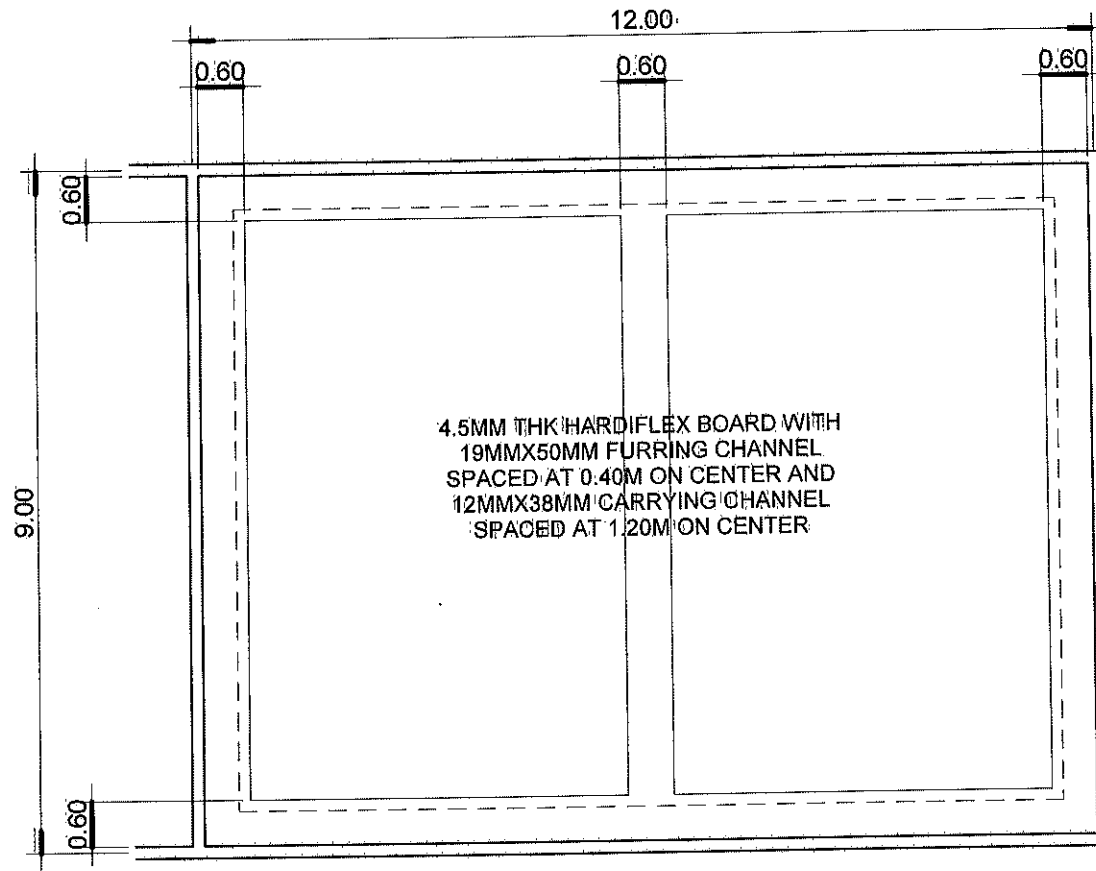


FLOOR PLAN

SCALE 1:100 MTRS.


 <p>DRAWN BY: <i>Arsenio P. Guillermo</i> ARSENIO P. GUILLERMO ARCHITECT / MASTER PLUMBER</p> <p>CHECKED AND REVIEWED BY: <i>Aida V. Cabang</i> AIDA V. CABANG ARCHITECT IV, CHIEF PLANNING</p>	<p>PROJECT TITLE:</p> <p>REFURBISHMENT OF PHYSICS LABORATORY ROOM</p> <p>LOCATION: MMSU-CAS CITY OF BATAG</p>	<p>CONFORME:</p> <p><i>Doreen D. Domingo</i> DOREEN D. DOMINGO PROJECT LEADER</p>	<p>SHEET NO.:</p>
		<p>RECOMMENDING APPROVAL:</p> <p><i>Romeo R. Duldulao</i> ROMEO R. DULDULAO DIRECTOR, PPDC</p>	<p>APPROVED BY:</p> <p><i>Shirley C. Agrupis</i> SHIRLEY C. AGRUPIS PRESIDENT</p>

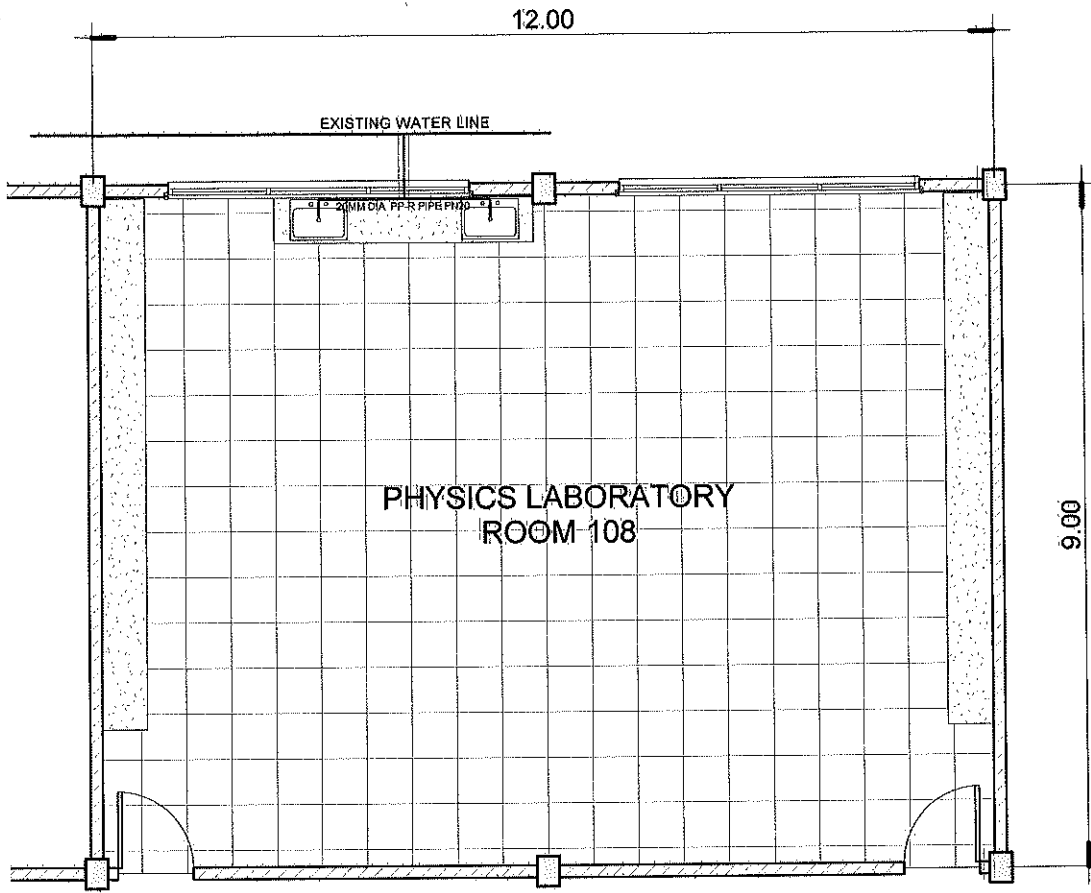
MARIVIC M. ALIMBUYUGUEN
DEAN, COLLEGE OF ARTS SCIENCES



REFLECTED CEILING PLAN

SCALE 1:100 MTRS.

 <p>DRAWN BY: <i>[Signature]</i> ARSENIO P. GUILLERMO ARCHITECT / MASTER PLUMBER</p>	<p>PROJECT TITLE:</p> <p>REFURBISHMENT OF PHYSICS LABORATORY ROOM</p>	<p>CONFORME:</p>		<p>SHEET NO.:</p>
		<p>RECOMMENDING APPROVAL:</p> <p><i>[Signature]</i> ROMEO R. DUEÑALAO DIRECTOR, PPDO</p>	<p>APPROVED BY:</p> <p><i>[Signature]</i> SHIRLEY C. AGRUPIS PRESIDENT</p>	
<p>CHECKED AND REVIEWED BY:</p> <p><i>[Signature]</i> AIDA V. CABANG ARCHITECT IV, CHIEF PLANNING</p>	<p>LOCATION: MMSU-CAS CITY OF BATAC</p>			

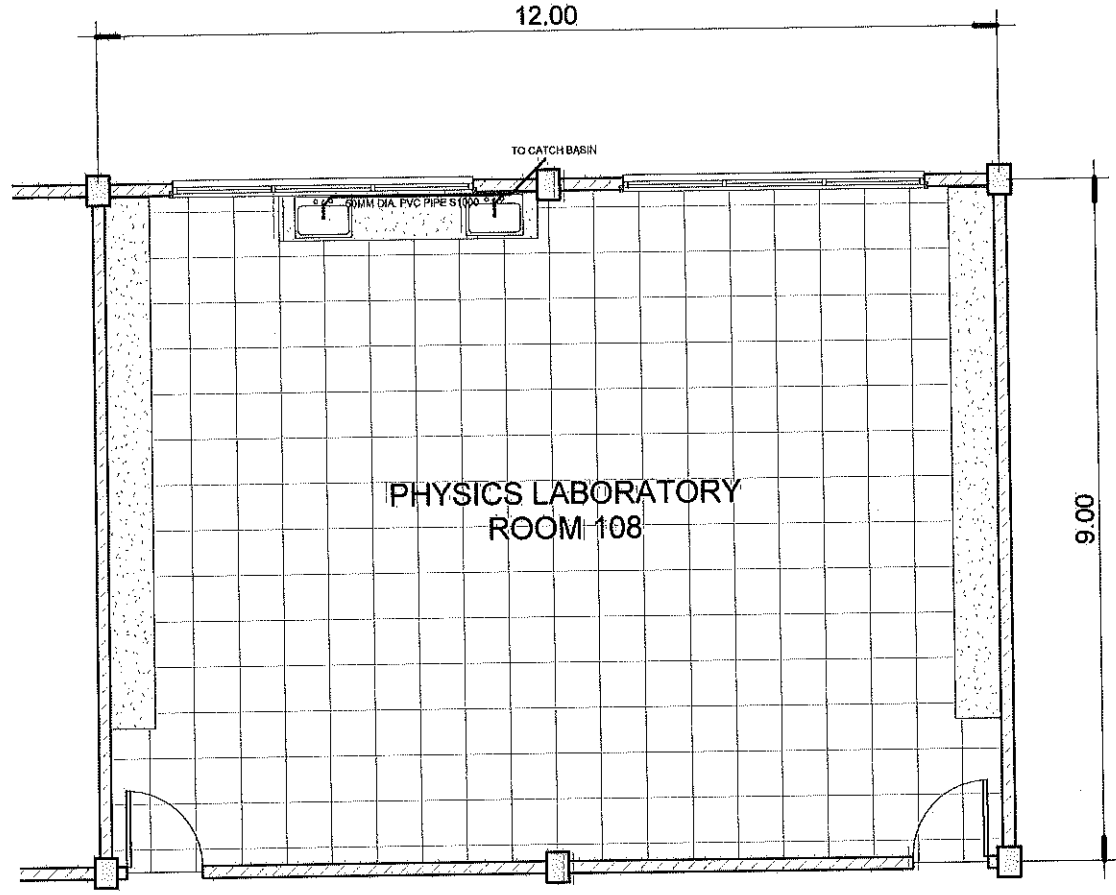


PHYSICS LABORATORY
ROOM 108

CORRIDOR

WATER LINE LAYOUT

SCALE 1:100 MTRS.



PHYSICS LABORATORY
ROOM 108

CORRIDOR

SEWER LINE LAYOUT

SCALE 1:100 MTRS.



DRAWN BY:
ARSENIO P. GUILLERMO
ARCHITECT / MASTER PLUMBER

CHECKED AND REVIEWED BY:
AIDA V. CABANG
ARCHITECT IV, CHIEF PLANNING

PROJECT TITLE:
REFURBISHMENT OF PHYSICS LABORATORY ROOM

LOCATION: MMSU-CAS CITY OF BATAC

CONFORME:
DOREEN D. DOMINGO
PROJECT LEADER

RECOMMENDING APPROVAL:
ROMEO R. DULDULAO
DIRECTOR - PPD

MARIVIC M. ALIMBUYUGUEN
DEAN, COLLEGE OF ARTS SCIENCES

APPROVED BY:
SHIRLEY C. AGRUPIS
PRESIDENT

SHEET NO: