



MARIANO MARCOS STATE UNIVERSITY

Bids and Awards Committee

INVITATION TO MAKE AN OFFER: Negotiated Procurement

2022-010

THE PROJECT: Refurbishment of 1-unit (6-unit Apartment)

Project Location: MIMSU, City of Batac, Ilocos Norte

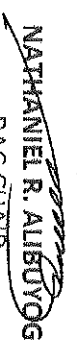
Number of Working Days: 18 calendar days
ABC: P199,722.97

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 **April 29, 2022; 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

April 25, 2022.


NATHANIEL R. ALBUOYOG
BAC CHAIR

Received: _____

Received: _____

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

PROJECT INFORMATION DOCUMENT

Project Title : REFURBISHMENT OF 1-UNIT (6-UNIT APARTMENT)
Project Location : MMSU, City of Batac, Ilocos Norte

The project calls for the furnishing of all materials, labor, tools and equipment needed for the refurbishment of one unit apartment of the 6-unit apartment (Staff Housing) located at MMSU, City of Batac, Ilocos Norte with 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 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. In addition, the Contractor shall have adequate and readily available construction tools and equipment to be utilized during the construction activities of the project. It is also a must as it is necessary that the Contractor shall have regularly at the site a qualified project Engineer to administer strictly the implementation of the project, including maintaining a log book of construction activities, as well as receiving authorized University Officials and Inspectors.

The Contractor's license required for prospective bidders to undertake this project is at least a holder of **PCAB License with Principal Classification and Category which is under "GENERAL BUILDING – D and/or with size range of SMALL-A"**.

General Instructions

The drawings and specifications intended to be complimentary. Anything shown in the drawings but not mentioned in the specifications or vice-versa shall be done as if it were mentioned or indicated in both. If no numerical indications appear in the drawings, the measurement should be carefully followed according to the scale of the drawing. If there is conflict in ambiguity in the plans and specifications, the matter shall be presented to the Engineer who shall provide the necessary interpretation of the classifications.

Specifically, the project covers the refurbishment of one (1) unit apartment at Staff Housing (6-Unit Apartment).

SCOPE OF WORKS

1. **Demolition Works.** This includes the demolition and chipping of existing tiles and fixtures of comfort rooms. The Contractor should inform the PPDO Office as well as the Supply Office before and after the demolition for them to instruct where to place the demolished materials.
2. **Carpentry and Joinery Works.** This includes the construction and installation of new kitchen cabinet as indicated in the approved plans and drawings of this project as well as the specifications and this PHD.
3. **Tile Works.** This includes installation of 0.60mx0.60m glazed granite tiles for countertop, 0.40mx0.40m non-slip homogeneous floor tiles and 0.40m x 0.40m and 0.20m x 0.20m wall tiles as shown in the approved plans and drawings with the appropriate tile adhesive. Layout the tiles in such a way that the gap between each tiles on all sides shall be kept to a maximum of two millimeters (2 mm). Apply tile

grout in between the laid out tiles using appropriate color consistent with the shade of the tiles or as approved by the end user. The Contractor shall present samples of the tiles to be used for the approval by the end-user prior to purchasing and installation.

4. **Painting Works.** This scope of works includes painting of all masonry walls dry wall partitions, ceiling boards and other surfaces with three (3) coats of paints following the approved brand and quality of painting materials specified in the Program of Work and other related contract documents.

For all exterior concrete walls, apply one coat of latex primer and two coats of elastomeric weather proofing paint of the color to be chosen by the Owner. For all interior concrete walls, apply one coat of latex primer and two coats of gloss latex paints.

Painting preparations for masonry surfaces shall include application of masonry putty to correct uneven wall surfaces during the process.

For wood surfaces to be finished with enamel paints, apply one coat of flatwall enamel primer and two coats of gloss enamel finish.

Painting preparations for wood surfaces shall include application of glazing putty to correct wood defects and uneven surfaces.

For wood surfaces to be finished with varnish or oil stain, preparation, priming and finishing shall be in accordance with the varnishing and oil staining practice and specifications.

For Hardiflex ceiling boards, except for the application of concrete neutralizer, adopt the surface preparations and painting procedures for painting and finishing of concrete surfaces.

5. **Plumbing Works.** This includes installation of plumbing fixtures, pipes and fittings following the layout and specifications indicated in the plans and specifications. The contractor shall employ the services of a registered master plumber to undertake and carry out the installation and layout of all pipes and fittings or it shall be under the direct supervision of a full time sanitary engineer for this scope of works. Also included in this scope of work the removal of plumbing fixtures, pipe, and wall chipping (for the installation of airconditioning pipe thru wall).

6. **Electrical Works.**

- a. Electrical works of the project shall be done by duly accredited electricians under the direct supervision of a licensed electrical practitioner, i.e. REE/RME
- b. Sample of each fixtures, wires, wiring devices, circuit breaker panels shall be submitted for approval by the technical committee or inspection committee of the University prior to their installation. No installation of materials shall be made without the prior approval by the technical committee or the designated personnel of MMSU.
- c. All wires shall be copper 99%, plastic insulated for 600V type THHN, lead free, stranded, except for the feeder lines, transformer windings, ecb windings. THW must be used or approved brand by the end-user. AND USE ONLY 1 TYPE WIRES AND BRAND.
- d. PVC conduits must be the thick wall type and of the standard thickness for each specific diameter. 20 mm – 2.2 mm thick, 25 mm – 2.3 mm thick. All conduits shall be embedded in walls, floors and concealed in ceilings.
- e. All switches and convenience outlets shall be the wide series type and shall be rated in 15 amperes respectively.
- f. The mounting heights of wiring devices shall be as follows:
 - Light switches – 1.4 m above finished floor line
 - Convenience outlets – 0.30 m above finished floor line or as required

- SPO/convenience outlets – 0.30 m above counter tops or as required
- A/C outlet, outlets for motors – not less than 0.40 m above fin. Floor line or as required
- Panel Board – 1.8 m above finished floor line to the center of the main MCCB or as required
- g. 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 grounded. The ground connection shall be made at the main service equipment and shall be made to the driven rods on the exterior of the building.
 - h. All wirings shall be tested for circuit continuity and shall be tested to assure that the wiring system is free of short-circuit, accidental grounding or other defects prior to normal system operation.
 - i. Energizing the systems - After the Contractor is assured 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.

7. SUPPLEMENTARY PROVISIONS

All other items or scope of works not mentioned in this document but shown and/or indicated in the plans, drawings and specifications, except where it is specifically mentioned as "to be provided by others", the contractor shall likewise furnish all materials, labor and equipment necessary to complete the same.

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.

Where the above mentioned items or scope of works require the approval of the quality and design of the materials to be used or their testing before they are installed, embedded in concrete or enclosed with specified covering materials, the contractor shall secure from the University clearance or permission related hereto. The Contractor is required to pre-approve all materials needed in the construction prior to purchasing and installation.

After all the works have been completed, the surrounding immediate areas affected in the execution 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 **EIGHTEEN (18) calendar days** from receipt of the Notice to Proceed, excluded of pre-determined unworkable days.

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	Thirty percent (30%)

issue by GISIS or a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.	
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to cover warranty against structural defects to cover the following periods as follows in accordance with Section 62.2.3.2

- a) Permanent Structures (15 years)
- b) Semi-Permanent Structures (5 years)
- c) Other Structures (2 years)

C. The Approved Budget for the Project to be bid is **One Hundred Ninety Nine Thousand Seven Hundred Twenty Two Pesos and 97/100 (Php 199,722.97).**

Prepared by:

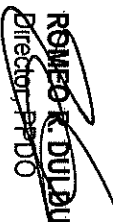

DENNIS CLYDE G. ACANTILLADO
Engineer I


JACOB H. SANTILLAN
Engineer I


PAULINE V. PUYAOAN
Engineering Assistant

Checked/Reviewed By:


AIDA V. CABANG
Chief, Physical Planning Section


ROMEO R. DULBULAE
~~Director~~ ~~PHDO~~



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

BILL OF QUANTITIES

Project Title: **Refurbishment of One-Unit Apartment (6-Unit Apartment)**

Project Location: **MMSU, City of Batang, Ilocos Norte**

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
I	Demolition Works Removal and disposal of old, existing floor and wall tiles. Removal of other obstructions designated and not permitted to remain.	1.000	l.s.
II	Carpentry and Joinery Works 3/4" Laminated Plyboard 3/4" Edging Band Hinge Stainless Cabinet T-Puller, 6" Drawer Slider (Soft Close) Magnetic Catch Latch 1"x2"x12' Good Lumber	1.000 4.00 28.00 12.00 12.00 6.00 6.00 4.00	lot pcs meters sets sets pairs sets bd.ft
III	Tile Works 60cm x 60cm Granite Tile 40cm x 40cm Non-Slip Homogeneous Floor Tile 40cm x 40cm Wall Tiles 20cm x 20cm Wall Tiles Portland Cement Sand Tile Grout Tile Adhesive (25kg) Tile Cutting Disk, 4"	32.296 7.00 47.00 152.00 24.00 11.00 1.00 5.00 5.00 1.00	m³ pcs pcs pcs pcs bags cu.m. bags bags bags pc
IV	Painting Works Masonry (Area = 66.409 sq.m.) Concrete Sealer/Primer Patching Compound Semi-Gloss Latex (two-coat only) 9" Roller Brush with pan 2" Paint Brush Sand Paper	124.481 3.00 4.00 6.00 1.00 1.00 1.00	m² gals gals gals set pcs pcs
	Wood (Area = 58.072 sq.m.) Glazing Putty Flatwall Enamel Enamel Quick Dry Paint Thinner 2" Paint Brush 3" Paint Brush	3.00 3.00 3.00 4.00 2.00 2.00	gals gals gals gals pcs pcs
V	Plumbing Works Water Line Materials 3/4 (25mm) PPR Pipe PN10 - 4M	1.000 4.00	lot pcs

	<p>1/2 (20mm) PPR Pipe PN10 - 4M</p> <p>3/4 (25mm) PPR 90° Elbow</p> <p>3/4 (25mm) PPR Equal Tee</p> <p>3/4 X 1/2 (25 X 20mm) Reducing Tee</p> <p>1/2 (20mm) PPR 90° Elbow</p> <p>1/2 (20mm) PPR Equal Tee</p> <p>25 X 1/2 Female Adapter</p> <p>1/2 Female Adapter</p> <p>3/4 (25mm) PPR Gate Valve</p> <p>1/2 - Angle Valve</p> <p>1/2 - Two-Way (2-Way) Angle Valve</p> <p>50 Mm PVC Pipe Sleeve</p> <p>Pipe Clamp 3/4 (25mm)</p> <p>Plumbing Water Proof Sealant</p>	<p>1.00 pc</p> <p>6.00 pcs</p> <p>2.00 pcs</p> <p>3.00 pcs</p> <p>4.00 pcs</p> <p>3.00 pcs</p> <p>2.00 pcs</p> <p>3.00 pcs</p> <p>4.00 pcs</p> <p>2.00 pcs</p> <p>1.00 pc</p> <p>1.00 pc</p> <p>10.00 pcs</p> <p>1.00 pcs</p>		
	<p>Sewer Line Materials</p> <p>2 (57mm) - PVC Sanitary Pipe S600 - 3 M</p> <p>2 (57mm) - 90° PVC Sanitary Elbow</p> <p>2 (57mm) - 45° PVC Sanitary Elbow</p> <p>2 (57mm) - P-Trap Or Drum Trap</p> <p>2 (57mm) - Floor Drain 100 Mm X 100 Mm</p> <p>3 (82mm) - PVC Sanitary Pipe S600 - 3 M</p> <p>3 (82mm) - 90° PVC Sanitary Elbow</p> <p>3 X 3 Sanitary Wye</p> <p>3 X 2 Sanitary Wye</p> <p>3 (82mm) Clean-Out Set</p> <p>Solvent Cement</p>	<p>4.00 pcs</p> <p>8.00 pcs</p> <p>2.00 pcs</p> <p>2.00 pcs</p> <p>1.00 pc</p> <p>1.00 pc</p> <p>1.00 pc</p> <p>1.00 pc</p> <p>2.00 pcs</p> <p>2.00 pcs</p> <p>2.00 cans</p>		
	<p>Materials for Air Conditioning Wall Penetration</p> <p>Size 3 (80mm) SCH-10, GI Pipe</p> <p>6 mm Reinforcing Bar Dowel</p>	<p>1.00 pc</p> <p>1.00 pc</p>		
	<p>Plumbing Fixtures and Accessories</p> <p>1.6 GPF Gravity Tank Water Closet</p> <p>Wall Hung Lavatory (Wash Basin)</p> <p>L480 X W390 X H175</p> <p>Rain Shower Assembly</p> <p>1/2 PPR Faucet</p> <p>Bidet Assembly</p> <p>Tissue Holder Stainless Steel</p> <p>Soap Holder</p> <p>Towel Bar Handle</p> <p>Lavatory Faucet</p> <p>Kitchen Sink Faucet (Horizontal)</p>	<p>1.00 set</p> <p>1.00 set</p> <p>1.00 set</p> <p>1.00 set</p> <p>2.00 pcs</p> <p>1.00 set</p> <p>1.00 pc</p> <p>1.00 pc</p> <p>1.00 pc</p> <p>1.00 pc</p> <p>1.00 pc</p>		
VI	<p>Electrical Works</p> <p>Pipes, Conduits, and Fittings</p> <p>uPVC Adapter with Locknut (Orange)</p> <p>20 mm Ø, 2.2mm thk</p> <p>uPVC Pipe (Orange) Thick Wall</p> <p>20 mm Ø, 2.2mm thk</p> <p>uPVC Mini Long Elbow (Orange) Thick Wall</p>	<p>1.000</p> <p>4.00</p> <p>12.00</p> <p>10.00</p>	<p>lot</p> <p>pcs</p> <p>pcs</p> <p>pcs</p>	

20 mm Ø, 2.2mm thk		
Conductors, Lead Free 3.5 mm ² THHN	36.00	m
Wiring Devices 20AT, 2P, 240V MCCB, NEMA3R Enclosure	2.00	pcs
Junction Box w/ Cover, Octagonal	2.00	pcs
Others Duct Seal		
PVC Solvent Cement	1.00	kg


Prepared by:


DENNIS CLYDE G. ACANTILLADO
 Engineer I, RME

Checked/Reviewed by:


AIDA V. CABANG
 Chief, Physical Planning Section


JACOB H. SANTILLAN
 Engineer I, REE


ROMEO R. DULDULAO
 Director, PPDO


PAULINE V. PUYAOAN
 Engineering Assistant, CE



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


SPECIFICATIONS

Project Title: **Refurbishment of One-Unit Apartment (6-Unit Apartment)**
Project Location: **MMSU, City of Batang, Ilocos Norte**

ITEM NO.	DESCRIPTION
I	<u>Demolition Works</u> Removal and disposal of old, existing floor and wall tiles. Removal of other obstructions designated and not permitted to remain.
II	<u>Carpentry and Joinery Works</u> 3/4" Laminated Plyboard 3/4" Edging Band Hinge Stainless Cabinet T-Puller, 6" Drawer Slider (Soft Close) Magnetic Catch Latch 1"x2"x12' Good Lumber
III	<u>Tile Works</u> 60cm x 60cm Granite Tile 40cm x 40cm Non-Slip Homogeneous Floor Tile 40cm x 40cm Wall Tiles 20cm x 20cm Wall Tiles Portland Cement Sand Tile Grout Tile Adhesive (25kg) Tile Cutting Disk, 4"
IV	<u>Painting Works</u> Masonry (Area = 66,409 sq.m.) Concrete Sealer/Primer Patching Compound Semi-Gloss Latex (two-coat only) 9" Roller Brush with pan 2" Paint Brush Sand Paper Wood (Area = 58,072 sq.m.) Glazing Putty Flatwall Enamel Enamel Quick Dry Paint Thinner 2" Paint Brush 3" Paint Brush Plumbing Works
V	<u>Plumbing Works</u> Water Line Materials 3/4 (25mm) PPR Pipe PN10 - 4M 1/2 (20mm) PPR Pipe PN10 - 4M 3/4 (25mm) PPR 90° Elbow 3/4 (25mm) PPR Equal Tee 3/4 X 1/2 (25 X 20mm) Reducing Tee 1/2 (20mm) PPR 90° Elbow 1/2 (20mm) PPR Equal Tee 25 X 1/2 Female Adapter 1/2 Female Adapter 3/4 (25mm) PPR Gate Valve 1/2 - Angle Valve 1/2 - Two-Way (2-Way) Angle Valve 50 Mm PVC Pipe Sleeve Pipe Clamp 3/4 (25mm) Plumbing Water Proof Sealant Sewer Line Materials 2 (57mm) - PVC Sanitary Pipe S600 - 3 M 2 (57mm) - 90° PVC Sanitary Elbow 2 (57mm) - 45° PVC Sanitary Elbow 2 (57mm) - P-Trap Or Drum Trap 2 (57mm) - Floor Drain 100 Mm X 100 Mm 3 (82mm) - PVC Sanitary Pipe S600 - 3 M 3 (82mm) - 90° PVC Sanitary Elbow 3 X 3 Sanitary Wye 3 X 2 Sanitary Wye

	<p>3 (82mm) Clean-Out Set Solvent Cement</p> <p>Materials for Air Conditioning Wall Penetration Size 3 (80mm) SCH-10, GI Pipe 6 mm Reinforcing Bar Dowel</p> <p>Plumbing Fixtures and Accessories 1.6 GPF Gravity Tank Water Closet Wall Hung Lavatory (Wash Basin) L480 X W390 X H175 Rain Shower Assembly 1/2 PPR Faucet Bidet Assembly Tissue Holder Stainless Steel Soap Holder Towel Bar Handle Lavatory Faucet Kitchen Sink Faucet (horizontal)</p>
VI	<p>Electrical Works Pipes, Conduits, and Fittings UPVC Adapter with Locknut (Orange) 20 mm Ø, 2.2mm thk UPVC Pipe (Orange) Thick Wall 20 mm Ø, 2.2mm thk UPVC Mini Long Elbow (Orange) Thick Wall 20 mm Ø, 2.2mm thk</p> <p>Conductors, Lead Free 3.5 mm² THHN</p> <p>Wiring Devices 20AT, 2P, 240V MCCB, NEMA3R Enclosure Junction Box w/ Cover, Octagonal</p> <p>Others Duct Seal PVC Solvent Cement</p> <p>Note: The Contractor shall submit samples all materials prior to purchasing/fabrication/installation for approval of end-user.</p>

Prepared by:


DENNIS CLYDE G. ACANTILLADO
Engineer I, RME

Checked by:


AIDA V. CABANG
Chief, Physical Planning Section

Recommending Approval:


ROMEO R. DULDULAO
Director, EPPD


JACOBO H. SANTILLAN
Engineer I, REE


PAULINE V. PUYAOAN
Engineering Assistant, CE

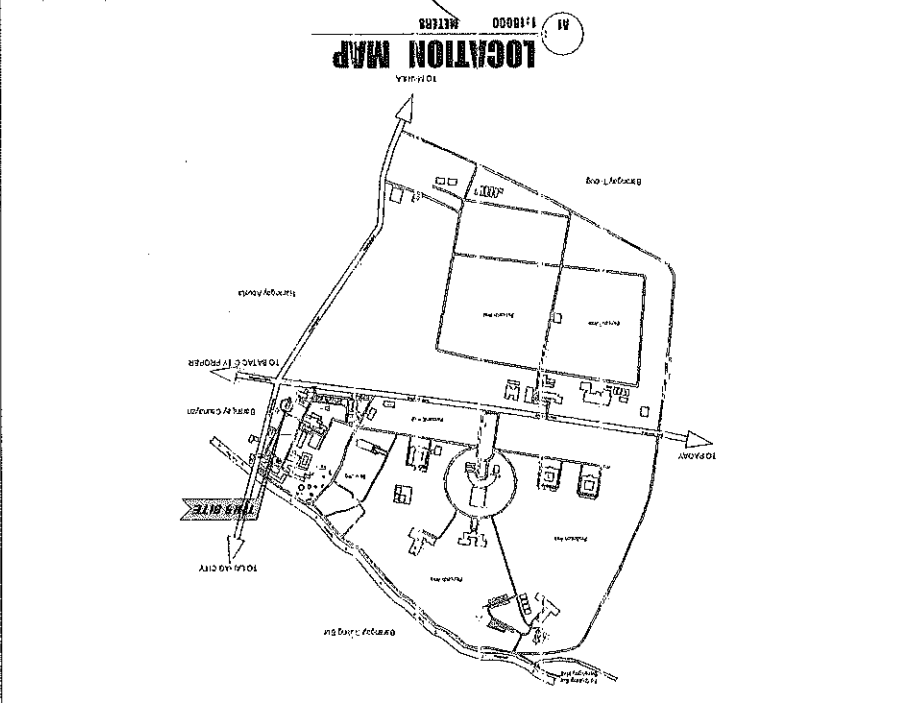
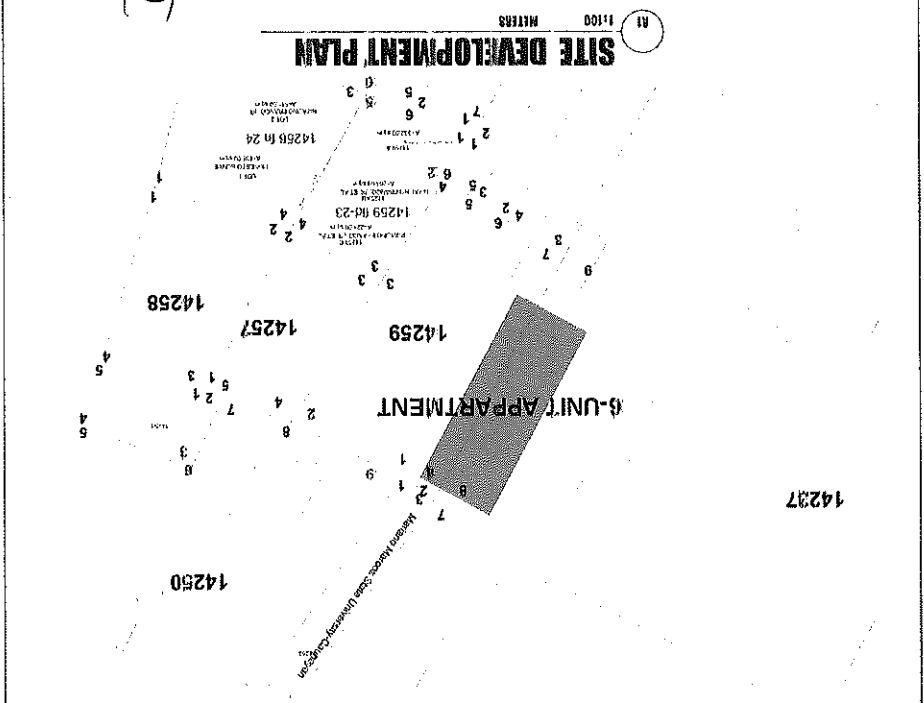


PHYSICAL PLANNING AND DEVELOPMENT OFFICE
 25 RAMON ROXAS BLVD. BANGALIPAN, BATAANG, LAGUNA
 TEL: (02) 812-1111

PROJECT TITLE: REHABILITATION OF ONE-UNIT APARTMENT (6-UNIT APARTMENT)
 PROJECT NO.: 14259
 DATE: 01/22/21
 DRAWN BY: RICHARD A. BAYAL
 CHECKED BY: ALDO S. CALIBANAN

APPROVED BY: [Signature]
 APPROVED BY: [Signature]
 APPROVED BY: [Signature]

AS SHOWN
 SHEET NO.: A1



ARCHITECTURAL PLANS	
A1	EXTERNAL PERSPECTIVE SITE DEVELOPMENT PLAN (CONCEPT PLAN)
A2	GROUND FLOOR PLAN (SEC'D-B PLAN)
A3	FRONT ELEVATION LEFT-SIDE ELEVATION RIGHT-SIDE ELEVATION
A4	CROSS SECTION LONGITUDINAL SECTION
A5	CONCRETE FLOOR DETAILS KITCHEN PLAN & DETAILS
ELECTRICAL PLANS	
E1	GROUND & SECOND FLOOR LAYOUT
E2	RISER DIAGRAM PANEL BOARD DIAGRAM SCHEDULE OF LOADS GENERAL NOTES & SPECIFICATION
PLUMBING PLANS	
P1	SEWERLINE & LAYOUT WATERLINE & COLD WATER MAIN WATERLINE LAYOUT PLUMBING & RISER NOTES PLUMBING NOTES

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ARCHITECTURAL	STRUCTURAL	ELECTRICAL	SANITARY	HIRE CODE (R.A. 9514)
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Department of Public Works and Office of the Building Official
 CITY OF BATAANG, LAGUNA



PHYSICAL PLANNING AND DEVELOPMENT OFFICE

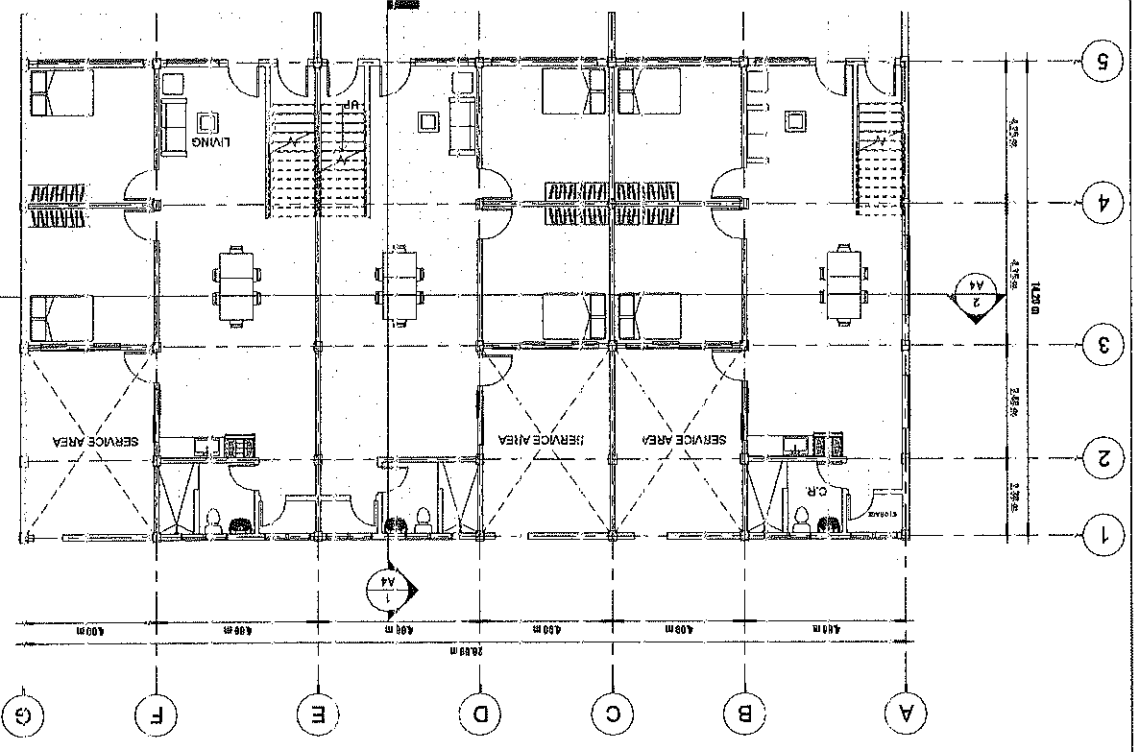
PHYSICAL PLANNING AND DEVELOPMENT OFFICE

PROJECT TITLE: REFURBISHMENT OF ONE-UNIT APARTMENT (6-UNIT APARTMENT)
APPROVED BY: ADPA T. CALANG
DATE: 01/27/14
DRAWN BY: JEROME LAYLA M. TORON

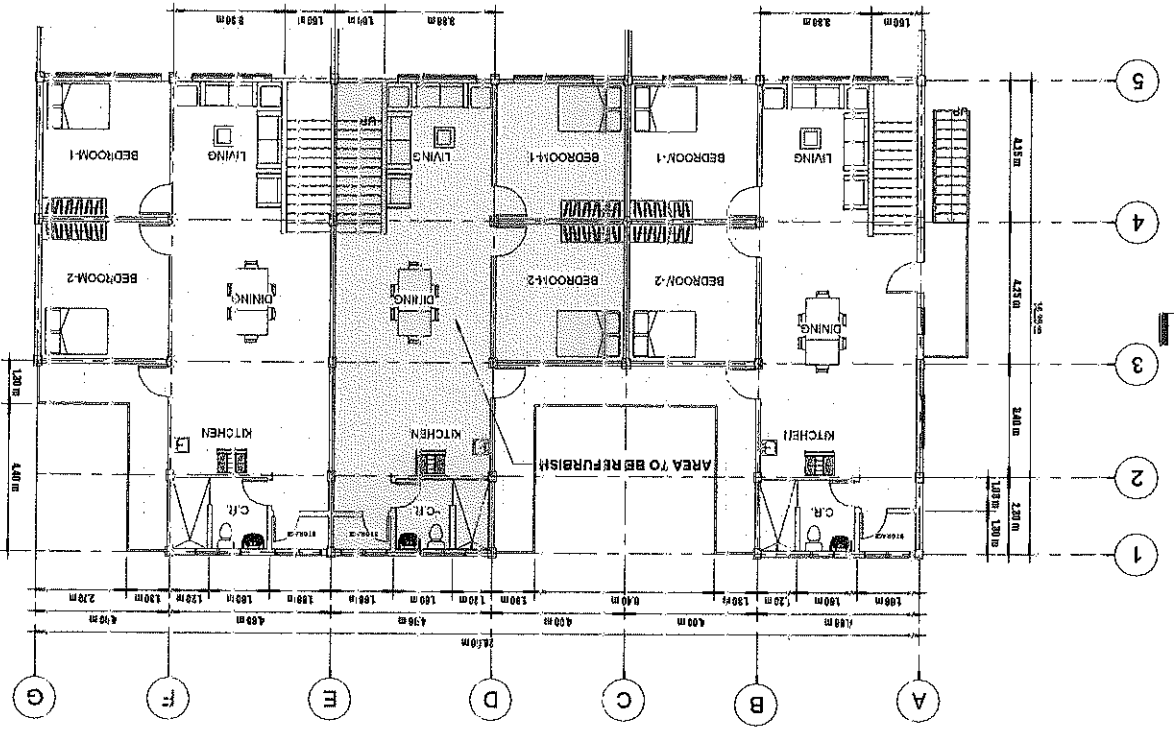
CONFORMS TO: RECOMMENDING APPROVAL
APPROVED BY: HOMER B. DELA ROSA
DATE: 01/27/14

FROM THE OFFICE: PHYSICAL PLANNING AND DEVELOPMENT OFFICE
SHEET NO.: AS SHOWN

GROUND FLOOR PLAN
A2 1:100 METERS



SECOND FLOOR PLAN
A2 1:100 METERS





PHYSICAL PLANNING AND DEVELOPMENT OFFICE

PERMITS DIVISION

DATE: 2012.02.22
TIME: 01:00 PM
PROJECT NO: 1224
JOB NO: 1224
JOB TITLE: 1224

PROJECT TITLE: REFURBISHMENT OF ONE-UNIT APARTMENT (6-UNIT APARTMENT)

LOCATION: LINEA CITY OF BAYAN, LOSOS MONTE

APPROVED BY: ROMEO A. DELA CRUZ

APPROVED BY: [Signature]



FROM THE ORIGINAL

DRAWN BY: [Signature]

SIGNED & SEALED: [Signature]

PROJECT TITLE: REFURBISHMENT OF ONE-UNIT APARTMENT (6-UNIT APARTMENT)

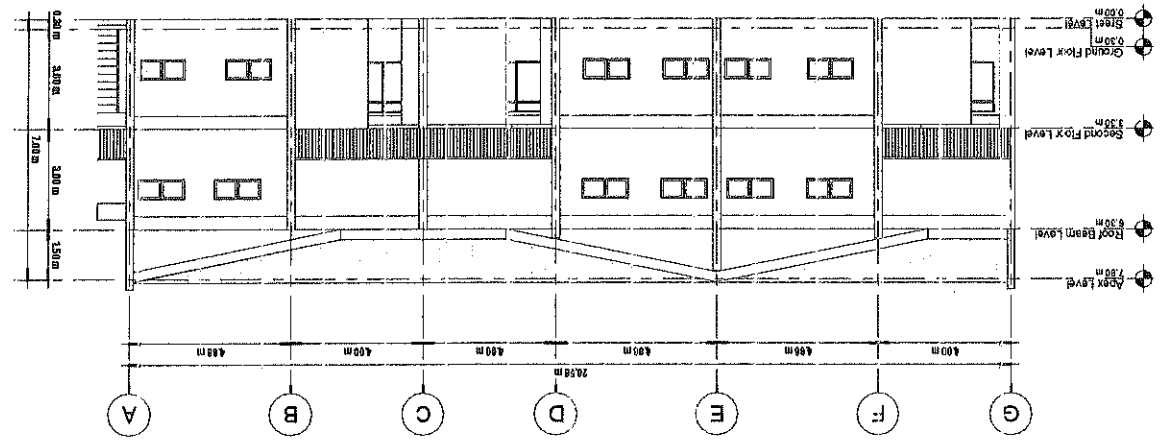
CONFORMS: [Signature]

APPROVED BY: [Signature]

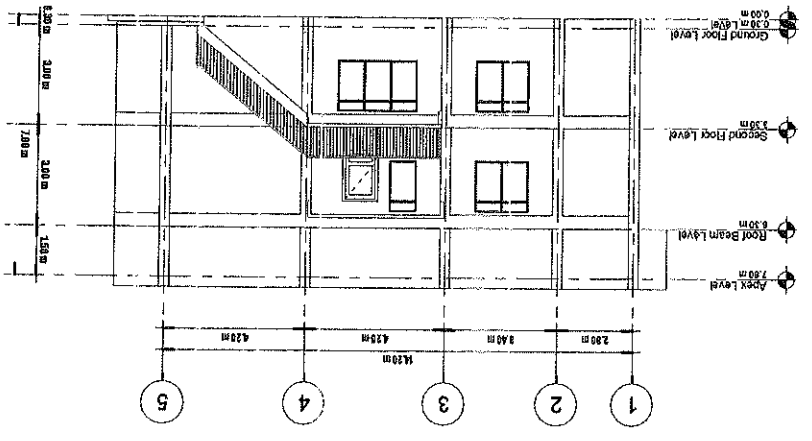
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(SHEET NO.)

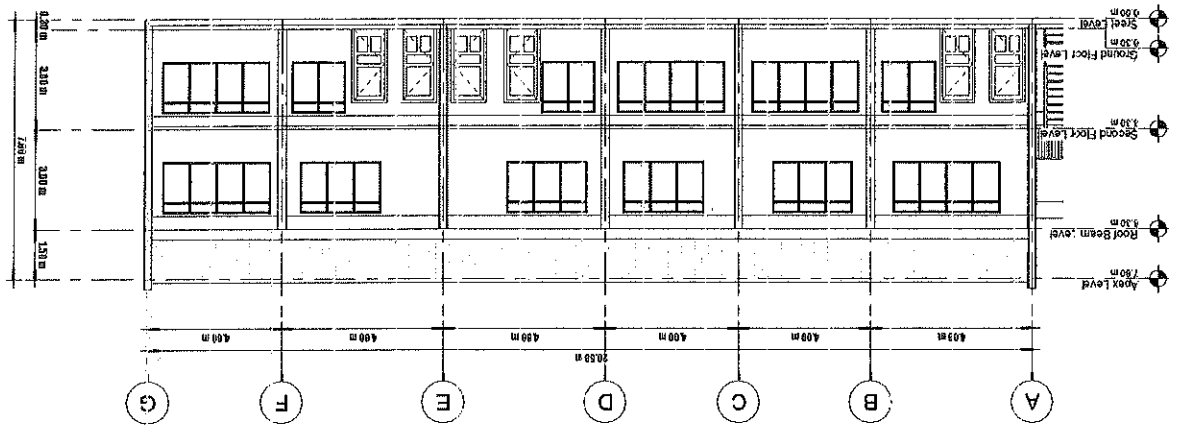
REAR ELEVATION 1:100 METERS



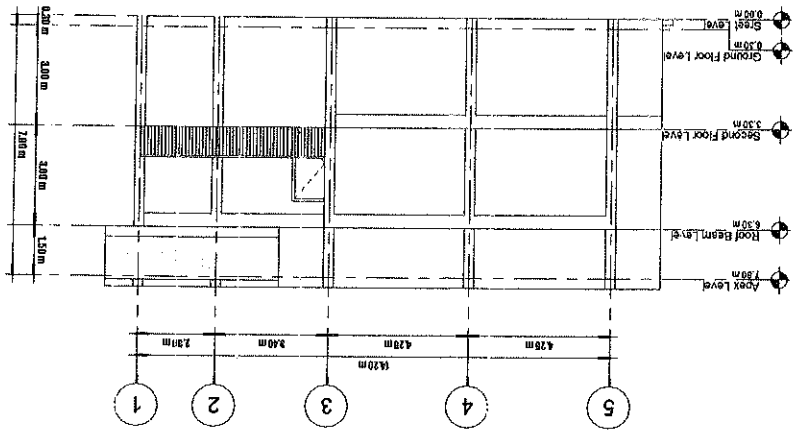
LEFT-SIDE ELEVATION 1:100 METERS



FRONT ELEVATION 1:100 METERS



RIGHT-SIDE ELEVATION 1:100 METERS





PHYSICAL PLANNING AND DEVELOPMENT OFFICE
 CITY OF ANN ARBOR, MICHIGAN
 100 EAST WASHINGTON STREET, ANN ARBOR, MI 48106
 TEL: 734.769.3100 FAX: 734.769.3101

DESIGNED BY: **LEONIE LAM T. SIMON**
 CHECKED BY: *[Signature]*
 DATE: 01/11/2018

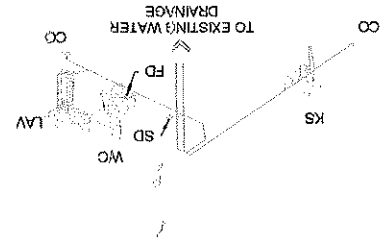
PROJECT TITLE: **RE-FURNISHMENT OF ONE-UNIT APARTMENT (6-UNIT APARTMENT)**
 LOCATION: **14500 CITY OF BAYCO, LOCOS NORTH**

CONTRACTOR: *[Signature]*
 APPROVED BY: *[Signature]*
 RECOMMENDING APPROVAL: *[Signature]*
 PROJECT NO: **18001**

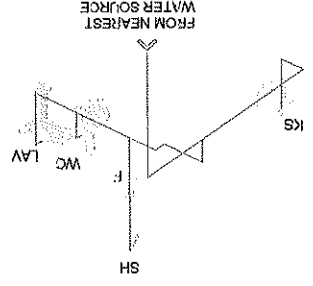
DATE: 01/11/2018
 SHEET NO: **P1**



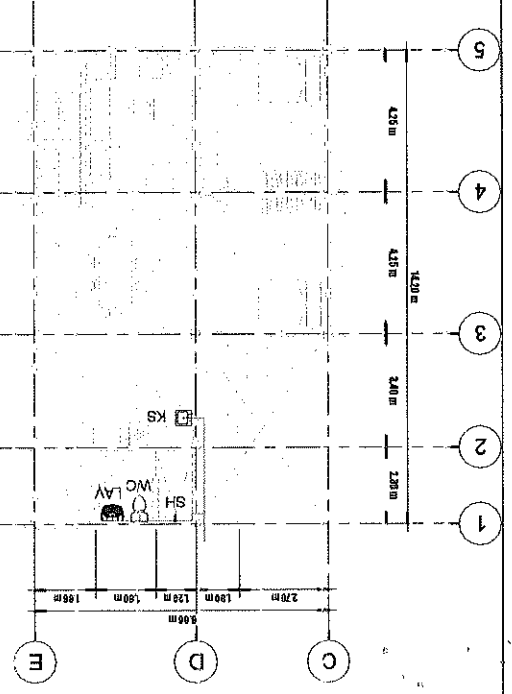
SEWER LINE ISOMETRY
 METERS 1:100



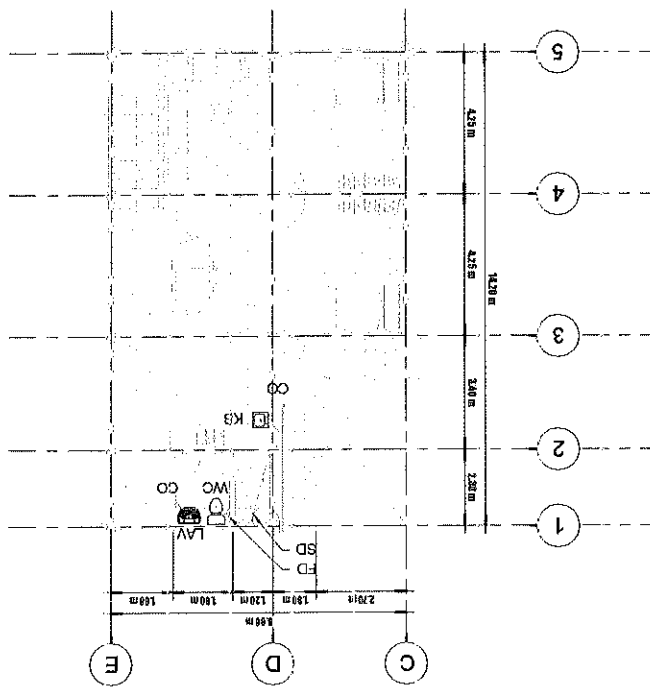
WATER LINE ISOMETRY
 METERS 1:100



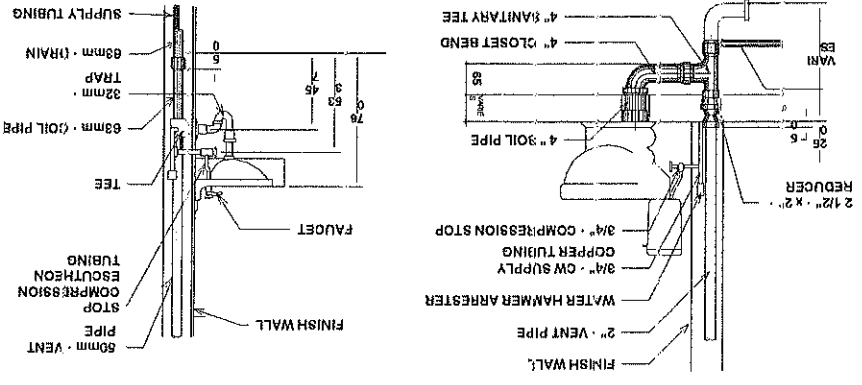
WATER LINE LAYOUT
 METERS 1:100



SEWER LINE LAYOUT
 METERS 1:100



WATER CLOSET AND LAVATORY TYPICAL DETAILS
 METERS 1:100



1. ALL PIPES SHALL BE INSTALLED AS INDICATED IN THE PLAN. ANY RELOCATION REQUIRED FOR A PROPER EXECUTION OF OTHER TRADES SHALL BE UPON THE APPROVAL OF A SANITARY ENGINEER OR A LICENSED MASTER PLUMBER.
2. ALL PLUMBING WORKS TO BE DONE AND SIZE OF ALL PIPES TO BE USED SHALL BE IN ACCORDANCE WITH THE RULES AND OF THE NATIONAL BUILDING CODE.
3. NO LESS THAN 0.30 METER OF THE AIR SPACED SHALL BE LEFT BETWEEN TOP LINE OF SEWAGE AND UNDER PART OF SEPTIC VAULT SLAB.
4. ALL SLOPES FOR HORIZONTAL BRANCHES OF SEWAGE LINE AND WASTE WATER LINE SHALL MAINTAIN TWO PERCENT (2%) MINIMUM.
5. ALL FIXTURES OR BRANCHES OF FIXTURES SHALL VENTED NOT SHOWN IN THE PLANS.
6. WATERLINES SHALL BE 1" DIA. OF ANY BRAND OF G.I. PIPE AND FITTINGS.
7. SEWAGE LINE TO BE USED SHALL BE 4" DIA. SANIMOLD PIPE AND 2" DIA. SANIMOLD PIPE FOR THE WASTE WATER LINE.
8. NO SEPTIC VAULT SHALL BE CONSTRUCTED UNDER THE BUILDING.
9. THE DIGESTIVE CHAMBER SHALL BE WATERPROOFED.
10. COORDINATES IN OTHER RELATED DRAWINGS AND SPECIFICATIONS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN CASE OF DISCREPANCY FOUND HEREIN.
11. ALL PLUMBING WORKS SHALL BE DONE UNDER THE DIRECT SUPERVISION OF A DULY LICENSED SANITARY ENGINEER OR A MASTER PLUMBER.

PLUMBING NOTES
 METERS 1:100

PLUMBING / SYMBOLS
 METERS 1:100

SYMBOLS	DESCRIPTION
WC	WATER CLOSET
LAV	LAVATORY
FD	FLOOR DRAIN
SHD	SHOWER HEAD
SD	SHOWER DRAIN
SV	SHOWER VALVE
HB	HOSE BIBB
ES	ESCHERSON
CO	CLEAN OUT
DS	DOWN SPOUT
VTR	VENT THRU ROOF
KS	KITCHEN SINK
CV	CHECK VALVE
GV	GATE VALVE
WM	WATER METER
WL	WATER LINE
RL	ROOF LEADER LINE
SL	SEWAGE LINE



PHYSICAL PLANNING AND DEVELOPMENT
OFFICE
ROOM 202 FEB HALL, PEARSON HALLS STATE UNIVERSITY
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PREPARED BY: JACOB MANTLILAN

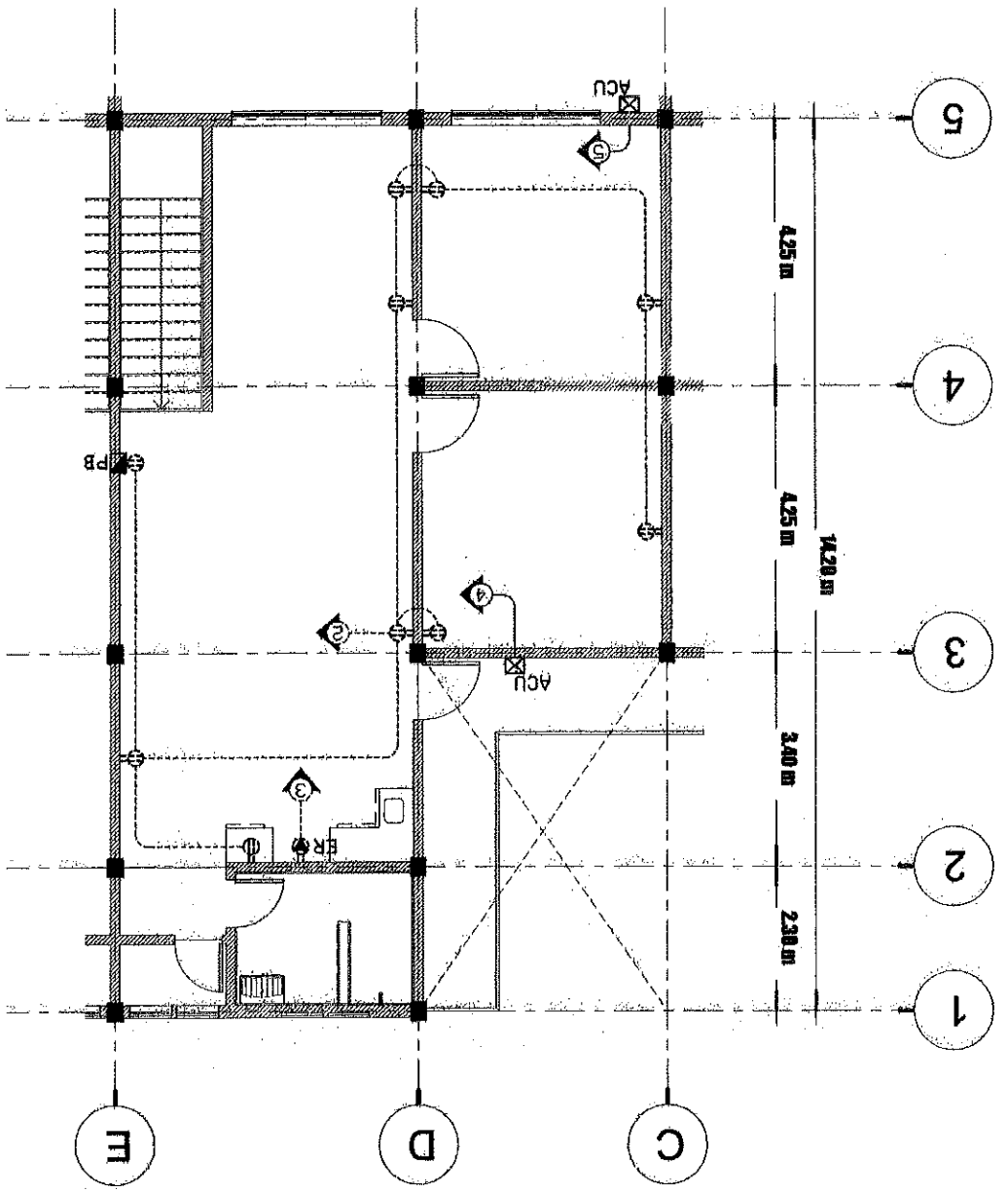
SIGNED AND SEALED BY: [Signature]
PROFESSIONAL ELECTRICAL ENGINEER

PROJECT TITLE: REFURBISHMENT OF ONE-UNIT APARTMENT
LOCATION: NINSA, CITY OF POLOKWANE, NORTH WITWATERSBURG LOCAL MUNICIPALITY

CHECKED/REVIEWED BY: [Signature]
APPROVED BY: [Signature]
SHIPLEY C. AGRISS

SHEET NO. 12
E

1 SECOND FLOOR POWER LAYOUT



2 SECOND FLOOR LIGHTING LAYOUT

