



BID BULLETIN NO. 1
For LBP-HOBAC-ITB-GS-20170605-01

PROJECT : **One (1) Lot Supply, Delivery, Installation, Testing and Commissioning of Various Airconditioning Units at LANDBANK San Jose (N.E.), Alicia, Lopez, Estancia and Toril Offices**


IMPLEMENTOR : **Procurement Department**

DATE : **July 13, 2017**

This Bid Bulletin is issued to modify, amend or clarify items in the Bid Documents. This shall form an integral part of the Bid Documents.

The modifications, amendments or clarifications are as follows:

- The Terms of Reference, Section VI (Schedule of Requirements), Section VII (Specifications) and Checklist of Bidding Documents (Items 5 & 6) have been revised. Please see attached revised Annex C-1 to C-9 and specified sections of the Bidding Documents.


ALWIN I. REYES, CSSP
Assistant Vice President
Head, Procurement Department and
HOBAC Secretariat

Section VI. Schedule of Requirements

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

Item Number	Description	Quantity	Delivery Period and Destination
	One (1) Lot Supply, Delivery, Installation, Testing and Commissioning of Various Airconditioning Units complete with Standard Accessories per Manufacturer's Standards at the following LANDBANK Offices:		Delivery Period: Please refer to Annexes A-1, B-1, D-1, E-1 and Revised Annex C-1.
1	LANDBANK San Jose (N.E.) Branch 3.0 TR Split Type, Floor- Mounted (Inverter Type) Dismantling of existing units	4 units	Delivery Sites and Contact Details per attached Annex F.
2	LANDBANK Alicia Branch 3.0 TR Split Type, Floor- Mounted (Inverter Type) Dismantling of existing units	5 units	
3	LANDBANK Lopez Extension Office 2.0 TR Split Type, Wall- Mounted (Inverter Type) 3.0 TR 4-Way/360° Ceiling Cassette (Inverter Type)	1 unit 2 units	
4	LANDBANK Estancia Extension Office 3.0 TR Split Type, Floor- Mounted (Inverter Type) 3.0 TR Split Type, Ceiling-Mounted (Inverter Type) 2.0 TR Split Type, Wall-Mounted (Inverter Type)	2 units 3 units 1 unit	
5	LANDBANK Toril Extension Office 3.0 TR Split Type, Ceiling- Mounted (Inverter Type)	3 units	

Conforme:

Name of Bidder

Signature over Printed Name of
Authorized Representative

Position

Specifications

Item No.	Specification	Statement of Compliance
		<p>Bidders must state below either “Comply” or “Not Comply” against each of the individual parameters of each specification.</p> <p>Statements of “Comply” or “Not Comply” must be supported by evidence in a Bidders Bid. Evidence shall be in the form of manufacturer’s un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidders statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the provisions of ITB Clause 3.1(a)(ii) and/or GCC Clause 2.1(a)(ii)</p>
1	<p>One (1) Lot Supply, Delivery, Installation, Testing and Commissioning of Various Airconditioning Units complete with Standard Accessories per Manufacturer’s Standards at the following LANDBANK Offices:</p> <p>LANDBANK San Jose (N.E.) Branch</p> <p>Four (4) units – 3.0 TR Split Type, Floor-Mounted (Inverter Type)</p> <p>Dismantling of existing units</p>	<p>Please state here either “Comply” or “Not Comply”</p>
2	<p>LANDBANK Alicia Branch</p> <p>Five (5) units – 3.0 TR Split Type, Floor-Mounted (Inverter Type)</p> <p>Dismantling of existing units</p>	

<p>3</p> <p>4</p> <p>5</p>	<p>LANDBANK Lopez Extension Office</p> <p>One (1) unit – 2.0 TR Split Type, Wall- Mounted (Inverter Type)</p> <p>Two (2) units – 3.0 TR 4-Way/360° Ceiling Cassette (Inverter Type)</p> <p>LANDBANK Estancia Extension Office</p> <p>Two (2) units – 3.0 TR Split Type, Floor-Mounted (Inverter Type)</p> <p>Three (3) units – 3.0 TR Split Type, Ceiling-Mounted (Inverter Type)</p> <p>One (1) unit – 2.0 TR Split Type, Wall-Mounted (Inverter Type)</p> <p>LANDBANK Toril Extension Office</p> <p>Three (3) units – 3.0 TR Split Type, Ceiling-Mounted (Inverter Type)</p> <p>Minimum specifications, working drawings and layout per attached Annexes A-1 to A-10 for item 1, B-1 to B-9 for item 2, Revised C-1 to C-9 for item 3, D-1 to D-10 for item 4 and E-1 to E-9 for item 5.</p> <p>The following documents shall be submitted inside the eligibility/technical envelope:</p> <p>a) Copy of purchase orders, contracts or other related documents to prove that the offered brand of ACU has been in the Philippine market for at least ten (10) years prior to the deadline for the submission of bids.</p> <p>b) List of at least five (5) large institutional clients using the brand being offered by the prospective ACU contractor (with addresses, contact persons and telephone numbers).</p> <p>c) Latest/recent Certificate of Satisfactory Performance issued by at least five (5) large institutional clients (e.g. fastfoods, BPOs, hospitals, funeral parlor, banks and government offices) which are using the brand being offered by the bidder with minimum of four (4) units installed for each client.</p>	<p>Please state here either “Comply” or “Not Comply”</p>
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	<p>d) Latest Certificate of Satisfactory Performance issued by the Head of PMED, if the bidder has existing or completed contracts with LANDBANK .</p> <p>e) List of at least three (3) highly-trained technicians (regular employees) with their respective bio-data and National Certificate II (NC II) for Refrigeration and Airconditioning Servicing issued by TESDA..</p> <p>f) List of 24/7 Customer Contact Center and at least twenty (20) service centers in key cities of the country (with complete addresses and contact numbers), viz:</p> <ul style="list-style-type: none">> NCR and Luzon – 10> Visayas – 5> Mindanao -5 <p>g) Manufacturer's authorization or back-to-back certification to prove that the bidder is an authorized seller/ distributor of the offered product and/ or other supporting documents to satisfy the said requirement.</p> <p>h) Brochure, or any other official documents coming from the manufacturer, showing the technical specifications of the offered product.</p> <p>i) Print-out of the homepage of manufacturer's website showing the URL (web address).</p> <p>j) Bureau of Product Standards (PS), Underwriters Laboratories (UL), European Conformity (CE) or ISO certifications, whichever is available.</p> <p>Bidders which fail to submit these certifications/documents shall be automatically disqualified.</p> <p>The winning bidder must affix a sticker/tag/label with company name and after-sales contact numbers or equivalent form of marking on each of the airconditioning units.</p>	<p>Please state here either "Comply" or "Not Comply"</p>
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Conforme:

Name of Bidder

Signature over Printed Name of
Authorized Representative

Position

Checklist of Bidding Documents for Procurement of Goods and Services

Documents should be arranged as per this Checklist. Kindly provide folders or guides, dividers and ear tags with appropriate labels.

The Technical Component (First Envelope) shall contain the following:

1. Duly notarized Secretary's Certificate attesting that the signatory is the duly authorized representative of the prospective bidder, and granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the prospective bidder in the bidding, if the prospective bidder is a corporation, partnership, cooperative, or joint venture (sample form - Form No.7).
2. Duly notarized Omnibus sworn statement (sample form - Form No.6).
3. Eligibility requirements
 - **Legal Document**
 - 3.a PhilGEPS Certificate of Registration (Platinum Membership)
 - **Technical / Financial Documents**
 - 3.b Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid, within the relevant period as provided in the Bidding Documents. The statement shall include all information required in the PBDs prescribed by the GPPB. (sample form - Form No. 3). The duly signed form shall still be submitted even if the bidder has no on-going contract.
 - 3.c Statement of the prospective bidder identifying its single largest completed contract similar to the contract to be bid, equivalent to at least fifty percent (50%) of the ABC supported with contract/purchase order, end-user's acceptance or official receipt(s) issued for the contract, within the relevant period as provided in the Bidding Documents. The statement shall include all information required in the PBDs prescribed by the GPPB. (sample form - Form No. 4).
 - 3.d The prospective bidder's computation for its Net Financial Contracting Capacity (sample form - Form No. 5).
 - 3.e Copy of purchase orders, contracts or other related documents to prove that the offered brand of ACU has been in the Philippine

market for at least ten (10) years prior to the deadline for the submission of bids.

- 3.f List of at least five (5) large institutional clients using the brand being offered by the prospective ACU contractor (with addresses, contact persons and telephone numbers).
- 3.g Latest/Recent Certificate of Satisfactory Performance issued by at least five (5) large institutional clients (e.g. fastfoods, BPOs, hospitals, funeral parlor, banks and government offices) which are using the brand being offered by the bidder with minimum of four (4) units.
- 3.h Latest Certificate of Satisfactory Performance issued by the Head of PMED, if the bidder has existing or completed contracts with LANDBANK.
- 3.i List of at least three (3) highly-trained technicians (regular employees) with their respective bio-data AND National Certificate II (NC II) for Refrigeration and Airconditioning Servicing issued by TESDA..
- 3.j List of 24/7 Customer Contact Center and at least twenty (20) service centers in key cities of the country (with complete addresses and contact numbers), viz:
 - > NCR and Luzon – 10
 - > Visayas – 5
 - > Mindanao -5
- 3.k Manufacturer's Authorization or back-to-back certification to prove that the bidder is an authorized seller/ distributor of the offered product and/ or other supporting documents to satisfy the said requirement.
- 3.l Brochure, or any other official documents coming from the manufacturer, showing the technical specifications of the offered product.
- 3.m Print-out of the Homepage of manufacturer's/brand owner's website showing the URL (web address).
- 3.n Bureau of Product Standards (PS), Underwriters Laboratories (UL), European Conformity (CE) or ISO certifications, whichever is available.
- 3.o Valid joint venture agreement (JVA), in case the joint venture is already in existence. In the absence of a JVA, duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful shall be included in the bid. Failure to enter into a joint venture in the event of a contract award shall be ground for

the forfeiture of the bid security. Each partner of the joint venture shall submit the legal eligibility documents. The submission of technical and financial eligibility documents by any of the joint venture partners constitutes compliance.

4. Bid security in the prescribed form, amount and validity period (ITB Clause 18.1 of the Bid Data Sheet);
5. **Revised Schedule VI - Schedule of Requirements with signature of bidder's authorized representative.**
6. **Revised Section VII - Specifications with response on compliance and signature of bidder's authorized representative.**
7. Post-Qualification Documents – (Non-submission of these documents during the bid opening shall not be a ground for the disqualification of the bidder):
 - 7.a Business Tax Returns per Revenue Regulations 3-2005 (BIR No. 2550 Q) VAT or Percentage Tax Returns for the last two (2) quarters;
 - 7.b Income Tax Return for 2016

The Financial Component (Second Envelope) shall contain the following:

1. Duly filled out Bid Form signed by the bidder's authorized representative (sample form - Form No.1)
2. Duly filled out Schedule of Prices signed by the bidder's authorized representative (sample form - Form No.2)

TERMS OF REFERENCE

A. Name and Description of the Project:

One (1) lot – Supply, Delivery, Installation, Testing and Commissioning of various Split Type Airconditioning Units, complete with standard accessories per manufacturer's standards for LANDBANK Lopez Extension Office.

B. Objective of the Project:

1. To properly ventilate the Office area.
2. To maintain the corporate image of the Bank;
3. To provide a conducive banking and working area;

C. Scope of the Project and Delivery Time/Completion:

1. Supply, delivery and installation	<ul style="list-style-type: none"> • Mobilization of manpower and equipment/tools at the Maharlika Highway, Gen. G. Vera St. Corner Calle Anda, Lopez Quezon • Split Type Airconditioning Units <ul style="list-style-type: none"> One (1) unit 2.0 TR Wall Mounted, split type airconditioning unit (Inverter Type) Two (2) unit 3.0 TR 360 Ceiling Cassette, or approved equivalent, split type airconditioning unit (Inverter Type) • Installation, testing and commissioning • Cleaning-up works and demobilization • Installation of drain pipes for two units of 360 Ceiling Cassette or approved equivalent ACU 	
2. Installation Schedule	Monday to Sunday or per coordination with end-user/s	
3. Installation Period	Forty Five (45) calendar days per branch upon receipt of Notice to Proceed (NTP) or availability of project site whichever is applicable	
4. Documentary Requirements		
Document	Description	Due Date of Submission
a. Start Up Data Sheet (Annex A)	Duly accomplished form showing the electrical and mechanical parameters of the air-conditioning unit/s	Upon Completion
b. As-built plans (signed and sealed by PME) – 2 sets	Plans showing the locations of air-conditioning units	Upon Completion
c. Schedule of Maintenance/Monitoring Activities	Schedule for preventive maintenance	Upon Completion
d. Warranty Certificate	Warranty Certificate with inclusive date	Upon Completion
e. Guarantee Certificate	Certificate that the spare parts and components including the aftersales services/supports that may be required by the bank to ensure the continuous and normal operation of the equipment shall be available in the next five (5) years from the date of commissioning	Upon Completion

f. Manuals	Operation and Preventive Maintenance Manual	Upon Completion
g. Pictures	Pictures showing angles on the left, front and right	Upon Completion
5. Training	Conduct familiarization seminar/training to orient the end-user on the basic concept, functions and operation of the equipment installed	
6. Warranty	<p>a. Workmanship and Unit One (1) year warranty against factory/manufacturing defects on equipment, components and parts supplied and against faulty workmanship to commence upon receipt of final turn-over and acceptance documents.</p> <p>b. Compressor Five (5) years warranty against factory/manufacturing defects on equipment, components and parts supplied to commence upon receipt of final turn-over and acceptance documents.</p> <p>All equipment, parts and components found defective during and within the warranty period shall be immediately replaced without additional cost to the Bank</p>	
7. Maintenance	The ACU contractor shall provide the standard warranty servicing for all installed equipment and its components (checking and general cleaning of the unit at least three times within the warranty period). The schedule of said activities and the names of authorized representatives shall be submitted to the Branch Head or its authorized representative prior to servicing	

D. Technical and Other Specifications/Requirements:

1. Airconditioning Unit

**TECHNICAL SPECIFICATIONS FOR 2.0 TR ACU
INVERTER TYPE**

Features	Unit	Specification
Fan Coil Application Type		Wall Mounted
Cooling Capacity	BTU/Hr(kJ/Hr)	24,000 max
Power Supply	V-Hz.	208/230 min - 60
Phase	Ph	Single
Energy Efficiency Ratio (EER) System	BTU/W-Hr	
	(Kj-W/H)	11.6 min
System Power Input	Watts	2,380 max
FCU+CDU (System Current)	Ampere	10.9 max
INDOOR UNIT		
Air-Flow (low/medium/high)	CFM	1040 min
Sound Pressure Level(low/med/high)	dB(A)	49 max

OUTDOOR UNIT	
Compressor Type	Rotary
Condenser Fan Type	Flare Type
Refrigerant	R-410a
Filters	Anti-fungal/Anti virus
Controls	Remote with LCD
Louvers	motorized
Warranty	Year 1

PROPOSED TECHNICAL SPECIFICATIONS FOR 3.0 TR CEILING CASSETTE ACU (INVERTER TYPE)

Features	Unit	
Fan Coil Application Type		360 Ceiling Cassette, or approved equivalent
Cooling Capacity	BTU/Hr(kJ/Hr)	36,000 min
Power Supply	V-Hz.	220/240-60
Phase	Ph	single
Energy Efficiency Ratio (EER) System	BTU/W-Hr	9.81
	(Kj-W/H)	
System Power Input	Watts	3670 max
FCU+CDU (System Current)	Ampere	16.2 max
INDOOR UNIT		
Air-Flow @ medium	CMM	25.50 max
Sound Pressure Level(low/med/high)	dB(A)	50 max
OUTDOOR UNIT		
Compressor Type		Twin BLDC Rotary
Refrigerant		R-410A
Filters		Anti-fungal/Anti virus
Controls		Remote
Warranty	Years	5

2. Piping, Electrical and Accessories

- a. Refer to Annex B for refrigerant pipe insulation detail, schematic piping diagram and electrical riser diagram;
- b. Refrigerant piping shall be TYPE-M, Hard Drawn Seamless Copper using the standard pipe size recommended by the manufacturer;
- c. Pipes shall be anchored, plumbed and parallel to the building's vertical and horizontal lines. Pipe hangers and supports shall be of the type as specified. Pipe sleeves thru walls and wall penetrations, roofs and floors shall be provided by the supplier/installer. The gap between the pipe and the pipe sleeves must be provided with water proofing and sealant;
- d. All piping shall be leak tested with pressure of at least 1.5 times the designed working pressure;
- e. Refrigerant suction line shall be insulated with pre-molded elastomeric rubber insulation 15 mm thick for 3.0 TR and below, and 25 mm thick for 5.0 TR up to 10 TR. Insulation installed outdoor shall be provided with weatherproof coating;

- f. Without additional cost to the bank, the supplier/installer shall supply and install the following components/parts if not included in the unit's standard accessories (for split-type units with capacities of 2.0 TR and above)
 - Liquid Line Filter Drier, Flare-type
 - Magnetic Contactor with External Thermal Overload
 - On-Delay Timer
 - Plug-in type High and Low Pressure Switches
- g. Provide NEMA type, UL listed bolt-on circuit breakers for FCU and ACCU
- h. Use EMT for electrical pipes and stranded THHN wires for feeder lines;
- i. Use color blue, schedule 40 PVC pipe for drain lines using the appropriate size recommended by the manufacturer, but not less than $\frac{3}{4}$ inches in diameter.

3. Other Requirements:

- a. Prospective ACU contractors are encouraged to inspect, verify and assess the existing condition, location and details of the project;
- b. All equipment, units and parts/components to be supplied shall be brand new, clean and approved products of reputable manufacturers;
- c. All works shall conform to the provisions (latest edition) of the Philippine Mechanical, Electrical and Building Codes, the Clean Air Act, Environmental Laws and other applicable laws and regulations;
- d. In line with the Bank's Environmental Management System (EMS) program and being an ISO 14001 certified institution, the winning ACU contractor is required to use appropriate equipment, hand tools and personal protective gears and equipment (gloves, rubber boots, masks, etc.) during the installation, repair or maintenance activities;
- e. All equipment shall be installed in approximate location as shown in the mechanical plans;
- f. Any proposed change or deviation from the original mechanical plans or specifications either initiated by the ACU contractor, the end-user or due to actual site condition, must be submitted to LBP-PMED in the form of shop drawing for approval prior to implementation;
- g. The winning ACU contractor should coordinate his works closely with the works of other trades concerned;
- h. Installation of works shall be done in neat workmanship and like manners. All improperly set works, rough finishes or other works not in accordance with the approved plans and specifications as determined by the LBP-PMED engineer or technical representatives shall be removed and replaced within seven (7) calendar days by the ACU contractor at no extra cost;
- i. No existing/old materials shall be re-used; e.g., circuit breakers, electrical and mechanical controls, materials and components, refrigerant pipes, fittings, insulations, etc., unless otherwise specified in the scope of works or technical specifications;
- j. The ACU contractor shall provide all the necessary components or accessories, e.g., brackets, pedestals, clamps, fasteners, air deflectors, etc., to ensure the safe, normal and efficient operation of the installed ACUs;
- k. The ACU contractor shall properly account and turn-over all dismantled/replaced materials to the branch head or its authorized representative/s;
- l. The ACU contractor shall exercise extreme caution and be responsible in the delivery, safe hauling/transfer of supplies, tools, equipment and/or chemicals to prevent damage to bank properties and employees. The corresponding cost to repair or replace the bank equipment, facilities or including part and components damaged or lost by the ACU contractor or its workers during the course of the project shall be deductible/chargeable to the ACU contractor;
- m. The ACU contractor shall be liable for any harm, damage or injury that may be sustained or suffered by its own crew/workers while in the performance of their duties/job under this project;

E. Qualification and Documentary Requirements:

Qualification Requirement	Documentary Requirement
1. The quoted brand of prospective ACU contractor shall be in the Philippine market for a minimum of ten (10) years.	Copy of purchase orders, contracts or other related documents to prove that the offered brand of ACU has been in the Philippine market for at least ten (10) years prior to deadline for the submission of bids.
2. The ACU contractor shall provide Satisfactory Service to its customers.	a. List of at least five (5) large institutional clients using the brand being offered by the prospective ACU contractor (with addresses, contact persons and telephone numbers). b. Certificate of satisfactory performance issued by at least 5 large institutional clients (e.g. fastfoods, BPOs, hospitals, funeral parlor, banks and government offices) using the brand being offered by the prospective ACU contractor (with minimum of 4 units installed). c. Latest Certificate of Satisfactory Performance issued by the Head of PMED, if the bidder has existing or completed contracts with LANDBANK
3. The ACU contractor shall have highly trained technicians who are its regular employees.	List of at least 3 highly trained technicians (regular employees) with their respective bio-data and National Certificate II (NC II) for Refrigeration and Airconditioning Servicing issued by TESDA
4. The quoted brand should have a nationwide network of service centers with 24/7 Customer Contact Center.	List of 24/7 Customer Contact Center and at least twenty (20) service centers in key cities of the country (with complete addresses and contact numbers), viz: a. NCR and Luzon - 10 b. Visayas - 5 c. Mindanao - 5
5. The ACU contractor must be an authorized distributor of the offered product.	Manufacturer's Authorization or Back-to-Back Certification to prove that the bidder is an authorized seller/ distributor of the offered product and/or other supporting documents to satisfy the said requirements.
6. The offered product must have brochures showing the product complete specifications.	Brochure or any other official documents coming from the manufacturer showing the technical specifications of the offered product
7. The specifications of the offered product shall be verifiable from the website of the manufacturer.	Print-out of the Homepage of manufacturer's /brand owner's website showing the URL (web address).
8. The offered product or its manufacturer must be authorized and certified by the approving/governing body.	Bureau of Product Standards (PS), Underwriters Laboratories (UL), European Conformity (CE) or ISO certifications, whichever is available.


REVISED ANNEX C-5

<p>4. The quoted br. should have a nationwide network of service centers with 24/7 Customer Contact Center.</p>	<p>List 24/7 Customer Contact Center and at least twenty (20) service centers in key cities of the country (with complete addresses and contact numbers), viz:</p> <ul style="list-style-type: none"> a. NCR and Luzon - 10 b. Visayas - 5 c. Mindanao - 5
<p>5. The ACU contractor must be an authorized distributor of the offered product</p>	<p>Manufacturer's Authorization or Back-to-Back Certification to prove that the bidder is an authorized seller/ distributor of the offered product and/or other supporting documents to satisfy the said requirements.</p>
<p>6. The offered product must have brochures showing the product complete specifications</p>	<p>Brochures or other equivalent documents indicating the specifications of the offered product/s (colored computer print-out shall not be allowed).</p>
<p>7. The specifications of the offered product shall be verifiable from the website of the manufacturer</p>	<p>Print-out of the Homepage of manufacturer's /brand owner's website showing the URL (web address).</p>
<p>8. The offered product or its manufacturer must be authorized and certified by the approving/governing body</p>	<p>Bureau of Product Standards (PS), Underwriters Laboratories (UL), European Conformity (CE) or ISO certifications, whichever is available</p>

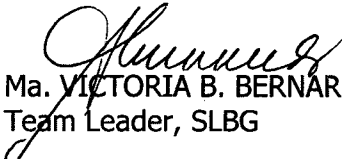
F. Payment Terms:

1. Request for payment for every completed project/installation shall be entertained after the final turn-over and acceptance of the project and upon submission of complete billing documents required by the Procurement Department;
2. Partial payment is allowed based on completed project.

Prepared by:


 MELVIN C. ATIENZA
 Engineer, PMED- SLBG

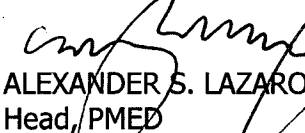
Reviewed by:


 Ma. VICTORIA B. BERNARDO
 Team Leader, SLBG

Endorsed by:


 Ma. JESUSA R. AQUINO
 Acting-Head, PDMU South

Approved by:


 ALEXANDER S. LAZARO
 Head, PMED

LANDBANK OF THE PHILIPPINES

PROJECT MANAGEMENT AND ENGINEERING DEPARTMENT

ANNEX A

NAME OF THE BRANCH :
 LOCATION :
 DATE :

P.O. NO. _____

START-UP DATA SHEET**SUPPLIER'S DATA:**

Name of Supplier: _____
 Address: _____
 Contact Person: _____ Tel.No.: _____

INSTALLATION DATA:

Technician In-charge: _____ Accreditation No: _____
 Date Started: _____ Date Finished: _____ Start-up Date: _____
 FCU Model No: _____ ACCU Model No: _____
 FCU Serial No: _____ ACCU Serial No: _____

OPERATING DATA:

Suction Line Temperature: _____ Suction Line Pressure: _____
 Discharge Line Temperature: _____ Discharge Line Pressure: _____
 FCU Intake Air Temperature: _____ FCU Discharge Air Temp.: _____
 ACCU Intake Air Temperature: _____ ACCU Discharge Air Temp.: _____
 Room Temperature: _____ Ambient Temperature: _____

ELECTRICAL PARAMETERS:

Power Supply (Voltage), L1-L2: _____ L2-L3: _____ L3-L1: _____
 Overall Ampere Readings, L1: _____ L2: _____ L3: _____
 Current Draws, Compressor: _____ ACCU Fan Motor: _____ FCU Fan Motor: _____

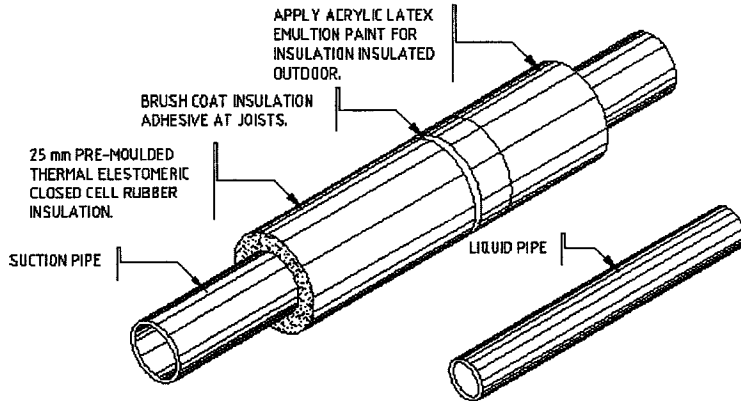
OTHER INSTALLATION DATA

Refrigerant Piping:
 Suction Diameter: _____ Length: _____ Insulation Thickness: _____
 Discharge Diameter: _____ Length: _____ Insulation Thickness: _____
 Drain Line:
 Drain Line Diameter: _____ Length: _____ Insulation Thickness: _____
 Electrical Lines:
 Feeder Line Conduit Diameter: _____ Feeder Line Wire Size: _____ Length: _____
 Control Line Conduit Diameter: _____ Control Line Wire Size: _____ Length: _____
 Circuit Breaker: _____

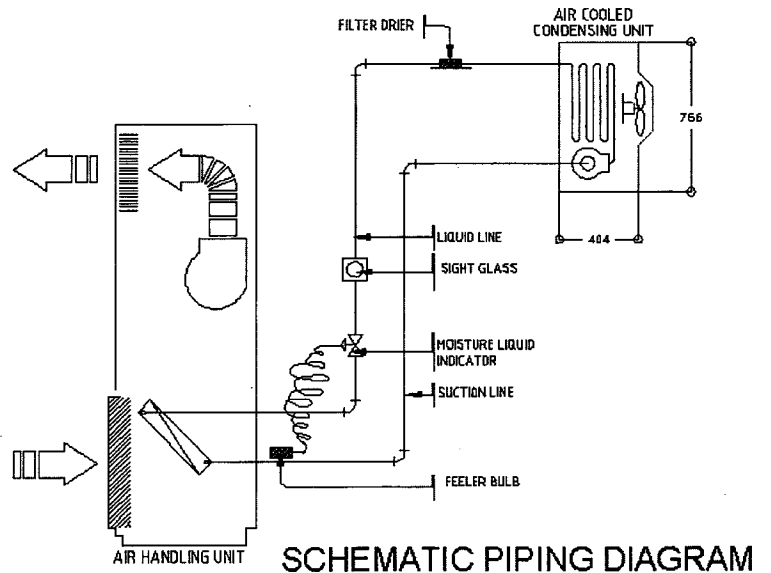
Technician's Signature over Printed Name: _____

NOTE:

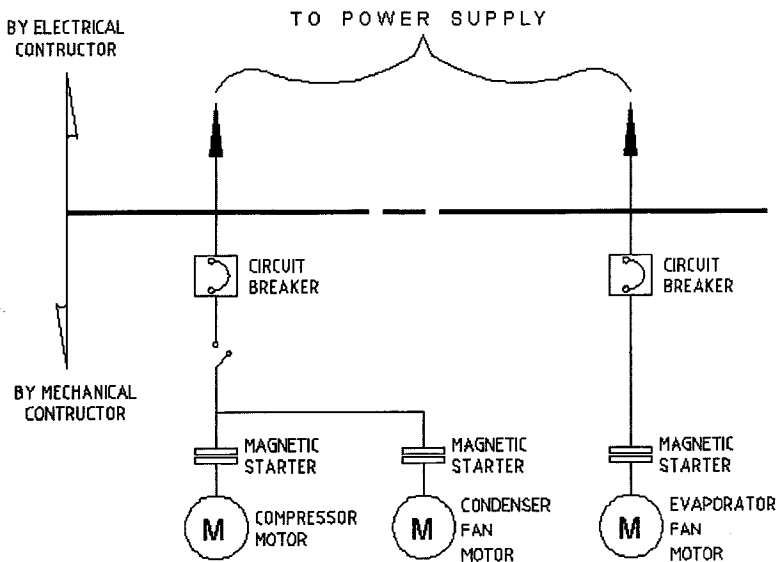
1. ADHESIVE AND LATEX PAINT SHOULD BE COMPATIBLE TO INSULATION USED.
2. CONDENSATE DRAIN PIPE INSULATION SHALL BE OF SIMILAR MATERIAL BUT 19 mm THK.



REFRIGERANT PIPE INSULATION DETAIL

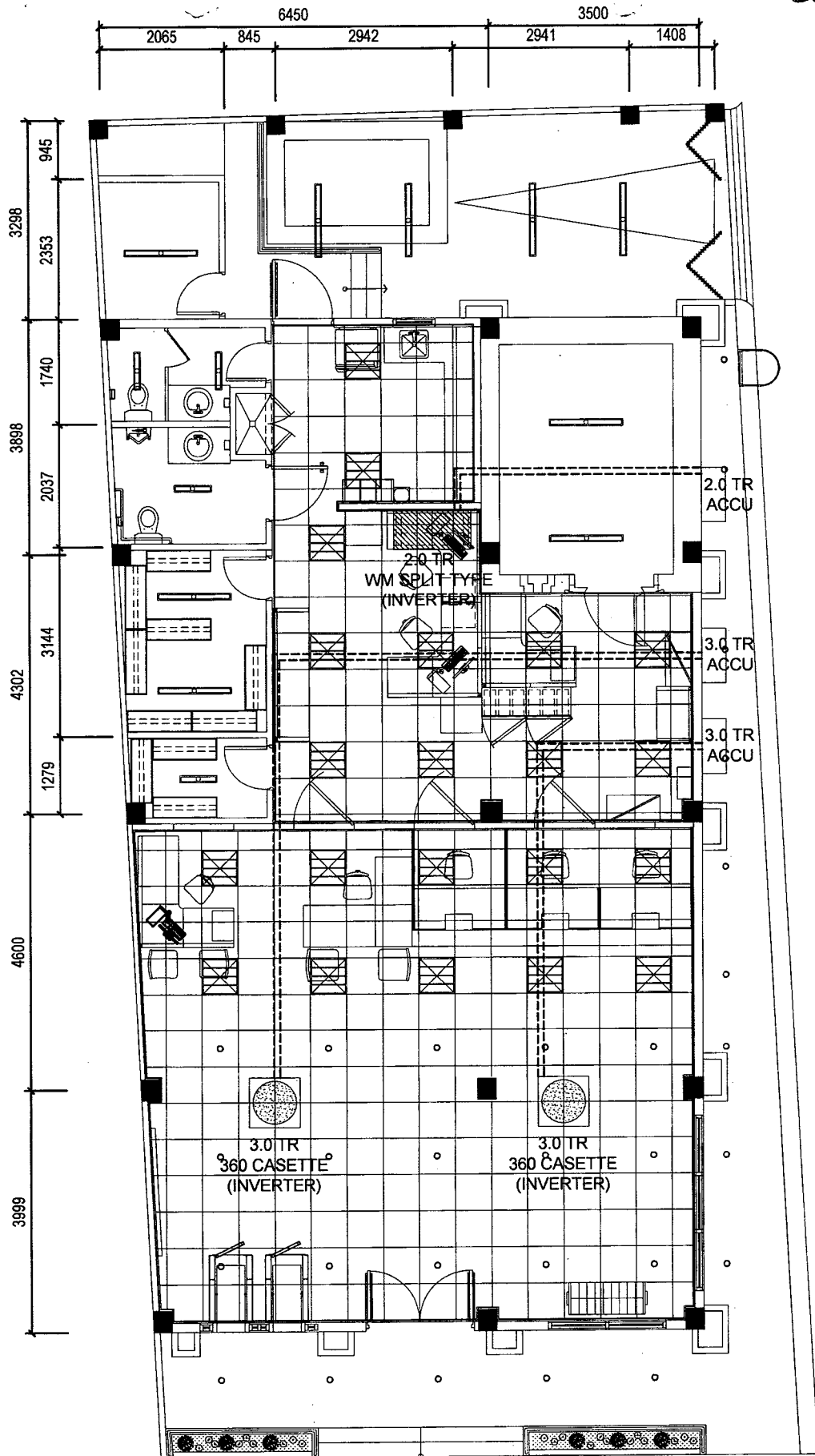


SCHEMATIC PIPING DIAGRAM



ACCU FCU

ELECTRICAL RISER DIAGRAM



1 ACCU LAYOUT
E-3 SCALE 1:100 METERS

LOPEZ E.O.

REVISED ANNNY C-9