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PRC Reg. No: 72 PTR No: 3178284

Date: JANUARY 04, 2012 Place: MAKATI CITY

APPROVED BY :			
DISCIPLINE	INITIAL	SIGNATURE	DATE
SFM	PLS		
DFM	RLW		
CIVIL/STRL			
ELECT'L			
MECH'L			

RevNo	Revision note	Date	Sign.

Project Title
**US EMBASSY
MAIN CHILLER
PLANT ADDITION**

Location
ROXAS BOULEVARD, PHILIPPINES

Release For Construction:
FMM FMS

SHEET CONTENT
**ELECTRONICS SERVICES
PROPOSED CHILLER PLANT MANAGER SYSTEM
SCHEMATIC DIAGRAM**

Phase
 CONCEPT 30% 60% 90% 100% FINAL

Date 29OCT12	CADD File Name -
Designed PGL	Drawn By MMN
Checked RCM	Drawing Number EC2-01
Project Number MP1044	Sheet Number 3 of 7

Contract No.
CONTRACT_NO

NOTES

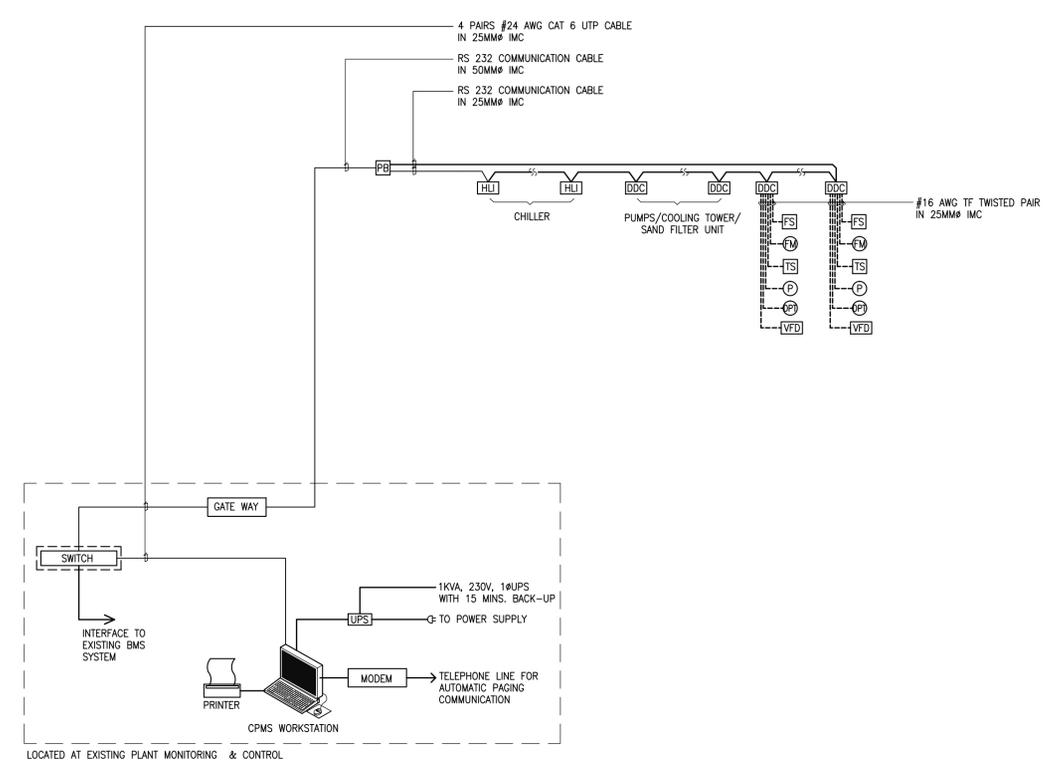
- THE PURPOSE OF THIS SCHEMATIC IS TO PROVIDE GENERAL CONCEPT AND PRINCIPLE OF THE CHILLER PLANT MANAGER SYSTEM.
- EQUIPMENT AND DEVICES REFLECTIVE ON PLANS ARE INDICATIVE ONLY. REFER TO FLOOR PLAN LAYOUT & CPMS POINT LIST FOR EXACT LOCATION AND QUANTITY. CONTRACTOR TO FURNISH THE WHOLE SYSTEM TO INCLUDE ALL CABLES, DEVICES, ACCESSORIES, INCLUDING CONVERTERS AND GATEWAYS IN CASE OF PROTOCOL DIFFERENCES TO SUITE COMPATIBILITY ISSUES AND SOFTWARE PROGRAMING AS MAY DEEM NECESSARY FOR A COMPLETE AND SUCCESSFUL OPERATION OF THE SYSTEM.
- ALL SYSTEM PROTOCOL SHALL BE CAPABLE OF BACNET AND OPEN PROTOCOL.
- PROVIDE 30min. CAPACITY BATTERY PACK PER DDC PANEL.
- UPS RATING SHALL BE CONFIRMED UPON ACTUAL REQUIREMENTS OF APPROVED BRAND/EQUIPMENT/DEVICES TO BE USED.
- CONTRACTOR TO PROVIDE REPEATERS TO DEVICES THAT ARE SUBJECT TO DEGRADATION OF SIGNAL DUE TO DISTANCE. CONTRACTOR TO VERIFY DEVICES TO BE PROVIDED WITH AMPLIFIERS BASED ON ACTUAL SITE CONDITION CONDITION.
- PROVIDE POWER SUPPLY FOR ALL DDC CONTROLLER.
- WIRES TO BE USED FOR THE POWER SUPPLIES ON THE RESPECTIVE MODULES SHALL BE #16 AWG THHN SOLID.
- USE #16 AWG TF WIRE FOR FIELDS DEVICES WIRING TO DCC.
- CPMS CONTRACTOR TO PROVIDE CONTACTORS, RELAYS, SENSOR ETC.
- CPMS CONTRACTOR SHALL BE INCLUDE ALL NECESSARY INTERFACING MODULE & PROGRAMMING FOR INTERCONNECTION TO EXISTING BUILDING MANAGEMENT SYSTEM.
- DDC CONTROLLER SHALL BE COMPATIBLE ANG SAME PROTOCOL WITH THE EXISTING BMS PANEL.
- REFER TO MECHANICAL & ELECTRICAL LAYOUT FOR EXACT LOCATION OF EQUIPMENTS.
- CPMS CONTRACTOR SHALL CONFIRM/ VERIFY EXISTING CHILLER PLANT MANAGER SYSTEM AND PROVIDE NECESSARY CHANGES/ REPLACE EXISTING CONTROLLERS FOR THE COMPLETION OF THE NEW SYSTEM AS PER DESIGN INTENT.
- REFER TO EC2-02 FOR CHILLER PLANT MANAGER SYSTEM CONTROL DIAGRAM.

LEGEND

- DIRECT DIGITAL CONTROLLER
- 250mm (W) x 150mm(D) x 250mm (H) PULL BOX
- COMMUNICATION VIA HIGH LEVEL BACNET / OPEN PROTOCOL INTERFACE.
- UNINTERRUPTIBLE POWER SUPPLY
- PRESSURE SENSOR
- FLOW SWITCH/ SENSOR
- DIFFERENTIAL PRESSURE TRANSMITTER
- FLOW METER
- TEMPERATURE SENSOR
- VARIABLE FREQUENCY DRIVE

ABBREVIATION

- UPS UNINTERRUPTIBLE POWER SUPPLY
- TF THERMOPLASTIC COVERED FIXTURE WIRE
- AWG AMERICAN WIRE GAUGE
- EE/ELV ELECTRICAL AND EXTRA LOW VOLTAGE
- CPMS CHILLER PLANT MANAGER SYSTEM
- BMS BUILDING MANAGEMENT SYSTEM



1 PROPOSED CHILLER PLANT MANAGER SYSTEM SCHEMATIC DIAGRAM
EC2-01 NTS

FOR TENDER