

1 ROOF DECK VOICE & DATA LAYOUT  
EC-3 SCALE: 1:100M



Republic of the Philippines  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
REGIONAL OFFICE No. VIII  
NORTHERN SAMAR FIRST  
DISTRICT ENGINEERING OFFICE  
Cataman, Northern Samar

PROJECT NAME & LOCATION:  
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,  
UNIVERSITY OF EASTERN PHILIPPINES, CATAMAN, NORTHERN SAMAR

SHEET CONTENTS:  
ROOF DECK VOICE & DATA LAYOUT

PREPARED BY:  
MARYJOY L. TORRES  
ENGINEER I  
DESIGNED BY:

REVIEWED BY:  
MAR DONALD N. EIMAN  
ASST. CHIEF, PLANNING & DESIGN SECTION

SUBMITTED BY:  
ANDY S. ERERO  
CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED BY:  
ALVIN A. IGNACIO  
ASST. DISTRICT ENGINEER

APPROVED BY:  
ALVIN A. IGNACIO  
DISTRICT ENGINEER

SET No. EC-3  
SHEET No. 68/84

LEGEND:

- PB PULL BOX SIZE AS REQUIRED (FOR VOICE AND DATA OUTLET)
- PABX ELECTRONIC PRIVATE AUTOMATIC BRANCH EXCHANGE
- FD FLOOR DISTRIBUTOR
- SERVER SERVER EQUIPMENT
- CONCEALED OR EMBEDDED CONDUIT RUN

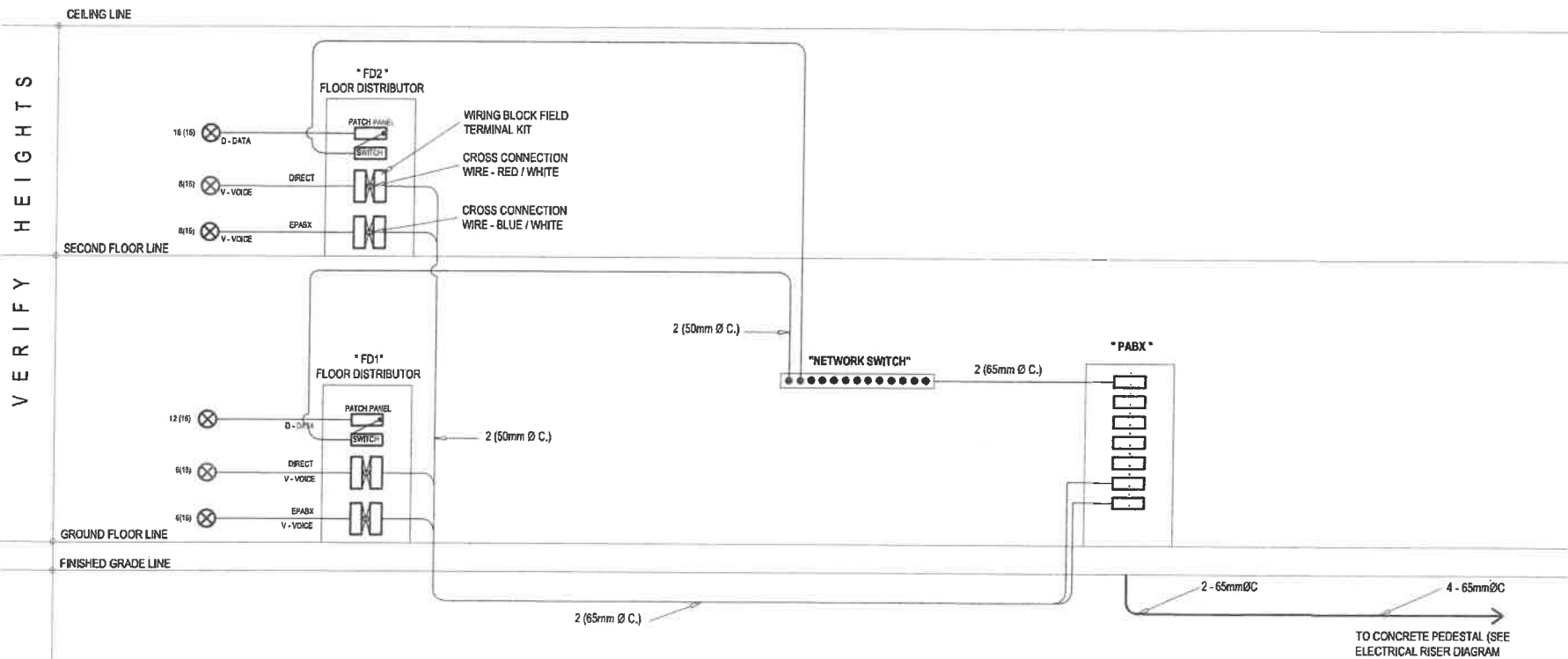
NOTE:

CONDUIT CAPACITY FOR CABLE

TYPE OF CABLE	NUMBER OF CABLE IN CONDUIT		
	20mmØC.	25mmØC.	32mmØC.
CAT 5e, 4PAIR, TWISTED CABLE	1 - 3	4 - 6	7 - 8

GENERAL NOTES: ( TELECOMMUNICATION SYSTEM )

- THE TELECOMMUNICATION INSTALLATIONS SHALL BE DONE IN ACCORDANCE WITH RULES AND PROVISION OF THE LATEST EDITION OF THE PHILIPPINE ELECTRONICS CODE, CONSTRUCTION STANDARDS OF NATIONAL AND LOCAL AUTHORITIES CONCERNED AND WITH THE REQUIREMENTS OF LOCAL TELECOMMUNICATION COMPANY.
- ALL TELECOMMUNICATION WORKS SHALL BE DONE UNDER THE DIRECT AND IMMEDIATE SUPERVISION OF A DULY REGISTERED PROFESSIONAL ELECTRONIC COMMUNICATION ENGINEER.
- THE DESIGN LAYOUT ON THIS PLAN ARE PROVISION FOR CONDUIT WORKS OF VOICE AND DATA OUTLETS, CLOSED CIRCUIT TELEVISION AND PUBLIC ADDRESS SYSTEMS ONLY. FOR THE COMPLETE ELECTRONICS PLAN, THE END-USER SHALL HIRE A REGISTERED PROFESSIONAL ELECTRONICS ENGINEER (PECE) WHO SHALL PREPARE THE COMPLETE AND FINAL ELECTRONICS PLAN /LAYOUT AND OTHER REQUIRED DETAILS /DRAWINGS. SAID PECE SHALL SIGN AND SEAL THE PLAN TO COMPLY WITH R.A. 9292.



1 NETWORK CABLING CONDUIT RISER DIAGRAM  
EC-4 NOT TO SCALE



Republic of the Philippines  
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CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,  
UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR  
UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR

SHEET CONTENTS:  
LEGEND  
GENERAL NOTES  
NETWORK CABLING CONDUIT RISER  
DIAGRAM

PREPARED:  
MART JOY L. CORNELL  
ENGINEER I  
DESIGNED:

REVIEWED:  
MAR DONALD N. EIMAN  
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SUBMITTED:  
ANDY S. ERENO  
CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED:  
VIVIAN C. BIACO  
ASST. DISTRICT ENGINEER

APPROVED:  
ALVIN A. IGNACIO  
DISTRICT ENGINEER

SET No. EC-4  
SHEET No. 69 / 84

## LEGEND:

<input type="checkbox"/> PB	PULL BOX SIZE AS REQUIRED (FOR VOICE AND DATA OUTLET)
PABX	ELECTRONIC PRIVATE AUTOMATIC BRANCH EXCHANGE
<input type="checkbox"/> FD	FLOOR DISTRIBUTOR
<input type="checkbox"/> SERVER	SERVER EQUIPMENT
—	CONCEALED OR EMBEDDED CONDUIT RUN

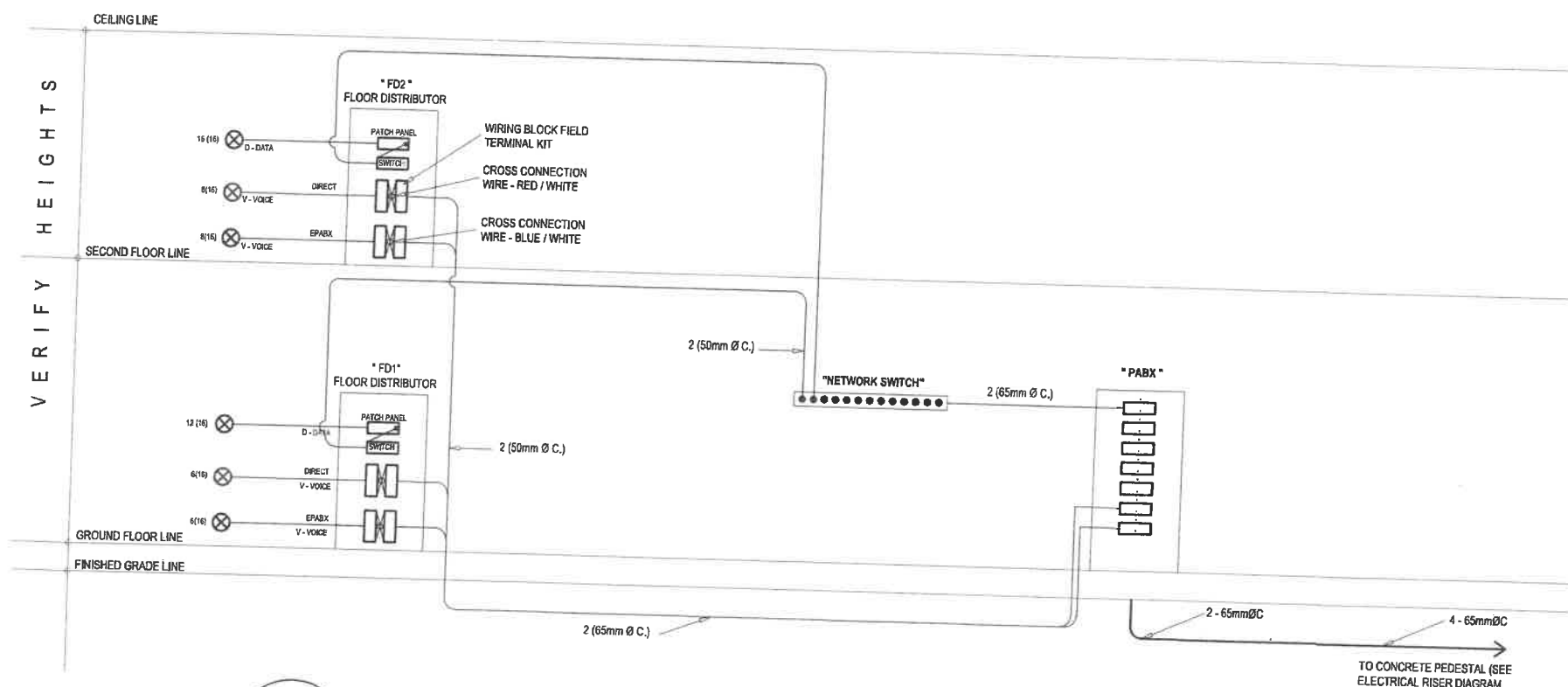
## NOTE:

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1  
EC-4

## NETWORK CABLING CONDUIT RISER DIAGRAM

NOT

TO

SCALE



Republic of the Philippines  
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Catamaran, Northern Samar

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SHEET CONTENTS:  
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DIAGRAM

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MARY JOY L. CORREA  
ENGINEER I  
DESIGNED:

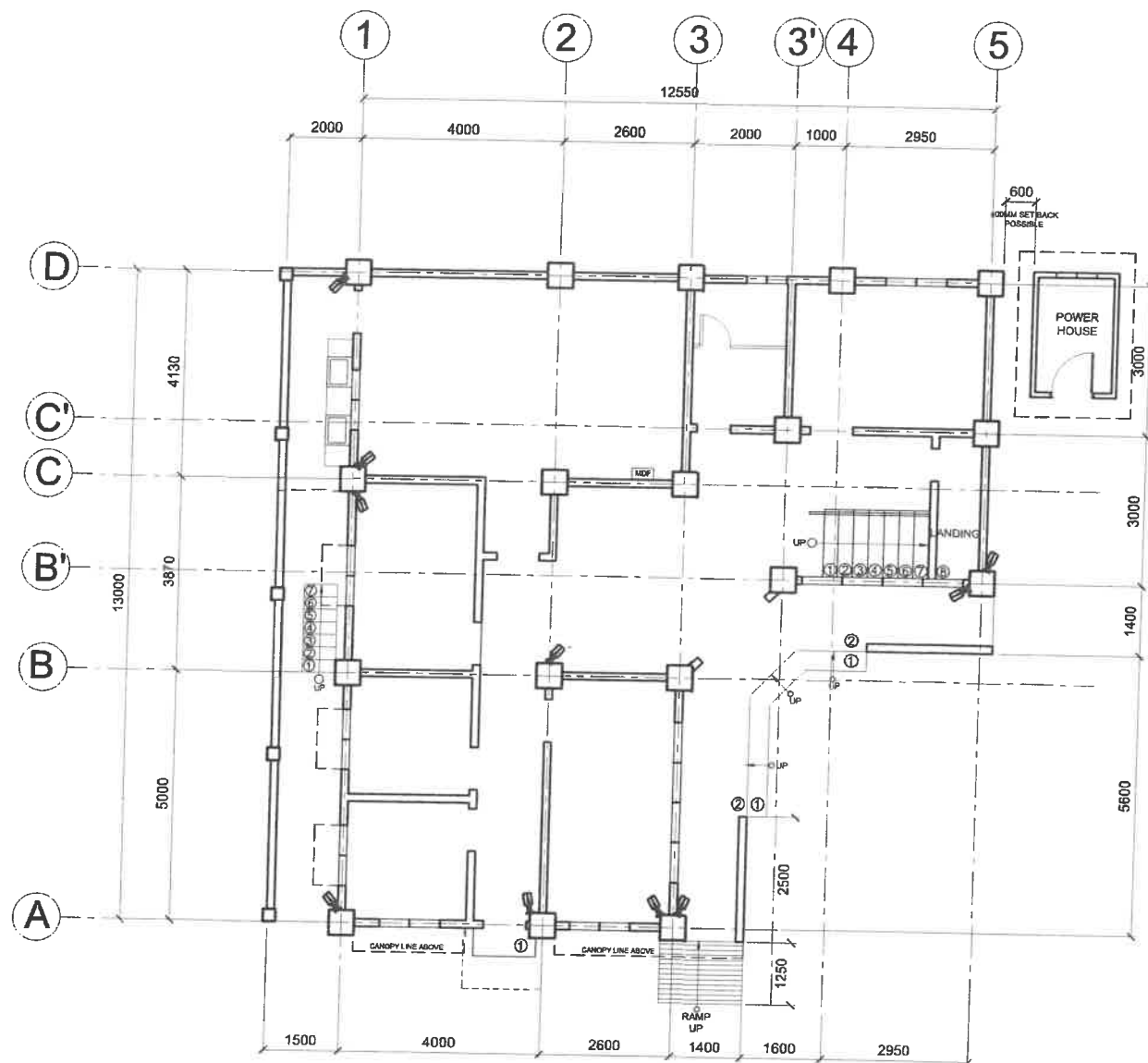
REVIEWED:  
MAR DONALD N. EIMAN  
ASST. CHIEF, PLANNING & DESIGN SECTION

SUBMITTED:  
ANDY S. EREÑO  
CHIEF, PLANNING & DESIGN SECTION

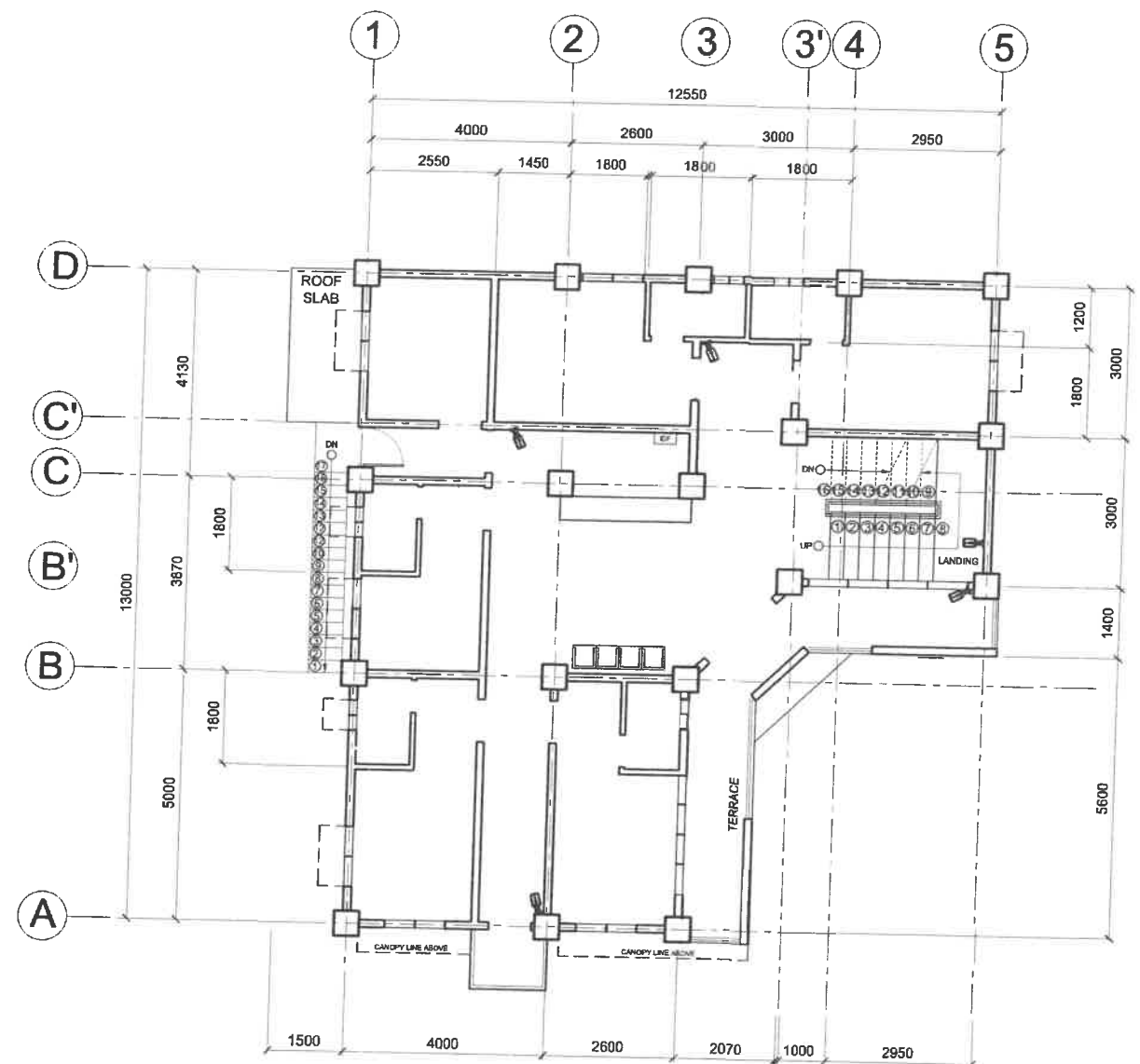
RECOMMENDED:  
VIVIAN C. BIACO  
ASST. DISTRICT ENGINEER

APPROVED:  
ALVIN A. IGNACIO  
DISTRICT ENGINEER

SET No. SHEET No.  
EC-4 69  
84

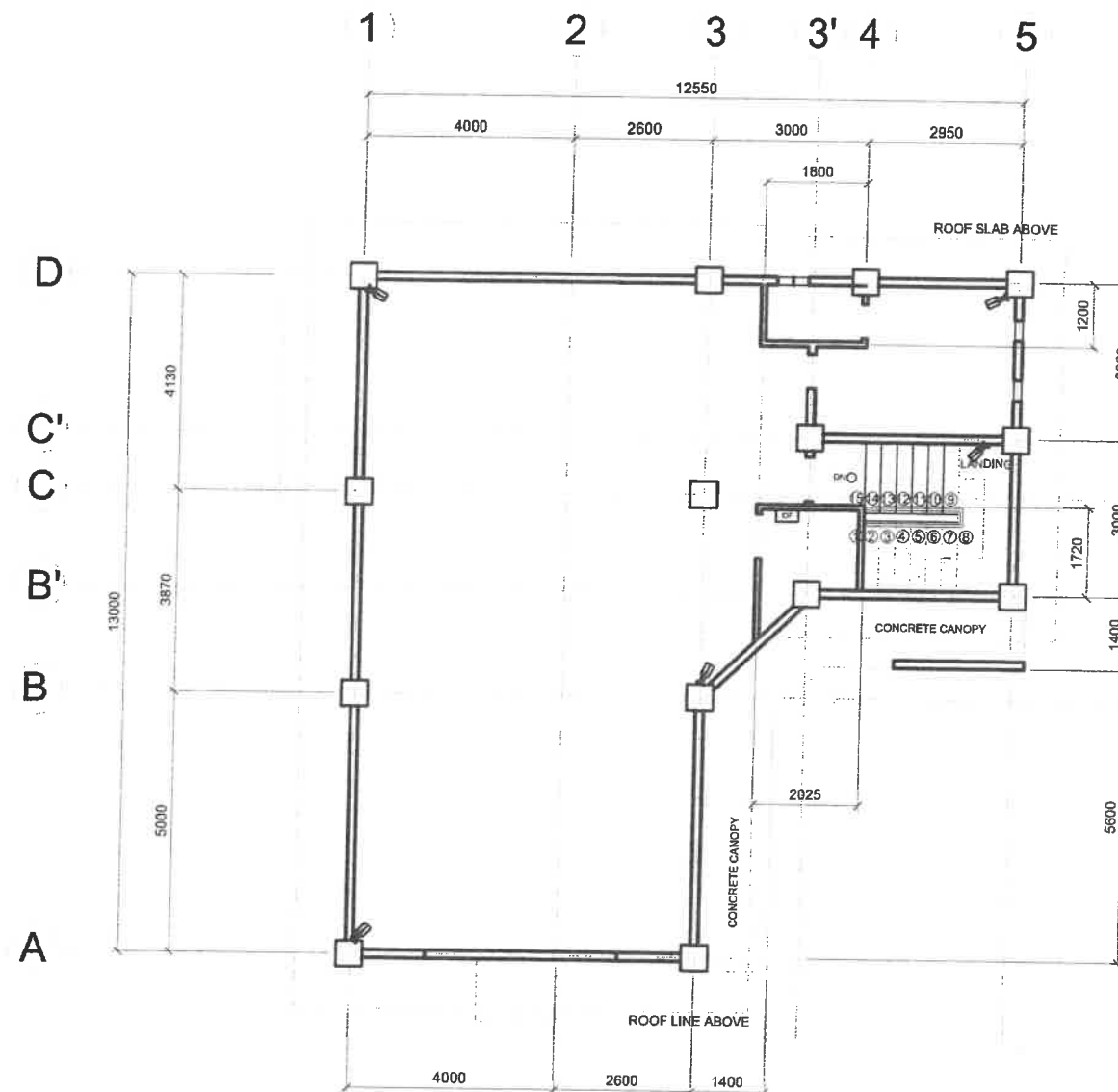


1 GROUND FLOOR CCTV LAYOUT  
EC-5 SCALE: 1:100M



2 SECOND FLOOR CCTV LAYOUT  
EC-5 SCALE: 1:100M

<p>Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE No. VIII NORTHERN SAMAR FIRST DISTRICT ENGINEERING OFFICE Cataraman, Northern Samar</p>	PROJECT NAME & LOCATION:	SHEET CONTENTS:	PREPARED:	REVIEWED:	SUBMITTED:	RECOMMENDED:	APPROVED:	SET No.	SHEET No.
	CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATARAMAN, NORTHERN SAMAR UNIVERSITY OF EASTERN PHILIPPINES, CATARAMAN N. SAMAR	GROUND FLOOR CCTV LAYOUT SECOND FLOOR CCTV LAYOUT	MARY JOY E. CORNELL ENGINEER	MAR DONALD N. EIMAN ASST. CHIEF, PLANNING & DESIGN SECTION	ANDY S. ERENO CHIEF, PLANNING & DESIGN SECTION	VIVIAN BIACO ASST. DISTRICT ENGINEER	ALVIN A. IGNACIO DISTRICT ENGINEER	EC-5	70 84



1 ROOF DECK CCTV LAYOUT  
EC-6 SCALE: 1:100M



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Cataraman, Northern Samar

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CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,  
UNIVERSITY OF EASTERN PHILIPPINES, CATARAMAN, NORTHERN SAMAR  
UNIVERSITY OF EASTERN PHILIPPINES, CATARAMAN N. SAMAR

SHEET CONTENTS:  
ROOF DECK CCTV LAYOUT

PREPARED:  
MARY JOY L. BERNICO  
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DESIGNED:

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APPROVED:  
ALVIN A. IGNACIO  
DISTRICT ENGINEER

SET No. SHEET No.  
EC-6 71  
84

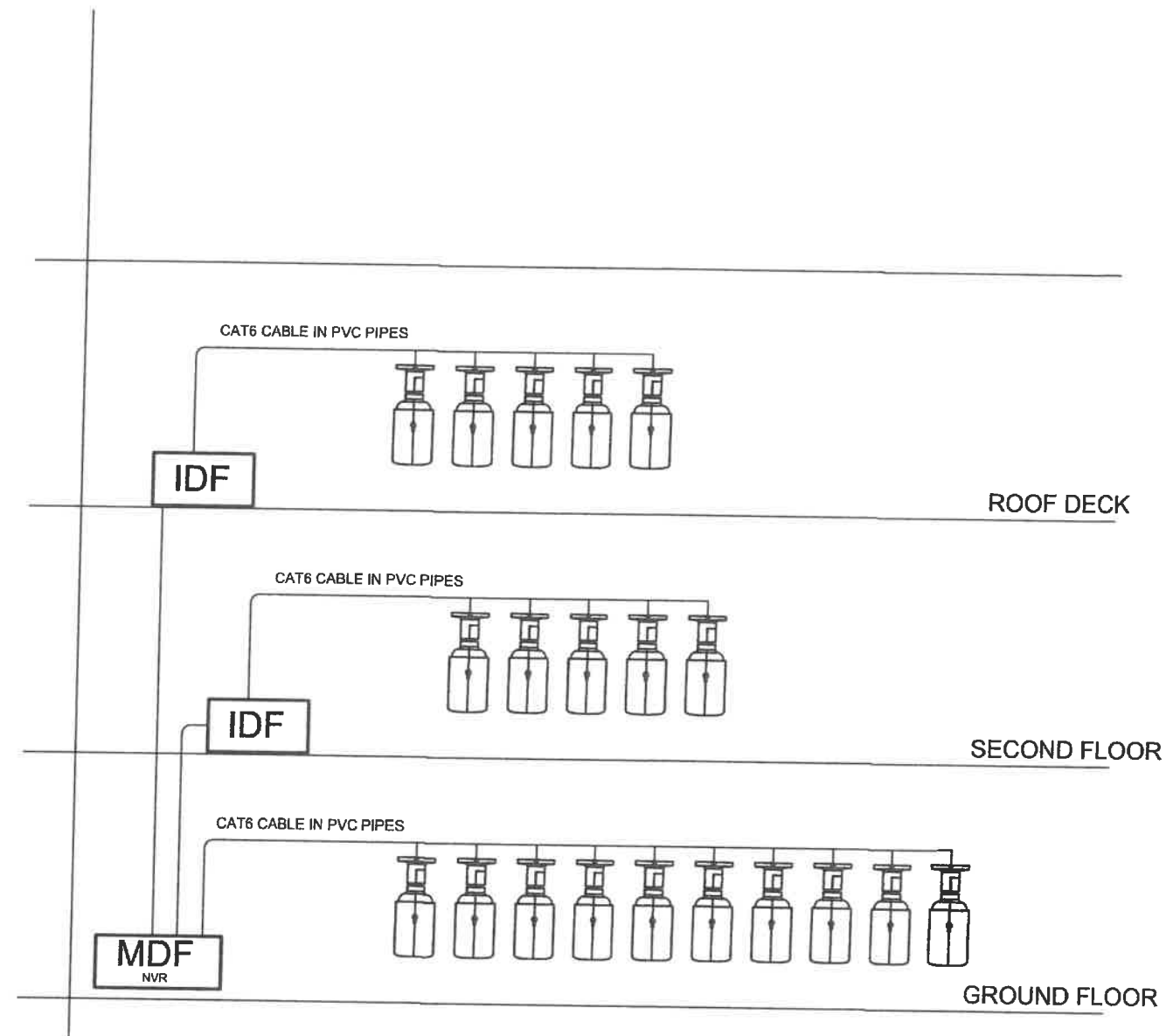
## LEGEND & SYMBOLS

### IP CLOSED CIRCUIT TELEVISION (CCTV) SYSTEM

NVR	NETWORK VIDEO RECORDER
	BULLET TYPE CCTV CAMERA
MDF	MAIN DISTRIBUTION FRAME
IDF	INTERMEDIATE DISTRIBUTION FRAME

### 1 LEGEND

EC-7 SCALE: NTS



### 2 CCTV RISER DIAGRAM

EC-7 SCALE: NTS



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UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR

SHEET CONTENTS:  
LEGEND & SYMBOLS  
CCTV RISER DIAGRAM

PREPARED:  
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APPROVED:  
ALVIN A. IGNACIO  
DISTRICT ENGINEER

SET No. SHEET No.  
EC-7 72  
84






# GENERAL NOTES

1. CONTRACTOR IS ADVISED TO VISIT AND SURVEY THE PLACE OF INSTALLATION.
2. ALL AIR CONDITIONING UNITS AND VENTILATING UNITS TO BE SUPPLIED SHALL BE NEW AND APPROVED PRODUCTS OF REPUTABLE MANUFACTURERS.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE CLOSELY HIS WORK WITH THE OTHER TRADES CONCERNED.
4. REFRIGERANT SUCTION LINES SHALL BE INSULATED WITH 25 mm THICK PREMOULDED ELASTOMERIC RUBBER INSULATION AS MANUFACTURED BY "ARMAFLEX",AEROFLEX OR APPROVED EQUAL.
5. INDIVIDUAL WEATHER PROOF TYPE CIRCUIT BREAKER SHALL BE PROVIDED PROVIDED FOR ALL CONDENSING UNITS.
6. ALL EXPOSED DRAIN LINES TO THE CEILING SHALL BE PROVIDED WITH INSULATION TYPICAL TO REFRIGERANT PIPING. (REFER TO PIPE INSULATION DETAIL.)
7. ALL EXPOSED DRAIN LINES TO THE CEILING SHALL BE PROVIDED WITH INSULATION TYPICAL TO REFRIGERANT PIPING.(REFER TO PIPE INSULATION DETAIL.)
8. ALL NECESSARY GOVERNMENT PERMITS SHALL BE SECURED AND FOR ACCOUNT OF THE CONTRACTOR.
9. AS-BUILT PLANS SHALL BE PROVIDED BY THIS CONTRACTOR AFTER COMPLETION OF WORKS.
10. ALL INSTALLATION WORKS SHALL BE DONE IN A NEAT AND WORK-MANLIKE MANNER.
11. ALL REFRIGERANT SUCTION LINES EXPOSED INDOORS AND/OR EXPOSED TO WEATHER SHOULD BE PROVIDED WITH GAUGE #24 ALUMINUM CLADDING. (SUBMIT SHOP DRAWING PRIOR TO INSTALLATION)
12. ALL ACCU's AND FCU's SHALL BE PROVIDED WITH ANGULAR BAR SUPPORTS. (SUBMIT SHOP DRAWING PRIOR TO INSTALLATION)



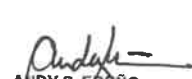

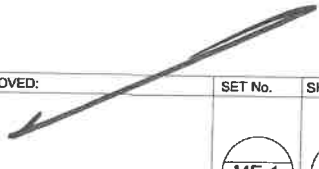
## SCHEDULE OF EQUIPMENT

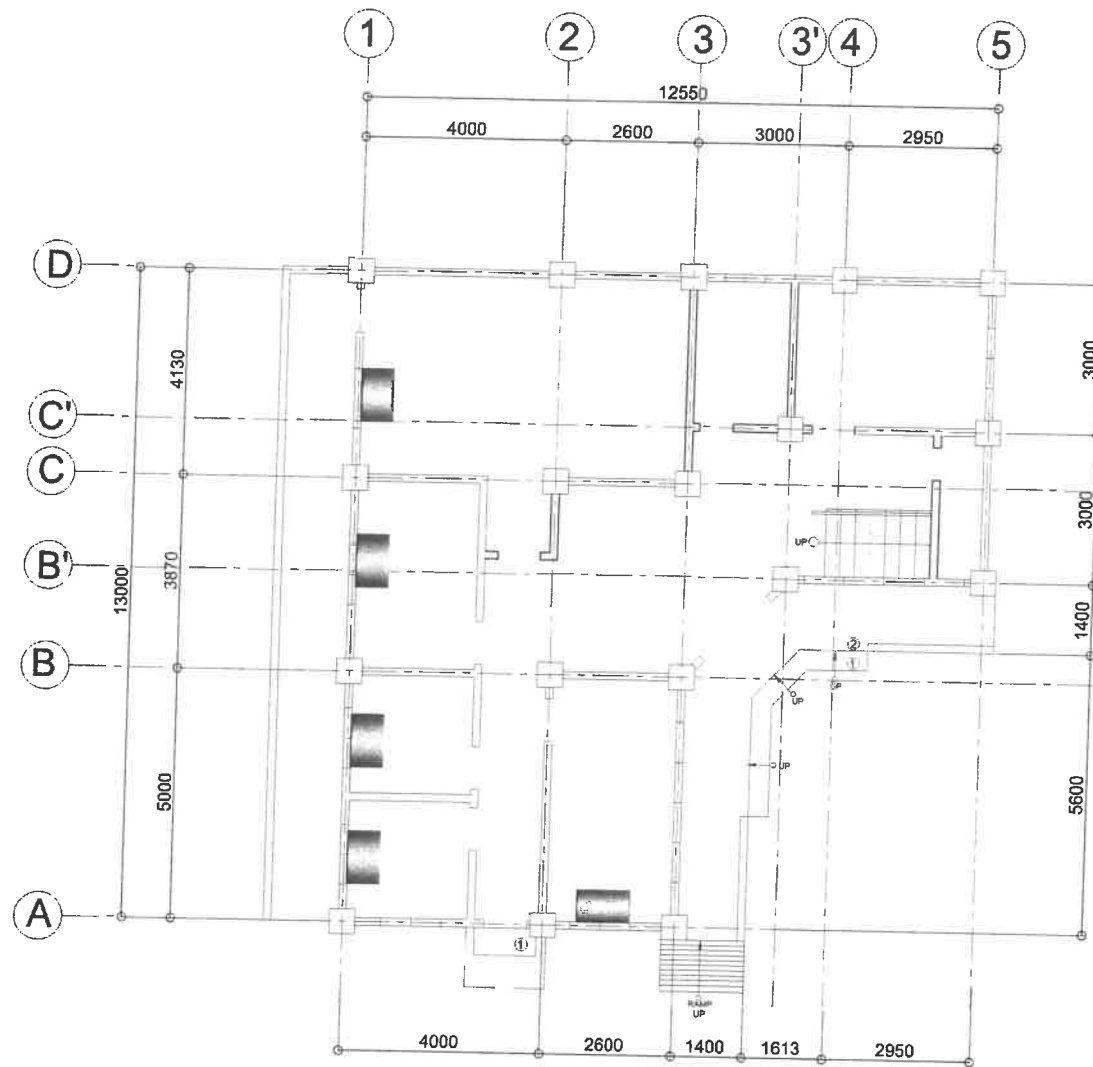
DESIGNATION	NO. OF UNIT	TYPE	COOLING CAPACITY	POWER INPUT	POWER CONSUMPTION	EER
AIRCONDITION UNIT	11	WALL MOUNTED	1HP	1840W	8.67/HR	13.72KJ/HW (3.81W/W)

### LEGENDS:

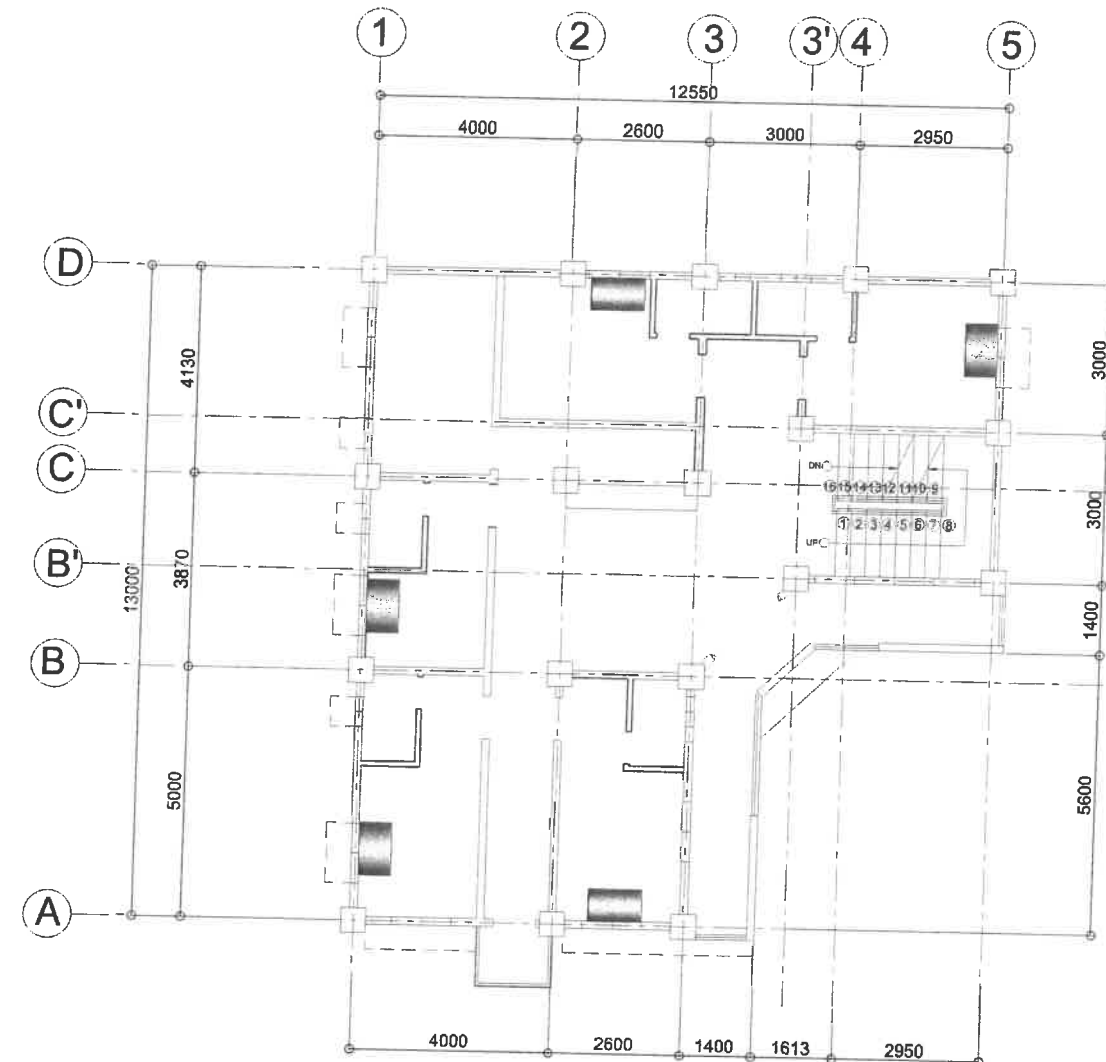
-  FAN COIL UNITS
-  EXHAUST FANS
-  AIR COOLED CONDENSING UNITS
-  CEILING FANS
-  AUTOMATIC SHUTTER LOUVERS

LEGEND :  
NOT INCLUDED IN PHASE II  
(ARCHITECTURAL SPACES, INTERIOR & EXTERIOR FINISHES)

 Republic of the Philippines <b>DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS</b> REGIONAL OFFICE No. VIII <b>NORTHERN SAMAR FIRST DISTRICT ENGINEERING OFFICE</b> Catamaran, Northern Samar	PROJECT NAME & LOCATION: CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR	SHEET CONTENTS: GENERAL NOTES SCHEDULE OF EQUIPMENT LEGEND	PREPARED: BURT LUCINARIO ARCHITECT II	REVIEWED:  MAR DONALD N. EIMAN ASST. CHIEF, PLANNING & DESIGN SECTION Date:	SUBMITTED:  ANDY S. ERENO CHIEF, PLANNING & DESIGN SECTION Date:	RECOMMENDED:  YVIAN M. BIACO ASST. DISTRICT ENGINEER Date:	APPROVED:  ALVIN A. IGNACIO DISTRICT ENGINEER Date:	SET No. ME-1	SHEET No. 73 84



1  
ME-2  
GROUND FLOOR  
AIRCONDITIONING UNIT LAYOUT  
SCALE: 1:100M



2  
ME-2  
SECOND FLOOR  
AIRCONDITIONING UNIT LAYOUT  
SCALE: 1:100M

LEGEND :  
NOT INCLUDED IN PHASE II  
(ARCHITECTURAL SPACES, INTERIOR &  
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UNIVERSITY OF EASTERN PHILIPPINES, CATAMAN, NORTHERN SAMAR  
UNIVERSITY OF EASTERN PHILIPPINES, CATAMAN N. SAMAR

SHEET CONTENTS:  
GROUND FLOOR AC LAYOUT  
SECOND FLOOR AC LAYOUT

PREPARED:  
BURTON T. LUCINARIO  
DESIGNED:  
ENGINEER II

REVIEWED:  
MAY DIONALD N. EIMAN  
ASST. CHIEF, PLANNING & DESIGN SECTION  
Date:

SUBMITTED:  
ANDY S. ERENO  
CHIEF, PLANNING & DESIGN SECTION  
Date:

RECOMMENDED:  
VIVIAN U. BIACO  
DISTRICT ENGINEER  
Date:

APPROVED:  
ALVIN A. IGNACIO  
DISTRICT ENGINEER  
Date:

SET No. SHEET No.  
ME-2 74  
134



## GENERAL NOTES:

1. ALL MECHANICAL WORKS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE PHILIPPINE NATIONAL BUILDING CODE AND PHILIPPINE PLUMBING CODE.
2. THE TOTAL SCOPE OF WORKS SHALL INCLUDE ALL WORKS DESCRIBED IN PLANS LISTED IN THE TECHNICAL SPECIFICATIONS FOR MECHANICAL WORKS.
3. COORDINATE ALL THE DRAWINGS WITH OTHER RELATED DRAWINGS AND SPECIFICATIONS. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY FOUND HEREIN.
4. ALL MECHANICAL EQUIPMENT, VALVES AND APPURTENANCES SHALL BE ISO CERTIFIED AND APPLICABLE FOR INDUSTRIAL APPLICATIONS UNDER CLASS D ENVIRONMENT.
5. THIS CONTRACTOR SHALL SUBMIT THREE (3) COPIES OF ALL TECHNICAL SPECIFICATIONS AS REQUIRED.
6. ALL SUBMERSIBLE PUMPS SHALL BE DIRECT DRIVEN BY A CLOSE COUPLED ELECTRIC MOTOR. MAXIMUM OPERATING SPEED SHALL BE 1800 RPM.
7. ALL SUBMERSIBLE PUMPS SHALL BE PROVIDED WITH HEAVY DUTY BALL TYPE BEARINGS.
8. AIR BLOWERS SHALL BE DESIGNED TO SUIT THE DUTY SPECIFIED IN CAPACITY IN SEWAGE TREATMENT PLANT. MAXIMUM BLOWER OPERATION SPEED SHALL BE 1650 RPM.
9. ALL PIPE WORK ASSOCIATED WITH PUMPING UNIT AND ASSOCIATED FITTINGS SHALL BE FLANGED TO PN 16 OR GREATER IN ACCORDANCE WITH ISO 7005-2.
10. ALL PIPING WORK SHALL BE PROVIDED WITH PIPE SUPPORTS.
11. PIPE SLEEVES SHALL BE PROVIDED FOR FLOOR AND WALL PARTITION. IT SHALL BE PROVIDED WITH FLANGES AT BOTH ENDS FOR EASE OF MAINTENANCE.
12. FLANGE GASKET SHALL BE NATURAL RUBBER OR EQUIVALENT.
13. ALL PIPING SHALL BE PROVIDED WITH FLANGES OR UNIONS TO ALLOW FOR THE DISCONNECTION OF THE MAJOR ITEMS OF PLANT WITHOUT DISTURBING THE MAIN PIPING.
14. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING AND COMMISSIONING OF THE WHOLE SEWAGE TREATMENT PLANT FACILITIES.
15. ALL VALVES SHALL BE DESIGNED FOR A PRESSURE RATING OF 16 BARS AND TEST PRESSURE OF 1.5 TIMES THE PRESSURE RATING.
16. ALL BOLT & NUTS FOR FIXING FOR SUBMERGE PORTION AND BLACK IRON WITH EPOXY PAINT FOR EXPOSE AREA.
17. ALL PLAN AND PIPE DIMENSION ARE IN MILLIMETER, UNLESS OTHERWISE NOTED.
18. CONCRETE MANHOLE SECTIONS SHALL BE IN ACCORDANCE WITH ASTM C-478.
19. PRIOR TO BACKFILL THE ENGINEERING STAFF SHALL INSPECT ALL SANITARY SEWER MAINS.
20. ALL MAINTENANCE FITTINGS SUCH AS GATE VALVES, BALL

VALVES, UNIONS, CLEANOUTS, SHALL BE EXPOSED AND ACCESSIBLE.

21. NO PIPE SHALL BE EMBEDDED IN STRUCTURAL MEMBERS UNLESS OTHERWISE SPECIFIED OR ALLOWED.
22. INSTALLATION OF WATERLINE SYSTEM, PUMPS AND OTHER EQUIPMENTS SHALL ONLY BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS.
23. ALL STEEL PIPE LINE SHALL BE ACCORDANCE WITH AWS 10.12
24. ALL JOINTING MATERIAL/WELDING RODS SHALL BE ACCORDANCE WITH AWS A5.1
- 25.

### MATERIALS :

1. ALL MATERIALS SHALL BE NEW UNLESS OTHERWISE SHOWN OR SPECIFIED.

2. PROVIDE HANGERS & SUPPORTS APPROVED FOR USE BY PHILIPPINE PLUMBING CODE.

3. PIPING MATERIALS AND FITTINGS SHALL BE AS FOLLOWS :

#### A.)AIR LINE

SHALL BE BLACK IRON PIPE AND FITTINGS SCHEDULE 40 OR HIGHER.

#### B.)WATER LINES

SHALL BE POLYVINYL CHLORIDE (uPVC) PIPES SERIES 40 OR HIGHER.

#### C.)FITTING

SHALL BE SOLVENT CEMENT JOINT TO ASTM D2564

#### D.)STORM DRAINAGE LINE / DOWNSPOUT

SHALL BE POLYVINYL CHLORIDE (PVC) PIPES SERIES 1000. FITTINGS SHALL BE SOLVENT CEMENT JOINT TO ASTM D2564.

#### E.)BUTTERFLY VALVES

SHALL BE "EMBRO", OR APPROVED EQUAL.

#### F.)CHECK VALVES

SHALL BE "KITS", OR APPROVED EQUAL.

#### G.)GATE VALVES

SHALL BE "KITS", OR APPROVED EQUAL.

#### H.)ELECTRO MAGNETIC FLOWMETER

"SUPMEA" BRAND OR APPROVED EQUAL.

### CODES AND STANDARDS:

- A. PHILIPPINE BUILDING CODE
- B. PHILIPPINE PLUMBING CODE
- C. DENR ADMINISTRATIVE ORDER
- D. AMERICAN SOCIETY OF MECHANICAL ENGINEERS
- E. AMERICAN SOCIETY OF TESTING AND MANUFACTURE
- F. AMERICAN NATIONAL STANDARDS INSTITUTE
- G. AMERICAN WELDERS SOCIETY

### EQUIPMENT LIST :

ITEM NO.	DESCRIPTION	PHASE	VOLTAGE	HZ
1.0	AERATION BLOWER 1	3φ	230v	60
2.0	AERATION BLOWER 2	3φ	230v	60
3.0	AERATION BLOWER 3	3φ	230v	60
4.0	ANOXIC PUMP 1	3φ	230v	60
5.0	EOT PUMP 1	3φ	230v	60
6.0	EOT PUMP 2	3φ	230v	60
7.0	DECANTER PUMP 1	3φ	230v	60
8.0	DECANTER PUMP 2	3φ	230v	60
9.0	SLUDGE PUMP	3φ	230v	60
10.0	RETURN SLUDGE PUMP 1	3φ	230v	60
11.0	BOOSTER PUMP 1	3φ	230v	60
12.0	BOOSTER PUMP 2	3φ	230v	60
13.0	CHEMICAL FEED PUMP 1	1φ	230v	60
14.0	CHEMICAL FEED PUMP 2	1φ	230v	60
15.0	CHEMICAL FEED PUMP 3	1φ	230v	60
16.0	CHEMICAL FEED PUMP 4	1φ	230v	60




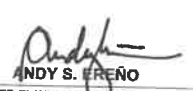


### DAO 2016-08 & 2021-19 :

CLASS	BOD	COD	PH	AMMONIA	NITRATE	PHOSPHATE
A	20mg/L	60mg/L	8-9	0.5mg/L	14mg/L	1mg/L
B	30mg/L	60mg/L	8-9	0.5mg/L	14mg/L	1mg/L
C	50mg/L	100mg/L	6.5-9.5	4mg/L	14mg/L	4mg/L
D	120mg/L	200mg/L	5.5-9.5	7.5mg/L	30mg/L	10mg/L

CLASS	SURFACTANTS	TSS	OIL & GREASE	FECAL COLIFORM	TOTAL COLIFORM
A	2mg/L	70mg/L	5mg/L	4mg/L	3000mg/L
B	3mg/L	85mg/L	5mg/L	200mg/L	3000mg/L
C	15mg/L	100mg/L	5mg/L	400mg/L	10,000mg/L
D	30mg/L	150mg/L	15mg/L	800mg/L	15,000mg/L

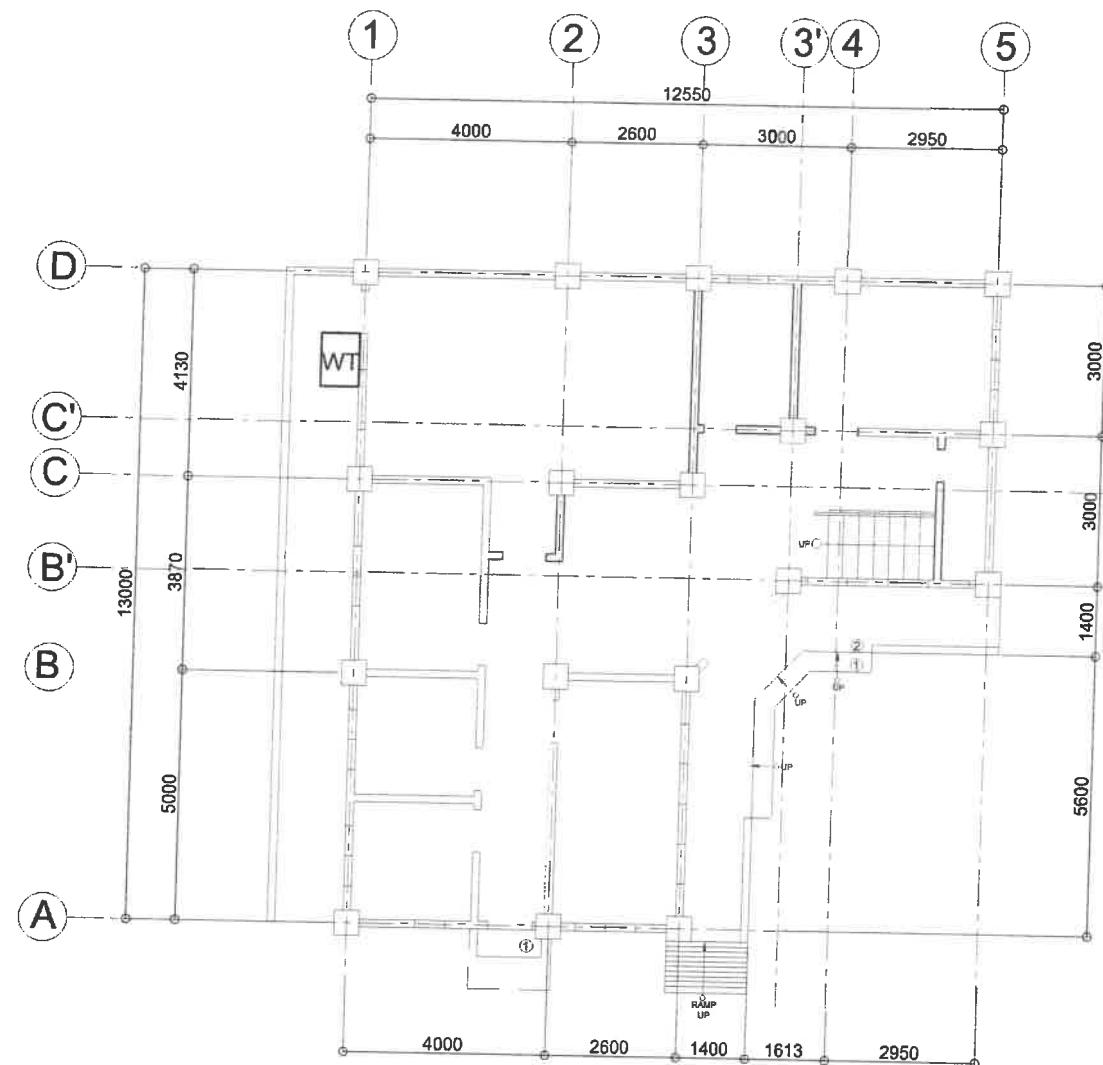
### LEGEND :

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## SCHEDULE OF EQUIPMENT

DESIGNATION	NO. OF UNIT	TYPE	VOLTAGE	WATTAGE	MAX HEAD	MAX FLOW	FREQUENCY
WATER PUMP	1	FLOOR MOUNTED	220V	2760W	128M	2M / H	60 Hz



1 WATER PUMP LAYOUT  
ME-4 SCALE: 1:100M

LEGEND :  
NOT INCLUDED IN PHASE II  
(ARCHITECTURAL SPACES, INTERIOR &  
EXTERIOR FINISHES)



Republic of the Philippines  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
REGIONAL OFFICE No. VIII  
NORTHERN SAMAR FIRST  
DISTRICT ENGINEERING OFFICE  
Cataman, Northern Samar

PROJECT NAME & LOCATION:  
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,  
UNIVERSITY OF EASTERN PHILIPPINES, CATAMAN, NORTHERN SAMAR

SHEET CONTENTS:  
WATER PUMP LAYOUT  
SCHEDULE OF EQUIPMENT

PREPARED:  
BURT B. MACINARIO  
DESIGNED:  
ENGINEER II

REVIEWED:  
MARDONALD N. EIMAN  
ASST. CHIEF, PLANNING & DESIGN SECTION

SUBMITTED:  
ANDY S. ERENO  
CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED:  
VIVIAN S. IGNACIO  
ASST. DISTRICT ENGINEER

APPROVED:  
ALVIN A. IGNACIO  
DISTRICT ENGINEER

SET No. SHEET No.  
ME-4 76  
84

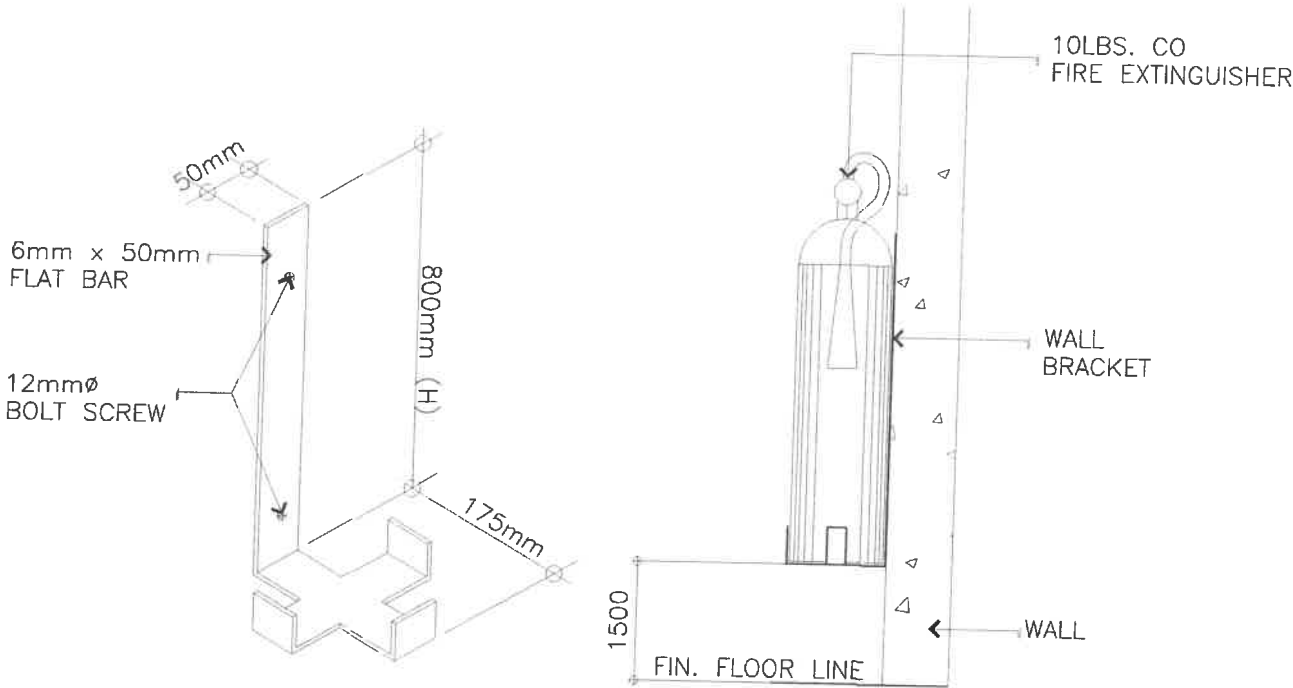
GENERAL NOTES:

1. Types of Fire Extinguishers: The fire code identifies different types of fire extinguishers suitable for various classes of fires, including Class A (ordinary combustibles like wood, paper), Class B (flammable liquids), Class C (flammable gases), Class D (flammable metals), and Class K (cooking oils and fats).
2. Adequate Quantity: Fire extinguishers must be provided in sufficient numbers and appropriate types based on the hazard level and occupancy classification of the premises. The fire code specifies the minimum number and capacity of fire extinguishers required.
3. Location and Accessibility: Fire extinguishers should be easily accessible, visible, and located in conspicuous positions within the premises. They should be mounted on brackets or stands and placed along exit routes, near staircases, corridors, and fire exits. The fire code provides specific guidelines on the maximum distance to travel to reach a fire extinguisher.
4. Proper Maintenance: Fire extinguishers must be maintained in good working condition at all times. Regular inspections, maintenance, and testing should be conducted as per the manufacturer's recommendations and the fire code. This includes checking the pressure gauge, seals, and other components, ensuring they are not damaged or tampered with.
5. Training and Awareness: It is essential to provide training to occupants on the proper use of fire extinguishers and their limitations. Building administrators and occupants should be aware of the type and location of extinguishers within the premises.
6. Proper Use: Fire extinguishers should be used only when it is safe to do so, and individuals attempting to extinguish fires must be trained on how to use the specific type of extinguisher. It is important to remember the acronym "PASS" - Pull the pin, Aim at the base of the fire, Squeeze the handle, and Sweep from side to side.
7. Recharging and Disposal: If a fire extinguisher has been discharged, it must be recharged or replaced promptly to maintain its readiness. Disposal of damaged or expired extinguishers should be done in accordance with local regulations and environmental guidelines.

LEGEND:


⊗ FIRE EXTINGUISHER

LEGEND :  
NOT INCLUDED IN PHASE II  
(ARCHITECTURAL SPACES, INTERIOR &  
EXTERIOR FINISHES)



FIRE EXTINGUISHER DETAIL

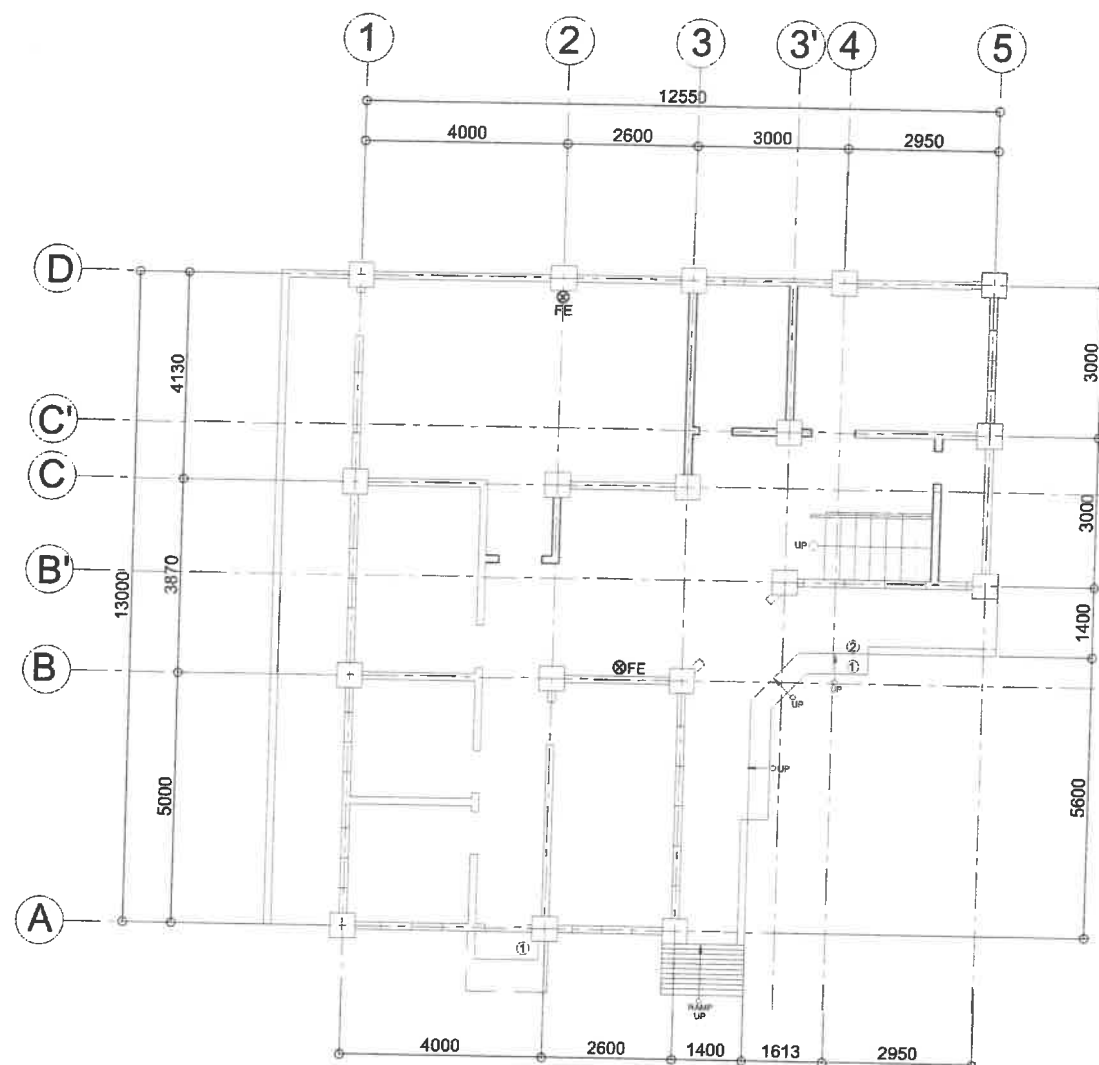
NOT TO SCALE

 Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE No. VIII NORTHERN SAMAR FIRST DISTRICT ENGINEERING OFFICE Cataraman, Northern Samar	PROJECT NAME & LOCATION: CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATARAMAN, NORTHERN SAMAR	SHEET CONTENTS: GENERAL NOTES LEGEND FIRE EXTINGUISHER DETAIL	PREPARED: BURT B. LUCINARIO ARCHITECT II	REVIEWED: MAR DONALD N. EIMAN ASST. CHIEF, PLANNING & DESIGN SECTION	SUBMITTED: ANDY S. ERENO CHIEF, PLANNING & DESIGN SECTION	RECOMMENDED: VIVIAN BIACO ASST. DISTRICT ENGINEER	APPROVED: ALVIN A. IGNACIO DISTRICT ENGINEER	SET No. FP-1	SHEET No. 77 84
			ENGINEER II						

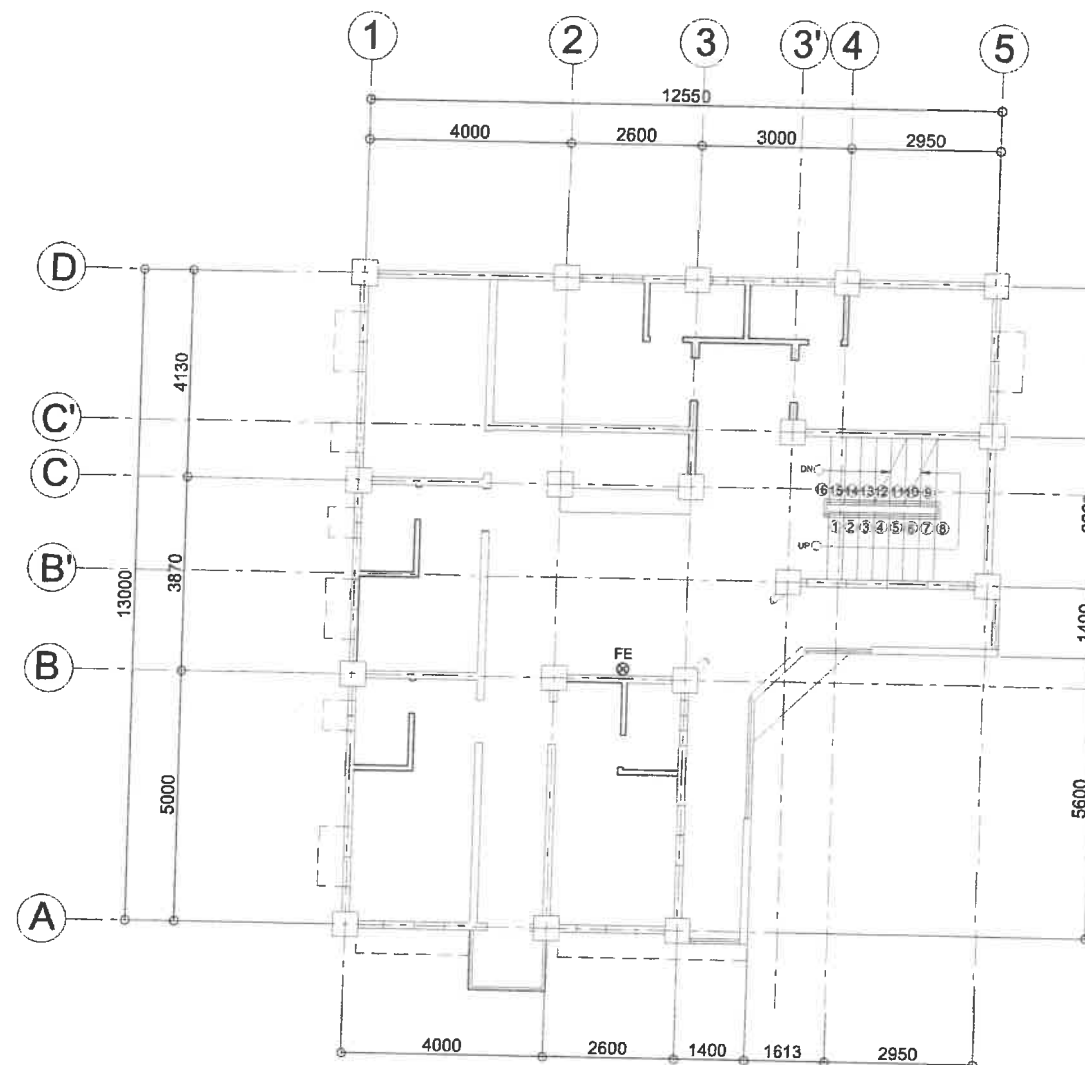
## FIRE EXTINGUISHER

DESIGNATION	QUANTITY	WEIGHT		TYPE (LOCATION)	DISCHARGE RANGE	DIAMETER	MAXIMUM VOLUME OF PROTECTION	EXTINGUISHING AGENT	REMARKS
		GROSS	AGENT						
FE	4	18.8 lbs.	10 LBS	WALL MOUNTED	6.00 m.	15.2 cm.	51m³	HCFC 123	ENVIRONMENT FRIENDLY, BRAND NEW AND READY FOR SERVICE

## SCHEDULE OF EQUIPMENT



1  
GROUND FLOOR  
FIRE EXTINGUISHER LAYOUT  
FP-2 SCALE: 1:100M



2  
SECOND FLOOR  
FIRE EXTINGUISHER LAYOUT  
FP-2 SCALE: 1:100M

## LEGEND :

NOT INCLUDED IN PHASE II  
(ARCHITECTURAL SPACES, INTERIOR &  
EXTERIOR FINISHES)



Republic of the Philippines  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
REGIONAL OFFICE No. VIII  
NORTHERN SAMAR FIRST  
DISTRICT ENGINEERING OFFICE  
Cataraman, Northern Samar

## PROJECT NAME &amp; LOCATION:

CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,  
UNIVERSITY OF EASTERN PHILIPPINES, CATARAMAN, NORTHERN SAMAR  
UNIVERSITY OF EASTERN PHILIPPINES, CATARAMAN, SAMAR

## SHEET CONTENTS:

GROUND FLOOR FIRE EXTINGUISHER LAYOUT  
SECOND FLOOR FIRE EXTINGUISHER LAYOUT  
SCHEDULE OF EQUIPMENT

## PREPARED:

BURT S. LUCINARIO  
ARCHITECT II

## DESIGNED:

ENGINEER II

## REVIEWED:

MARDONALD N. EIMAN  
ASST. CHIEF, PLANNING & DESIGN SECTION  
Date:

## SUBMITTED:

ANDY S. EREÑO  
CHIEF, PLANNING & DESIGN SECTION  
Date:

## RECOMMENDED:

VIVIAN S. LACRO  
ASST. DISTRICT ENGINEER  
Date:

## APPROVED:

ALVIN A. IGNACIO  
DISTRICT ENGINEER  
Date:

## SET No.

FP-2

## SHEET No.

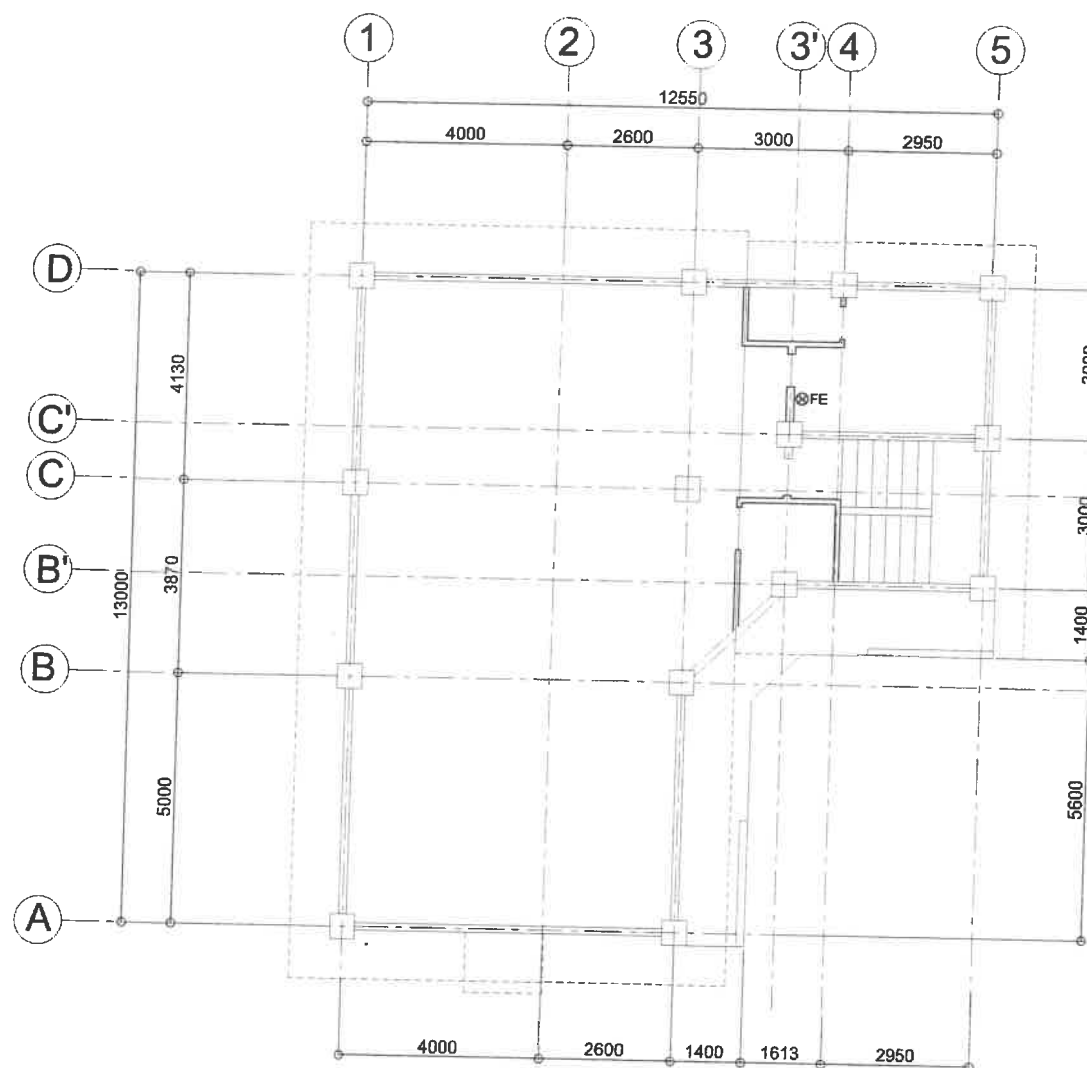
78

84

## FIRE EXTINGUISHER

## SCHEDULE OF EQUIPMENT

DESIGNATION	QUANTITY	WEIGHT		TYPE (LOCATION)	DISCHARGE RANGE	DIAMETER	MAXIMUM VOLUME OF PROTECTION	EXTINGUISHING AGENT	REMARKS
		GROSS	AGENT						
FE	4	18.8 lbs.	10 LBS	WALL MOUNTED	6.00 m.	15.2 cm.	51m <sup>3</sup>	HCFC 123	ENVIRONMENT FRIENDLY, BRAND NEW AND READY FOR SERVICE



1  
FP-3

ROOF DECK  
FIRE EXTINGUISHER LAYOUT

SCALE: 1:100M

## LEGEND :

NOT INCLUDED IN PHASE II  
(ARCHITECTURAL SPACES, INTERIOR &  
EXTERIOR FINISHES)



Republic of the Philippines  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
REGIONAL OFFICE No. VIII  
NORTHERN SAMAR FIRST  
DISTRICT ENGINEERING OFFICE  
Cataman, Northern Samar

## PROJECT NAME &amp; LOCATION:

CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,  
UNIVERSITY OF EASTERN PHILIPPINES, CATAMAN, NORTHERN SAMAR

## SHEET CONTENTS:

ROOF DECK FIRE EXTINGUISHER LAYOUT  
SCHEDULE OF EQUIPMENT

## PREPARED:

BURT B. LUCINARIO  
ARCHITECT II

## DESIGNED:

ENGINEER II

## REVIEWED:

MAR DONALD N. EIMAN  
ASST. CHIEF, PLANNING & DESIGN SECTION

## SUBMITTED:

ANDY S. EREÑO  
CHIEF, PLANNING & DESIGN SECTION

## RECOMMENDED:

VIVIAN E. BIACO  
ASST. DISTRICT ENGINEER

## APPROVED:

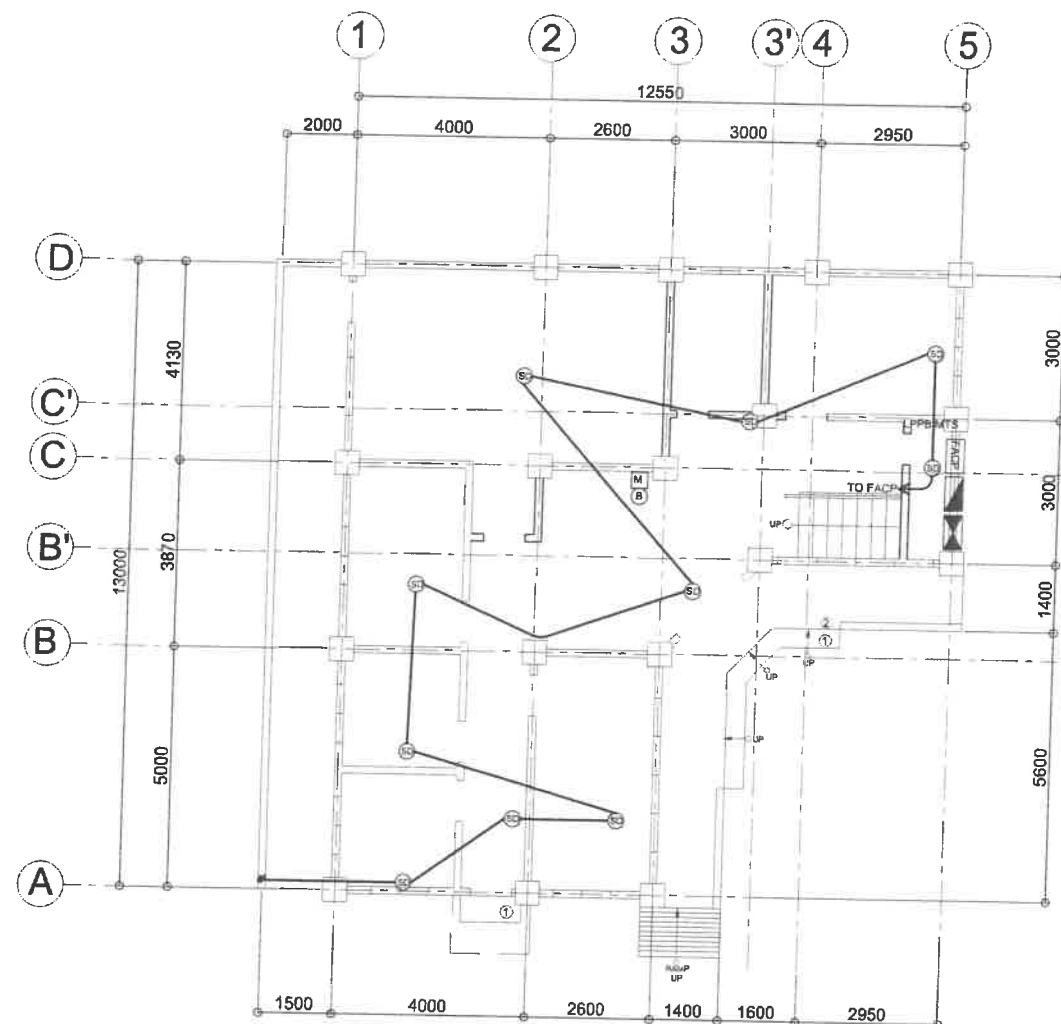
ALVIN A. IGNACIO  
DISTRICT ENGINEER

## SET No.

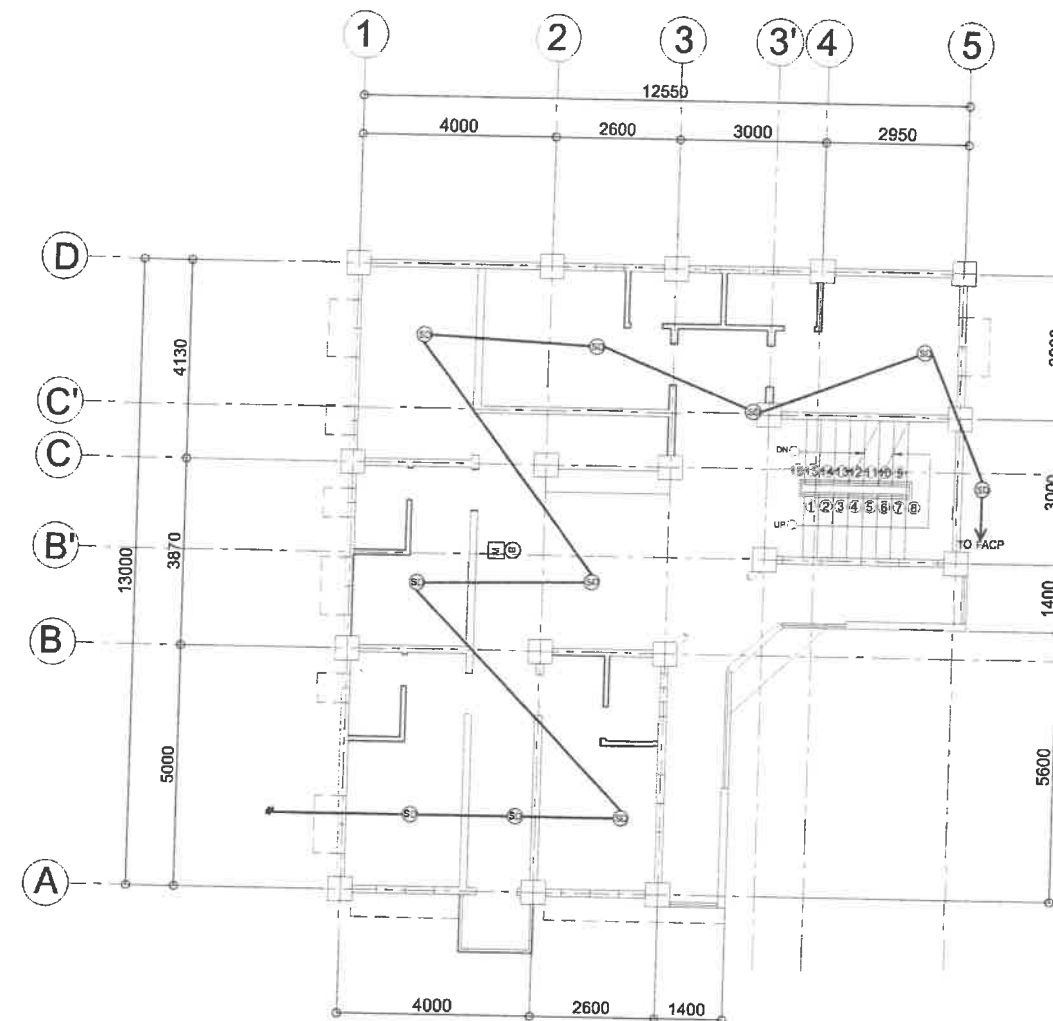
FP-3

## SHEET No.

79  
84



1  
FP-4  
FIRE ALARM SYSTEM LAYOUT  
GROUND FLOOR PLAN  
SCALE: 1:100M



2  
FP-4  
FIRE ALARM SYSTEM LAYOUT  
SECOND FLOOR PLAN  
SCALE: 1:100M

LEGEND :  
NOT INCLUDED IN PHASE II  
(ARCHITECTURAL SPACES, INTERIOR &  
EXTERIOR FINISHES)



Republic of the Philippines  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
REGIONAL OFFICE No. VIII  
NORTHERN SAMAR FIRST  
DISTRICT ENGINEERING OFFICE  
Cataman, Northern Samar

PROJECT NAME & LOCATION:  
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,  
UNIVERSITY OF EASTERN PHILIPPINES, CATAMAN, NORTHERN SAMAR  
UNIVERSITY OF EASTERN PHILIPPINES, CATAMAN N. SAMAR

SHEET CONTENTS:  
GROUND FLOOR FIRE ALARM SYSTEM  
SECOND FLOOR FIRE ALARM SYSTEM

PREPARED:  
BURT B. LUCINARIO  
DESIGNED:  
ENGINEER II

REVIEWED:  
MAR DONALD N. EIMAN  
ASST. CHIEF, PLANNING & DESIGN SECTION  
Date:

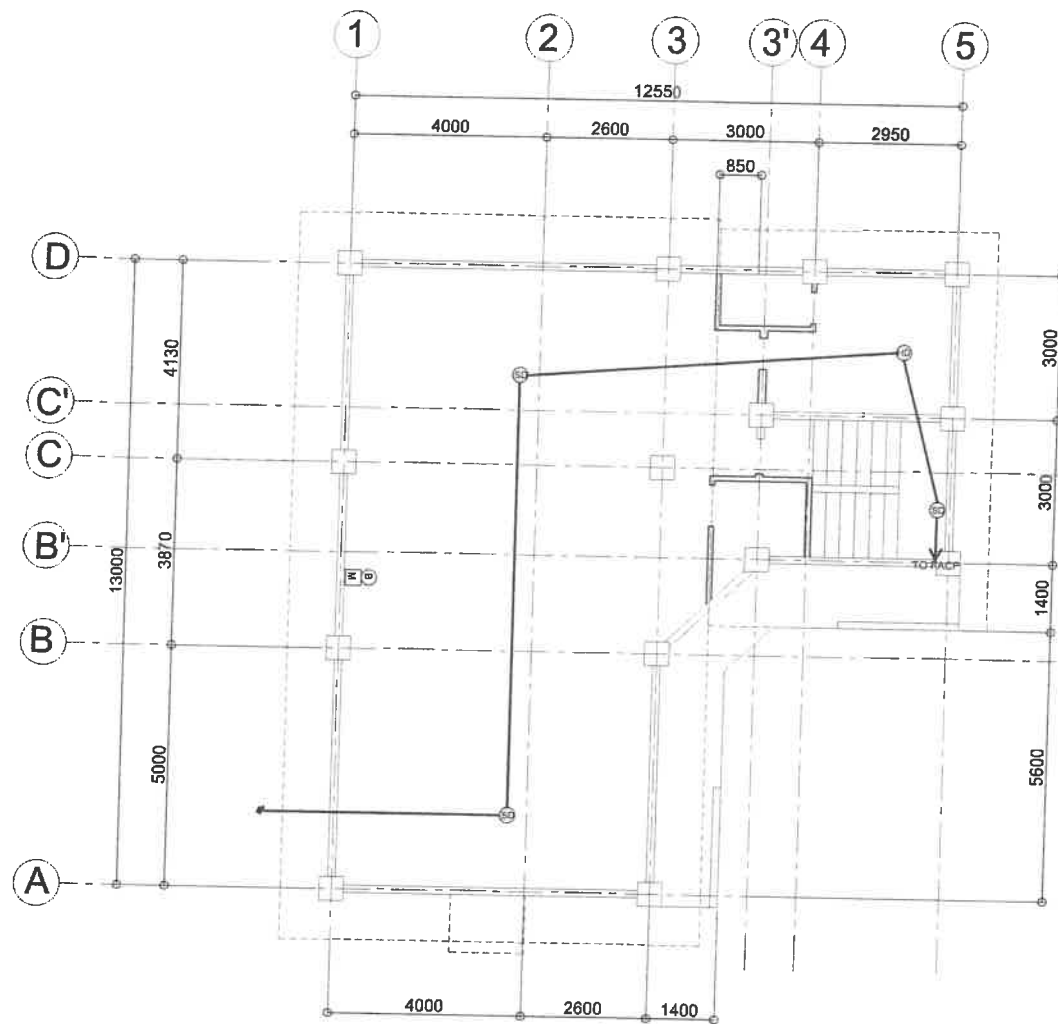
SUBMITTED:  
ANDY S. ERENO  
CHIEF, PLANNING & DESIGN SECTION  
Date:

RECOMMENDED:  
VIVIAN A. BIACO  
ASST. DISTRICT ENGINEER  
Date:

APPROVED:  
ALVIN A. IGNACIO  
DISTRICT ENGINEER  
Date:

SET No. SHEET No.  
FP-4 80  
84

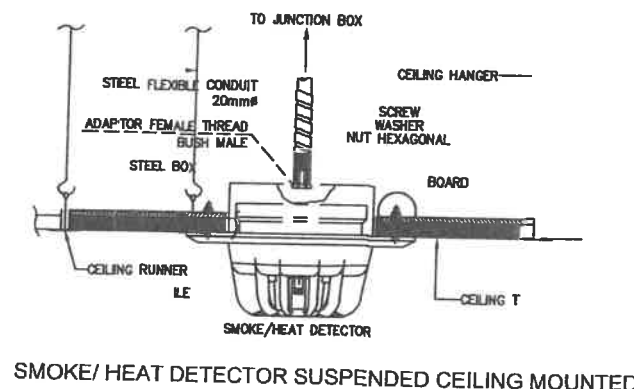




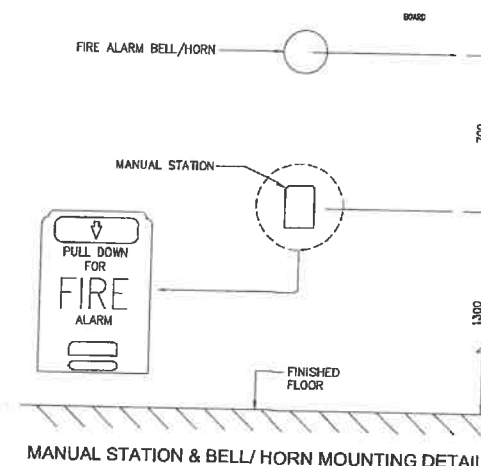
1 ROOF DECK FIRE ALARM SYTEM  
FP-5 SCALE: 1:100M

LEGEND :  
NOT INCLUDED IN PHASE II  
(ARCHITECTURAL SPACES, INTERIOR &  
EXTERIOR FINISHES)

FDAS LEGEND	
SYMBOLS	DESCRIPTION OF ITEM
[M]	STATION OUTLET / MANUAL CALL POINT
(SD)	SMOKE DETECTOR
(B)	FIRE ALARM BELL
(HD)	HEAT DETECTOR
EOLR	END OF LINE RESISTOR
[FACP]	FIRE ALARM CONTROL PANEL



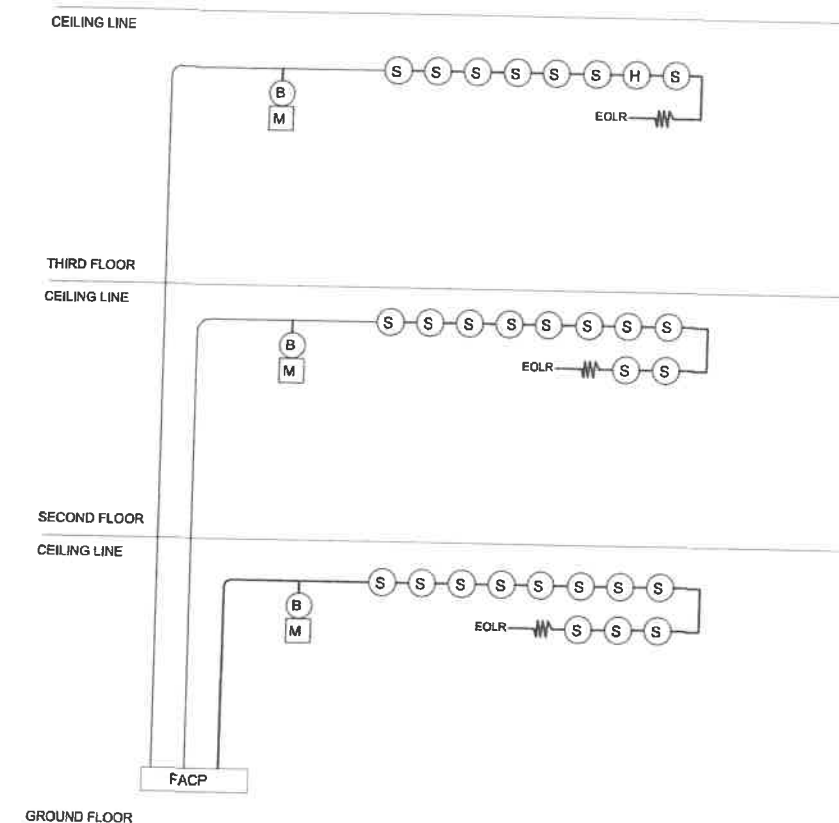
SMOKE/ HEAT DETECTOR SUSPENDED CEILING MOUNTED



2 FIRE ALARM ASSORTED DETAILS  
FP-5

## FIRE PROTECTION NOTES:

- ALL WORKS SHOULD BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CODES NO. 13 & 20, NATIONAL FIRE CODE OF THE PHILIPPINES.
- ALL WORKS SHALL BE EXECUTED IN-CLOSE COORDINATION WITH ALL OTHER TRADES. THE ARCHITECT AND THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY CONFLICT.
- THE CONTRACTOR SHALL SUBMIT CATALOGUE / BROCHURES SUBJECT FOR FURTHER TECHNICAL EVALUATION BY THE CONCERNED AUTHORITY (BOD) PRIOR TO PROCUREMENT / INSTALLATION OF THE EQUIPMENT/ UNIT.
- ALL PIPE SIZES ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
- PIPE SLEEVES SHALL BE PROVIDED FOR ALL PIPES PASSING THRU SLABS, WALLS & BEAMS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING AND COMMISSIONING FOR ALL EQUIPMENT INSTALLED.



3 SMOKE DETECTOR  
SINGLE RISER DIAGRAM  
FP-5 N T S



Republic of the Philippines  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
REGIONAL OFFICE No. VIII  
NORTHERN SAMAR FIRST  
DISTRICT ENGINEERING OFFICE  
Cataman, Northern Samar

PROJECT NAME & LOCATION:  
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,  
UNIVERSITY OF EASTERN PHILIPPINES, CATAMAN, NORTHERN SAMAR  
UNIVERSITY OF EASTERN PHILIPPINES, CATAMAN, SAMAR

SHEET CONTENTS:  
FIRE PROTECTION NOTES  
ROOF DECK FIRE ALARM LAYOUT  
FDAS LEGEND  
SD SINGLE RISER DIAGRAM  
FIRE ALARM ASSORTED DETAILS

PREPARED:  
BURT D. LUCINARIO  
DESIGNED:  
ENGINEER II

REVIEWED:  
MAR DONALD N. EIMAN  
ASST. CHIEF, PLANNING & DESIGN SECTION  
Date:

SUBMITTED:  
ANDY S. ERENO  
CHIEF, PLANNING & DESIGN SECTION  
Date:
















RECOMMENDED:  
VIVIAN A. BIACO  
ASST. DISTRICT ENGINEER  
Date:

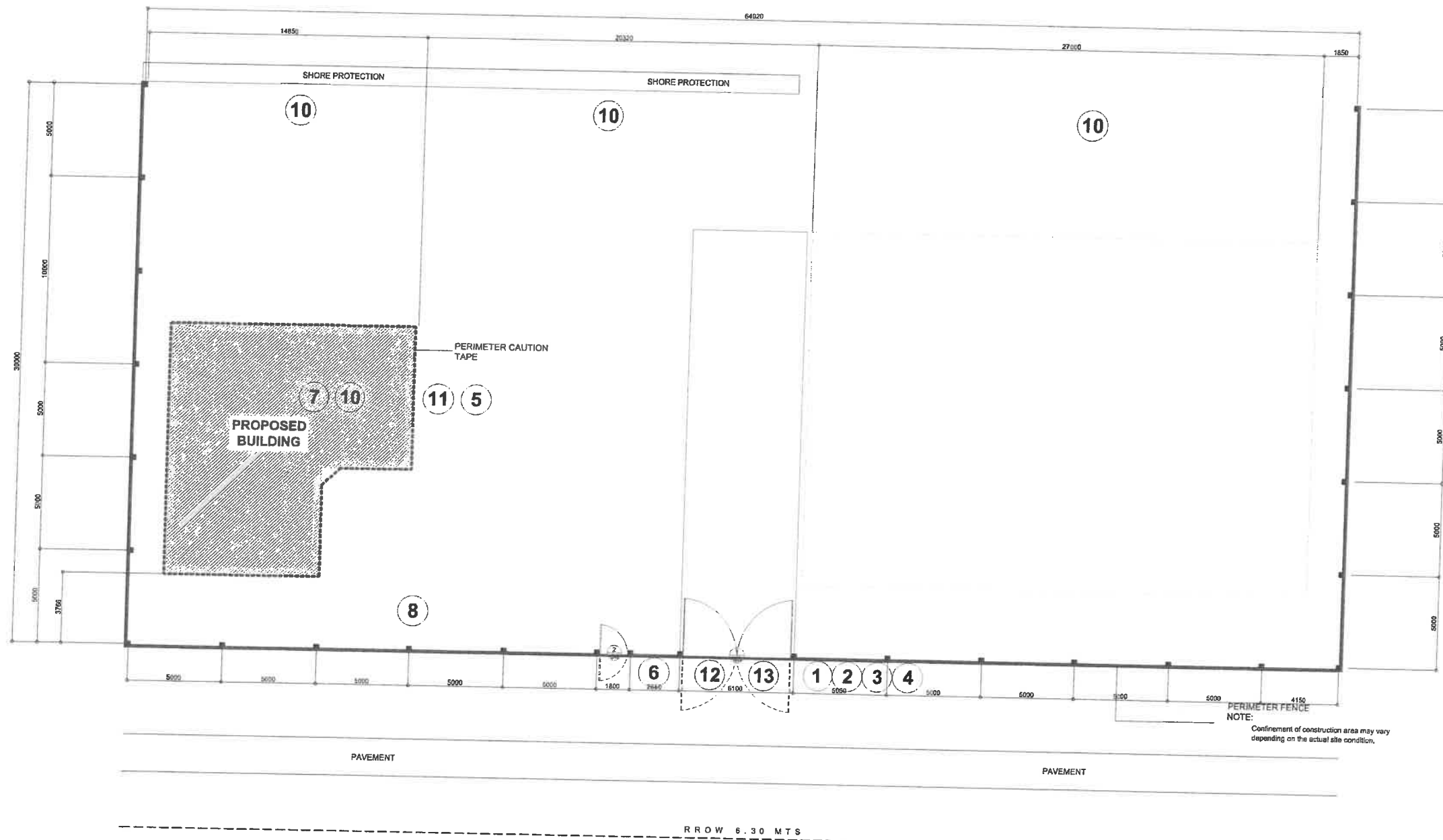
APPROVED:  
ALVIN A. IGNACIO  
DISTRICT ENGINEER  
Date:

SET No. SHEET No.  
FP-5 81  
84







# LEGENDS:

Materials: (a) Tarpaulin (b) 1/2" Plywood - BackFrame (c) Misc, nails, tie wires as hangers, etc

- 1  Proper PPE Signage  
4' width x 8' height
- 2  SF-1  
4' width x 4' height
- 3  SF-2  
3' width x 2' height
- 4  Safety Harness Required  
3' width x 2' height
- 5  Welding/Hot Work Area  
3' width x 2' height
- 6  Authorized Personnel Only  
3' width x 2' height
- 7  Fall Hazard  
3' width x 2' height
- 8  Temporary Materials Stacking Area  
3' width x 2' height
- 9  Hard Hat Area  
3' width x 2' height
- 10  Danger Deep Excavation  
3' width x 2' height
- 11  Beware Falling Debris  
3' width x 2' height
- 12  Construction Entrance  
3' width x 2' height
- 13  Construction Exit  
3' width x 2' height
- 14  Exit (E-1)  
3' width x 2' height
- 15  Exit (E-2)  
3' width x 2' height




1 SITE DEVELOPMENT PLAN  
PB-1 SCALE: NTS

 Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE No. VIII <b>NORTHERN SAMAR FIRST DISTRICT ENGINEERING OFFICE</b> Catarman, Northern Samar	PROJECT NAME & LOCATION: CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR	SHEET CONTENTS: BUILDING DESIGN SAFETY SIGNAGES SITE DEVELOPMENT PLAN	PREPARED:  BURT B. LUCINARIO ARCHITECT II	REVIEWED:  MAR DONALD N. EIMAN ASST. CHIEF, PLANNING & DESIGN SECTION	SUBMITTED:  ANDY S. ERENO CHIEF, PLANNING & DESIGN SECTION	RECOMMENDED:  VIVIAN A. BIACO ASST. DISTRICT ENGINEER	APPROVED:  ALVIN A. IGNACIO DISTRICT ENGINEER	SET No. PB-1	SHEET No. 82 84
	Date:								







Government Center Candahug, Palo,  
Leyte

Project : \_\_\_\_\_ Cost : \_\_\_\_\_

Location : \_\_\_\_\_ Fund Source/s : \_\_\_\_\_

Implementing Agency/ies : \_\_\_\_\_

Development Partner/s : \_\_\_\_\_

Contractor/Supplier : \_\_\_\_\_

Brief Description of Project : \_\_\_\_\_

Project Details :

Project Date			Project Status				
Duration	Started	Target Date of Completion	Percentage of Completion	As of (Date)	Cost incurred to Date	Date Completed	Remarks

For particulars or complaints about this project, please contact the Regional Office or Cluster which has audit jurisdiction on this project :

COA Regional Office No./Cluster : \_\_\_\_\_

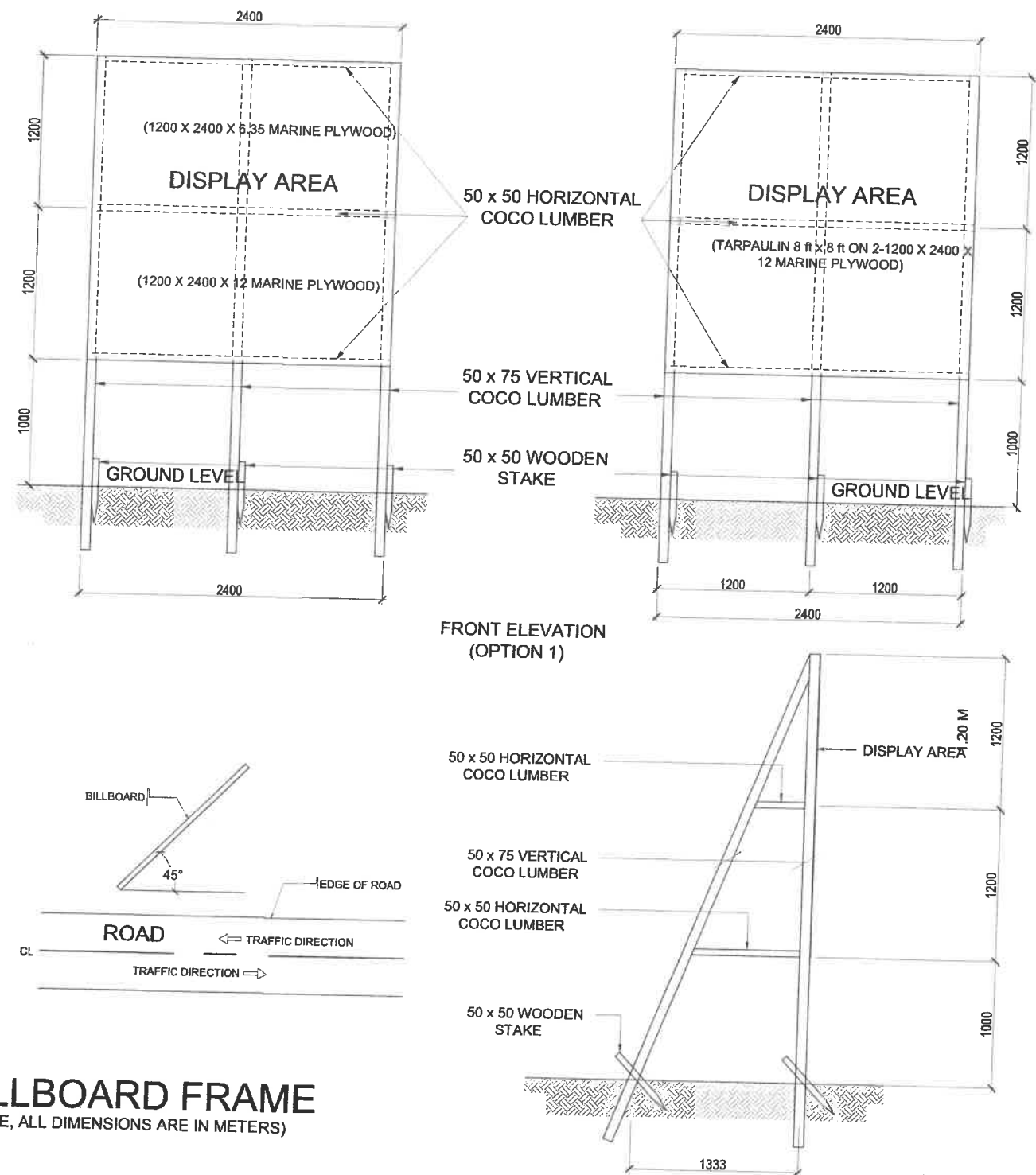
Address : \_\_\_\_\_

Contact No. : \_\_\_\_\_ or Text COA Citizen's Desk at 0915-5391957

## COA STANDARD PROJECT BILLBOARD

### SPECIFICATIONS:

1. TARPAULIN, WHITE, 8 FT X 8 FT
2. RESOLUTION : 70 DPI
3. FONT : HELVETICA
4. FONT SIZE : MAIN INFORMATION - 3"  
SUB-INFORMATION - 1"
5. FONT COLOR: BLACK
6. BACKGROUND COLOR: WHITE



## COA BILLBOARD FRAME

(NOT TO SCALE, ALL DIMENSIONS ARE IN METERS)



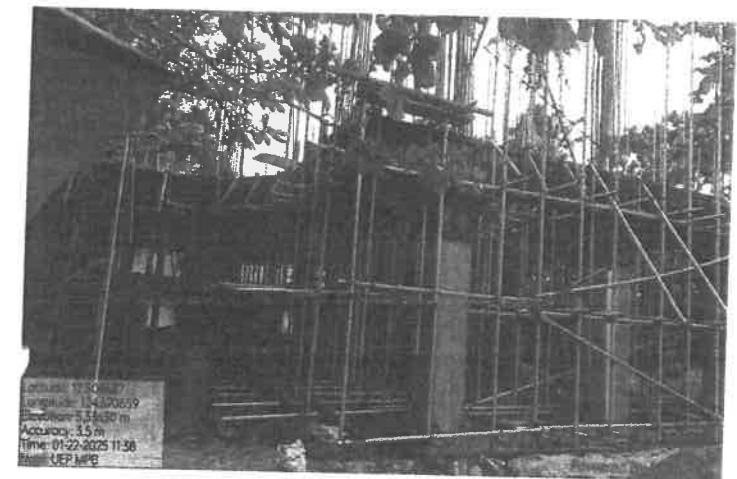
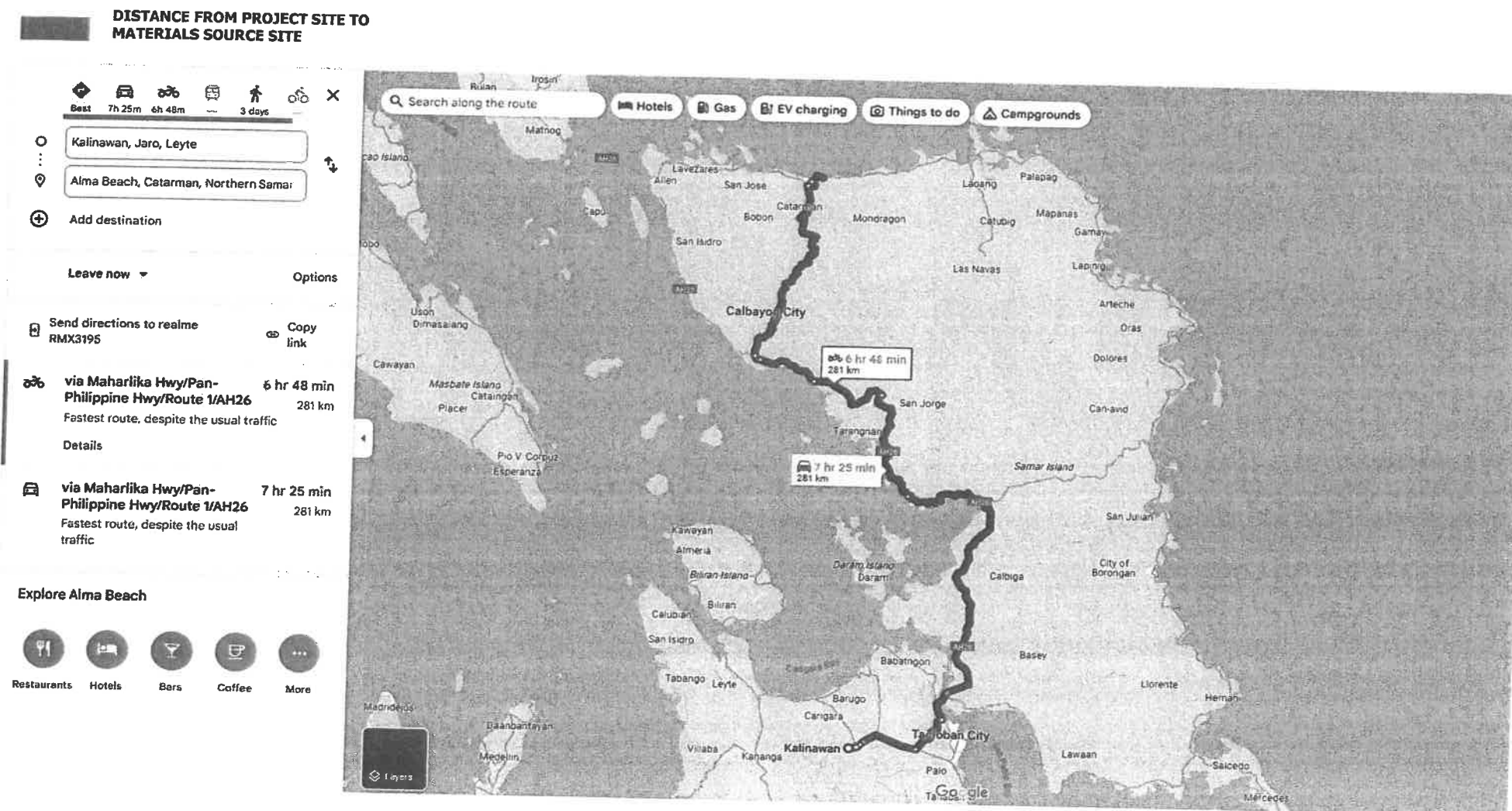
Republic of the Philippines  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
**NORTHERN SAMAR 1<sup>ST</sup> DISTRICT ENGINEERING OFFICE**  
Catarman N. Samar, Region VIII



## MATERIALS SOURCE MAP

PROJECT TITLE: **CONSTRUCTION (COMPLETION) MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR**

Nearest Distance from Project site to Materials Source site: **280.6 km**  
Materials: ***Sand, Boulders & Gravel***



PREPARED BY:

**ABIGAIL KAYE M. FERNANDEZ**  
Admin. Aide I

**PROJECT SITE**



Republic of the Philippines  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
NORTHERN SAMAR FIRST  
DISTRICT ENGINEERING OFFICE  
REGIONAL OFFICE VIII  
Cataraman, Northern Samar

Name of Project: **Construction (Completion) of Multi-Purpose Building, University of Eastern Philippines, Cataraman, Northern Samar**

ITEM No.	DESCRIPTION	QTY	UNIT	UNIT COST	AMOUNT	% WT.	BAR CHART					
PART A	FACILITIES FOR THE ENGINEER						15 CD	30 C.D.	30 CD	15 CD	54 C.D	9 CD
PART B	OTHER GENERAL REQUIREMENTS											
B.3(1)	Permits and Clearances	1.00	l.s.	35,454.24	35,454.24	0.30	P	0.30				
B.5 (1)	Project Billboard/Signboard (DPWH)	1.00	each	3,669.42	3,669.42	0.03	A	0.03				
B.5(1)	Project Billboard/Signboard (COA)	1.00	each	6,126.25	6,126.25	0.05	A					
B.7(1)	Occupational Safety and Health	1.00	l.s.	448,848.08	448,848.08	3.82	A					
B.9(1)	Mobilization/Demobilization	1.00	l.s.	29,534.40	29,534.40	0.25	A	0.13				0.13
PART C	EARTHWORK											
800(3)a1	Individual Removal of Trees, 150-300mm dia. (Small)	1.00	each	1,253.41	1,253.41	0.01	P	0.01				
801(1)	Removal of Structures and Obstruction	1.00	l.s.	6,773.46	6,773.46	0.06	A	0.06				
803(1)a	Structure Excavation (Common Soil)	110.09	cu.m.	332.93	36,652.26	0.31	A	0.31				
804(1)a	Embankment from Structure Excavation (Common Soil)	88.07	cu.m.	257.76	22,700.93	0.19	A	0.19				
804(2)a	Embankment from Borrow (Common Soil)	616.97	cu.m.	887.76	547,721.28	4.66	A					
804(7)	Gravel Fill	12.40	cu.m.	4,283.25	53,112.29	0.45	A					
PART D	REINFORCED CONCRETE											
900(1)c	Structural Concrete, 3000 psi (Class A, 28 days)	15.85	cu.m	11,969.41	189,715.15	1.61	P		1.61			
900(1)i	Structural Concrete (Class A, 28 days)	78.03	cu.m	11,187.33	872,947.35	7.42	A		7.42			
902(1)a1	Reinforcing Steel (Deformed Grade 40)	7,139.08	kg	92.32	659,079.86	5.60	A					
902(1)a2	Reinforcing Steel (Deformed Grade 60)	6,675.69	kg	93.65	625,178.37	5.32	A					
903(1)	Formworks and Falseworks	228.38	sq.m	752.98	171,965.58	1.46	A					
PART E	FINISHINGS AND OTHER CIVIL WORKS											
1003(17)	Carpentry and Joinery Works	1.00	l.s.	176,056.45	176,056.45	1.50	P		1.50			
1004(1)	Rough Hardware	1.00	l.s.	951,270.29	951,270.29	8.09	A					
1004(2)	Finishing Hardware	1.00	l.s.	5,140.80	5,140.80	0.04	A					
1010(1)	Frames, Jambs	1.00	set	3,394.97	3,394.97	0.03	A				0.04	
1010(2)a	Doors (Flush)	0.76	sq.m	4,213.16	3,202.00	0.03	A				0.03	
1018(2)	Unglazed Tiles	113.06	sq.m	1,640.61	185,487.37	1.58	A					
1027(1)	Cement Plaster Finish	198.56	sq.m	322.77	64,089.21	0.54	A					
1027(3)	Decorative Stone	12.46	sq.m	4,094.75	51,020.59	0.43	A					
1032(1)a	Painting Works, Masonry/Concrete	286.33	sq.m	405.57	116,126.86	0.99	A					0.43
1032(1)b	Painting Works, Wood	18.89	sq.m	556.38	10,510.02	0.09	A					
1046(2)a	CHB Non - Load Bearing (including Reinforcing Steel), 100 mm	99.28	sq.m	1,135.14	112,696.69	0.96	A					
1047(5)d	Metal Structure Accessories (Steel Plate)	1.26	kg	219.59	276.68	0.002	A				0.002	
1051(1)a	Railing	1.00	l.s.	755,053.50	755,053.50	6.42	A					

PART F ELECTRICAL									
1100(10)	Conduits, Boxes & Fittings (Conduit Works/Conduit Rough-in)	1.00	I.S.	20,621.52	20,621.52	0.18	P		0.18
1101(33)	Wires and Wiring Devices	1.00	I.S.	78,156.36	78,156.36	0.66	A		
1102(1)	Panelboard with Main & Branch Breakers	1.00	I.S.	79,379.90	79,379.90	0.68	P		
1102(18)	Solar Panel with Inverter, Battery and Other Devices	1.00	I.S.	1,237,824.00	1,237,824.00	10.53	A		
1103(1)	Lighting Fixtures	1.00	I.S.	101,236.45	101,236.45	0.86	P		
1104(1)	Auxiliary System	1.00	I.S.	2,920,927.37	2,920,927.37	24.84	A		
1105(20)	Network Cabling	1.00	I.S.	406,396.62	406,396.62	3.46	P		
1106(1)	CCTV System	1.00	I.S.	277,684.85	277,684.85	2.36	A		
PART G DRAINAGE AND SLOPE PROTECTION STRUCTURES									
507(1)	Rubble Concrete	39.06	cu.m.	8,051.02	314,472.84	2.67	P		
508(1)	Hand Laid Rock Embankment	43.93	cu.m.	4,051.04	177,962.19	1.51	A		
TOTAL				11,759,719.86	100.00				
WORK ACCOMPLISHMENT (PHYSICAL)		PERCENT ACCOMPLISHED				22.17	77.83		
		CUMULATIVE				22.17	100.00		
CASH FLOW (FINANCIAL)		VALUE					2,607,337.16	9,152,382.70	
		CUMULATIVE					2,607,337.16	11,759,719.86	

Prepared by:

**ABIGAIL KAYE M. FERNANDEZ**  
Admin. Aide I

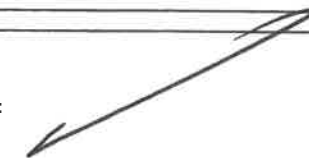
Checked/Submitted by:

  
**ANDY S. ERENO**  
Chief, Planning & Design Section

Recommending Approval:

  
**VIVIAN U. BIACO**  
Asst. District Engineer

Approved:

  
**ALVIN A. IGNACIO**  
District Engineer