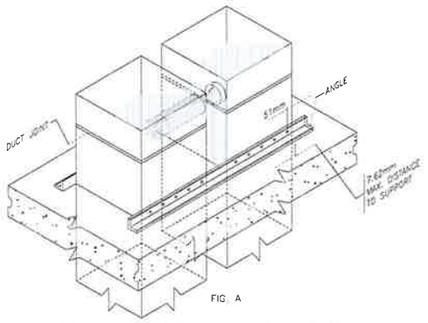


FIG. A

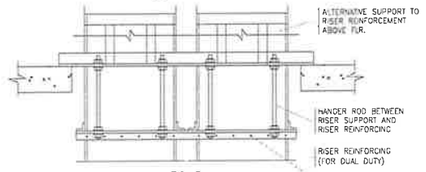


FIG. B

* MINIMUM NUMBER OF FASTENERS ON EACH OF TWO SUPPORT BARS

LARGEST DUCT DIM.	MINIMUM NUMBER OF FASTENERS
406mm AND DOWN	2
432mm – 610mm	3
OVER 610mm	LARGEST DUCT DIM. DIVIDED BY 8

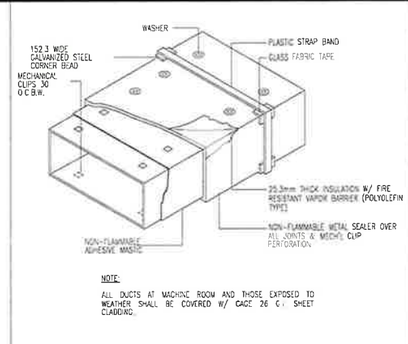
LOCATE A FASTENER WITHIN 51mm OF THE DUCT EDGES, LOCATE OTHERS AT EVENLY SPACED INTERVALS. SEE TABLE 4-4 ON PAGE 4-16

SUGGESTED SIZING FOR SUPPORT OF 3.7m OF DUCT

DUCT SIZE	ANGLE
914x457mm	38.1x38.1x3.2mm
1219x610mm	38.1x38.1x3.2mm
1524x762mm	38.1x38.1x4.8mm
1524x1524mm	38.1x38.1x6.4mm OR 51x51x3.2mm

OVER 1524mm–INCREASE ANGLE SIZE AS REQUIRED FOR SPACE & DUCT SIZE

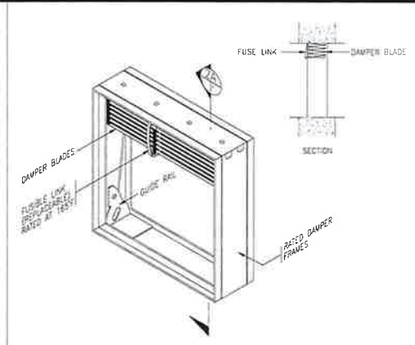
1 M-09 DUCT RISER SUPPORT DETAIL SCALE NTS



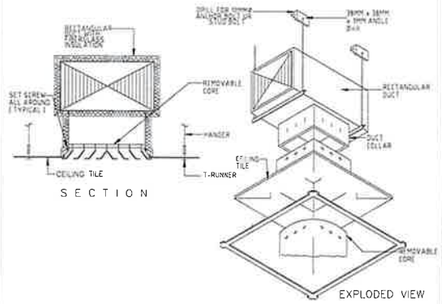
NOTE:

ALL DUCTS AT MACHINE ROOM AND THOSE EXPOSED TO WEATHER SHALL BE COVERED W/ GAGE 26 G.I. SHEET CLADDING.

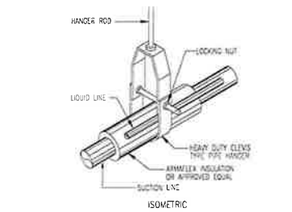
2 M-09 DUCT INSULATION DETAIL SCALE NTS



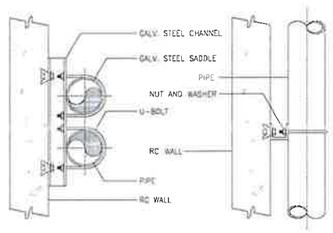
3 M-09 FIRE DAMPER (CURTAIN TYPE DETAIL) SCALE NTS



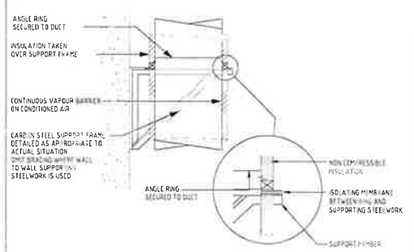
4 M-09 CEILING DIFFUSER MOUTING DETAIL SCALE NTS



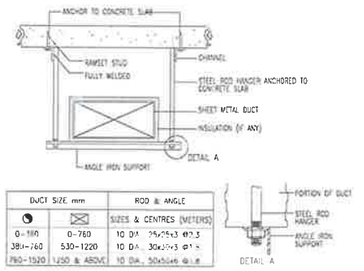
5 M-09 REF. PIPE SUPPORT DETAIL SCALE NTS



6 M-09 PIPE SUPPORT ON WALL DETAIL SCALE NTS

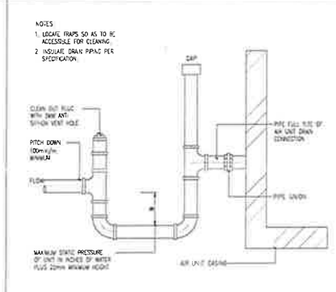


7 M-09 DUCT SUPPORT ON WALL DETAIL SCALE NTS

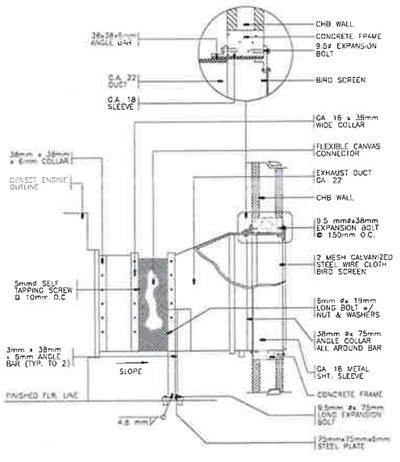


DUCT SIZE mm		ROD & ANGLE
◔	⊠	SIZES & CENTRES (METERS)
0–380	0–760	10 DIA. 25x25x3 @3.3
381–760	530–1220	10 DIA. 30x30x3 @3.3
760–1520	1250 & ABOVE	10 DIA. 50x50x6 @3.0

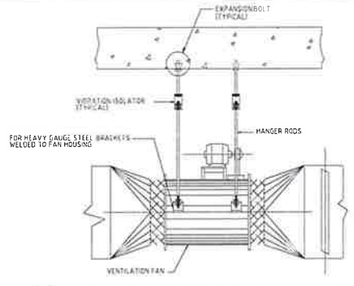
8 M-09 DUCT HANGER SUPPORT DETAIL SCALE NTS



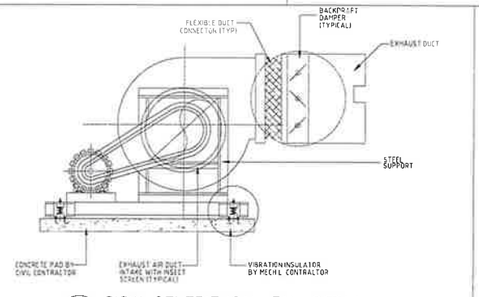
9 M-09 CONDENSATE PIPE DETAIL SCALE NTS



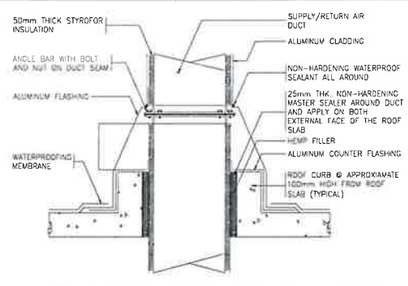
13 M-09 GENERATOR SET VENTILATION DETAIL SCALE NTS



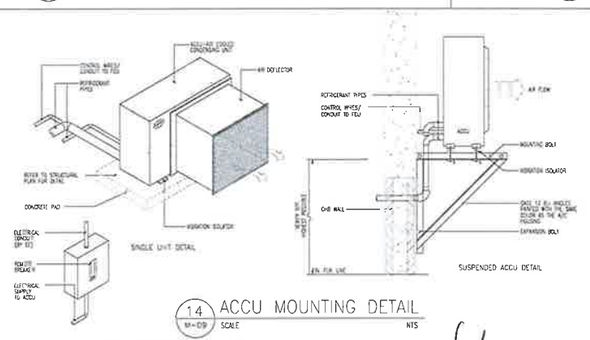
10 M-5.2 TUBULAR CENTRIFUGAL FAN DETAIL SCALE NTS



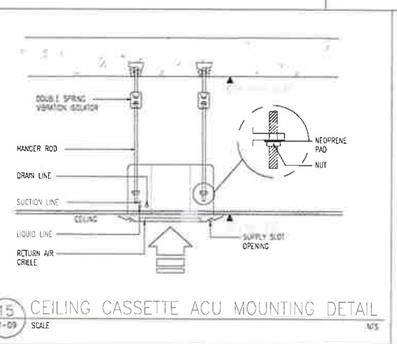
11 M-5.2 SISW CENTRIFUGAL FAN DETAIL SCALE NTS



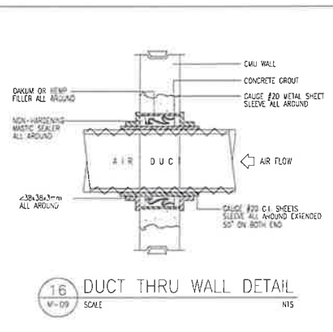
12 M-5.2 DUCT FLASHING THRU WALL DETAIL SCALE NTS



14 M-09 ACCU MOUNTING DETAIL SCALE NTS



15 M-09 CEILING CASSETTE ACU MOUNTING DETAIL SCALE NTS



16 M-09 DUCT THRU WALL DETAIL SCALE NTS

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
BATAAN FIRST
DISTRICT ENGINEERING OFFICE
REGIONAL OFFICE III
ROMAN EXPRESSWAY MULAWIN, ORANI, BATAAN

PROJECT NAME AND LOCATION :
BASIC INFRASTRUCTURE PROGRAM - MULTI - PURPOSE BUILDINGS/FACILITIES TO SUPPORT SOCIAL SERVICE - CONSTRUCTION OF MULTI-PURPOSE BUILDING (GYMNASIUM), SAMAL, BATAAN

SHEET CONTENT :
AS SHOWN

DRAFTED BY:
REYNALDO S. ANTONIO
DRAFTSMAN II

PREPARED BY:
ROLANDO P. SOLIMAN
ARCHITECT II

REVIEWED BY:
ADRIAN M. DE GUZMAN
ENGINEER II
DATE:

SUBMITTED BY :
CELIA M. RAMOS
CHIEF, PLANNING AND DESIGN SECTION
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RECOMMENDED :
REGINA H. AGUSTIN
ASSISTANT DISTRICT ENGINEER
DATE:

APPROVED :
JOHN PAOLO S. TAN
OIC-DISTRICT ENGINEER
DATE:

SET NO. M-5
SHT. NO. 60 / 65

EQUIPMENT SCHEDULES

AIR COOLED CONDENSING UNIT

UNIT DESIGNATION	QTY.	AREA SERVED	COOLING CAPACITY		OPERATING TEMPERATURE				COMPRESSOR DATA					CONDENSER DATA						APPROXIMATE OPERATING WEIGHT (KGS)	REMARKS
			TR	BTU/ HR	EVAPORATING °C	EVAPORATING °F	CONDENSING °C	CONDENSING °F	NO.	KW INPUT	ELECTRICAL SUPPLY VOLTS	PHASE	CYCLE	NO. OF PROPELLER FAN	DRIVE	WATTS	ELECTRICAL SUPPLY VOLTS	PHASE	CYCLE		
ACU-1	2	BASKETBALL COURT	8	96,000					1	7.9				1	DIRECT	750	380	3	60	135	UNIT SHALL BE SUITABLE FOR OUTDOOR INSTALLATION PROVIDE WITH SAFETY DEVICES, TIMER MOTOR FOR COMPRESSOR, ANTI-CYCLING HIGH & LOW PRESSURE CONTROLS, VIBRATION ISOLATORS AND OTHER STANDARD ACCESSORIES.
ACU-2	2	BASKETBALL COURT	8	96,000					1	7.9				1	DIRECT	750	380	3	60	135	
ACU-3	2	BASKETBALL COURT	8	96,000					1	7.9				1	DIRECT	750	380	3	60	135	
ACU-4	2	BASKETBALL COURT	8	96,000					1	7.9				1	DIRECT	750	380	3	60	135	
ACU-5	2	BASKETBALL COURT	8	96,000					1	7.9				1	DIRECT	750	380	3	60	135	
ACU-6	2	BASKETBALL COURT	8	96,000					1	7.9				1	DIRECT	750	380	3	60	135	
ACU-7	2	VIP LOUNGE	3	36,000										1	DIRECT		220	1	60		
ACU-8	6	STALL (PROVISION)	2	24,000										1	DIRECT		220	1	60		
ACU-9	2	MULTIPURPOSE ROOM	2.5	30,000										1	DIRECT		220	1	60		
ACU-10	2	LOBBY ENTRANCE	6	72,000										1	DIRECT		220	1	60		

FAN COIL UNIT

UNIT DESIGNATION	QTY.	AREA SERVED	COOLING CAPACITY		AIR FLOW CAPACITY		COIL DATA			MOTOR DATA						APPROXIMATE OPERATING WEIGHT (KGS)	REMARKS
			TR	BTU/ HR	CFM	CMH	NO. OF CIRCUITS	NO. OF ROWS	FPI	DRIVE	HP	WATTS	ELECTRICAL SUPPLY VOLTS	PHASE	CYCLE		
FCU-1	1	BASKETBALL COURT	16	192,000	6,000	3,400				DIRECT	4.02	3000	380	3	60	195	UNIT SHALL BE PACKAGE TYPE, CEILING DUCTED TYPE, FREE BLOW COMPLETE WITH WASHABLE TYPE AIR FILTERS, FITTINGS, VIBRATION ISOLATORS AND OTHER STANDARD ACCESSORIES. (A/C PROVISION)
FCU-2	1	BASKETBALL COURT	16	192,000	6,000	3,400				DIRECT	4.02	3000	380	3	60	196	
FCU-3	1	BASKETBALL COURT	16	192,000	6,000	3,400				DIRECT	4.02	3000	380	3	60	196	
FCU-4	1	BASKETBALL COURT	16	192,000	6,000	3,400				DIRECT	4.02	3000	380	3	60	196	
FCU-5	1	BASKETBALL COURT	16	192,000	6,000	3,400				DIRECT	4.02	3000	380	3	60	196	
FCU-6	1	BASKETBALL COURT	16	192,000	6,000	3,400				DIRECT	4.02	3000	380	3	60	196	
FCU-7	2	VIP LOUNGE	3	36000	1,200	2,040				DIRECT			220	1	60		UNIT SHALL BE SPLIT TYPE, 4-WAY CEILING CASSETTE TYPE, FREE BLOW COMPLETE WITH WASHABLE TYPE AIR FILTERS, FITTINGS, VIBRATION ISOLATORS AND OTHER STANDARD ACCESSORIES.
FCU-8	6	STALL (PROVISION)	2	24,000	635	1,080				DIRECT			220	1	60		UNIT SHALL BE SPLIT TYPE, WALL MOUNTED TYPE, FREE BLOW COMPLETE WITH WASHABLE TYPE AIR FILTERS, FITTINGS, VIBRATION ISOLATORS AND OTHER STANDARD ACCESSORIES.
FCU-9	2	MULTIPURPOSE ROOM	2.5	30,000	812	1,380				DIRECT			220	1	60		UNIT SHALL BE SPLIT TYPE, 2-WAY CEILING CASSETTE TYPE, FREE BLOW COMPLETE WITH WASHABLE TYPE AIR FILTERS, FITTINGS, VIBRATION ISOLATORS AND OTHER STANDARD ACCESSORIES.
FCU-10	2	LOBBY ENTRANCE	6	72,000	1,270	2,160				DIRECT			220	1	60		UNIT SHALL BE SPLIT TYPE, CEILING CONCEALED TYPE, FREE BLOW COMPLETE WITH WASHABLE TYPE AIR FILTERS, FITTINGS, VIBRATION ISOLATORS AND OTHER STANDARD ACCESSORIES.

VENTILATING EQUIPMENT

UNIT DESIGNATION	QUANTITY	AREA SERVED	AIR FLOW QUANTITY		TOTAL STATIC PRESSURE		MOTOR DRIVE	ELECTRICAL CHARACTERISTICS			REMARKS
			CFM	CMH	Pa.	INCH	HP	VOLTS	PHASE	CYCLE	
TEF-1	2	FEMALE TOILET	400	680				220	1	60Hz	UNIT SHALL BE CEILING MOUNTED, DUCTED TYPE COMPLETE WITH BACKFLOW DAMPER SIMILAR TO KDK MODEL OR APPROVED EQUAL.
TEF-2	2	MALE TOILET	280	476				220	1	60Hz	UNIT SHALL BE CEILING MOUNTED, DUCTED TYPE COMPLETE WITH BACKFLOW DAMPER SIMILAR TO KDK MODEL OR APPROVED EQUAL.
CEF-1	2	PWD TOILET	50	85				220	1	60Hz	UNIT SHALL BE CEILING MOUNTED, DUCTED TYPE COMPLETE WITH BACKFLOW DAMPER SIMILAR TO KDK MODEL OR APPROVED EQUAL.
CEF-1	2	VIP TOILET	50	85				220	1	60Hz	UNIT SHALL BE CEILING MOUNTED, DUCTED TYPE COMPLETE WITH BACKFLOW DAMPER SIMILAR TO KDK MODEL OR APPROVED EQUAL.
CEF-2	2	LOCKER ROOMS	50	85				220	1	60Hz	UNIT SHALL BE CEILING MOUNTED, DUCTED TYPE COMPLETE WITH BACKFLOW DAMPER SIMILAR TO KDK MODEL OR APPROVED EQUAL.
AC-1	6	ENTRANCE	583	983				220	1	60Hz	AIR CURTAIN, UNIT SHALL BE CEILING SUSPENDED OR WALL HANG TYPE, COMPLETE WITH AIR DEFLECTION VENT, SPEED CHANGEOVER PUSH BUTTON SWITCH.

GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
2. ALL DUCT DIMENSION INDICATE INSIDE CLEAR DIMENSION IN MILLIMETER.
3. ALL DUCTWORK TO BE FABRICATED IN ACCORDANCE WITH SMACNA STANDARDS.
4. ALL HVAC EQUIPMENT AND ACCESSORIES SHALL BE INSTALL AS PER MANUFACTURER'S INSTALLATION DETAIL.
5. ALL CONTROL SWITCHES SHALL BE ADJACENT TO ROOM LIGHT SWITCH UNLESS OTHERWISE INDICATED.
6. CONSTRUCTION SHALL CONFORM TO LOCAL BUILDING CODES AND STANDARDS. SHOULD THE CONTRACTOR PERFORM ANY WORK THAT DOES NOT COMPLY WITH THE ABOVE, HE SHALL BEAR ALL COSTS ARISING IN CORRECTING THESE DEFICIENCIES.
7. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION AND RELEVANT DRAWINGS.
8. PIPE ROUTING COULD BE MODIFIED TO SUIT FINAL EQUIPMENT SELECTION AND LOCATION.
9. ALL OPENINGS FOR DUCTS & PIPES SHALL NOT IN ANYWAY PENETRATE A STRUCTURAL RIB ON BEAMS UNLESS OTHERWISE AUTHORIZED AND APPROVED.
10. CONDENSATE DRAIN SIZE TO BE EQUAL TO DRAIN PAN OPENING SIZE OR SIZE INDICATED ON PLANS WHICHEVER IS GREATER.
11. BOLT EQUIPMENT TO CONCRETE PAD AS PER MANUFACTURER & RECOMMENDATION.
12. LOCATION OF CONTROL THERMOSTAT, LOCAL CONTROL PANEL (BLDG) & OTHER SENSORS SHALL BE A CONTRACTORS RESPONSIBILITY TO ENSURE AN EFFICIENT OPERATION OF THE SYSTEM.
13. REFRIGERANT PIPES SHOWN IN THE DRAWINGS ARE SCHEMATIC ONLY. TECHNICAL DETAILS FOR PIPE SIZES AND CONNECTIONS SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS.
14. ALL NECESSARY GOVERNMENT PERMITS SHALL BE SECURED AND PAID BY THE MECHANICAL CONTRACTOR.
15. THE PROSPECTIVE CONTRACTOR SHALL VISIT AND SURVEY THE PLACE OF INSTALLATION.
16. THERMOSTAT SHALL BE MOUNTED AT 1.5 METERS FROM FINISH FLOOR LEVEL.

LEGEND:

TR	TONS OF REFRIGERATION
EF	EXHAUST FAN
CFM	CUBIC FEET PER MINTUE
DC	DRAIN CONNECTION
KW	KILOWATTS
HP	HORSEPOWER
°C	DEGREES CELSIUS
°F	DEGREES FAHRENHEIT
WTAC	WINDOW TYPE AIRCONDITIONER
BTU/HR	BRITISH THERMAL UNIT PER HOUR
CMH	CUBIC METER PER HOUR
EAG	EXHAUST AIR GRILLE
EAD	EXHAUST AIR DUCT
ACCU	AIR COOLED CONDENSING UNIT
FCU	FAN COIL UNIT
FPI	FEET PER INCH.

REPUBLIC OF THE PHILIPPINES
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SHEET CONTENT :
AS SHOWN

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DRAFTSMAN II

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RECOMMENDED :
REGINA H. AGUSTIN
ASSISTANT DISTRICT ENGINEER
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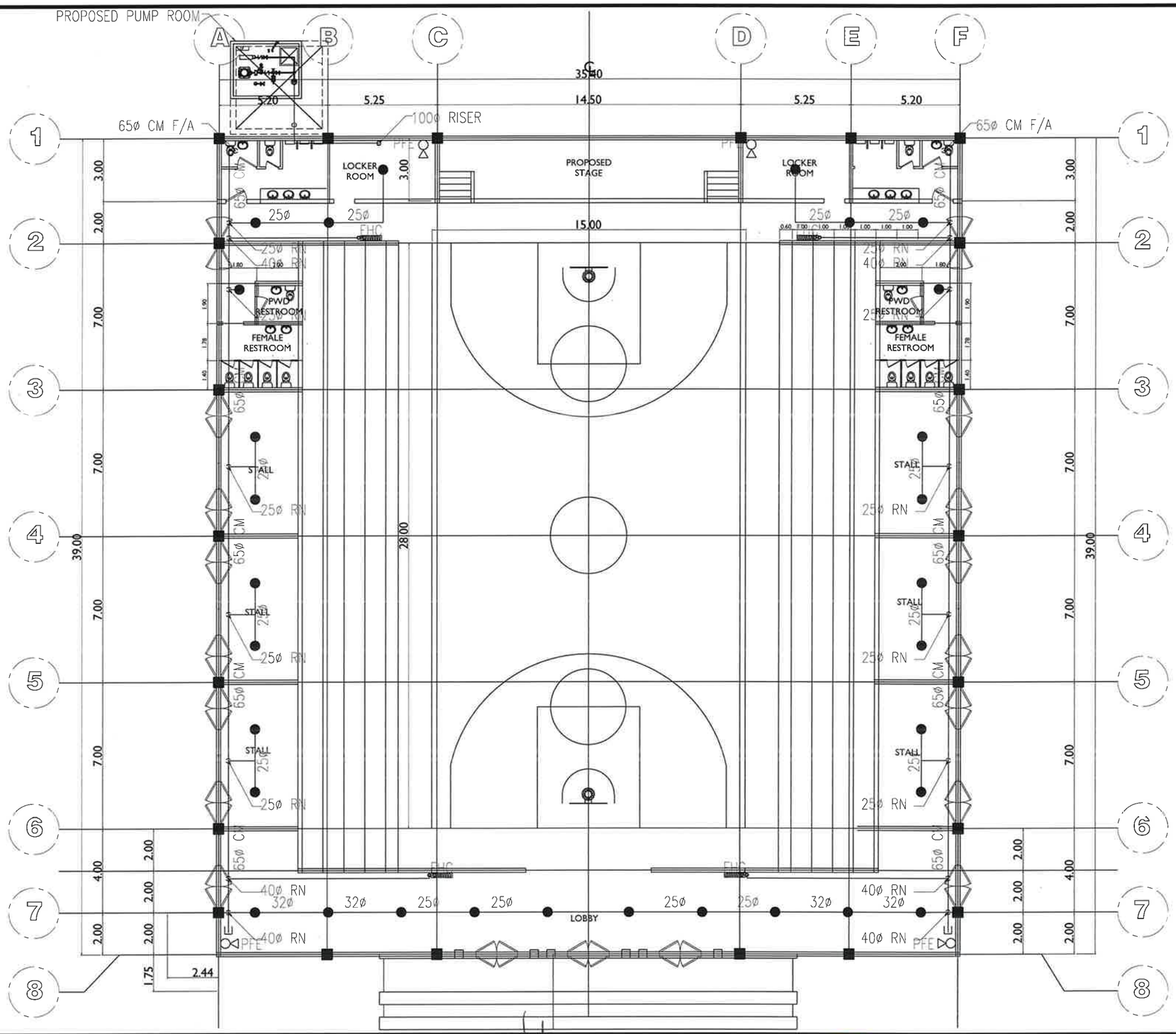
APPROVED :
JOHN PAOLO S. TAN
OIC-DISTRICT ENGINEER
DATE:

SET NO. M-6
SHT. NO. 61 / 65



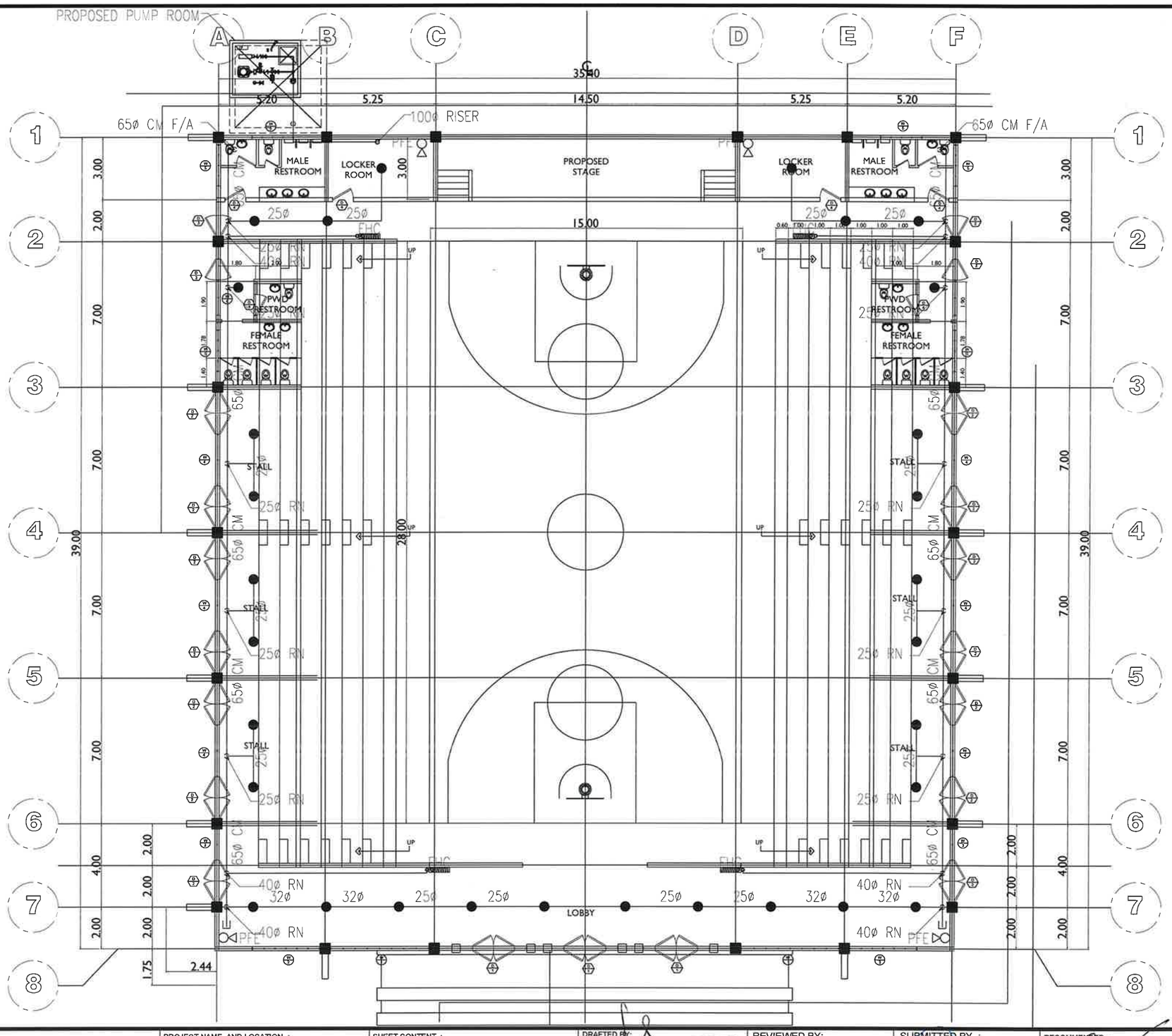
STALL FLOOR FIRE PROTECTION SYSTEM

SCALE 1:100mts

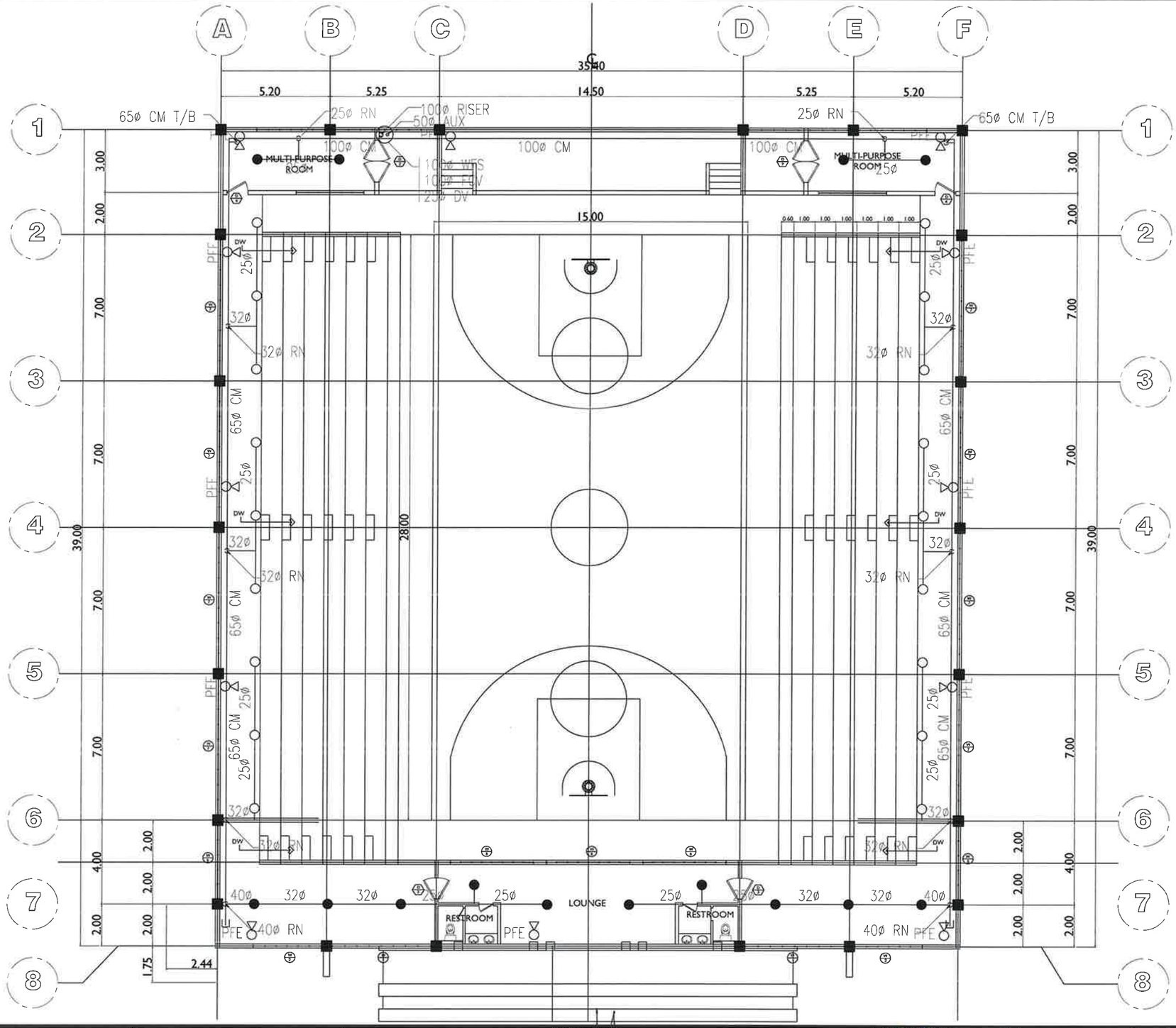
REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS BATAAN FIRST DISTRICT ENGINEERING OFFICE REGIONAL OFFICE III ROMAN EXPRESSWAY MULAWIN, ORANI, BATAAN	PROJECT NAME AND LOCATION : **BASIC INFRASTRUCTURE PROGRAM - MULTI - PURPOSE BUILDINGS/FACILITIES TO SUPPORT SOCIAL SERVICE - CONSTRUCTION OF MULTI-PURPOSE BUILDING (GYMNASIUM), SAMAL, BATAAN**	SHEET CONTENT : AS SHOWN	DRAFTED BY: ROYNALDO D. ANTONIO DRAFTSMAN II PREPARED BY: ROLANDO P. SOLIMAN ARCHITECT II	REVIEWED BY: ADRIAN M. DE GUZMAN ENGINEER II DATE:	SUBMITTED BY : CELIA M. RAMOS CHIEF, PLANNING AND DESIGN SECTION DATE:	RECOMMENDED : REGINA H. AGUSTIN ASSISTANT DISTRICT ENGINEER DATE:	APPROVED : JOHN PAOLO S. TAN OIC-DISTRICT ENGINEER DATE:	SET NO. M-7 SHT. NO. 62 / 65

GROUND FLOOR FIRE PROTECTION SYSTEM

SCALE 1:100mts



REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS BATAAN FIRST DISTRICT ENGINEERING OFFICE REGIONAL OFFICE III ROMAN EXPRESSWAY MULAWIN, ORANI, BATAAN	PROJECT NAME AND LOCATION : **BASIC INFRASTRUCTURE PROGRAM - MULTI - PURPOSE BUILDINGS/FACILITIES TO SUPPORT SOCIAL SERVICE - CONSTRUCTION OF MULTI-PURPOSE BUILDING (GYMNASIUM), SAMAL, BATAAN**	SHEET CONTENT : AS SHOWN	DRAFTED BY: REYNALDO D. ANTONIO DRAFTSMAN II PREPARED BY: ROLANDO P. SOLIMAN ARCHITECT II	REVIEWED BY: ADRIAN M. DE GUZMAN ENGINEER II DATE:	SUBMITTED BY : CELIA N. RAMOS CHIEF, PLANNING AND DESIGN SECTION DATE:	RECOMMENDED : REGINA H. AGUSTIN ASSISTANT DISTRICT ENGINEER DATE:	APPROVED : JOHN PAOLO S. TAN OIC-DISTRICT ENGINEER DATE:	SET NO. M-8 / SHT. NO. 63 / 65



SECOND FLOOR FIRE PROTECTION SYSTEM

SCALE 1:100mts

REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS BATAAN FIRST DISTRICT ENGINEERING OFFICE REGIONAL OFFICE III ROMAN EXPRESSWAY MULAWIN, ORANI, BATAAN	PROJECT NAME AND LOCATION : **BADIO INFRASTRUCTURE PROGRAM - MULTI - PURPOSE BUILDINGS/FACILITIES TO SUPPORT SOCIAL SERVICE - CONSTRUCTION OF MULTI-PURPOSE BUILDING (GYMNASIUM), SAMAL, BATAAN**	SHEET CONTENT : AS SHOWN	DRAFTED BY: REYNALDO B. ANTONIO DRAFTSMAN II PREPARED BY: ROLANDO P. SOLIMAN ARCHITECT II	REVIEWED BY: ADRIAN M. DE GUZMAN ENGINEER II DATE:	SUBMITTED BY : CELIA M. RAMOS CHIEF, PLANNING AND DESIGN SECTION DATE:	RECOMMENDED : REGINA H. AGUSTIN ASSISTANT DISTRICT ENGINEER DATE:	APPROVED : JOHN PAOLO S. TAN OIC-DISTRICT ENGINEER DATE:	SET NO. M-9 / SHT. NO. 64 / 65

PROPOSED
AUTOMATIC FIRE SPRINKLER SYSTEM LAYOUT AND DISTRIBUTION OF FHC & PFE
FIRE PROTECTION DRAWING INDEX

F. P. GENERAL NOTES

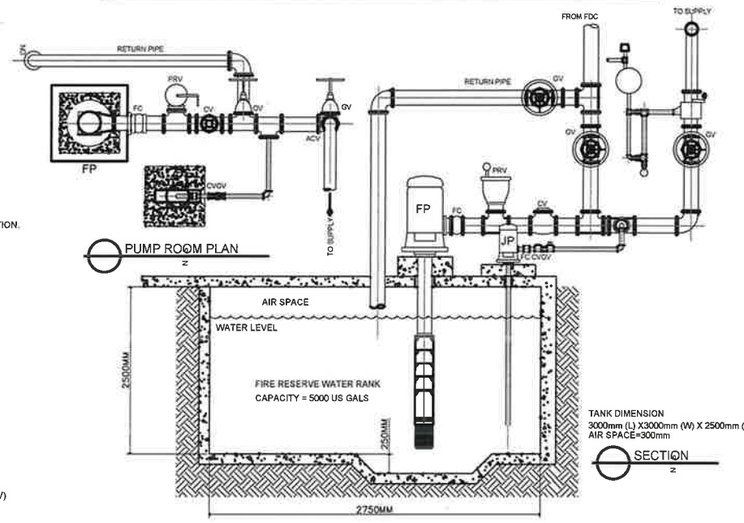
1. ALL WORKS HEREIN INCLUDED SHALL BE EXECUTED ACCORDING TO THE PROVISION OF THE NATIONAL FIRE PROTECTION ASSOCIATION (USA) AND LOSS PREVENTION COUNCIL (UK). ALL PIPE TO BE USED MUST STANDARD, SCHEDULE 40 BI PIPE, ASTM 52B
2. THE WORKS SHALL BE EXECUTED IN CLOSE COORDINATION WITH ALL TRADES.
3. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE EXACT LOCATION AND DIMENSIONS OF ALL REQUIRED WALL AND FLOOR OPENINGS.
4. THE EXACT LOCATION OF ALL SPRINKLER HEADS SHALL BE COORDINATED WITH THE ARCHITECTURAL CEILING LAYOUT AND SHALL BE SUBJECTED TO BOTH THE ARCHITECTS AND FIRE PROTECTION ENGINEERS APPROVAL.
5. LOCATION OF DRAIN PIPES AND OF THE BACK-UP SUPPLY LINES SHALL BE COORDINATED WITH THE PLUMBING CONTRACTOR.
6. LOCATION AND MOUNTING OF FIRE HOSE CABINETS SHALL BE COORDINATED WITH ARCHITECTURAL FINISHES AND BE SUBJECTED TO BOTH THE ARCHITECTS AND FIRE PROTECTION ENGINEERS APPROVAL.
7. SIZE OF RISER NIPPLES SHALL CONFORM TO PIPE SCHEDULES AS DELINEATED IN NFPA 13.
8. PIPE SUPPORTS, HANGERS AND BRACING SHALL BE OF THE APPROVED TYPE AND SHALL BE INDEPENDENT FROM CEILING AND DUCT SUPPORTS.
9. LOAD SIDE POWER SUPPLY CONDUIT, ROUGH-INS, AND WIRING TO THE FIRE PROTECTION EQUIPMENT SHALL BE BY THE FIRE SPRINKLER CONTRACTOR.
10. CONTROL WIRING AND TERMINATION FROM FLOW SWITCHES TO SPRINKLER SUPERVISORY ALARM CONTROL PANEL SHALL BE BY THE FIRE SPRINKLER CONTRACTOR.
11. SUPPLY, INSTALLATION AND COMMISSIONING OF SUPERVISORY ALARM CONTROL PANEL SHALL BE BY FIRE SPRINKLER CONTRACTOR.
12. SHOP DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR FOR FIRE PUMP LAYOUT, PIPE HANGER AND OTHER INSTALLATION AS REQUIRED AND INDICATED IN THE SPECIFICATION PRIOR TO IMPLEMENTATION.
13. ALL PIPES PASSING THRU WALLS AND FLOORS, PROVIDE PIPE SLEEVES. PIPE SLEEVE SHOULD HAVE PLASTIC WATERPROOF HEAT RESISTANT CAULKING COMPOUND WITH OAKUM MASTIC PACKING.
14. PROVIDE PIPE HANGER @ EVERY 2 METERS, SWAY BRACE AND CLEVIS SUPPORT @ EVERY 12 METERS.
15. PROVIDE FLANGE CONNECTION EVERY 12 METERS, AND ONE SIDE OF EVERY FITTING CONNECTION.
16. HEAD ROOM REQUIRED BY THE ARCHITECT MUST COMPLY BY THE CONTRACTOR, AND ALL CROSSMAIN, BRANCHLINE THAT PASSING THRU BEAM SHOULD BE PROVIDED BY PIPE SLEEVE.

F. P. LEGENDS & SYMBOLS

- RISER NIPPLE (RN)
- FEEDMAIN (FM)
- CROSSMAIN (CM)
- BRANCHLINE (BL)
- FIRE DEPT. CONN. (FDC)
- BUTTERFLY VALVE (BV)
- GATE VALVE (GV)
- ELBOW TURNED DOWN
- ELBOW TURNED UP
- CHECK VALVE
- FLUSHING CONNECTION
- UNION PATENTE
- PIPE SLEEVE
- FLANGE CONNECTION
- SPRINKLER RISER
- ALARM CHECK VALVE (ACV)
- BLIND FLANGE
- PIPE HANGER
- FLOOR CONTROL VALVE (FCV)
- TWO WAY SWAY BRACE
- FIRE HOSE CABINET (FHC-R) RECESSED
- FIRE HOSE CABINET (FHC-S) SURFACED
- UPRIGHT SPRINKLER HEAD
- PENDENT SPRINKLER HEAD
- SIDEWALL SPRINKLER HEAD
- INSPECTOR TEST CONNECTION (ITC)
- AAV — AUTOMATIC AIR-RELEASE VALVE

SCHEDULE OF EQUIPMENT

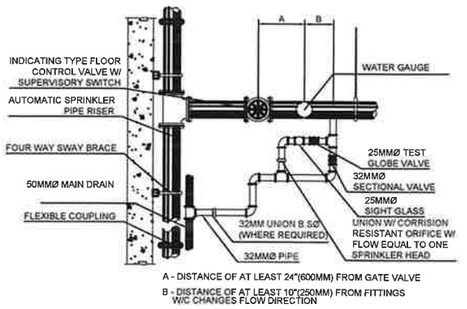
DESIGNATION	QUANTITY	TYPE	DRIVE	PUMP CHARACTERISTICS		MOTOR DATA			
				CAPACITY (GPM)	HEAD (PSI)	RATING (HP)	VOLTAGE	PHASE	CYCLE
FIRE PUMP (PUMP ROOM)	1	HORIZONTAL IN LINE MULTI-STAGE	ELECTRIC	150	180	15	230	1Ø	60 Hz
JOCKEY PUMP (BASEMENT)	1	VERTICAL IN LINE MULTI-STAGE	ELECTRIC	30	180	3	230	1Ø	60 Hz



PUMP ROOM PLAN

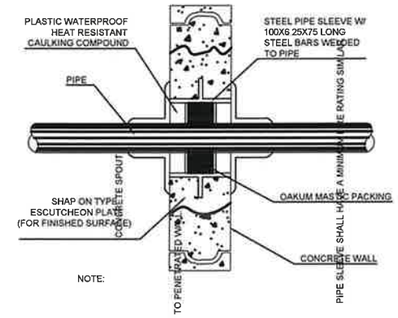
TANK DIMENSION
3000mm (L) X3000mm (W) X 2500mm (D)
AIR SPACE=300mm

SECTION



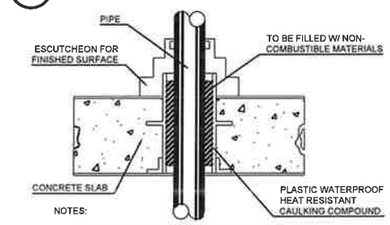
A - DISTANCE OF AT LEAST 24"(600MM) FROM GATE VALVE
B - DISTANCE OF AT LEAST 10"(250MM) FROM FITTINGS W/C CHANGES FLOW DIRECTION

FLOOR CONTROL VALVE & AUXILLIARY DRAIN



NOTE:

PIPE SLEEVE THRU WALLS & BEAMS



NOTES:

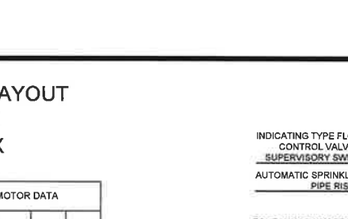
SLEEVE SHALL BE PROVIDED AROUND ALL PIPING EXTENDING THRU WALLS & FOUNDATION.

A. MINIMUM CLEARANCE BETWEEN PIPES AND SLEEVES SHALL NOT BE LESS THAN 25mm. FOR PIPES 25mm THROUGH 90mm &50mm. FOR PIPES 100mm. LARGER.

B. THE CLEARANCE BETWEEN THE PIPE SLEEVE SHALL BE FILLED W/ NON-COMBUSTIBLE FLEXIBLE MATERIALS SUCH AS MINERAL WOOL FIBERGLASS OR EQUIVALENT PIPE SHALL NOT DECLARE FIRE RATING OF WALLS AND FLOORS.

C. FLOOR SLEEVES SHALL BE EXTENDED AT LEAST 75mm. ABOVE THE TOP OF THE WEARING SURFACE.

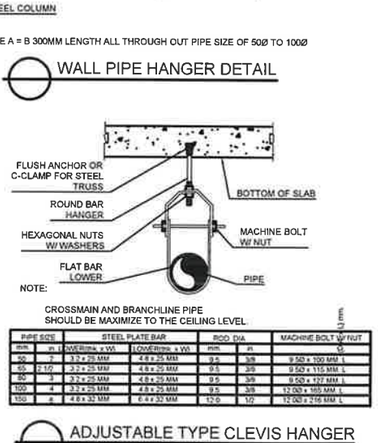
FLUSHING CONNECTION DETAIL



NOTE:

CROSSMAIN AND BRANCHLINE PIPE SHOULD BE MAXIMIZE TO THE CEILING LEVEL.

PIPE RISER BRACKET DETAIL

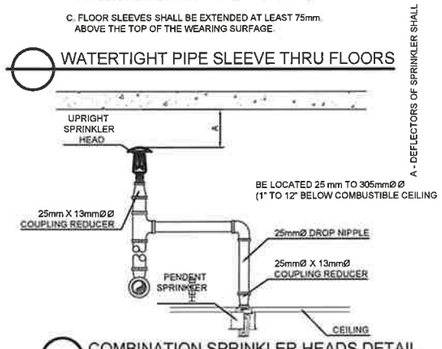


NOTE:

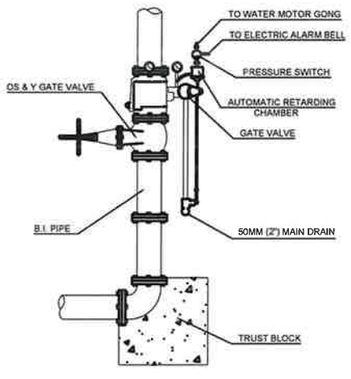
CROSSMAIN AND BRANCHLINE PIPE SHOULD BE MAXIMIZE TO THE CEILING LEVEL.

PIPE SIZE		STEEL PLATE BAR		ROD DIA		MACHINE BOLT W/ NUT
mm	in	LONGITUDINAL x WIDTH	LONGITUDINAL x WIDTH	mm	in	
50	2	3.2 x 25 MM	4.8 x 25 MM	9.5	3/8	9 5Ø x 100 MM L
65	2 1/2	3.2 x 25 MM	4.8 x 25 MM	9.5	3/8	9 5Ø x 115 MM L
80	3	3.2 x 25 MM	4.8 x 25 MM	9.5	3/8	9 5Ø x 127 MM L
100	4	3.2 x 25 MM	4.8 x 25 MM	9.5	3/8	12 Ø5 x 165 MM L
150	6	4.8 x 32 MM	6.4 x 32 MM	12.0	1/2	12 Ø8 x 216 MM L

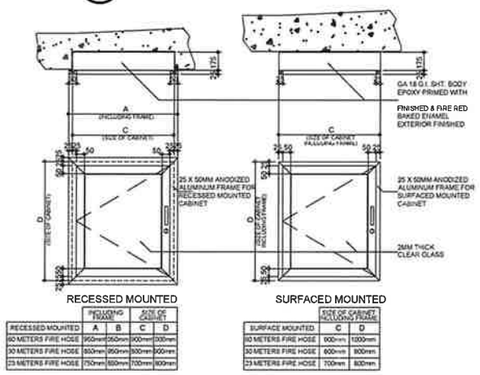
ADJUSTABLE TYPE CLEVIS HANGER



COMBINATION SPRINKLER HEADS DETAIL



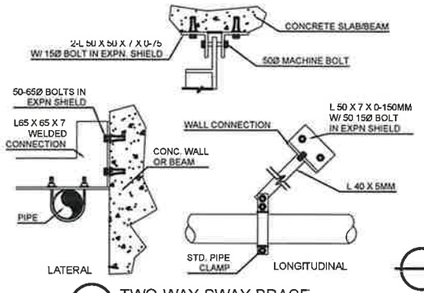
ALARM CHECK VALVE ASSEMBLY



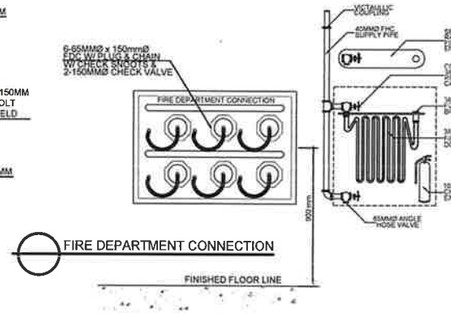
RECESSED MOUNTED	HOLDING FRAME		SIZE OF CABINET	
	A	B	C	D
60 METERS FIRE HOSE	950mm	350mm	900mm	300mm
30 METERS FIRE HOSE	850mm	350mm	800mm	300mm
23 METERS FIRE HOSE	750mm	350mm	700mm	300mm

SURFACE MOUNTED	SIZE OF CABINET INCLUDING FRAME	
	C	D
60 METERS FIRE HOSE	900mm	1000mm
30 METERS FIRE HOSE	800mm	900mm
23 METERS FIRE HOSE	700mm	800mm

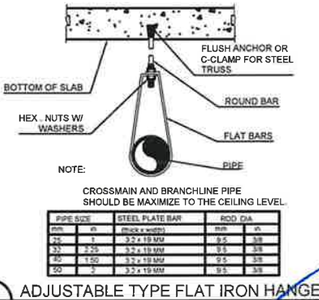
FIRE HOSE CABINET AND ACCESSORIES DETAIL



TWO-WAY SWAY BRACE



FIRE DEPARTMENT CONNECTION



CROSSMAIN AND BRANCHLINE PIPE SHOULD BE MAXIMIZE TO THE CEILING LEVEL.

PIPE SIZE		STEEL PLATE BAR	ROD DIA	
mm	in	(mm) x width	mm	in
25	1	3.2 x 19 MM	9.5	3/8
32	1.25	3.2 x 19 MM	9.5	3/8
40	1.50	3.2 x 19 MM	9.5	3/8
50	2	3.2 x 19 MM	9.5	3/8

ADJUSTABLE TYPE FLAT IRON HANGER

A - DEFLECTORS OF SPRINKLER SHALL

REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS BATAAN FIRST DISTRICT ENGINEERING OFFICE REGIONAL OFFICE III ROMAN EXPRESSWAY MULAWIN, ORANI, BATAAN	PROJECT NAME AND LOCATION : **BASIC INFRASTRUCTURE PROGRAM - MULTI - PURPOSE BUILDINGS/FACILITIES TO SUPPORT SOCIAL SERVICE - CONSTRUCTION OF MULTI-PURPOSE BUILDING (GYMNASIUM), SAMAL, BATAAN**	SHEET CONTENT : AS SHOWN	DRAFTED BY: REYNALDO B. ANTONIO DRAFTSMAN II PREPARED BY: ROLANDO P. SOLIMAN ARCHITECT II	REVIEWED BY: ADRIAN M. DE GUZMAN ENGINEER II DATE:	SUBMITTED BY : CELIA M. RAMOS CHIEF, PLANNING AND DESIGN SECTION DATE:	RECOMMENDED : REGINA H. AGUSTIN ASSISTANT DISTRICT ENGINEER DATE:	APPROVED : JOHN PAOLO S. TAN OIC-DISTRICT ENGINEER DATE:	SET NO. M-10	SHT. NO. 65 65