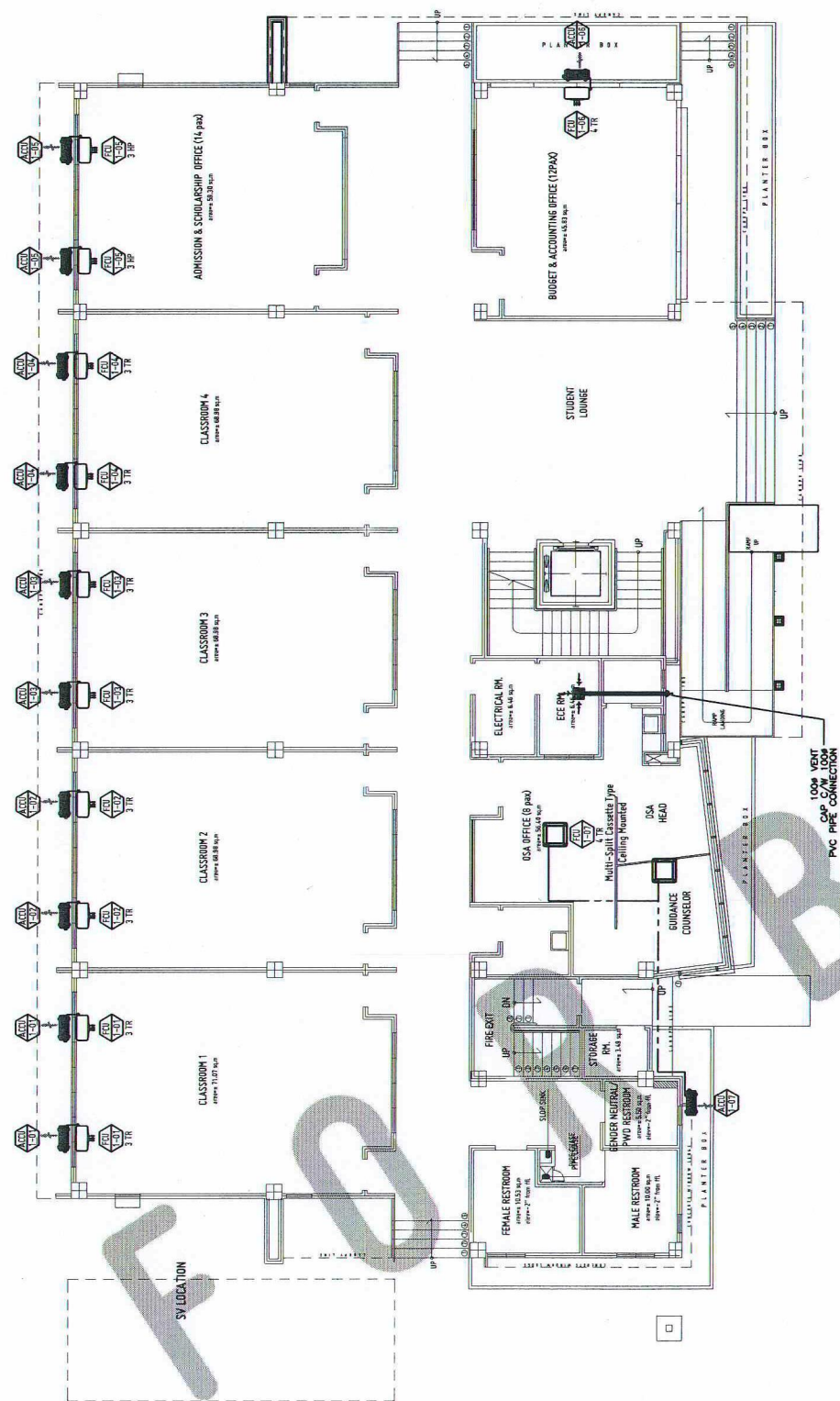
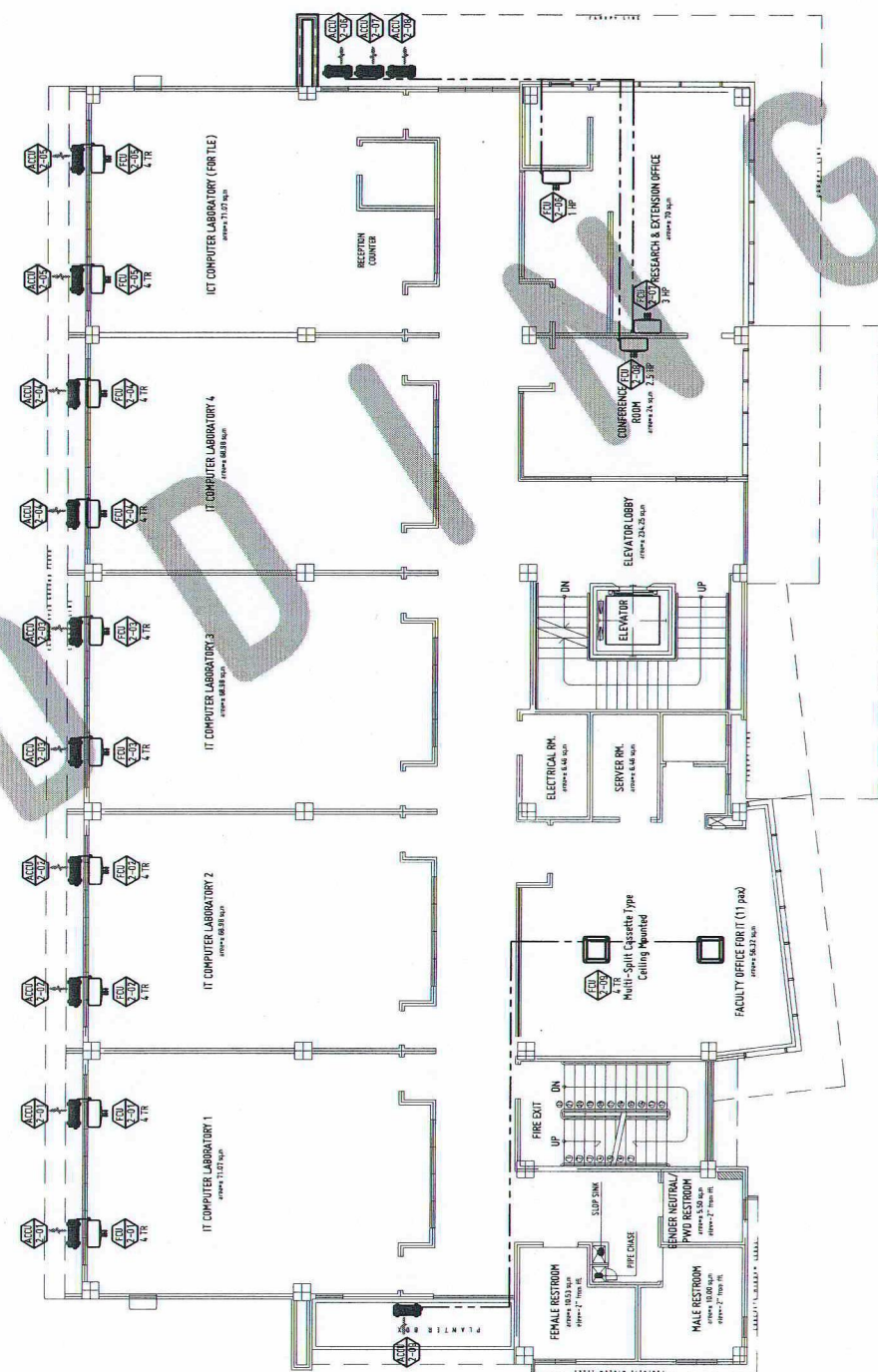




GROUND FLOOR MECHANICAL LAYOUT PLAN

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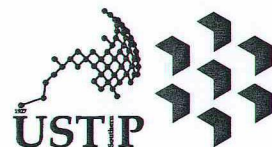
SCALE



SECOND FLOOR MECHANICAL LAYOUT PLAN

1:100M

SCALE



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UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES
CAGAYAN DE ORO CAMPUS
INFRASTRUCTURE PLANNING AND FACILITY DEVELOPMENT UNIT
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PROJECT
LOCATION
OWNER

PROPOSED ESTABLISHMENT OF 3-STOREY SMART COMPUTING
ACADEMIC BUILDING PHASE 1, OROQUIETA CAMPUS
USTP OROQUIETA CAMPUS, MOBDO, MISAMIS OCCIDENTAL
UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES

RECOMMENDING APPROVAL:
ENGR. GRACE C. BABA
DIRECTOR, INFRASTRUCTURE PLANNING & FACILITY DEVELOPMENT OFFICE

RECOMMENDING APPROVAL:
DR. GLORIMER L. CLARIN
CAMPUS DIRECTOR, USTP OROQUIETA CAMPUS

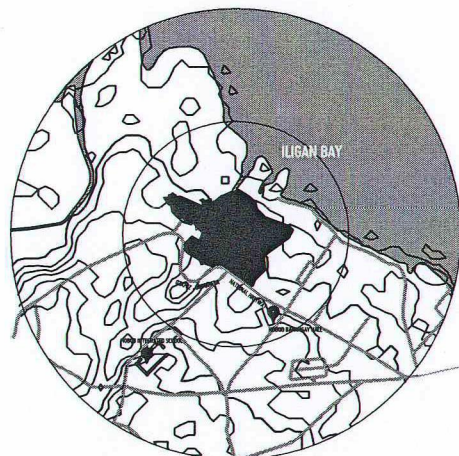
APPROVED BY:
ATTY. JONATHAN S. OCHE
VP FOR ADMINISTRATION & LEGAL AFFAIRS

APPROVED BY:
DR. AMBROSIO B. CULTURA II
PRESIDENT, USTP SYSTEM

SHEET CONTENTS:
HVAC FOR GROUND AND SECOND FLOOR

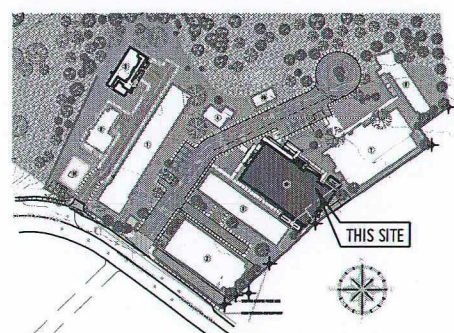
DRAWN BY:
DATE DRAWN:
05.01.2026
FNT:

M1



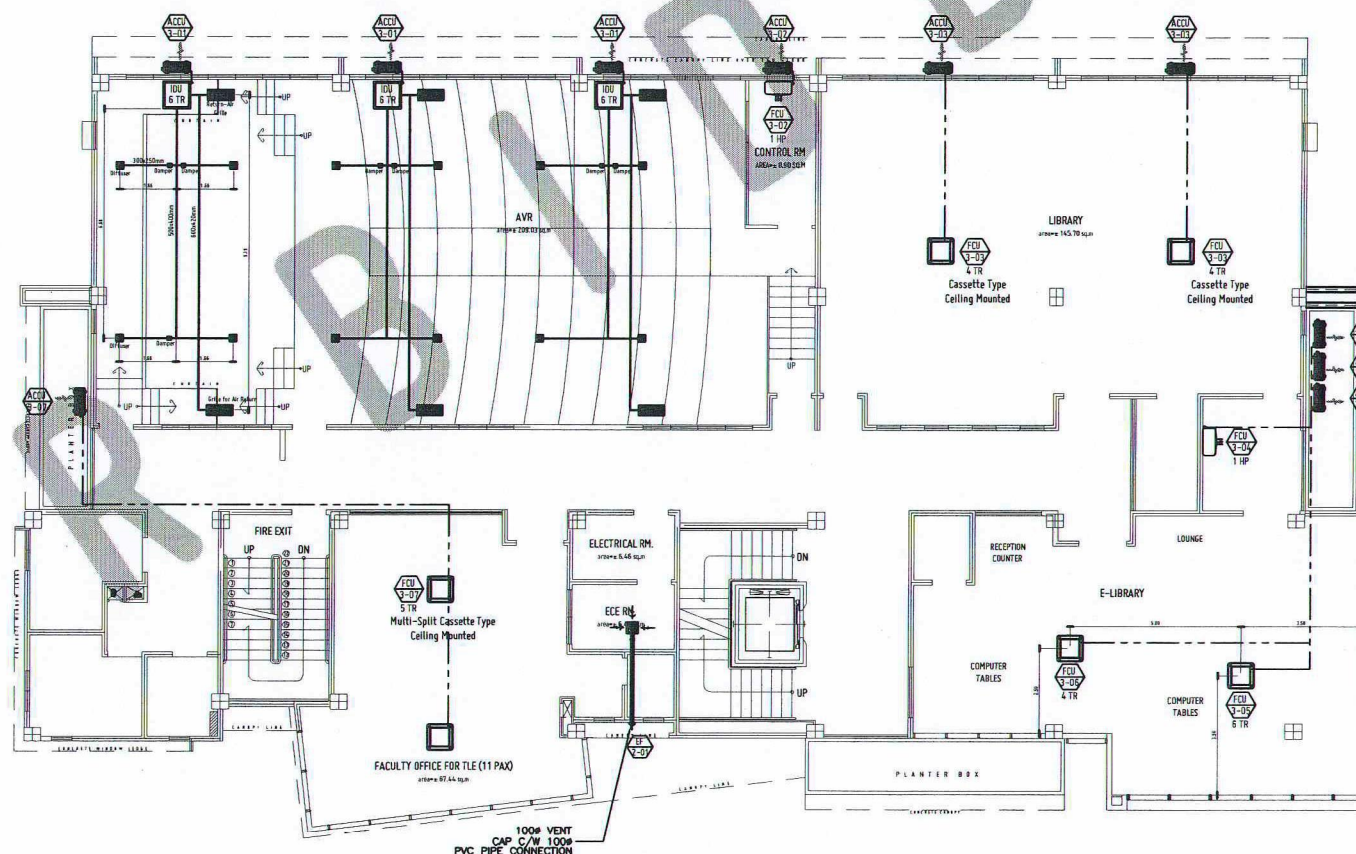
VICINITY MAP

NTS



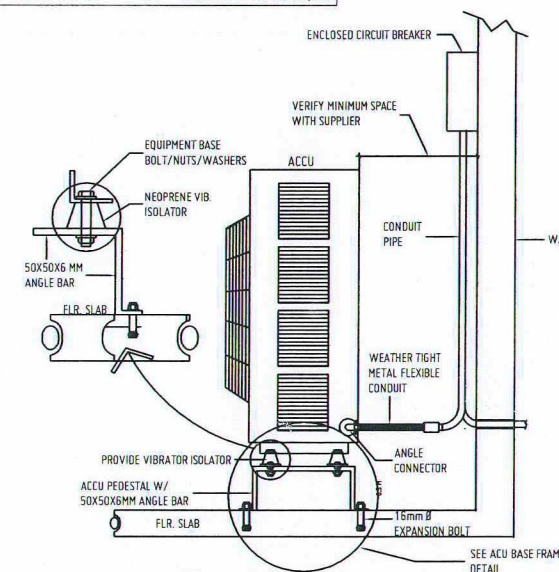
LOCATION PLAN

NTS

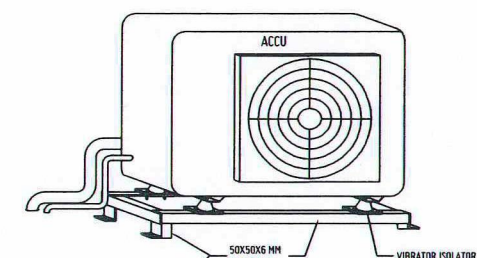


THIRD FLOOR MECHANICAL LAYOUT PLAN

SCALE: 1:100M



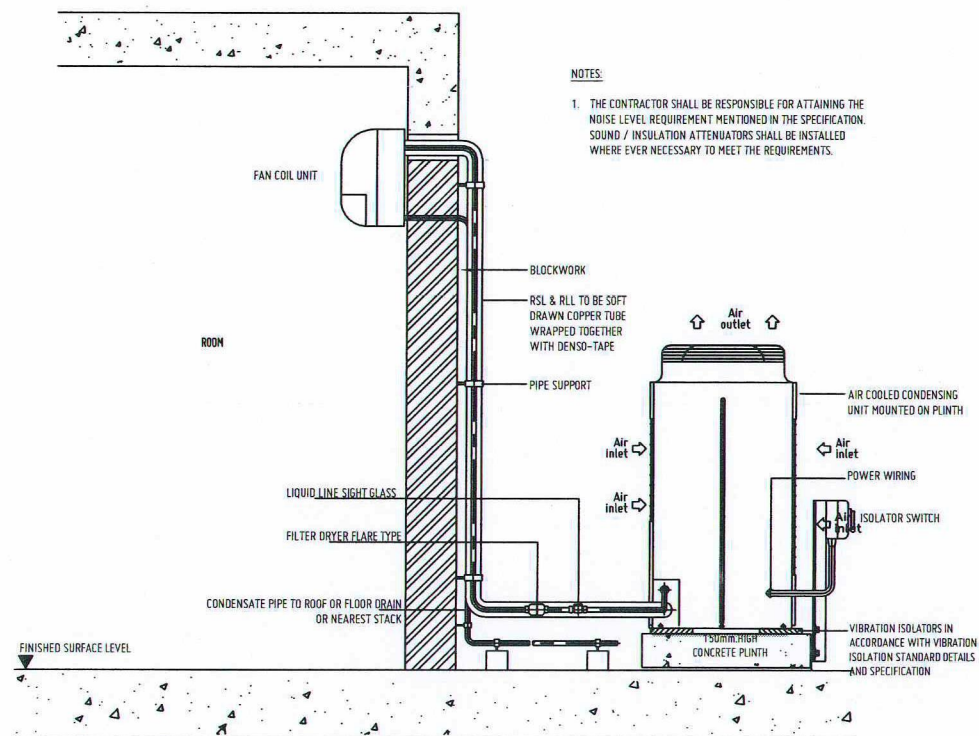
ACU MOUNTING DETAIL
NOT TO SCALE



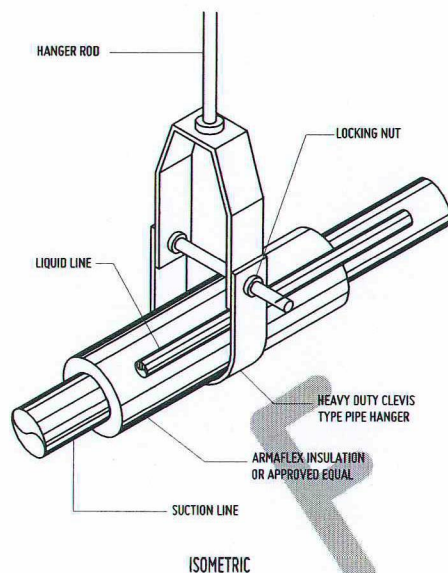
ACU BASE FRAME DETAIL
NOT TO SCALE

MARK NO.		QTY	TYPE	LOCATION	CAPACITY	UNIT	SUPPLY FAN		OPERATING TEMPERATURE				COMPRESSOR DATA				REFRIGERANT DATA	
						HP/TR	AIR FLOW LPS	MOTOR WATTS	E.A.T. deg.C	EVAPORATING deg.C	CONDENSING deg.F	deg.C	deg.F	MOTOR INPUT (KW)	V	PH		HZ
OUTDOOR	INDOOR																	
ACCU 1-01	FCU 1-01	2	Wall Mounted	GF- Classroom 1	3.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	10.77	230	1	60	R410 OR APPROVE EQUIV
ACCU 1-02	FCU 1-02	2	Wall Mounted	GF- Classroom 2	3.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	19.75	230	1	60	R410 OR APPROVE EQUIV
ACCU 1-03	FCU 1-03	2	Wall Mounted	GF- Classroom 3	3.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	19.38	230	1	60	R410 OR APPROVE EQUIV
ACCU 1-04	FCU 1-04	2	Wall Mounted	GF- Classroom 4	3.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	19.38	230	1	60	R410 OR APPROVE EQUIV
ACCU 1-05	FCU 1-05	2	Wall Mounted	GF- Admission & Scholarship Office	3.0	HP	VARIABLE	VARIABLE	37	4.44	40	48.8	120	19.38	230	1	60	R410 OR APPROVE EQUIV
ACCU 1-06	FCU 1-06	1	Wall Mounted	GF- Budget & Acc. Office	4.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	19.75	230	1	60	R410 OR APPROVE EQUIV
ACCU 1-07	FCU 1-07	1	Ceiling Mounted	GF- OSA Office	4.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	5.75	230	1	60	R410 OR APPROVE EQUIV
ACCU 2-01	FCU 2-01	2	Wall Mounted	2F- IT Com. Lab. 1	4.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	6.50	230	1	60	R410 OR APPROVE EQUIV
ACCU 2-02	FCU 2-02	2	Wall Mounted	2F- IT Com. Lab. 2	4.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	13.11	230	1	60	R410 OR APPROVE EQUIV
ACCU 2-03	FCU 2-03	2	Wall Mounted	2F- IT Com. Lab. 3	4.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	2.22	230	1	60	R410 OR APPROVE EQUIV
ACCU 2-04	FCU 2-04	2	Wall Mounted	2F- IT Com. Lab. 4	4.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	30.29	230	1	60	R410 OR APPROVE EQUIV
ACCU 2-05	FCU 2-05	2	Wall Mounted	2F- ITC Com. Lab.	4.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	17.91	230	1	60	R410 OR APPROVE EQUIV
ACCU 2-06	FCU 2-06	1	Wall Mounted	2F- R&E Office Reception	1.0	HP	VARIABLE	VARIABLE	37	4.44	40	48.8	120	18.06	230	1	60	R410 OR APPROVE EQUIV
ACCU 2-07	FCU 2-07	1	Wall Mounted	2F- R&E Office	3.0	HP	VARIABLE	VARIABLE	37	4.44	40	48.8	120	18.06	230	1	60	R410 OR APPROVE EQUIV
ACCU 2-08	FCU 2-08	1	Wall Mounted	2F- Conference	2.5	HP	VARIABLE	VARIABLE	37	4.44	40	48.8	120	18.32	230	1	60	R410 OR APPROVE EQUIV
ACCU 2-09	FCU 2-09	1	Ceiling Mounted	2F- Faculty Office	4.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	12.68	230	1	60	R410 OR APPROVE EQUIV
ACCU 3-01	FCU 3-01	3	Concealed Ceiling Mounted	3F- AVR	6.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	6.27	230	1	60	R410 OR APPROVE EQUIV
ACCU 3-02	FCU 3-02	1	Wall Mounted	3F- Control Room	1.0	HP	VARIABLE	VARIABLE	37	4.44	40	48.8	120	15.27	230	1	60	R410 OR APPROVE EQUIV
ACCU 3-03	FCU 3-03	2	Cassette Ceiling Mounted	3F- Library	4.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	18.13	230	1	60	R410 OR APPROVE EQUIV
ACCU 3-04	FCU 3-04	1	Wall Mounted	3F- Librarian	1.0	HP	VARIABLE	VARIABLE	37	4.44	40	48.8	120	18.13	230	1	60	R410 OR APPROVE EQUIV
ACCU 3-05	FCU 3-05	1	Cassette Ceiling Mounted	3F- E-Library	4.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	18.38	230	1	60	R410 OR APPROVE EQUIV
ACCU 3-06	FCU 3-06	1	Cassette Ceiling Mounted	3F- E-Library	6.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	17.46	230	1	60	R410 OR APPROVE EQUIV
ACCU 3-07	FCU 3-07	1	Cassette Ceiling Mounted	3F- Faculty Office	5.0	TR	VARIABLE	VARIABLE	37	4.44	40	48.8	120	6.50	230	1	60	R410 OR APPROVE EQUIV

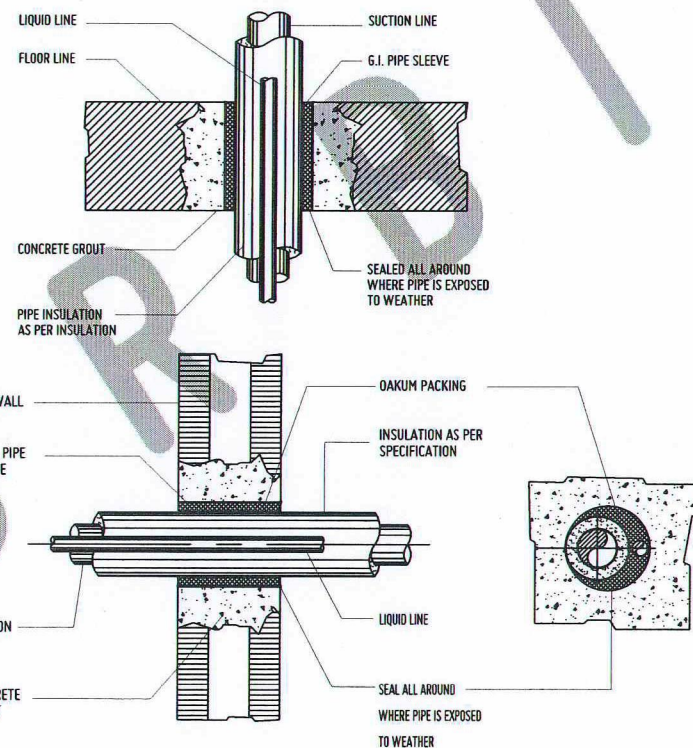
MARK NO.	QTY	TYPE	LOCATION	CAPACITY	STATIC PRESSURE	AIR VELOCITY	MOTOR DATA
EF ECE RM.	3	CEILING MOUNTED	ECE ROOMS	120	27	7.3	VARIABLE 230/1/60



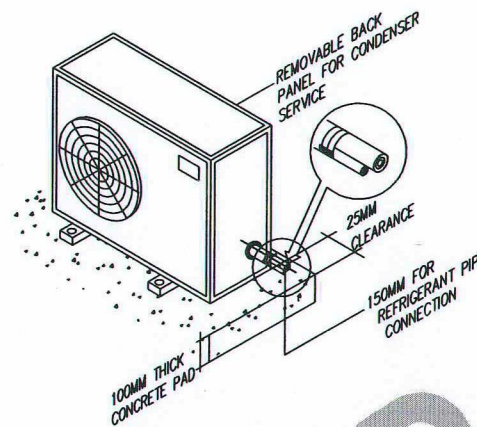
TYPICAL SPLIT-TYPE CONNECTION DETAIL
M 3 1 NTS



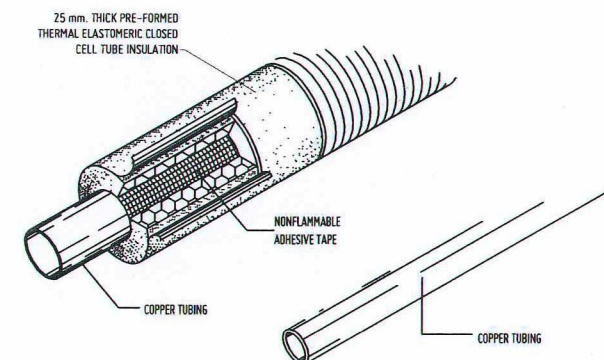
REFRIGERANT PIPE HANGER DETAIL
M 3 3 NTS



REFRIGERANT PIPE THRU WALL DETAIL
M 3 4 NTS



ACCU MOUNTING DETAIL
M 3 2 NTS



- NOTE:
- CONDENSATE DRAIN PIPE INSULATION SHALL BE OF SIMILAR MATERIAL BUT 19 mm. THICK.
 - PROVIDE ALUMINUM CLADDING FOR OUTDOOR REFRIGERANT PIPING.

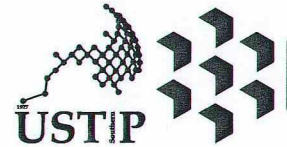
REFRIGERANT PIPE INSULATION DETAIL
M 3 5 NTS

GENERAL NOTES:

- ALL MECHANICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE PHILIPPINES NATIONAL BUILDING CODE (PSME CODE), PSVARE ASHRAE, SMACNA, FIRE CODE OF THE PHILIPPINES AND OTHER REGULATION OF THE LOCAL COMMUNITY.
- THE TOTAL SCOPE OF WORKS SHALL INCLUDE ALL WORKS DESCRIBED IN THE PLANS LISTED IN THE TECHNICAL SPECIFICATIONS FOR MECHANICAL WORKS.
- THE WORKS SHALL BE EXECUTED IN CLOSED COORDINATION WITH ALL OTHER TRADES.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, EQUIPMENT CATALOG, SAMPLES OF ALL THE MATERIAL TO BE USED BEFORE EXECUTION OF THE WORKS.
- THE CONTRACTOR OR SUPPLIER SHALL INSTALL ALL MATERIAL AND EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
- ALL PIPE AND DUCT PENETRATION SHALL BE CAULKED WITH FIRE SEALANT.
- ALL EQUIPMENT REST ON SLAB AND CEILING SHALL BE PROVIDED WITH VIBRATION ISOLATOR TO PREVENT VIBRATION AND NOISE TRANSMISSION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONCRETE PAD AND SUPPORT OF ALL MECHANICAL EQUIPMENT.
- THE CONTRACTOR SHALL ARRANGED THE PIPING, DUCTING AND EQUIPMENT TO HAVE EASY ACCESS FOR REMOVING, CLEANING AND SERVICING WITHOUT DISMANTLING THE SYSTEM.
- ALL POWER WIRING UP TO SPLICE BOX SHALL BE THE ELECTRICAL CONTRACTOR FROM SPLICE BOX TO THE EQUIPMENT BY MECHANICAL CONTRACTOR.
- PROVIDE AND INSTALL CONTROLS AND CONTROL WIRINGS FOR ALL AIR-CONDITIONING EQUIPMENT.
- PROVIDE THERMOSTAT TO ALL INDOOR UNITS.
- PROVIDE SEPARATE CONDENSER DRAIN RISER.
- PIPE ALL EQUIPMENT DRAIN TO THE NEAREST FLOOR DRAIN PROVIDED BY PLUMBING CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BALANCING, TESTING AND COMMISSIONING OF THE WHOLE AIR CONDITIONING, VENTILATION SYSTEM AND SUBMIT WRITTEN DATA PRIOR TO TURN OVER.
- WORKMANSHIP: THE WORK THROUGHOUT SHALL BE EXECUTED IN THE BEST & MOST THOROUGH MANNER KNOWN TO TRADE & TO THE SATISFACTION OF THE ARCHITECT AND THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL GOVERNMENT/LOCAL CONSTRUCTION AND OPERATION PERMITS AND PAY ALL THE REQUIRED FEES.
- ALL ACCU ON GROUND FLOOR SHALL BE PAD MOUNTED.

NOTES ON PIPING INSTALLATION:

- REFRIGERANT PIPES SHALL BE INTERNALLY CLEANED BY SWABBING WITH CLEAN COTTON CLOTH TO REMOVE ALL DUST, BURRS, AND OTHER MISCELLANEOUS DIRT.
- WHILE SOLDERING JOINTS, A SWEEP OF INERT NITROGEN GAS SHOULD BE PASSED THROUGH PIPES TO PREVENT OXIDATION DEPOSITS INSIDE.
- FITTINGS:
 - USE STANDARD LONG RADIUS COPPER ELBOWS, REDUCERS, ETC. DO NOT USE FIELD-FORMED ELBOWS, REDUCERS, ETC.
 - JOINTS BETWEEN PIPES SHOULD BE THROUGH STANDARD COPPER COUPLING FORMED FITTING MADE BY SWAGING OR ENLARGING ONE PIPE END TO BE ABLE TO RECEIVE THE OTHER PIPE SECTION WOULD NOT BE ALLOWED.
 - JOINTS TO SCREWED ACCESSORIES SUCH AS EXPANSION VALVES, FILTER DRIER, ETC. SHALL BE MADE WITH STANDARD FLARED FITTINGS.
- THE COMPLETED PIPING INSTALLATION SHOULD BE LEAK TESTED BY SUBJECTING THE SAME (BOTH LIQUID AND SUCTION LINE) TO A PRESSURE OF 3100 Pa USING DRY NITROGEN GAS. THIS PRESSURE SHOULD BE LEFT FOR 24 HOURS AND IF THERE IS NO NOTICEABLE REDUCTION IN PRESSURE WITHIN THE PERIOD, THE NITROGEN CHARGE SHALL BE RELIEVED DOWN TO 140KPa TO SERVE AS HOLDING CHARGE WHILE WAITING FOR THE EQUIPMENT CONNECTION. IF THERE IS NOTICEABLE REDUCTION IN THE TEST PRESSURE, LEAK SHOULD BE LOCATED AND REPAIRED.
- PROPERLY TESTED PIPING SHOULD BE SECURELY CAPPED AT BOTH ENDS AND WITH HOLDING CHARGED AS STATED IN ITEM 4 ABOVE WHILE WAITING FOR FINAL CONNECTION TO EQUIPMENT. INSULATE SUCTION PIPING ONLY AFTER PROPER LEAK TESTING.



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PROJECT	PROPOSED ESTABLISHMENT OF 3-STOREY SMART COMPUTING ACADEMIC BUILDING PHASE 1, OROQUIETA CAMPUS
LOCATION	USTP OROQUIETA CAMPUS, MOBOD, MISAMIS OCCIDENTAL
OWNER	UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES

RECOMMENDING APPROVAL:	ENGR. GRACE C. BABA DIRECTOR, INFRASTRUCTURE PLANNING & FACILITIES DEVELOPMENT OFFICE
RECOMMENDING APPROVAL:	DR. GLOMER L. CLARIN CAMPUS DIRECTOR, USTP OROQUIETA CAMPUS
APPROVED BY:	ATTY. JONATHAN S. OCHE VP FOR ADMINISTRATION & LEGAL AFFAIRS
APPROVED BY:	DR. AMBROSIO B. CULTURA II PRESIDENT, USTP SYSTEM

SHEET CONTENTS:	ACCU MOUNTING DETAIL, AIR-CONDITIONING PIPING DETAIL
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ENR:	

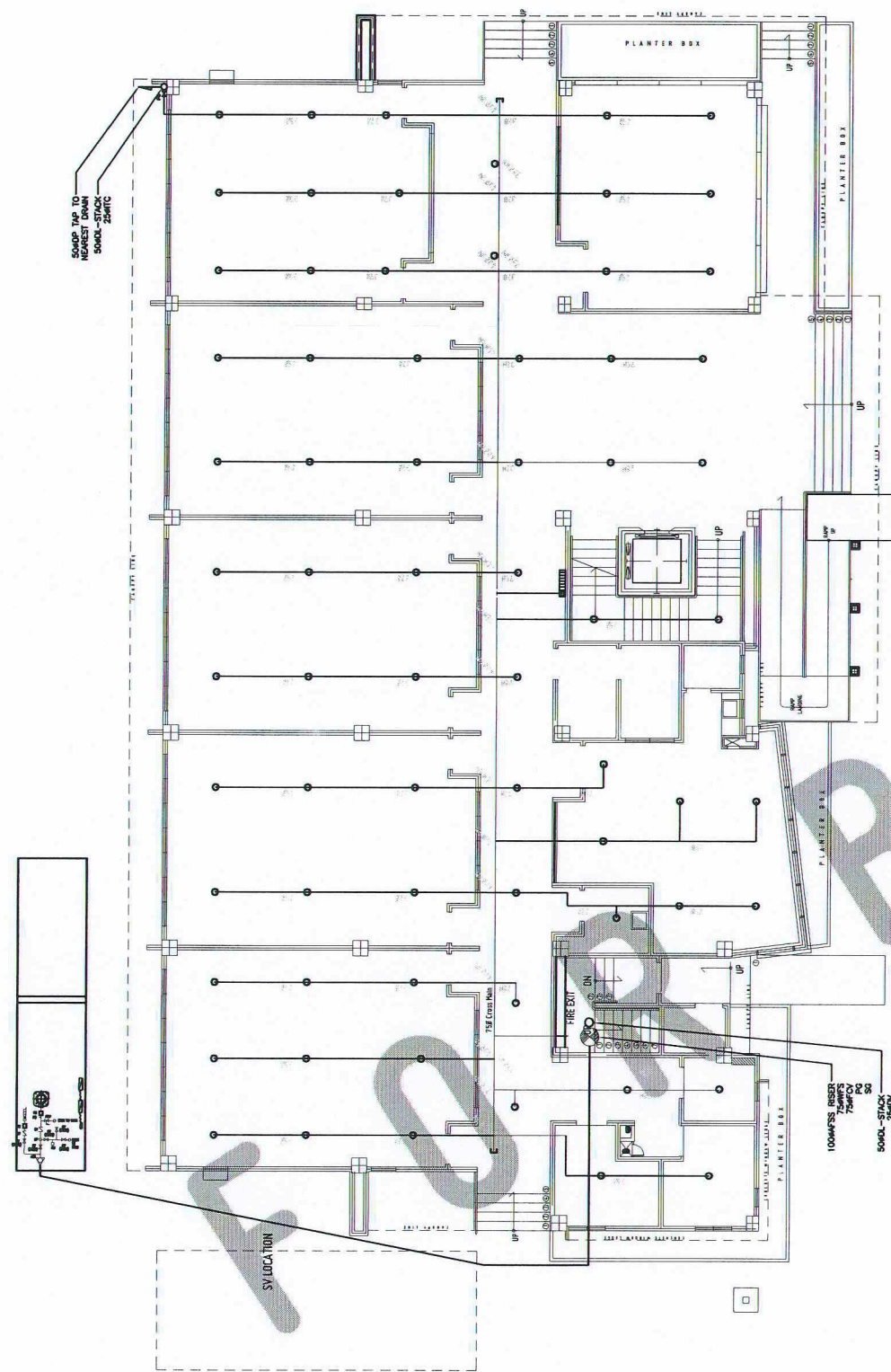
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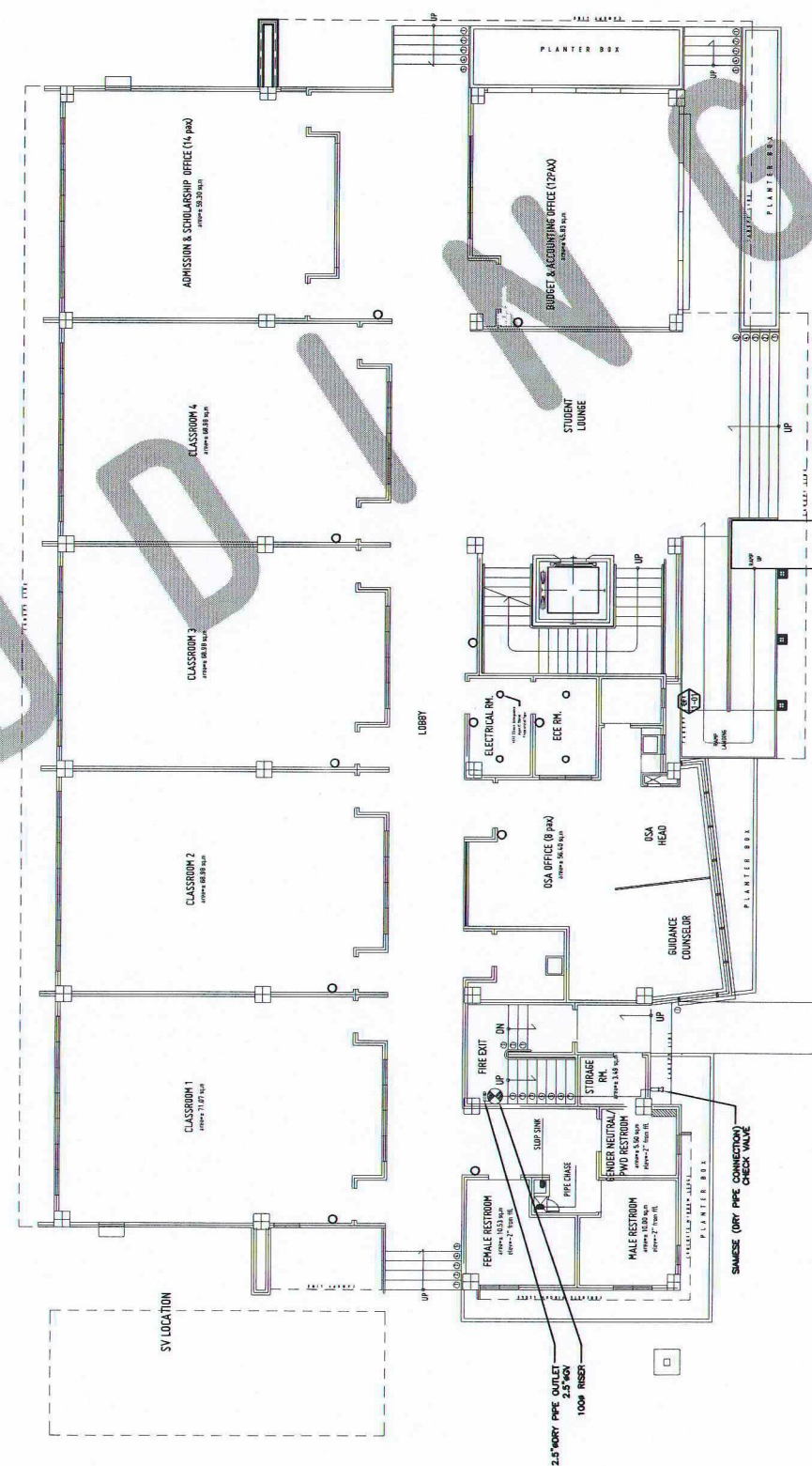
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GROUND FLOOR FIRE-PROTECTION LAYOUT PLAN

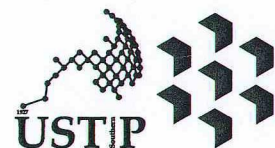
FP
1/1



GROUND FLOOR FIRE-EXTINGUISHER LAYOUT PLAN

SCALE: 1:100M

FP
1/2



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APPROVED BY:

DR. AMBROSIO B. CULTURA II
RESIDENT, USTP SYSTEM

SHEET CONTENTS:

GROUND FLOOR FIRE-PROTECTION SYSTEM
DETAIL

DRAWN BY:

DATE DRAWN:

05.01.2026

FNT:

FP1

GENERAL NOTES :

1. MOTORS, GENERATORS AND OTHER ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH NON-COMBUSTIBLE SPLASH PROOF SHIELDS OR HOODS.
2. SPRINKLER HEADS SPACED LESS THAN 1.80 M. (6 FT.) SHALL BE PROVIDED WITH Baffles OR DEFLECTORS.
3. FLOOR DRAINS FOR OIL SPILLS SHALL BE PROVIDED IN FLOOR SLAB FOR TRANSFORMER VAULT, BY PLUMBING CONTRACTOR.
4. ALL PORTABLE FIRE EXTINGUISHER (PFE) INSIDE FIRE HOSE CABINETS SHALL BE "ABC" TYPE DRY CHEMICAL.
5. ALL ELECTRICAL, MECHANICAL, AND ROOMS TO BE PROVIDED WITH 10 LBS. FE-36 TYPE PORTABLE FIRE EXTINGUISHER.
6. TRANSFORMER VAULT SHALL BE PROVIDED WITH 1-50 LBS. WHEEL TYPE FE-36 PORTABLE FIRE EXTINGUISHER.
7. ALL WIRE FOR LOAD SIDE SHALL BE BY FIRE PROTECTION CONTRACTOR SCOPE OF WORK.
8. PUMP CONCRETE PUMP SHALL BE BY OTHERS SCOPE.
9. PROVIDE FIRE SEALANT TO ALL PIPE PENETRATIONS THRU ROOMS AND FLOOR LEVELS.
10. ALL SPRINKLERS AT AREAS WITH CEILING SHALL BE PENDENT TYPE. ALL SPRINKLERS AT AREAS WITHOUT CEILING SHALL BE UPRIGHT TYPE.
11. MINIMUM SPACING BETWEEN SPRINKLER HEAD AND LIGHTING FIXTURE SHALL BE 300mm.
12. ALL PIPES PASSING THRU BEAMS/GIRDERS SHALL BE PROVIDED WITH PIPE SLEEVE ONE (1) SIZE HIGHER.
13. FIRE PUMP SHALL BE PROVIDED WITH AUTOMATIC TRANSFER SWITCH (ATS).
12. FIRE AND JOCKEY PUMP SHALL HAVE SEPARATE SENSING LINE. MATERIAL SHALL BE STAINLESS STEEL.

MATERIAL SPECIFICATIONS :

- FIRE LINES** FIRE LINES SHALL BE BLACK IRON (B.I.) PIPES SCHEDULE 80/40 "STANDARD" CONFORMING TO ASTM A-125-1980 "SUPERIOR" OR "SUPREME" BRAND OR APPROVED EQUIVALENT.
- GATE VALVES** SHALL BE OUTSIDE SCREW AND YOKE (OS&Y) TO ASTM B-82 CHECK AND GLOBE VALVES TO ASTM B-82.
- SPRINKLER HEADS** ALL SPRINKLER HEADS, PENDENT (CONCEALED, UPRIGHT & SIDEWALL) SHALL BE RATED 57°C (133°F) TO 74°C (165°F) EXCEPT ON AHU, PUMP, MECHANICAL ROOM & KITCHEN SHALL BE 79°C (173°F) TO 100°C (212°F).

LEGEND :

- RECESSED PENDENT TYPE SPRINKLER HEAD
- UPRIGHT SPRINKLER HEAD
- SIDEWALL SPRINKLER HEAD
- SPRINKLER RISER
- DRY STANDPIPE RISER
- DL STACK
- CROSSMAIN OR FEEDMAIN LINE
- (DSP/AFSS) FIRE DEPARTMENT CONNECTION SUPPLY LINE
- FLUSHING CONNECTION
- BRANCH LINE
- RISER NIPPLE
- 2-WAY LONGITUDINAL SWAY BRACE
- 2-WAY LATERAL SWAY BRACE
- 4-WAY RISER SWAY BRACE
- FIRE HOSE VALVE
- HANGER
- FIRE HOSE CABINET
- PIPE SLEEVES
- (10 LBS.) PORTABLE FIRE EXTINGUISHER
- (50 LBS.) PORTABLE FIRE EXTINGUISHER
- WHEEL TYPE
- DRAIN LINE
- INSPECTOR TEST CONNECTION
- DRAIN VALVE
- 2-WAY DSP & AFSS FIRE DEPT. CONNECTION INLET
- 2-WAY SHAMOSE TWIN ROOF OUTLET/ ROOF MANIFOLD
- ALARM CHECK VALVE ASSEMBLY
- PRESSURE GAUGE

ABBREVIATION:

- DSP DRY STAND PIPE
- AFSS AUTOMATIC FIRE SPRINKLER SYSTEM
- (OS & Y)OV GATE VALVE(OUTSIDE SCREW & YOKE)
- GV GATE VALVE
- DV DRAIN VALVE
- CV CHECK VALVE
- FCV FLOOR CONTROL VALVE
- FH FIRE HYDRANT
- FL FIRE LINE
- ITC INSPECTOR TEST CONNECTION
- PFE PORTABLE FIRE EXTINGUISHER
- PV FIRE HOSE VALVE
- ACV ALARM CHECK VALVE
- DL DRAIN LINE
- FCV FIRE HOSE CABINET
- WFS WATER FLOW SWITCH
- PG PRESSURE GAUGE

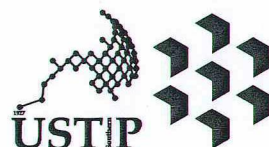
SECOND FLOOR FIRE-PROTECTION LAYOUT PLAN

SCALE: 1:100M



SECOND FLOOR FIRE-EXTINGUISHER LAYOUT PLAN

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PROJECT PROPOSED ESTABLISHMENT OF 3-STOORY SMART COMPUTING ACADEMIC BUILDING PHASE 1, OROQUIETA CAMPUS
LOCATION USTP OROQUIETA CAMPUS, MOROD, MISAMIS OCCIDENTAL
OWNER UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES

RECOMMENDING APPROVAL:
ENGR. GRACE C. BABA
DIRECTOR, INFRASTRUCTURE PLANNING & FACILITIES DEVELOPMENT OFFICE

RECOMMENDING APPROVAL:
DR. GLORIMER L. CUARIN
CAMPUS DIRECTOR, USTP OROQUIETA CAMPUS

APPROVED BY:
ATTY. JONATHAN S. OCHE
VP FOR ADMINISTRATION & LEGAL AFFAIRS

APPROVED BY:
DR. AMBROSIO B. CULTURA II
PRESIDENT, USTP SYSTEM

SHEET CONTENTS:
SECOND FLOOR FIRE-PROTECTION SYSTEM (E&A)

DRAWN BY:
DATE DRAWN:
05.01.2026
FNT:

FP2

PROJECT	PROPOSED ESTABLISHMENT OF UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES ACADEMIC BUILDING PHASE 1, OROQUIETA CAMP
LOCATION	USTP OROQUIETA CAMPUS, MOBOD, MISAMIS OCCIDENTAL
OWNER	UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES

RECOMMENDING APPROVAL:



ENGR. GRACE C. BABA
DIRECTOR, INFRASTRUCTURE PLANNING &
FACILITIES DEVELOPMENT OFFICE

RECOMMENDING APPROVAL:	
 DR. GLORIMER L. CUARIN CAMPUS DIRECTOR, UOER OROQUENA CAMPUS	

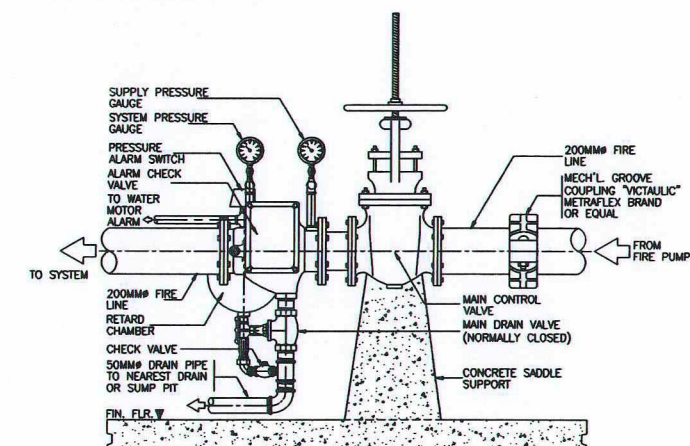
Jonathan S. Oche
ATTY. JONATHAN S. OCHE
VP FOR ADMINISTRATION & LEGAL AFFAIRS

APPROVED BY: 
DR. AMBROSIO B. CULTURA II
PRESIDENT, USTP SYSTEM

II	SHEET CONTENTS:
	THIRD FLOOR FIRE-PROTECTION SYSTEM DETAIL FLOW MEASURING DEVICE DETAIL ALARM CHECK VALVE ASSEMBLY DETAIL ALARM MOTOR GONG DETAIL

	DRAWN BY
IL	
	DATE DRAWN
	05.01.202
	FNT:

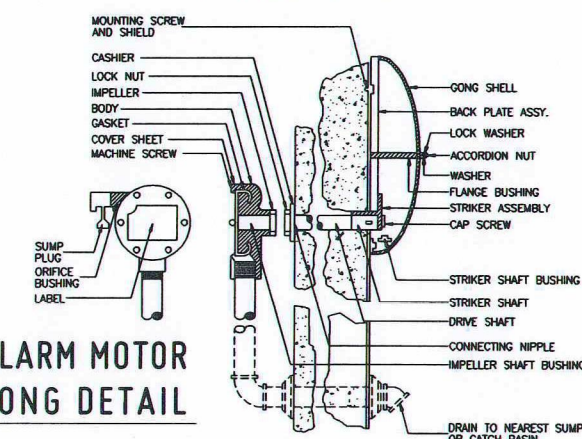
FP3



ALARM CHECK VALVE ASSEMBLY (WET TYPE)

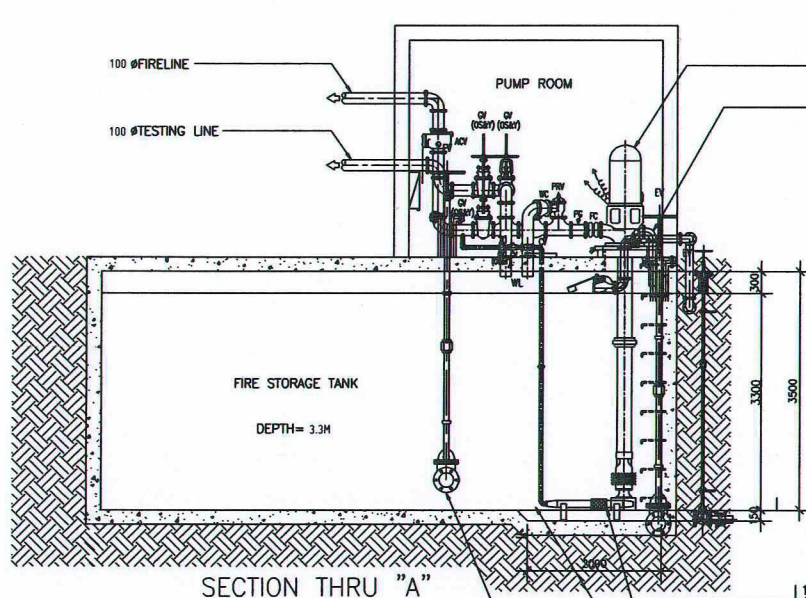


ELEVATION



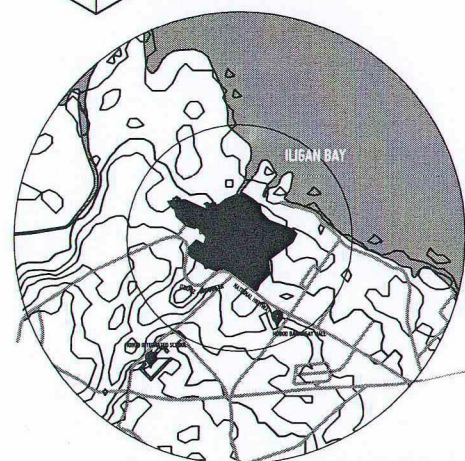
ALARM MOTOR GONG DETAIL

SECTIONAL



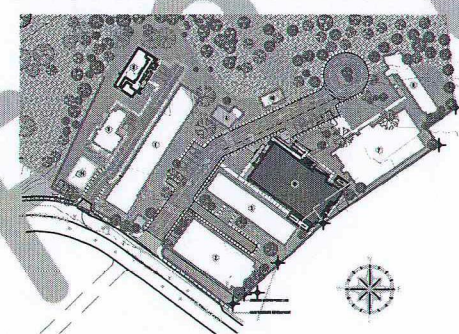
FIRE STORAGE TANK DETAIL

FP
4 1
NTS



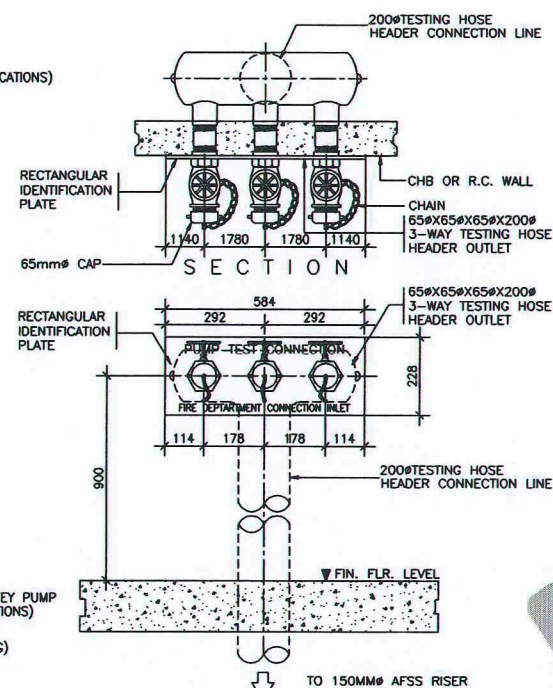
VICINITY MAP

FP
4 2
NTS



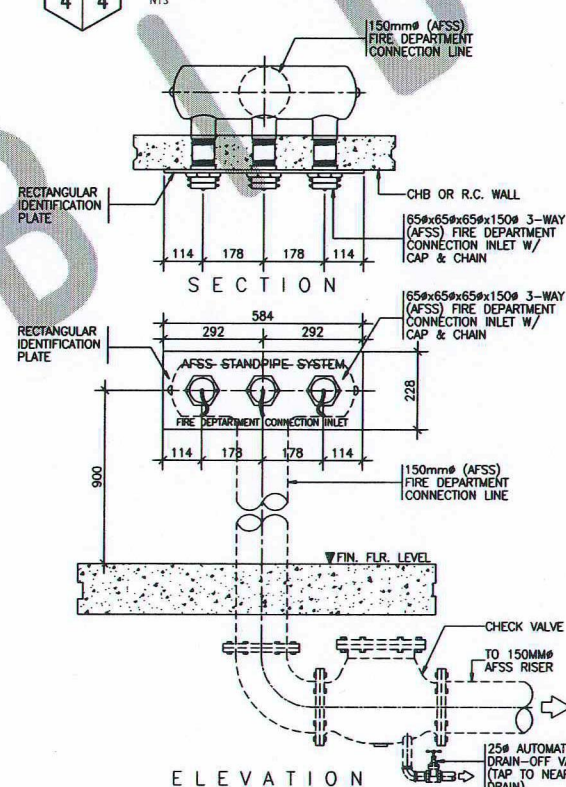
LOCATION PLAN

FP
4 3
NTS



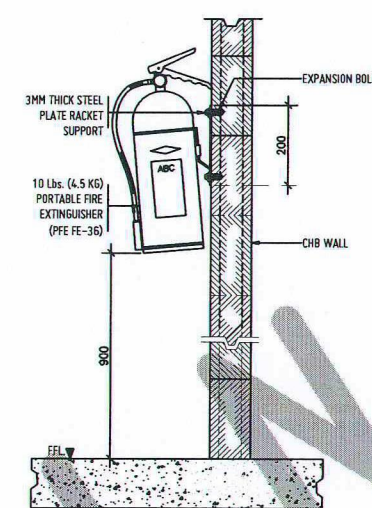
PUMP TEST CONNECTION DETAIL

FP
4 4
NTS



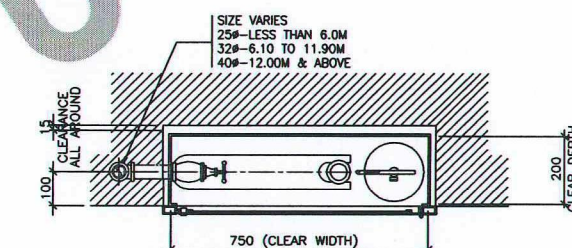
AFSS FIRE DEPT. INLET DETAIL

FP
4 5
NTS

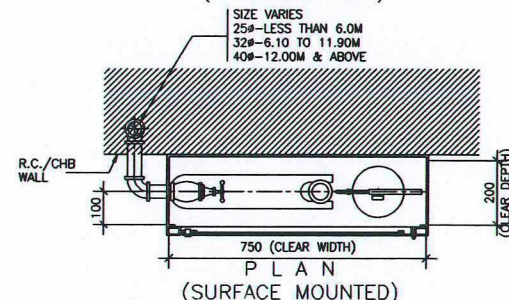


**10 lbs. (3.57kgs) PFE FE-36
PORTABLE FIRE EXTINGUISHER**

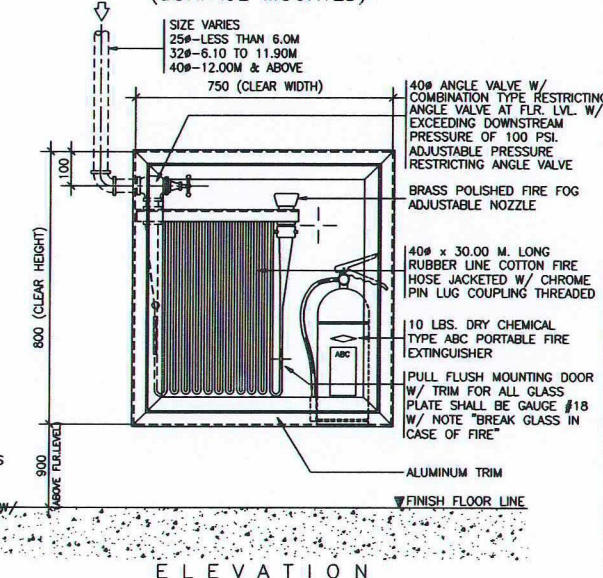
FP
4 6
NTS



**PLAN
(RECESSED TYPE)**

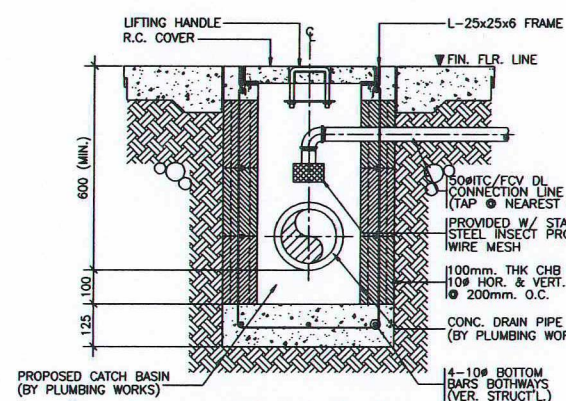


**PLAN
(SURFACE MOUNTED)**



FIRE HOSE CABINET DETAIL

FP
4 8
NTS



**FTV/ITC DL CONNECTION
TO CATCH BASIN**

FP
4 7
NTS

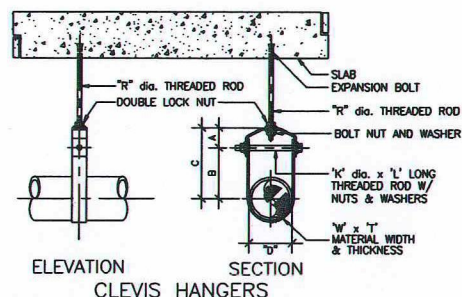
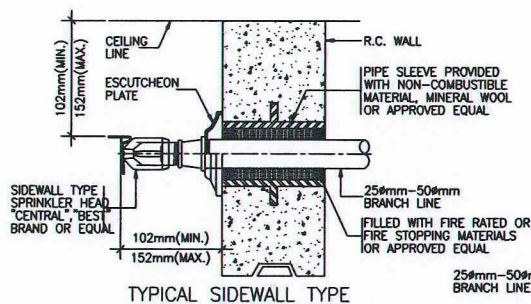


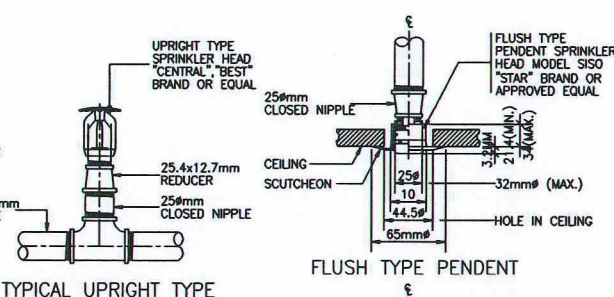
TABLE OF DIMENSIONS IN MM

PIPE SIZE "D" (MM)	ROD DIA. "R" (MM)	B	C	A MAX.	W x T	K x L
50	9.65	111.12	143	69.30	25 x 3	M10 x 85
75	12.7	105.0	165.1	30.23	40 x 6	M12 x 115
100	15.9	133.35	40	33.27	40 x 6	M12 x 130
150	19.1	176.12	267	50.00	40 x 6	M16 x 190

FP 5 1
PIPE HANGER DETAIL
NTS

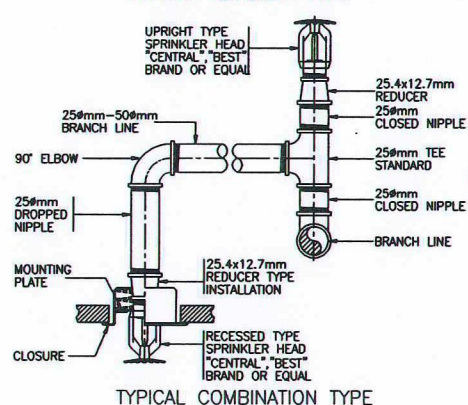


TYPICAL SIDEWALL TYPE

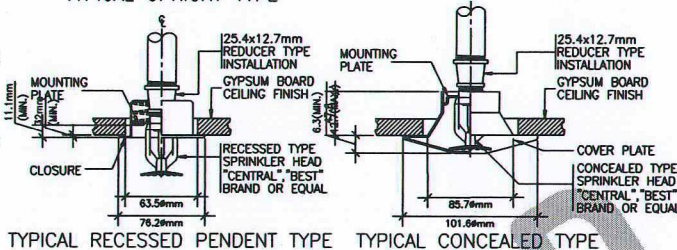


TYPICAL UPRIGHT TYPE

FLUSH TYPE PENDENT

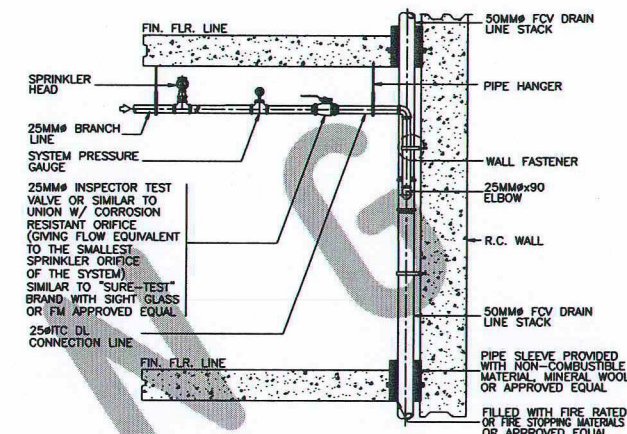


TYPICAL COMBINATION TYPE

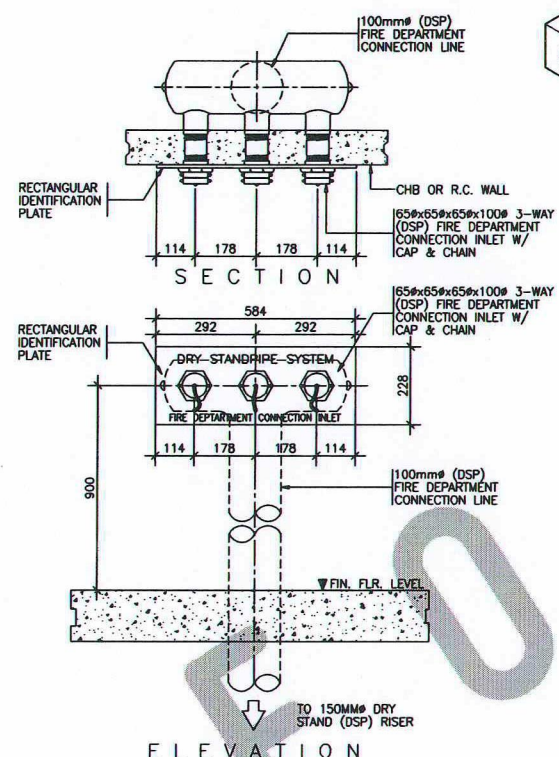


TYPICAL RECESSED PENDENT TYPE

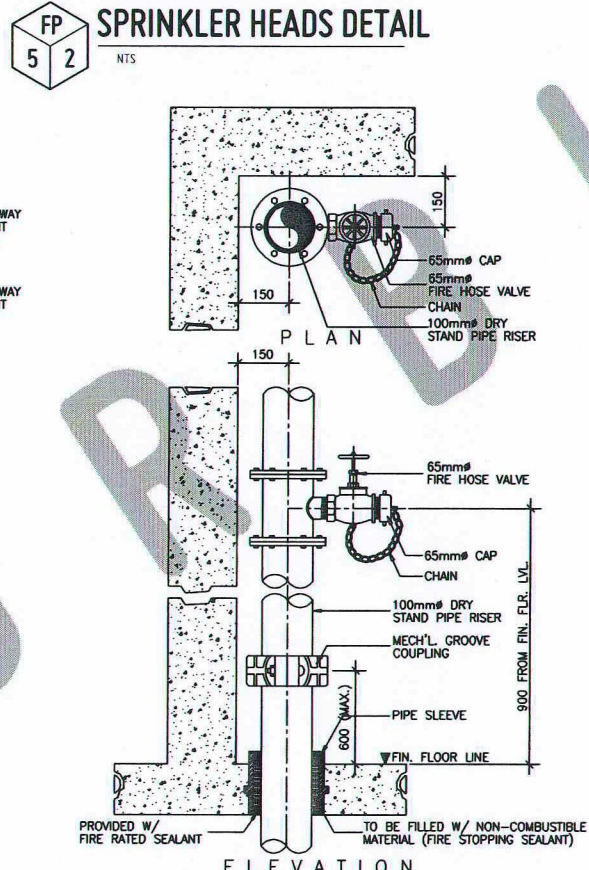
TYPICAL CONCEALED TYPE



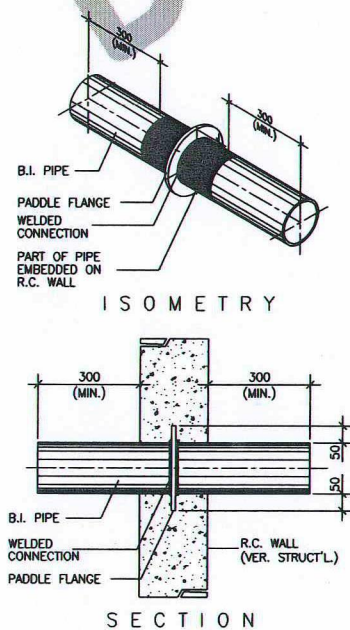
FP 5 6
INSPECTOR TEST
CONNECTION DETAIL
NTS



FP 5 3
DPSS FIRE DEPT. INLET DETAIL
NTS



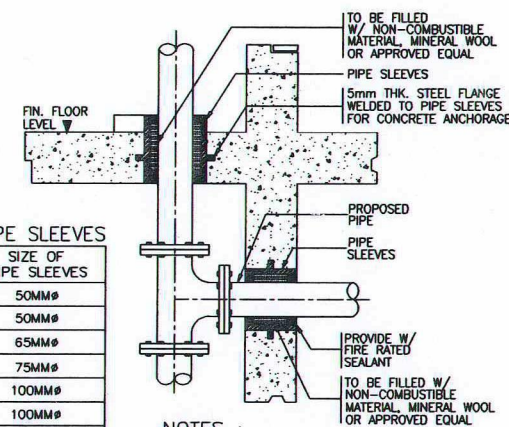
FP 5 4
FIRE HOSE VALVE DETAIL
NTS



FP 5 5
PADLE FLANGE DETAIL
NTS

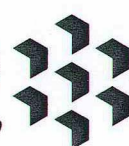
SCHEDULE OF PIPE SLEEVES

SIZE OF BRANCHLINES	SIZE OF PIPE SLEEVES
25MM#	50MM#
32MM#	50MM#
40MM#	65MM#
50MM#	75MM#
65MM#	100MM#
75MM#	100MM#
100MM#	150MM#
150MM#	225MM#
200MM#	300MM#



FP 5 7
PIPE SLEEVE DETAIL
NTS

- NOTES :
- SLEEVES SHALL BE PROVIDED AROUND ALL PIPING EXTENDING THROUGH WALLS, FLOORS, PLATFORMS AND FOUNDATIONS.
 - THE CLEARANCE BETWEEN THE PIPE SLEEVES SHALL BE FILLED W/NON-COMBUSTIBLE FLEXIBLE MATERIAL SUCH AS MINERAL WOOL, FIBERGLASS OR EQUIVALENT.
 - MINIMUM CLEARANCE BETWEEN PIPE AND SLEEVES SHALL NOT BE LESS THAN 25MM FOR PIPE 25MM THROUGH 75MM & 40MM FOR PIPE SIZE 100MM AND LARGER FLOOR SLEEVES SHALL BE EXTENDED AT LEAST 75MM ABOVE THE TOP OF THE WEARING SURFACE.



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CAGAYAN DE ORO CAMPUS
INFRASTRUCTURE PLANNING AND FACILITY DEVELOPMENT UNIT
CLARO M. RECTO AVENUE, LAPASAN, CAGAYAN DE ORO CITY 9000
TELEPHONE # (08822) 72-60-85 / (088) 858-1738 / 858-1739 | TELE FAX (088) 858-4898
WEBSITE: www.ustp.edu.ph

PROJECT
ACADEMIC BUILDING PHASE 1, OROQUETA CAMPUS
LOCATION
USTP OROQUETA CAMPUS, MOROD, MISAMIS OCCIDENTAL
OWNER
UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES

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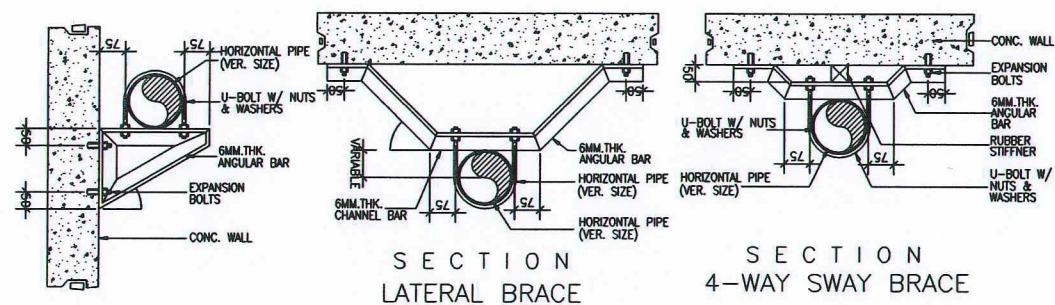
RECOMMENDING APPROVAL:
DR. GLORIMER L. CLARIN
CAMPUS DIRECTOR, OROQUETA CAMPUS

APPROVED BY:
ATTY. JONATHAN S. OCHE
VP FOR ADMINISTRATION & LEGAL AFFAIRS

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DR. AMBROSIO B. CULTURA II
PRESIDENT, USTP SYSTEM

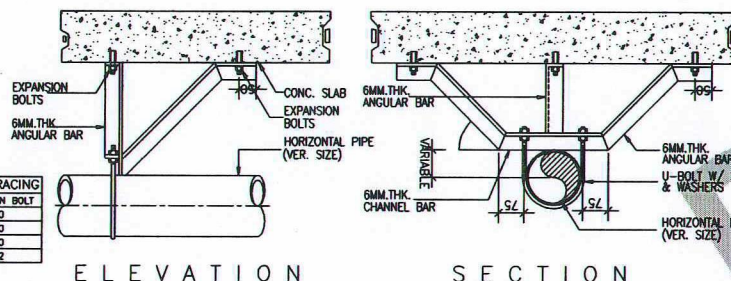
SHEET CONTENTS:
PIPE HANGER DETAIL
SPRINKLER HEADS DETAIL
DPSS FIRE DEPT. INLET DETAIL
FIRE HOSE VALVE DETAIL
PADLE FLANGE DETAIL
INSPECTOR TEST CONNECTION DETAIL
PIPE SLEEVE DETAIL
DRAWN BY:
DATE DRAWN:
05.01.2026
FNT:



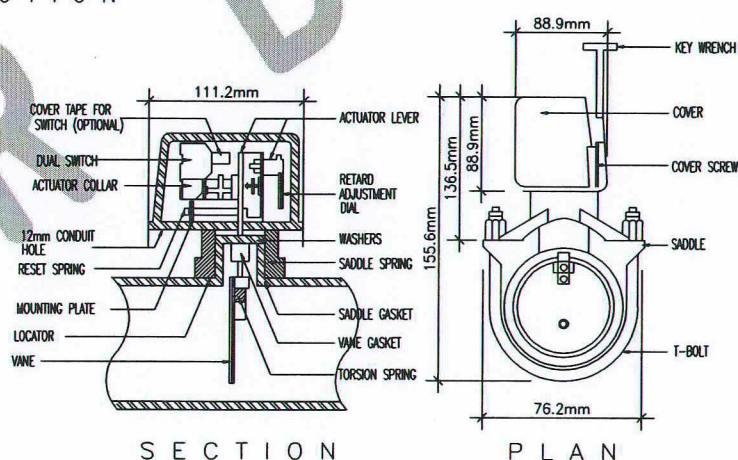


ELEVATION
PIPE BRACKET

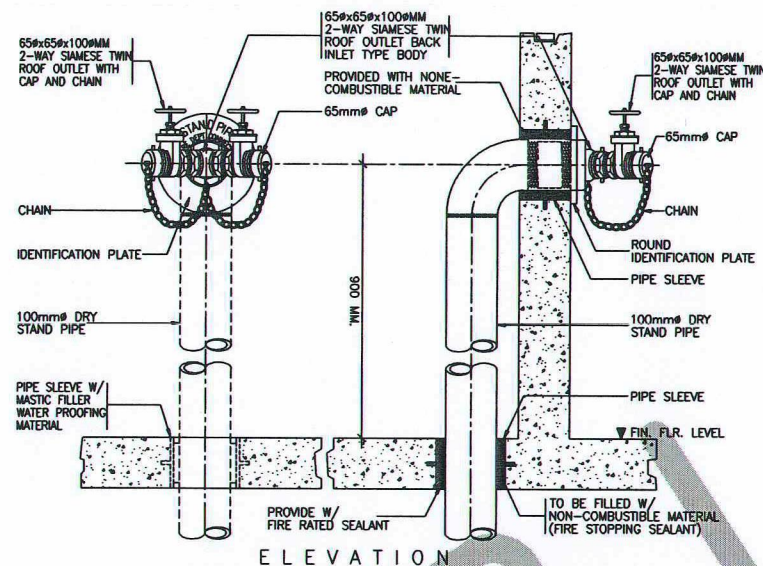
PIPE SIZE	U-BOLT DIA.	ANGLE BAR	EXPANSION BOLT
50	10	50 X 50	10
65	10	50 X 50	10
75	10	50 X 50	10
100	12	65 X 65	12



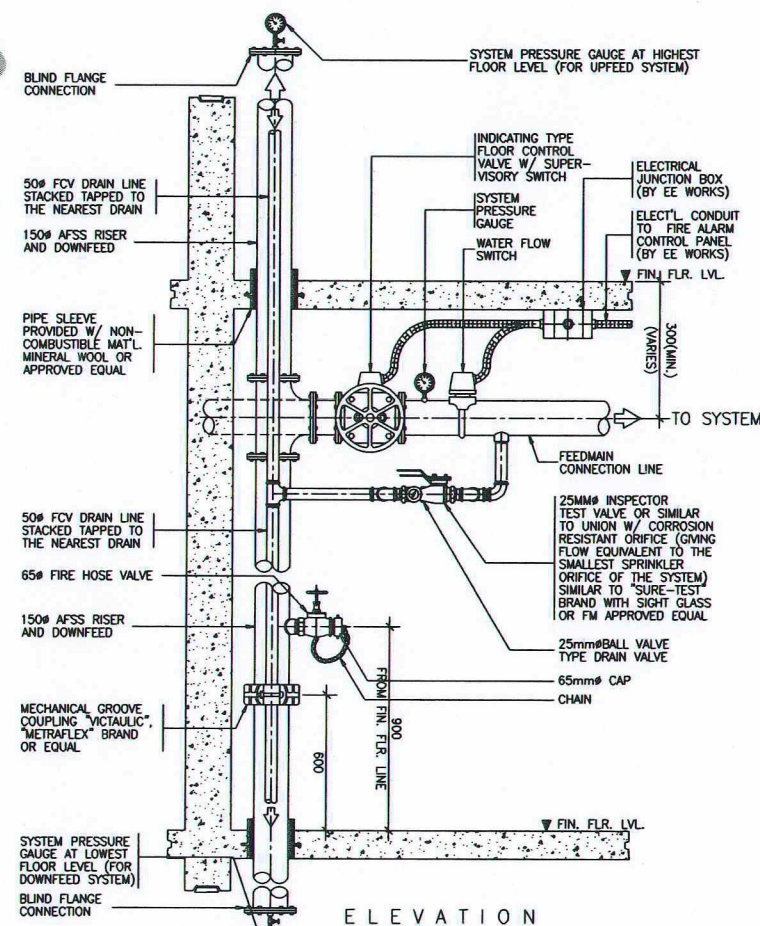
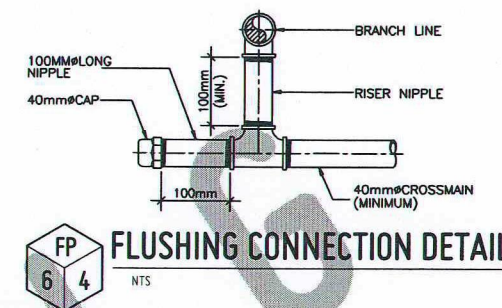
FP 6 1
NTS
SWAY BRACING DETAIL



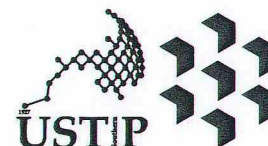
FP 6 3
NTS
WATER FLOW SWITCH DETAIL



FP 6 2
NTS
SIAMESE TWIN ROOF OUTLET DETAIL



FP 6 5
NTS
SUPERVISORY FLOOR CONTROL VALVE
ASSEMBLY & VALVE HOSE DETAIL



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WEBSITE: www.ustp.edu.ph

PROJECT
PROPOSED ESTABLISHMENT OF 3-STORY SMART COMPUTING
ACADEMIC BUILDING PHASE 1, OROQUIETA CAMPUS
LOCATION
USTP OROQUIETA CAMPUS, MOBOD, MISAMIS OCCIDENTAL
OWNER
UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES

RECOMMENDING APPROVAL:
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FACILITIES DEVELOPMENT OFFICE

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CAMPUS DIRECTOR, USTP OROQUIETA CAMPUS

APPROVED BY:
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VP FOR ADMINISTRATION & LEGAL AFFAIRS

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PRESIDENT, USTP SYSTEM

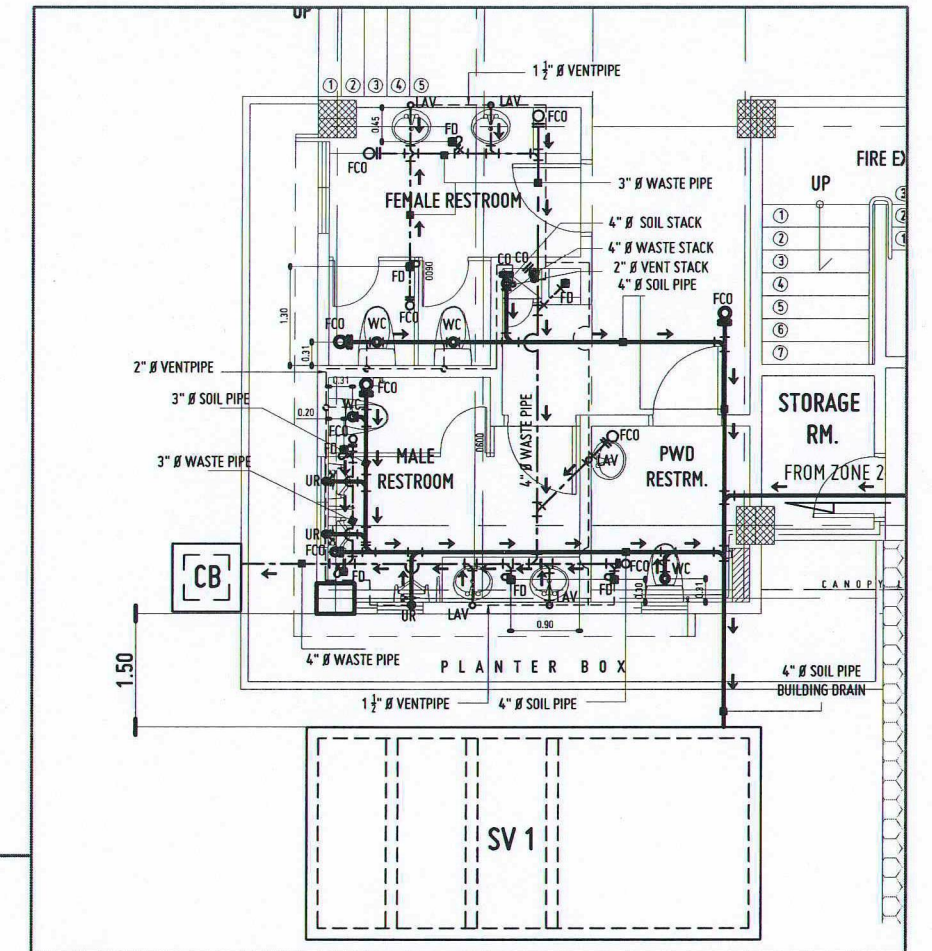
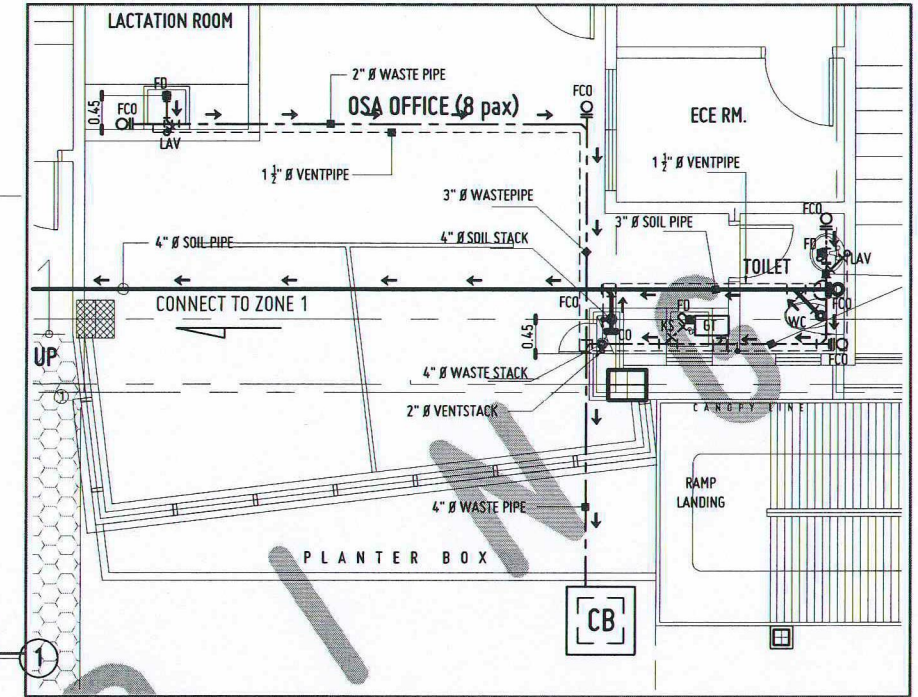
SHEET CONTENTS:
SWAY BRACING DETAIL
SIAMESE TWIN ROOF OUTLET DETAIL
WATER FLOW SWITCH DETAIL
FLUSHING CONNECTION DETAIL
SUPERVISORY FLOOR CONTROL VALVE ASSEMBLY
& VALVE HOSE DETAIL

DRAWN BY:
DATE DRAWN:
05.01.2026
FNT:

FP6

BLOW-UP PLAN ZONE 2

SCALE: 1:100 MTS



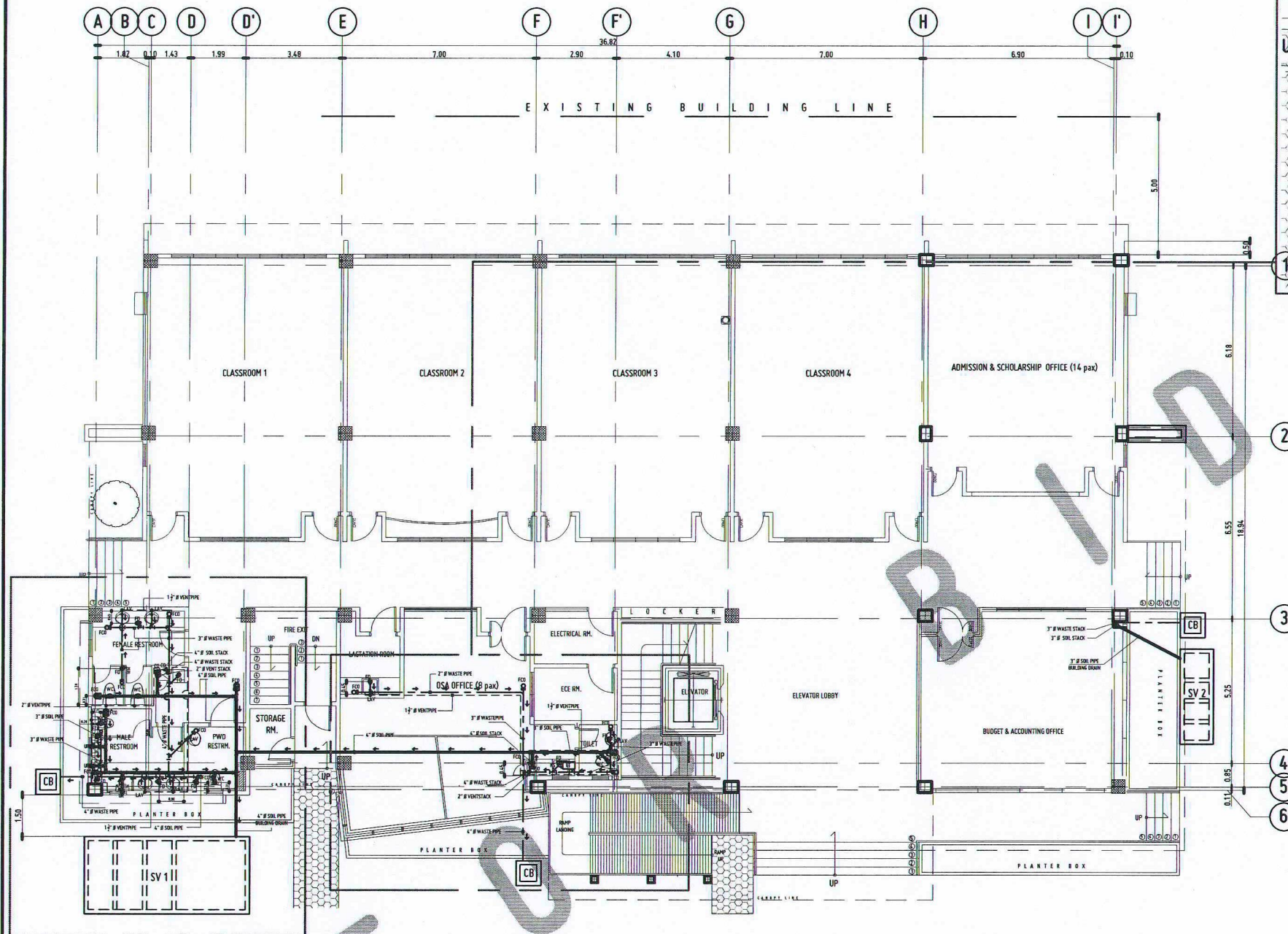
BLOW-UP PLAN ZONE 1

SCALE: 1:100 MTS

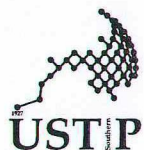


INDEX PLAN GROUND FLOOR

SCALE: 1:200 MTS



SOIL & WASTE PIPING LAYOUT PLAN



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MASTER PLUMBER/SANITARY ENGINEER		PROJECT
PRC NO.	PTIR NO.	LOCATION
DATE	DATE	OWNER
PLACE	PLACE	UNIVERSITY OF SCIENCE & TECHNOLOGY OF SOUTHERN PHILIPPINES

RECOMMENDING APPROVAL:
ENGR. GRACE C. BABA
DIRECTOR, INFRASTRUCTURE PLANNING & FACILITIES DEVELOPMENT OFFICE

RECOMMENDING APPROVAL:
DR. GLOMER L. CLARK
CAMPUS DIRECTOR, USTP OROQUIETA

RECOMMENDING APPROVAL:
ATTY. JONATHAN S. OCHE, DPA
VICE PRESIDENT FOR ADMINISTRATION AND LEGAL AFFAIRS

APPROVED BY:
DR. AMBROSIO B. CULTURA II
PRESIDENT, USTP SYSTEM

SHEET CONTENTS:
SOIL & WASTE LINE PIPING LAYOUT PLAN
- INDEX PLAN: GROUND FLOOR
- BLOW-UP PLAN ZONE 1
- BLOW-UP PLAN ZONE 2

DRAWN BY:
MAXFER
DATE DRAWN:
FMT: