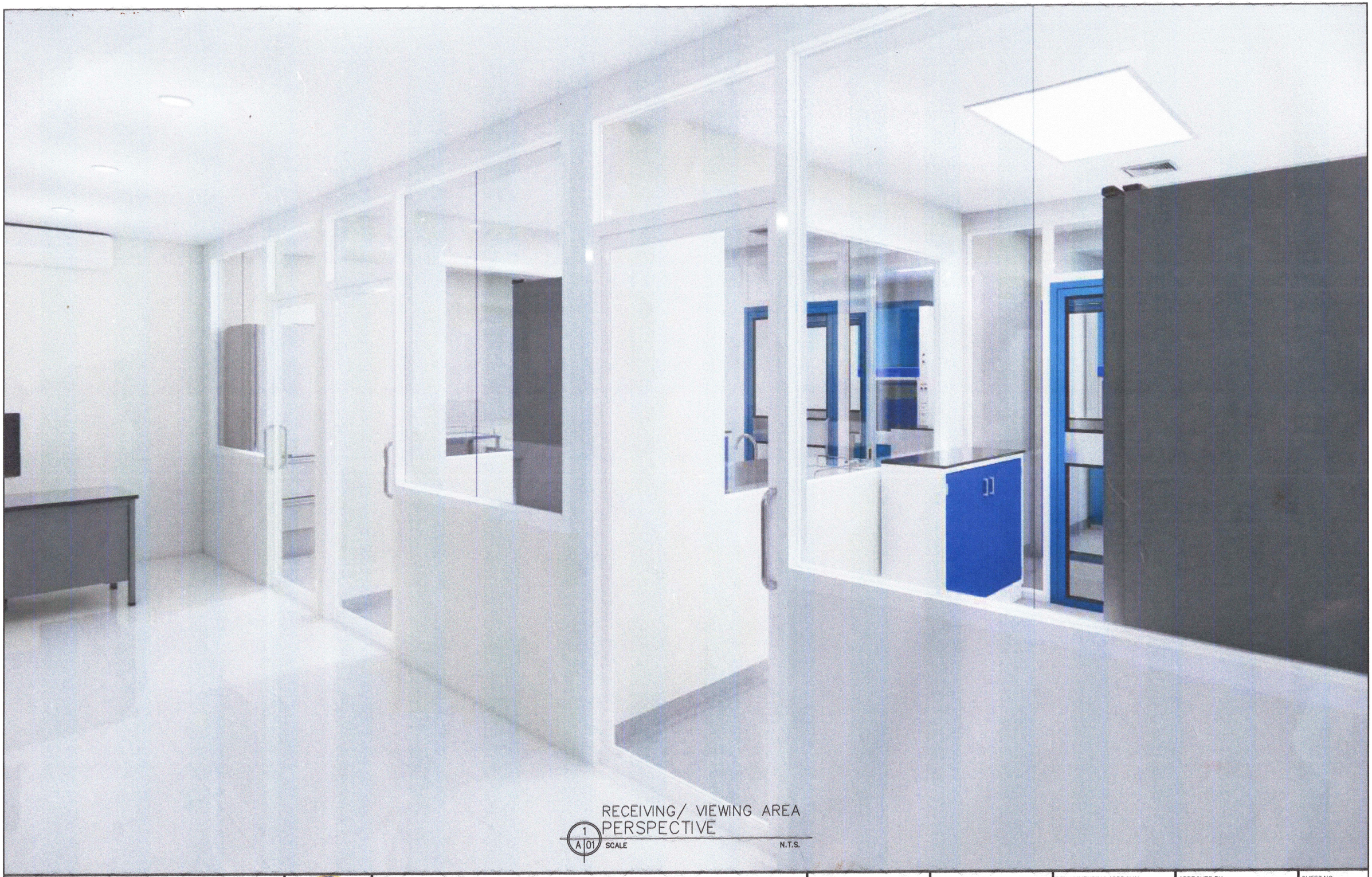


RECEIVING/ VIEWING AREA
PERSPECTIVE
1 / A01 SCALE N.T.S.

DAVAO ORIENTAL STATE UNIVERSITY
GUANG-GUANG, DAHICAN, CITY OF MATI, DAVAO ORIENTAL

PROJECT TITLE AND LOCATION:

UPGRADING OF BIOCON LABORATORY
OF DAVAO ORIENTAL STATE UNIVERSITY

MARFORI, DON ENRIQUE LOPEZ, CITY OF MATI, DAVAO ORIENTAL

CIVIL ENGINEER:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO:
JAYPEE L. CANTONES, CE HEAD, PROJECT MANAGEMENT UNIT	RAY JOHN A. SALIMACO, Ph.D. DIRECTOR FOR PLANNING AND DEVELOPMENT	LILBETH S. GALVEZ,Ph.D. VICE PRESIDENT FOR PLANNING, QUALITY ASSURANCE, GLOBAL AFFAIRS, AND RESOURCE GENERATION	ROY G. PONTE, Ed.D. SUC PRESIDENT III	A-01 A-08



PREPARATION ROOM
PERSPECTIVE
1 / A 02 SCALE N.T.S.

DAVAO ORIENTAL STATE UNIVERSITY
GUANG-GUANG, DAHICAN, CITY OF MATI, DAVAO ORIENTAL

PROJECT TITLE AND LOCATION:

UPGRADING OF BIOCON LABORATORY
OF DAVAO ORIENTAL STATE UNIVERSITY

MARFORI, DON ENRIQUE LOPEZ, CITY OF MATI, DAVAO ORIENTAL

CIVIL ENGINEER:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO:
JAYPEE L. CANTONES, CE HEAD, PROJECT MANAGEMENT UNIT	RAY JOHN A. SALIMACO, Ph.D. DIRECTOR FOR PLANNING AND DEVELOPMENT	LILBETH S. GALVEZ, Ph.D. VICE PRESIDENT FOR PLANNING, QUALITY ASSURANCE, GLOBAL AFFAIRS, AND RESOURCE GENERATION	ROY G. PONCE, Ed.D. SUC PRESIDENT III	A-02 A-08



ISOLATION ROOM
1 / A 03 PERSPECTIVE
SCALE N.T.S.

DAVAO ORIENTAL STATE UNIVERSITY
GUANG-GUANG, DAHICAN, CITY OF MATI, DAVAO ORIENTAL

PROJECT TITLE AND LOCATION:

UPGRADING OF BIOCON LABORATORY
OF DAVAO ORIENTAL STATE UNIVERSITY

MARFORI, DON ENRIQUE LOPEZ, CITY OF MATI, DAVAO ORIENTAL

CIVIL ENGINEER:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO:
JAYPEE L. CANTOMES, CE HEAD, PROJECT MANAGEMENT UNIT	RAY JOHN A. SALIMACO, PH.D. DIRECTOR FOR PLANNING AND DEVELOPMENT	LILBETH S. GALVEZ,Ph.D. VICE PRESIDENT FOR PLANNING, QUALITY ASSURANCE, GLOBAL AFFAIRS, AND RESOURCE GENERATION	ROY G. PONCE, Ed.D. SUC PRESIDENT III	A-03 A-08



ISOLATION ROOM
PERSPECTIVE
1 / A04 SCALE N.T.S.

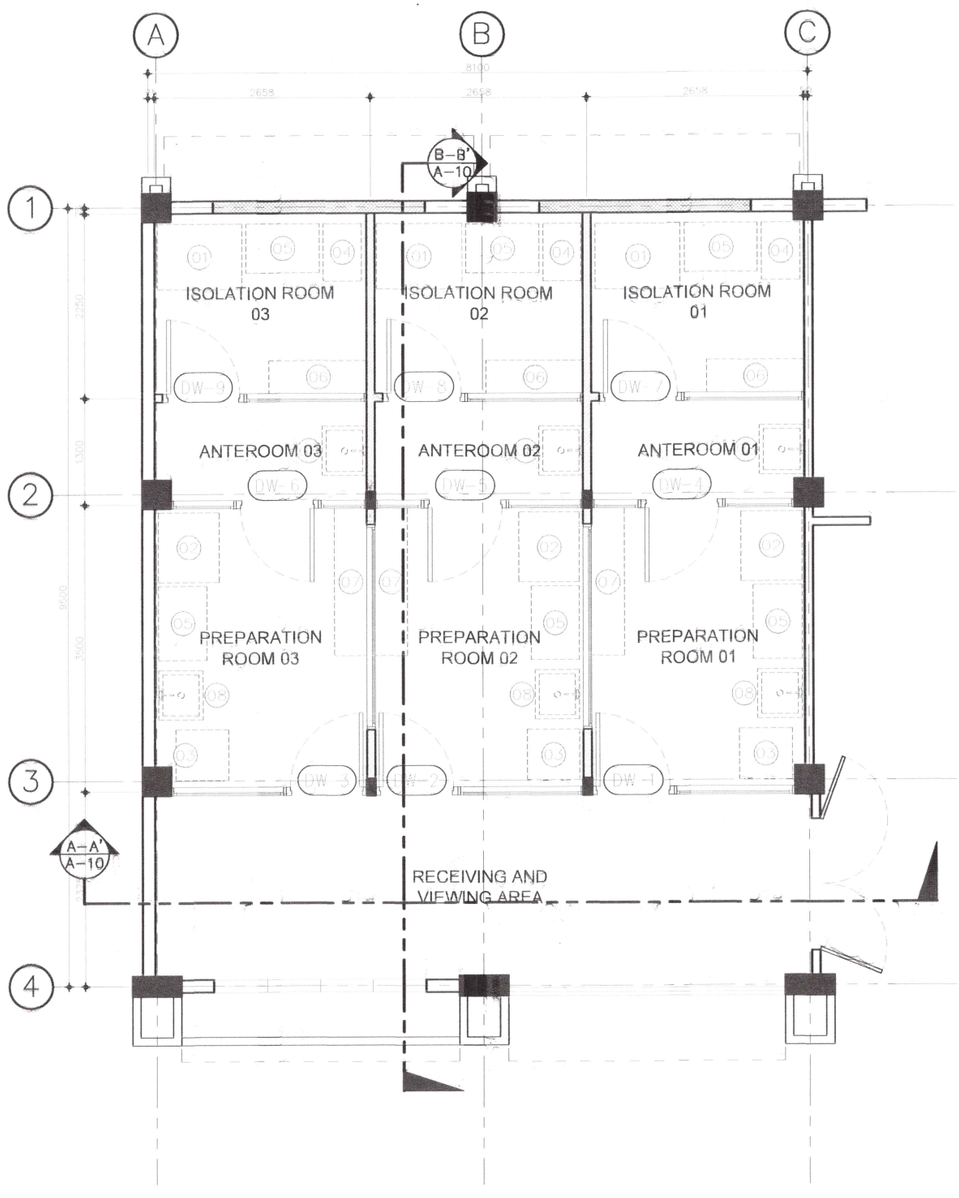
DAVAO ORIENTAL STATE UNIVERSITY
GUANG-GUANG, DAHICAN, CITY OF MATI, DAVAO ORIENTAL

PROJECT TITLE AND LOCATION:

UPGRADING OF BIOCON LABORATORY
OF DAVAO ORIENTAL STATE UNIVERSITY

MARFORI, DON ENRIQUE LOPEZ, CITY OF MATI, DAVAO ORIENTAL

CIVIL ENGINEER:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO:
JAYPEE L. CANTONES, CE HEAD, PROJECT MANAGEMENT UNIT	RAY JOHN A. SALIMACO, Ph.D. DIRECTOR FOR PLANNING AND DEVELOPMENT	LILBETH S. GALVEZ,Ph.D. VICE PRESIDENT FOR PLANNING, QUALITY ASSURANCE, GLOBAL AFFAIRS, AND RESOURCE GENERATION	ROY G. PONCE, Ed.D. SUC PRESIDENT III	A-04 A-08



1 A 05 FLOOR PLAN
SCALE 1:75 MTS

LEGEND

01	3FT VERTICAL DUCTED FUME HOOD: LFH-3A
02	38L 50~126°C LCD DISPLAY PRESSURE STEAM VERTICAL AUTOCLAVE (SV-X SERIES)
03	COMBINATION FREEZER 300l CFC FREE REFRIGERANT LAB REFRIGERATOR FREEZER
04	RS PRO 8 SHELF STEEL DRAWER TROLLEY
05	STAINLESS STEEL INSTRUMENT TABLE WITH SHELF 900MM L X 600MM W X 860MM H
06	LABORATORY CABINET 1200MM L X 406MM W X 900MM H
07	LABORATORY CABINET 1800MM L X 406MM W X 900MM H
08	SS 304 G-18 SINK 610MM L X 560MM W X 890MM H 15" SINK DEPTH

	150MM THK. CONCRETE HOLLOW BLOCKS PLASTERED ON BOTH SIDES ±25MM PAINTED FINISH
	100MM THK. CONCRETE HOLLOW BLOCKS PLASTERED ON BOTH SIDES (±25MM) PAINTED FINISH

FLOOR FINISHES

FF 1	600X 600 HOMOGENOUS TILES COLOR: (VERIFY)
FF 2	HOMOGENEOUS ANTIBACTERIAL VINYL FLOORING DOH APPROVED COLOR: (VERIFY)

CEILING FINISHES

CF 1 ±00	ODORLESS ANTIBACTERIAL PAINT, SATIN FINISH COLOR: WHITE

WALL FINISHES

WF 1	ODORLESS ANTIBACTERIAL PAINT, SEMI-GLOSS FINISH COLOR: (VERIFY)

LIGHTS

	1200 MM LED T8 BATTEN FIXTURE (DAYLIGHT)
	CIRCULAR RECESSED DOWNLIGHT (DAYLIGHT) COLOR: WHITE

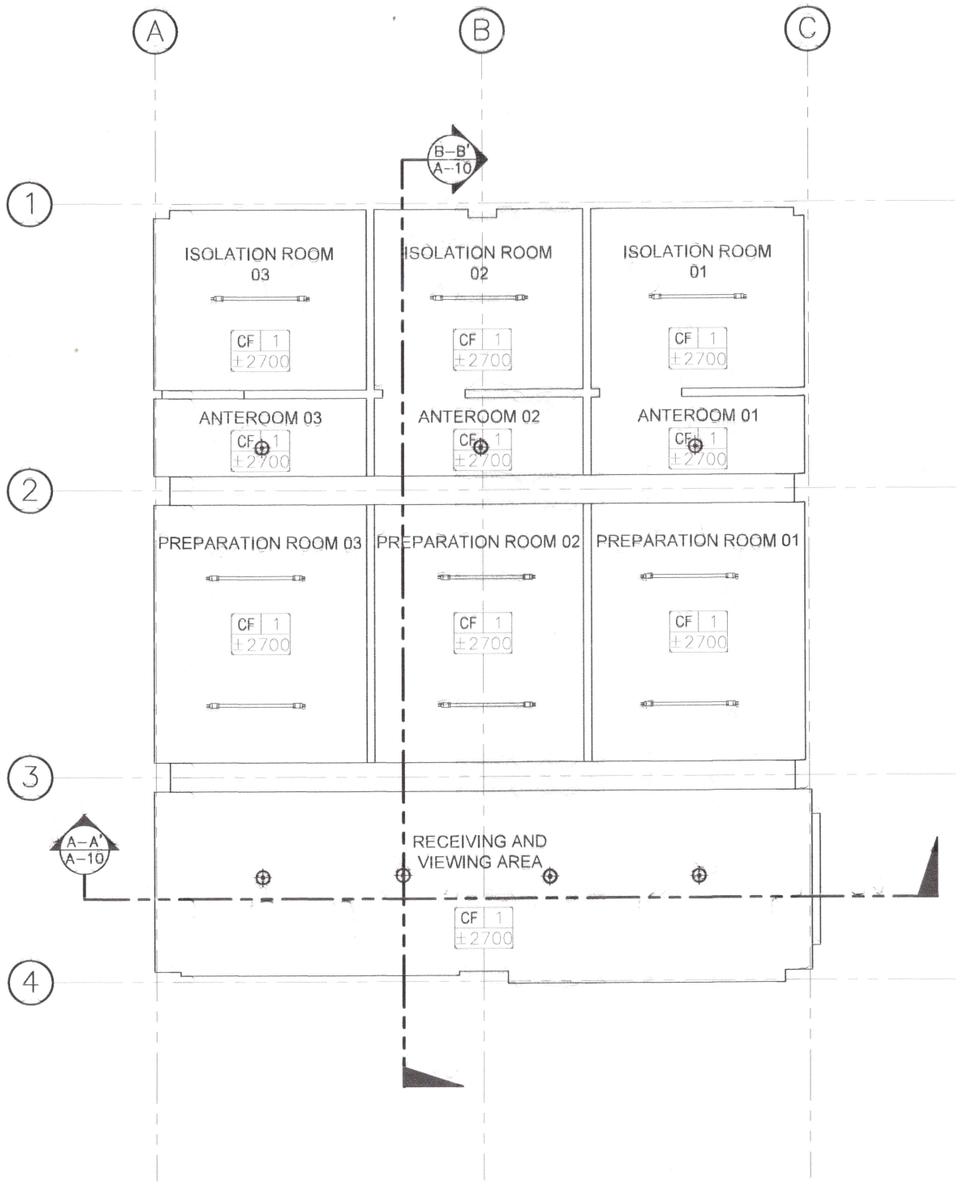
DAVAO ORIENTAL STATE UNIVERSITY
GUANG-GUANG, DAHICAN, CITY OF MATI, DAVAO ORIENTAL

PROJECT TITLE AND LOCATION:

UPGRADING OF BIOCON LABORATORY OF DAVAO ORIENTAL STATE UNIVERSITY

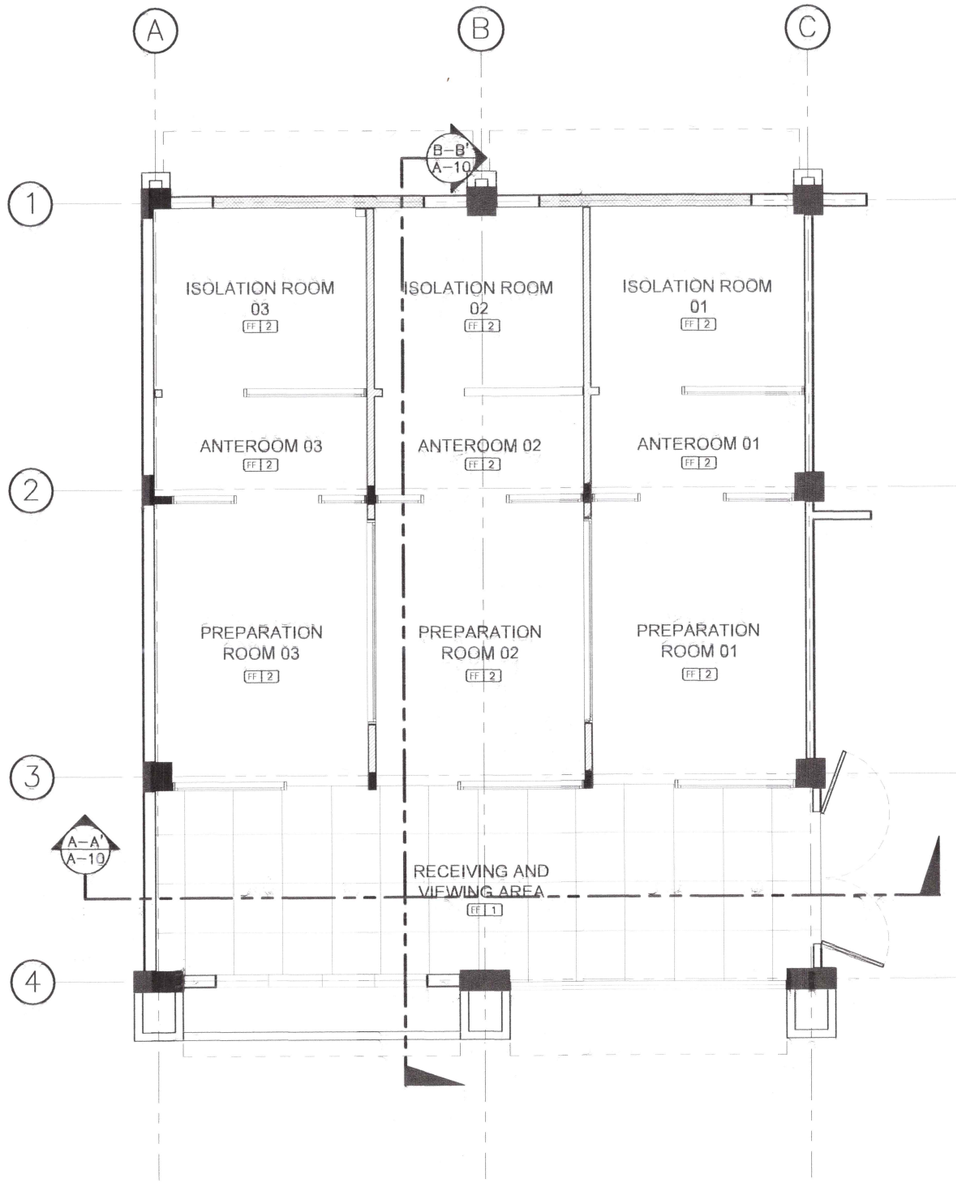
MARFORI, DON ENRIQUE LOPEZ, CITY OF MATI, DAVAO ORIENTAL

CIVIL ENGINEER:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO:
JAYPEE L. CANTONES, CE HEAD, PROJECT MANAGEMENT UNIT	RAY JOHN A. SALIMACO, PH.D. DIRECTOR FOR PLANNING AND DEVELOPMENT	LILBETH S. GALVEZ, Ph.D. VICE PRESIDENT FOR PLANNING, QUALITY ASSURANCE, GLOBAL AFFAIRS, AND RESOURCE GENERATION	ROY G. PONCE, Ed.D. SUC PRESIDENT III	A-05 A-08



1 A 06 REFLECTED CEILING PLAN

SCALE 1:75 MTS



2 A 06 FLOOR FINISH LAYOUT

SCALE 1:75 MTS

LEGEND

01	3FT VERTICAL DUCTED FUME HOOD: LFH-3A
02	38L 50~126°C LCD DISPLAY PRESSURE STEAM VERTICAL AUTOCLAVE (SV-X SERIES)
03	COMBINATION FREEZER 300l CFC FREE REFRIGERANT LAB REFRIGERATOR FREEZER
04	RS PRO 8 SHELF STEEL DRAWER TROLLEY
05	STAINLESS STEEL INSTRUMENT TABLE WITH SHELF 900MM L X 600MM W X 850MM H
06	LABORATORY CABINET 1200MM L X 406MM W X 900MM H
07	LABORATORY CABINET 1800MM L X 406MM W X 900MM H
08	SS 304 G-18 SINK 610MM L X 560MM W X 890MM H 15" SINK DEPTH
	150MM THK. CONCRETE HOLLOW BLOCKS PLASTERED ON BOTH SIDES ±25MM PAINTED FINISH
	100MM THK. CONCRETE HOLLOW BLOCKS PLASTERED ON BOTH SIDES (±25MM) PAINTED FINISH

FLOOR FINISHES

FF 1	600X 600 HOMOGENOUS TILES COLOR (VERIFY)
FF 2	HOMOGENEOUS ANTIBACTERIAL VINYL FLOORING DOH APPROVED COLOR (VERIFY)

CEILING FINISHES

CF 1 ±00	ODORLESS ANTIBACTERIAL PAINT, SATIN FINISH COLOR: WHITE

WALL FINISHES

WF 1	ODORLESS ANTIBACTERIAL PAINT, SEMI-GLOSS FINISH COLOR: (VERIFY)

LIGHTS

	1200 MM LED T8 BATTEN FIXTURE (DAYLIGHT)
	CIRCULAR RECESSED DOWNLIGHT (DAYLIGHT) COLOR: WHITE

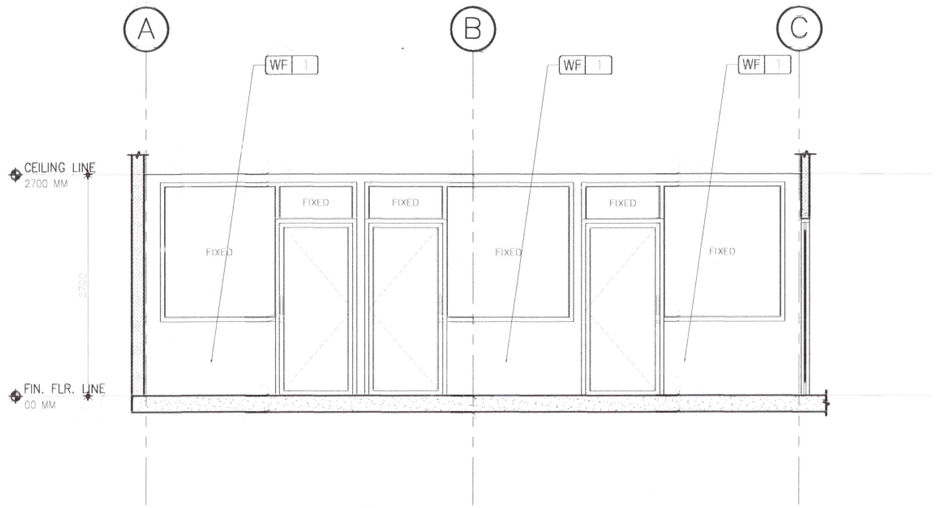
DAVAO ORIENTAL STATE UNIVERSITY
GUANG-GUANG, DAHICAN, CITY OF MATI, DAVAO ORIENTAL

PROJECT TITLE AND LOCATION:

UPGRADING OF BIOCON LABORATORY OF DAVAO ORIENTAL STATE UNIVERSITY

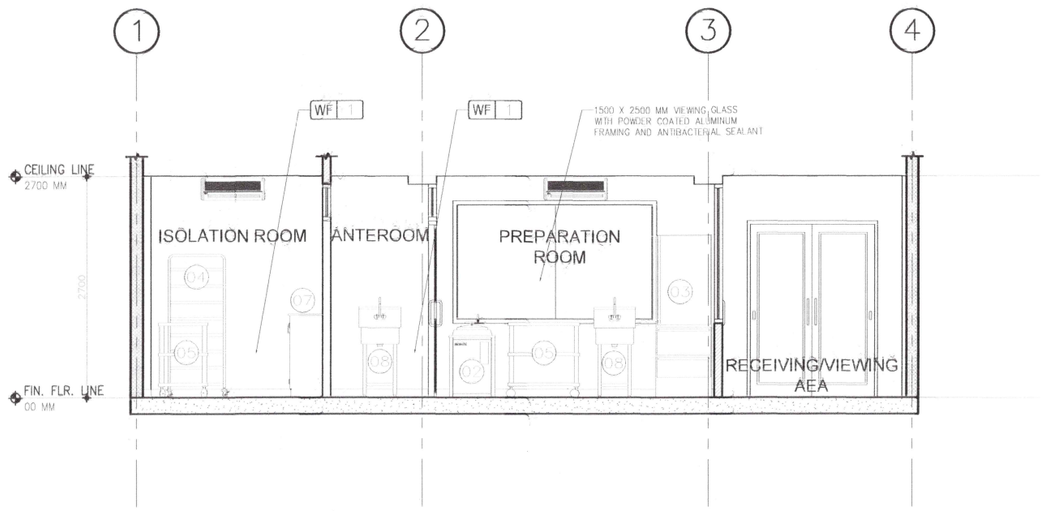
MARFORI, DON ENRIQUE LOPEZ, CITY OF MATI, DAVAO ORIENTAL

CIVIL ENGINEER:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO:
JAYPEE L. CANTONES, CE HEAD, PROJECT MANAGEMENT UNIT	RAY JOHN A. SALIMACO, Ph.D. DIRECTOR FOR PLANNING AND DEVELOPMENT	LILBETH S. GALVEZ, Ph.D. VICE PRESIDENT FOR PLANNING, QUALITY ASSURANCE, GLOBAL AFFAIRS, AND RESOURCE GENERATION	ROY G. PONCE, Ed.D. SUC PRESIDENT III	A-06 A-08



1 / A 05 CROSS SECTION @ A–A'

SCALE 1:75 MTS



2 / A 05 LONGITUDINAL SECTION @ B–B'

SCALE 1:75 MTS

LEGEND

01	3FT VERTICAL DUCTED FUME HOOD: LFH-3A
02	38L 50~126°C LCD DISPLAY PRESSURE STEAM VERTICAL AUTOCLAVE (SV-X SERIES)
03	COMBINATION FREEZER 300l CFC FREE REFRIGERANT LAB REFRIGERATOR FREEZER
04	RS PRO 8 SHELF STEEL DRAWER TROLLEY
05	STAINLESS STEEL INSTRUMENT TABLE WITH SHELF 900MM L X 600MM W X 850MM H
06	LABORATORY CABINET 1200MM L X 400MM W X 900MM H
07	LABORATORY CABINET 1800MM L X 400MM W X 900MM H
08	SS 304 G-18 SINK 610MM L X 560MM W X 890MM H 15" SINK DEPTH
	150MM THK. CONCRETE HOLLOW BLOCKS PLASTERED ON BOTH SIDES ±25MM PAINTED FINISH
	100MM THK. CONCRETE HOLLOW BLOCKS PLASTERED ON BOTH SIDES (±25MM) PAINTED FINISH

FLOOR FINISHES

FF 1	600X 600 HOMOGENOUS TILES COLOR: (VERIFY)
FF 2	HOMOGENEOUS ANTIBACTERIAL VINYL FLOORING DOH APPROVED COLOR: (VERIFY)

CEILING FINISHES

CF 1 ±00	ODORLESS ANTIBACTERIAL PAINT, SATIN FINISH COLOR: WHITE

WALL FINISHES

WF 1	ODORLESS ANTIBACTERIAL PAINT, SEMI-GLOSS FINISH COLOR: (VERIFY)

LIGHTS

	1200 MM LED T8 BATTEN FIXTURE (DAYLIGHT)
	CIRCULAR RECESSED DOWNLIGHT (DAYLIGHT) COLOR: WHITE

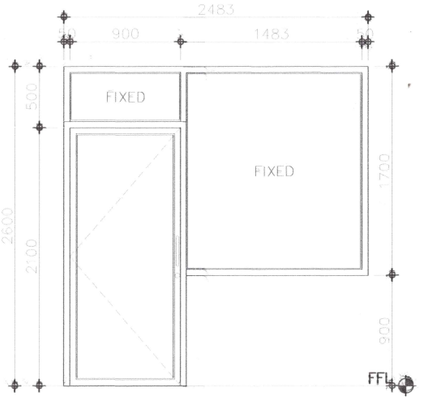
DAVAO ORIENTAL STATE UNIVERSITY
GUANG-GUANG, DAHICAN, CITY OF MATI, DAVAO ORIENTAL

PROJECT TITLE AND LOCATION:

UPGRADING OF BIOCON LABORATORY OF DAVAO ORIENTAL STATE UNIVERSITY

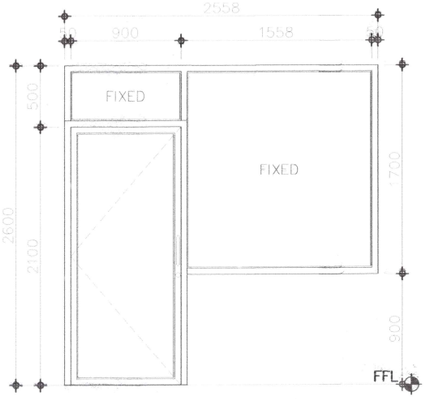
MARFORI, DON ENRIQUE LOPEZ, CITY OF MATI, DAVAO ORIENTAL

CIVIL ENGINEER:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO:
JAYREE L. CANTONES, CE HEAD, PROJECT MANAGEMENT UNIT	RAY JOHN A. SALIMACO, Ph.D. DIRECTOR FOR PLANNING AND DEVELOPMENT	LILBETH S. GALVEZ,Ph.D. VICE PRESIDENT FOR PLANNING, QUALITY ASSURANCE, GLOBAL AFFAIRS, AND RESOURCE GENERATION	ROY G. PONCE, Ed.D. SUC PRESIDENT III	A-07 A-08



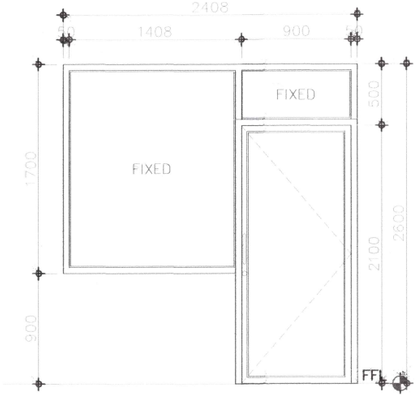
DW-1

DESCRIPTION	FRAME
GLASS DOOR WITH FIXED GLASS WINDOW	3" X 4" ALUMINUM FRAME POWDER COATED (WHITE) STEEL FRAME (BLUE)
LOCATION	**FINISH**
PREPARATION ROOM 01	6MM. THK. CLEAR GLASS WITH WHITE ANTI-BACTERIAL SEALANT
QUANTITY	**HARDWARE AND ACCESSORIES**
1 UNIT	PROVIDE SOFT CLOSING DOOR CLOSER PROVIDE SS DOOR LOCKSET PROVIDE SS 250MM DOOR HANDLE



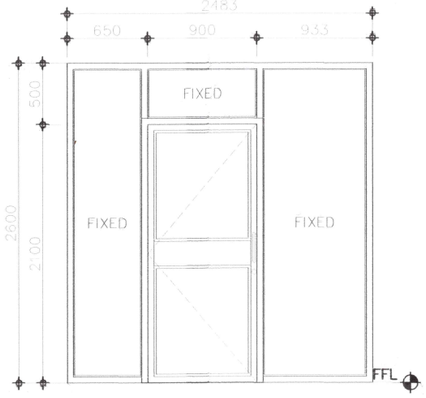
DW-2

DESCRIPTION	FRAME
GLASS DOOR WITH FIXED GLASS WINDOW	3" X 4" ALUMINUM FRAME POWDER COATED (WHITE) STEEL FRAME (BLUE)
LOCATION	**FINISH**
PREPARATION ROOM 02	6MM. THK. CLEAR GLASS WITH WHITE ANTI-BACTERIAL SEALANT
QUANTITY	**HARDWARE AND ACCESSORIES**
1 UNIT	PROVIDE SOFT CLOSING DOOR CLOSER PROVIDE SS DOOR LOCKSET PROVIDE SS 250MM DOOR HANDLE



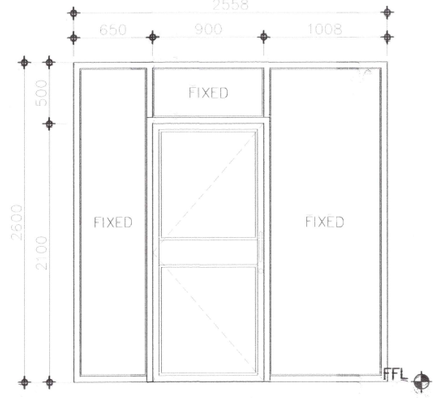
DW-3

DESCRIPTION	FRAME
GLASS DOOR WITH FIXED GLASS WINDOW	3" X 4" ALUMINUM FRAME POWDER COATED (WHITE) STEEL FRAME (BLUE)
LOCATION	**FINISH**
PREPARATION ROOM 03	6MM. THK. CLEAR GLASS WITH WHITE ANTI-BACTERIAL SEALANT
QUANTITY	**HARDWARE AND ACCESSORIES**
1 UNIT	PROVIDE SOFT CLOSING DOOR CLOSER PROVIDE SS DOOR LOCKSET PROVIDE SS 250MM DOOR HANDLE



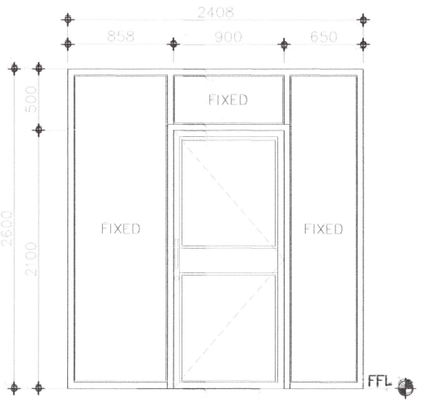
DW-4

DESCRIPTION	FRAME
SINGLE LEAF STEEL GLASS CLEANROOM DOOR WITH 200MM STAINLESS STEEL PUSH PLATE	3" X 4" ALUMINUM FRAME POWDER COATED (WHITE) STEEL FRAME (BLUE)
LOCATION	**FINISH**
ANTEROOM 01	6MM. THK. CLEAR GLASS WITH WHITE ANTI-BACTERIAL SEALANT
QUANTITY	**HARDWARE AND ACCESSORIES**
1 UNIT	PROVIDE SOFT CLOSING DOOR CLOSER PROVIDE SS DOOR LOCKSET PROVIDE SS 250MM DOOR HANDLE



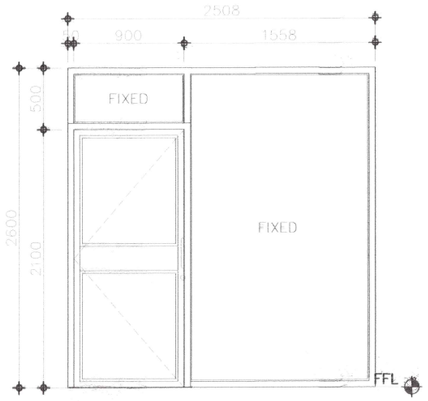
DW-5

DESCRIPTION	FRAME
SINGLE LEAF STEEL GLASS CLEANROOM DOOR WITH 200MM STAINLESS STEEL PUSH PLATE	3" X 4" ALUMINUM FRAME POWDER COATED (WHITE) STEEL FRAME (BLUE)
LOCATION	**FINISH**
ANTEROOM 02	6MM. THK. CLEAR GLASS WITH WHITE ANTI-BACTERIAL SEALANT
QUANTITY	**HARDWARE AND ACCESSORIES**
1 UNIT	PROVIDE SOFT CLOSING DOOR CLOSER PROVIDE SS DOOR LOCKSET PROVIDE SS 250MM DOOR HANDLE



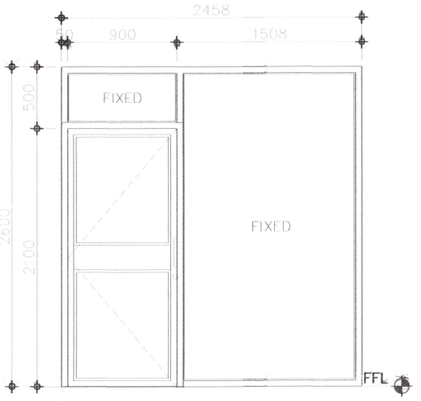
DW-6

DESCRIPTION	FRAME
SINGLE LEAF STEEL GLASS CLEANROOM DOOR WITH 200MM STAINLESS STEEL PUSH PLATE	3" X 4" ALUMINUM FRAME POWDER COATED (WHITE) STEEL FRAME (BLUE)
LOCATION	**FINISH**
ANTEROOM 03	6MM. THK. CLEAR GLASS WITH WHITE ANTI-BACTERIAL SEALANT
QUANTITY	**HARDWARE AND ACCESSORIES**
1 UNIT	PROVIDE SOFT CLOSING DOOR CLOSER PROVIDE SS DOOR LOCKSET PROVIDE SS 250MM DOOR HANDLE



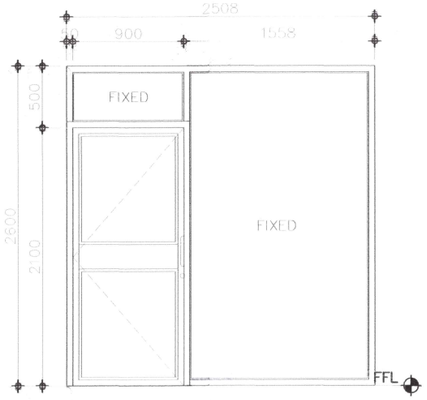
DW-7

DESCRIPTION	FRAME
SINGLE LEAF STEEL GLASS CLEANROOM DOOR WITH 200MM STAINLESS STEEL PUSH PLATE	3" X 4" ALUMINUM FRAME POWDER COATED (WHITE) STEEL FRAME (BLUE)
LOCATION	**FINISH**
ISOLATION ROOM 01	6MM. THK. CLEAR GLASS WITH WHITE ANTI-BACTERIAL SEALANT
QUANTITY	**HARDWARE AND ACCESSORIES**
1 UNIT	PROVIDE SOFT CLOSING DOOR CLOSER PROVIDE SS DOOR LOCKSET PROVIDE SS 250MM DOOR HANDLE



DW-8

DESCRIPTION	FRAME
SINGLE LEAF STEEL GLASS CLEANROOM DOOR WITH 200MM STAINLESS STEEL PUSH PLATE	3" X 4" ALUMINUM FRAME POWDER COATED (WHITE) STEEL FRAME (BLUE)
LOCATION	**FINISH**
ISOLATION ROOM 02	6MM. THK. CLEAR GLASS WITH WHITE ANTI-BACTERIAL SEALANT
QUANTITY	**HARDWARE AND ACCESSORIES**
1 UNIT	PROVIDE SOFT CLOSING DOOR CLOSER PROVIDE SS DOOR LOCKSET PROVIDE SS 250MM DOOR HANDLE



DW-9

DESCRIPTION	FRAME
GLASS DOOR WITH FIXED GLASS WINDOW	3" X 4" ALUMINUM FRAME POWDER COATED (WHITE) STEEL FRAME (BLUE)
LOCATION	**FINISH**
PREPARATION ROOM 01	6MM. THK. CLEAR GLASS WITH WHITE ANTI-BACTERIAL SEALANT
QUANTITY	**HARDWARE AND ACCESSORIES**
1 UNIT	PROVIDE SOFT CLOSING DOOR CLOSER PROVIDE SS DOOR LOCKSET PROVIDE SS 250MM DOOR HANDLE

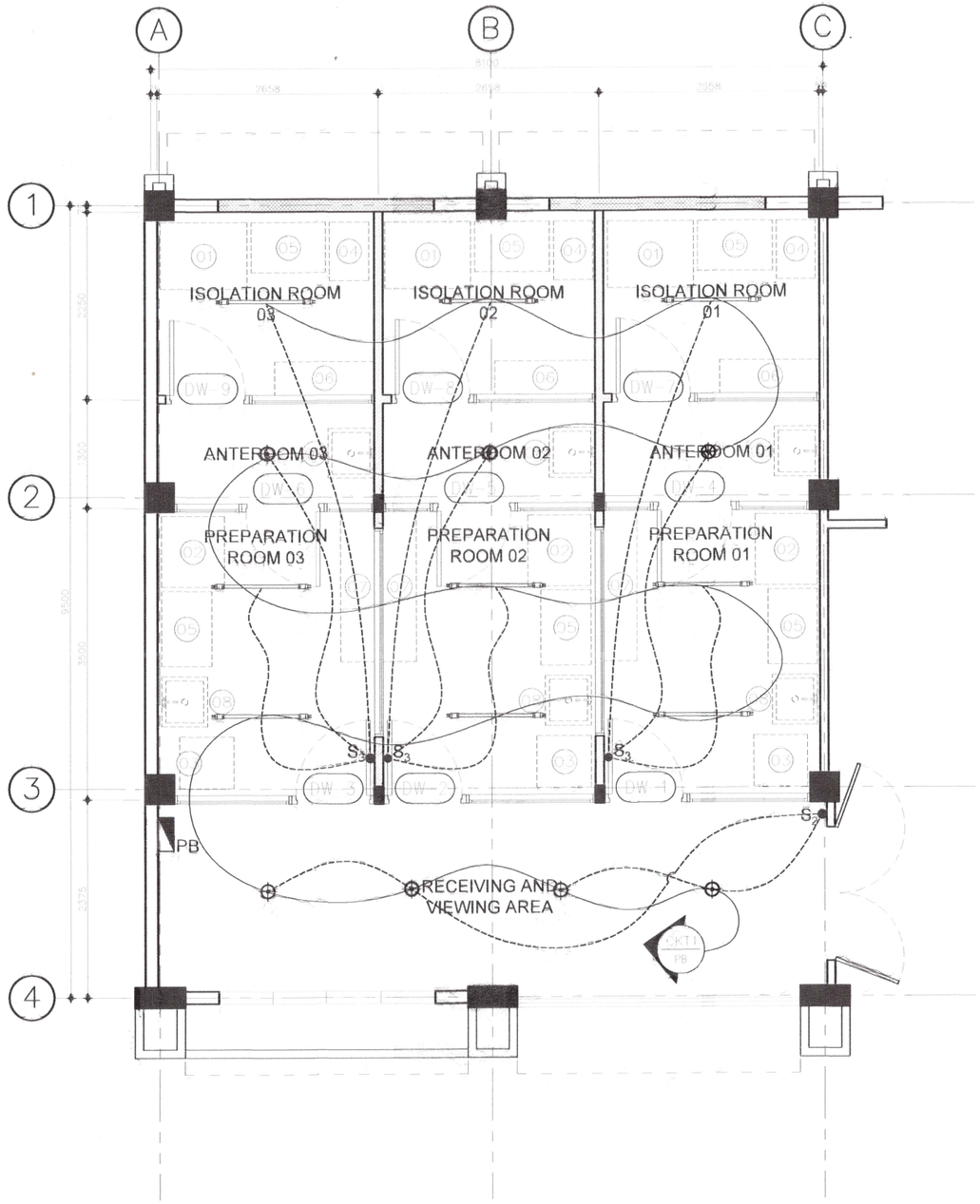
DAVAO ORIENTAL STATE UNIVERSITY
GUANG-GUANG, DAHICAN, CITY OF MATI, DAVAO ORIENTAL

PROJECT TITLE AND LOCATION:

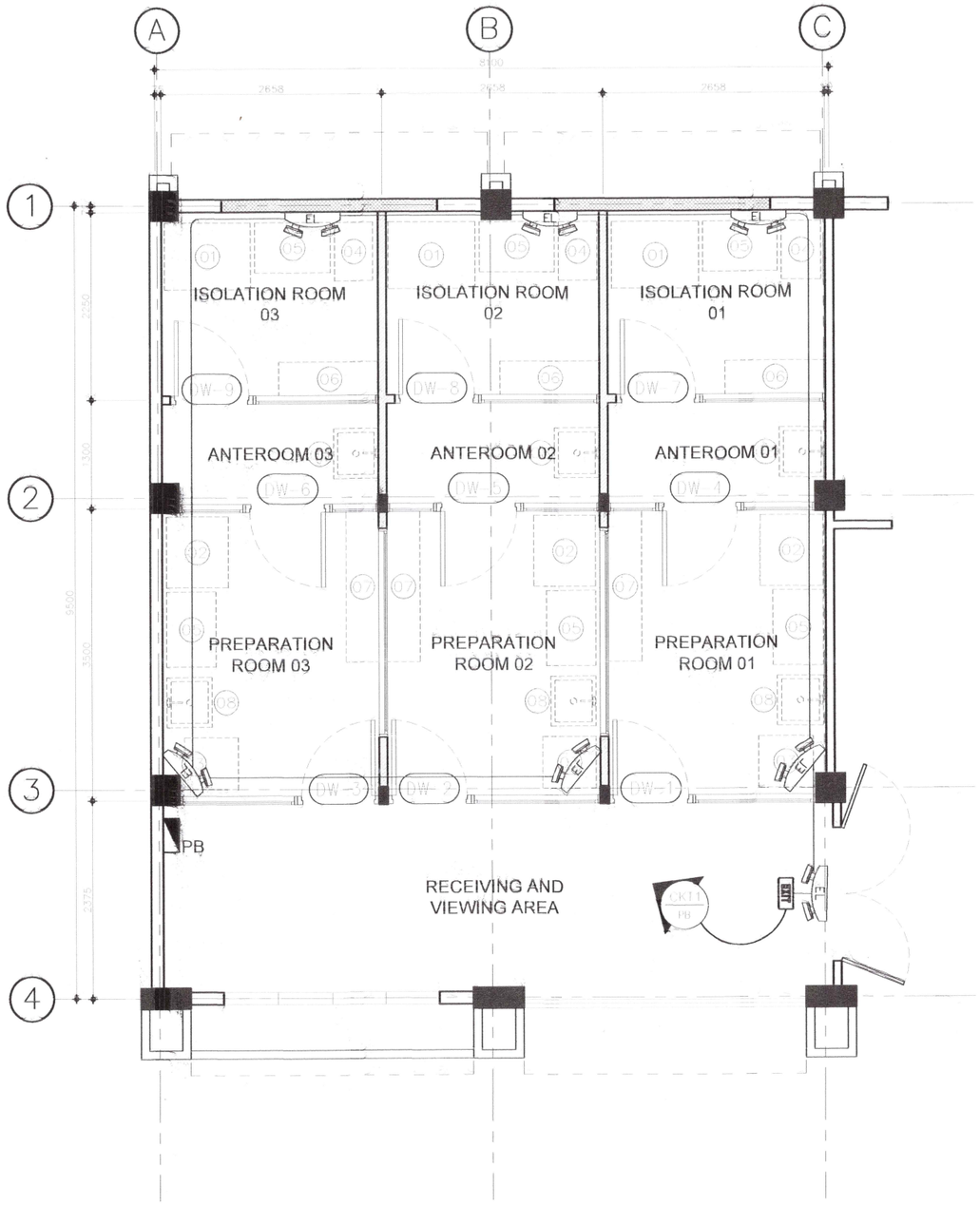
UPGRADING OF BIOCON LABORATORY OF DAVAO ORIENTAL STATE UNIVERSITY

MARFORI, DON ENRIQUE LOPEZ, CITY OF MATI, DAVAO ORIENTAL

CIVIL ENGINEER:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO:
JAYPEE L. CANTONES, CE HEAD, PROJECT MANAGEMENT UNIT	RAY JOHN A. SALIMACO, Ph.D. DIRECTOR FOR PLANNING AND DEVELOPMENT	LILBETH S. GALVEZ, Ph.D. VICE PRESIDENT FOR PLANNING, QUALITY ASSURANCE, GLOBAL AFFAIRS, AND RESOURCE GENERATION	ROY G. PONCE, Ed.D. SUC PRESIDENT III	A-08 A-08



1 E 01 LIGHTING LAYOUT
SCALE 1:70 MTS



2 E 01 EMERGENCY LIGHT LAYOUT
SCALE 1:70 MTS

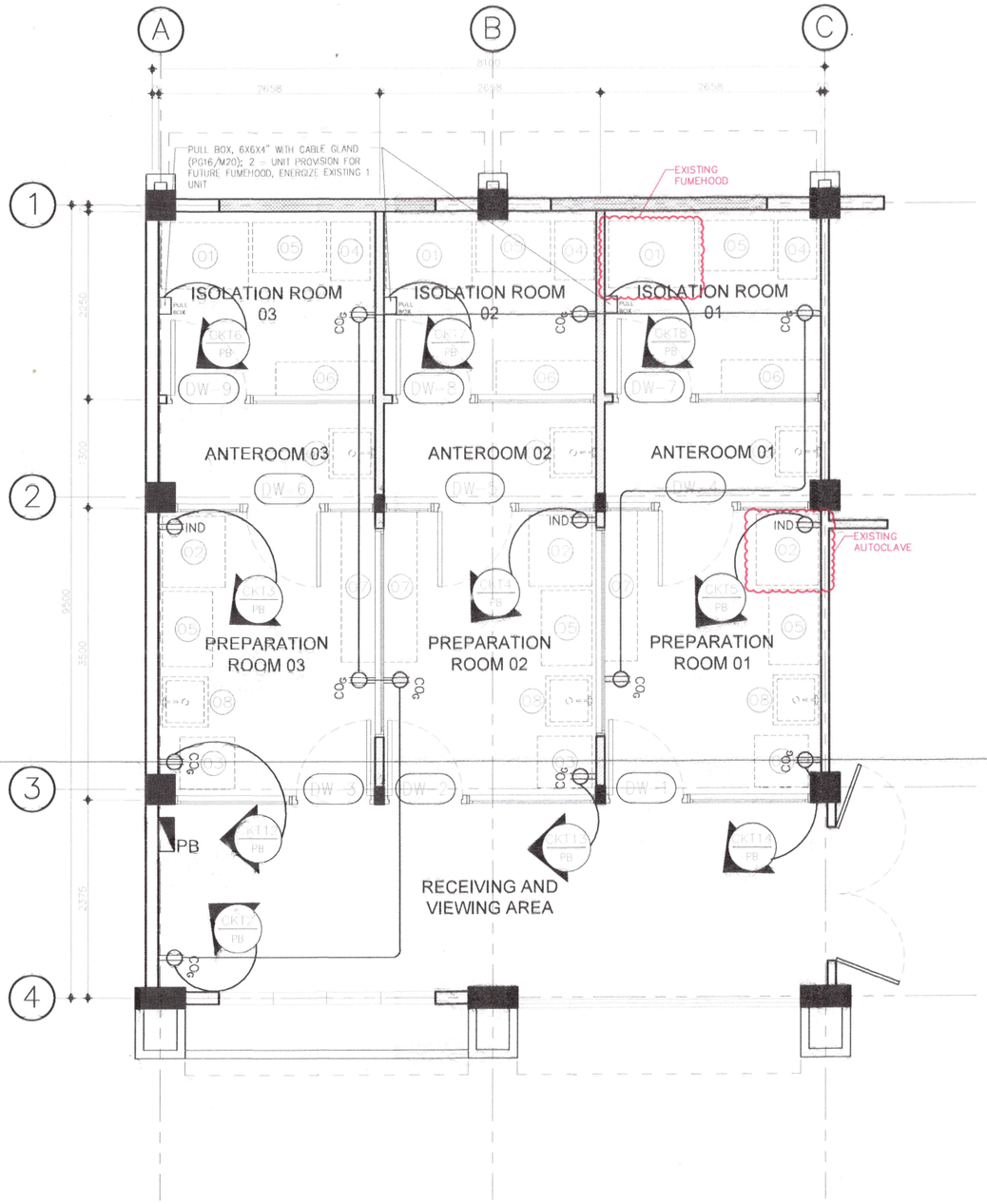
DAVAO ORIENTAL STATE UNIVERSITY
GUANG-GUANG, DAHICAN, CITY OF MATI, DAVAO ORIENTAL

PROJECT TITLE AND LOCATION:

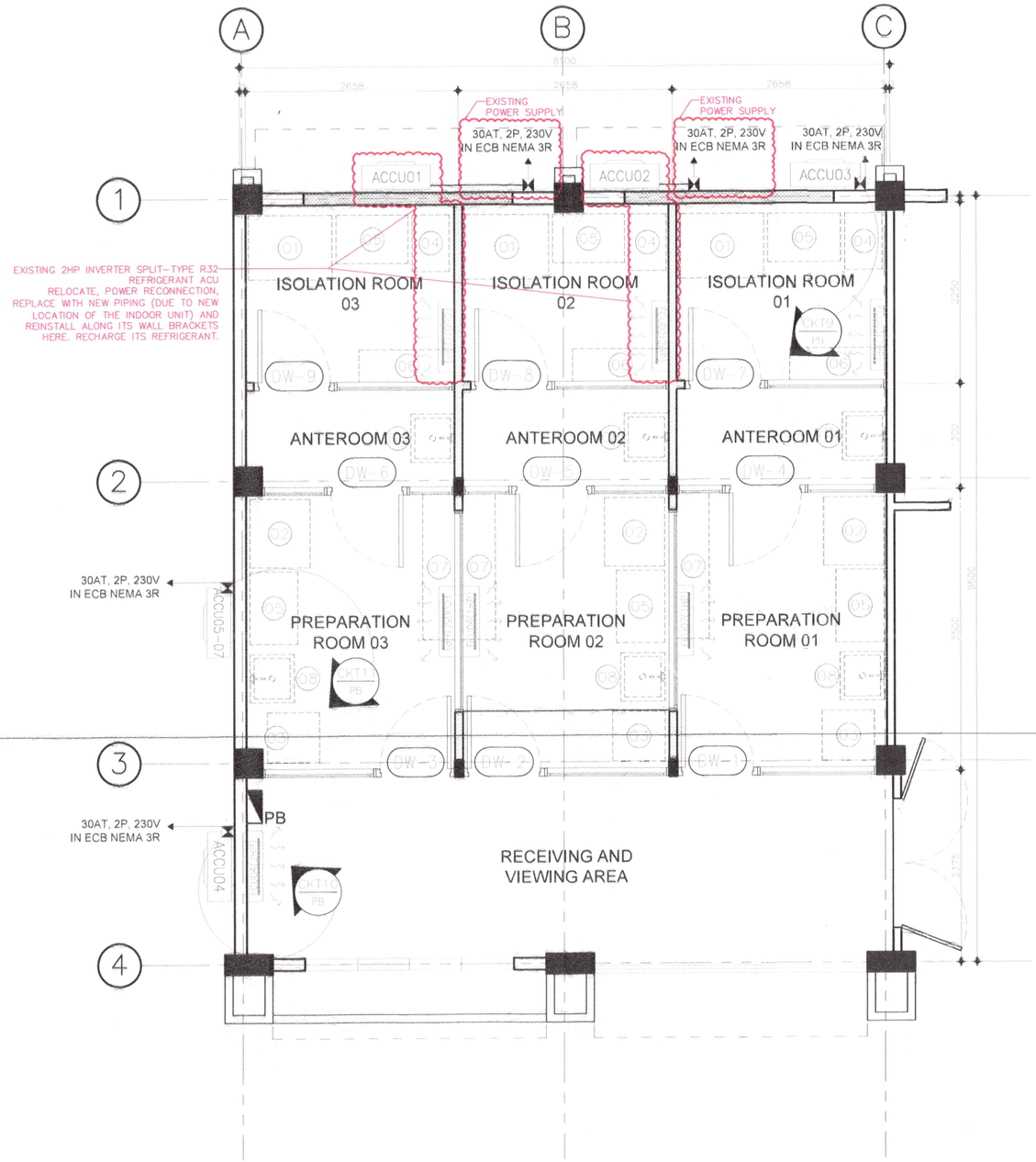
UPGRADING OF BIOCON LABORATORY OF DAVAO ORIENTAL STATE UNIVERSITY

MARFORI, DON ENRIQUE LOPEZ, CITY OF MATI, DAVAO ORIENTAL

PREPARED BY:	CHECKED BY:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO:
KIMBERLY B. AMOGUIS, REE PROJECT DEVELOPMENT OFFICER	JAYPEE L. CANTONES, CE HEAD, PROJECT MANAGEMENT UNIT	RAY JOHN A. SALIMACO, Ph.D. DIRECTOR FOR PLANNING AND DEVELOPMENT	LILBETH S. GALVEZ, Ph.D. VICE PRESIDENT FOR PLANNING, QUALITY ASSURANCE, GLOBAL AFFAIRS, AND RESOURCE GENERATION	ROY G. PONCE, Ed.D. SUC PRESIDENT III	E-01 E-04

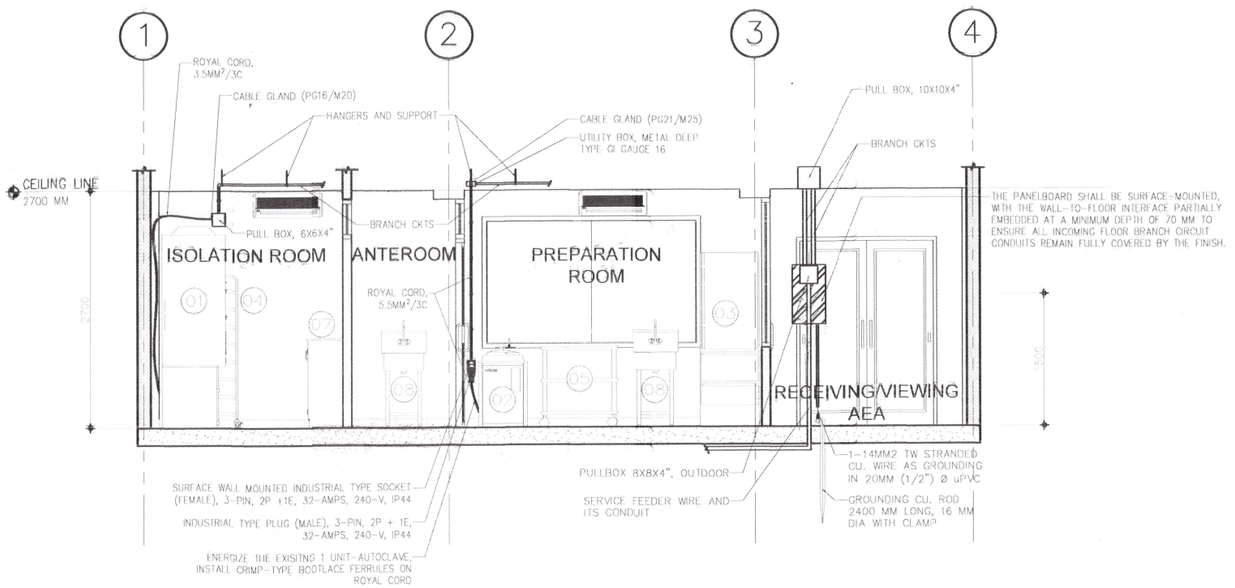


1 E 02 POWER LAYOUT
SCALE 1:70 MTS



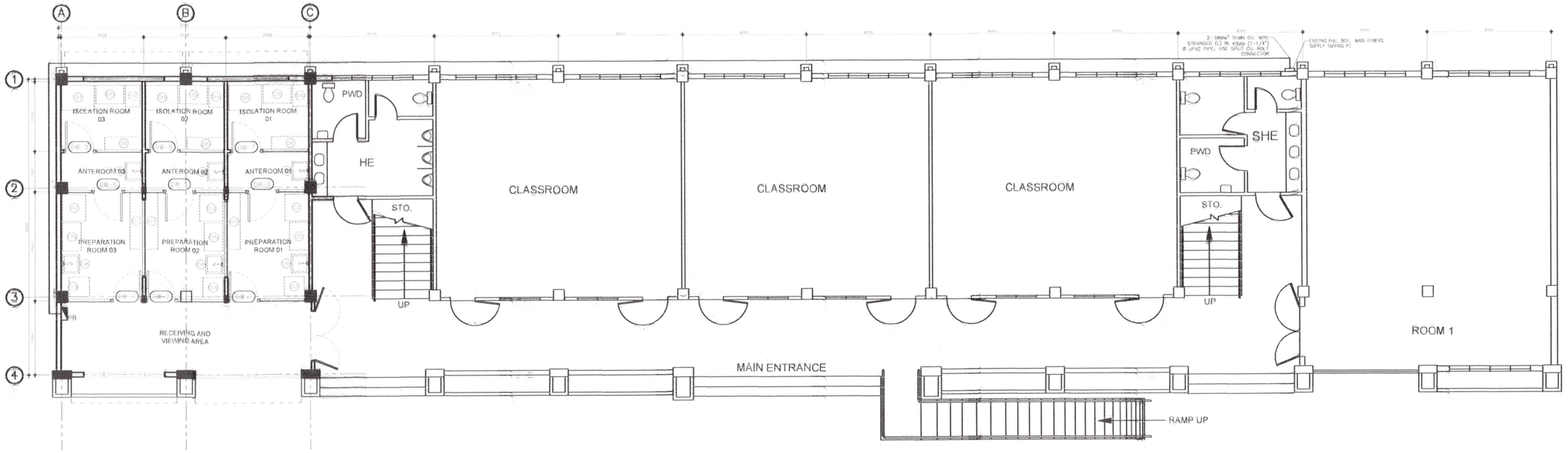
2 E 02 ACU LAYOUT
SCALE 1:70 MTS

DAVAO ORIENTAL STATE UNIVERSITY GUANG-GUANG, DAHICAN, CITY OF MATI, DAVAO ORIENTAL		PROJECT TITLE AND LOCATION: UPGRADING OF BIOCON LABORATORY OF DAVAO ORIENTAL STATE UNIVERSITY MARFORI, DON ENRIQUE LOPEZ, CITY OF MATI, DAVAO ORIENTAL	PREPARED BY: KIMBERLY B. AMOGUIS, REE PROJECT DEVELOPMENT OFFICER	CHECKED BY: JAYPEE L. CANTONES, CE HEAD, PROJECT MANAGEMENT UNIT	CONCURRED BY: RAY JOHN A. SALIMACO, Ph.D. DIRECTOR FOR PLANNING AND DEVELOPMENT	RECOMMENDING APPROVAL: LILBETH S. GALVEZ,Ph.D. VICE PRESIDENT FOR PLANNING, QUALITY ASSURANCE, GLOBAL AFFAIRS, AND RESOURCE GENERATION	APPROVED BY: ROY G. PONCE, Ed.D. SUC PRESIDENT III	SHEET NO: E-02 E-04



1 E 03 OTHER DETAILS

SCALE N.T.S



2 E 03 MAIN POWER SUPPLY LOCATION

SCALE 1:150 MTS

GENERAL NOTES AND SPECIFICATIONS

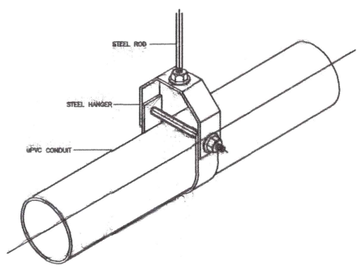
ELECTRICAL WORKS SHALL BE DONE IN ACCORDANCE TO THE FOLLOWING SPECIFICATIONS:

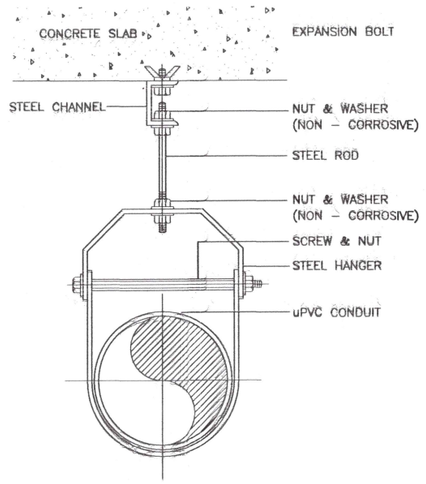
1. ALL WIRINGS SHALL BE DONE IN ACCORDANCE TOT HE LATEST EDITION OF THE PHILEPPINE ELECTRICAL CODE, THE RULES AND REGULATIONS OF THE LOCAL POWER COMPANY, AND GOVERNMENT AGENCIES HAVING JURISDICTION OVER THE PROJECT.
2. ALL WIRINGS RUNNING THRU OR EMBEDDED IN CONCRETE SHALL BE "PHILFEX", "DURATEX", OR EQUIVALENT IN RIGID PVC CONDUIT.
3. UNLESS OTHERWISE INDICATED IN THE PLANS, THE MINIMUM SIZES OF WIRE AND CONDUIT TO BE USED SHALL BE 3.5 sq.mm AND 20mmØ RESPECTIVELY.
4. WHENEVER REQUIRED AND NECESSARY, PULL BOXES AND JUNCTION BOXES OF PROPER SIZES SHALL BE INSTALLED AT CONVENIENT AND INCONSPICUOUS LOCATIONS ALTHOUGH SUCH BOXES ARE NOT SHOWN ON THE PLANS NOR MENTIONED IN THE SPECIFICATIONS.
5. ALL WALL OUTLETS AND PANELBOARD SHALL BE INSTALLED AT THE FOLLOWING HEIGHTS ABOVE THE FINISHED FLOOR LEVEL:
   - A.) WALL SWITCHES - 1.2m
   - B.) CONVENIENCE OUTLETS - 0.3m
   - C.) PANEL BOARD - 1.5m (CENTER)
6. ALL ELECTRICAL WORKS SHALL BE DONE IN STANDARD WORKMANSHIP MANNER WITH SKILLED MANPOWER DULY SUPERVISED BY A PROFESSIONAL ELECTRICAL ENGINEER OR REGISTERED ELECTRICAL ENGINEER.
7. ALL MATERIALS SHOULD BE NEW AND BEAR APPROPRIATE SEAL OF DTI-BUREAU PRODUCT STANDARDS FOR SPECIFIC PURPOSE.
8. ALL WORKS BE EXECUTED IN REAL AND WORK MAN LIKE MANNER. UPON COMPLETION OF THE ELECTRICAL WORK, THE CONDUCTOR/INSTALLER SHALL REVIEW AND CHECK THE ENTIRE INSTALLATION AND ENSURE THAT THE DEVICES ARE OPERATING PROPERLY.
9. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE PROPER IDENTIFICATION AND LABELING OF ALL CIRCUIT BREAKER. EACH PANEL SHALL BE PROVIDED WITH A TYPEWRITTEN CIRCUIT DIRECTORY.

LEGENDS AND SYMBOLS

- PB — PANEL BOARD WITH CENTER MAIN (2 POLE) MCCB AND GROUND/BONDING TERMINALS, 18-BRANCHES (2 POLE) MCB, BOLT-ON TYPE, SURFACE MOUNTED
- 9W CIRCULAR RECESSED LED DOWNLIGHT, DAYLIGHT
- 18W LED T8 BATTEN FIXTURE, DAYLIGHT
- S_2 — 2-POLE FLUSH MOUNTED SWITCH, EMBEDDED
- S_3 — 3-POLE FLUSH MOUNTED SWITCH, EMBEDDED
- IND — INDUSTRIAL PLUG AND SOCKET
- CO — FLUSH-MOUNTED UNIVERSAL CONVENIENCE OUTLET WITH GROUND 2-GANG, EMBEDDED
- ACCU — AIR CONDITIONING UNIT, OUTDOOR
- AIR CONDITIONING UNIT, SPLIT-TYPE WALL MOUNTED, INDOOR

DAVAO ORIENTAL STATE UNIVERSITY GUANG-GUANG, DAHICAN, CITY OF MATI, DAVAO ORIENTAL	PROJECT TITLE AND LOCATION: **UPGRADING OF BIOCON LABORATORY OF DAVAO ORIENTAL STATE UNIVERSITY** MARFORI, DON ENRIQUE LOPEZ, CITY OF MATI, DAVAO ORIENTAL	PREPARED BY: KIMBERLY B. AMOGUIS, REE PROJECT DEVELOPMENT OFFICER	CHECKED BY: JAYPEE L. CANTONES, CE HEAD, PROJECT MANAGEMENT UNIT	CONCURRED BY: RAY JOHN A. SALIMACO, Ph.D. DIRECTOR FOR PLANNING AND DEVELOPMENT	RECOMMENDING APPROVAL: LILBETH S. GALVEZ, Ph.D. VICE PRESIDENT FOR PLANNING, QUALITY ASSURANCE, GLOBAL AFFAIRS, AND RESOURCE GENERATION	APPROVED BY: ROY G. PONCE, Ed.D. SUC PRESIDENT III	SHEET NO: E-03 E-04





1 / E 04 HANGERS AND SUPPORT DETS.
SCALE N.T.S.

SCHEDULE OF LOADS: PB

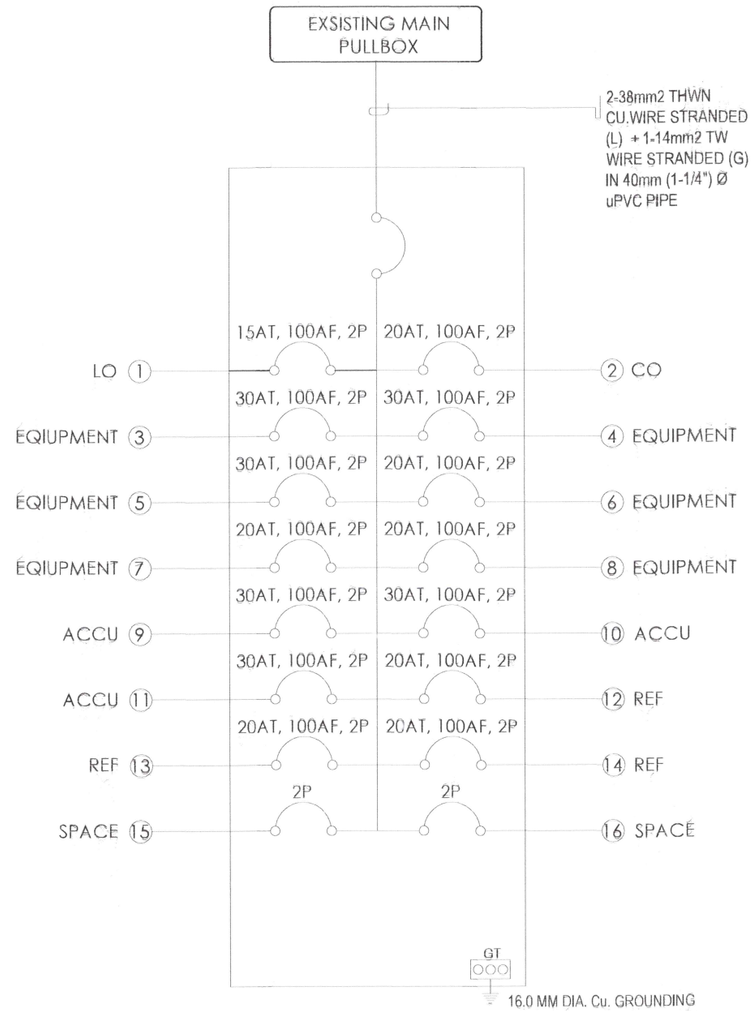
CKT. NO.	CONNECTED LOADS								AMPERE LOAD				BREAKER RATING							CONDUIT	
	LED BATTEN 18W	LED DL 9W	EMERGENCY LIGHT	C.O 360 VA	TOTAL LO	TOTAL C.O	TOTAL VA	OTHER (LOAD)	TOTAL AMP	A-B	B-C	C-A	VOLT	AF	AT	POLE	KAIC	TYPE	SIZE OF WIRES	SIZE	TYPE
1	9	7	7		16		225	FIRE EXIT LED LIGHT	0.98	0.98			230	100	15	2	10	BOLT-ON	2-3.5 MM² THHN (L)	20mm (1/2") Ø	uPVC
2				7		7	2,520		10.96	10.96			230	100	20	2	10	BOLT-ON	2-3.5 MM² THHN (L) + 1-2.0 MM² TW (G)	20mm (1/2") Ø	uPVC
3							4,400	AUTOCLAVE	19.13	19.13			230	100	30	2	10	BOLT-ON	5.5MM²/3C ROYAL CORD & 3-5.5 MM² THHN (L+G)	25mm (3/4") Ø	uPVC
4							4,400	AUTOCLAVE	19.13	19.13			230	100	30	2	10	BOLT-ON	5.5MM²/3C ROYAL CORD & 3-5.5 MM² THHN (L+G)	25mm (3/4") Ø	uPVC
5							4,400	AUTOCLAVE	19.13	19.13			230	100	30	2	10	BOLT-ON	5.5MM²/3C ROYAL CORD & 3-5.5 MM² THHN (L+G)	25mm (3/4") Ø	uPVC
6							400	FUMEHOOD	1.74	1.74			230	100	20	2	10	BOLT-ON	3.5MM²/3C ROYAL CORD & 3-3.5 MM² THHN (L+G)	20mm (1/2") Ø	uPVC
7							400	FUMEHOOD	1.74	1.74			230	100	20	2	10	BOLT-ON	3.5MM²/3C ROYAL CORD & 3-3.5 MM² THHN (L+G)	20mm (1/2") Ø	uPVC
8							400	FUMEHOOD	1.74	1.74			230	100	20	2	10	BOLT-ON	3.5MM²/3C ROYAL CORD & 3-3.5 MM² THHN (L+G)	20mm (1/2") Ø	uPVC
9							765	SPLIT-TYPE ACU, 1HP	3.33	3.33			230	100	30	2	10	BOLT-ON	2-5.5 MM² THHN (L)	25mm (3/4") Ø	uPVC
10							1,720	SPLIT-TYPE ACU, 2HP	7.48	7.48			230	100	30	2	10	BOLT-ON	2-5.5 MM² THHN (L)	25mm (3/4") Ø	uPVC
11							2,505	MULTI SPLIT-TYPE ACU, 3 UNIT - 1HP	10.80	10.80			230	100	30	2	10	BOLT-ON	2-5.5 MM² THHN (L)	25mm (3/4") Ø	uPVC
12							360	REFRIGERATOR	1.57	1.57			230	100	20	2	10	BOLT-ON	2-3.5 MM² THHN (L) + 1-2.0 MM² TW (G)	20mm (1/2") Ø	uPVC
13							360	REFRIGERATOR	1.57	1.57			230	100	20	2	10	BOLT-ON	2-3.5 MM² THHN (L) + 1-2.0 MM² TW (G)	20mm (1/2") Ø	uPVC
14							360	REFRIGERATOR	1.57	1.57			230	100	20	2	10	BOLT-ON	2-3.5 MM² THHN (L) + 1-2.0 MM² TW (G)	20mm (1/2") Ø	uPVC
15								SPACE					230			2		BOLT-ON			
16								SPACE					230			2		BOLT-ON			
							23,215		100.87	100.87											

CALCULATION:

SERVICE FEEDER CONDUCTOR SIZE:
I = [100.87+ 25% (10.80)]
I = 103.57 A
USE: 2-38mm2 THWN CU.WIRE STRANDED (L) + 1-14mm2 TW WIRE STRANDED (G)
USE: 40mm (1-1/4") Ø uPVC PIPE

MAIN PROTECTICE DEVICE SIZE:
I = [100.87 + 150% (10.80)]
I = 117.07 A
USE: 125AT, 100AF, 240 V, 2P, 18KAIC, MCCB, BOLT-ON TYPE

2 / E 04 SCHEDULE OF LOADS
SCALE N.T.S.



3 / E 04 SINGLE LINE DIAGRAM
SCALE N.T.S.

DAVAO ORIENTAL STATE UNIVERSITY
GUANG-GUANG, DAHICAN, CITY OF MATI, DAVAO ORIENTAL

PROJECT TITLE AND LOCATION:
UPGRADING OF BIOCON LABORATORY OF DAVAO ORIENTAL STATE UNIVERSITY
MARFORI, DON ENRIQUE LOPEZ, CITY OF MATI, DAVAO ORIENTAL

PREPARED BY:	CHECKED BY:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO:
KIMBERLY B. AMOGUIS, REE PROJECT DEVELOPMENT OFFICER	JAYPEE L. CANTONES, CE HEAD PROJECT MANAGEMENT UNIT	RAY JOHN A. SALIMACO, Ph.D. DIRECTOR FOR PLANNING AND DEVELOPMENT	LILBETH S. GALVEZ,Ph.D. VICE PRESIDENT FOR PLANNING, QUALITY ASSURANCE, GLOBAL AFFAIRS, AND RESOURCE GENERATION	ROY G. PONCE, Ed.D. SUC PRESIDENT III	E-04 E-04