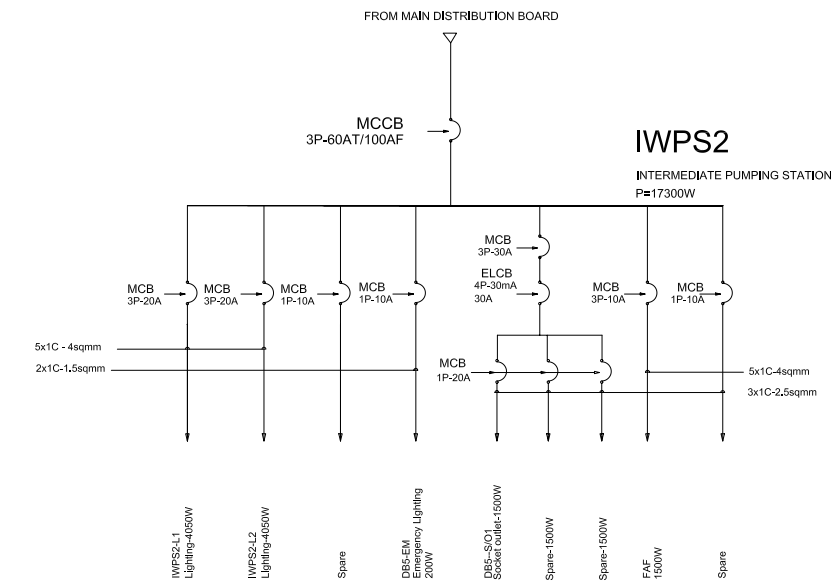


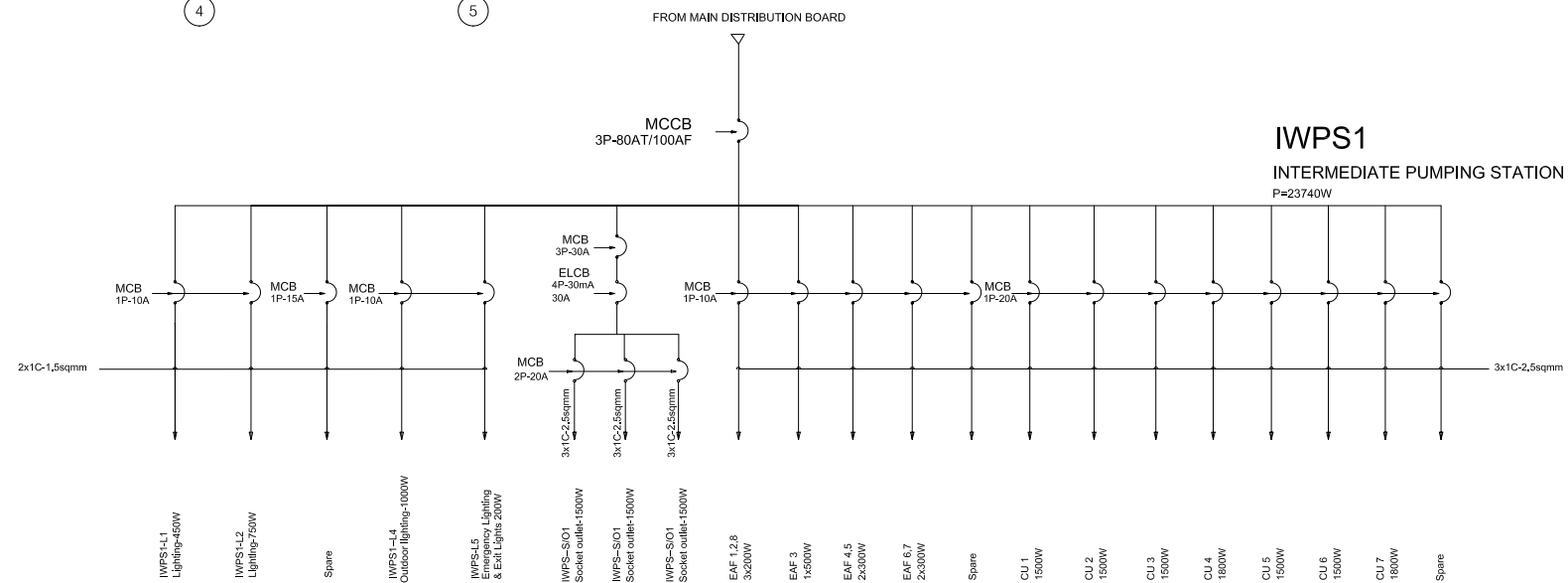


**FIRST FLOOR - ELECTRICAL PLAN**

SCALE : 1/100



**SINGLE LINE DIAGRAM**



**SINGLE LINE DIAGRAM**

**LEGEND**

- ⊗ 400W HIGH PRESSURE SODIUM INDUSTRIAL HIGH BAY LUMINAIRE
- ▨ 2x36W RECESSED FLOURESCENT.
- ▬ 2x36W FLOURESCENT BATTEN (CEILING OR WALL MOUNTED)
- ⊙ 1x140W DOWNLIGHT (in WC)
- 100W OUTDOOR LUMINAIRE, IP 56
- ⊕ 1x140W DOWNLIGHT (in WC)
- ▬ 1x18W FLOURESCENT BATTEN, IP65
- ▬ 2x36W FLOURESCENT BATTEN, IP65
- EX 2x10W NON- MAINTAINED EXIT LIGHT
- 16A DUPLEX SOCKET OUTLET
- /A/C 16A DUPLEX SOCKET OUTLET FOR A/C UNIT
- ⚡ 1 WAY SINGLE SWITCH
- ▭ DISTRIBUTION BOARD
- ⊙ FIRE EXTINGUISHER

NO.	DATE	DESCRIPTIONS	BY	APRO.

**REVISIONS**

PROJECT MANAGEMENT UNIT FOR  
HO CHI MINH CITY  
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN STUDY ON HO CHI MINH CITY  
WATER ENVIRONMENT IMPROVEMENT PROJECT  
IN THE SOCIALIST REPUBLIC OF VIET NAM

PACKAGE C  
INTERMEDIATE WASTEWATER PUMPING STATION

**ELECTRICAL PLAN AND  
SINGLE LINE DIAGRAM**

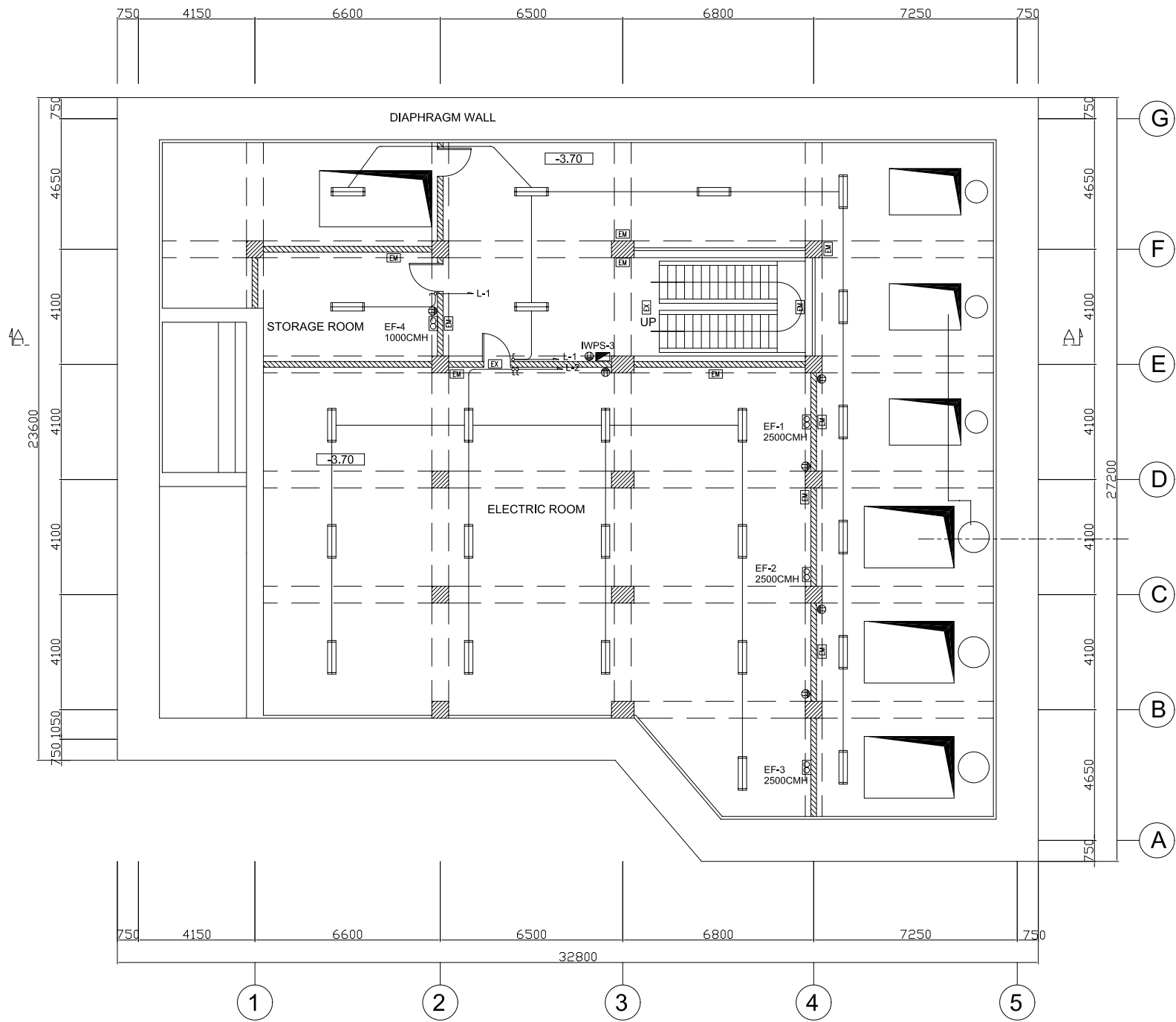
SCALE : 1/100

JICA JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )

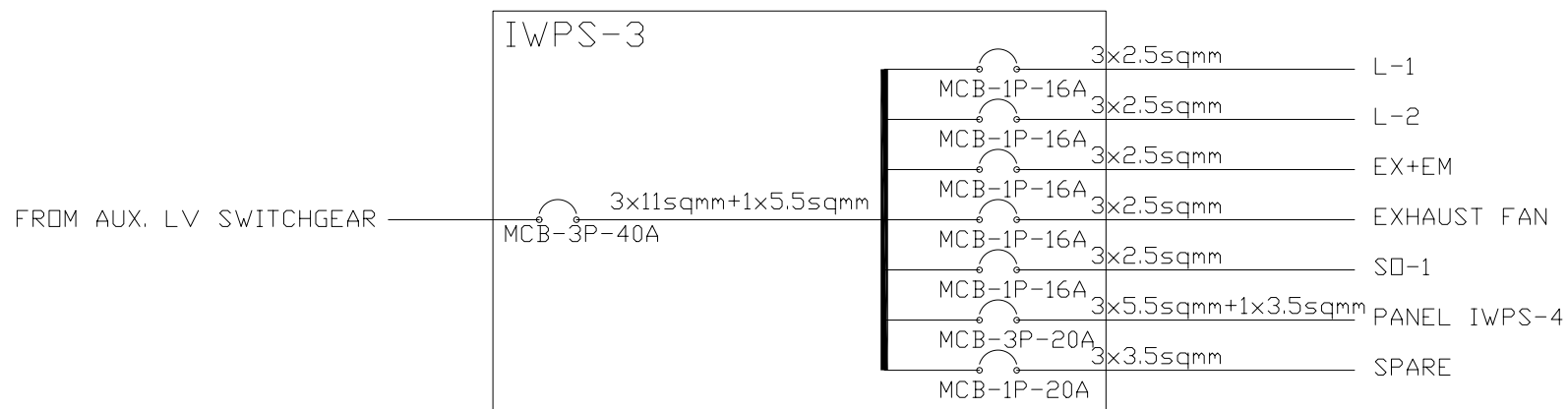
PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED KIMURA TORU	CHECKED KONDO MASAMI
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DATE : JUNE 2001 DWG. No. PC-IWPS-315



LIGHTING PLAN OF BASEMENT 1



NOTES:

- ⊗ HIGH-BAY LIGHTING FIXTURES, METAL HALIDE, WIDE-ANGLE TYPE 400W
- ▭ MOISTURE & RAIN-PROOF LIGHTING FIXTURES, STEEL HOUSING, OPAL ACRYLIC COVER, 2x36W, IP65 TYPE
- ▨ RECESSED MOUNTING LUMINAIRE, PARABOLIC COMFORT STEEL HOUSING, STEEL LOUVER, 2x36W
- ⊙ INCANDESCENT RECESSED DOWNLIGHT, 60W STANDARD LAMP
- OUTDOOR CEILING MOUNTED LUMINAIRE, IP65 TYPE 100W
- EM EMERGENCY LIGHT; SEALED, RECHARGEABLE NI-Cd BATTERIES, AUTO SWITCHING, AUTOMATIC RECHARGER, INSPECTION SWITCH, YEAR INDICATOR, RECHARGING MONITOR, 1x18W
- EX EXIT SIGN LUMINAIRE(S) CEILING WALL MOUNTED TYPE; SEALED, RECHARGEABLE NI-Cd BATTERIES, AUTOMATIC SWITCHING, POWER ENOUGH TO KEEP THE LIGHT ON FOR AT LEAST 30 MIN, SINGLE FACE AUTOMATIC RECHARGER, INSPECTION SWITCH, YEAR INDICATOR, RECHARGING MONITOR, 1x18W
- ⊞ ELECTRICAL DISTRIBUTION BOARD
- PS: PANEL SWITCHES
- ⌞ SINGLE SWITCH, 1 WAY, 10A
- ⌘ SINGLE SWITCH, 2 WAY, 10A
- ⊕ DUPLEX SOCKETOUTLET, 2x3-PIN: 16A (COVERED PROOF IN MOISTURE AREA)

NO.	DATE	DESCRIPTIONS	BY	APRO.

REVISIONS

PROJECT MANAGEMENT UNIT FOR  
HO CHI MINH CITY  
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN STUDY ON HO CHI MINH CITY  
WATER ENVIRONMENT IMPROVEMENT PROJECT  
IN THE SOCIALIST REPUBLIC OF VIET NAM

PACKAGE C  
INTERMEDIATE WASTEWATER PUMPING STATION  
PUMP HOUSE AND O/M OFFICE  
PLAN AND SINGLE LINE DIAGRAM  
OF LIGHTING (BASEMENT 1)

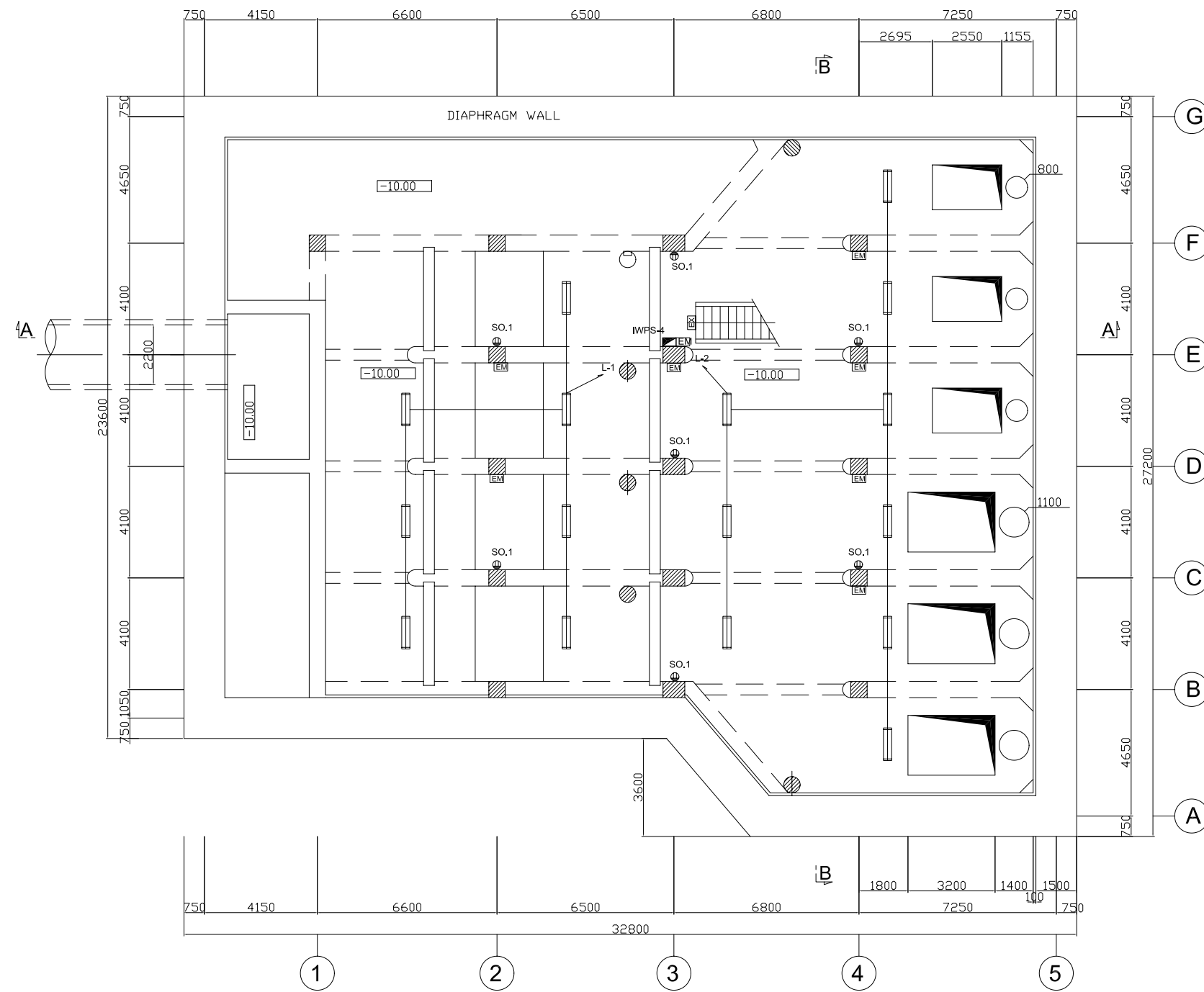
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JICA JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )

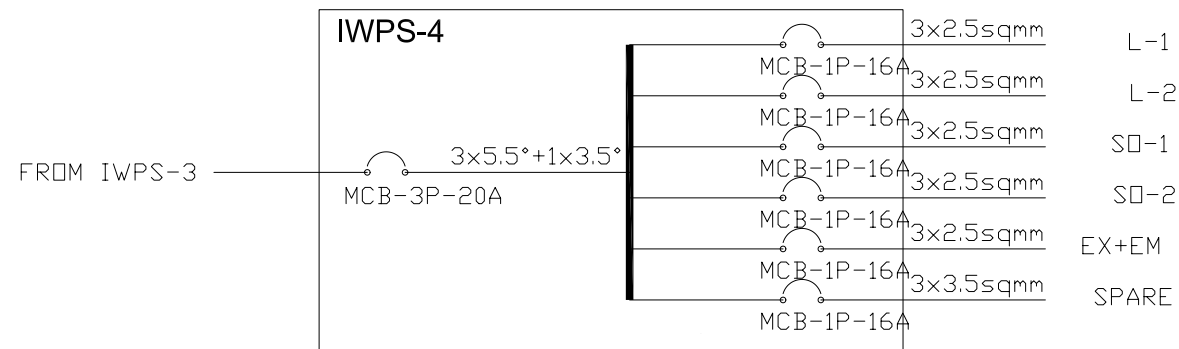
PC PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED KIMURA TORU	CHECKED KONDO MASAMI
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DATE : JUNE 2001 DWG. No. PC - IWPS - 316



LIGHTING PLAN OF BASEMENT 2



NOTES:

- ⊗ HIGH-BAY LIGHTING FIXTURES, METAL HALIDE, WIDE-ANGLE TYPE 400W
- ☐ MOISTURE & RAINPROOF LIGHTING FIXTURES, STEEL HOUSING, OPAL ACRYLIC COVER, 2x 36W, IP 65 TYPE
- ▨ RECESSED MOUNTING LUMINAIRE, PARABOLIC COMFORT STEEL HOUSING, STEEL LOUVER, 2x36W
- ⊗ INCANDESCENT RECESSED DOWNLIGHT, 60W STANDARD LAMP
- OUTDOOR CEILING MOUNTED LUMINAIRE, IP65 TYPE 100W
- EM EMERGENCY LIGHT; SEALED, RECHARGEABLE NI-Cd BATTERIES, AUTO SWITCHING, AUTOMATIC RECHARGER, INSPECTION SWITCH, YEAR INDICATOR, RECHARGING MONITOR, 1x18W
- EX EXIT SIGN LUMINAIRE( CEILING WALL MOUNTED TYPE); SEALED, RECHARGEABLE NI-Cd BATTERIES, AUTOMATIC SWITCHING, POWER ENOUGH TO KEEP THE LIGHT ON FOR AT LEAST 30 MIN, SINGLE FACE AUTOMATIC RECHARGER, INSPECTION SWITCH, YEAR INDICATOR, RECHARGING MONITOR, 1x18W
- ELECTRICAL DISTRIBUTION BOARD.
- PS : PANEL SWITCHES
- ⌞ SINGLE SWITCH, 1 WAY, 10A
- ⌞ SINGLE SWITCH, 2 WAY, 10A
- ⊕ DUPLEX SOCKETOUTLET, 2x3-PIN : 16A (COVERED PROOF IN MOISTURE AREA)

NO.	DATE	DESCRIPTIONS	BY	APRO.

REVISIONS

PROJECT MANAGEMENT UNIT FOR  
HO CHI MINH CITY  
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN STUDY ON HO CHI MINH CITY  
WATER ENVIRONMENT IMPROVEMENT PROJECT  
IN THE SOCIALIST REPUBLIC OF VIET NAM

PACKAGE C  
INTERMEDIATE WASTEWATER PUMPING STATION  
PUMP HOUSE AND O/M OFFICE  
PLAN AND SINGLE LINE DIAGRAM  
OF LIGHTING (BASEMENT 2)

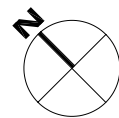
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JICA JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )

PC PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED KIMURA TORU	CHECKED KONDO MASAMI
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DATE : JUNE 2001 DWG. No. PC - IWPS - 317





**GROUND FLOOR - AIR CONDITIONING & VENTILATION PLAN**

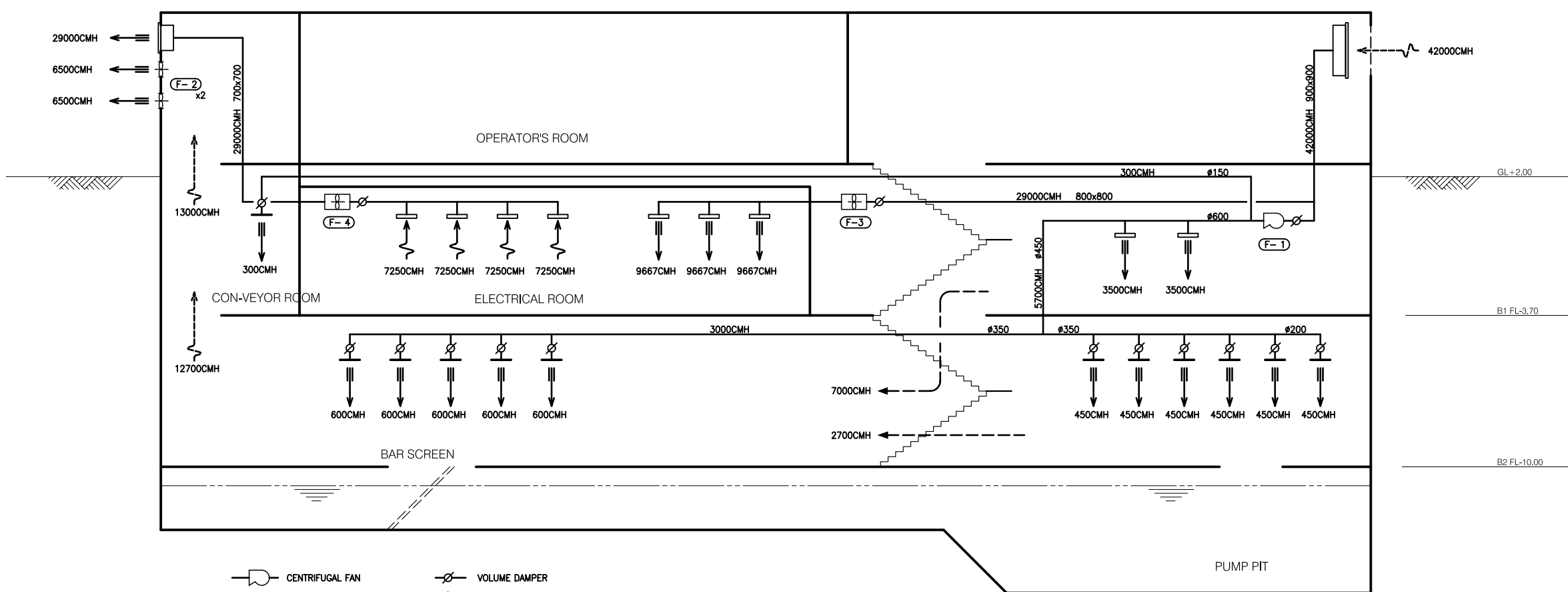
SCALE: 1/100

**LEGEND**

-  DISTRIBUTION BOARD
- DL : DOOR LOUVER
- EAF : EXHAUST AIR FAN

NO.	DATE	DESCRIPTIONS	BY	APRO.
REVISIONS				
PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT				
THE DETAILED DESIGN STUDY ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM				
PACKAGE C INTERMEDIATE WASTEWATER PUMPING STATION PUMP HOUSE AND O/M OFFICE PLAN OF VENTILATION (GROUND FLOOR)				
SCALE : 1/100				
 JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )				
 PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED KIMURA TORU	CHECKED KONDO MASAMI			
DATE : JUNE 2001	DWG. No. PC-IWPS-318			

LEGEND



- CENTRIFUGAL FAN
- AXIAL FAN
- WALL EXHAUST FAN (PROPELLER FAN)
- VOLUME DAMPER
- REGISTER WITH SHUTTER
- REGISTER

VENTILATION AIR FLOW

DUCTWORK MATERIAL SCHEDULE

RECTANGULAR DUCT	GALVANIZED SHEET	SIZE OF LONG SIDE = < 450mm	THICKNESS 0.8mm
		450mm < ~ = < 1200mm	THICKNESS 1.0mm
		1200mm < ~	THICKNESS 1.2mm
CHAMBER / BOX	GALVANIZED SHEET	DO TO	
ROUND(SPIRAL) DUCT	GALVANIZED SHEET	SIZE OF DIAMETER = < 200mm	THICKNESS 0.6mm
		200mm < ~ = < 600mm	THICKNESS 0.8mm
		600mm < ~ = < 800mm	THICKNESS 1.0mm
		800mm < ~	THICKNESS 1.2mm
VOLUME DAMPER	PAINT COATED STEEL SHEET		
FIRE DAMPER	PAINT COATED STEEL SHEET		
FLEXIBLE JOINT	ALUMINIUM FOIL LAMINATED GLASS FIBER FABRICS		

- (F-1) AIR INTAKE CENTRIFUGAL FAN #4 x 13000CMH x 500Pa x 5.5Kw CEILING MOUNTED TYPE 1 No.
- (F-2) WALL EXHAUST FAN □ 600 x 6500CMH x 100Pa x 0.75Kw CORROSION RESISTANCE TYPE 2 No.  
PREPARE THE APPURTENANT S/S HOOD
- (F-3) AIR INTAKE AXIAL FAN □ 800 x 29000CMH x 500Pa x 11Kw CEILING MOUNTED TYPE 1 No.
- (F-4) AIR EXHAUST AXIAL FAN □ 800 x 29000CMH x 500Pa x 11Kw CEILING MOUNTED TYPE 1 No.

NO.	DATE	DESCRIPTIONS	BY	APRO.
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REVISIONS

PROJECT MANAGEMENT UNIT FOR  
HO CHI MINH CITY  
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN STUDY ON HO CHI MINH CITY  
WATER ENVIRONMENT IMPROVEMENT PROJECT  
IN THE SOCIALIST REPUBLIC OF VIET NAM

PACKAGE C  
INTERMEDIATE WASTEWATER PUMPING STATION  
PUMP HOUSE AND O/M OFFICE  
VENTILATION AND FLOW FOR  
BASEMENT 1 & 2

SCALE : N.T.S

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED KIMURA TORU	CHECKED KONDO MASAMI
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DATE : JUNE 2001 DWG. No. PC - IWPS - 319