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REUSE OF TREATED WASTEWATER FOR AGRICULTURE USE IN AL-MAWASI AREA - RAFAH - GAZA STRIP

Project Code: 11473/OVERSEAS

BOOSTER SITE DRAWINGS

JULY 2020

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LIST OF DRAWINGS FOR THE BOOSTER SITE

NO.	DRAWING NAME	DWG NO.
MECHANICAL DRAWINGS		
01	SITE LAYOUT	BS-M-001
02	MANIFOLD DETAILS	BS-M-002
03	PUMPING STATION DETAILS	BS-M-003
04	GENERAL DETAILS (1/2)	BS-M-004
05	GENERAL DETAILS (2/2)	BS-M-005
CIVIL DRAWINGS		
06	SEPTIC TANK DETAILS	BS-C-001
07	BOOSTER STATION SHED DETAILS	BS-C-002
ELECTRICAL DRAWINGS		
08	ELECTRICAL LEGENDS AND SYMBOLS	BS-E-001
09	SITE LAYOUT ELECTRICAL DETAILS	BS-E-002
10	MAIN DISTRIBUTION BOARD-MDB	BS-E-003
11	MDB LAYOUT	BS-E-004
12	MOTOR CONTROL CENTRE-MCC	BS-E-005
13	220-24Volt CONTROL CIRCUIT	BS-E-006
14	VFD CONTROL CIRCUIT	BS-E-007
15	MCC LAYOUT	BS-E-008

NO.	DRAWING NAME	DWG NO.
ELECTRICAL DRAWINGS		
16	PLC CONFIGURATION	BS-E-009
17	PLC INPUTS	BS-E-010
18	PLC OUTPUTS	BS-E-011
19	24V EXTERNAL CONTROL	BS-E-012
20	EARTHING & PROTECTION DETAILS	BS-E-013

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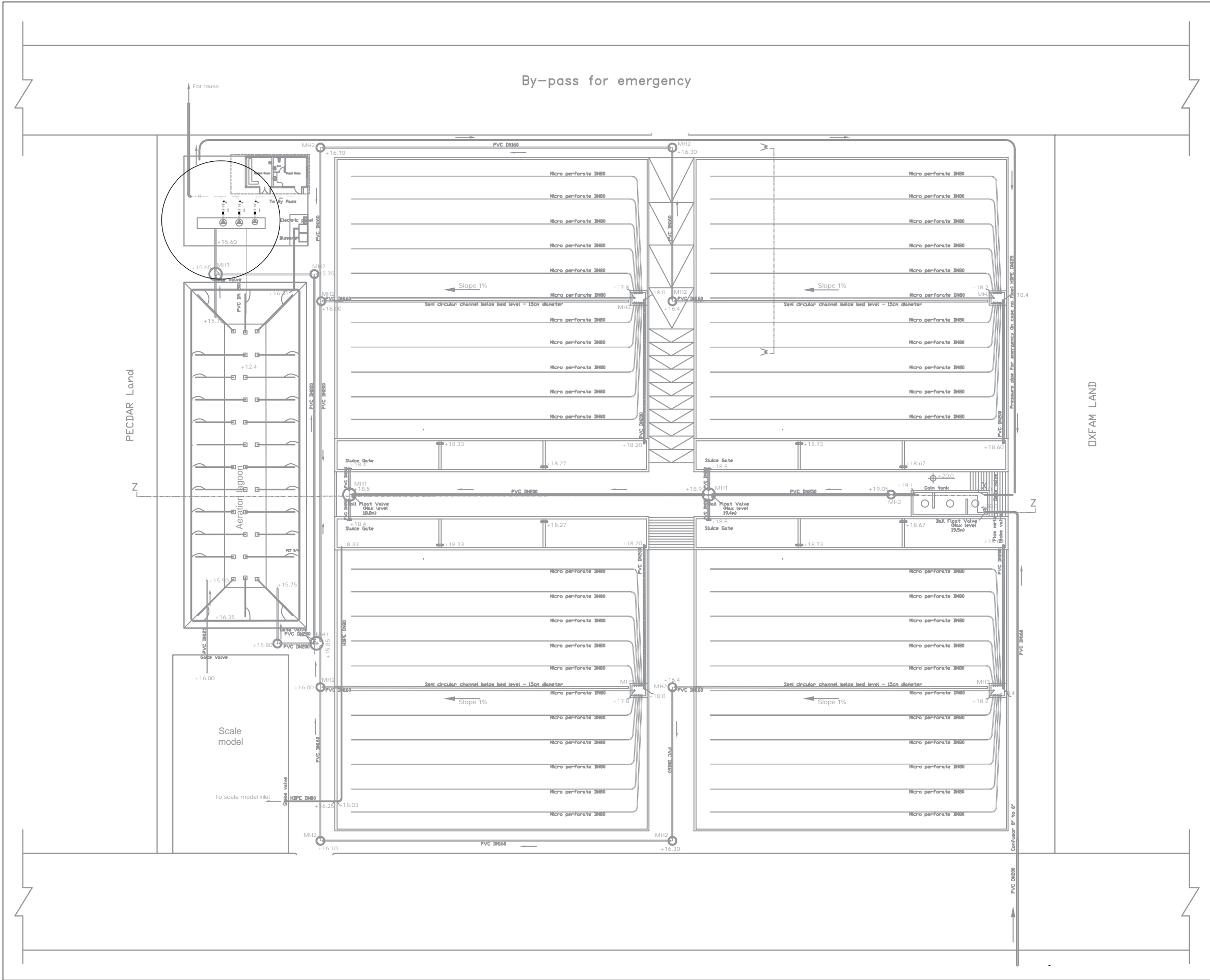
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BOOSTER SITE MECHANICAL DRAWINGS



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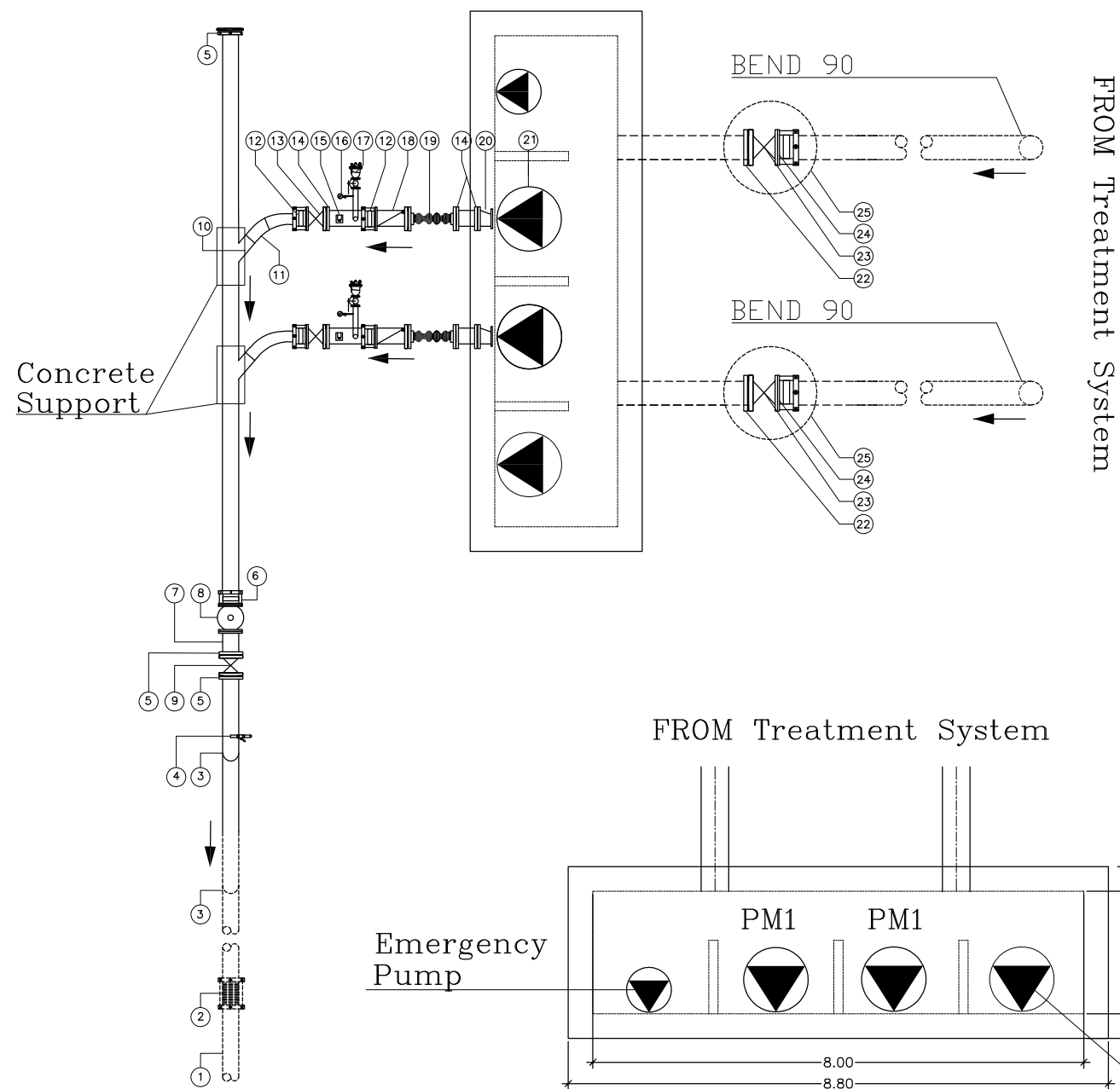
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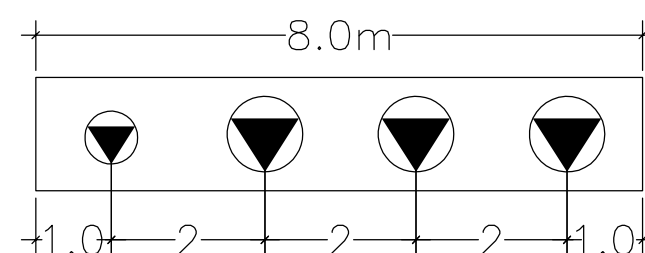
SITE LAYOUT

DRAWING NO.: BS-M-01

DATE: JULY 2020 SCALE:



No.	Description
1	HDPE Pipe 225mm
2	Straight Coupling 225mm/12"
3	Welded steel bend (8") 45°
4	Tape with its pipe, fittings 50mm
5	Steel open flanged 12"
6	Straight Coupling 12"
7	Steel pipe 12"
8	Flow meter 12" (F1)
9	Gate valve 12" (V2)
10	Connection welded steel tee y 12"x8"
11	Welded steel bend 8"
12	Flanged coupling/Dresser 8"
13	Gate valve 8" (V4)
14	steel open flanged 8"
15	Pressure switch 12mm (S1)
16	Pressure gauge 50mm (G1)
17	Air Release Valve (A1)
18	Check valve 8" (C1)
19	Flanged flexible Joint 8" (FJ)
20	Concentric Reducer
21	PUMP 65 m3/hour,TDH= of 3.5 bar (PM1)
22	Steel open flanged 18"
23	Gate valve 18" (V1)
24	Flanged coupling/Dresser 18"
25	Reinforced concrete manhole 200cm (MH1)
26	Steel pipe 8"



PUMPING STATION DETAILS

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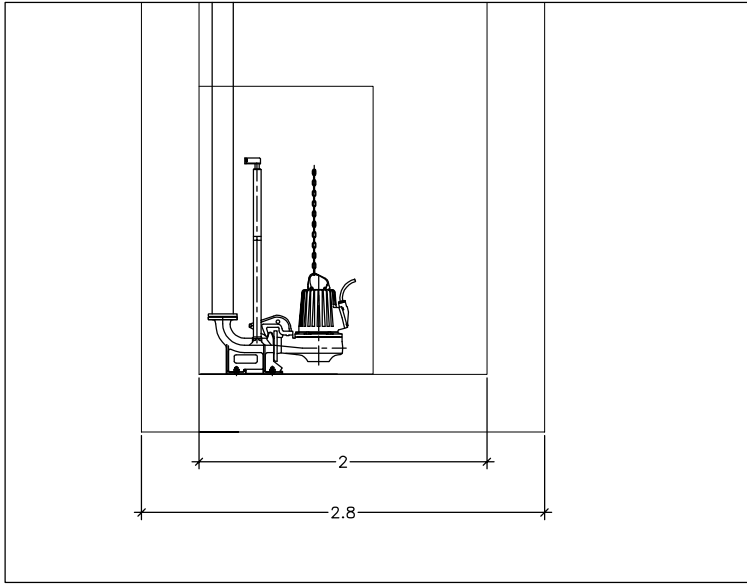
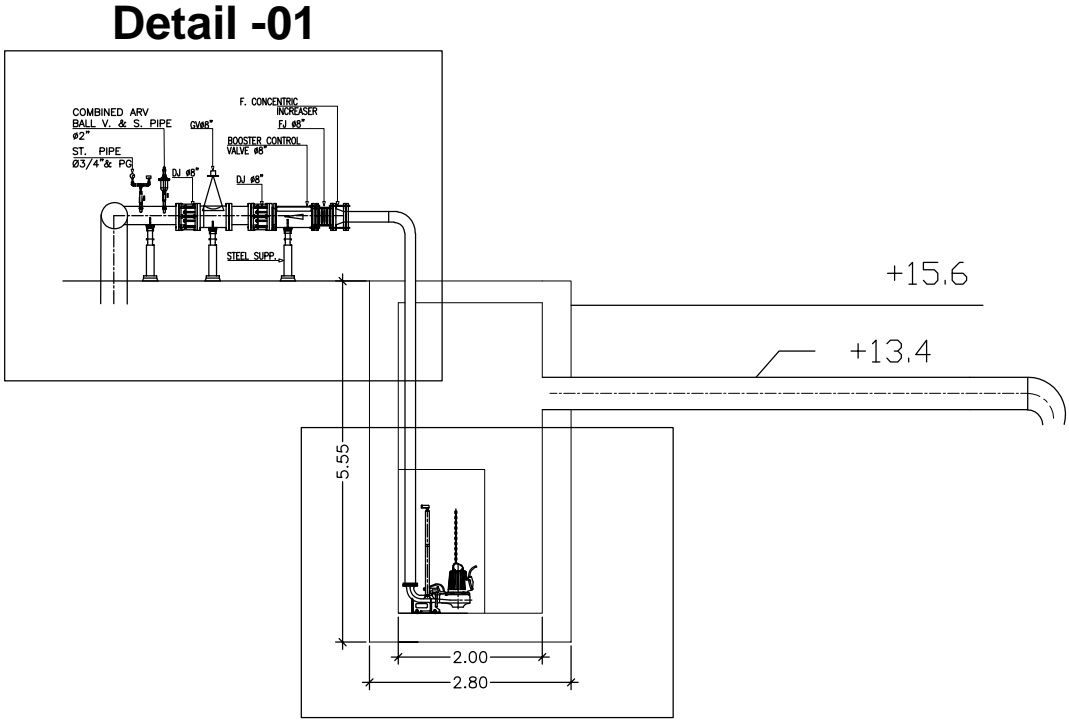
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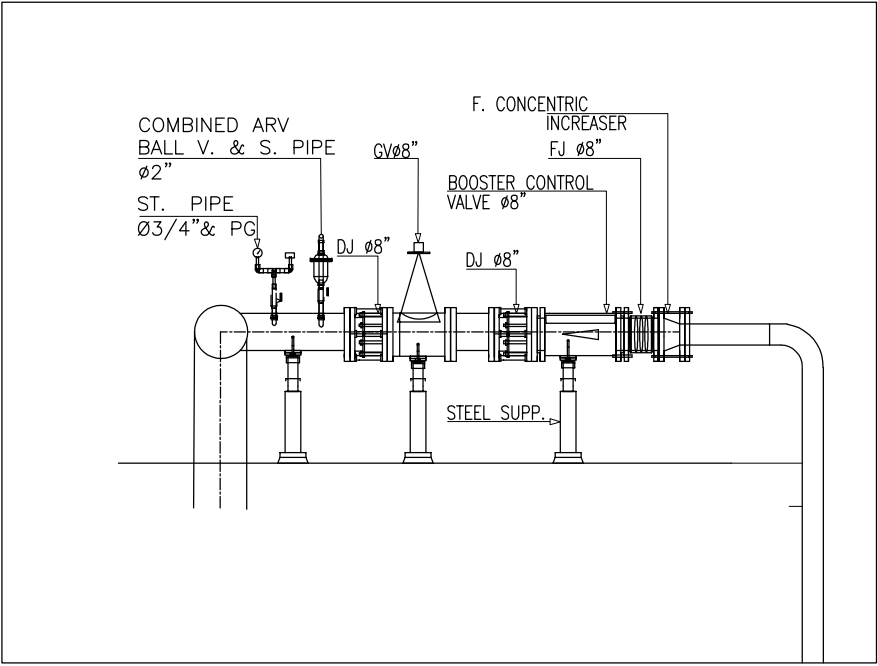
PUMPING STATION DETAILS

DRAWING NO.: BS-M-02

DATE: JULY 2020 SCALE:



Detail -02 Pump Details
Scale 1:50



Detail -01 Mainfold Details
Scale 1:50

SUBMERSIBLE PUMP DETAILS

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Project Code.: 11473/OVERSEAS

DRAWING TITLE:

SUBMERSIBLE PUMPS DETAILS

DRAWING NO.: BS-M-03

DATE: JULY 2020

SCALE:

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Project Code.: 11473/OVERSEAS

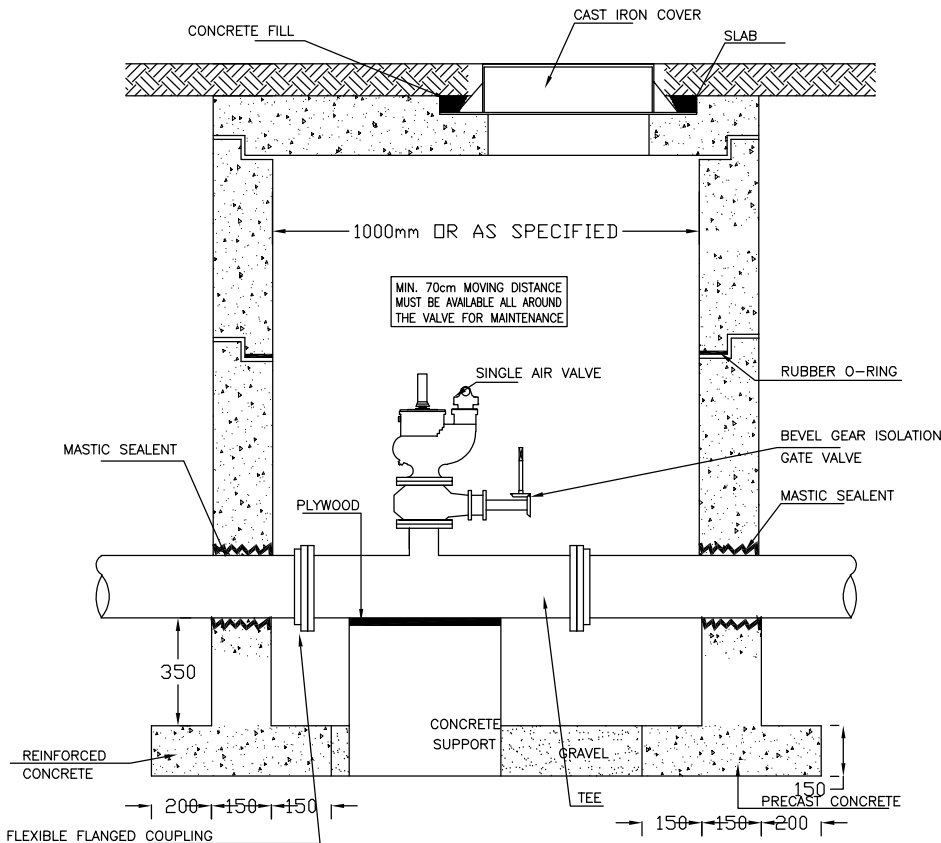
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GENERAL DETAILS (1/2)

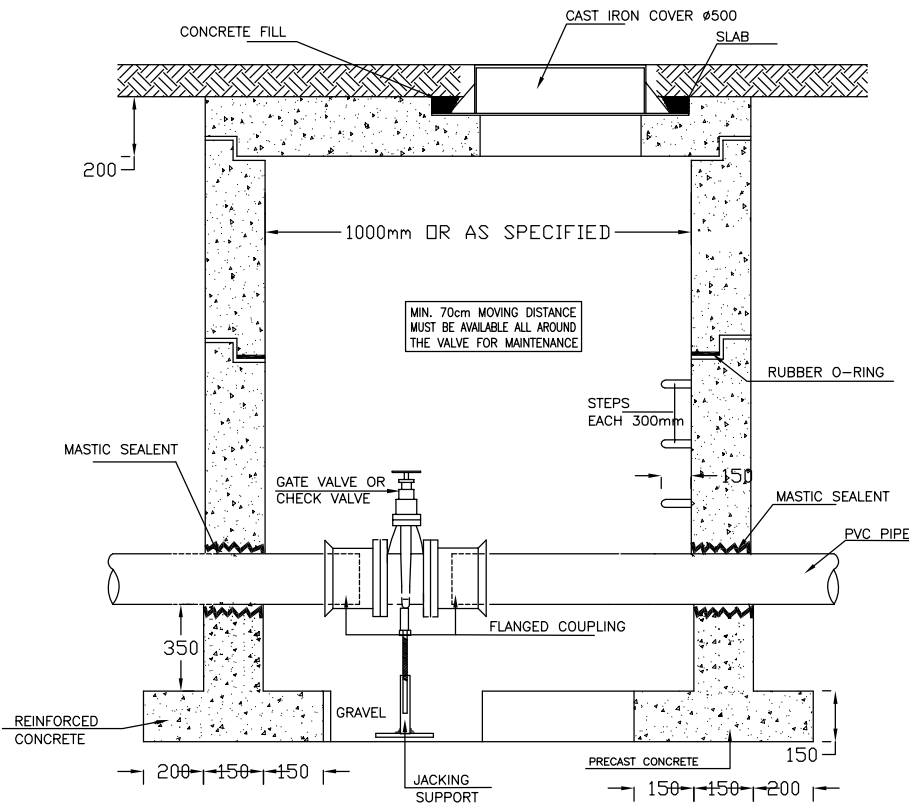
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DATE: JULY 2020

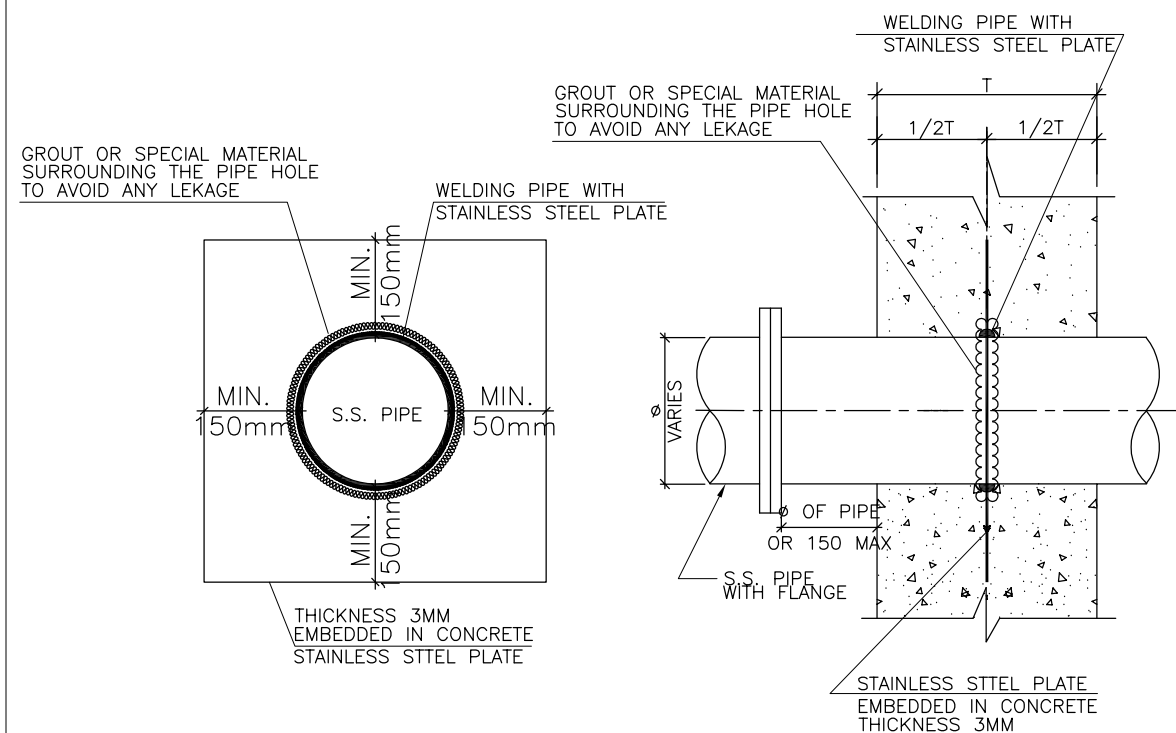
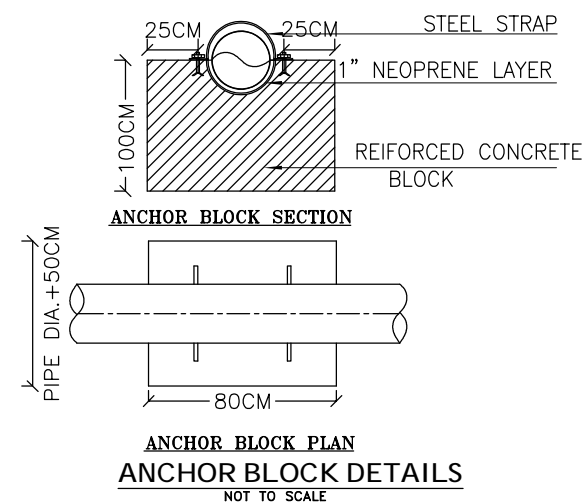
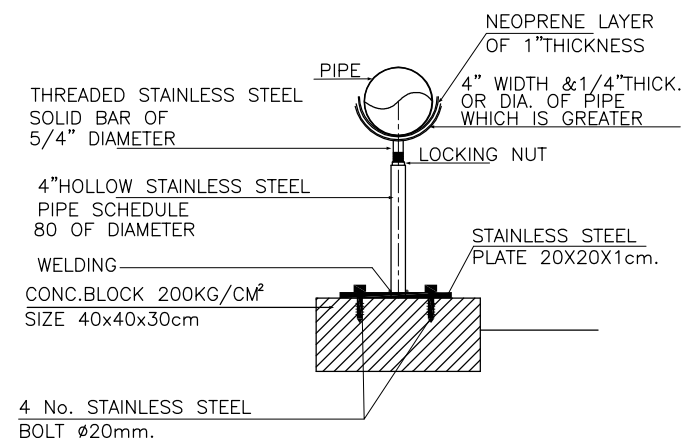
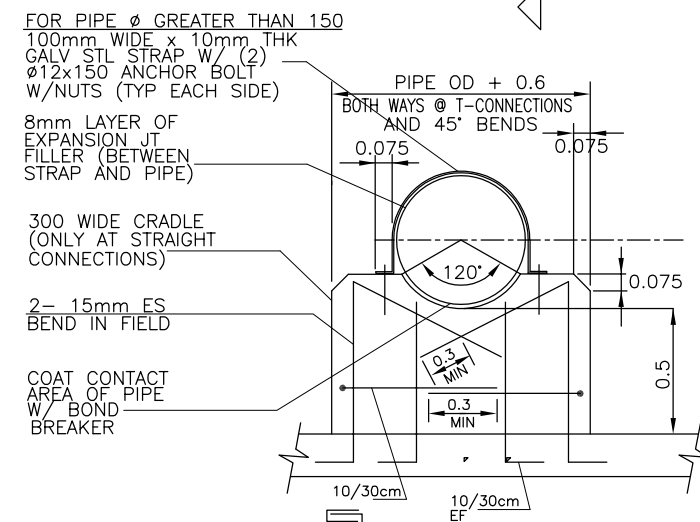
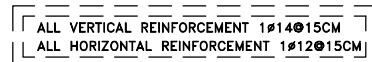
SCALE:



SINGLE AIR VALVE CHAMBER SECTION



PRECAST CONCRETE VALVES CHAMBER ON PIPES



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Project Code.: 11473/OVERSEAS

DRAWING TITLE:

GENERAL DETAILS (2/2)

DRAWING NO.: BS-M-05

DATE: JULY 2020

SCALE:

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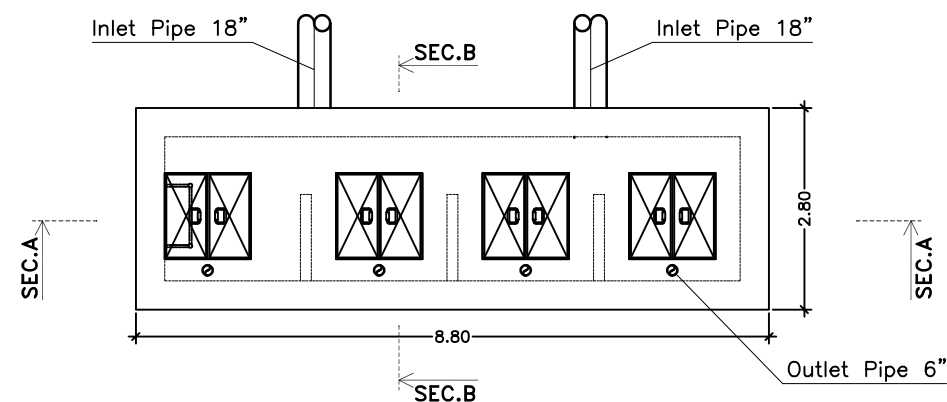
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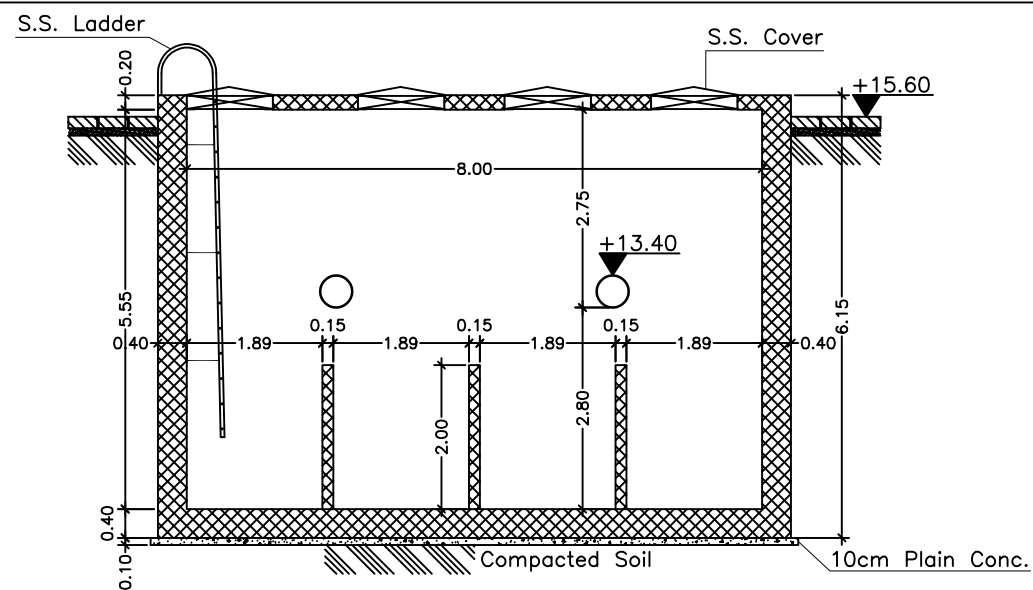
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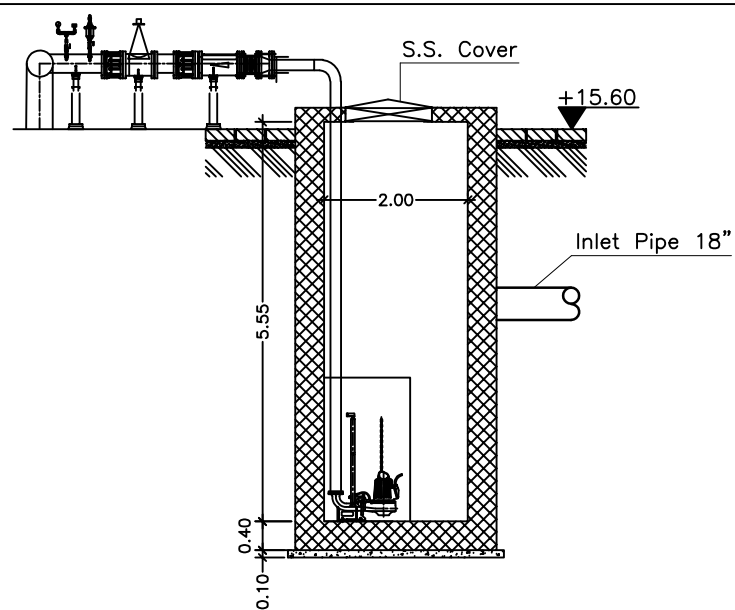
BOOSTER SITE CIVIL DRAWING



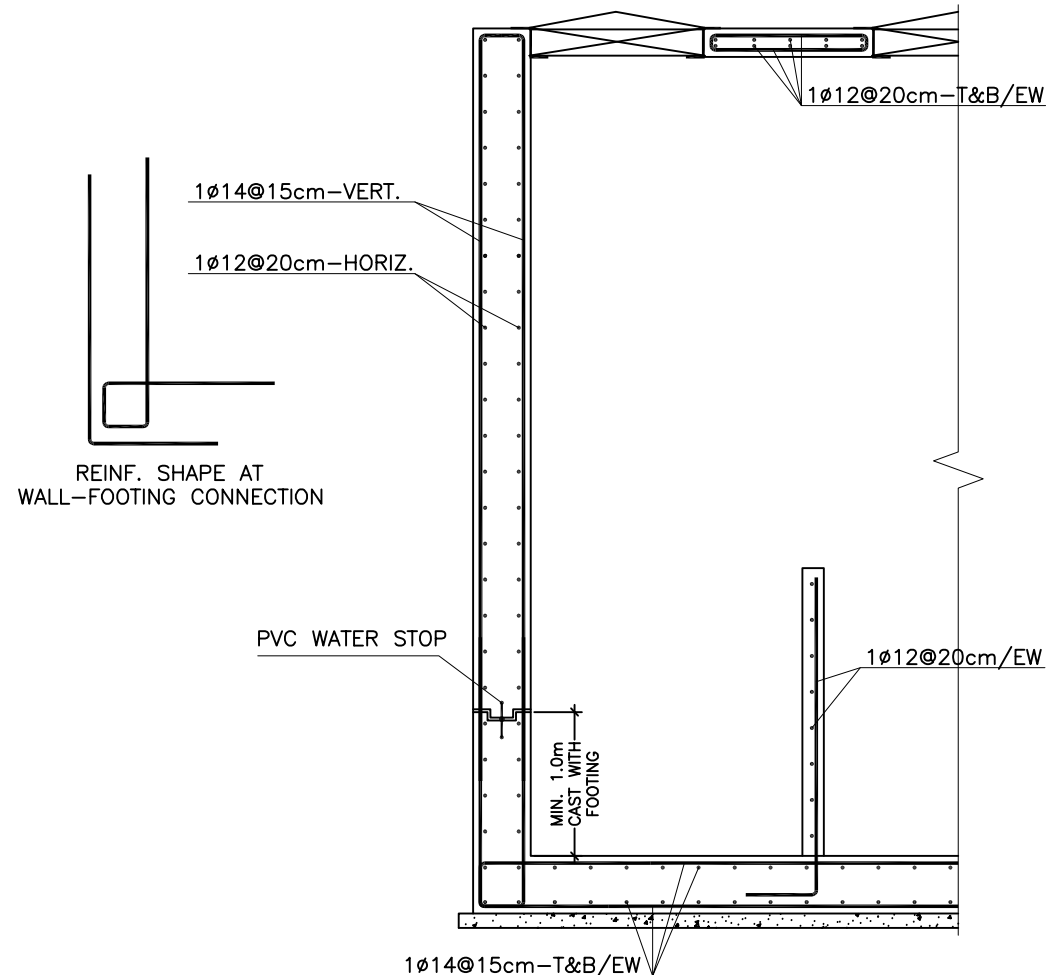
TOP VIEW FOR THE SUBMERSIBLE PUMPS PIT
SCALE: 1:100



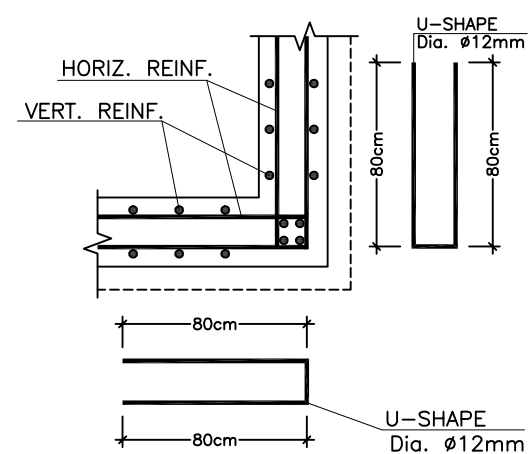
SECTION A-A
SCALE: 1:100



SECTION B-B
SCALE: 1:100



STRUCTURAL SECTION A-A
SCALE: 1:50



CORNER REINFORCEMENT DETAILS
NTS

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AGRICULTURE USE IN AL-MAWASHI AREA, RAFAH,
GAZA STRIP

Project Code.: 11473/OVERSEAS

DRAWING TITLE:

SEPTIC TANK DETAILS

DRAWING NO.: BS-C-01

DATE: JULY 2020

SCALE:

DATE: JULY 2020	SCALE: AS SHOWN
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






































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BOOSTER SITE ELECTRICAL DRAWINGS

LEGENDS AND SYMBOLS

SYMBOL	DESCRIPTION
	DISTRIBUTION TRANSFORMER
	ELECTRICAL GENERATOR SET (PRIME RATING)
	VOLTMETER 0–500V
	AMMETER
	FREQUENCY METER47–53(HZ)
	KWH METER 3PHASE 3X5A
	KVAR METER 3PHASE 3X5A
	KWH METE 1PHASE 1X5A
	SIGNAL LAMPS R.S.T WITH 25RESISTANCE 220V Or 24 V .
	CURRENT TRANSFORMER
	ISOLATING TRANSFORMER
	SURGE PROTECTION AT THE INCOMING FEEDER – 3PHASE CKS (TYPE FURSE OR EQUIVALENT).
	620X 620MM4– x18W FLUORESCENT LAMINAR, SURFACE MOUNTED
	CONTROL RELAY, WITH N.O AND N.C, 10A OUTPUT CONTACTS, SUPPLY VOLTAGE 24V DC AND/OR 230V AC.
	THREE POLES CONTACTOR, WITH 2AUXILIARY CONTACTS, 220V COIL,AC3 CATEGORY (TYPE IS MOELLER DILM OR EQUIVALENT).
	SUPPLYING AND ERECTING LOCAL ISOLATED ON/OFF SWITCH LOCKABLE TYPE FOR MAINTENANCE PURPOSE
	DISCHARGE RESISTANCE

SYMBOL	DESCRIPTION
	3–PHASE FUSABLE CIRCUIT BREAKER.
	1–PHASE FUSABLE CIRCUIT BREAKER.
	DIGITAL POWER MUTI–METER SET.
	XX/5A CURRENT TRANSFORMER.
	PHASE SEQUENCE AND LOSS OF PHASE RELAY.
	220V/24V SIGNAL LAMP.
	3–WAYS PUSH BUTTON.
	3–POLES CIRCUIT BREAKER.
	1–POLES CIRCUIT BREAKER.
	220 V THERMOSTAT.
	380V MOTOR PROTECTIVE CIRCUIT BREAKER, WITH OVERLOAD & SHORT–CIRCUIT RELEASES.
	380V, 4–POLES SAFETY SWITCH WITH AUXILIARY CONTACT.
	380V/220V, CHANGE OVER SWITCH.
	DIGITAL AMPERE METER
	4–POLES MOULDED CASE CIRCUIT BREAKER.
	220V PANEL EXTRACT FAN.
	PUSH BOTTON
	380V MOULDED CASE CIRCUIT BREAKER,
	230/24V CONTACTOR/RELAY COIL
	230V SINGE Phase MOTOR
	380V THREE PHASE MOTOR
	EMERGENCY MAMNUAL PUSH BOTTON
	220V– 2–POLE LOCAL ISOLATOR.
	380V– 4–POLE LOCAL ISOLATOR.

-  --: SMOKE DETECTOR
-  --: HEAT DETECTOR
-  --: SIREN
-  --: BREAK GLASS
-  --: FIRE ALARM CONTOR PANEL
- * EM. --: DIGITAL MULTI–METER WITH MODBUS RS485
- * MTS --: MANUAL TRANSFER SWITCH
- * KWh --: ACTIVE ENERGY METER
- * KVAr --: REACTIVE ENERGY METER
- * ATS --: AUTO TRANSFER SWITCH
- * EM. --: DIGITAL MULTI–METER

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Project Code.: 11473/OVERSEAS

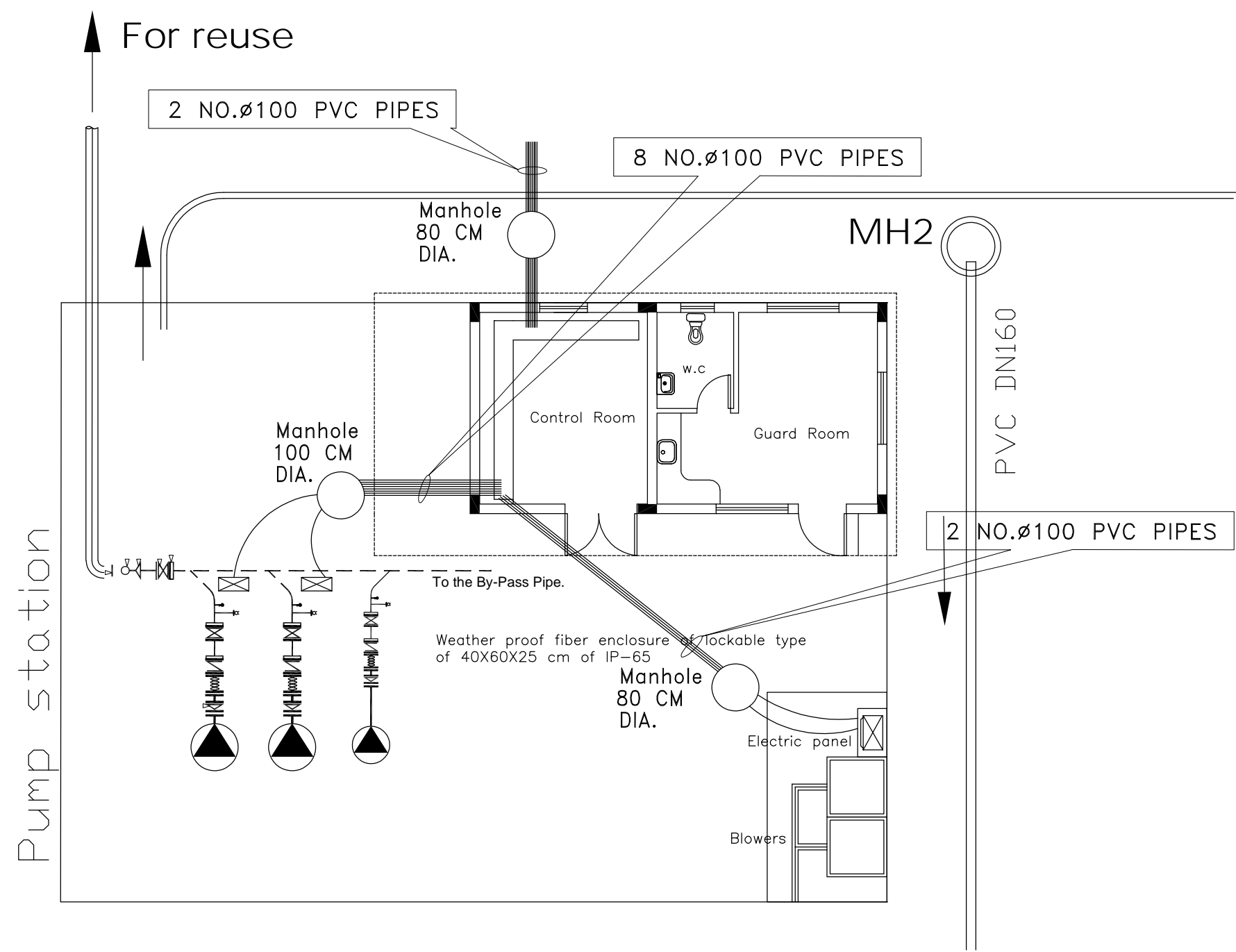
DRAWING TITLE:

ELECTRICAL LEGENDS AND SYMBOLS

DRAWING NO.: BS-E-01

DATE: JULY 2020

SCALE:



SITE LAYOUT ELECTRICAL DETAILS

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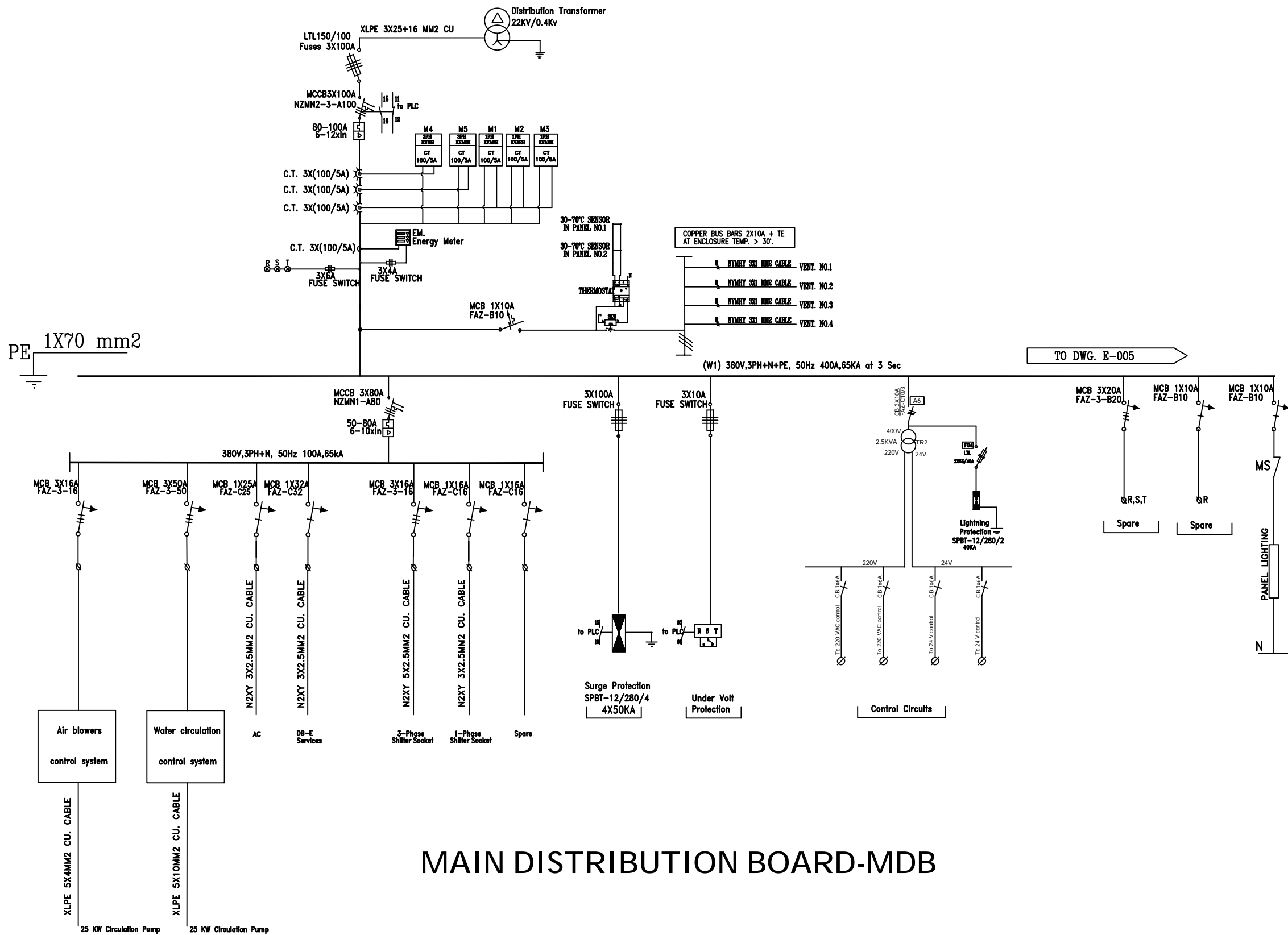
DRAWING TITLE:

SITE LAYOUT ELECTRICAL DETAILS

DRAWING NO.: BS-E-02

DATE: JULY 2020

SCALE:



MAIN DISTRIBUTION BOARD-MDB

NOTES :-

- * EM. :DIGITAL MULTI-METER WITH MODBUS RS485
- * KWh :ACTIVE ENERGY METER
- * KVar :REACTIVE ENERGY METER

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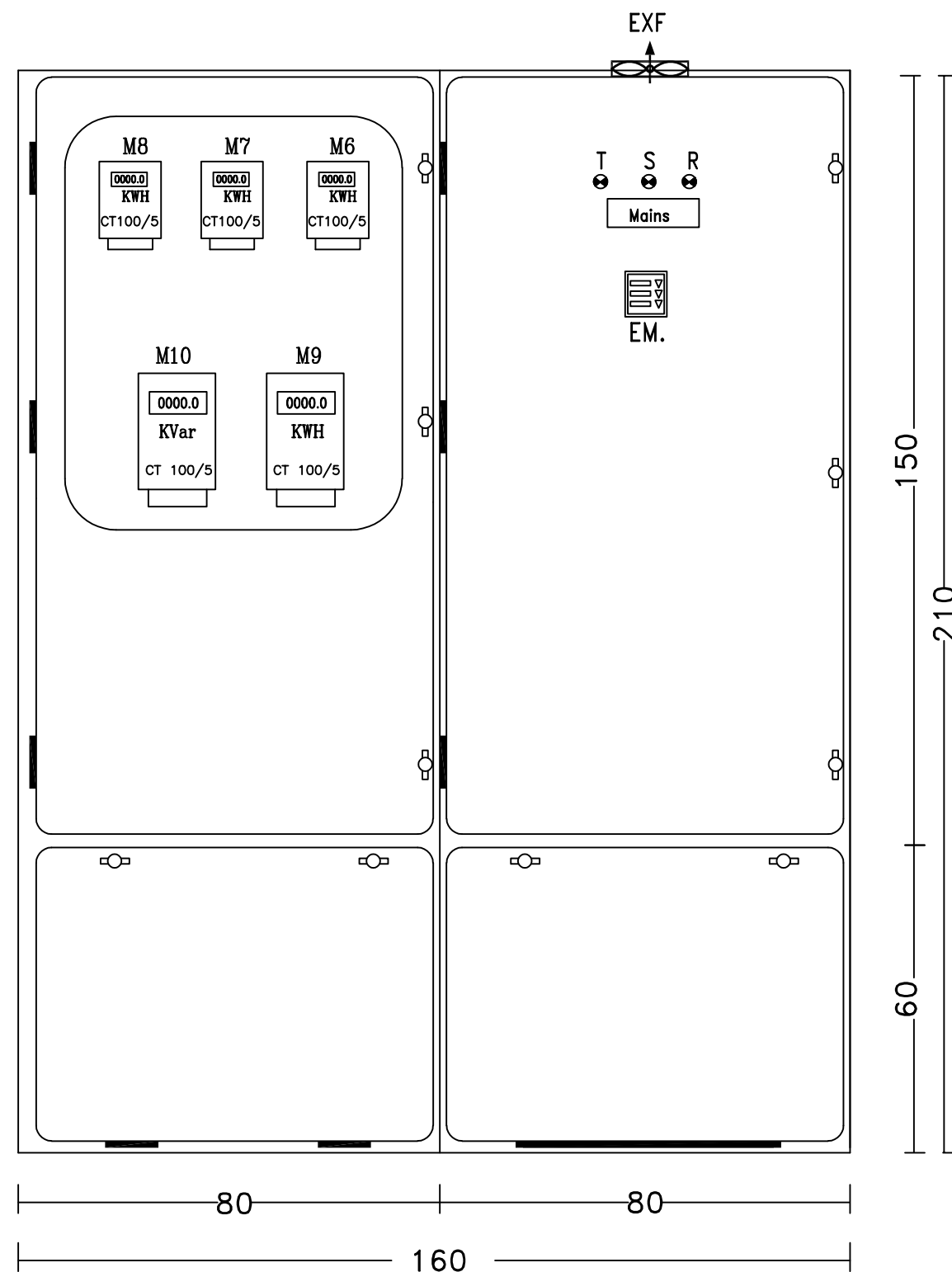
Project Code.: 11473/OVERSEAS

DRAWING TITLE:

MAIN DISTRIBUTION BOARD-MDB

DRAWING NO.: BS-E-03

DATE: JULY 2020 SCALE: NTS



MDB LAYOUT

NOTES :-

- * EM. :DIGITAL MULTI-METER WITH MODBUS RS485
- * KWh :ACTIVE ENERGY METER
- * KVar :REACTIVE ENERGY METER

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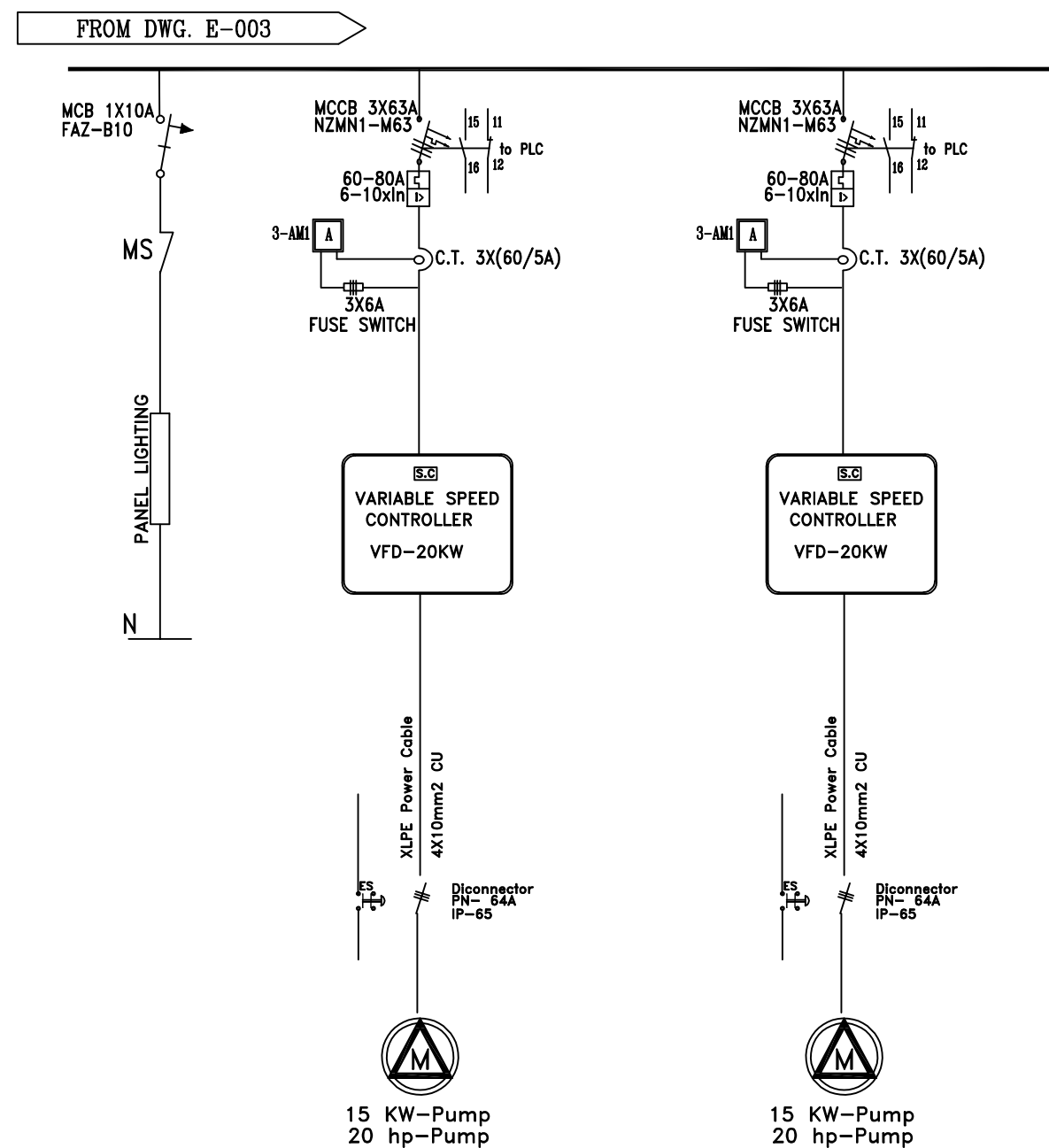
Project Code.: 11473/OVERSEAS

DRAWING TITLE:

MDB LAYOUT

DRAWING NO.: BS-E-04

DATE: JULY 2020 SCALE: NTS



MOTOR CONTROL CENTRE-MCC

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GAZA STRIP

Project Code.: 11473/OVERSEAS

DRAWING TITLE:

MOTOR CONTROL CENTRE-MCC

DRAWING NO.: BS-E-05

DATE: JULY 2020 SCALE: NTS

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Project Code.: 11473/OVERSEAS

DRAWING TITLE:

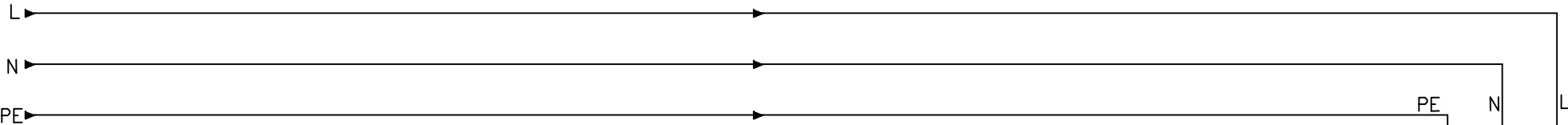
220-24Volt CONTROL CIRCUIT

DRAWING NO.: BS-E-06

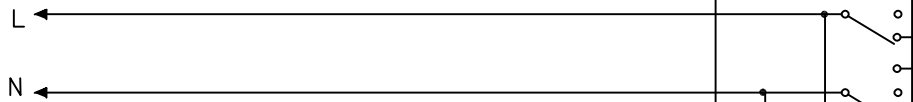
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SCALE:

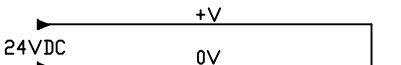
FROM DWG. E-003



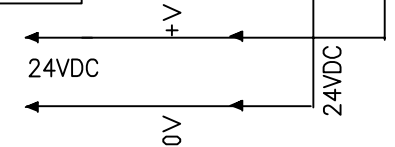
TO DWG. E-007



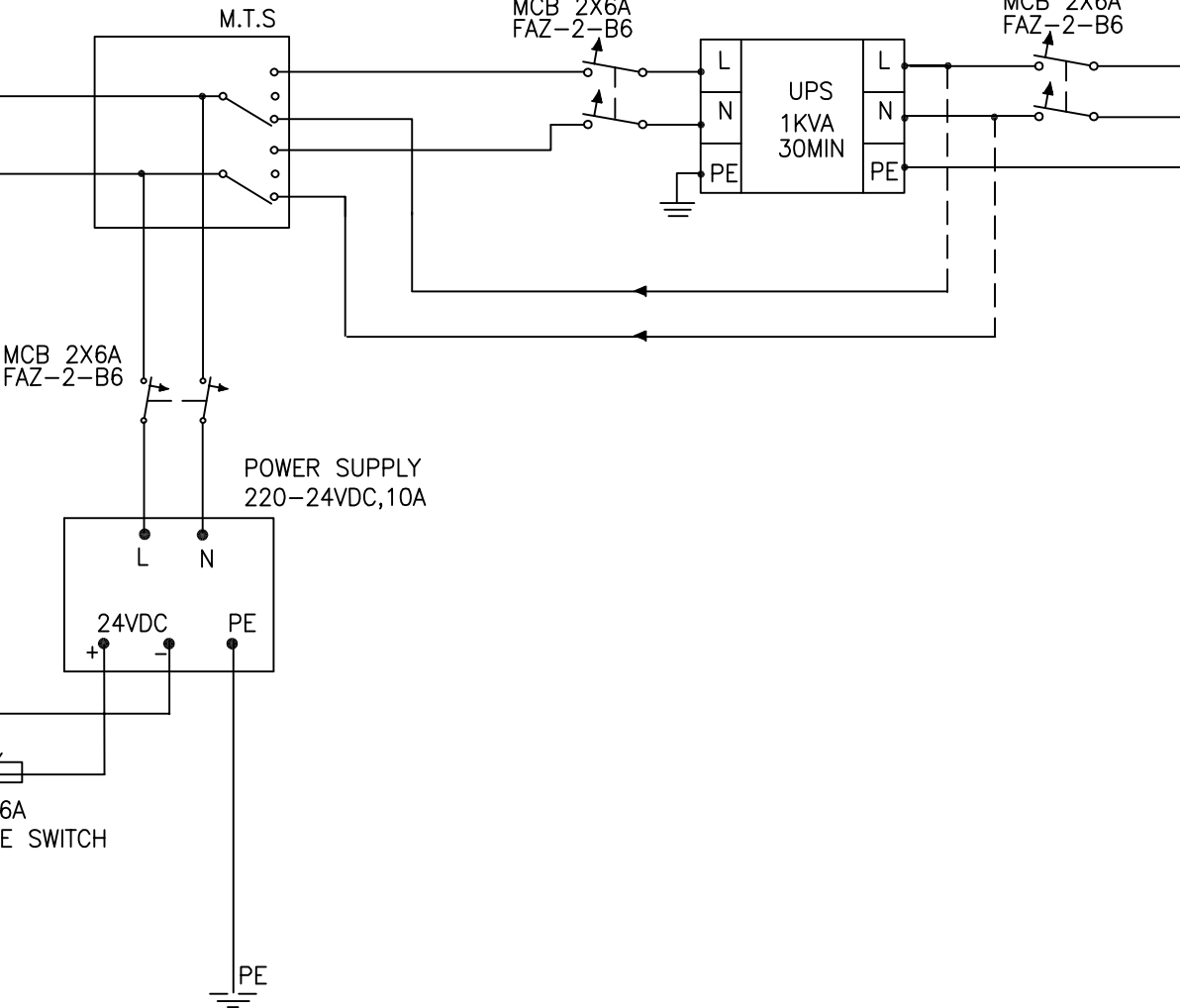
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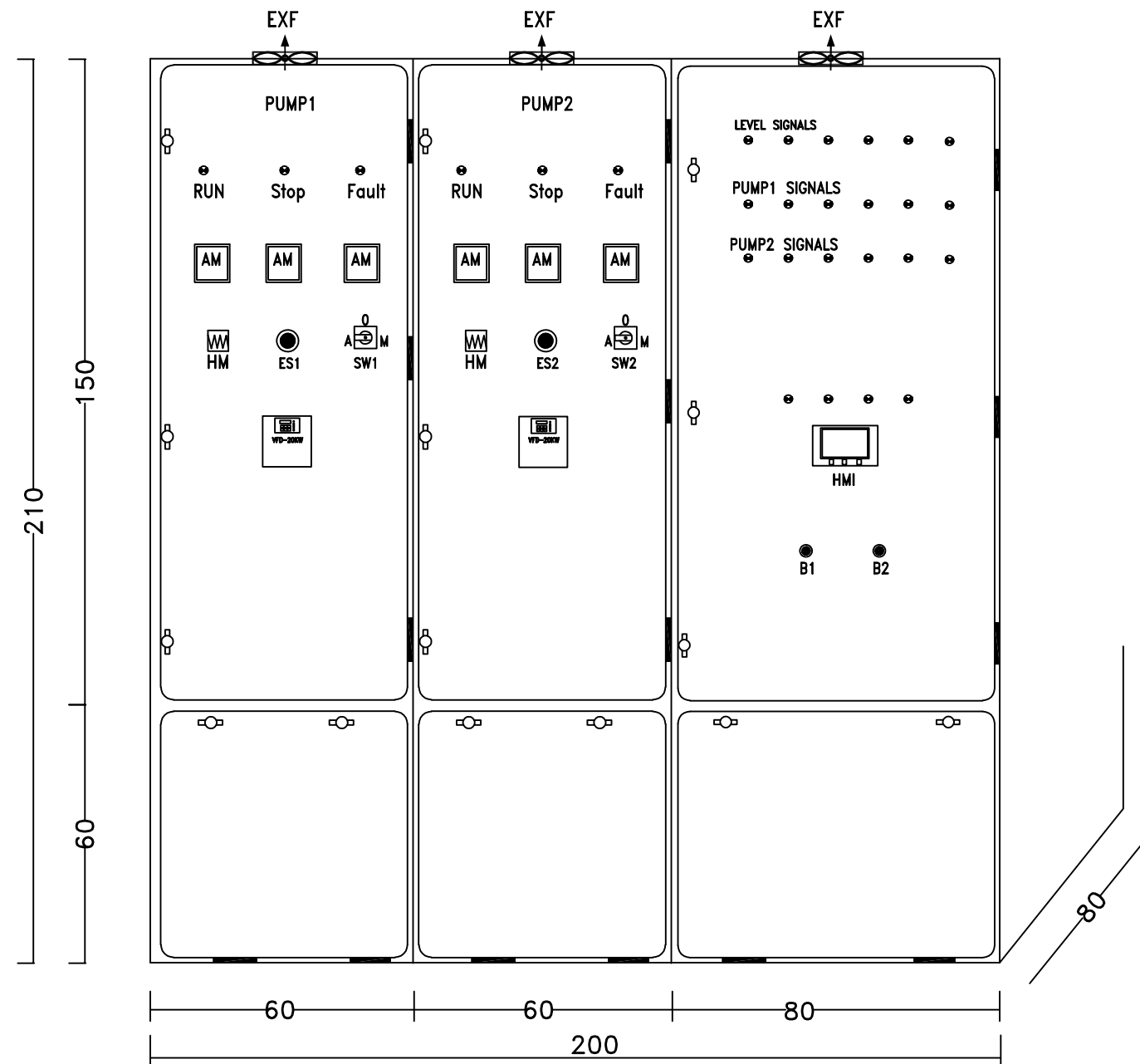


TO DWG. E-009



220-24Volt CONTROL CIRCUIT





MCC LAYOUT

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EMERGENCY PUSH BOTTON
* SW1-S :ELECTOR
* HM1-+
* EXF
* AM :DIGITAL AMMETER
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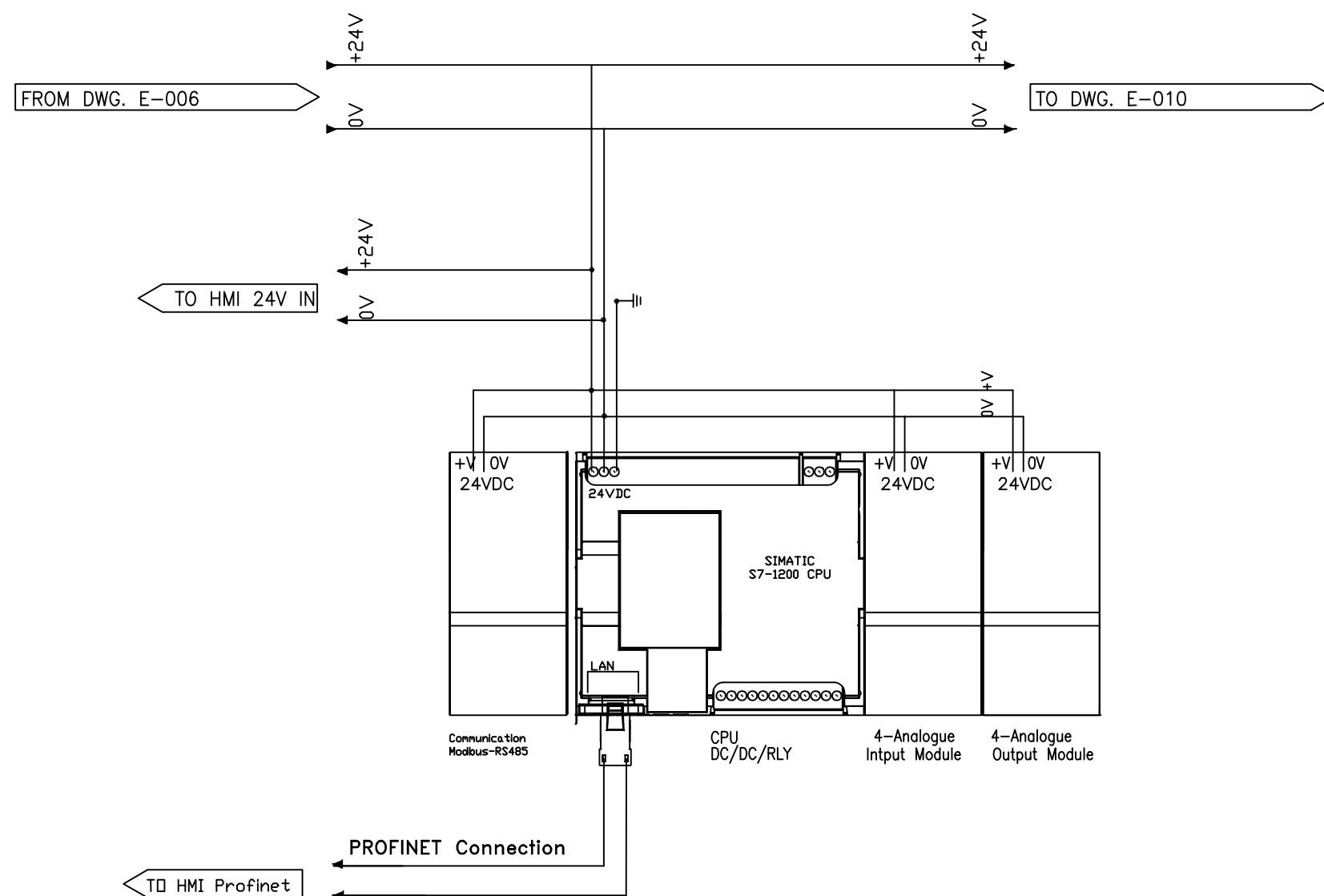
DRAWING TITLE:

MCC LAYOUT

DRAWING NO.: BS-E-08

DATE: JULY 2020

SCALE:



PLC CONFIGURATION

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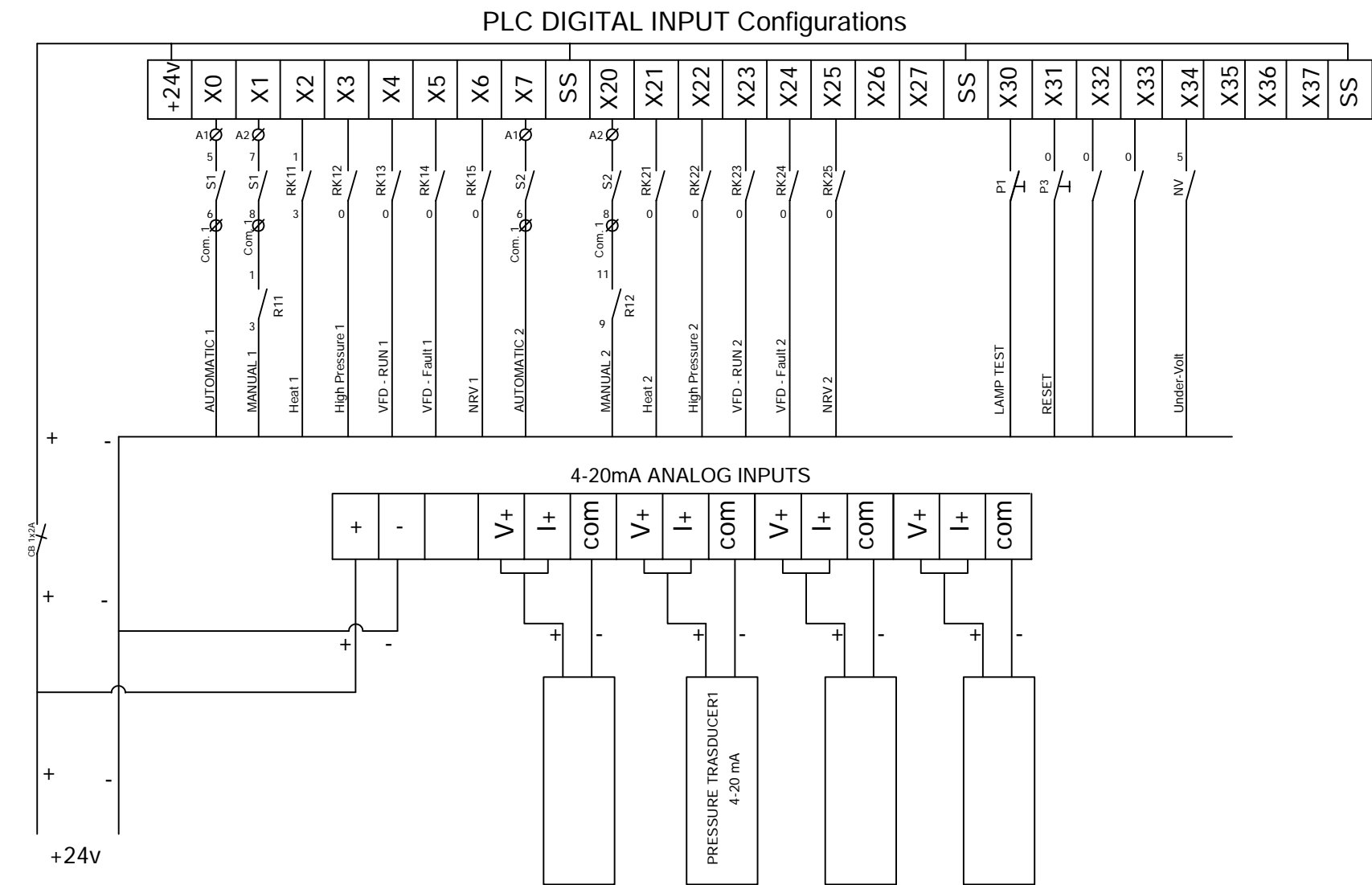
DRAWING TITLE:

PLC CONFIGURATION

DRAWING NO.: BS-E-09

DATE: JULY 2020

SCALE:



From DWG. E 010

NOTES :-

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CONSULTANT



PROJECT TITLE:

REUSE OF TREATED WASTEWATER FOR
AGRICULTURE USE IN AL-MAWASI AREA, RAFAH,
GAZA STRIP

Project Code.: 11473/OVERSEAS

DRAWING TITLE:

PLC INPUTS

DRAWING NO.: BS-E-10

DATE: JULY 2020

SCALE:

NOTES :-

FOR TENDER ONLY

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الكلية الجامعية للعلوم التطبيقية
University College of Applied Sciences
Leader of Innovation رائد الابتكار

**CONSULTANT**

PROJECT TITLE:

REUSE OF TREATED WASTEWATER FOR AGRICULTURE USE IN AL-MAWASI AREA, RAFAH, GAZA STRIP

Project Code.: 11473/OVERSEAS

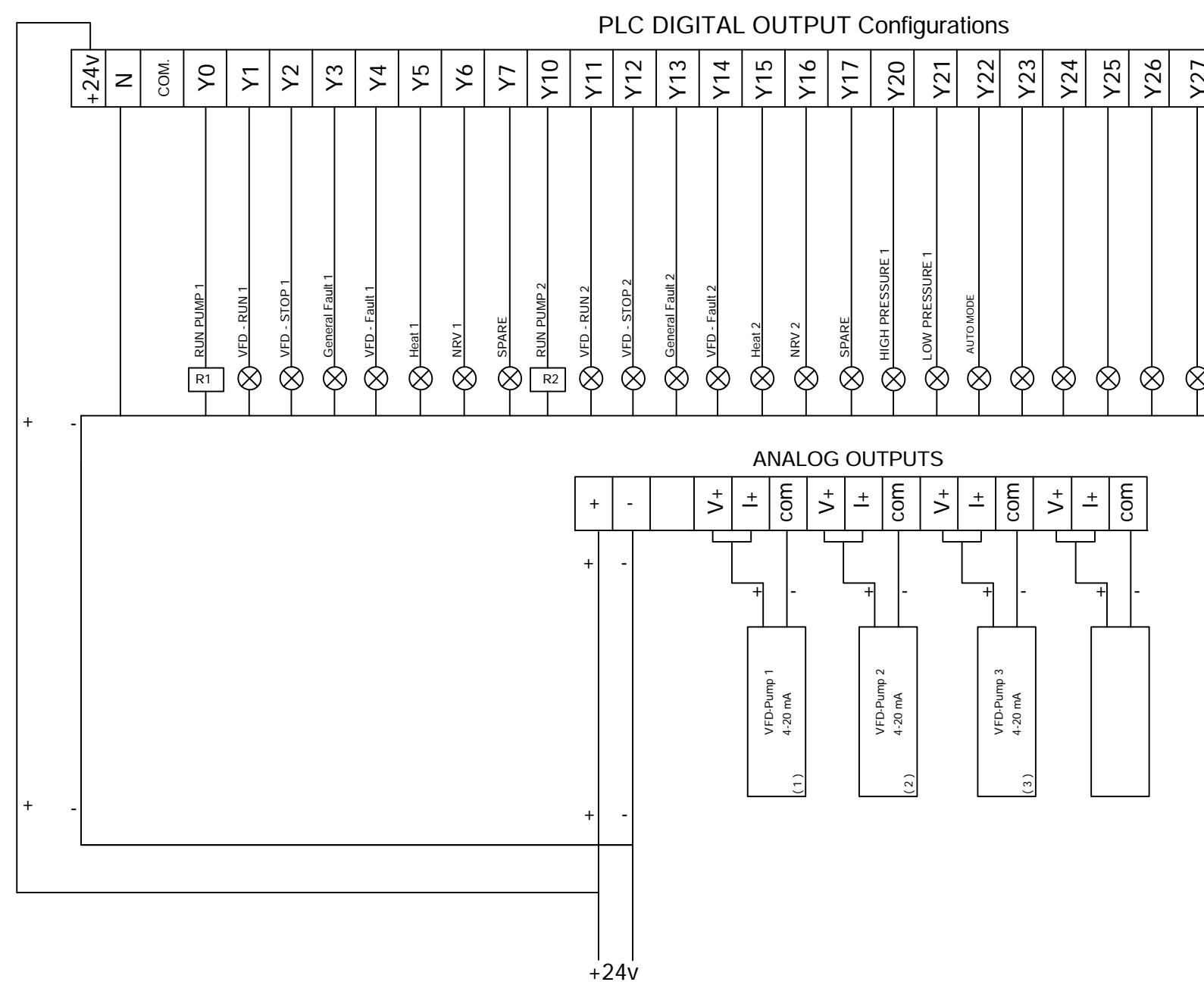
DRAWING TITLE:

PLC OUTPUTS

DRAWING NO.: BS-E-11

DATE: JULY 2020

SCALE:

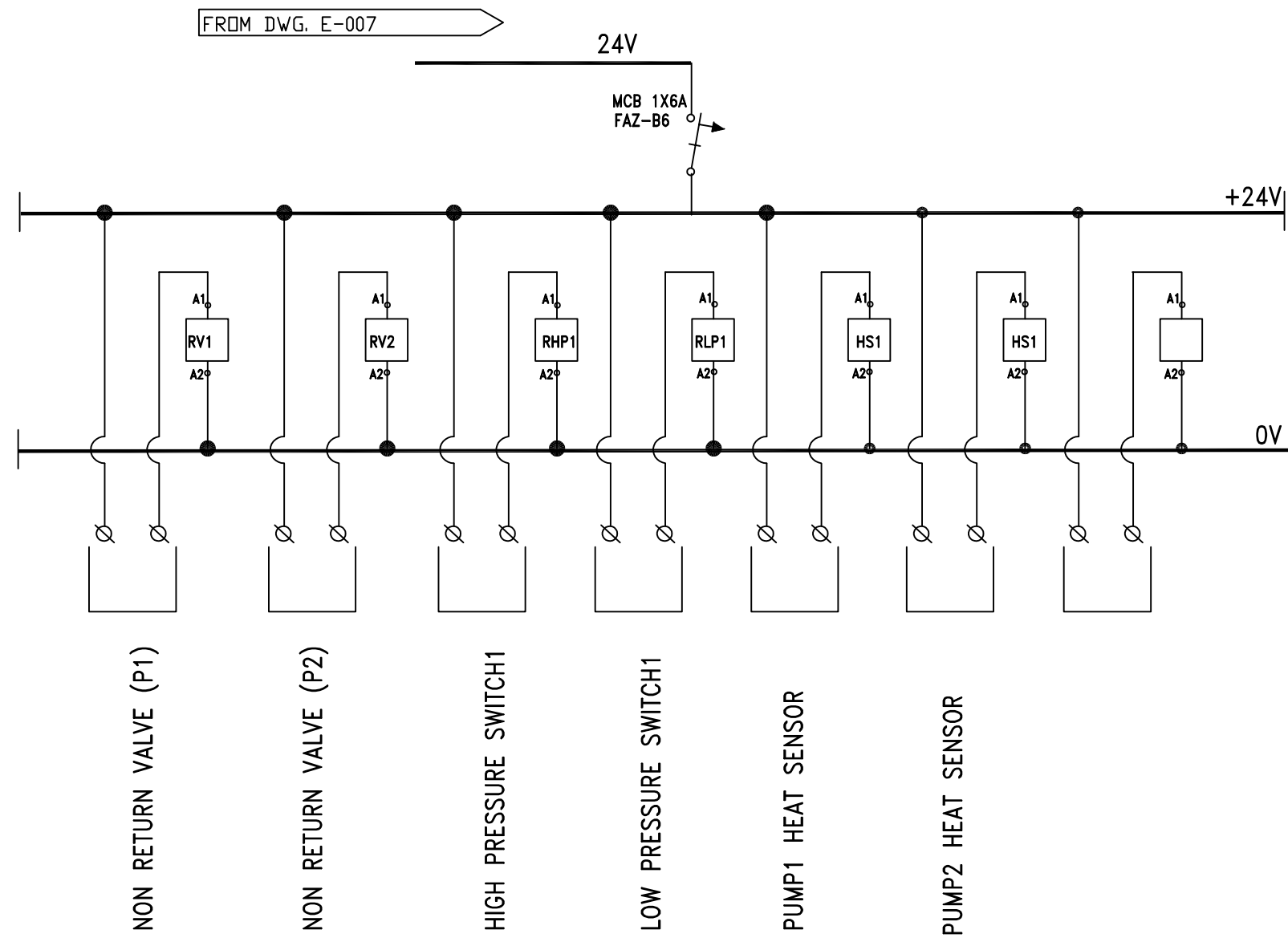


From DWG. E 010

PLC OUTPUTS

DATE: JULY 2020

SCALE:



24V EXTERNAL CONTROL

NOTES :-

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CONSULTANT



PROJECT TITLE:

REUSE OF TREATED WASTEWATER FOR
AGRICULTURE USE IN AL-MAWASHI AREA, RAFAH,
GAZA STRIP

Project Code.: 11473/OVERSEAS

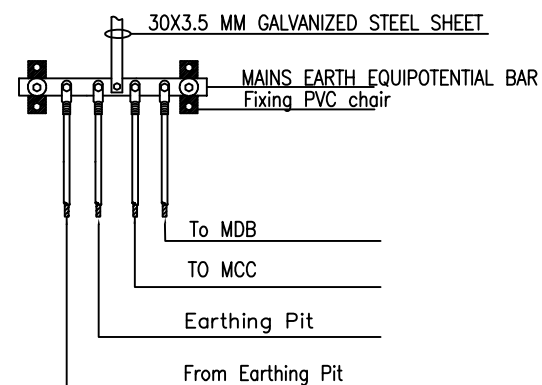
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24V EXTERNAL CONTROL

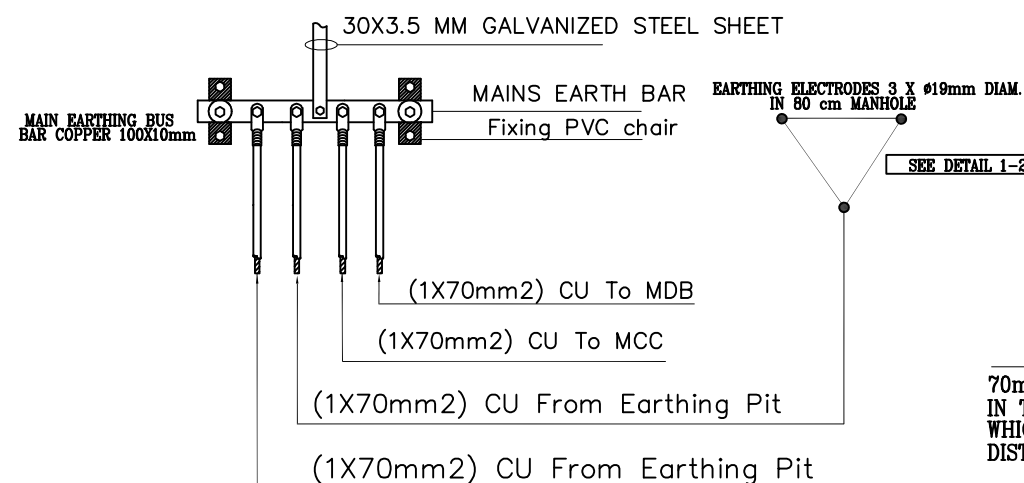
DRAWING NO.: BS-E-12

DATE: JULY 2020

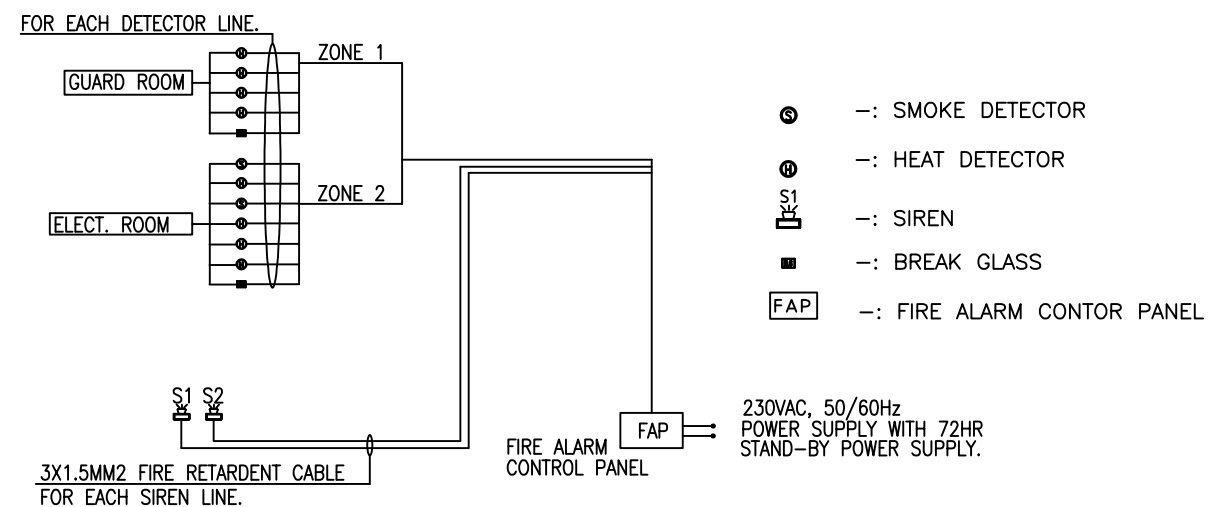
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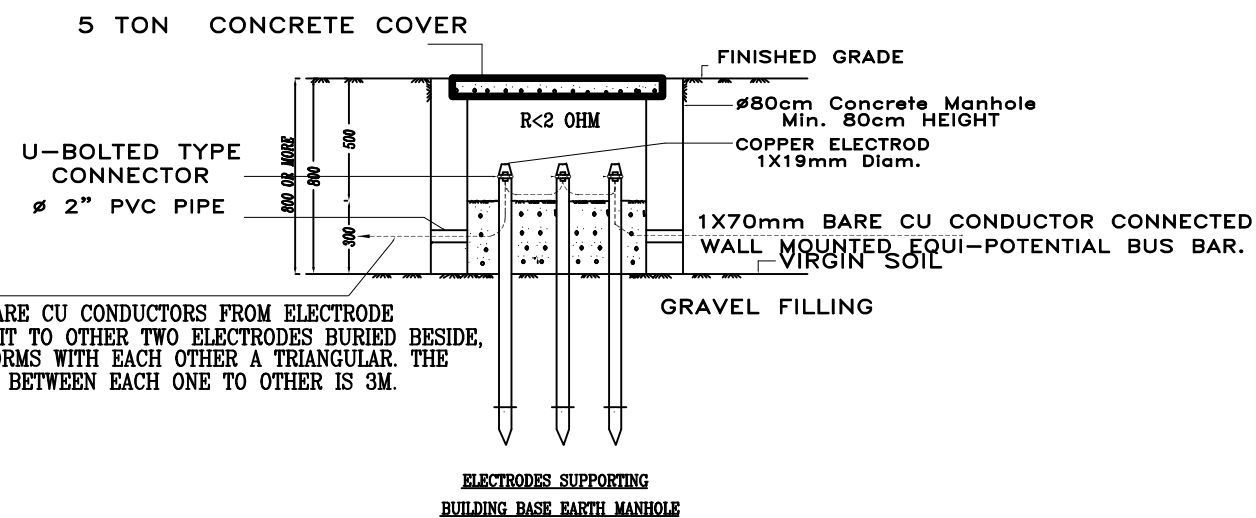
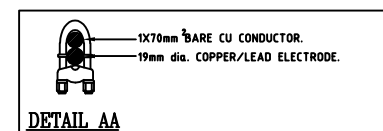
EQUIPOTENTIAL BUS BAR



MAINS EARTHING SYSTEM



FIRE ALARM SYSTEM SCHEMATIC DIAGRAM



DETAIL 1-2

EARTHING & PROTECTION DETAILS

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Project Code.: 11473/OVERSEAS

DRAWING TITLE:

EARTHING & PROTECTION DETAILS

DRAWING NO.: BS-E-13

DATE: JULY 2020

SCALE: