

持出禁止

社会開発協力部

# PORT MUHAMMAD - BIN - QASIM PROJECT

## DETAILED DESIGN DRAWINGS

VOL. II FACILITIES RELATED  
TO IRON ORE & COAL BERTH

2 Service Lines and Civil Works

OCTOBER 1975

JAPAN INTERNATIONAL COOPERATION AGENCY

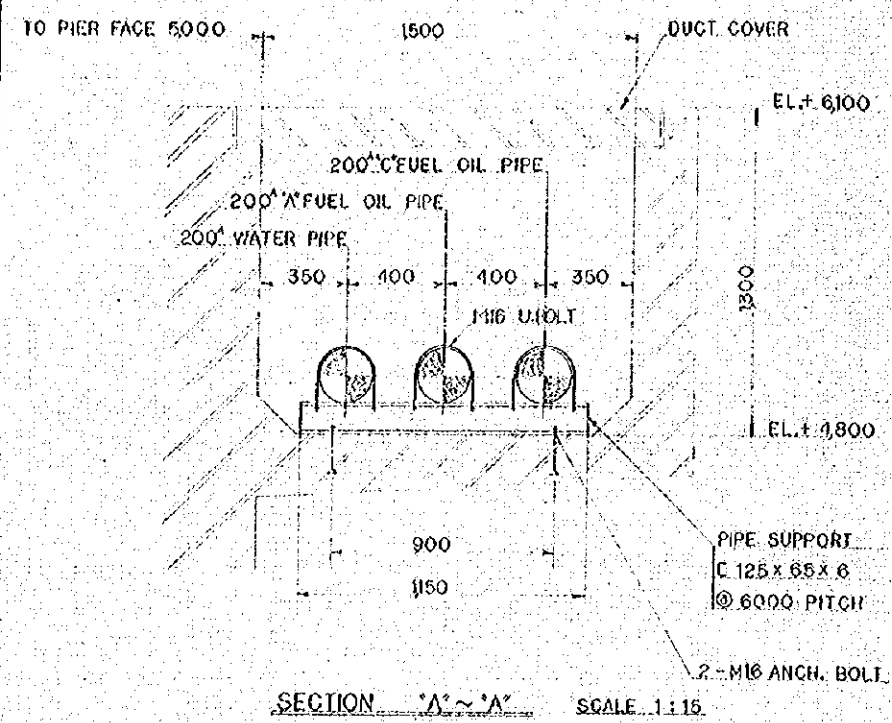
S. P.  
JK

0000 0708

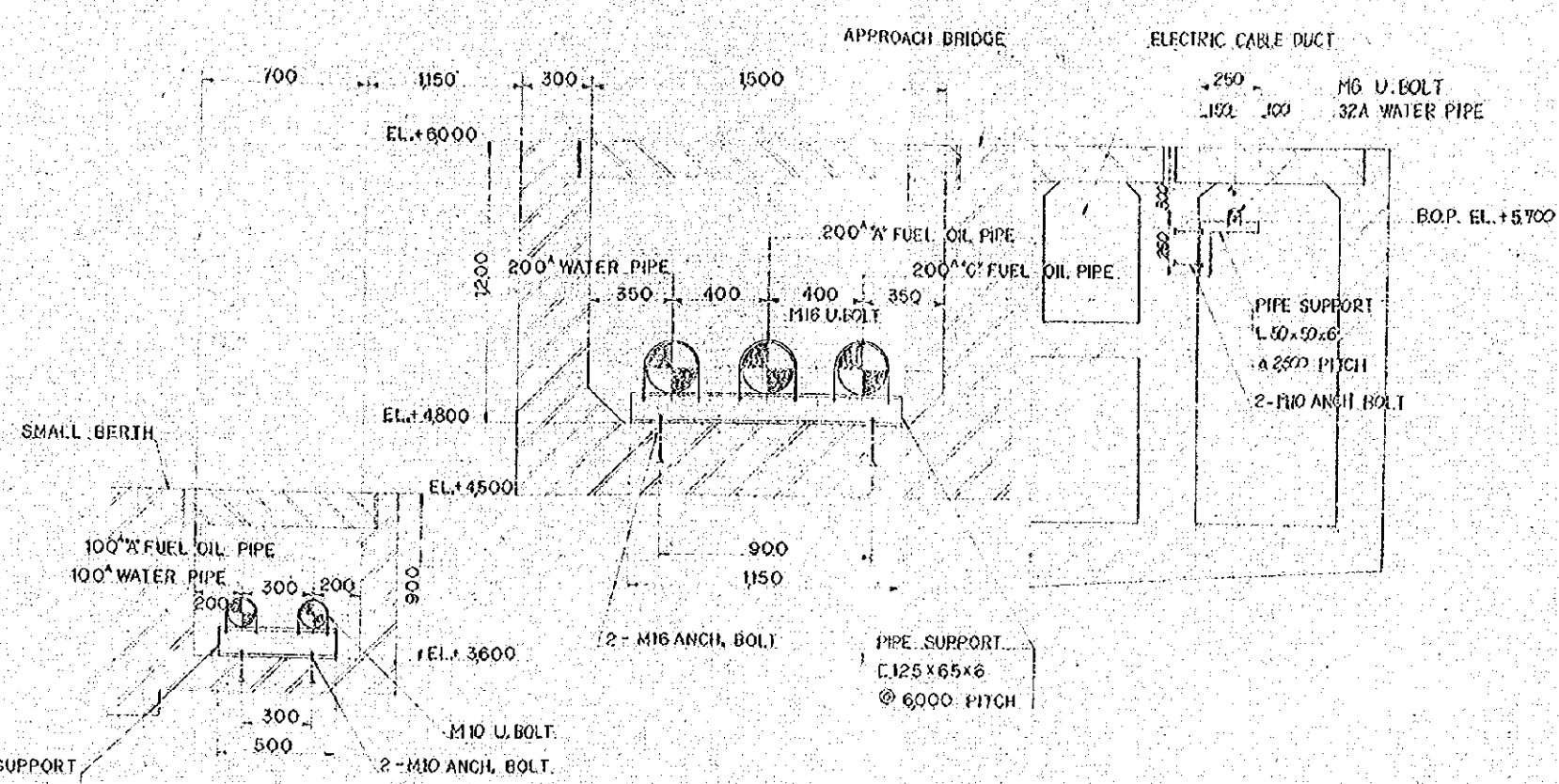




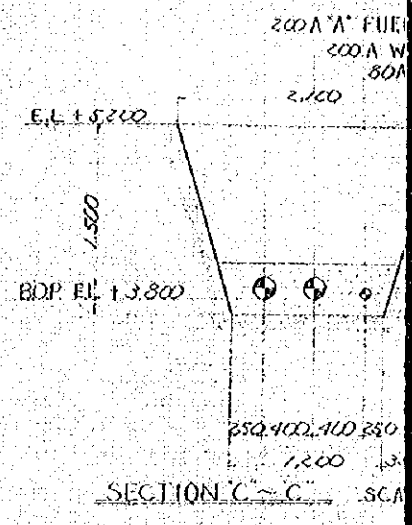




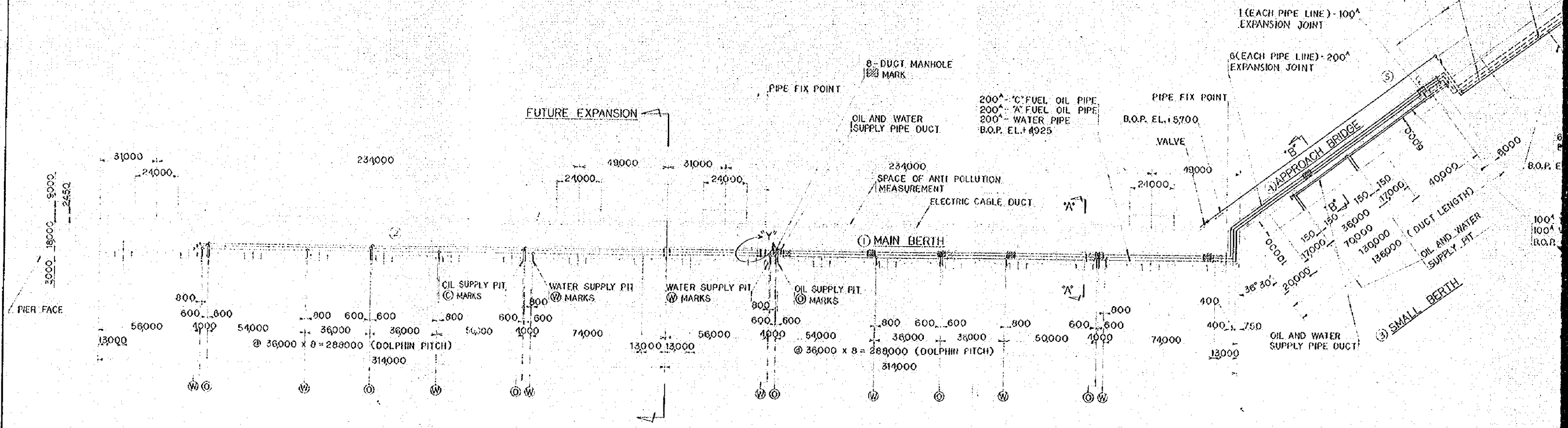
SECTION A-A SCALE 1:15



SECTION B-B SCALE 1:15



SECTION C-C SCALE 1:15



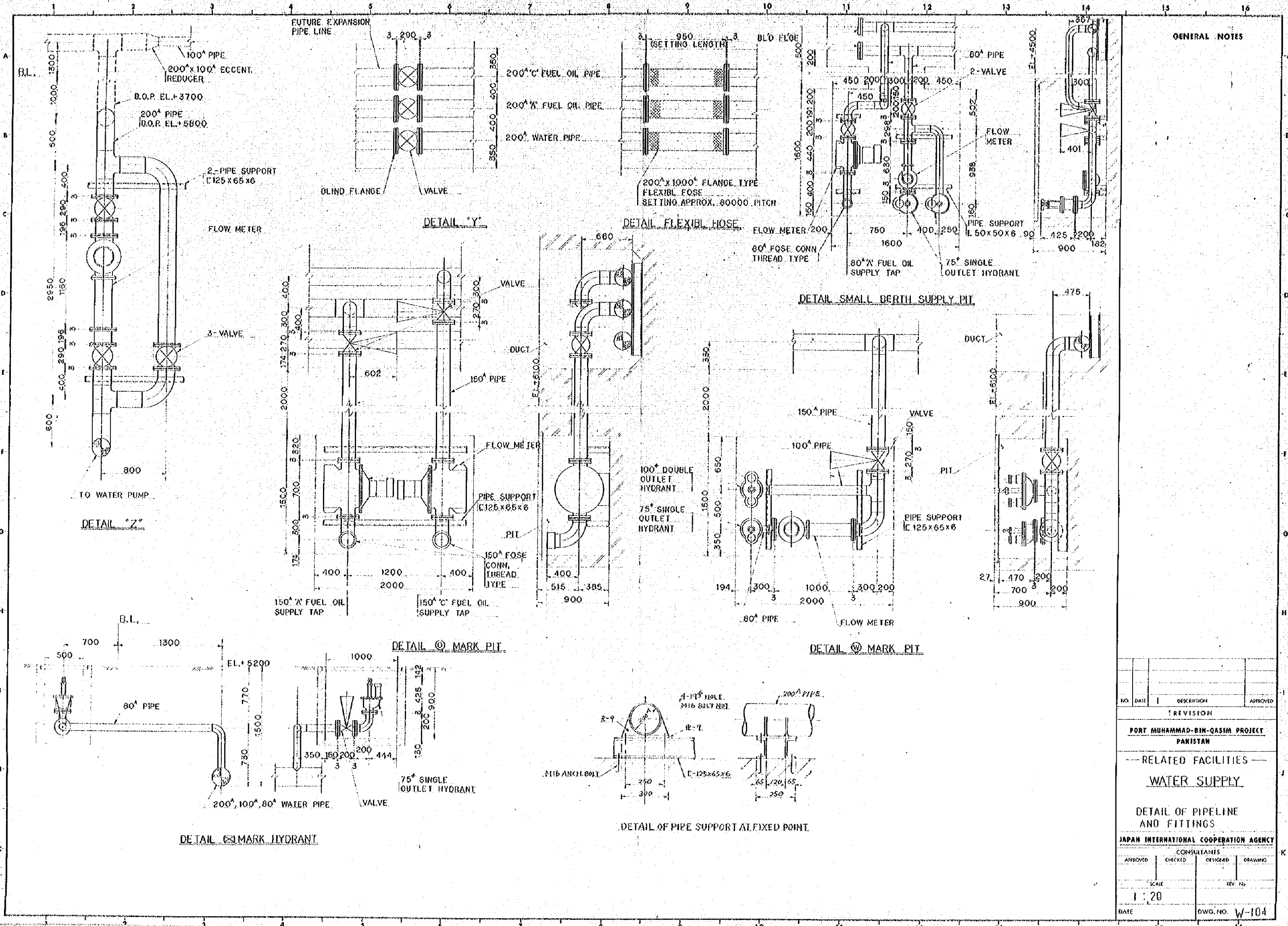
PLAN SCALE 1:1000









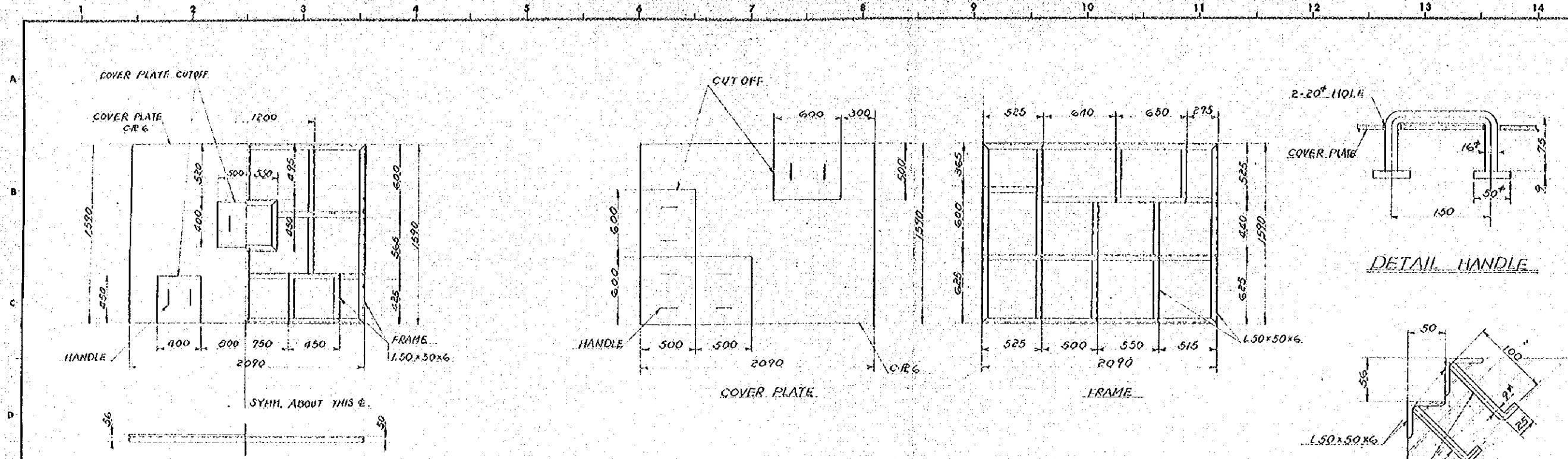


**GENERAL NOTES**

| NO.   | DATE    | DESCRIPTION    | APPROVED |
|---|---------|----------------|----------|
| REVISION                                    |         |                |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN |         |                |          |
| RELATED FACILITIES                          |         |                |          |
| WATER SUPPLY                                |         |                |          |
| DETAIL OF PIPELINE<br>AND FITTINGS          |         |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |         |                |          |
| CONSULTANTS                                 |         |                |          |
| APPROVED                                    | CHECKED | DESIGNED       | DRAWING  |
| SCALE                                       |         | REV. NO.       |          |
| 1 : 20                                      |         |                |          |
| DATE  |         | DWG. NO. W-104 |          |



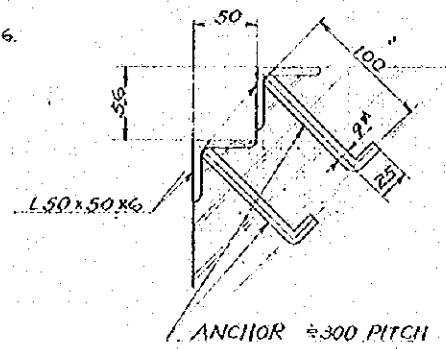
GENERAL NOTES



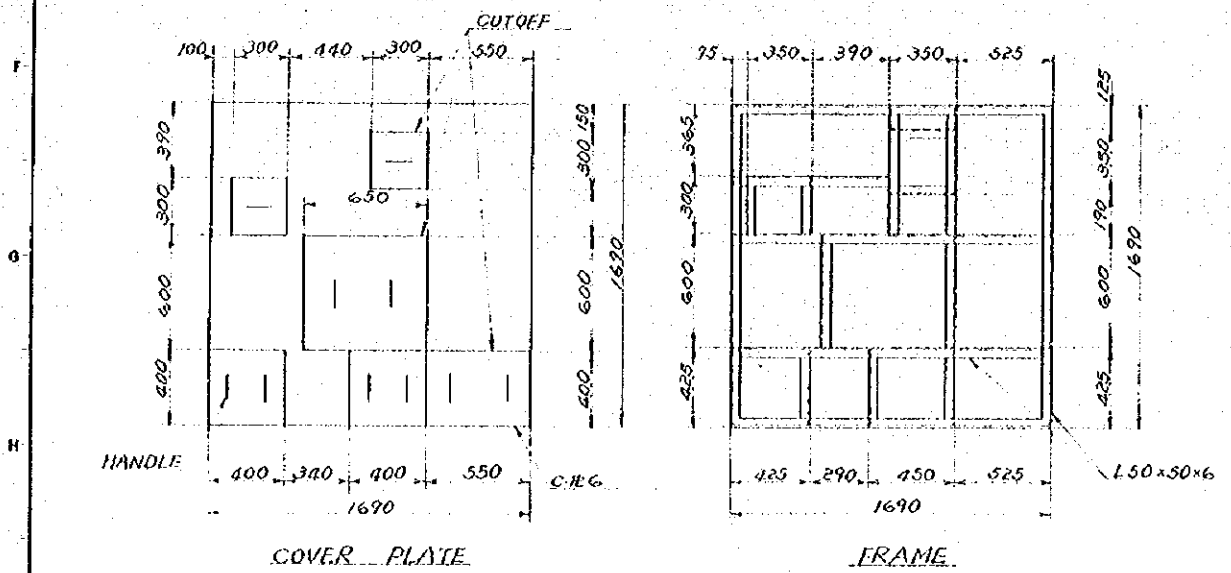
DETAIL (a) MARK PIT COVER

DETAIL (b) MARK PIT COVER

DETAIL HANDLE

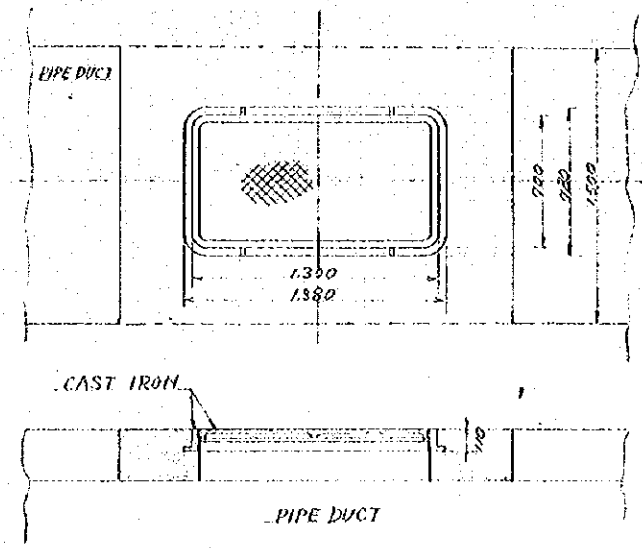


DETAIL PIT EDGE



DETAIL (c) SMALL BERTH PIT COVER

DETAIL (d) MARK PIT COVER



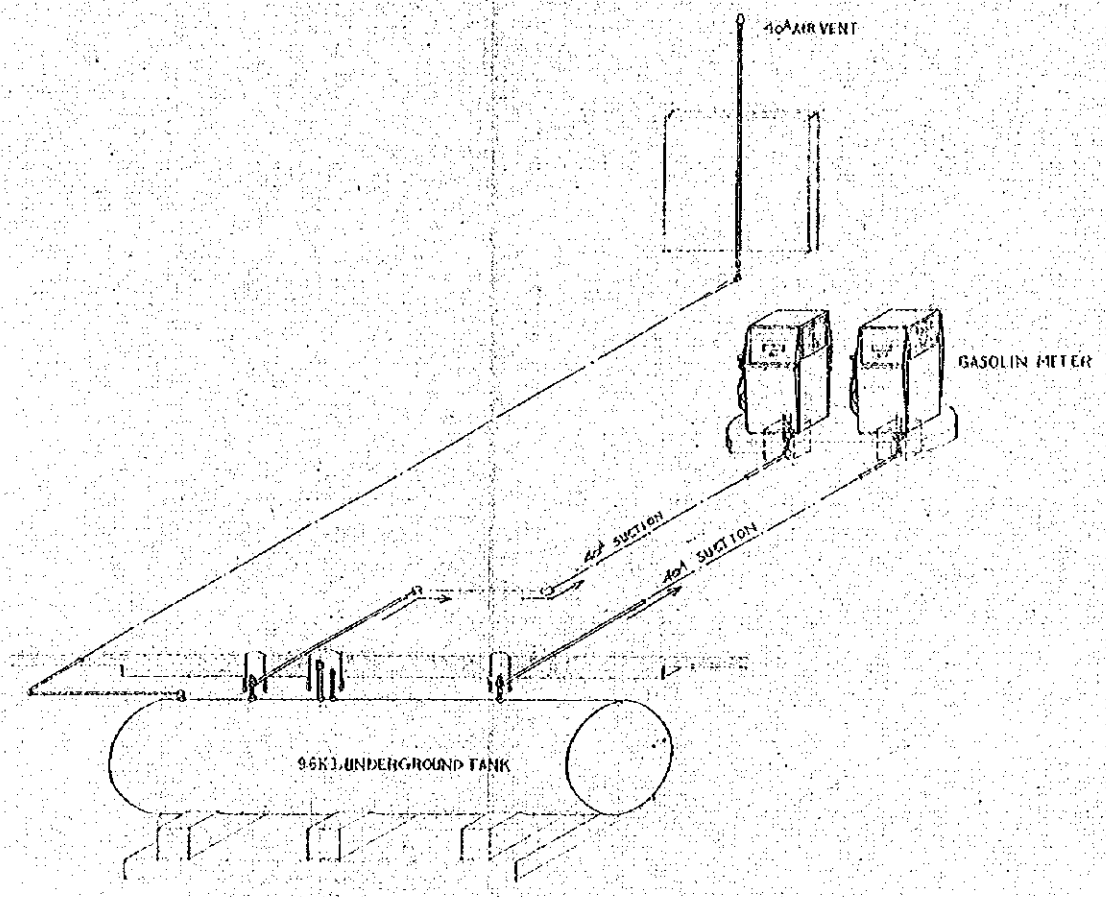
DETAIL DUCT MANHOLE

| NO.   | DATE    | DESCRIPTION    | APPROVED |
|---|---------|----------------|----------|
| REVISION                                    |         |                |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN |         |                |          |
| --- RELATED FACILITIES ---<br>WATER SUPPLY  |         |                |          |
| DETAIL OF PIT COVER                         |         |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |         |                |          |
| CONSULTANTS                                 |         |                |          |
| APPROVED                                    | CHECKED | DESIGNED       | DRAWING  |
| SCALE<br>1:20                               |         | REV. NO.       |          |
| DATE  |         | DWG. NO. W-105 |          |

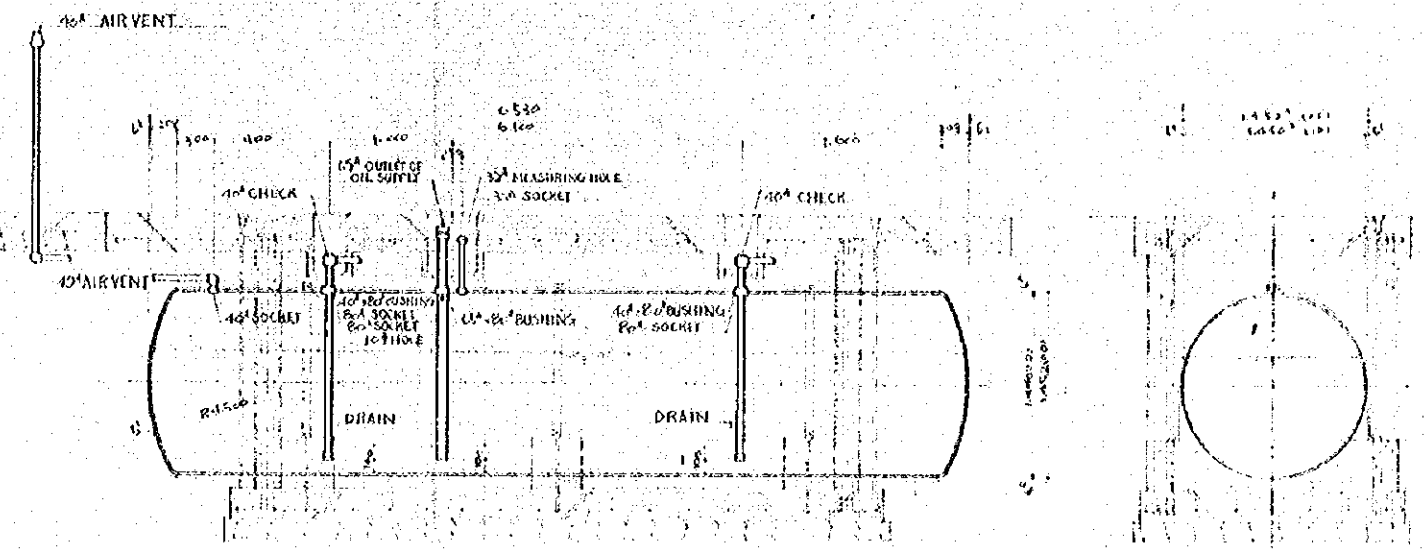
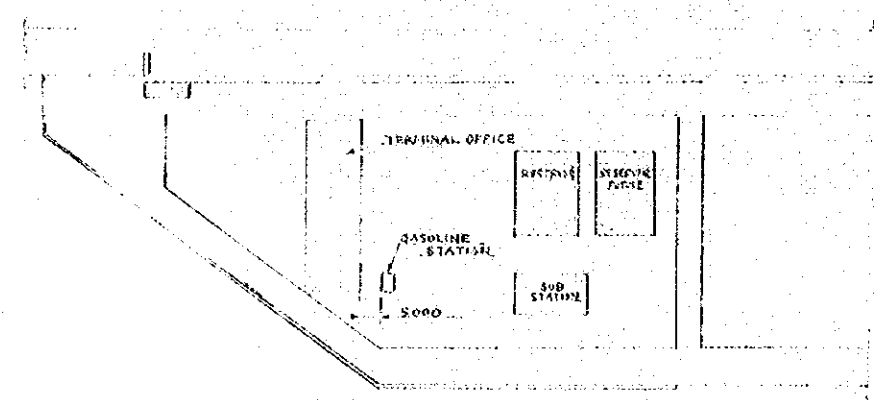
GASOLINE STATION FACILITIES SCALE 1:30

GENERAL NOTES

- GENERAL SPECIFICATIONS.
- GASOLINE METER.  
TYPE : KEY OPERATION TYPE  
No. OF KEY : 96  
SIZE (APPROXIMATE)  
HEIGHT : 1200<sup>mm</sup>  
WIDTH : 700<sup>mm</sup>  
DEPTH : 500<sup>mm</sup>
  - GASOLINE TANK  
TYPE : HORIZONTAL  
UNDERGROUND TYPE  
CAPACITY : 4600ℓ
  - FIRE EXTINGUISHER  
TYPE : DRY CHEMICAL  
CAPACITY : 35ℓ



LOCATION OF GASOLINE STATION



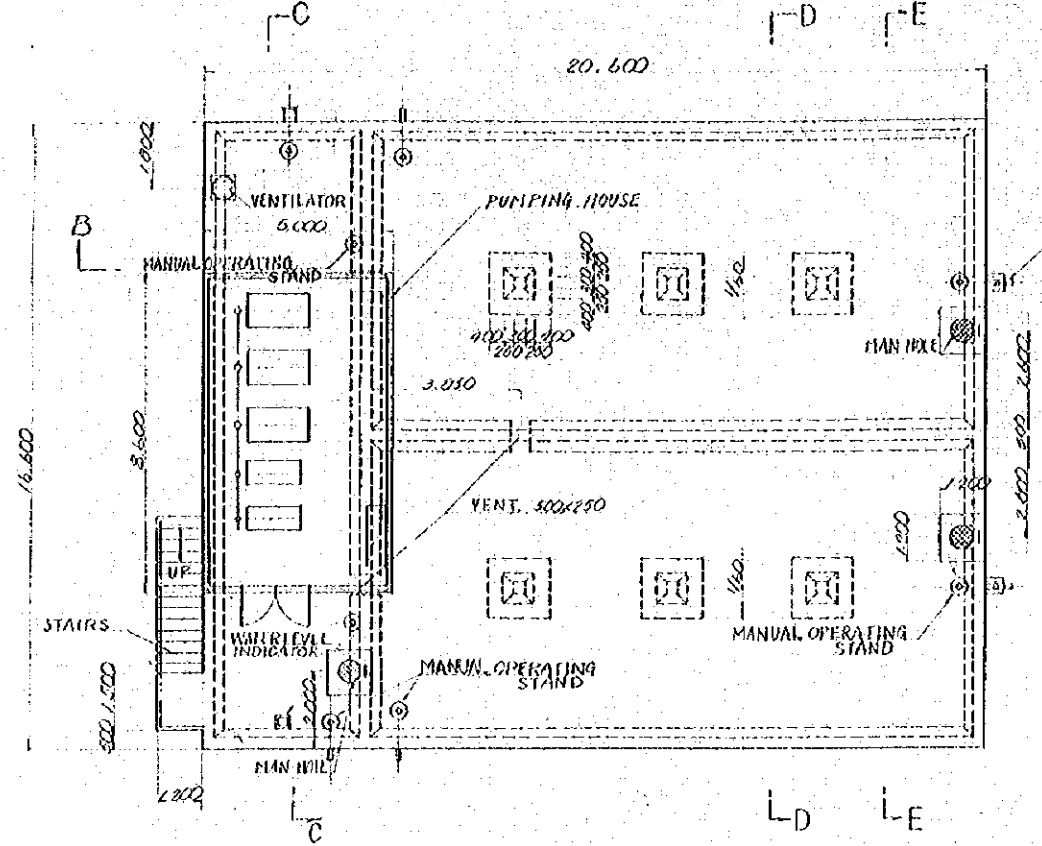
| NO.   | DATE           | DESCRIPTION | APPROVED |
|---|----------------|-------------|----------|
| REVISION                                    |                |             |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN |                |             |          |
| RELATED FACILITIES<br>WATER SUPPLY          |                |             |          |
| FACILITIES AND DETAIL OF<br>GASOLINE TANK   |                |             |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |                |             |          |
| CONSULTANTS                                 |                |             |          |
| APPROVED                                    | CHECKED        | DESIGNED    | DRAWING  |
| SCALE                                       |                | REV. TAG.   |          |
| 1:30  |                |             |          |
| DATE  | DWG. NO. W-106 |             |          |



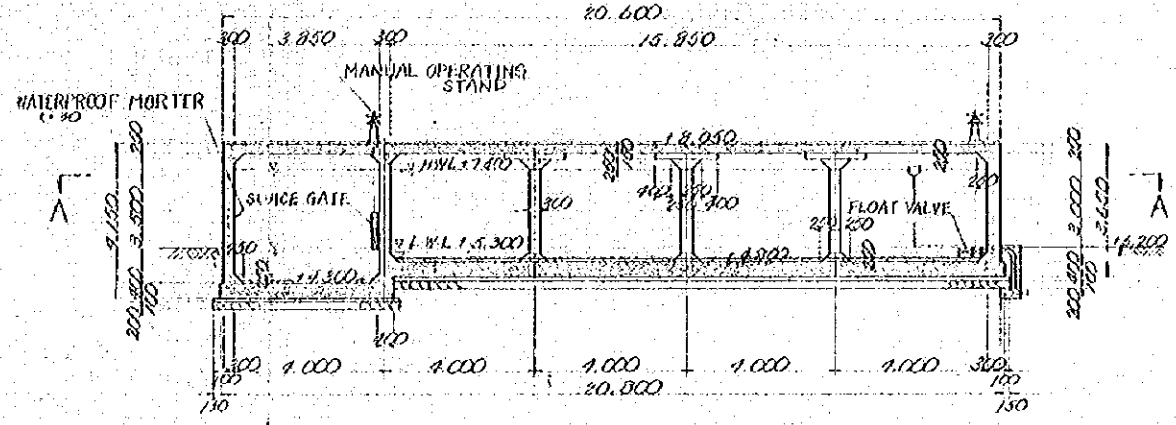


GENERAL PLAN SCALE - 1/100

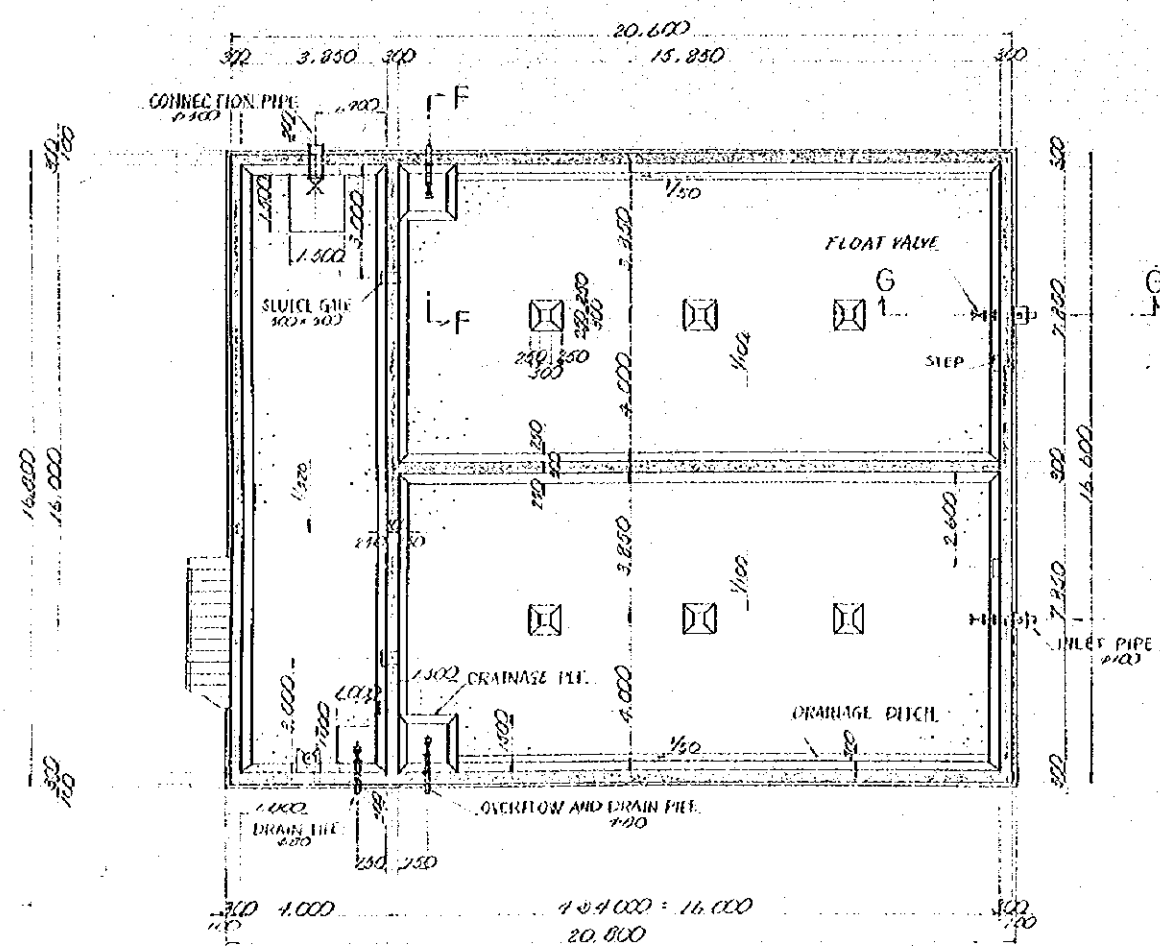
PLAN



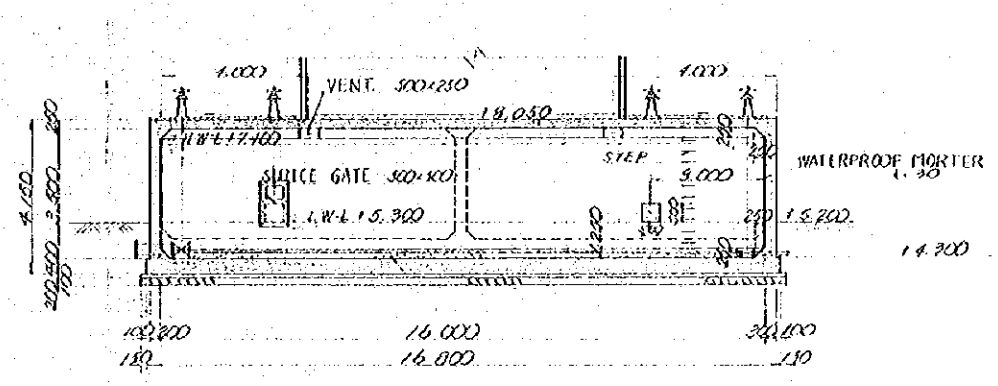
SECTION B - B



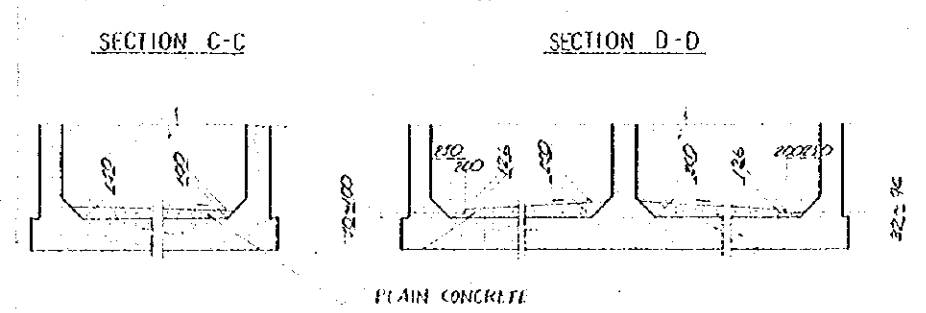
SECTION A - A



SECTION C - C



DRAIN SCALE - 1/50



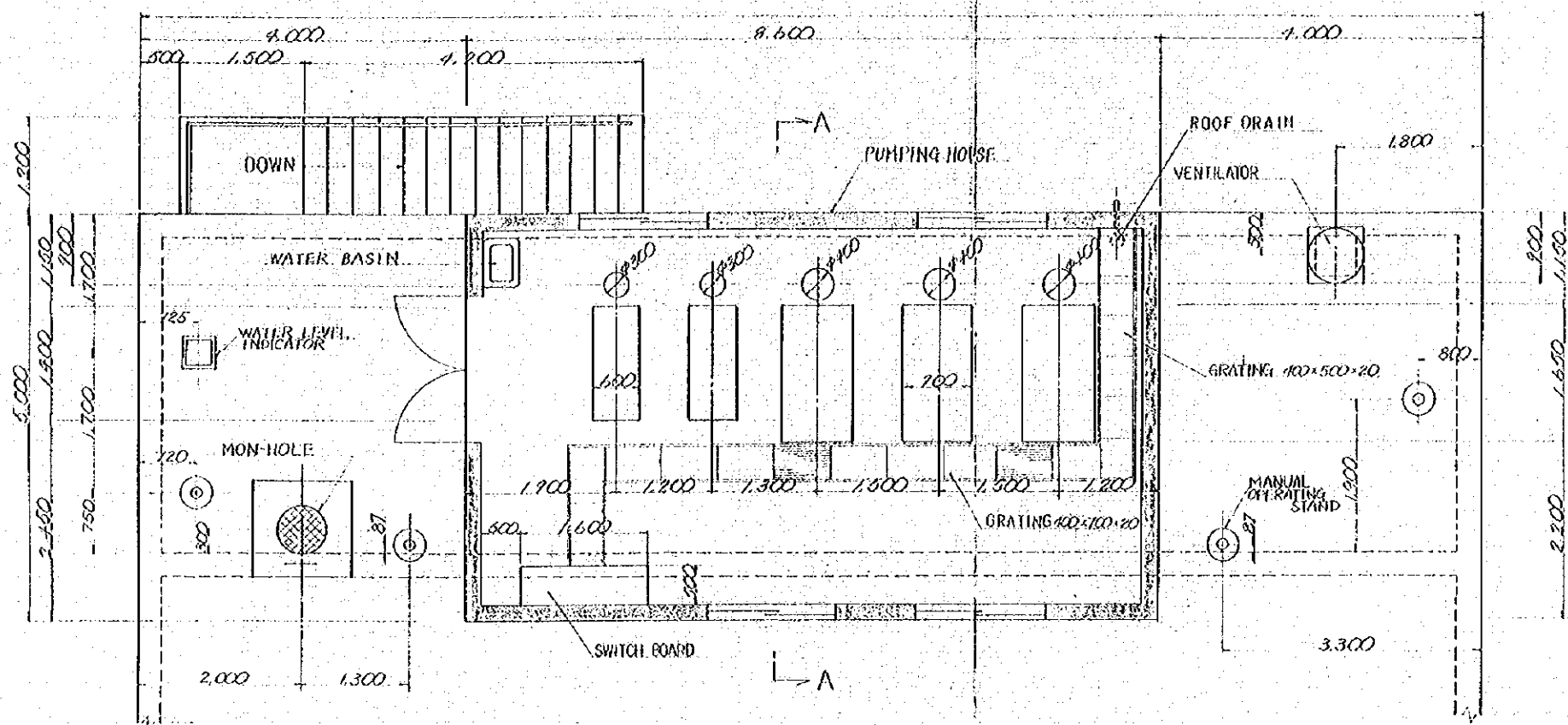
GENERAL NOTES

| NO.   | DATE    | DESCRIPTION    | APPROVED |
|---|---------|----------------|----------|
| REVISION:                                   |         |                |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN |         |                |          |
| RELATED FACILITIES<br>WATER SUPPLY          |         |                |          |
| GENERAL PLAN<br>NO. 1                       |         |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |         |                |          |
| CONSULTANTS                                 |         |                |          |
| APPROVED                                    | CHECKED | DESIGNED       | DRAWING  |
| SCALE<br>1 : 100                            |         | REV. NO.       |          |
| DATE  |         | DWG. NO. W-108 |          |



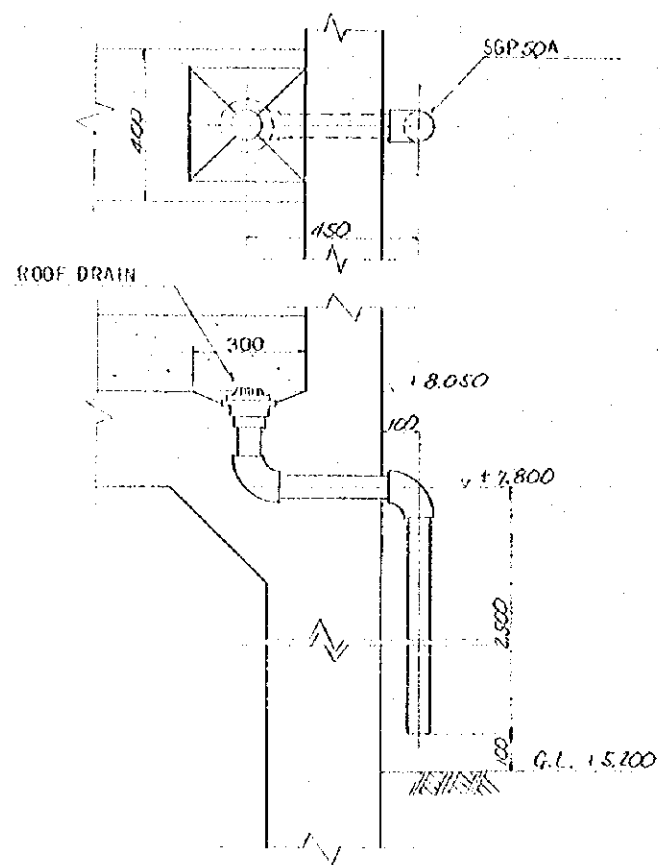
GENERAL NOTES

PLAN SCALE = 1/10

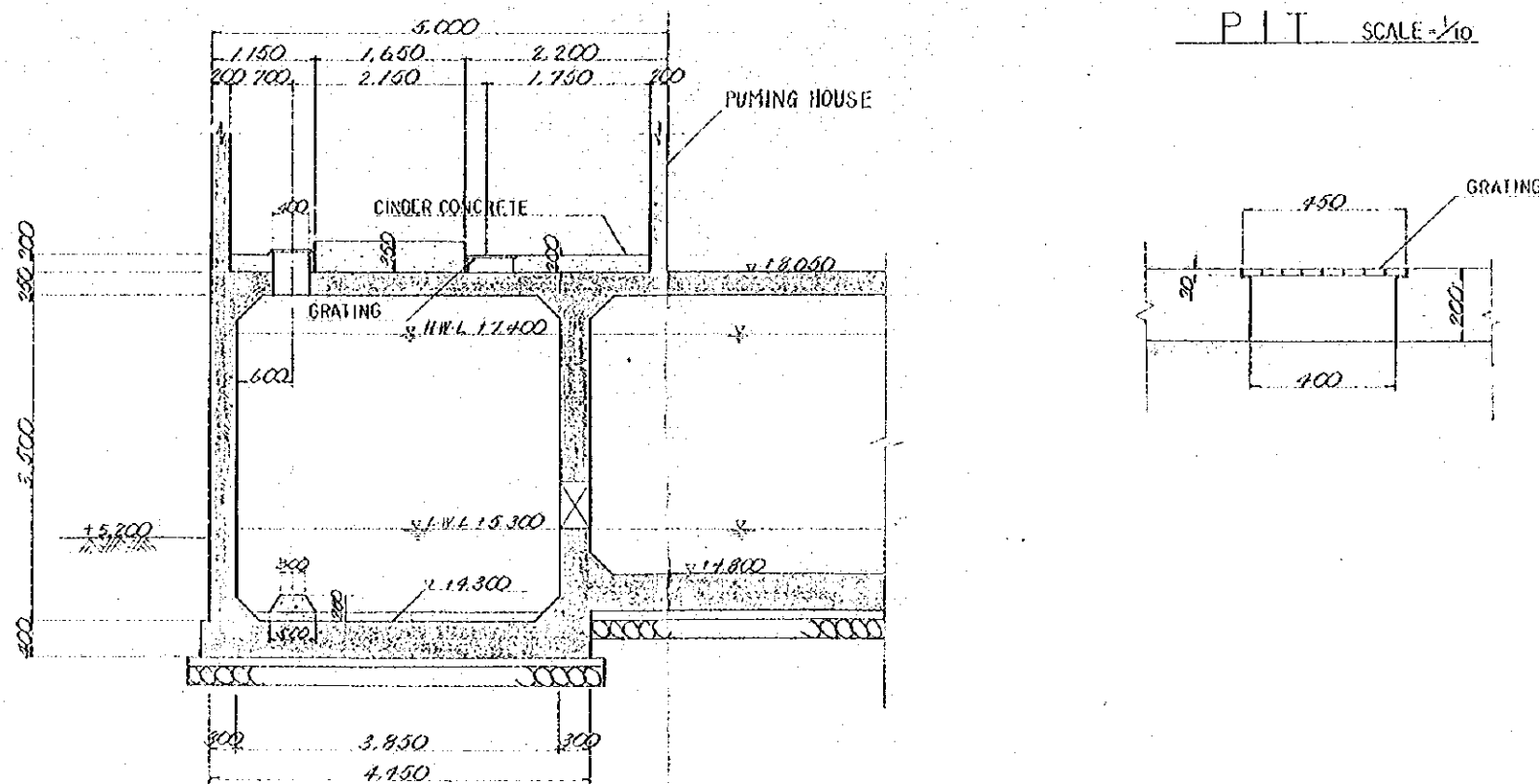


SECTION A - A

DETAIL OF ROOF DRAIN SCALE 1/10



PIT SCALE = 1/10



| NO.   | DATE     | DESCRIPTION    | APPROVED |
|---|----------|----------------|----------|
| REVISION                                    |          |                |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN |          |                |          |
| RELATED FACILITIES<br>WATER SUPPLY          |          |                |          |
| DETAIL PLAN<br>OF<br>PUMPING HOUSE SITE     |          |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |          |                |          |
| APPROVED                                    |          | CONSULTANTS    |          |
| CHECKED                                     | DESIGNED | DRAWING        | REV. No. |
| SCALE                                       |          | 1:40           |          |
| DATE  |          | DWG. NO. W-110 |          |

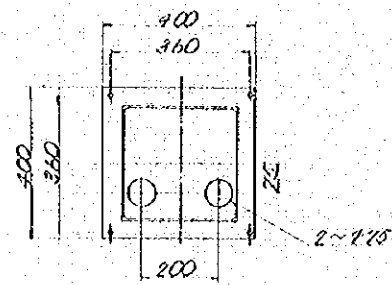




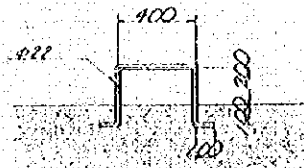
DETAIL OF WATER LEVEL INDICATOR

SCALE = 1/20

PLAN SCALE = 1/10

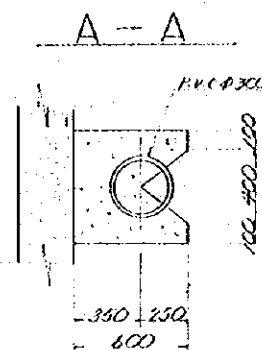
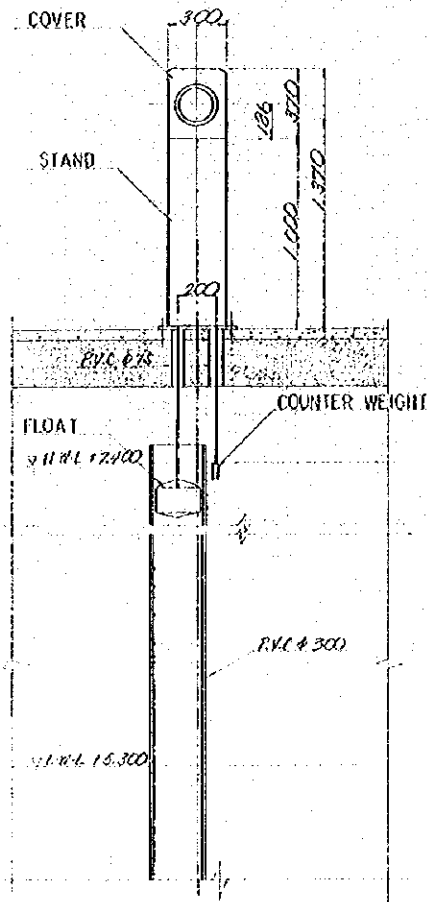
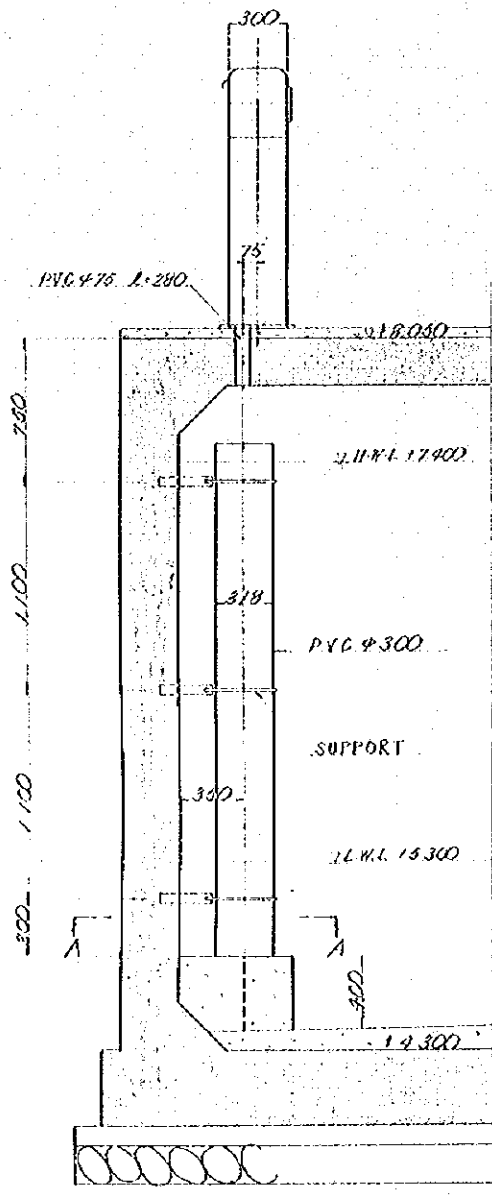
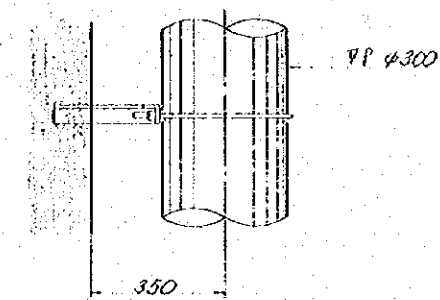
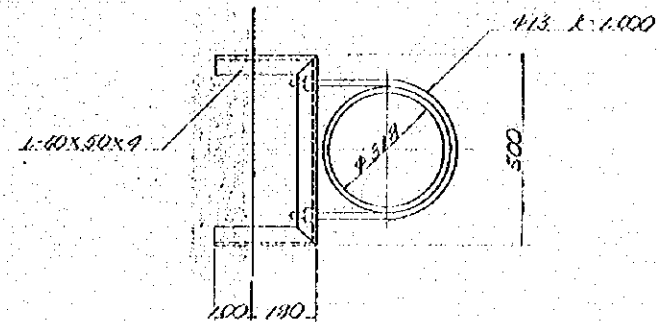


STEP SCALE = 1/20

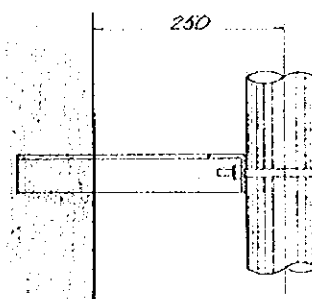
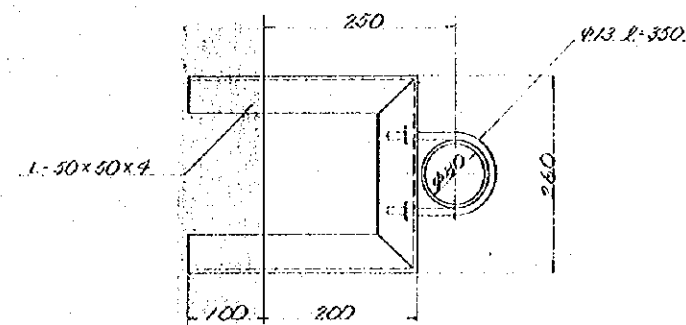


SUPPORT

PIPE PROTECTION FOR FLOAT SCALE = 1/10



FOR OVERFLOW PIPE SCALE = 1/5

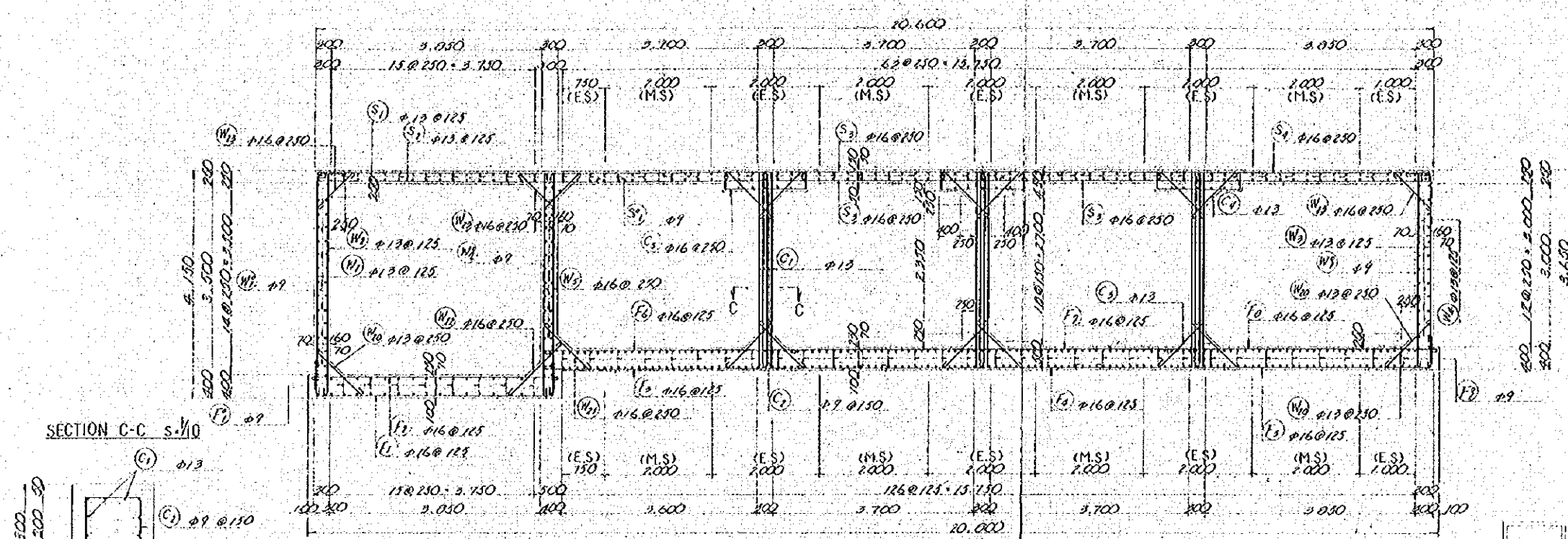


GENERAL NOTES

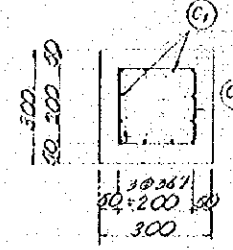
| NO.   | DATE    | DESCRIPTION    | APPROVED |
|---|---------|----------------|----------|
| REVISION                                    |         |                |          |
| PORT MUHAMMAD-BIH-QASIM PROJECT<br>PAKISTAN |         |                |          |
| RELATED FACILITIES<br>WATER SUPPLY          |         |                |          |
| DETAIL<br>OF<br>ACCESSORIES                 |         |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |         |                |          |
| CONSULTANTS                                 |         |                |          |
| APPROVED                                    | CHECKED | DESIGNED       | DRAWING  |
| SCALE<br>1:30                               |         | REV. NO.       |          |
| DATE  |         | DWG. NO. W-112 |          |

GENERAL NOTES

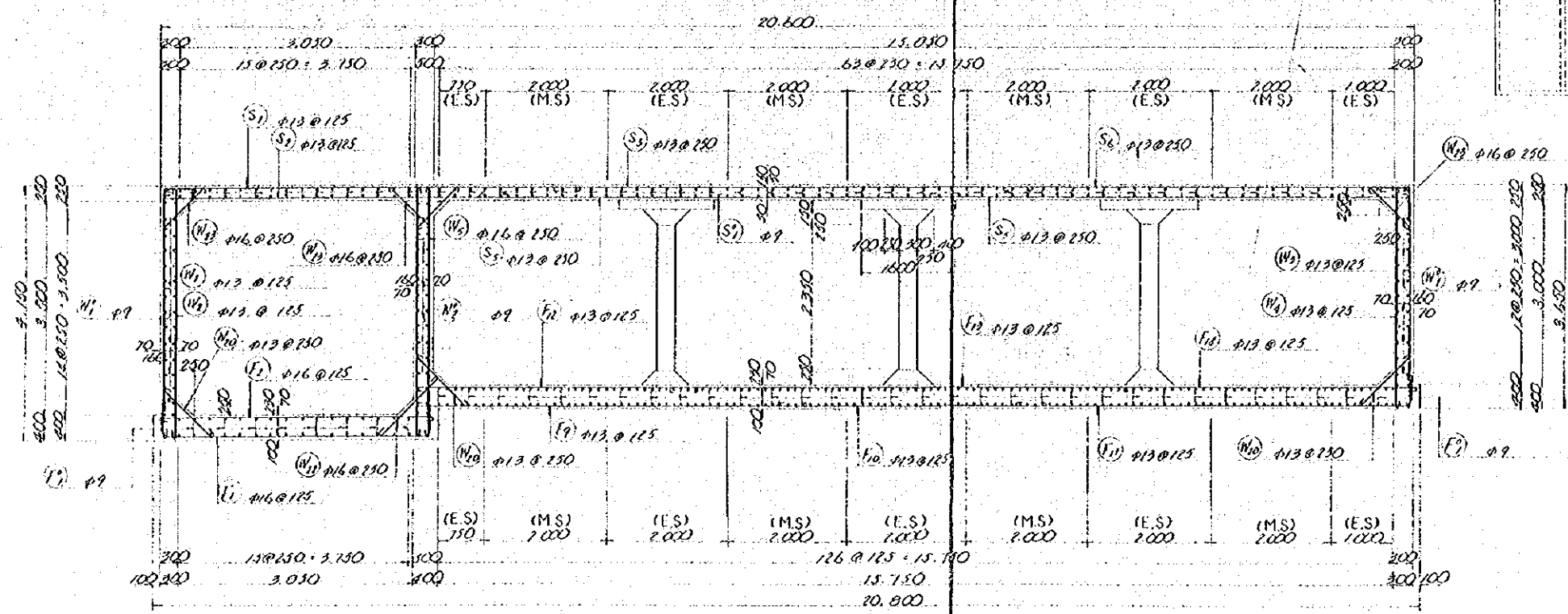
SECTION A-A s=1/50  
EDGE STRIP



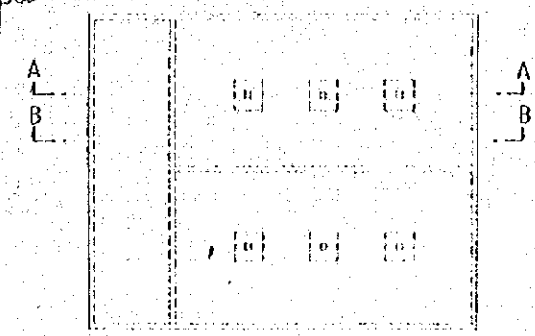
SECTION C-C s=1/10



SECTION B-B s=1/50  
MIDDLE STRIP



KEY PLAN



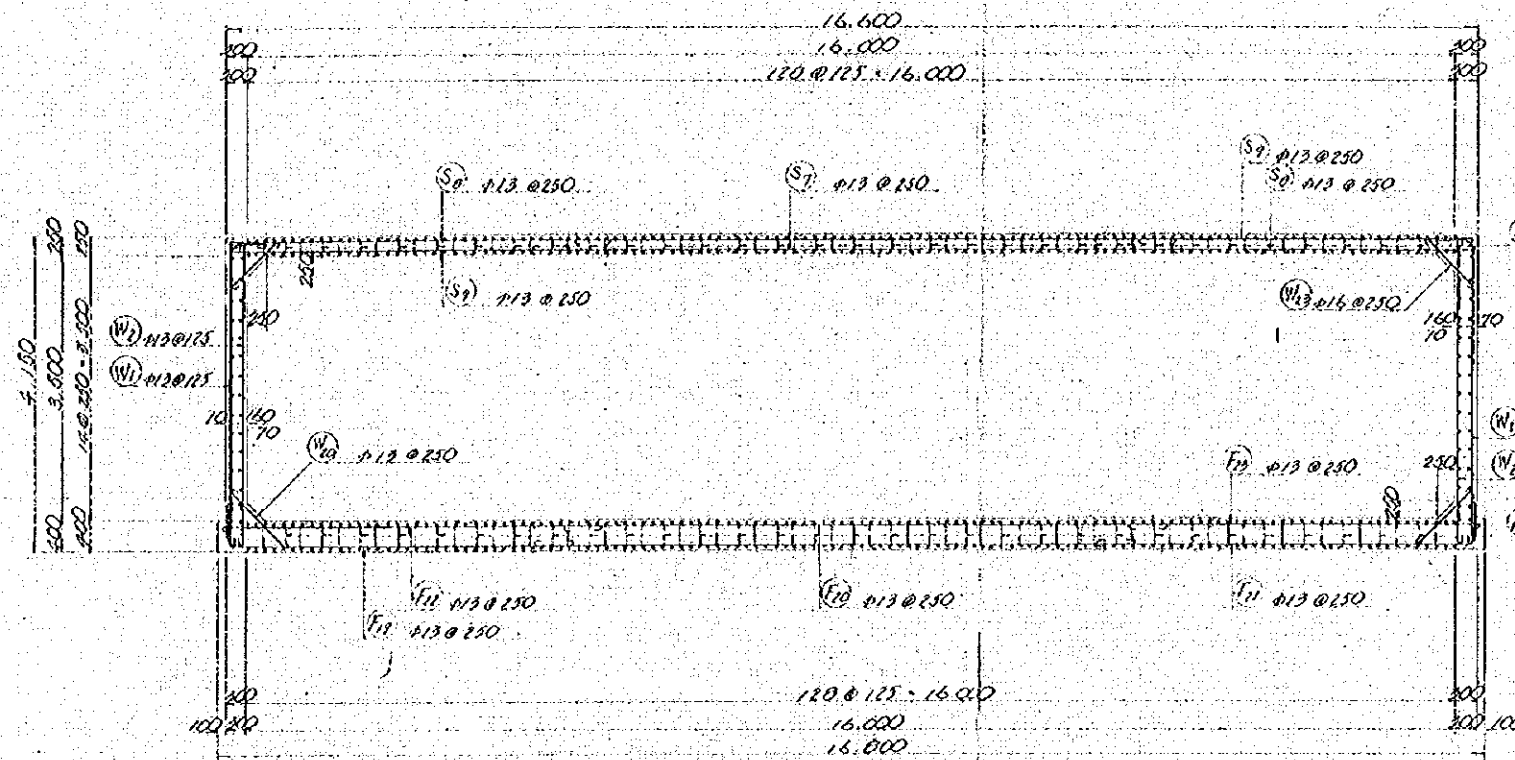
NOTE:  
(M.S) : MIDDLE STRIP  
(E.S) : EDGE STRIP

| NO.  | DATE    | DESCRIPTION    | APPROVED |
|--|---------|----------------|----------|
| REVISION   |         |                |          |
| PORT MUHAMMAD-DIN-QASIM PROJECT<br>PAKISTAN                          |         |                |          |
| RELATED FACILITIES<br>WATER SUPPLY<br>DETAIL<br>OF<br>STRUCTURE NO.1 |         |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY                               |         |                |          |
| CONSULTANTS  |         |                |          |
| APPROVED   | CHECKED | DESIGNED       | DRAWING  |
| SCALE<br>1:50  |         | REV. NO.       |          |
| DATE   |         | DWG. NO. W-113 |          |

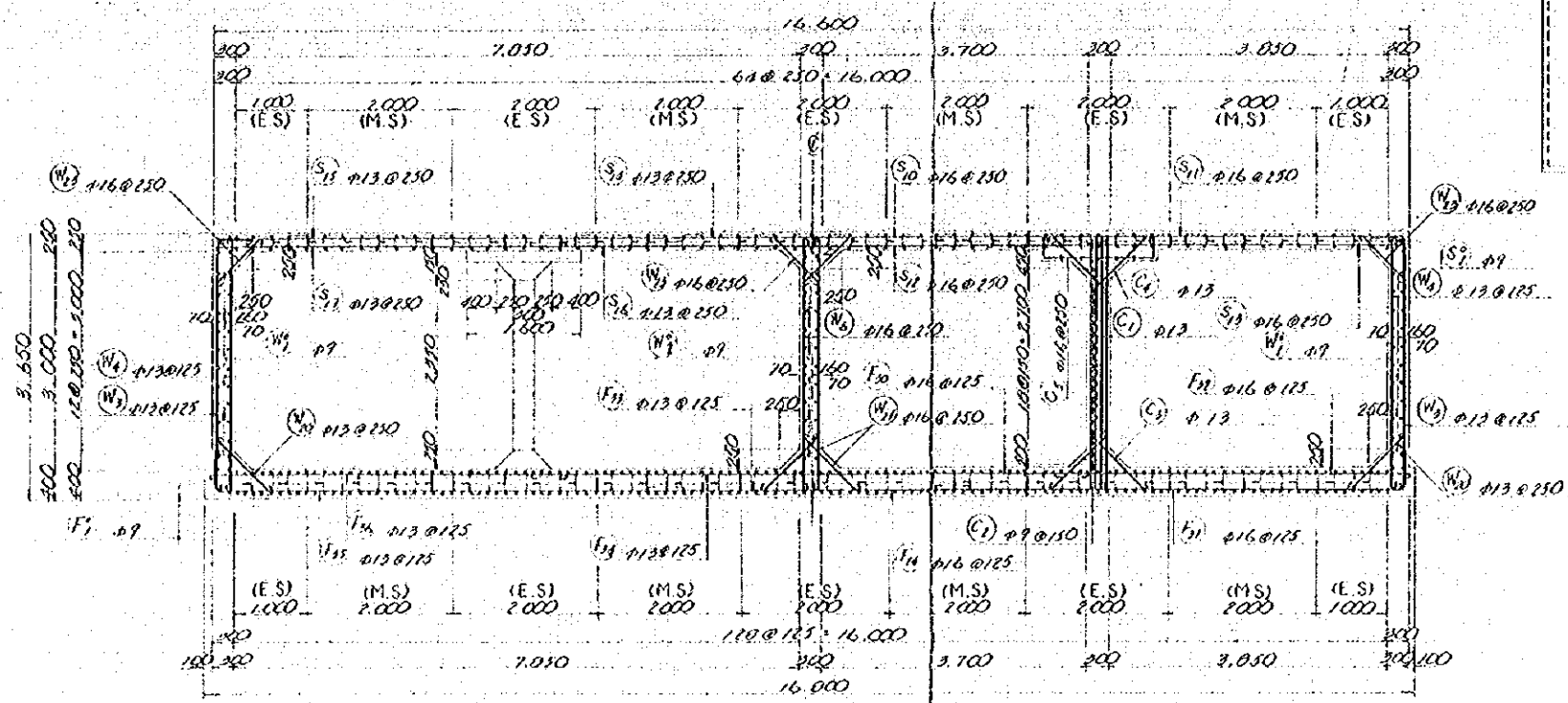


GENERAL NOTES

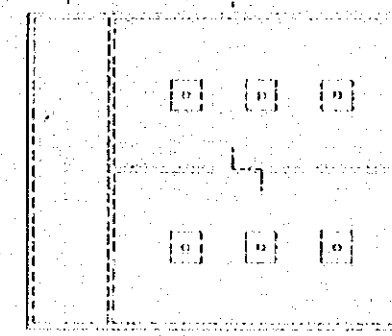
SECTION D-D s. 1/50



SECTION E-E s. 1/50



KEY PLAN



| NO.  | DATE     | DESCRIPTION    | APPROVED |
|--|----------|----------------|----------|
| REVISION   |          |                |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN                        |          |                |          |
| RELATED FACILITIES<br>WATER SUPPLY<br>DETAIL OF<br>STRUCTURE NO. 2 |          |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY                             |          |                |          |
| APPROVED   |          | CONSULTANTS    |          |
| CHECKED  | DESIGNED | DRAWING        |          |
| SCALE  |          | REV. NO.       |          |
| 1:50   |          |                |          |
| DATE   |          | DWG. NO. W-114 |          |

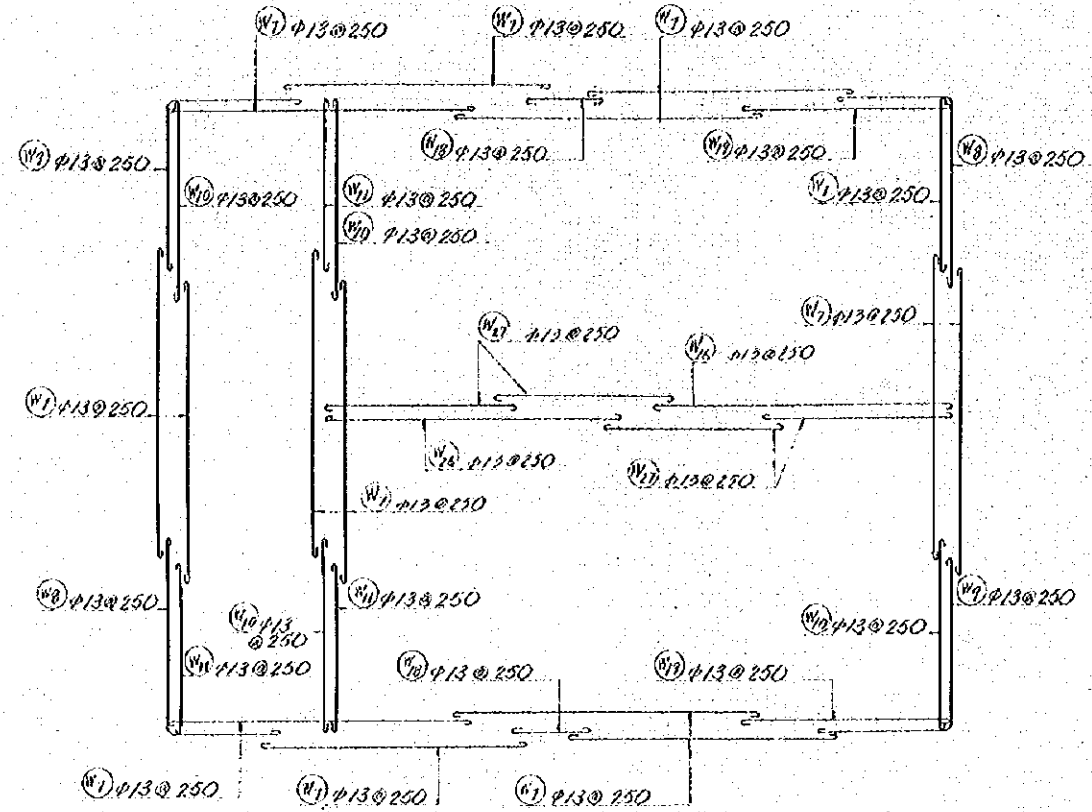




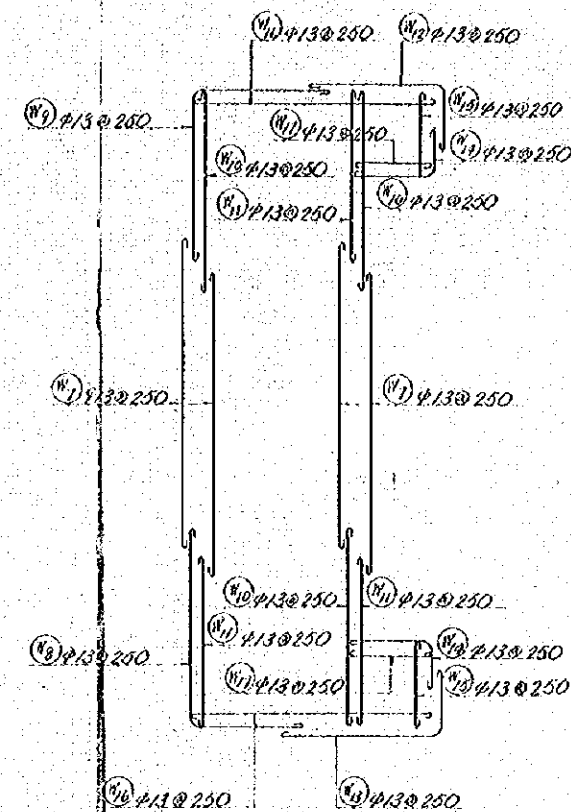
# BAR ARRANGEMENT

## GENERAL NOTES

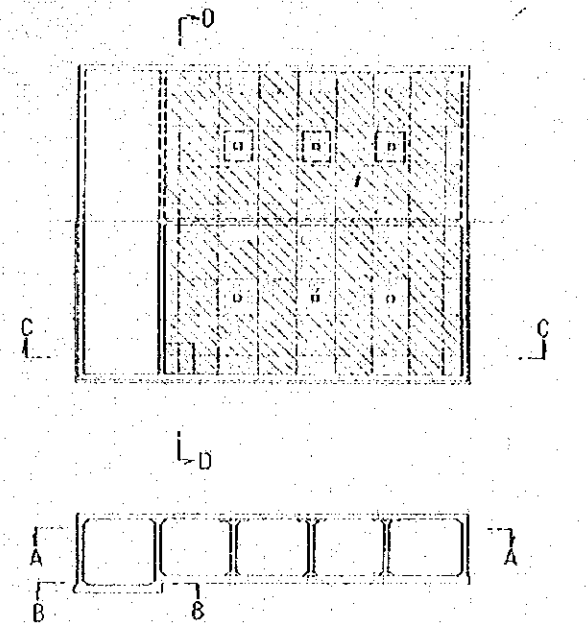
### SECTION A - A



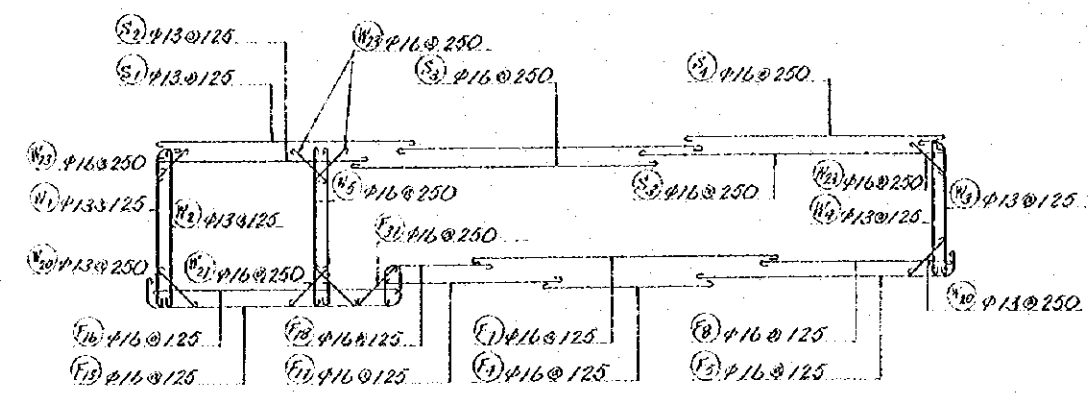
### SECTION B - B



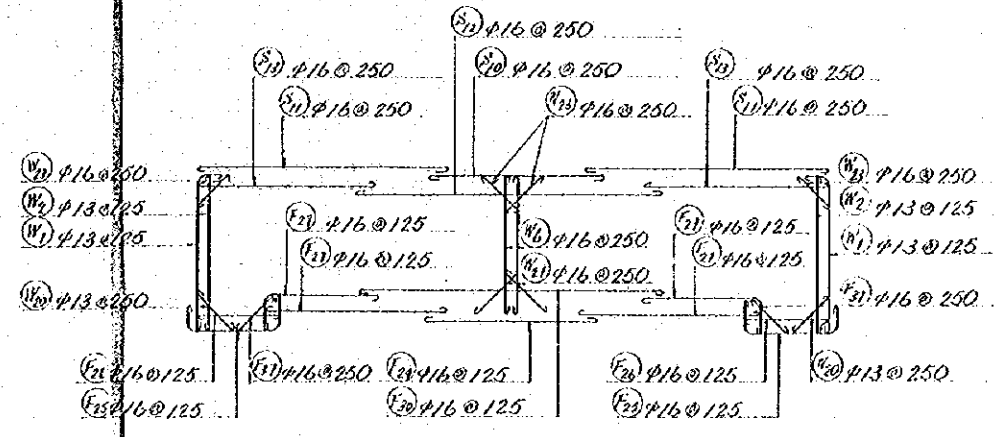
### KEY PLAN



### SECTION C - C



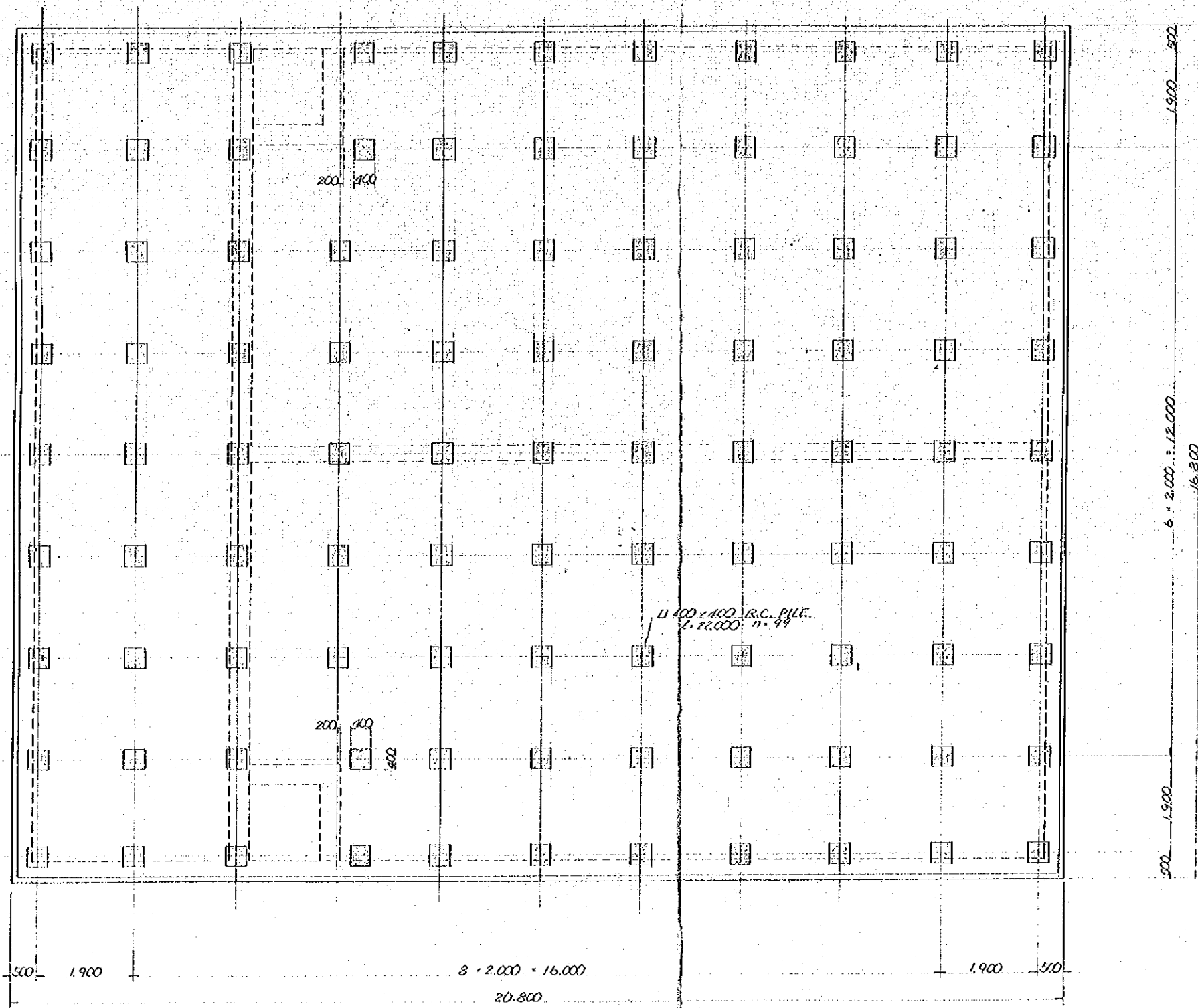
### SECTION D - D



| NO.   | DATE           | DESCRIPTION | APPROVED |
|---|----------------|-------------|----------|
| REVISION                                    |                |             |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN |                |             |          |
| — RELATED FACILITIES —<br>WATER SUPPLY      |                |             |          |
| BAR ARRANGEMENT                             |                |             |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |                |             |          |
| CONSULTANTS                                 |                |             |          |
| APPROVED                                    | CHECKED        | DESIGNED    | DRAWING  |
| SCALE                                       | REV. NO.       |             |          |
| DATE  | DWG. NO. W-116 |             |          |



ARRANGEMENT OF PILES SCALE = 1/50

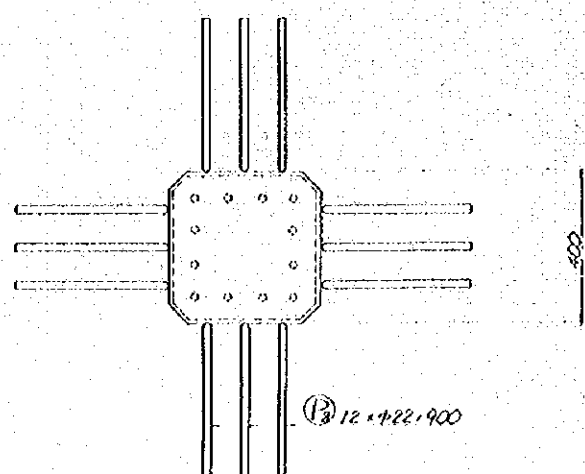


GENERAL NOTES

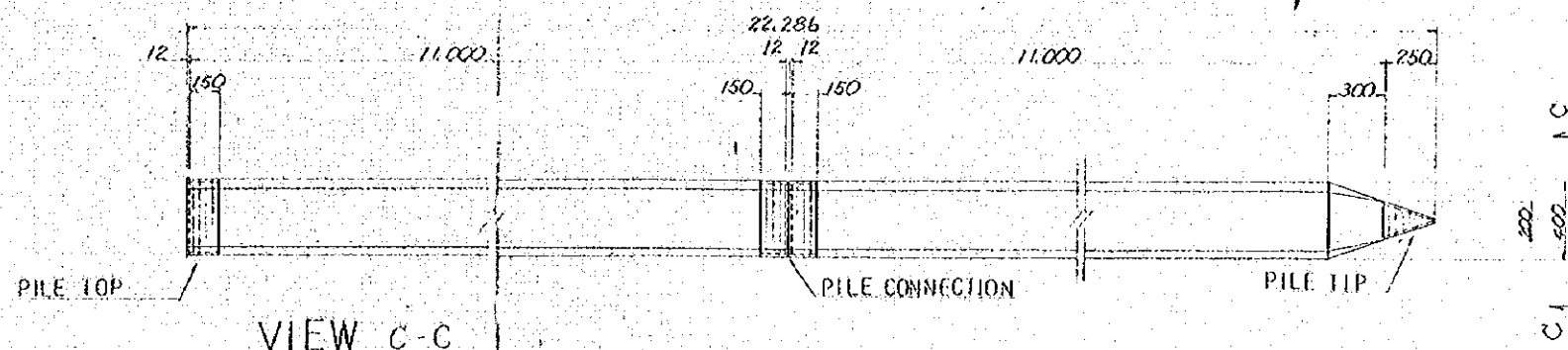
| NO  | DATE           | DESCRIPTION | APPROVED |
|---|----------------|-------------|----------|
| REVISION                                    |                |             |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN |                |             |          |
| RELATED FACILITIES<br>WATER SUPPLY          |                |             |          |
| ARRANGEMENT OF PILES                        |                |             |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |                |             |          |
| CONSULTANTS                                 |                |             |          |
| APPROVED                                    | CHECKED        | DESIGNED    | DRAWING  |
| SCALE 1:50                                  |                |             |          |
| DATE  | DWG. NO. W-117 |             |          |

GENERAL NOTES

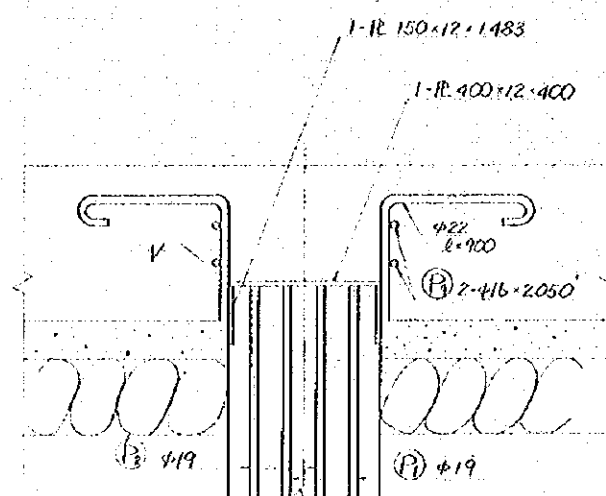
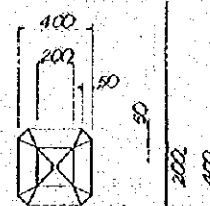
DETAIL OF PILE TOP SCALE = 1/10



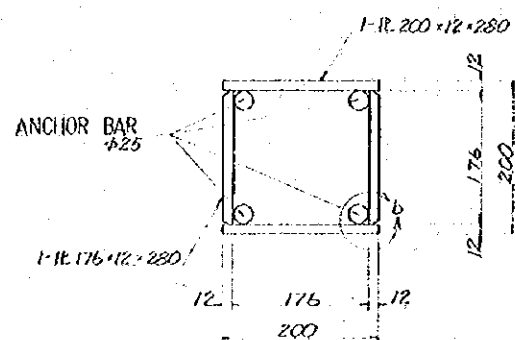
GENERAL PLAN SCALE = 1/20



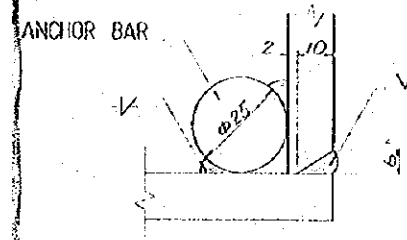
VIEW C-C



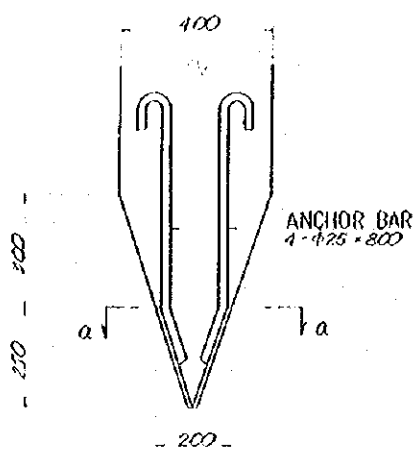
SECTION a-a SCALE = 1/5



DETAIL "b" SCALE = 1/1



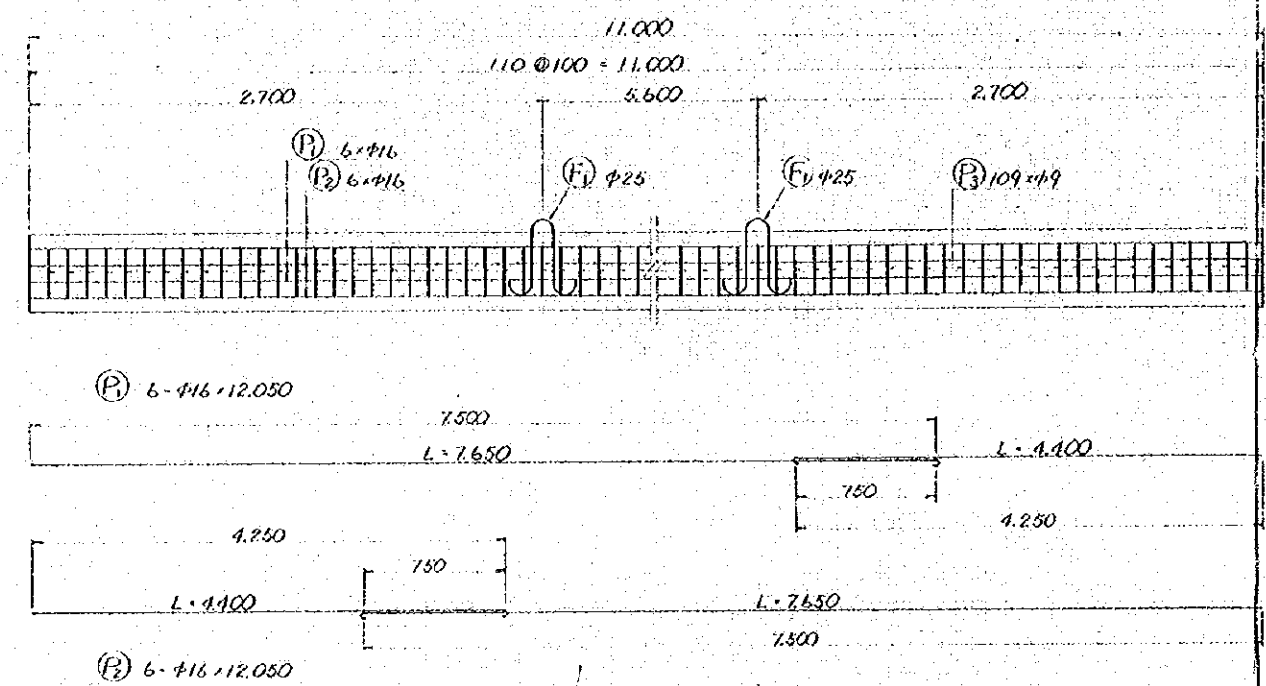
PILE TIP SCALE = 1/10



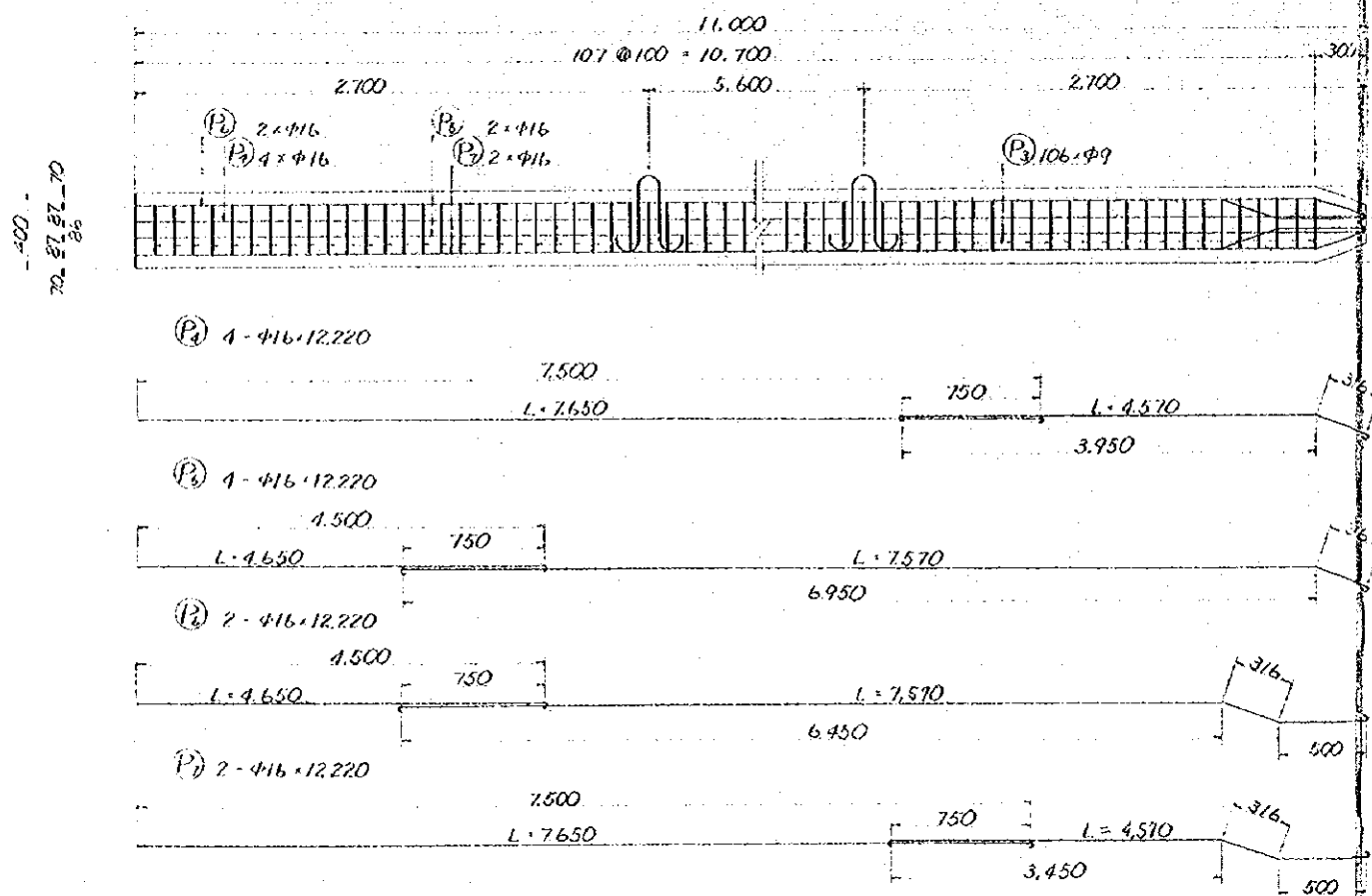
| NO.   | DATE    | DESCRIPTION    | APPROVED |
|---|---------|----------------|----------|
| REVISION                                    |         |                |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN |         |                |          |
| RELATED FACILITIES<br>WATER SUPPLY          |         |                |          |
| DETAIL<br>OF<br>A RC PILE                   |         |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |         |                |          |
| CONSULTANTS                                 |         |                |          |
| APPROVED                                    | CHECKED | DESIGNED       | DRAWING  |
| SCALE<br>1:10                               |         | REV. No.       |          |
| DATE  |         | DWG. NO. W-118 |          |

BAR ARRANGEMENT OF R.C. PILE

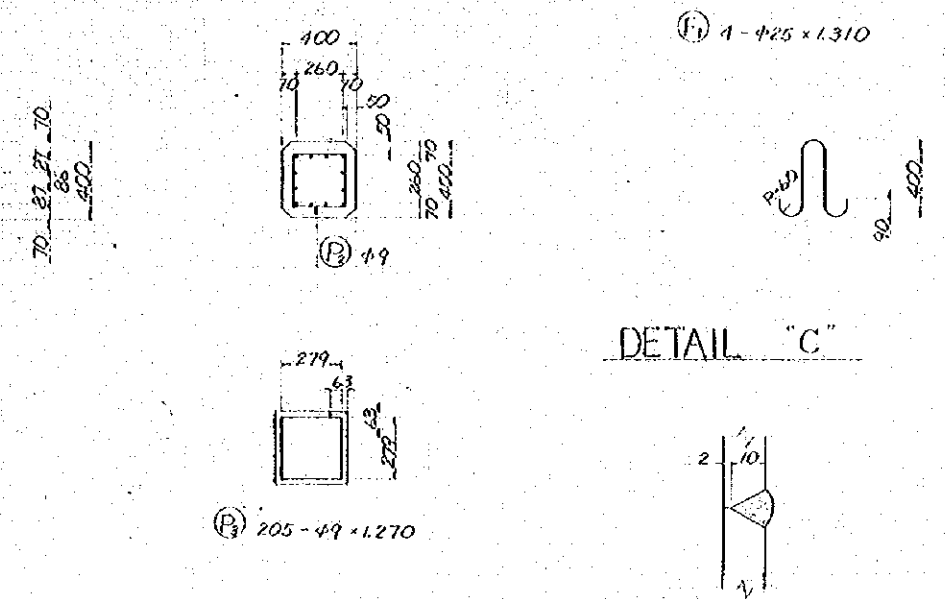
UPPER PILE SCALE = 1/20



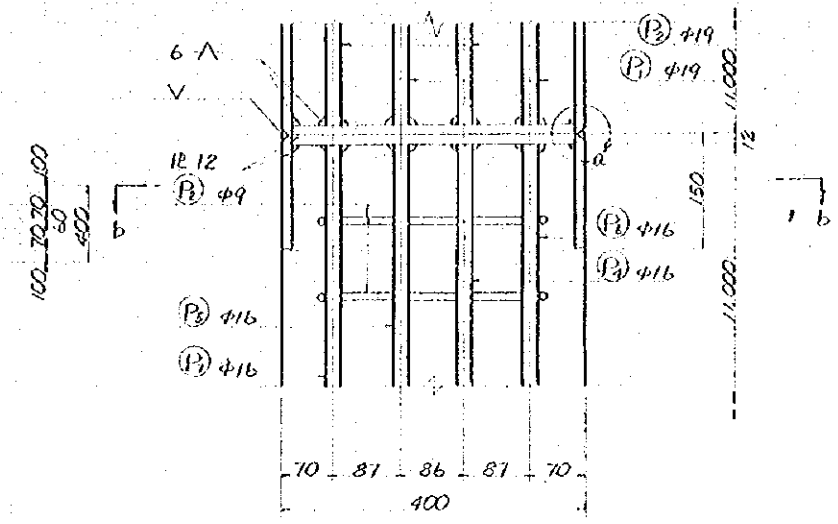
LOWER PILE SCALE = 1/20



TYPICAL SECTION SCALE = 1/20

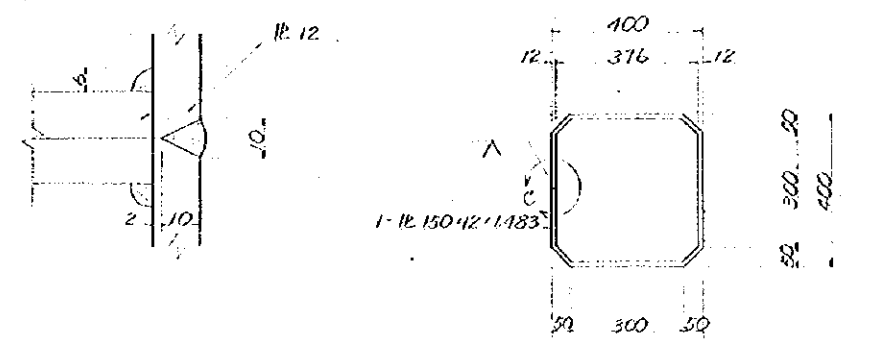


DETAIL OF PILE CONNECTION SCALE = 1/5



DETAIL 'a'

SECTION b-b SCALE = 1/10



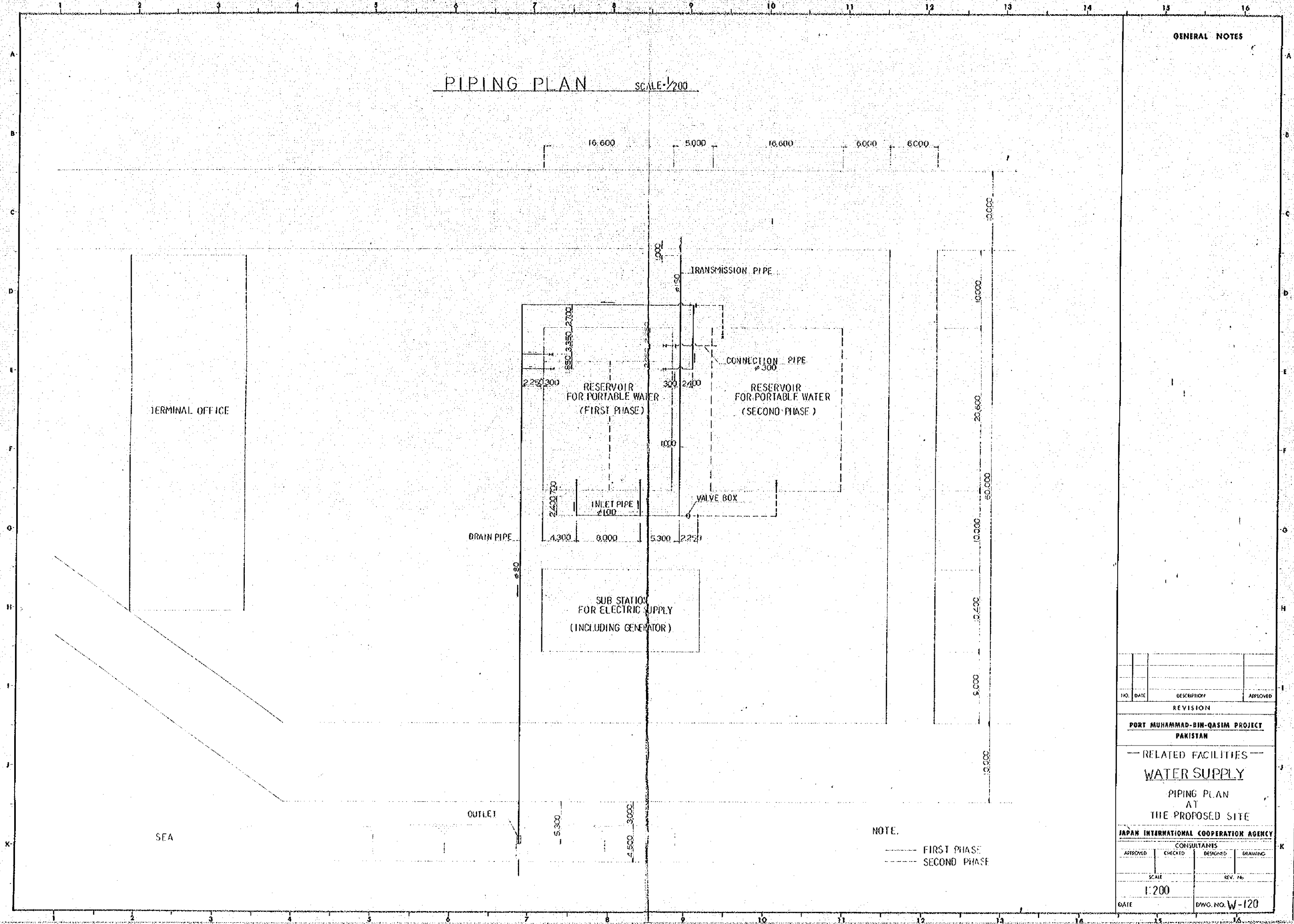
GENERAL NOTES

| NO.   | DATE    | DESCRIPTION    | APPROVED |
|---|---------|----------------|----------|
| REVISION                                    |         |                |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN |         |                |          |
| RELATED FACILITIES                          |         |                |          |
| WATER SUPPLY                                |         |                |          |
| DETAIL OF PILE STRUCTURE                    |         |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |         |                |          |
| CONSULTANTS                                 |         |                |          |
| APPROVED                                    | CHECKED | DESIGNED       | DRAWING  |
| SCALE                                       |         | REV. NO.       |          |
| 1:20  |         |                |          |
| DATE  |         | DWG. NO. W-119 |          |



PIPING PLAN SCALE 1/200

GENERAL NOTES



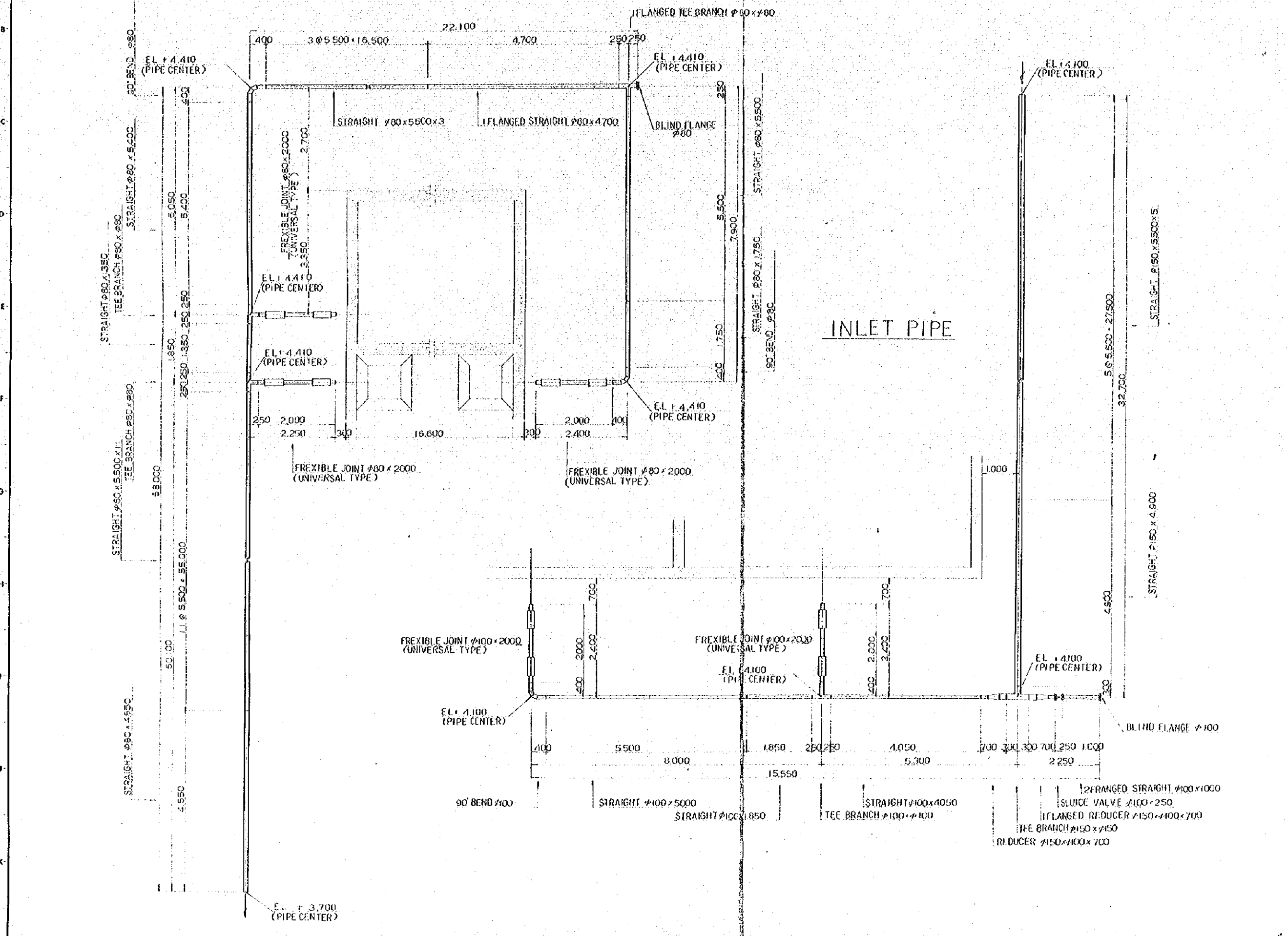
NOTE.  
 - - - - - FIRST PHASE  
 - - - - - SECOND PHASE

| NO.  | DATE           | DESCRIPTION | APPROVED |
|--|----------------|-------------|----------|
| REVISION   |                |             |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN  |                |             |          |
| - - - - - RELATED FACILITIES - - - - -<br>WATER SUPPLY<br>PIPING PLAN<br>AT<br>THE PROPOSED SITE |                |             |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY   |                |             |          |
| CONSULTANTS  |                |             |          |
| APPROVED   | CHECKED        | DESIGNED    | DRAWING  |
| SCALE  | REV. NO.       |             |          |
| 1:200  |                |             |          |
| GATE   | DWG. NO. W-120 |             |          |

PIPING PLAN SCALE 1/50

DRAIN PIPE

INLET PIPE

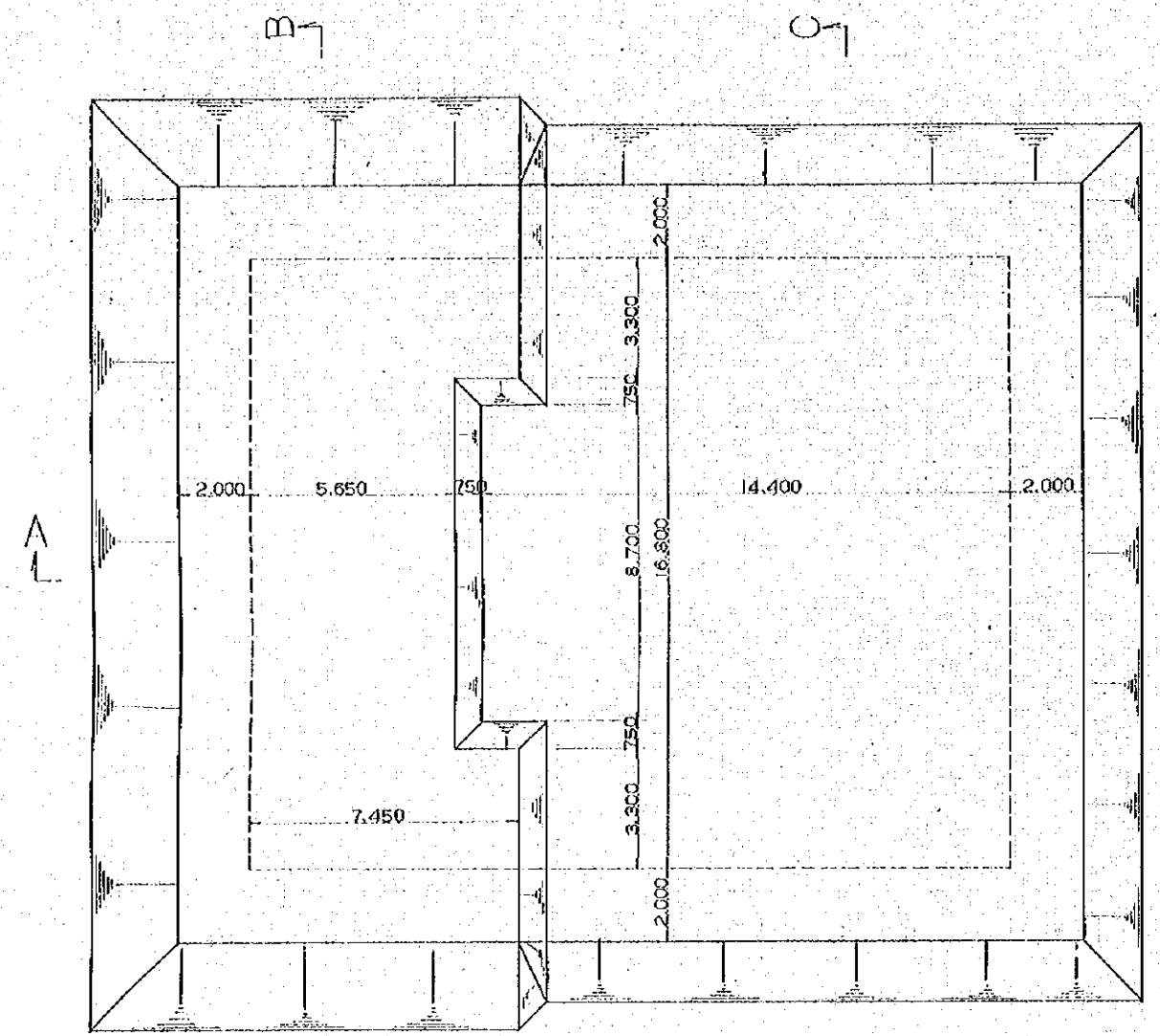


GENERAL NOTES

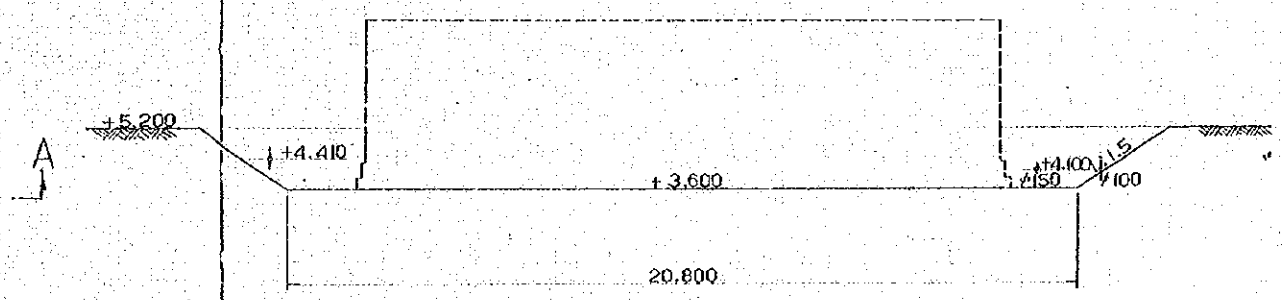
| NO.   | DATE           | DESCRIPTION | APPROVED |
|---|----------------|-------------|----------|
| REVISION                                    |                |             |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN |                |             |          |
| RELATED FACILITIES                          |                |             |          |
| WATER SUPPLY                                |                |             |          |
| DETAIL<br>OF<br>PIPE LAYING                 |                |             |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |                |             |          |
| CONSULTANTS                                 |                |             |          |
| APPROVED                                    | CHECKED        | DESIGNED    | DRAWING  |
| SCALE                                       |                | REV. NO.    |          |
| 1:50  |                |             |          |
| DATE  | DWG. NO. W-121 |             |          |
|   | 15             | 16          |          |

EXCAVATION WORKS SCALE = 1/100

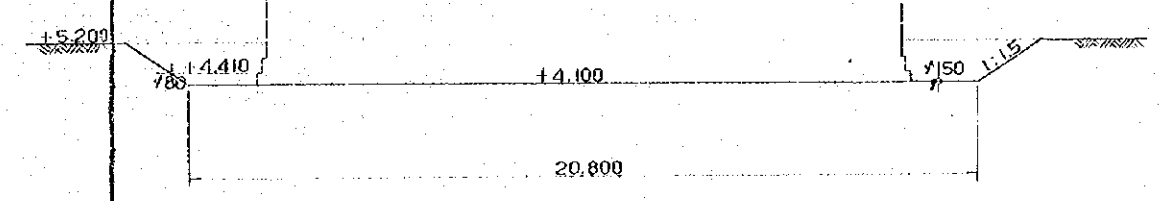
PLAN



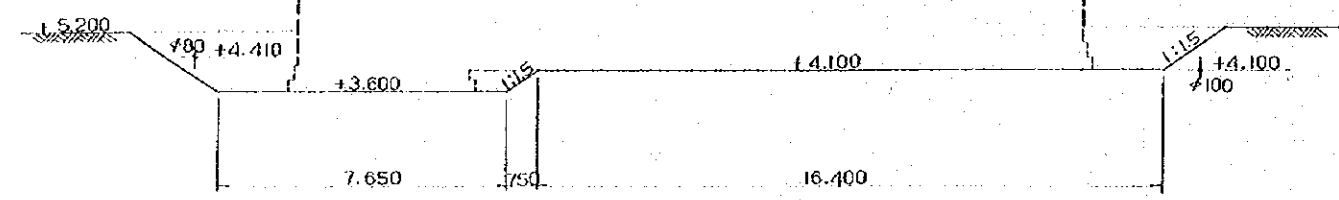
SECTION B-B



SECTION C-C



SECTION A-A

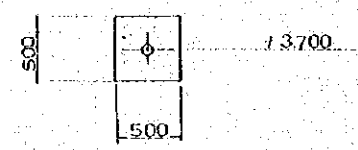
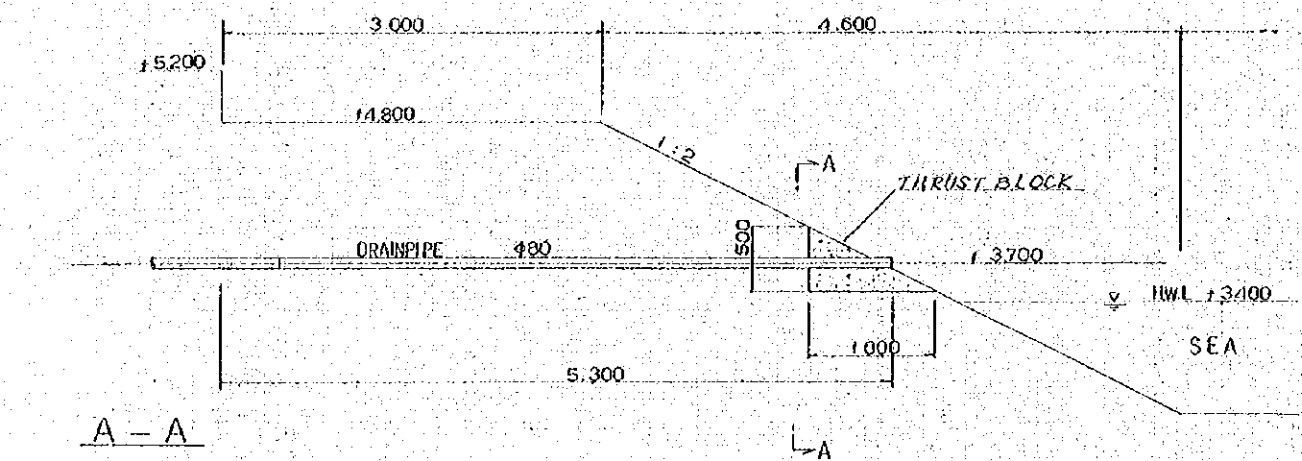


GENERAL NOTES

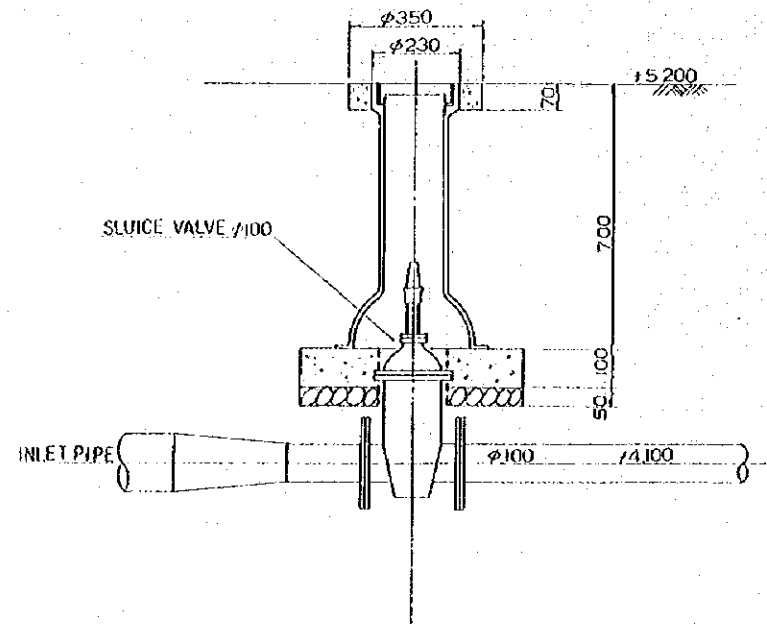
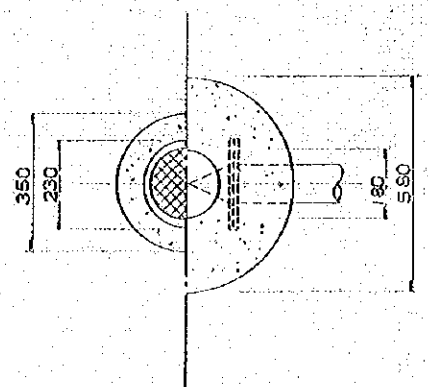
| NO.  | DATE    | DESCRIPTION    | APPROVED |
|--|---------|----------------|----------|
| REVISION   |         |                |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN                          |         |                |          |
| RELATED FACILITIES<br>WATER SUPPLY<br>STRUCTURAL<br>EXCAVATION WORKS |         |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY                               |         |                |          |
| APPROVED   | CHECKED | DESIGNED       | DRAWN    |
|  |         |                |          |
| SCALE<br>1:100   |         | REV. NO.       |          |
| DATE   |         | DWG. NO. W-122 |          |



OUTLET SCALE = 1/30

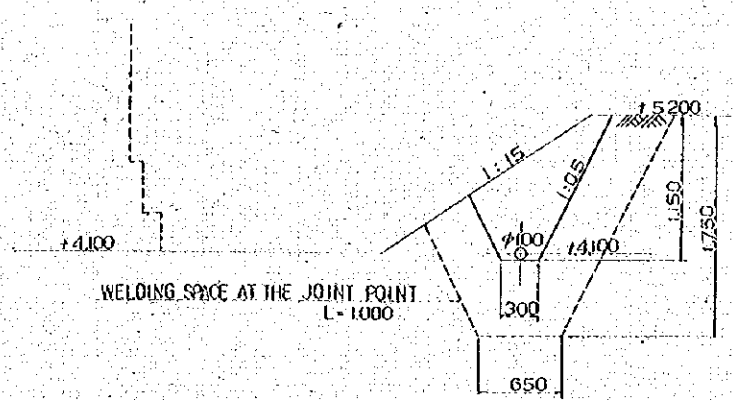


VALVE BOX SCALE = 1/10

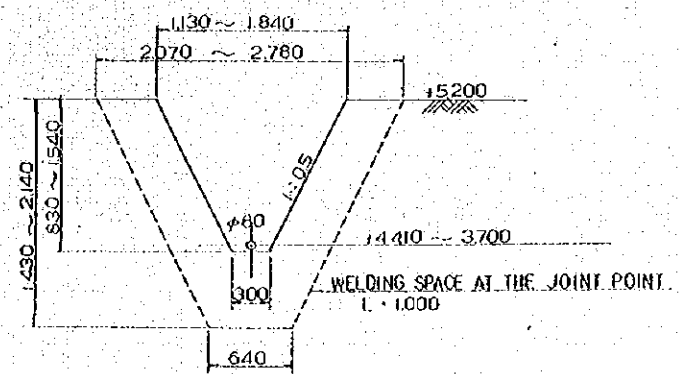


EXCAVATION WORKS SCALE = 1/30

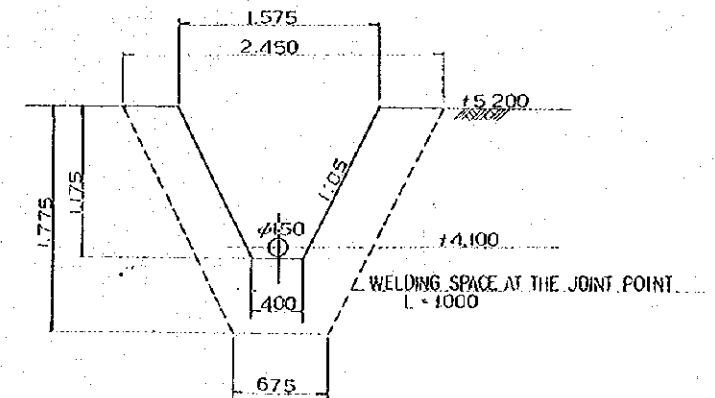
INLET PIPE



DRAIN PIPE

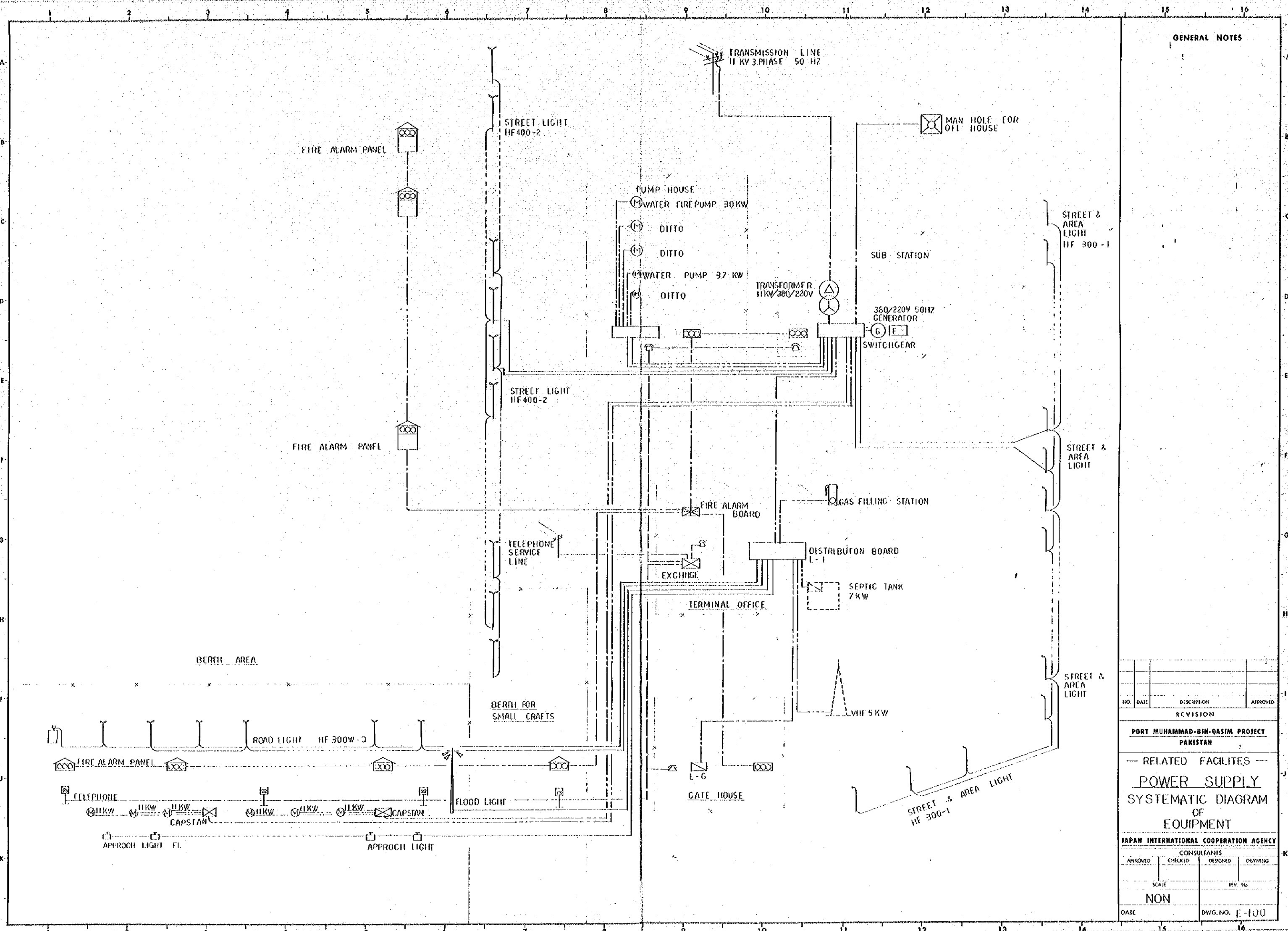


TRANSMISSION PIPE



GENERAL NOTES

| NO.   | DATE    | DESCRIPTION | APPROVED |
|---|---------|-------------|----------|
| REVISION  |         |             |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN       |         |             |          |
| RELATED FACILITIES                                |         |             |          |
| WATER SUPPLY                                      |         |             |          |
| EXCAVATION WORKS<br>FOR<br>PIPE LAYING AND OTHERS |         |             |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY            |         |             |          |
| CONSULTANTS                                       |         |             |          |
| DESIGNED  | CHECKED | DESIGNED    | DRAWN    |
| SCALE   |         |             |          |
| 1:50  |         |             |          |
| DATE  |         |             |          |
| DWG. NO. W-123                                    |         |             |          |

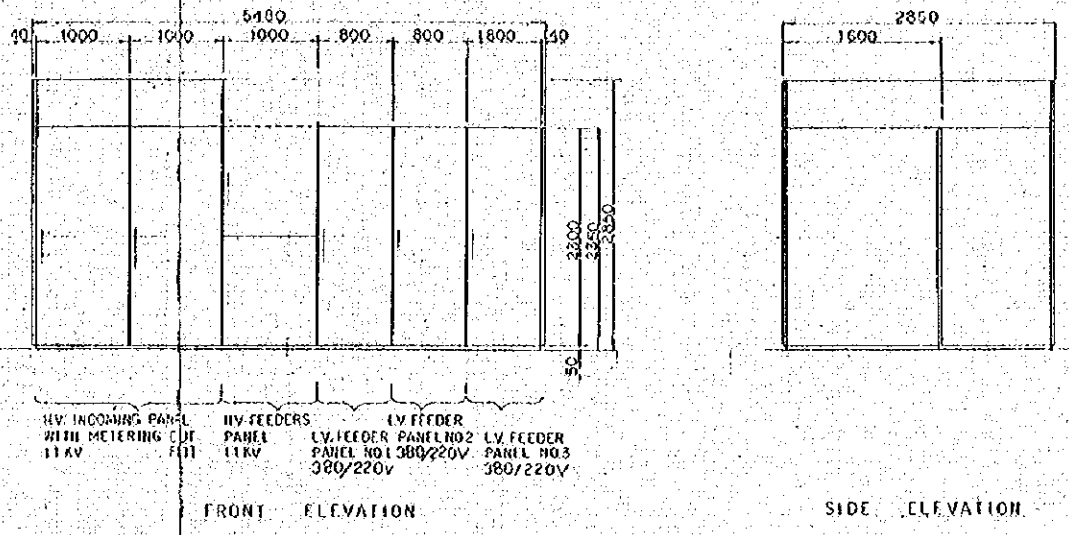
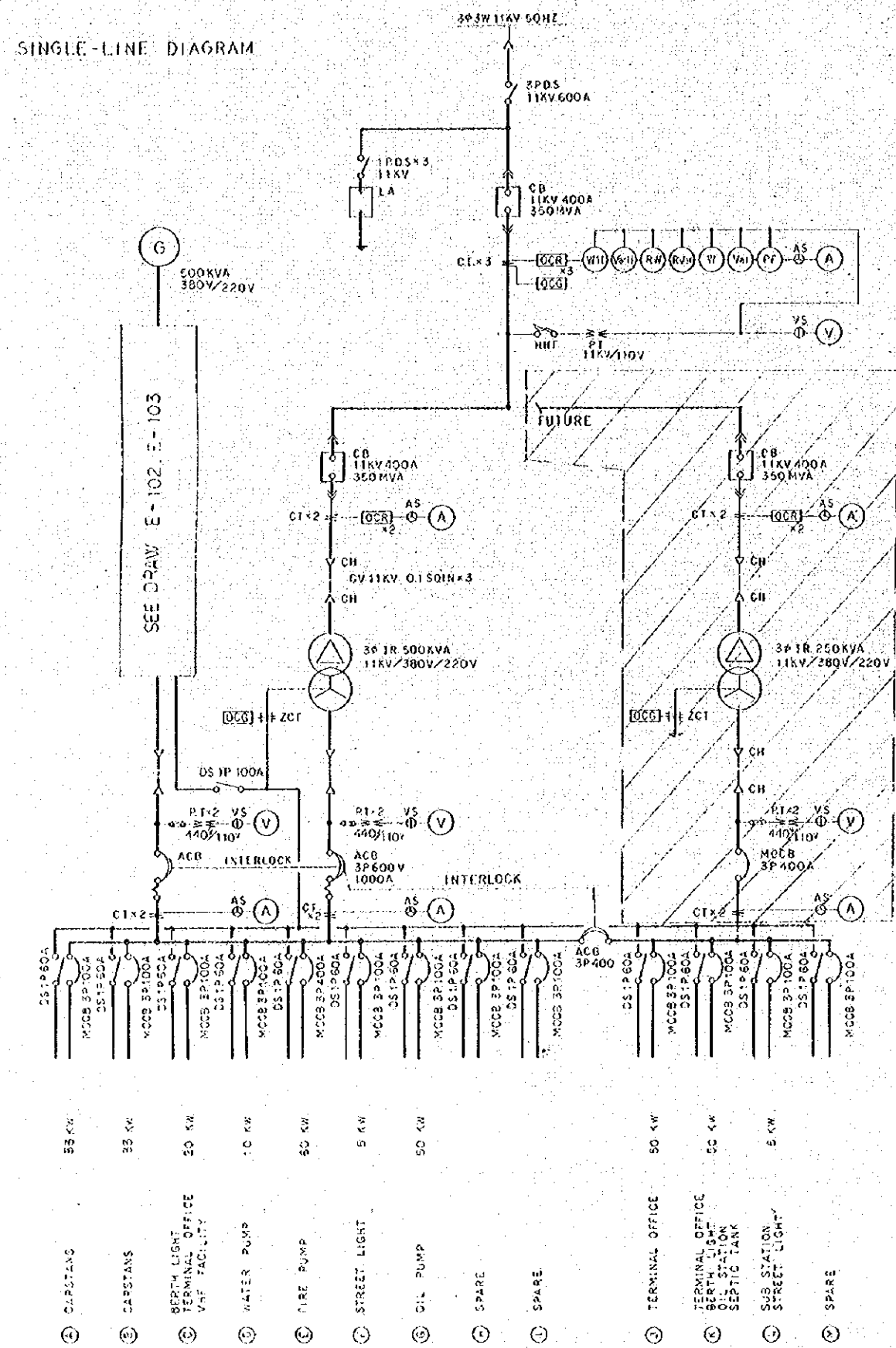


**GENERAL NOTES**

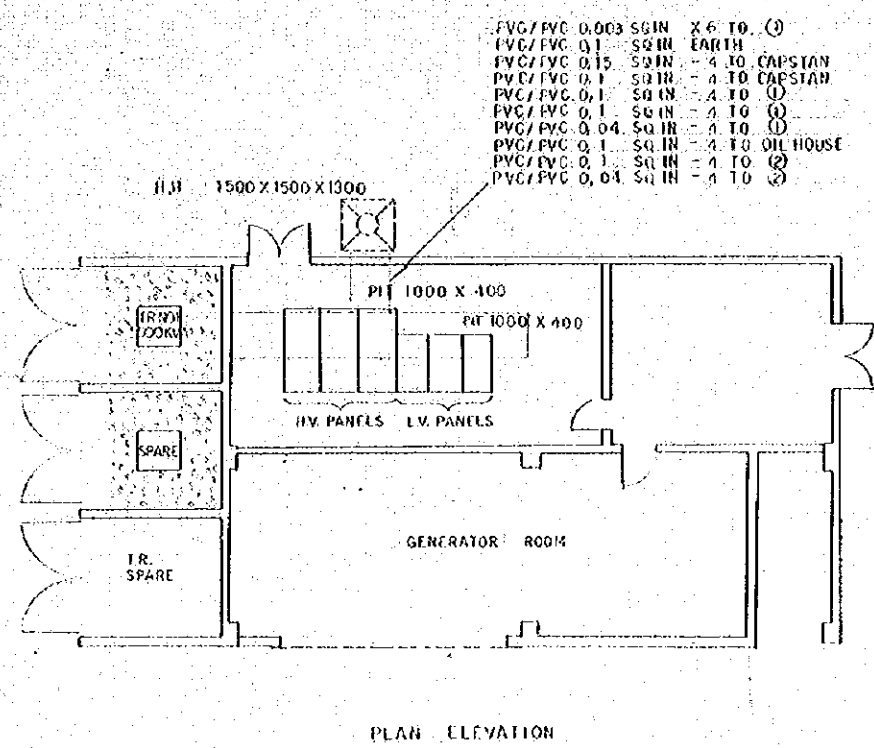
| NO.   | DATE           | DESCRIPTION | APPROVED |
|---|----------------|-------------|----------|
| REVISION  |                |             |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN                                     |                |             |          |
| — RELATED FACILITIES —<br>POWER SUPPLY<br>SYSTEMATIC DIAGRAM<br>OF<br>EQUIPMENT |                |             |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY  |                |             |          |
| CONSULTANTS   |                |             |          |
| APPROVED  | CHECKED        | DESIGNED    | DRAWING  |
| SCALE   |                | REV. NO.    |          |
| NON   |                |             |          |
| DATE  | DWG. NO. E-100 |             |          |

GENERAL NOTES

SINGLE-LINE DIAGRAM



ARRANGEMENT OF HV & LV SWITCHBOARDS SCALE 1/40

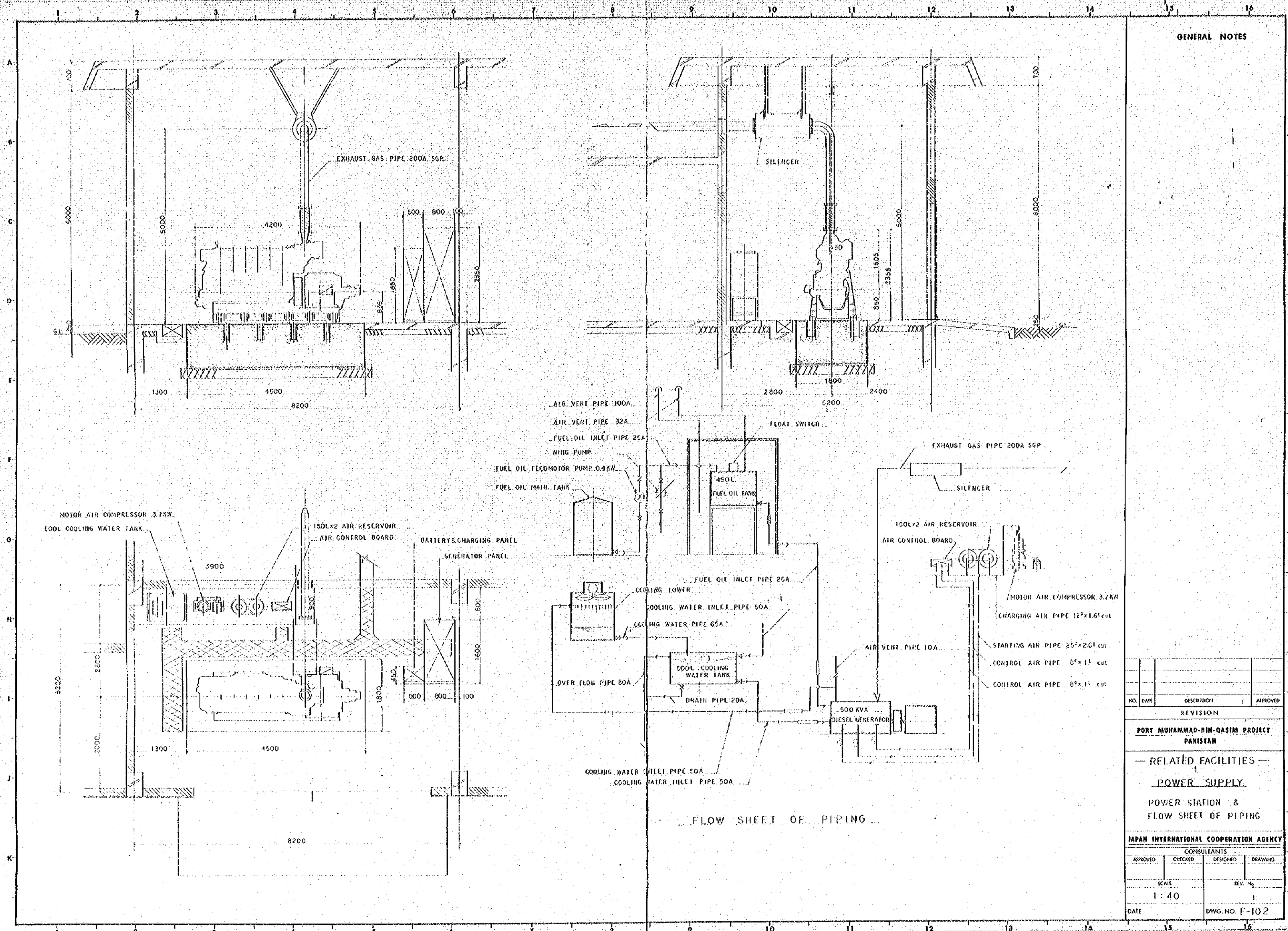


MAIN ELECTRICAL BUILDING SCALE 1/100

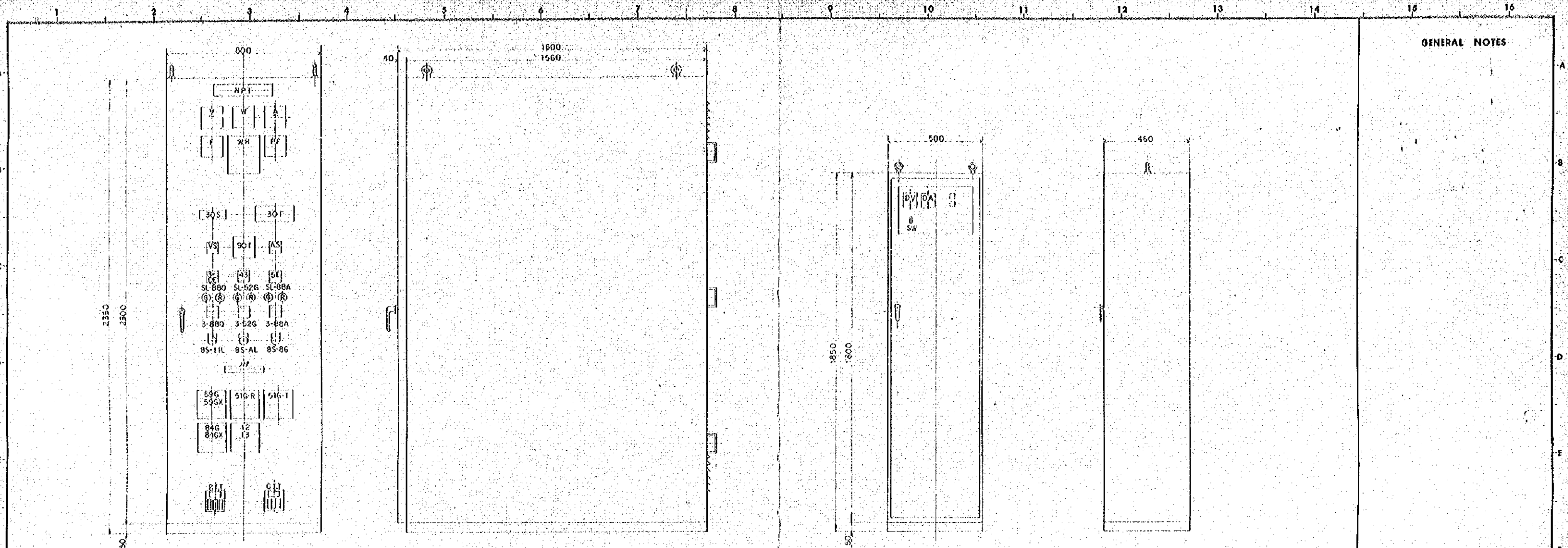
| NO.  | DATE           | DESCRIPTION | APPROVED |
|--|----------------|-------------|----------|
| REVISION   |                |             |          |
| PORT MUHAMMAD-BIH-QASIM PROJECT<br>PAKISTAN                  |                |             |          |
| -- RELATED FACILITIES --                                     |                |             |          |
| POWER SUPPLY   |                |             |          |
| SUB STATION &<br>SCHEMATIC DIAGRAM OF<br>POWER SUPPLY SYSTEM |                |             |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY                       |                |             |          |
| CONSULTANTS  |                |             |          |
| APPROVED   | CHECKED        | DESIGNED    | DRAWING  |
| SCALE  |                | REV. NO.    |          |
| 1:40, 1:100  |                |             |          |
| DATE   | DWG. NO. E-101 |             |          |



GENERAL NOTES

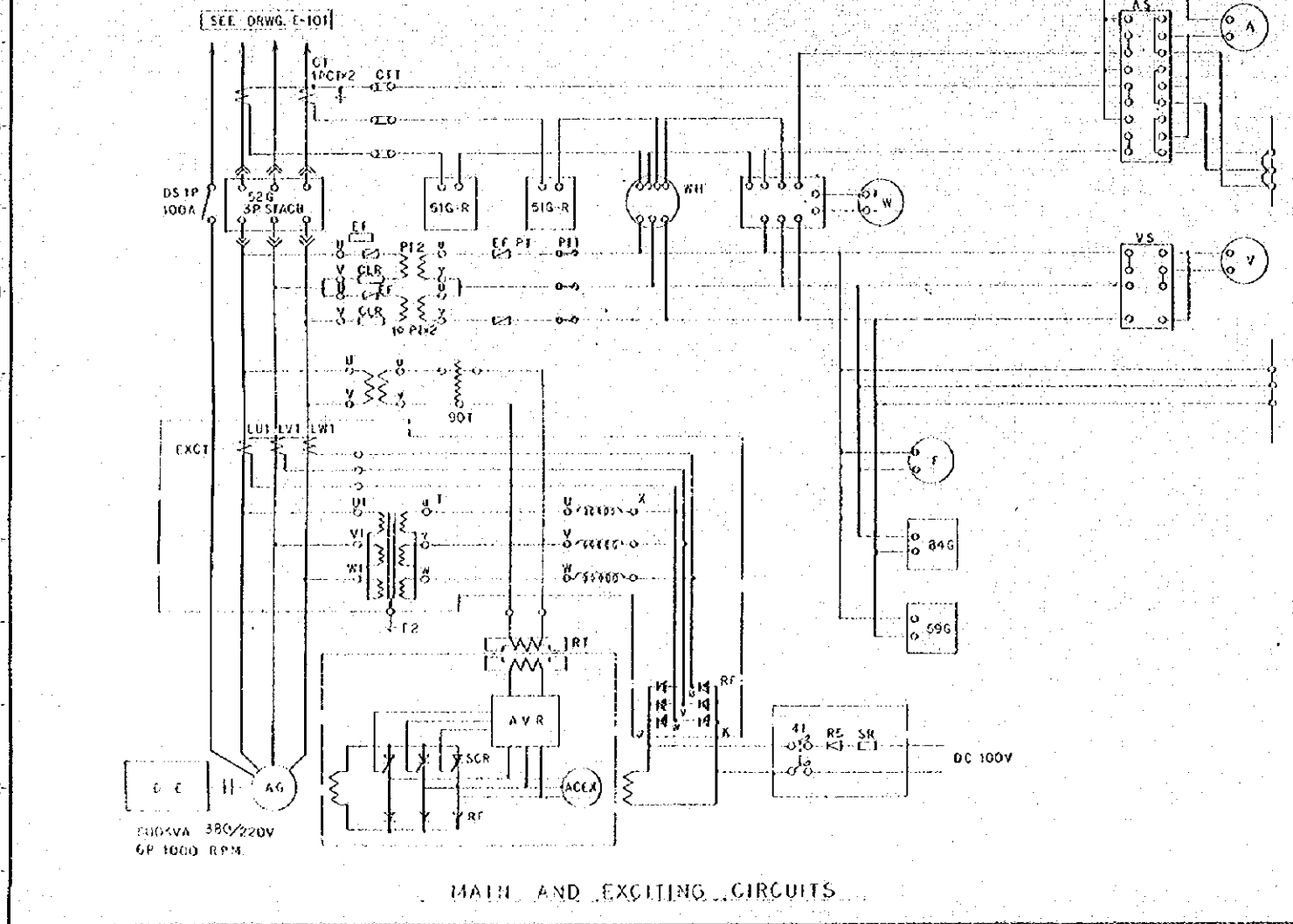


| NO.   | DATE    | DESCRIPTION    | APPROVED |
|---|---------|----------------|----------|
| REVISION                                    |         |                |          |
| PORT MUHAMMAD-BIH-QASIM PROJECT<br>PAKISTAN |         |                |          |
| — RELATED FACILITIES —                      |         |                |          |
| POWER SUPPLY                                |         |                |          |
| POWER STATION &<br>FLOW SHEET OF PIPING     |         |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |         |                |          |
| CONSULTANTS                                 |         |                |          |
| APPROVED                                    | CHECKED | DESIGNED       | DRAWING  |
|   |         |                |          |
| SCALE                                       |         | REV. No.       |          |
| 1:40  |         | 1              |          |
| DATE  |         | DWG. NO. E-102 |          |



GENERATOR PANEL OUT LINE

BATTERY & CHARGING PANEL



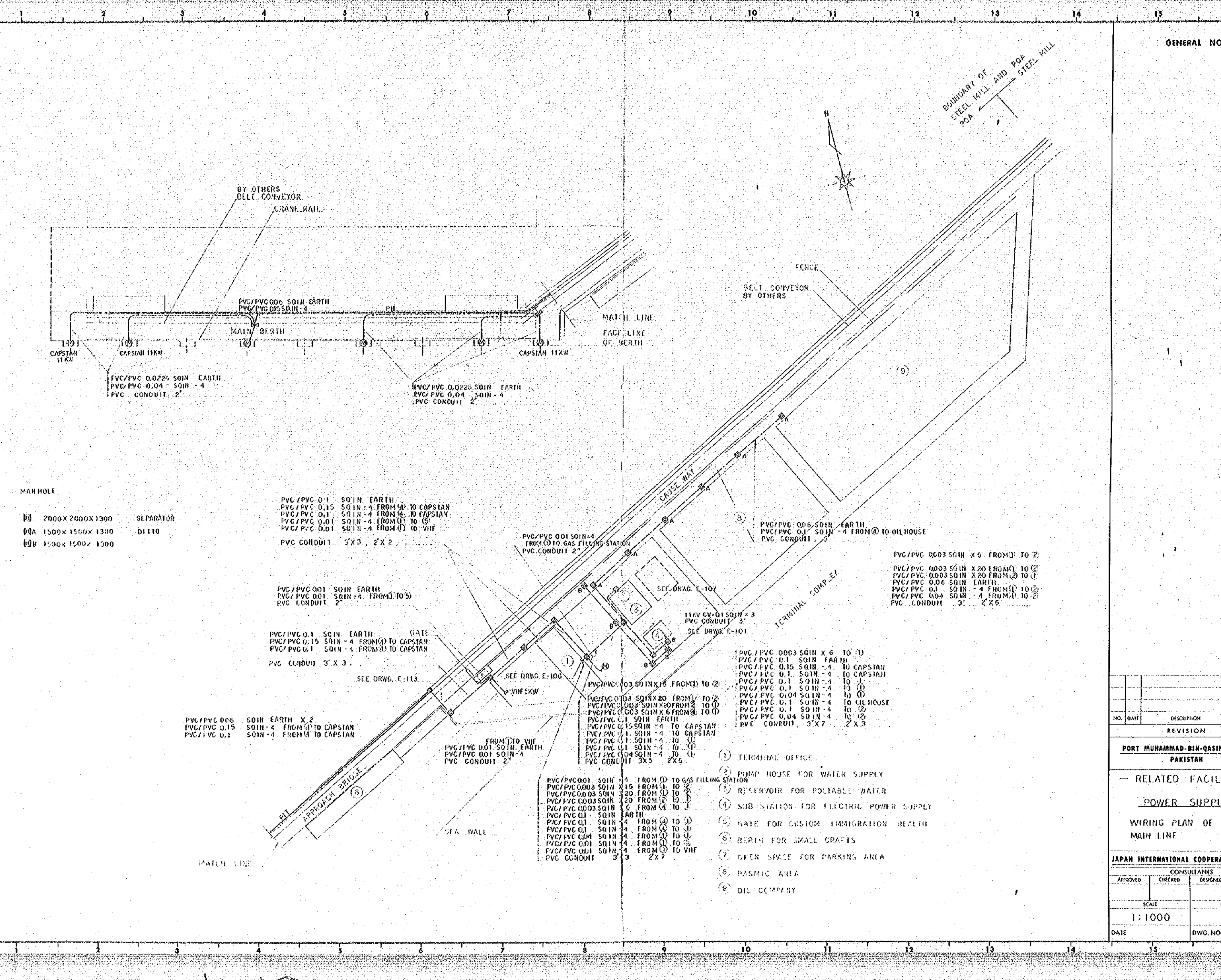
MAIN AND EXCITING CIRCUITS

GENERAL NOTES

| NO.   | DATE           | DESCRIPTION | APPROVED |
|---|----------------|-------------|----------|
| REVISION                                    |                |             |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN |                |             |          |
| — RELATED FACILITIES —                      |                |             |          |
| POWER SUPPLY                                |                |             |          |
| CONTROL SYSTEM OF<br>GENERATOR              |                |             |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |                |             |          |
| CONSULTANTS                                 |                |             |          |
| APPROVED                                    | CHECKED        | DESIGNED    | DRAWING  |
| SCALE                                       |                | REV. NO.    |          |
| 1:10  |                |             |          |
| DATE  | DWG. NO. E-103 |             |          |



GENERAL NOTES



MAN HOLE

|     |                    |           |
|-----|--------------------|-----------|
| 09  | 2000 X 2000 X 1300 | SEPARATOR |
| 00A | 1500 X 1500 X 1300 | 01110     |
| 00B | 1500 X 1500 X 1500 |           |

PVC/PVC 0.1 SOIN EARTH  
 PVC/PVC 0.15 SOIN -4 FROM (1) TO CAPSTAN  
 PVC/PVC 0.1 SOIN -4 FROM (1) TO CAPSTAN  
 PVC/PVC 0.01 SOIN -4 FROM (1) TO (5)  
 PVC/PVC 0.01 SOIN -4 FROM (1) TO VHF

PVC/PVC 0.01 SOIN EARTH  
 PVC/PVC 0.01 SOIN -4 FROM (1) TO (5)  
 PVC CONDUIT 2"

PVC/PVC 0.1 SOIN EARTH GATE  
 PVC/PVC 0.15 SOIN -4 FROM (5) TO CAPSTAN  
 PVC/PVC 0.1 SOIN -4 FROM (3) TO CAPSTAN  
 PVC CONDUIT 3" X 3"

PVC/PVC 0.06 SOIN EARTH X 2  
 PVC/PVC 0.15 SOIN -4 FROM (1) TO CAPSTAN  
 PVC/PVC 0.1 SOIN -4 FROM (1) TO CAPSTAN

PVC/PVC 0.01 SOIN -4 FROM (1) TO GAS FILLING STATION  
 PVC CONDUIT 2"

11KV CV-01 SOIN -4  
 PVC CONDUIT 3"

PVC/PVC 0.03 SOIN X 15 FROM (1) TO (2)  
 PVC/PVC 0.03 SOIN X 20 FROM (1) TO (2)  
 PVC/PVC 0.03 SOIN X 20 FROM (2) TO (1)  
 PVC/PVC 0.03 SOIN X 6 FROM (1) TO (1)  
 PVC/PVC 0.1 SOIN EARTH  
 PVC/PVC 0.15 SOIN -4 TO CAPSTAN  
 PVC/PVC 0.1 SOIN -4 TO (1)  
 PVC/PVC 0.1 SOIN -4 TO (1)  
 PVC/PVC 0.04 SOIN -4 TO (1)  
 PVC/PVC 0.1 SOIN -4 TO (2)  
 PVC/PVC 0.04 SOIN -4 TO (2)  
 PVC CONDUIT 3" X 7 2" X 3

PVC/PVC 0.01 SOIN -4 FROM (1) TO GAS FILLING STATION  
 PVC/PVC 0.03 SOIN X 15 FROM (1) TO (2)  
 PVC/PVC 0.03 SOIN X 20 FROM (1) TO (2)  
 PVC/PVC 0.03 SOIN X 20 FROM (2) TO (1)  
 PVC/PVC 0.03 SOIN X 6 FROM (1) TO (1)  
 PVC/PVC 0.1 SOIN EARTH  
 PVC/PVC 0.15 SOIN -4 TO CAPSTAN  
 PVC/PVC 0.1 SOIN -4 TO (1)  
 PVC/PVC 0.1 SOIN -4 TO (1)  
 PVC/PVC 0.04 SOIN -4 TO (1)  
 PVC/PVC 0.1 SOIN -4 TO (2)  
 PVC/PVC 0.04 SOIN -4 TO (2)  
 PVC CONDUIT 3" X 5 2" X 5

PVC/PVC 0.003 SOIN X 6 TO (1)  
 PVC/PVC 0.1 SOIN EARTH  
 PVC/PVC 0.15 SOIN -4 TO CAPSTAN  
 PVC/PVC 0.1 SOIN -4 TO CAPSTAN  
 PVC/PVC 0.1 SOIN -4 TO (1)  
 PVC/PVC 0.1 SOIN -4 TO (1)  
 PVC/PVC 0.04 SOIN -4 TO (1)  
 PVC/PVC 0.1 SOIN -4 TO (1)  
 PVC/PVC 0.04 SOIN -4 TO (1)  
 PVC CONDUIT 3" X 7 2" X 3

PVC/PVC 0.06 SOIN -4 EARTH  
 PVC/PVC 0.1 SOIN -4 FROM (1) TO OIL HOUSE  
 PVC CONDUIT 2"

- ① TERMINAL OFFICE
- ② PUMP HOUSE FOR WATER SUPPLY
- ③ RESERVOIR FOR PORTABLE WATER
- ④ SUB STATION FOR ELECTRIC POWER SUPPLY
- ⑤ GATE FOR CUSTOM IMMIGRATION HEALTH
- ⑥ BERTH FOR SMALL CRAFTS
- ⑦ GREEN SPACE FOR PARKING AREA
- ⑧ PASTIC AREA
- ⑨ OIL COMPANY

| NO. | DATE | DESCRIPTION | APPROVED |
|-----|------|-------------|----------|
|     |      |             |          |
|     |      |             |          |

REVISION

PORT MUHAMMAD-BIN-QASIM PROJECT  
 PAKISTAN

RELATED FACILITIES

POWER SUPPLY

WIRING PLAN OF  
 MAIN LINE

JAPAN INTERNATIONAL COOPERATION AGENCY

| CONSULTANTS |         |          |         |
|-------------|---------|----------|---------|
| APPROVED    | CHECKED | DESIGNED | DRAWING |
|             |         |          |         |
|             |         |          |         |

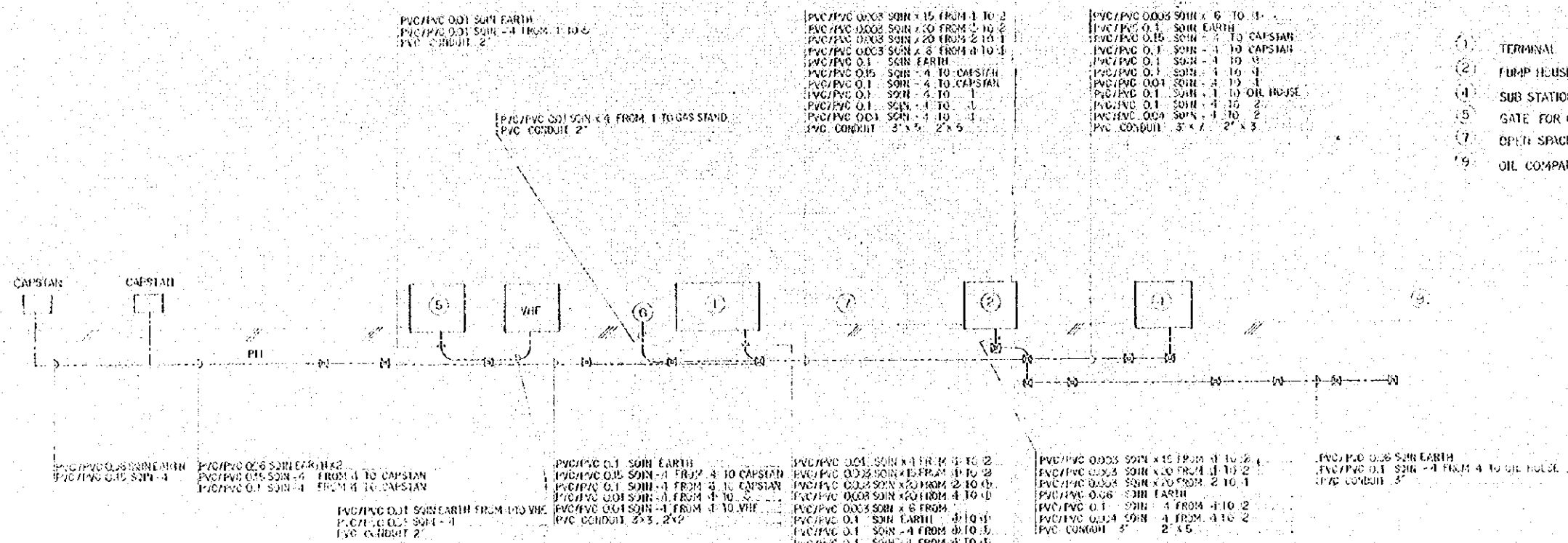
SCALE 1:1000

DATE                      DWG. NO. E-104



GENERAL NOTES

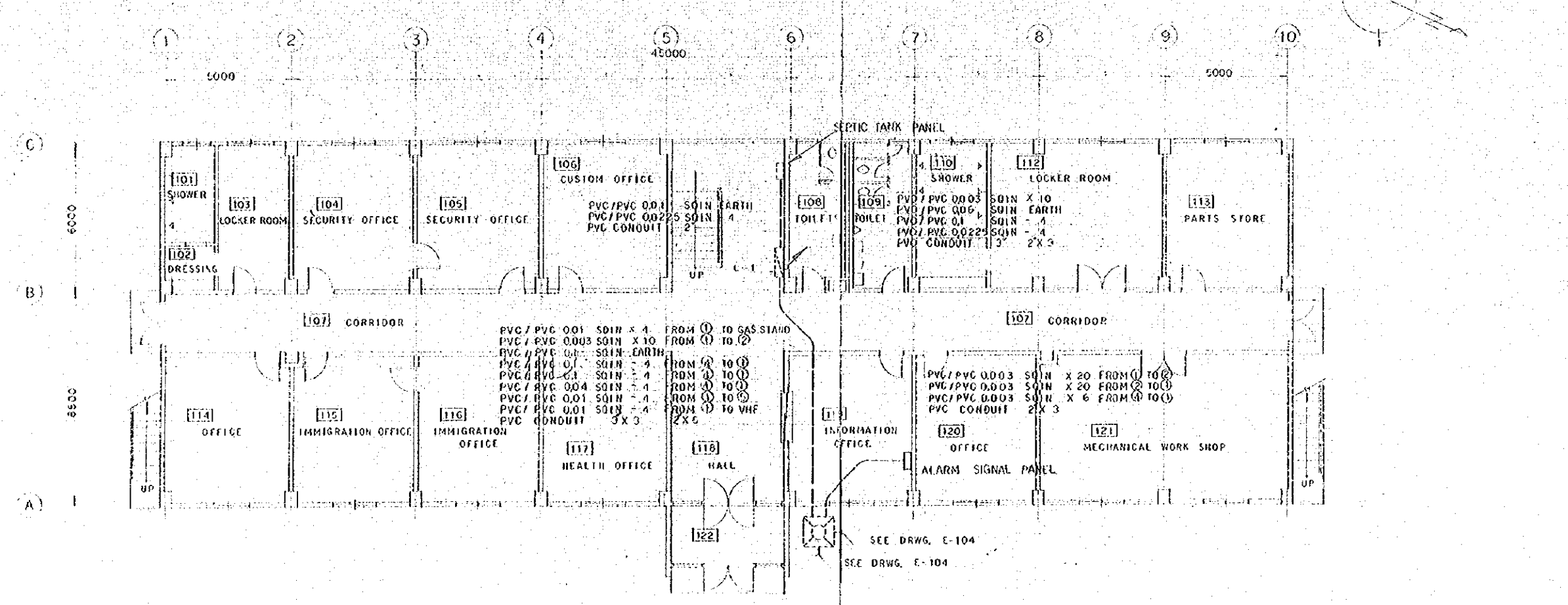
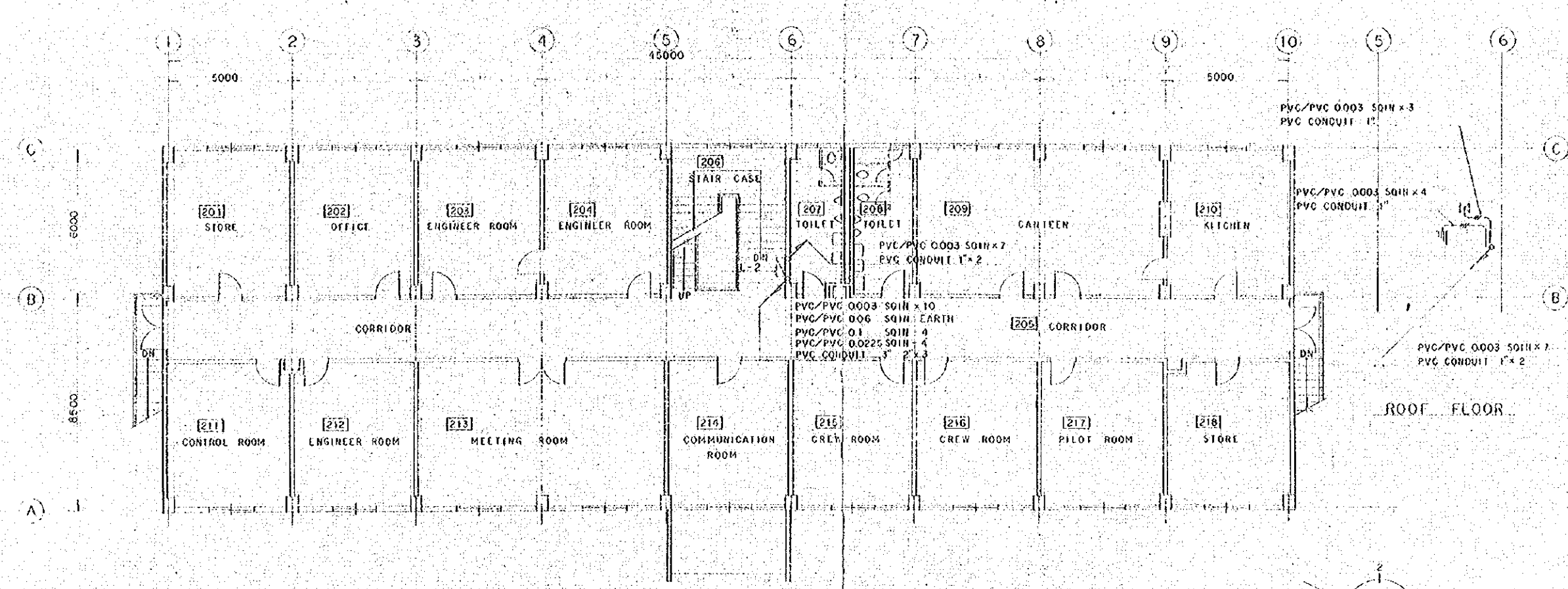
- (1) TERMINAL OFFICE
- (2) PUMP HOUSE FOR WATER SUPPLY
- (3) SUB STATION FOR ELECTRIC POWER SUPPLY
- (4) GATE FOR CUSTOM IMMIGRATION HEALTH
- (5) OPEN SPACE FOR PARKING AREA
- (9) OIL COMPANY



SCHEMATIC DIAGRAM

| NO.   | DATE    | DESCRIPTION    | APPROVED |
|---|---------|----------------|----------|
| REVISION  |         |                |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN                             |         |                |          |
| RELATED FACILITIES<br>POWER SUPPLY<br>SCHEMATIC DIAGRAM<br>OF MAIN LINE |         |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY<br>CONSULTANTS                   |         |                |          |
| APPROVED  | CHECKED | DESIGNED       | DRAWING  |
| SCALE<br>NON  |         | REV. NO.       |          |
| DATE  |         | DWG. NO. E-105 |          |

GENERAL NOTES

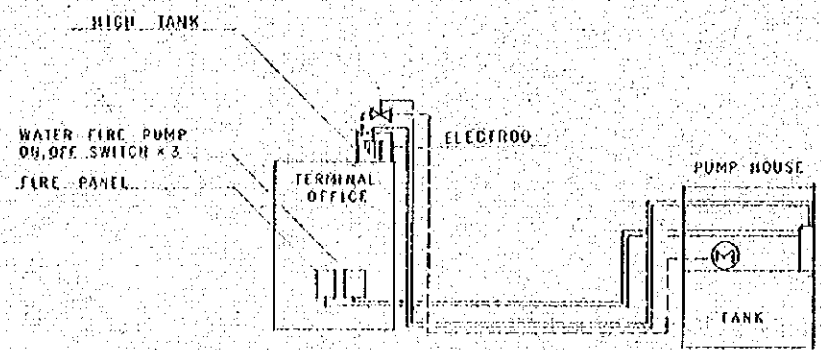


| NO.                                      | DATE           | DESCRIPTION | APPROVED |
|--|----------------|-------------|----------|
| REVISION                                 |                |             |          |
| <b>PORT MUHAMMAD-BIN-QASIM PROJECT</b>   |                |             |          |
| <b>PAKISTAN</b>                          |                |             |          |
| -- RELATED FACILITIES --                 |                |             |          |
| POWER SUPPLY                             |                |             |          |
| MAIN LINE WIRING PLAN OF TERMINAL OFFICE |                |             |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY   |                |             |          |
| CONSULTANTS                              |                |             |          |
| APPROVED                                 | CHECKED        | DESIGNED    | DRAWING  |
| SCALE                                    |                | REV. NO.    |          |
| 1:100                                    |                |             |          |
| DATE                                     | DWG. NO. E-106 |             |          |

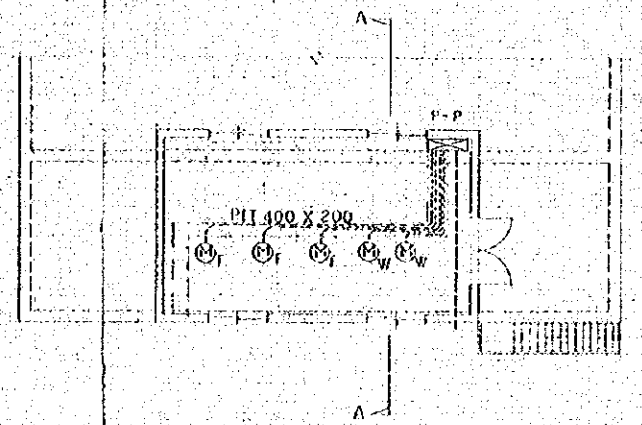


GENERAL NOTES

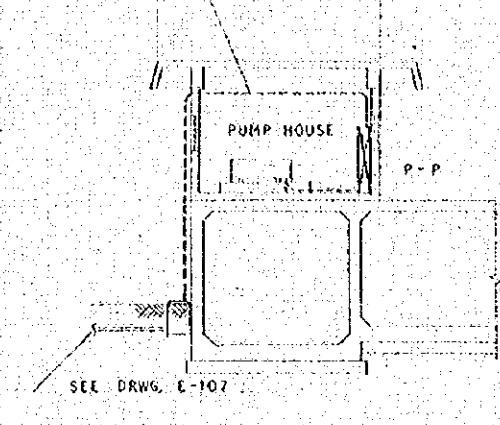
PVC/PVC 0003 SQIN X 13 FROM ① TO ②  
 PVC/PVC 0003 SQIN X 20 FROM ① TO ②  
 PVC/PVC 0003 SQIN X 20 FROM ② TO ①  
 PVC/PVC 006 SQIN EARTH  
 PVC/PVC 0.1 SQIN - 4 FROM ④ TO ③  
 PVC/PVC 0.04 SQIN - 1 FROM ④ TO ③  
 PVC CONDUIT 3" 2" X 5"



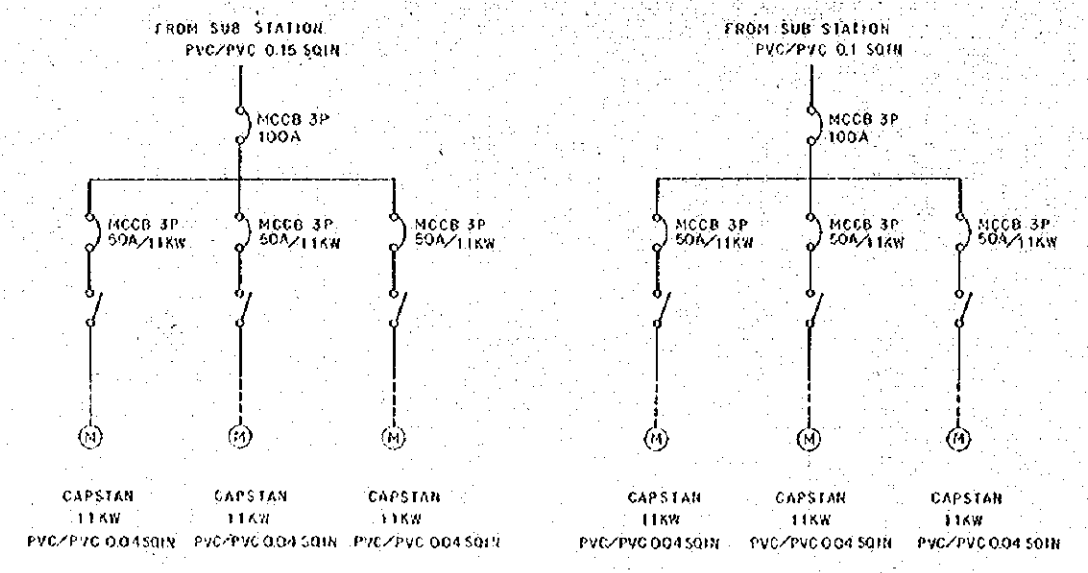
CONTROL SYSTEM



PUMP HOUSE SCALE 1/100



A-A SECTION SCALE 1/100



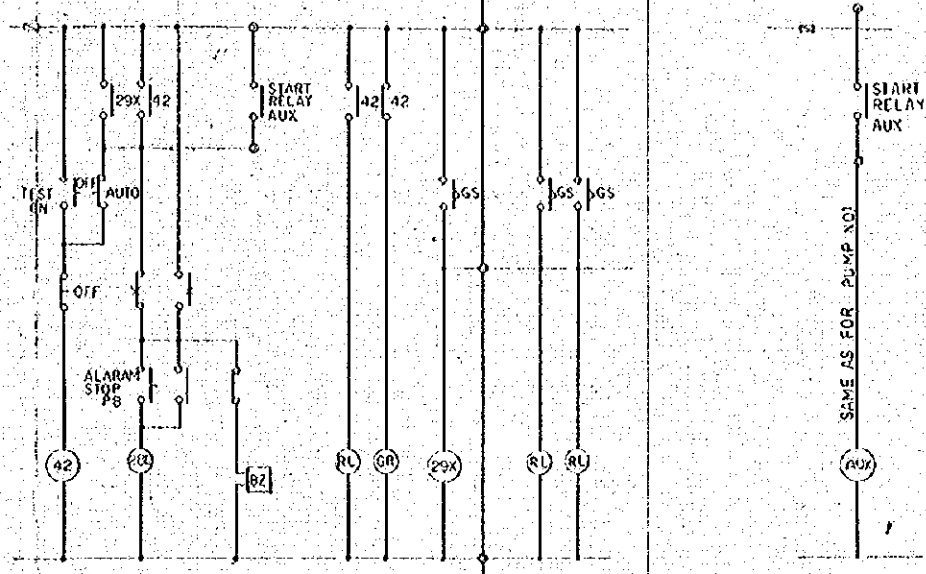
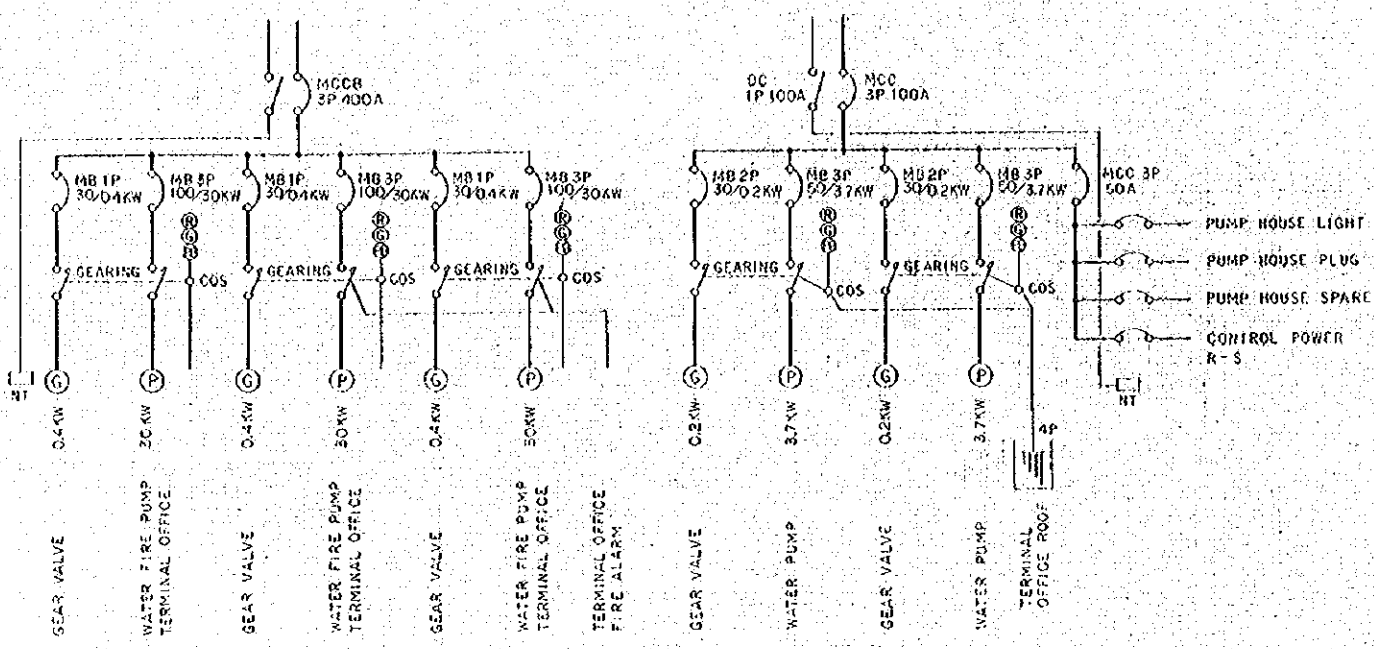
CAPSTAN BOARD

- Ⓜ<sub>F</sub> WATER FIRE PUMP  
 30 KW 0.4 KW  
 380 V 220 V  
 53 A  
 PVC/PVC 0.06 SQIN - 4  
 PVC/PVC 0.022 SQIN EARTH  
 PVC/PVC 0.007 SQIN X 3 VALVE OPEN CLOSE
- Ⓜ<sub>W</sub> WATER PUMP  
 3.7 KW 0.2 KW  
 380 V 220 V  
 7 A  
 PVC/PVC 0.01 SQIN - 4  
 PVC/PVC 0.01 SQIN EARTH  
 PVC/PVC 0.007 SQIN X 3 VALVE OPEN CLOSE

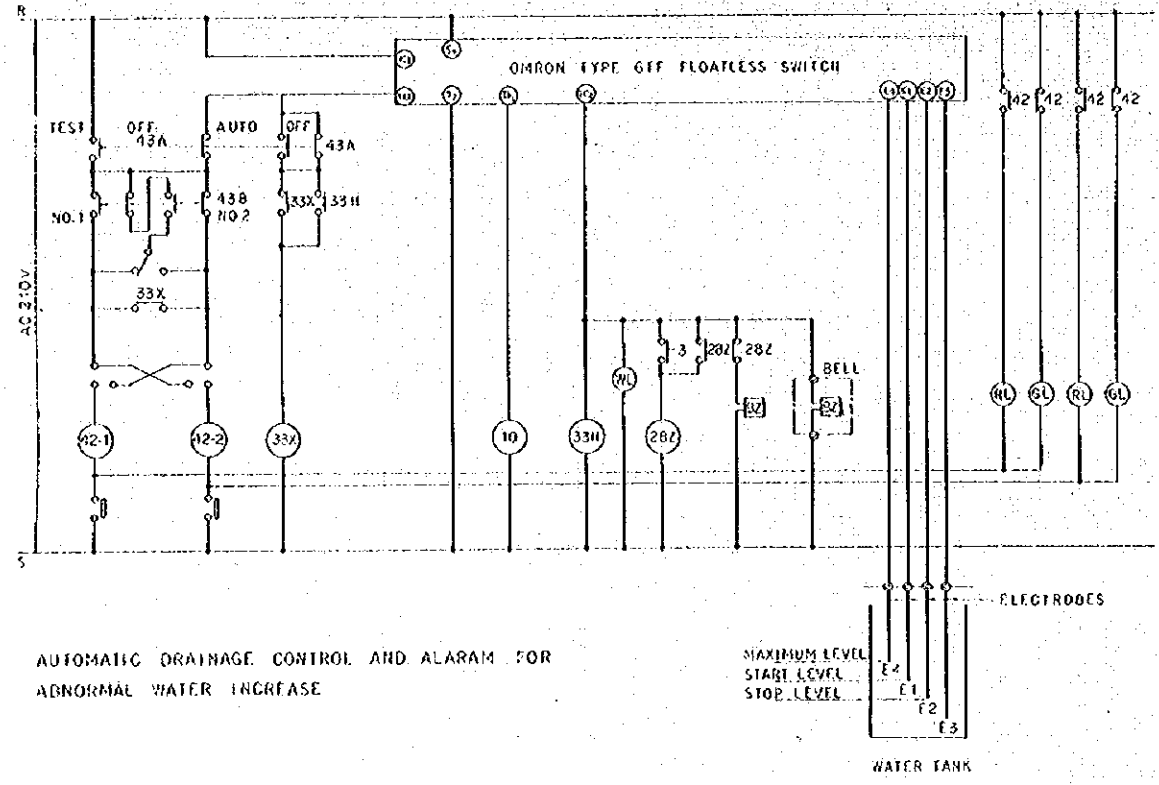
| NO.   | DATE           | DESCRIPTION | APPROVED |
|---|----------------|-------------|----------|
| REVISION                                    |                |             |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN |                |             |          |
| - RELATED FACILITIES -                      |                |             |          |
| POWER SUPPLY                                |                |             |          |
| MAIN LINE WIRING PLAN<br>OF PUMP HOUSE      |                |             |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |                |             |          |
| CONSULTANTS                                 |                |             |          |
| APPROVED                                    | CHECKED        | DESIGNED    | DRAWING  |
|   |                |             |          |
| SCALE                                       |                | REV. No.    |          |
| 1:100                                       |                |             |          |
| DATE  | DWG. NO. E-107 |             |          |



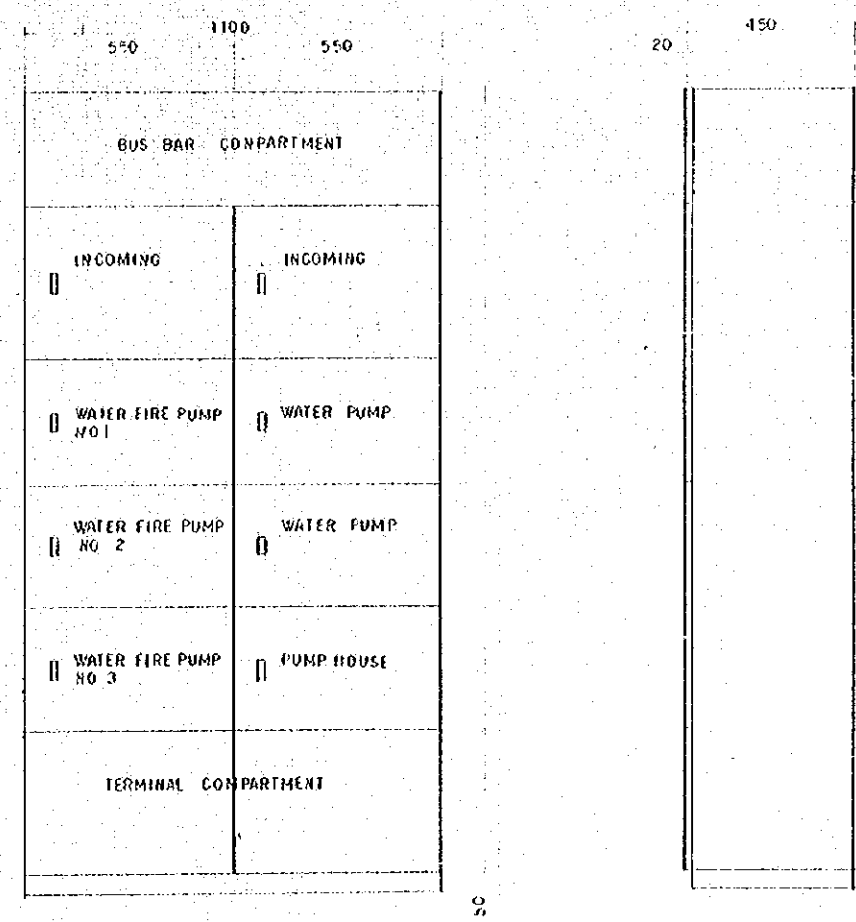
GENERAL NOTES



NO 1 WATER FIRE PUMP NO 2 WATER FIRE PUMP



AUTOMATIC DRAINAGE CONTROL AND ALARM FOR ABNORMAL WATER INCREASE



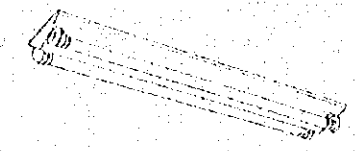
FRONT ELEVATION SIDE ELEVATION

| NO.   | DATE     | DESCRIPTION    | ASSIGNED |
|---|----------|----------------|----------|
| REVISION                                    |          |                |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN |          |                |          |
| — RELATED FACILITIES —                      |          |                |          |
| POWER SUPPLY                                |          |                |          |
| CONTROL SYSTEM OF PUMPS                     |          |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |          |                |          |
| APPROVED                                    |          | CONSULTANTS    |          |
| CHECKED                                     | DESIGNED | DRAWING        | REV. No. |
| SCALE                                       |          | NON            |          |
| DATE  |          | DWG. NO. E-108 |          |

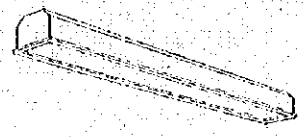
GENERAL NOTES

ROAD LIGHTS H-2 ON THE BERTH SHALL BE DETERMINED OF SUCH HEIGHT AND LOCATION AS NOT TO INTERFERE THE OPERATION OF UNLOADERS

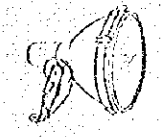
A 1 FL 40-1  
A 2 FL 40-2



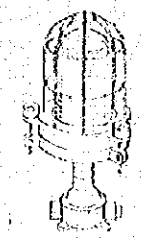
D FL 40-1



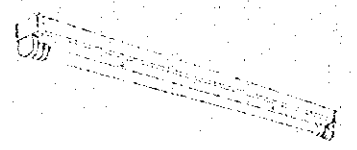
G Sodium Vapor Lamp 1000W



J



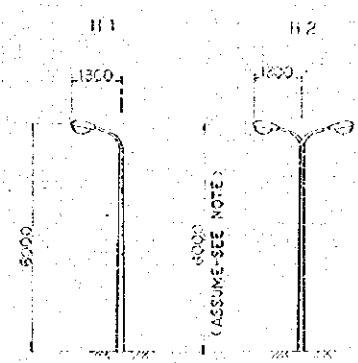
B FL 40-1



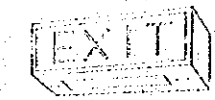
E FL 10-1



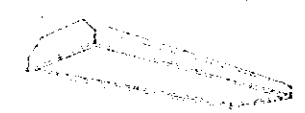
H H1 HF 300W-1  
H2 HF 300W-1x2



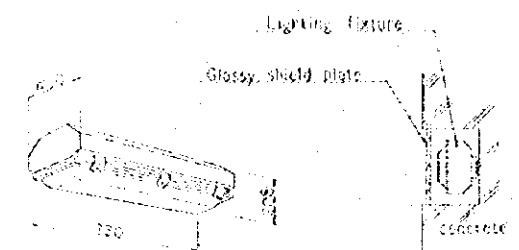
K FL 10-1



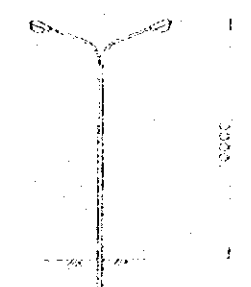
C FL 40-4



F FL 20-2



I HF 400W-2



| NO.      | DATE | DESCRIPTION | APPROVED |
|----------|------|-------------|----------|
| REVISION |      |             |          |

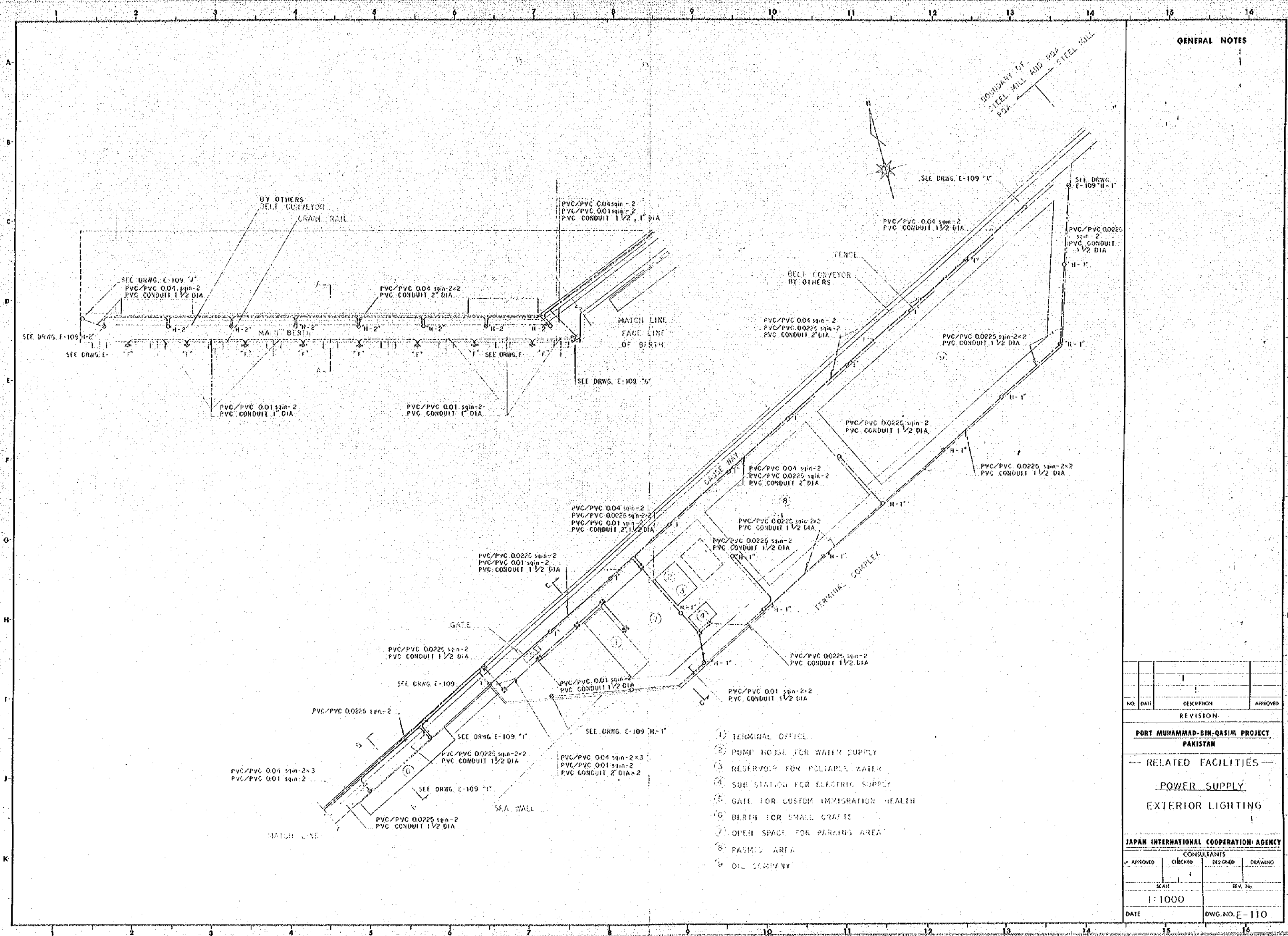
PORT MUHAMMAD-BIN-QASIM PROJECT  
PAKISTAN

— RELATED FACILITIES —

POWER SUPPLY  
LIGHTING FIXTURE

JAPAN INTERNATIONAL COOPERATION AGENCY

| CONSULTANTS |                |          |         |
|-------------|----------------|----------|---------|
| APPROVED    | CHECKED        | DESIGNED | DRAWING |
|             |                |          |         |
| SCALE       |                | REV. NO. |         |
| NON         |                |          |         |
| DATE        | DWG. NO. E-109 |          |         |



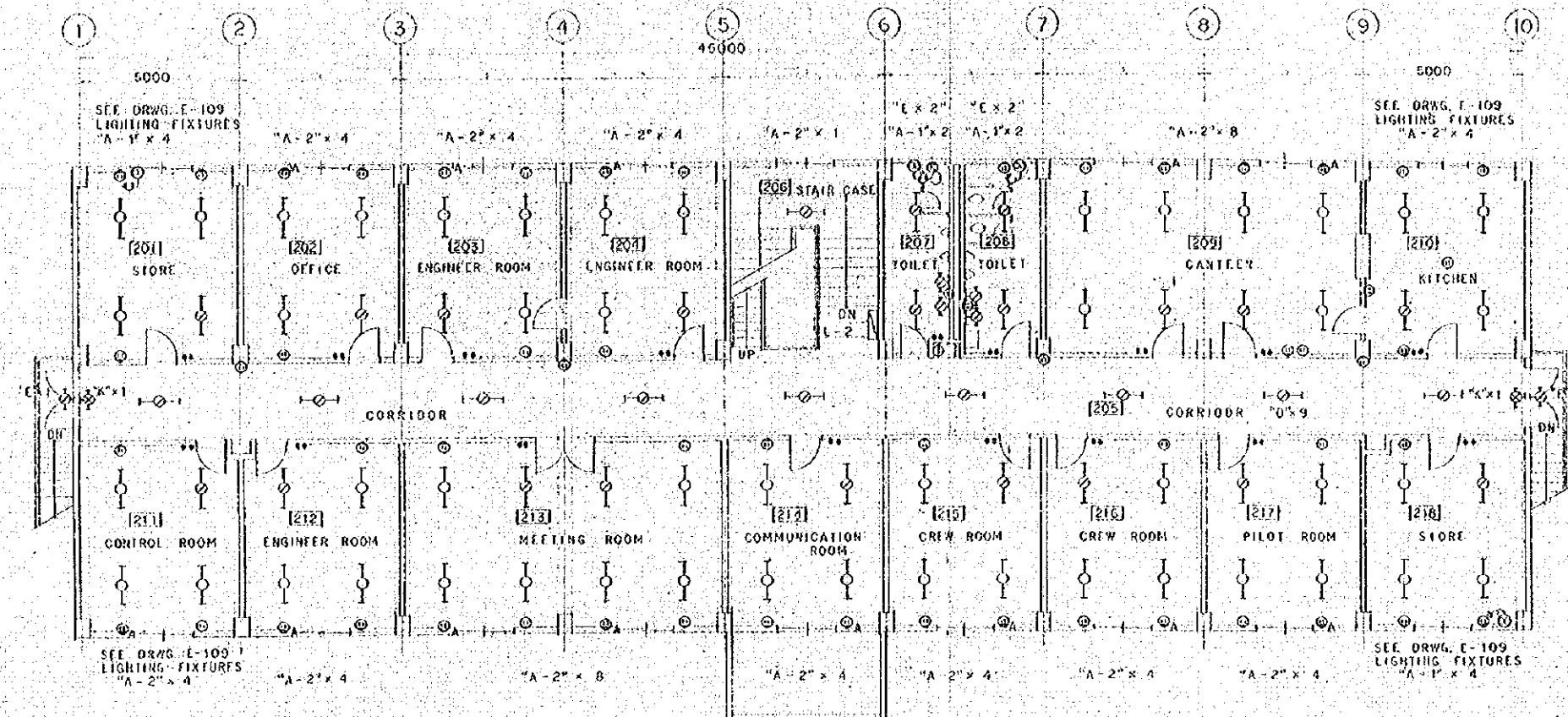
**GENERAL NOTES**

- 1) TERMINAL OFFICE
- 2) PUMP HOUSE FOR WATER SUPPLY
- 3) RESERVOIR FOR POTABLE WATER
- 4) SUB STATION FOR ELECTRIC SUPPLY
- 5) GATE FOR CUSTOM IMMIGRATION HEALTH
- 6) BERTH FOR SMALL CRAFT
- 7) OPEN SPACE FOR PARKING AREA
- 8) PARKING AREA
- 9) OIL COMPANY

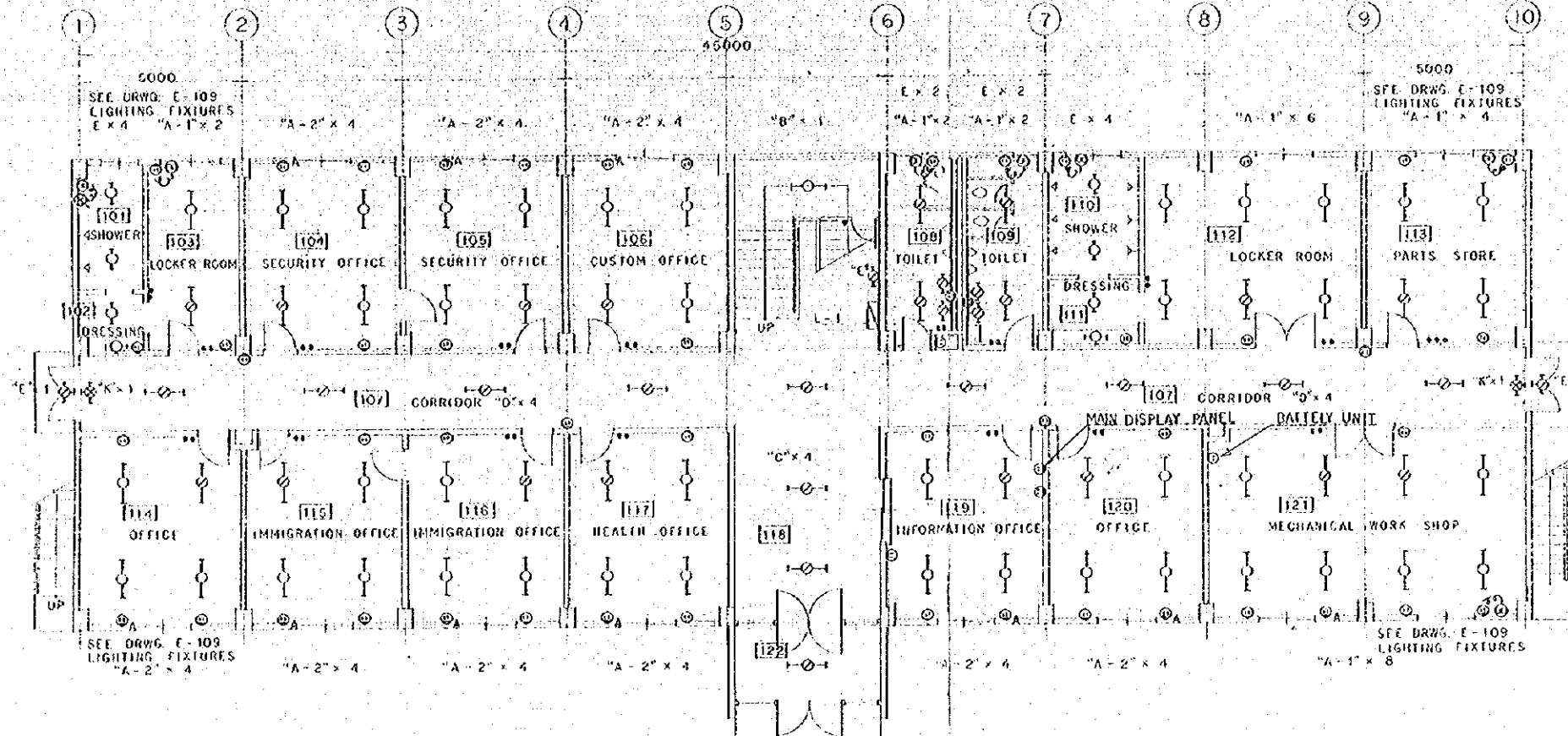
| NO.   | DATE    | DESCRIPTION    | APPROVED |
|---|---------|----------------|----------|
| REVISION                                    |         |                |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN |         |                |          |
| — RELATED FACILITIES —                      |         |                |          |
| POWER SUPPLY<br>EXTERIOR LIGHTING           |         |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |         |                |          |
| CONSULTANTS                                 |         | DRAWING        |          |
| APPROVED                                    | CHECKED | DESIGNED       | DRAWING  |
| SCALE                                       |         | REV. No.       |          |
| 1:1000                                      |         | DWG. NO. E-110 |          |
| DATE  |         |                |          |



GENERAL NOTES



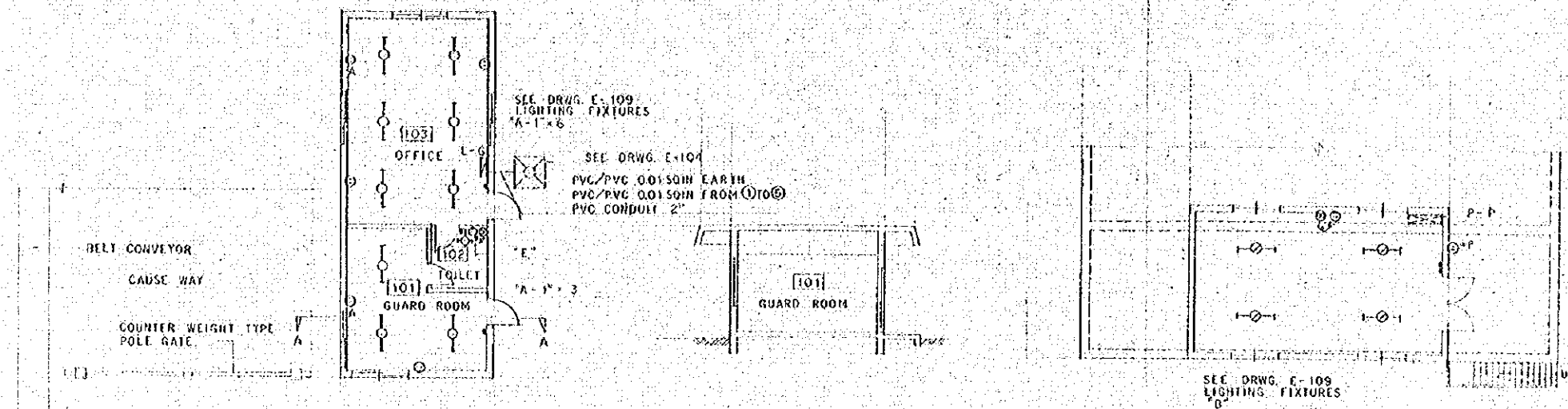
TERMINAL OFFICE FIRST FLOOR SCALE 1/100



TERMINAL OFFICE GROUND FLOOR SCALE 1/100

| NO.  | DATE           | DESCRIPTION | APPROVED |
|--|----------------|-------------|----------|
| REVISION                                     |                |             |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN  |                |             |          |
| — RELATED FACILITIES —                       |                |             |          |
| POWER SUPPLY                                 |                |             |          |
| LIGHTING & PLUG SYSTEM<br>OF TERMINAL OFFICE |                |             |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY       |                |             |          |
| CONSULTANTS                                  |                |             |          |
| APPROVED                                     | CHECKED        | DESIGNED    | DRAWING  |
| SCALE  |                | REV. No.    |          |
| 1:100  |                |             |          |
| DATE   | DWG. NO. E-112 |             |          |

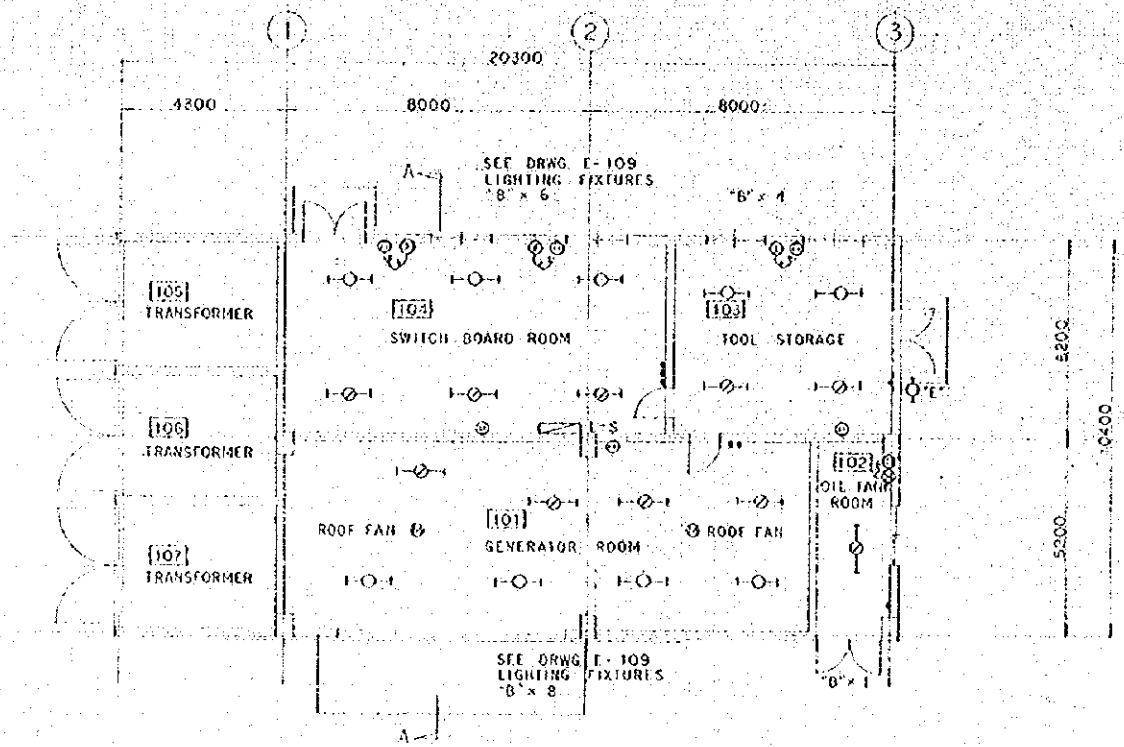
GENERAL NOTES



GATE HOUSE SCALE 1/100

A-A SECTION SCALE 1/100

PUMP HOUSE SCALE 1/100



SUB STATION SCALE 1/100

| SYMBOL | DESCRIPTION   |
|--------|---|
|        | DISTRIBUTION BOARD  |
|        | FLUORESCENT LIGHT SUPPLIED BY MAINS POWER, CEILING MOUNTING         |
|        | FLUORESCENT LIGHT SUPPLIED BY MAINS/STANDBY POWER, CEILING MOUNTING |
|        | FLUORESCENT LIGHT SUPPLIED BY MAINS POWER, WALL MOUNTING            |
|        | FLUORESCENT LIGHT SUPPLIED BY MAINS/STANDBY POWER, WALL MOUNTING    |
|        | EXTERIOR TYPE MERCURY ARC LAMP SUPPLIED BY MAIN POWER               |
|        | EXTERIOR TYPE MERCURY ARC LAMP SUPPLIED BY MAIN/STANDBY POWER       |
|        | FLOOD LIGHT FOR BERTH DITTO   |
|        | PLUG SOCKET 13A   |
|        | DITTO FOR AIR CONDITION   |
|        | LOCAL SWITCH  |
|        | EXHAUST FAN (SUPPLIED & INSTALLED BY OTHERS)                        |

| NO.      | DATE | DESCRIPTION | APPROVED |
|----------|------|-------------|----------|
| REVISION |      |             |          |

PORT MUHAMMAD-BIN-QASIM PROJECT  
PAKISTAN

RELATED FACILITIES

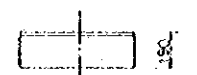
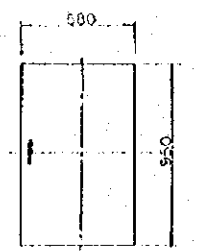
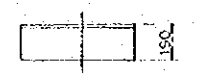
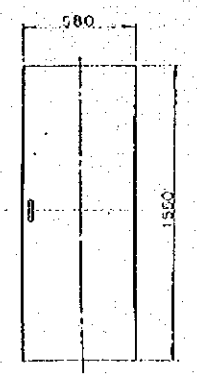
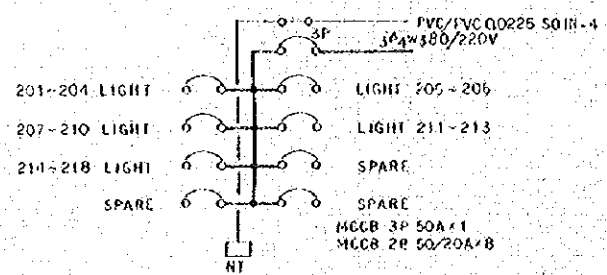
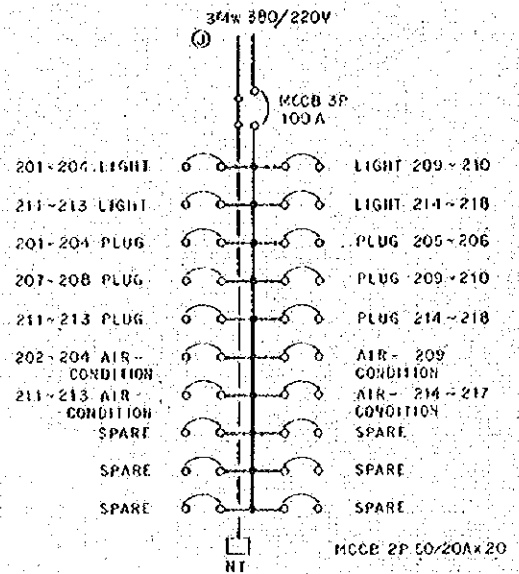
POWER SUPPLY  
LIGHTING & PLUG SYSTEM  
OF GATE HOUSE PUMP  
HOUSE & SUB STATION

JAPAN INTERNATIONAL COOPERATION AGENCY

| CONSULTANTS |         |                |         |
|-------------|---------|----------------|---------|
| APPROVED    | CHECKED | DESIGNED       | DRAWING |
|             |         |                |         |
| SCALE       |         | REV. NO.       |         |
| 1:100       |         |                |         |
| DATE        |         | DWG. NO. E-113 |         |

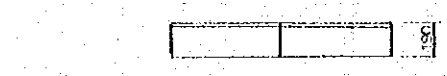
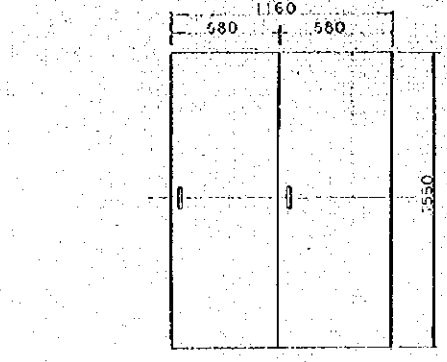
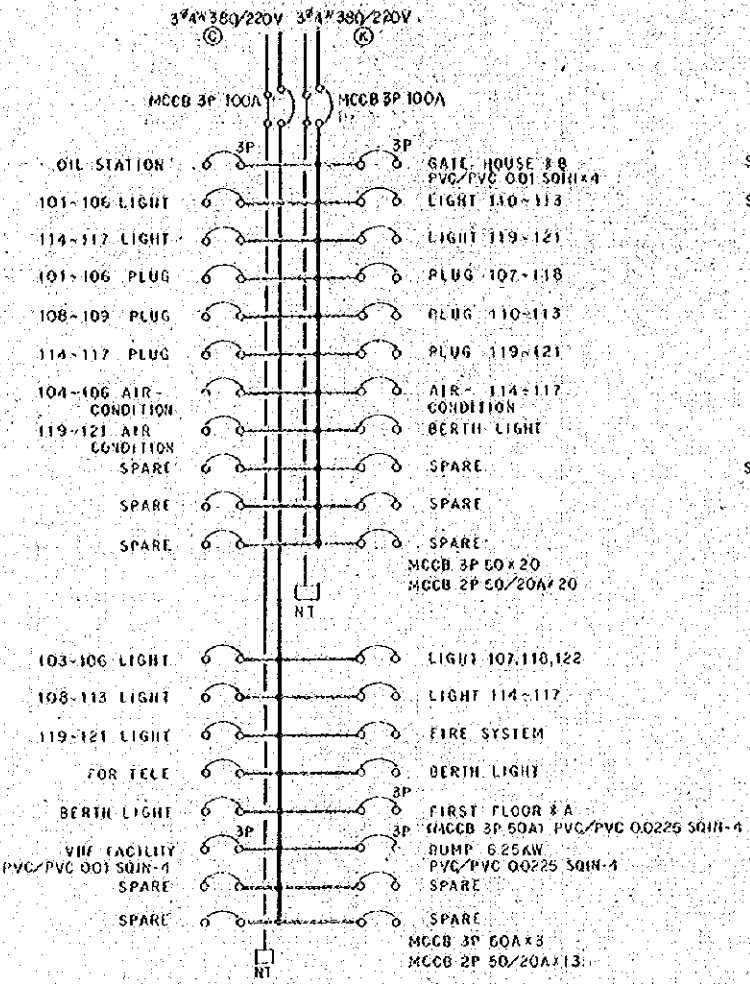


L-2  
FIRST FLOOR



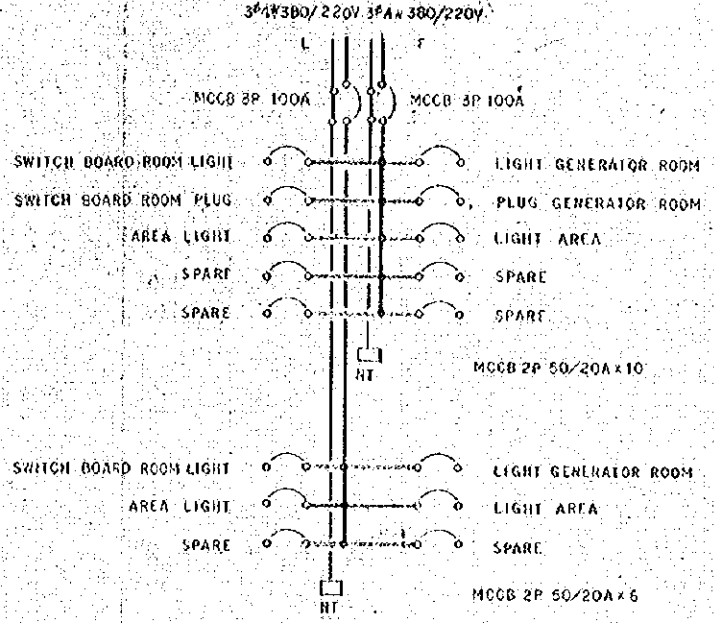
DISTRIBUTION BOARD OF TERMINAL OFFICE

L-1  
GROUND FLOOR

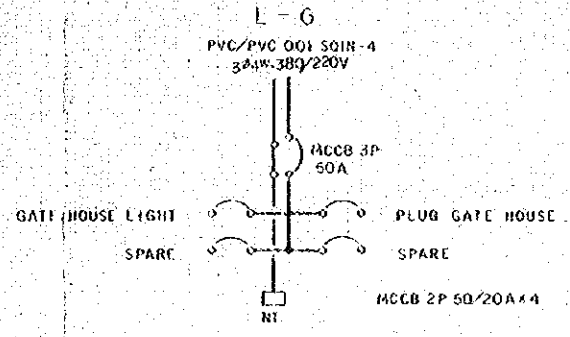


DISTRIBUTION BOARD OF TERMINAL OFFICE

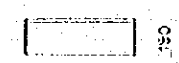
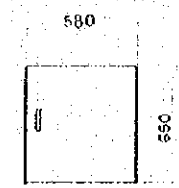
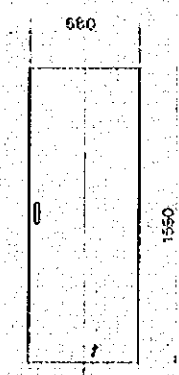
L-S



DISTRIBUTION BOARD OF SUB STATION



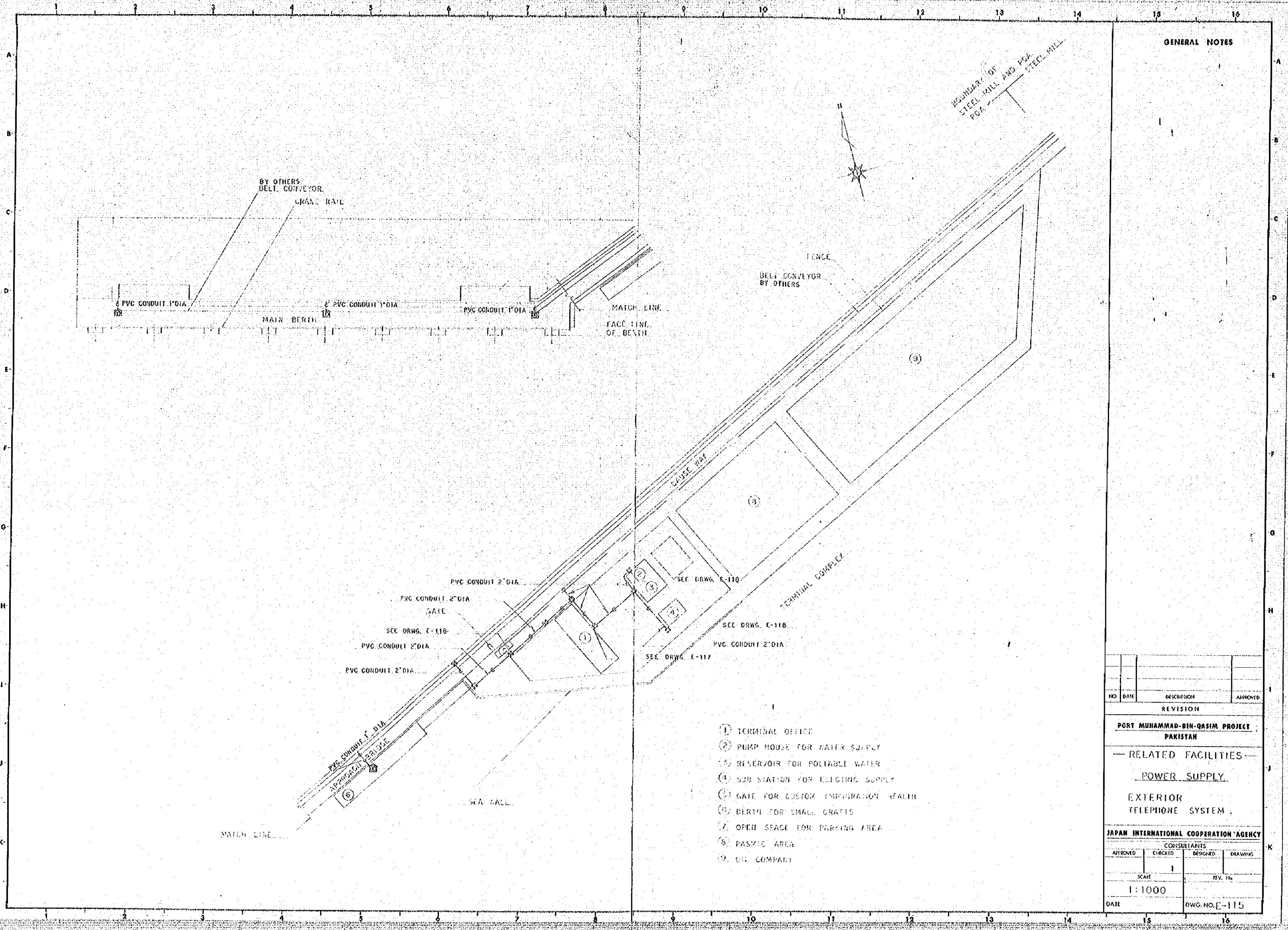
DISTRIBUTION BOARD OF GATE HOUSE



GENERAL NOTES

| NO.   | DATE           | DESCRIPTION | APPROVED |
|---|----------------|-------------|----------|
| REVISION                                    |                |             |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN |                |             |          |
| — RELATED FACILITIES —                      |                |             |          |
| POWER SUPPLY                                |                |             |          |
| DISTRIBUTION BOARD                          |                |             |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |                |             |          |
| CONSULTANTS                                 |                |             |          |
| APPROVED                                    | CHECKED        | DESIGNED    | DRAWING  |
| SCALE                                       |                | REV. No.    |          |
| 1:20  |                |             |          |
| DATE  | DWG. NO. E-114 |             |          |



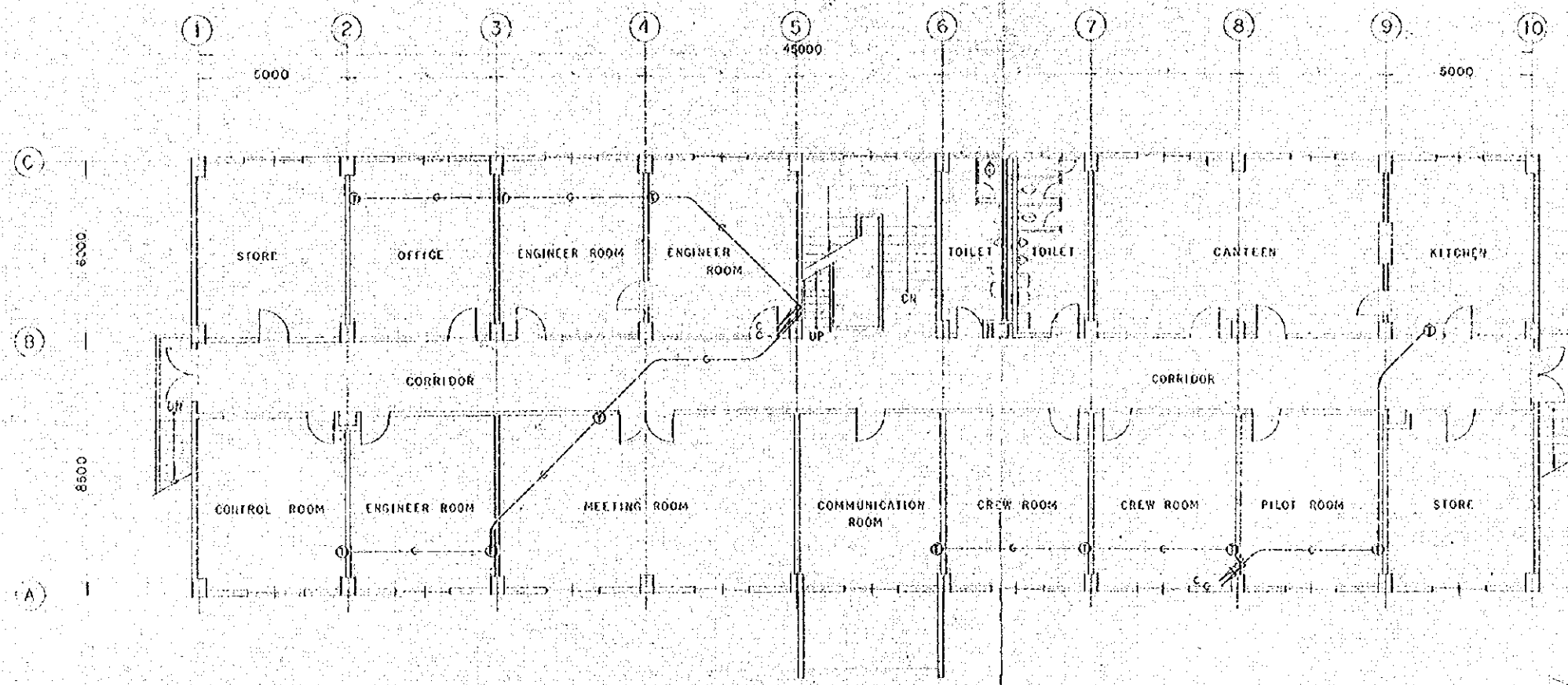


GENERAL NOTES

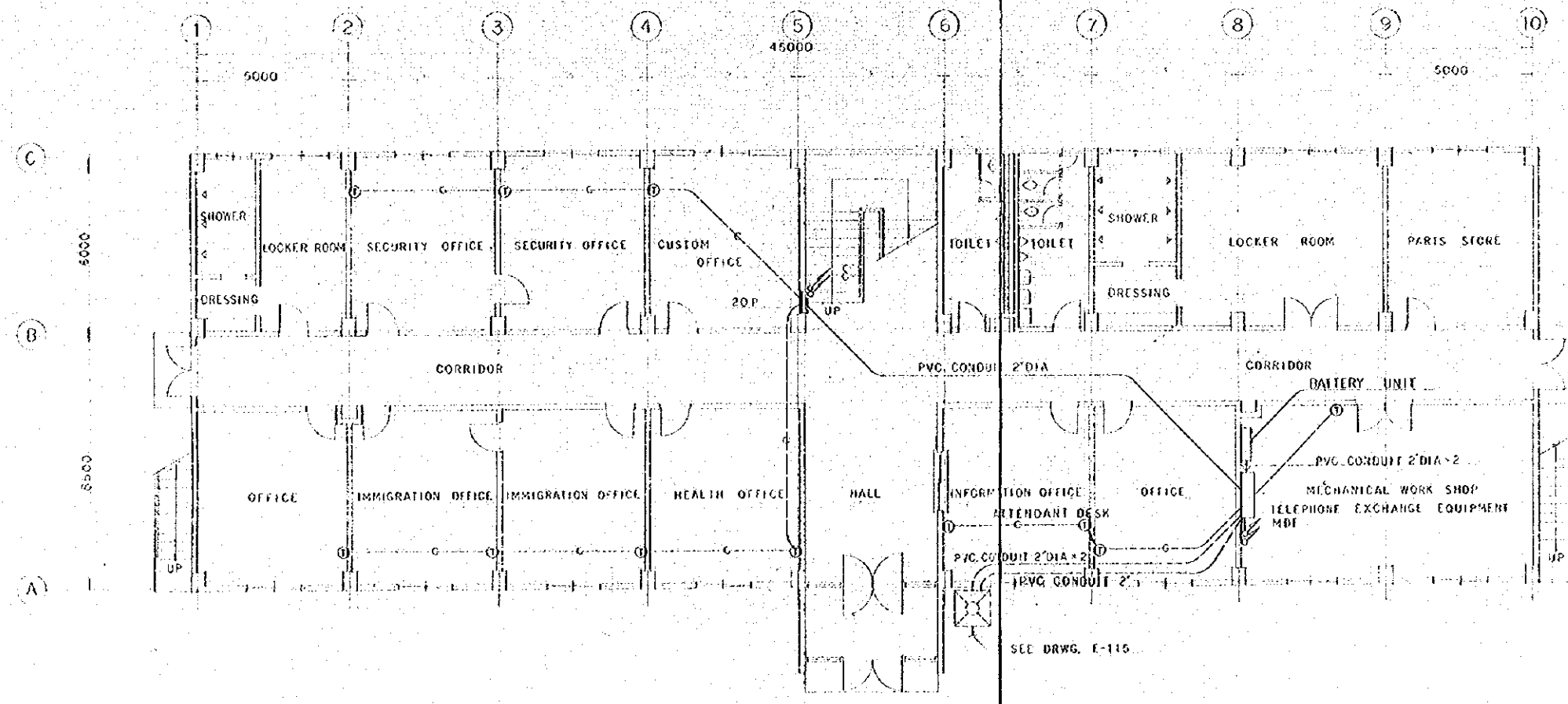
- ① TERMINAL OFFICE
- ② PUMP HOUSE FOR WATER SUPPLY
- ③ RESERVOIR FOR RELIABLE WATER
- ④ SUB STATION FOR ELECTRIC SUPPLY
- ⑤ GATE FOR CUSTOM INSPECTION (HEALTH)
- ⑥ BERTH FOR SMALL CRAFTS
- ⑦ OPEN SPACE FOR PARKING AREA
- ⑧ PICNIC AREA
- ⑨ OIL COMPANY

| NO.   | DATE    | DESCRIPTION    | APPROVED |
|---|---------|----------------|----------|
| REVISION                                    |         |                |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN |         |                |          |
| — RELATED FACILITIES —                      |         |                |          |
| POWER SUPPLY                                |         |                |          |
| EXTERIOR<br>TELEPHONE SYSTEM                |         |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |         |                |          |
| CONSULTANTS                                 |         |                |          |
| APPROVED                                    | CHECKED | DESIGNED       | DRAWING  |
|   |         |                |          |
| SCALE                                       |         | REV. No.       |          |
| 1:1000                                      |         |                |          |
| DATE  |         | DWG. NO. E-115 |          |
|   |         |                |          |

GENERAL NOTES



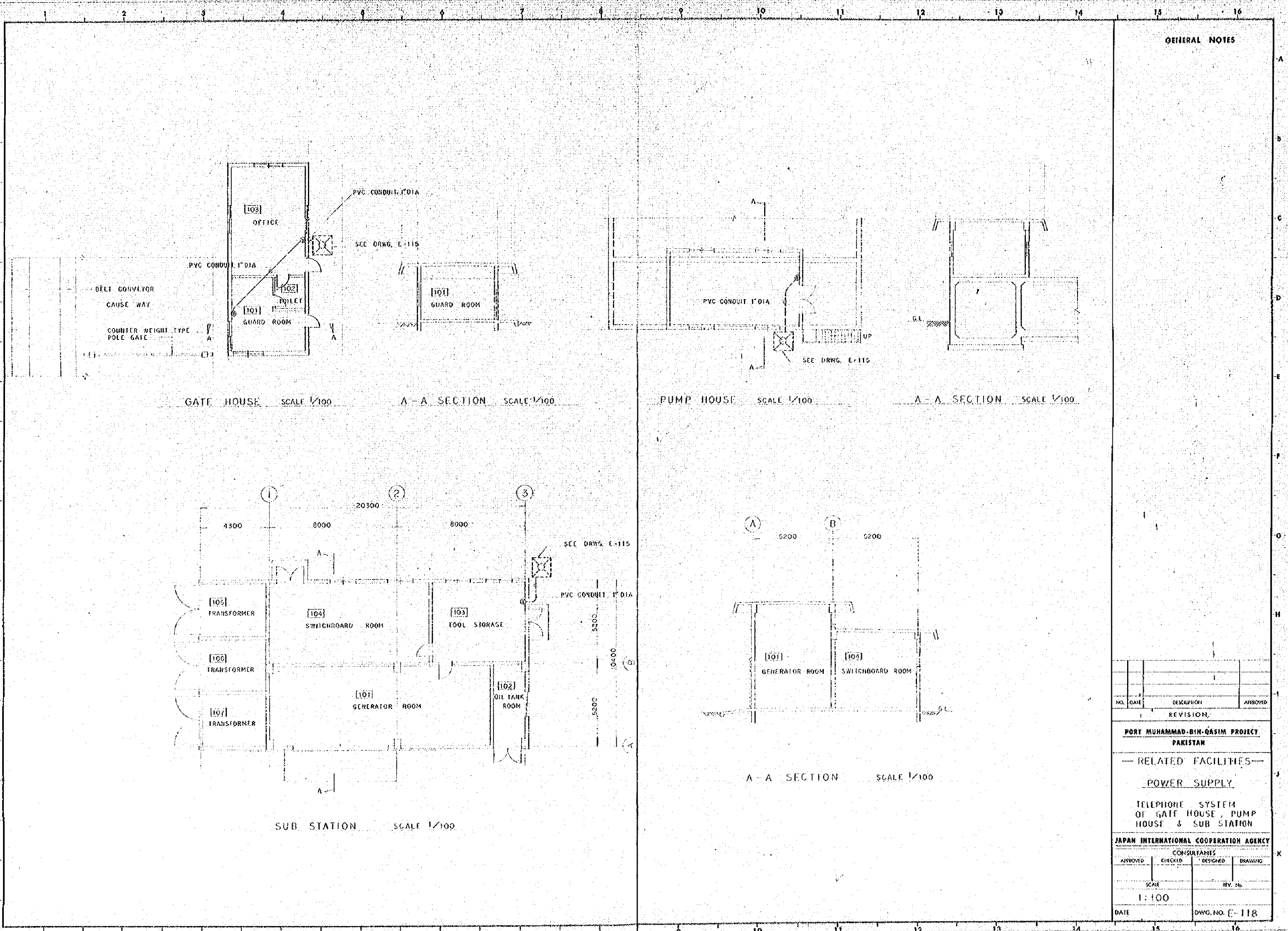
TERMINAL OFFICE FIRST FLOOR SCALE 1/100



TERMINAL OFFICE GROUND FLOOR SCALE 1/100

| NO.   | DATE    | DESCRIPTION    | APPROVED |
|---|---------|----------------|----------|
| REVISION                                    |         |                |          |
| PORT MUHAMMAD-SIN-QASIM PROJECT<br>PAKISTAN |         |                |          |
| -- RELATED FACILITIES --                    |         |                |          |
| POWER SUPPLY                                |         |                |          |
| TELEPHONE SYSTEM<br>OF TERMINAL OFFICE      |         |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |         |                |          |
| CONSULTANTS                                 |         |                |          |
| APPROVED                                    | CHECKED | DESIGNED       | DRAWING  |
| SCALE                                       |         | REV. NO.       |          |
| 1:100                                       |         |                |          |
| DATE  |         | DWG. NO. E-117 |          |



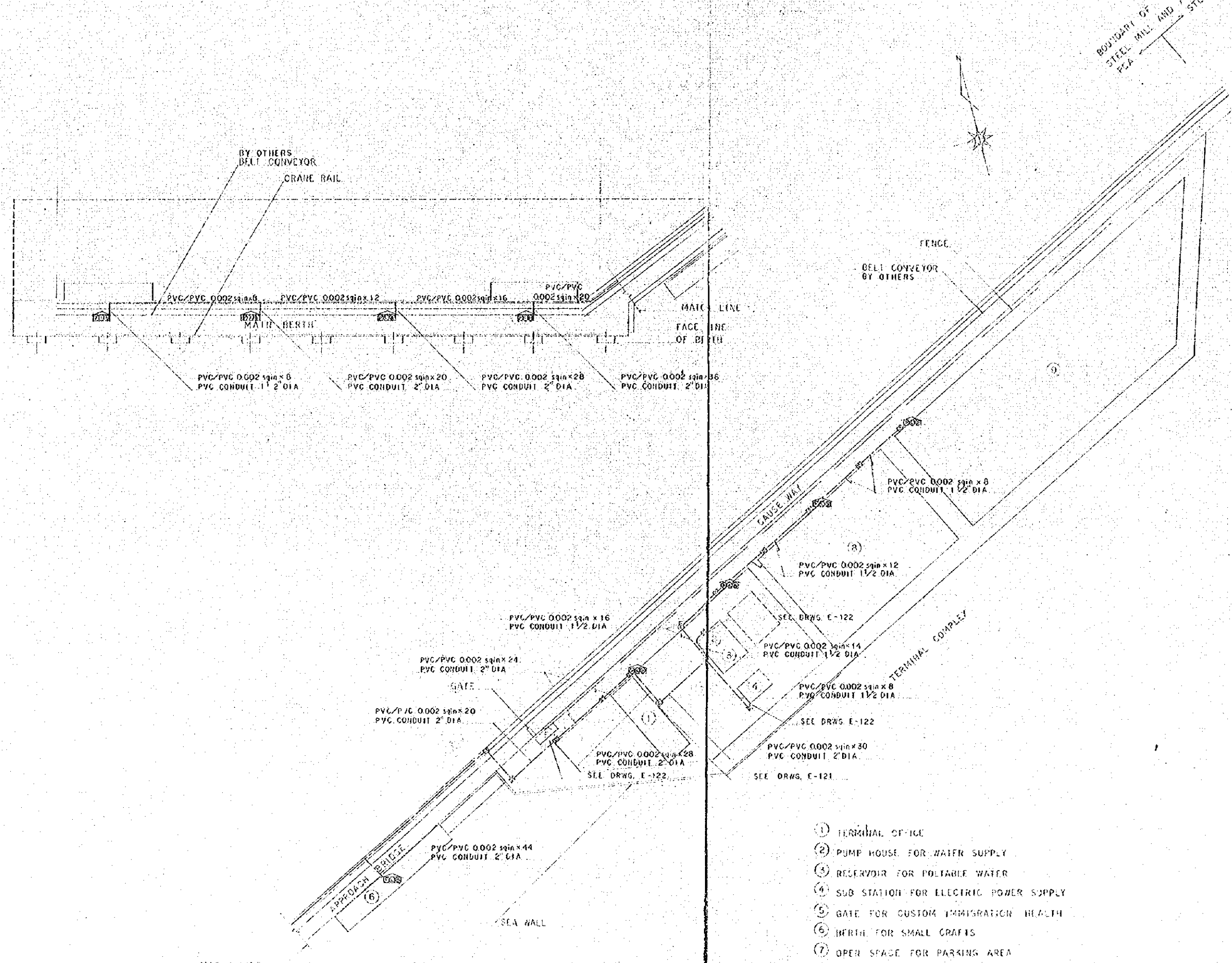


GENERAL NOTES

| NO.  | DATE           | DESCRIPTION | APPROVED |
|--|----------------|-------------|----------|
| REVISION   |                |             |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN                    |                |             |          |
| — RELATED FACILITIES —   |                |             |          |
| POWER SUPPLY   |                |             |          |
| TELEPHONE SYSTEM<br>OF GATE HOUSE, PUMP<br>HOUSE & SUB STATION |                |             |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY                         |                |             |          |
| CONSULTANTS  |                |             |          |
| APPROVED   | CHECKED        | DESIGNED    | DRAWING  |
| SCALE  |                | REV. No.    |          |
| 1:100  |                |             |          |
| DATE   | DWG. NO. E-118 |             |          |



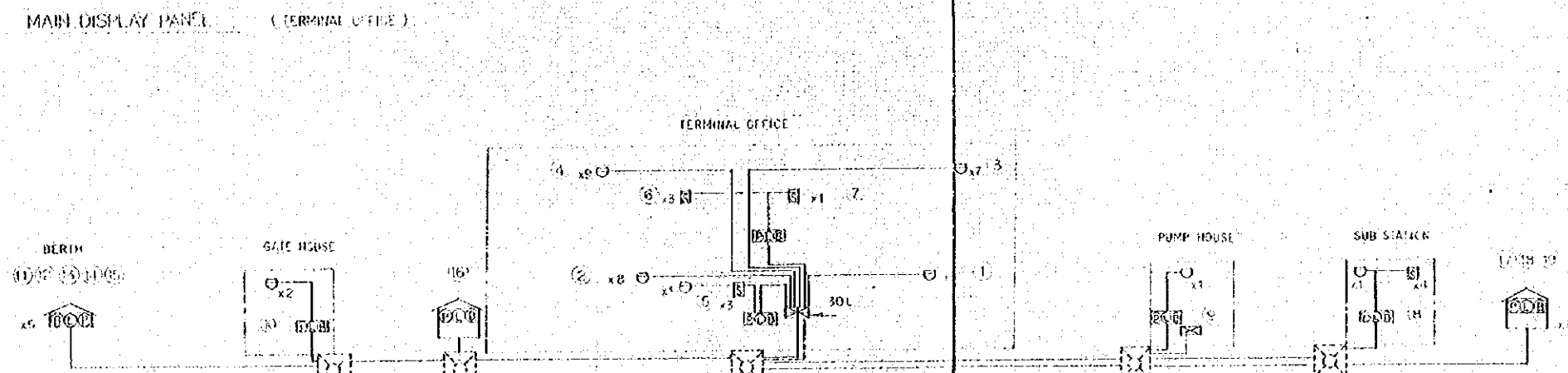
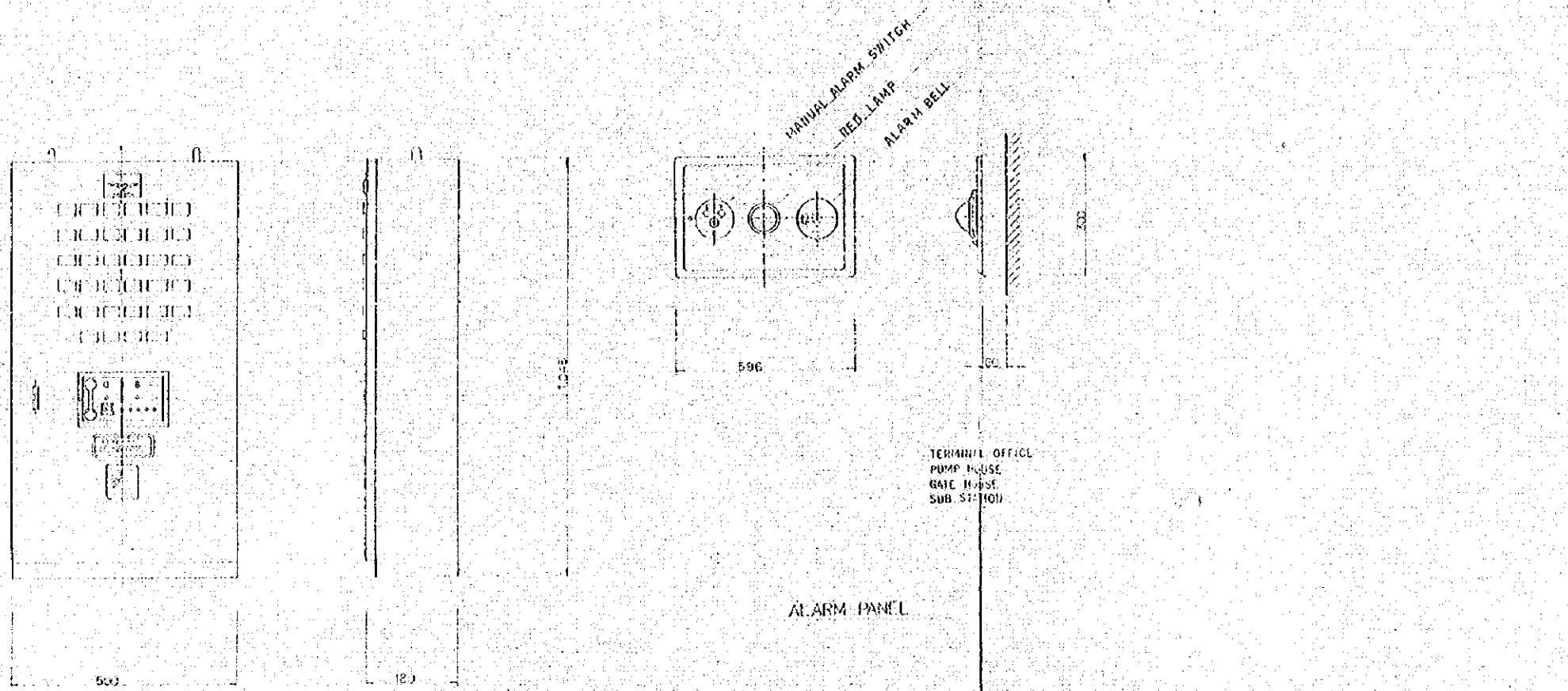
GENERAL NOTES



- ① TERMINAL OFFICE
- ② PUMP HOUSE FOR WATER SUPPLY
- ③ RESERVOIR FOR POTABLE WATER
- ④ SUB STATION FOR ELECTRIC POWER SUPPLY
- ⑤ GATE FOR CUSTOM IMMIGRATION HEALTH
- ⑥ BERTH FOR SMALL CRAFTS
- ⑦ OPEN SPACE FOR PARKING AREA
- ⑧ PASMIG AREA
- ⑨ OIL COMPANY

| REVISION  |         |                |          |
|---|---------|----------------|----------|
| NO.   | DATE    | DESCRIPTION    | APPROVED |
|   |         |                |          |
| <b>PORT MUHAMMAD-BIN-QASIM PROJECT</b><br><b>PAKISTAN</b> |         |                |          |
| <b>RELATED FACILITIES</b>                                 |         |                |          |
| <b>POWER SUPPLY</b>                                       |         |                |          |
| <b>EXTERIOR</b><br><b>FIRE ALARM SYSTEM</b>               |         |                |          |
| <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>             |         |                |          |
| <b>CONSULTANTS</b>  |         |                |          |
| APPROVED  | CHECKED | DESIGNED       | DRAWING  |
|   |         |                |          |
| SCALE   |         | REV. No.       |          |
| 1:1000  |         |                |          |
| DATE  |         | DWG. NO. E-119 |          |
|   |         |                |          |

GENERAL NOTES

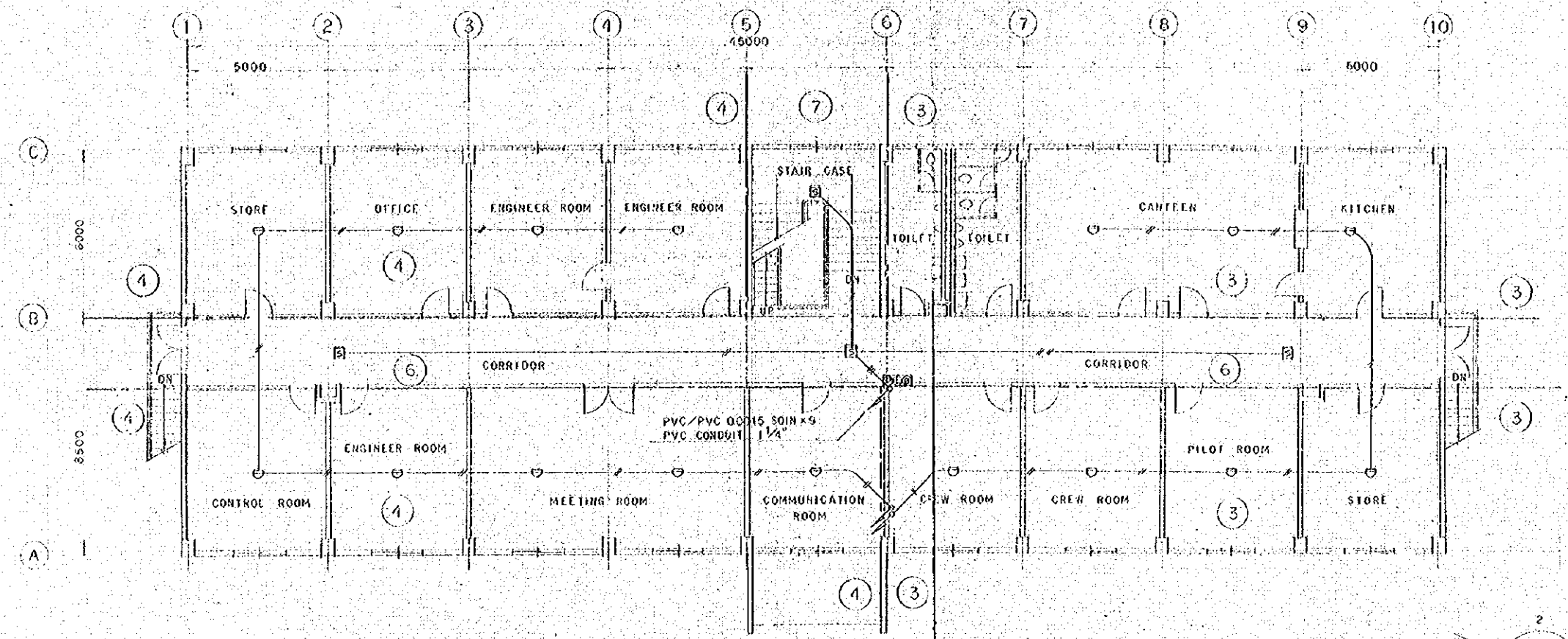


SCHMATIC DIAGRAM

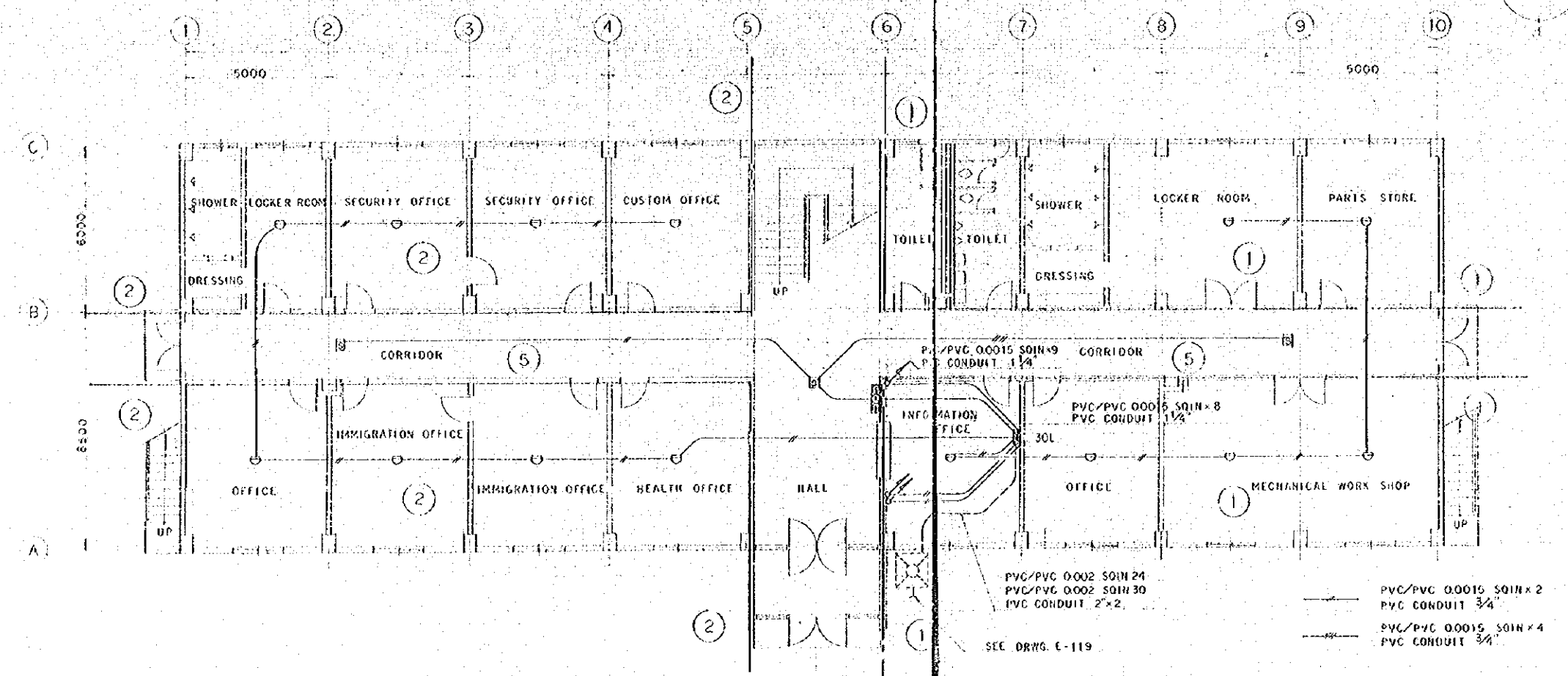
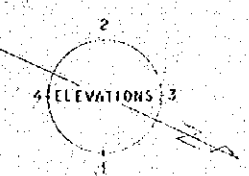
| NO.   | DATE    | DESCRIPTION    | APPROVED |
|---|---------|----------------|----------|
| REVISION                                    |         |                |          |
| PORT MUHAMMAD-BIH-QASIM PROJECT<br>PAKISTAN |         |                |          |
| -- RELATED FACILITIES --                    |         |                |          |
| POWER SUPPLY                                |         |                |          |
| SCHEMATIC DIAGRAM OF<br>FIRE ALARM SYSTEM   |         |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |         |                |          |
| CONSULTANTS                                 |         |                |          |
| APPROVED                                    | CHECKED | DESIGNED       | DRAWING  |
| SCALE                                       |         | REV. No.       |          |
| NON   |         |                |          |
| DATE  |         | DWG. NO. E-120 |          |



GENERAL NOTES



TERMINAL OFFICE GROUND FLOOR SCALE 1/100

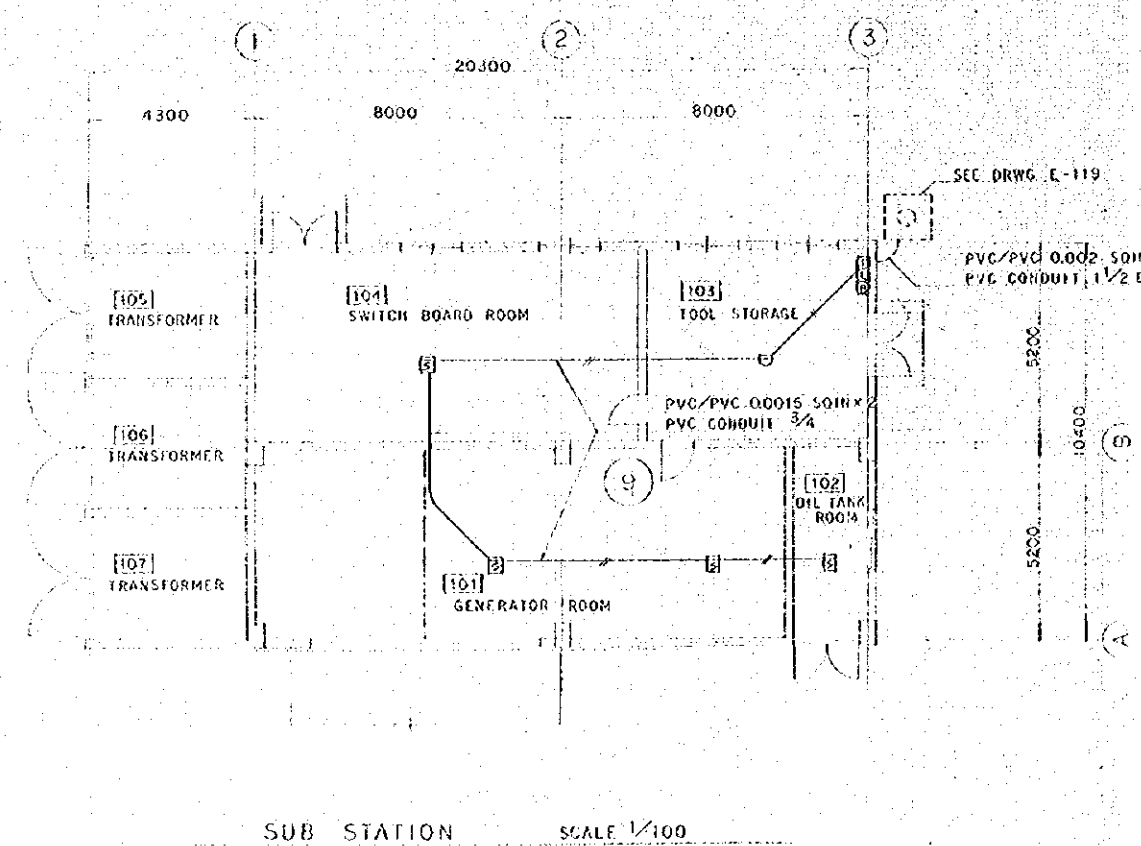
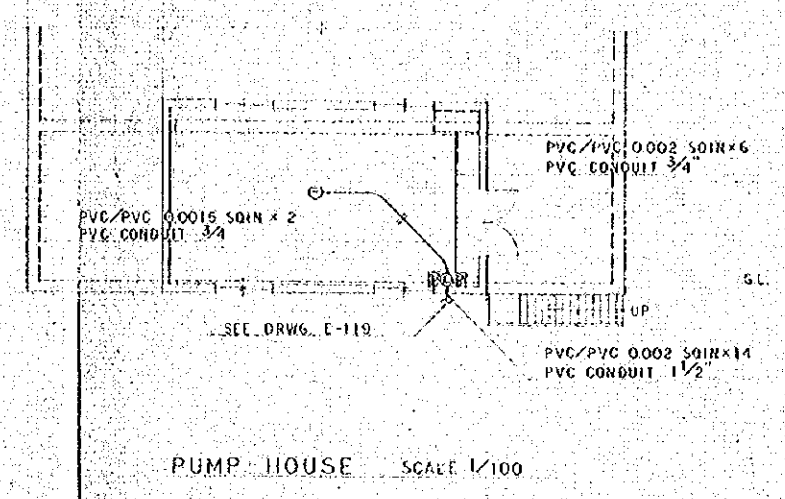
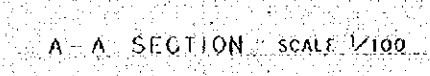
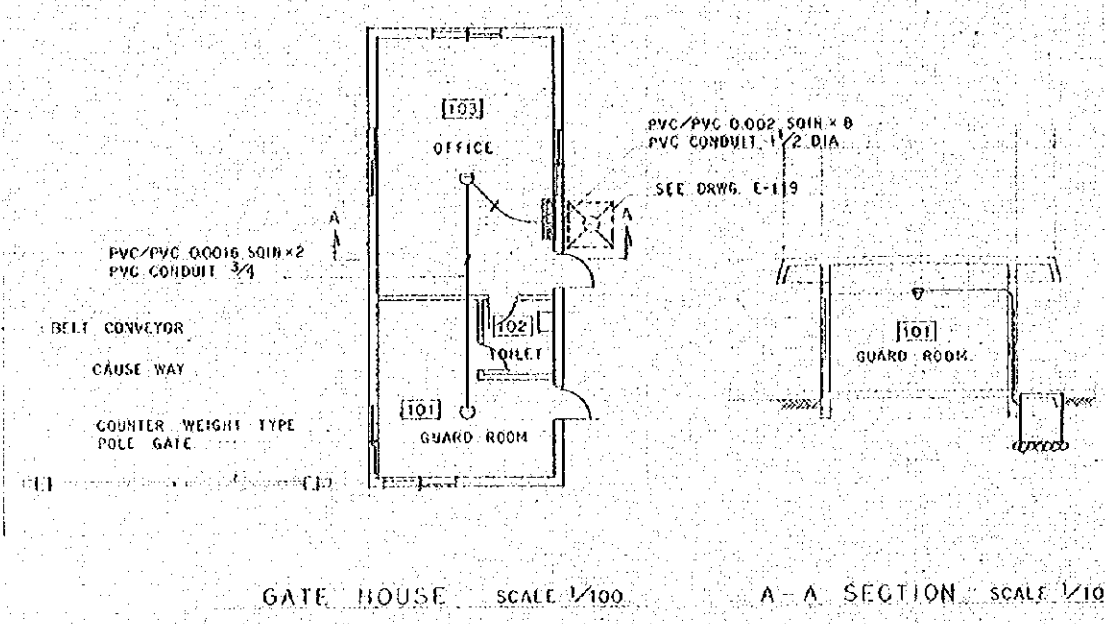


TERMINAL OFFICE GROUND FLOOR SCALE 1/100

| NO.                                    | DATE    | DESCRIPTION    | APPROVED |
|--|---------|----------------|----------|
| REVISION                               |         |                |          |
| <b>PORT MUHAMMAD-BIN-QASIM PROJECT</b> |         |                |          |
| <b>PAKISTAN</b>                        |         |                |          |
| --- RELATED FACILITIES ---             |         |                |          |
| POWER SUPPLY                           |         |                |          |
| FIRE ALARM SYSTEM OF                   |         |                |          |
| TERMINAL OFFICE                        |         |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY |         |                |          |
| CONSULTANTS                            |         |                |          |
| APPROVED                               | CHECKED | DESIGNED       | DRAWING  |
| SCALE                                  |         | REV. No.       |          |
| 1:100                                  |         |                |          |
| DATE                                   |         | DWG. NO. E-121 |          |



GENERAL NOTES



| SYMBOL | DESCRIPTION   |
|--------|---|
|        | MAIN DISPLAY PANEL  |
|        | ALARM PANEL (WATER PROOF TYPE)<br>(INSTALLED IN HOSE CABINET) |
|        | ALARM PANEL (WATER PROOF TYPE)                                |
|        | ALARM PANEL   |
|        | SMOKE DETECTOR  |
|        | DIFFERENTIAL TYPE HEAT DETECTOR                               |
|        | NUMBER OF DETECTING AREA                                      |
|        | WIRING  |
|        | MANHOLE   |
|        | WIRING RISER UP   |
|        | WIRING RISER DOWN   |

| NO.   | DATE    | DESCRIPTION    | APPROVED |
|---|---------|----------------|----------|
| REVISION  |         |                |          |
| PORT MUHAMMAD-BIN-QASIM PROJECT<br>PAKISTAN                     |         |                |          |
| RELATED FACILITIES  |         |                |          |
| POWER SUPPLY  |         |                |          |
| FIRE ALARM SYSTEM OF<br>GATE HOUSE, PUMP HOUSE<br>& SUB STATION |         |                |          |
| JAPAN INTERNATIONAL COOPERATION AGENCY                          |         |                |          |
| CONSULTANTS   |         |                |          |
| APPROVED  | CHECKED | DESIGNED       | DRAWING  |
| SCALE   |         | REV. NO.       |          |
| 1:100   |         |                |          |
| DATE  |         | DWG. NO. E-122 |          |

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0000 0755