

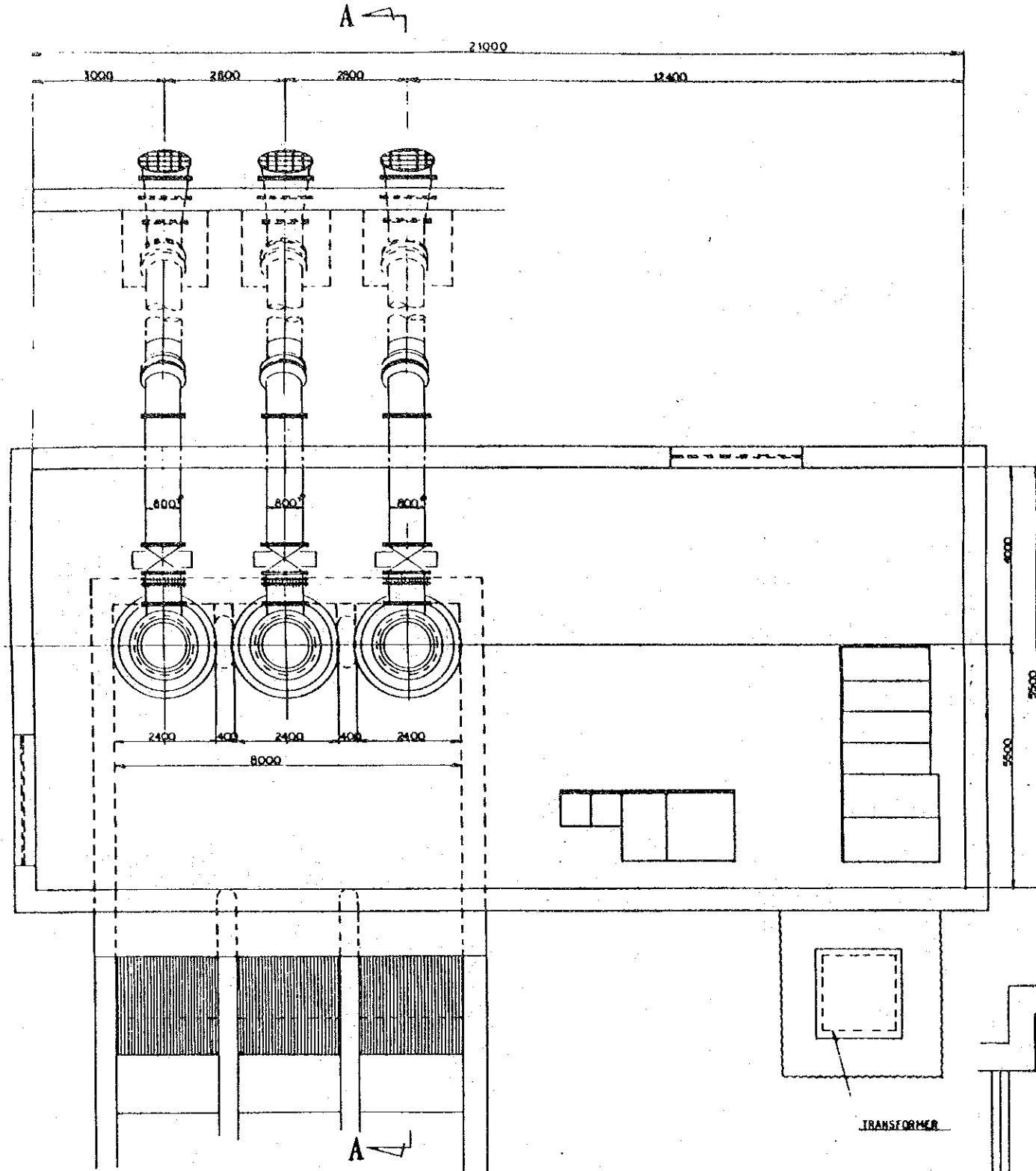
DRAWINGS

## D R A W I N G S

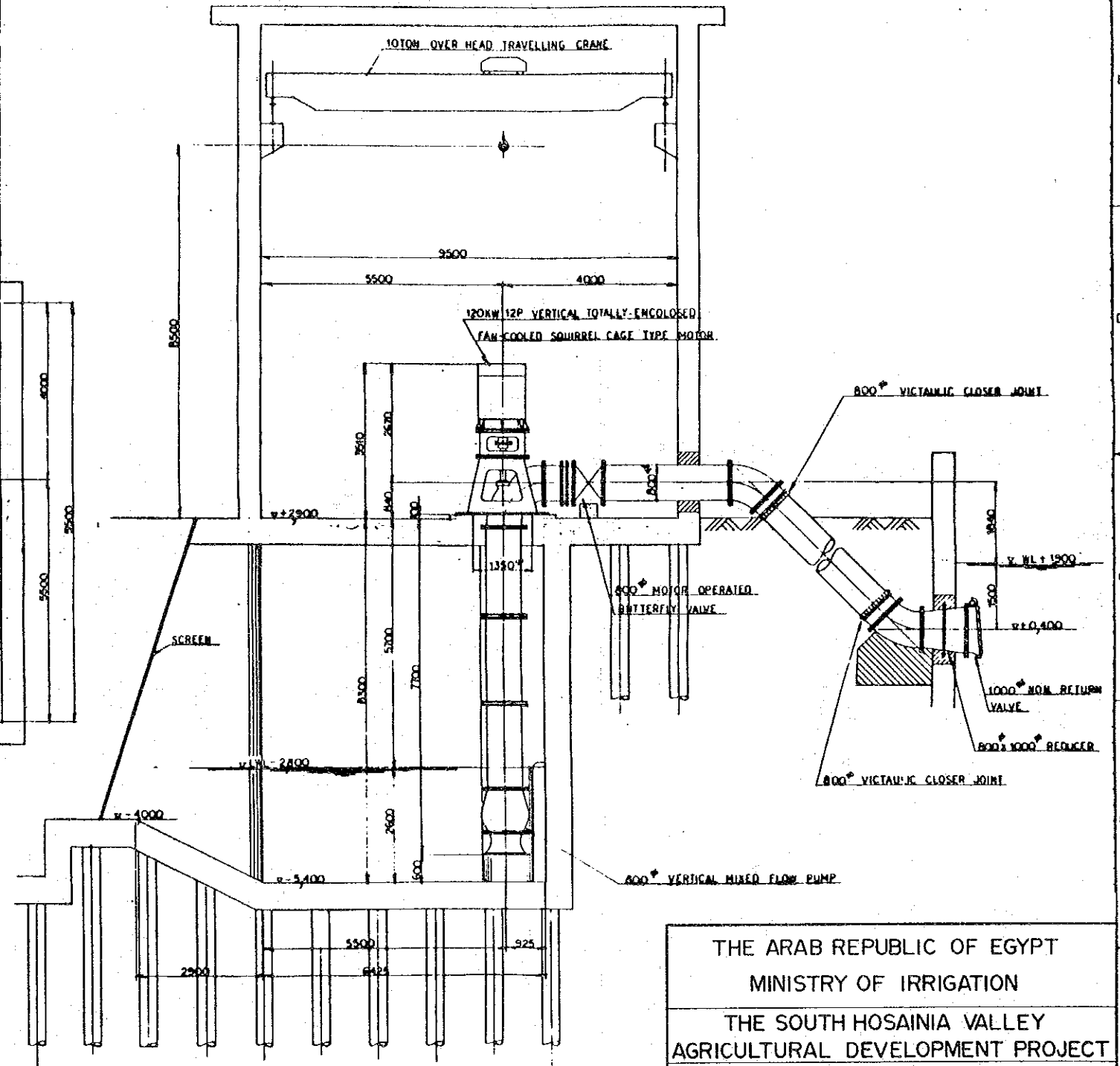
|            |         |   |
|------------|---------|---|
| D.W.G. No. | SH - 1  | Irrigation Pumping Station Structural Drawing                               |
| "          | SH - 2  | Irrigation Pumping Station Structural Drawing                               |
| "          | SH - 3  | Drainage Pumping Station Structural Drawing                                 |
| "          | SH - 4  | Profile of Main Canal, M1   |
| "          | SH - 5  | Profile of Main Canal, M2   |
| "          | SH - 6  | Profile of Main Canal, M3   |
| "          | SH - 7  | Typical Section of Main Irrigation Canal                                    |
| "          | SH - 8  | Typical Section of Secondary Irrigation Canal                               |
| "          | SH - 9  | Typical Section of Drainage Canal   |
| "          | SH - 10 | Irrigation Canal Facility Head Gate of Main                                 |
| "          | SH - 11 | Irrigation Canal Facility Head Gate of Radial<br>Secondary                  |
| "          | SH - 12 | Irrigation Canal Facility Check with Gates                                  |
| "          | SH - 13 | Irrigation Canal Facility Check Gate  |
| "          | SH - 14 | Irrigation Canal Facility Box Culvert                                       |
| "          | SH - 15 | Irrigation Canal Facility Parshall Fulme                                    |
| "          | SH - 16 | Irrigation Canal Facility Combined Turnout<br>and Division Box with Orifice |
| "          | SH - 17 | Drainage Pipe Culvert   |
| "          | SH - 18 | Drainage Canal Facility Pipe Culvert  |
| "          | SH - 19 | Typical Section of Seepage Line   |
| "          | SH - 20 | Schematic Map of Small, Service and Central<br>Village                      |
| "          | SH - 21 | Location of Buildings at Small Village                                      |
| "          | SH - 22 | Location of Buildings at Service Village                                    |
| "          | SH - 23 | Location of Buildings at Central Village                                    |
| "          | SH - 24 | Plot Plan of Treatment Structures   |



**PLAN**



**SECTION A-A**

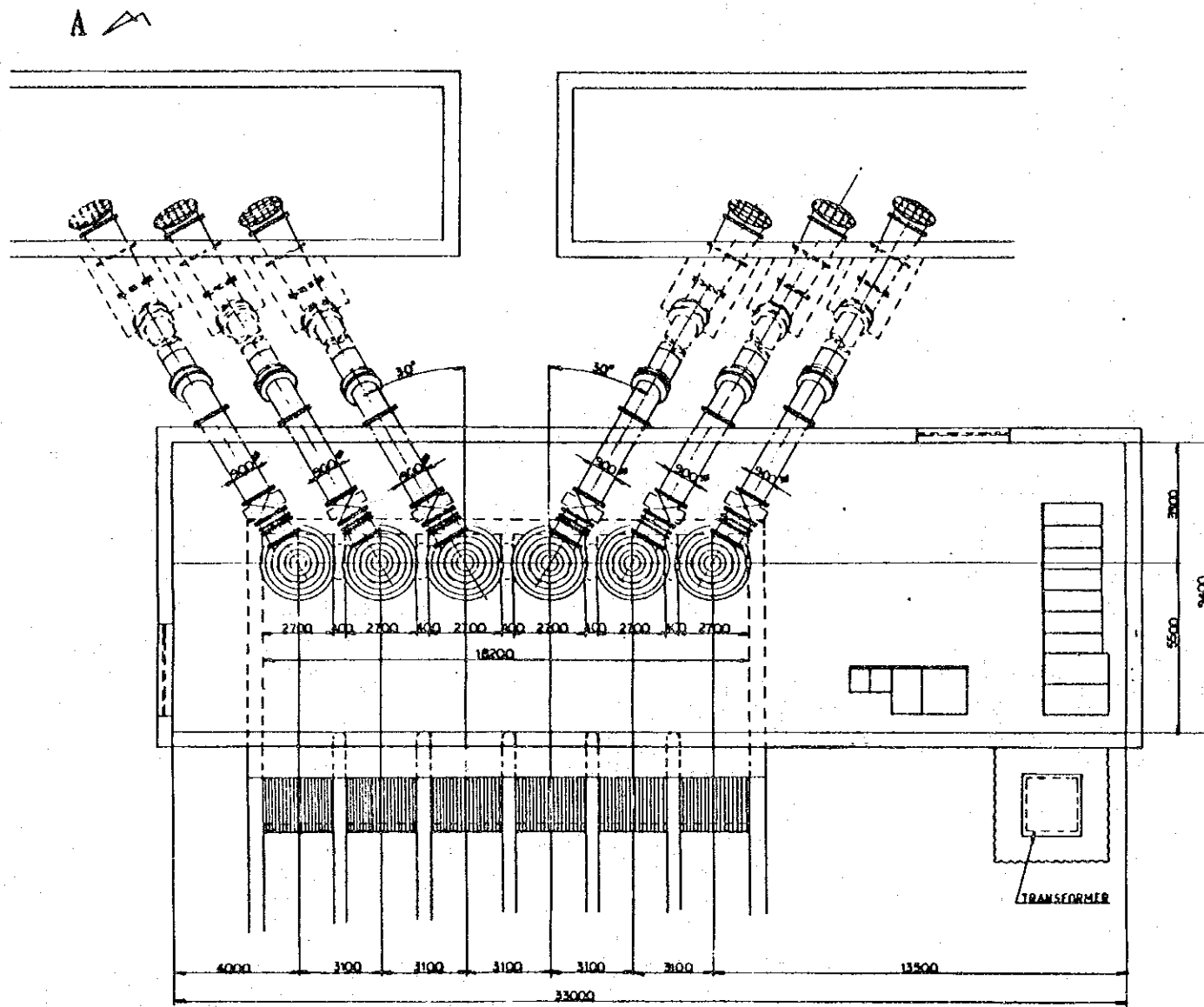


THE ARAB REPUBLIC OF EGYPT  
 MINISTRY OF IRRIGATION  
 THE SOUTH HOSAINIA VALLEY  
 AGRICULTURAL DEVELOPMENT PROJECT  
 IRRIGATION PUMPING STATION  
 STRUCTURAL DRAWING

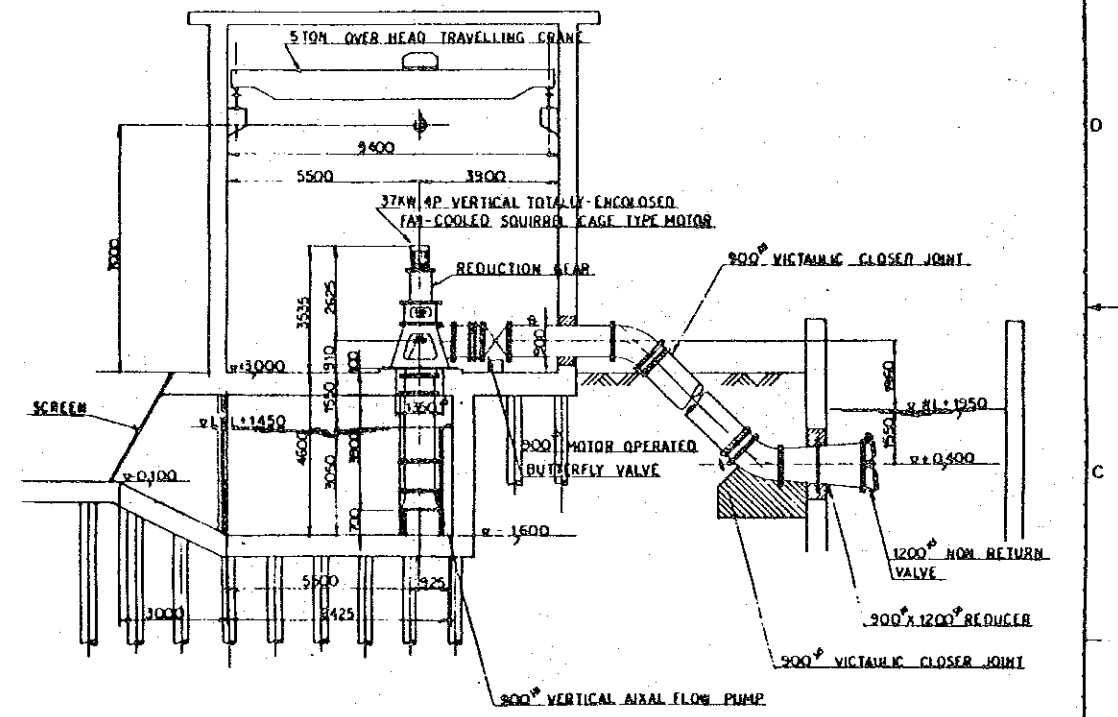
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| DATE | D.W.G NO. | SH-1 |
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JAPAN INTERNATIONAL COOPERATION AGENCY

**PLAN**

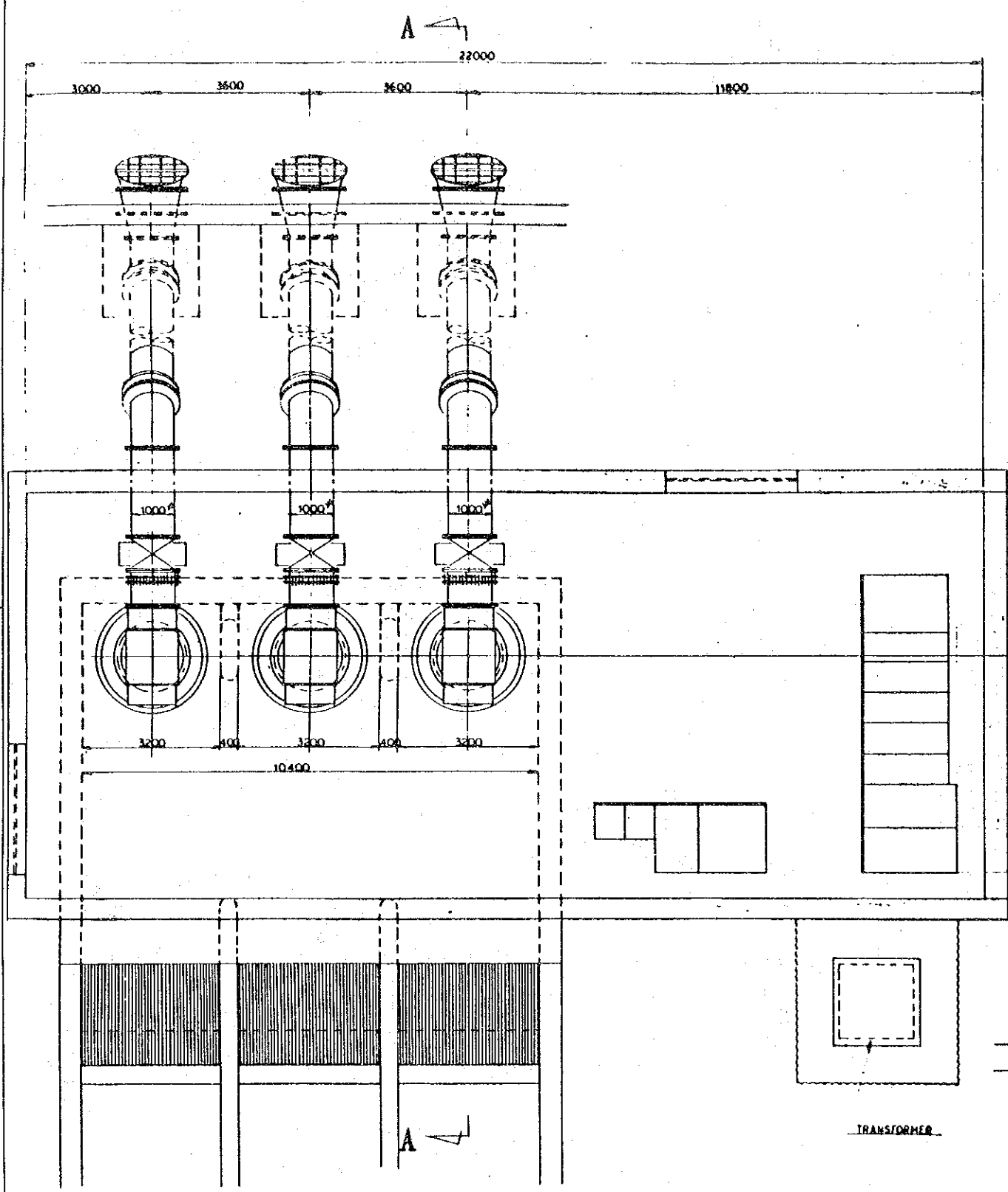


**SECTION A~A**

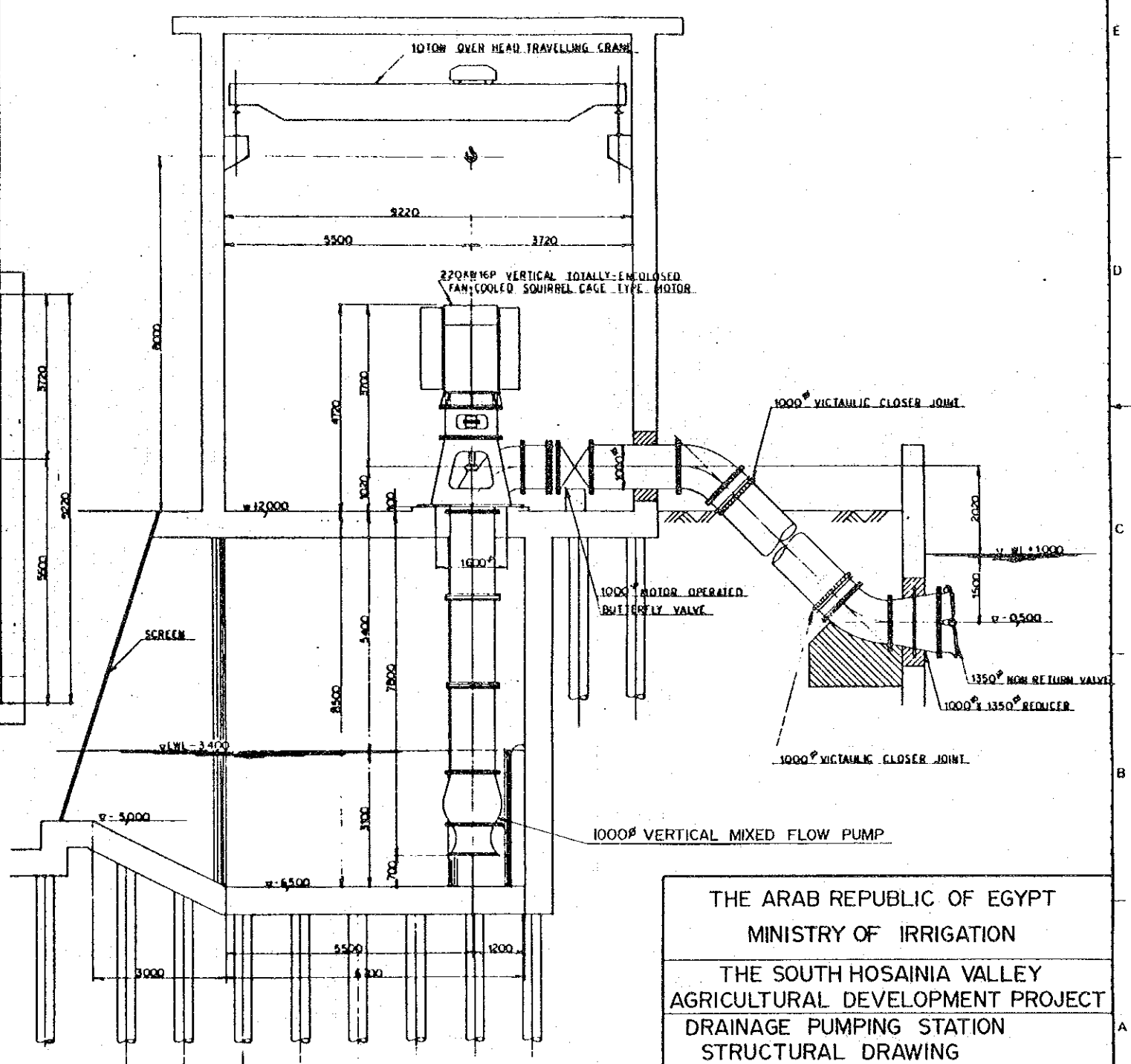


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|--|--|-----------|------|
| THE ARAB REPUBLIC OF EGYPT             |  |           |      |
| MINISTRY OF IRRIGATION                 |  |           |      |
| THE SOUTH HOSAINIA VALLEY              |  |           |      |
| AGRICULTURAL DEVELOPMENT PROJECT       |  |           |      |
| IRRIGATION PUMPING STATION             |  |           |      |
| STRUCTURAL DRAWING                     |  |           |      |
| DATE                                   |  | D.W.G NO. | SH-2 |
| JAPAN INTERNATIONAL COOPERATION AGENCY |  |           |      |

**PLAN**



**SECTION A-A**



THE ARAB REPUBLIC OF EGYPT  
 MINISTRY OF IRRIGATION  
 THE SOUTH HOSAINIA VALLEY  
 AGRICULTURAL DEVELOPMENT PROJECT  
 DRAINAGE PUMPING STATION  
 STRUCTURAL DRAWING

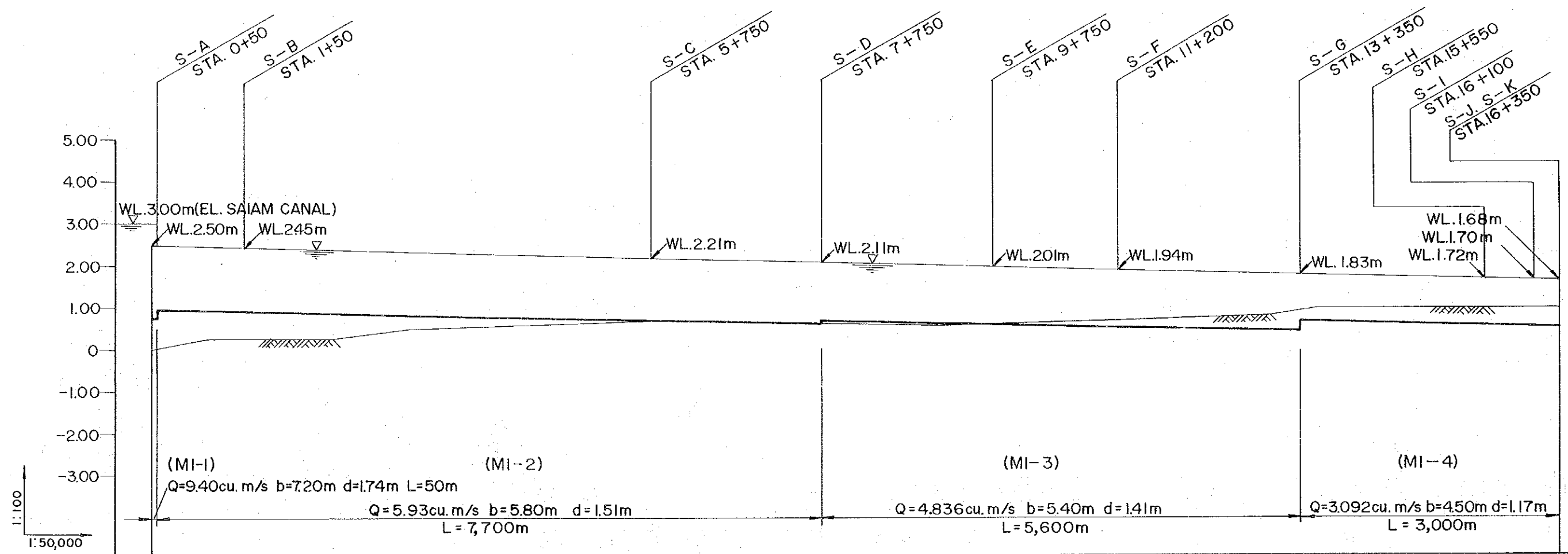
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| DATE | D.W.G NO. | SH-3 |
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JAPAN INTERNATIONAL COOPERATION AGENCY

THE ARAB REPUBLIC OF EGYPT  
 MINISTRY OF IRRIGATION  
 THE SOUTH HOSAINIA VALLEY  
 AGRICULTURAL DEVELOPMENT PROJECT  
 LONGITUDINAL SECTION OF MI CANAL

|      |  |         |      |
|------|--|---------|------|
| DATE |  | DWG NO. | SH-4 |
|------|--|---------|------|

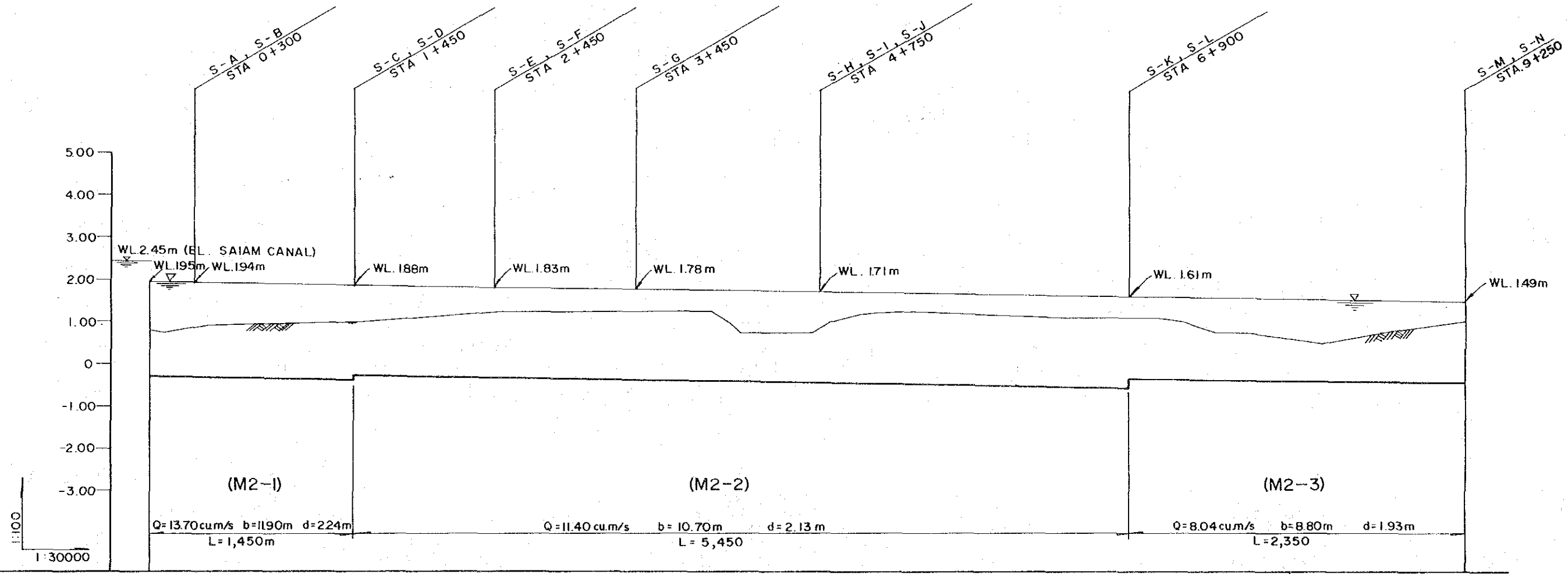
JAPAN INTERNATIONAL COOPERATION AGENCY



|                               |            |       |       |       |       |       |      |  |       |        |        |      |        |        |        |        |      |        |        |        |      |
|-------------------------------|------------|-------|-------|-------|-------|-------|------|--|-------|--------|--------|------|--------|--------|--------|--------|------|--------|--------|--------|------|
| GRADIENT                      | 1 / 20,000 |       |       |       |       |       |      |  |       |        |        |      |        |        |        |        |      |        |        |        |      |
| BOTTOM ELEVATION OF CANAL (m) | 0.76       | 0.99  |       |       |       |       | 0.70 |  | 0.61  | 0.70   |        | 0.60 |        | 0.53   |        | 0.42   | 0.66 |        | 0.55   | 0.53   | 0.51 |
| GROUND LEVEL (m)              | 0.50       |       | 0.25  | 0.50  | 0.60  | 0.70  |      |  |       | 0.60   | 0.70   |      |        | 0.80   | 1.00   | 1.00   |      |        | 1.00   |        |      |
| DISTANCE (m)                  | 0          |       |       | 2,950 | 4,200 | 5,800 |      |  |       | 9,200  | 10,350 |      |        | 12,850 | 13,550 | 14,500 |      |        | 16,000 | 16,350 |      |
| STATION NO. (m)               | 0          | 0.600 | 2,060 | 2,960 | 4,200 | 5,800 |      |  | 9,200 | 10,350 |        |      | 12,850 | 13,550 | 14,500 |        |      | 16,000 | 16,350 |        |      |

THE ARAB REPUBLIC OF EGYPT  
 MINISTRY OF IRRIGATION  
 THE SOUTH HOSAINIA VALLEY  
 AGRICULTURAL DEVELOPMENT PROJECT  
 LONGITUDINAL SECTION OF M2 CANAL

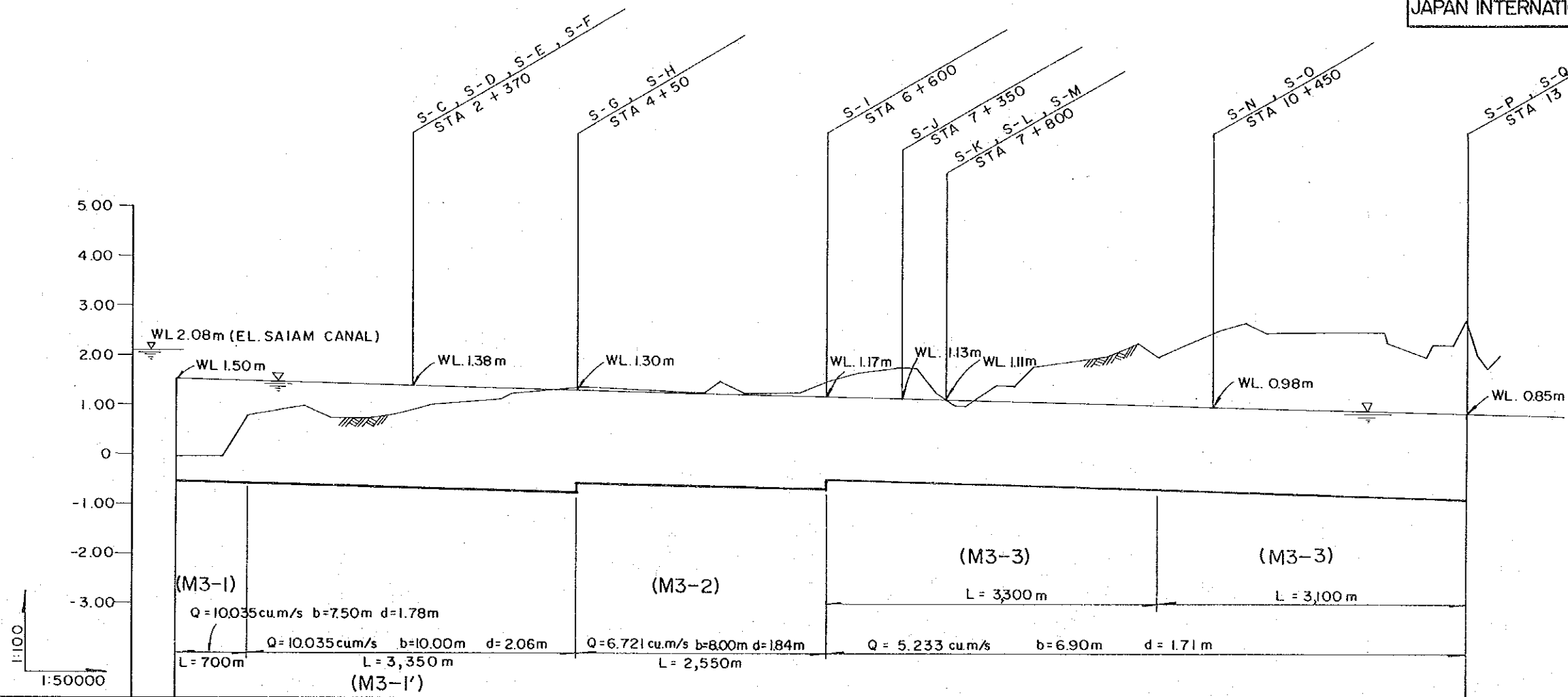
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|--|--|---------|------|
| DATE                                   |  | DWG NO. | SH-5 |
| JAPAN INTERNATIONAL COOPERATION AGENCY |  |         |      |



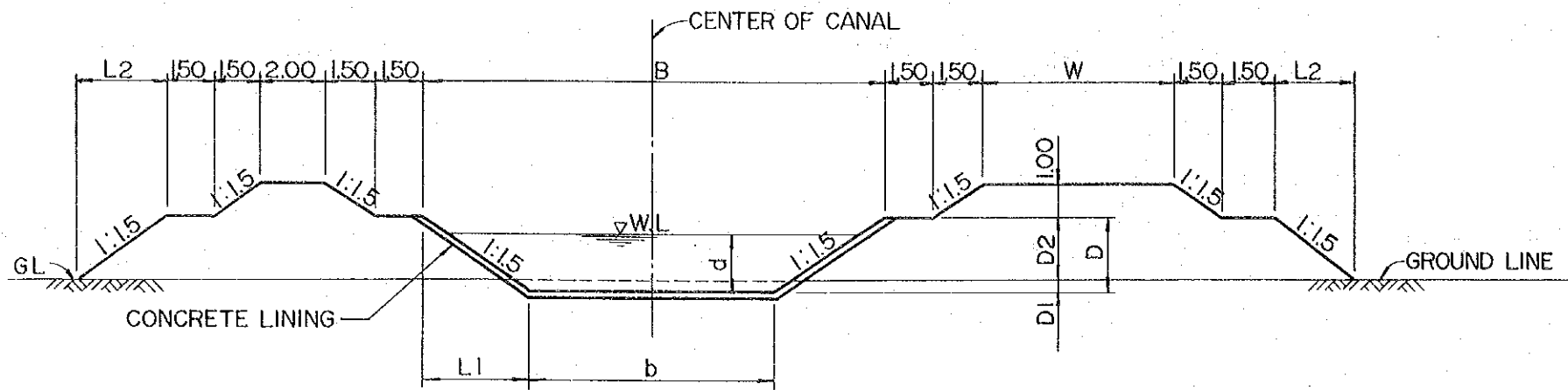
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|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| GRADIENT                      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| BOTTOM ELEVATION OF CANAL (m) | -0.29 | -0.30 | -0.36 | -0.30 | -0.35 | -0.42 | -0.52 | -0.52 | -0.44 |       |       |       |       |       |       |       |       |       |       |       |       |
| GROUND LEVEL (m)              | 0.80  | 0.75  | 0.90  | 1.00  | 1.25  | 1.25  | 1.00  | 1.10  | 1.20  | 1.23  | 1.10  | 1.10  | 1.00  | 0.75  | 0.75  | 0.50  | 0.75  | 1.00  |       |       |       |
| DISTANCE (m)                  | 0.070 | 0.400 | 1.470 | 2.470 | 3.810 | 3.970 | 4.070 | 4.180 | 4.680 | 4.800 | 4.930 | 5.100 | 5.400 | 6.450 | 7.070 | 7.250 | 7.500 | 7.700 | 8.250 | 8.650 | 9.250 |
| STATION NO. (m)               | 0.070 | 0.400 | 1.470 | 2.470 | 3.810 | 3.970 | 4.070 | 4.180 | 4.680 | 4.800 | 4.930 | 5.100 | 5.400 | 6.450 | 7.070 | 7.250 | 7.500 | 7.700 | 8.250 | 8.650 | 9.250 |



THE ARAB REPUBLIC OF EGYPT  
 MINISTRY OF IRRIGATION  
 THE SOUTH HOSAINIA VALLEY  
 AGRICULTURAL DEVELOPMENT PROJECT  
 LONGITUDINAL SECTION OF M3 CANAL  
 DATE \_\_\_\_\_ DWG NO. SH-6  
 JAPAN INTERNATIONAL COOPERATION AGENCY

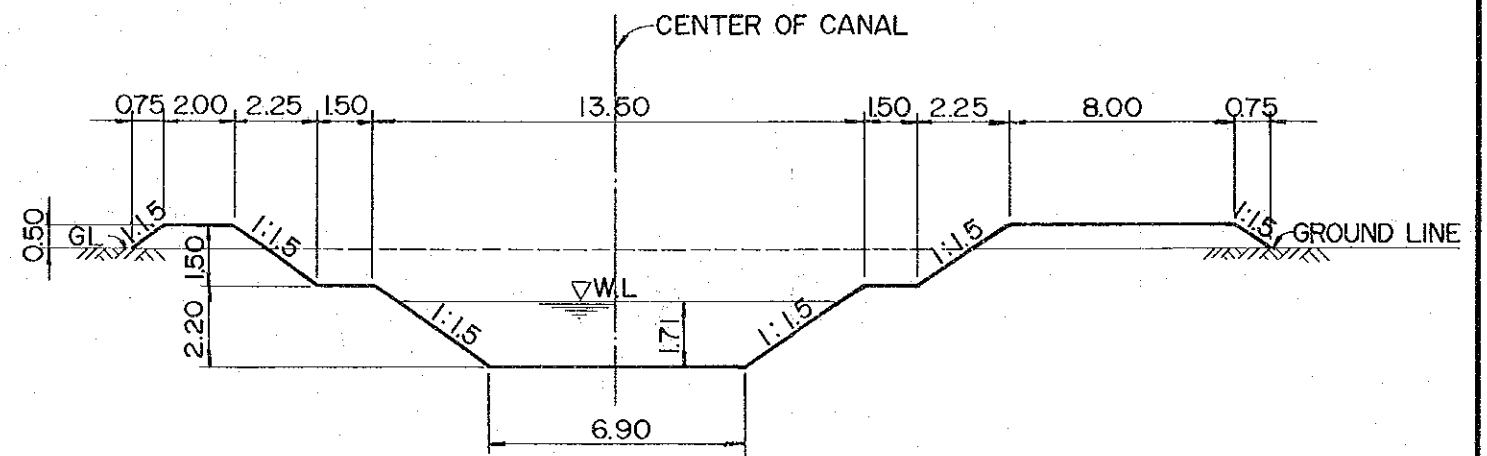


| GRADIENT                      | 1 / 20000 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |        |        |        |        |
|-------------------------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| BOTTOM ELEVATION OF CANAL (m) | -0.28     | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.68 | -0.75 | -0.54 | -0.67 | -0.54 | -0.58 | -0.60 | -0.73 | -0.86 |       |       |        |        |        |        |        |        |        |        |        |        |        |        |
| GROUND LEVEL (m)              | -0.06     | -0.06 | -0.06 | 0.75  | 0.82  | 0.94  | 0.75  | 0.71  | 0.75  | 1.00  | 1.10  | 1.25  | 1.34  | 1.25  | 1.47  | 1.25  | 1.25  | 1.50  | 1.66  | 1.75  | 1.75  | 1.75  | 1.75  | 1.75  | 1.75  | 1.75  | 1.75  | 1.75  | 2.00  | 2.26  | 2.00  | 2.25   | 2.50   | 2.62   | 2.50   | 2.25   | 2.00   | 2.25   | 2.25   | 2.00   | 2.75   | 2.00   | 1.95   |
| DISTANCE (m)                  | 0         | 0.300 | 0.450 | 0.700 | 0.850 | 1.260 | 1.540 | 1.880 | 2.100 | 2.600 | 3.250 | 3.400 | 4.140 | 5.350 | 5.500 | 5.750 | 6.300 | 6.650 | 6.920 | 7.300 | 7.500 | 7.600 | 7.700 | 7.900 | 8.000 | 8.300 | 8.480 | 8.650 | 9.400 | 9.700 | 9.900 | 10.200 | 10.500 | 10.700 | 10.930 | 12.200 | 12.600 | 12.650 | 12.870 | 13.000 | 13.080 | 13.200 | 13.270 |
| STATION NO. (m)               | 0         | 0.300 | 0.450 | 0.700 | 0.850 | 1.260 | 1.540 | 1.880 | 2.100 | 2.600 | 3.250 | 3.400 | 4.140 | 5.350 | 5.500 | 5.750 | 6.300 | 6.650 | 6.920 | 7.300 | 7.500 | 7.600 | 7.700 | 7.900 | 8.000 | 8.300 | 8.480 | 8.650 | 9.400 | 9.700 | 9.900 | 10.200 | 10.500 | 10.700 | 10.930 | 12.200 | 12.600 | 12.650 | 12.870 | 13.000 | 13.080 | 13.200 | 13.270 |

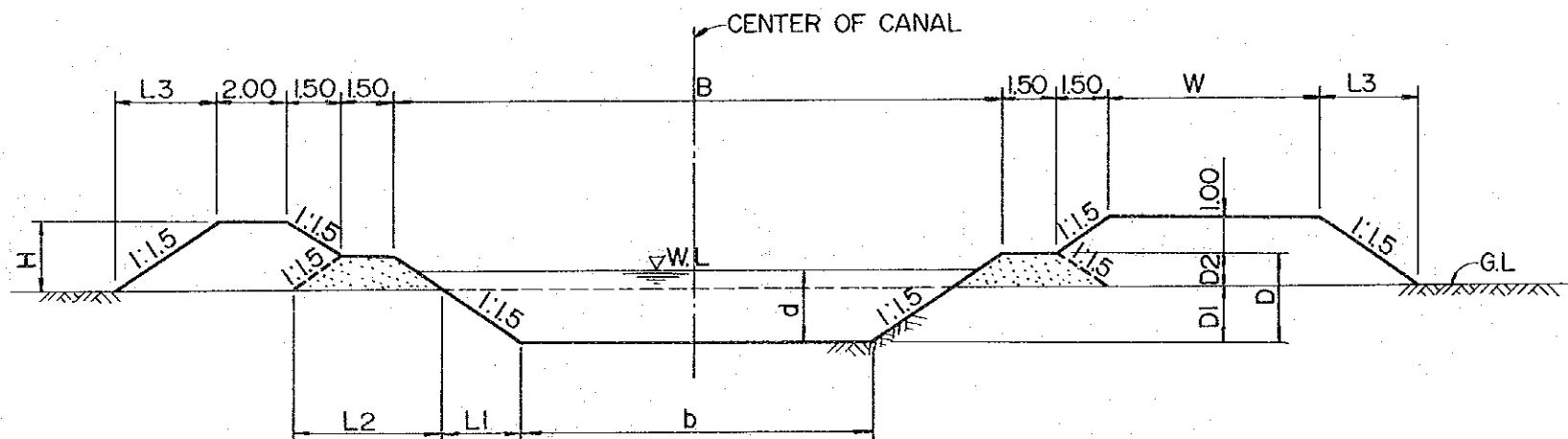


| TYPE | b    | d    | B     | D    | D1   | D2   | W    | L1   | L2   | REMARKS     |
|------|------|------|-------|------|------|------|------|------|------|-------------|
| M1-1 | 7.20 | 1.74 | 13.80 | 2.20 | 0    | 2.20 | 8.00 | 3.30 | 3.30 | L = 500 m   |
| M1-2 | 5.80 | 1.51 | 11.80 | 2.00 | 0    | 2.00 | "    | 3.00 | 3.00 | L = 7,700 m |
| M1-3 | 5.40 | 1.41 | 11.10 | 1.90 | 0    | 1.90 | 8.00 | 2.85 | 2.85 | L = 5,600 m |
| M1-4 | 4.50 | 1.17 | 9.60  | 1.70 | 0    | 1.70 | 8.00 | 2.55 | 2.55 | L = 3,000 m |
| M3-1 | 7.50 | 1.78 | 14.40 | 2.30 | 0.30 | 2.00 | "    | 3.45 | 3.00 | L = 700 m   |

TYPICAL SECTION OF MAIN CANAL  
ON THE CONCRETE LINING



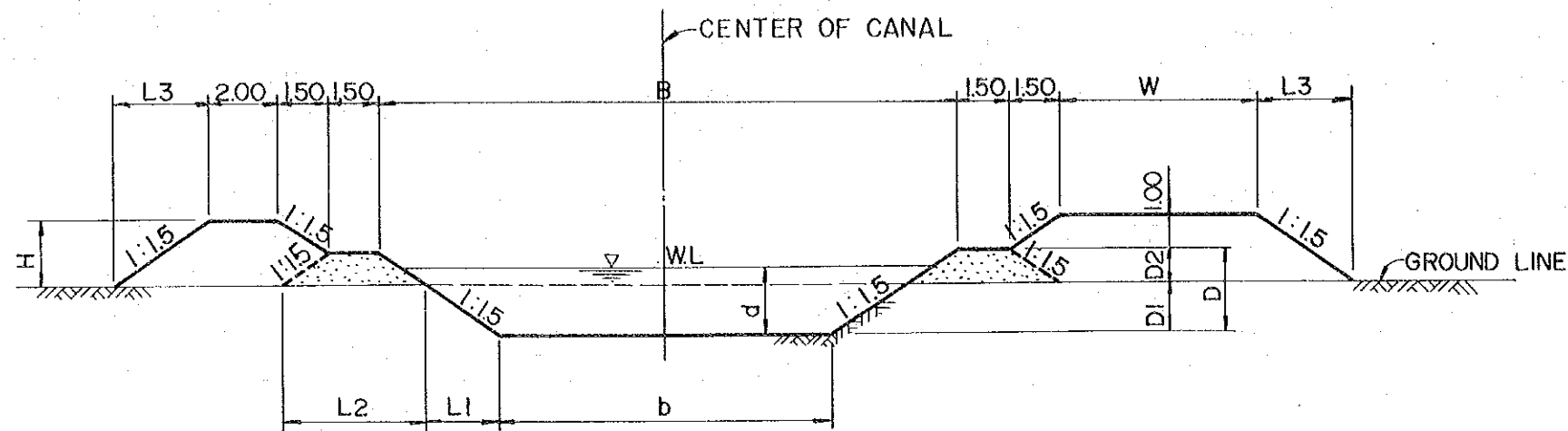
TYPICAL SECTION OF M3-3 (L=3,100m)  
S = 1:200



| TYPE | b     | d    | B     | D    | D1   | D2   | H    | W | L1   | L2   | L3   | REMARKS     |
|------|-------|------|-------|------|------|------|------|---|------|------|------|-------------|
| M2-1 | 11.90 | 2.24 | 20.00 | 2.70 | 1.30 | 1.40 | 2.40 | " | 1.95 | 5.70 | 3.60 | L = 1,450 m |
| M2-2 | 10.70 | 2.13 | 18.50 | 2.60 | 1.50 | 1.10 | 2.10 | " | 2.25 | 4.80 | 3.15 | L = 5,450 m |
| M2-3 | 8.80  | 1.93 | 16.00 | 2.40 | 1.20 | 1.20 | 2.20 | " | 1.80 | 5.10 | 3.30 | L = 2,350 m |
| M3-1 | 10.00 | 2.06 | 17.80 | 2.60 | 1.40 | 1.20 | 2.20 | " | 2.10 | 5.10 | 3.30 | L = 3,350 m |
| M3-2 | 8.00  | 1.84 | 14.90 | 2.30 | 1.80 | 0.50 | 1.50 | " | 2.70 | 3.00 | 2.25 | L = 2,550 m |
| M3-3 | 6.90  | 1.71 | 13.50 | 2.20 | 2.20 | -    | 1.00 | " | 3.30 | -    | 1.50 | L = 3,300 m |

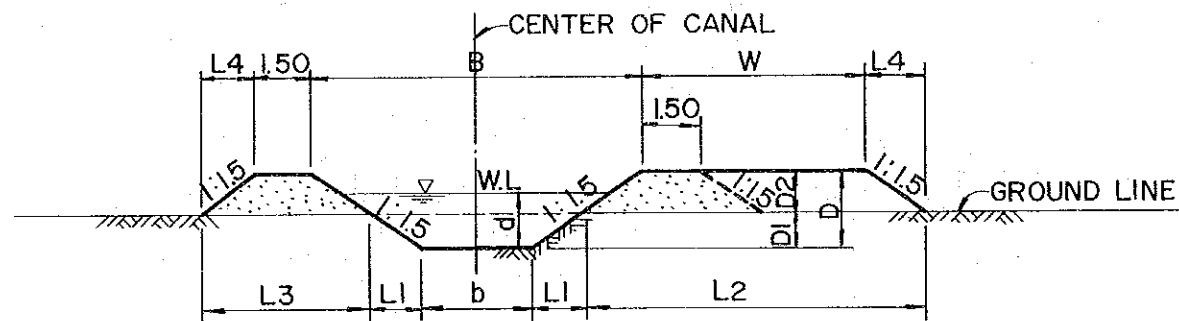
TYPICAL SECTION OF MAIN CANAL  
ON THE EARTH LINING

THE ARAB REPUBLIC OF EGYPT  
MINISTRY OF IRRIGATION  
THE SOUTH HOSAINIA VALLEY  
AGRICULTURAL DEVELOPMENT PROJECT  
TYPICAL SECTION OF  
MAIN IRRIGATION CANAL  
DATE \_\_\_\_\_ DWG NO. SH-7  
JAPAN INTERNATIONAL COOPERATION AGENCY



| TYPE    | b    | d    | B     | D    | D1   | D2   | H    | W    | L1   | L2   | L3   | REMARKS |
|---------|------|------|-------|------|------|------|------|------|------|------|------|---------|
| M1-S-A  | 5.70 | 1.49 | 11.70 | 2.00 | 1.00 | 1.00 | 2.00 | 6.00 | 1.50 | 4.50 | 3.00 |         |
| M1-S-J  | 4.60 | 1.20 | 9.70  | 1.70 | 0.70 | "    | "    | "    | 1.05 | "    | "    |         |
| M2-S-C  | 4.60 | 1.20 | 9.70  | 1.70 | 0.70 | "    | "    | "    | "    | "    | "    |         |
| M2-S-M  | 6.00 | 1.57 | 12.30 | 2.10 | 1.10 | "    | "    | "    | 1.65 | "    | "    |         |
| M2-S-N  | 6.10 | 1.59 | 12.40 | 2.10 | 1.10 | "    | "    | "    | "    | "    | "    |         |
| M2-SN-2 | 5.00 | 1.30 | 10.40 | 1.80 | 0.80 | "    | "    | "    | 1.20 | "    | "    |         |
| M3-S-P  | 4.30 | 1.12 | 9.10  | 1.60 | 0.60 | "    | "    | "    | 0.90 | "    | "    |         |
| M3-S-Q  | 4.80 | 1.25 | 10.05 | 1.75 | 0.75 | "    | "    | "    | 1.13 | "    | "    |         |

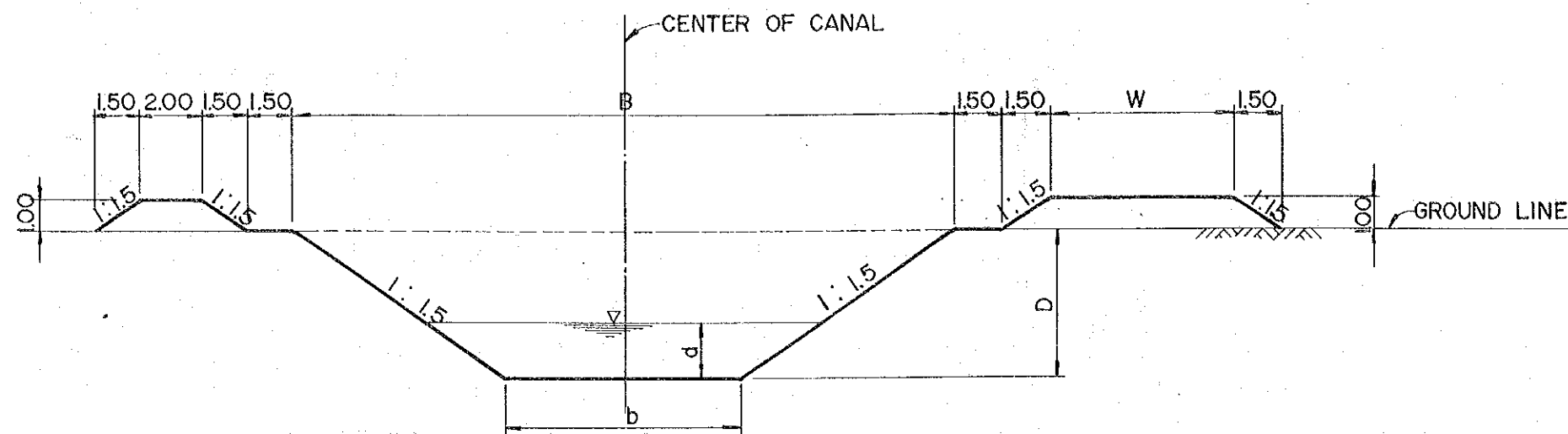
**SECONDARY CANAL (I)**  
S = 1:200



| TYPE | b    | d    | B    | D1   | D2   | D    | L1   | L2   | L3   | L4   | W    | REMARKS |
|------|------|------|------|------|------|------|------|------|------|------|------|---------|
| S1   | 1.00 | 0.50 | 4.00 | —    | 1.00 | 1.00 | —    | 9.00 | 4.50 | 1.50 | 6.00 |         |
| S2   | 1.50 | 0.75 | 5.25 | 0.25 | "    | 1.25 | 0.38 | "    | "    | "    | "    |         |
| S3   | 2.00 | 1.00 | 6.50 | 0.50 | "    | 1.50 | 0.75 | "    | "    | "    | "    |         |
| S4   | 2.50 | 1.25 | 7.75 | 0.75 | "    | 1.75 | 1.13 | "    | "    | "    | "    |         |
| S5   | 3.00 | 1.50 | 9.00 | 1.00 | "    | 2.00 | 1.50 | "    | "    | "    | "    |         |

**SECONDARY CANAL (II)**  
S = 1:200

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| THE ARAB REPUBLIC OF EGYPT             |           |      |
| MINISTRY OF IRRIGATION                 |           |      |
| THE SOUTH HOSAINIA VALLEY              |           |      |
| AGRICULTURAL DEVELOPMENT PROJECT       |           |      |
| TYPICAL SECTION OF                     |           |      |
| SECONDARY IRRIGATION CANAL             |           |      |
| DATE                                   | D.W.G NO. | SH-8 |
| JAPAN INTERNATIONAL COOPERATION AGENCY |           |      |



| TYPE | b    | d    | B     | D    | W    | REMARKS |
|------|------|------|-------|------|------|---------|
| M-1  | 750  | 1.78 | 22.50 | 5.00 | 6.00 |         |
| M-2  | 6.10 | 1.59 | 19.00 | 4.30 | 6.00 |         |
| M-3  | 5.60 | 1.46 | 17.60 | 4.00 | 6.00 |         |
| M-4  | 4.30 | 1.12 | 14.50 | 3.40 | 6.00 |         |
| M-5  | 4.20 | 1.10 | 14.10 | 3.30 | 6.00 |         |
| M1   | 3.90 | 1.02 | 15.90 | 4.00 | 6.00 |         |
| M2   | 4.20 | 1.10 | 15.00 | 3.60 | 6.00 |         |
| M3   | 4.10 | 1.07 | 14.90 | 3.60 | 6.00 |         |

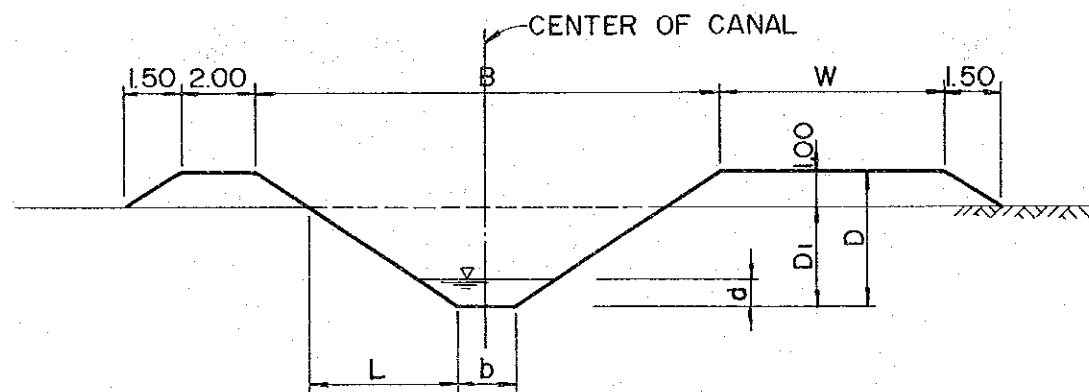
MAIN CANAL

| TYPE   | b   | d    | B     | D    | W    | REMARKS |
|--------|-----|------|-------|------|------|---------|
| M-L-J  | 220 | 0.57 | 10.60 | 2.80 | 6.00 |         |
| M-L-O  | 350 | 0.91 | 12.80 | 3.10 | "    |         |
| M-L-P  | 290 | 0.76 | 11.90 | 3.00 | "    |         |
| M1-L-B | "   | "    | "     | 3.00 | "    |         |
| M1-L-C | 240 | 0.63 | 10.80 | 2.80 | "    |         |
| M3-L-C | 320 | 0.84 | 12.20 | 3.00 | "    |         |
| M3-L-D | 260 | 0.68 | 11.30 | 2.90 | "    |         |

SECONDARY CANAL

MAIN AND SECONDARY CANAL

S = 1:200

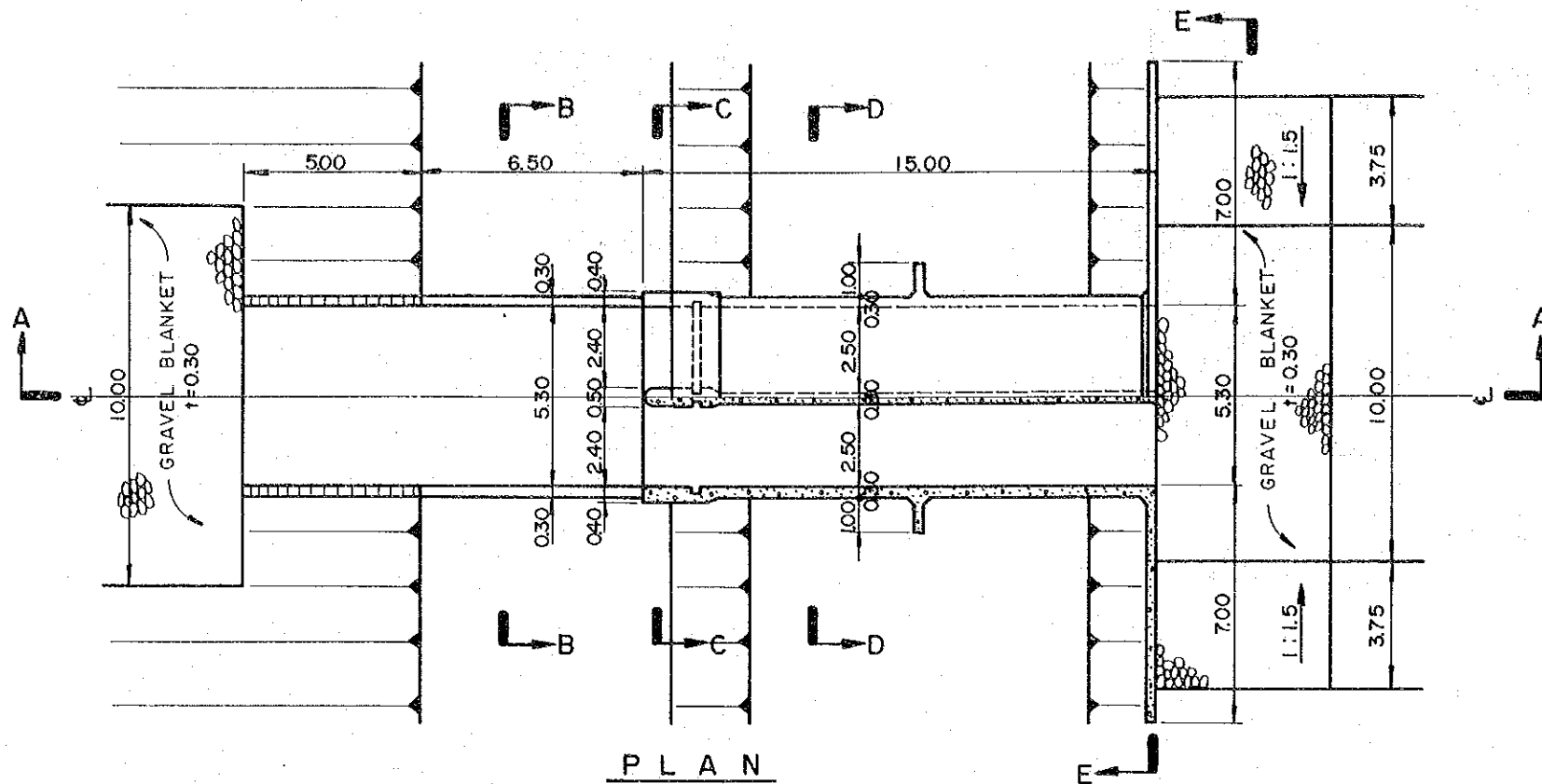


| TYPE | b    | d    | B     | D    | D1   | L    | W    | REMARKS |
|------|------|------|-------|------|------|------|------|---------|
| S1   | 0.50 | 0.25 | 9.65  | 3.05 | 2.05 | 3.10 | 6.00 |         |
| S2   | 1.00 | 0.50 | 10.90 | 3.30 | 2.30 | 3.45 | 6.00 |         |
| S3   | 1.50 | 0.75 | 12.15 | 3.65 | 2.55 | 3.80 | 6.00 |         |

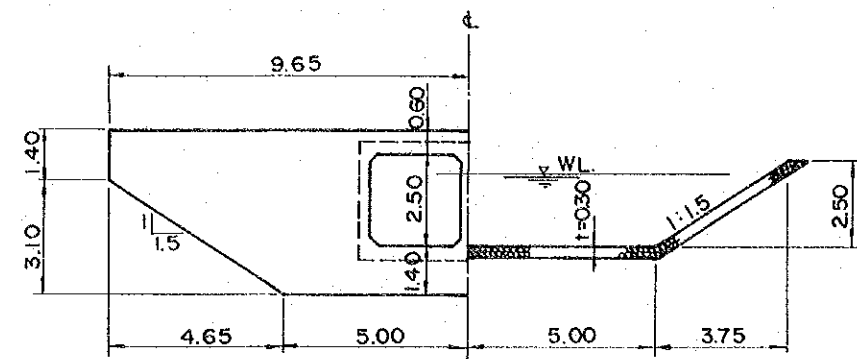
SECONDARY CANAL

S = 1:200

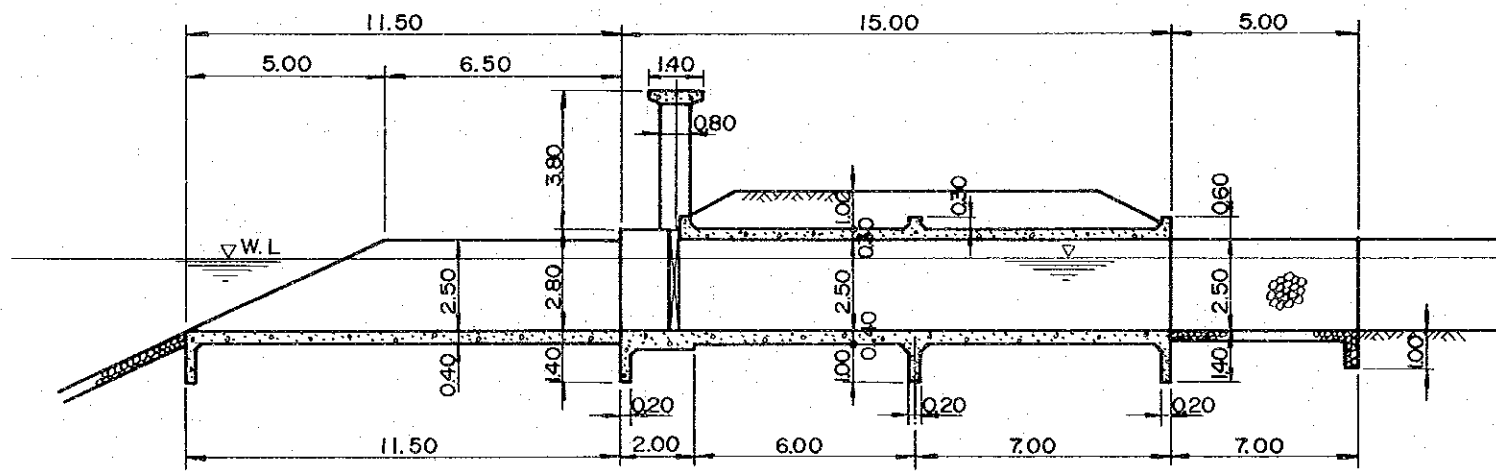
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| THE ARAB REPUBLIC OF EGYPT             |  |         |      |
| MINISTRY OF IRRIGATION                 |  |         |      |
| THE SOUTH HOSAINIA VALLEY              |  |         |      |
| AGRICULTURAL DEVELOPMENT PROJECT       |  |         |      |
| TYPICAL SECTION OF DRAINAGE CANAL      |  |         |      |
| DATE                                   |  | DWG NO. | SH-9 |
| JAPAN INTERNATIONAL COOPERATION AGENCY |  |         |      |



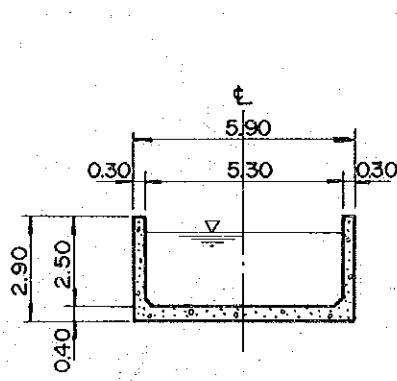
PLAN



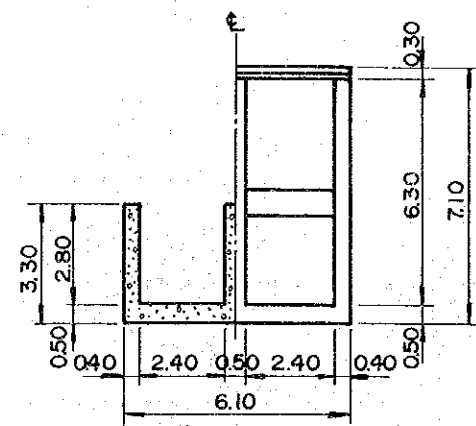
SECTION E-E



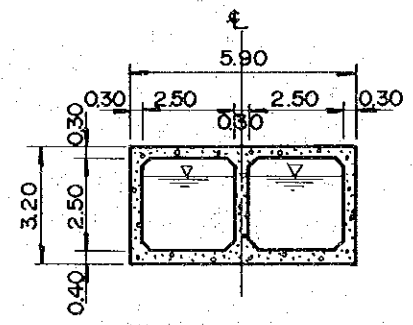
SECTION A-A



SECTION B-B

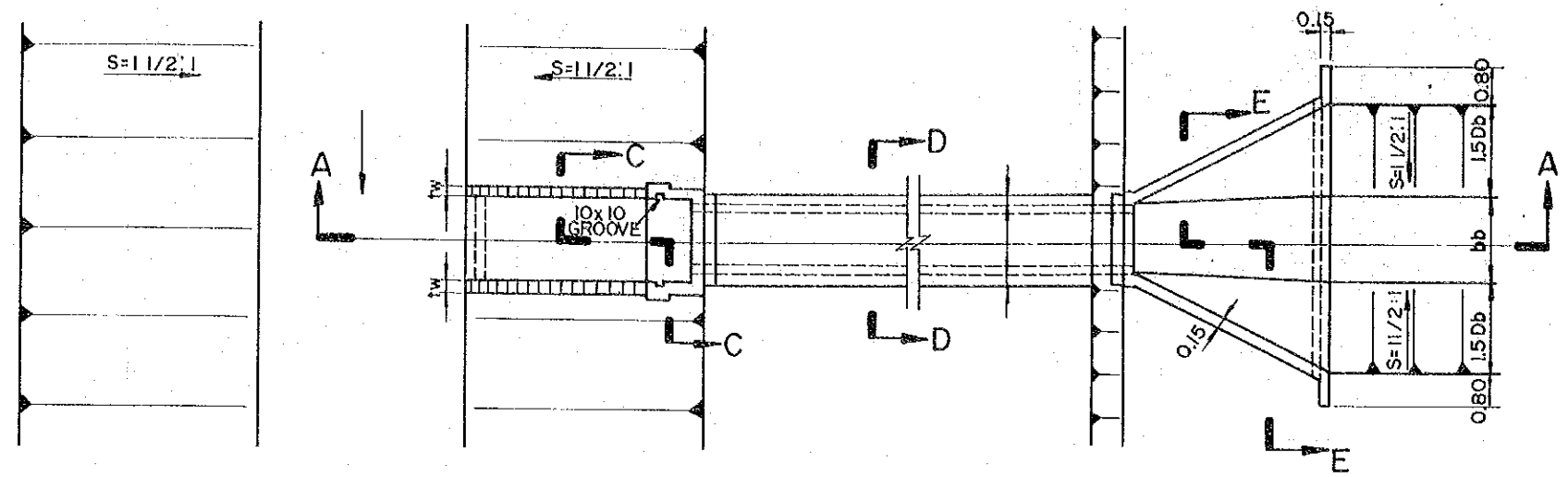


SECTION C-C

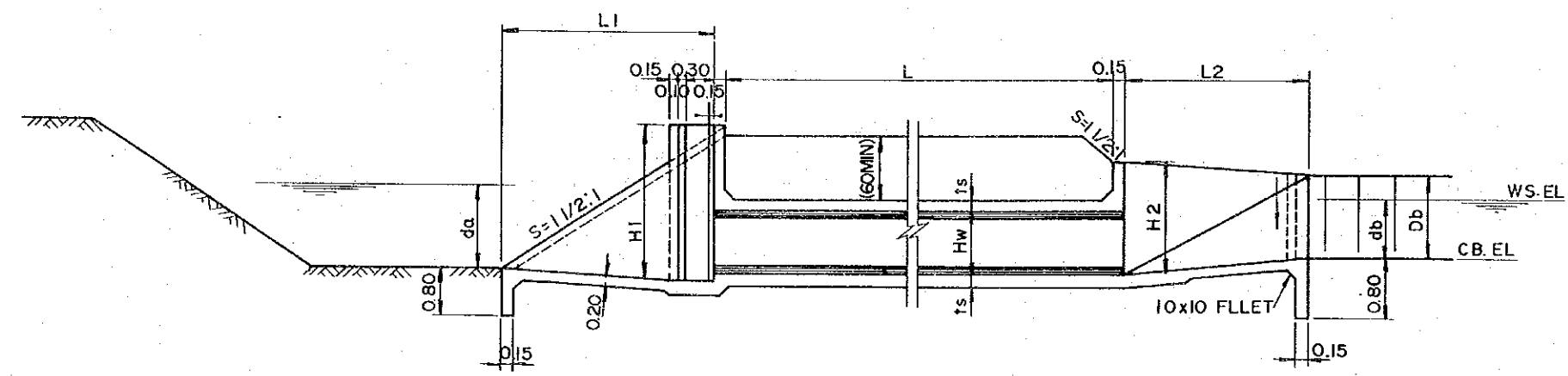


SECTION D-D

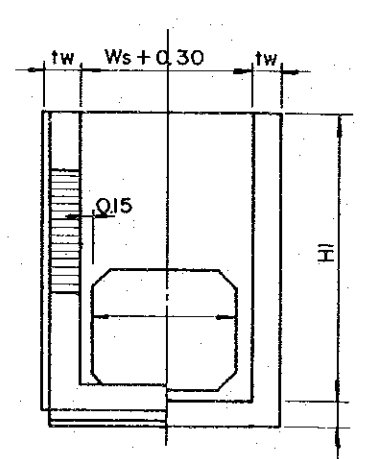
|  |           |       |
|--|-----------|-------|
| THE ARAB REPUBLIC OF EGYPT             |           |       |
| MINISTRY OF IRRIGATION                 |           |       |
| THE SOUTH HOSAINIA VALLEY              |           |       |
| AGRICULTURAL DEVELOPMENT PROJECT       |           |       |
| IRRIGATION CANAL FACILITY              |           |       |
| HEAD GATE OF MAIN                      |           |       |
| DATE                                   | D.W.G NO. | SH-10 |
| JAPAN INTERNATIONAL COOPERATION AGENCY |           |       |



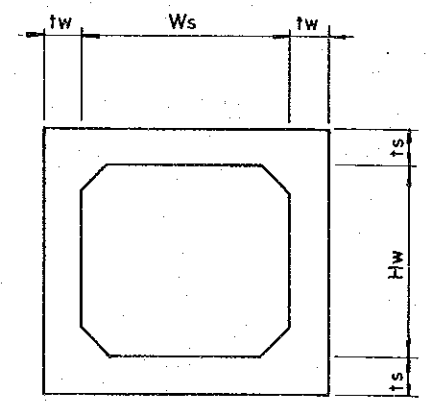
P L A N



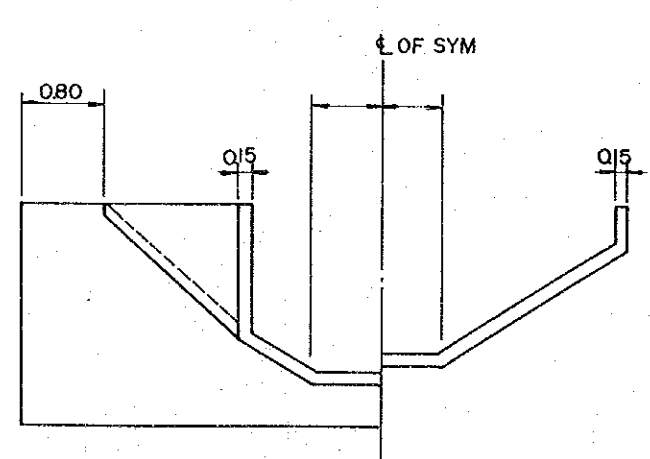
SECTION A - A



SECTION C - C



SECTION D - D



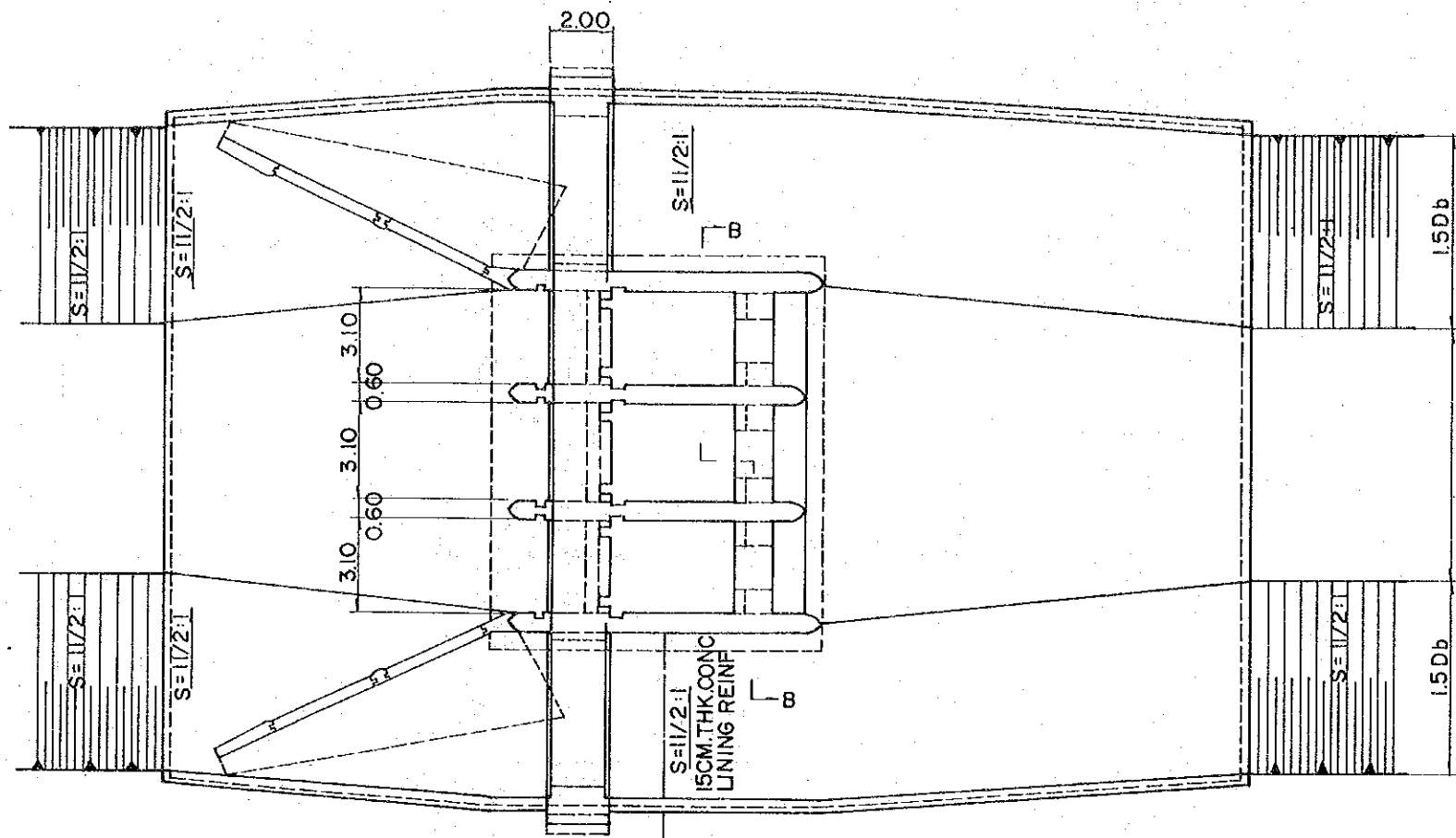
SECTION E - E

| TYPE | Ws   | Hw   | tw   | ts   | HI   | H2   | L    | L1   | L2   | da   | db   | Db   | bb   | REMARKS |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------|
| A 5  | 1.50 | 1.50 | 0.20 | 0.20 | 2.50 | 2.20 | 9.00 | 3.75 | 5.40 | 2.50 | 1.20 | 1.70 | 4.60 |         |
| A 8  | 2.00 | 2.00 | 0.25 | 0.25 | 3.00 | 2.75 | 9.00 | 4.50 | 7.20 | 2.00 | 1.60 | 2.10 | 6.00 |         |

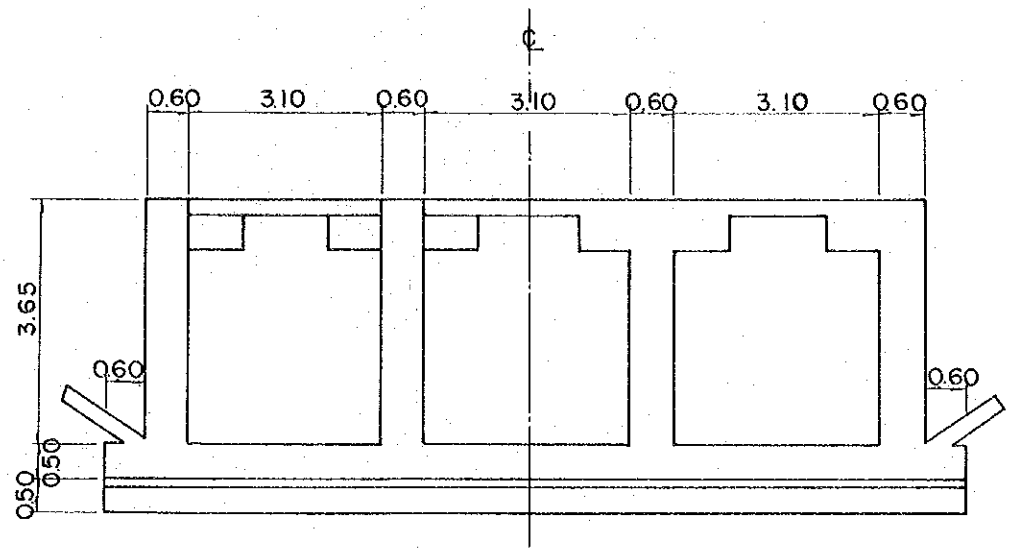
THE ARAB REPUBLIC OF EGYPT  
 MINISTRY OF IRRIGATION  
 THE SOUTH HOSAINIA VALLEY  
 AGRICULTURAL DEVELOPMENT PROJECT  
 IRRIGATION CANAL FACILITY  
 HEAD GATE OF SECONDARY

|      |           |       |
|------|-----------|-------|
| DATE | D.W.G NO. | SH-11 |
|------|-----------|-------|

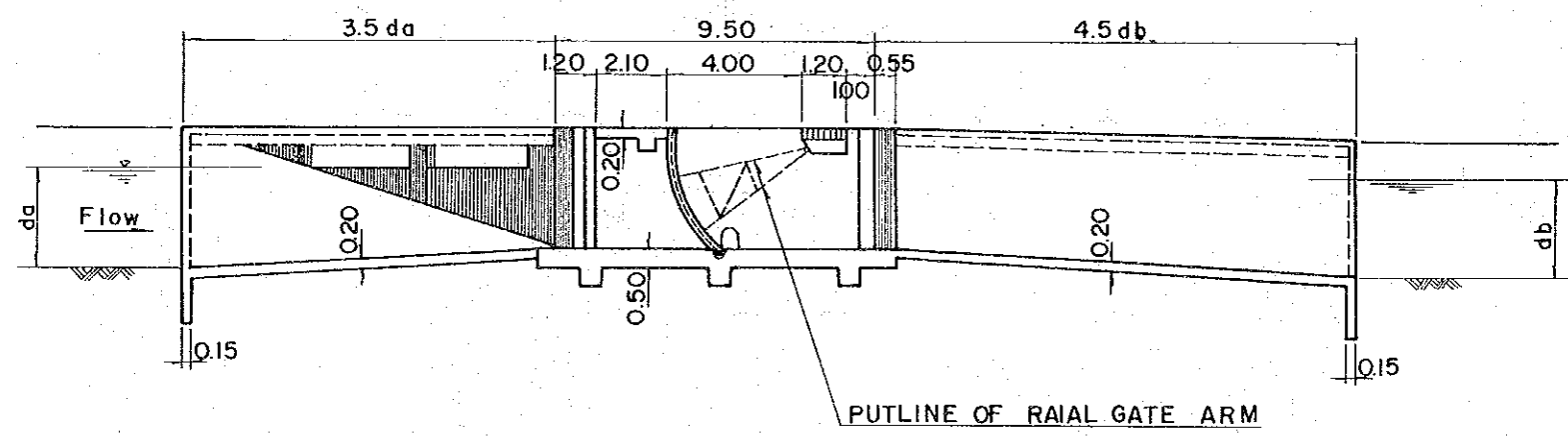
JAPAN INTERNATIONAL COOPERATION AGENCY



P L A N



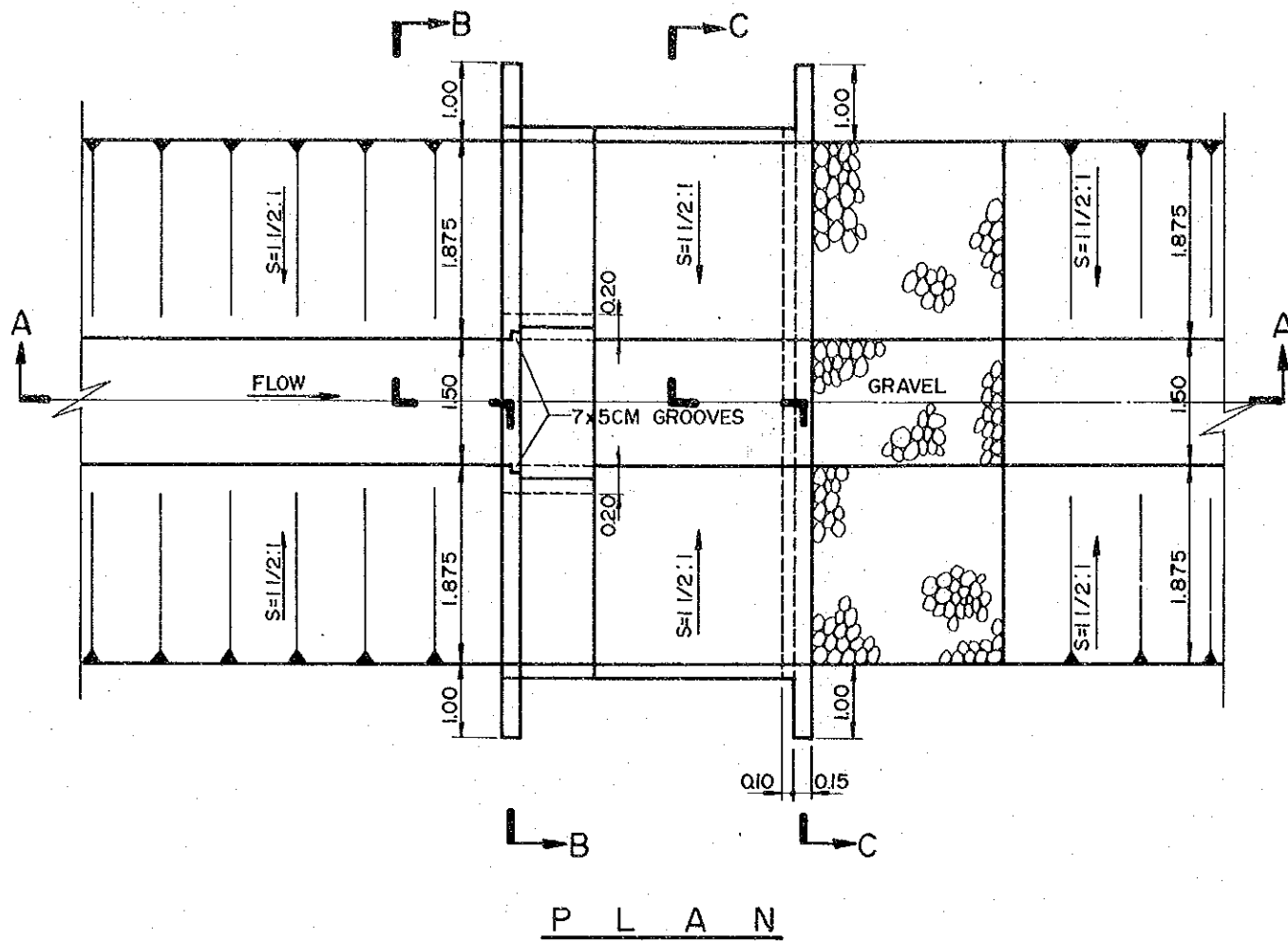
SECTION "B-B"



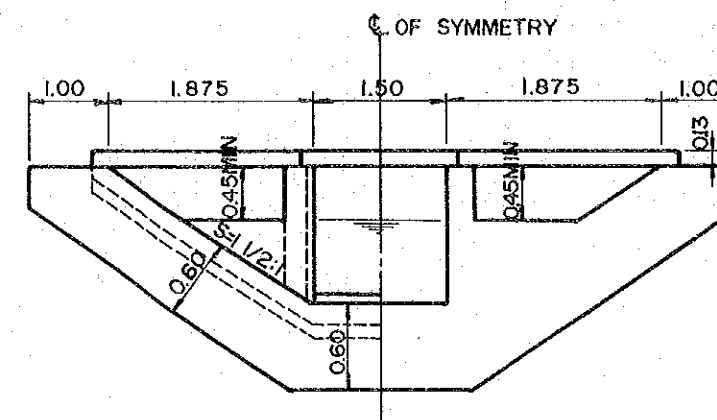
SECTION "A-A"

P U T L I N E O F R A I A L G A T E A R M

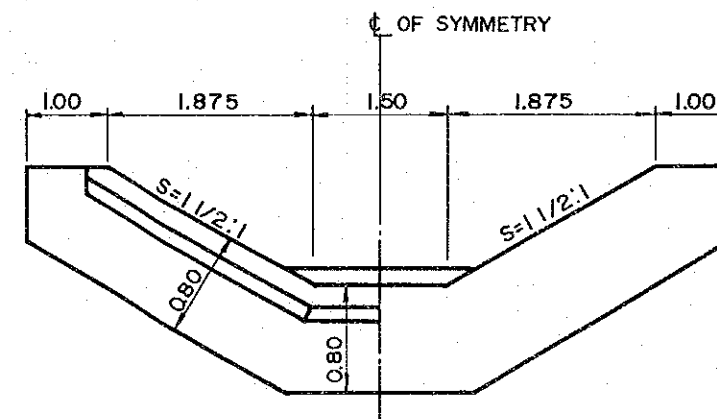
|  |          |       |
|--|----------|-------|
| THE ARAB REPUBLIC OF EGYPT             |          |       |
| MINISTRY OF IRRIGATION                 |          |       |
| THE SOUTH HOSAINIA VALLEY              |          |       |
| AGRICULTURAL DEVELOPMENT PROJECT       |          |       |
| IRRIGATION CANAL FACILITY              |          |       |
| CHECK WITH RADIAL GATES                |          |       |
| DATE                                   | D.W.G NO | SH-12 |
| JAPAN INTERNATIONAL COOPERATION AGENCY |          |       |



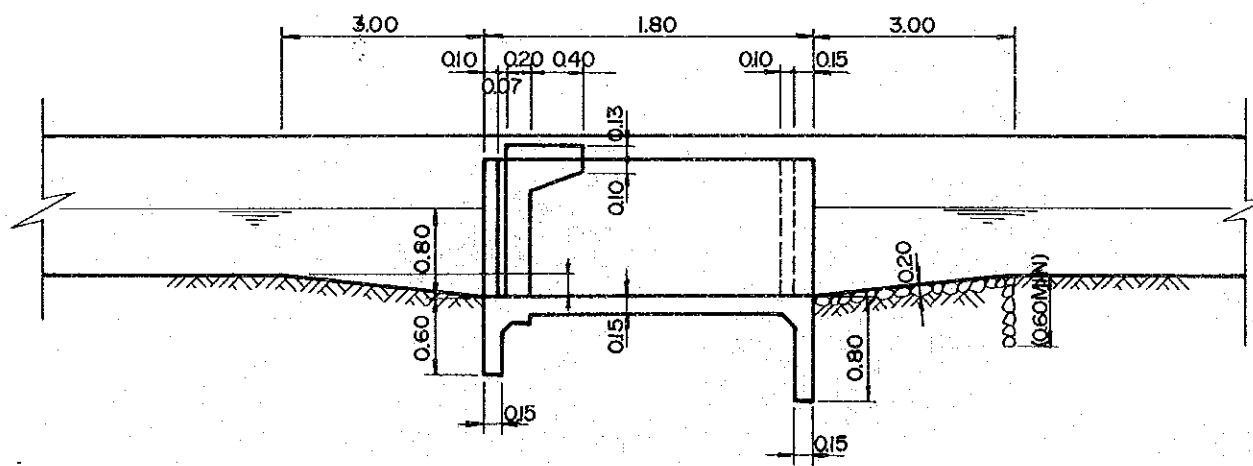
P L A N



SECTION B - B



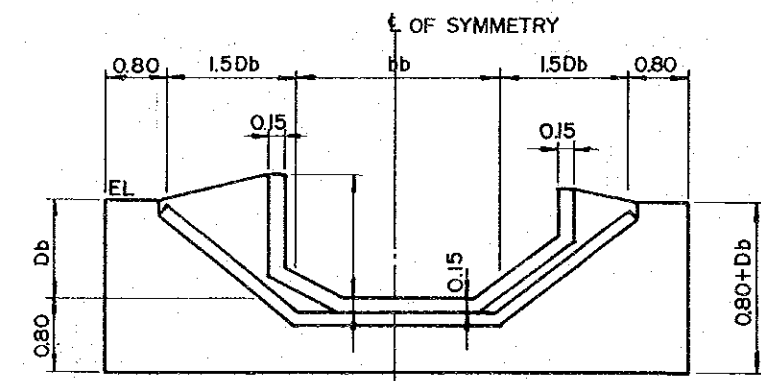
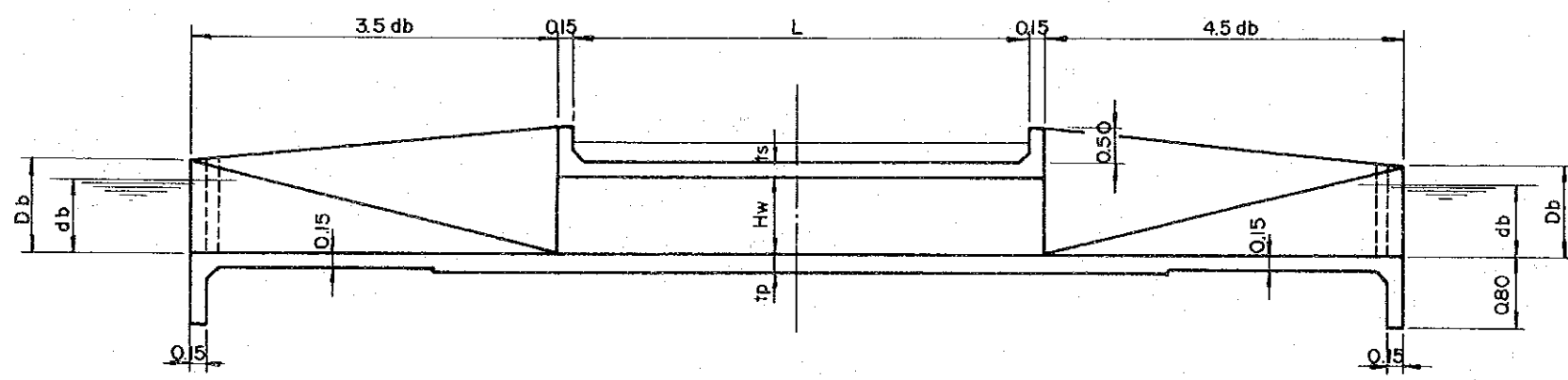
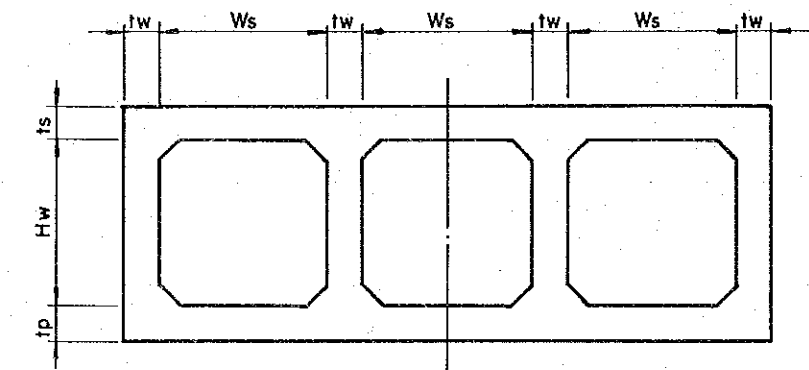
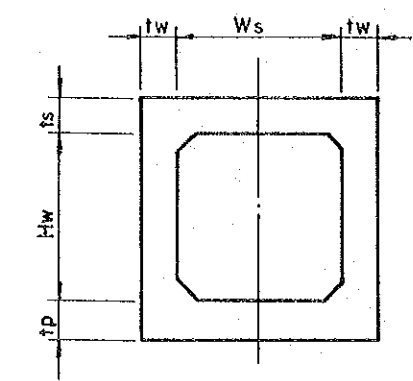
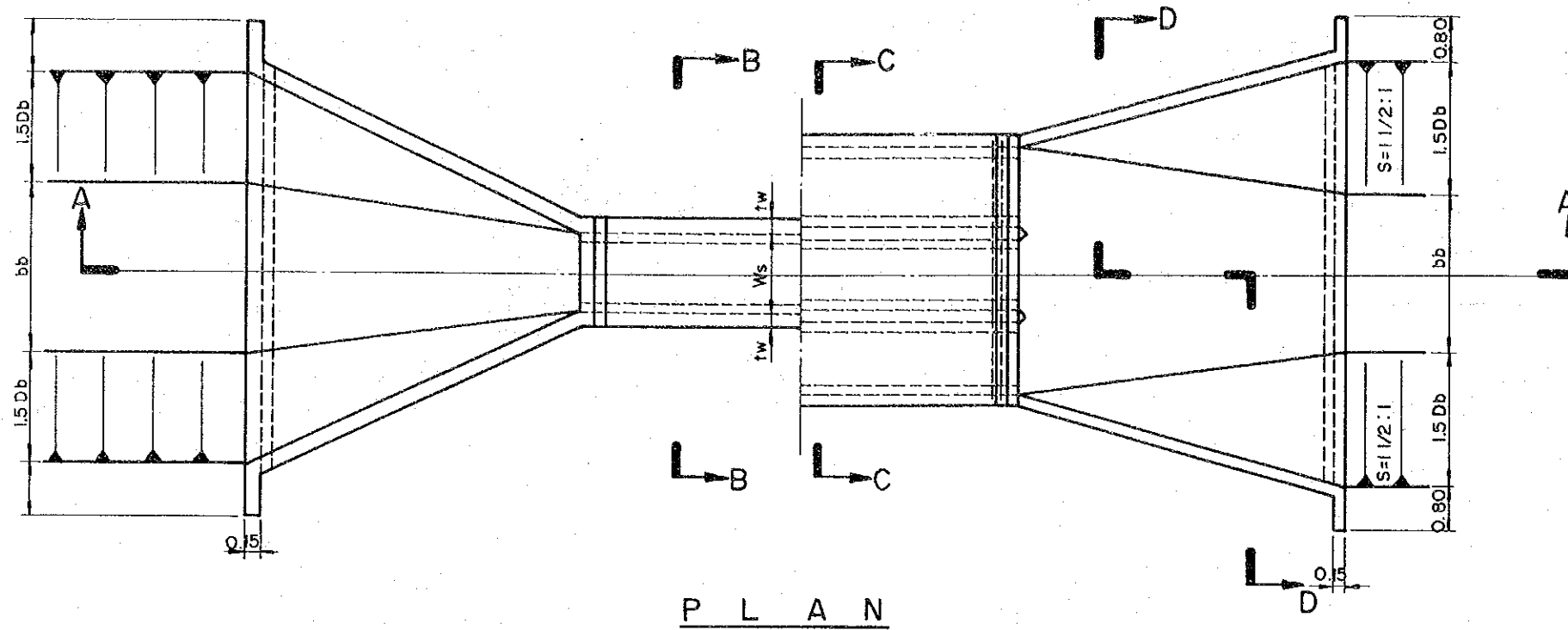
SECTION C - C



SECTION A - A

|  |           |       |
|--|-----------|-------|
| THE ARAB REPUBLIC OF EGYPT             |           |       |
| MINISTRY OF IRRIGATION                 |           |       |
| THE SOUTH HOSAINIA VALLEY              |           |       |
| AGRICULTURAL DEVELOPMENT PROJECT       |           |       |
| IRRIGATION CANAL FACILITY              |           |       |
| CHECK GATE                             |           |       |
| DATE                                   | D.W.G NO. | SH-13 |
| JAPAN INTERNATIONAL COOPERATION AGENCY |           |       |





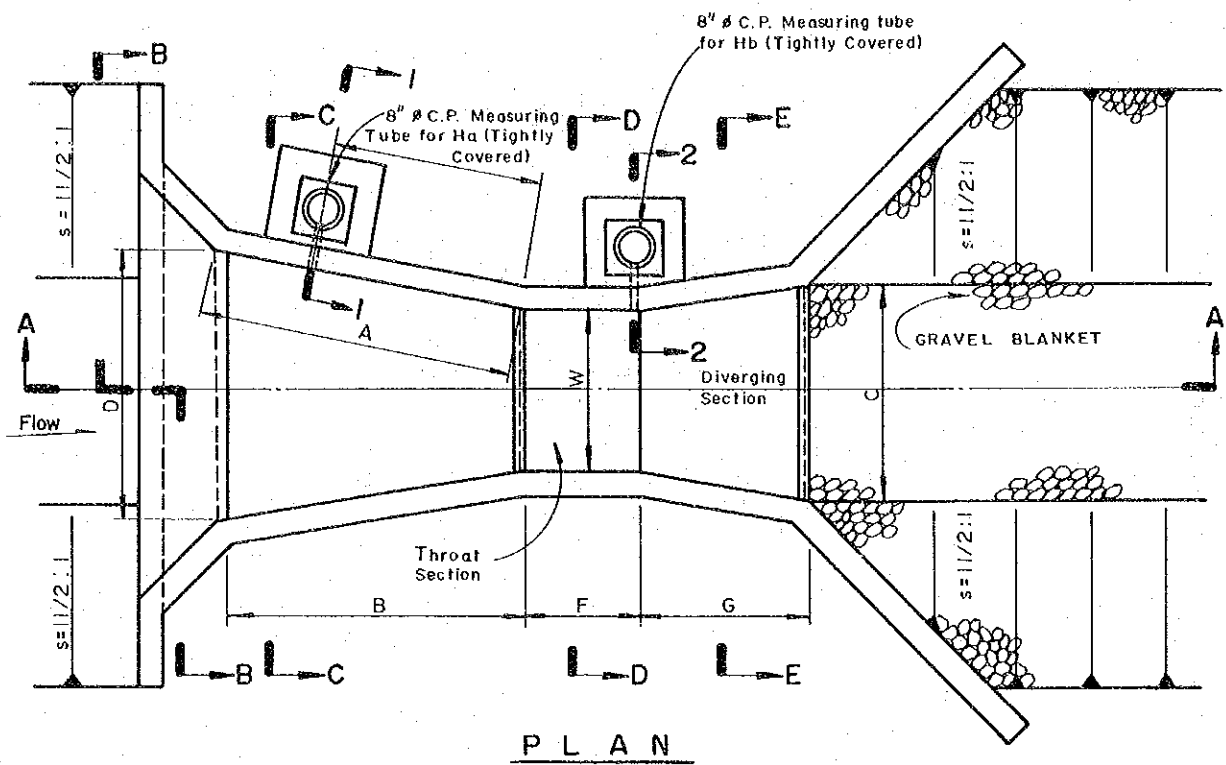
| TYPE | Ws   | Hw   | tw   | ts   | tp   | db   | Db   | bb    | L    | REMARKS |
|------|------|------|------|------|------|------|------|-------|------|---------|
| A-1  | 1.00 | 1.00 | 0.15 | 0.15 | 0.20 | 0.75 | 1.25 | 1.50  | 9.00 | 1 BOX   |
| A-2  | "    | "    | "    | "    | "    | "    | "    | "     | 6.00 | "       |
| B-1  | 1.50 | 1.50 | 0.20 | 0.20 | 0.25 | 1.70 | 2.20 | 7.00  | 9.00 | 3 BOX   |
| B-2  | "    | "    | "    | "    | "    | "    | "    | "     | 6.00 | "       |
| C-1  | 2.00 | 2.00 | 0.25 | 0.25 | 0.30 | 2.00 | 2.50 | 10.00 | 9.00 | "       |
| C-2  | "    | "    | "    | "    | "    | "    | "    | "     | 6.00 | "       |

SECTION D - D

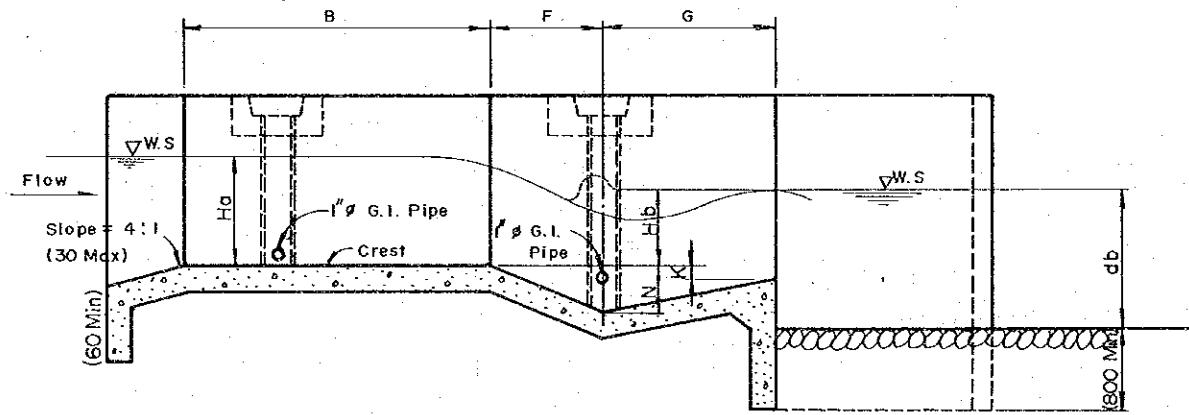
THE ARAB REPUBLIC OF EGYPT  
 MINISTRY OF IRRIGATION  
 THE SOUTH HOSAINIA VALLEY  
 AGRICULTURAL DEVELOPMENT PROJECT  
 IRRIGATION CANAL FACILITY  
 BOX CULVERT

|      |  |           |       |
|------|--|-----------|-------|
| DATE |  | D.W.G NO. | SH-14 |
|------|--|-----------|-------|

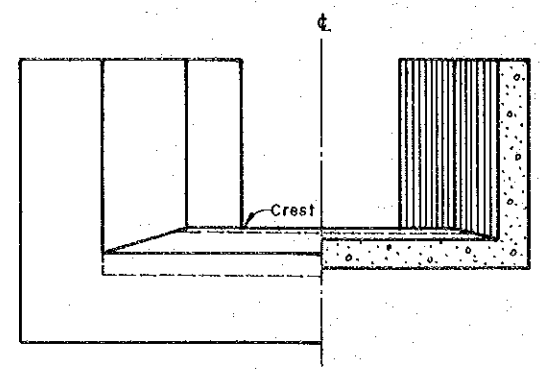
JAPAN INTERNATIONAL COOPERATION AGENCY



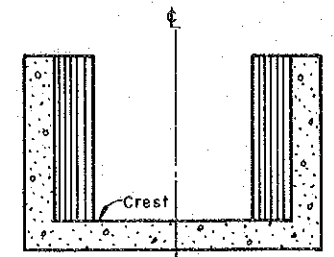
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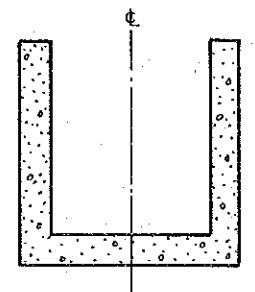
SECTION A-A



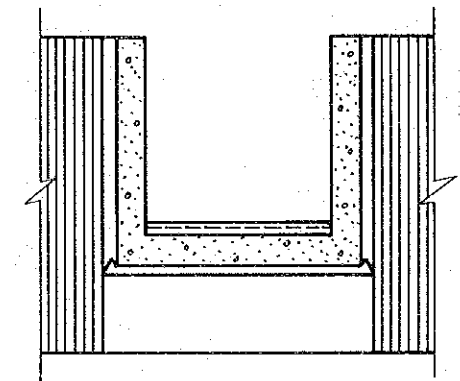
SECTION B-B



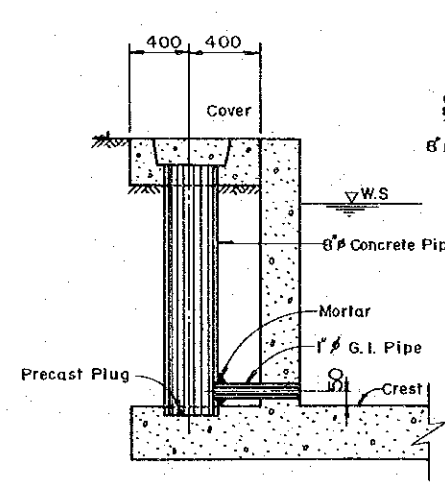
SECTION C-C



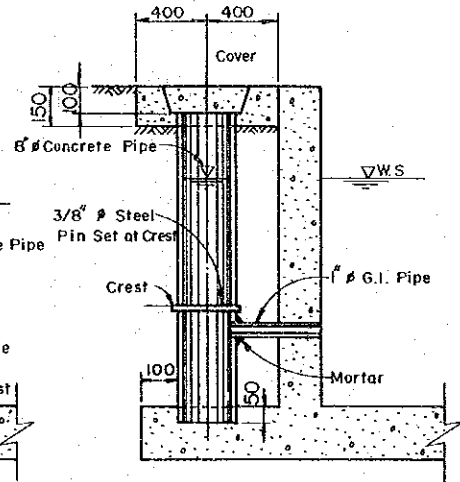
SECTION D-D



SECTION E-E



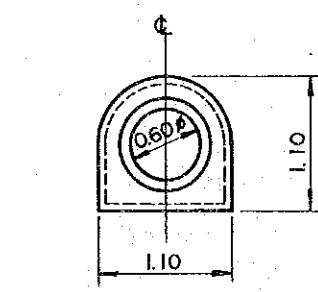
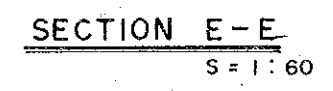
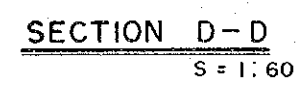
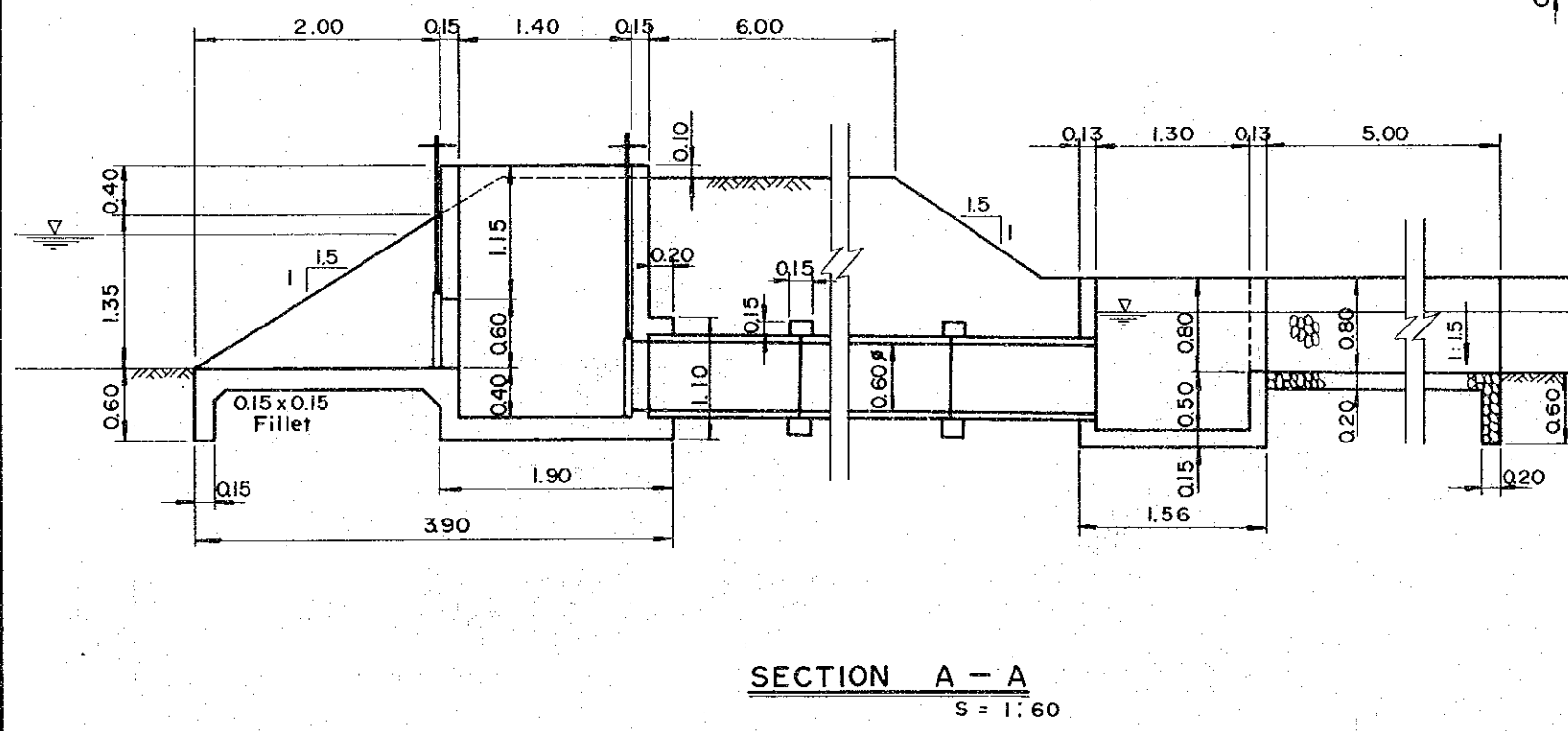
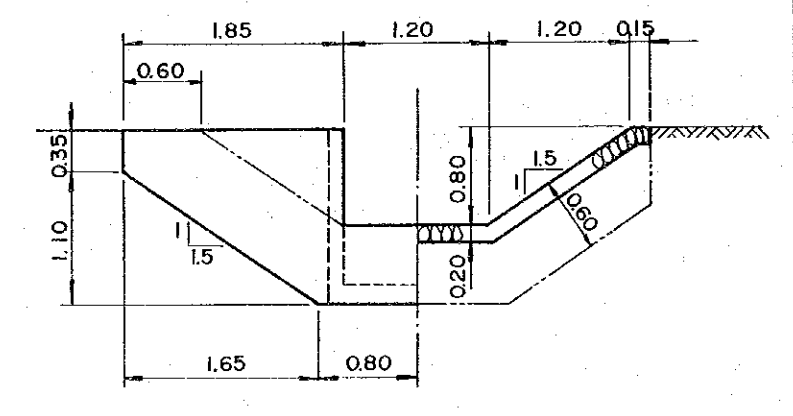
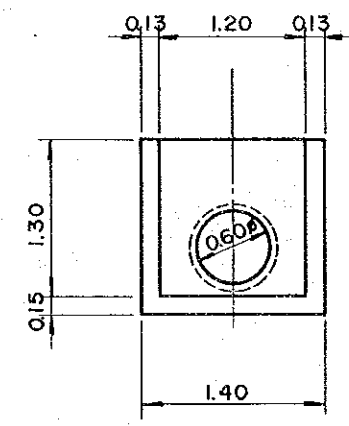
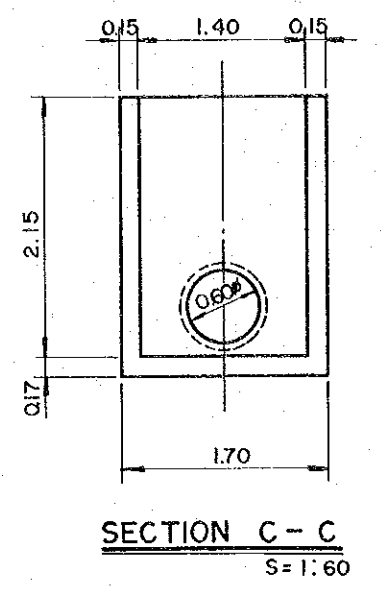
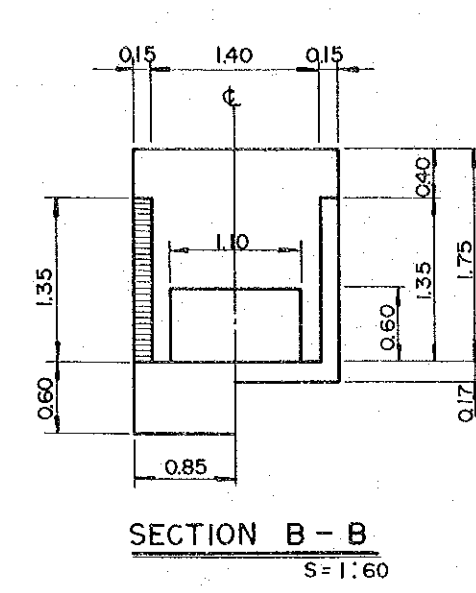
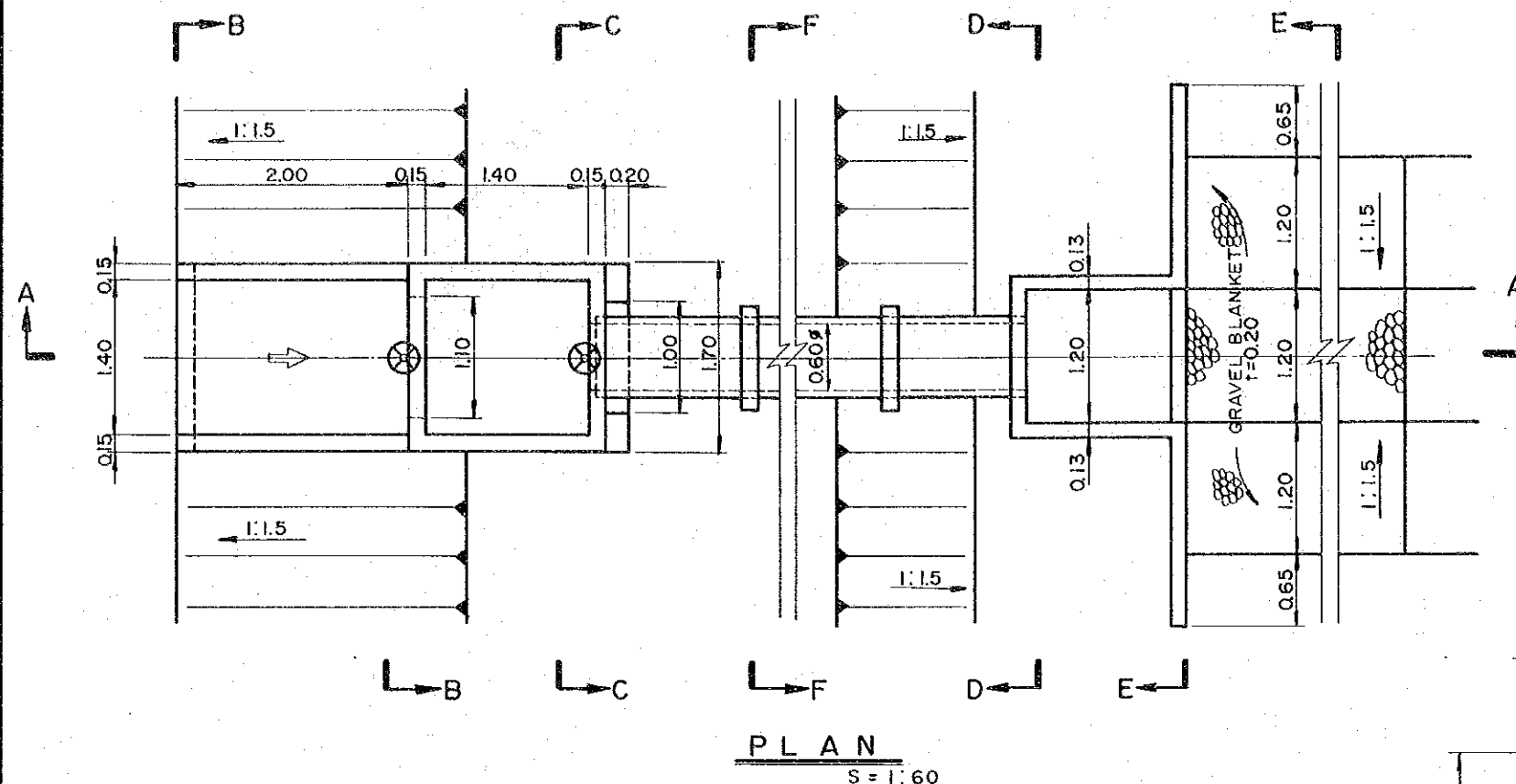
SECTION 1-1



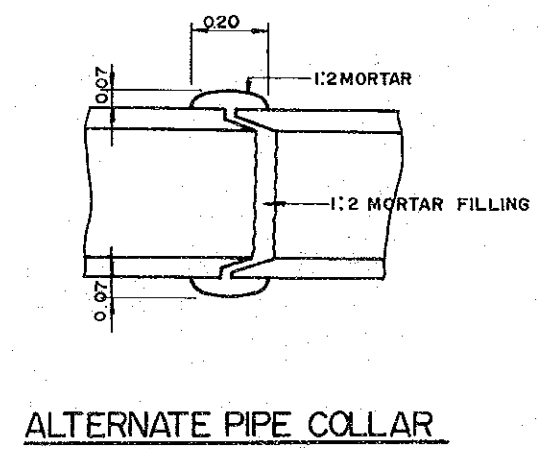
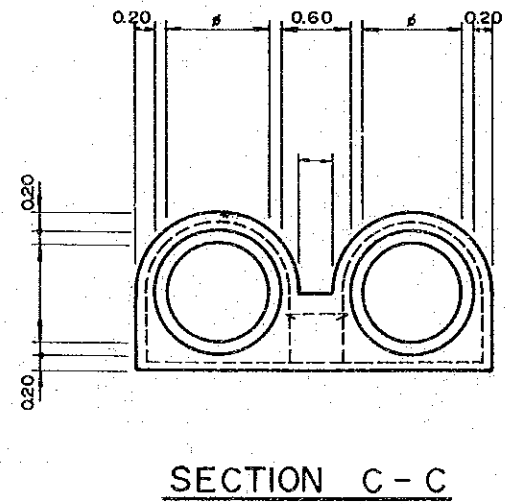
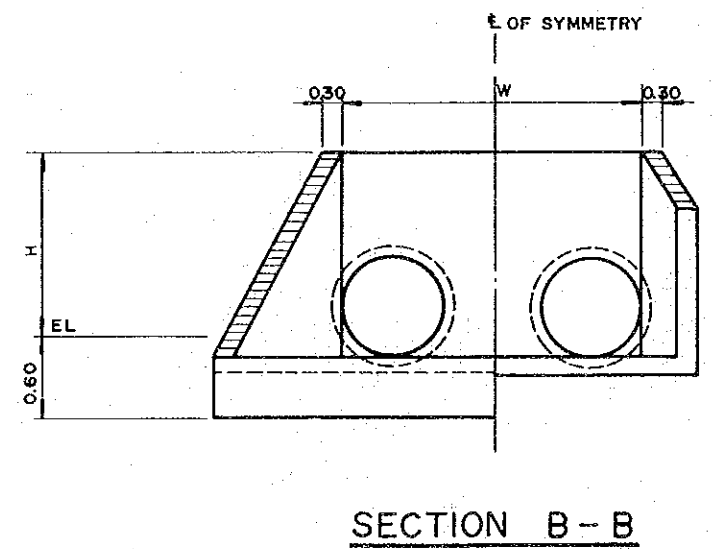
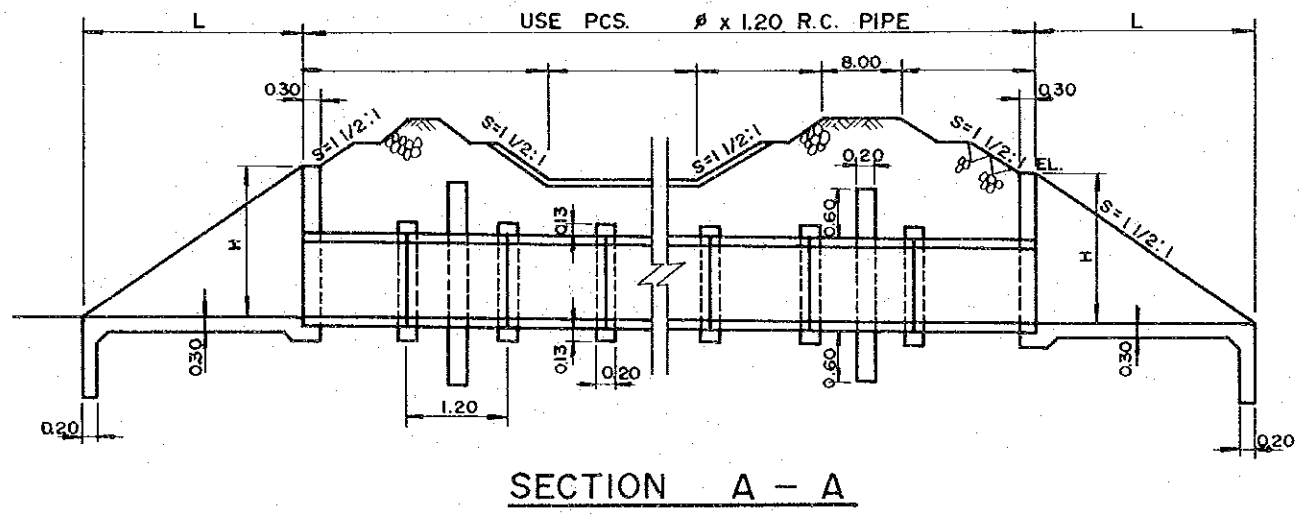
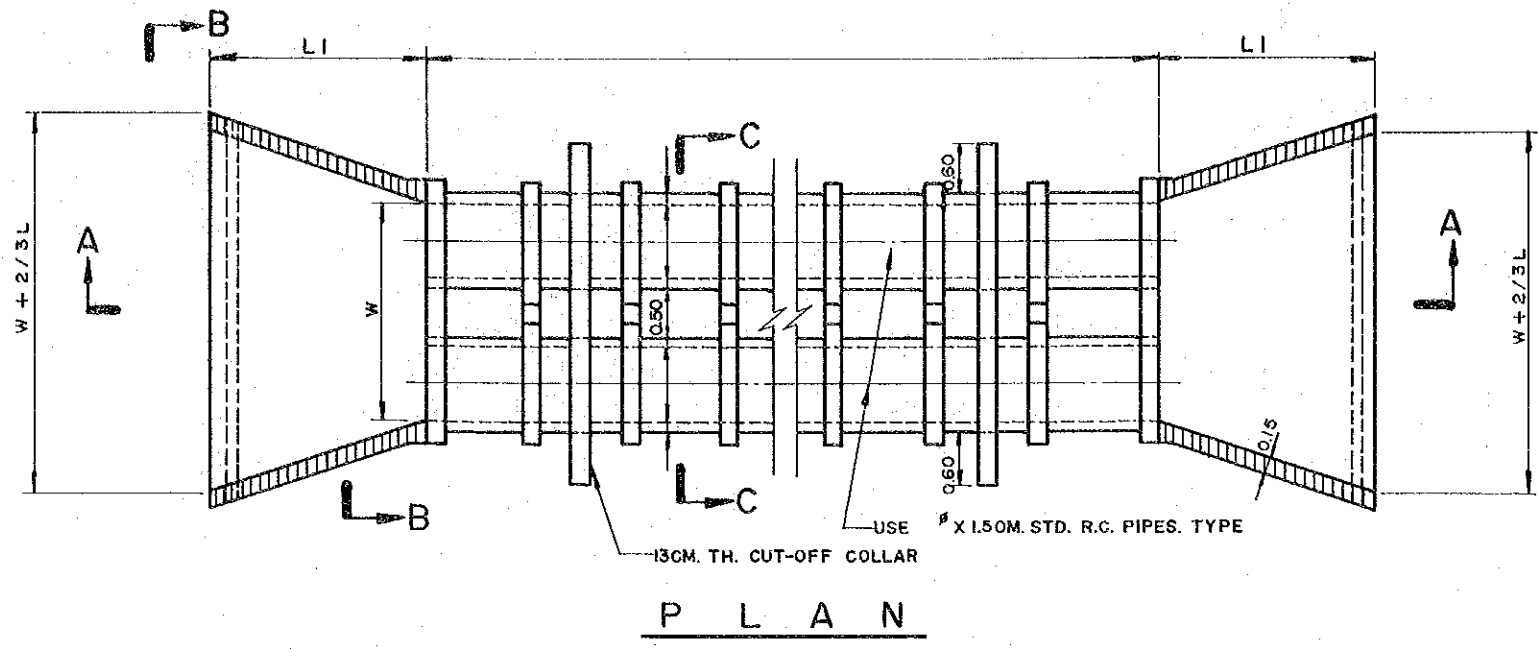
SECTION 2-2

| THROAT WIDTH, W |            | PARSHALL FLUME DIMENSIONS IN CENTIMETERS |     |     |     |    |     |    |    |    |
|-----------------|------------|--|-----|-----|-----|----|-----|----|----|----|
| FEET            | CENT-METER | A  | B   | C   | D   | F  | G   | K  | N  | T  |
| 5               | 152        | 198                                      | 194 | 183 | 230 | 61 | 91  | 8  | 23 | 7  |
| 8               | 244        | 244                                      | 239 | 274 | 340 | 61 | 91  | 8  | 23 | 7  |
| 10              | 305        | 435                                      | 427 | 366 | 473 | 91 | 183 | 15 | 34 | 28 |

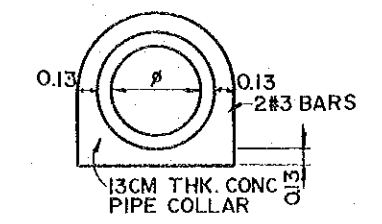
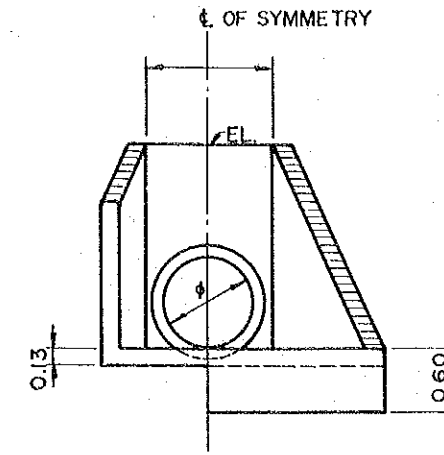
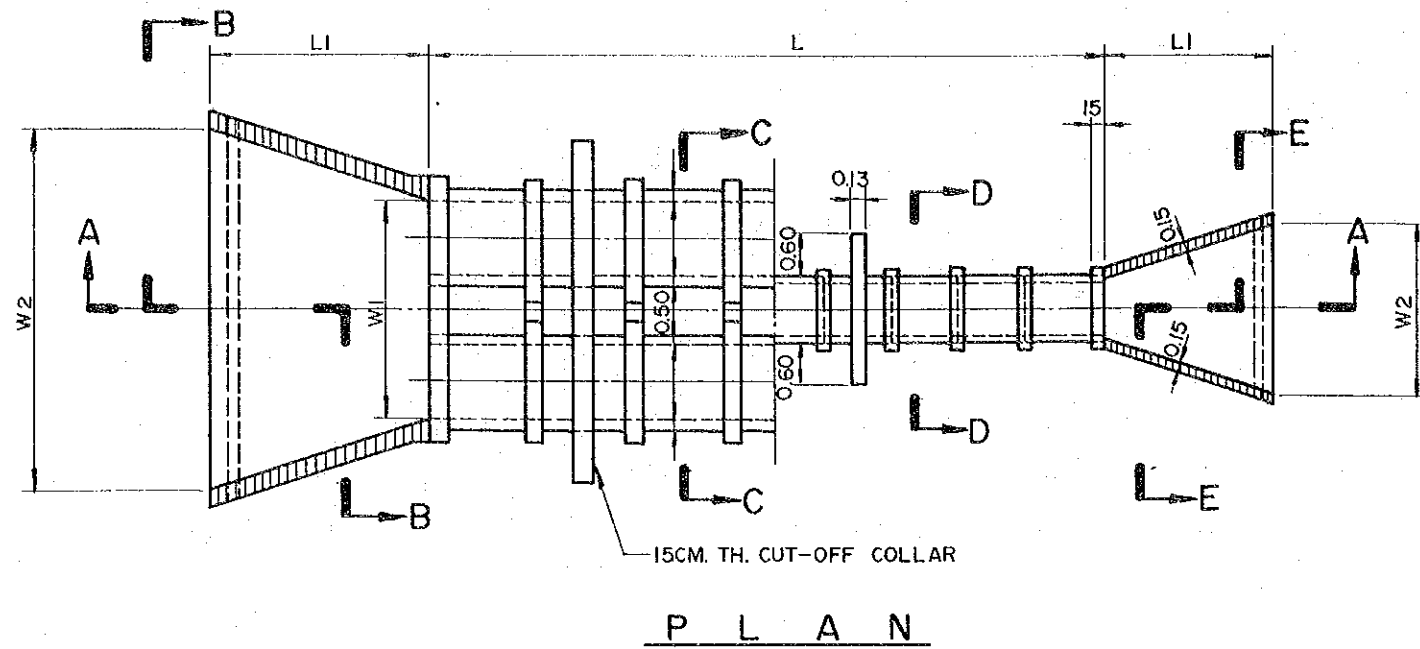
THE ARAB REPUBLIC OF EGYPT  
 MINISTRY OF IRRIGATION  
 THE SOUTH HOSAINIA VALLEY  
 AGRICULTURAL DEVELOPMENT PROJECT  
 IRRIGATION CANAL FACILITY  
 PARSHALL FLUME  
 DATE \_\_\_\_\_ D.W.G NO. SH-15  
 JAPAN INTERNATIONAL COOPERATION AGENCY



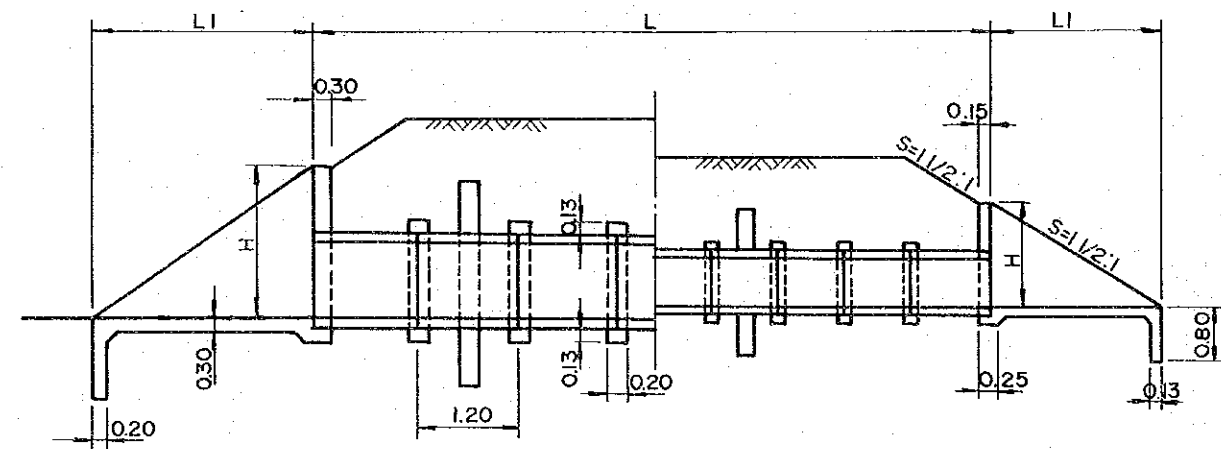
|  |         |       |
|--|---------|-------|
| THE ARAB REPUBLIC OF EGYPT             |         |       |
| MINISTRY OF IRRIGATION                 |         |       |
| THE SOUTH HOSAINIA VALLEY              |         |       |
| AGRICULTURAL DEVELOPMENT PROJECT       |         |       |
| IRRIGATION CANAL FACILITY              |         |       |
| COMBINED TURNOUT AND DIVISION          |         |       |
| BOX WITH ORIFICE                       |         |       |
| DATE                                   | DWG NO. | SH-16 |
| JAPAN INTERNATIONAL COOPERATION AGENCY |         |       |



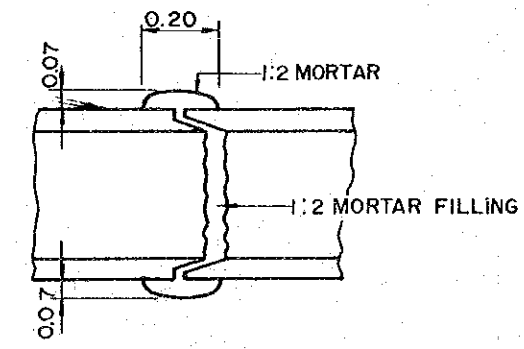
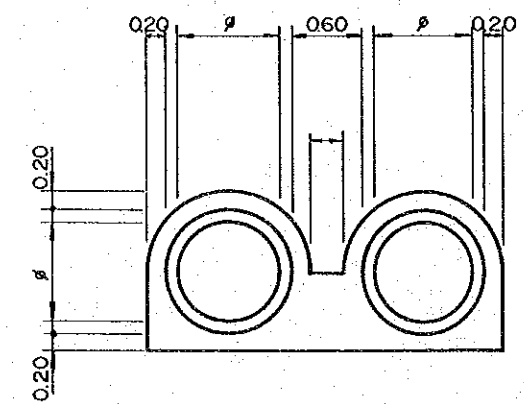
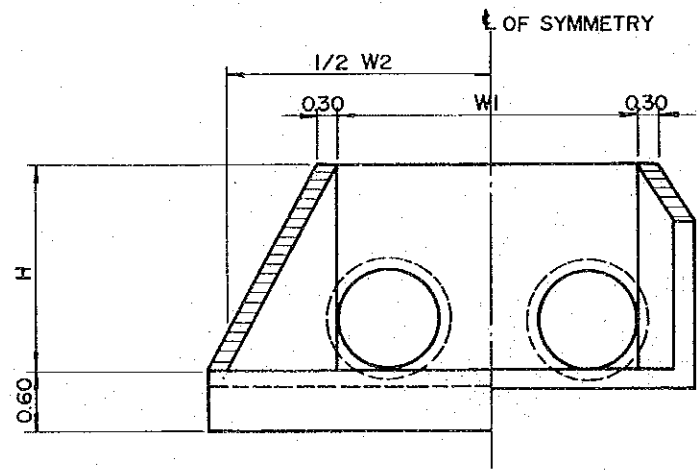
|  |  |           |       |
|--|--|-----------|-------|
| THE ARAB REPUBLIC OF EGYPT             |  |           |       |
| MINISTRY OF IRRIGATION                 |  |           |       |
| THE SOUTH HOSAINIA VALLEY              |  |           |       |
| AGRICULTURAL DEVELOPMENT PROJECT       |  |           |       |
| DRAINAGE PIPE CULVERT                  |  |           |       |
| DATE                                   |  | D.W.G NO. | SH-17 |
| JAPAN INTERNATIONAL COOPERATION AGENCY |  |           |       |



SECTION D - D



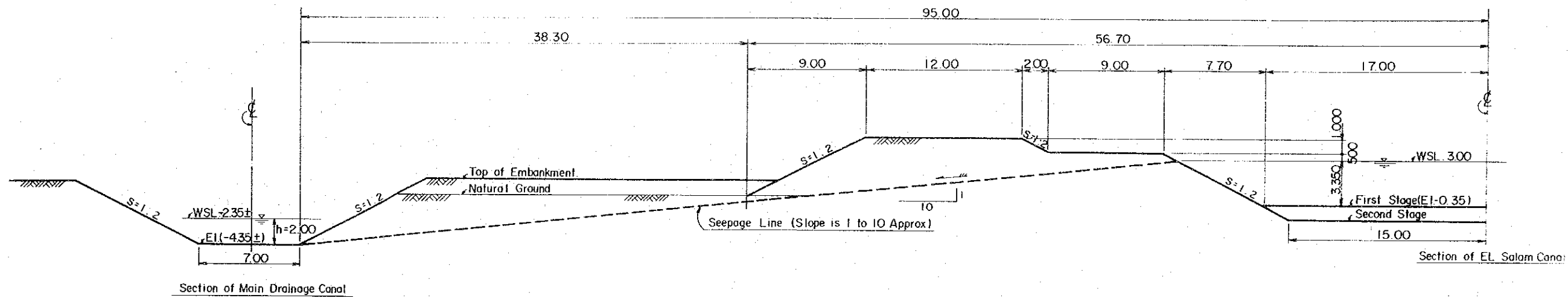
| TYPE | φ    | W1   | W2   | H    | L1   | L     | REMARKS |
|------|------|------|------|------|------|-------|---------|
| A-1  | 0.40 | 0.50 | 1.00 | 2.30 | 3.50 | 9.00  |         |
| A-2  | "    | "    | "    | "    | "    | 12.00 |         |
| B-1  | 1.00 | 2.50 | 4.20 | 3.00 | 4.50 | 9.00  |         |
| B-2  | "    | "    | "    | "    | "    | 12.00 |         |
| C    | 1.50 | 3.50 | 5.60 | 4.00 | 6.00 | 12.00 |         |



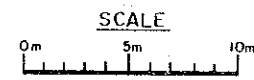
THE ARAB REPUBLIC OF EGYPT  
 MINISTRY OF IRRIGATION  
 THE SOUTH HOSAINIA VALLEY  
 AGRICULTURAL DEVELOPMENT PROJECT  
 DRAINAGE CANAL FACILITY  
 PIPE CULVERT

|      |  |           |       |
|------|--|-----------|-------|
| DATE |  | D.W.G NO. | SH-18 |
|------|--|-----------|-------|

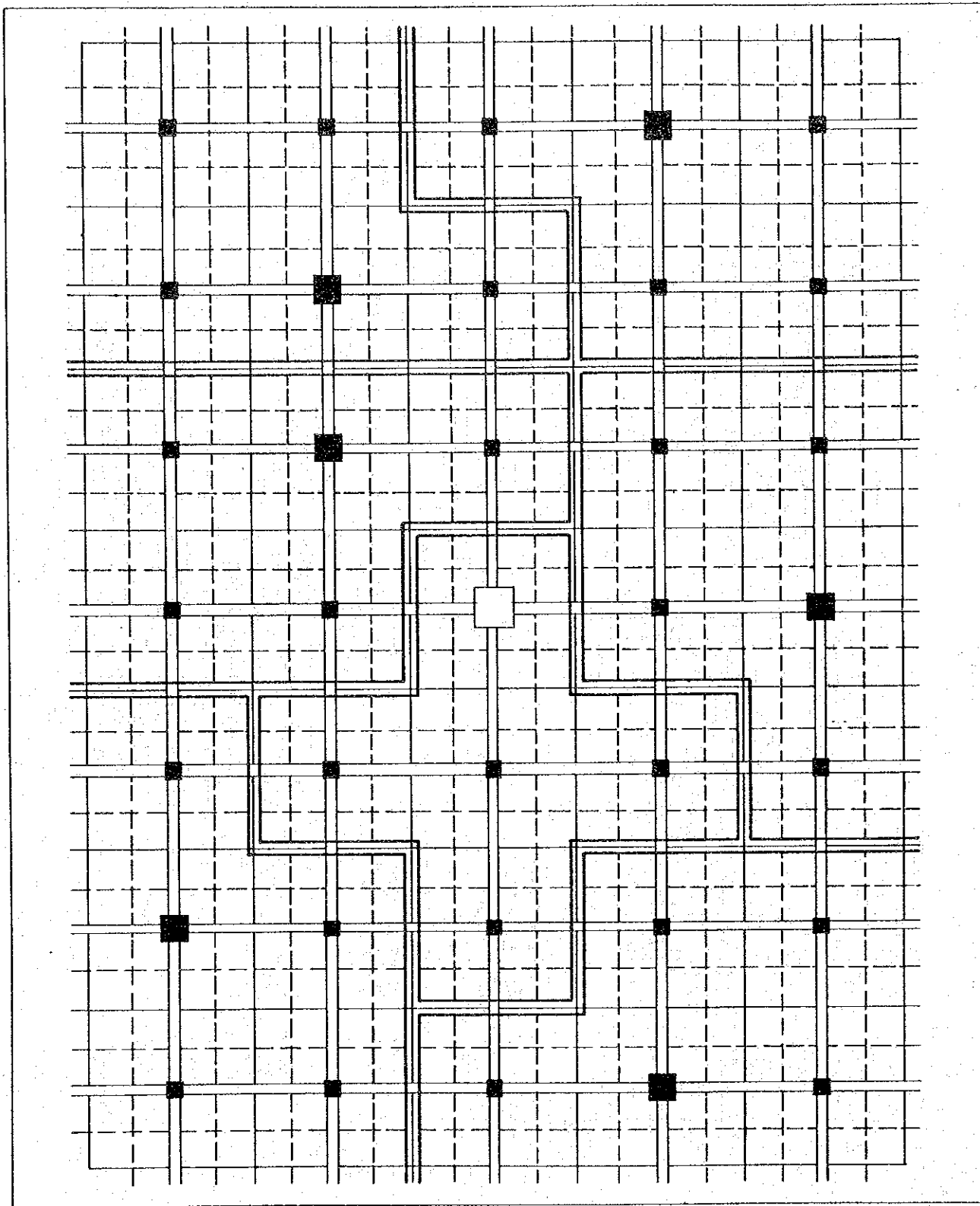
JAPAN INTERNATIONAL COOPERATION AGENCY



TYPICAL SECTION OF SEEPAGE LINE  
 (BETWEEN ELSALAM CANAL AND MAIN  
 DRAINAGE CANAL)

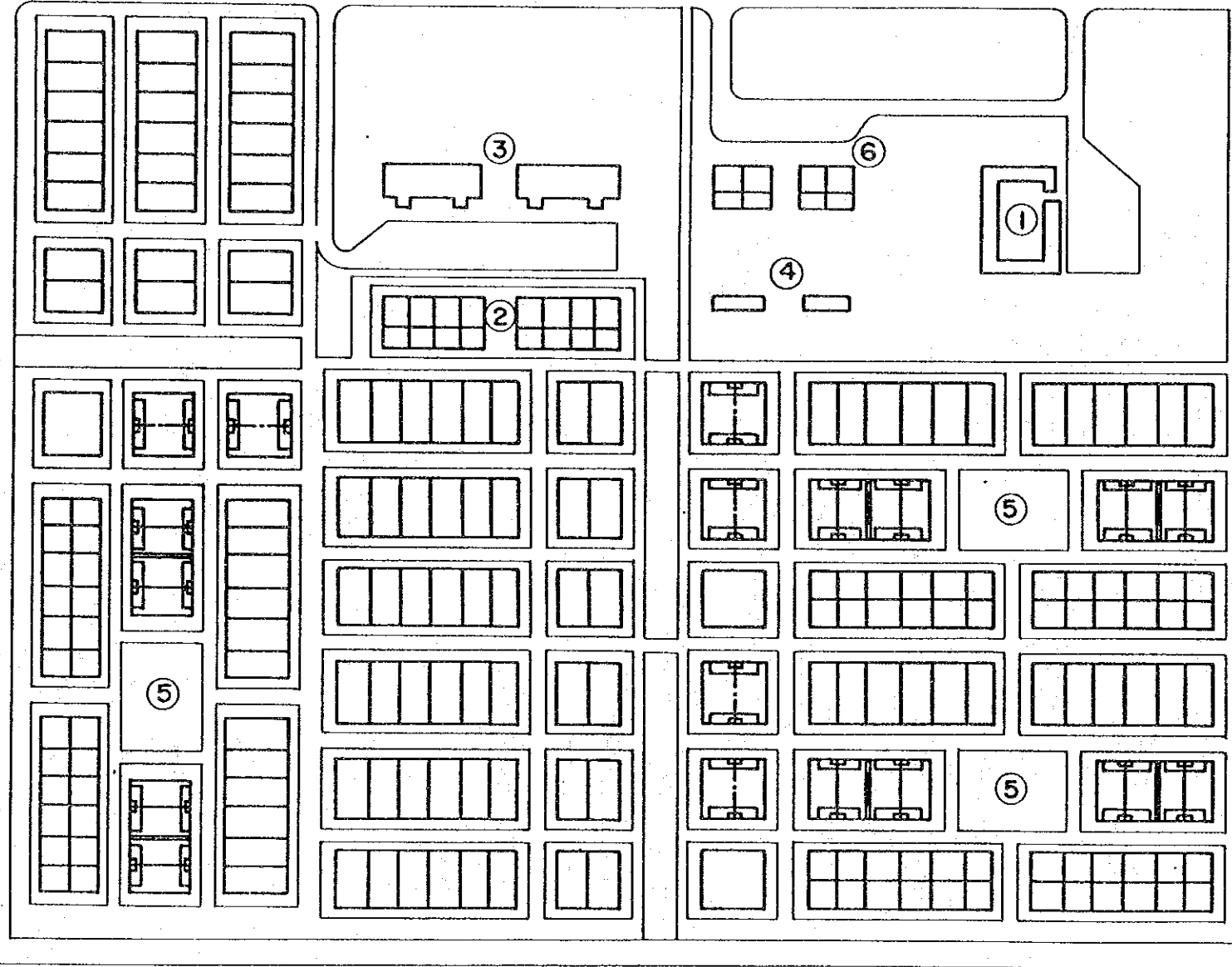


|  |  |            |       |
|--|--|------------|-------|
| THE ARAB REPUBLIC OF EGYPT             |  |            |       |
| MINISTRY OF IRRIGATION                 |  |            |       |
| THE SOUTH HOSAINIA VALLEY              |  |            |       |
| AGRICULTURAL DEVELOPMENT PROJECT       |  |            |       |
| TYPICAL SECTION OF SEEPAGE LINE        |  |            |       |
| DATE                                   |  | D.W.G. NO. | SH-19 |
| JAPAN INTERNATIONAL COOPERATION AGENCY |  |            |       |



- Central Village
- Service Village
- Small Village
- ==== Territories of Service Village
- ==== Feeder Road
- Sub-Feeder Road
- - - - Farm Road

|  |  |           |       |
|--|--|-----------|-------|
| THE ARAB REPUBLIC OF EGYPT                             |  |           |       |
| MINISTRY OF IRRIGATION                                 |  |           |       |
| THE SOUTH HOSAINIA VALLEY                              |  |           |       |
| AGRICULTURAL DEVELOPMENT PROJECT                       |  |           |       |
| Schematic Map of Small,<br>Service and Central Village |  |           |       |
| DATE   |  | D.W.G NO. | SH-20 |
| JAPAN INTERNATIONAL COOPERATION AGENCY                 |  |           |       |

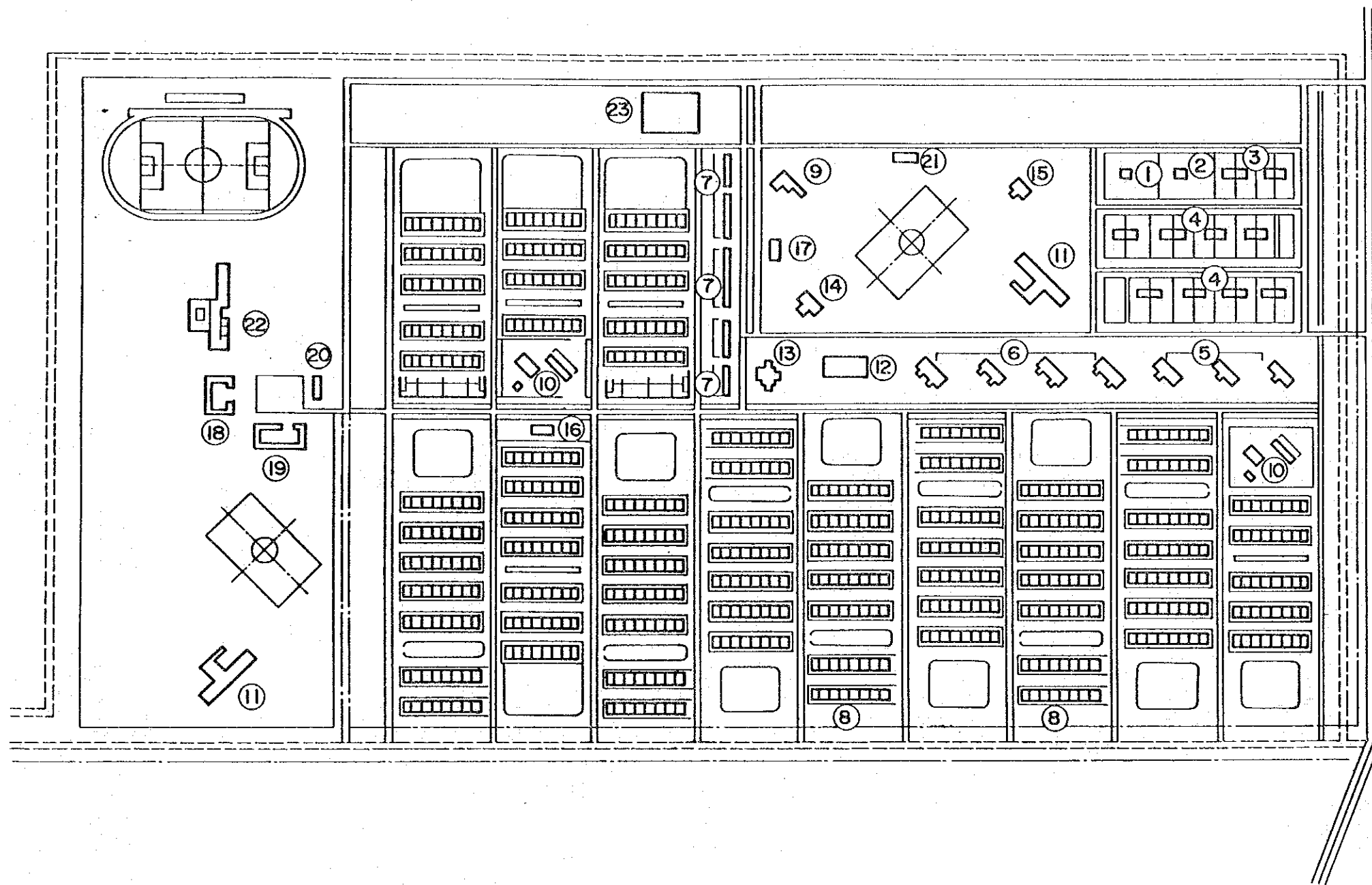


- 1. Agri Administration Office
- 2. Technical Labour's House
- 3. Apartment
- 4. Technical Labour's House
- 5. Farmer's House
- 6. Employer's House

Scale 1:2,000

|  |  |           |       |
|--|--|-----------|-------|
| THE ARAB REPUBLIC OF EGYPT             |  |           |       |
| MINISTRY OF IRRIGATION                 |  |           |       |
| THE SOUTH HOSAINIA VALLEY              |  |           |       |
| AGRICULTURAL DEVELOPMENT PROJECT       |  |           |       |
| Location of Buildings                  |  |           |       |
| at Small Village                       |  |           |       |
| DATE                                   |  | D.W.G NO. | SH-21 |
| JAPAN INTERNATIONAL COOPERATION AGENCY |  |           |       |

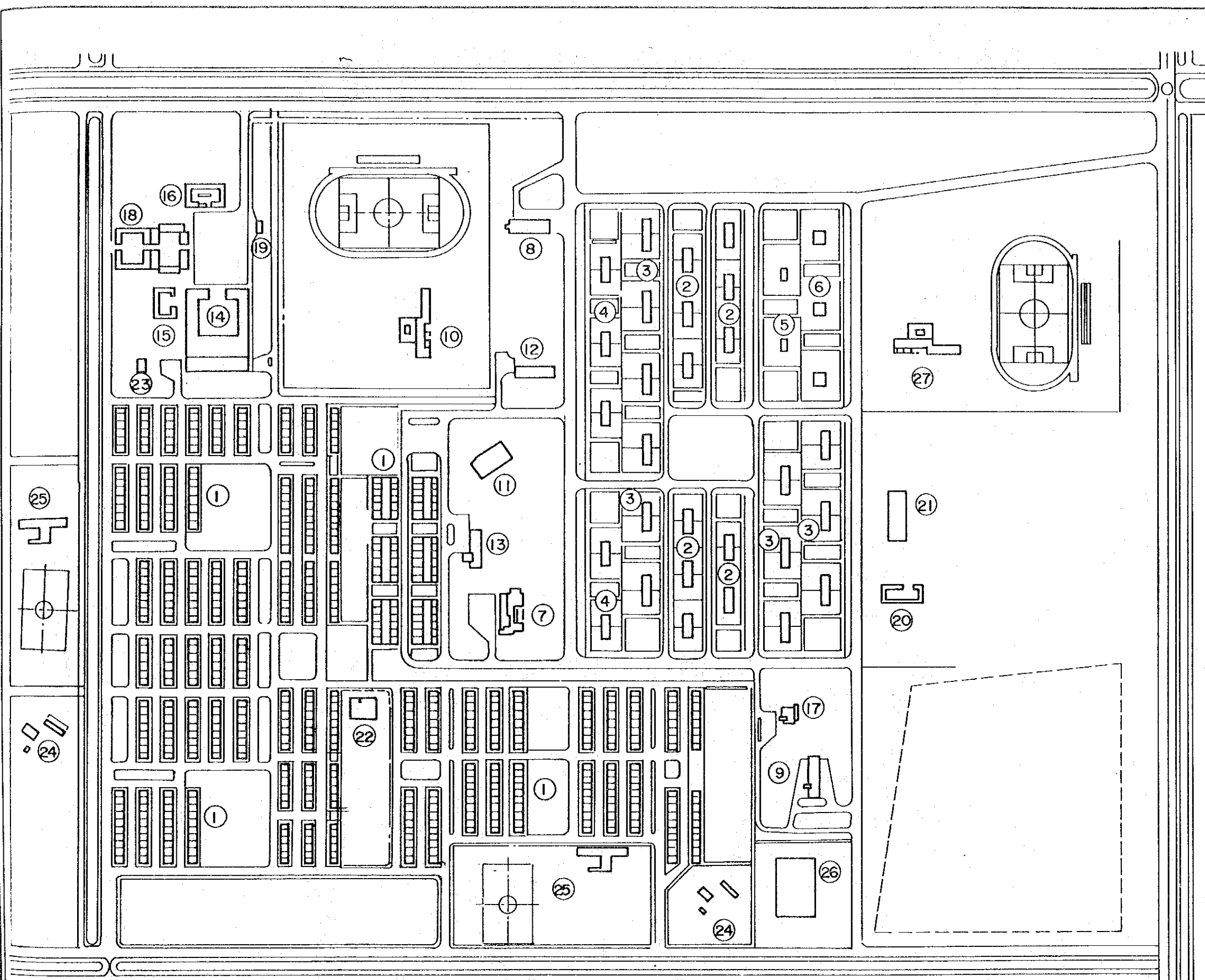




1. Director's House
2. Ass t, Director's House
3. Employeer's House
4. Do
5. Apartment
6. Do
7. Technical Labour's House
8. Farmer's House
9. Office of Administration
10. Nursery School
11. Primary School
12. Market with Bakery
13. Mosque
14. Rest House for Employer
15. Club
16. Group of Shop
17. Fire Station
18. Agri, Administration Office
19. Auto Service Station
20. Store
21. Medical Treatment Unit
22. Preparatory School
23. Workshop

Scale 1:5,000

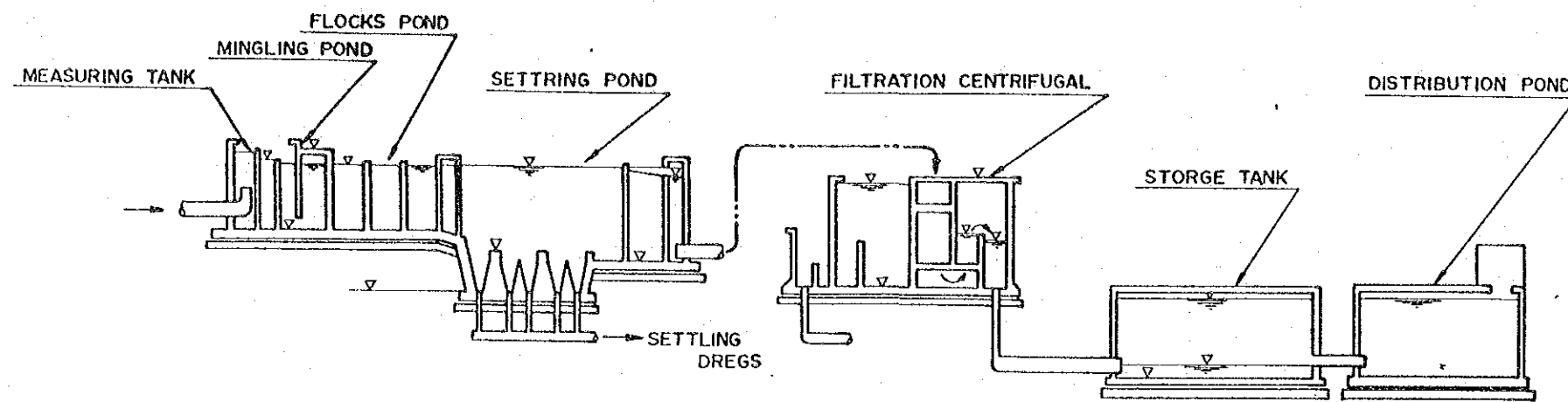
|   |  |           |       |
|---|--|-----------|-------|
| THE ARAB REPUBLIC OF EGYPT                  |  |           |       |
| MINISTRY OF IRRIGATION                      |  |           |       |
| THE SOUTH HOSAINIA VALLEY                   |  |           |       |
| AGRICULTURAL DEVELOPMENT PROJECT            |  |           |       |
| Location of Buildings<br>at Service Village |  |           |       |
| DATE  |  | D.W.G NO. | SH-22 |
| JAPAN INTERNATIONAL COOPERATION AGENCY      |  |           |       |



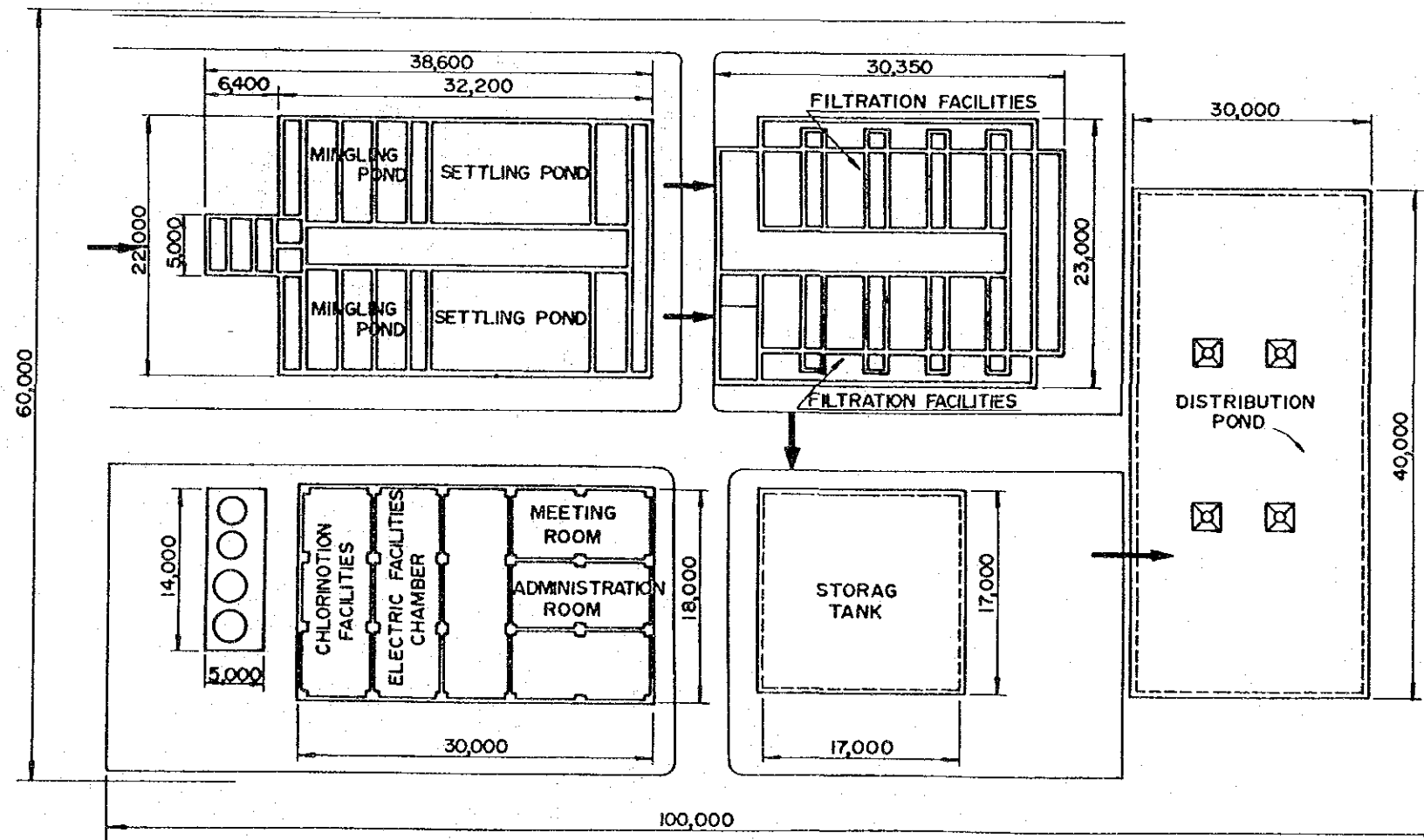
- 1. Farmer's House
- 2. Employee's House
- 3. Do
- 4. Technical Labour's House
- 5. Ass't, Director's House
- 6. Director's House
- 7. Market with Bakery
- 8. Office of Administration and Inspection
- 9. Rest House for Employee
- 10. Preparatory School
- 11. Mosque
- 12. Nospital
- 13. Police Station
- 14. Store
- 15. Agri, Administration Office
- 16. Animal Treatment Unit
- 17. Club
- 18. Artificial Insemination Center
- 19. Fire Station
- 20. Auto Service Station
- 21. Cinema House
- 22. Group of Shop
- 23. Post Office

- 24. Nursery School
- 25. Primary School
- 26. Workshop
- 27. High School

|   |           |       |
|---|-----------|-------|
| THE ARAB REPUBLIC OF EGYPT<br>MINISTRY OF IRRIGATION          |           |       |
| THE SOUTH HOSAINIA VALLEY<br>AGRICULTURAL DEVELOPMENT PROJECT |           |       |
| Location of Buildings<br>at Central Village                   |           |       |
| DATE  | D.W.G NO. | SH-23 |
| JAPAN INTERNATIONAL COOPERATION AGENCY                        |           |       |



FLOW CHART OF TREATMENT SYSTEMS NO SCALE



PLOT PLAN OF TREATMENT STRUCTURES

|  |           |       |
|--|-----------|-------|
| THE ARAB REPUBLIC OF EGYPT             |           |       |
| MINISTRY OF IRRIGATION                 |           |       |
| THE SOUTH HOSAINIA VALLEY              |           |       |
| AGRICULTURAL DEVELOPMENT PROJECT       |           |       |
| PLOT PLAN OF TREATMENT STRUCTURES      |           |       |
| DATE                                   | D.W.G NO. | SH-24 |
| JAPAN INTERNATIONAL COOPERATION AGENCY |           |       |









