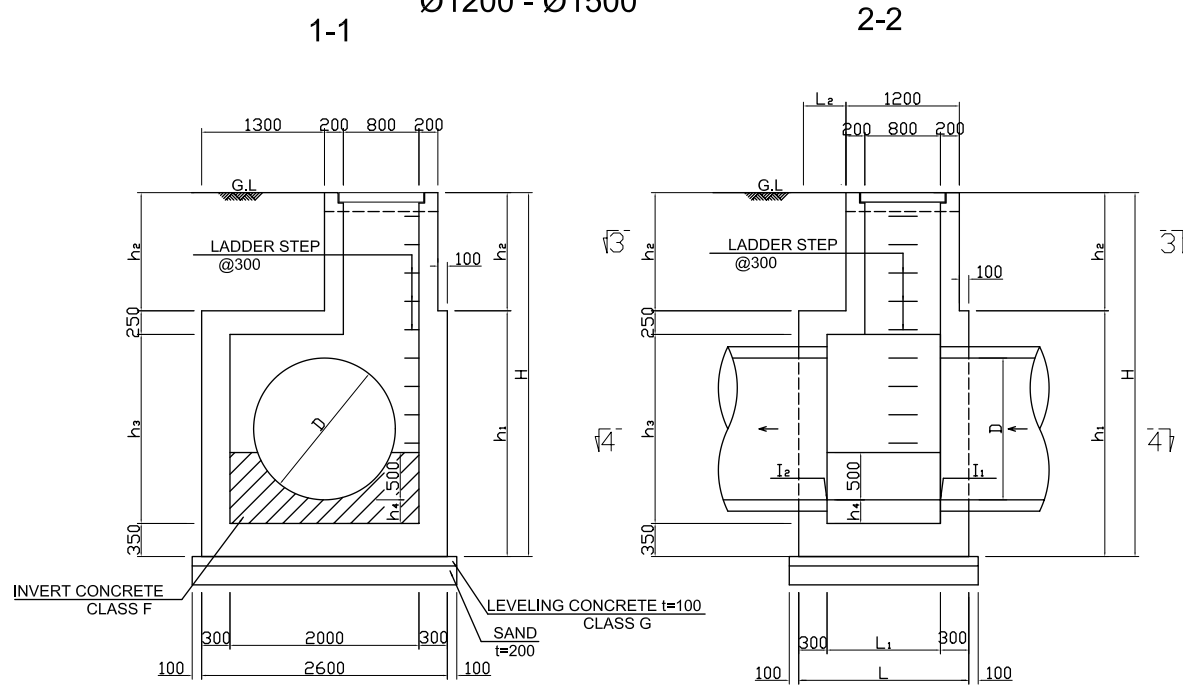
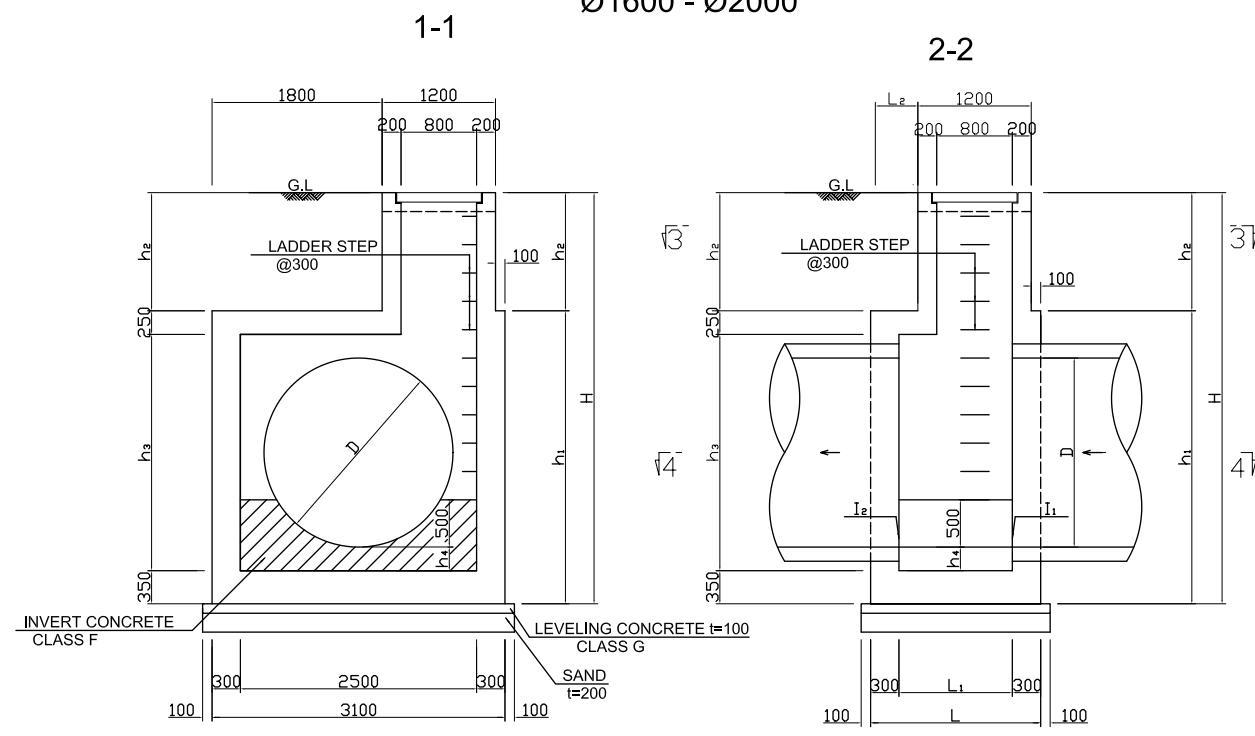


TYPE 3 S= 1:40
Ø1200 - Ø1500



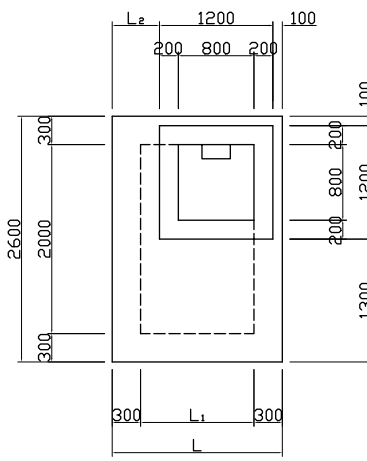
When H ≤ 2900, h_z = 300
When H ≥ 2900, h_z = 2000

TYPE 4 S= 1:40
Ø1600 - Ø2000

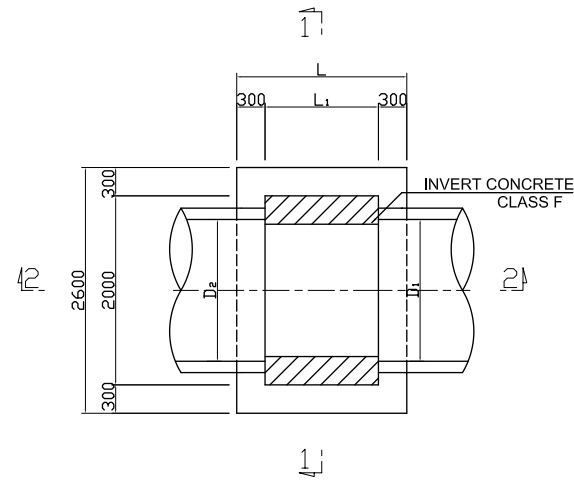


When H ≤ 3400, h_z = 300
When H ≥ 3400, h_z = 2500

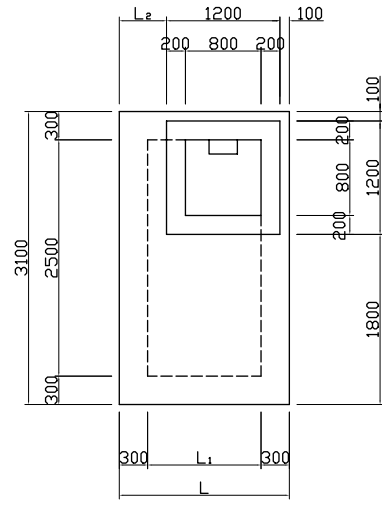
3-3



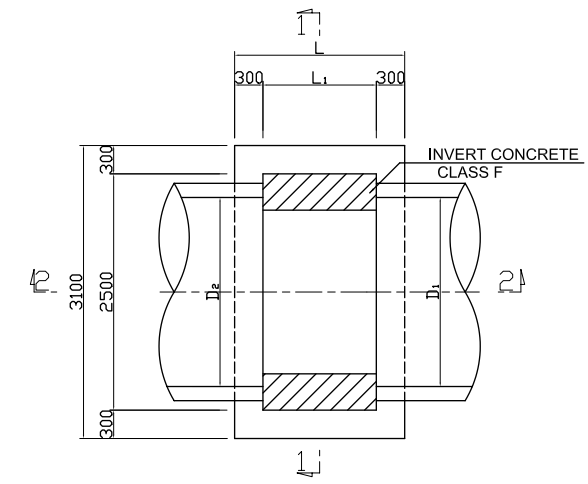
4-4



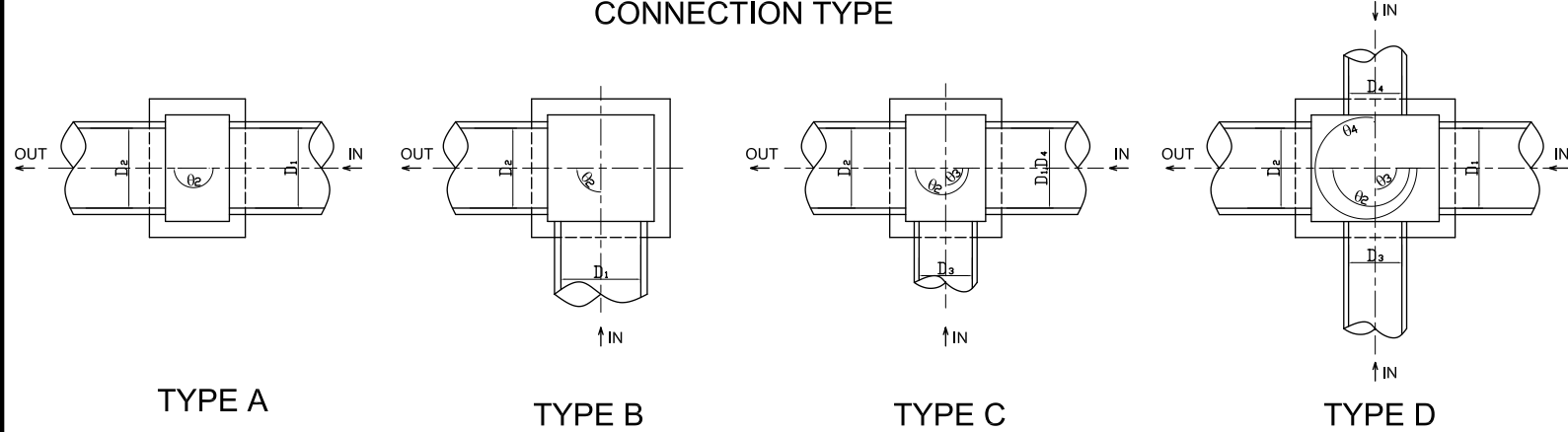
3-3



4-4



CONNECTION TYPE



TYPE OF MANHOLE

| General type ¹⁾ | Type of Manhole | | Main pipe (D ₁ , D ₂) | Connecting pipe (D ₁ , D ₂) | Dimension (m) | | | Number of Manhole | |
|----------------------------|-----------------|-------------------------------|--|--|---------------|----------------|----------------|-------------------|---|
| | Connection type | Connection pipe ²⁾ | | | L | L ₁ | L ₂ | | |
| 3 | A | - | Ø1200-Ø1500 | - | 1,800 | 1,200 | 500 | 3 | |
| | B | - | | - | 2,600 | 2,000 | 1,300 | 0 | |
| | C | 1 | | 1 | Ø300-Ø600 | 1,800 | 1,200 | 500 | 1 |
| | | 2 | | 2 | Ø700-Ø1000 | 2,100 | 1,500 | 800 | 4 |
| | D | 1 | | 1 | Ø1200-Ø1500 | 2,600 | 2,000 | 1,300 | 0 |
| | | 2 | | 2 | Ø700-Ø1000 | 3,000 | 2,400 | 1,700 | 0 |
| 4 | C | 3 | 3 | Ø1200-Ø1500 | 3,600 | 3,000 | 2,300 | 0 | |
| | | 1 | - | - | 1,800 | 1,200 | 500 | 0 | |
| | | 2 | - | - | 3,100 | 2,500 | 1,800 | 0 | |
| | | 3 | 1 | Ø300-Ø600 | 1,800 | 1,200 | 500 | 0 | |
| | D | 2 | 2 | Ø700-Ø1000 | 2,100 | 1,500 | 800 | 0 | |
| | | 3 | 3 | Ø1200-Ø1500 | 2,600 | 2,000 | 1,300 | 0 | |
| | | 4 | 4 | Ø1600-Ø2000 | 3,100 | 2,500 | 1,800 | 0 | |
| | | 1 | 1 | Ø300-Ø600 | 2,600 | 2,000 | 1,300 | 0 | |
| | | 2 | 2 | Ø700-Ø1000 | 3,000 | 2,400 | 1,700 | 0 | |
| | | 3 | 3 | Ø1200-Ø1500 | 3,600 | 3,000 | 2,300 | 0 | |
| 4 | 4 | Ø1600-Ø2000 | 4,100 | 3,500 | 2,800 | 0 | | | |

This table is applied at a depth of up to 5.0m
Note:

*1) General type of Manhole type is categorized in diameter of Main pipe, D₁ and D₂.
*2) Connection pipe of Manhole type is categorized in a diameter of connection pipe.

| NO. | DATE | DESCRIPTIONS | BY | APRO. |
|-----|------|--------------|----|-------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

REVISIONS

PROJECT MANAGEMENT UNIT FOR
HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

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

PACKAGE D
EXISTING COMBINED SEWER IMPROVEMENT

TYPICAL PLAN AND SECTION
OF MANHOLE FOR PIPE (2)

SCALE : 1/40

JICA JAPAN INTERNATIONAL COOPERATION
AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

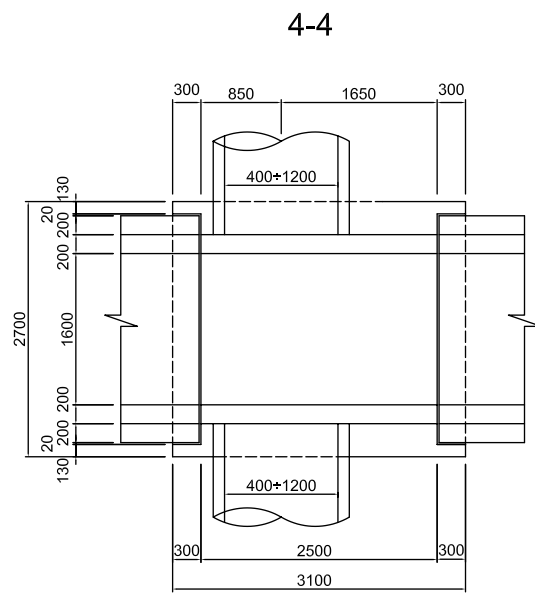
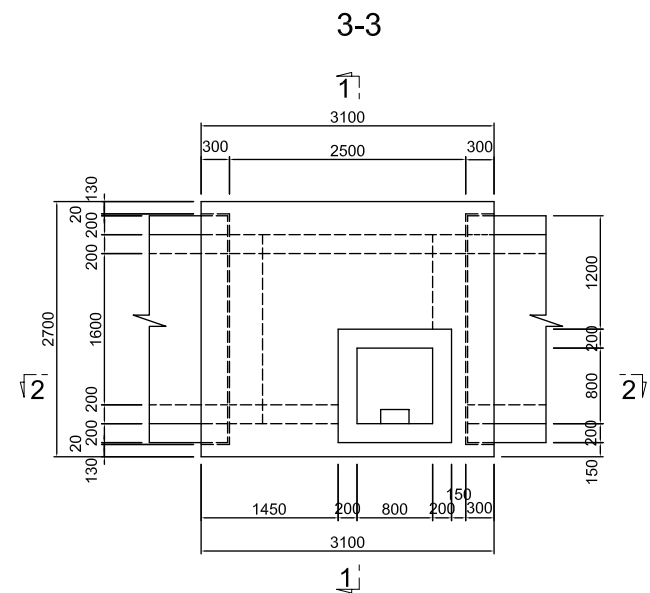
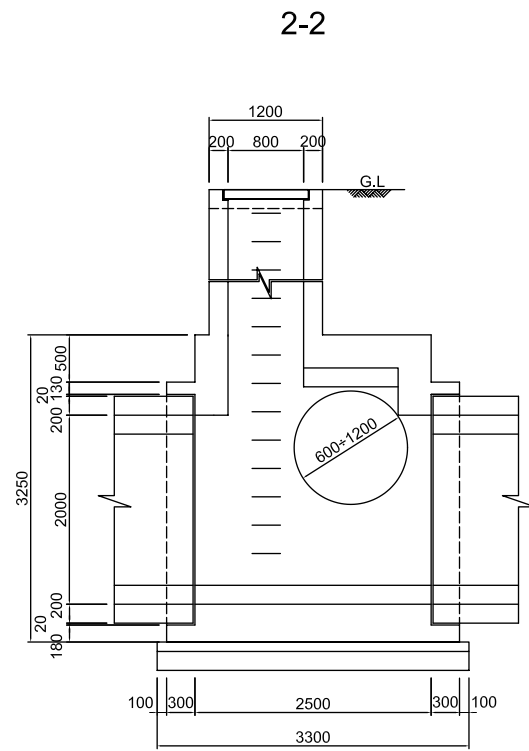
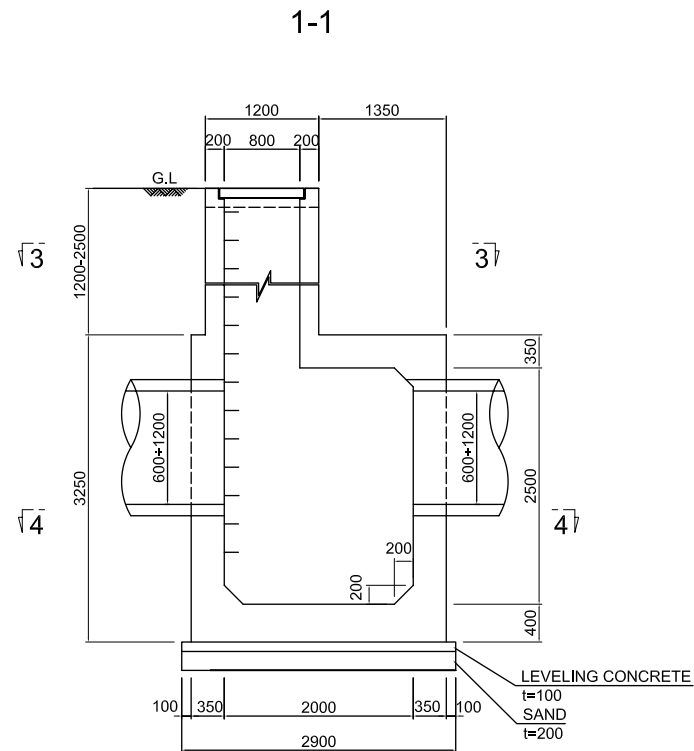
DESIGNED
KATSUKI TAKAOKI

CHECKED
KONDO MASAMI

DATE : JUNE 2001 DWG. No. PD - ECSI - 265

TYPE 3B-1 ; 3B-2 ; 3C1 ; 3C-2

MANHOLE FOR BOX CULVERT



| General Type | Type of Manhole | | Dimension (mm) | |
|--------------|-----------------|-----------------|----------------------|-----------------|
| | Connection Type | Connection Pipe | Main Box Culvert BxL | Connection Pipe |
| 1 H=2.0 m | A | 0 | 2000x2000 | No Connection |
| | | 1 | | D300-D800 |
| | B | 1 | 2000x2000 | D300-D600 |
| | | 2 | | D700-D1500 |
| C | 1 | 2000x2000 | D300-D600 | |
| | 2 | | D700-D1500 | |
| 2 H=2.0 m | A | 0 | 2500x2000 | No Connection |
| | | 1 | | D300-D800 |
| | B | 1 | 2500x2000 | D300-D600 |
| | | 2 | | D700-D1500 |
| | C | 1 | 2500x2000 | D300-D600 |
| | | 2 | | D700-D1500 |
| 3 H=2.5 m | B | 1 | 2000x2000 | D300-D600 |
| | | 2 | | D700-D1500 |
| | C | 1 | 2000x2000 | D300-D600 |
| 4 H=2.5 m | B | 1 | 2500x2000 | D300-D600 |
| | | 2 | | D700-D1500 |
| | C | 1 | 2500x2000 | D300-D600 |

| NO. | DATE | DESCRIPTIONS | BY | APPRO. |
|-----|------|--------------|----|--------|
| | | | | |
| | | | | |
| | | | | |

REVISIONS

PROJECT MANAGEMENT UNIT FOR
HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

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

PACKAGE D
EXITING COMBINED SEWER IMPROVEMENT
TYPICAL PLAN AND SECTION
OF MANHOLE
FOR BOX CULVERT (3)

SCALE : 1/40

JICA JAPAN INTERNATIONAL COOPERATION
AGENCY (JICA)

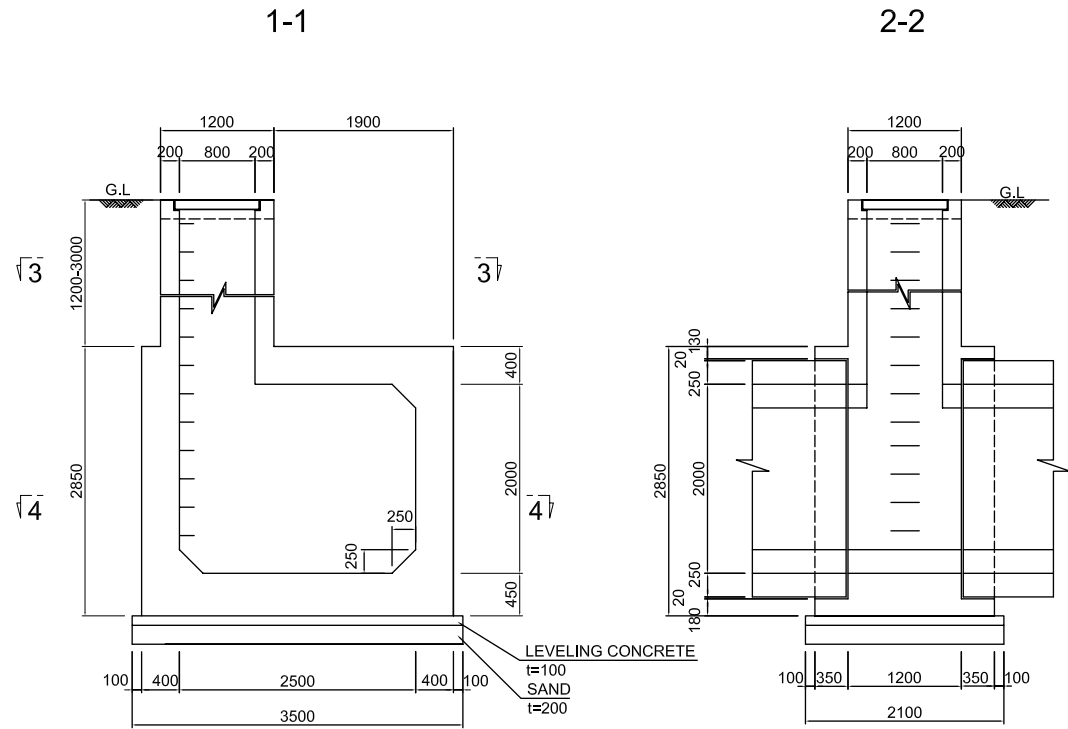
PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED
KATSUKI TAKAAKI

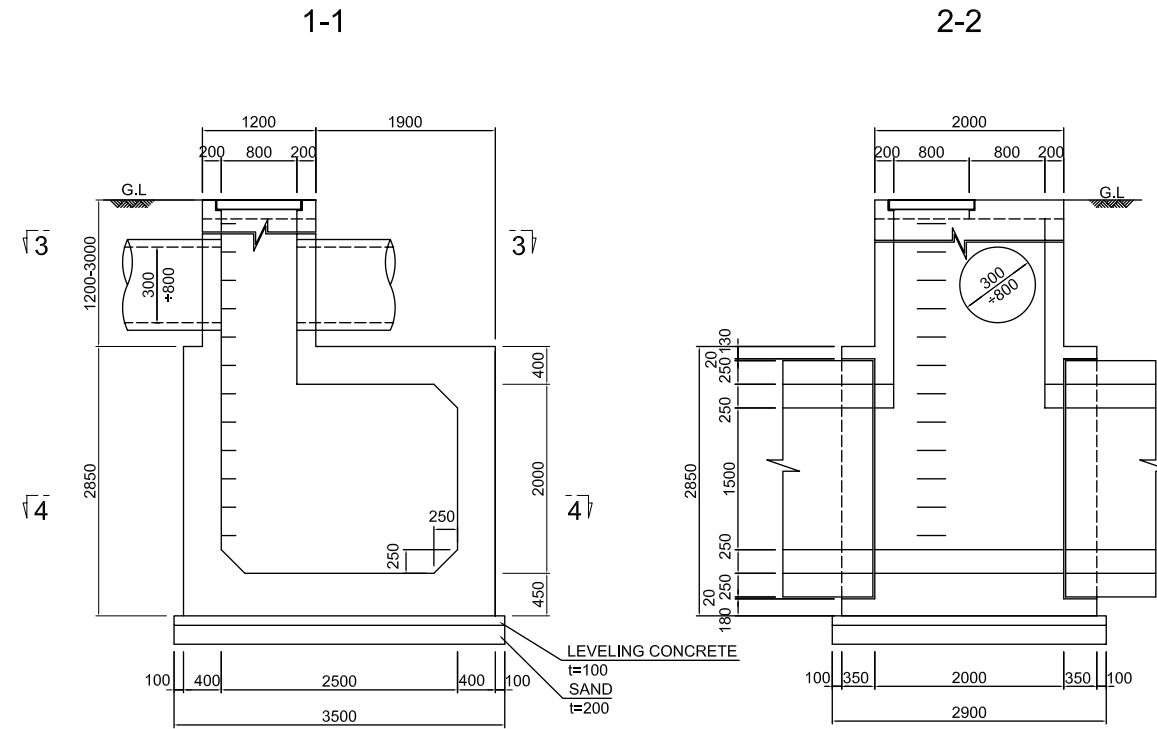
CHECKED
KONDO MASAMI

DATE : JUNE 2001 DWG. No. PD - ECSI - 268

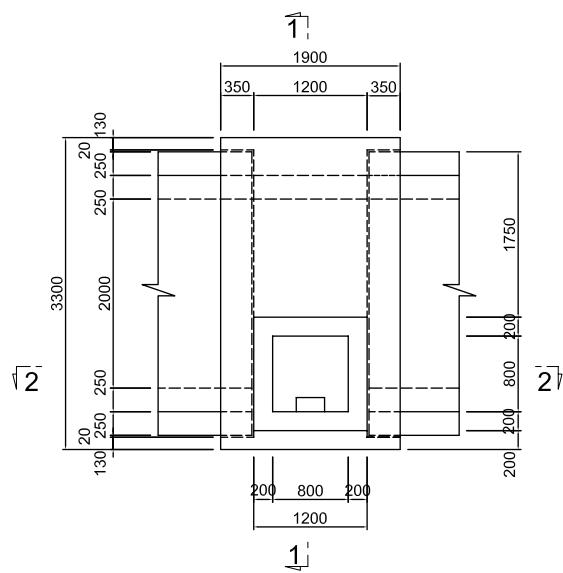
TYPE 2A-0



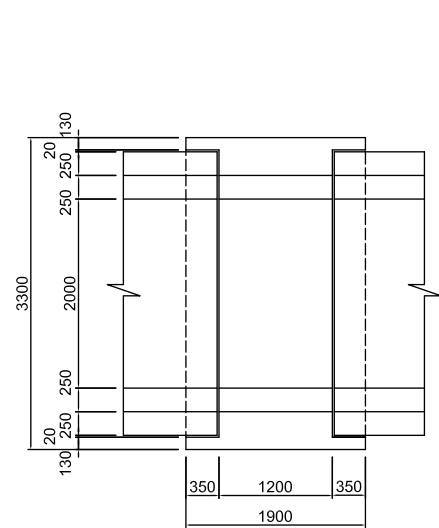
TYPE 2A-1



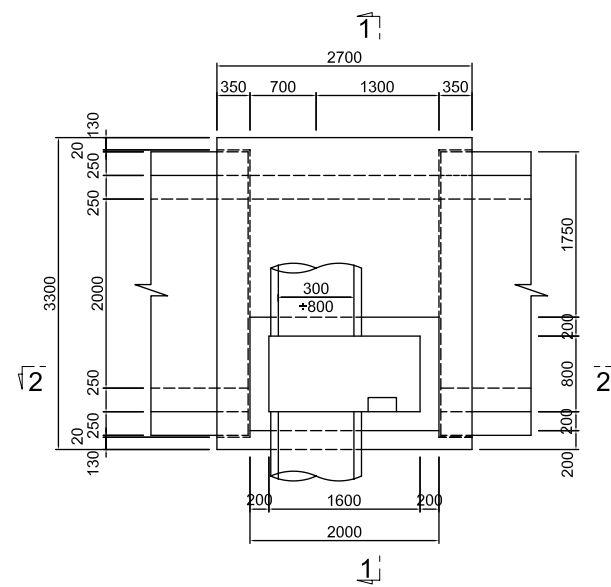
3-3



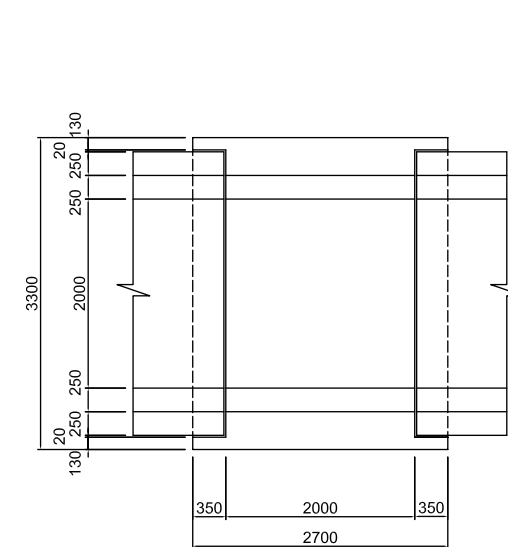
4-4



3-3



4-4



| NO. | DATE | DESCRIPTIONS | BY | APRO. |
|---|------|--------------------------|----|-------|
| REVISIONS | | | | |
| PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT | | | | |
| THE DETAILED DESIGN STUDY ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM | | | | |
| PACKAGE D EXITING COMBINED SEWER IMPROVEMENT | | | | |
| TYPICAL PLAN AND SECTION OF MANHOLE FOR BOX CULVERT (4) | | | | |
| SCALE : 1/40 | | | | |
| JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | | | | |
| PACIFIC CONSULTANTS INTERNATIONAL | | | | |
| DESIGNED KATSUKI TAKAAKI | | CHECKED KONDO MASAMI | | |
| DATE : JUNE 2001 | | DWG. No. PD - ECSI - 269 | | |