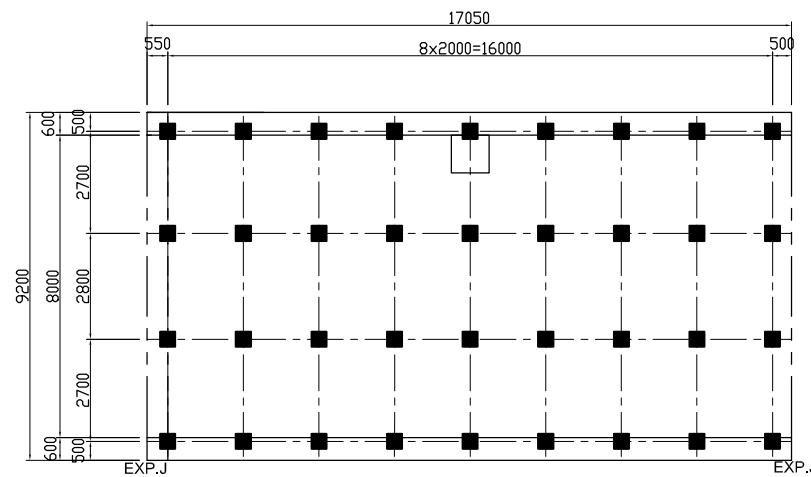


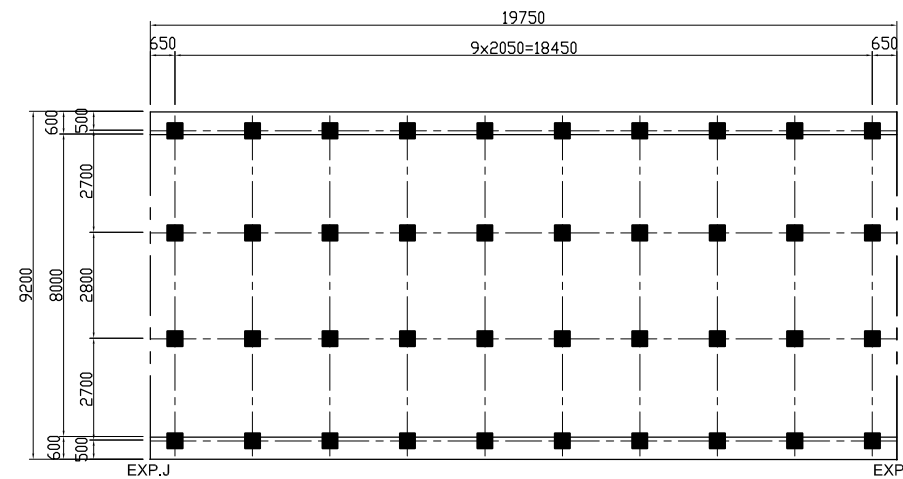
# PIPE GALLERY (F) (G) (H) PILE ARRANGEMENT PLAN

Scale; 1/100

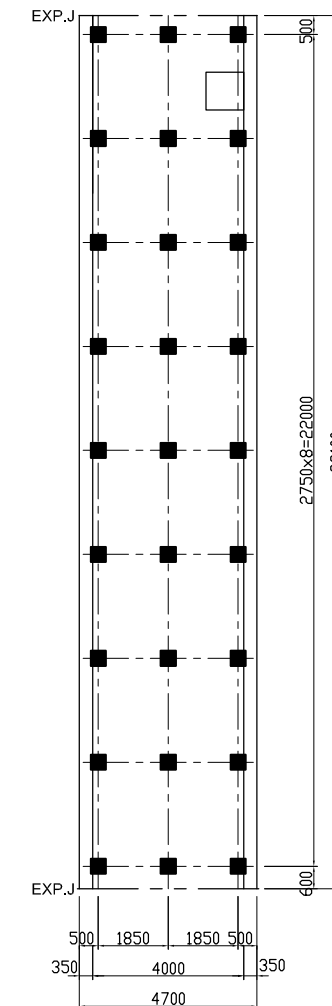
## PIPE GALERRY (F) - PLAN 1



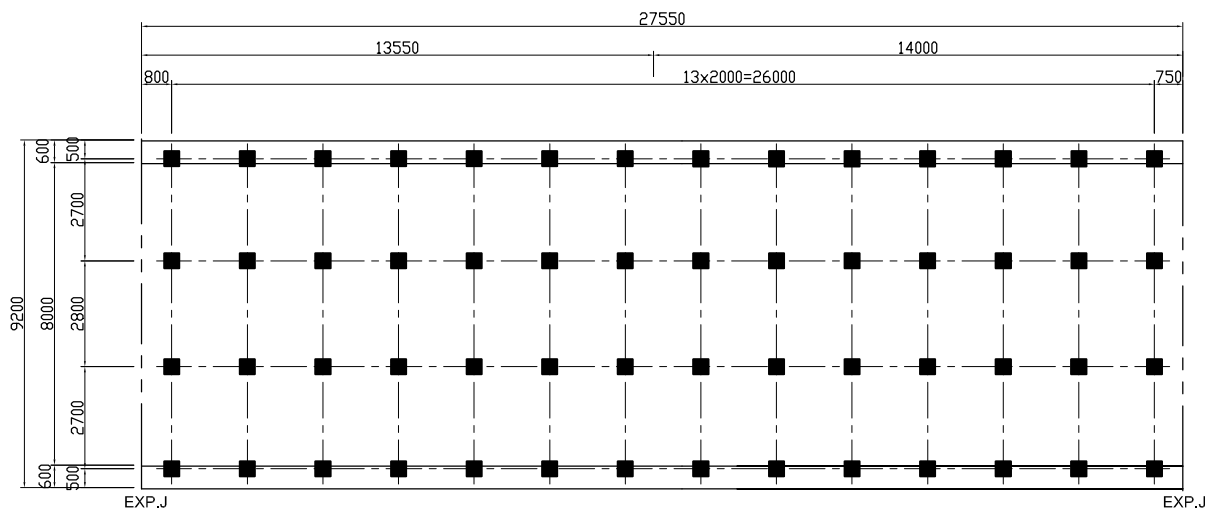
## PIPE GALERRY (G)



## PIPE GALERRY (H)

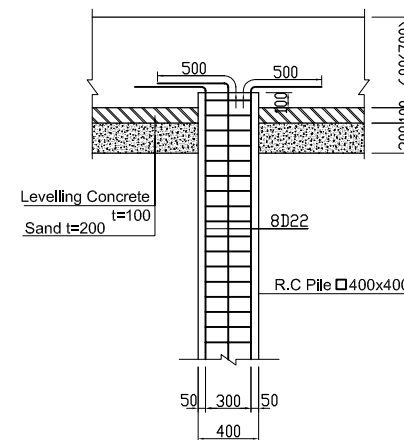


## PIPE GALERRY (F) - PLAN 2



## CONECTION OF PILE HEAD and BOTTOM SLAB

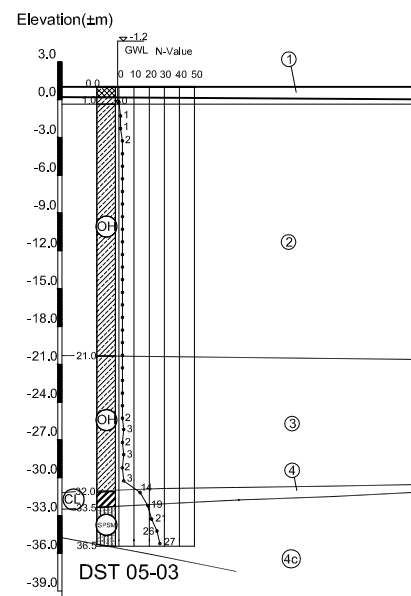
Scale: 1/25



## ENGINEERING GEOLOGY CROSS SECTION

FOR PIPE GALERRY (F)

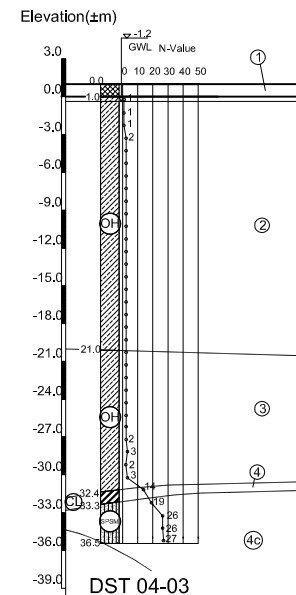
Scale: Vertical 1/300  
Horizontal 1/2500



## ENGINEERING GEOLOGY CROSS SECTION

FOR PIPE GALERRY (G) (H)

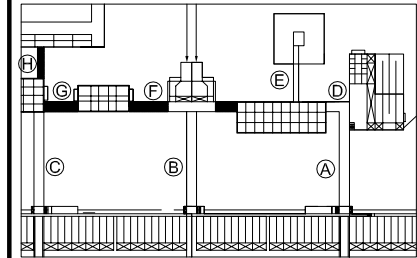
Scale: Vertical 1/300  
Horizontal 1/2500



### LEGEND

- 1 Ground made : Light brown ORGANIC CLAY
- 2 Very soft, high plasticity blackish grey ORGANIC CLAY
- 3 Soft, high plasticity blackish grey ORGANIC CLAY
- 4 Stiff, low plasticity, yellowish brownish grey ORGANIC CLAY
- 4c Dense, yellowish white grey POORLY GRADED SAND
- 4b Medium dense, light, white grey SILTY SAND
- 4d Dense, white POORLY GRADED SAND
- 5 Hard, yellowish, light violet SANDY CLAY

## KEY PLAN



© = Future

### NOTES :

- ALL DIMENSIONS ARE MM UNLESS STATED OTHERWISE
- DETAILS OF R.C PILE SHOWN ON DWG. No. PE - WWTP - 265 - 01

DATE	DESCRIPTIONS	BY	APRO.

### REVISIONS

PROJECT MANAGEMENT UNIT FOR  
WATER ENVIRONMENT IMPROVEMENT FOR  
HO CHI MINH CITY

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

### PACKAGE E

WASTEWATER TREATMENT PLANT  
PIPE GALLERY (F) (G) (H)  
PILE ARRANGEMENT PLAN

SCALE : 1/25, 1/100

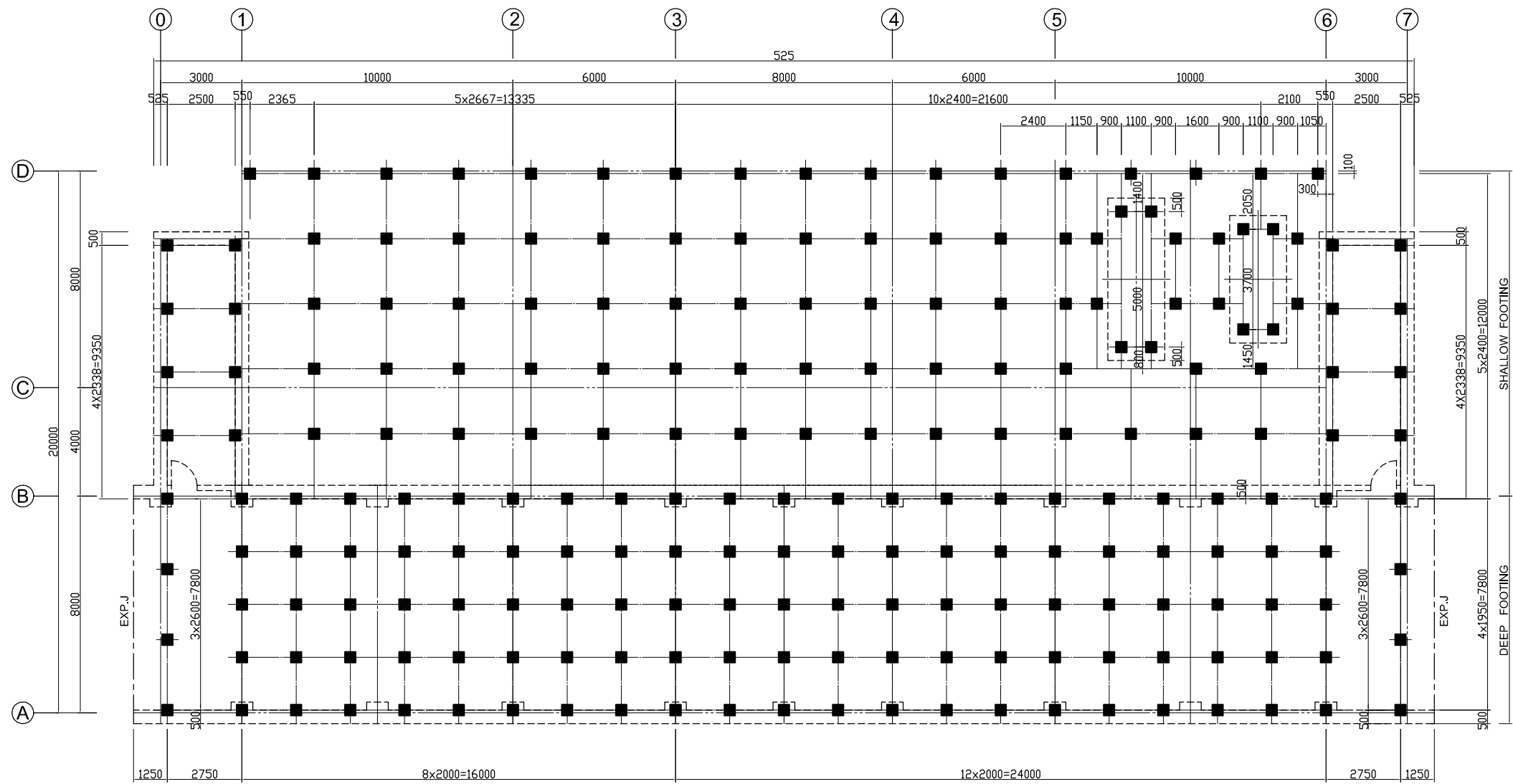
JICA JAPAN INTERNATIONAL COOPERATION  
AGENCY ( JICA )

PACIFIC CONSULTANTS INTERNATIONAL

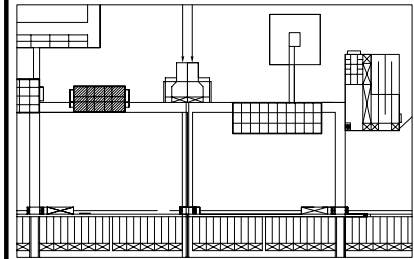
DESIGNED KIMURA TORU CHECKED KONDO MASAMI

DATE : JUNE 2001 DWG. No. PE - WWTP - 255 - 02

# MAIN BUILDING PILE ARRANGEMENT PLAN Scale:1/100



## KEY PLAN



### NOTES :

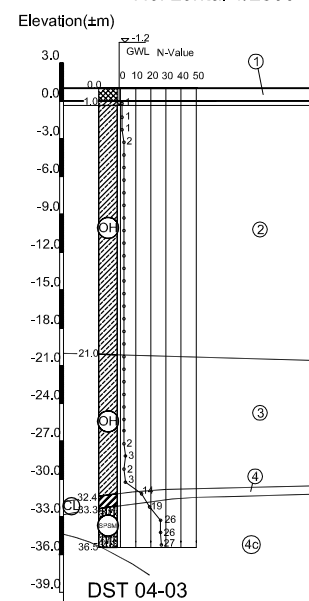
- ALL DIMENSIONS ARE MM UNLESS STATED OTHERWISE
- DETAILS OF R.C PILE SHOWN ON DWG. No. PE - WWTP - 265 - 01

## ENGINEERING GEOLOGY CROSS SECTION

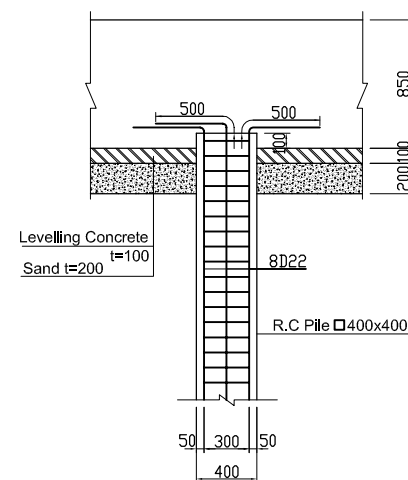
Scale: Vertical 1/300  
Horizontal 1/2500

### LEGEND

- 1 Ground made : Light brown ORGANIC CLAY
- 2 Very soft, high plasticity blackish grey ORGANIC CLAY
- 3 Soft, high plasticity blackish grey ORGANIC CLAY
- 4 Stiff, low plasticity, yellowish brownish grey ORGANIC CLAY
- 4c Dense, yellowish white grey POORLY GRADED SAND
- 4b Medium dense, light, white grey SILTY SAND
- 4d Dense, white POORLY GRADED SAND
- 5 Hard, yellowish, light violet SANDY CLAY



## CONNECTION OF PILE HEAD and BOTTOM SLAB Scale:1/25



## NOTE

LOCATION OF PILES	QUANTITY	ELEVATION OF TOP PILES	LENGTH (m)
A1 A6 B1 B6	5 x 21 = 105	- 3.950	32.00
B1 B3 D1 D3	5 AT (1) AXIS	-3.600	32.00
	5 x 5 = 25	+1.70	38.00
B3 B5 D3 D5	6 x 5 = 30	+ 1.400	37.00
B5 B6 D5 D6	5 AT (6) AXIS	-3.600	32.00
	18	+1.40	37.00
GENERATOR 1	4	+ 1.400	37.00
GENERATOR 2	4	+ 0.600	37.00
O AND 7 AXIS	8x 2 = 16	-3.600	32.00
<b>SUM</b>	<b>212</b>		

DATE	DESCRIPTIONS	BY	APRO.

### REVISIONS

PROJECT MANAGEMENT UNIT FOR  
WATER ENVIRONMENT IMPROVEMENT FOR  
HO CHI MINH CITY

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

PACKAGE E  
WASTEWATER TREATMENT PLANT  
MAIN BUILDING PILE ARRANGEMENT  
PLAN

SCALE : 1/25, 1/100

JICA JAPAN INTERNATIONAL COOPERATION  
AGENCY ( JICA )

PACIFIC CONSULTANTS INTERNATIONAL

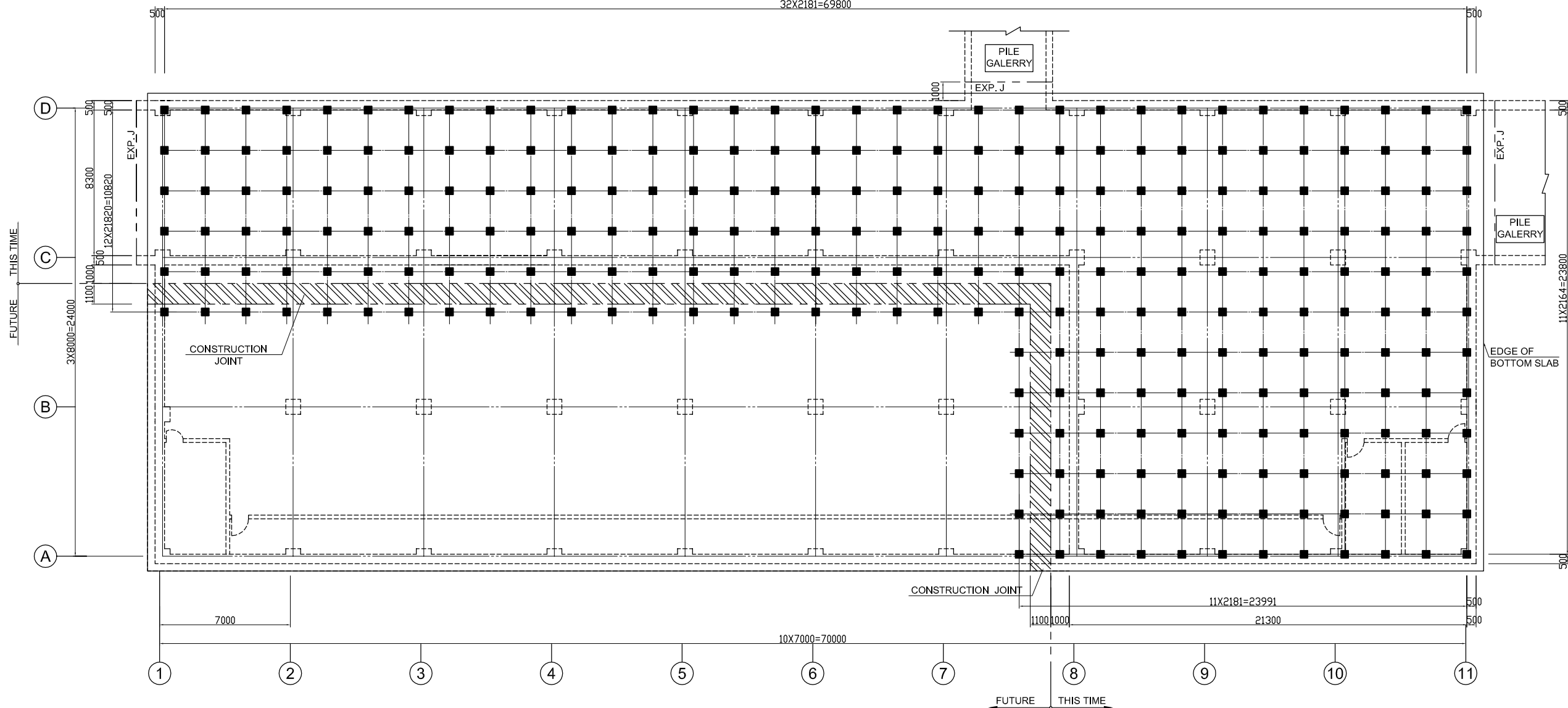
DESIGNED KIMURA TORU	CHECKED KONDO MASAMI
-------------------------	-------------------------

DATE : JUNE 2001      DWG. No. PE-WWTP - 257- 01

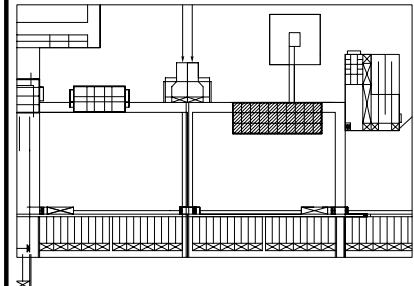
# BLOWER BUILDING PILE ARRANGEMENT PLAN

Scale: 1/125

32X2181=69800



## KEY PLAN



### NOTES :

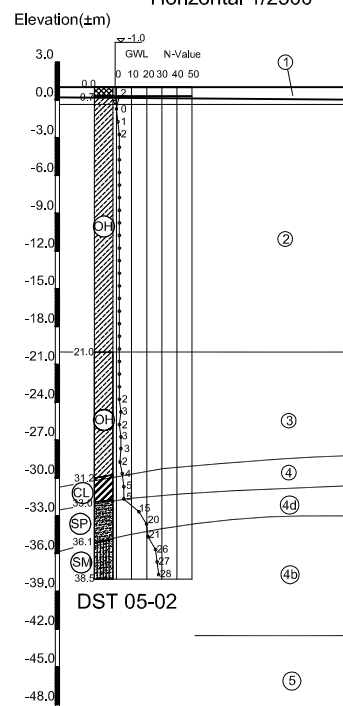
- ALL DIMENSIONS ARE MM UNLESS STATED OTHERWISE
- DETAILS OF R.C PILE SHOWN ON DWG. No. PE - WWTP - 265 - 01

## ENGINEERING GEOLOGY CROSS SECTION

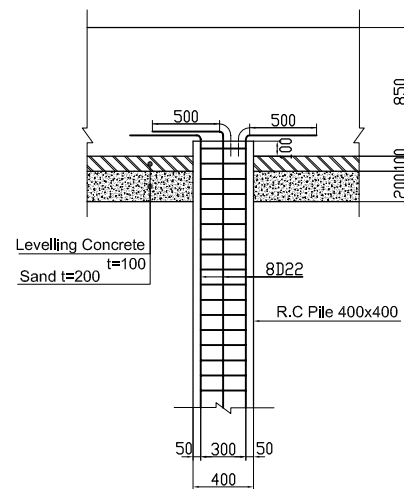
Scale: Vertical 1/300  
Horizontal 1/2500

### LEGEND

- ① Ground made : Light brown ORGANIC CLAY
- ② Very soft, high plasticity blackish grey ORGANIC CLAY
- ③ Soft, high plasticity blackish grey ORGANIC CLAY
- ④ Stiff, low plasticity, yellowish brownish grey ORGANIC CLAY
- ④c Dense, yellowish white grey POORLY GRADED SAND
- ④b Medium dense, light, white grey SILTY SAND
- ④d Dense, white POORLY GRADED SAND
- ⑤ Hard, yellowish, light violet SANDY CLAY



## PILE HEAD CONNECTION DETAIL Scale: 1/25



### NOTE

QUANTITY	ELEVATION OF TOP PILES
270	-3.95

DATE	DESCRIPTIONS	BY	APRO.

### REVISIONS

PROJECT MANAGEMENT UNIT FOR  
WATER ENVIRONMENT IMPROVEMENT FOR  
HO CHI MINH CITY

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

PACKAGE E  
WASTEWATER TREATMENT PLANT  
BLOWER BUILDING PILE  
ARRANGEMENT PLAN

SCALE : 1/25, 1/125

JICA JAPAN INTERNATIONAL COOPERATION  
AGENCY ( JICA )

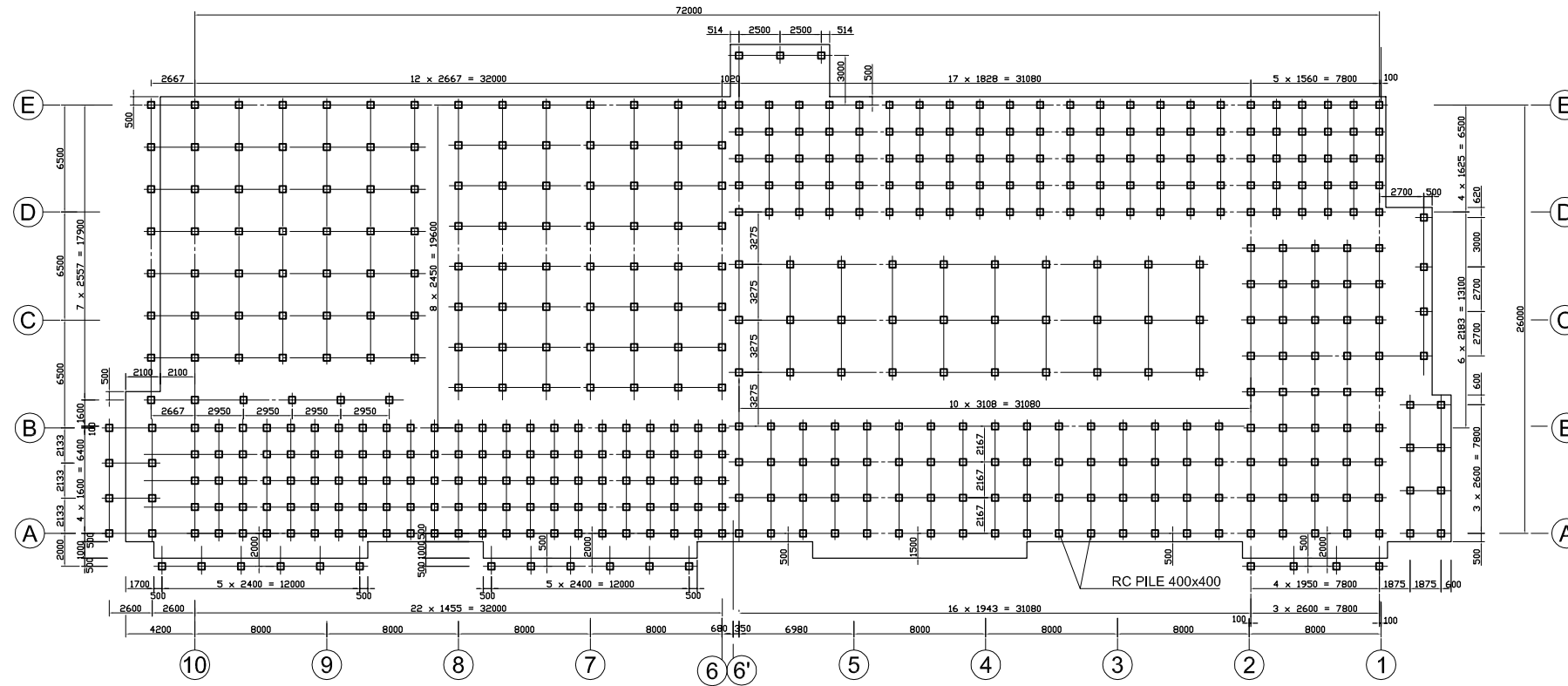
PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED  
KIMURA TORU

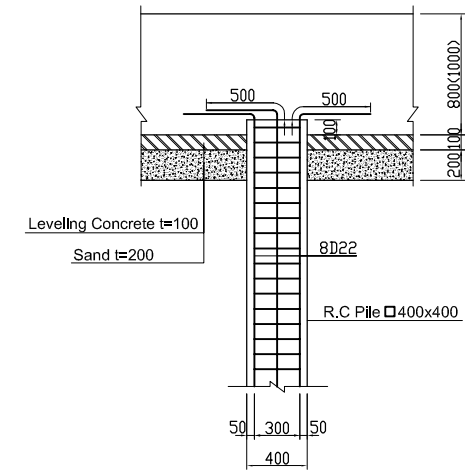
CHECKED  
KONDO MASAMI

DATE : JUNE 2001 DWG. No. PE - WWTP - 258 - 01

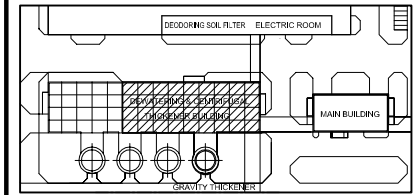
DEWATERING AND CENTRIFUGAL THICKENER BUILDING PILE ARRANGEMENT PLAN Scale: 1 / 200



CONNECTION OF PILE HEAD and BOTTOM SLAB Scale: 1/25



KEY PLAN



NOTES :

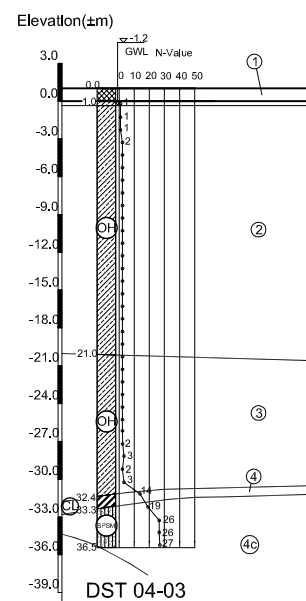
- ALL DIMENSIONS ARE MM UNLESS STATED OTHERWISE
- DETAILS OF R.C PILE SHOWN ON DWG. No. PE -WWTP - 265 - 01

ENGINEERING GEOLOGY CROSS SECTION

Scale: Vertical 1/300  
Horizontal 1/2500

LEGEND

- 1 Ground made : Light brown ORGANIC CLAY
- 2 Very soft, high plasticity blackish grey ORGANIC CLAY
- 3 Soft, high plasticity blackish grey ORGANIC CLAY
- 4 Stiff, low plasticity, yellowish brownish grey ORGANIC CLAY
- 4c Dense, yellowish white grey POORLY GRADED SAND
- 4b Medium dense, light, white grey SILTY SAND
- 4d Dense, white POORLY GRADED SAND
- 5 Hard, yellowish, light violet SANDY CLAY



NOTES:

LOCATION OF PILES	QUANTITY	ELEVATION OF TOP'S PILES	LENGTH (m)
A <sub>1</sub> A <sub>2</sub> D <sub>1</sub> D <sub>2</sub>	5 x 9 = 45	-3.900	32.00
D <sub>1</sub> D <sub>2</sub> E <sub>1</sub> E <sub>2</sub>	6 x 5 = 30	-4.100	32.00
A <sub>2</sub> B <sub>2</sub> A <sub>6</sub> B <sub>6'</sub>	4 x 16 = 64	-3.900	32.00
D <sub>2</sub> D <sub>6'</sub> E <sub>2</sub> E <sub>6'</sub>	5 x 17 = 85	+1.700	37.00
B <sub>2</sub> D <sub>2</sub> B <sub>6'</sub> D <sub>6'</sub> + STAIR	3 + 3 x 10 = 33	+1.700	37.00
A <sub>6</sub> A <sub>10</sub> B <sub>6</sub> B <sub>10</sub>	8 + 5 x 23 = 123	-4.100	32.00
STAIR B <sub>9</sub> B <sub>10</sub>	5	-4.100	32.00
B <sub>6</sub> B <sub>10</sub> E <sub>6</sub> E <sub>10</sub>	106	+1.700	37.00
STAIR + GALLERY ① AXIS	12	1	+1.700 (near line D)
		3	-3.900 (From line B to line D)
		8	-3.600 (From line A to line B)
Near A <sub>1</sub> A <sub>2</sub> , A <sub>6</sub> A <sub>10</sub>	16	-3.600	32.00
<b>TOTAL</b>	<b>519</b>		

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 E  
WASTEWATER TREATMENT PLANT

DEWATERING AND CENTRIFUGAL  
THICKENER BUILDING  
PILE ARRANGEMENT PLAN

SCALE : 1/200

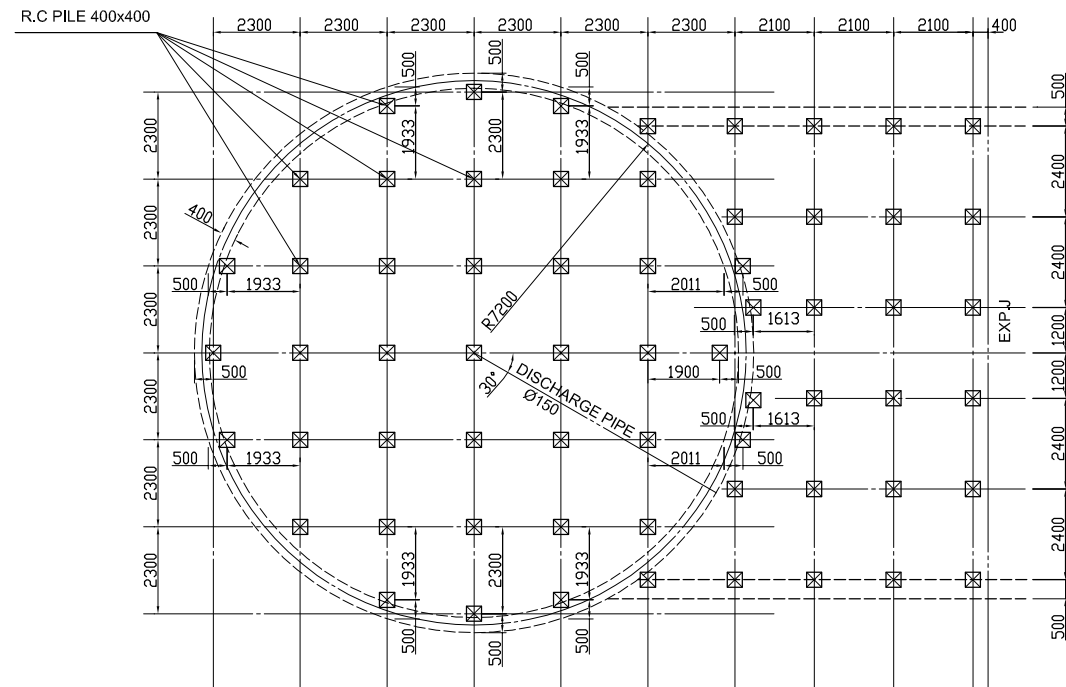
JICA JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED KIMURA TORU CHECKED KONDO MASAMI

DATE : JUNE 2001 DWG. No. PE - WWTP - 259-01

# GRAVITY THICKENER PILE ARRANGEMENT PLAN Scale: 1 / 100



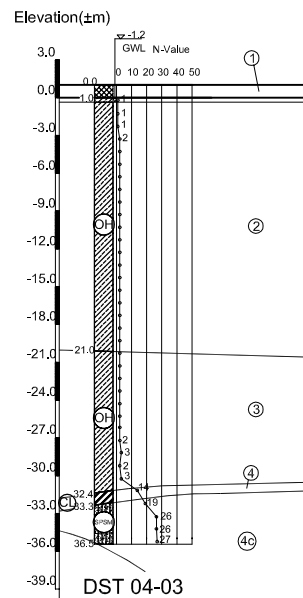
NUMBER OF PILES	
GRAVITY THICKENER:	35; L = 33~34 m
PIPE GALLERY:	28; L = 32 m
TOTAL:	63

## ENGINEERING GEOLOGY CROSS SECTION

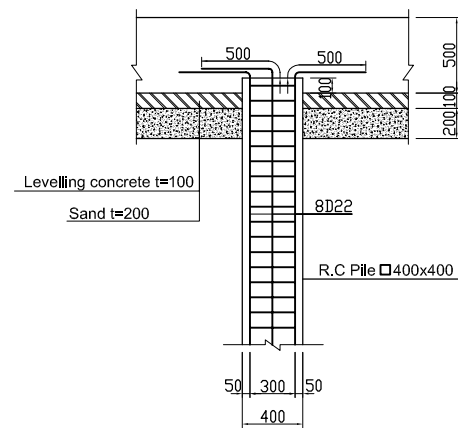
Scale: Vertical 1/300  
Horizontal 1/2500

### LEGEND

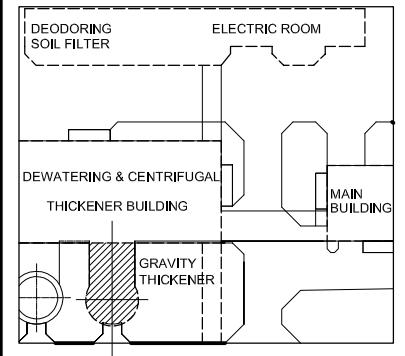
- 1 Ground made : Light brown ORGANIC CLAY
- 2 Very soft, high plasticity blackish grey ORGANIC CLAY
- 3 Soft, high plasticity blackish grey ORGANIC CLAY
- 4 Stiff, low plasticity, yellowish brownish grey ORGANIC CLAY
- 4c Dense, yellowish white grey POORLY GRADED SAND
- 4b Medium dense, light, white grey SILTY SAND
- 4d Dense, white POORLY GRADED SAND
- 5 Hard, yellowish, light violet SANDY CLAY



## CONNECTION OF PILE HEAD and BOTTOM SLAB Scale: 1/25



## KEY PLAN



### NOTES :

- ALL DIMENSIONS ARE MM UNLESS STATED OTHERWISE
- DETAILS OF R.C PILE SHOWN ON DWG. No. PE-WWTP - 265 - 01

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 E  
WASTE WATER TREATMENT PLANT

GRAVITY THICKENER  
PILE ARRANGEMENT PLAN

SCALE: 1 / 100

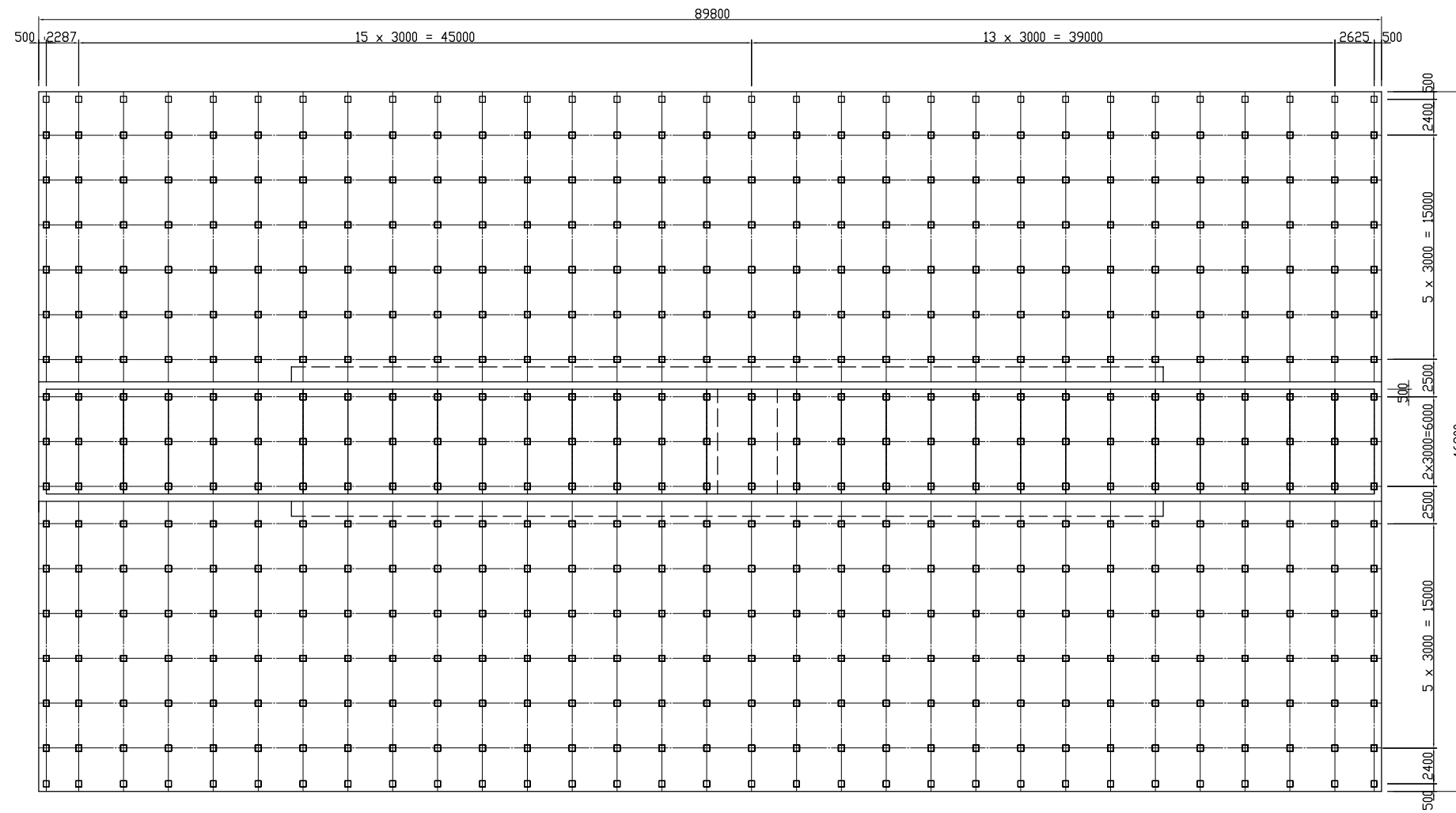
JICA JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )

PACIFIC CONSULTANTS INTERNATIONAL

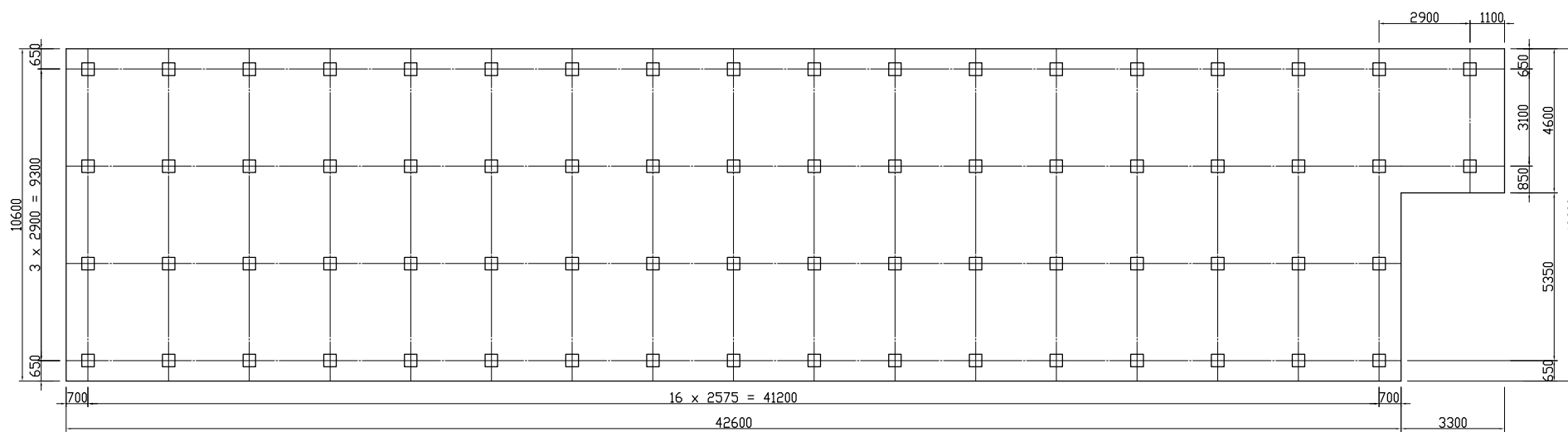
DESIGNED: KIMURA TORU  
CHECKED: KONDO MASAMI

DATE : JUNE 2001 DWG. No. PE - WWTP - 260 - 01

# COMPOST PLANT PILE ARRANGEMENT PLAN (Fermenting Vessel) (Scale:1/200)



# COMPOST PLANT PILE ARRANGEMENT PLAN (Deodorization) (Scale:1/100)



## ENGINEERING GEOLOGY CROSS SECTION

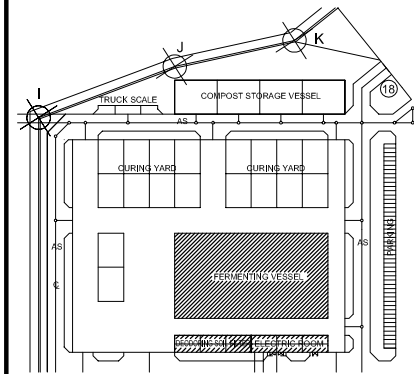
Scale: Vertical 1/300  
Horizontal 1/2500



### LEGEND

- 1 Ground made : Light brown ORGANIC CLAY
- 2 Very soft, high plasticity blackish grey ORGANIC CLAY
- 3 Soft, high plasticity blackish grey ORGANIC CLAY
- 4 Stiff, low plasticity, yellowish brownish grey ORGANIC CLAY
- 4c Dense, yellowish white grey POORLY GRADED SAND
- 4b Medium dense, light, white grey SILTY SAND
- 4d Dense, white POORLY GRADED SAND
- 5 Hard, yellowish, light violet SANDY CLAY

## KEY PLAN



### NOTES :

- ALL DIMENSIONS ARE MM UNLESS STATED OTHERWISE
- DETAILS OF R.C PILE SHOWN ON DWG. No. PE-WWTP - 265 - 01

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 E  
WASTEWATER TREATMENT PLANT  
**COMPOST PLANT PILE  
ARRANGEMENT PLAN**

SCALE = 1/100, 1/200

JICA JAPAN INTERNATIONAL COOPERATION  
AGENCY ( JICA )

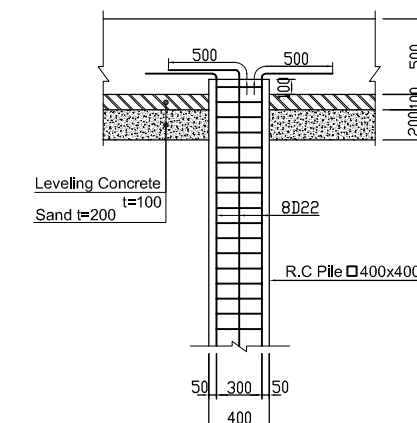
PACIFIC CONSULTANTS INTERNATIONAL

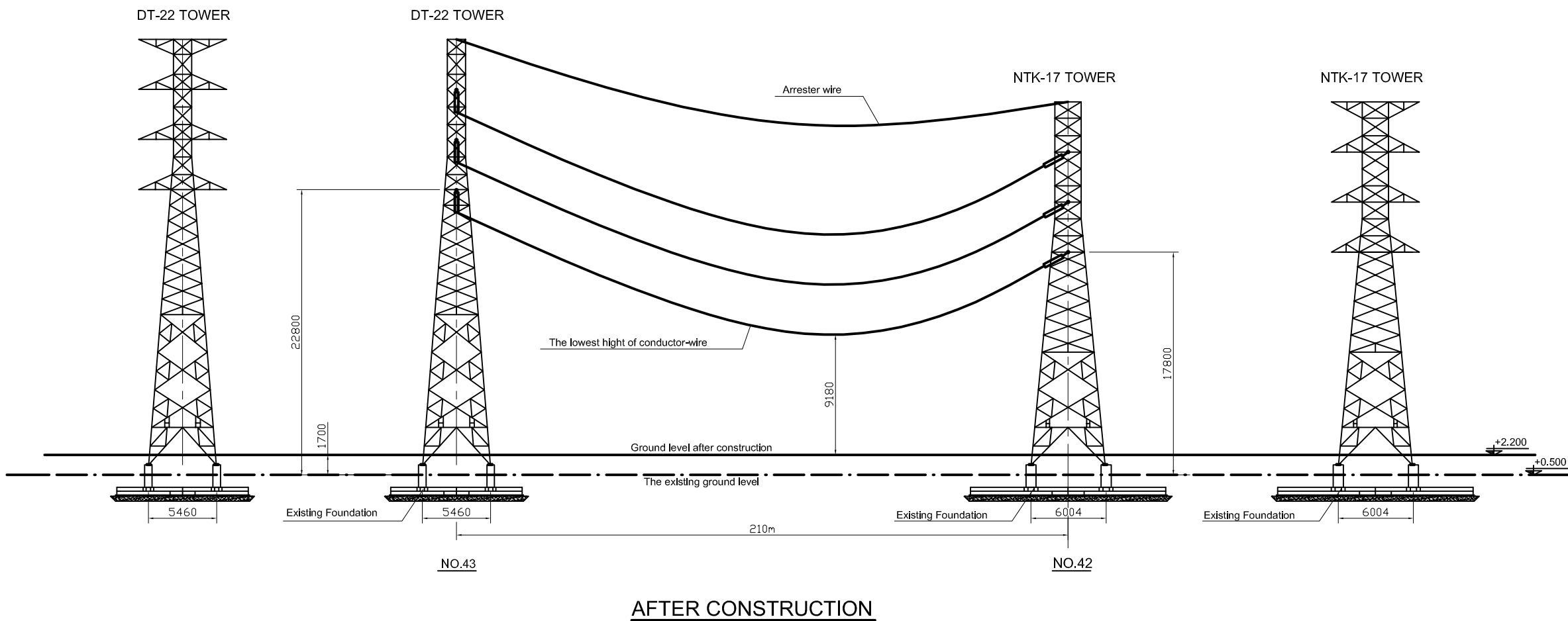
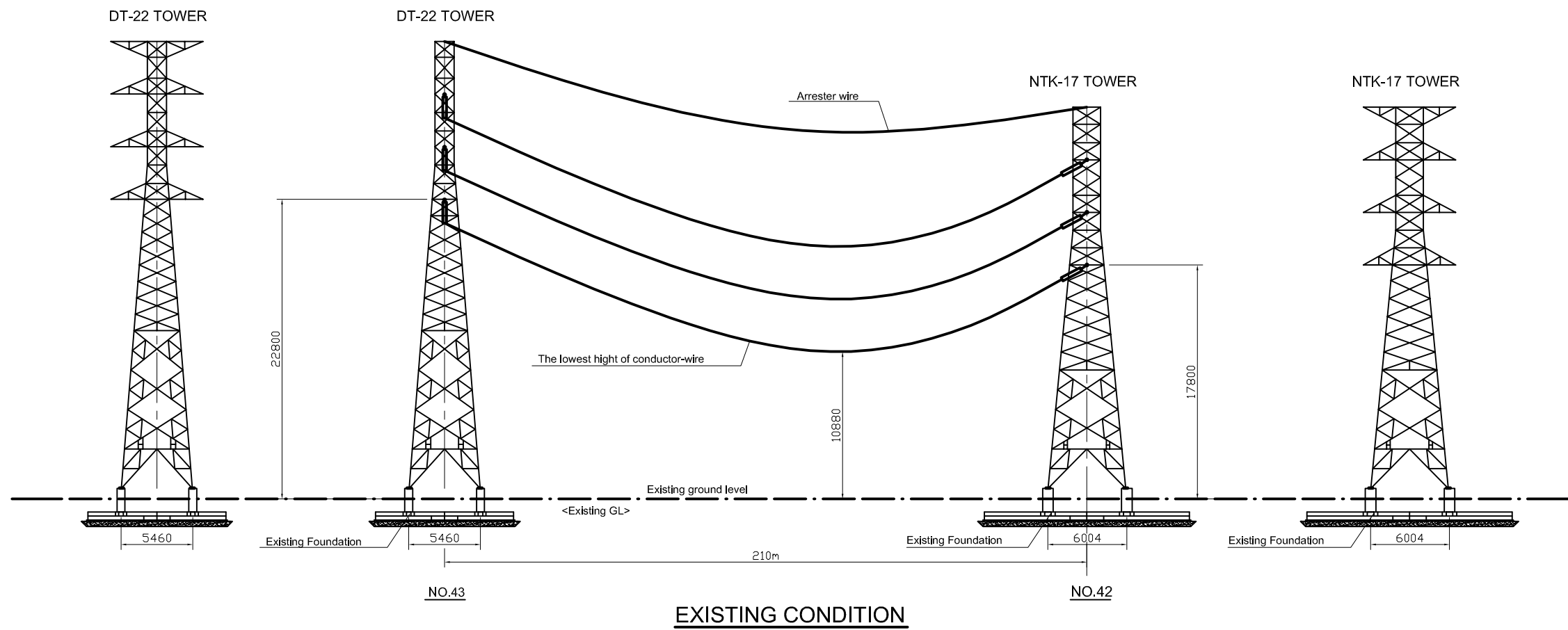
DESIGNED  
KIMURA TORU

CHECKED  
KONDO MASAMI

DATE : JUNE 2001 DWG. No. PE- WWTP - 261 - 01

## CONNECTION OF PILE HEAD and BOTTOM SLAB Scale:1/25





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 E  
SITE PREPARATION  
EXISTING POWER TOWER PROTECTION  
GENERAL CONDITION

SCALE : AS SHOWN

JICA JAPAN INTERNATIONAL COOPERATION  
AGENCY ( JICA )

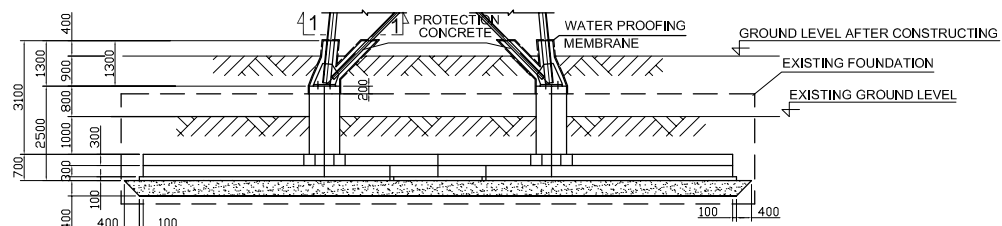
PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED  
KIMURA TORU

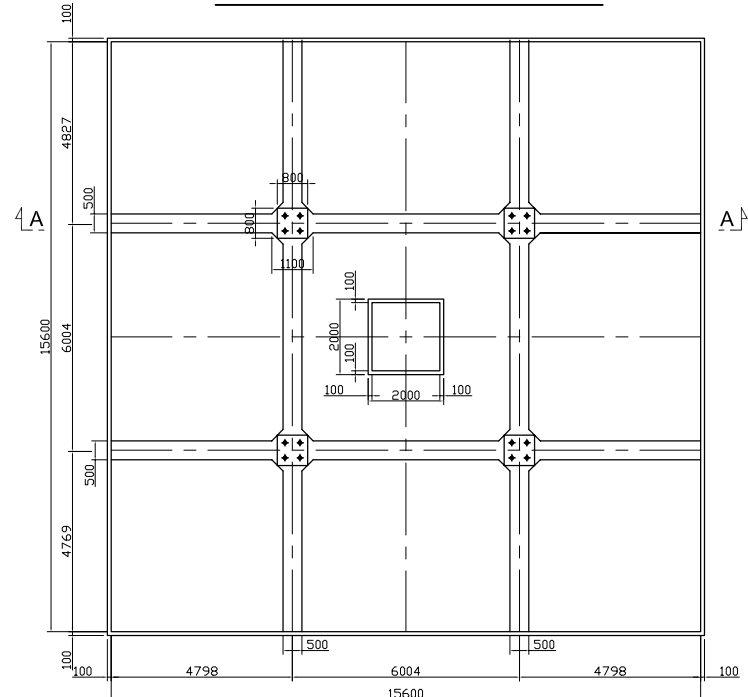
CHECKED  
KONDO MASAMI

DATE : JUNE 2001

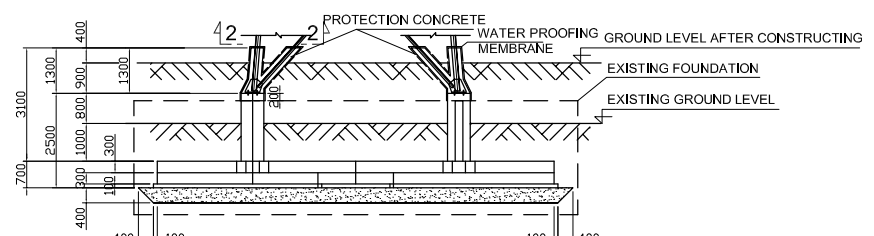
DWG. No. PE - WWTP - 264 - 01



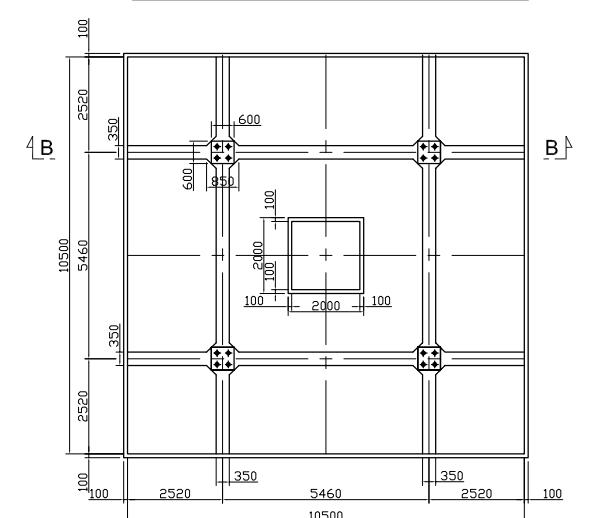
SECTION A-A Scale:1/100



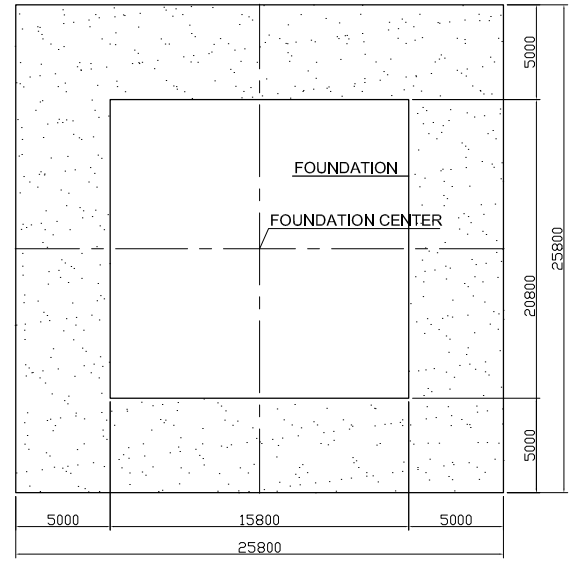
LAYOUT OF FOUNDATION No.42 Scale:1/100



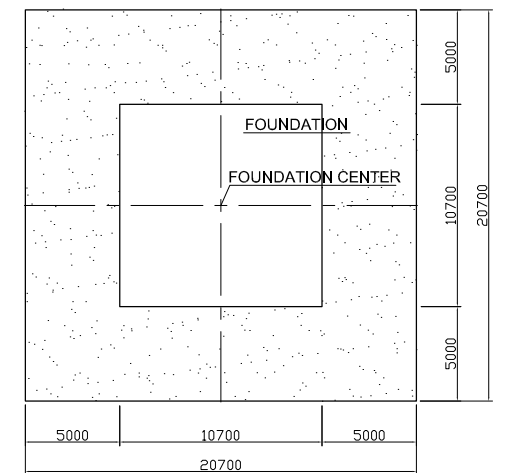
SECTION B-B Scale:1/100



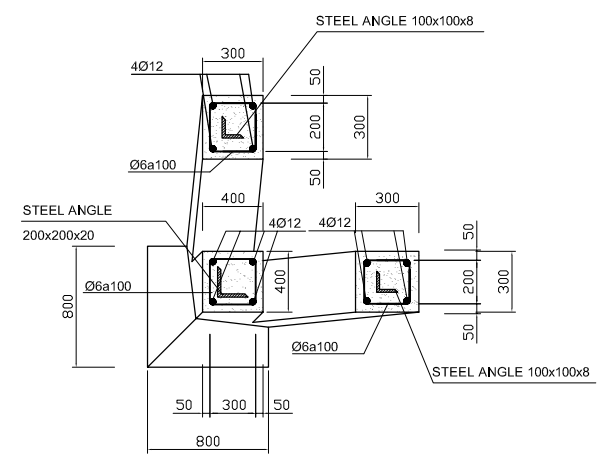
LAYOUT OF FOUNDATION No.43 Scale:1/100



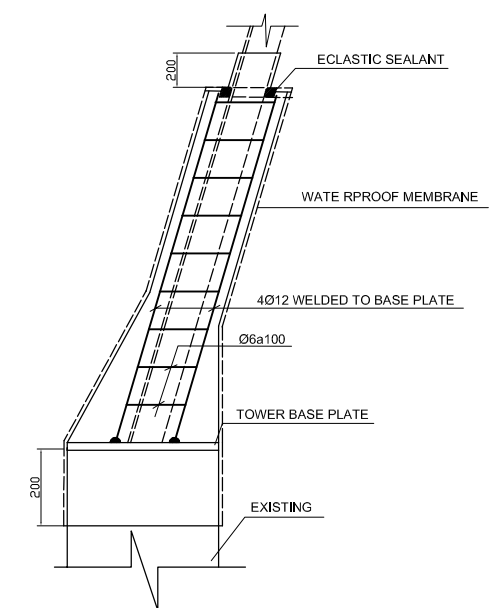
MANUAL FILLING AREA LIMITATION TOWER No-42 Scale:1/200



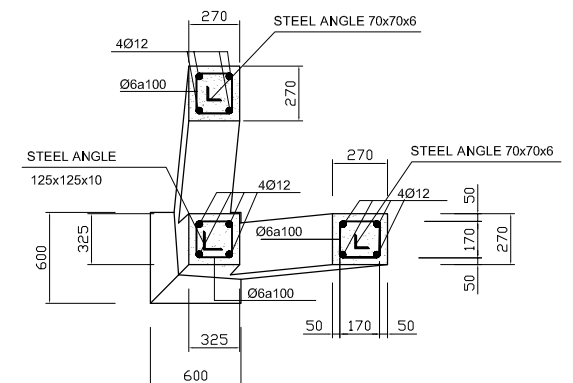
MANUAL FILLING AREA LIMITATION TOWER No.43 Scale:1/200



SECTION 1-1 Scale:1/25



REINFORCEMENT DETAIL Scale:1/100



SECTION 2-2 Scale:1/25

**NOTES :**  
 - Concrete grade 25 MPA.  
 - Concrete surface must be covered by two layers of waterproofing-membrane before filling.

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 E  
 SITE PREPARATION  
 EXISTING POWER TOWER PROTECTION  
 PROTECTION DETAIL

SCALE : AS SHOWN

JICA JAPAN INTERNATIONAL COOPERATION  
 AGENCY ( JICA )

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED  
 KIMURA TORU

CHECKED  
 KONDO MASAMI

DATE : JUNE 2001

DWG. No. PE - WWTP - 264 - 02