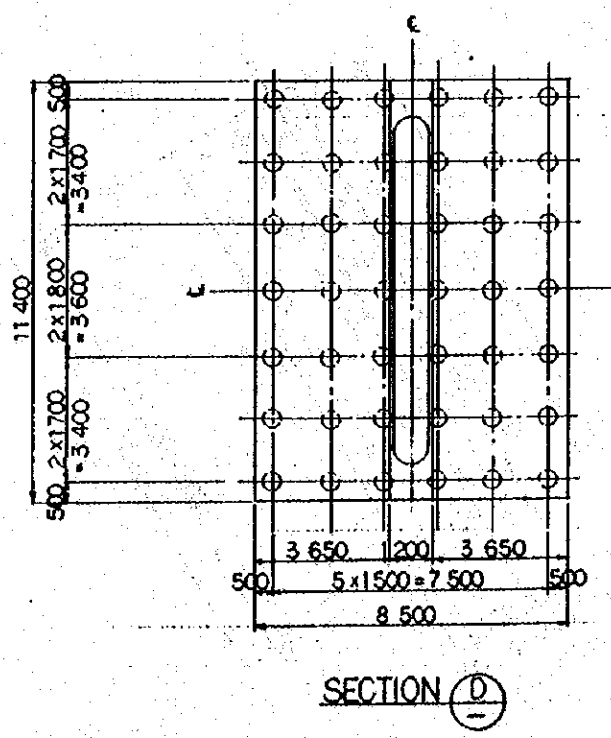
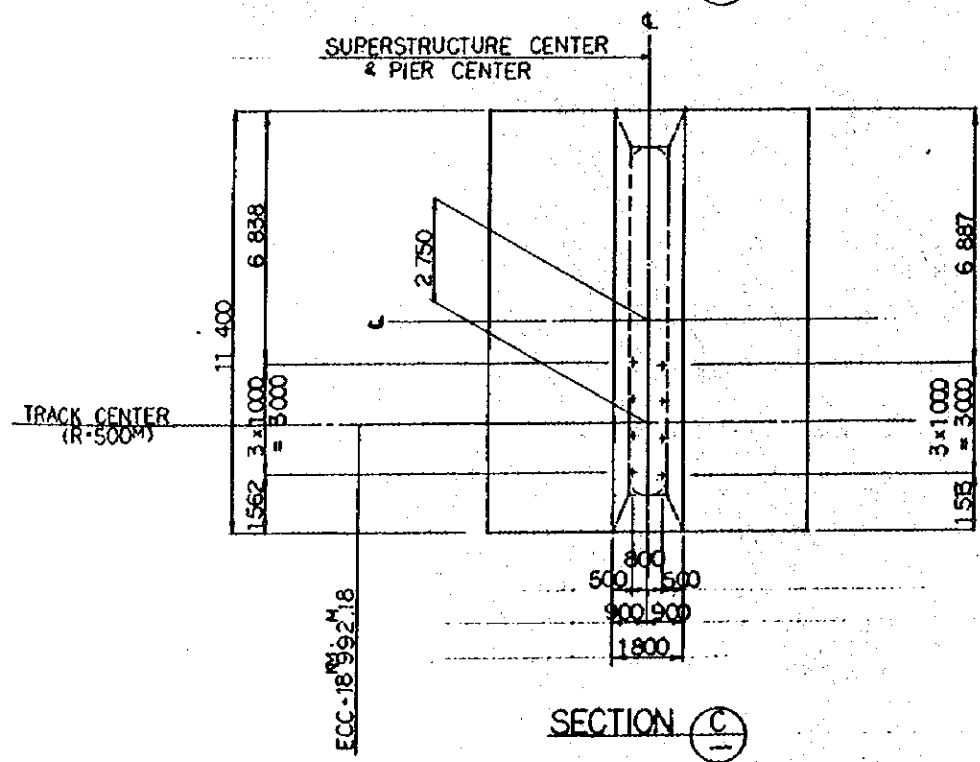
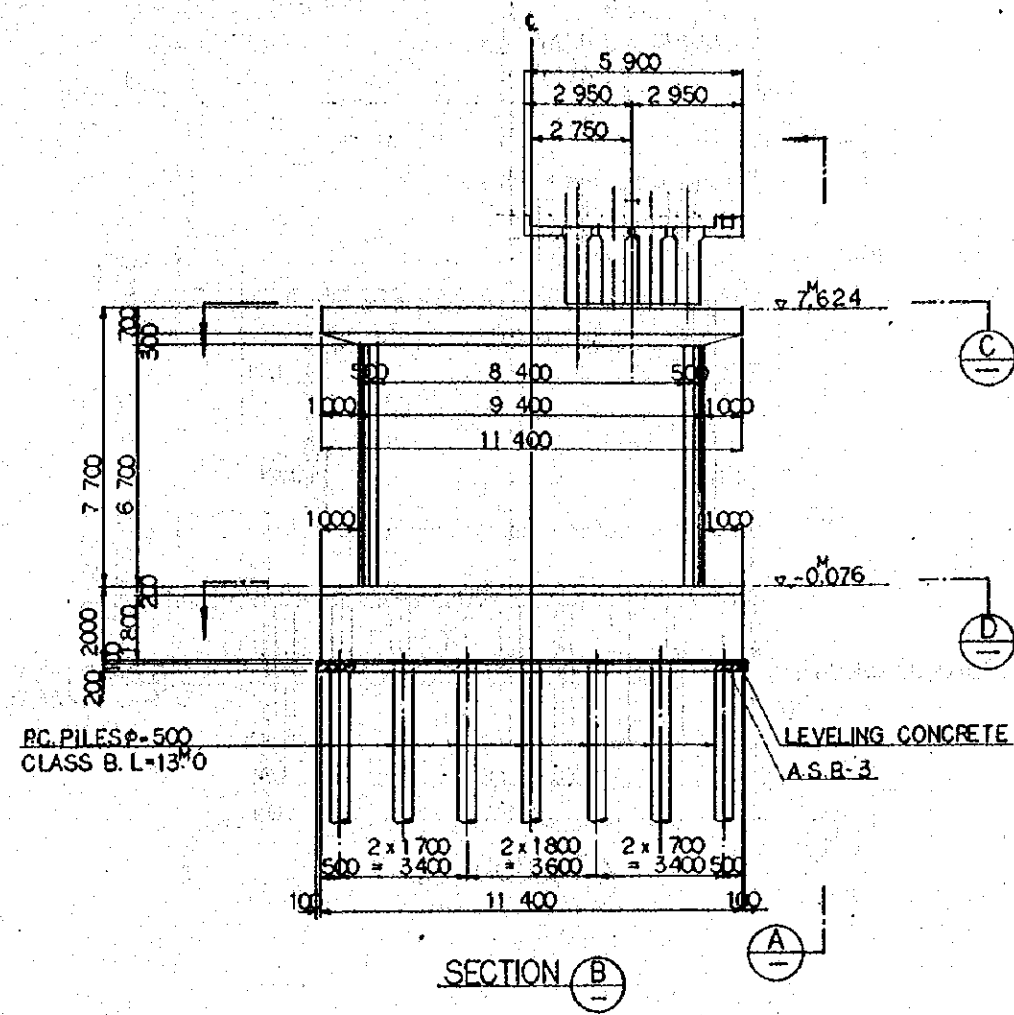
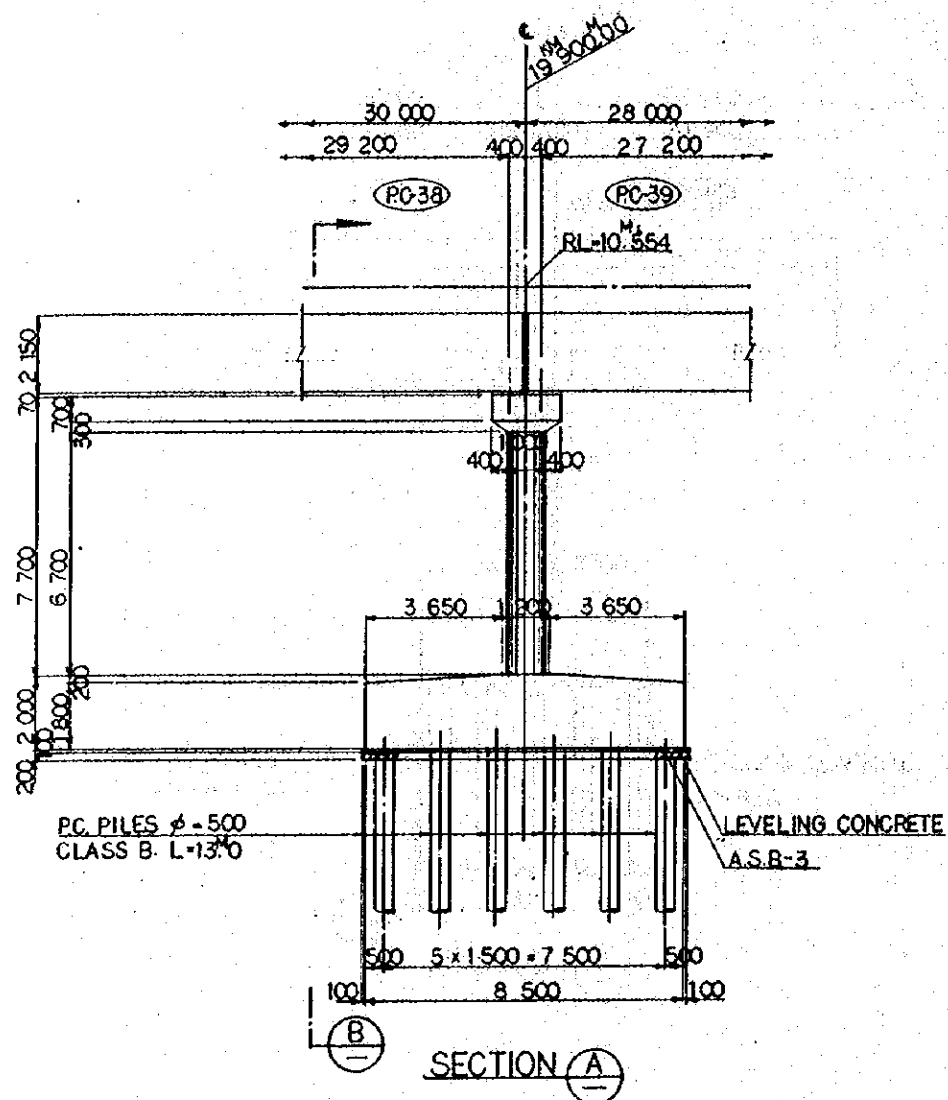


- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS-118, CS-119, CS-120

GENERAL VIEW OF P-42

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG. '84	S.S.	M.Y.	K.R.	K.M.	M.R.
A	15 FEB. '84	S.S.	M.Y.	K.R.	K.M.	M.R.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
PIER P42 GENERAL VIEW						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:100		DRAWING NO: CS-115				

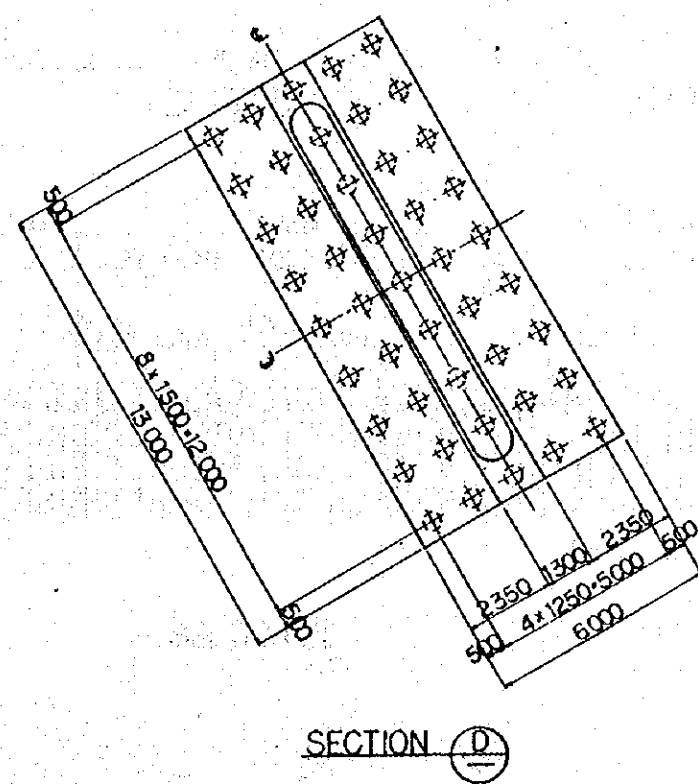
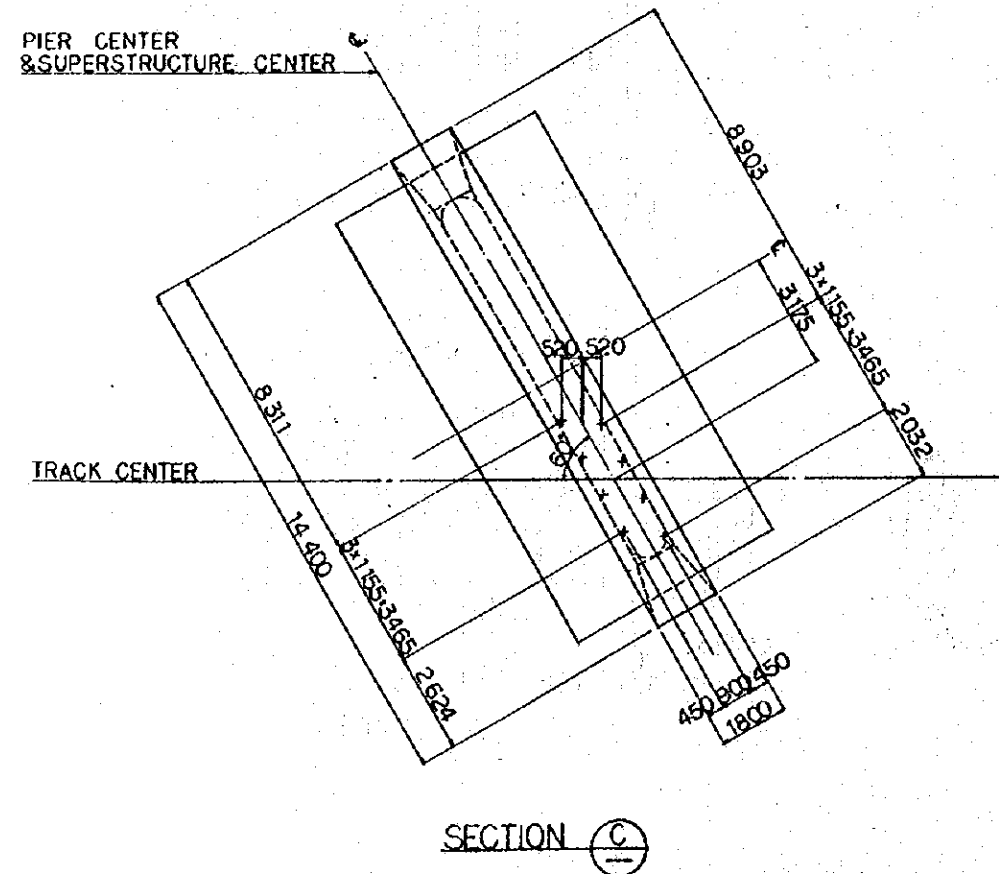
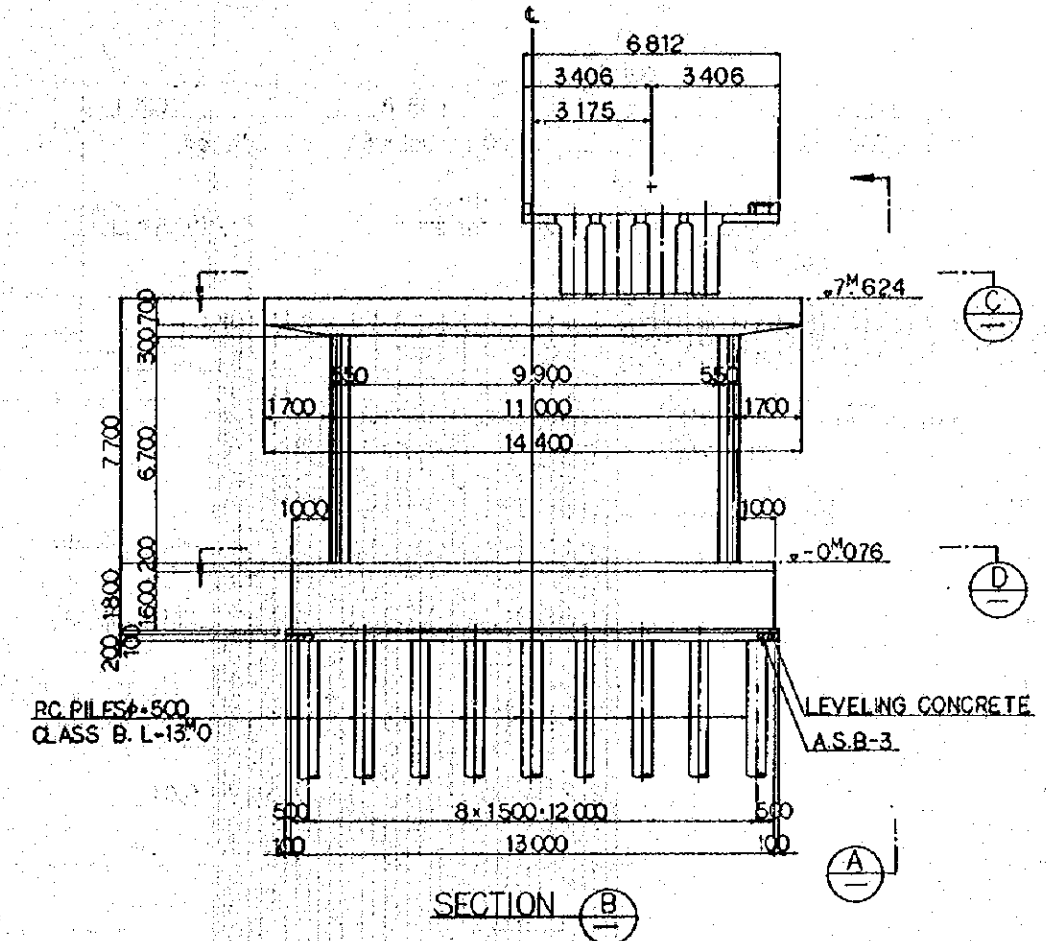
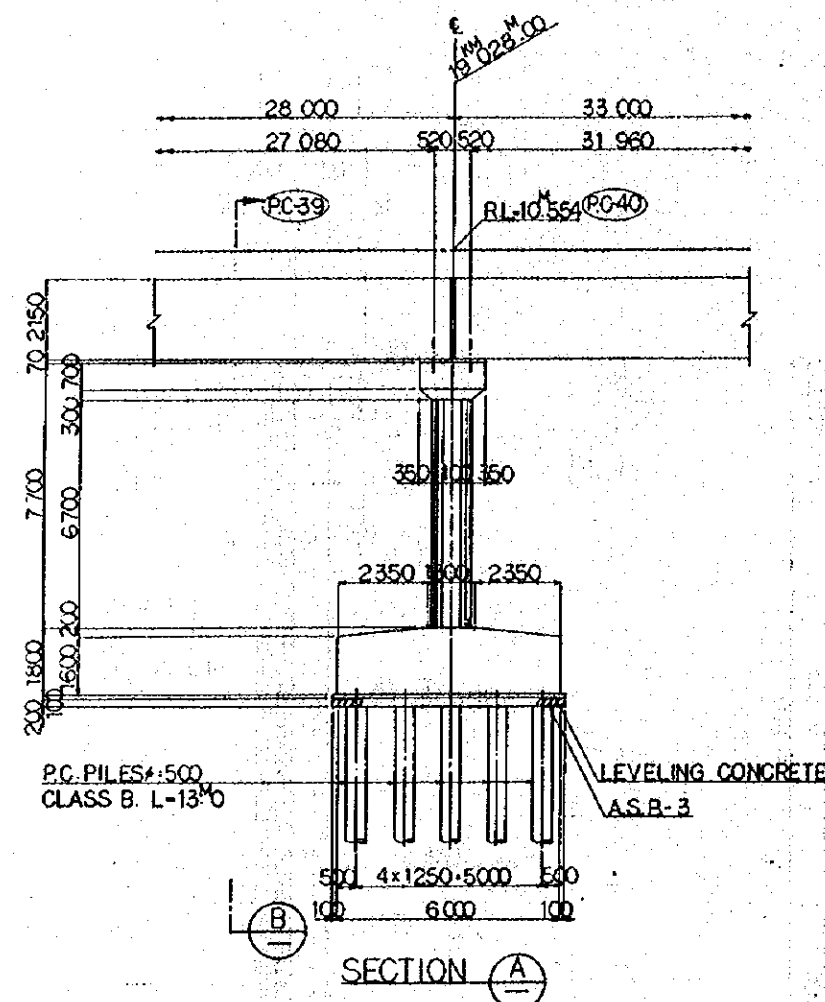


GENERAL VIEW OF P-47

NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS112, CS113, CS114.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG'84	S.S.	m.y.	K.S.	K.M.	n.k.
A	15FEB'84	S.S.	m.y.	K.S.	K.M.	n.k.
REVISOR	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
PIER P47 GENERAL VIEW						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:100	CS-116					



GENERAL VIEW OF P-48

- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  - REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-118, CS-119, CS-120

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-15
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $E_h=0.1$ IN VERTICAL DIRECTION $E_v=0$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 180kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 80kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD-38
	CONCRETE OF DESIGN CRITERIA STRENGTH	$f_{ck}=210kg/cm^2$
	MAX SIZE OF COARSE AGGREGATE	25mm

REPUBLIC OF INDONESIA  
 MINISTRY OF COMMUNICATIONS  
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

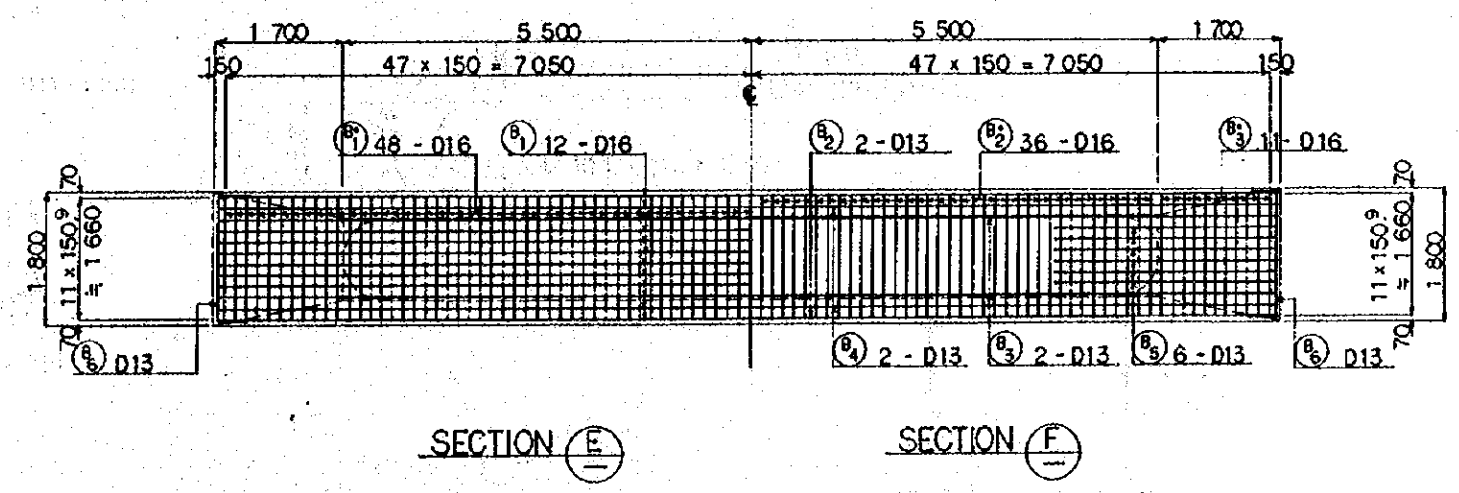
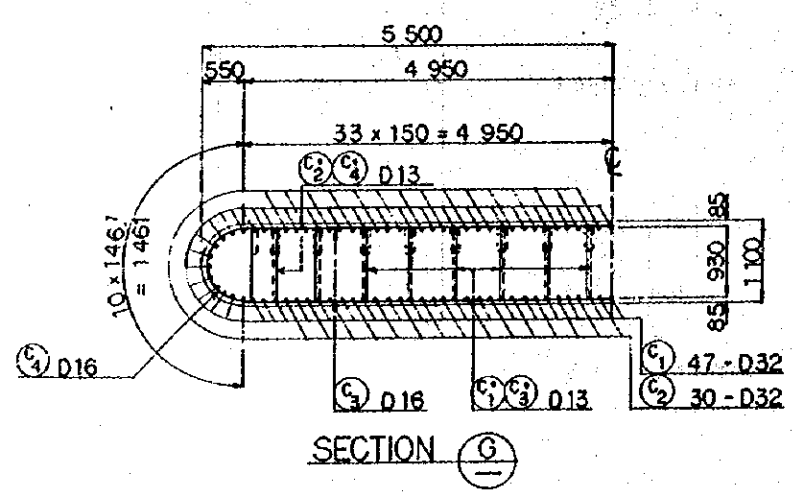
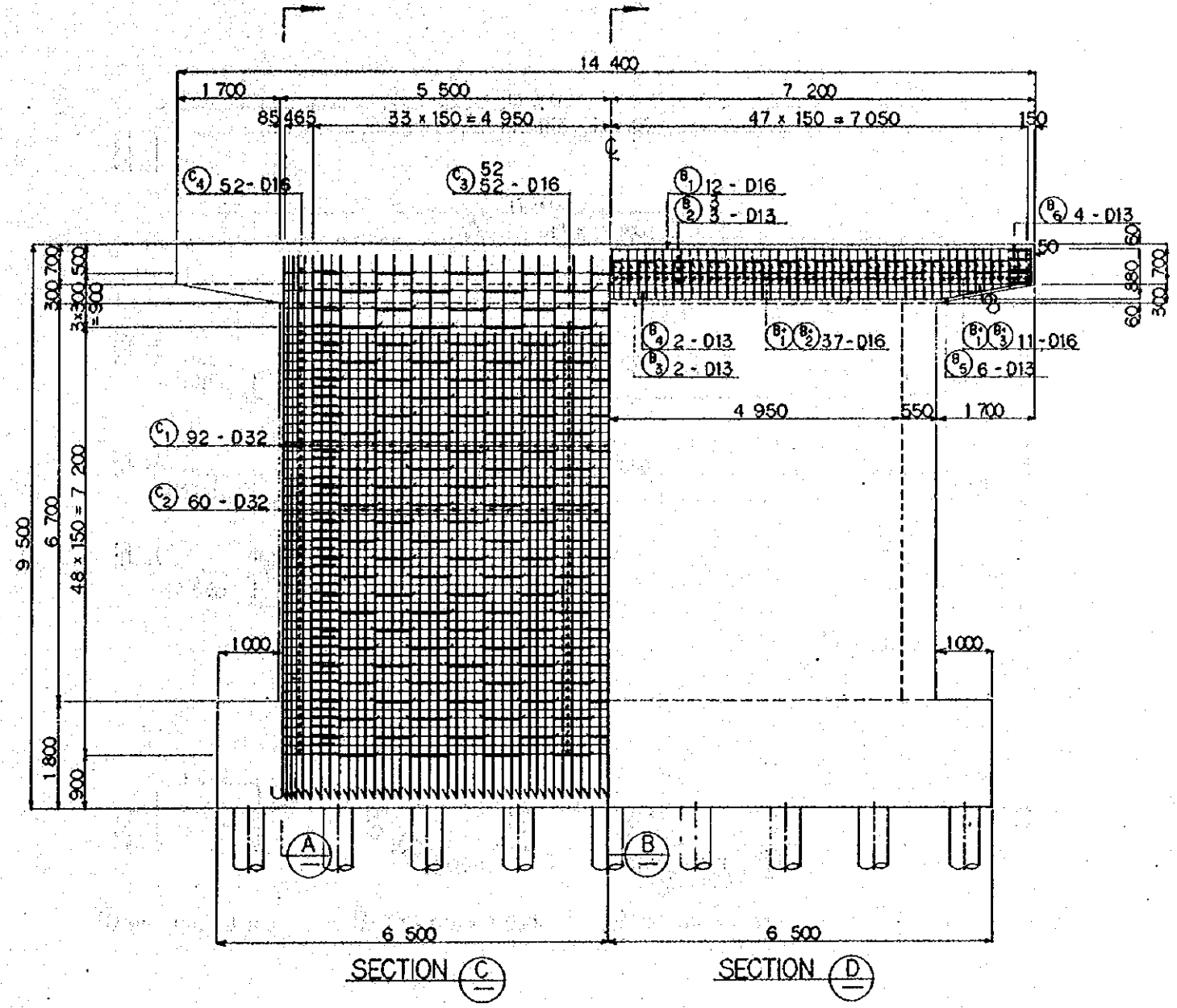
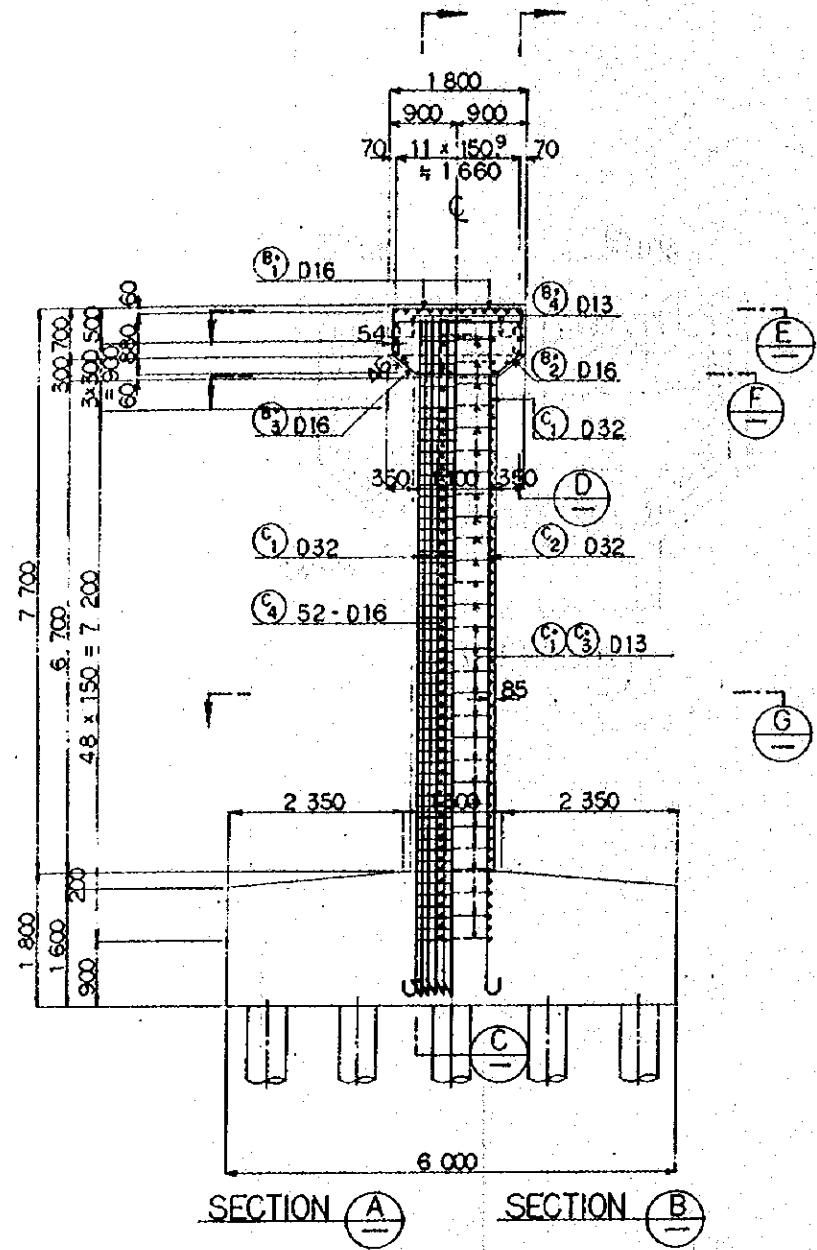
NEW RAILWAY LINE FOR CENGKARENG AIRPORT  
 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1AUG'84	SS	MY	K.A.	K.M.	M.K.
A	15FEB'84	SS	MY	K.A.	K.M.	M.K.

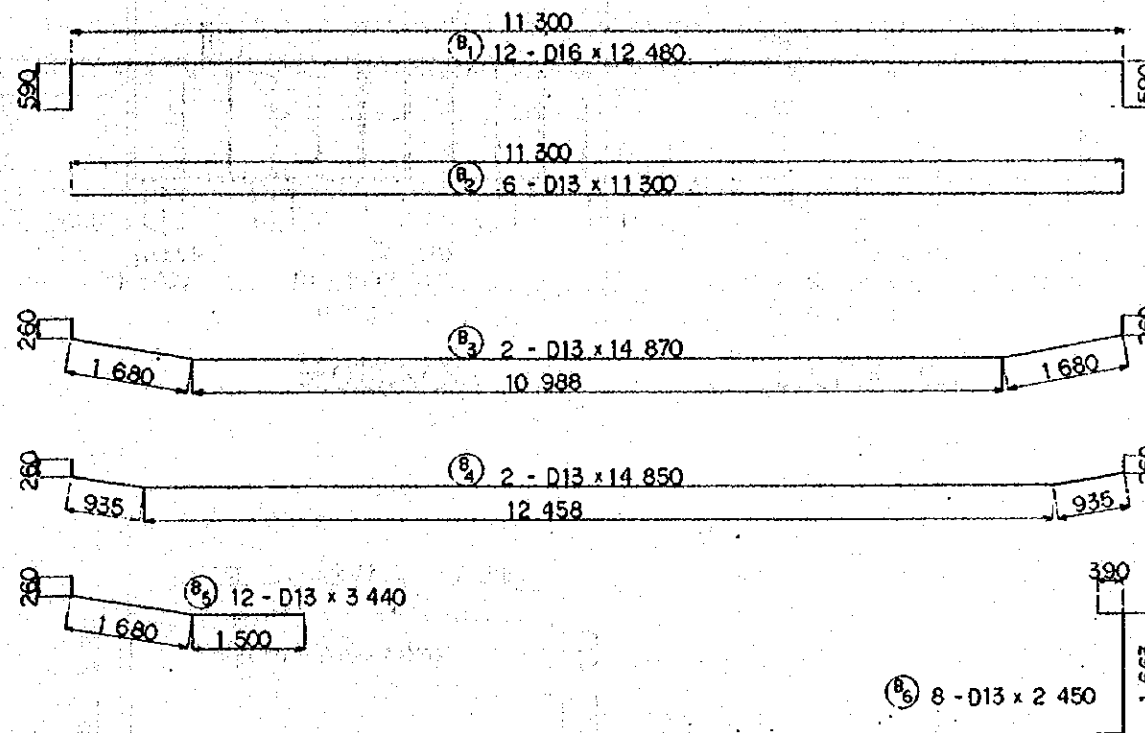
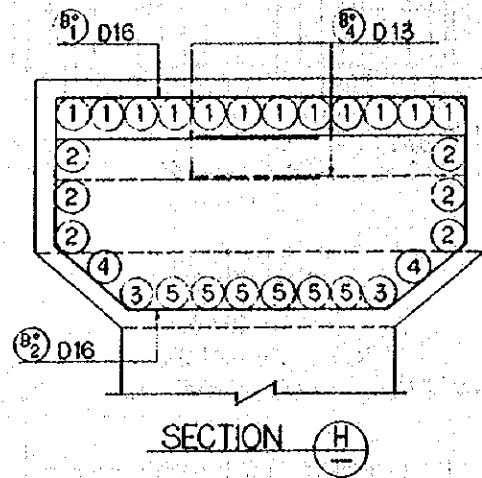
PIER P48  
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK  
 SCALE: 1:100  
 DRAWING NO: CS-117



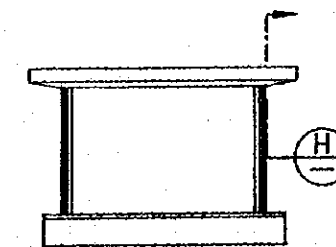
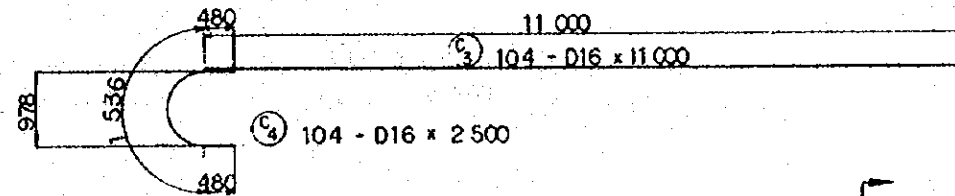
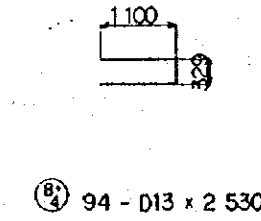
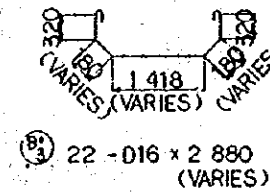
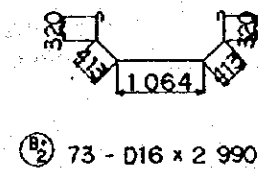
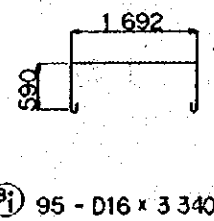
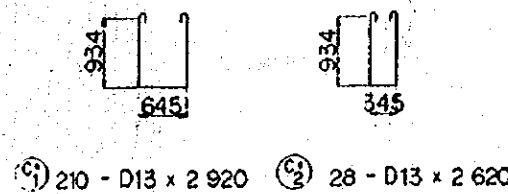
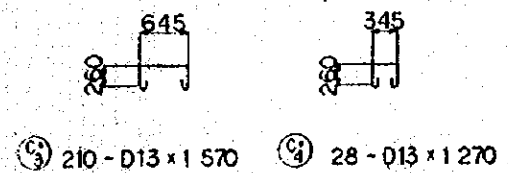
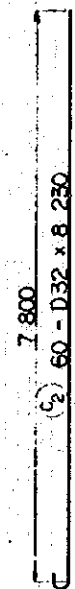
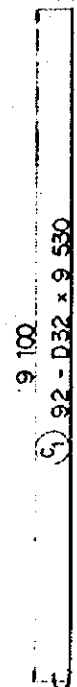
- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW: CS-117

REPUBLIC OF INDONESIA					
MINISTRY OF COMMUNICATIONS					
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG 84	SS	MY	K.R.	M.K.
A	15 FEB 84	SS	MY	K.R.	M.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	APPROVED
PIER P48					
BAR ARRANGEMENT					
(SHEET 1 OF 3)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:50	CS-118				



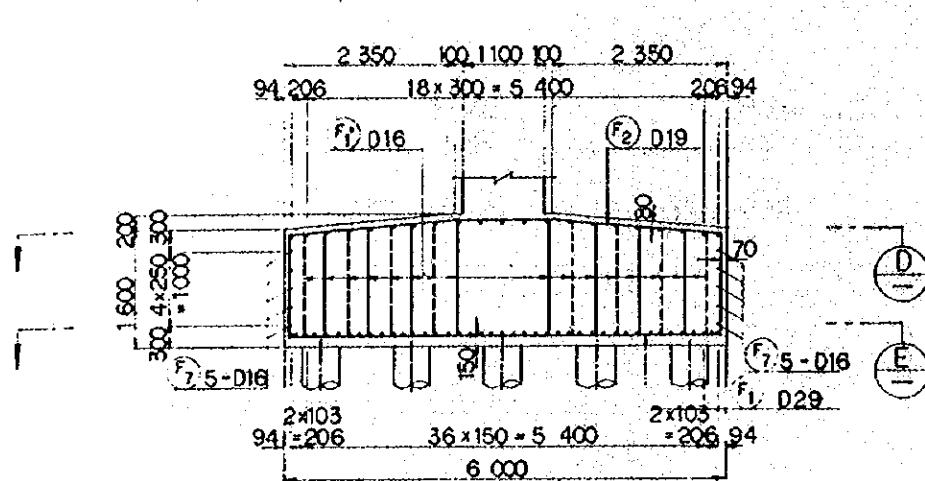
NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW: CS-117

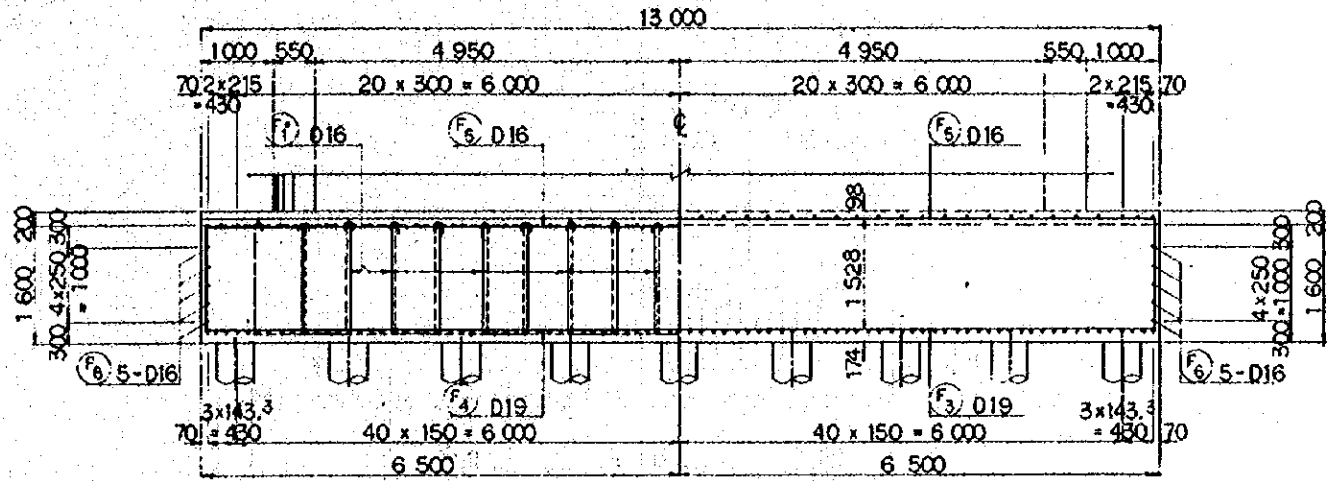


REMARKING DIAGRAM

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	S.S.	m.y.	K.H.	K.M.	m.k.
A	15 FEB. '84	S.S.	m.y.	K.H.	K.M.	m.k.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
PIER P48 BAR ARRANGEMENT (SHEET 2 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:50	CS-119					

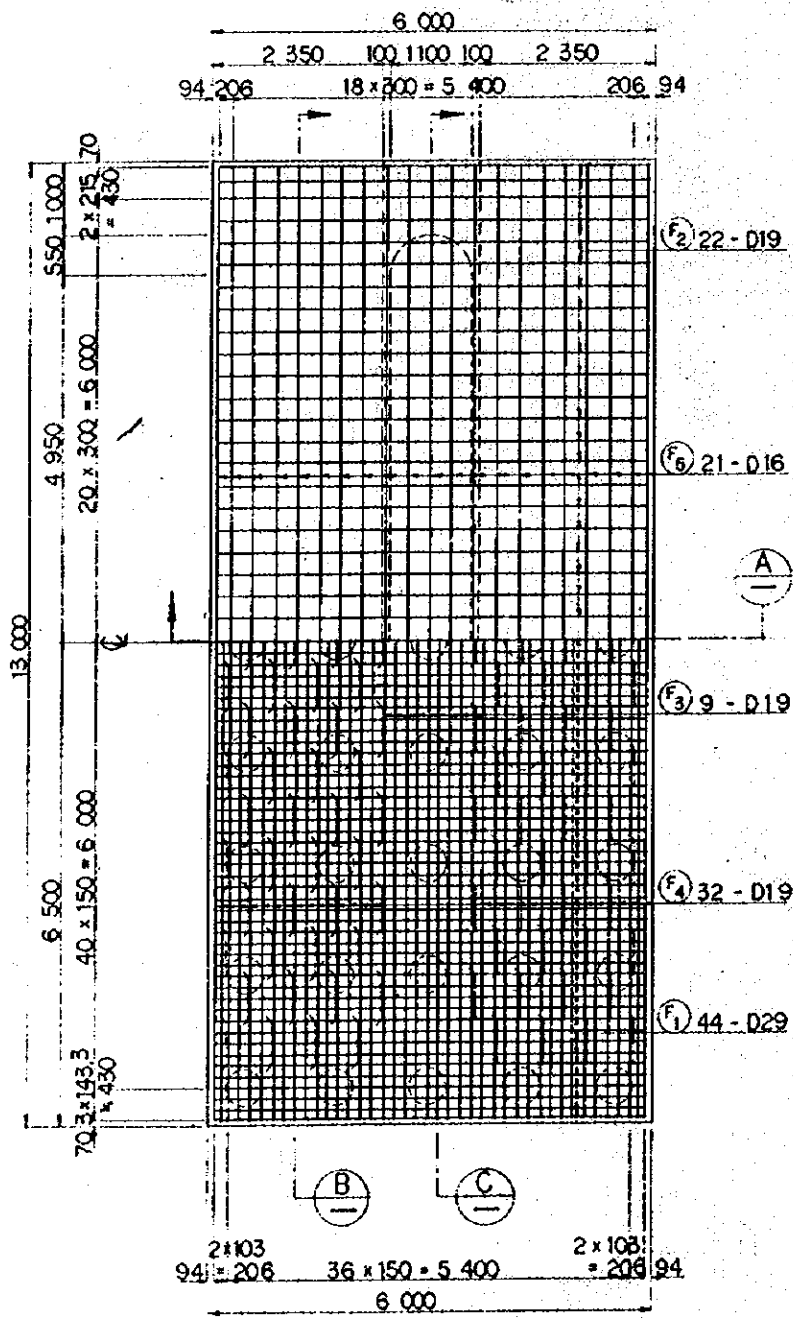


SECTION A



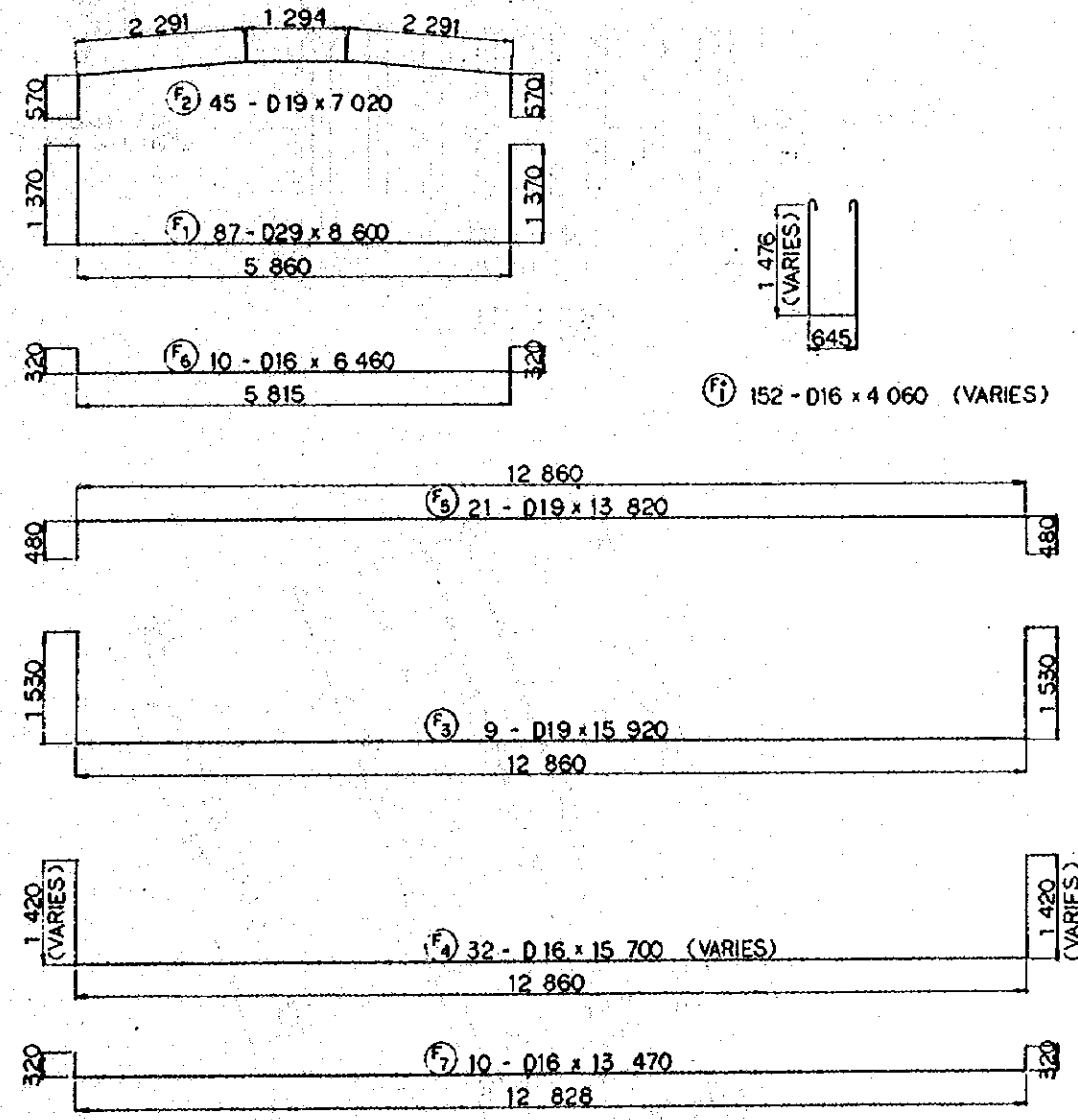
SECTION B

SECTION C



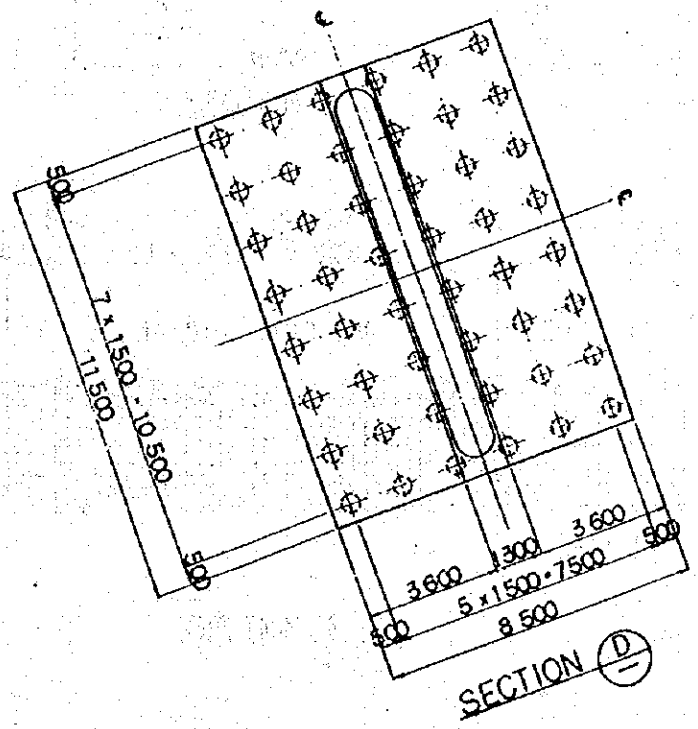
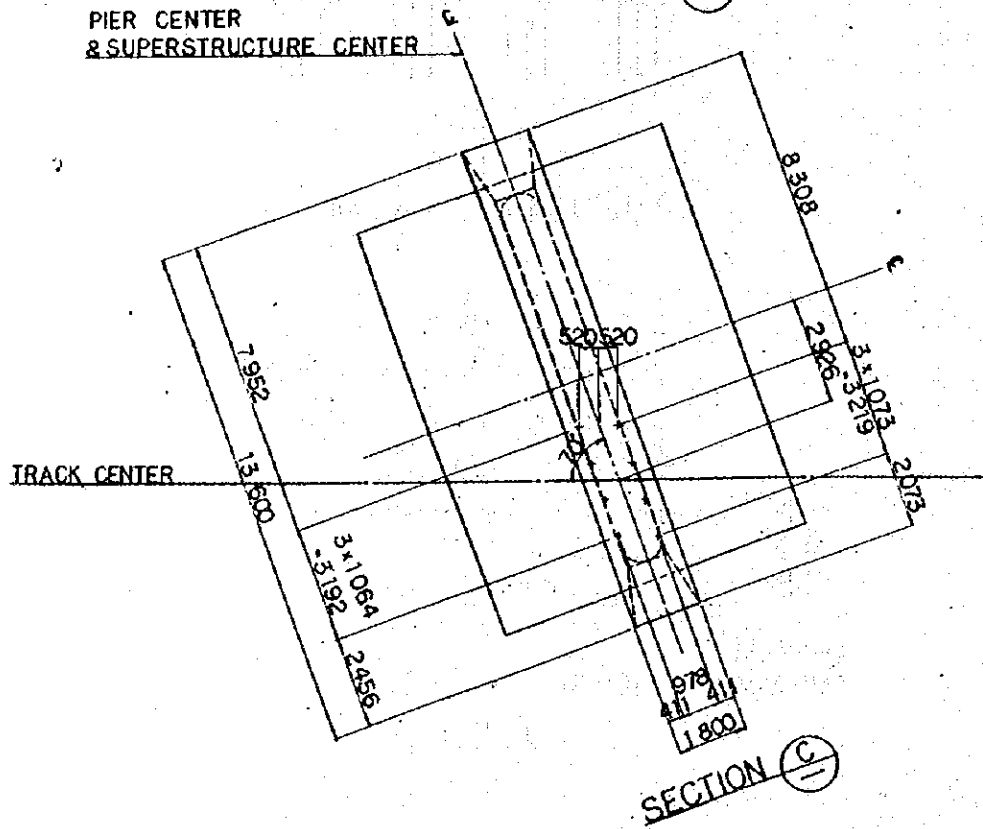
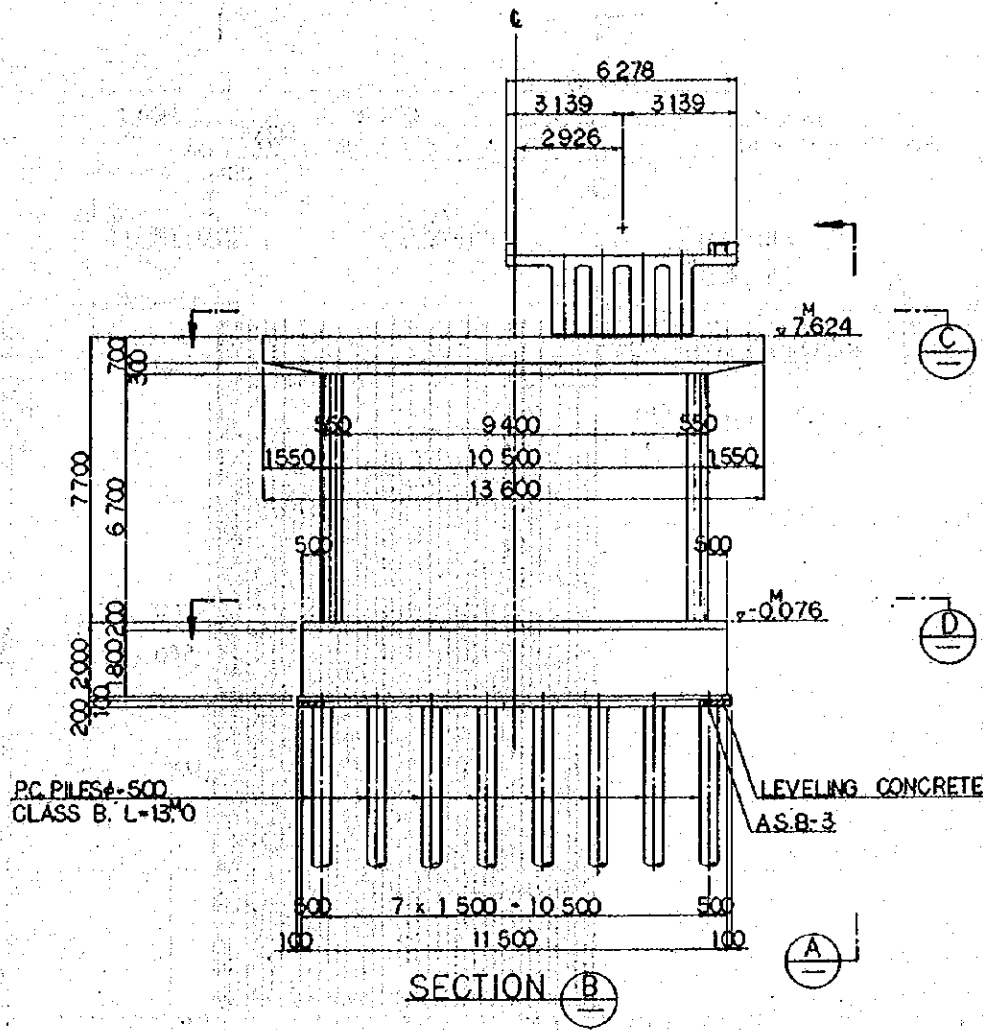
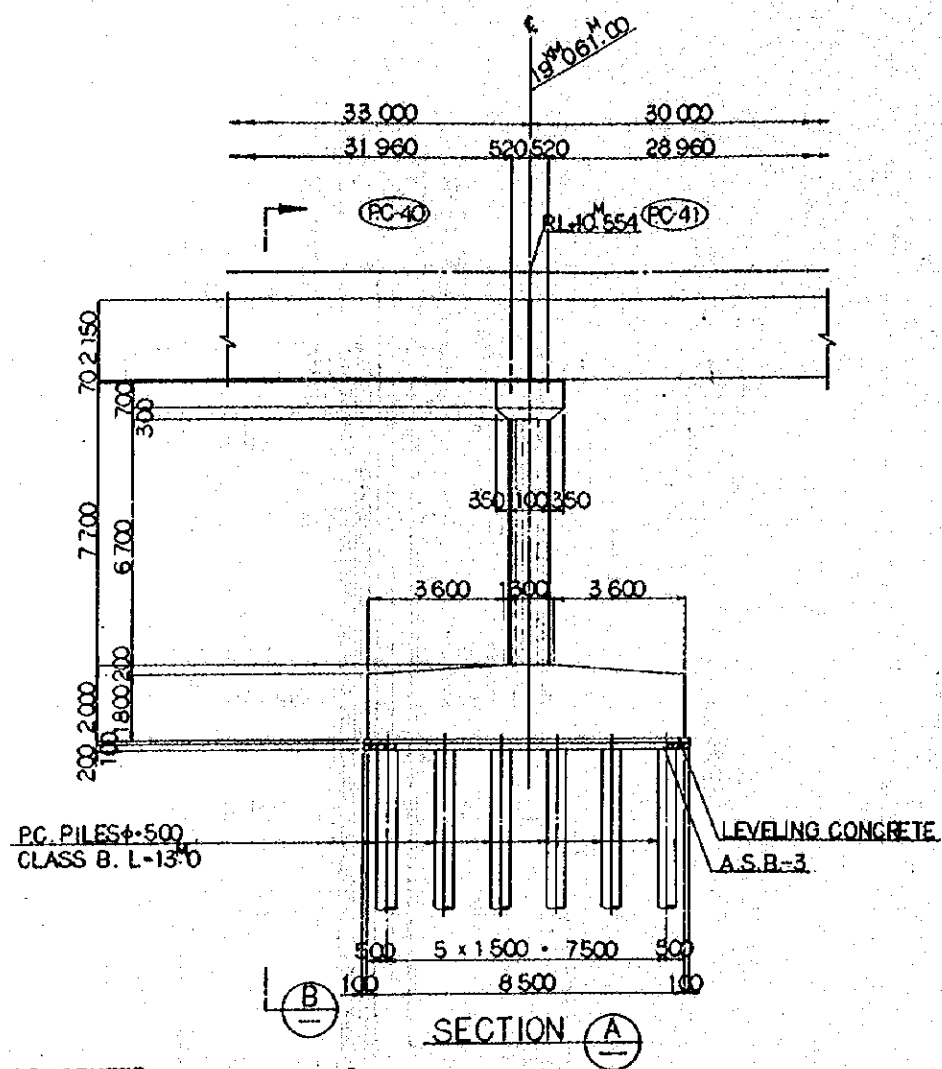
SECTION D

SECTION E



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS-117

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	S.S	M.Y	K.A	K.M	M.K
A	15 FEB '84	S.S	M.Y	K.A	K.M	M.K
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
PIER P48 BAR ARRANGEMENT (SHEET 3 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:50	CS-120					



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS-122, CS-123, CS-124.

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-16
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_h=0.1$ IN VERTICAL DIRECTION $K_v=0$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 80kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD-34
	CONCRETE OF DESIGN CRITERIA STRENGTH	$f_{ck}=210kg/cm^2$
	MAX SIZE OF COARSE AGGREGATE	25mm

REPUBLIC OF INDONESIA  
 MINISTRY OF COMMUNICATIONS  
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1 AUG '84	S.S	m.y	K.d	K.M	m.K
A	15 FEB '84	S.S	m.y	K.A	K.M	m.K

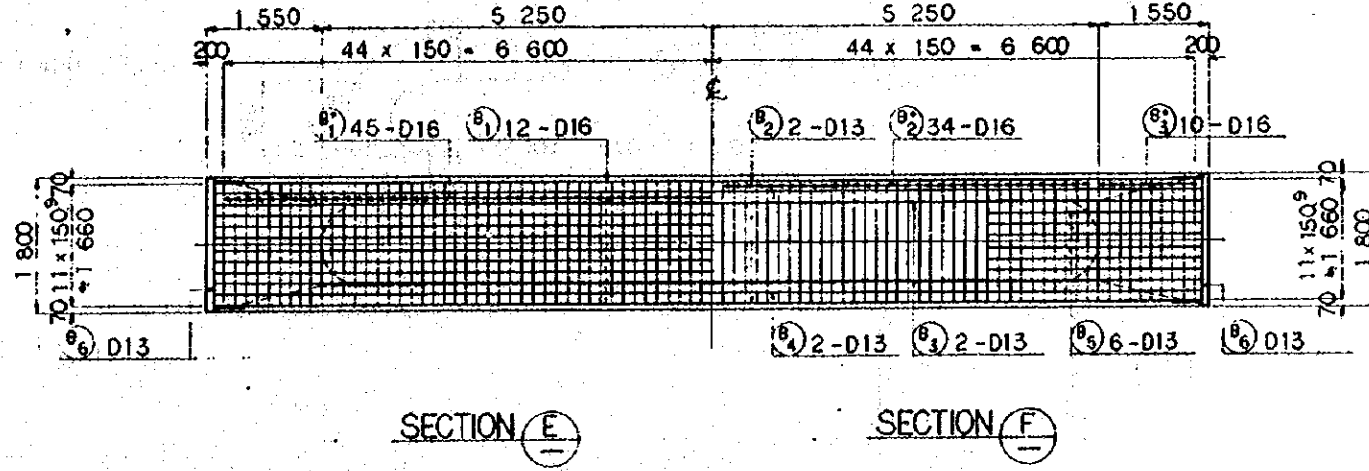
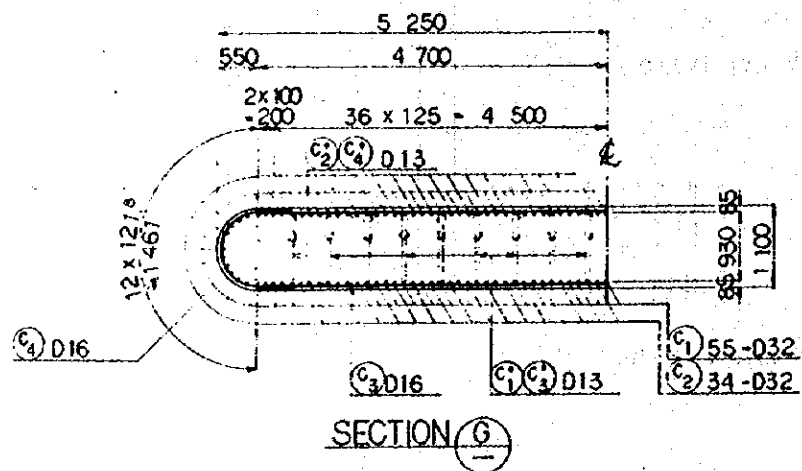
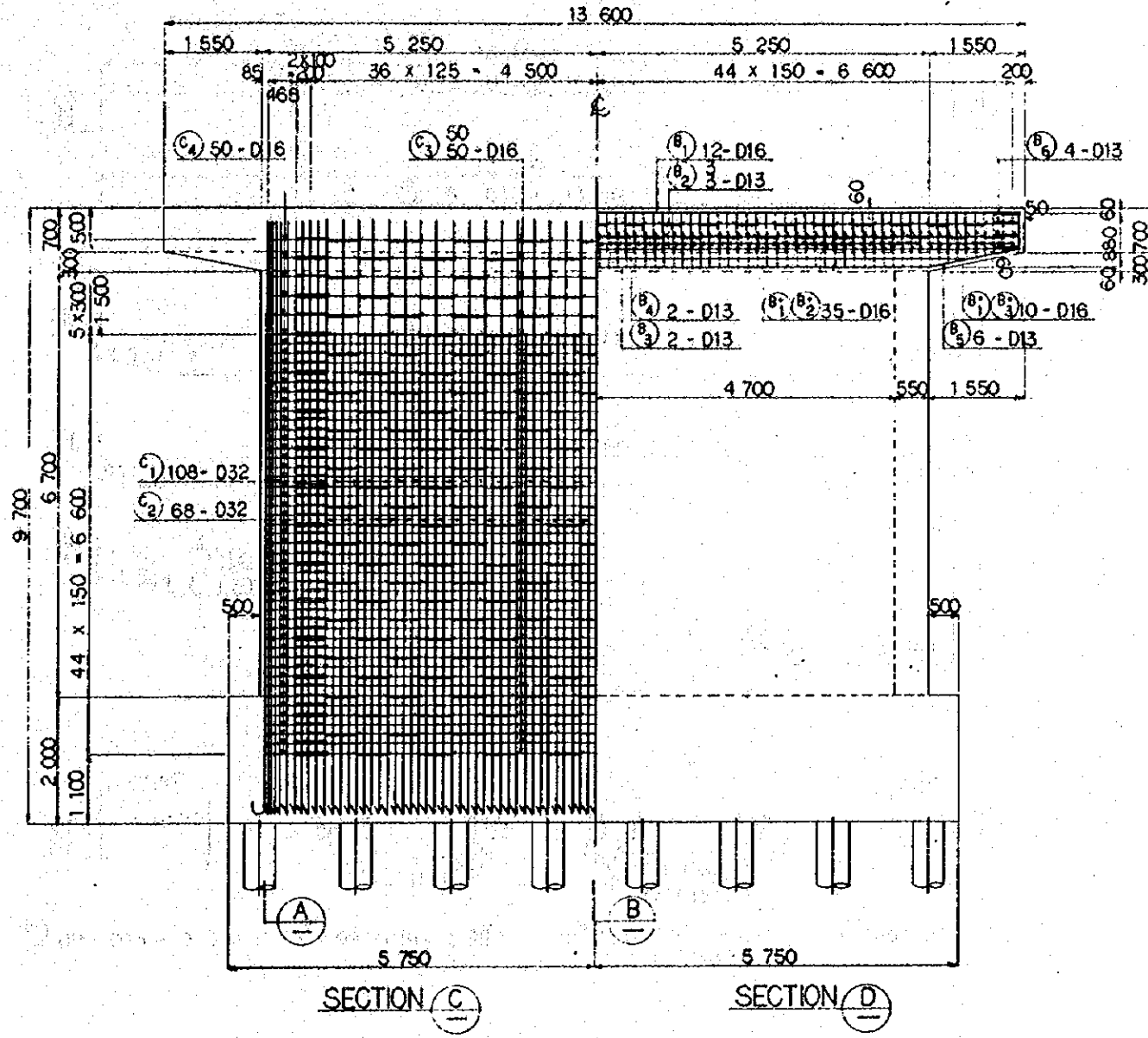
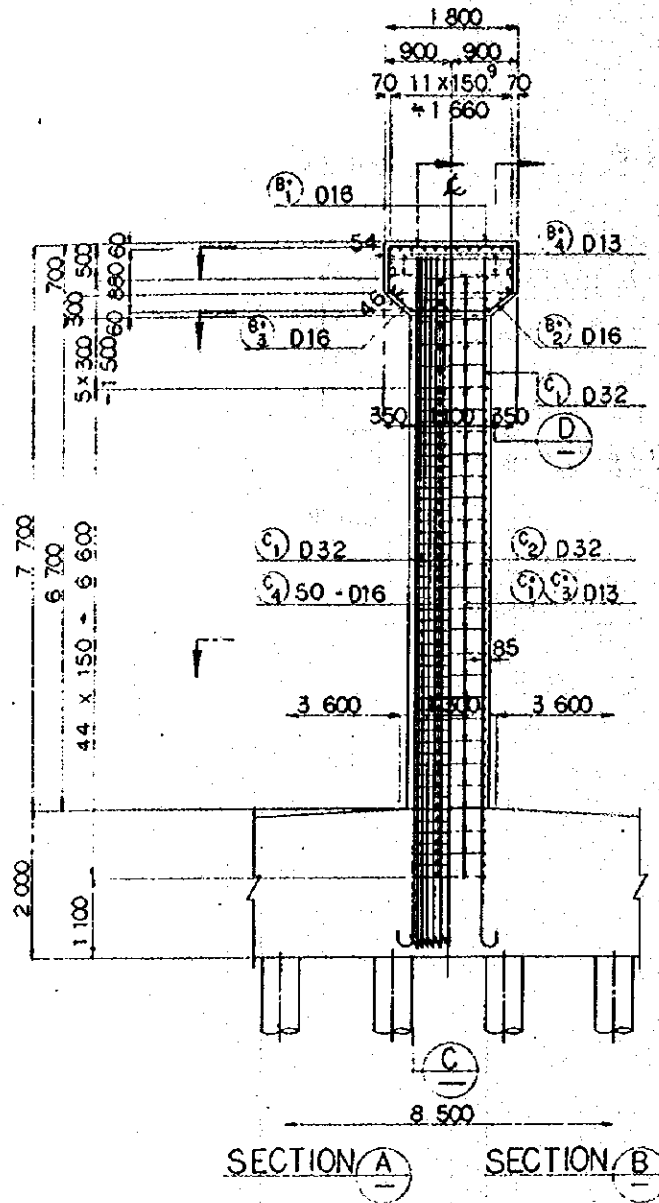
REVISIONS: DATE, DESIGNED, DRAWN, CHECKED, REVIEWED, SUBMITTED

PIER P49  
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK

SCALE: 1:100      DRAWING NO: CS-121

GENERAL VIEW OF P-49

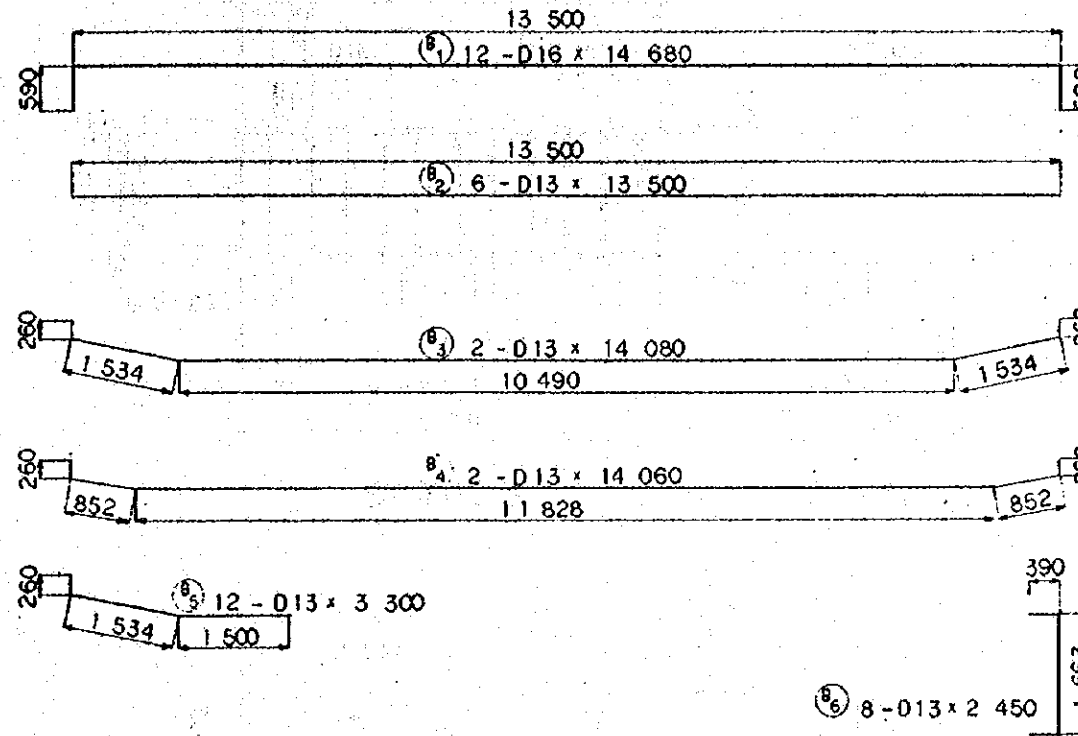
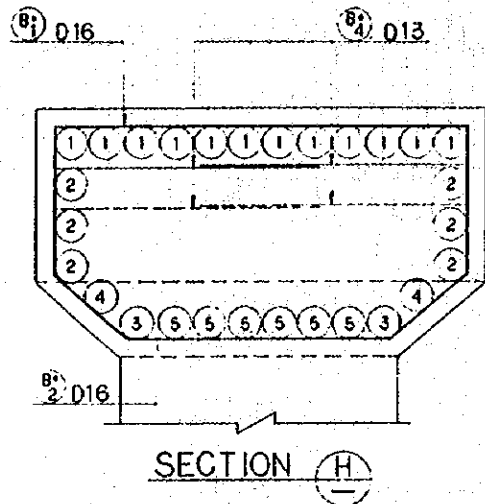


NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW: CS-121.

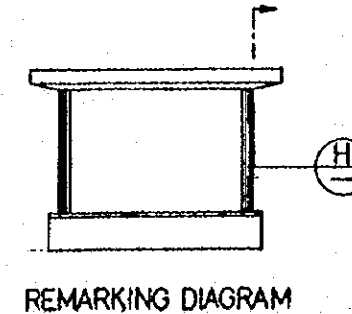
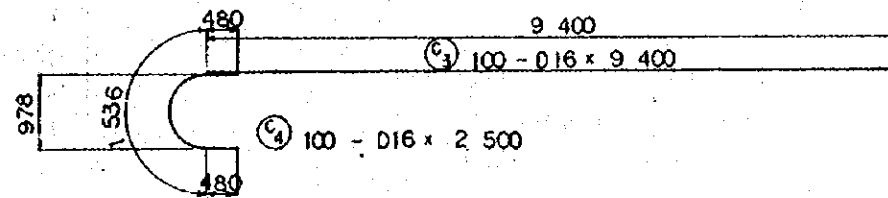
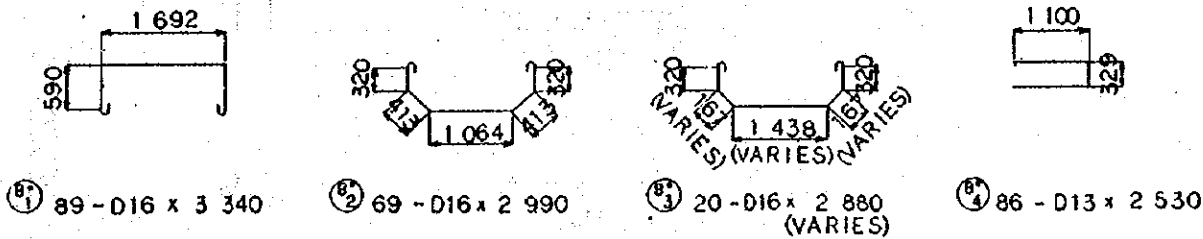
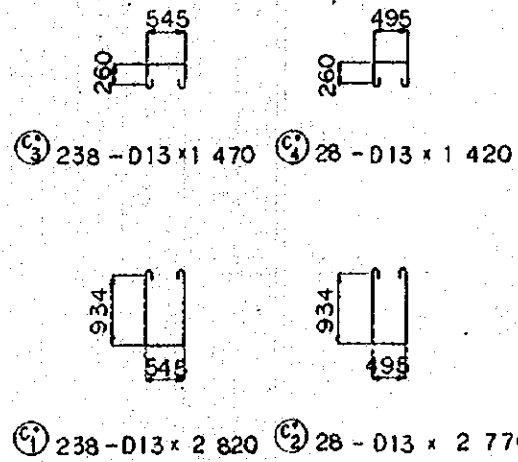
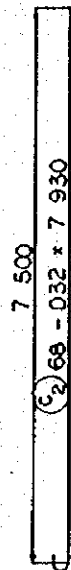
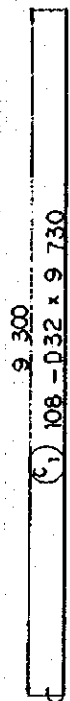
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG. 84	S.S.	m.y.	K.A.	K.M.	m.K.
A	15 FEB. 84	S.S.	m.y.	K.A.	K.M.	m.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
PIER P49 BAR ARRANGEMENT (SHEET 1 OF 3)						
PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:50	CS-122					



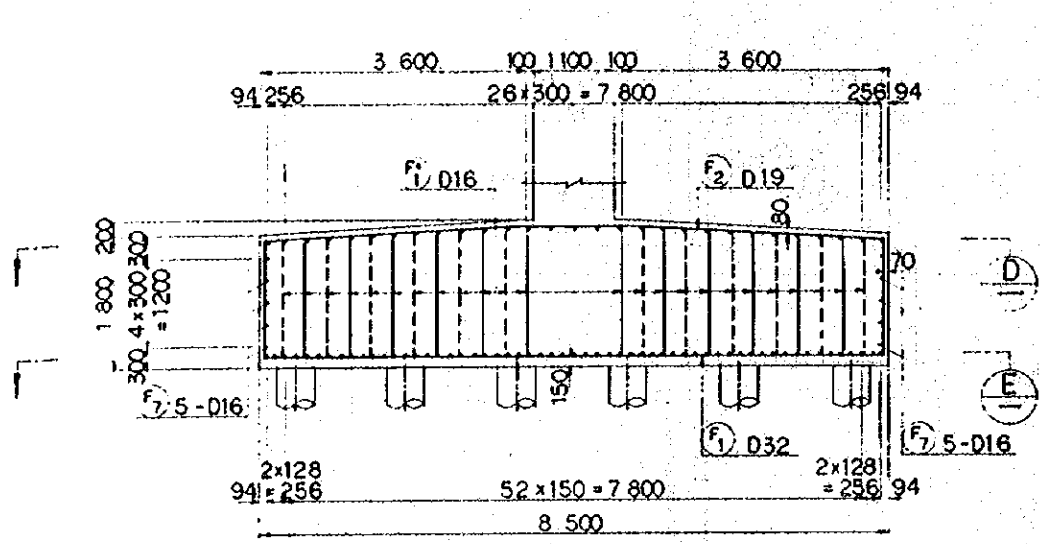


NOTES:

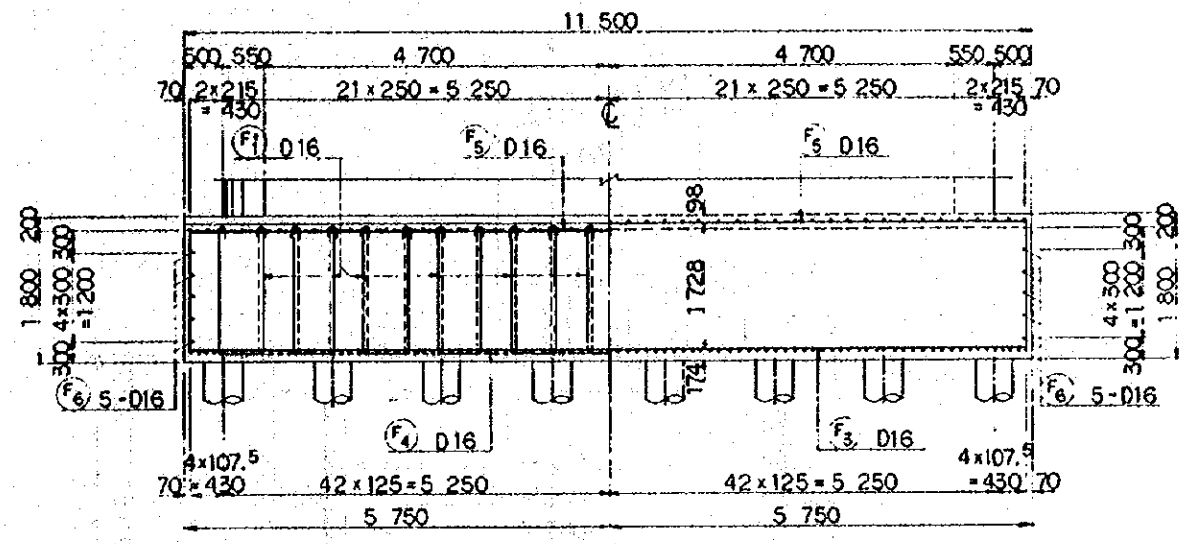
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW : CS-121.



REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG. '84	S.S.	M.Y.	K.A.	M.K.
A	15 FEB. '84	S.S.	M.Y.	K.A.	M.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
PIER P49 BAR ARRANGEMENT (SHEET 2 OF 3)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:50	CS-123				

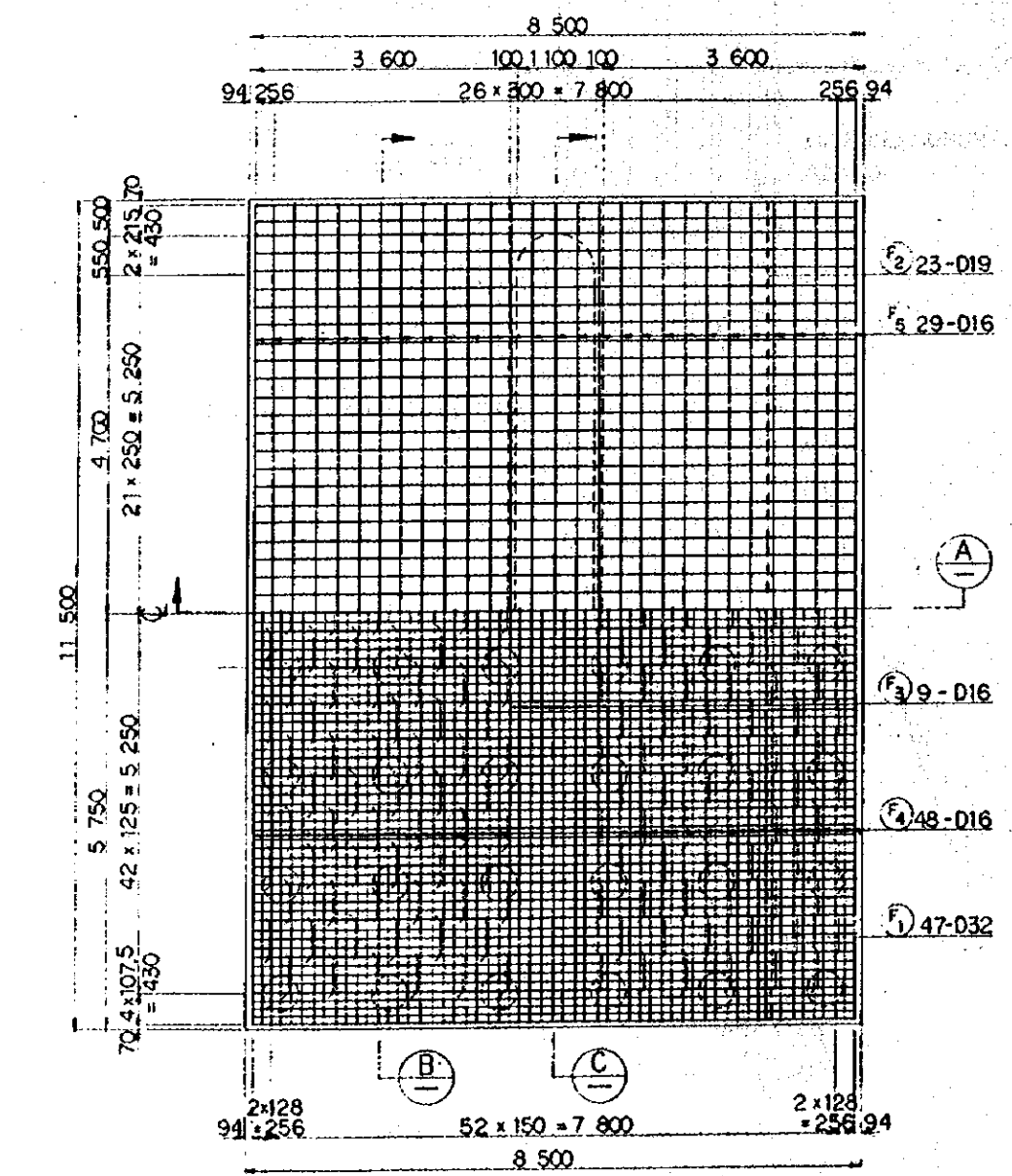


SECTION A



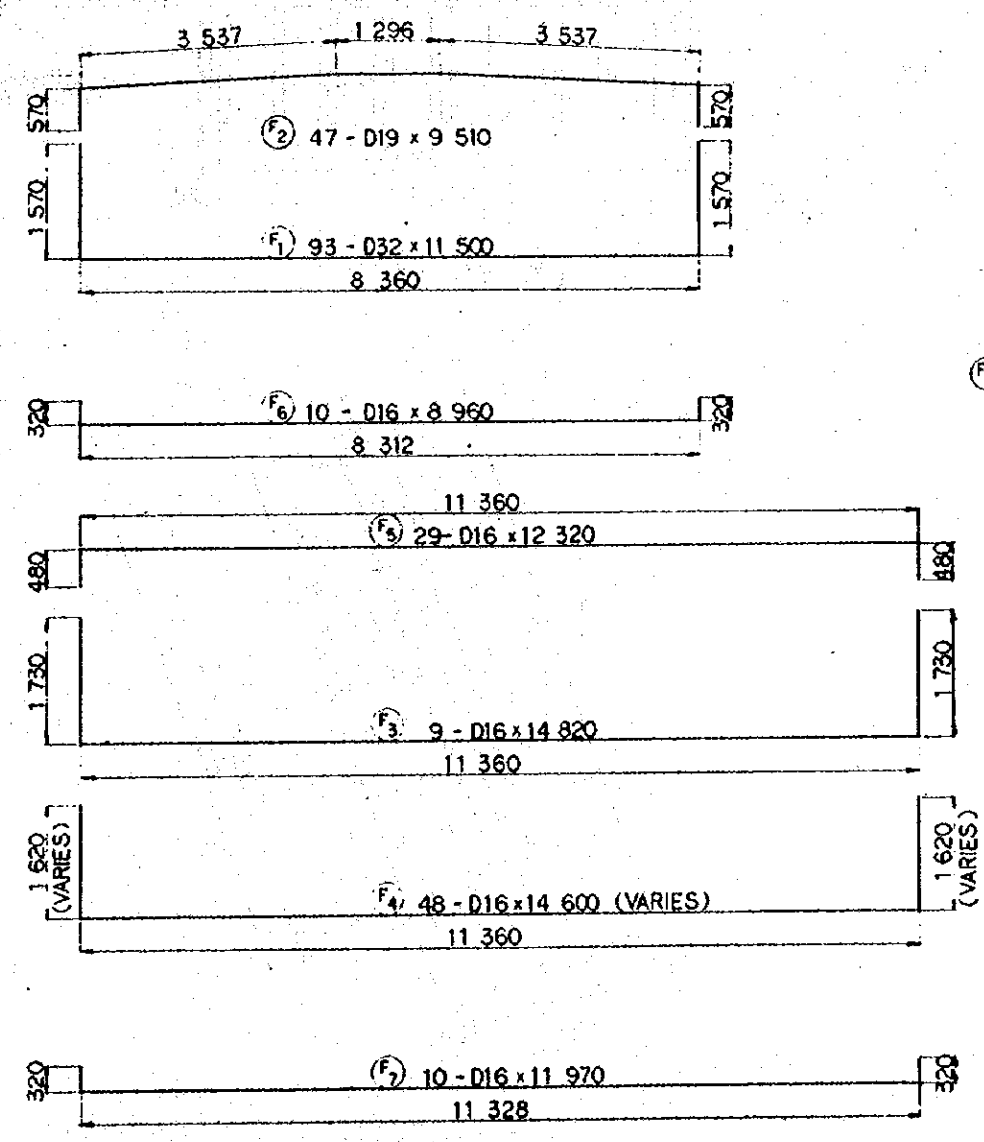
SECTION B

SECTION C



SECTION D

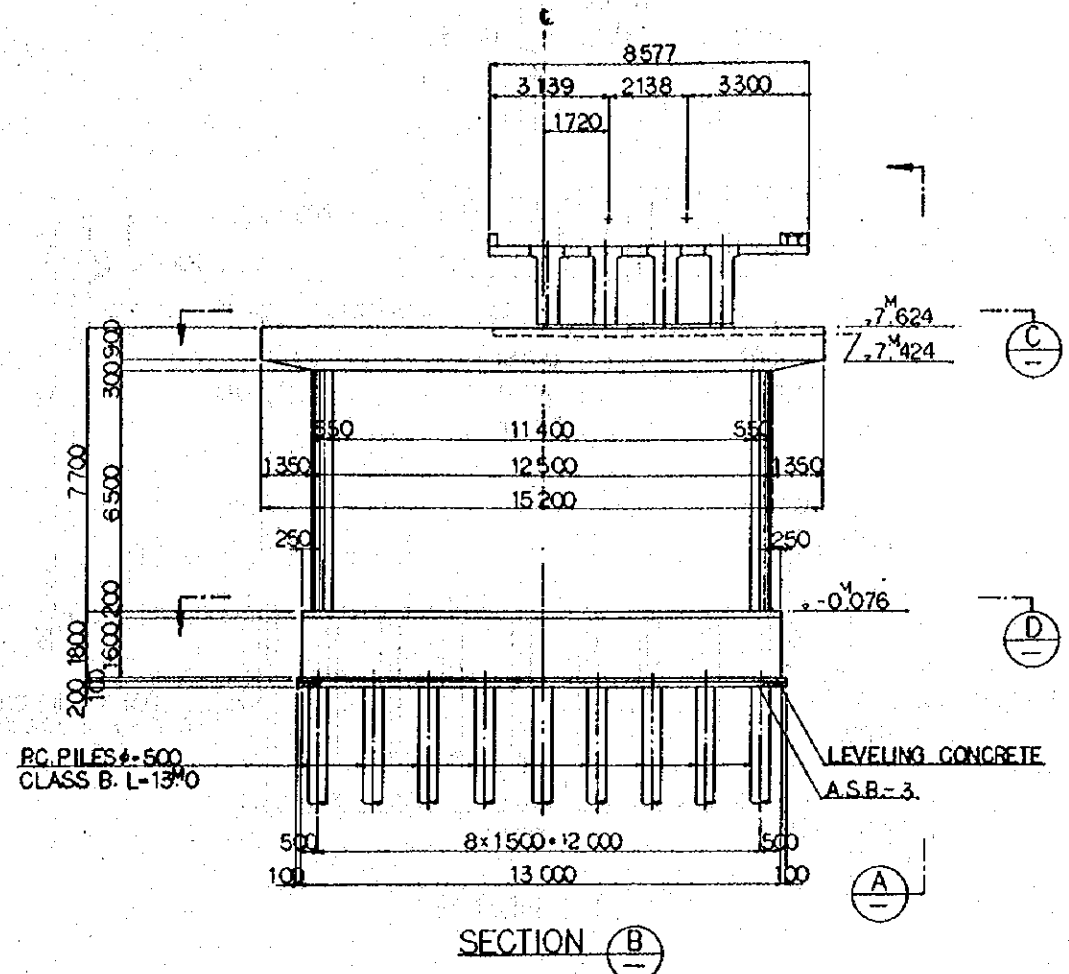
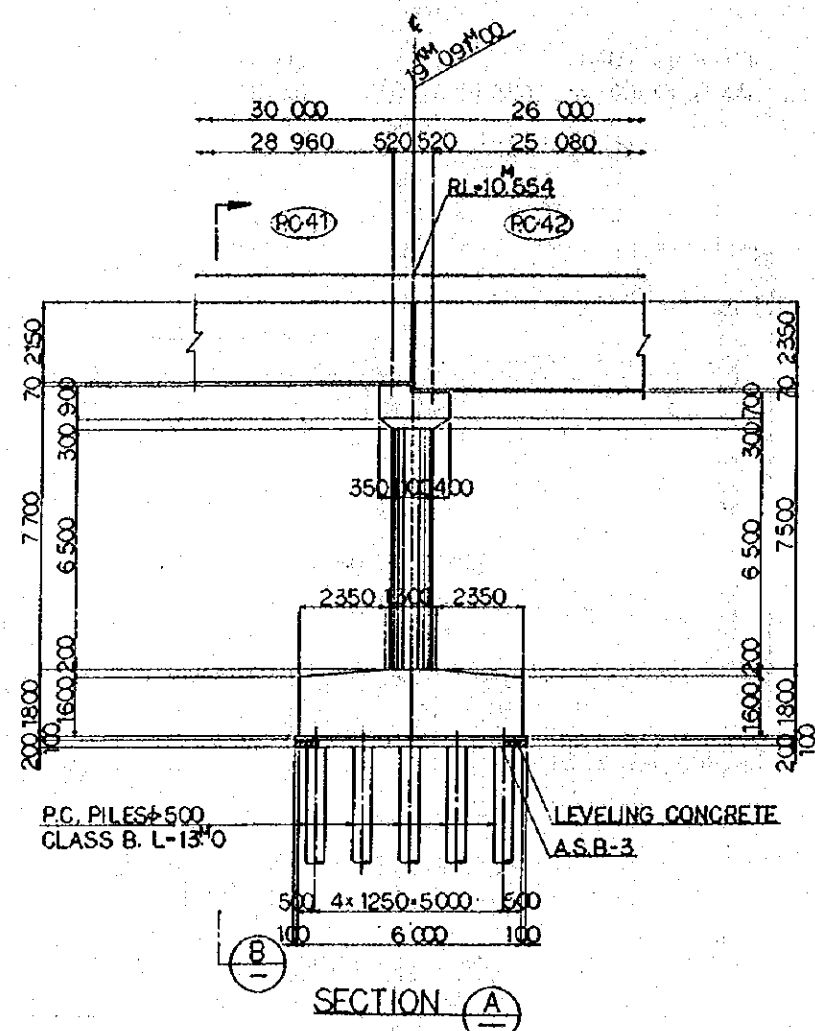
SECTION E



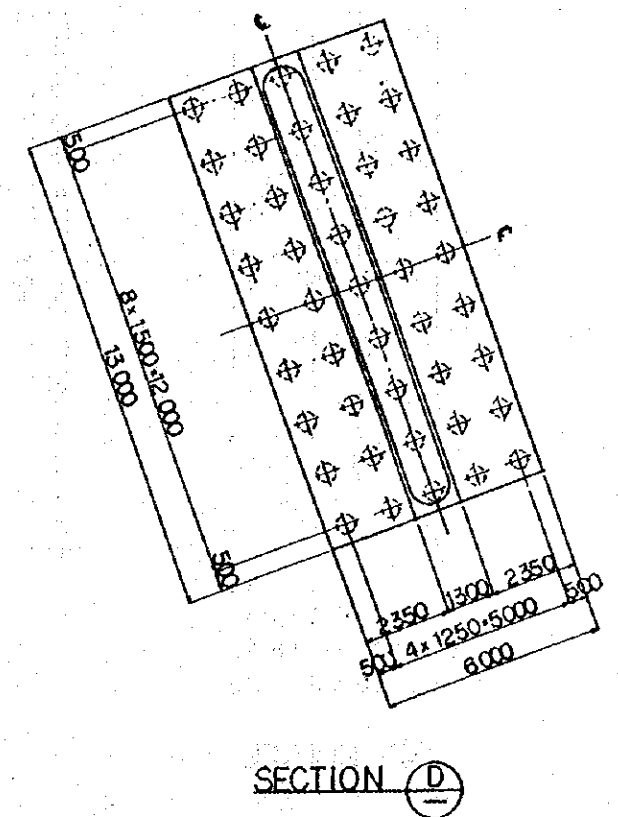
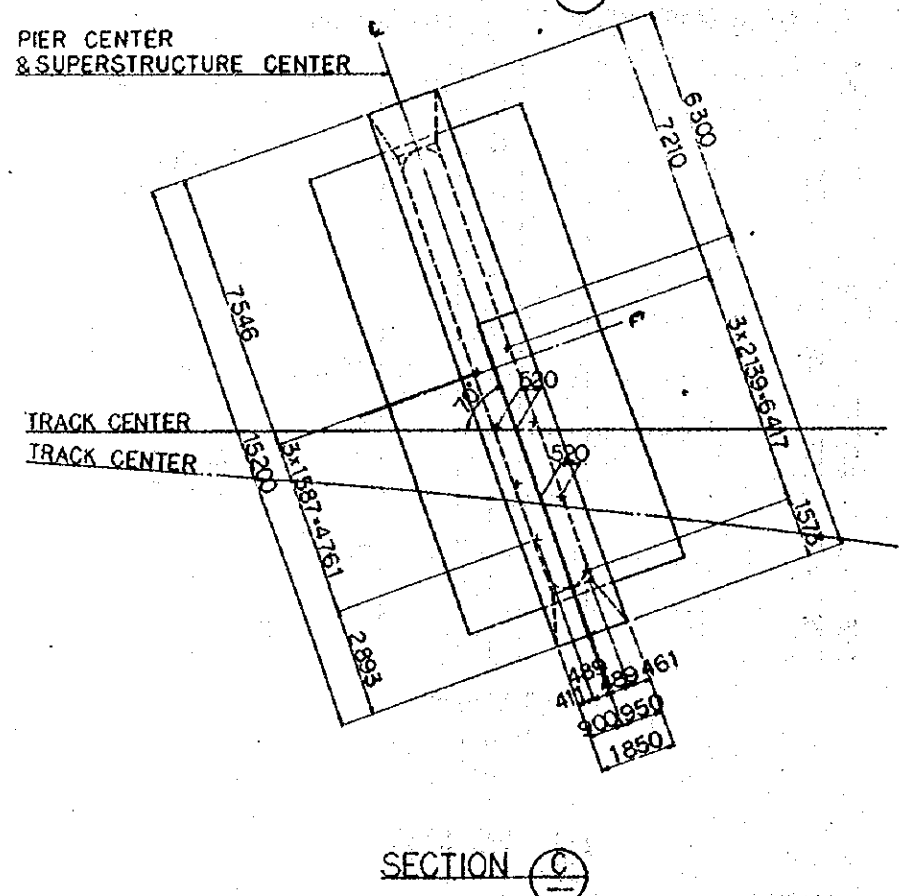
F1 252-D16 x 4.370 (VARIES)  
 1.680 (VARIES)  
 548

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS-121.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG. 89	S.S	m.y	K.R	K.M	m.k
A	15 FEB. 89	S.S	m.y	K.R	K.M	m.k
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
PIER P49 BAR ARRANGEMENT (SHEET 3 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:50	CS-124					

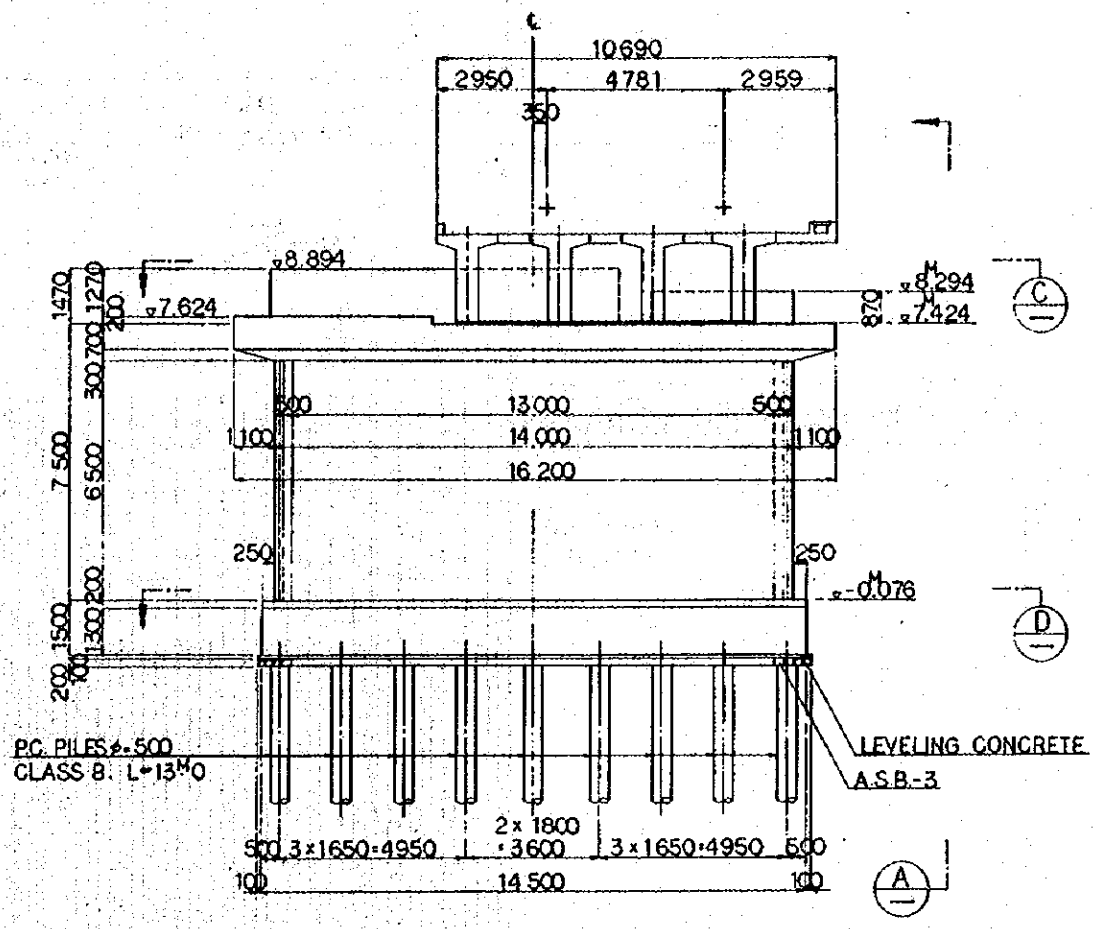
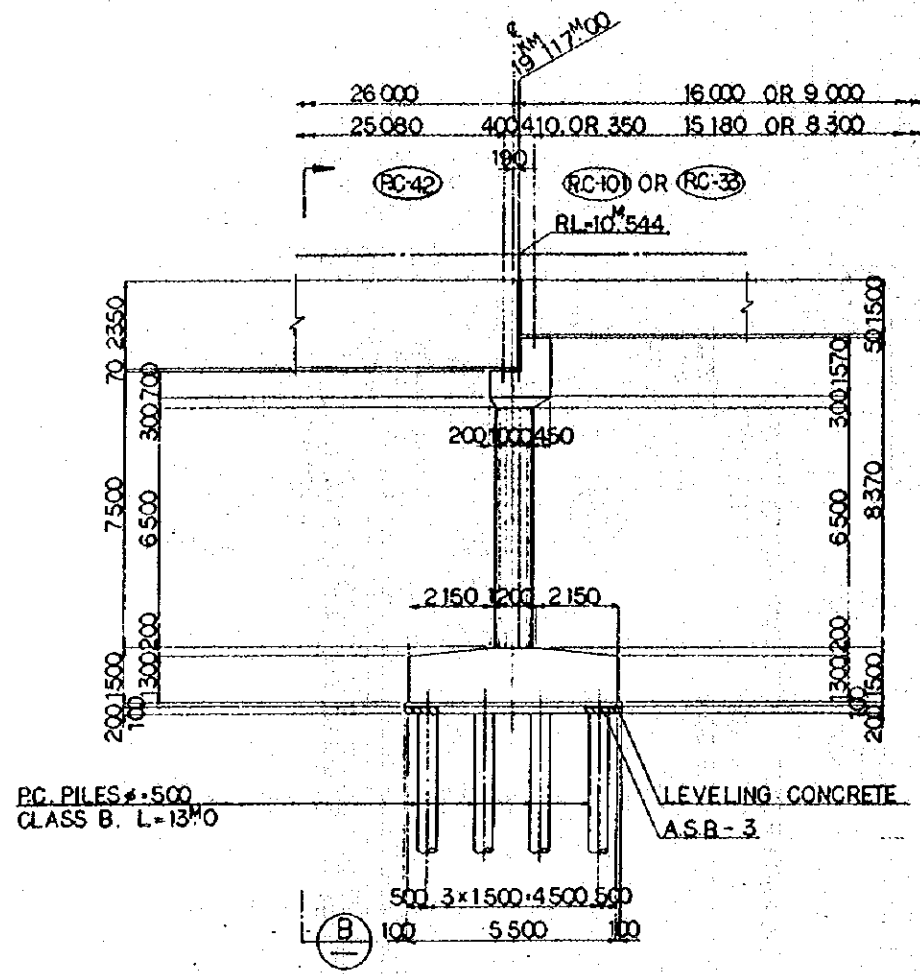


- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS418-CS119, CS120.



GENERAL VIEW OF P-50

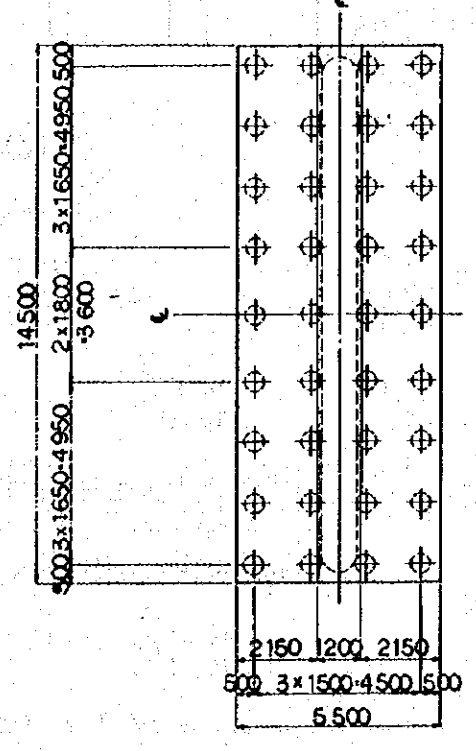
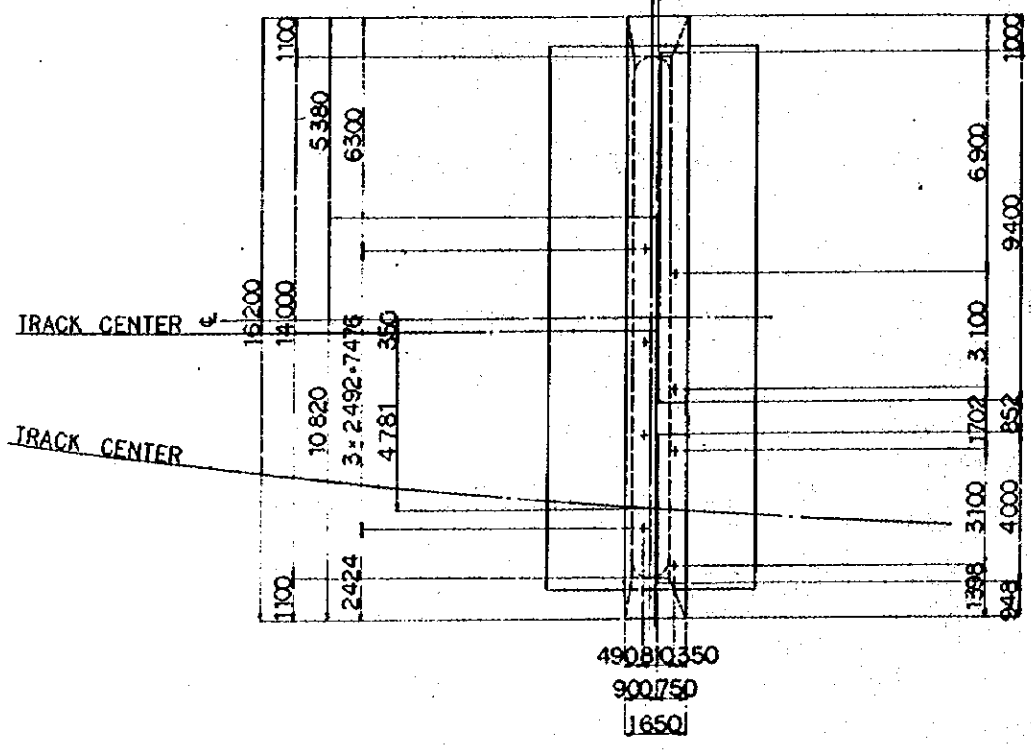
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	S.S	m.y	K.A.	K.M	M.K
A	15 FEB '84	S.S	m.y	K.A.	K.M	M.K
REVISIONS	DATE	ISSUED	BY	CHECKED	REVIEWED	SUBMITTED
PIER P50 GENERAL VIEW						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:100		DRAWING NO: CS-125				



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS-127, CS-128, CS-129.

SECTION A  
PIER CENTER SUPERSTRUCTURE CENTER

SECTION B

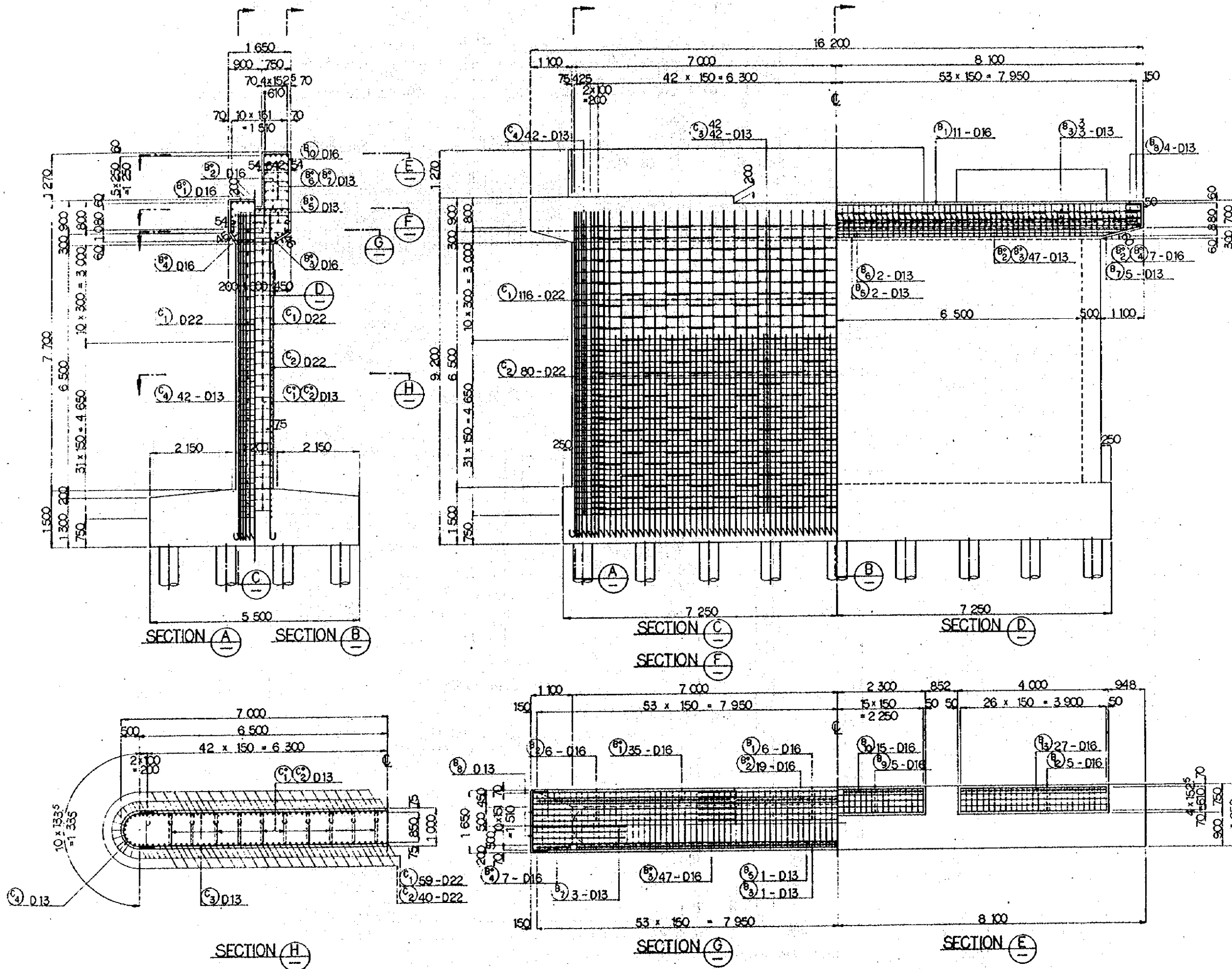


SECTION C

SECTION D

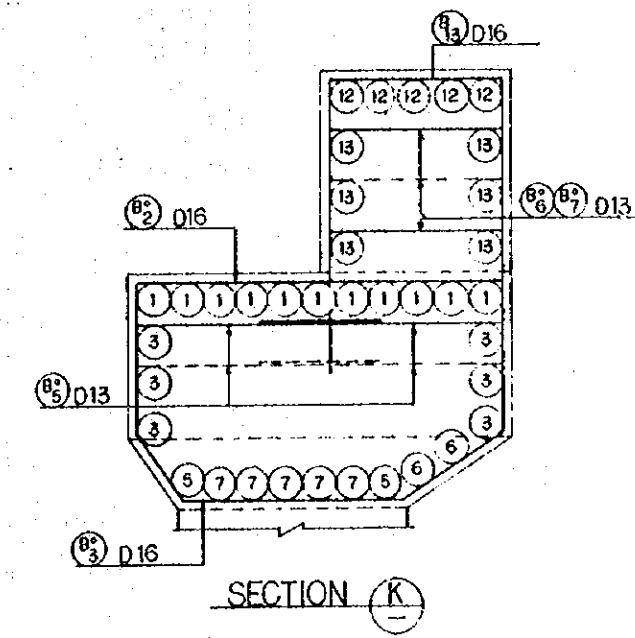
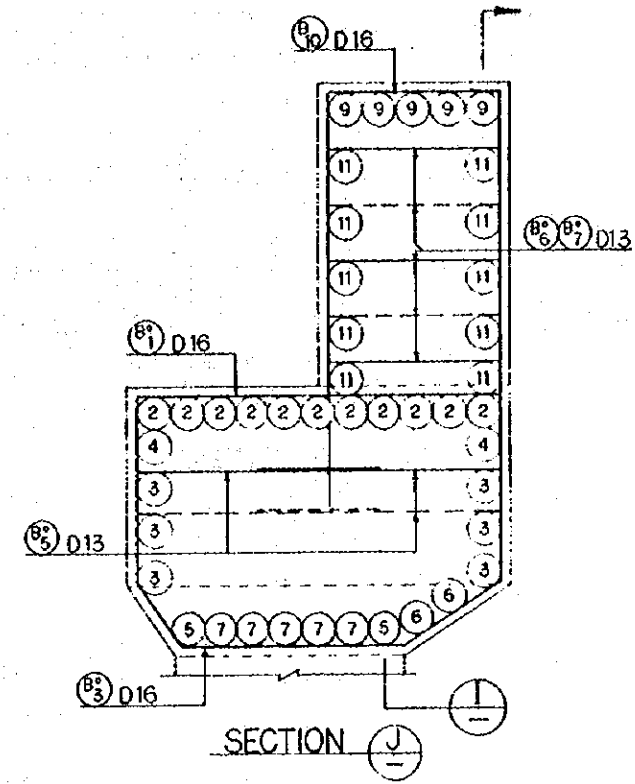
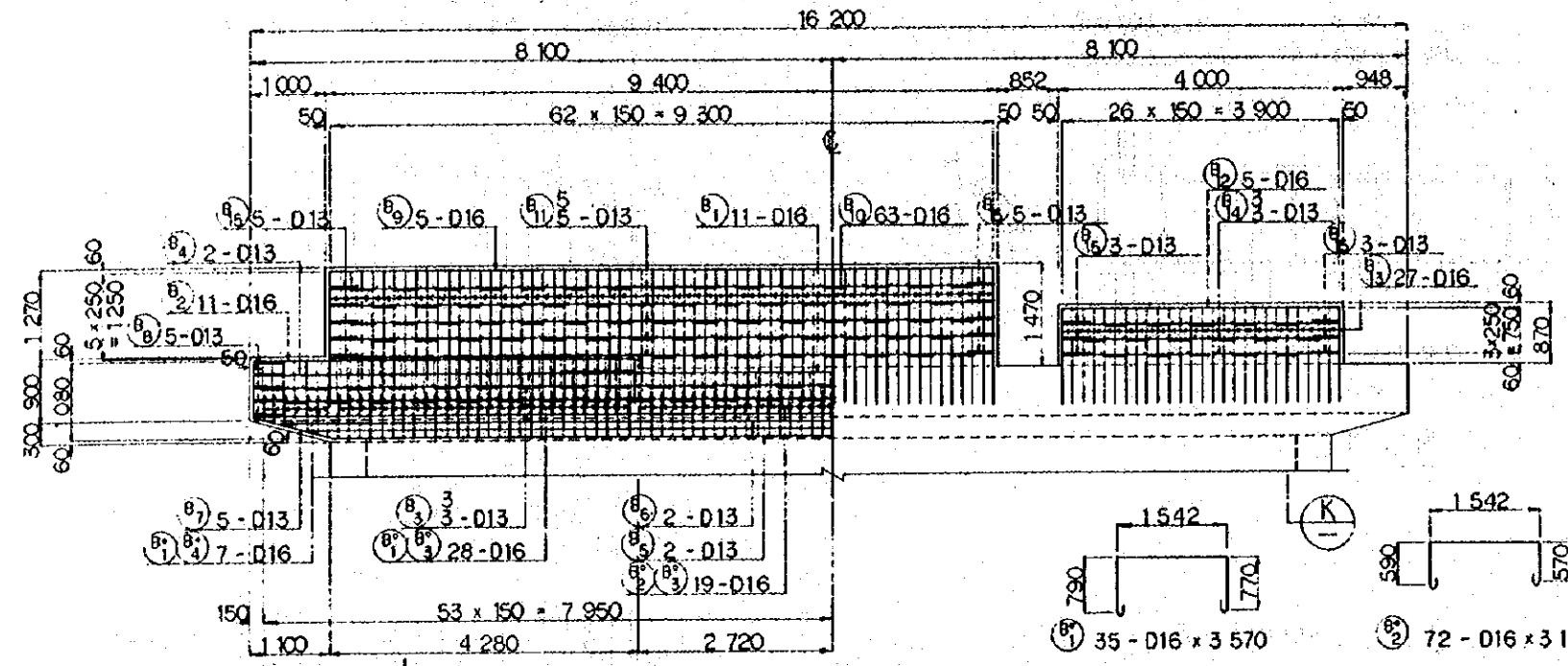
GENERAL VIEW OF P-51

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG. '84	S.S	M.Y	K.A	K.M	K
A	15 FEB. '84	S.S	M.Y	K.A	K.M	AK
REVISIONS	DATE	DESIGNED	CHECKED	APPROVED	REVIEWED	SUBMITTED
PIER P51 GENERAL VIEW						
PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:100	CS-126					

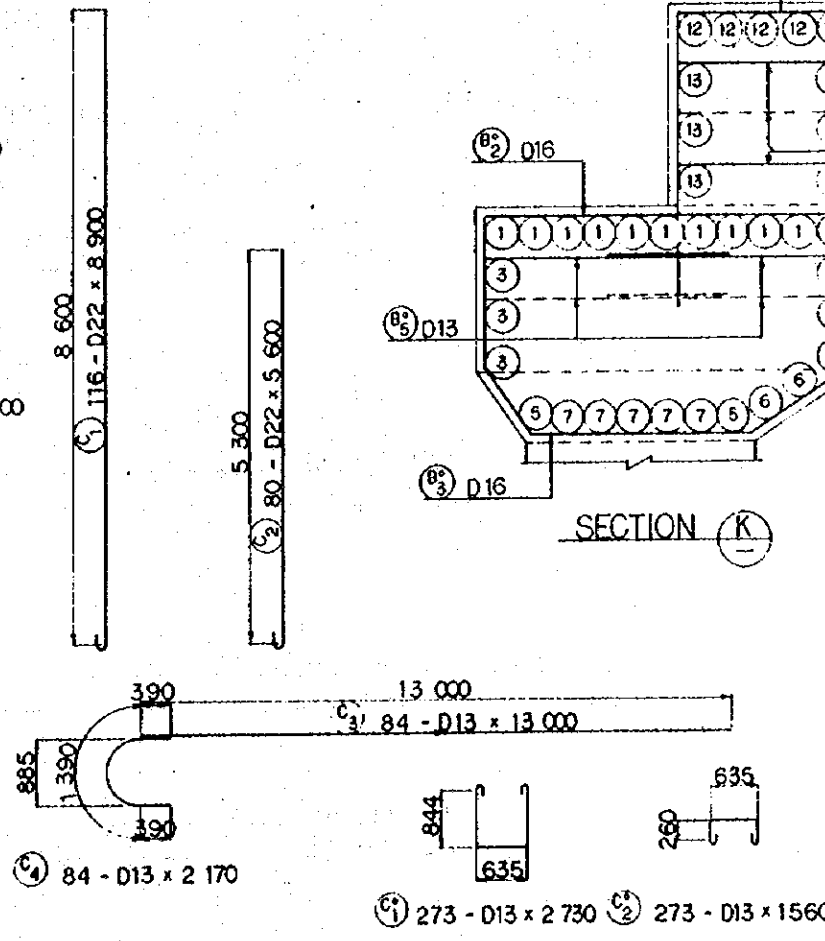
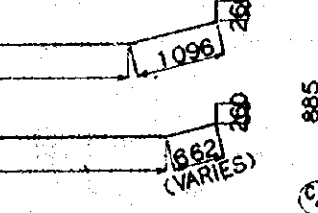
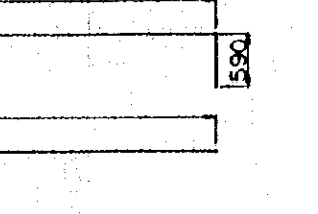
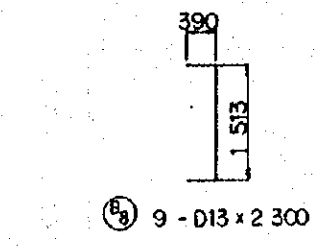
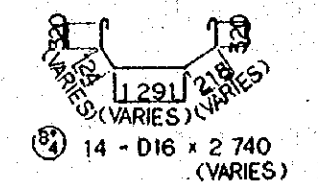
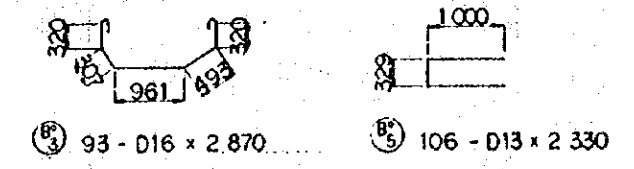
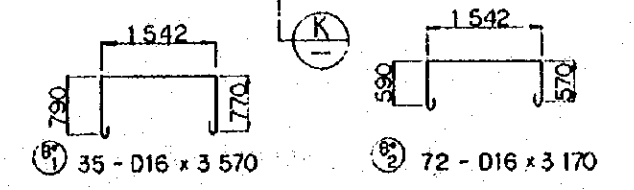
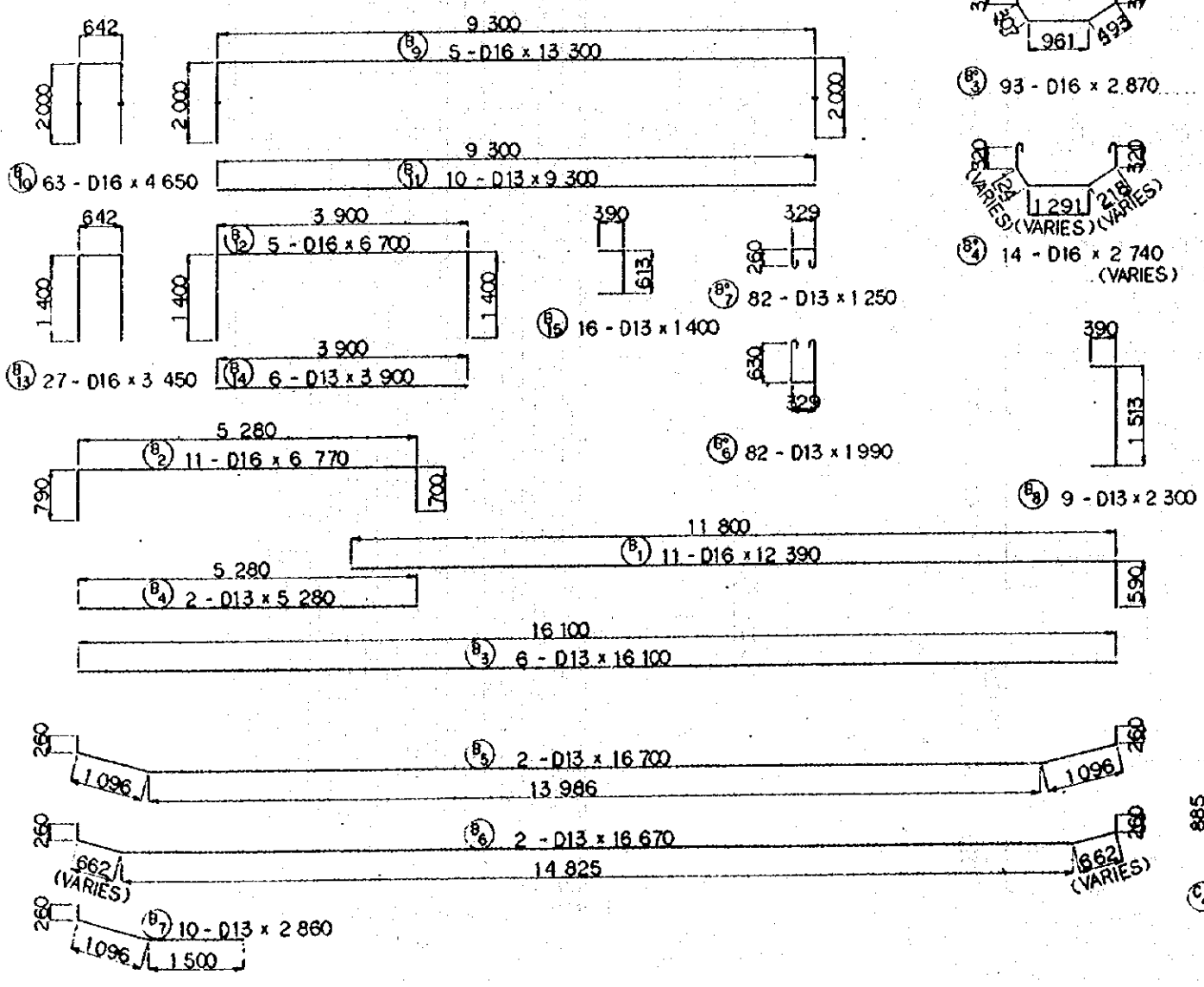


- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS-126.

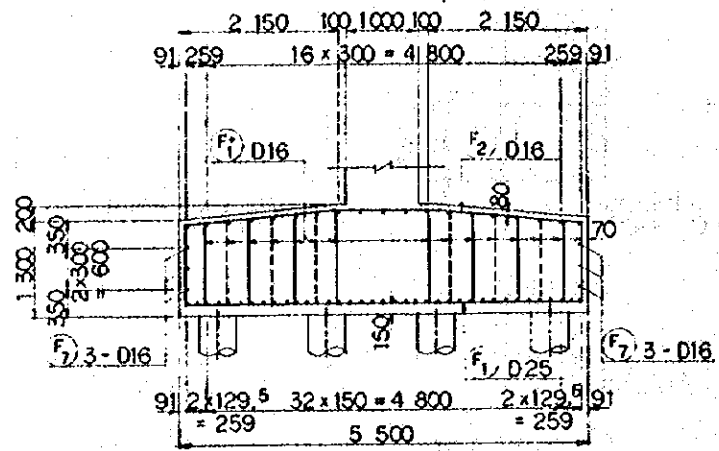
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
REVISED	DATE	DRAWN	CHECKED	REVIEWED	SUBMITTED	
B	1 AUG. 84	S.S.	M.Y.	K.A.	K.M.	M.K.
A	16 FEB. 84	S.S.	M.Y.	K.A.	K.M.	M.K.
<b>PIER P51          BAR ARRANGEMENT          (SHEET 1 OF 3)</b>						
PROGRAM: <b>I CIVIL AND ARCHITECTURAL WORK</b>						
SCALE: <b>1 : 50</b>		DRAWING NO.: <b>CS-127</b>				



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS-126.



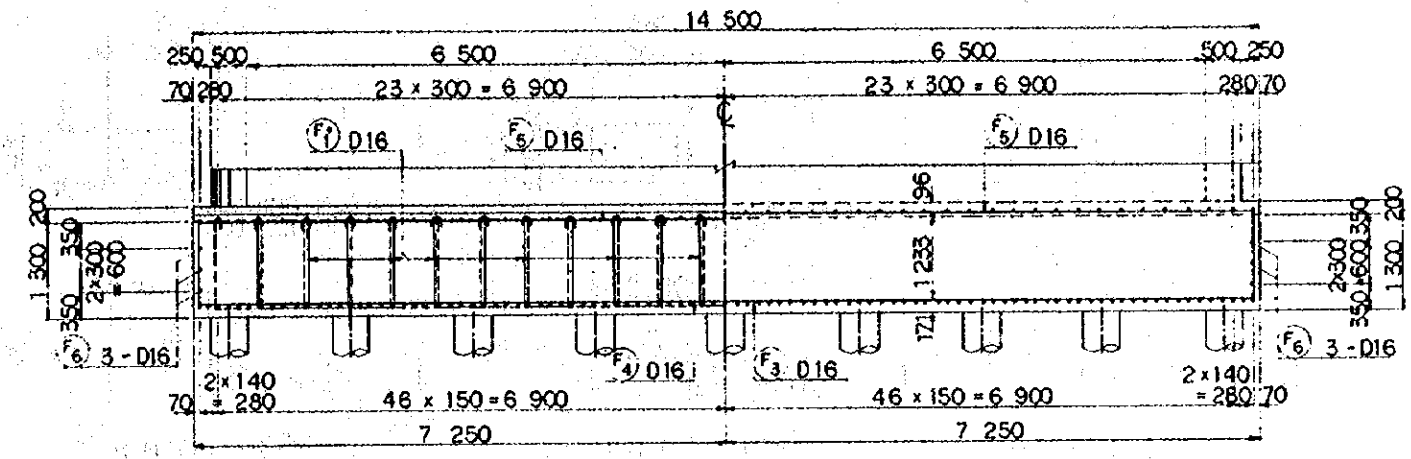
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	S.S	M.Y	K.A	K.M	M.K
A	13 FEB '84	S.S	M.Y	K.A	K.M	M.K
REVISIONS	DATE	DESIGNED	CHECKED	REVIEWED	APPROVED	
PIER P51 BAR ARRANGEMENT (SHEET 2 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:50		DRAWING NO: CS-126				



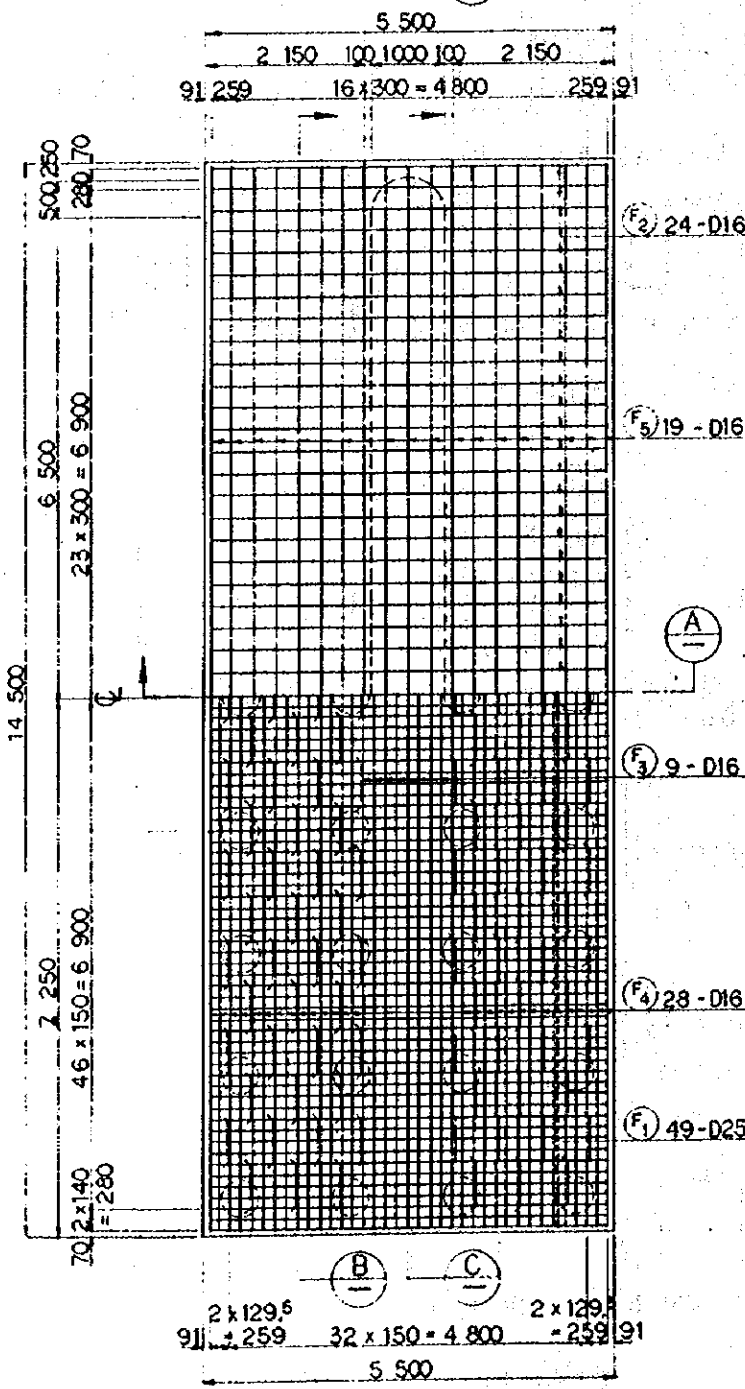
SECTION A



SECTION B

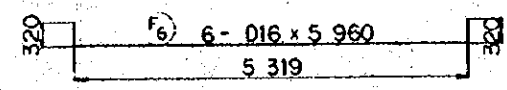
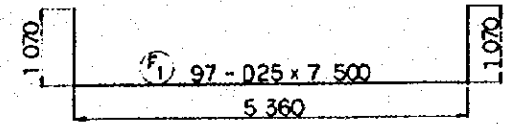
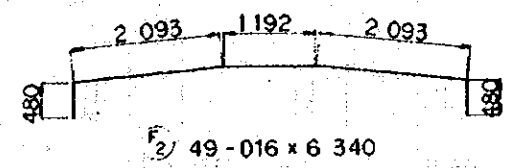


SECTION C

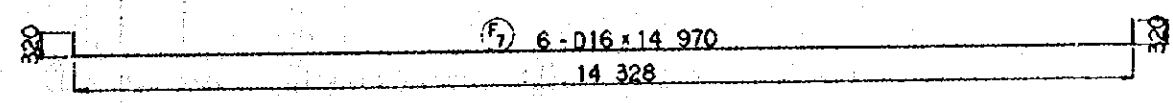
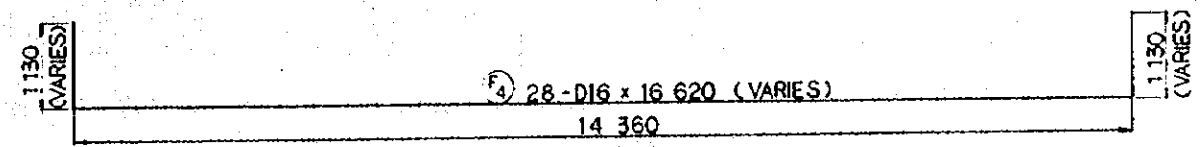
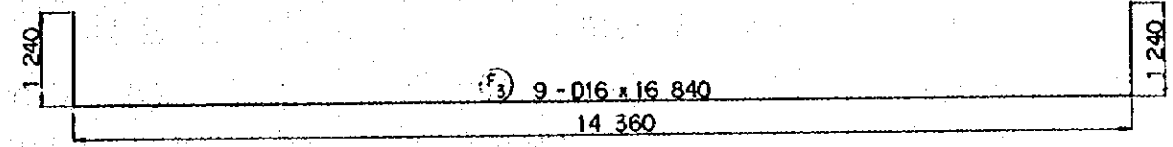
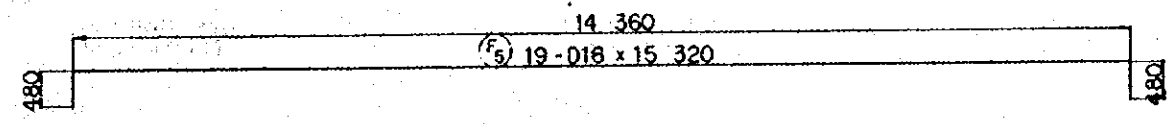


SECTION D

SECTION E

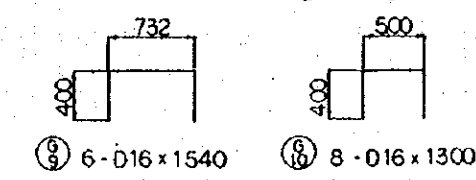
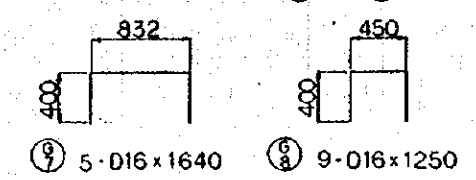
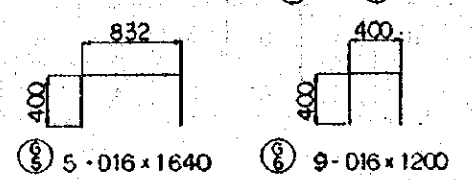
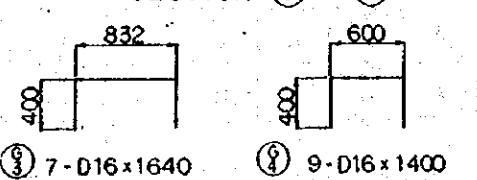
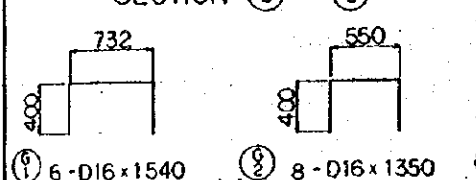
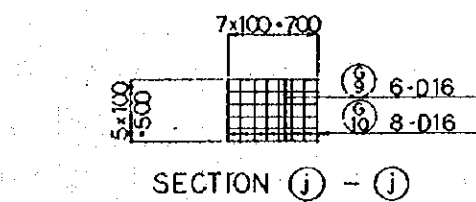
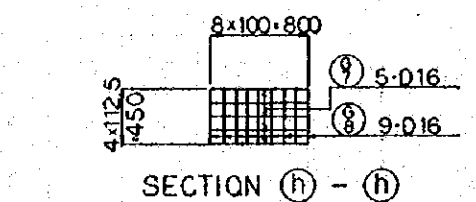
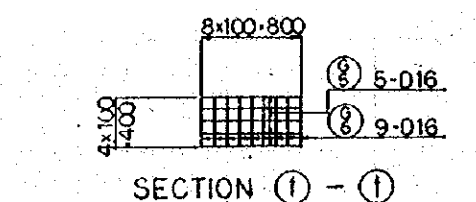
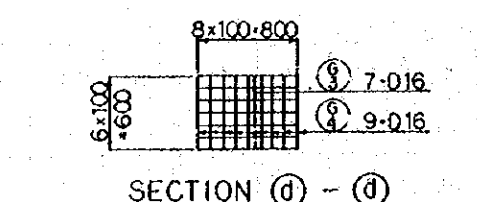
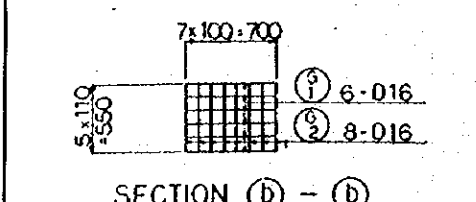
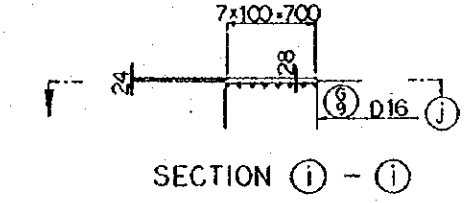
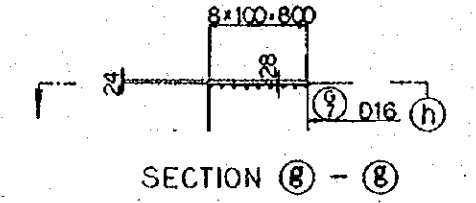
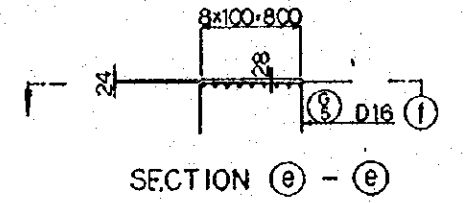
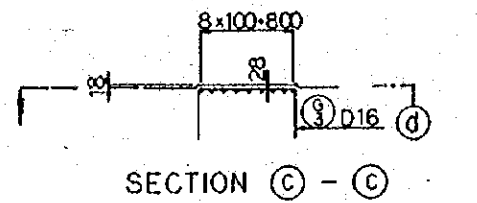
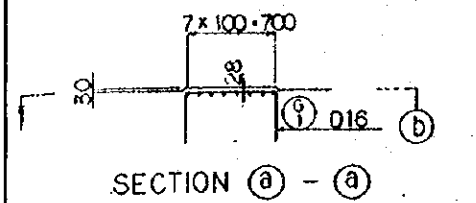
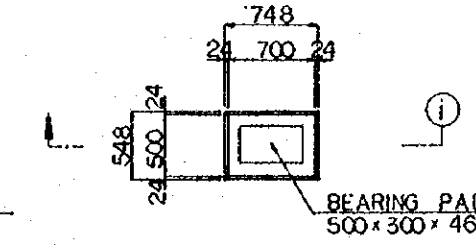
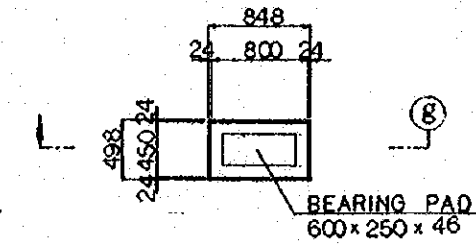
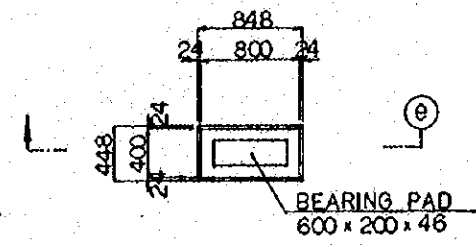
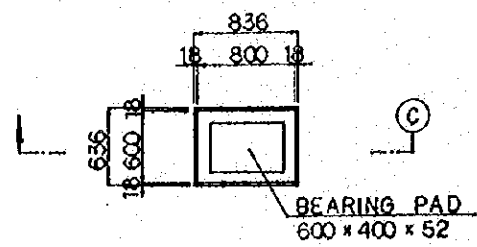
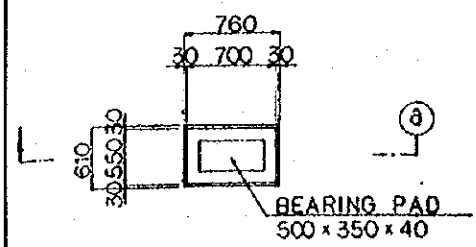


F1 160-D16 x 3.450 (VARIES)



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW: CS126.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGLARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
0	1 AUG '84	S.S.	m.y.	K.A.	K.H.	M.K.
A	15 FEB '84	S.S.	m.y.	K.A.	K.H.	M.K.
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
PIER P51 BAR ARRANGEMENT (SHEET 3 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:50		DRAWING NO: CS-129				



TYPE - A

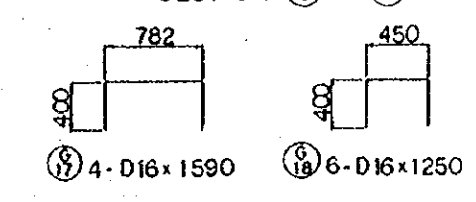
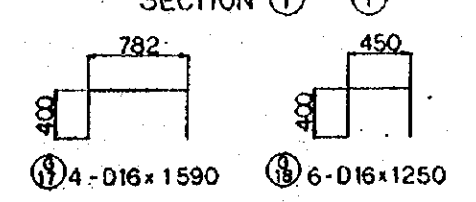
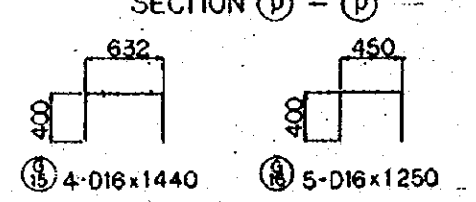
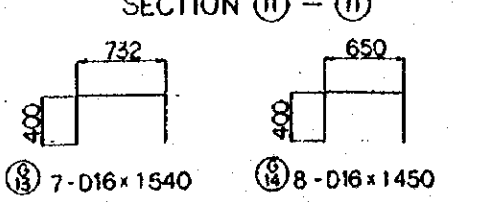
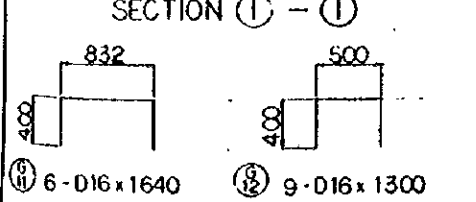
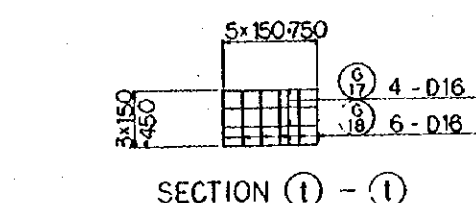
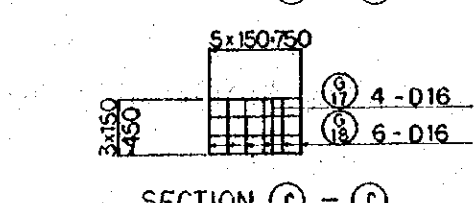
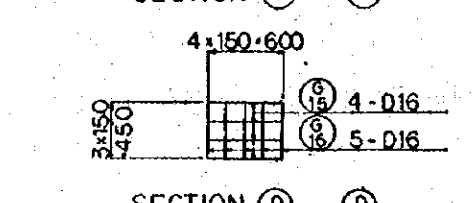
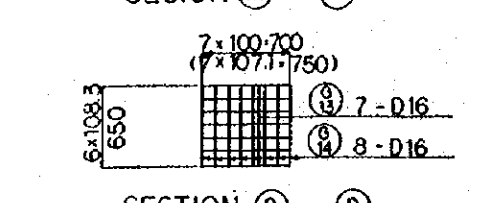
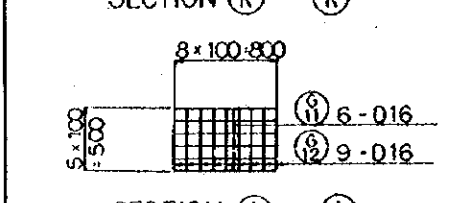
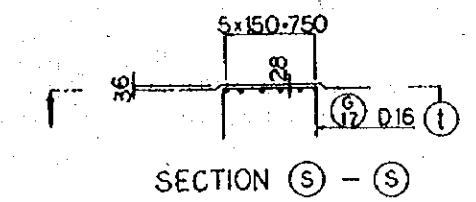
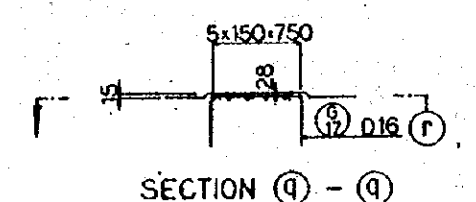
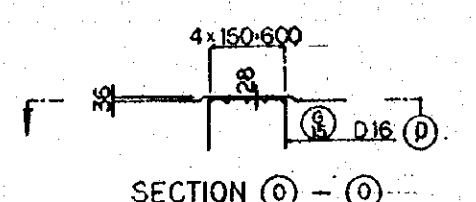
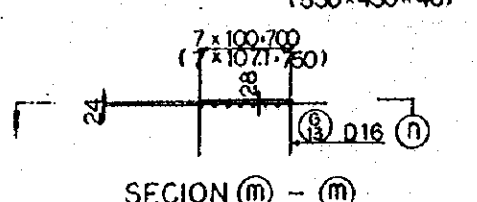
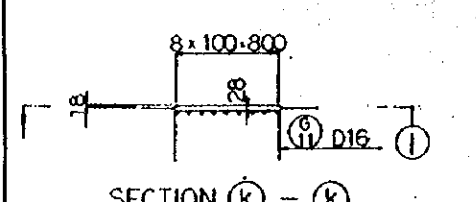
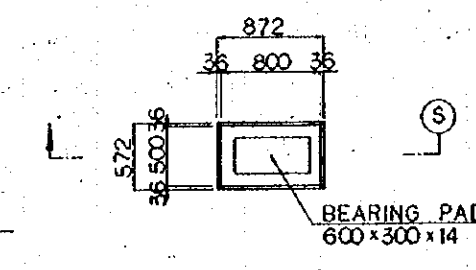
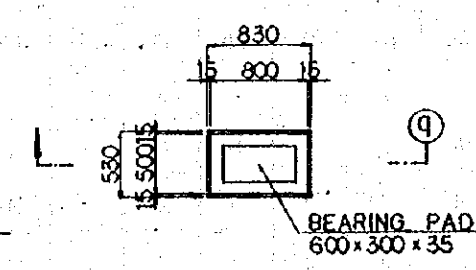
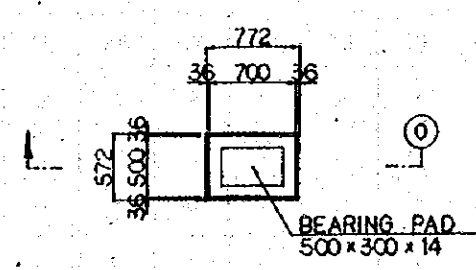
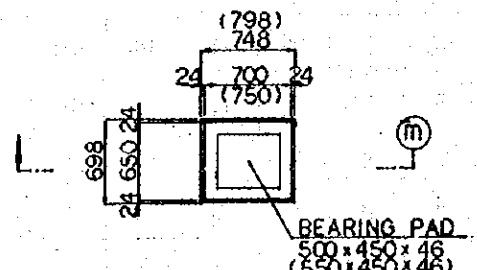
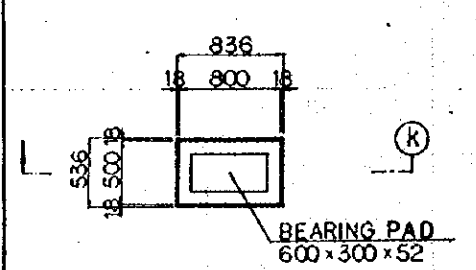
TYPE - B

TYPE - C

TYPE - D

TYPE - E

NOTES:  
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED



TYPE - F

TYPE - G (TYPE - K)

TYPE - H

TYPE - I

TYPE - J

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	S.S.	m.y.	K.A.	K.M.	K.K.
A	15 FEB '84	S.S.	m.y.	K.A.	K.M.	K.K.
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
DETAIL OF BEARING BASE (SHEET 1 OF 2)						
PROGRAM: 1 CIVIL AND ARCHITECTURAL WORK						
SCALE: 1 : 30		DRAWING NO.: CS-130				



NOTES:

1. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-130

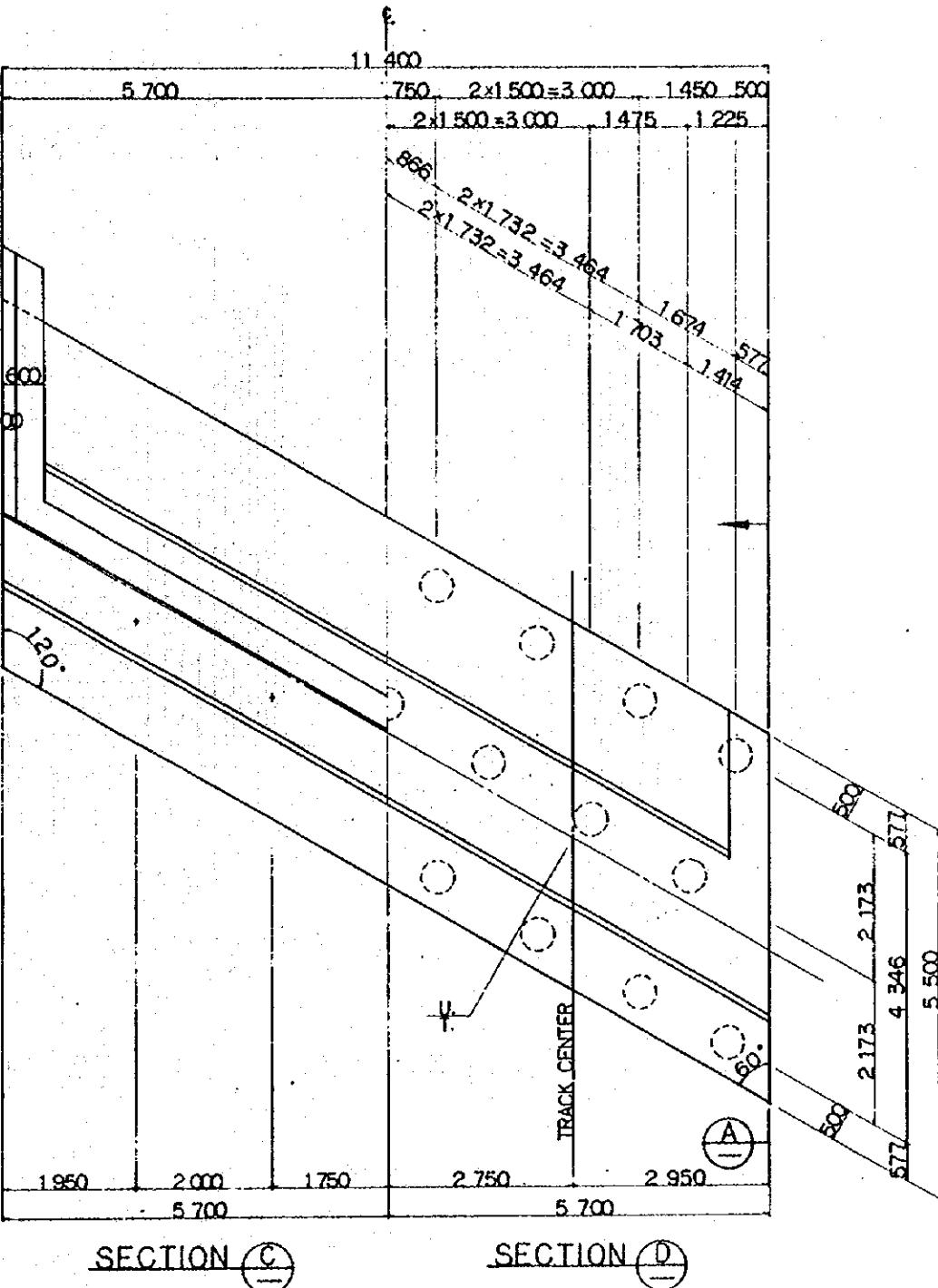
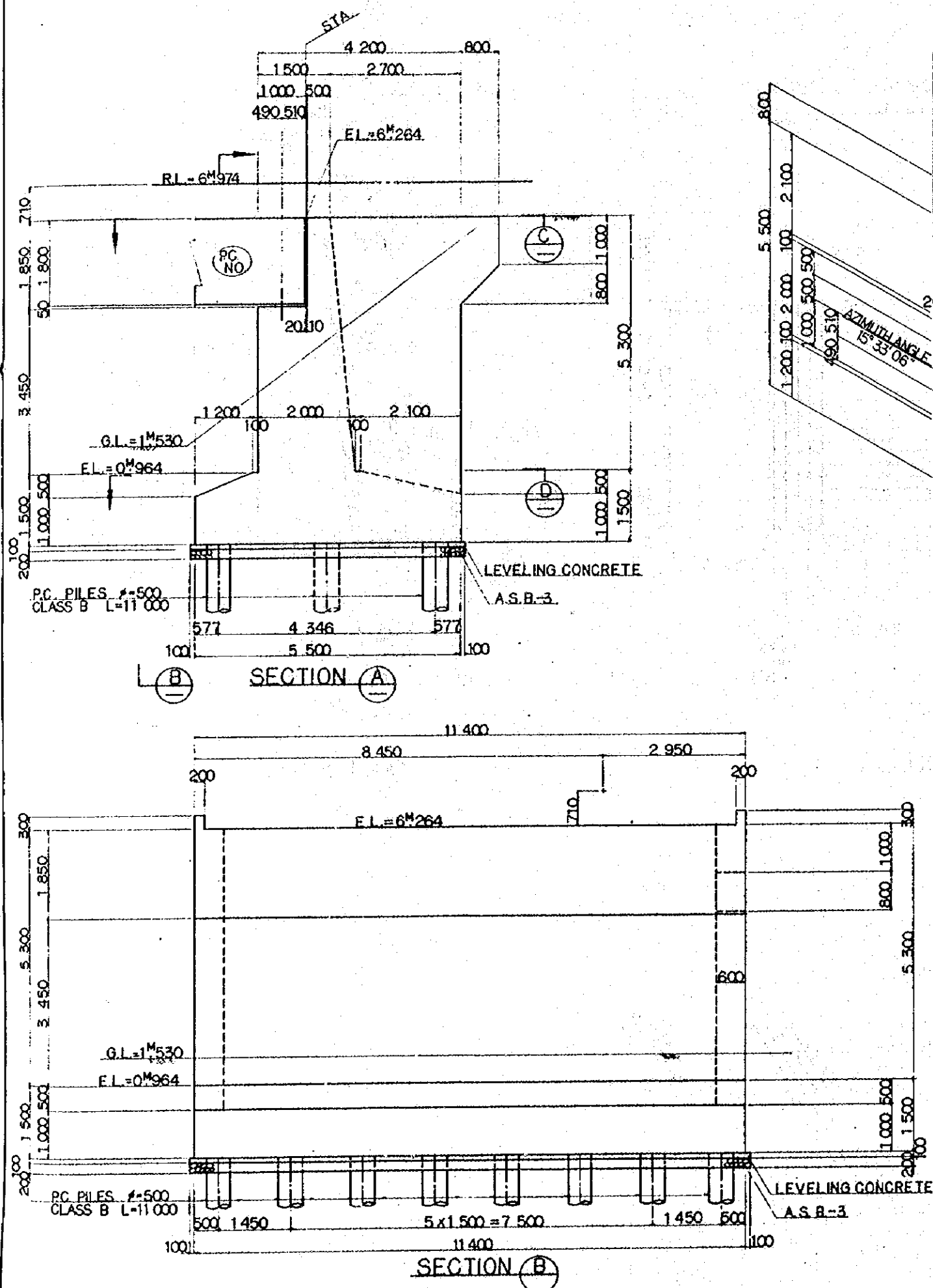
PIER NO.		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	18	19	19	20	20	21	21	22	23	24	25	26	27	
NUMBER OF GIRDERS	BEGINNING SIDE	2	4	2	4	2	2	4	2	2	2	4	2	2	4	2	4	4	4	4	④	4	④	4	④	4	④	2	2	4	4	2	4
	TERMINAL SIDE	4	2	4	2	2	4	2	2	2	4	2	2	4	2	4	4	4	4	4	④	4	④	4	④	2	②	4	4	4	2	4	4
TYPE	BEGINNING SIDE	A	B	H	C	H	A	D	A	A	A	C	A	H	E	H	E	E	F	F	F	E	B	B	F	B	H	H	D	D	H	C	
	TERMINAL SIDE	B	A	C	H	A	D	A	A	A	C	A	H	E	H	E	E	F	F	E	B	B	F	B	H	H	B	D	D	H	C	C	

PIER. NO.		28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	50	51	51	
NUMBER OF GIRDERS	BEGINNING SIDE	4	2	2	③	4	2	4	2	4	2	2	2	2	4	2	4	4	4	4	4	4	4	4	4	④	4	④
	TERMINAL SIDE	2	2	③	4	2	4	2	4	2	2	2	2	4	2	4	4	4	4	4	4	4	4	4	4	④	2	④
TYPE	BEGINNING SIDE	C	G	G	J	F	H	C	H	E	H	G	G	G	E	G	E	E	E	E	E	E	E	K	K	E	K	K
	TERMINAL SIDE	G	G	J	F	H	C	H	E	H	G	G	G	E	G	E	E	E	E	E	E	E	K	K	K	K	I	H

1. ○..... GIRDERS FOR FUTURE.
2. ⊙..... GIRDERS FOR PRESENT AND FUTURE.
3. NO. MARKINGS ARE GIRDERS FOR PRESENT.

NUMBER OF GIRDERS AND TYPE OF REINFORCEMENT FOR BEARING BASE

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	SS	m.y	KA	K.M	m.K
A	15 FEB '84	SS	m.y	KA	K.M	m.K
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	EXTENDED	SUBMITTED
DETAIL OF BEARING BASE (SHEET 2 OF 2)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE		DRAWING NO: CS-131				



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS - 133  
CS - 134  
CS - 135  
CS - 130
  3. TYPE OF REINFORCEMENT FOR BEARING BASE  
Ab01 : (TYPE - A) x 2  
Ab02 : (TYPE - A) x 2

DIMENSION SCHEDULE

NO.	STA.	U.	T.	PG. NO.
Ab01	10 979.000	11 458.648	-5 117.781	PC.01
Ab02	11 059.000	11 478.608	-5 040.311	PC.03

REPUBLIC OF INDONESIA  
MINISTRY OF COMMUNICATIONS  
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

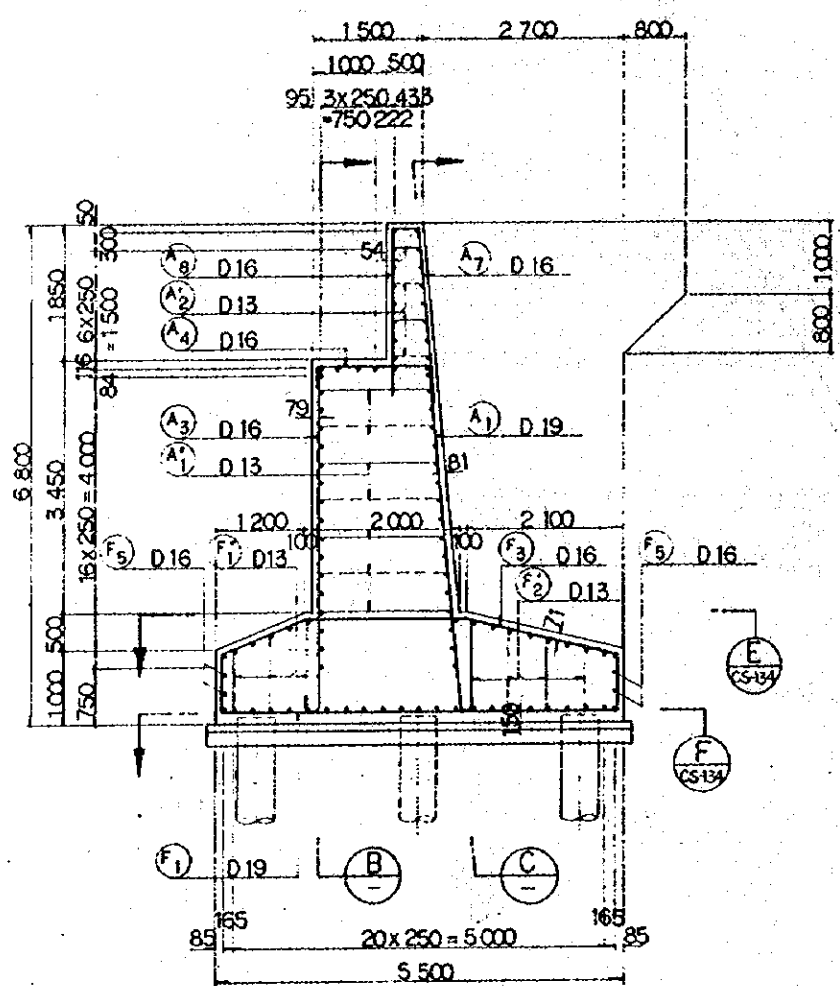
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

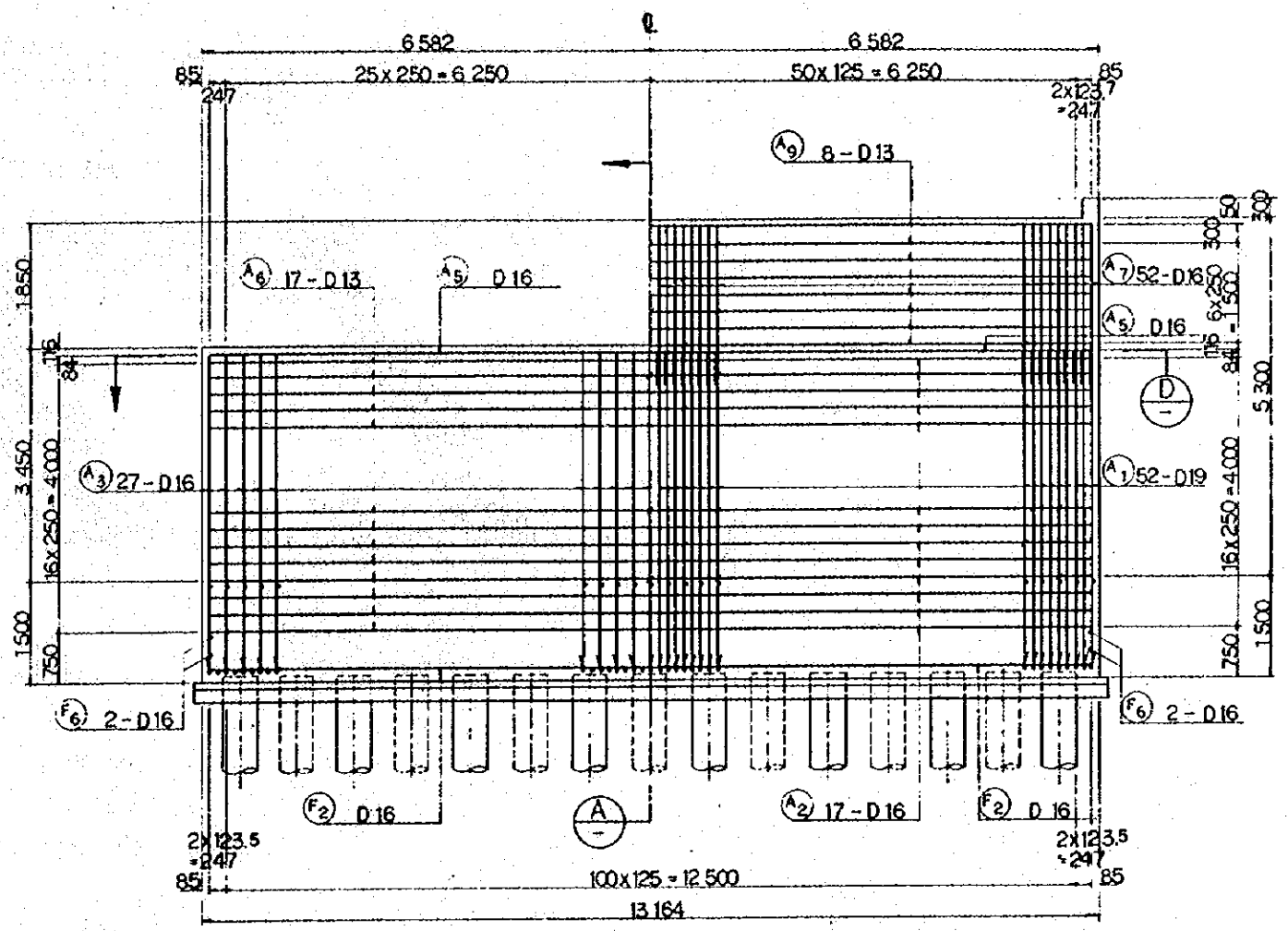
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1 AUG. 84	S.S.	M.Y.	K.A.	K.M.	A.K.
A	1 FEB. 84	S.S.	M.Y.	K.A.	K.M.	A.K.

ABUTMENT Ab01, Ab02  
GENERAL VIEW

PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK  
SCALE: 1:50  
DRAWING NO: CS-132

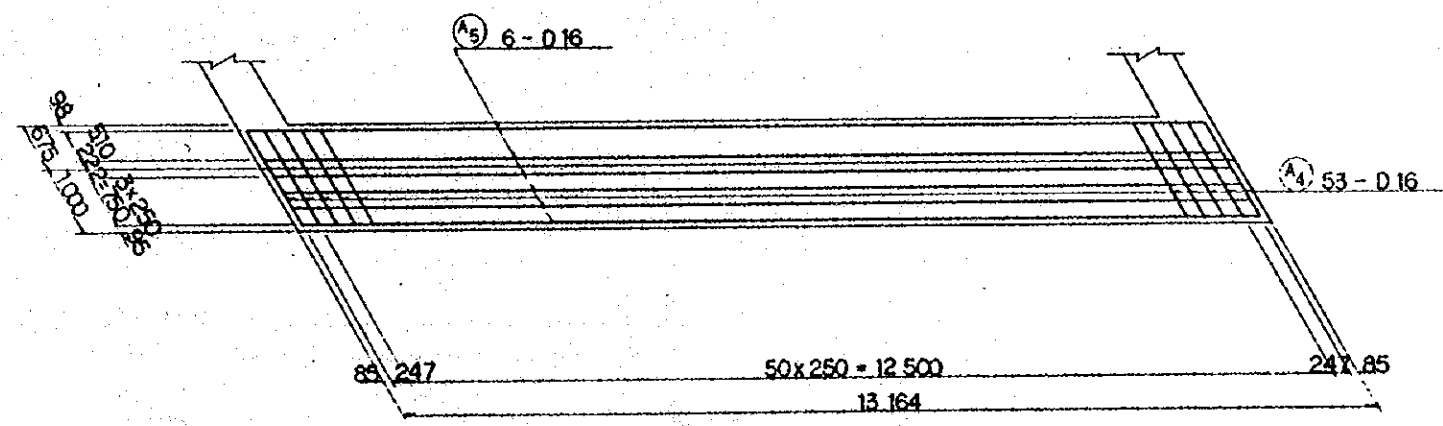


SECTION (A)



SECTION (B)

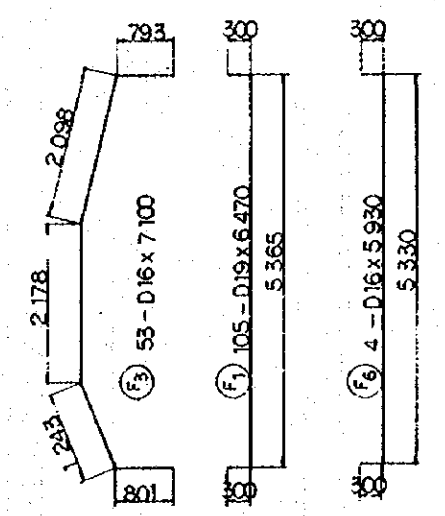
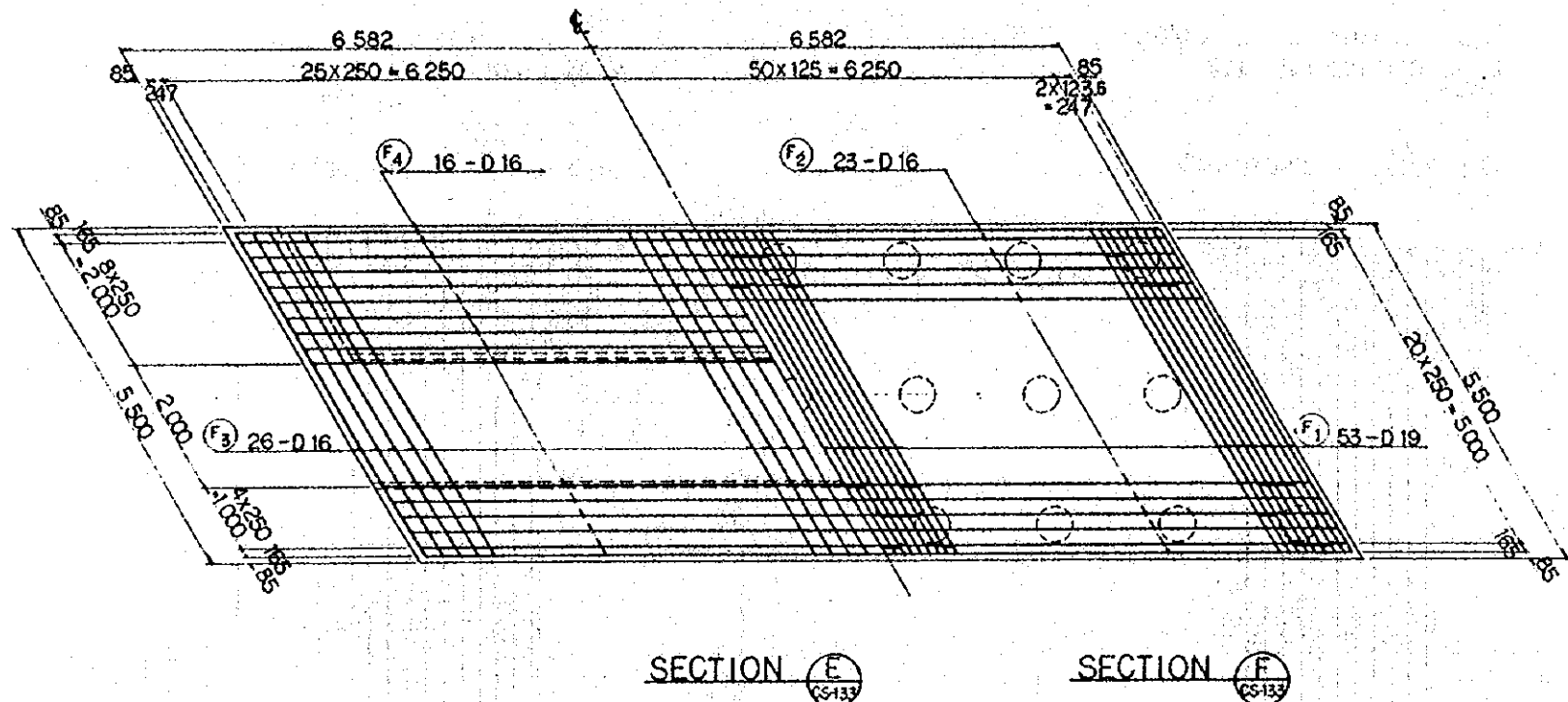
SECTION (C)



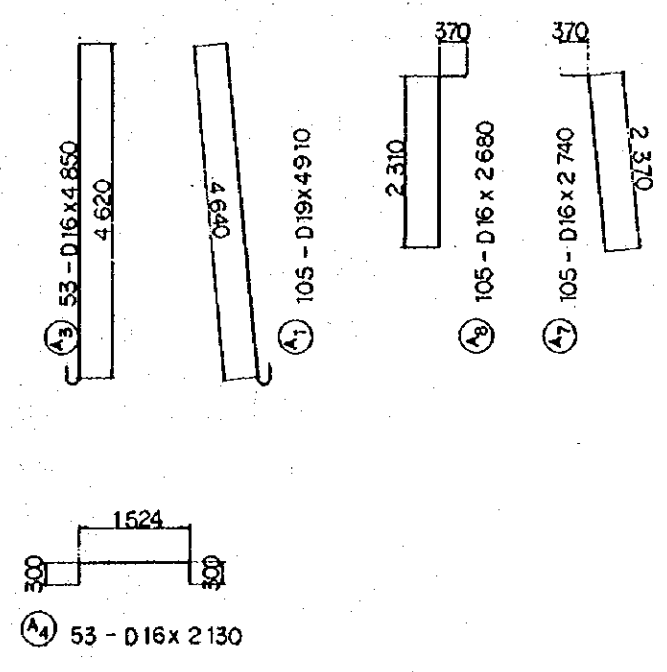
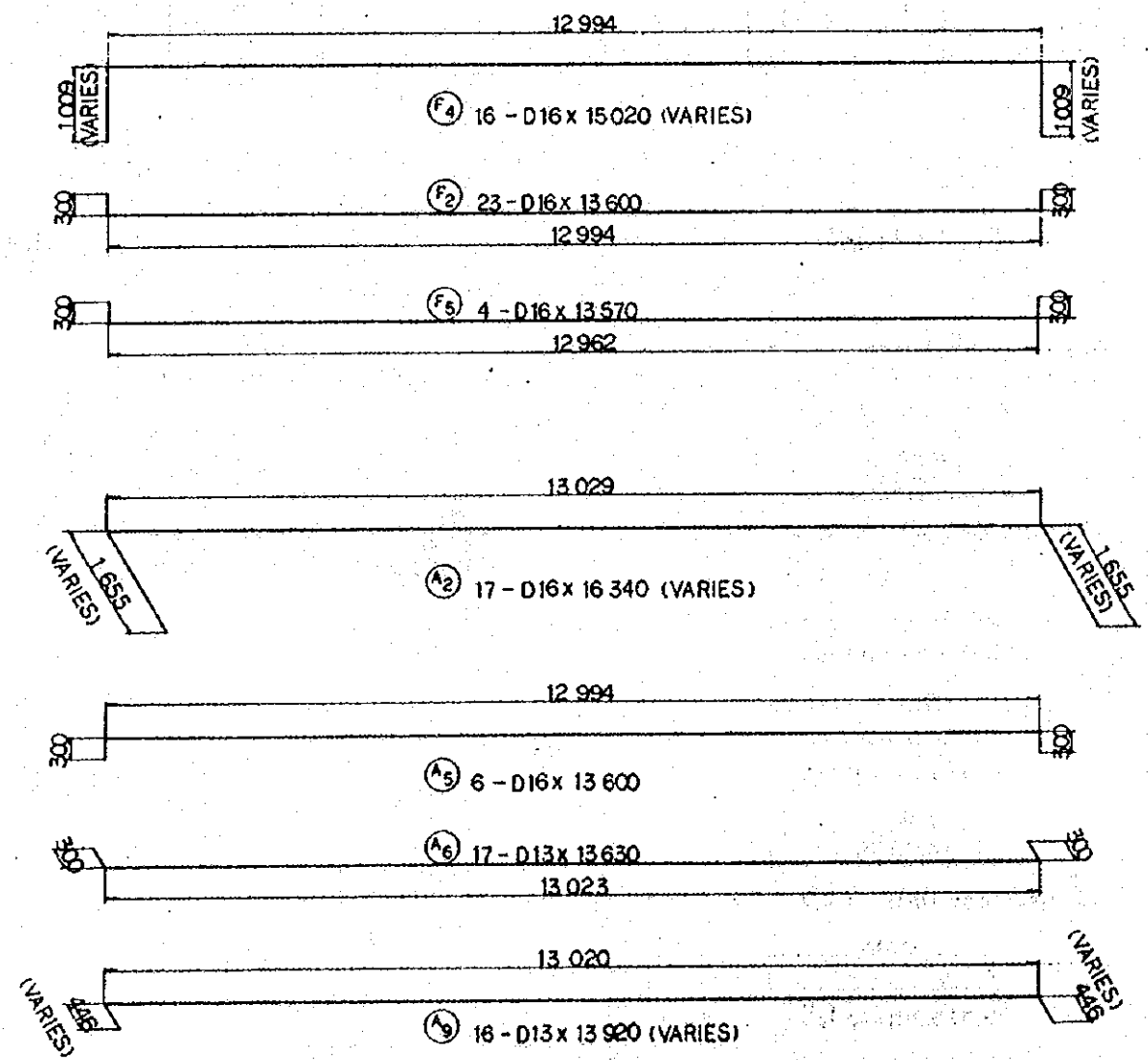
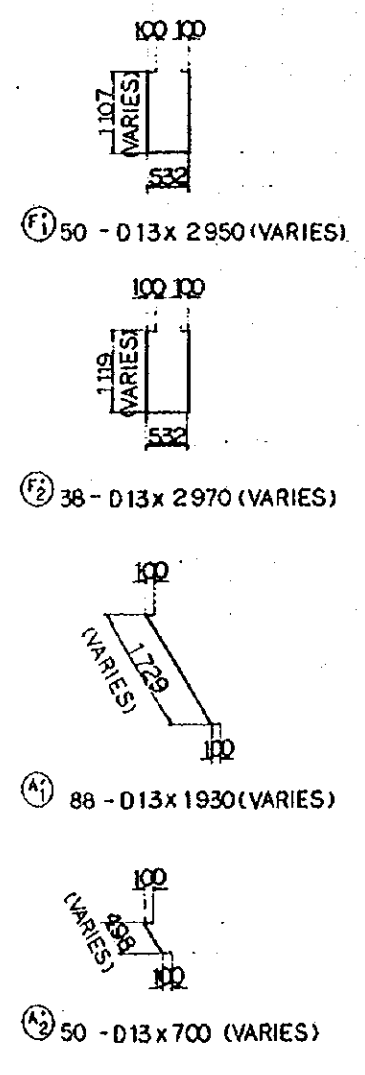
SECTION (D)

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS - 132

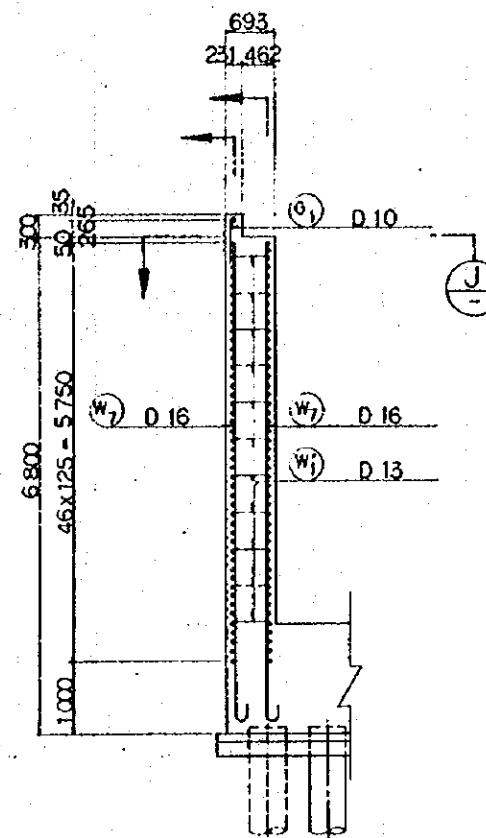
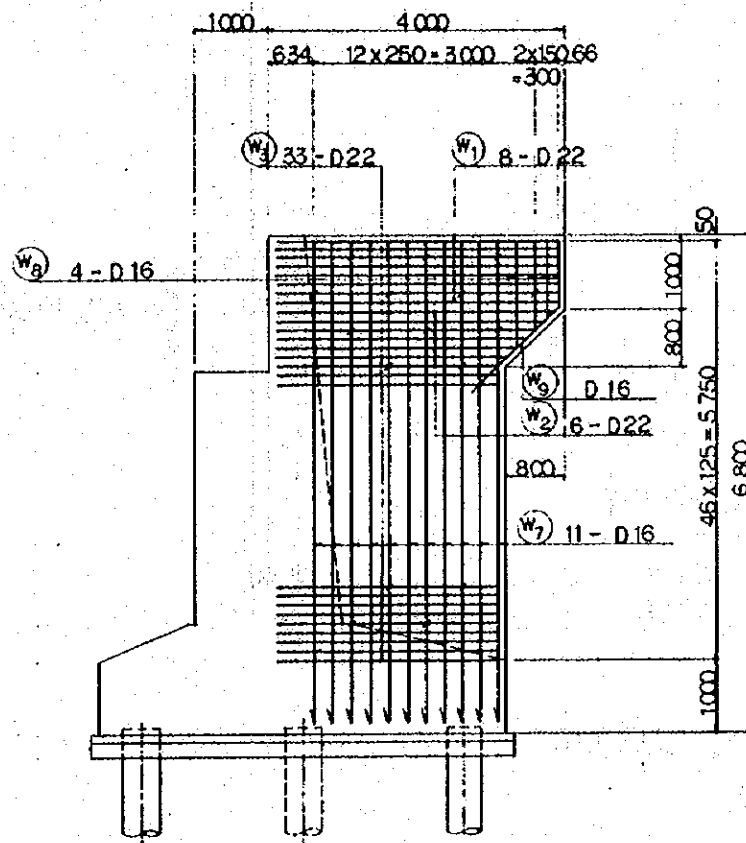
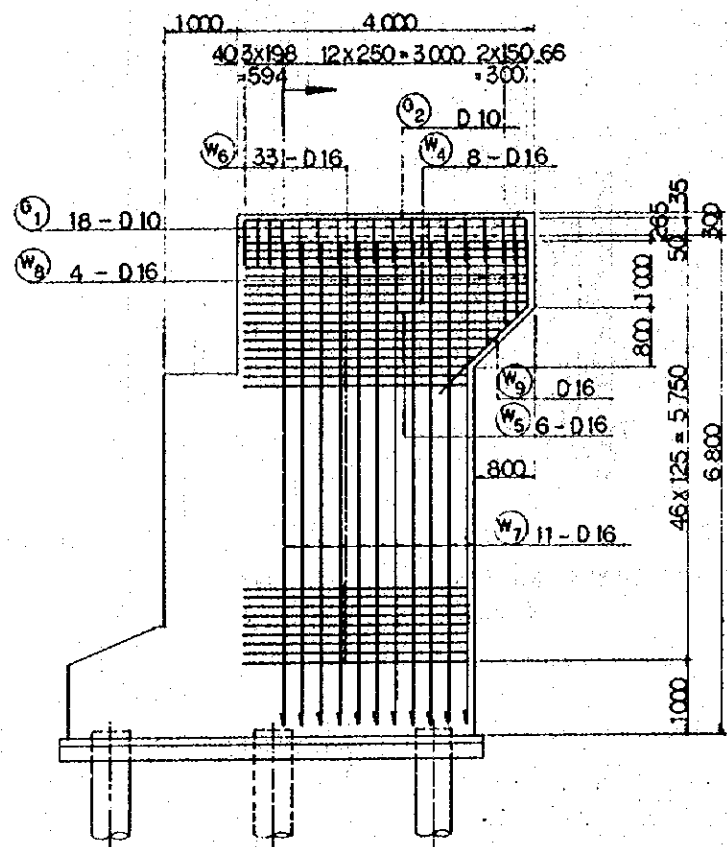
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	S.S	m.y	K.A	K.M	M.K
A	15 FEB '84	S.S	M.Y	K.A	K.M	M.K
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
ABUTMENT A02 BAR ARRANGEMENT (SHEET 1 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:50	CS-133					



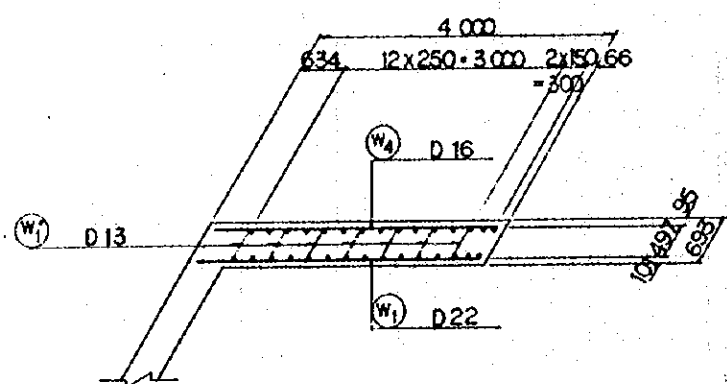
- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS - 132.



REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARANG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG/84	S.S	m.y	K.A	K.M	K.K
A	15FEB/84	S.S	m.y	K.A	K.M	K.K
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
ABUTMENT A602 BAR ARRANGEMENT (SHEET 2 OF 3)						
PACKAGE: 2 CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:50		DRAWING NO: CS-134				

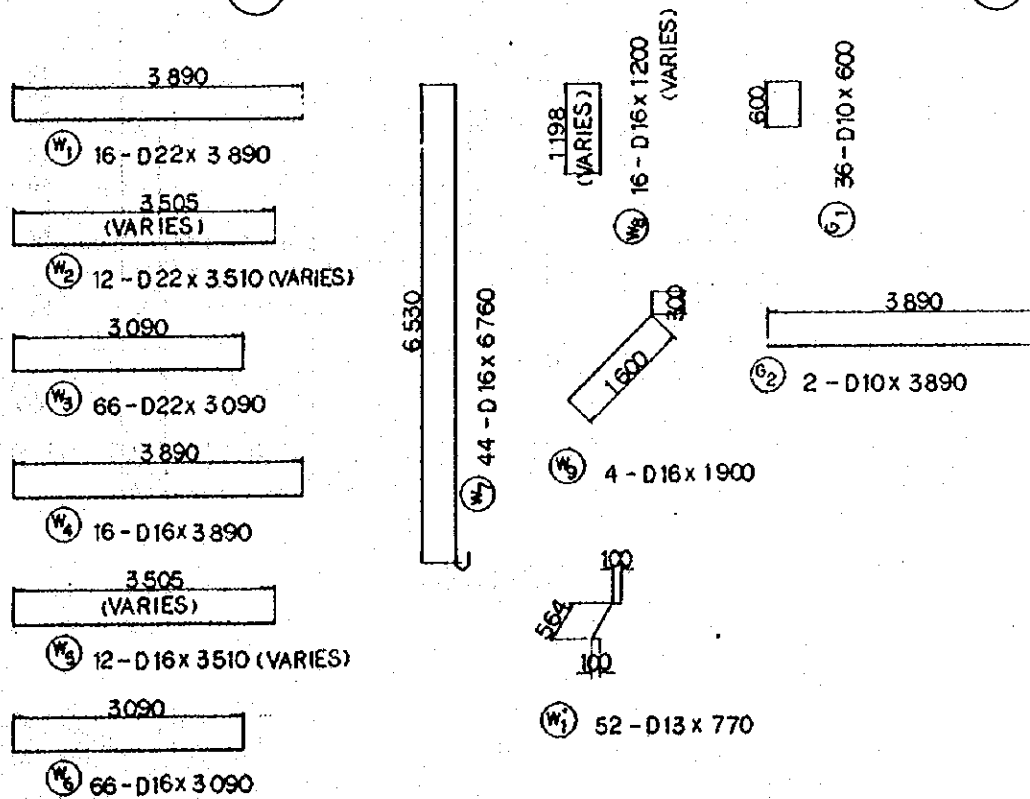


SECTION G



SECTION J

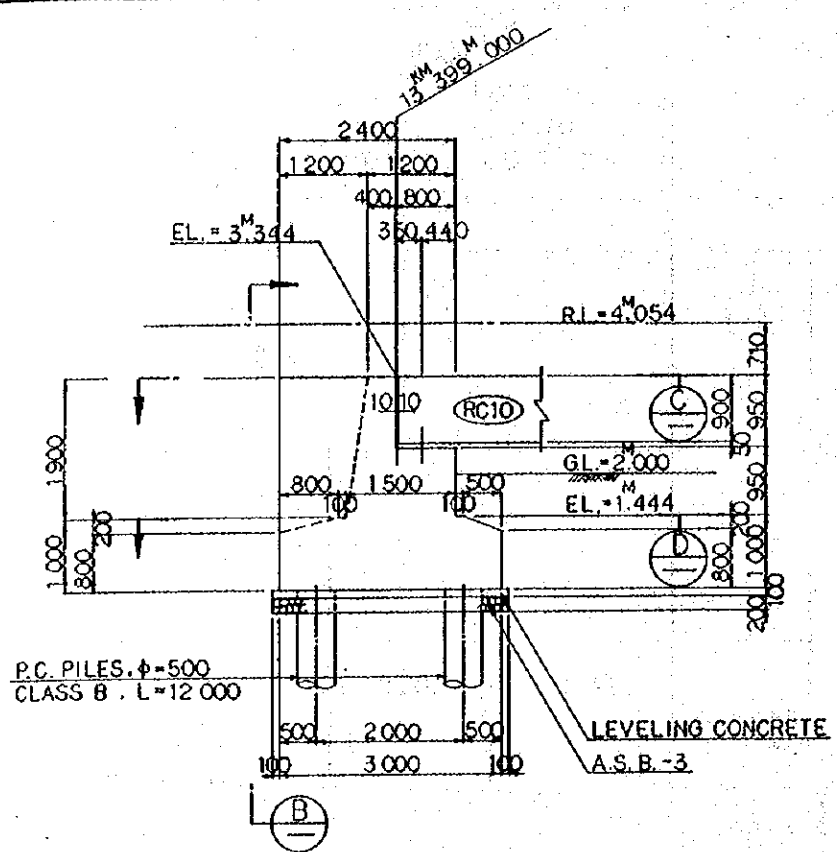
SECTION H



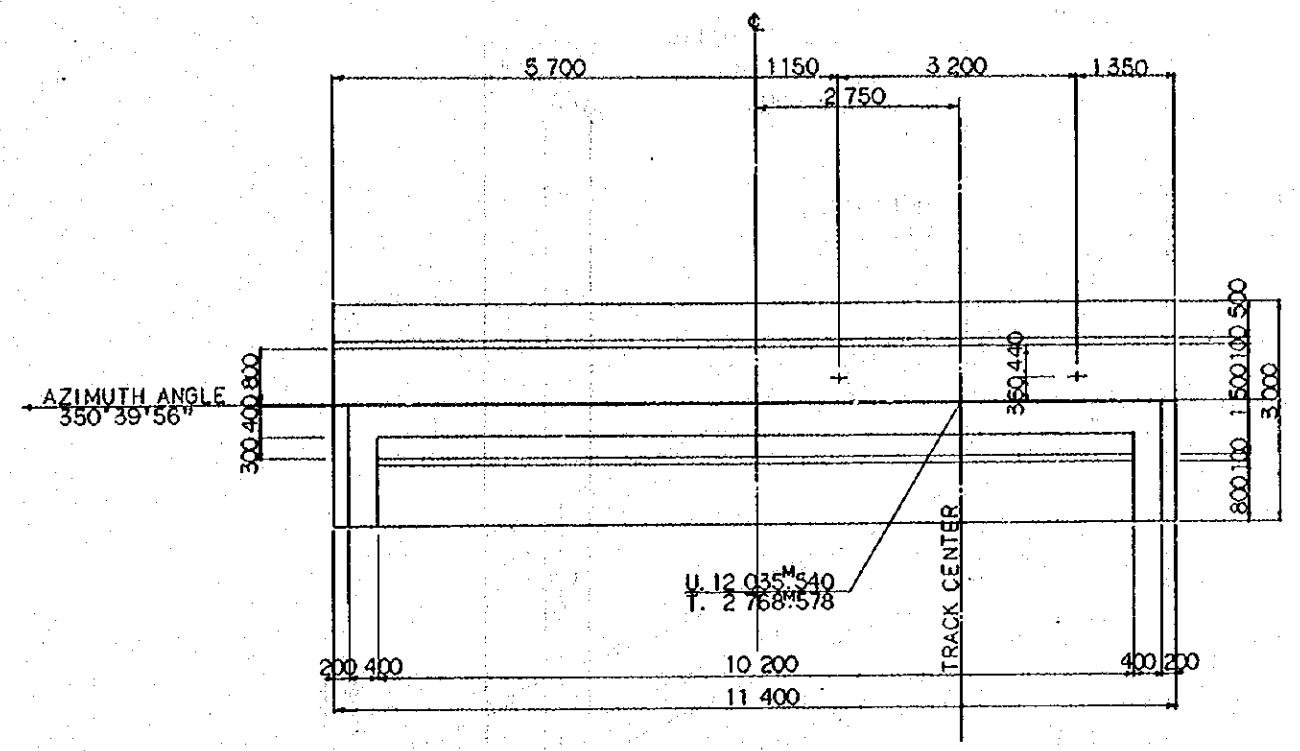
NOTES:

- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
- REFERENCE DRAWING FOR GENERAL VIEW : CS - 132.

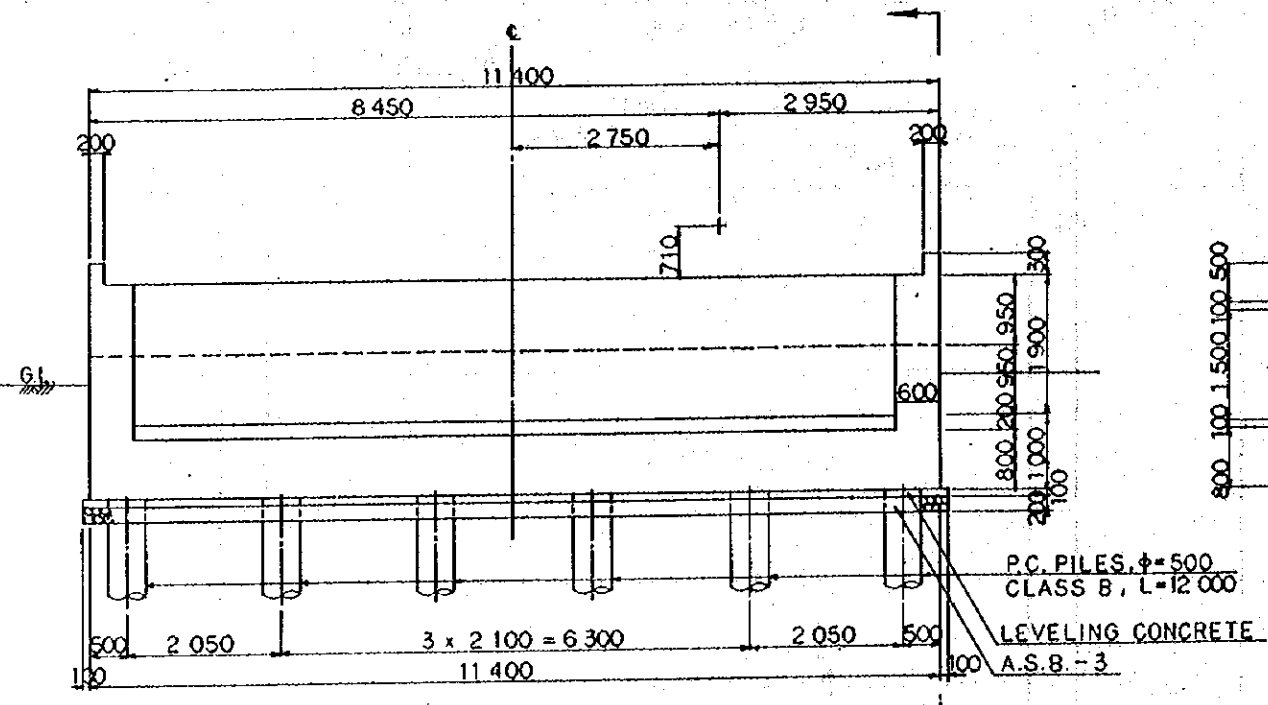
REPUBLIC OF INDONESIA						
MINISTRY OF COMMUNICATIONS						
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG'84	SS	MY	KA	KM	AK
A	15FEB'84	SS	MY	KA	KM	AK
REVISION	DATE	DESIGNED	DRAWN	CHECKED	EXTENDED	SUBMITTED
ABUTMENT Ab02 BAR ARRANGEMENT (SHEET 3 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE:	DRAWING NO: CS-135					
1:50						



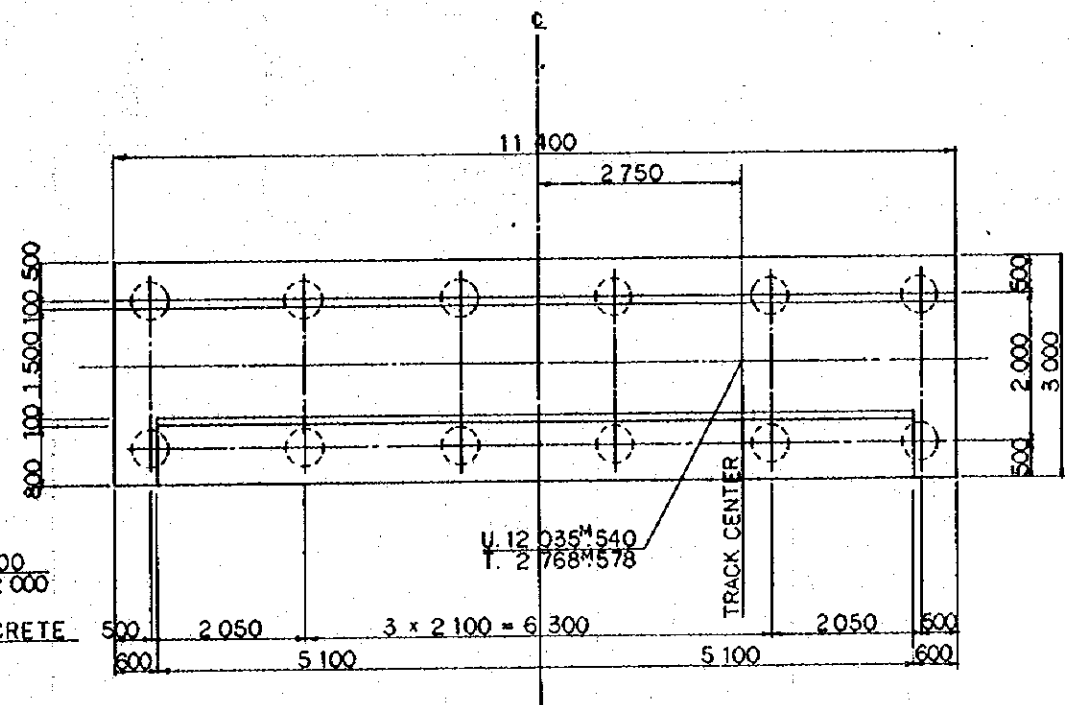
SECTION A



SECTION C



SECTION B



SECTION D

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-14
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION EL-6.1
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 30 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD-30
	CONCRETE OF DESIGN CRITERIA STRENGTH	$f'_{ck} = 210 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25 mm

NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-142  
CS-143  
CS-144  
CS-130
3. TYPE OF REINFORCEMENT FOR BEARING BASE (TYPE - H) x 2

REPUBLIC OF INDONESIA  
MINISTRY OF COMMUNICATIONS  
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

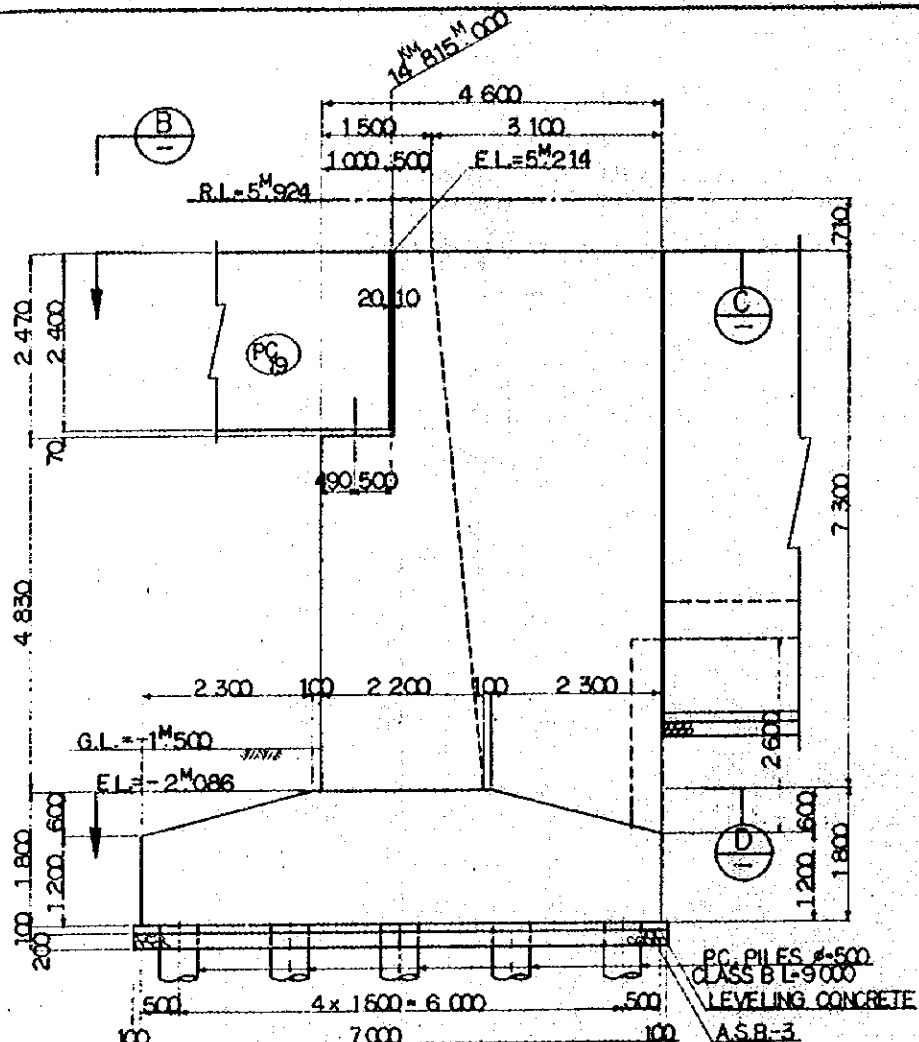
NEW RAILWAY LINE FOR CENGKARENG AIRPORT  
CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

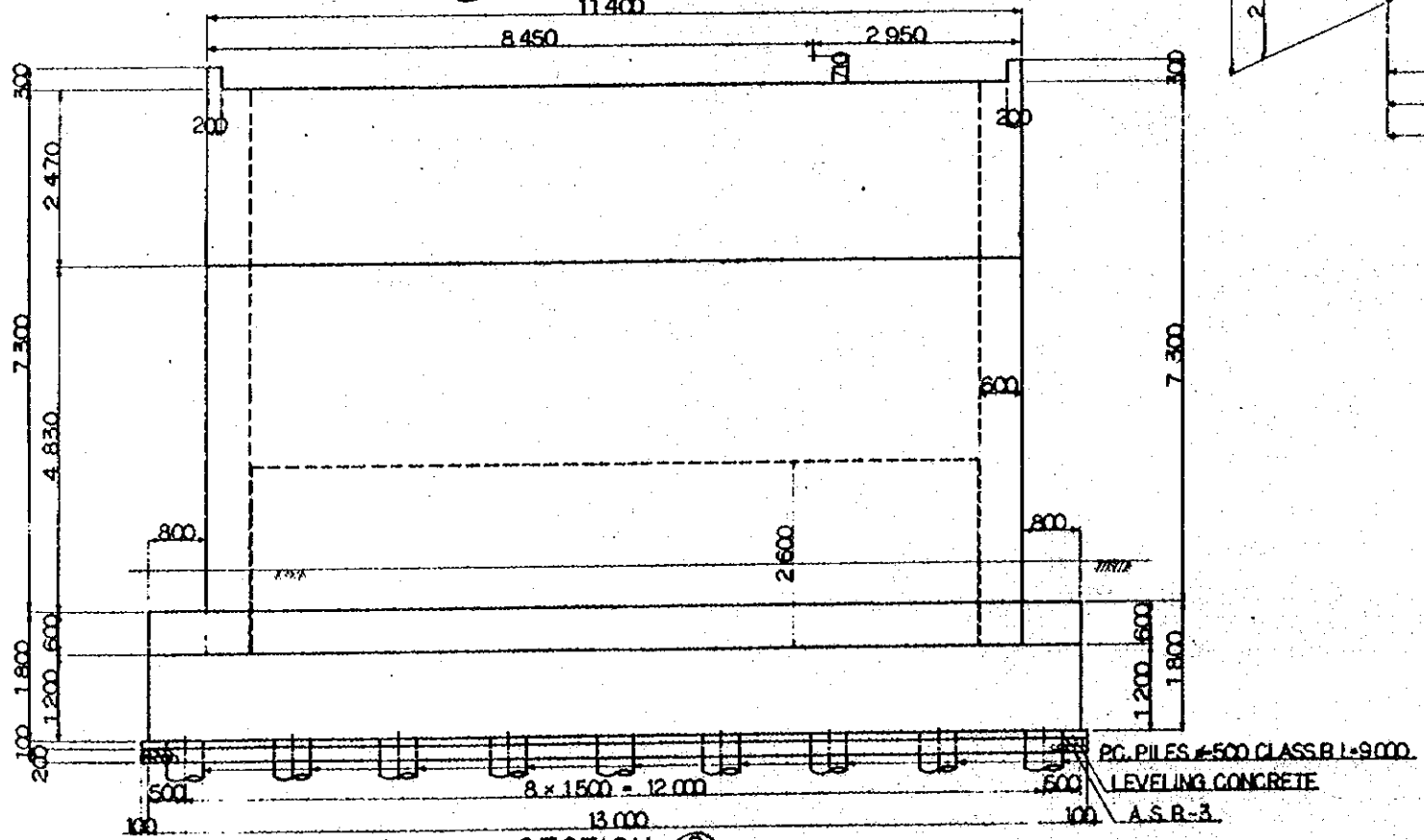
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
8	1 AUG. 84	S.S.	M.Y.	R.A.	H.A.	M.K.

ABUTMENT A603  
GENERAL VIEW

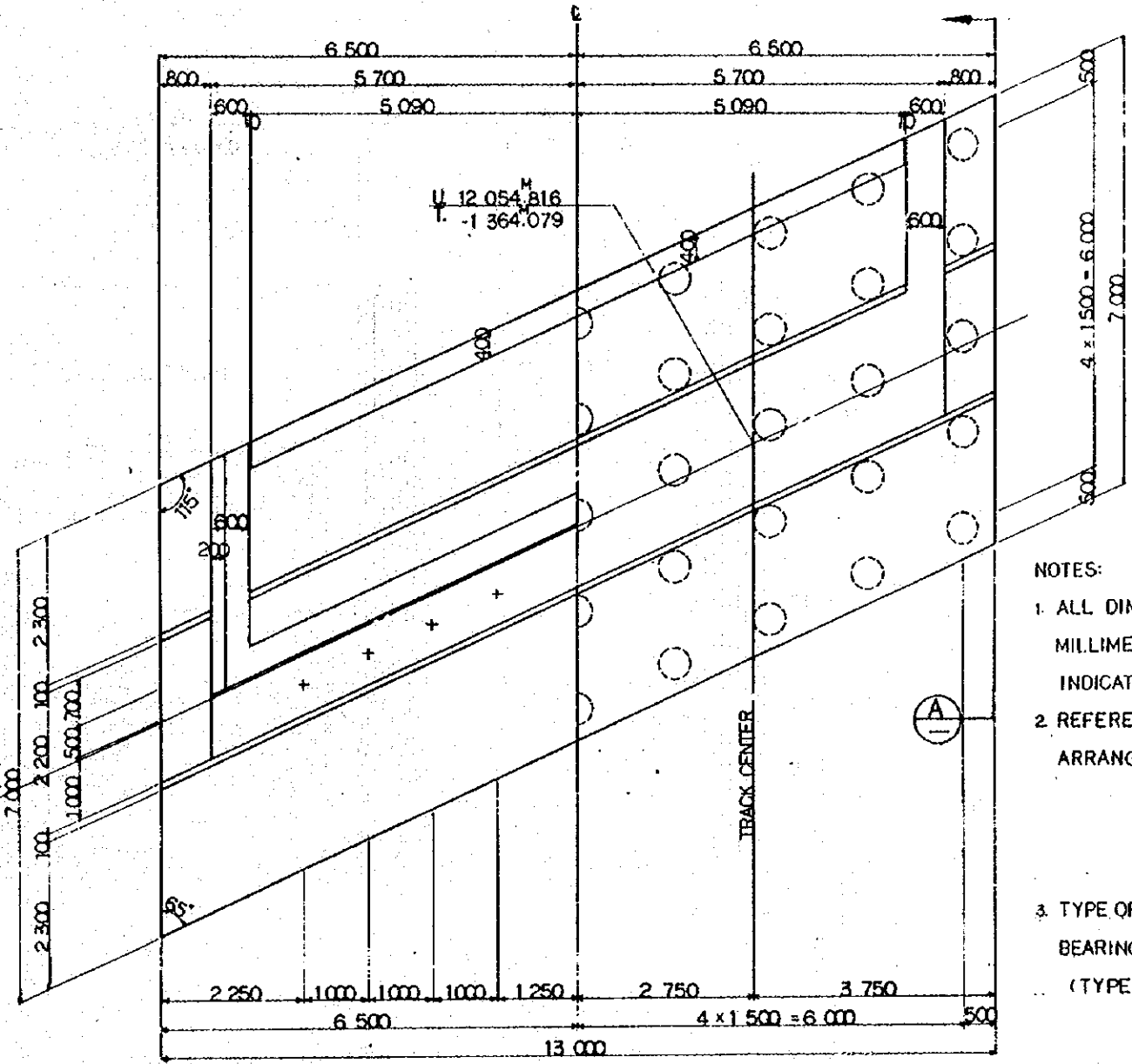
PACKAGE: I CIVIL AND ARCHITECTURAL WORK  
SCALE: 1:50  
DRAWING NO.: CS-136



SECTION A



SECTION B



SECTION C

SECTION D

- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  - REFERENCE DRAWING FOR BAR ARRANGEMENT : CS - 138.  
CS - 139.  
CS - 140.  
CS - 130
  - TYPE OF REINFORCEMENT FOR BEARING BASE  
(TYPE - B) x 4

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-116
DESIGN LOAD	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_h=0.1$ IN VERTICAL DIRECTION $K_h=0$
	ALLOWABLE STRESS	ALLOWABLE TENSILE STRESS 1800 kg/cm <sup>2</sup> ALLOWABLE COMPRESSIVE STRESS 80 kg/cm <sup>2</sup>
MATERIAL	REINFORCING BAR	SD-58
	CONCRETE	$f'_{ck}=210 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	15mm

REPUBLIC OF INDONESIA  
MINISTRY OF COMMUNICATIONS  
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

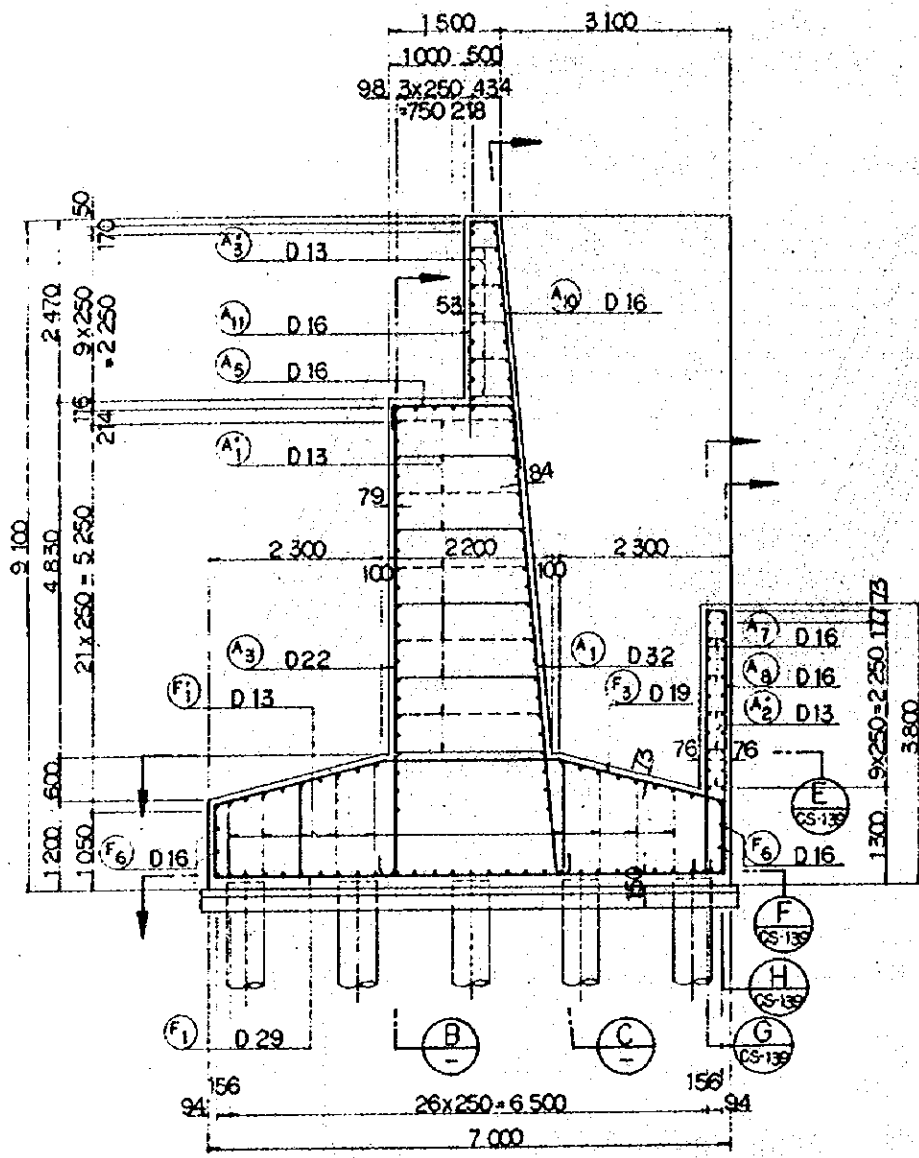
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1 AUG '84	SS	MY	KA	KM	AK
A	1 FEB '84	SS	MY	KA	KM	AK

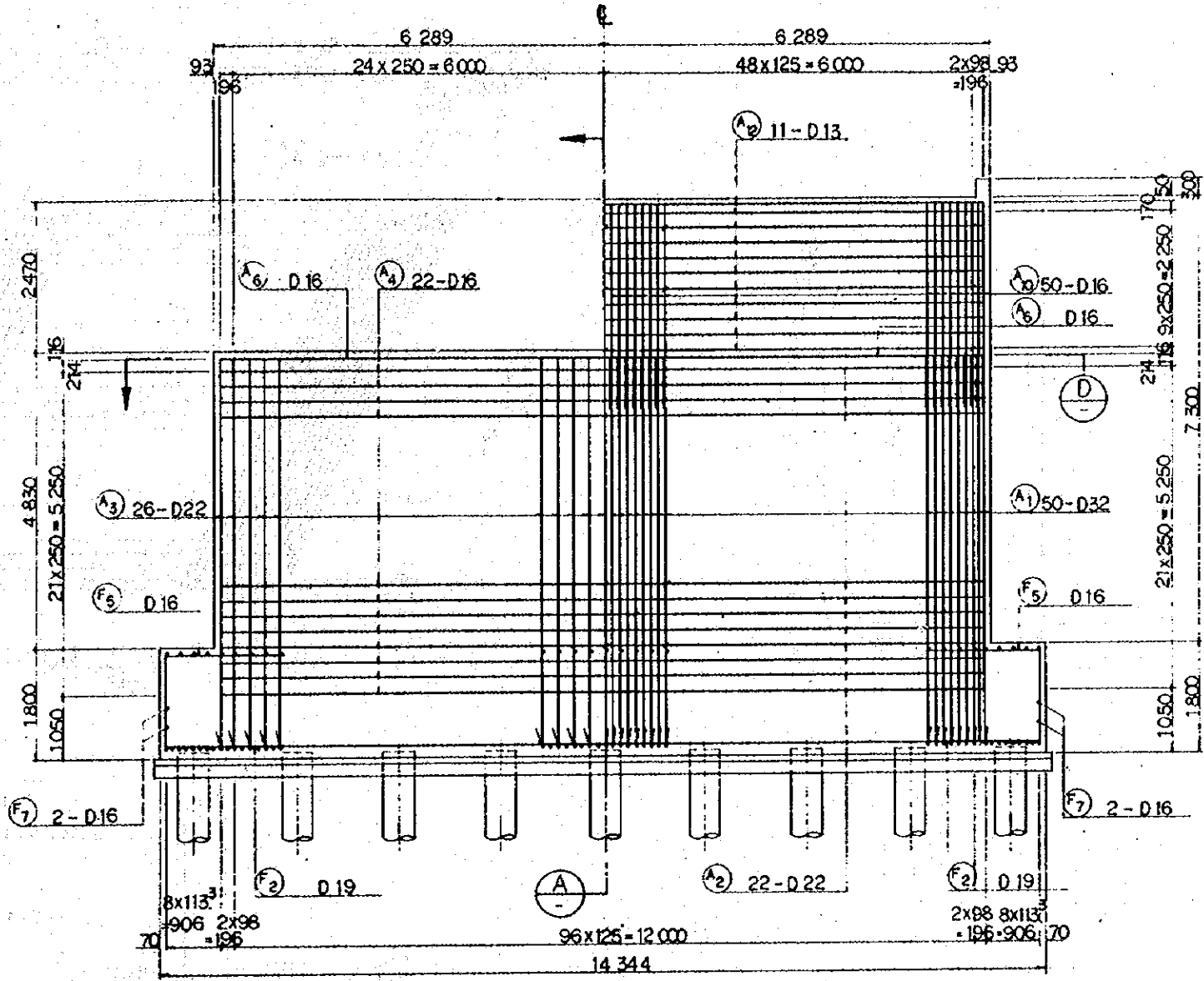
REVISIONS: DATE, DESIGNED, DRAWN, CHECKED, REVIEWED, SUBMITTED

ABUTMENT Ab04  
GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK  
SCALE: 1:50  
DRAWING NO: CS-137

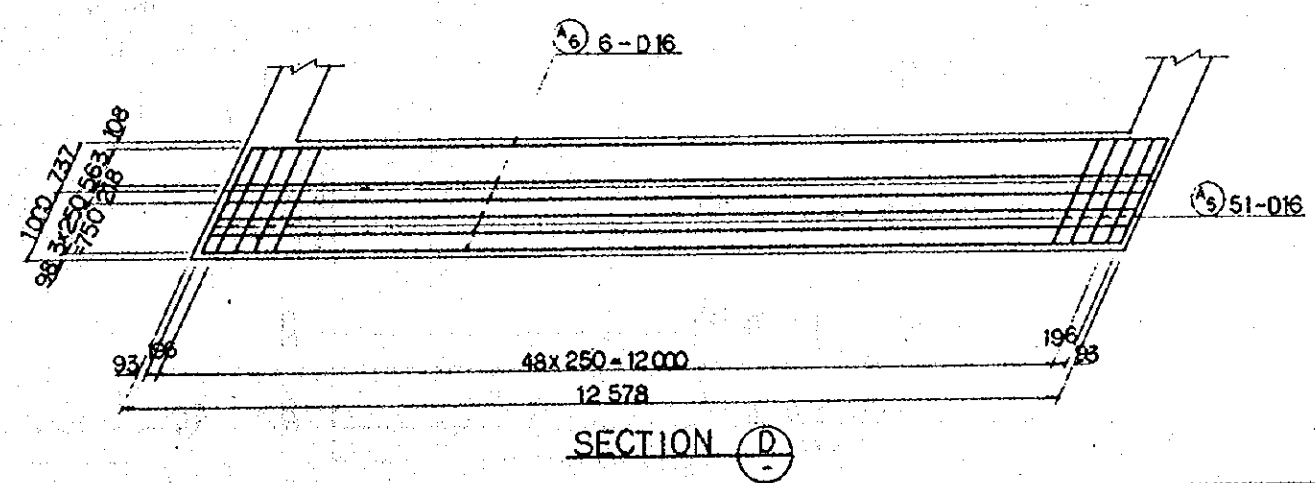


SECTION A



SECTION B

SECTION C

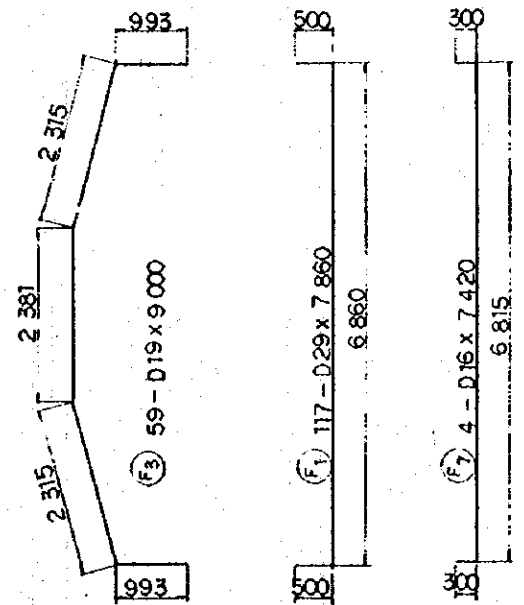
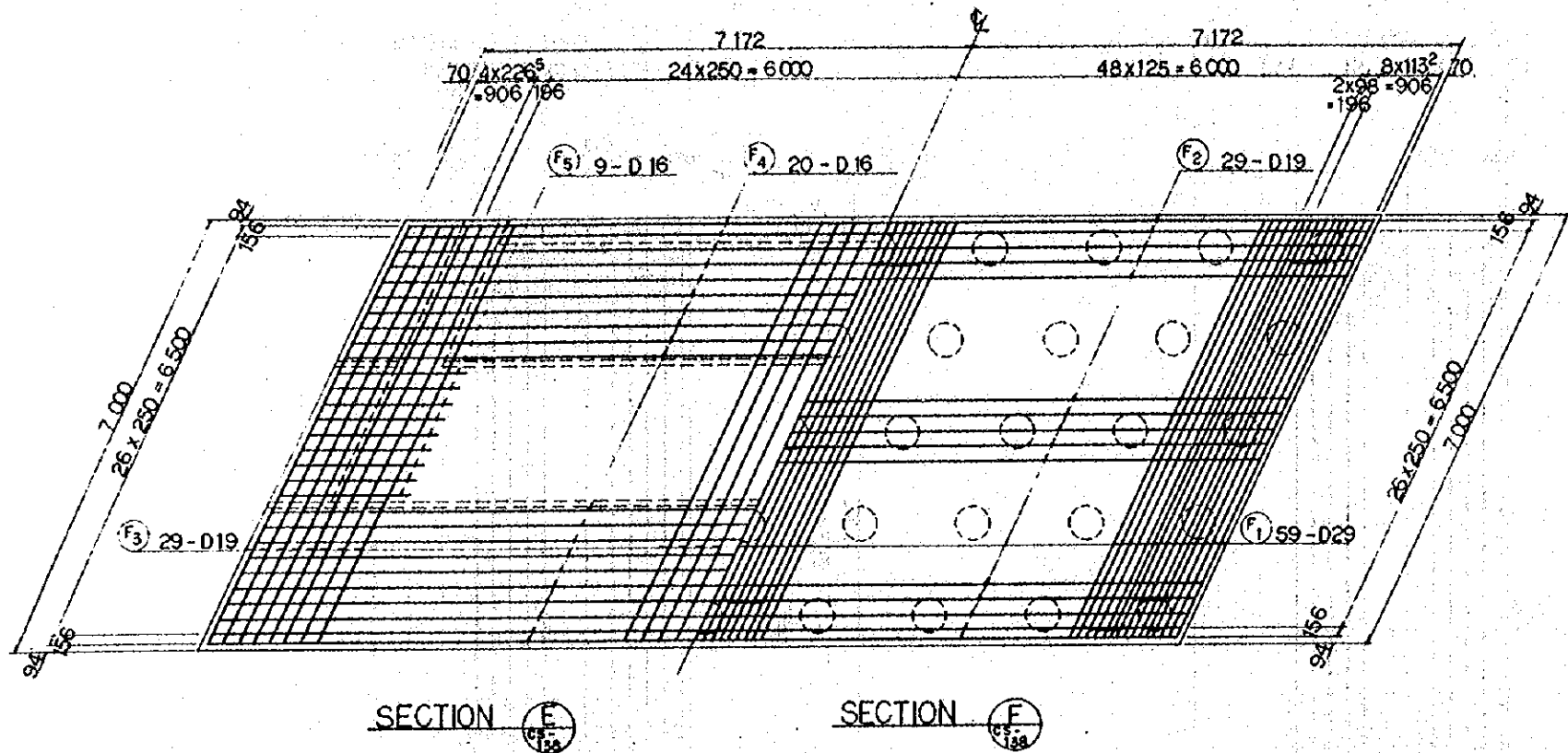


SECTION D

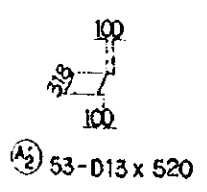
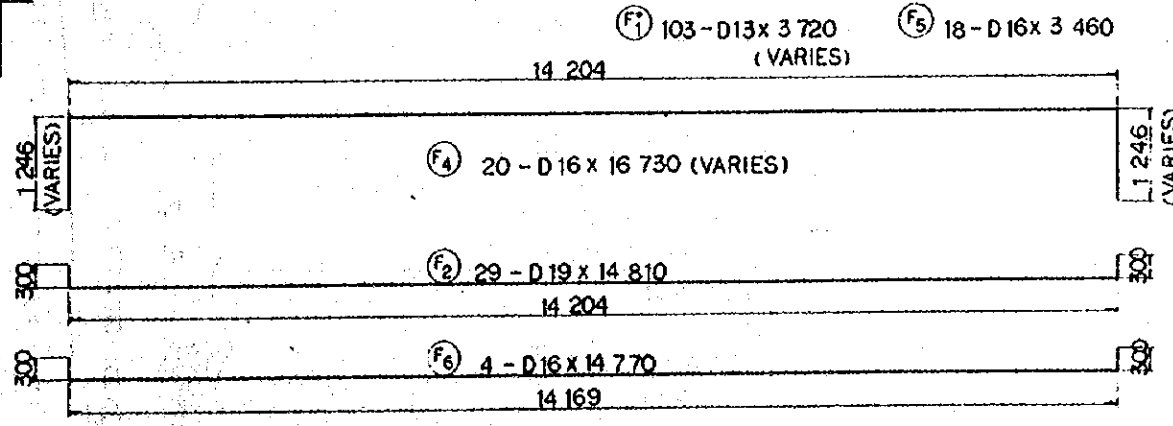
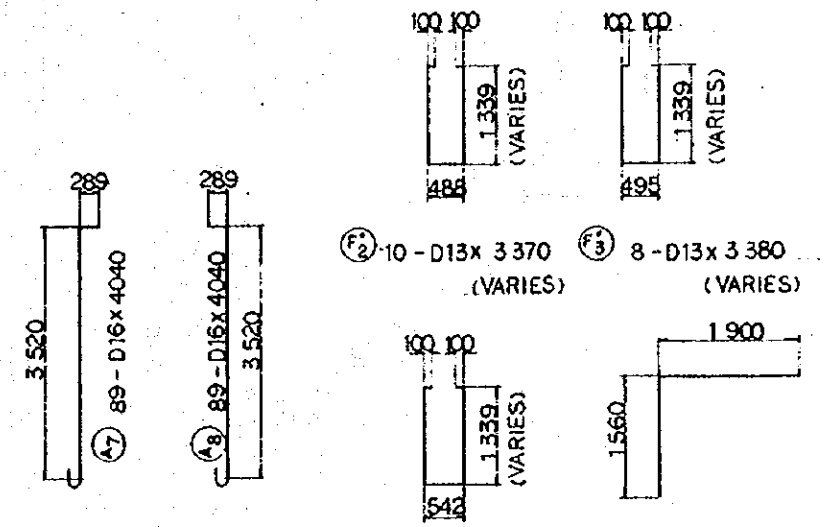
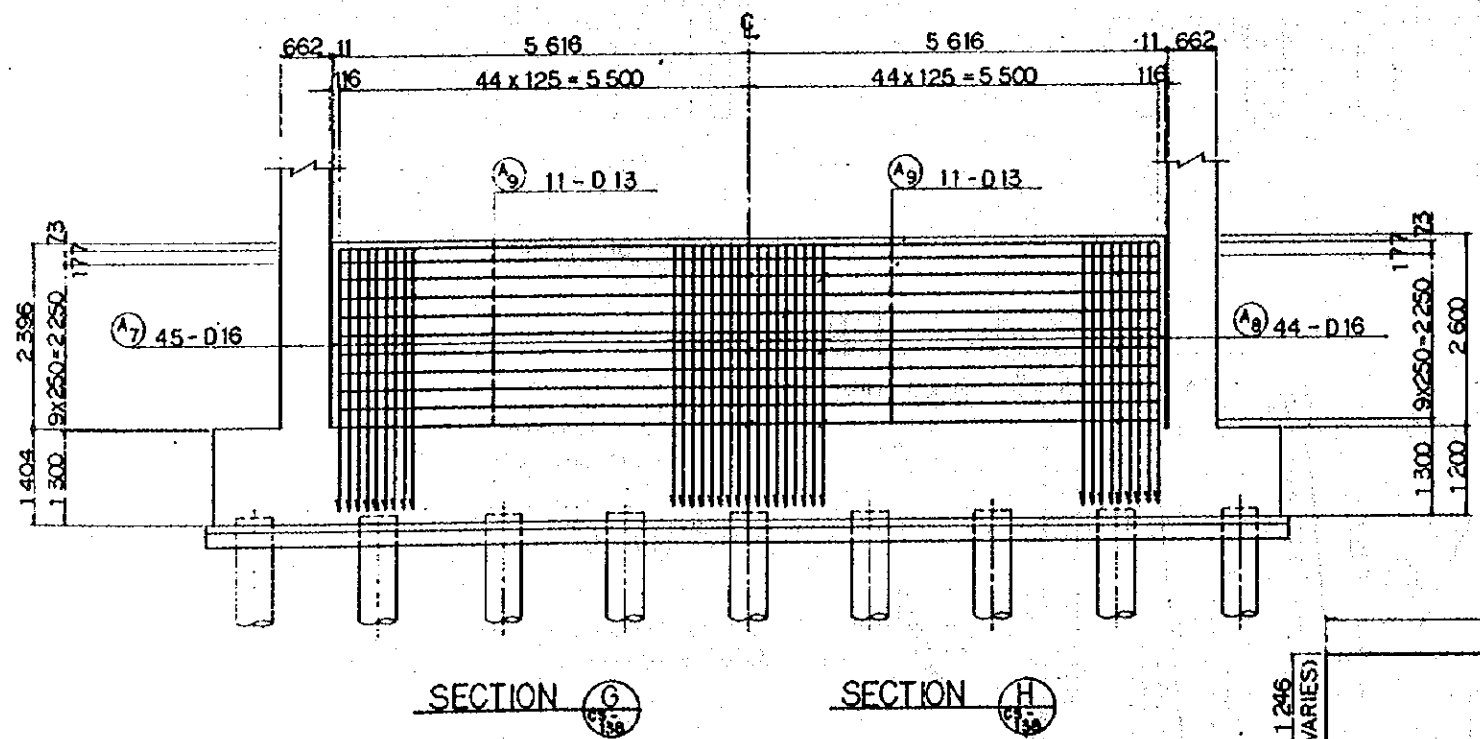
- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS - 137.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG.84	S.S	m.y	K.S	K.M	A.K
A	NOV.84	S.S	m.y	K.S	K.M	A.K
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
ABUTMENT A604 BAR ARRANGEMENT (SHEET 1 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE		DRAWING NO.				
1:50		CS-138				

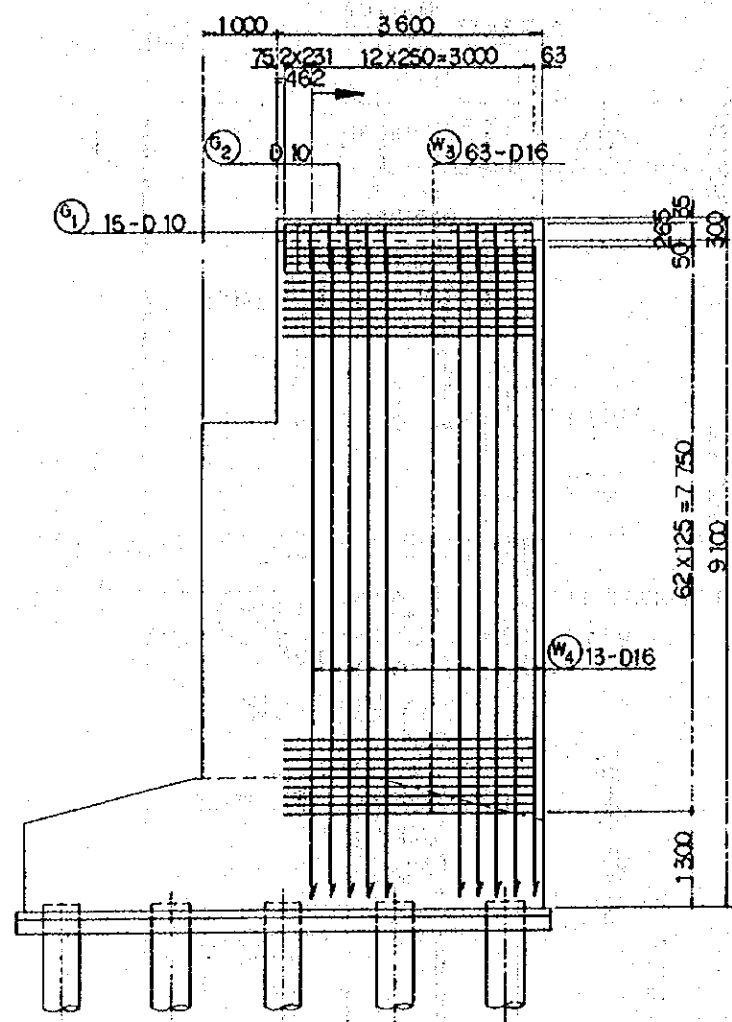




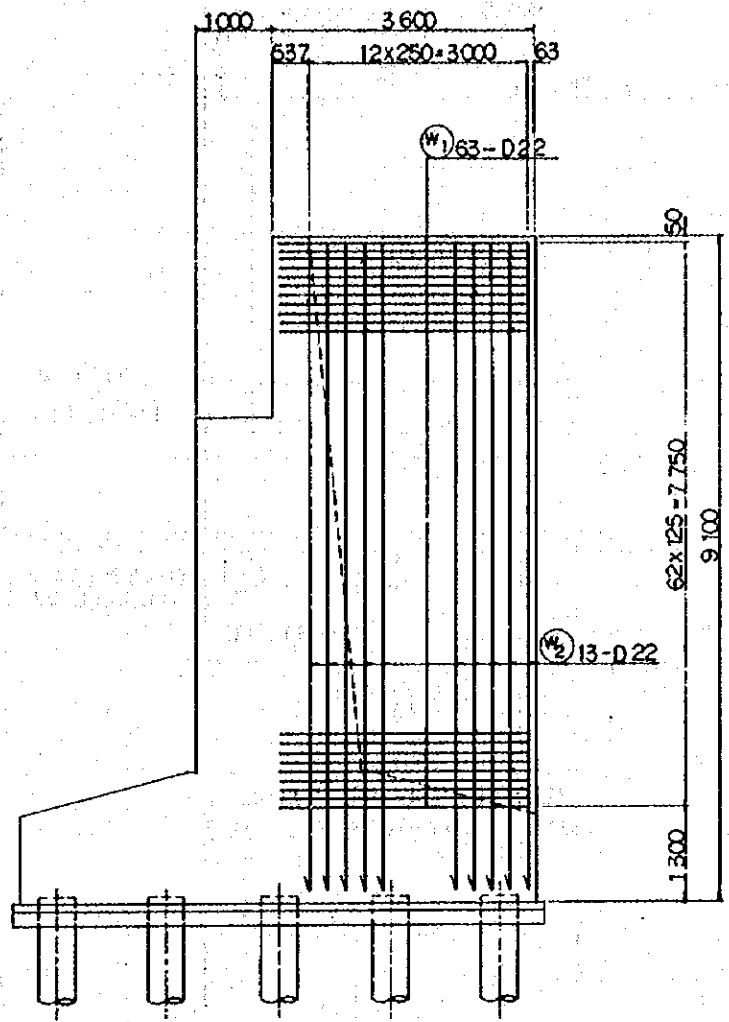
NOTES:  
 1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED  
 2. REFERENCE DRAWING FOR GENERAL VIEW : CS - 137



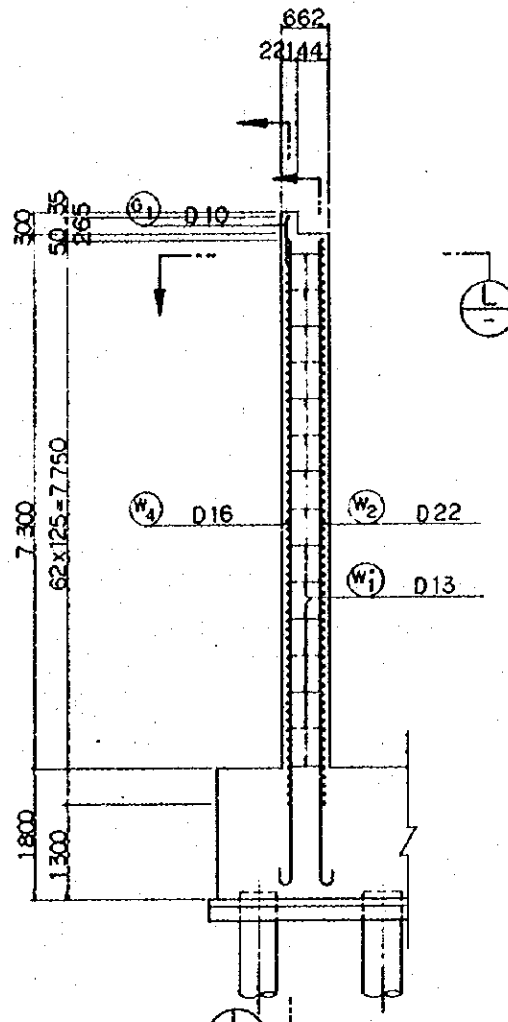
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG 84	S.S.	m-y	K.A.	K.M.	A.K.
A	1 FEB 84	S.S.	m-y	K.A.	K.M.	A.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	LIMITED
ABUTMENT A604 BAR ARRANGEMENT (SHEET 2 OF 3)						
PROGRAM: I CIVIL AND ARCHITECTURAL WORK						
SCALE: 1 : 50		DRAWING NO: CS - 139				



SECTION I

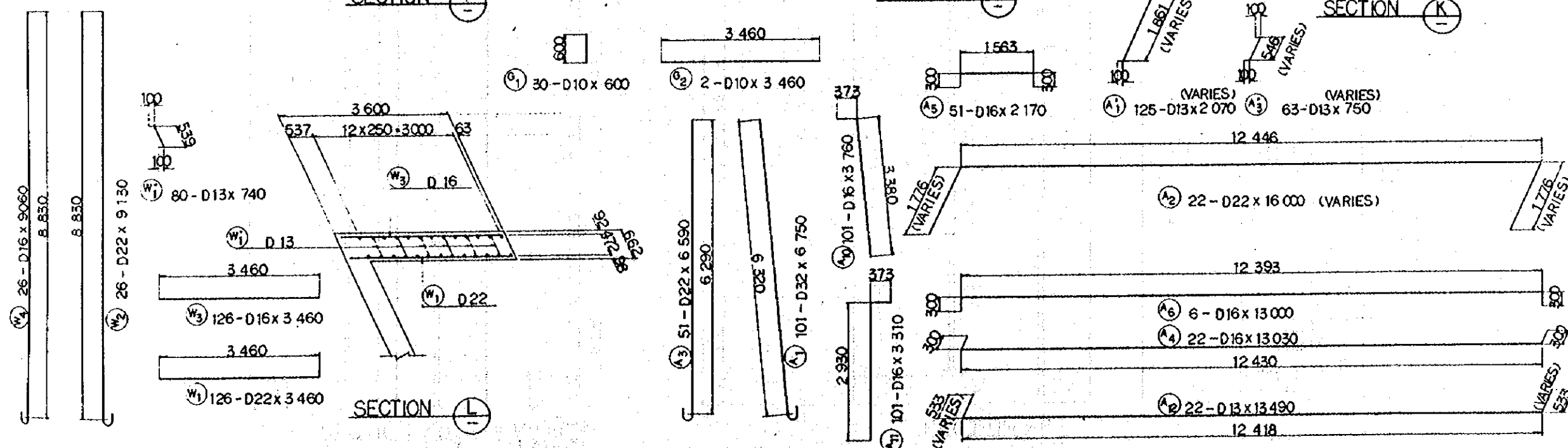


SECTION J



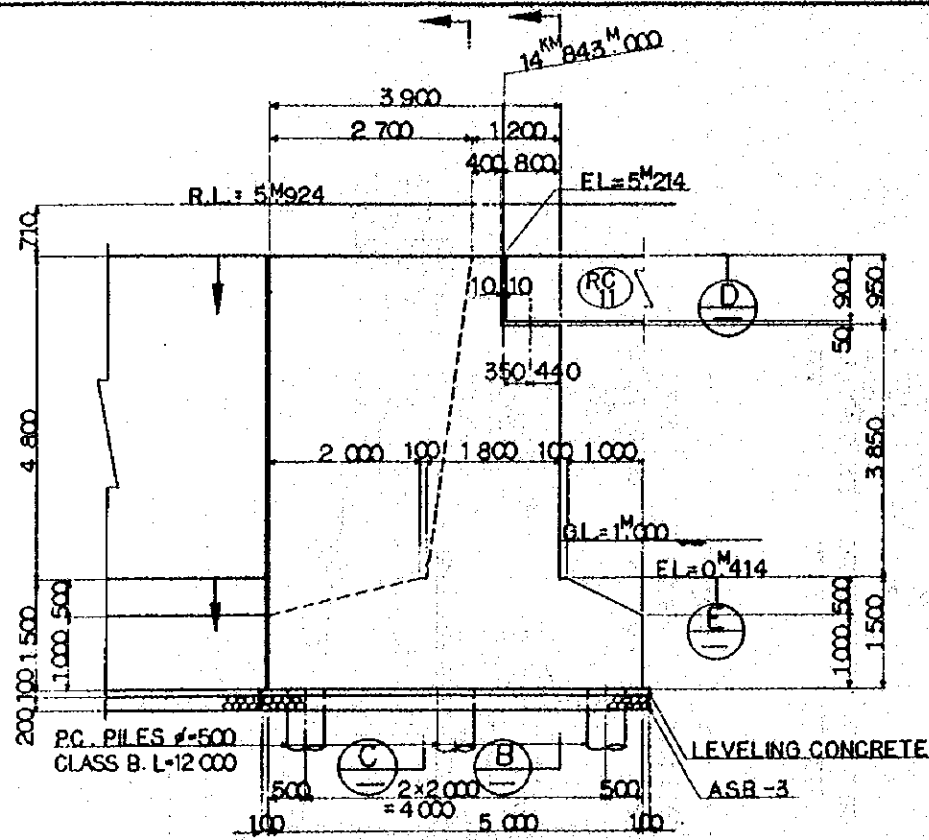
SECTION K

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS - 137.

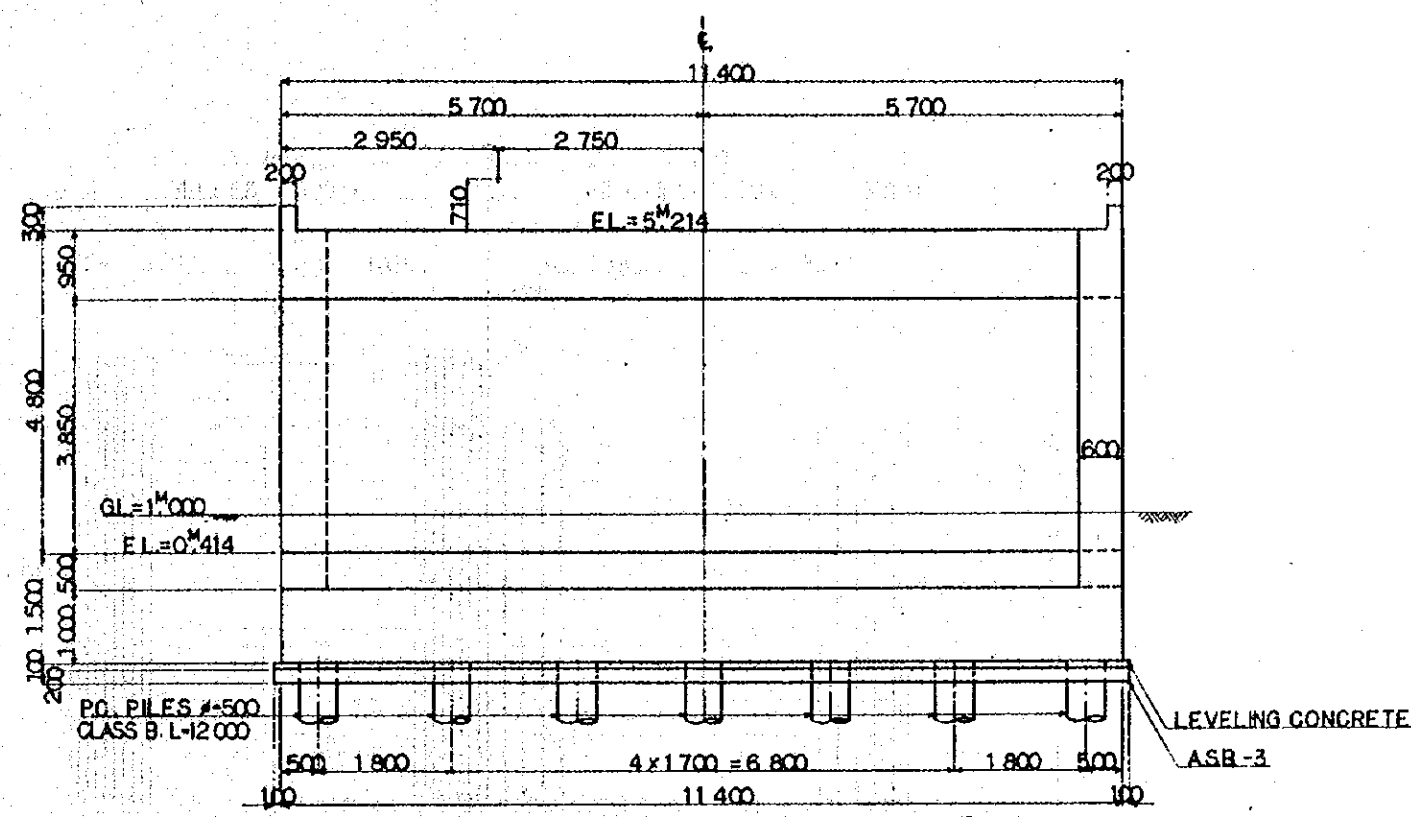


SECTION L

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	S.S.	M.Y.	K.A.	K.M.	M.K.
A	1 FEB '84	S.S.	M.Y.	K.A.	K.M.	M.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
ABUTMENT Ab04 BAR ARRANGEMENT (SHEET 3 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:50		DRAWING NO: CS-140				

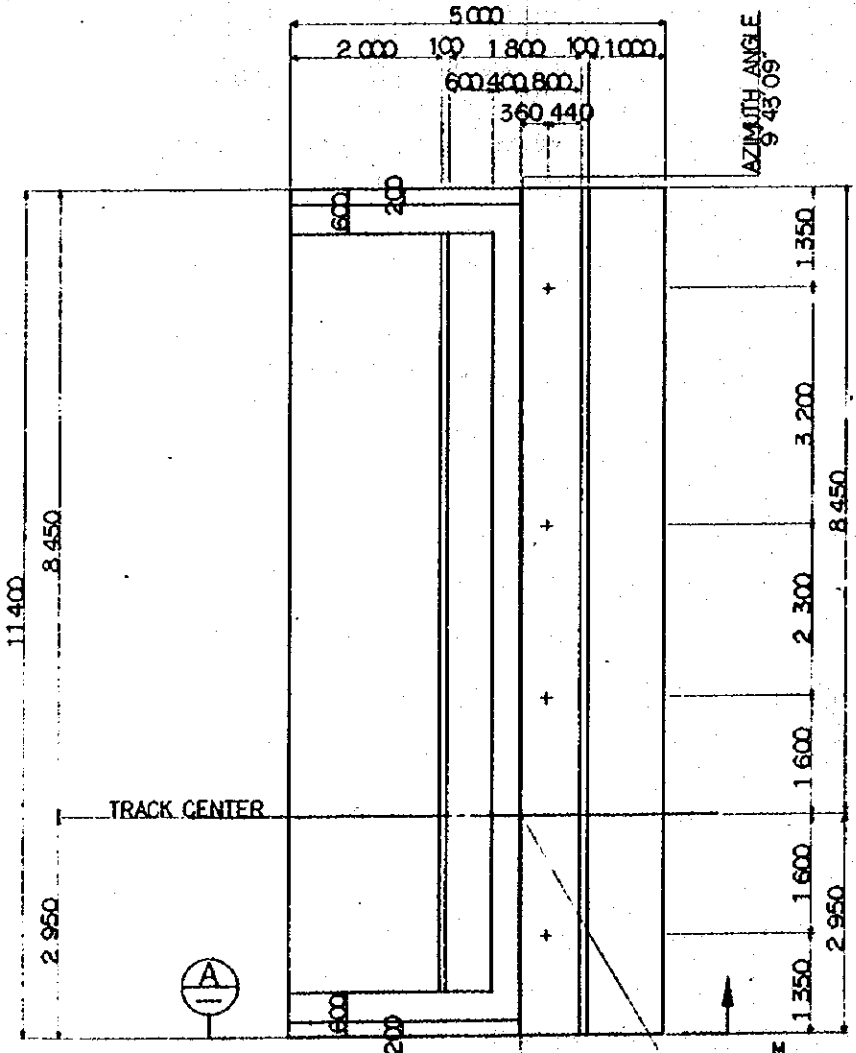


SECTION A

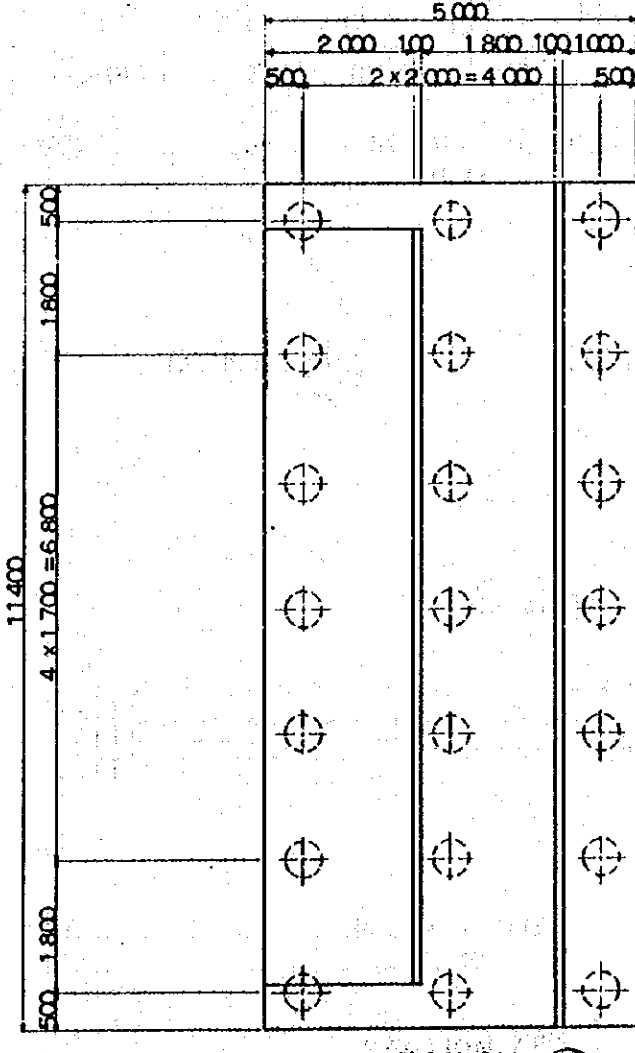


SECTION B

SECTION C



SECTION D



SECTION E

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS - 142.  
CS - 143.  
CS - 144.  
CS - 130.
  3. TYPE OF REINFORCEMENT FOR BEARING BASE (TYPE - H) x 2

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO RS-16
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_1=0.1$ IN VERTICAL DIRECTION $K_2=0$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 80 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	S0-38
	CONCRETE OF DESIGN CRITERIA STRENGTH	$f'_{ck}=210 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25 mm

REPUBLIC OF INDONESIA  
MINISTRY OF COMMUNICATIONS  
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

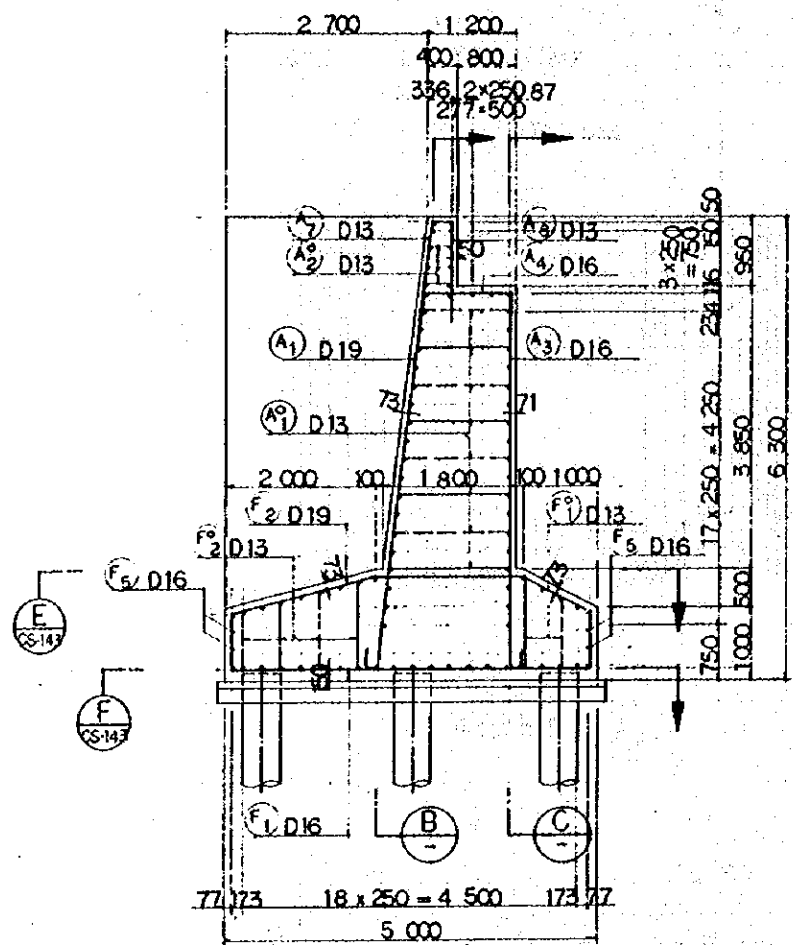
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

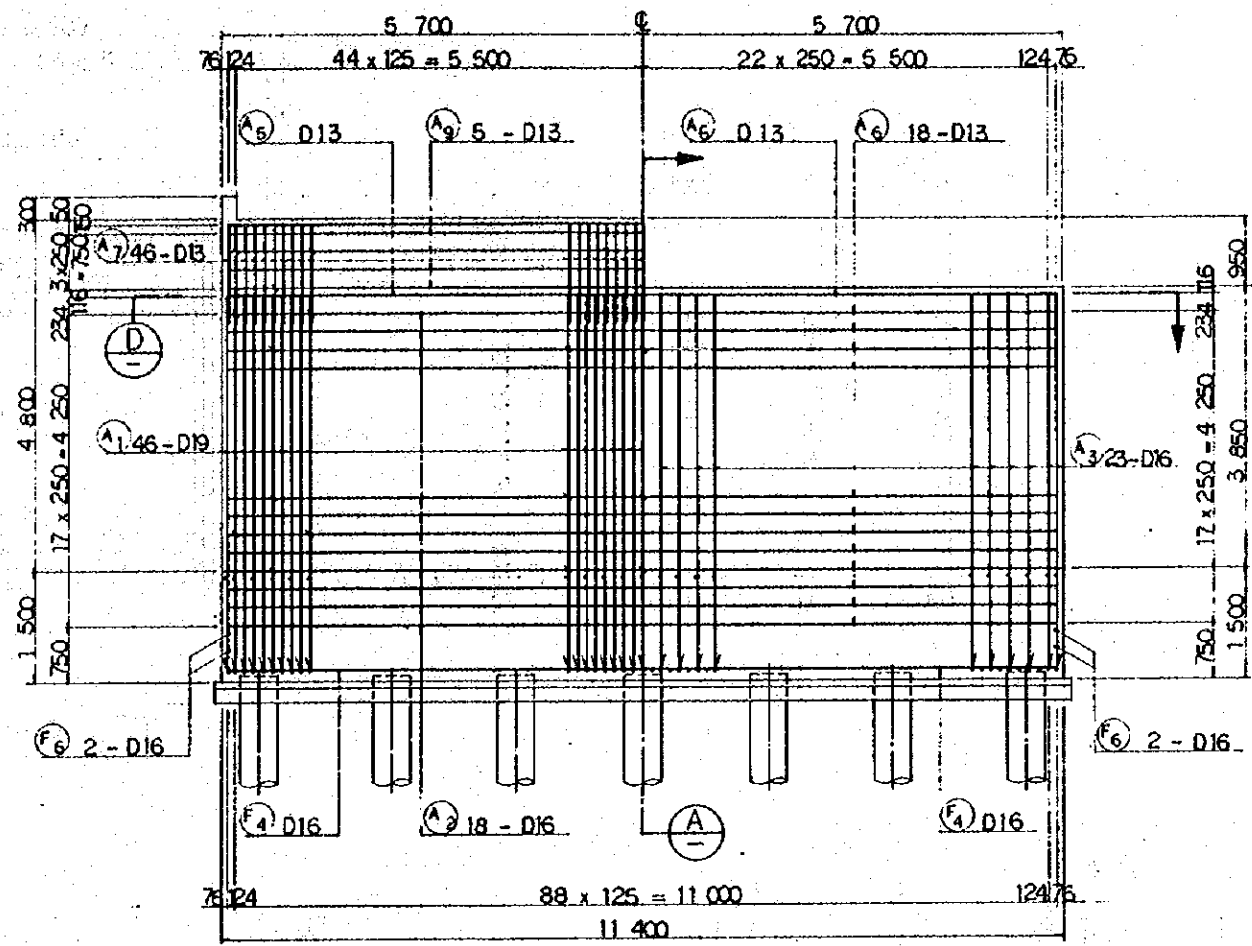
REVISIONS	DATE	DESIGNED	CHECKED	APPROVED	REVIEWED	SUBMITTED
B	1 AUG '84	g.s.	m.y.	K.A.	K.M.	K.K.
A	07 FEB '84	g.s.	m.y.	K.A.	K.M.	K.K.

ABUTMENT A005  
GENERAL VIEW

PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK  
SCALE: 1:50  
DRAWING NO: CS-141

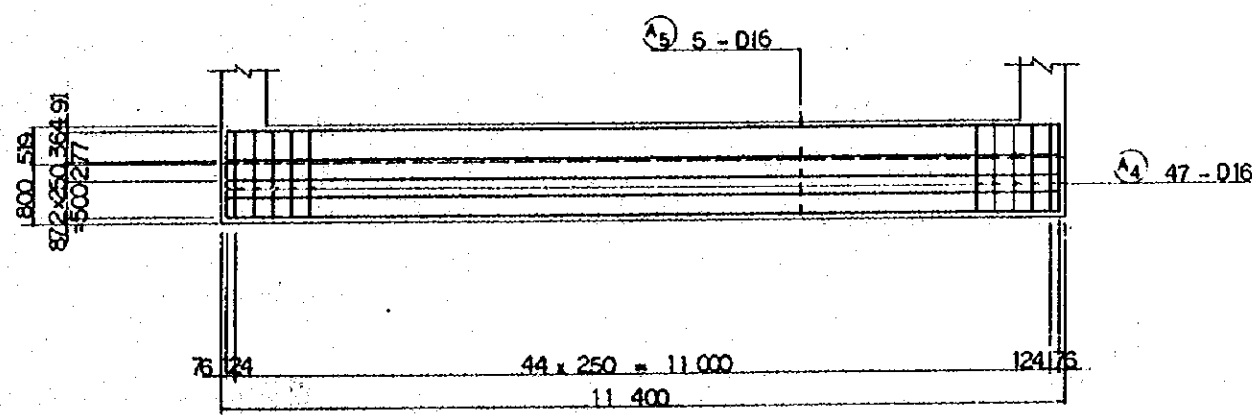


SECTION A



SECTION B

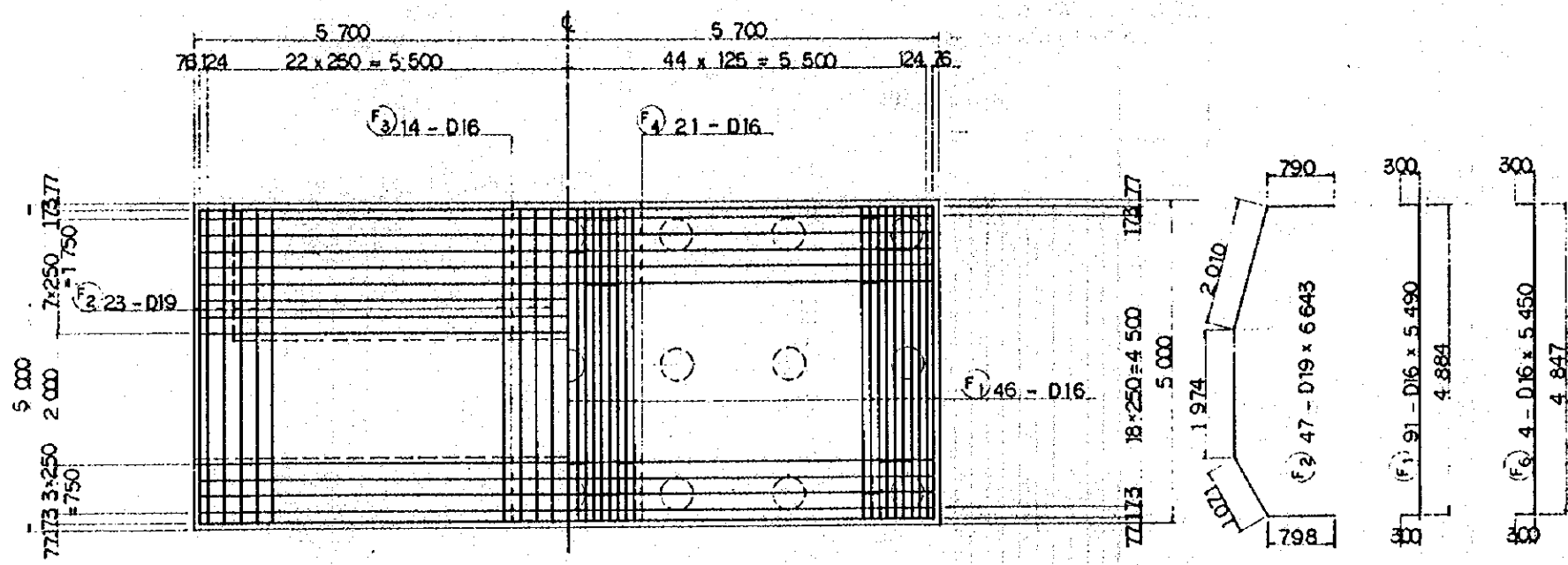
SECTION C



SECTION D

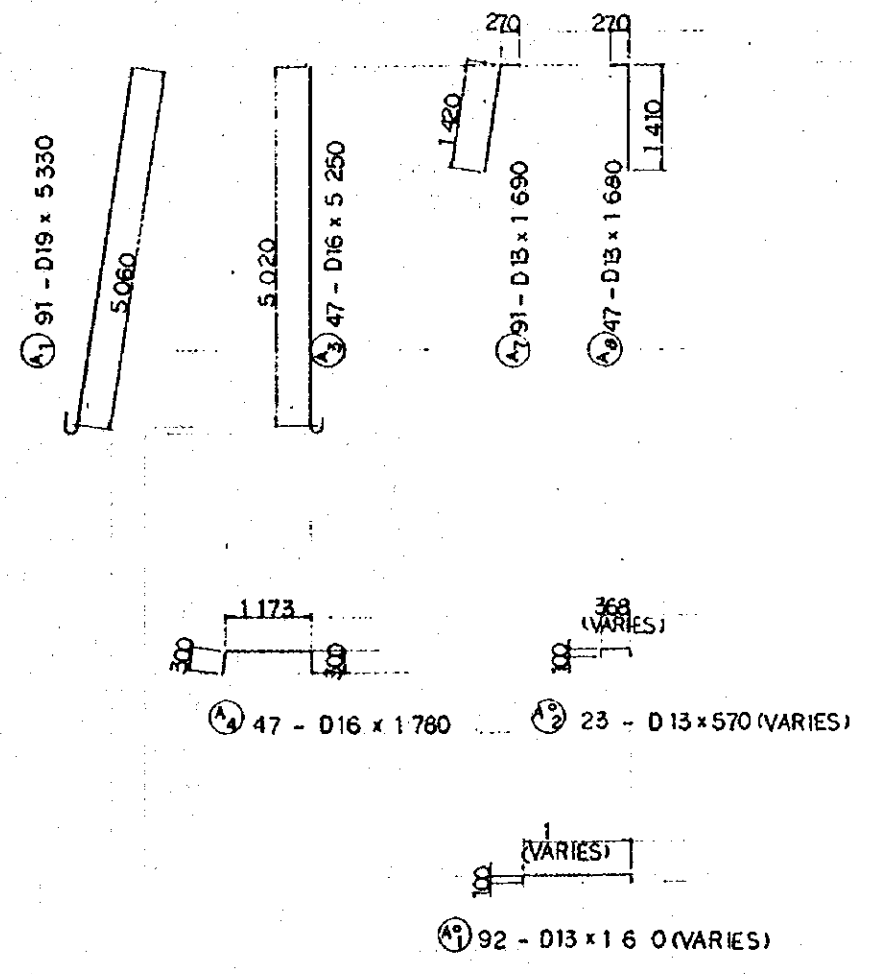
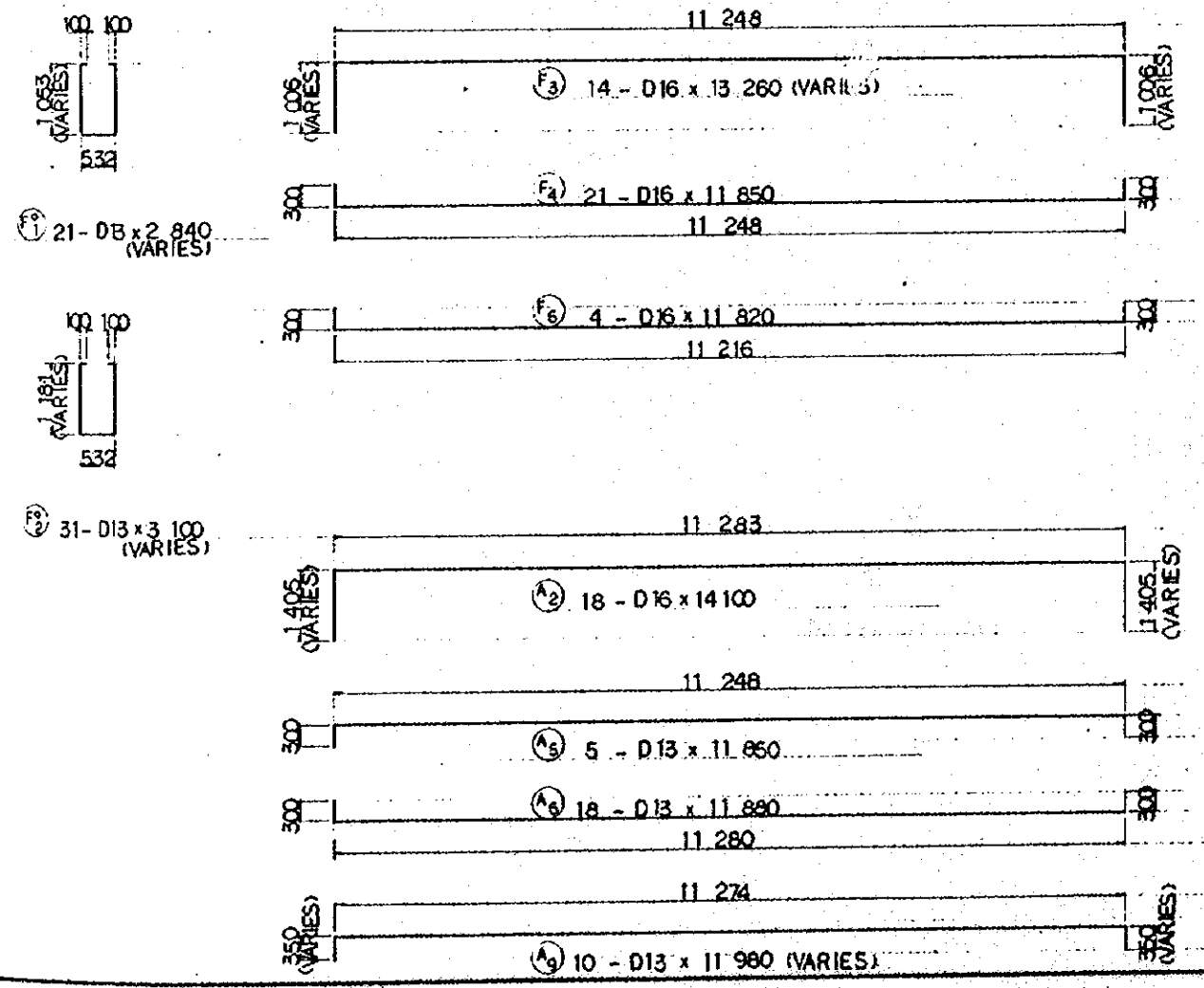
- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS - 136.  
CS - 141.  
CS - 284.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	S.S.	M.Y.	K.A.	K.M.	M.K.
A	1 FEB '84	S.S.	M.Y.	K.A.	K.M.	M.K.
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
ABUTMENT AB05 BAR ARRANGEMENT (SHEET 1 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:50		DRAWING NO: CS-142				

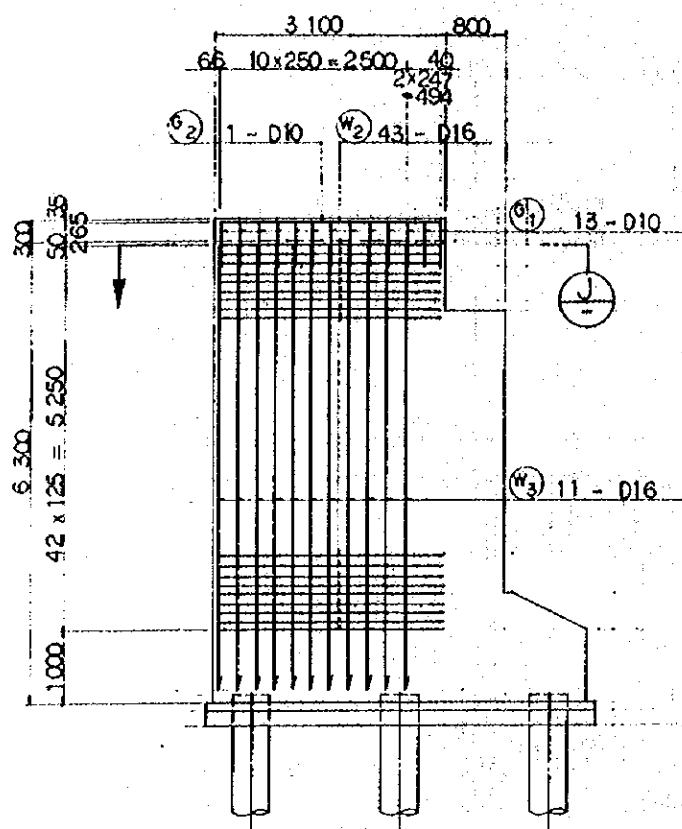


SECTION E CS142 SECTION F CS142

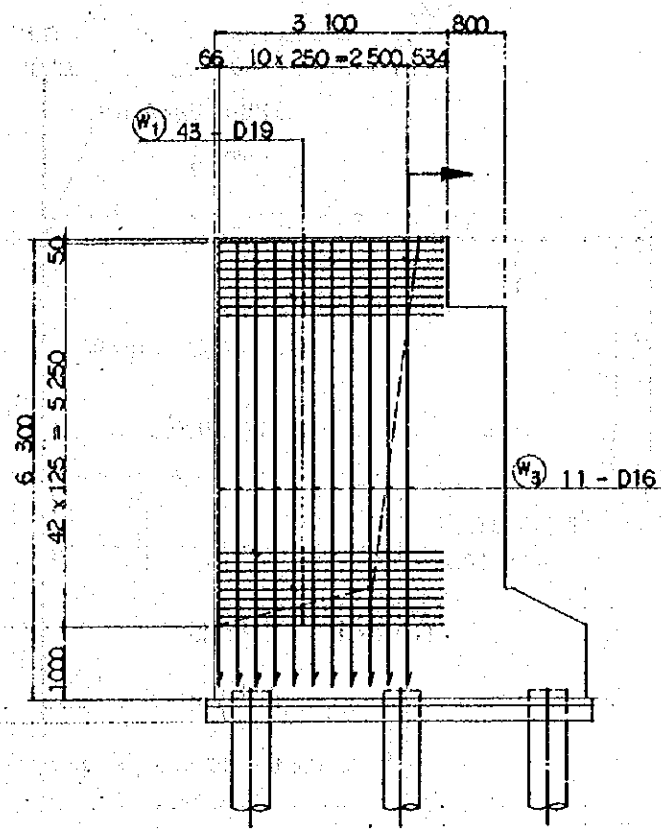
- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS - 136, CS - 141, CS - 284.



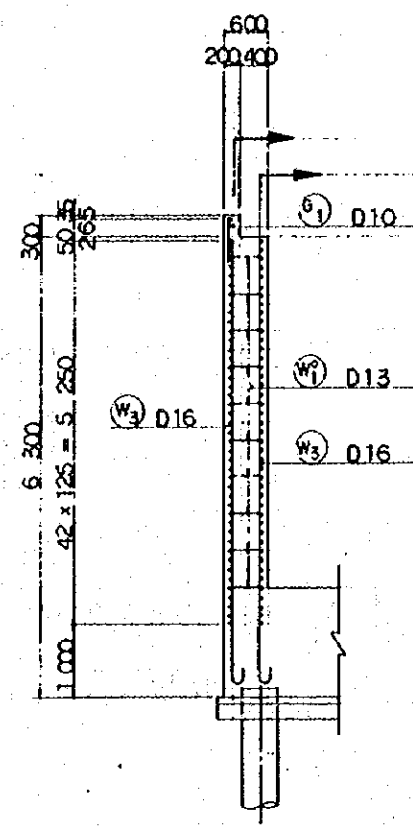
REPUBLIC OF INDONESIA						
MINISTRY OF COMMUNICATIONS						
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	S.S.	M.Y.	K.A.	K.M.	K.R.
A	1 FEB '84	S.S.	M.Y.	K.A.	K.M.	K.R.
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
ABUTMENT Ab05						
BAR ARRANGEMENT						
(SHEET 2 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1 : 50	CS-143					



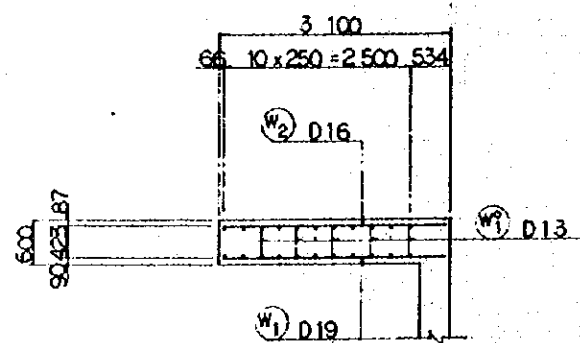
SECTION G



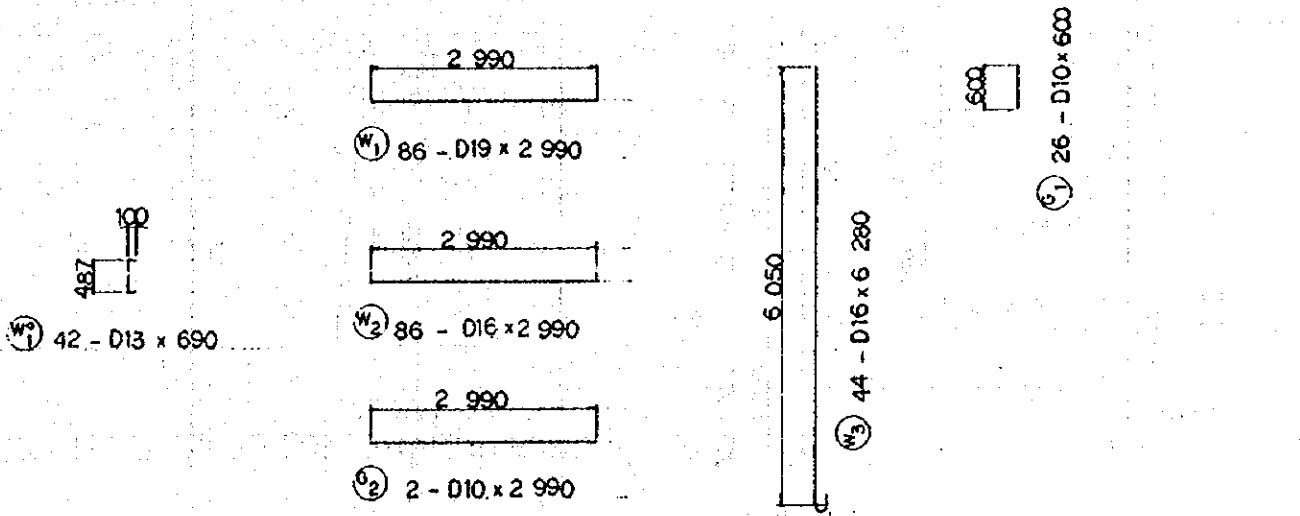
SECTION H



SECTION I

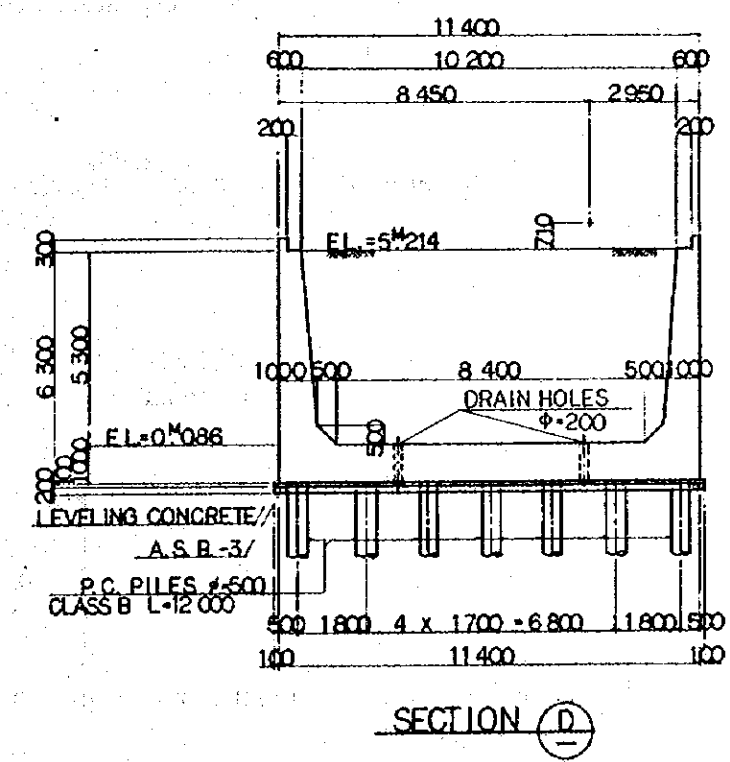
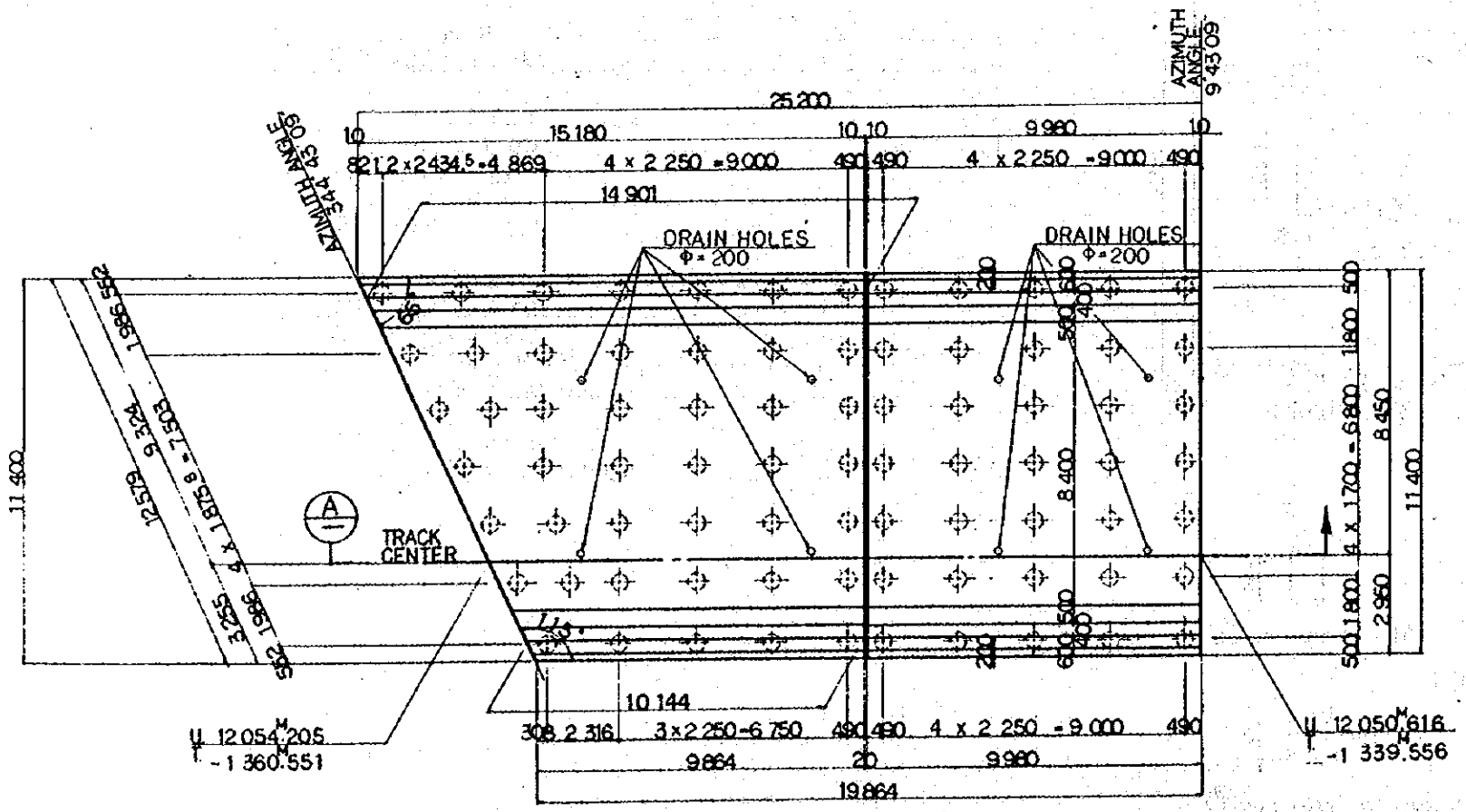
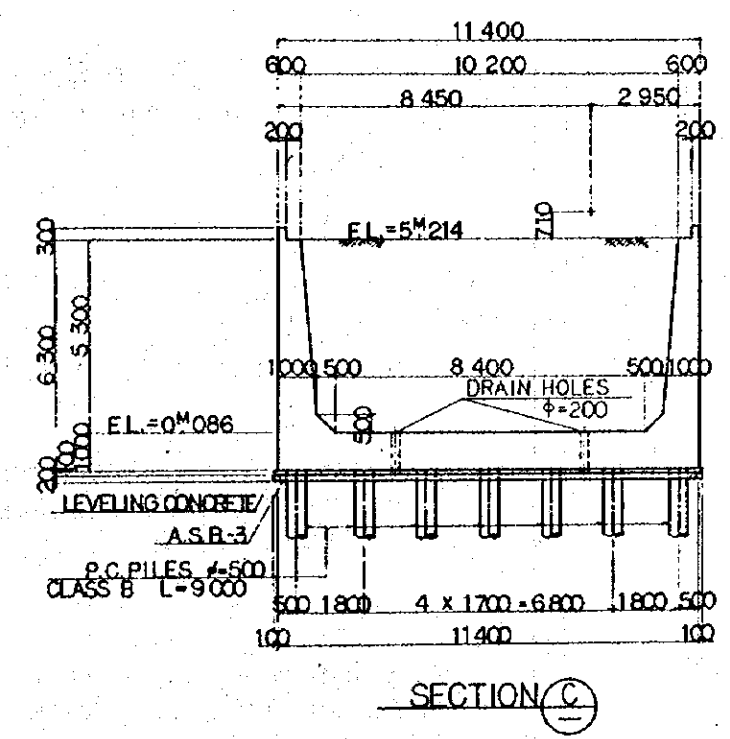
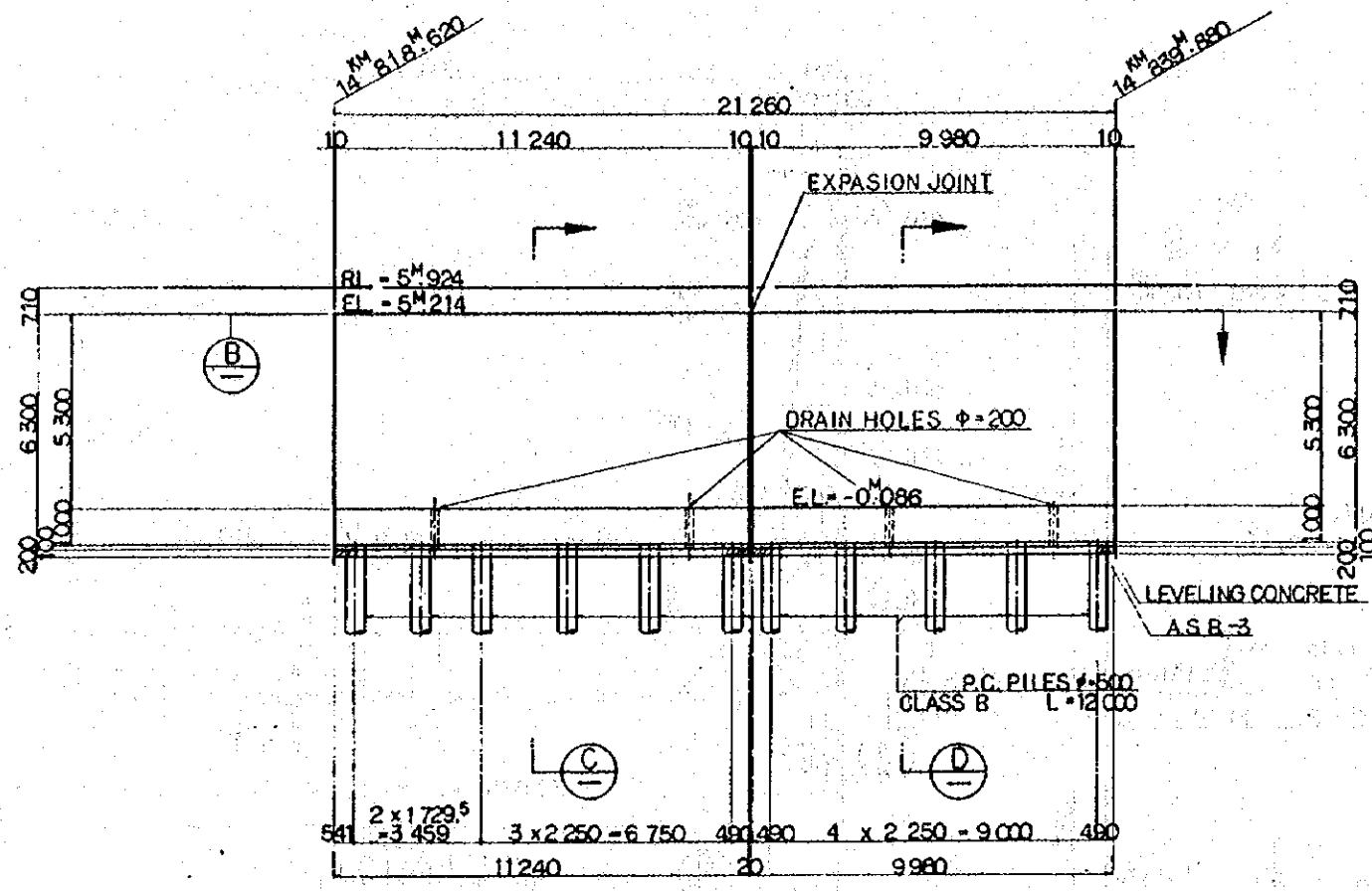


SECTION J



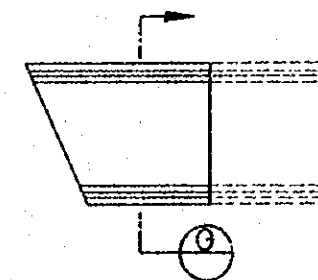
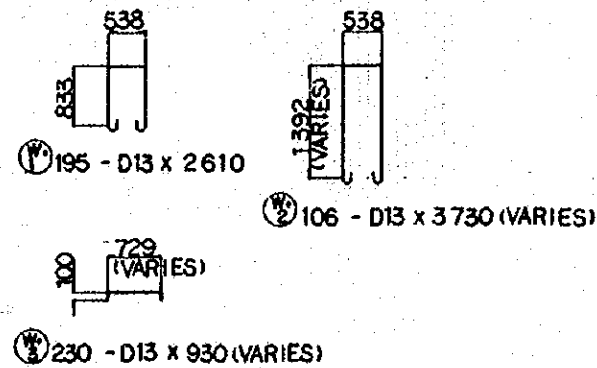
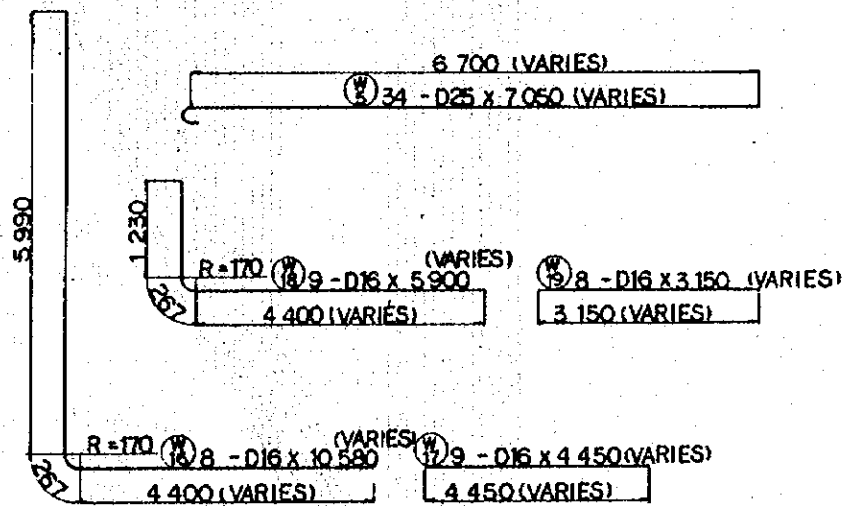
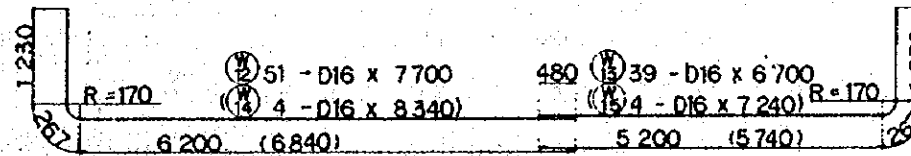
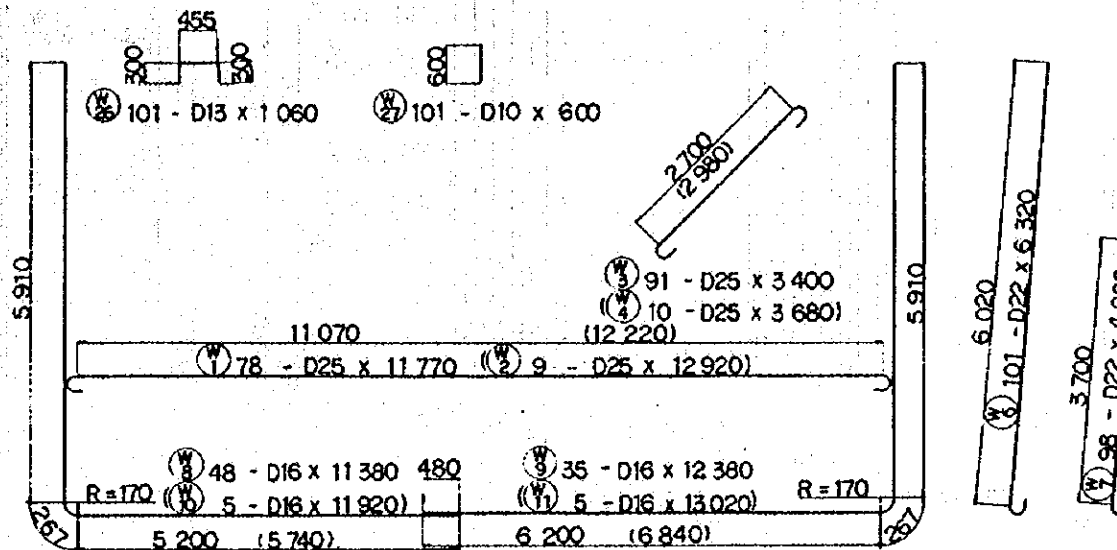
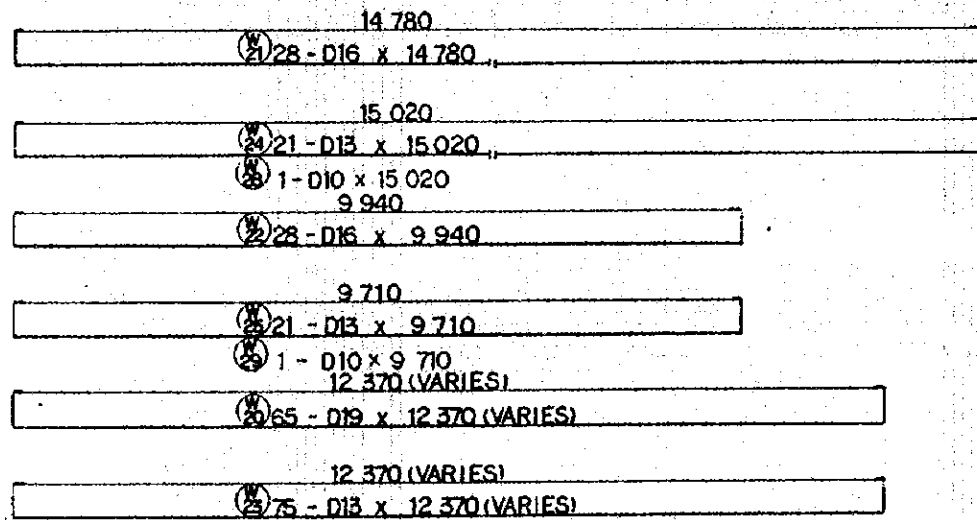
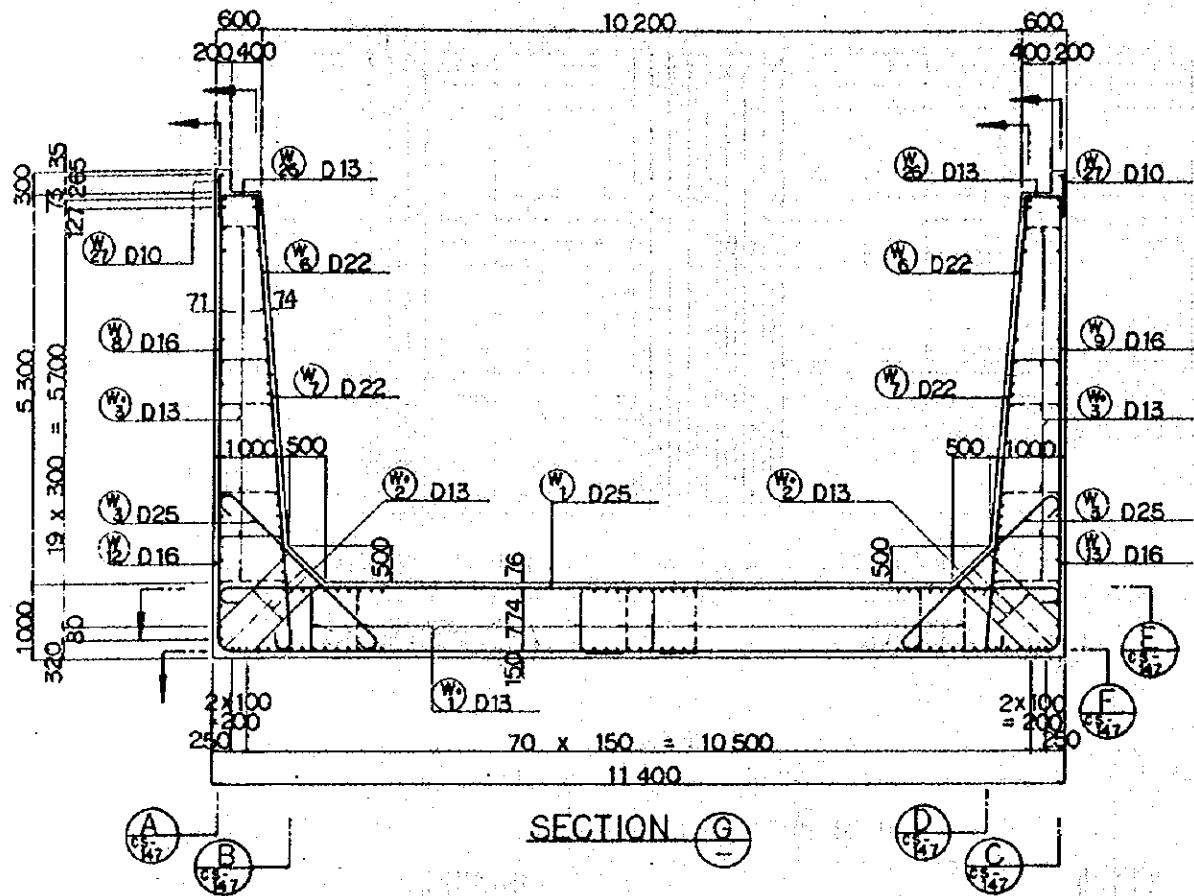
- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  - REFERENCE DRAWING FOR GENERAL VIEW : CS - 136, CS - 141, CS - 284.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG'84	S.S	M.Y	K.A	K.M	M.K
A	15FEB'84	S.S	M.Y	K.A	K.M	M.K
REVISIONS	DATE	DESIGNED	CHECKED	APPROVED	REVIEWED	SUBMITTED
ABUTMENT Ab05 BAR ARRANGEMENT (SHEET 3 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:50		DRAWING NO: CS-149				



- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  - REFERENCE DRAWING FOR BAR ARRANGEMENT : CS - 146  
CS - 147  
CS - 148

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG'84	s.s	m.y	K.A	K.M	m.k
A	05FEB'84	s.s	m.y	K.A	K.M	m.k
REVISORS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
U SHAPED RETAINING WALL U1 GENERAL VIEW						
PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:100		DRAWING NO: CS-145				



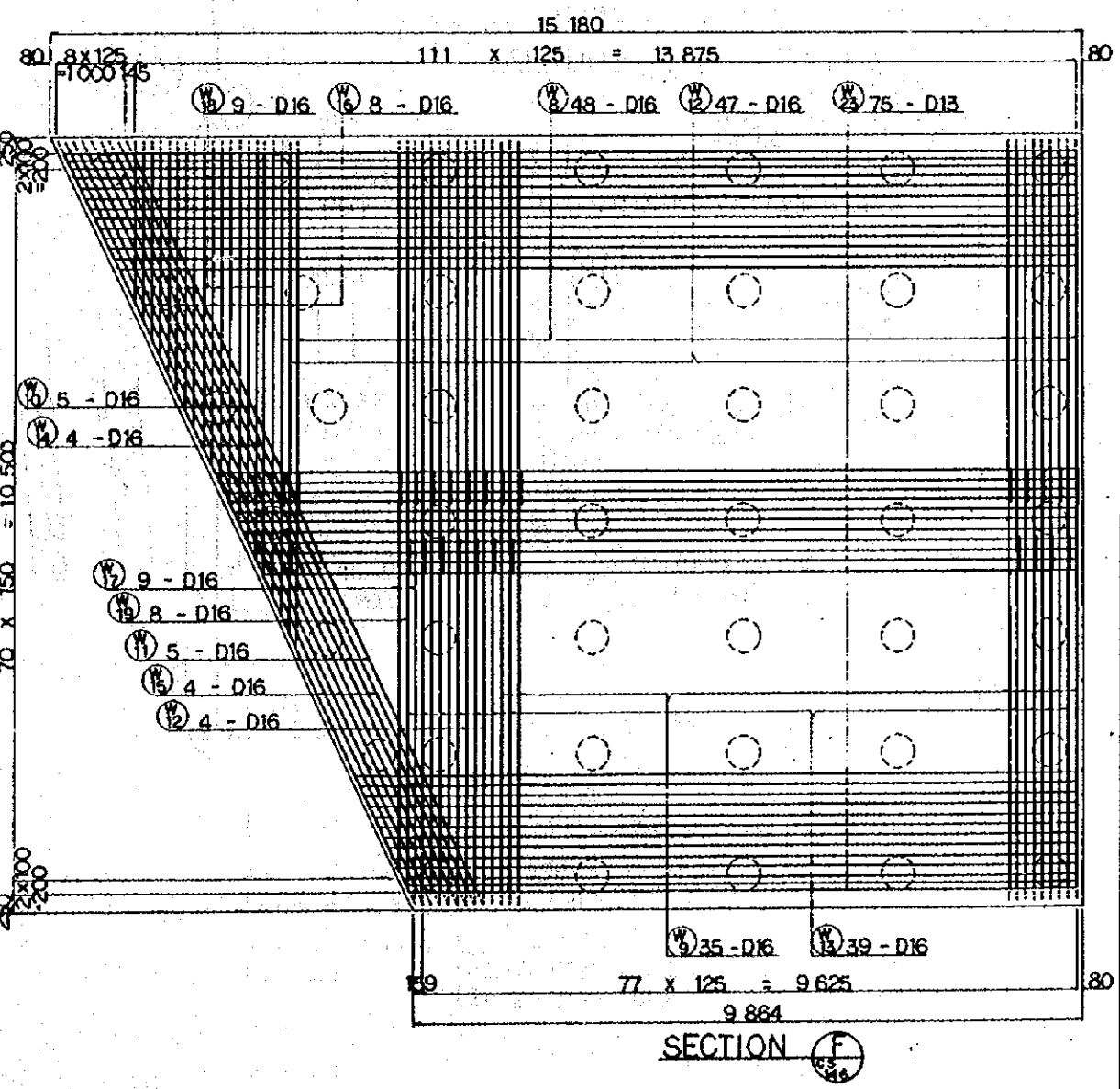
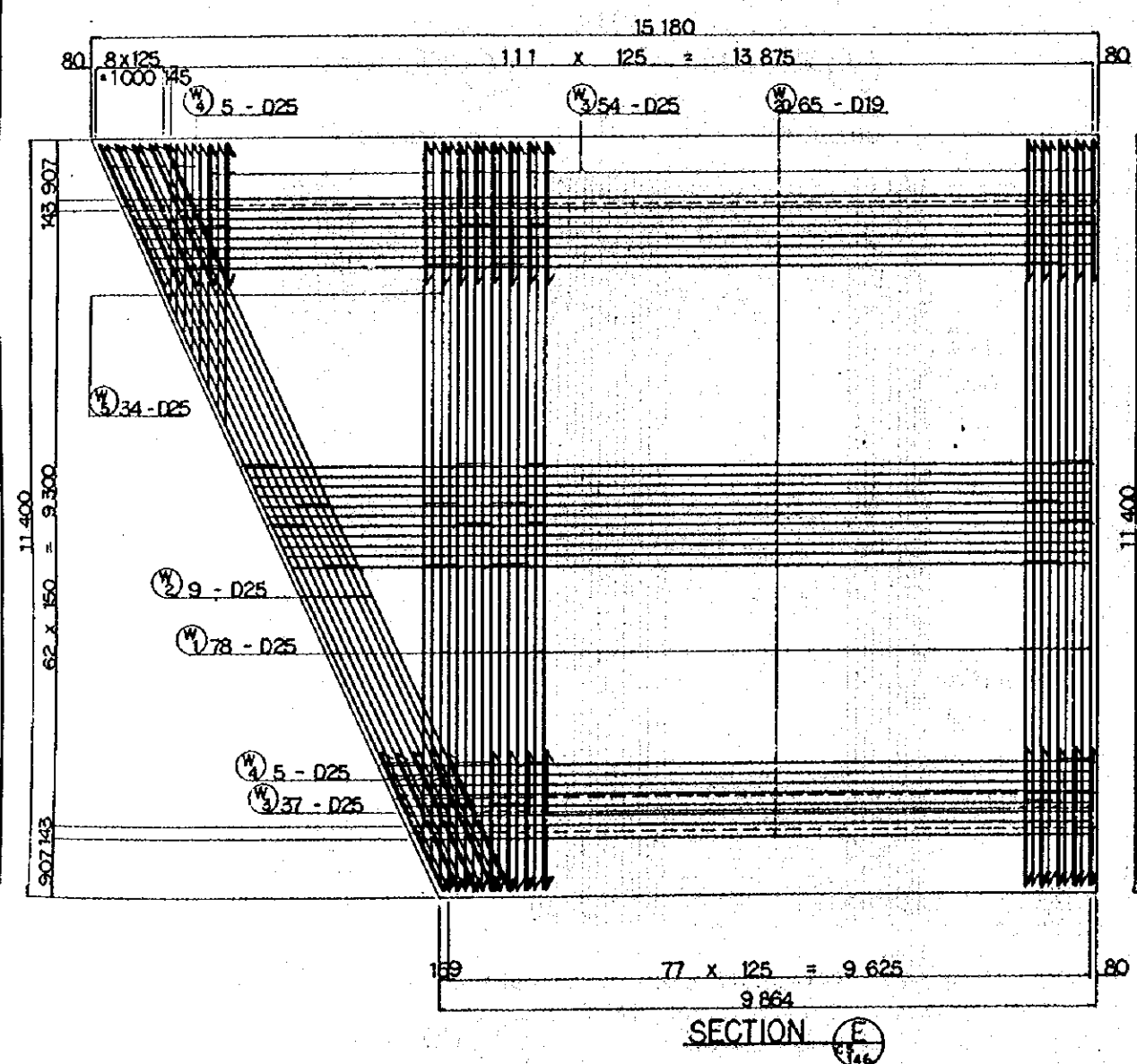
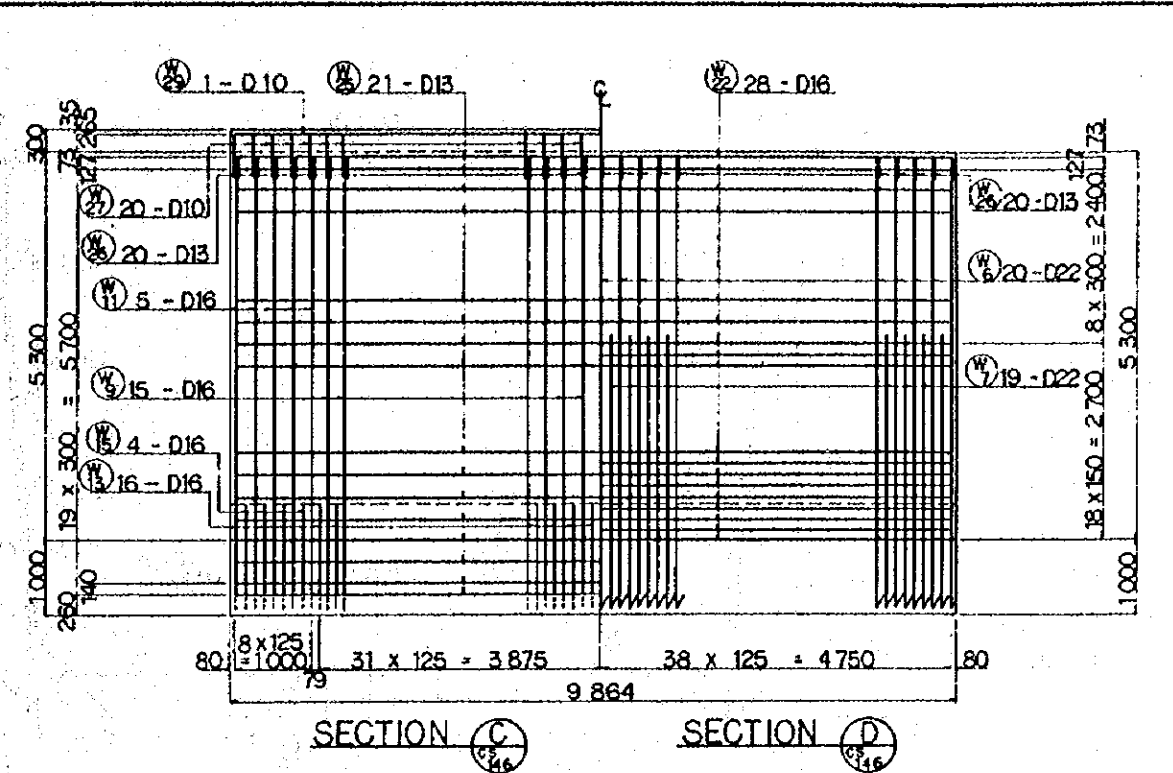
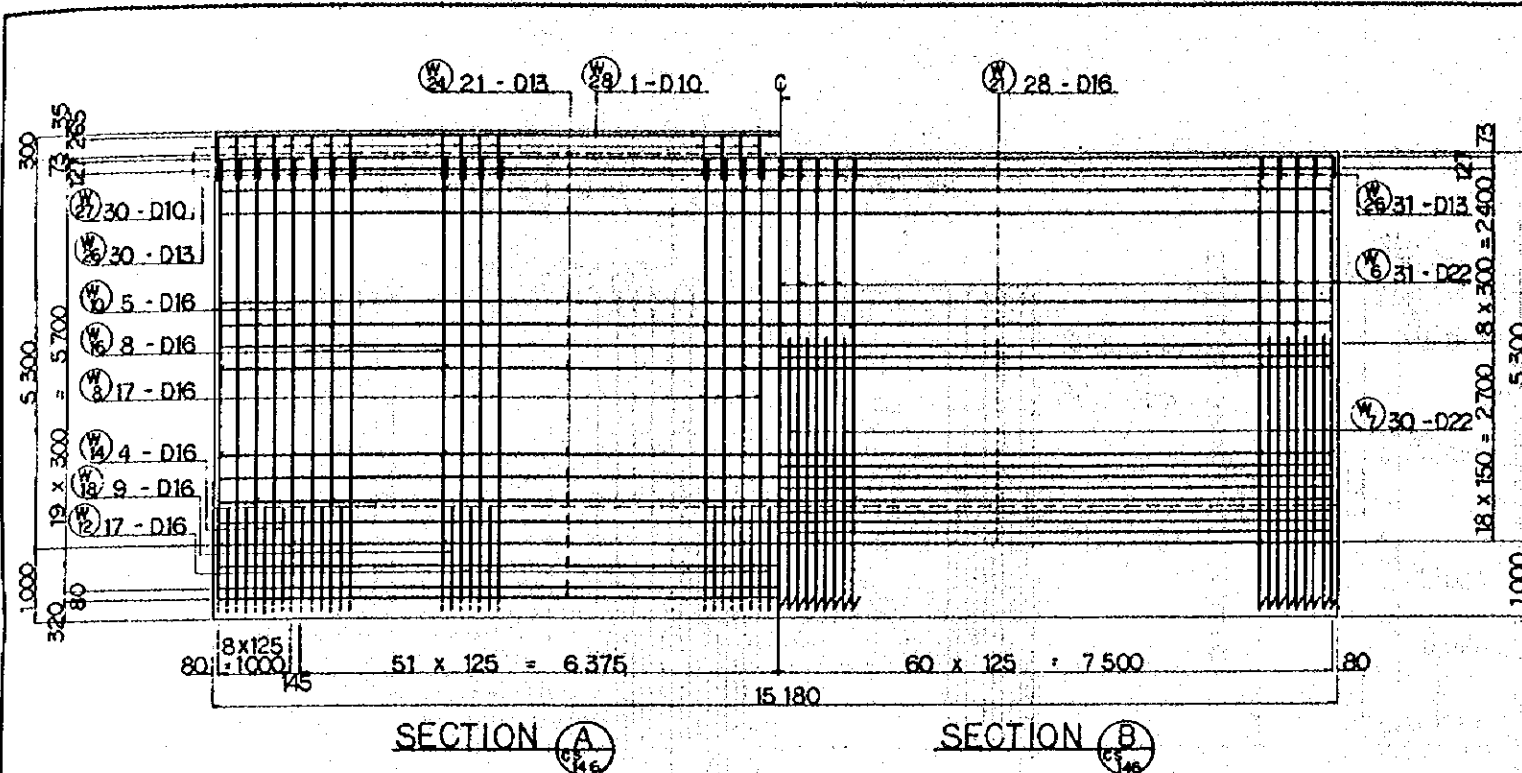
REMARKING DIAGRAM

NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW : CS - 145.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
REVISION	DATE	DESIGNED	CHECKED	APPROVED	EXTENDED	SUBMITTED
B	1 AUG '84	S.S.	M.Y.	K.A.	K.M.	A.K.
A	10 FEB '84	S.S.	M.Y.	K.A.	K.M.	A.K.
U SHAPED RETAINING WALL UI BAR ARRANGEMENT (SHEET 1 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:50		DRAWING NO: CS-146				





- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS - 145.

REPUBLIC OF INDONESIA  
 MINISTRY OF COMMUNICATIONS  
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT  
 CONSTRUCTION PROJECT

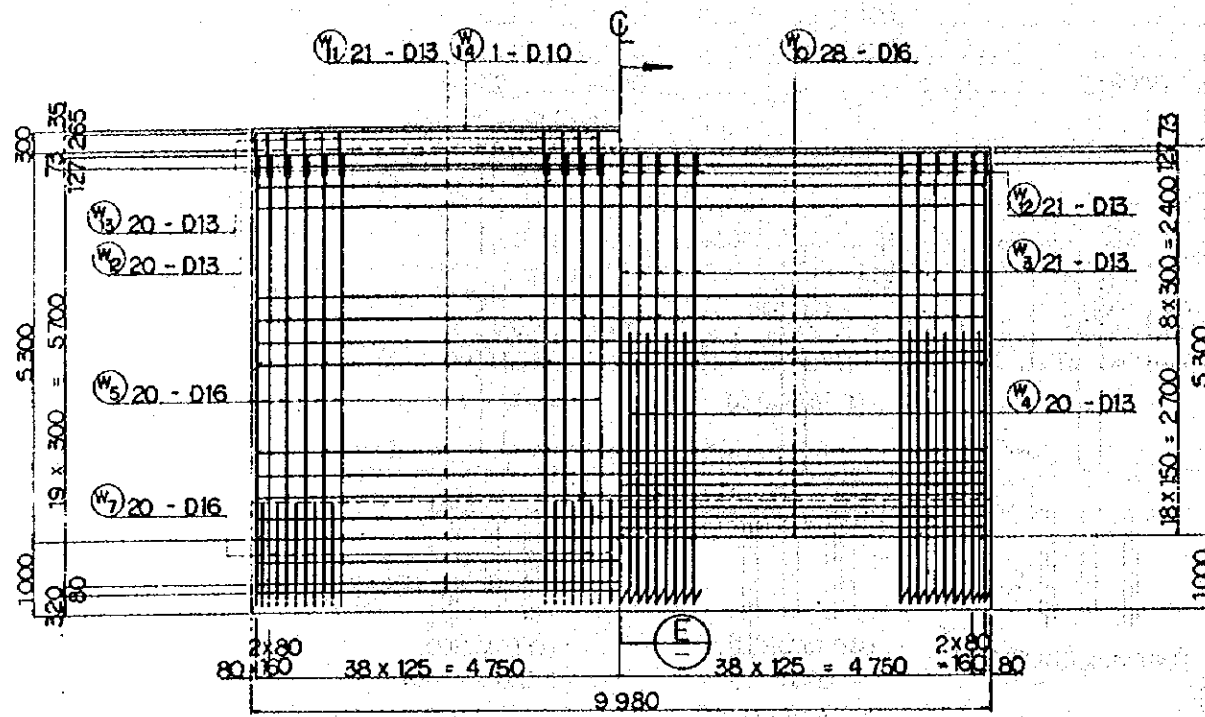
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1AUG/84	S.S.	M.Y.	K.A.	K.M.	K.K.
A	15FEB/84	S.S.	M.Y.	K.A.	K.M.	K.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

U SHAPED  
 RETAINING WALL UI  
 BAR ARRANGEMENT  
 (SHEET 2 OF 3)

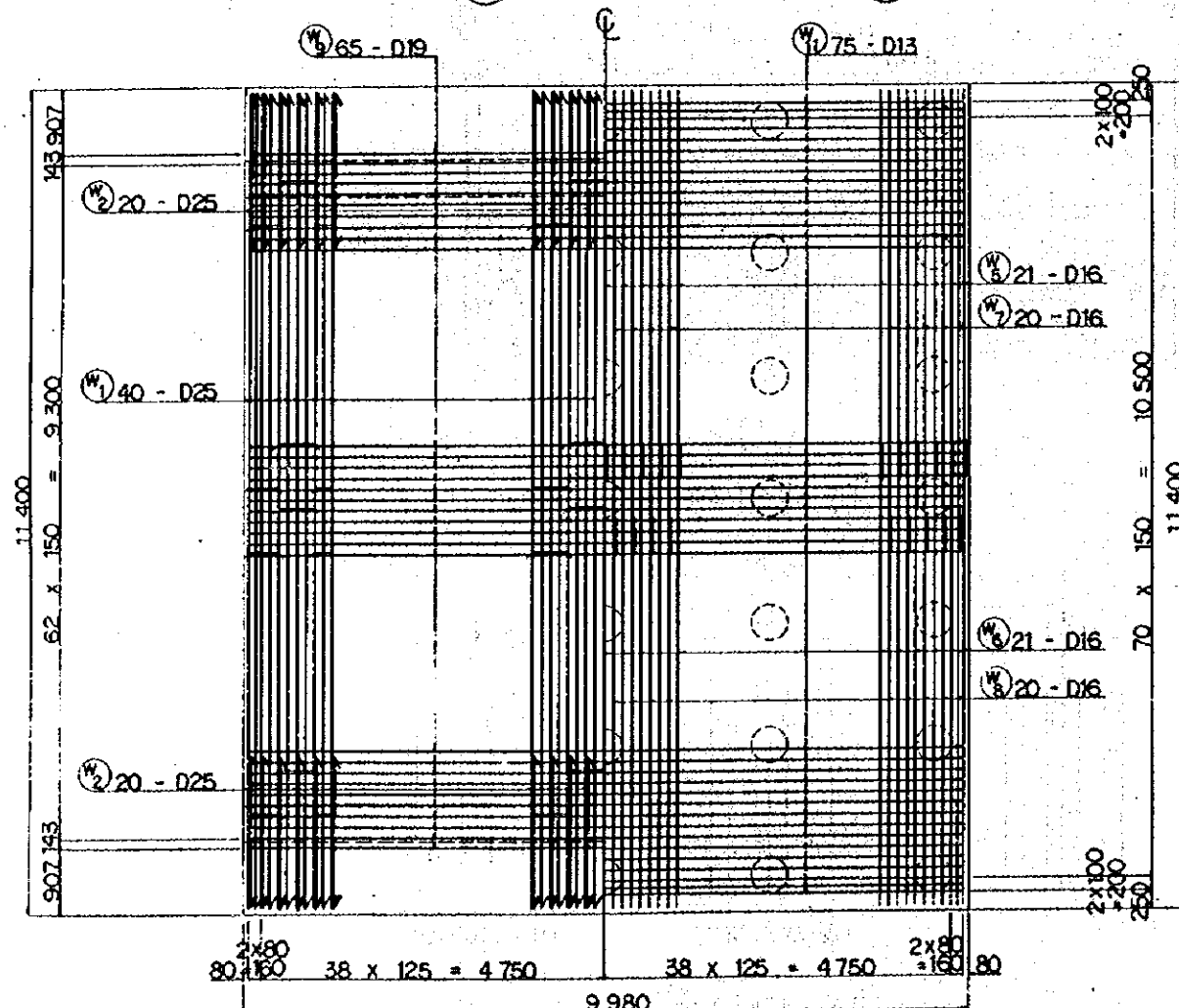
PACKAGE: I CIVIL AND ARCHITECTURAL WORK

SCALE: 1:50      DRAWING NO: CS-147



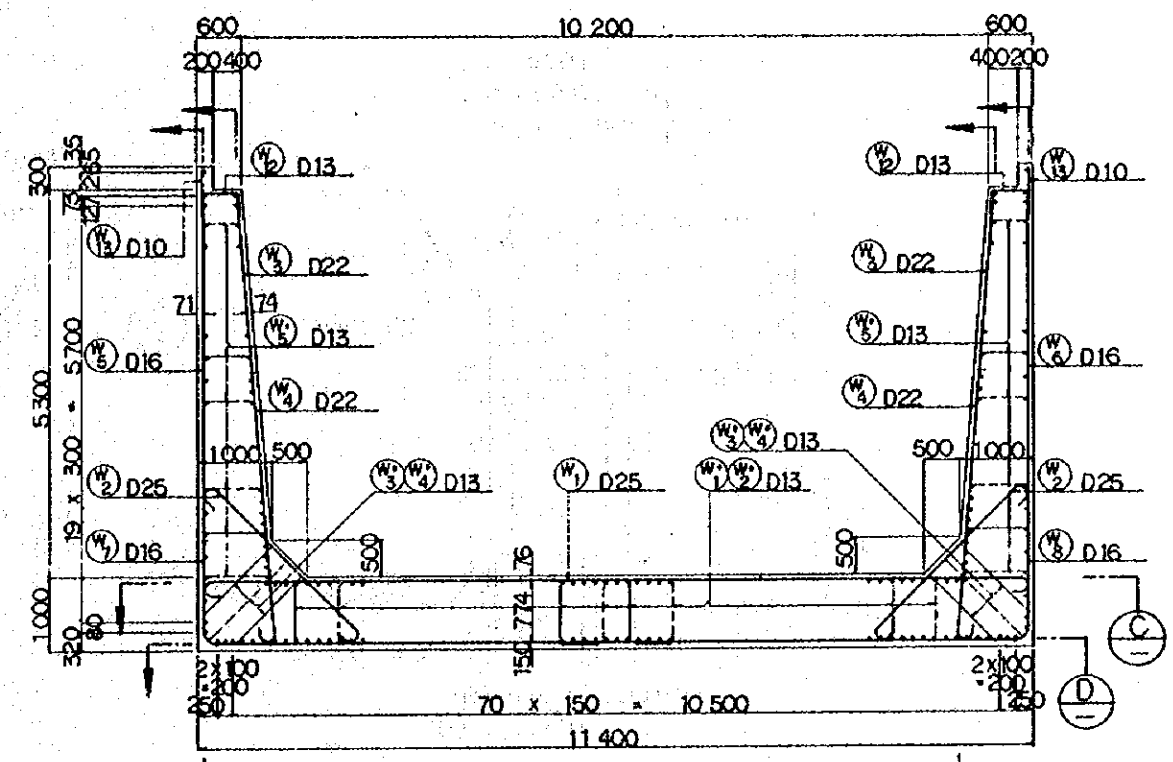
SECTION A

SECTION B

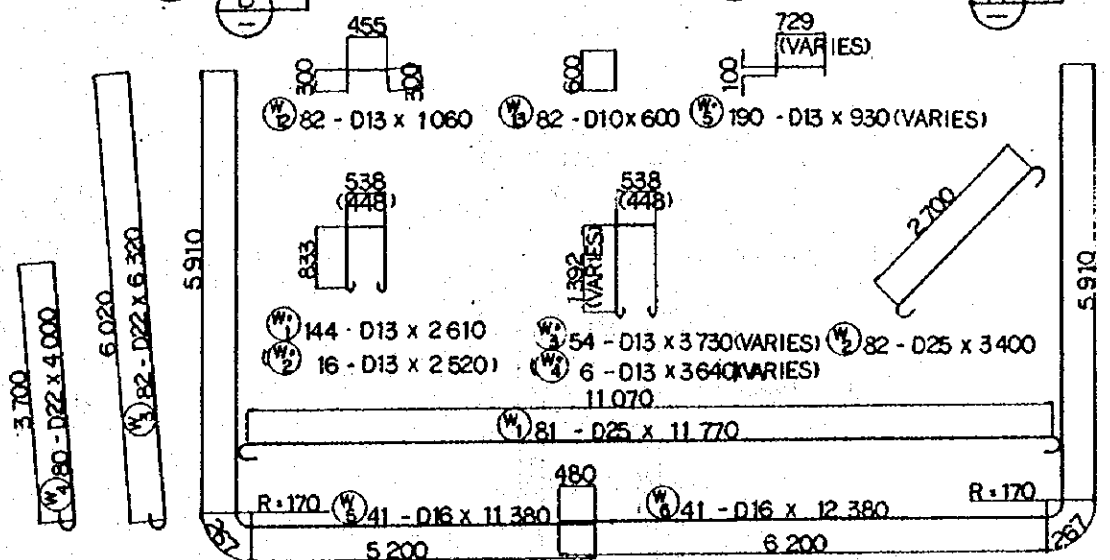


SECTION C

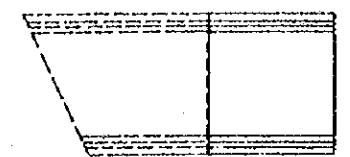
SECTION D



SECTION E



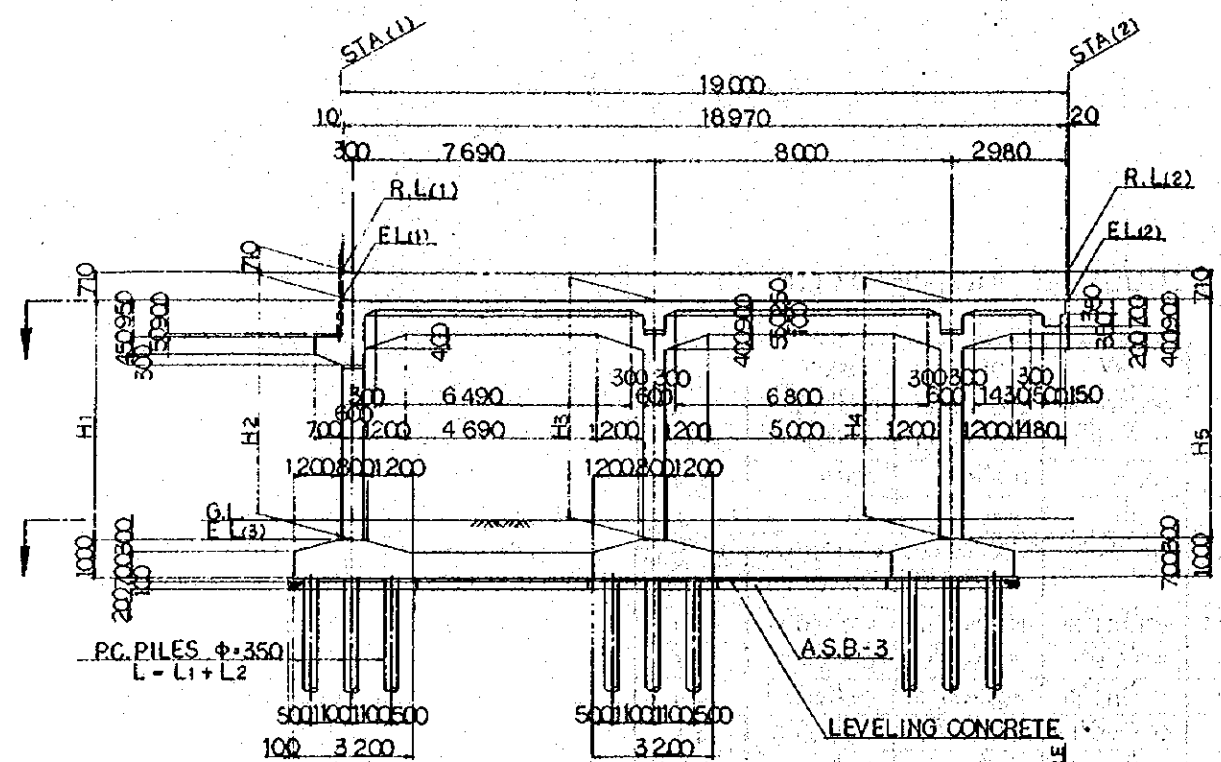
- 9.820  
65 - D19 x 9.820
- 9.820  
56 - D16 x 9.820
- 9.820  
117 - D13 x 9.820
- 2 - D10 x 9.820



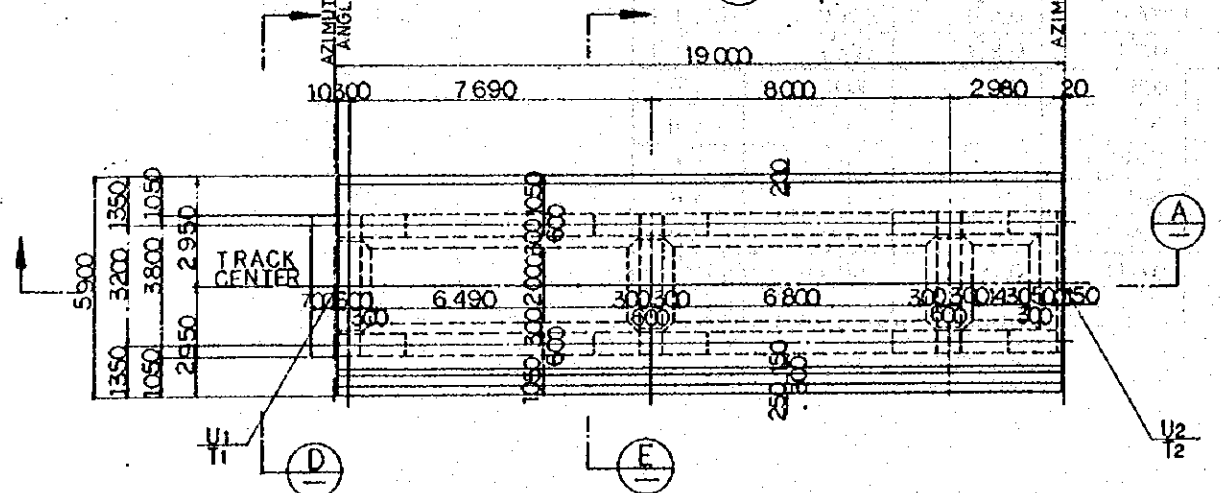
REMARKING DIAGRAM

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS - 145.

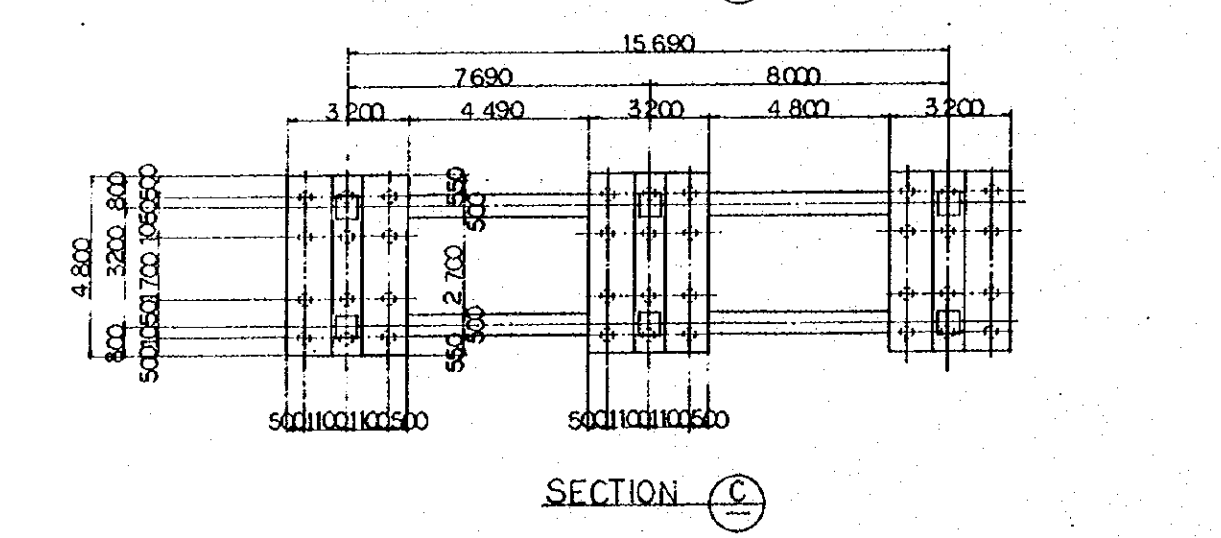
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
REVISION	DATE	DESIGNED	CHECKED	REVIEWED	SUBMITTED
E	1 AUG '84	S.S.	M.Y.	K.A.	K.M.
A	15 FEB '84	S.S.	M.Y.	K.A.	K.M.
U SHAPED RETAINING WALL UI BAR ARRANGEMENT (SHEET 3 OF 3)					
PROGRAM: I CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:50	DRAWING NO: CS-148				



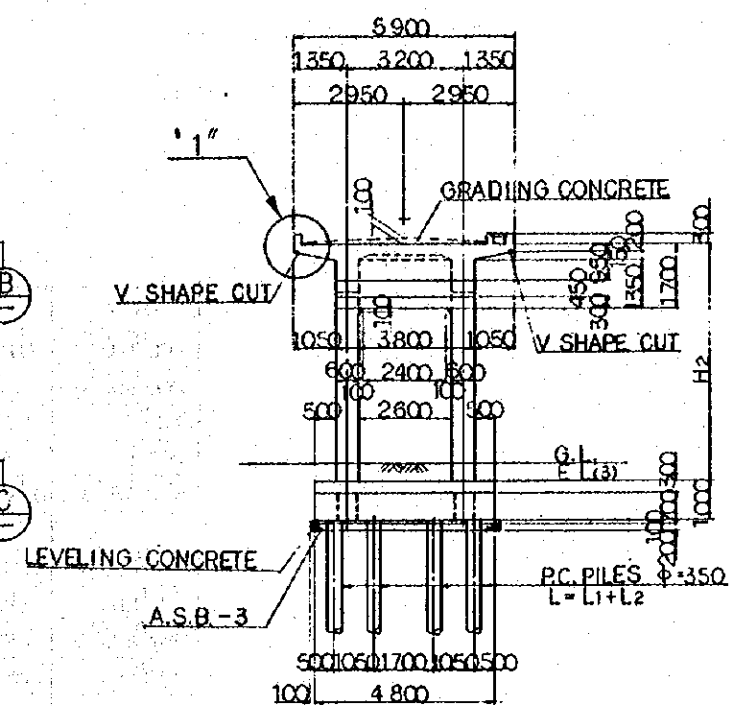
SECTION A



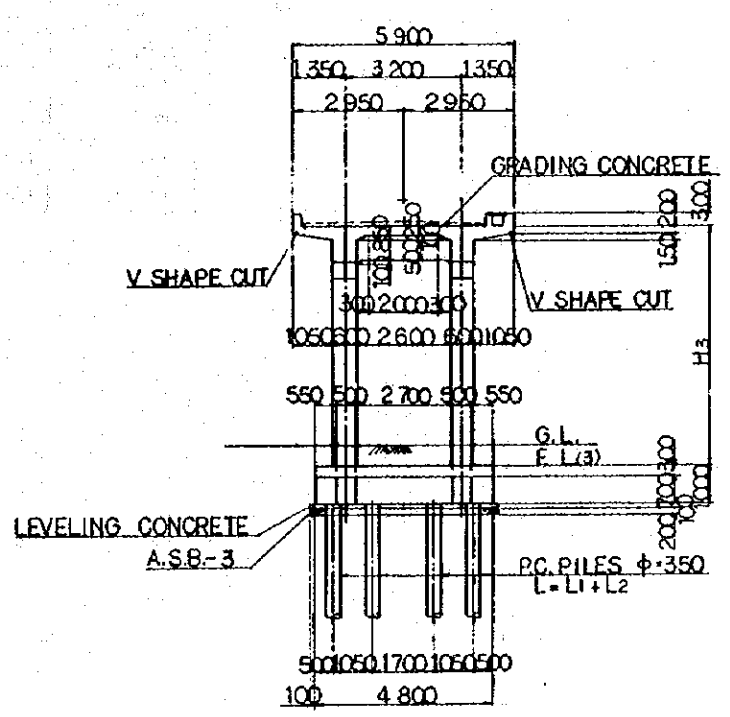
SECTION B



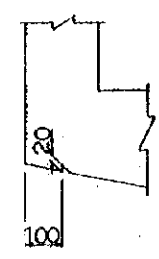
SECTION C



SECTION D



SECTION E



DETAIL 1  
SCALE 1:10

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-151~157
  3. TYPES OF PC. PILE
    - 3.1 BOTTOM SURFACE OF FOOTING
    - 3.2 PC. PILE CLASS B.
    - 3.3 PC. PILE CLASS A.
  4. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1AUG'84	H.S.A.O	K.A.K.M	M.K	
A	15FEB'84	M.S	A.O	K.A.K.M	M.K
REVISION	DATE	DESIGNED	DRAWN	CHECKED	SUBMITTED
VIADUCT V008, V017, V047, V085 GENERAL VIEW (SHEET 1 OF 2)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:100	CS-149				

### DIMENSION SCHEDULE

	V008	V010	V017	V047	V085
STA.(1)	13 <sup>M</sup> 689.000	13 <sup>M</sup> 765.000	14 <sup>M</sup> 202.000	15 <sup>M</sup> 649.000	17 <sup>M</sup> 041.000
STA.(2)	13 <sup>M</sup> 708.000	13 <sup>M</sup> 745.000	14 <sup>M</sup> 183.000	15 <sup>M</sup> 668.000	17 <sup>M</sup> 022.000
R.L.(1)	8.470	8.470	8.960	8.724	8.754
R.L.(2)	'	'	8.903	'	8.706
AZIMUTH ANGLE(θ)	350° 29' 55.58	350° 29' 55.58	2° 29' 30.68	1° 05' 02.00	345° 30' 45.40
DO (Q2)	'	'	'	'	'
U <sub>1</sub>	12 <sup>M</sup> 082.577	12 <sup>M</sup> 094.904	12 <sup>M</sup> 119.106	11 <sup>M</sup> 998.631	12 <sup>M</sup> 064.127
T <sub>1</sub>	-2 <sup>M</sup> 482.419	-2 <sup>M</sup> 407.425	-1 <sup>M</sup> 972.658	-533.731	-848.914
U <sub>2</sub>	12 <sup>M</sup> 085.659	12 <sup>M</sup> 091.823	12 <sup>M</sup> 119.933	11 <sup>M</sup> 998.266	12 <sup>M</sup> 059.374
T <sub>2</sub>	-2 <sup>M</sup> 463.670	-2 <sup>M</sup> 426.173	-1 <sup>M</sup> 991.640	-514.734	-830.518
E.L.(1)	7.760	7.760	8.250	8.014	8.044
E.L.(2)	'	'	8.193	'	7.996
E.L.(3)	0.700	0.700	0.700	0.194	0.400
G.L.	1.300	1.300	1.300	0.700	0.900
H <sub>1</sub>	7060	7060	7550	7820	7644
H <sub>2</sub>	'	'	7541	'	7643
H <sub>3</sub>	'	'	7517	'	7624
H <sub>4</sub>	'	'	7493	'	7604
H <sub>5</sub>	'	'	7492	'	7596
P.C. PILES	11 000	11 000	11 000	8 000	8 000
P.C. PILES	—	—	—	7 000	14 000

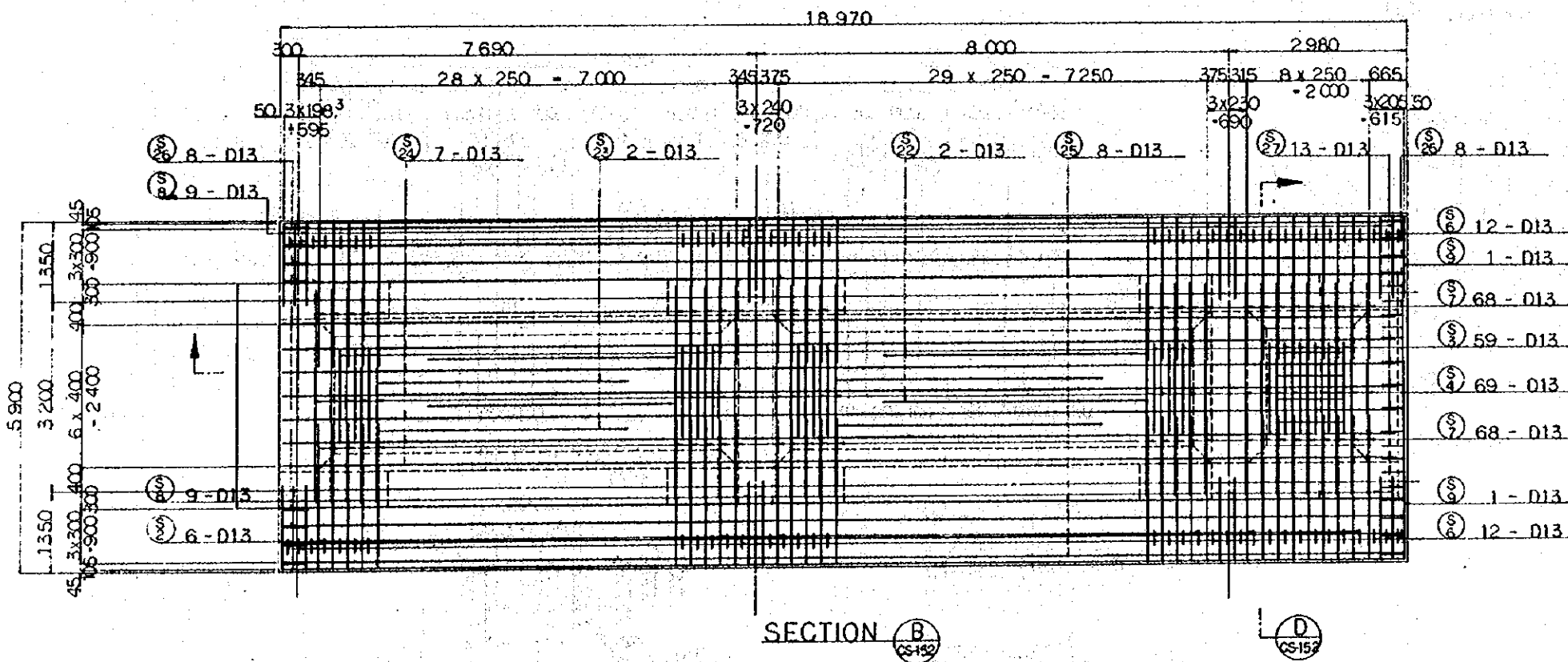
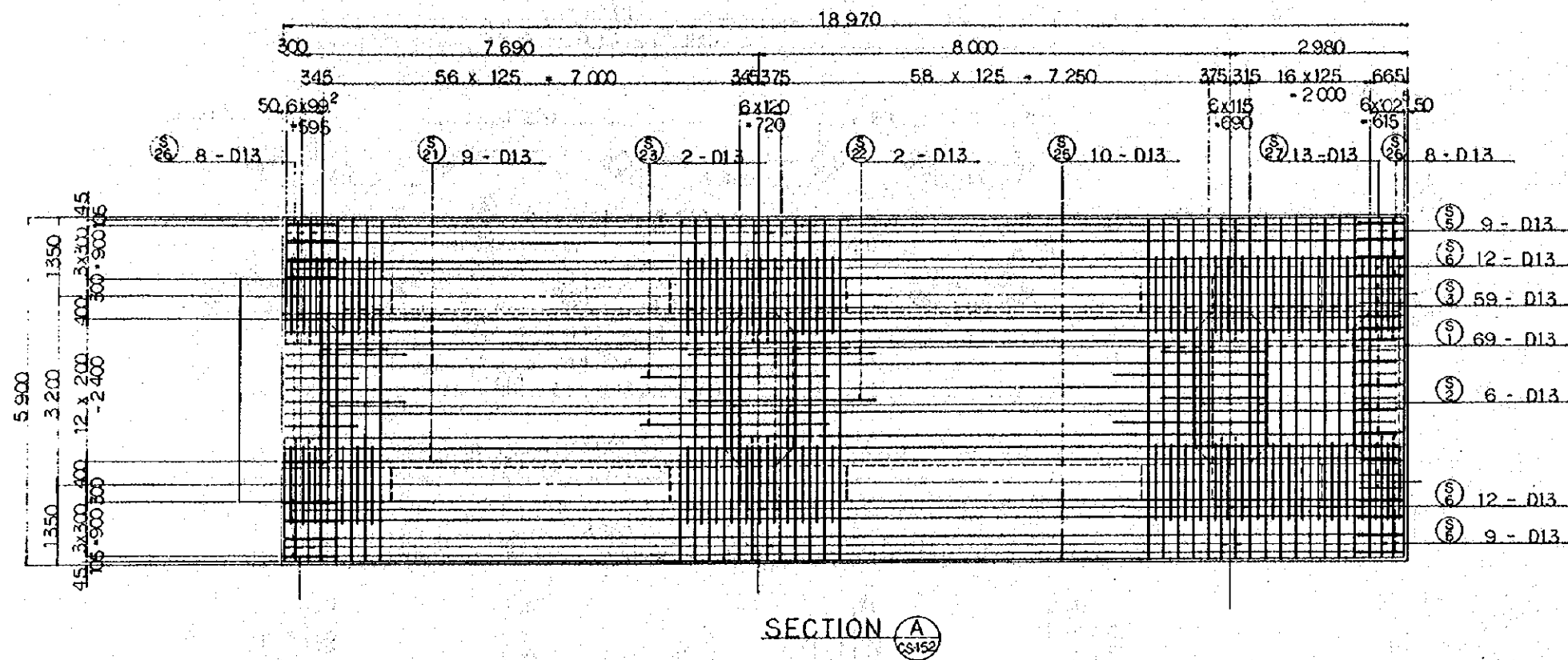
### DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-18
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION K1=0.1 IN VERTICAL DIRECTION K1=0
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 80 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD-38
	CONCRETE OF DESIGN CRITERIA STRENGTH	σ <sub>ck</sub> = 240 kg/cm <sup>2</sup>
	MAX SIZE OF COARSE AGGREGATE	25mm

#### NOTES :

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW : CS-149.

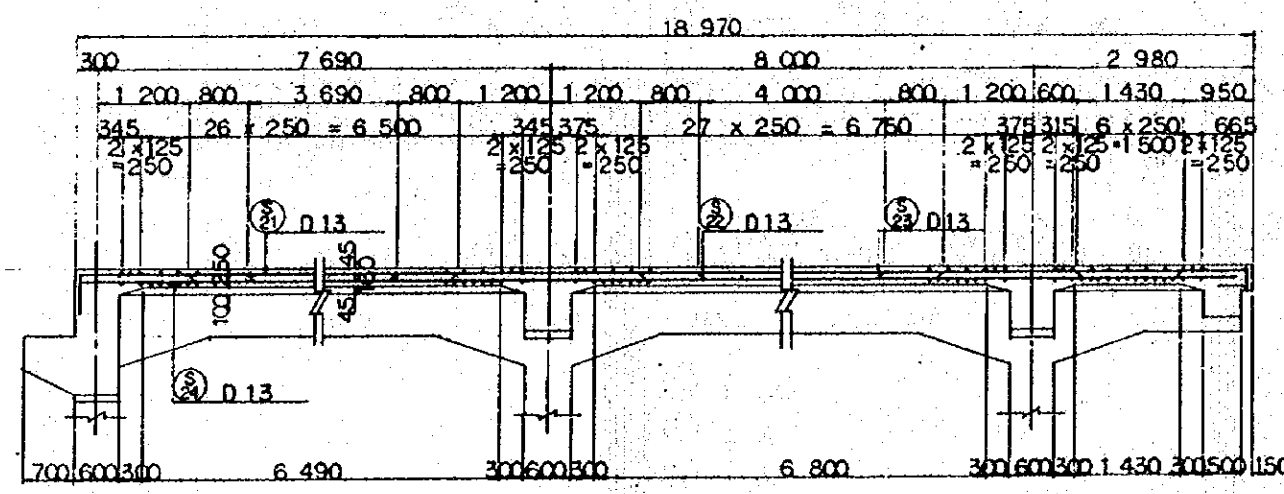
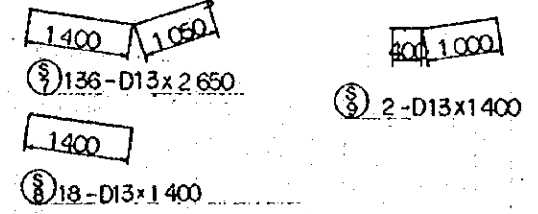
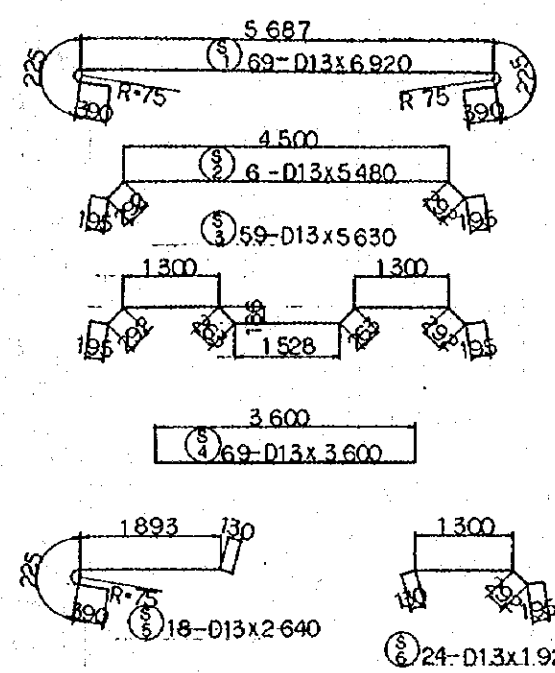
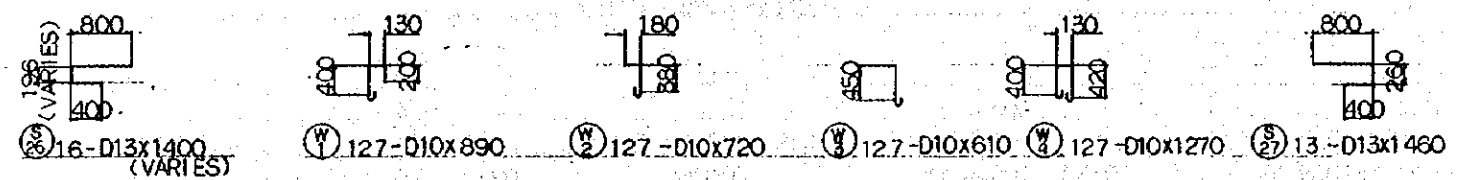
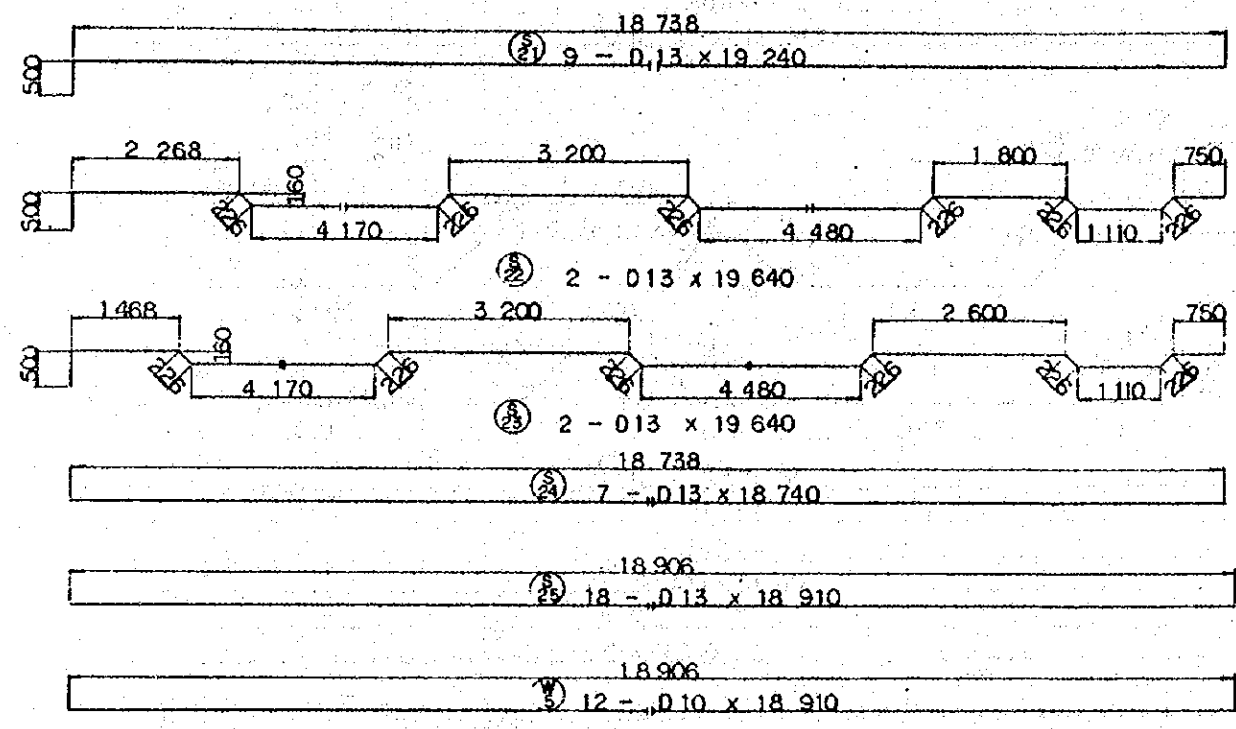
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG. '84	MS	AO	KA	KM	AK
A	1984.08	MS	AP	KA	KM	AK
REVISION	DATE	DESIGNED	CHECKED	REVIEWED	SUBMITTED	
VIADUCT V008, V010, V017, V047, V085 GENERAL VIEW (SHEET 2 OF 2)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: CS-150						



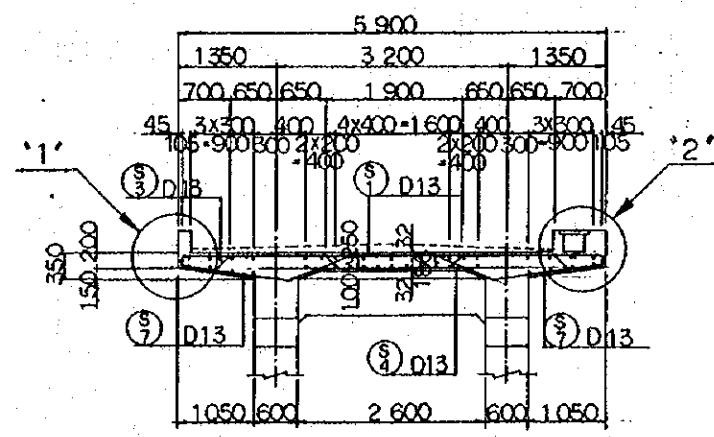
NOTES :

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW : CS-149.

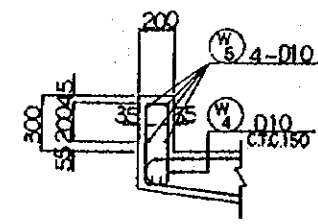
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG'84	14.5	AD	KA	KM	AK
A	14AUG'84	14.5	AD	KA	KM	AK
REVISIONS	DATE	DESIGNED	CHECKED	DRAWN	REVIEWED	SUBMITTED
VIADUCT V047 BAR ARRANGEMENT (SHEET 1 OF 7)						
PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:50		DRAWING NO: CS-151				



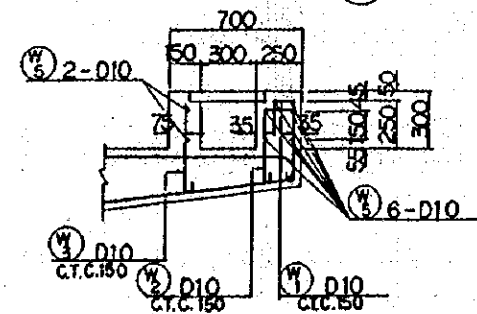
SECTION C  
CS-151



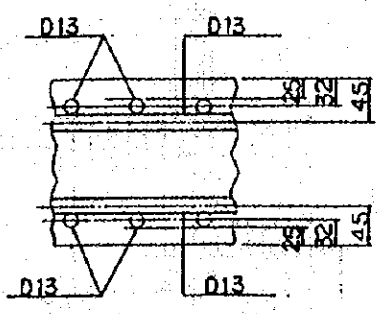
SECTION D  
CS-151



DETAIL "1"  
SCALE 1:20



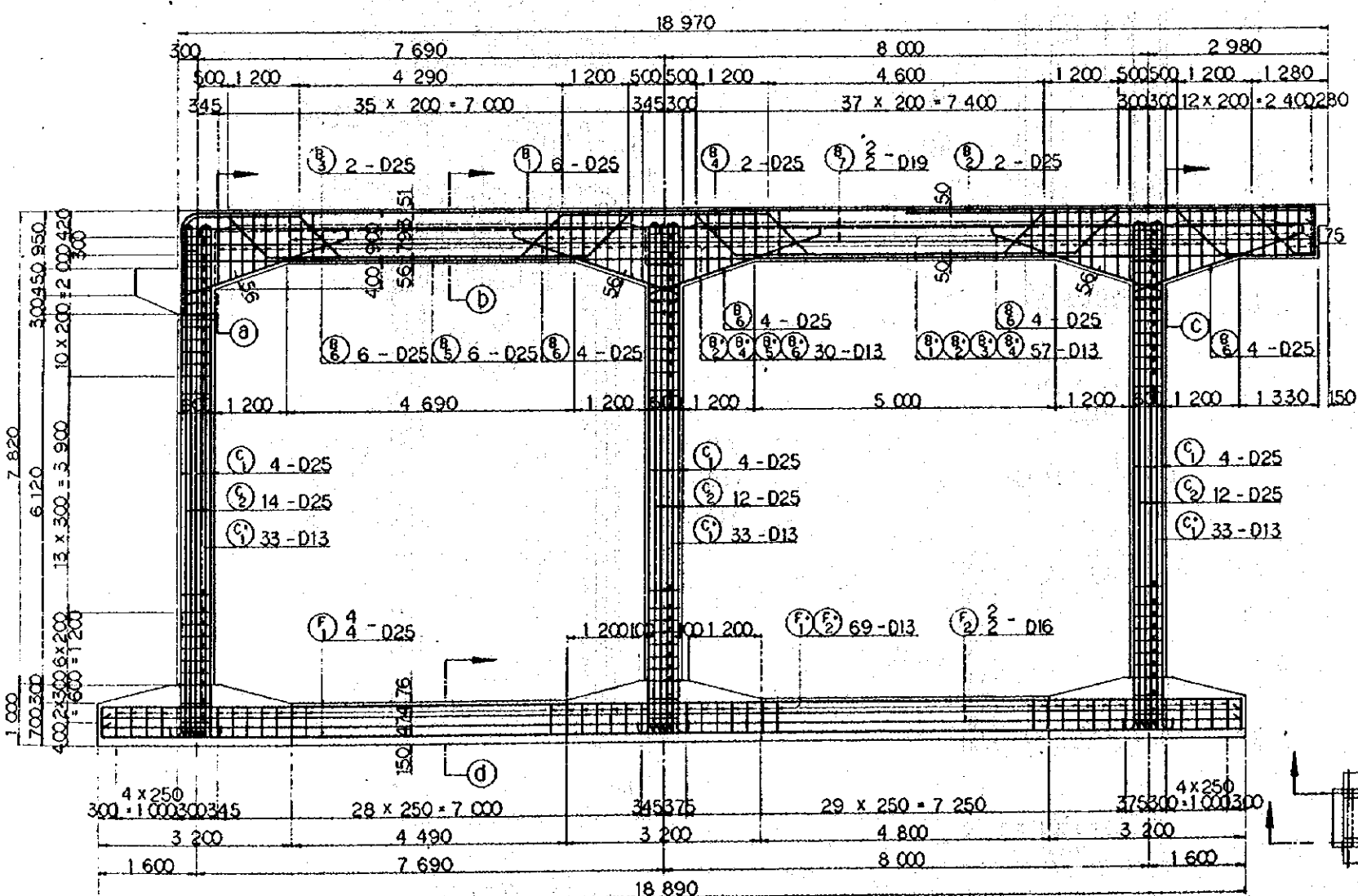
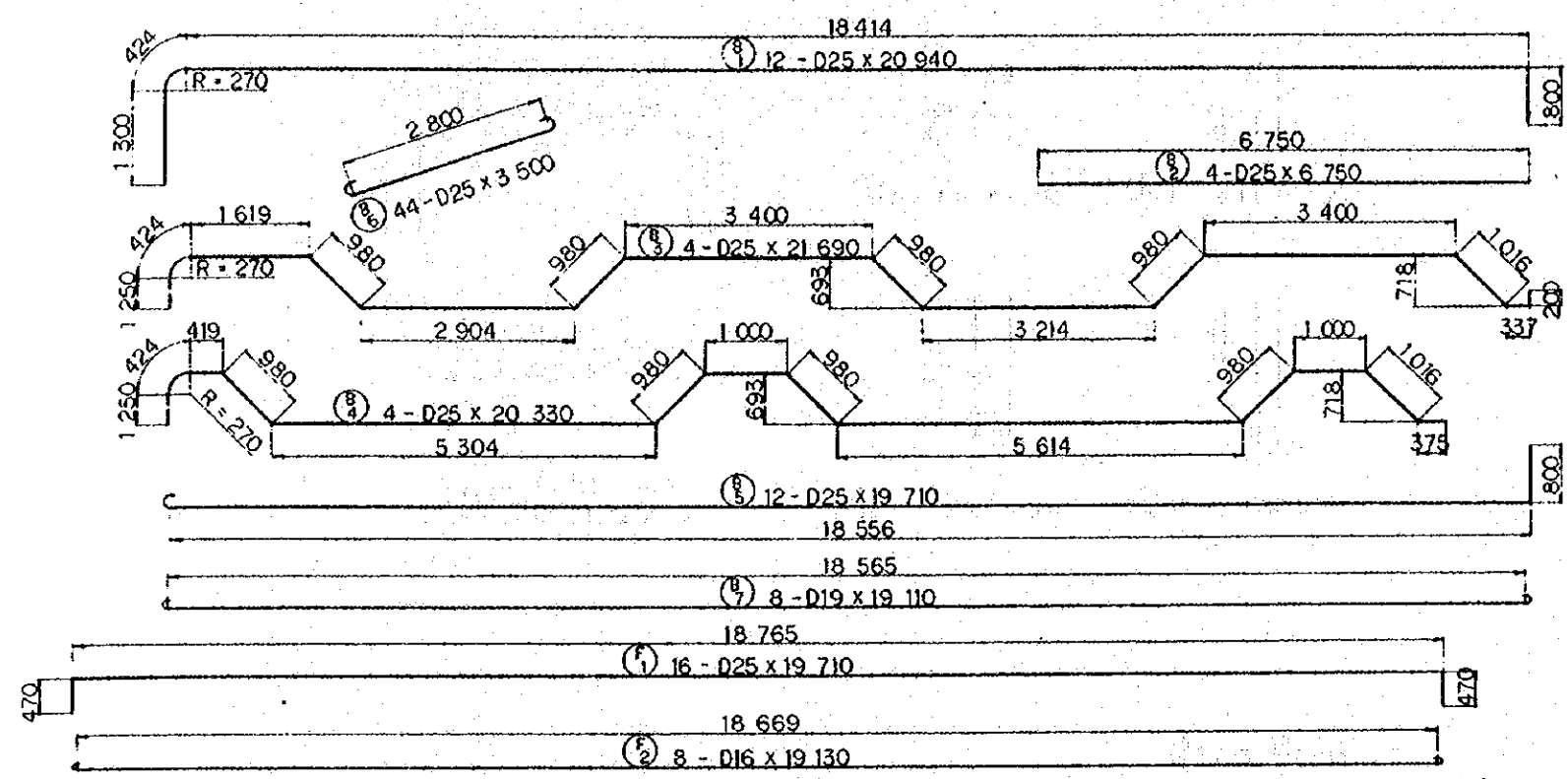
DETAIL "2"  
SCALE 1:20



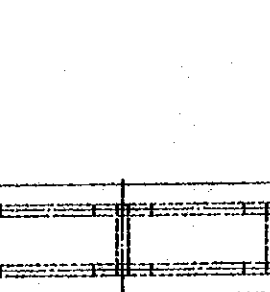
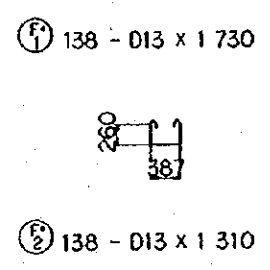
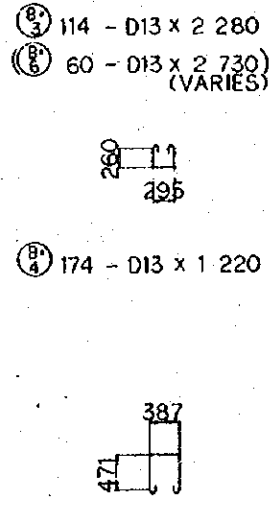
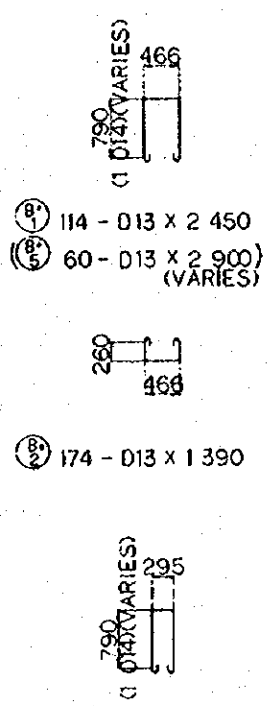
CONCRETE COVER

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS-149

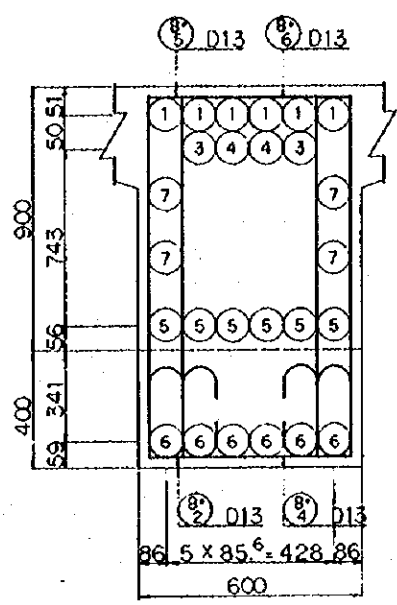
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1AUG'84	M.S.	A.O.	K.K.	K.M.
A	15FEB'84	M.S.	A.O.	K.K.	K.M.
REVISION	DATE	DESIGNED	DRAWN	CHECKED	SUBMITTED
VIADUCT V047 BAR ARRANGEMENT (SHEET 2 OF 7)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:50,20	CS-152				



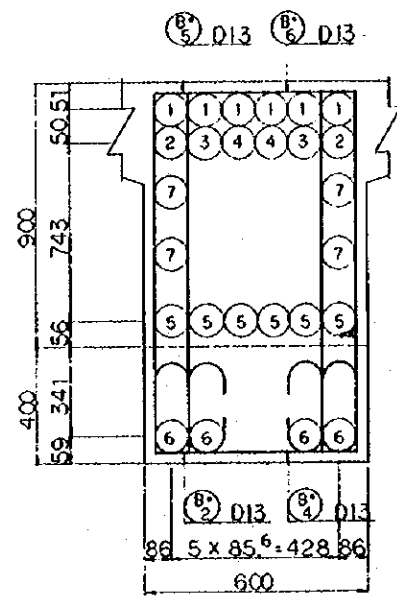
SECTION A-A



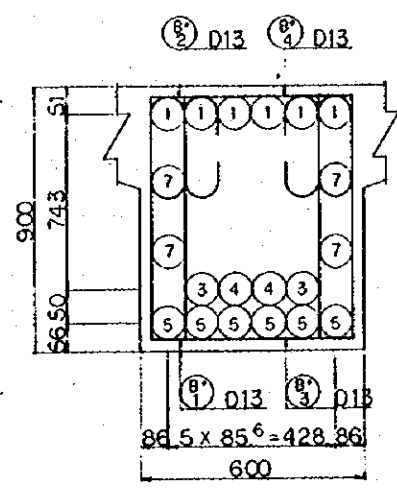
REMARKING DIAGRAM



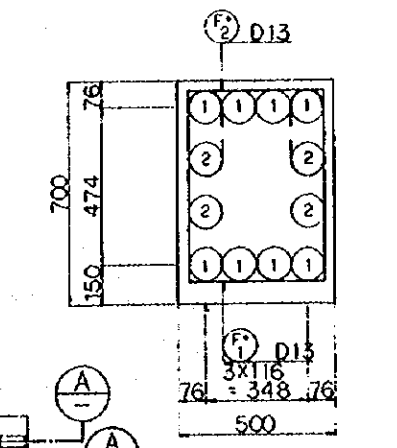
SECTION A-A



SECTION C-C



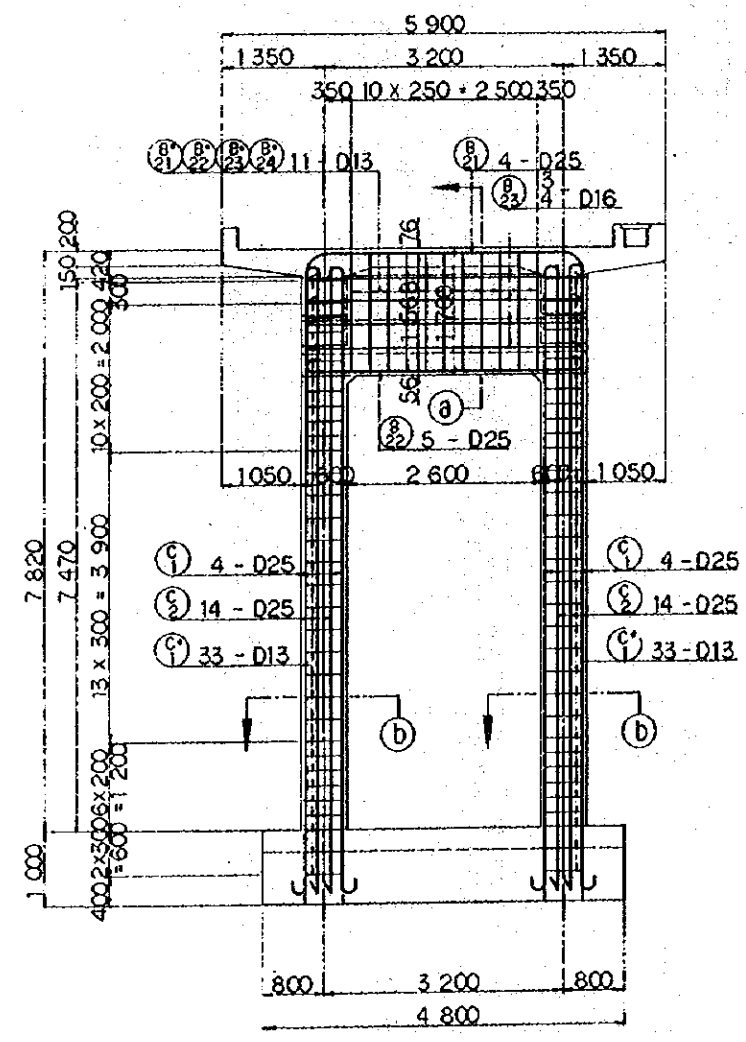
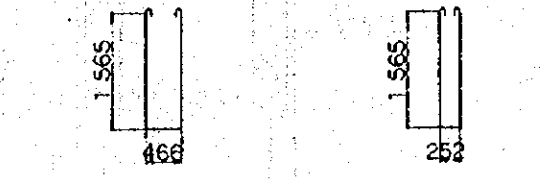
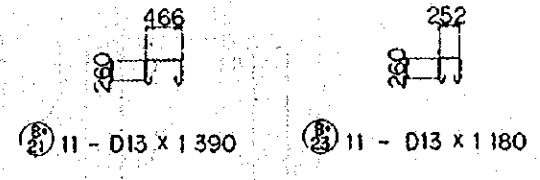
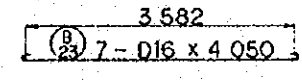
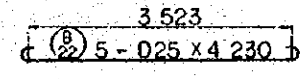
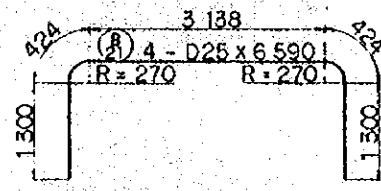
SECTION B-B



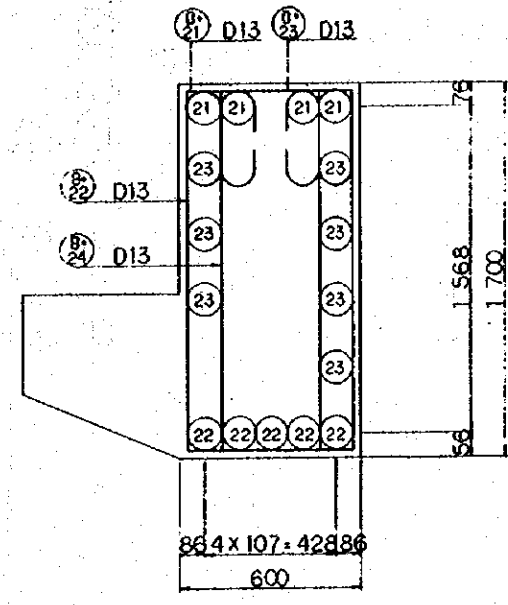
SECTION D-D

- NOTES :
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS-149.

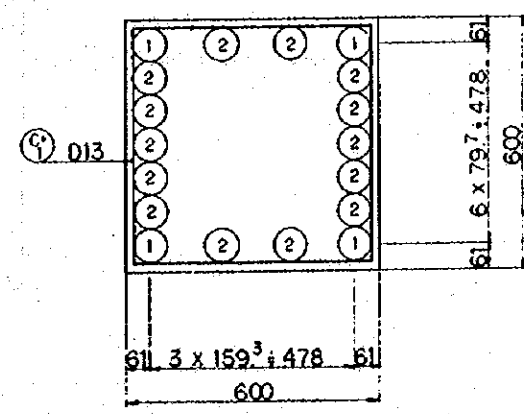
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS - DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	MS	AD	K.A.	K.M.	M.K.
A	SEP '84	MS	AD	K.A.	K.M.	M.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
VIADUCT V047 BAR ARRANGEMENT (SHEET 3 OF 7)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: 1 : 50		DRAWING NO: CS - 153				



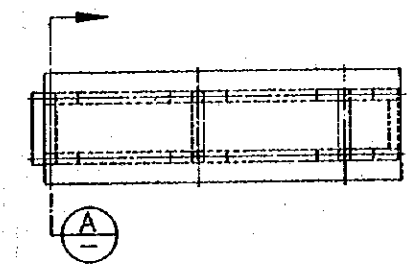
SECTION A-A



SECTION a-a



SECTION b-b

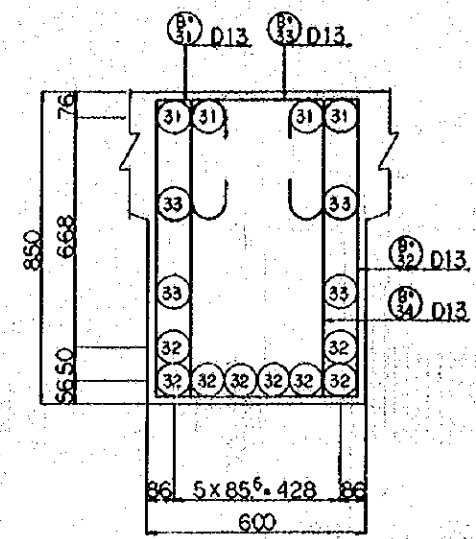
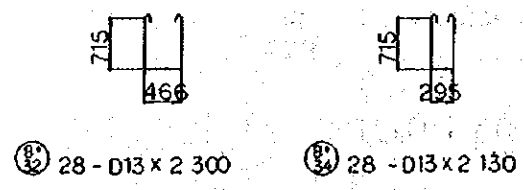
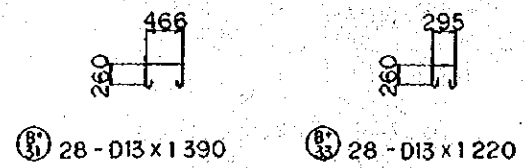
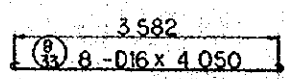
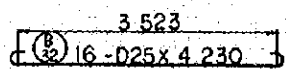
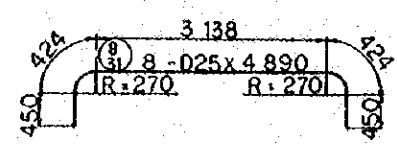


REMARKING DIAGRAM

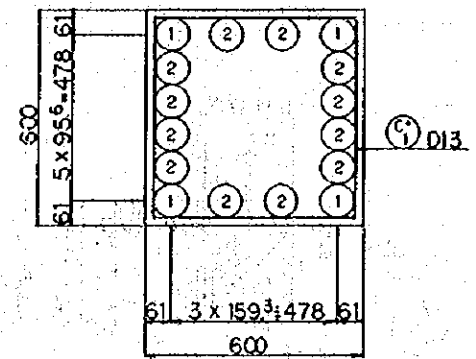
- NOTES :
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS-149.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG 84	MS	AD	KA	VM	mk
A	10 FEB 84	MS	AD	KA	VM	mk
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
VIADUCT V047 BAR ARRANGEMENT (SHEET 4 OF 7)						
PACKAGE : I CIVIL AND ARCHITECTURAL WORK						
SCALE : 1 : 50		DRAWING NO. : CS-154				

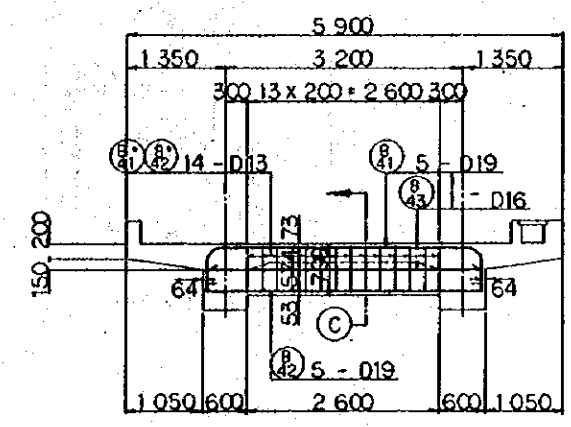
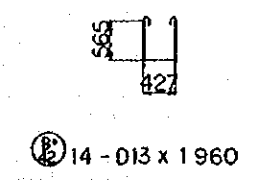
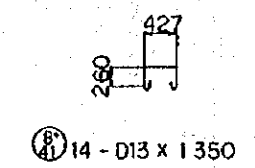
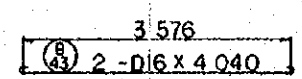
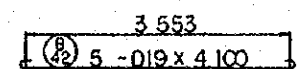
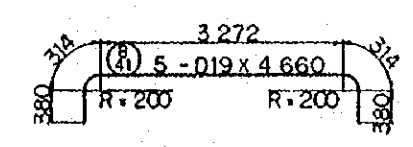
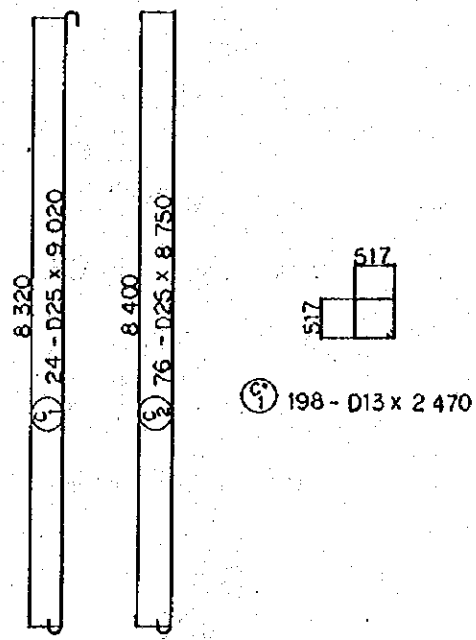




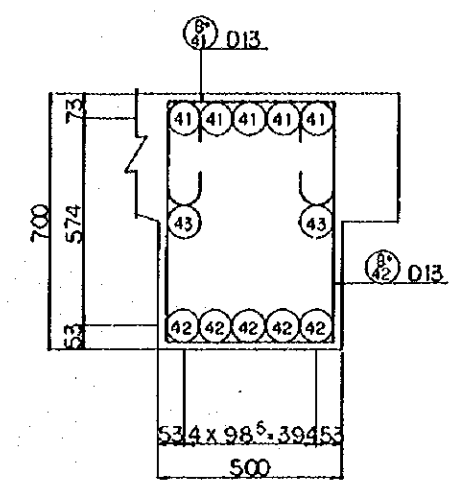
SECTION A-A



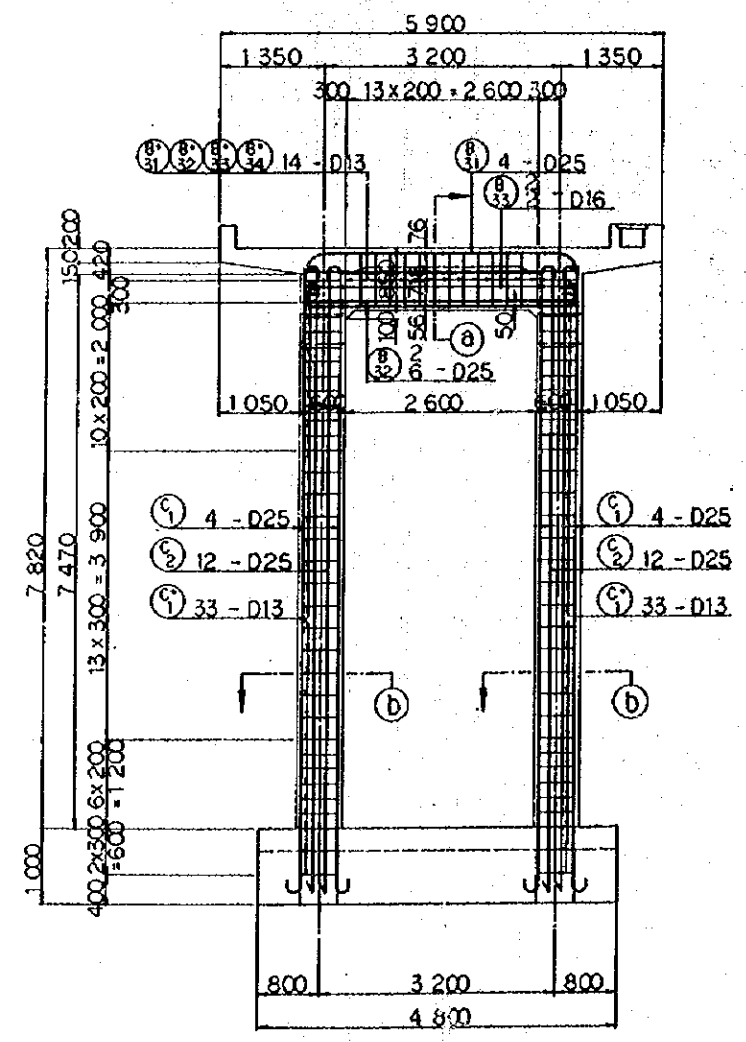
SECTION B-B



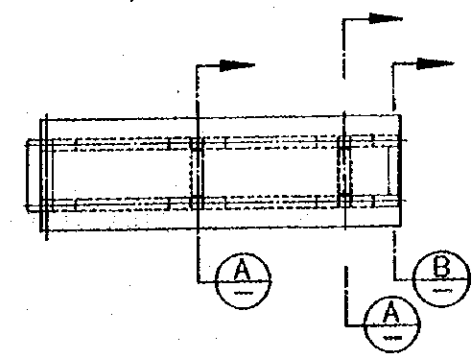
SECTION B



SECTION C-C



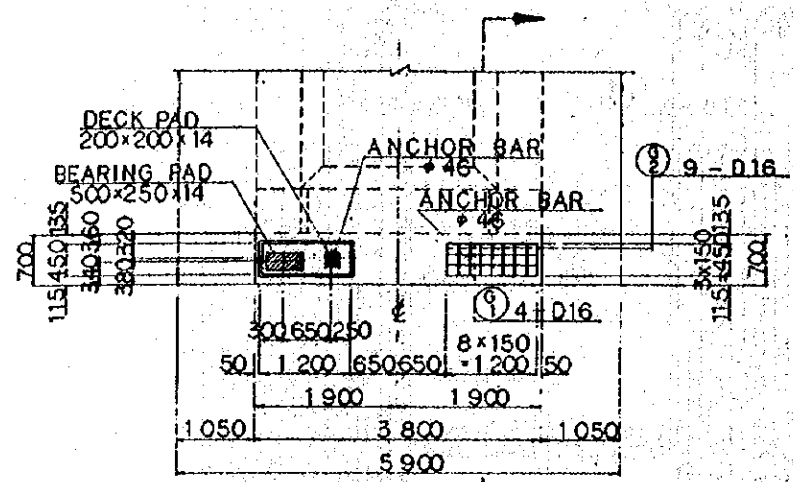
SECTION A



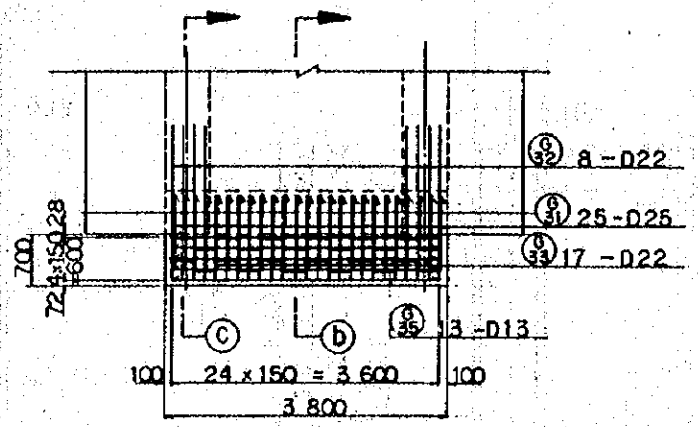
REMARKING DIAGRAM

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS-149

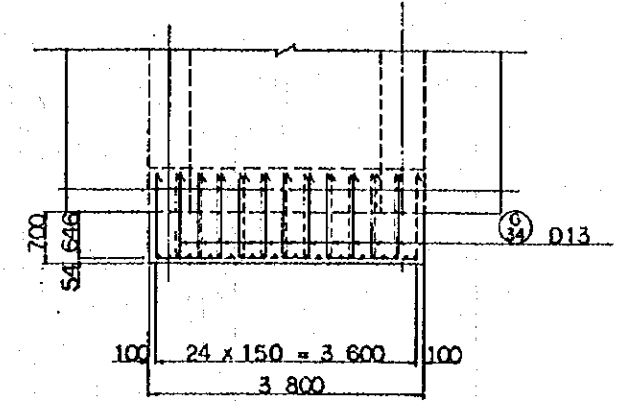
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG.84	MS	AD	KA	KM	CHK
A	15FEB.84	MS	AD	KA	KM	CHK
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
VIADUCT V047 BAR ARRANGEMENT (SHEET 5 OF 7)						
PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:50	CS-155					



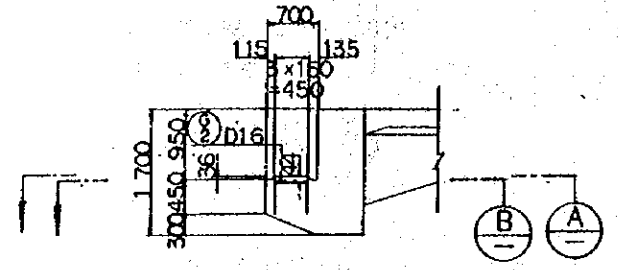
SECTION A-B



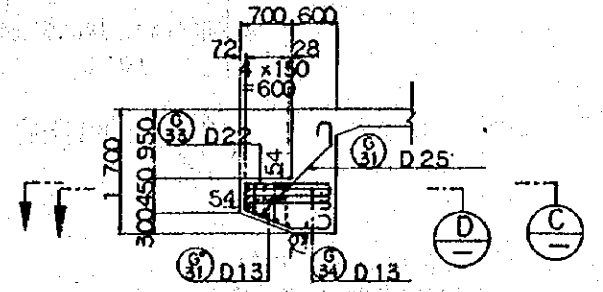
SECTION C-C



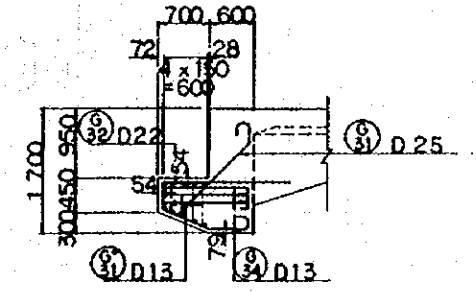
SECTION D-D



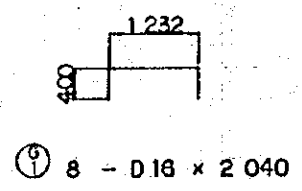
SECTION A-A



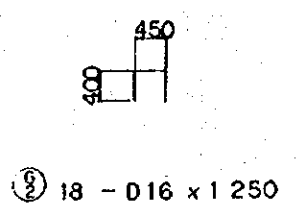
SECTION B-B



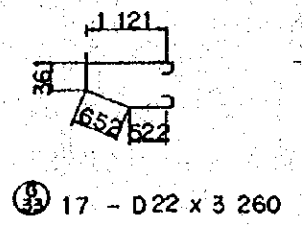
SECTION C-C



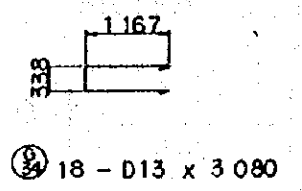
8 - D16 x 2 040



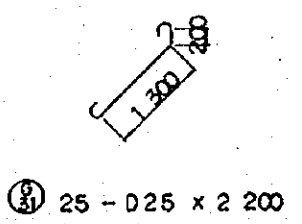
18 - D16 x 1 250



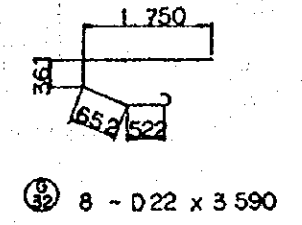
17 - D22 x 3 260



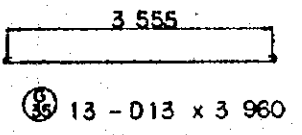
18 - D13 x 3 080



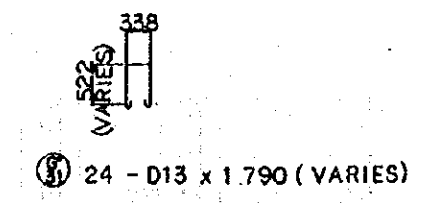
25 - D25 x 2 200



8 - D22 x 3 590



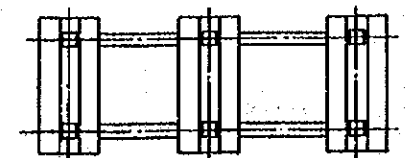
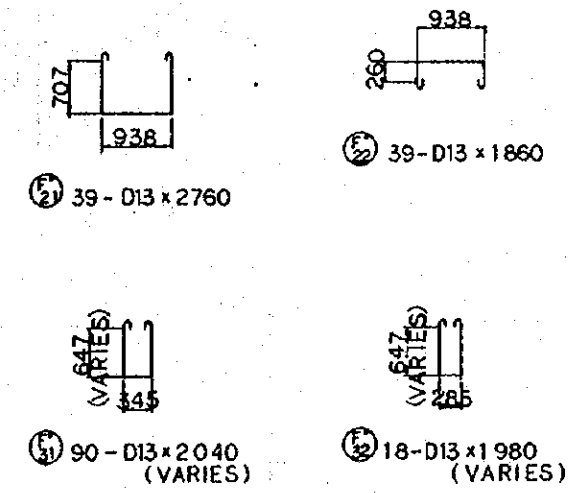
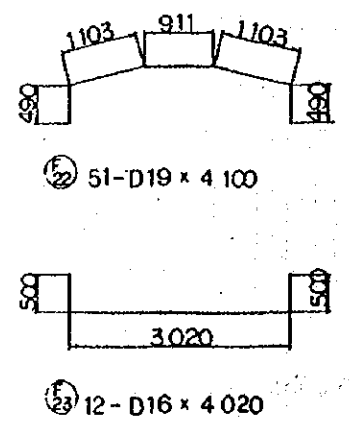
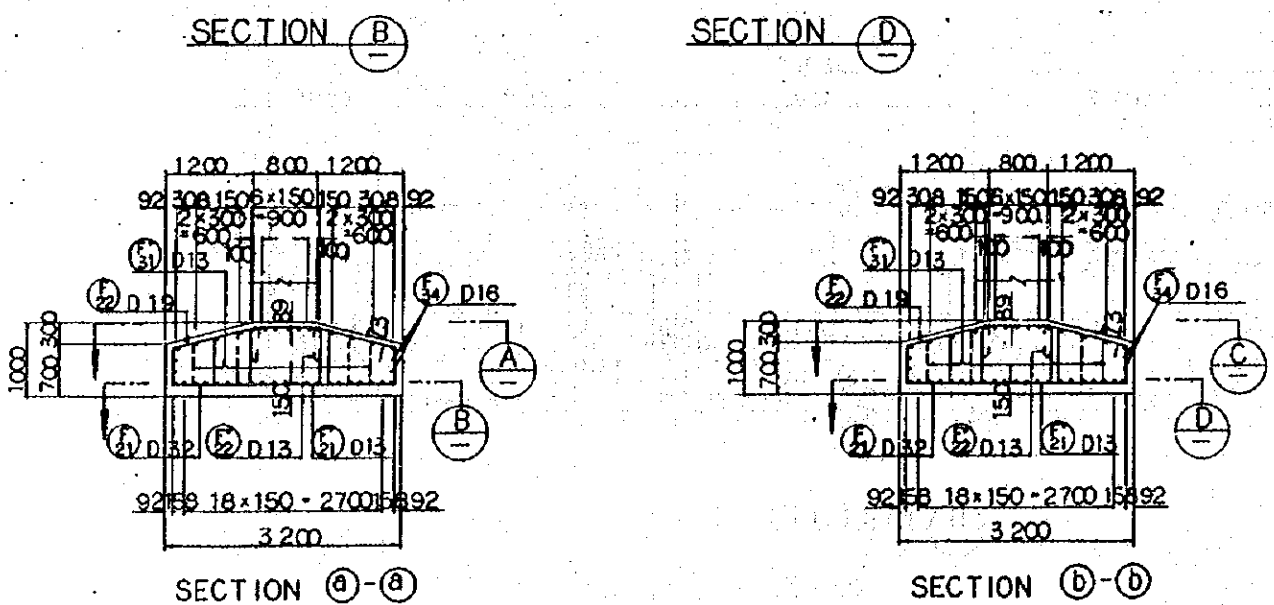
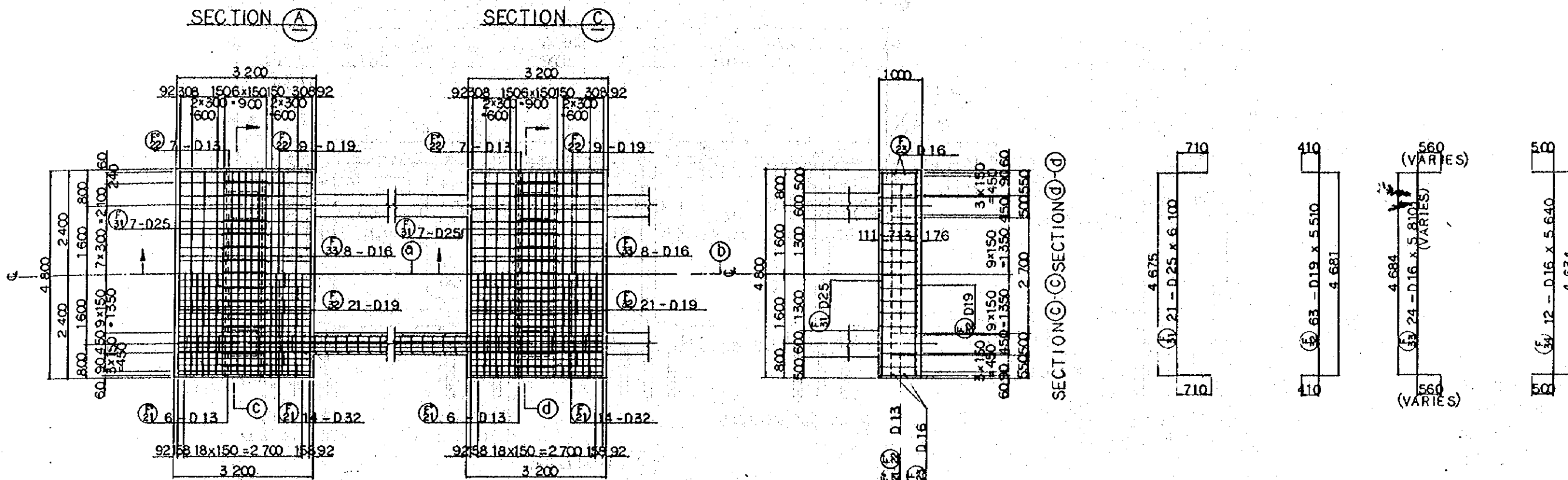
13 - D13 x 3 960



24 - D13 x 1 790 (VARIES)

NOTES :  
 1 ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED  
 2 REFERENCE DRAWING FOR GENERAL VIEW : CS-149.

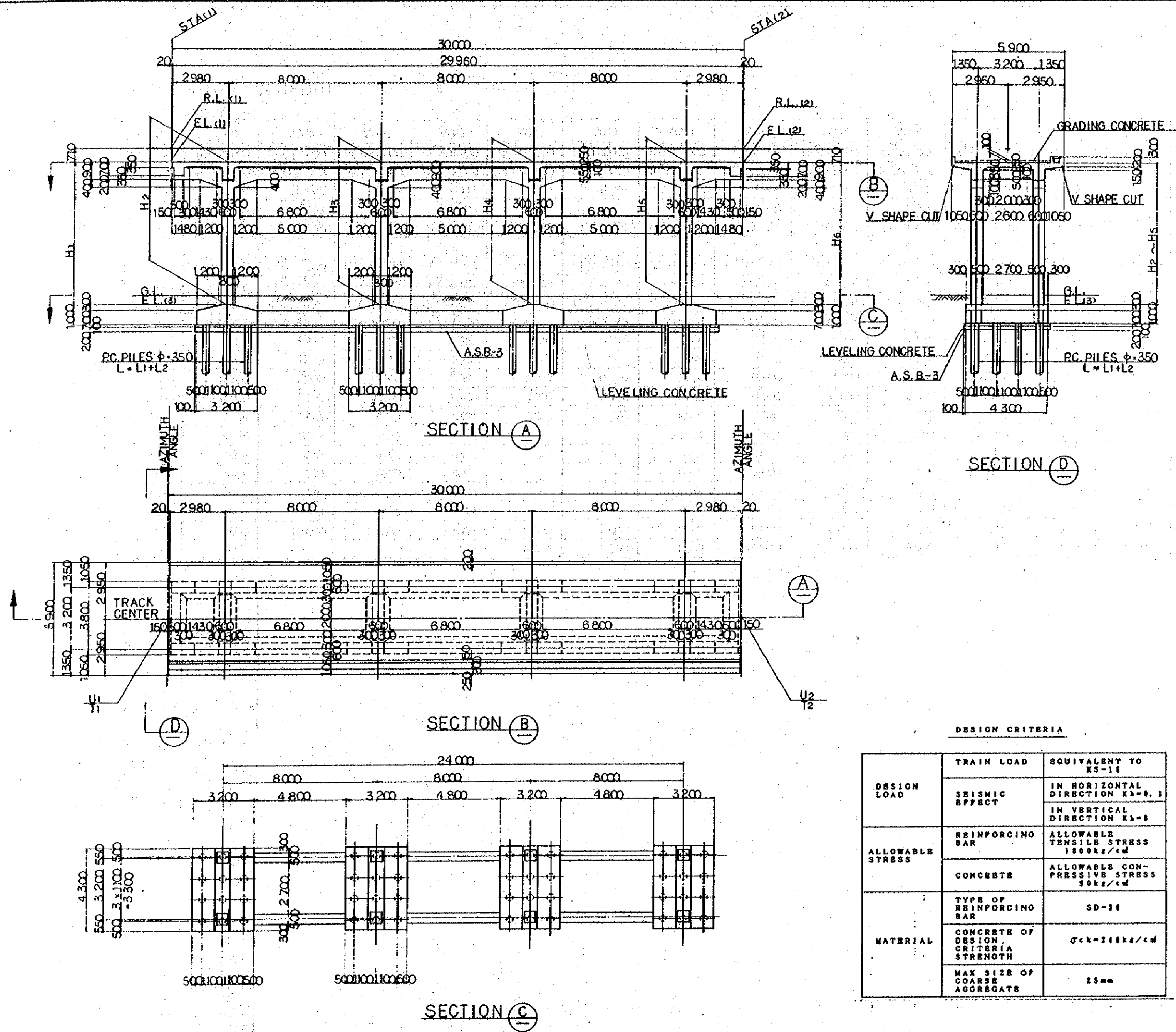
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1AUG.84	MS	AD	KAKM	mk
A	10SEP.84	MS	AD	KAKM	mk
REVISIONS	DATE	PREPARED	DRAWN	CHECKED	REVIEWED
VIADUCT V047 BAR ARRANGEMENT (SHEET 6 OF 7)					
PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:50		DRAWING NO: CS-156			



REMARKING DIAGRAM

- NOTES :
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS-149

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG/84	U.S.	A.D.	K.S.	K.M.	AK
A	11FEB/84	U.S.	A.D.	K.S.	K.M.	AK
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	EXTENDED	SUBMITTED
VIADUCT V047 BAR ARRANGEMENT (SHEET 7 OF 7)						
PACKAGE : I CIVIL AND ARCHITECTURAL WORK						
SCALE : 1 : 50		DRAWING NO : CS-157				



- NOTES :
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS-160~164.
  3. TYPES OF PC PILE
    - BOTTOM SURFACE OF FOOTING
    - PC. PILE CLASS B.
    - PC. PILE CLASS A.
  4. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-16
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_1=0.1$ IN VERTICAL DIRECTION $K_2=0$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 90 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD-38
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck}=2400 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25mm

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
REVISION	DATE	DESIGNED	CHECKED	APPROVED	REVIEWED	SUBMITTED
B	1AUG'84	M.S.	A.O.	K.R.	K.M.	M.K.
A	10FEB'84	M.S.	A.O.	K.R.	K.M.	M.K.
VIADUCT V002, V003, V024~V026, V048, V049, V080~V084, V099, V100, V121, V122 GENERAL VIEW (SHEET 1 OF 2)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO. CS-158					

### DIMENSION SCHEDULE

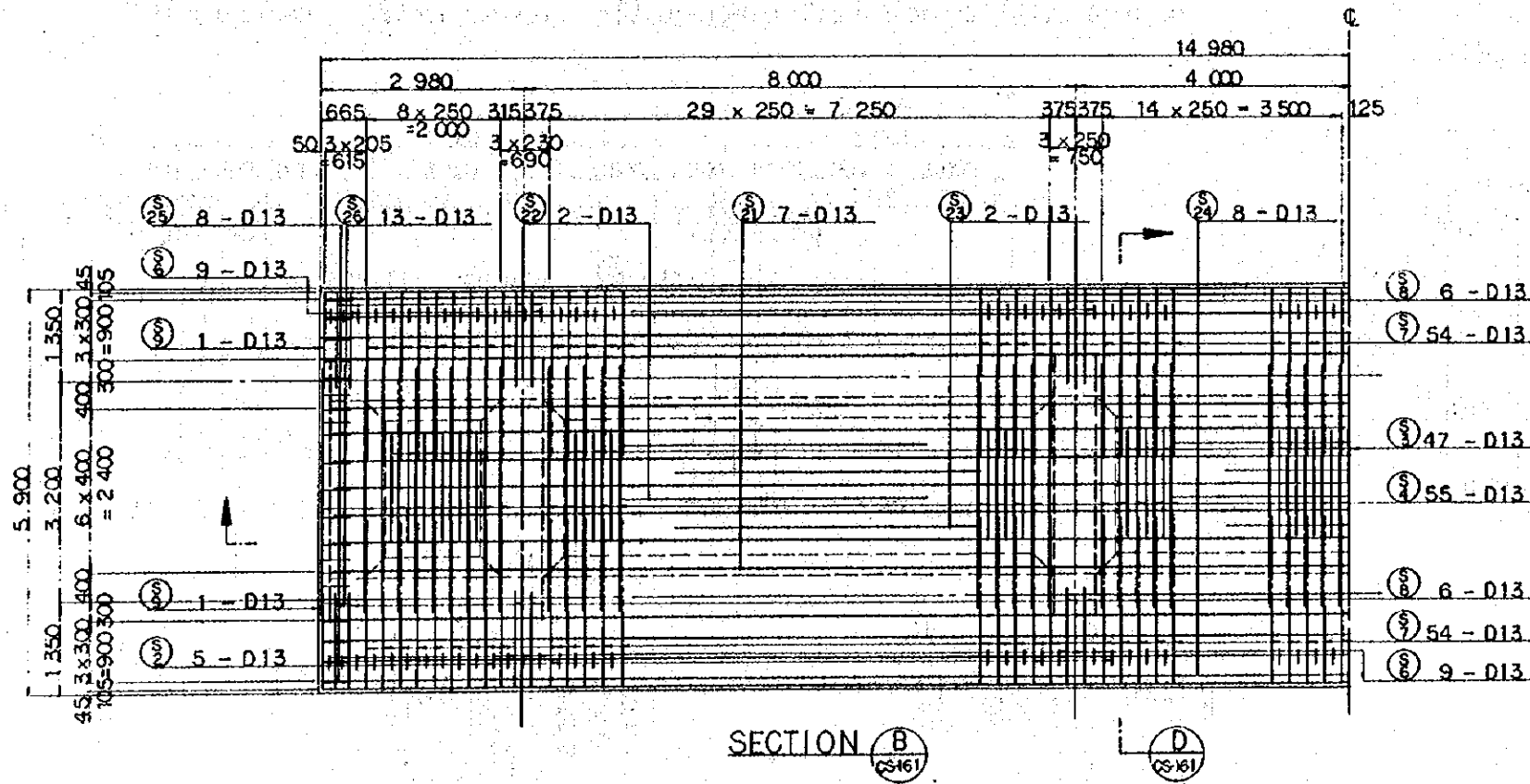
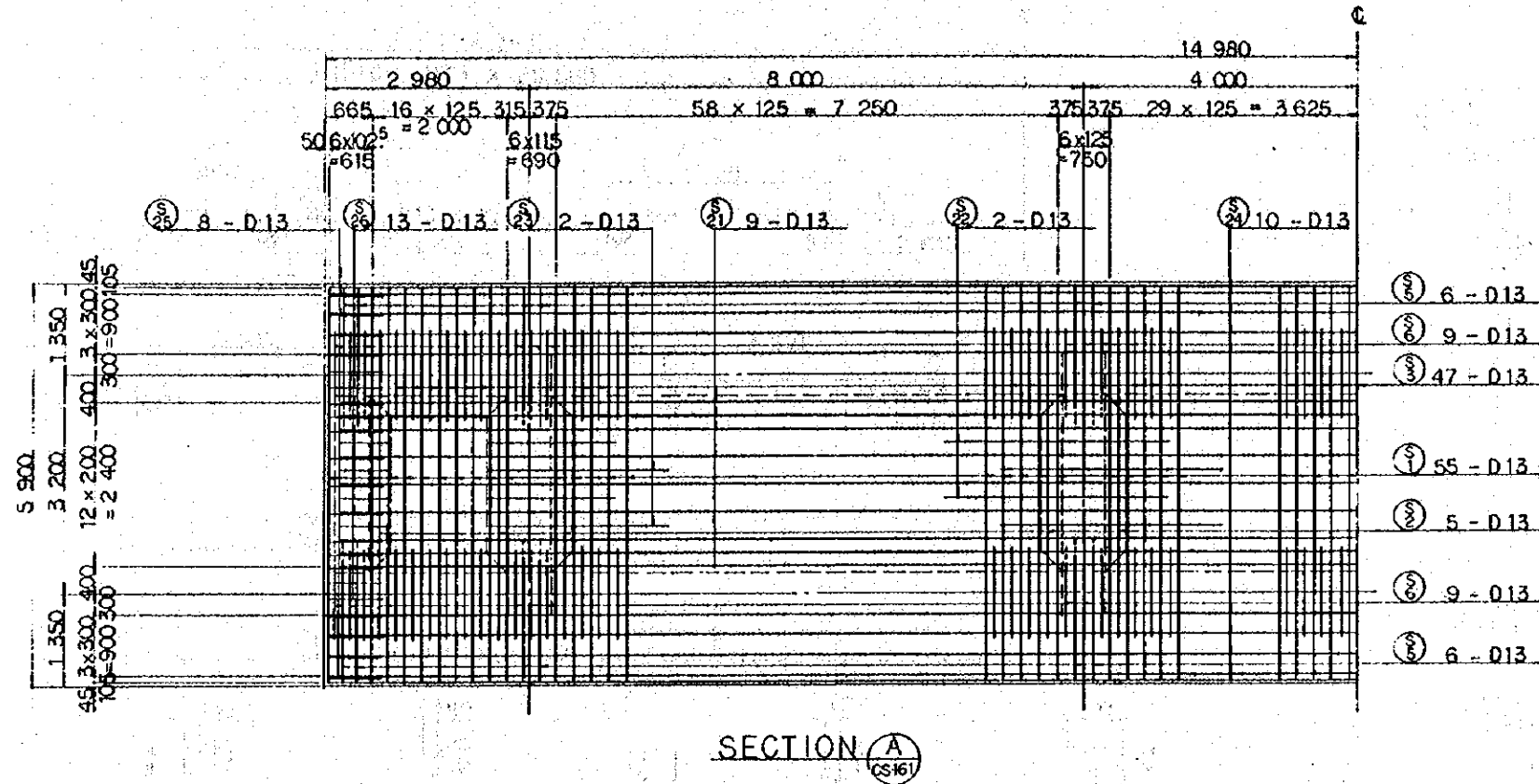
$$30 + 3 \times 8.0 + 30 = 30.00$$

	V002	V003	V024	V025	V026	V048	V049	V080	V081	V082	V083	V084	V099	V100
STA (1)	13 <sup>m</sup> 436.000	13 <sup>m</sup> 466.000	14 <sup>m</sup> 649.000	14 <sup>m</sup> 679.000	14 <sup>m</sup> 709.000	15 <sup>m</sup> 668.000	15 <sup>m</sup> 698.000	16 <sup>m</sup> 872.000	16 <sup>m</sup> 902.000	16 <sup>m</sup> 932.000	16 <sup>m</sup> 962.000	16 <sup>m</sup> 992.000	17 <sup>m</sup> 662.000	17 <sup>m</sup> 692.000
STA (2)	13 <sup>m</sup> 466.000	13 <sup>m</sup> 496.000	14 <sup>m</sup> 679.000	14 <sup>m</sup> 709.000	14 <sup>m</sup> 739.000	15 <sup>m</sup> 698.000	15 <sup>m</sup> 728.000	16 <sup>m</sup> 902.000	16 <sup>m</sup> 932.000	16 <sup>m</sup> 962.000	16 <sup>m</sup> 992.000	17 <sup>m</sup> 022.000	17 <sup>m</sup> 692.000	17 <sup>m</sup> 722.000
R.L. (1)	4.794	5.394	6.986	6.539	6.113	8.724	8.724	7.806	7.986	8.166	8.346	8.526	8.754	8.754
R.L. (2)	5.394	5.994	6.539	6.113	5.924			7.986	8.166	8.346	8.526	8.726		
AZIMUTH ANGLE (°)	350° 39' 55.58	350° 39' 55.58	9° 43' 08.64	9° 43' 08.64	9° 43' 08.64	1° 06' 02.00	1° 06' 02.00	345° 30' 45.40	345° 30' 45.40	345° 30' 45.40	345° 30' 45.40	345° 30' 45.40	345° 30' 45.40	345° 30' 45.40
DO (Q2)														
U 1	12 <sup>m</sup> 041.541	12 <sup>m</sup> 046.407	12 <sup>m</sup> 082.840	12 <sup>m</sup> 077.775	12 <sup>m</sup> 072.711	11 <sup>m</sup> 998.266	11 <sup>m</sup> 997.690	12 <sup>m</sup> 021.849	12 <sup>m</sup> 029.354	12 <sup>m</sup> 036.859	12 <sup>m</sup> 044.364	12 <sup>m</sup> 051.869	12 <sup>m</sup> 219.481	12 <sup>m</sup> 226.986
T 1	-2 <sup>m</sup> 732.068	-2 <sup>m</sup> 702.466	-1 <sup>m</sup> 527.696	-1 <sup>m</sup> 498.127	-1 <sup>m</sup> 468.557	-514.734	-484.740	685.288	714.334	743.380	772.426	801.472	1 <sup>m</sup> 450.168	1 <sup>m</sup> 479.214
U 2	12 <sup>m</sup> 046.407	12 <sup>m</sup> 051.273	12 <sup>m</sup> 077.775	12 <sup>m</sup> 072.711	12 <sup>m</sup> 067.646	11 <sup>m</sup> 997.690	11 <sup>m</sup> 997.114	12 <sup>m</sup> 029.354	12 <sup>m</sup> 036.859	12 <sup>m</sup> 044.364	12 <sup>m</sup> 051.869	12 <sup>m</sup> 059.374	12 <sup>m</sup> 226.986	12 <sup>m</sup> 234.491
T 2	-2 <sup>m</sup> 702.466	-2 <sup>m</sup> 672.863	-1 <sup>m</sup> 498.127	-1 <sup>m</sup> 468.557	-1 <sup>m</sup> 438.988	-484.740	-454.745	714.334	743.380	772.426	801.472	830.518	1 <sup>m</sup> 479.214	1 <sup>m</sup> 508.260
E.L. (1)	4.084	4.684	6.276	5.829	5.355	8.014	8.014	7.096	7.276	7.456	7.636	7.816	8.044	8.044
E.L. (2)	4.684	5.284	5.829	5.355	5.214			7.276	7.456	7.636	7.816	7.996		
E.L. (3)	0.300	0.300	0.900	0.900	0.900	0.794	0.794	0.400	0.400	0.400	0.400	0.400	0.694	0.694
G.L.	0.800	0.800	1.400	1.400	1.400	0.700	0.700	0.900	0.900	0.900	0.900	0.900	1.200	1.200
H 1	3784	4384	5376	4929	4455	7820	7820	6696	6876	7056	7236	7416	7350	7350
H 2	3844	4444	5331	4882	4441			6714	6894	7074	7254	7434		
H 3	4004	4604	5212	4755	4403			6762	6942	7122	7302	7482		
H 4	4164	4764	5093	4629	4366			6810	6990	7170	7350	7530		
H 5	4324	4924	4974	4502	4328			6858	7038	7218	7398	7578		
H 6	4384	4984	4929	4455	4314			6876	7056	7236	7416	7596		
PC PILES	10 000	10 000	12 000	12 000	12 000	8 000	8 000	8 000	8 000	8 000	8 000	8 000	8 000	8 000
PC PILES						8 000	8 000	13 000	13 000	13 000	14 000	14 000	11 000	11 000

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW: CS-158.

	V121	V122
STA (1)	18 <sup>m</sup> 412.000	18 <sup>m</sup> 442.000
STA (2)	18 <sup>m</sup> 442.000	18 <sup>m</sup> 472.000
R.L. (1)	8.334	8.784
R.L. (2)	8.784	9.234
AZIMUTH ANGLE (°)	30° 26' 59.73	30° 26' 59.73
DO (Q2)		
U 1	12 <sup>m</sup> 154.003	12 <sup>m</sup> 138.800
T 1	2 <sup>m</sup> 162.443	2 <sup>m</sup> 188.305
U 2	12 <sup>m</sup> 138.800	12 <sup>m</sup> 123.566
T 2	2 <sup>m</sup> 188.305	2 <sup>m</sup> 214.167
E.L. (1)	7.624	8.074
E.L. (2)	8.074	8.524
E.L. (3)	0.900	0.900
G.L.	1.400	1.400
H 1	6724	7174
H 2	6769	7219
H 3	6889	7339
H 4	7009	7459
H 5	7129	7579
H 6	7174	7624
PC PILES	8 000	8 000
PC PILES	7 000	7 000

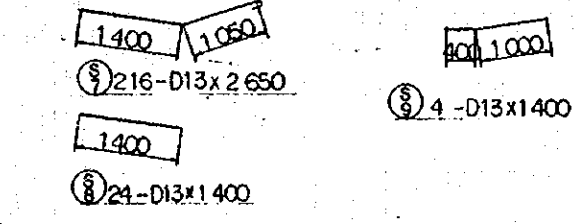
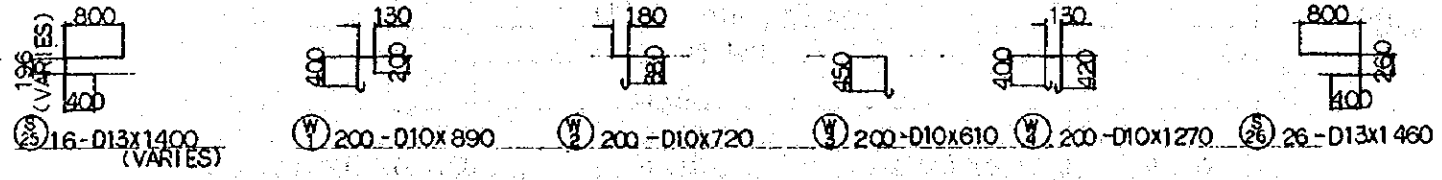
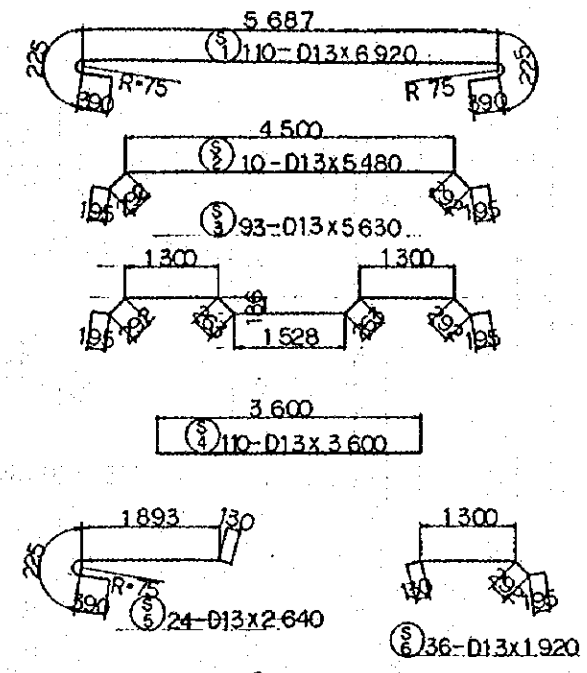
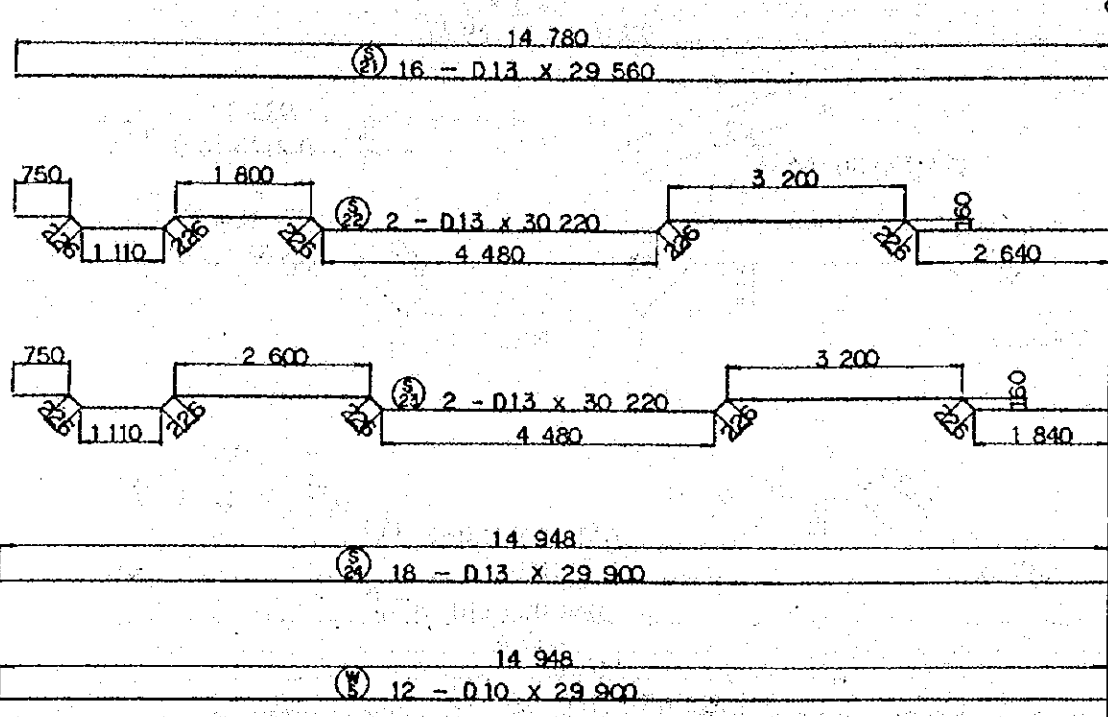
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG 84	US	AD	KX	KM	JK
A	10 FEB 84	US	AD	KX	KM	JK
REVISION	DATE	DESIGNED	CHECKED	CREATED	REVISED	SUBMITTED
VIADUCT V002, V003, V024~V026, V048, V049, V080~V084, V099, V100, V121, V122 GENERAL VIEW (SHEET 2 OF 2)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: DRAWING NO. CS-159						



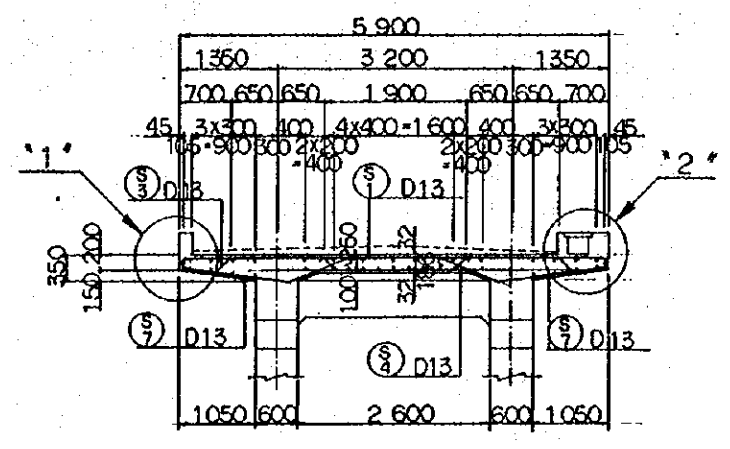
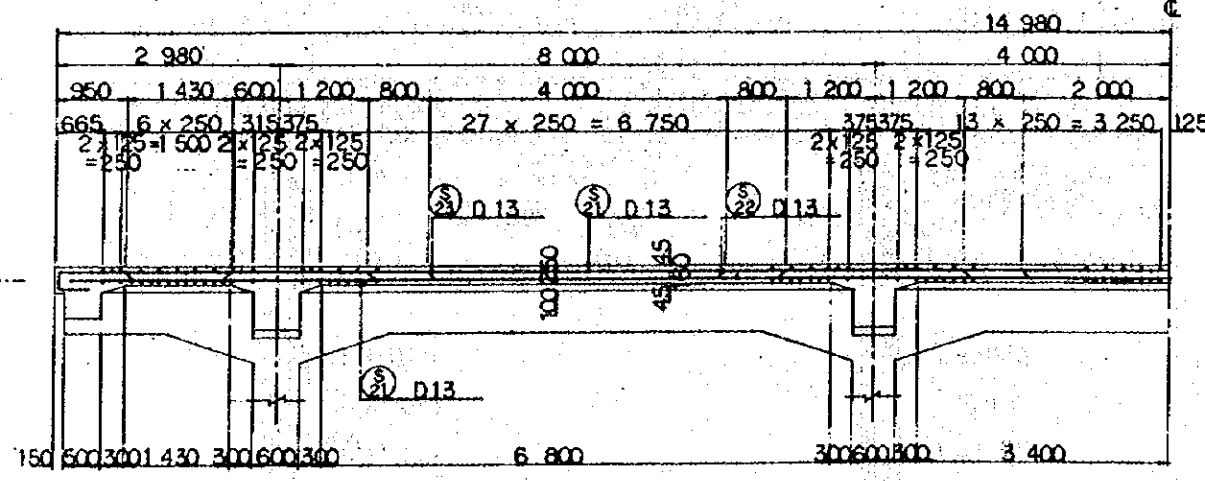
NOTES :

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW : CS-158.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	MS	AD	KA	KM	AK
A	15 FEB '84	MS	AD	KA	KM	AK
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
VIADUCT V048 BAR ARRANGEMENT (SHEET 1 OF 5)						
PACKAGE : I CIVIL AND ARCHITECTURAL WORK						
SCALE : 1 : 50		DRAWING NO : CS-160				

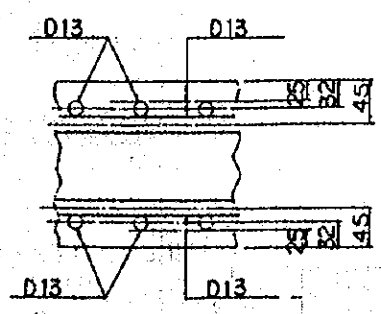
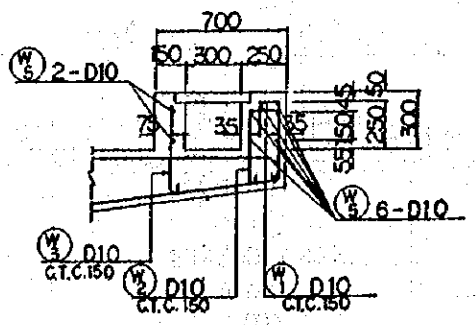
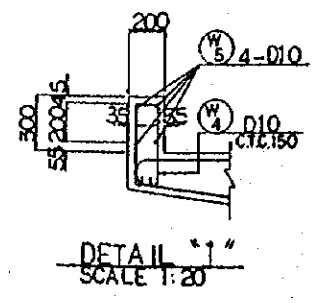


- NOTES :
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS-158.



SECTION C  
CS-160

SECTION D  
CS-160

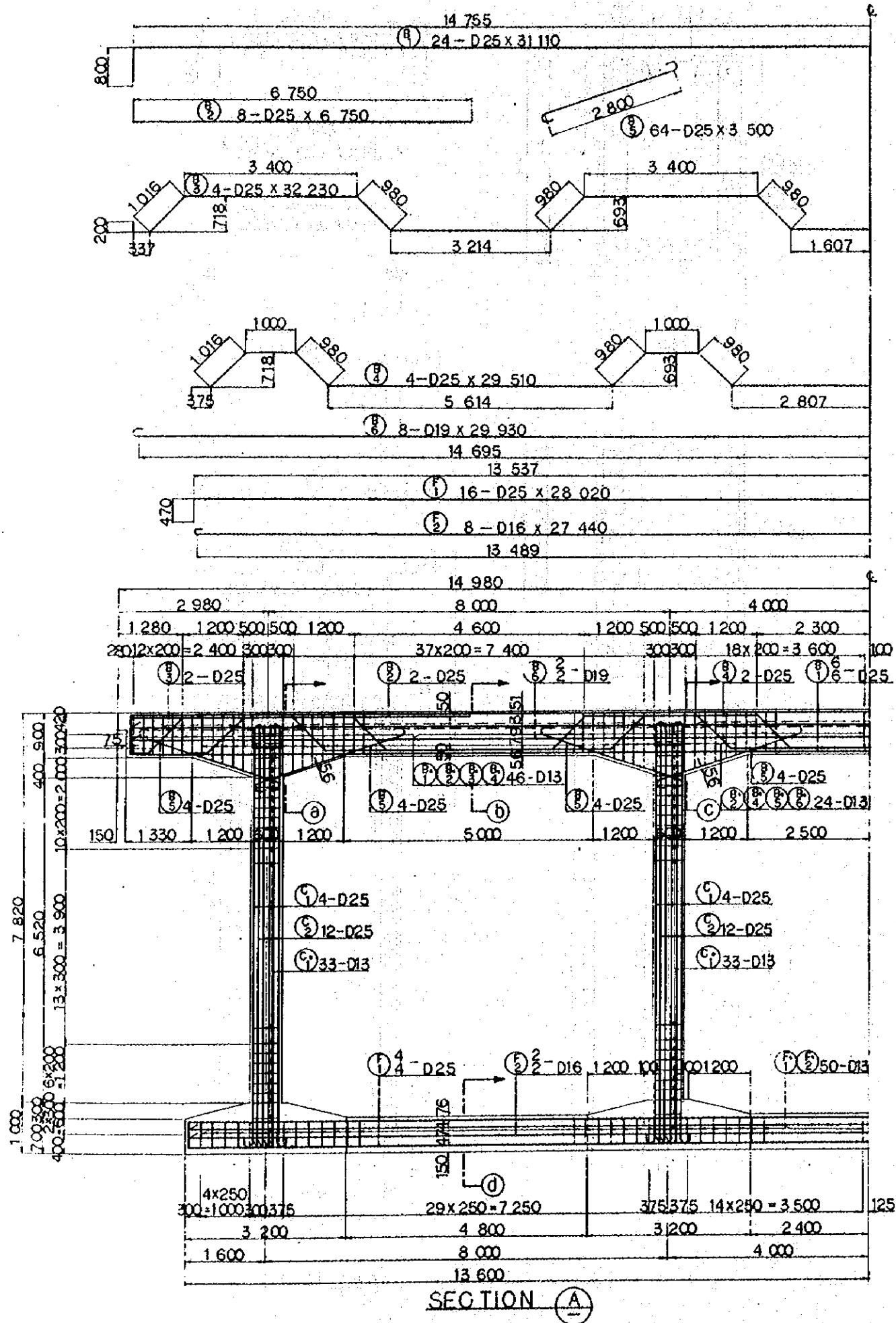


DETAIL 1  
SCALE 1:20

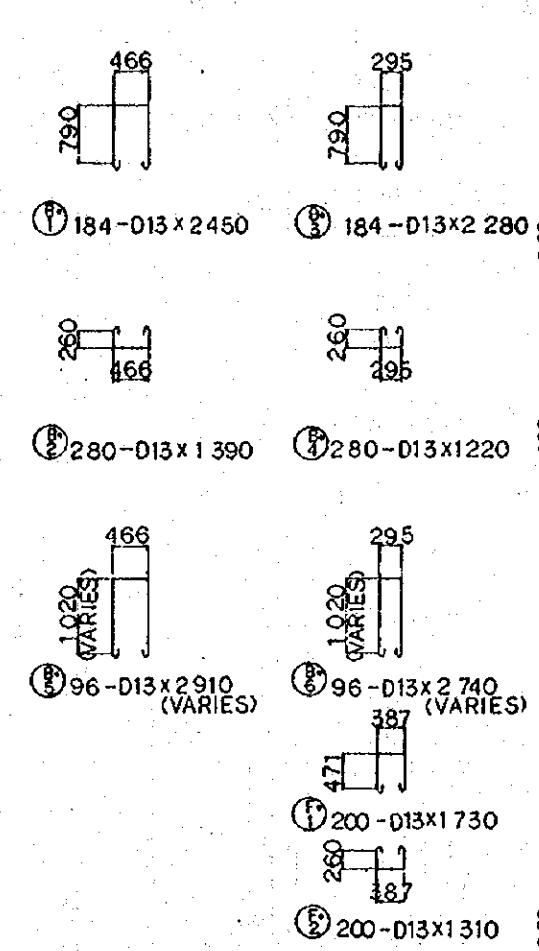
DETAIL 2  
SCALE 1:20

CONCRETE COVER

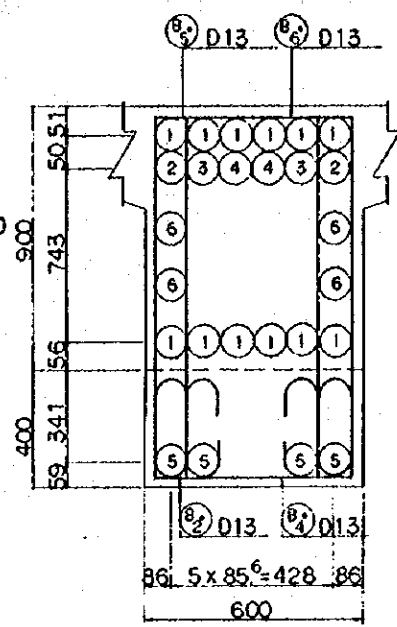
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG. 84	HE	AO	KA	UM
A	1550.00	MS	AO	KA	UM
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	APPROVED
VIADUCT V048 BAR ARRANGEMENT (SHEET 2 OF 5)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:50	CS-161				



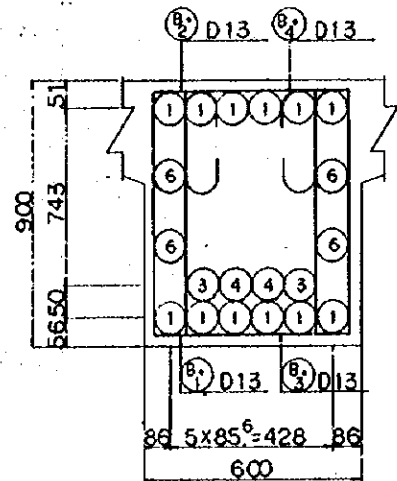
SECTION A



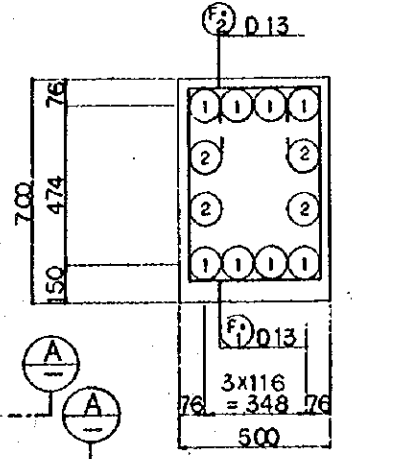
REMARKING DIAGRAM



SECTION B-B



SECTION C-C

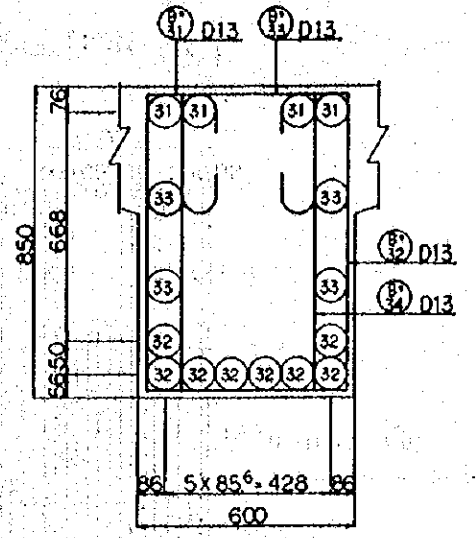
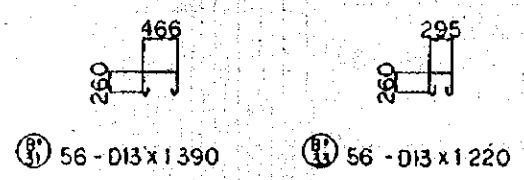
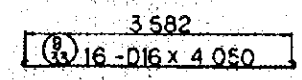
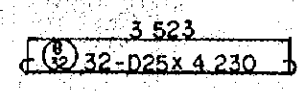
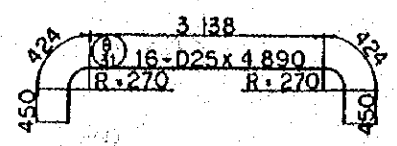


SECTION D-D

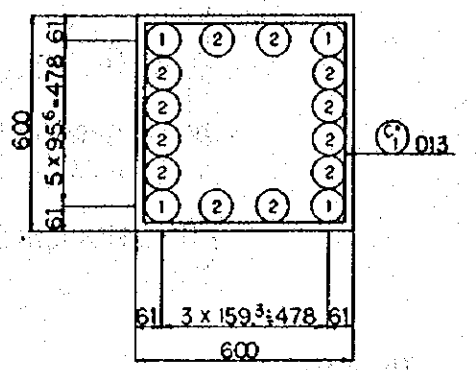
- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED.
  2. REFERENCE DRAWING FOR GENERAL VIEW: CS-158.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
REVISION	DATE	DESIGNED	DRAWN	CHECKED	APPROVED
B	1AUG.84	H.S. AO	K.A. K.M.	M.K.	
A	12/20/84	H.S. AO	K.A. K.M.	M.K.	
VIADUCT V048 BAR ARRANGEMENT (SHEET 3 OF 5)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:50		DRAWING NO: CS-162			

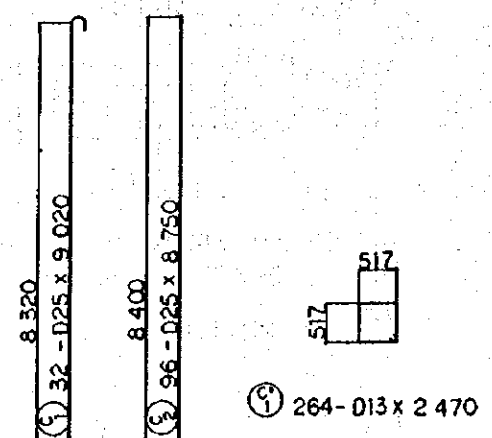




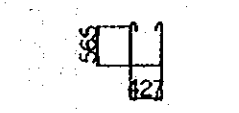
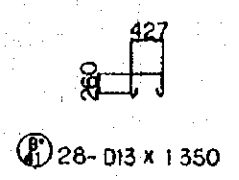
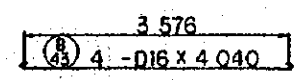
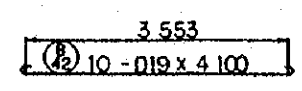
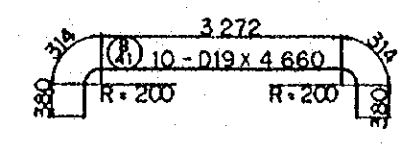
SECTION (B)-(B)



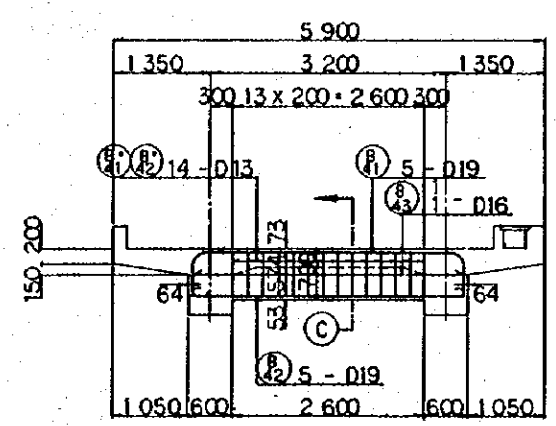
SECTION (D)-(D)



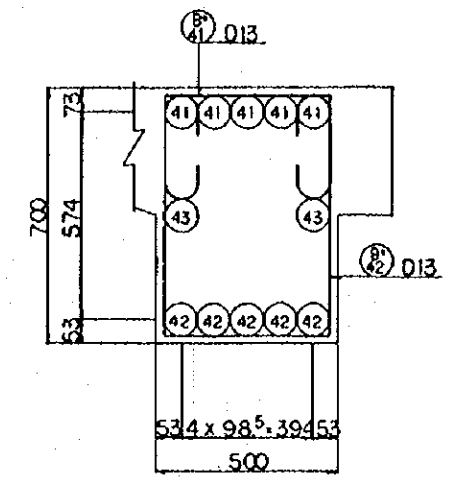
264-D13 x 2.470



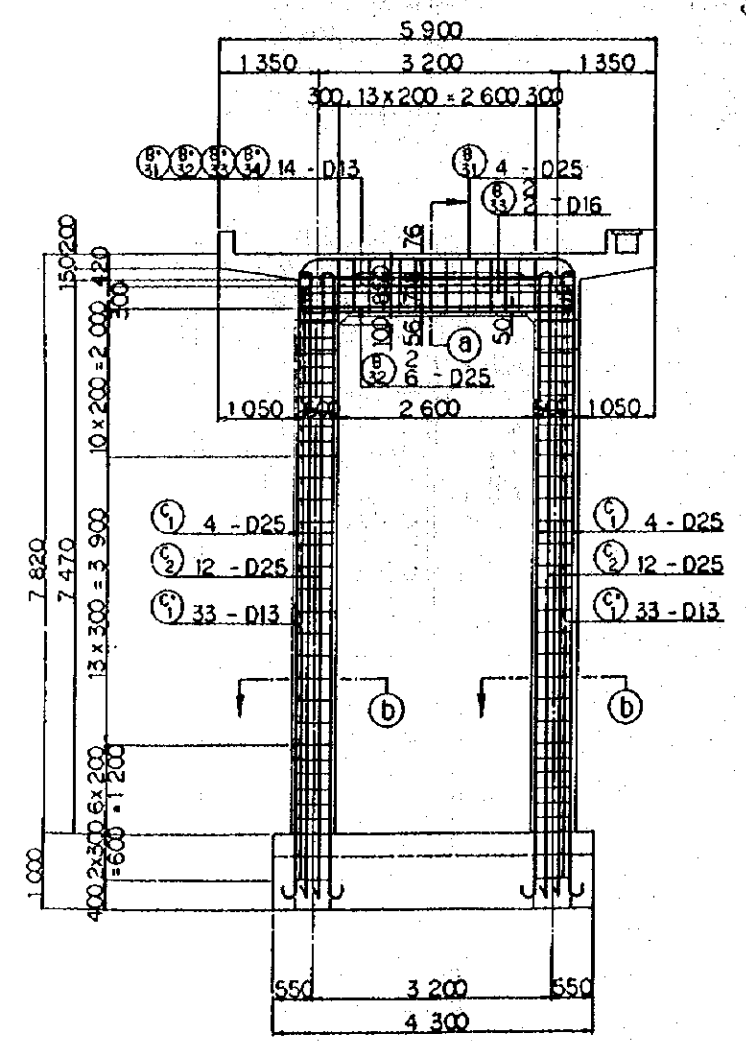
28-D13 x 1.960



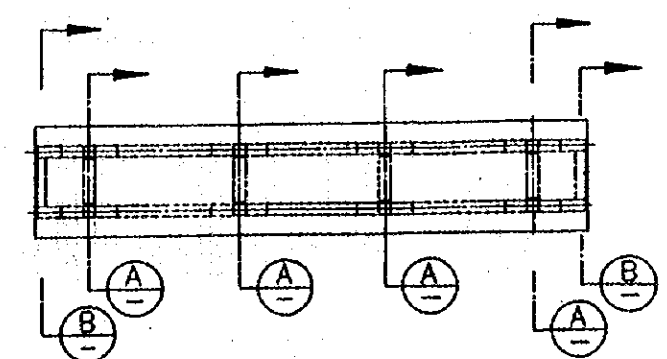
SECTION (B)



SECTION (C)-(C)



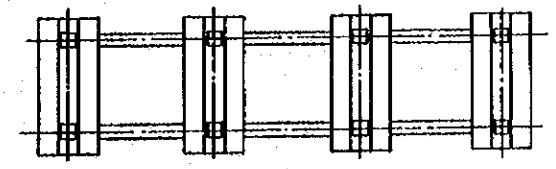
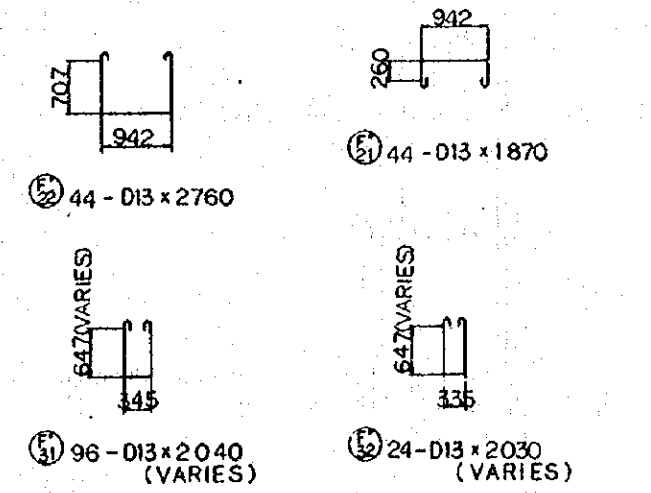
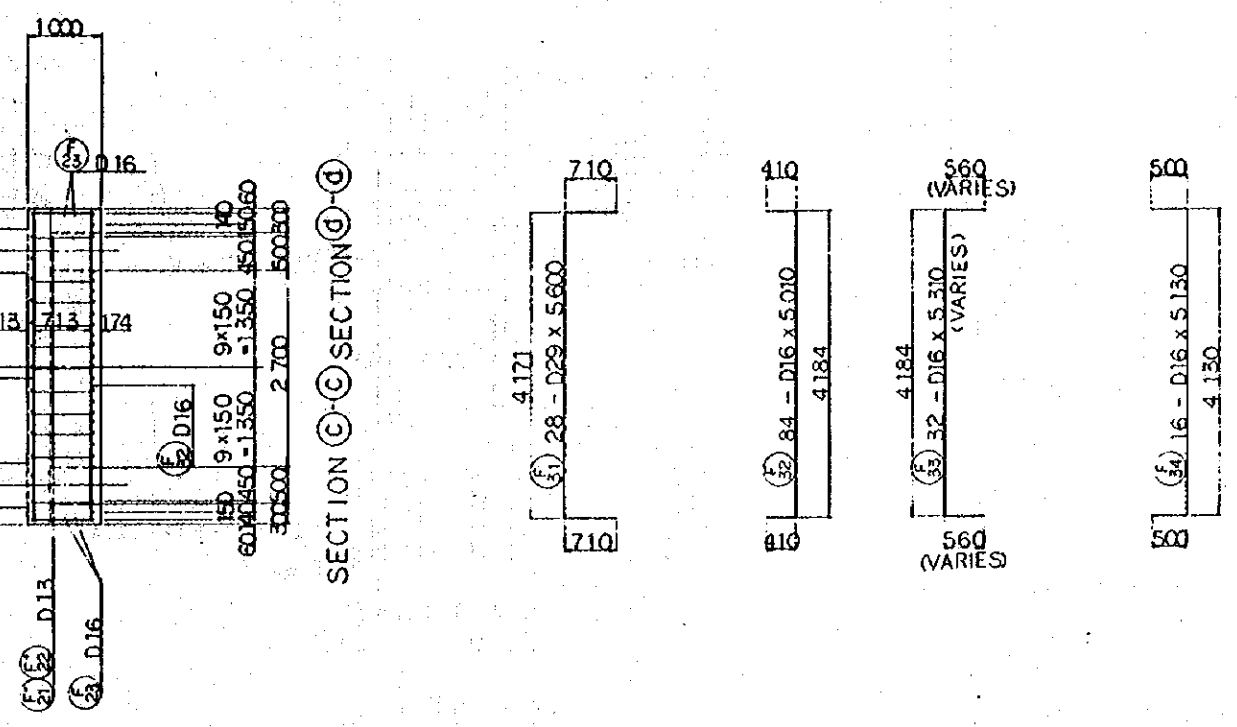
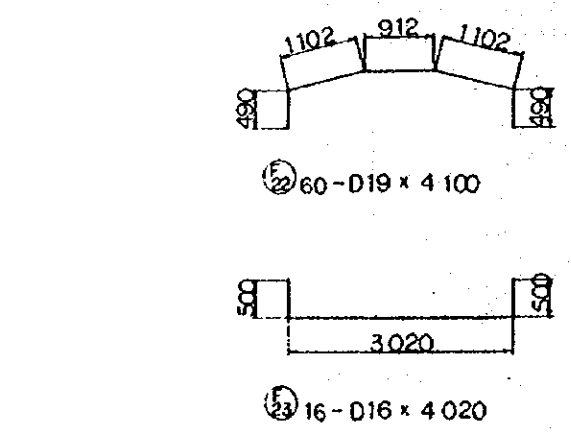
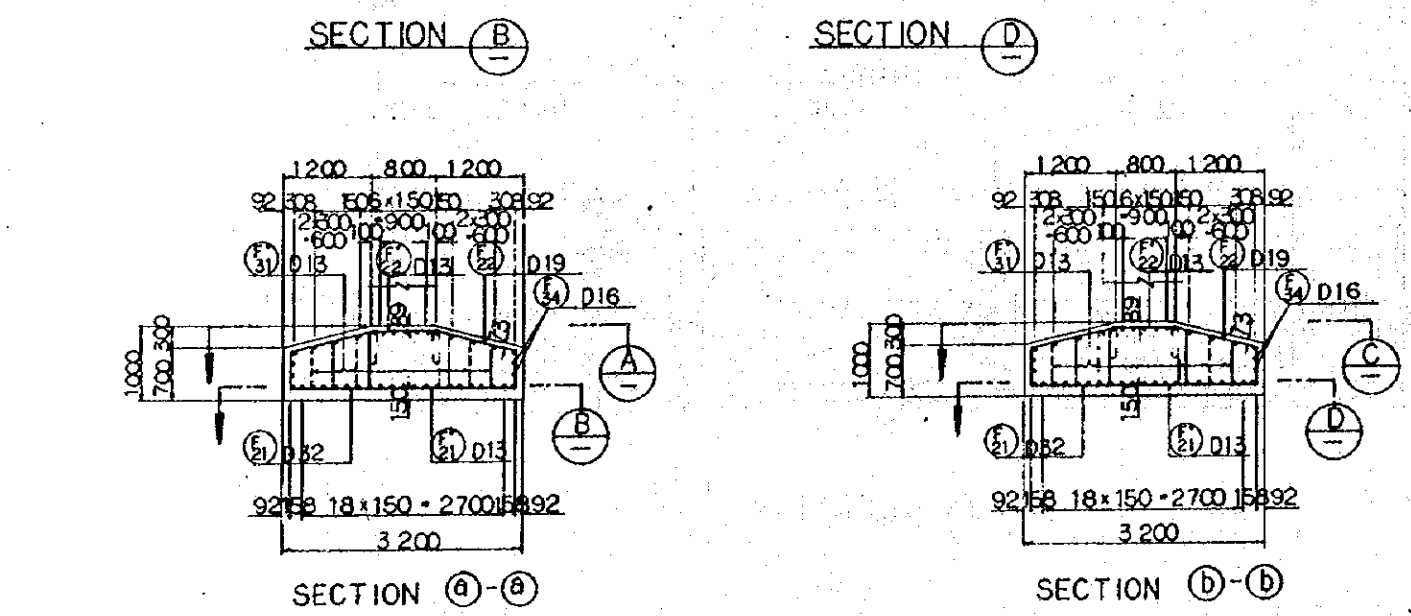
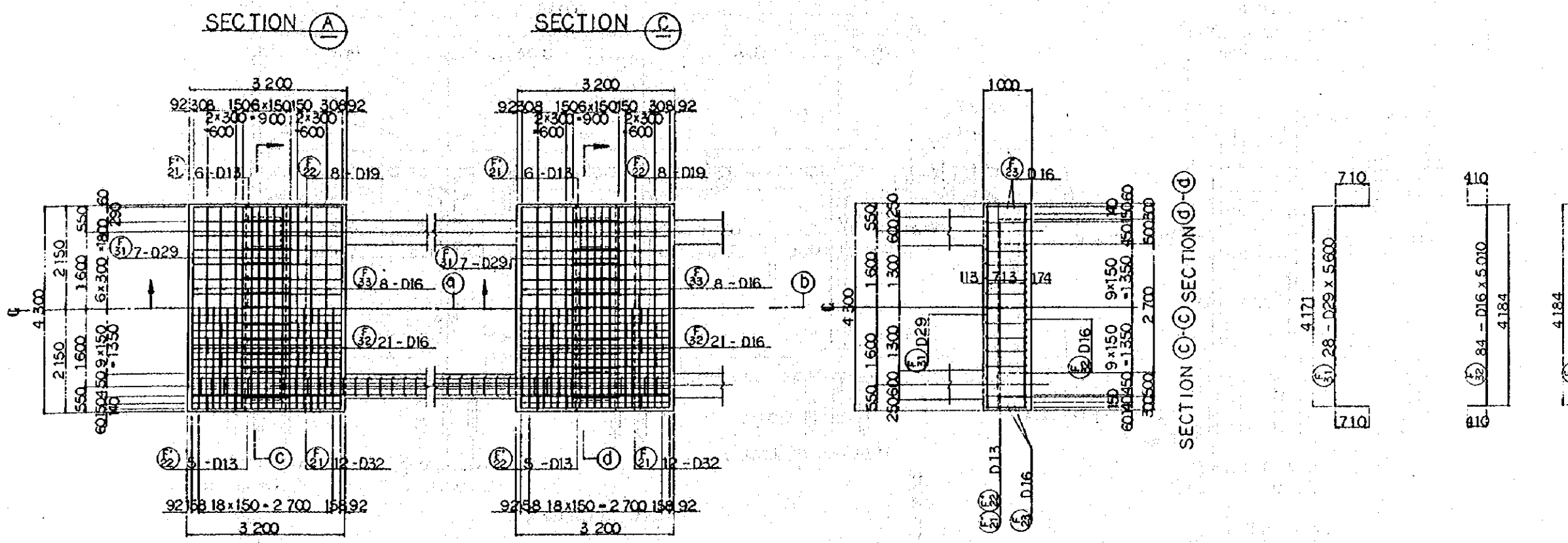
SECTION (A)



REMARKIG DIAGRAM

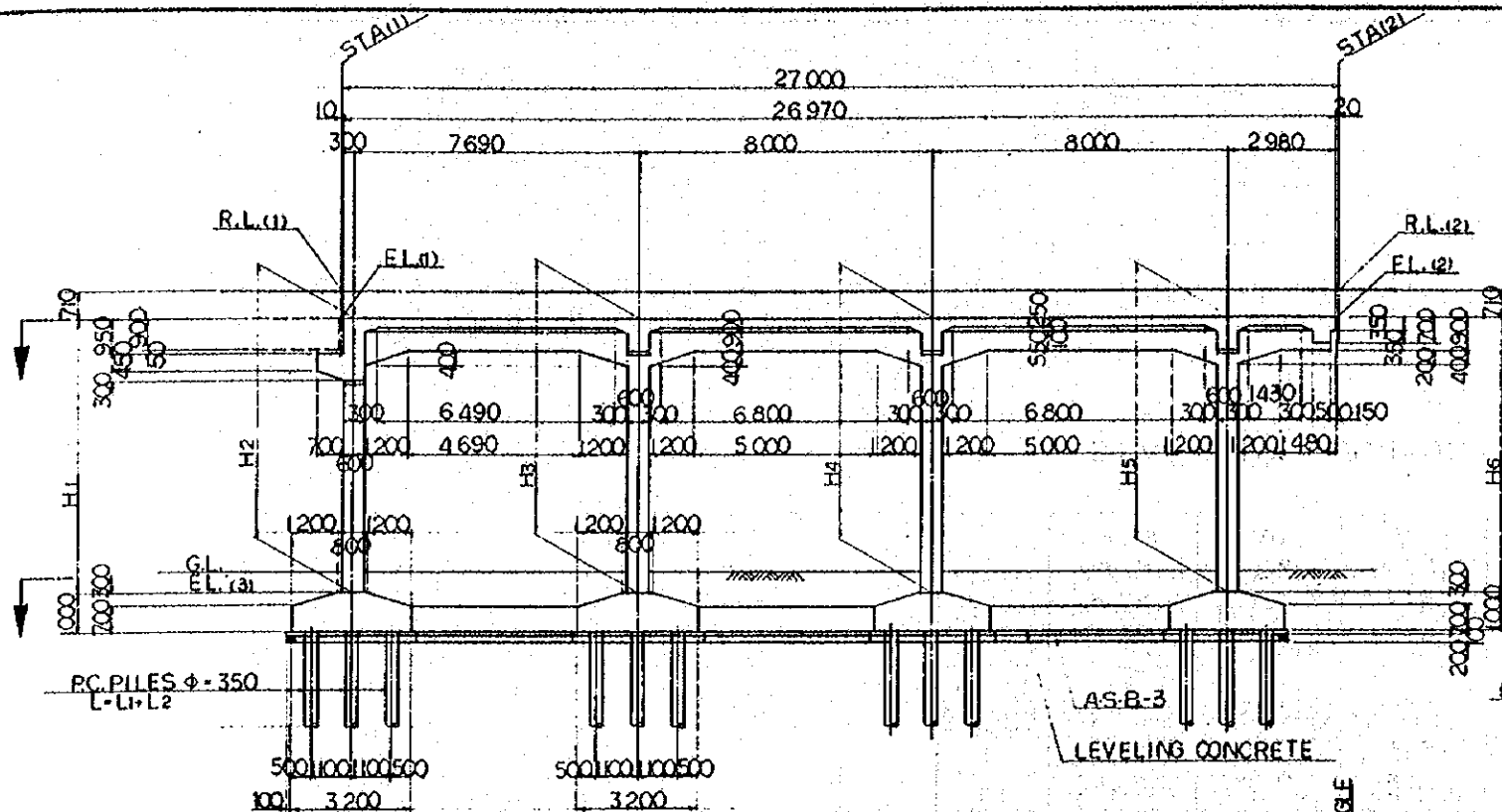
- NOTES :
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS-158.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENS AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG '84	MS	AD	K&K	M&K
A	15 FEB '84	MS	AD	K&K	M&K
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
VIADUCT VO48 BAR ARRANGEMENT (SHEET 4 OF 5)					
PROGRAM : I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1 : 50	CS-163				

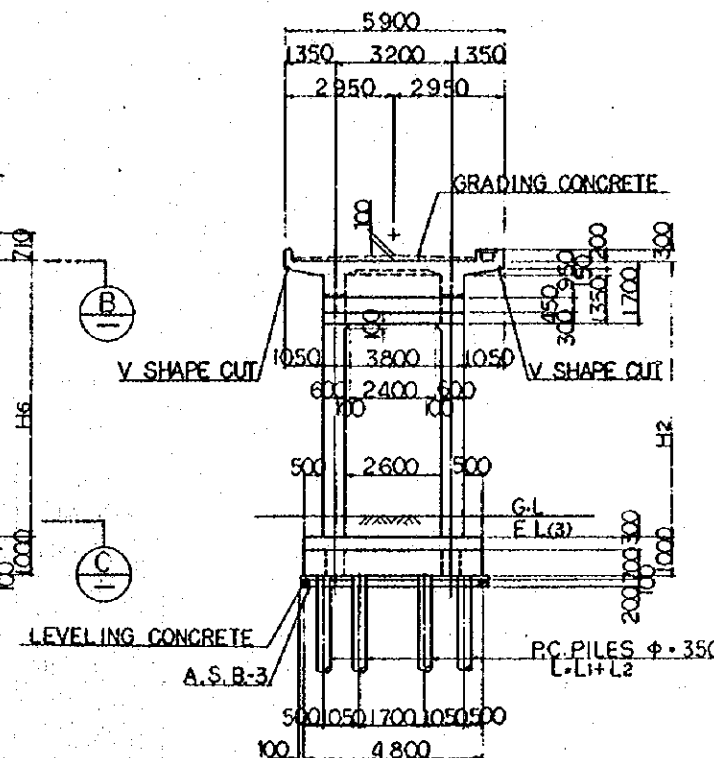


- NOTES :
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS-158.

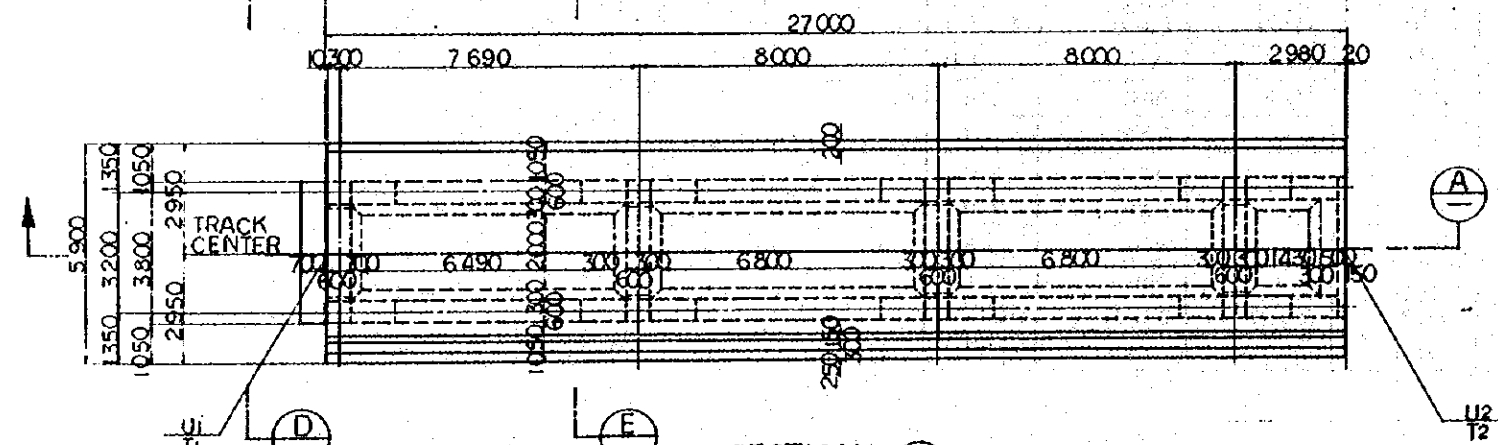
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	DES	AD	KR	KM	AK
A	15 FEB '84	DES	AD	KR	KM	AK
REVISIONS	DATE	DRAWN	CHECKED	REVIEWED	SUBMITTED	
VIADUCT VO48 BAR ARRANGEMENT (SHEET 5 OF 5)						
PACKAGE : I CIVIL AND ARCHITECTURAL WORK						
SCALE : 1 : 50		DRAWING NO. : CS-164				



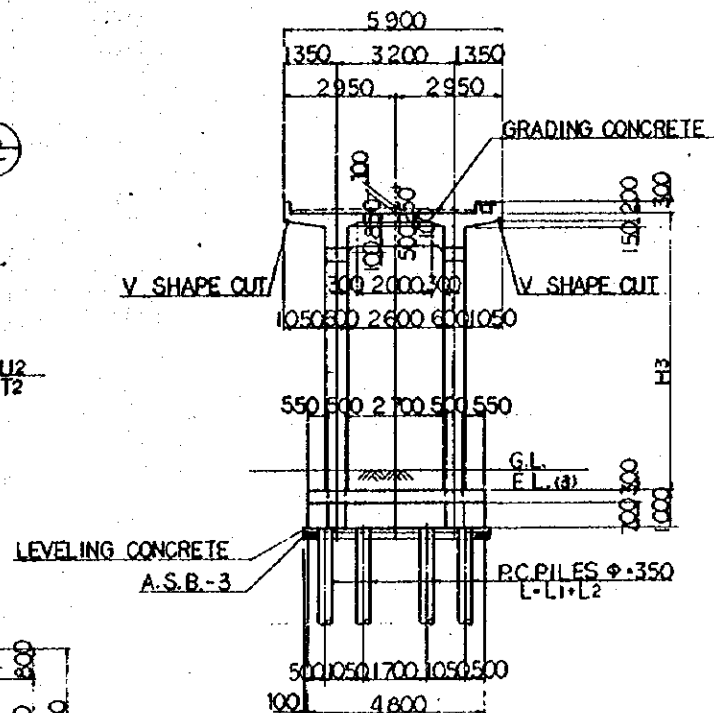
SECTION A



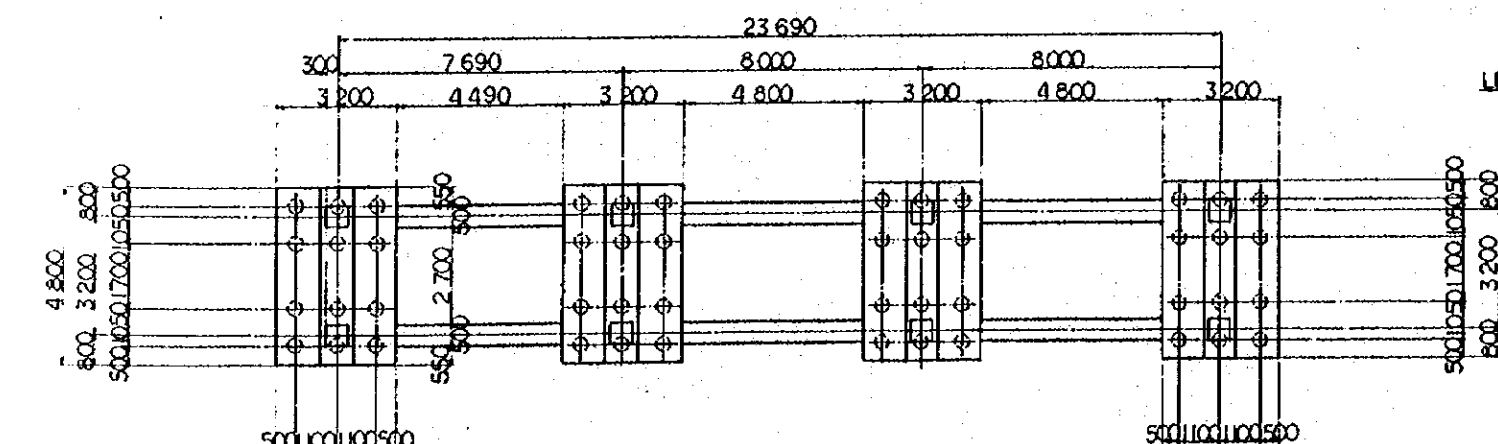
SECTION D



SECTION B



SECTION E



SECTION C

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-16
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_h=0.1$ IN VERTICAL DIRECTION $K_v=0$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1470 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 30 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD-30
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck}=240 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25mm

NOTES;

- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
- REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-151~157
- TYPES OF PC PILE
 

3	BOTTOM SURFACE OF FOOTING PC. PILE CLASS B PC. PILE CLASS A
1	
2	
- GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1/AUG/84	H.S.	A.O.	K.A.	K.M.
A	1/OCT/84	H.S.	A.O.	K.A.	K.M.
REVISIONS	DATE	DESIGNED	CHECKED	REVIEWED	SUBMITTED
VIADUCT V001, V027, V098, V101 GENERAL VIEW (SHEET 1 OF 2)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE 1:100		DRAWING NO. CS-165			

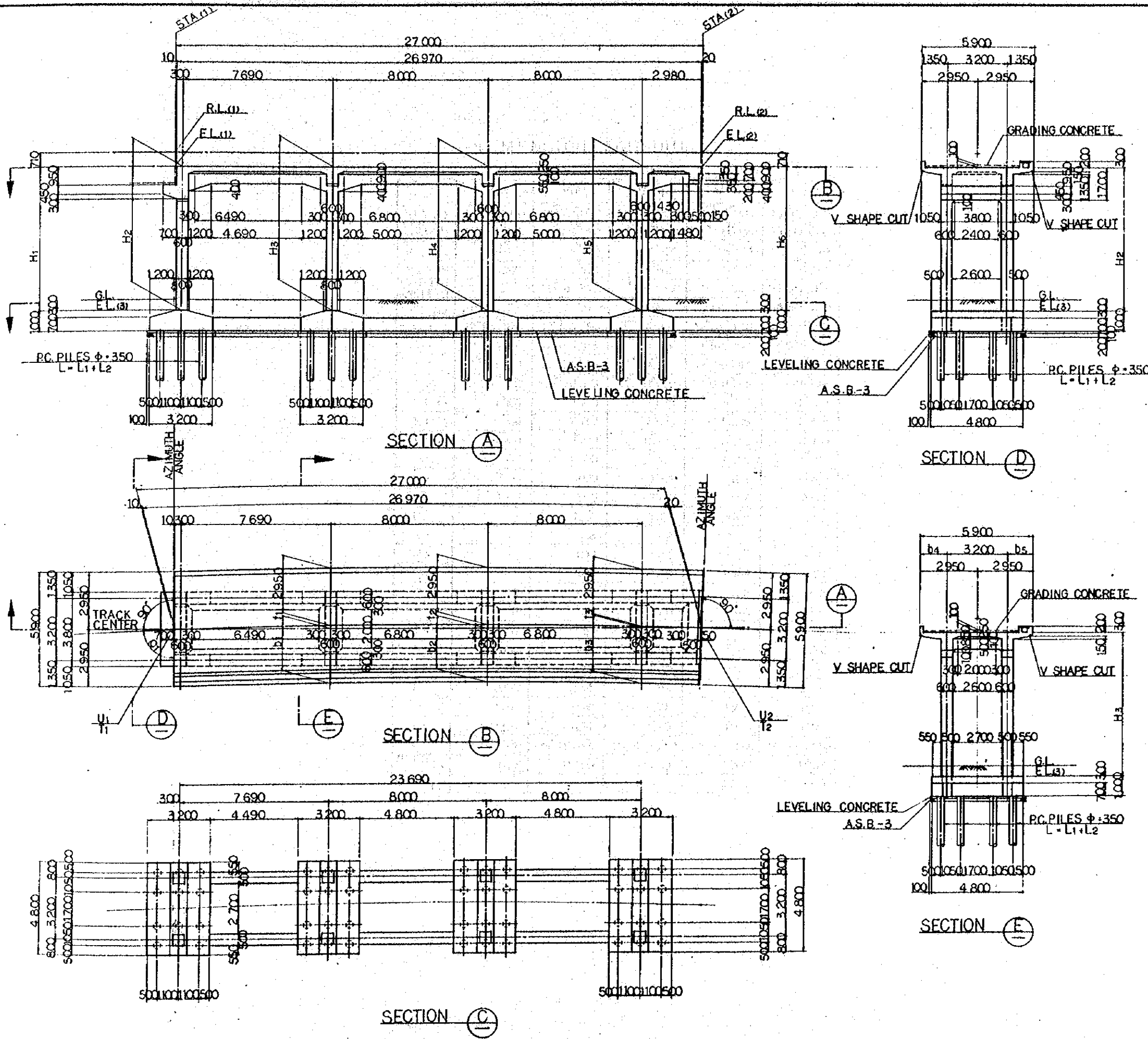
DIMENSION SCHEDULE

	V001	V027	V098	V101
STA (1)	13 <sup>m</sup> 409.000	14 <sup>m</sup> 766.000	17 <sup>m</sup> 635.000	17 <sup>m</sup> 749.000
STA (2)	13 <sup>m</sup> 436.000	14 <sup>m</sup> 739.000	17 <sup>m</sup> 662.000	17 <sup>m</sup> 722.000
R.L. (1)	4.254	5.924	8.754	8.754
R.L. (2)	4.794	?	?	?
AZIMUTH ANGLE (G)	350° 39' 55.58	9° 43' 06.64	345° 30' 45.40	345° 30' 45.40
U <sub>1</sub>	12 <sup>m</sup> 087.162	12 <sup>m</sup> 063.088	12 <sup>m</sup> 212.726	12 <sup>m</sup> 241.245
T <sub>1</sub>	-2 <sup>m</sup> 758.711	-1 <sup>m</sup> 412.375	1 <sup>m</sup> 424.027	1 <sup>m</sup> 534.402
U <sub>2</sub>	12 <sup>m</sup> 041.541	12 <sup>m</sup> 067.646	12 <sup>m</sup> 219.481	12 <sup>m</sup> 234.491
T <sub>2</sub>	-2 <sup>m</sup> 732.068	-1 <sup>m</sup> 438.988	1 <sup>m</sup> 450.168	1 <sup>m</sup> 508.260
E.L. (1)	3.544	5.214	8.044	8.044
E.L. (2)	4.084	?	?	?
E.L. (3)	0.300	0.894	0.694	0.694
G.L.	0.800	1.400	1.200	1.200
H <sub>1</sub>	3244	4320	7350	7350
H <sub>2</sub>	3250	?	?	?
H <sub>3</sub>	3404	?	?	?
H <sub>4</sub>	3564	?	?	?
H <sub>5</sub>	3724	?	?	?
H <sub>6</sub>	3784	?	?	?
P.C.PILES	10 000	12 000	8 000	8 000
P.C.PILES	—	—	11 000	10 000

NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW: CS-165.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	1/5	AD	KA	KM	MR
A	1 FEB '84	1/5	AD	KA	KM	MR
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
VIADUCT V001, V027, V098, V101 GENERAL VIEW (SHEET 2 OF 2)						
PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK						
SCALE		DRAWING NO. CS-166				



**DESIGN CRITERIA**

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-1E
	SEISMIC EFFCT	
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 90 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD-30
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck}=240 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25mm

**NOTES ;**

- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
- REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-160-164
- TYPES OF PC PILE
  - 1. BOTTOM SURFACE OF FOOTING
  - 2. PC. PILE CLASS B.
  - 3. PC. PILE CLASS A.
- GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

REPUBLIC OF INDONESIA  
 MINISTRY OF COMMUNICATIONS  
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1 AUG '84	KS	AO	KR	KM	JK
A	15 FEB '84	KS	AD	KS	KM	JK

REVISIONS: DATE, DESIGNED, CHECKED, REVIEWED, SUBMITTED

VIADUCT  
 VO11, VO13, VO14, VIII, VIII2  
 GENERAL VIEW  
 (SHEET 1 OF 2)

PROGRAM: I CIVIL AND ARCHITECTURAL WORK  
 SCALE: 1:100 DRAWING NO: CS-167

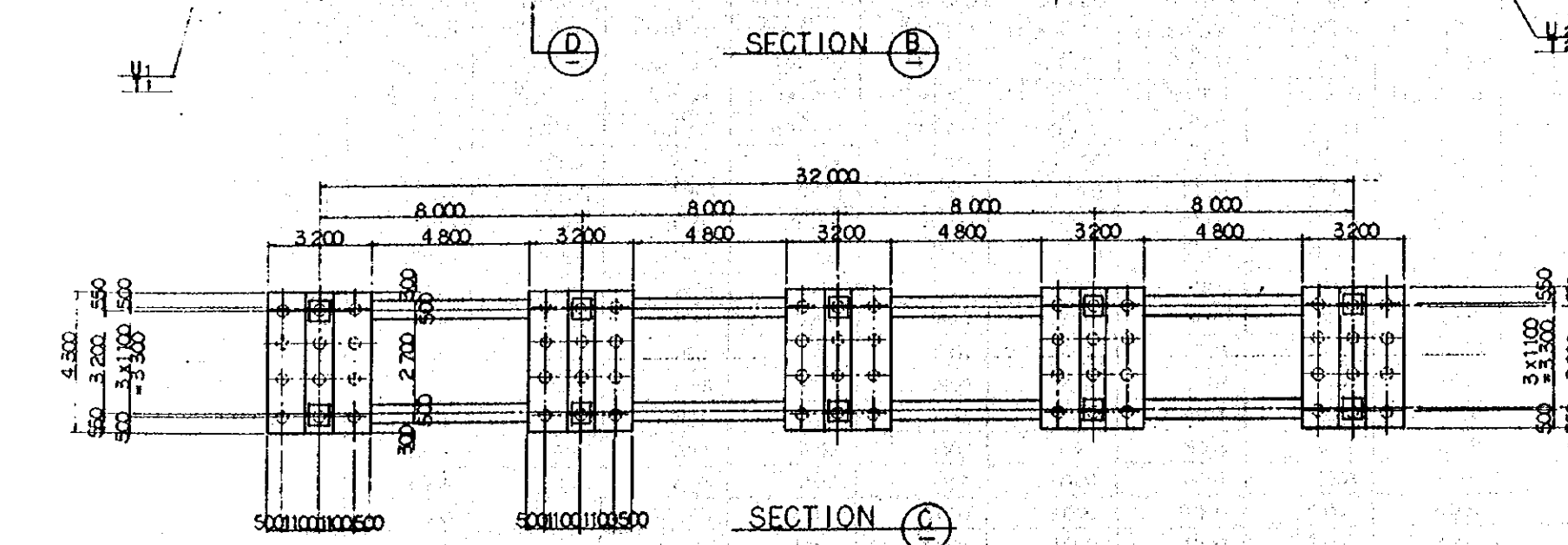
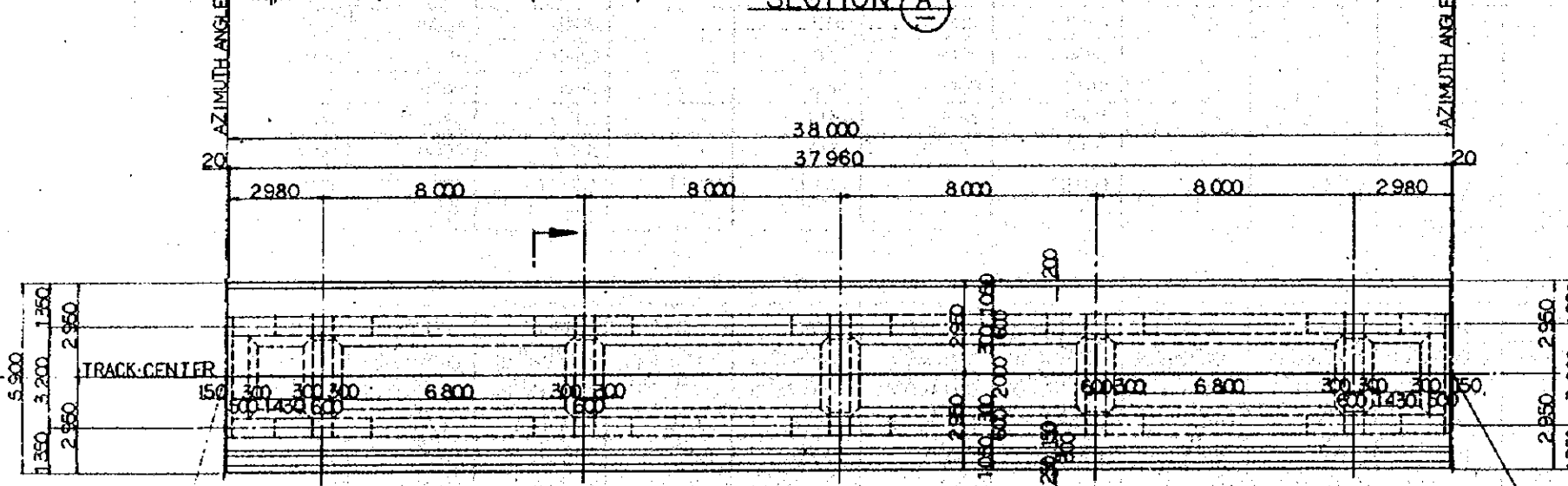
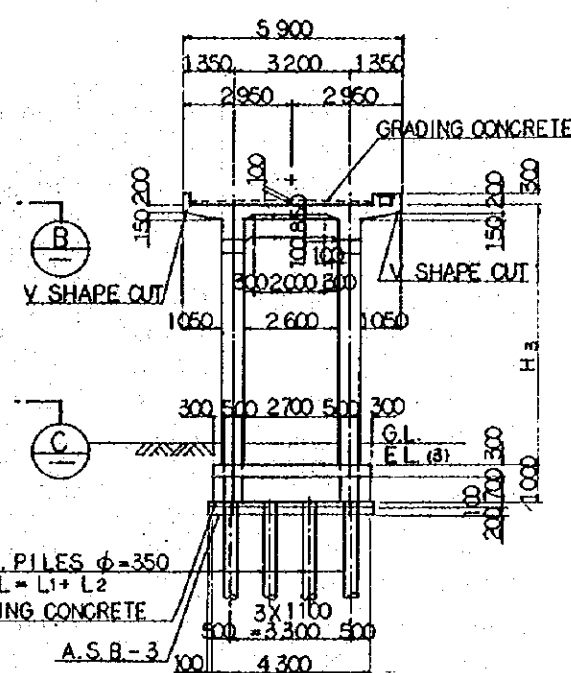
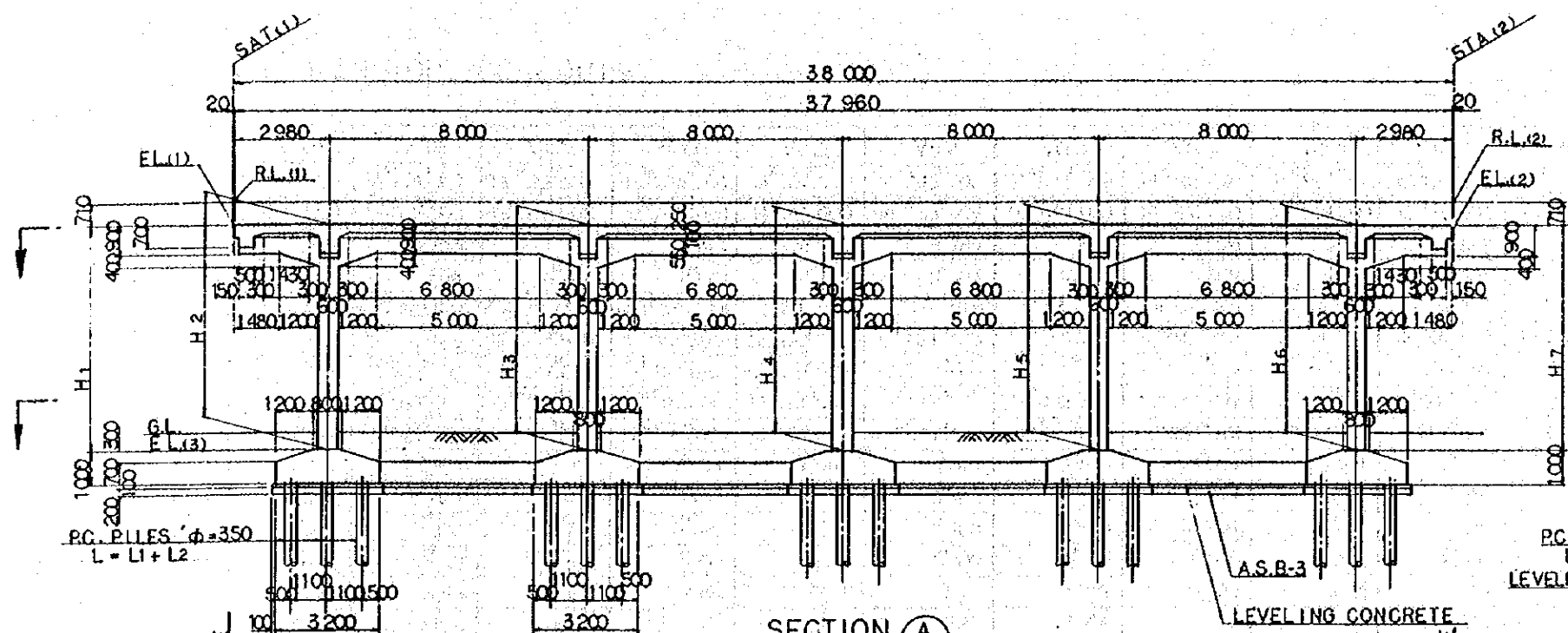
DIMENSION SCHEDULE

	Vo11	Vo13	Vo14	V111	V112
STA (1)	13 <sup>M</sup> 939.000	14 <sup>M</sup> 031.000	14 <sup>M</sup> 080.000	18 <sup>M</sup> 096.000	18 <sup>M</sup> 145.000
STA (2)	13 <sup>M</sup> 966.000	14 <sup>M</sup> 009.000	14 <sup>M</sup> 107.000	18 <sup>M</sup> 069.000	18 <sup>M</sup> 172.000
R.L. (1)	8.470	8.470	8.594	6.134	6.379
R.L. (2)	8.470	8.474	8.675	5.999	6.514
AZIMUTH ANGLE (GR)	355° 17' 58.09	359° 01' 25.30	2° 21' 42.71	8° 37' 29.63	17° 20' 01.88
∞ (θ)	356° 04' 22.67	358° 15' 00.73	2° 29' 28.81	7° 04' 40.48	18° 52' 51.08
U 1	12 <sup>M</sup> 120.731	12 <sup>M</sup> 125.285	12 <sup>M</sup> 124.350	12 <sup>M</sup> 281.968	12 <sup>M</sup> 270.965
T 1	-2 <sup>M</sup> 235.388	-2 <sup>M</sup> 143.533	-2 <sup>M</sup> 094.546	1 <sup>M</sup> 875.474	1 <sup>M</sup> 923.203
U 2	12 <sup>M</sup> 122.944	12 <sup>M</sup> 124.325	12 <sup>M</sup> 123.237	12 <sup>M</sup> 286.014	12 <sup>M</sup> 262.921
T 2	-2 <sup>M</sup> 208.479	-2 <sup>M</sup> 170.528	-2 <sup>M</sup> 067.569	1 <sup>M</sup> 848.783	1 <sup>M</sup> 948.974
E L (1)	7.760	7.760	7.884	5.424	5.669
E L (2)	7.760	7.737	7.695	5.289	5.804
E L (3)	0.700	0.700	0.700	0.800	0.900
G.L.	1.300	1.300	1.300	1.300	1.400
H 1	7060	7060	7184	4624	4769
H 2	7	7060	7182	4622	4771
H 3	7	7053	7128	4584	4809
H 4	7	7046	7072	4544	4849
H 5	7	7040	7016	4504	4889
H 6	7	7037	6995	4489	4904
I 1	76	76	21	152	152
I 2	88	88	20	176	176
I 3	36	36	7	72	72
b 1	2874	2874	2929	2798	2798
b 2	2862	2862	2930	2774	2774
b 3	2914	2914	2943	2578	2878
b 4	1426	1426	1371	1502	1502
b 5	1274	1274	1329	1198	1198
θ 1	89° 13' 35.43	89° 13' 35.43	89° 45' 16.19	88° 27' 10.85	88° 27' 10.85
PC PILES 1	11 000	11 000	11 000	8 000	8 000
PC PILES 2	—	—	—	8 000	8 000

NOTES :

- 1 ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
- 2 REFERENCE DRAWING FOR GENERAL VIEW : CS-167.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG. 04	M.S.	A.O.	K.A.	K.M.	A.K.
A	1 SEPT. 04	M.S.	A.O.	K.A.	K.M.	A.K.
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
VIADUCT VO11, VO13, VO14, VIII, V112 GENERAL VIEW (SHEET 2 OF 2)						
PACKAGE : I CIVIL AND ARCHITECTURAL WORK						
SCALE	Drawing No. CS-168					



- NOTES ;
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-160~164.
  3. TYPES OF PC PILE
    - 3.1 BOTTOM SURFACE OF FOOTING
    - 3.2 PC PILE CLASS B.
    - 3.3 PC PILE CLASS A.
  4. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENB AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1AUG'84	MS	AD	K.A.	U.M.
A	10/10/83	MS	AD	K.A.	K.M.
REVISION	DATE	DRAWN	CHECKED	REVIEWED	COMMITTED
VIADUCT V004~V006, V009, V015, V016, V023, V029, V030, V037~V045, V050~V070, V123~V125 GENERAL VIEW (SHEET 1 OF 3)					
PROGRAM: II TRACK WORKS					
SCALE: 1:100		DRAWING NO: CS-169			

DIMENSION SCHEDULE

	V004	V005	V006	V009	V015	V016	V023	V029	V030	V037	V038	V039	V040	V041
STA (1)	13 <sup>m</sup> 496.000	13 <sup>m</sup> 534.000	13 <sup>m</sup> 572.000	13 <sup>m</sup> 708.000	14 <sup>m</sup> 107.000	14 <sup>m</sup> 145.000	14 <sup>m</sup> 611.000	14 <sup>m</sup> 888.000	14 <sup>m</sup> 926.000	15 <sup>m</sup> 192.000	15 <sup>m</sup> 230.000	15 <sup>m</sup> 268.000	15 <sup>m</sup> 306.000	15 <sup>m</sup> 344.000
STA (2)	13 <sup>m</sup> 534.000	13 <sup>m</sup> 572.000	13 <sup>m</sup> 610.000	13 <sup>m</sup> 746.000	14 <sup>m</sup> 145.000	14 <sup>m</sup> 183.000	14 <sup>m</sup> 649.000	14 <sup>m</sup> 926.000	14 <sup>m</sup> 964.000	15 <sup>m</sup> 230.000	15 <sup>m</sup> 268.000	15 <sup>m</sup> 306.000	15 <sup>m</sup> 344.000	15 <sup>m</sup> 382.000
R.L. (1)	5.994	6.754	7.514	8.470	8.765	8.789	7.559	5.924	5.924	5.924	5.924	5.924	5.924	6.028
R.L. (2)	6.754	7.514	8.207	8.470	8.789	8.903	6.986	5.924	5.924	5.924	5.924	5.924	6.028	6.512
AZIMUTH ANGLE (G)	350°39'55.58	350°39'55.58	350°39'55.58	350°39'55.58	2°29'30.68	2°29'30.68	9°43'08.64	9°43'08.64	9°43'08.64	1°06'02.00	1°06'02.00	1°06'02.00	1°06'02.00	1°06'02.00
U 1	12 <sup>m</sup> 051.273	12 <sup>m</sup> 057.476	12 <sup>m</sup> 063.600	12 <sup>m</sup> 085.659	12 <sup>m</sup> 123.237	12 <sup>m</sup> 121.585	12 <sup>m</sup> 089.255	12 <sup>m</sup> 042.492	12 <sup>m</sup> 036.077	12 <sup>m</sup> 007.409	12 <sup>m</sup> 006.679	12 <sup>m</sup> 005.949	12 <sup>m</sup> 005.219	12 <sup>m</sup> 004.489
T 1	-2 <sup>m</sup> 672.863	-2 <sup>m</sup> 635.366	-2 <sup>m</sup> 597.869	-2 <sup>m</sup> 463.670	-2 <sup>m</sup> 067.569	-2 <sup>m</sup> 029.605	-1 <sup>m</sup> 565.151	-1 <sup>m</sup> 292.127	-1 <sup>m</sup> 254.672	-990.646	-952.653	-914.660	-876.667	-838.674
U 2	12 <sup>m</sup> 057.436	12 <sup>m</sup> 063.600	12 <sup>m</sup> 069.764	12 <sup>m</sup> 091.823	12 <sup>m</sup> 121.585	12 <sup>m</sup> 119.933	12 <sup>m</sup> 082.840	12 <sup>m</sup> 036.077	12 <sup>m</sup> 029.662	12 <sup>m</sup> 006.679	12 <sup>m</sup> 005.949	12 <sup>m</sup> 005.219	12 <sup>m</sup> 004.489	12 <sup>m</sup> 003.760
T 2	-2 <sup>m</sup> 635.366	-2 <sup>m</sup> 597.869	-2 <sup>m</sup> 560.372	-2 <sup>m</sup> 426.173	-2 <sup>m</sup> 029.605	-1 <sup>m</sup> 991.640	-1 <sup>m</sup> 527.696	-1 <sup>m</sup> 254.672	-1 <sup>m</sup> 217.217	-952.653	-914.660	-876.667	-838.674	-800.681
E L. (1)	5.284	6.044	6.804	7.760	7.965	8.079	6.849	5.214	5.214	5.214	5.214	5.214	5.214	5.210
E L. (2)	6.044	6.804	7.497	7.760	8.079	8.193	6.276	5.214	5.214	5.214	5.214	5.214	5.210	5.802
E L. (3)	0.300	0.300	0.700	0.700	0.700	0.700	0.900	0.494	0.494	0.494	0.494	0.494	0.500	0.500
G. L.	0.800	0.800	1.500	1.300	1.300	1.300	1.400	1.000	1.000	1.000	1.000	1.000	1.000	1.000
H 1	4984	5744	6104	7060	7265	7379	5949	4720	4720	4720	4720	4720	4714	4710
H 2	5044	5804	6159	7274	7388	7412	5904						4714	4757
H 3	5204	5964	6305		7298	7412	5783						4713	4881
H 4	5364	6124	6450		7322	7436	5662						4712	5006
H 5	5524	6284	6596		7346	7460	5542						4711	5131
H 6	5684	6444	6742		7370	7484	5421						4710	5255
H 7	5744	6504	6797		7379	7493	5376						4710	5302
R.C. PILES	10 000	10 000	11 000	11 000	11 000	11 000	12 000	12 000	13 000	14 000	14 000	14 000	14 000	14 000
R.C. PILES	—	—	—	—	—	—	—	—	—	—	—	—	—	—

NOTES:

- 1 ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
- 2 REFERENCE DRAWING FOR GENERAL VIEW : CS-169.

	V042	V043	V044	V045	V050	V051	V052	V053	V054	V055	V056	V057	V058	V059
STA (1)	15 <sup>m</sup> 382.000	15 <sup>m</sup> 420.000	15 <sup>m</sup> 458.000	15 <sup>m</sup> 496.000	15 <sup>m</sup> 728.000	15 <sup>m</sup> 766.000	15 <sup>m</sup> 804.000	15 <sup>m</sup> 842.000	15 <sup>m</sup> 880.000	15 <sup>m</sup> 918.000	15 <sup>m</sup> 956.000	15 <sup>m</sup> 994.000	16 <sup>m</sup> 032.000	16 <sup>m</sup> 070.000
STA (2)	15 <sup>m</sup> 420.000	15 <sup>m</sup> 458.000	15 <sup>m</sup> 496.000	15 <sup>m</sup> 534.000	15 <sup>m</sup> 766.000	15 <sup>m</sup> 804.000	15 <sup>m</sup> 842.000	15 <sup>m</sup> 880.000	15 <sup>m</sup> 918.000	15 <sup>m</sup> 956.000	15 <sup>m</sup> 994.000	16 <sup>m</sup> 032.000	16 <sup>m</sup> 070.000	16 <sup>m</sup> 108.000
R.L. (1)	6.512	7.044	7.576	8.108	8.724	8.542	8.276	8.010	7.744	7.478	7.259	7.254	7.254	7.254
R.L. (2)	7.044	7.576	8.108	8.603	8.542	8.276	8.010	7.744	7.478	7.259	7.252	7.254	7.254	7.254
AZIMUTH ANGLE (G)	1°06'02.00	1°06'02.00	1°06'02.00	1°06'02.00	1°06'02.00	1°06'02.00	1°06'02.00	1°06'02.00	1°06'02.00	1°06'02.00	1°06'02.00	1°06'02.00	1°06'02.00	1°06'02.00
U 1	12 <sup>m</sup> 003.760	12 <sup>m</sup> 003.030	12 <sup>m</sup> 002.300	12 <sup>m</sup> 001.570	11 <sup>m</sup> 997.114	11 <sup>m</sup> 996.384	11 <sup>m</sup> 995.654	11 <sup>m</sup> 994.924	11 <sup>m</sup> 994.194	11 <sup>m</sup> 993.465	11 <sup>m</sup> 992.735	11 <sup>m</sup> 992.005	11 <sup>m</sup> 991.275	11 <sup>m</sup> 990.545
T 1	-800.681	-762.689	-724.696	-686.703	-454.745	-416.752	-378.759	-340.766	-302.773	-264.780	-226.787	-188.794	-150.801	-112.808
U 2	12 <sup>m</sup> 003.030	12 <sup>m</sup> 002.300	12 <sup>m</sup> 001.570	12 <sup>m</sup> 000.840	11 <sup>m</sup> 996.384	11 <sup>m</sup> 995.654	11 <sup>m</sup> 994.924	11 <sup>m</sup> 994.194	11 <sup>m</sup> 993.465	11 <sup>m</sup> 992.735	11 <sup>m</sup> 992.005	11 <sup>m</sup> 991.275	11 <sup>m</sup> 990.545	11 <sup>m</sup> 989.815
T 2	-762.689	-724.696	-686.703	-648.710	-416.752	-378.759	-340.766	-302.773	-264.780	-226.787	-188.794	-150.801	-112.808	-74.815
E L. (1)	5.802	6.334	6.866	7.398	8.014	7.832	7.566	7.300	7.034	6.768	6.520	6.544	6.544	6.544
E L. (2)	6.334	6.866	7.398	7.893	7.832	7.566	7.300	7.034	6.768	6.520	6.544	6.544	6.544	6.544
E L. (3)	-0.100	-0.100	-0.100	-0.100	0.200	0.200	0.200	0.200	0.200	0.000	0.000	-0.006	-0.006	-0.006
G. L.	0.400	0.400	0.400	0.400	0.700	0.700	0.700	0.700	0.700	0.500	0.500	0.500	0.500	0.500
H 1	5902	6434	6966	7498	7814	7632	7366	7100	6834	6768	6520	6550	6550	6550
H 2	5944	6476	7008	7537	7800	7611	7345	7079	6813	6748	6522			
H 3	6056	6588	7120	7641	7761	7555	7289	7023	6757	6696	6527			
H 4	6168	6700	7232	7746	7723	7499	7233	6967	6701	6644	6532			
H 5	6280	6812	7344	7850	7685	7443	7177	6911	6645	6592	6537			
H 6	6392	6924	7456	7954	7646	7387	7121	6855	6589	6539	6542			
H 7	6434	6966	7498	7993	7632	7366	7100	6834	6568	6520	6544			
R.C. PILES	14 000	14 000	14 000	14 000	8 000	8 000	8 000	8 000	8 000	8 000	8 000	8 000	8 000	8 000
R.C. PILES	—	—	—	—	8 000	8 000	8 000	8 000	8 000	8 000	9 000	9 000	9 000	9 000

**REPUBLIC OF INDONESIA**  
**MINISTRY OF COMMUNICATIONS**  
 DIRECTORATE GENERAL OF LAND TRANSPORT  
 AND INLAND WATERWAYS

**NEW RAILWAY LINE FOR CENGKARENG AIRPORT  
 CONSTRUCTION PROJECT**

JAPAN INTERNATIONAL COOPERATION AGENCY  
 (JICA)

REVISION	DATE	DESIGNED	CHECKED	APPROVED	SUBMITTED
B	1AUG.84	H.S.	A.O.	K.A.	K.M.
A	05A.83	H.S.	A.P.	K.A.	K.M.

VIADUCT V004~V006, V009,  
 V015, V016, V023, V029, V030,  
 V037~V045, V050~V070, V123~V125  
 GENERAL VIEW  
 (SHEET 2 OF 3)

PACKAGE: E TRACK WORKS  
 SCALE: DRAWING NO: CS-170



DIMENSION SCHEDULE (CONT'D)

	V060	V061	V062	V063	V064	V065	V066	V067	V068	V069	V070	V123	V124	V125
STA (1)	16 <sup>m</sup> 108.000	16 <sup>m</sup> 146.000	16 <sup>m</sup> 184.000	16 <sup>m</sup> 222.000	16 <sup>m</sup> 260.000	16 <sup>m</sup> 298.000	16 <sup>m</sup> 336.000	16 <sup>m</sup> 374.000	16 <sup>m</sup> 412.000	16 <sup>m</sup> 450.000	16 <sup>m</sup> 488.000	18 <sup>m</sup> 472.000	18 <sup>m</sup> 510.000	18 <sup>m</sup> 548.000
STA (2)	16 <sup>m</sup> 146.000	16 <sup>m</sup> 184.000	16 <sup>m</sup> 222.000	16 <sup>m</sup> 260.000	16 <sup>m</sup> 298.000	16 <sup>m</sup> 336.000	16 <sup>m</sup> 374.000	16 <sup>m</sup> 412.000	16 <sup>m</sup> 450.000	16 <sup>m</sup> 488.000	16 <sup>m</sup> 526.000	18 <sup>m</sup> 510.000	18 <sup>m</sup> 548.000	18 <sup>m</sup> 586.000
R.L. (1)	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	9 <sup>m</sup> .234	9 <sup>m</sup> .804	10 <sup>m</sup> .354
R.L. (2)	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	7 <sup>m</sup> .254	9 <sup>m</sup> .804	10 <sup>m</sup> .354	10 <sup>m</sup> .554
AZIMUTH ANGLE (G)	1°06'02"00	1°06'02"00	1°06'02"00	1°06'02"00	1°06'02"00	1°06'02"00	1°06'02"00	1°06'02"00	1°06'02"00	1°06'02"00	1°06'02"00	30°26'59"73	30°26'59"73	30°26'59"73
U1	11 <sup>m</sup> 999.815	11 <sup>m</sup> 999.085	11 <sup>m</sup> 988.355	11 <sup>m</sup> 987.626	11 <sup>m</sup> 986.896	11 <sup>m</sup> 986.166	11 <sup>m</sup> 985.436	11 <sup>m</sup> 984.706	11 <sup>m</sup> 983.976	11 <sup>m</sup> 983.246	11 <sup>m</sup> 982.516	12 <sup>m</sup> 123.596	12 <sup>m</sup> 104.338	12 <sup>m</sup> 085.081
T1	-74 <sup>m</sup> .315	-36 <sup>m</sup> .822	1 <sup>m</sup> .171	39 <sup>m</sup> .164	77 <sup>m</sup> .157	115 <sup>m</sup> .150	153 <sup>m</sup> .143	191 <sup>m</sup> .136	229 <sup>m</sup> .129	267 <sup>m</sup> .122	305 <sup>m</sup> .115	2 <sup>m</sup> 214.167	2 <sup>m</sup> 246.926	2 <sup>m</sup> 279.684
U2	11 <sup>m</sup> 999.085	11 <sup>m</sup> 988.355	11 <sup>m</sup> 987.626	11 <sup>m</sup> 986.896	11 <sup>m</sup> 986.166	11 <sup>m</sup> 985.436	11 <sup>m</sup> 984.706	11 <sup>m</sup> 983.976	11 <sup>m</sup> 983.246	11 <sup>m</sup> 982.516	11 <sup>m</sup> 981.787	12 <sup>m</sup> 104.338	12 <sup>m</sup> 085.081	12 <sup>m</sup> 065.823
T2	-36 <sup>m</sup> .822	1 <sup>m</sup> .171	39 <sup>m</sup> .164	77 <sup>m</sup> .157	115 <sup>m</sup> .150	153 <sup>m</sup> .143	191 <sup>m</sup> .136	229 <sup>m</sup> .129	267 <sup>m</sup> .122	305 <sup>m</sup> .115	345 <sup>m</sup> .108	2 <sup>m</sup> 246.926	2 <sup>m</sup> 279.684	2 <sup>m</sup> 312.443
E.L. (1)	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	8 <sup>m</sup> .524	9 <sup>m</sup> .094	9 <sup>m</sup> .644
E.L. (2)	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	6 <sup>m</sup> .544	9 <sup>m</sup> .094	9 <sup>m</sup> .644	9 <sup>m</sup> .844
E.L. (3)	-0 <sup>m</sup> .006	-0 <sup>m</sup> .006	-0 <sup>m</sup> .006	-0 <sup>m</sup> .006	-0 <sup>m</sup> .006	-0 <sup>m</sup> .006	-0 <sup>m</sup> .006	-0 <sup>m</sup> .006	-0 <sup>m</sup> .006	-0 <sup>m</sup> .006	0 <sup>m</sup> .194	0 <sup>m</sup> .900	0 <sup>m</sup> .900	0 <sup>m</sup> .900
G.L.	0 <sup>m</sup> .500	0 <sup>m</sup> .500	0 <sup>m</sup> .500	0 <sup>m</sup> .500	0 <sup>m</sup> .500	0 <sup>m</sup> .500	0 <sup>m</sup> .500	0 <sup>m</sup> .500	0 <sup>m</sup> .500	0 <sup>m</sup> .500	0 <sup>m</sup> .700	1 <sup>m</sup> .400	1 <sup>m</sup> .400	1 <sup>m</sup> .400
H1	6550	6550	6550	6550	6550	6550	6550	6550	6550	6550	6350	7624	8194	8744
H2	"	"	"	"	"	"	"	"	"	"	"	7669	8237	8760
H3	"	"	"	"	"	"	"	"	"	"	"	7789	8353	8802
H4	"	"	"	"	"	"	"	"	"	"	"	7909	8469	8844
H5	"	"	"	"	"	"	"	"	"	"	"	8029	8585	8886
H6	"	"	"	"	"	"	"	"	"	"	"	8149	8700	8928
H7	"	"	"	"	"	"	"	"	"	"	"	8194	8744	8944
PC.PILES 1	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000
PC.PILES 2	9000	9000	10000	10000	10000	10000	10000	10000	11000	11000	11000	7000	7000	7000

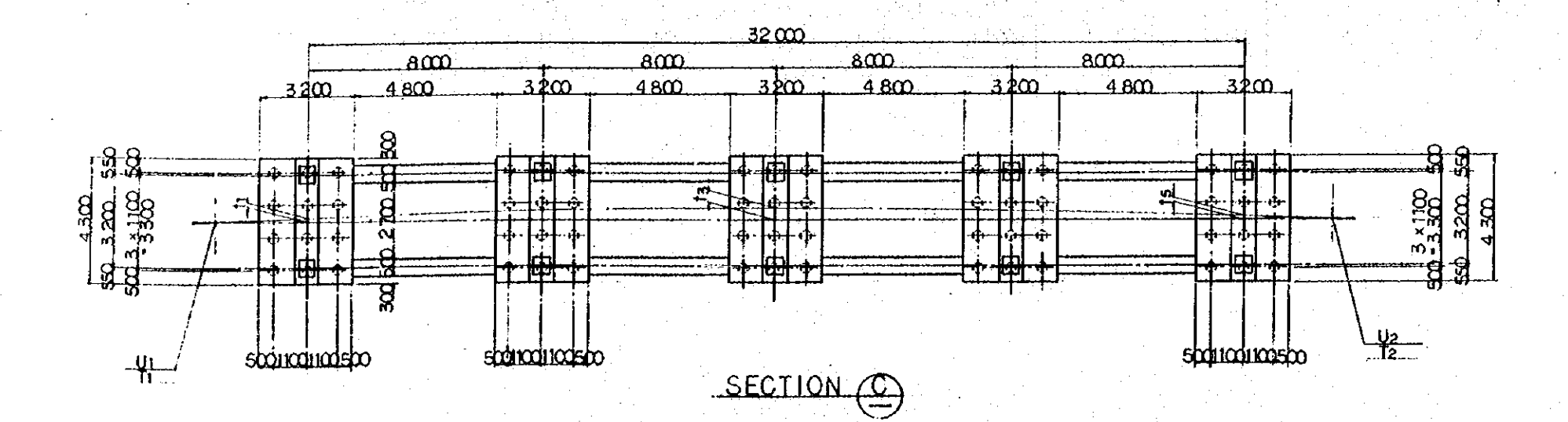
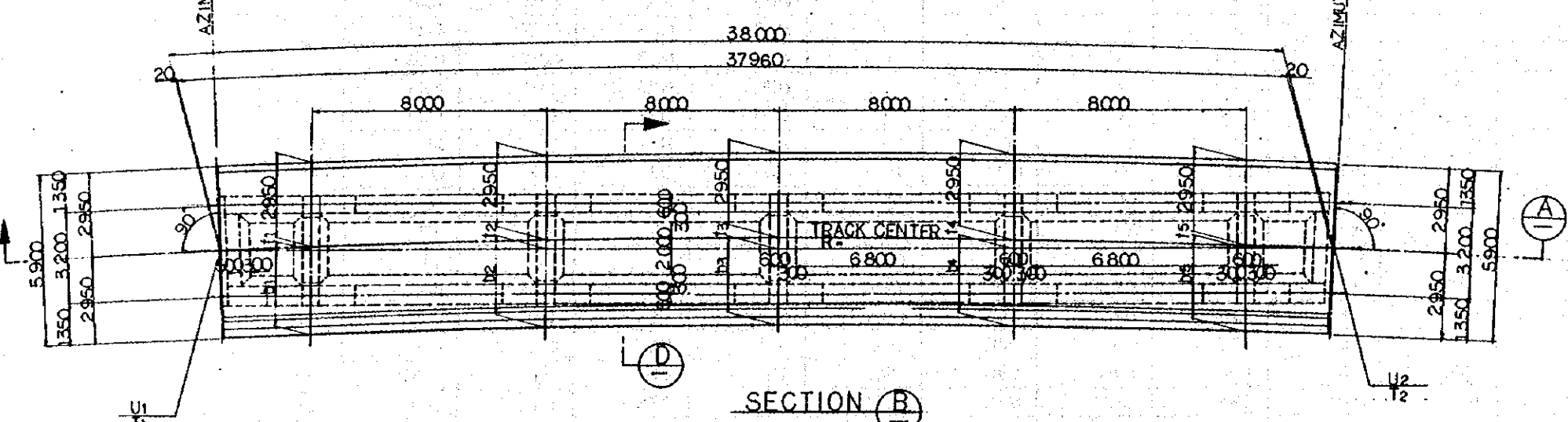
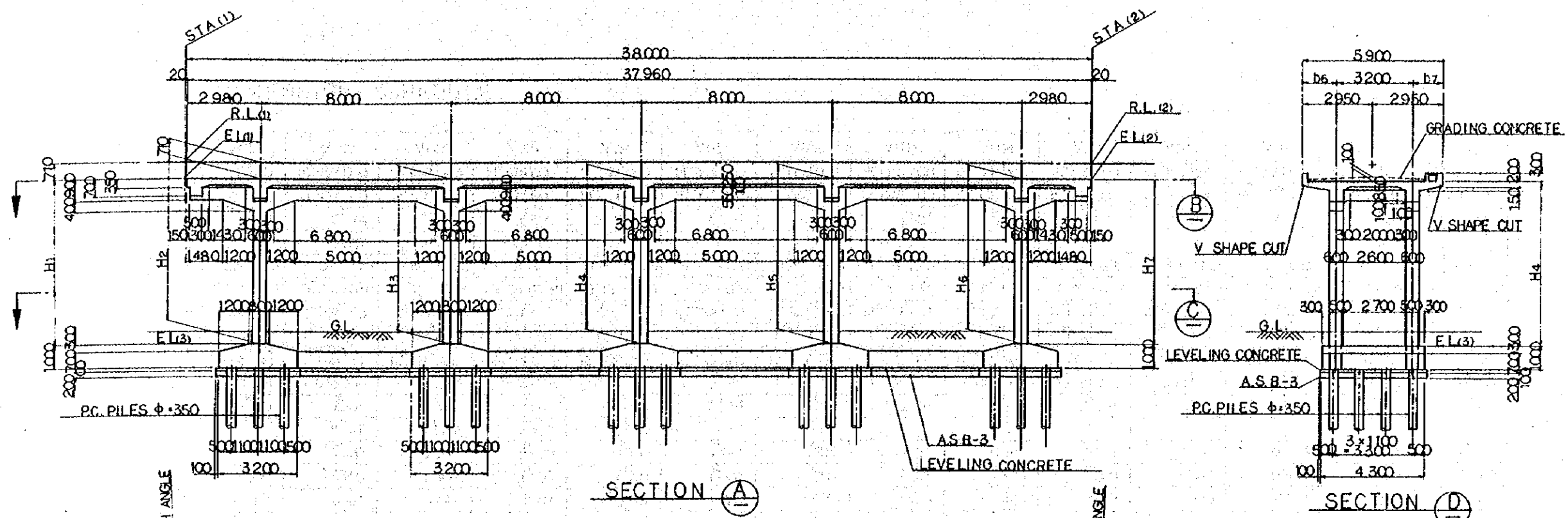
NOTES:

- 1 ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
- 2 REFERENCE DRAWING FOR GENERAL VIEW: CS-169.

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-16
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_h=0.1$ IN VERTICAL DIRECTION $K_v=0$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 90 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD-30
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck}=2100 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25mm

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG/84	H.S.	A.O.	K.A.	K.M.	M.K.
A	15FEB/84	H.S.	A.O.	K.A.	K.M.	M.K.
REVISION	DATE	DESIGNED	CHECKED	APPROVED	EXTENDED	SUBMITTED
VIADUCT V004~V006, V009, V015, V016, V023, V029, V030, V037~V045, V050~V070, V123~V125 GENERAL VIEW (SHEET 3 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO. CS-171					



- NOTES ;
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS-160~164
  3. TYPES OF PC PILE
    - 3 | BOTTOM SURFACE OF FOOTING
    - 9 | PC. PILE CLASS B.
    - 5 | PC. PILE CLASS A.
  4. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1AUG'84	MS	AD	KA	UM
A	10FEB'84	MS	AD	KA	UM
REVISION	DATE	DRAWN	CHECKED	REVIEWED	SUBMITTED
VIADUCT VO12, VO19~VO22, VO31~VO36, VO71, VO72, VO75~VO79, VI26 GENERAL VIEW (SHEET 1 OF 3)					
PACKAGE : I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1 : 100	CS-172				

### DIMENSION SCHEDULE

	V012	V019	V020	V021	V022	V031	V032	V033	V034	V035	V036	V071	V072	V075
STA (1)	13 <sup>m</sup> 966.000	14 <sup>m</sup> 459.000	14 <sup>m</sup> 497.000	14 <sup>m</sup> 535.000	14 <sup>m</sup> 573.000	14 <sup>m</sup> 611.000	15 <sup>m</sup> 002.000	15 <sup>m</sup> 040.000	15 <sup>m</sup> 078.000	15 <sup>m</sup> 116.000	15 <sup>m</sup> 154.000	16 <sup>m</sup> 526.000	16 <sup>m</sup> 564.000	16 <sup>m</sup> 682.000
STA (2)	14 <sup>m</sup> 004.000	14 <sup>m</sup> 497.000	14 <sup>m</sup> 535.000	14 <sup>m</sup> 573.000	14 <sup>m</sup> 611.000	15 <sup>m</sup> 002.000	15 <sup>m</sup> 040.000	15 <sup>m</sup> 078.000	15 <sup>m</sup> 116.000	15 <sup>m</sup> 154.000	15 <sup>m</sup> 192.000	16 <sup>m</sup> 564.000	16 <sup>m</sup> 602.000	16 <sup>m</sup> 720.000
R.L. (1)	8.470	8.514	9.057	8.699	8.129	5.924	5.924	5.924	5.924	5.924	5.924	7.254	7.254	7.254
R.L. (2)	?	9.057	8.699	8.129	7.559	?	?	?	?	?	?	?	?	?
A ZIMUTH ANGLE (G)	356° 04' 22.67	3° 09' 11.81	5° 04' 55.36	7° 15' 33.43	9° 08' 09.80	9° 43' 08.64	9° 26' 43.15	7° 53' 22.23	5° 42' 44.17	3° 32' 06.10	1° 40' 08.12	1° 06' 02.00	0° 39' 02.35	354° 18' 07.68
00 (G)	358° 15' 00.73	5° 04' 55.36	7° 15' 33.43	9° 06' 09.80	9° 43' 08.64	9° 26' 43.15	7° 53' 22.23	5° 42' 44.17	3° 32' 06.10	1° 40' 08.12	1° 06' 02.00	0° 39' 02.35	358° 53' 02.86	352° 07' 23.62
U 1	12 <sup>m</sup> 22.944	12 <sup>m</sup> 107.790	12 <sup>m</sup> 105.111	12 <sup>m</sup> 101.026	12 <sup>m</sup> 095.553	12 <sup>m</sup> 029.662	12 <sup>m</sup> 023.285	12 <sup>m</sup> 017.484	12 <sup>m</sup> 012.984	12 <sup>m</sup> 009.921	12 <sup>m</sup> 008.253	11 <sup>m</sup> 981.787	11 <sup>m</sup> 981.137	11 <sup>m</sup> 985.979
T 1	-2 <sup>m</sup> 203.479	-1 <sup>m</sup> 715.908	1 <sup>m</sup> 678.005	-1 <sup>m</sup> 640.227	-1 <sup>m</sup> 602.625	-1 <sup>m</sup> 217.217	-1 <sup>m</sup> 179.756	-1 <sup>m</sup> 142.203	-1 <sup>m</sup> 104.473	-1 <sup>m</sup> 006.599	-1 <sup>m</sup> 028.637	343.108	381.102	498.938
U 2	12 <sup>m</sup> 124.825	12 <sup>m</sup> 105.111	12 <sup>m</sup> 101.026	12 <sup>m</sup> 095.553	12 <sup>m</sup> 089.255	12 <sup>m</sup> 023.285	12 <sup>m</sup> 017.484	12 <sup>m</sup> 012.984	12 <sup>m</sup> 009.921	12 <sup>m</sup> 008.253	12 <sup>m</sup> 007.409	11 <sup>m</sup> 981.137	11 <sup>m</sup> 981.225	11 <sup>m</sup> 990.471
T 2	-2 <sup>m</sup> 170.528	-1 <sup>m</sup> 678.005	1 <sup>m</sup> 640.227	-1 <sup>m</sup> 602.625	-1 <sup>m</sup> 569.151	-1 <sup>m</sup> 179.756	-1 <sup>m</sup> 142.203	-1 <sup>m</sup> 104.473	-1 <sup>m</sup> 066.599	-1 <sup>m</sup> 028.637	-990.646	381.102	419.100	536.669
E L(1)	7.760	7.804	8.347	7.989	7.419	5.214	5.214	5.214	5.214	5.214	5.214	6.544	6.544	6.544
E L(2)	?	8.347	7.989	7.419	6.849	?	?	?	?	?	?	?	?	?
E L(3)	0.700	0.900	0.900	0.900	0.900	0.494	0.794	0.794	0.794	0.794	0.794	0.194	0.194	0.194
G.L.	1.300	1.400	1.400	1.400	1.400	1.000	1.300	1.300	1.300	1.300	1.300	0.500	0.700	0.700
H 1	7060	6904	7447	7089	6519	4720	4420	4420	4420	4420	4420	6350	6350	6350
H 2	?	6947	7419	7044	6474	?	?	?	?	?	?	?	?	?
H 3	?	7061	7343	6924	6354	?	?	?	?	?	?	?	?	?
H 4	?	7176	7268	6804	6234	?	?	?	?	?	?	?	?	?
H 5	?	7290	7193	6684	6114	?	?	?	?	?	?	?	?	?
H 6	?	7404	7117	6564	5994	?	?	?	?	?	?	?	?	?
H 7	?	7447	7089	6519	5949	?	?	?	?	?	?	?	?	?
f 1	53	44	53	49	19	3	33	53	53	49	18	6	39	53
f 2	149	130	149	136	46	11	100	149	149	135	45	23	116	149
f 3	181	164	181	159	48	19	129	181	181	158	47	36	149	181
f 4	149	139	149	125	33	21	113	149	149	124	32	36	128	149
f 5	53	50	53	42	9	10	42	53	53	42	9	15	47	53
b 1	2897	2906	2897	2901	2931	2947	2917	2897	2897	2901	2932	2944	2911	2897
b 2	2801	2820	2801	2814	2904	2939	2850	2801	2801	2815	2905	2927	2834	2801
b 3	2769	2786	2769	2791	2902	2931	2821	2769	2769	2792	2903	2914	2801	2769
b 4	2801	2811	2801	2825	2917	2929	2837	2801	2801	2826	2918	2914	2822	2801
b 5	2897	2900	2897	2908	2941	2940	2908	2897	2897	2908	2941	2935	2903	2897
b 6	1531	1514	1531	1509	1398	1331	1221	1169	1169	1192	1303	1314	1201	1169
b 7	1169	1186	1169	1191	1302	1369	1479	1531	1531	1508	1397	1386	1499	1531
P.C. PILES	11 000	12 000	12 000	12 000	12 000	13 000	13 000	13 000	14 000	14 000	14 000	8 000	8 000	8 000
P.C. PILES	—	—	—	—	—	—	—	—	—	—	—	11 000	12 000	12 000

**NOTES:**

- 1 ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
- 2 REFERENCE DRAWING FOR GENERAL VIEW: CS-172.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1AUG'84	M.S	A.O	K.A	K.M
A	1AUG'84	M.S	A.O	K.A	K.M
REVISION	DATE	DESIGNED	DRAWN	CHECKED	SUBMITTED
VIADUCT V012, V019~V022, V031~V036, V071, V072 V075~V079, V126 GENERAL VIEW (SHEET 2 OF 3)					
PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO. CS-173				

DIMENSION SCHEDULE (CONT'D)

	V076	V077	V078	V079	V126
STA (1)	16 <sup>m</sup> 720'000	16 <sup>m</sup> 758'000	16 <sup>m</sup> 796'000	16 <sup>m</sup> 834'000	18 <sup>m</sup> 586'000
STA (2)	16 <sup>m</sup> 758'000	16 <sup>m</sup> 796'000	16 <sup>m</sup> 834'000	16 <sup>m</sup> 872'000	18 <sup>m</sup> 624'000
R.L. (1)	7.254	7.254	7.350	7.578	10.554
R.L. (2)	,	7.350	7.578	7.806	,
AZIMUTH ANGLE (°)	352° 07' 23.62	349° 56' 45.55	347° 46' 07.49	345° 58' 59.01	30° 26' 59.73
∠ (°)	349° 56' 45.55	347° 46' 07.49	345° 58' 59.01	345° 30' 45.40	30° 53' 20.88
U 1	11 <sup>m</sup> 990.471	11 <sup>m</sup> 996.392	12 <sup>m</sup> 003.735	12 <sup>m</sup> 012.426	12 <sup>m</sup> 065.823
T 1	536.669	574.202	611.484	648.475	2' 312.443
U 2	11 <sup>m</sup> 996.392	12 <sup>m</sup> 003.735	12 <sup>m</sup> 012.426	12 <sup>m</sup> 021.849	12 <sup>m</sup> 046.518
T 2	574.202	611.484	648.475	685.238	2' 345.174
E L(1)	6.544	6.544	6.544	6.868	9.844
E L(2)	,	,	6.868	7.096	,
E L(3)	0.194	0.394	0.400	0.400	0.694
O.L.	0.700	0.900	0.900	0.900	1.400
H 1	6350	6150	6144	6468	9150
H 2	,	,	6170	6486	,
H 3	,	,	6238	6534	,
H 4	,	,	6306	6562	,
H 5	,	,	6374	6630	,
H 6	,	,	6443	6678	,
H 7	,	,	6468	6696	,
f 1	53	53	47	16	4
f 2	149	149	130	38	16
f 3	181	181	150	38	25
f 4	149	149	117	25	33
f 5	53	53	39	7	16
b 1	2897	2897	2903	2934	2946
b 2	2801	2801	2820	2912	2984
b 3	2769	2769	2800	2912	2923
b 4	2801	2801	2833	2925	2917
b 5	2897	2897	2911	2943	2934
b 6	1169	1169	1200	1312	1377
b 7	1531	1531	1500	1388	1323
P.C. PILES	8 000	8 000	8 000	8 000	8 000
P.C. PILES	12 000	13 000	13 000	13 000	7 000

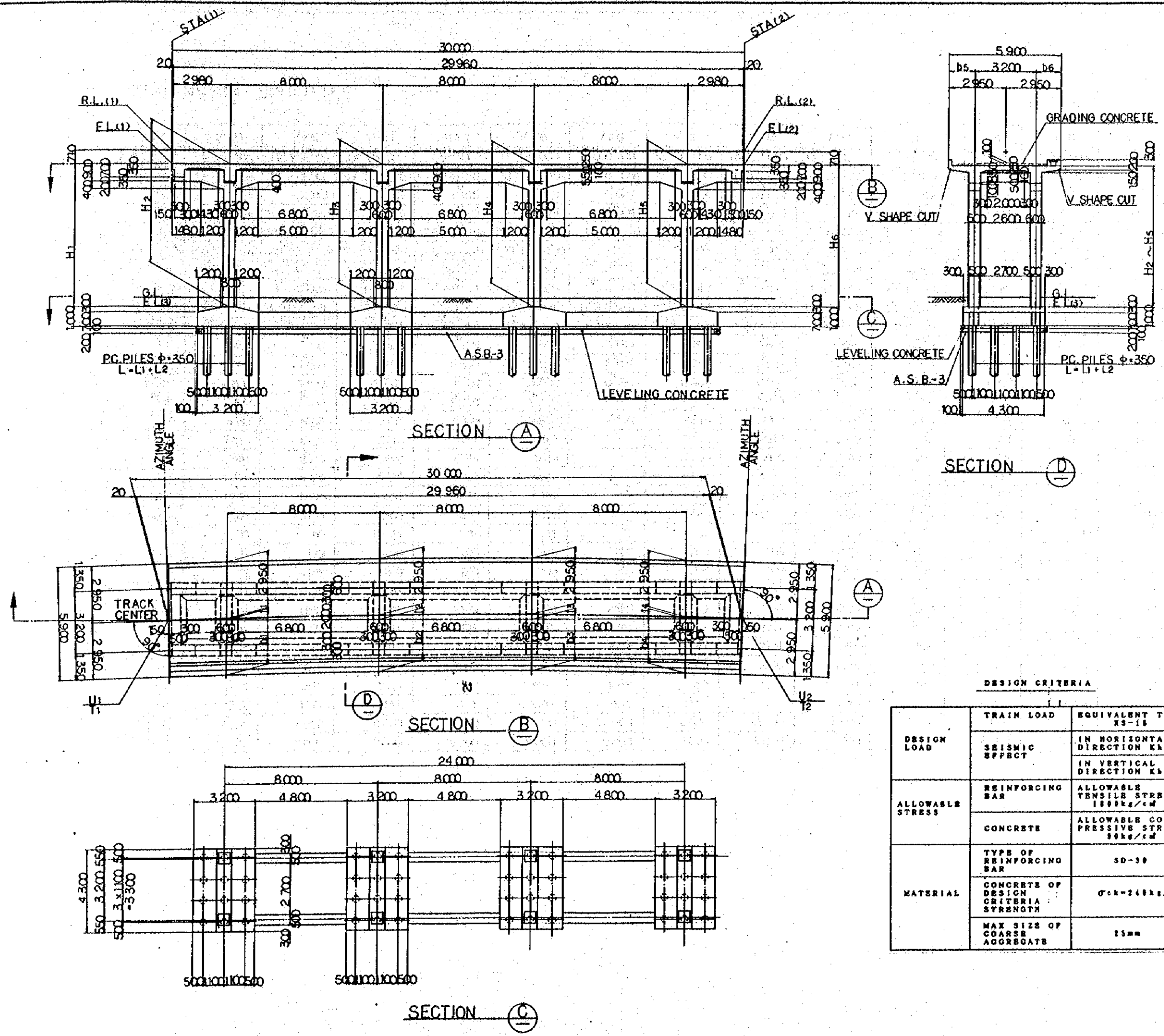
NOTES:

- 1 ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
- 2 REFERENCE DRAWING FOR GENERAL VIEW: CS-172.

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-15
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION K <sub>1</sub> =0.1 IN VERTICAL DIRECTION K <sub>2</sub> =0
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 30 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD-30
	CONCRETE OF DESIGN CRITERIA STRENGTH	C <sub>25</sub> =2400 kg/cm <sup>2</sup>
	MAX SIZE OF COARSE AGGREGATE	15mm

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG 84	MS	AO	KA	VM	AK
A	15 FEB 84	MS	AO	KA	VM	AK
REVISION	DATE	DESIGNED	DRAWN	CHECKED	APPROVED	SUBMITTED
VIADUCT VO12, VO19~VO22, VO31~VO36, VO71, VO72, VO75~VO79, V126 GENERAL VIEW (SHEET 3 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: CS-174						



- NOTES ;
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-160~164.
  3. TYPES OF PC PILE
    - 3.1 BOTTOM SURFACE OF FOOTING
    - 3.2 PC PILE CLASS B
    - 3.3 PC PILE CLASS A
  4. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO RS-18
	SEISMIC EFFECT	
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 50 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD-38
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck}=2400 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25mm

REPUBLIC OF INDONESIA  
 MINISTRY OF COMMUNICATIONS  
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

REVISION	DATE	DESIGNED	CHECKED	APPROVED	SUBMITTED
B	1AUG84	MS AD	KA KM	AK	
A	15AUG84	MS AD	KA KM	AK	

VIADUCT VI03~VI10, VI13~VI20  
 GENERAL VIEW  
 (SHEET 1 OF 3)

PACKAGE: I CIVIL AND ARCHITECTURAL WORK  
 SCALE: 1:100 DRAWING NO: CS-175

DIMENSION SCHEDULE

	V 103	V 104	V 105	V 106	V 107	V 108	V 109	V 110	V 111	V 114	V 115	V 116	V 117	V 118
STA (1)	17° 29' 00"	17° 29' 00"	17° 29' 00"	17° 29' 00"	17° 29' 00"	17° 29' 00"	18° 00' 00"	18° 00' 00"	18° 00' 00"	18° 00' 00"	18° 00' 00"	18° 00' 00"	18° 00' 00"	18° 00' 00"
STA (2)	17° 59' 00"	17° 59' 00"	17° 59' 00"	17° 59' 00"	17° 59' 00"	18° 00' 00"	18° 00' 00"	18° 00' 00"	18° 00' 00"	18° 00' 00"	18° 00' 00"	18° 00' 00"	18° 00' 00"	18° 00' 00"
R.L. (1)	8.586	8.169	7.719	7.269	6.819	6.369	6.024	5.904	5.904	6.514	6.664	6.814	6.964	7.114
R.L. (2)	8.169	7.719	7.269	6.819	6.369	6.024	5.904	5.904	6.664	6.814	6.964	7.114	7.264	7.472
AZIMUTH ANGLE (θ)	345° 30' 45.40"	345° 34' 38.86"	346° 54' 32.47"	349° 53' 21.04"	353° 19' 36.92"	356° 45' 52.81"	0° 12' 08.70"	3° 38' 24.59"	18° 52' 51.03"	22° 19' 06.92"	25° 38' 52.84"	27° 37' 34.90"	27° 59' 29.63"	28° 07' 52.74"
DO (θ)	345° 34' 38.86"	346° 54' 32.47"	349° 53' 21.04"	353° 19' 36.92"	356° 45' 52.81"	0° 12' 08.70"	3° 38' 24.59"	7° 04' 40.48"	22° 19' 06.92"	25° 38' 52.84"	27° 37' 34.90"	27° 59' 29.63"	28° 07' 52.74"	29° 14' 33.03"
U 1	12 <sup>m</sup> 261.259	12 <sup>m</sup> 268.761	12 <sup>m</sup> 275.967	12 <sup>m</sup> 282.059	12 <sup>m</sup> 288.437	12 <sup>m</sup> 289.027	12 <sup>m</sup> 289.821	12 <sup>m</sup> 289.816	12 <sup>m</sup> 282.921	12 <sup>m</sup> 252.368	12 <sup>m</sup> 240.156	12 <sup>m</sup> 226.639	12 <sup>m</sup> 212.596	12 <sup>m</sup> 198.506
T 1	1 <sup>m</sup> 611.858	1 <sup>m</sup> 640.905	1 <sup>m</sup> 670.026	1 <sup>m</sup> 699.397	1 <sup>m</sup> 729.071	1 <sup>m</sup> 758.955	1 <sup>m</sup> 788.940	1 <sup>m</sup> 818.918	1 <sup>m</sup> 948.974	1 <sup>m</sup> 977.052	2 <sup>m</sup> 004.449	2 <sup>m</sup> 031.230	2 <sup>m</sup> 057.740	2 <sup>m</sup> 084.225
U 2	12 <sup>m</sup> 268.761	12 <sup>m</sup> 275.967	12 <sup>m</sup> 282.059	12 <sup>m</sup> 288.437	12 <sup>m</sup> 289.027	12 <sup>m</sup> 289.821	12 <sup>m</sup> 289.816	12 <sup>m</sup> 286.014	12 <sup>m</sup> 252.368	12 <sup>m</sup> 240.156	12 <sup>m</sup> 226.639	12 <sup>m</sup> 212.596	12 <sup>m</sup> 198.506	12 <sup>m</sup> 184.125
T 2	1 <sup>m</sup> 640.905	1 <sup>m</sup> 670.026	1 <sup>m</sup> 699.397	1 <sup>m</sup> 729.071	1 <sup>m</sup> 758.955	1 <sup>m</sup> 788.940	1 <sup>m</sup> 818.918	1 <sup>m</sup> 848.783	1 <sup>m</sup> 977.052	2 <sup>m</sup> 004.449	2 <sup>m</sup> 031.230	2 <sup>m</sup> 057.740	2 <sup>m</sup> 084.225	2 <sup>m</sup> 110.553
E L(1)	7.876	7.459	7.459	6.559	6.109	5.659	5.194	5.194	5.804	5.954	6.104	6.254	6.404	6.554
E L(2)	7.459	7.009	7.009	6.109	5.659	5.194	5.194	5.289	5.954	6.104	6.254	6.404	6.554	6.790
E L(3)	0.800	0.800	0.800	0.800	0.800	0.800	0.794	0.800	0.900	0.900	0.900	0.900	0.900	0.900
G.L.	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.400	1.400	1.400	1.400	1.400	1.400
H 1	7076	6659	6209	5759	5309	4859	4400	4394	4904	5054	5204	5354	5504	5654
H 2	7034	6614	6164	5714	5264	4813		4404	4919	5069	5219	5369	5519	5678
H 3	6923	6494	6044	5594	5144	4689		4429	4959	5109	5259	5409	5559	5741
H 4	6812	6374	5924	5474	5024	4565		4454	4999	5149	5299	5449	5599	5804
H 5	6701	6254	5804	5354	4904	4441		4480	5039	5189	5339	5489	5639	5866
H 6	6659	6209	5759	5309	4859	4394		4489	5054	5204	5354	5504	5654	5890
f 1	0	26	66	81	81	81	81	81	81	80	52	12	1	25
f 2	1	76	179	209	209	209	209	209	209	207	125	23	4	70
f 3	2	86	188	209	209	209	209	209	209	205	116	15	7	72
f 4	2	37	75	81	81	81	81	81	81	77	41	4	5	28
b 1	2950	2924	2884	2869	2869	2869	2869	2869	2869	2870	2898	2938	2949	2925
b 2	2949	2874	2771	2741	2741	2741	2741	2741	2741	2743	2825	2927	2946	2890
b 3	2948	2864	2762	2741	2741	2741	2741	2741	2741	2745	2834	2935	2943	2878
b 4	2948	2913	2875	2869	2869	2869	2869	2869	2869	2873	2909	2946	2945	2922
b 5	1351	1426	1529	1559	1559	1559	1559	1559	1557	1475	1475	1373	1354	1420
b 6	1349	1274	1171	1141	1141	1141	1141	1141	1141	1143	1225	1327	1346	1280
P.C. PILES	8 000	8 000	8 000	8 000	8 000	8 000	8 000	8 000	8 000	8 000	8 000	8 000	8 000	8 000
P.C. PILES	10 000	10 000	9 000	9 000	9 000	9 000	9 000	9 000	9 000	8 000	8 000	8 000	8 000	8 000

NOTES :

- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
- REFERENCE DRAWING FOR GENERAL VIEW : CS-175.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CEMKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	MS	AD	K.A	K.M	AK
A	1 FEB '83	MS	AD	K.A	K.M	AK
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	QUANTITY
VIADUCT V103~V110, V113~V120 GENERAL VIEW (SHEET 2 OF 3)						
PROJECT : I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO. CS-176					

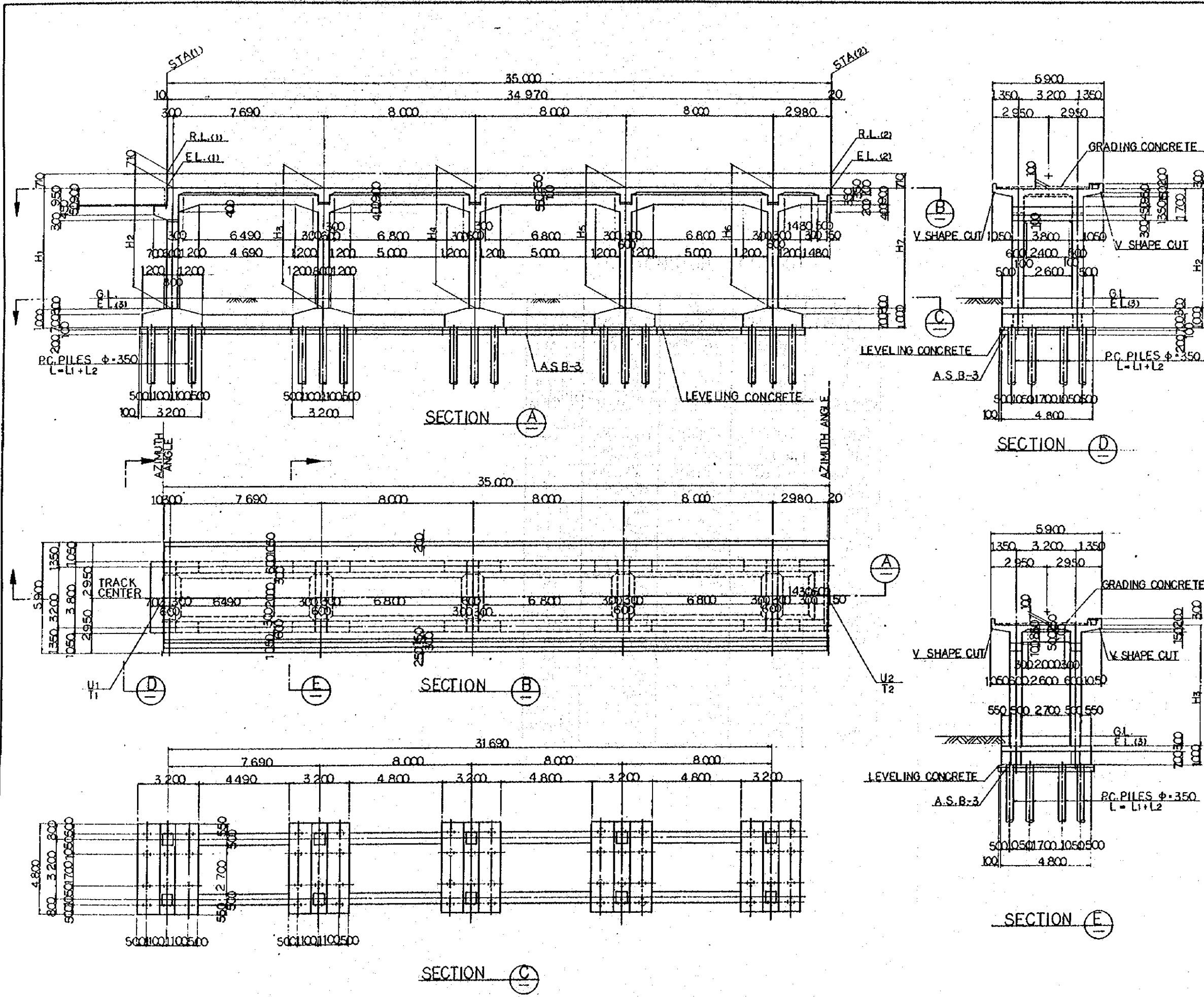
DIMENSION SCHEDULE (CONTD)

	V 119	V 120
STA (1)	18 <sup>M</sup> 352.000	18 <sup>M</sup> 382.000
STA (2)	18 <sup>M</sup> 382.000	18 <sup>M</sup> 412.000
R.L. (1)	7.472	7.884
R.L. (2)	7.884	8.334
AZIMUTH ANGLE (G)	29° 14' 33.03	30° 19' 55.19
DO (G)	30° 19' 55.19	30° 26' 59.73
U 1	12 <sup>M</sup> 184.125	12 <sup>M</sup> 169.200
T 1	2 <sup>M</sup> 110.553	2 <sup>M</sup> 136.576
U 2	12 <sup>M</sup> 169.200	12 <sup>M</sup> 154.003
T 2	2 <sup>M</sup> 136.576	2 <sup>M</sup> 162.443
E L(1)	6.790	7.174
E L(2)	7.174	7.624
E L(3)	0.900	0.900
G.L	1.400	1.400
H 1	5890	6274
H 2	5928	6319
H 3	6031	6439
H 4	6133	6559
H 5	6236	6679
H 6	6274	6724
f 1	28	4
f 2	71	5
f 3	68	3
f 4	24	1
b 1	2922	2946
b 2	2879	2945
b 3	2882	2947
b 4	2926	2949
b 5	1421	1355
b 6	1279	1345
P.C.PILES	8000	8000
P.C.PILES	8000	8000

NOTES :

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW : CS-175.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGLARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG 84	MS	AD	K.A	K.M
A	15 FEB 84	MS	AD	K.A	K.M
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	SUBMITTED
VIADUCT V103~V110, V113~V120 GENERAL VIEW (SHEET 3 OF 3)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO. CS-177				



- NOTES :
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-151~157
  3. TYPES OF PC PILE
    - 3.1 BOTTOM SURFACE OF FOOTING
    - 3.2 PC PILE CLASS B
    - 3.3 PC PILE CLASS A
  4. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG'84	MS AD	KA KM	AK		
A	15AUG'84	MS AD	KA KM	AK		
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	EXTENDED	SUBMITTED
VIADUCT V007, V028, V046, V102 GENERAL VIEW (SHEET 1 OF 2)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:100	CS-178					



--- DIMENSION SCHEDULE ---

	V007	V028	V046	V102
STA (1)	13 <sup>M</sup> 645.000	14 <sup>M</sup> 853.000	15 <sup>M</sup> 569.000	17 <sup>M</sup> 794.000
STA (2)	13 <sup>M</sup> 610.000	14 <sup>M</sup> 888.000	15 <sup>M</sup> 534.000	17 <sup>M</sup> 829.000
R.L. (1)	8.470	5.924	8.724	8.754
R.L. (2)	8.207	5.924	8.603	8.586
AZIMUTH ANGLE (°)	350° 39' 55.58	9° 43' 08.64	1° 06' 02.00	345° 30' 45.40
DO (02)	?	?	?	?
U1	12 <sup>M</sup> 075.441	12 <sup>M</sup> 048.401	12 <sup>M</sup> 000.168	12 <sup>M</sup> 252.503
T1	-2 <sup>M</sup> 525.836	-1 <sup>M</sup> 325.624	-613.716	1 <sup>M</sup> 577.971
U2	12 <sup>M</sup> 069.764	12 <sup>M</sup> 042.492	12 <sup>M</sup> 000.840	12 <sup>M</sup> 261.259
T2	-2 <sup>M</sup> 560.372	-1 <sup>M</sup> 292.127	-648.710	1 <sup>M</sup> 611.858
E.L. (1)	7.700	5.214	8.014	8.044
E.L. (2)	7.497	5.214	7.893	7.876
E.L. (3)	0.700	0.894	0.700	0.800
G.L.	1.500	1.000	1.200	1.300
H1	7060	4320	7314	7244
H2	7058	?	7313	7243
H3	7000	?	7286	7206
H4	6940	?	7259	7167
H5	6880	?	7231	7129
H6	6820	?	7203	7090
H7	6797	?	7193	7076
RC PILES L1	11 000	12 000	8 000	8 000
RC PILES L2	---	---	7 000	10 000

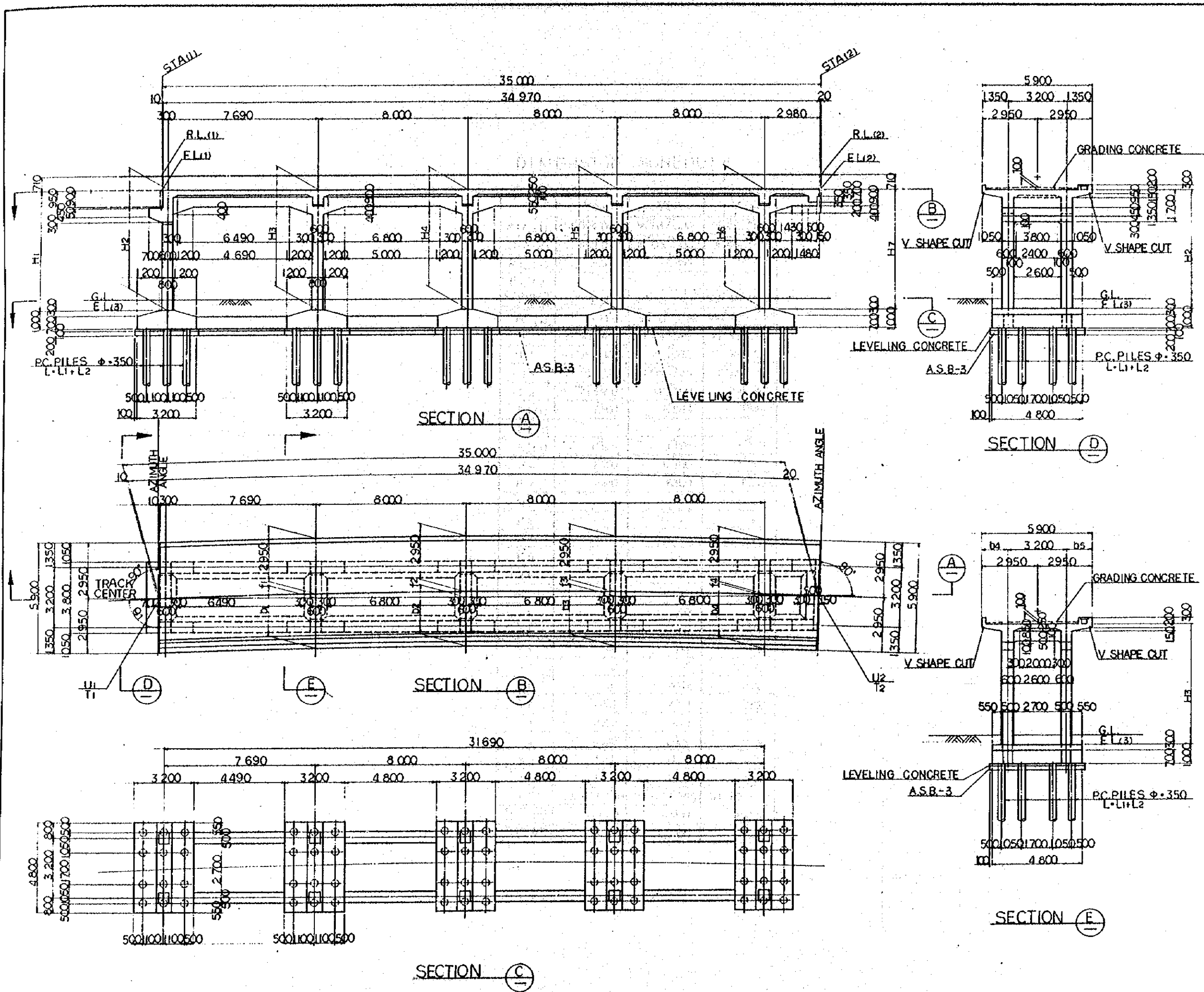
DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO RS-16
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION K <sub>h</sub> =0.1 IN VERTICAL DIRECTION K <sub>v</sub> =0
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 180 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 30 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD-30
	CONCRETE OF DESIGN CRITERIA STRENGTH	0'ch=240 kg/cm <sup>2</sup>
	MAX SIZE OF COARSE AGGREGATE	25mm

NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW: CS-178.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	MS	AO	KA	KM	KK
A	16 FEB '84	MS	AO	KA	KM	KK
REVISION	DATE	DESIGNED	DRAWN	CHECKED	EXTENDED	SUBMITTED
VIADUCT V007, V028, V046, V102 GENERAL VIEW (SHEET 2 OF 2)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE		DRAWING NO. CS-179				



NOTES ;

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS-151~157.
3. TYPES OF PC PILE
 

3 | BOTTOM SURFACE OF FOOTING  
 1 | PC. PILE CLASS B  
 2 | PC. PILE CLASS A
4. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
REV.	DATE	DESIGNED	CHECKED	REVISED	SUBMITTED	
B	1 AUG '84	H.S. AD	K.R. KM	M.R.		
A	27 FEB '84	H.S. AD	K.R. KM	M.R.		
VIADUCT V018, V073, V074 GENERAL VIEW (SHEET 1 OF 2)						
PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:100		DRAWING NO: CS-180				

### DIMENSION SCHEDULE

	V018	V073	V074
STA (1)	14 <sup>m</sup> 24.000	16 <sup>m</sup> 637.000	16 <sup>m</sup> 647.000
STA (2)	14 <sup>m</sup> 459.000	16 <sup>m</sup> 602.000	16 <sup>m</sup> 682.000
R.L. (1)	8.514	7.254	7.254
R.L. (2)	?	?	?
AZIMUTH ANGLE (θ)	2° 43' 34.56	357° 52' 53.23	355° 18' 11.31
∞ (θ)	3° 09' 11.81	358° 53' 02.86	354° 18' 01.68
U 1	12 <sup>m</sup> 109.454	11 <sup>m</sup> 982.519	11 <sup>m</sup> 983.113
T 1	-1 <sup>m</sup> 750.868	454.075	464.057
U 2	12 <sup>m</sup> 107.790	11 <sup>m</sup> 981.225	11 <sup>m</sup> 985.979
T 2	-1 <sup>m</sup> 715.908	419.100	498.938
E L (1)	7.804	6.544	6.544
E L (2)	?	?	?
E L (3)	0.894	0.194	0.194
G.L.	1.400	0.700	0.700
H 1	6910	6350	6350
H 2	?	?	?
H 3	?	?	?
H 4	?	?	?
H 5	?	?	?
H 6	?	?	?
H 7	?	?	?
I 1	30	108	108
I 2	49	152	152
I 3	48	132	132
I 4	20	48	48
b 1	2920	2842	2842
b 2	2901	2798	2798
b 3	2902	2818	2818
b 4	2930	2902	2902
b 5	1399	1198	1198
b 6	1301	1502	1502
θ 1	89° 46' 04.58	91° 00' 09.63	91° 00' 09.63
RC PILES	12 000	8 000	8 000
RC PILES	—	12 000	12 000

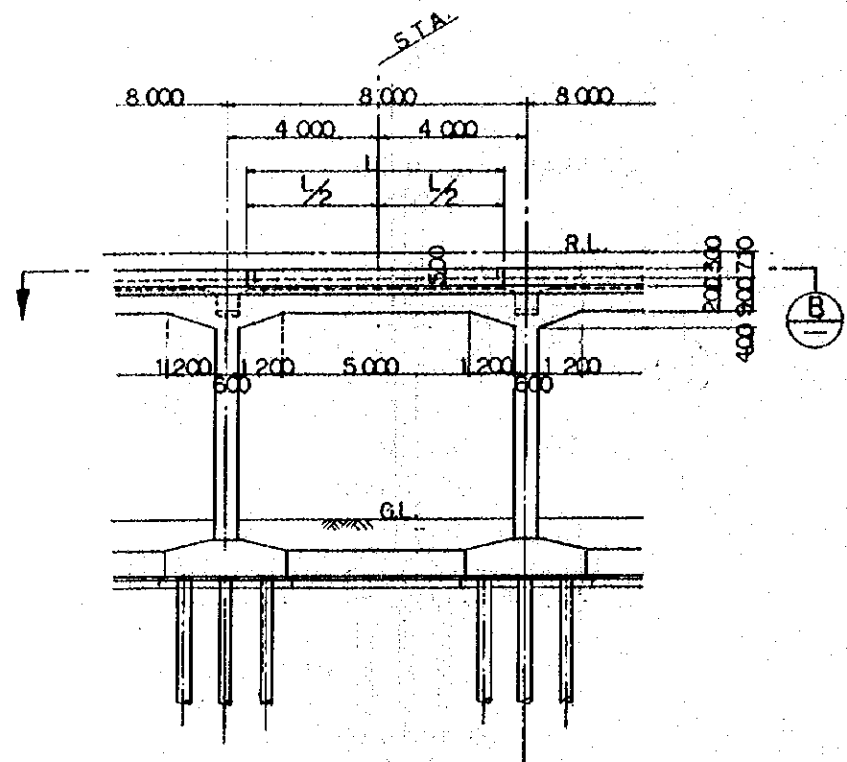
**NOTES :**

- 1 ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
- 2 REFERENCE DRAWING FOR GENERAL VIEW : CS-180.

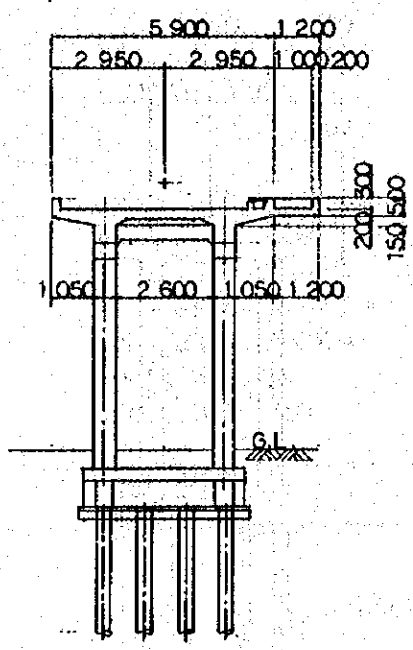
DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-16
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_h=0.1$ IN VERTICAL DIRECTION $K_v=0$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 90 kg/cm
MATERIAL	TYPE OF REINFORCING BAR	SD-36
	CONCRETE OF DESIGN CRITERIA STRENGTH	$f'_{ck}=140 kg/cm$
	MAX SIZE OF COARSE AGGREGATE	25 mm

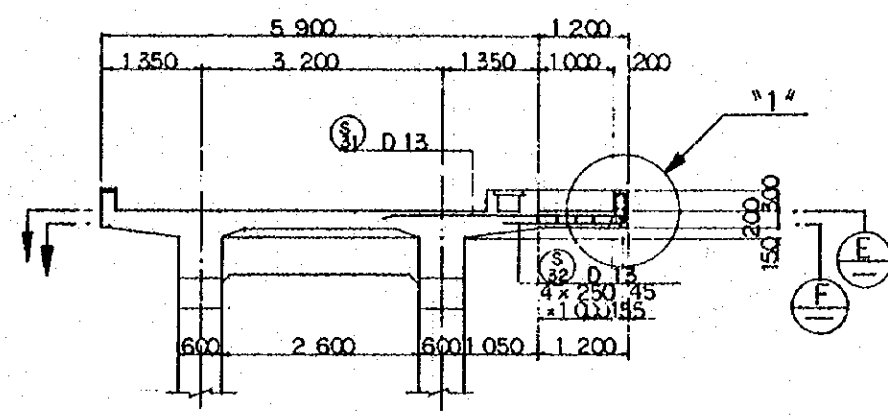
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR GENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG 84	H.S.A.O.	K.A.	K.M.	K.K.
A	15 FEB 84	H.S.A.O.	K.A.	K.M.	K.K.
REVISION	DATE	DESIGNED	DRAWN	CHECKED	APPROVED
VIADUCT VO18, V073, V074 GENERAL VIEW (SHEET 2 OF 2)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO. CS-181				



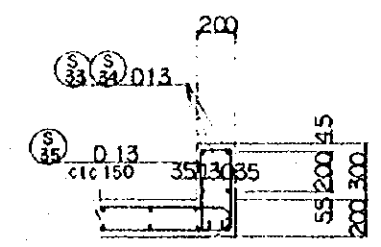
SECTION A  
SCALE 1:100



SECTION C  
SCALE 1:100



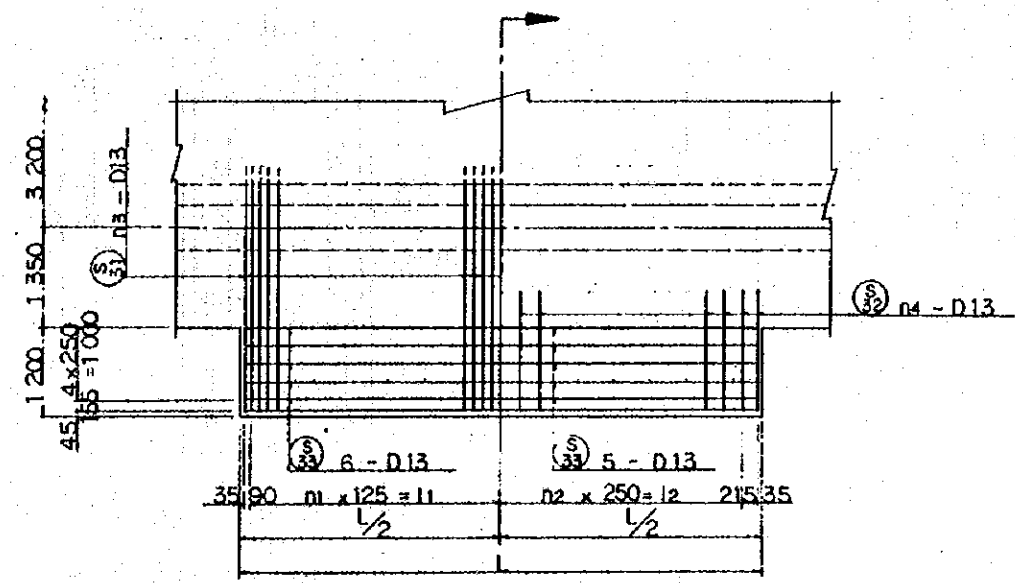
SECTION D  
SCALE 1:50



DETAIL 1/4  
SCALE 1:20

DIMENSION SCHEDULE

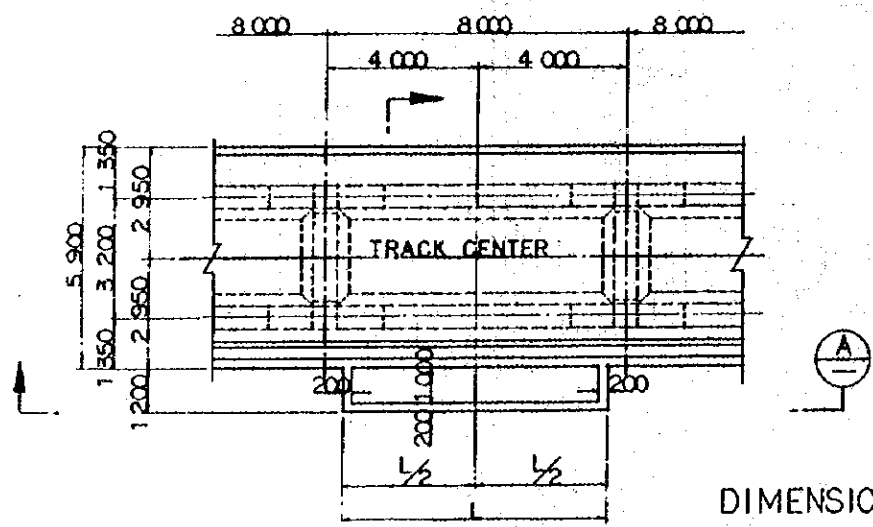
	STA	L
V 010	13 <sup>KM</sup> 761.000	7.000
V 018	14 <sup>KM</sup> 428.000	3.000
V 025	14 <sup>KM</sup> 702.000	7.000
V 042	15 <sup>KM</sup> 405.000	7.000
V 062	16 <sup>KM</sup> 199.000	7.000
V 068	16 <sup>KM</sup> 419.000	4.000
V 081	16 <sup>KM</sup> 925.000	7.000
V 101	17 <sup>KM</sup> 729.000	5.000
V 115	18 <sup>KM</sup> 239.000	3.000
V 126	18 <sup>KM</sup> 801.000	7.000



SECTION E  
SCALE 1:50

SECTION F  
SCALE 1:50

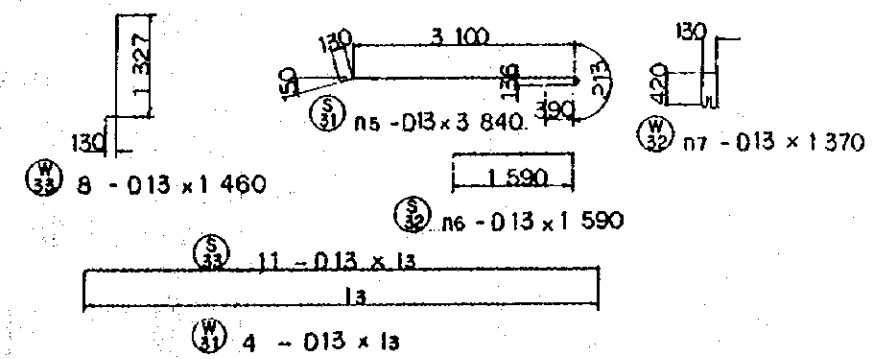
NOTES:  
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED



SECTION B  
SCALE 1:100

DIMENSION SCHEDULE

L	11	12	13	n1	n2	n3	n4	n5	n6	n7
7.000	3.375	3.250	6.930	27	13	29	14	57	29	62
5.000	2.375	2.250	4.930	19	9	21	10	41	21	49
4.000	1.875	1.750	3.930	15	7	13	6	29	17	42
3.000	1.375	1.250	2.930	11	5	13	5	21	13	36



REPUBLIC OF INDONESIA  
MINISTRY OF COMMUNICATIONS  
DIRECTORATE GENERAL OF LAND TRANSPORT  
AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CEMKARENG AIRPORT  
CONSTRUCTION PROJECT

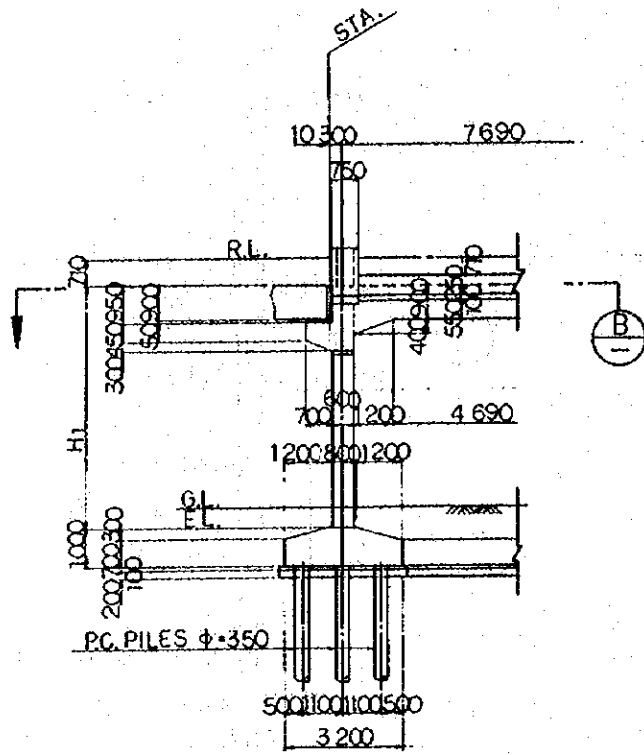
JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)

B	1 AUG '81	MS	AD	KR	KM	AK
A	1 FEB '81	MS	AD	KR	KM	AK

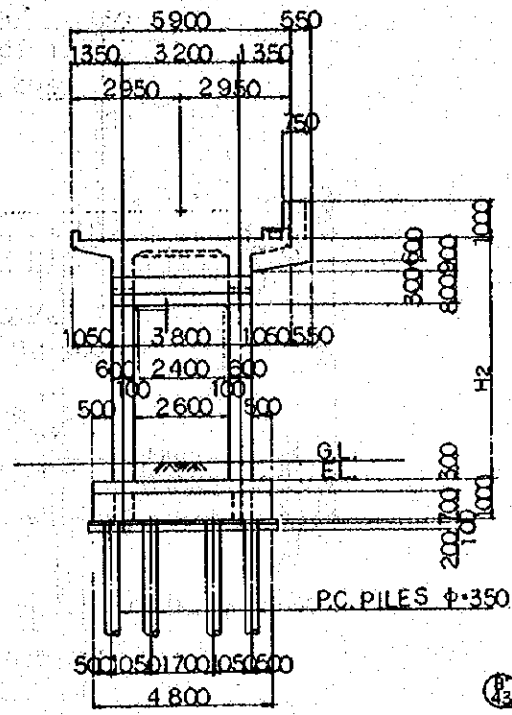
REVISIONS DATE REVISIONS DATE REVISIONS DATE REVISIONS DATE

VIADUCT SLAB  
FOR  
APPARATUS CASE

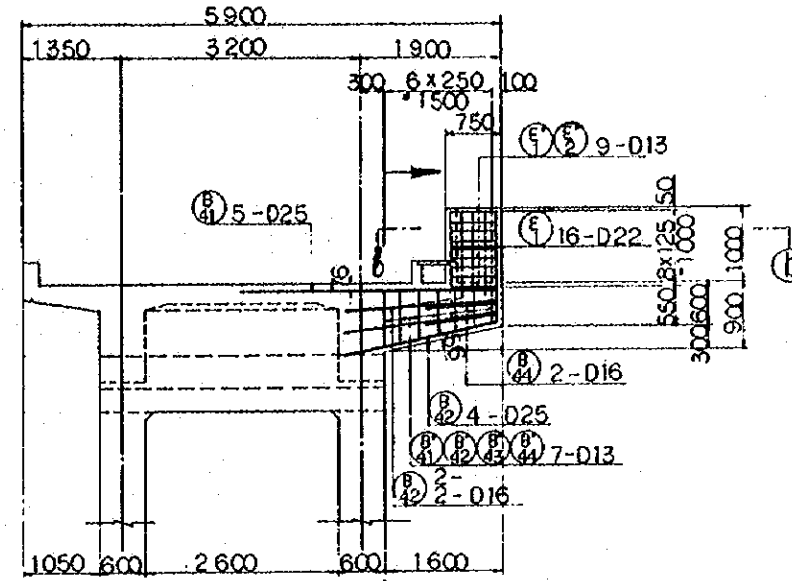
PACKAGE: I CIVIL AND ARCHITECTURAL WORK  
SCALE: 1:100, 50, 20 DRAWING NO: CS-182



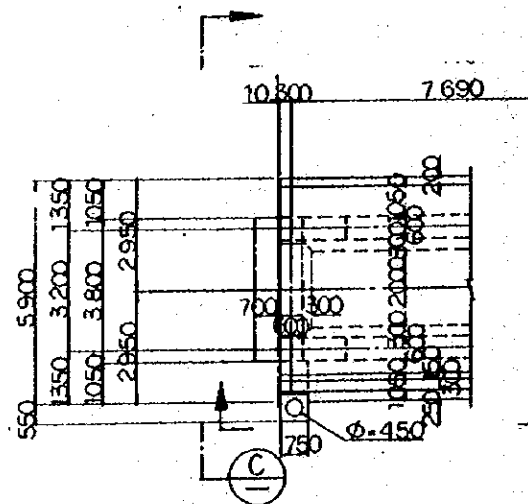
SECTION A  
SCALE 1:100



SECTION C  
SCALE 1:100



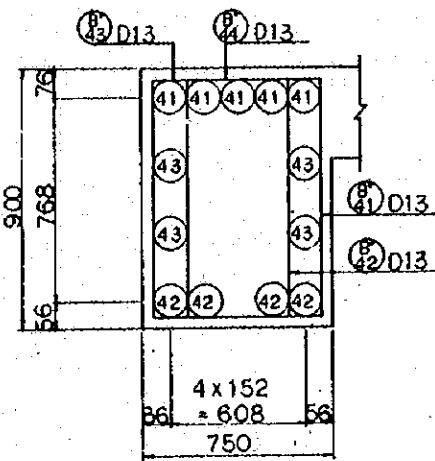
SECTION D  
SCALE 1:50



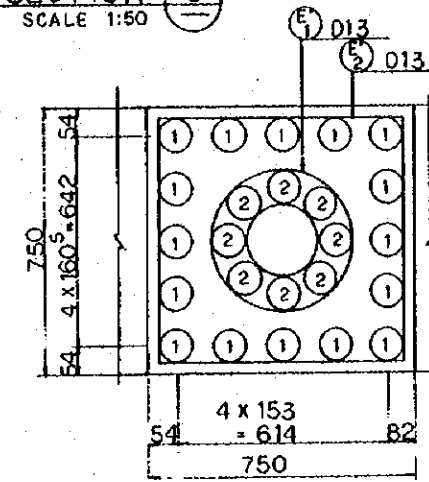
SECTION B  
SCALE 1:100

DIMENSION SCHEDULE

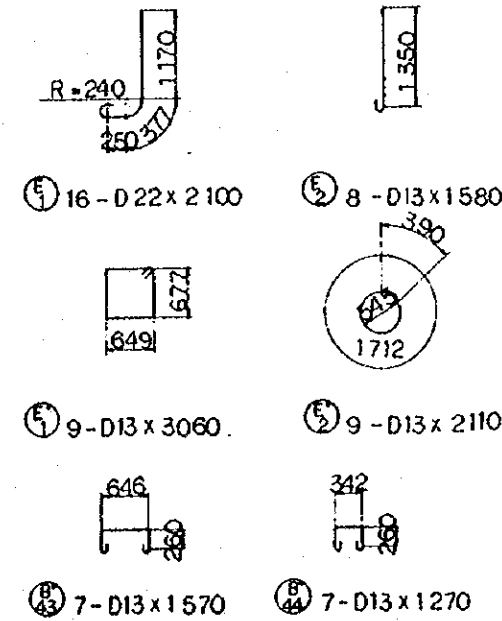
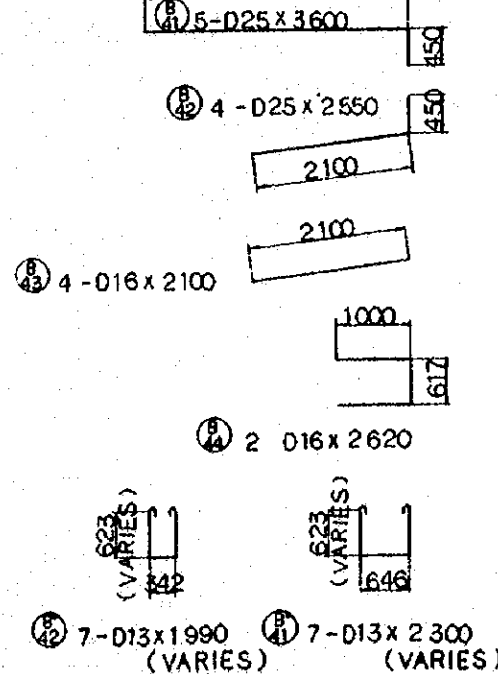
NO.	STA.
V010	13+765.000
V017	14+202.000
V073	16+837.000
V085	17+041.000
V111	18+096.000



SECTION (a)-(a)

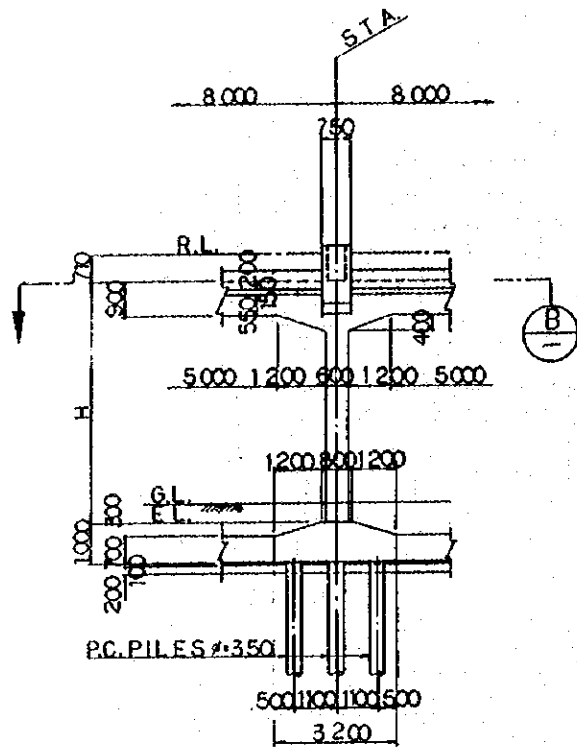


SECTION (b)-(b)

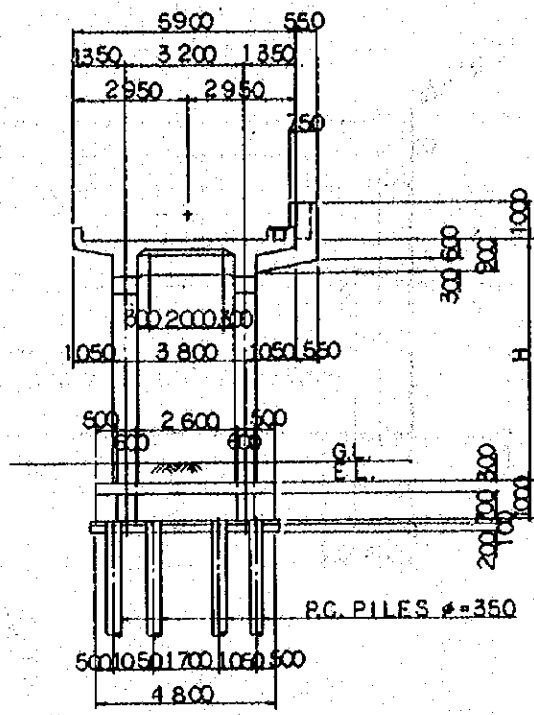


NOTES:  
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED

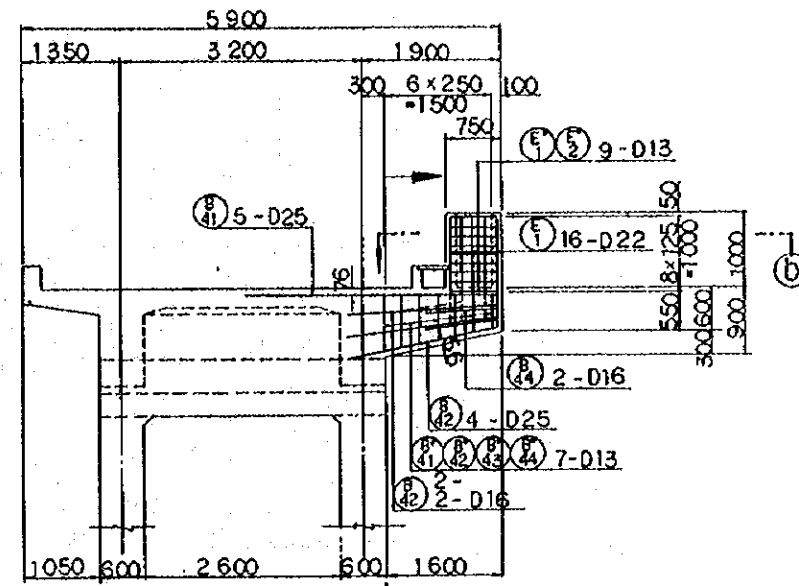
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1AUG'84	M.S.	A.O.	K.A.	K.M.
A	15FEB'84	M.S.	A.O.	K.A.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	SUBMITTED
SUPPORTING BEAM OF CATENARY POLE (SHEET 1 OF 2)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE 1:100,50	DRAWING NO. CS-183				



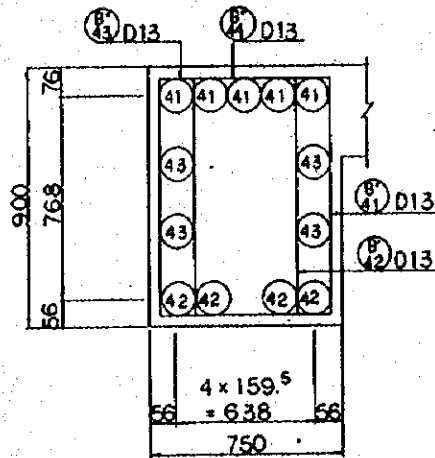
SECTION A



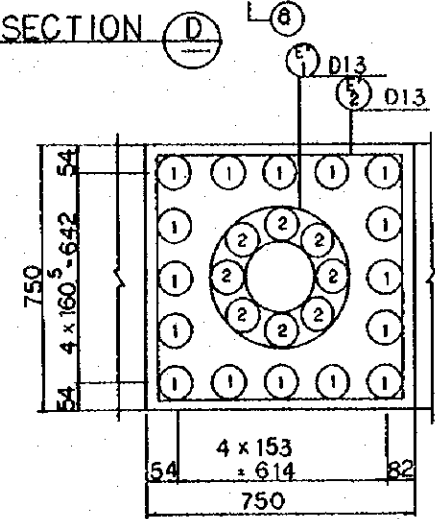
SECTION C



SECTION D



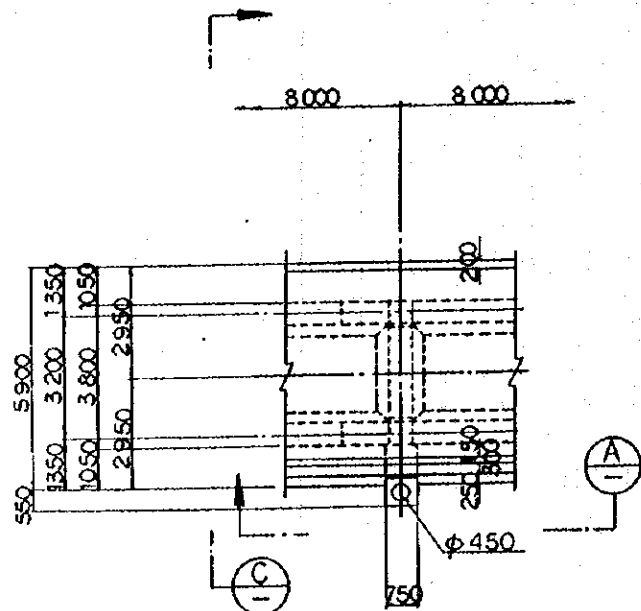
SECTION a-a



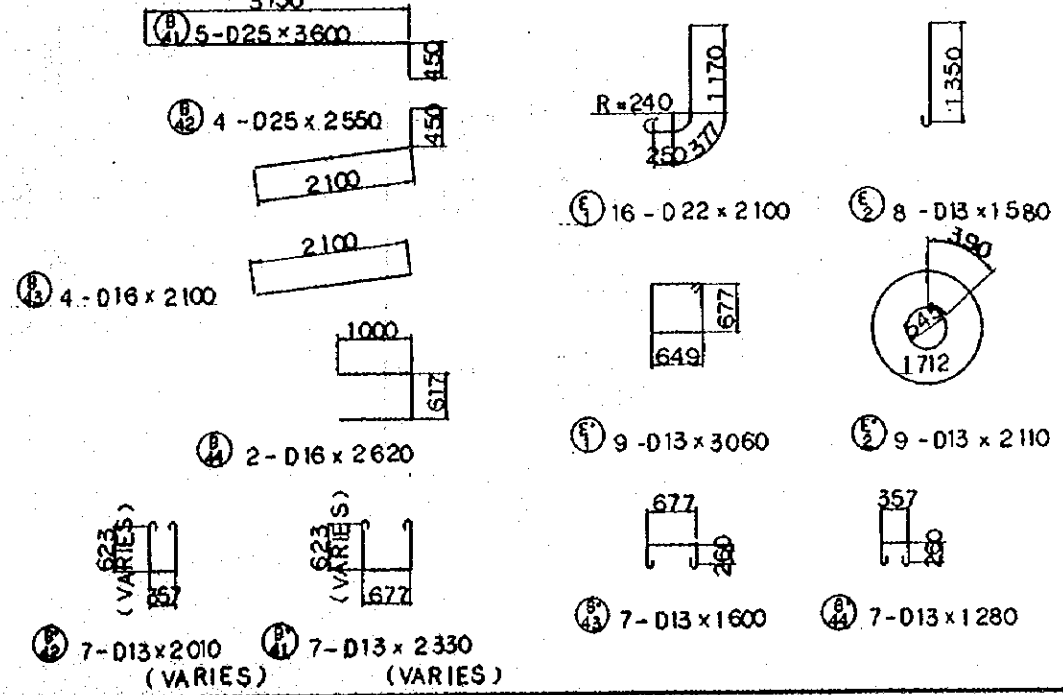
SECTION b-b

DIMENSION SCHEDULE

NO.	STA.	NO.	STA.	NO.	STA.
V001	13 <sup>KM</sup> 433.000	V042	15 <sup>KM</sup> 385.000	V078	16 <sup>KM</sup> 807.000
V003	13 <sup>KM</sup> 493.000	V043	15 <sup>KM</sup> 439.000	V079	16 <sup>KM</sup> 861.000
V005	13 <sup>KM</sup> 553.000	V045	15 <sup>KM</sup> 499.000	V081	16 <sup>KM</sup> 921.000
V006	13 <sup>KM</sup> 607.000	V046	15 <sup>KM</sup> 553.000	V083	16 <sup>KM</sup> 983.000
V009	13 <sup>KM</sup> 711.000	V047	15 <sup>KM</sup> 665.000	V099	17 <sup>KM</sup> 681.000
V012	13 <sup>KM</sup> 985.000	V049	15 <sup>KM</sup> 725.000	V101	17 <sup>KM</sup> 733.000
V014	14 <sup>KM</sup> 096.000	V051	15 <sup>KM</sup> 785.000	V103	17 <sup>KM</sup> 832.000
V016	14 <sup>KM</sup> 148.000	V053	15 <sup>KM</sup> 845.000	V104	17 <sup>KM</sup> 870.000
V018	14 <sup>KM</sup> 432.000	V054	15 <sup>KM</sup> 899.000	V105	17 <sup>KM</sup> 908.000
V019	14 <sup>KM</sup> 486.000	V056	15 <sup>KM</sup> 959.000	V106	17 <sup>KM</sup> 946.000
V021	14 <sup>KM</sup> 546.000	V057	16 <sup>KM</sup> 013.000	V108	17 <sup>KM</sup> 982.000
V022	14 <sup>KM</sup> 600.000	V058	16 <sup>KM</sup> 087.000	V109	18 <sup>KM</sup> 020.000
V024	14 <sup>KM</sup> 660.000	V060	16 <sup>KM</sup> 127.000	V110	18 <sup>KM</sup> 058.000
V026	14 <sup>KM</sup> 720.000	V061	16 <sup>KM</sup> 181.000	V113	18 <sup>KM</sup> 175.000
V028	14 <sup>KM</sup> 869.000	V063	16 <sup>KM</sup> 241.000	V114	18 <sup>KM</sup> 213.000
V030	14 <sup>KM</sup> 929.000	V064	16 <sup>KM</sup> 295.000	V115	18 <sup>KM</sup> 259.000
V031	14 <sup>KM</sup> 983.000	V066	16 <sup>KM</sup> 355.000	V117	18 <sup>KM</sup> 319.000
V033	15 <sup>KM</sup> 043.000	V068	16 <sup>KM</sup> 415.000	V119	18 <sup>KM</sup> 379.000
V034	15 <sup>KM</sup> 097.000	V069	16 <sup>KM</sup> 469.000	V121	18 <sup>KM</sup> 439.000
V036	15 <sup>KM</sup> 157.000	V071	16 <sup>KM</sup> 529.000	V123	18 <sup>KM</sup> 499.000
V037	15 <sup>KM</sup> 211.000	V072	16 <sup>KM</sup> 583.000	V125	18 <sup>KM</sup> 559.000
V039	15 <sup>KM</sup> 271.000	V075	16 <sup>KM</sup> 639.000	V126	18 <sup>KM</sup> 613.000
V040	15 <sup>KM</sup> 325.000	V076	16 <sup>KM</sup> 747.000		

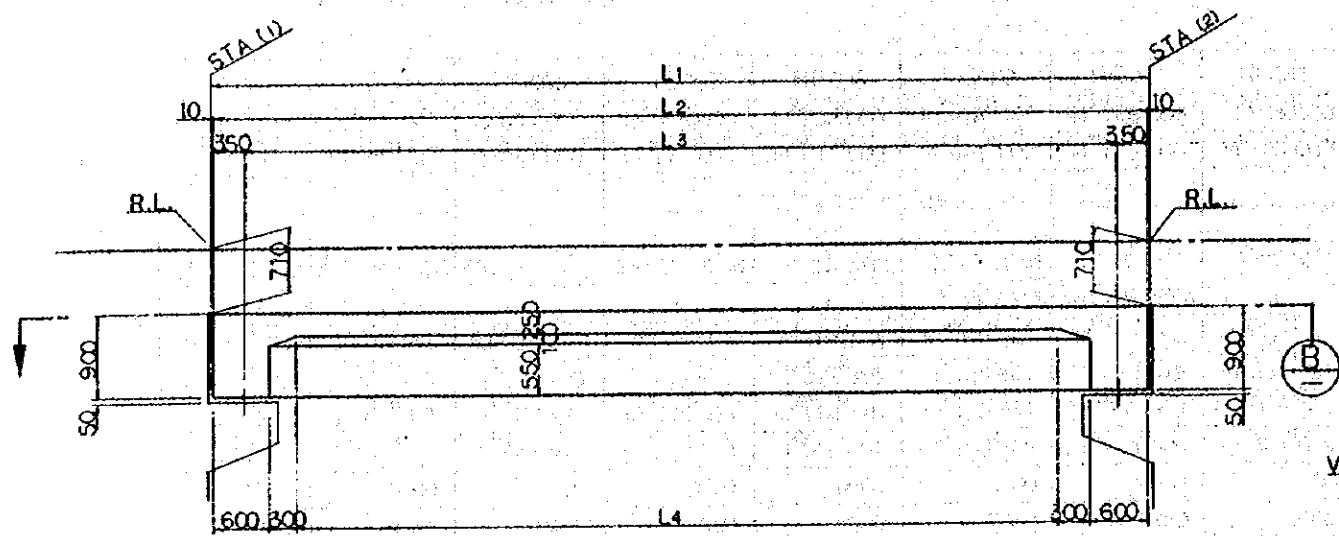


SECTION B

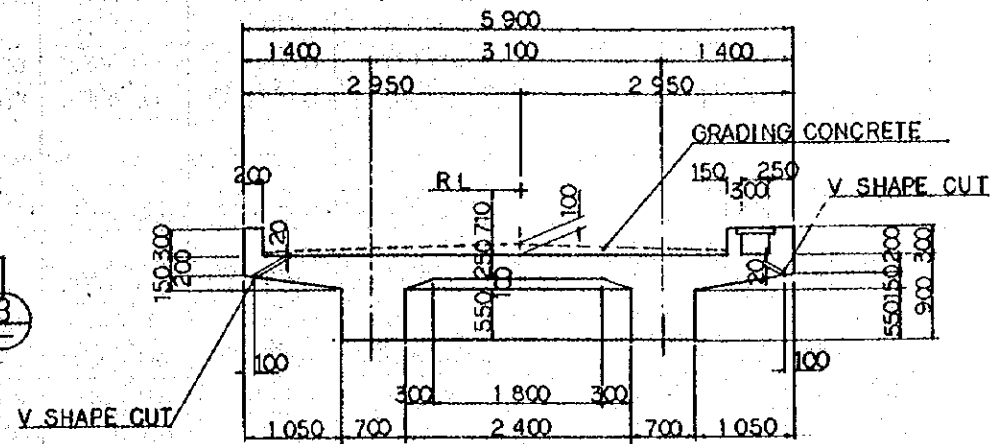


NOTES:  
1 ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED

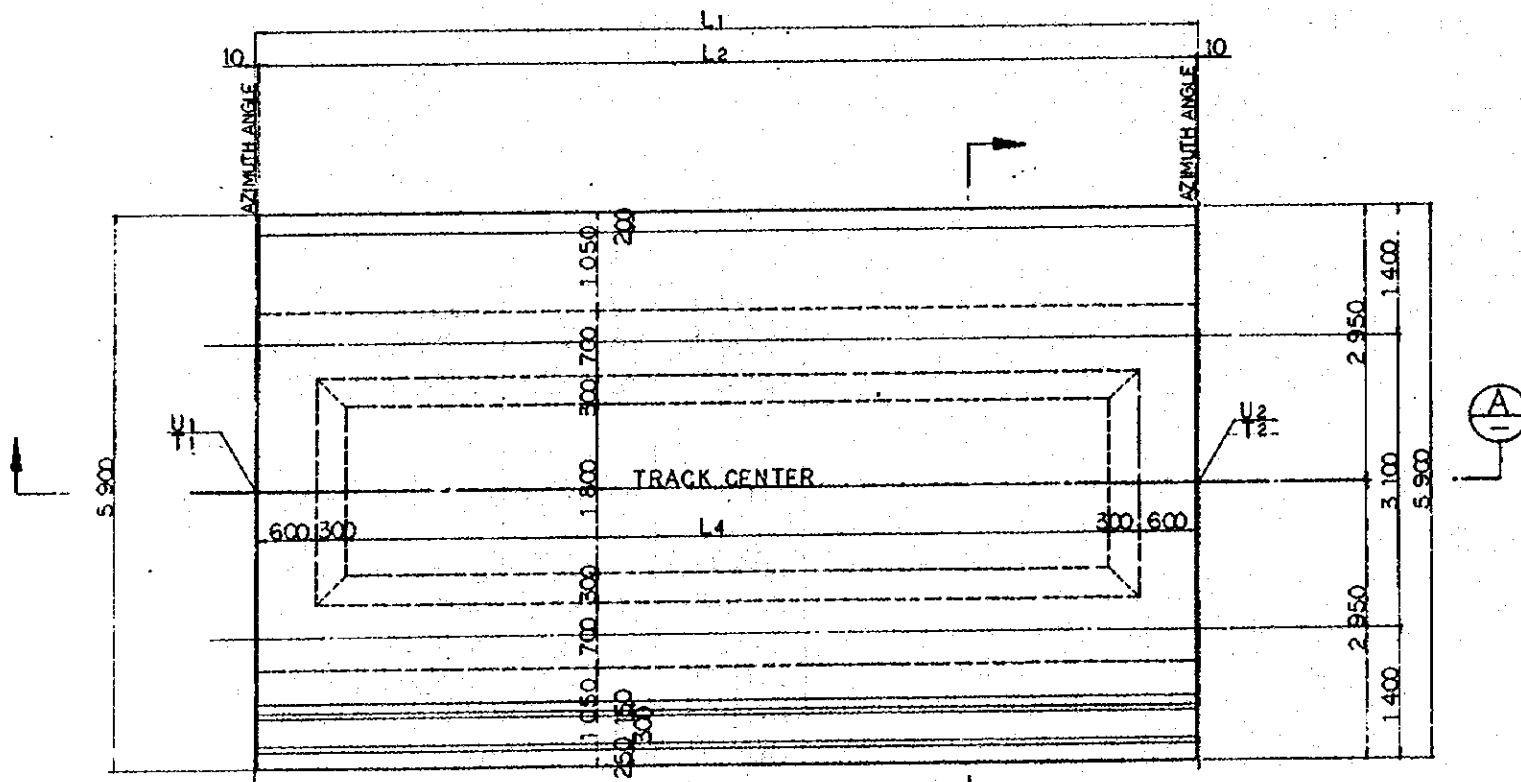
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG. 84	DES	AD	K.A	K.M
A	1984.07	DES	AD	K.A	K.M
REVISIONS	DATE	DRAWN	CHECKED	REVIEWED	SUBMITTED
SUPPORTING BEAM OF CATENARY POLE (SHEET 2 OF 2)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:100,50			DRAWING NO: CS-184		



SECTION (A)



SECTION (C)



SECTION (B)

NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-187~189.
3. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-16
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 90 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD30
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck} = 140 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	15mm

REPUBLIC OF INDONESIA  
 MINISTRY OF COMMUNICATIONS  
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT  
 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY  
 (JICA)

REVISION	DATE	DESIGNED	CHECKED	APPROVED	REVIEWED	SUBMITTED
B	1 AUG '84	M.S.	M.Y.	K.A.	K.M.	M.K.
A	11 FEB '84	M.S.	M.Y.	K.A.	K.M.	M.K.

R.C. GIRDER RCO1~RC04,  
 RCO8~RC15, RC27~RC29,  
 RC33, RC34, RC121  
 GENERAL VIEW  
 (SHEET 1 OF 2)

PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK  
 SCALE: 1:40  
 DRAWING NO: CS-185

DIMENSION SCHEDULE

	RC001	RC002	RC003	RC004	RC008	RC009	RC010	RC011	RC012	RC013	RC015		RC027	RC028
STA (1)	13° 39' 00"	13° 45' 00"	13° 49' 00"	13° 55' 00"	14° 20' 00"	14° 41' 00"	14° 56' 00"	14° 53' 00"	15° 59' 00"	15° 59' 00"	17° 04' 00"		17° 25' 00"	17° 49' 00"
STA (2)	13° 40' 00"	13° 55' 00"	13° 59' 00"	13° 57' 00"	14° 21' 00"	14° 42' 00"	14° 57' 00"	14° 53' 00"	15° 57' 00"	15° 59' 00"	17° 04' 00"		17° 25' 00"	17° 59' 00"
R.L. (1)														
R.L. (2)														
AZIMUTH ANGLE (°)	350° 39' 55.58	350° 39' 55.58	350° 39' 55.58	350° 39' 55.58	2° 29' 30.68	2° 29' 30.68	9° 43' 08.64	9° 43' 08.64	1° 06' 02.00	1° 06' 02.00	345° 30' 45.40		345° 30' 45.40	345° 30' 45.40
DO (°)	?	?	?	?	?	2° 43' 34.56	344° 43' 08.64	?	?	?	?		?	?
U 1	12° 035.540	12° 075.441	12° 081.118	12° 094.904	12° 119.106	12° 109.802	12° 063.088	12° 050.089	12° 000.168	11° 998.823	12° 064.127		12° 210.225	12° 241.245
T 1	-2° 768.578	-2° 525.836	-2° 491.299	-2° 407.425	-1° 972.858	-1° 758.861	-1° 412.375	-1° 336.481	-613.716	-545.729	848.914		1° 414.345	1° 534.402
U 2	12° 037.162	12° 077.063	12° 082.577	12° 094.364	12° 118.715	12° 105.454	12° 061.569	12° 048.401	11° 999.976	11° 998.631	12° 065.878		12° 212.726	12° 243.747
T 2	-2° 758.711	-2° 515.968	-2° 482.419	-2° 398.544	-1° 963.667	-1° 750.868	-1° 403.505	-1° 326.624	-603.718	-533.731	855.692		1° 424.027	1° 544.084
L 1	10000	10000	9000	9000	9000	8000	9000	10000	10000	10000	7000		10000	10000
L 2	9980	9980	8980	8980	8980	7980	8980	9980	9980	9980	6980		9980	9980
L 3	9280	9280	8280	8280	8280	7280	8280	9280	9280	9280	6280		9280	9280
L 4	8180	8180	7180	7180	7180	6180	7180	8180	8180	8180	5180		8180	8180
θ 1	90° 00' 00.00	90° 00' 00.00	90° 00' 00.00	90° 00' 00.00	90° 00' 00.00	90° 00' 00.00	90° 00' 00.00	90° 00' 00.00	90° 00' 00.00	90° 00' 00.00	90° 00' 00.00		90° 00' 00.00	90° 00' 00.00
θ 2	?	?	?	?	?	89° 46' 04.58	115° 00' 00.00	?	?	?	?		?	?

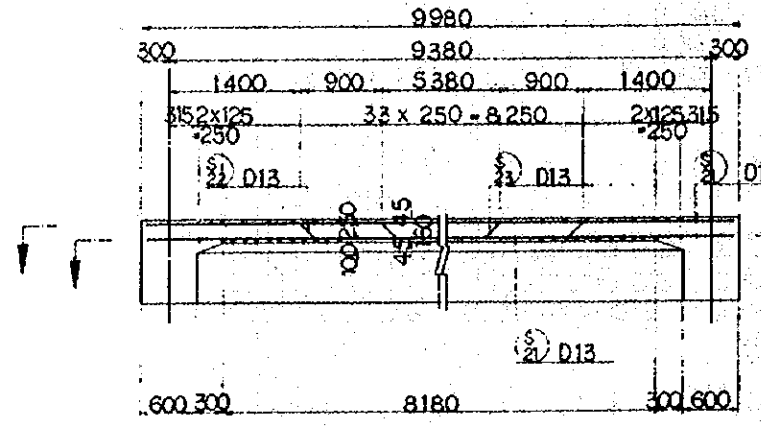
NOTES :

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW : CS-185.

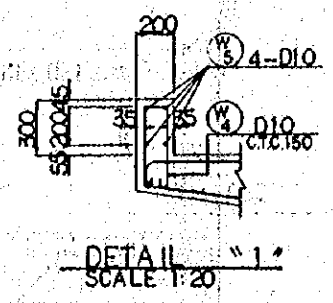
	RC029	RC033	RC034	RC121
STA (1)	17° 78' 00"	19° 11' 00"	19° 23' 00"	19° 42' 25.4
STA (2)	17° 79' 00"	19° 12' 00"	19° 24' 00"	19° 43' 25.4
R.L. (1)				
R.L. (2)				
AZIMUTH ANGLE (°)	345° 30' 45.40	75° 05' 10.71	75° 05' 10.71	75° 05' 10.71
DO (°)	?	?	?	?
U 1	12° 250.001	11° 647.999	11° 536.872	11° 346.008
T 1	1° 568.289	2° 806.935	2° 636.532	2° 681.467
U 2	12° 252.503	11° 639.302	11° 527.209	11° 336.345
T 2	1° 577.971	2° 609.251	2° 639.105	2° 684.041
L 1	10000	9000	10000	10000
L 2	9980	8980	9980	9980
L 3	9280	8280	9280	9280
L 4	8180	7180	8180	8180
θ 1	90° 00' 00.00	90° 00' 00.00	90° 00' 00.00	90° 00' 00.00
θ 2	?	?	?	?

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENS AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG. 84	H.S.	M.Y.	K.A.	K.M.
A	1 FEB. 84	H.S.	M.Y.	K.A.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	SUBMITTED
R.C. GIRDER RC01~RC04, RC08~RC15, RC27~RC29, RC33, RC34, RC121 GENERAL VIEW (SHEET 2 OF 2)					
PACKAGE : I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO. CS-186				

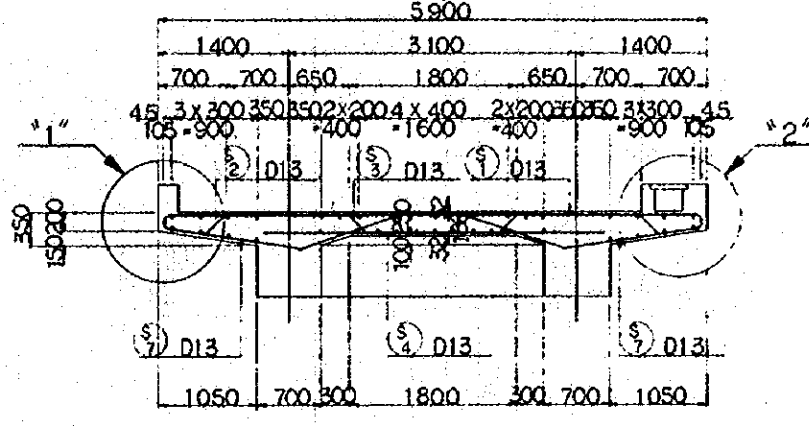




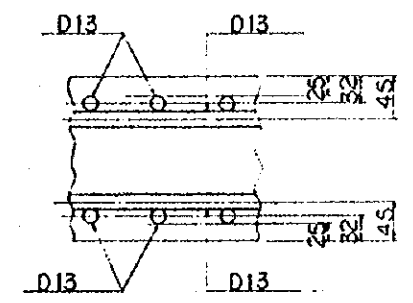
SECTION C



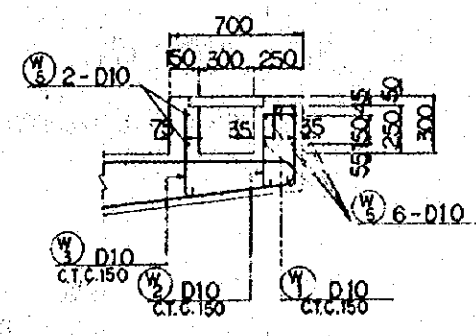
DETAIL SCALE 1:20



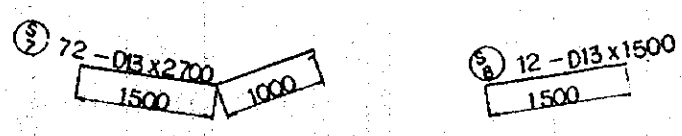
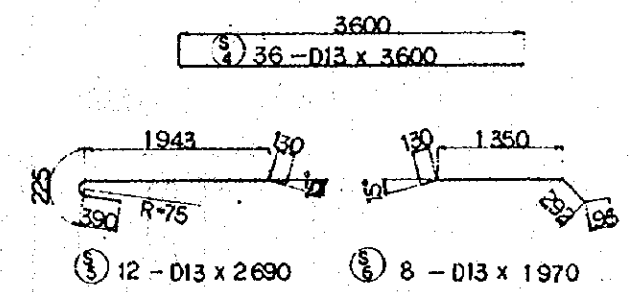
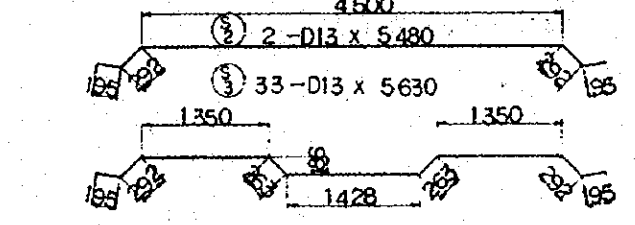
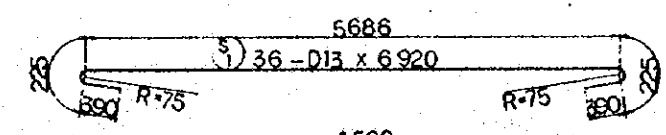
SECTION D



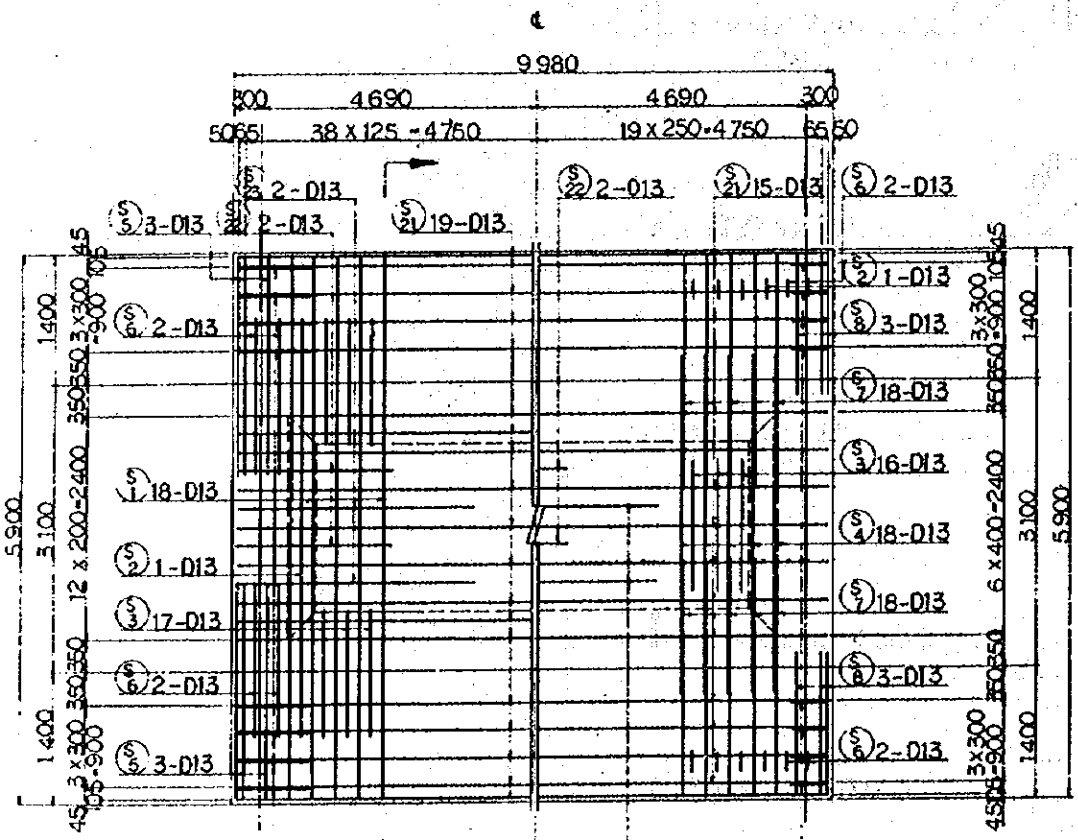
CONCRETE COVER



DETAIL SCALE 1:20



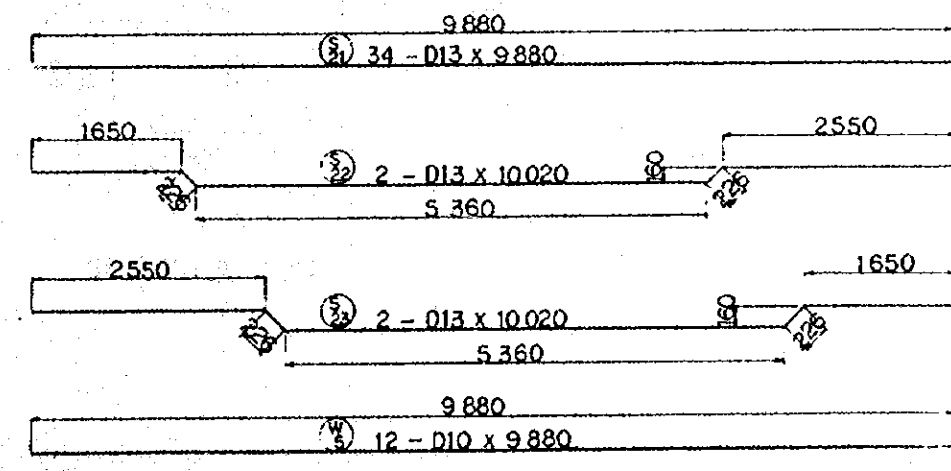
- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW: CS-185.



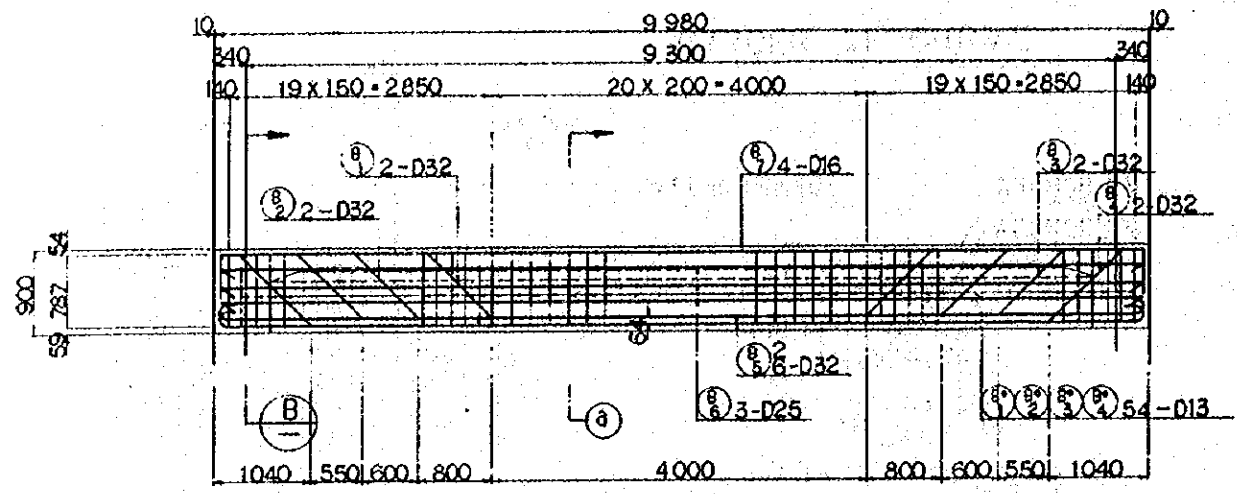
SECTION A

SECTION B

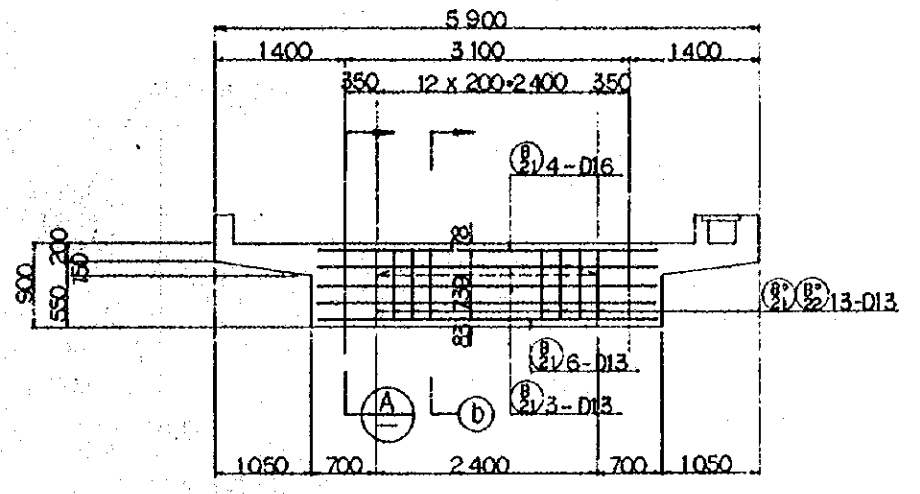
- ① 67 - D10 x 890
- ② 67 - D10 x 720
- ③ 67 - D10 x 610
- ④ 16 - D13 x 1400 (VARIES)



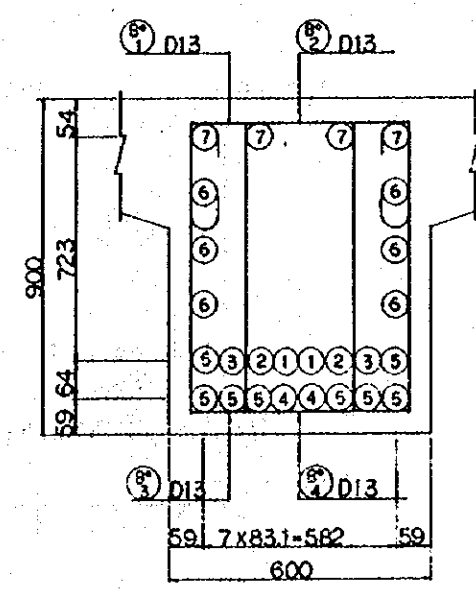
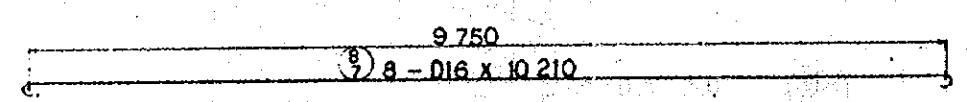
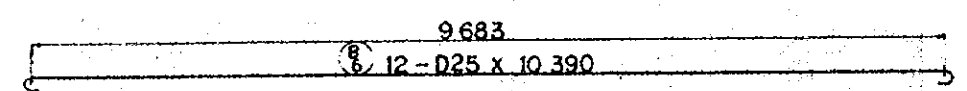
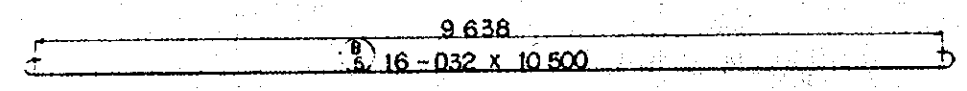
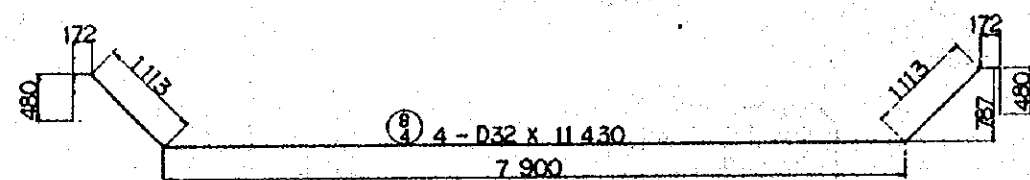
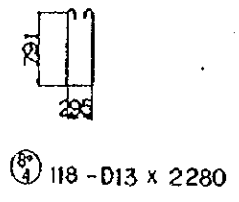
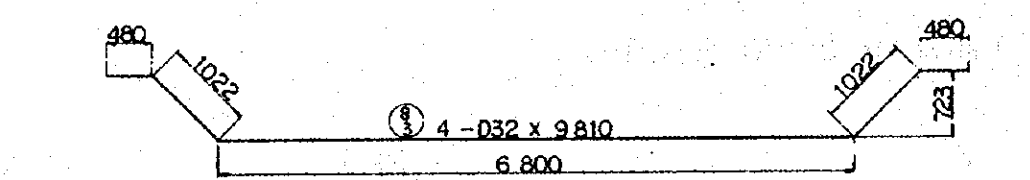
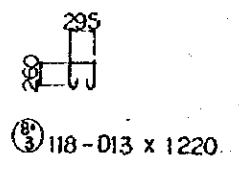
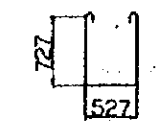
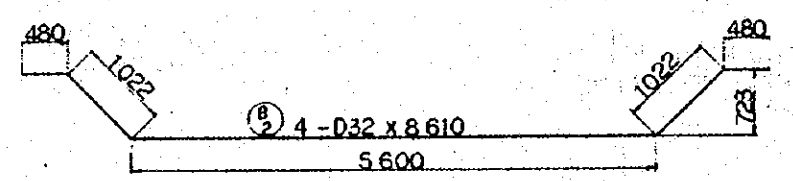
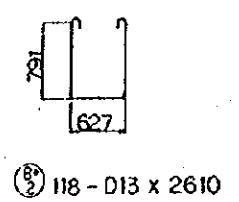
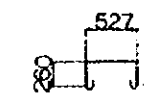
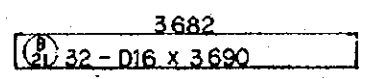
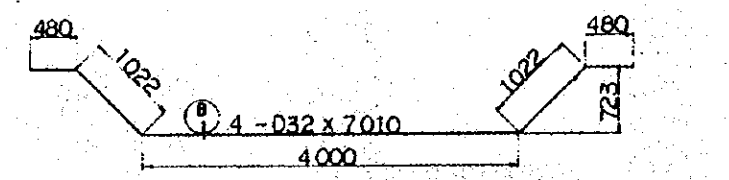
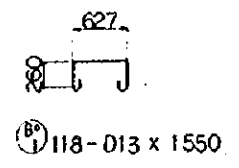
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG '84	CL	2	MY	KD KM
A	1 FEB '84	CL	5	MY	KD KM
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
R.C. GIRDER RC01 BAR ARRANGEMENT (SHEET 1 OF 3)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:40		DRAWING NO: CS-187			



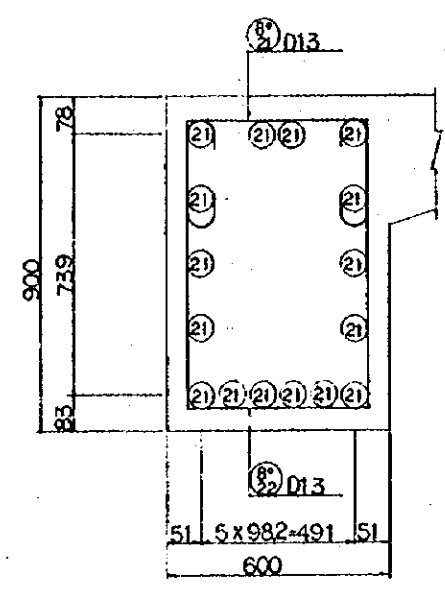
SECTION A



SECTION B



SECTION a - a

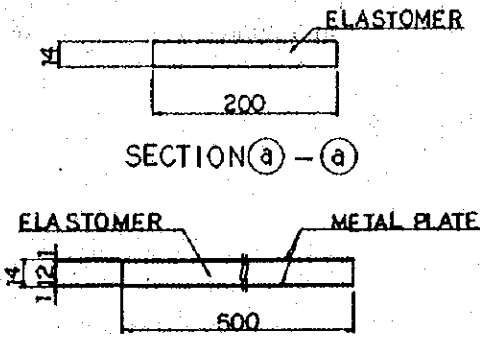
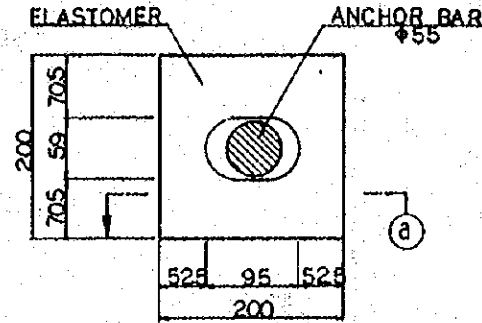
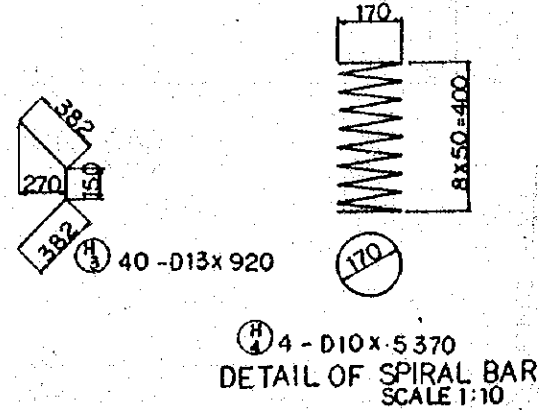
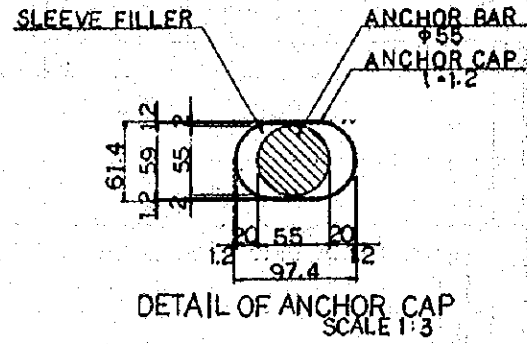
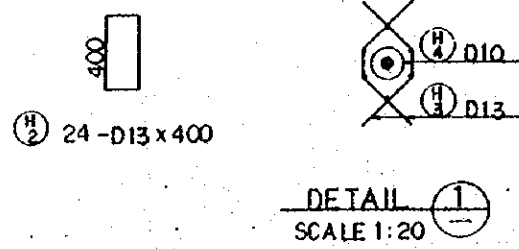
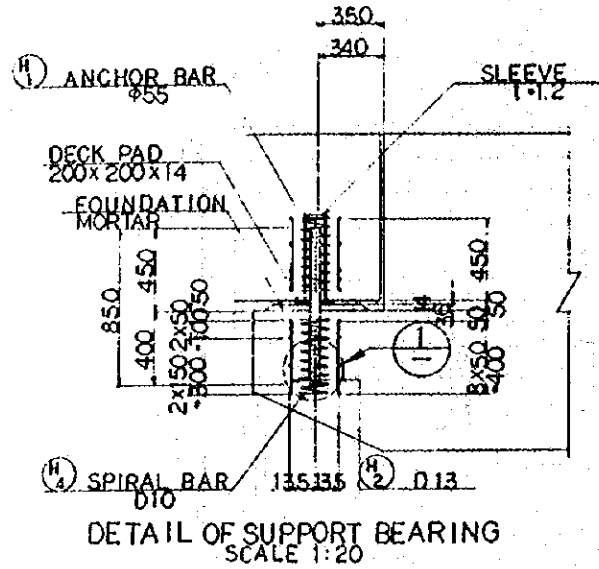


SECTION b - b

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS-185.

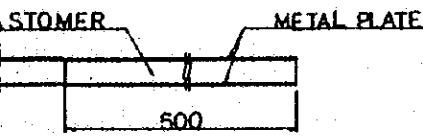
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CEMKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	N.S.	M.Y.	K.A.	K.M.	K.K.
A	15 FEB '84	N.S.	M.Y.	K.A.	K.M.	K.K.
REVISIONS	INT	DESIGN	DRAW	CHECK	REVISE	SUBMIT
R.C. GIRDER RC01 BAR ARRANGEMENT (SHEET 2 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:40	CS-188					

GIRDER OF CURVE



DETAIL OF DECK PAD SCALE 1:4

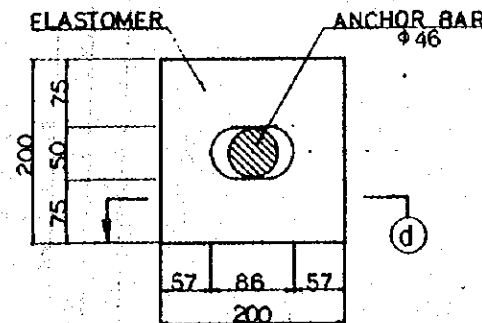
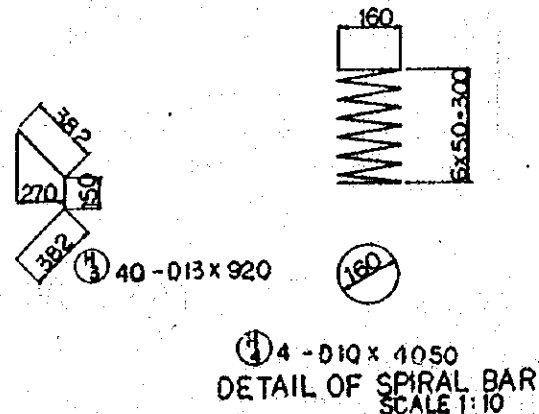
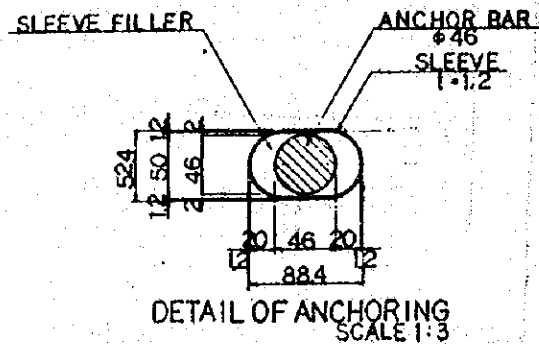
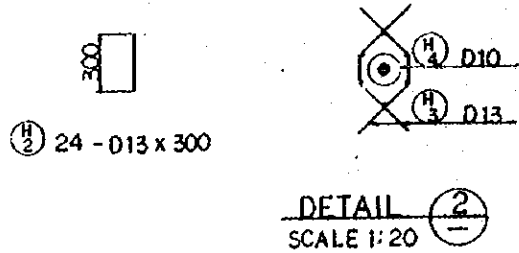
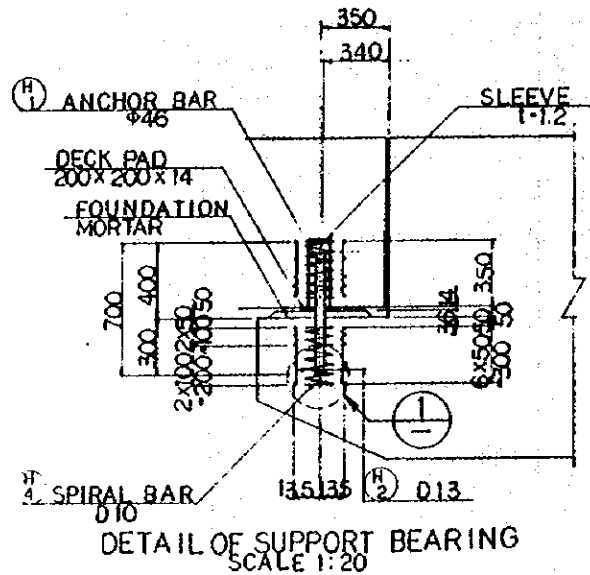
SECTION (a) - (a)



DETAIL OF BEARING PAD SCALE 1:2

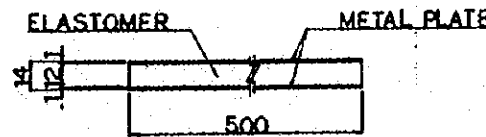
- NOTES :
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS-185.

GIRDER OF STRAIGHT



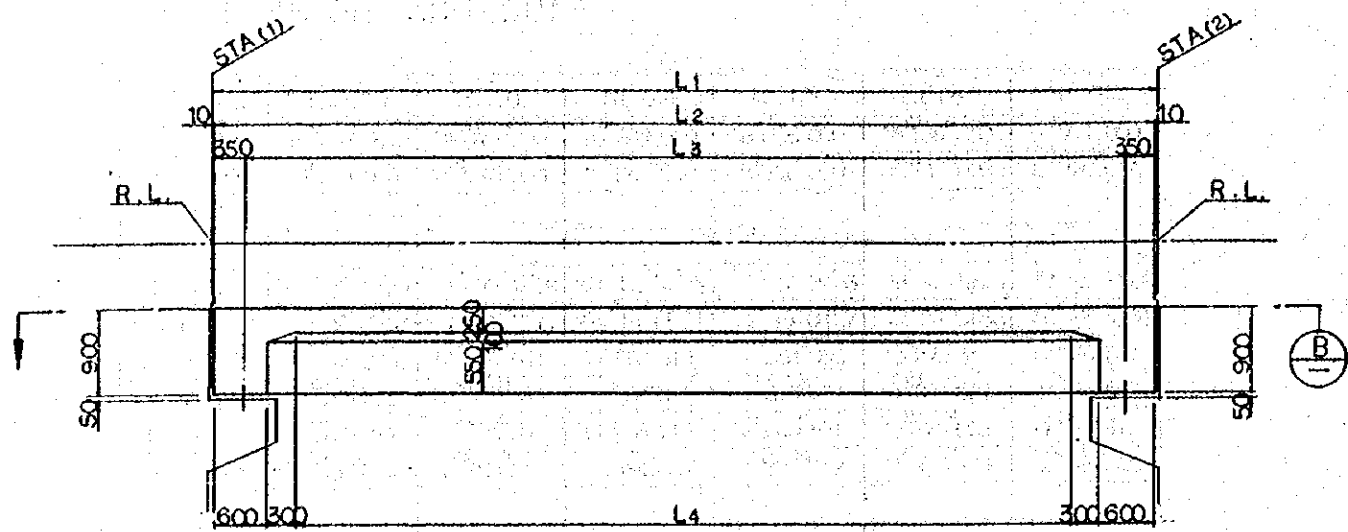
DETAIL OF DECK PAD SCALE 1:4

SECTION (d) - (d)

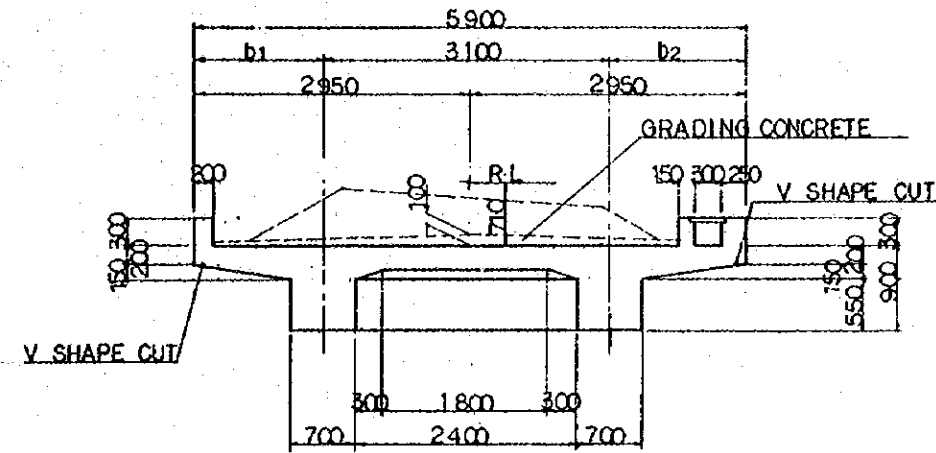


DETAIL OF BEARING PAD SCALE 1:2

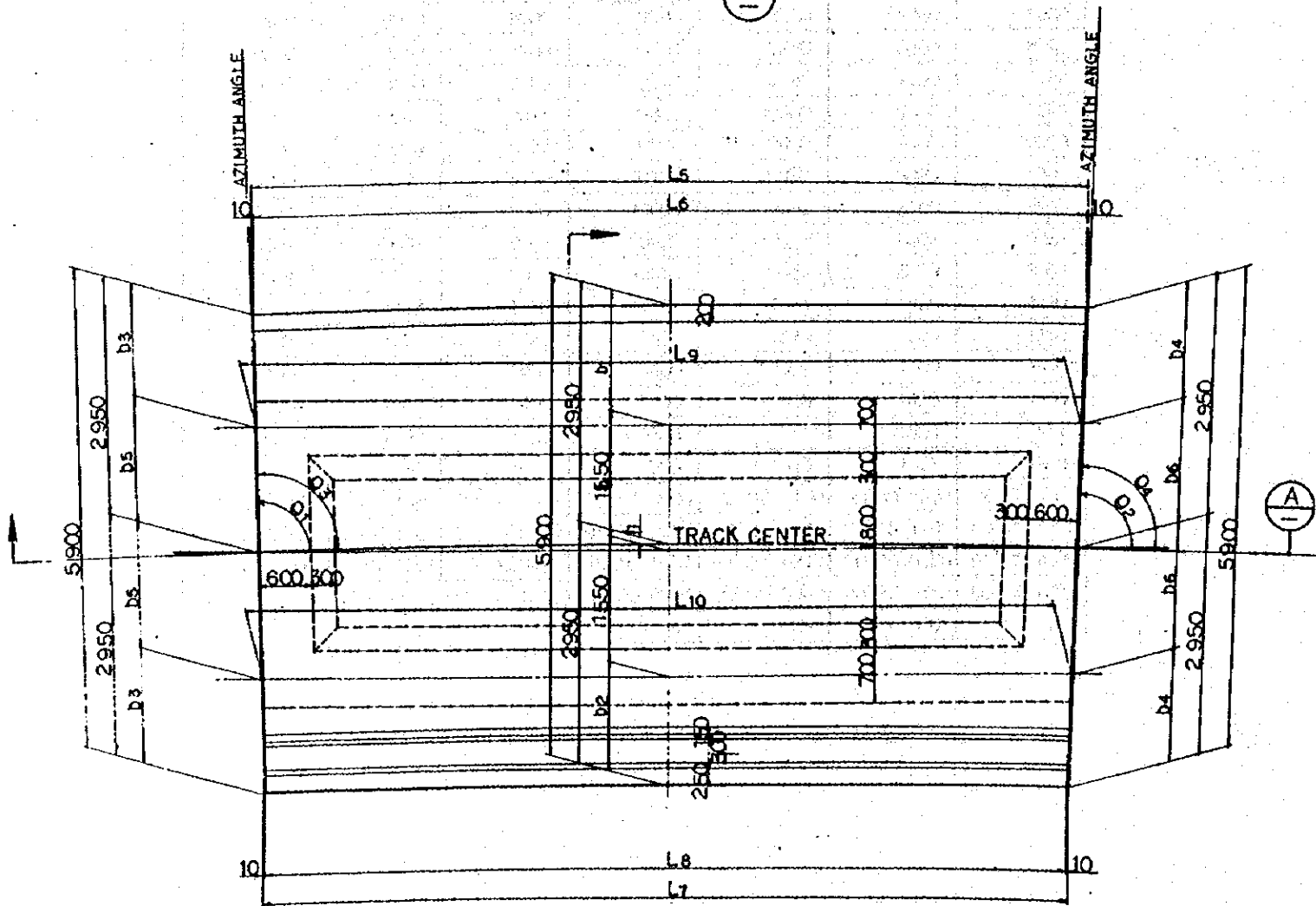
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	M.S	m.y	K.A	K.M	A.K
A	11 FEB '84	M.S	m.y	K.A	K.M	A.K
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
R.C. GIRDER RC01 BAR ARRANGEMENT (SHEET 3 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE		DRAWING NO.				
AS NOTED		CS-189				



SECTION A



SECTION C



SECTION B

- NOTES;
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT; CS-187~189.
  3. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO K3-16
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1100 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 90 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD30
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck} = 240 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25mm

REPUBLIC OF INDONESIA  
 MINISTRY OF COMMUNICATIONS  
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1 AUG '84	M.S.	M.Y.	K.A.	K.M.	M.K.
A	15 FEB '84	M.S.	M.Y.	K.A.	K.M.	M.K.

REVISIONS DATE DESIGNED DRAWN CHECKED REVISIONS SUBMITTED

R.C. GIRDER  
 RC05~RC07, RC14, RC30~RC32  
 GENERAL VIEW  
 (SHEET 1 OF 2)

PACKAGE: I CIVIL AND ARCHITECTURAL WORK

SCALE: 1:40 DRAWING NO: CS-190

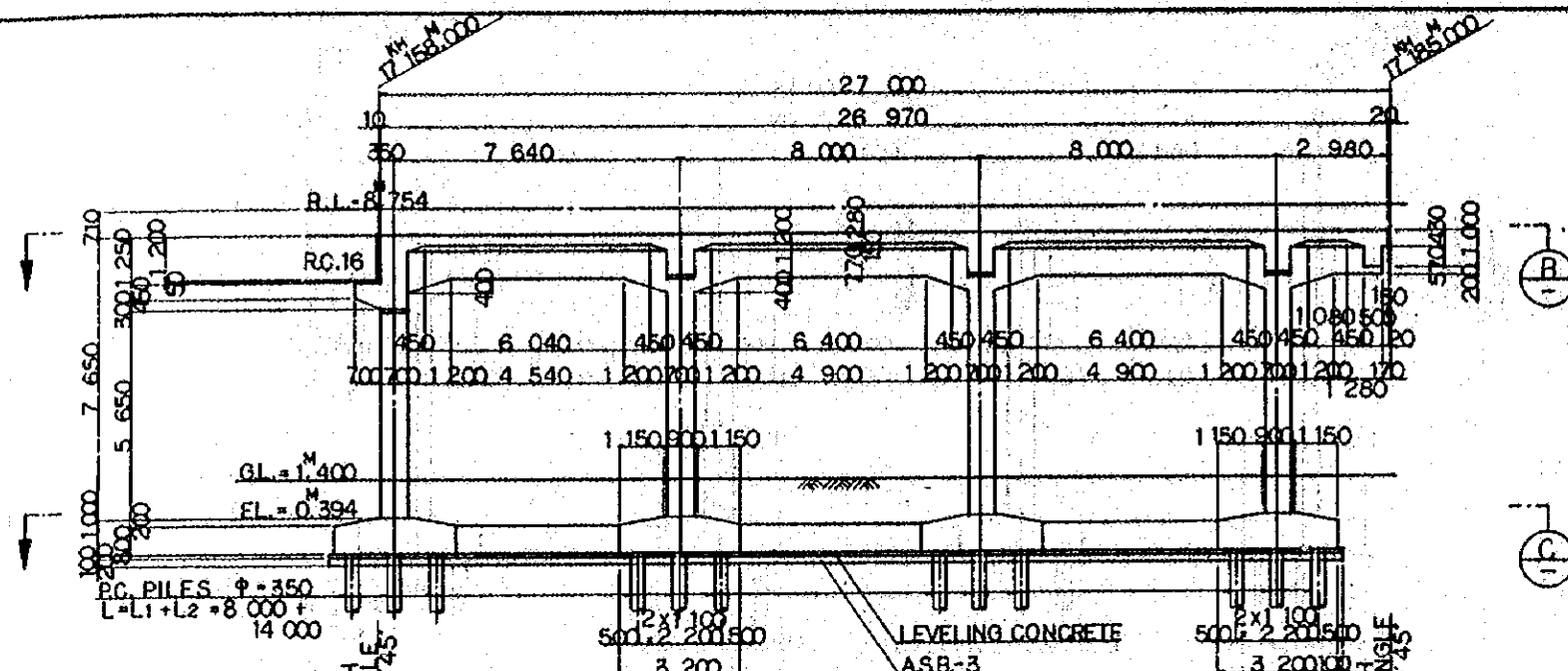
DIMENSION SCHEDULE

	RC005	RC006	RC007	RC014	RC030	RC031	RC032
STA (1)	13 <sup>00</sup> 929.000	14 <sup>00</sup> 031.000	14 <sup>00</sup> 071.000	16 <sup>00</sup> 637.000	18 <sup>00</sup> 096.000	18 <sup>00</sup> 136.000	18 <sup>00</sup> 711.000
STA (2)	13 <sup>00</sup> 939.000	14 <sup>00</sup> 041.000	14 <sup>00</sup> 080.000	16 <sup>00</sup> 647.000	18 <sup>00</sup> 106.000	18 <sup>00</sup> 145.000	18 <sup>00</sup> 720.000
R.L. (1)							
R.L. (2)							
AZIMUTH ANGLE (θ)	353° 57' 10.87	359° 01' 25.30	1° 50' 12.08	357° 52' 55.23	8° 37' 29.63	14° 45' 19.96	37° 53' 11.24
∠ (θ)	355° 17' 58.09	0° 22' 12.53	2° 21' 42.71	355° 16' 11.31	11° 19' 04.07	17° 20' 01.88	40° 27' 53.16
U <sub>1</sub>	12 <sup>00</sup> 19.728	12 <sup>00</sup> 125.285	12 <sup>00</sup> 124.661	11 <sup>00</sup> 982.519	12 <sup>00</sup> 281.966	12 <sup>00</sup> 273.335	11 <sup>00</sup> 997.091
T <sub>1</sub>	-2 <sup>00</sup> 245.337	-2 <sup>00</sup> 143.533	-2 <sup>00</sup> 103.540	454.075	1 <sup>00</sup> 875.474	1 <sup>00</sup> 914.521	2 <sup>00</sup> 416.661
U <sub>2</sub>	12 <sup>00</sup> 120.731	12 <sup>00</sup> 125.271	12 <sup>00</sup> 124.350	11 <sup>00</sup> 983.113	12 <sup>00</sup> 280.101	12 <sup>00</sup> 270.965	11 <sup>00</sup> 991.312
T <sub>2</sub>	-2 <sup>00</sup> 235.388	-2 <sup>00</sup> 133.533	-2 <sup>00</sup> 094.546	464.057	1 <sup>00</sup> 885.299	1 <sup>00</sup> 923.203	2 <sup>00</sup> 423.560
E.L. (1)							
E.L. (2)							
L <sub>1</sub>	10000	10000	9000	10000	10000	9000	9000
L <sub>2</sub>	9980	9980	8980	9980	9980	8980	8980
L <sub>3</sub>	9280	9280	8280	9280	9280	8280	8280
L <sub>4</sub>	8180	8180	7180	8180	8180	7180	7180
L <sub>5</sub>	10040	10040	9013	9897	10080	9080	9080
L <sub>6</sub>	10020	10020	8993	9877	10060	9060	9060
L <sub>7</sub>	9960	9960	8980	10103	9920	8920	8920
L <sub>8</sub>	9940	9940	8960	10083	9900	8900	8900
L <sub>9</sub>	10001	10001	8986	9925	10022	9022	9022
L <sub>10</sub>	9959	9959	8980	10034	9938	8938	8938
b <sub>1</sub>	1413	1413	1410	1387	1425	1420	1420
b <sub>2</sub>	1387	1387	1390	1413	1375	1380	1380
b <sub>3</sub>	1400	1400	1400	1400	1399	1400	1399
b <sub>4</sub>	1400	1400	1400	1400	1400	1399	1400
b <sub>5</sub>	1550	1550	1550	1550	1551	1550	1551
b <sub>6</sub>	1550	1550	1550	1550	1550	1551	1550
θ <sub>1</sub>	90° 17' 11.32	91° 03' 35.89	90° 08' 23.41	88° 42' 39.05	92° 07' 11.80	90° 30' 56.39	92° 03' 45.53
θ <sub>2</sub>	88° 56' 24.11	89° 42' 48.67	89° 36' 52.78	91° 17' 20.55	89° 25' 37.35	87° 56' 14.46	89° 29' 03.62
θ <sub>3</sub>	90° 00' 00.00	90° 46' 24.57	90° 00' 00.00	88° 59' 50.57	91° 32' 49.15	90° 00' 00.00	91° 32' 49.15
θ <sub>4</sub>	89° 13' 35.43	90° 00' 00.00	89° 45' 16.19	91° 00' 09.63	90° 00' 00.00	88° 27' 10.85	90° 00' 00.00
f <sub>1</sub>	13	13	10	13	25	20	20

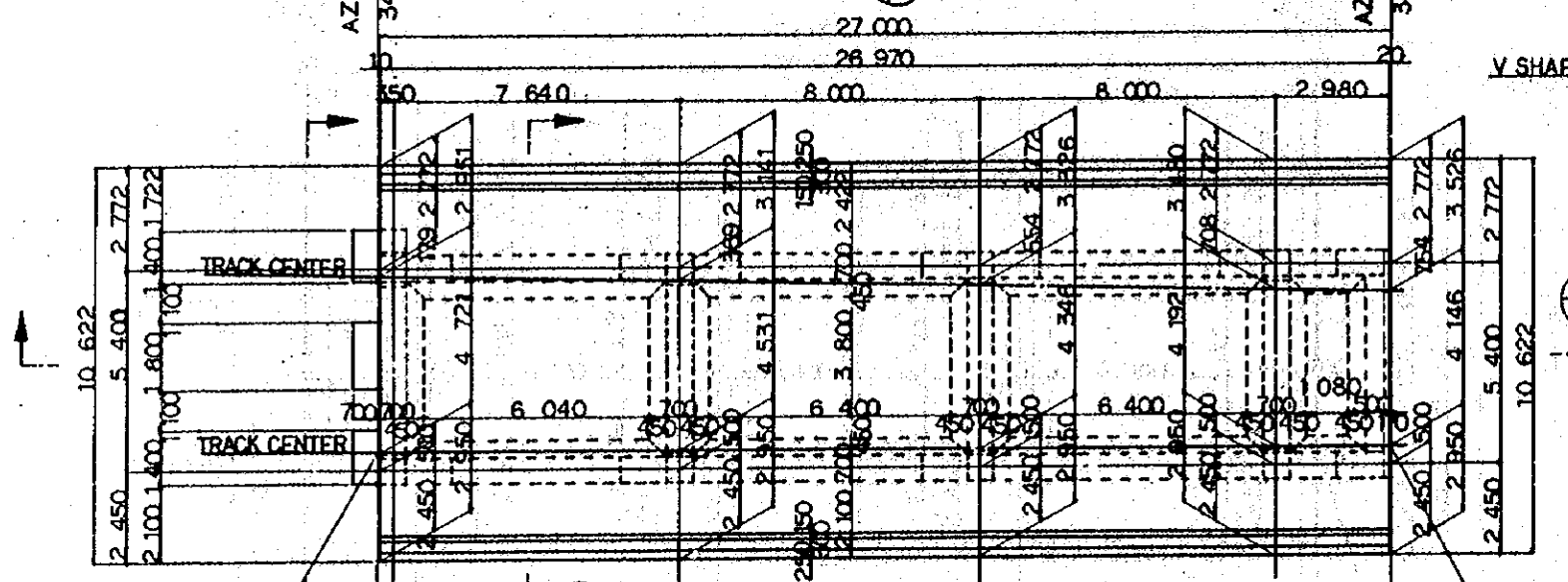
NOTES :

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW : CS-190.

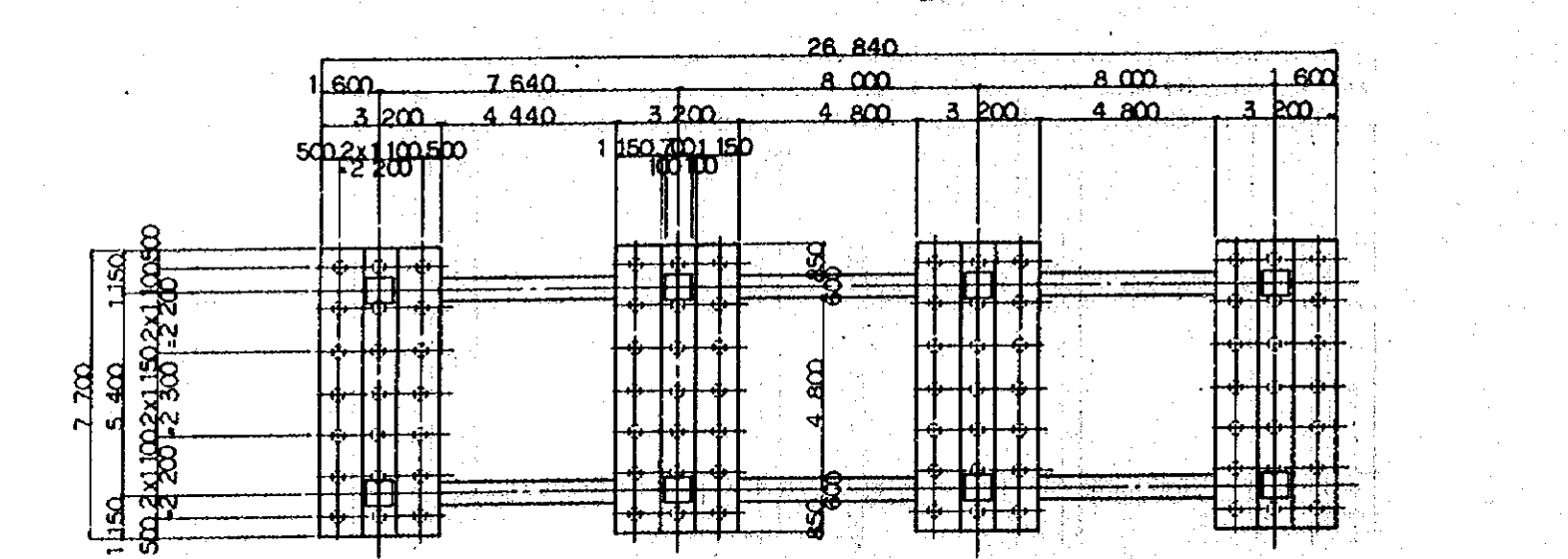
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG. '84	AKS	m.y	KA	AK
A	10 FEB. '84	AKS	m.y	KA	AK
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
R.C. GIRDER RC05~RC07, RC14, RC30~RC32 GENERAL VIEW (SHEET 2 OF 2)					
PROGRAM : I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
	CS-191				



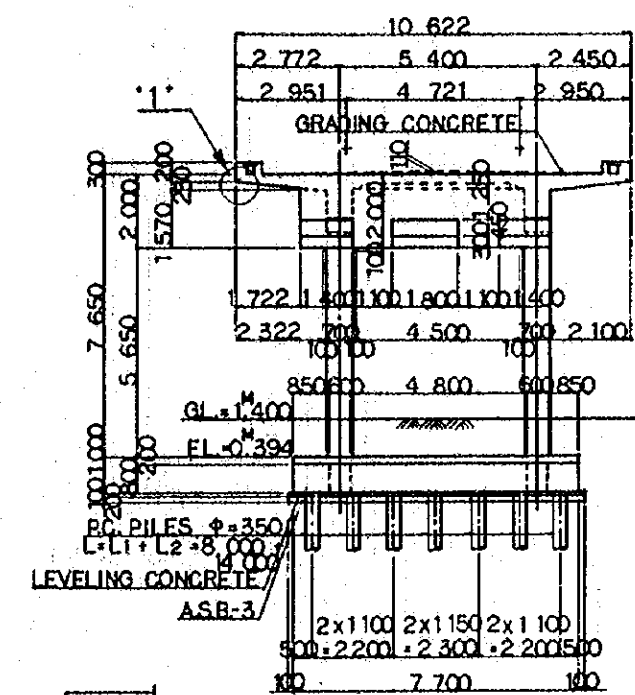
SECTION A



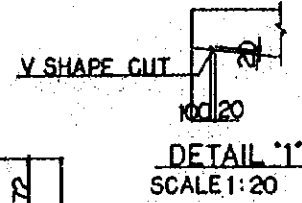
SECTION B



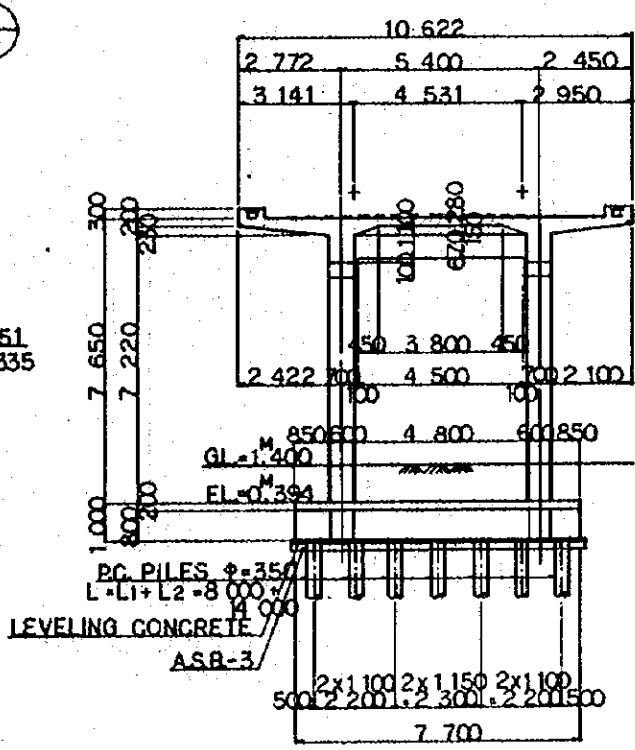
SECTION C



SECTION D



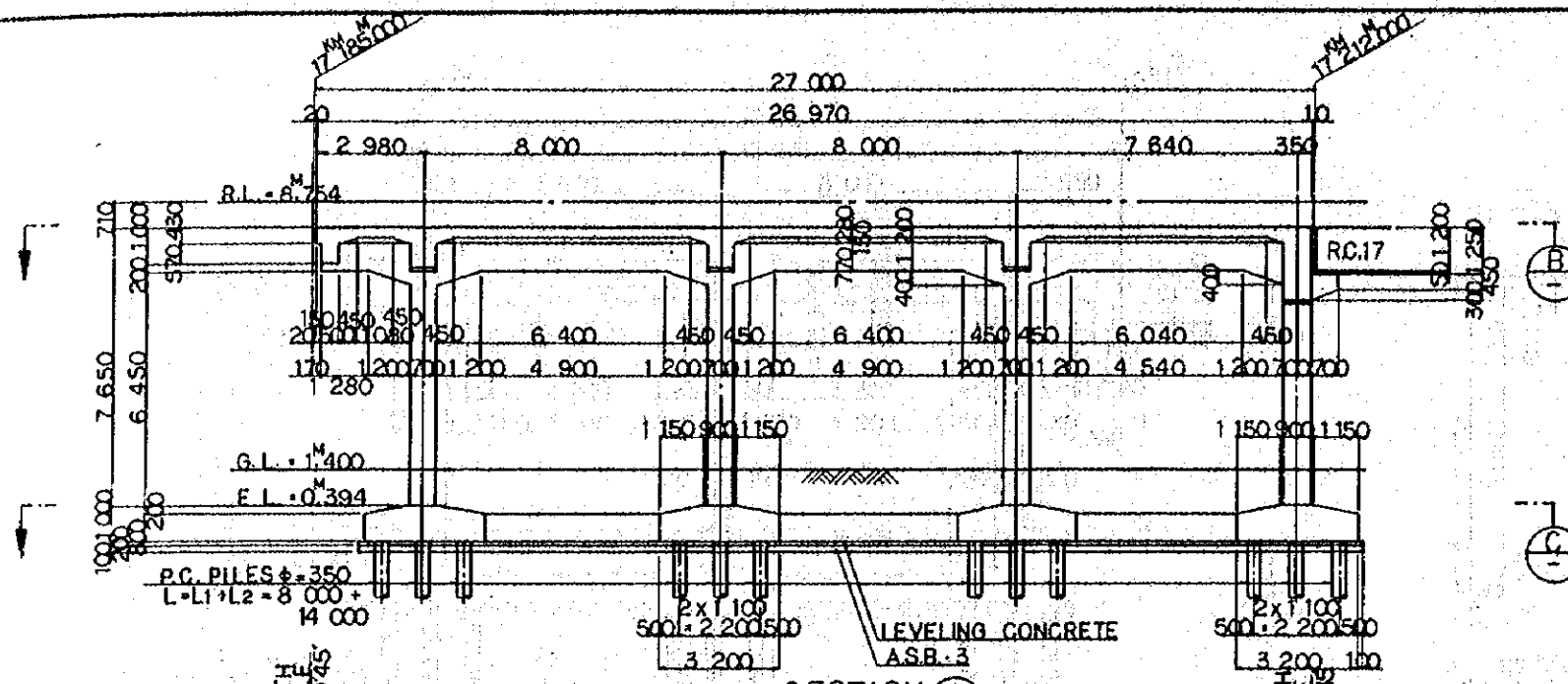
DETAIL 1  
SCALE 1:20



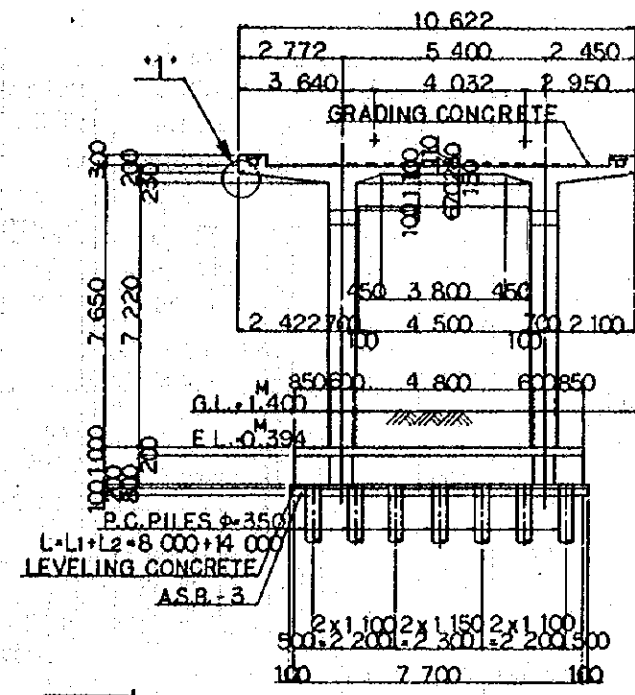
SECTION E

- NOTES :
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-195~201.
  3. TYPES OF PC. PILE
    - 3.1 BOTTOM SURFACE OF FOOTING
    - 3.2 PC. PILE CLASS B
    - 3.3 PC. PILE CLASS A
  4. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

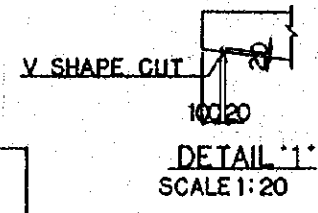
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG 84	K.V.	M.Y.	K.A.	K.M.
A	1 FEB 84	K.V.	M.Y.	K.A.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
<b>VIADUCT V086</b> <b>GENERAL VIEW</b>					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:100		DRAWING NO: CS-192			



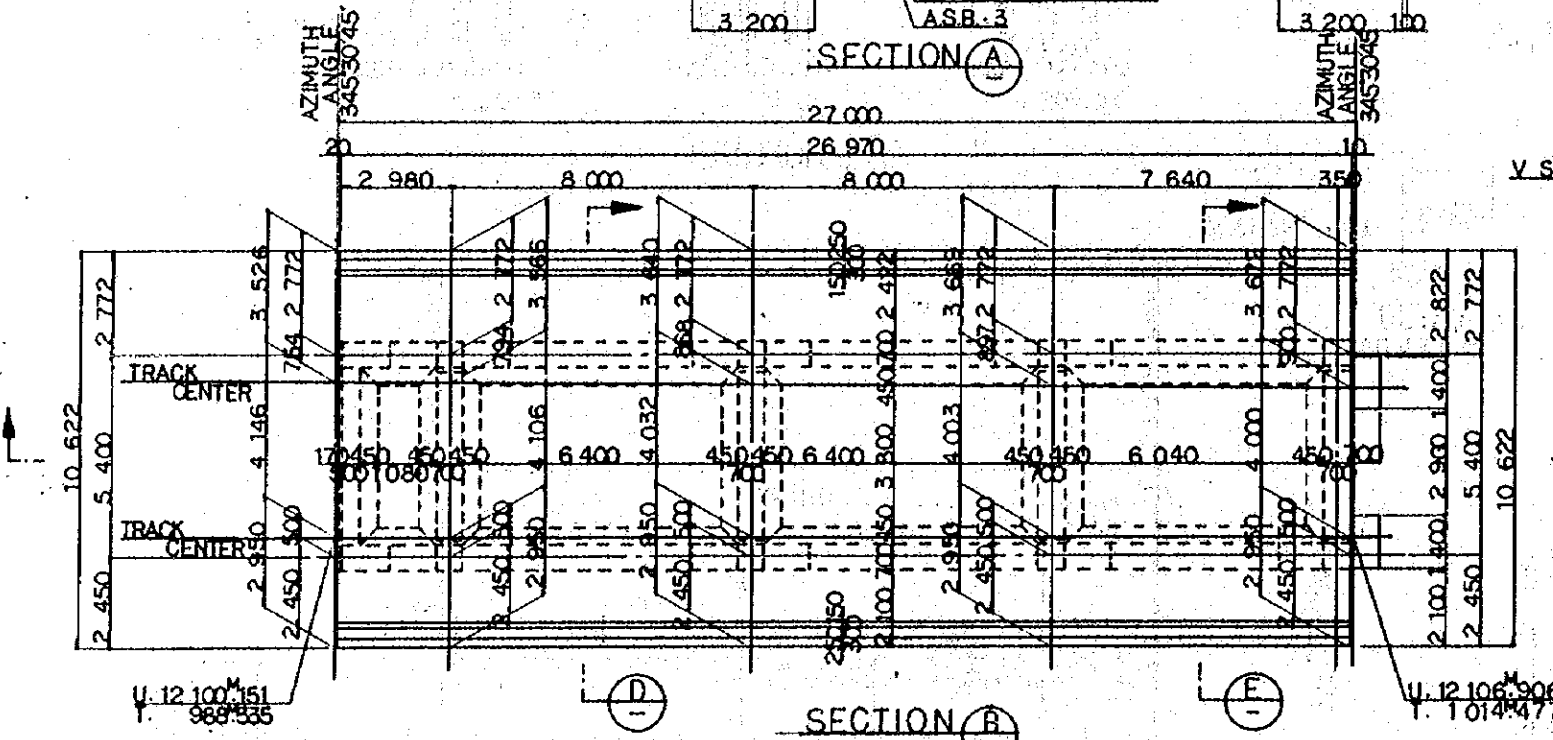
SECTION A



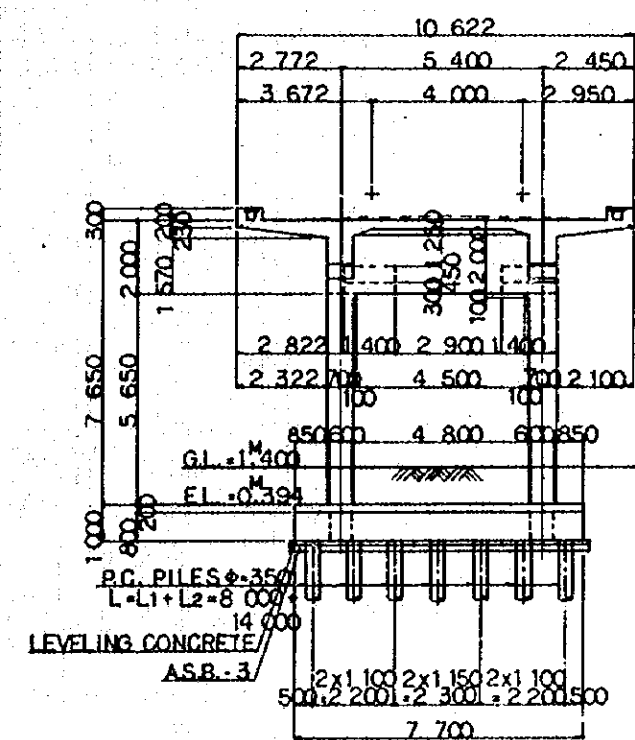
SECTION D



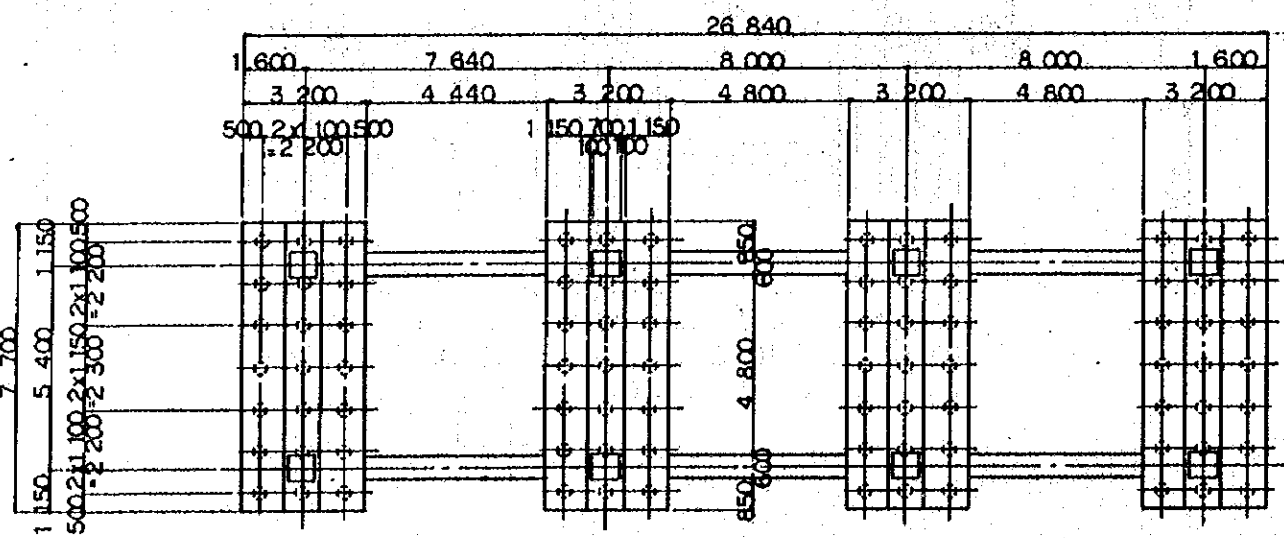
DETAIL 1  
SCALE 1:20



SECTION B



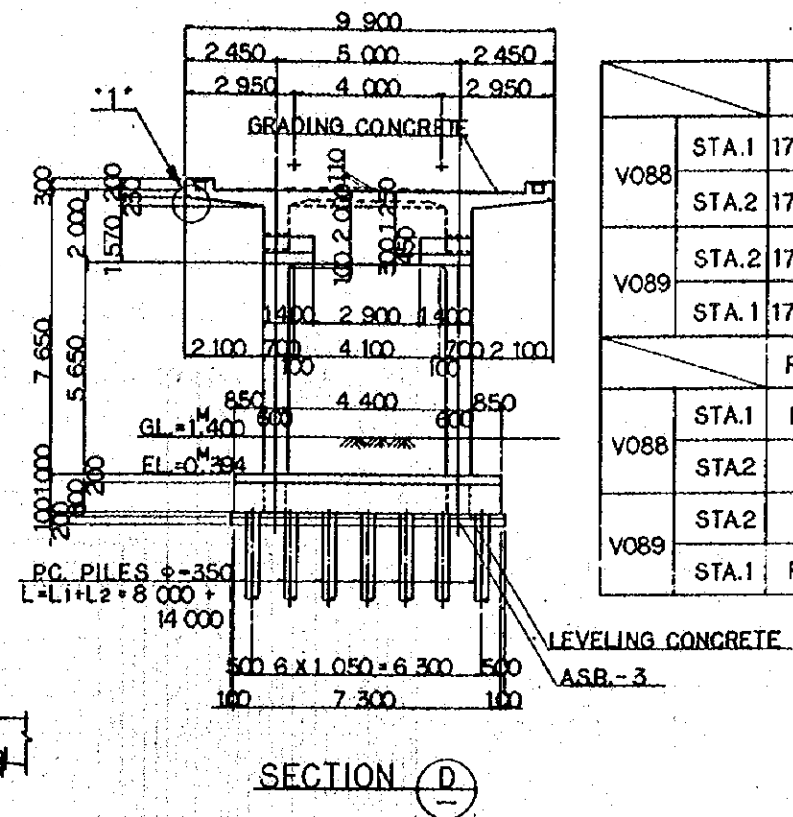
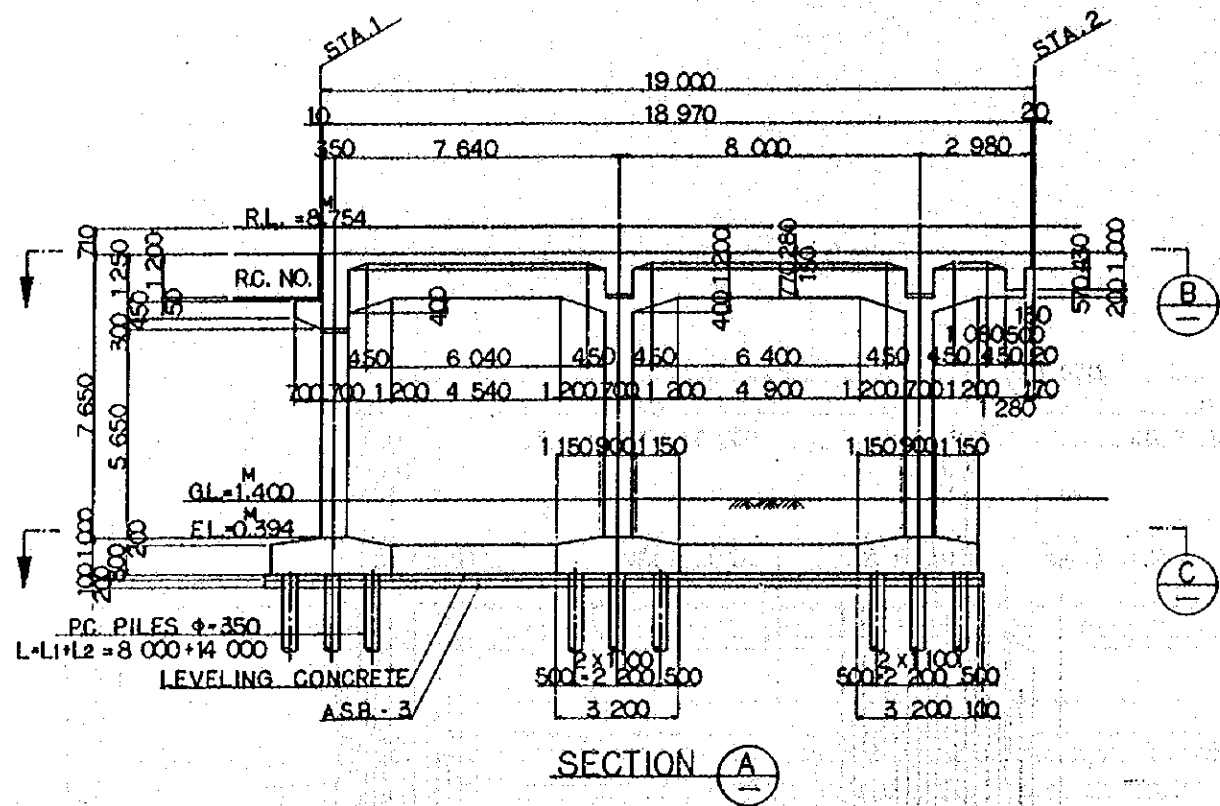
SECTION E



SECTION C

- NOTES :
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-195-201
  3. TYPES OF P.C. PILE
    - BOTTOM SURFACE OF FOOTING
    - P.C. PILE CLASS B.
    - P.C. PILE CLASS A.
  4. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

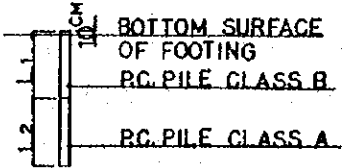
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
B	1 AUG '84	R.V.	M.Y.	K.A.	K.M.
A		R.V.	M.Y.	K.A.	K.M.
VIADUCT V087 GENERAL VIEW					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:100	CS-193				

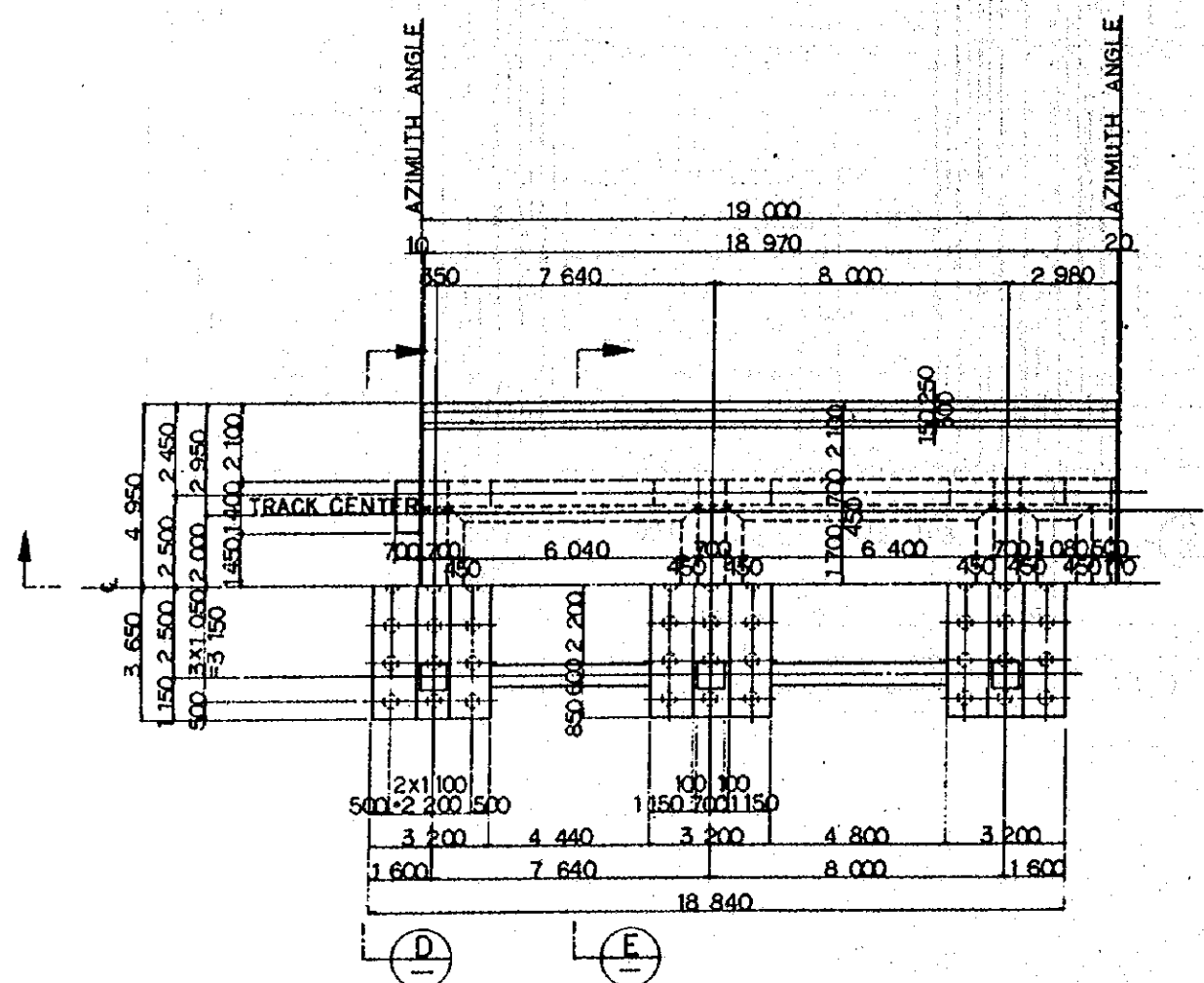
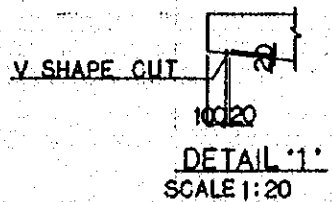


**DIMENSION SCHEDULE**

	STATION	R.L.	AZIMUTH ANGLE	CENKARENG AIRPORT LINE COORDINATE	
V088	STA.1	17 <sup>km</sup> 222 <sup>m</sup> 000	8.754	345° 30' 45"	U.12 109 <sup>m</sup> 407 T. 1 024 <sup>m</sup> 159
	STA.2	17 <sup>km</sup> 241 <sup>m</sup> 000	.	.	U.12 114 <sup>m</sup> 161 T. 1 042 <sup>m</sup> 555
V089	STA.2	17 <sup>km</sup> 241 <sup>m</sup> 000	8.754	345° 30' 45"	U.12 114 <sup>m</sup> 161 T. 1 042 <sup>m</sup> 555
	STA.1	17 <sup>km</sup> 260 <sup>m</sup> 000	.	.	U.12 118 <sup>m</sup> 914 T. 1 060 <sup>m</sup> 951

	RC. NO.
V088	STA.1 RC.17 STA.2 —
V089	STA.2 — STA.1 RC.18

- NOTES:**
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  - REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-195~201, CS-222, CS-224
  - TYPES OF PC PILE
    - 
  
BOTTOM SURFACE OF FOOTING  
RC. PILE CLASS B  
RC. PILE CLASS A
  - GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE



REPUBLIC OF INDONESIA  
MINISTRY OF COMMUNICATIONS  
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT

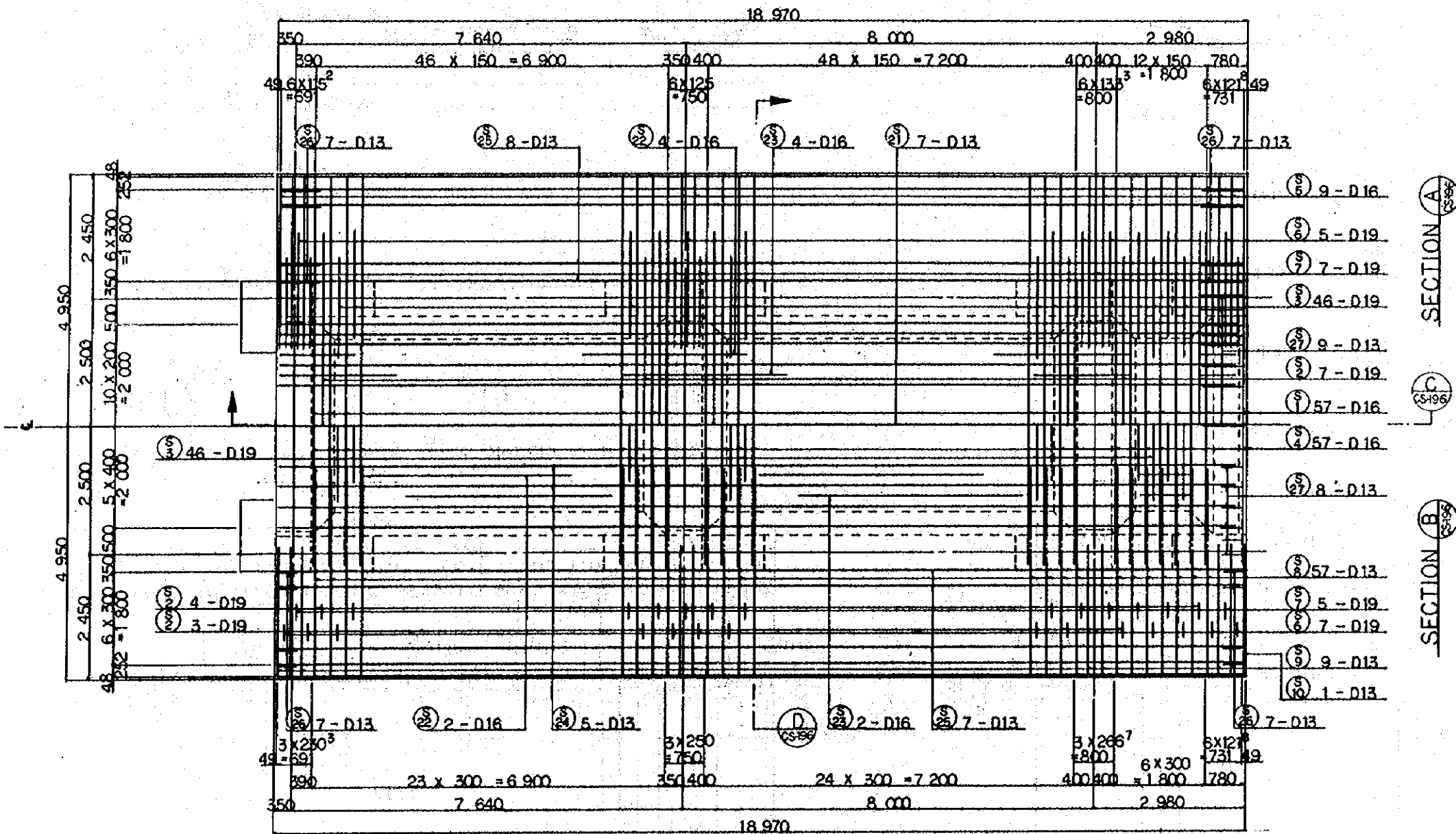
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1AUG'84	K.V.	M.Y.	K.A.	K.M.	K.M.
A	REFER	K.V.	M.Y.	K.A.	K.M.	K.M.

VIADUCT V088, V089  
GENERAL VIEW

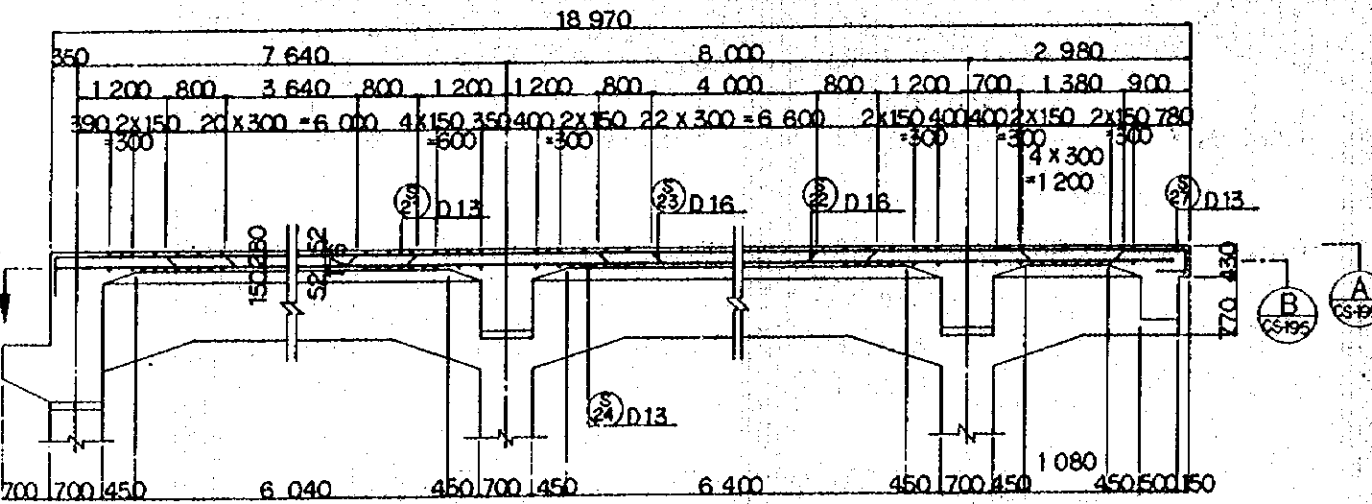
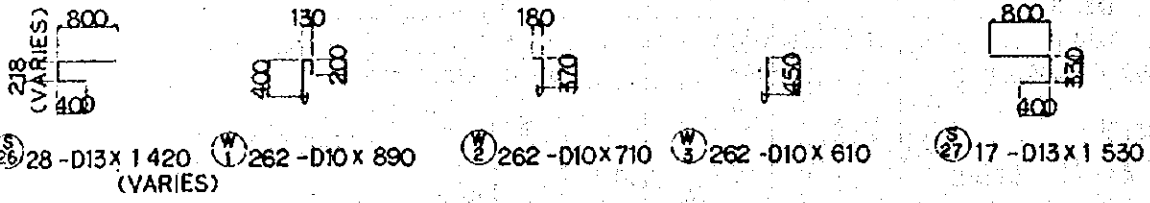
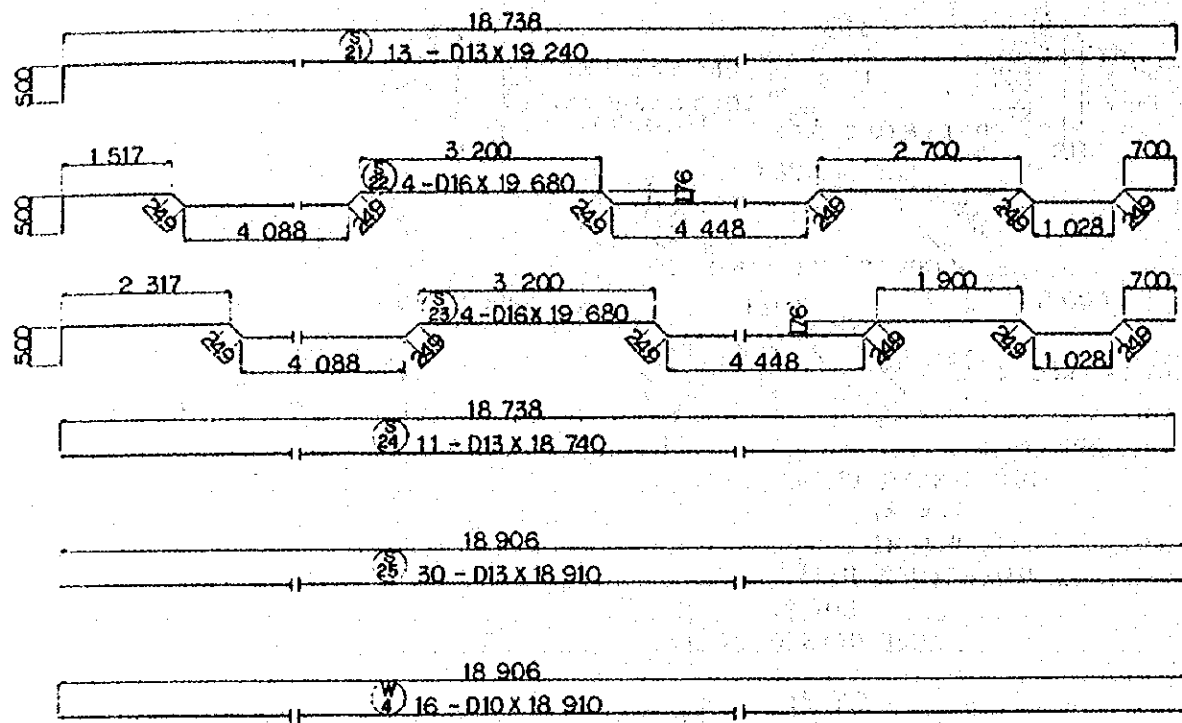
PACKAGE: I CIVIL AND ARCHITECTURAL WORK  
SCALE: 1:100  
DRAWING NO: CS-194



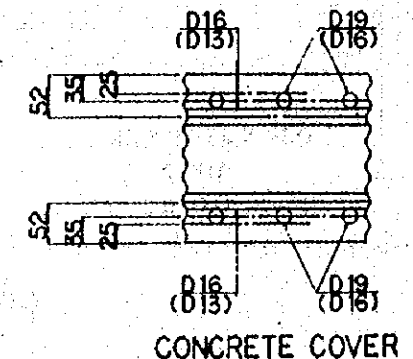


NOTES:  
 1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED  
 2. REFERENCE DRAWING FOR GENERAL VIEW : CS-194

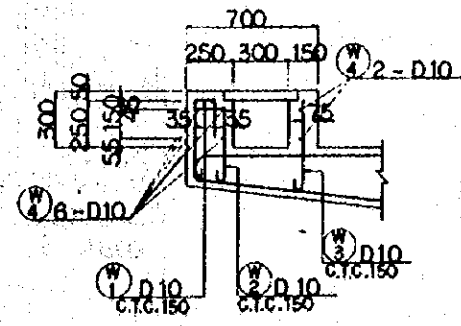
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	K.V.	M.Y.	K.A.	U.M.	M.K.
A	1984	K.V.	M.Y.	K.A.	U.M.	M.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
VIADUCT V089 BAR ARRANGEMENT (SHEET 1 OF 7)						
PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:50		DRAWING NO: CS-195				



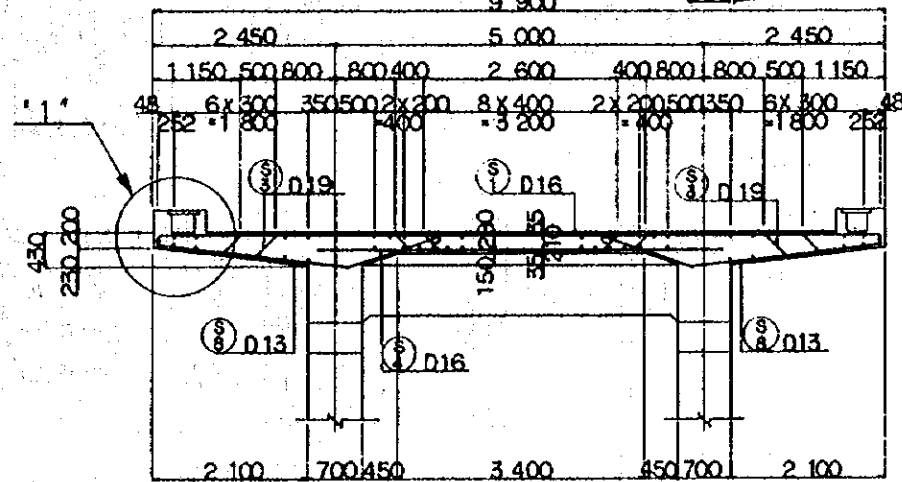
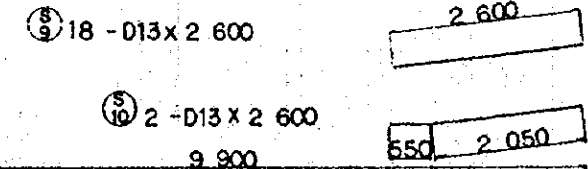
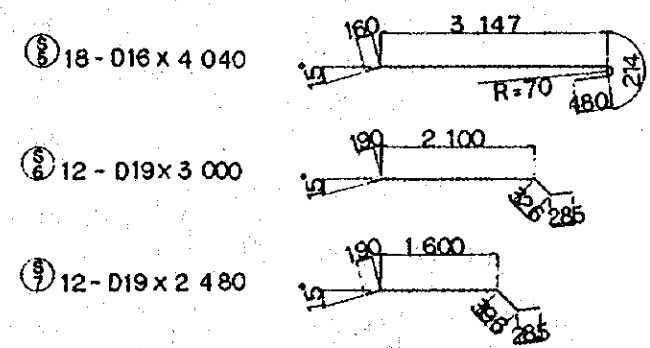
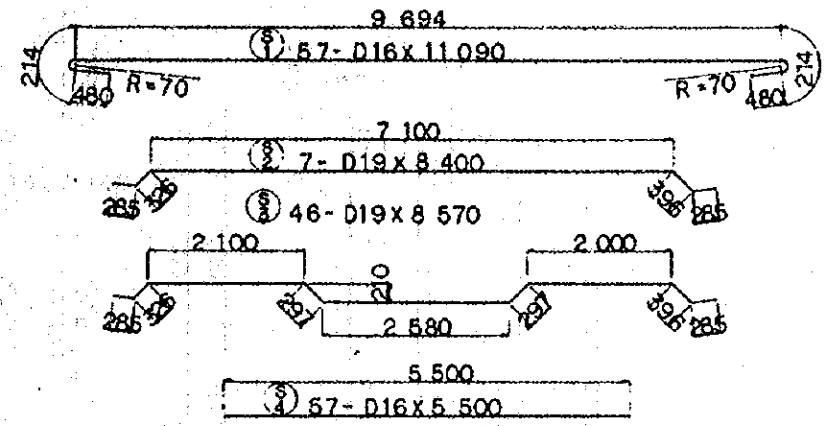
SECTION C  
SCALE 1:50



CONCRETE COVER



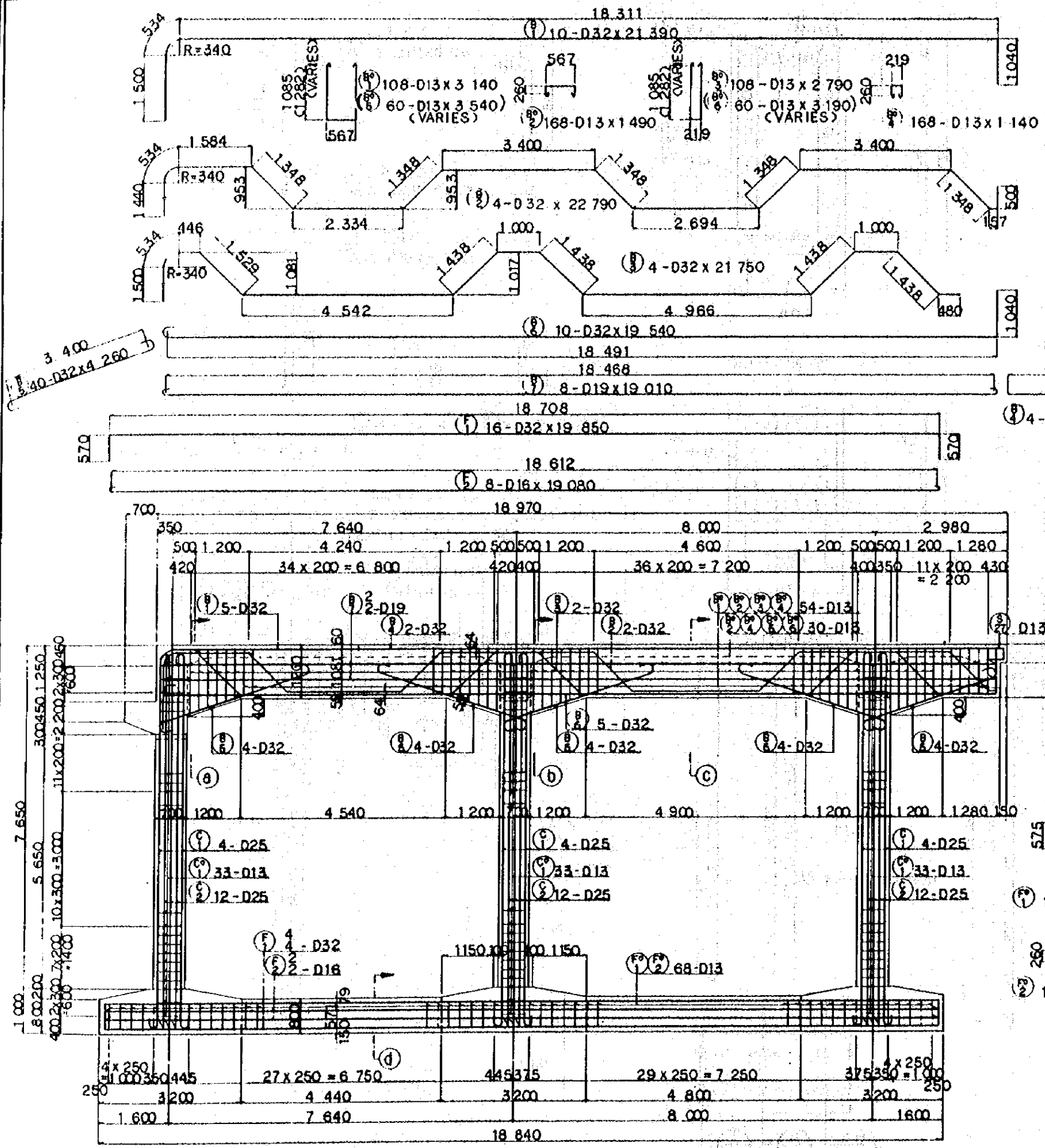
DETAIL \*1\*  
SCALE 1:20



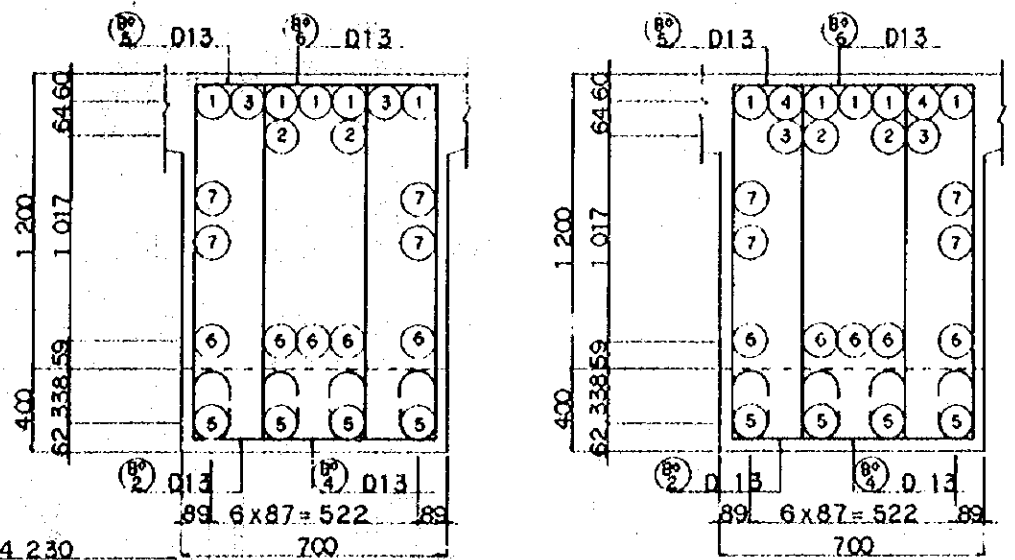
SECTION D  
SCALE 1:50

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW : CS-194.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG/84	r.j	m.y	K.A	K.M	r.k
A	1984.07	r.j	m.y	K.A	K.M	r.k
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
VIADUCT V089 BAR ARRANGEMENT (SHEET 2 OF 7)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:20,50	CS-196					

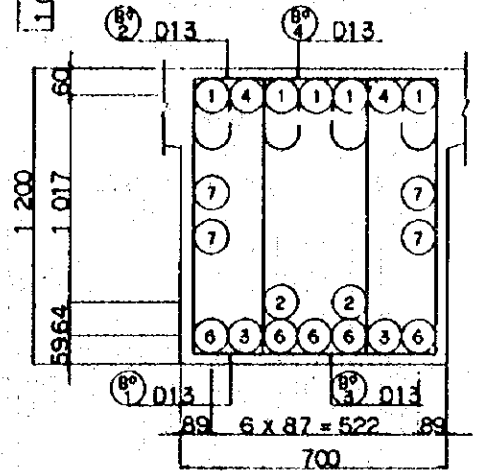


SECTION A - A

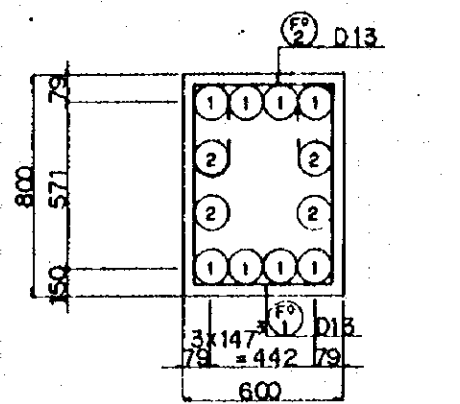


SECTION (a) - (a)

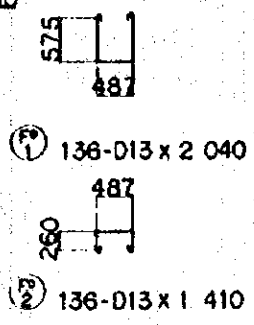
SECTION (b) - (b)



SECTION (c) - (c)



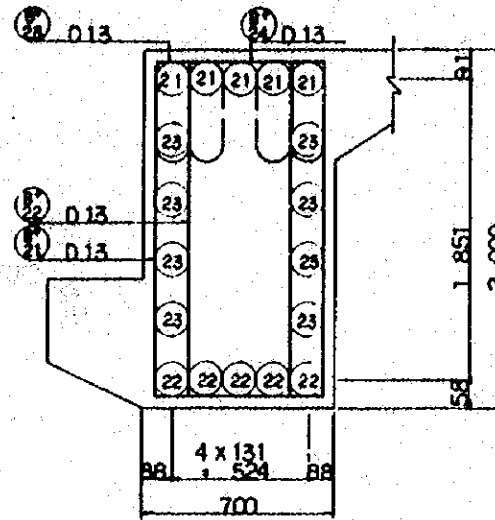
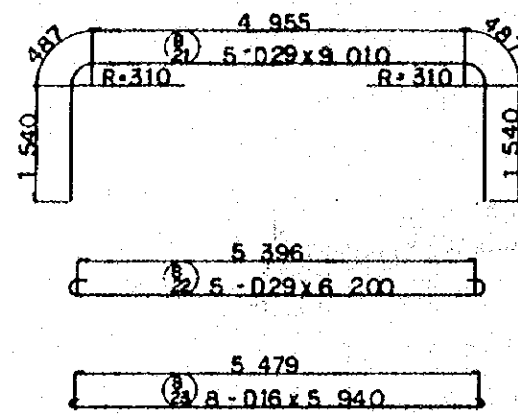
SECTION (d) - (d)



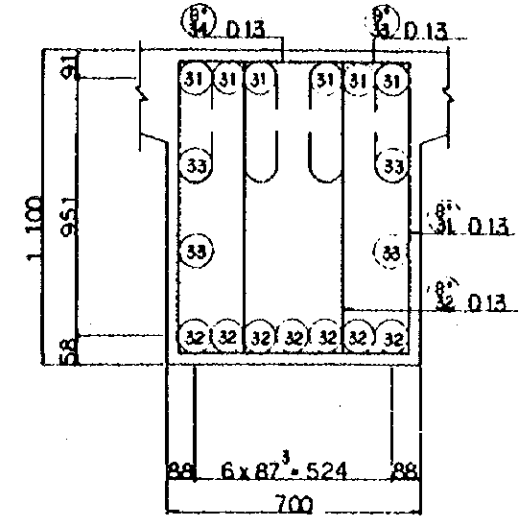
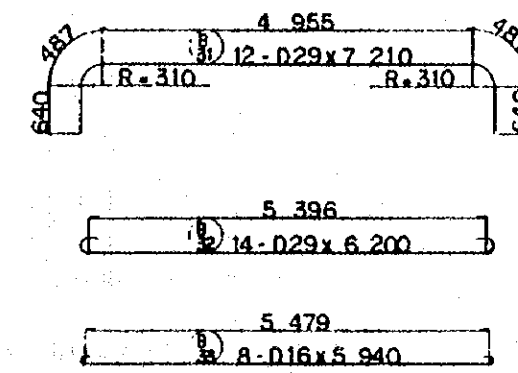
REMARKING DIAGRAM

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW :CS-194.

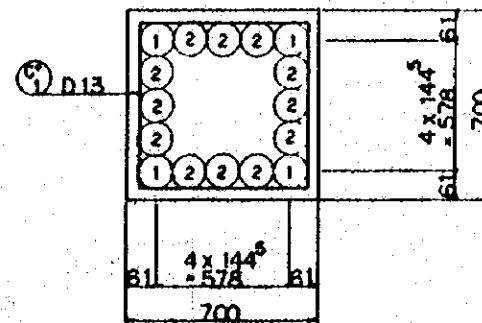
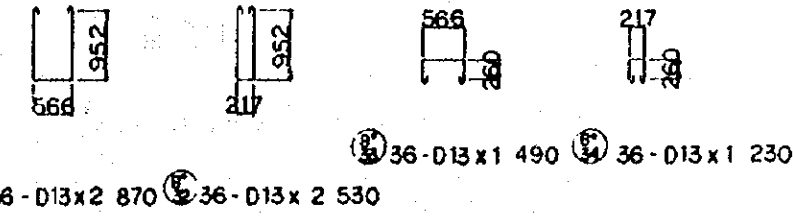
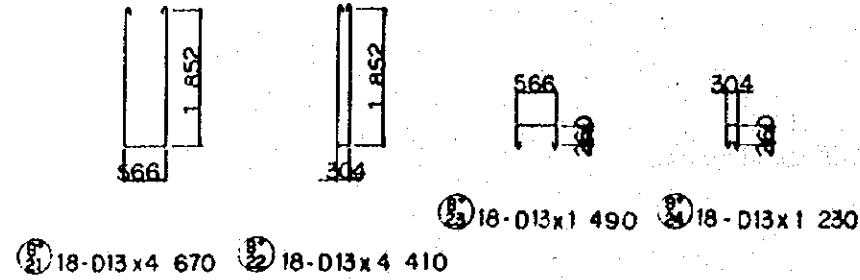
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
REVISION	DATE	DESIGNED	DRAWN	CHECKED	APPROVED
B	1AUG'84	K.W.	M.Y.	K.A.	K.M.
A	11E8'84	K.W.	M.Y.	K.A.	K.M.
VIADUCT V089 BAR ARRANGEMENT (SHEET 3 OF 7)					
PROGRAM: I CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:50		DRAWING NO: CS-197			



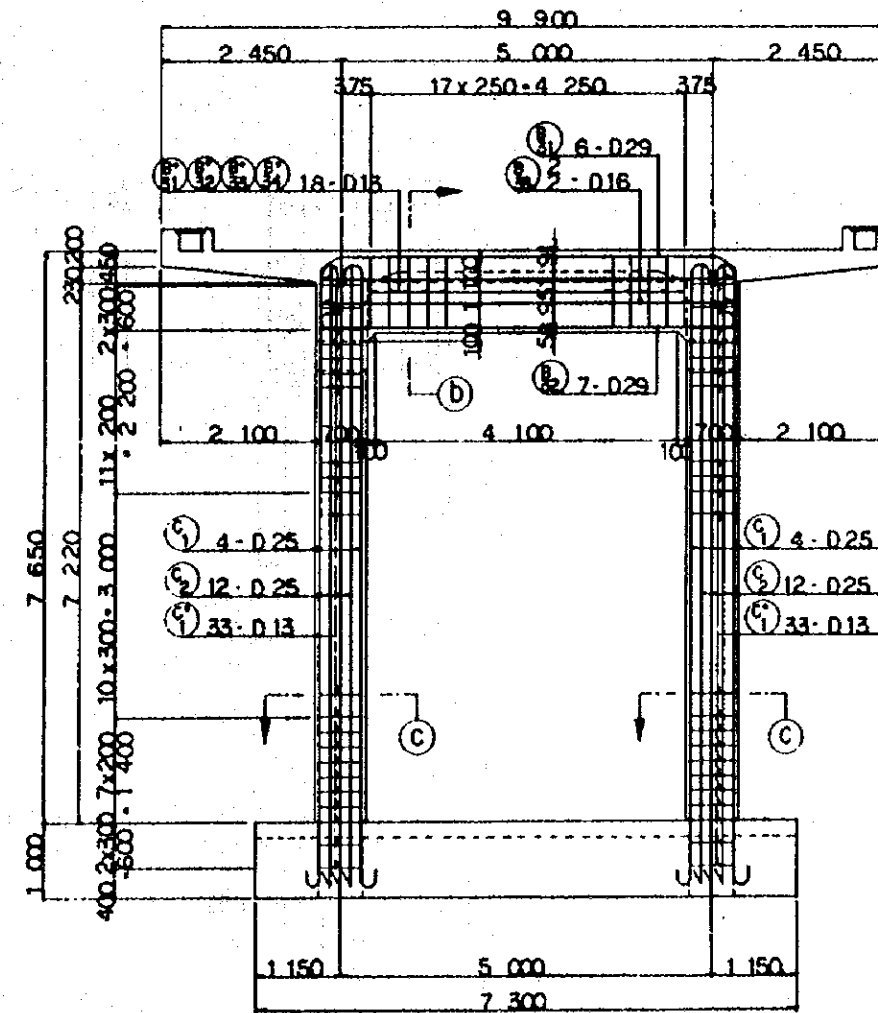
SECTION a - a



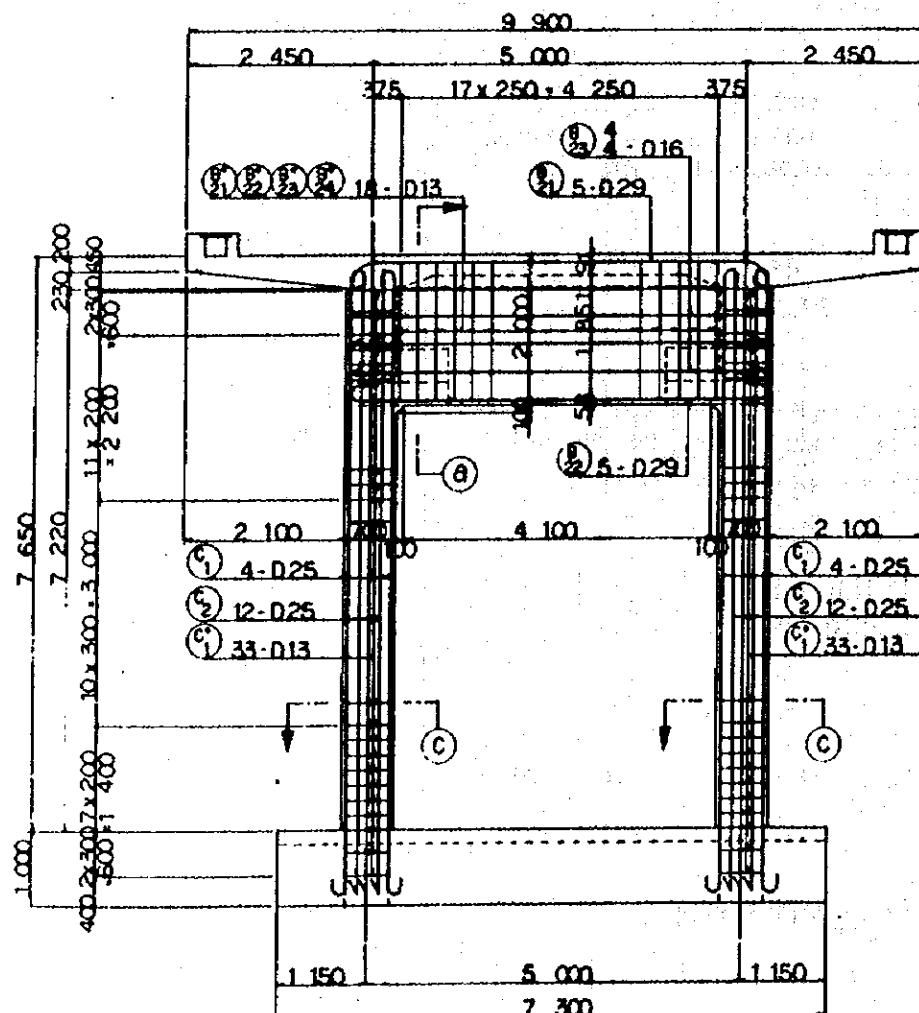
SECTION b - b



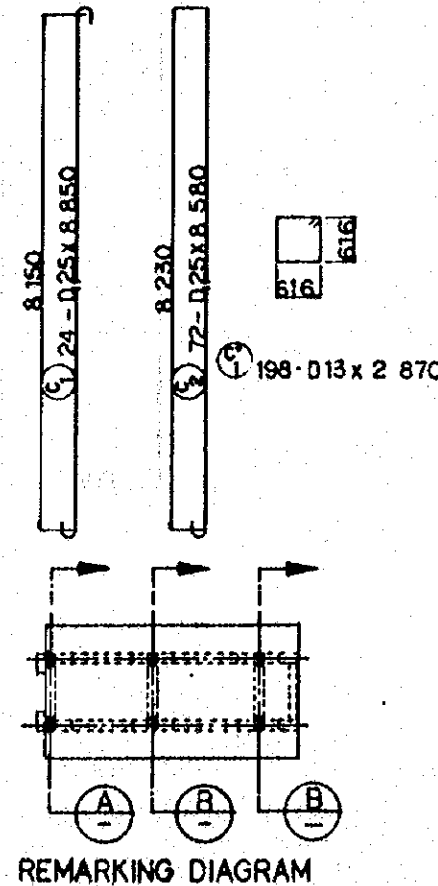
SECTION c - c



SECTION B



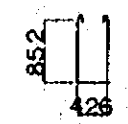
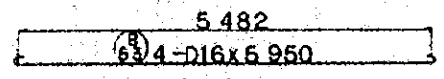
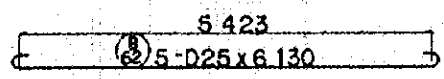
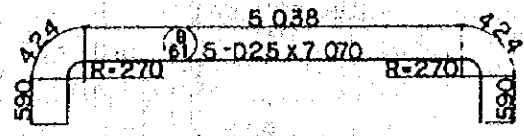
SECTION A



REMARKING DIAGRAM

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW :CS-194

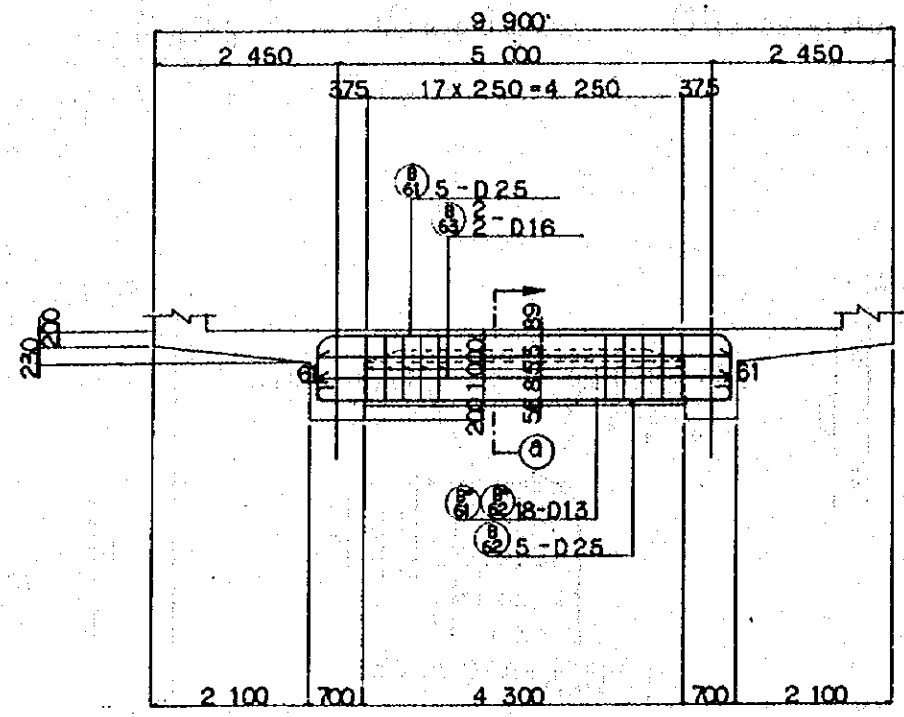
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENS AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG/84	KJ	my	KJ	KM	ML
A	11FEB/84	KJ	my	KJ	KM	ML
REVISION	MT	DESIGN	PLAN	FIELD	REVIEW	SUBMITTED
VIADUCT V089 BAR ARRANGEMENT (SHEET 4 OF 7)						
PROGRAM: I CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:50		DRAWING NO: CS-198				



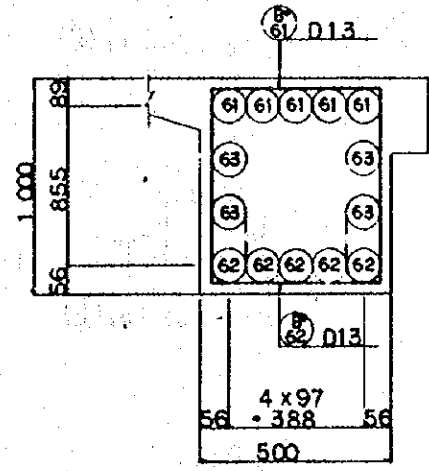
18-D13 x 2 530



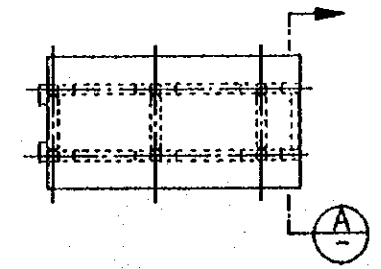
18-D13 x 890



SECTION A-A



SECTION B-B

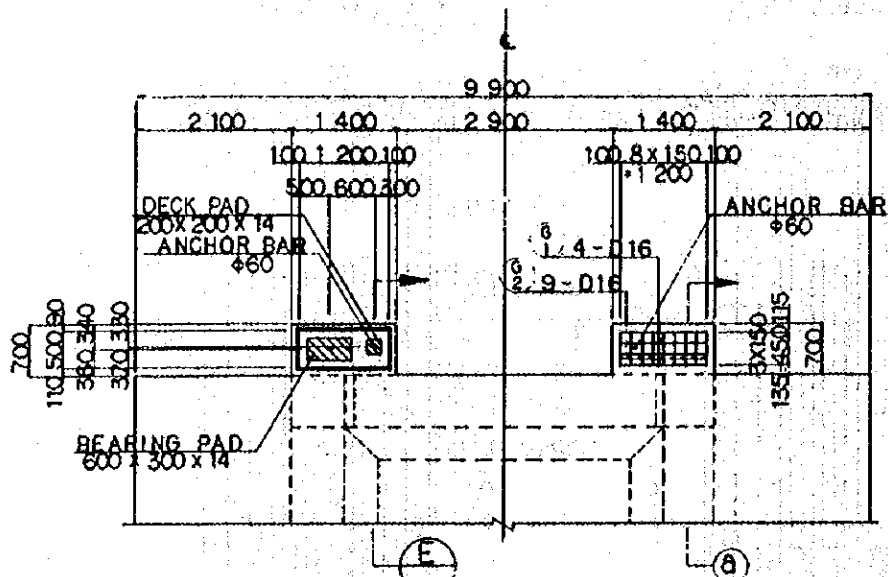


REMARKING DIAGRAM

NOTES:

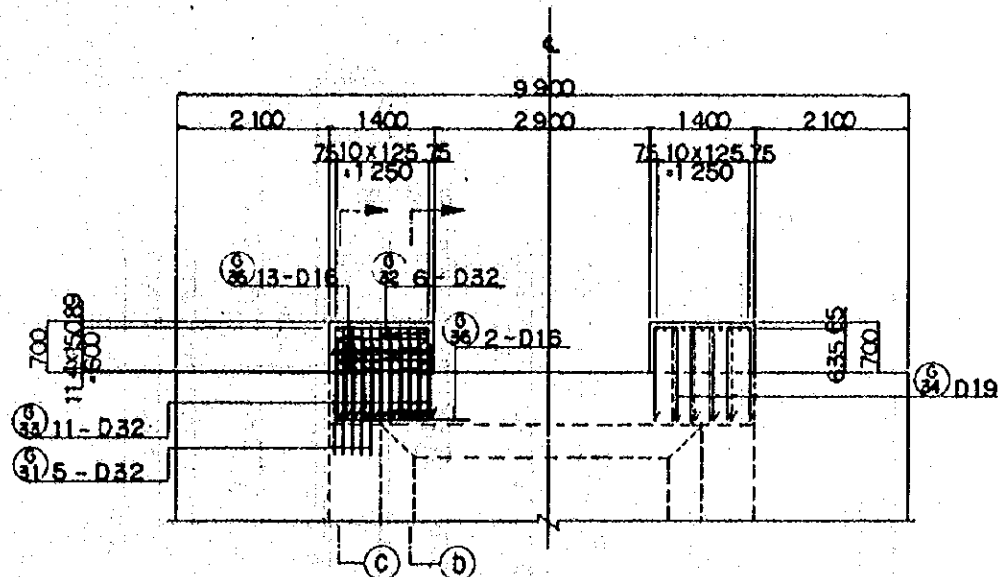
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW : CS-194:

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG 84	KV	m.y	KA	K.M	AK
A	10 FEB 84	KV	m.y	KA	K.M	AK
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
VIADUCT V089 BAR ARRANGEMENT (SHEET 5 OF 7)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:50	CS-199					



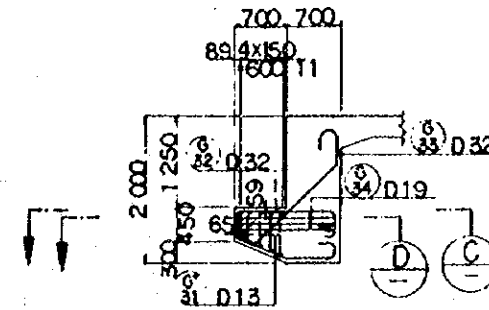
SECTION A  
SCALE 1:50

SECTION B  
SCALE 1:50

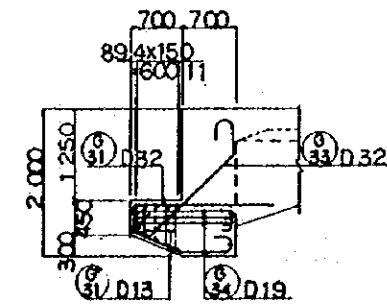


SECTION C  
SCALE 1:50

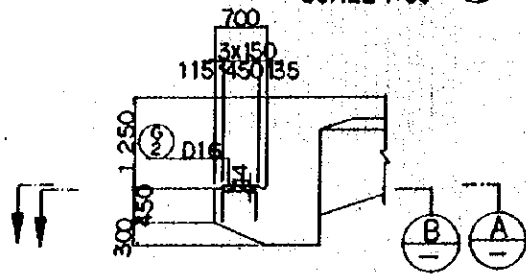
SECTION D  
SCALE 1:50



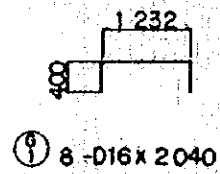
SECTION D-D  
SCALE 1:50



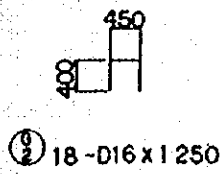
SECTION C-C  
SCALE 1:50



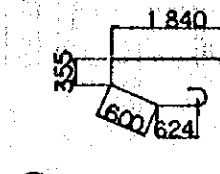
SECTION A-A  
SCALE 1:50



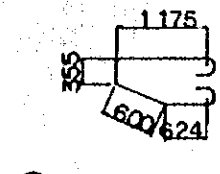
SECTION B-B  
SCALE 1:50



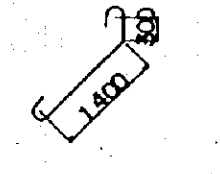
SECTION C-C  
SCALE 1:50



SECTION D-D  
SCALE 1:50



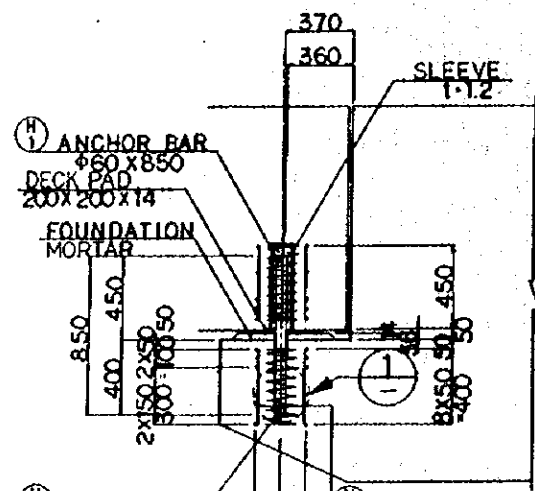
SECTION E-E  
SCALE 1:50



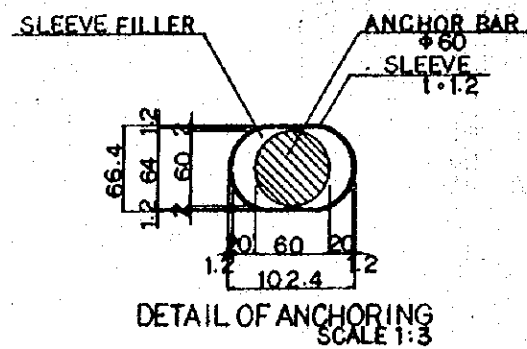
SECTION F-F  
SCALE 1:50

NOTES:

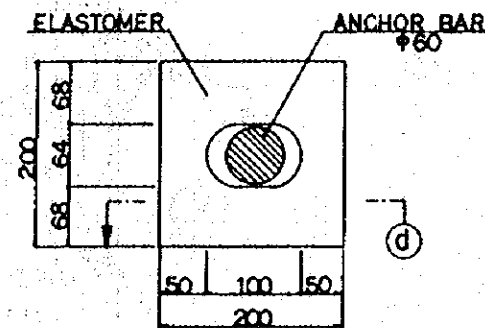
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
- REFERENCE DRAWING FOR GENERAL VIEW :CS-194



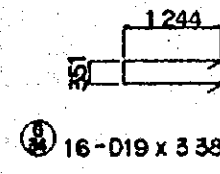
SECTION E  
SCALE 1:20



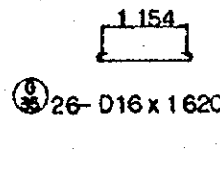
DETAIL OF ANCHORING  
SCALE 1:3



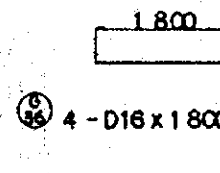
DETAIL OF DECK PAD  
SCALE 1:4



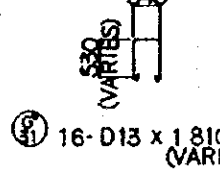
SECTION G-G  
SCALE 1:50



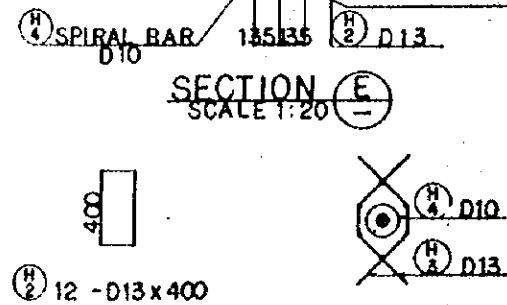
SECTION H-H  
SCALE 1:50



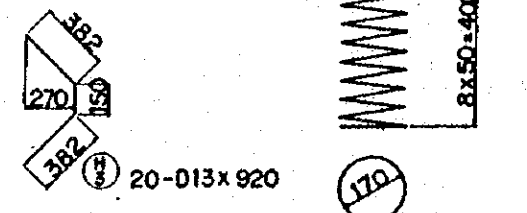
SECTION I-I  
SCALE 1:50



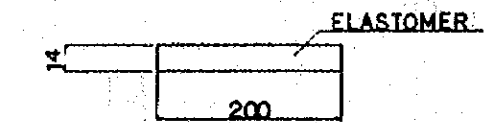
SECTION J-J  
SCALE 1:50



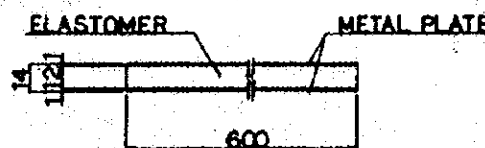
DETAIL 1  
SCALE 1:20



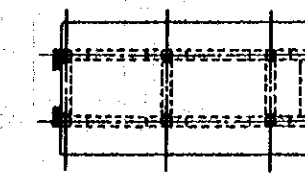
DETAIL OF SPIRAL BAR  
SCALE 1:10



SECTION D-D  
SCALE 1:50

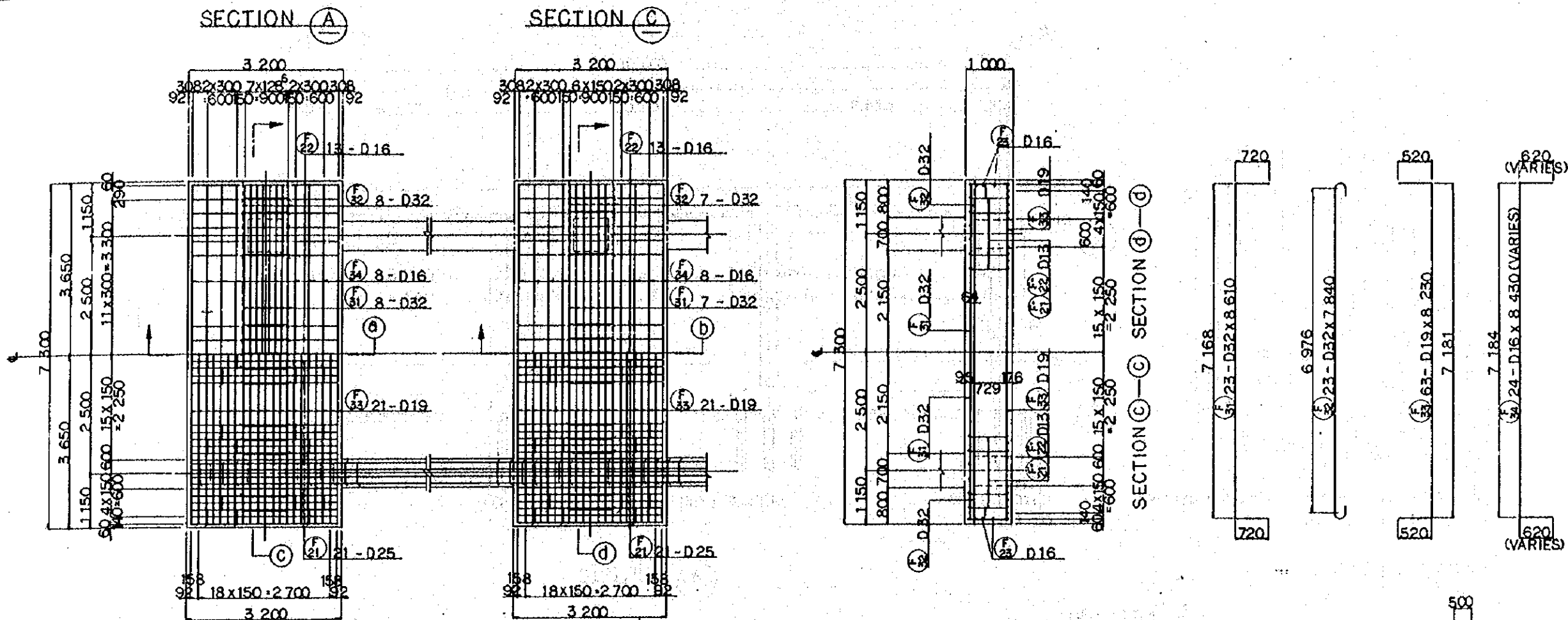


DETAIL OF BEARING PAD  
SCALE 1:2

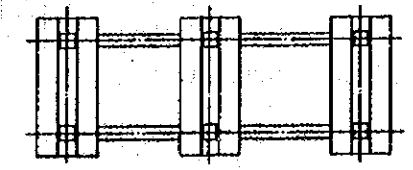
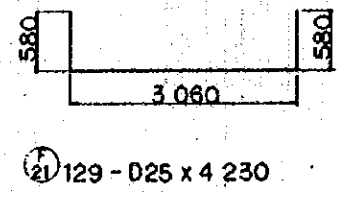
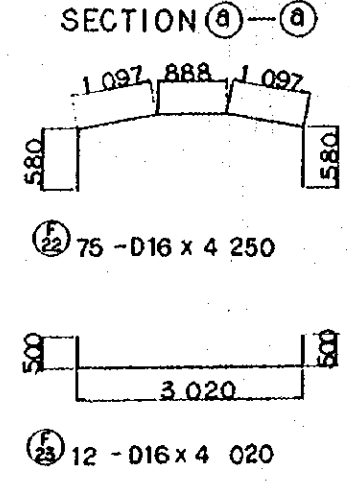
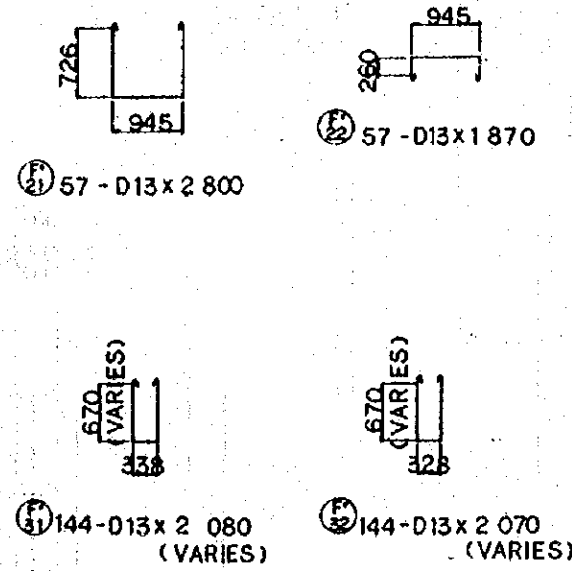
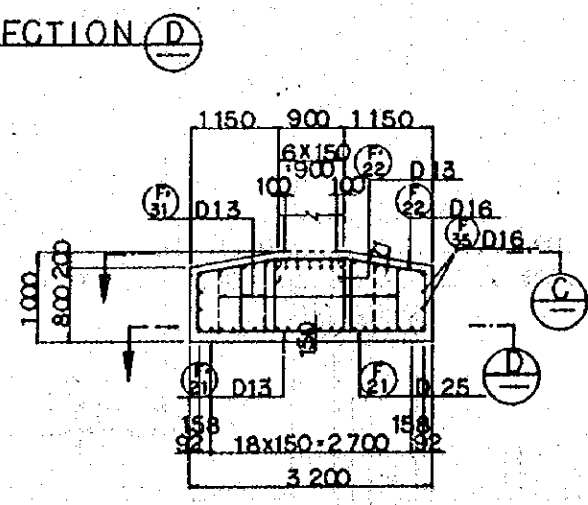
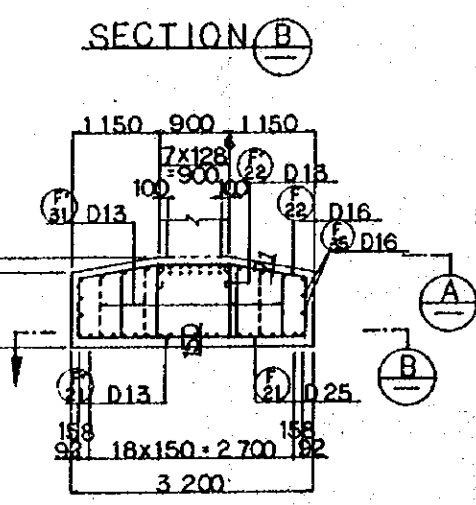


REMARKING DIAGRAM

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG.'84	K.L.	m.y.	K.S.	K.M.	A.L.
A	REVISION	K.L.	m.y.	K.S.	K.M.	A.L.
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
VIADUCT V089 BAR ARRANGEMENT (SHEET 6 OF 7)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE AS NOTED		DRAWING NO. CS-200				

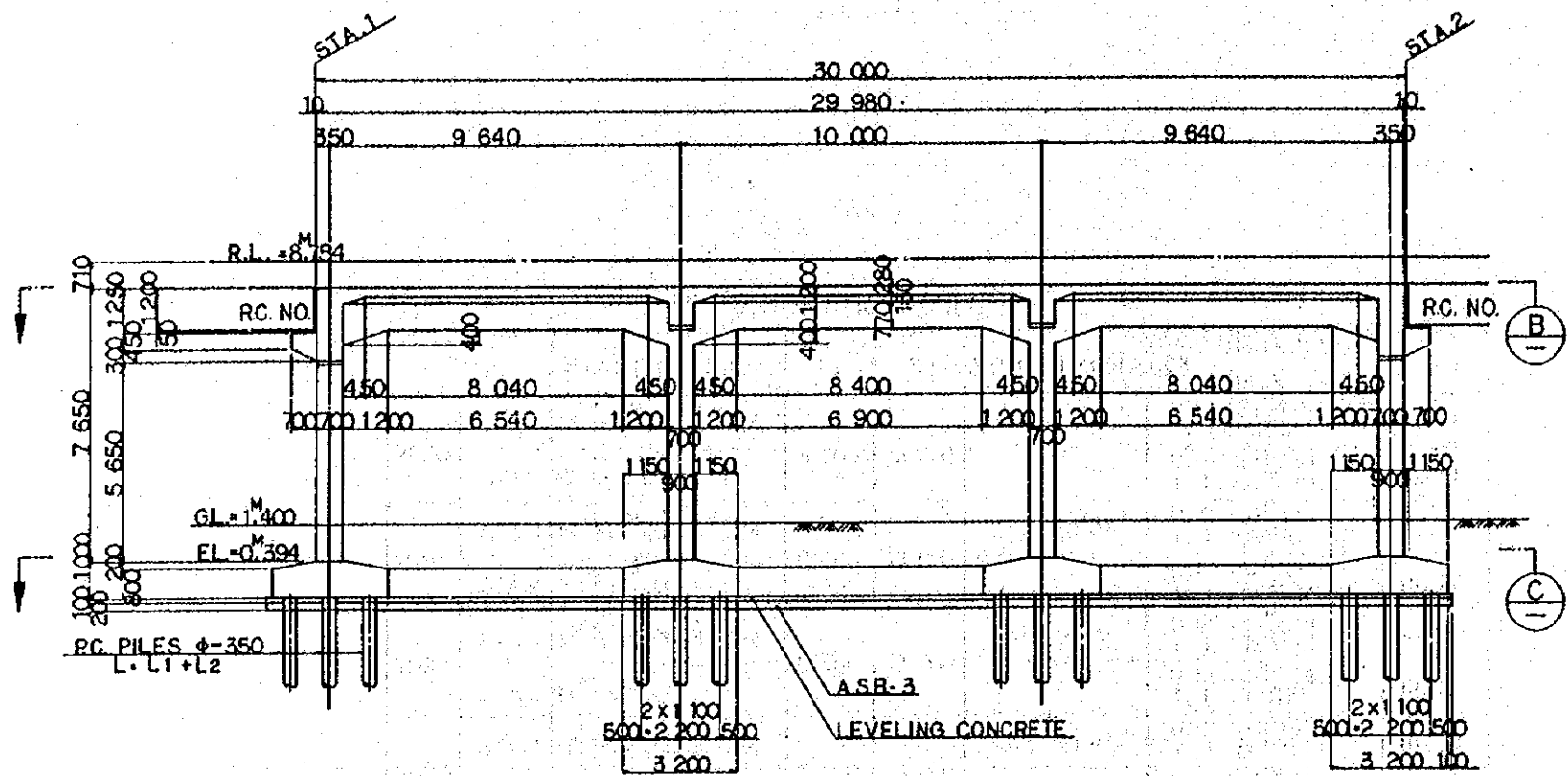


NOTES:  
 1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED  
 2. REFERENCE DRAWING FOR GENERAL VIEW : CS-194.

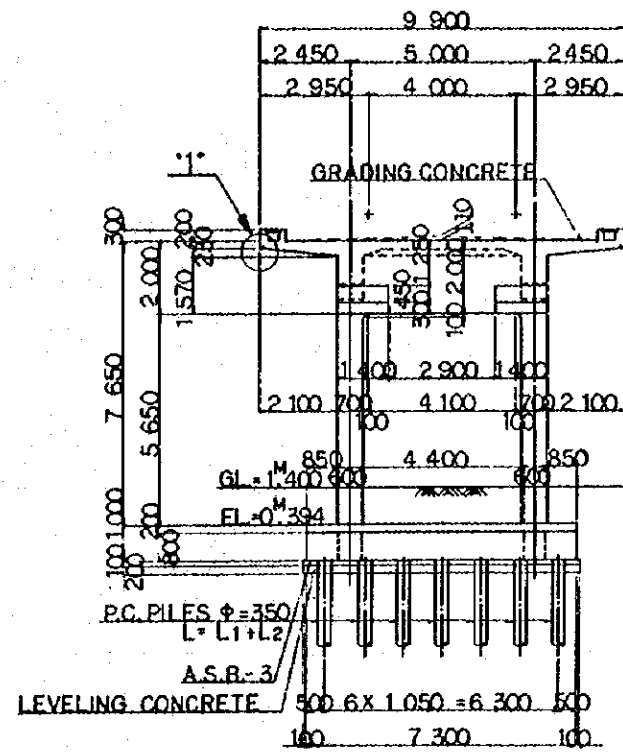


REMARKING DIAGRAM

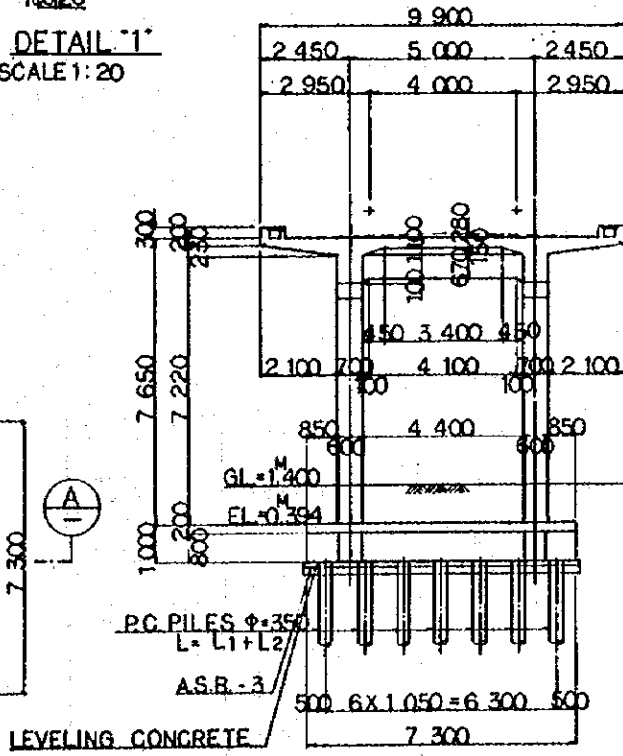
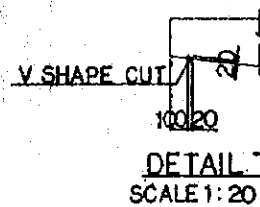
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS - DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1AUG.84	K.V.	M.Y.	K.S.	K.M.
A	0558.84	K.V.	M.Y.	K.S.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
VIADUCT V089 BAR ARRANGEMENT (SHEET 7 OF 7)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:50		DRAWING NO: CS-201			



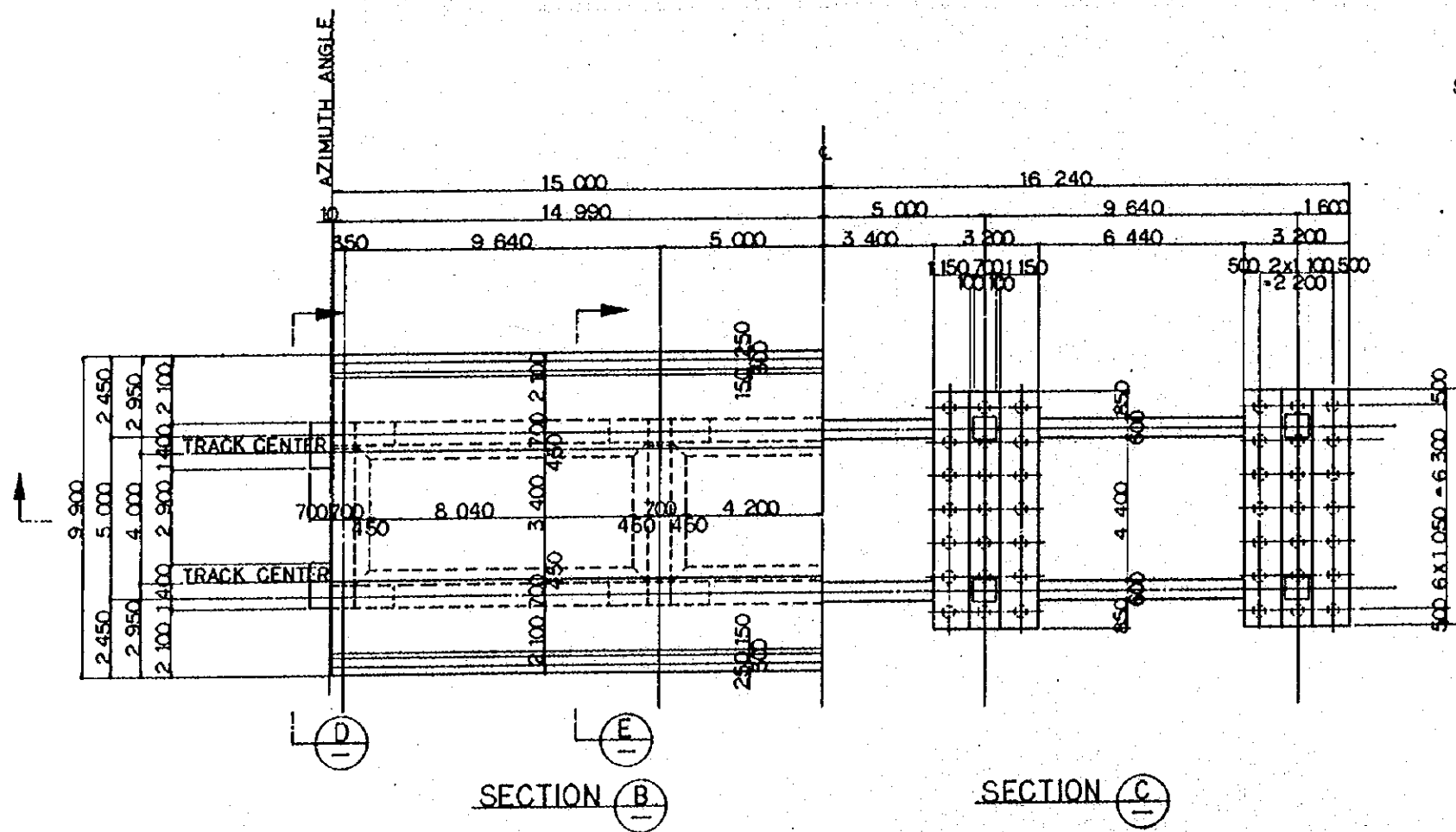
SECTION (A)



SECTION (D)



SECTION (E)



SECTION (B)

SECTION (C)

- NOTES :
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-204~209CS-223
  3. TYPES OF PC. PILE
    - 1. BOTTOM SURFACE OF FOOTING
    - 2. PC. PILE CLASS B
    - 3. PC. PILE CLASS A
  4. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1AUG/84	K.V.	M.Y.	K.A.	K.M.	K.K.
A	10FEB/84	K.V.	M.Y.	K.A.	K.M.	K.K.
VIADUCT V090~V094 GENERAL VIEW (SHEET 1 OF 2)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:100		DRAWING NO: CS-202				



**DIMENSION SCHEDULE**

	STATION	R.L.	L1	L2	AZIMUTH ANGLE	CENKARENG AIRPORT	RC. NO.	
						LINE COORDINATE		
V090	STA.1	17 <sup>M</sup> 270.000	8 <sup>M</sup> 754	8 000	13 000	345° 30' 45"	U.12 121 <sup>M</sup> 415 T. 1 070 <sup>M</sup> 633	RC.18
	STA.2	17 <sup>M</sup> 300.000	,				U.12 128 <sup>M</sup> 920 T. 1 099 <sup>M</sup> 679	RC.19
V091	STA.1	17 <sup>M</sup> 310.000	8 <sup>M</sup> 754	8 000	13 000	345° 30' 45"	U.12 131 <sup>M</sup> 422 T. 1 109 <sup>M</sup> 361	RC.19
	STA.2	17 <sup>M</sup> 340.000	,				U.12 138 <sup>M</sup> 927 T. 1 138 <sup>M</sup> 407	RC.20
V092	STA.1	17 <sup>M</sup> 350.000	8 <sup>M</sup> 754	8 000	13 000	345° 30' 45"	U.12 141 <sup>M</sup> 429 T. 1 148 <sup>M</sup> 089	RC.20
	STA.2	17 <sup>M</sup> 380.000	,				U.12 148 <sup>M</sup> 934 T. 1 177 <sup>M</sup> 135	RC.21
V093	STA.1	17 <sup>M</sup> 390.000	8 <sup>M</sup> 754	8 000	13 000	345° 30' 45"	U.12 151 <sup>M</sup> 435 T. 1 186 <sup>M</sup> 317	RC.21
	STA.2	17 <sup>M</sup> 420.000	,				U.12 158 <sup>M</sup> 941 T. 1 215 <sup>M</sup> 863	RC.22
V094	STA.1	17 <sup>M</sup> 430.000	8 <sup>M</sup> 754	8 000	12 000	345° 30' 45"	U.12 161 <sup>M</sup> 442 T. 1 225 <sup>M</sup> 545	RC.22
	STA.2	17 <sup>M</sup> 460.000	,				U.12 168 <sup>M</sup> 947 T. 1 254 <sup>M</sup> 591	RC.23

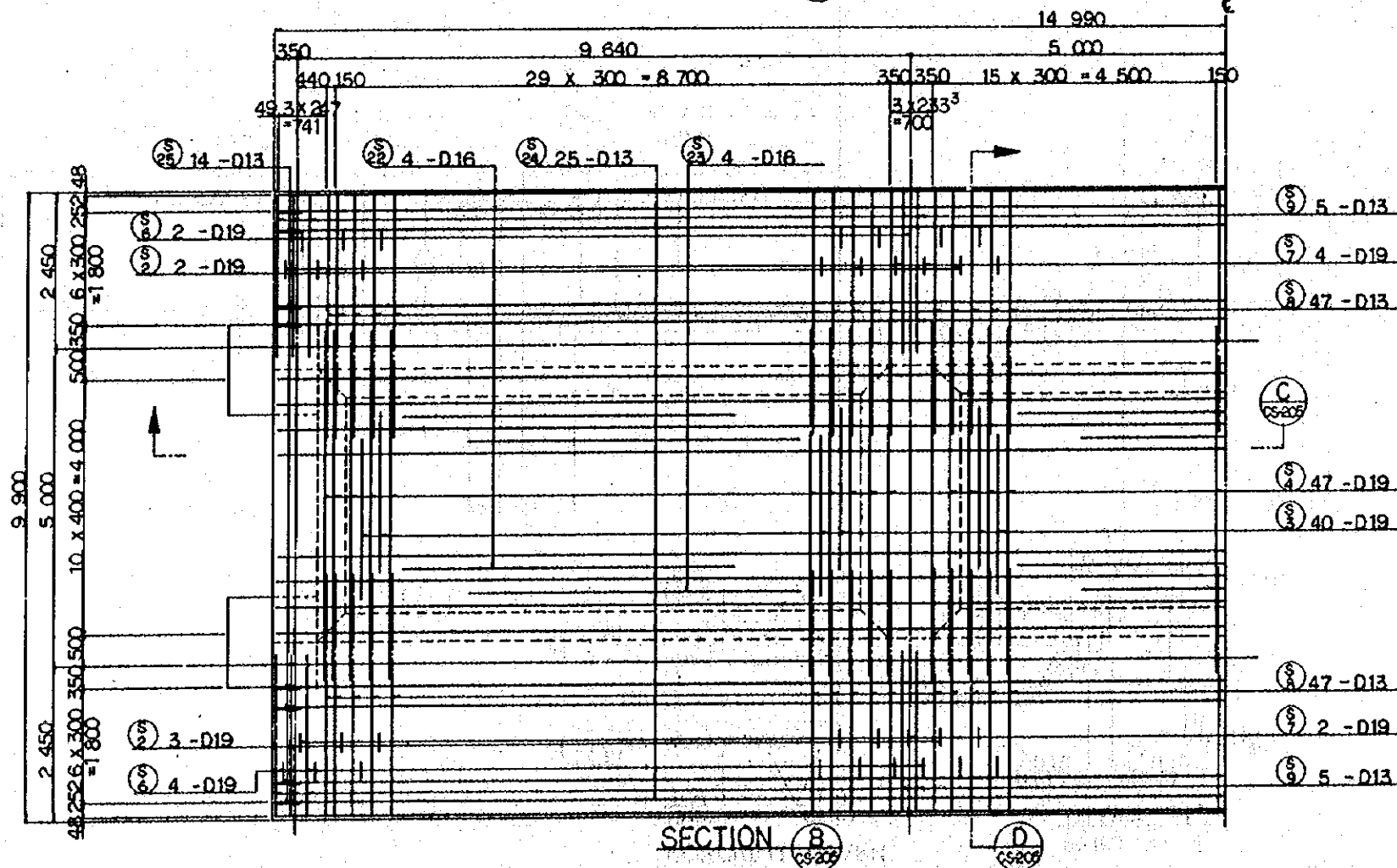
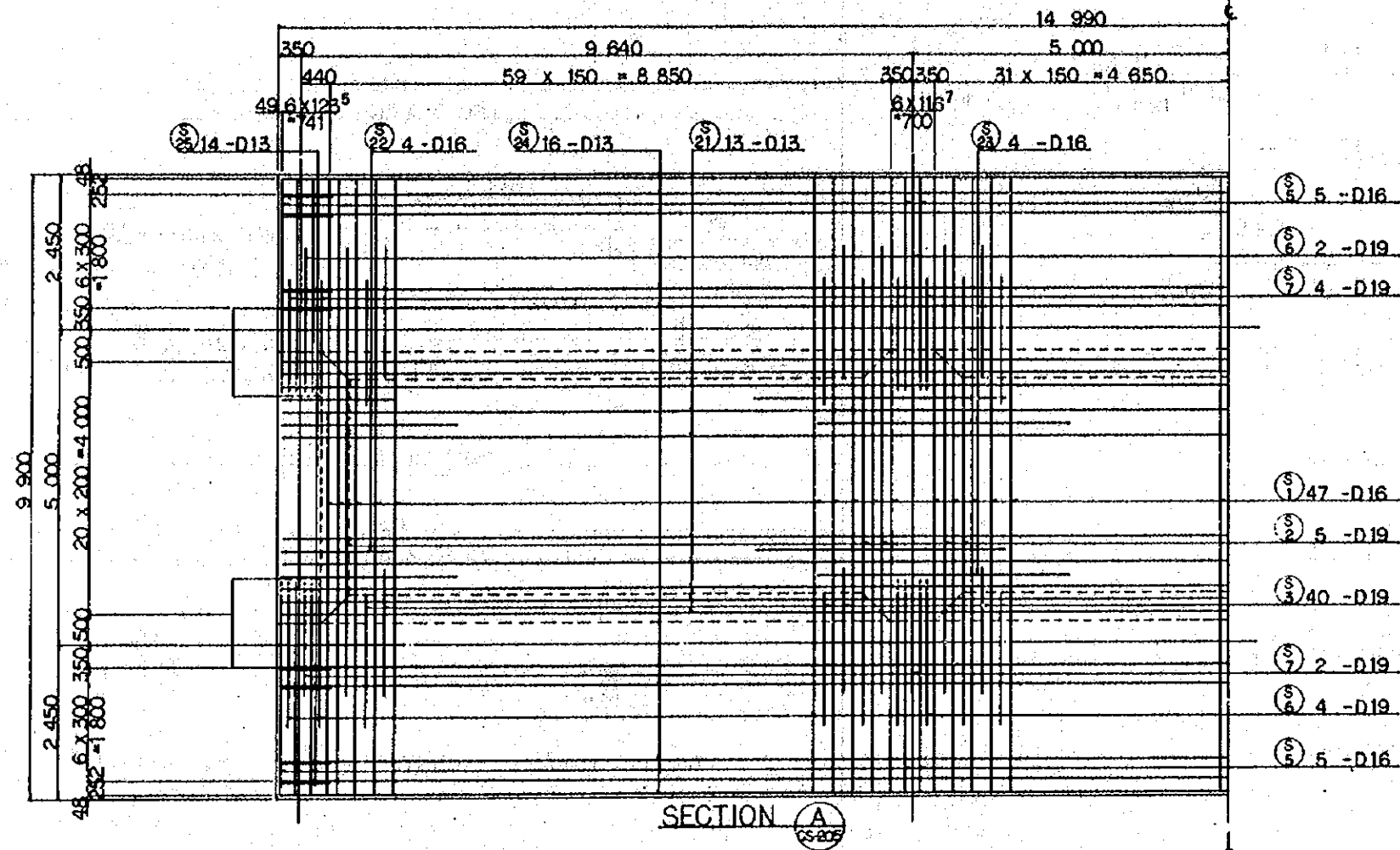
**NOTES :**

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW : CS-202.

**DESIGN CRITERIA**

<b>DESIGN LOAD</b>	<b>TRAIN LOAD</b>	EQUIVALENT TO RS-16
	<b>SEISMIC EFFECT</b>	IN HORIZONTAL DIRECTION Ka=0.1 IN VERTICAL DIRECTION Kb=0
<b>ALLOWABLE STRESS</b>	<b>REINFORCING BAR</b>	ALLOWABLE TENSILE STRESS 1800 kg/cm <sup>2</sup>
	<b>CONCRETE</b>	ALLOWABLE COMPRESSIVE STRESS 90 kg/cm <sup>2</sup>
<b>MATERIAL</b>	<b>TYPE OF REINFORCING BAR</b>	S0-30
	<b>CONCRETE OF DESIGN CRITERIA STRENGTH</b>	f <sub>ck</sub> = 240 kg/cm <sup>2</sup>
	<b>MAX SIZE OF COARSE AGGREGATE</b>	25mm

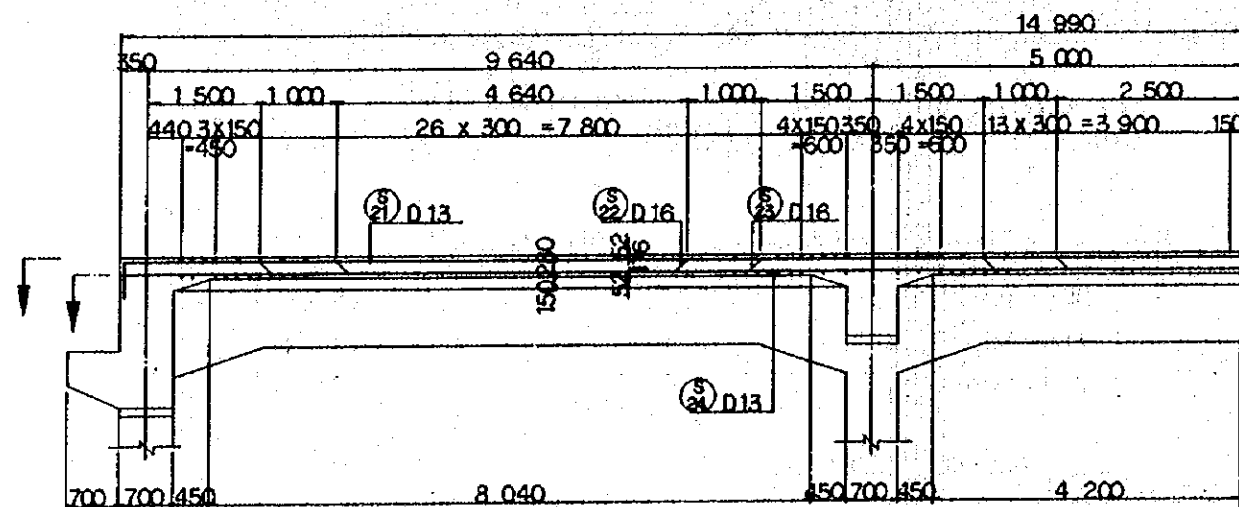
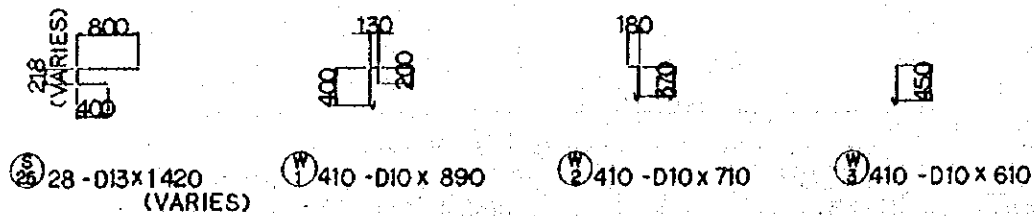
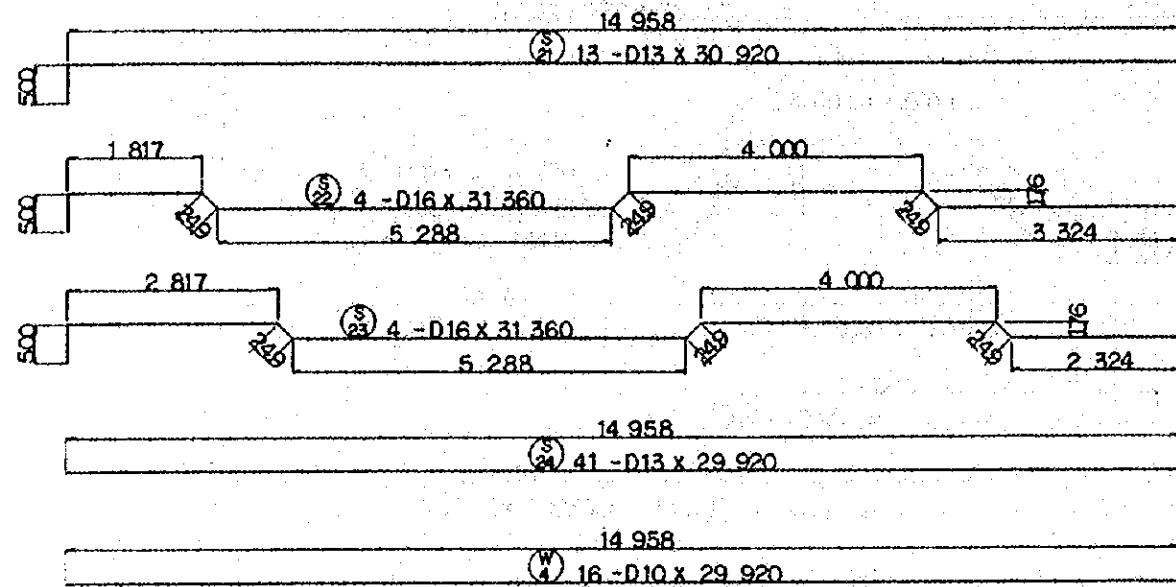
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
REVISED	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1 AUG 84	K.I	M.Y	K.A	K.M	M.K
A	15 FEB 84	K.I	M.Y	K.A	K.M	M.K
VIADUCT V090~V094 GENERAL VIEW (SHEET 2 OF 2)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE		DRAWING NO. CS-203				



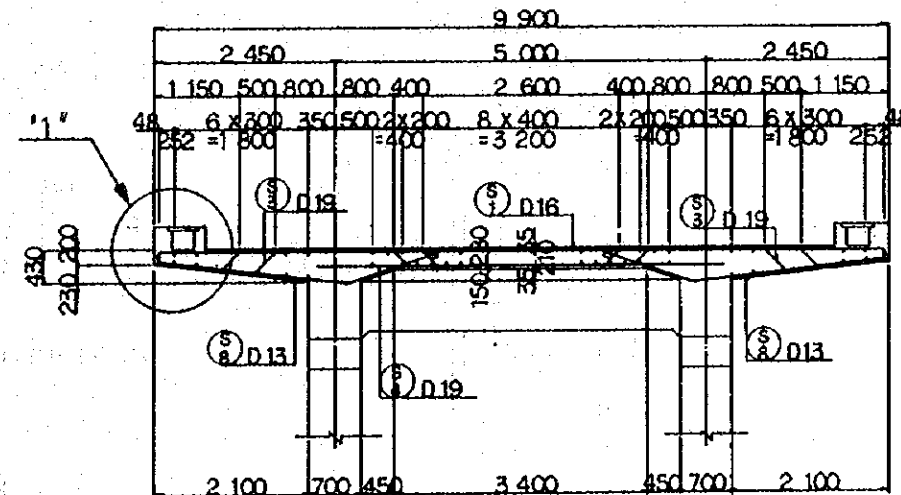
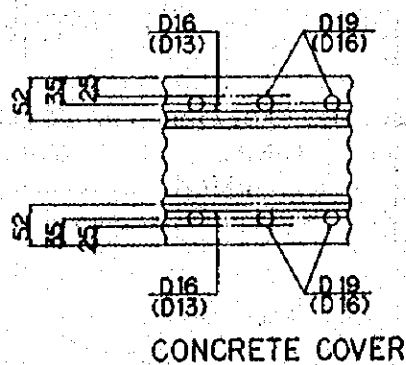
NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW : CS-202,203,

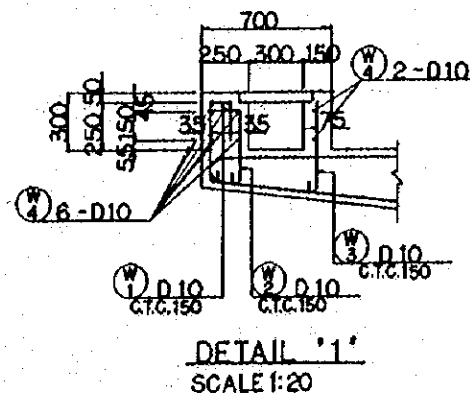
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
B	1 AUG '84	K.V.	M.Y.	K.A.	K.M.
A	10 FEB '84	K.V.	M.Y.	K.A.	K.M.
VIADUCT V094 BAR ARRANGEMENT (SHEET 1 OF 6)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:50		DRAWING NO: CS-204			



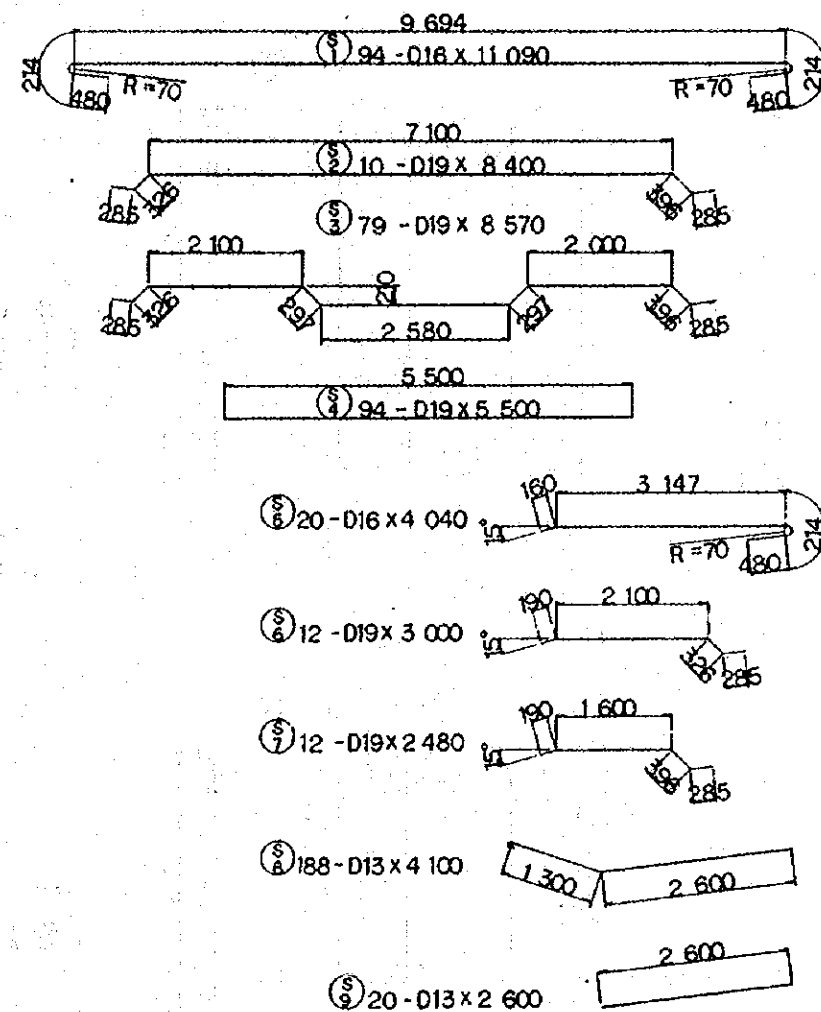
SECTION C  
SCALE 1:50



SECTION D  
SCALE 1:50



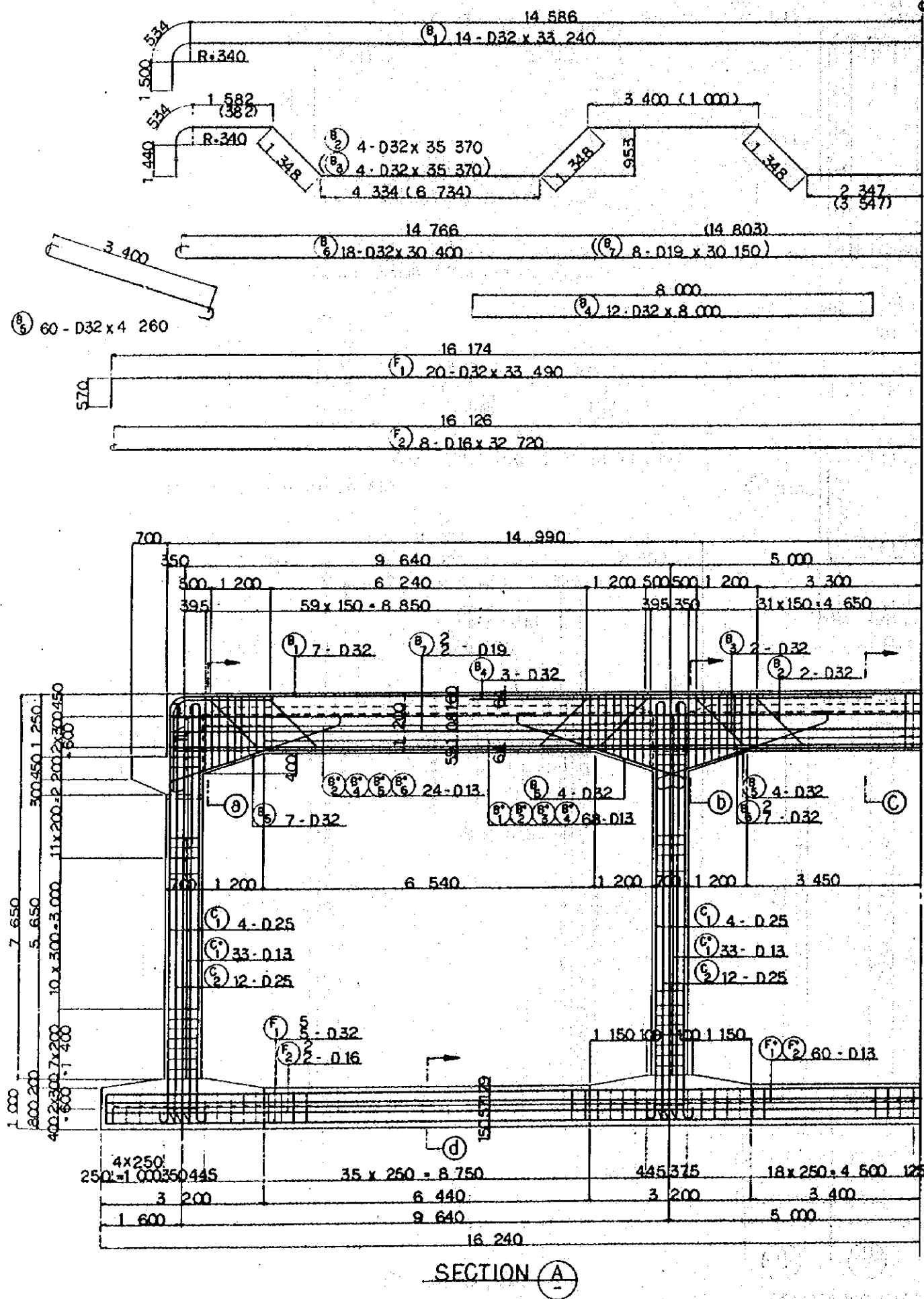
DETAIL 1  
SCALE 1:20



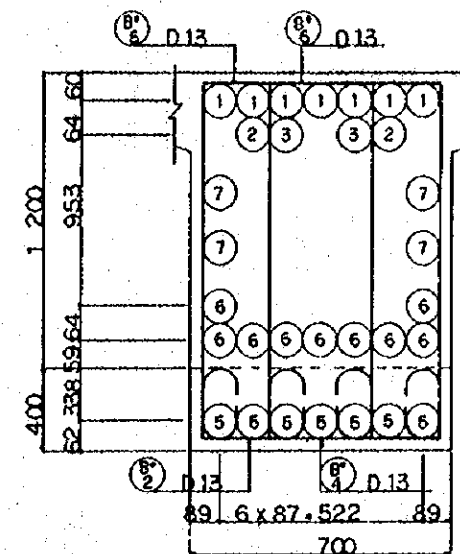
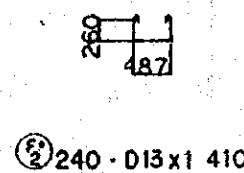
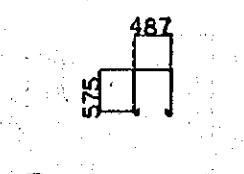
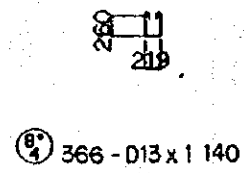
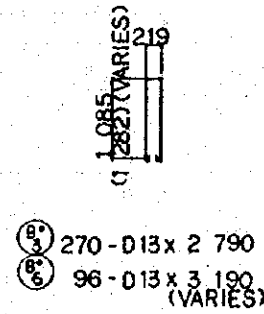
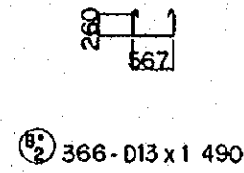
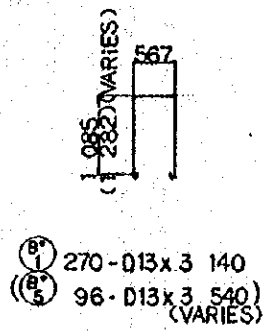
NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW :CS-202,203.

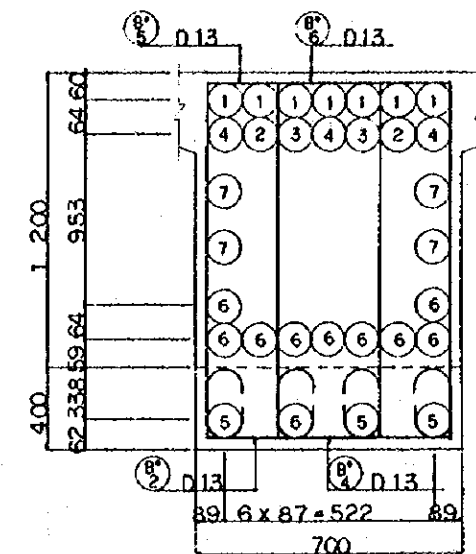
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG'84	K.V.	M.Y.	K.S.	U.M.	M.K.
A	1AUG'84	K.V.	M.Y.	K.S.	K.M.	M.K.
REVISORS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
VIADUCT V094 BAR ARRANGEMENT (SHEET 2 OF 6)						
PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK						
SCALE 1:20,50		DRAWING NO. CS-205				



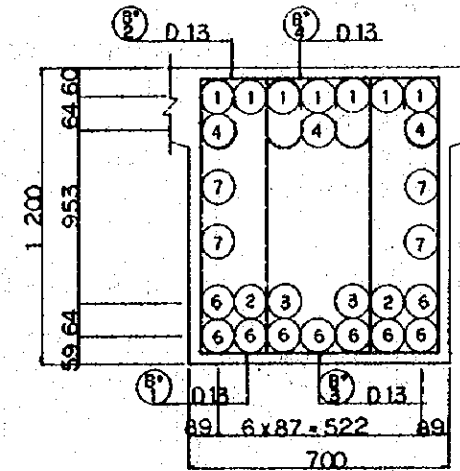
SECTION A



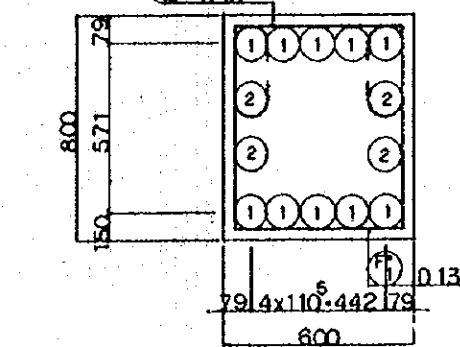
SECTION a-a



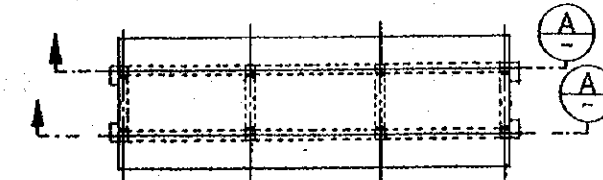
SECTION b-b



SECTION c-c



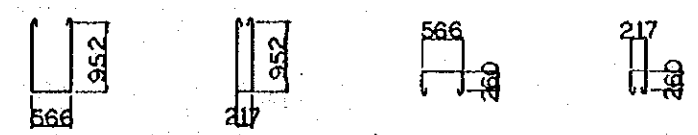
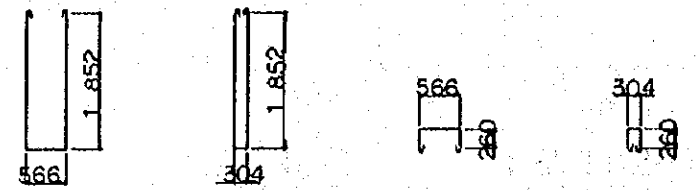
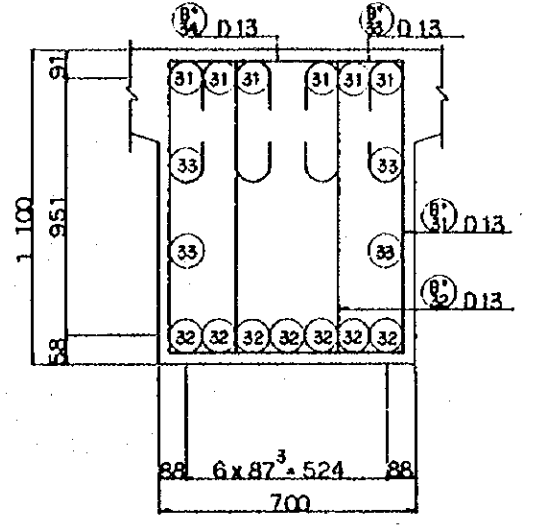
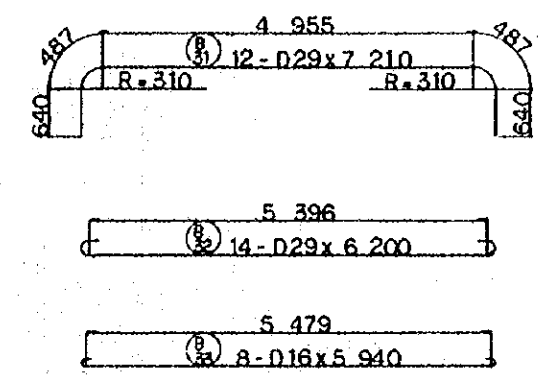
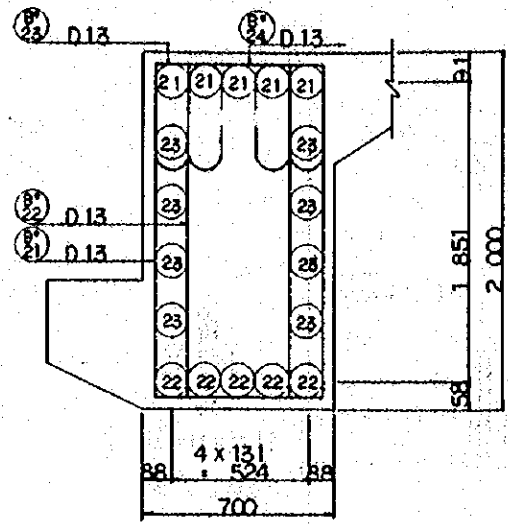
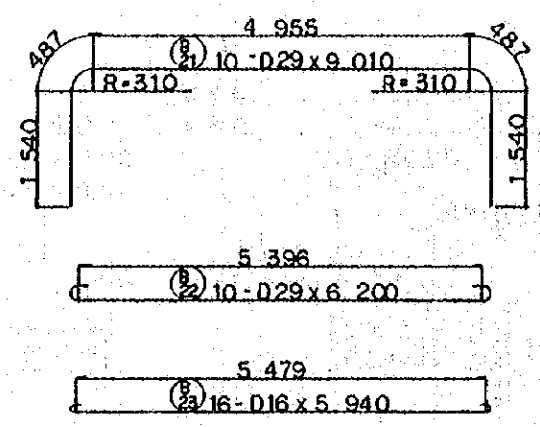
SECTION d-d



REMARKING DIAGRAM

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW :CS-202,203.

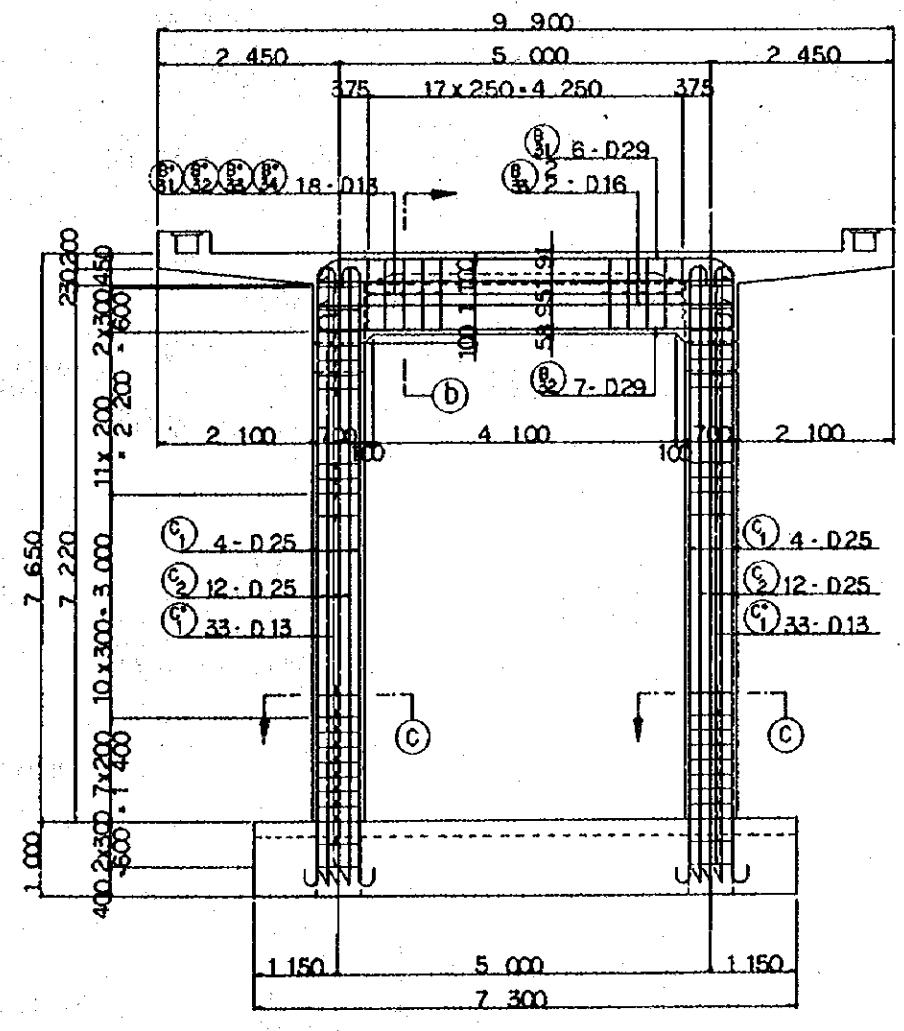
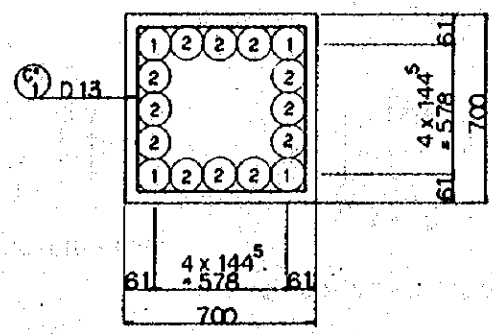
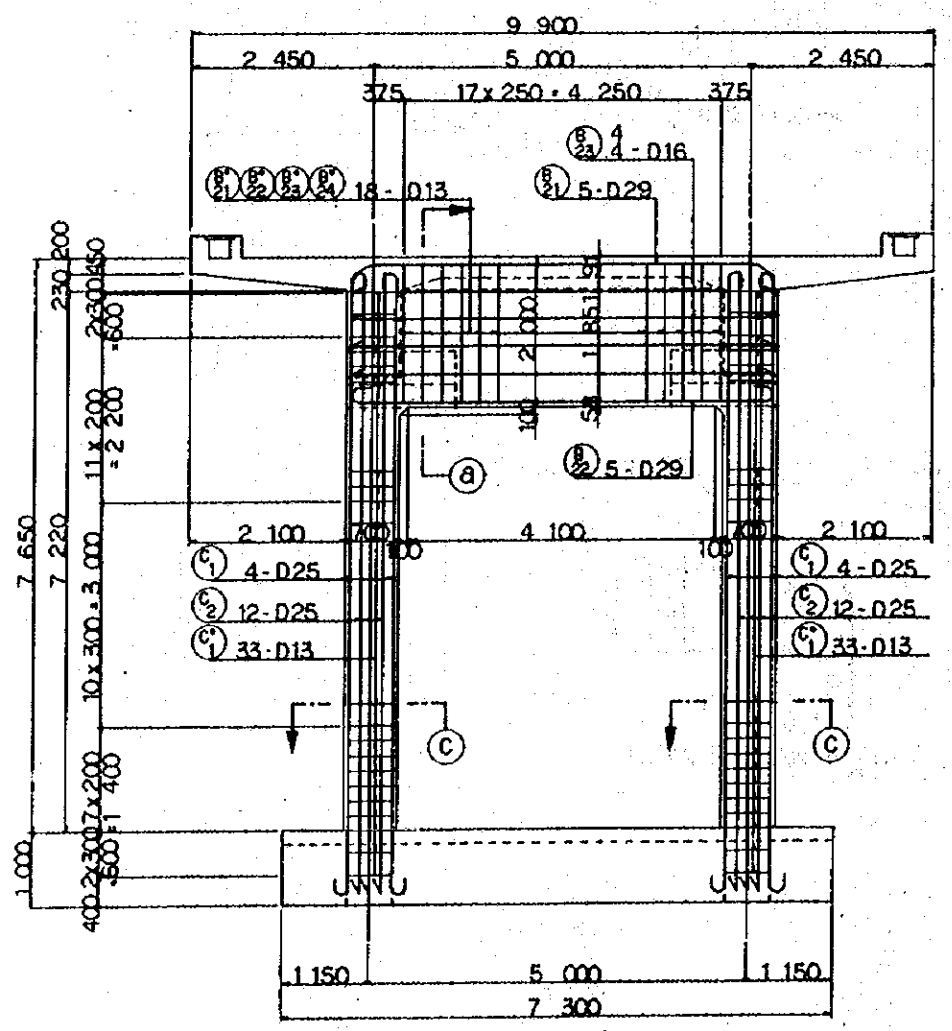
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1AUG'84	K.V.	m.y.	K.A.	K.M.
A	15FEB'84	K.V.	m.y.	K.A.	K.M.
REVISIONS	DATE	DESIGNED	CHECKED	APPROVED	SUBMITTED
VIADUCT V094 BAR ARRANGEMENT (SHEET 3 OF 6)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:50		DRAWING NO: CS-206			



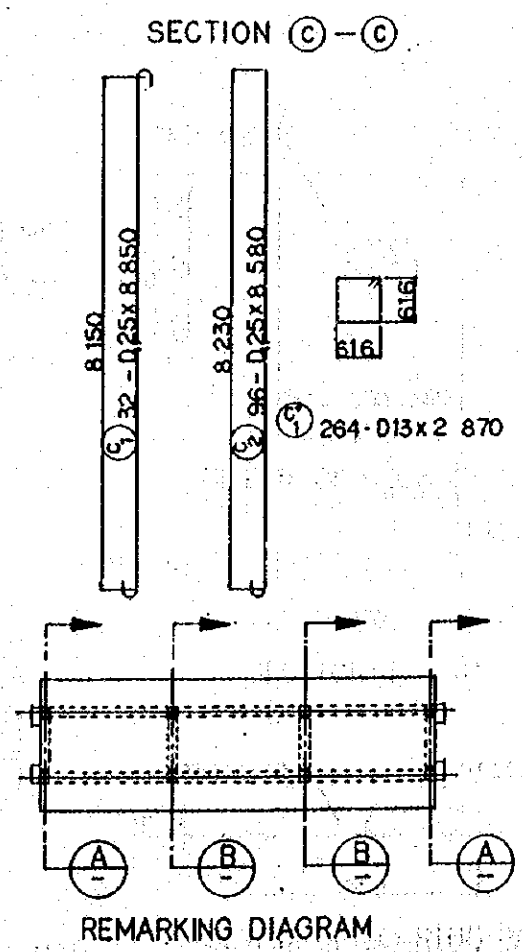
① 36-D13x4,670 ② 36-D13x4,410

① 36-D13x2,870 ② 36-D13x2,530

NOTES:  
 1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED  
 2. REFERENCE DRAWING FOR GENERAL VIEW : CS-202,203.



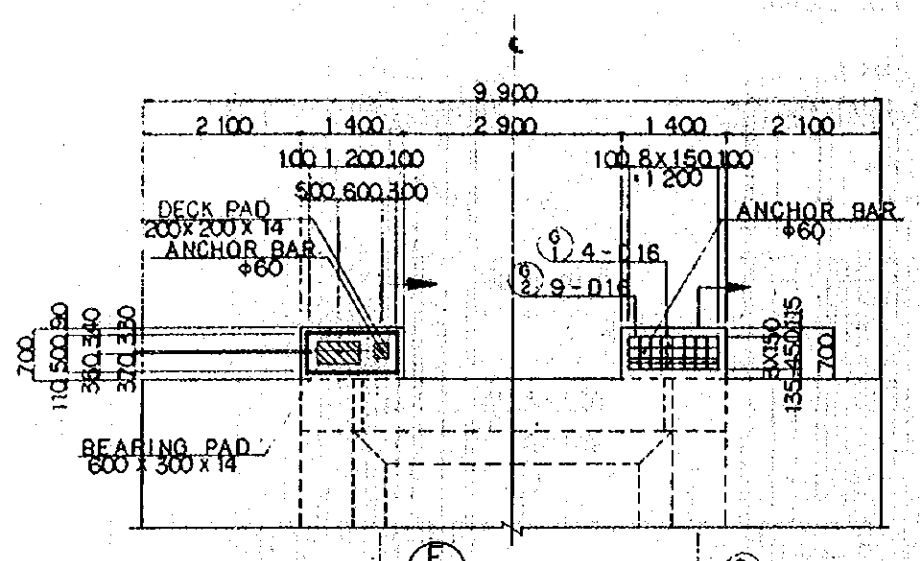
SECTION (A)



REMARKING DIAGRAM

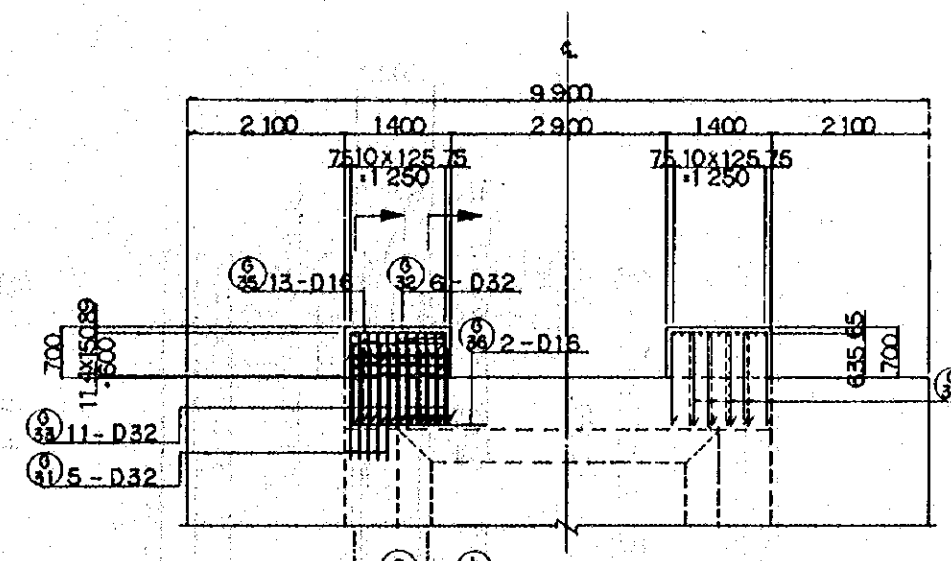
SECTION (B)

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CEMKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
B	1 AUG '84	K.V.	M.Y.	K.A.	K.M.
A	11 SEP '84	K.V.	M.Y.	K.A.	K.M.
VIADUCT V094 BAR ARRANGEMENT (SHEET 4 OF 6)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:50		DRAWING NO: CS-207			



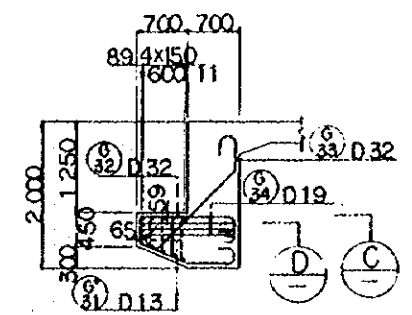
SECTION A-A  
SCALE 1:50

SECTION B-B  
SCALE 1:50

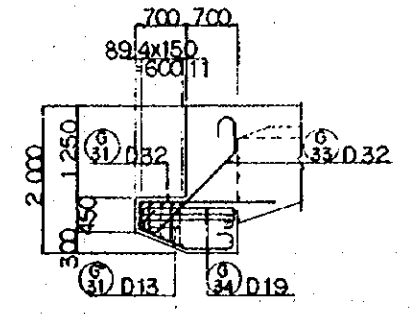


SECTION C-C  
SCALE 1:50

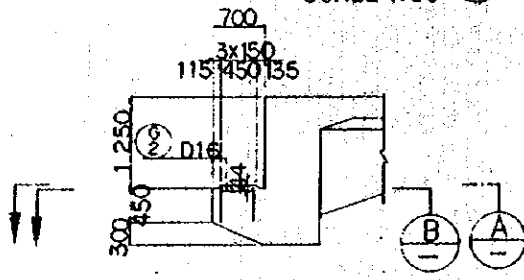
SECTION D-D  
SCALE 1:50



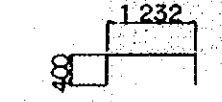
SECTION (b-b)  
SCALE 1:50



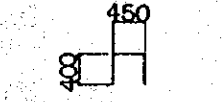
SECTION (c-c)  
SCALE 1:50



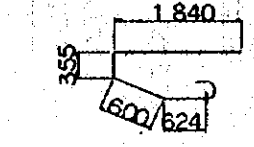
SECTION (a-a)  
SCALE 1:50



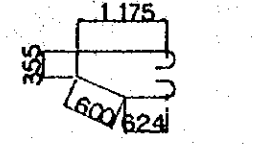
① 16-D16 x 2040



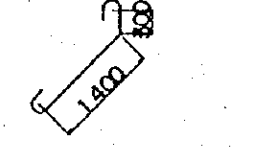
② 36-D16 x 1250



⑳ 20-D32 x 3850

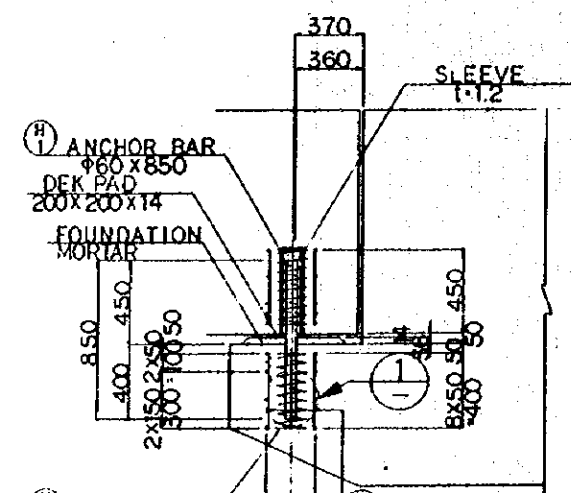


㉔ 24-D32 x 3620

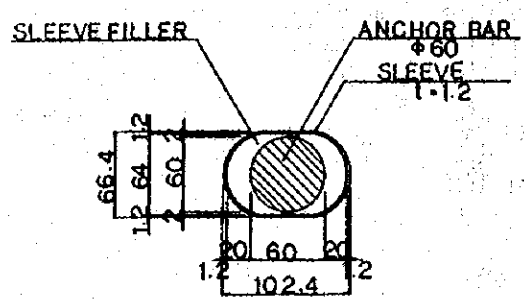


㉘ 44-D32 x 2560

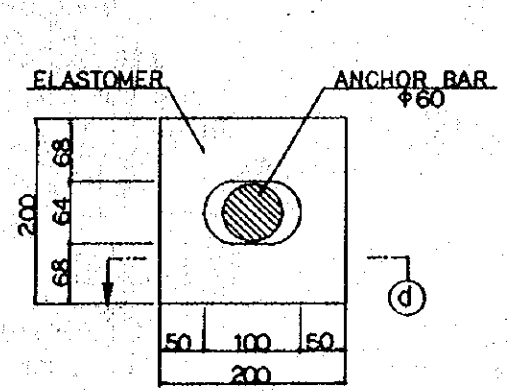
NOTES:  
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED  
2. REFERENCE DRAWING FOR GENERAL VIEW : CS-202,203.



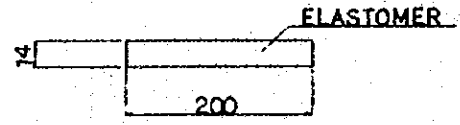
SECTION (e-e)  
SCALE 1:20



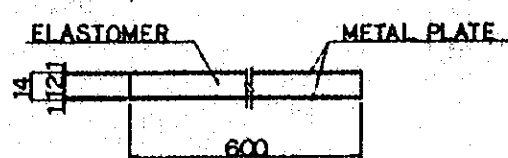
DETAIL OF ANCHORING  
SCALE 1:3



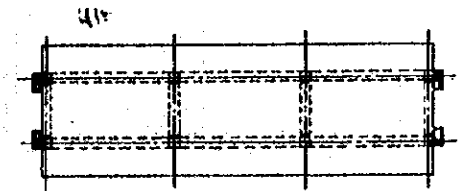
DETAIL OF DECK PAD  
SCALE 1:4



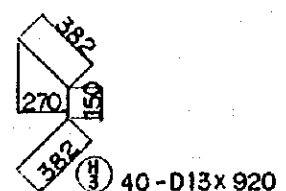
SECTION (d-d)



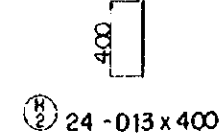
DETAIL OF BEARING PAD  
SCALE 1:2



REMARKING DIAGRAM



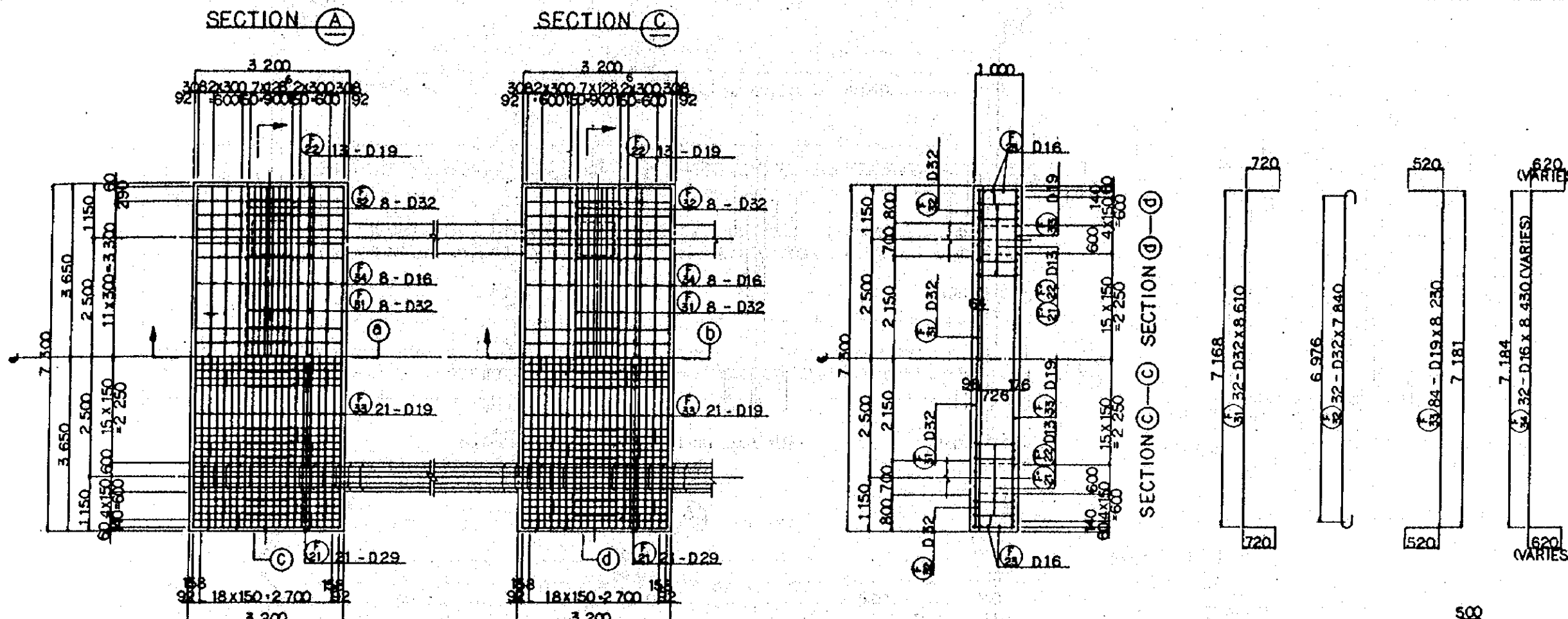
④ 4-D10 x 5340  
DETAIL OF SPIRAL BAR  
SCALE 1:10



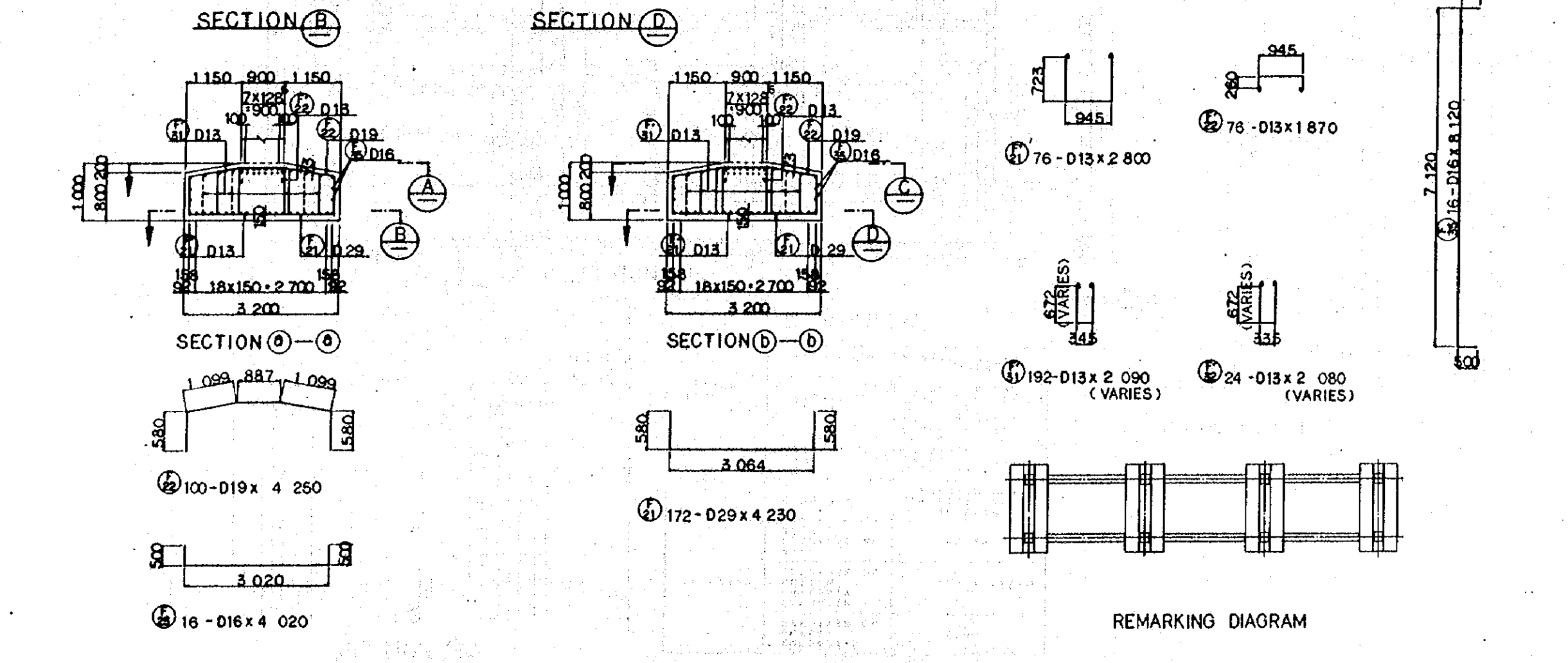
⑳ 24-D13 x 400

DETAIL (I)  
SCALE 1:20

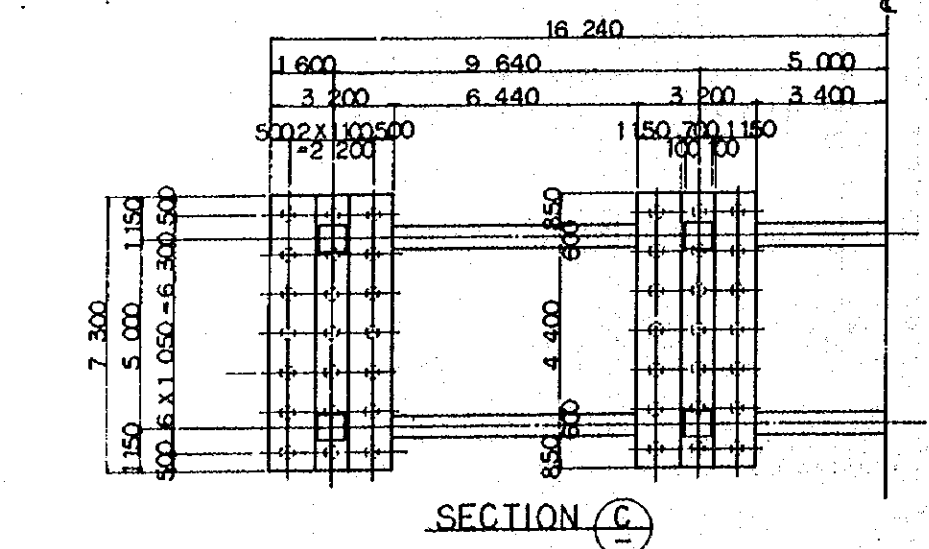
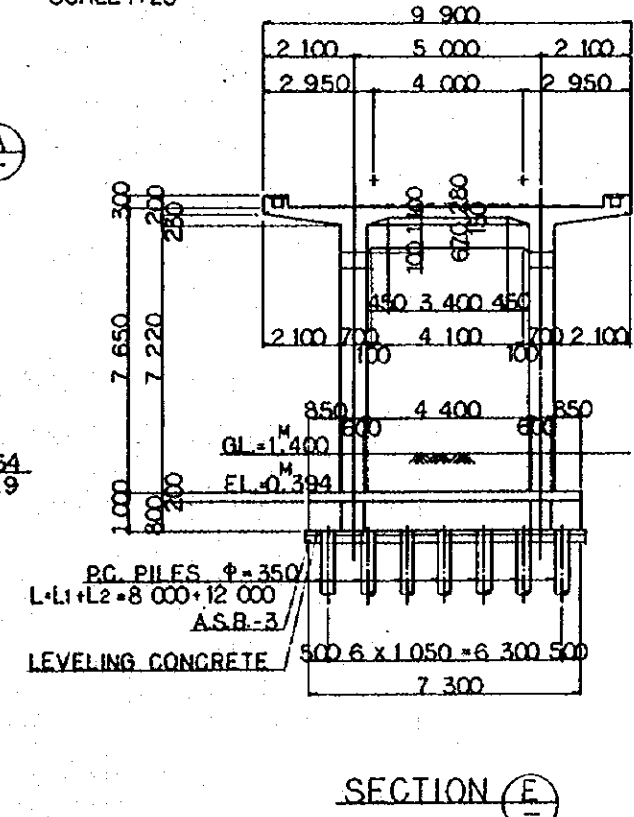
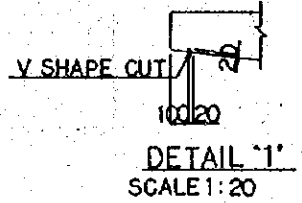
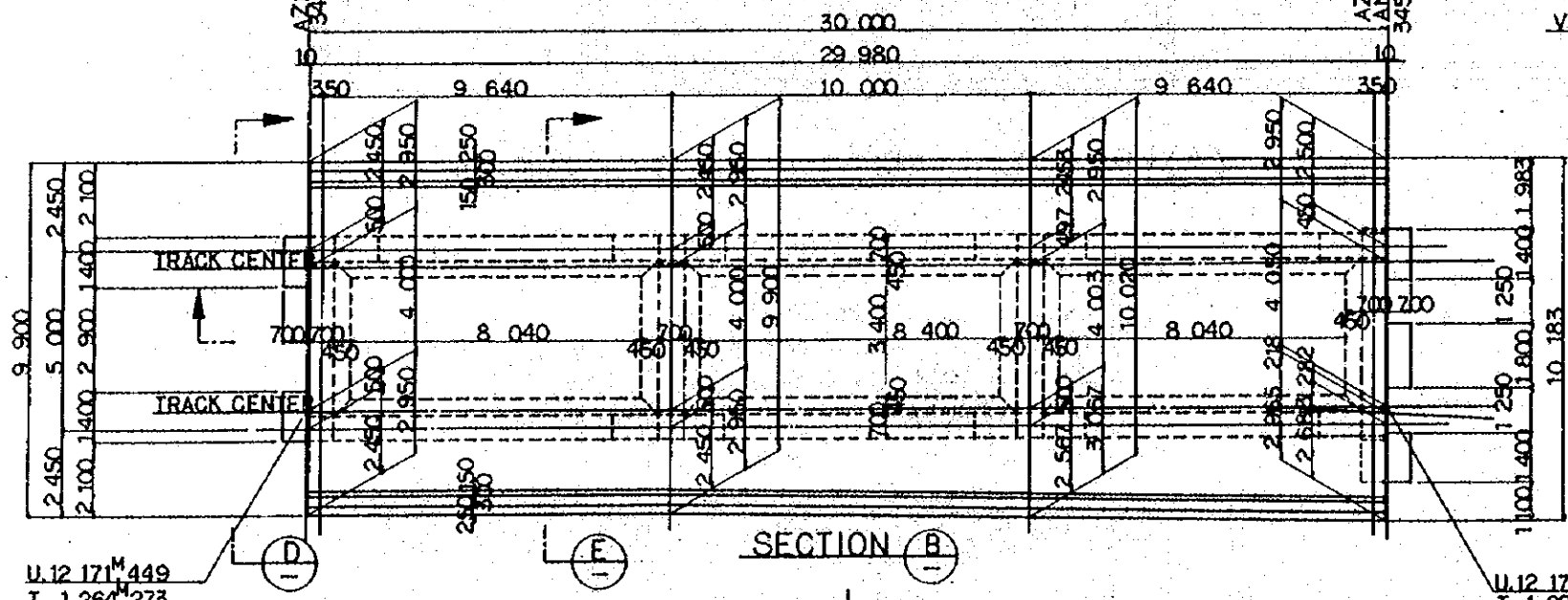
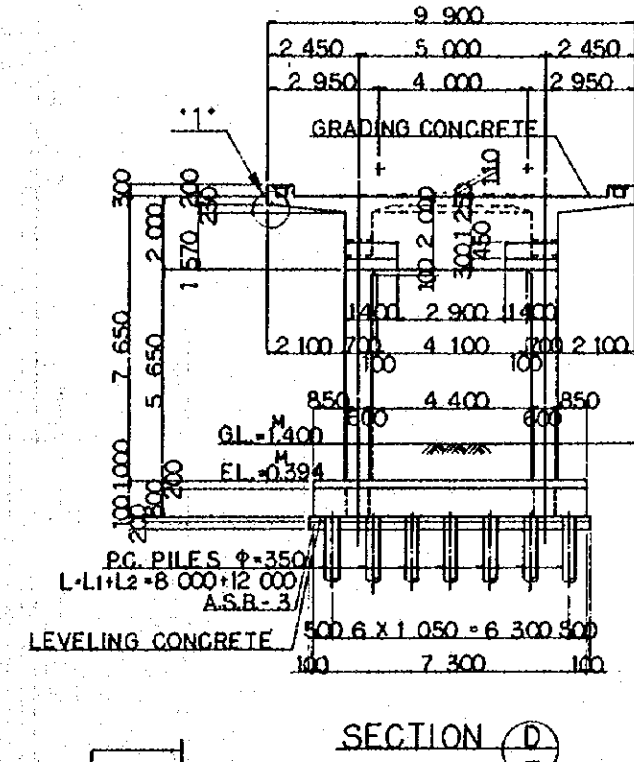
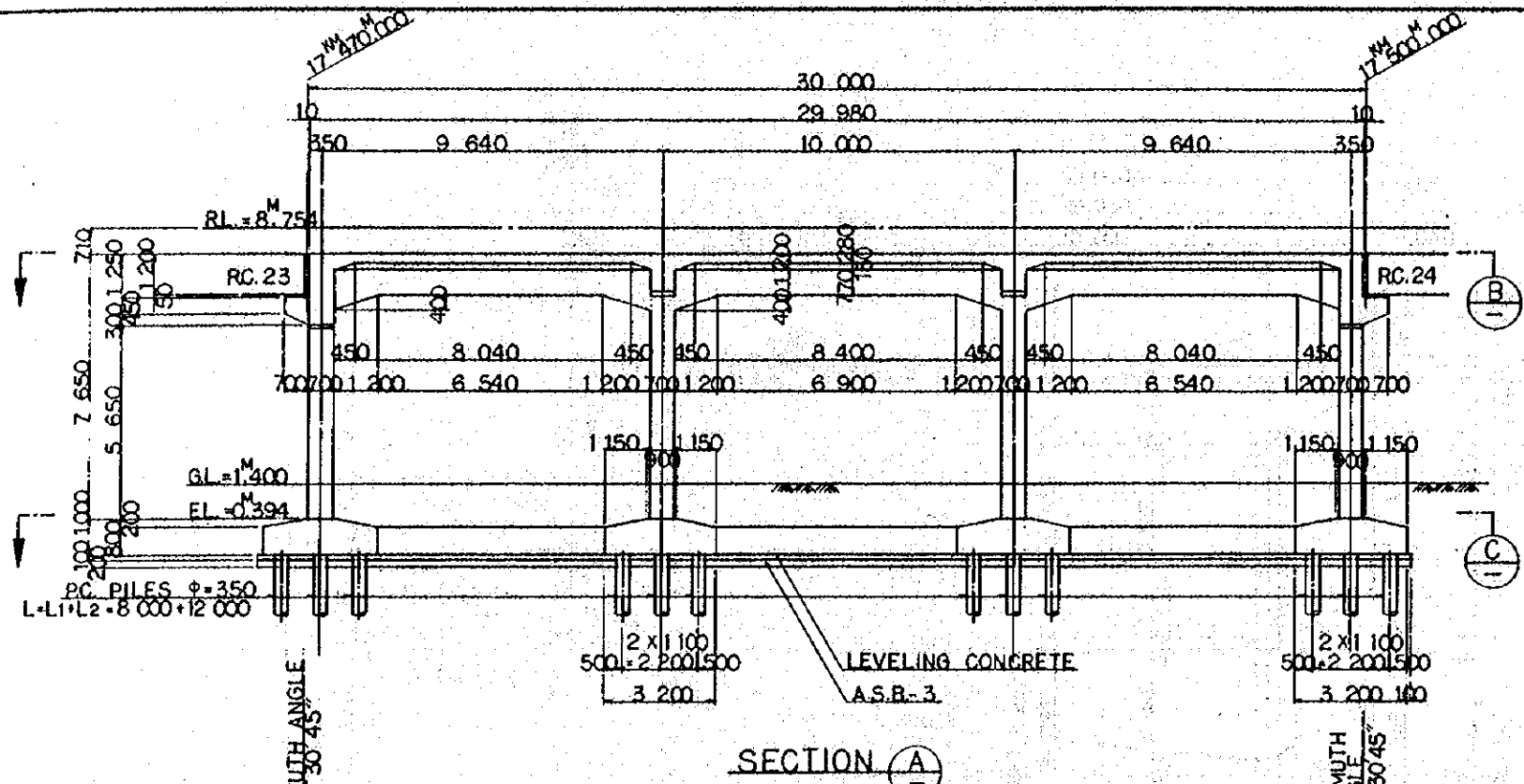
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG. 84	K.V.M.Y.	K.A.K.M.	AIC		
A	SEP. 84	K.V.M.Y.	K.A.K.M.	A.K.		
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
VIADUCT V094 BAR ARRANGEMENT (SHEET 5 OF 6)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: AS NOTED		DRAWING NO: CS-208				



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW :CS-202,203.



REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG '84	K.Y.	M.Y.	K.K.	K.M.
A	1 FEB '84	K.Y.	M.Y.	K.K.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
VIADUCT V094 BAR ARRANGEMENT (SHEET 6 OF 6)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:50	CS-209				



**DESIGN CRITERIA**

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO K3-14
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_h = 0.1$ IN VERTICAL DIRECTION $K_h = 0$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1400 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 90 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD-38
	CONCRETE OF DESIGN CRITERIA STRENGTH	$f_{ck} = 140 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25mm

- NOTES :**
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  - REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-204-209
  - TYPES OF P.C. PILE
    - PC PILE CLASS B
    - PC PILE CLASS A
  - GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

REPUBLIC OF INDONESIA  
MINISTRY OF COMMUNICATIONS  
DIRECTORATE GENERAL OF LAND TRANSPORT  
AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT  
CONSTRUCTION PROJECT

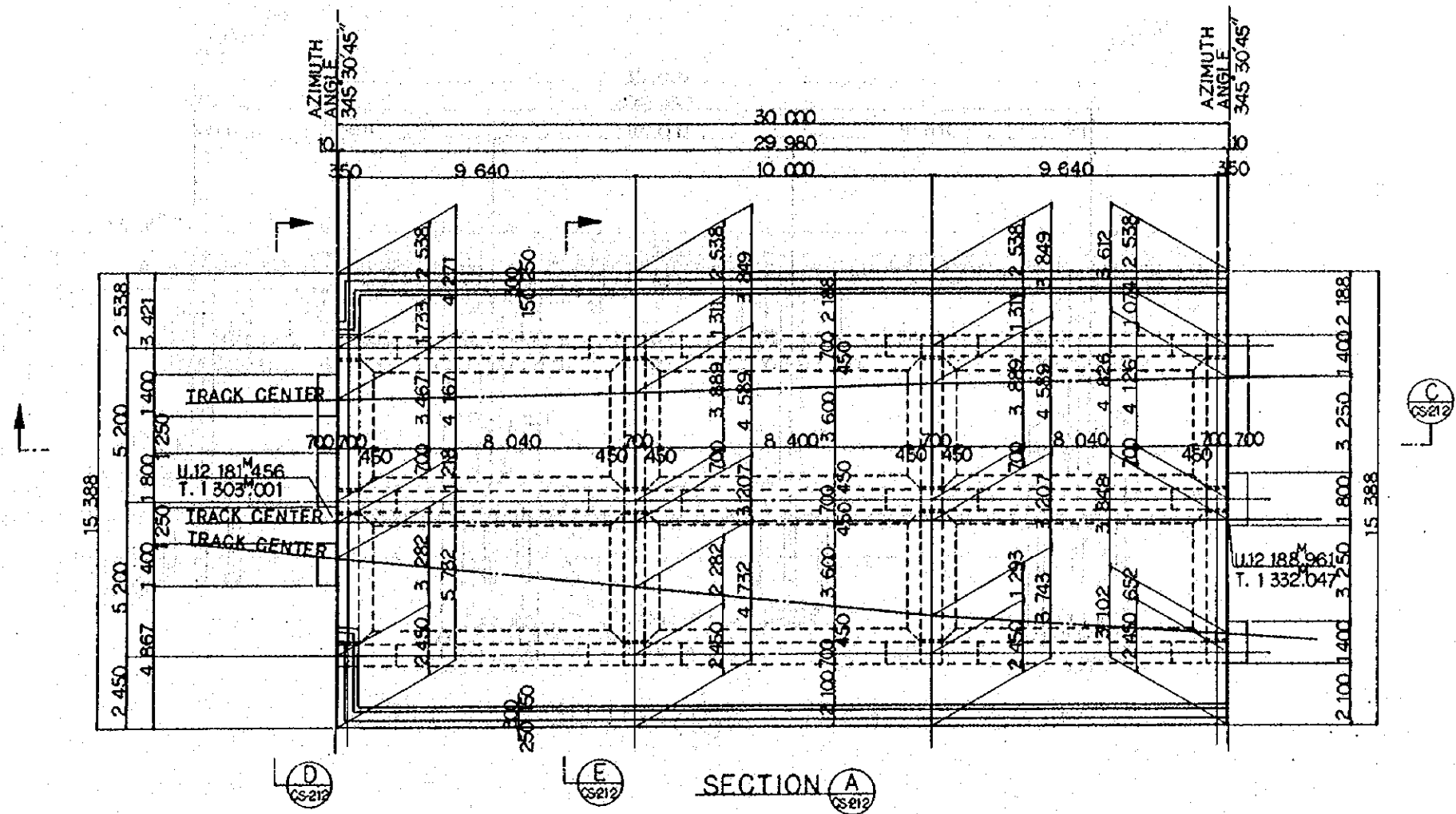
JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)

REVISIONS	DATE	DESIGNED	CHECKED	REVIEWED	SUBMITTED
B	1AUG'84	K.V.M.Y.	K.A.K.M.M.K.		
A	11SEP'84	K.V.M.Y.	K.A.K.M.M.K.		

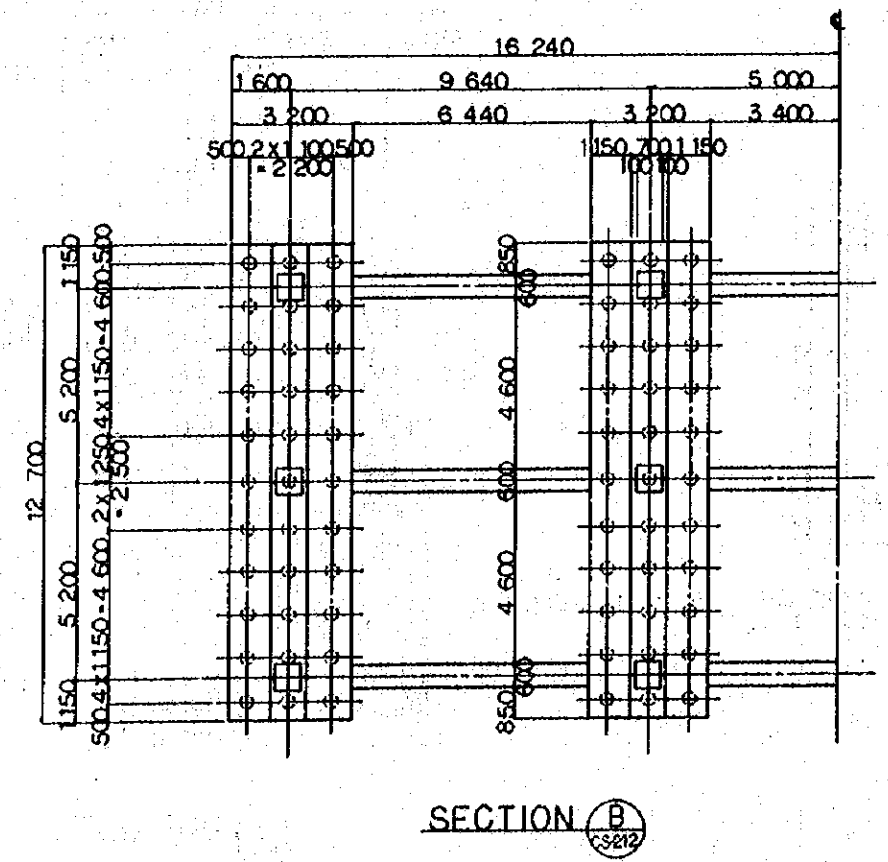
VIADUCT V095  
GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK  
SCALE: 1:100 DRAWING NO: CS-210





- NOTES :
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS-204 ~209.



DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-1E
	SEISMIC EFFECT	
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 90 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	S0-38
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck}=2400 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25mm

REPUBLIC OF INDONESIA  
 MINISTRY OF COMMUNICATIONS  
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT

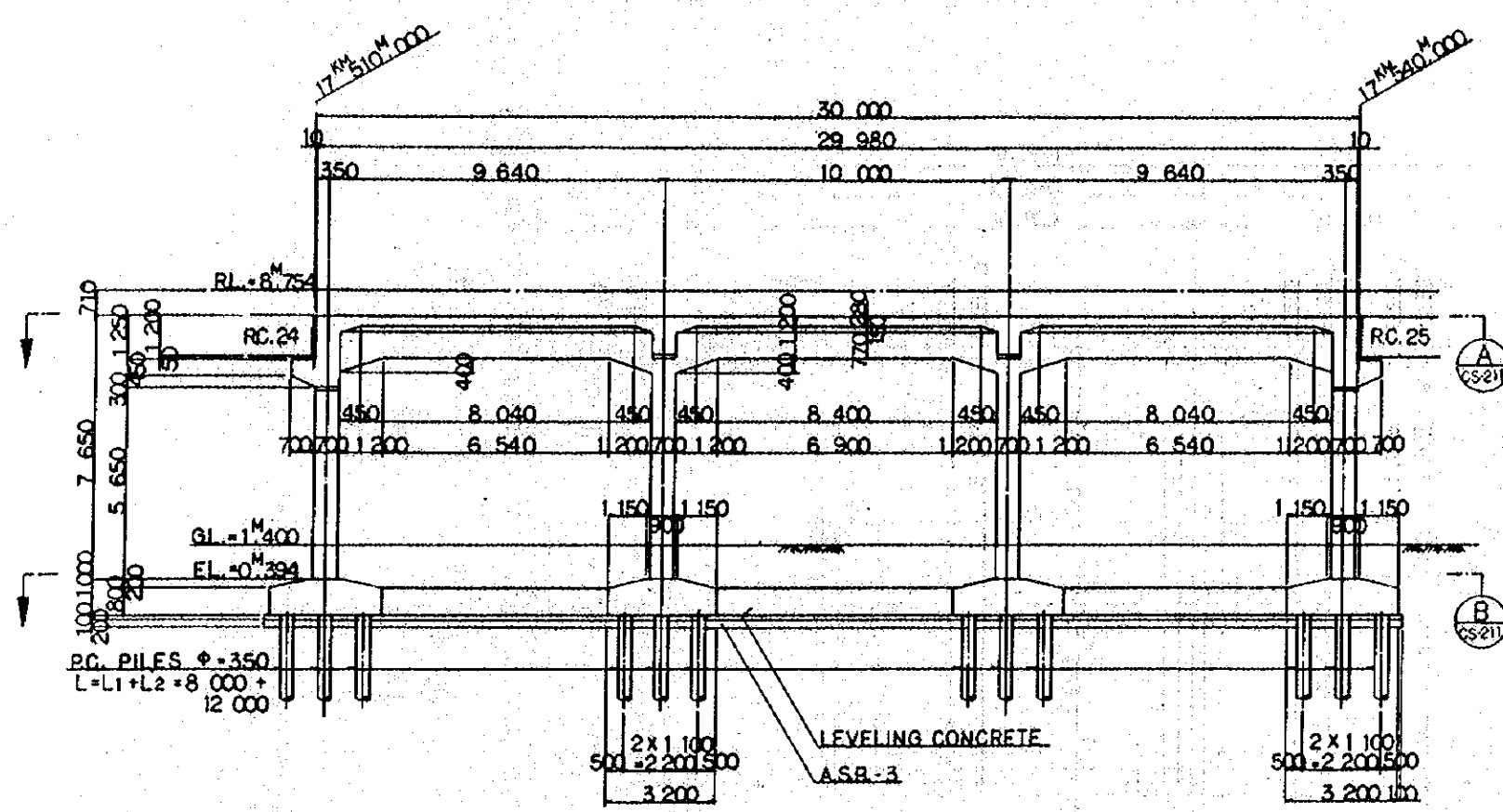
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1 AUG 84	K.V.	m.y.	K.A.	K.M.	K.K.
A	1 FEB 84	K.V.	m.y.	K.A.	K.M.	K.K.

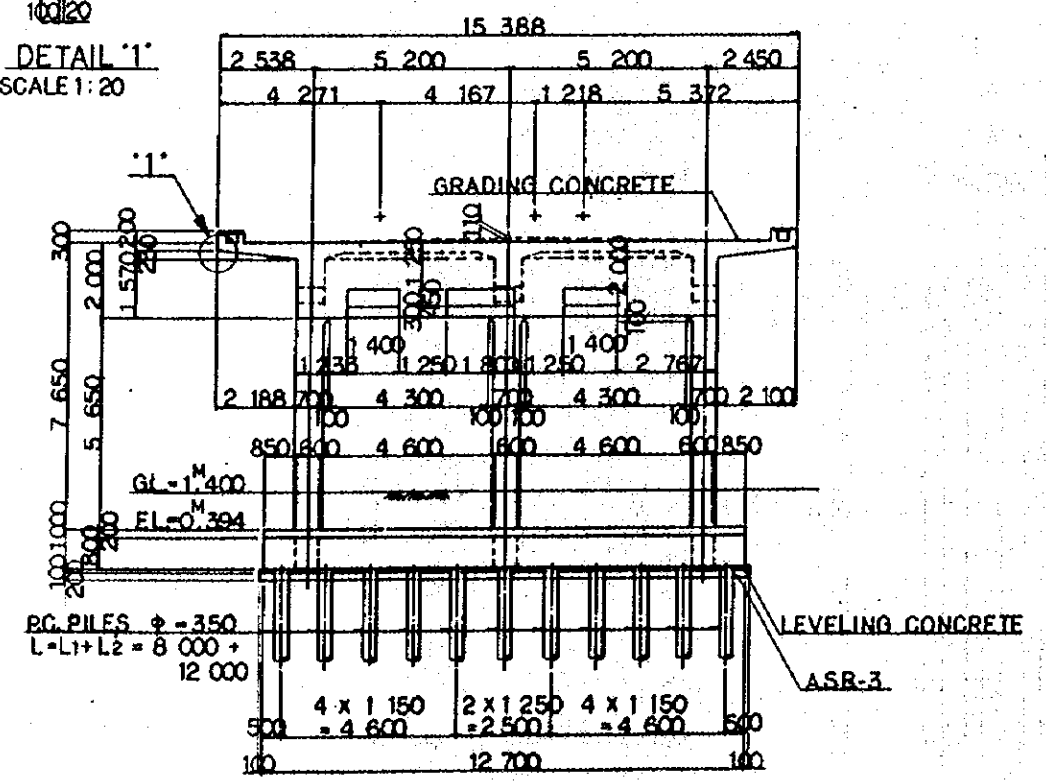
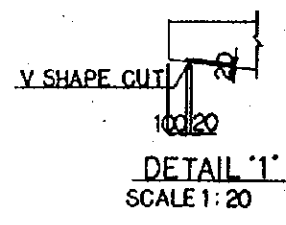
REVISIONS: DATE, DESIGNED, DRAWN, CHECKED, REVISION, SUBMITTED

VIADUCT V096  
 GENERAL VIEW  
 (SHEET 1 OF 2)

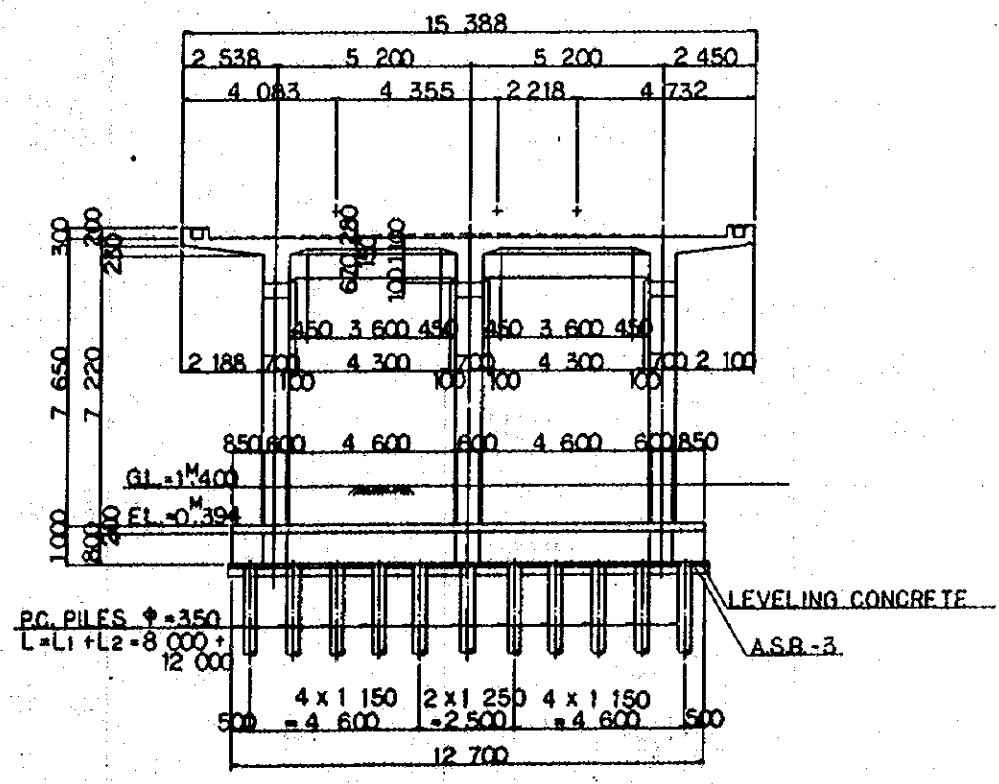
PACKAGE: I CIVIL AND ARCHITECTURAL WORK  
 SCALE: 1:100 DRAWING NO: CS-211



SECTION C  
CS211



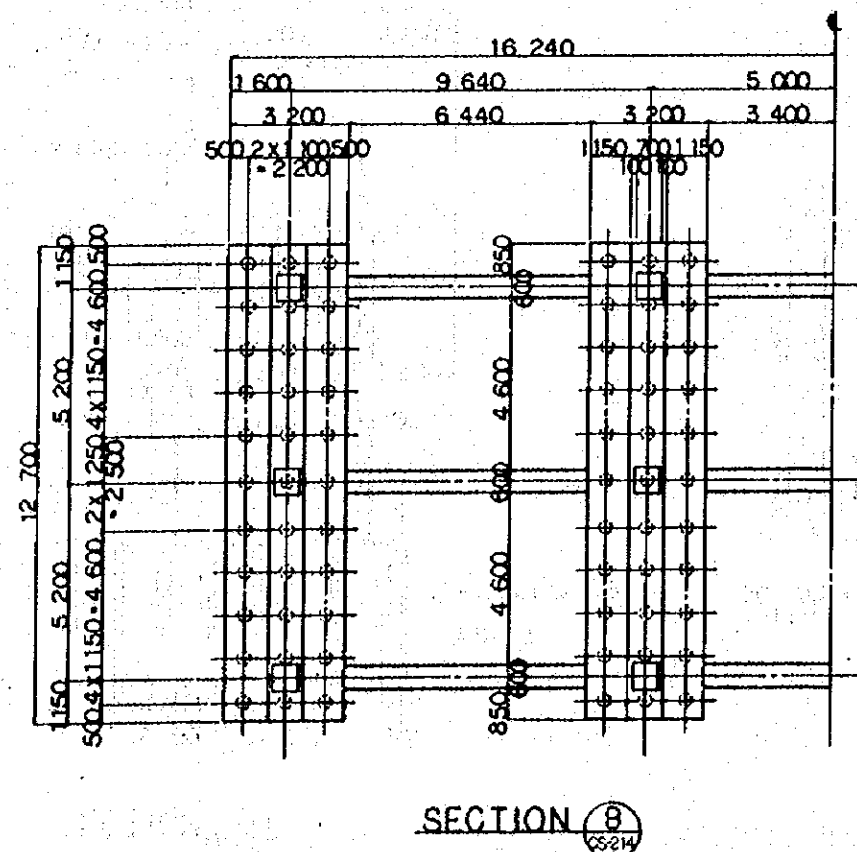
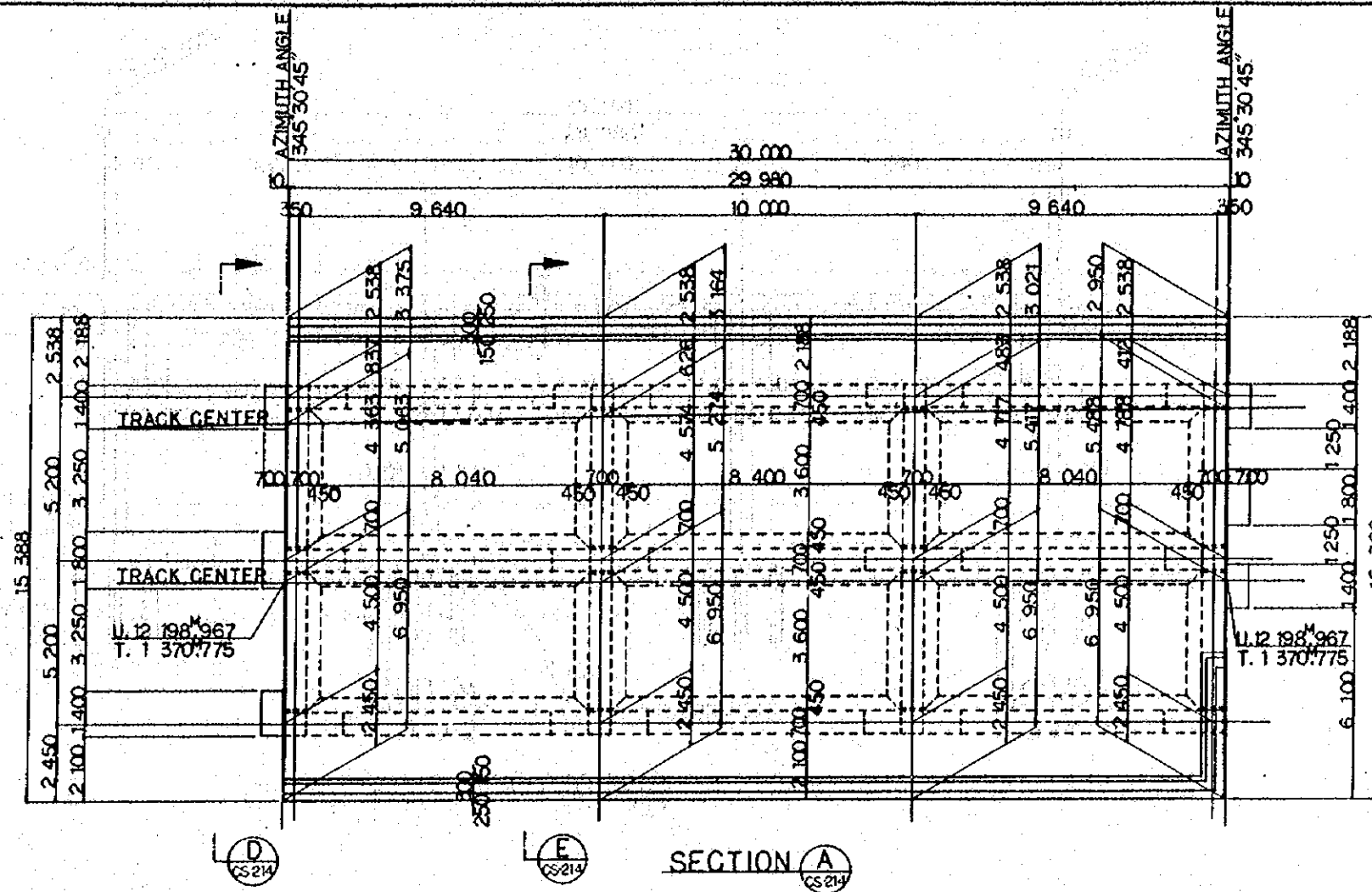
SECTION D  
CS211



SECTION E  
CS211

- NOTES :
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-204~209.
  3. TYPES OF PC-PILE
    - 3.1 BOTTOM SURFACE OF FOOTING
    - 3.2 PC-PILE CLASS B.
    - 3.3 PC-PILE CLASS A.
  4. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
B	1 AUG '84	K.V.	M.Y.	K.A.	K.M.
A	1984	K.V.	M.Y.	K.A.	K.M.
VIADUCT V096 GENERAL VIEW (SHEET 2 OF 2)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:100		DRAWING NO: CS-212			

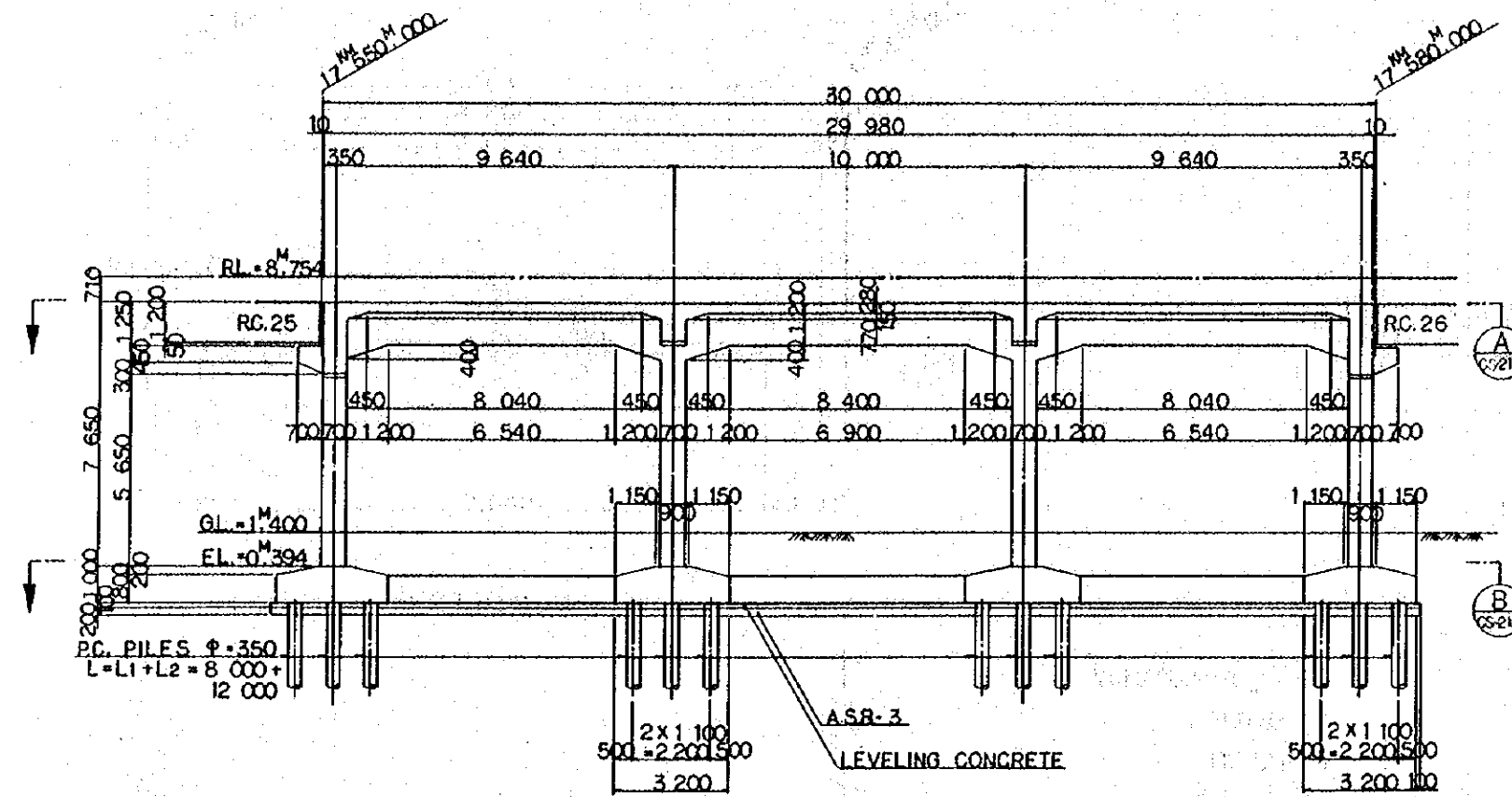


**DESIGN CRITERIA**

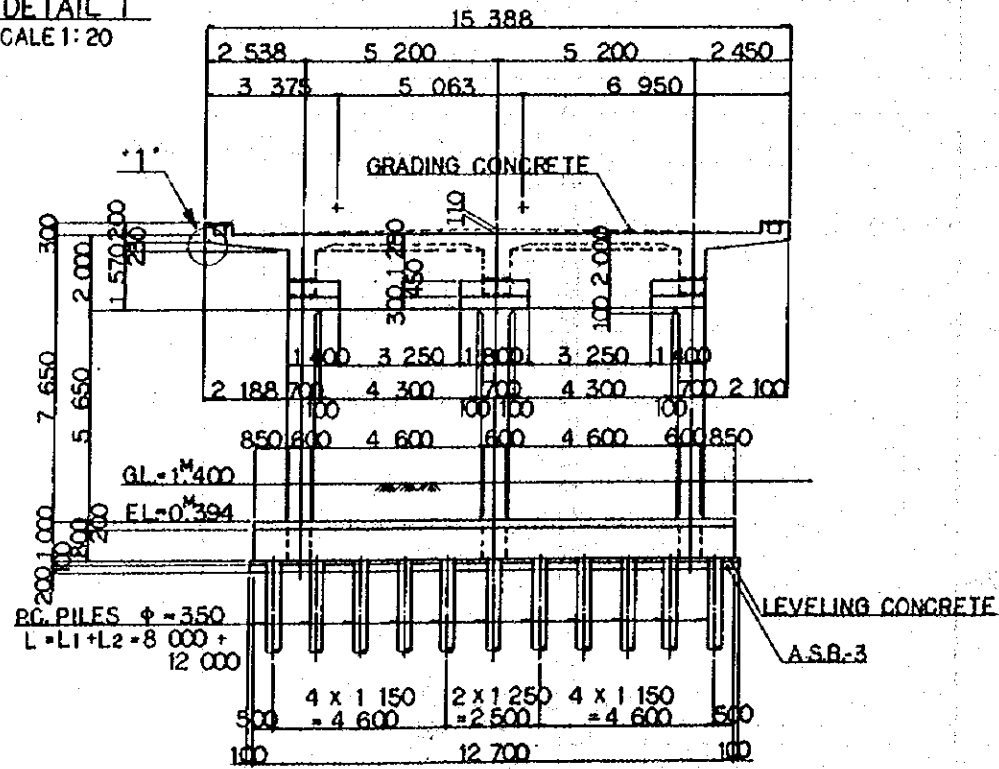
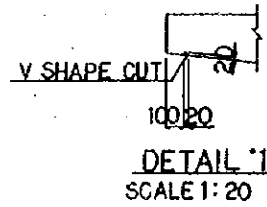
DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-14
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_3=0.1$ IN VERTICAL DIRECTION $K_3=0$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 90 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD-34
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck}=14180 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25mm

- NOTES:**
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-204~209.

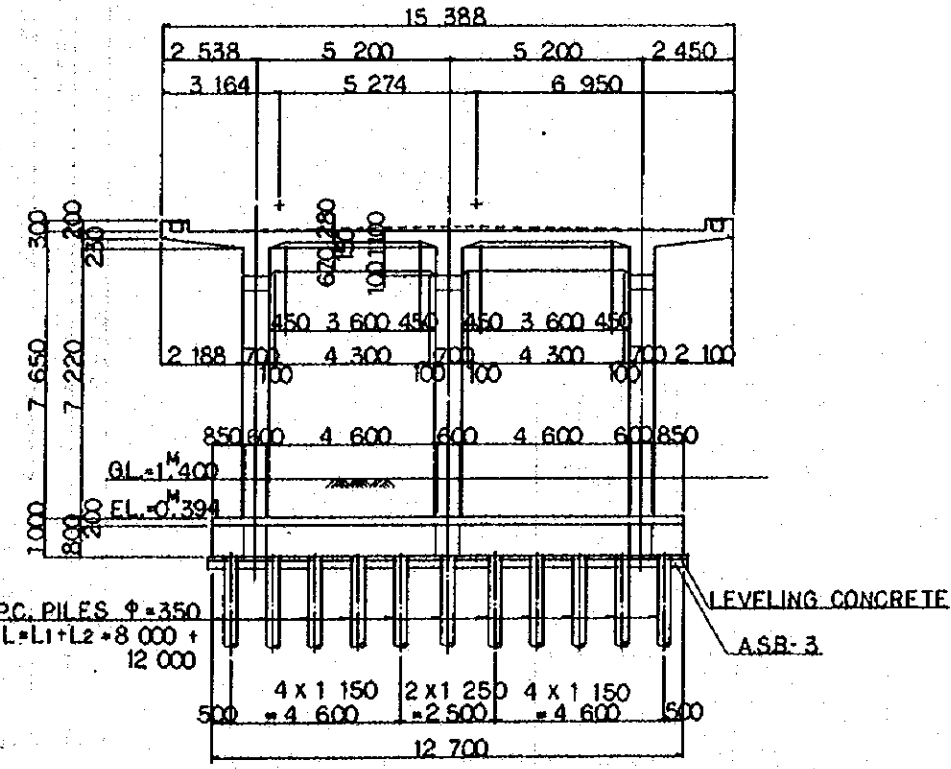
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG'84	K.Y.	M.Y.	K.S.	K.M.	M.K.
A	10/28/83	K.Y.	M.Y.	K.S.	K.M.	M.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
VIADUCT V097 GENERAL VIEW (SHEET 1 OF 2)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:100		DRAWING NO: CS-213				



SECTION C  
CS-213



SECTION D  
CS-213

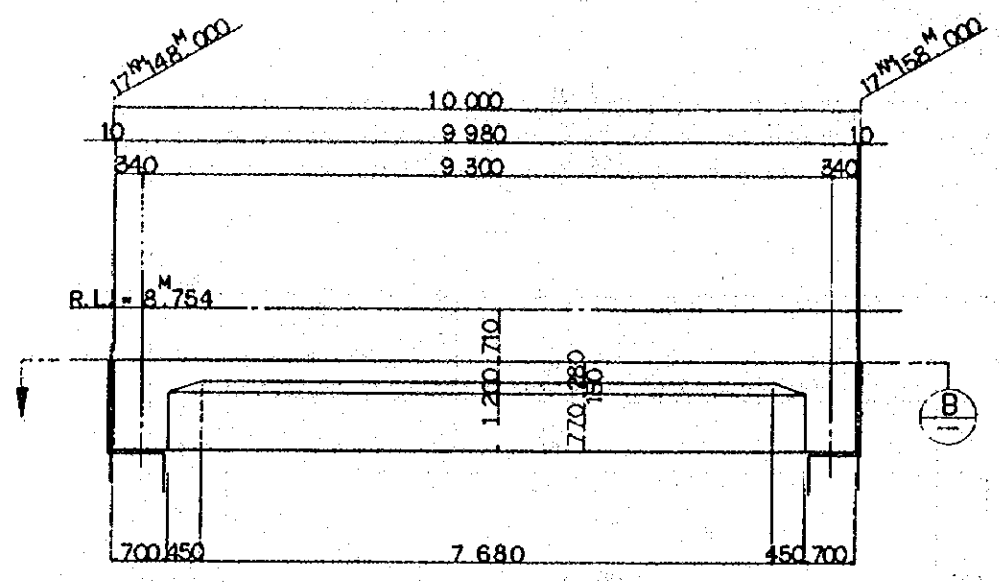


SECTION E  
CS-213

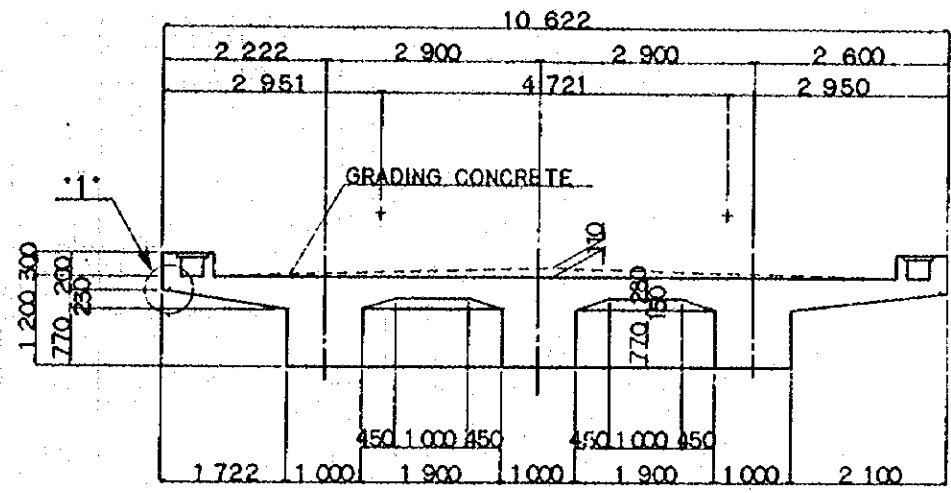
NOTES :

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-204-209.
3. TYPES OF PC. PILE
4. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

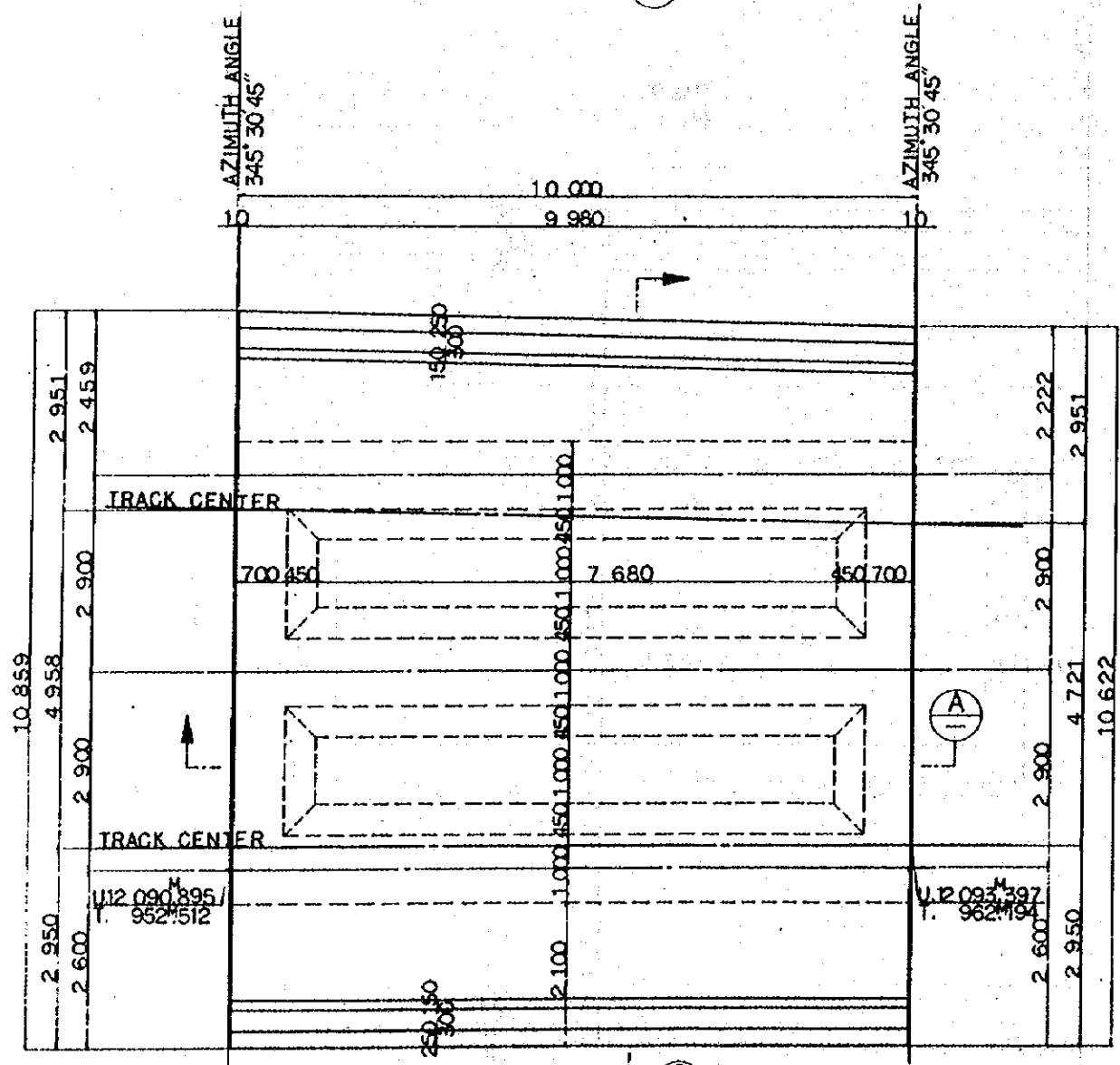
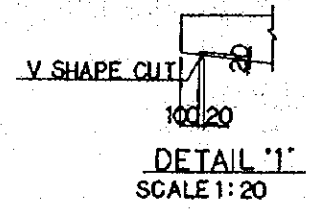
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	R.V.	M.Y.	K.A.	K.M.	M.S.
A		R.V.	M.Y.	K.A.	K.M.	M.S.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
VIADUCT V097 GENERAL VIEW (SHEET 2 OF 2)						
PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:100	CS-214					



SECTION A



SECTION C



SECTION B

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-217~218
  3. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-16
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1300 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 30 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD30
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck} = 240 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25mm

REPUBLIC OF INDONESIA  
 MINISTRY OF COMMUNICATIONS  
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

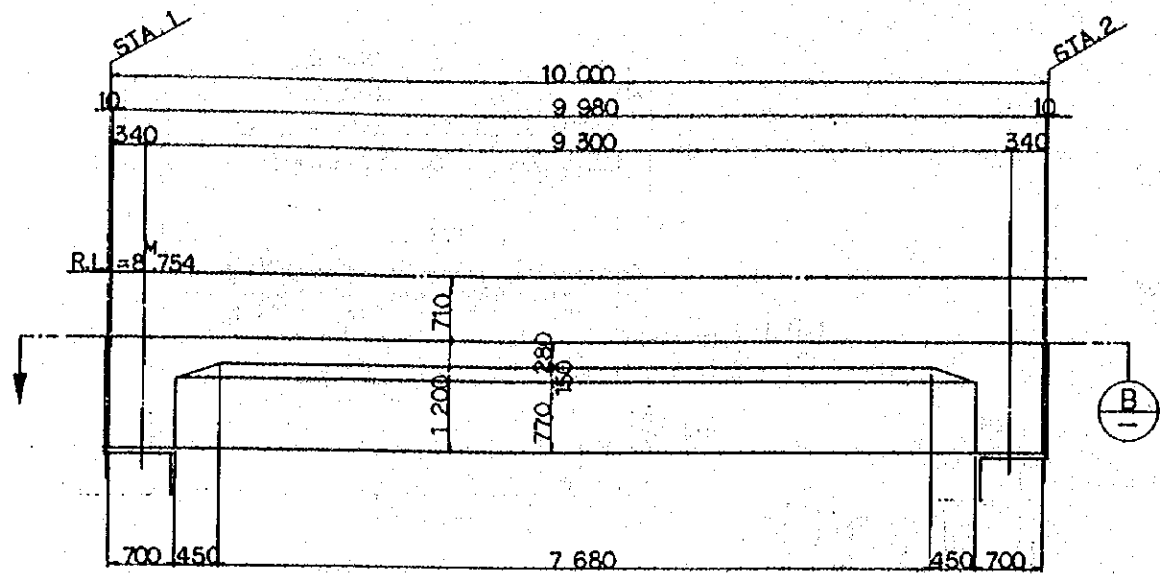
NEW RAILWAY LINE FOR CENKARENG AIRPORT  
 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

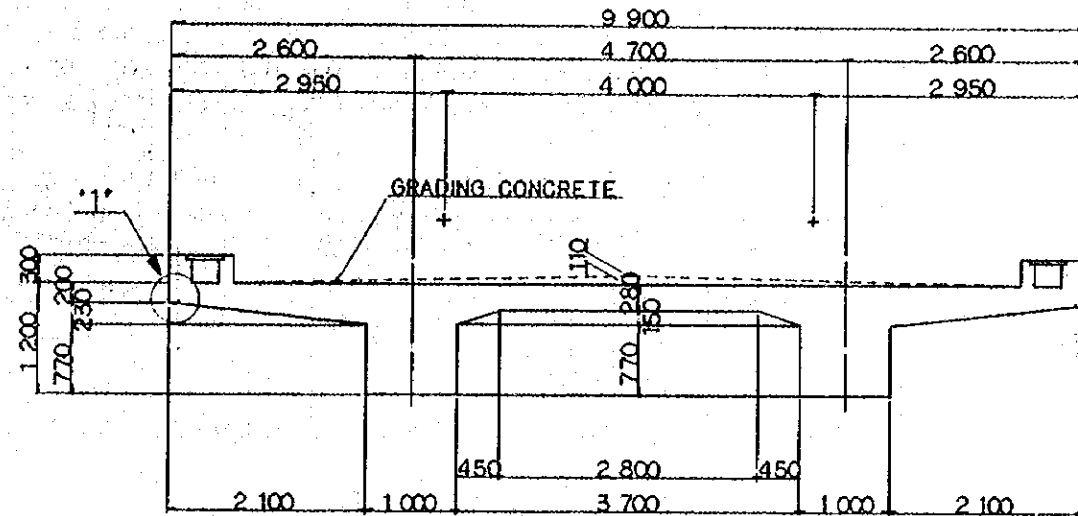
REVISION	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1 AUG. 84	M.S.	M.Y.	K.A.	K.M.	M.K.
A	15 FEB. 84	M.S.	M.Y.	K.A.	K.M.	M.K.

R.C. GIRDER RC16  
 GENERAL VIEW

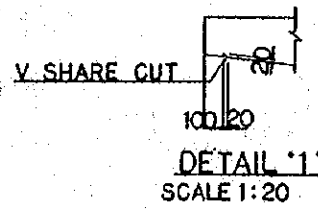
PACKAGE: I CIVIL AND ARCHITECTURAL WORK  
 SCALE: 1:50 DRAWING NO: CS-215



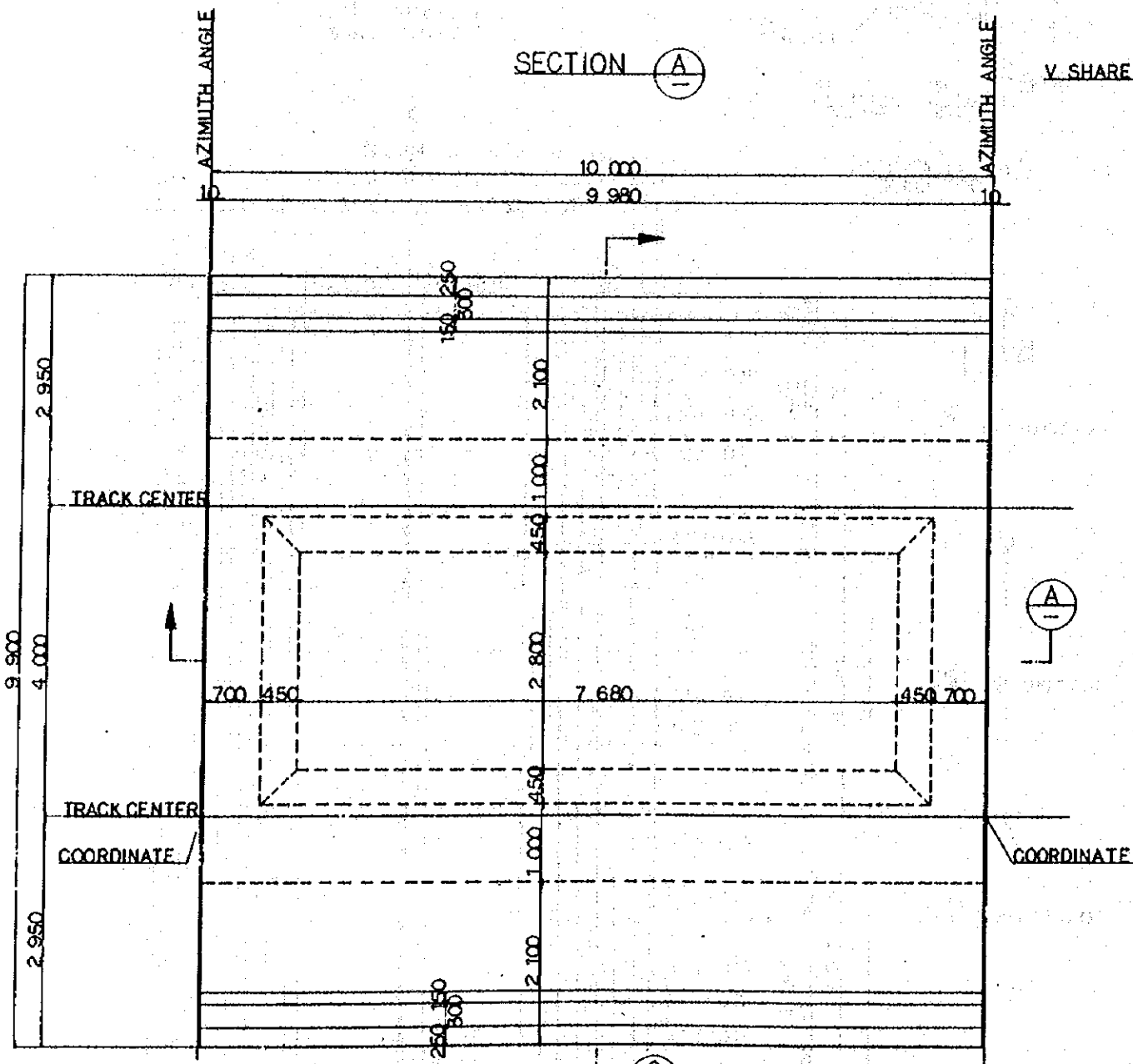
SECTION A



SECTION C



DETAIL 1  
SCALE 1:20



SECTION B

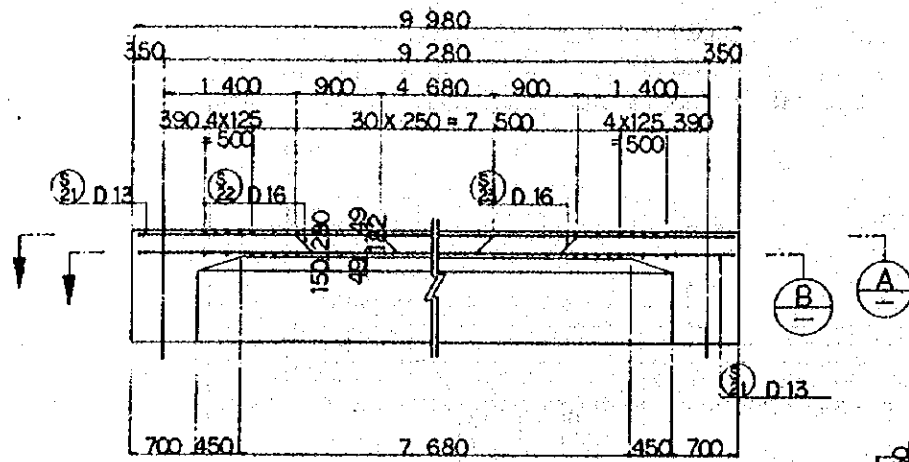
DIMENSION SCHEDULE

	STATION	R.L.	AZIMUTH ANGLE	CENSKARENG AIRPORT LINE COORDINATE	
RC 17	STA. 1	17 212 000	8.754	345° 30' 45"	U. 12 106 906 T. 1 014 477
	STA. 2	17 222 000	"	"	U. 12 109 407 T. 1 024 159
RC 18	STA. 1	17 260 000	8.754	345° 30' 45"	U. 12 118 914 T. 1 060 951
	STA. 2	17 270 000	"	"	U. 12 121 415 T. 1 070 633
RC 19	STA. 1	17 300 000	8.754	345° 30' 45"	U. 12 128 920 T. 1 099 679
	STA. 2	17 310 000	"	"	U. 12 131 422 T. 1 109 361
RC 20	STA. 1	17 340 000	8.754	345° 30' 45"	U. 12 138 927 T. 1 138 407
	STA. 2	17 350 000	"	"	U. 12 141 429 T. 1 148 089
RC 21	STA. 1	17 380 000	8.754	345° 30' 45"	U. 12 148 934 T. 1 177 135
	STA. 2	17 390 000	"	"	U. 12 151 435 T. 1 186 817
RC 22	STA. 1	17 420 000	8.754	345° 30' 45"	U. 12 158 941 T. 1 215 863
	STA. 2	17 430 000	"	"	U. 12 161 442 T. 1 225 545
RC 23	STA. 1	17 460 000	8.754	345° 30' 45"	U. 12 168 947 T. 1 254 591
	STA. 2	17 470 000	"	"	U. 12 171 449 T. 1 264 273

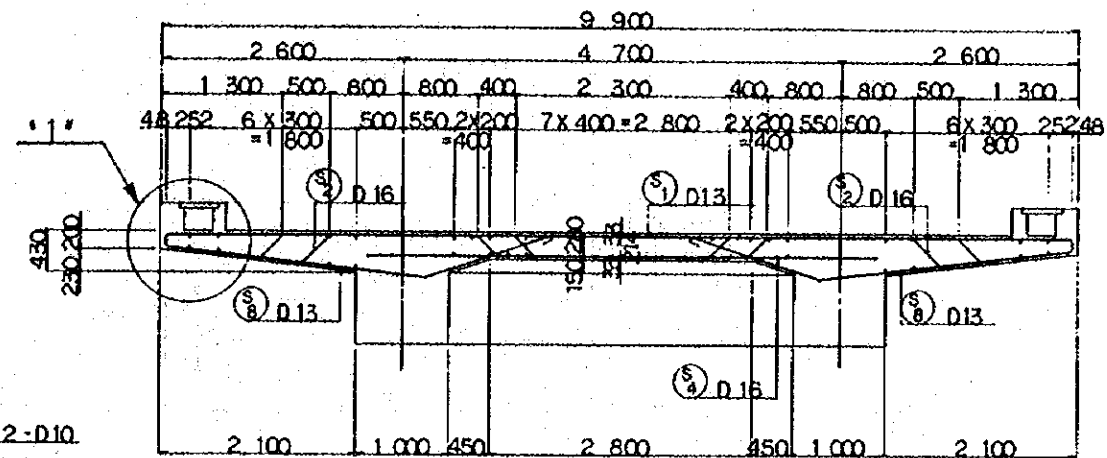
NOTES :

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS-217~218
3. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

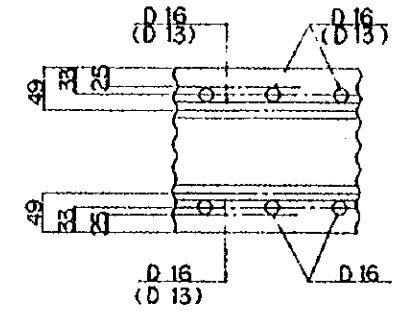
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENSKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG. '84	CLS	m-y	K.A	K.M
A	15 FEB. '84	CLS	m-y	K.A	K.M
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
R. C. GIRDER RC17~RC23 GENERAL VIEW					
PACKAGE : 1 CIVIL AND ARCHITECTURAL WORK					
SCALE : 1:40		DRAWING NO. : CS-216			



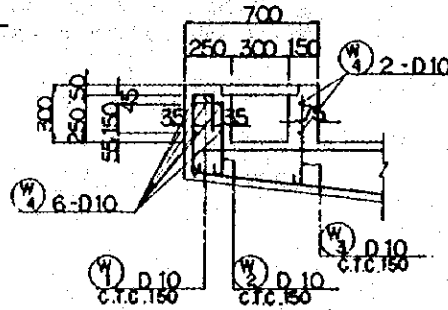
SECTION C  
SCALE 1:40



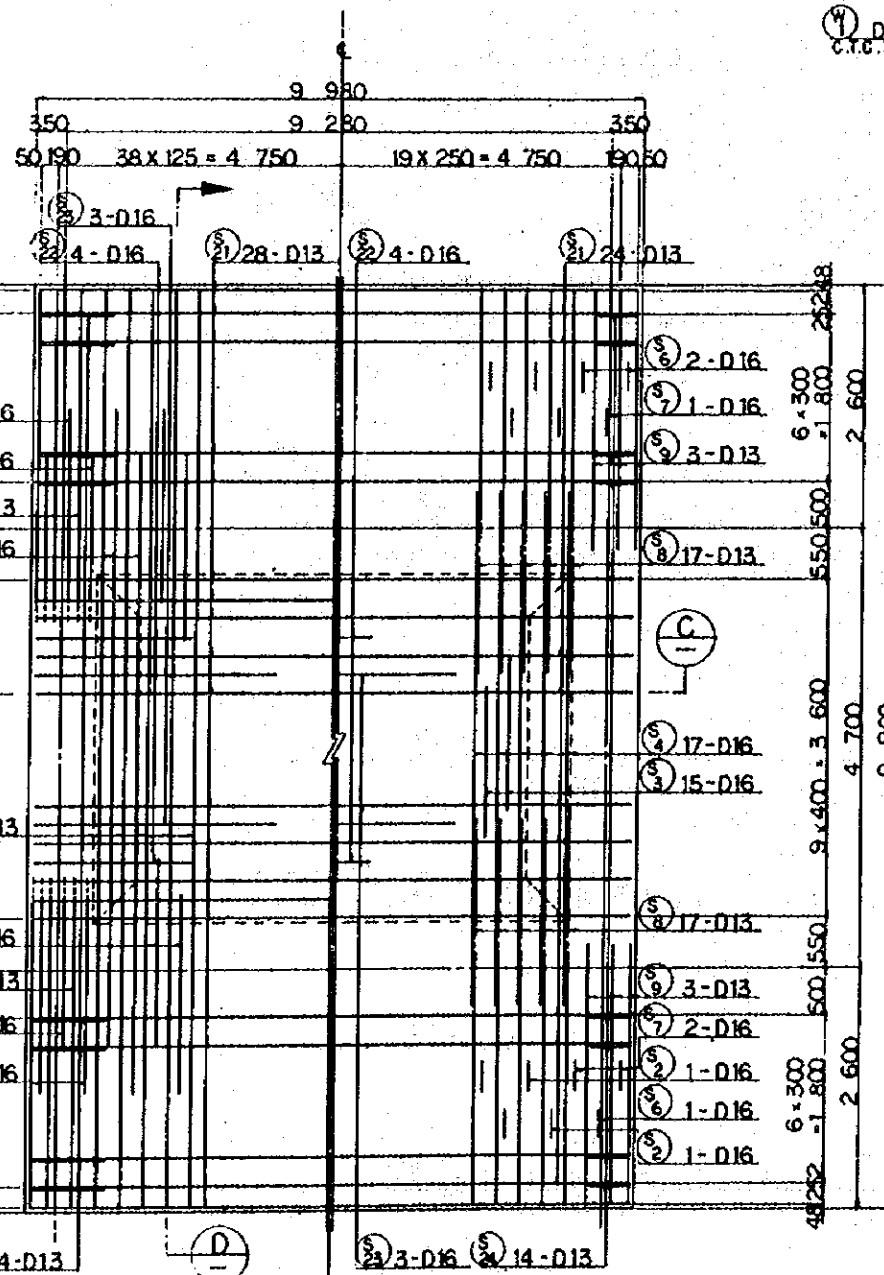
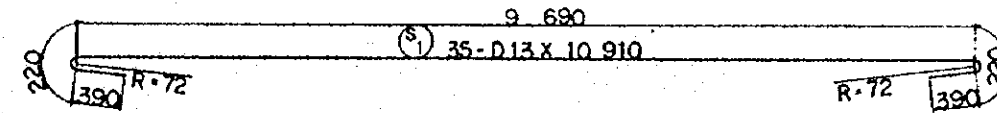
SECTION D  
SCALE 1:40



CONCRETE COVER

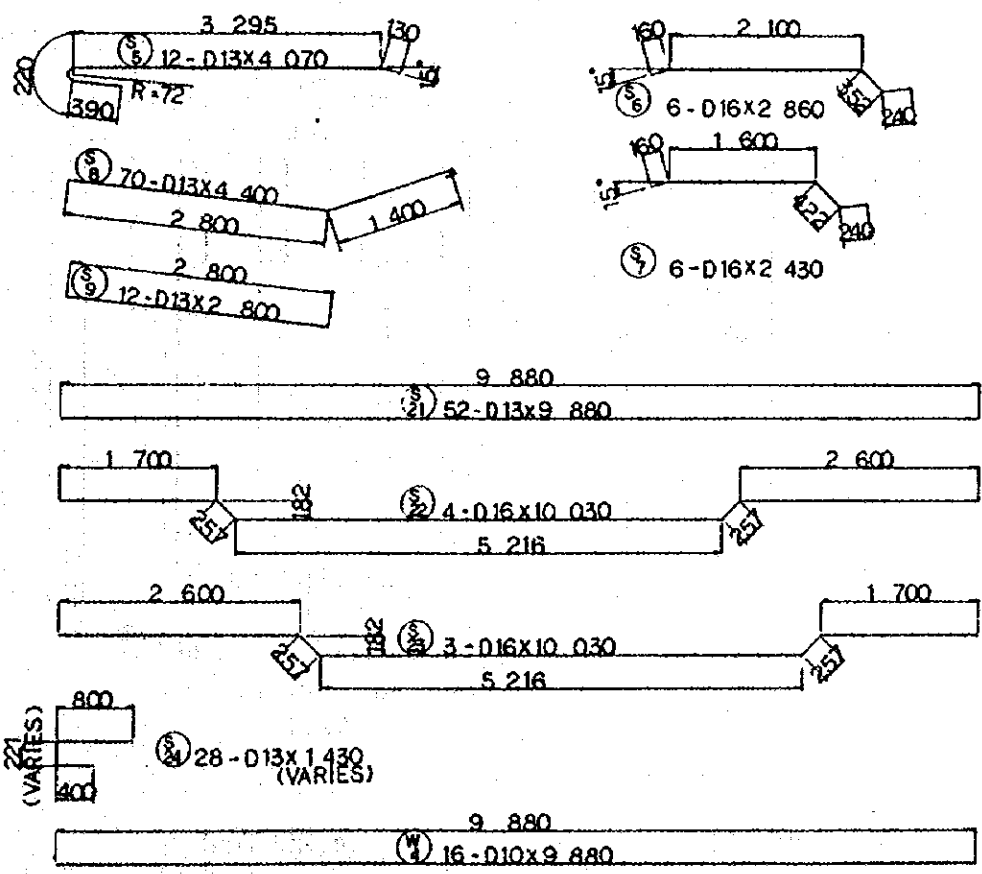
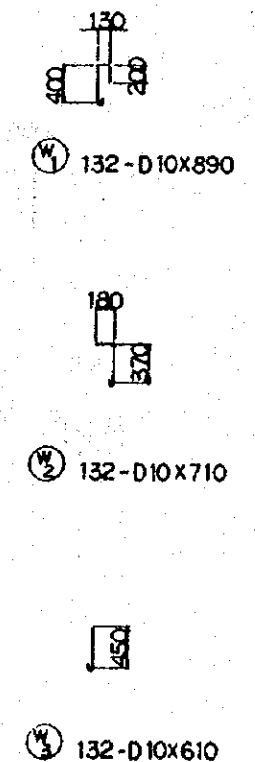
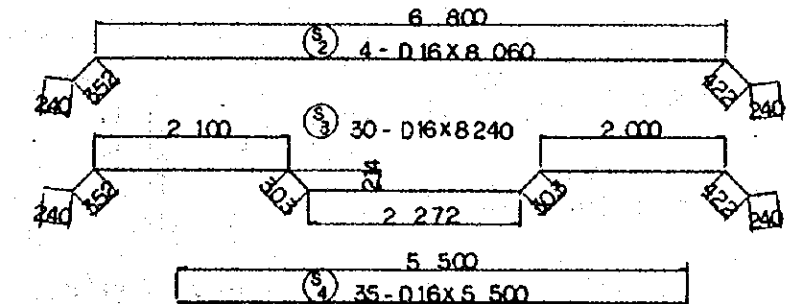


DETAIL II  
SCALE 1:20



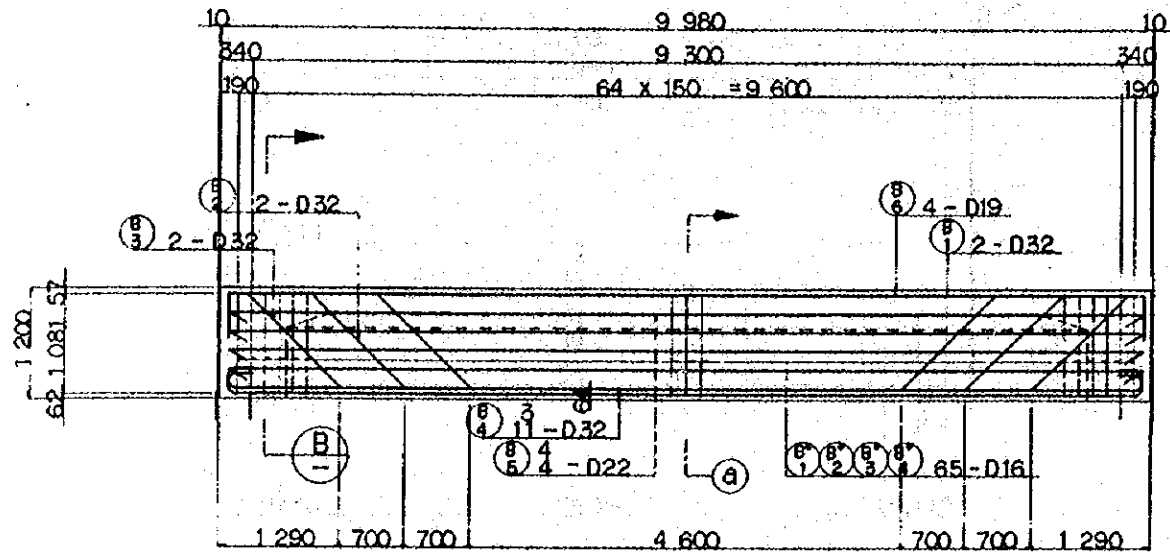
SECTION A  
SCALE 1:40

SECTION B  
SCALE 1:40

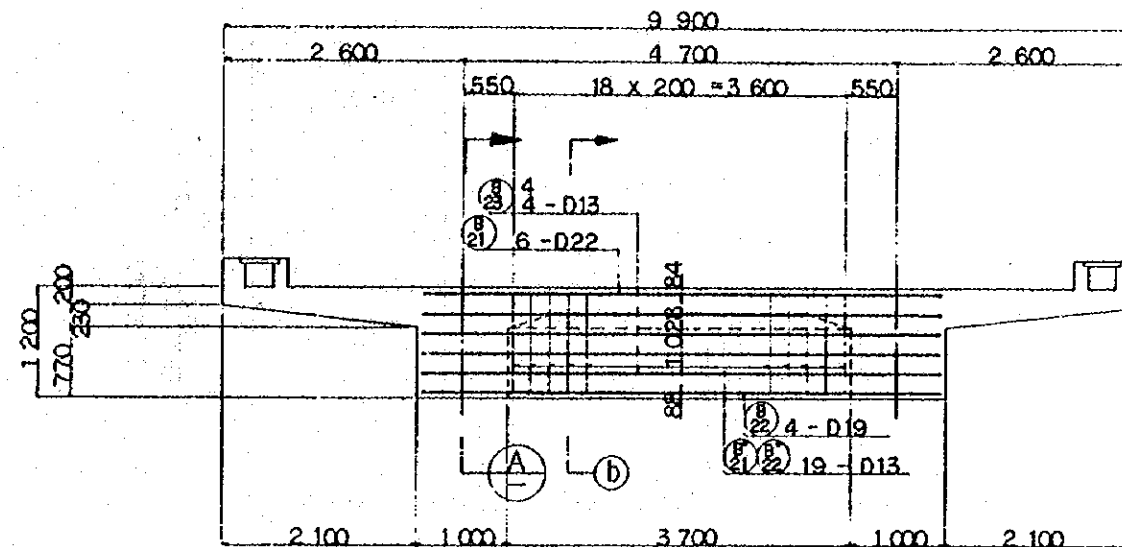


- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR GENERAL VIEW :CS-216

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG 94	DES	M.Y.	K.A.	K.M.	M.K.
A	1 FEB 94	DES	M.Y.	K.A.	K.M.	M.K.
REVISIONS	DATE	REASON	DESIGNER	CHECKED	REVIEWED	SUBMITTED
R.C. GIRDER RC17 BAR ARRANGEMENT (SHEET 1 OF 2)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE 1:20,40	DRAWING NO. CS-217					



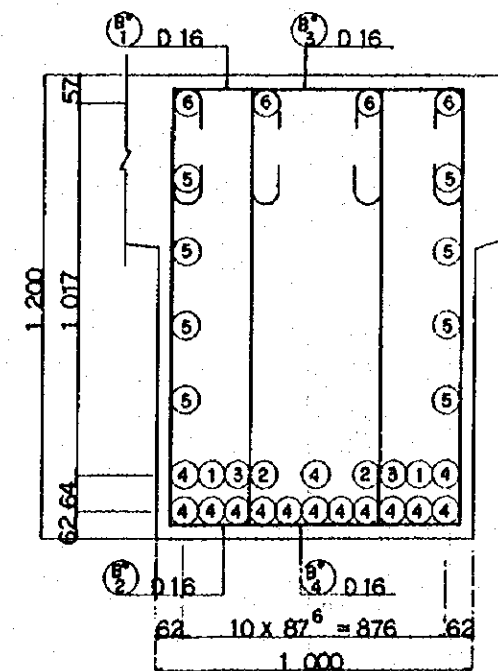
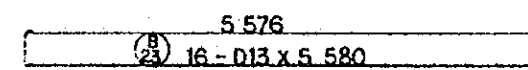
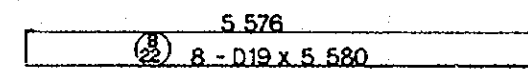
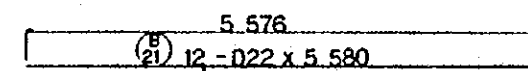
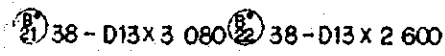
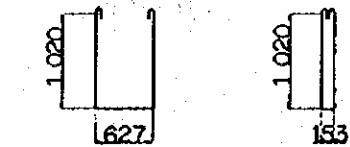
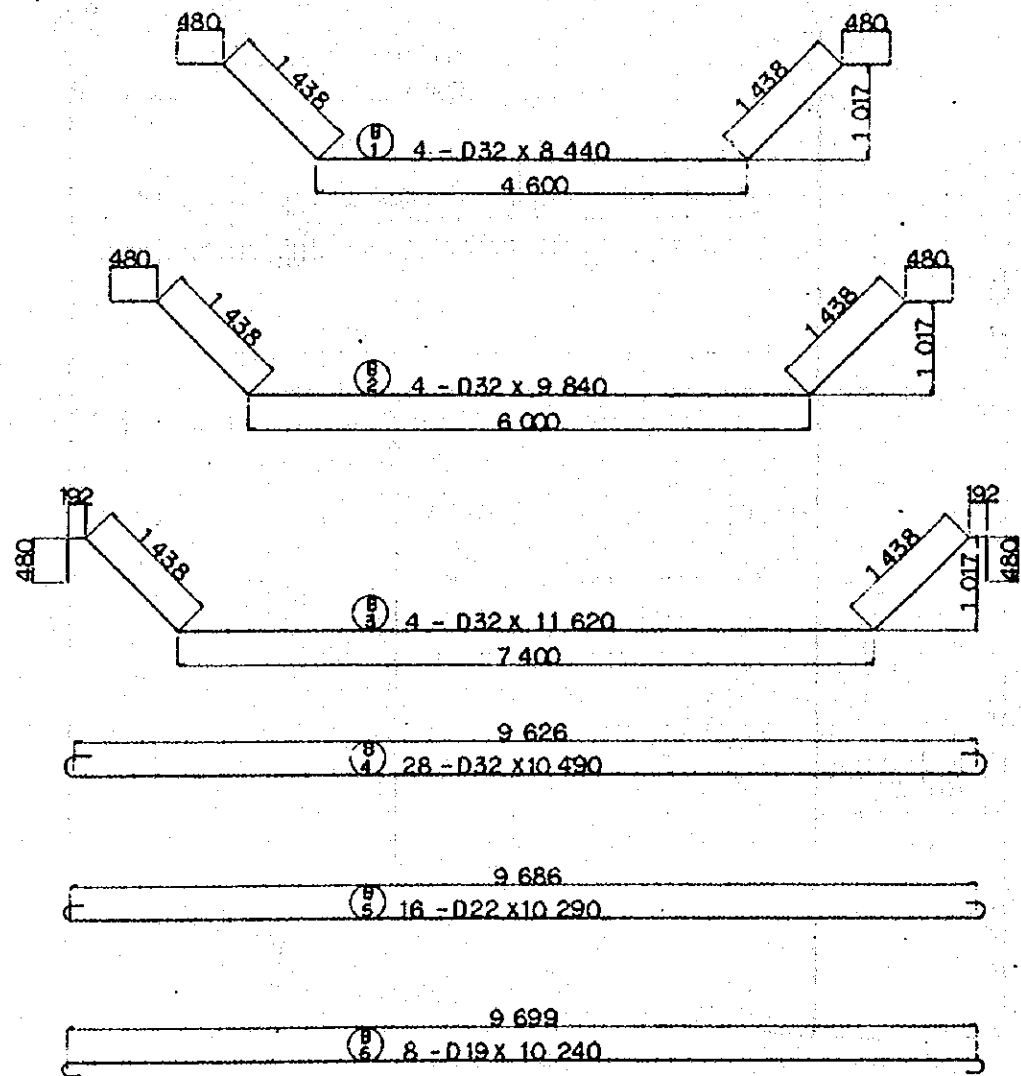
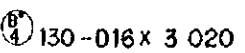
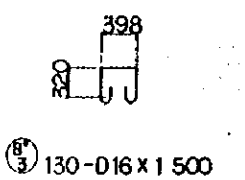
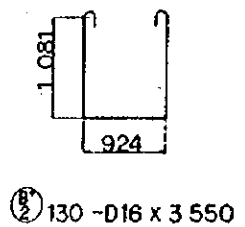
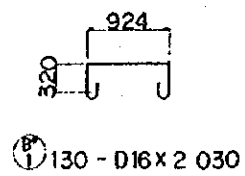
SECTION A



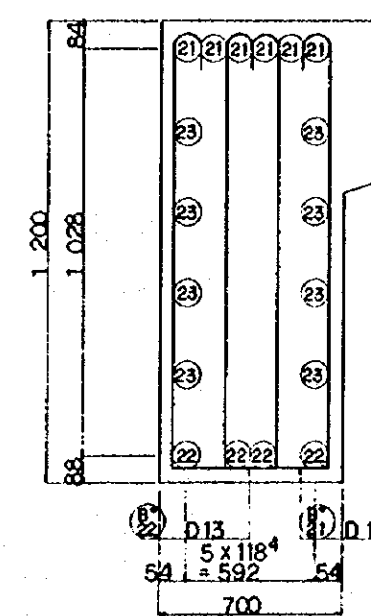
SECTION B

NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW :CS-216



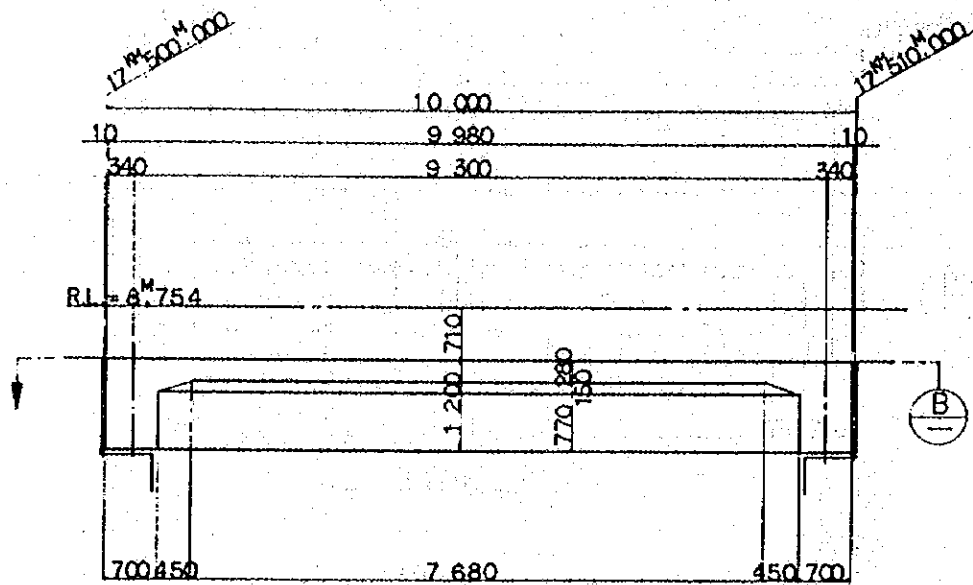
SECTION (a) - (a)



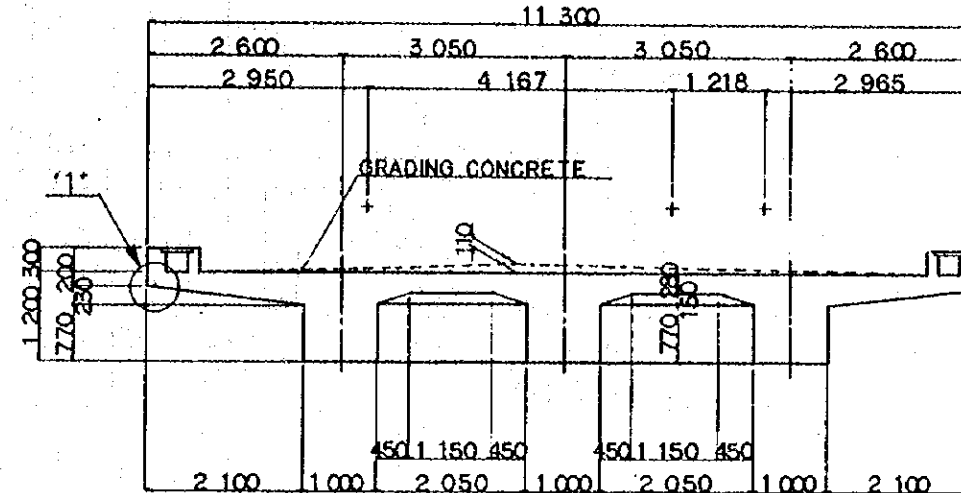
SECTION (b) - (b)

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG 1984	11.5	m.y	K.A.	U.M.	mk
A	15 FEB 84	11.5	m.y	K.A.	K.M.	mk
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	APPROVED	SUBMITTED
R.C. GIRDER RC17 BAR ARRANGEMENT (SHEET 2 OF 2)						
PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:40		DRAWING NO: CS-218				

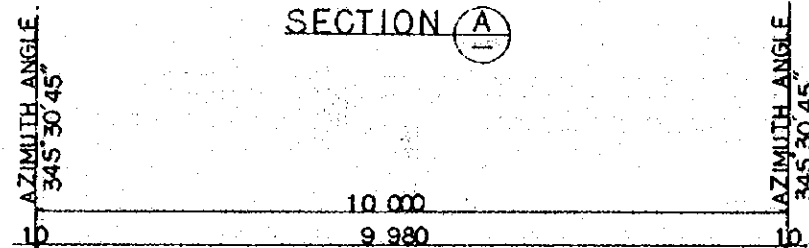
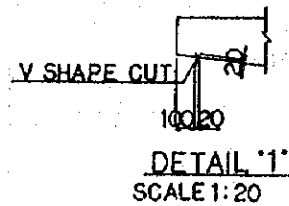




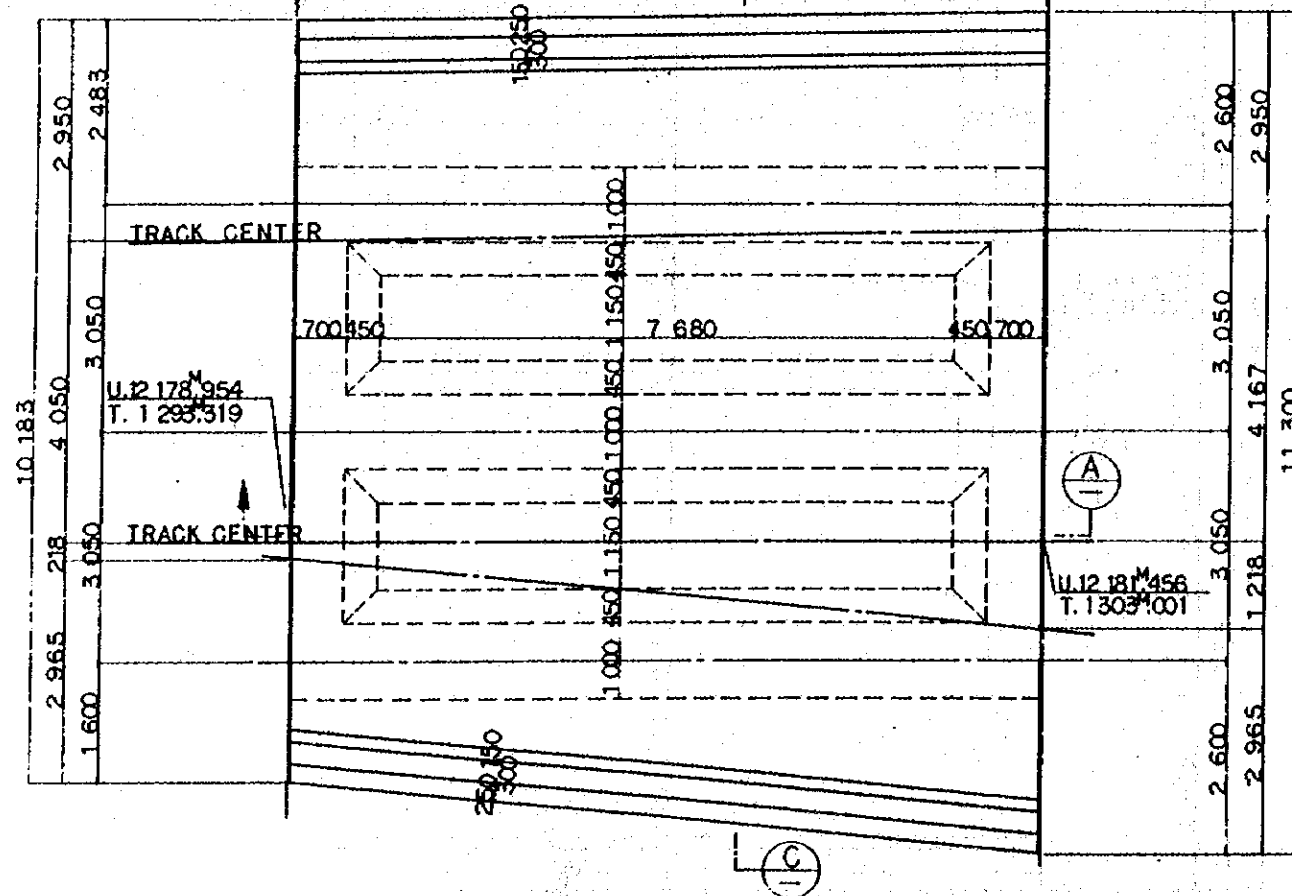
SECTION A



SECTION C



SECTION B



NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-217~218
3. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-16
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 90 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD36
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck} = 140 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	15mm

REPUBLIC OF INDONESIA  
 MINISTRY OF COMMUNICATIONS  
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

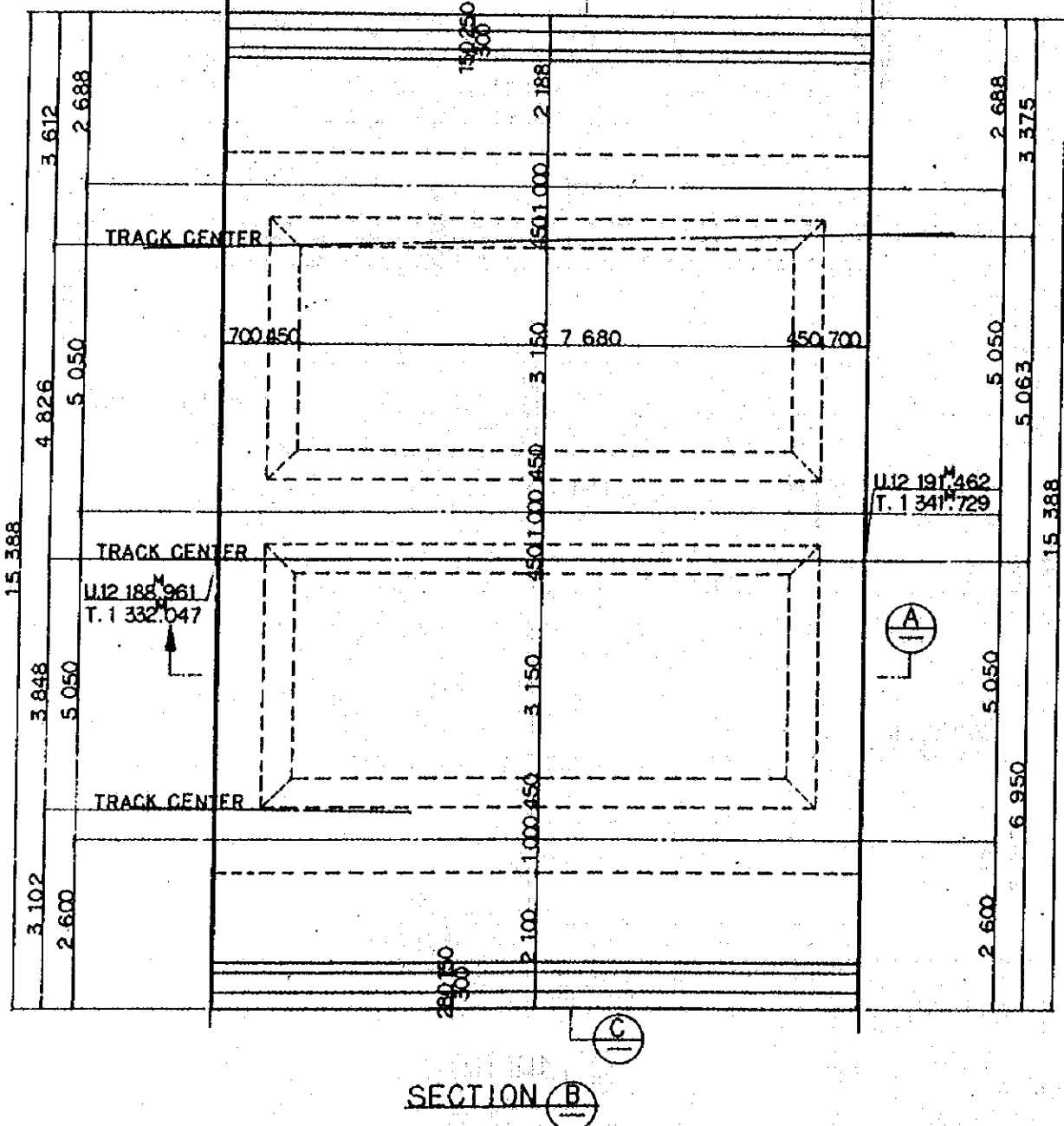
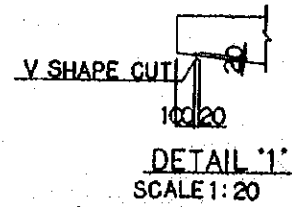
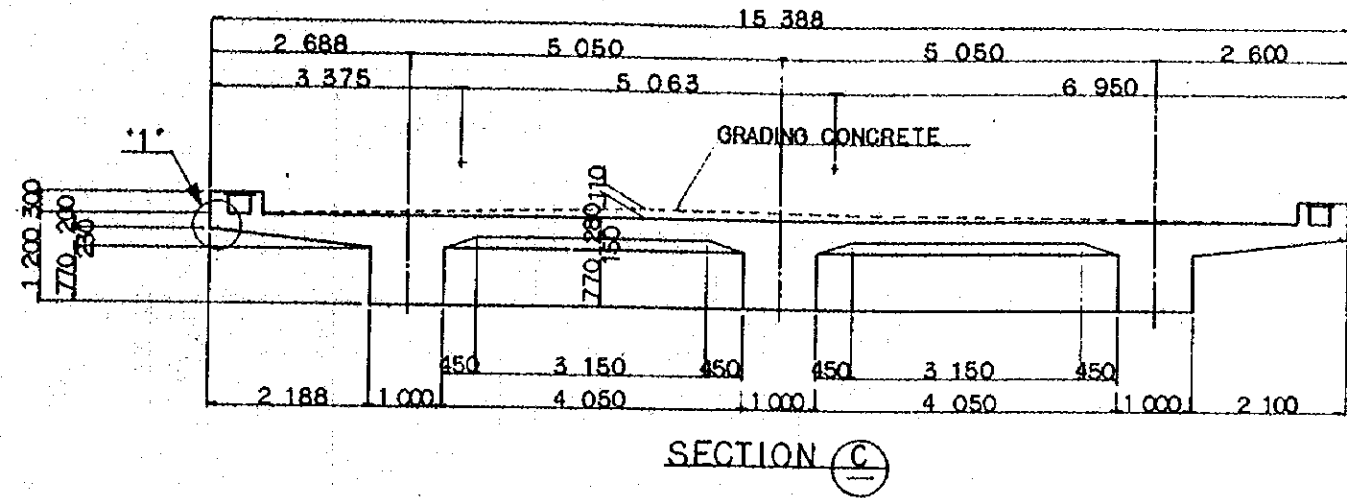
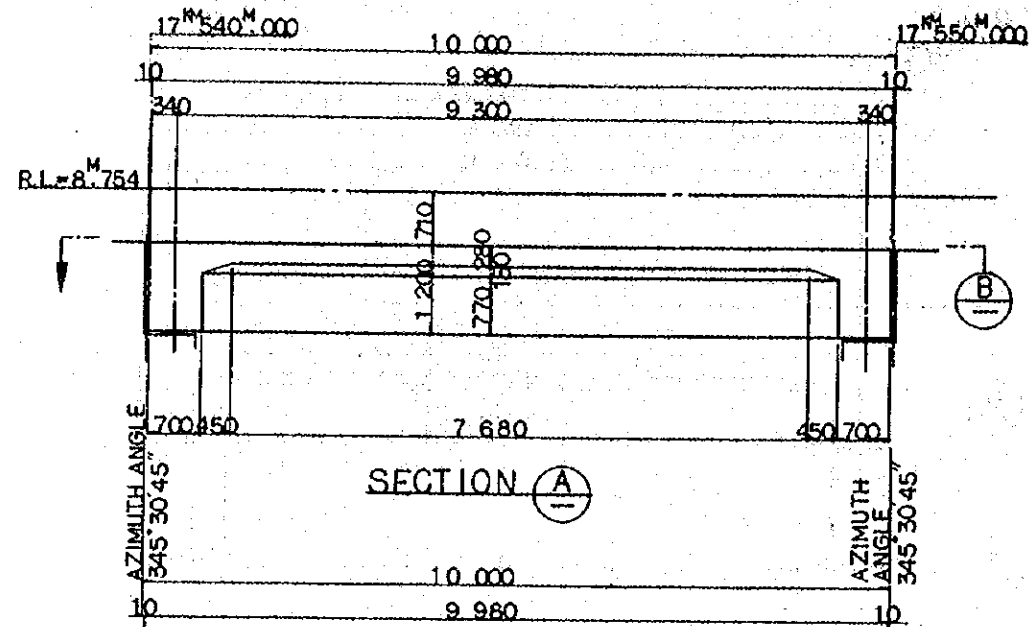
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1 AUG 84	M.S.	M.Y.	K.A.	K.M.	M.K.
A	10 FEB 84	M.S.	M.Y.	K.A.	K.M.	M.K.

REVISIONS: DATE, DESIGNED, DRAWN, CHECKED, REVISION, SUBMITTED

R.C. GIRDER RC24  
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK  
 SCALE: 1:50 DRAWING NO: CS-219

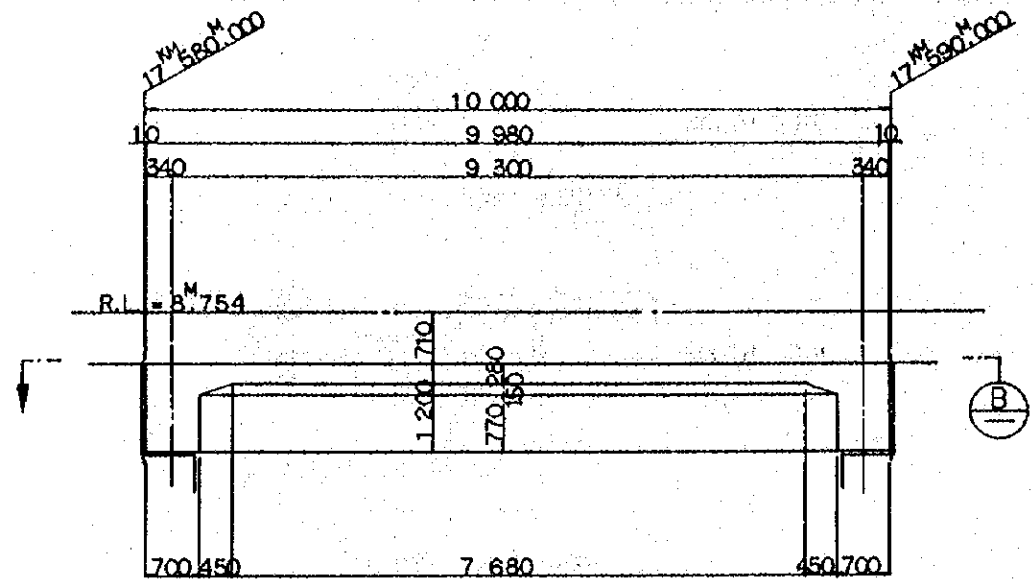


- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
  2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-217-218
  3. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE

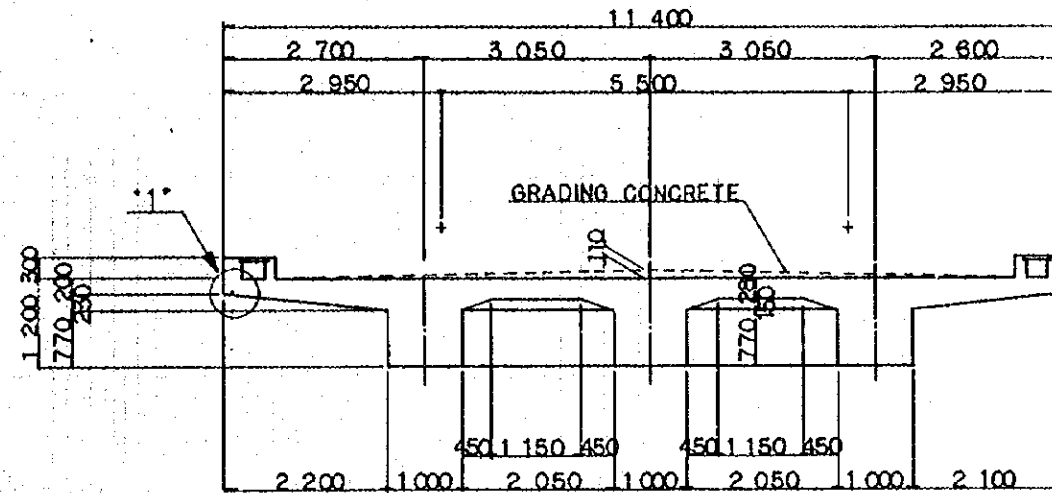
DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-10
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 90 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD30
	CONCRETE OF DESIGN CRITERIA STRENGTH	$f'_{ck} = 240 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25 mm

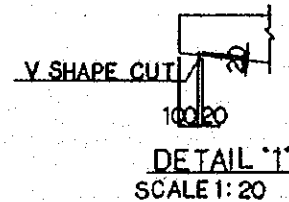
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG 84	M.S	m.y	K.A	K.M	m.k
A	1 FEB 84	M.S	m.y	K.A	K.M	m.k
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
R.C. GIRDER RC25 GENERAL VIEW						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:50		DRAWING NO: CS-220				



SECTION A

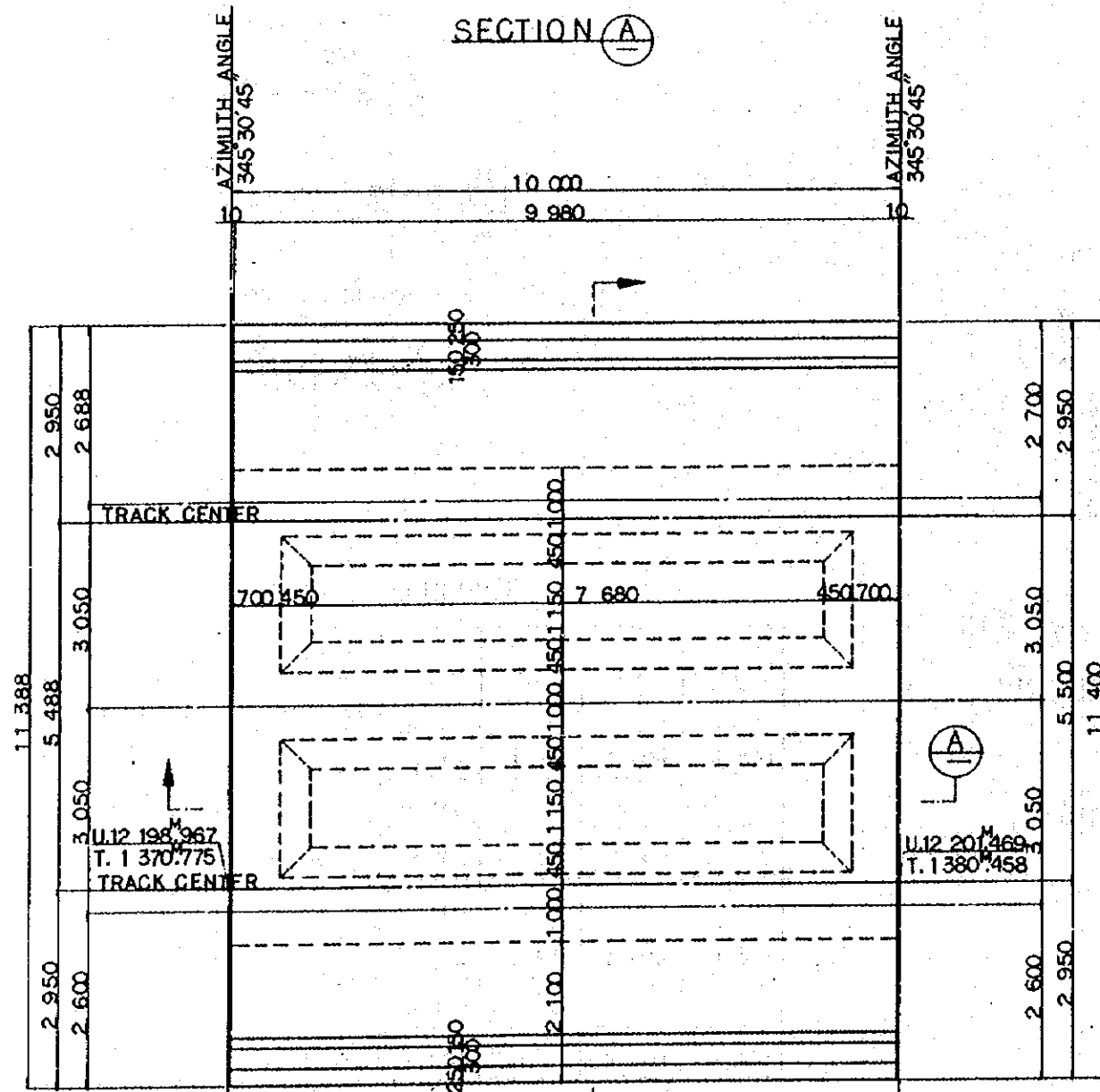


SECTION C



NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-217-218 CS-222
3. GRADING CONCRETE SHALL BE SIMULTANEOUSLY PLACED WITH SLAB CONCRETE



SECTION B

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-16
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 180 kg/cm <sup>2</sup>
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 90 kg/cm <sup>2</sup>
MATERIAL	TYPE OF REINFORCING BAR	SD30
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck} = 240 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25mm

REPUBLIC OF INDONESIA  
 MINISTRY OF COMMUNICATIONS  
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

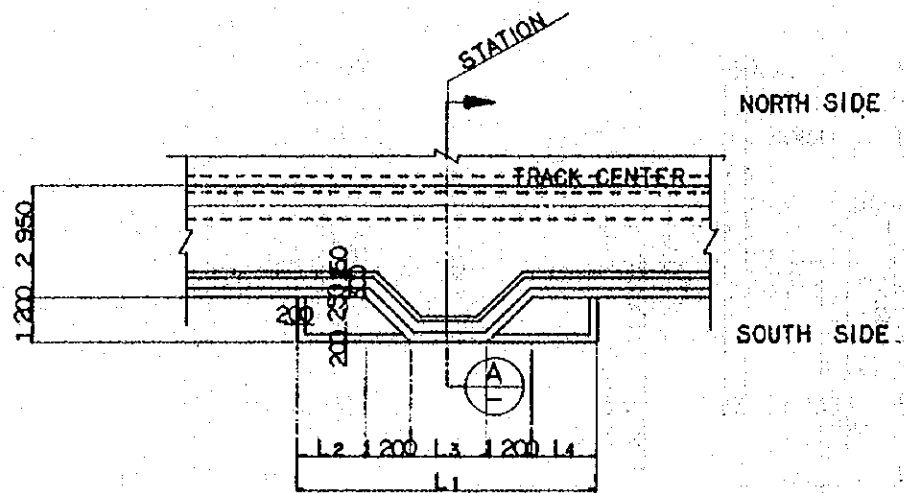
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1 AUG '84	M.S	M.Y	K.A	K.M	M.K
A	11 FEB '84	M.S	M.Y	K.A	K.M	M.K

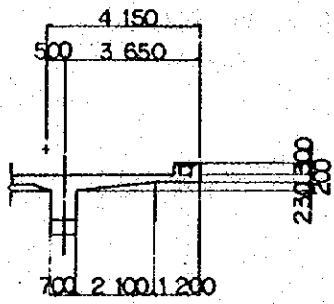
REVISION DATE DESIGNED DRAWN CHECKED REVISION SUBMITTED

R.C. GIRDER RC26  
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK  
 SCALE: 1:50 DRAWING NO: CS-221



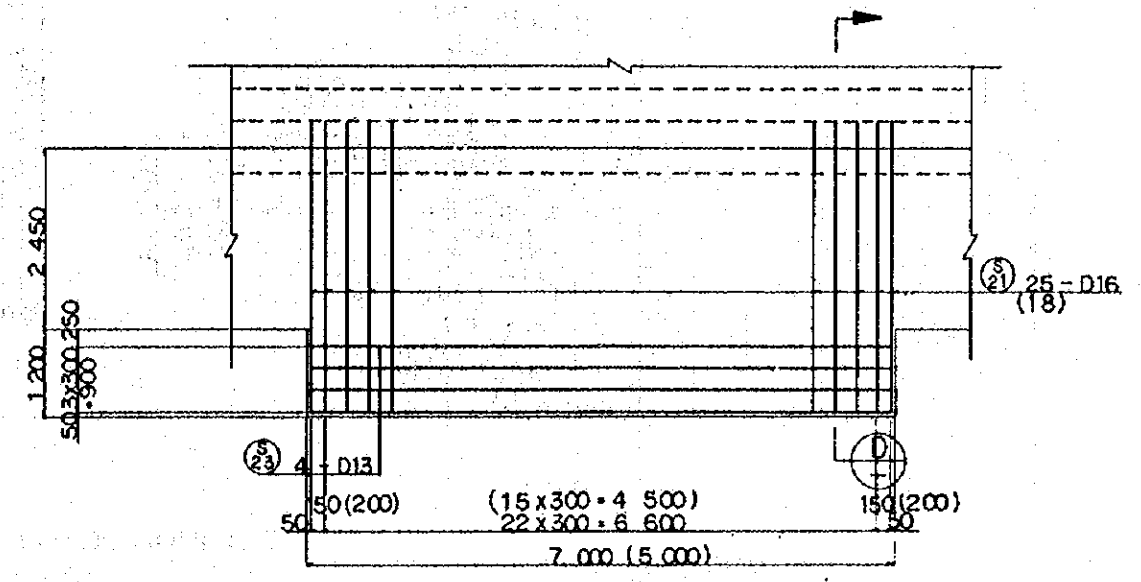
PLAN SCALE 1:100



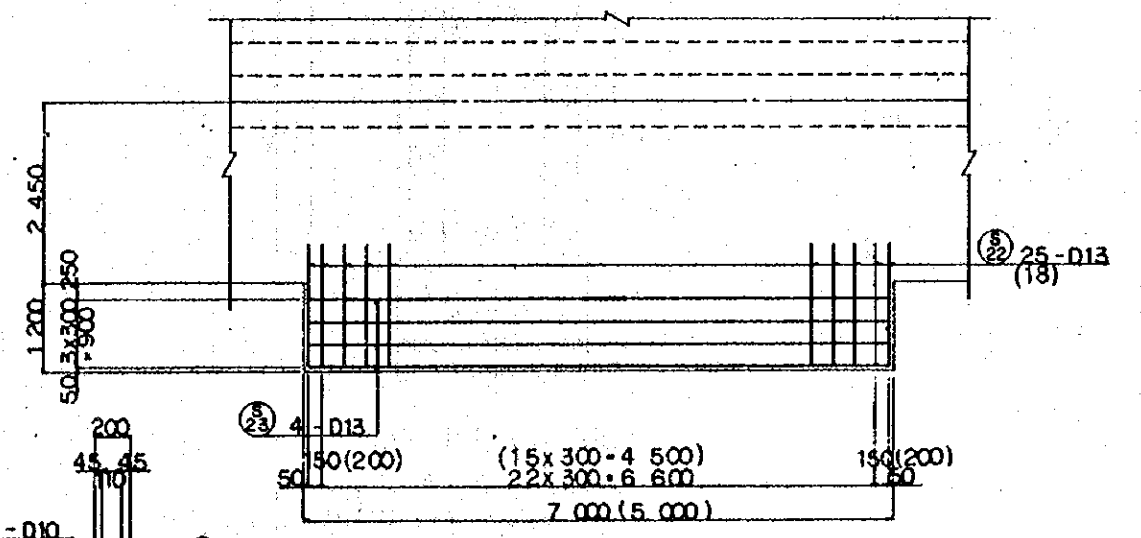
SECTION A SCALE 1:100

DIMENSION SCHEDULE

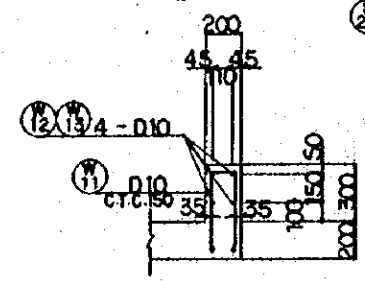
NO.	STATION		L1	L2	L3	L4
	SOUTH SIDE	NORTH SIDE				
V086	17 <sup>KM</sup> 180 <sup>M</sup> .000	—	8 000	1 800	2 000	1 800
V089	17 <sup>KM</sup> 256 <sup>M</sup> .000	—	5 000	—	—	—
	—	17 <sup>KM</sup> 256 <sup>M</sup> .500	7 000	300	4 000	300
V095	17 <sup>KM</sup> 474 <sup>M</sup> .000	—	7 000	—	—	—
	17 <sup>KM</sup> 490 <sup>M</sup> .000	—	7 000	1 300	2 000	1 300
V097	—	—	2 500	1 300	—	—
RC.26	—	17 <sup>KM</sup> 581 <sup>M</sup> .000	4 500	—	2 000	1 300



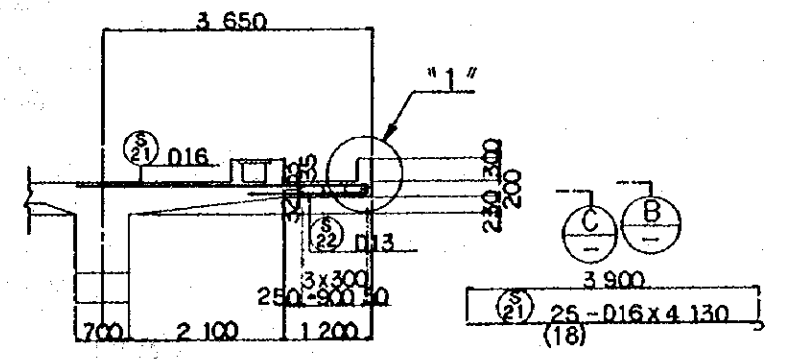
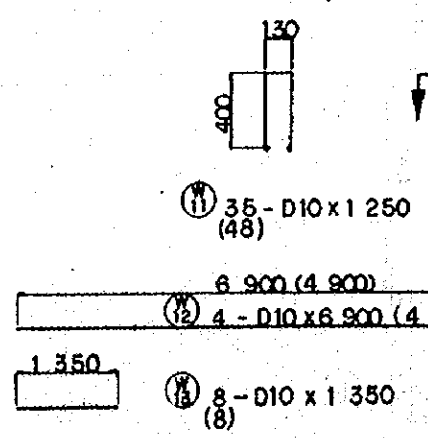
SECTION B SCALE 1:50



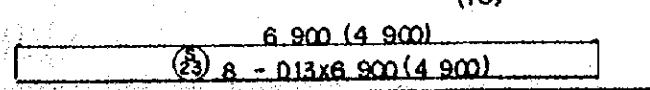
SECTION C SCALE 1:50



DETAIL "1" SCALE 1:20



SECTION D SCALE 1:50



NOTES:  
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED

REPUBLIC OF INDONESIA  
MINISTRY OF COMMUNICATIONS  
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

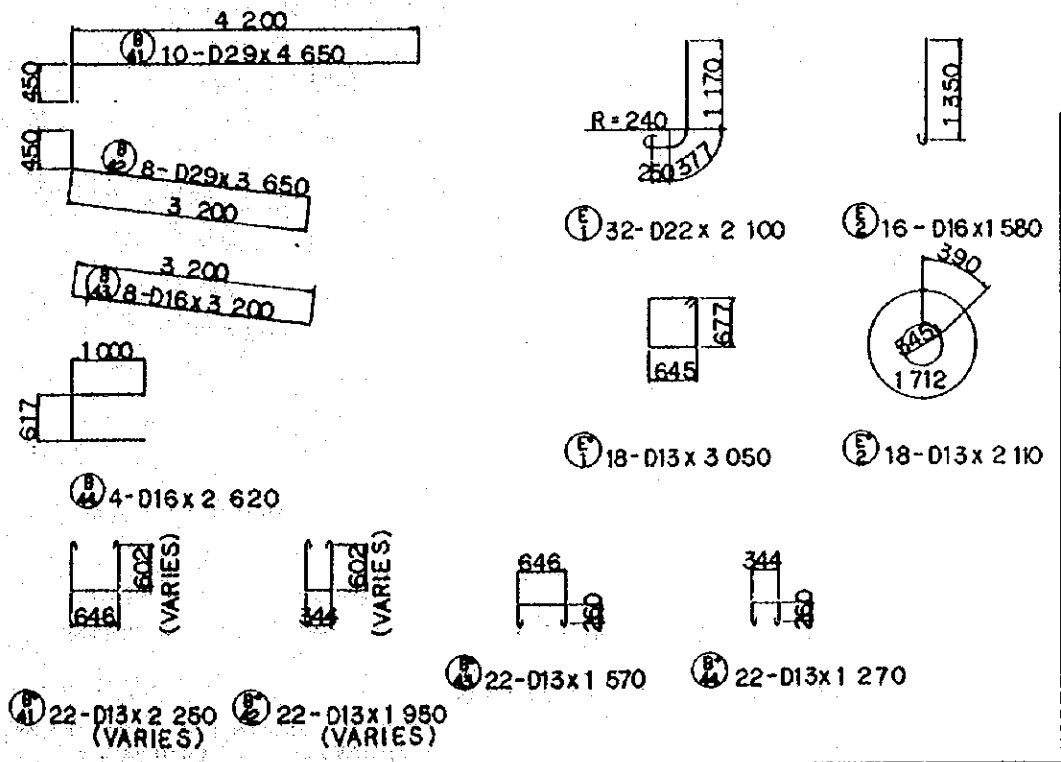
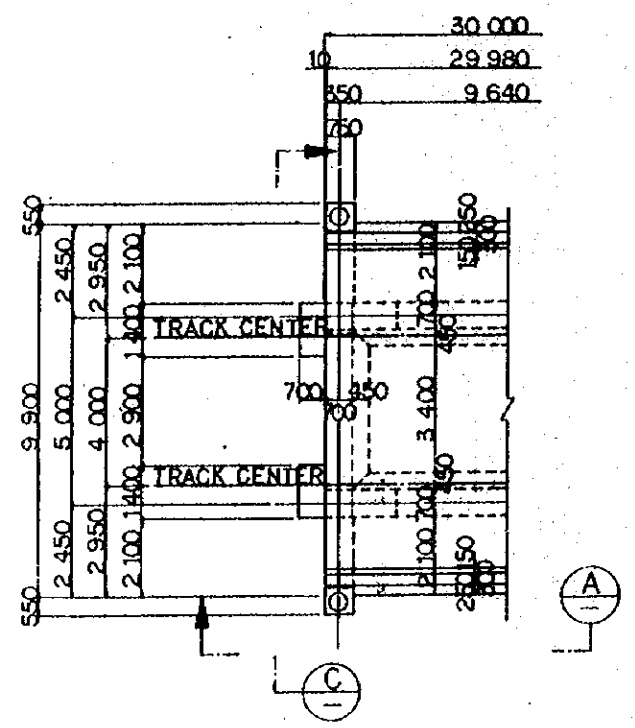
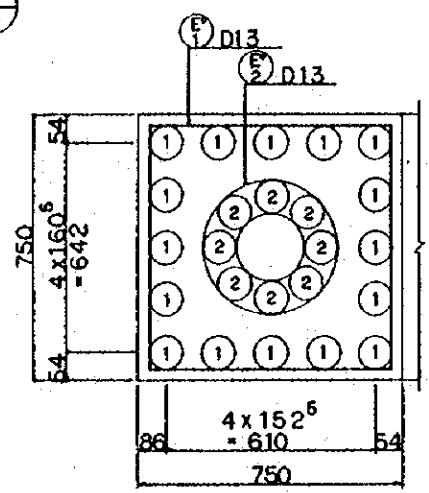
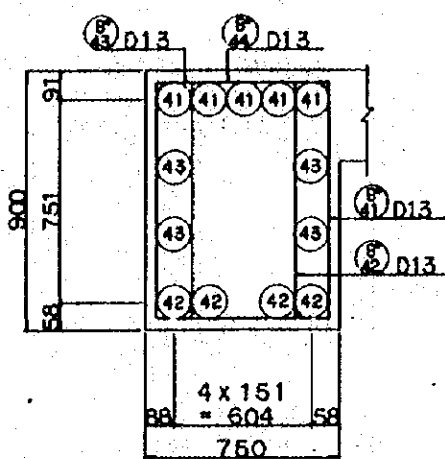
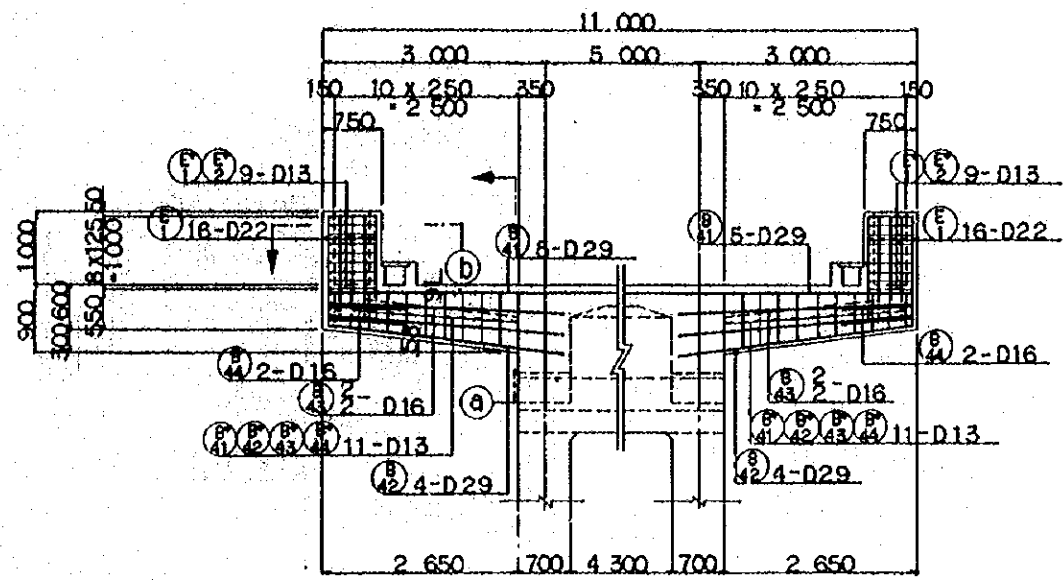
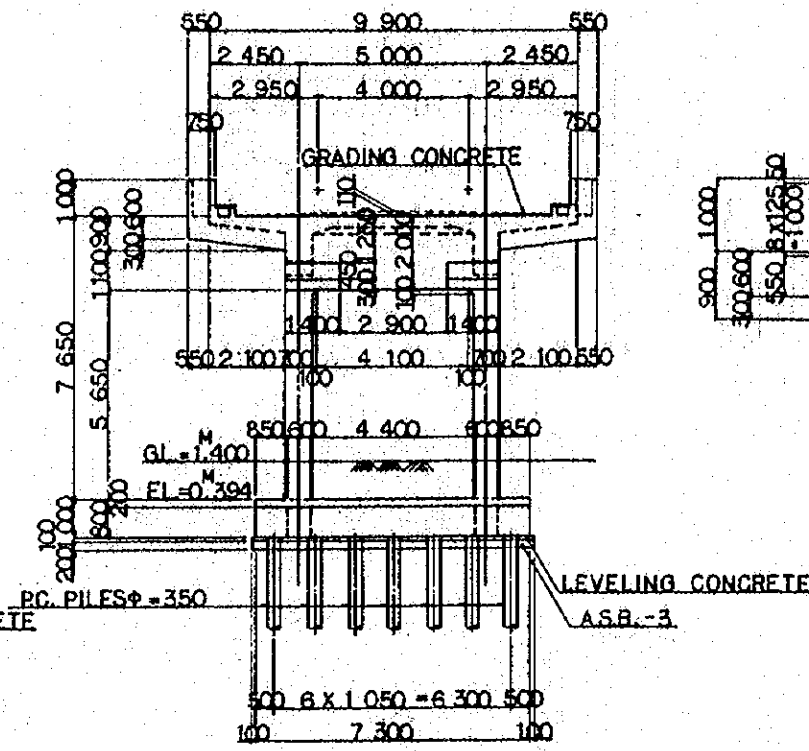
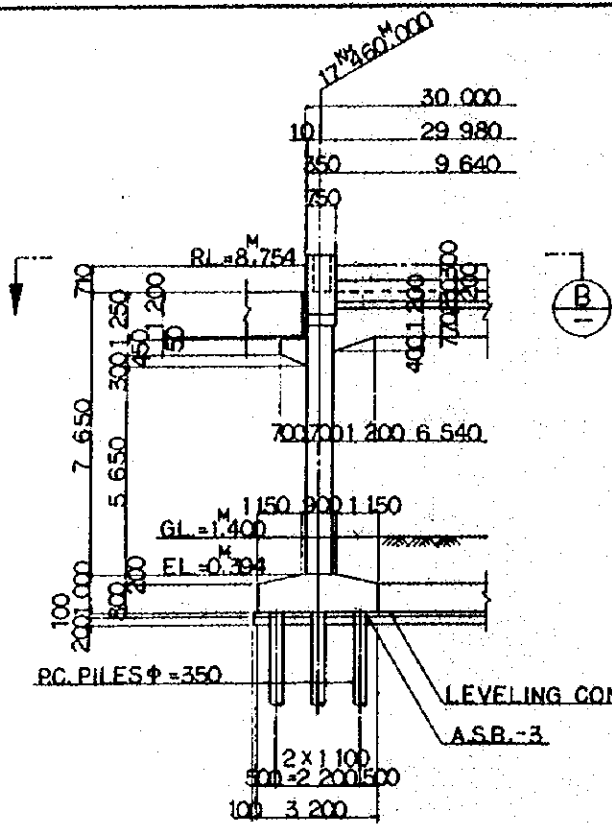
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	APPROVED	SUBMITTED
B	1 AUG 84	K.J	M.Y	K.R	K.M	K
A	12 FEB 84	K.J	M.Y	K.R	K.M	K

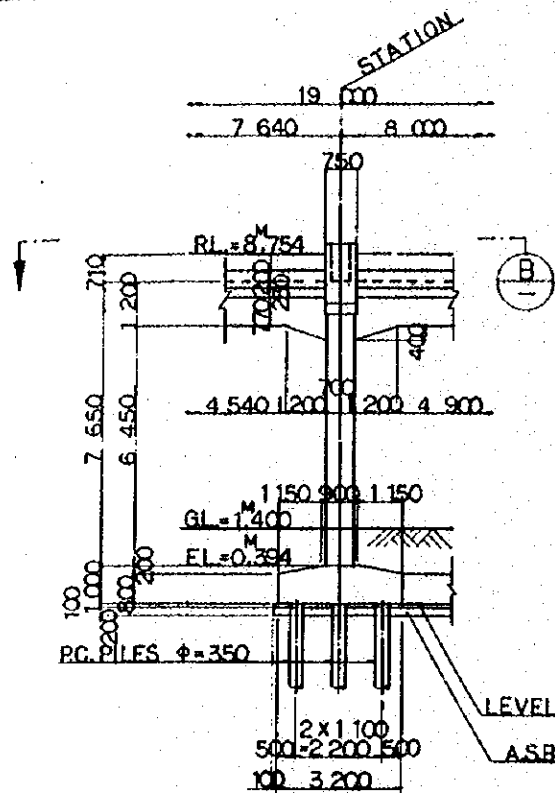
VIADUCT SLAB FOR APPARATUS CASE

PACKAGE: I CIVIL AND ARCHITECTURAL WORK  
SCALE: AS NOTED DRAWING NO: CS-222

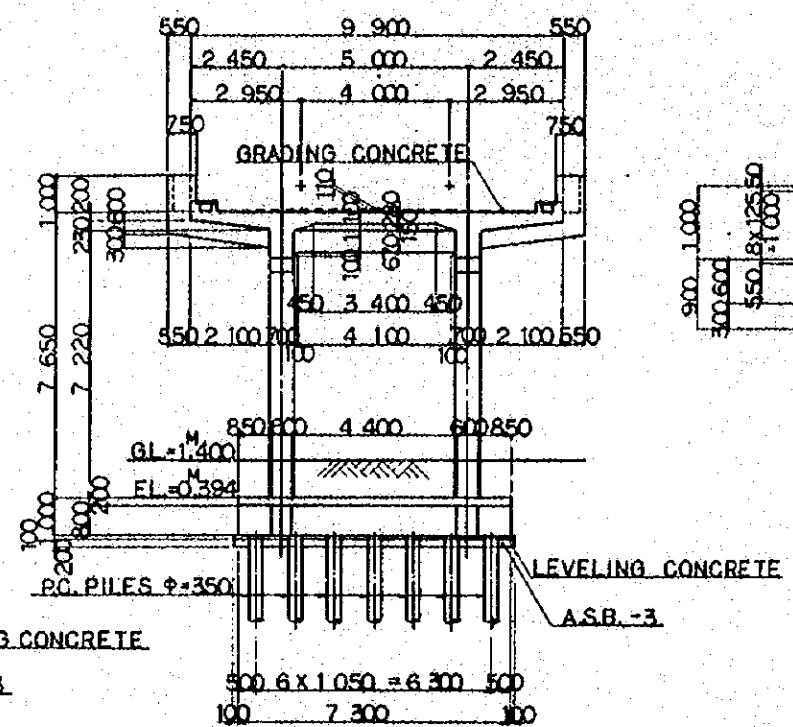


NOTES:  
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED

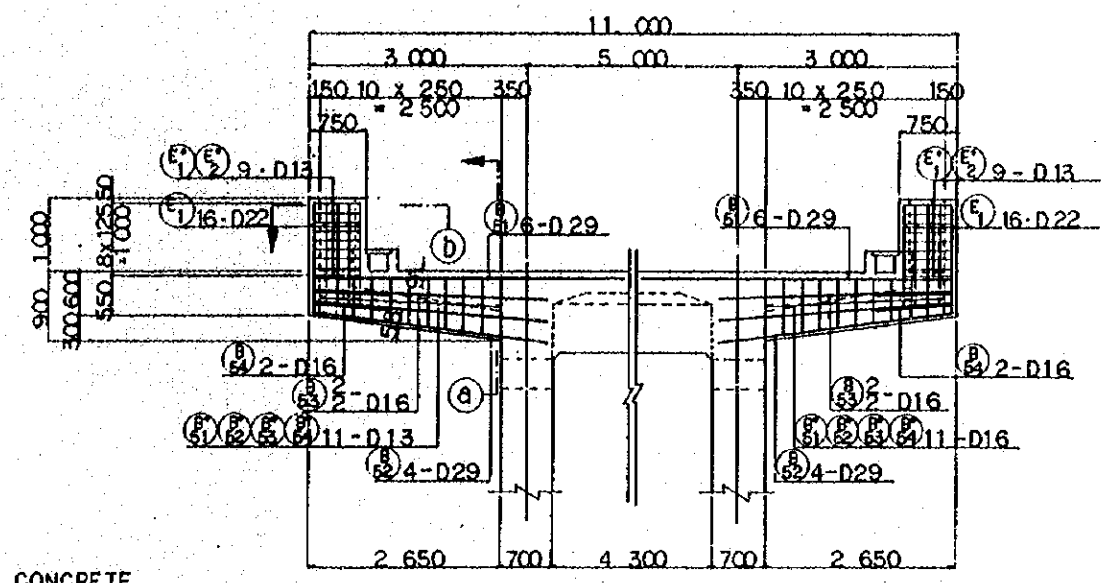
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	K.V.	M.Y.	K.B.	K.M.	M.K.
A	10 FEB '84	K.V.	M.Y.	K.B.	K.M.	M.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
SUPPORTING BEAM OF CATENARY POLE (SHEET 1 OF 2)						
PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK						
SCALE 1:50,100	DRAWING NO. CS-223					



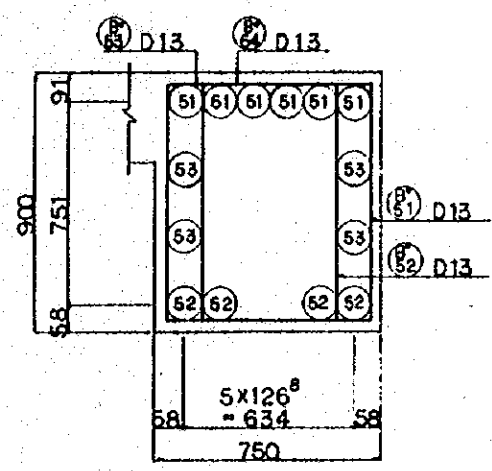
SECTION A  
SCALE 1:100



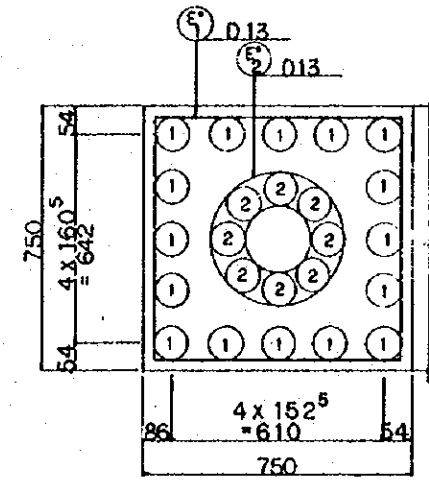
SECTION C  
SCALE 1:100



SECTION D  
SCALE 1:50

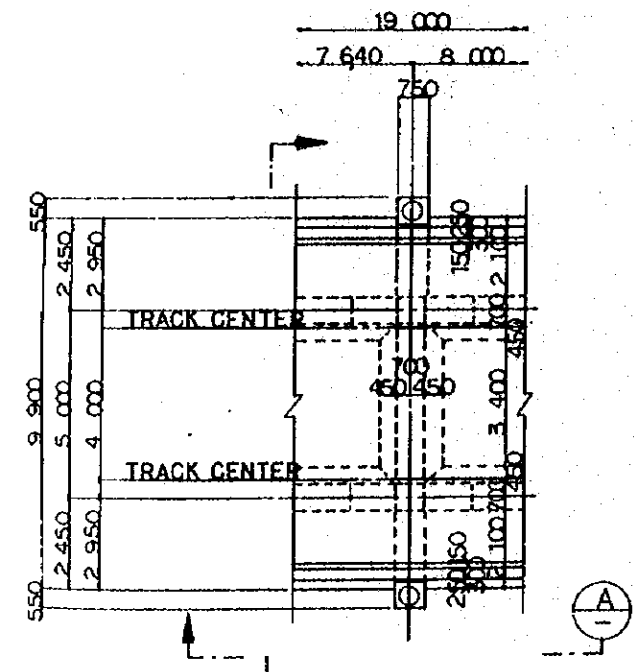


SECTION a-a



SECTION b-b

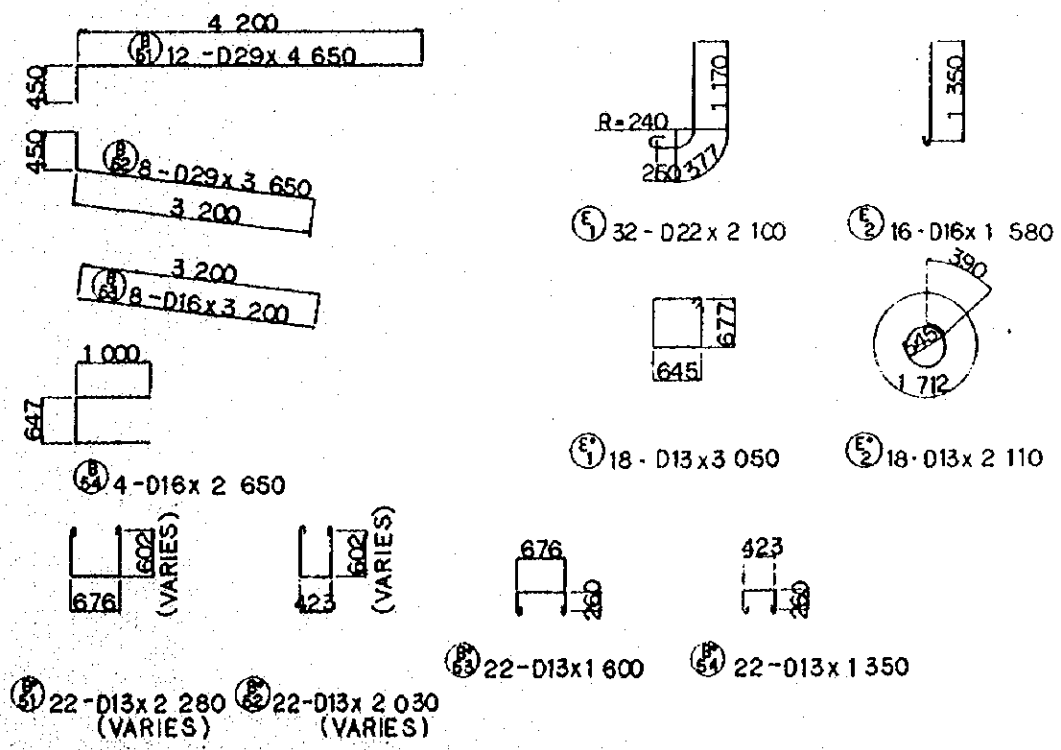
NOTES:  
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED



SECTION B  
SCALE 1:100

DIMENSION SCHEDULE

NO.	STATION
V087	17 <sup>M</sup> 196.000
V089	17 <sup>M</sup> 252.000
V096	17 <sup>M</sup> 520.000
V097	17 <sup>M</sup> 570.000



REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1AUG.84	K.V.	m.y.	K.A.	K.M.	A.K.
A	15FEB.84	K.V.	m.y.	K.A.	K.M.	A.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
SUPPORTING BEAM OF CATENARY POLE (SHEET 2 OF 2)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:50,100	CS-224					

