

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

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

PACKAGE I CIVIL AND ARCHITECTURAL WORK

PART F DRAWINGS

|| 2 of 3

AUGUST 1984

**JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)**

国際協力事業団		
納入 月日	84.11.19	L108
登録No.	10864	61.6 SDF

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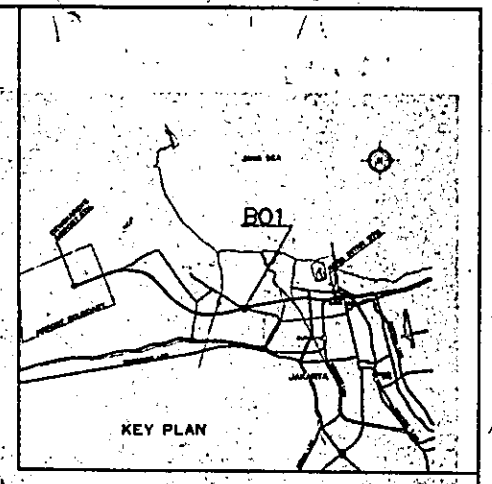
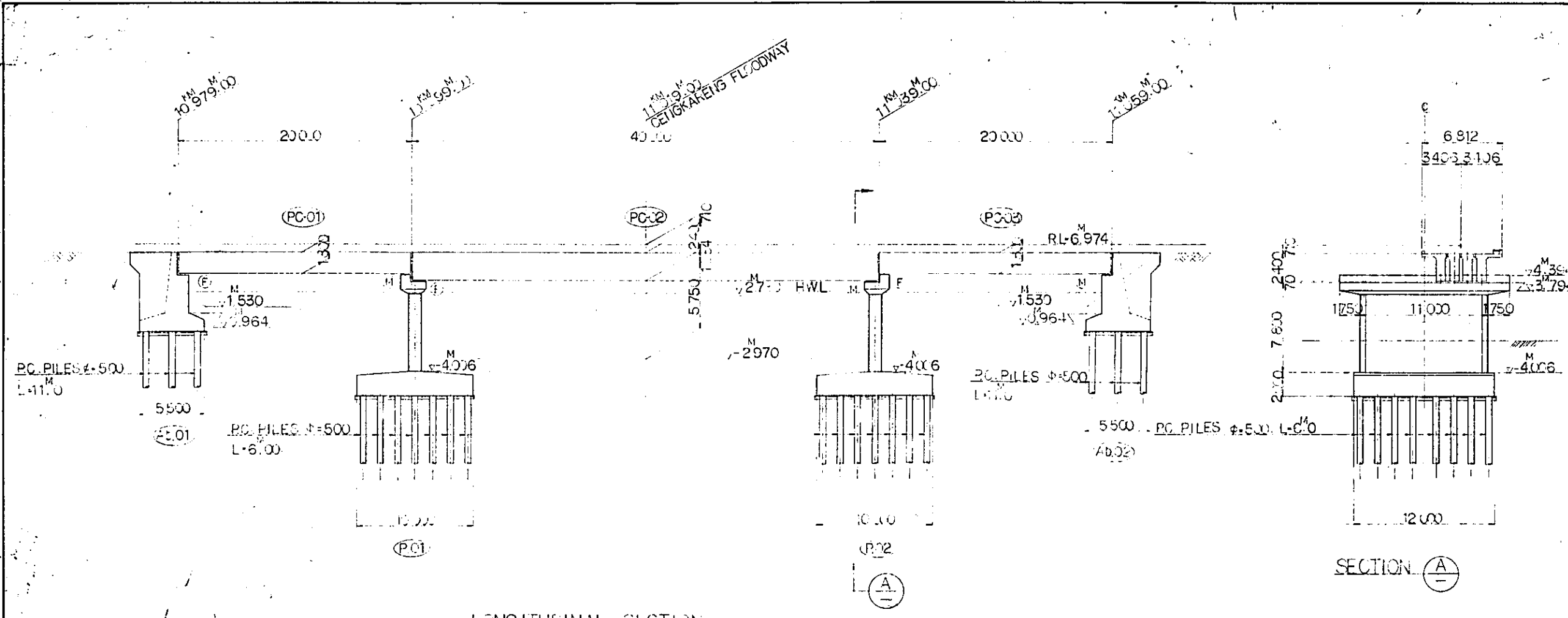
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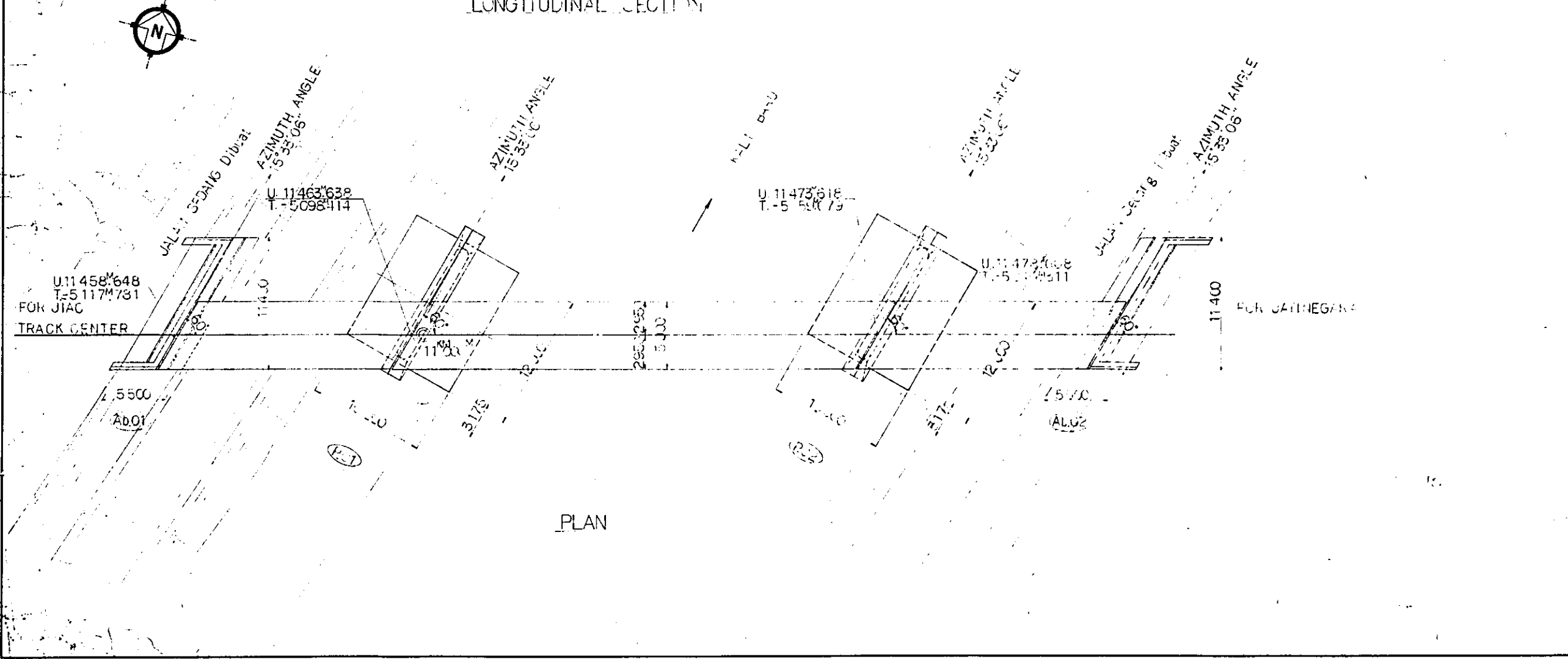
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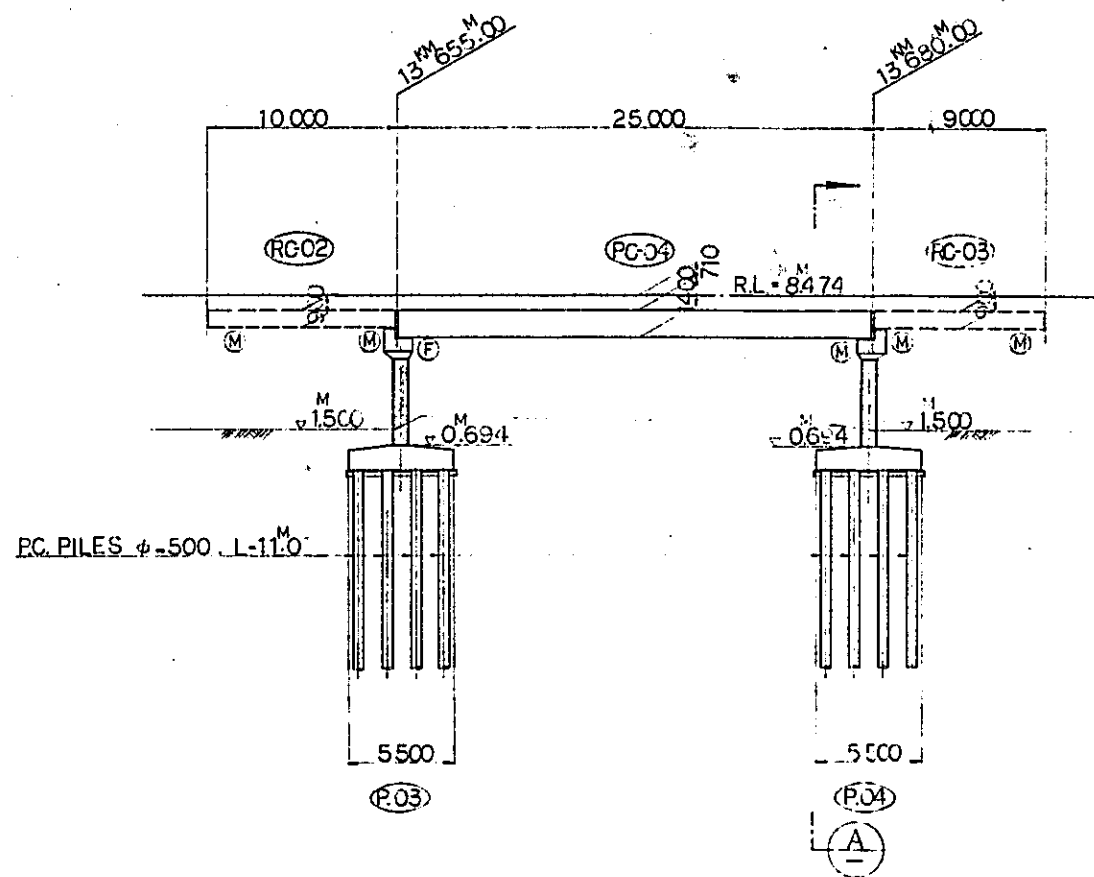
- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-021, CS-025, CS-132, CS-073.
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LONGITUDINAL SECTION

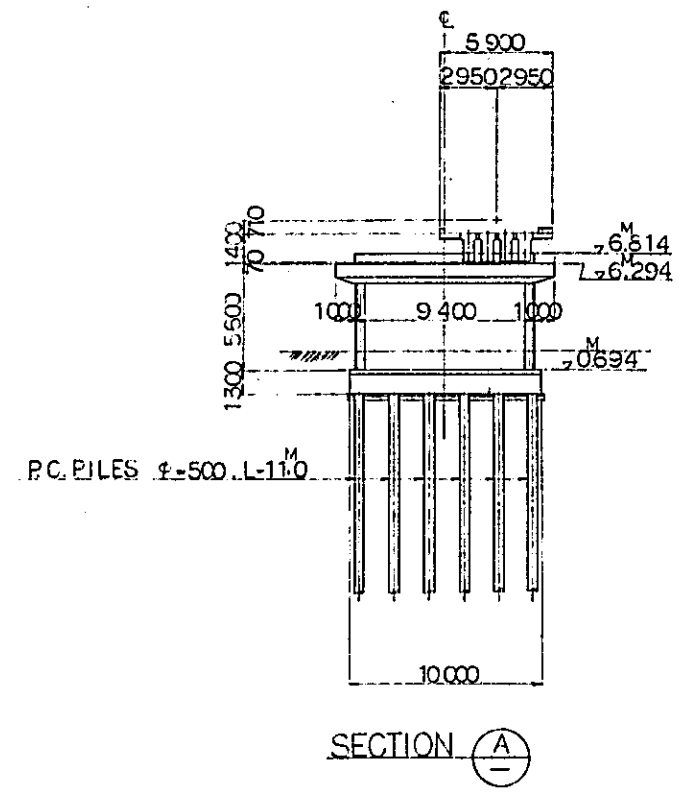


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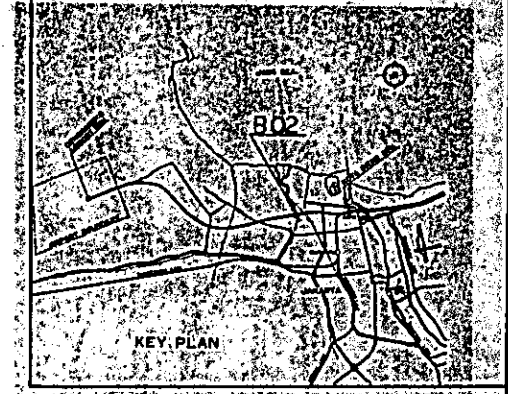
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NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG '84	M.Y.	K.A.	K.M.	M.K.
A	15 FEB '84	M.Y.	M.Y.	K.M.	M.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	SUBMITTED
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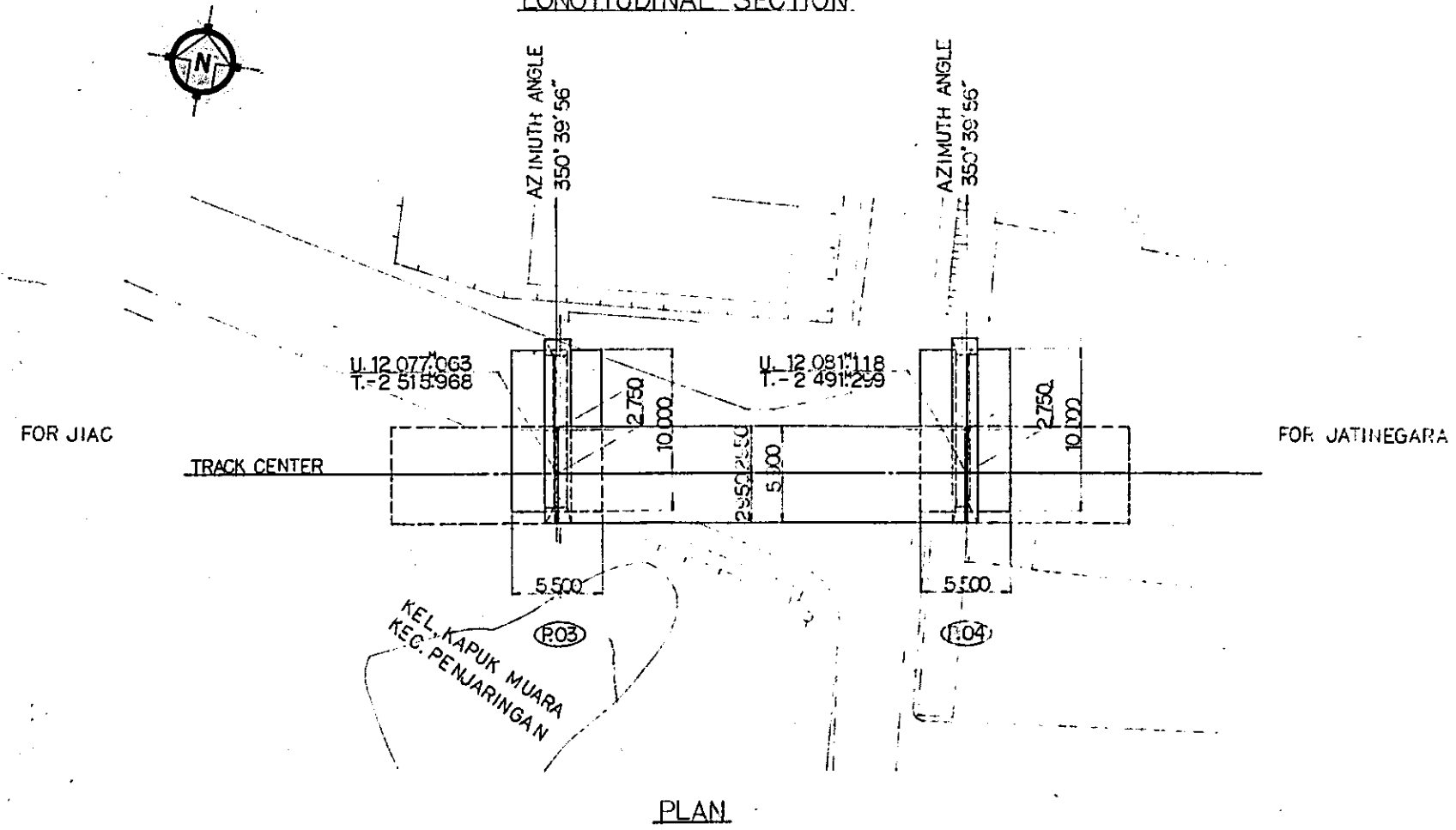
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SECTION A

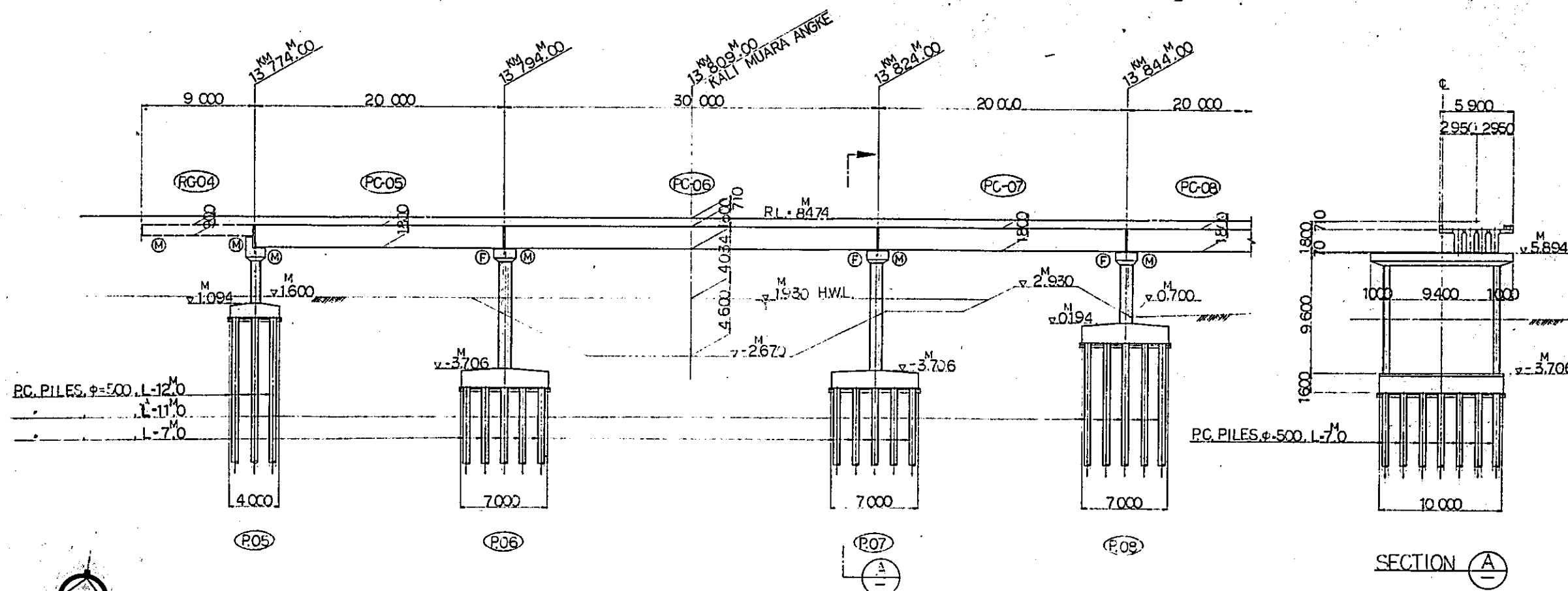


- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-185, CS-029, CS-106, CS-077.
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 - ⊗---- EXPANSION BEARING



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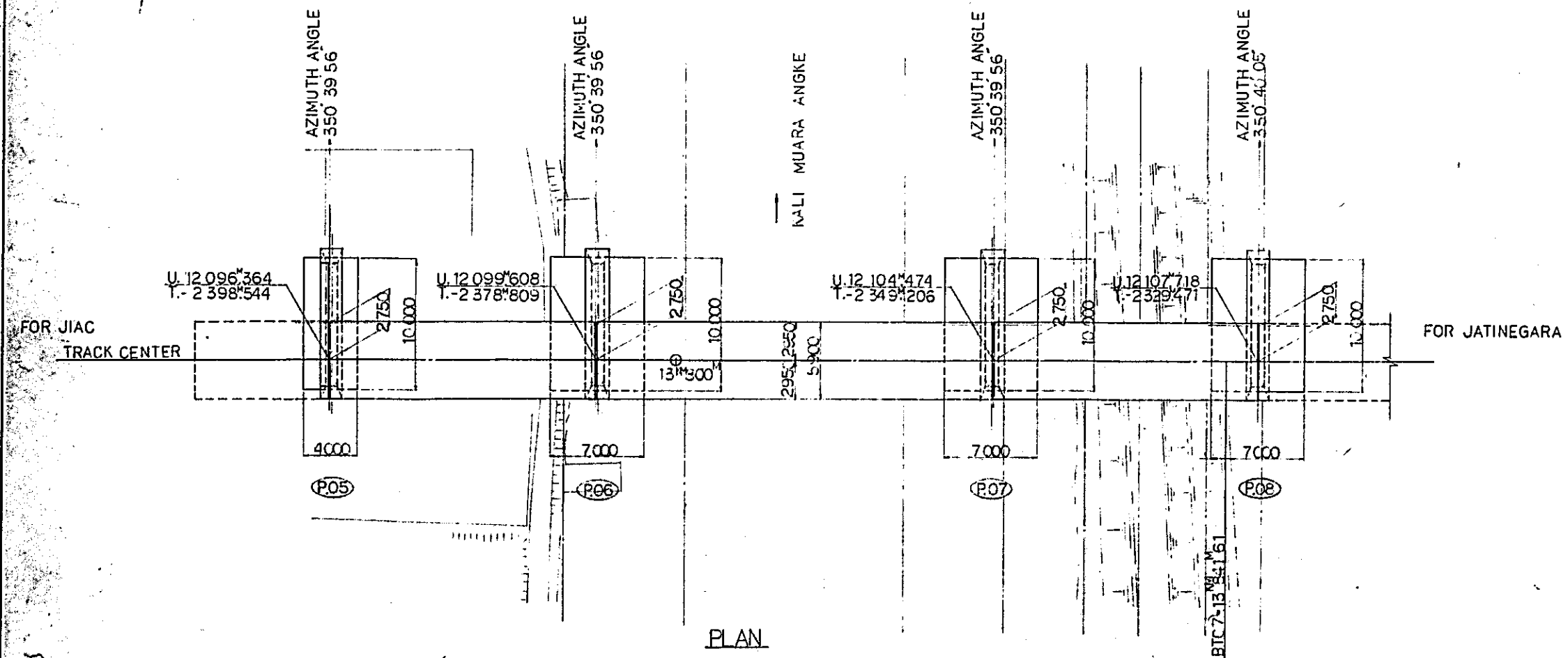
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NEW RAILWAY LINE FOR SENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG '84	M.Y.	M.Y.	K.R.	K.M.
A	15 FEB '84	M.Y.	M.Y.	K.R.	K.M.
REVISIONS	DATE	DESIGNED	CHECKED	APPROVED	SUBMITTED
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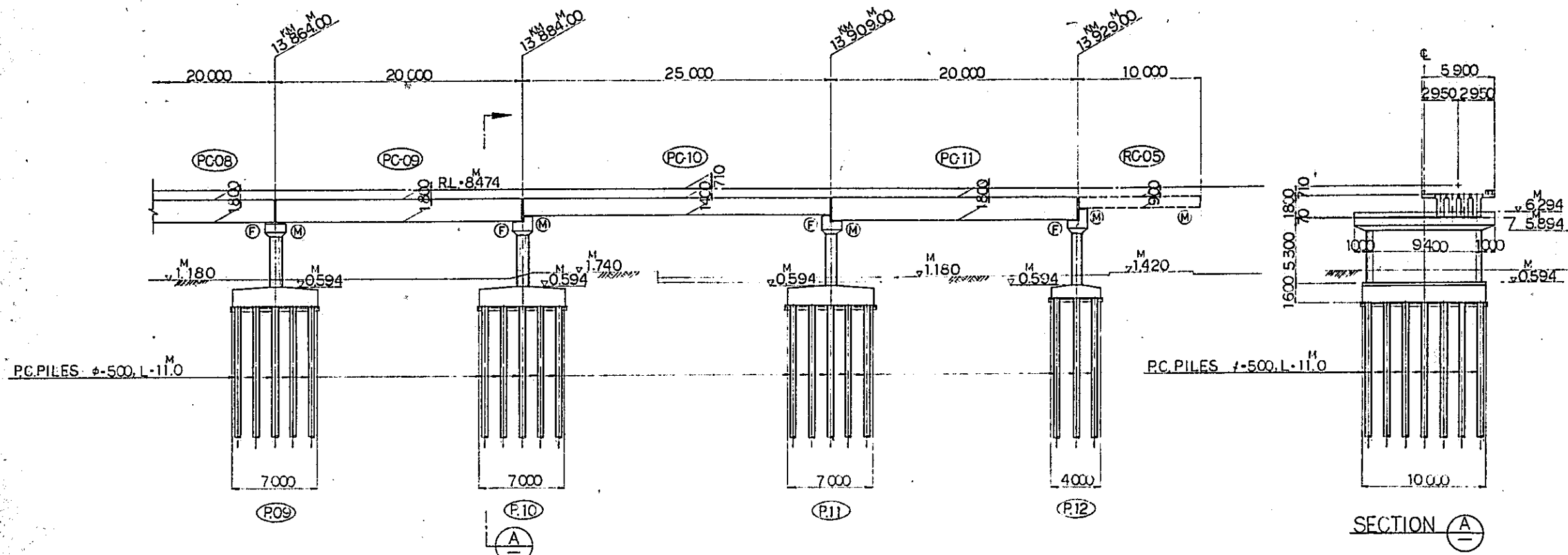


- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-185, CS-033, CS-034, CS-078, CS-079, CS-083.
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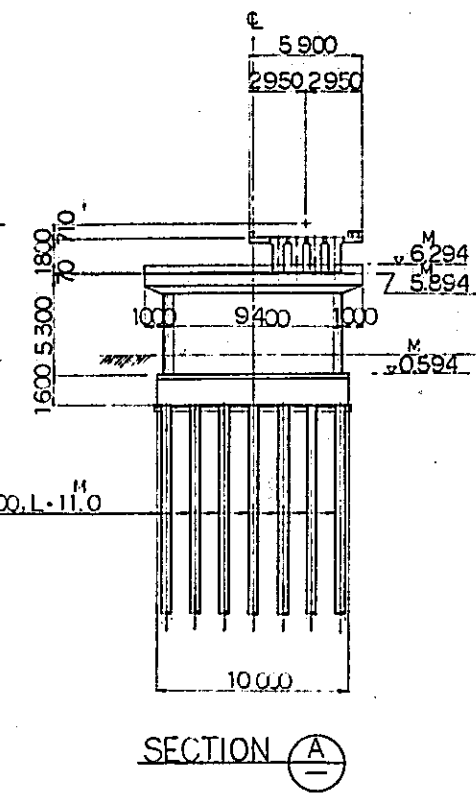


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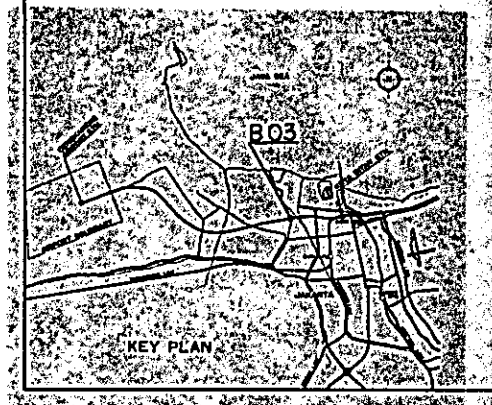
REPUBLIC OF INDONESIA	
MINISTRY OF COMMUNICATIONS	
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS	
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT	
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	
B	1 AUG. 84
A	15 FEB. 84
REVISIONS	DATE
BRIDGE B03 GENERAL VIEW (SHEET 1 OF 2)	
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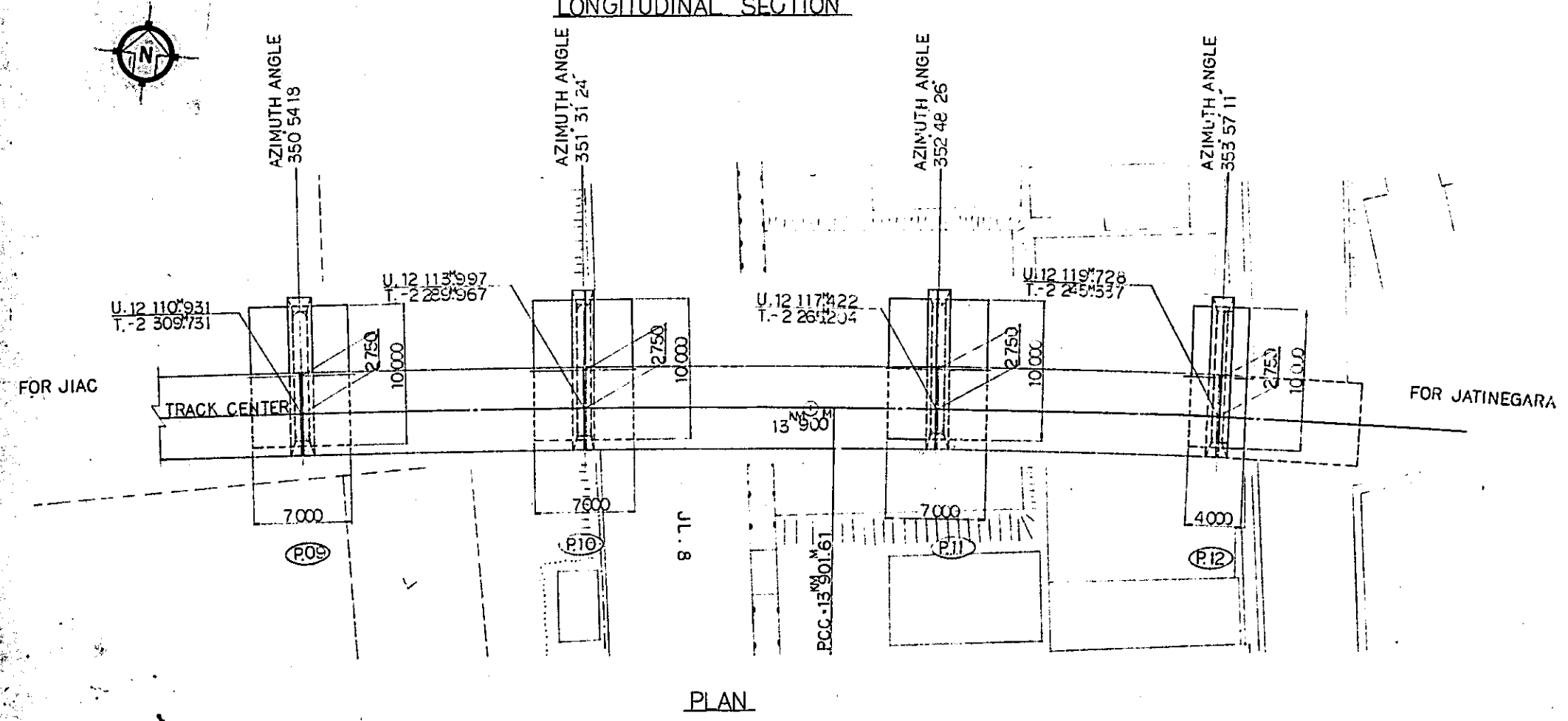
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SECTION A

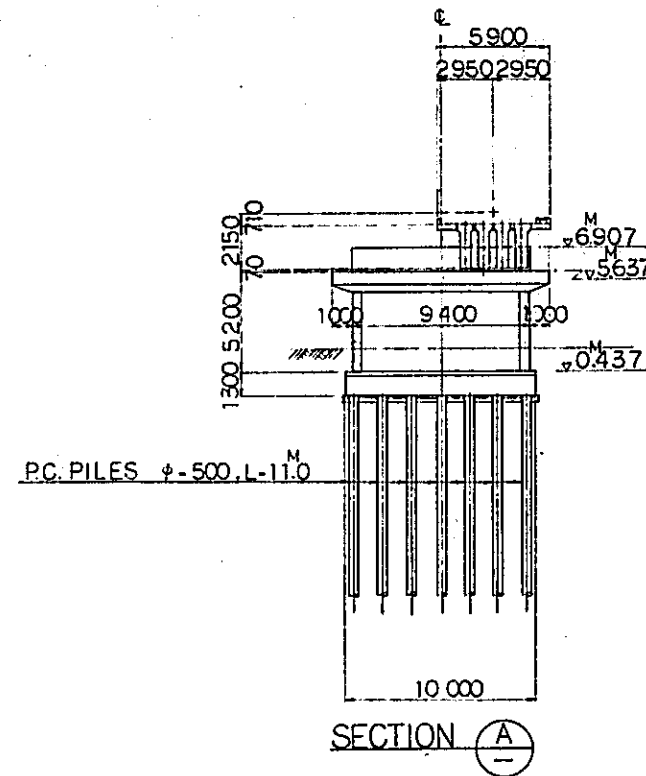
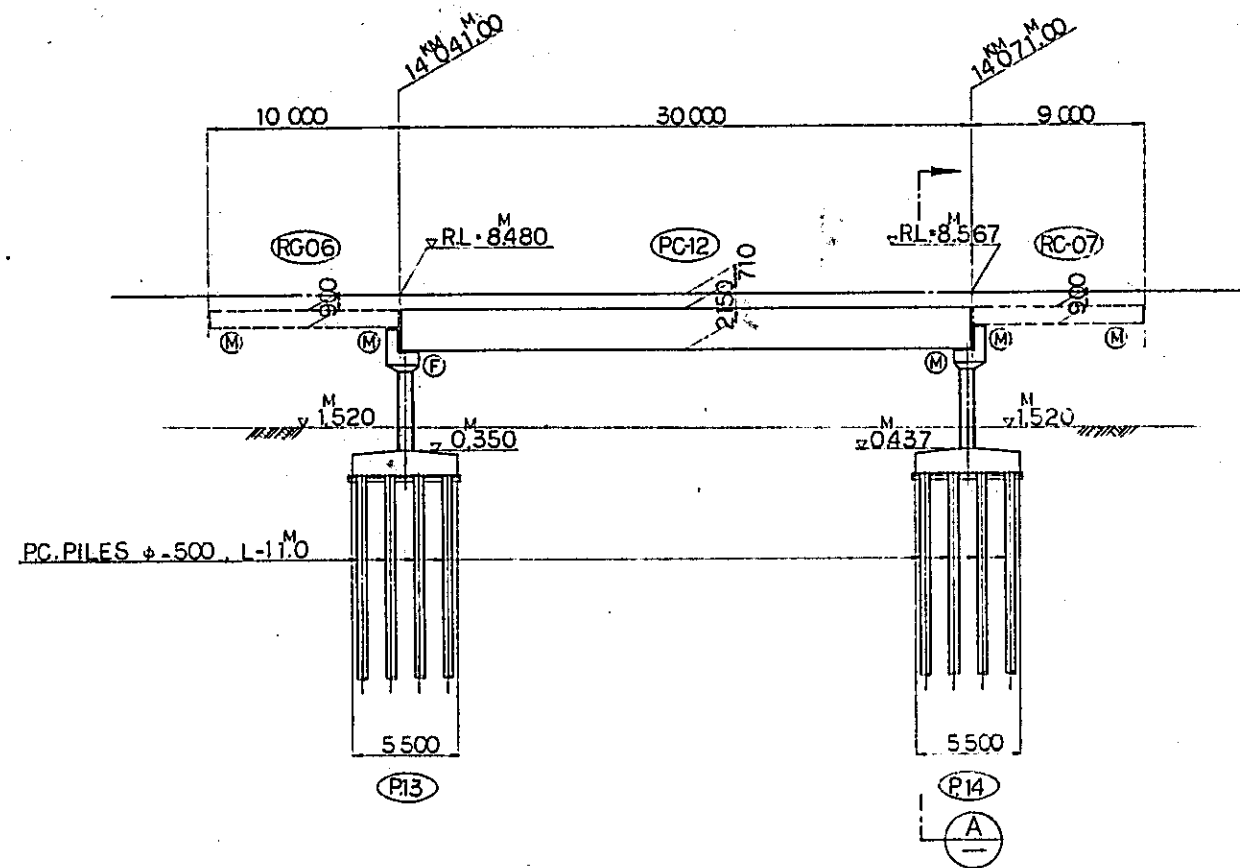


- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
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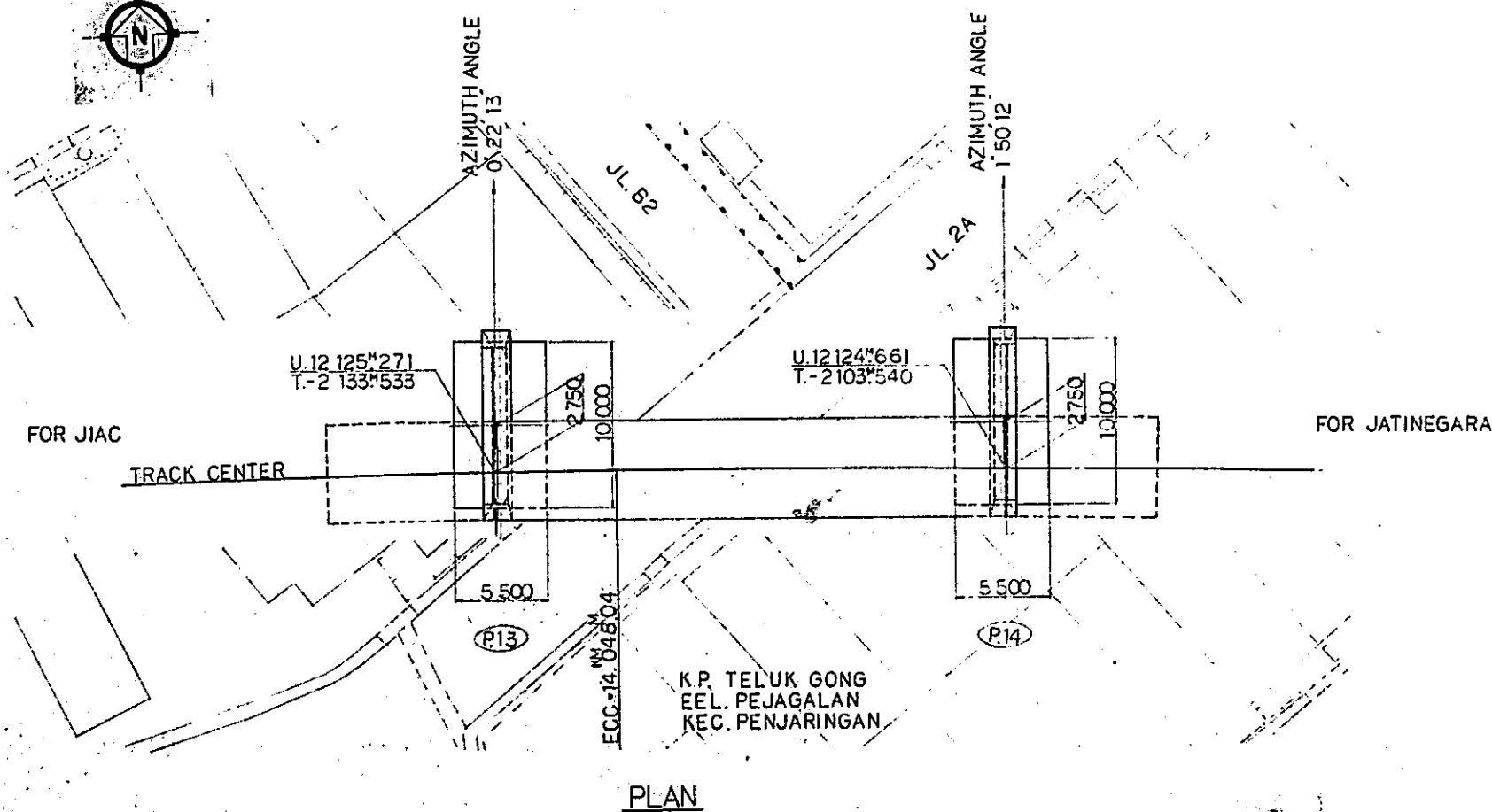
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REPUBLIC OF INDONESIA					
MINISTRY OF COMMUNICATIONS					
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
REV.	DATE	BY	CHECKED	REVISION	REVISION
B	1 AUG 84	M. Y. K. A. K. M. K. S.			
A	15 FEB 84	M. Y. K. A. K. M. K. S.			
BRIDGE B03					
GENERAL VIEW					
(SHEET 2 OF 2)					
I: CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:200	CS-004				

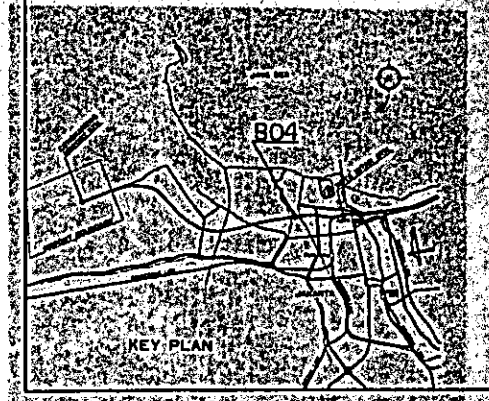


LONGITUDINAL SECTION

SECTION A



PLAN



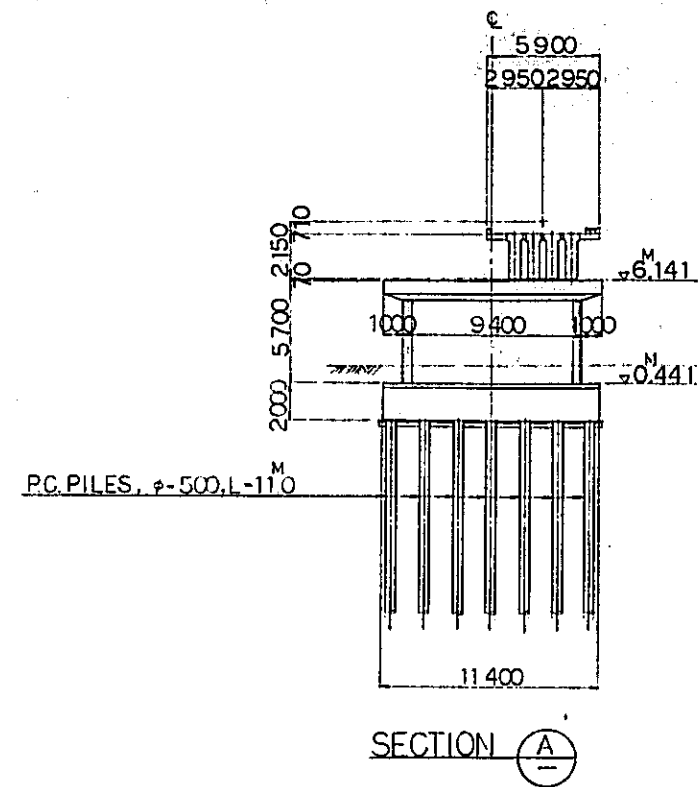
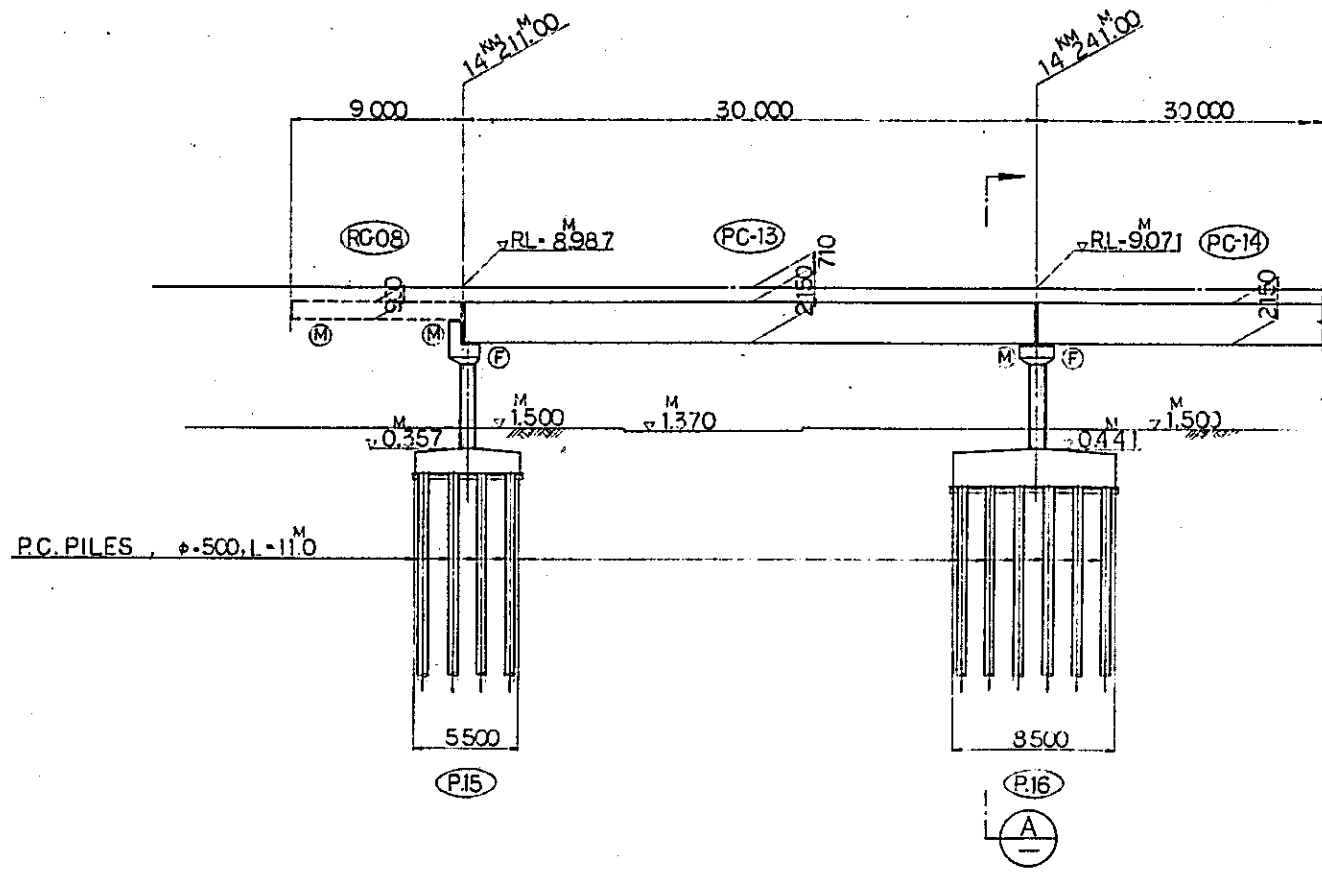
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1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
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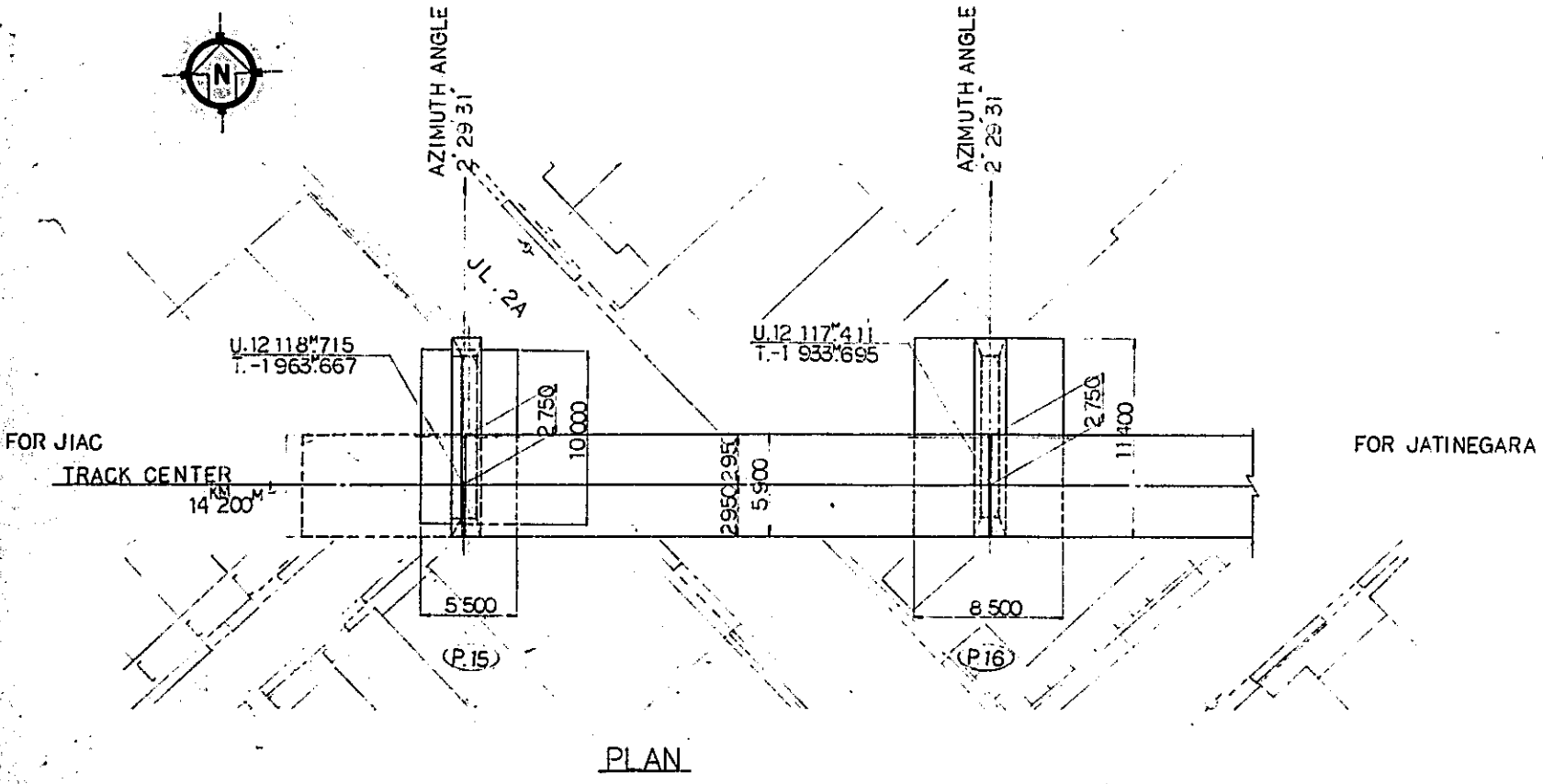
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- ⊕-----FIXED BEARING
- ⊙-----EXPANSION BEARING

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	RY	m.y.	K.A.	K.M. S.K.S.
A	15 FEB 84	RY	m.y.	K.A.	K.M. S.K.S.
REVISIONS	DATE				
BRIDGE B04 GENERAL VIEW					
PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:200	DRAWING NO: CS-005				



LONGITUDINAL SECTION



PLAN



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-185, CS038, CS089, CS-090

3. CODE:
- (F)-----FIXED BEARING
 - (M)-----EXPANSION BEARING

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

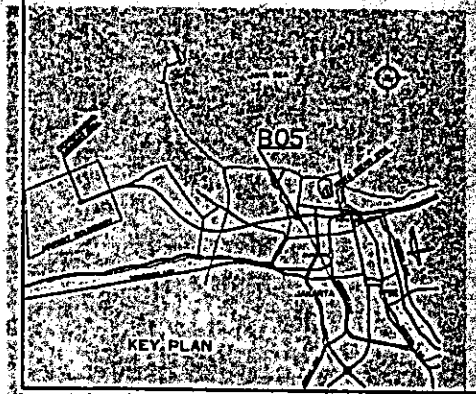
NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

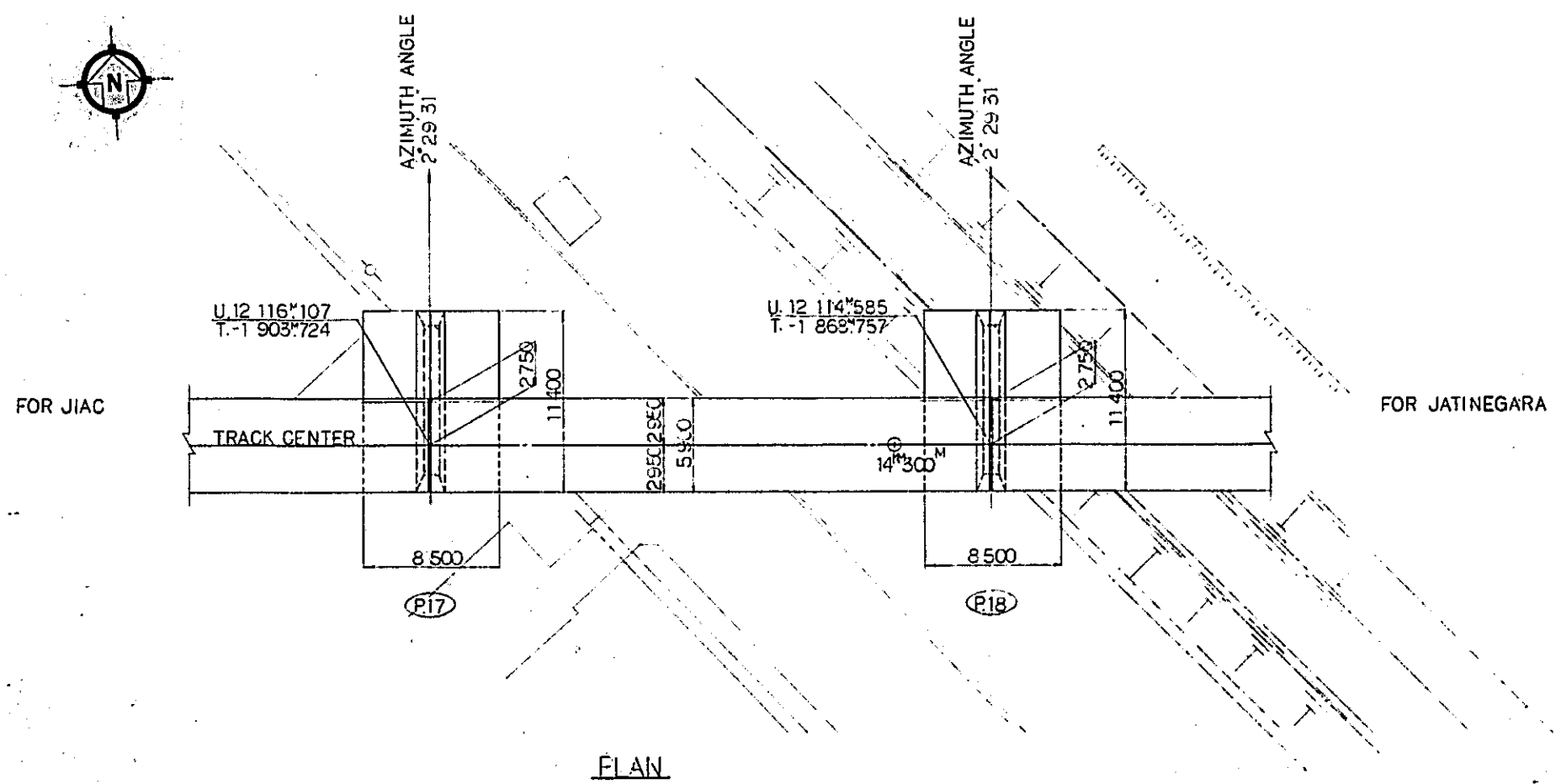
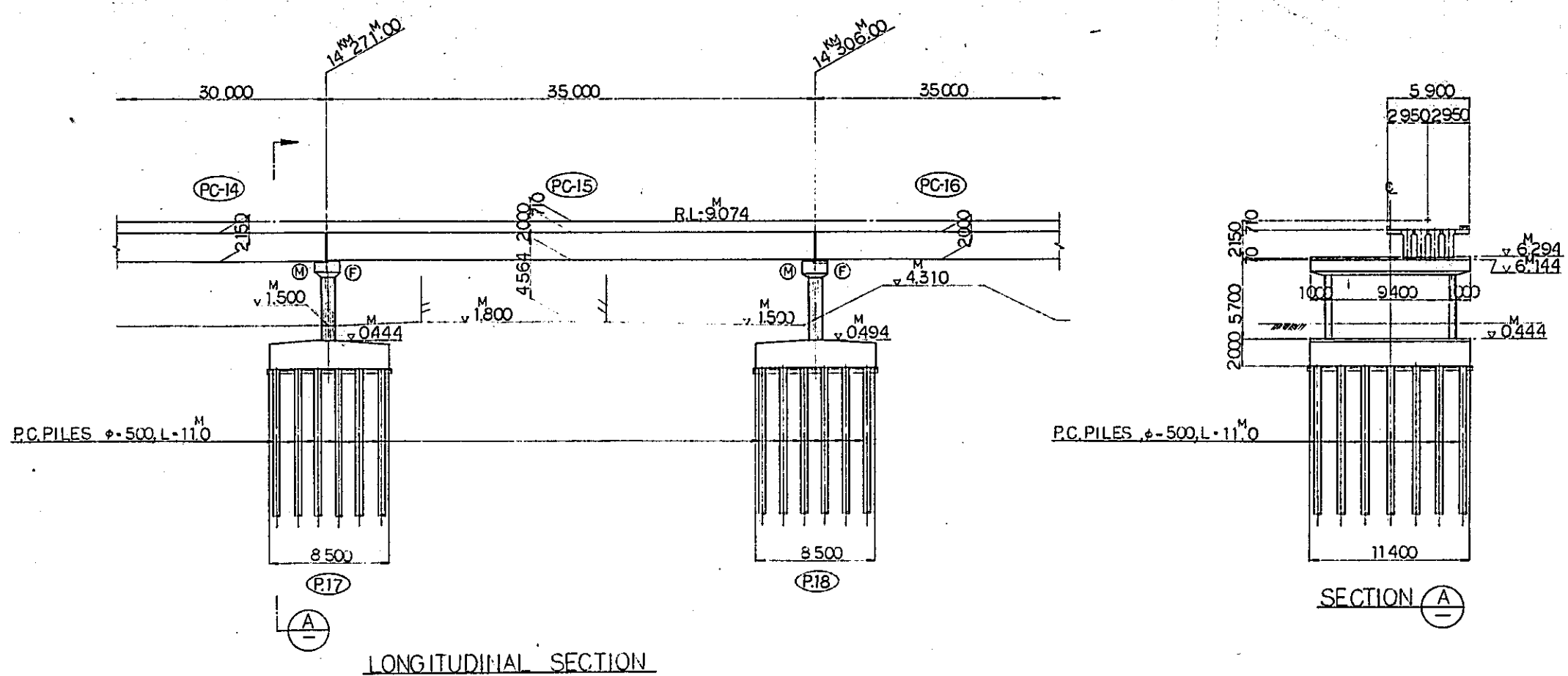
B	1 AUG. 84	M.Y.	M.Y.	K.A.	K.M.	K.S.
A	16 FEB. 84	M.Y.	M.Y.	K.A.	K.M.	K.S.
REVISIONS	DATE					

BRIDGE B05
 GENERAL VIEW
 (SHEET 1 OF 3)

PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK
 SCALE: 1:200
 DRAWING NO.: CS-006



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS038.CS039.CS091. CS092
 3. CODE:
 - ⊕----FIXED BEARING
 - ⊙----EXPANSION BEARING



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

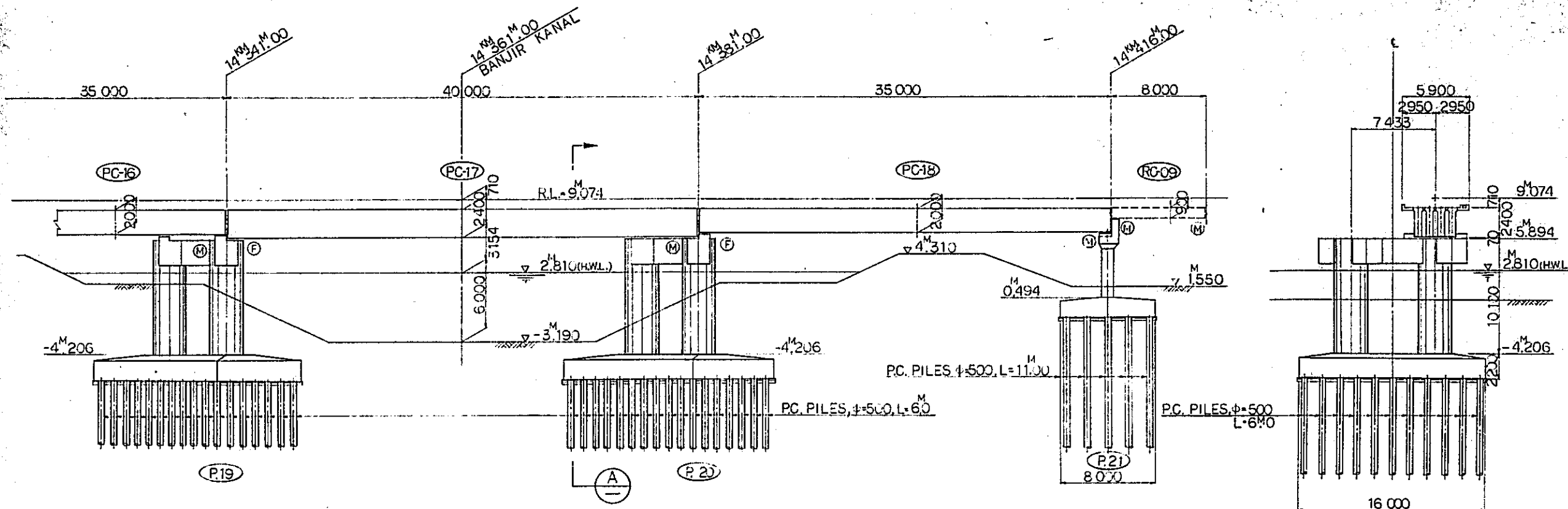
NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

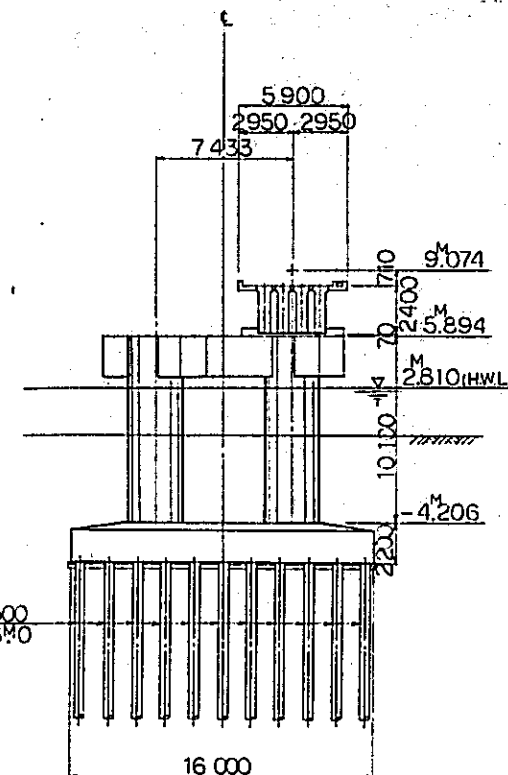
REVISIONS	DATE	BY	CHKD	APPD
B	1 AUG 84	[Signature]	[Signature]	[Signature]
A	15 FEB 84	[Signature]	[Signature]	[Signature]

BRIDGE B05
 GENERAL VIEW
 (SHEET 2 OF 3)

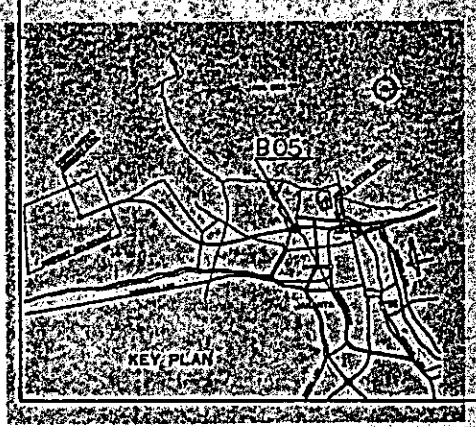
PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: 1:200 DRAWING NO: CS-007



LONGITUDINAL SECTION

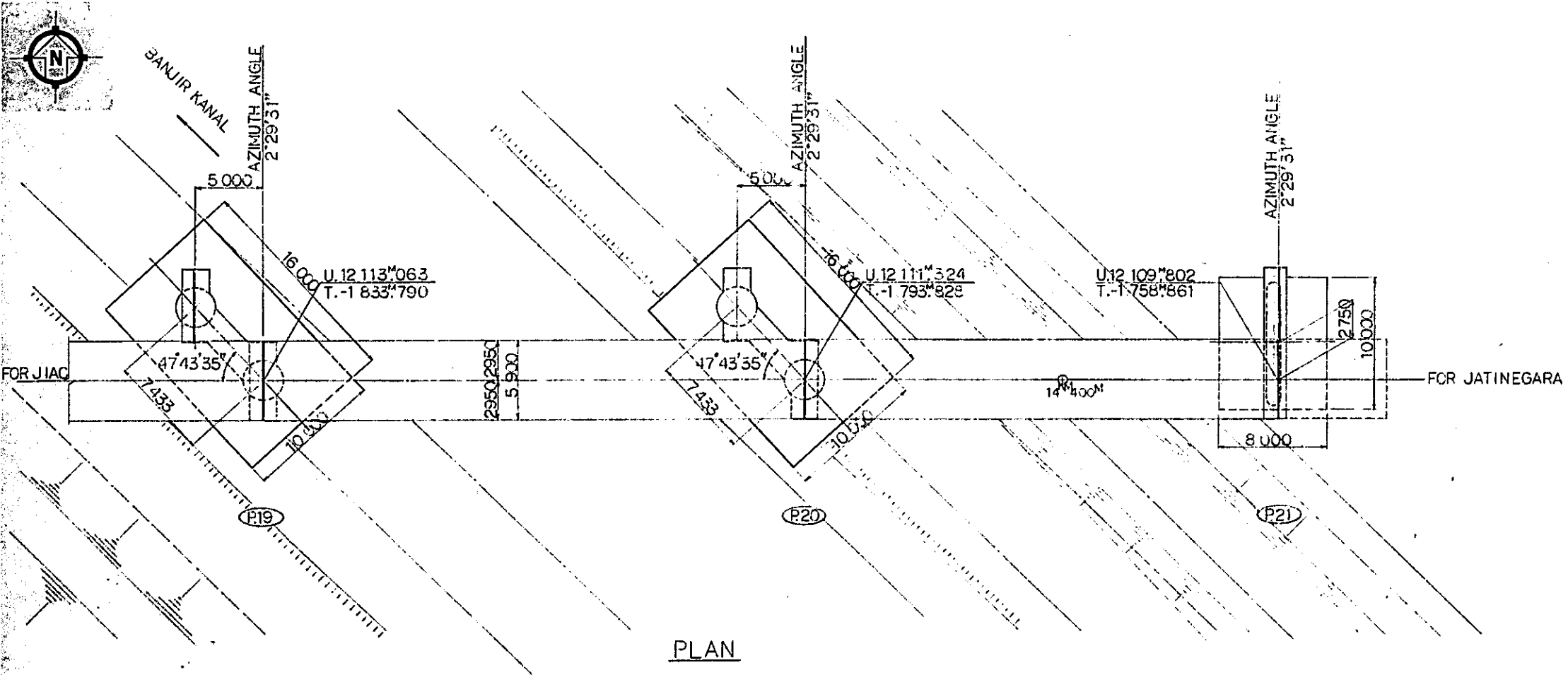


SECTION A



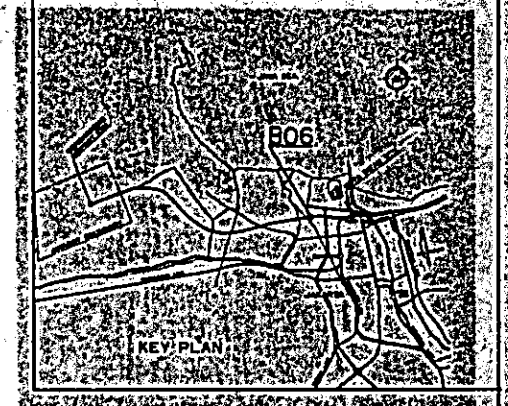
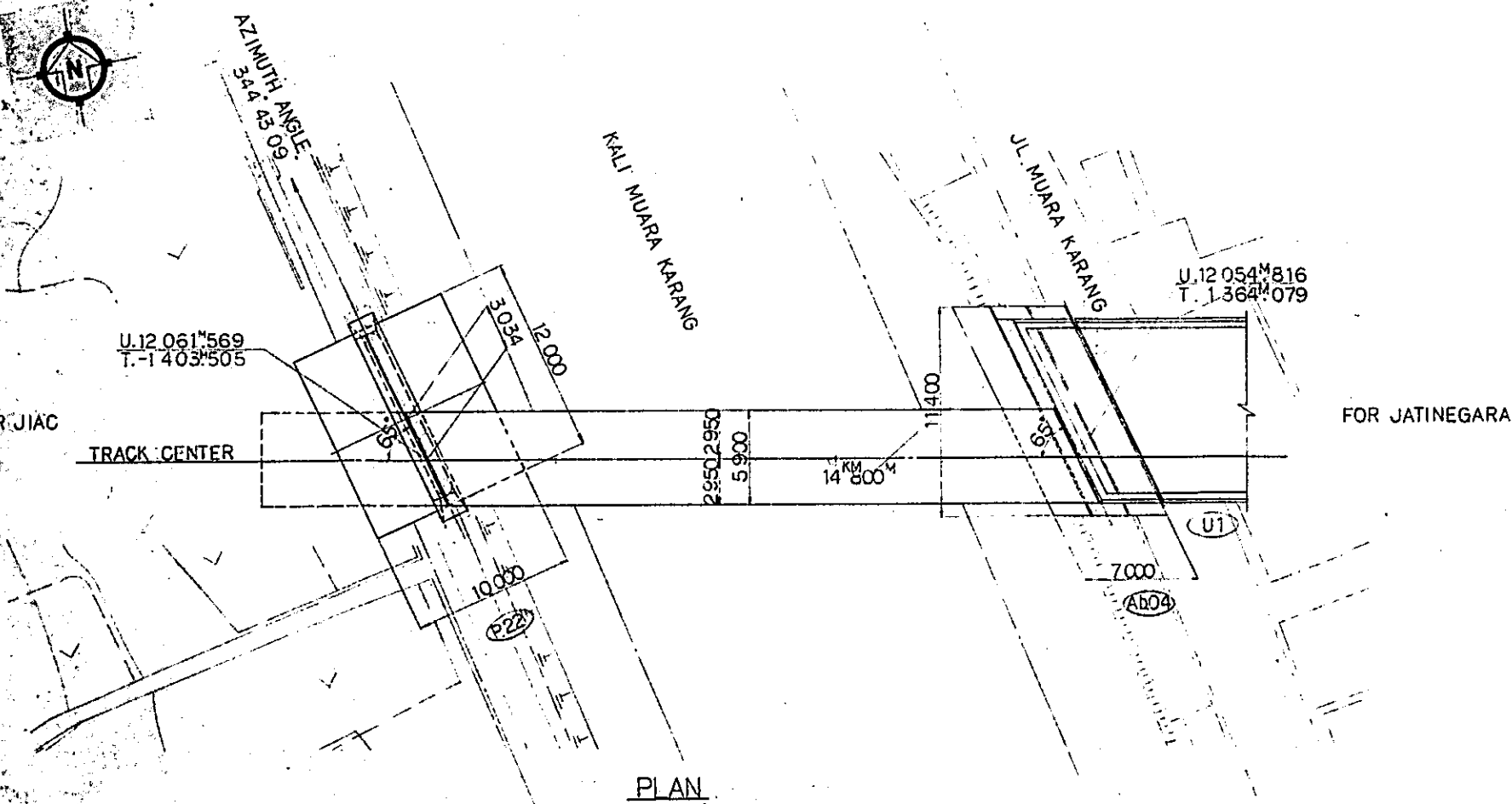
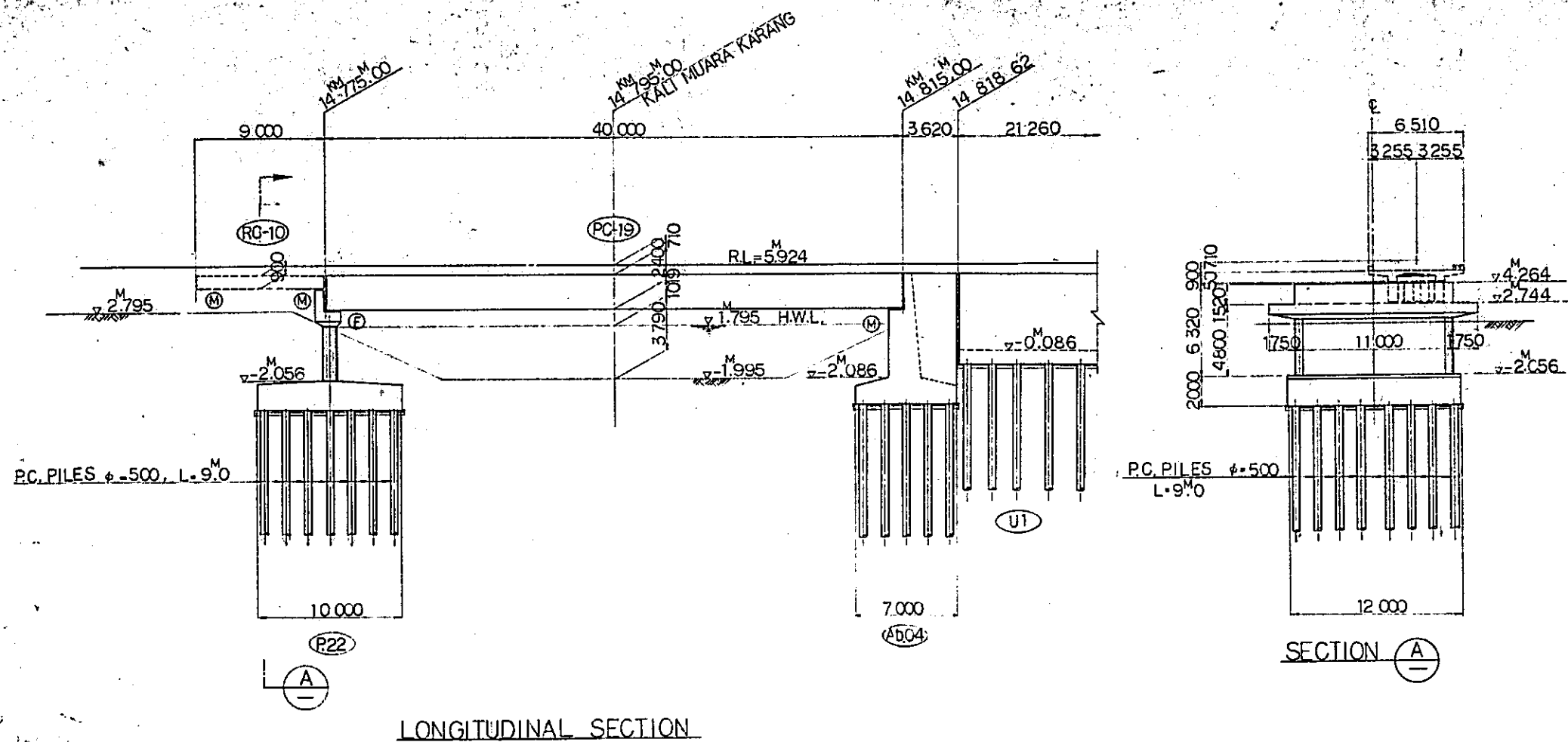
- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-039, CS-043, CS-185, CS-093, CS-094, CS-096

3. CODE :
- Ⓔ --- FIXED BEARING
 - Ⓜ --- EXPANSION BEARING



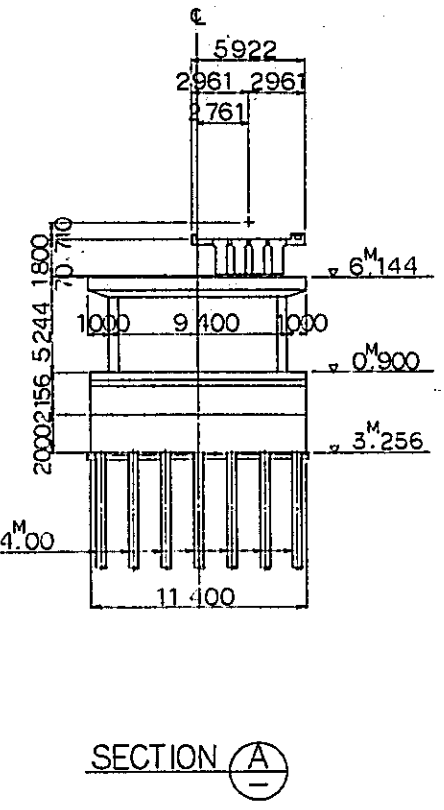
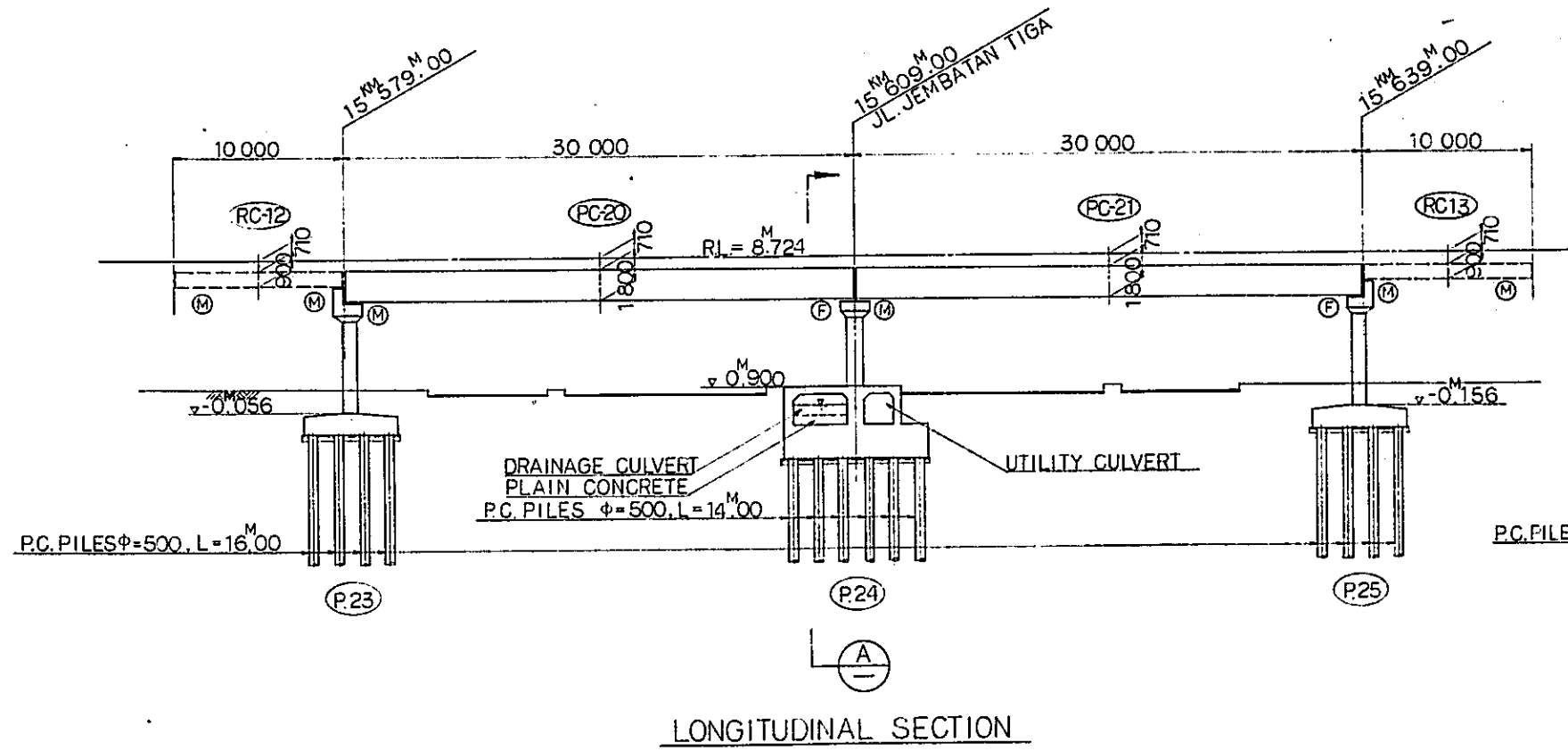
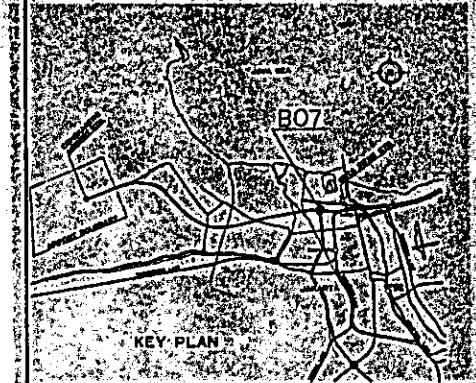
PLAN

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)	
A	1 AUG. 84
REVISIONS	DATE
BRIDGE B05 GENERAL VIEW (SHEET 3 OF 3)	
PACKAGE: I CIVIL AND ARCHITECTURAL WORK	
SCALE: 1:200	DRAWING NO: CS-008

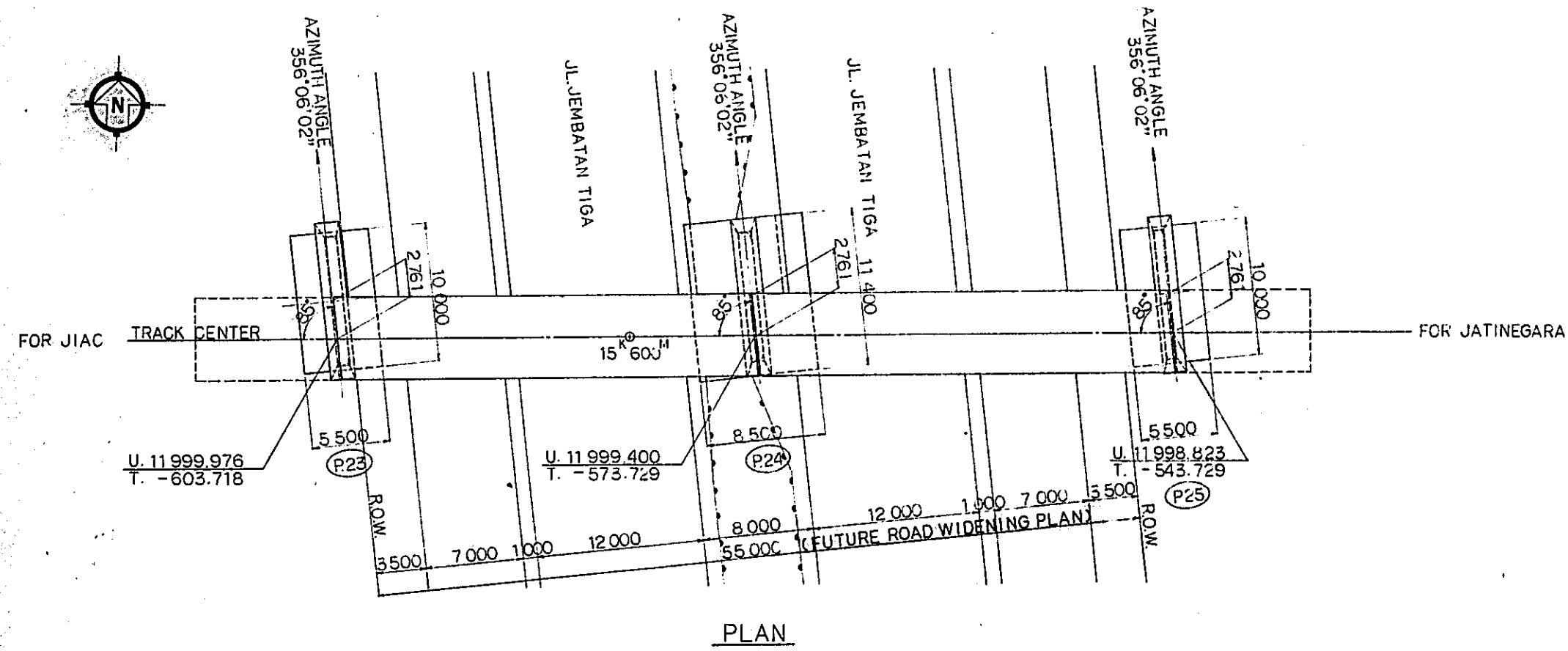


- NOTES:**
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 - REFERENCE DRAWING FOR GENERAL VIEW: CS-185, CS-025, CS-097, CS-137, CS-145.
 - CODE :
 - ⊕ --- FIXED BEARING
 - ⊙ --- EXPANSION BEARING

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)	
B1	1 AUG. 84 M.Y. m.y. k.d. KM JK
A	15 FEB. 84 M.Y. m.y. k.d. KM JK
REVISIONS	DATE
BRIDGE B06	
GENERAL VIEW	
PACKAGE: CIVIL AND ARCHITECTURAL WORK	
SCALE: 1:200	DRAWING NO.: CS-009



- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED.
 - REFERENCE DRAWING FOR GENERAL VIEW: CS-185, CS-034, CS-98, CS-099
 - DESIGN OF DRAINAGE/UTILITY CULVERT AS SHOWN ARE SUBJECT TO MODIFICATION IN CONNECTION WITH ROAD WIDENING PLAN.
 - CODE :
 - ⊕----- FIXED BEARING
 - Ⓜ----- EXPANSION BEARING



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

NEW RAILWAY LINE FOR CENKARENG AIRPORT
 CONSTRUCTION PROJECT

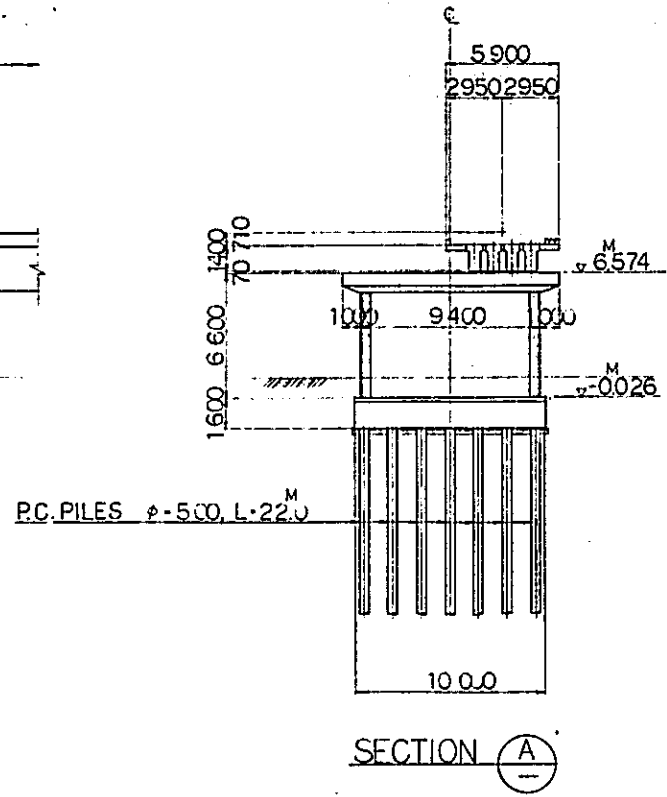
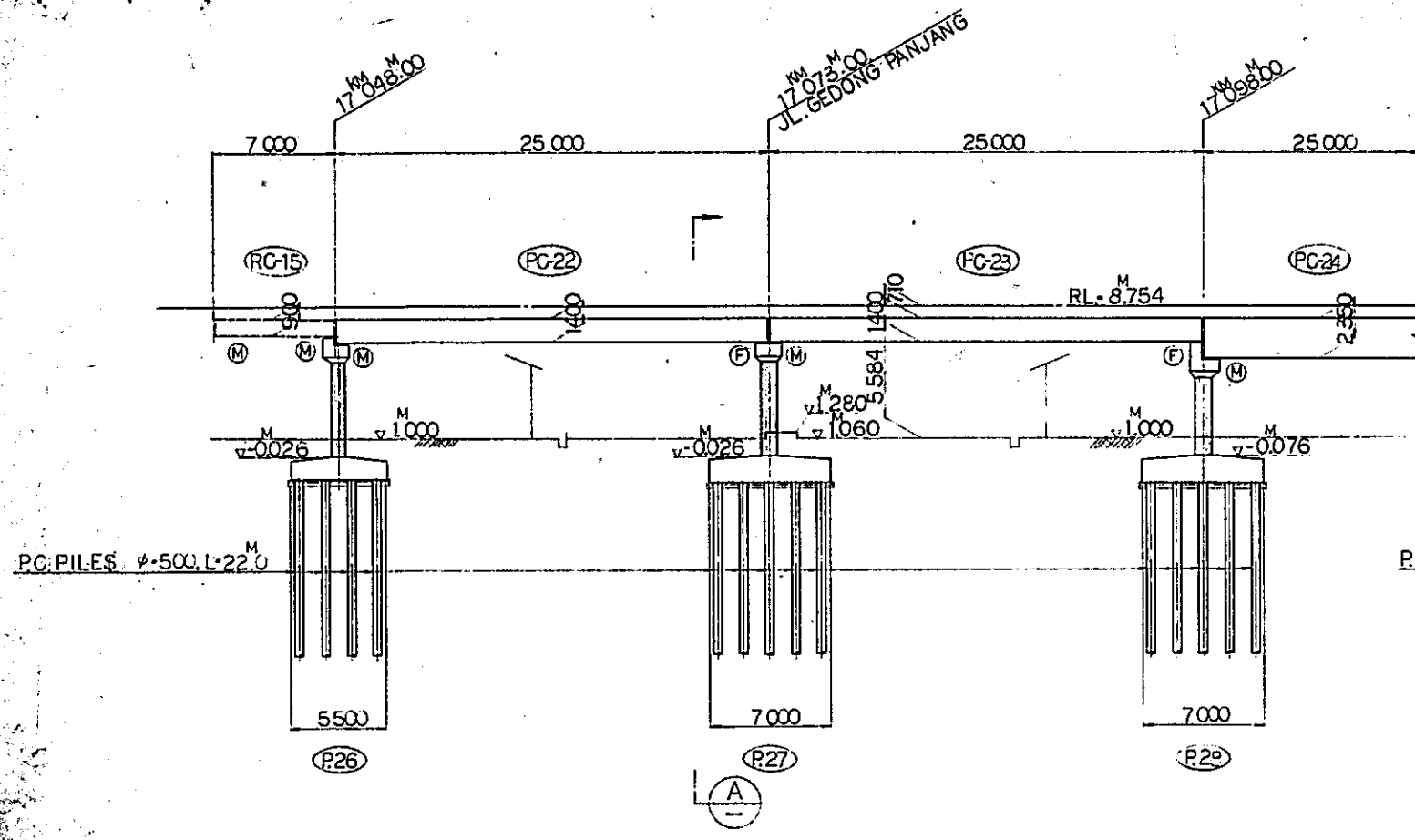
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

REVISIONS	DATE	BY	CHK	APP

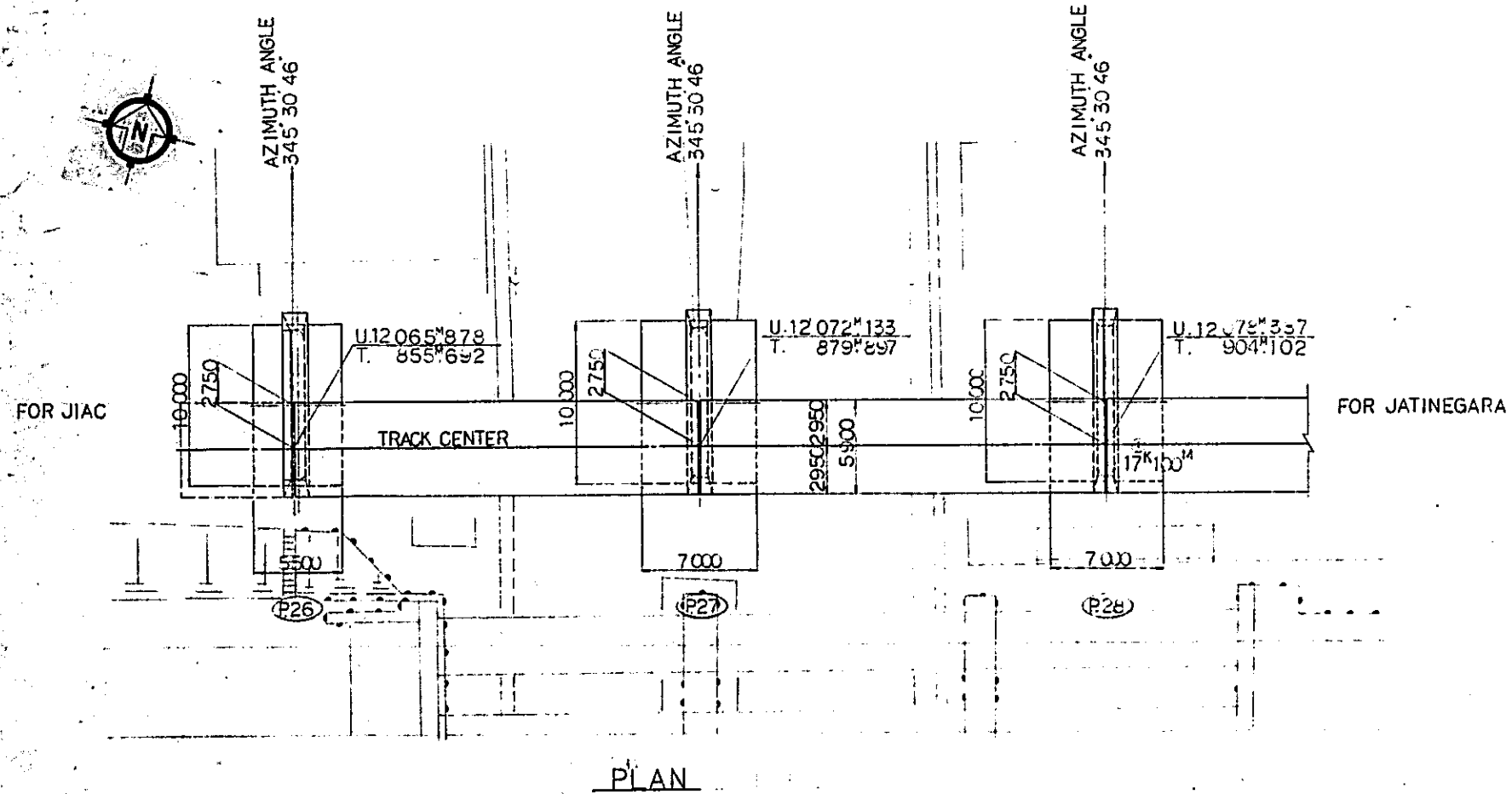
BRIDGE B07
 GENERAL VIEW

PACKAGE: I. CIVIL AND ARCHITECTURAL WORK

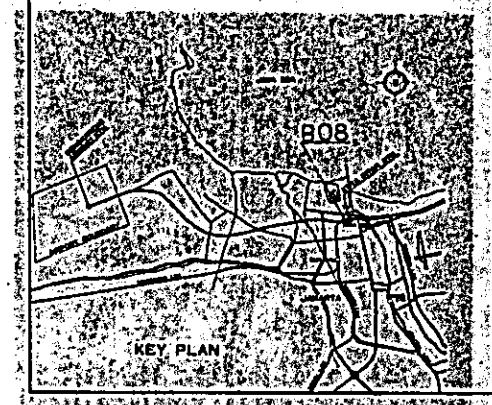
SCALE: 1:200 DRAWING NO: CS-010



LONGITUDINAL SECTION



PLAN



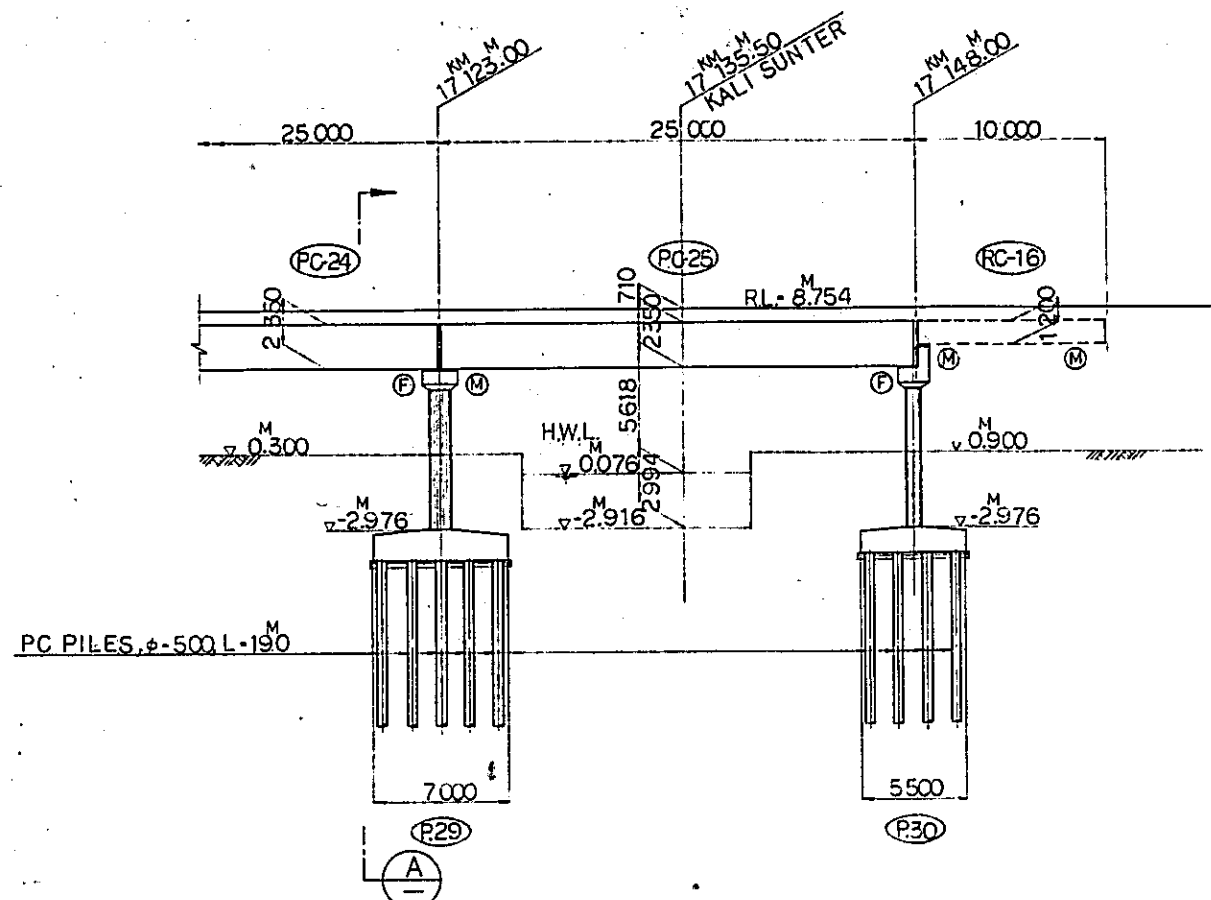
NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW: CS-185, CS-029, CS-044, CS-02, CS-103.

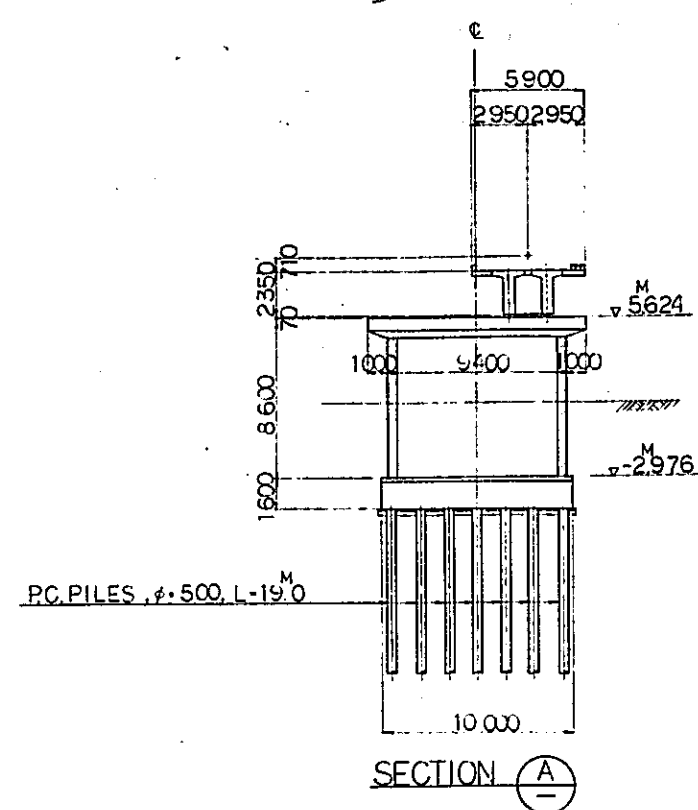
3. CODE:

- ⊕ --- FIXED BEARING
- ⊙ --- EXPANSION BEARING

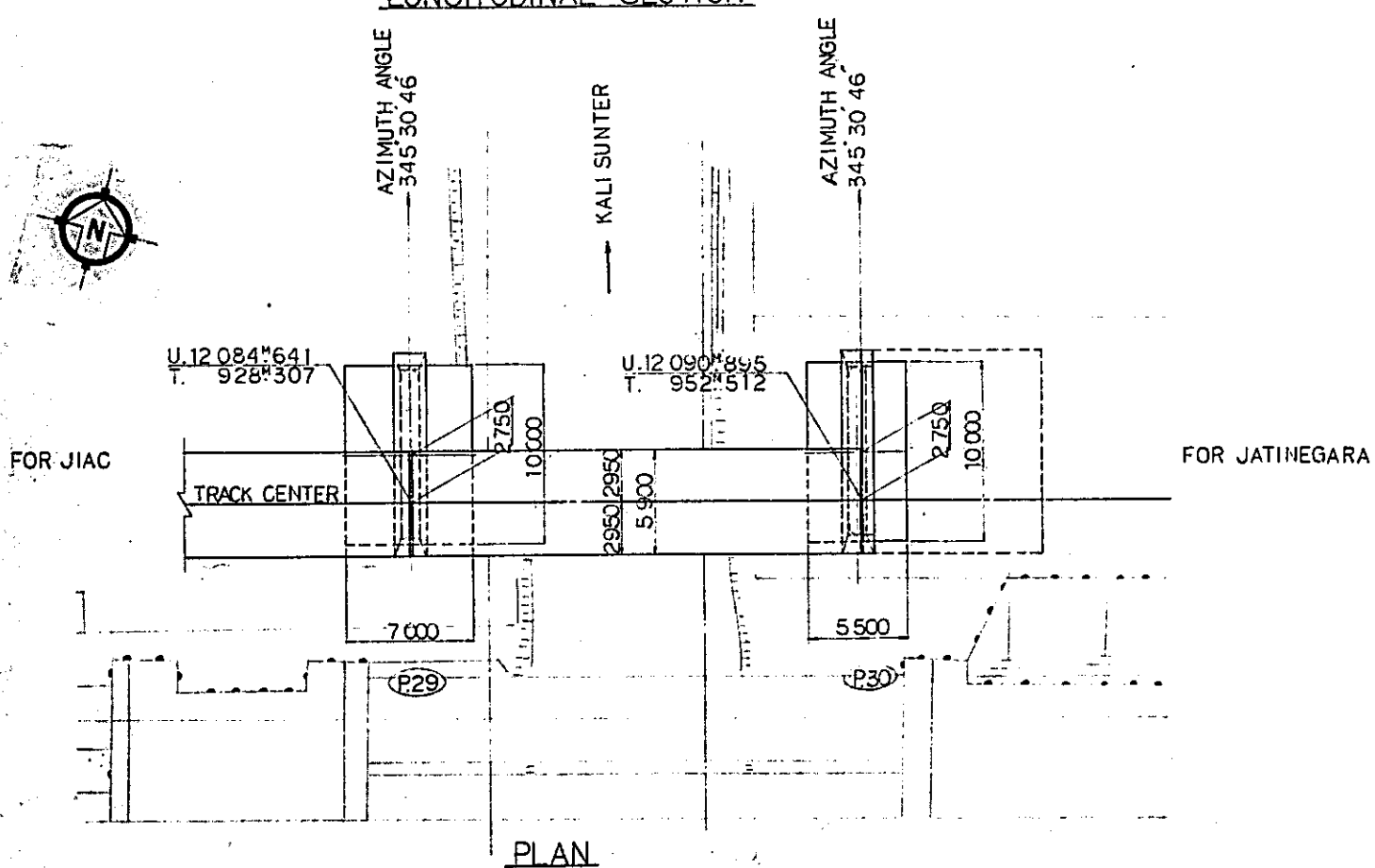
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND, TRANSPORT AND INLAND WATERWAYS	
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT	
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	
B	1 AUG. '84
A	15 FEB. '84
REVISIONS	DATE
BRIDGE 808 GENERAL VIEW (SHEET 1 OF 2)	
PACKAGE: CIVIL AND ARCHITECTURAL WORK	
SCALE: 1:200	DRAWING NO: CS-011



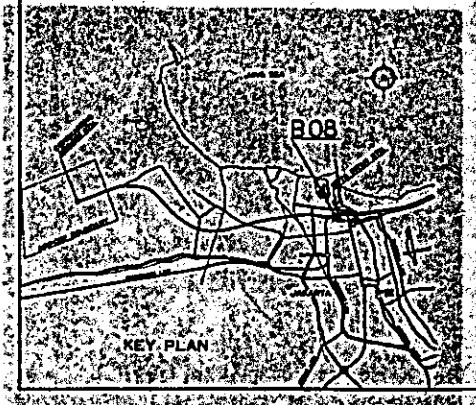
LONGITUDINAL SECTION



SECTION A-A

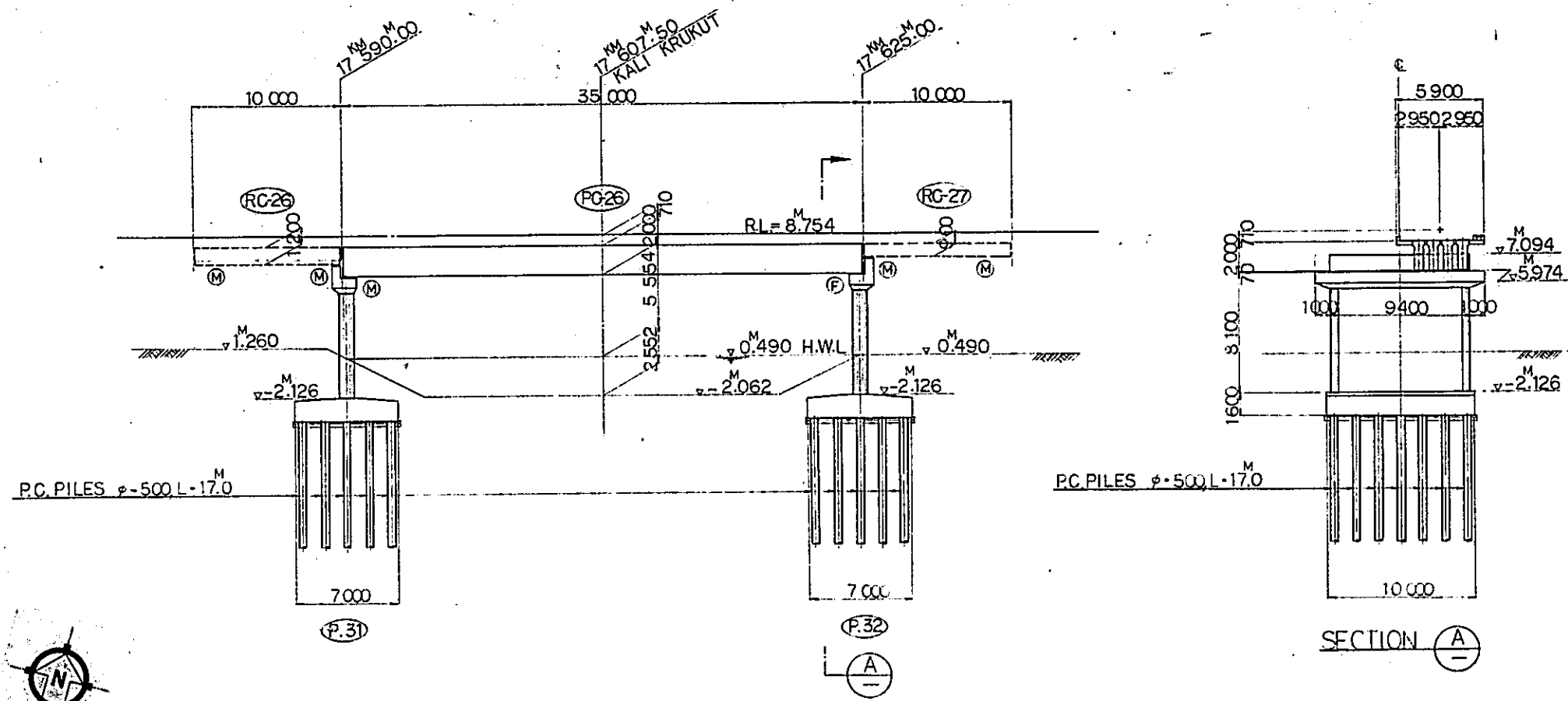


PLAN



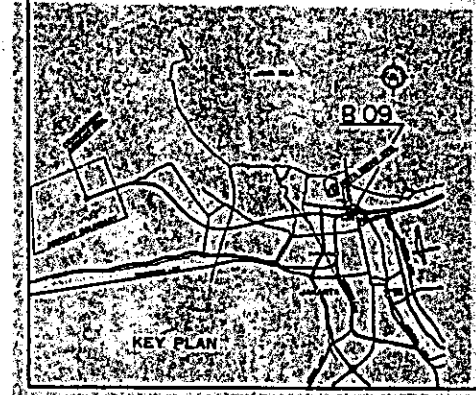
- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 - REFERENCE DRAWING FOR GENERAL VIEW: CS044, CS215, CS103, CS106.
 - CODE:
 - (F) --- FIXED BEARING
 - (M) --- EXPANSION BEARING

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	REVISED	REVISED	REVISED	REVISED	REVISED
A	15 FEB '84	REVISED	REVISED	REVISED	REVISED	REVISED
REVISORS	DATE	DESIGNED	CHECKED	APPROVED	APPROVED	APPROVED
BRIDGE B08		GENERAL VIEW				
(SHEET 2 OF 12)						
PACKAGE: I. CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:200	DRAWING NO. CS-012					

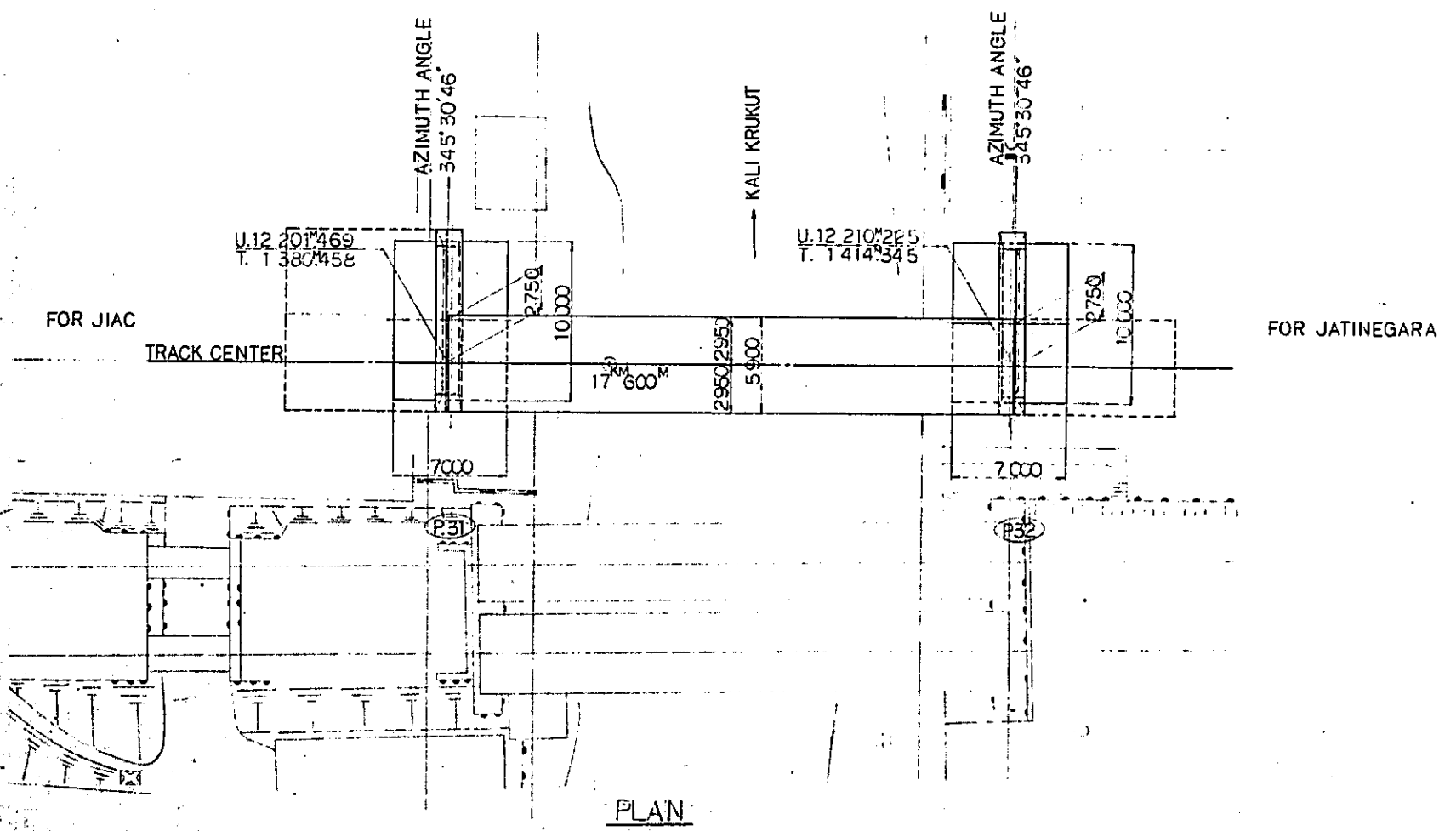


LONGITUDINAL SECTION

SECTION A

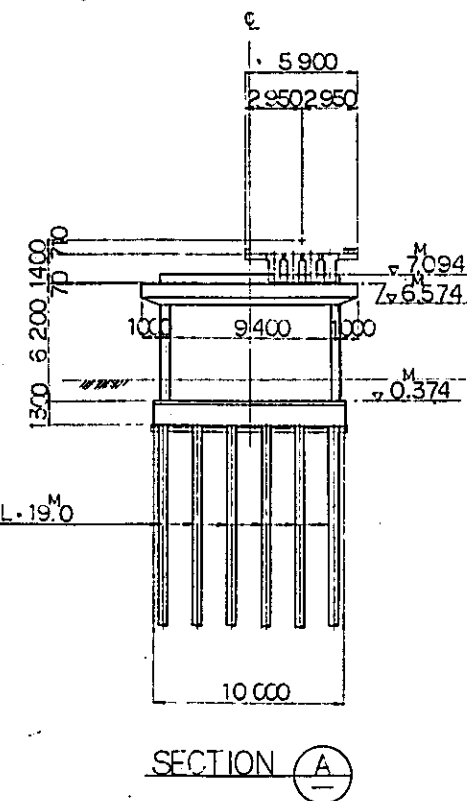
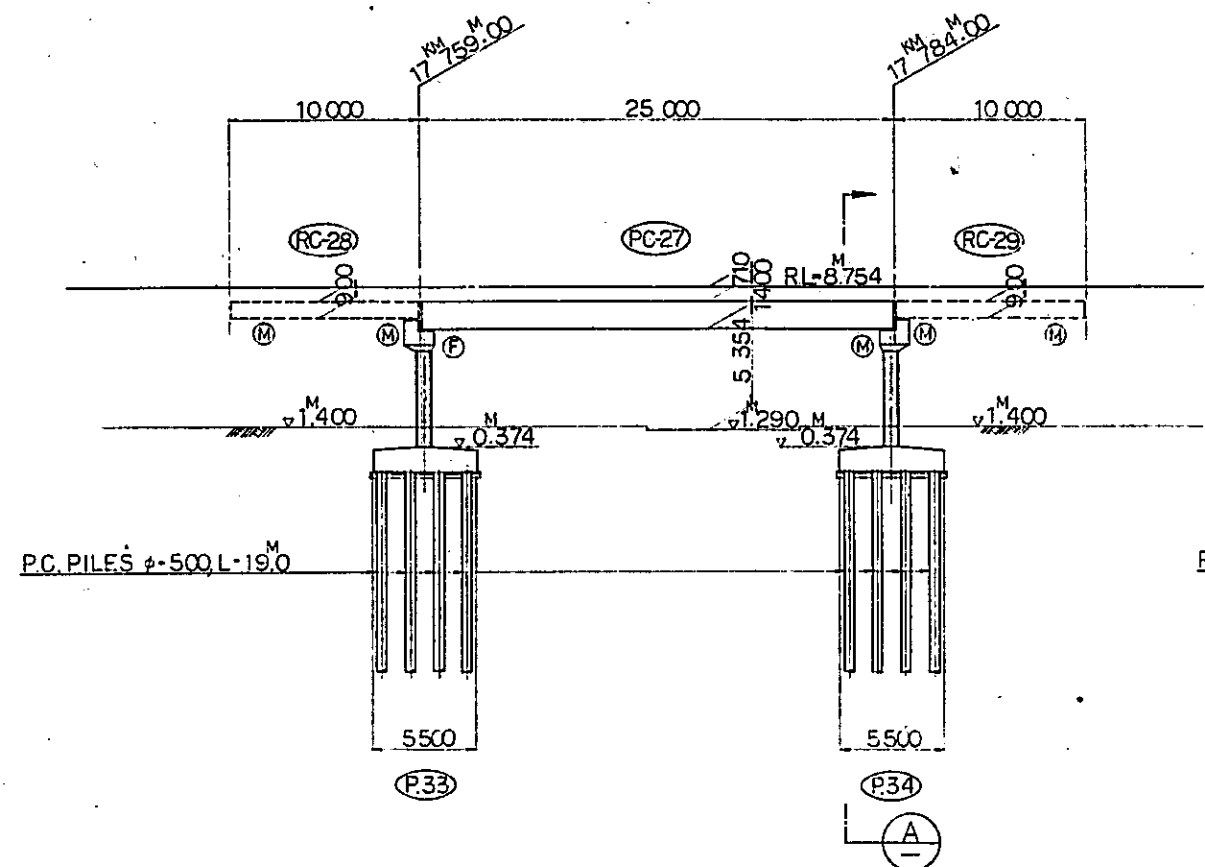


- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS185.CS039.CS029.
CS-110
 3. CODE:
 ⊕---- FIXED BEARING
 ⊙---- EXPANSION BEARING

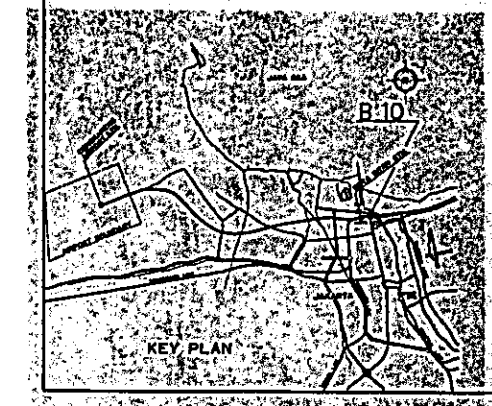
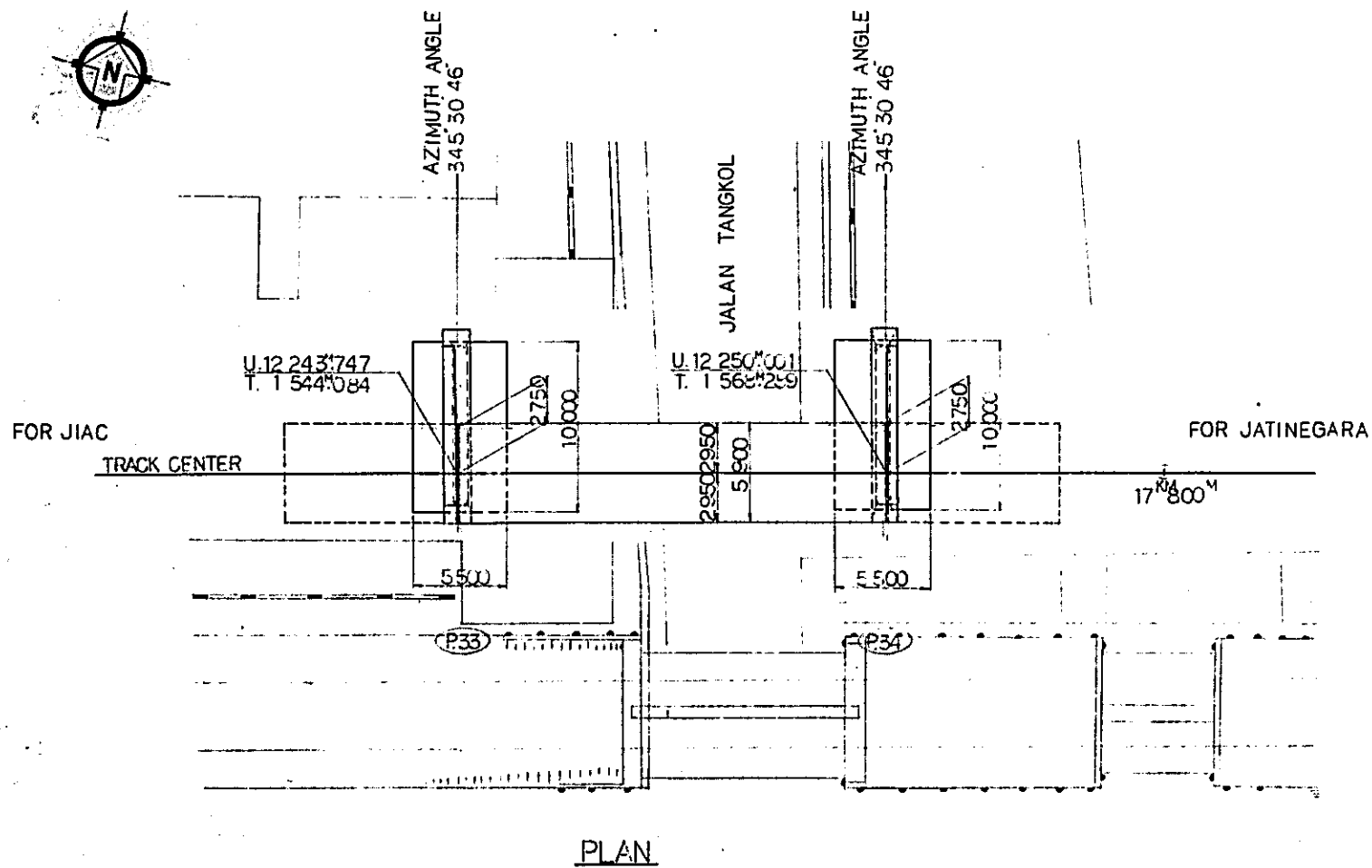


PLAN

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)					
REV.:	DATE:	DESIGNED:	CHECKED:	APPROVED:	REVISIONS:
B	1 AUG 84	M.Y.	K.A.	K.M.	
A	15 FEB 84	H.Y.	M.Y.	K.A.	K.M.
BRIDGE B09 GENERAL VIEW					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE:	1:200	DRAWING NO.:	CS-013		

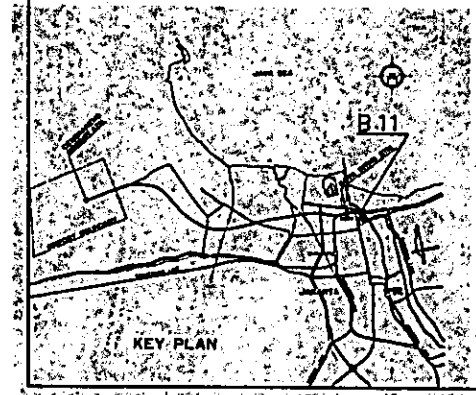
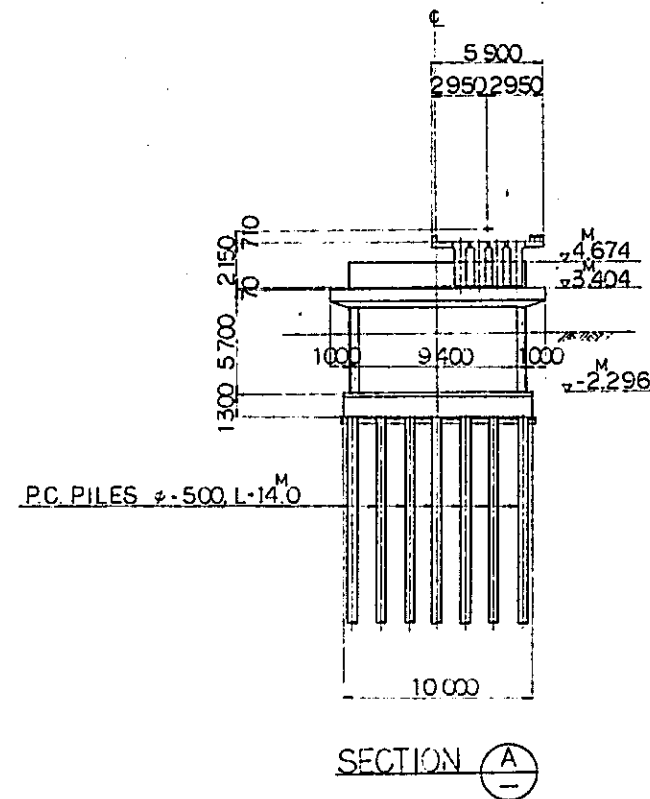
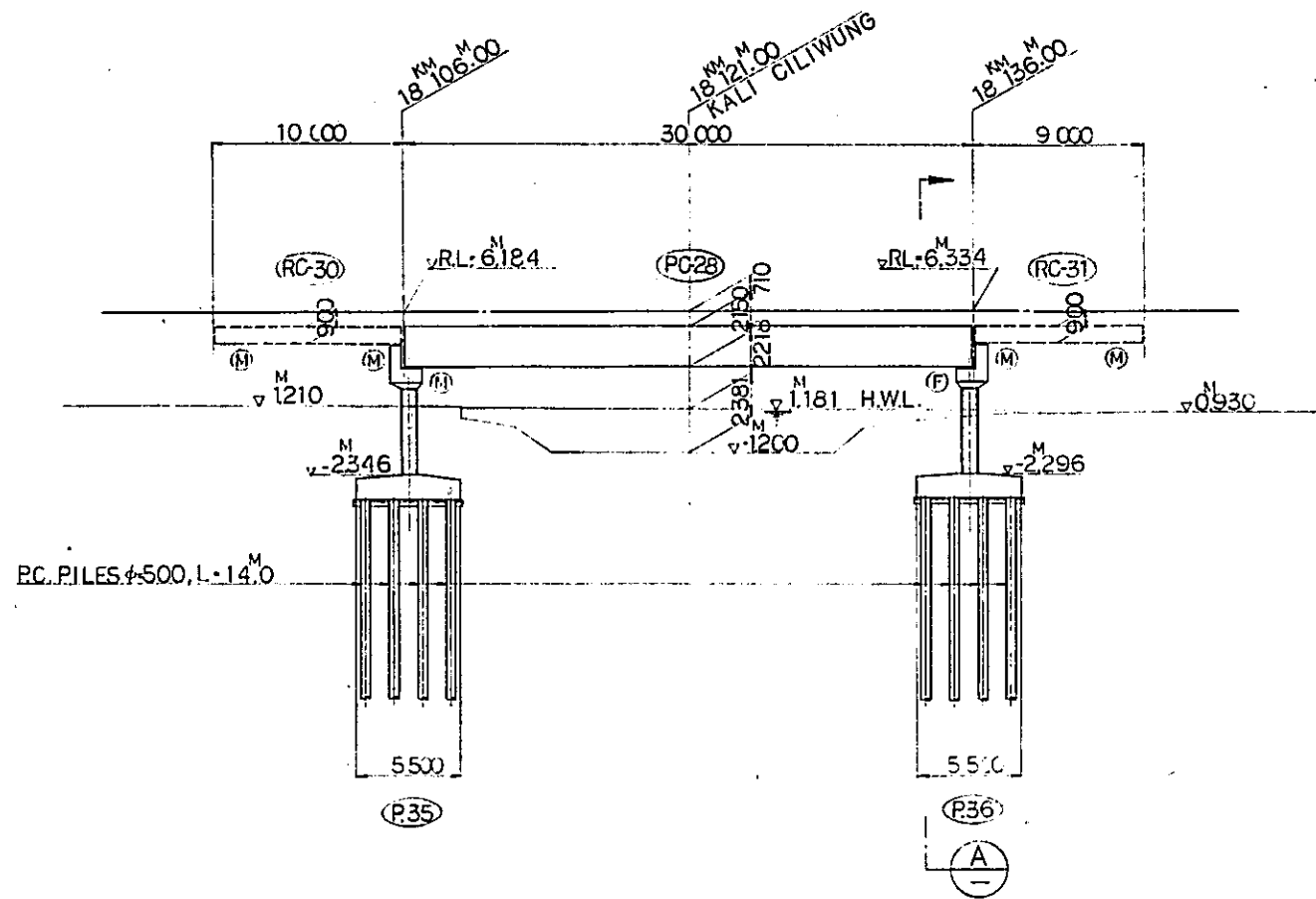


LONGITUDINAL SECTION



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-185, CS029, CS106
 3. CODE:
 - ⊕ --- FIXED BEARING
 - ⊗ --- EXPANSION BEARING

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	LLY	m.y	K.A	K.M	PK
A	15 FEB '84	LLY	m.y	K.A	K.M	PK
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
BRIDGE B10 GENERAL VIEW						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	1:200	DRAWING NO.		CS-014		

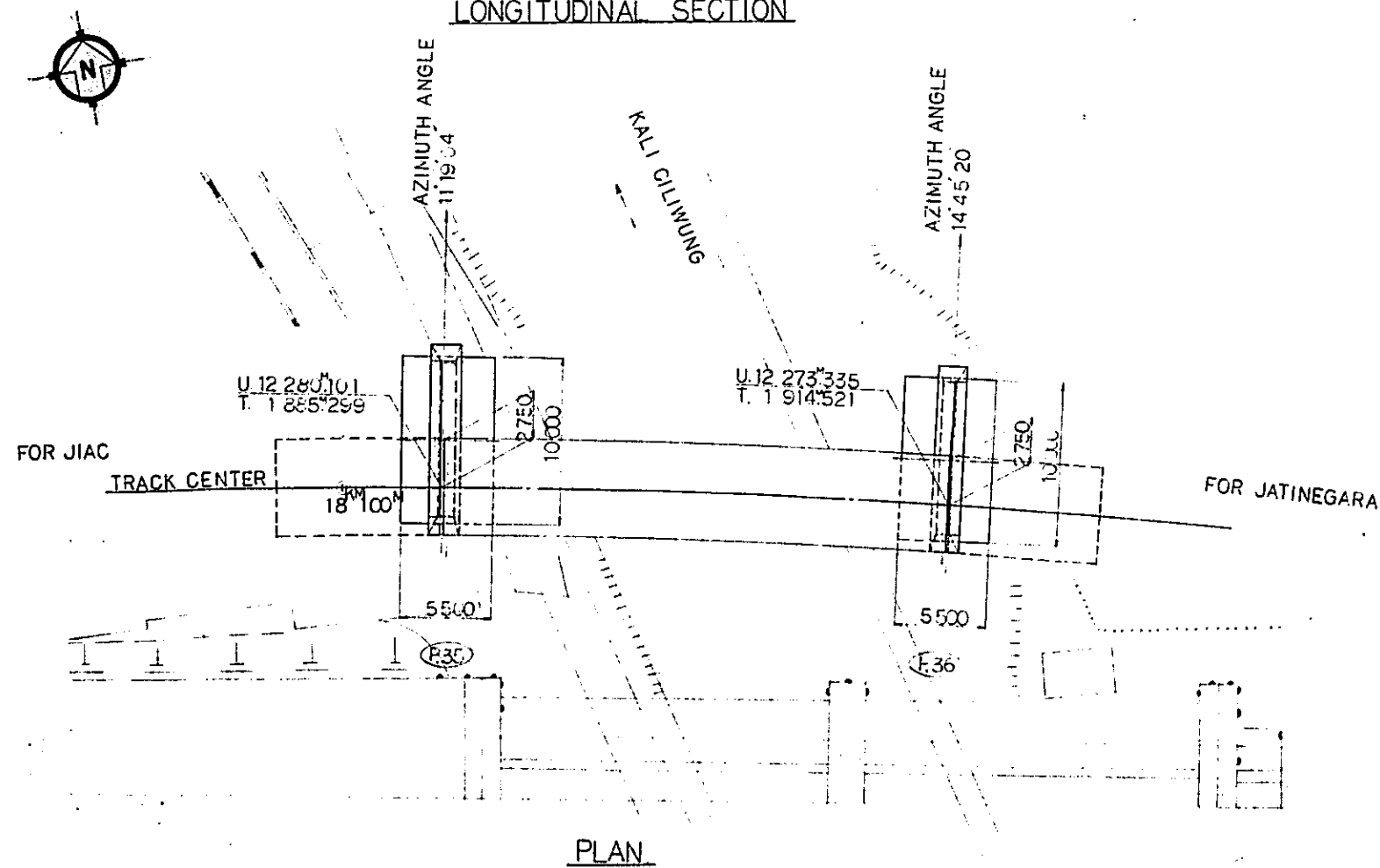


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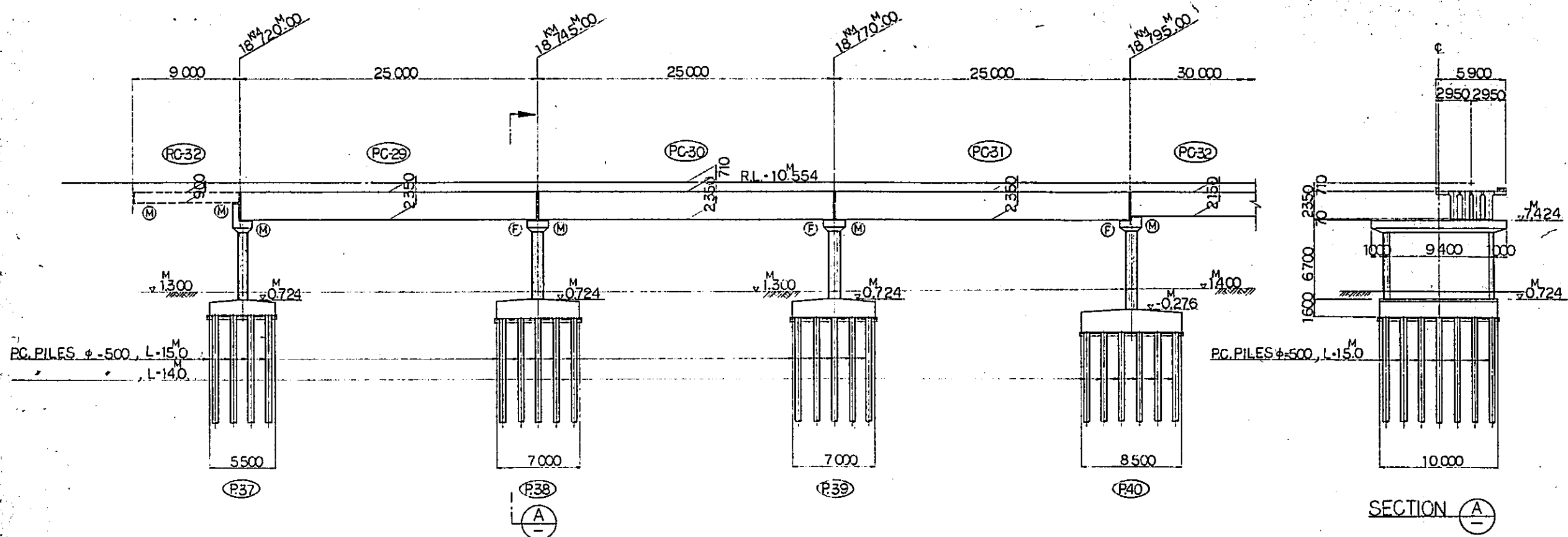
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW: CS-190, CS-045, CS-098, CS-089.

3. CODE:

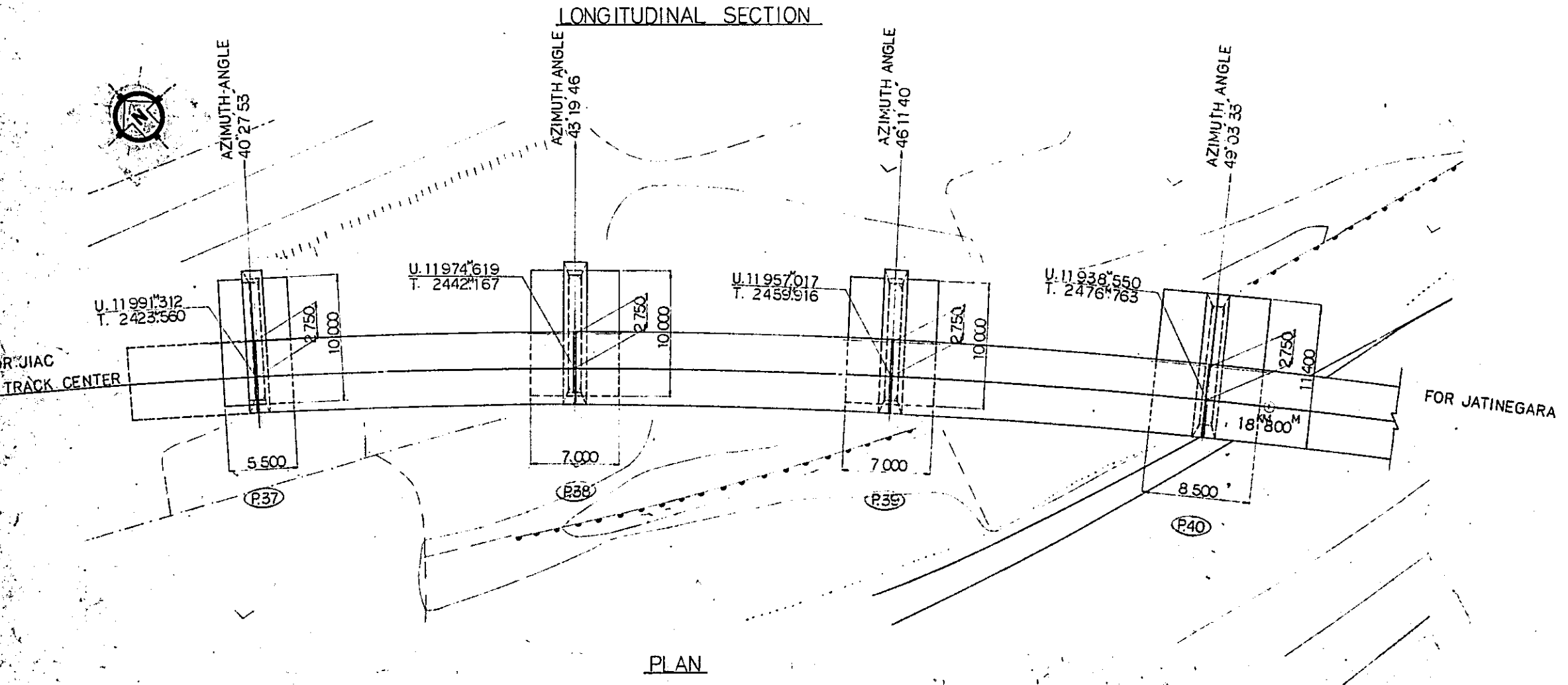
- ⊕ --- FIXED BEARING
- ⊕ --- EXPANSION BEARING



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.Y.	M.Y.	K.A.	K.M.	M.K.
A	15 FEB. 84	M.Y.	M.Y.	K.A.	K.M.	M.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
BRIDGE B11 GENERAL VIEW						
PACKAGE: CIVIL AND ARCHITECTURAL WORK						
SCALE:	1:200	DRAWING NO: CS-015				



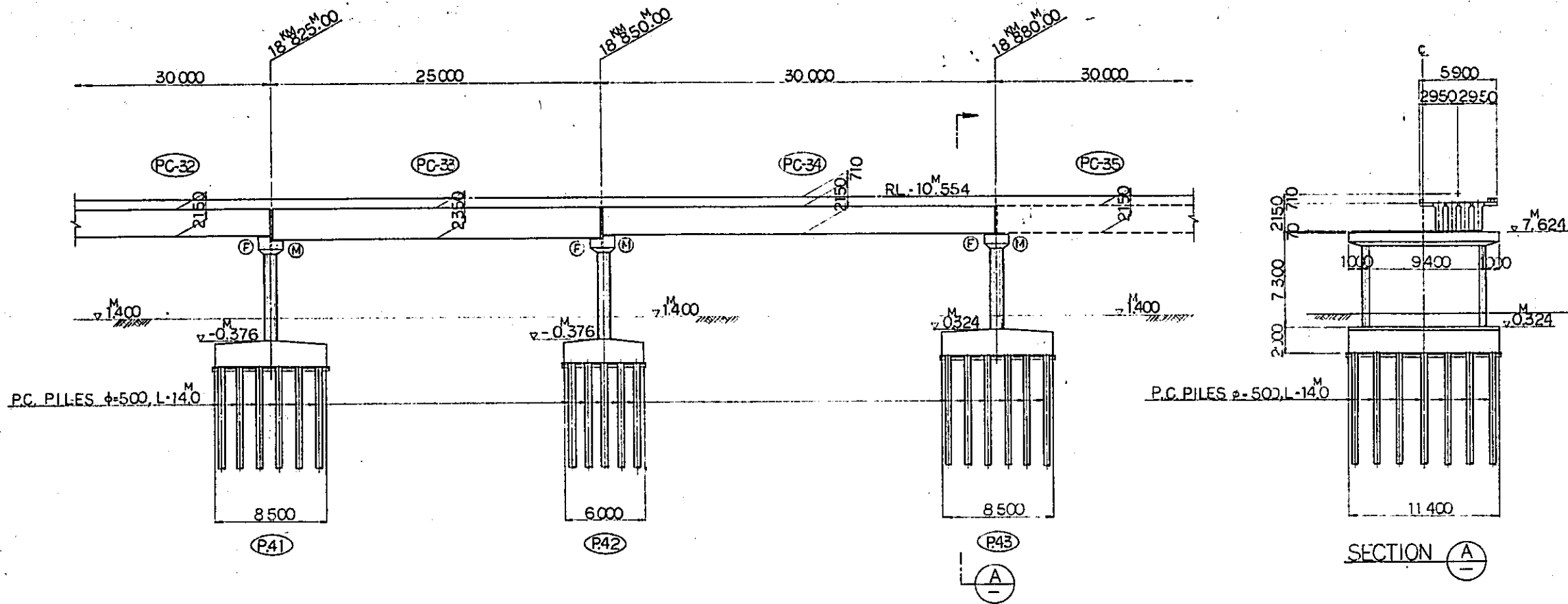
- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-190, CS-049, CS-045, CS-077, CS-103, CS-111.
 3. CODE:
 - ⊕ --- FIXED BEARING
 - ⊗ --- EXPANSION BEARING



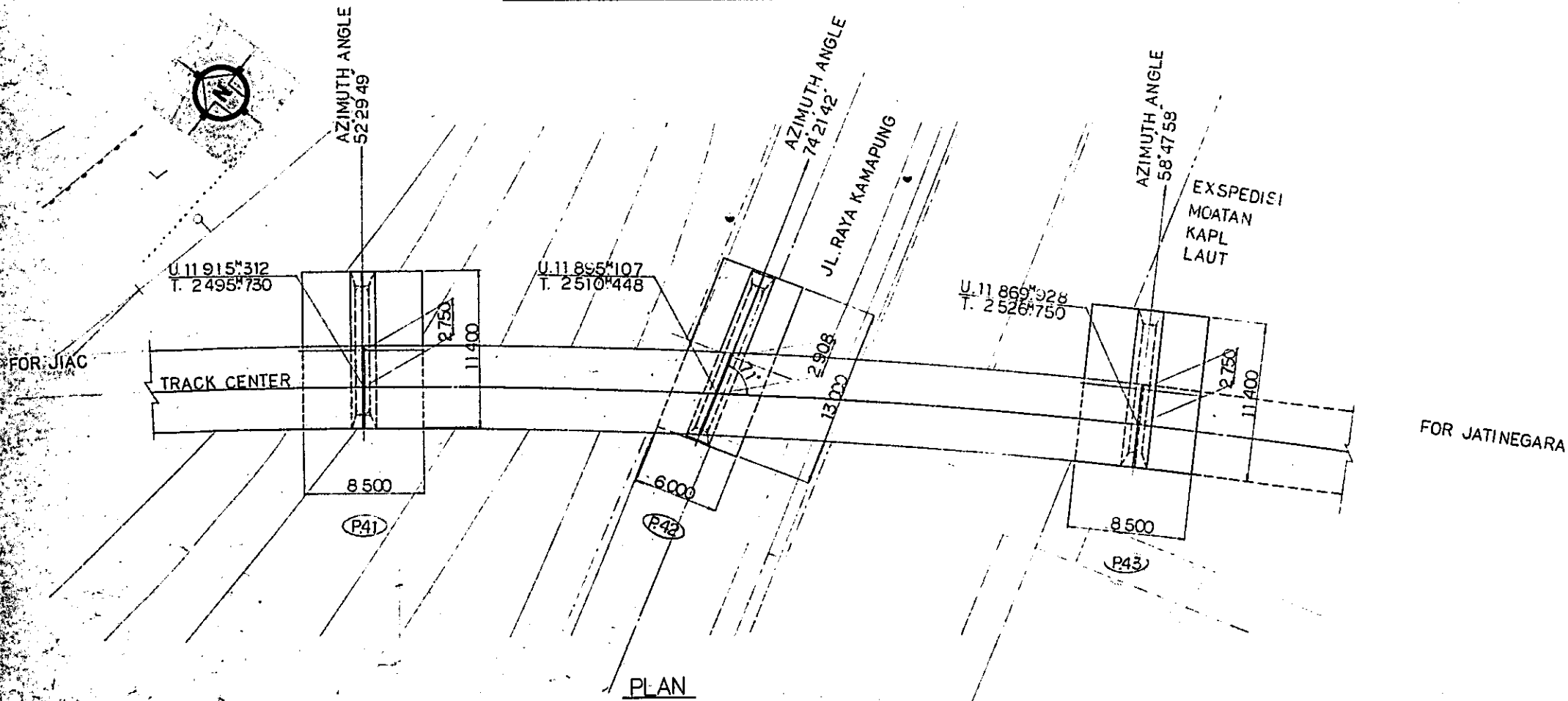
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS	
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT	
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	
DATE	BY
1 AUG '84	K.A. U.M. Z.K.
15 FEB '84	K.A. U.M. Z.K.
REVISIONS	DATE
BRIDGE B12 GENERAL VIEW (SHEET 1 OF 2)	
SCALE	DRAWING NO.
1:200	CS-016

PLAN

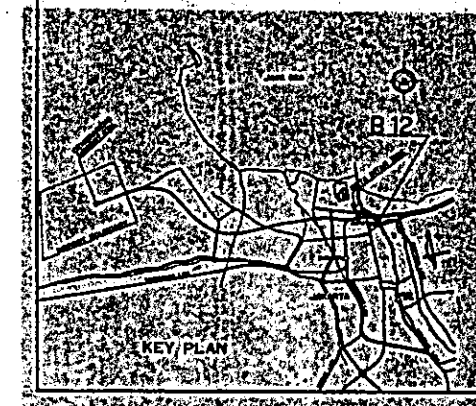
SECTION A



LONGITUDINAL SECTION



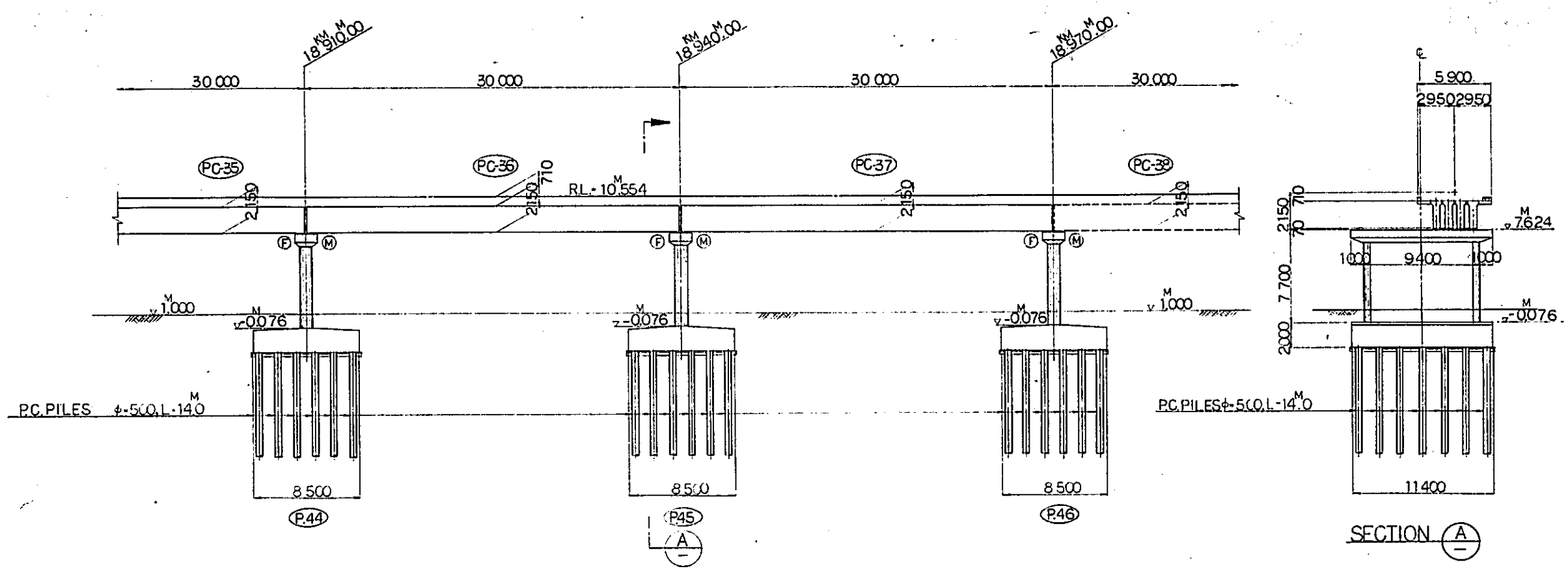
PLAN



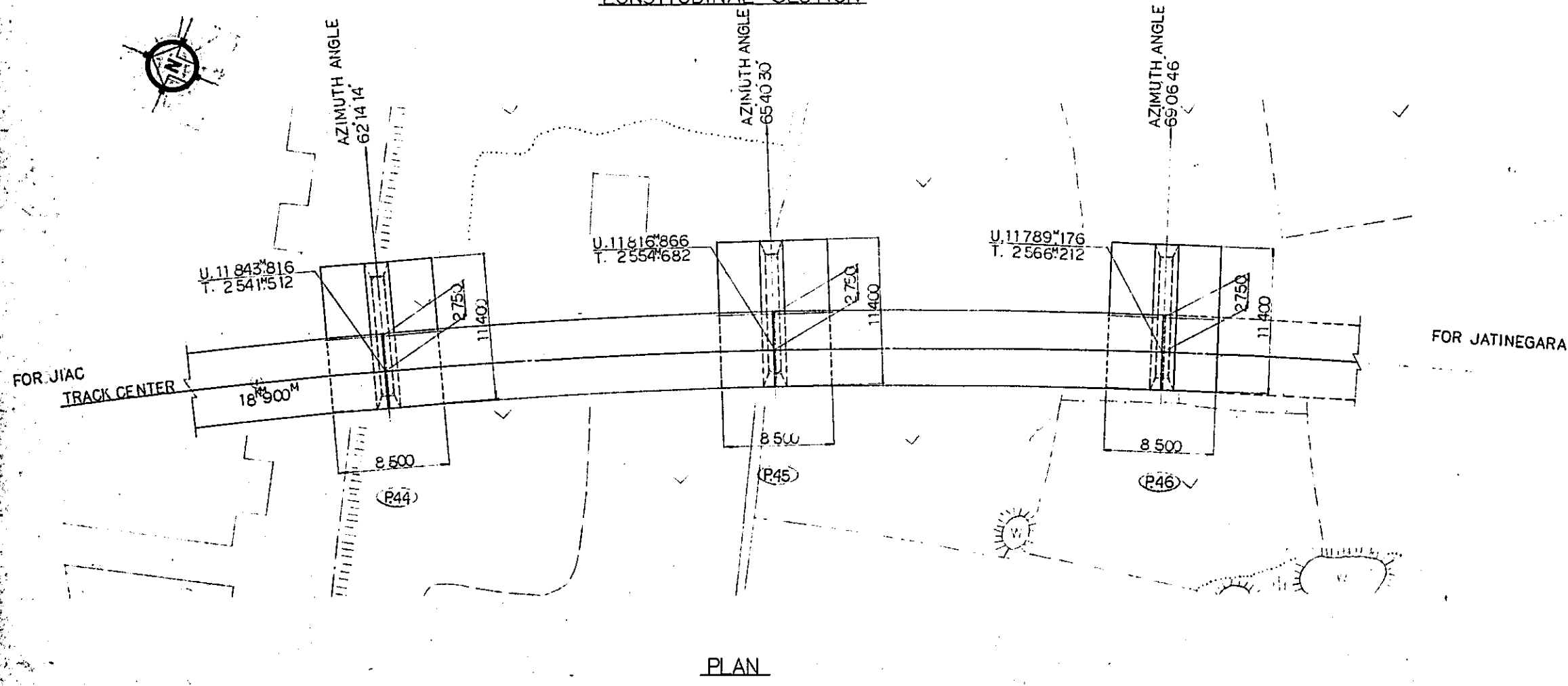
- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-045, CS-053, CS-054, CS-111, CS-115, CS-090.

3. CODE:
- ⊖ --- FIXED BEARING
 - ⊕ --- EXPANSION BEARING

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	my	my	K.A.	K.M.
A	15 FEB 84	my	my	K.A.	K.M.
REVISIONS	DATE				
BRIDGE B12 GENERAL VIEW (SHEET 2 OF 2)					
PACKAGE: CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:200	DRAWING NO: CS-017				



LONGITUDINAL SECTION

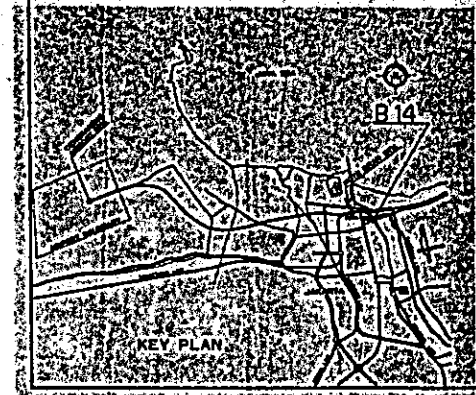
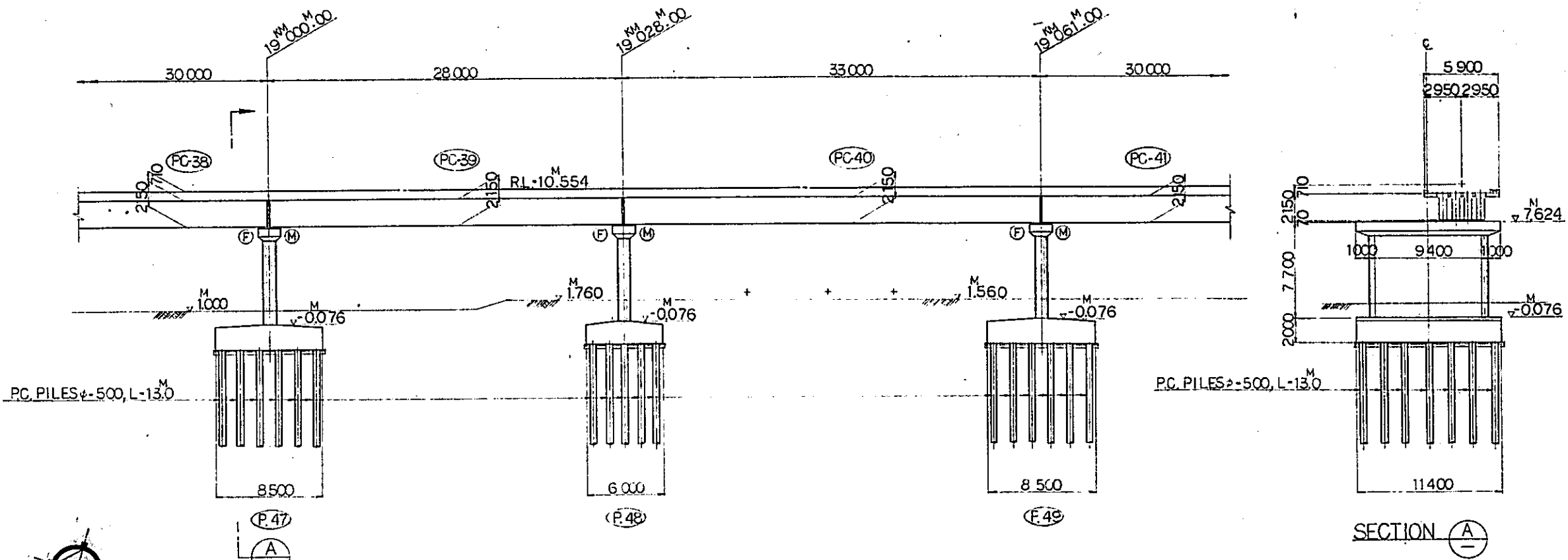


PLAN



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS045, CS090.
 3. CODE:
 - ⊖---- FIXED BEARING
 - ⊙---- EXPANSION BEARING

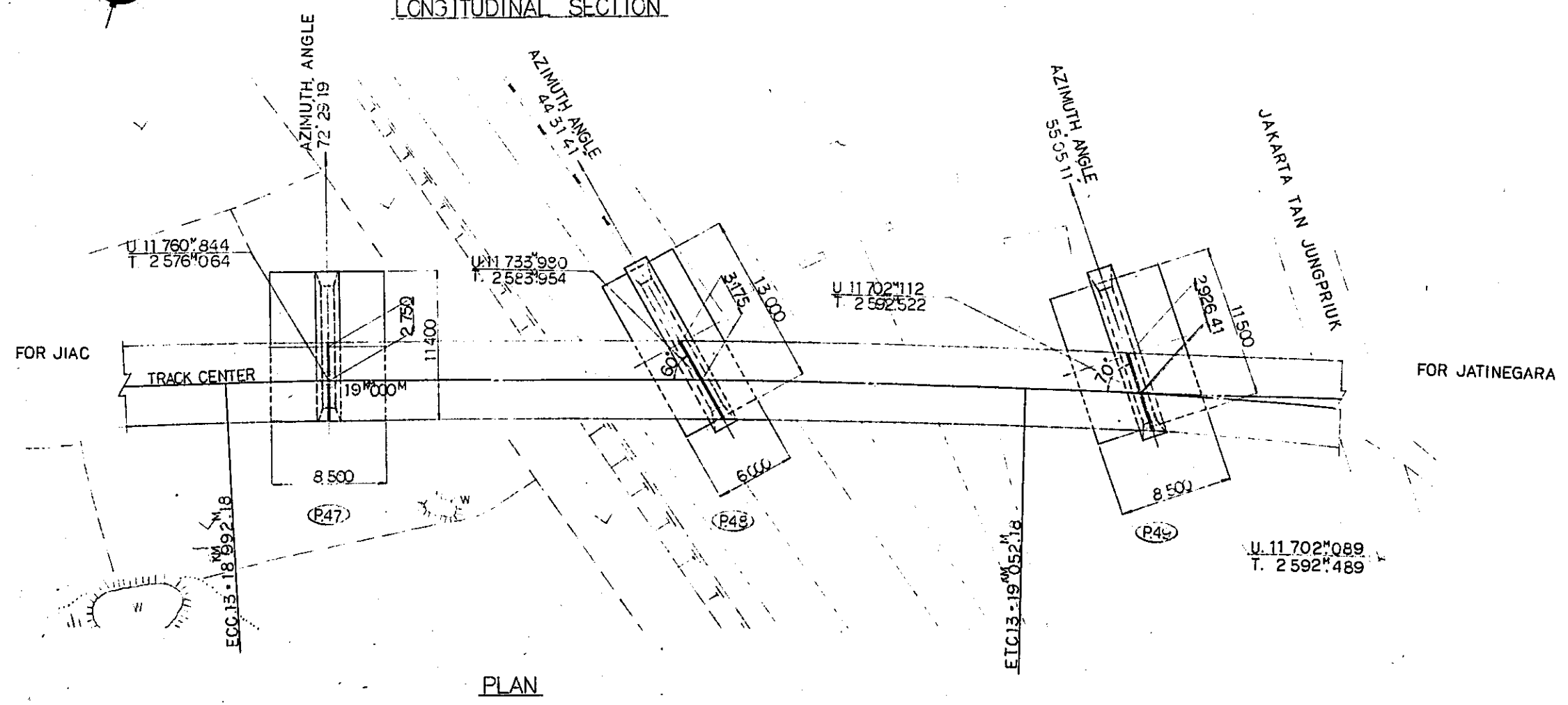
REPUBLIC OF INDONESIA	
MINISTRY OF COMMUNICATIONS	
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS	
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT	
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	
B	1 AUG. 84
A	15 FEB. 84
REVISIONS	DATE
BRIDGE B13	
GENERAL VIEW	
PACKAGE: CIVIL AND ARCHITECTURAL WORKS	
SCALE: 1:200	DRAWING NO: CS-018



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-045, CS-055, CS-056, CS-061, CS-116, CS-117, CS-121.
 3. CODE:
 - ⊕ --- FIXED BEARING
 - ⊙ --- EXPANSION BEARING

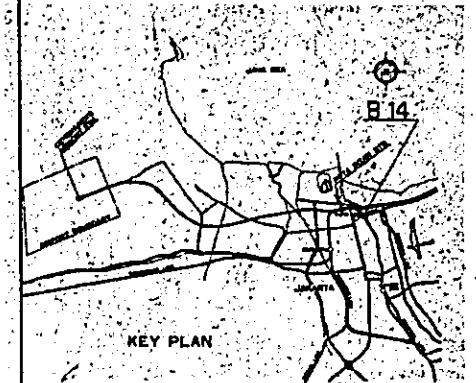
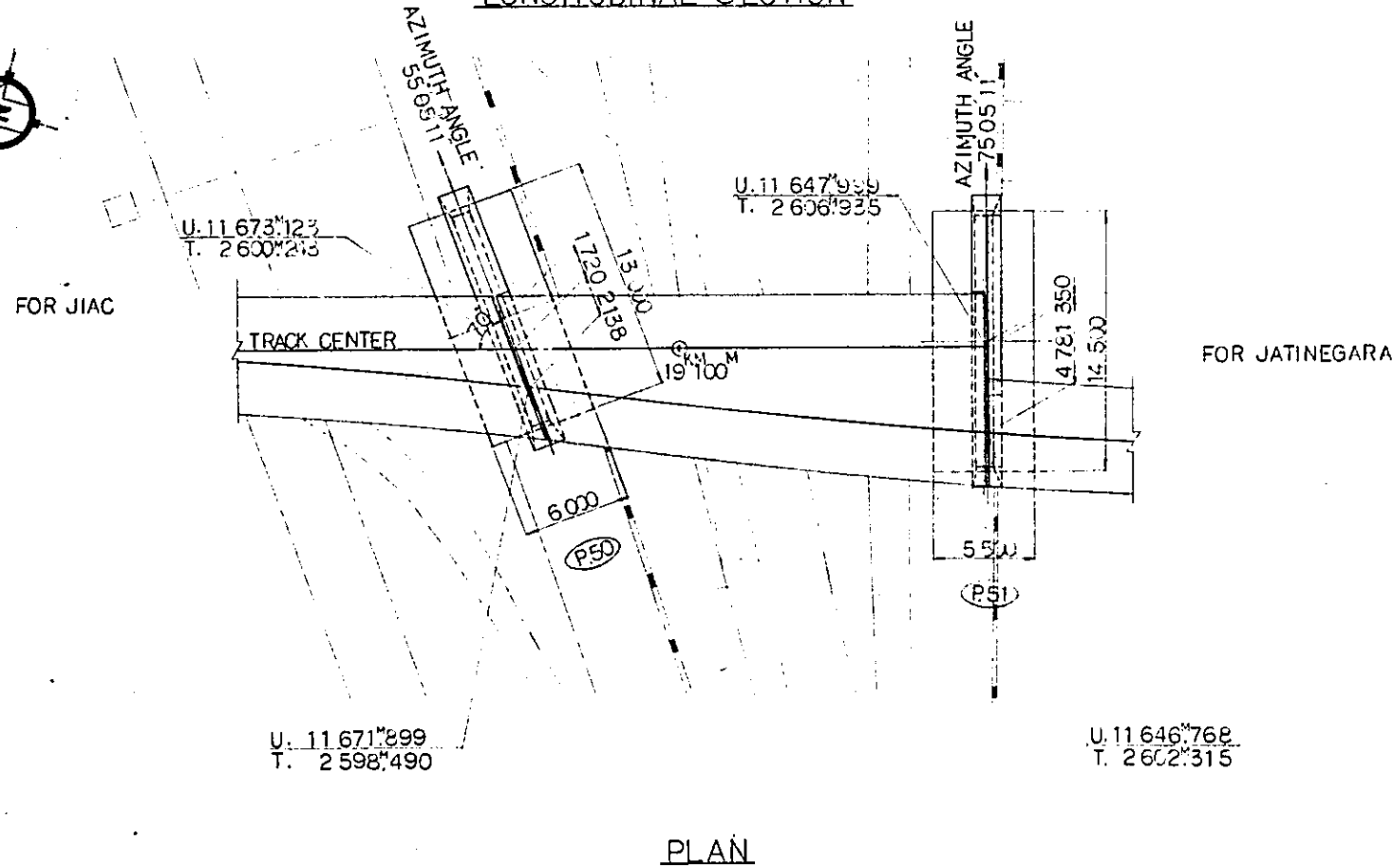
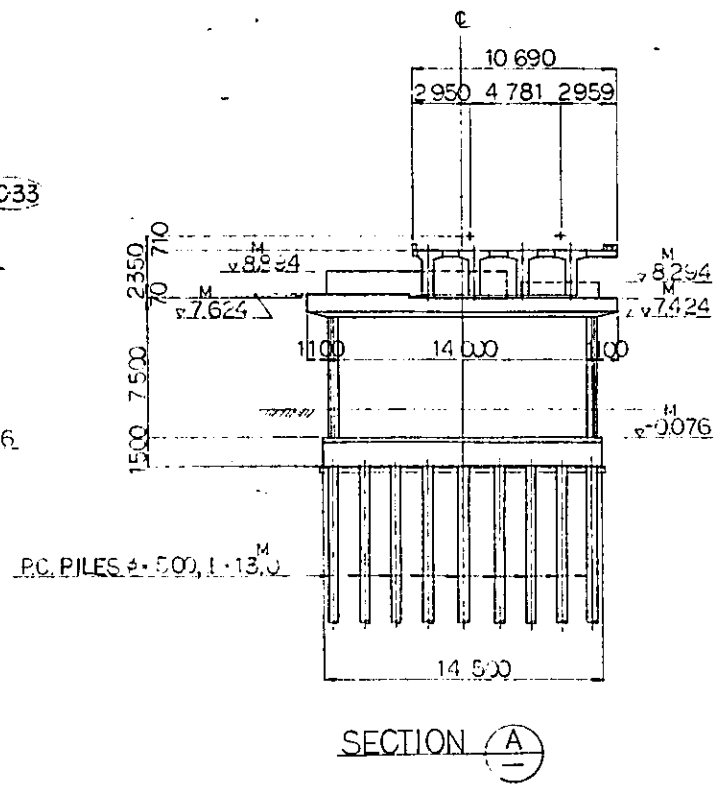
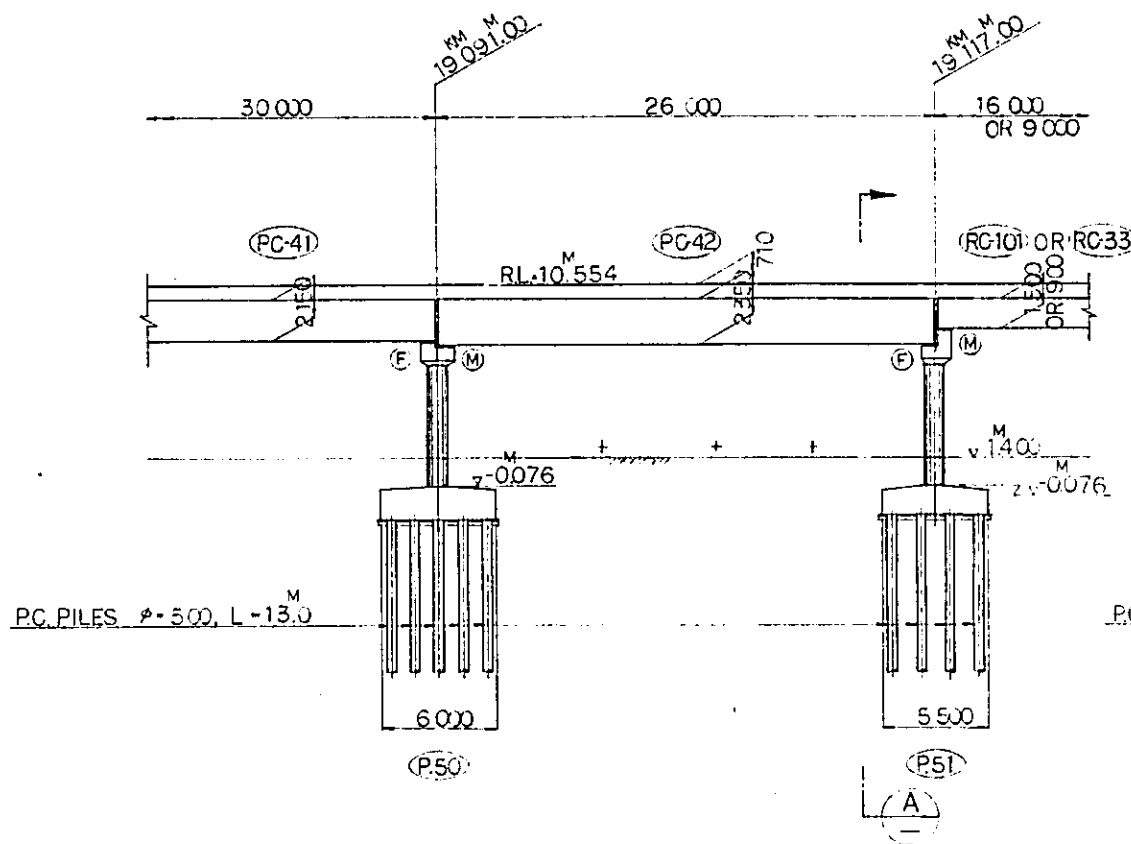


LONGITUDINAL SECTION



PLAN

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
B	1 AUG 84
A	15 FEB 84
BRIDGE B14 GENERAL VIEW (SHEET 1 OF 2)	
CIVIL AND ARCHITECTURAL WORK	
SCALE: 1:200	DRAWING NO: CS-019



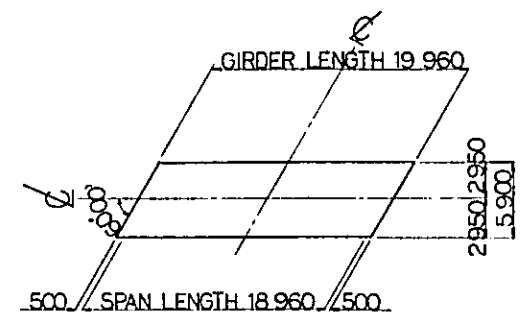
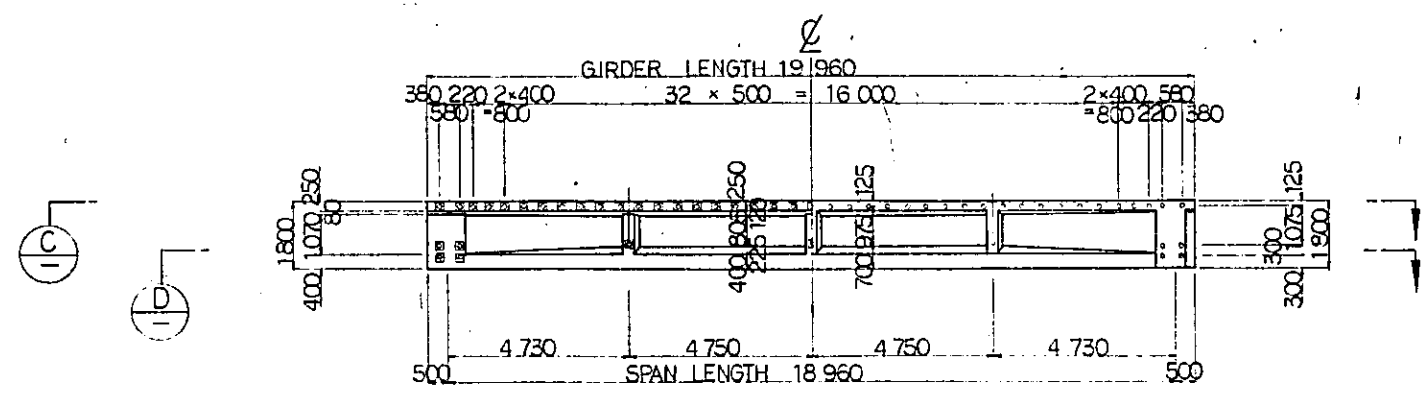
NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW: CS-061, CS-062, CS-185, CS-275, CS-125, CS-126.

3. CODE:

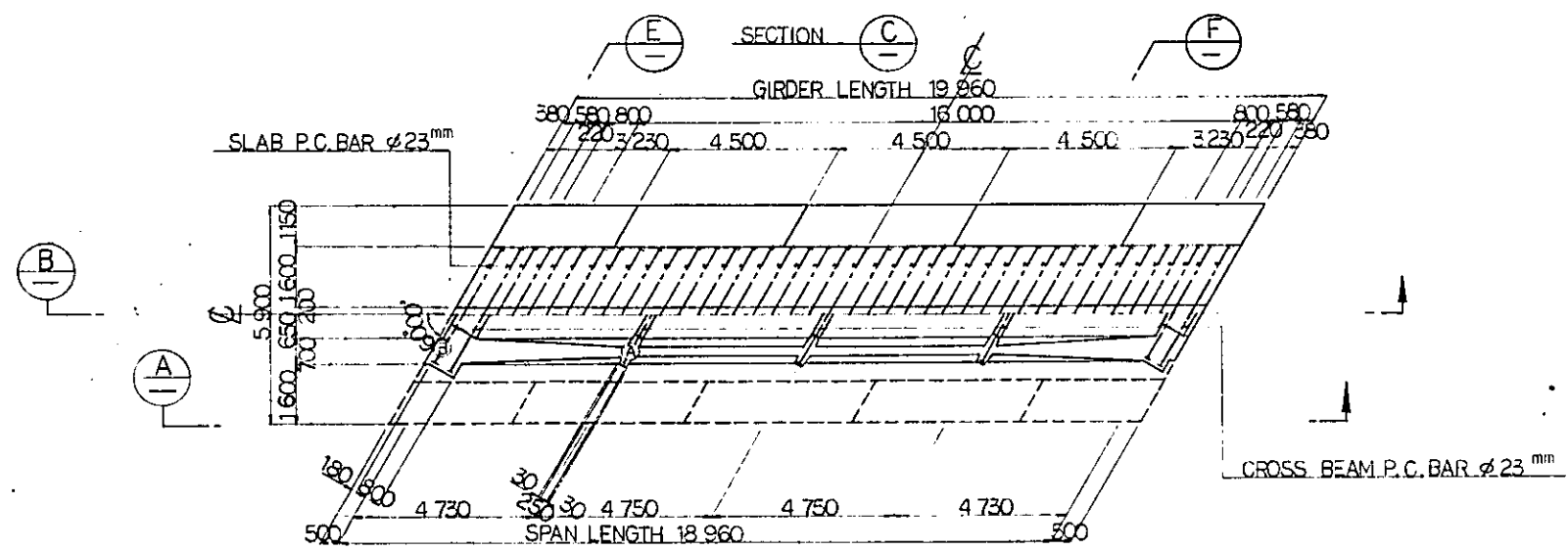
- ⊖---FIXED BEARING
- ⊕---EXPANSION BEARING

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	NY	TM	K.S.	K.M.	K.
A	15 FEB '84	NY	TM	K.S.	K.M.	K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
BRIDGE B14 GENERAL VIEW (SHEET 2 OF 2)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:200	CS-020					

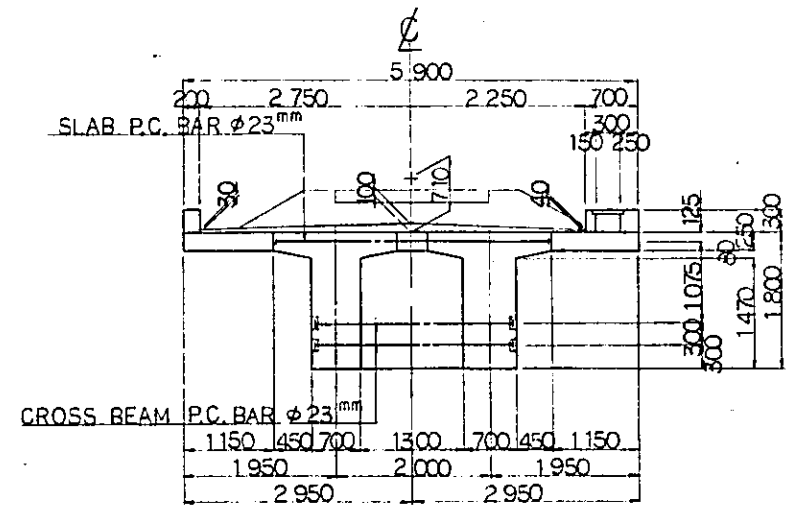


- NOTES**
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE EXCEPT R.C. COVER SHALL BE CAST IN PLACE
 3. P.C. STRAND 12T12.7 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 12.7MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7B 12T12.7 OR EQUIVALENT
 4. P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
 MINIMUM ULTIMATE TENSILE STRENGTH : 190%
 MINIMUM YIELD STRESS : 160%
 5. THIS DRAWING SHALL BE APPLIED TO : B01 - PC01
 6. DESIGN TRAIN LOAD : EQUIVALENT TO KS - 16

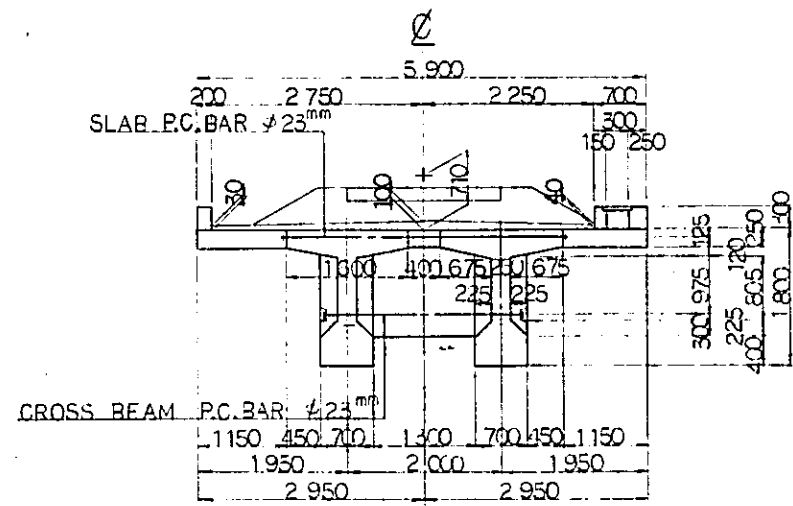
TRACK DIAGRAM NOT SCALE



PLAN SCALE 1:100



SECTION E



SECTION F

CROSS SECTION SCALE 1:50

SUPERSTRUCTURE MATERIAL SCHEDULE (B01 - PC01)

ITEM	TYPE	UNIT	QUANTITY
MAIN BEAM	CONCRETE CLASS A (1c-400 ^{kg/cm²})	m ³	52.2
	P.C. STRAND 12T12.7 (1s-190 ^{kg/mm²})	kg	1960.4
	SHEATH φ65	m	195.5
	FORMS	m ²	229.3
	ANCHORING DEVICE FOR 12T12.7	EACH	20
LATERAL JOINT	REINFORCING BAR 19	kg	—
	16	kg	557.2
	13	kg	3029.6
	10	kg	74.2
	TOTAL	kg	3661.0
LATERAL JOINT	CONCRETE CLASS B (1c-300 ^{kg/cm²})	m ³	5.8
	P.C. BAR φ23 (1s-110 ^{kg/mm²})	kg	692.1
	SHEATH φ35	m	203.0
	FORMS	m ²	26.3
	ANCHOR PLATE/NUT FOR φ23	EACH	104
LATERAL JOINT	REINFORCING BAR 16	kg	757.4
	13	kg	1537.4
	10	kg	66.7
	TOTAL	kg	2861.5
	SIDEWALK CONCRETE CLASS C (1c-240 ^{kg/cm²})	m ³	11.5
BRIDGE RAILING AND DUCT CONCRETE	m ³	3.9	
FORMS	m ²	36.4	
MORTAR WITH SLOPE-PROTECTIVE MORTAR	m ³	6.7	
DRAINAGE	EACH	4	
ELASTOMERIC BEARING PADS	FIX. FOR R-140 ton	—	2
	MOV. FOR R-140 ton	—	2

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

NEW RAILWAY LINE FOR CENGKARENG AIRPORT, CONSTRUCTION PROJECT

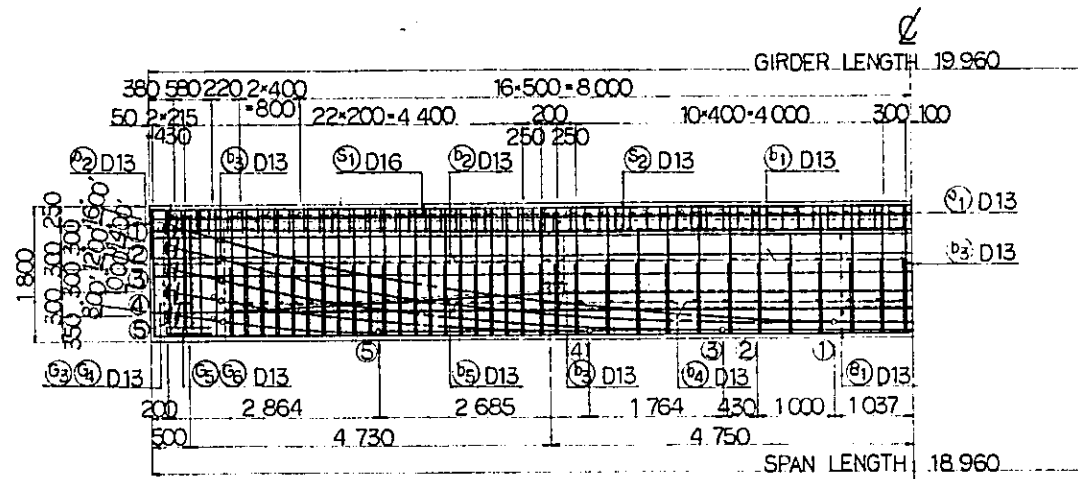
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

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

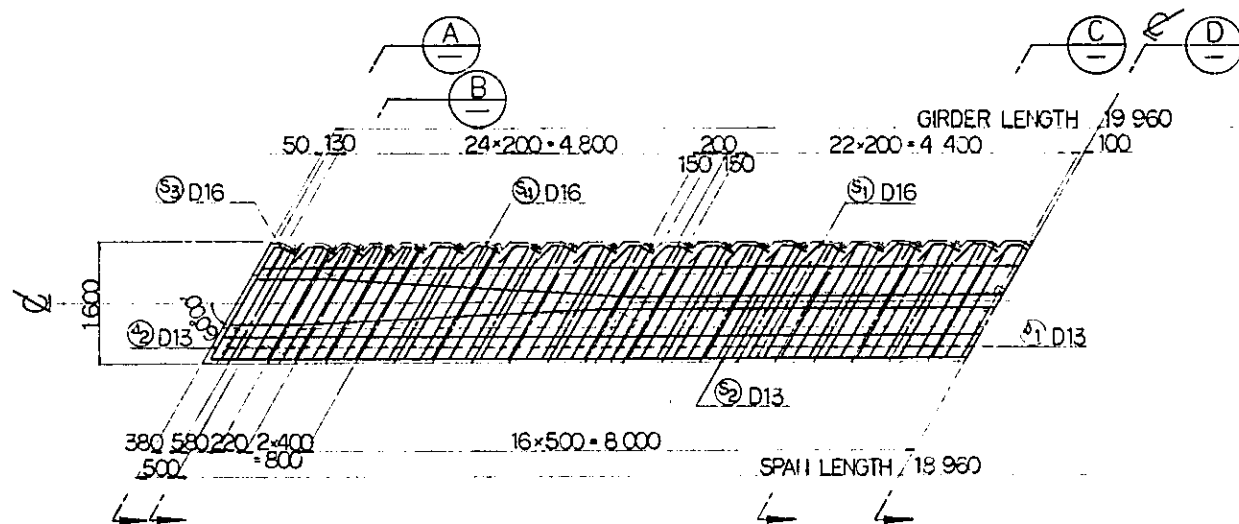
P.C. GIRDER
 PC 01
 GENERAL VIEW

PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK

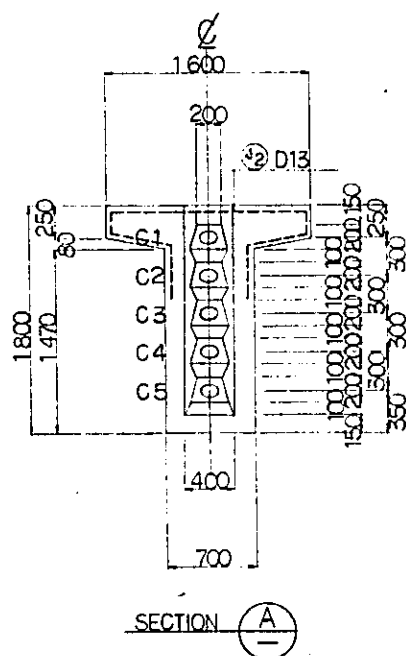
SCALE: AS NOTED DRAWING NO: CS-021



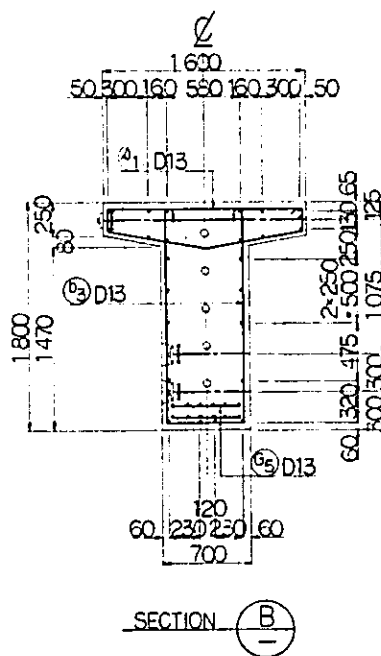
SIDE VIEW SCALE 1:50



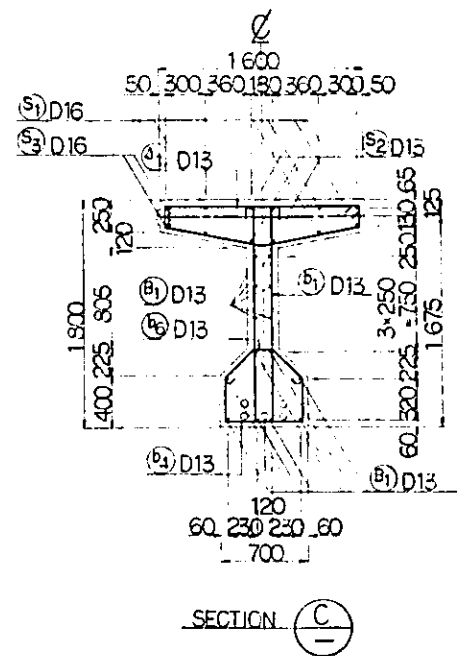
PLAN SCALE 1:50



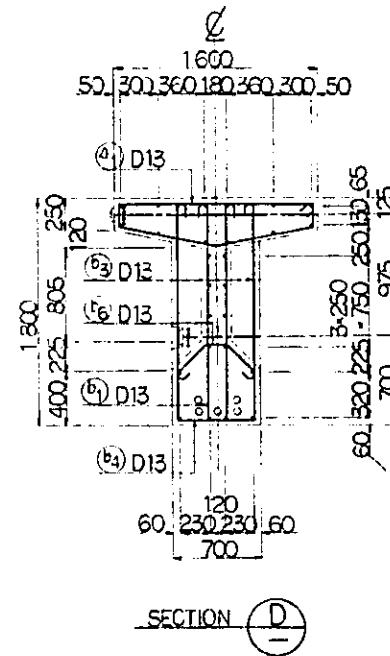
SECTION A



SECTION B



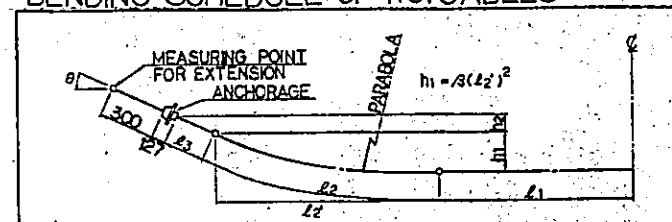
SECTION C



SECTION D

CROSS SECTION SCALE 1:30

BENDING SCHEDULE OF P.C. CABLES

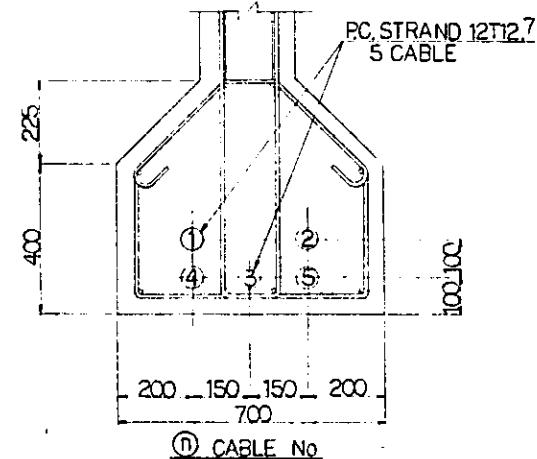


CABLE No	L1(m)	L2(m)	L3(m)	L4(m)	h1(m)	h2(m)	L(m)	A	ANGLE θ
①	1.037	8.180	8.070	0.625	1.157	0.172	9.842	0.01177	16°00'
②	2.037	7.137	7.064	0.625	0.881	0.151	9.799	0.01765	14°00'
③	2.467	6.678	6.628	0.625	0.705	0.130	9.770	0.01608	12°00'
④	4.231	4.885	4.860	0.625	0.428	0.109	9.741	0.01814	10°00'
⑤	6.916	2.178	2.171	0.625	0.153	0.087	9.719	0.02237	8°00'

SCHEDULE OF P.C. BAR

ANCHOR PLATE		(mm)
SLAB	(A)	4 077
CROSS BEAM	(B)	2 938
	(C)	3 383

- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 - REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSION ARE EXAMPLES AND THESE SHALL BE REVIEWED AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM
 - JACKING LOAD INCLUDE FRICTION IN THE JACK AND ANCHORAGE. EXTENSION SHOWS TOTAL VALUE OF THOSE AT BOTH ENDS MEASURED AT THE POINT 30CM OUTSIDE FROM ANCHORAGE SURFACE. AFTER THE PRESTRESSING SYSTEM IS DETERMINED THESE VALUES SHALL BE REVIEWED ALONG WITH THE OTHER ASSUMED FACTORS AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. INITIAL STRESS DO NOT INCLUDE OTHER FACTORS THAN FRICTION LOSSES.
 - TENSIONING SEQUENCE OF LATERAL P.C. BARS SHALL BE AT EVERY OTHER BAR



ARRANGEMENT OF P.C. CABLE SCALE 1:10

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	MYA	AKA	UMI	M.K
A	15 FEB. '81	MYA	AKA	UMI	M.K

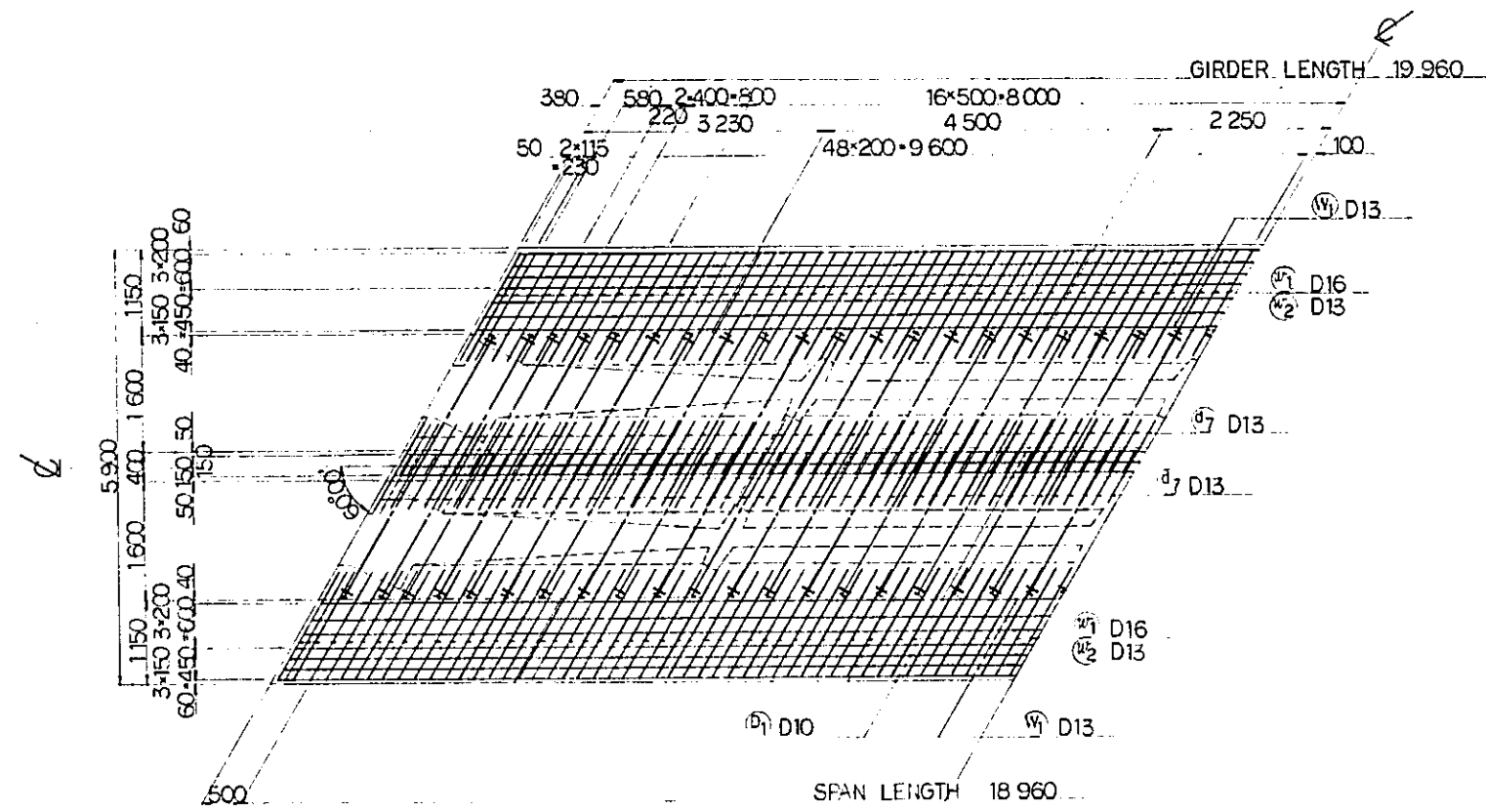
REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWED SUBMITTED

P.C. GIRDER
 PC 01
 P.C. CABLE AND REINF. BAR
 ARRANGEMENT OF MAIN BEAM

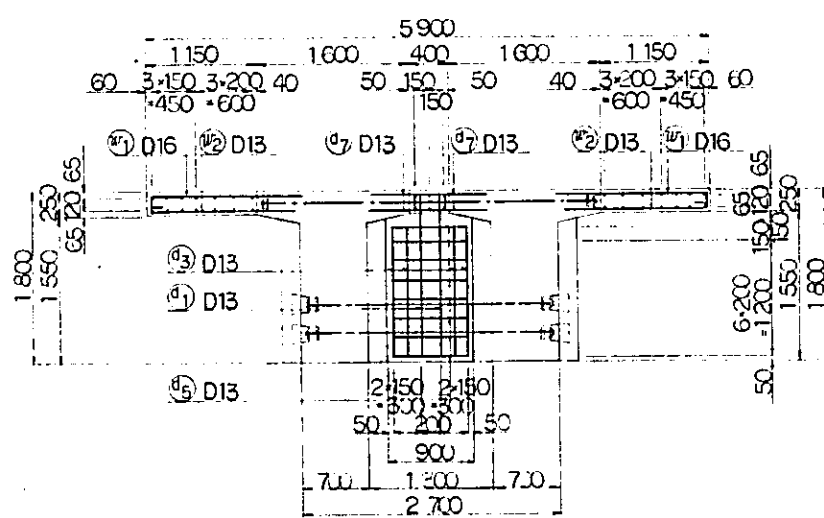
PACKAGE: I CIVIL AND ARCHITECTURAL WORK

SCALE: AS NOTED DRAWING NO: CS-022

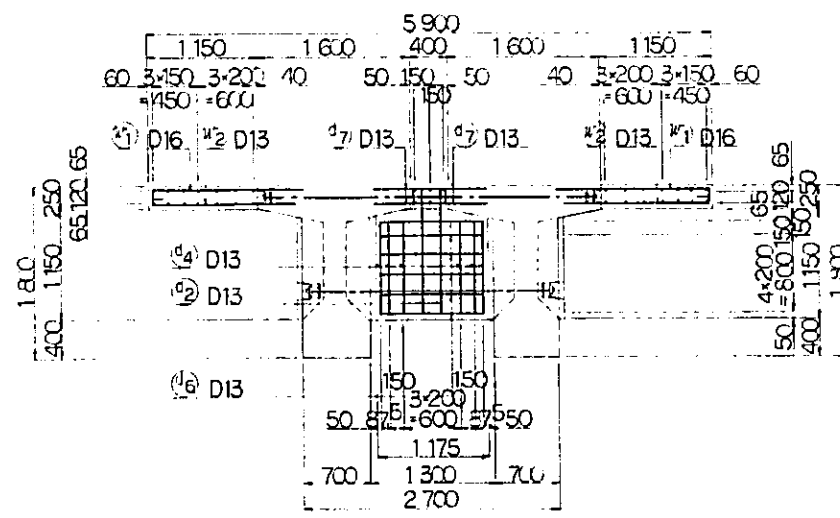
- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSION ARE EXAMPLES AND THESE SHALL BE REVIEWED AND IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM



PLAN SCALE 1:50



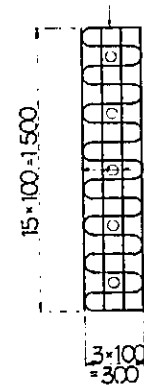
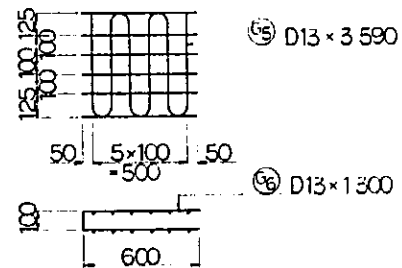
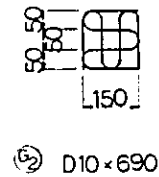
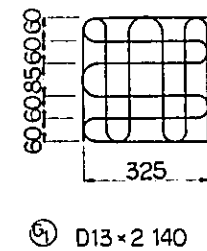
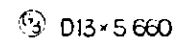
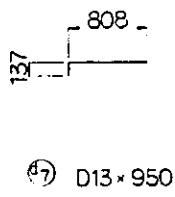
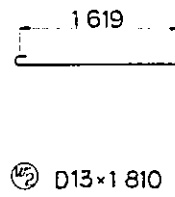
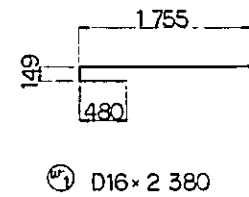
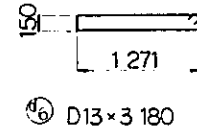
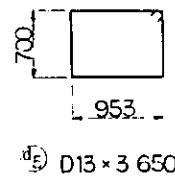
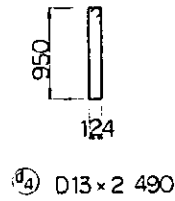
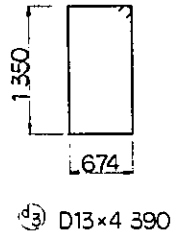
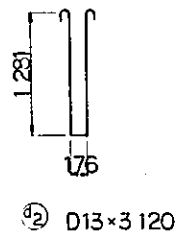
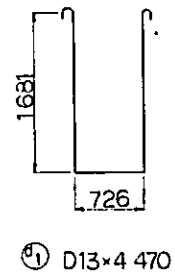
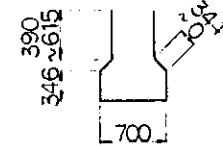
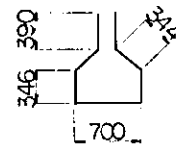
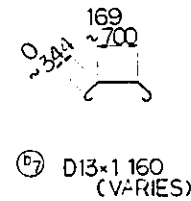
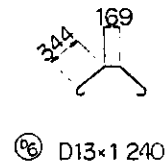
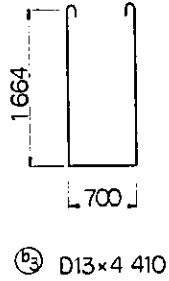
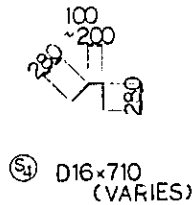
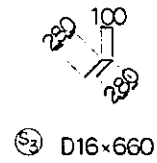
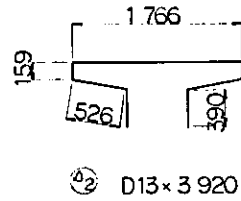
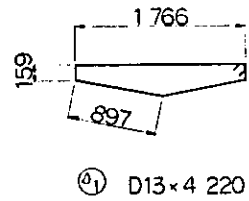
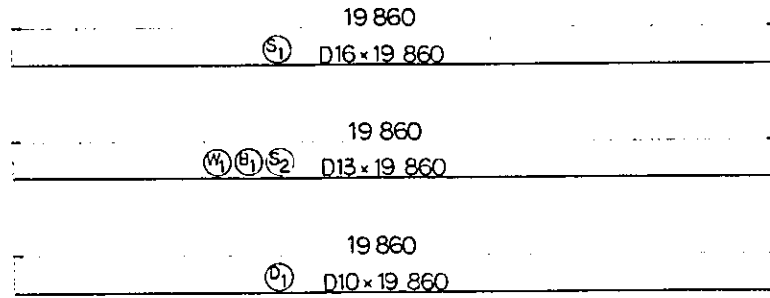
END CROSS BEAM



MIDDLE CROSS BEAM

CROSS SECTION SCALE 1:40

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)					
R	1 AUG '84	HY	JO	KA	KM
A	15 FEB '81	HY	JO	KA	KM
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
P.C. GIRDER PC 01 P.C. CABLE AND REINF. BAR ARRANGEMENT OF LATERAL JOINT					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO:				
AS NOTED	CS - 023				



BAR SCHEDULE

REINF No	DIA (mm)	LENGTH (mm)	NUMBER / ONE BEAM	TOTAL NUMBER	WEIGHT (kg/m)	WEIGHT (kg)
MAIN BEAM						
S 1	D16	19 860	6	12	1.56	371.8
2	D13	19 860	4	8	0.995	158.1
3	D16	660	4	8	1.56	8.2
4	"	710	80	160	"	177.2
Δ 1	D13	4 220	100	200	0.995	839.8
2	"	3 920	2	4	"	15.6
B 1	D13	19 860	14	28	0.995	553.3
b 1	D13	3 880	28	56	0.995	216.2
2	"	4 140	40	80	"	329.5
3	"	4 410	16	32	"	140.4
4	"	2 860	28	56	"	159.4
5	"	2 740	40	80	"	218.1
6	"	1 240	28	56	"	69.2
7	"	1 160	40	80	"	92.3
G 1	D13	2 140	20	40	0.995	85.2
2	D10	690	96	192	0.56	74.2
3	D13	5 660	4	8	0.995	45.1
4	"	1 500	16	32	"	47.8
5	"	3 590	4	8	"	28.6
6	"	1 300	12	24	"	31.0

WEIGHT OF BARS FOR MAIN BEAM

D16	557.2	kg
D13	3 029.6	kg
D10	74.2	kg
TOTAL WEIGHT	3 661.0	kg

LATERAL JOINT

W 1	D13	19 860	—	28	0.995	553.3
uv 1	D16	2 380	—	204	1.56	757.4
2	D13	1 810	—	204	0.995	367.4
D 1	D10	19 860	—	6	0.56	66.7
d 1	D13	4 470	—	4	0.995	17.8
2	"	3 120	—	6	"	18.6
3	"	4 390	—	8	"	34.9
4	"	2 490	—	18	"	44.6
5	"	3 650	—	16	"	53.1
6	"	3 180	—	18	"	57.0
7	"	950	—	408	"	385.7

WEIGHT OF BARS FOR LATERAL JOINT

D16	757.4	kg
D13	1 537.4	kg
D10	66.7	kg
TOTAL WEIGHT	2 361.5	kg

TOTAL WEIGHT OF BARS

D16	1 314.6	kg
D13	4 567.0	kg
D10	140.9	kg
TOTAL WEIGHT	6 022.5	kg

NOTE:

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

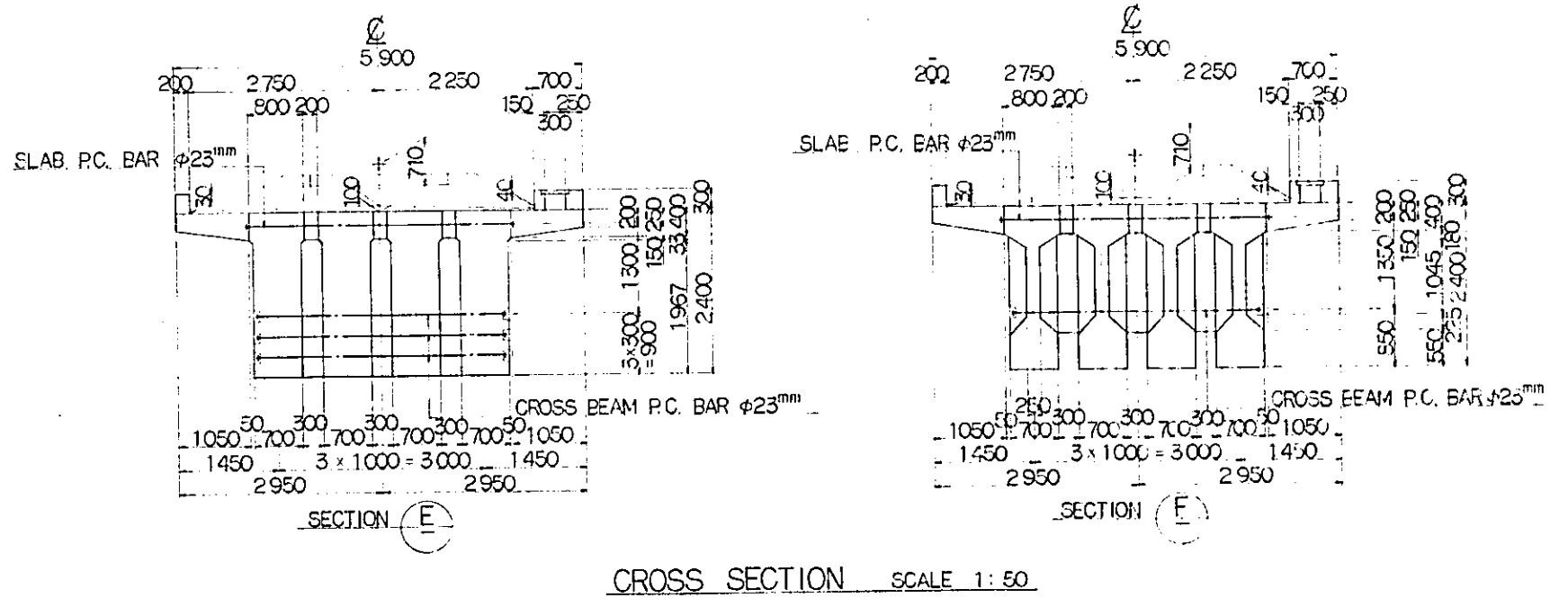
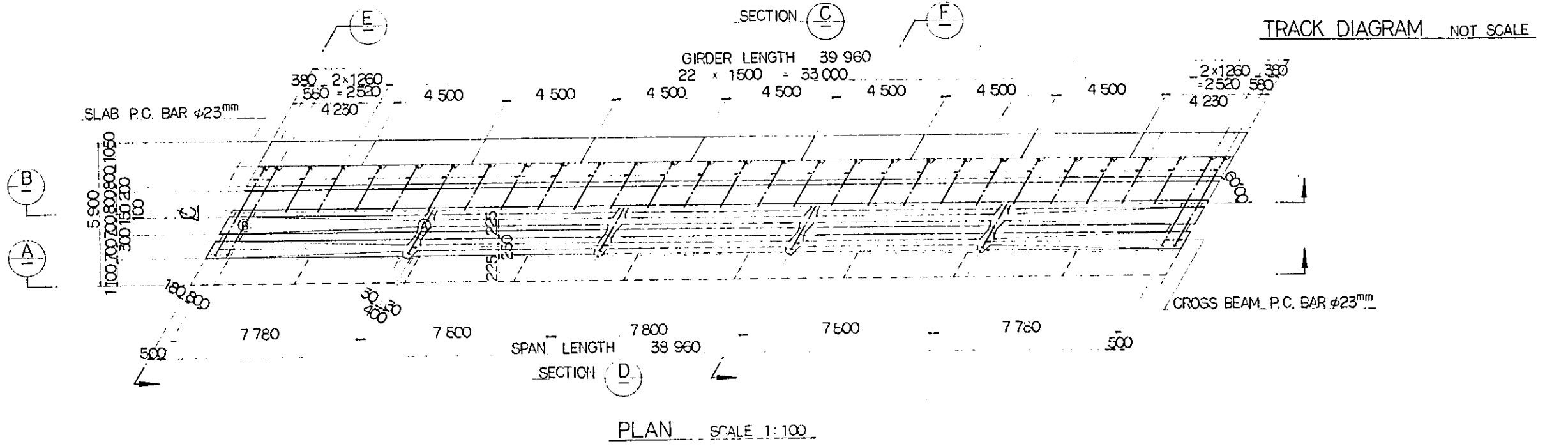
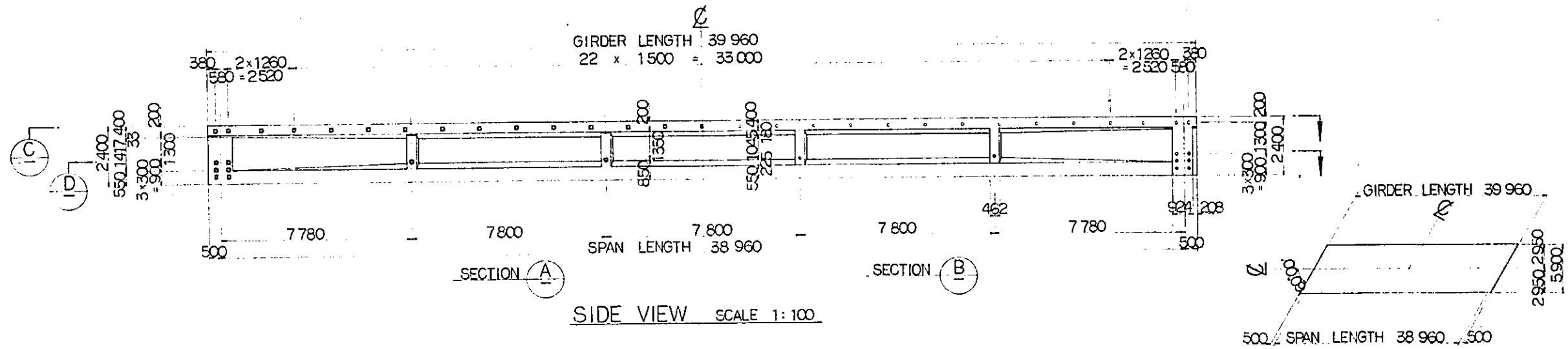
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

B	1 AUG '84	NY	AD	KA	UM	JK
A	15 FEB '84	NY	AD	KA	UM	JK
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

P.C. GIRDER
PC 01
REINF. BAR SCHEDULE

PACKAGE: I CIVIL AND ARCHITECTURAL WORK
SCALE: AS NOTED
DRAWING NO: CS - 024

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE EXCEPT R.C. COVER SHALL BE CAST IN PLACE
 3. P.C. STRAND 12T 15.2 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 15.2MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7A 12T 15.2 OR EQUIVALENT
 4. P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
 MINIMUM ULTIMATE TENSILE STRENGTH : 165 $\frac{kg}{mm^2}$
 MINIMUM YIELD STRESS : 140 $\frac{kg}{mm^2}$
 5. THIS DRAWING SHALL BE APPLIED TO : B06 - PC19
 6. DESIGN TRAIN LOAD: EQUIVALENT TO KS - 16



SUPERSTRUCTURE MATERIAL SCHEDULE (B01-PC02)

ITEM	TYPE	UNIT	QUANTITY
MAIN BEAM	CONCRETE CLASS A (16-400 $\frac{kg}{cm^2}$)	m ³	211.3
	P.C. STRAND 12T 15.2 (15-165 $\frac{kg}{mm^2}$)	kg	15 233.9
	SHEATH P 75	m	1 102.0
	FORMS	m ²	968.3
	ANCHORING DEVICE FOR 12T 15.2	EACH	56
	REINFORCING BAR	19	kg
LATERAL JOINT	CONCRETE CLASS B (16-300 $\frac{kg}{cm^2}$)	m ³	15.3
	P.C. BAR #23 (15-110 $\frac{kg}{mm^2}$)	kg	662.5
	SHEATH #35	m	195.2
	FORMS	m ²	46.0
	ANCHOR PLATE, NUT FOR #23	EACH	90
	REINFORCING BAR	16	kg
SIDEWALK CONCRETE	CONCRETE CLASS C (16-200 $\frac{kg}{cm^2}$)	m ³	27.3
	BRIDGE RAILING AND DUCT CONCRETE	m ³	7.8
	FORMS	m ²	72.4
	MORTAR WITH SLOPE-PROTECTIVE MORTAR	m ³	13.4
ELASTOMERIC BEARING PADS	DRAINAGE	EACH	8
	FIX. FOR R=190 ton		4
	MOV. FOR R=190 ton		4
TOTAL			13 521.3
TOTAL			4 051.7

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

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

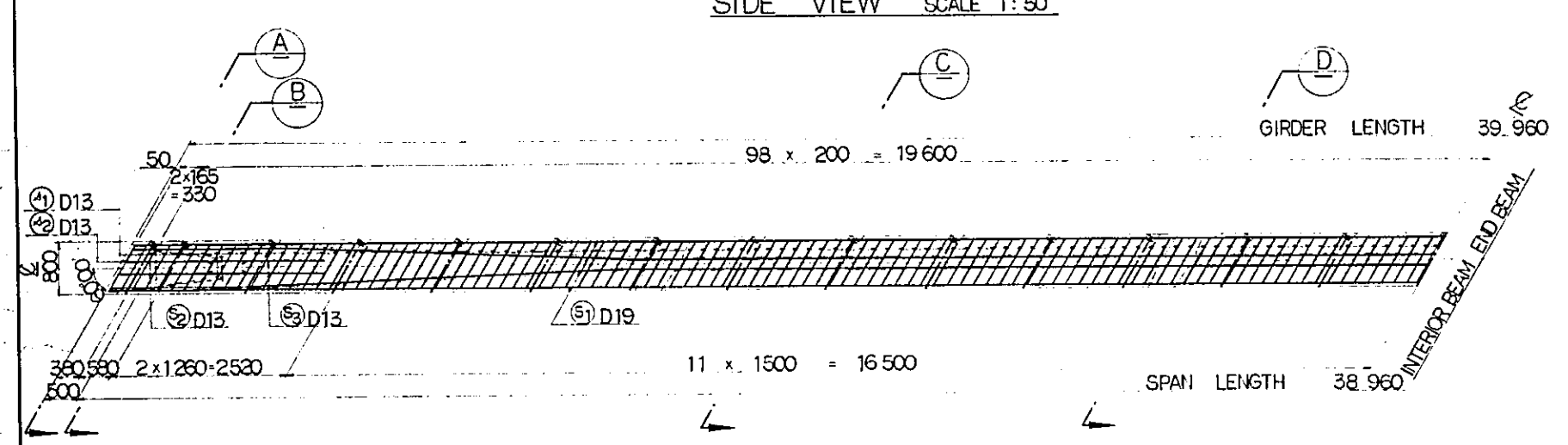
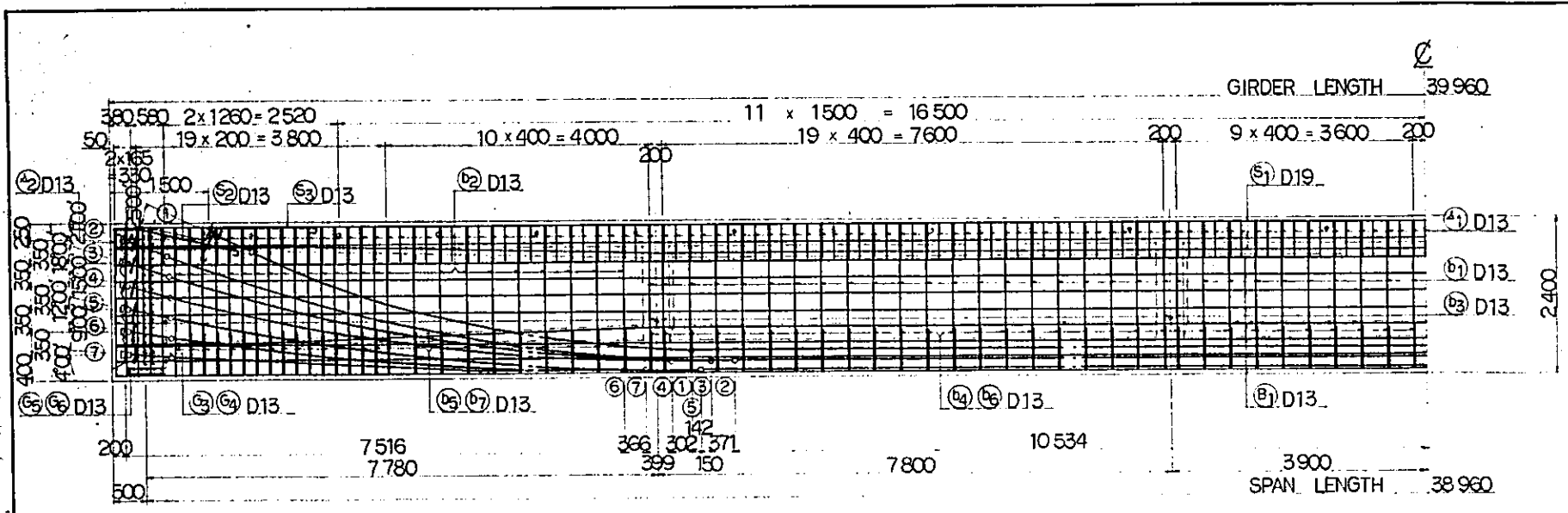
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1AUG'84	MY	JK	KM	JK
A	15FEB'84	MY	AD	KA	KM

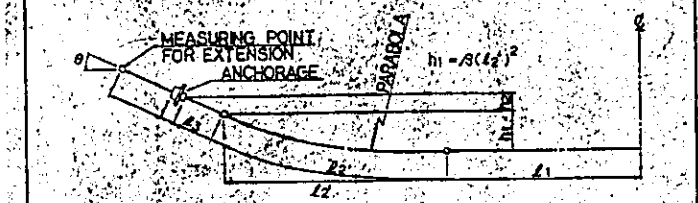
REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWED SUBMITTED

PC GIRDER
 PC 02
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE AS NOTED DRAWING NO. CS-025



BENDING SCHEDULE OF PC CABLES

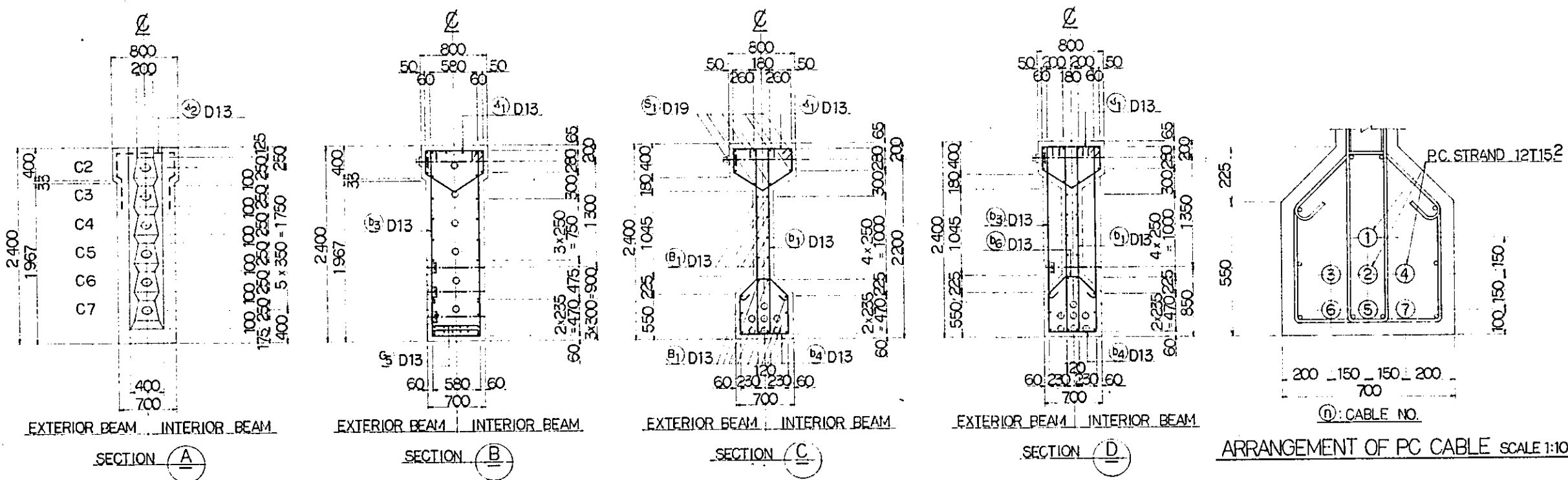


CABLE No	L ₁ (m)	L ₂ (m)	L ₃ (m)	L ₄ (m)	h ₁ (m)	h ₂ (m)	L ₁ (m)	β	ANGLE θ
①	11.197	6.882	6.649	0.646	1.550	0.273	18.725	0.03507	25°00'
②	10.534	8.799	8.592	0.646	1.649	0.232	19.979	0.02234	21°00'
③	10.906	8.362	8.209	0.646	1.334	0.200	19.503	0.01979	18°00'
④	11.499	7.685	7.606	0.646	1.019	0.167	19.840	0.01762	15°00'
⑤	11.055	8.100	8.040	0.646	0.855	0.134	19.801	0.01322	12°00'
⑥	12.264	6.854	6.825	0.646	0.541	0.101	19.764	0.01160	9°00'
⑦	11.888	7.190	7.184	0.646	0.251	0.048	19.734	0.00487	4°00'

SCHEDULE OF PC BAR

ANCHOR PLATE	(mm)
SLAB	4308
CROSS BEAM	(A) 4092
	(B) 4492

- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETRES UNLESS OTHERWISE INDICATED.
 - REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSION ARE EXAMPLES AND THESE SHALL BE REVIEWED AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM.
 - JACKING LOAD INCLUDE FRICTION IN THE JACK AND ANCHORAGE. EXTENSION SHOWS TOTAL VALUE OF THOSE AT BOTH ENDS MEASURED AT THE POINT 30CM OUTSIDE FROM ANCHORAGE SURFACE. AFTER THE PRESTRESSING SYSTEM IS DETERMINED THESE VALUES SHALL BE REVIEWED ALONG WITH THE OTHER ASSUMED FACTORS AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS. INITIAL STRESS DO NOT INCLUDE OTHER FACTORS THAN FRICTION LOSSES.
 - TENSIONING SEQUENCE OF LATERAL PC BARS SHALL BE AT EVERY OTHER BAR.



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)

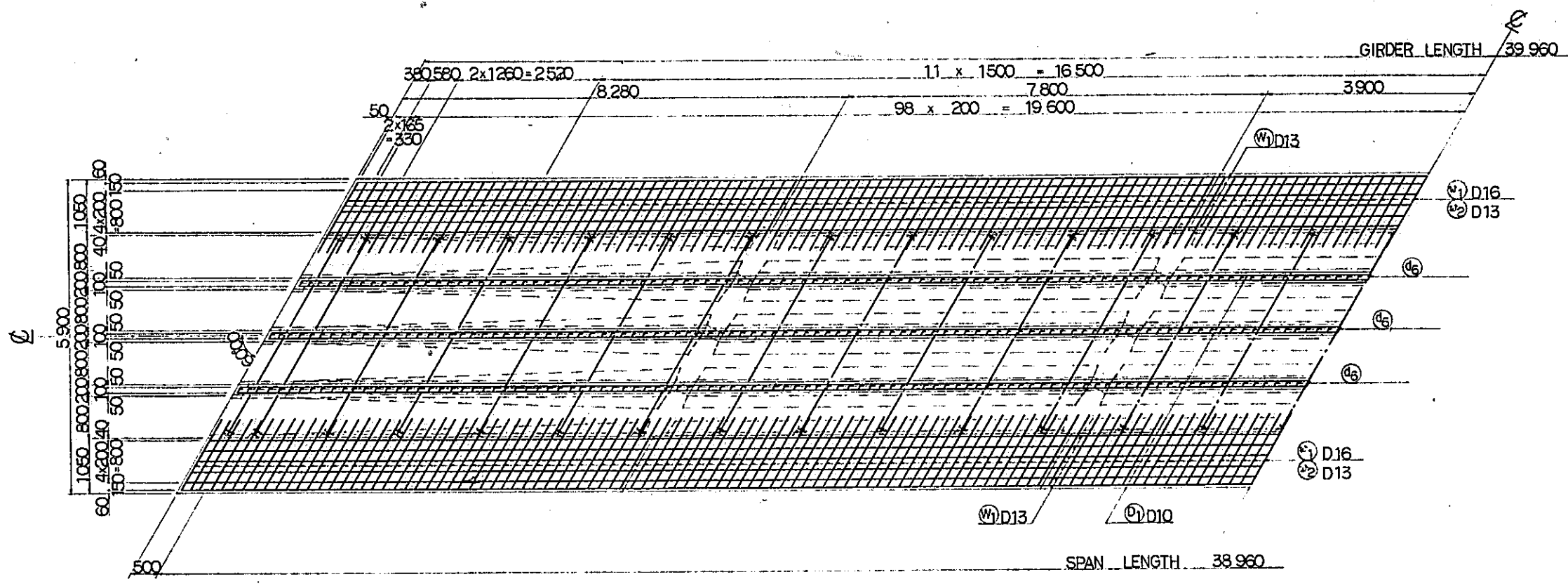
B	1 AUG '84	MYAO	K.S.	K.M.	K.K.
A	15 FEB '84	MYAO	K.S.	K.M.	K.K.

REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWED SUBMITTED

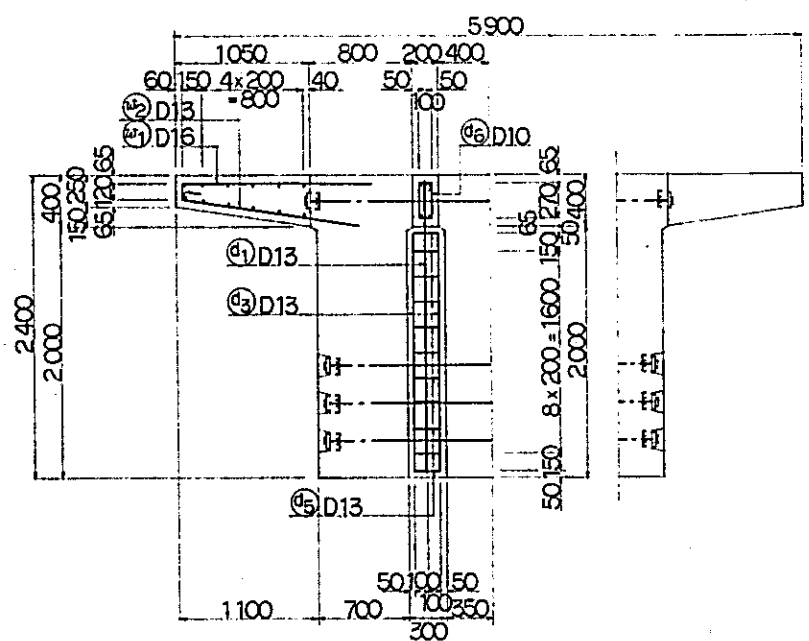
P.C. GIRDER
 PC 02
 P.C. CABLE AND REINF. BAR
 ARRANGEMENT OF MAIN BEAM

PACKAGE: I CIVIL AND ARCHITECTURAL WORK

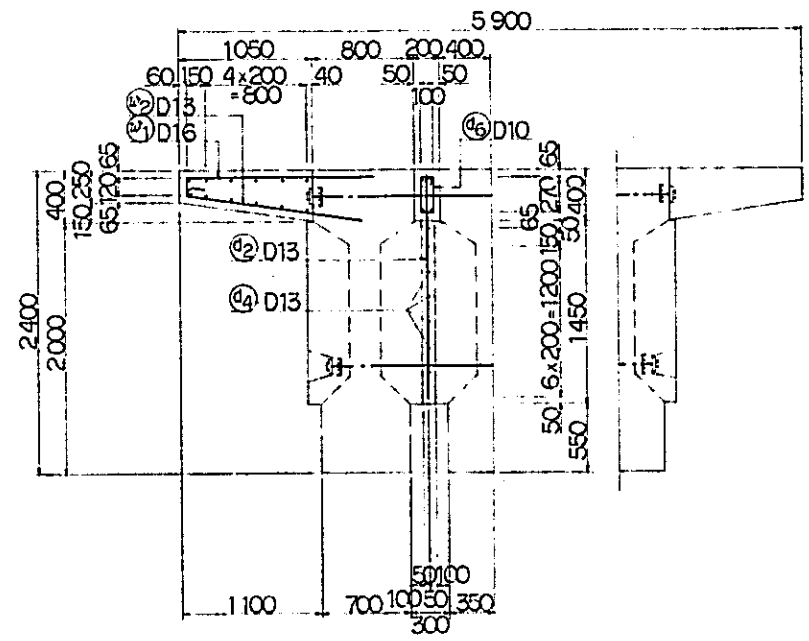
SCALE AS NOTED DRAWING NO. CS-026



PLAN SCALE 1:50



END CROSS BEAM

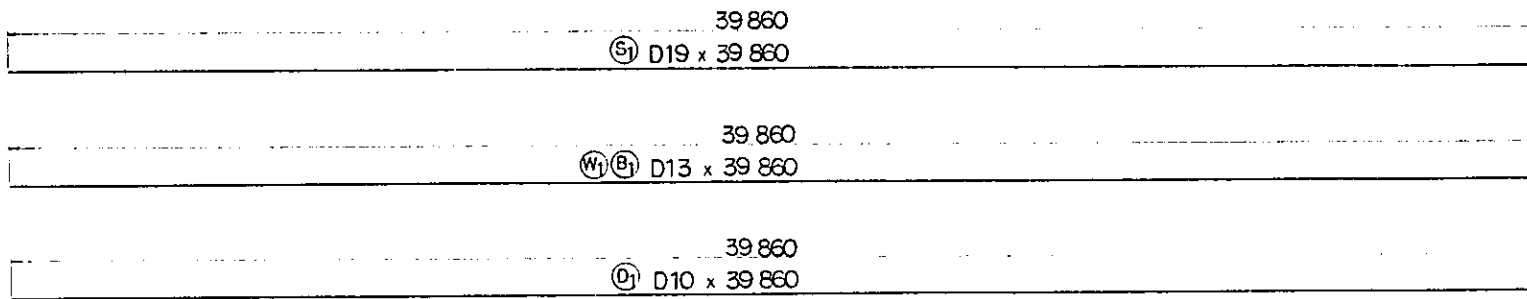


MIDDLE CROSS BEAM

CROSS SECTION SCALE 1:30

NOTES:
 1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSION ARE EXAMPLES AND THESE SHALL BE REVIEWED AND IF NECESSARY BE ADJUSTED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM

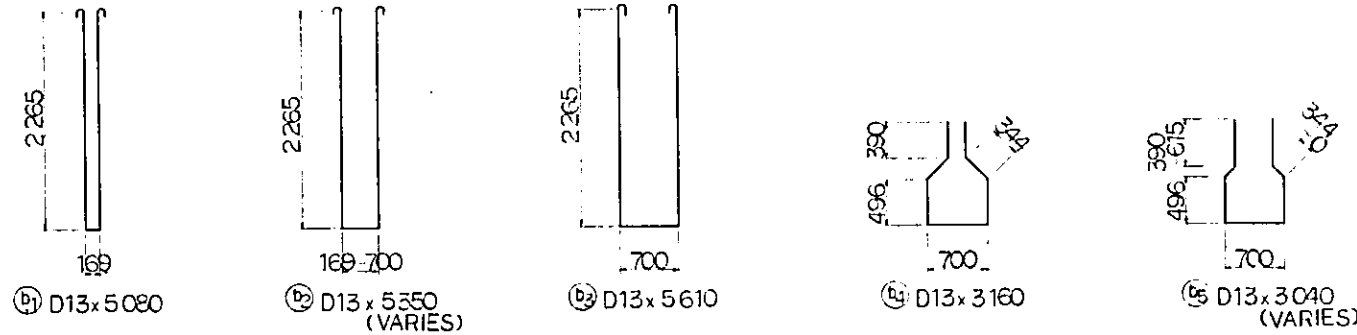
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG 84	M.Y.	A.O.	K.A.	K.M. & K.
A	15 FEB 84	M.Y.	A.O.	K.A.	K.M. & K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
P.C. GIRDER PC 02 P.C. CABLE AND REINF. BAR ARRANGEMENT OF LATERAL JOINT					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
AS NOTED	CS-027				



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

BAR SCHEDULE

REINF. No.	DIA. (mm)	LENGTH (mm)	NUMBER / ONE BEAM	TOTAL NUMBER	UWEIGHT (kg/m)	WEIGHT (kg)
			EXTERIOR	INTERIOR		
MAIN BEAM						
S 1	D19	39 860	8	8	2.25	2 869.9
2	D13	2 380	4	4	0.995	37.9
3	"	2 380	4	4	"	37.9
A 1	D13	2 780	199	199	0.995	2 201.8
2	"	2 380	2	2	"	18.9
B 1	D13	39 860	18	18	0.995	2 855.6
b 1	D13	5 080	62	62	0.995	1 253.5
2	"	5 350	52	52	"	1 107.2
3	"	5 610	18	18	"	401.9
4	"	3 160	62	62	"	779.8
5	"	3 040	52	52	"	629.2
6	"	1 240	62	62	"	306.0
7	"	1 160	52	52	"	240.1
G 1	D13	2 960	28	28	0.995	329.9
2	D10	690	90	90	0.56	69.6
3	D13	7 070	4	4	0.995	112.6
4	"	2 060	16	16	"	131.2
5	"	4 190	4	4	1C	66.7
6	"	1 500	12	12	"	71.6



WEIGHT OF BARS FOR MAIN BEAM

D19	2 869.9	kg
D13	10 581.2	kg
D10	69.6	kg
TOTAL WEIGHT	13 521.3	kg

LATERAL JOINT

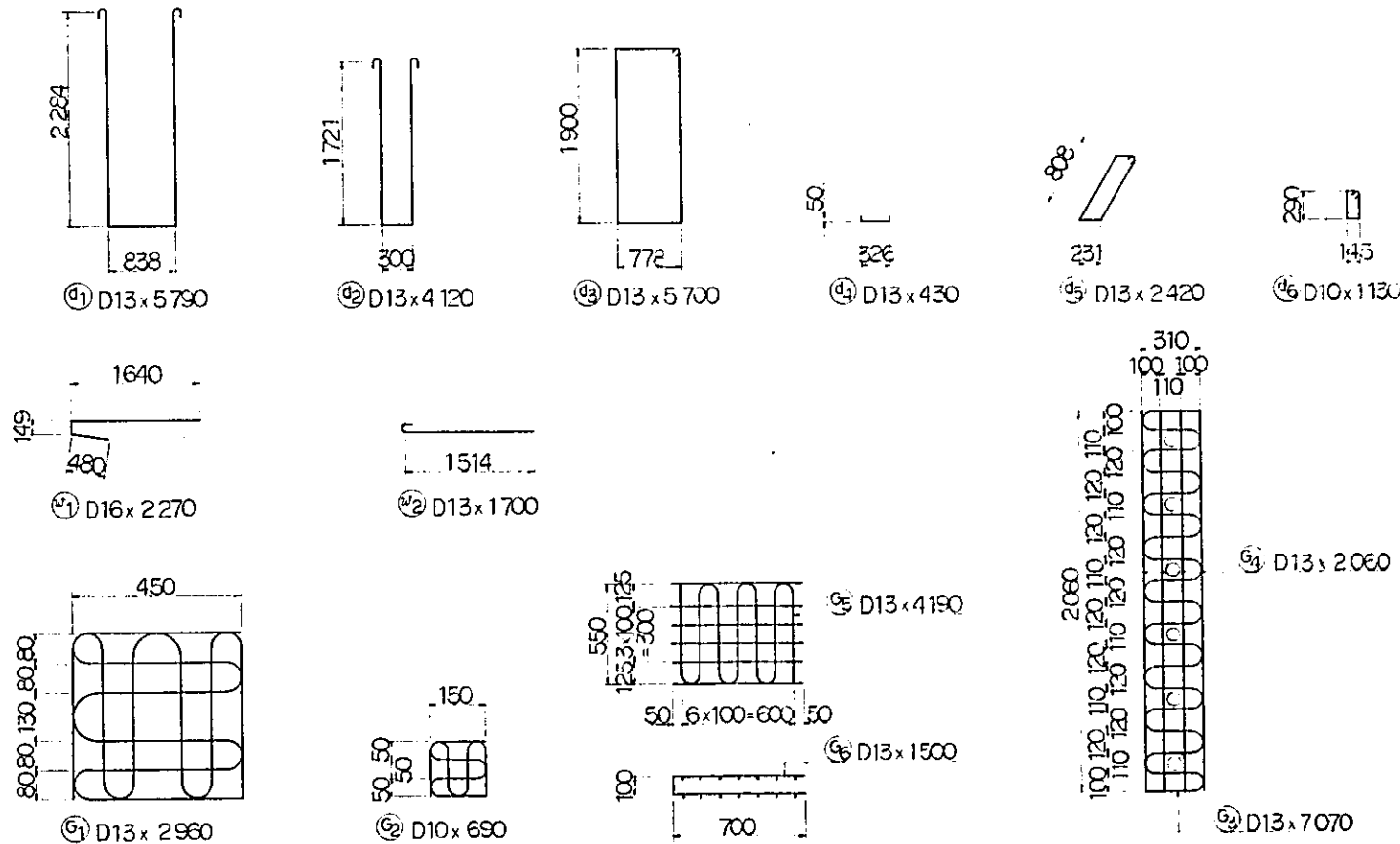
W 1	D13	39 860		24	0.995	951.9
w 1	D16	2 270		402	1.56	1 423.6
2	D13	1 700		402	0.995	680.0
D 1	D10	39 860		12	0.56	267.9
d 1	D13	5 790		6	0.995	34.6
2	"	4 120		12	"	49.2
3	"	5 700		12	"	66.1
4	"	430		84	"	35.9
5	"	2 420		66	"	155.9
6	D10	1 130		603	0.56	381.6

WEIGHT OF BARS FOR LATERAL JOINT

D16	1 423.6	kg
D13	1 978.6	kg
D10	649.5	kg
TOTAL WEIGHT	4 051.7	kg

TOTAL WEIGHT OF BARS

D19	2 869.9	kg
D16	1 423.6	kg
D13	12 560.4	kg
D10	719.1	kg
TOTAL WEIGHT	17 573.0	kg



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NEW RAILWAY LINE FOR CENGKARENG AIRPORT
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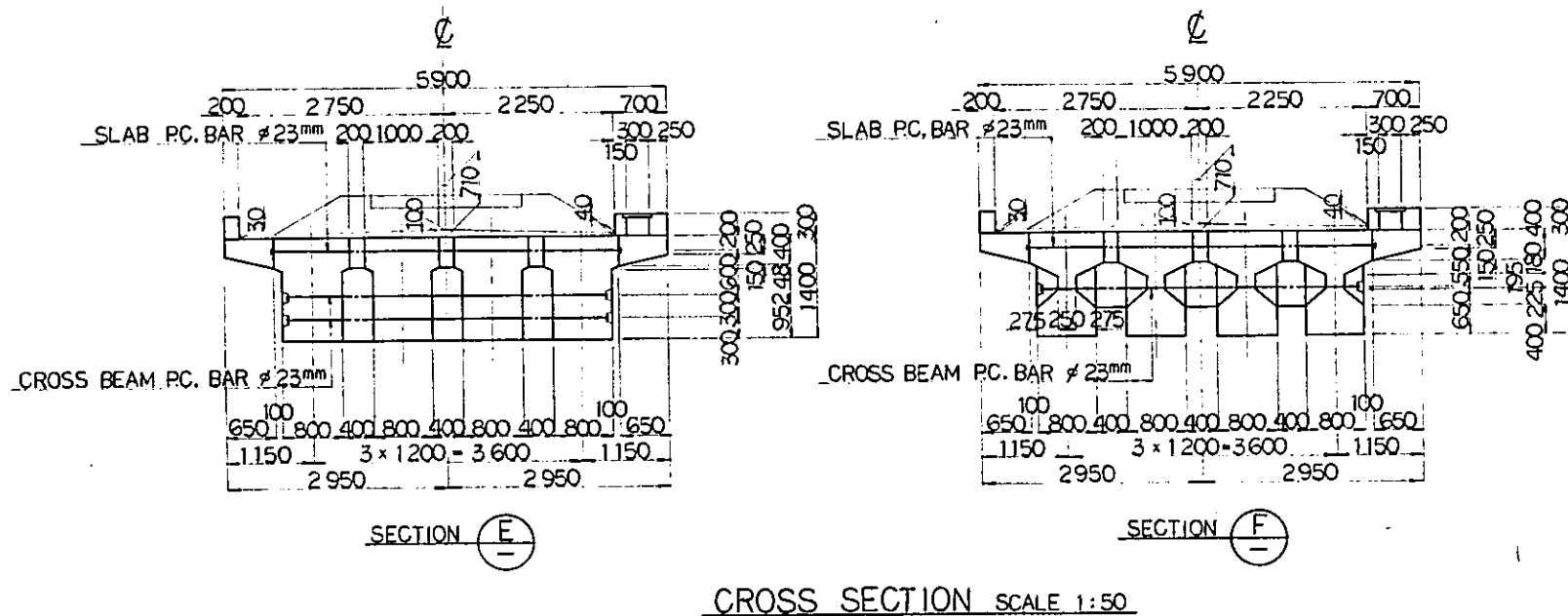
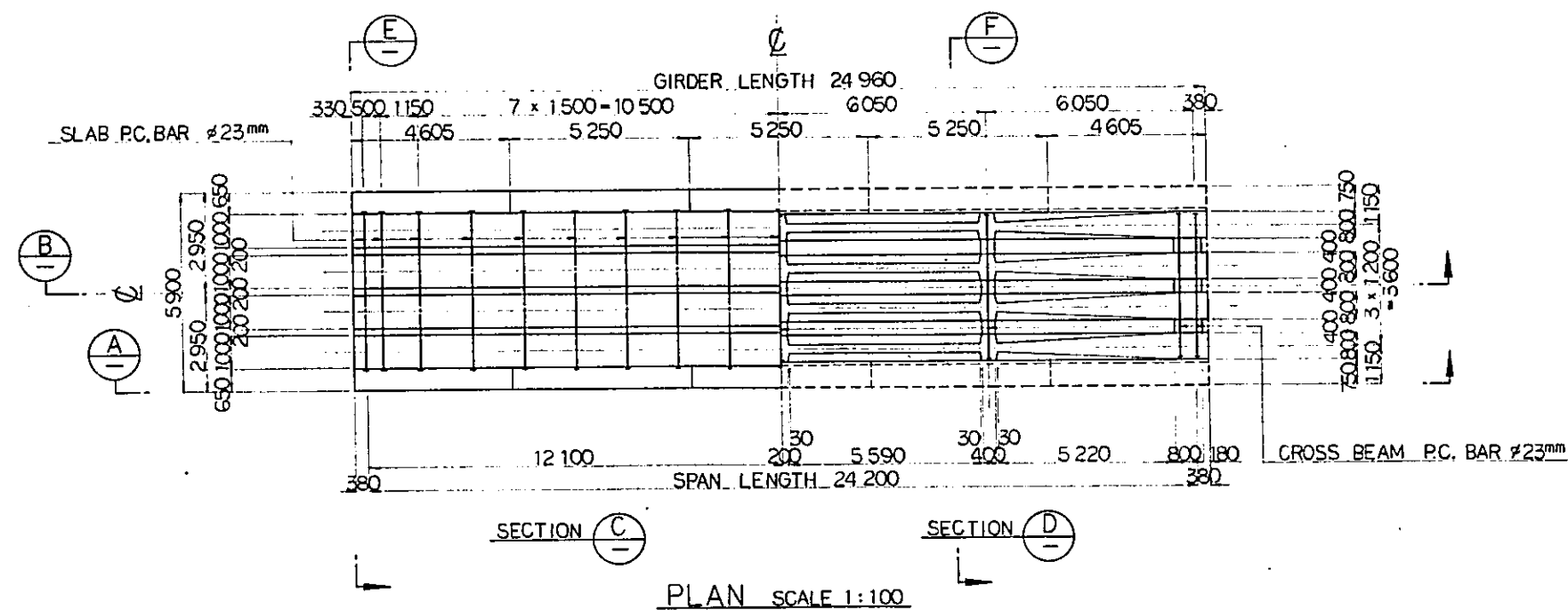
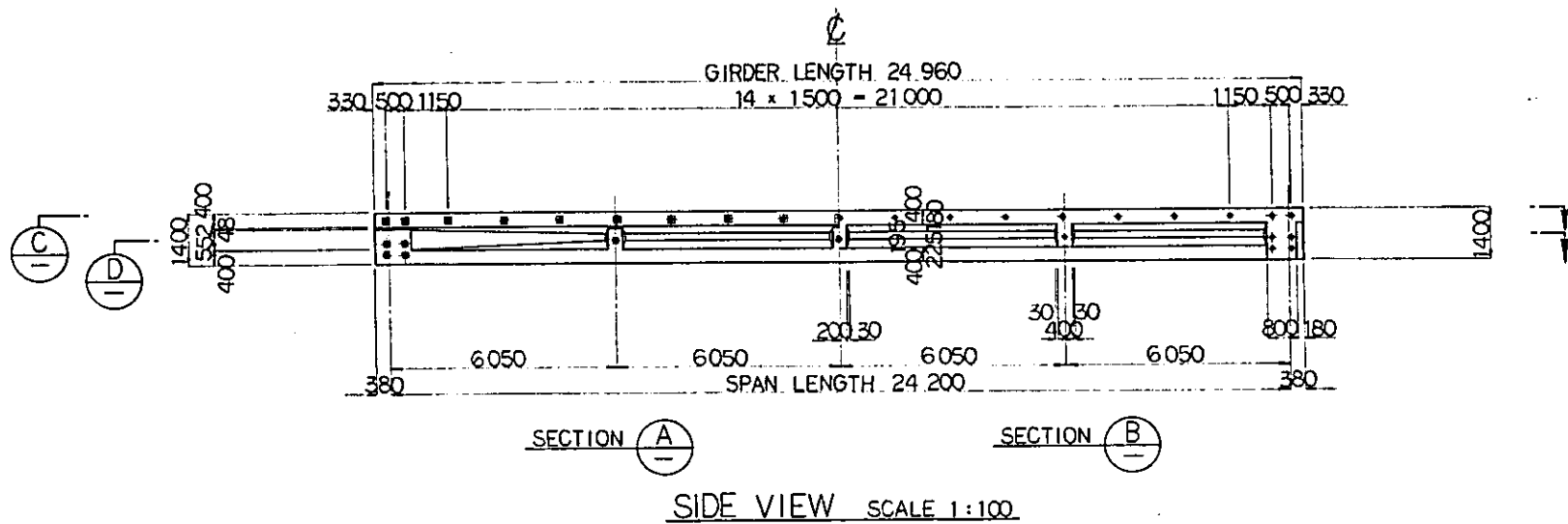
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A	15 FEB '82	M.Y.	A.D.	K.A.	K.M.	M.K.

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

P.C GIRDER
PC 02
REINF. BAR SCHEDULE

PACKAGE: I CIVIL AND ARCHITECTURAL WORK

SCALE: AS NOTED DRAWING NO: CS-028



NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE EXCEPT R.C. COVER SHALL BE CAST IN PLACE
3. P.C. STRAND 12T12.7 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 12.7 MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7B 12T12.7 OR EQUIVALENT
4. P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
 MINIMUM ULTIMATE TENSILE STRENGTH : 190 ^{kg}/_{mm}²
 MINIMUM YIELD STRESS : 160 ^{kg}/_{mm}²
5. THIS DRAWING SHALL BE APPLIED TO
 : B03 - PC10
 : B08 - PC22
 : B08 - PC23
 : B10 - PC27
6. DESIGN TRAIN LOAD : EQUIVALENT TO KS - 16

SUPERSTRUCTURE MATERIAL SCHEDULE (B02-PC04)

ITEM	TYPE	UNIT	QUANTITY
MAIN BEAM	CONCRETE	CLASS A (f _c = 400 ^{kg} / _{cm} ²)	m ³ 106.7
	P.C. STRAND	12T12.7 (f _s = 190 ^{kg} / _{mm} ²)	kg 5814.6
	SHEATH	φ 65	m ² 588.6
	FORMS		m ² 426.1
	ANCHORING DEVICE	FOR 12T12.7	EACH 48
	REINFORCING BAR		kg
LATERAL JOINT	CONCRETE	CLASS B (f _c = 300 ^{kg} / _{cm} ²)	m ³ 8.7
	P.C. BAR	φ 23 (f _s = 110 ^{kg} / _{mm} ²)	kg 453.7
	SHEATH	φ 35	m ² 133.8
	FORMS		m ² 26.1
	ANCHOR PLATE, NUT	FOR φ 23	EACH 60
	REINFORCING BAR		kg
SIDEWALK CONCRETE	CLASS C (f _c = 240 ^{kg} / _{cm} ²)	m ³ 10.5	
BRIDGE RAILING AND DUCT	CONCRETE	m ³ 4.9	
MORTAR WITH SLOPE PROTECTIVE MORTAR DRAINAGE	FORMS	m ² 45.3	
ELASTOMERIC BEARING PADS		m ³ 8.4	
		EACH	4
			4
			4
TOTAL			2008.0

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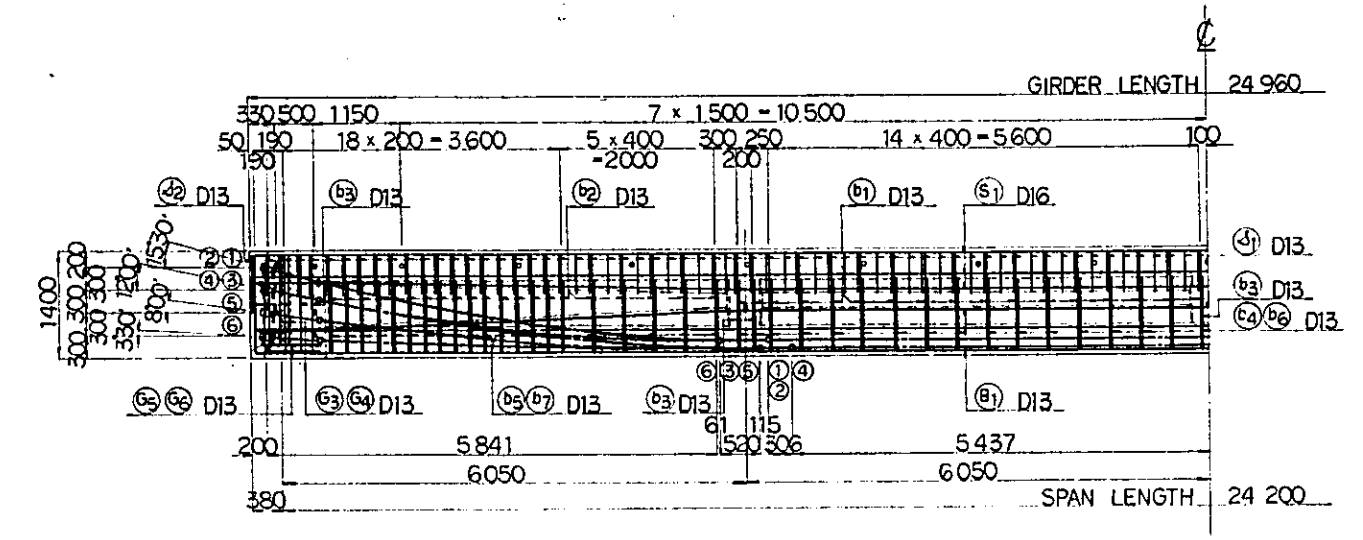
NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

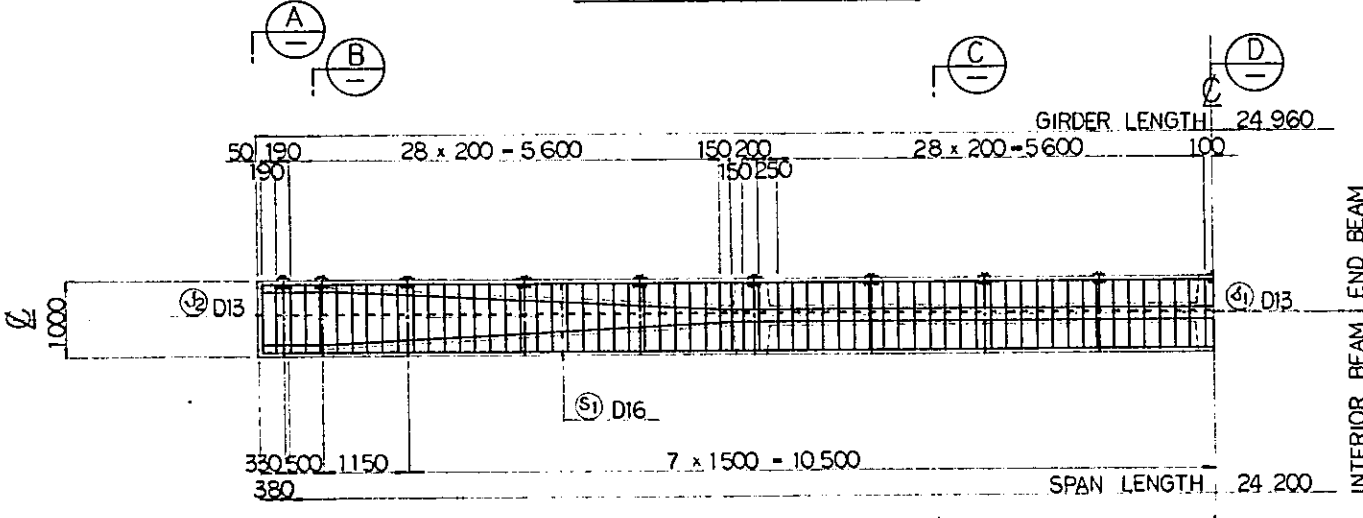
B	1 AUG '84	MYAO	KA	UM	JK
A	15 FEB '84	MYAO	KA	UM	JK

P.C. GIRDER
 PC 04
 GENERAL VIEW

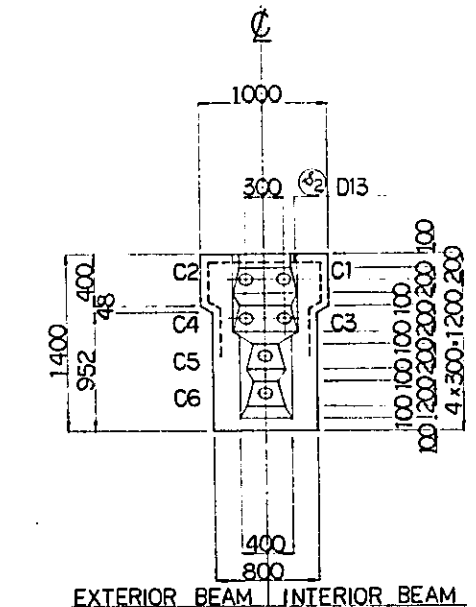
PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: AS NOTED DRAWING NO: CS-029



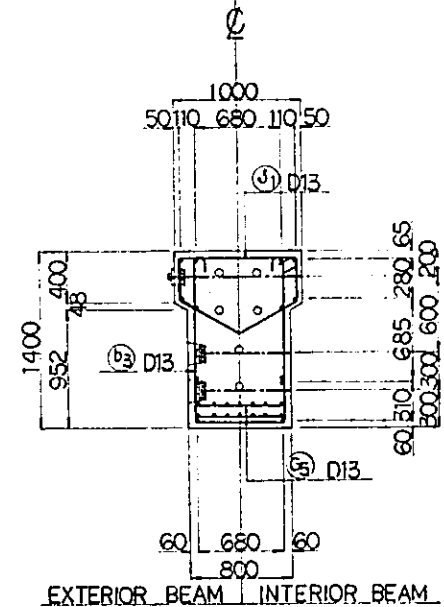
SIDE VIEW SCALE 1:50



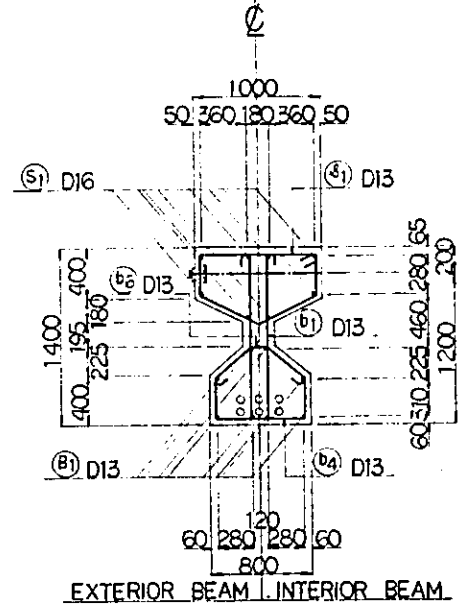
PLAN SCALE 1:50



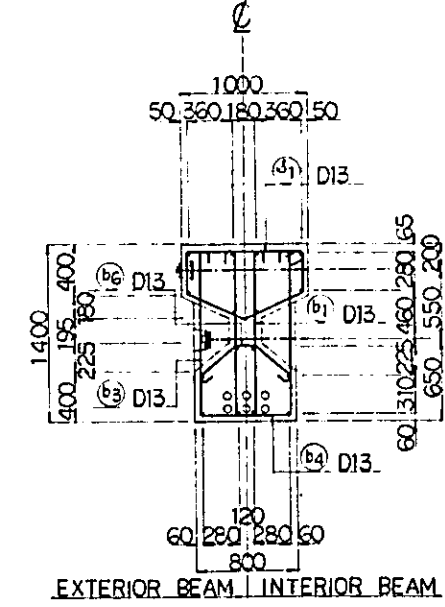
SECTION A



SECTION B



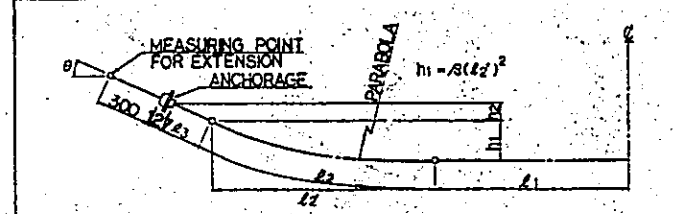
SECTION C



SECTION D

CROSS SECTION SCALE 1:30

BENDING SCHEDULE OF PC CABLES

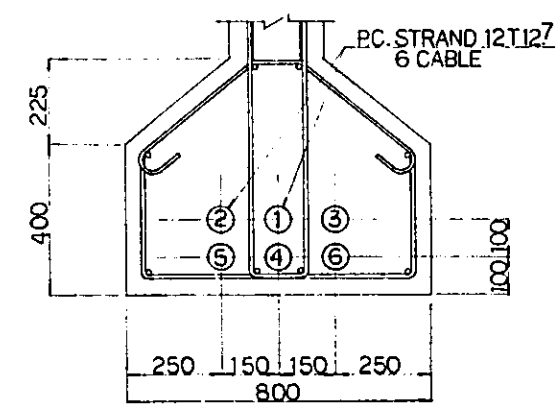


CABLE No	L1(m)	L2(m)	L2'(m)	L3(m)	h1(m)	h2(m)	L(m)	β	ANGLE θ
①	5.743	5.937	5.863	0.625	0.813	0.167	12.305	0.02365	15°30'
②	5.743	5.937	5.863	0.625	0.813	0.167	12.305	0.02365	15°30'
③	6.378	5.256	5.217	0.625	0.555	0.130	12.259	0.02037	12°00'
④	5.437	6.204	6.158	0.625	0.655	0.130	12.266	0.01726	12°00'
⑤	5.858	5.748	5.729	0.625	0.403	0.087	12.231	0.01227	8°00'
⑥	6.439	5.148	5.142	0.625	0.157	0.038	12.209	0.00595	3°30'

SCHEDULE OF PC BAR

ANCHOR PLATE	(mm)
SLAB	4 600
CROSS BEAM	4 220

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETRES UNLESS OTHERWISE INDICATED
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 3. JACKING LOAD INCLUDE FRICTION IN THE JACK AND ANCHORAGE. EXTENSION SHOWS TOTAL VALUE OF THOSE AT BOTH ENDS MEASURED AT THE POINT 30CM OUTSIDE FROM ANCHORAGE SURFACE. AFTER THE PRESTRESSING SYSTEM IS DETERMINED THESE VALUES SHALL BE REVIEWED ALONG WITH THE OTHER ASSUMED FACTORS AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURES INSTRUCTIONS. INITIAL STRESS DO NOT INCLUDE OTHER FACTORS THAN FRICTION LOSSES.
 4. TENSIONING SEQUENCE OF LATERAL PC. BARS SHALL BE AT EVERY OTHER BAR



ARRANGEMENT OF PC CABLE SCALE 1:10

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

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

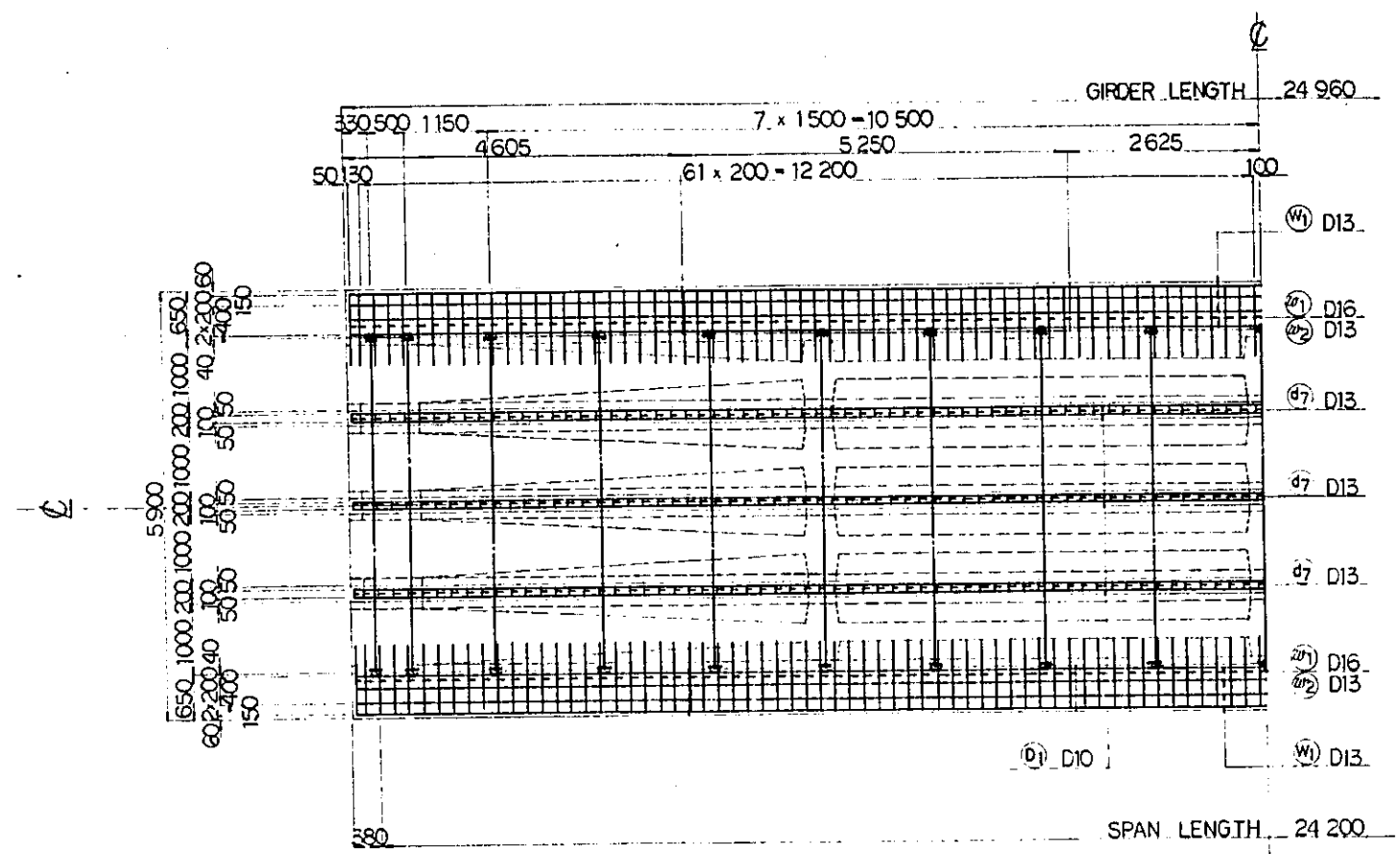
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1 AUG '84	MY	AK	KM	mk
A	15 FEB '84	MY	AK	KM	mk

REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWED SUBMITTED

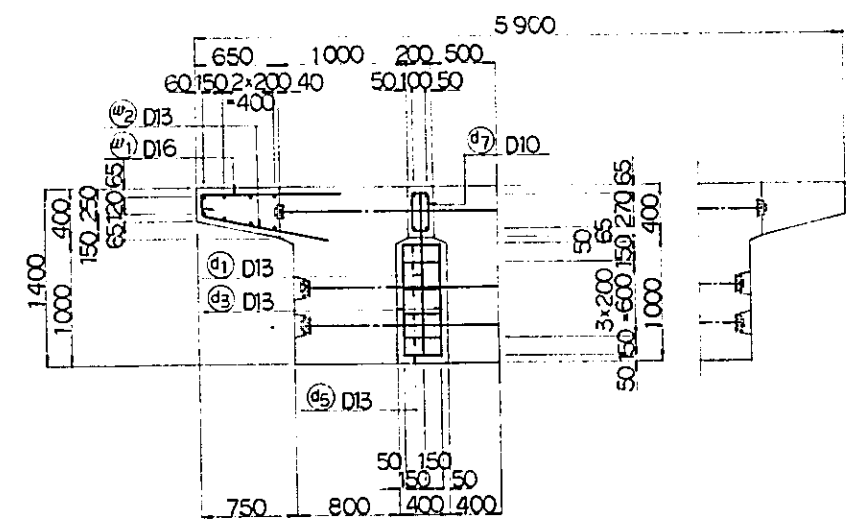
P. C. GIRDER
 PC 04
 P.C. CABLE AND REINF. BAR
 ARRANGEMENT OF MAIN BEAM

PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: AS NOTED DRAWING NO: CS - 030

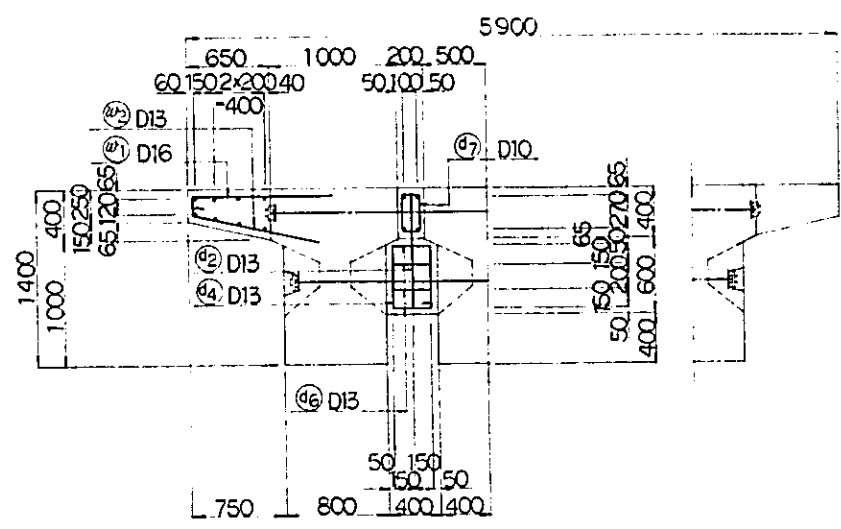


PLAN SCALE 1:50

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSION ARE EXAMPLES AND THESE SHALL BE REVIEWED AND IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM



END CROSS BEAM

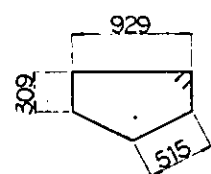
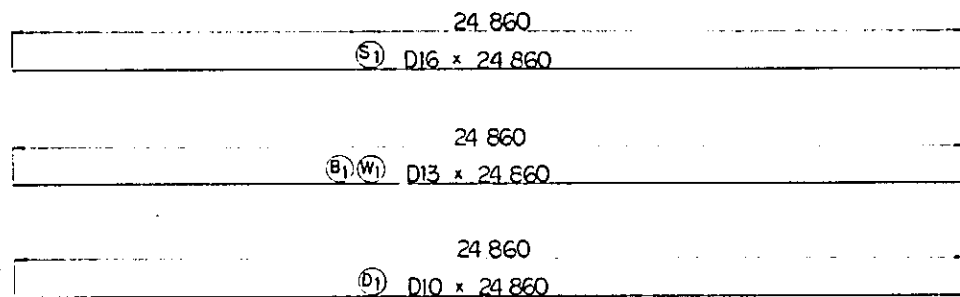


MIDDLE CROSS BEAM

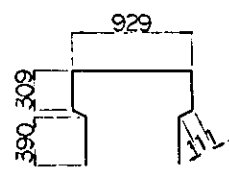
CROSS SECTION SCALE 1:30

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.Y.A.O	K.A.	K.M.	M.K.
A	15 FEB '84	M.Y.A.O	K.A.	K.M.	M.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
P.C. GIRDER PC 04 P.C. CABLE AND REINF. BAR ARRANGEMENT OF LATERAL JOINT					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE		DRAWING NO.			
AS NOTED		CS - 031			

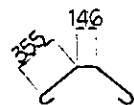
NOTE:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED



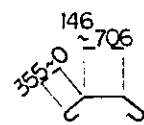
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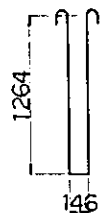
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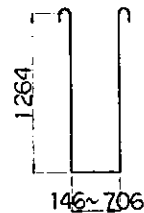
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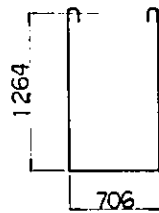
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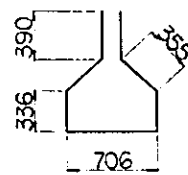
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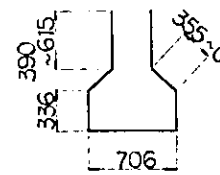
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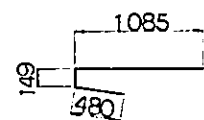
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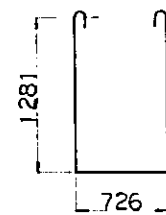
(e4) D13 x 2870



(e5) D13 x 2740 (VARIES)



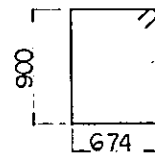
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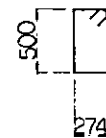
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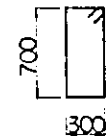
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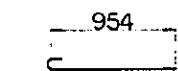
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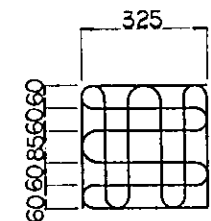
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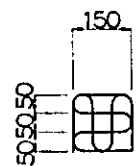
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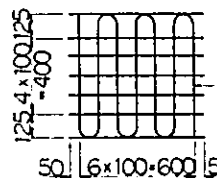
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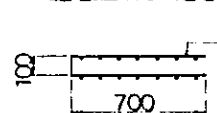
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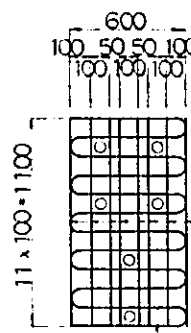
(i2) D10 x 690



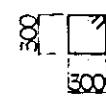
(j5) D13 x 4890



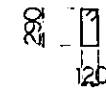
(j6) D13 x 1500



(j3) D13 x 1100



(j4) D13 x 1540



(j7) D10 x 1080

BAR SCHEDULE

REINF NO	DIA (mm)	LENGTH (mm)	NUMBER/ONE BEAM		TOTAL NUMBER	UWEIGHT (kg/m)	WEIGHT (kg)
			EXTERIOR	INTERIOR			
MAIN BEAM							
S 1	D16	24860	8	8	32	1,560	1241.0
J 1	D13	2920	124	124	496	0,995	1441.1
		2550	2	2	8	.	20.3
B 1	D13	24860	8	8	32	0,995	791.5
d 1	D13	3050	34	34	136	0,995	412.7
		3330	42	42	168	.	556.6
		3610	16	16	64	.	229.9
		2870	34	34	136	.	388.4
		2740	42	42	168	.	458.0
		1240	34	34	136	.	167.8
		1160	42	42	168	.	193.9
G 1	D13	2140	24	24	96	0,995	204.4
		690	60	—	120	0,560	46.4
		7830	4	4	16	0,995	124.7
		1100	32	32	128	.	140.1
		4890	4	4	16	.	77.8
		1500	14	14	56	.	83.6

WEIGHT OF BARS FOR MAIN BEAM

D16	1241.0 kg
D13	5290.8 kg
D10	46.4 kg
TOTAL WEIGHT	6578.2 kg

LATERAL JOINT

W 1	D13	24860	—	—	16	0,995	395.8
W 1	D16	1710	—	—	252	1,560	672.2
		1140	—	—	252	0,995	285.8
D 1	D10	24860	—	—	12	0,560	167.1
d 1	D13	3670	—	—	6	0,995	21.9
		2470	—	—	9	.	22.1
		3490	—	—	12	.	41.7
		1890	—	—	18	.	33.8
		2340	—	—	36	.	83.8
		1540	—	—	36	.	55.2
		1080	—	—	378	0,560	228.6

WEIGHT OF BARS FOR LATERAL JOINT

D16	672.2 kg
D13	940.1 kg
D10	395.7 kg
TOTAL WEIGHT	2008.0 kg

TOTAL WEIGHT OF BARS

D16	1913.2 kg
D13	6230.9 kg
D10	442.1 kg
TOTAL WEIGHT	8586.2 kg

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)

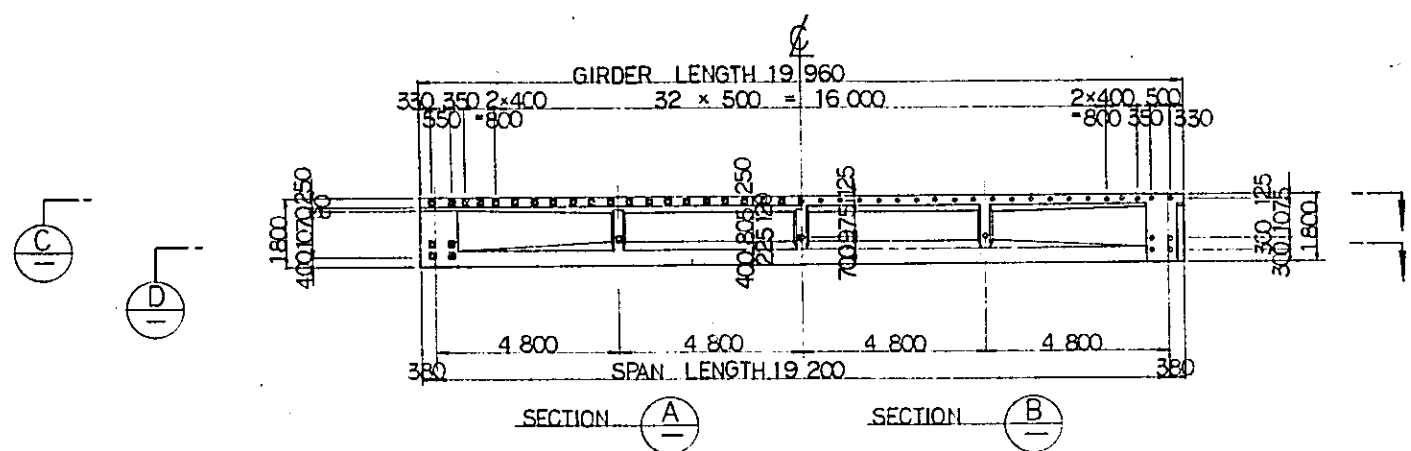
B	1 AUG '84	M.Y.A.O	K.A.	K.M.	M.K.
A	15 FEB '84	M.Y.A.O	K.A.	K.M.	M.K.

REVISIONS DATE DESIGNED DRAWN CHECKED REVISION SUBMITTED

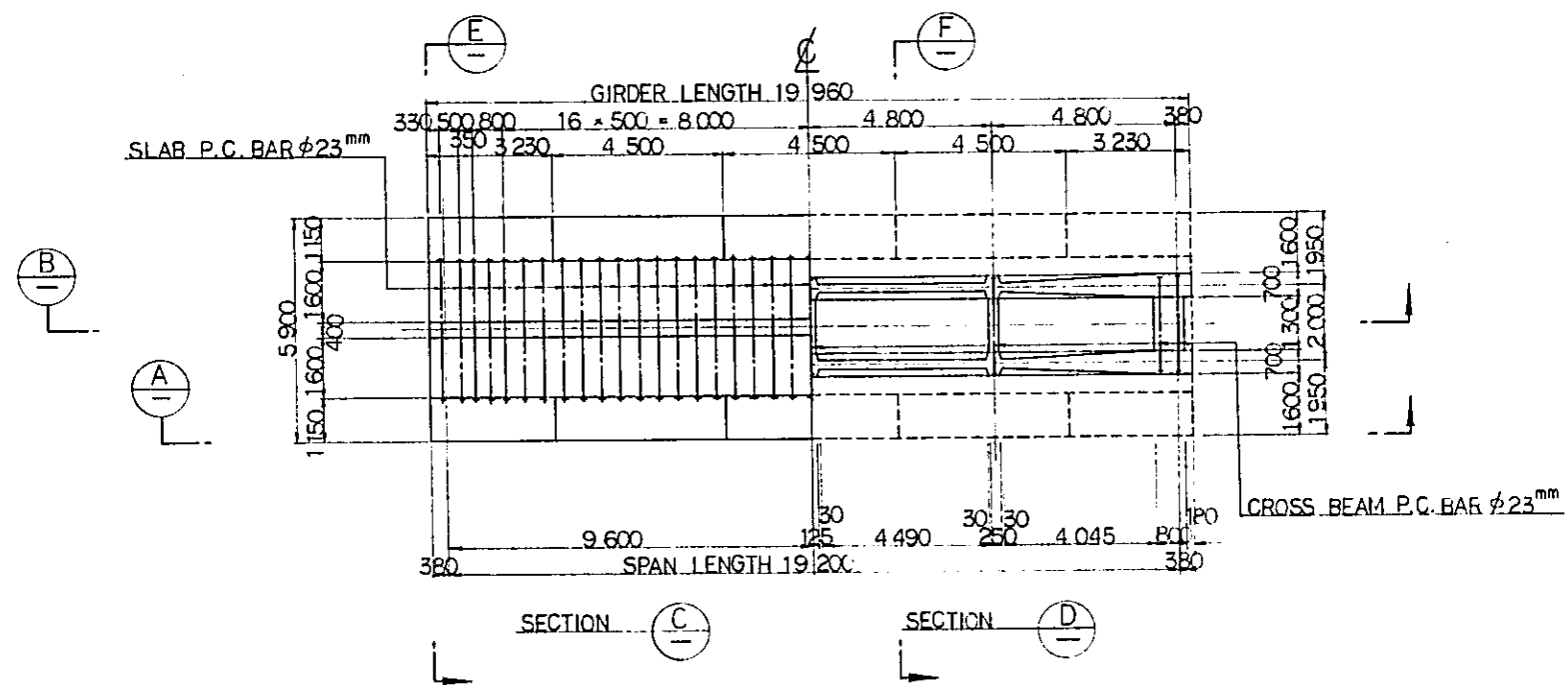
P.C. GIRDER
PC 04
REINF. BAR SCHEDULE

PACKAGE: I CIVIL AND ARCHITECTURAL WORK

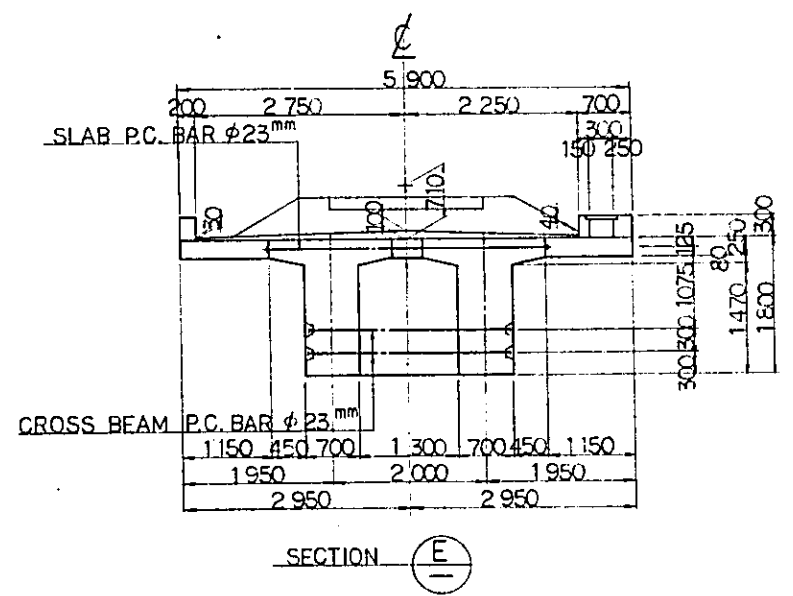
SCALE AS NOTED DRAWING NO. CS - 032



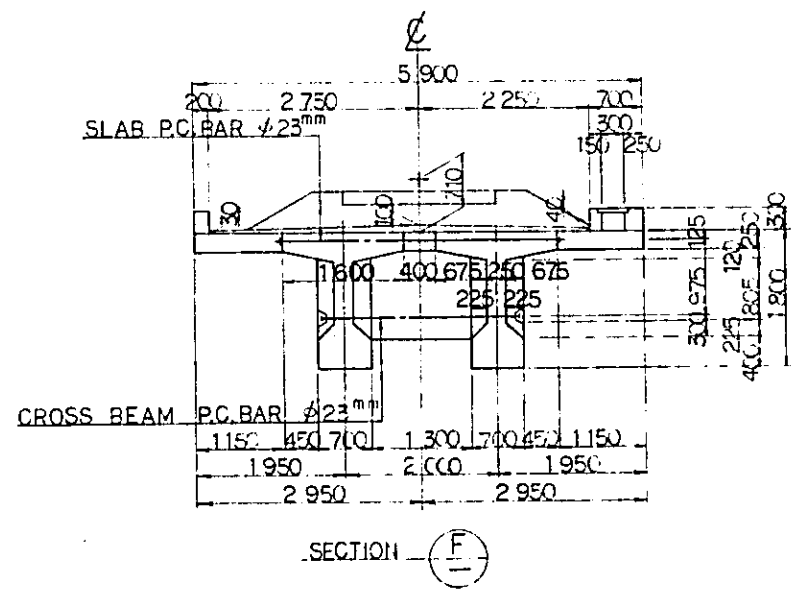
SIDE VIEW SCALE 1:100



PLAN SCALE 1:100



SECTION E



SECTION F

CROSS SECTION SCALE 1:50

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE EXCEPT R.C. COVER SHALL BE CAST IN PLACE
 3. P.C. STRAND 12T 12.7 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 12.7 MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7B 12T 12.7 OR EQUIVALENT
 4. P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
 MINIMUM ULTIMATE TENSILE STRENGTH : 190^{kg}/mm²
 MINIMUM YIELD STRESS : 160^{kg}/mm²
 5. THIS DRAWING SHALL BE APPLIED TO
 : B01 - PC01
 : B03 - PC07
 : B03 - PC08
 : B03 - PC09
 : B03 - PC11
 6. DESIGN TRAIN LOAD: EQUIVALENT TO KS - 16

SUPERSTRUCTURE MATERIAL SCHEDULE (B03-PC05)

ITEM	TYPE	UNIT	QUANTITY
MAIN BEAM	CONCRETE	CLASS A (f _c =400 ^{kg} /cm ²)	m ³ 49.7
	P.C. STRAND	12 T 12.7 (f _s =190 ^{kg} /mm ²)	kg 1960.4
	SHEATH	φ65 and φ70	m 195.5
	FORMS		m ² 227.0
	ANCHORING DEVICE	FOR 12 T 12.7	EACH 20
	REINFORCING BAR		
		19	kg
		16	kg
		13	kg
		10	kg
	TOTAL		3661.0
LATERAL JOINT	CONCRETE	CLASS B (f _c =300 ^{kg} /cm ²)	m ³ 6.3
	P.C. BAR	φ23 (f _s =110 ^{kg} /mm ²)	kg 601.7
	SHEATH	φ35	m 175.3
	FORMS		m ² 27.0
	ANCHOR PLATE, NUT	FOR φ23	EACH 104
REINFORCING BAR			
	16	kg	
	13	kg	
	10	kg	
	TOTAL		2361.5
SIDEWALK CONCRETE	CLASS C (f _c =240 ^{kg} /cm ²)	m ³	11.5
BRIDGE RAILING AND DUCT	CONCRETE	m ³	3.9
	FORMS	m ²	36.3
MORTAR WITH SLOPE-PROTECTIVE MORTAR		m ³	6.7
DRAINAGE		EACH	4
ELASTOMERIC BEARING PADS	FIX. FOR R=140 ton		2
	MOV. FOR R=140 ton		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	1AUG'84	NY	AD	KA	KM	mk
A	15FEB'84	NY	AD	KA	KM	mk

REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWED SUBMITTED

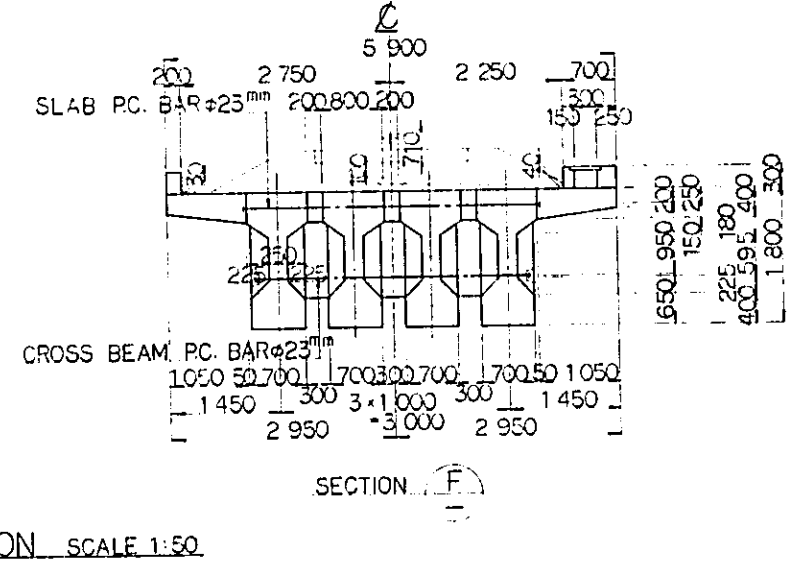
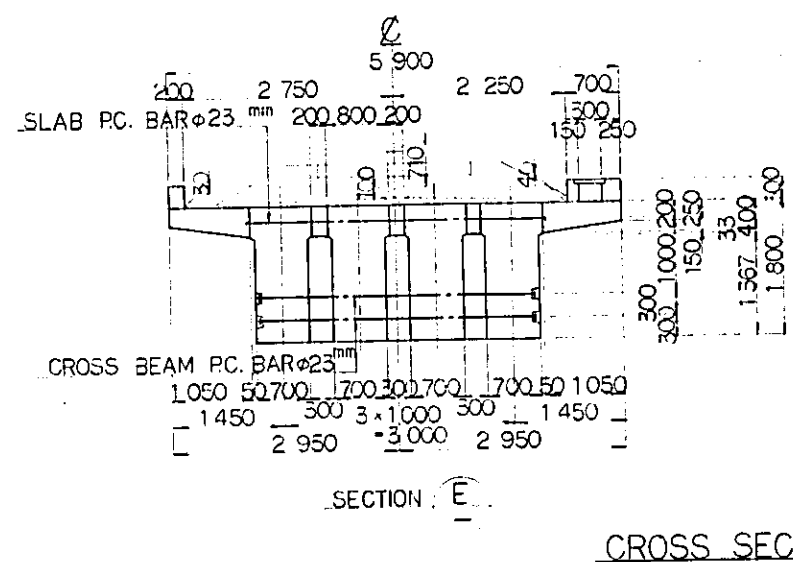
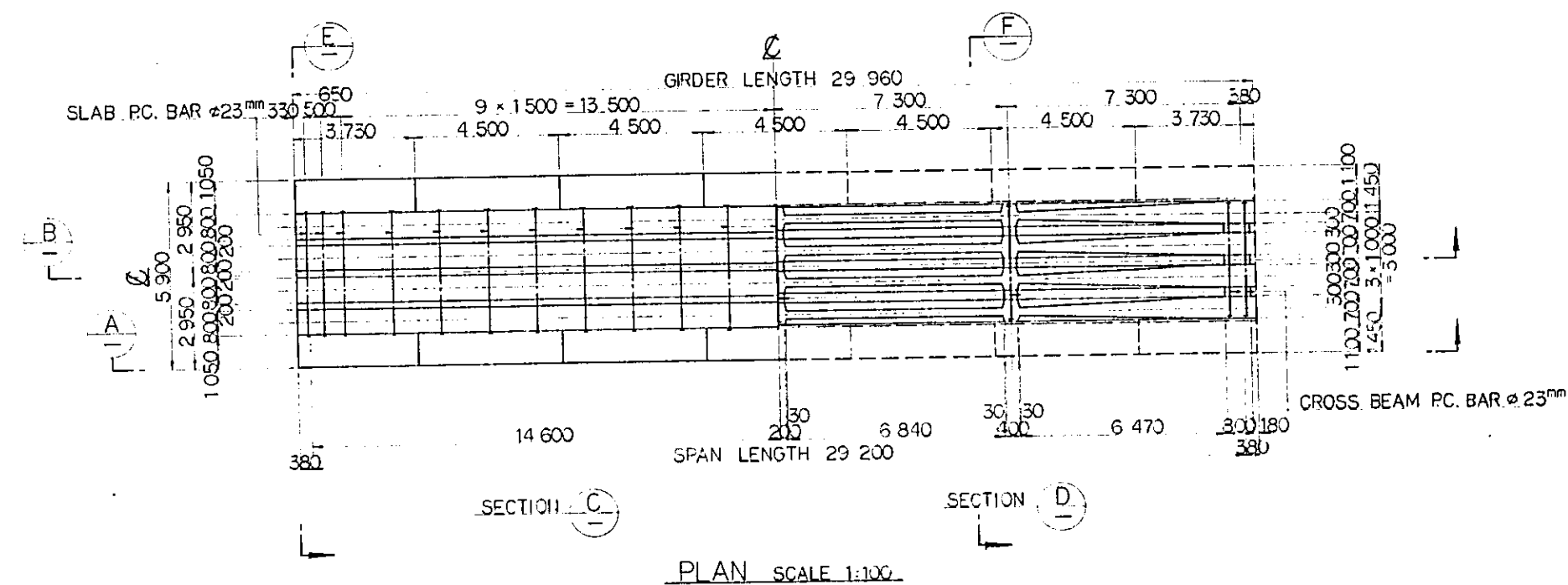
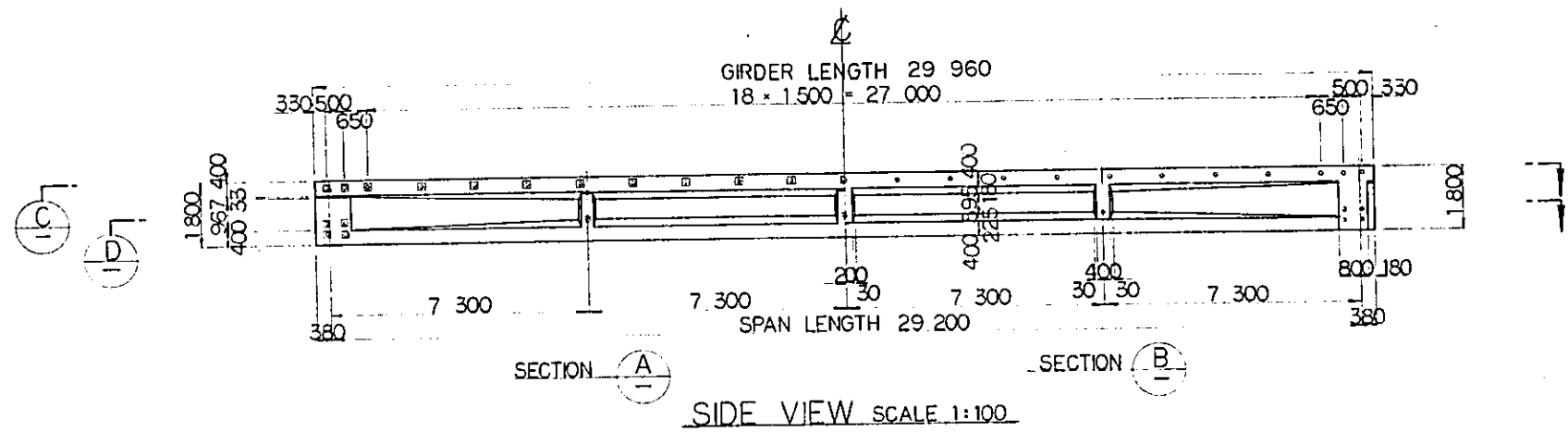
P.C. GIRDER
 PC 05
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK

SCALE AS NOTED DRAWING NO. CS - 033

NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE EXCEPT R.C. COVER SHALL BE CAST IN PLACE
3. P.C. STRAND 12T 12.7 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 12.7 MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7B 12T 12.7 OR EQUIVALENT
4. P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
 MINIMUM ULTIMATE TENSILE STRENGTH : 190 kg/mm²
 MINIMUM YIELD STRESS : 160 kg/mm²
5. THIS DRAWING SHALL BE APPLIED TO
 : B07-PC20
 : B07-PC21
6. DESIGN TRAIN LOAD : EQUIVALENT TO
 KS - 16



SUPERSTRUCTURE MATERIAL SCHEDULE (B03-PC06)

ITEM	TYPE	UNIT	QUANTITY
MAIN BEAM	CONCRETE CLASS A ($f_c = 400 \text{ kg/cm}^2$)	m ³	127.5
	P.C. STRAND 12T12.7 ($f_s = 190 \text{ kg/mm}^2$)	kg	6 936.7
	SHEATH $\phi 65$	m	709.4
	FORMS	m ²	582.5
	ANCHORING DEVICE FOR 12T12.7	EACH	48
	REINFORCING BAR		
	19	kg	—
	16	"	1 490.6
	13	"	6 660.5
	10	"	82.6
	TOTAL	"	8 203.7
LATERAL JOINT	CONCRETE CLASS B ($f_c = 300 \text{ kg/cm}^2$)	m ³	10.3
	P.C. BAR $\phi 23$ ($f_s = 110 \text{ kg/mm}^2$)	kg	430.9
	SHEATH $\phi 35$	m	126.1
	FORMS	m ²	29.7
ANCHOR PLATE, NUT	FOR $\phi 23$	EACH	68
	REINFORCING BAR		
	16	kg	987.5
	13	"	1 505.3
	10	"	472.9
	TOTAL	"	2 965.7
SIDEWALK CONCRETE	CLASS C ($f_c = 240 \text{ kg/cm}^2$)	m ³	20.5
BRIDGE RAILING	CONCRETE	m ³	5.8
AND DUCT	FORMS	m ²	54.3
MORTAR WITH SLOPE-PROTECTIVE MORTAR		m ³	10.1
DRAINAGE		EACH	8
ELASTOMERIC BEARING PADS	FIX. FOR R = 120 ton	"	4
	MOV. FOR R = 120 ton	"	4

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

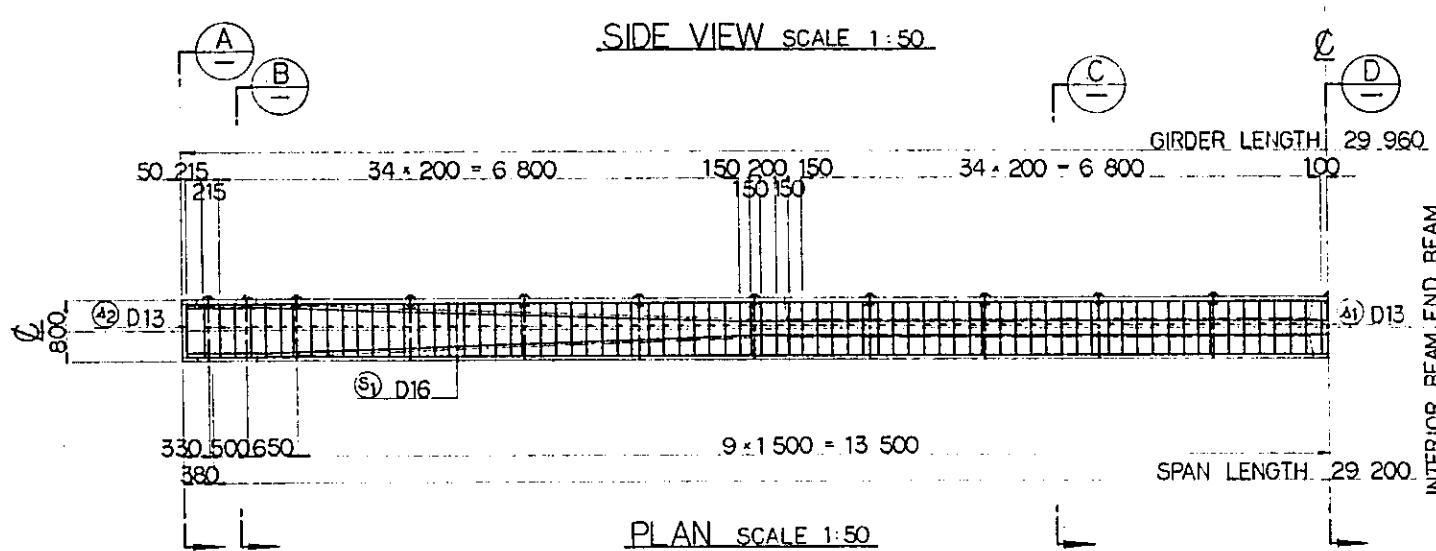
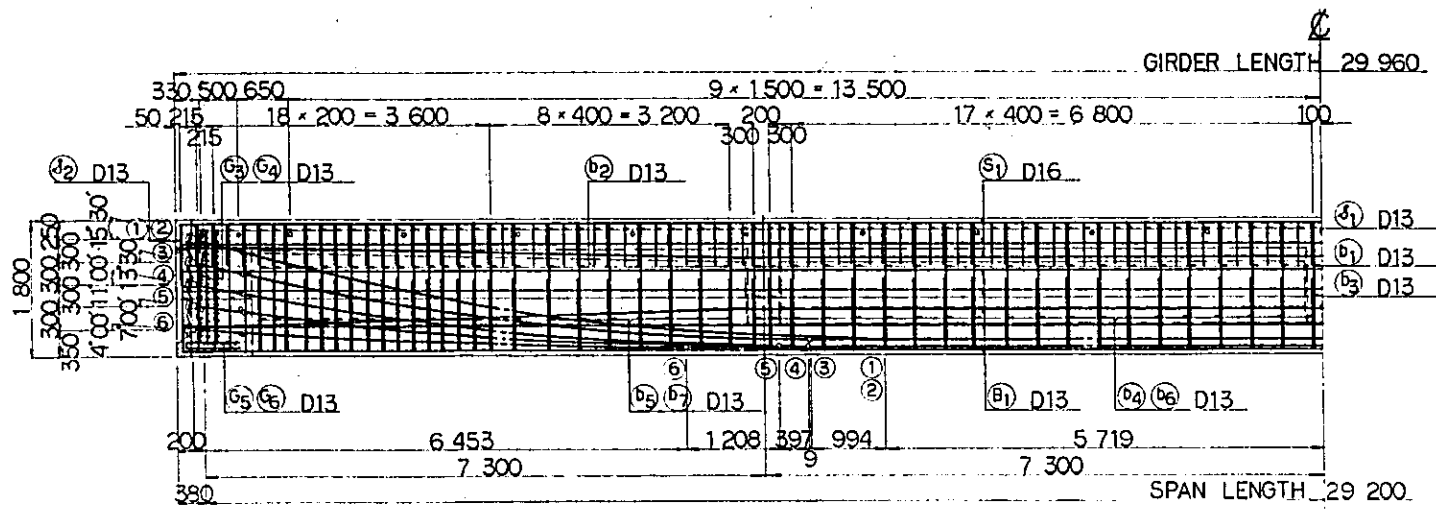
NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

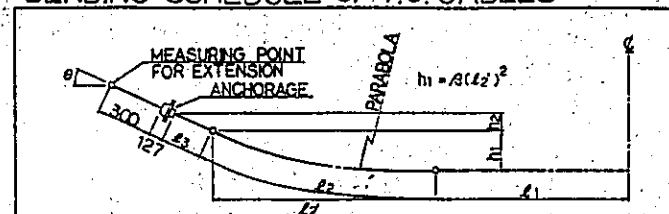
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
E	1 AUG '84	M.Y.A.O.	K.S.	K.M.	M.K.	
A	15 FEB '87	M.Y.A.O.	K.S.	K.M.	M.K.	

P.C. GIRDER
 PC 06
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: AS NOTED DRAWING NO: CS - Q34

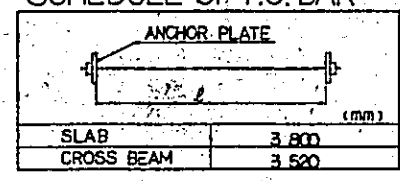


BENDING SCHEDULE OF PC CABLES

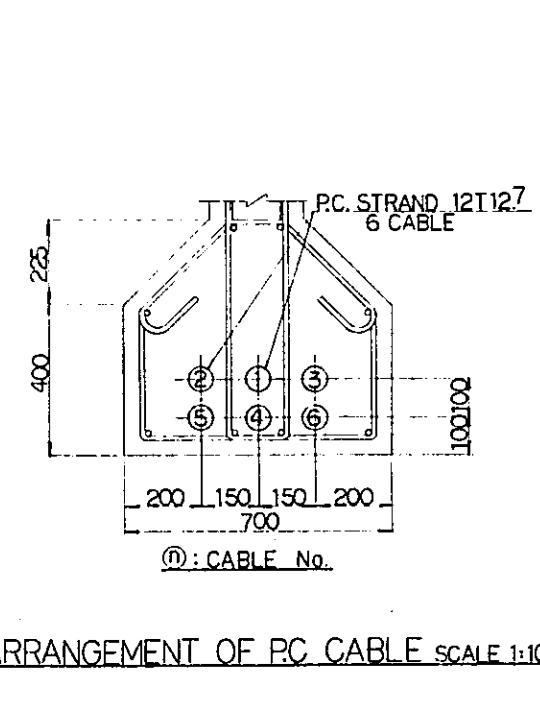
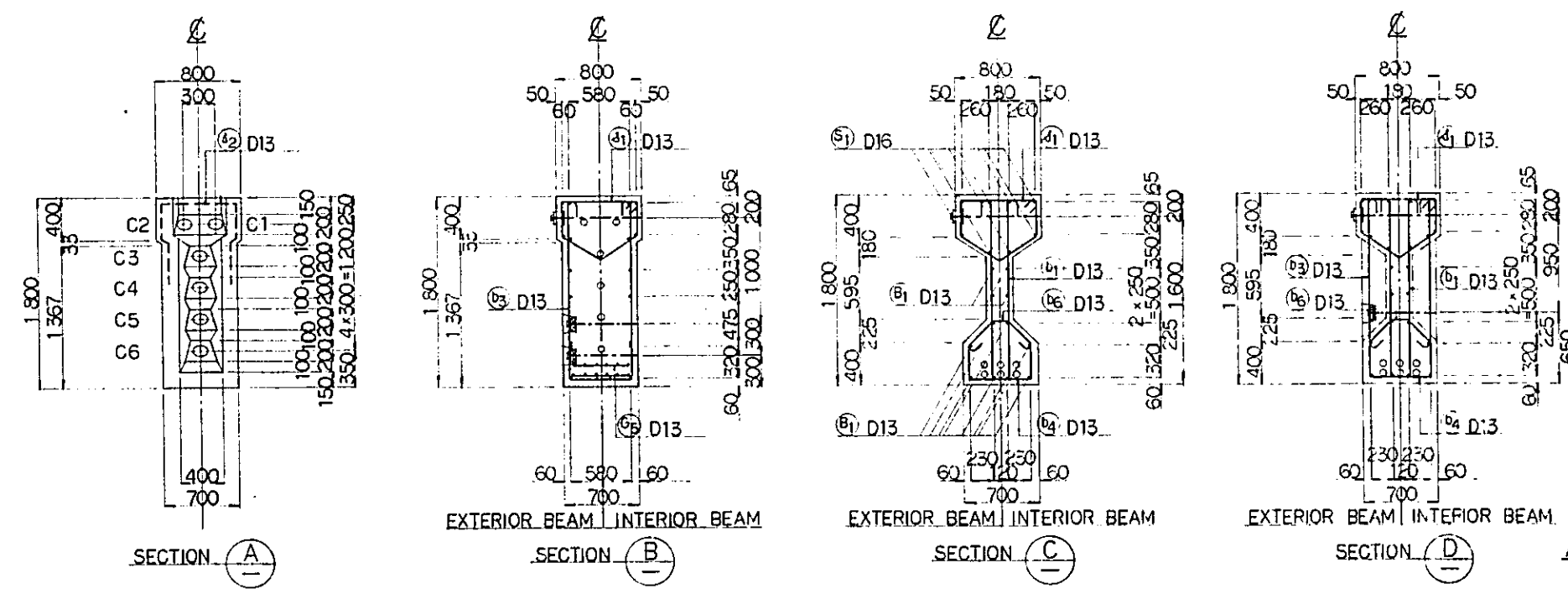


CABLE No	L1(m)	L2(m)	L3(m)	L4(m)	h1(m)	h2(m)	h3(m)	β	ANGLE θ
(1)	5.719	8.493	8.387	0.625	1.163	0.167	14.837	0.01653	15° 30'
(2)	5.719	8.493	8.387	0.625	1.163	0.167	14.837	0.01653	15° 30'
(3)	6.713	7.456	7.366	0.625	0.887	0.146	14.794	0.01625	13° 30'
(4)	6.722	7.417	7.371	0.625	0.716	0.119	14.764	0.01319	11° 00'
(5)	7.119	6.967	6.967	0.625	0.459	0.082	14.731	0.00949	7° 30'
(6)	8.327	5.759	5.755	0.625	0.201	0.043	14.711	0.00608	4° 00'

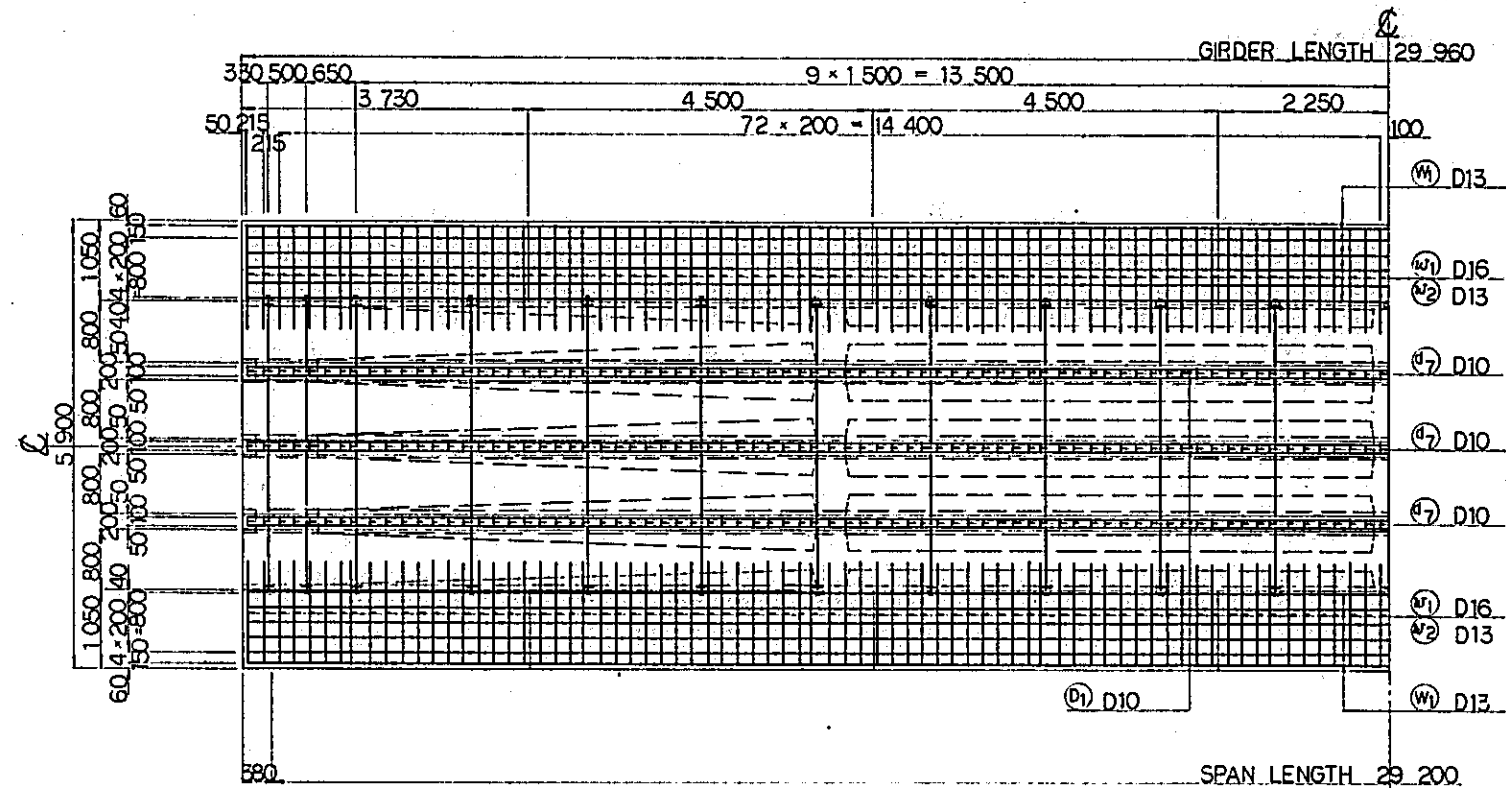
SCHEDULE OF PC BAR



- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 - REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSION ARE 1 EXAMPLES AND THESE SHALL BE REVIEWED AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURES INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM
 - JACKING LOAD INCLUDE FRICTION IN THE JACK AND ANCHORAGE. EXTENSION SHOWS TOTAL VALUE OF THOSE AT BOTH ENDS MEASURED AT THE POINT 30CM OUTSIDE FROM ANCHORAGE SURFACE. AFTER THE PRESTRESSING SYSTEM IS DETERMINED THESE VALUES SHALL BE REVIEWED ALONG WITH THE OTHER ASSUMED FACTORS AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURES INSTRUCTIONS. INITIAL STRESS DO NOT INCLUDE OTHER FACTORS THAN FRICTION LOSSES.
 - TENSIONING SEQUENCE OF LATERAL PC. BARS SHALL BE AT EVERY OTHER BAR

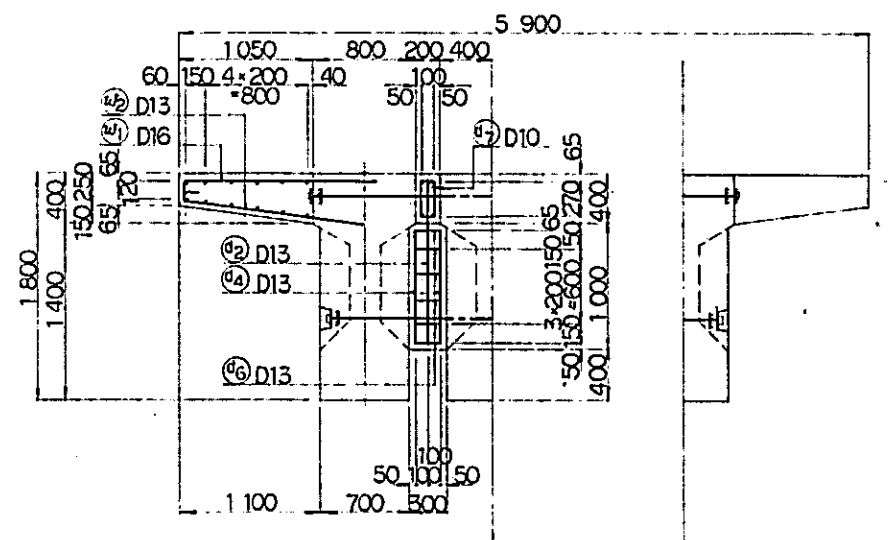
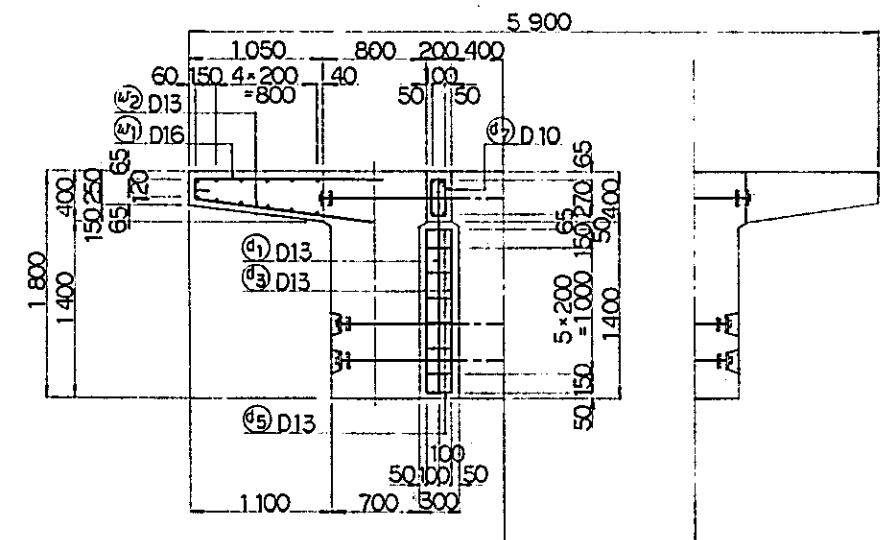


REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG 84	NY AD KA KM AR			
A	15 FEB 84	NY AD KA KM AR			
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	SUBMITTED
P.C. GIRDER PC 06 P.C. CABLE AND REINF. BAR ARRANGEMENT OF MAIN BEAM					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
AS NOTED	CS - 035				



NOTES

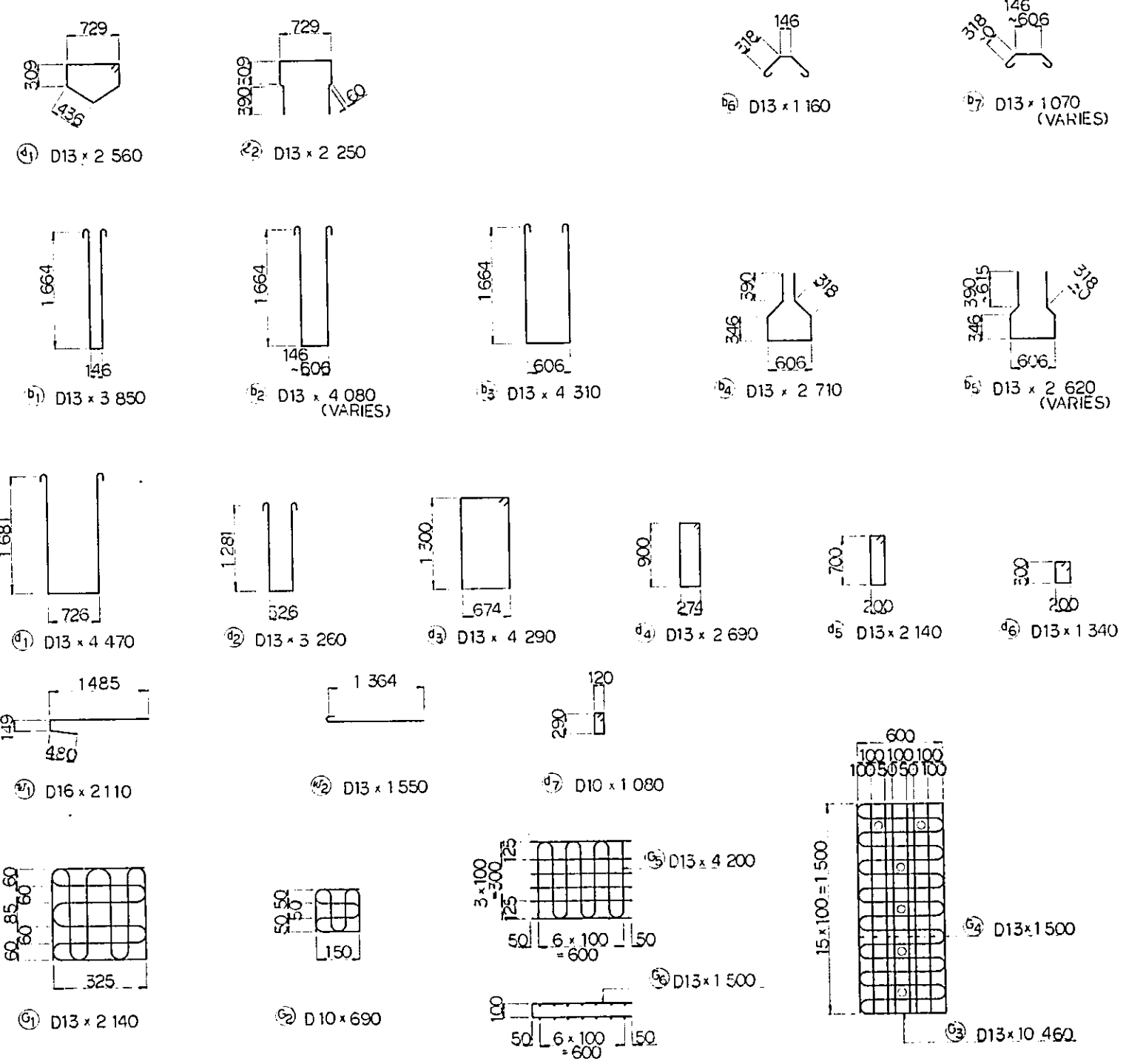
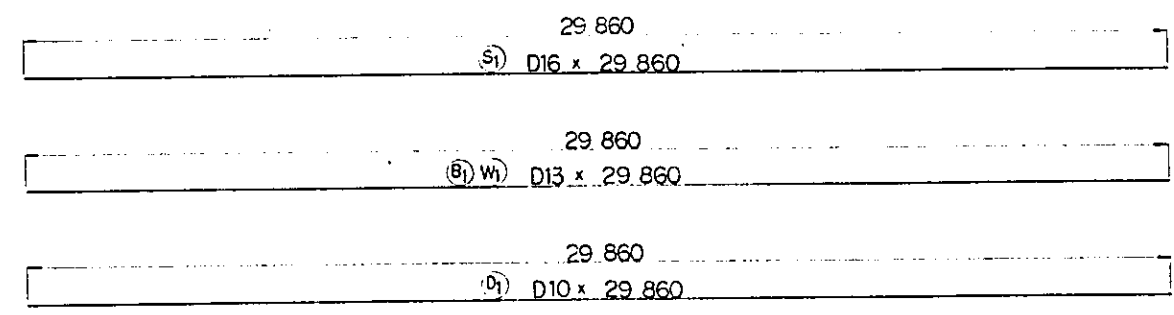
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED.
2. REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSION ARE EXAMPLES AND THESE SHALL BE REVIEWED AND IF NECESSARY BE ADJUSTED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM.



CROSS SECTION SCALE 1:30

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.Y.	A.O.	K.A.	K.M. & K.
A	15 FEB 84	H.Y.	A.O.	K.A.	K.M. & K.
REVISIONS	DATE	DESIGNED	CHECKED	APPROVED	REVIEWED
P.C. GIRDER PC 06 P.C. CABLE AND REINF. BAR ARRANGEMENT OF LATERAL JOINT					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
AS NOTED	CS-036				

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



BAR SCHEDULE

REINF. No.	DIA (mm)	LENGTH (mm)	NUMBER / ONE BEAM	EXTERIOR	INTERIOR	TOTAL NUMBER	UWEIGHT (kg/m)	WEIGHT (kg)
MAIN BEAM								
5	D16	29.860	8	8	32	1.560	1.490.6	
1	D13	2.560	150	150	600	0.995	1528.3	
2	-	2.250	2	2	8	-	17.9	
B	D13	29.860	12	12	48	0.995	1.426.1	
b	D13	3.850	40	40	160	0.995	612.9	
2	-	4.080	48	48	192	-	779.4	
3	-	4.310	16	16	64	-	274.5	
4	-	2.710	40	40	160	-	431.4	
5	-	2.620	48	48	192	-	500.5	
6	-	1.160	40	40	160	-	184.7	
7	-	1.070	48	48	192	-	204.4	
G	D13	2.140	24	24	96	0.995	204.4	
2	D10	690	68	-	136	0.560	52.6	
3	D13	10.460	4	4	16	0.995	166.5	
4	-	1.500	32	32	128	-	191.0	
5	-	4.200	4	4	16	-	66.9	
6	-	1.500	12	12	48	-	71.6	

WEIGHT OF BARS FOR MAIN BEAM

D16	1.490.6 kg
D13	6.660.5 kg
D10	52.6 kg
TOTAL WEIGHT	8.203.7 kg

LATERAL JOINT

W	D13	29.860	-	-	24	0.995	713.1
L	D15	2.110	-	-	300	1.560	987.5
2	D13	1.550	-	-	300	0.995	462.7
D	D10	29.860	-	-	12	0.560	200.7
d	D13	4.470	-	-	6	0.995	26.7
2	-	3.260	-	-	9	-	29.2
3	-	4.290	-	-	12	-	51.2
4	-	2.690	-	-	18	-	48.2
5	-	2.140	-	-	48	-	102.2
6	-	1.340	-	-	54	-	72.0
7	D10	1.080	-	-	450	0.560	272.2

WEIGHT OF BARS FOR LATERAL JOINT

D16	987.5 kg
D13	1.505.3 kg
D10	472.9 kg
TOTAL WEIGHT	2.965.7 kg

TOTAL WEIGHT OF BARS

D16	2.478.1 kg
D13	8.165.8 kg
D10	525.5 kg
TOTAL WEIGHT	11.169.4 kg

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	HYAO	K.A	K.M.	M.K
A	15 FEB '84	HYAO	K.A	K.M.	M.K

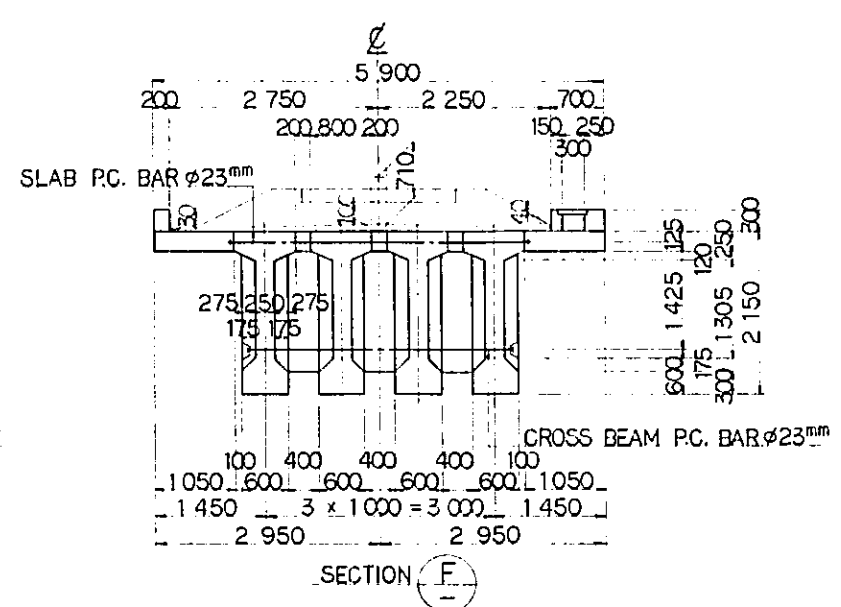
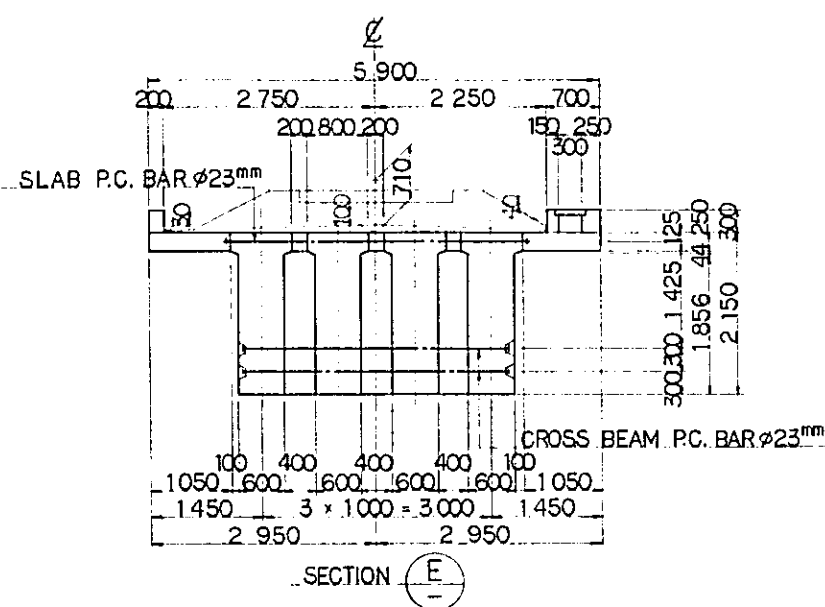
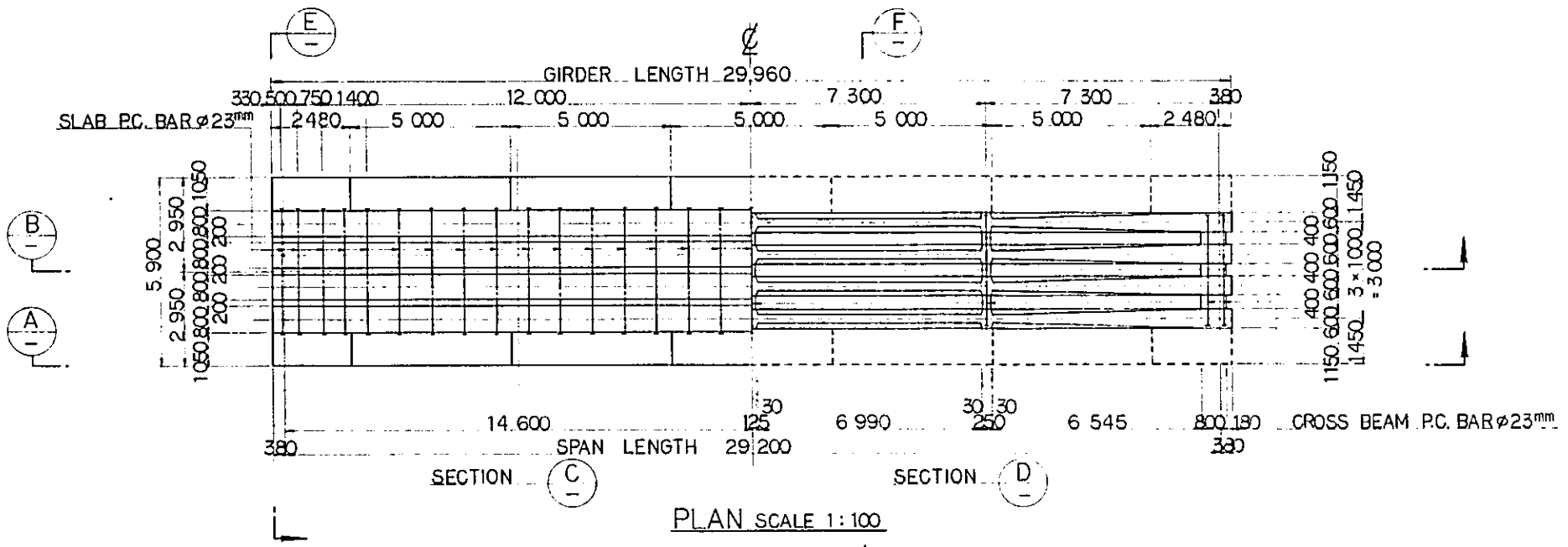
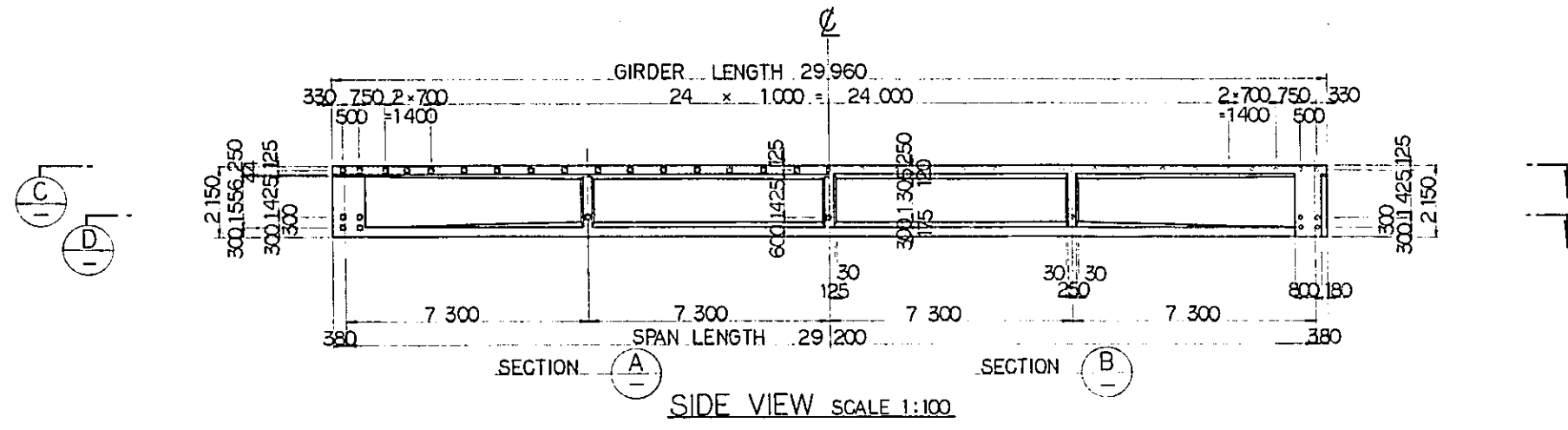
REVISIONS: DATE, DESIGNED, DRAWN, CHECKED, REVISION, SUBMITTED

P.C. GIRDER
PC 06
REINF. BAR SCHEDULE

PACKAGE: I CIVIL AND ARCHITECTURAL WORK.
SCALE: AS NOTED
DRAWING NO: CS - 037

NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE EXCEPT R.C. COVER SHALL BE CAST IN PLACE
3. P.C. STRAND 12T12.7 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 12.7 MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7B 12T12.7 OR EQUIVALENT
4. P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
 MINIMUM ULTIMATE TENSILE STRENGTH : 190 kg/mm²
 MINIMUM YIELD STRESS : 160 kg/mm²
5. THIS DRAWING SHALL BE APPLIED TO
 : B11 - PC28
 : B04 - PC12
 : B05 - PC14
6. DESIGN TRAIN LOAD : EQUIVLENT TO
 KS - 16



CROSS SECTION SCALE 1:50

SUPERSTRUCTURE MATERIAL SCHEDULE (B05-PC13)

ITEM	TYPE	UNIT	QUANTITY
MAIN BEAM	CONCRETE CLASS A (fc=400 kg/cm ²)	m ³	119.8
	P.C. STRAND 12 T 12.7 (fs=190 kg/mm ²)	kg	5784.8
	SHEATH $\phi 65$ and 70	m	631.6
	FORMS	m ²	654.7
	ANCHORING DEVICE FOR 12 T 12.7	EACH	40
REINFORCING BAR	19	kg	—
	16	kg	1490.6
	13	kg	6755.4
	10	kg	680
TOTAL		kg	8314.0
LATERAL JOINT	CONCRETE CLASS B (fc=300 kg/cm ²)	m ³	9.6
	P.C. BAR $\phi 23$ (fs=110 kg/mm ²)	kg	557.0
	SHEATH $\phi 35$	m	163.0
	FORMS	m ²	40.2
ANCHOR PLATE, NUT	FOR $\phi 23$	EACH	88
	16	kg	994.1
	13	kg	1669.5
	10	kg	397.3
TOTAL		kg	3060.9
SIDEWALK CONCRETE	CLASS C (fc=240 kg/cm ²)	m ³	15.7
BRIDGE RAILING AND DUCT	CONCRETE	m ³	5.8
	FORMS	m ²	54.3
MORTAR WITH SLOPE-PROTECTIVE MORTAR		m ³	10.1
DRAINAGE		EACH	8
			4
ELASTOMERIC BEARING PADS	FIX. FOR R=120 ton		4
	MOV. FOR R=120 ton		4

REPUBLIC OF INDONESIA
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 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

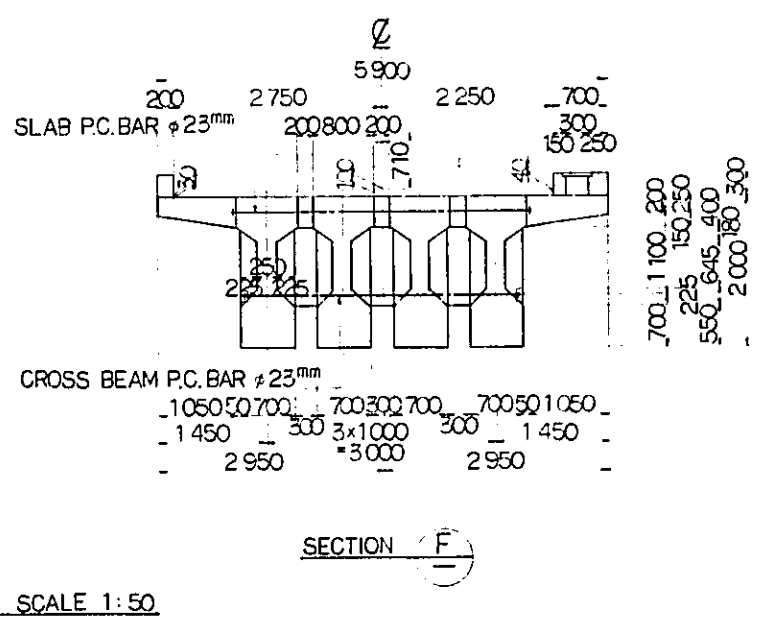
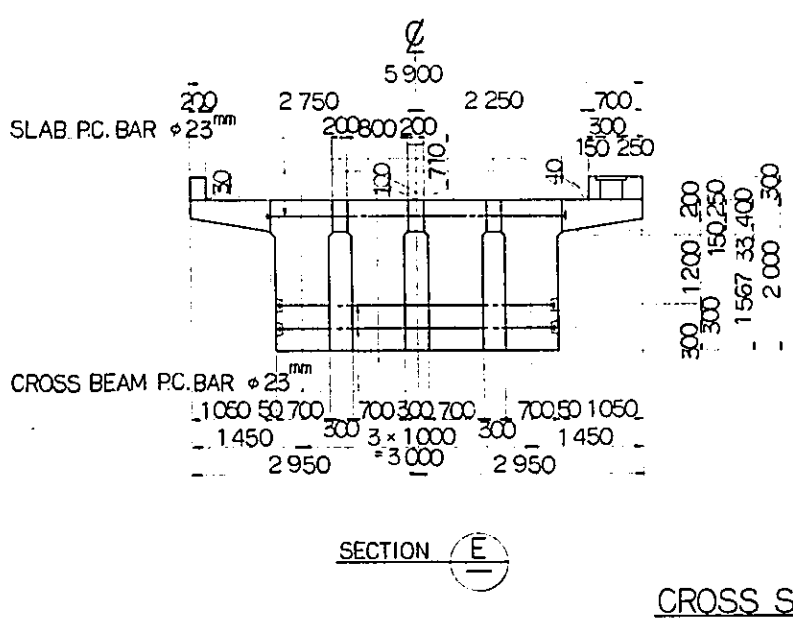
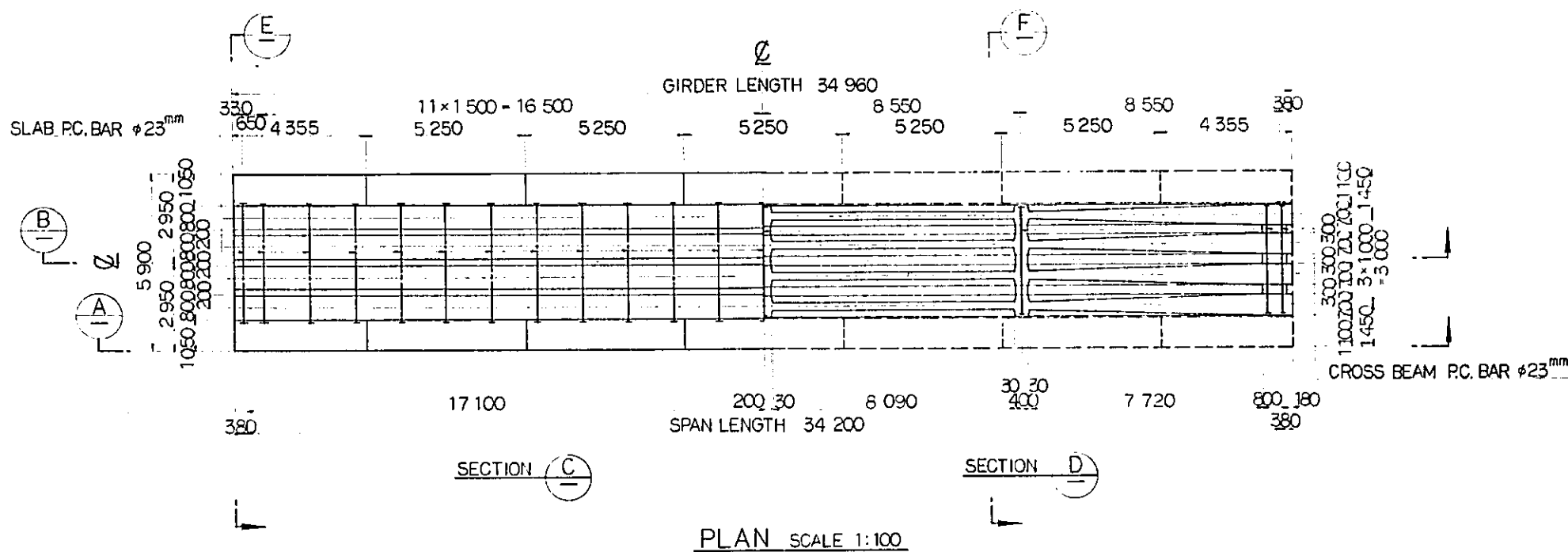
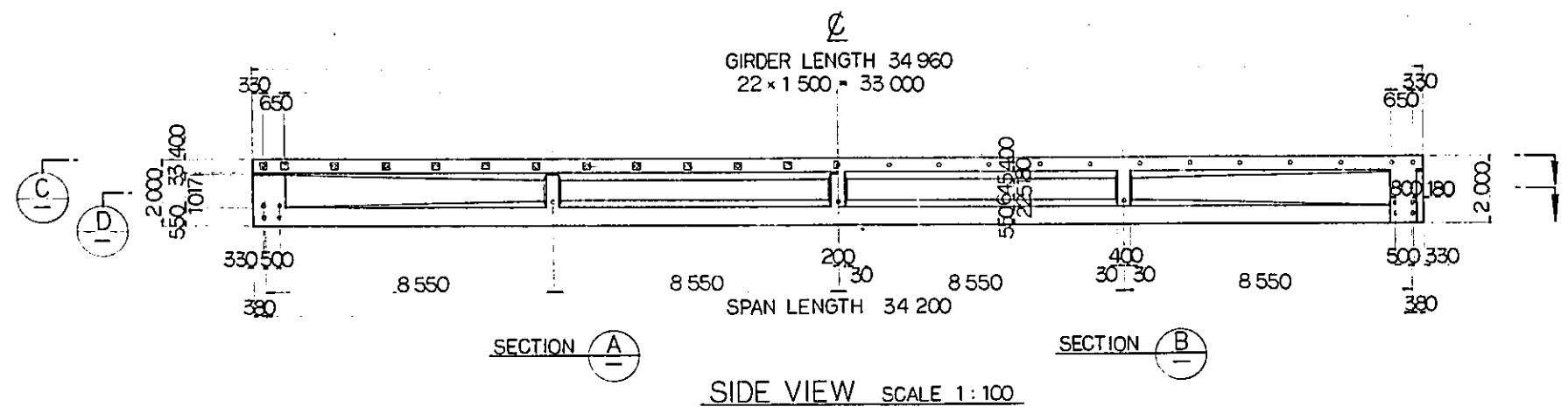
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1AUG'84	HY	AD	K.A	K.M	—	—
A	15FEB'84	HY	AD	K.A	K.M	—	—

REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWED SUBMITTED

P.C. GIRDER
 PC 13
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE AS NOTED DRAWING NO. CS - 038



SUPERSTRUCTURE MATERIAL SCHEDULE (B05-PC15)

ITEM	TYPE	UNIT	QUANTITY
MAIN BEAM	CONCRETE CLASS A (fc=400 kg/cm ²)	m ³	165.7
	P.C. STRAND 12T15.2 (fs=165 kg/mm ²)	kg	11441.5
	SHEATH φ 75	m	822.2
	FORMS	m ²	725.4
	ANCHORING DEVICE FOR 12T15.2	EACH	48
	REINFORCING BAR	kg	2509.9
LATERAL JOINT	CONCRETE CLASS B (fc=300 kg/cm ²)	m ³	11.8
	P.C. BAR φ 23 (fs=110 kg/mm ²)	kg	456.8
	SHEATH φ 35	m	133.7
	FORMS	m ²	33.7
	ANCHOR PLATE, NUT FOR φ 23	EACH	72
	REINFORCING BAR	kg	1158.6
SIDEWALK CONCRETE	CONCRETE CLASS C (fc=240 kg/cm ²)	m ³	23.9
	BRIDGE RAILING AND DUCT CONCRETE	m ³	6.8
	FORMS	m ²	63.3
MORTAR WITH SLOPE-PROTECTIVE MORTAR DRAINAGE	m ³	11.8	
ELASTOMERIC BEARING PADS	EACH	8	
FIX. FOR R=140 ton			4
MOV. FOR R=140 ton			4
TOTAL			3439.9

- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 - MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE EXCEPT R.C. COVER SHALL BE CAST IN PLACE
 - P.C. STRAND 12T15.2 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 15.2 MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7A 12T15.2 OR EQUIVALENT
 - P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
MINIMUM ULTIMATE TENSILE STRENGTH : 165 kg/mm²
MINIMUM YIELD STRESS : 140 kg/mm²
 - THIS DRAWING SHALL BE APPLIED TO
: B05-PC16
: B05-PC18
: B09-PC26
 - DESIGN TRAIN LOAD: EQUIVALENT TO
KS-16

REPUBLIC OF INDONESIA
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DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

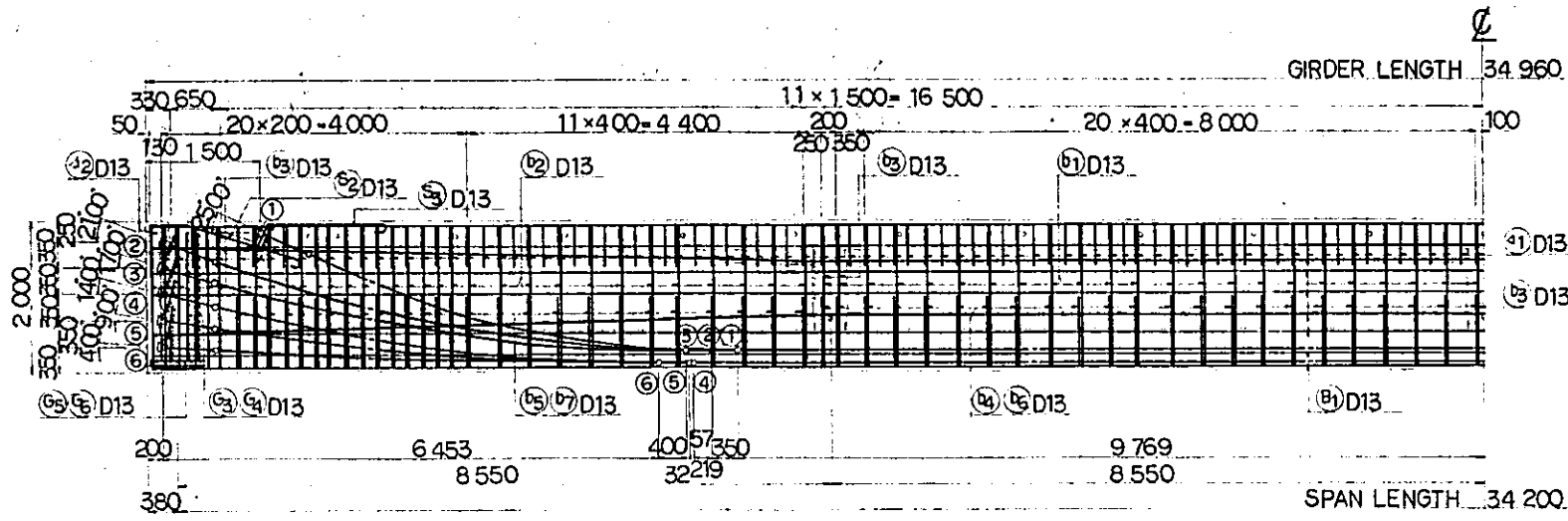
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

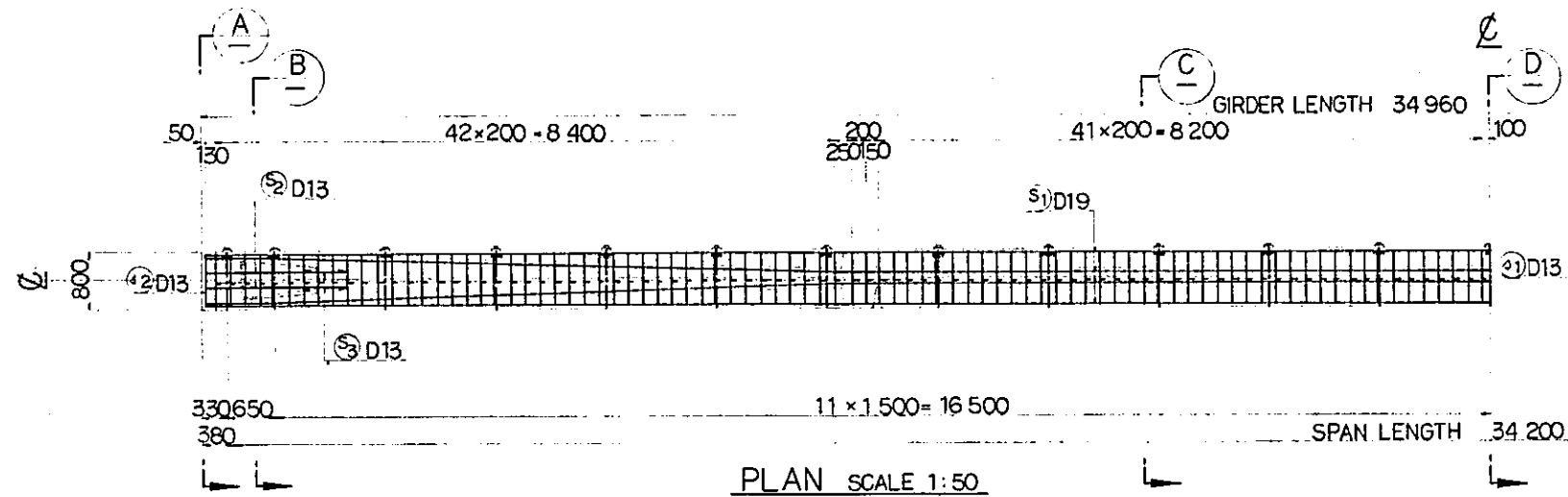
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1 AUG 84	M.Y.AO	K.A.	K.M.	M.K.	
A	15 FEB 84	M.Y.AO	K.A.	K.M.	M.K.	

P.C. GIRDER
PC 15
GENERAL VIEW

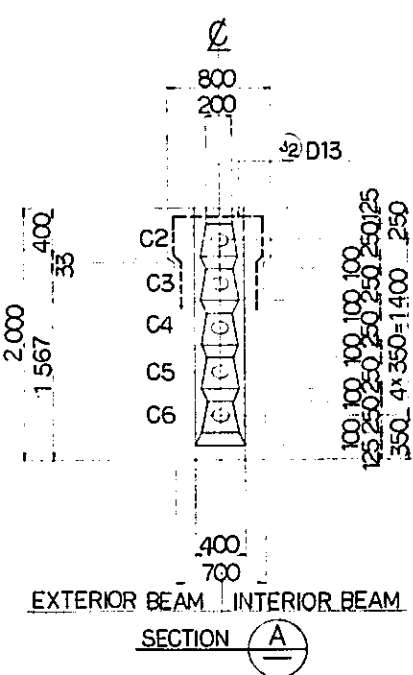
PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK
SCALE: AS NOTED DRAWING NO: CS - 039



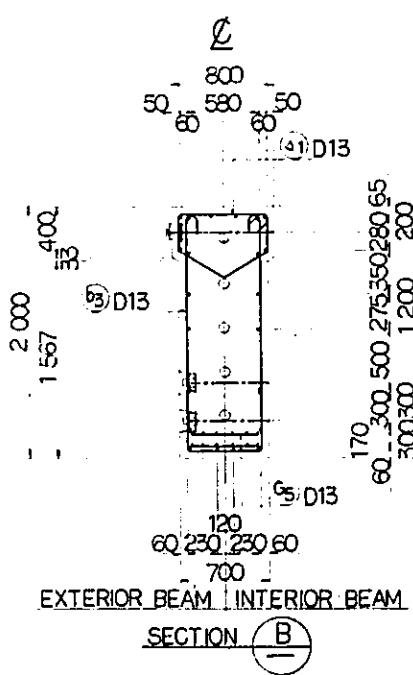
SIDE VIEW SCALE 1:50



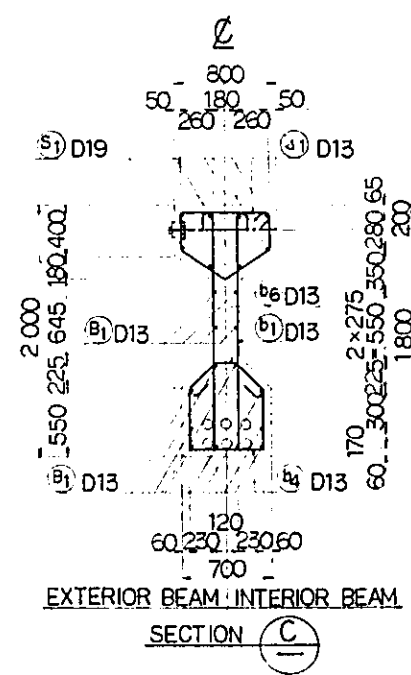
PLAN SCALE 1:50



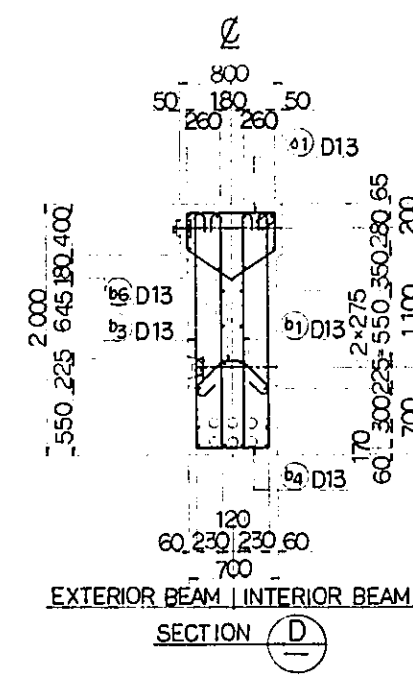
SECTION A



SECTION B



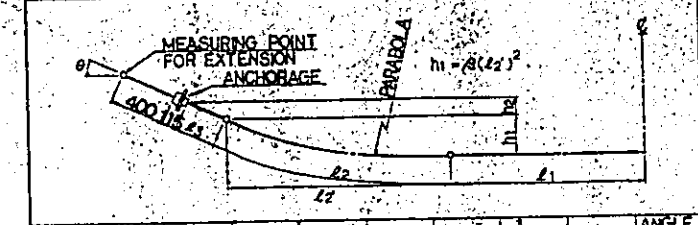
SECTION C



SECTION D

CROSS SECTION SCALE 1:30

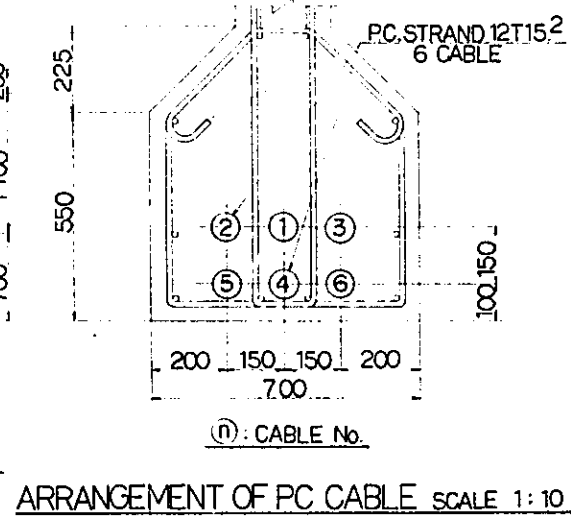
BENDING SCHEDULE OF P.C. CABLES



CABLE No	l1(m)	l2(m)	l3(m)	l4(m)	h1(m)	h2(m)	Σ l(m)	β	ANGLE θ
(1)	9.769	5.773	5.577	0.646	1.300	0.273	16.188	0.04181	25'00"
(2)	10.119	6.664	6.508	0.646	1.249	0.232	17.429	0.02949	21'00"
(3)	10.427	6.279	6.184	0.646	0.945	0.189	17.352	0.02472	17'00"
(4)	10.338	6.327	6.262	0.646	0.781	0.156	17.311	0.01991	14'00"
(5)	10.395	6.220	6.194	0.646	0.491	0.101	17.261	0.01279	9'00"
(6)	10.827	5.759	5.755	0.646	0.201	0.045	17.232	0.00608	4'00"

SCHEDULE OF P.C. BAR

ANCHOR PLATE	(mm)
SLAB	3 800
CROSS BEAM	3 520



ARRANGEMENT OF PC CABLE SCALE 1:10

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSION ARE EXAMPLES AND THESE SHALL BE REVIEWED AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM
 3. JACKING LOAD INCLUDE FRICTION IN THE JACK AND ANCHORAGE. EXTENSION SHOWS TOTAL VALUE OF THOSE AT BOTH ENDS MEASURED AT THE POINT 30CM OUTSIDE FROM ANCHORAGE SURFACE. AFTER THE PRESTRESSING SYSTEM IS DETERMINED THESE VALUES SHALL BE REVIEWED ALONG WITH THE OTHER ASSUMED FACTORS AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. INITIAL STRESS DO NOT INCLUDE OTHER FACTORS THAN FRICTION LOSSES.
 4. TENSIONING SEQUENCE OF LATERAL P.C. BARS SHALL BE AT EVERY OTHER BAR

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NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

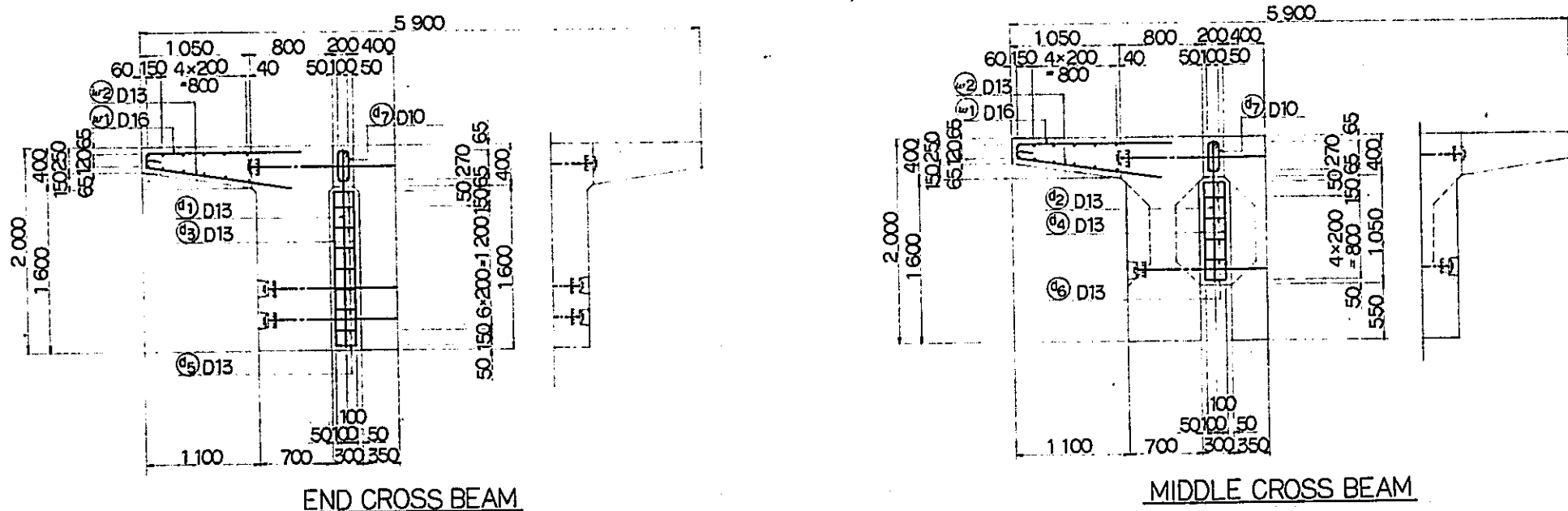
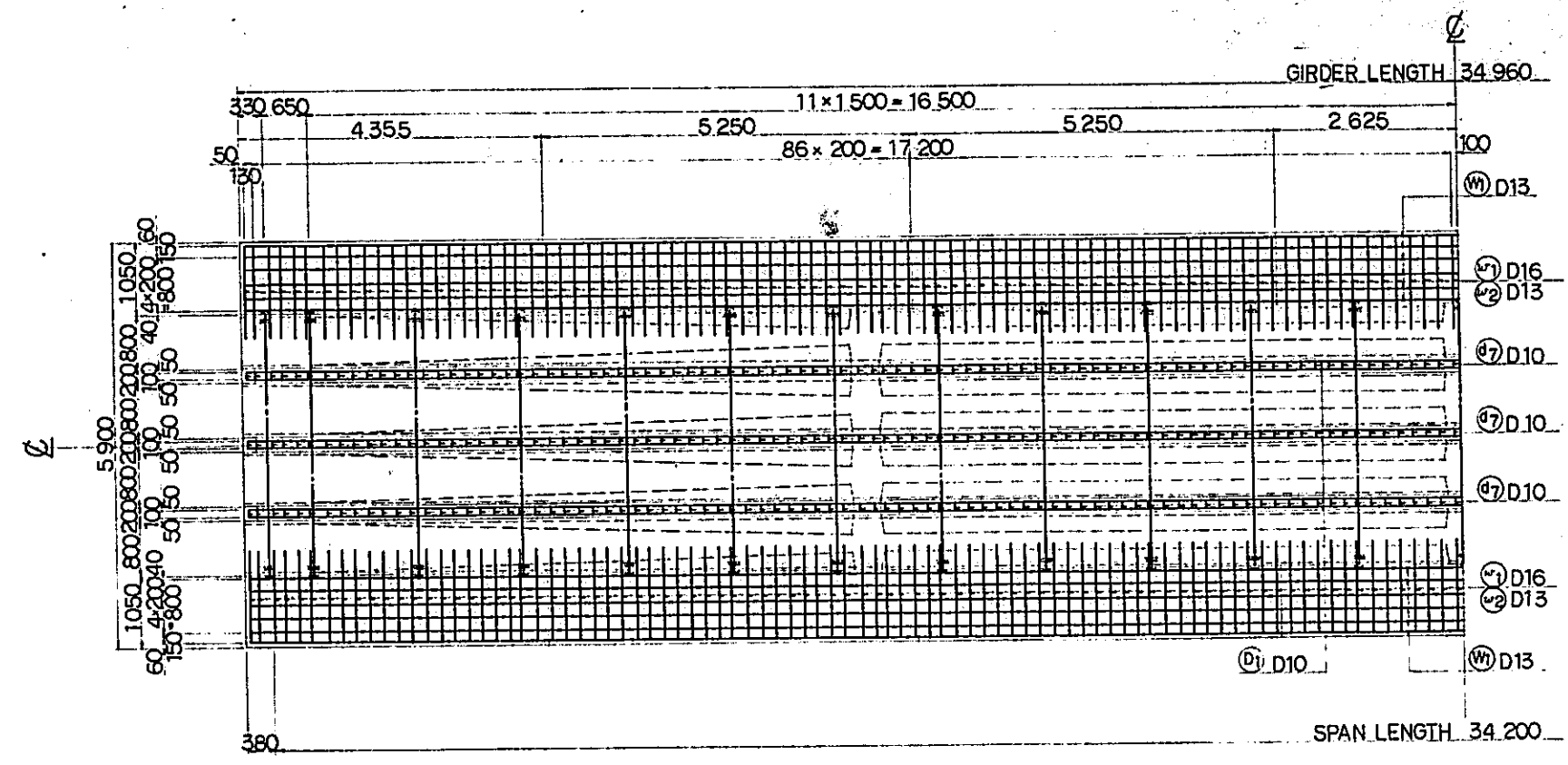
B	1 AUG '84	HYAO	KD	KM	~K
A	15 FEB '84	HYAO	KA	KM	~K

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

P.C. GIRDER
 PC 15
 P.C. CABLE AND REINF. BAR
 ARRANGEMENT OF MAIN BEAM

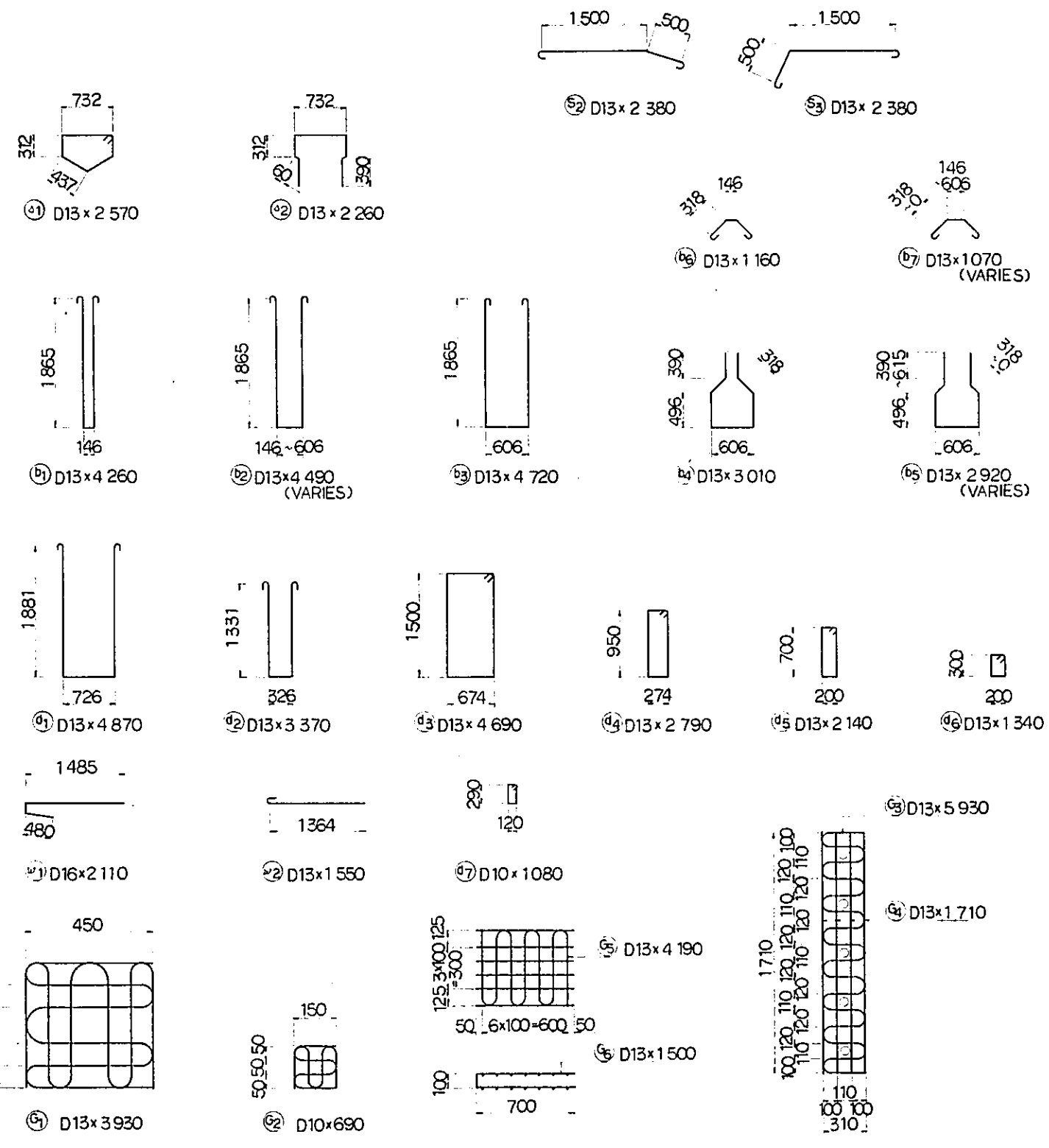
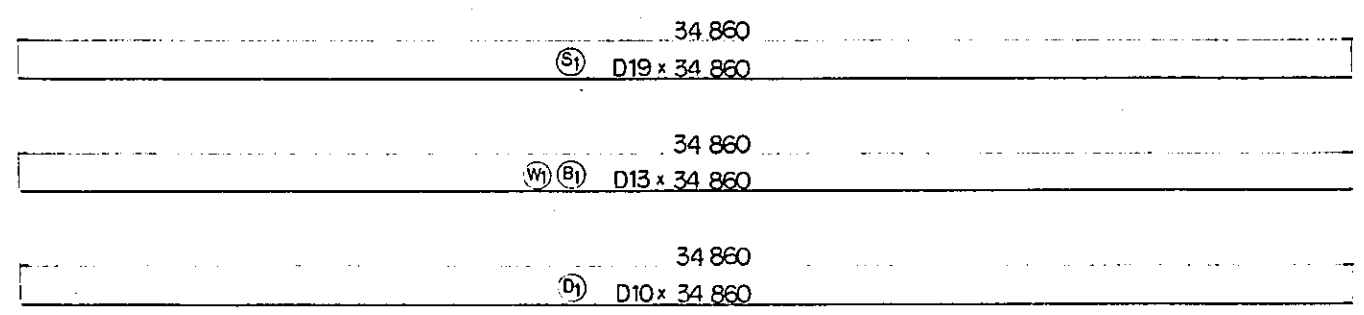
PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: AS NOTED
 DRAWING NO: CS - 040

NOTES:
 1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED.
 2. REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSIONS ARE EXAMPLES AND THESE SHALL BE REVIEWED AND IF NECESSARY BE ADJUSTED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM.



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.Y.	A.O.	K.A.	K.M.	K.K.	K.K.
A	15 FEB '84	M.Y.	A.O.	K.A.	K.M.	K.K.	K.K.
REVISIONS	DATE	BY	CHECKED	APPROVED	DATE	BY	CHECKED
P.C. GIRDE PC-15 PC CABLE AND REINF. BAR ARRANGEMENT OF LATERAL JOINT							
PACKAGE: CIVIL AND ARCHITECTURAL WORK							
SCALE	AS NOTED	DRAWING NO.	CS - 041				

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



BAR SCHEDULE

REINF. No.	DIA. (mm)	LENGTH (mm)	NUMBER/ONE BEAM		TOTAL NUMBER	UWEIGHT (kg/m)	WEIGHT (kg)
			EXTERIOR	INTERIOR			
MAIN BEAM							
S 1	D19	34 860	8	8	32	2.25	2509.9
S 2	D13	2 380	4	4	16	0.995	37.9
S 3	"	2 380	4	4	16	"	37.9
a 1	D13	2 570	174	174	696	0.995	1 779.8
2	"	2 260	2	2	8	"	18.0
B 1	D13	34 860	14	14	56	0.995	1 942.4
b 1	D13	4 260	46	46	184	0.995	779.9
2	"	4 490	54	54	216	"	965.0
3	"	4 720	18	18	72	"	338.1
4	"	3 010	46	46	184	"	551.1
5	"	2 920	54	54	216	"	627.6
6	"	1 160	46	46	184	"	212.4
7	"	1 070	54	54	216	"	230.0
G 1	D13	2 960	24	24	96	0.995	282.7
2	D10	690	72	—	144	0.56	55.6
3	D13	5 930	4	4	16	0.995	94.4
4	"	1 710	16	16	64	"	108.9
5	"	4 190	4	4	16	"	66.7
6	"	1 500	12	12	48	"	71.6
WEIGHT OF BARS FOR MAIN BEAM							
		D19			2 509.9 kg		
		D13			8 144.4 kg		
		D10			55.6 kg		
		TOTAL WEIGHT			10 709.9 kg		
LATERAL JOINT							
W 1	D13	34 860	—	—	24	0.995	832.5
w 1	D16	2 110	—	—	352	1.560	1 158.6
2	D13	1 550	—	—	352	0.995	542.9
D 1	D10	34 860	—	—	12	0.56	234.3
d 1	D13	4 870	—	—	6	0.995	29.1
2	"	3 370	—	—	9	"	30.2
3	"	4 690	—	—	12	"	56.0
4	"	2 790	—	—	18	"	50.0
5	"	2 140	—	—	54	"	115.0
6	"	1 340	—	—	54	"	72.0
7	D10	1 080	—	—	528	0.56	319.3
WEIGHT OF BARS FOR LATERAL JOINT							
		D16			1 158.6 kg		
		D13			1 727.7 kg		
		D10			553.6 kg		
		TOTAL WEIGHT			3 439.9 kg		
TOTAL WEIGHT OF BARS							
		D19			2 509.9 kg		
		D16			1 158.6 kg		
		D13			9 872.1 kg		
		D10			609.2 kg		
		TOTAL WEIGHT			14 149.8 kg		

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DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

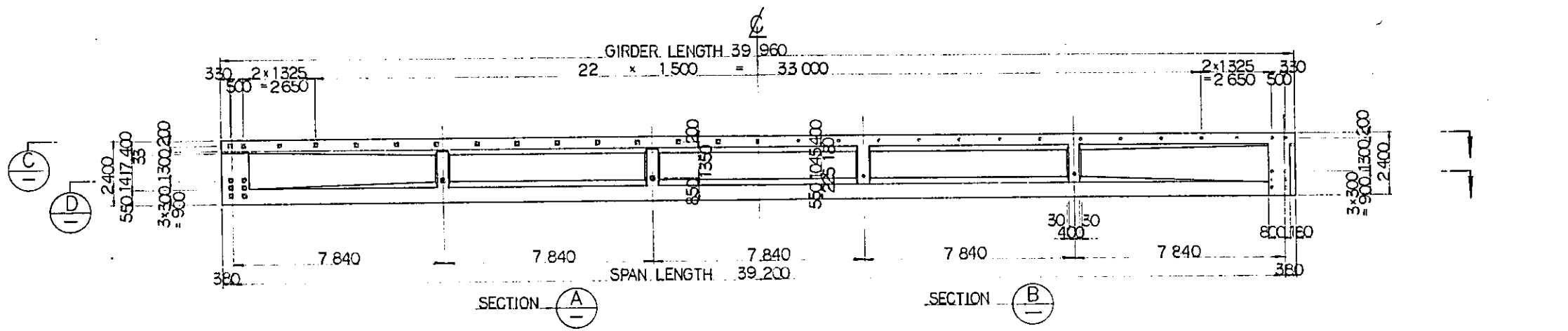
E	1 AUG '84	MY	AO	KA	KM	JK
A	15 FEB '84	MY	AD	KA	KM	JK

REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWED SUBMITTED

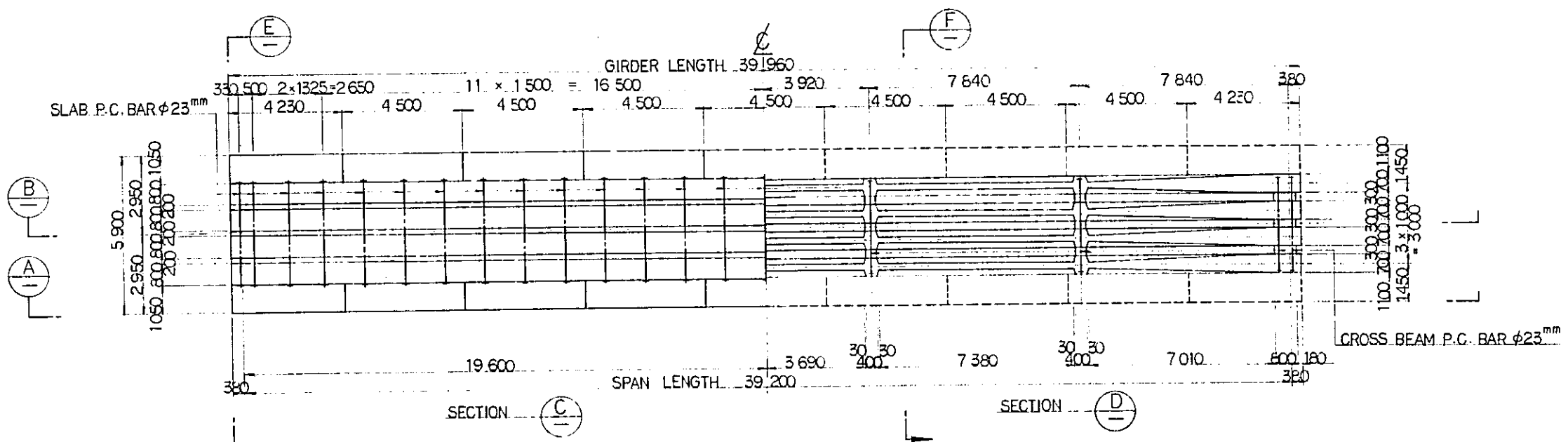
P.C. GIRDER
PC 15
REINF. BAR SCHEDULE

PACKAGE: I CIVIL AND ARCHITECTURAL WORK

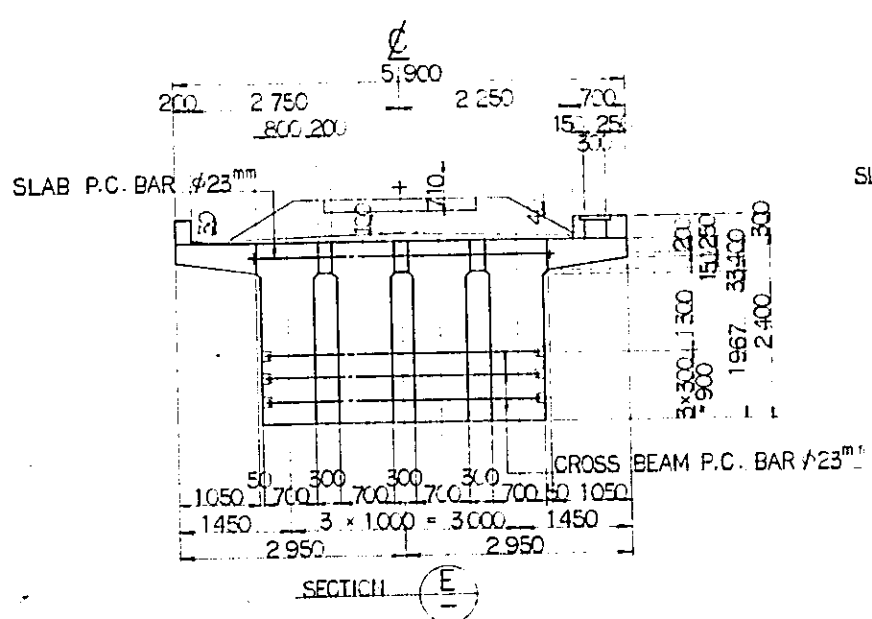
SCALE: AS NOTED DRAWING NO: CS - 042



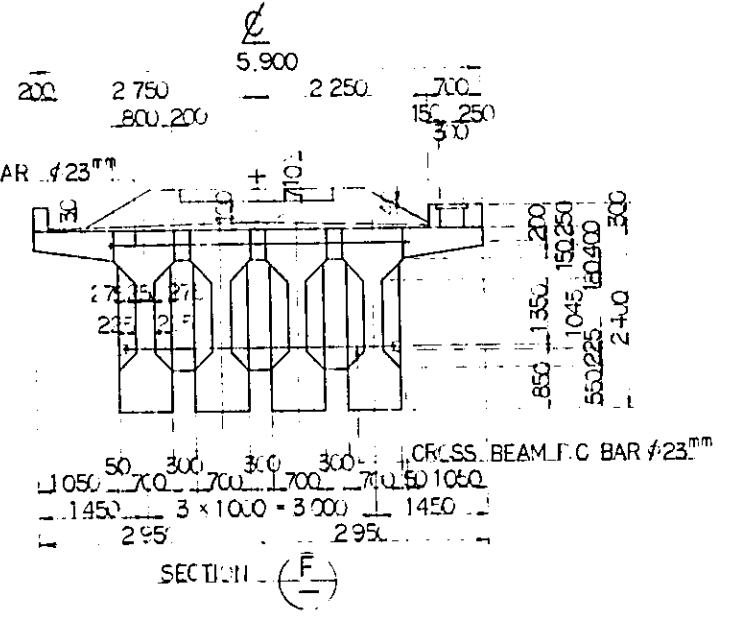
SIDE VIEW SCALE 1:100



PLAN SCALE 1:100



CROSS SECTION SCALE 1:50



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE EXCEPT R.C. COVER SHALL BE CAST IN PLACE
 3. P.C. STRAND 12T15.2 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 15.2 MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7A 12T15.2 OR EQUIVALENT
 4. P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
 MINIMUM ULTIMATE TENSILE STRENGTH : 165 kg/mm²
 MINIMUM YIELD STRESS : 140 kg/mm²
 5. THIS DRAWING SHALL BE APPLIED TO : B01 - PC02
 6. DESIGN TRAIN LOAD EQUIVALENT TO KS - 16

SUPERSTRUCTURE MATERIAL SCHEDULE (B.05 - PC17)

ITEM	TYPE	UNIT	QUANTITY
MAIN BEAM	CONCRETE	CLASS A (fc=400 kg/cm ²)	m ³ 210.3
	P.C.STRAND	12 T15.2 (fs=165 kg/mm ²)	kg 15233.9
	SHEATH	φ75 and φ82	m ² 1102.0
	FORMS		m ² 967.3
	ANCHORING DEVICE	FOR 15 T 15.2	EACH 56
	REINFORCING BAR	19	kg 2869.9
		16	-
		13	-
		10	-
		10	-
	TOTAL	-	13521.3
LATERAL JOINT	CONCRETE	CLASS B (fc=300 kg/cm ²)	m ³ 14.5
	P.C. BAR	φ23 (fs=110 kg/mm ²)	kg 569.0
	SHEATH	φ35	m ² 166.5
	FORMS		m ² 43.0
	ANCHOR PLATE, NUT	FOR φ23	EACH 90
REINFORCING BAR	16	kg 1423.6	
	13	-	
	10	-	
	10	-	
	TOTAL	-	4051.7
SIDEWALK CONCRETE	CLASS C (fc=240 kg/cm ²)	m ³ 27.3	
BRIDGE RAILING AND DUCT	CONCRETE	m ³ 7.8	
	FORMS	m ² 72.3	
MORTAR WITH SLOPE PROTECTIVE MORTAR		m ³ 13.4	
DRAINAGE		EACH 8	
ELASTOMERIC BEARING PADS	FIX. FOR R-190 ton	-	4
	MOV. FOR R-190 ton	-	4

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)

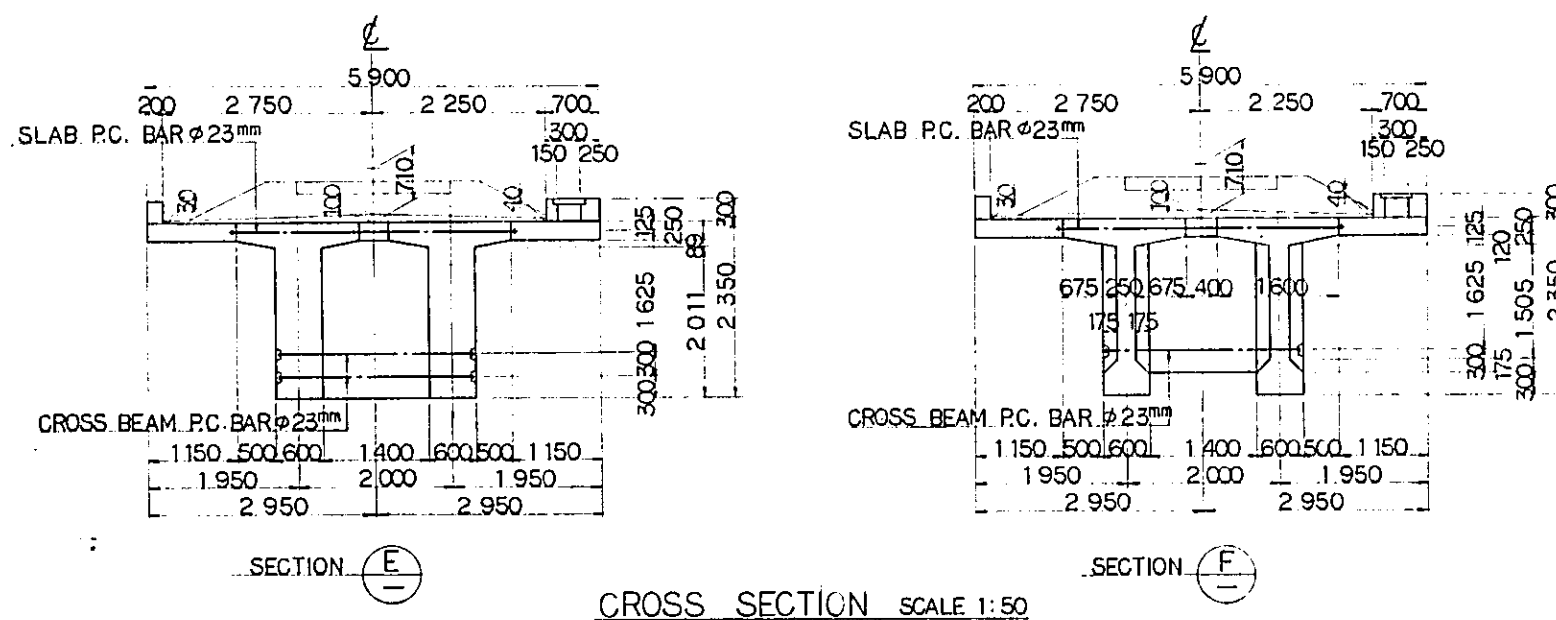
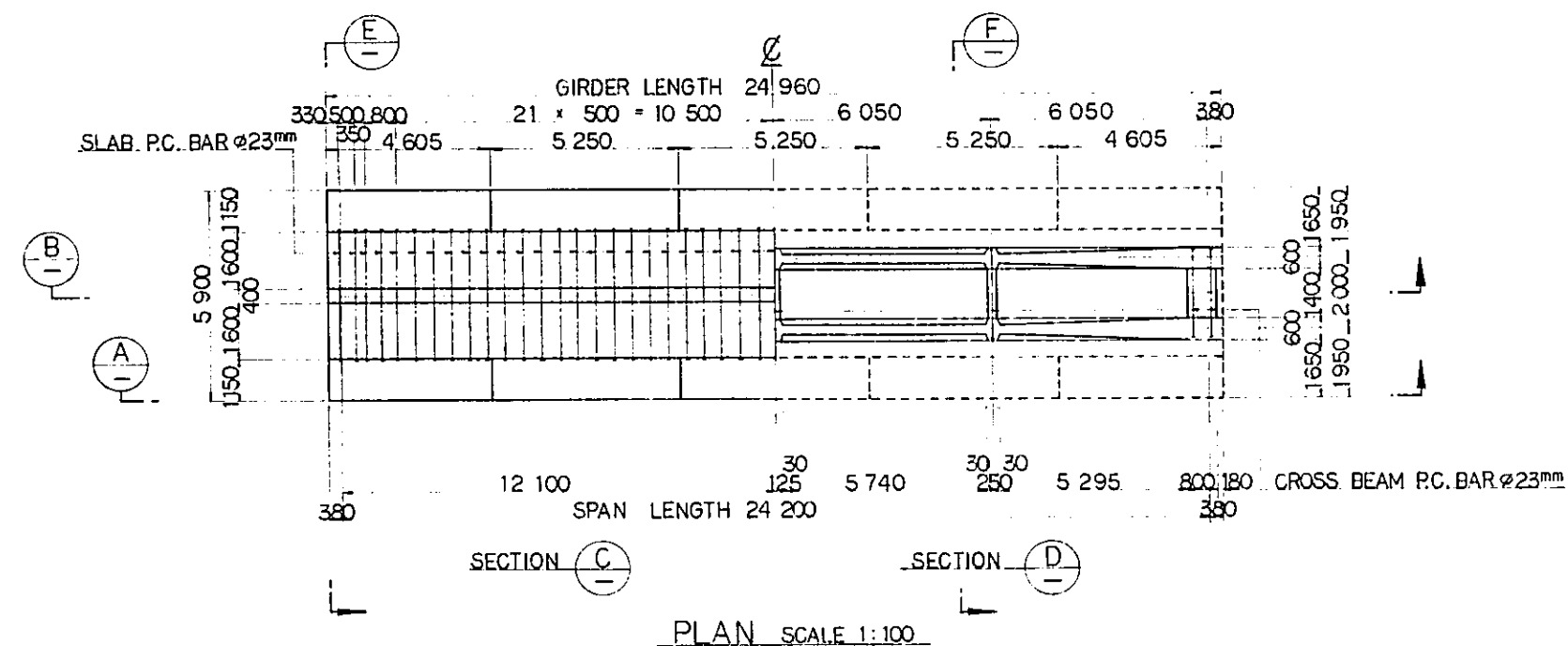
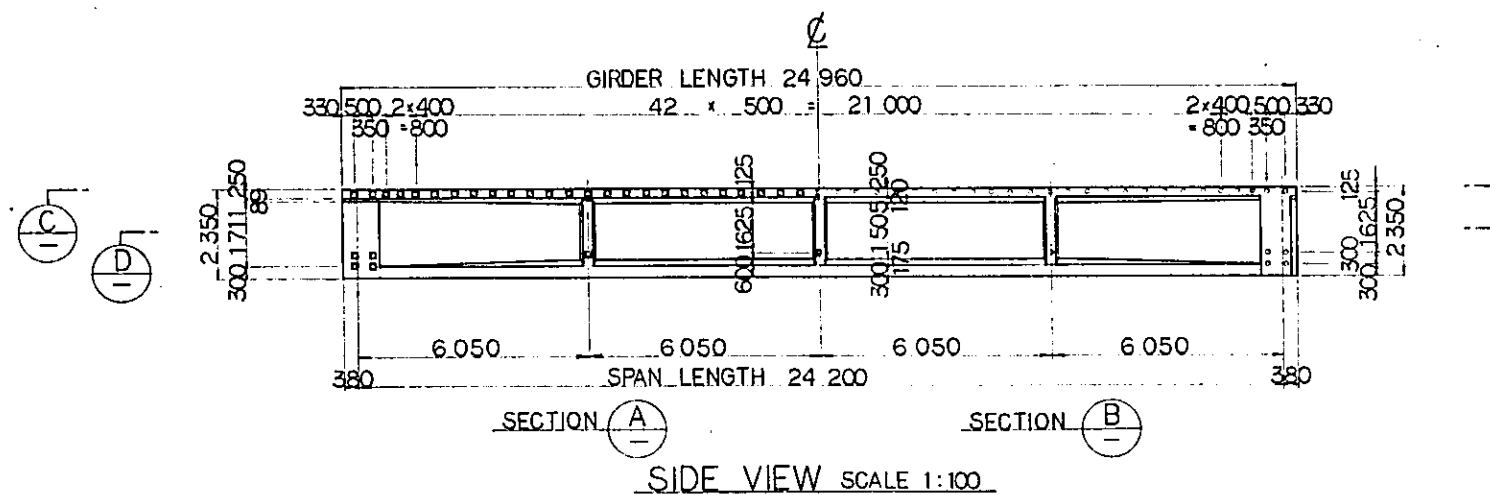
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1 AUG 84	MYAO	KAKUM			
A	15 FEB 84	MYAO	KAKUM			

P.C. GIRDER
 PC 17
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: AS NOTED
 DRAWING NO: CS - 043

NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE EXCEPT R.C. COVER SHALL BE CAST IN PLACE
3. P.C. STRAND 12T 12.7 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 12.7 MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7B 12T 12.7 OR EQUIVALENT
4. P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
 MINIMUM ULTIMATE TENSILE STRENGTH : 190 kg/mm^2
 MINIMUM YIELD STRESS : 160 kg/mm^2
5. THIS DRAWING SHALL BE APPLIED TO
 B12 - PC29
 B08 - PC25
6. DESIGN TRAIN LOAD : EQUIVALENT TO
 KS - 16



SUPERSTRUCTURE MATERIAL SCHEDULE (B08-PC24)

ITEM	TYPE	UNIT	QUANTITY
MAIN BEAM	CONCRETE CLASS A ($1\text{c}-400 \text{ kg/cm}^2$)	m^3	66.1
	P.C. STRAND 12T 12.7 ($1\text{s}-190 \text{ kg/cm}^2$)	kg	2429.0
	SHEATH $\phi 65$ and $\phi 70$	m	245.9
	FORMS	m^2	333.7
	ANCHORING DEVICE FOR 12 T 12.7	EACH	20
	REINFORCING BAR	kg	620.5
		kg	3612.2
		kg	95.8
	TOTAL		4328.5
	LATERAL JOINT	CONCRETE CLASS B ($1\text{c}-300 \text{ kg/cm}^2$)	m^3
P.C. BAR $\phi 23$ ($1\text{s}-110 \text{ kg/cm}^2$)		kg	721.3
SHEATH $\phi 35$		m	210.2
FORMS		m^2	39.0
ANCHOR PLATE, NUT FOR $\phi 23$		EACH	124
REINFORCING BAR		kg	868.8
		kg	1937.1
		kg	83.5
	TOTAL		2889.4
SIDEWALK CONCRETE CLASS C ($1\text{c}-240 \text{ kg/cm}^2$)	m^3	14.4	
BRIDGE RAILING AND DUCT CONCRETE	m^3	4.9	
FORMS	m^2	45.3	
MORTAR WITH SLOPE-PROTECTIVE MORTAR	m^3	8.4	
DRAINAGE	EACH	4	
ELASTOMERIC BEARING PADS	FIX. FOR R-170 ton		2
	MOV. FOR R-170 ton		2

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NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

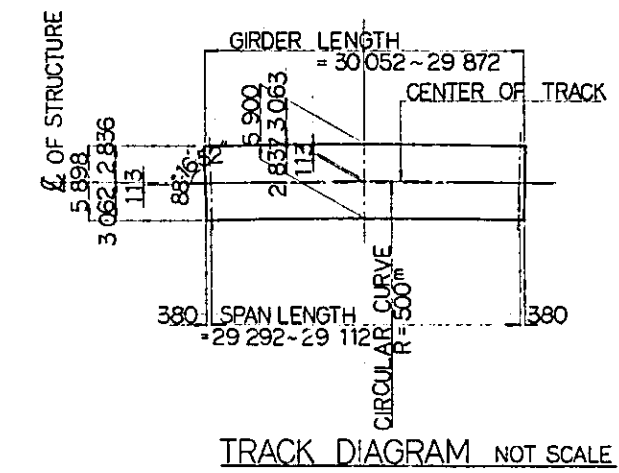
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1 AUG '84	HYAO	KA	KM		
A	15 FEB '89	M.Y.	A.O.	K.A.	K.M.	

P.C. GIRDER
 PC 24
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: AS NOTED
 DRAWING NO: CS - 044

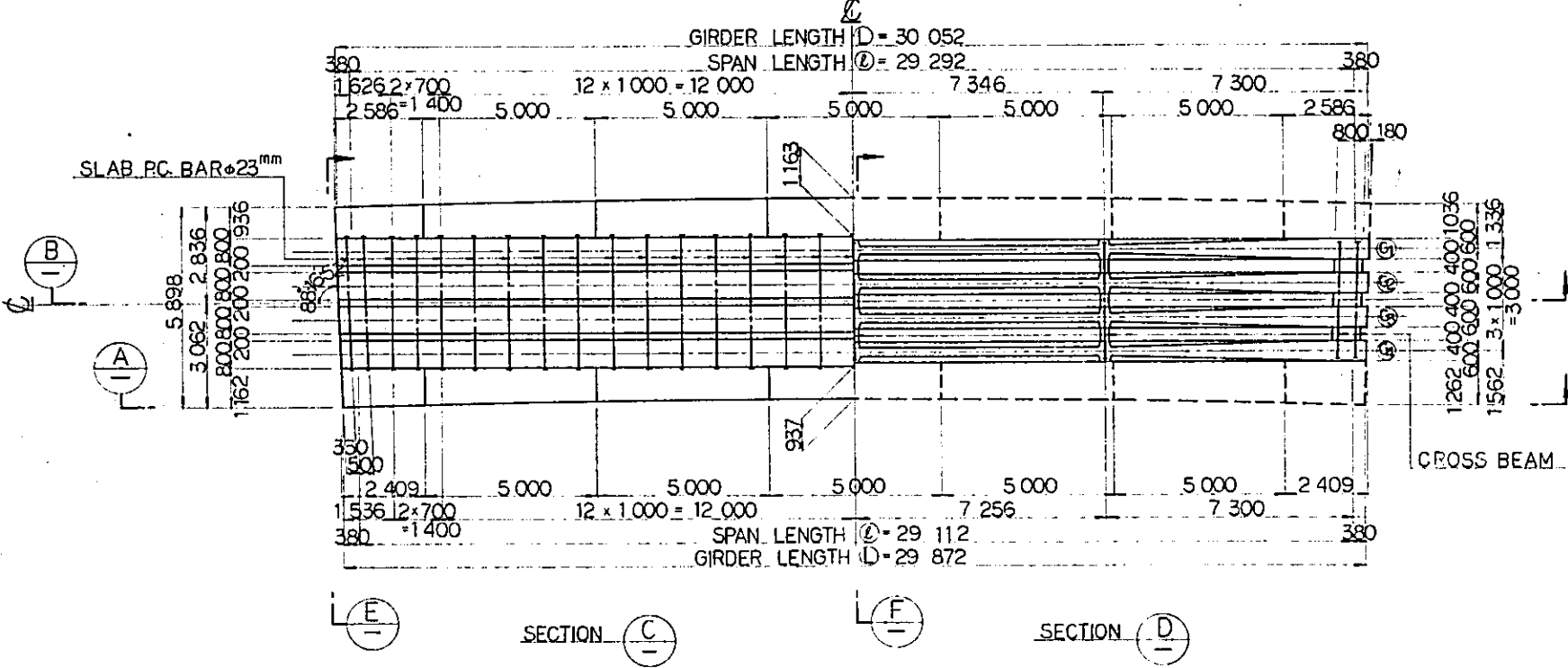
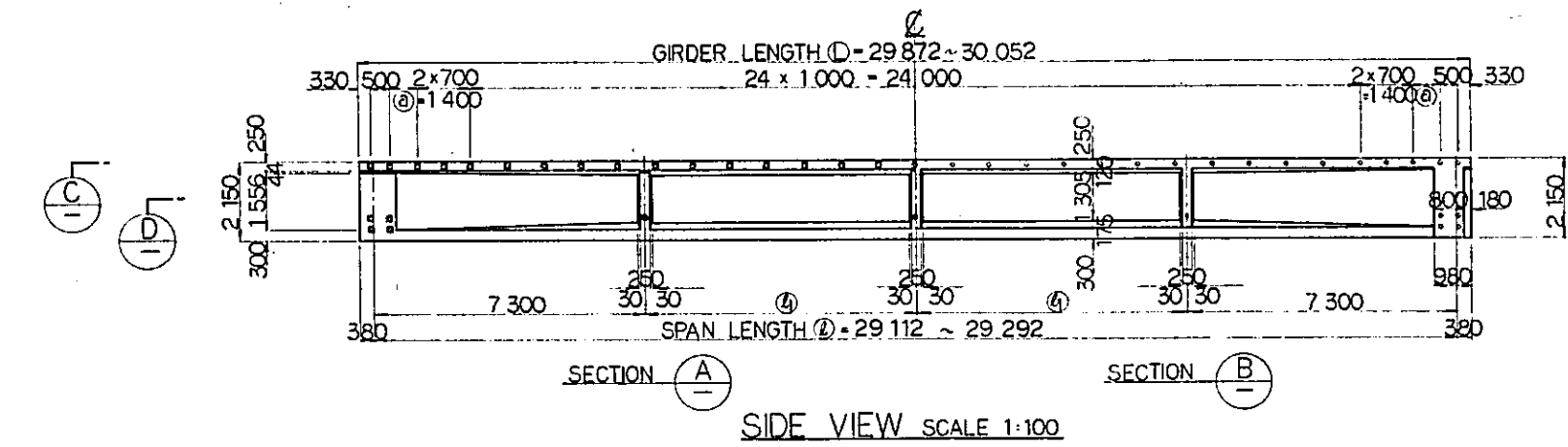
NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE EXCEPT R.C. COVER SHALL BE CAST IN PLACE
3. P.C. STRAND 12T 12.7 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 12.7 MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7B 12T 12.7 OR EQUIVALENT
4. P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
 MINIMUM ULTIMATE TENSILE STRENGTH : 190 kg/mm²
 MINIMUM YIELD STRESS : 160 kg/mm²
5. THIS DRAWING SHALL BE APPLIED TO
 : B12 - PC32
 : B13 - PC35
 : B13 - PC36
 : B13 - PC37
 : B14 - PC38
6. DESIGN TRAIN LOAD: EQUIVALENT TO
 KS - 16



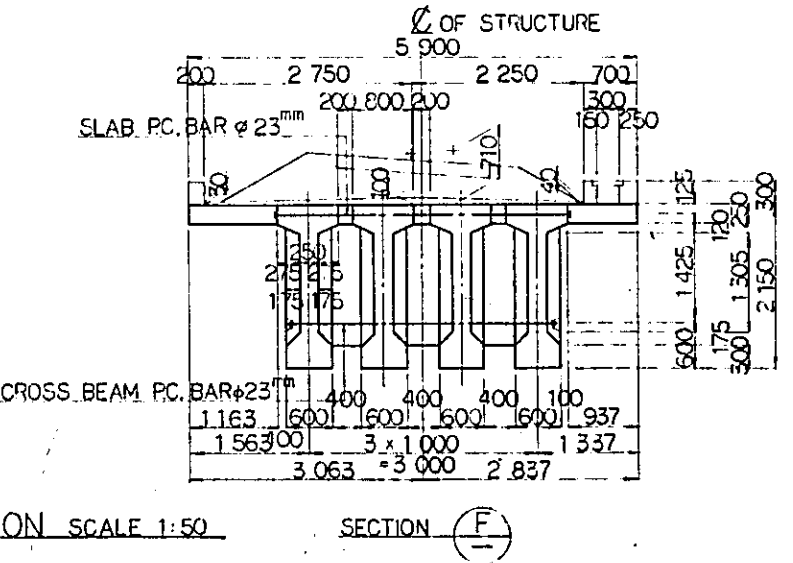
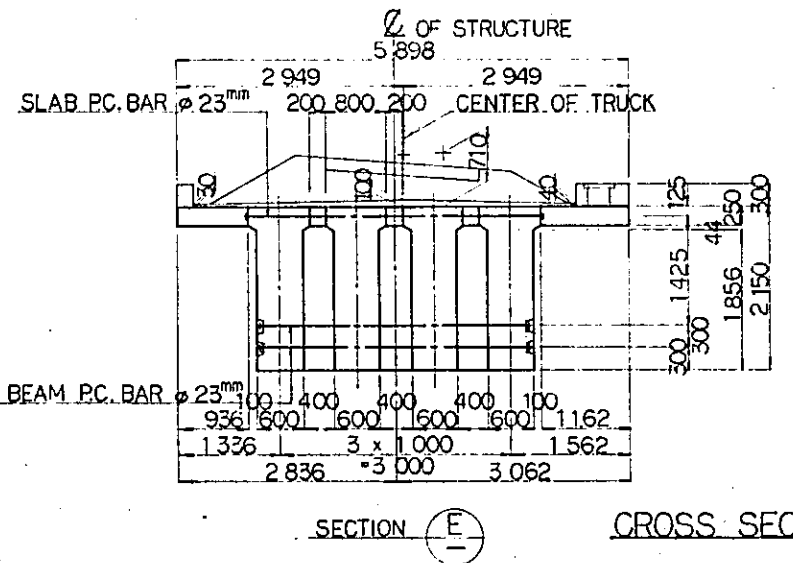
	(L)	(1)	(2)	(3)
(1)	30 052	29 292	7 346	796
(2)	29 992	29 232	7 316	766
(3)	29 932	29 172	7 286	736
(4)	29 872	29 112	7 256	706

(1) (2) (3) AND (4) SHOW GIRDER'S NUMBER.
 (L) (1) (2) AND (3) SHOW THE VALUE AT THE POINT OF CENTER LINE OF MAIN GIRDER.



SUPERSTRUCTURE MATERIAL SCHEDULE (B11 - PC28)

ITEM	TYPE	UNIT	QUANTITY
MAIN BEAM	CONCRETE CLASS A (1c=400 kg/cm ²)	m ³	119.8
	P.C. STRAND 12T 12.7 (1s=190 kg/mm ²)	kg	5 784.8
	SHEATH φ 65	m	591.6
	FORMS	m ²	670.6
	ANCHORING DEVICE FOR 12T 12.7	EACH	40
LATERAL JOINT	REINFORCING BAR 19	kg	—
	REINFORCING BAR 16	kg	1 490.6
	REINFORCING BAR 13	kg	6 755.4
	REINFORCING BAR 10	kg	68.0
TOTAL			8 314.0
LATERAL JOINT	CONCRETE CLASS B (1c=300 kg/cm ²)	m ³	9.6
	P.C. BAR φ 23 (1s=110 kg/mm ²)	kg	557
	SHEATH φ 35	m	163
LATERAL JOINT	FORMS	m ²	40.2
	ANCHOR PLATE, NUT FOR φ 23	EACH	88
	REINFORCING BAR 16	kg	994.1
LATERAL JOINT	REINFORCING BAR 13	kg	1 669.5
	REINFORCING BAR 10	kg	997.3
	TOTAL		3 060.9
SIDEWALK CONCRETE CLASS C (1c=240 kg/cm ²)	m ³	15.7	
BRIDGE RAILING AND DUCT CONCRETE	m ³	5.8	
FORMS	m ²	34.3	
MORTAR WITH SLOPE-PROTECTIVE MORTAR	m ³	10.1	
DRAINAGE	EACH	2	
ELASTOMERIC BEARING PADS	FIX. FOR R=120 ton		4
	MOV. FOR R=120 ton		4



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

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

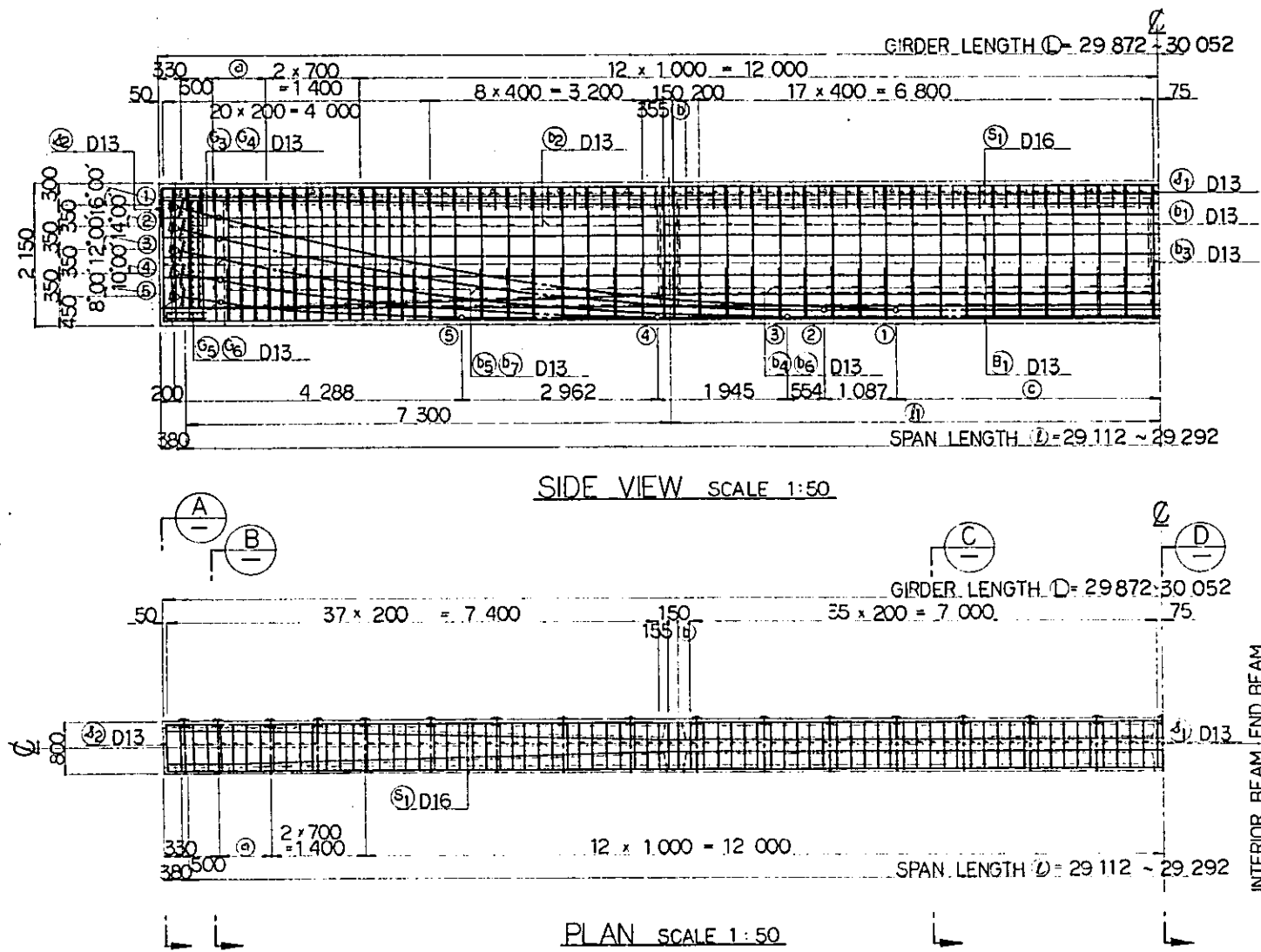
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

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

P.C. GIRDER
 PC 28
 GENERAL VIEW

PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK.

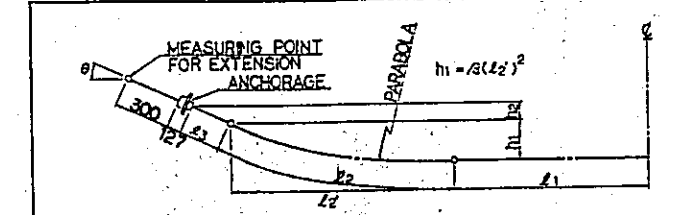
SCALE: AS NOTED DRAWING NO: CS - 045



	(L)	(L)	(L)	(a)	(b)	(c)
①	30 052	29 292	7 346	796	196	3 990
②	29 992	29 232	7 316	766	166	3 960
③	29 932	29 172	7 286	736	136	3 930
④	29 872	29 112	7 256	706	106	3 900

① ② ③ AND ④ SHOW GIRDER'S NUMBER.
 (L) (L) (L) (a) AND (b) SHOW THE VALUE AT THE POINT OF CENTER LINE OF MAIN GIRDER.

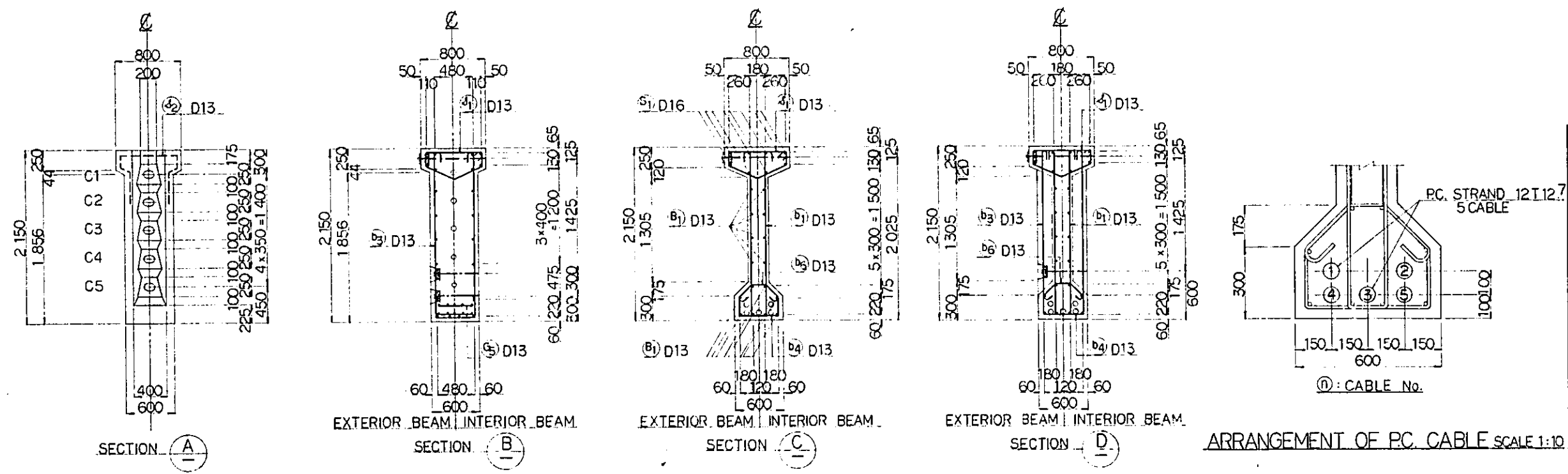
BENDING SCHEDULE OF P.C. CABLES



CABLE No.	L1 (m)	L2 (m)	L2' (m)	L3 (m)	h1 (m)	h2 (m)	S (cm)	S	ANGLE θ
①	3.900 -3.990	10.301	10.163	0.625	1.457	0.172	14.826 -14.916	0.01411	16° 00'
②	4.987 -5.077	9.163	9.070	0.625	1.131	0.151	14.775 -14.865	0.01374	14° 00'
③	5.541 -5.631	8.574	8.511	0.625	0.905	0.130	14.740 -14.830	0.01249	12° 00'
④	7.486 -7.576	6.594	6.561	0.625	0.578	0.109	14.705 -14.795	0.01344	10° 00'
⑤	10.448 -10.538	3.607	3.595	0.625	0.253	0.087	14.680 -14.770	0.01955	8° 00'

SCHEDULE OF P.C. BAR

ANCHOR PLATE		(mm)
SLAB		3 800
CROSS BEAM		3 420



CROSS SECTION SCALE 1:30

- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 - REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSION ARE EXAMPLES AND THESE SHALL BE REVIEWED AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM
 - JACKING LOAD INCLUDE FRICTION IN THE JACK AND ANCHORAGE. EXTENSION SHOWS TOTAL VALUE OF THOSE AT BOTH ENDS MEASURED AT THE POINT 30CM OUTSIDE FROM ANCHORAGE SURFACE. AFTER THE PRESTRESSING SYSTEM IS DETERMINED THESE VALUES SHALL BE REVIEWED ALONG WITH THE OTHER ASSUMED FACTORS AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. INITIAL STRESS DO NOT INCLUDE OTHER FACTORS THAN FRICTION LOSSES.
 - TENSIONING SEQUENCE OF LATERAL P.C. BARS SHALL BE AT EVERY OTHER BAR

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)

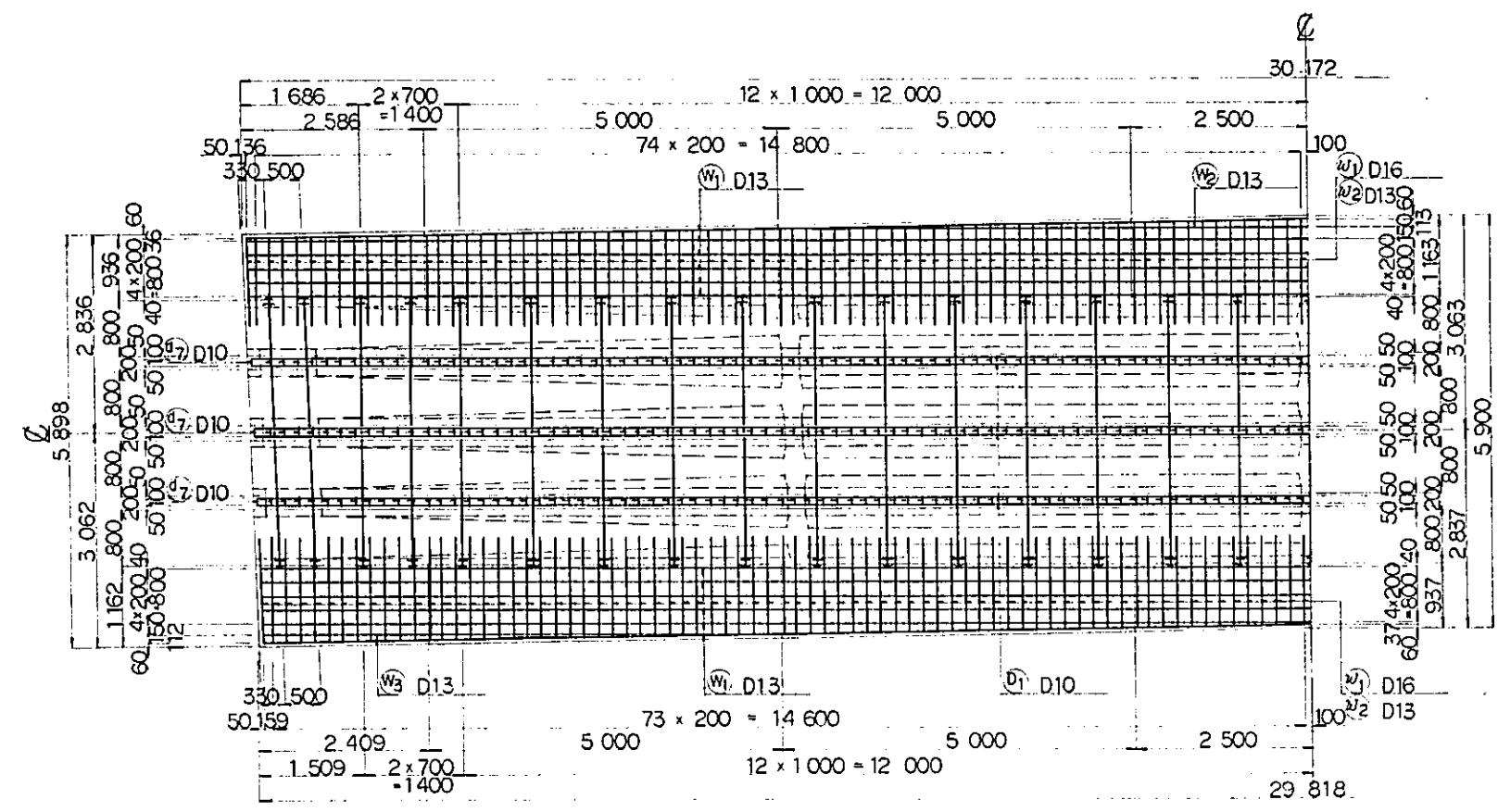
B	1 AUG '84	M.Y.A.O	K.A.	K.M.	M.K.
A	15 FEB '84	M.Y.A.O	K.A.	K.M.	M.K.

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

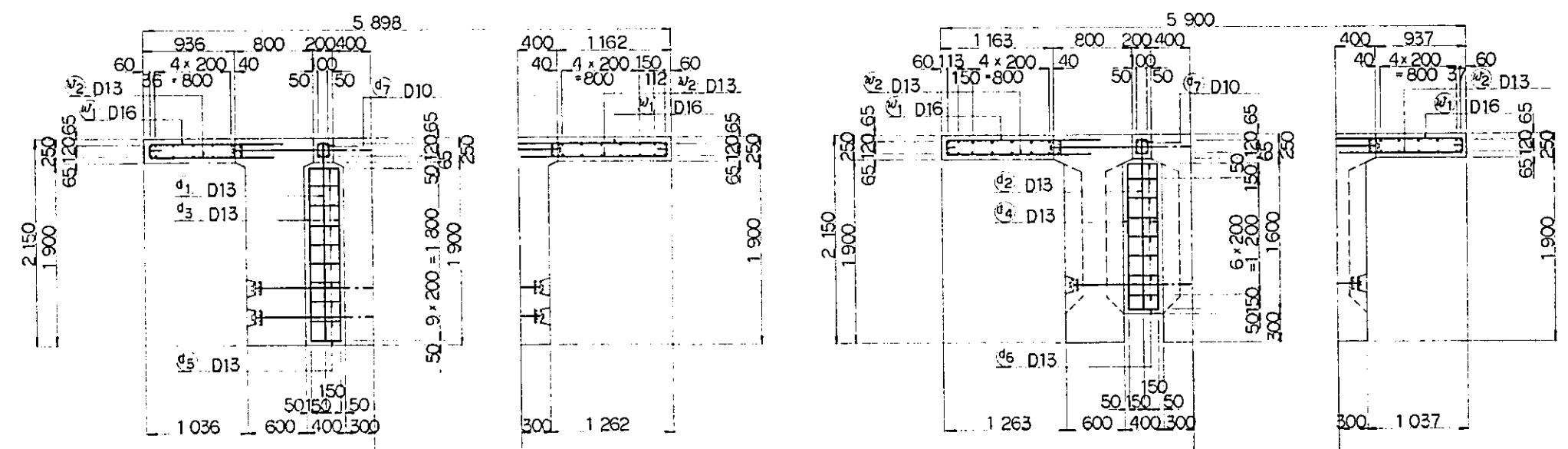
P.C. GIRDER
 PC 28
 P.C. CABLE AND REINF. BAR
 ARRANGEMENT OF MAIN BEAM

PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE AS NOTED DRAWING NO. CS - 046

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSION ARE EXAMPLES AND THESE SHALL BE REVIEWED AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM



PLAN SCALE 1:50



END CROSS BEAM

MIDDLE CROSS BEAM

CROSS SECTION SCALE 1:30

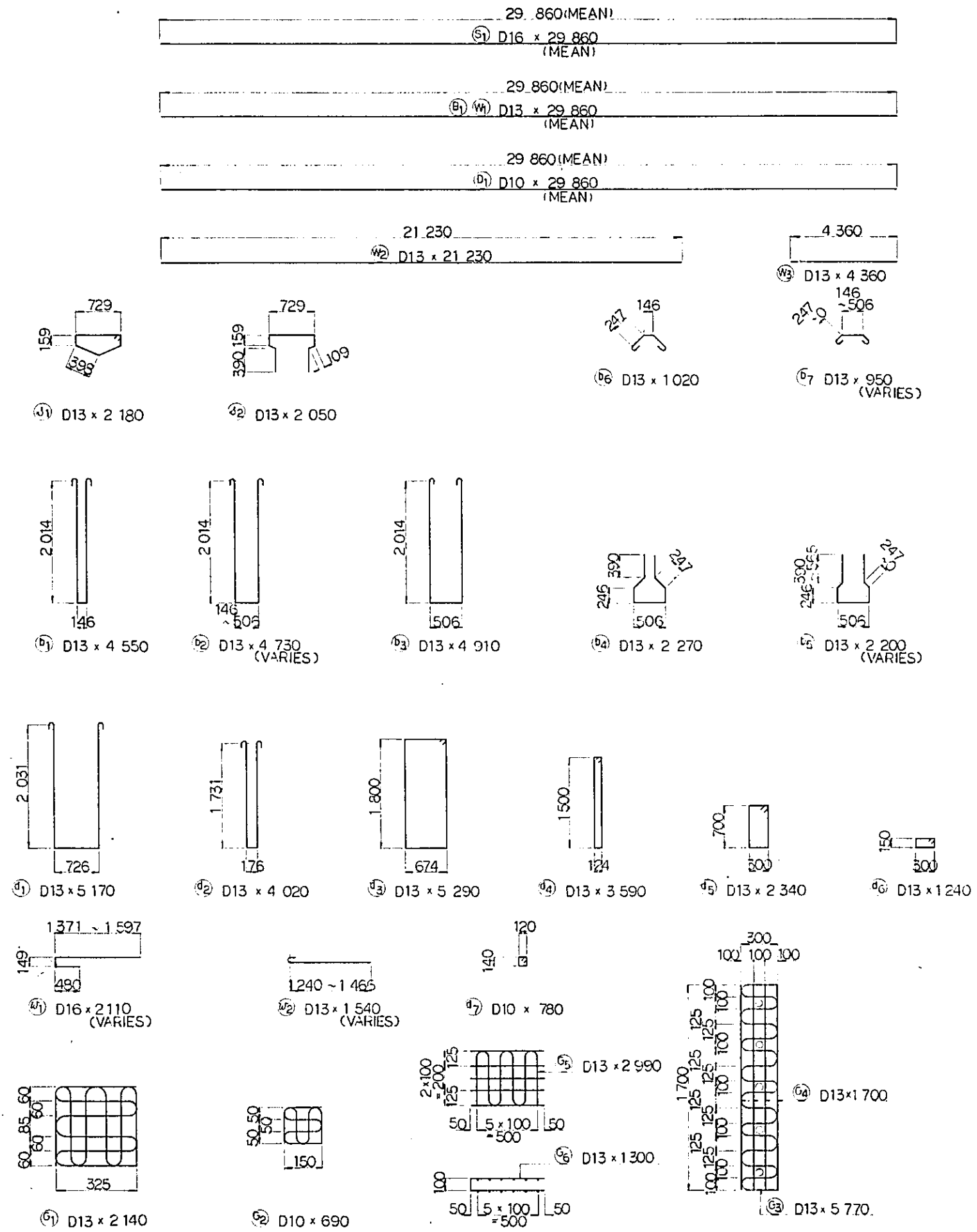
REPUBLIC OF INDONESIA					
MINISTRY OF COMMUNICATIONS					
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG '84	HYAD	KA	KM	PK
A	15 FEB '84	HYAD	KA	KM	PK
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
P.C. GIRDER					
PC 28					
P.C. CABLE AND REINF. BAR					
ARRANGEMENT OF LATERAL JOINT					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
AS NOTED	CS - 047				

NOTE:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED

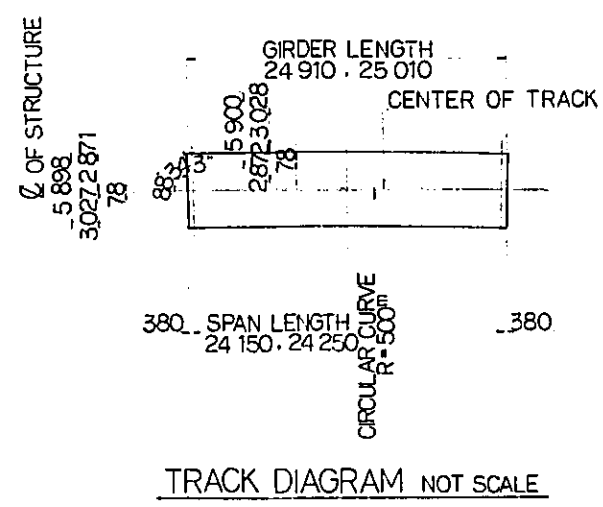
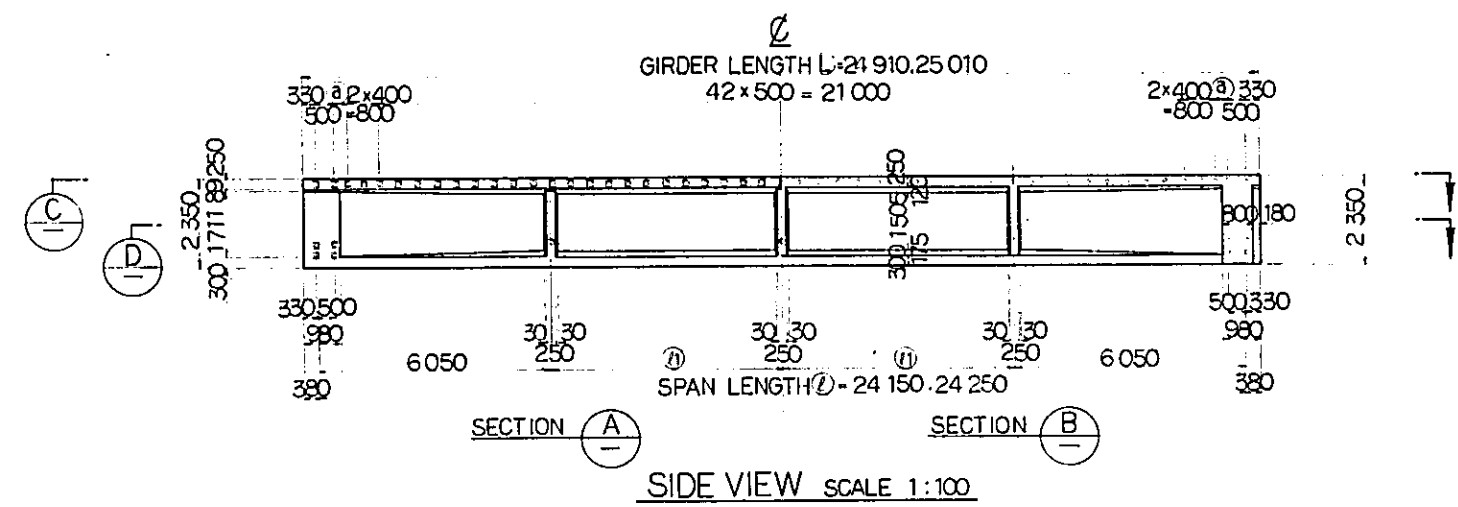
BAR SCHEDULE

REINF. No.	DIA (mm)	LENGTH (mm)	NUMBER / ONE BEAM	EXTERIOR	INTERIOR	TOTAL NUMBER	UWEIGHT (kg/m)	WEIGHT (kg)
MAIN BEAM								
S 1	D16	29.860	8	8	32	1.560	1490.6	
d 1	D13	2.180	150	150	600	0.995	1301.5	
2		2.050	2	2	8		16.3	
B 1	D13	29.860	16	16	64	0.995	1901.5	
b 1	D13	4.550	40	40	160	0.905	724.4	
2		4.730	48	48	192		903.6	
3		4.910	16	16	64		312.7	
4		2.270	40	40	160		361.4	
5		2.200	48	48	192		420.3	
6		1.020	40	40	160		162.4	
7		950	48	48	192		181.5	
G 1	D13	2.140	20	20	80	0.995	170.3	
2	D10	690	88	—	176	0.560	68.0	
3	D13	5.770	4	4	16	0.995	91.9	
4		1.700	16	16	64		108.3	
5		2.990	4	4	16		47.6	
6		1.300	10	10	40		51.7	
WEIGHT OF BARS FOR MAIN BEAM								
D16	1490.6 kg							
D13	6755.4 kg							
D10	68.0 kg							
TOTAL WEIGHT	8314.0 kg							
LATERAL JOINT								
w 1	D13	29.860	—	—	24	0.995	713.1	
2		21.230	—	—	2		42.2	
3		4.360	—	—	4		17.4	
w 1	D16	2.110	—	—	302	1.560	994.1	
2	D13	1.540	—	—	302	0.995	462.8	
D 1	D10	29.860	—	—	12	0.560	200.7	
d 1	D13	5.170	—	—	6	0.995	30.9	
2		4.020	—	—	9		36.0	
3		5.290	—	—	12		63.2	
4		3.590	—	—	18		64.3	
5		2.340	—	—	60		139.7	
6		1.240	—	—	81		99.9	
7	D10	780	—	—	450	0.560	196.6	
WEIGHT OF BARS FOR LATERAL JOINT								
D16	994.1 kg							
D13	1669.5 kg							
D10	397.3 kg							
TOTAL WEIGHT	3060.9 kg							
TOTAL WEIGHT OF BARS								
D16	2484.7 kg							
D13	8425.1 kg							
D10	465.3 kg							
TOTAL WEIGHT	11375.1 kg							



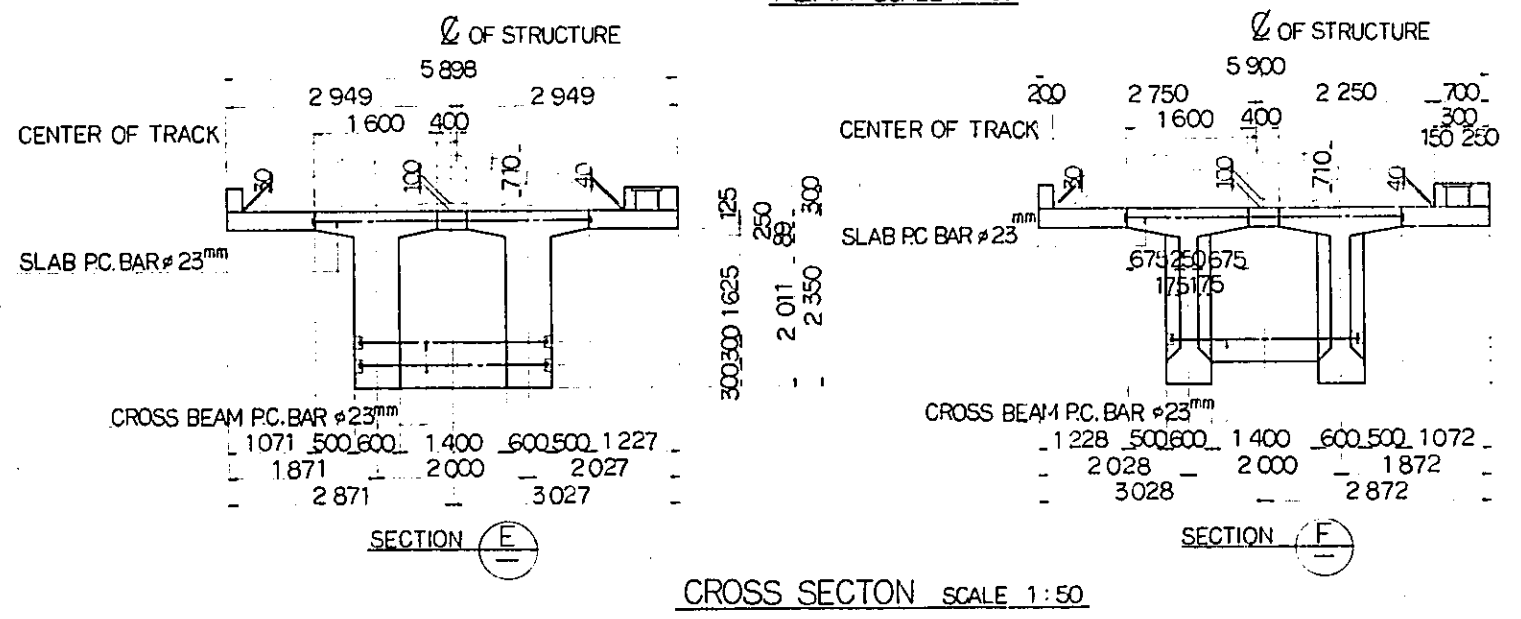
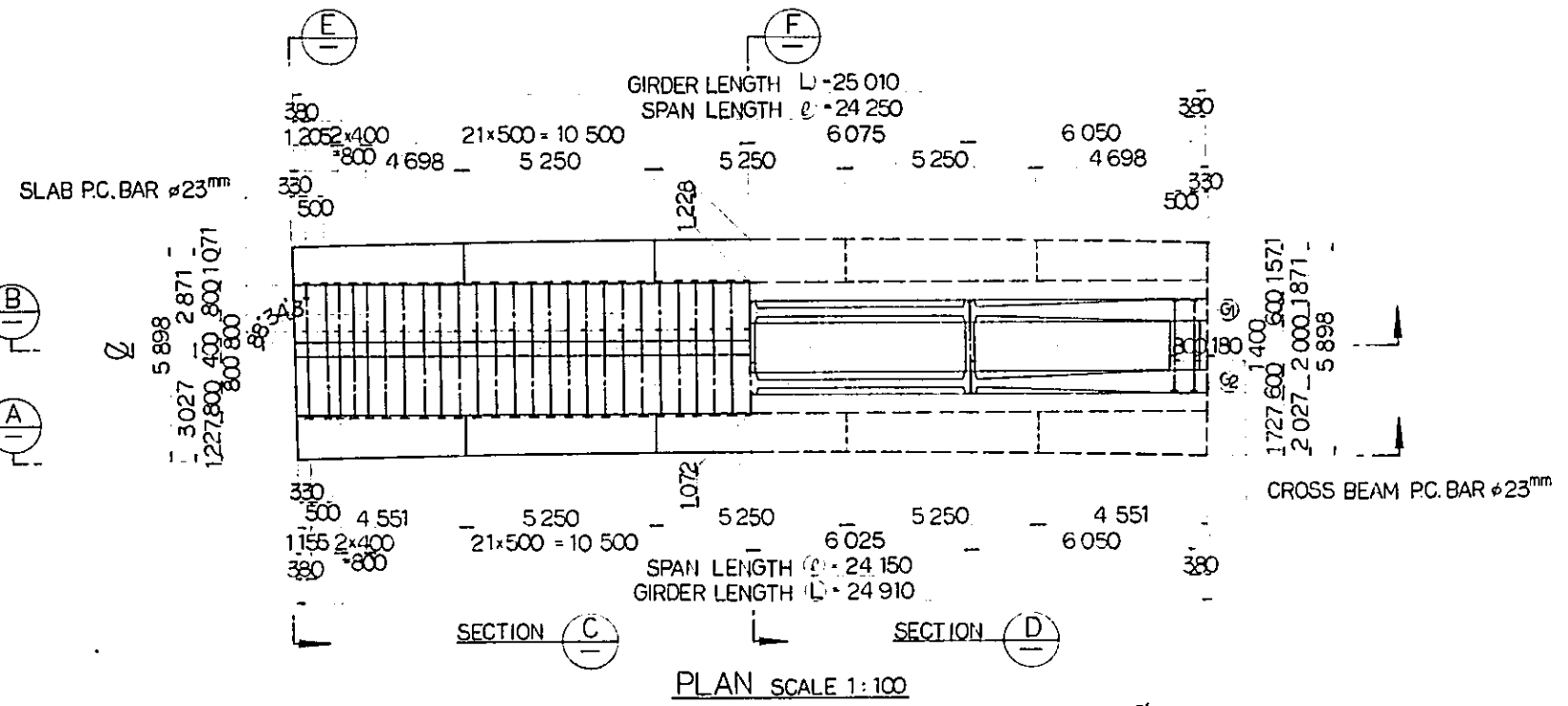
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS							
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT							
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)							
B	1 AUG '84	MY	JO	KA	KM	enK	
A	15 FEB '84	MY	JO	KA	KM	enK	
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVISED	SUBMITTED	
P.C. GIRDER PC 28 REINF. BAR SCHEDULE							
PACKAGE: I CIVIL AND ARCHITECTURAL WORK							
SCALE: AS NOTED		DRAWING NO.: CS - 048					

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE EXCEPT R.C. COVER SHALL BE CAST IN PLACE
 3. P.C. STRAND 12T 12.7 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 12.7 MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7B 12T 12.7 OR EQUIVALENT
 4. P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
 MINIMUM ULTIMATE TENSILE STRENGTH: 190 kg/mm²
 MINIMUM YIELD STRESS: 160 kg/mm²
 5. THIS DRAWING SHALL BE APPLIED TO:
 : B12 - PC30
 : B12 - PC31
 6. DESIGN TRAIN LOAD: EQUIVALENT TO
 KS - 16



GI	L	l	71	a
25 010	24 250	6 075	375	
24 910	24 150	6 025	325	

GI AND G2 SHOW GIRDERS NUMBER.
 L, l, 71 AND a SHOW THE VALUE AT THE POINT OF CENTER LINE OF MAIN GIRDER.



SUPERSTRUCTURE MATERIAL SCHEDULE (B12 - PC29)

ITEM	TYPE	UNIT	QUANTITY
MAIN BEAM	CONCRETE CLASS A ($f_c = 400\text{kg/cm}^2$)	m ³	66.3
	P.C. STRAND 12T 12.7 ($f_s = 190\text{kg/mm}^2$)	kg	2 429.2
	SHEATH $\phi 65$	m	245.9
	FORMS	m ²	333.7
	ANCHORING DEVICE FOR 12T 12.7	EACH	20
LATERAL JOINT	REINFORCING BAR 19	kg	—
	REINFORCING BAR 16	kg	620.5
	REINFORCING BAR 13	kg	3 612.2
	REINFORCING BAR 10	kg	95.8
	TOTAL	kg	4 328.5
SIDEWALK CONCRETE	CONCRETE CLASS B ($f_c = 300\text{kg/cm}^2$)	m ³	9.0
	P.C. BAR $\phi 23$ ($f_s = 110\text{kg/mm}^2$)	kg	721.3
	SHEATH $\phi 35$	m	210.2
BRIDGE RAILING AND DUCT	FORMS	m ²	39.0
	ANCHOR PLATE, NUT	EACH	124
	REINFORCING BAR 16	kg	868.8
MORTAR WITH SLOPE PROTECTIVE MORTAR	REINFORCING BAR 13	kg	1 937.1
	REINFORCING BAR 10	kg	83.5
	TOTAL	kg	2 889.4
DRAINAGE	ELASTOMERIC BEARING PADS	EACH	4
	FIX. FOR R-170	ton	2
BEARING PADS	MOV. FOR R-170	ton	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	H.Y. A.O.	K.A.	K.M.	M.K.
A	15 FEB '84	H.Y. A.O.	K.A.	K.M.	M.K.

REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWED SUBMITTED

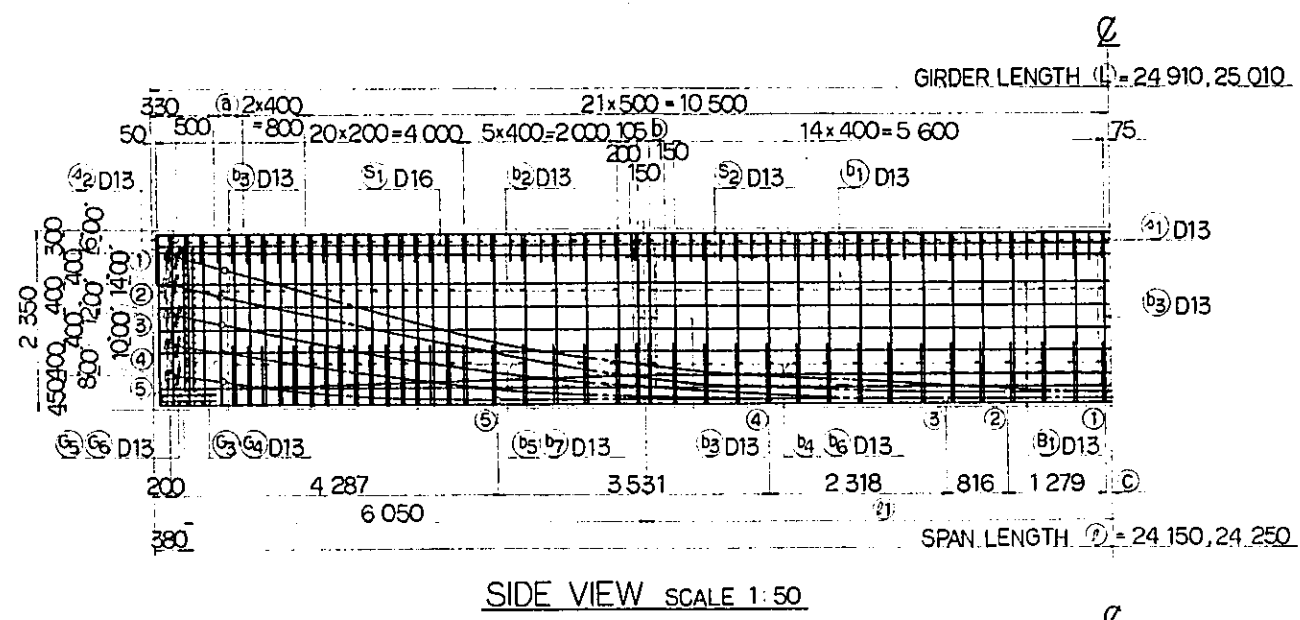
P.C. GIRDER
 PC 29
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK

SCALE AS NOTED DRAWING NO. CS - 049

NOTES:

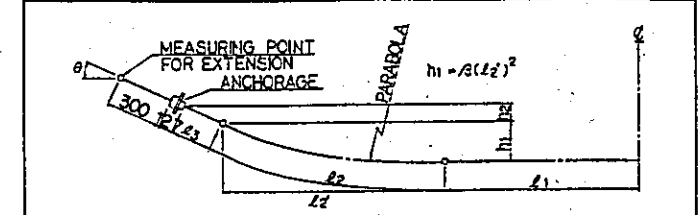
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSION ARE EXAMPLES AND THESE SHALL BE REVIEWED AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURE INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM
3. JACKING LOAD INCLUDE FRICTION IN THE JACK AND ANCHORAGE. EXTENSION SHOWS TOTAL VALUE OF THOSE AT BOTH ENDS MEASURED AT THE POINT 30CM OUTSIDE FROM ANCHORAGE SURFACE. AFTER THE PRESTRESSING SYSTEM IS DETERMINED THESE VALUES SHALL BE REVIEWED ALONG WITH THE OTHER ASSUMED FACTORS AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURE INSTRUCTIONS. INITIAL STRESS DO NOT INCLUDE OTHER FACTORS THAN FRICTION LOSSES.
4. TENSIONING SEQUENCE OF LATERAL P.C. BARS SHALL BE AT EVERY OTHER BAR



G ₁	L	l	f ₁	a	b	c
G ₁	25 010	24 250	6 075	375	175	74
G ₂	24 910	24 150	6 025	325	125	24

G₁ AND G₂ SHOW GIRDER'S NUMBER.
 L, l, f₁, a AND b SHOW THE VALUE AT THE POINT OF CENTER LINE OF MAIN GIRDER.

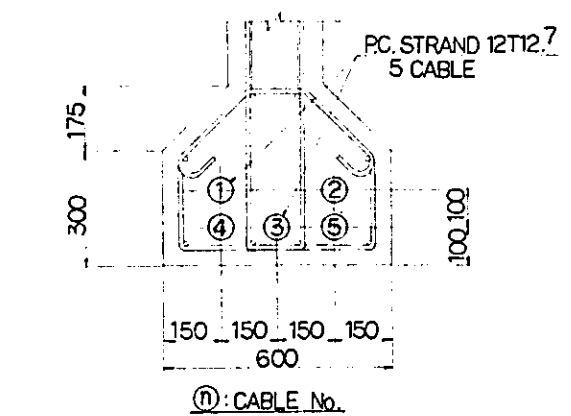
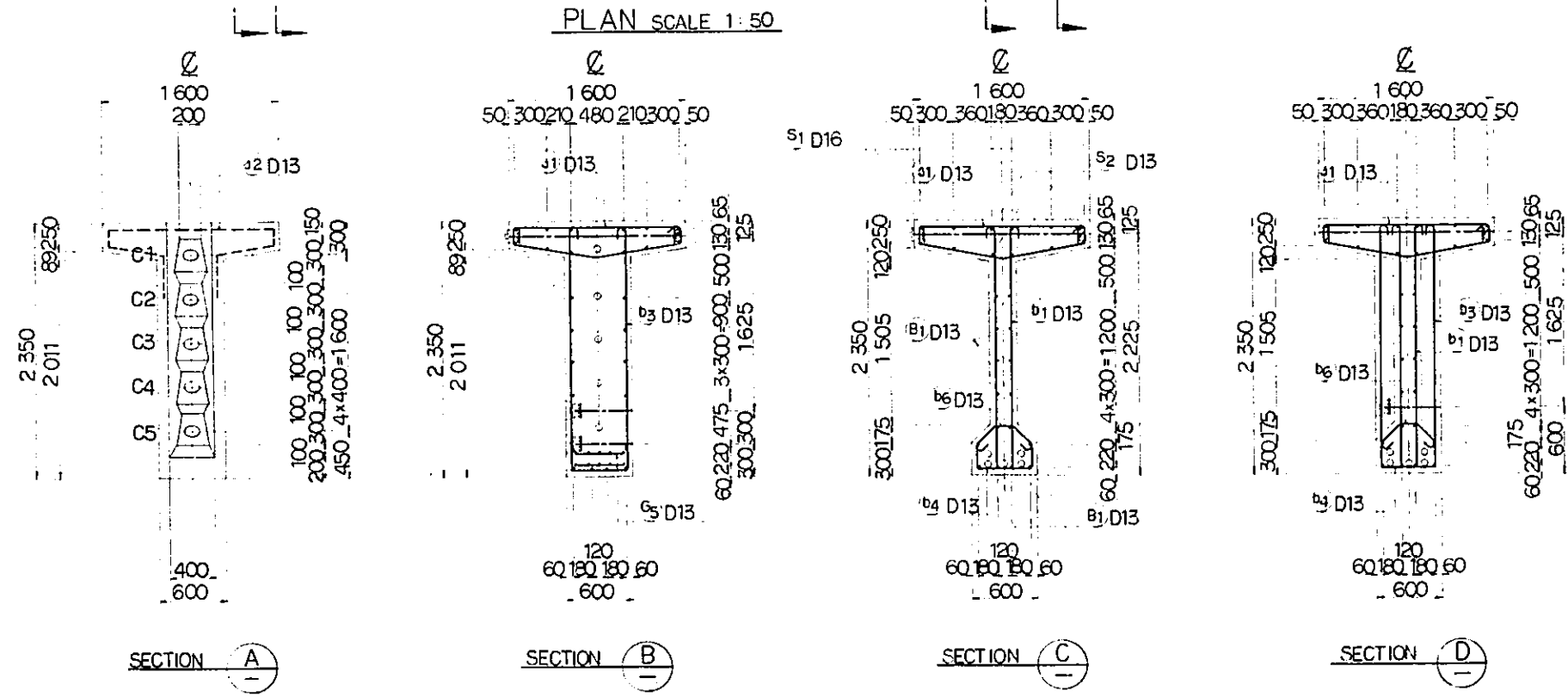
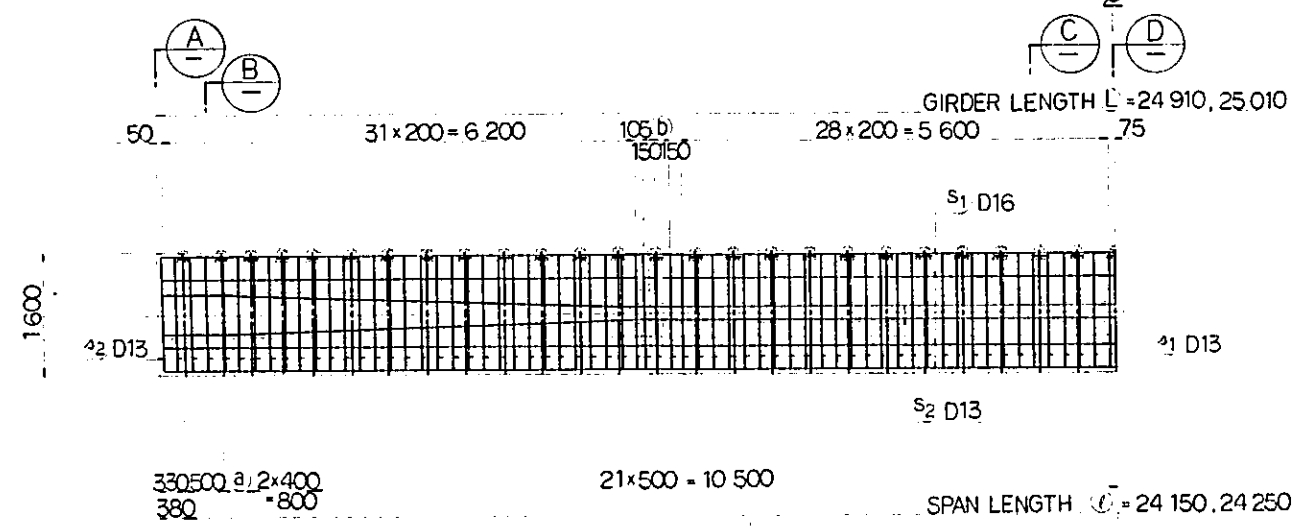
BENDING SCHEDULE OF P.C. CABLES



CABLE No.	L ₁ (cm)	L ₂ (cm)	L ₂ ' (cm)	L ₃ (cm)	h ₁ (cm)	h ₂ (cm)	L ₂ (cm)	A	ANGLE θ
①	0.024 -0.074	11.714	11.558	0.625	1.657	0.172	12.363 -12.413	0.01241	16° 00'
②	1.303 -1.353	10.378	10.273	0.625	1.281	0.151	12.306 -12.356	0.01214	14° 00'
③	2.119 -2.169	9.522	9.451	0.625	1.004	0.130	12.256 -12.316	0.01125	12° 00'
④	4.437 -4.487	7.165	7.128	0.625	0.628	0.109	12.206 -12.277	0.01237	10° 00'
⑤	7.965 -8.018	3.606	3.594	0.625	0.253	0.087	12.199 -12.249	0.01955	8° 00'

SCHEDULE OF P.C. BAR

	(mm)
ANCHOR PLATE	
SLAB	3 600
CROSS BEAM	2 420



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

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

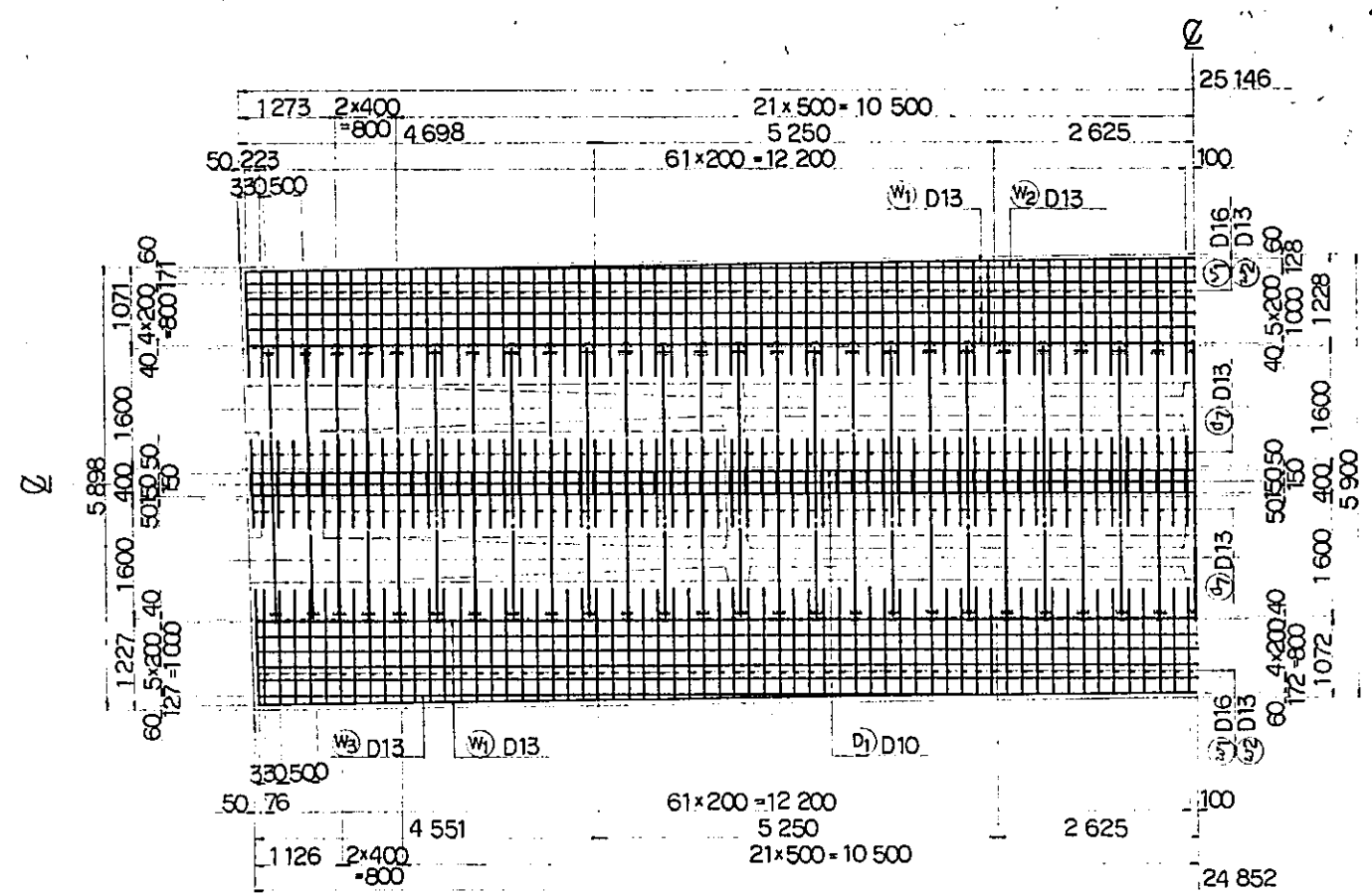
JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

B	1 AUG '84	MYA	OK	OK	OK	OK
A	15 FEB '84	MYA	OK	OK	OK	OK

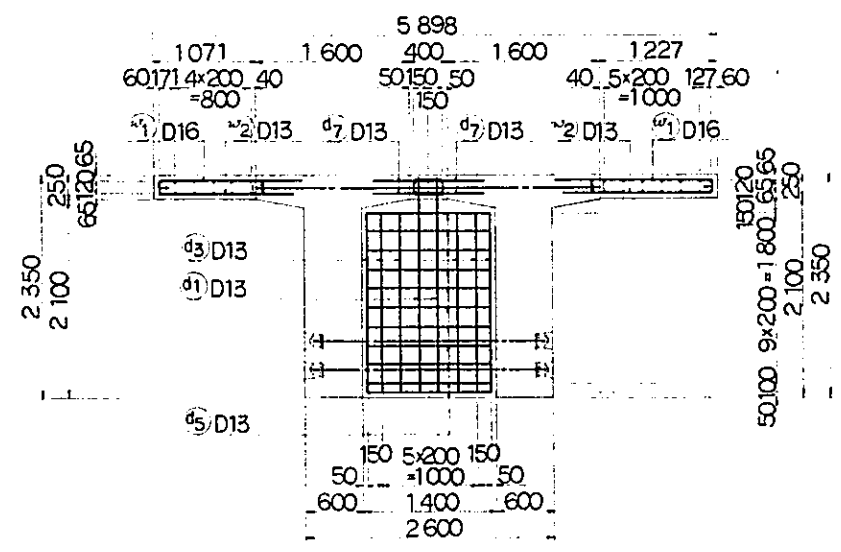
P.C. GIRDER
 PC 29
 P.C. CABLE AND REINF. BAR
 ARRANGEMENT OF MAIN BEAM

PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: AS NOTED
 DRAWING NO: CS - 050

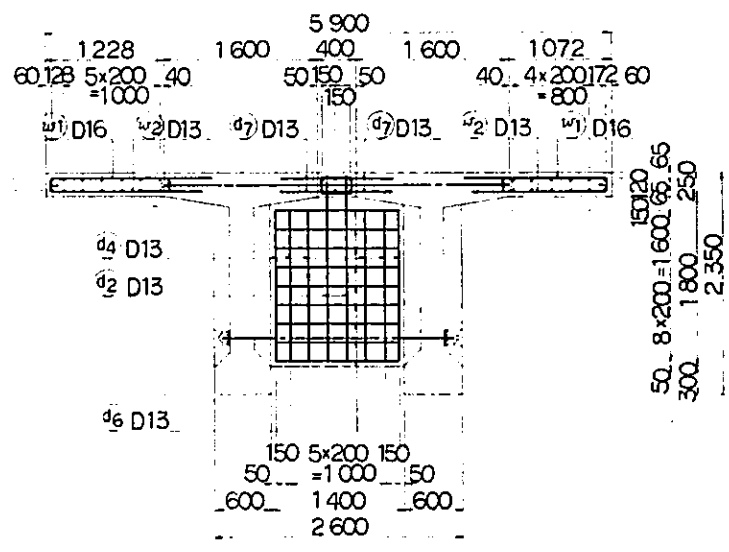
- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSION ARE EXAMPLES AND THESE SHALL BE REVIEWED AND IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM



PLAN SCALE 1:50



END CROSS BEAM

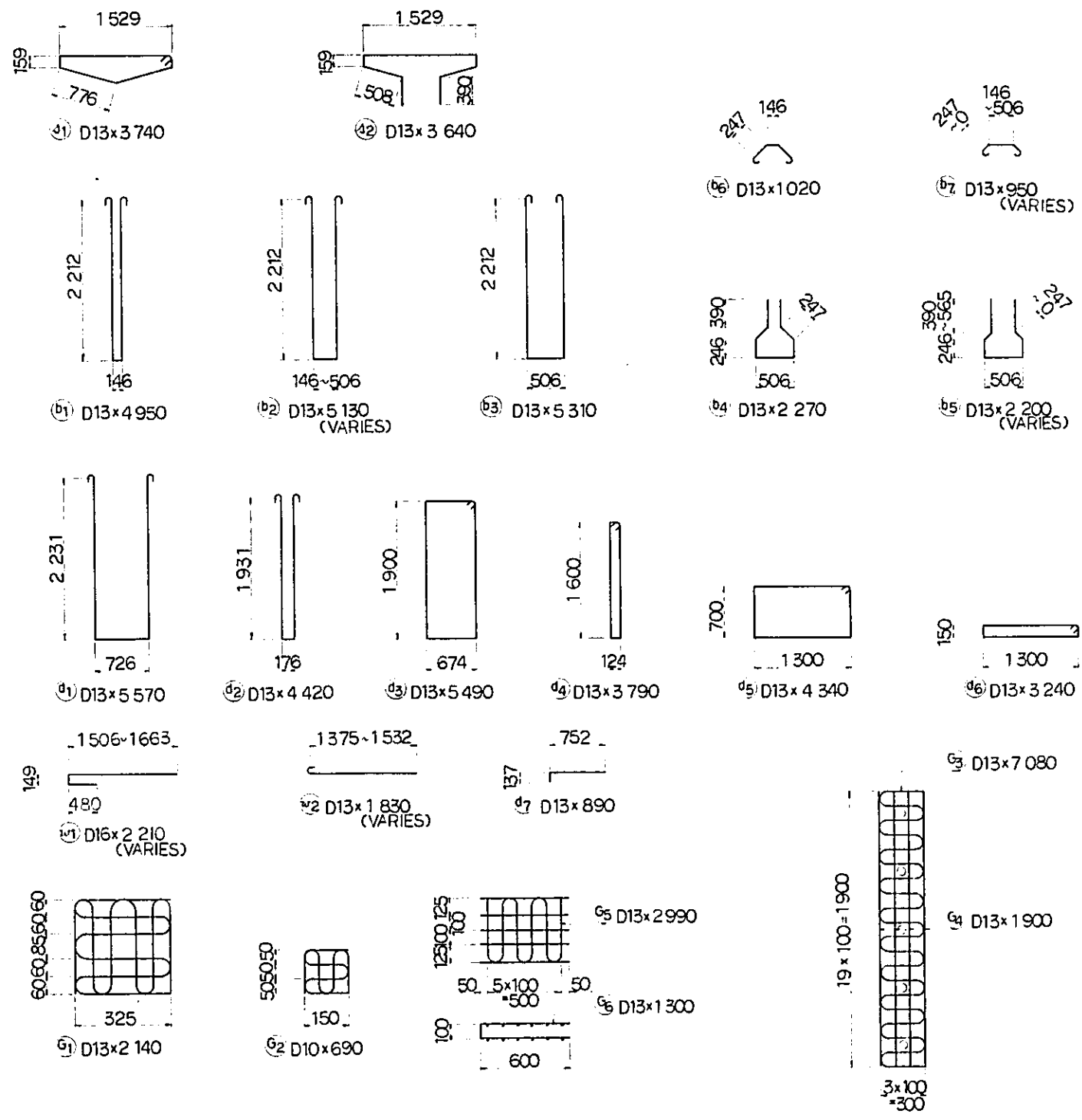
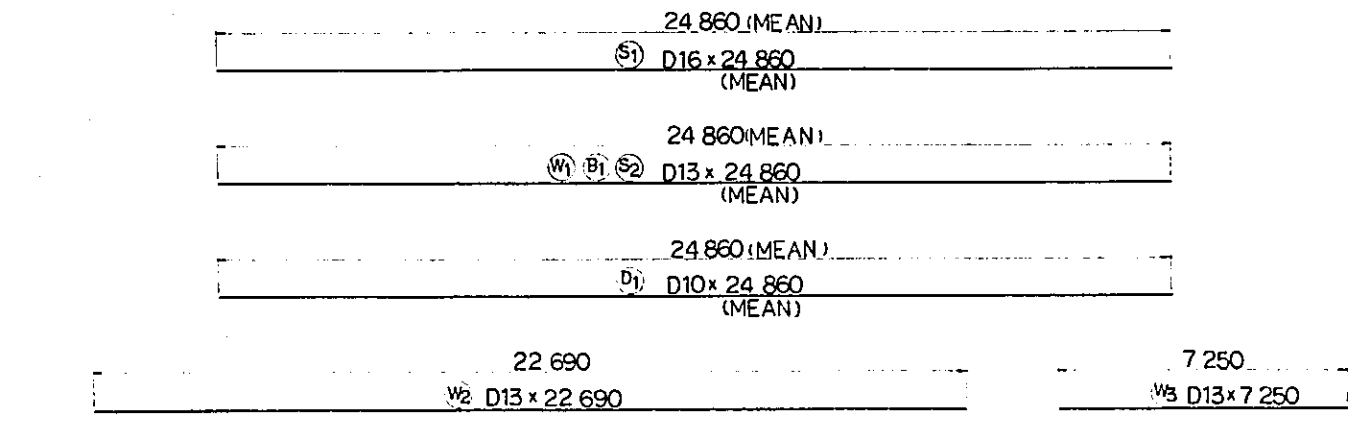


MIDDLE CROSS BEAM

CROSS SECTION SCALE 1:40

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	MYAD	KAKM	mk	
A	15FEB'84	MYAD	KAKM	mk	
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	SUBMITTED
P.C. GIRDER PC 29 P.C. CABLE AND REINF BAR ARRANGEMENT OF LATERAL JOINT					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
AS NOTED	CS - 051				

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



BAR SCHEDULE

REINF. No.	DIA. (mm)	LENGTH (mm)	NUMBER/ ONE BEAM	TOTAL NUMBER	UWEIGHT (kg/m)	WEIGHT (kg)
MAIN BEAM						
S 1	D16	24 860	8	16	1.56	620.5
2	D13	24 860	4	8	0.995	197.9
a 1	D13	3 740	126	252	0.995	937.8
2	"	3 640	2	4	"	14.5
B 1	D13	24 860	16	32	0.995	791.5
b 1	D13	4 950	34	68	0.995	334.9
2	"	5 130	42	84	"	428.8
3	"	5 310	16	32	"	169.1
4	"	2 270	34	68	"	153.6
5	"	2 200	42	84	"	183.9
6	"	1 020	34	68	"	69.0
7	"	950	42	84	"	79.4
G 1	D13	2 140	20	40	0.995	85.2
2	D10	690	124	248	0.56	95.8
3	D13	7 080	4	8	0.995	56.4
4	"	1 900	16	32	"	60.5
5	"	2 990	4	8	"	23.8
6	"	1 300	10	20	"	25.9
WEIGHT OF BARS FOR MAIN BEAM						
	D16	620.5 kg				
	D13	3 612.2 kg				
	D10	95.8 kg				
	TOTAL WEIGHT	4 328.5 kg				
LATERAL JOINT						
W 1	D13	24 860	—	24	0.995	593.7
2	"	22 690	—	2	"	45.2
3	"	7 250	—	4	"	28.9
w 1	D16	2 210	—	252	1.56	868.8
2	D13	1 830	—	252	0.995	458.9
D 1	D10	24 860	—	6	0.56	83.5
d 1	D13	5 570	—	4	0.995	22.2
2	"	4 420	—	6	"	26.4
3	"	5 490	—	12	"	65.6
4	"	3 790	—	18	"	67.9
5	"	4 340	—	22	"	95.0
6	"	3 240	—	27	"	87.0
7	"	890	—	504	"	446.3
WEIGHT OF BARS FOR LATERAL JOINT						
	D16	868.8 kg				
	D13	1 937.1 kg				
	D10	83.5 kg				
	TOTAL WEIGHT	2 889.4 kg				
TOTAL WEIGHT OF BARS						
	D16	1 489.3 kg				
	D13	5 549.3 kg				
	D10	179.3 kg				
	TOTAL WEIGHT	7 217.9 kg				

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NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

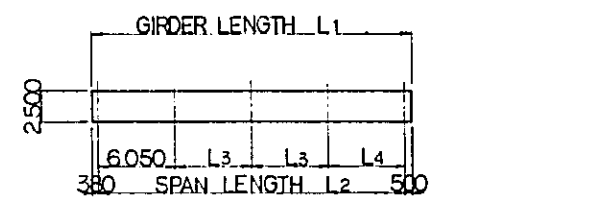
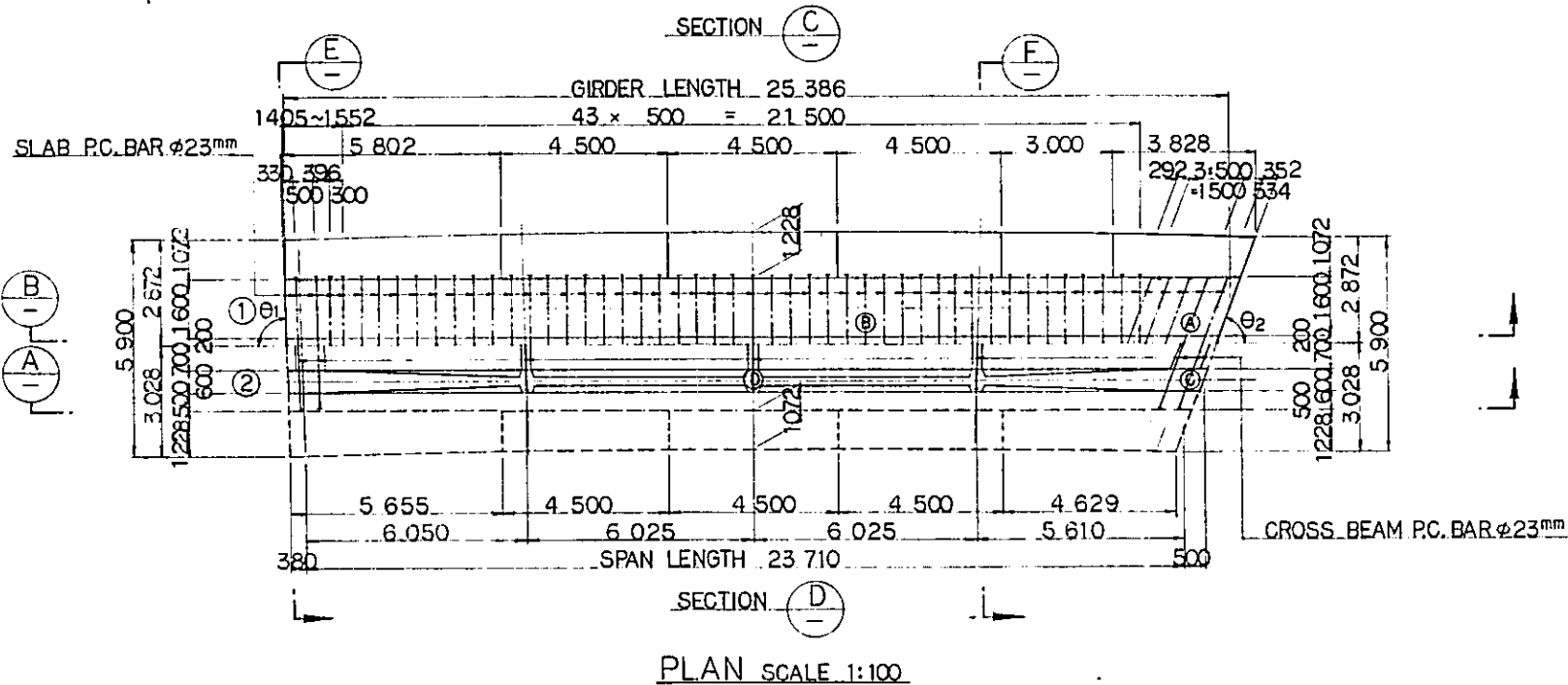
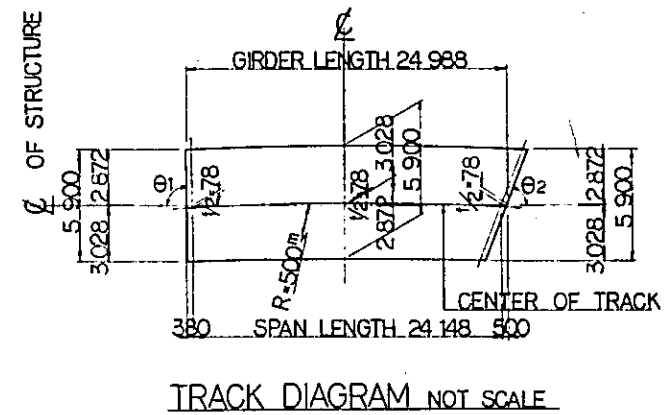
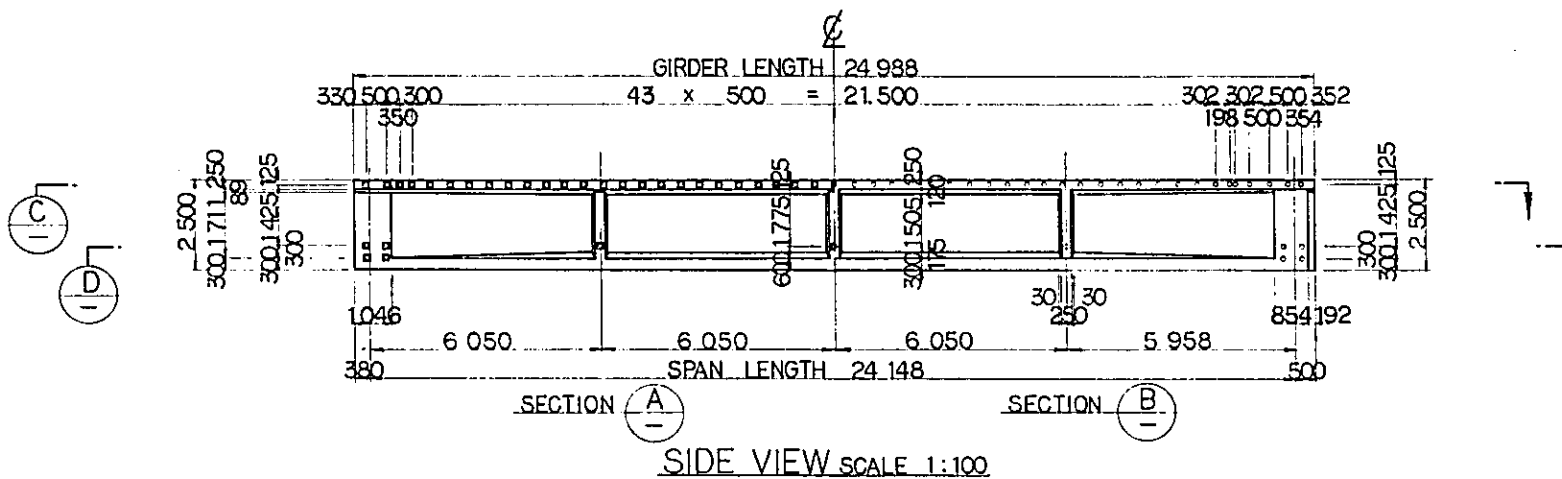
B	1 AUG '84	M.Y.A.O	K.A.	K.M.	M.K.
A	15 FEB '84	M.Y.A.O	K.A.	K.M.	M.K.

REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWED SUBMITTED

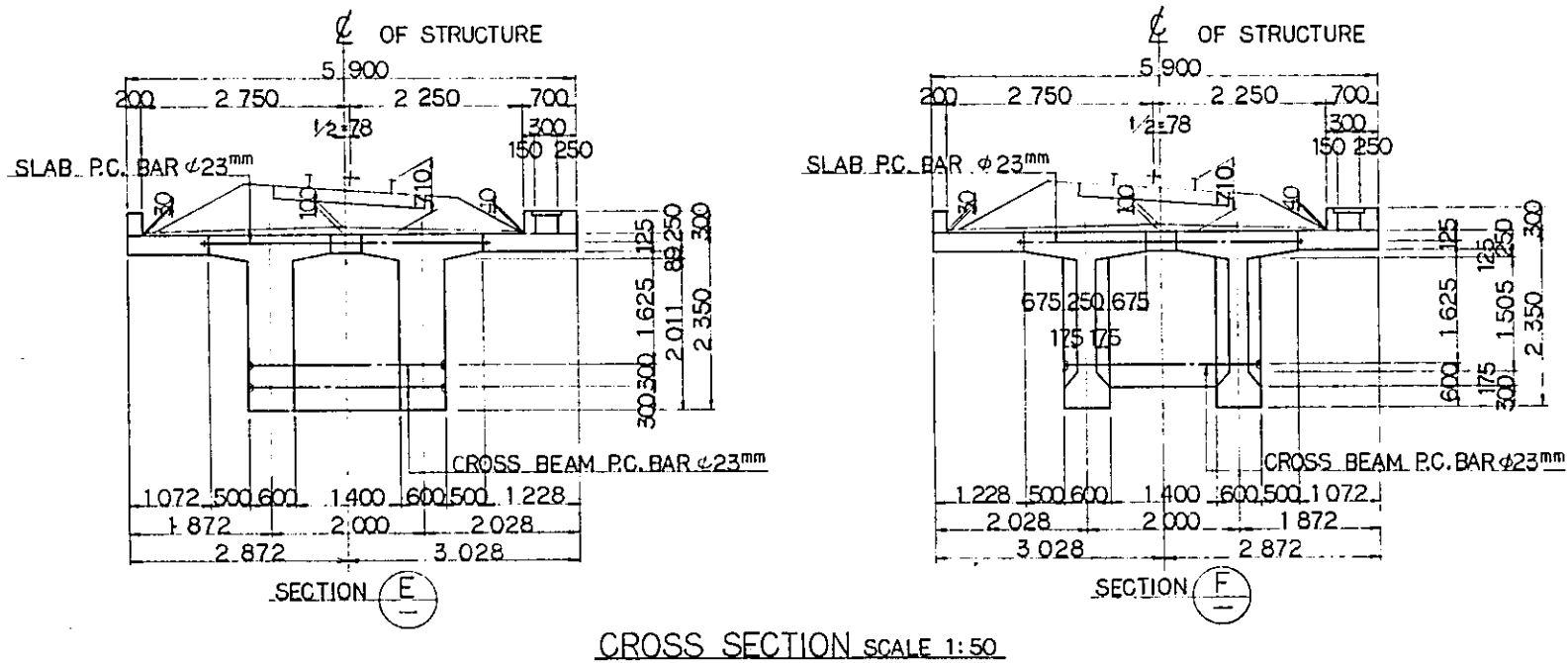
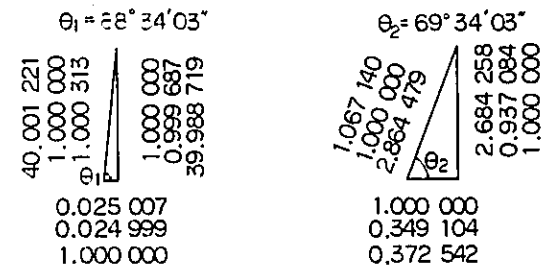
P.C. GIRDER
PC 29
REINF. BAR SCHEDULE

PACKAGE: I CIVIL AND ARCHITECTURAL WORK

SCALE: AS NOTED DRAWING NO: CS-052



GIRDER NO.	L1	L2	L3	L4
①	25,386	24,506	6,075	6,306
②	24,590	23,710	6,025	5,610



SUPERSTRUCTURE MATERIAL SCHEDULE (B12-PC33)

ITEM	TYPE	UNIT	QUANTITY	
MAIN BEAM	CONCRETE	CLASS A ($f_c=400 \text{ kg/cm}^2$)	m ³ 66.2	
	P.C. STRAND	12 T 12.7 ($f_s=190 \text{ kg/mm}^2$)	kg 2429.2	
	SHEATH	$\phi 65$ and $\phi 70$	m 245.9	
	FORMS		m ² 334.3	
	ANCHORING DEVICE	FOR 12 T 12.7	EACH 20	
	REINFORCING BAR	19, 16, 13, 10	kg	620.5, 3612.2, 958
TOTAL			4,328.5	
LATERAL JOINT	CONCRETE	CLASS B ($f_c=300 \text{ kg/cm}^2$)	m ³ 9.1	
	P.C. BAR	$\phi 25$ ($f_s=110 \text{ kg/mm}^2$)	kg 726.2	
	SHEATH	$\phi 35$	m 211.7	
	FORMS		m ² 39.7	
ANCHOR PLATE, NUT	ANCHOR PLATE, NUT	FOR $\phi 23$	EACH 124	
	REINFORCING BAR	16, 13, 10	kg	868.8, 1937.1, 83.5
	TOTAL			2,889.4
	SIDEWALK CONCRETE	CLASS C ($f_c=240 \text{ kg/cm}^2$)	m ³ 14.4	
BRIDGE RAILING AND DUCT	CONCRETE		m ³ 4.8	
	FORMS		m ² 44.6	
MORTAR WITH SLOPE-PROTECTIVE MORTAR		m ³	8.4	
DRAINAGE		EACH	4	
ELASTOMERIC BEARING PADS	FIX. FOR R=170 ton		2	
	MOV. FOR R=170 ton		2	

- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 - MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE EXCEPT R.C. COVER SHALL BE CAST IN PLACE
 - P.C. STRAND 12T 12.7 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 12.7 MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7B 12T 12.7 OR EQUIVALENT
 - P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
 MINIMUM ULTIMATE TENSILE STRENGTH: 190 kg/mm²
 MINIMUM YIELD STRESS: 160 kg/mm²
 - THIS DRAWING SHALL BE APPLIED TO: B12-PC29
 - DESIGN TRAIN LOAD: EQUIVALENT TO KS-16

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 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

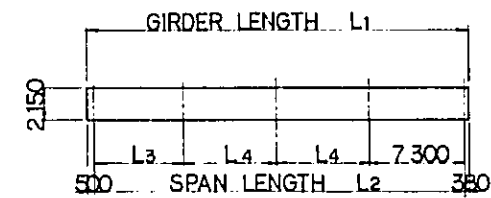
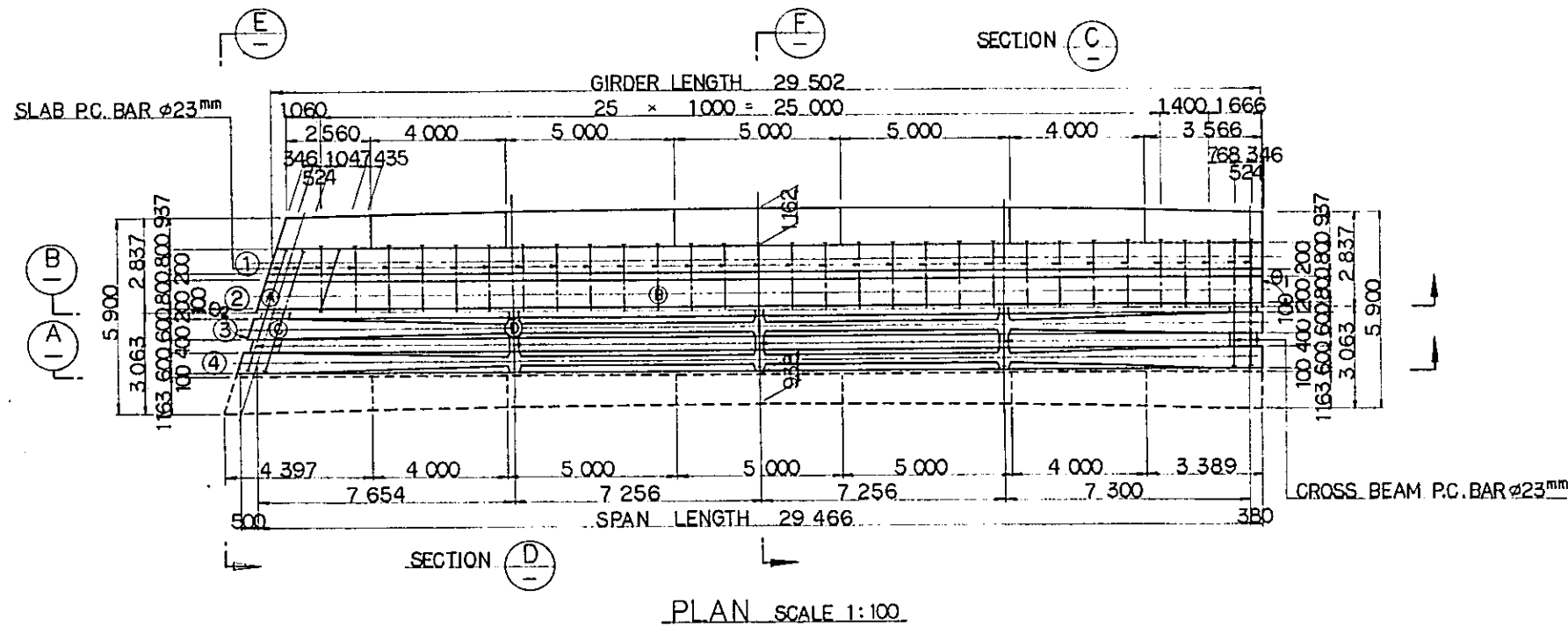
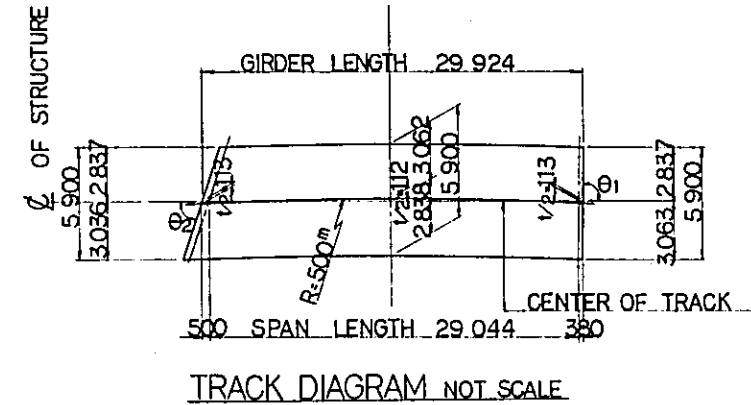
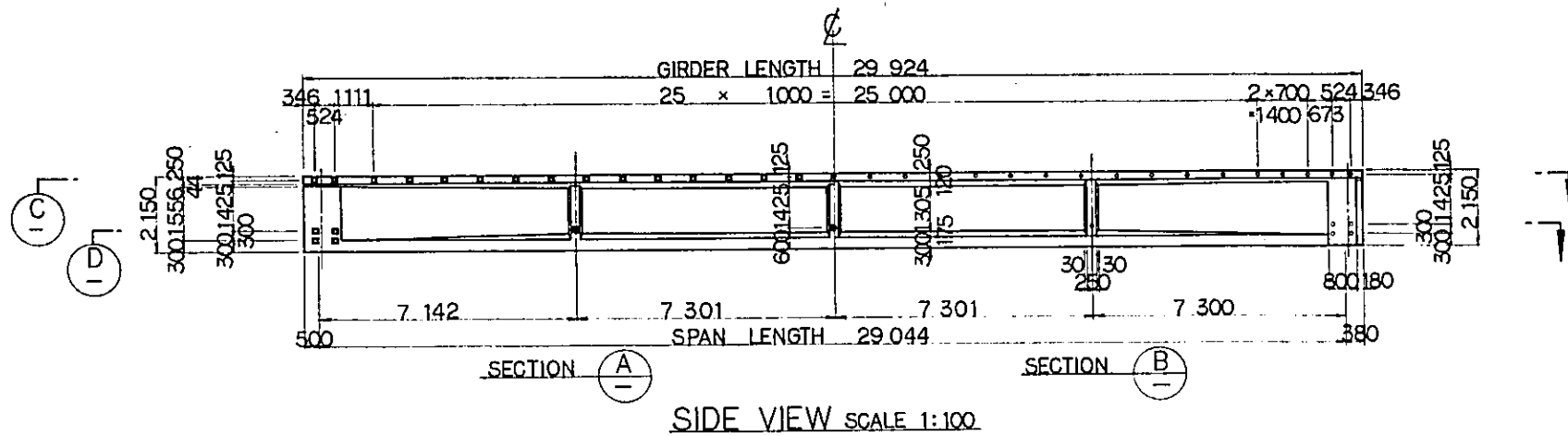
B 1 AUG '84 MYAO KA KM MK
 A 15 FEB '84 MYAO KA KM MK

REVISIONS DATE REASON DRAWN CHECKED REVIEWD SUBMITTED

P.C. GIRDER
 PC 33
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK

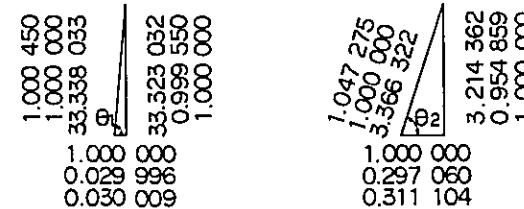
SCALE AS NOTED DRAWING NO. CS-053



GIRDER	L1	L2	L3	L4
①	29 502	28 622	6 630	7 346
②	29 784	28 904	6 972	7 316
③	30 064	29 184	7 312	7 286
④	30 346	29 466	7 654	7 256

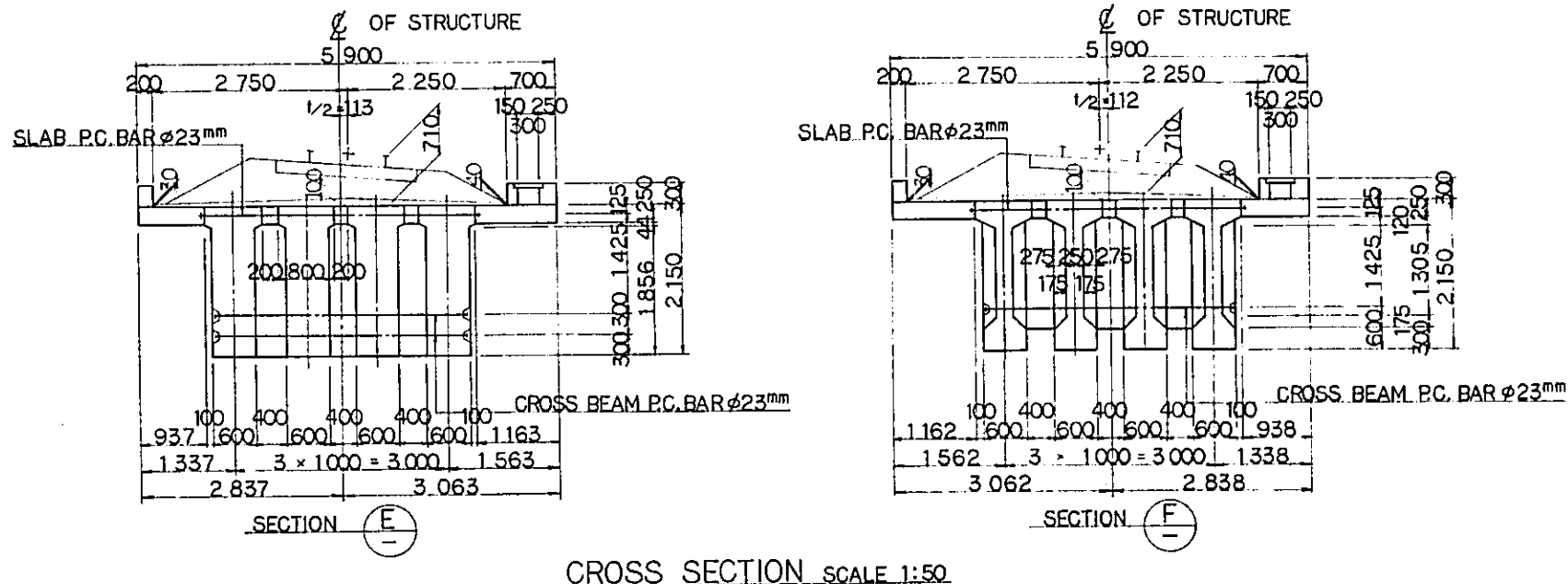
θ₁ = 88° 16' 52"

θ₂ = 72° 43' 08"



SUPERSTRUCTURE MATERIAL SCHEDULE (B12 - PC34)

ITEM	TYPE	UNIT	QUANTITY
MAIN BEAM	CONCRETE	CLASS A (f _c = 400 kg/cm ²)	m ³ 119.7
	P.C. STRAND	12 T 12.7 (f _s = 190 kg/mm ²)	kg 5784.8
	SHEATH	φ 65 and φ 70	m 591.6
	FORMS		m ² 654.1
	ANCHORING DEVICE	FOR 12 T 12.7	EACH 40
LATERAL JOINT	REINFORCING BAR	19	kg
	REINFORCING BAR	16	kg 1490.6
	REINFORCING BAR	13	kg 6755.4
	REINFORCING BAR	10	kg 68.0
	TOTAL		kg 8314.0
SIDEWALK CONCRETE	CONCRETE	CLASS B (f _c = 300 kg/cm ²)	m ³ 9.6
	P.C. BAR	φ 23 (f _s = 110 kg/mm ²)	kg 560.2
	SHEATH	φ 35	m 164.0
	FORMS		m ² 40.4
	ANCHOR PLATE, NUT	FOR φ 23	EACH 88
BRIDGE RAILING AND DUCT	REINFORCING BAR	16	kg 994.1
	REINFORCING BAR	13	kg 1669.5
	REINFORCING BAR	10	kg 397.3
	TOTAL		kg 3060.9
	MORTAR WITH SLOPE-PROTECTIVE MORTAR		m ³ 15.7
DRAINAGE	ELASTOMERIC	FIX. FOR R-120	ton 4
	BEARING PADS	MOV. FOR R-120	ton 4



- NOTES
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE EXCEPT R.C. COVER SHALL BE CAST IN PLACE
 3. P.C. STRAND 12T 12.7 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 12.7 MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7B 12T 12.7 OR EQUIVALENT
 4. P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
 MINIMUM ULTIMATE TENSILE STRENGTH : 190 kg/mm²
 MINIMUM YIELD STRESS : 160 kg/mm²
 5. THIS DRAWING SHALL BE APPLIED TO : B11 - PC28
 6. DESIGN TRAIN LOAD : EQUIVALENT TO KS - 16

REPUBLIC OF INDONESIA
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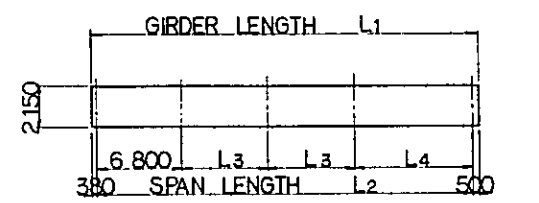
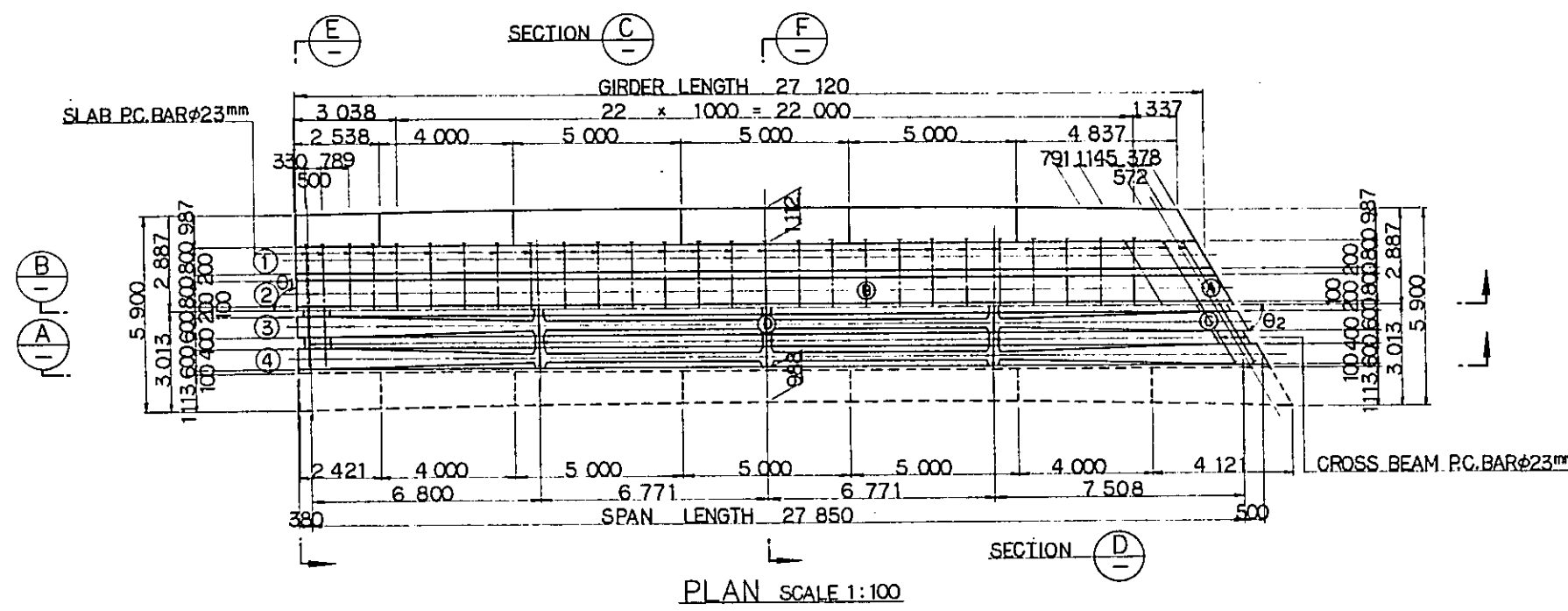
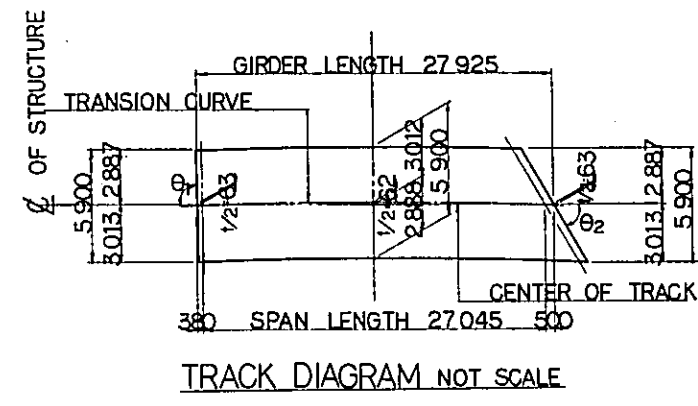
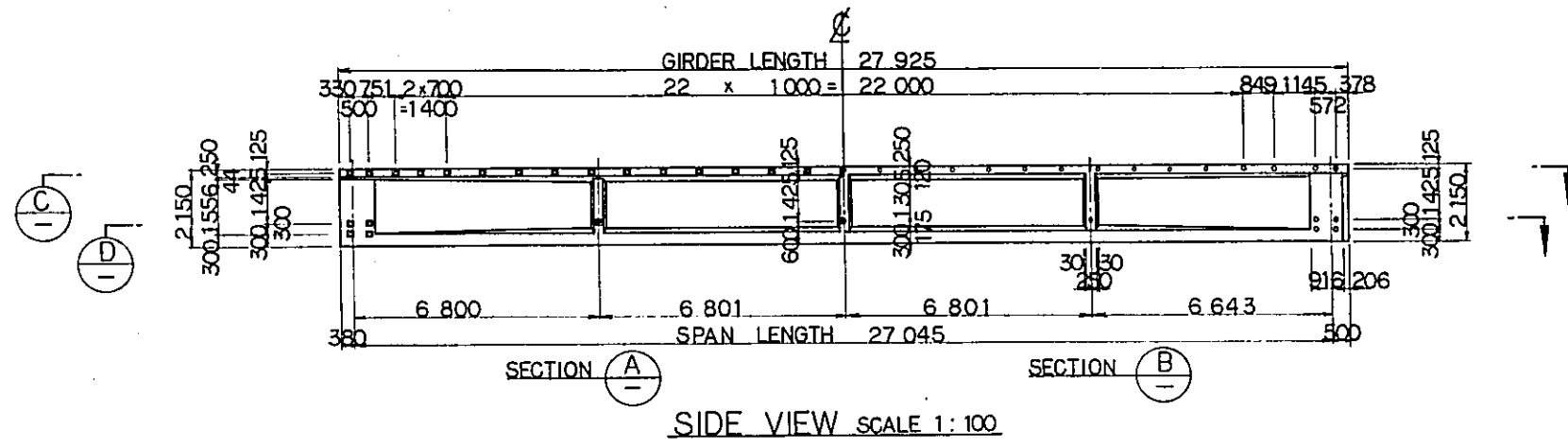
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

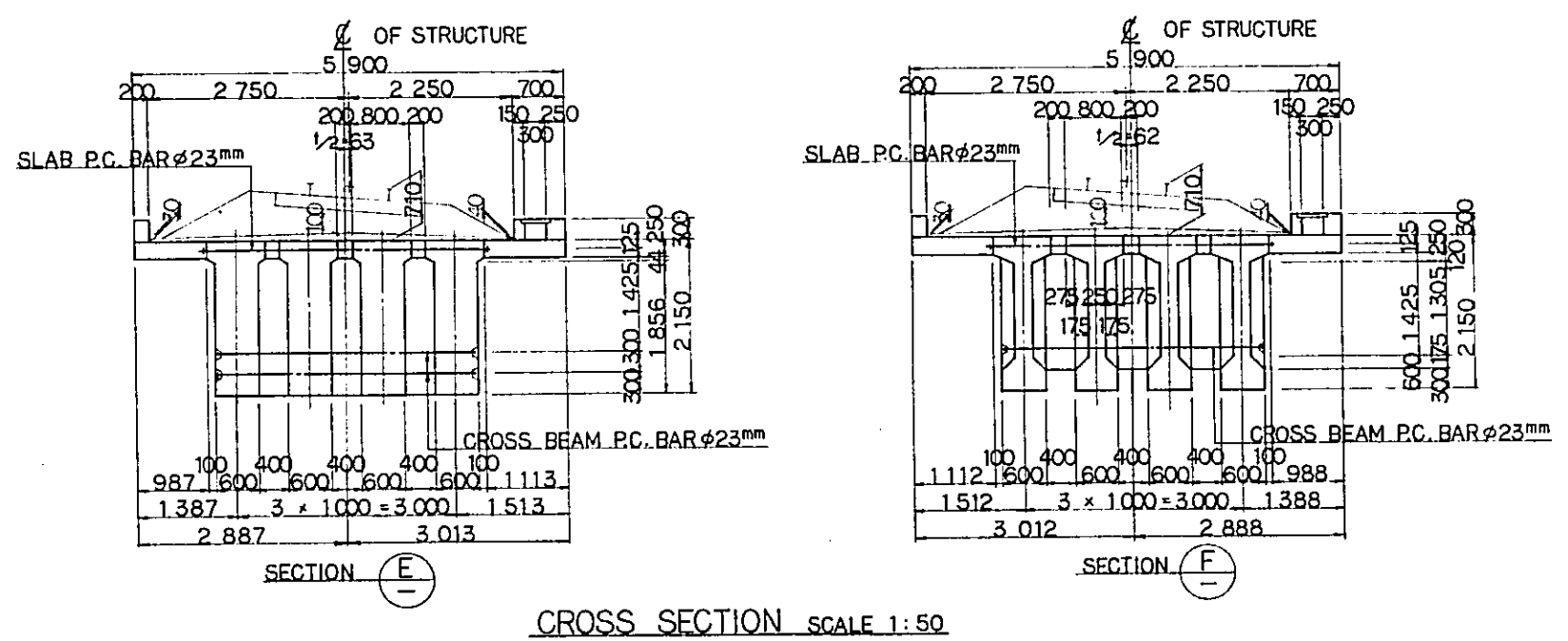
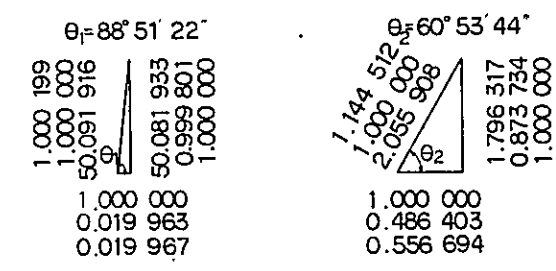
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1 AUG 84	H.Y.A.O	K.A.	K.M.	M.K.	
A	15 FEB 84	H.Y.A.O	K.A.	K.M.	M.K.	

P.C. GIRDER
 PC 34
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE AS NOTED DRAWING NO. CS - 054



GIRDER NO.	L1	L2	L3	L4
①	27.120	26.240	6.831	5.778
②	27.656	26.776	6.811	6.354
③	28.194	27.314	6.791	6.932
④	28.730	27.850	6.771	7.508



SUPERSTRUCTURE MATERIAL SCHEDULE (B14 - PC39)

ITEM	TYPE	UNIT	QUANTITY
MAIN BEAM	CONCRETE CLASS A ($f_c=400 \text{ kg/cm}^2$)	m ³	112.1
	P.C. STRAND 12 T12.7 ($f_s=190 \text{ kg/mm}^2$)	kg	5413.2
	SHEATH ϕ 65 and ϕ 70	m	551.6
	FORMS	m ²	612.1
	ANCHORING DEVICE FOR 12 T 12.7	EACH	40
LATERAL JOINT	REINFORCING BAR 19	kg	—
	16	kg	1390.8
	13	kg	6353.9
	10	kg	680
	TOTAL	kg	7812.7
SIDEWALK CONCRETE	CONCRETE CLASS B ($f_c=300 \text{ kg/cm}^2$)	m ³	9.3
	P.C. BAR ϕ 23 ($f_s=110 \text{ kg/mm}^2$)	kg	490.5
	SHEATH ϕ 35	m	143.7
	FORMS	m ²	39.7
	ANCHOR PLATE, NUT	EACH	76
BRIDGE RAILING AND DUCT	REINFORCING BAR 16	kg	961.1
	13	kg	1602.4
	10	kg	370.7
	TOTAL	kg	2934.2
	MORTAR WITH SLOPE-PROTECTIVE MORTAR	m ³	14.7
DRAINAGE	CONCRETE	m ³	5.6
	FORMS	m ²	51.7
ELASTOMERIC BEARING PADS	FIX. FOR R-120 ton	4'	8
	MOV. FOR R-120 ton	4'	4

- NOTES
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 - MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE EXCEPT R.C. COVER SHALL BE CAST IN PLACE
 - P.C. STRAND 12T12.7 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 12.7 MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7B 12T12.7 OR EQUIVALENT
 - P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
 MINIMUM ULTIMATE TENSILE STRENGTH : 190 kg/mm²
 MINIMUM YIELD STRESS : 160 kg/mm²
 - THIS DRAWING SHALL BE APPLIED TO : B11 - PC28
 - DESIGN TRAIN LOAD : EQUIVALENT TO KS - 16

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 HY AO KA KM MK
 A 15 FEB '84 HY AO KA KM MK

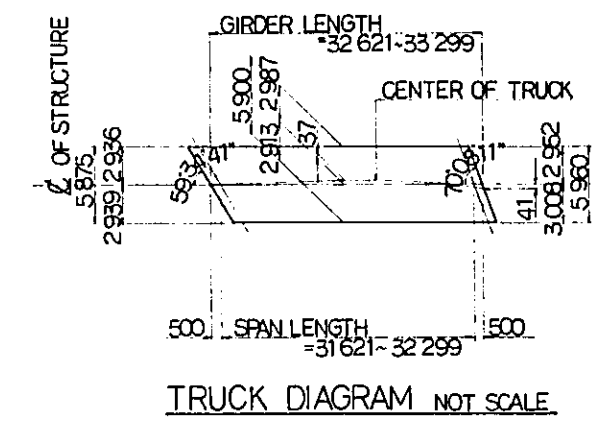
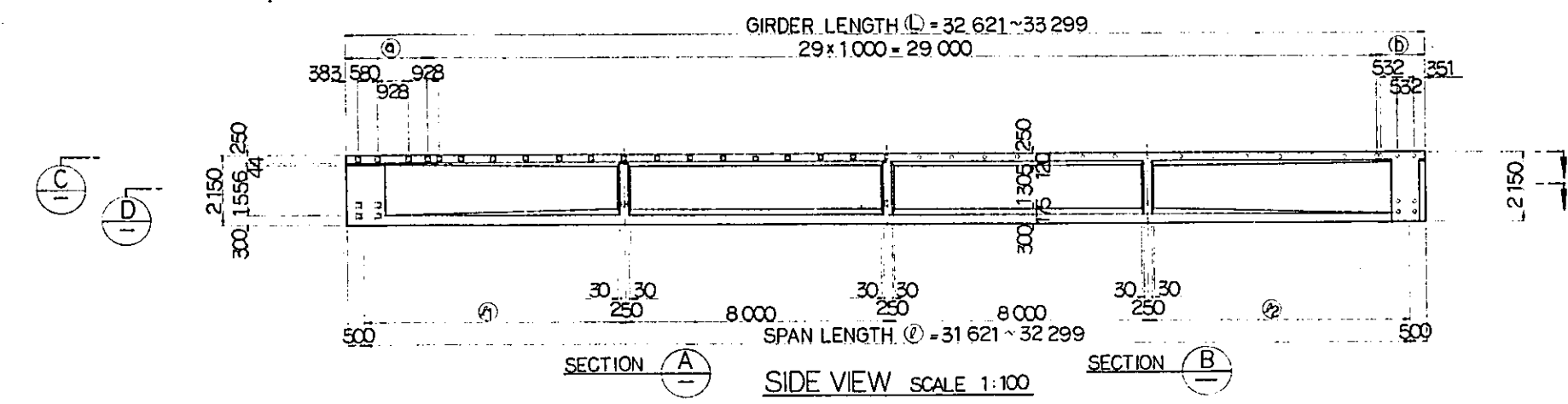
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

P.C. GIRDER
 PC 39
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE AS NOTED DRAWING NO. CS - 055

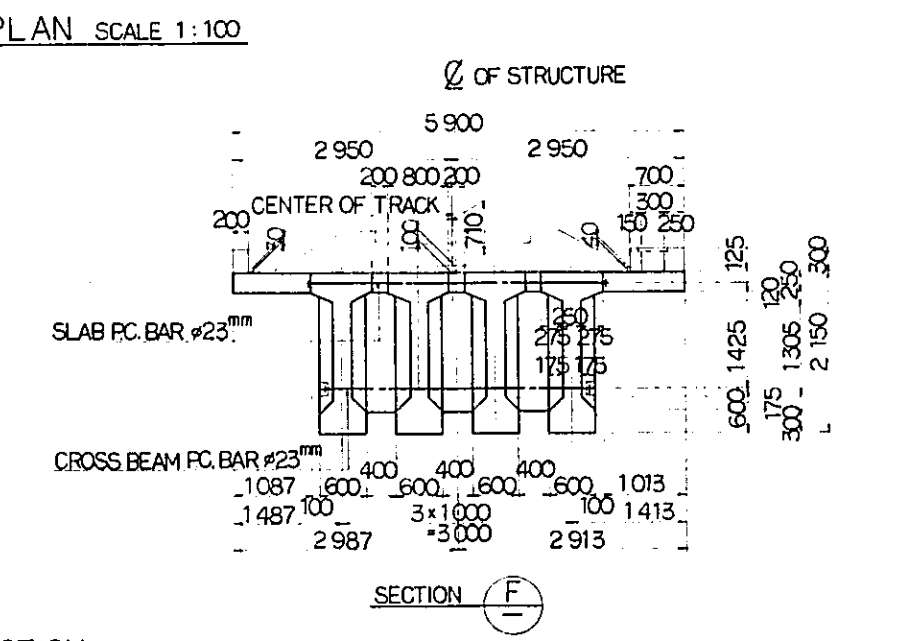
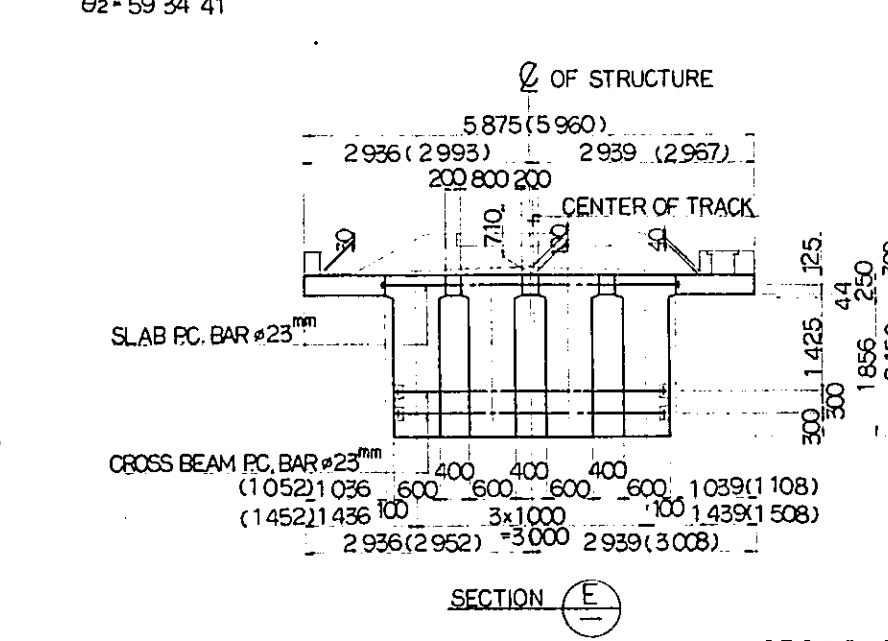
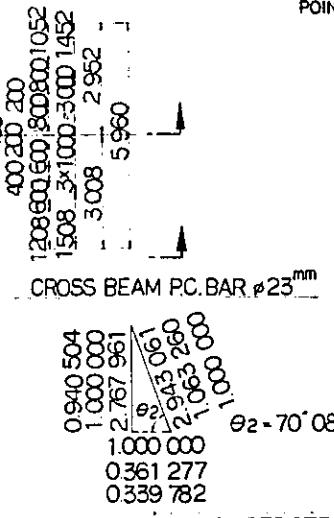
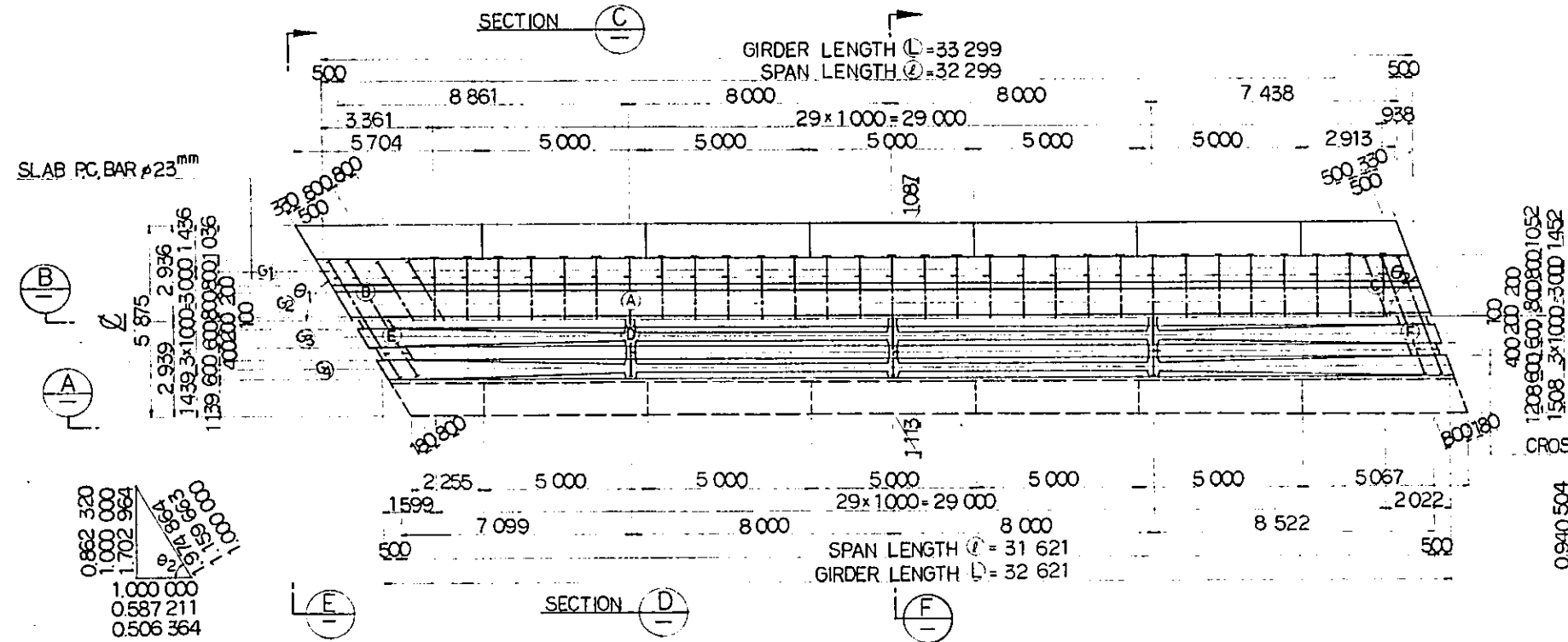
NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE, EXCEPT R.C. COVER SHALL BE CAST IN PLACE
3. P.C. STRAND 12T12.7 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 12.7MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7B 12T12.7 OR EQUIVALENT
4. P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
 MINIMUM ULTIMATE TENSILE STRENGTH : 190 kg/mm^2
 MINIMUM YIELD STRESS : 160 kg/mm^2
5. DESIGN TRAIN LOAD: EQUIVALENT TO KS - 16



(S)	(L)	(U)	(1)	(2)	(3)	(b)
33 299	32 299	8 861	7 438	3 361	938	
33 073	32 073	8 274	7 799	2 774	1 299	
32 848	31 848	7 687	8 161	2 187	1 661	
32 621	31 621	7 099	8 522	1 599	2 022	

(S), (L), (U) AND (b) SHOW GIRDER'S NUMBER.
 (1), (2), (3) AND (b) SHOW THE VALUE AT THE POINT OF CENTER LINE OF MAIN GIRDER.



SUPERSTRUCTURE MATERIAL SCHEDULE (B14 - PC 40)

ITEM	TYPE	UNIT	QUANTITY
MAIN BEAM	CONCRETE CLASS A ($f_c = 400 \text{ kg/cm}^2$)	m^3	131.8
	P.C. STRAND 12T12.7 ($f_s = 190 \text{ kg/mm}^2$)	kg	7 601.1
	SHEATH $\phi 65$	m	780.9
	FORMS	m^2	715.0
	ANCHORING DEVICE FOR 12T12.7	EACH	48
	REINFORCING BAR	kg	2 429.2
	REINFORCING BAR	kg	7 454.6
	REINFORCING BAR	kg	74.2
	TOTAL		9 958.0
	LATERAL JOINT	CONCRETE CLASS B ($f_c = 300 \text{ kg/cm}^2$)	m^3
P.C. BAR $\phi 23$ ($f_s = 110 \text{ kg/mm}^2$)		kg	635.8
SHEATH $\phi 35$		m	186.5
FORMS		m^2	42.8
ANCHOR PLATE, NUT		EACH	96
SIDEWALK CONCRETE	CONCRETE CLASS C ($f_c = 240 \text{ kg/cm}^2$)	m^3	17.4
	BRIDGE RAILING AND DUCT CONCRETE	m^3	6.4
	FORMS	m^2	59.8
	MORTAR WITH SLOPE-PROTECTIVE MORTAR	m^3	11.1
ELASTOMERIC BEARING PADS	FIX. FOR R = 190 ton		4
	MOV. FOR R = 190 ton		4
TOTAL			3 335.4

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

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

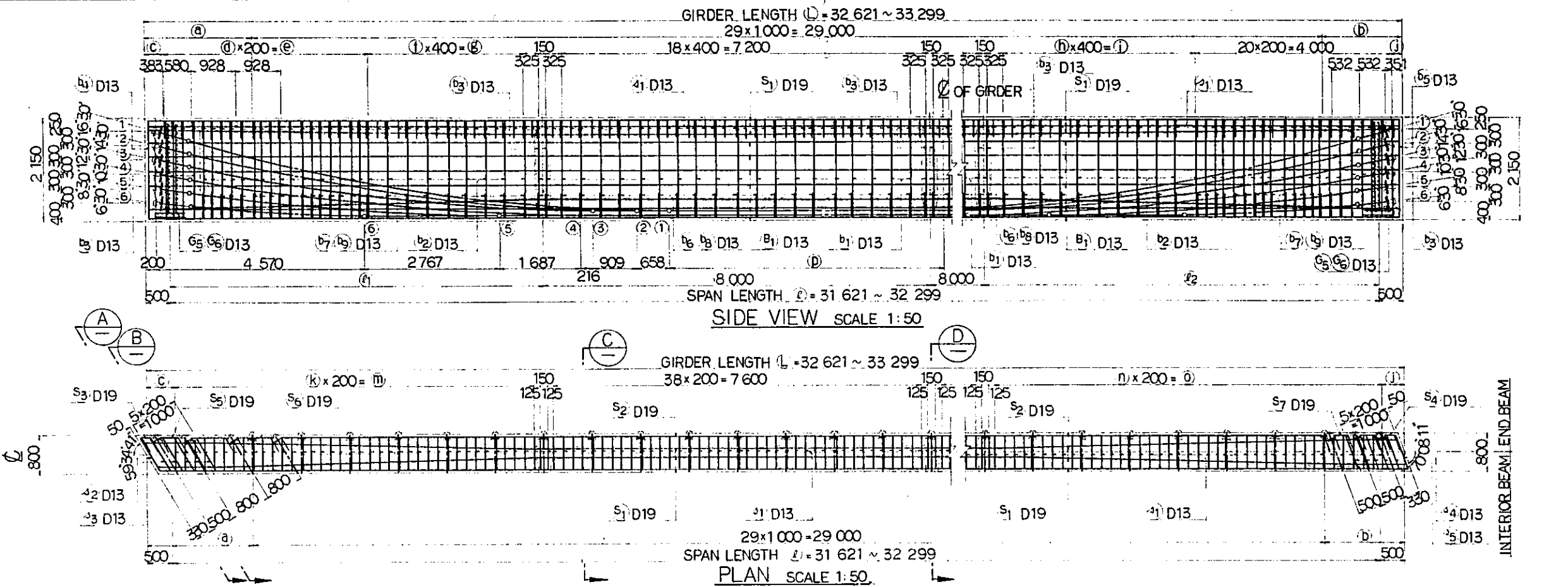
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1 AUG '84	MYAO	KA	UM	ML
A	15 FEB '84	MYAO	KA	UM	ML

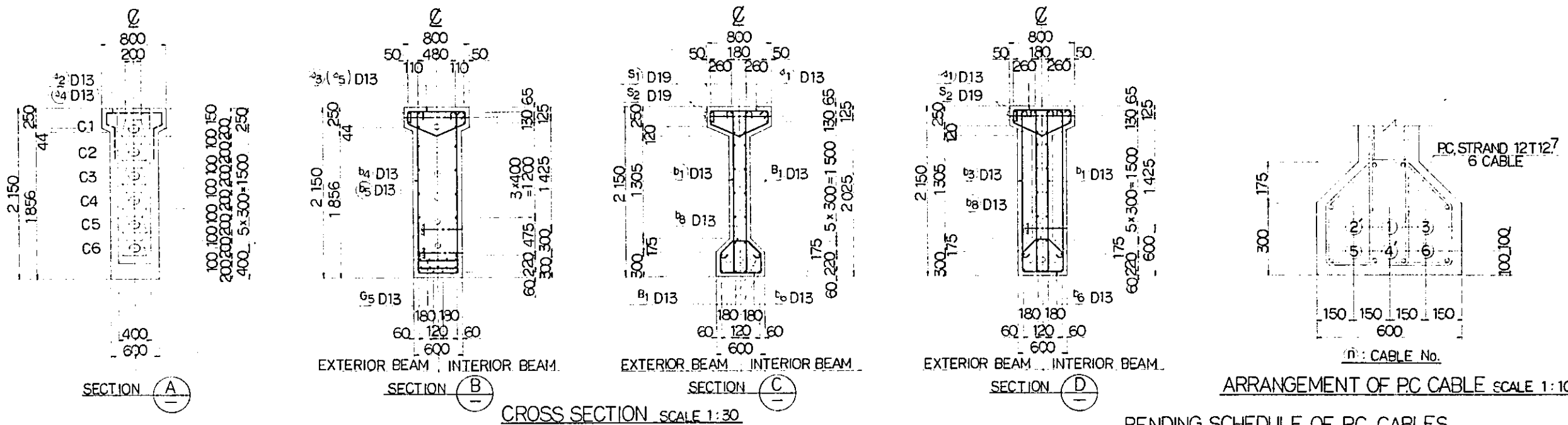
P.C. GIRDER
 PC 40
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK

SCALE: AS NOTED DRAWING NO: C'S - 056



- NOTES:**
- ALL DIMENSIONS ARE SHOWN IN MILLIMETRES UNLESS OTHERWISE INDICATED
 - REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSION ARE EXAMPLES AND THESE SHALL BE REVIEWED AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURE'S INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM
 - JACKING LOAD INCLUDE FRICTION IN THE JACK AND ANCHORAGE. EXTENSION SHOWS TOTAL VALUE OF THOSE AT BOTH ENDS MEASURED AT THE POINT 30CM OUTSIDE FROM ANCHORAGE SURFACE. AFTER THE PRESTRESSING SYSTEM IS DETERMINED THESE VALUES SHALL BE REVIEWED ALONG WITH THE OTHER ASSUMED FACTORS AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURE'S INSTRUCTIONS. INITIAL STRESS DO NOT INCLUDE OTHER FACTORS THAN FRICTION LOSSES.
 - TENSIONING SEQUENCE OF LATERAL P.C. BARS SHALL BE AT EVERY OTHER BAR



Span (m)	G1	G2	G3	G4
33.299	33.073	32.848	32.621	
32.299	32.073	31.848	31.621	
8.861	8.274	7.687	7.099	
7.438	7.799	8.161	8.522	
3.361	2.774	2.187	1.599	
938	1.299	1.661	2.022	
361	374	387	399	
21	20	21	20	
4.200	4.000	4.200	4.000	
11	10	8	7	
4.400	4.000	3.200	2.800	
8	9	10	11	
3.200	3.600	4.000	4.200	
338	299	261	222	
44	41	38	35	

Span (m)	G1	G2	G3	G4
8.800	8.200	7.600	7.000	
37	39	41	43	
7.400	7.800	8.200	8.600	
5.643	5.530	5.417	5.304	

G1, G2, G3 AND G4 SHOW GIRDERS NUMBER.
 L ~ D SHOW THE VALUE AT THE POINT OF CENTER LINE OF MAIN GIRDER.

SCHEDULE OF PC BAR

SLAB	(A)	(B)	(C)	(D)	(E)	(F)
ANCHOR PLATE						
SLAB	3 800	4 325	3 990	3 620	4 227	3 860
CROSS BEAM						

BENDING SCHEDULE OF PC CABLES

CABLE No.	l1 (m)	l2 (m)	l3 (m)	l4 (m)	h1 (m)	h2 (m)	Σ l (m)	α	ANGLE θ
1	5.304	10.282	10.136	0.625	1.501	0.178	16.211	0.01461	16° 30'
2	5.962	9.576	9.472	0.625	1.225	0.157	16.163	0.01365	14° 30'
3	6.871	8.626	8.557	0.625	0.948	0.135	16.122	0.01295	12° 30'
4	7.087	8.383	8.335	0.625	0.772	0.114	16.095	0.01112	10° 30'
5	8.774	6.670	6.645	0.625	0.497	0.092	16.069	0.01125	8° 30'
6	11.541	3.883	3.875	0.625	0.221	0.071	16.049	0.01470	6° 30'

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

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

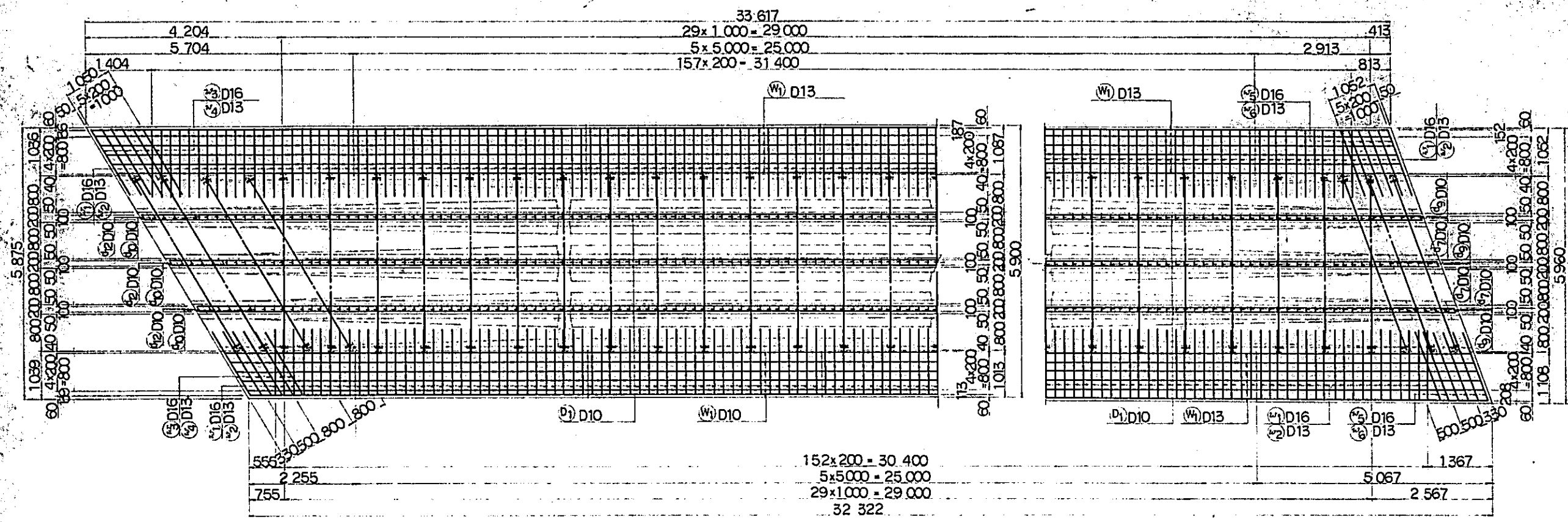
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1 AUG '84	M.YAO	K.A.K.M.	K.K.		
A	15 FEB '84	M.YAO	K.A.K.M.	K.K.		

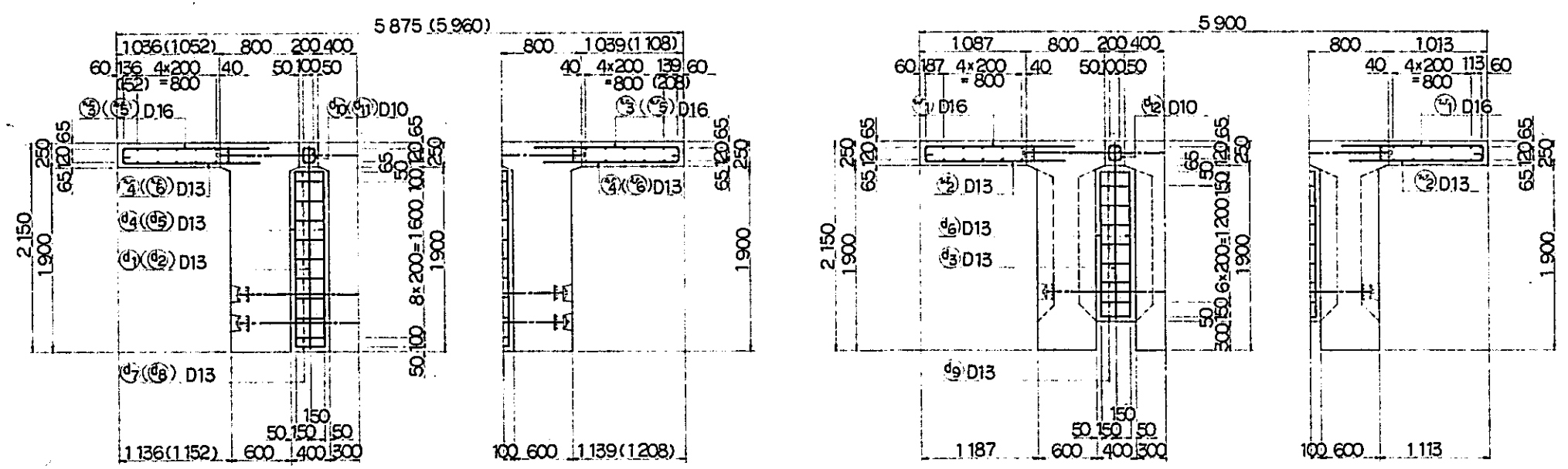
P.C. GIRDER
 PC 40
 P.C. CABLE AND REINF. BAR
 ARRANGEMENT OF MAIN BEAM

PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: AS NOTED DRAWING NO: CS - 057

NOTES
 1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSION ARE EXAMPLES AND THESE SHALL BE REVIEWED AND IF NECESSARY BE ADJUSTED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM.



PLAN SCALE 1:50

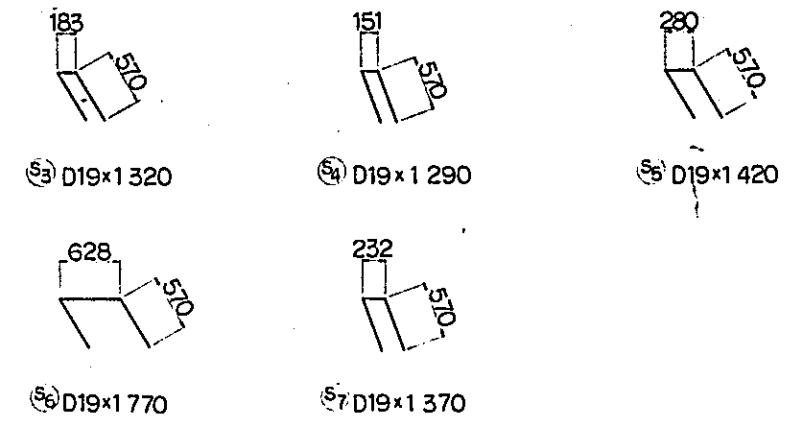
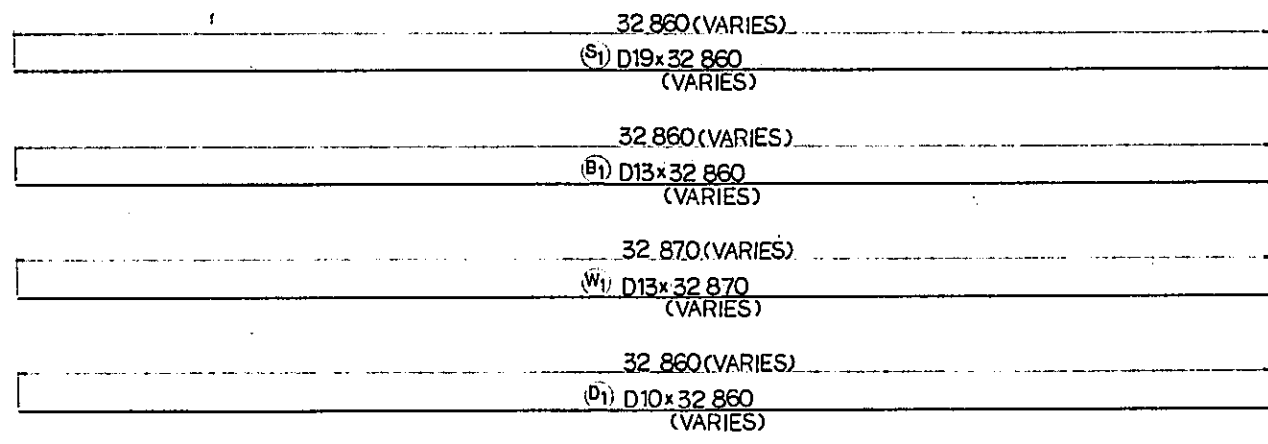


END CROSS BEAM

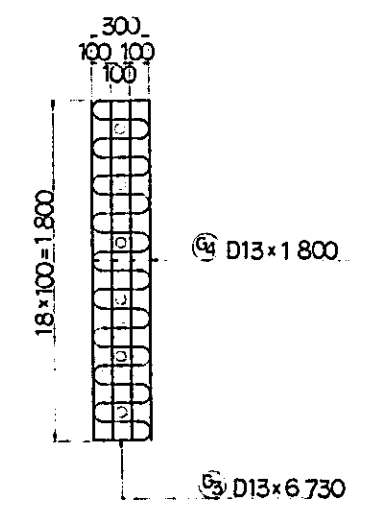
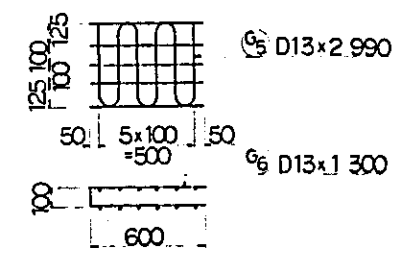
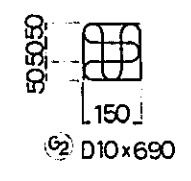
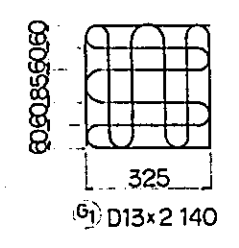
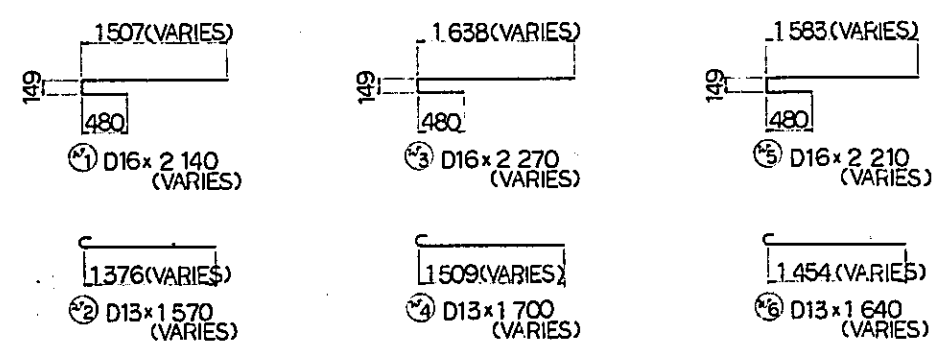
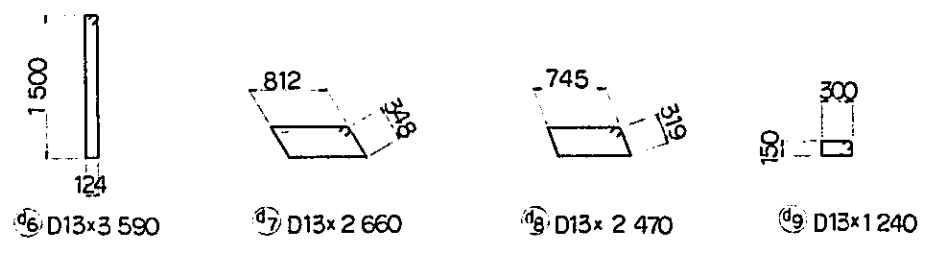
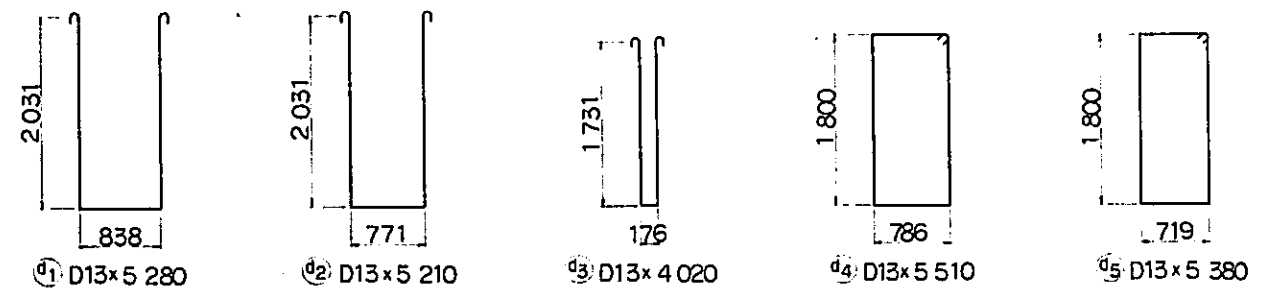
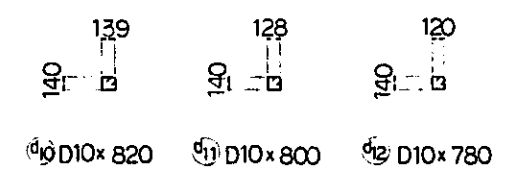
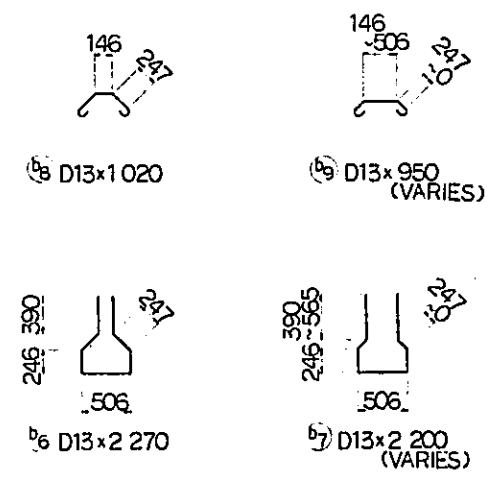
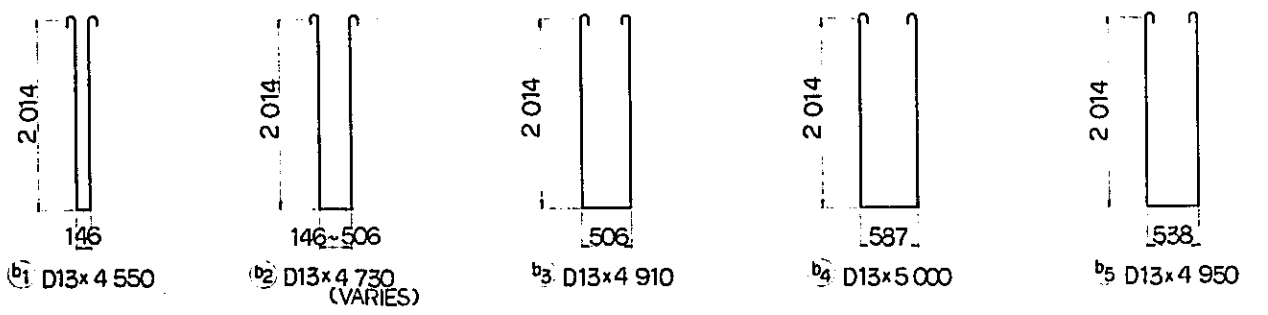
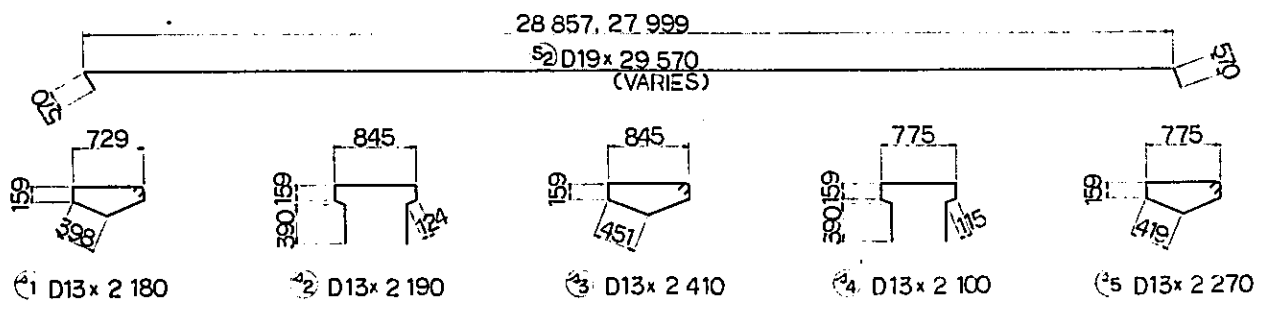
MIDDLE CROSS BEAM

CROSS SECTION SCALE 1:30

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	HY	AO	K.A	K.M A.K
A	5 FEB '84	HY	AD	K.A	K.M A.K
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
P.C. GIRDER PC 40 P.C. CABLE AND REINF. BAR ARRANGEMENT OF LATERAL JOINT					
PACKAGE: I. CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
AS NOTED	CS - 05B				



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



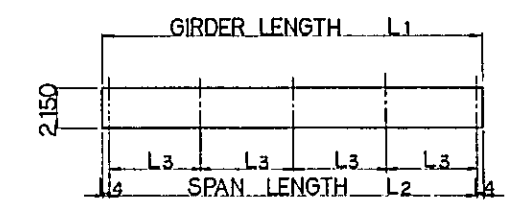
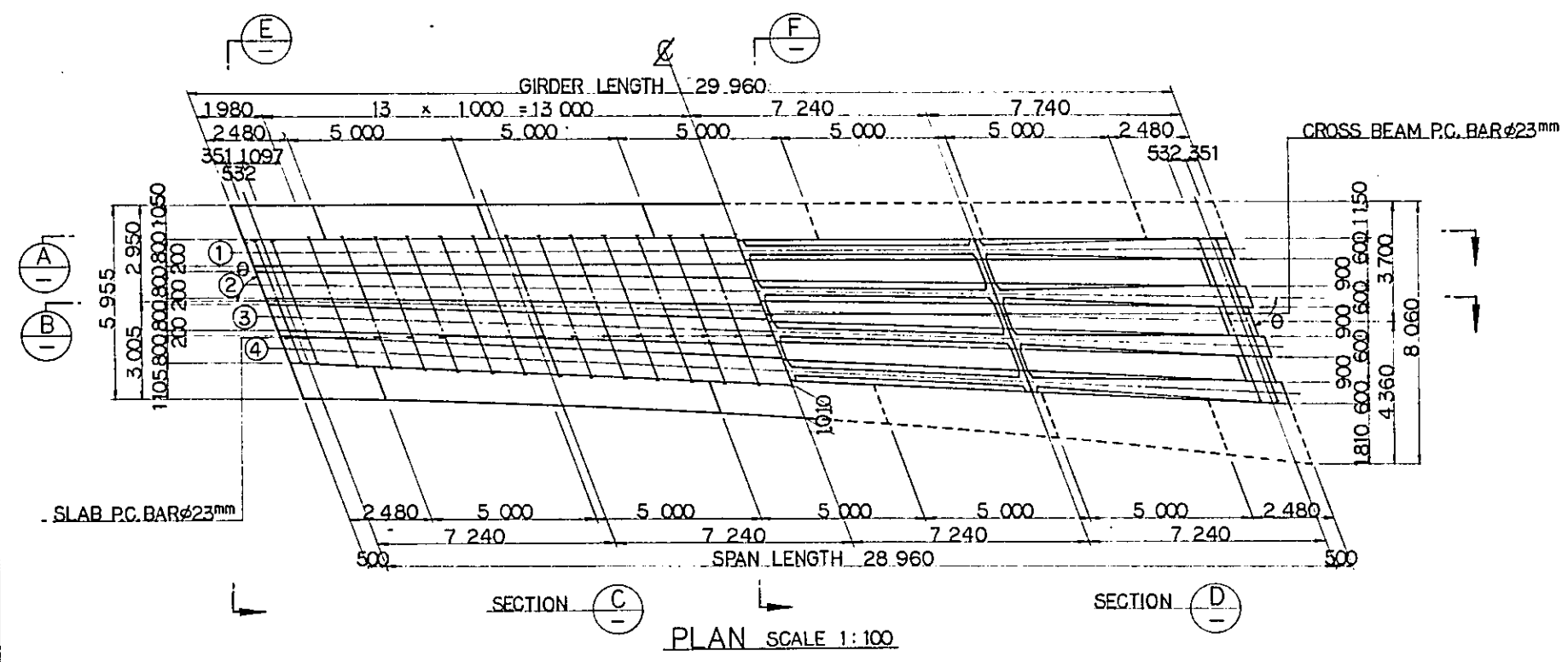
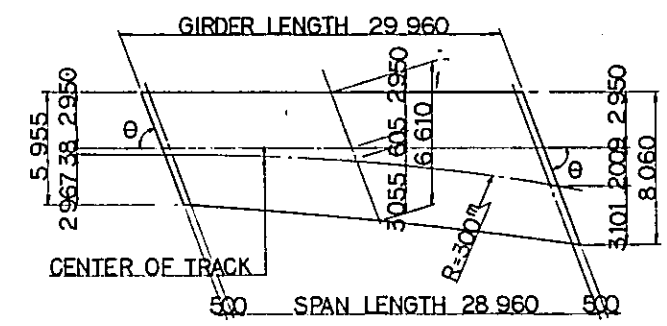
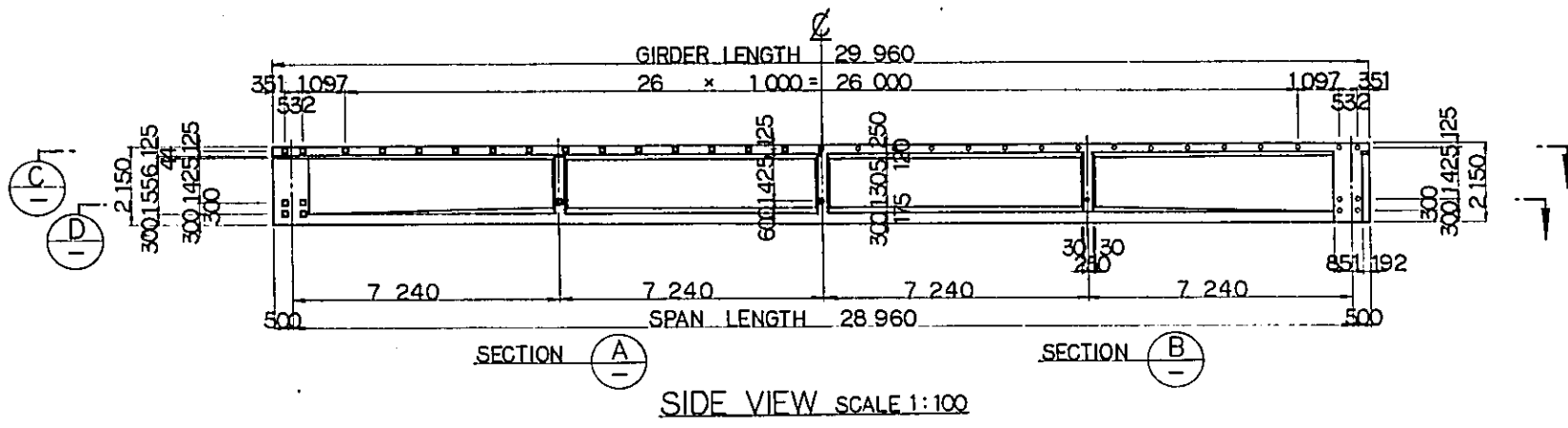
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	HYAO	KAKM	mk		
A	15 FEB '84	HYAO	KAKM	mk		
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
P.C. GIRDER PC 40 BENDING DIAGRAM						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO:					
AS NOTED	CS - 059					

BAR SCHEDULE

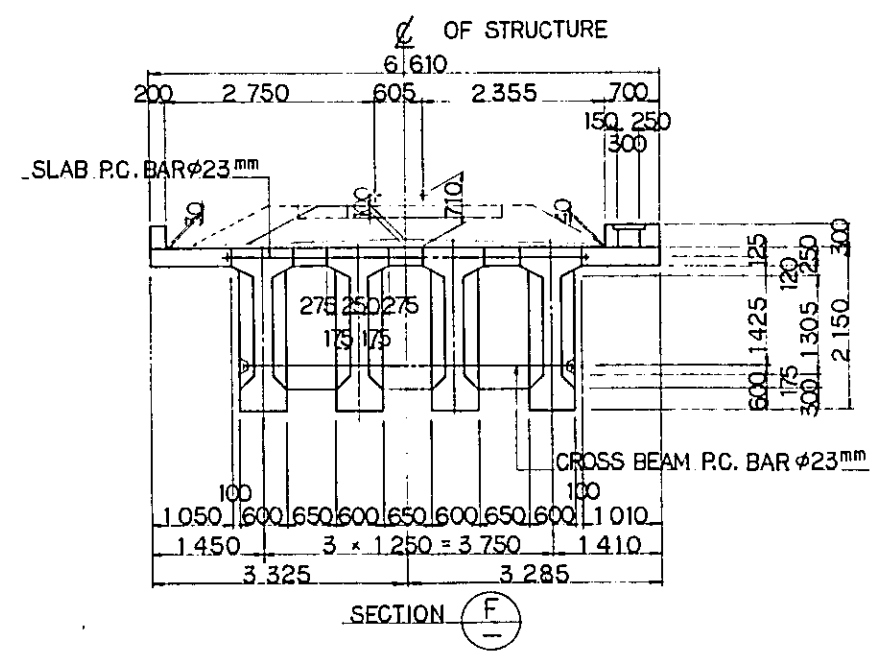
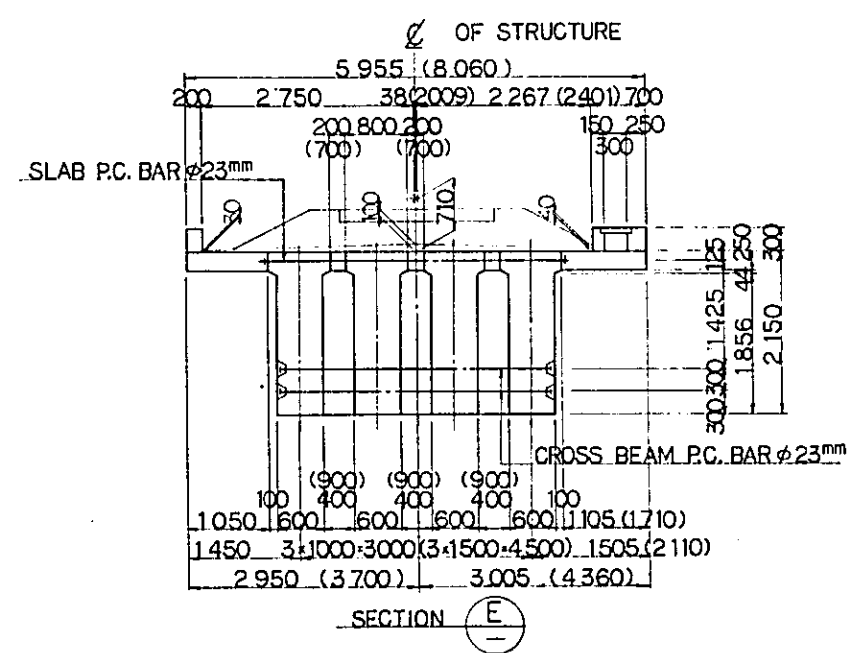
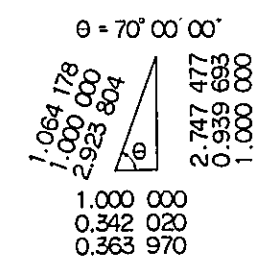
REINF No.	DIA (mm)	LENGTH (mm)	NUMBER/ONE BEAM		TOTAL NUMBER	U.WEIGHT (kg/m)	WEIGHT (kg)
			EXTERIOR	INTERIOR			
MAIN BEAM							
S 1	D19	32 860	6	8	28	2.25	2 070.2
2	"	29 570	2	—	4	"	266.1
3	"	1 320	2	—	4	"	11.9
4	"	1 290	2	—	4	"	11.6
5	"	1 420	2	—	4	"	12.8
6	"	1 770	4	—	8	"	31.9
7	"	1 370	4	—	8	"	24.7
J 1	D13	2 180	—	—	662	0.995	1 435.9
2	"	2 190	—	—	4	"	8.7
3	"	2 410	—	—	20	"	48.0
4	"	2 100	—	—	4	"	8.4
5	"	2 270	—	—	20	"	45.2
B 1	D13	32 860	16	16	64	0.995	2 092.5
b 1	D13	4 550	44	44	176	0.995	796.8
2	"	4 730	—	—	217	"	1 021.3
3	"	4 910	—	—	27	"	131.9
4	"	5 000	6	6	24	"	119.4
5	"	4 950	6	6	24	"	118.2
6	"	2 270	44	44	176	"	397.5
7	"	2 200	—	—	217	"	475.0
8	"	1 020	44	44	176	"	178.6
9	"	950	—	—	217	"	205.1
G 1	D13	2 140	6	6	24	0.995	51.1
2	D10	690	—	—	192	0.56	74.2
3	D13	6 730	4	4	16	0.995	107.1
4	"	1 800	16	16	64	"	114.6
5	"	2 990	4	4	16	"	47.6
6	"	1 300	10	10	40	"	51.7
WEIGHT OF BARS FOR MAIN BEAM							
	D19					2 429.2 kg	
	D13					7 454.6 kg	
	D10					74.2 kg	
	TOTAL WEIGHT					9 958.0 kg	
LATERAL JOINT							
W 1	D13	32 870	—	—	24	0.995	784.9
D 1	D10	32 860	—	—	12	0.56	220.8
2	D16	2 140	—	—	311	1.56	1 038.2
3	D13	1 570	—	—	311	0.995	485.8
4	D16	2 270	—	—	12	1.56	42.5
5	D13	1 700	—	—	12	0.995	20.3
6	D16	2 210	—	—	12	1.56	41.4
7	D13	1 640	—	—	12	0.995	19.6

REINF No.	DIA (mm)	LENGTH (mm)	NUMBER/ONE BEAM		TOTAL NUMBER	U.WEIGHT (kg/m)	WEIGHT (kg)
			EXTERIOR	INTERIOR			
d 1	D13	5 280	—	—	3	0.995	158
2	"	5 210	—	—	3	"	156
3	"	4 020	—	—	9	"	360
4	"	5 510	—	—	6	"	329
5	"	5 380	—	—	6	"	32.1
6	"	3 590	—	—	18	"	64.3
7	"	2 660	—	—	33	"	87.3
8	"	2 470	—	—	33	"	81.1
9	"	1 240	—	—	81	"	99.9
10	D10	820	—	—	18	0.56	8.3
11	"	800	—	—	18	"	8.1
12	"	780	—	—	459	"	200.5
WEIGHT OF BARS FOR LATERAL JOINT							
	D16					1 122.1 kg	
	D13					1 775.6 kg	
	D10					437.7 kg	
	TOTAL WEIGHT					3 335.4 kg	
TOTAL WEIGHT OF BARS							
	D19					2 429.2 kg	
	D16					1 122.1 kg	
	D13					9 230.2 kg	
	D10					511.9 kg	
	TOTAL WEIGHT					13 293.4 kg	

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	HY	JO	KA	KM	JK
A	15 FEB '84	MY	AC	KA	KM	JK
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
P.C. GIRDER PC 40 REINF. BAR SCHEDULE						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO: CS - 060					



GIRDER NO	L1	L2	L3	L4	BEAM ANGLE
①	29 960	28 960	7 240	500	70°
②	30 142	29 136	7 284	503	70° 57' 01"
③	30 324	29 312	7 328	506	71° 53' 20"
④	30 506	29 488	7 372	509	72° 48' 54"



CROSS SECTION SCALE 1:50

SUPERSTRUCTURE MATERIAL SCHEDULE (B14-PC41)

ITEM	TYPE	UNIT	QUANTITY
MAIN BEAM	CONCRETE	CLASS A (16-400 ²)	m ³ 121.2
	P.C. STRAND	12T12.7 (16-190 ²)	kg 6932.2
	SHEATH	φ65 and φ70	m 708.9
	FORMS		m ² 657.4
	ANCHORING DEVICE	FOR	EACH 48
	REINFORCING BAR	19	kg 2240.2
		16	"
		13	" 7166.6
		10	" 74.2
	TOTAL		9481.0
LATERAL JOINT	CONCRETE	CLASS B (16-300 ²)	m ³ 19.0
	P.C. BAR	φ23 (16-110 ²)	kg 665.2
	SHEATH	φ35	m 196.6
	FORMS		m ² 78.2
	ANCHORING DEVICE	FOR φ23	EACH 84
REINFORCING BAR	16	kg 1122.1	
	13	" 1775.6	
	10	" 437.7	
TOTAL		3335.4	
SIDEWALK CONCRETE	CLASS C (16-240 ²)	m ³ 16.9	
BRIDGE RAILING AND DUCT	CONCRETE	m ³ 6.0	
	FORMS	m ² 55.4	
MORTAR WITH SLOPE-PROTECTIVE MORTAR DRAINAGE		m ² 12.3	
ELASTOMERIC BEARING PADS	FIX. FOR R=190 ton	" 4	
	MOV. FOR R=190 ton	" 4	

- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 - MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE EXCEPT R.C. COVER SHALL BE CAST IN PLACE
 - P.C. STRAND 12T12.7 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 12.7 MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7B 12T12.7 OR EQUIVALENT
 - P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
 MINIMUM ULTIMATE TENSILE STRENGTH : 190 kg/mm²
 MINIMUM YIELD STRESS : 160 kg/mm²
 - THIS DRAWING SHALL BE APPLIED TO : B01-PC40
 - DESIGN TRAIN LOAD : EQUIVALENT TO KS-16

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)

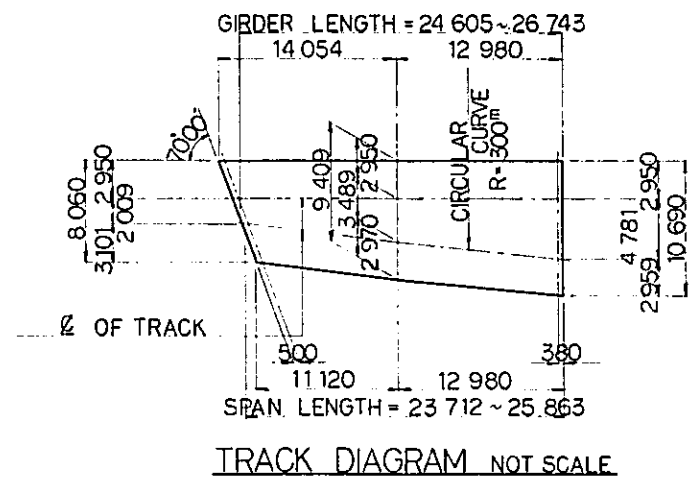
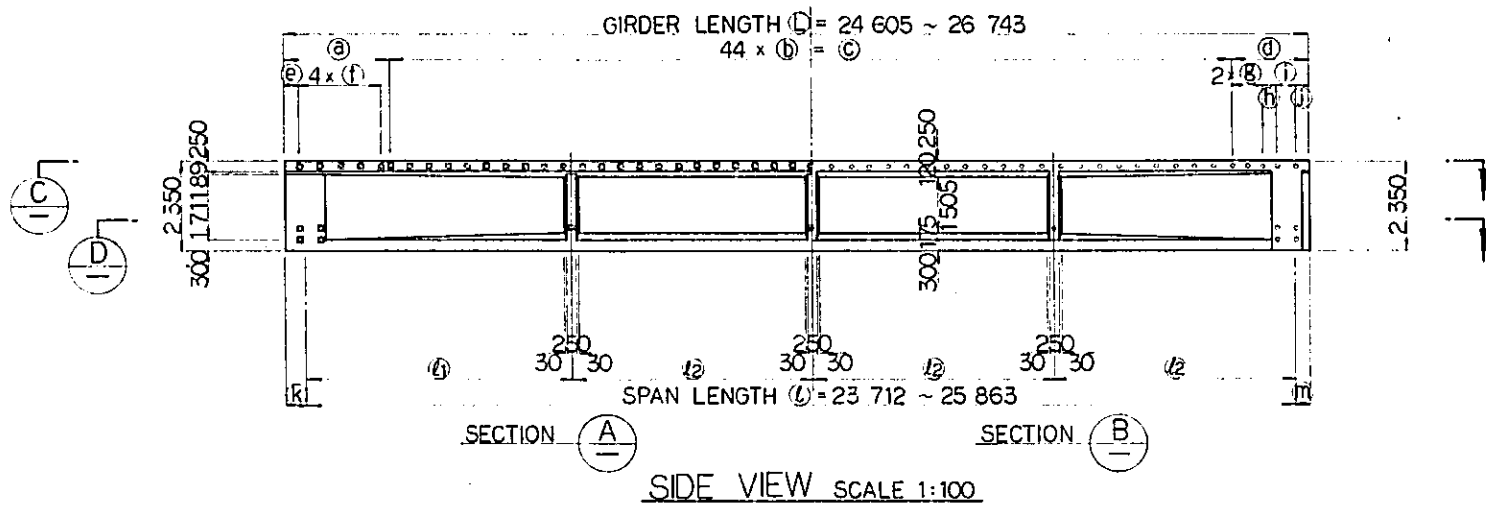
B	1 AUG 84	MYAO	KAKM	AK
A	15 FEB 84	MYAO	KAKM	AK

REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWED SUBMITTED

P.C. GIRDER
 PC 41
 GENERAL VIEW

PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK

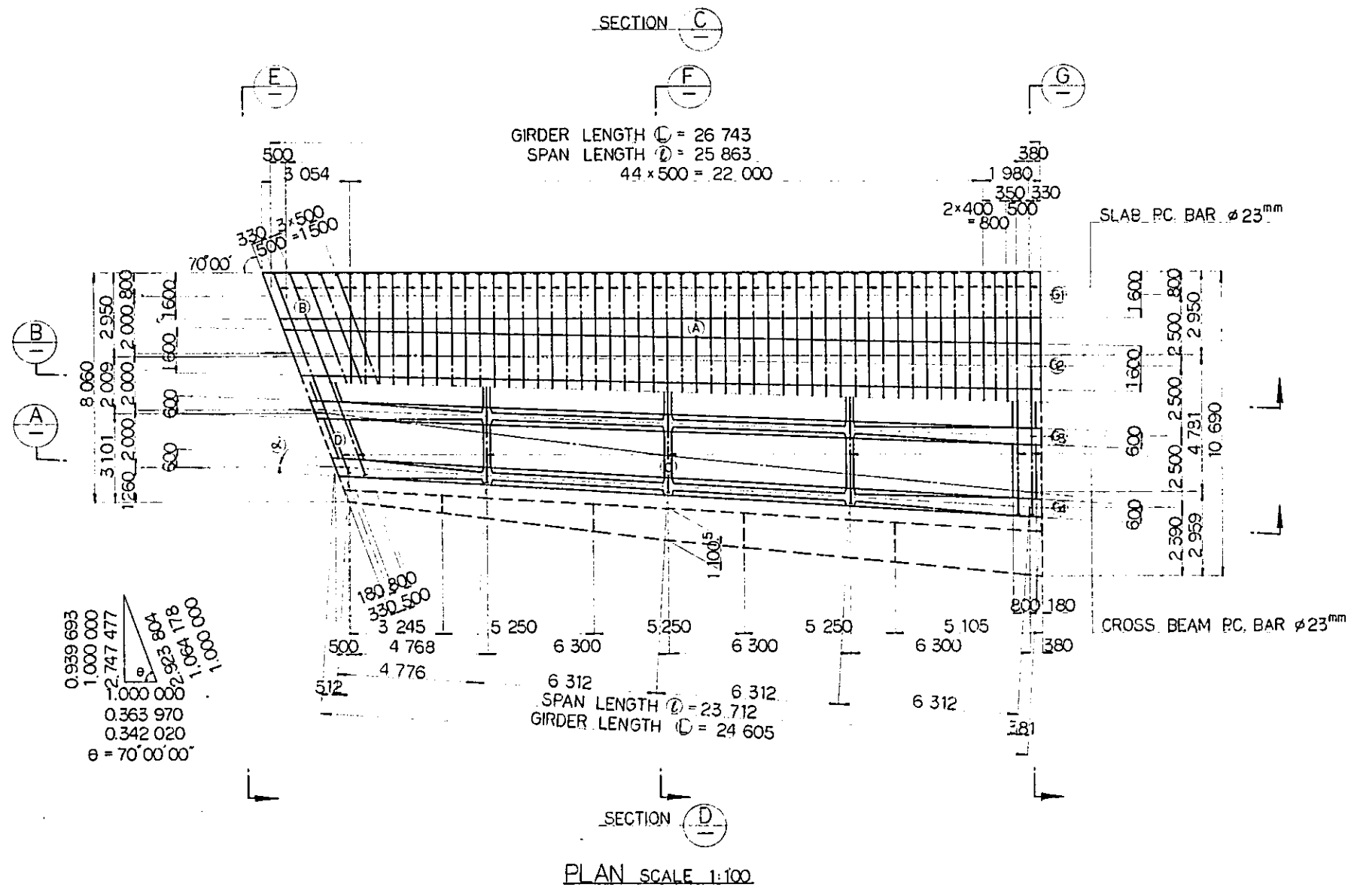
SCALE AS NOTED DRAWING NO. CS - 061



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. MAIN BEAM SHALL BE PRECAST AND ALL THE OTHER CONCRETE EXCEPT R.C. COVER SHALL BE CAST IN PLACE
 3. P.C. STRAND 12T12.7 MEANS A GROUP OF 12 NO STRANDS FOR PRESTRESSED CONCRETE OF 12.7MM DIAMETER EACH AND SHALL CONFORM TO JIS G 3536 SWPR7B-12T12.7 OR EQUIVALENT
 4. P.C. BAR SHALL CONFORM TO THE REQUIREMENTS AS FOLLOWS:
 MINIMUM ULTIMATE TENSILE STRENGTH : 190 kg/mm²
 MINIMUM YIELD STRESS : 160 kg/mm²
 5. DESIGN TRAIN LOAD: EQUIVALENT TO KS-16

	G1	G2	G3	G4
(L)	26 743	26 020	25 307	24 605
(C)	25 863	25 136	24 419	23 712
(S)	6 963	6 233	5 504	4 776
(S)	6 300	6 301	6 305	6 312
(S)	2 763	2 035.2	1 307.9	581.7
(S)	500	500.1	500.4	500.9
(S)	22 000	22 004.4	22 017.6	22 039.6
(S)	1 980	1 980.4	1 981.5	1 983.7
(S)	351.2	353.7	356.6	359.8
(S)	532.1	535.9	540.3	545.2
(S)	400	400.1	400.3	400.7
(S)	350	350.1	350.3	350.7
(S)	500	500.1	500.4	500.9
(S)	330	330.1	330.3	330.6
(S)	500	503.6	507.7	512.3
(S)	380	380.1	380.3	380.7
(S)	0' 00' 00"	1' 06' 04"	2' 15' 53"	3' 29' 42"

Ⓜ, Ⓝ, Ⓞ AND Ⓟ SHOW GIRDERS NUMBER.
 (L) ~ (S) SHOW THE VALUE AT THE POINT OF CENTER LINE OF MAIN GIRDER.



SUPERSTRUCTURE MATERIAL SCHEDULE (B14 - PC 42)

ITEM	TYPE	UNIT	QUANTITY
MAIN BEAM	CONCRETE	CLASS A (fc=400 kg/cm ²)	m ³ 126.5
	P.C. STRAND	12T12.7 (fs=190 kg/mm ²)	kg 4 991.6
	SHEATH	φ65	m 506.2
	FORMS		m ² 686.3
	ANCHORING DEVICE	FOR 12T12.7	EACH 40
	REINFORCING BAR	19	kg —
		16	kg 1 332.1
		13	kg 7 653.7
		10	kg 100.5
	TOTAL		kg 9 086.3
LATERAL JOINT	CONCRETE	CLASS B (fc=300 kg/cm ²)	m ³ 36.0
	P.C. BAR	φ23 (fs=110 kg/mm ²)	kg 1 816.8
	SHEATH	φ35	m 545.7
	FORMS		m ² 153.3
	ANCHOR PLATE, NUT	FOR φ23	EACH 130
REINFORCING BAR	16	kg 395.9	
	13	kg 3 515.3	
	10	kg 345.7	
TOTAL		kg 4 256.9	
SIDEWALK CONCRETE	CLASS C (fc=240 kg/cm ²)	m ³ 6.2	
BRIDGE RAILING AND DUCT	CONCRETE	m ³ 6.9	
	FORMS	m ² 61.9	
MORTAR WITH SLOPE PROTECTIVE MORTAR		m ³ 14.3	
DRAINAGE		EACH 8	
ELASTOMERIC BEARING PADS	FIX. FOR R=190 ton	4	
	MOV. FOR R=190 ton	4	

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

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

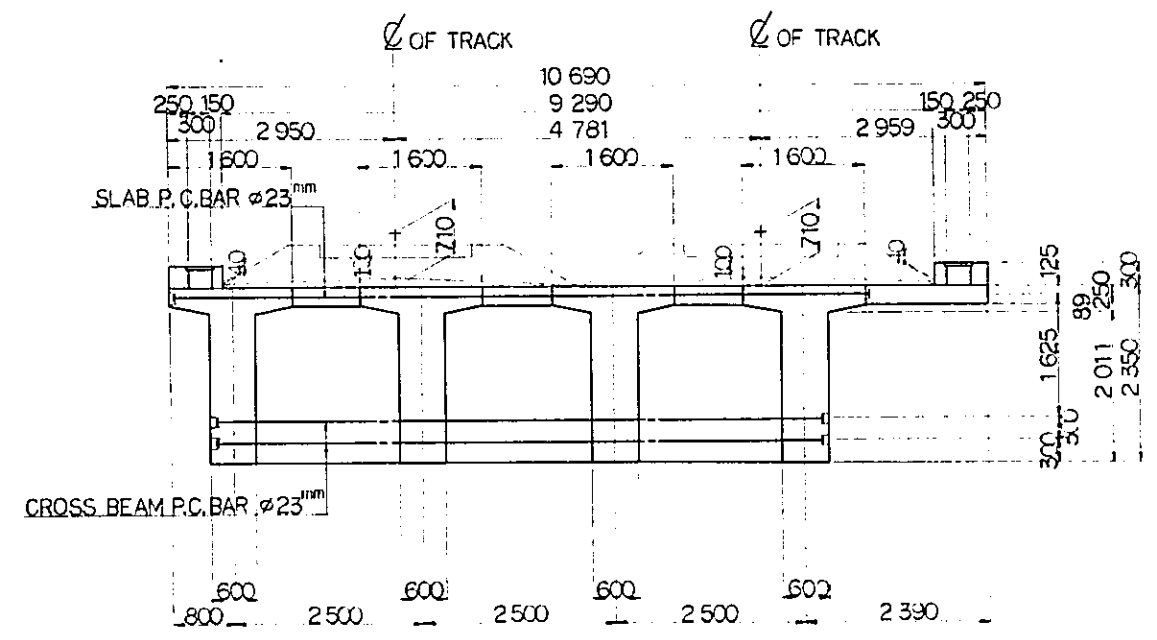
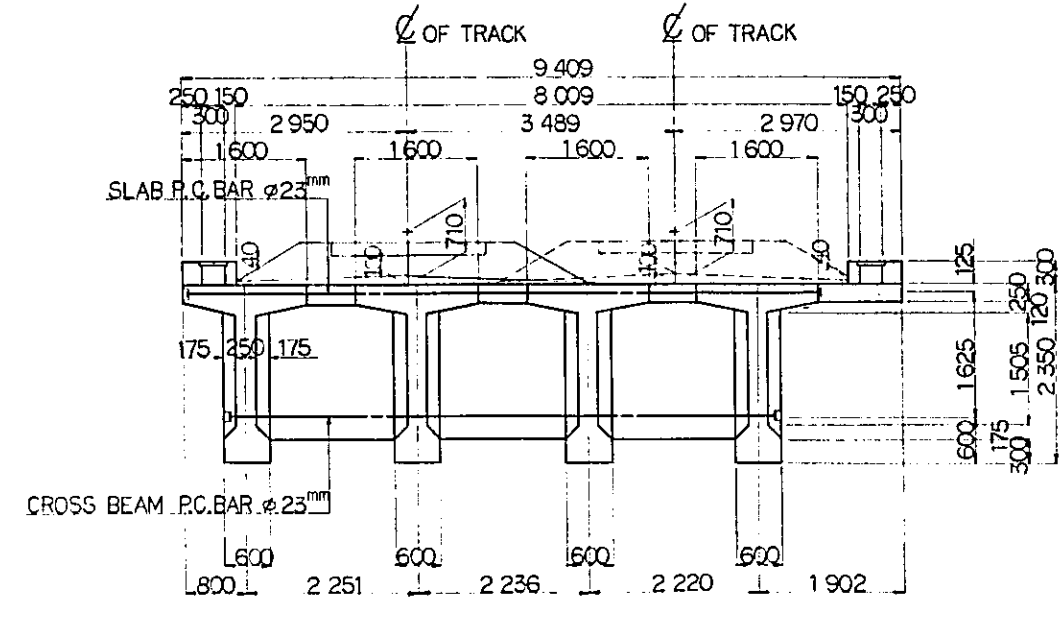
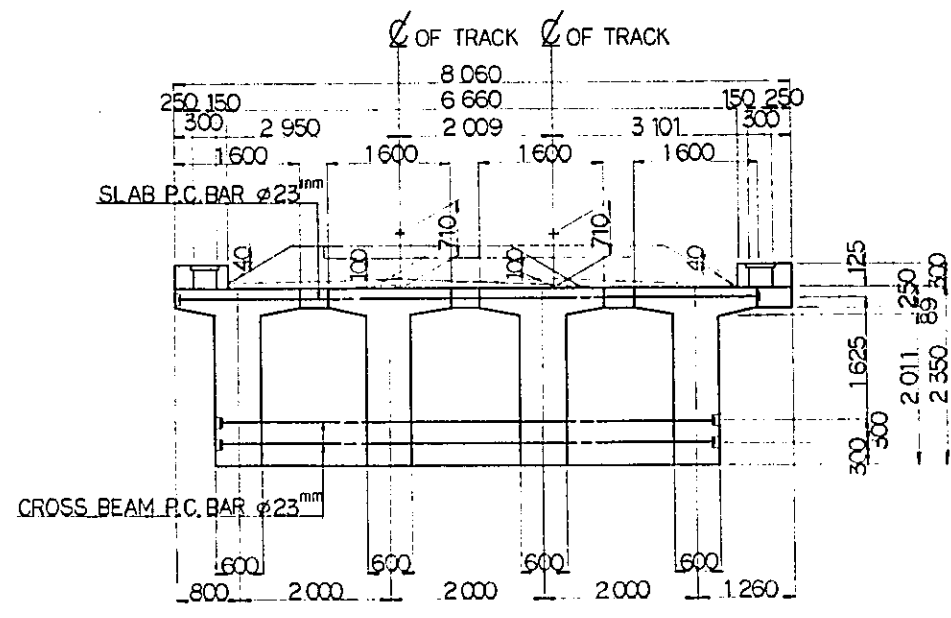
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	14 AUG '84	MYAO	K.K.	K.M.
A	15 FEB '84	MYAO	K.K.	K.M.

P.C. GIRDER
 PC 42
 GENERAL VIEW (SHEET 1 OF 2)

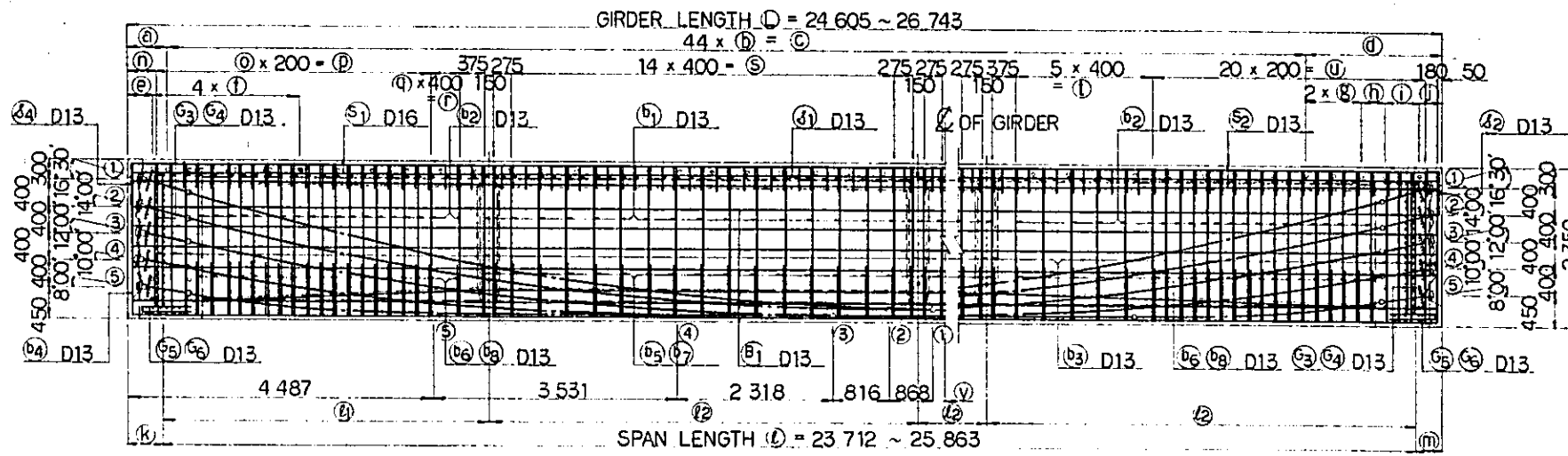
PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: AS NOTED DRAWING NO: CS-062

NOTE:
SEE NOTES 1 TO 4 ON DWG NO CS-062

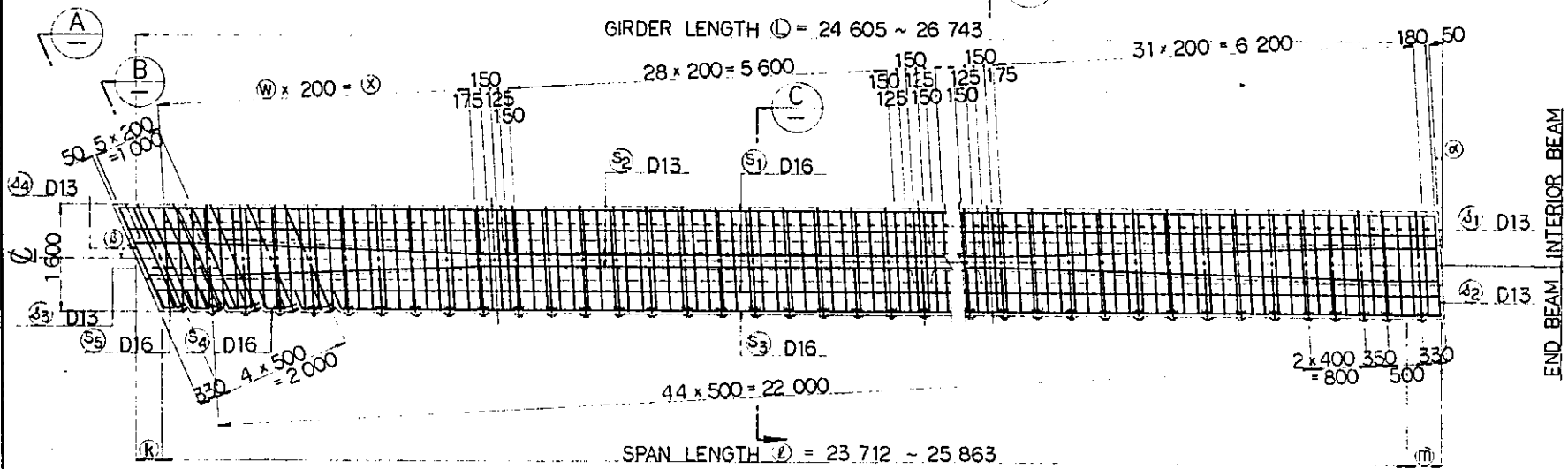


CROSS SECTION SCALE 1:50

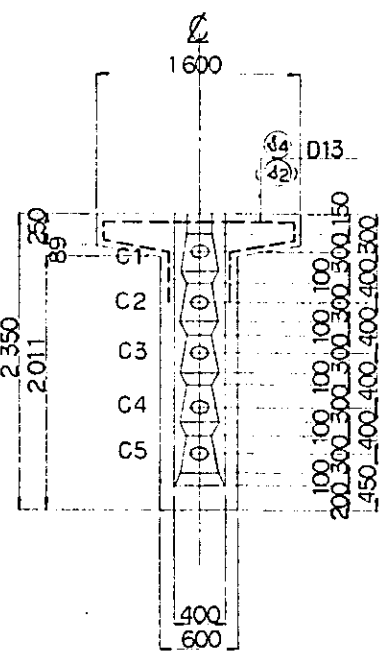
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG '84	MY	LD	RD	K.M
A	15 FEB '84	MY	LD	RD	K.M
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
P.C. GIRDER PC 42 GENERAL VIEW (SHEET 2 OF 2)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE		DRAWING NO.			
AS NOTED		CS - 063			



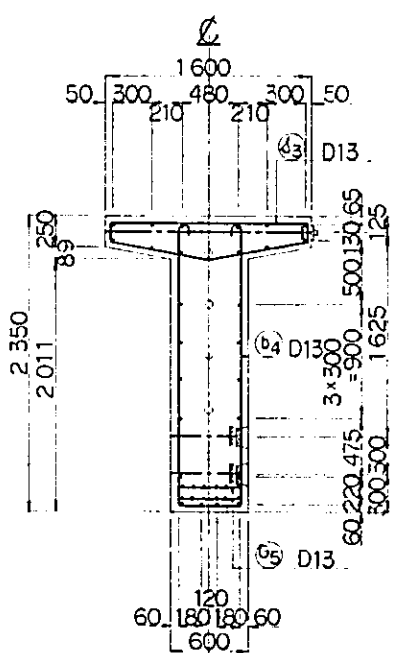
SIDE VIEW SCALE 1:50



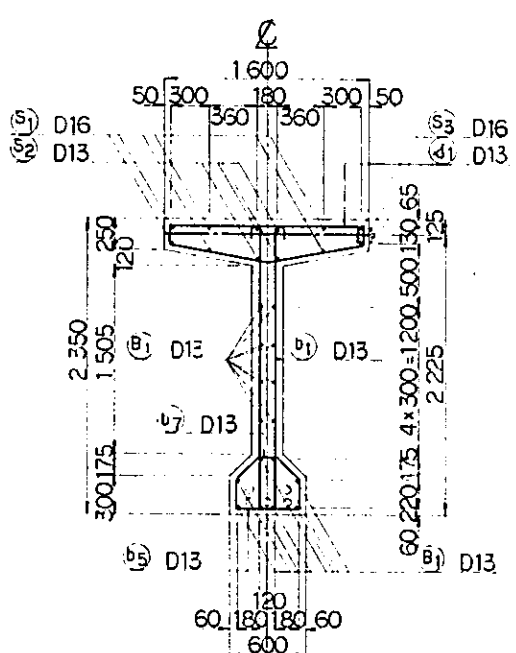
PLAN SCALE 1:50



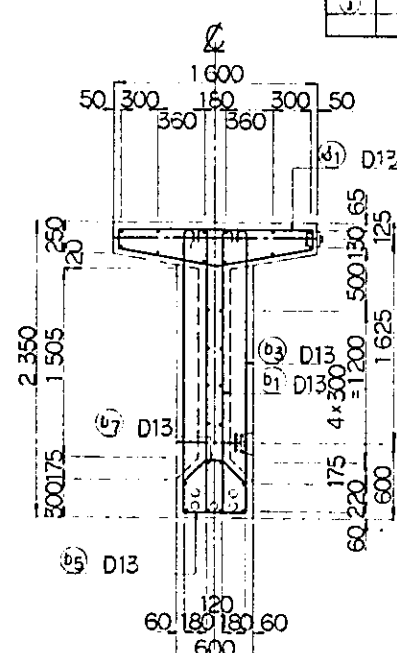
SECTION A



SECTION B



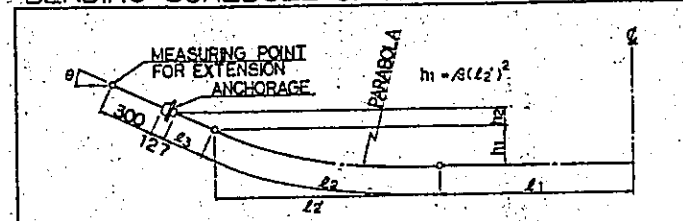
SECTION C



SECTION D

CROSS SECTION SCALE 1:30

BENDING SCHEDULE OF PC. CABLES



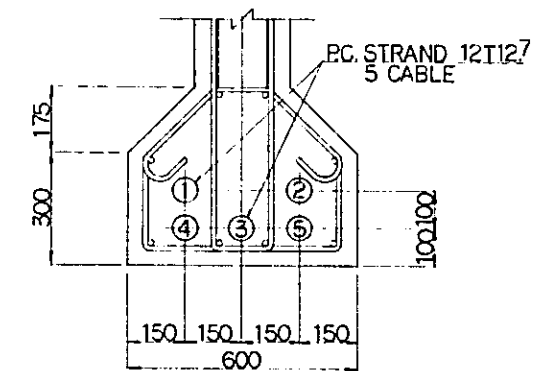
CABLE No.	L1 (m)	L2 (m)	L2' (m)	L3 (m)	h1 (m)	h2 (m)	L (m)	θ	ANGLE θ
①	0.282 -1.352	11.310	11.149	0.625	1.651	0.172	12.217 13.287	0.01328	16' 30"
②	1.150 -2.220	10.378	10.273	0.625	1.281	0.151	12.153 13.223	0.01214	14' 00"
③	1.966 -3.036	9.522	9.451	0.625	1.004	0.130	12.115 13.185	0.01125	12' 00"
④	4.284 -5.354	7.165	7.128	0.625	0.628	0.109	12.074 13.144	0.01237	10' 00"
⑤	7.815 -8.885	3.606	3.594	0.625	0.253	0.087	12.046 13.116	0.01958	8' 00"

SCHEDULE OF PC. BAR

SLAB	(A)	(B)	(C)	(D)
	8 539 (MEAN)	7 668 ()	8 432 ()	7 491 ()

	G1	G2	G3	G4	G1	G2	G3	G4
(K)	26.743	26.020	25.307	24.605	(K)	500	503.6	507.7
(M)	25.863	25.136	24.419	23.712	(M)	380	380.1	380.7
(N)	6.963	6.233	5.504	4.776	(N)	122	192	61
(O)	6.300	6.301	6.305	6.312	(O)	21	21	20
(P)	2.763	2.035	1.307	0.581	(P)	4.200	4.200	4.003
(Q)	500	500	500	500	(Q)	6	4	3
(R)	22.000	22.004	22.017	22.039	(R)	2.400	1.600	1.200
(S)	1.980	1.980	1.981	1.983	(S)	5.600	5.601	5.604
(T)	351	353	356	359	(T)	2.000	2.000	2.001
(U)	532	535	540	545	(U)	4.000	4.000	4.003
(V)	400	400	400	400	(V)	1.352	990	633
(W)	350	350	350	350	(W)	33	29	26
(X)	500	500	500	500	(X)	6.600	5.800	5.200
(Y)	330	330	330	330	(Y)	0' 00" 00"	1' 06" 04"	2' 15" 53"
(Z)					(Z)	70' 00" 00"	68' 53" 56"	67' 44" 07"

① ② ③ AND ④ SHOW GIRDER'S NUMBER.
① ~ ④ SHOW THE VALUE AT THE POINT OF CENTER LINE OF MAIN GIRDER.



①: CABLE No.

ARRANGEMENT OF PC CABLE SCALE 1:10

- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 - REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSION ARE EXAMPLES AND THESE SHALL BE REVIEWED AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM
 - JACKING LOAD INCLUDE FRICTION IN THE JACK AND ANCHORAGE. EXTENSION SHOWS TOTAL VALUE OF THOSE AT BOTH ENDS MEASURED AT THE POINT 30CM OUTSIDE FROM ANCHORAGE SURFACE. AFTER THE PRESTRESSING SYSTEM IS DETERMINED THESE VALUES SHALL BE REVIEWED ALONG WITH THE OTHER ASSUMED FACTORS AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. INITIAL STRESS DO NOT INCLUDE OTHER FACTORS THAN FRICTION LOSSES.
 - TENSIONING SEQUENCE OF LATERAL PC. BARS SHALL BE AT EVERY OTHER BAR

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

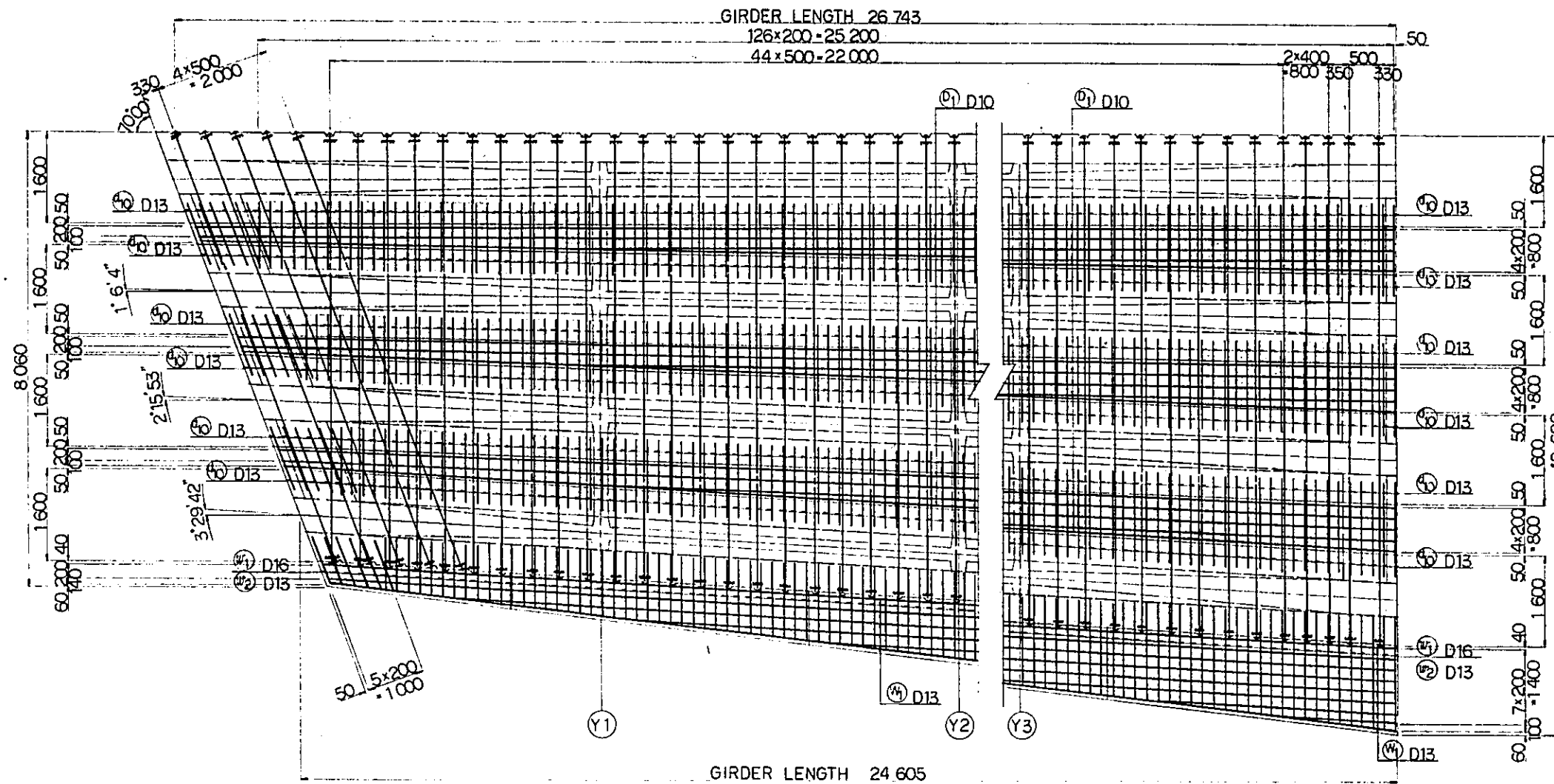
NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

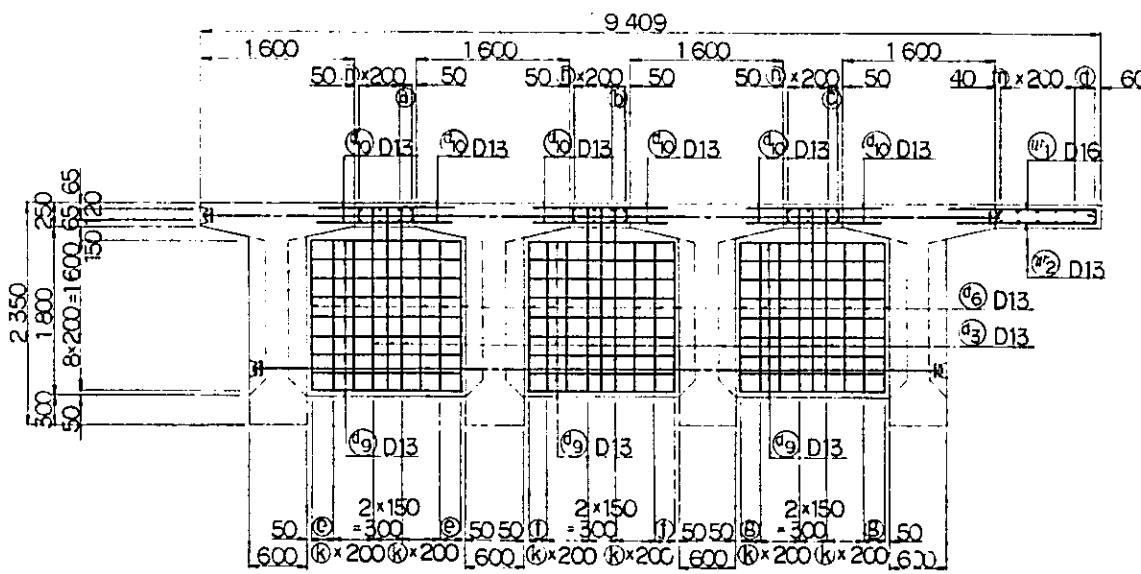
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1 AUG 84	M.Y.A.D.	K.K.	K.M.	K.K.	
A	15 FEB 84	M.Y.A.D.	K.K.	K.M.	K.K.	

P.C. GIRDER
PC 42
P.C. CABLE AND REINF. BAR
ARRANGEMENT OF MAIN BEAM

PACKAGE: I CIVIL AND ARCHITECTURAL WORK
SCALE: AS NOTED
DRAWING NO: CS - 064



PLAN SCALE 1:50



MIDDLE CROSS BEAM SCALE 1:40

DIMENSION SCHEDULE

	Y 1	Y 2	Y 3
(a)	29.0	151.0	72.0
(b)	9.0	136.0	64.0
(c)	0	120.0	56.0
(d)	30.0	0	10.0
(e)	164.5	225.5	86.0
(f)	154.5	218.0	82.0
(g)	142.5	210.0	78.0
(h)	2	2	3
(i)	3	5	6
(j)	2	2	3

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSION ARE EXAMPLES AND THESE SHALL BE REVIEWED AND, IF NECESSARY, BE ADJUSTED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM

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)

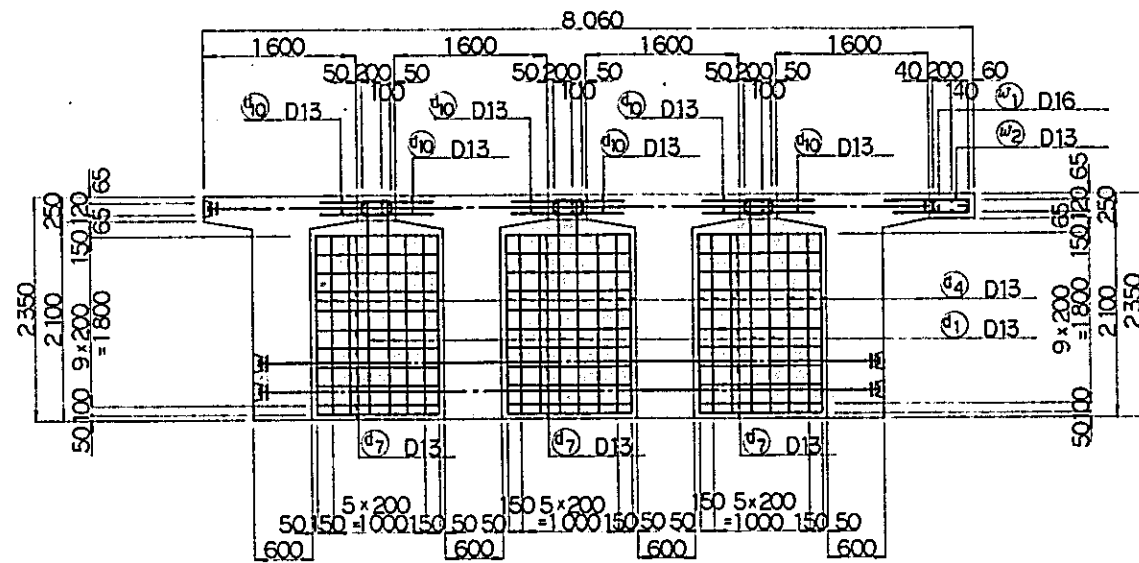
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A	15 FEB '84	MYAO	KA	UM	KK

P.C. GIRDER
PC 42
P.C. CABLE AND REINF. BAR ARRANGE-
MENT OF LATERAL JOINT(SHEET 1 OF 2)

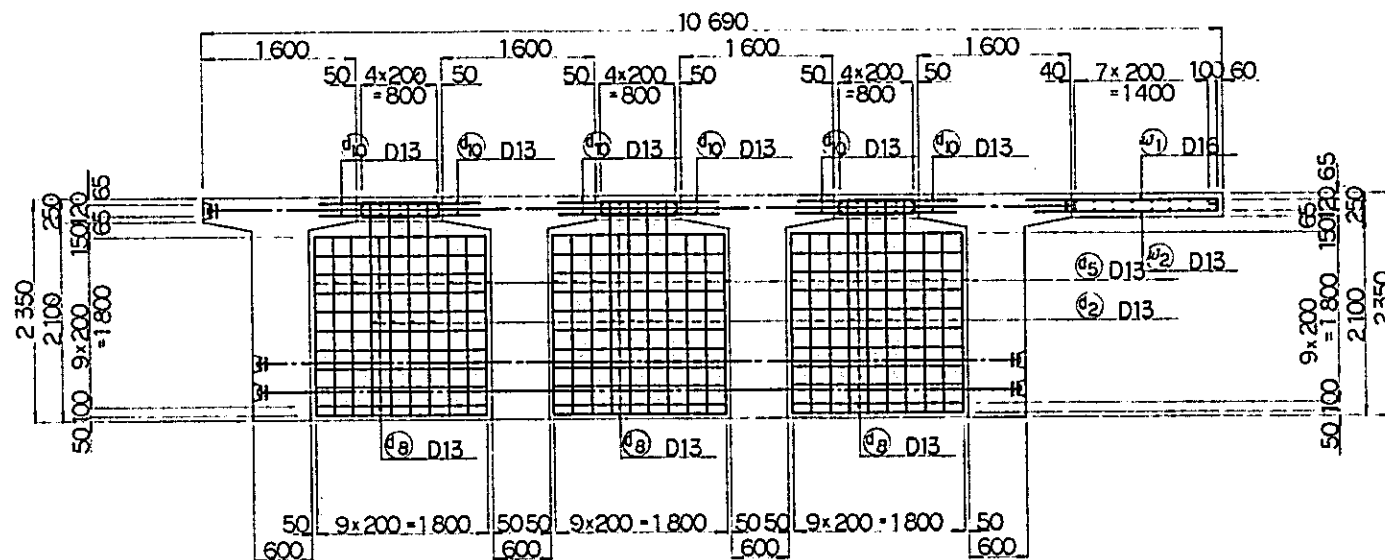
PACKAGE: I CIVIL AND ARCHITECTURAL WORK

SCALE: AS NOTED DRAWING NO: CS - 065

NOTES:
 1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED.
 2. REINFORCEMENT OF ANCHORAGE AND RECESS DIMENSIONS ARE EXAMPLES AND THESE SHALL BE REVIEWED AND IF NECESSARY BE ADJUSTED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS FOR THE SELECTED PRESTRESSING SYSTEM.

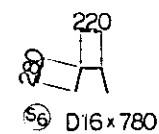
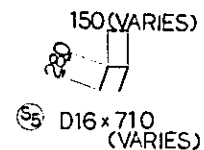
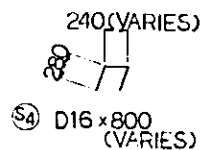
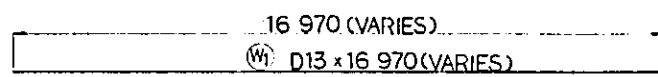
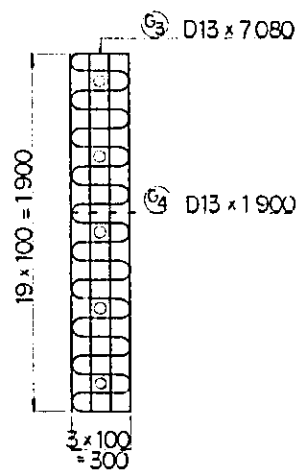
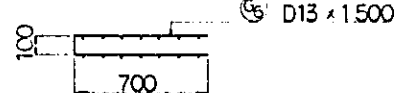
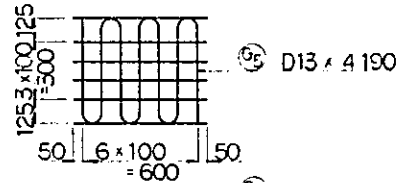
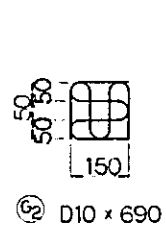
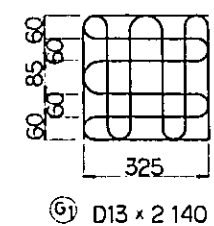
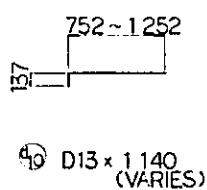
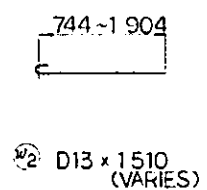
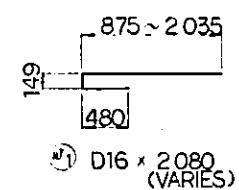
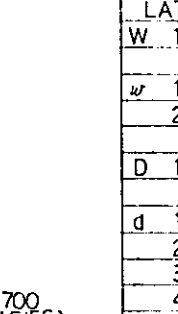
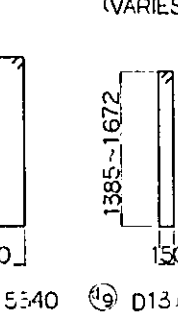
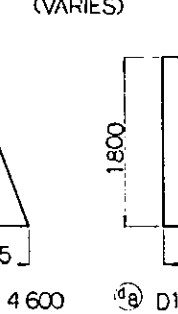
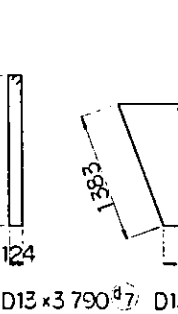
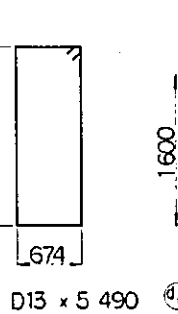
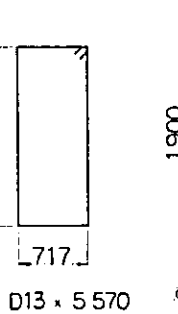
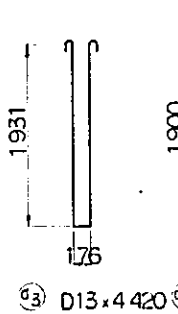
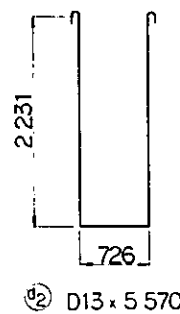
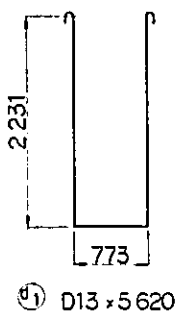
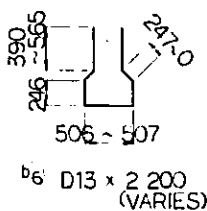
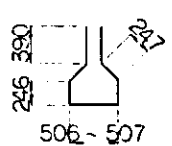
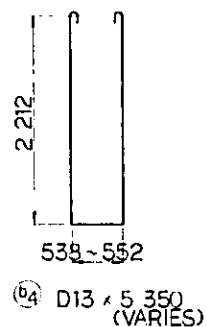
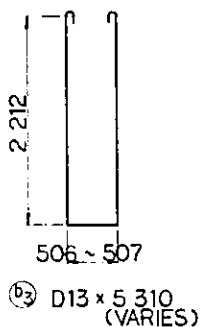
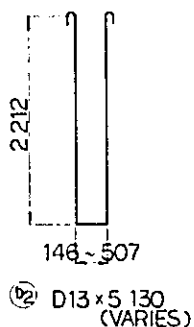
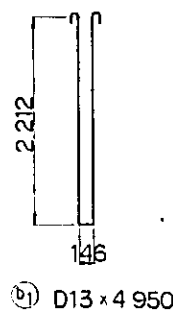
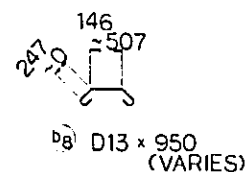
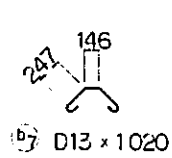
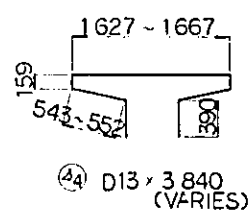
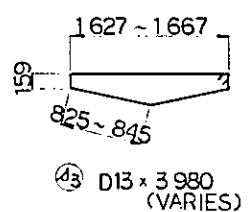
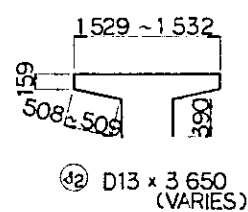
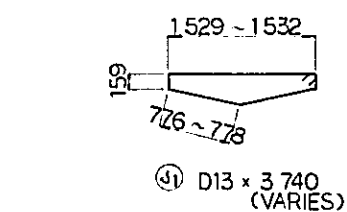
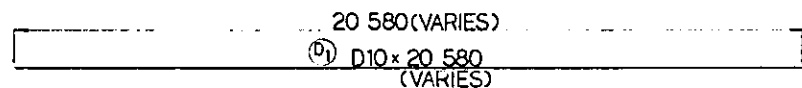
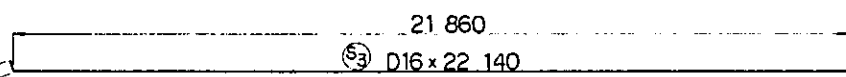
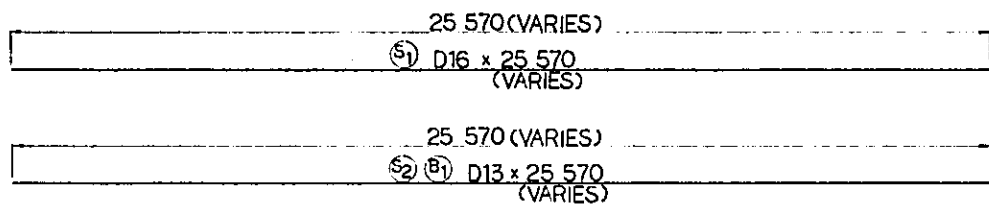


END CROSS BEAM SCALE 1:40



END CROSS BEAM SCALE 1:40

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 81	M.Y. A.O.	K.A. K.M.	K.R.		
A	15 FEB 81	M.Y. A.O.	K.A. K.M.	K.R.		
REVISIONS	DATE	DRAWN	CHECKED	EXTENDED	SUBMITTED	
PC GIRDER PC 42 PC CABLE AND REINF. BAR ARRANGEMENT OF LATERAL JOINT (SHEET 2 OF 2)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: AS NOTED			DRAWING NO.: CS - 066			



BAR SCHEDULE

REIN. No.	DIA. (mm)	LENGTH (mm)	NUMBER/ONE BEAM		TOTAL NUMBER	UWEIGHT (kg/m)	WEIGHT (kg)
			EXTERIOR	INTERIOR			
MAIN BEAM							
S 1	D16	25 570	6	8	28	1.560	1 116.9
2	D13	25 570	4	4	16	0.995	407.1
3	D16	22 140	2 (0)	---	2	1.560	69.1
4	.	800	8 (10)	---	18	.	22.5
5	.	710	2	---	4	.	4.4
6	.	780	98 (0)	---	98	.	119.2
v 1	D13	3 740	---	---	514	0.995	1 912.7
2	.	3 650	1	1	4	.	14.5
3	.	3 980	5	5	20	.	79.2
4	.	3 840	1	1	4	.	15.3
B 1	D13	25 570	16	16	64	0.995	1 628.3
b 1	D13	4 950	36	36	144	0.995	709.2
2	.	5 130	---	---	176	.	898.4
3	.	5 310	14	14	56	.	296.9
4	.	5 350	6	6	24	.	127.8
5	.	2 270	36	36	144	.	325.2
6	.	2 200	---	---	176	.	385.3
7	.	1 020	36	36	144	.	146.1
8	.	950	---	---	176	.	166.4
G 1	D13	2 140	20	20	80	0.995	170.3
2	D10	690	130	---	260	0.560	100.5
3	D13	7 080	4	4	16	0.995	112.7
4	.	1 900	16	16	64	.	121.0
5	.	4 190	4	4	16	.	66.7
6	.	1 500	12	12	48	.	71.6

WEIGHT OF BARS FOR MAIN BEAM

D16	1332.1 kg
D13	7653.7 kg
D10	100.5 kg
TOTAL WEIGHT	9086.3 kg

LATERAL JOINT

W 1	D13	16 970	---	---	18	0.995	303.9
w 1	D16	2 080	---	---	122	1.560	395.9
2	D13	1 510	---	---	122	0.995	183.3
D 1	D10	20 580	---	---	30	0.560	345.7
d 1	D13	5 620	---	---	6	0.995	33.6
2	.	5 570	---	---	12	.	65.5
3	.	4 420	---	---	27	.	118.7
4	.	5 570	---	---	18	.	99.8
5	.	5 490	---	---	18	.	98.3
6	.	3 790	---	---	60	.	226.3
7	.	4 600	---	---	33	.	151.0
8	.	5 340	---	---	33	.	175.3
9	.	3 700	---	---	81	.	298.2
10	.	1 140	---	---	1552	.	1760.4

WEIGHT OF BARS FOR LATERAL JOINT

D16	395.9 kg
D13	3 515.3 kg
D10	345.7 kg
TOTAL WEIGHT	4 256.9 kg

TOTAL WEIGHT OF BARS

D16	1 728.0 kg
D13	11 169.0 kg
D10	446.2 kg
TOTAL WEIGHT	13 343.2 kg

NOTE:

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)

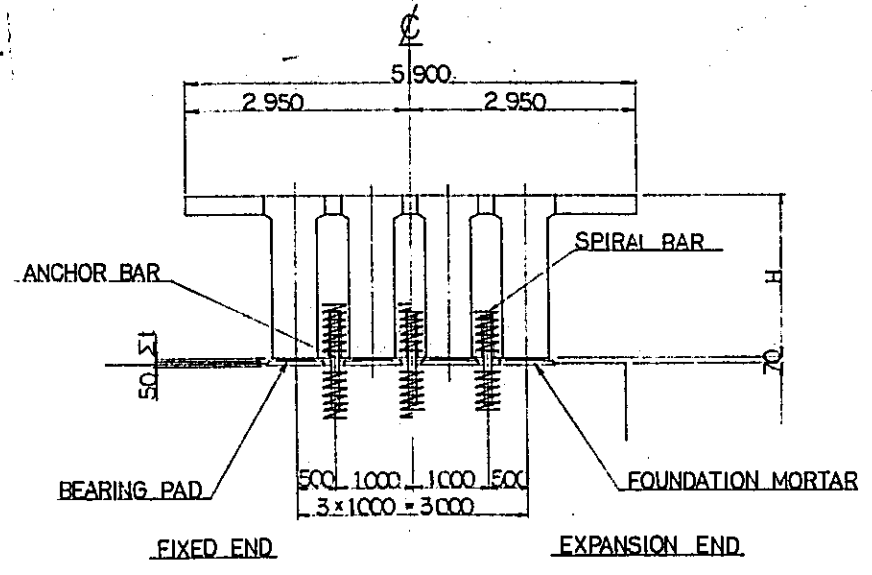
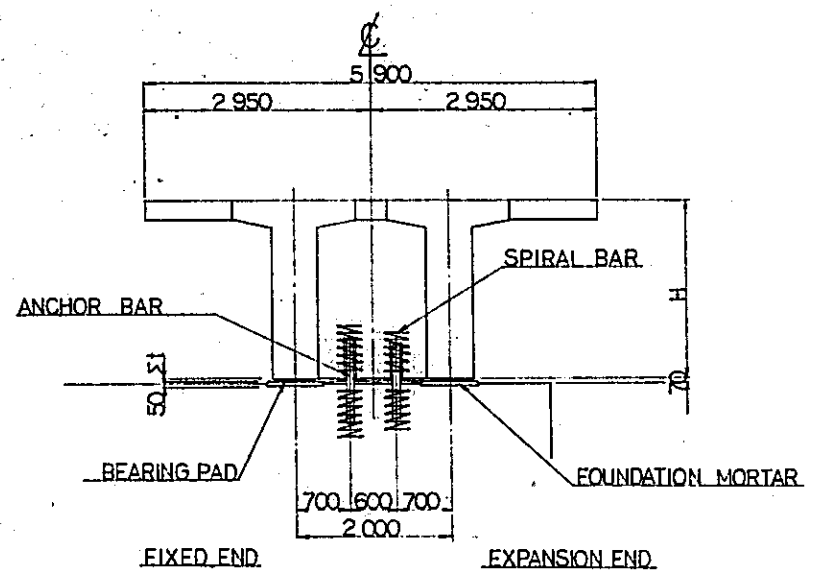
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A	15 FEB '89	MY	AD	K.A	K.M	AK
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

P.C. GIRDER
PC 42
REIN. BAR SCHEDULE

PACKAGE: I CIVIL AND ARCHITECTURAL WORK

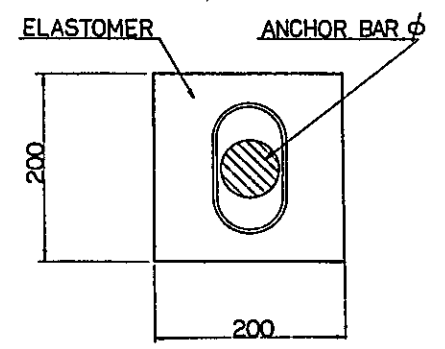
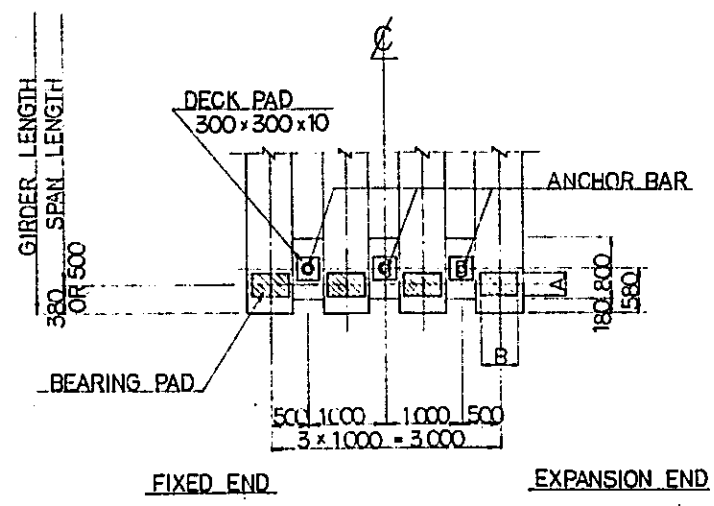
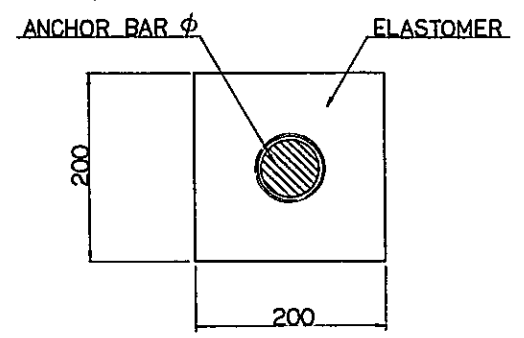
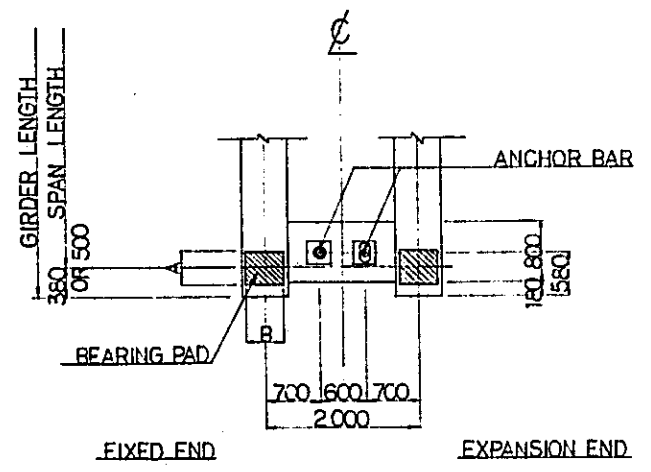
SCALE: AS NOTED
DRAWING NO.: CS - 067

NOTES:
 1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED.
 2. SEE DRAWING FOR VARIOUS CODES USED IN DIMENSION : CS-072



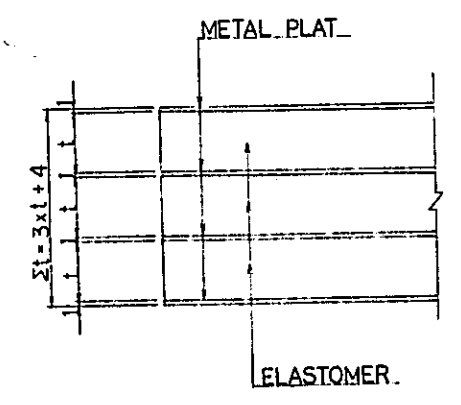
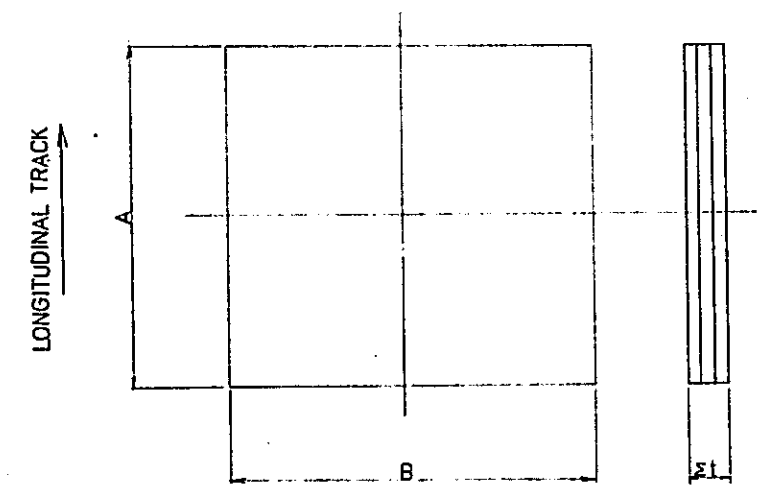
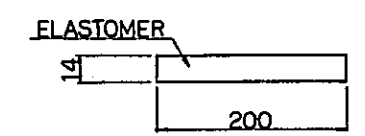
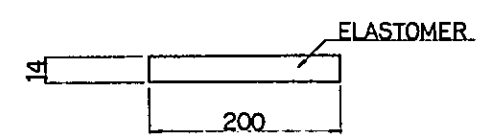
SECTION SCALE 1:50

SECTION SCALE 1:50



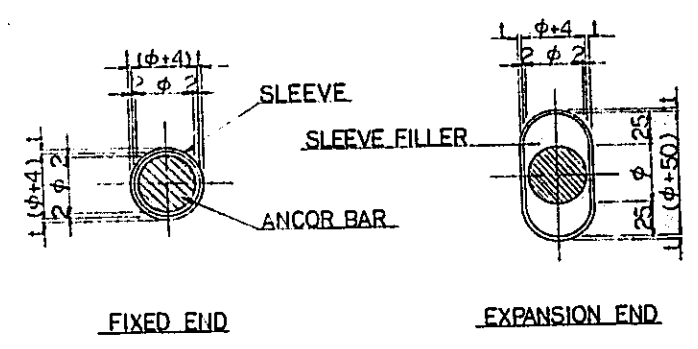
PLAN SCALE 1:50

PLAN SCALE 1:50



DETAIL OF BEARING PAD

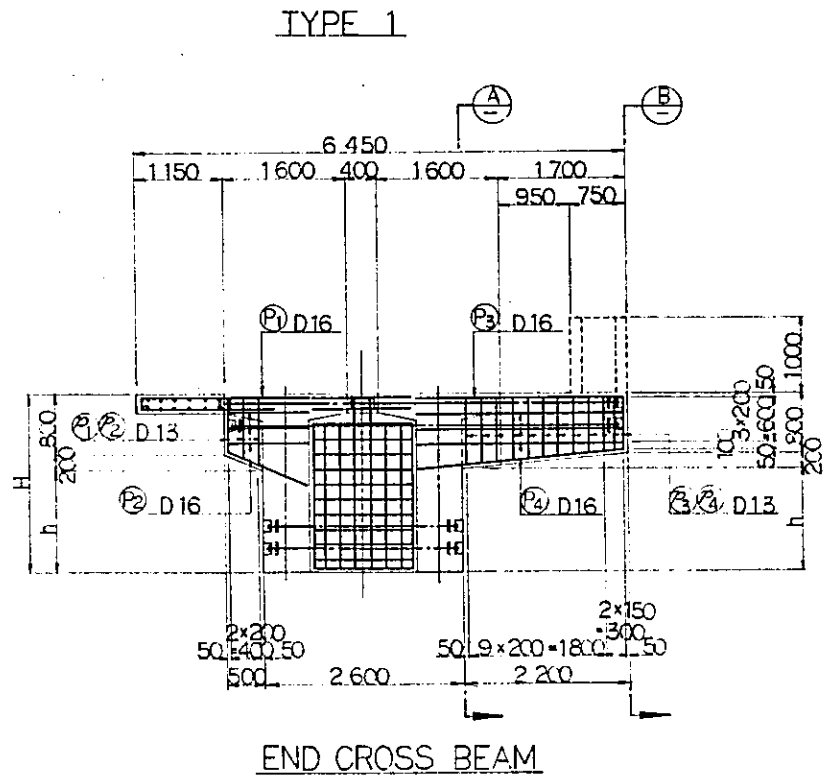
SCALE 1:1



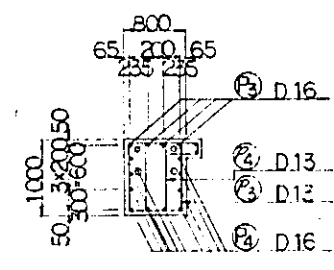
DETAIL OF ANCHORING NOT SCALE

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 M.Y.A.O K.A.K.M. R.K.
A	15 FEB '84 M.Y.A.O K.A.K.M. R.K.
REVISIONS	DATE
DESIGNED	CHECKED
REVISIONS	DATE
DESIGNED	CHECKED
REVISIONS	DATE
DESIGNED	CHECKED
DETAIL OF BRIDGE BEARINGS FOR P.C. GIRDERS	
PACKAGE:	I. CIVIL AND ARCHITECTURAL WORK
SCALE:	DRAWING NO.
AS NOTED	CS-068

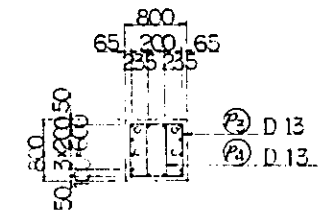
NOTE:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED



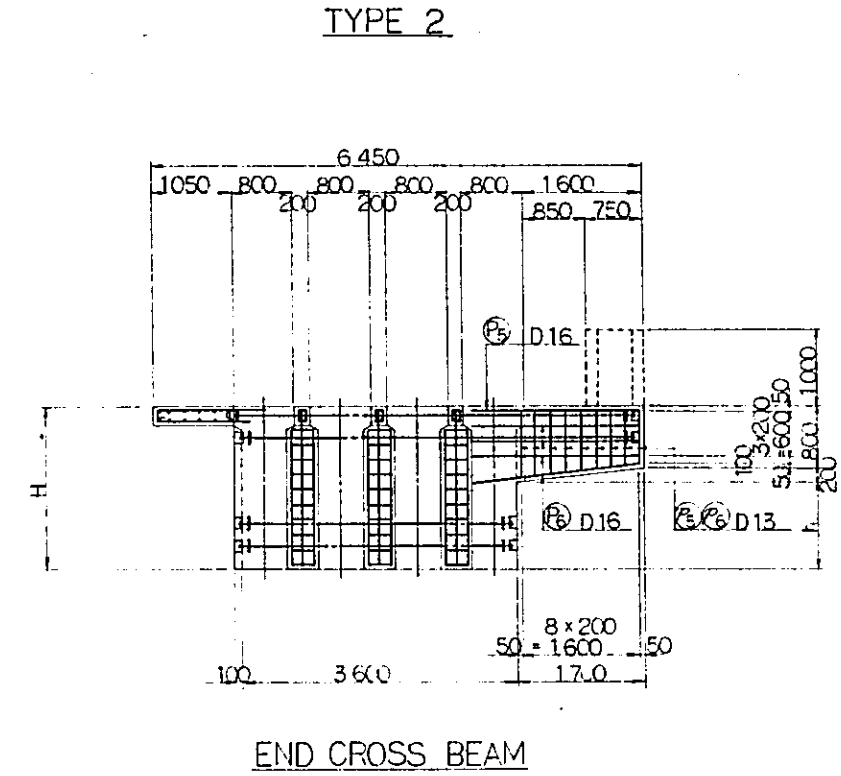
END CROSS BEAM



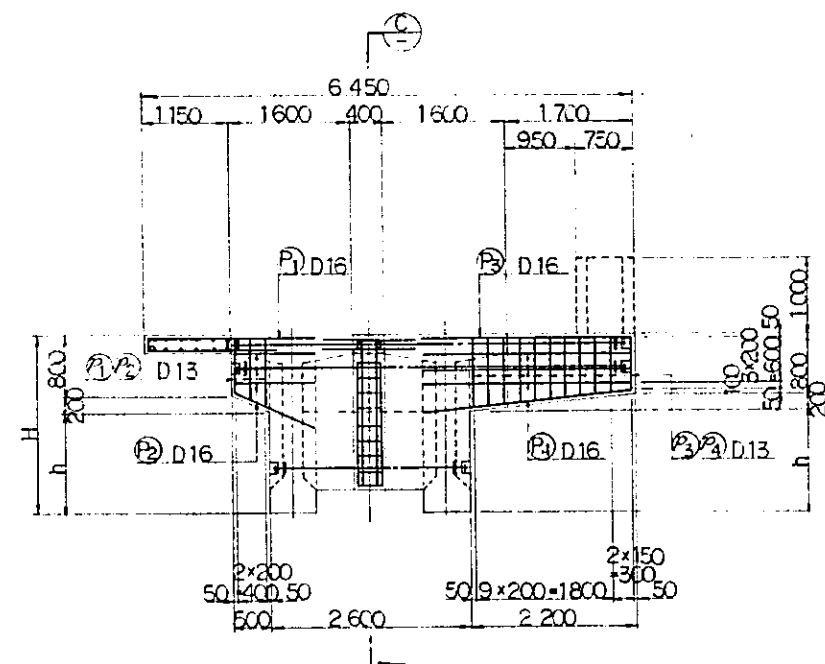
SECTION A-A



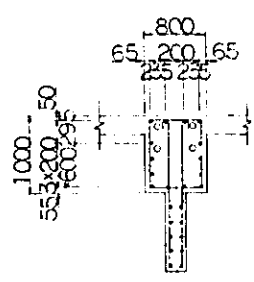
SECTION B-B



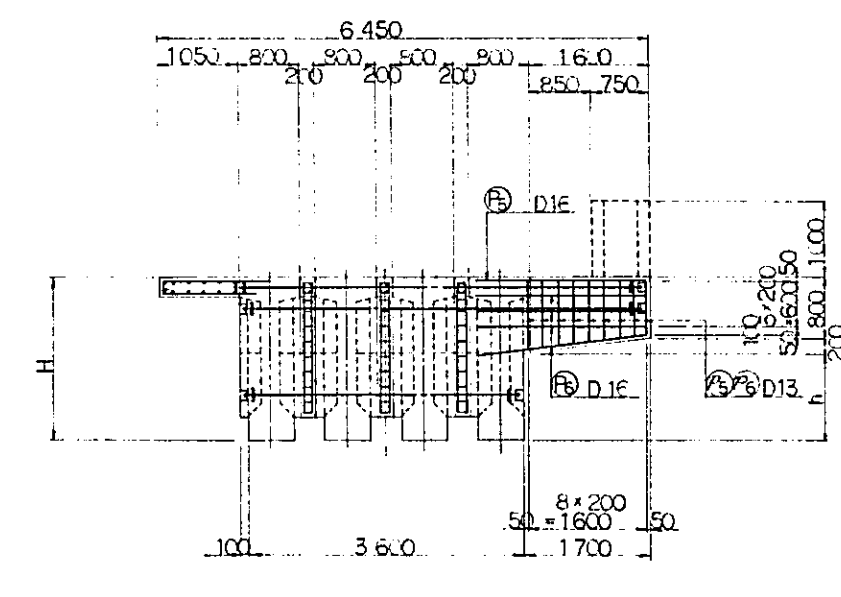
END CROSS BEAM



MIDDLE CROSS BEAM



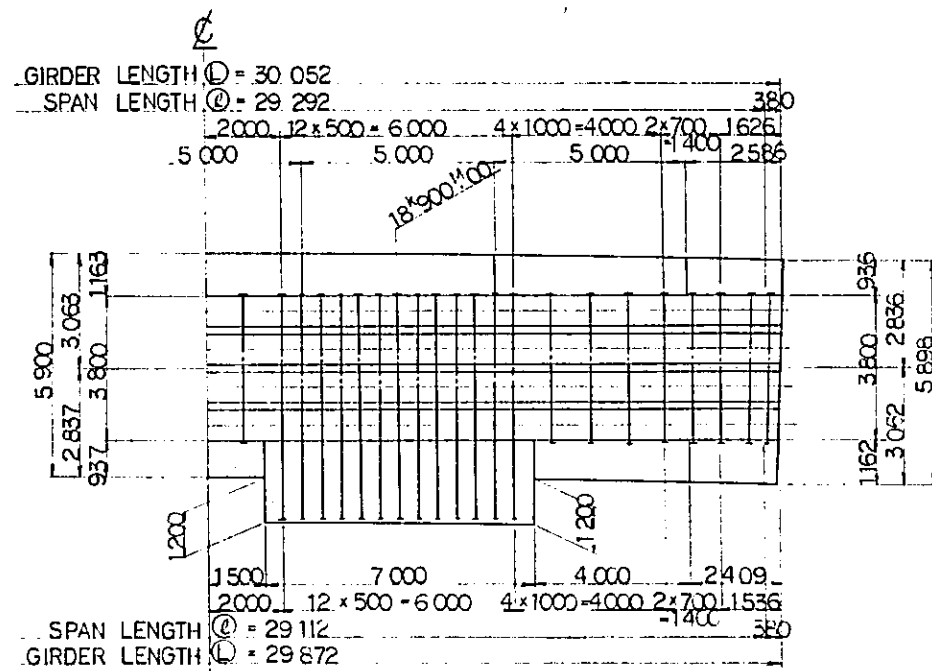
SECTION C-C



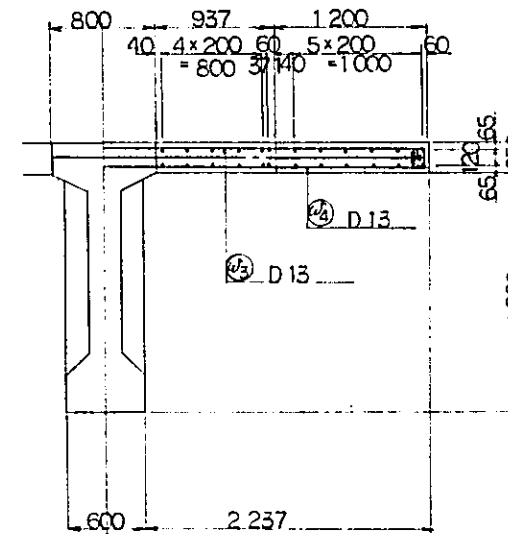
MIDDLE CROSS BEAM

BEAM OF ELECTRIC POLE SCALE 1:50

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	MYAO	K.A.	K.M.	mk	
A	15FEB'84	MYAO	K.A.	K.M.	mk	
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
SUPPORTING BEAM OF CATENARY POLE						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE		DRAWING NO.				
AS NOTED		CS - 069				

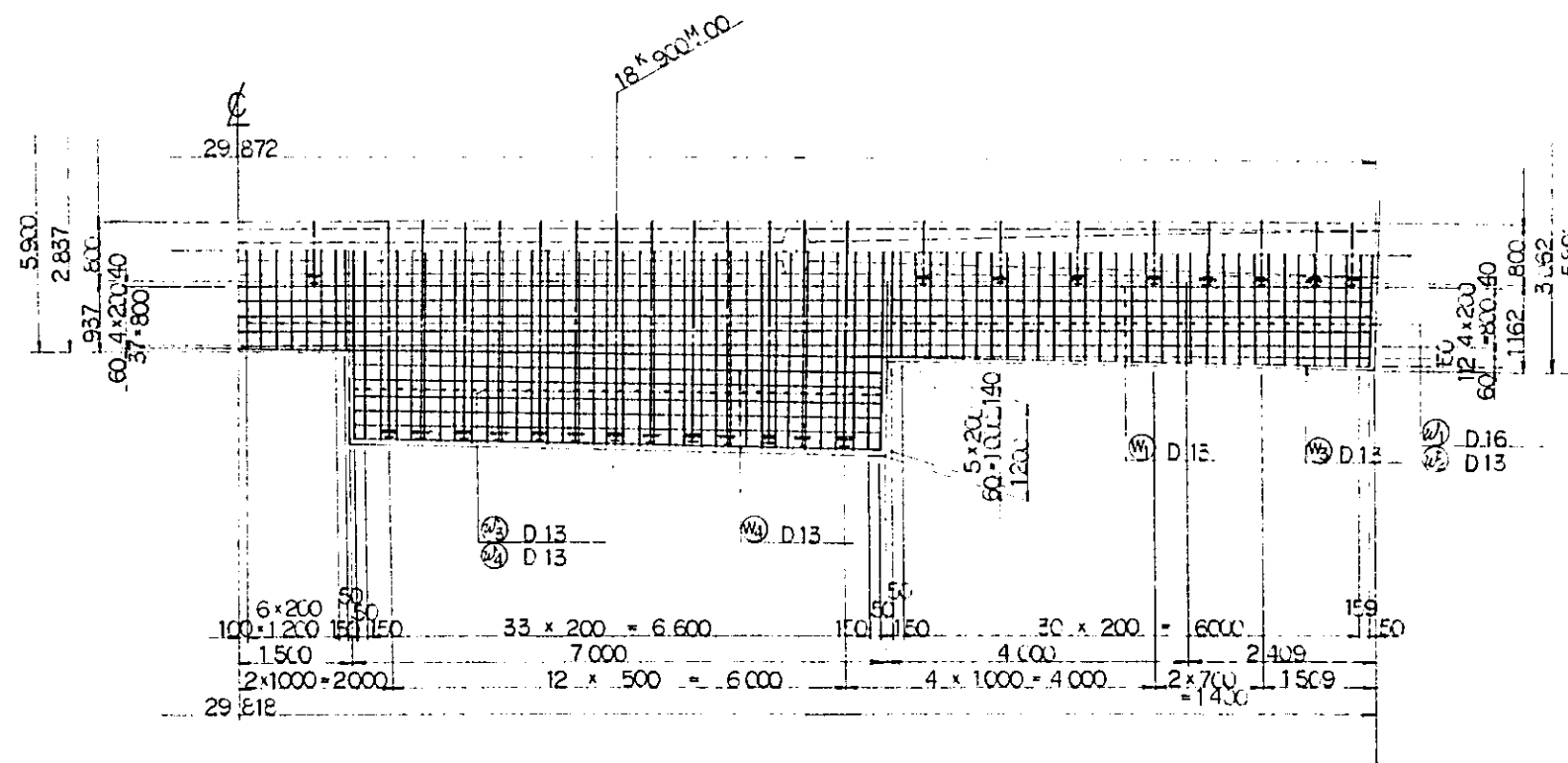


PLAN SCALE 1:100



CROSS SECTION SCALE 1:30

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



SLAB OF PLAN SCALE 1:50

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	MYAO	KAK	UM	AK	
A	15 FEB '84	MYAO	KAK	UM	AK	
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
PC GIRDER PC 35 SLAB FOR APPARATUS CASE						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: AS NOTED		DRAWING NO: CS - 070				

SUPERSTRUCTURE MATERIAL LIST NO.1 (P.C.)

Bridge Number	Girder Number	Girder Length (m)	Girder Depth (m)	Track of Straight or Curve	Girder of Right Angle or Skew	Concrete Volume (m ³)			Area Form (m ²)			Prestressing Steel (kg)			Anchoring Devices		Sheath Length (m)			P.C. Grout-Length(m)			
						Class A 400 kg/cm ²	Class B 300 kg/cm ²	Class C 240 kg/cm ²	Main Beam	Slab and Cross Beam	Sidewalk	Strand 12T15.2mm	Strand 12T12.7mm	Bar ϕ 23 mm 1S=110 kg/mm ²	For Strand	Anchor-Plate, Nut	ϕ 75 mm and ϕ 82 mm	ϕ 65 mm and ϕ 70 mm	ϕ 35 mm	Main Beam	Cross Beam		
B 01	P.C.01	20	1.80	Straight	Skew Left 60°	52.2	5.8	11.5	229.3	26.3	57.2	—	1960.4	692.1	20	104	—	175.5	20.0	203.0	198.0	203.0	
	02	40	2.40	"	"	211.3	15.3	27.3	968.3	46.0	106.4	15 233.9	—	662.5	56	90	1046.0	56.0	—	195.2	1108.4	195.2	
	03	20	1.80	"	"	52.2	5.8	11.5	229.3	26.3	57.2	—	1960.4	692.1	20	104	—	175.5	20.0	203.0	198.0	203.0	
B 02	04	25	1.40	"	Right Angle	106.7	8.7	10.5	426.1	26.1	46.6	—	5814.6	453.7	48	60	—	540.6	48.0	133.8	594.7	133.8	
B 03	05	20	1.80	"	"	49.7	6.3	11.5	227.0	27.0	57.0	—	1960.4	601.7	20	104	—	175.5	20.0	175.3	198.0	175.3	
	06	30	1.80	"	"	127.5	10.3	20.5	582.5	29.7	79.9	—	6936.7	430.9	48	68	—	661.4	48.0	126.1	715.5	126.1	
	07	20	1.80	Transition Curve	90°00'00"	49.7	6.3	11.5	227.0	27.0	57.0	—	1960.4	601.7	20	104	—	175.5	20.0	175.3	198.0	175.3	
	08	08	20	1.80	"	90°00'09"	"	"	"	"	"	—	"	"	"	"	"	"	"	"	"	"	"
		09	20	1.80	"	90°05'11"	"	"	"	"	"	—	"	"	"	"	"	"	"	"	"	"	"
		10	25	1.40	"	90°09'01"	"	"	"	"	"	—	"	"	"	"	"	"	"	"	"	"	"
	11	11	20	1.80	"	90°16'39"	"	"	"	"	"	—	"	"	"	"	"	"	"	"	"	"	"
10		25	1.40	"	90°20'28"	106.7	8.7	10.5	426.1	26.1	46.6	—	5814.6	453.7	48	60	—	540.6	48.0	133.8	594.7	133.8	
B 04	11	20	1.80	Curve R=1000m	90°34'23"	49.7	6.3	11.5	227.0	27.0	57.0	—	1960.4	601.7	20	104	—	175.5	20.0	175.3	198.0	175.3	
	12	30	2.15	Transition Curve	90°47'42"	119.8	9.6	15.7	654.7	40.2	78.9	—	5784.8	557.0	40	88	—	551.6	40.0	163.0	596.7	163.0	
B 05	13	30	2.15	Straight	Right Angle	"	"	"	"	"	"	—	"	"	"	"	"	"	"	"	"	"	
	14	30	2.15	"	"	"	"	"	"	"	"	—	"	"	"	"	"	"	"	"	"	"	
	15	35	2.00	"	"	165.7	11.8	23.9	725.4	33.7	93.0	11 441.5	—	456.8	48	72	774.2	48.0	—	133.7	827.7	133.7	
	16	35	2.00	"	"	"	"	"	"	"	"	—	"	"	"	"	"	"	"	"	"	"	
	17	40	2.40	"	"	210.3	14.5	27.3	967.3	43.0	106.1	15 233.9	—	569.0	56	90	1046.0	56.0	—	166.5	1108.4	166.5	
	18	35	2.00	"	"	165.7	11.8	23.9	725.4	33.7	93.0	11 441.5	—	456.8	48	72	774.2	48.0	—	133.7	827.7	133.7	
B 06	19	40	2.40	"	Skew Left 65°	211.3	15.3	27.3	968.3	46.0	106.4	15 233.9	—	662.5	56	90	1046.0	56.0	—	195.2	1108.4	195.2	
B 07	20	30	1.80	"	Skew Left 85°	127.5	10.3	20.5	582.5	29.7	79.9	—	6936.7	430.9	48	68	—	661.4	48.0	126.1	715.5	126.1	
B 08	21	30	1.80	"	"	"	"	"	"	"	"	—	"	"	"	"	"	"	"	"	"	"	
	22	25	1.40	"	Right Angle	106.7	8.7	10.5	426.1	26.1	46.6	—	5814.6	453.7	48	60	—	540.6	48.0	133.8	594.7	133.8	
	23	25	1.40	"	"	"	"	"	"	"	"	—	"	"	"	"	"	"	"	"	"	"	
	24	25	2.35	"	"	66.1	9.0	14.4	333.7	39.0	71.0	—	2429.2	721.3	20	124	—	225.9	20.0	210.2	248.5	210.2	
25	25	2.35	"	"	"	"	"	"	"	"	—	"	"	"	"	"	"	"	"	"	"		
B 09	26	35	2.00	"	"	165.7	11.8	23.9	725.4	33.7	93.0	11 441.5	—	456.8	48	72	774.2	48.0	—	133.7	827.7	133.7	
B 10	27	25	1.40	"	"	106.7	8.7	10.5	426.1	26.1	46.6	—	5814.6	453.7	48	60	—	540.6	48.0	133.8	594.7	133.8	
B 11	28	30	2.15	Curve R=500m	91°43'08"	119.8	9.6	15.7	670.6	40.2	80.0	—	5784.8	557.0	40	88	—	551.6	40.0	163.0	596.7	163.0	
B 12	29	25	2.35	"	91°25'57"	66.3	9.0	14.3	333.7	39.0	71.0	—	2429.2	721.3	20	124	—	225.9	20.0	210.2	248.5	210.2	
	30	25	2.35	"	"	"	"	"	"	"	"	—	"	"	"	"	"	"	"	"	"	"	
	31	25	2.35	"	"	"	"	"	"	"	"	—	"	"	"	"	"	"	"	"	"	"	
	32	30	2.15	"	91°43'08"	119.8	9.6	15.7	670.6	40.2	80.0	—	5784.8	557.0	40	88	—	551.6	40.0	163.0	596.7	163.0	
	33	25	2.35	"	Left 69°34'03"	66.2	9.1	14.4	334.3	39.4	71.1	—	2429.2	726.2	20	124	—	225.9	20.0	211.7	248.5	211.7	
34	30	2.15	"	Left 72°43'08"	119.7	9.6	15.7	654.1	40.4	78.9	—	5784.8	560.2	40	88	—	551.6	40.0	164.0	596.7	164.0		
B 13	35	30	2.15	"	91°43'08"	119.8	9.6	15.7	670.6	40.2	80.0	—	5784.8	557.0	40	88	—	551.6	40.0	163.0	596.7	163.0	
36	30	2.15	"	"	"	"	"	"	"	"	—	"	"	"	"	"	"	"	"	"	"	"	
37	30	2.15	"	"	"	"	"	"	"	"	—	"	"	"	"	"	"	"	"	"	"	"	
B 14	38	30	2.15	Transition Curve	91°42'45"	"	"	"	"	"	"	—	"	"	"	"	"	"	"	"	"	"	
	39	39	28	2.15	"	91°39'45"	"	"	"	"	"	—	"	"	"	"	"	"	"	"	"	"	
		40	33	2.15	"	60°53'44"	112.1	9.3	14.7	612.1	39.7	73.8	—	5413.2	490.5	"	76	—	511.6	40.0	143.7	556.7	143.7
	41	30	2.15	"	70°08'11"	131.8	10.5	17.4	715.0	42.8	87.4	—	7601.1	635.8	48	96	—	732.9	48.0	186.5	787.0	186.5	
42	26	2.35	Straight	Right 70°	121.2	19.0	16.9	657.4	78.2	83.9	—	6932.2	665.2	48	84	—	660.9	48.0	196.6	715.0	196.6		
TOTAL	42	1182	—	—	—	4651.4	434.7	670.3	22592.5	1627.6	3061.1	91467.7	160967.7	25189.3	1580	3800	6234.8	360.0	15158.7	1220.0	7387.7	23170.0	7387.7

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	MY	10	K.A	U.M	K.K
A	15 FEB '84	MY	10	K.A	U.M	K.K
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
P.C. GIRDER MATERIAL LIST (SHEET 1 OF 2)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE: DRAWING NO: CS - 071						

SUPERSTRUCTURE MATERIAL LIST NO 2 (P.C.)

Bridge Number	Girder Number	Girder Length (m)	Girder Depth (m)	Track of Straight or Curve	Girder of Right Angle or Skew	Reinforcing Bar .SD 30 (kg)					Bridge Railing and Duct		Mortal With Slope-Prote ctive Mortar m ³	Drainage (each)	Elastomeric Bearing Pads (each)			Anchoring Bar (each)		
						D19	D16	D13	D10	Total	Volume (m ³)	Form (m ²)			Fixed Support	Movable Support	A x B x t (mm) (3 plies)	Fixed Side	Movable Side	Length (mm)
B 01	PC01	2.0	1.80	Straight	Skew Left 60°	---	1314.6	4567.0	140.9	6022.5	3.9	36.4	6.7	4	2	2	350x500x12	φ75 ^{mm} - 2	φ70 ^{mm} - 2	L=970, W=67.3 L=910, W=55.0 L=970, W=201.8
	02	4.0	2.40	"	"	2869.9	1423.6	12560.4	719.1	17573.0	7.8	72.3	13.4	8	4	4	400x600x16	φ95 ^{mm} - 3	φ90 ^{mm} - 3	L=910, W=172.2 L=970, W=67.3
	03	2.0	1.80	"	"	---	1314.6	4567.0	140.9	6022.5	3.9	36.4	6.7	4	2	2	350x500x12	φ75 ^{mm} - 2	φ70 ^{mm} - 2	L=910, W=55.0 L=970, W=101.0
B 02	04	2.5	1.40	"	Right Angle	---	1913.2	6230.9	442.1	8586.2	4.9	45.3	8.4	4	4	4	200x600x14	φ75 ^{mm} - 3	φ70 ^{mm} - 3	L=910, W=82.4 L=970, W=67.3
	05	2.0	1.80	"	"	---	1314.6	4567.0	140.9	6022.5	3.9	36.3	6.7	4	2	2	350x500x12	φ75 ^{mm} - 2	φ70 ^{mm} - 2	L=910, W=55.0 L=970, W=67.3
B 03	06	3.0	1.80	"	"	---	2478.1	8165.8	525.5	11169.4	5.8	54.3	10.1	8	4	4	250x600x14	φ85 ^{mm} - 3	φ75 ^{mm} - 3	L=1090, W=145.5 L=970, W=101.0
	07	2.0	1.80	Transition Curve	90°00'00"	---	1314.6	4567.0	140.9	6022.5	3.9	36.3	6.7	4	2	2	350x500x12	φ75 ^{mm} - 2	φ70 ^{mm} - 2	L=970, W=67.3 L=910, W=55.0
	08	2.0	1.80	"	90°05'11"	---	"	"	"	"	"	"	"	"	"	"	"	"	"	"
	09	2.0	1.80	"	90°09'01"	---	"	"	"	"	"	"	"	"	"	"	"	"	"	"
	10	2.5	1.40	"	90°16'39"	---	"	"	"	"	"	"	"	"	"	"	"	"	"	"
B 04	11	2.0	1.80	Curve R=1000m	90°34'23"	---	1314.6	4567.0	140.9	6022.5	3.9	36.3	6.7	4	2	2	350x500x12	φ75 ^{mm} - 2	φ70 ^{mm} - 2	L=910, W=55.0 L=1030, W=122.1
	12	3.0	2.15	Transition Curve	90°47'42"	---	2484.7	8425.1	465.3	11375.1	5.8	54.3	10.1	8	4	4	300x500x14	φ80 ^{mm} - 3	φ75 ^{mm} - 3	L=970, W=101.0
B 05	13	3.0	2.15	Straight	Right Angle	---	"	"	"	"	"	"	"	"	"	"	"	"	"	
	14	3.0	2.15	"	"	---	"	"	"	"	"	"	"	"	"	"	"	"	"	
	15	3.5	2.00	"	"	2509.9	1158.6	9872.1	609.2	14149.8	6.8	63.3	11.8	8	4	4	300x600x16	φ90 ^{mm} - 3	φ80 ^{mm} - 3	L=1150, W=172.2 L=1030, W=122.1
	16	3.5	2.00	"	"	---	"	"	"	"	"	"	"	"	"	"	"	"	"	
	17	4.0	2.40	"	"	2869.9	1423.6	12560.4	719.1	17573.0	7.8	72.3	13.4	8	4	4	400x600x16	φ95 ^{mm} - 3	φ90 ^{mm} - 3	L=1210, W=201.8 L=1150, W=172.2 L=1150, W=172.2
B 06	18	3.5	2.00	"	"	2509.9	1158.6	9872.1	609.2	14149.8	6.8	63.3	11.8	8	4	4	300x600x16	φ85 ^{mm} - 3	φ75 ^{mm} - 3	L=1030, W=122.1 L=1210, W=201.8
	19	4.0	2.40	"	Skew Left 65°	2869.9	1423.6	12560.4	719.1	17573.0	7.8	72.3	13.4	8	4	4	400x600x16	φ95 ^{mm} - 3	φ90 ^{mm} - 3	L=1150, W=172.2 L=1090, W=145.5
B 07	20	3.0	1.80	"	Skew Left 65°	---	2478.1	8165.8	525.5	11169.4	5.8	54.3	10.1	8	4	4	250x600x14	φ85 ^{mm} - 3	φ75 ^{mm} - 3	L=970, W=101.0
	21	3.0	1.80	"	"	---	"	"	"	"	"	"	"	"	"	"	"	"	"	
B 08	22	2.5	1.40	"	Right Angle	---	1913.2	6230.9	442.1	8586.2	4.9	45.3	8.4	4	4	4	200x600x14	φ75 ^{mm} - 3	φ70 ^{mm} - 3	L=970, W=101.0 L=910, W=82.4
	23	2.5	1.40	"	"	---	"	"	"	"	"	"	"	"	"	"	"	"	"	
	24	2.5	2.35	"	"	---	1489.3	5549.3	179.3	7217.9	4.9	45.3	8.4	4	2	2	450x500x14	φ85 ^{mm} - 2	φ75 ^{mm} - 2	L=1090, W=97.0 L=970, W=67.3
	25	2.5	2.35	"	"	---	"	"	"	"	"	"	"	"	"	"	"	"	"	
B 09	26	3.5	2.00	"	"	2509.9	1158.6	9872.1	609.2	14149.8	6.8	63.3	11.8	8	4	4	300x600x16	φ90 ^{mm} - 3	φ80 ^{mm} - 3	L=1150, W=172.2 L=1030, W=122.1
B 10	27	2.5	1.40	"	"	---	1913.2	6230.9	442.1	8586.2	4.9	45.3	8.4	4	4	4	200x600x14	φ75 ^{mm} - 3	φ70 ^{mm} - 3	L=970, W=101.0 L=910, W=82.4 L=1030, W=122.1
	28	3.0	2.15	Curve R=500m	91°43'08"	---	2484.7	8425.1	465.3	11375.1	5.8	54.3	10.1	8	4	4	300x500x14	φ80 ^{mm} - 3	φ75 ^{mm} - 3	L=970, W=101.0 L=1090, W=97.0
B 12	29	2.5	2.35	"	91°25'57"	---	1489.3	5549.3	179.3	7217.9	4.9	45.3	8.4	4	2	2	450x500x14	φ85 ^{mm} - 2	φ75 ^{mm} - 2	L=970, W=67.3
	30	2.5	2.35	"	"	---	"	"	"	"	"	"	"	"	"	"	"	"	"	
	31	2.5	2.35	"	"	---	"	"	"	"	"	"	"	"	"	"	"	"	"	
	32	3.0	2.15	"	91°45'08"	---	2484.7	8425.1	465.3	11375.1	5.8	54.3	10.1	8	4	4	300x500x14	φ80 ^{mm} - 3	φ75 ^{mm} - 3	L=1030, W=122.1 L=970, W=101.0
	33	2.5	2.35	"	Left 69°34'03"	---	1489.3	5549.3	179.3	7217.9	4.8	44.6	8.4	4	2	2	450x500x14	φ85 ^{mm} - 2	φ75 ^{mm} - 2	L=1090, W=97.0 L=970, W=67.3
B 13	34	3.0	2.15	"	Left 72°43'05"	---	2484.7	8425.1	465.3	11375.1	5.9	54.8	10.1	8	4	4	300x500x14	φ80 ^{mm} - 3	φ75 ^{mm} - 3	L=1030, W=122.1 L=970, W=101.0
	35	3.0	2.15	"	91°43'08"	---	"	"	"	"	"	"	"	"	"	"	"	"	"	
	36	3.0	2.15	"	"	---	"	"	"	"	"	"	"	"	"	"	"	"	"	
	37	3.0	2.15	Transition Curve	91°42'45"	---	"	"	"	"	"	"	"	"	"	"	"	"	"	
B 14	38	3.0	2.15	"	91°39'45"	---	"	"	"	"	"	"	"	"	"	"	"	"	"	
	39	2.8	2.15	"	60°53'44"	---	2351.9	7956.3	438.7	10746.9	5.6	51.7	9.1	8	4	4	450x550x14	"	"	"
	40	3.3	2.15	"	Right 70°	2429.2	1122.1	9230.2	511.9	13293.4	6.4	59.8	11.1	8	4	4	450x550x14	φ80 ^{mm} - 3	φ75 ^{mm} - 3	L=1030, W=122.1 L=970, W=101.0
	41	3.0	2.15	Straight	Right 70°	---	1727.0	11169.0	446.2	13343.2	6.9	61.9	14.3	8	4	4	450x550x14	φ80 ^{mm} - 3	φ75 ^{mm} - 3	L=1030, W=122.1 L=970, W=101.0
TOTAL	42	1182	---	---	---	23318.7	75214.6	319635.0	17004.9	1435173.2	232.1	2111.9	405.1	262	142	142		113	113	8921.0 ^{kg}

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

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

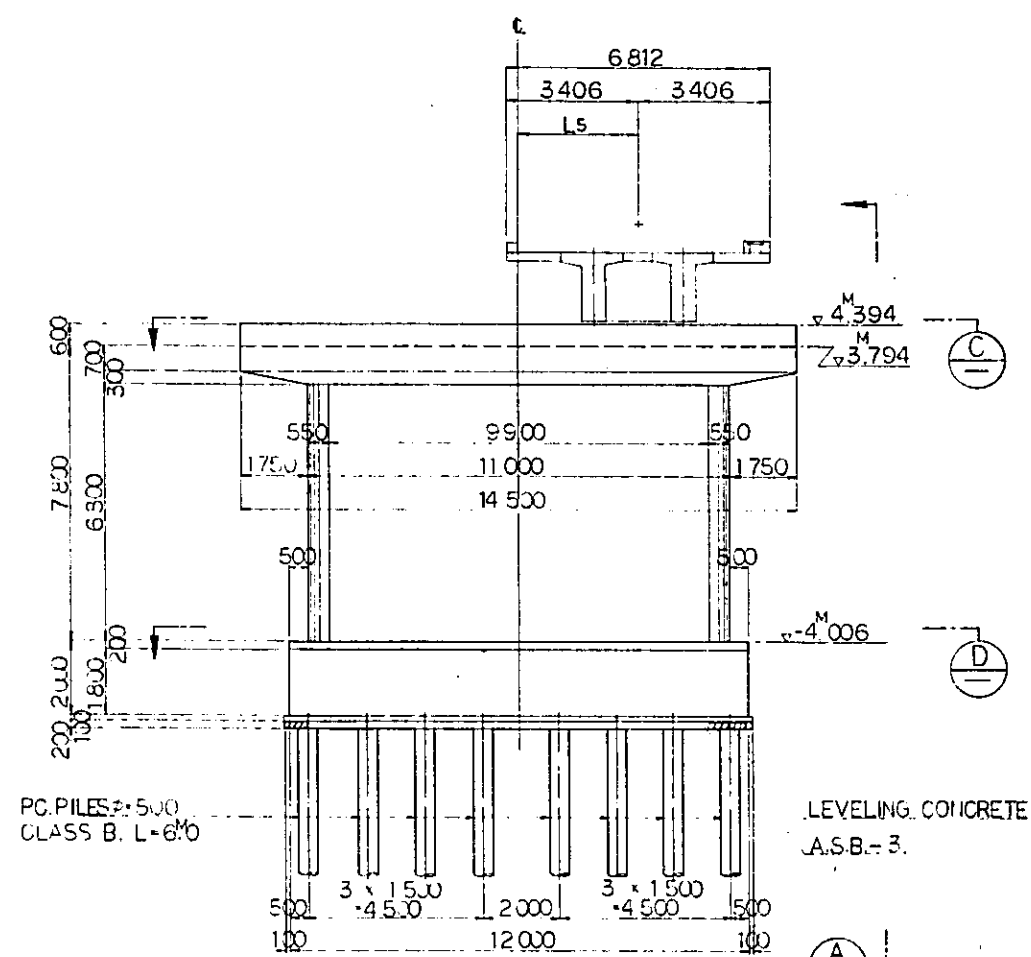
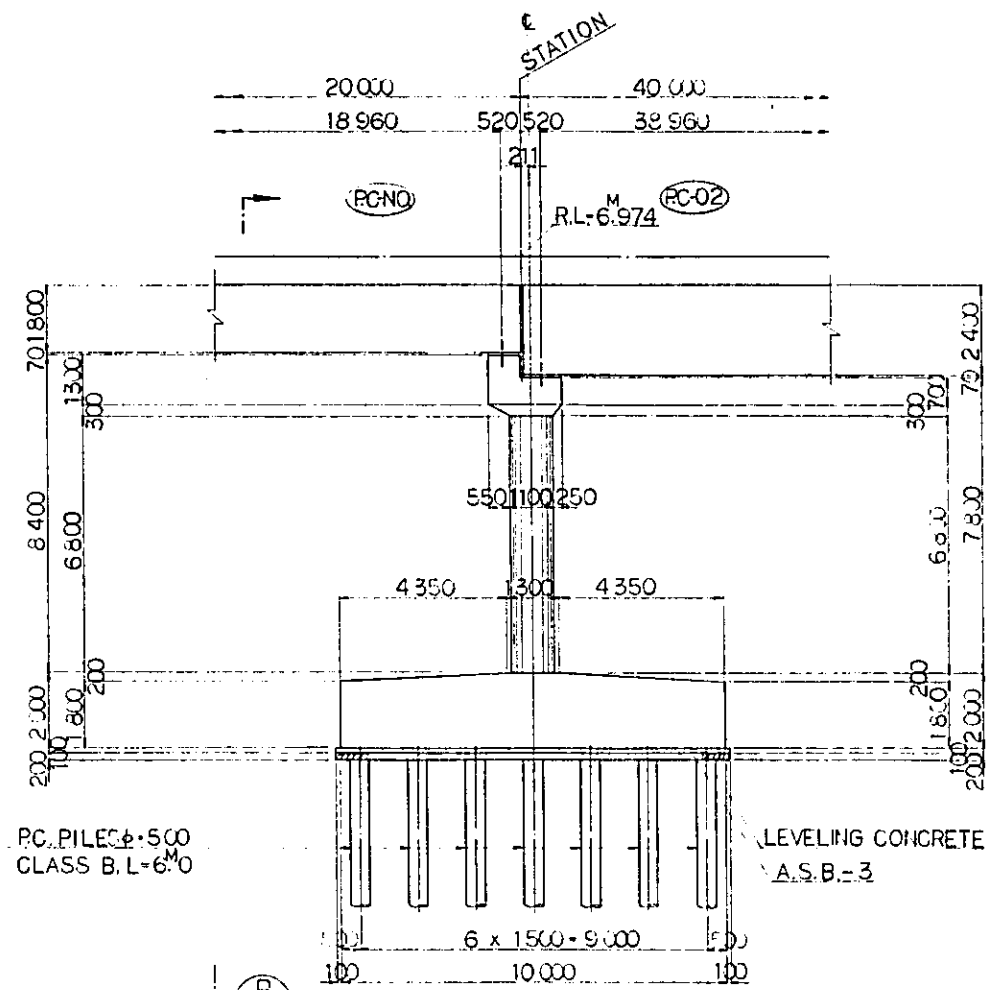
JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

B	1AUG/84	MYLO	KJ	KM	KK
A	15FEB/84	MYLO	KJ	KM	KK

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
-----------	------	----------	-------	---------	----------	-----------

P.C. GIRDER MATERIAL
LIST (SHEET 2 OF 2)

PACKAGE: **I CIVIL AND ARCHITECTURAL WORK**
 SCALE: _____ DRAWING NO: **CS - 072**

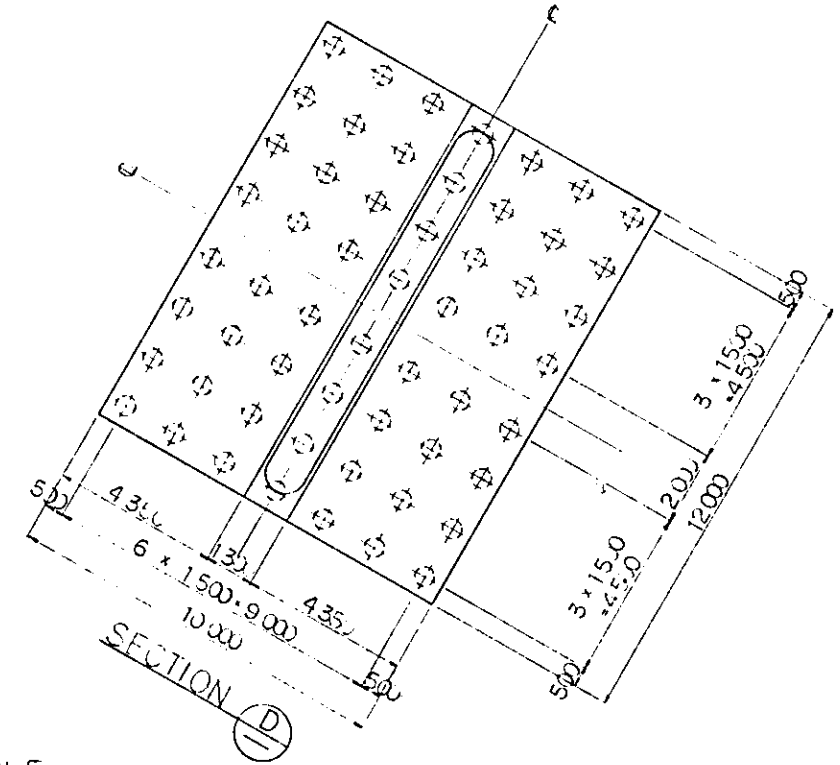
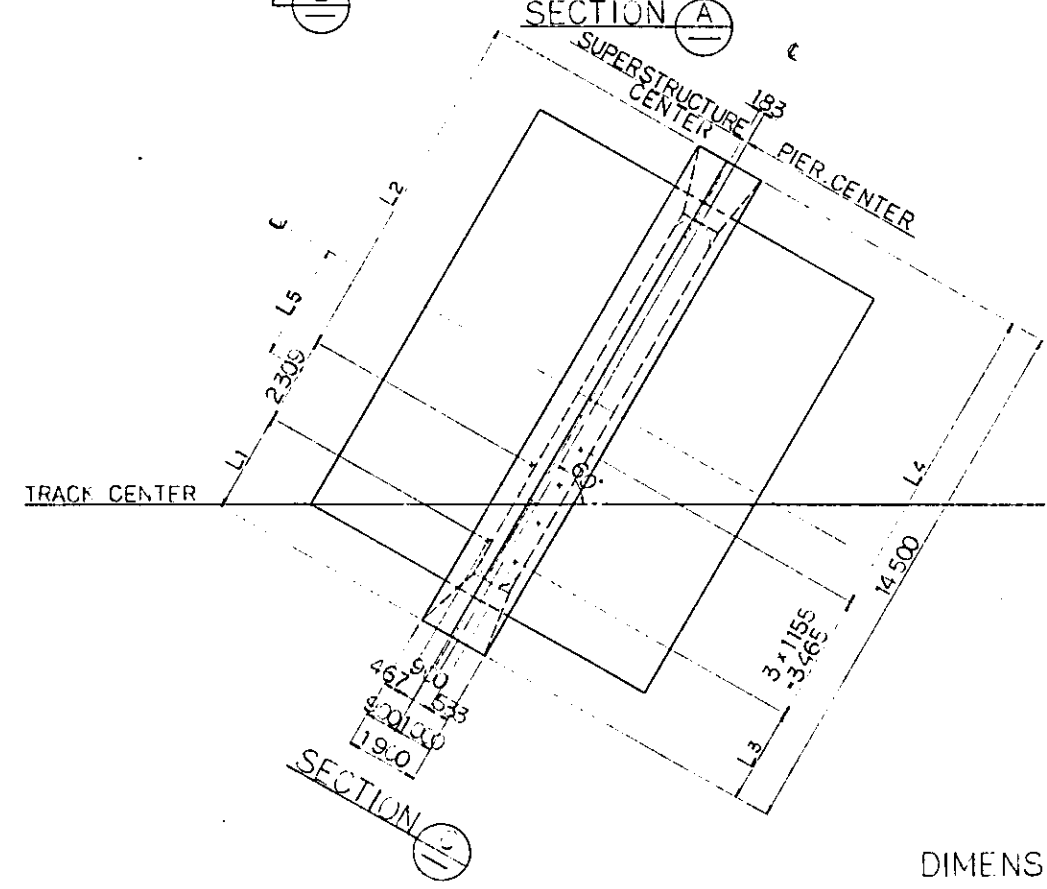


NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-074, CS-075, CS-076.

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-16
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_h=0.1$ IN VERTICAL DIRECTION $K_h=0$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 180 kg/cm ²
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 30 kg/cm ²
MATERIAL	TYPE OF REINFORCING BAR	SD-10
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck}=210 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25mm



DIMENSION SCHEDULE

PIER NO	STATION	PC-NO	L1	L2	L3	L4	L5
P - 01	10999.00	01	2554	9637	2496	8539	3281
P - 02	11039.00	03	3180	8905	2186	8847	3069

GENERAL VIEW OF P-01&02

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

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

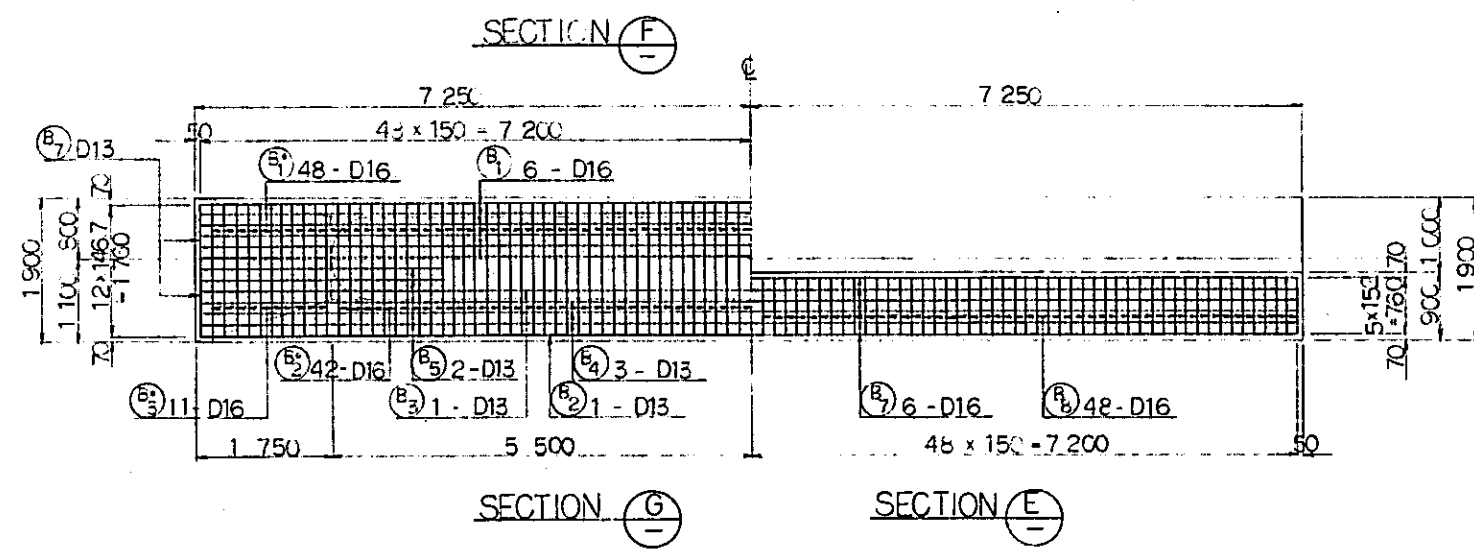
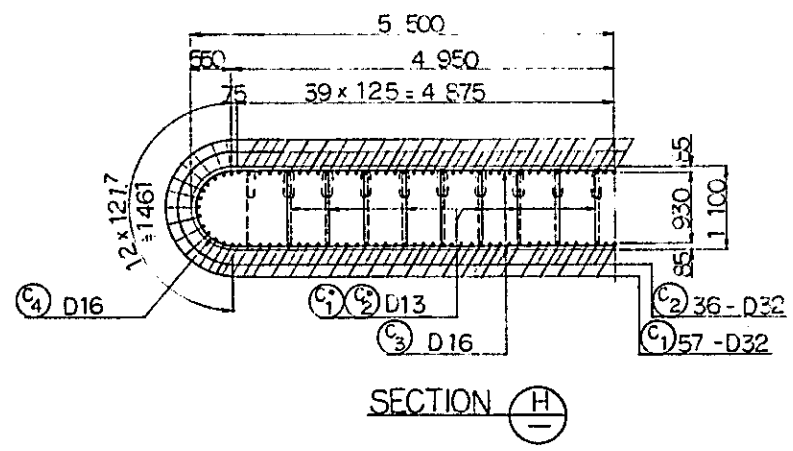
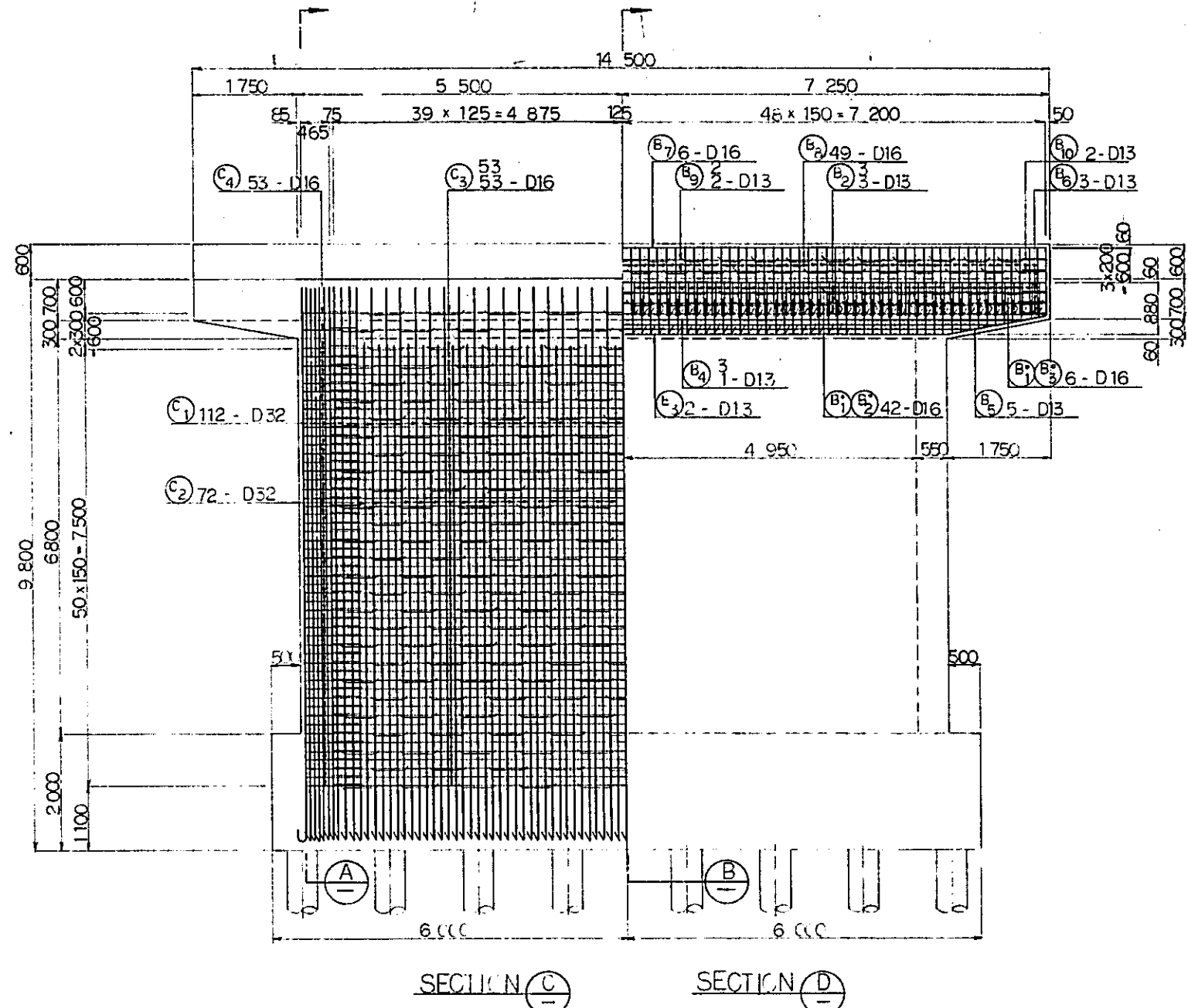
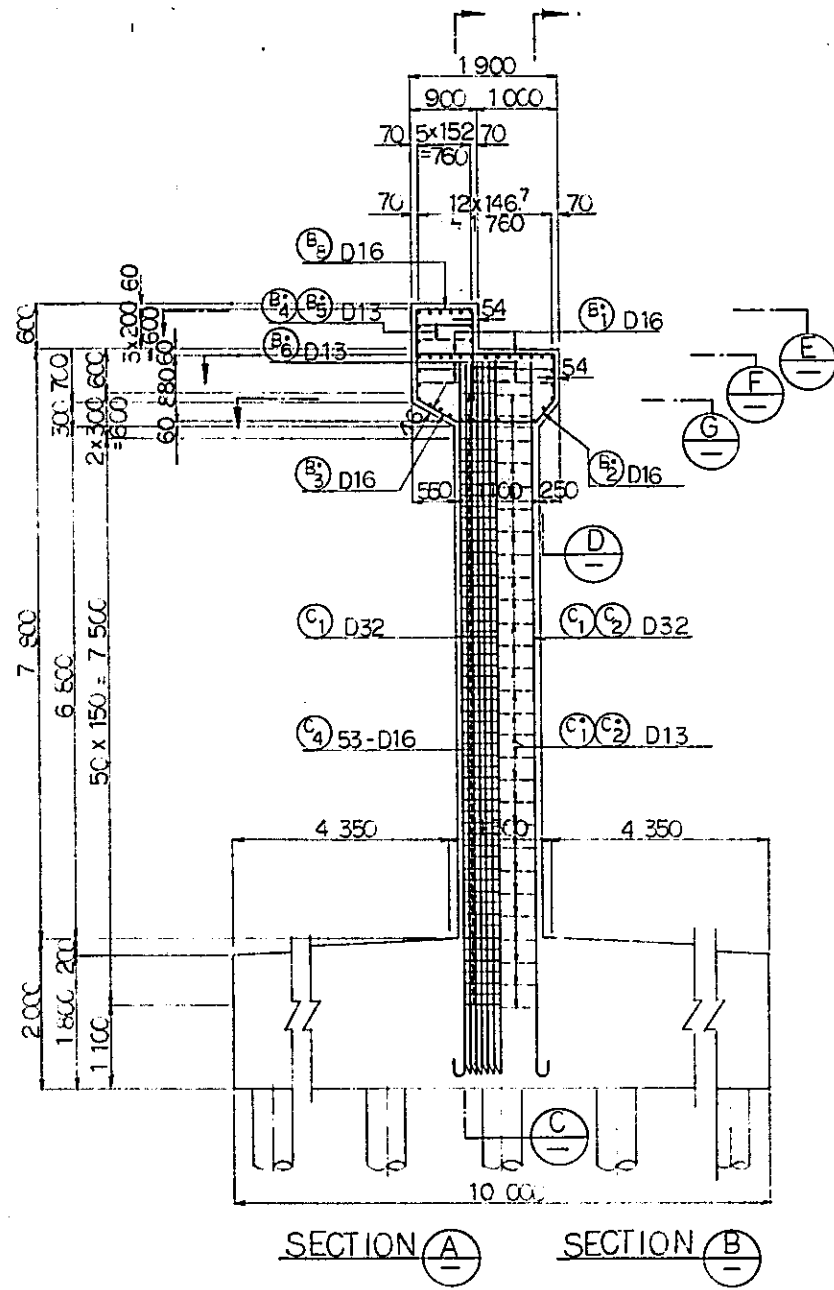
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

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

REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWD SUBMITTED

PIER P01, P02
GENERAL VIEW

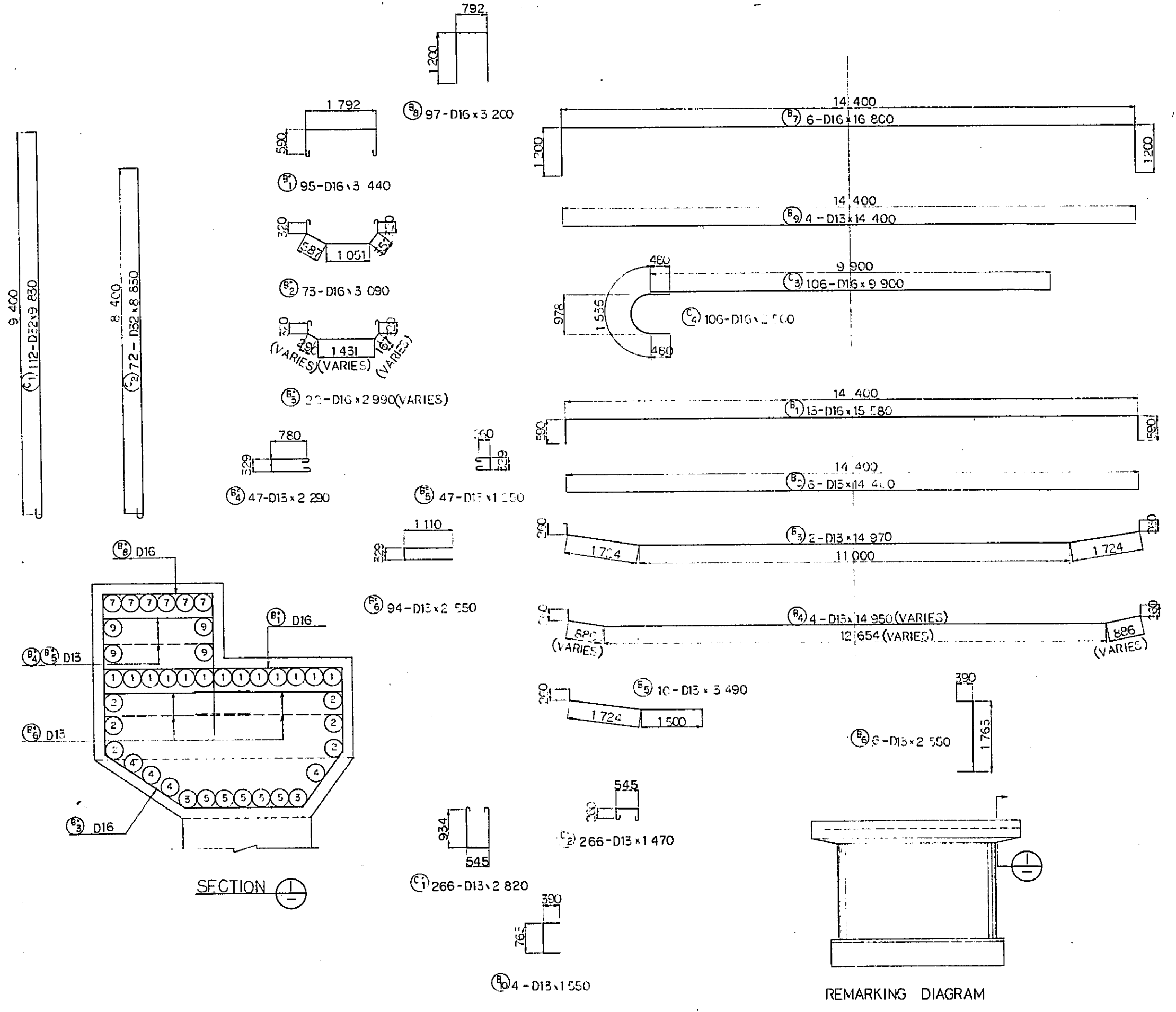
PACKAGE: I CIVIL AND ARCHITECTURAL WORK
SCALE: 1:100 DRAWING NO: CS-073



NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW: CS-073

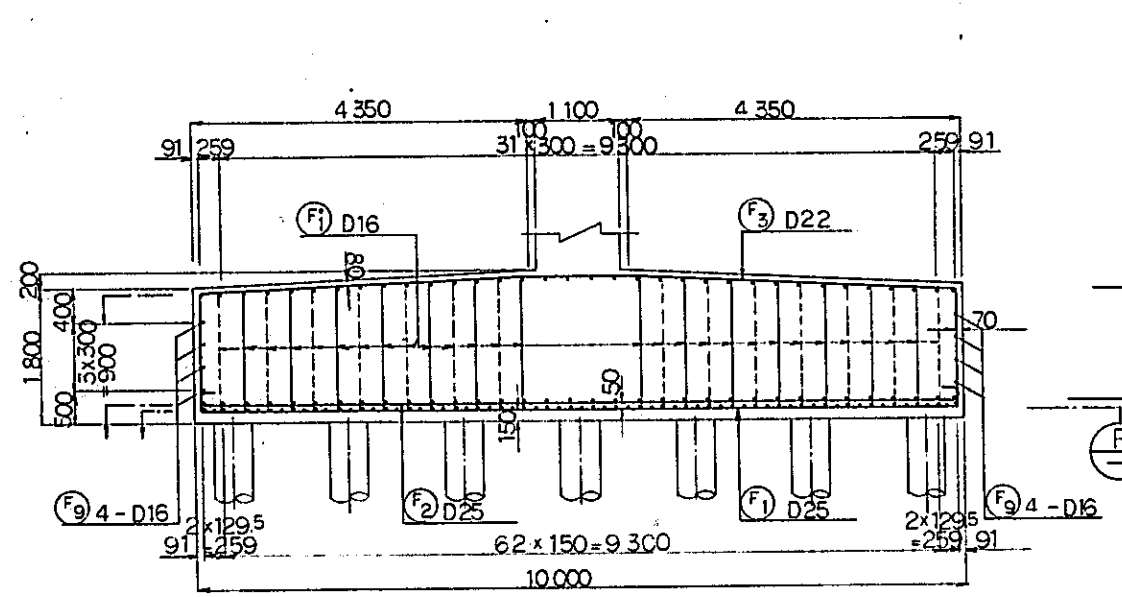
REPUBLIC OF INDONESIA						
MINISTRY OF COMMUNICATIONS						
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG. '84	SS	m.y.	K.A.	K.M.	JK
A	15 FEB. '84	SS	m.y.	K.A.	K.M.	JK
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVISED	SUBMITTED
PIER P01 BAR ARRANGEMENT (SHEET 1 OF 3)						
PACKAGE: I. CIVIL AND ARCHITECTURAL WORK						
SCALE	1:50	DRAWING NO.		CS-074		



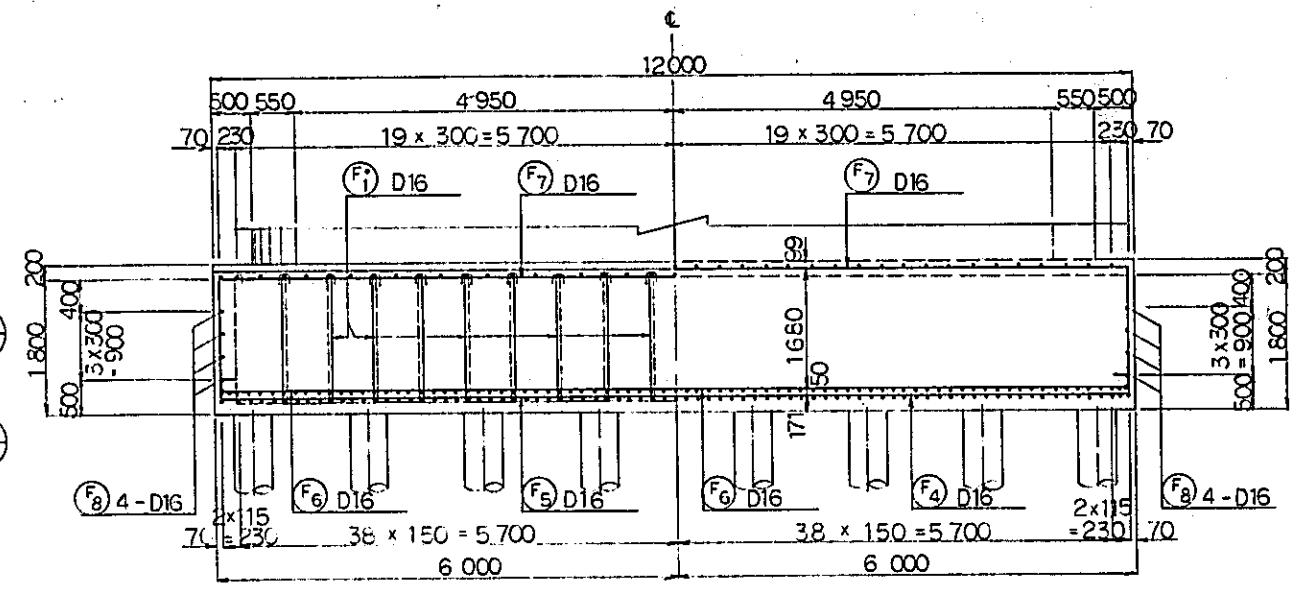
NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW: CS-073

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.	R.D.	K.M.
A	15 FEB '84	S.S.	m.y.	R.D.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
PIER: POI BAR ARRANGEMENT (SHEET 2 OF 3)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	1:50	DRAWING NO.	CS-075		

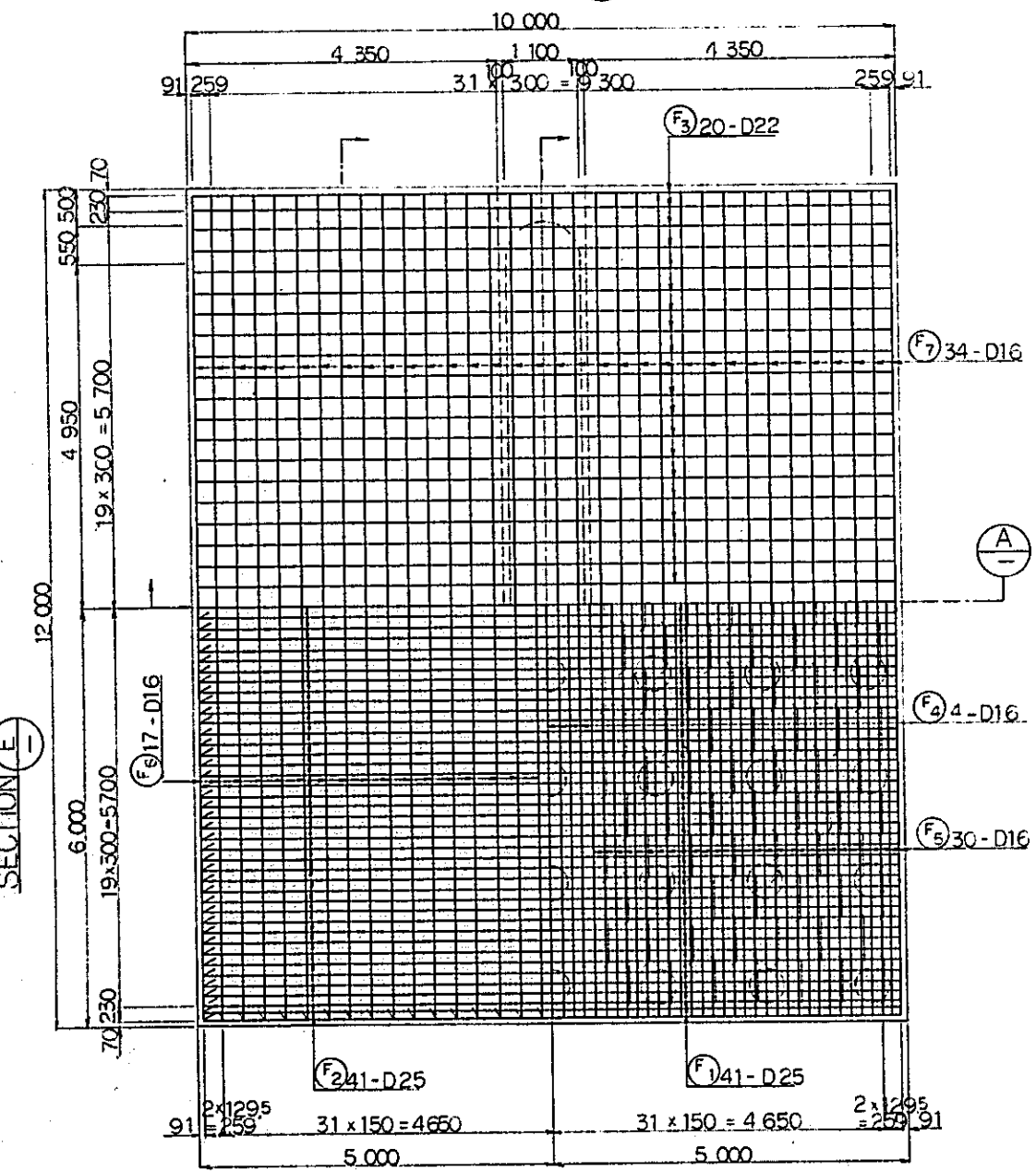


SECTION A



SECTION B

SECTION C



SECTION E

SECTION D

SECTION F

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-073

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

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

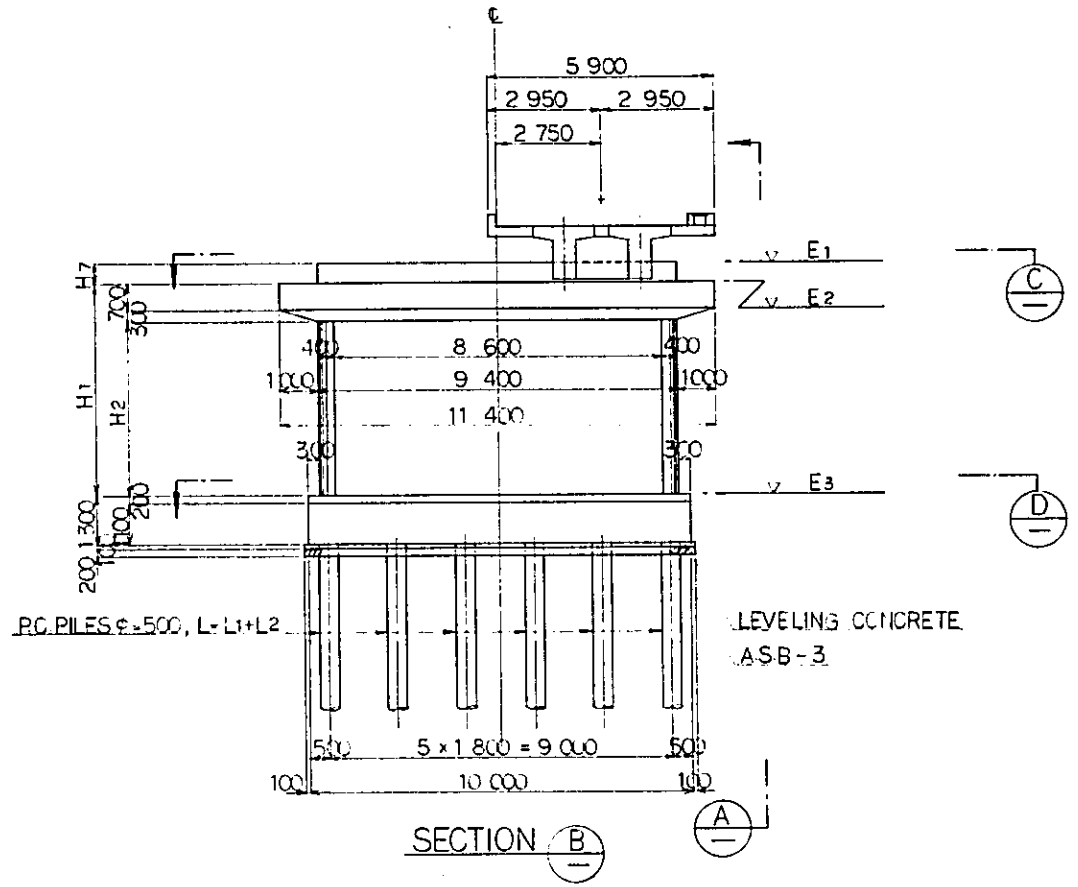
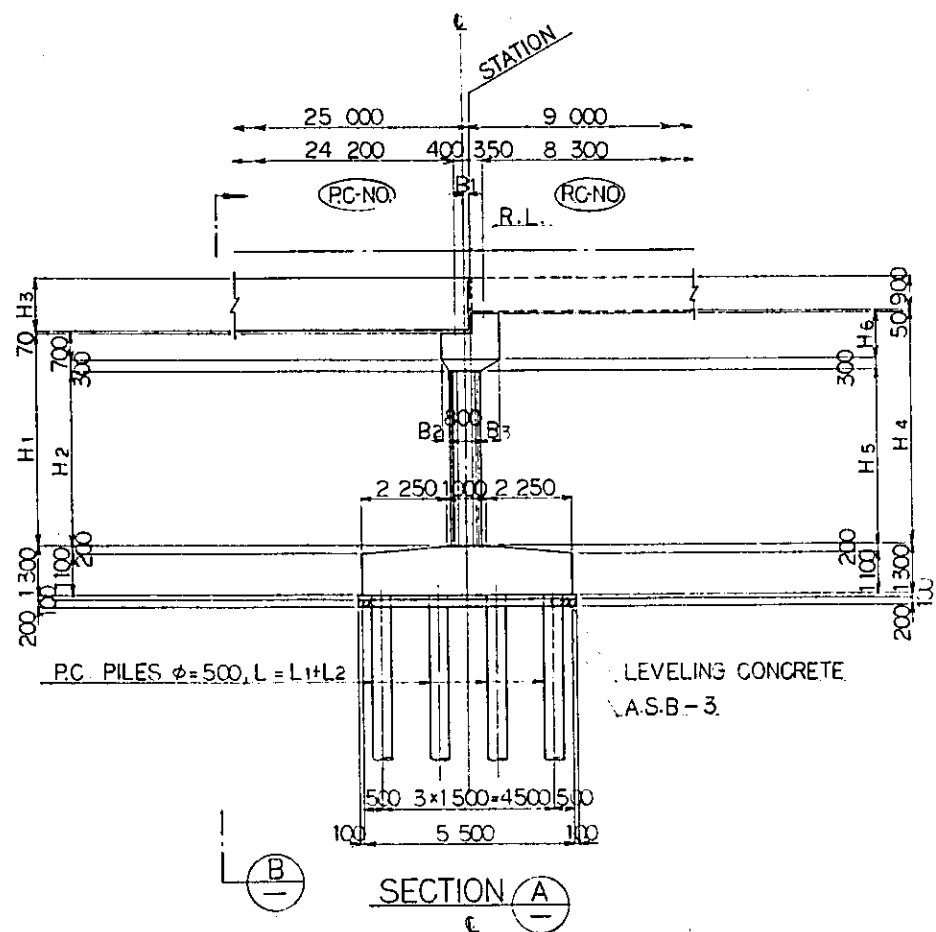
JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

REVISIONS	DATE	REVISION	BY	CHECKED	REVIEWED	APPROVED
B	1 AUG. 84	55	m.y.	K.A.	K.M.	K.K.
A	15 FEB. 84	55	m.y.	K.A.	K.M.	K.K.

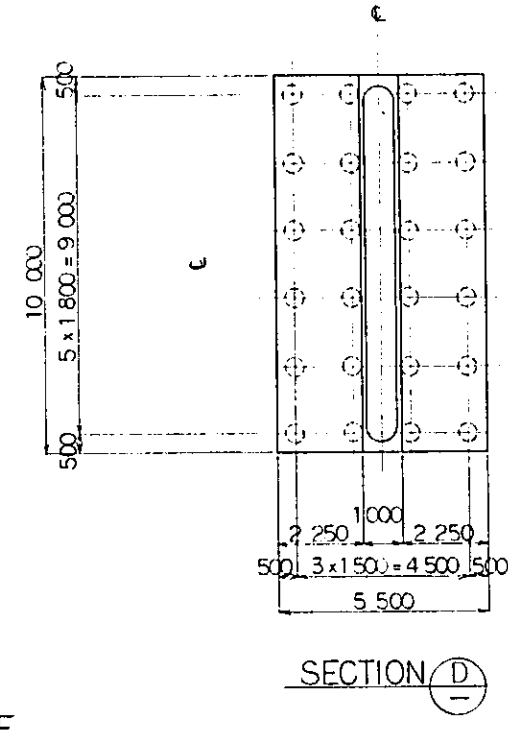
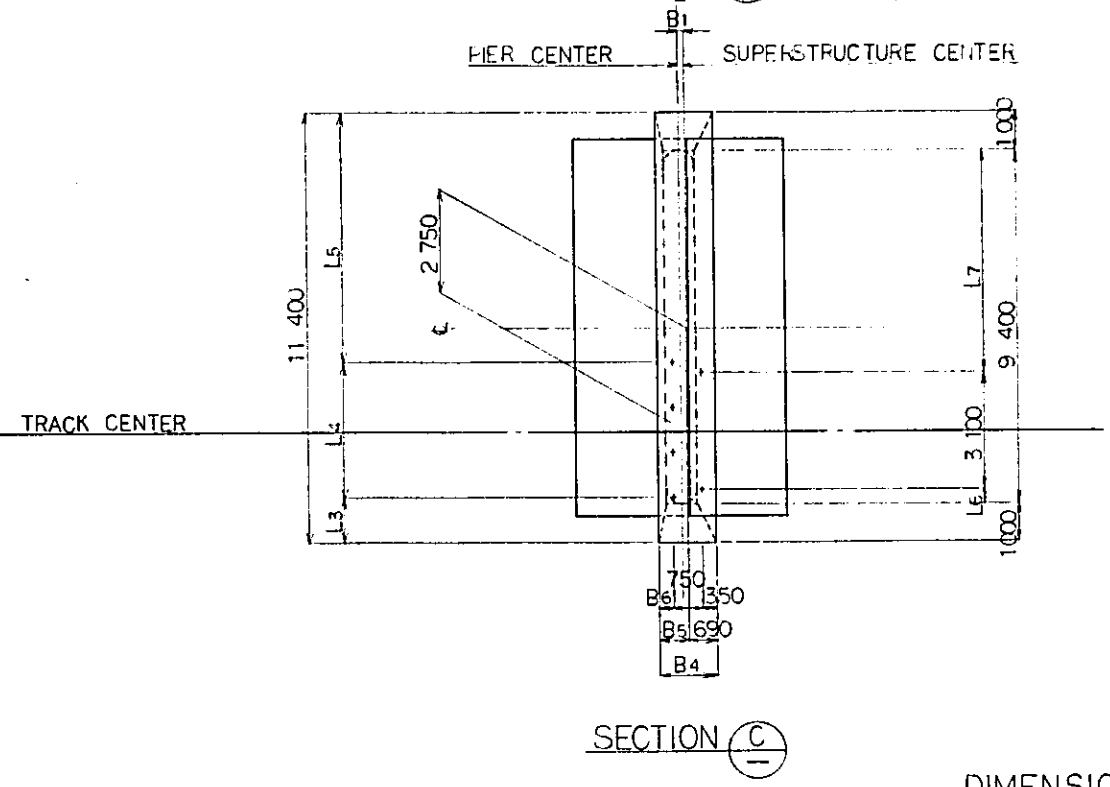
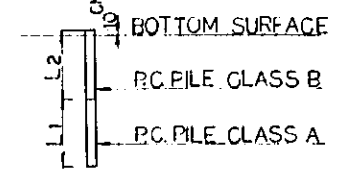
PIER-POI
 BAR ARRANGEMENT
 (SHEET 3 OF 3)

PACKAGE: I - CIVIL AND ARCHITECTURAL WORK

SCALE: 1:50 DRAWING NO: CS-076



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-107, CS-108, CS-109.
 3. TYPES OF RC-PILE



PIER NO.	STATION	ALIGNMENT	PC-NO.	RC-NO.
P-04	13 ^{km} 680 ^m .00	STRAIGHT	—	04 03
P-37	18 ^{km} 720 ^m .00	CURVED R=500	29	32

PIER NO.	R.L.	E1	E2	E3	H1	H2	H3	H4	H5	H6	H7	L1	L2	L3	L4	L5	L6	L7	B1	B2	B3	B4	B5	B6
P-04	8 ^m .474	6 ^m .814	6 ^m .294	6 ^m .694	5 600	4 600	1 400	6 120	4 600	1 220	520	11 ^m .00	0	1 150	3 x 1 200 = 3 600	6 650	410	5 900	200	200	500	1 500	810	400
P-37	10 ^m .554	8 ^m .694	7 ^m .424	6 ^m .724	6 700	5 700	2 350	8 170	5 700	2 170	1 470	8 ^m .70	7 ^m .00	2 020	2 000	7 372	410	5 890	150	350	450	1 600	910	500

GENERAL VIEW OF P - 04 & 37

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

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

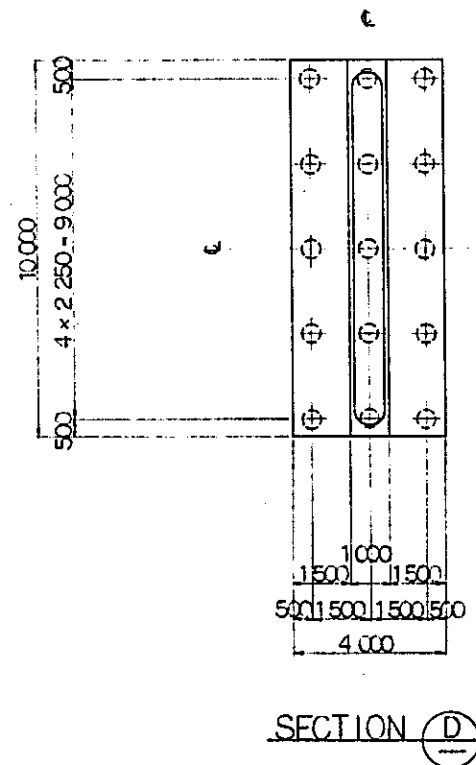
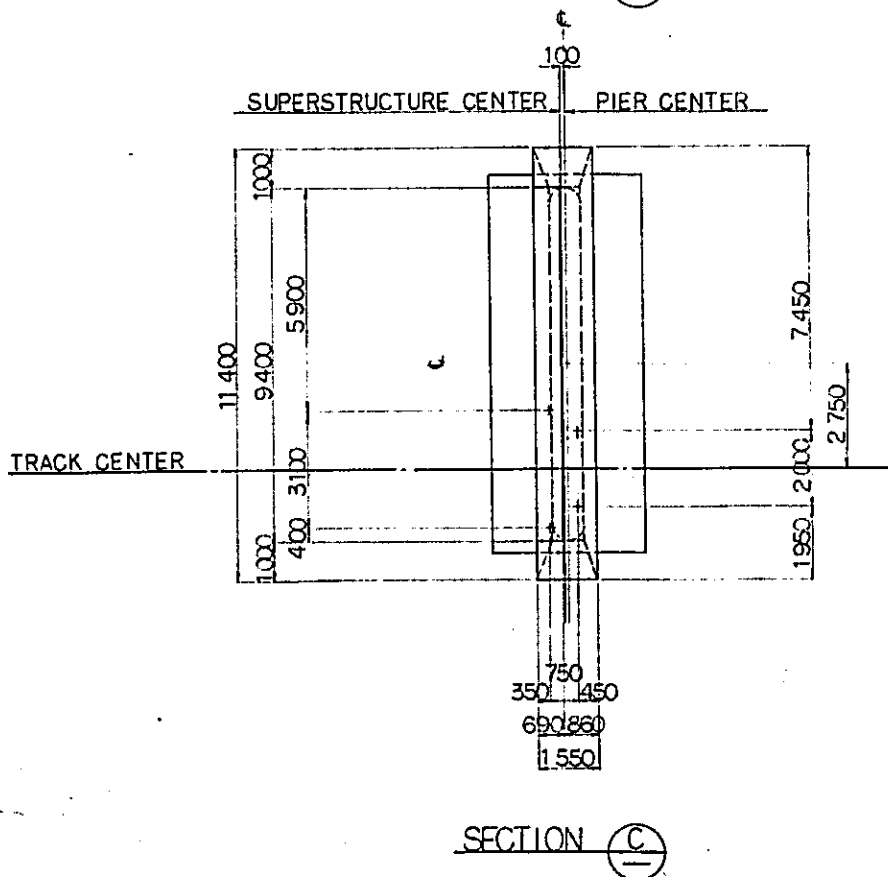
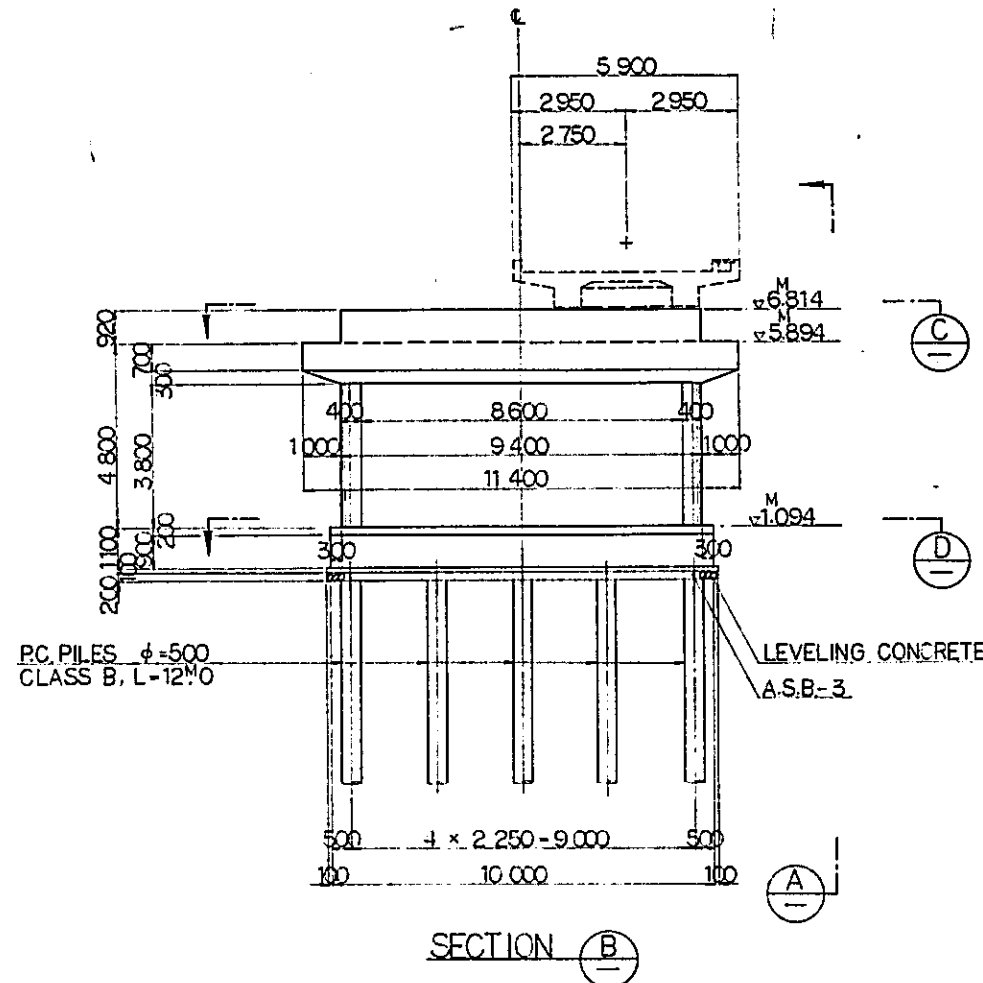
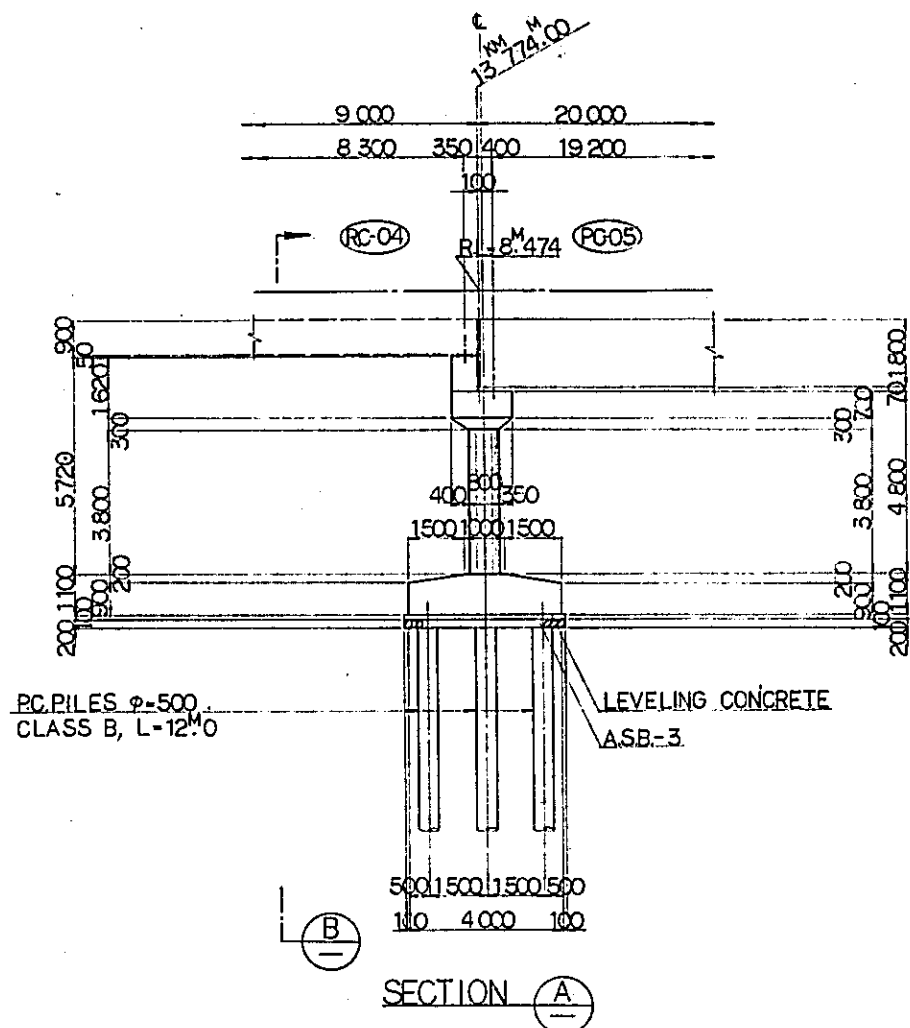
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1AUG.84	SS	my	K.A	K.H	m.k
A	15FEB.84	SS	my	K.A	K.H	m.k

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

PIER P04, P37
 GENERAL VIEW

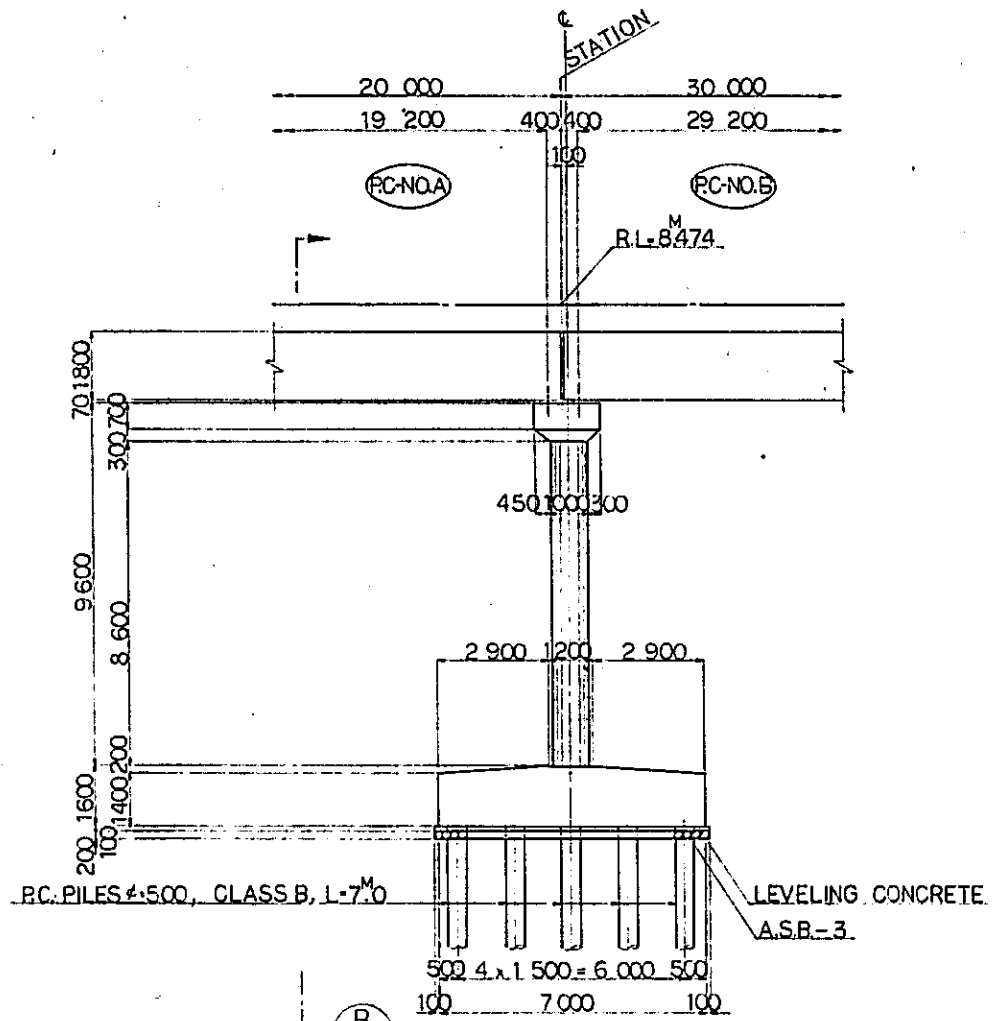
PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: 1:100
 DRAWING NO: CS-077



GENERAL VIEW OF P-05.

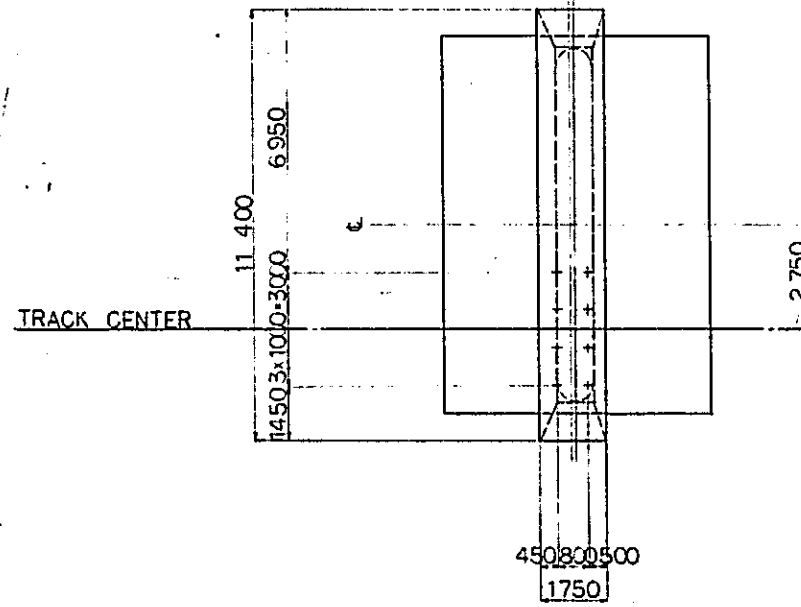
- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-086.CS-087.

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	m.y.	K.M	K.M
A	15 FEB 84	SS	m.y.	K.M	K.M
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	APPROVED
PIER P05 GENERAL VIEW					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:100	DRAWING NO: CS-078				

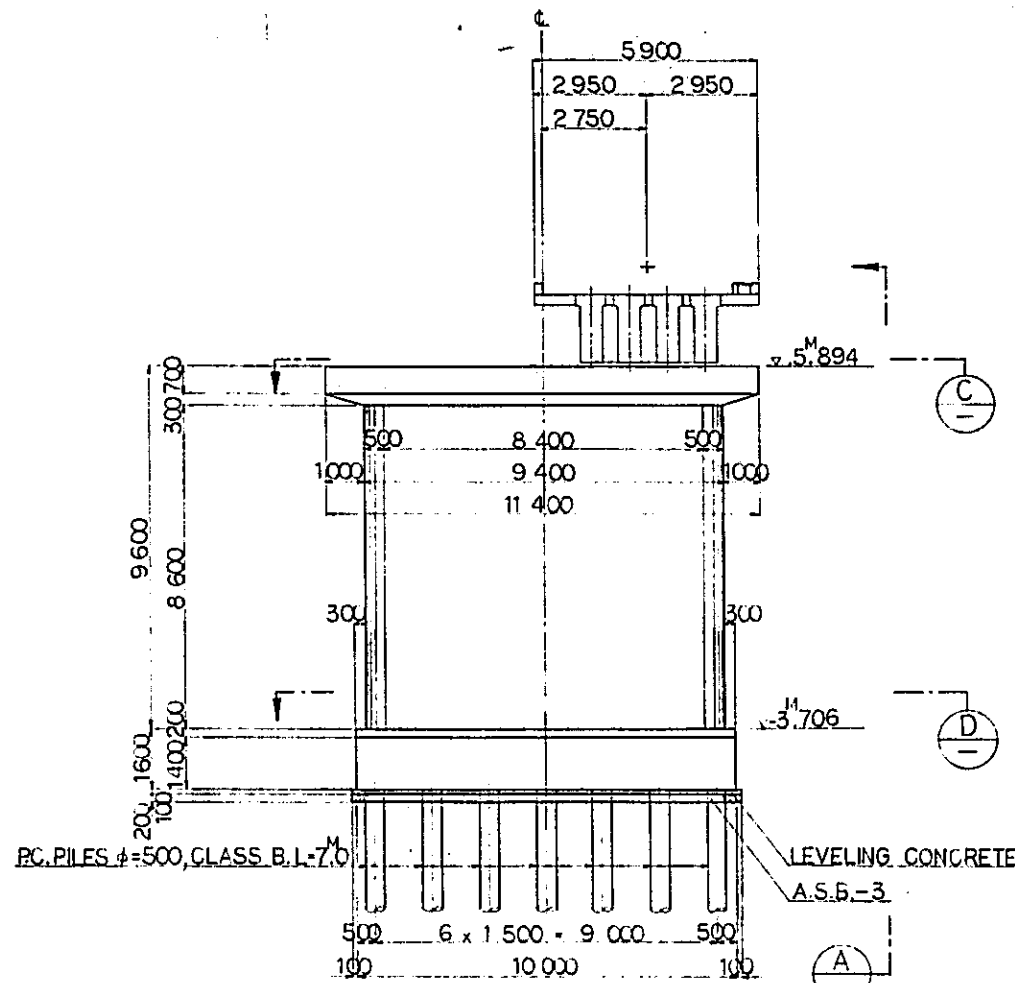


SECTION A

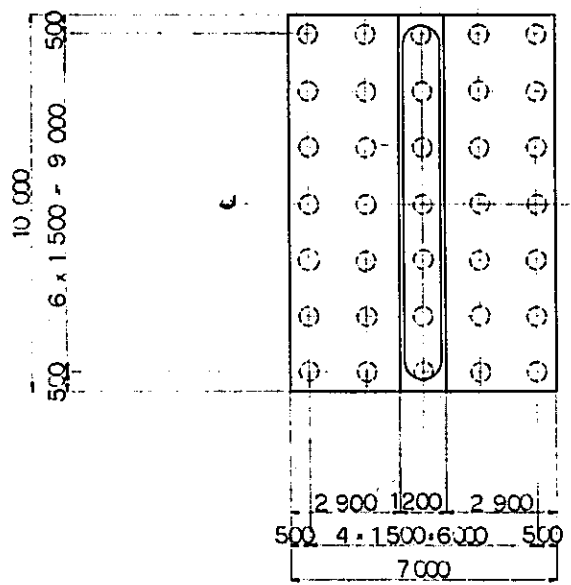
SUPERSTRUCTURE CENTER | PIER CENTER



SECTION C



SECTION B



SECTION D

GENERAL VIEW OF P.06 & 07

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS-080.CS-081. CS-082.

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-16
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION: $K=0.1$ IN VERTICAL DIRECTION: $K=0$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS: 180 kg/cm ²
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS: 80 kg/cm ²
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

PIER NO	STATION	PC-NO.A	PC-NO.B
P-06	13+794.00	05	06
P-07	13+824.00	07	06

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

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

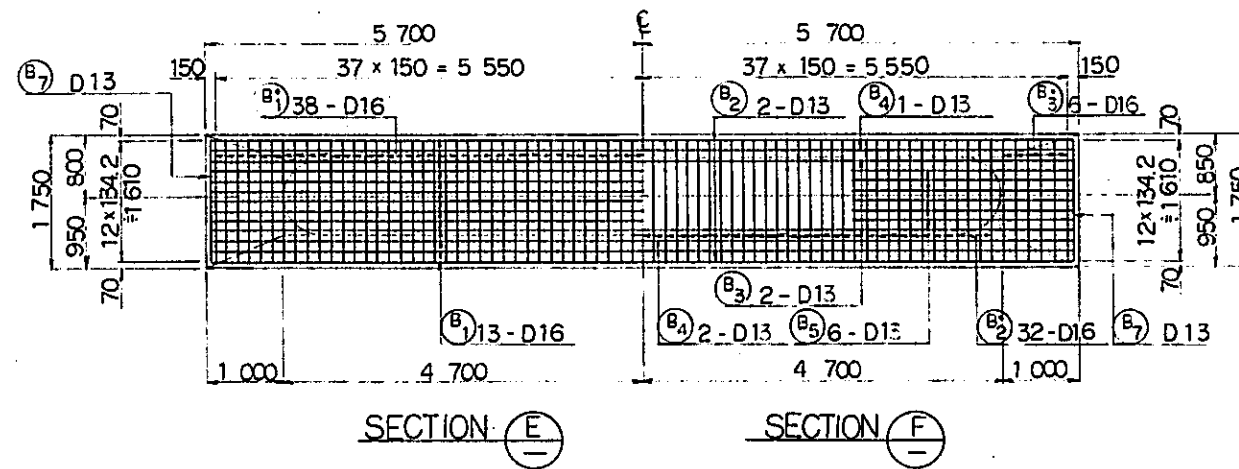
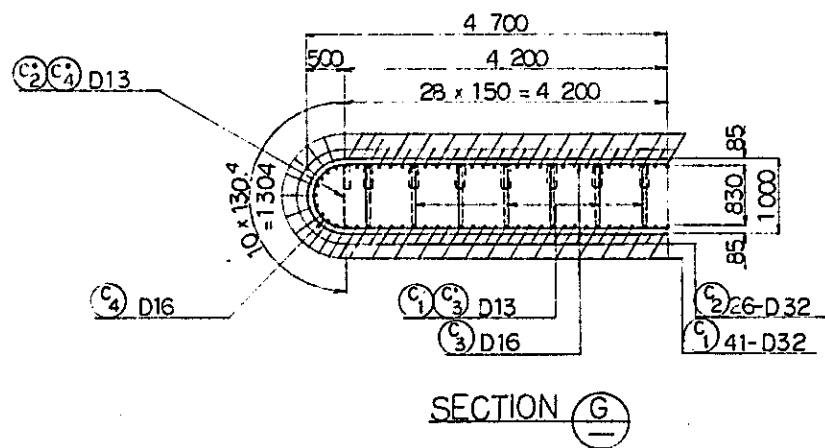
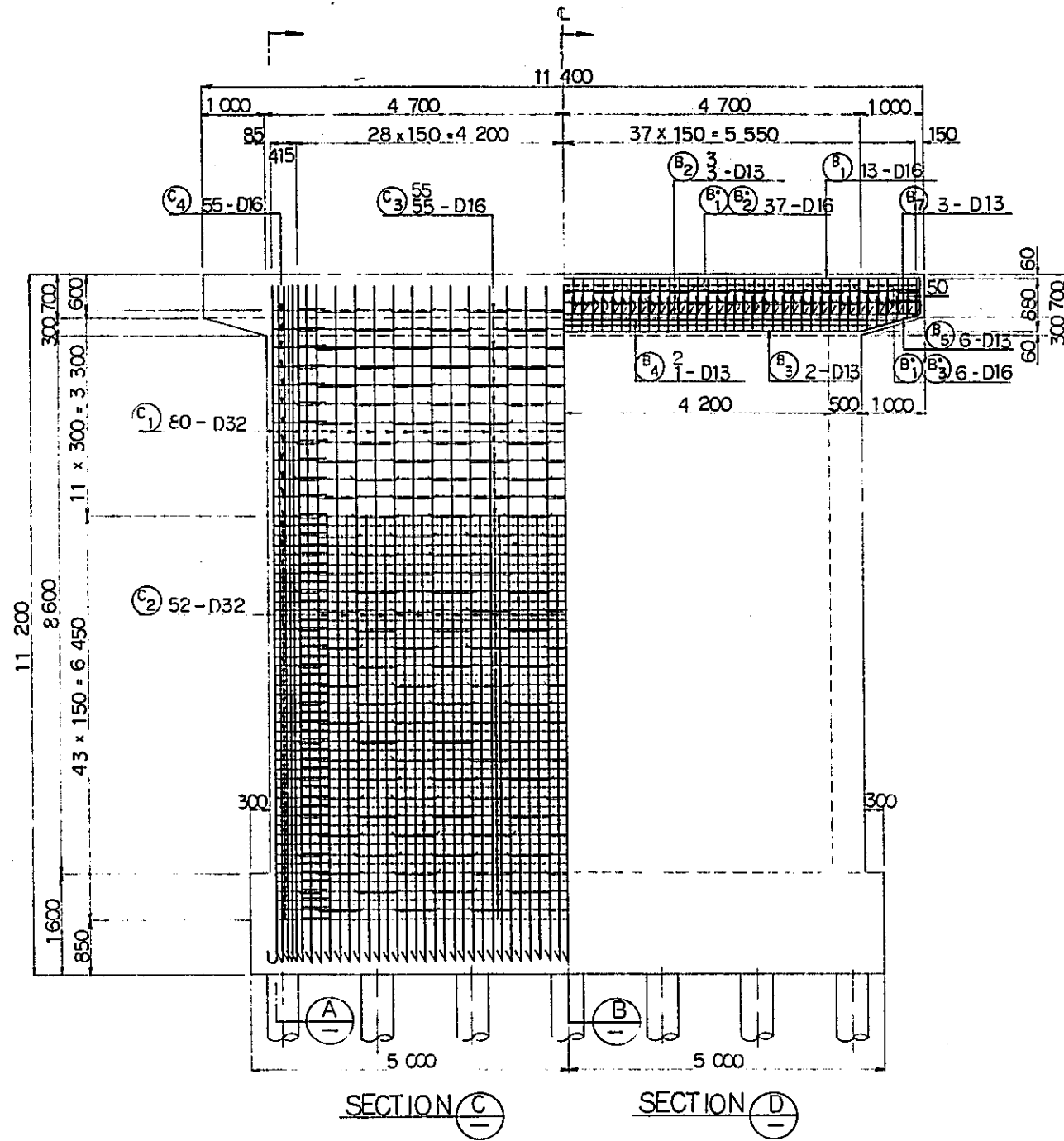
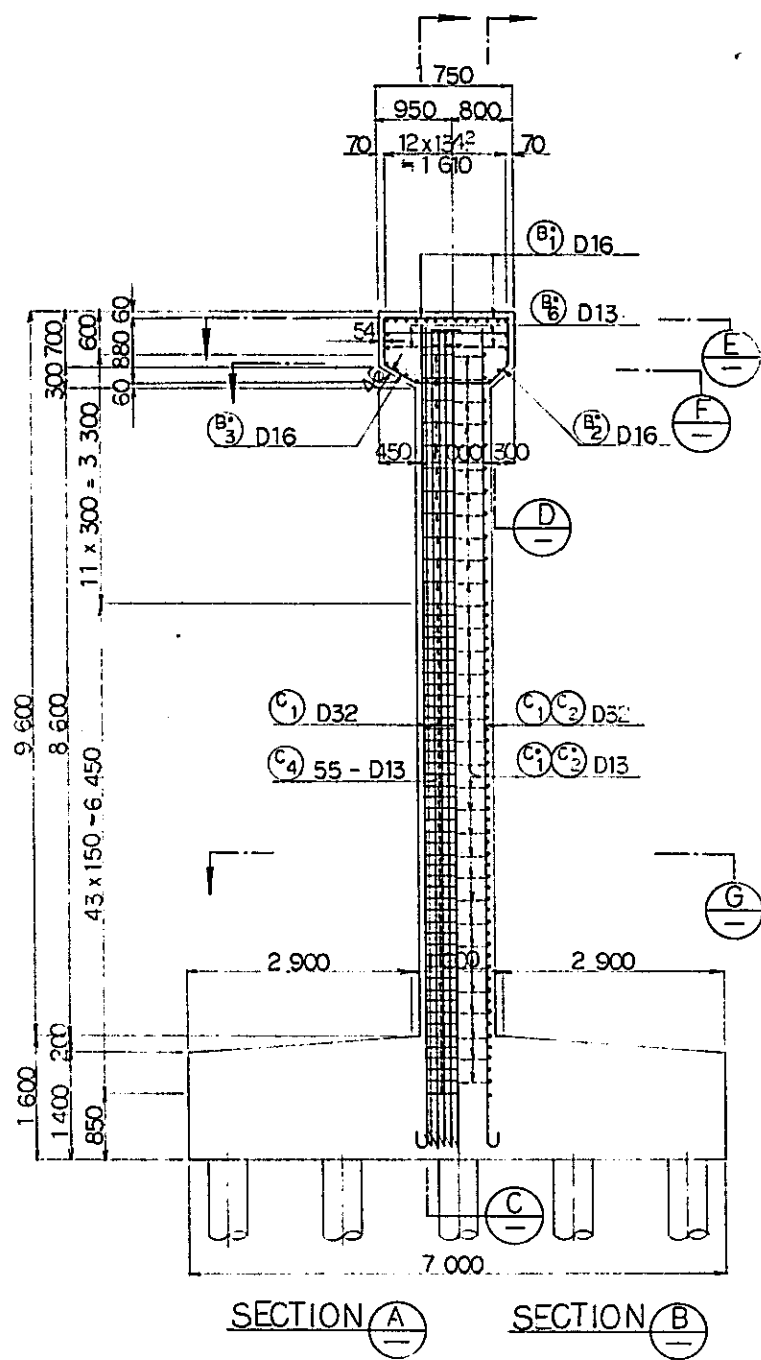
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1 AUG. 84	SS	MY	KA	KM	KA
A	15 FEB. 84	SS	MY	KA	KM	KA

PIER P06, P07
 GENERAL VIEW

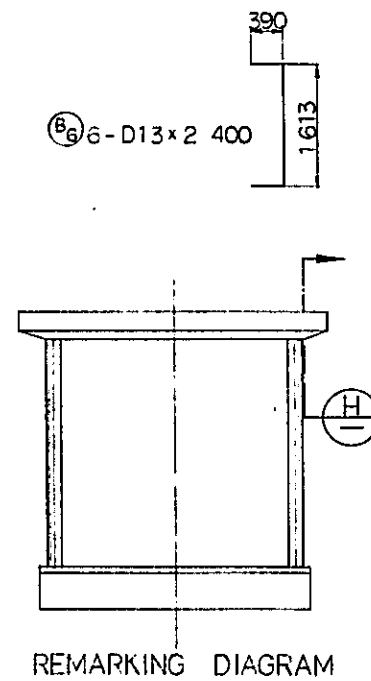
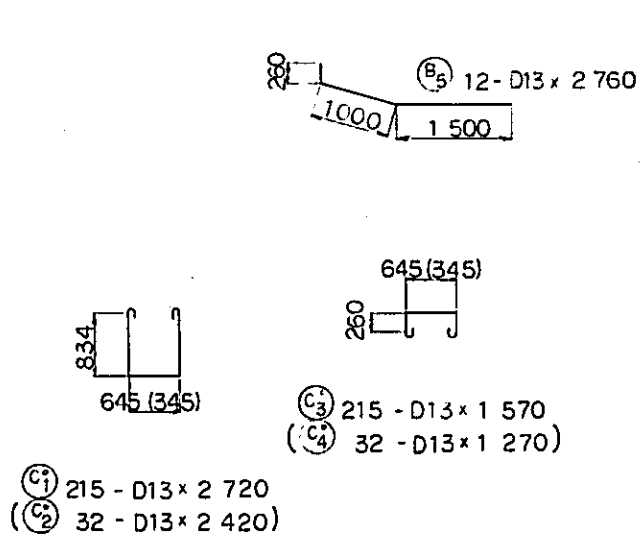
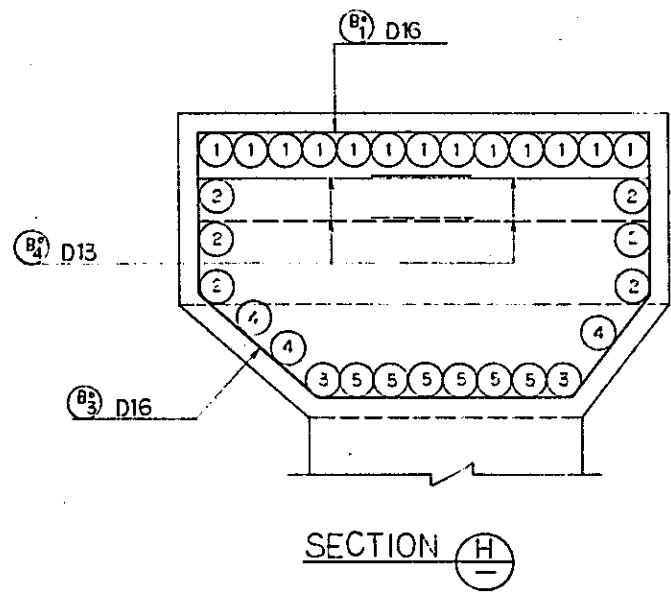
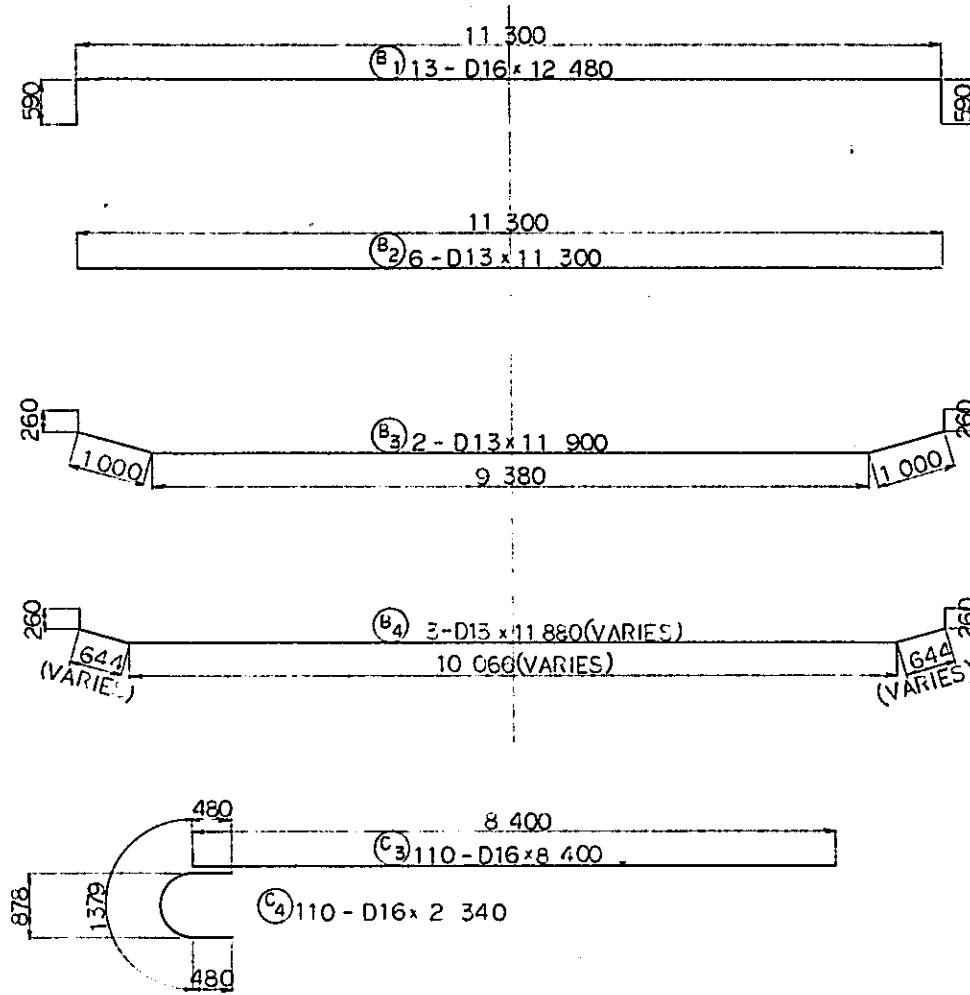
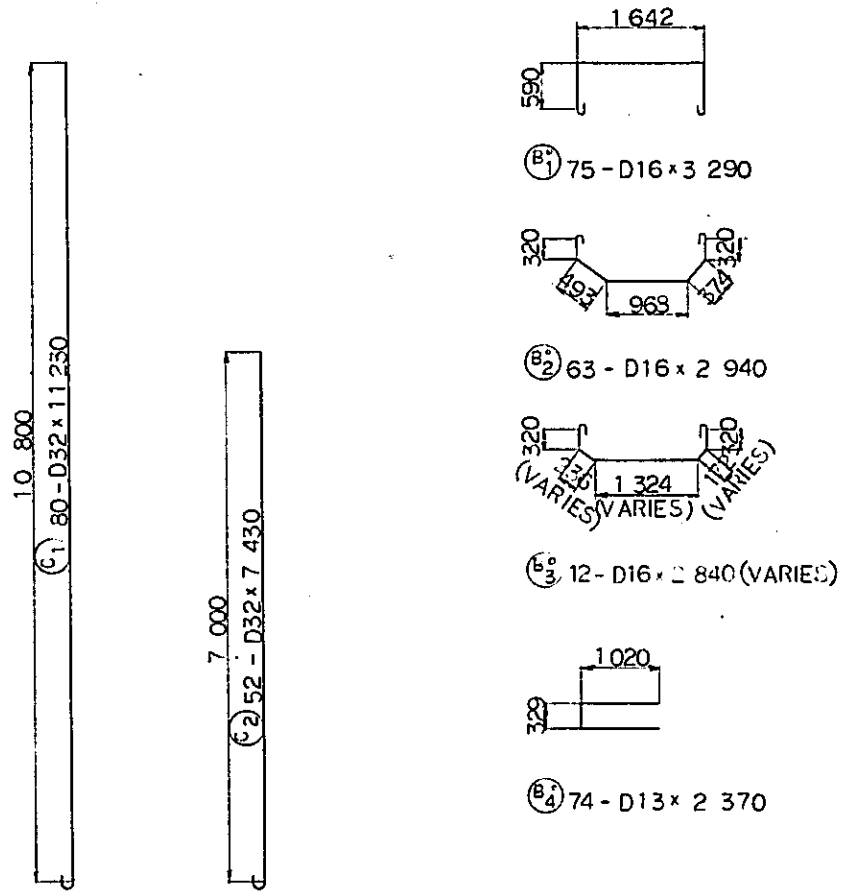
PACKAGE: CIVIL AND ARCHITECTURAL WORK

SCALE: 1:100
 DRAWING NO: CS-079



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS079

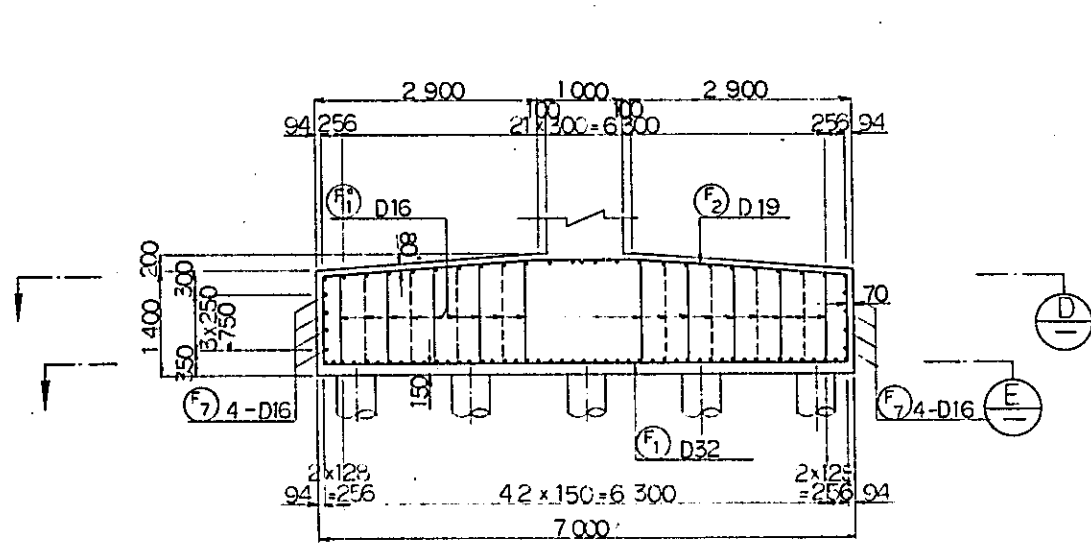
REPUBLIC OF INDONESIA					
MINISTRY OF COMMUNICATIONS					
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1AUG'84	SS	MY	K.S.	K.M.
A	15FEB'84	SS	MY	K.S.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	SUBMITTED
PIER P06 BAR ARRANGEMENT (SHEET 1 OF 3)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:50	CS-080				



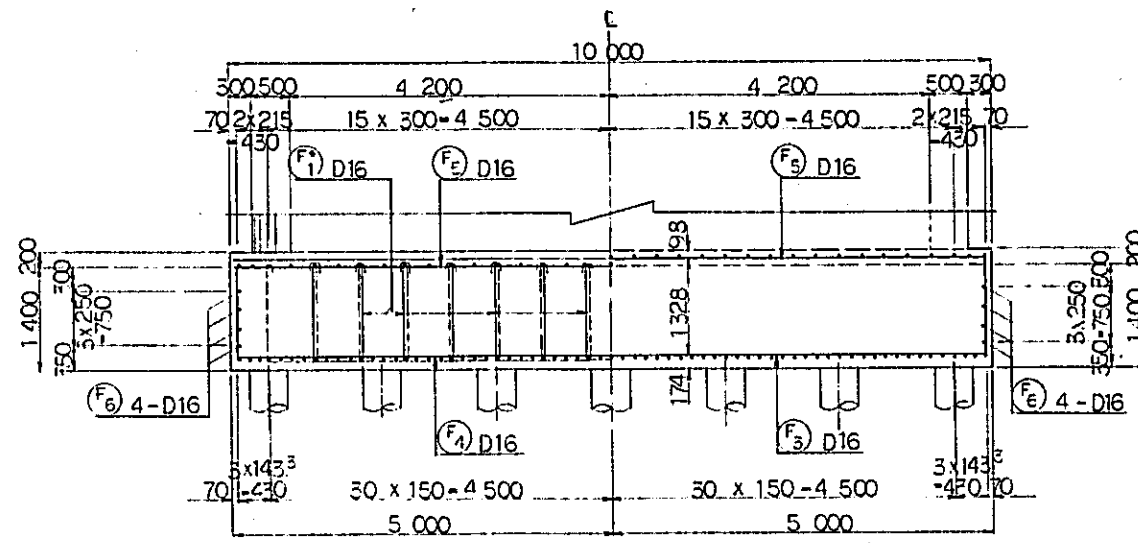
NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW : CS-079

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	m.y	K.A	K.M	L.L
A	15FEB.84	SS	m.y	K.A	K.M	M.K
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
PIER P06 BAR ARRANGEMENT (SHEET 2 OF 3)						
PACKAGE: I: CIVIL AND ARCHITECTURAL WORK						
SCALE	1:50	DRAWING NO.	CS-081			

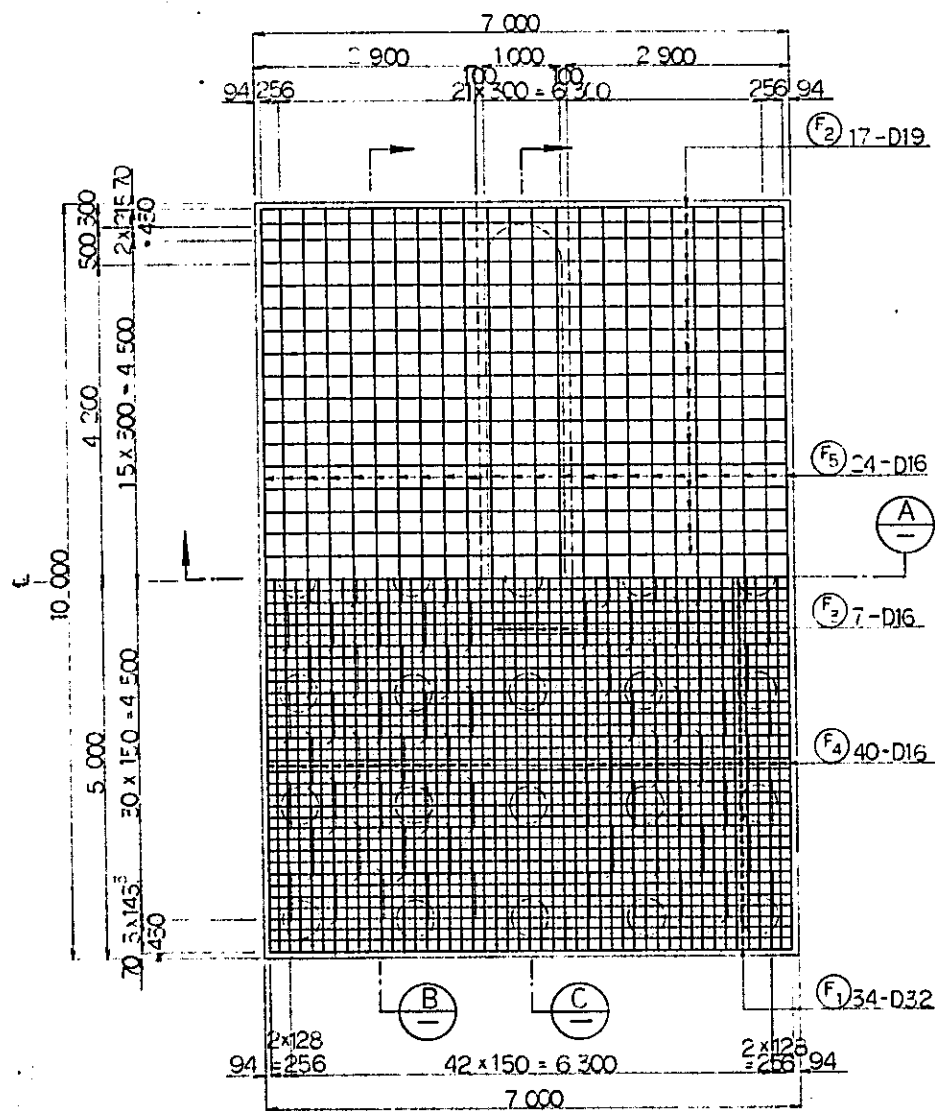


SECTION A



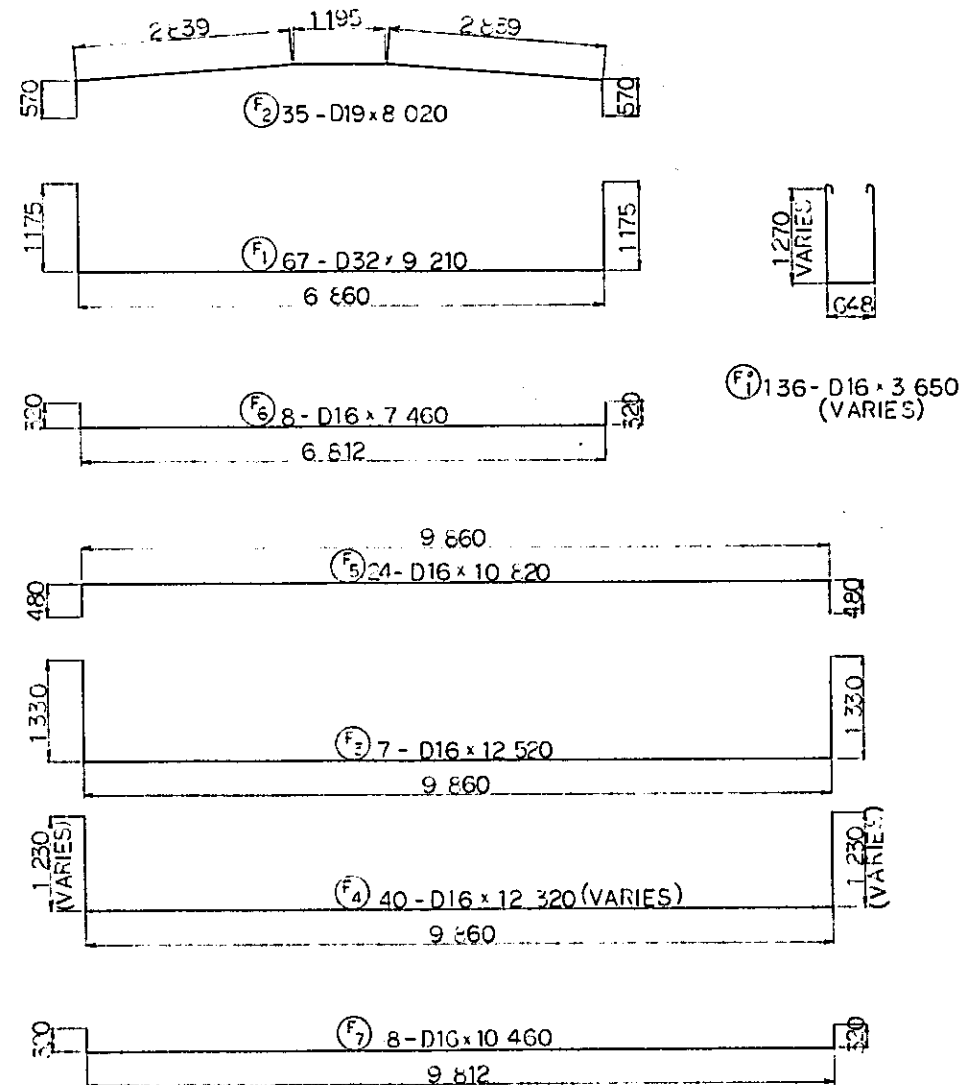
SECTION B

SECTION C



SECTION D

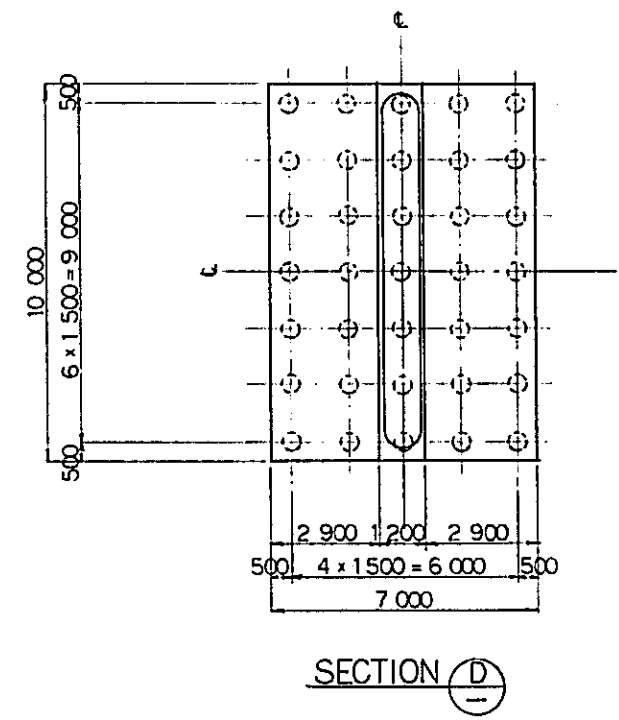
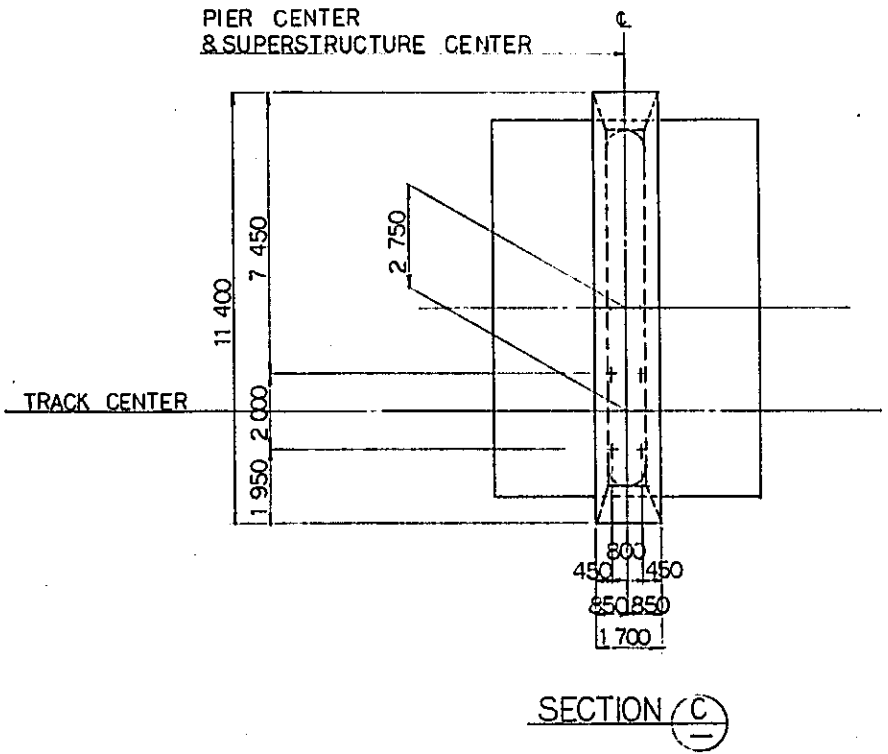
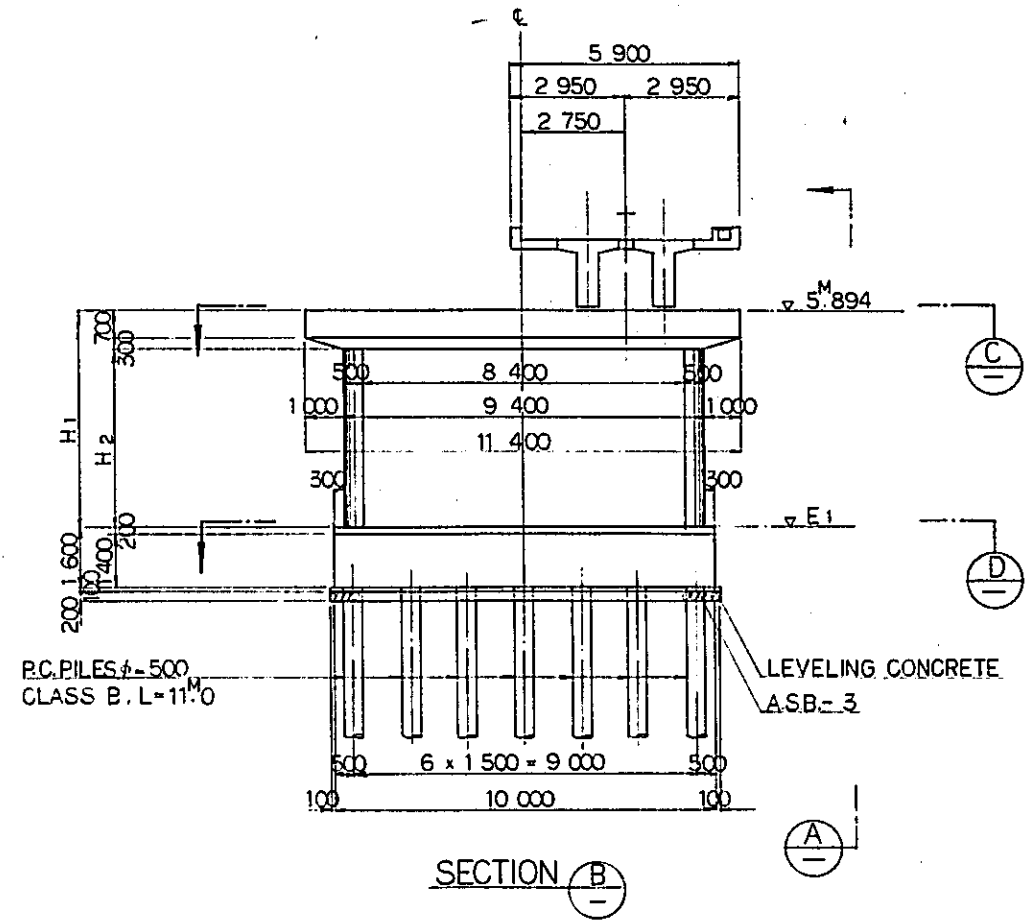
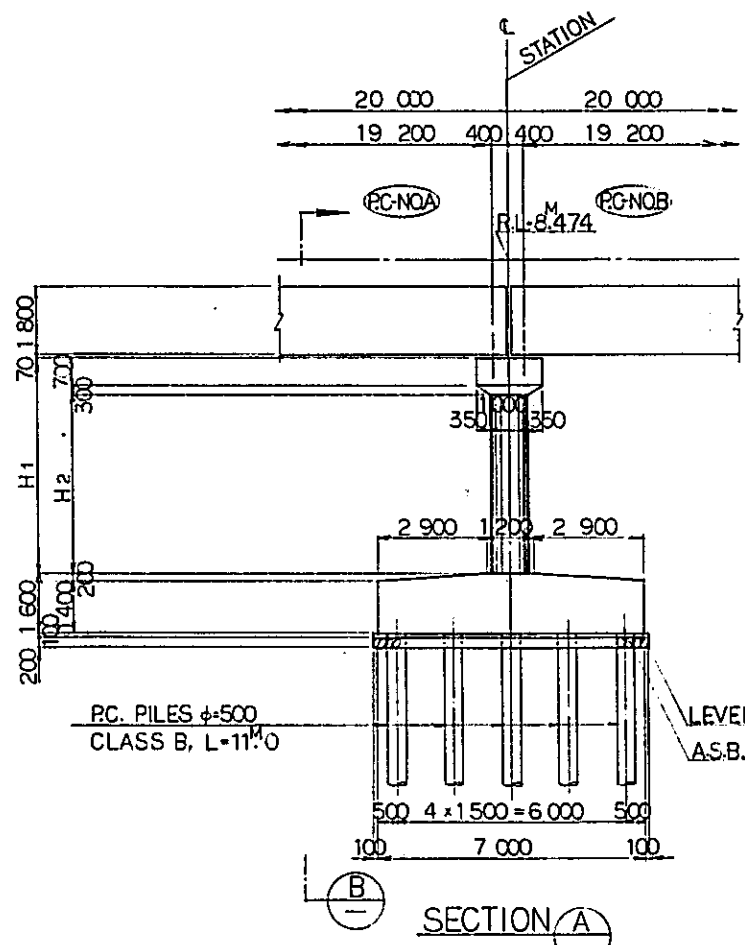
SECTION E



NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW: CS079

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	25	m.y.	K.S.	K.M.	M.H.
A	15 FEB. 84	25	m.y.	K.S.	K.M.	M.H.
REVISIONS	DATE	ISSUED	BY	CHECKED	REVIEWED	SUBMITTED
PIER P06 BAR ARRANGEMENT (SHEET 3 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:50	CS-082					



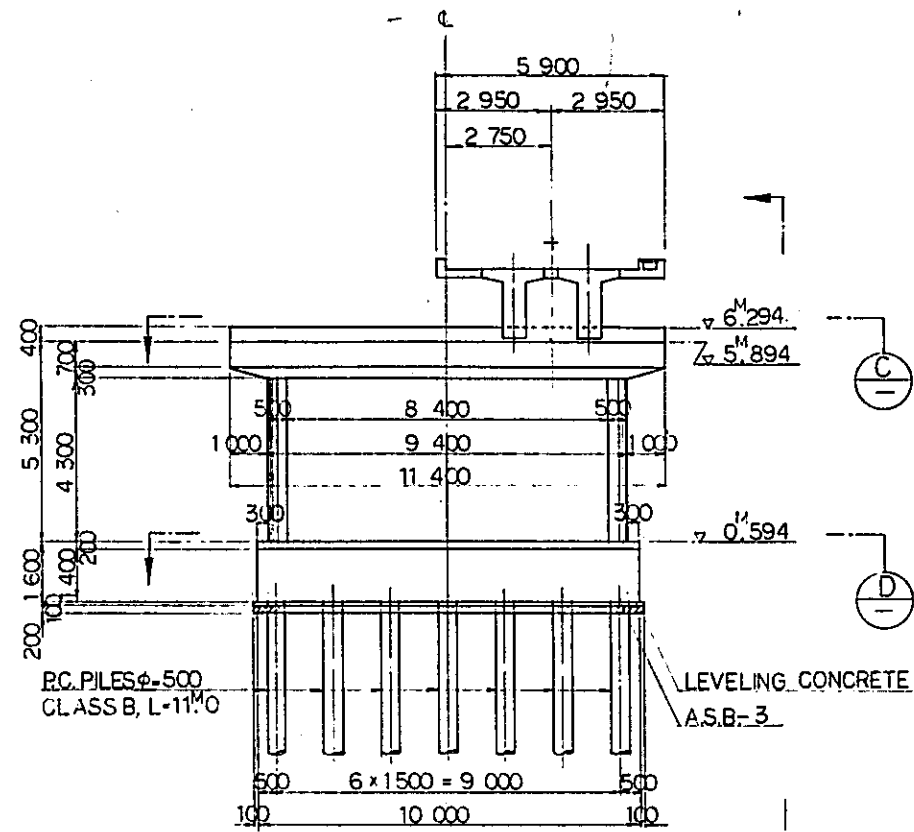
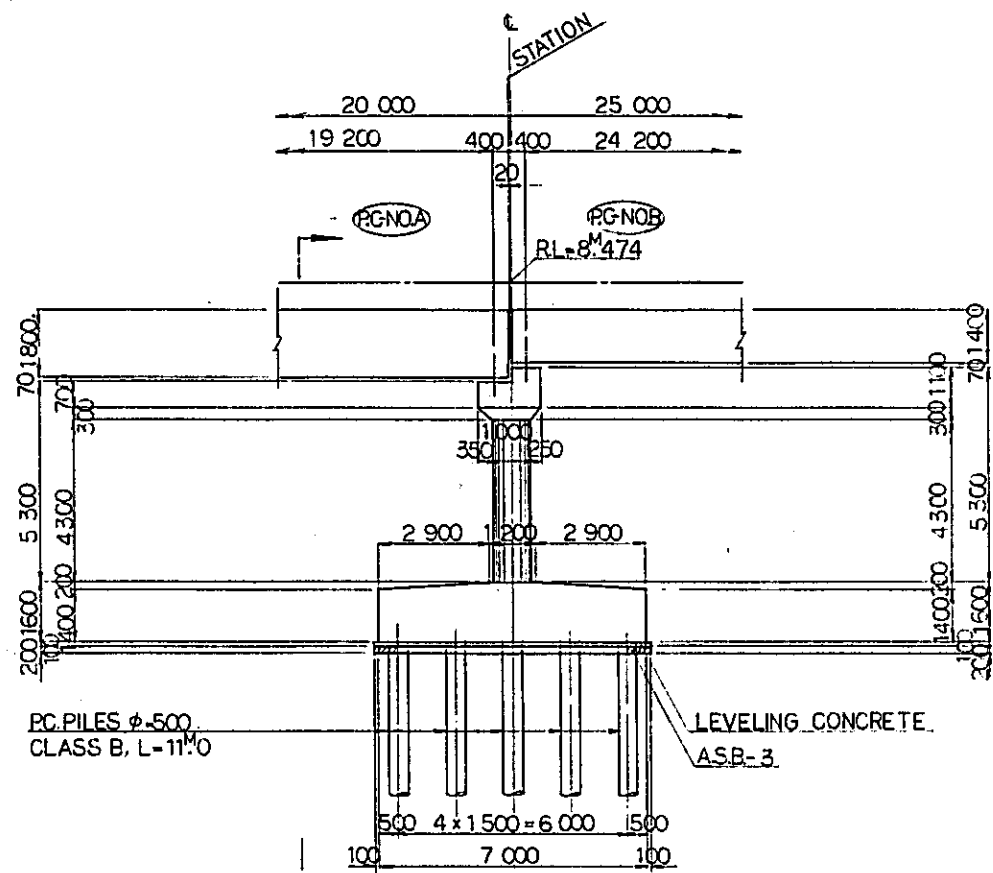
- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS104, CS105

DIMENSION SCHEDULE

PIER NO.	STATION	ALINEMENT	PC-NOA	PC-NOB	E ₁	H ₁	H ₂
P-08	13+844.00	TRANSITION	07	08	0.194	5 700	4 700
P-09	13+864.00	TRANSITION	08	09	0.594	5 300	4 300

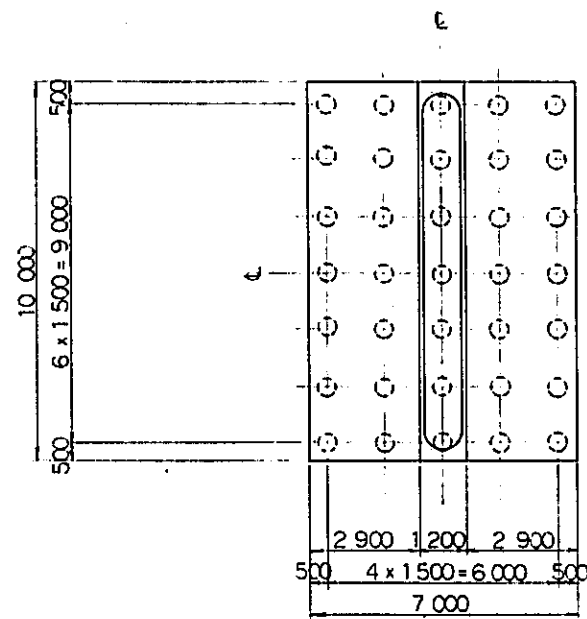
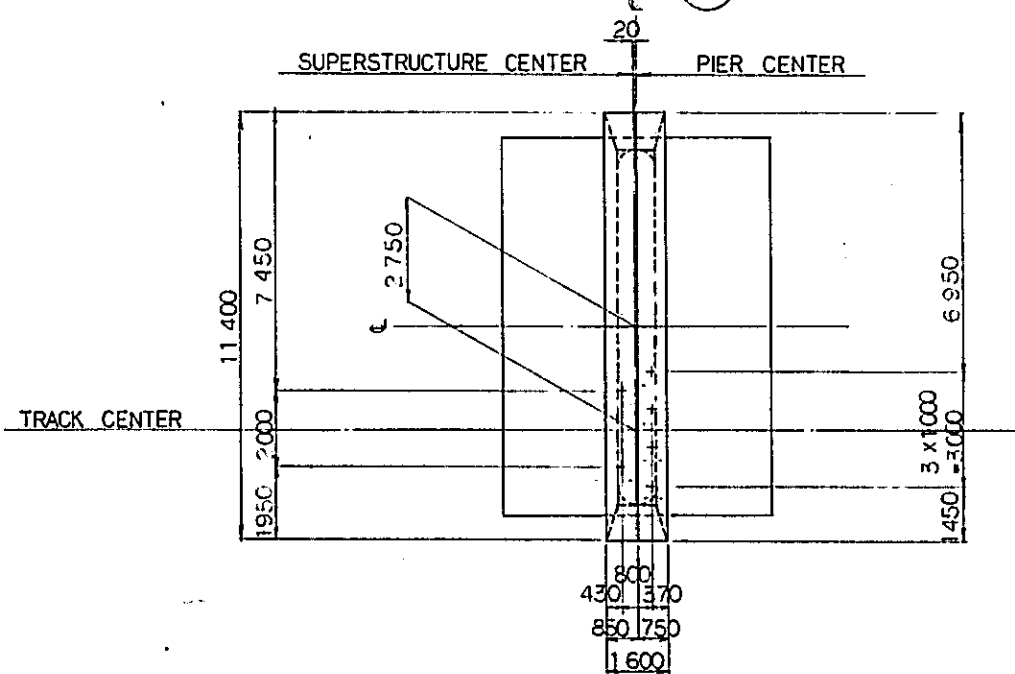
GENERAL VIEW OF P - 08 & 09

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.
A	15 FEB. 84	S.S.	m.y.	K.R.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
PIER P08, P09 GENERAL VIEW					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE:	DRAWING NO. CS-083				
1:100					



NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS-104.CS-105.



SECTION (C)

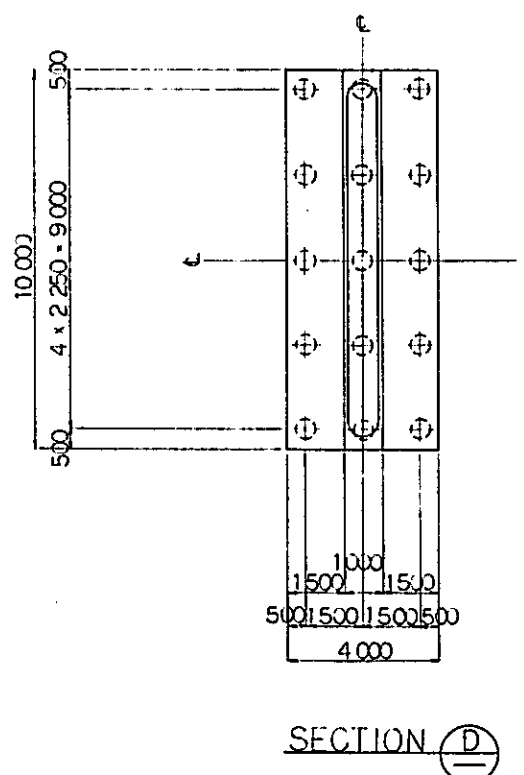
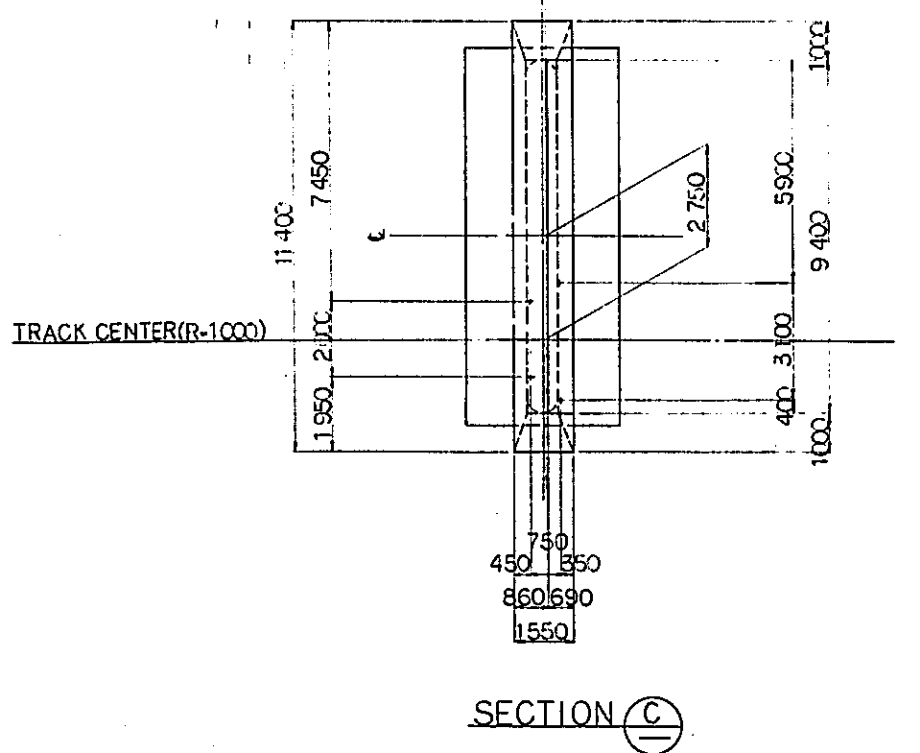
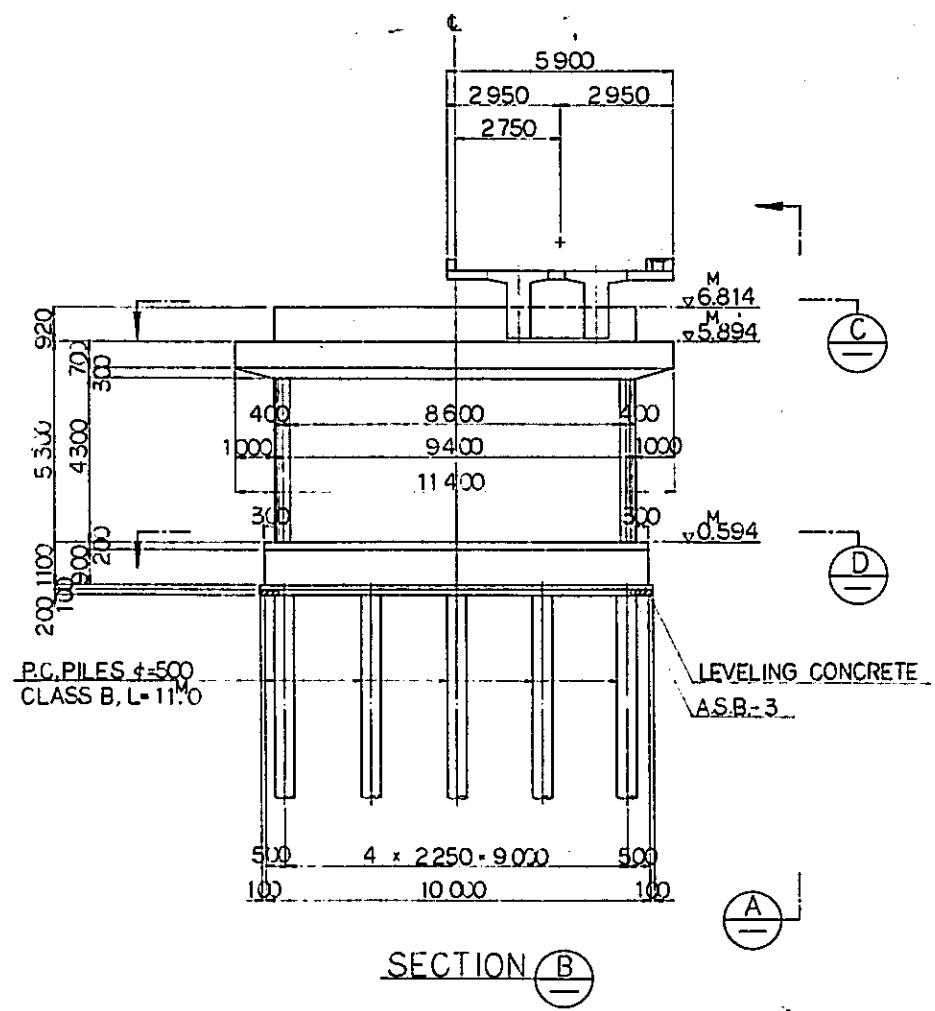
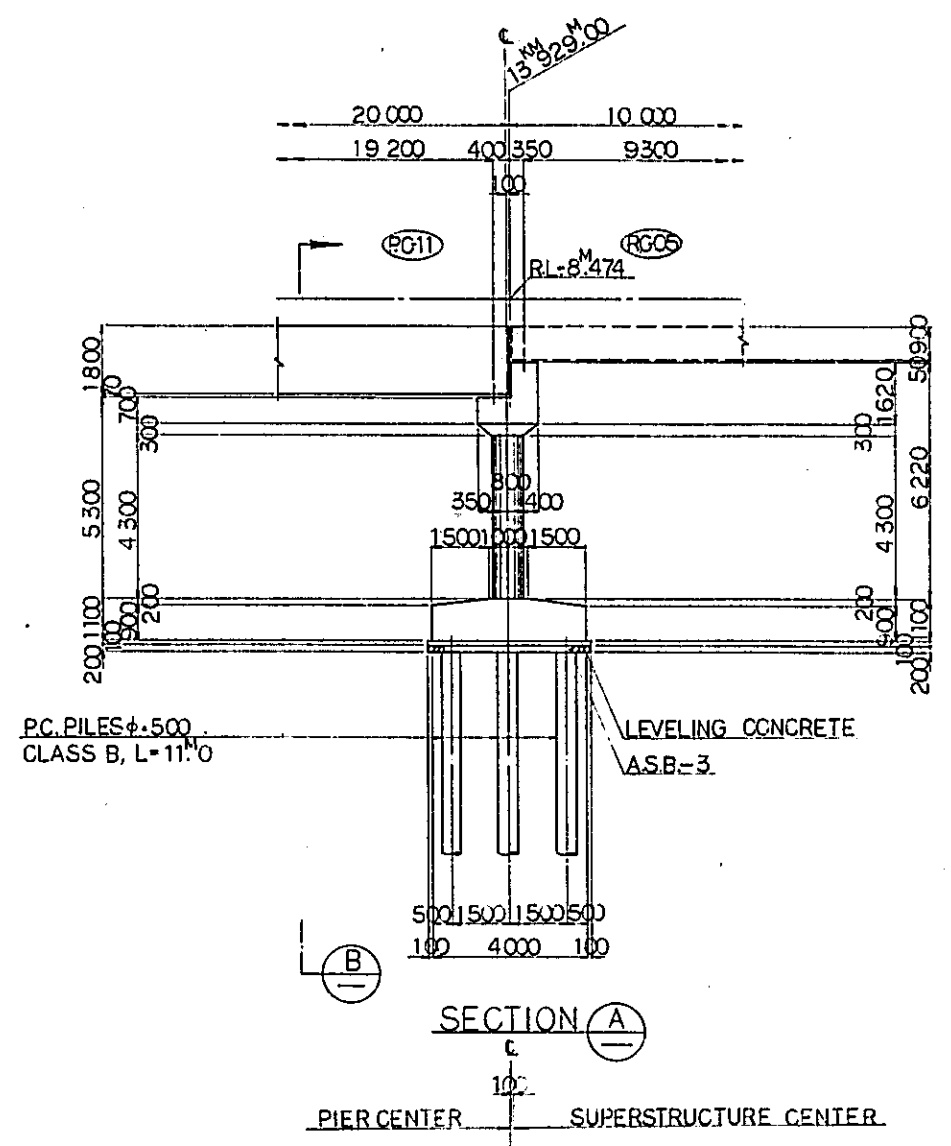
SECTION (D)

DIMENSION SCHEDULE

PIER NO.	STATION	PC-NOA	PC-NOB	ALINEMENT
P-10	13+884.00	09	10	TRANSITION
P-11	13+909.00	11	10	CURVED R-1000

GENERAL VIEW OF P - 10 & 11

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
A	15 FEB '84	S.S	m.y	K.R	K.M
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
PIER P10, P11 GENERAL VIEW					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:100	CS-084				



GENERAL VIEW OF P-12.

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS086.03-087

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-16
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_h=0.1$ IN VERTICAL DIRECTION $K_h=0$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 18.99 kg/cm ²
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 8.9 kg/cm ²
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

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

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

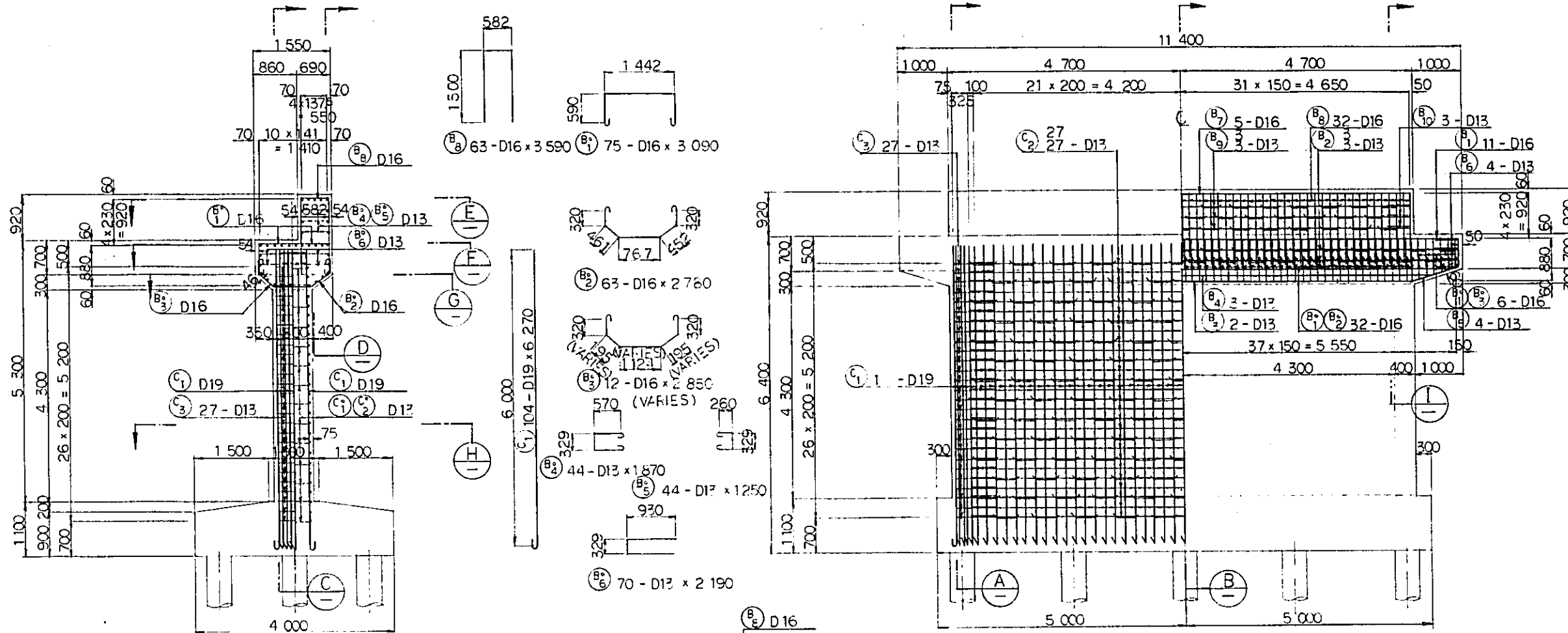
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1 AUG. 84	SS	m.y.	K.L.	K.M.	K.K.
A	15 FEB. 84	CS	m.y.	K.L.	K.M.	K.K.

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
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PIER P12
 GENERAL VIEW

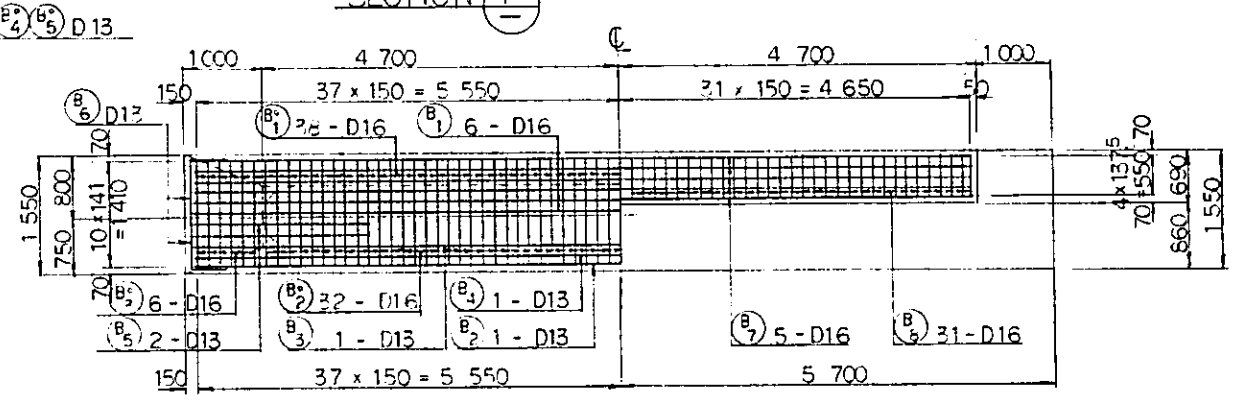
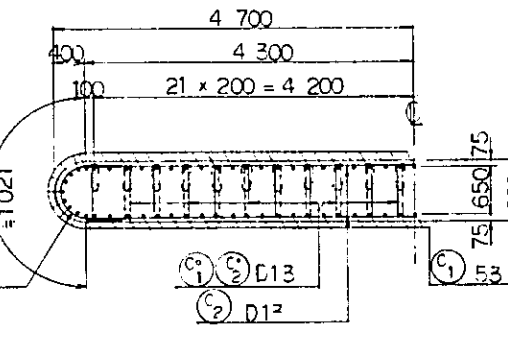
PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: 1:100
 DRAWING NO: CS-085



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-085

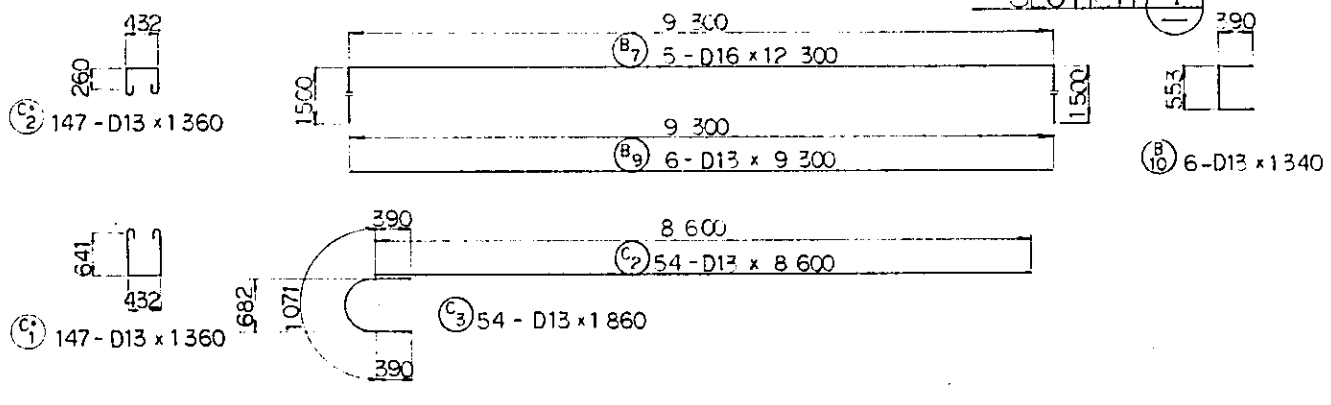
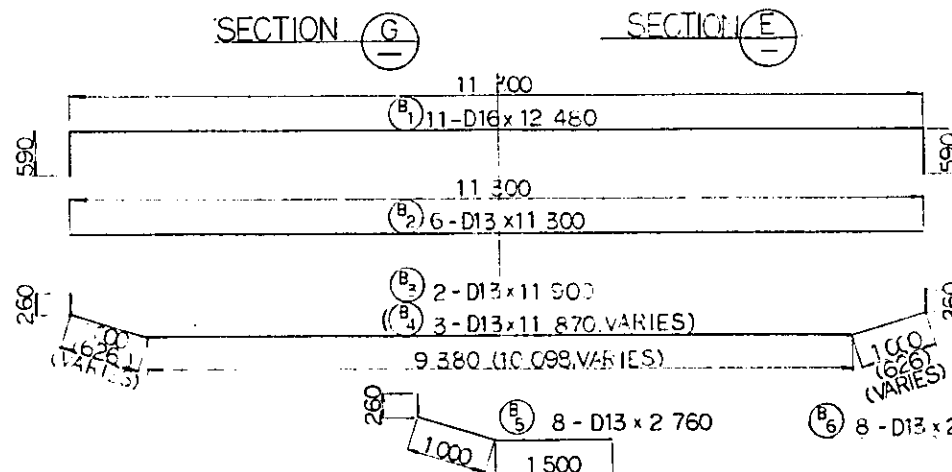
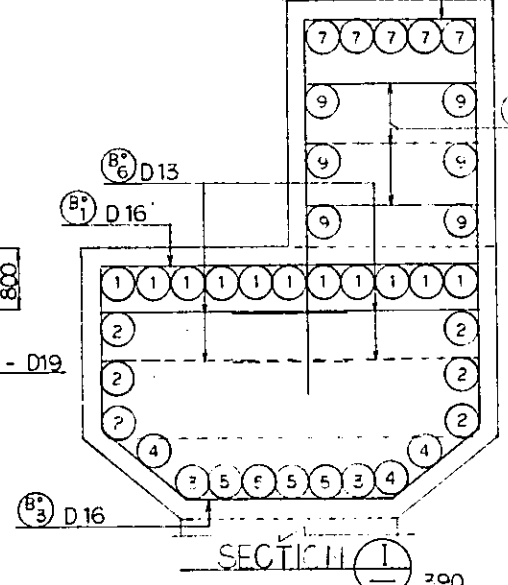
SECTION A SECTION B

SECTION C SECTION D



SECTION H

SECTION G SECTION E



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

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

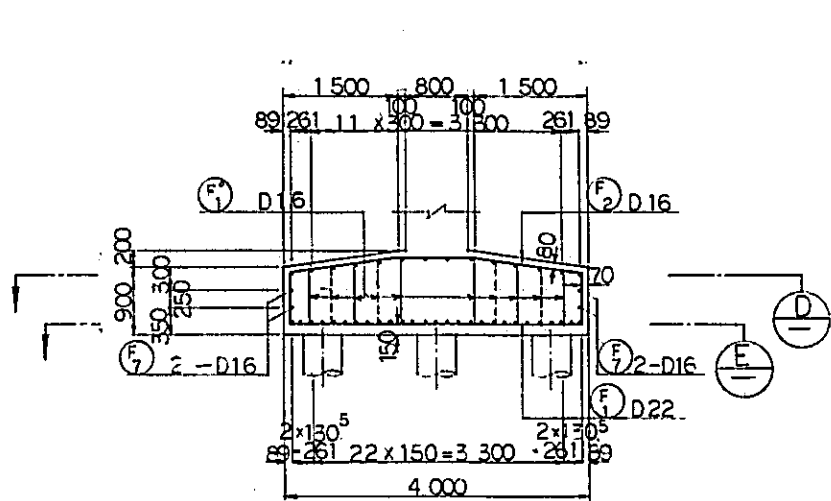
JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

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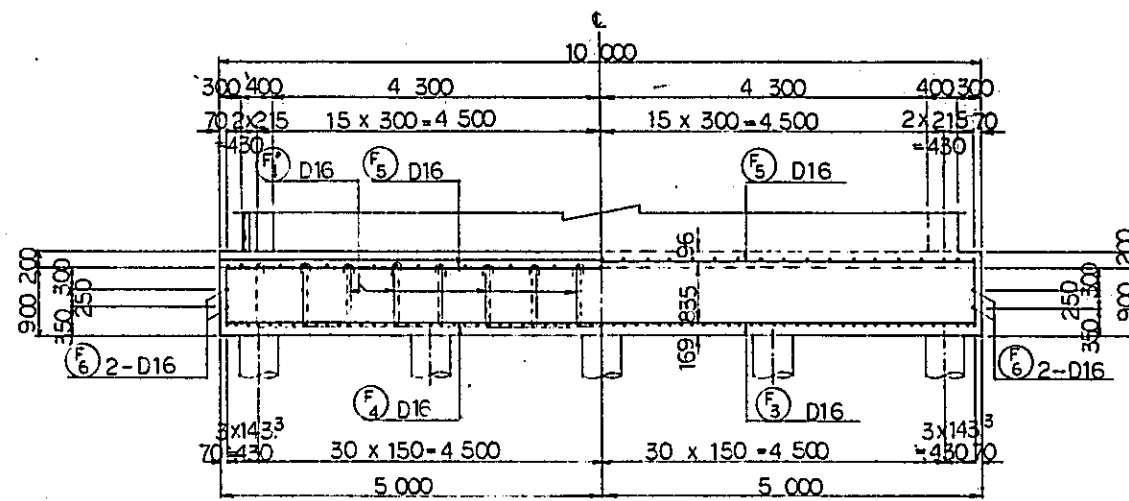
REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWED SUBMITTED

PIER P12
 BAR ARRANGEMENT
 (SHEET 1 OF 2)

PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: 1:50 DRAWING NO.: CS-086

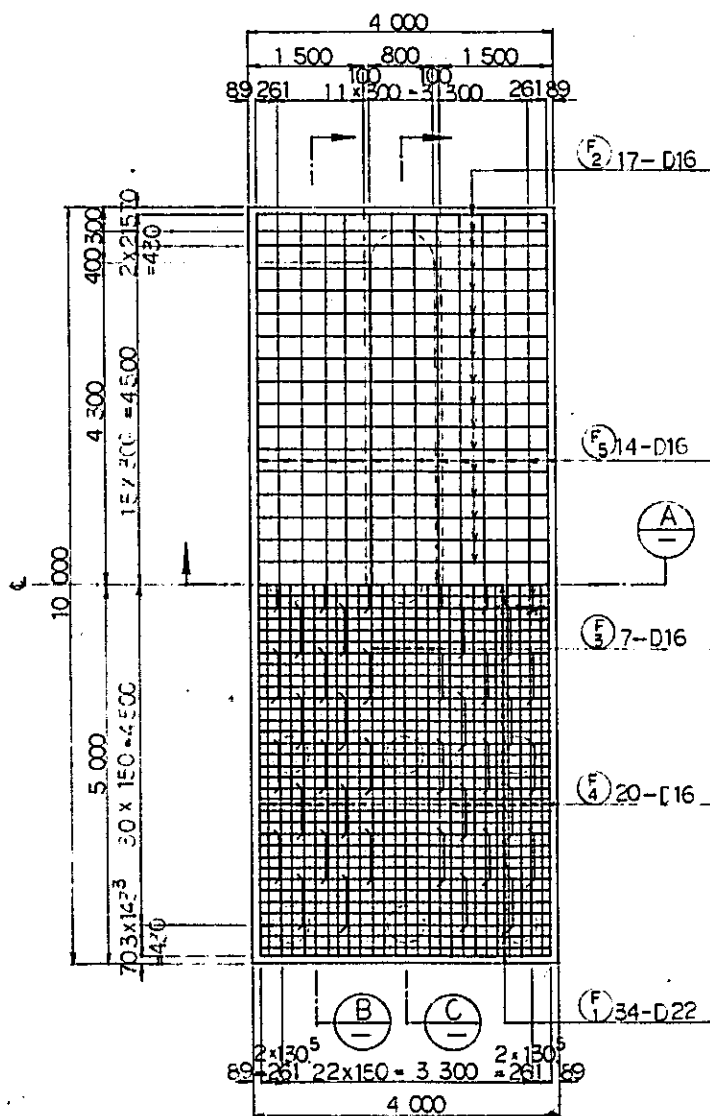


SECTION A



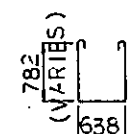
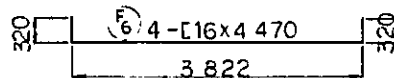
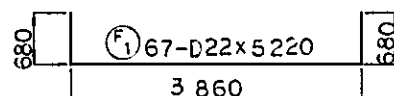
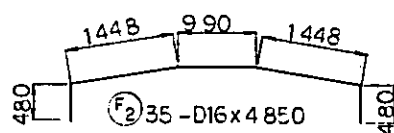
SECTION B

SECTION C

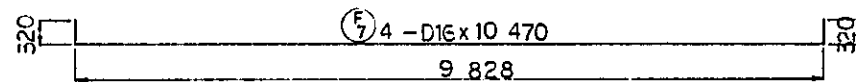
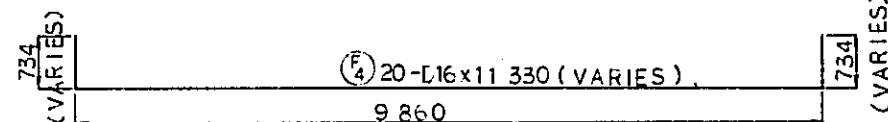
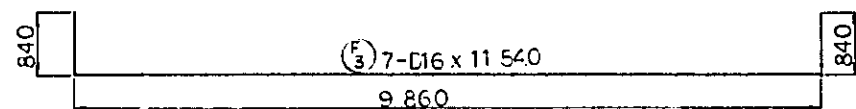
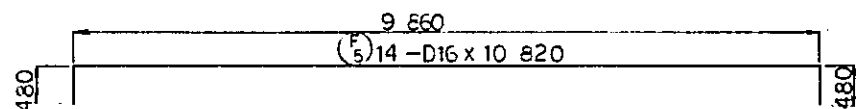


SECTION D

SECTION E



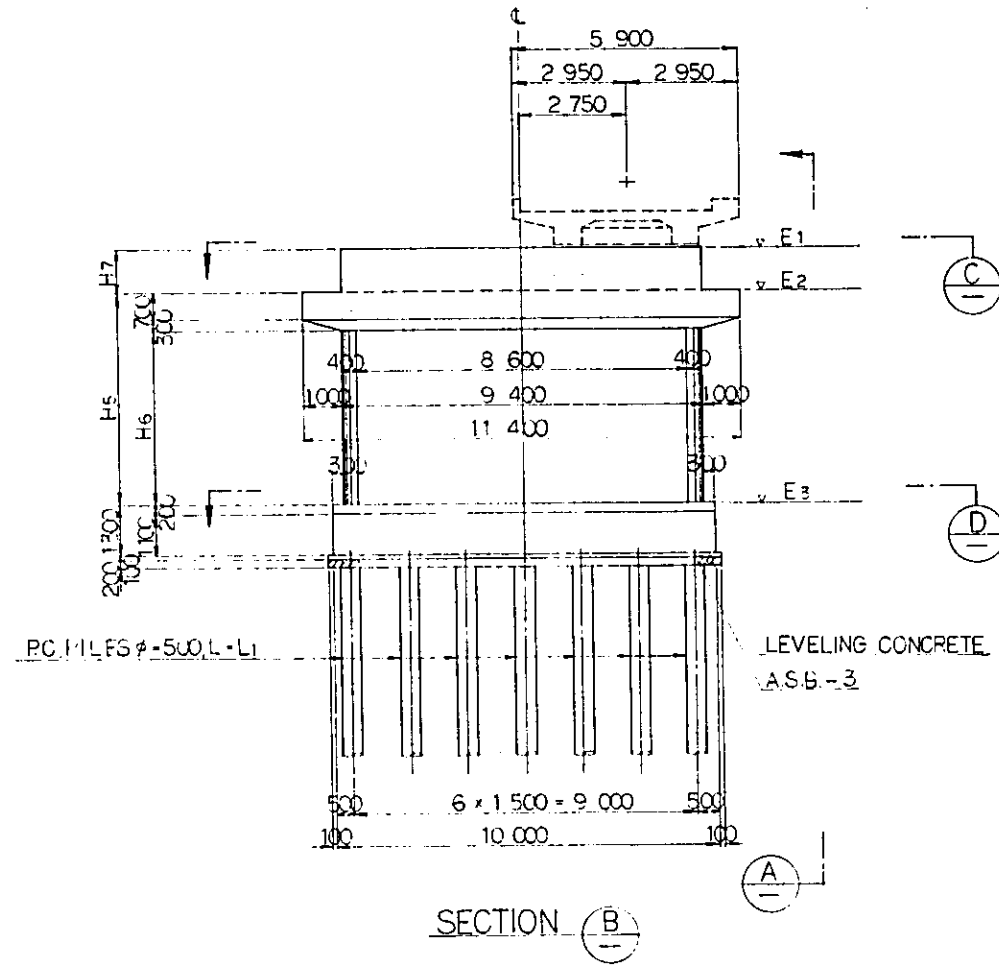
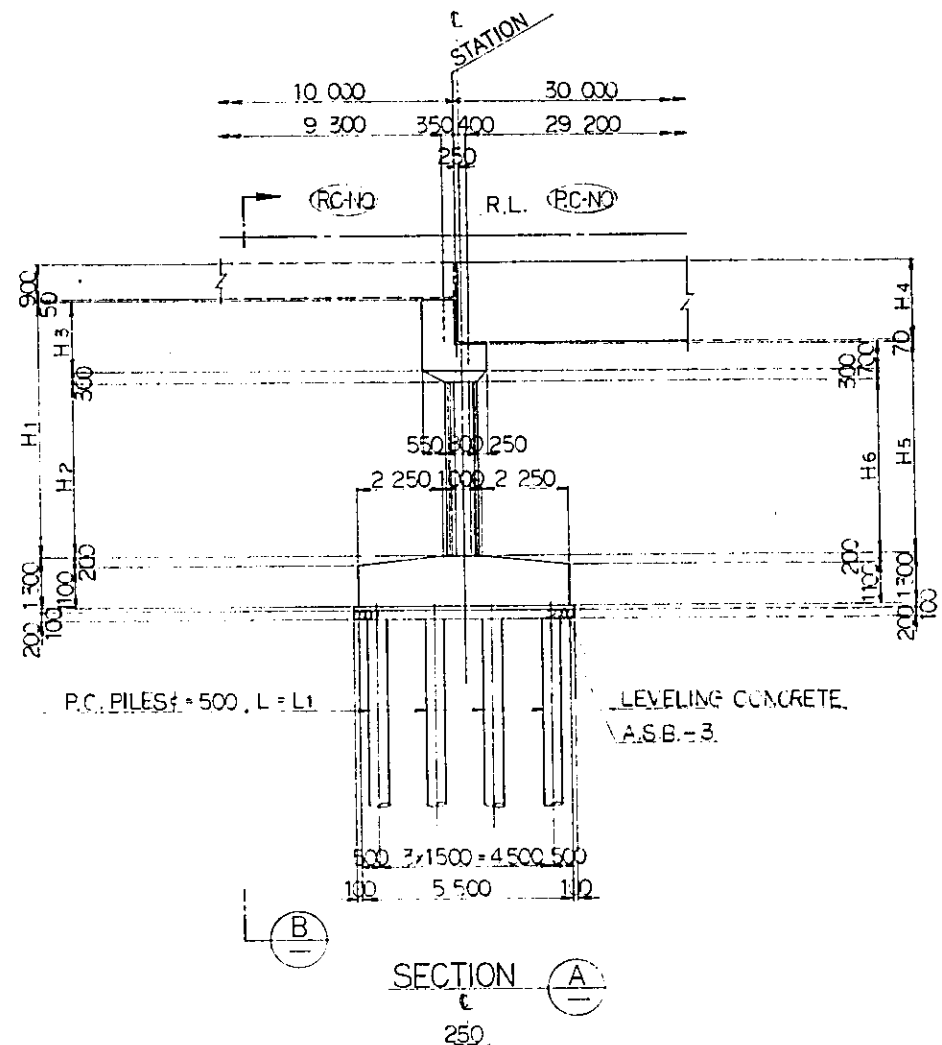
F7 74-D16 x 2,670 (VARIES)



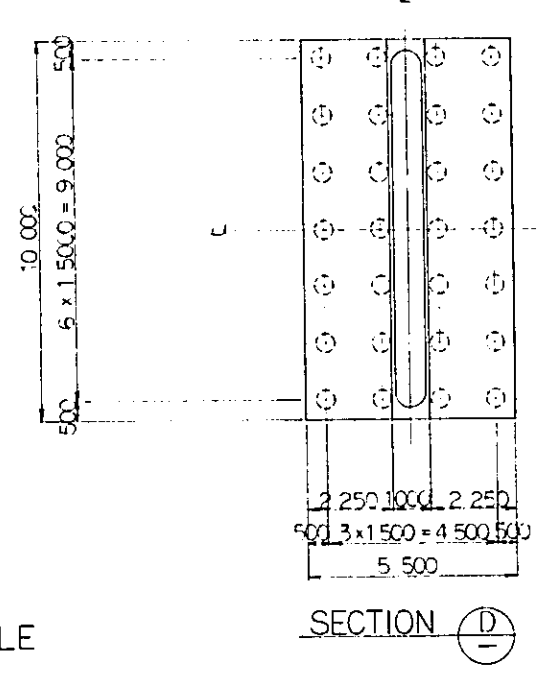
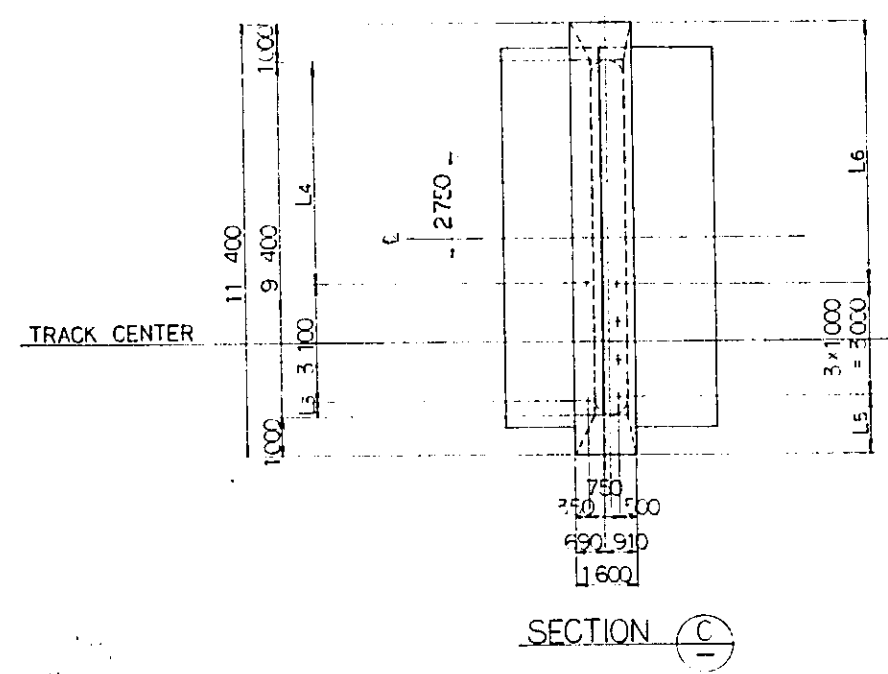
NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW: CS-085

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.g	m.y	K.A.	K.M.
A	15 FEB '84	s.s	m.y	K.A.	K.M.
REVISIONS	DATE	DESIGNED	CHECKED	APPROVED	SUBMITTED
PIER P12 BAR ARRANGEMENT (SHEET 2 OF 2)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:50		DRAWING NO: CS-087			



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-100, CS-101.
 3. TYPES OF RC PILE
 - BOTTOM SURFACE.
 - RC PILE CLASS B
 - RC PILE CLASS A



PIER NO.	STATION	ALIGNMENT	RC NO.	PC NO.	R.L.	E1	E2	E3	H1	H2	H3	H4	H5	H6	H7	L1	L2	L3	L4	L5	L6	
P-13	14+041.00	CURVED	R-1000	06	12	8.480	6.820	5.550	0.350	6.470	4.200	1.970	2.150	5.200	4.200	1.270	11.0	---	400	5.900	1.450	6.900
P-35	18+106.00	CURVED	R-500	30	28	6.184	4.524	3.254	2.316	6.870	4.600	1.970	2.150	5.600	4.600	1.270	14.0	---	1.413	6.887	1.563	6.837

GENERAL VIEW OF P-13 & P-35

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)

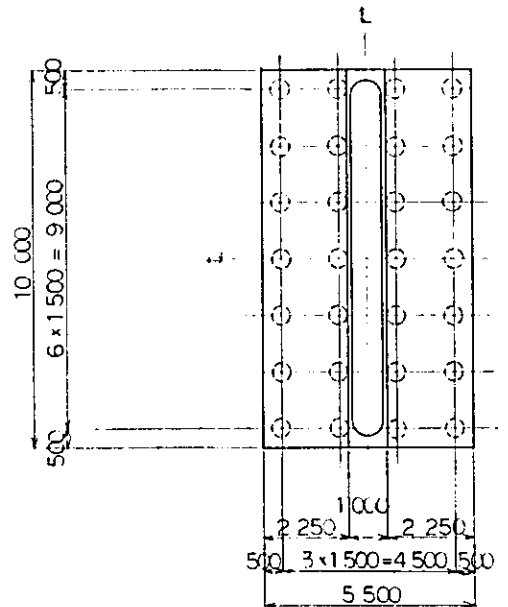
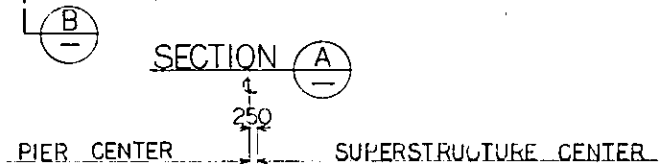
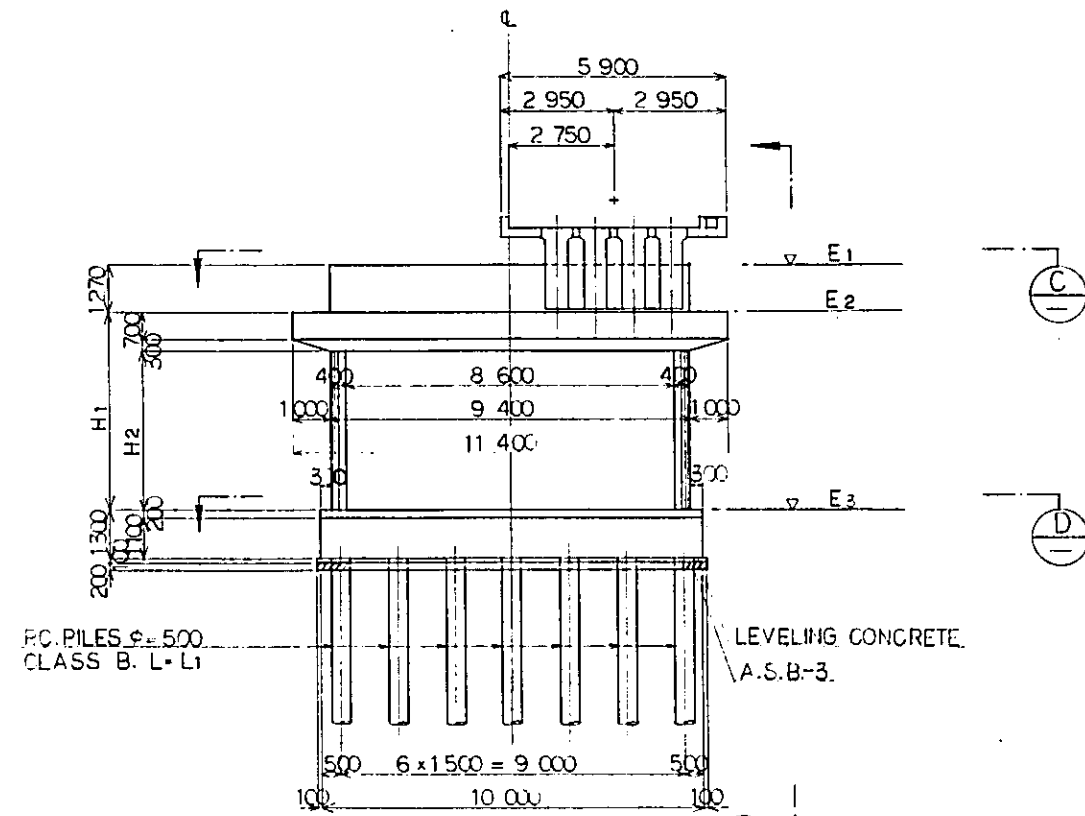
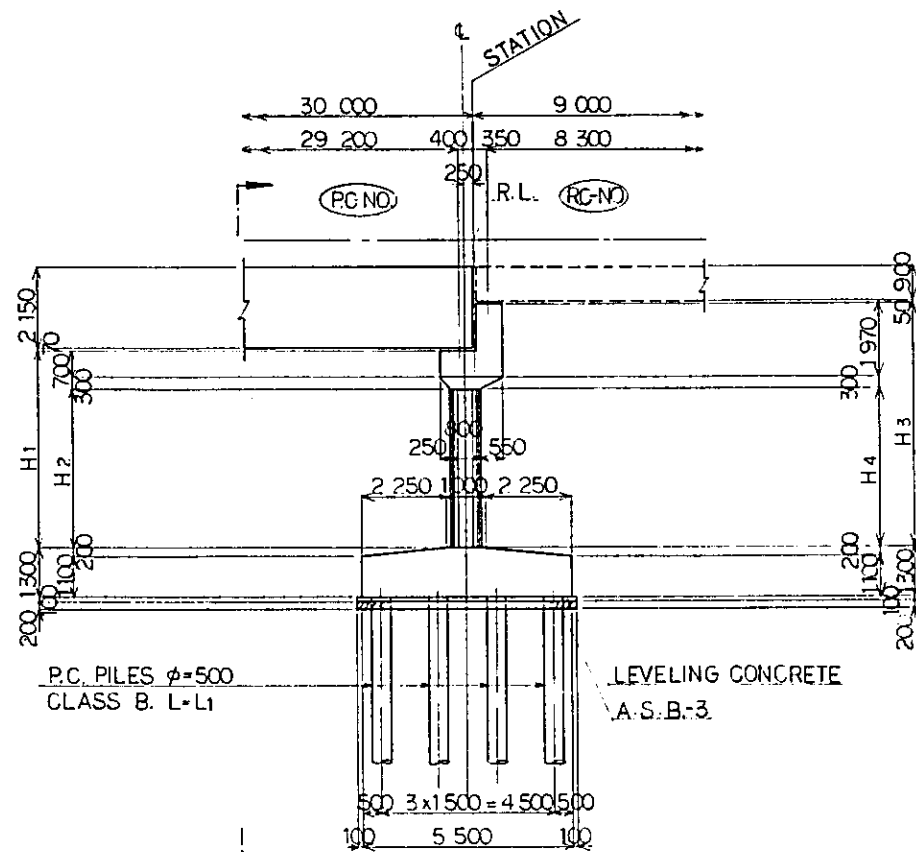
B	1 AUG. 84	SS	my	K.A.	K.M.	M.K.
A	15 FEB. 84	SS	my	K.A.	K.M.	M.K.

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

PIER P13, P35
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK

SCALE: 1:100 DRAWING NO: CS-088



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS-100, CS-101

SECTION C

SECTION D

DIMENSION SCHEDULE

PIER NO.	STATION	ALIGNMENT	RC-NO.	RC-NO.	R.L.	E1	E2	E3	H1	H2	H3	H4	L1	L2	L3	L4	L5	
P-14	14+071.00	TRANSITION	07	12	8 ^m .567	6 ^m .907	5 ^m .637	0 ^m .437	5 200	4 200	6 470	4 200	11 ^m .0	1 450	6 950	400	5 900	
P-15	14+211.00	STRAIGHT	08	13	8 ^m .987	7 ^m .327	6 ^m .057	0 ^m .357	5 700	4 700	6 970	4 700	11 ^m .0	1 450	6 950	400	5 900	
P-36	18+136.00	CURVED	R-500	31	28	6 ^m .334	4 ^m .674	3 ^m .404	2 ^m .296	5 700	4 700	6 970	4 700	14 ^m .0	1 563	6 837	410	5 890

GENERAL VIEW OF P - 14, 15 & 36

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

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

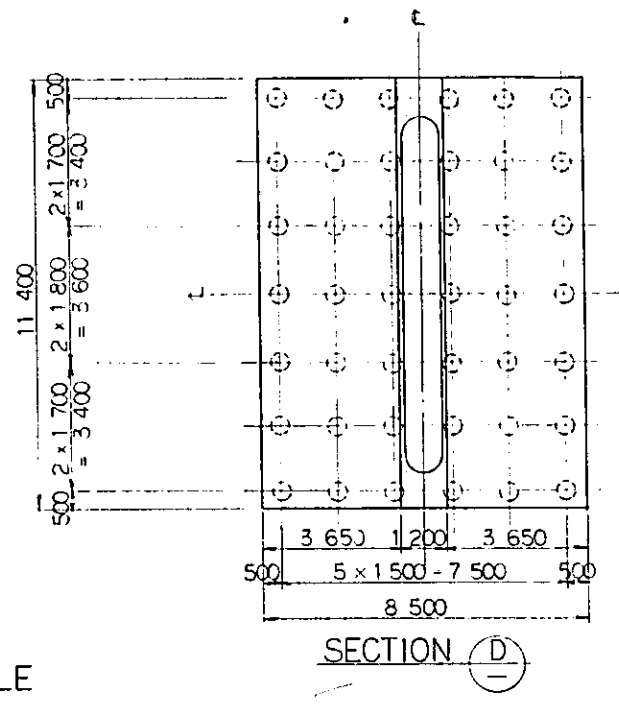
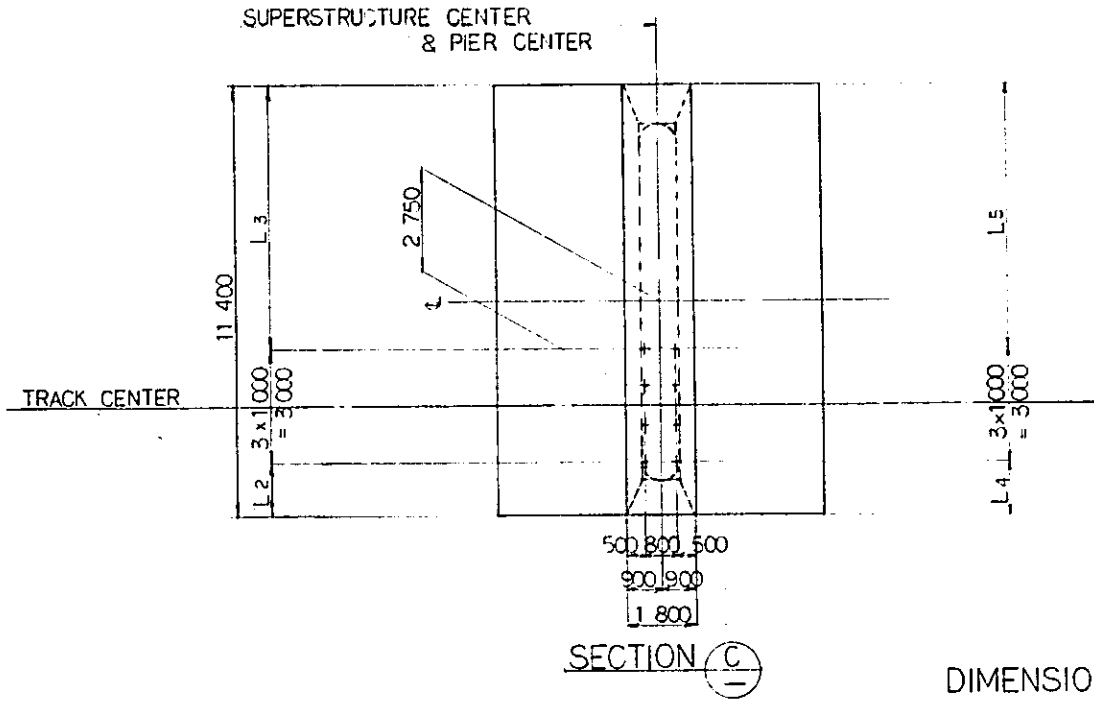
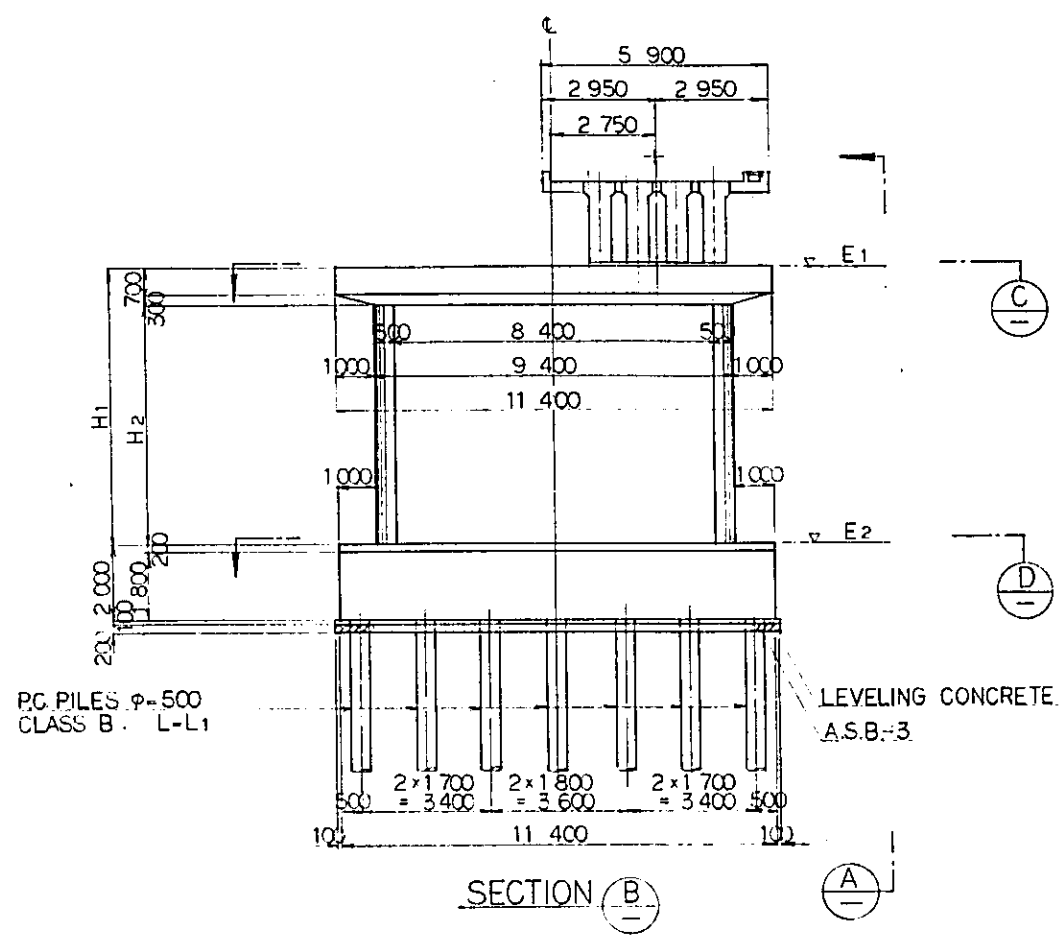
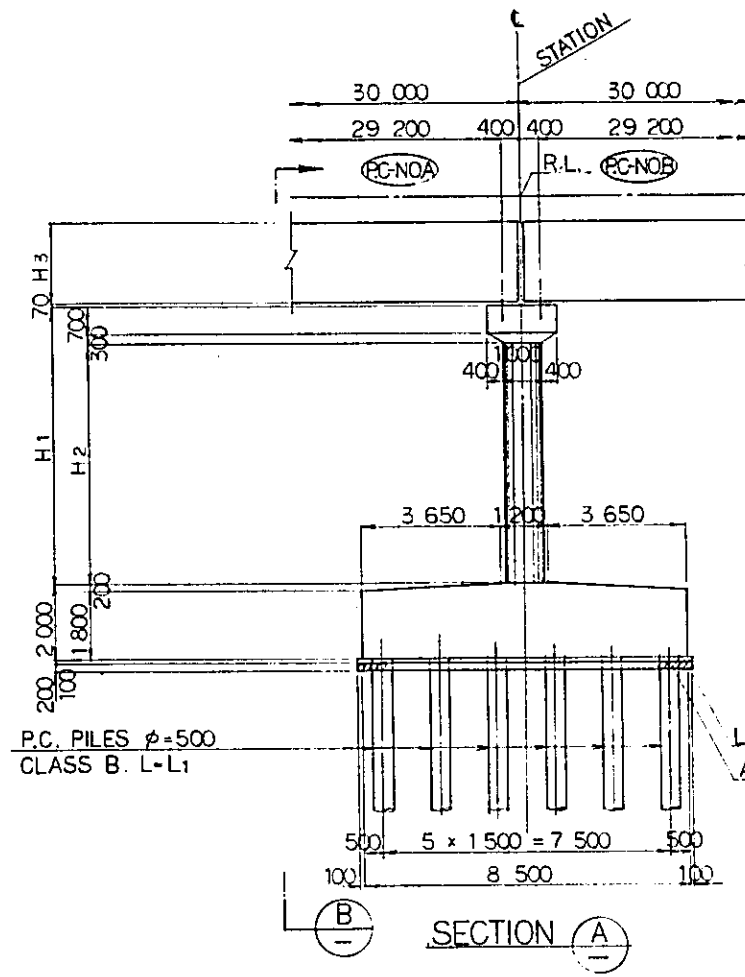
JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

B	1 AUG. 84	S.S.	my	K.A.	V.M.	K.R.
A	15 FEB. 84	S.S.	my	K.A.	K.M.	K.R.

REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWED SUBMITTED

PIER P14, P15, P36
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: 1:100 DRAWING NO.: CS-089



DIMENSION SCHEDULE

PIER NO	STATION	ALIGNEMENT	PC-NOA	PC-NOB	R.L.	E1	E2	H1	H2	H3	L1	L2	L3	L4	L5	
P-16	14 ^K 24 ^M 00	STRAIGHT	—	13	14	9 ^M 071	6 ^M 141	0 ^M 441	5 700	4 700	2 150	11 ^M 0	1 450	6 950	1 450	6 950
P-43	18 ^K 880 ^M 00	CURVED	R=500	34	35	10 ^M 554	7 ^M 624	0 ^M 324	7 700	6 300	2 150	14 ^M 0	1 563	6 837	1 563	6 837
P-44	18 ^K 910 ^M 00	CURVED	R=500	35	36	10 ^M 554	7 ^M 624	0 ^M 076	7 700	6 700	2 150	14 ^M 0	1 563	6 837	1 563	6 837
P-45	18 ^K 940 ^M 00	CURVED	R=500	36	37	10 ^M 554	7 ^M 624	0 ^M 076	7 700	6 700	2 150	14 ^M 0	1 563	6 837	1 563	6 837
P-46	18 ^K 970 ^M 00	CURVED	R=500	37	38	10 ^M 554	7 ^M 624	0 ^M 076	7 700	6 700	2 150	14 ^M 0	1 563	6 837	1 562	6 837

GENERAL VIEW OF P - 16 .43 .44 .45 & 46

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS092-1 CS-092-2---P16 CS-112, CS-113, CS-114,-----P43~P46

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

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

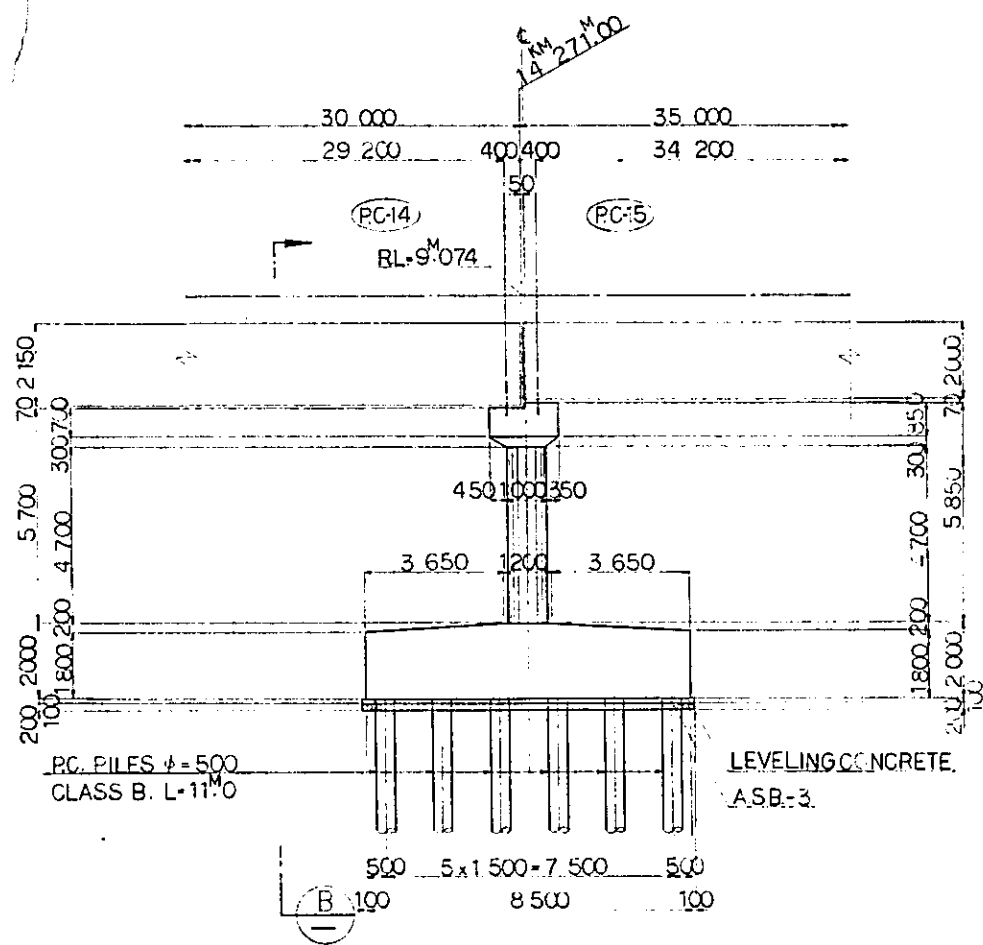
JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

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

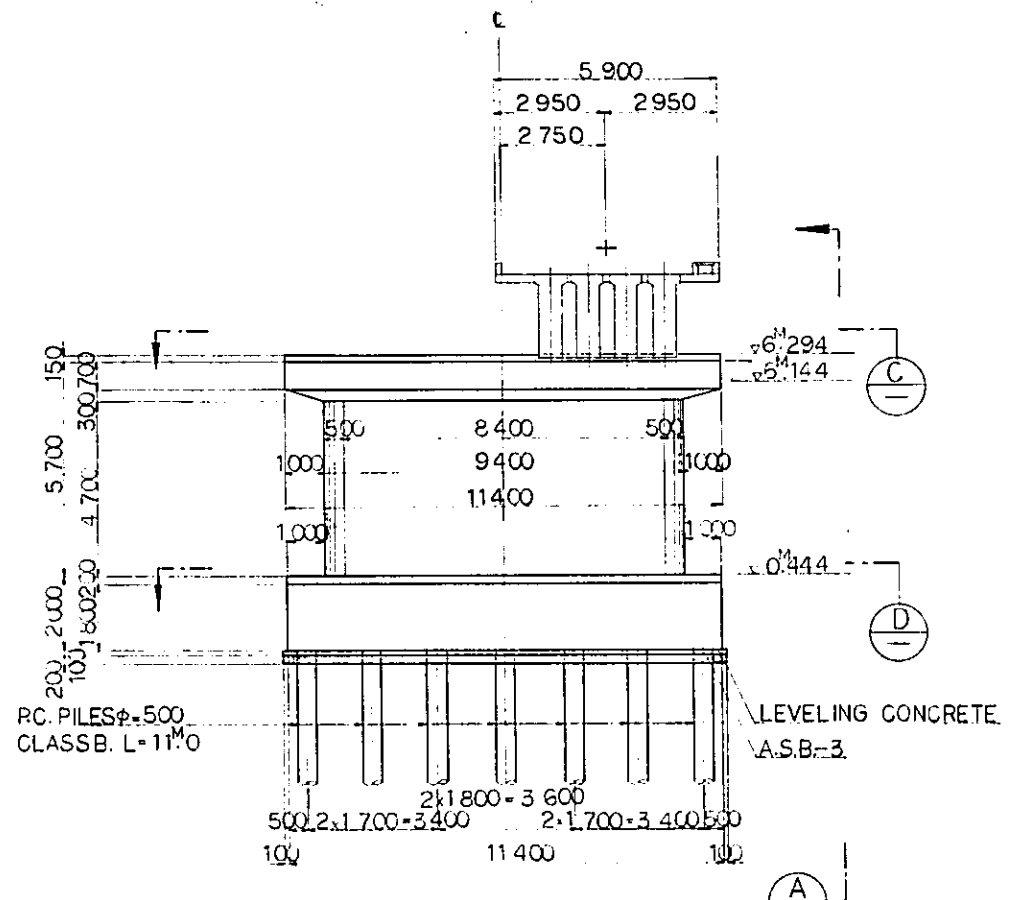
REVISIONS: DATE, DESIGNED, DRAWN, CHECKED, REVISION, SUBMITTED

PIER P16, P43~P46
 GENERAL VIEW

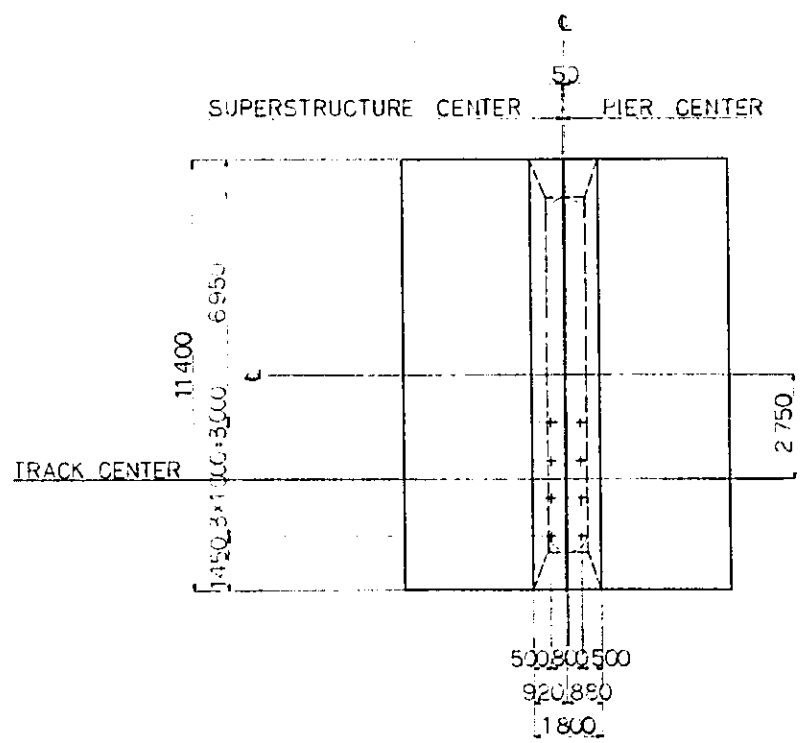
PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: 1:100 DRAWING NO: CS-090



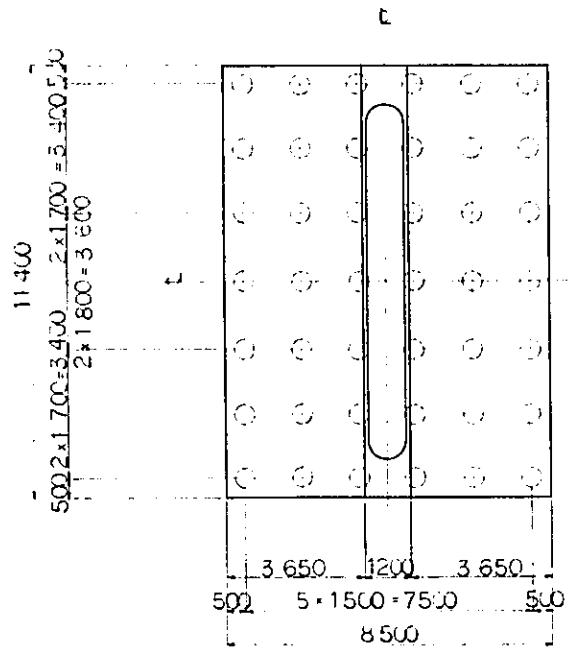
SECTION A



SECTION B



SECTION C

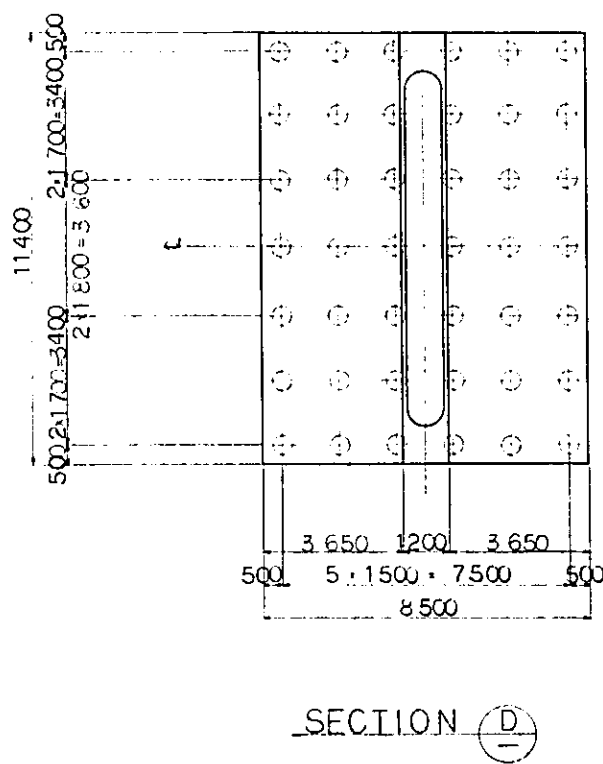
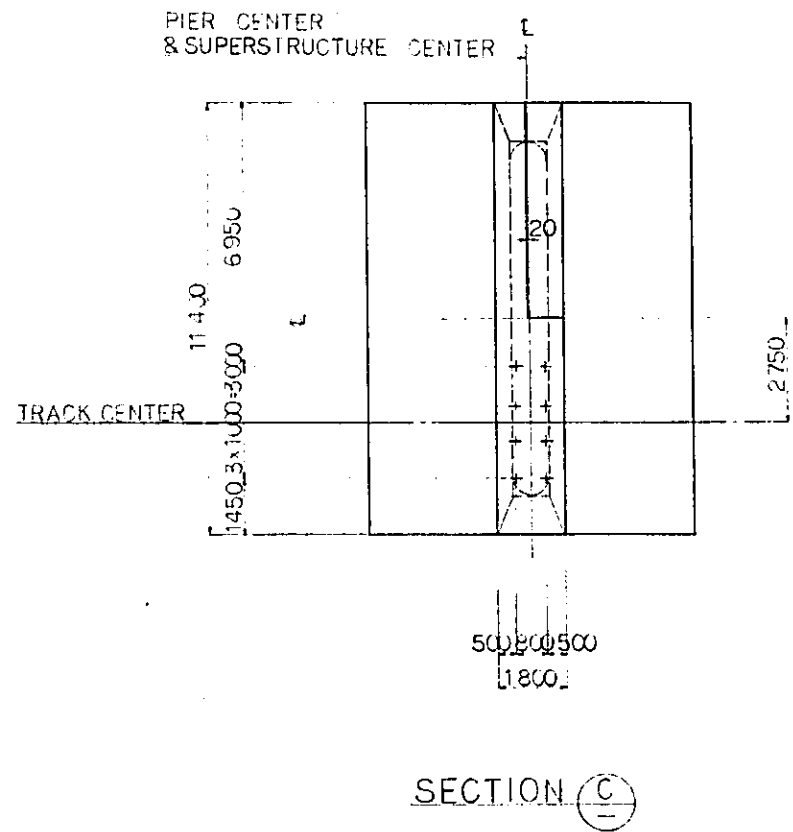
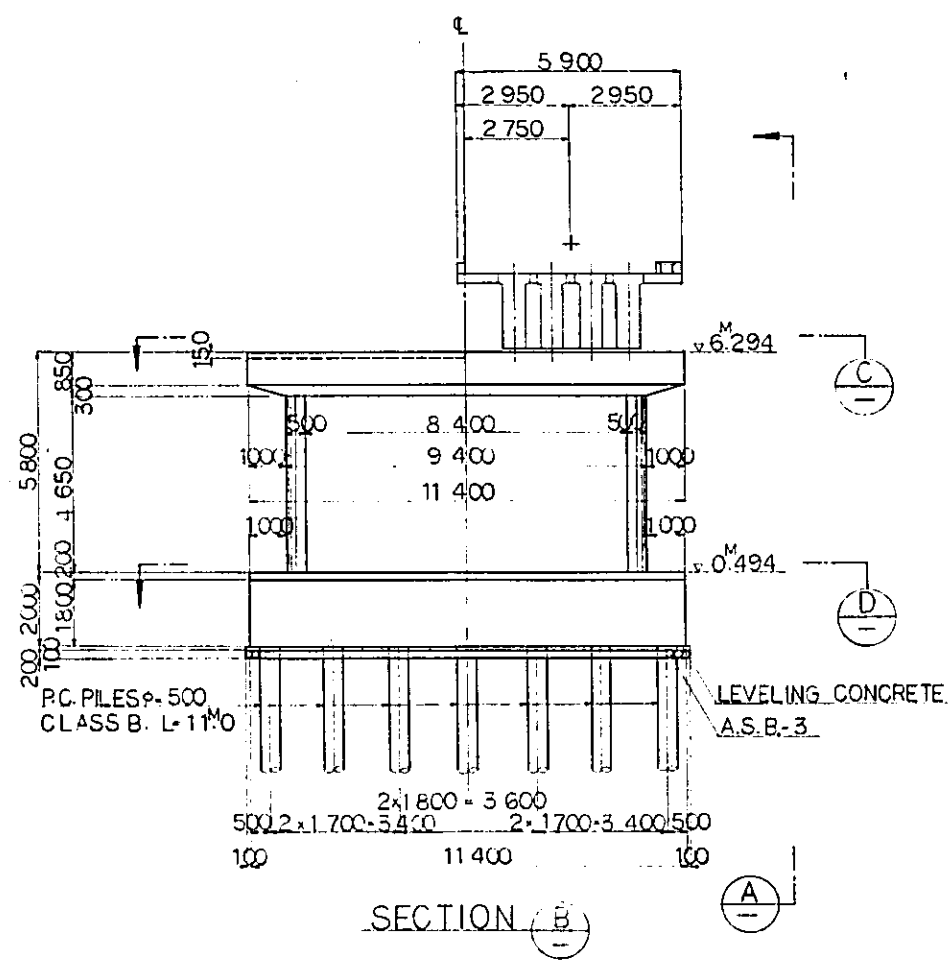
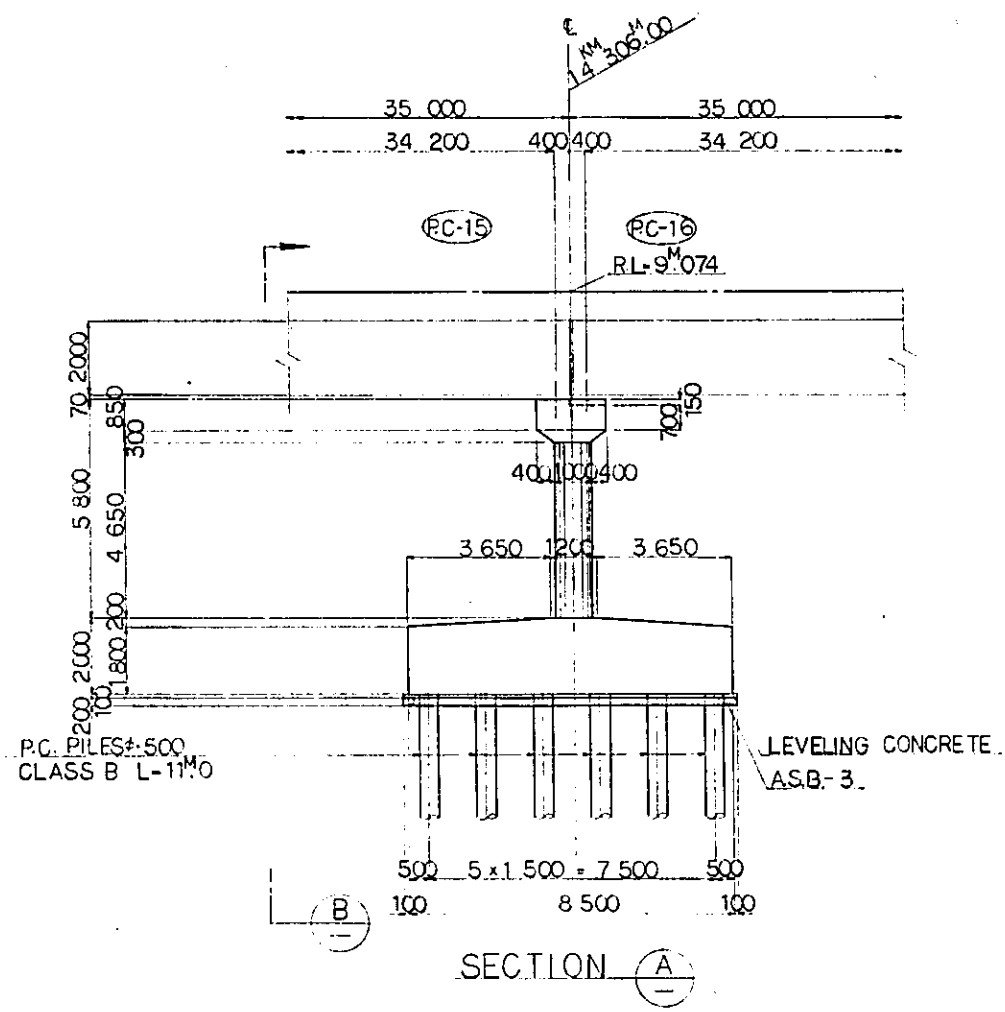


SECTION D

GENERAL VIEW OF P-17

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-092-1, CS-092-2

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 '64	SS	MY	K.A.	K.M.
A	15 FEB '64	SS	MY	K.A.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
PIER P17 GENERAL VIEW					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE:	DRAWING NO:				
1:100	CS-091				



GENERAL VIEW OF P-18

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS-092-1, CS-092-2.

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-16
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_h=0.1$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm ²
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 80 kg/cm ²
MATERIAL	TYPE OF REINFORCING BAR	SD-30
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck}=210 \text{ kg/cm}^2$
	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 CENGKARENG AIRPORT CONSTRUCTION PROJECT

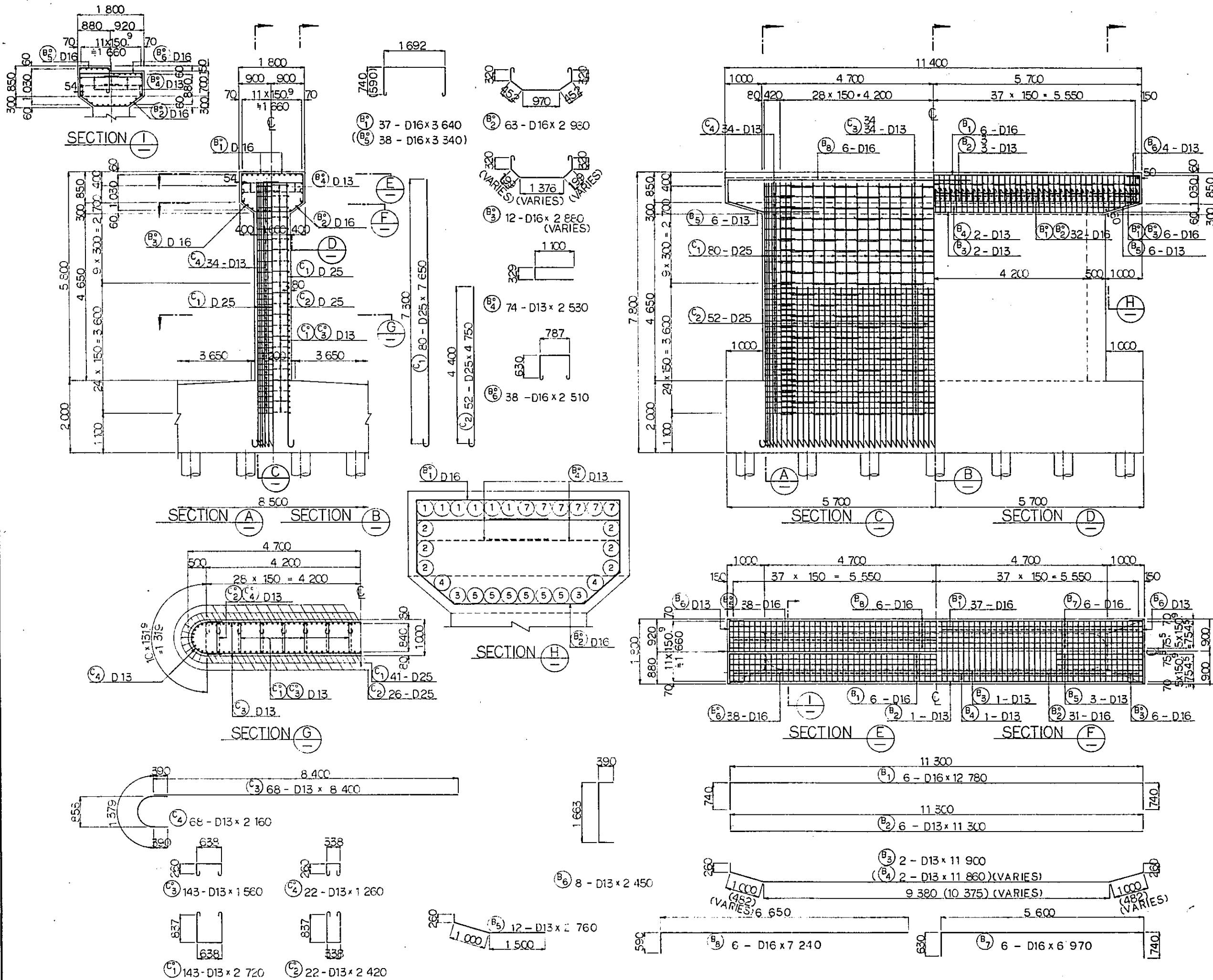
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1 AUG. '84	SS	m.y	K.A	K.M	m.k
A	15 FEB. '84	SS	m.y	K.A	K.M	m.k

REVISIONS: DATE, CHECKED, DRAWN, CHECKED, REVISION, PERMITTED

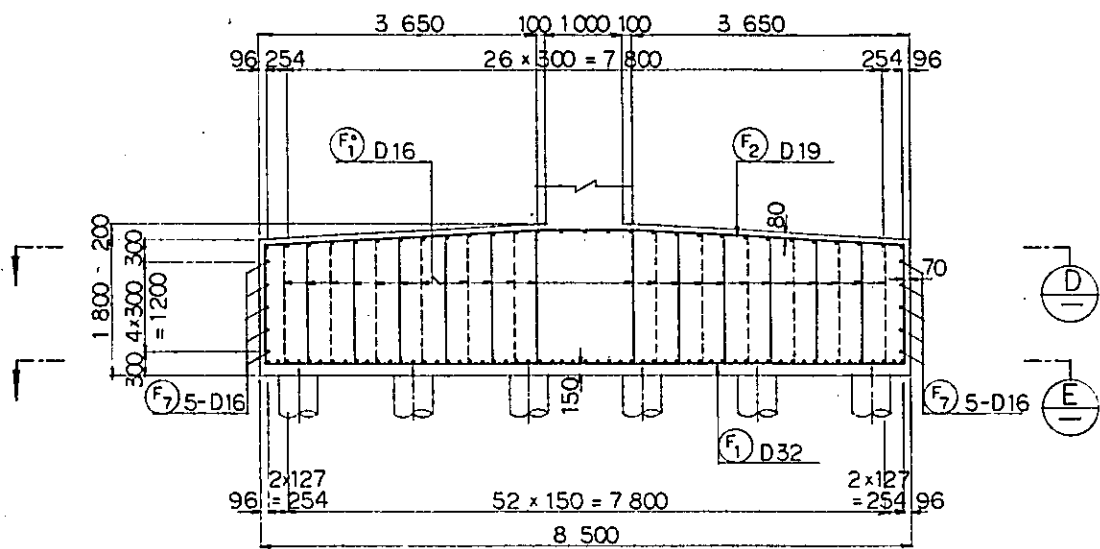
PIER P18
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: 1:100
 DRAWING NO.: CS-092

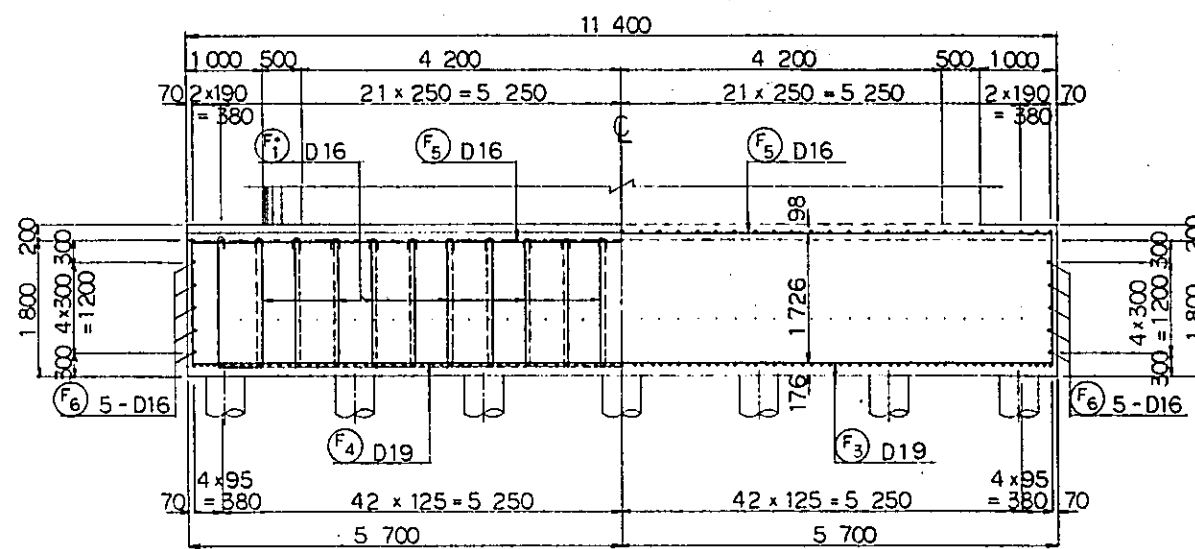


1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW: CS-092

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	15 FEB. 84	S.S.	m.y.	K.A.	K.M.	A.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
PIER P18 BAR ARRANGEMENT (SHEET 1 OF 2)						
PACKAGE: CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:50 DRAWING NO: CS-092-1						

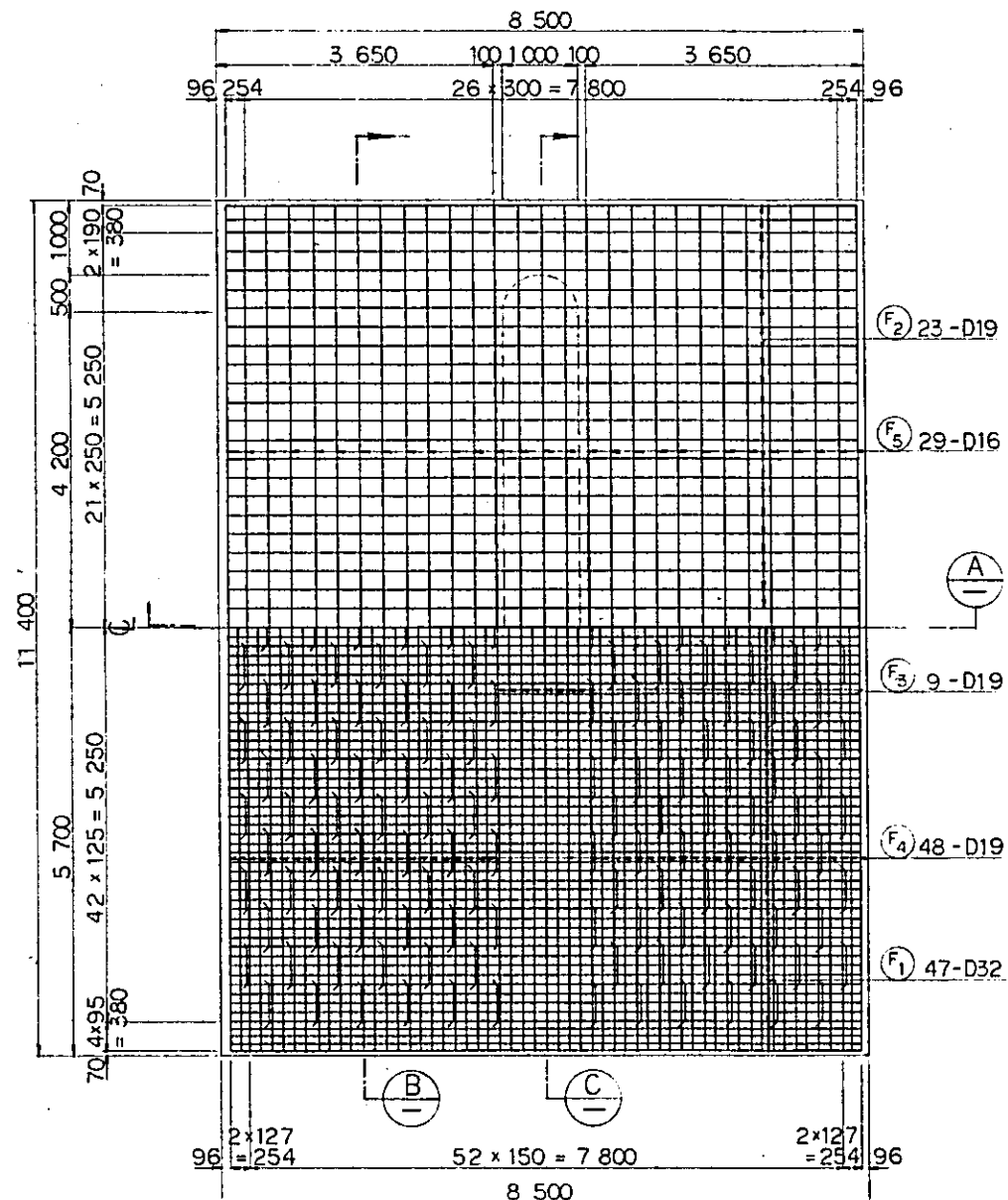


SECTION A



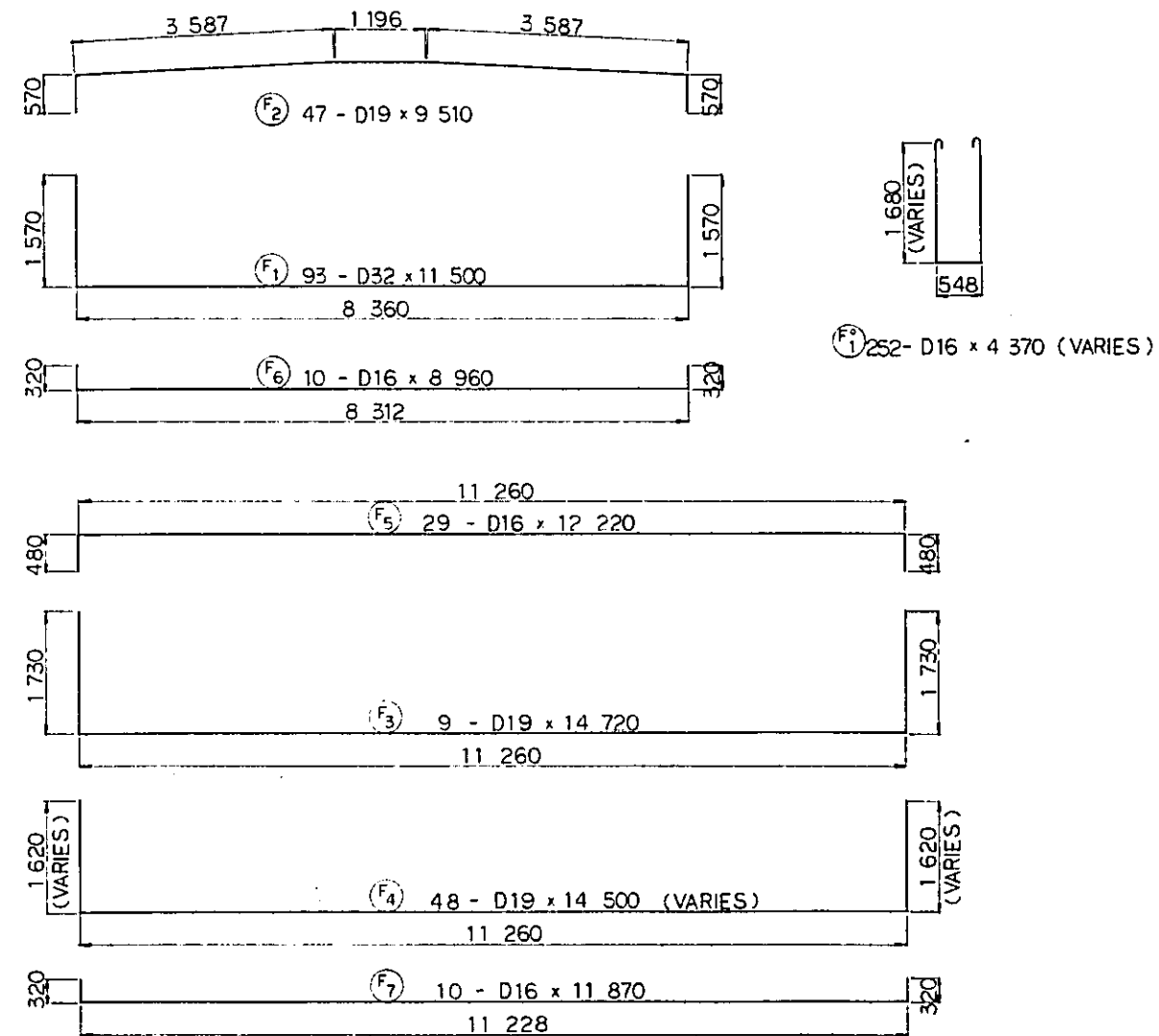
SECTION B

SECTION C



SECTION D

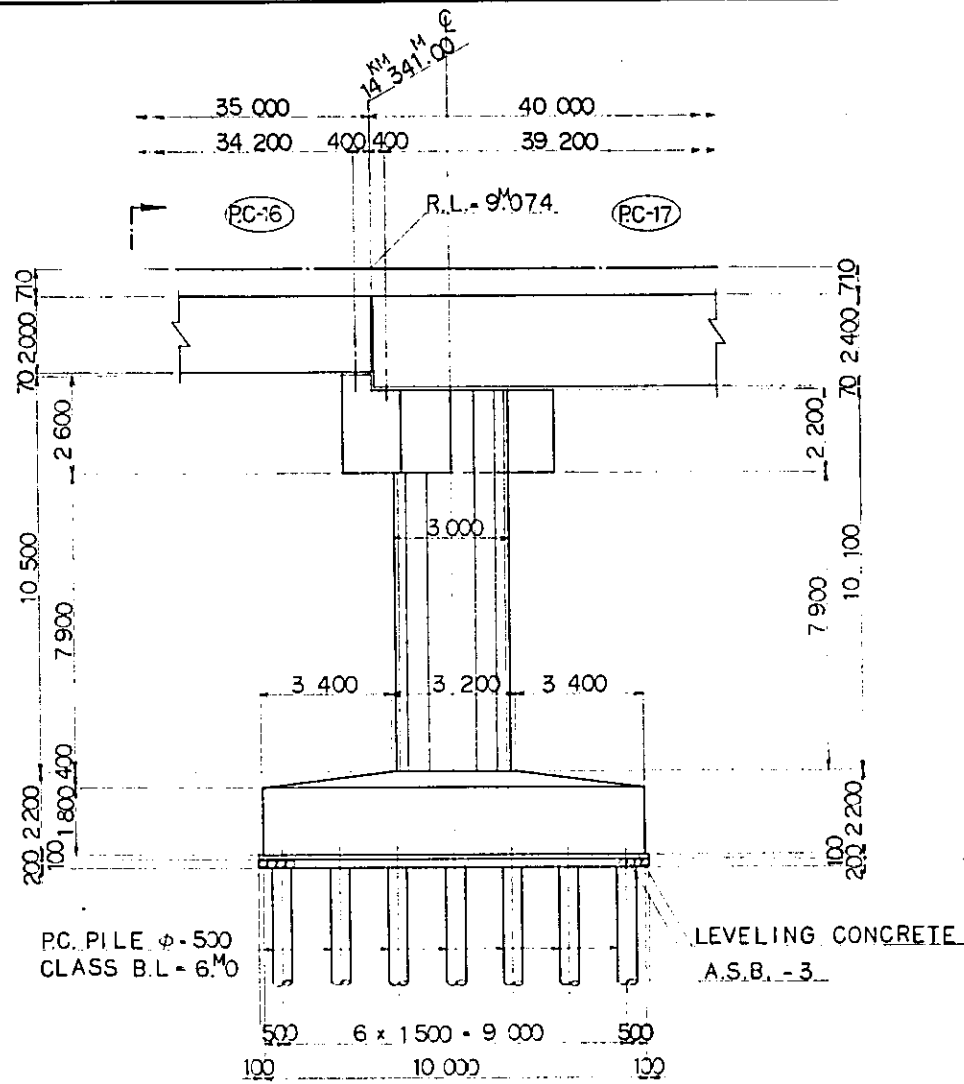
SECTION E



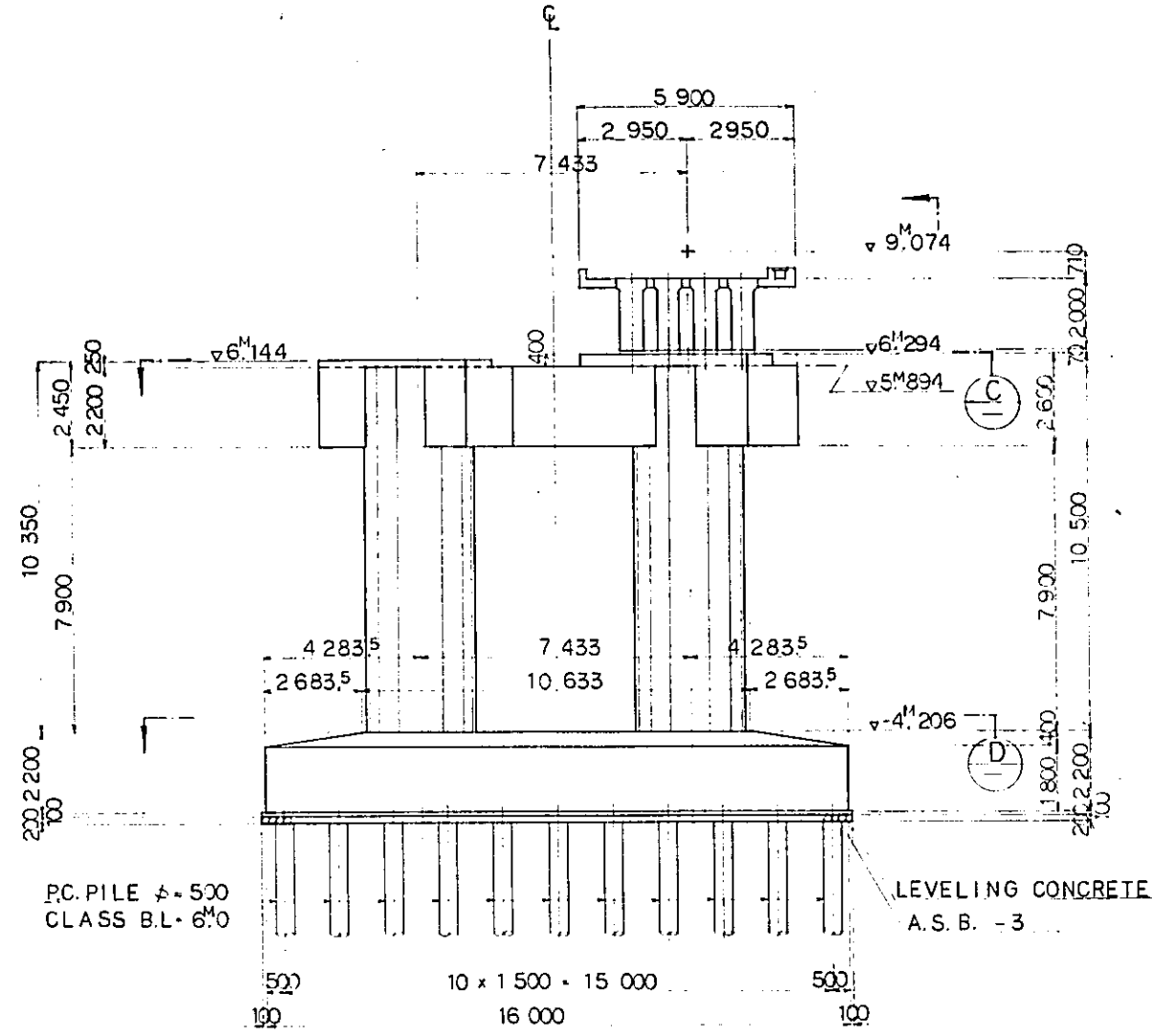
NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW : CS092

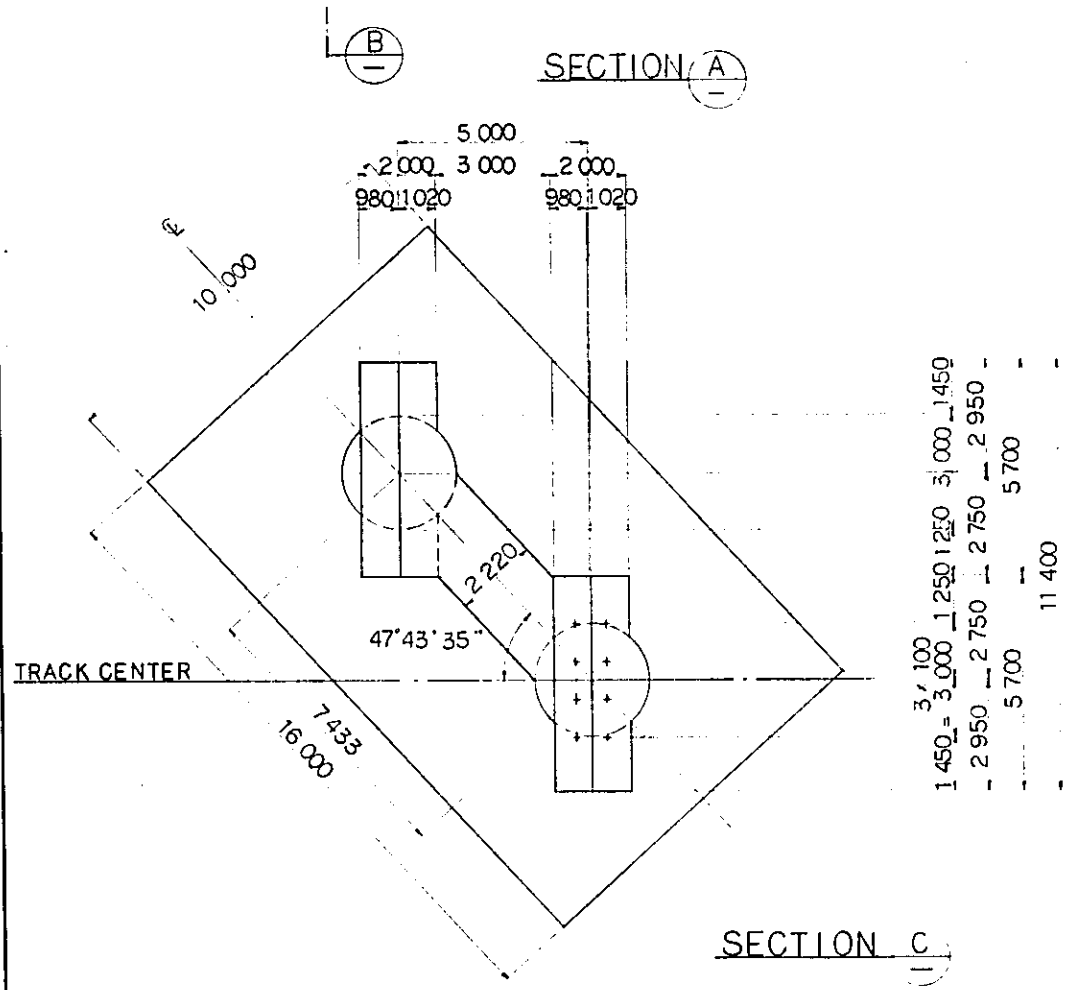
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG '84	SS	ms.g	K.S.	K.M.
A	15 FEB '84	SS	ms.g	K.S.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
PIER P18 BAR ARRANGEMENT (SHEET 2 OF 2)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:50	CS-092-2				



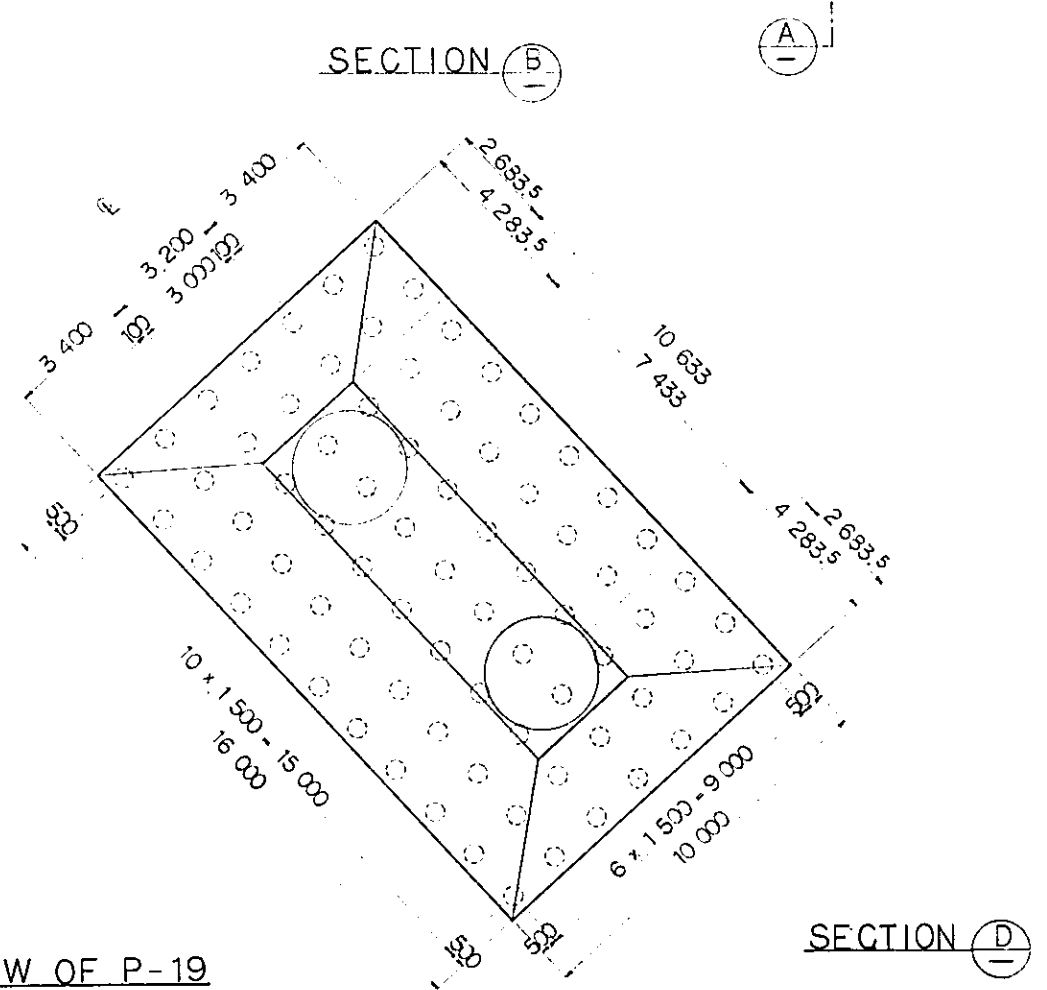
SECTION A



SECTION B



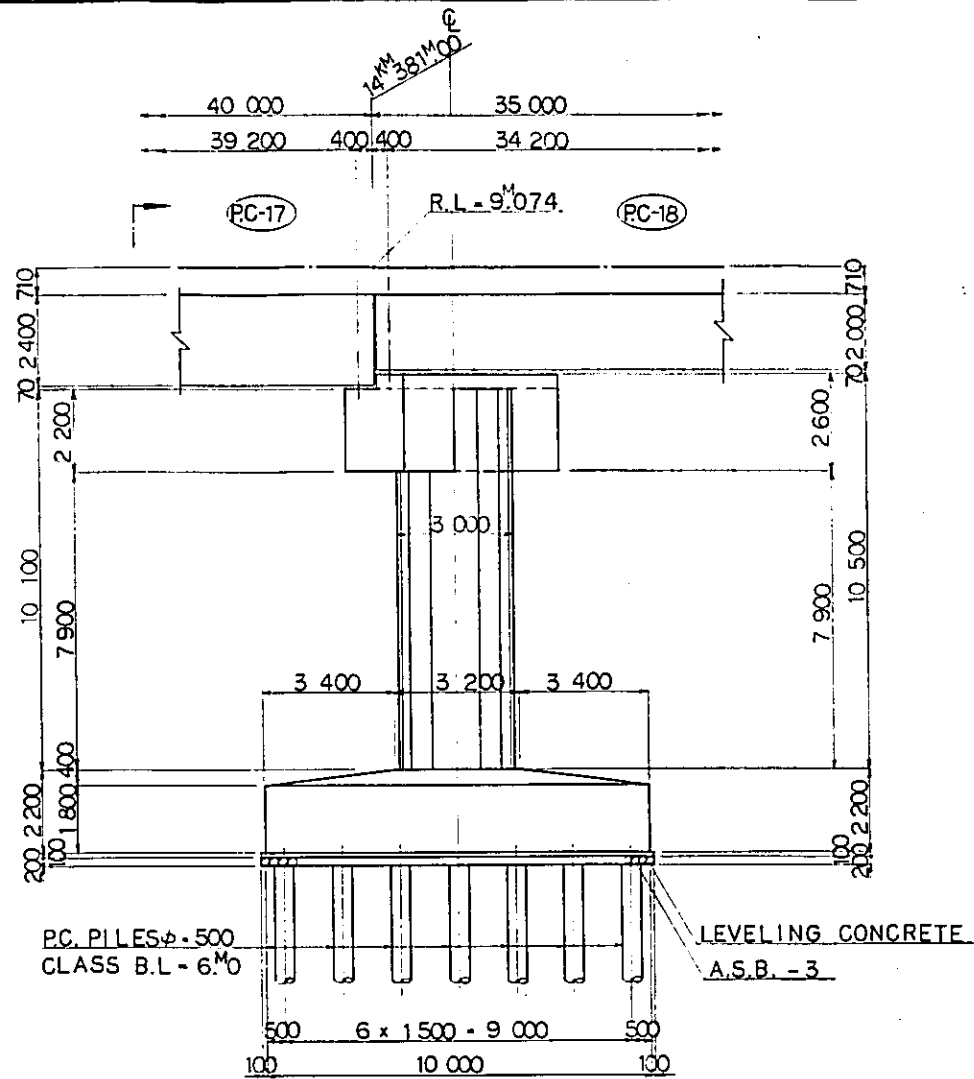
SECTION C



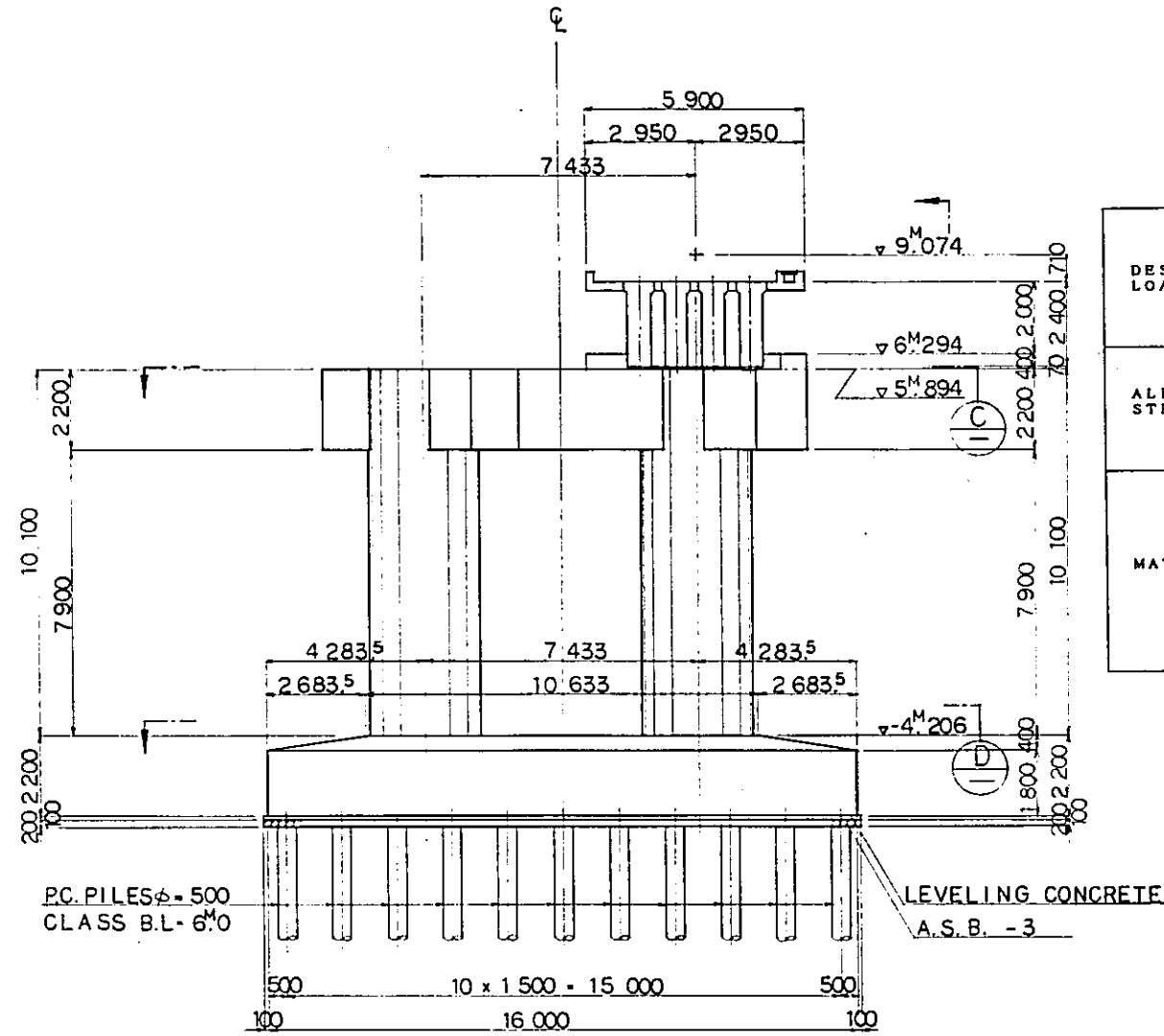
GENERAL VIEW OF P-19

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-095, CS-095-1CS-095-2

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
A	1 AUG. '84	S.S.	M.Y.	K.A.	K.M.
					SUBMITTED
PIER P19 GENERAL VIEW					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:100		DRAWING NO: CS-093			



SECTION A



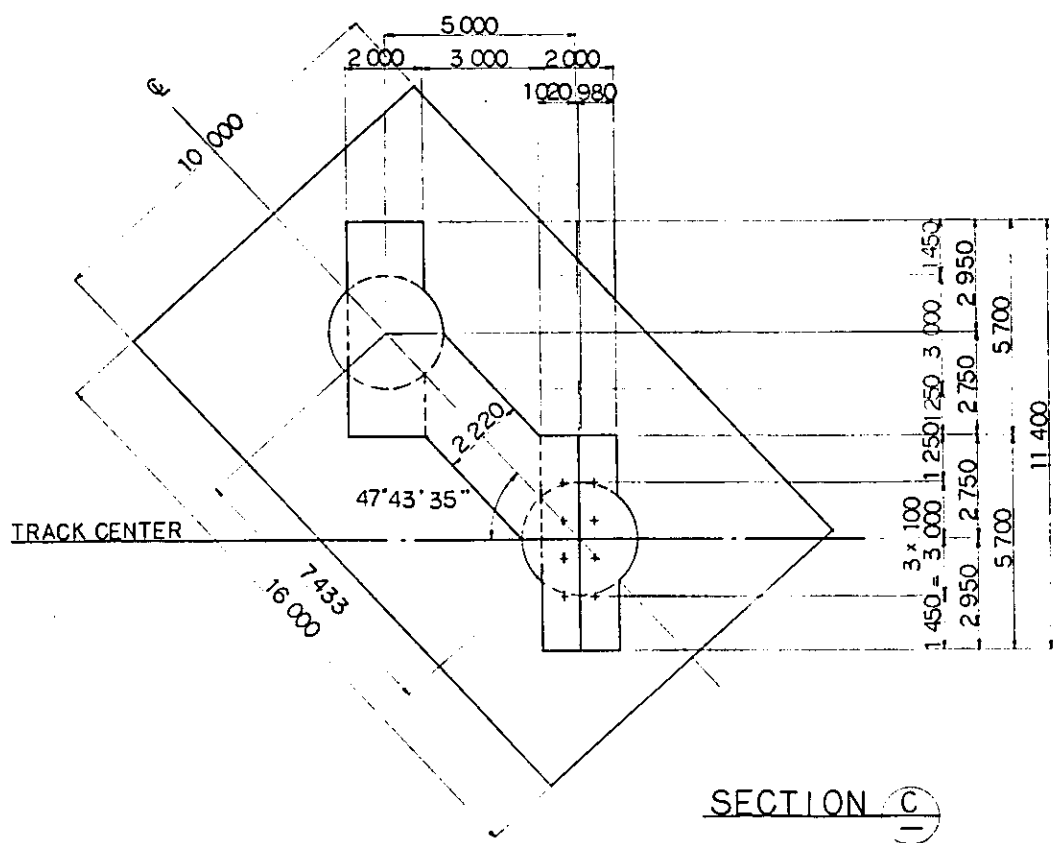
SECTION B

DESIGN CRITERIA

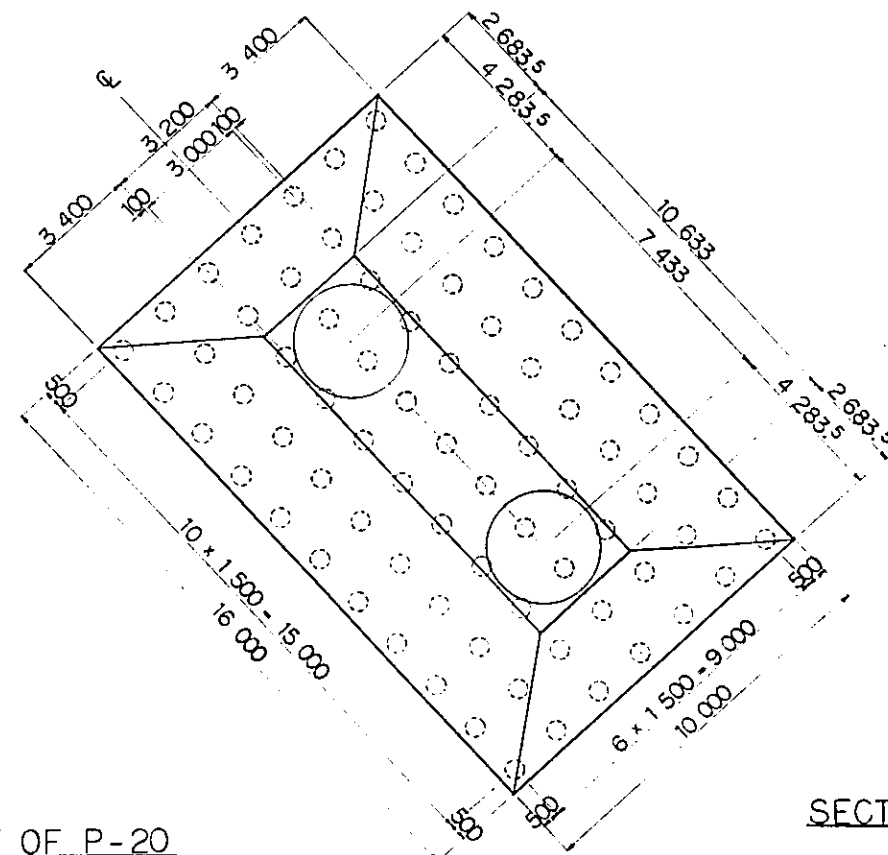
DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-16
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_h=0.1$ IN VERTICAL DIRECTION $K_h=0$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm ²
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 80 kg/cm ²
MATERIAL	TYPE OF REINFORCING BAR	SD-30
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck}=210 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25 mm

NOTES:

- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
- REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-095, CS-095.1, CS-095.2



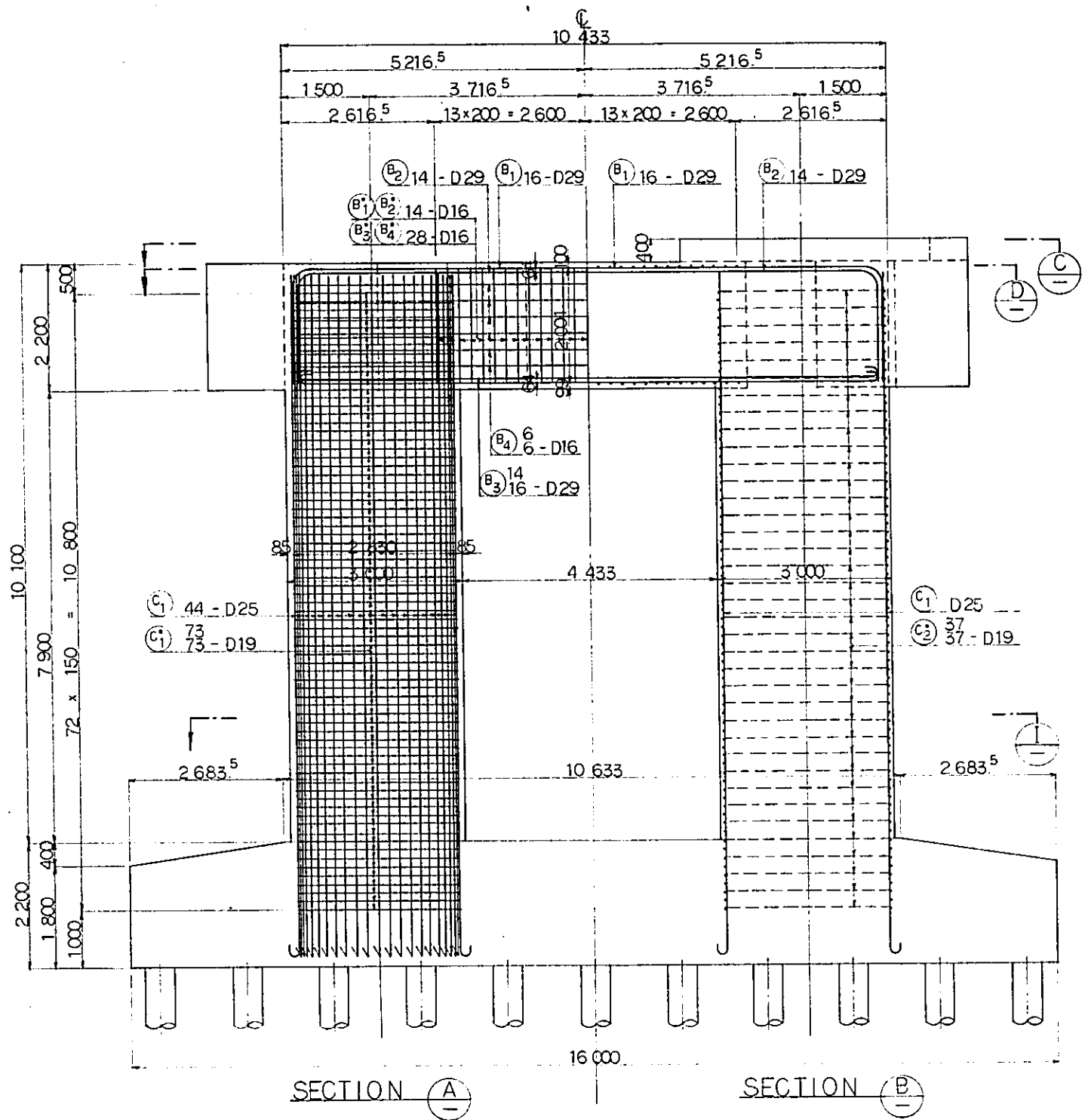
SECTION C



GENERAL VIEW OF P-20

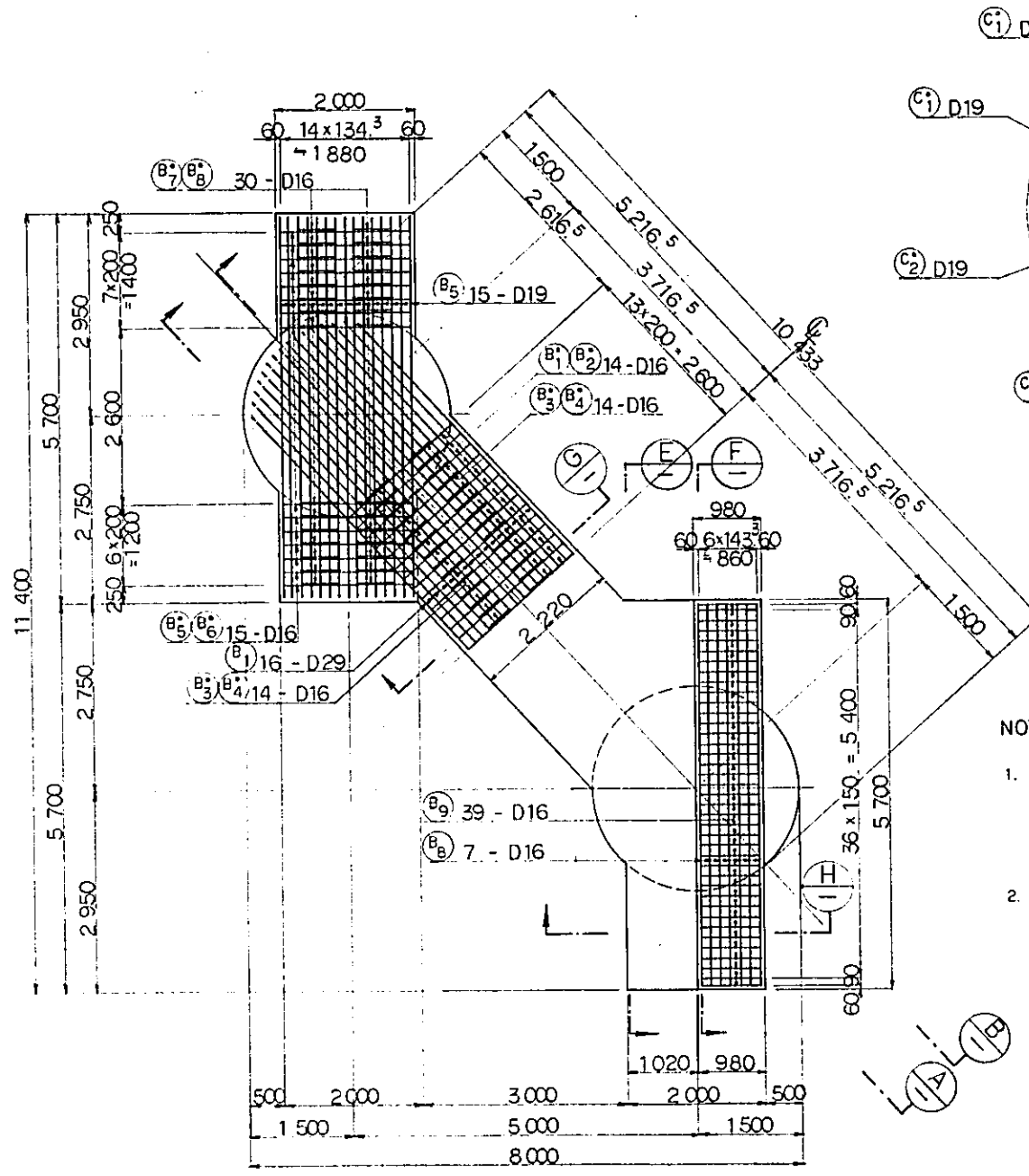
SECTION D

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)					
A	1 AUG. '84	SS	m.y.	K.S.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
PIER P20 GENERAL VIEW					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:100	CS-094				



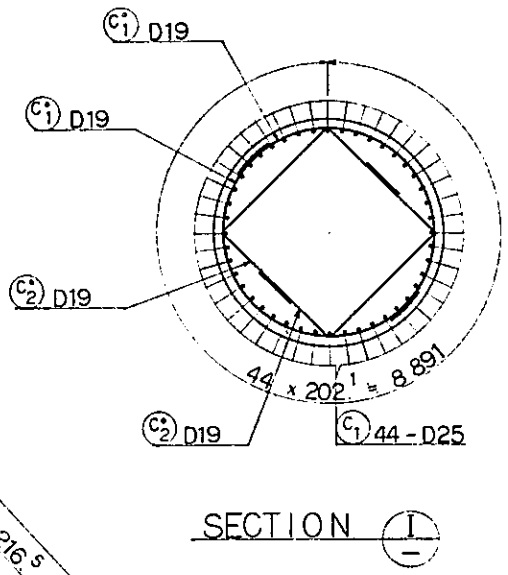
SECTION A

SECTION B



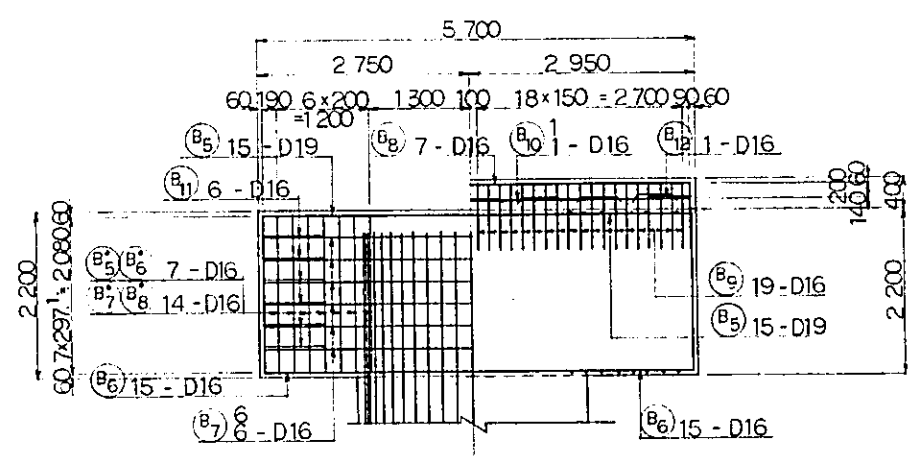
SECTION C

SECTION D



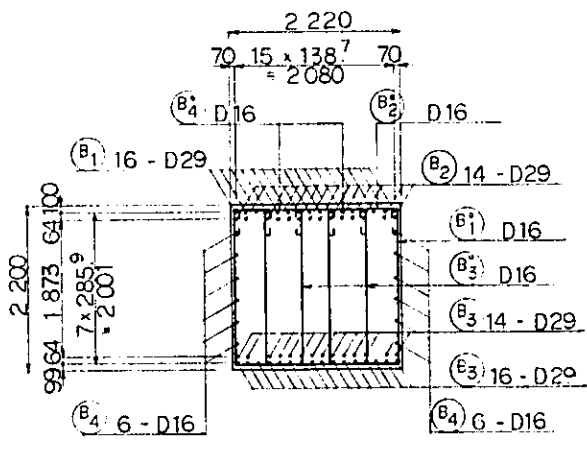
SECTION I

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED.
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-094.

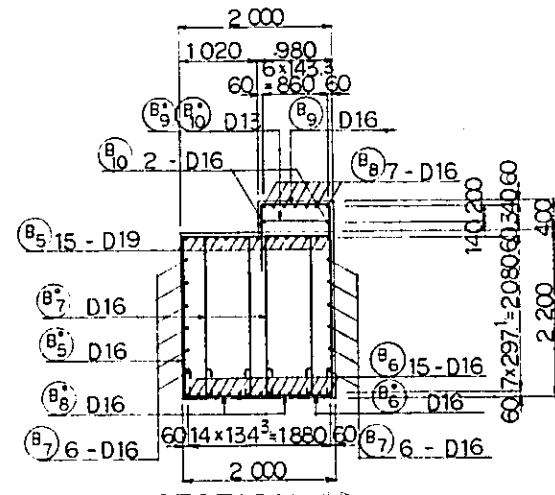


SECTION E

SECTION F

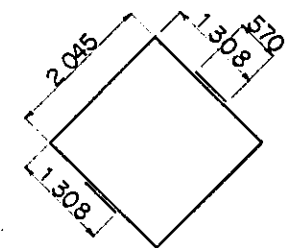
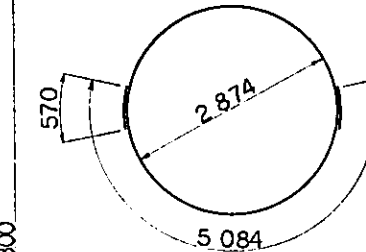
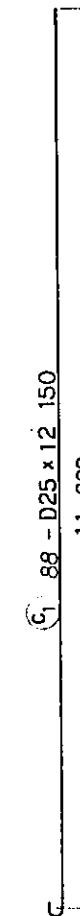
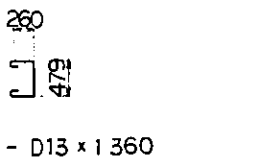
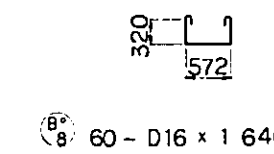
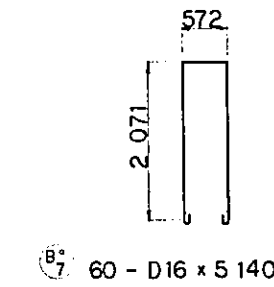
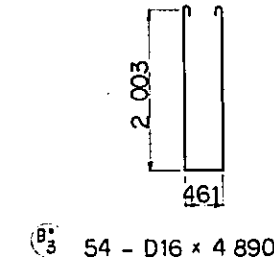
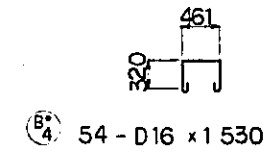
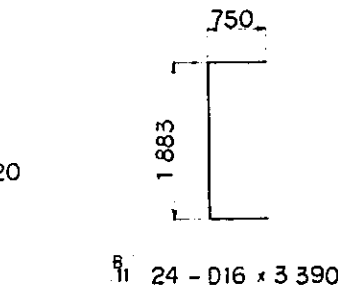
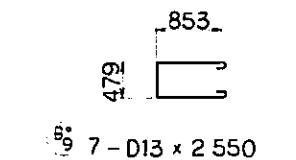
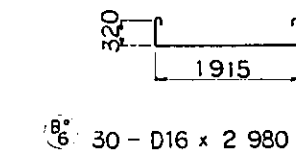
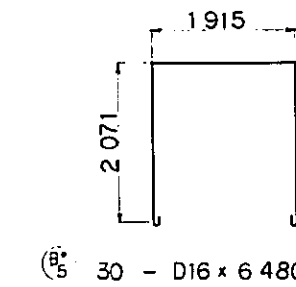
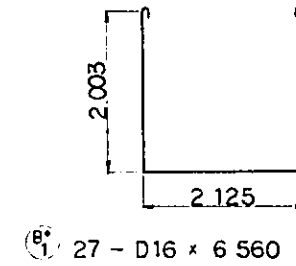
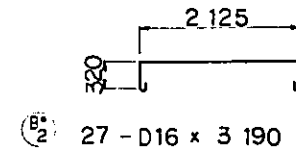
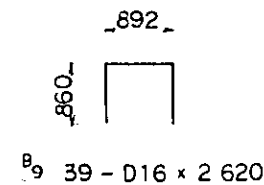
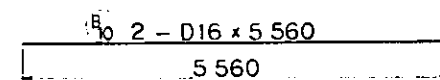
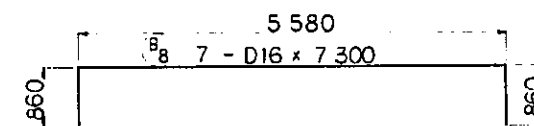
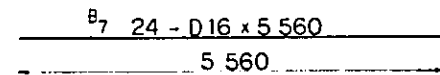
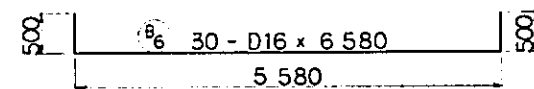
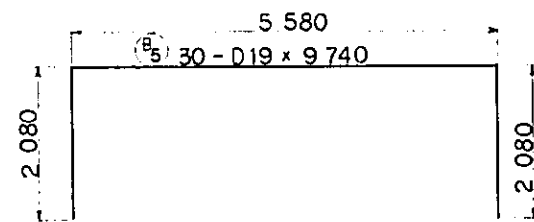
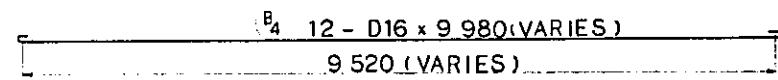
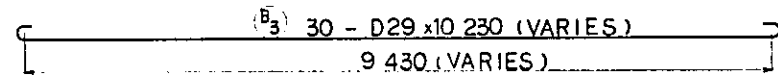
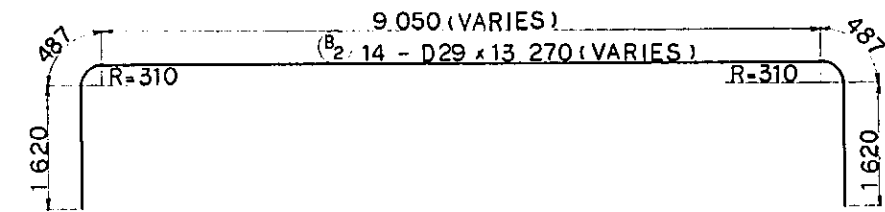
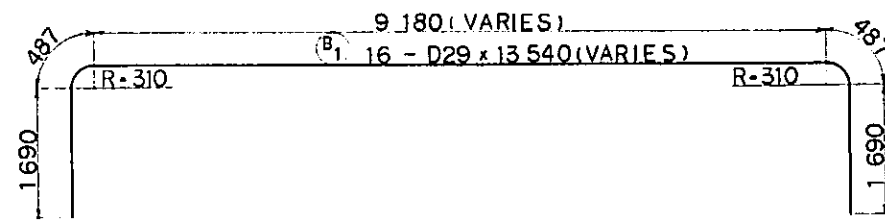


SECTION G



SECTION H

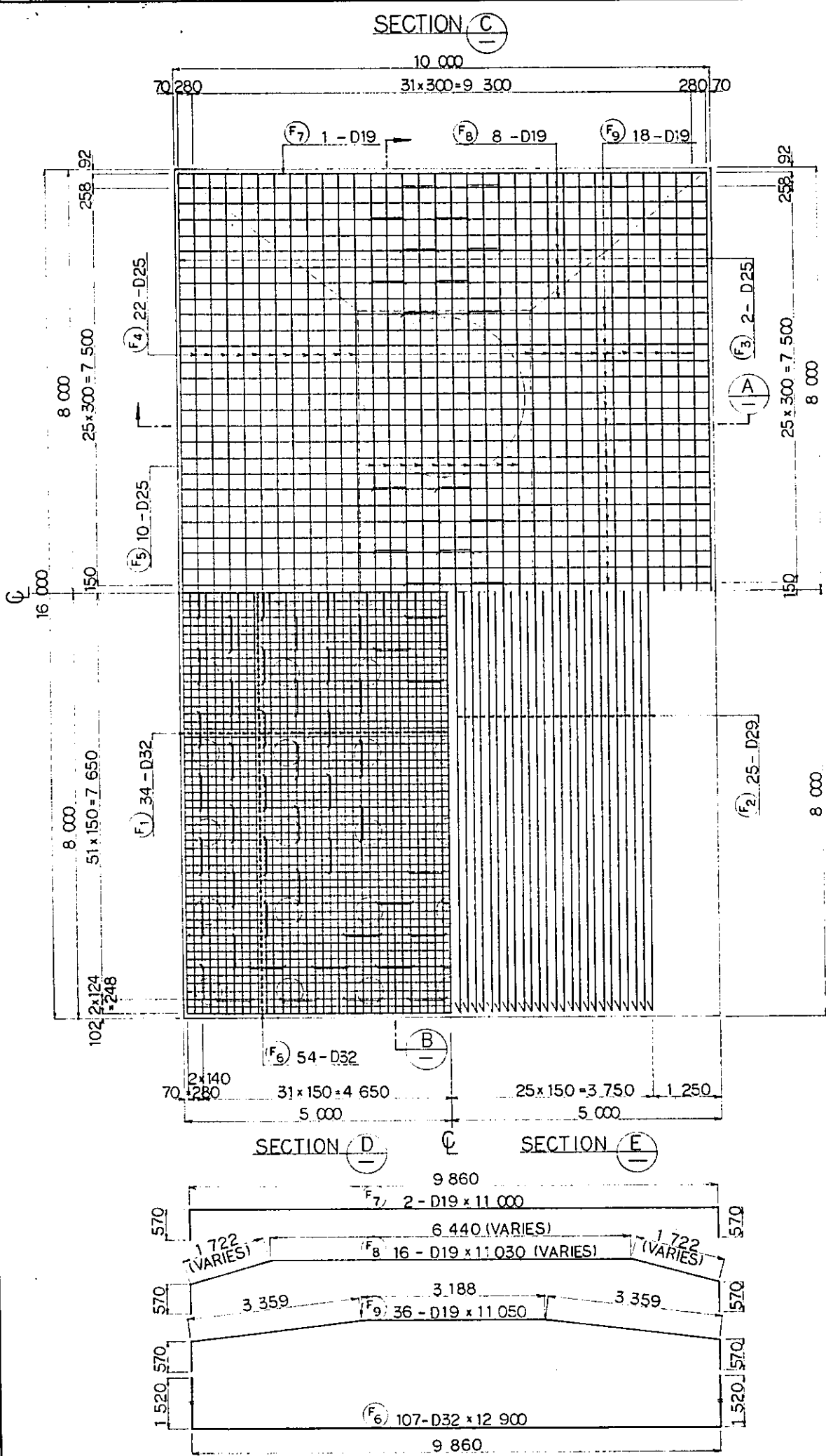
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
A	1 AUG. 84	S.S.	M.Y.	K.A.	K.M.
PIER P20 BAR ARRANGEMENT (SHEET 1 OF 3)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:50	CS-095				



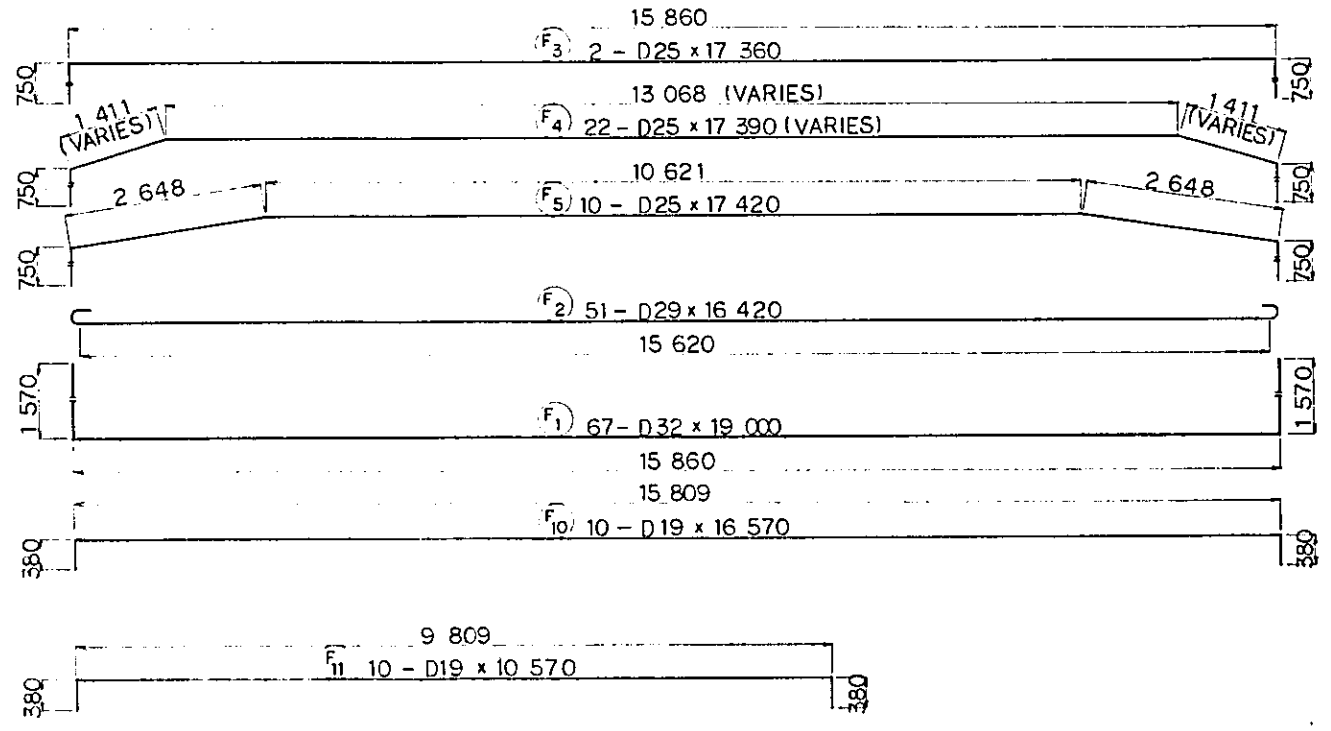
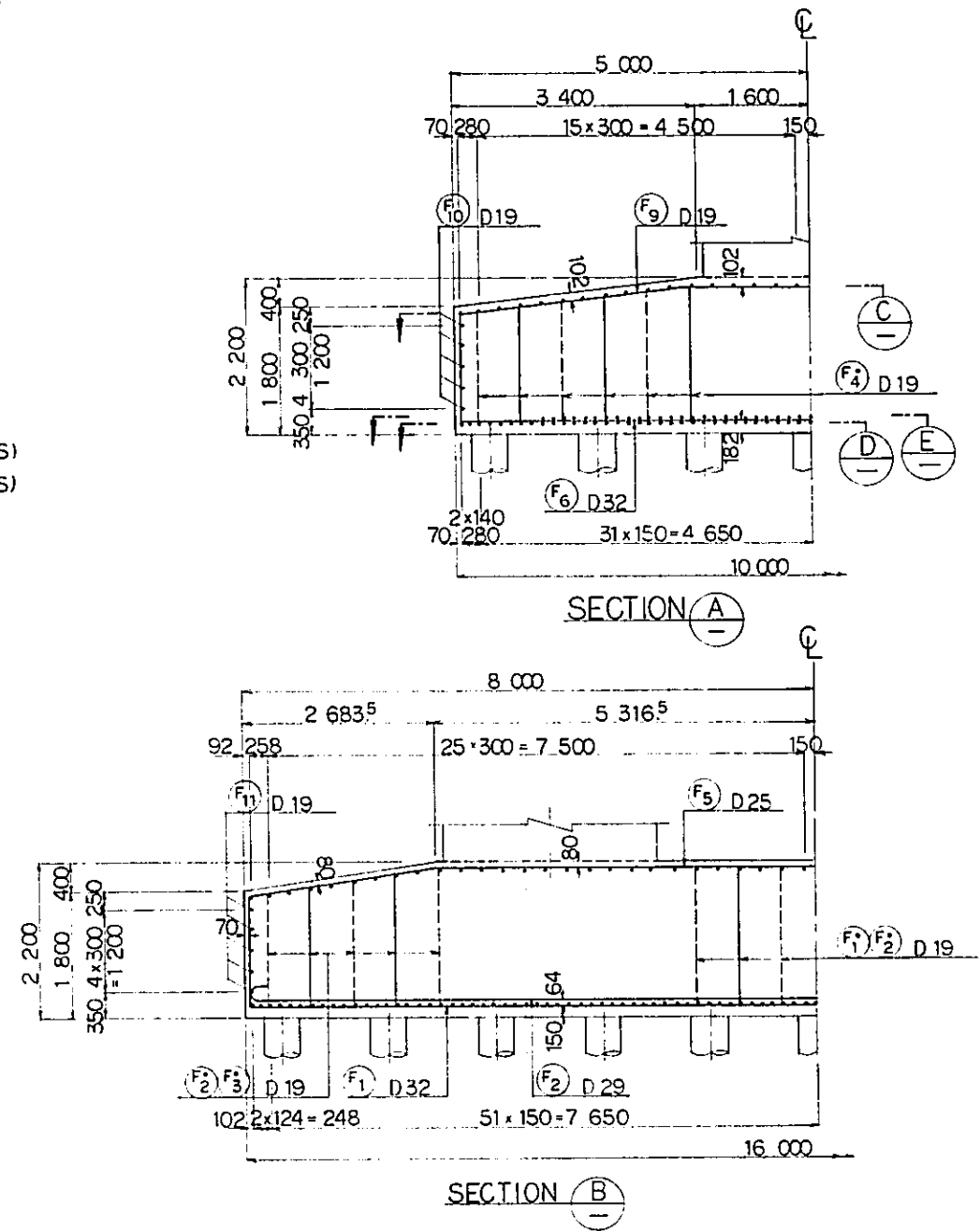
NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW: CS-094

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
A	1 AUG. 84	S.S.	M.Y.	K.A.	K.M.
PIER P20 BAR ARRANGEMENT (SHEET 2 OF 3)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:50	CS-095-1				



- (F3) 40 - D19 x 4 770 (VARIES)
- (F4) 126 - D19 x 4 630 (VARIES)
- (F3) 1 788 (VARIES)
- (F4) 1 716 (VARIES)
- 651
- 651
- 380
- (F2) 34 - D19 x 1 960
- (F1) 18 - D19 x 5 110
- 1 958
- 651



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-094

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

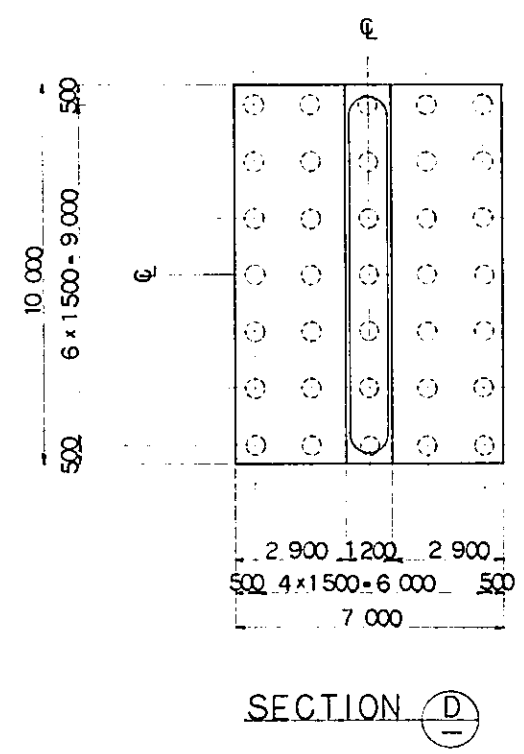
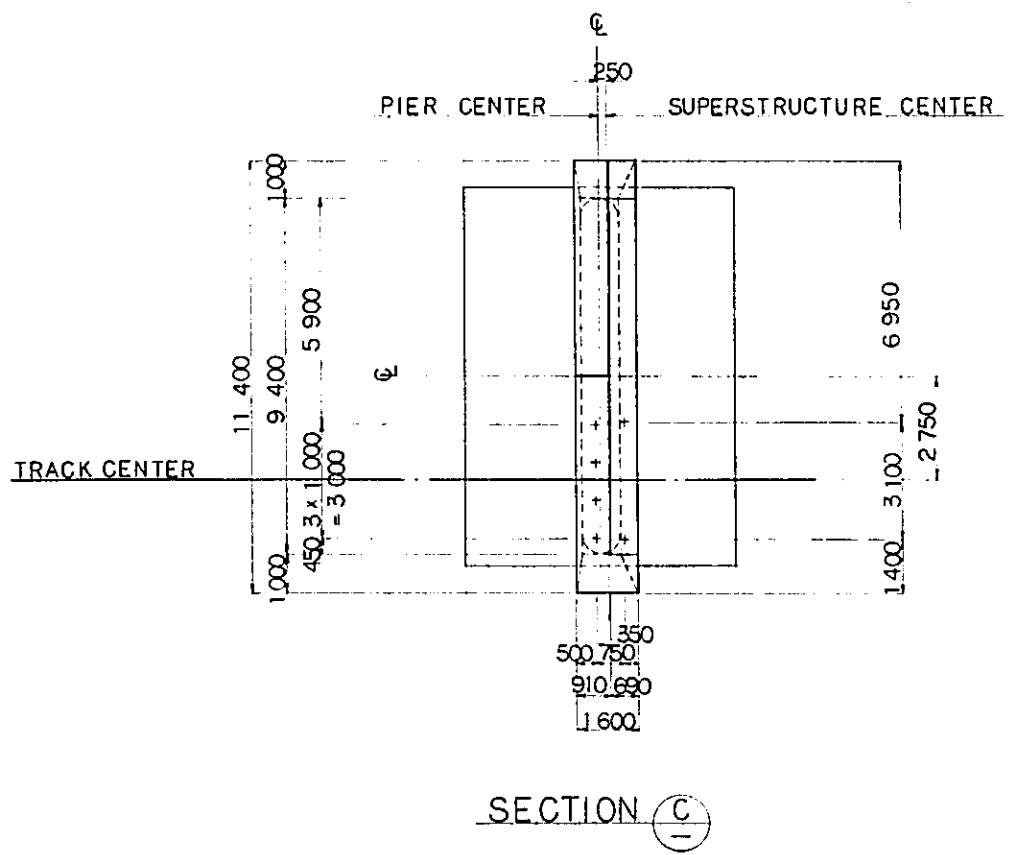
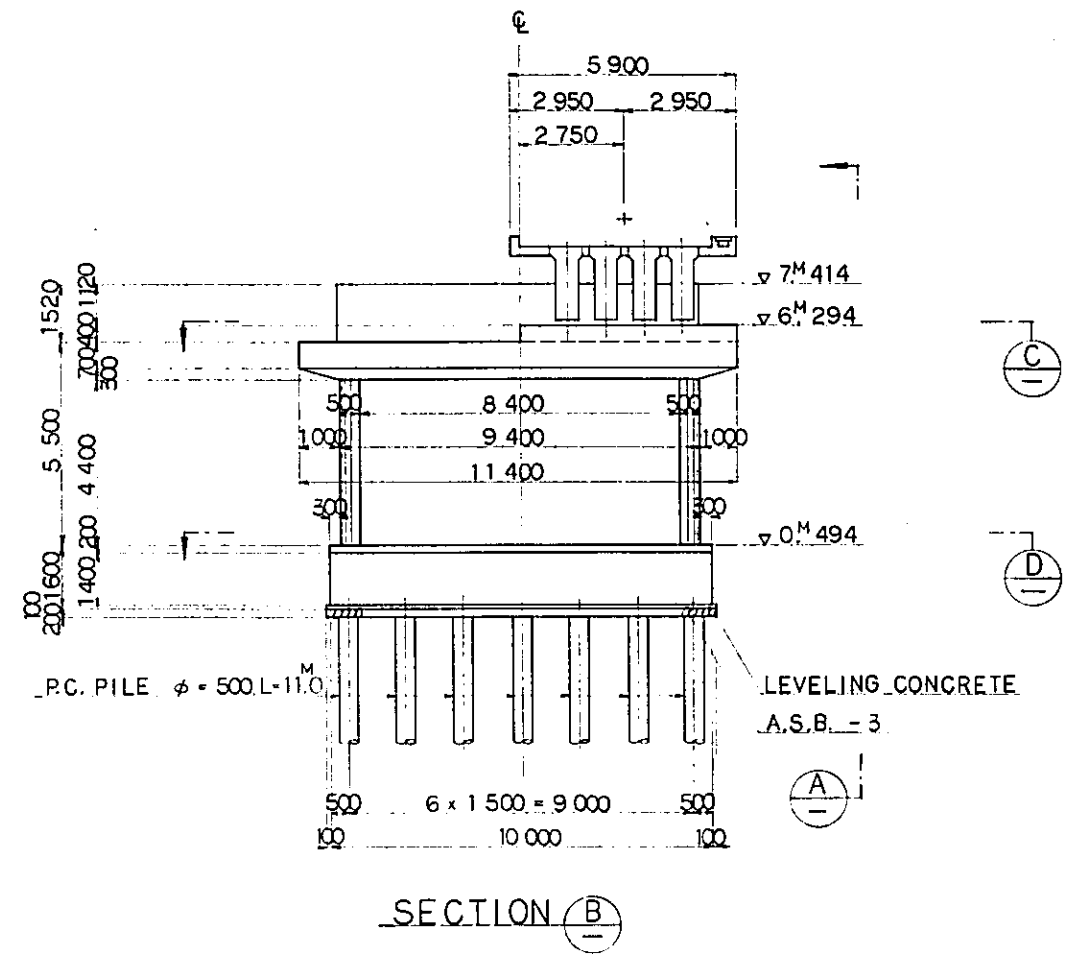
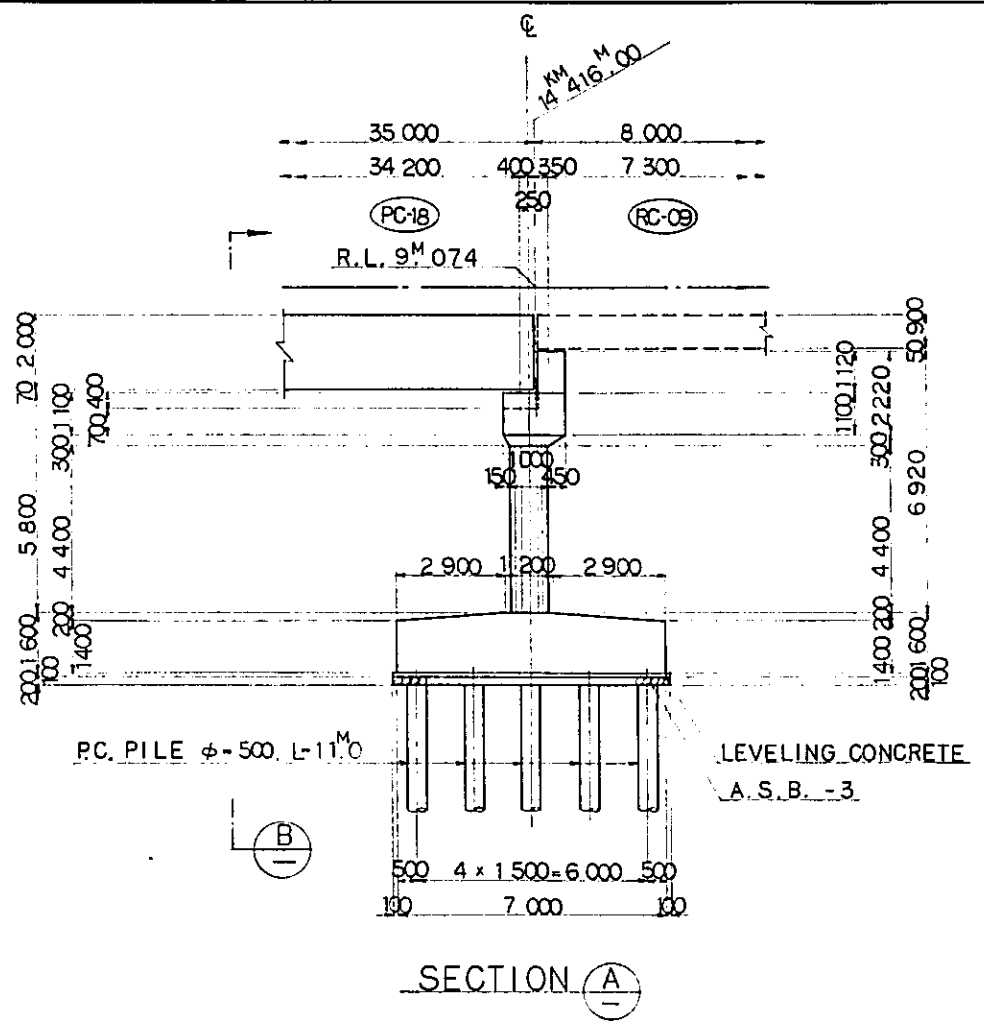
NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

A	1 AUG. '64	SS	m.y.	K.K.	K.M.	K.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

PIER P20
 BAR ARRANGEMENT
 (SHEET 3 OF 3)

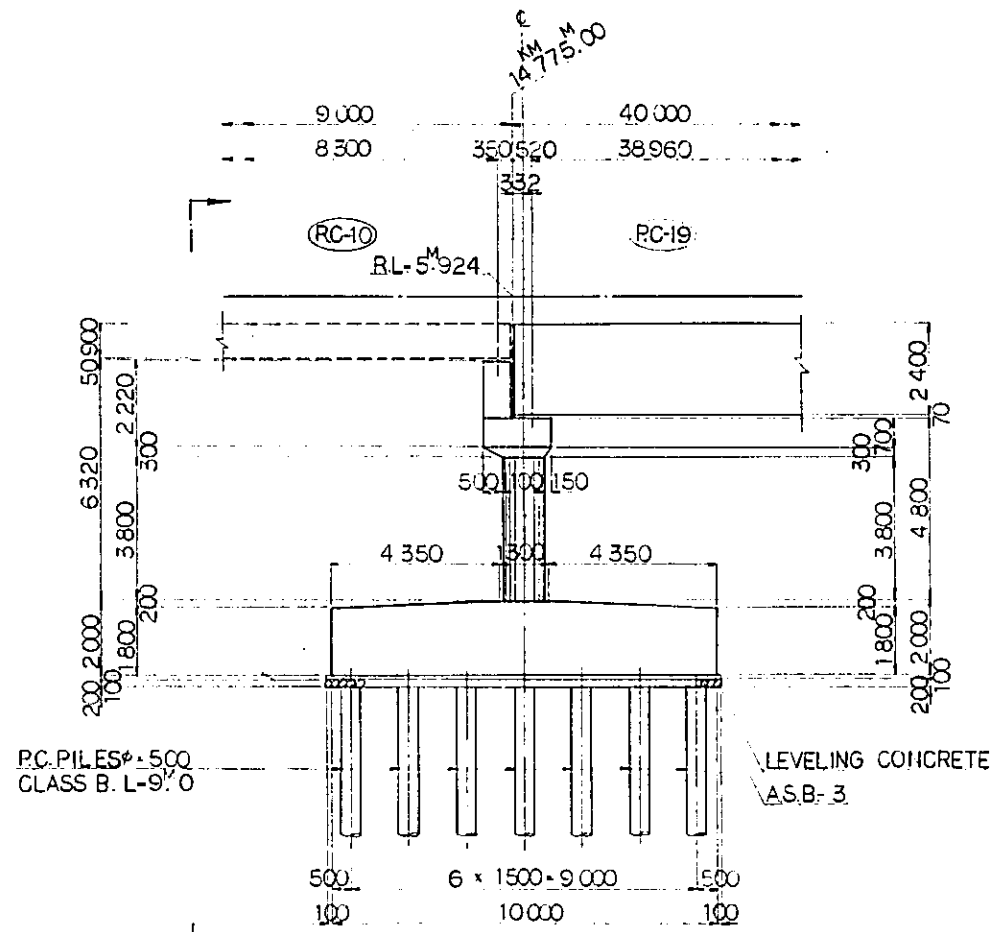
PACKAGE: I CIVIL AND ARCHITECTURAL WORK
 SCALE: 1:50 DRAWING NO: CS-095-2



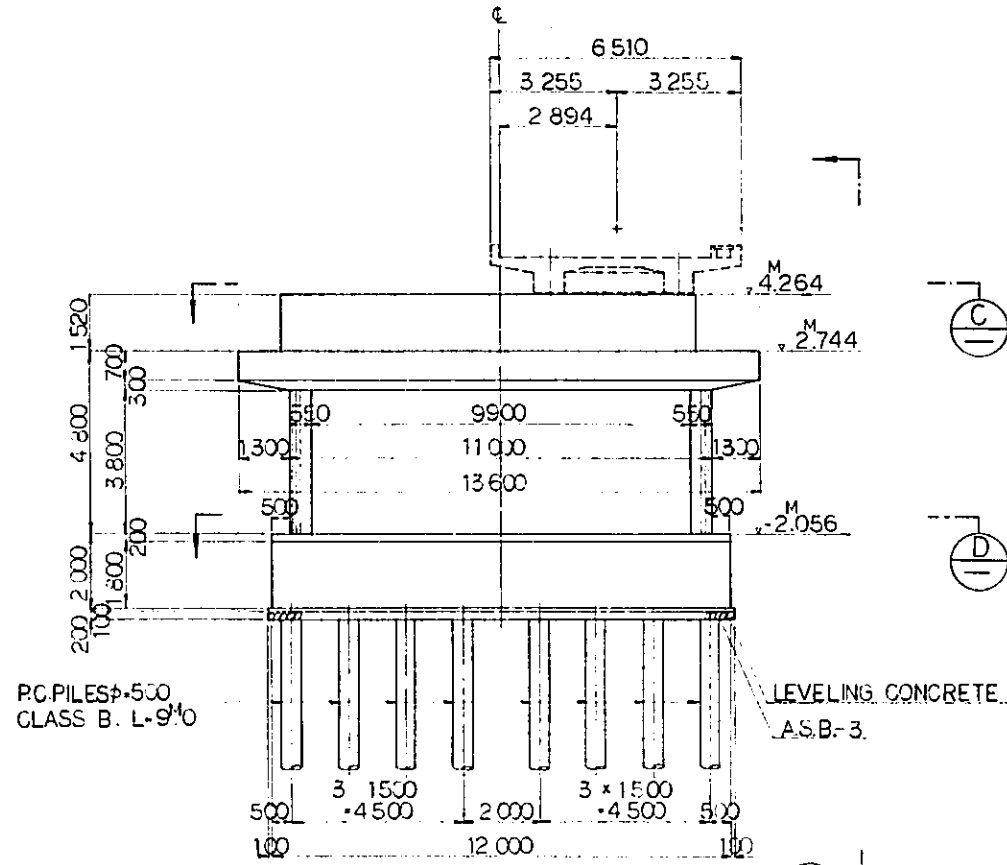
GENERAL VIEW OF P-21

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR BAR ARRANGEMENT : CS104 . CS105

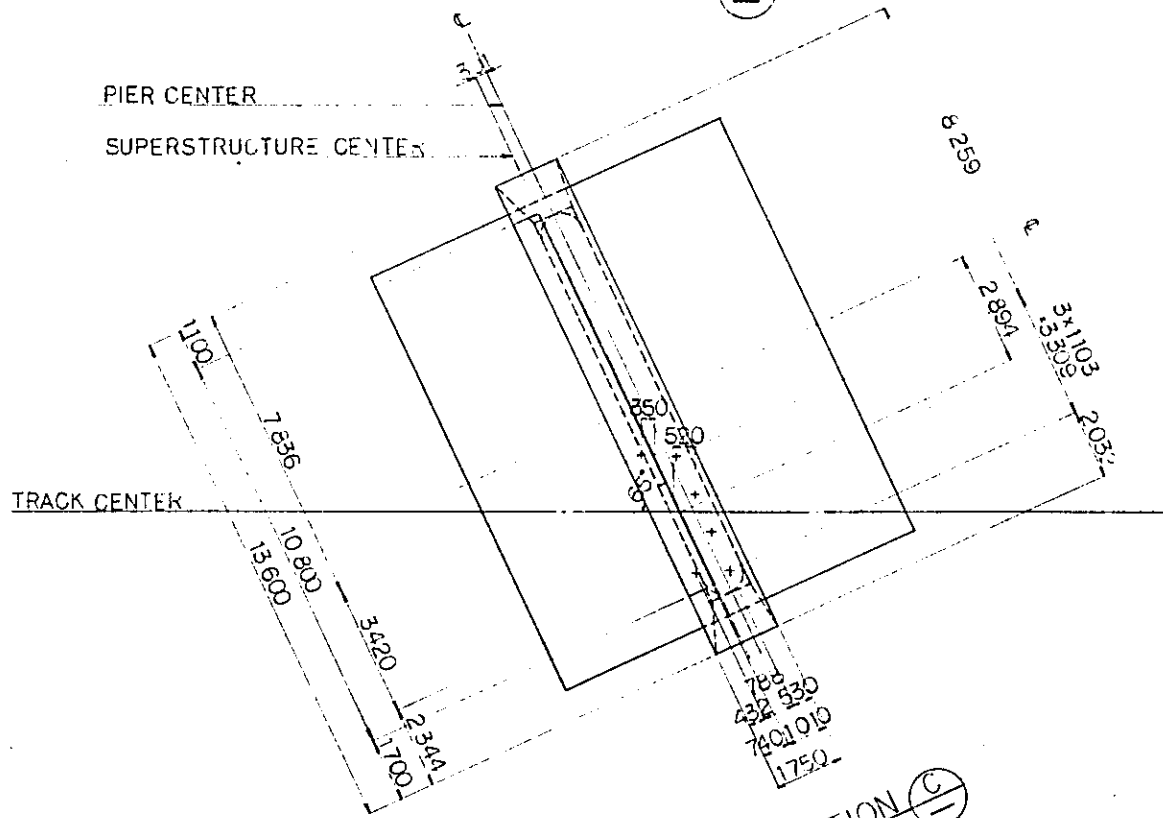
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
A	1 AUG '84	S.S.	m.y.	K.R.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
PIER P21 GENERAL VIEW					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO:				
1:100	CS-096				



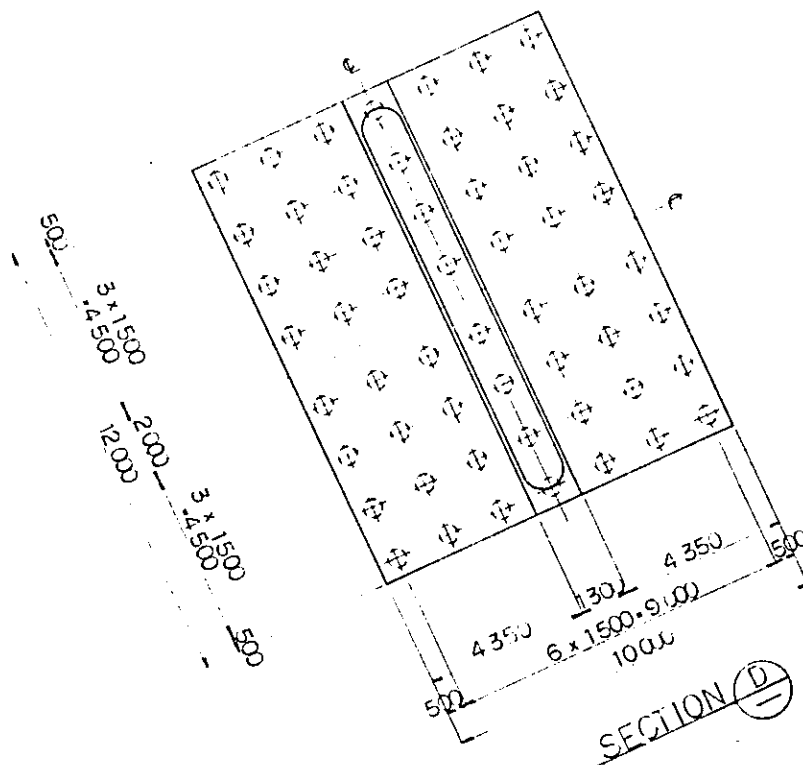
SECTION A



SECTION B



SECTION C



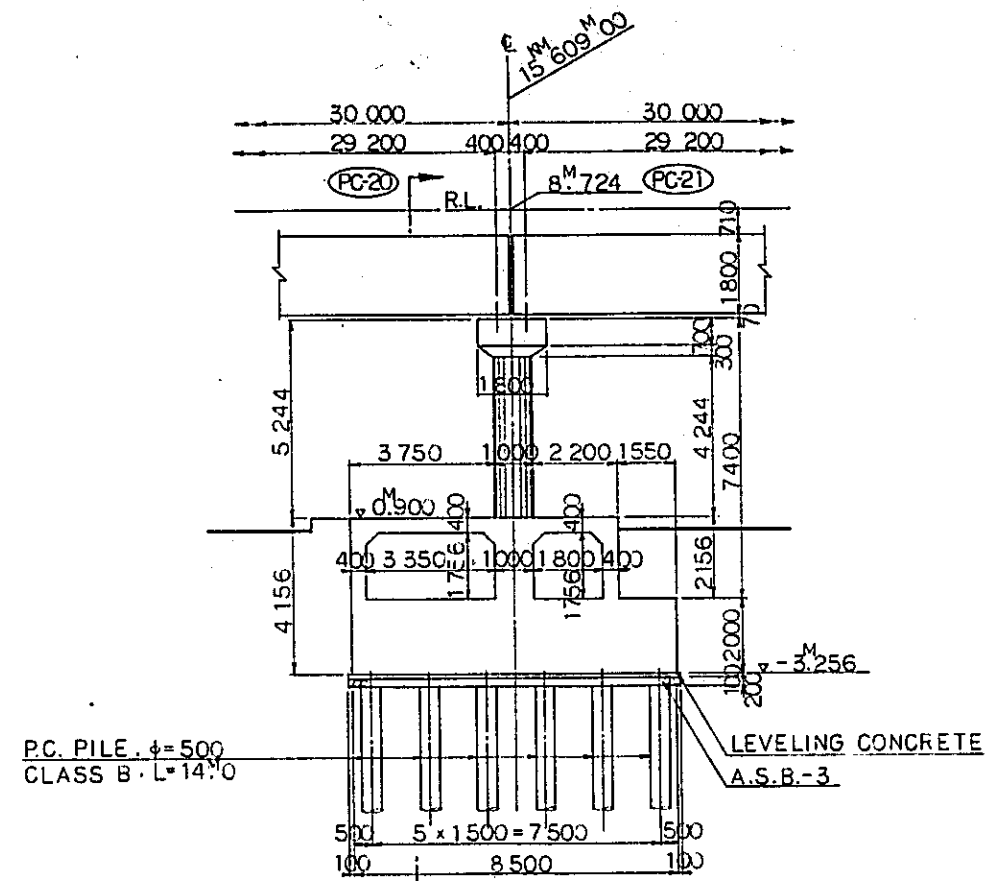
SECTION D

GENERAL VIEW OF P-22

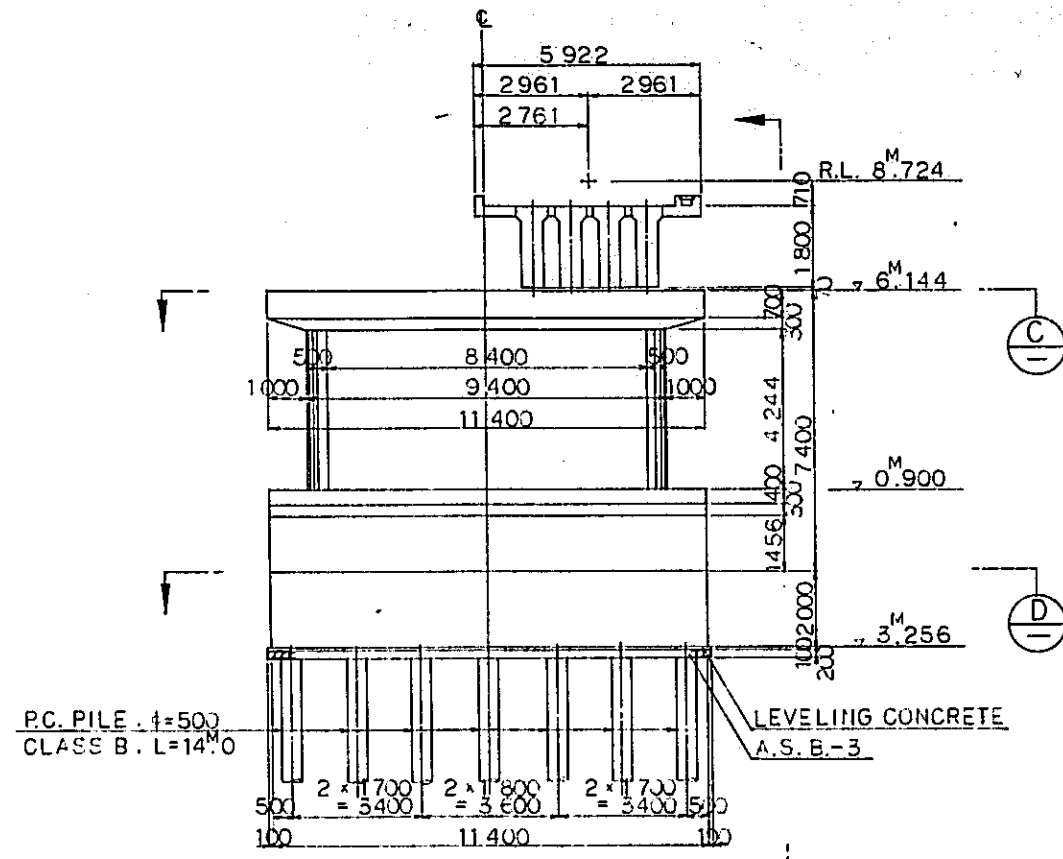
NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-074, CS-075, CS-076

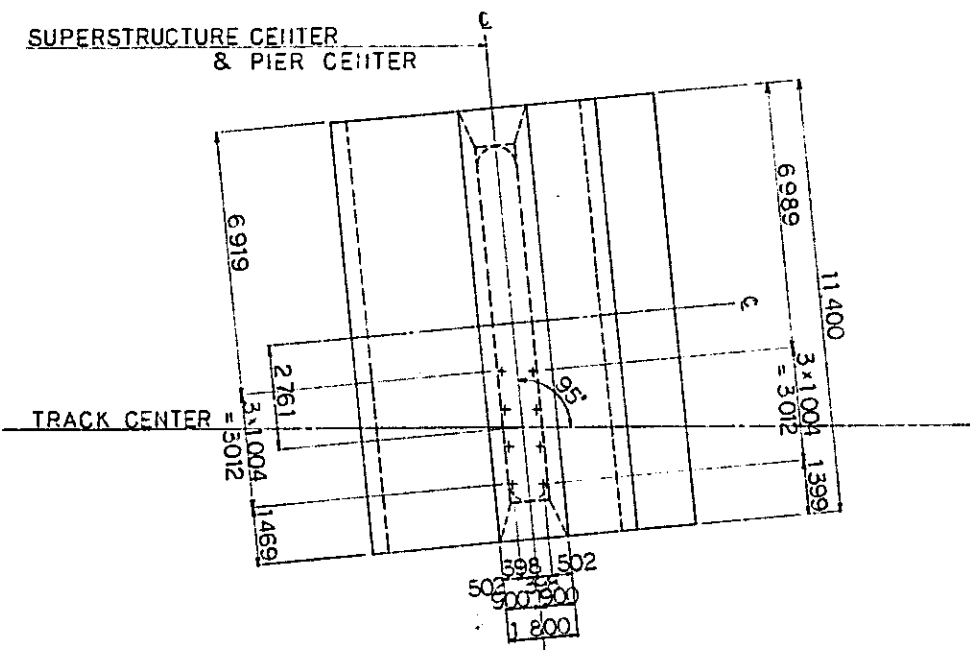
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG '84	SS	MY	K.A.	K.M.	K.K.
A	15 FEB '84	SS	MY	K.A.	K.M.	K.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
PIER P22 GENERAL VIEW						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:100	CS-097					



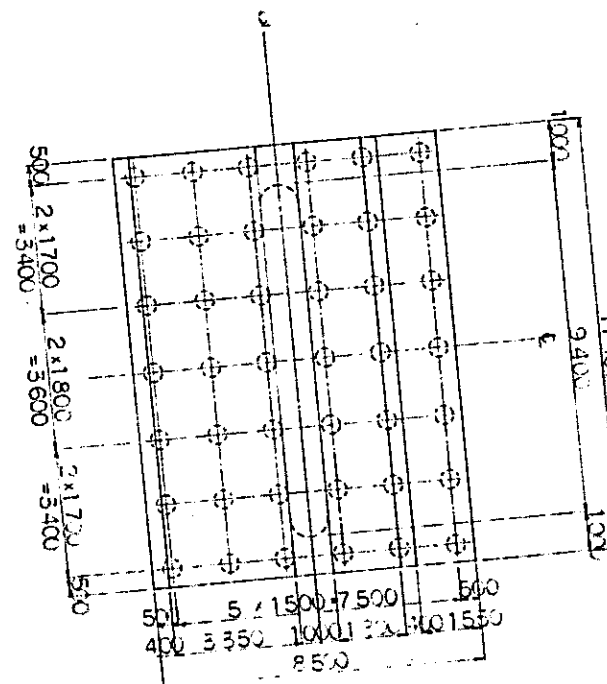
SECTION A



SECTION B



SECTION C



SECTION D

GENERAL VIEW OF P-24

DESIGN CRITERIA		
DESIGN LOAD	TRAIN LOAD SEISMIC EFFECT	EQUIVALENT TO RS-16 IN HORIZONTAL DIRECTION $K_h=0$ IN VERTICAL DIRECTION $K_v=0$
ALLOWABLE STRESS	REINFORCING BAR CONCRETE	ALLOWABLE TENSILE STRESS 1800 kg/cm^2 ALLOWABLE COMPRESSIVE STRESS 80 kg/cm^2
MATERIAL	TYPE OF REINFORCING BAR	SD-30
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck} = 210 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25 mm

NOTES:

- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
- REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-098-1, CS-098-2, CS-098-3, CS-098-4

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

NEW RAILWAY LINE FOR CENKARENG AIRPORT
CONSTRUCTION PROJECT

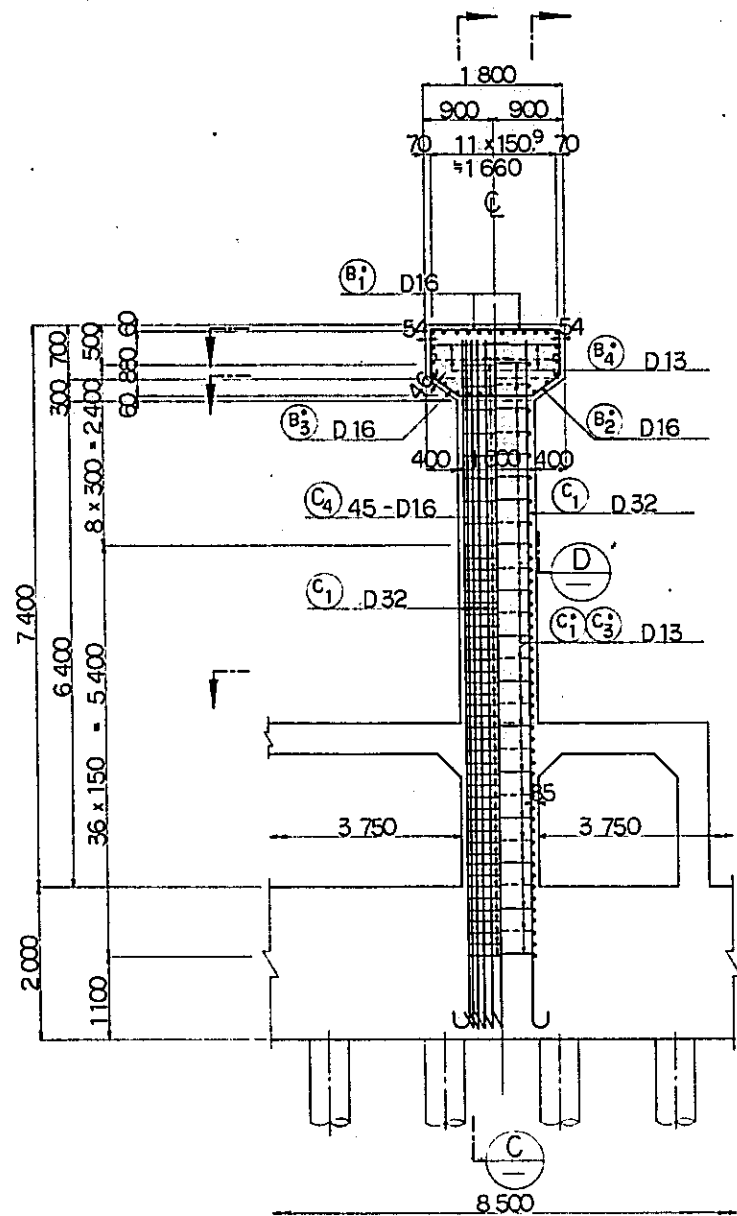
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

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

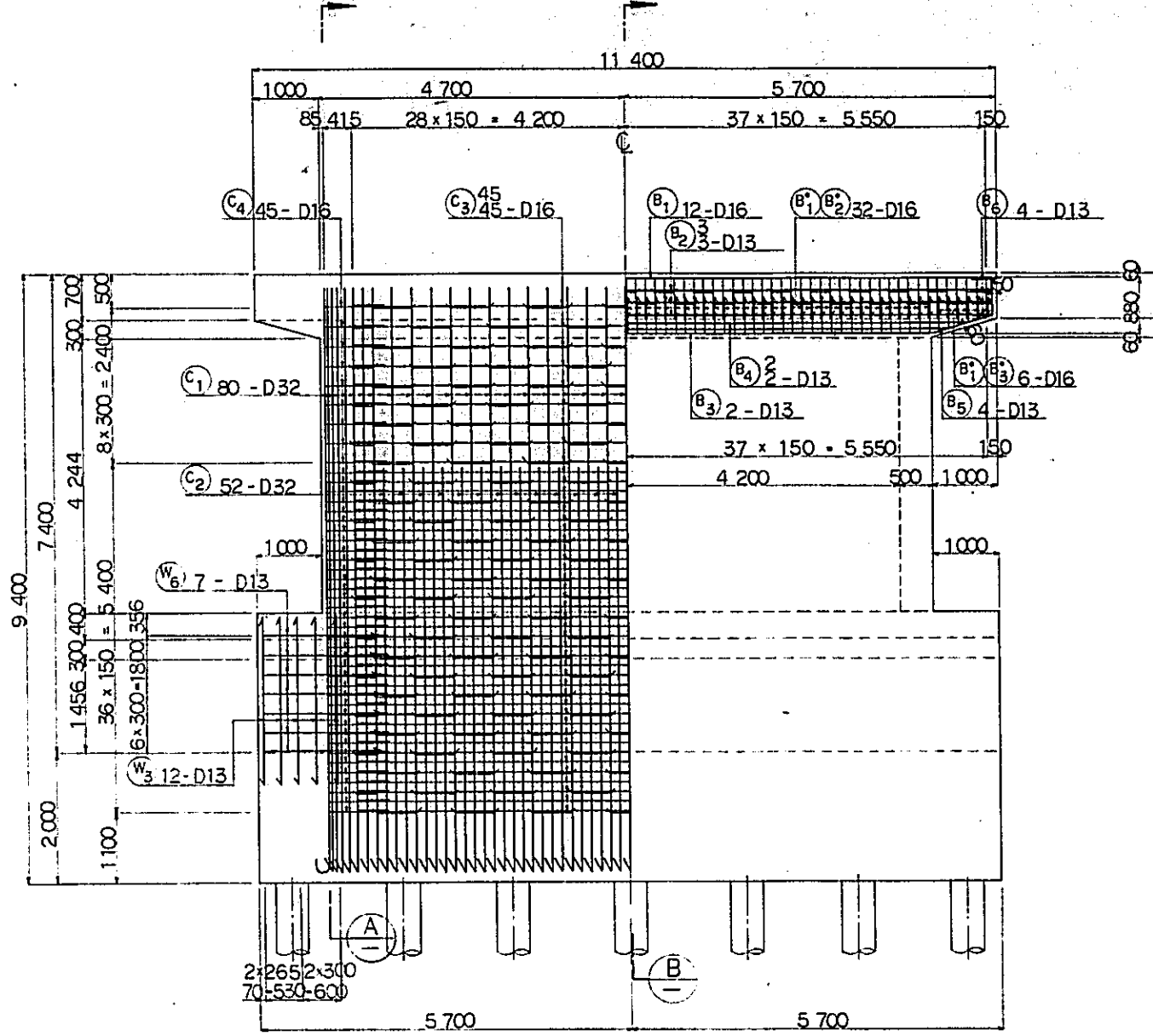
PIER P24
GENERAL VIEW

PACKAGE: I - CIVIL AND ARCHITECTURAL WORK

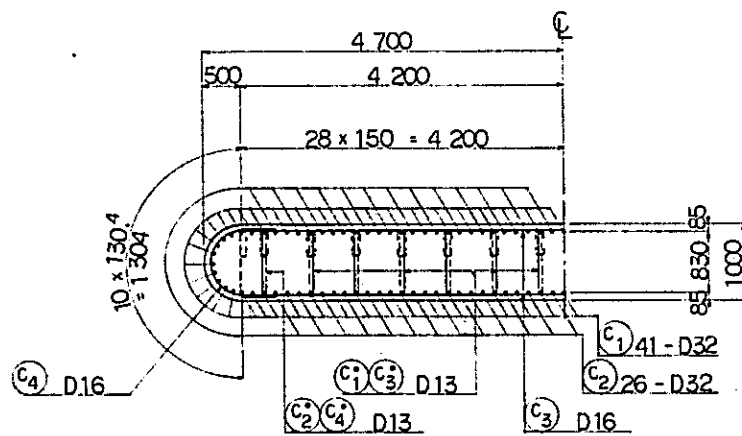
SCALE: 1:100
DRAWING NO: CS-098



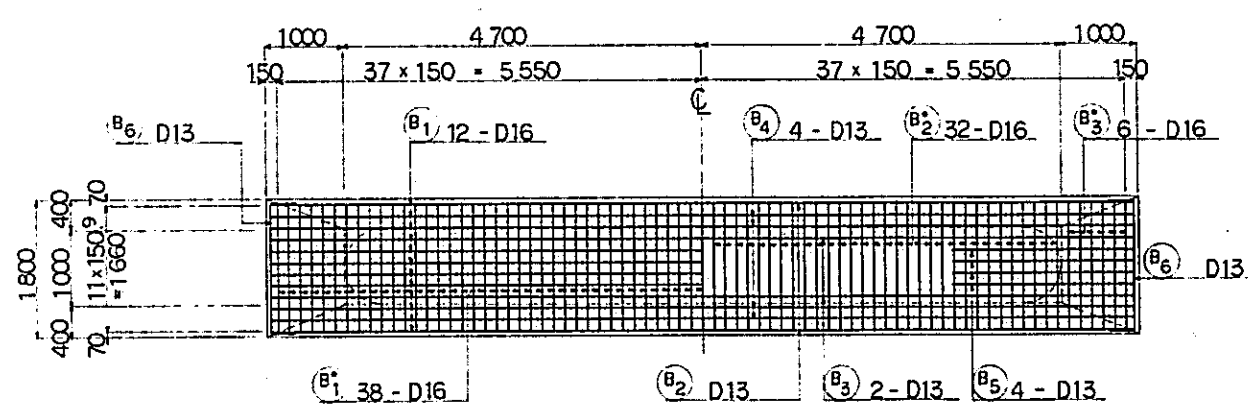
SECTION A SECTION B



SECTION C SECTION D



SECTION G

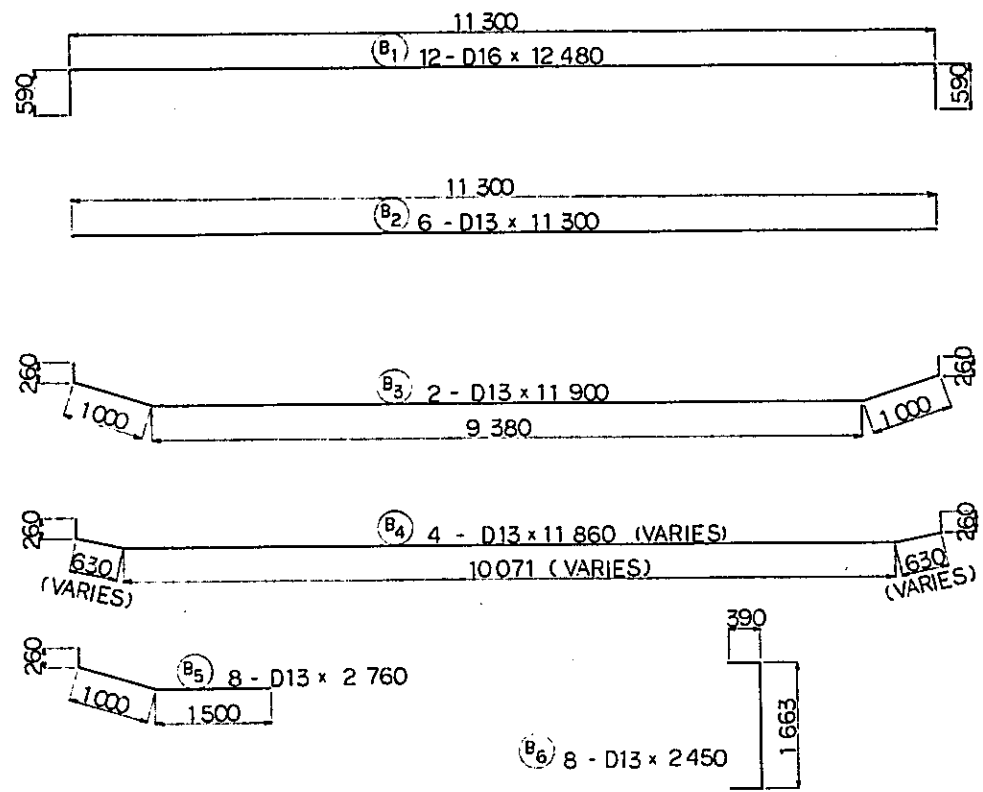
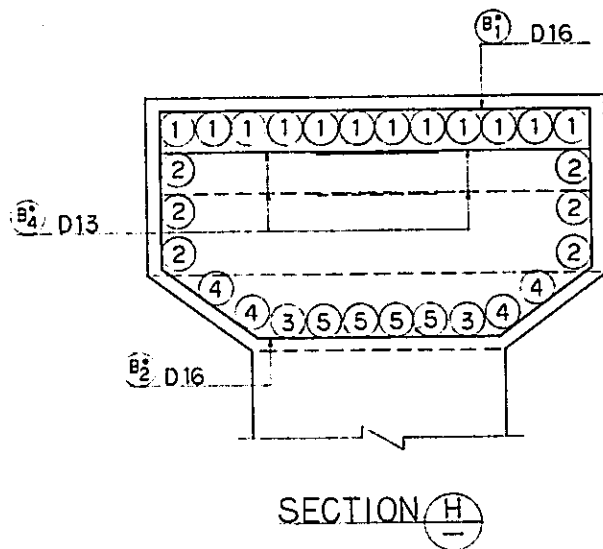


SECTION E SECTION F

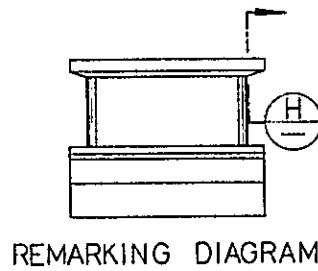
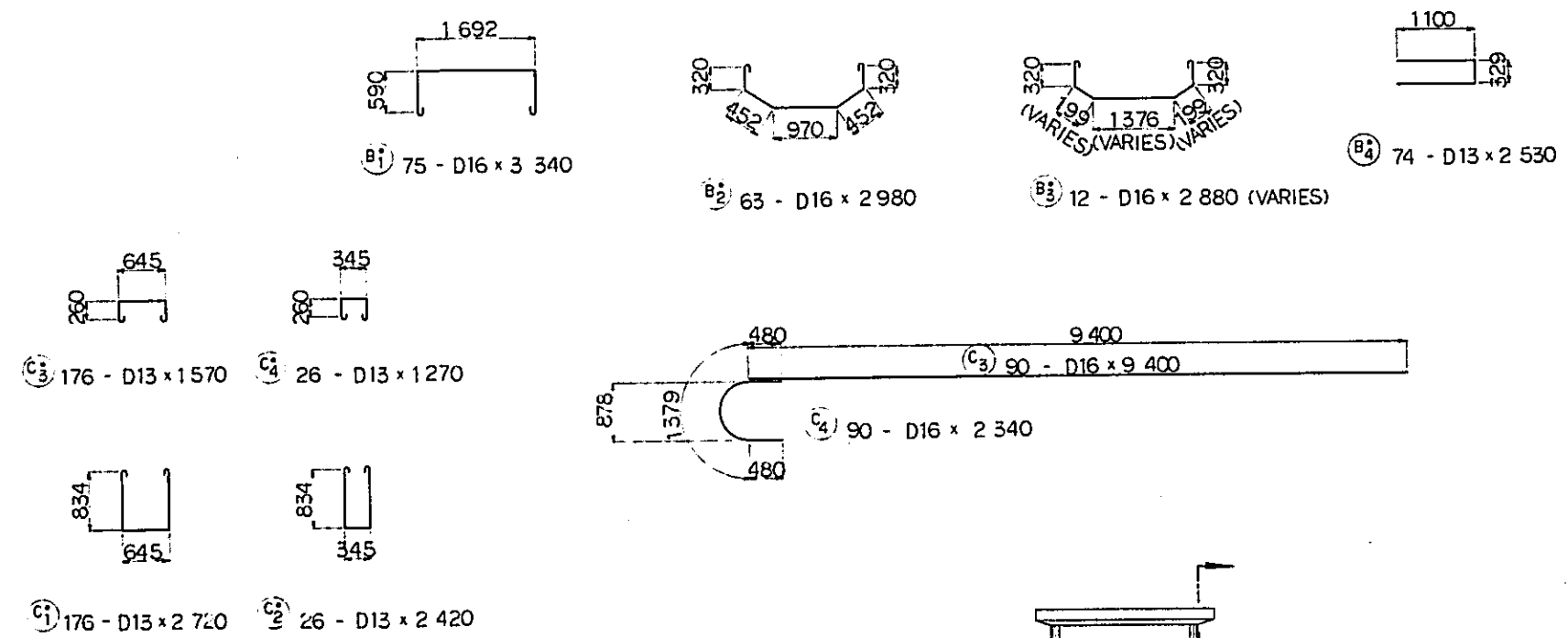
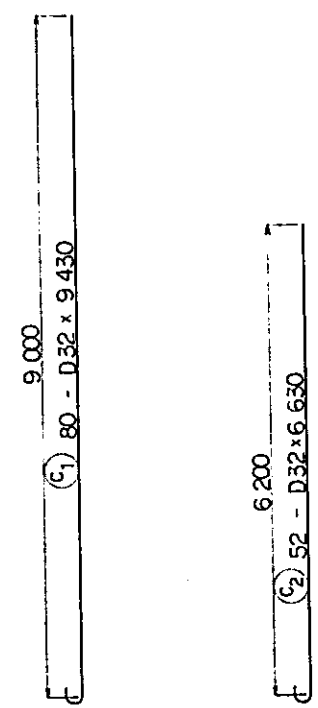
NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW: CS-098

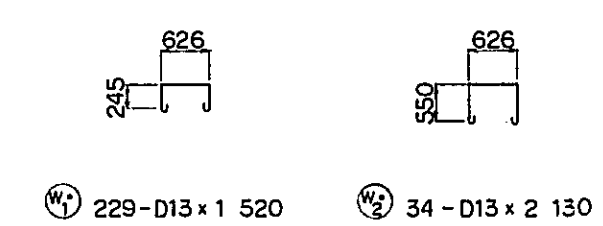
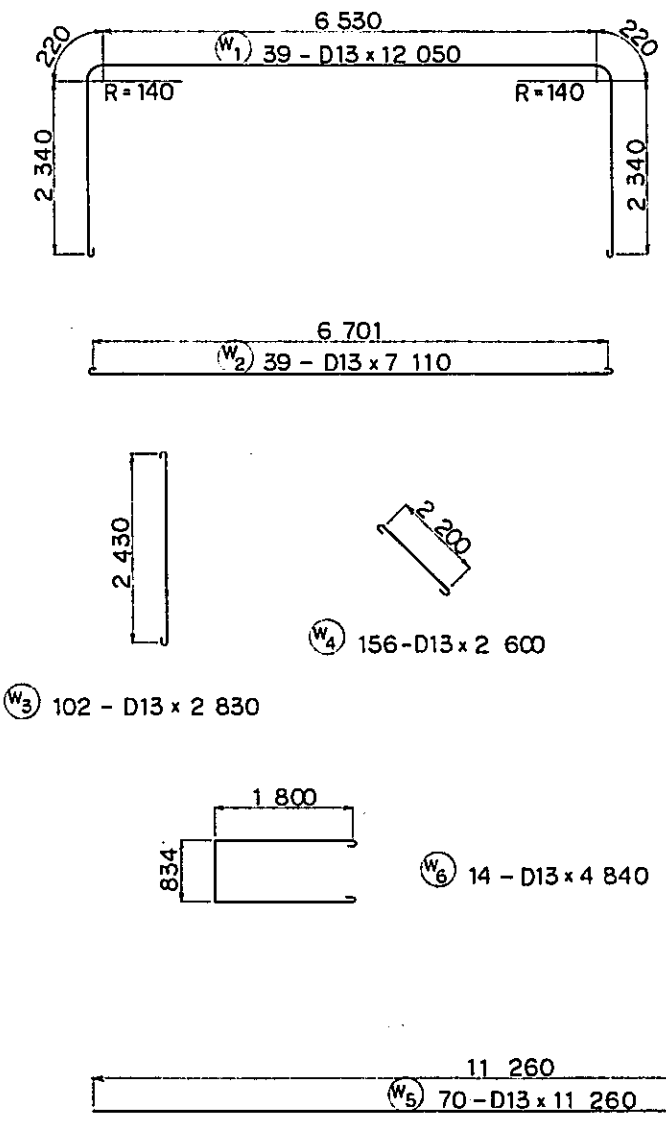
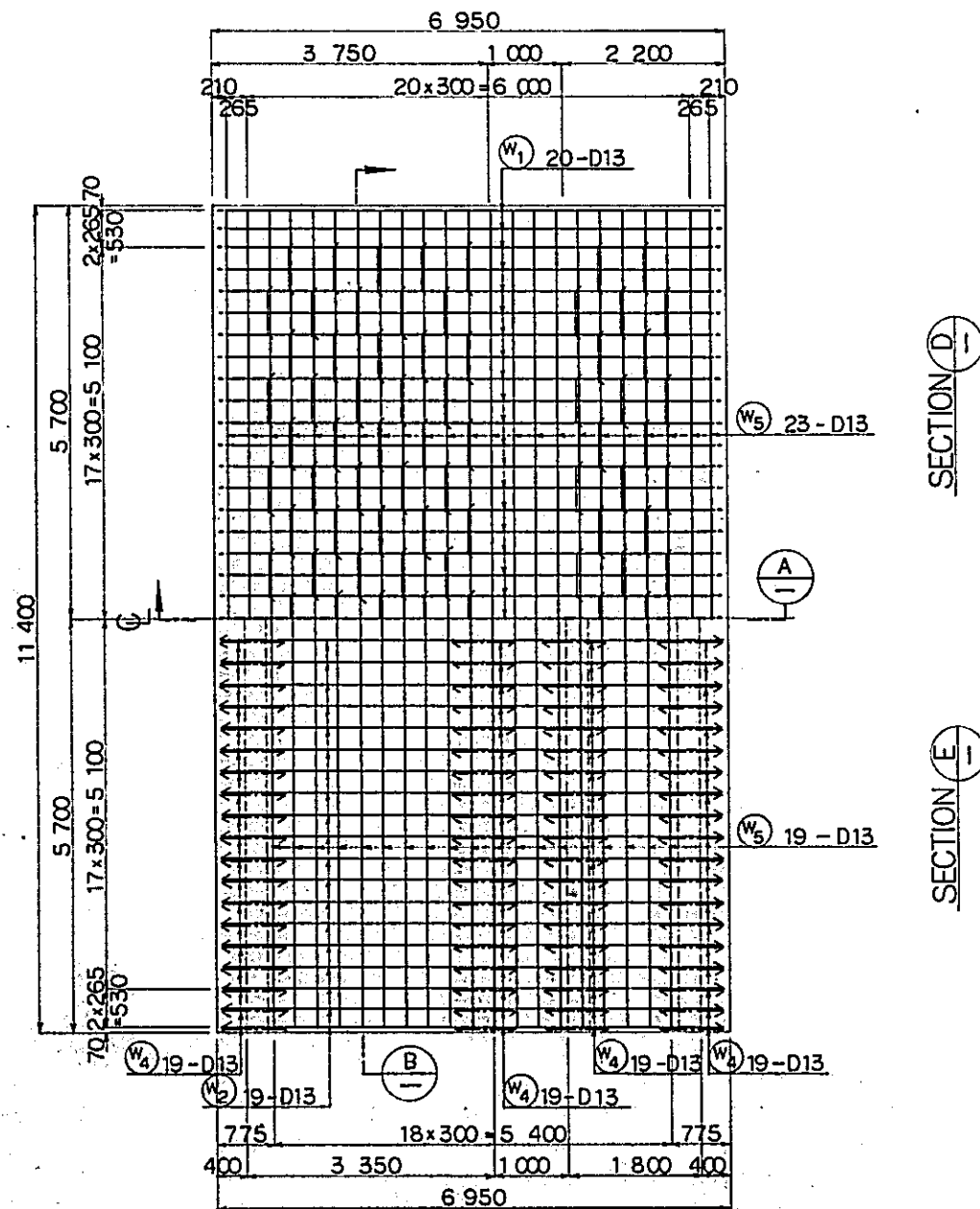
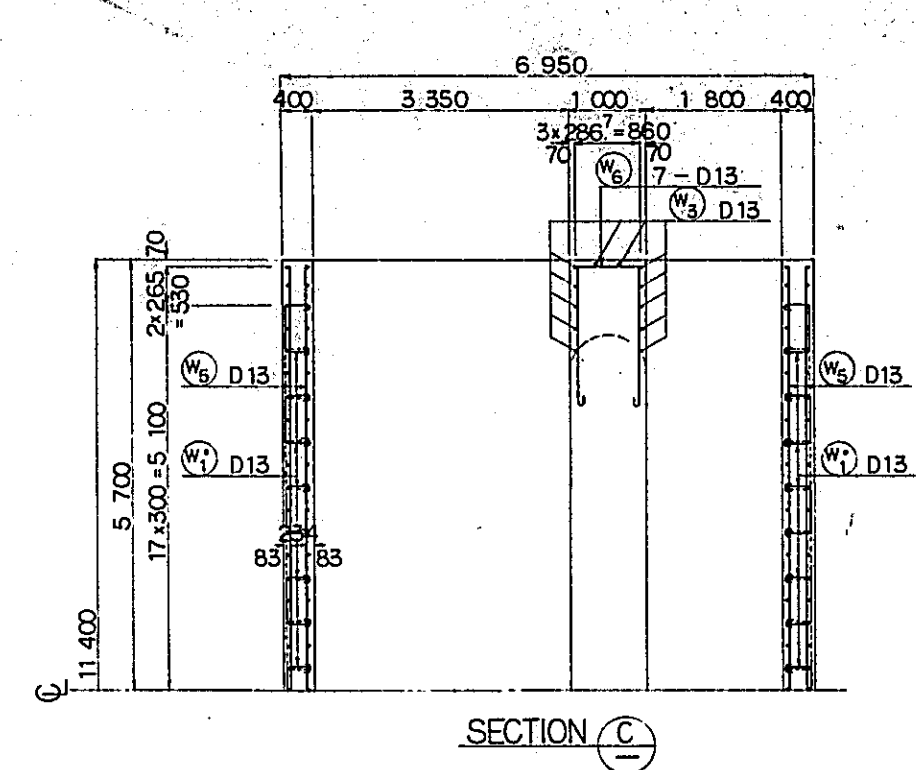
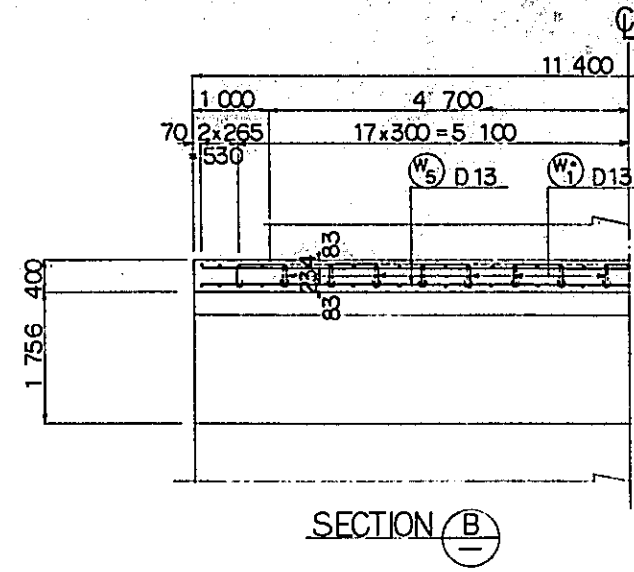
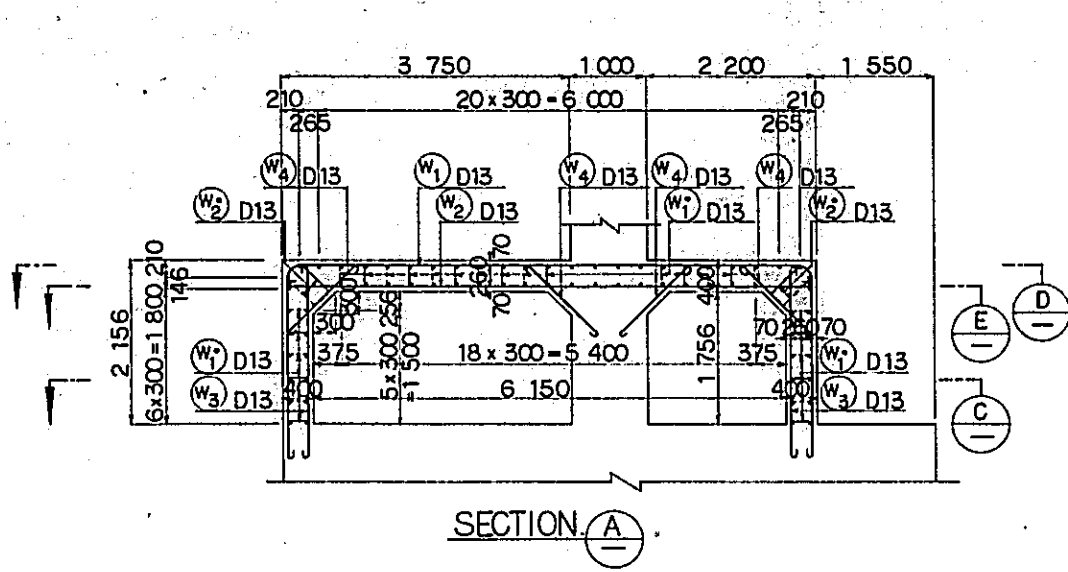
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
A	1AUG'84	S.S.	M.Y.	K.A.	K.M.	K.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
PIER P24 BAR ARRANGEMENT (SHEET 1 OF 4)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE:	DRAWING NO:					
1:50	CS-098-1					



NOTES:
 1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-098

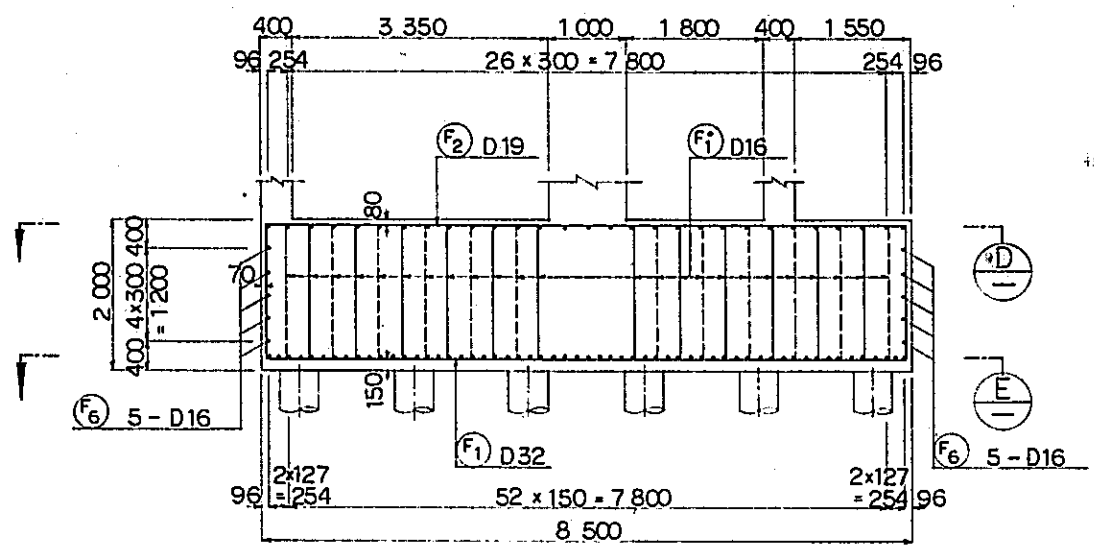


REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
A	1AUG'84	S.S.	M.Y.	K.S.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	SUBMITTED
PIER P24 BAR ARRANGEMENT (SHEET 2 OF 4)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:50	CS-098-2				

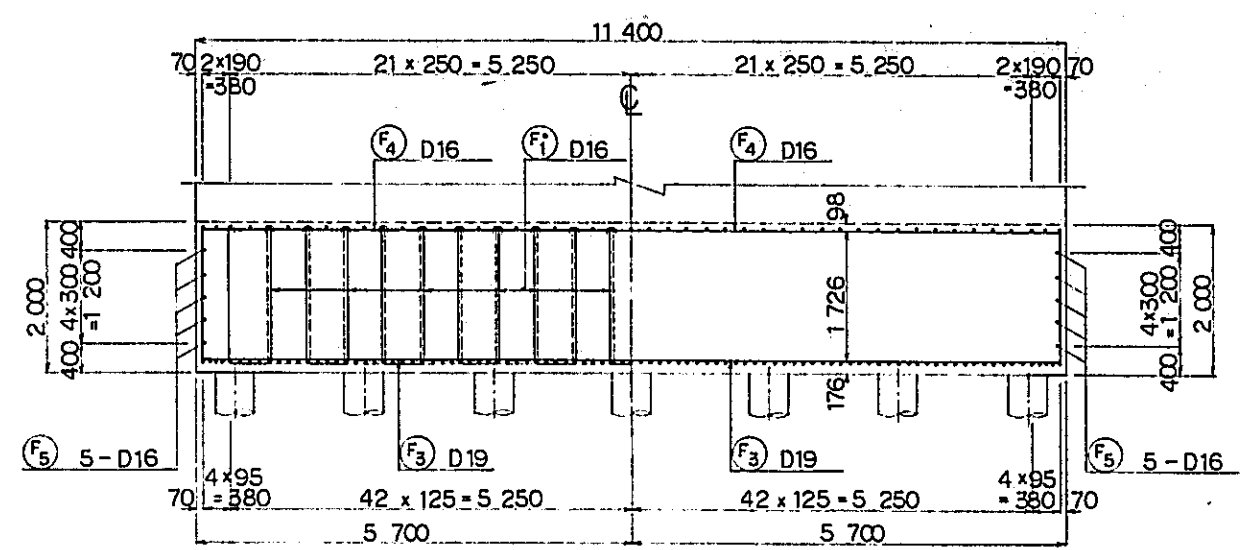


- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 - REFERENCE DRAWING FOR GENERAL VIEW : CS-098

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	APPROVED	DATE
A	1 AUG. 84	S.S.	M.Y.	K.D.	K.M.
PIER P24 BAR ARRANGEMENT (SHEET 3 OF 4)					
PACKAGE: I. CIVIL AND ARCHITECTURAL WORK					
SCALE:	1:50	DRAWING NO.:	CS-098-3		

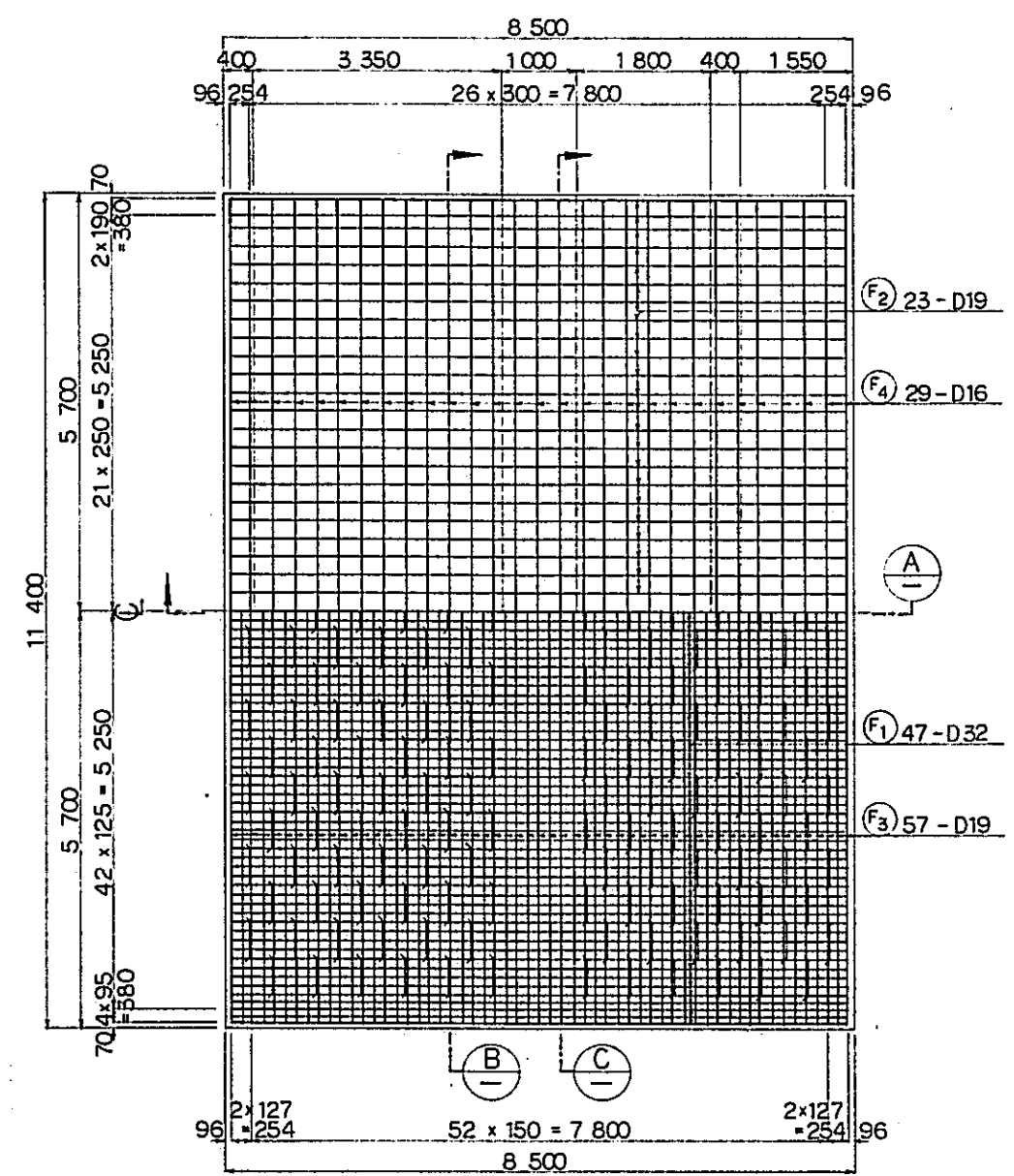


SECTION A



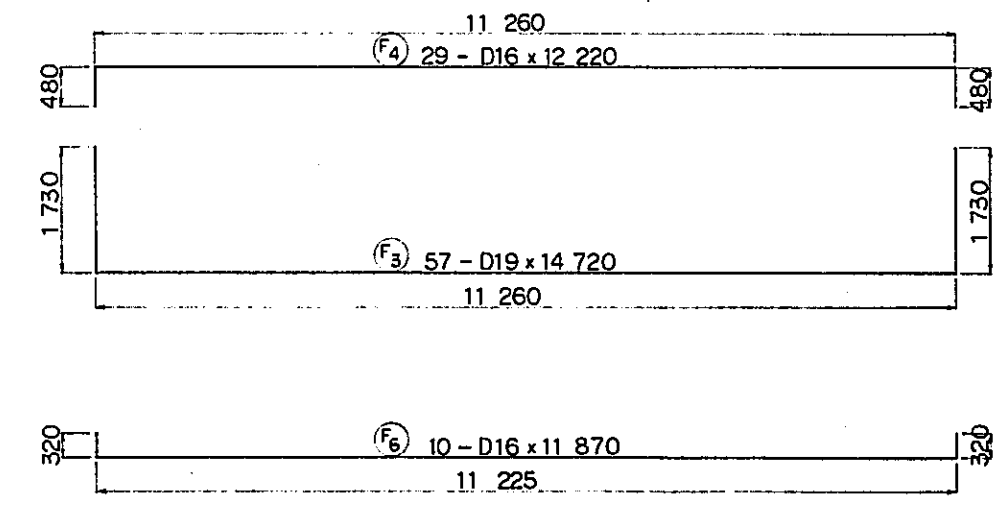
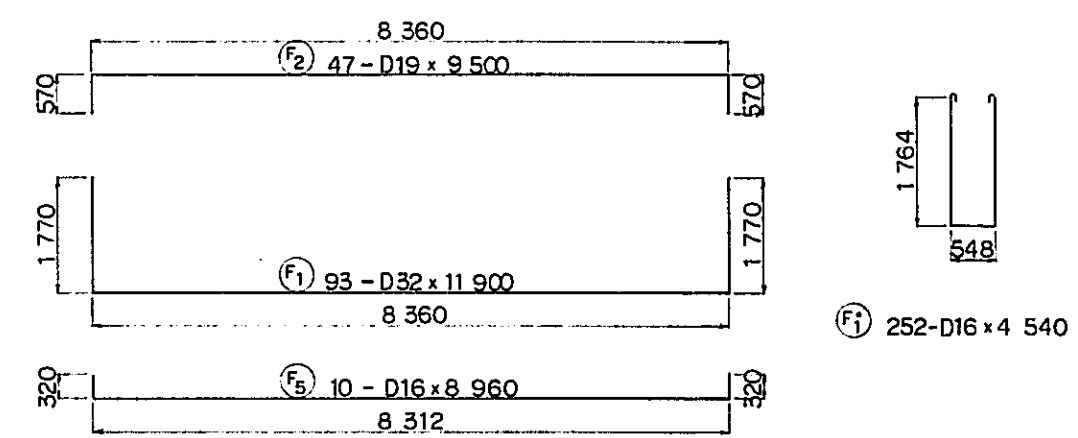
SECTION B

SECTION C



SECTION D

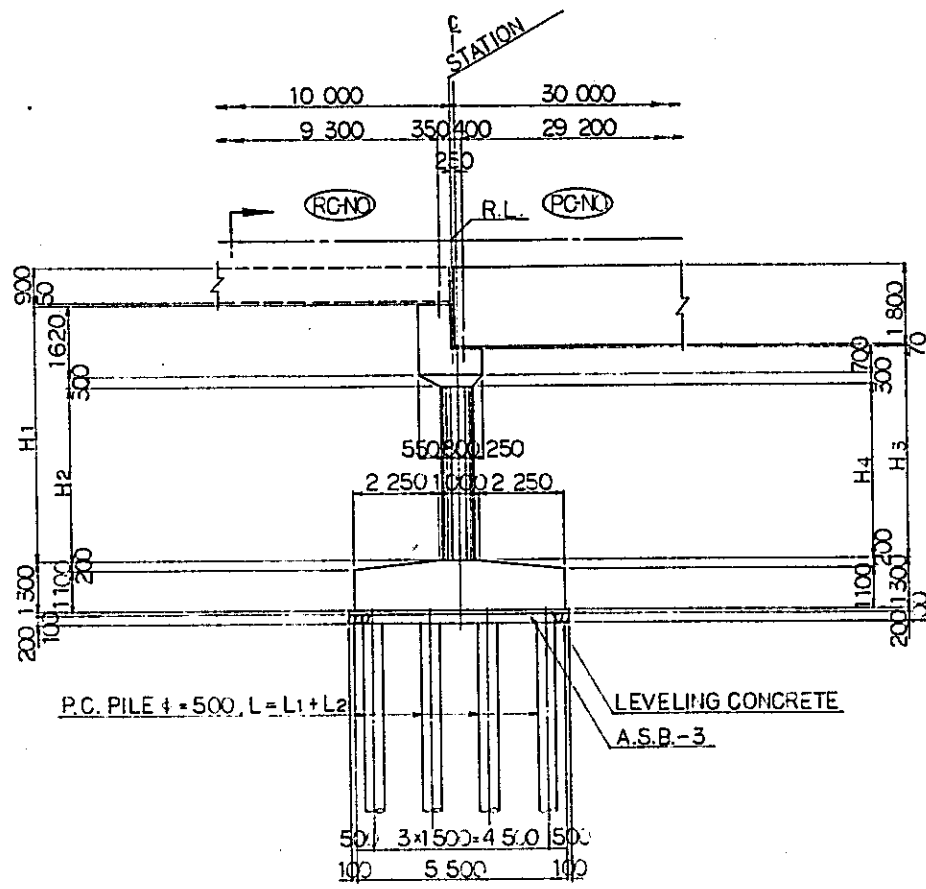
SECTION E



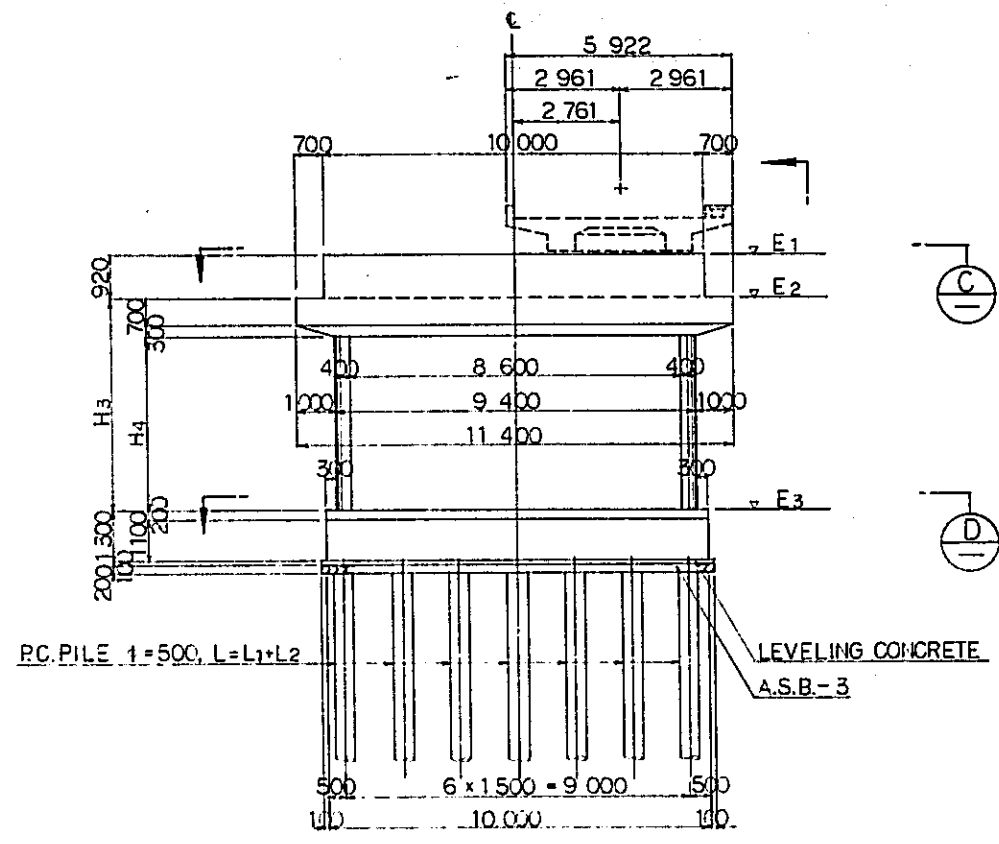
NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW : CS-098

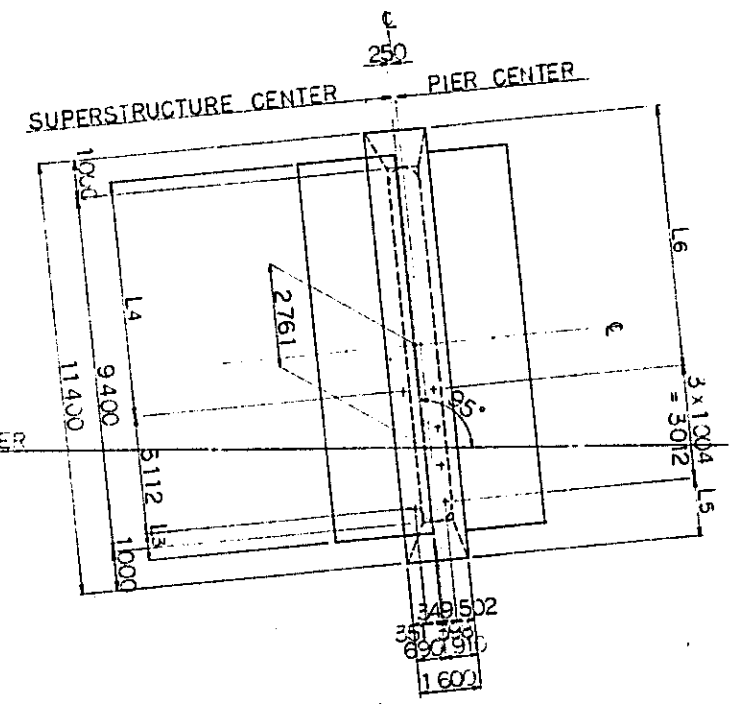
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
A	1 AUG 84	S.S.	m.y	K.d	K.M	m.K
PIER P24 BAR ARRANGEMENT (SHEET 4 OF 4)						
PACKAGE: I - CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:50		DRAWING NO.: CS-098-4				



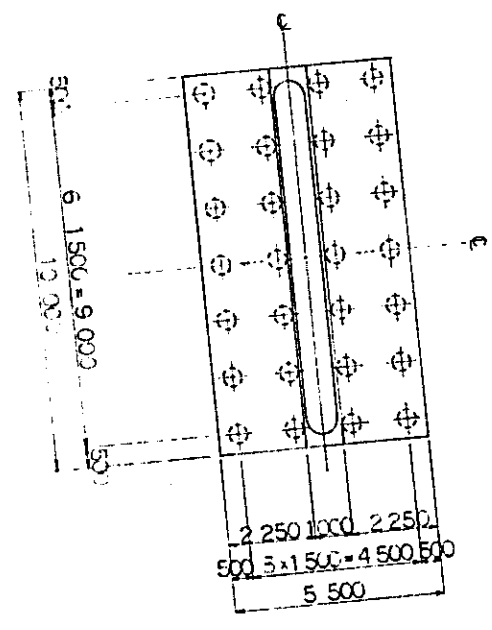
SECTION A



SECTION B



SECTION C



SECTION D

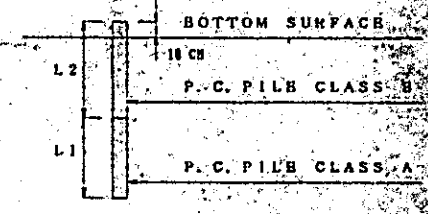
DIMENSION SCHEDULE

PIER NO.	STATION	ALIGNMENT	RC. NO.	PC. NO.	R.L.	E1	E2	E3	H1	H2	H3	H4	L1	L2	L3	L4	L5	L6
P-23	15+579.00	STRAIGHT	12	20	8.724	7.064	6.144	0.056	7.120	5.200	6.200	5.200	8.0	8.0	714	6.174	1.399	6.989
P-25	15+639.00	STRAIGHT	13	21	8.724	7.064	6.144	0.156	7.220	5.300	6.300	5.300	8.0	8.0	654	6.234	1.469	6.919

GENERAL VIEW OF P-23 & P-25

DESIGN CRITERIA		
DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-15
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION: $K_h=0.1$ IN VERTICAL DIRECTION: $K_v=0$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS: 180 kg/cm ²
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS: 80 kg/cm ²
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:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED.
 - REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-100, CS-101.
 - TYPES OF P.C. PILE



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

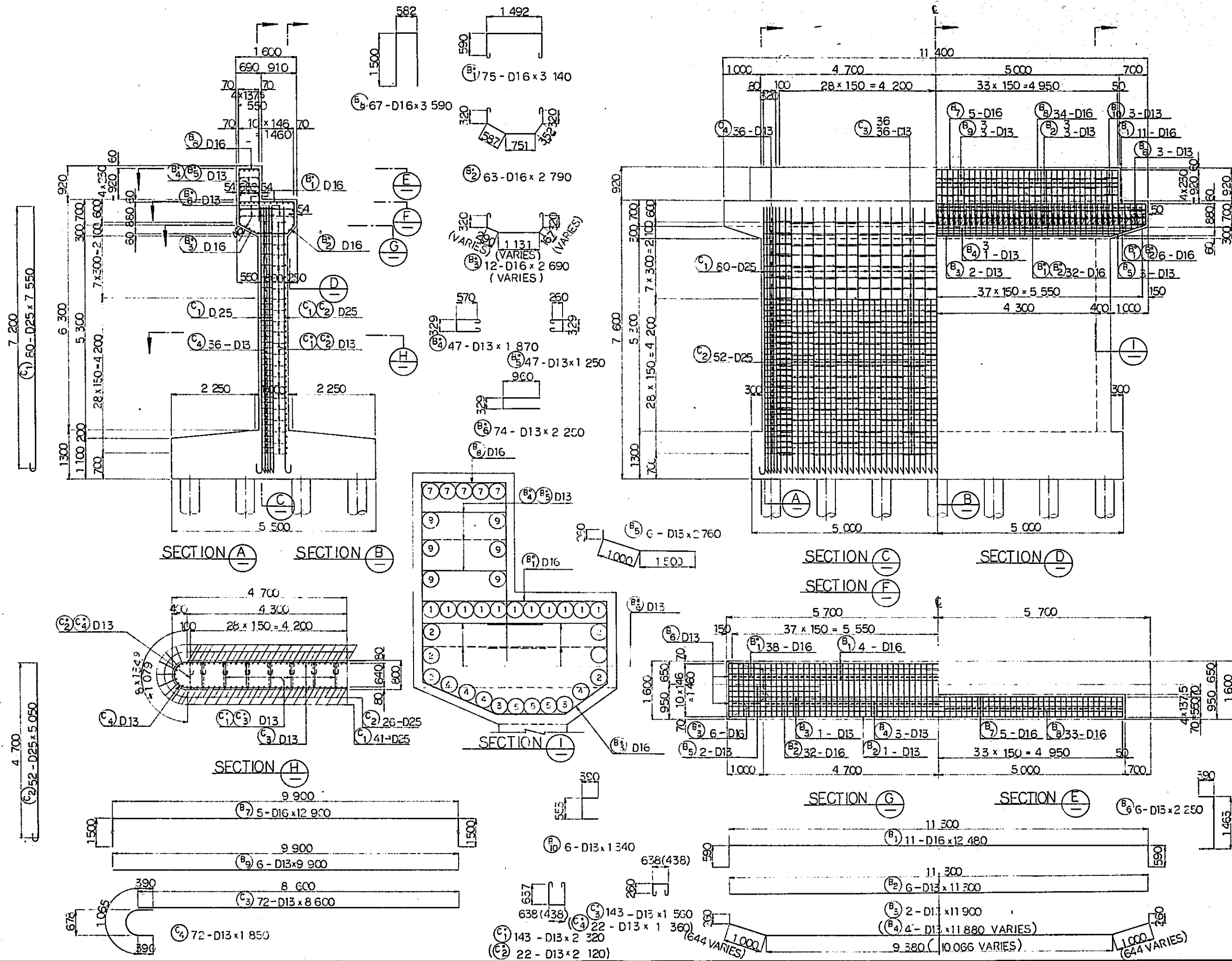
NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

REVISIONS	DATE	DESIGNED	CHECKED	APPROVED	DATE
A	1 AUG 84	S.S.	M.Y.	K.A.	K.M.

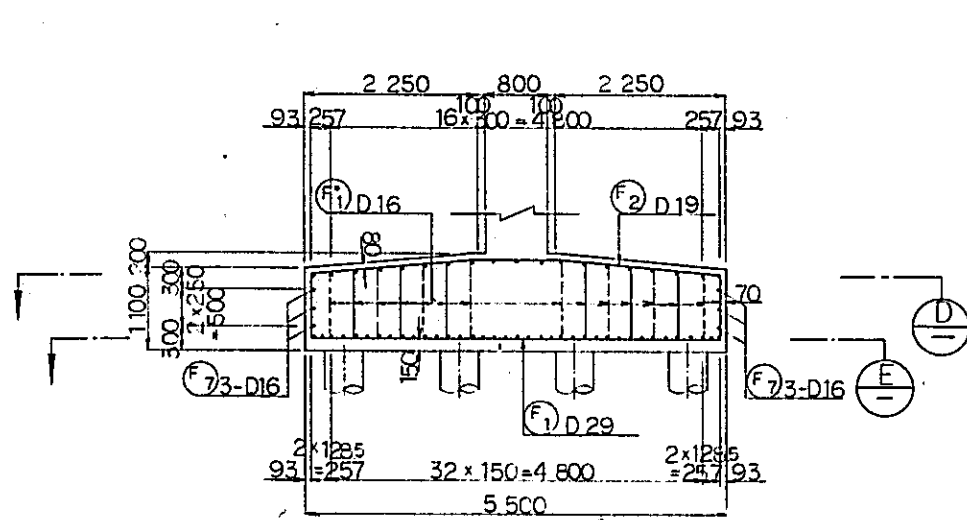
PIER P23, P25
 GENERAL VIEW

PACKAGE: CIVIL AND ARCHITECTURAL WORK
 SCALE: 1:100
 DRAWING NO: CS-099

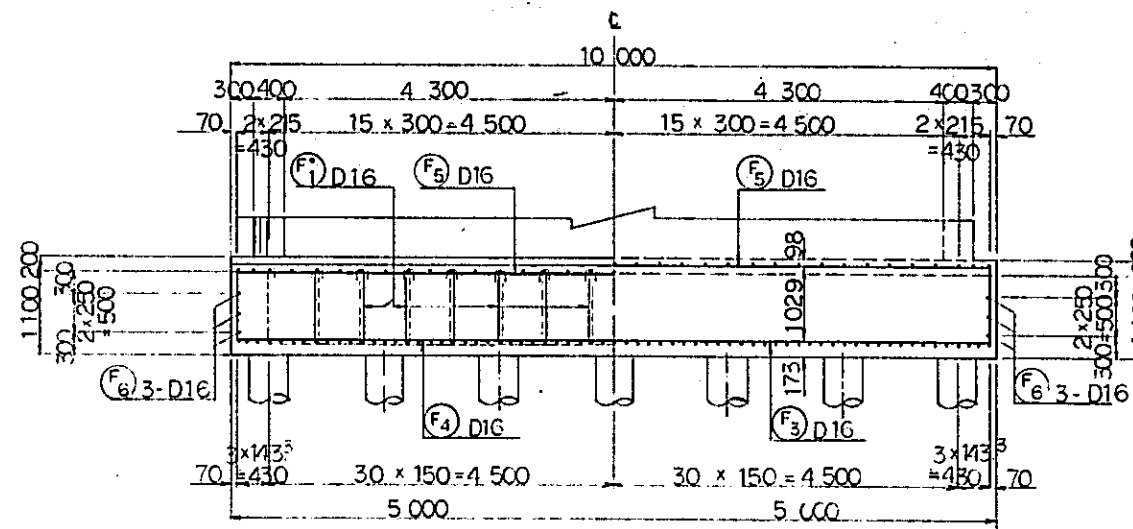


- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-099

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.S.	K.M.	m.K.
A	15 FEB. 84	S.S.	m.y.	K.S.	K.M.	m.K.
REVISIONS	DATE	DESIGNED	CHECKED	APPROVED	REVIEWED	DATE
PIER P25 BAR ARRANGEMENT (SHEET 11 OF 2)						
PACKAGE: CIVIL AND ARCHITECTURAL WORK						
SCALE: 1:50	DRAWING NO.: CS-100					

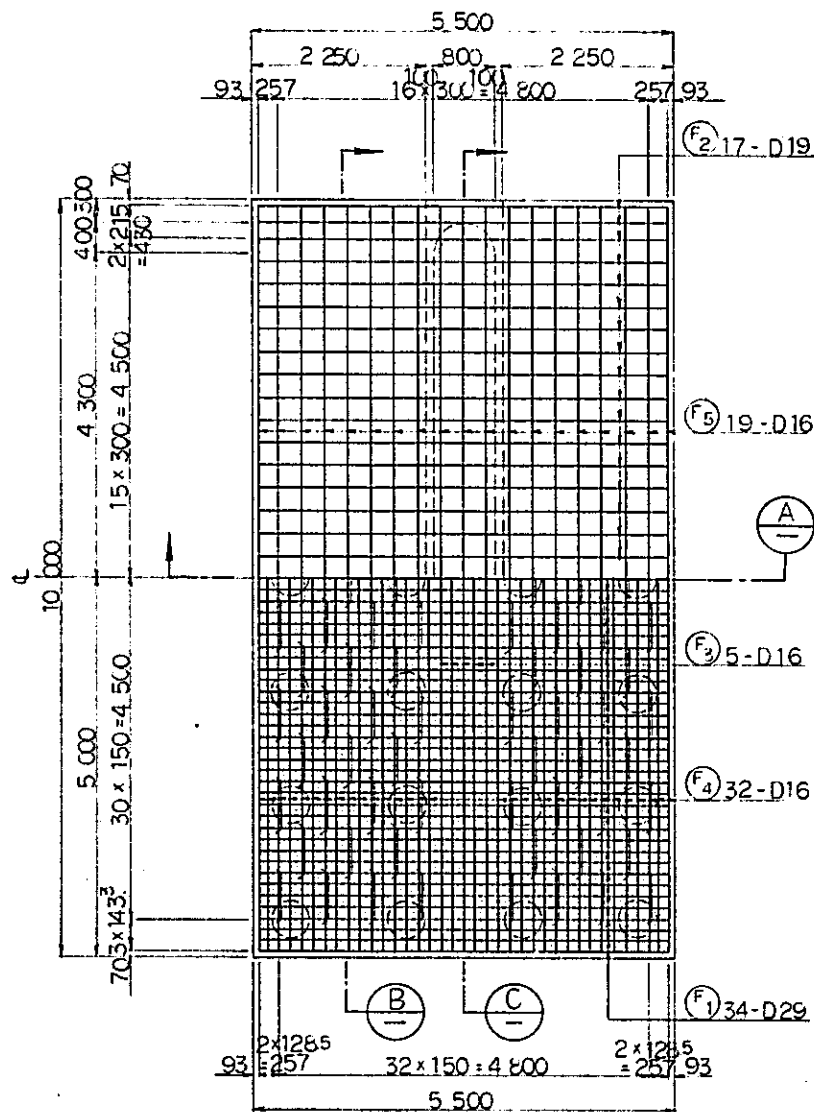


SECTION A



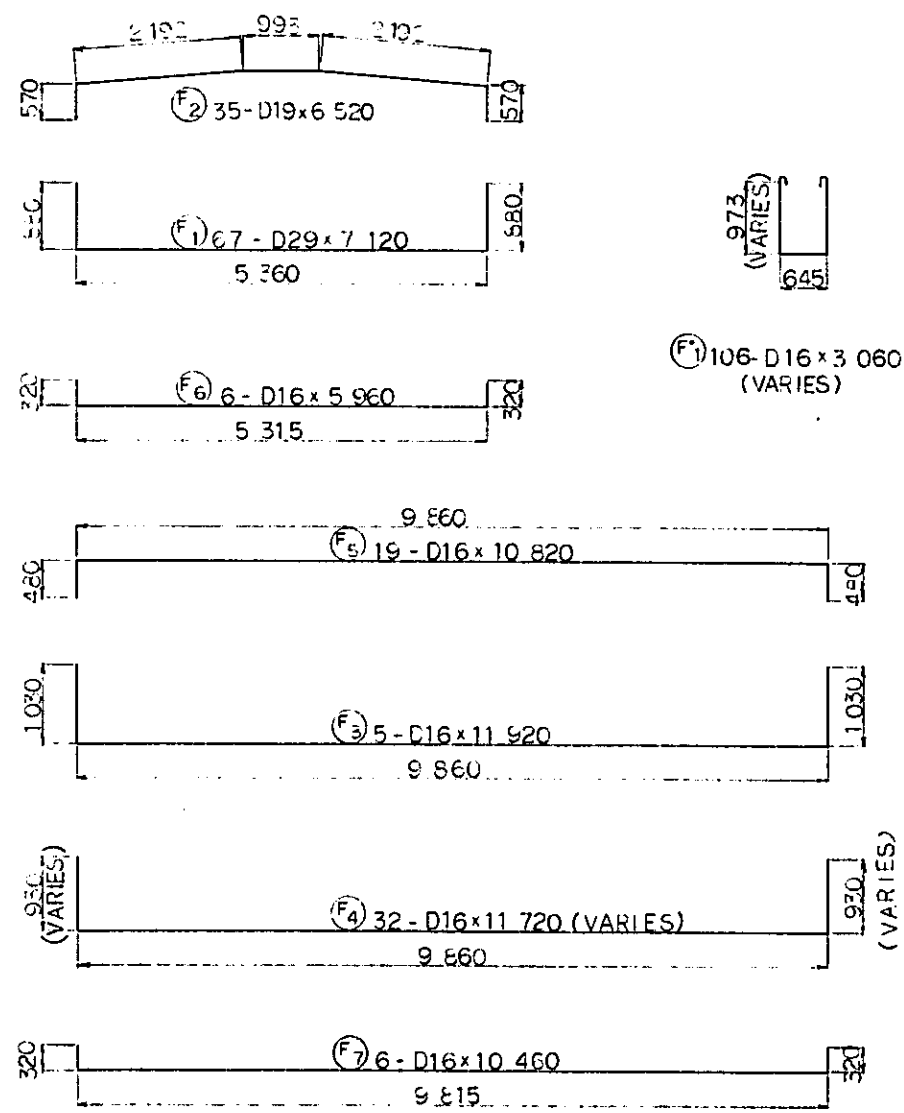
SECTION B

SECTION C



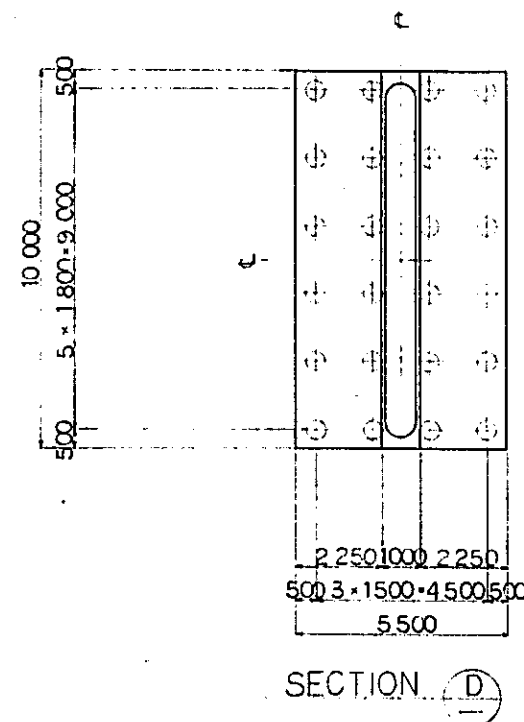
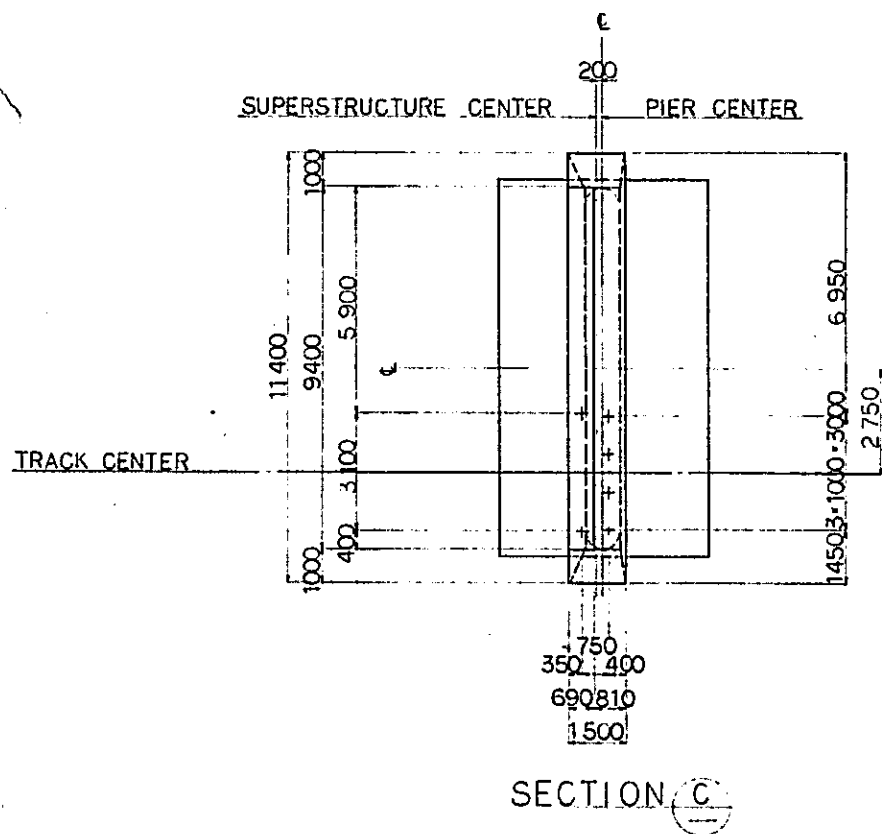
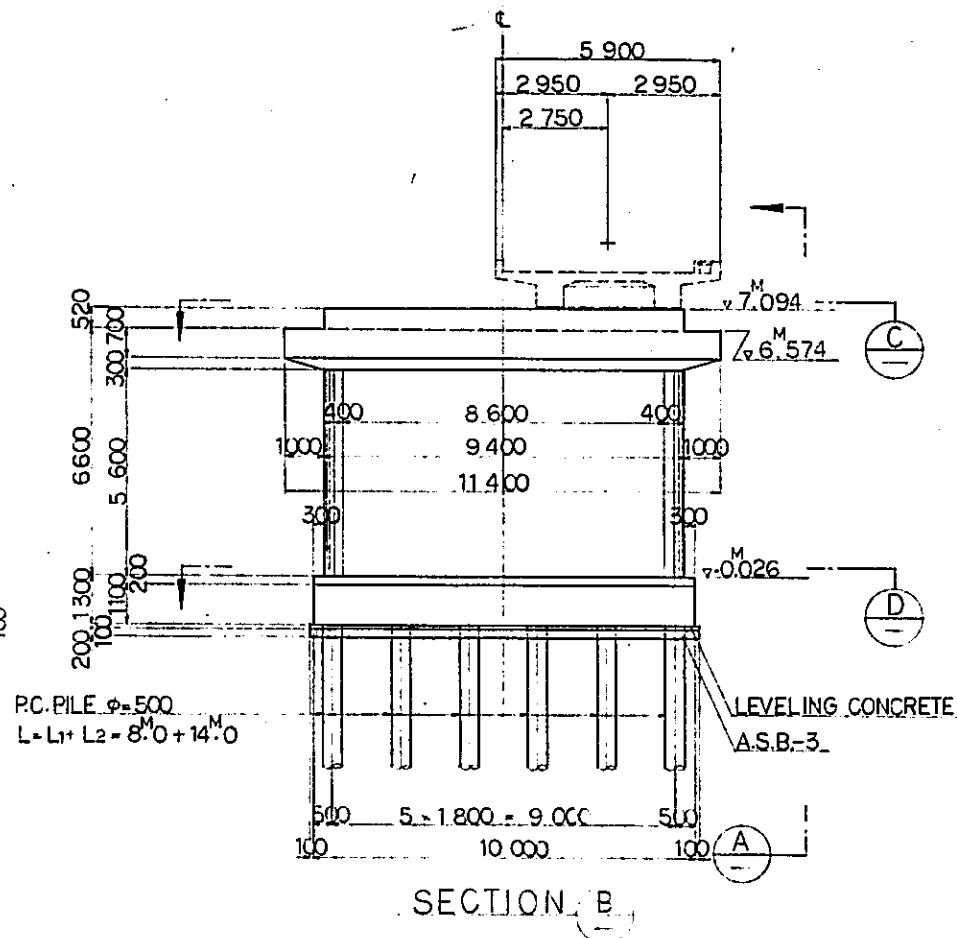
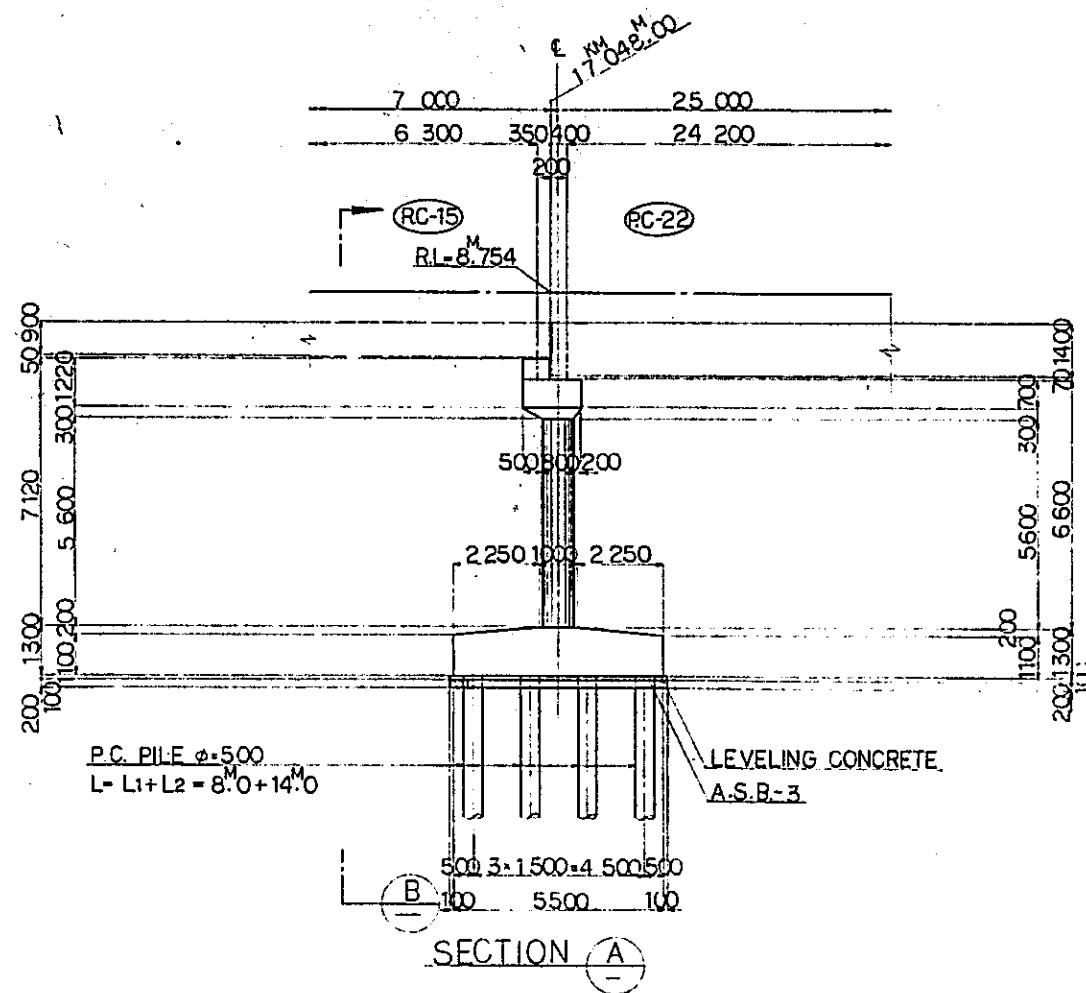
SECTION D

SECTION E



- NOTES:
- 1 ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED.
 - 2 REFERENCE DRAWING FOR GENERAL VIEW: CS-099

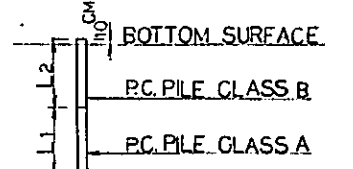
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG 84	SS	m.v.	K.A	K.M
A	15 FEB 84	SS	m.v.	K.A	K.M
REVISORS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
PIER P25 BAR ARRANGEMENT (SHEET 2 OF 2)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	1:50	DRAWING NO.	CS-101		



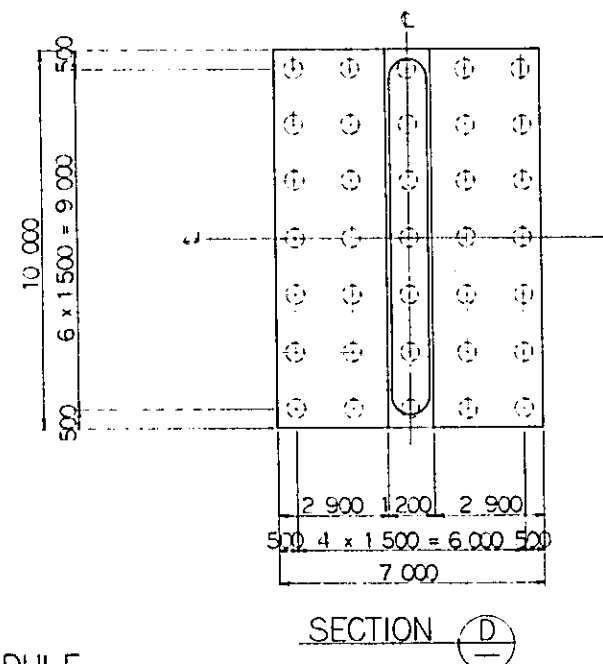
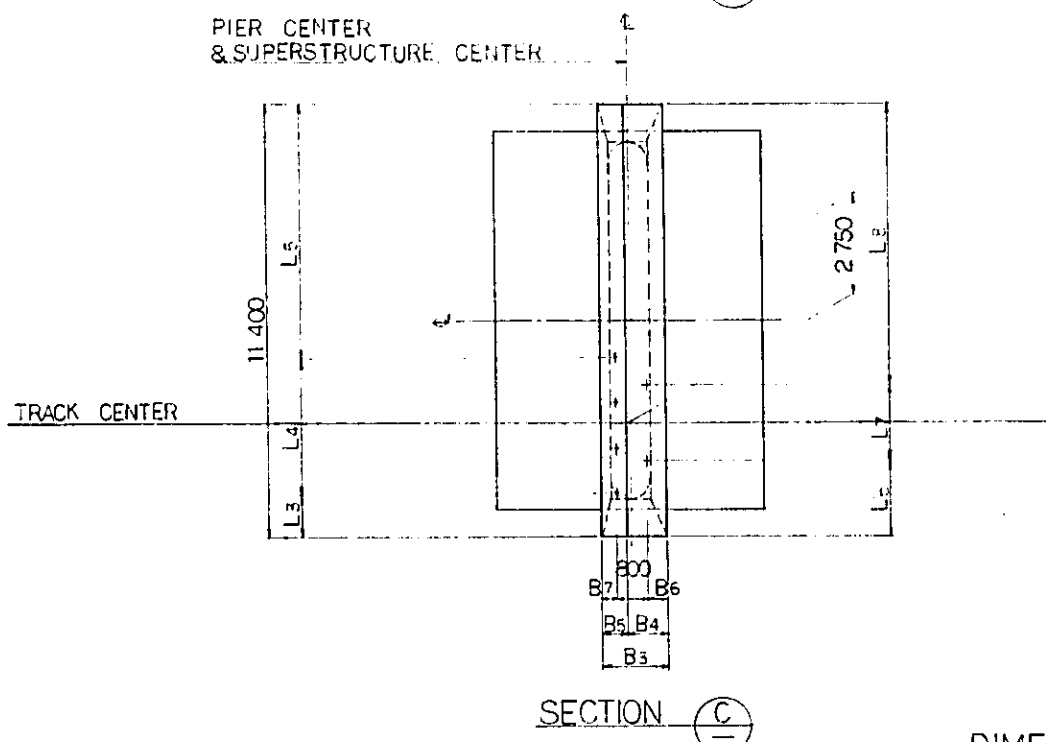
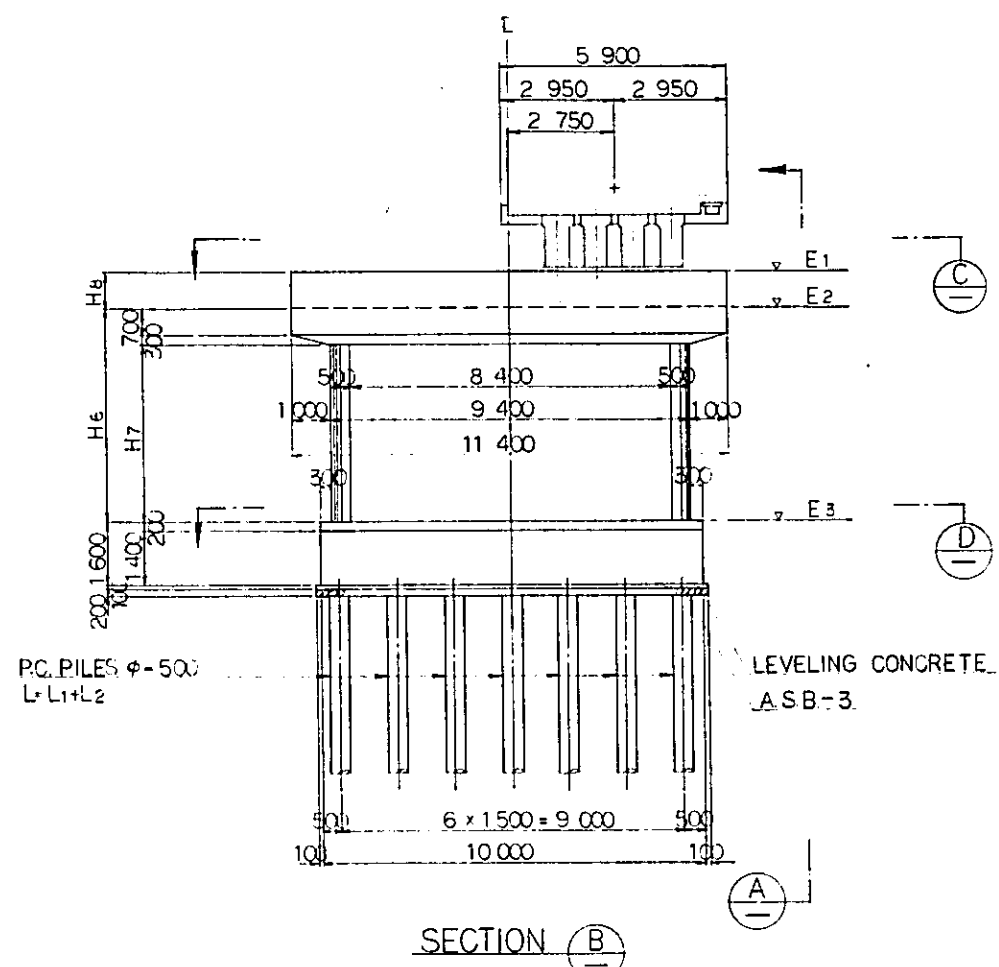
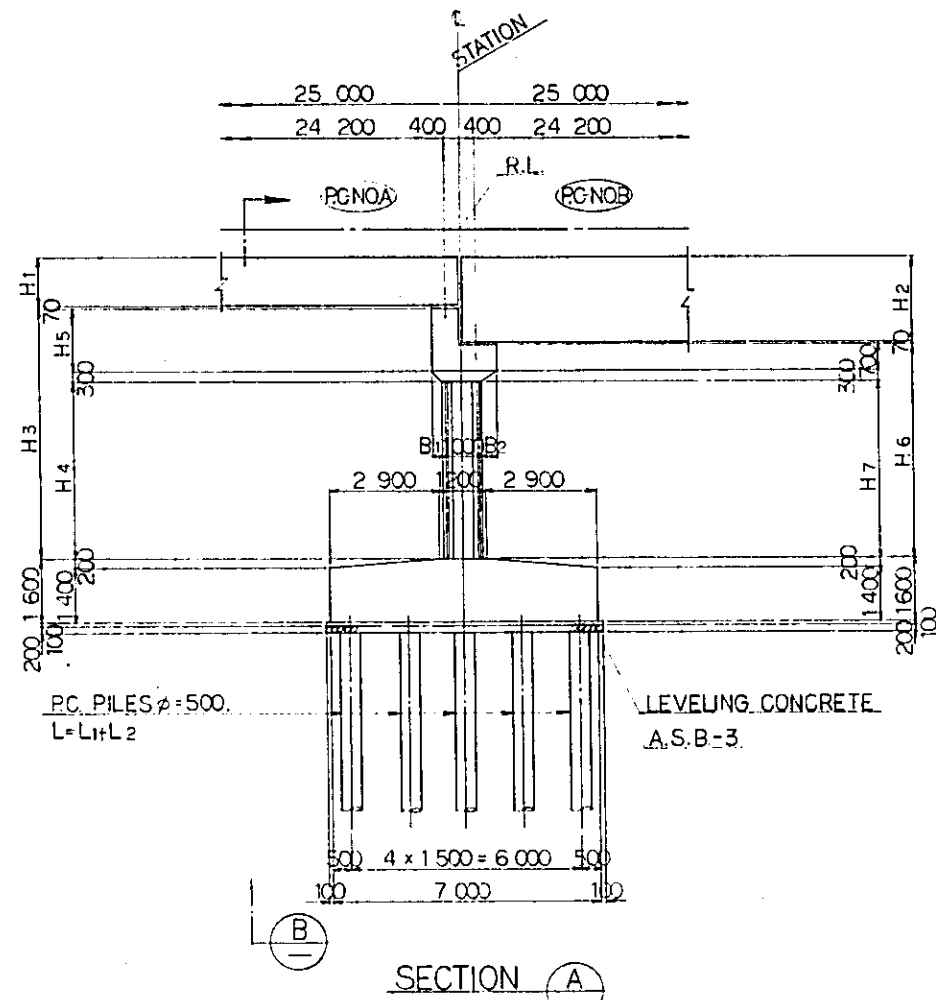
GENERAL VIEW OF P26

NOTES:

- 1 ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
- 2 REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-107, CS-108, CS-109
- 3 TYPES OF PC-PILE



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	m.y.	K.A.	K.M.
A	15 FEB '84	SS	m.y.	K.A.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	EXTENDED
PIER P26 GENERAL VIEW					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK.					
SCALE: 1:100	DRAWING NO: CS-102				



DIMENSION SCHEDULE

PIER NO	R.L.	E1	E2	E3	H1	H2	H3	H4	H5	H6	H7	H8	L1	L2	L3	L4	L5	L6	L7	L8	B1	B2	B3	B4	B5	B6	B7
P-27	8 ^M .754	6 ^M .574	6 ^M .574	-0.026	1 400	1 400	6 600	5 600	700	6 600	5 600	0	8 ^M .0	14 ^M .0	1 150	3 ^M .120	6 650	1 150	3x1200x3 600	6 650	250	250	1 500	1 500	0	350	350
P-28	8 ^M .754	6 ^M .574	5 ^M .624	-0.076	1 400	2 350	6 650	4 700	1 650	5 700	4 700	950	8 ^M .0	14 ^M .0	1 150	3 ^M .120	6 650	1 950	2 000	7 450	250	400	1 650	920	730	500	350
P-29	8 ^M .754	5 ^M .624	5 ^M .624	-2.976	2 350	2 350	8 600	7 600	700	8 600	7 600	0	8 ^M .0	11 ^M .0	1 950	2 000	7 450	1 950	2 000	7 450	400	400	1 800	1 800	0	500	500
P-38	10 ^M .554	7 ^M .424	7 ^M .424	0.724	2 350	2 350	6 700	5 700	700	6 700	5 700	0	8 ^M .0	7 ^M .0	2 028	2 000	7 372	2 028	2 000	7 372	400	400	1 800	1 800	0	500	500
P-39	10 ^M .554	7 ^M .424	7 ^M .424	0.724	2 350	2 350	6 700	5 700	700	6 700	5 700	0	8 ^M .0	7 ^M .0	2 028	2 000	7 372	2 028	2 000	7 372	400	400	1 800	1 800	0	500	500

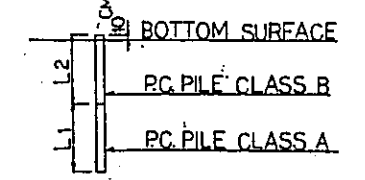
GENERAL VIEW OF P-27, 28, 29, 38 & 39.

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-16
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_h=0.1$ IN VERTICAL DIRECTION $K_h=0$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm ²
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 80 kg/cm ²
MATERIAL	TYPE OF REINFORCING BAR	SD-30
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck}=210 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25 mm

NOTES:

- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
- REFERENCE DRAWING FOR BAR ARRANGEMENT: CS104, CS105.....P27, P28, CS080, CS081, CS082.....P29, P38, P39
- TYPES OF PC PILE



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)

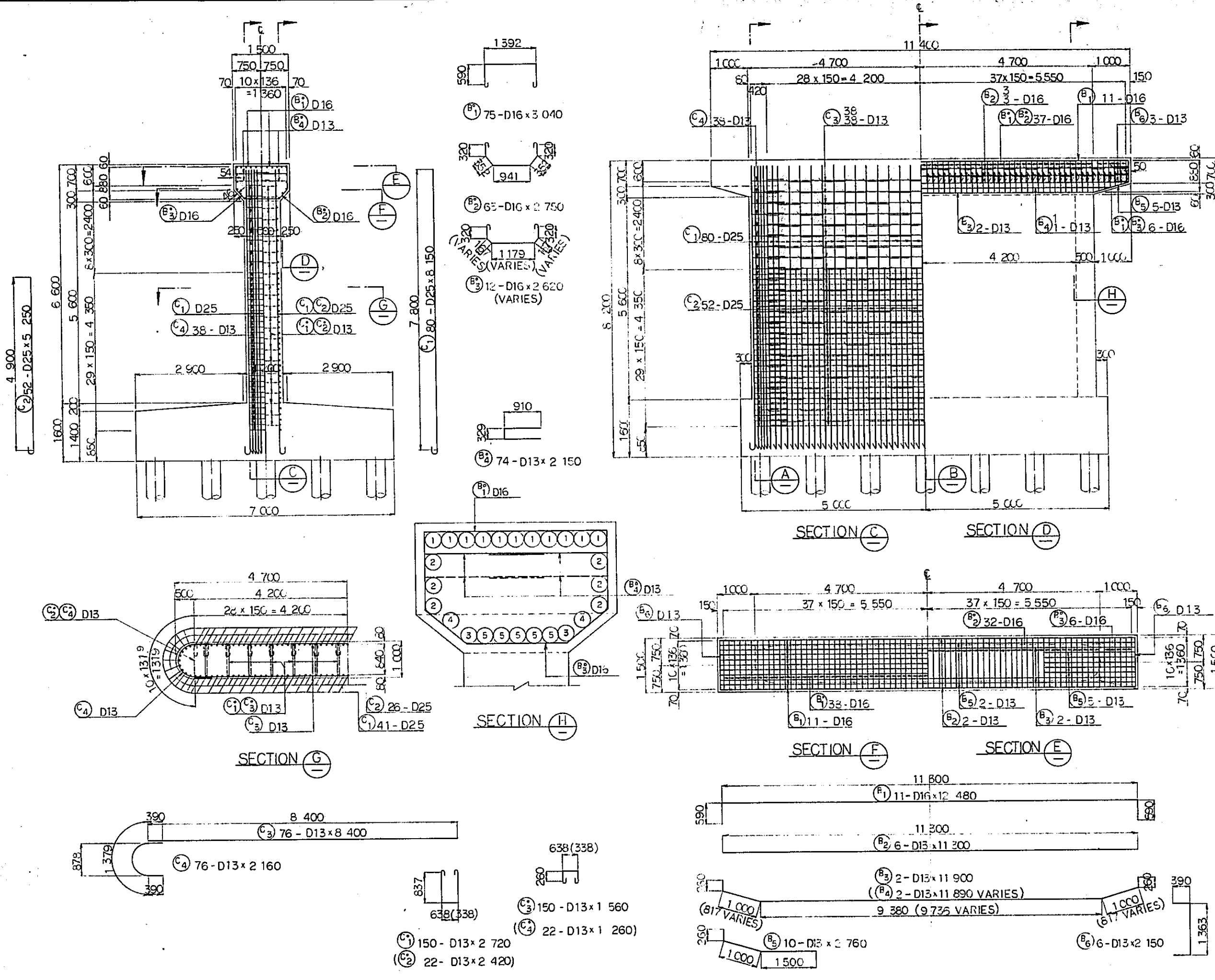
B	1 AUG '84	S.S.	m.y.	K.A.	K.M.	m.K.
A	15 FEB '84	S.S.	m.y.	K.A.	K.M.	m.K.

REVISIONS: DESIGNED, DRAWN, CHECKED, REVIEWED, SUBMITTED

PIER P27~P29, P38, P39
GENERAL VIEW

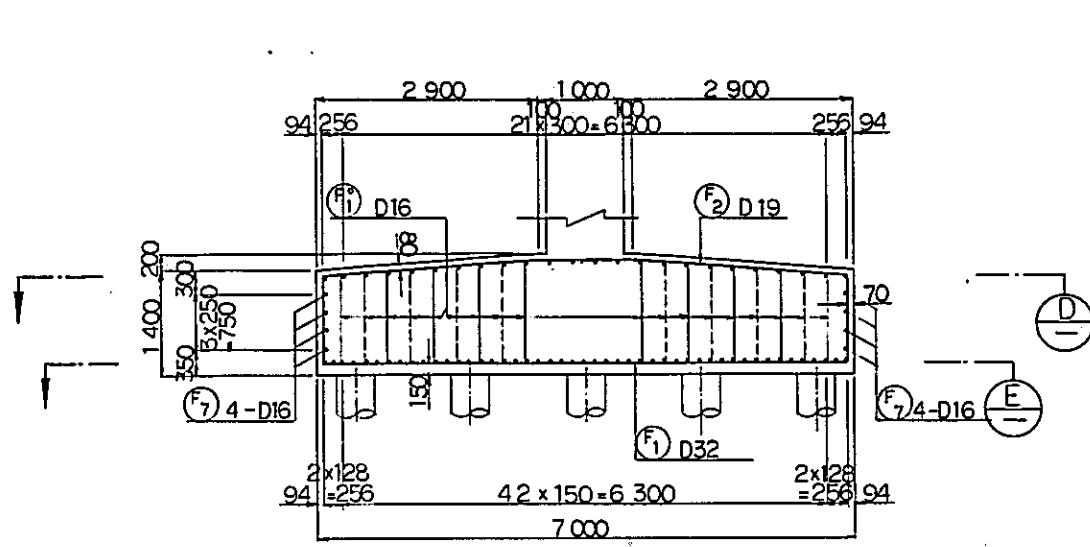
PACKAGE: I CIVIL AND ARCHITECTURAL WORK
SCALE: 1:100
DRAWING NO: CS-103

PIER NO	STATION	ALIGNMENT	PC NOA	PC NOB
P-27	17 073.00	STRAIGHT	22	23
P-28	17 098.00	STRAIGHT	23	24
P-29	17 123.00	STRAIGHT	24	25
P-38	18 745.00	CURVED R=500	29	30
P-39	18 770.00	CURVED R=500	30	31

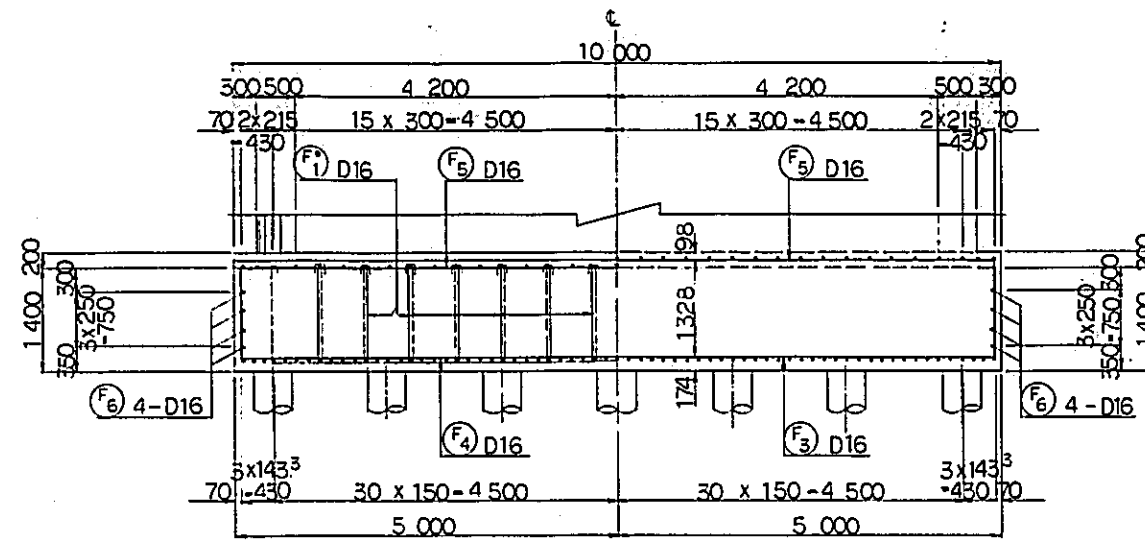


- NOTES
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS403

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.
A	15FEB.84	S.S.	M.Y.	K.A.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
PIER P27 BAR ARRANGEMENT (SHEET 1 OF 2)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:50	CS-104				

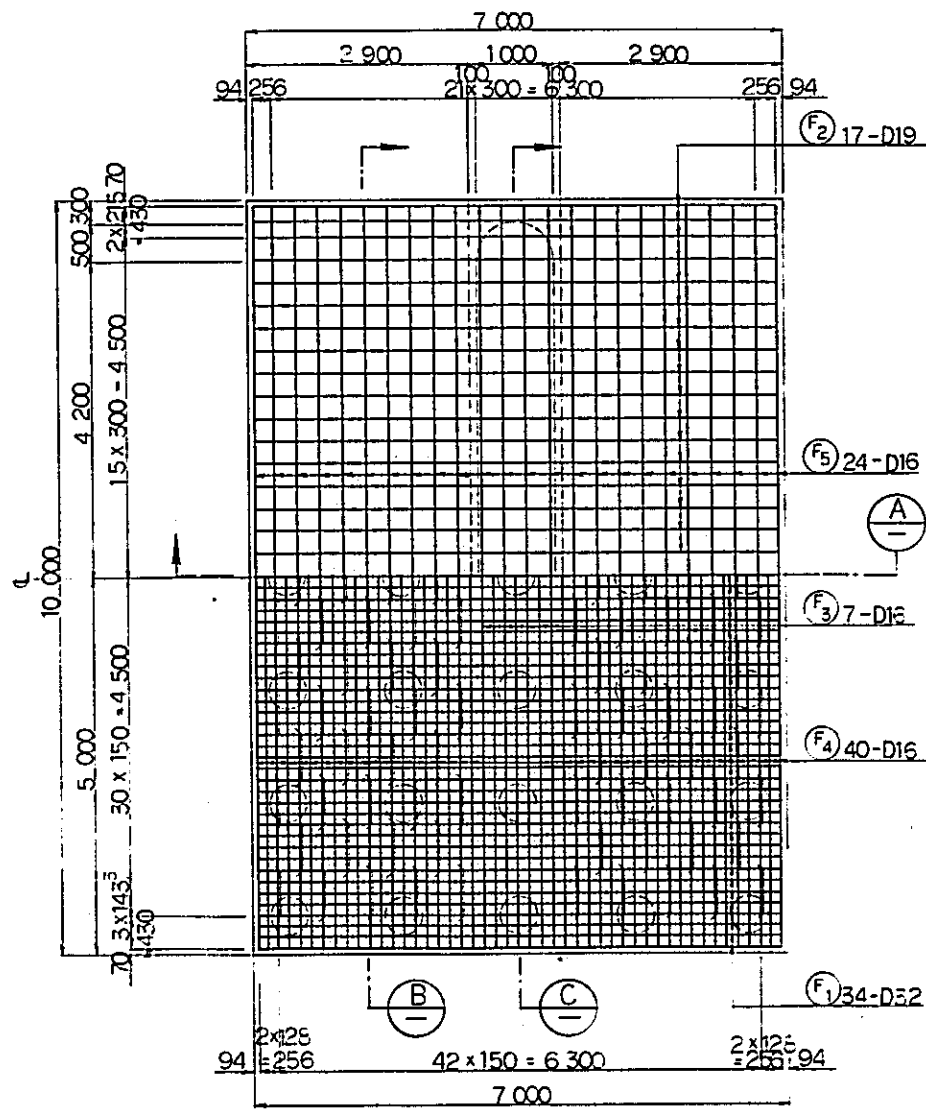


SECTION A



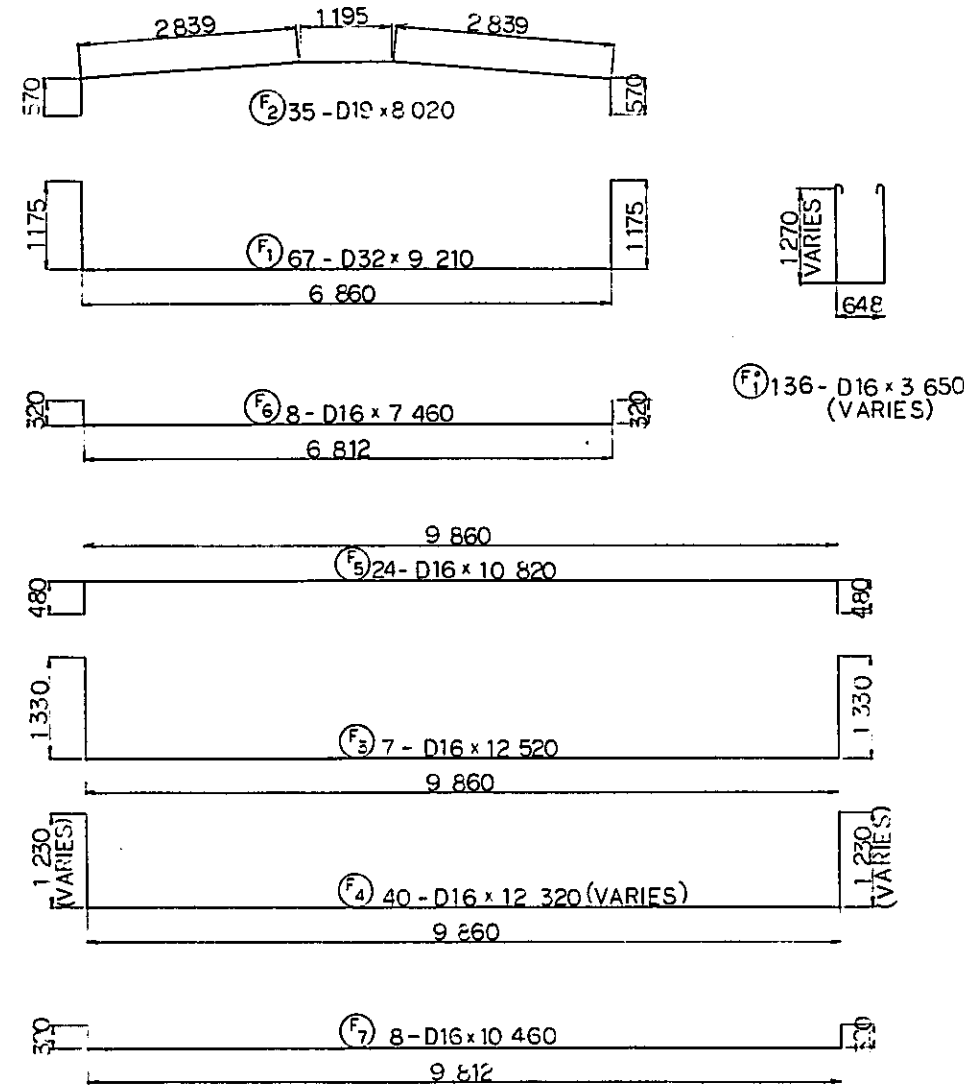
SECTION B

SECTION C



SECTION D

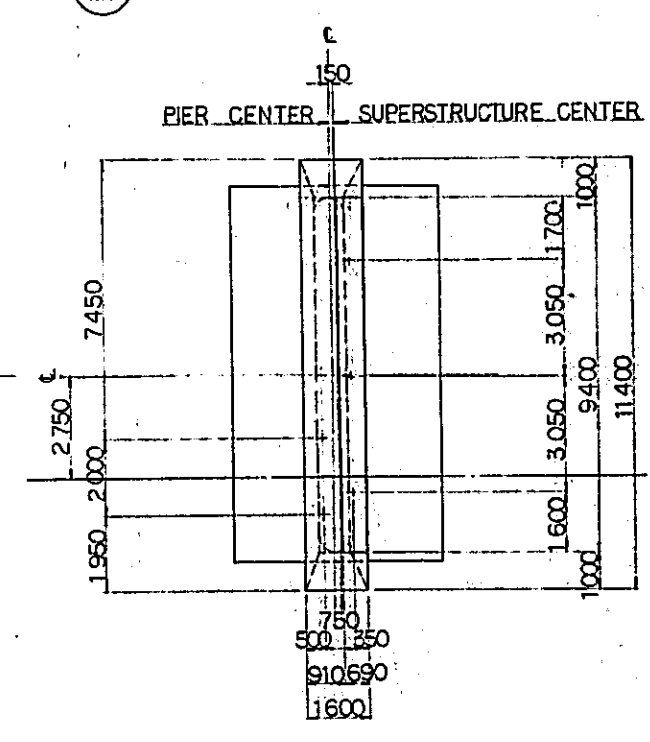
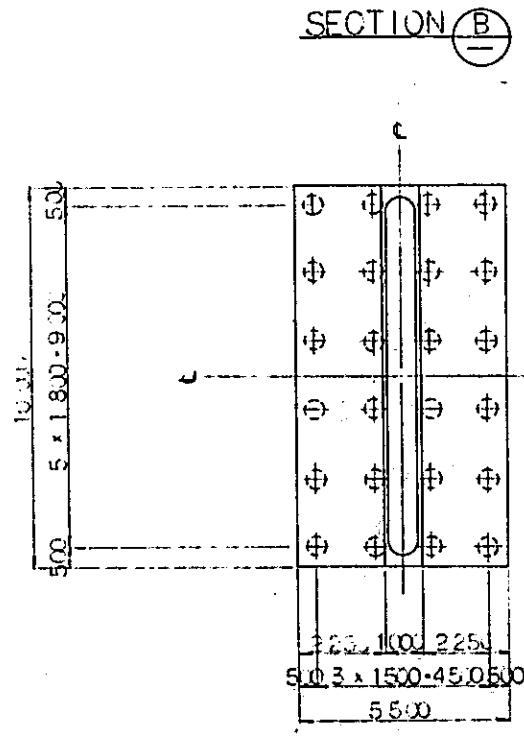
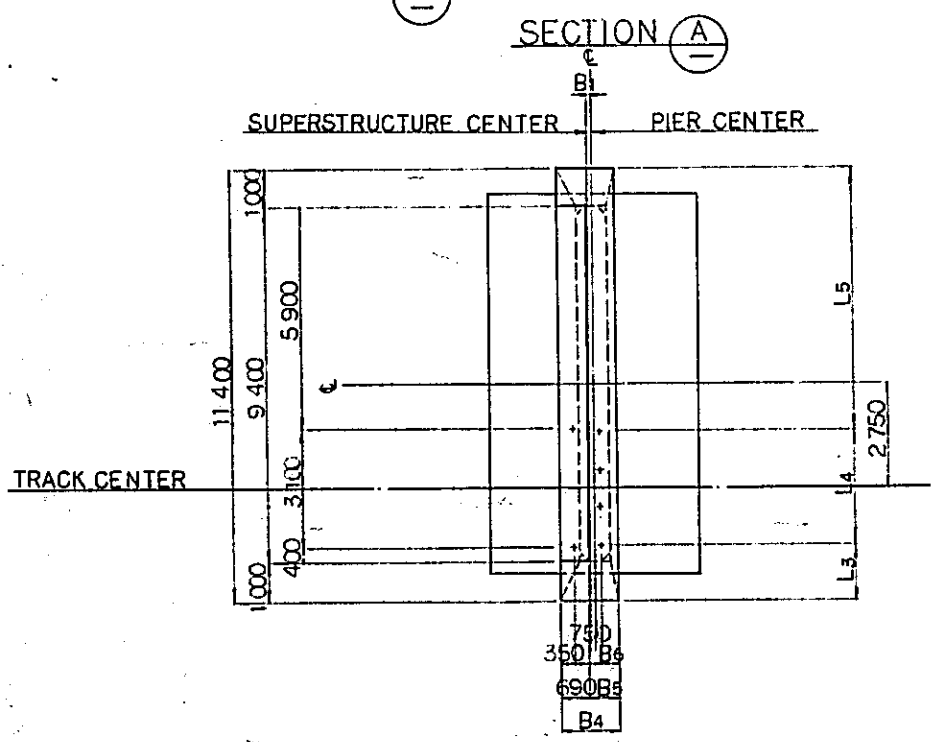
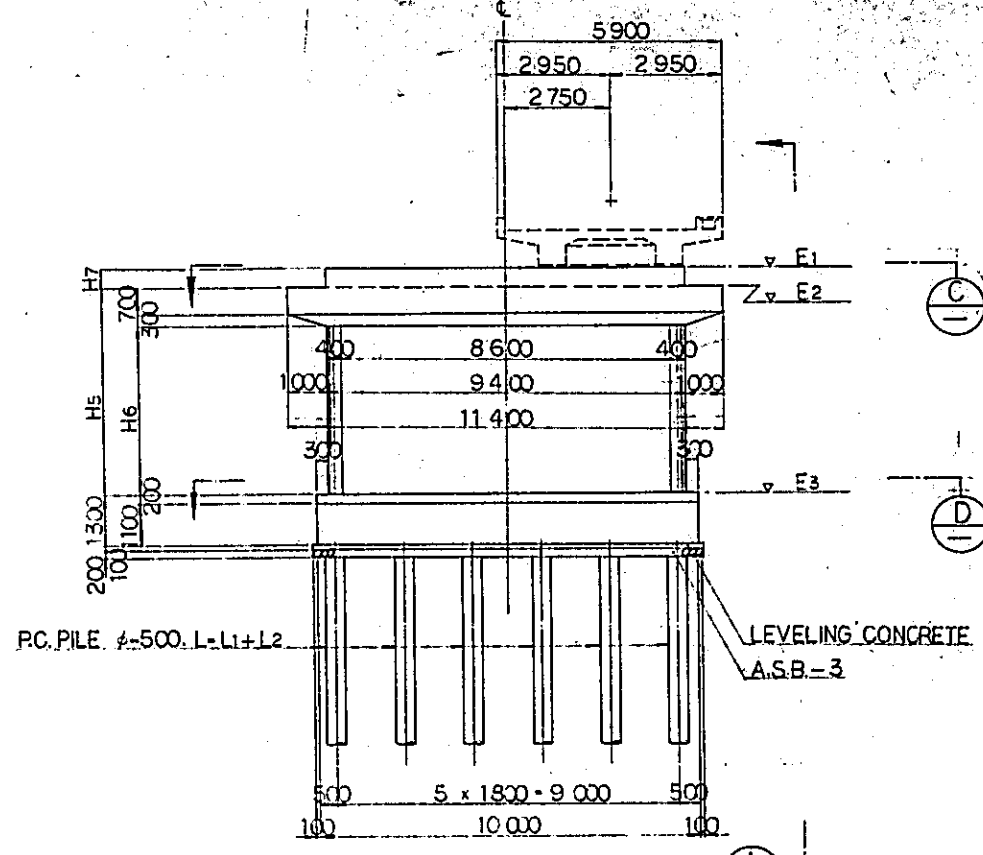
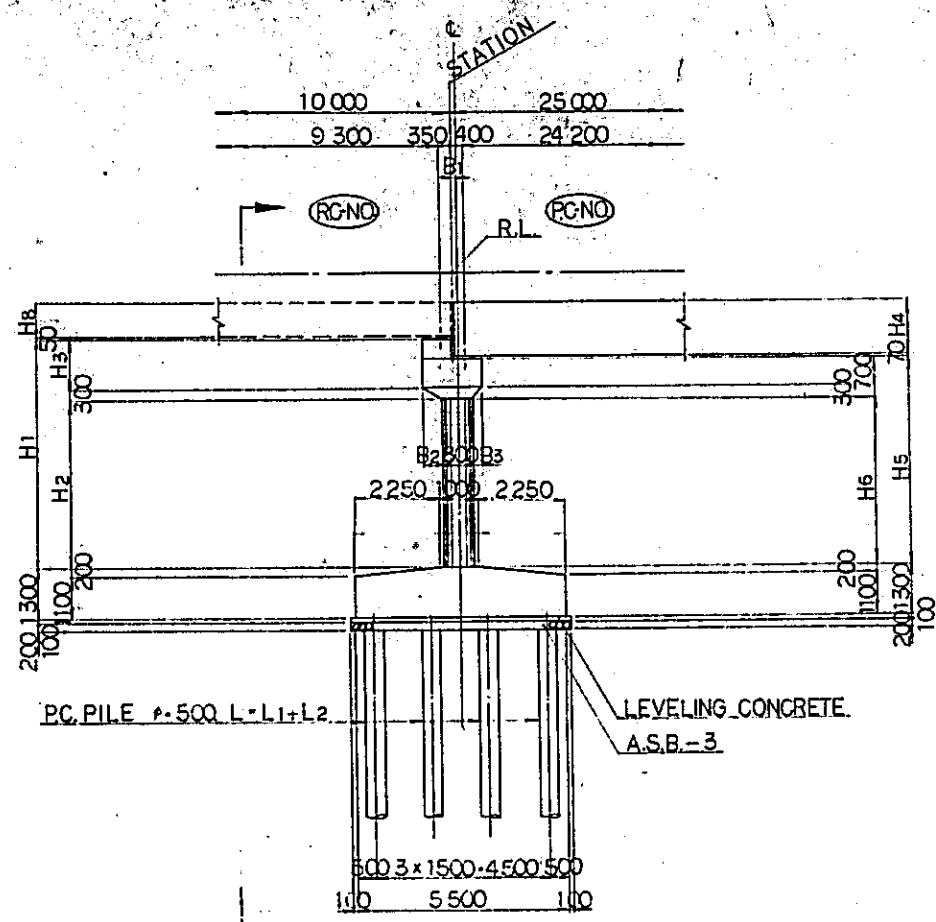
SECTION E



NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW: CS-103.

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
B	1 AUG. 84	J.S.	M.Y.	K.A.	K.M.
A	15 FEB. 84	J.S.	M.Y.	K.A.	K.P.
PIER P27 BAR ARRANGEMENT (SHEET 2 OF 2)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE: 1:50		DRAWING NO: CS-105			



DIMENSION SCHEDULE

PIER NO	STATION	RC NO	PC NO	R.L.	E1	E2	E3	H1	H2	H3	H4	H5	H6	H7	H8	L1	L2	L3	L4	L5	B1	B2	B3	B4	B5	B6
P-03	13 655.00	02	04	8.474	6.814	6.294	0.694	6.120	4.600	1.220	1.400	5.600	4.600	5.200	900	11.0	0	1150	3x1200-3600	6650	200	500	200	1500	810	400
P-30	17 148.00	16	25	8.754	6.794	5.624	2.976	9.770	7.600	1.870	2.350	8.600	7.600	1.170	1200	8.0	11.0	—	—	—	—	450	350	—	—	—
P-33	17 759.00	28	27	7.094	6.574	0.574	—	6.720	5.200	1.220	1.400	6.200	5.200	5.200	900	—	—	1150	3x1200-3600	6650	200	500	200	1500	810	400
P-34	17 784.00	29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

GENERAL VIEW OF P-03, 30, 33 & 34

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_h=0.1$ IN VERTICAL DIRECTION $K_v=0.1$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm ²
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 180 kg/cm ²
MATERIAL	TYPE OF REINFORCING BAR	SD-30
	CONCRETE DESIGN CRITERIA STRENGTH	$f'_{ck}=240 \text{ kg/cm}^2$
	MAX. SIZE OF COARSE AGGREGATE	25mm

- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED.
 - REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-107, CS-108, CS-109.
 - TYPES OF PC PILE:
 - PC PILE CLASS B
 - PC PILE CLASS A

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

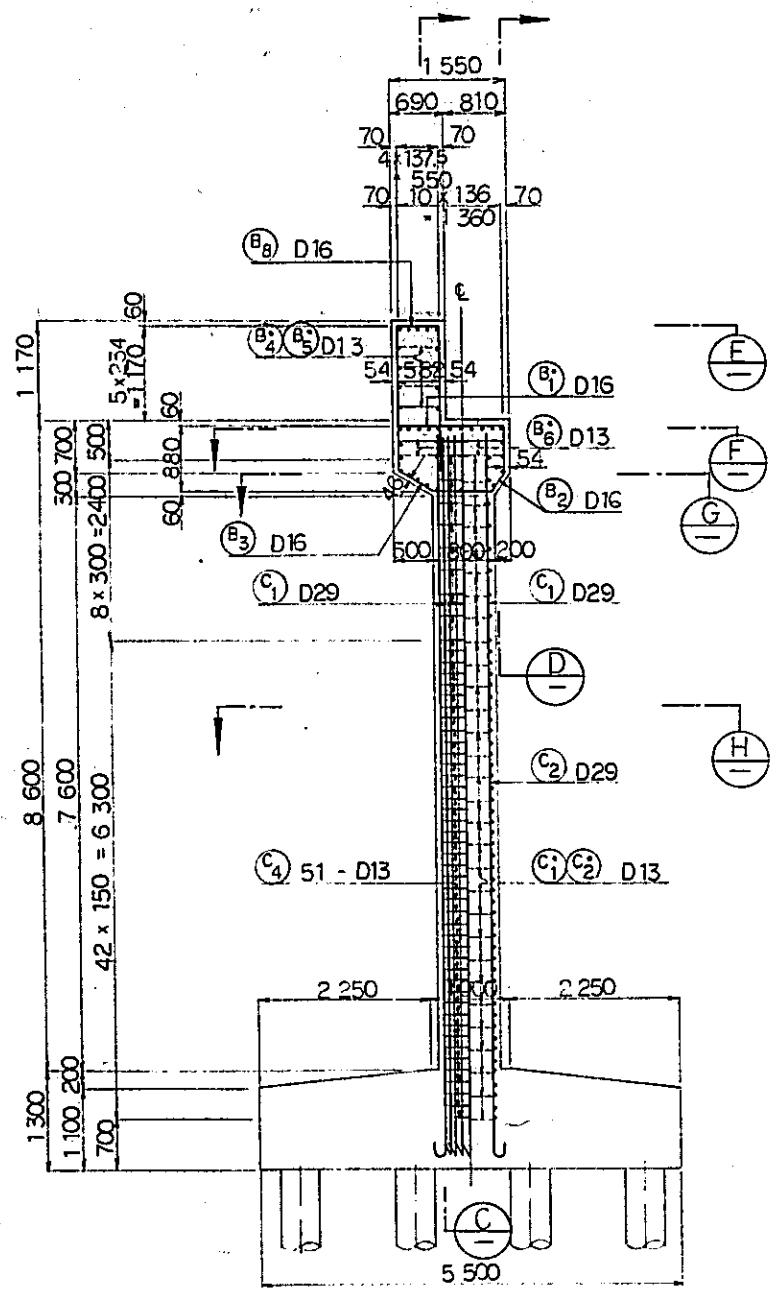
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

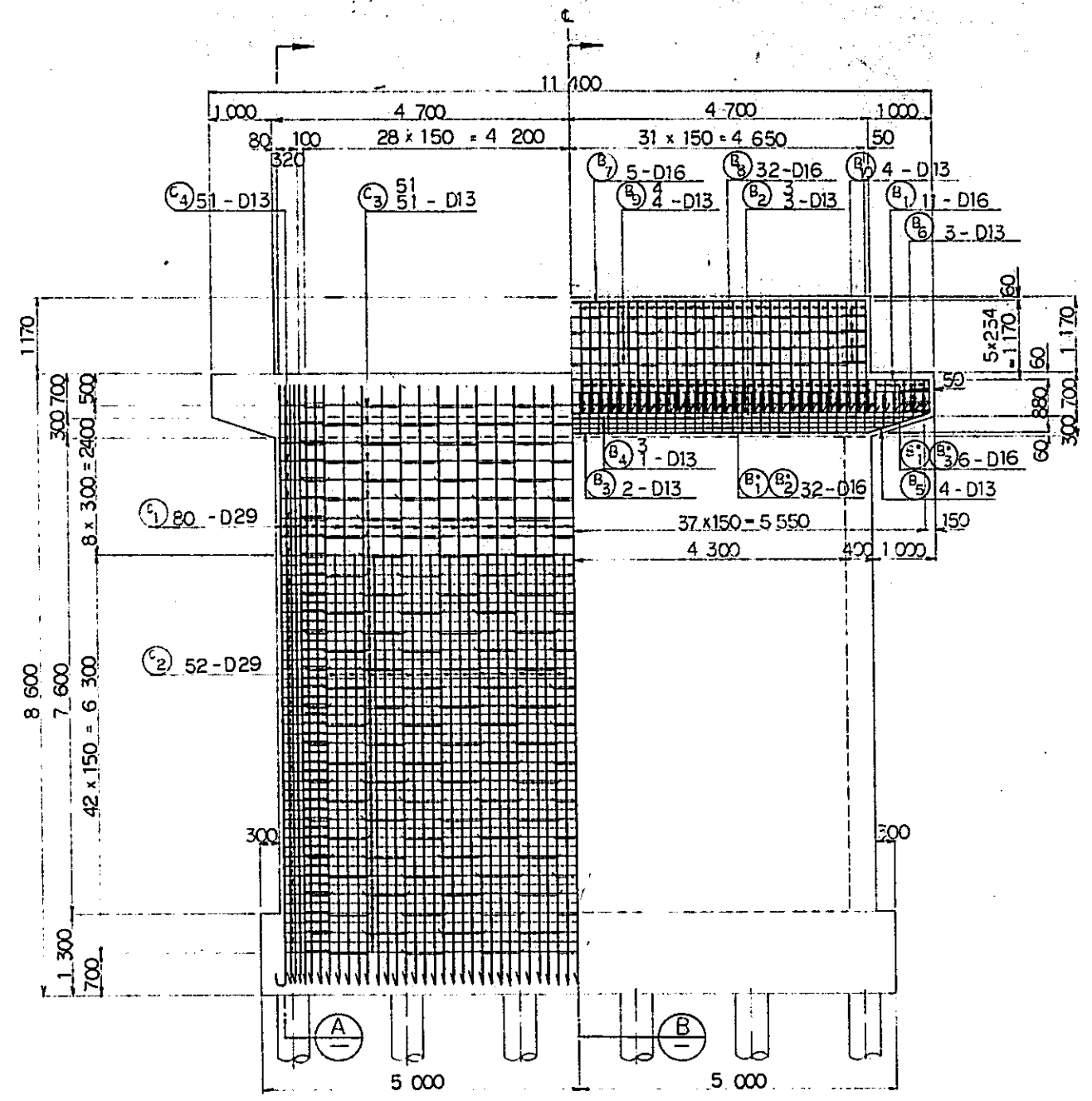
REVISOR	DATE	BY	CHK	APP
B1	1 AUG 84	[Signature]	[Signature]	[Signature]
A1	15 FEB 84	[Signature]	[Signature]	[Signature]

PIER P-03, P-30, P-33, P-34
GENERAL VIEW

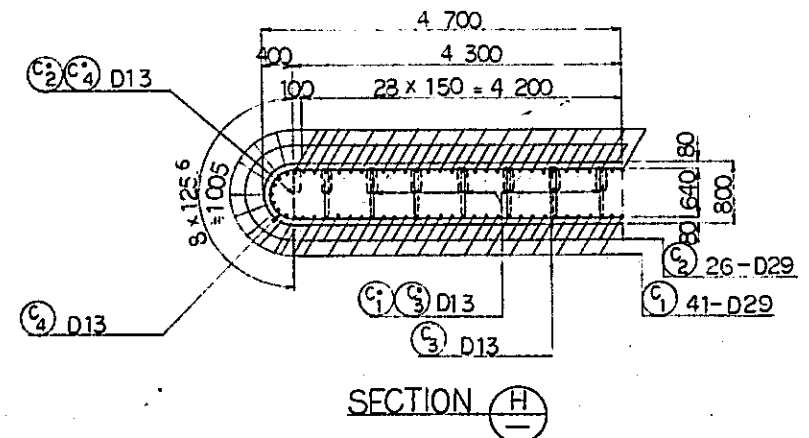
PACKAGE: CIVIL AND ARCHITECTURAL WORK
SCALE: 1:100 DRAWING NO: CS-106



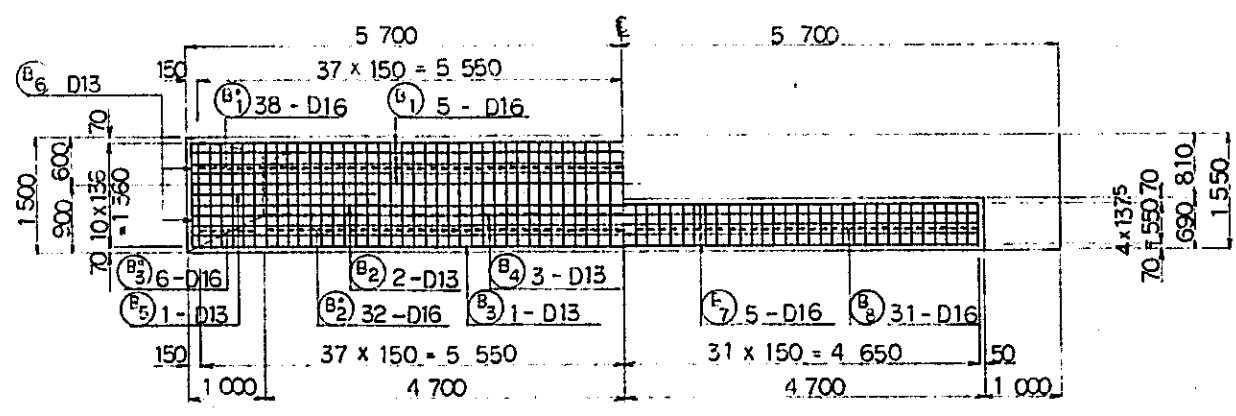
SECTION (A) SECTION (B)



SECTION (C) SECTION (D)
SECTION (F)



SECTION (H)



SECTION (E) SECTION (G)

- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW : CS-106.

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

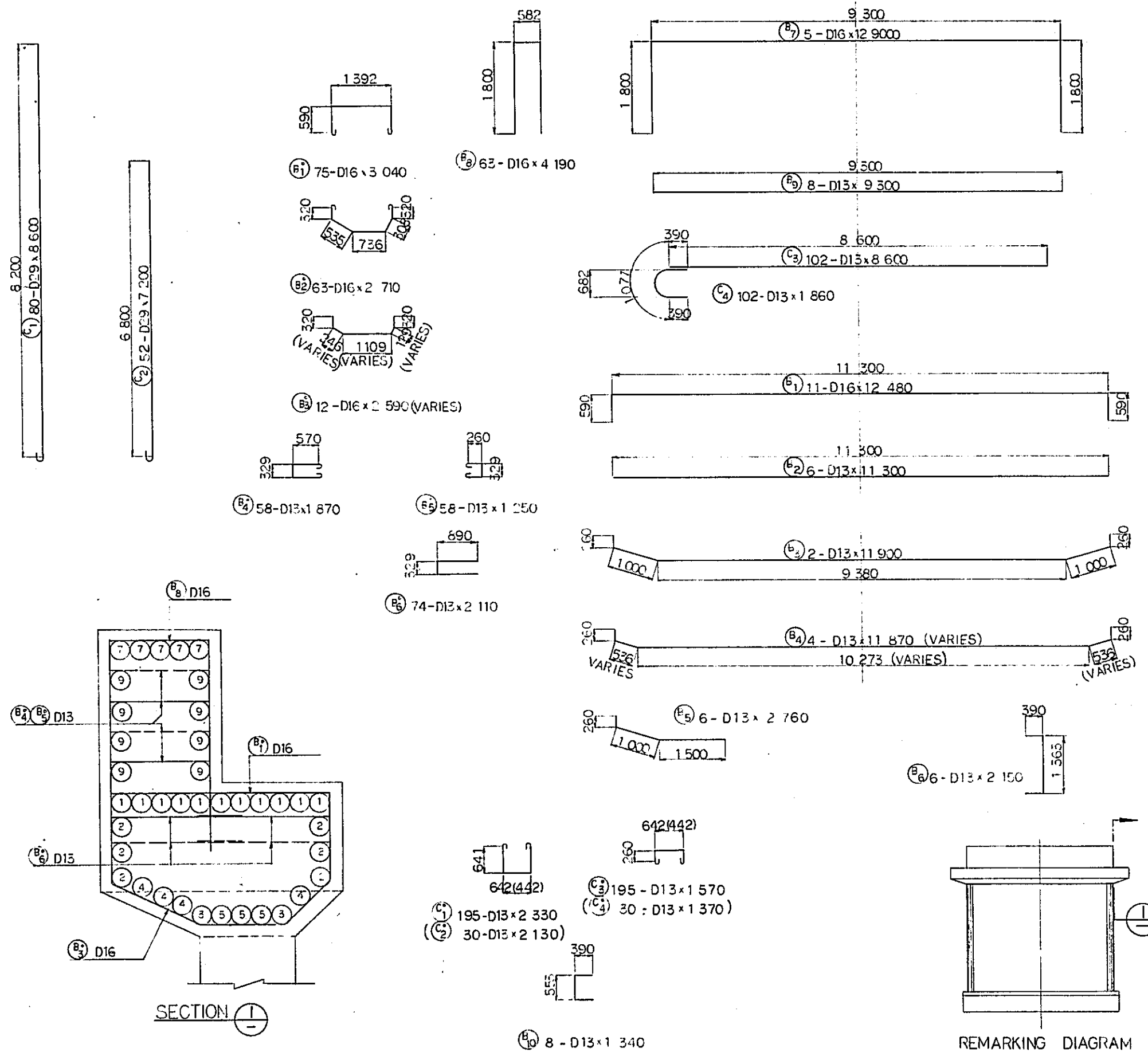
NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

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

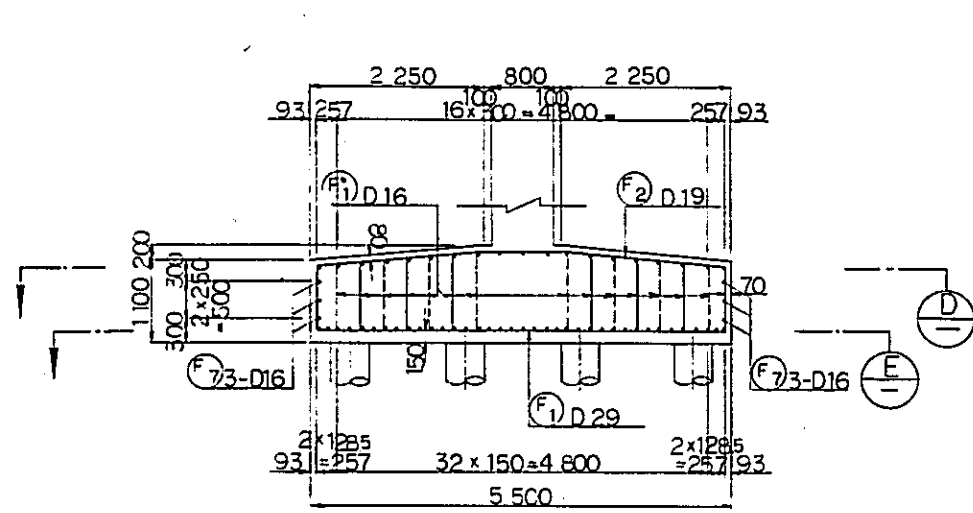
PIER P30
BAR ARRANGEMENT
(SHEET 1 OF 3)

PACKAGE: 1 CIVIL AND ARCHITECTURAL WORK
SCALE: 1:50
DRAWING NO: CS-107

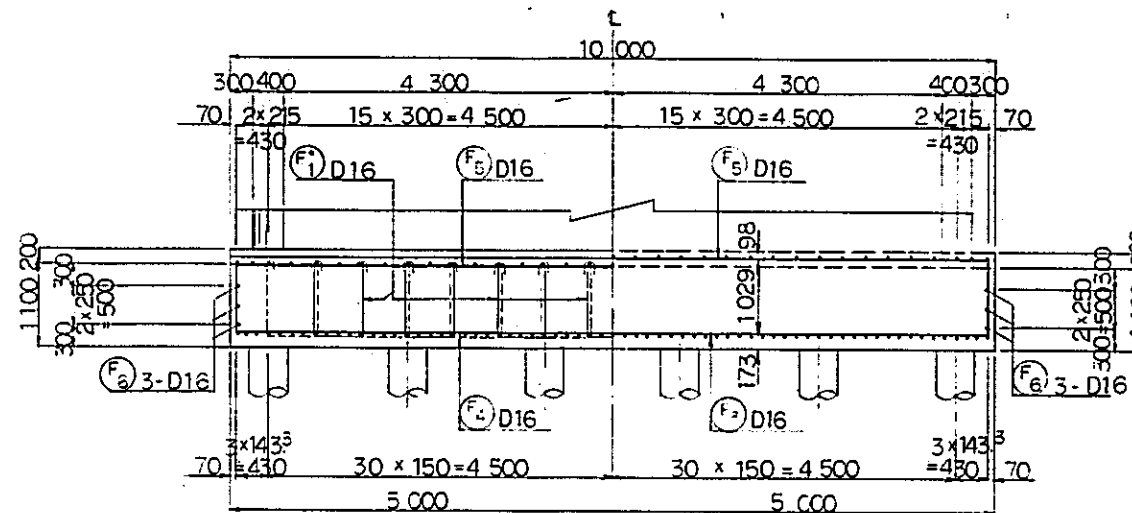


- NOTES
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW : CS-106

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	m.y	K.R	K.M
A	15FEB.84	SS	m.y	K.R	K.M
REVISIONS	DATE	DESIGNED	CHECKED	REVIEWED	APPROVED
PIER P30 BAR ARRANGEMENT (SHEET 2 OF 3)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:50	CS-106				

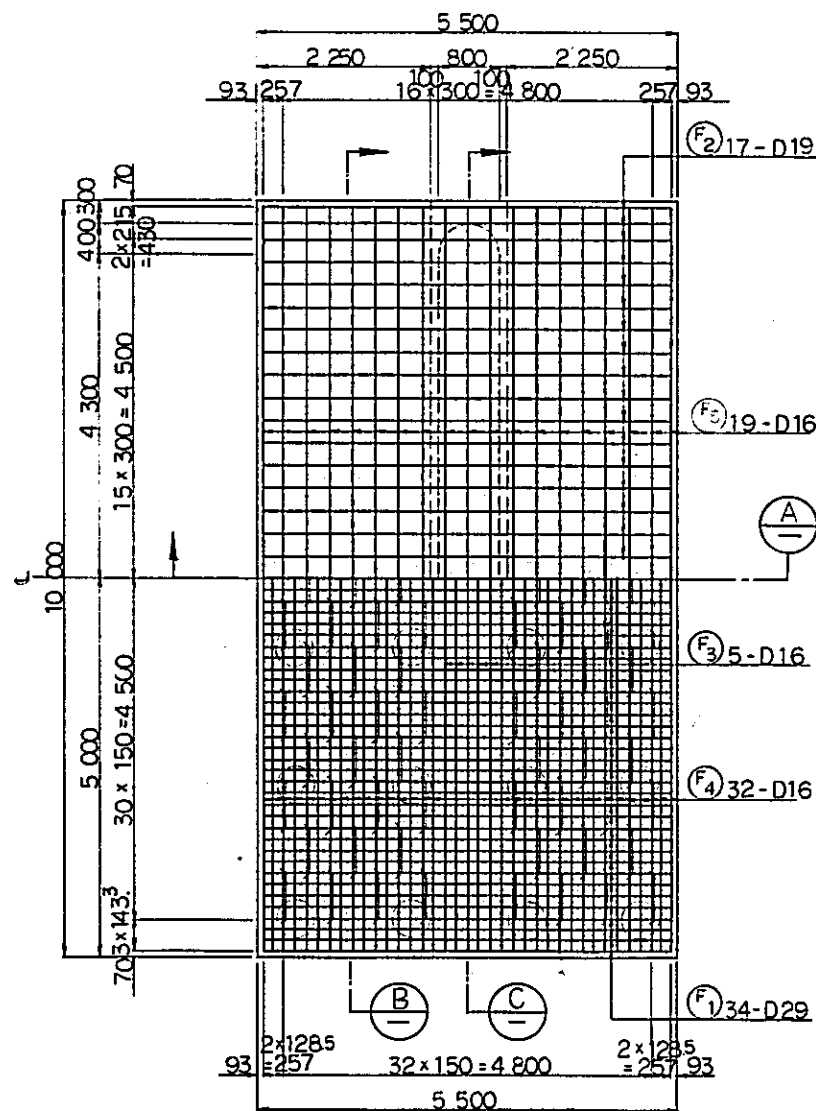


SECTION A



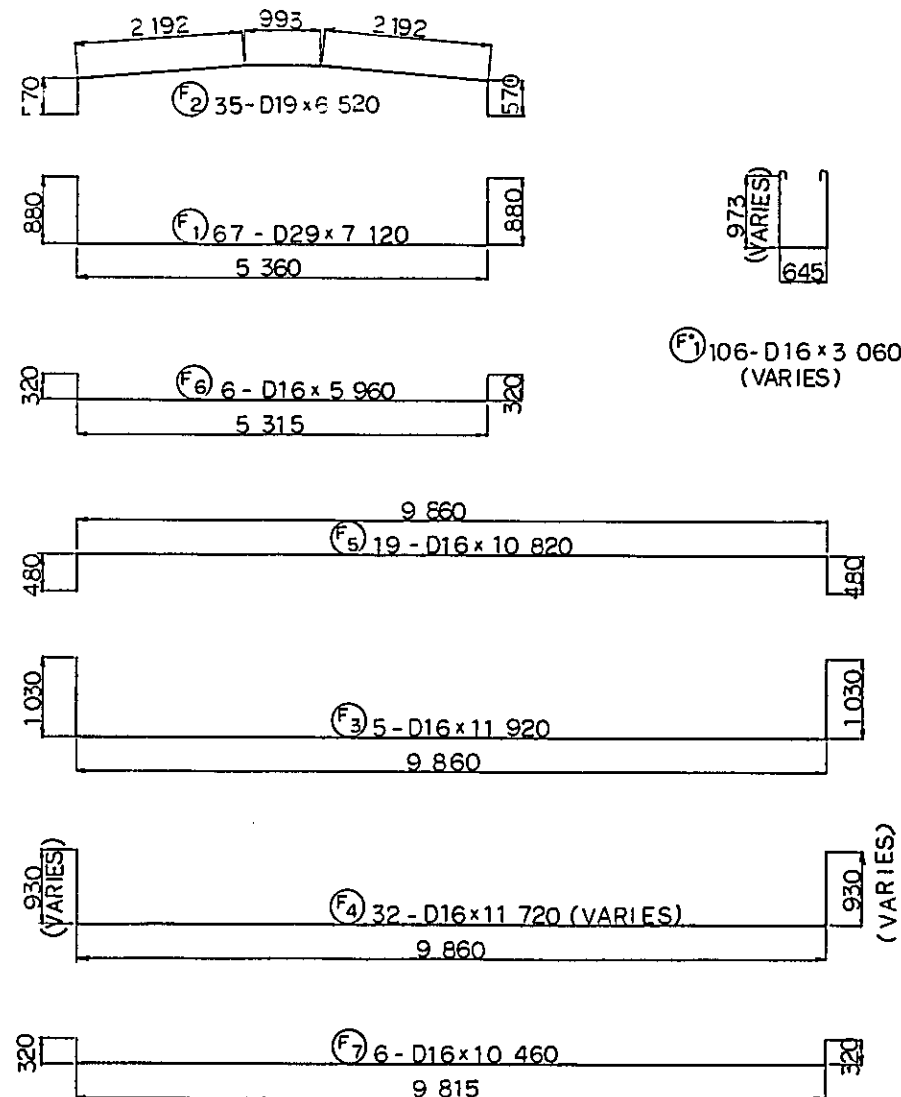
SECTION B

SECTION C



SECTION D

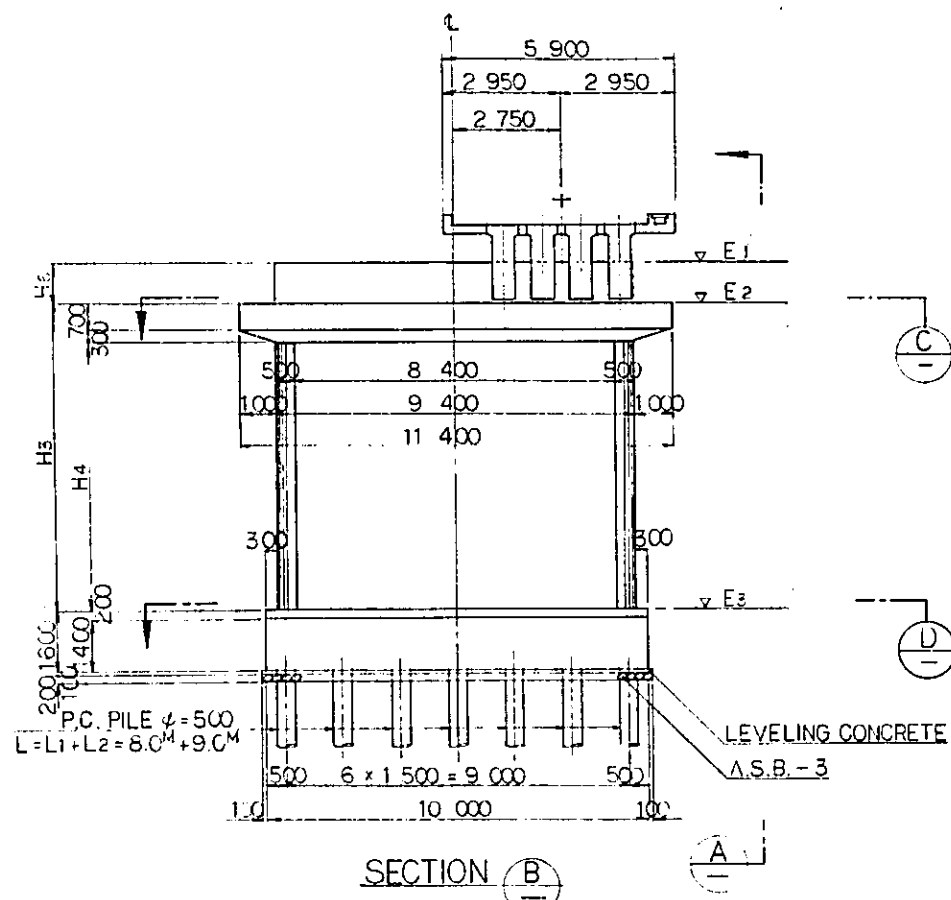
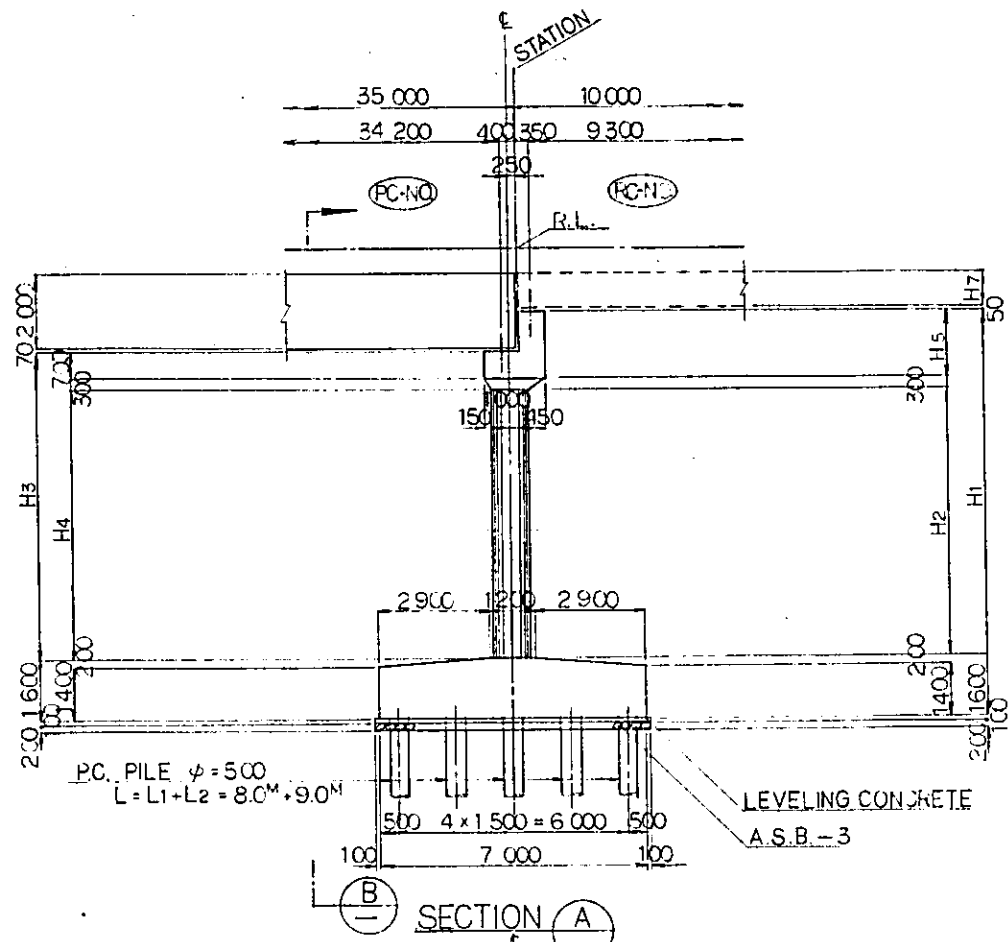
SECTION E



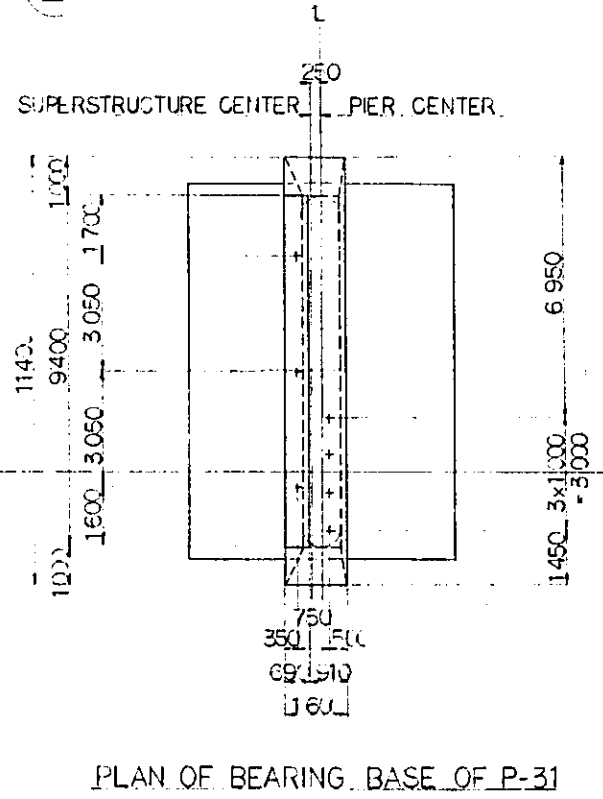
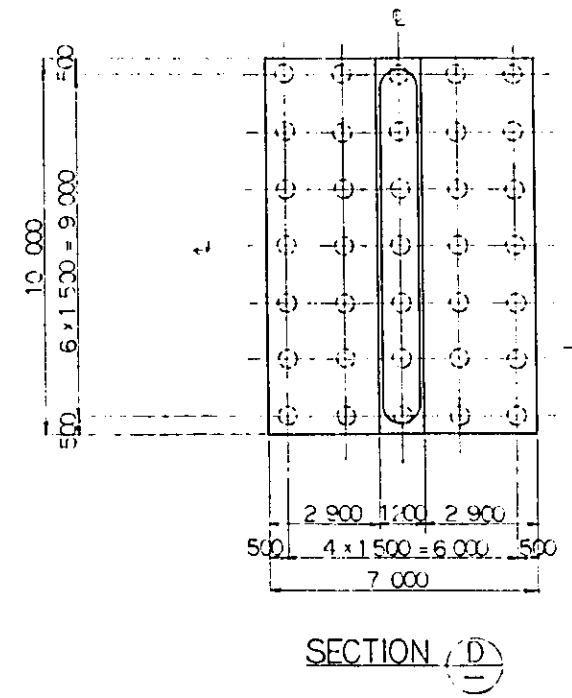
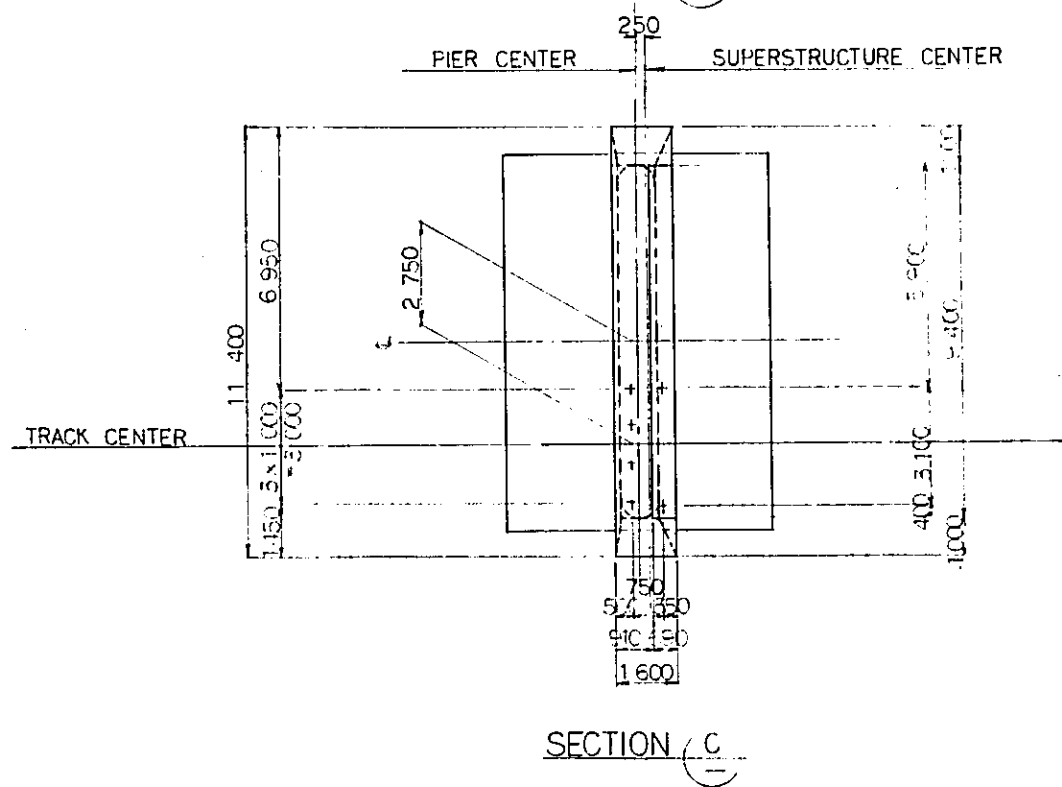
NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW: CS-106

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.K.
A	15 FEB. '84	S.S.	M.Y.	K.R.	K.M.	M.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
PIER P30 BAR ARRANGEMENT (SHEET 3 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:50	CS-109					



- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-080, CS-081, CS-082.
 3. TYPES OF PC PILE
-
- BOTTOM SURFACE
 — PC. PILE CLASS B
 — PC. PILE CLASS A



DIMENSION SCHEDULE

PIER NO	STATION	RC. NO	PC. NO	R.L	E1	E2	E3	H1	H2	H3	H4	H5	H6	H7
P-31	17 590.00	26	26	8.754	6.794	5.974	2.126	8.200	7.100	8.100	7.100	1.520	920	120
P-32	17 625.00	27	26	8.754	7.094	5.974	2.126	9.200	7.100	8.100	7.100	1.820	1120	90

GENERAL VIEW OF P-31 & 32

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)

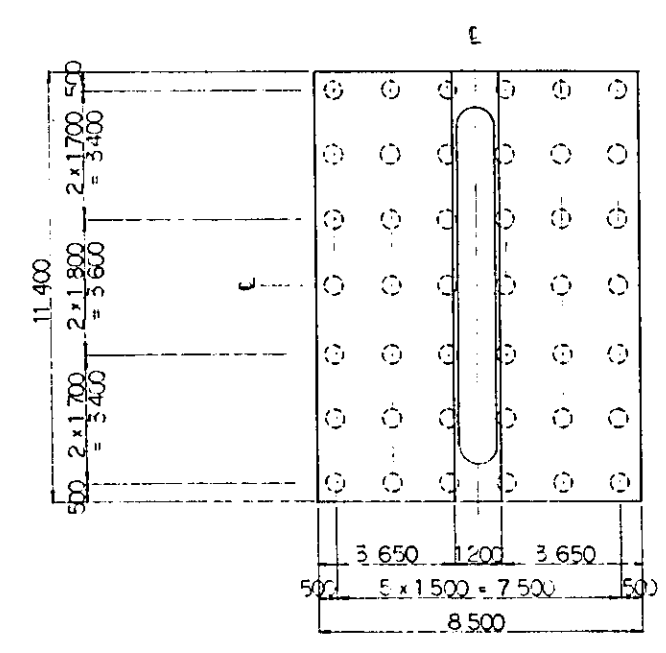
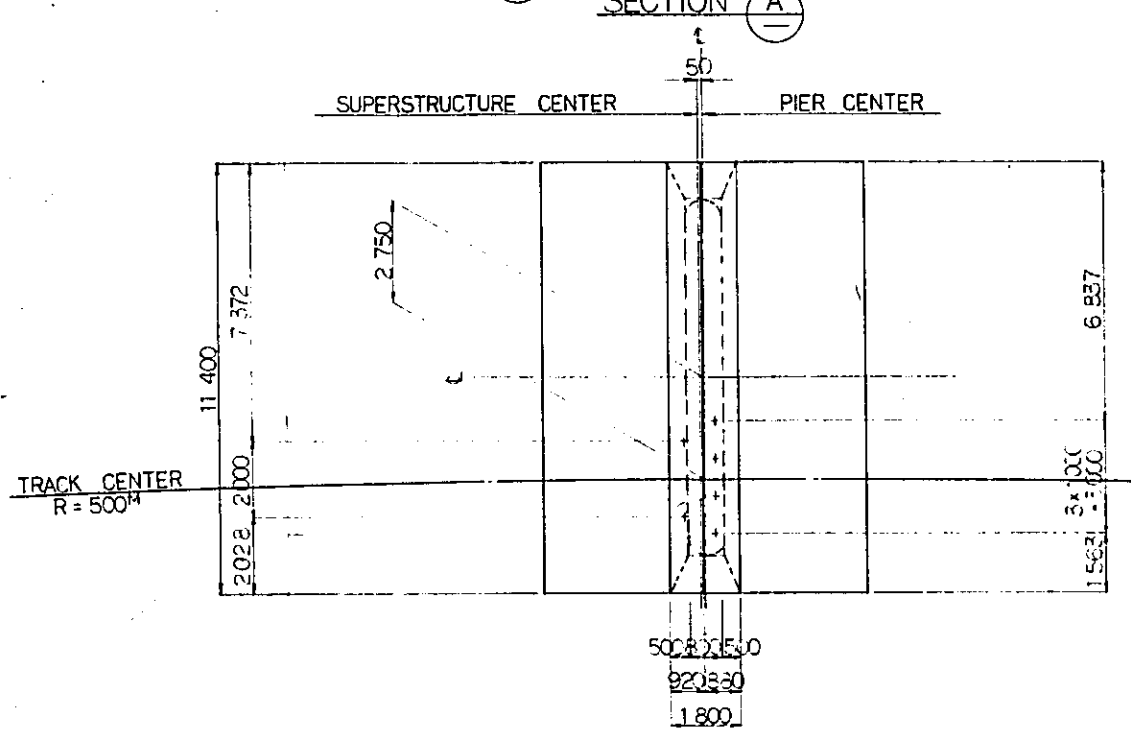
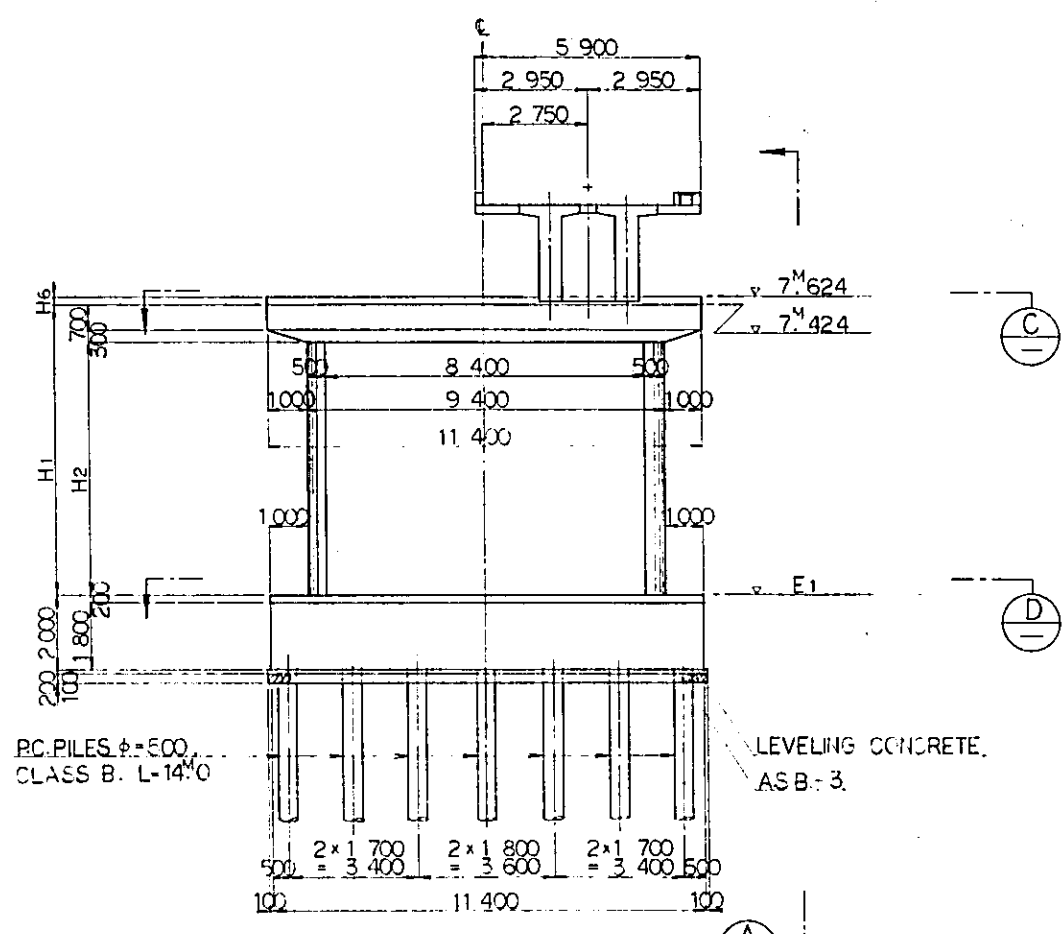
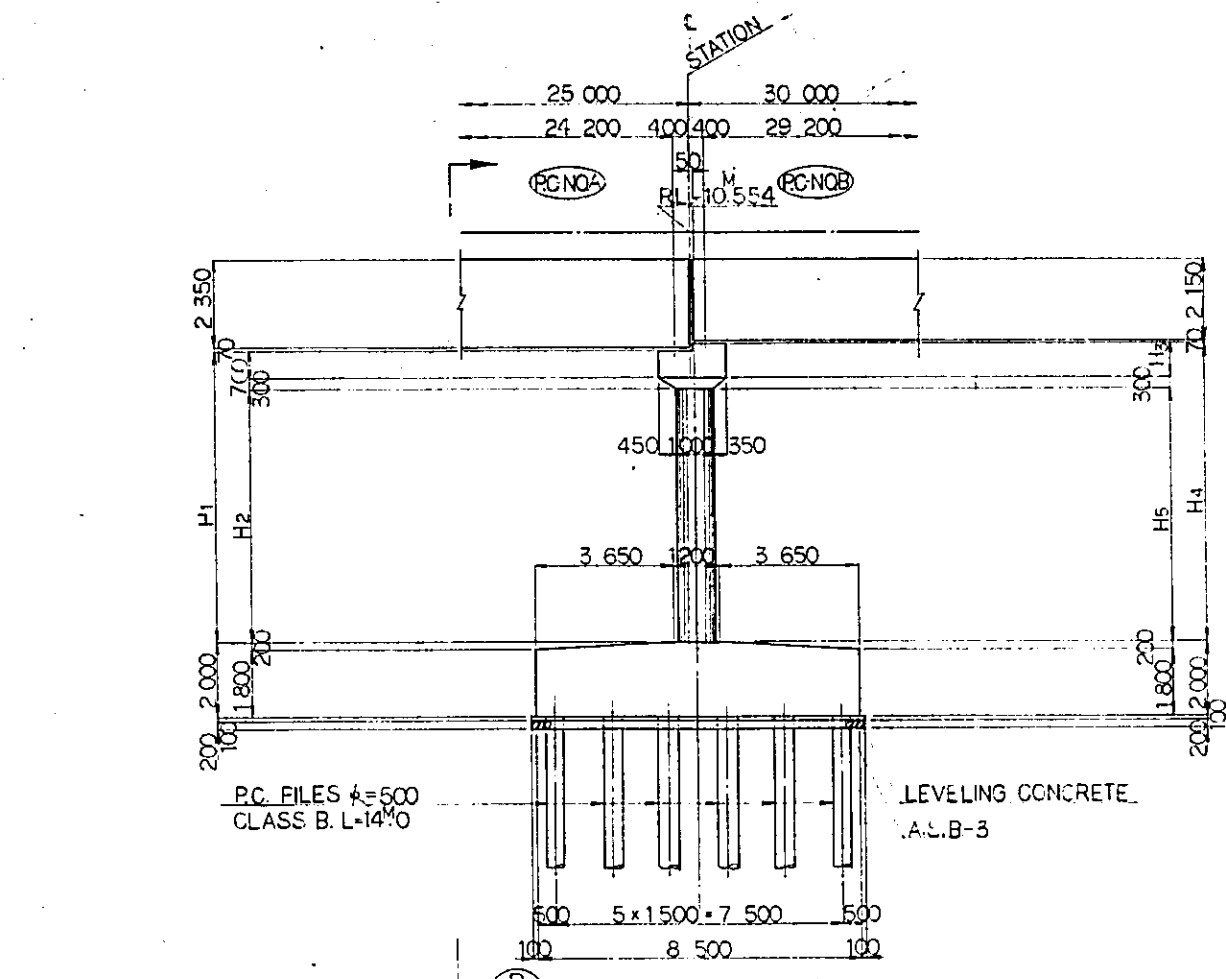
B	1 AUG. 84	55	m.y.	K.R.	K.M.	K.K.
A	15 FEB. 84	55	m.y.	K.A.	K.M.	K.K.

REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWED SUBMITTED

PIER P31, P32
 GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK

SCALE: 1:100 DRAWING NO: CS-110



SECTION C

SECTION D

DIMENSION SCHEDULE

PIER NO	STATION	PC NOA	PC NOB	E1	H1	H2	H3	H4	H5	H6
P-40	18 795.00	31	32	-0.276	7 700	6 700	900	7 900	6 700	200
P-41	18 825.00	33	32	-0.376	7 800	6 800	900	8 000	6 800	200

GENERAL VIEW OF P-40 & 41

- NOTES:
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 - REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-112, CS-113, CS-114

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-18
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_h=0.1$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 180 kg/cm ²
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 80 kg/cm ²
MATERIAL	TYPE OF REINFORCING BAR	SD-30
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck}=210 \text{ kg/cm}^2$
	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 CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

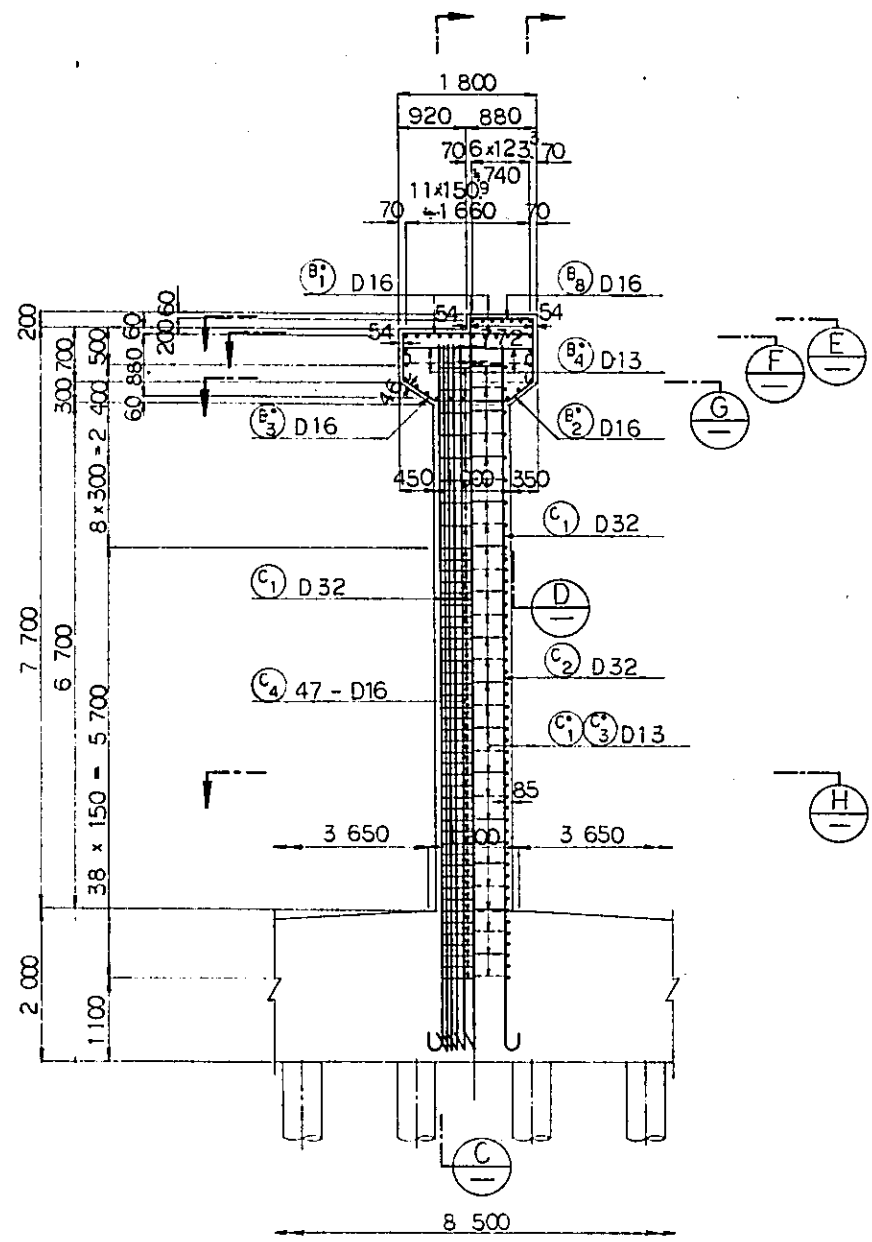
B	1 AUG '84	SS	MY	KD	KM	KK
A	15 FEB '84	SS	MY	KD	KM	KK

REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWED SUBMITTED

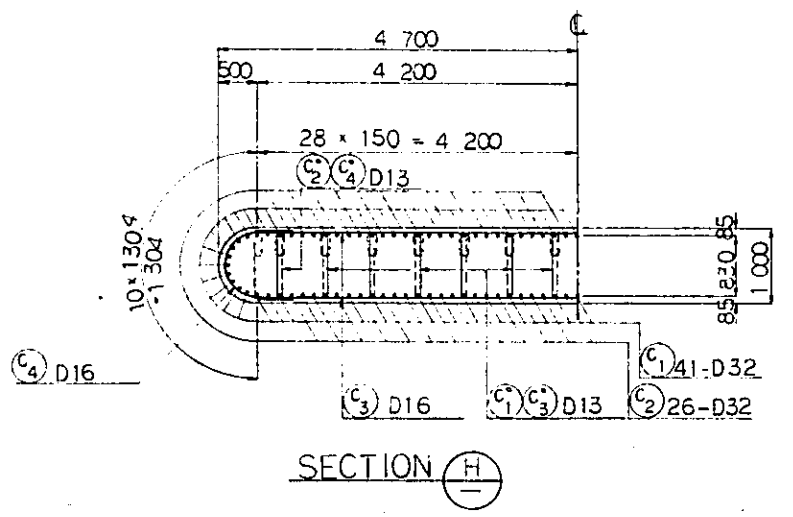
PIER P40, P41
GENERAL VIEW

PACKAGE: I CIVIL AND ARCHITECTURAL WORK

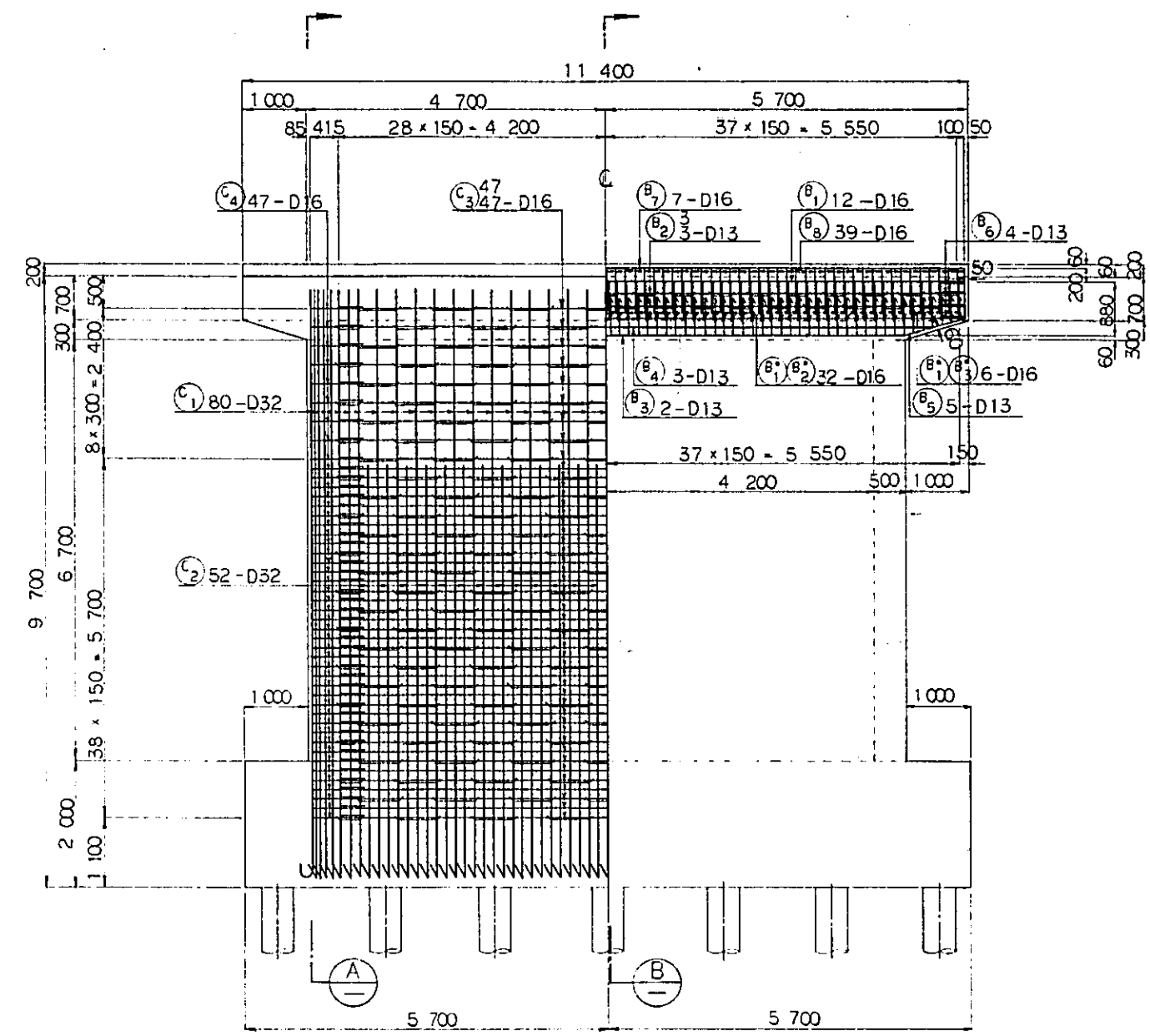
SCALE: 1:100 DRAWING NO: CS-111



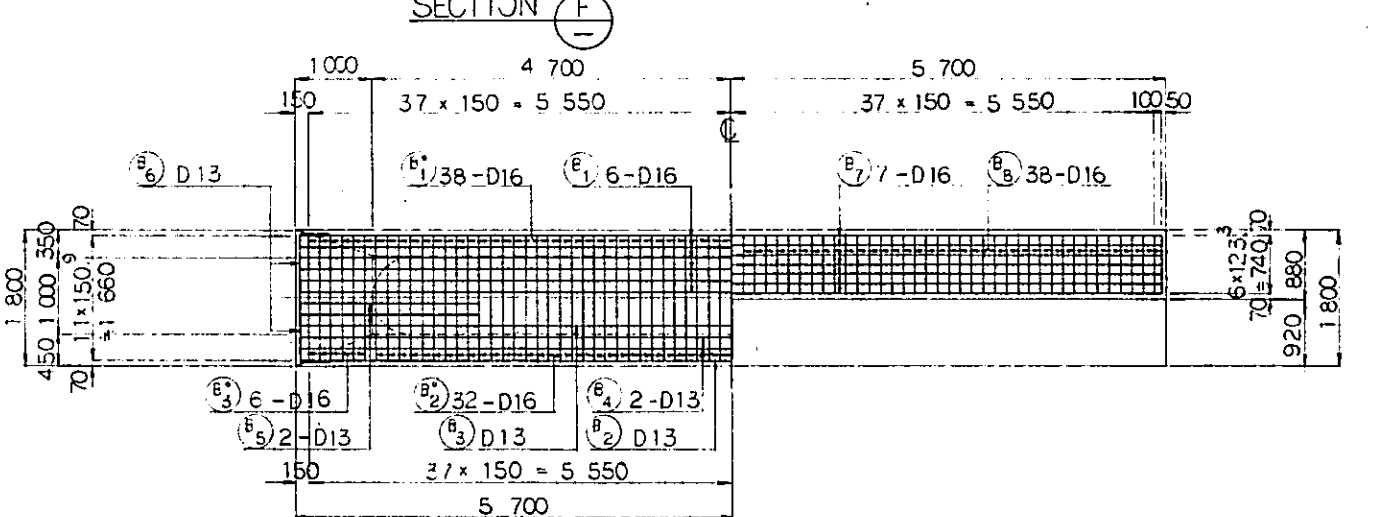
SECTION A SECTION B



SECTION H



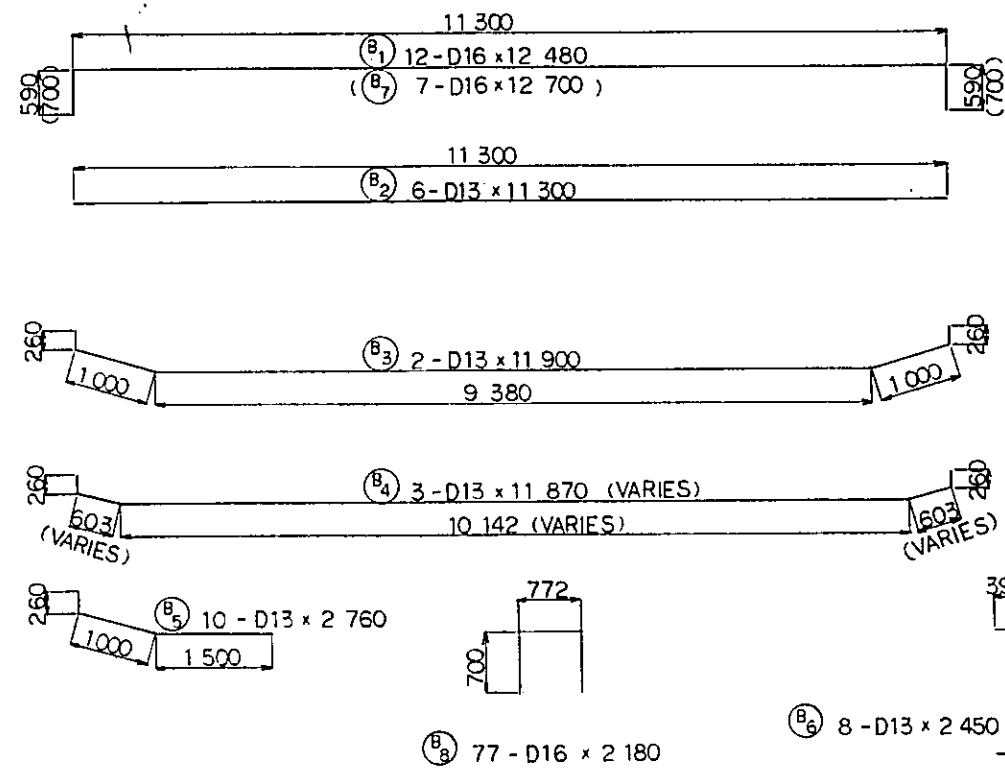
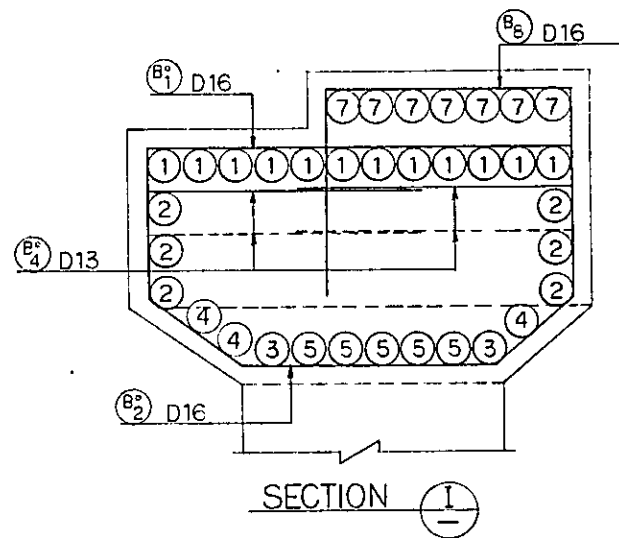
SECTION C SECTION D



SECTION E SECTION G

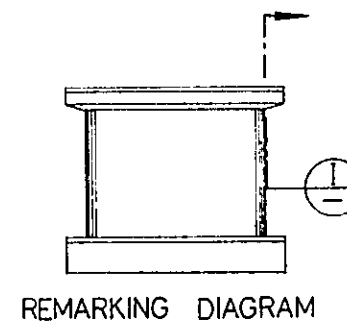
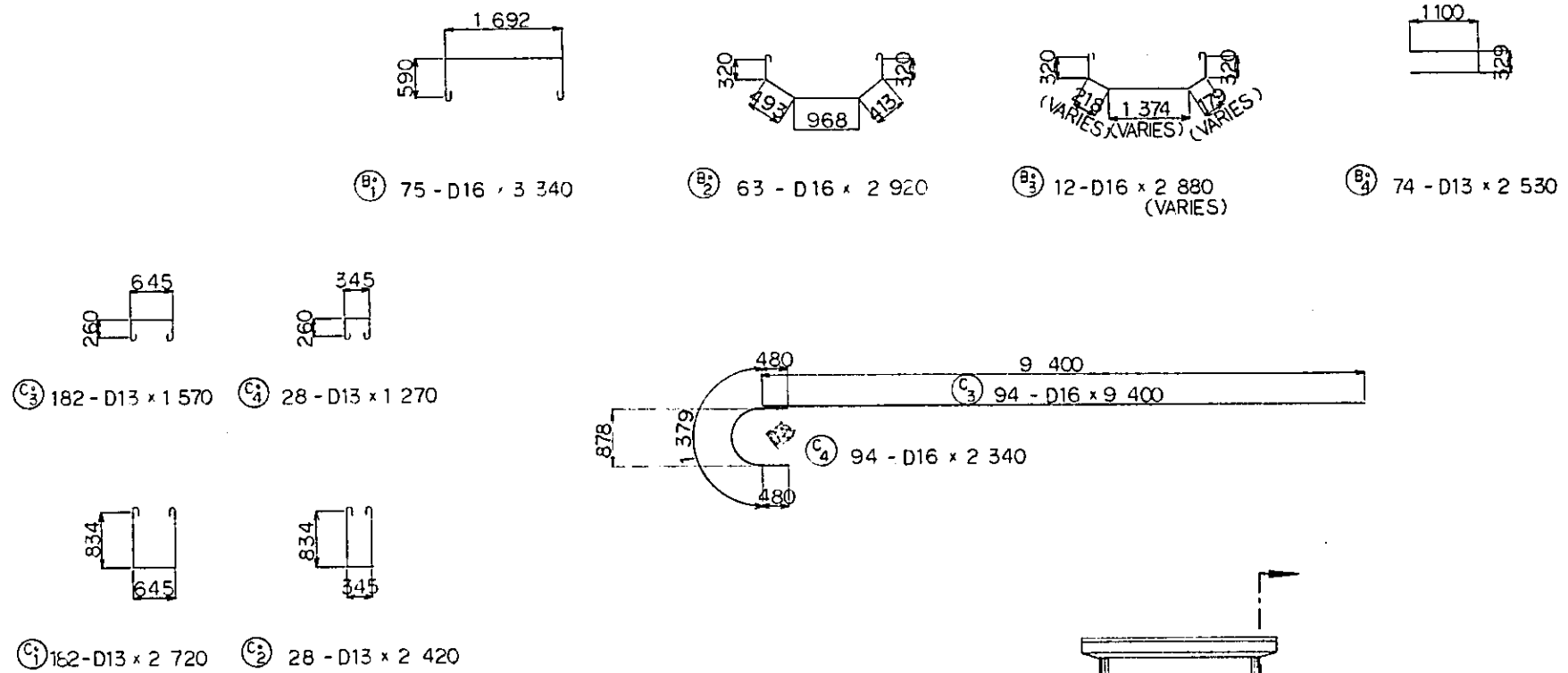
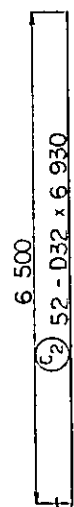
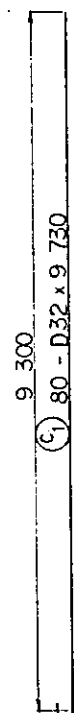
- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-111

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	m.y	K.A.K.M	K.K
A	15FEB.'84	SS	m.y	K.A.K.M	K.K
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
PIER P40 BAR ARRANGEMENT (SHEET 1 OF 3)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	DRAWING NO.				
1:50	CS-112				

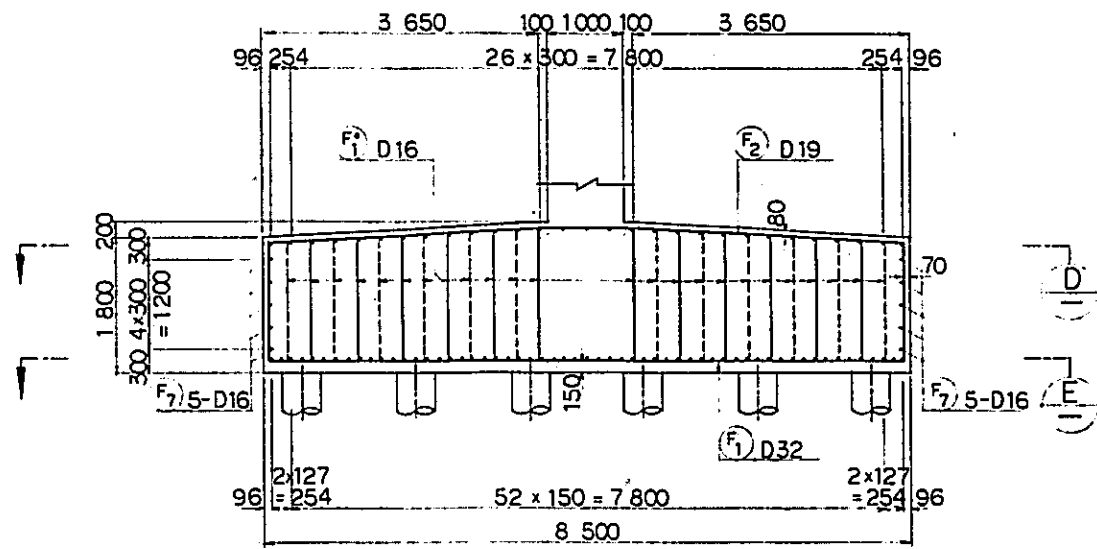


NOTES:

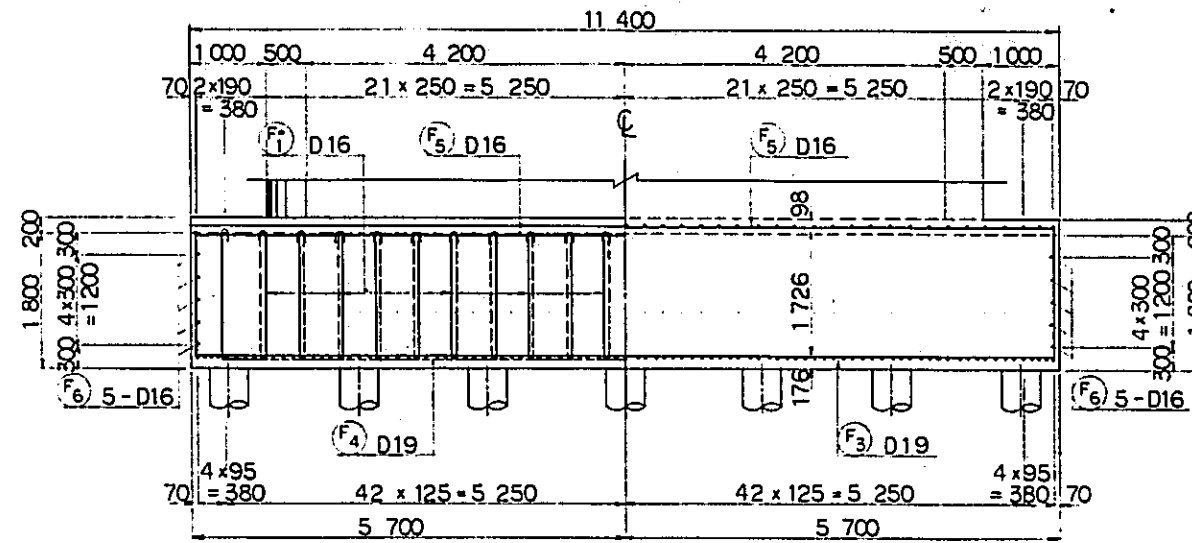
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW : CS-111



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	DRAWN	CHECKED	REVIEWED	SUBMITTED
PIER P40 BAR ARRANGEMENT (SHEET 2 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:50	CS-113					

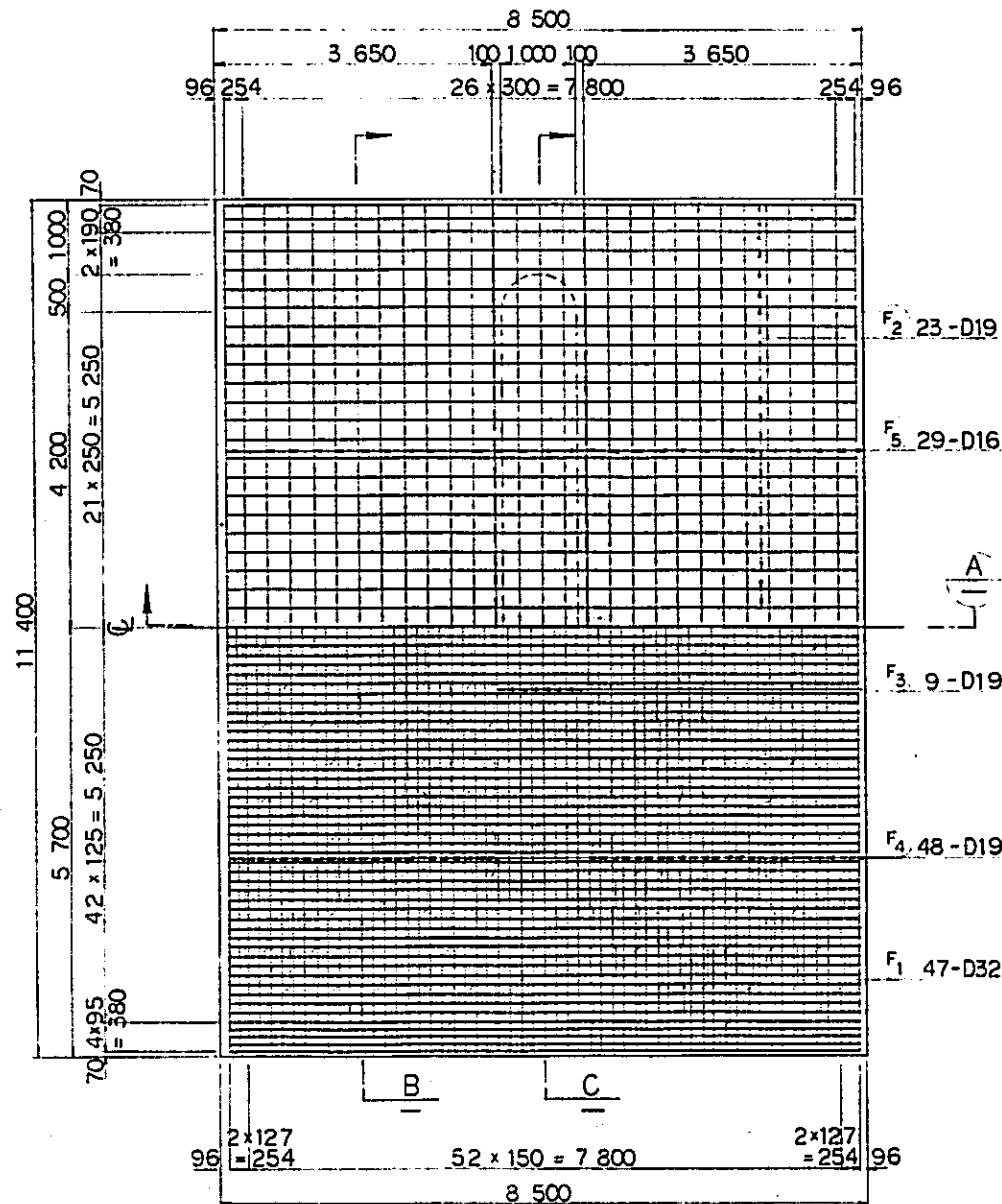


SECTION A



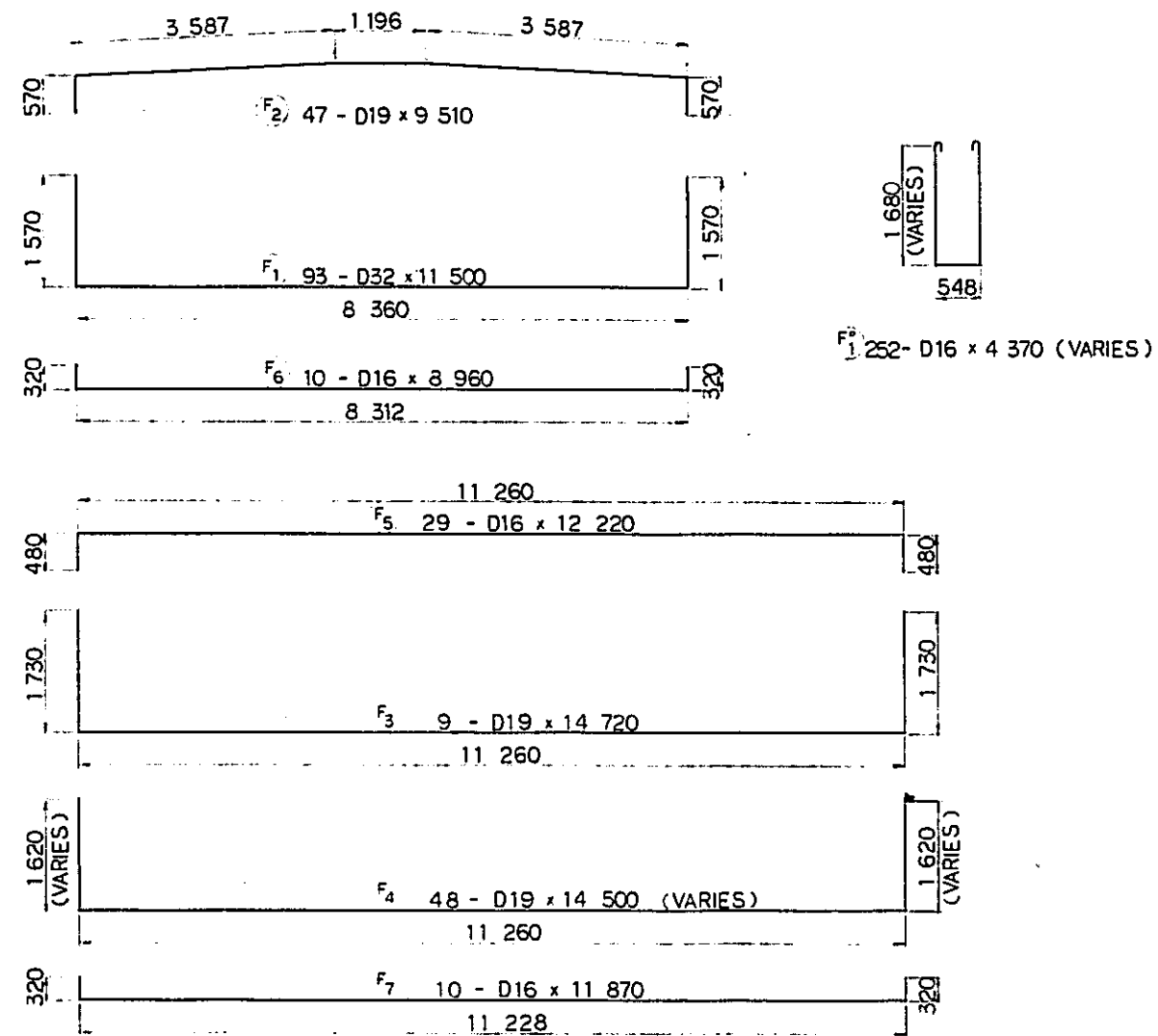
SECTION B

SECTION C



SECTION D

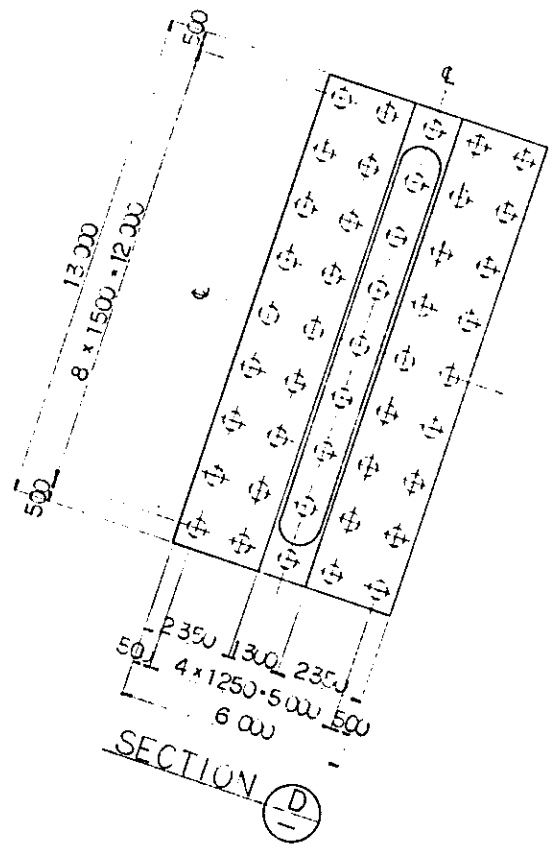
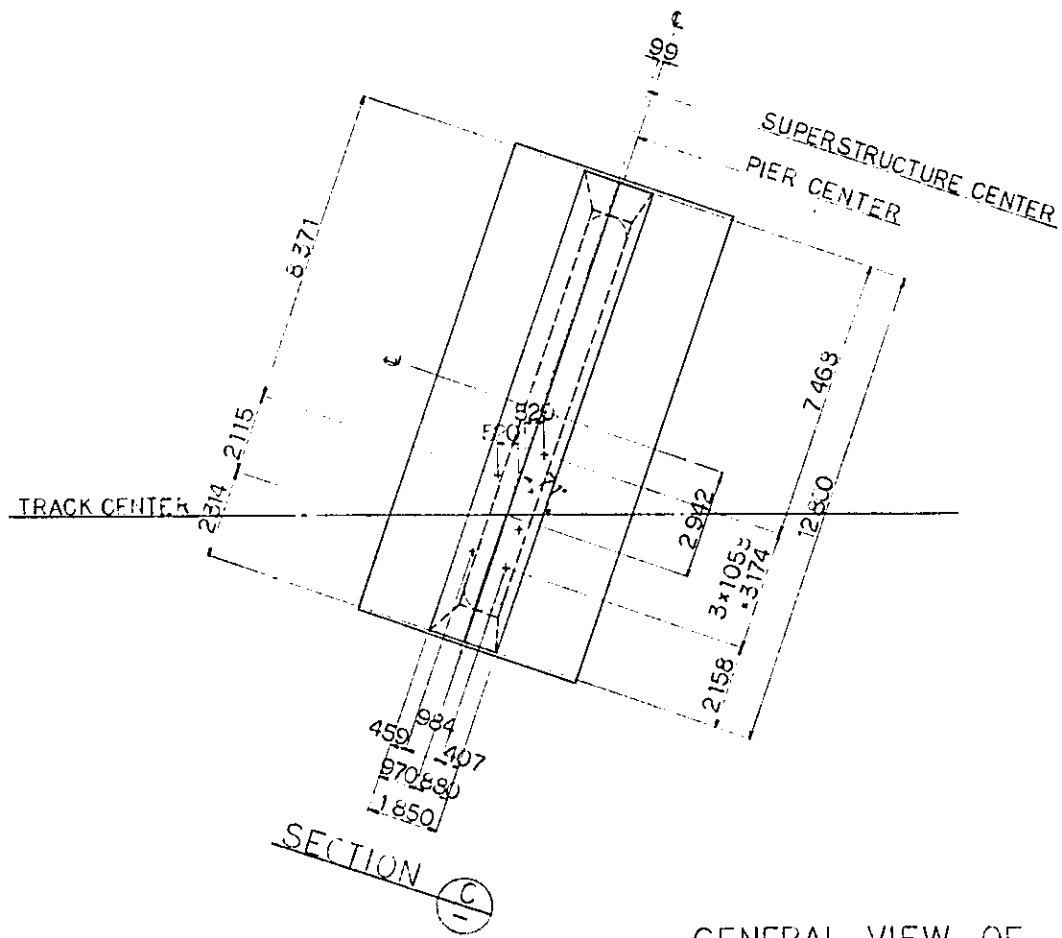
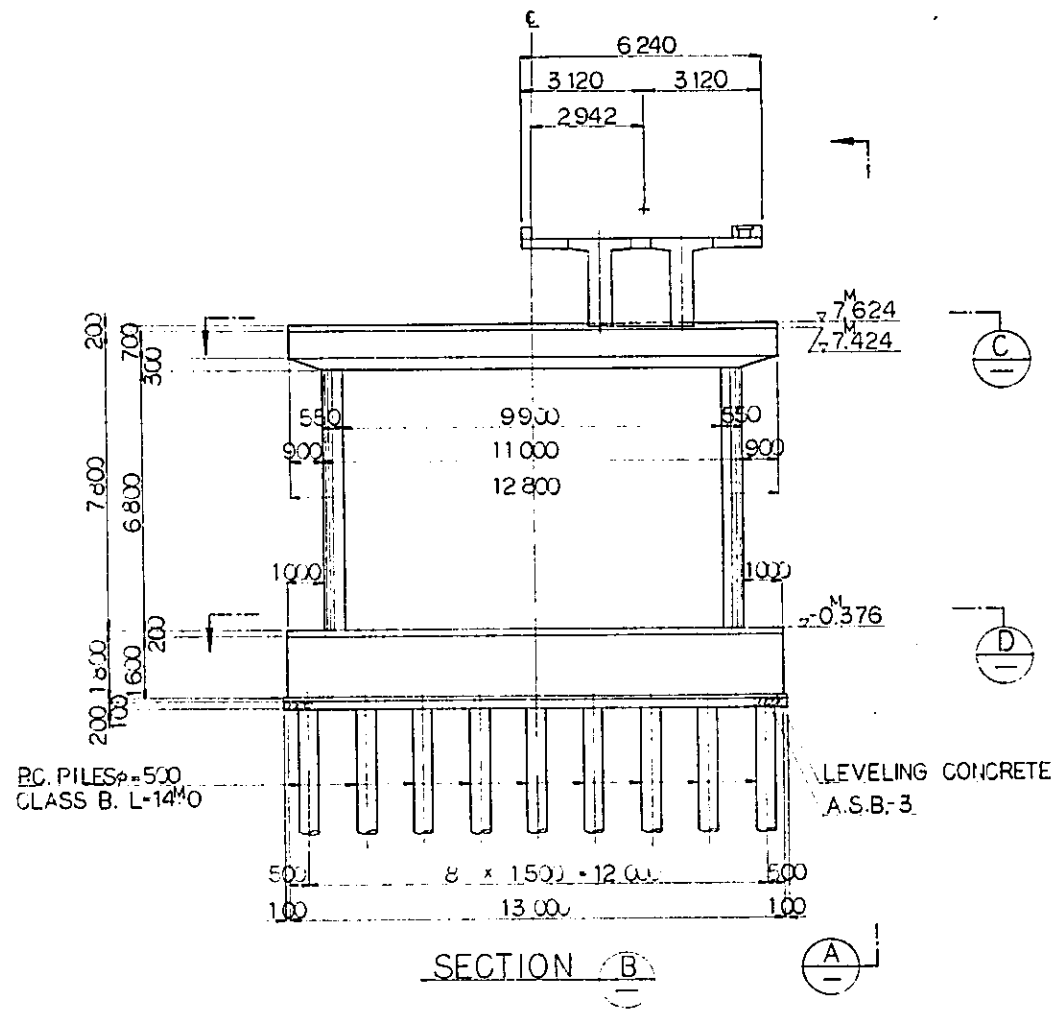
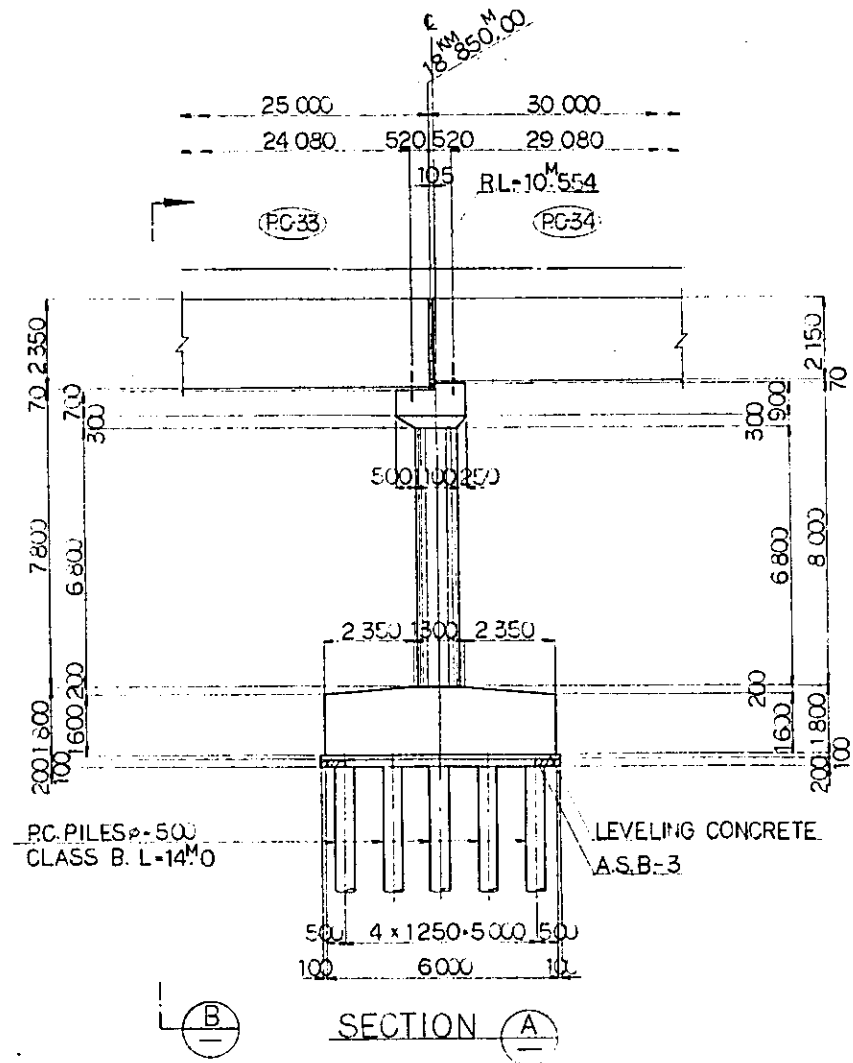
SECTION E



NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR GENERAL VIEW : CS-111

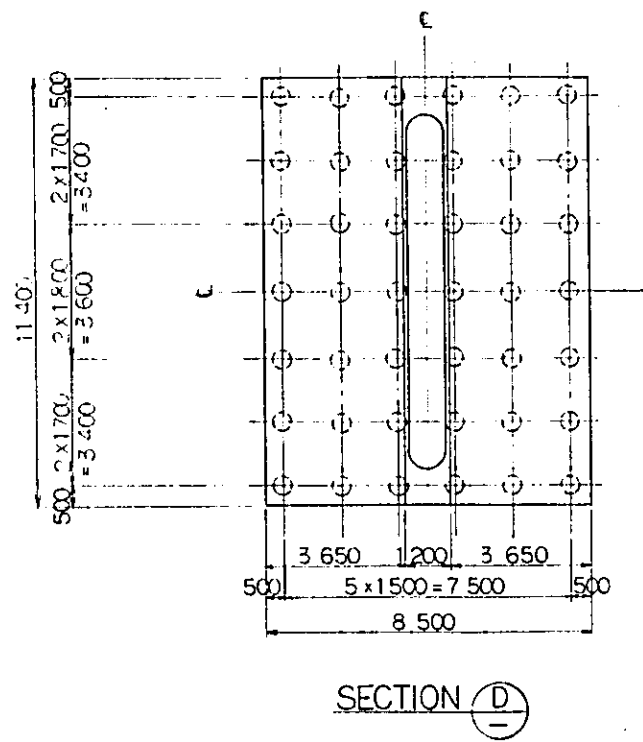
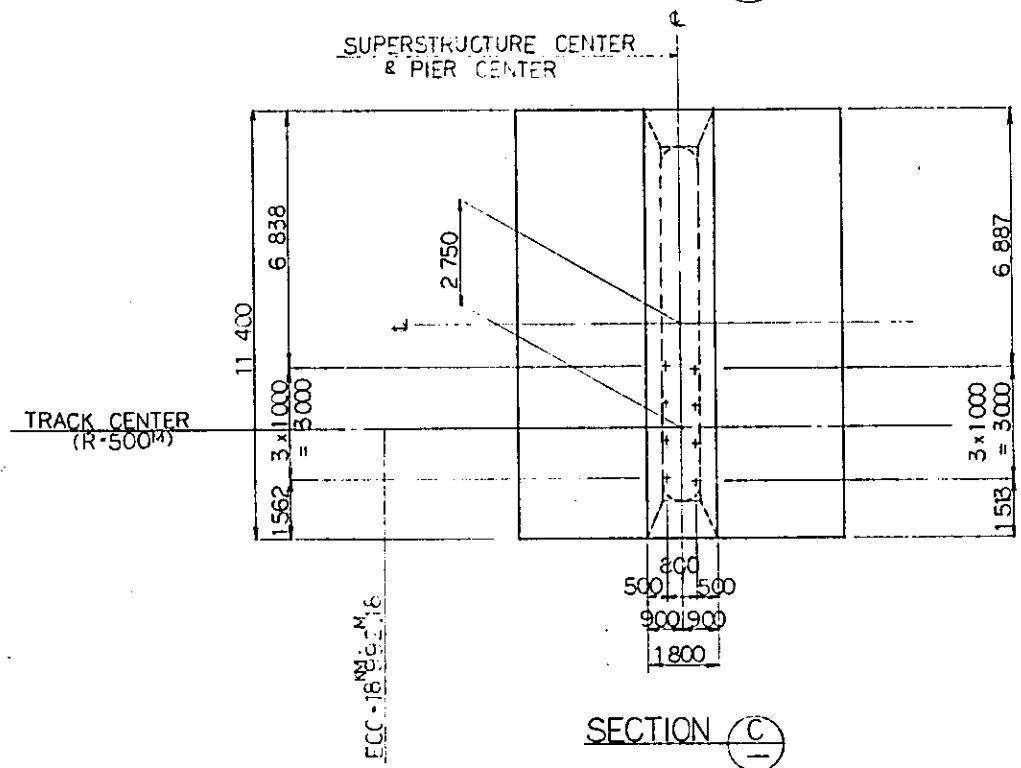
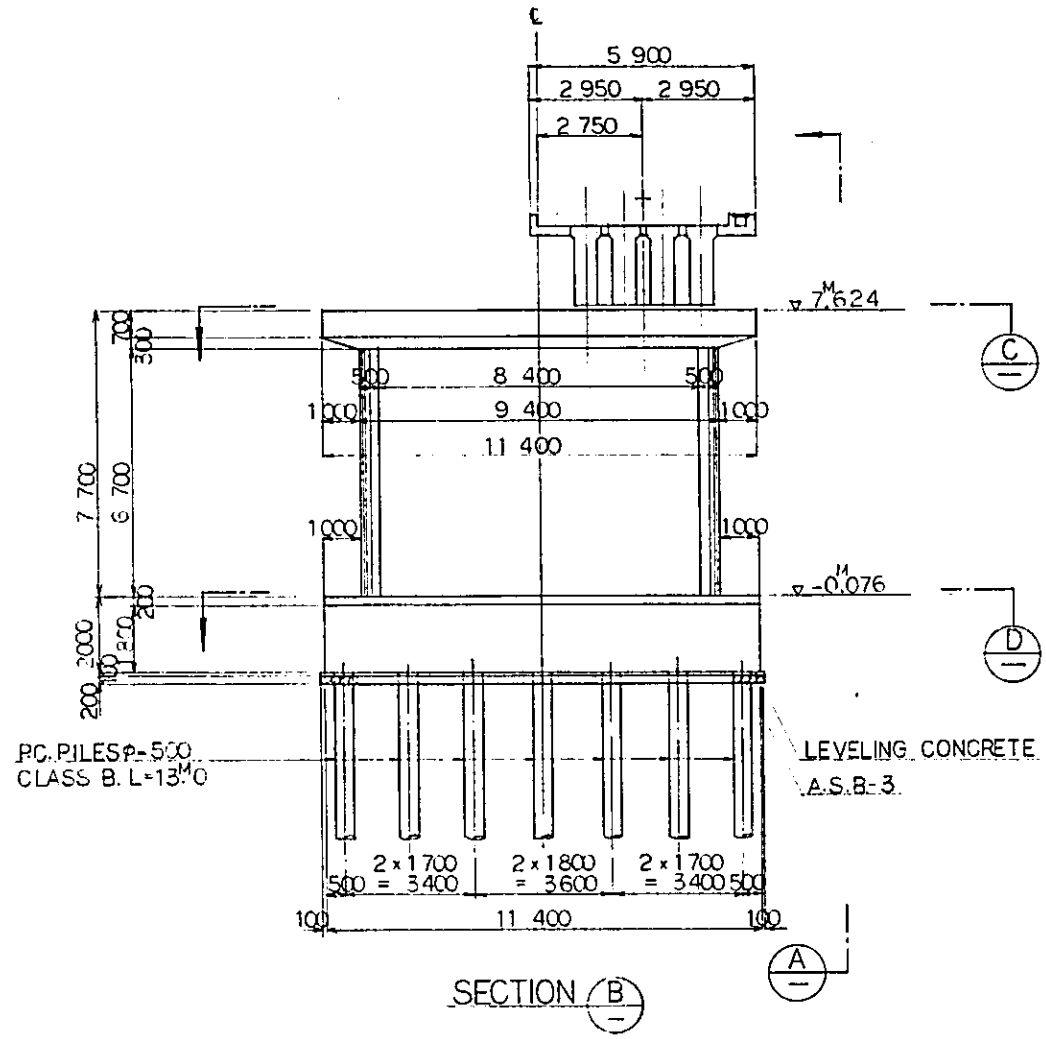
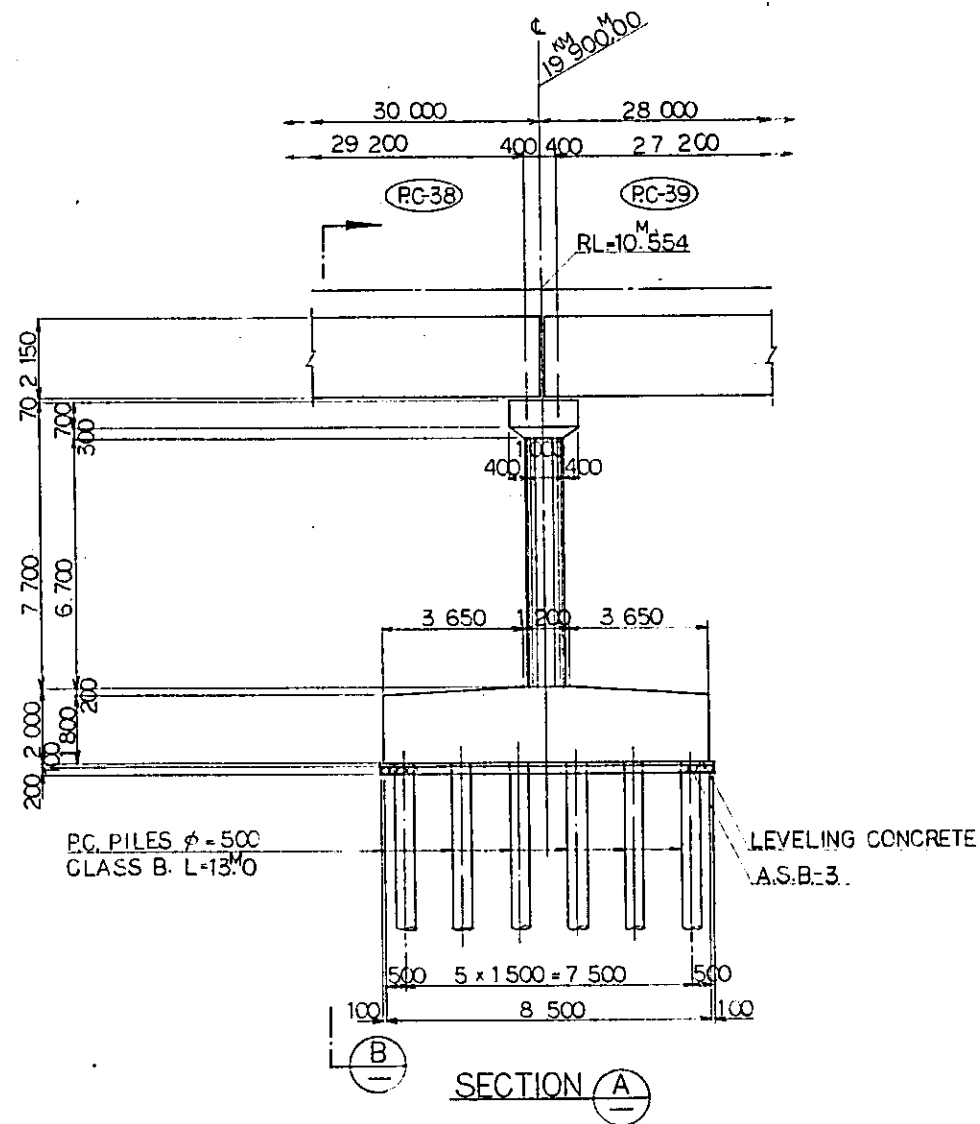
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG '84	SS	m.y	K.A	K.M
A	15 FEB '84	SS	m.y	K.A	K.M
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
PIER P40 BAR ARRANGEMENT (SHEET 3 OF 3)					
PACKAGE: I CIVIL AND ARCHITECTURAL WORK					
SCALE	1:50		DRAWING NO.	CS-114	



GENERAL VIEW OF P-42

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

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	KL	K.M	JKR
A	15 FEB. '84	SS	my	KL	K.M	JKR
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
PIER P42 GENERAL VIEW						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:100	CS-115					

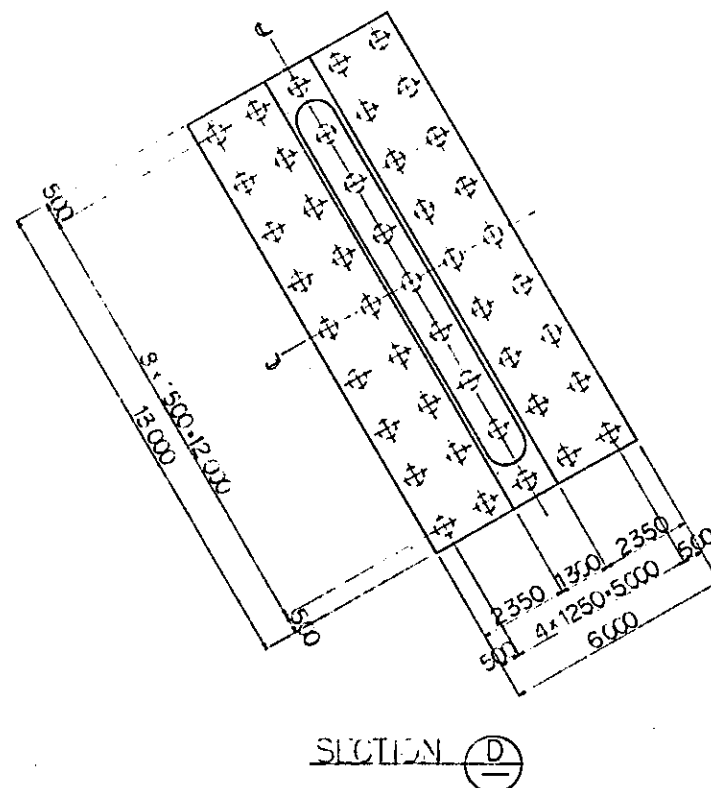
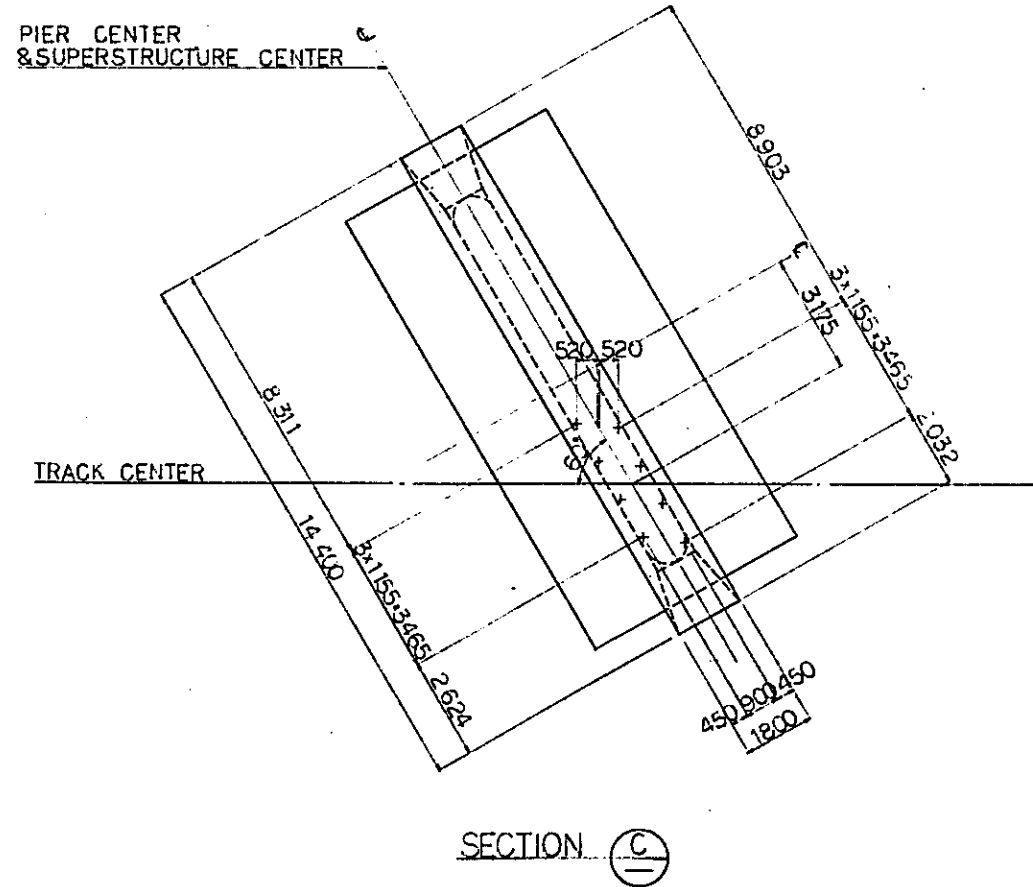
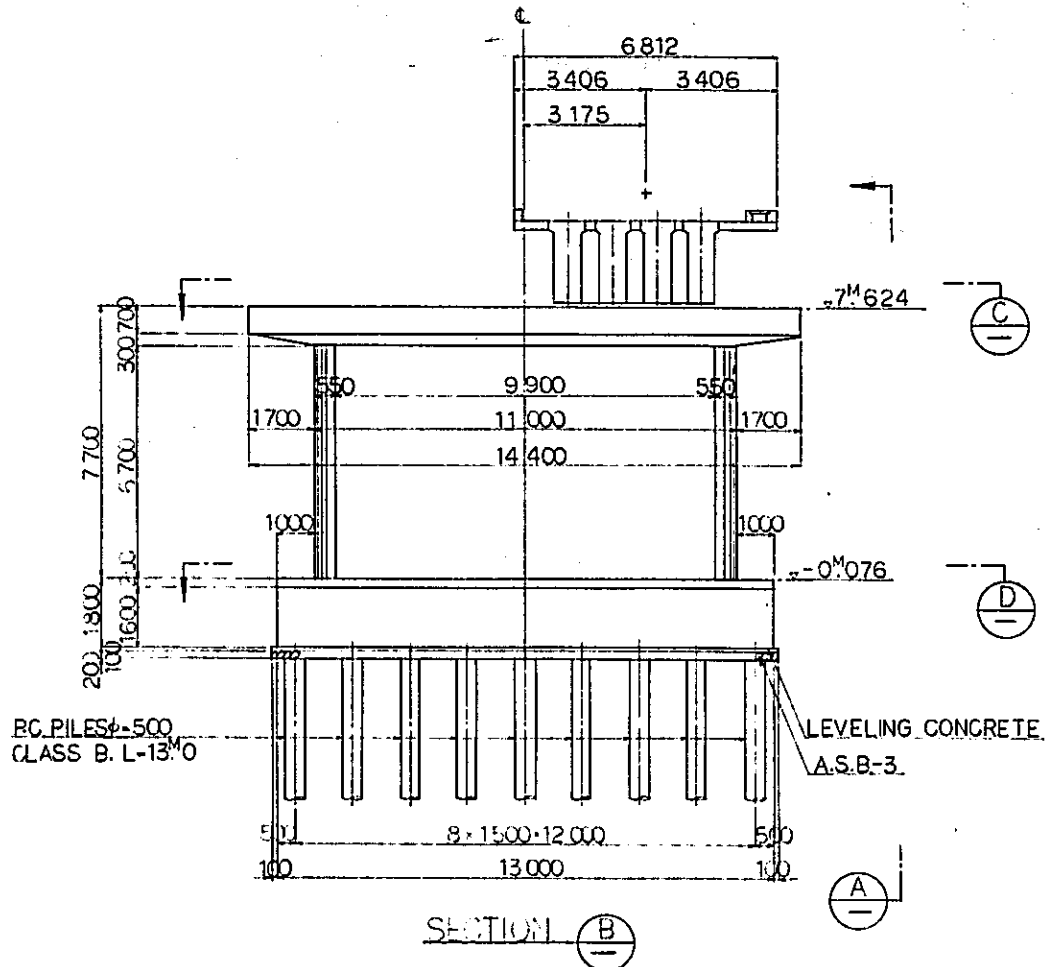
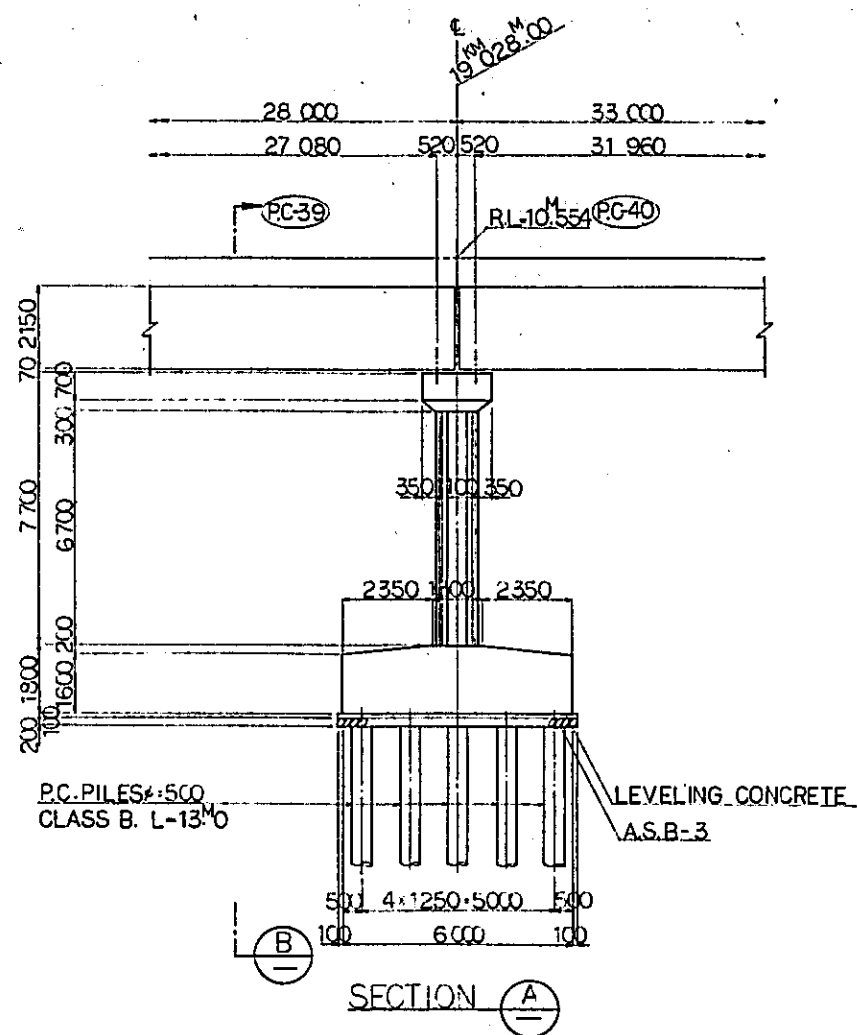


GENERAL VIEW OF P - 47

NOTES:

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
2. REFERENCE DRAWING FOR BAR ARRANGEMENT: CS-112, CS-113, CS-114.

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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	rs	my	ka	K.M	JK
A	15 FEB. 84	rs	my	ka	K.M	JK
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVISED	SUBMITTED
PIER P47						
GENERAL VIEW						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO:					
1:100	CS-116					



GENERAL VIEW OF P-48

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

DESIGN CRITERIA

DESIGN LOAD	TRAIN LOAD	EQUIVALENT TO KS-16
	SEISMIC EFFECT	IN HORIZONTAL DIRECTION $K_h=0.1$
ALLOWABLE STRESS	REINFORCING BAR	ALLOWABLE TENSILE STRESS 1800 kg/cm ²
	CONCRETE	ALLOWABLE COMPRESSIVE STRESS 80 kg/cm ²
MATERIAL	TYPE OF REINFORCING BAR	SD-30
	CONCRETE OF DESIGN CRITERIA STRENGTH	$\sigma_{ck}=210 \text{ kg/cm}^2$
	MAX SIZE OF COARSE AGGREGATE	25mm

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NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

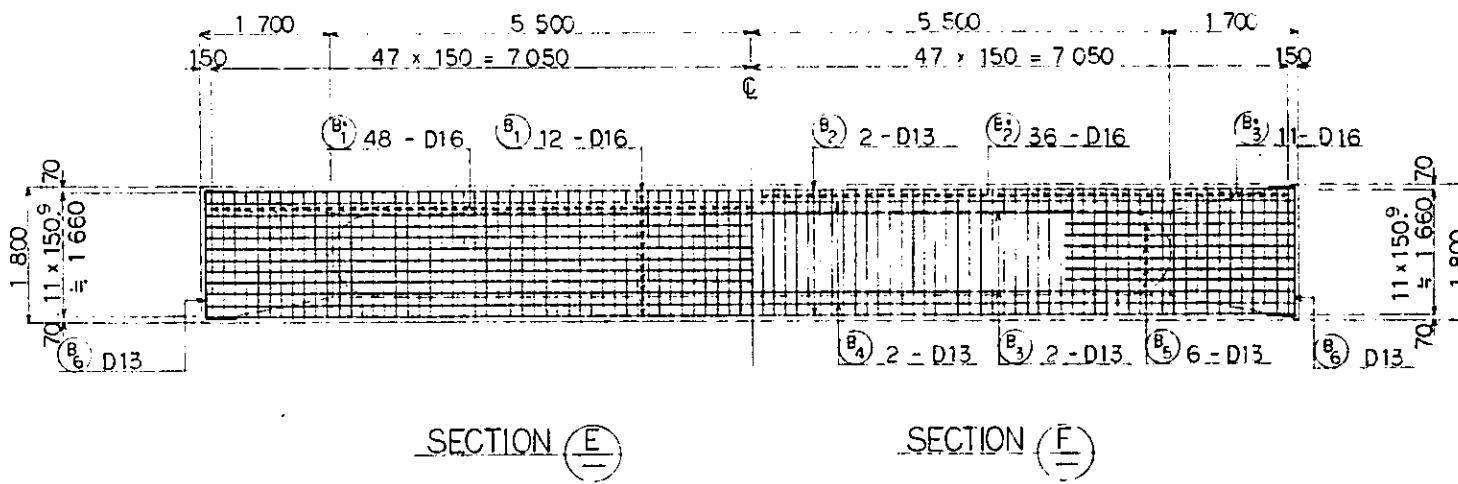
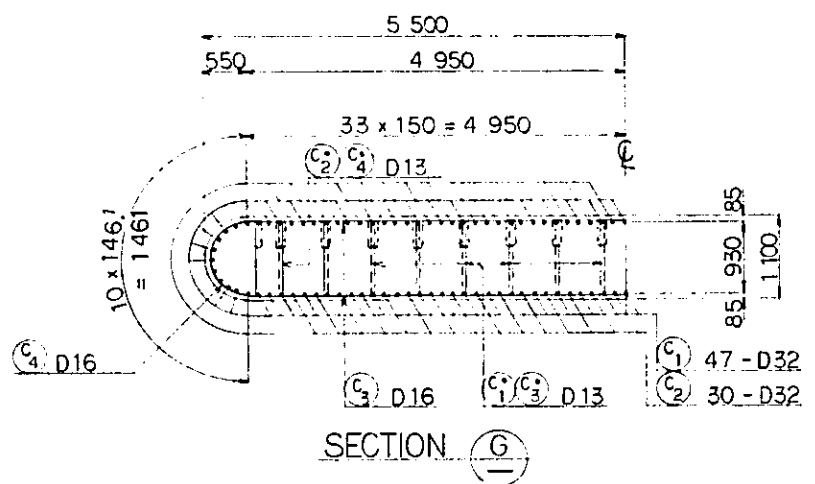
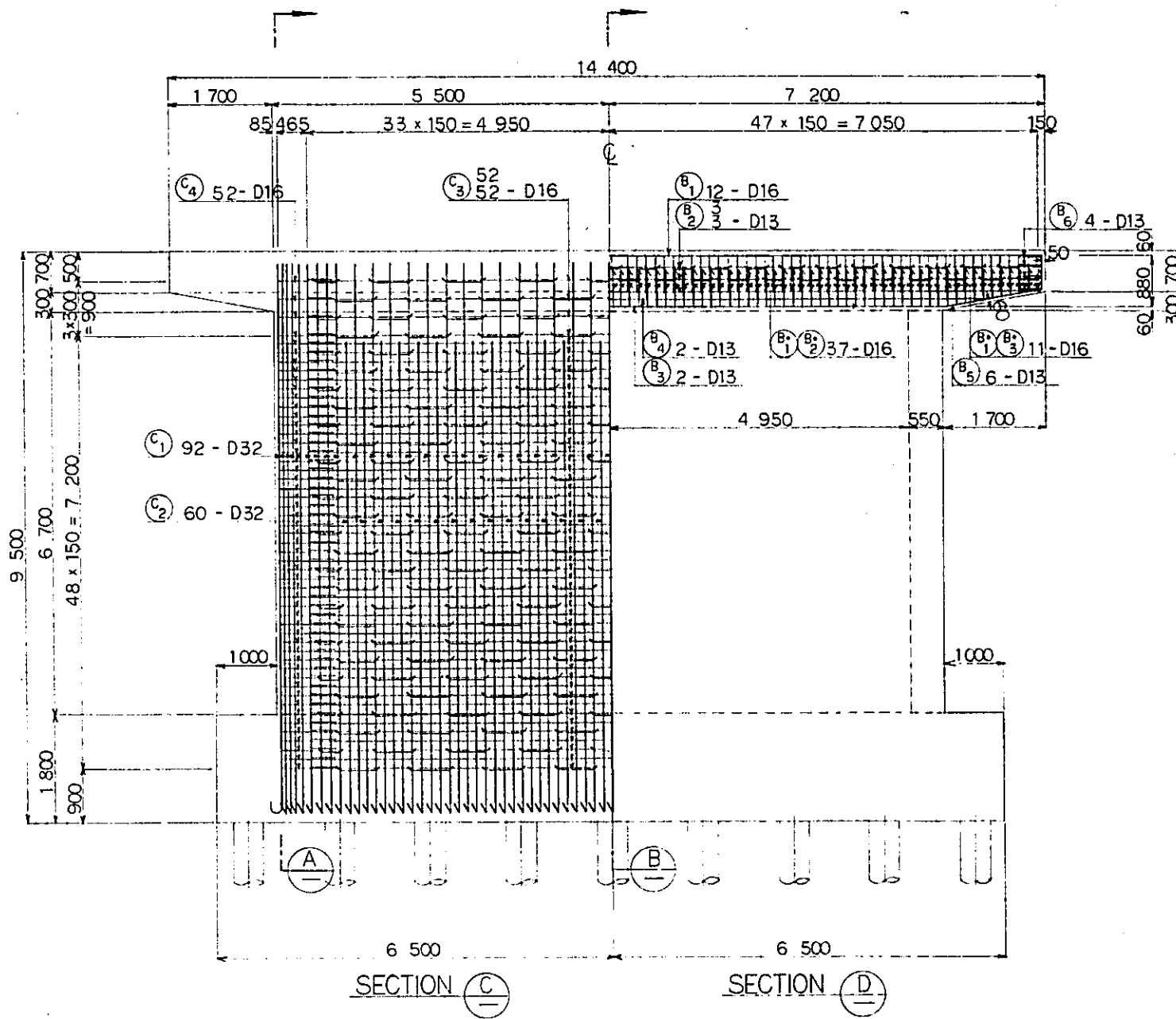
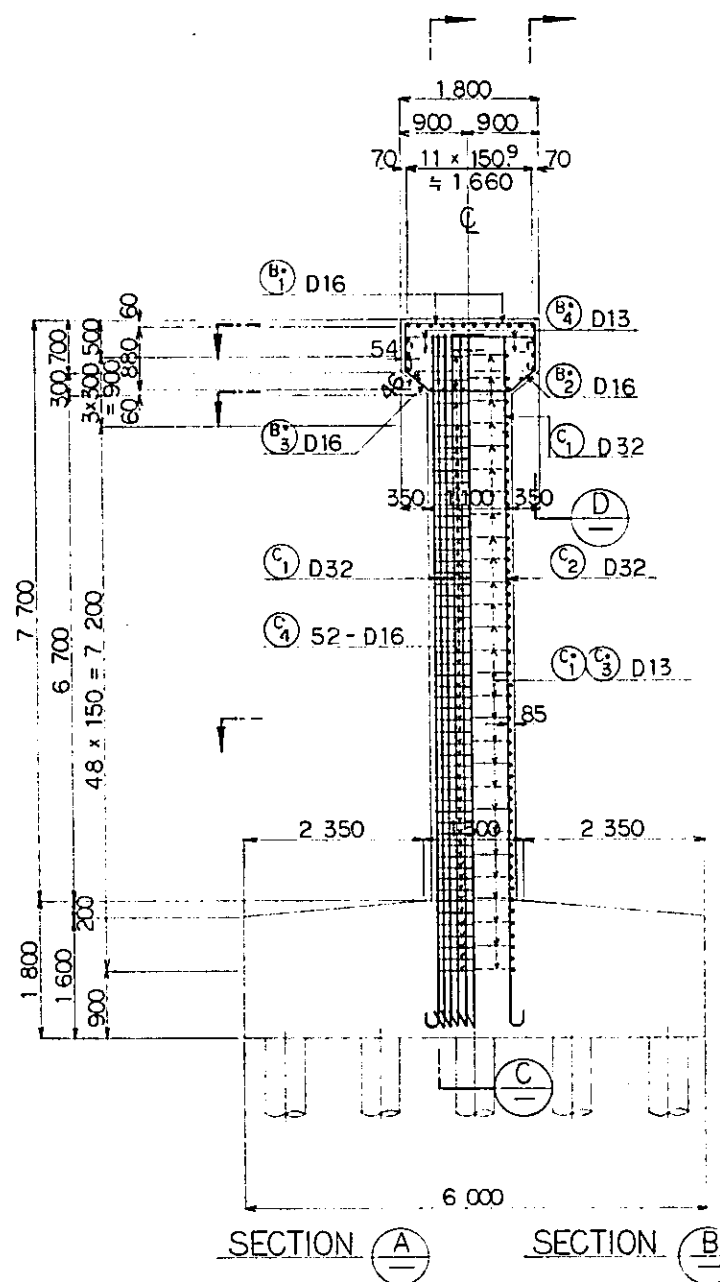
B	1 AUG 84	S.S.	my	K.A.	K.M.	M.K.
A	15 FEB 84	S.S.	my	K.A.	K.M.	M.K.

REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWED SUBMITTED

PIER P48
 GENERAL VIEW

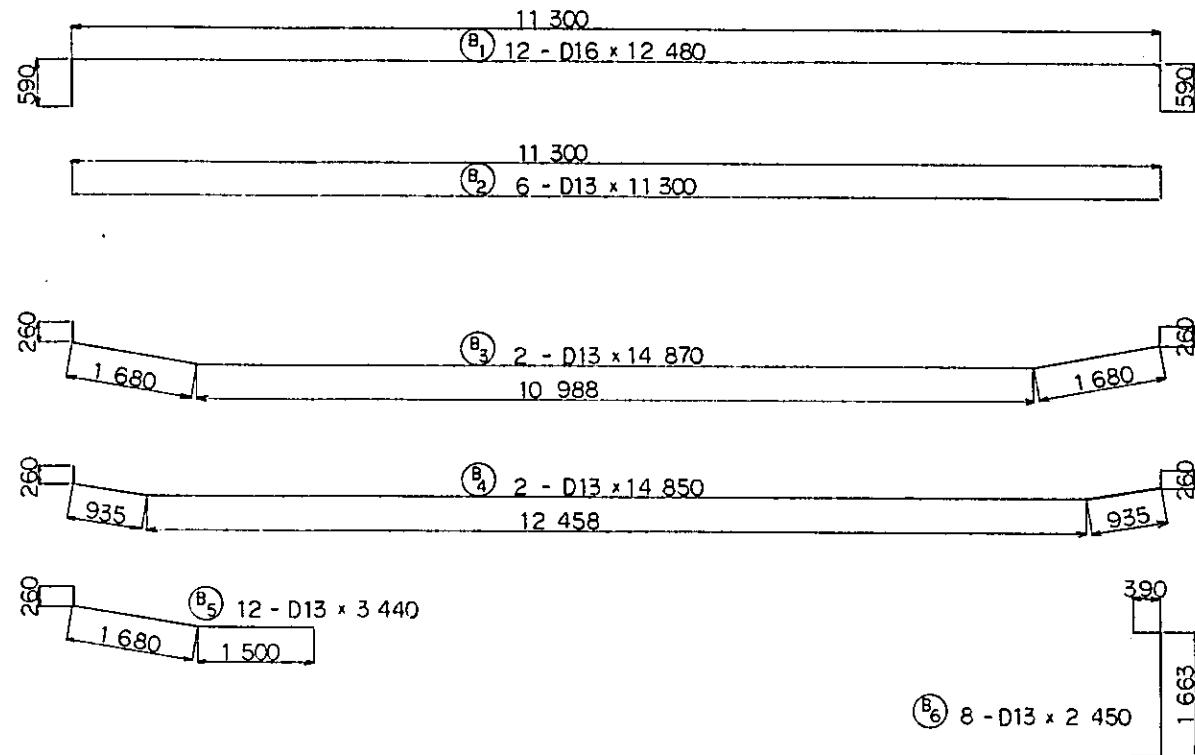
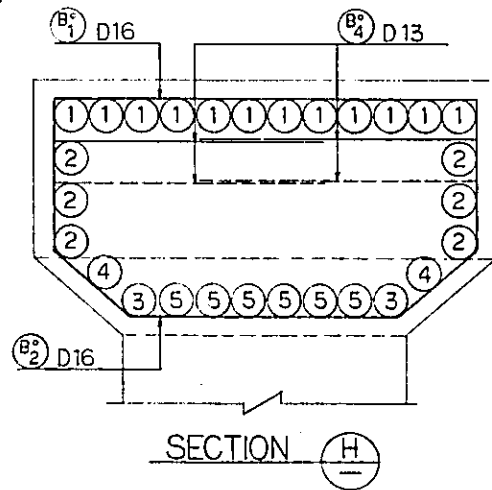
PACKAGE: I CIVIL AND ARCHITECTURAL WORK

SCALE: 1:100 DRAWING NO: CS-117

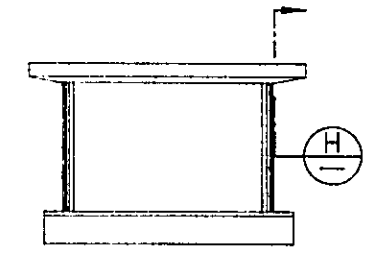
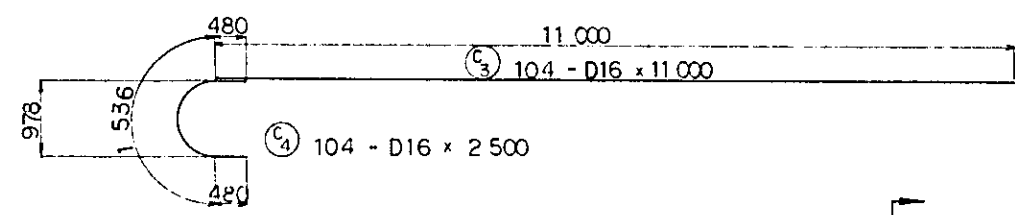
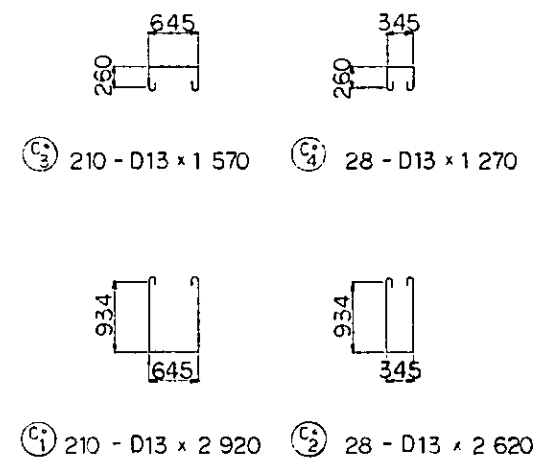
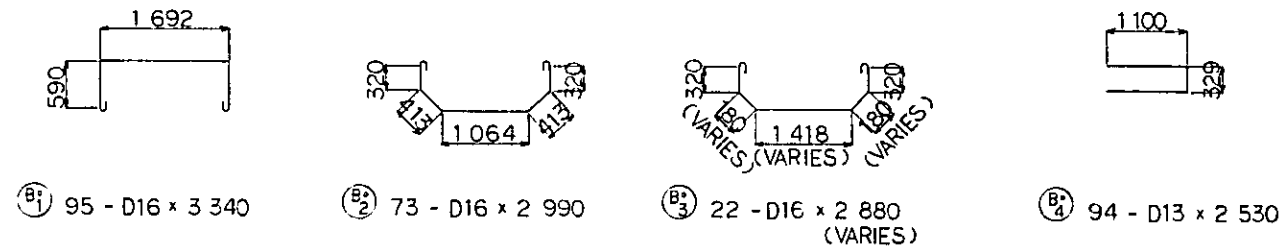
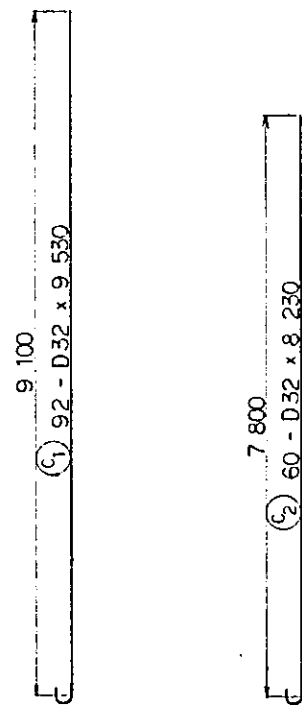


- NOTES:
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE INDICATED
 2. REFERENCE DRAWING FOR GENERAL VIEW: CS-117

REPUBLIC OF INDONESIA (MINISTRY OF COMMUNICATIONS) DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
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JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 AUG. 84	SS	m.y.	K.R.	K.M.
A	15 FEB. 84	SS	m.y.	K.R.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	EXTEND
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.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 P48 BAR ARRANGEMENT (SHEET 2 OF 3)						
PACKAGE: I CIVIL AND ARCHITECTURAL WORK						
SCALE	DRAWING NO.					
1:50	CS-119					