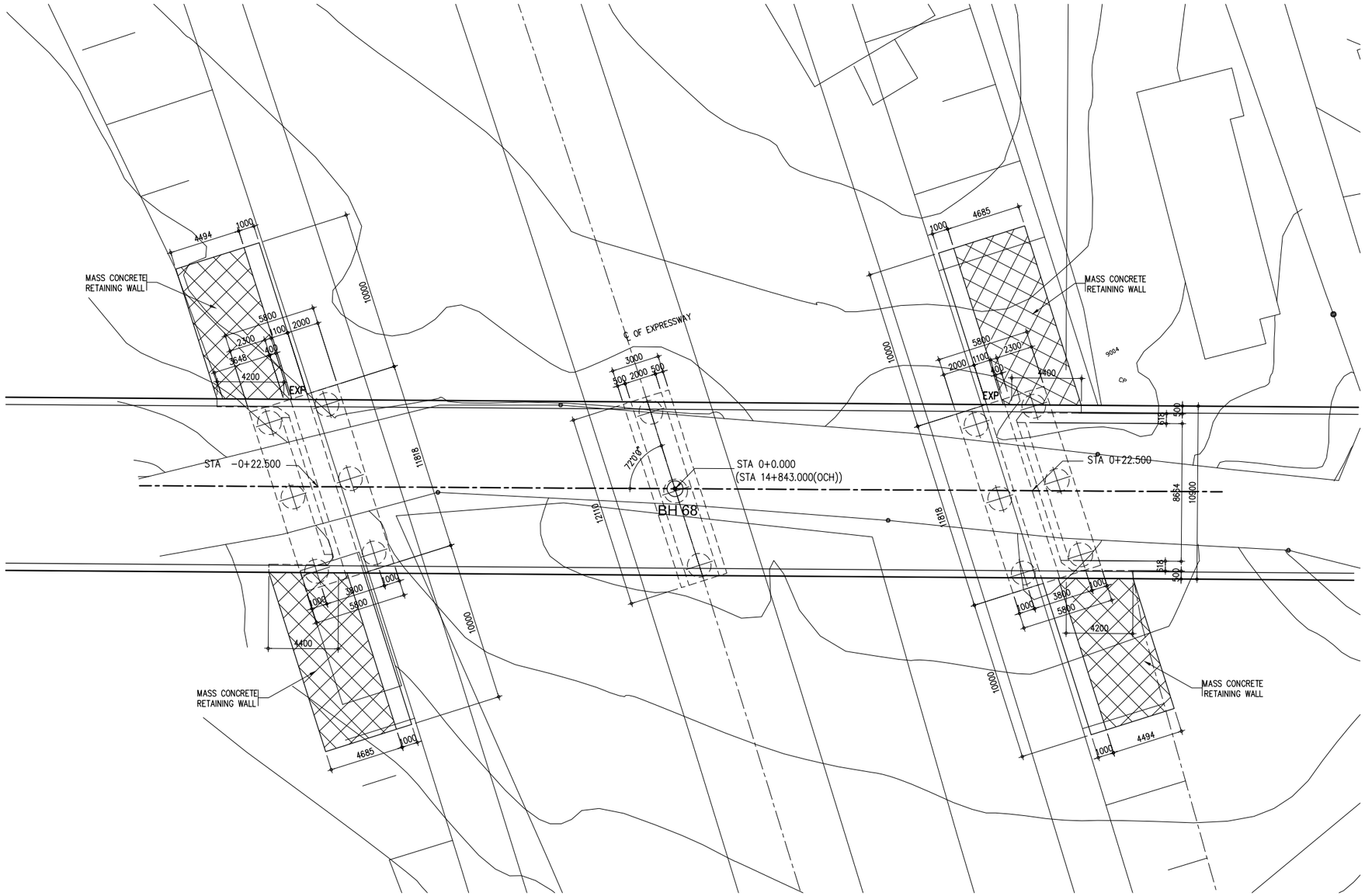
K06 OVERPASS BRIDGE

No.12(O12)-STA.14+843.000

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT

OVERPASS BRIDGE NO. 12 - GENERAL VIEW (1)

(STA. 14+843.00)



1 / – PLAN
SCALE 1:150

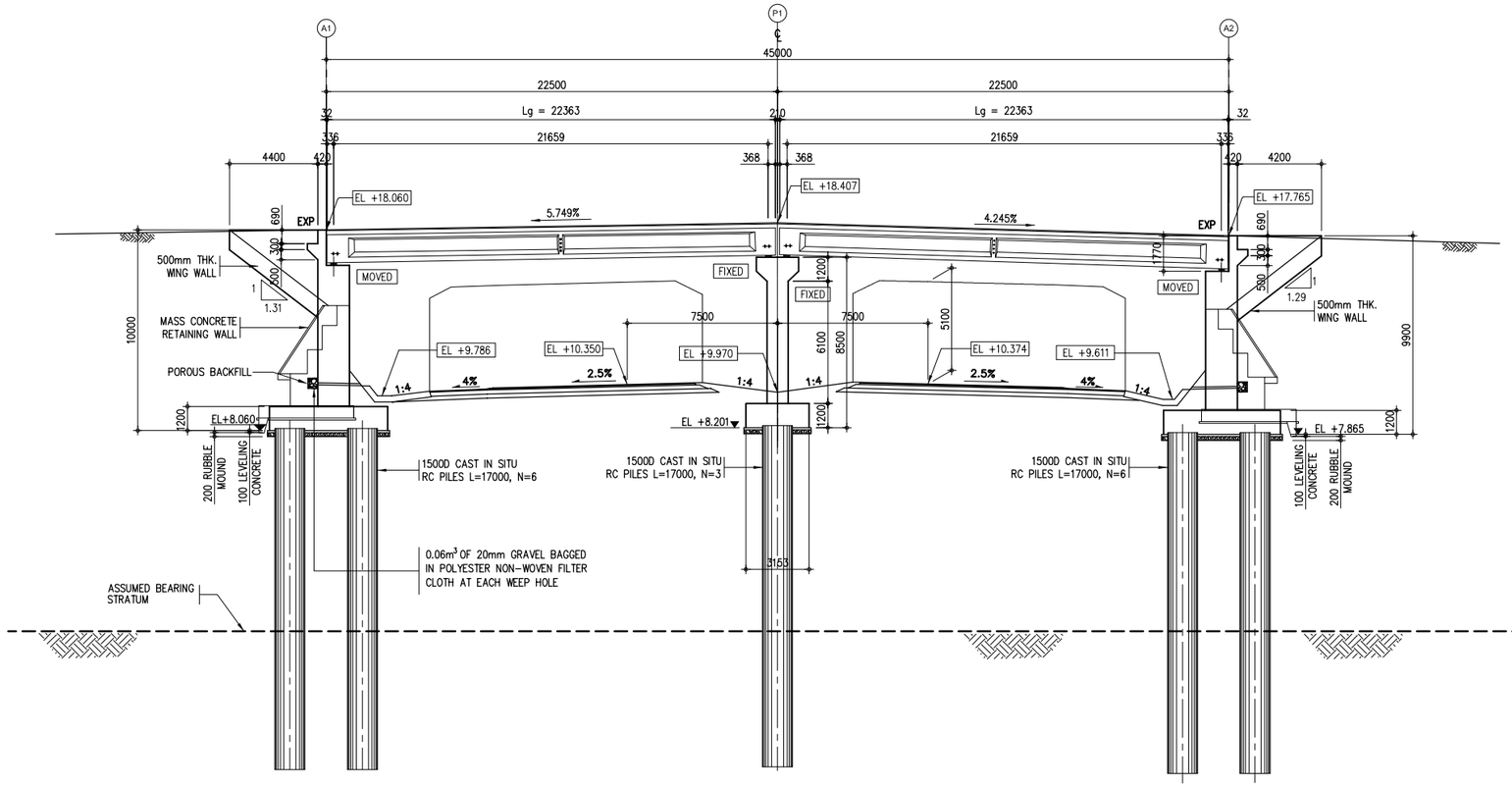
NOTES :

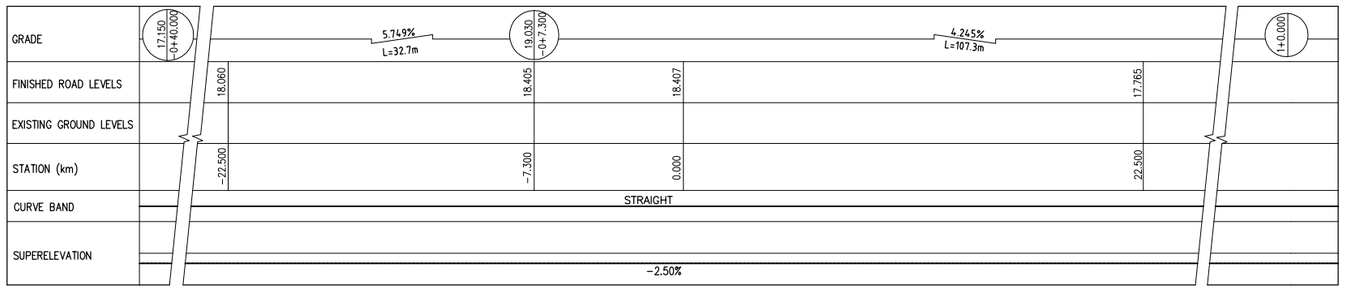
1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE OTHER RELEVANT DRAWINGS.

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	No	REVISION	DATE	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)** OVERPASS BRIDGE NO. 12 - GENERAL VIEW (1) STA. 14+843.00	DESIGNED BY: CHECKED BY: APPROVED BY: DWG. NO. K06-00-A

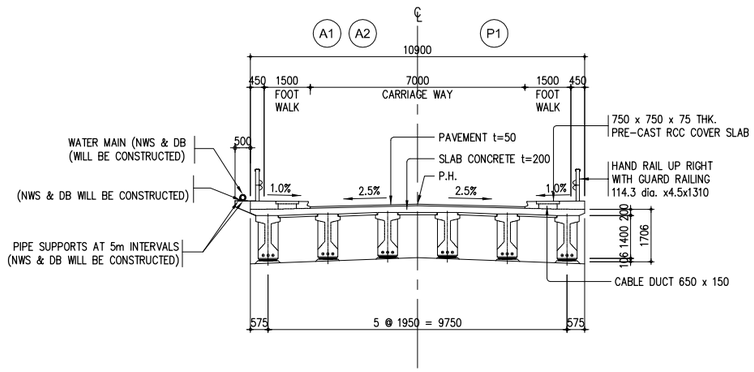
OVERPASS BRIDGE NO. 12 - GENERAL VIEW (2)

(STA. 14+843.00)

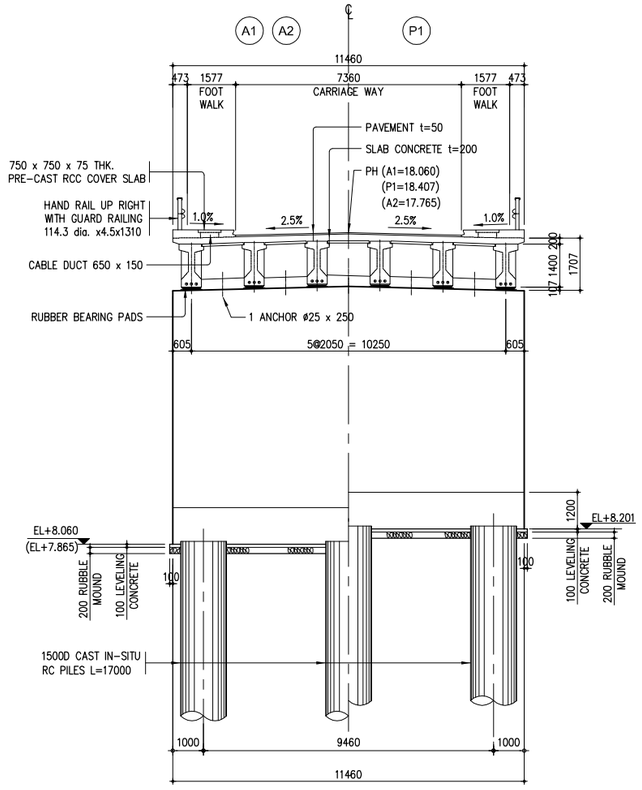




2 – PROFILE
SCALE 1:150



SUPERSTRUCTURE



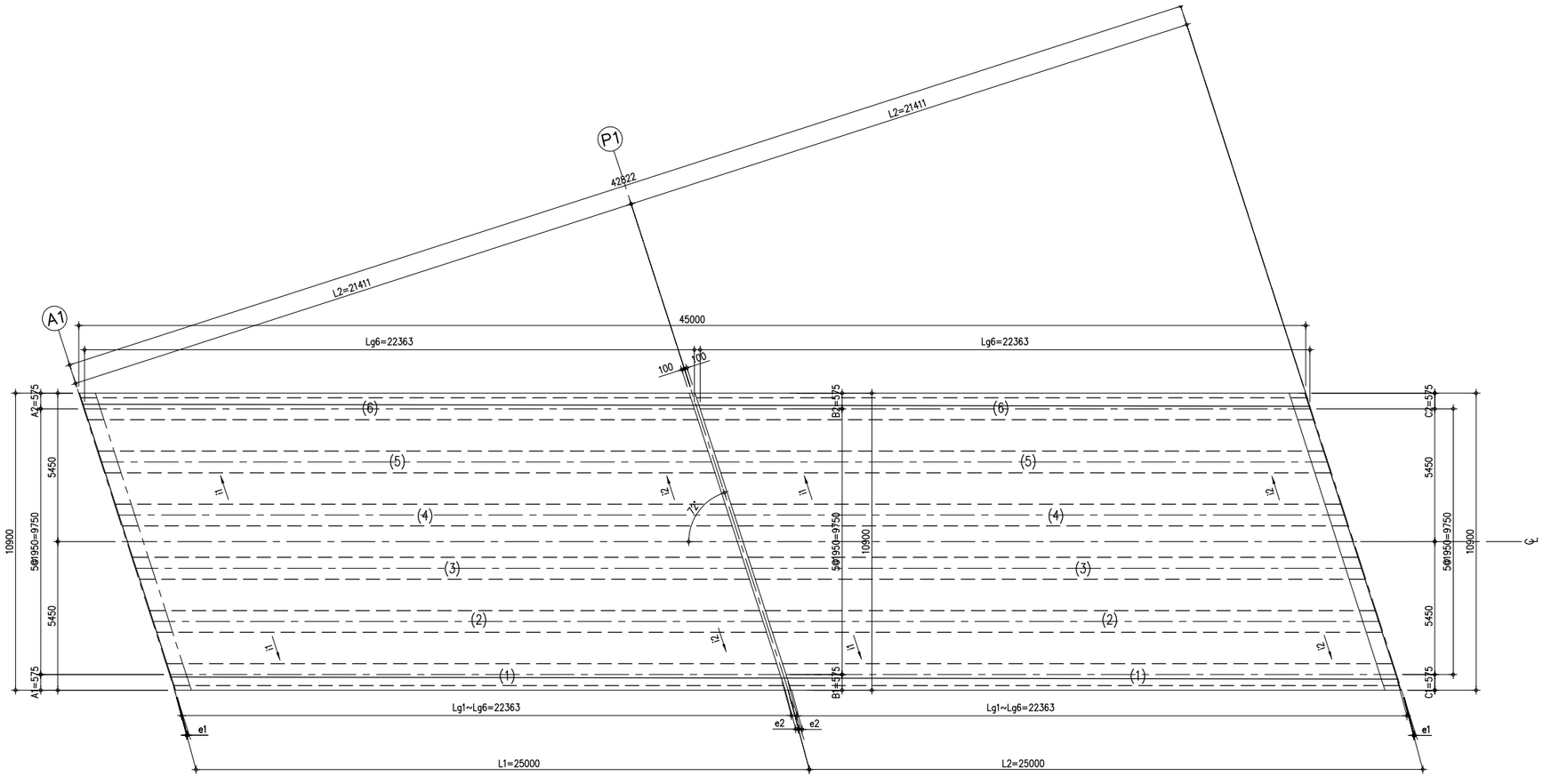
SUBSTRUCTURE

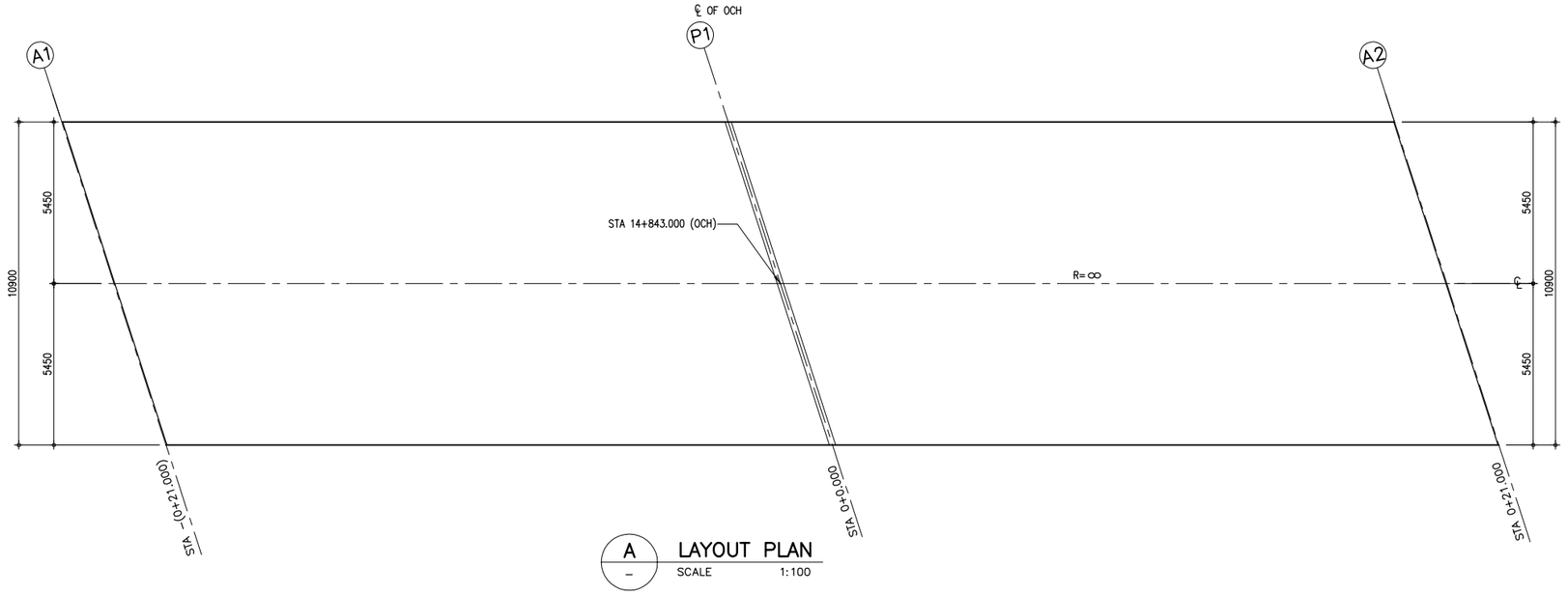
3 – CROSS SECTION
SCALE 1:200

NOTES :

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE OTHER RELEVANT DRAWINGS.

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JICA JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL				**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)**	DESIGNED BY:	
						CHECKED BY:	
					OVERPASS BRIDGE NO. 12 - GENERAL VIEW (2) STA. 14+843.00	APPROVED BY:	
		No	REVISION	DATE		DWG. NO.	K06-00-B





A — LAYOUT PLAN
SCALE 1:100

	2 SPAN CONTINUOUS BRIDGE
	A1~P1~A2
Lt (m)	45.000
Lo (m)	22.363
L1 (m)	21.000
L2 (m)	21.411
β1 (°)	0°00'00"
β2 (°)	0°00'00"
e1/e2 (mm)	30/100
i1 (%)	2.50
i2 (%)	2.50
A1/A2 (mm)	575/575
B1/B2 (mm)	575/575
C1/C2 (mm)	575/575
Lg1 (m)~Lg4 (m)	22.363
SPAN LENGTH (m)	L=2@21.0=42.0
REMARKS	

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

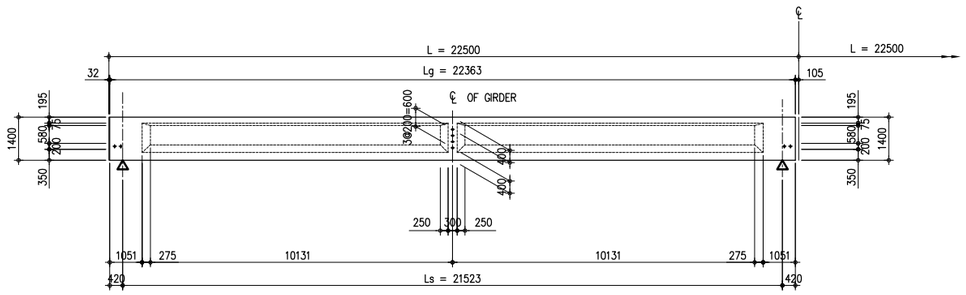
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

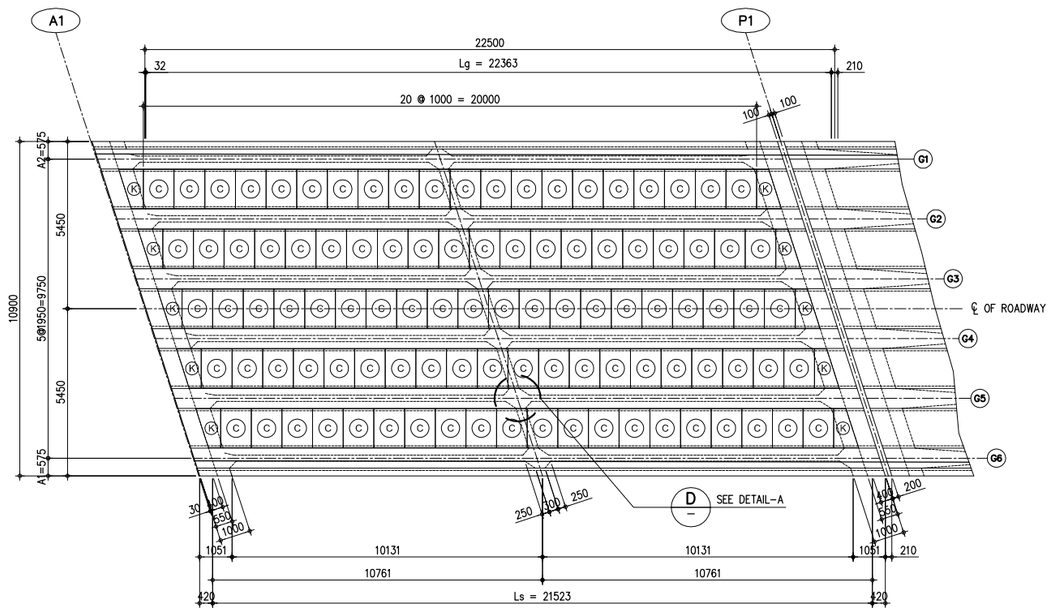
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

OVERPASS BRIDGE NO. 12
LAYOUT PLAN

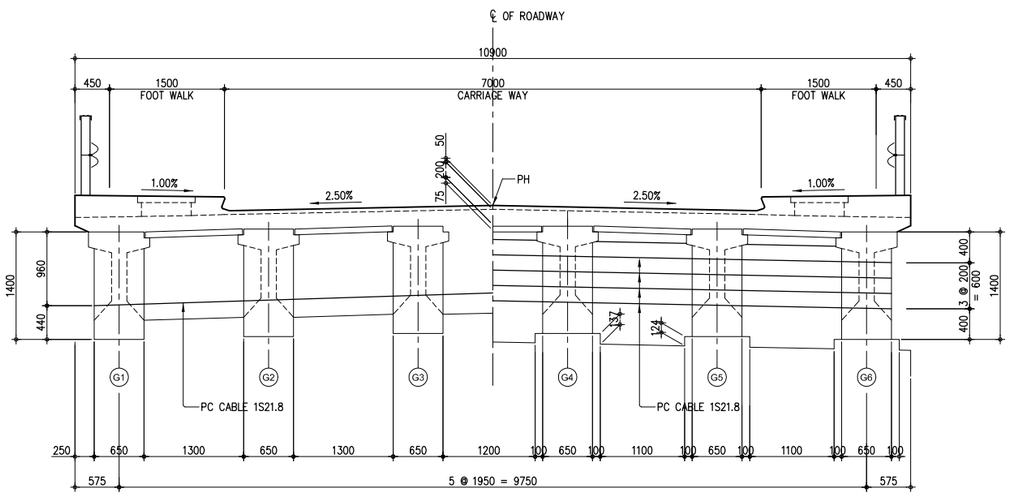
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-01

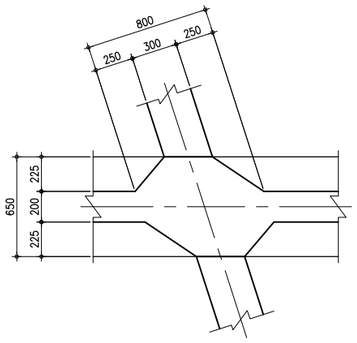


B — SIDE VIEW
SCALE 1:100



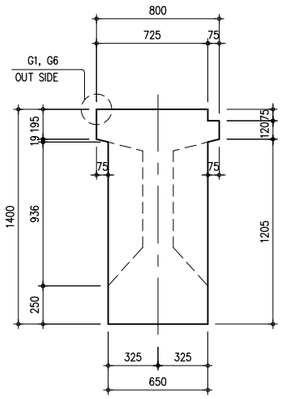
A — PLAN
SCALE 1:100



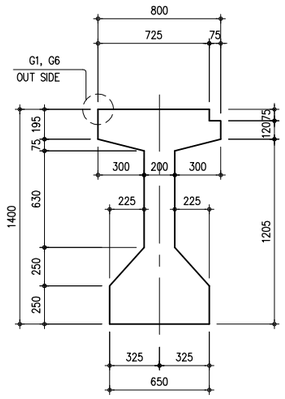


D — DETAIL-A
SCALE 1:20

C — CROSS SECTION
SCALE 1:40

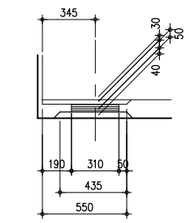


AT SUPPORT

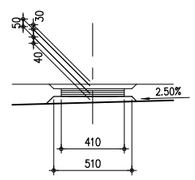


AT MID-SPAN

E — GIRDER CROSS SECTION
SCALE 1:20

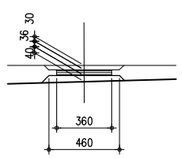


LONGITUDINAL DIRECTION

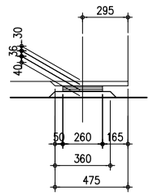


TRANSVERSE DIRECTION

A1 MOVABLE



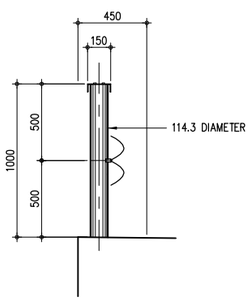
TRANSVERSE DIRECTION

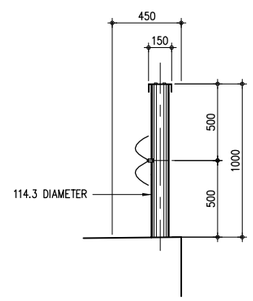


LONGITUDINAL DIRECTION

A2 FIXED

F — BEARING DETAILS
SCALE 1:20





G — GUARDRAIL
SCALE 1:20

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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Road Development Authority

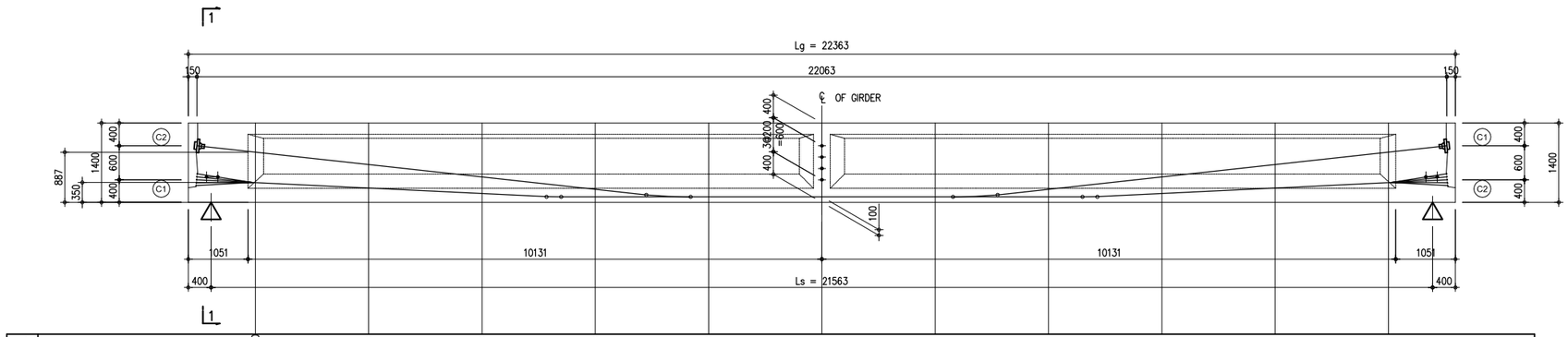
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

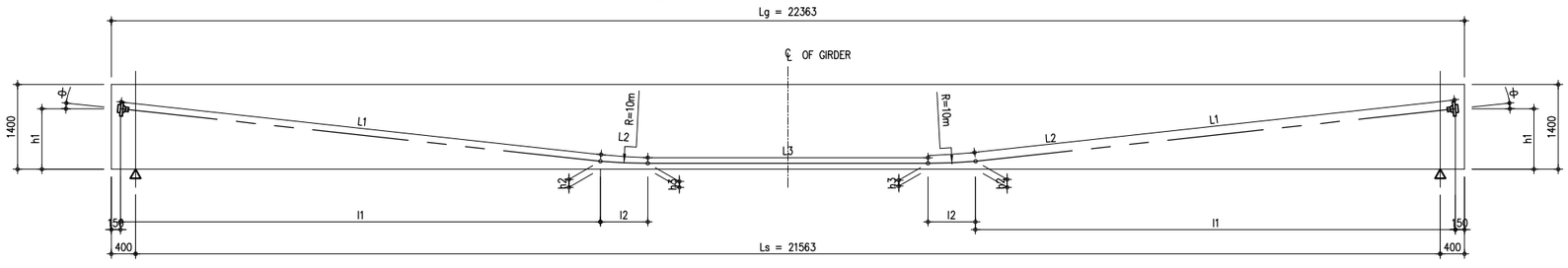
OVERPASS BRIDGE NO. 12
PCI - GIRDER LAYOUT

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-02



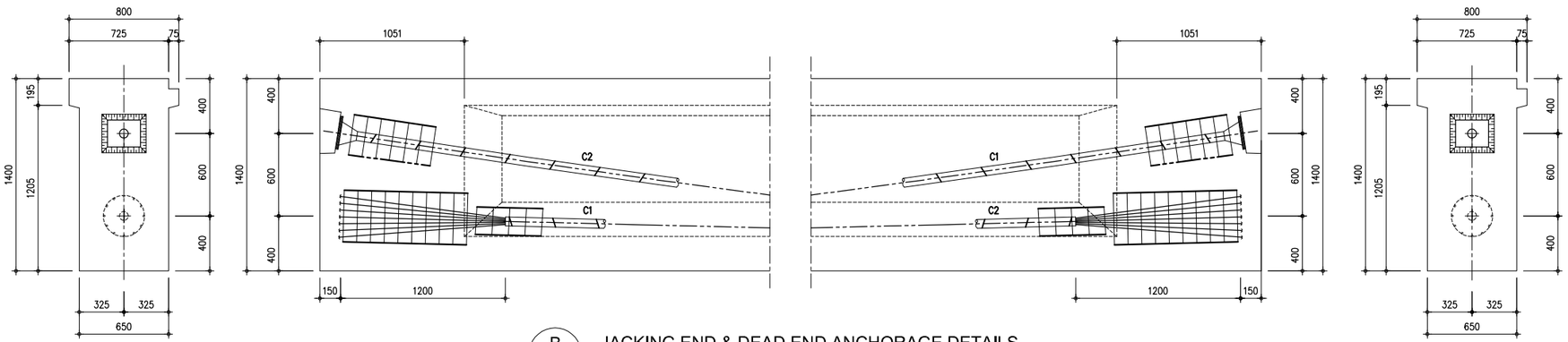
CABLE PROFILE (mm)	DISTANCE FROM ℄ (m)		-10.00	-8.00	-6.00	-4.00	-2.00	0.00	2.00	4.00	6.00	8.00	10.00		
C1	DEAD END ▶		350	254	158	100	100	100	100	229	449	668	887	◀ JACKING END	C1
C2	JACKING END ▶		887	668	449	229	100	100	100	100	158	254	350	◀ DEAD END	C2

A — PROFILE OF CABLES
SCALE 1:50

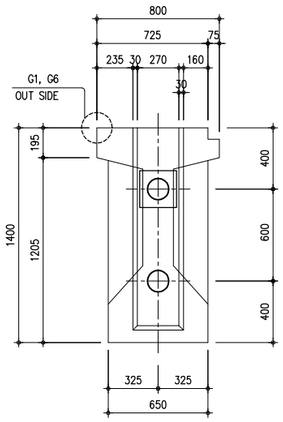


CABLE NO.	l1	l2	L1	L2	L3	$2\frac{L}{l}+3$	h1	h2	h3	ϕ = (degree)
C1	7931	785	7978	785	4632	22158	1000	131	100	6° 15'
C2	6170	262	6177	262	9199	22077	400	100	100	2° 45'

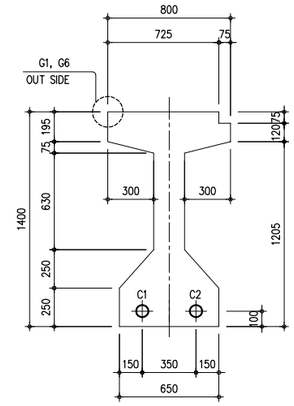
TOTAL LENGTH Σ l = 44.24 m
TOTAL WEIGHT W = 44.24 x 9.288 = 410.90 kg/1 girder



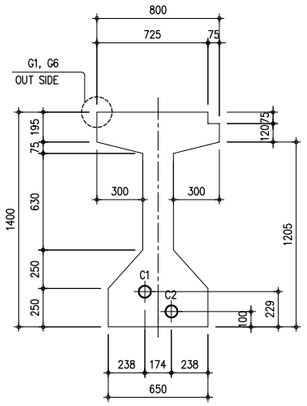
B — JACKING END & DEAD END ANCHORAGE DETAILS
SCALE 1:20



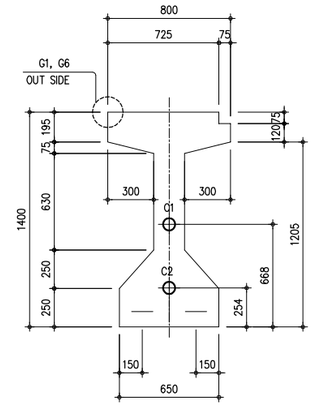
1 -1



SECTION @ MIDSPAN



SECTION @ 4.00m

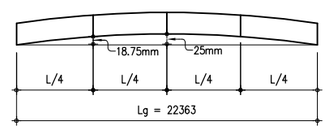


SECTION @ 8.00m

C — GIRDER CROSS SECTION
SCALE 1:20

NOTES:

1. **PRESTRESSED CONCRETE:**
   - * CONCRETE CUBE STRENGTH, fcu = 50 MPa
   - * AT TRANSFER OF PRESTRESS, fci = 36 MPa
2. **PRESTRESSING STRANDS:**
   - * 1 – D12.7 IS A 7 – WIRE STRAND WITH NOMINAL TENSILE STRENGTH, fpu = 1860 MPa
   - * TOTAL NO. OF STRANDS = 2x12D12.7 = 24–D12.7
   - * JACKING STRESS, fpo = 1302 MPa
   - * TOTAL JACKING FORCE, Po = 2268 KN
   - * CABLE DUCT INSIDE DIAMETER (12–D12.7) = 65mm.
3. **REINFORCING STEEL :**
   - * ALL REINFORCING STEEL SHALL BE GRADE 460 WITH MINIMUM CHARACTERISTC STRENGTH, fy = 460 MPa
4. GIRDER PRE–CAMBER PRIOR TO STRESSING SHALL BE AS SHOWN BELOW



5. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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Road Development Authority

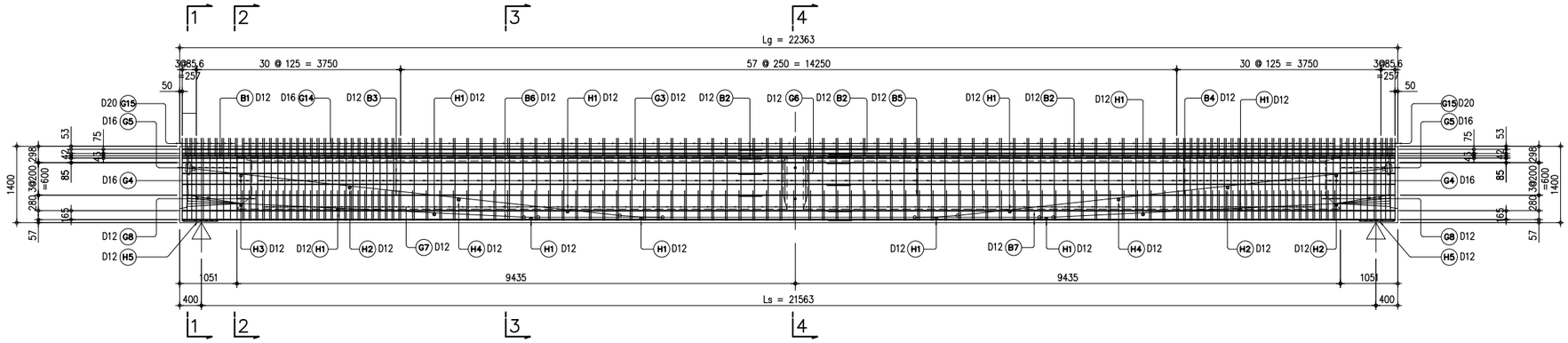
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

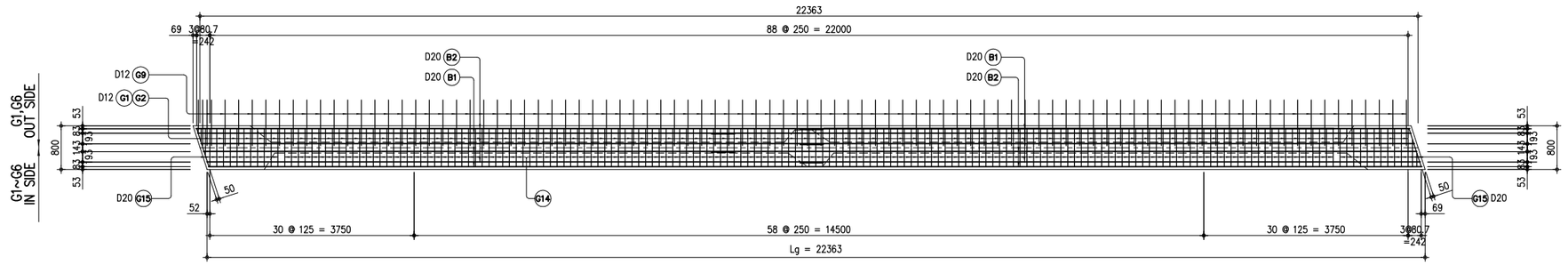
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

OVERPASS BRIDGE No. 12
PROFILES OF CABLES, JACKING END & DEAD END ANCHORAGE DETAILS AND GIRDER CROSS SECTION

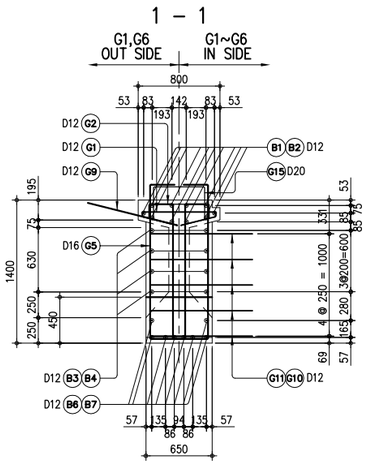
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-03

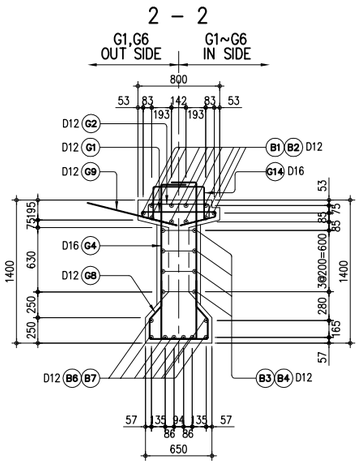


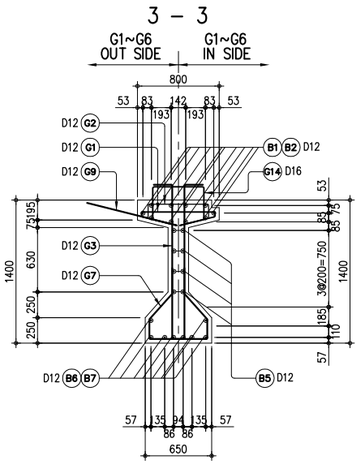
B SIDE VIEW
SCALE 1:50

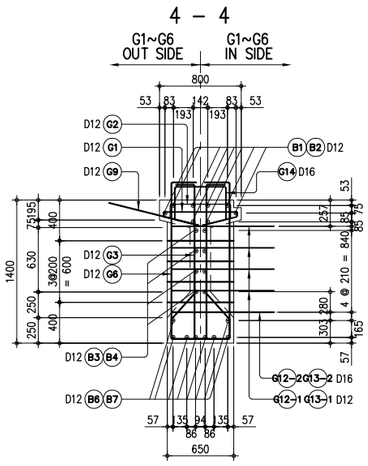


A PLAN
SCALE 1:50

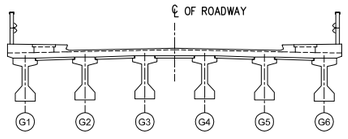








C GIRDER CROSS SECTION
SCALE 1:30



D LOCATION MAP
SCALE 1:100

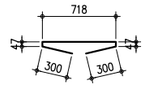
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

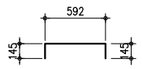
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

OVERPASS BRIDGE NO. 12
REINFORCEMENT OF GIRDER (1)

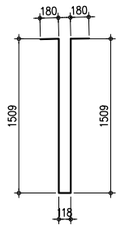
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-04



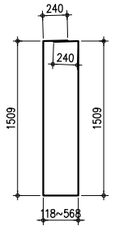
G1 117 – D12 x 1412



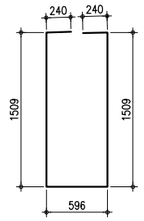
G2 117 – D12 x 882



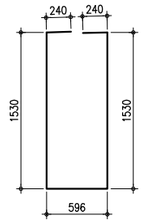
G3 95 – D12 x 3496



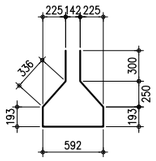
G4 4 – D16 x 3841
(AVERAGE)



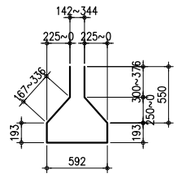
G5 18 – D16 x 4094



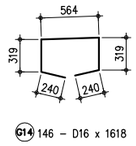
G6 2 – D12 x 4136



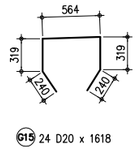
G7 95 – D12 x 2226



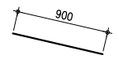
G8 4 –D12 x 2133
(AVERAGE)



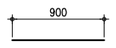
G14 146 – D16 x 1618



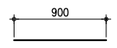
G15 24 D20 x 1618



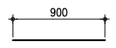
G9 117 – D12 x 900
(G1,G6)



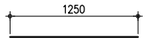
G10 10 – D12 x 900
(G1,G6)



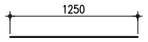
G12-1 8 – D12 x 900
(G1,G6)



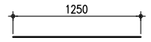
G12-2 4 – D16 x 900
(G1,G6)



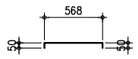
G11 10 – D12 x 1250
(G2~G5)



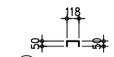
G13-1 8 –D12 x 1250
(G2~G5)



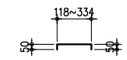
G13-2 4 – D16 x 1250
(G2~G5)



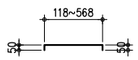
H1 10 – D12 x 668



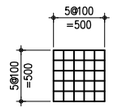
H2 2 – D12 x 218



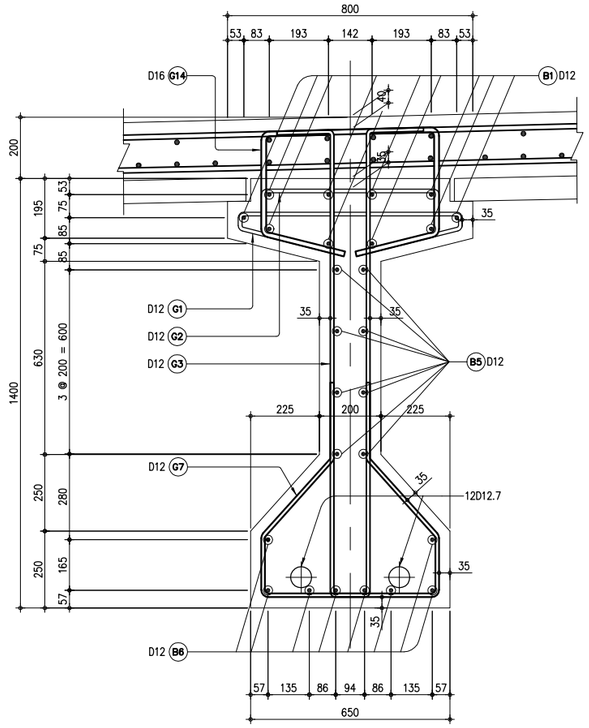
H3 4 – D12 x 326
(AVERAGE)



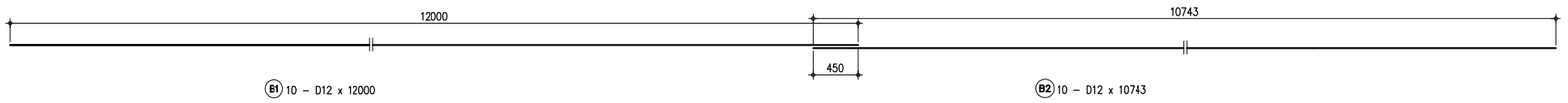
H4 2 – D12 x 443
(AVERAGE)



H5 24 – D12 x 500

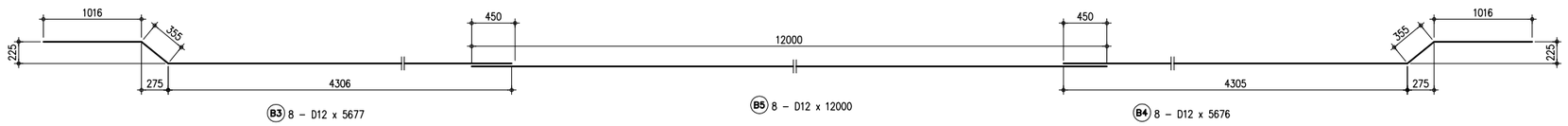


2 – DETAIL OF GIRDER CENTER SCALE
SCALE 1:10



B1 10 – D12 x 12000

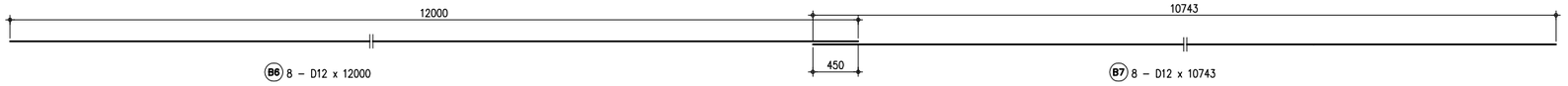
B2 10 – D12 x 10743



B3 8 – D12 x 5677

B5 8 – D12 x 12000

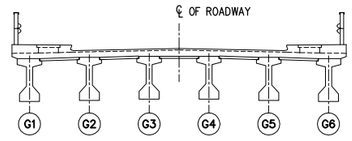
B4 8 – D12 x 5676



B6 8 – D12 x 12000

B7 8 – D12 x 10743

1 – REINFORCEMENT OF GIRDER (2)
SCALE 1:30

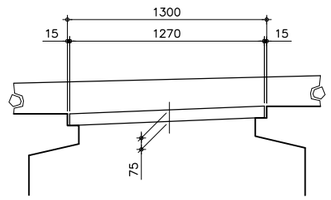


3 – LOCATION MAP
NOT TO SCALE

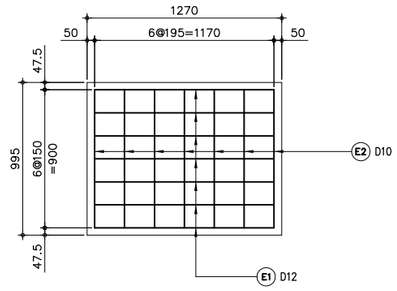
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)** OVERPASS BRIDGE NO. 12 REINFORCEMENT OF GIRDER (2)

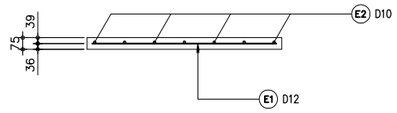
No	REVISION	DATE

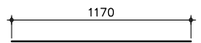
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-05



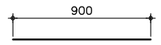
TYPE C





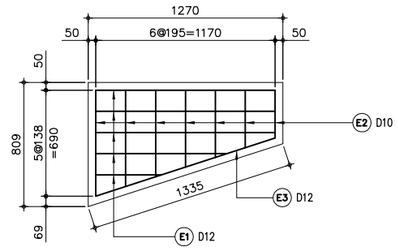


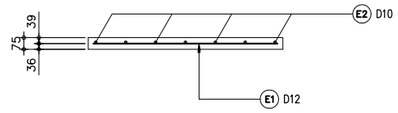
E1 7 – D12 x 1170

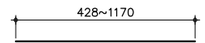


E2 7 – D10 x 900

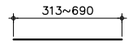
TYPE K



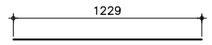




E1 5 – D12 x VARIES



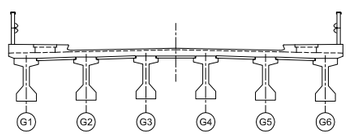
E2 7 – D10 x VARIES



E3 1 – D12 x 1229

A – DETAIL OF PRECAST PLATE

SCALE 1:20



B – LOCATION MAP

SCALE 1:100

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

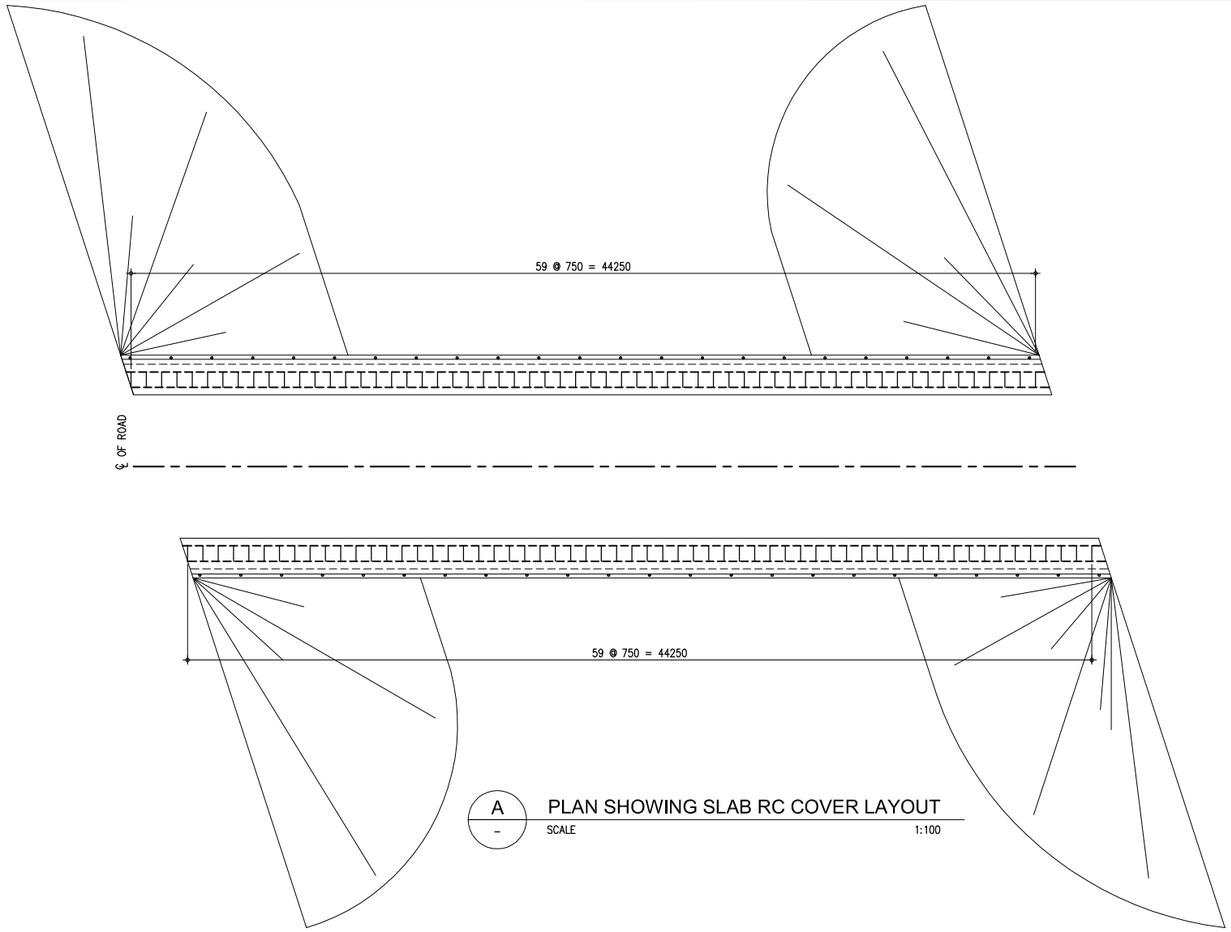
JICA JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

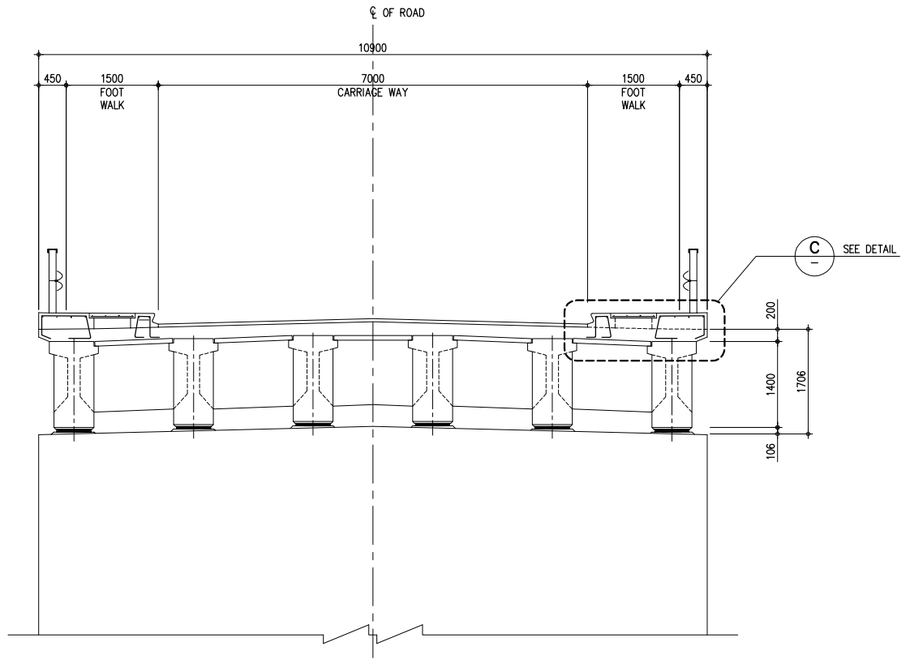
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

OVERPASS BRIDGE NO. 12
DETAILS OF PRECAST PLATES

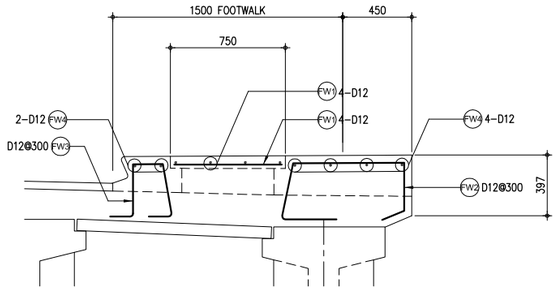
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-06



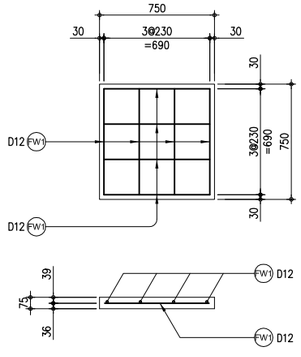
A PLAN SHOWING SLAB RC COVER LAYOUT
SCALE 1:100



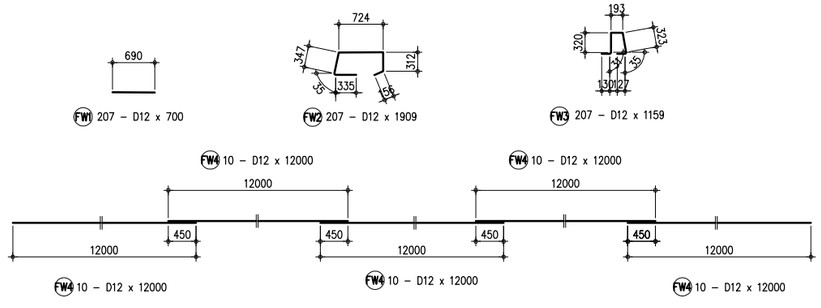
B SECTION
SCALE 1:50



E DETAIL
SCALE 1:20



D DETAILS OF PRECAST PLATE
SCALE 1:50



E BAR BENDING LAYOUT
SCALE 1:50

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

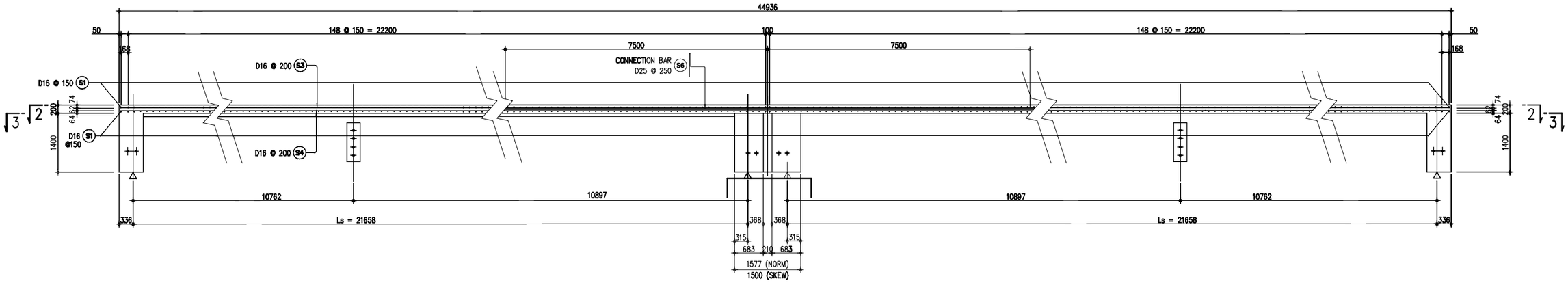
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

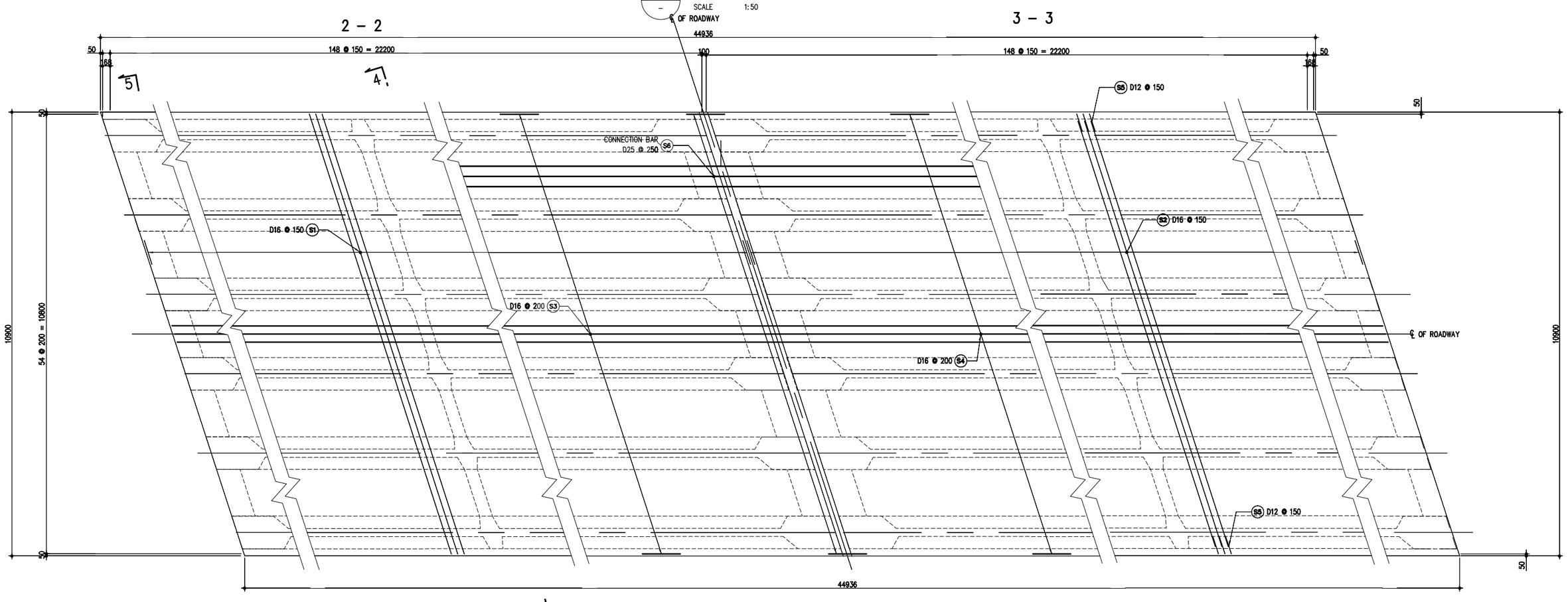
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

OVERPASS BRIDGE NO. 12
FOOTWALK DETAIL

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-07



B
–
SIDE VIEW
SCALE 1:50

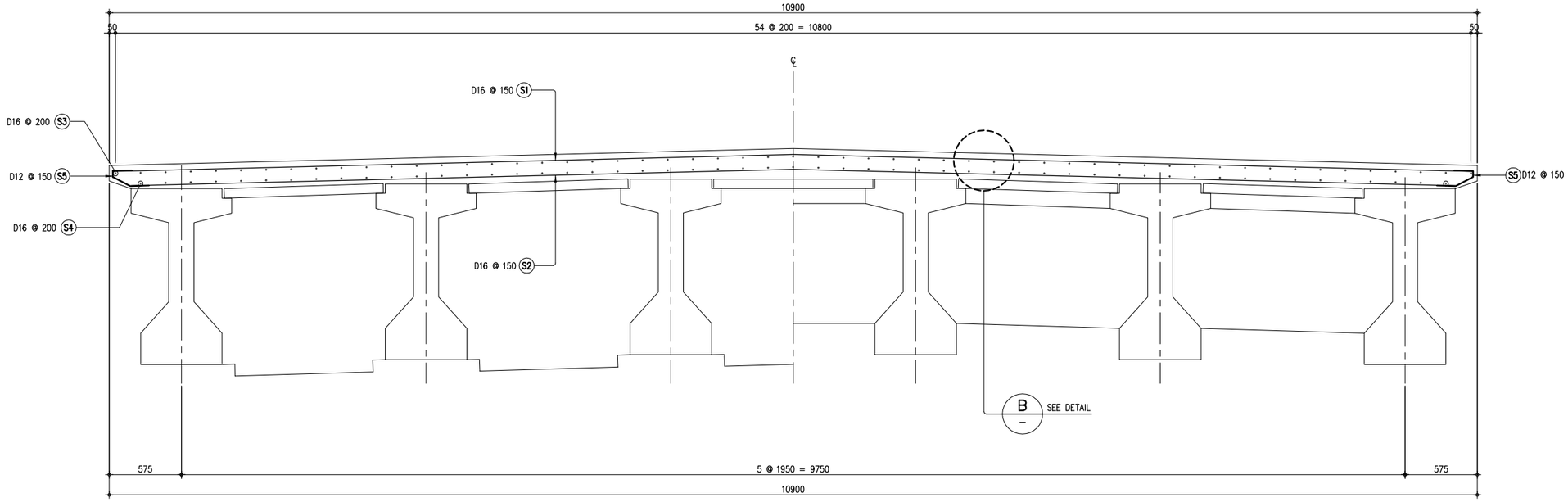


A
–
PLAN
SCALE 1:50

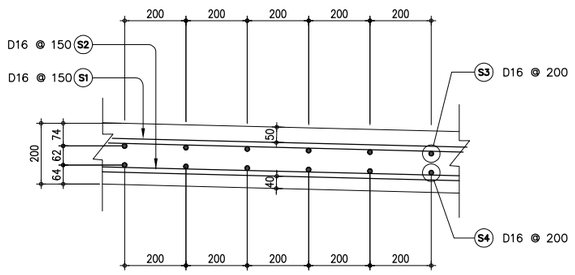
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)**	DESIGNED BY:
			CHECKED BY:
		OVERPASS BRIDGE NO. 12 REINFORCEMENT BAR ARRANGEMENT OF SLAB (1/2)	APPROVED BY:
	No REVISION DATE		DWG. NO. K06-08

5 - 5

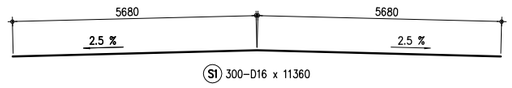
4 - 4



A — CROSS SECTION
SCALE 1:20

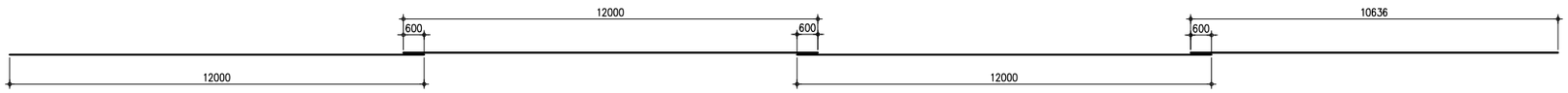


B — DETAIL
SCALE 1:10

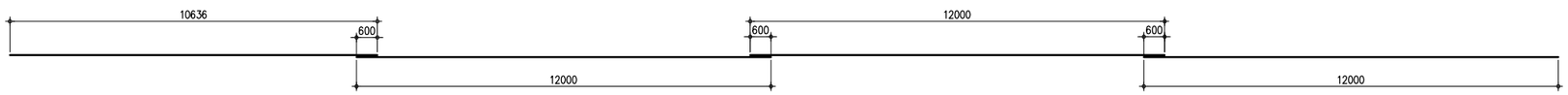


S1 300–D16 x 11360

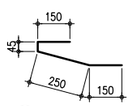
S2 300–D16 x 11100



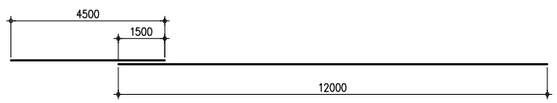
S3 55–D16 x 46636



S4 53–D16 x 46636



S5 600–D12 x 595



S6 44–D25 x 16500

C — BAR BENDING LAYOUT
SCALE NTS

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

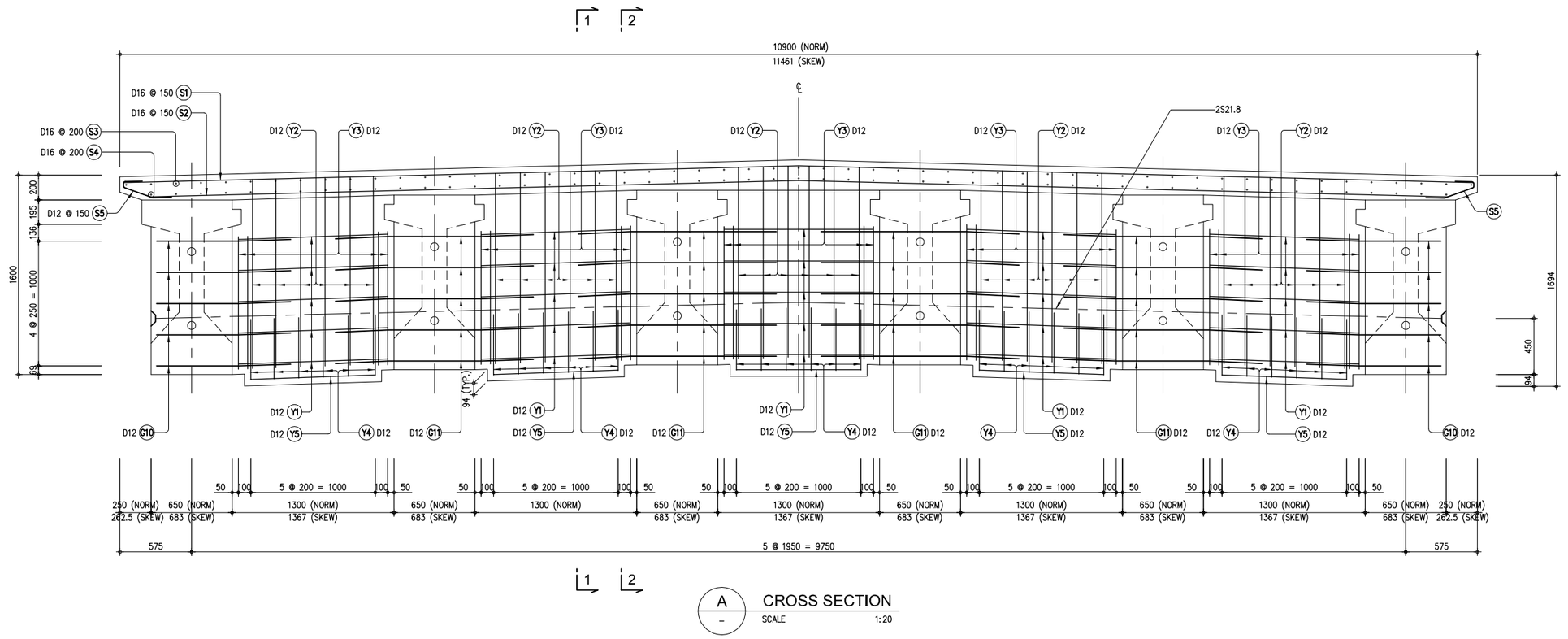
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

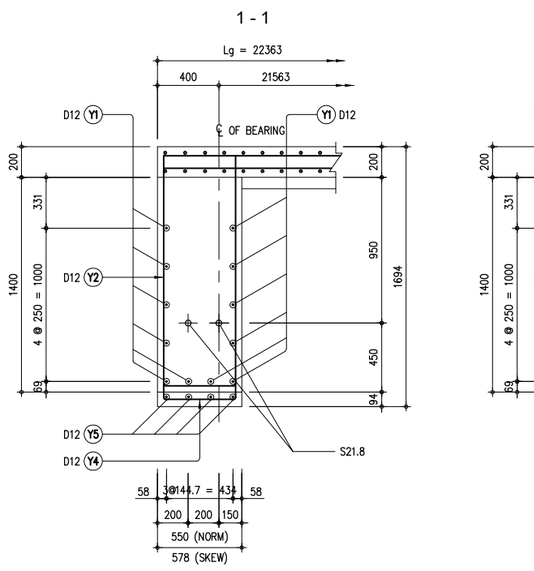
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

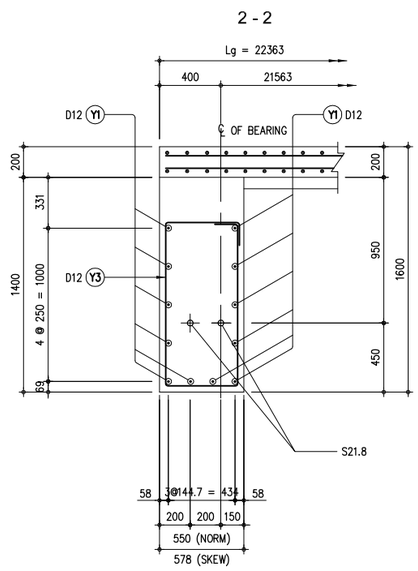
OVERPASS BRIDGE NO. 12
REINFORCEMENT BAR ARRANGEMENT OF SLAB (2/2)

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-09

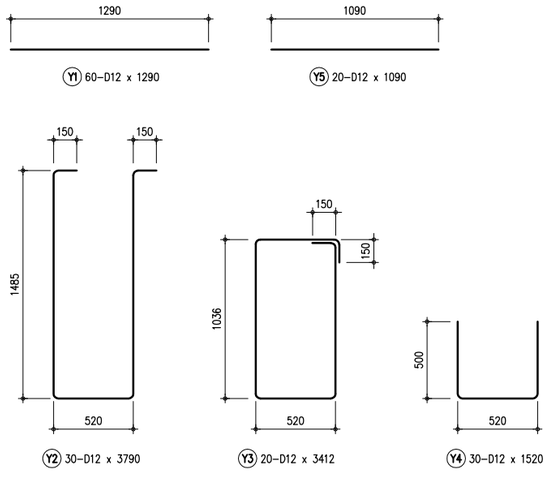


A — CROSS SECTION
SCALE 1:20

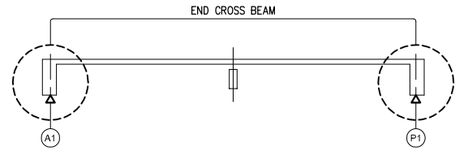




B — SIDE VIEW
SCALE 1:20



C — BAR BENDING LAYOUT
SCALE 1:20



E — LOCATION MAP
SCALE 1:30

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS
Road Development Authority

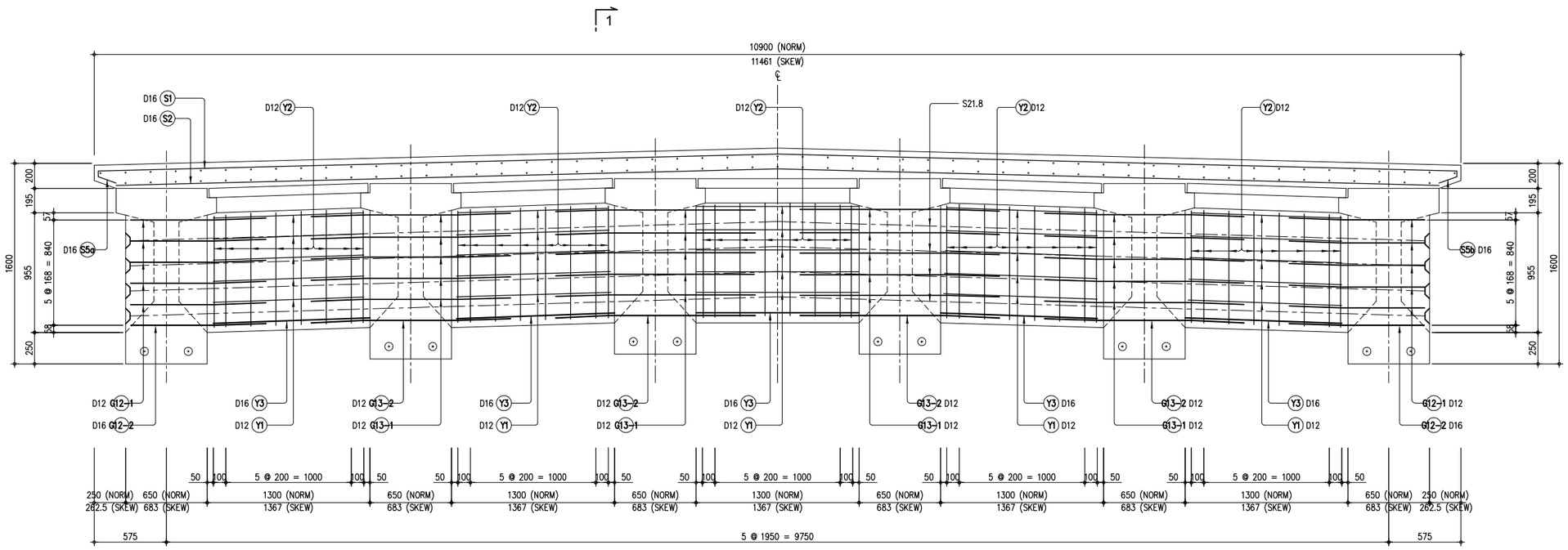
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

THE OUTER CIRCULAR HIGHWAY TO THE CITY OF COLOMBO

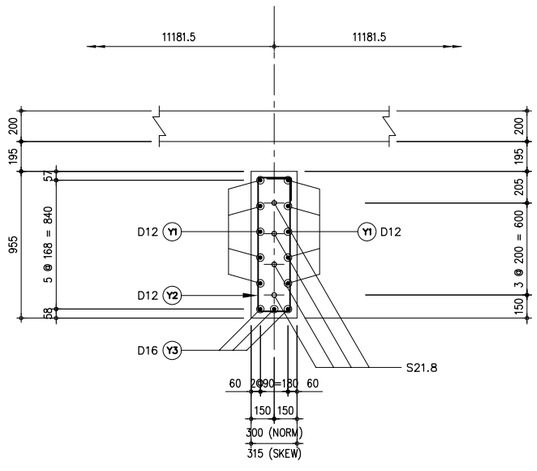
OVERPASS BRIDGE No. 12
REINFORCEMENT BAR ARRANGEMENT OF END CROSSBEAM

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-10

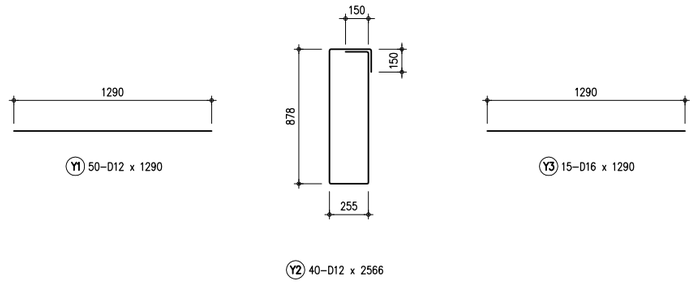


A — CROSS SECTION
– SCALE 1:20

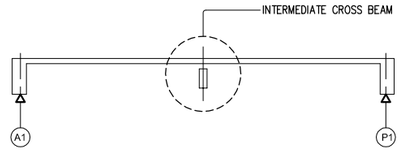
1 - 1



B — SIDE VIEW
– SCALE 1:20



C — BAR BENDING LAYOUT
– SCALE 1:20



D — LOCATION MAP
– SCALE NTS

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

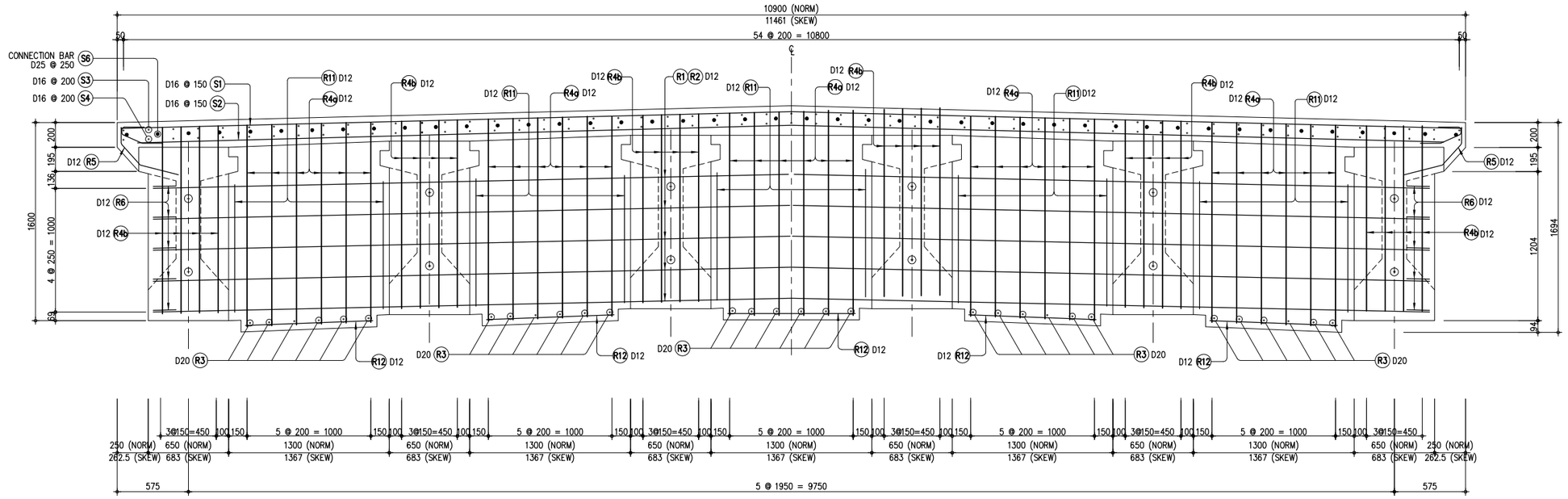
No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

OVERPASS BRIDGE NO. 12
REINFORCEMENT BAR ARRANGEMENT OF INTERMEDIATE CROSS BEAM

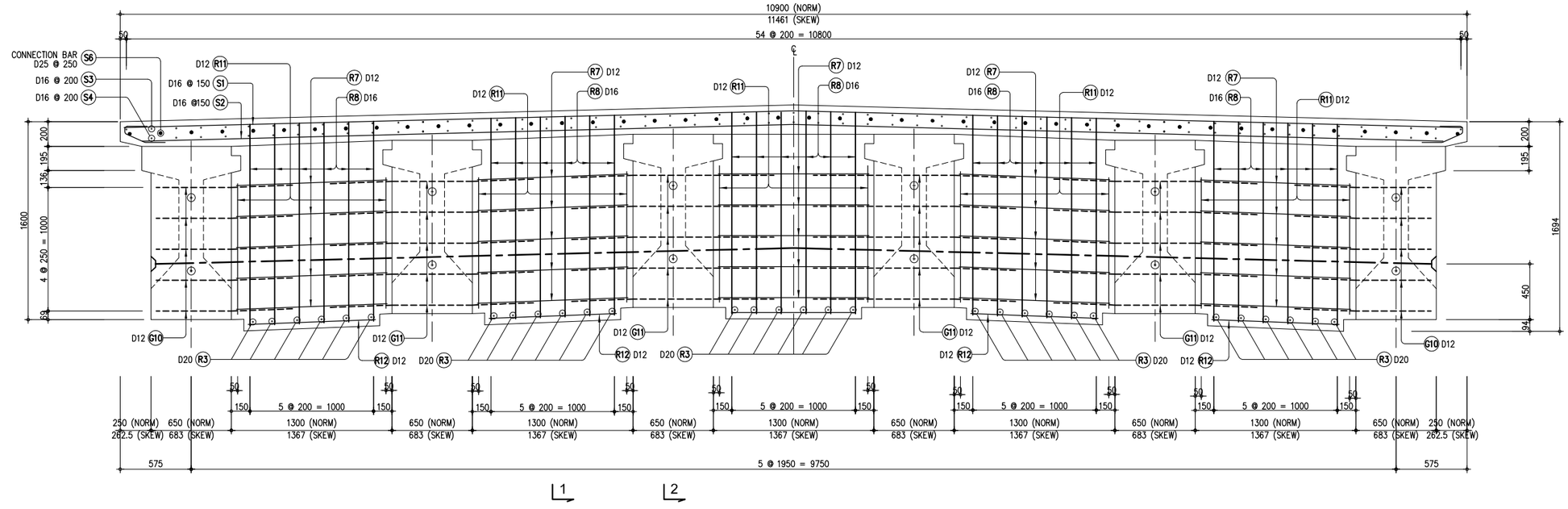
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-11

3 - 3



A CROSS SECTION
SCALE 1:20

4 - 4



A2 CROSS SECTION
SCALE 1:20

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

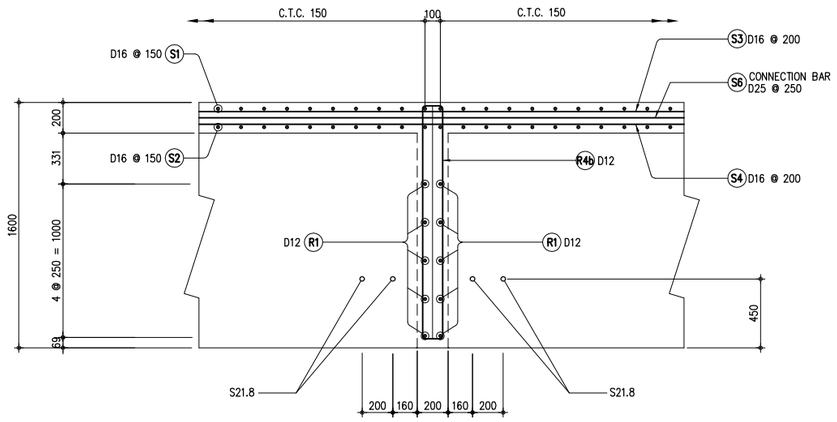
No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

OVERPASS BRIDGE NO. 12
SLAB AND GIRDER CONNECTION DETAILS (1/2)

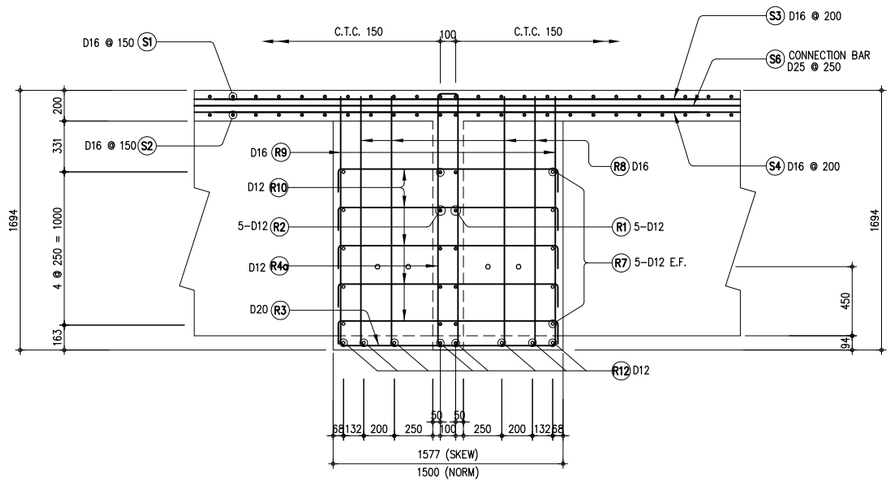
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-12

2 - 2

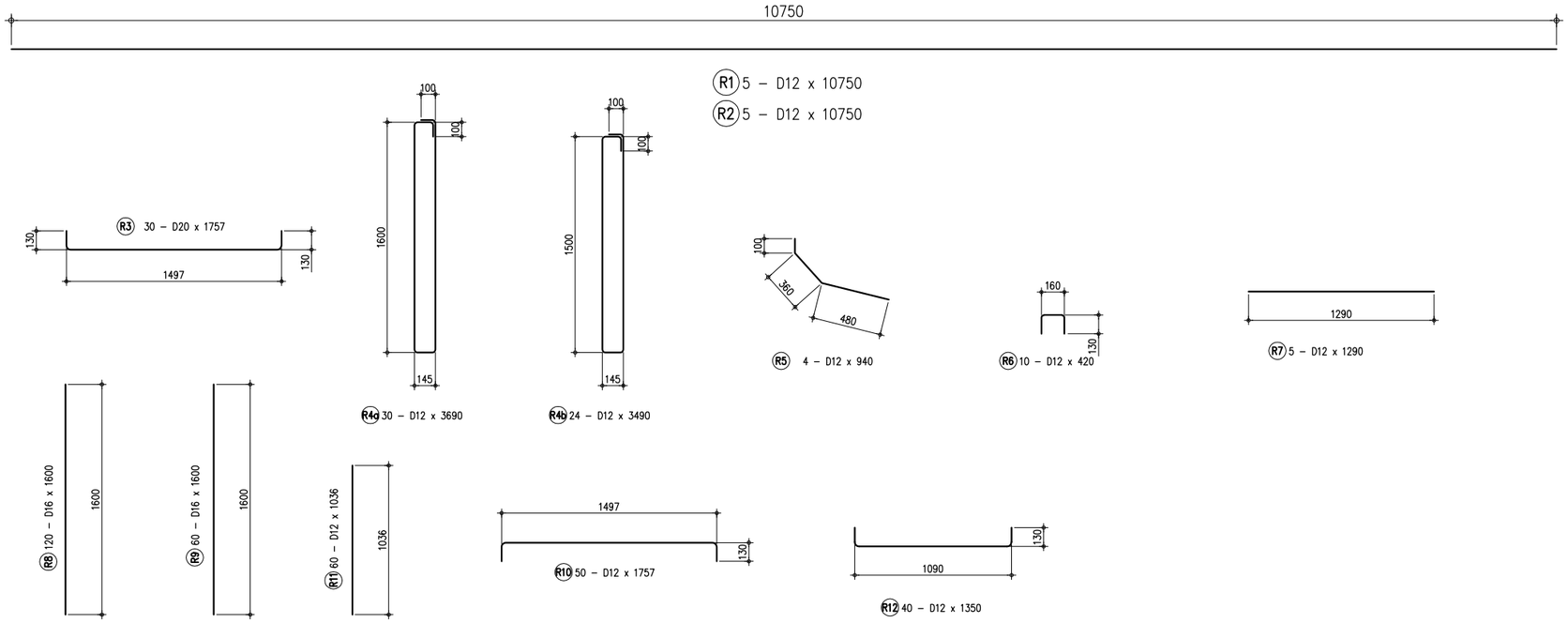


B SIDE VIEW
– SCALE 1:20

1 - 1



C SIDE VIEW
– SCALE 1:20



SLAB CONNECTION BAR BENDING

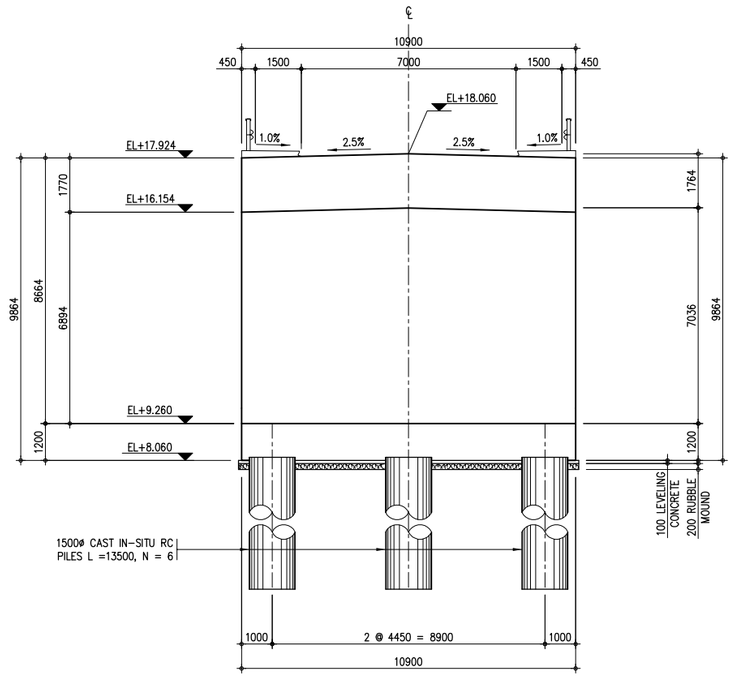
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)**
	No / REVISION / DATE	OVERPASS BRIDGE NO. 12 SLAB AND GIRDER CONNECTION DETAILS (2/2)
		DESIGNED BY: / CHECKED BY: / APPROVED BY:
		DWG. NO. K06-13

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE

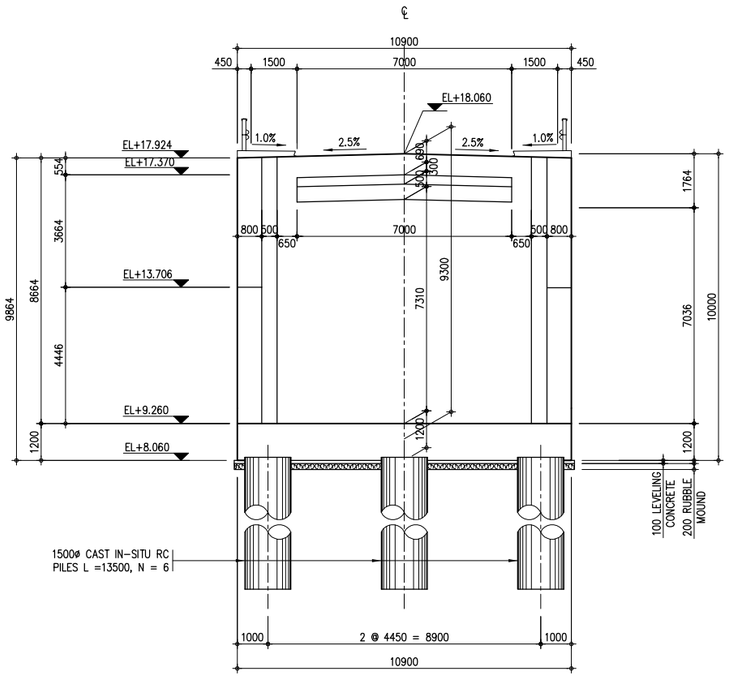
REINFORCING BARS

LOCATION	BAR MARK	SPACING	QTY. (pcs)	SIZE (mm)	DIMENSION mm (OUT TO OUT) a	b	c	d	e	f	g	LENGTH PER BAR (mm)	TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	TOTAL WEIGHT (kg)	CONCRETE VOLUME (m^3)
END CROSS BEAM (ABUTMENTS)	Y1	AS SHOWN	60	12	1220							1220	73.20	0.888	65.00	
	Y2	AS SHOWN	30	12	150	1490	498	1490	150			3778	113.34	0.888	100.65	
	Y3	AS SHOWN	20	12	150	498	1036	498	1036	150		3368	67.36	0.888	59.82	
	Y4	AS SHOWN	30	12	500	498	500					1498	44.94	0.888	39.91	
	Y5	AS SHOWN	20	12	1020							1020	20.40	0.888	18.12	
												A. TOTAL QUANTITY FOR END DIAPHRAGM			283.49	
												B. TOTAL NUMBER OF END DIAPHRAGM			2.00	
												C. SUB TOTAL QUANTITY END DIAPHRAGM			566.97	
INTERMEDIATE CROSS BEAM	Y1	AS SHOWN	50	12	1285							1285	64.25	0.888	57.05	
	Y2	AS SHOWN	40	12	150	190	875	190	875	150		2430	97.20	0.888	86.31	
	Y3	AS SHOWN	15	16	1285							1285	19.28	1.579	30.44	
												A. TOTAL QUANTITY PER INTERMEDIATE			173.80	
												B. TOTAL NUMBER OF INTERMEDIATE DIAPHRAGM			2.00	
												C. TOTAL QUANTITY OF INT. DIAPHRAGM			347.61	
SLAB CONNECTION AND CROSS BEAM	R1	AS SHOWN	6	12	10850							10850	65.10	0.888	57.80	
	R2	AS SHOWN	6	12	10850							10850	65.10	0.888	57.80	
	R3	AS SHOWN	45	20	130	1497	130					1757	79.07	2.466	195.01	
	R4a	AS SHOWN	45	12	100	148	1605	148	1605	100		3706	166.77	0.888	148.08	
	R4b	AS SHOWN	24	12	100	148	1510	148	1510	100		3516	84.38	0.888	74.93	
	R5	AS SHOWN	24	12	250	480						730	17.52	0.888	15.56	
	R6	AS SHOWN	12	12	130	168	130					428	5.14	0.888	4.56	
	R7	AS SHOWN	60	12	1220							1220	73.20	0.888	65.00	
	R8	AS SHOWN	180	16	1605							1605	288.90	1.579	456.04	
	R9	AS SHOWN	90	16	1605							1605	144.45	1.579	228.02	
	R10	AS SHOWN	60	12	130	1497	130					1757	105.42	0.888	93.61	
	R11	AS SHOWN	40	12	1100							1100	44.00	0.888	39.07	
	R12	AS SHOWN	40	12	130	1070	130					1330	53.20	0.888	47.24	
												TOTAL QUANTITY			1482.71	
SLAB	S1	AS SHOWN	302	16	5680	5680						11630	3430.70	1.579	5415.52	
	S2	AS SHOWN	302	16	5550	5550						11100	3352.20	1.579	5291.57	
	S3	AS SHOWN	165	16	12000							12000	1980.00	1.579	3125.50	
	S4	AS SHOWN	110	16	5578							5578	613.58	1.579	968.56	
	S5a	AS SHOWN	302	12	150	160	45	150				505	152.51	0.888	135.42	
	S5b	AS SHOWN	302	12	150	160	45	150				505	152.51	0.888	135.42	
	S6	AS SHOWN	44	25	9600							9600	422.40	3.854	1627.87	
												A. TOTAL QUANTITY			16,699.86	
FOOTWALK	FW1		480	12	700							700	336.00	0.888	298.37	
	FW2		207	12	335	35	347	724	312	156		1909	395.16	0.888	350.90	
	FW3		207	12	130	31	320	193	323	35	127	1159	239.91	0.888	213.04	
	FW4		10	12	12000	12000	12000	12000	12000	3950		63950	639.50	0.888	567.88	
												A. TOTAL QUANTITY PER SPAN			1,430.19	
												B. TOTAL NUMBER OF SPANS			2.00	
												C. SUB TOTAL QUANTITY FOR SIDEWALKS=(AXB)			2,860.38	

DIMENSION DETAILS FOR ABUTMENT-A1 (Scale 1:100)



1 - 1



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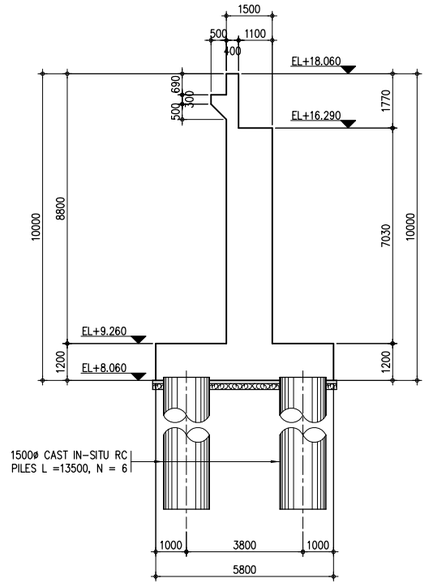
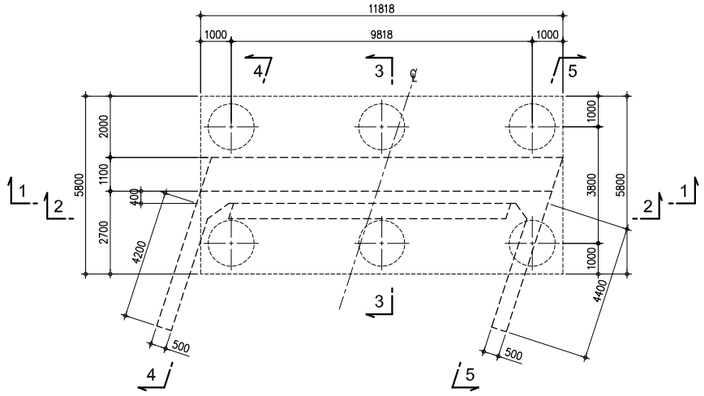
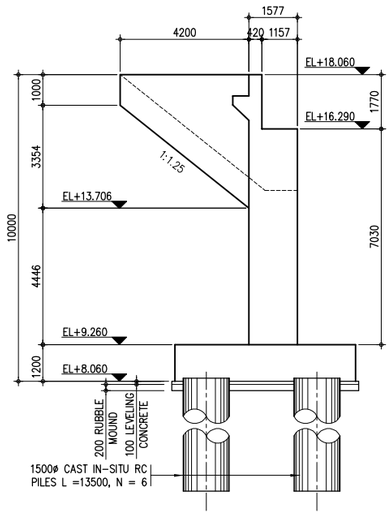
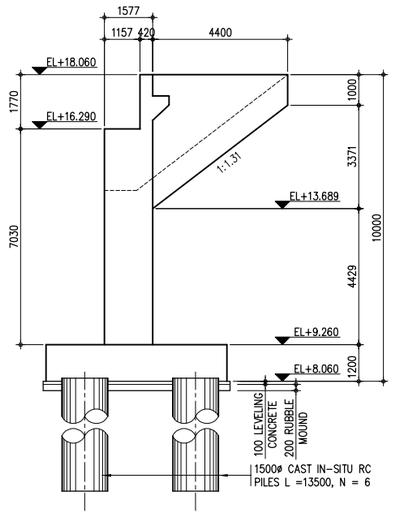


4 - 4

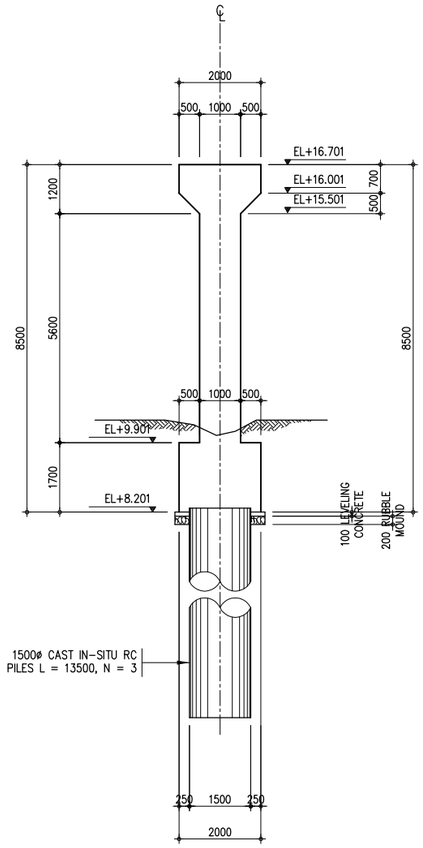




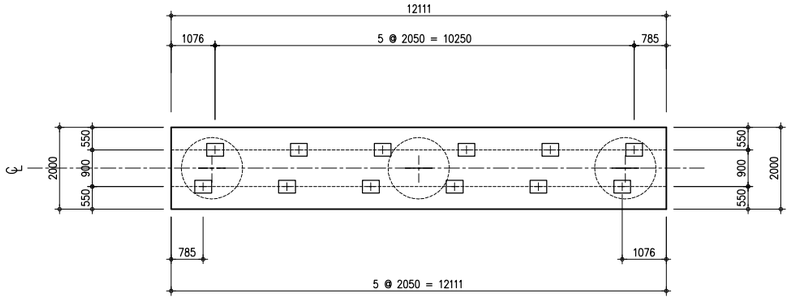


THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JICA JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	No	REVISION / DATE	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** *(NORTHERN SECTION 1)* OVERPASS BRIDGE NO. 12 DIMENSION DETAILS FOR ABUTMENT A1	DESIGNED BY: CHECKED BY: APPROVED BY: DWG. NO. K06-15

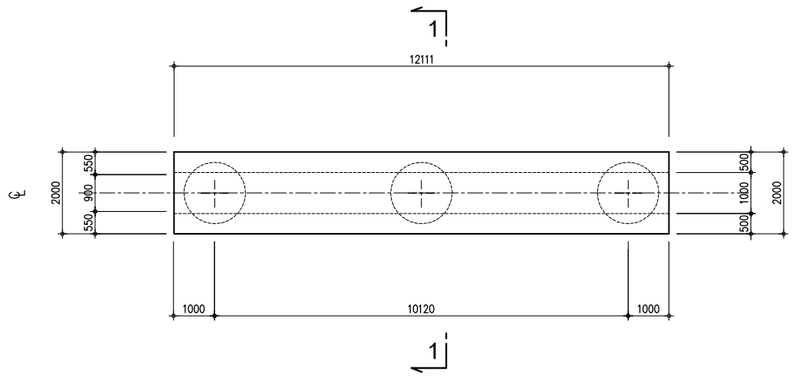
DIMENSION DETAILS FOR PIER P1



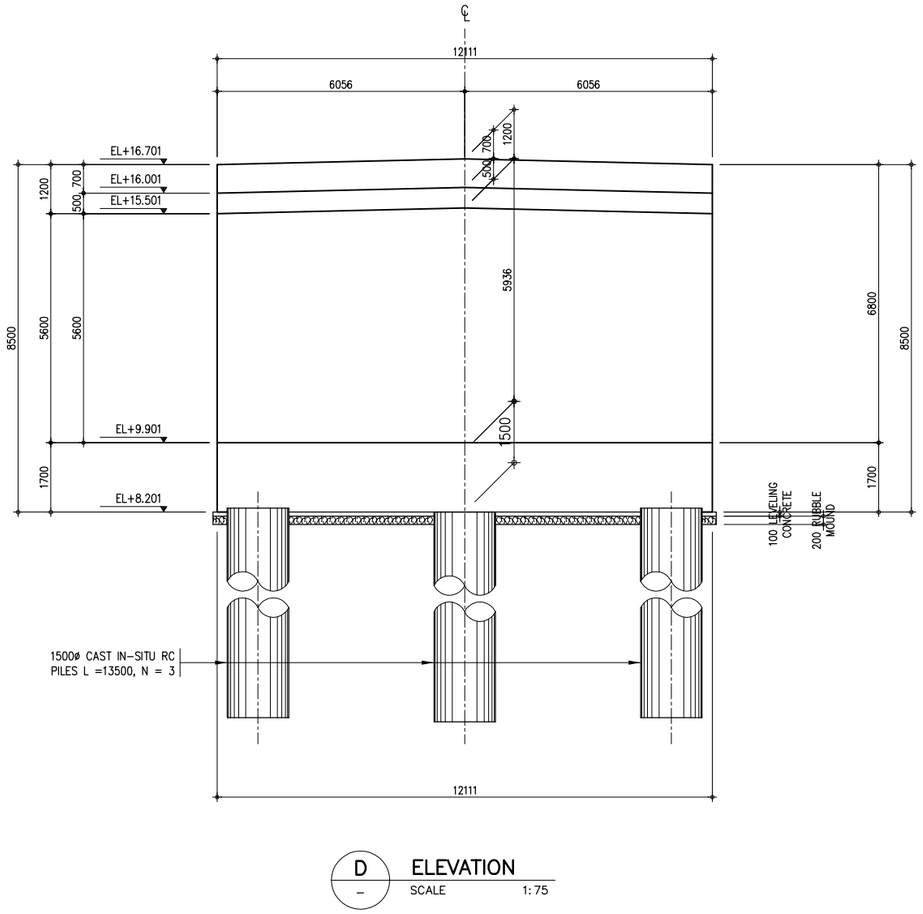
A — SECTION 1–1
SCALE 1:75



B — PLAN SHOWING BEARING PAD
SCALE 1:75



C — PLAN SHOWING BORED PILE
SCALE 1:75



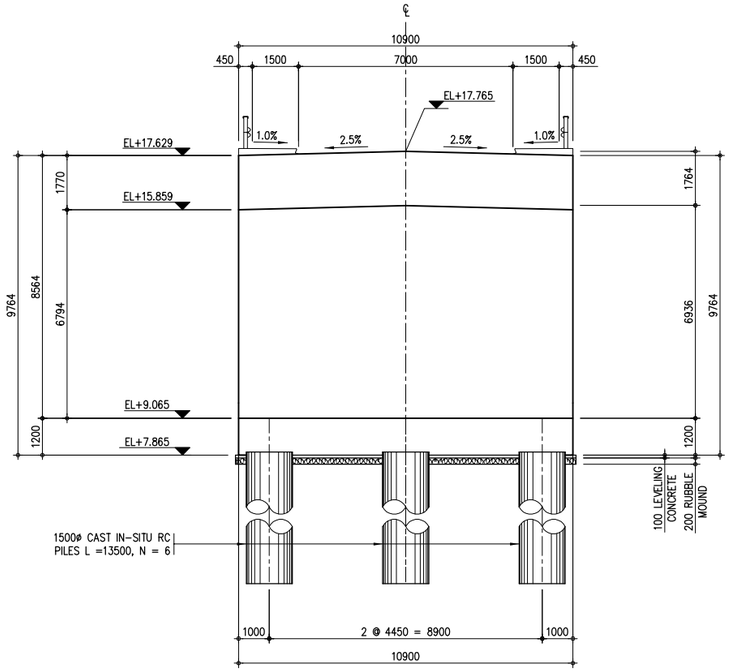
D — ELEVATION
SCALE 1:75

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	COLOMBO OUTER CIRCULAR HIGHWAY PROJECT (NORTHERN SECTION 1) OVERPASS BRIDGE NO. 12 DIMENSION DETAILS FOR PIER P1

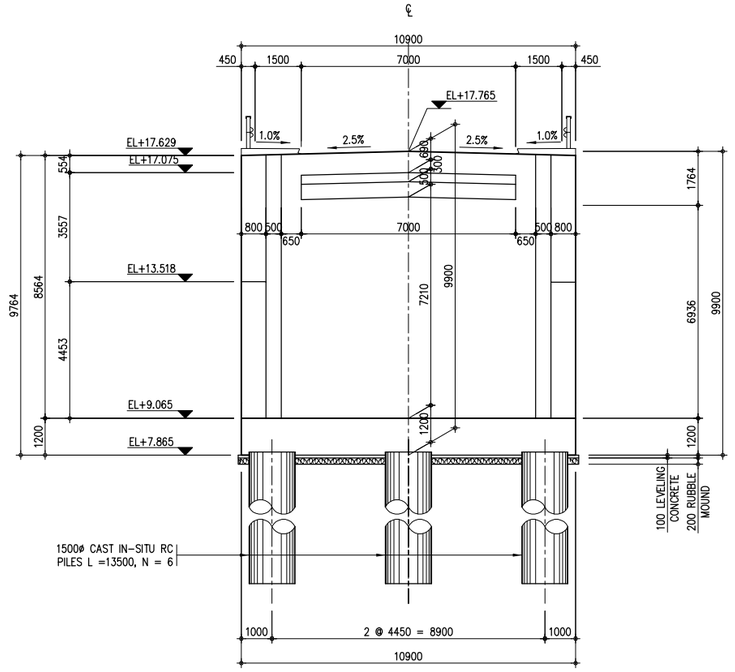
No	REVISION	DATE

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K01-16

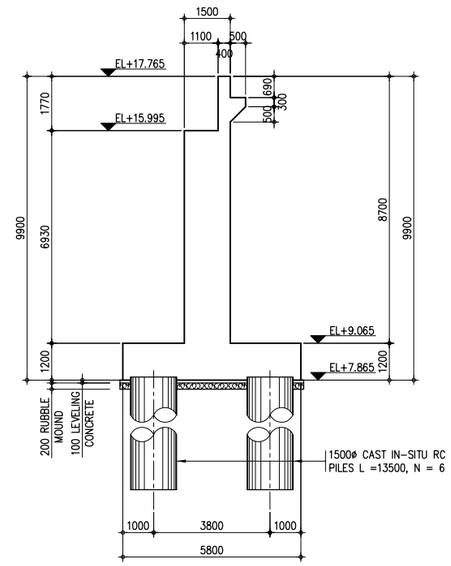
DIMENSION DETAILS FOR ABUTMENT A2 (Scale 1:100)



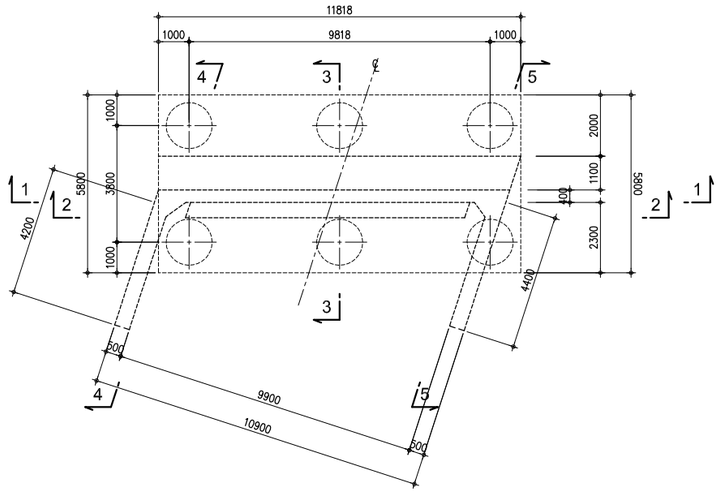
1 - 1

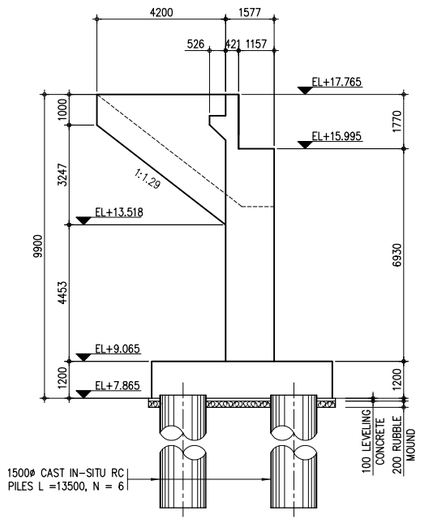


2 - 2

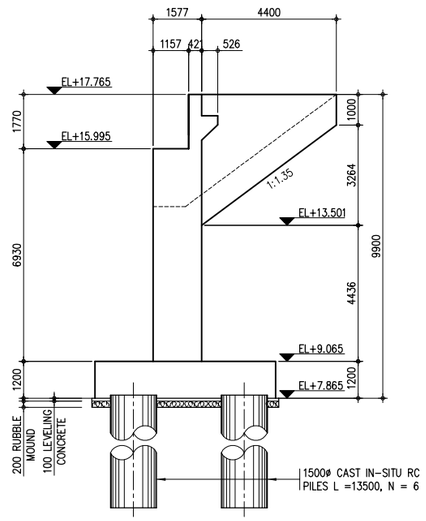


3 - 3





4 - 4

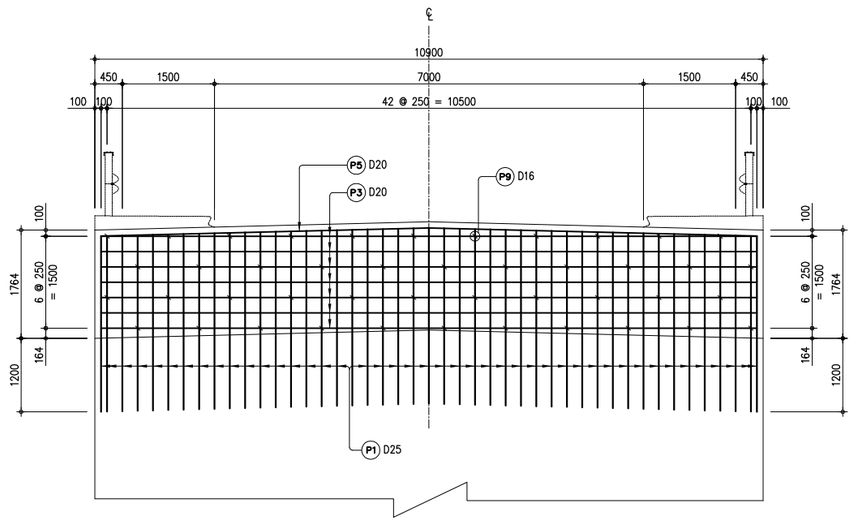


5 - 5

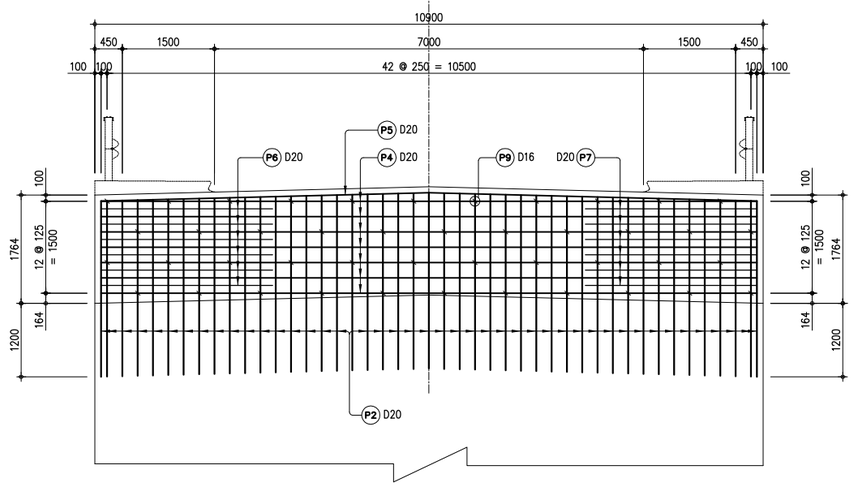
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JICA JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	No	REVISION	DATE	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)** OVERPASS BRIDGE NO. 12 DIMENSION DETAILS FOR ABUTMENT A2	DESIGNED BY: CHECKED BY: APPROVED BY: DWG. NO.	 K06-17

REINFORCEMENT OF A1 AND A2 ABUTMENT (1) (Scale 1:50)

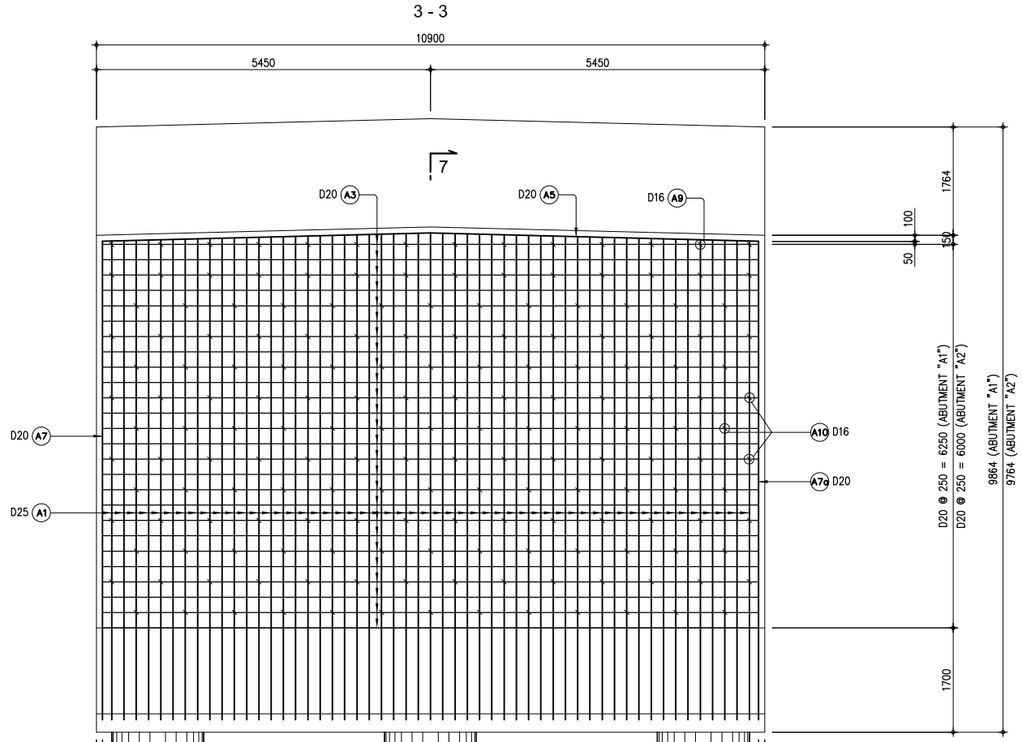
1 - 1



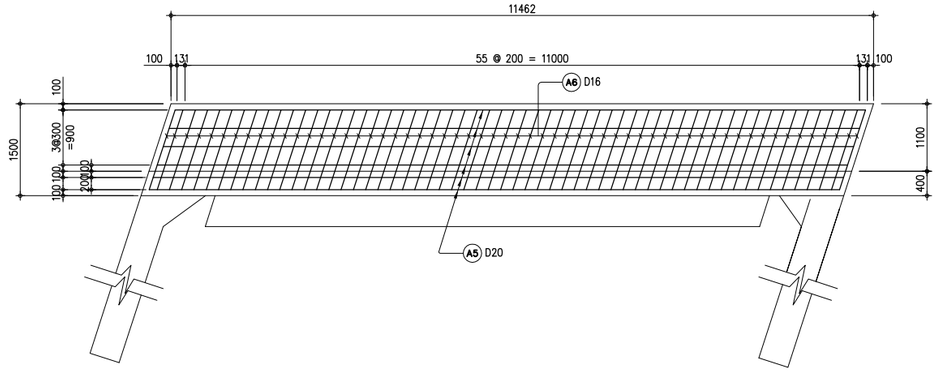
2 - 2



3 - 3



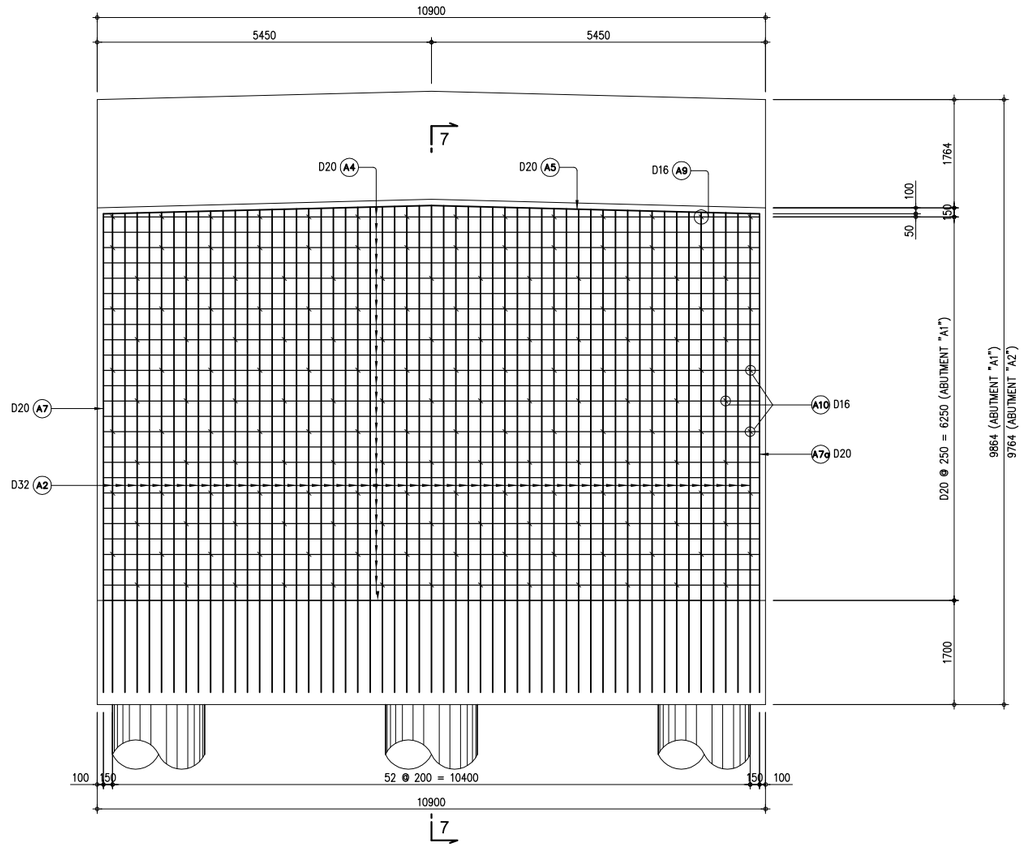
4 - 4



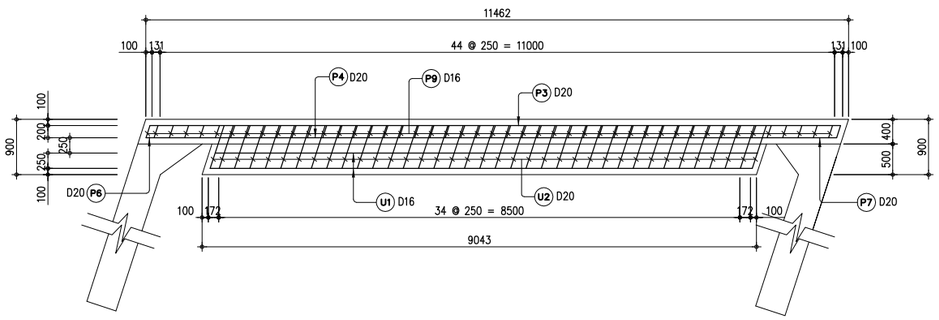
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JICA JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	No	REVISION	DATE	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)** OVERPASS BRIDGE NO. 12 BAR ARRANGEMENT OF ABUTMENT A1 & A2 (1/5)	DESIGNED BY: CHECKED BY: APPROVED BY: DWG. NO. K06-18

REINFORCEMENT OF A1 AND A2 ABUTMENT (2) Scale 1:50

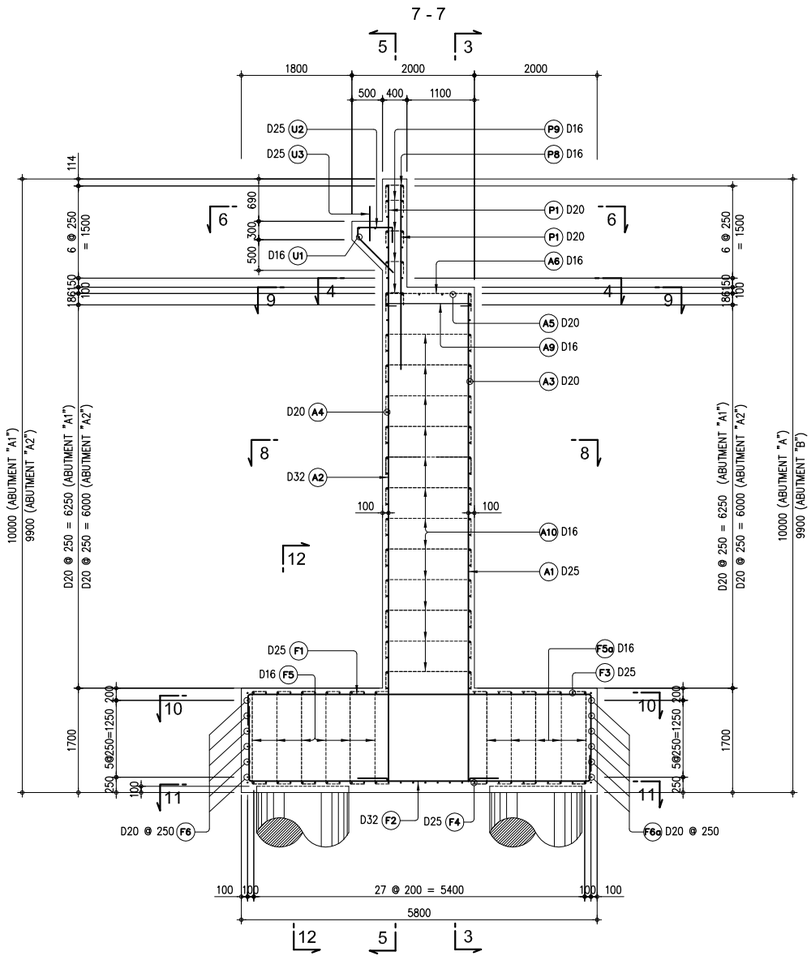
5 - 5



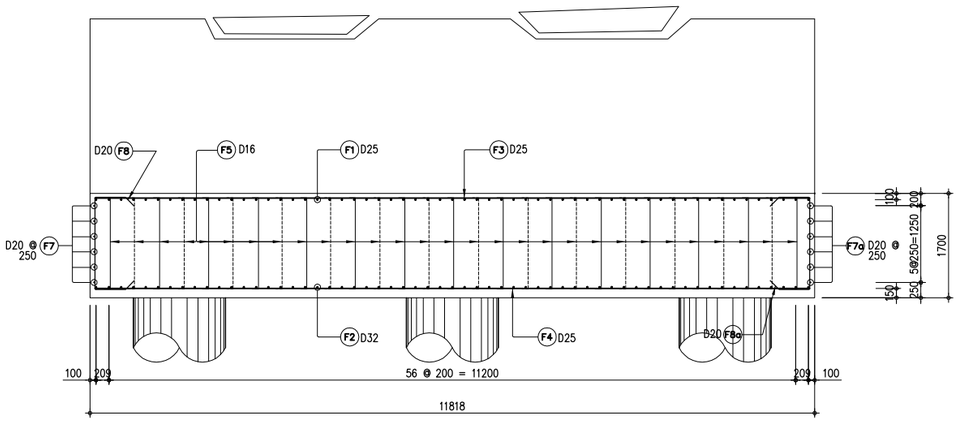
6 - 6



7 - 7



12 - 12

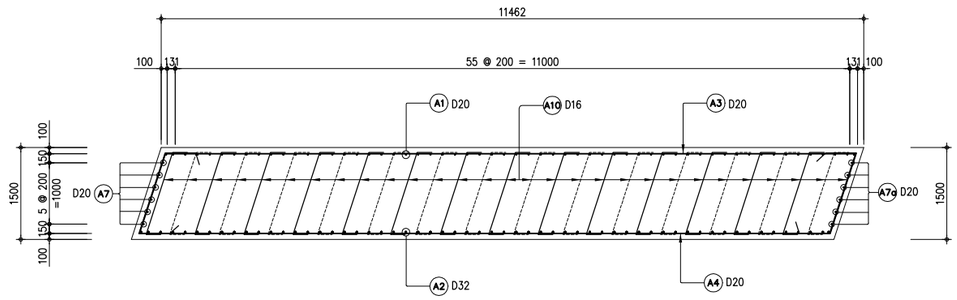


THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)**	DESIGNED BY:
			CHECKED BY:
		OVERPASS BRIDGE NO. 12 BAR ARRANGEMENT OF ABUTMENT A1 & A2 (2/5)	APPROVED BY:
			DWG. NO. K06-19

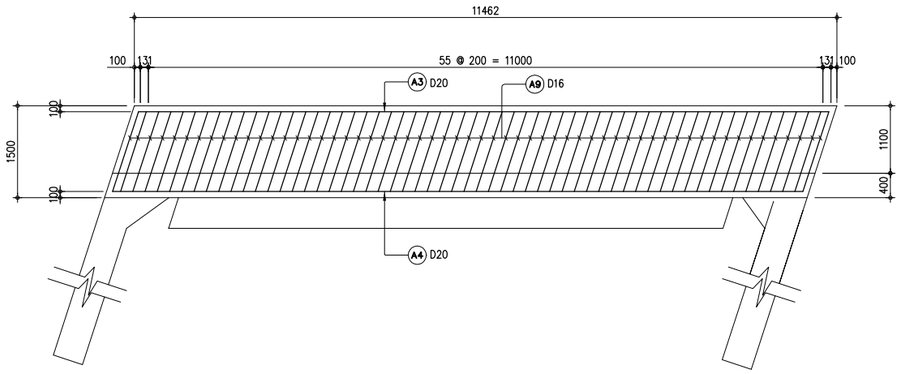
No	REVISION	DATE

REINFORCEMENT OF A1 & A2 ABUTMENT (3) Scale 1:50

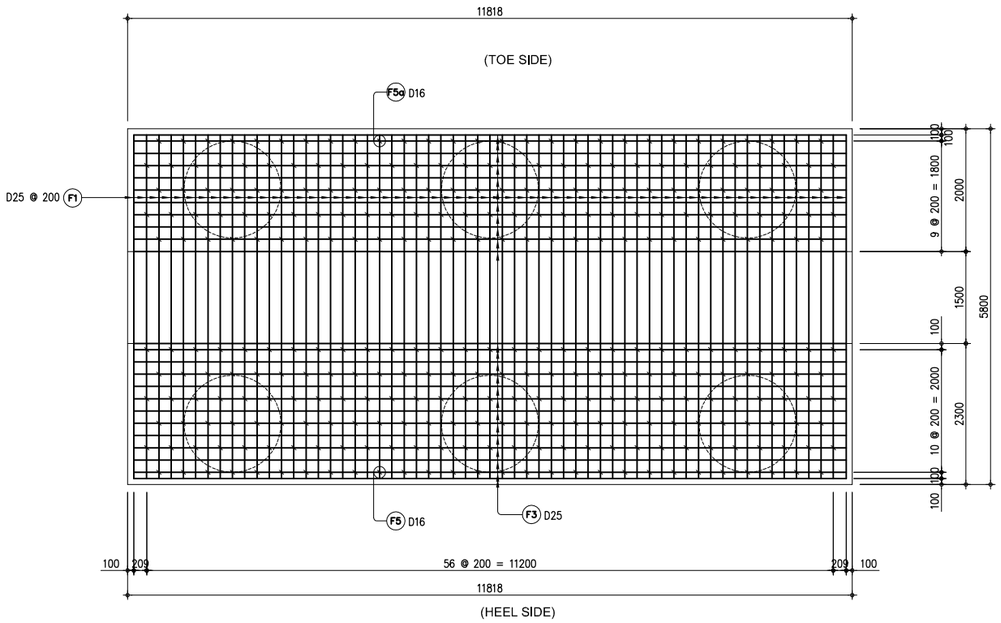
8 - 8



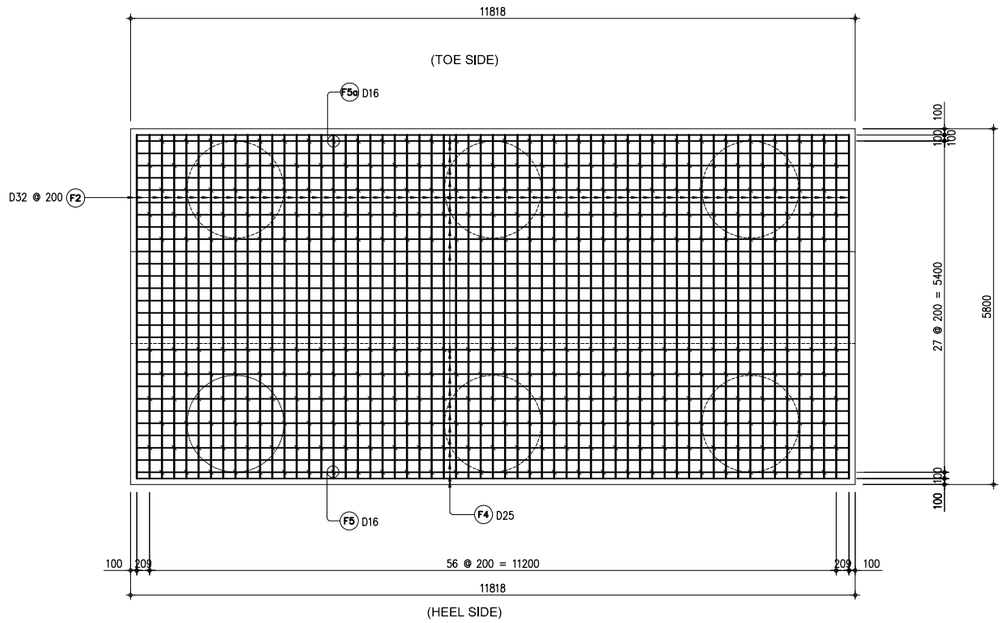
9 - 9



10 - 10



11 - 11

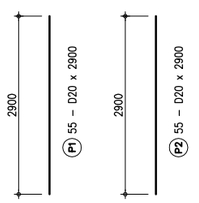


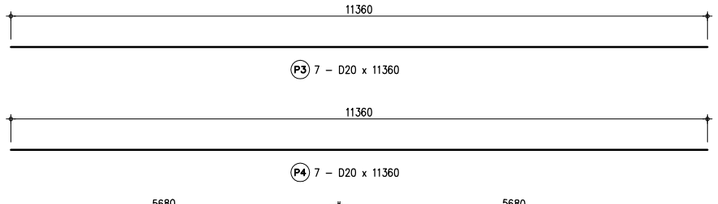
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)** OVERPASS BRIDGE NO. 12 BAR ARRANGEMENT OF ABUTMENT A1 & A2 (3/5)

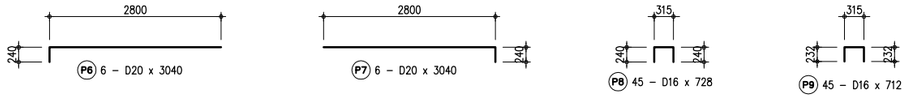
No	REVISION	DATE

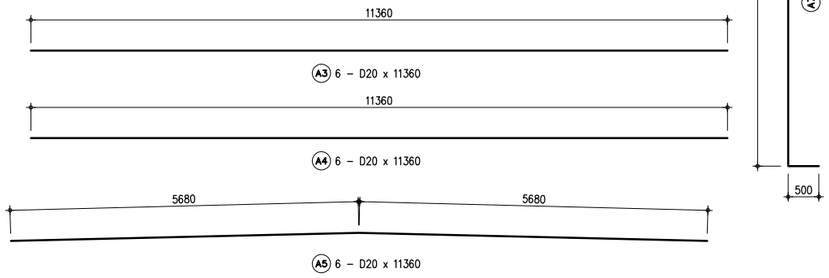
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-20

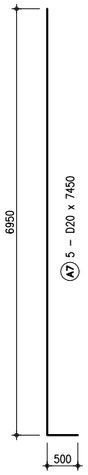
REINFORCEMENT OF A1 ABUTMENT (4) Scale 1:50

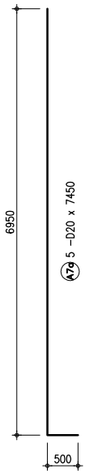


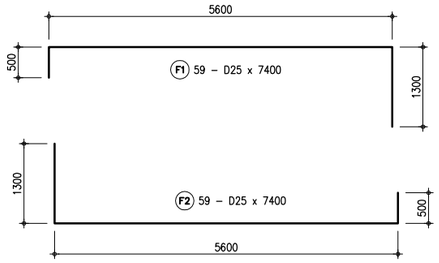


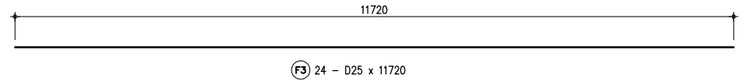


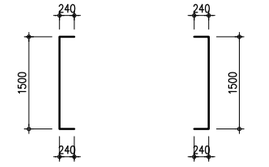


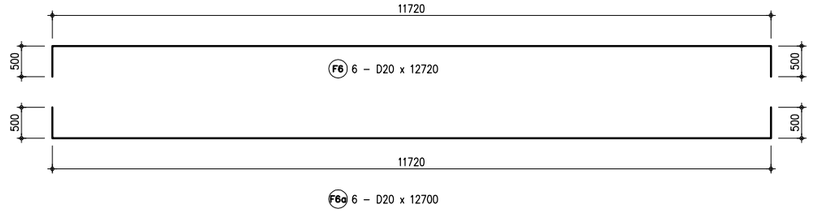


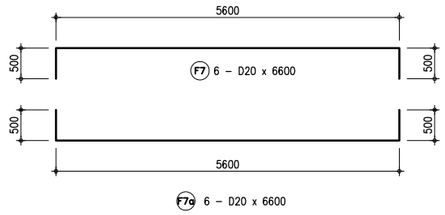


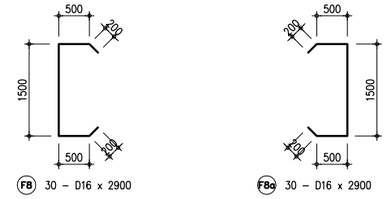


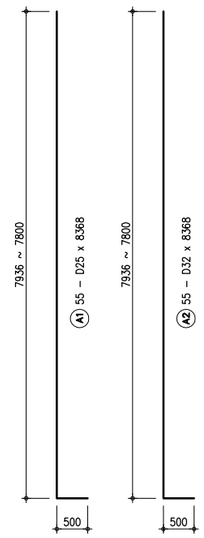


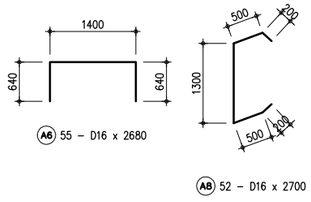


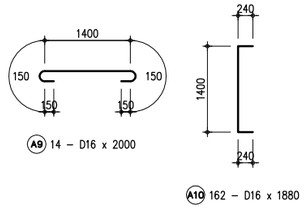


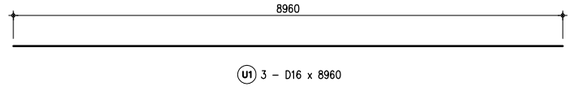


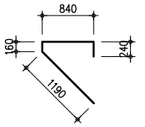












THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

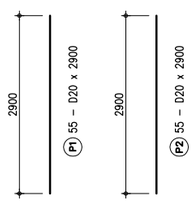
No	REVISION	DATE

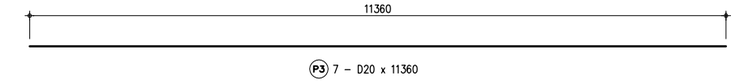
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

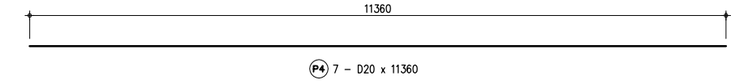
OVERPASS BRIDGE NO. 12
BAR ARRANGEMENT OF ABUTMENT A1 & A2 (4/5)

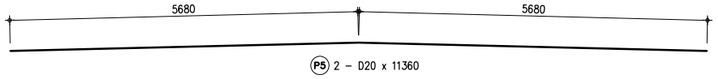
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-21

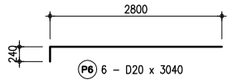
REINFORCEMENT OF A2 ABUTMENT (5) Scale 1:50

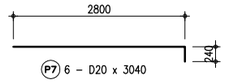


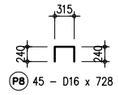


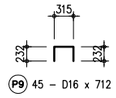


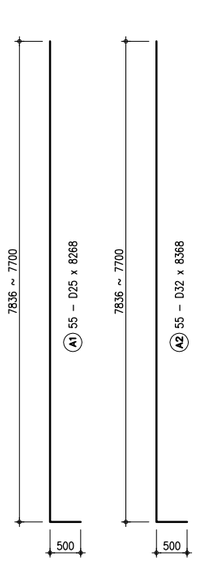


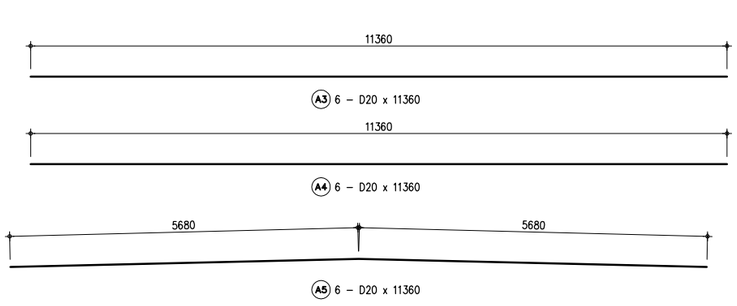


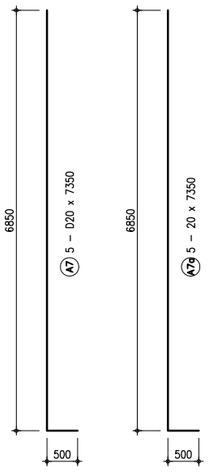


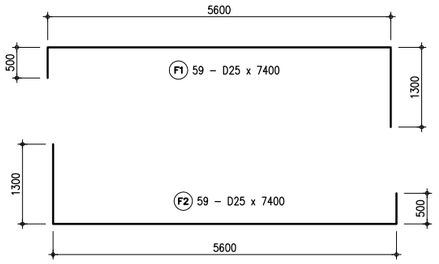


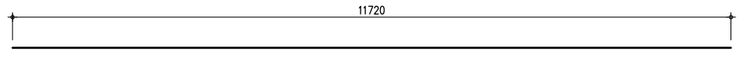


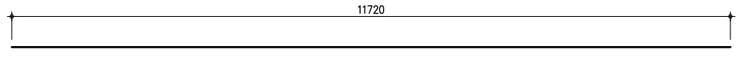


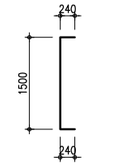


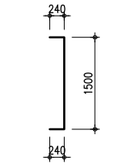


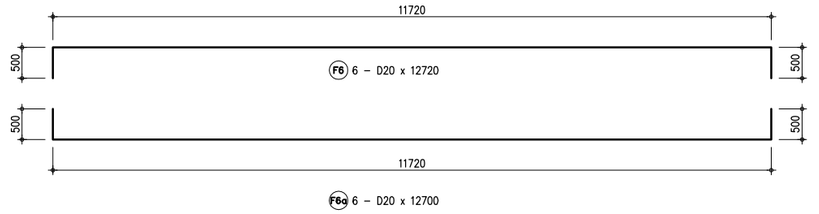


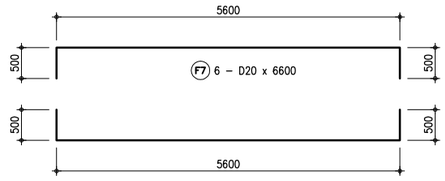


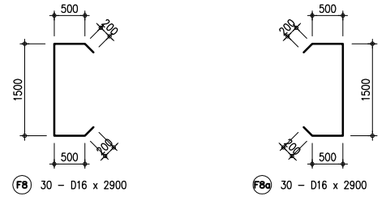


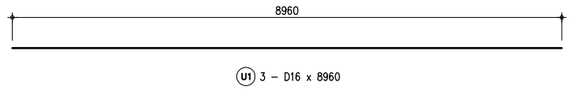


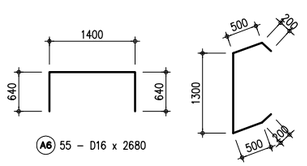


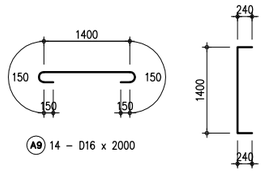


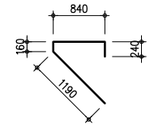












THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

JICA JAPAN INTERNATIONAL COOPERATION AGENCY
ORICONSUL ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL
JAPAN

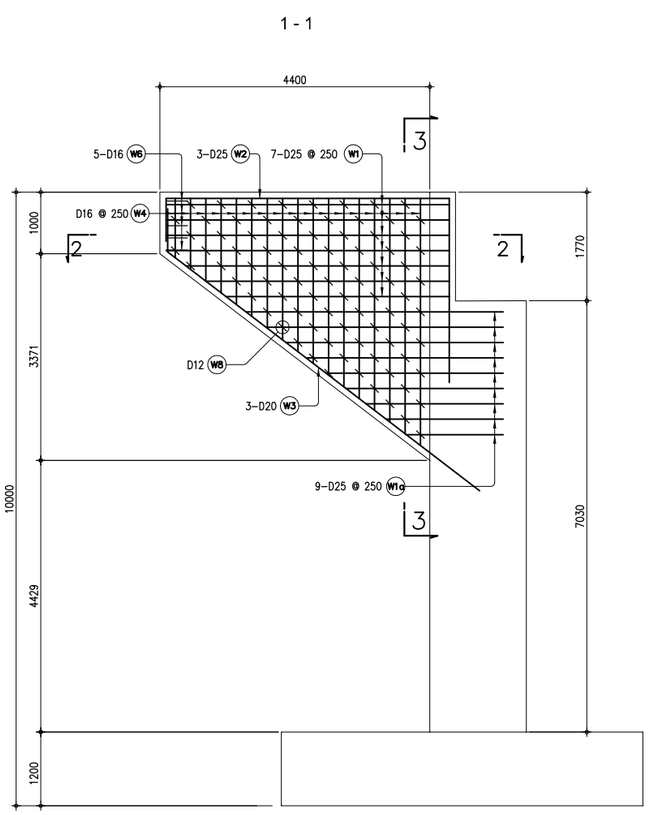
No	REVISION	DATE

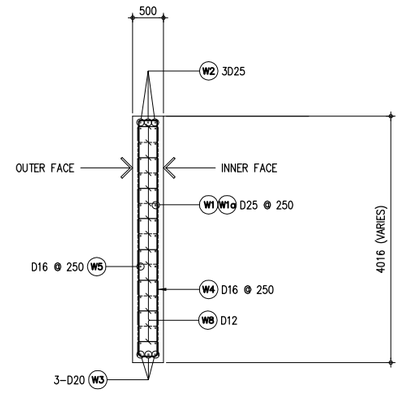
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

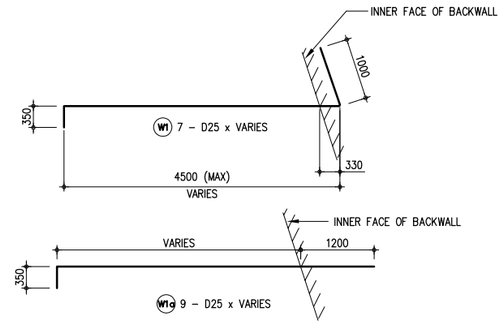
OVERPASS BRIDGE NO. 12
BAR ARRANGEMENT OF ABUTMENT A1 & A2 (5/5)

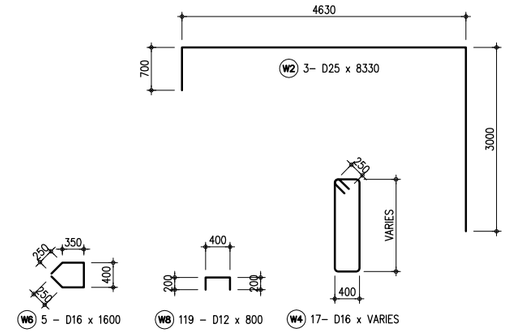
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-22

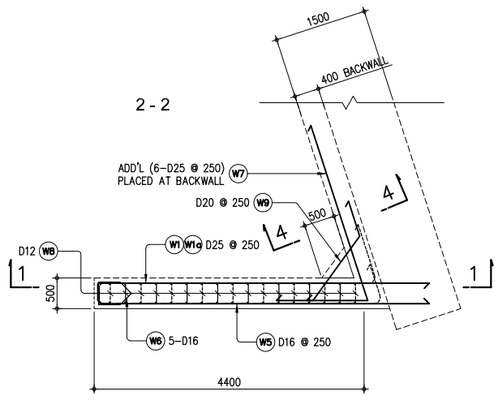
REINFORCEMENT OF WINGWALL ABUTMENT A1 Scale 1:50

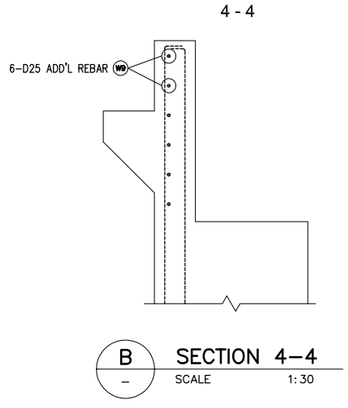




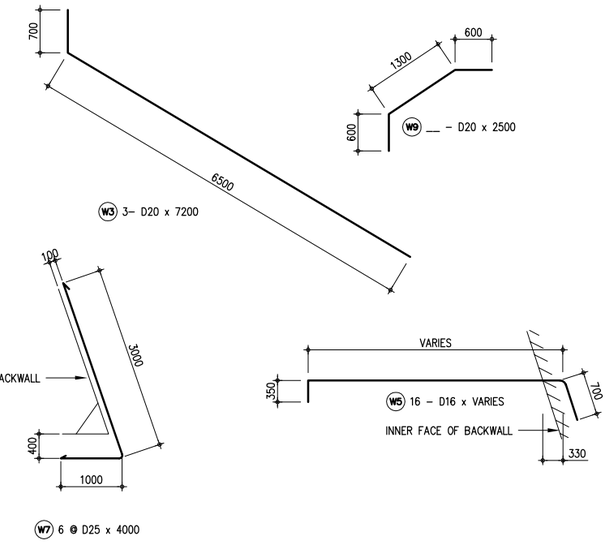








B – SECTION 4–4
SCALE 1:30



A – REBAR DETAIL OF WINGWALL ABUTMENT A1
SCALE 1:50

C – BAR BENDING DIAGRAM
SCALE 1:50

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

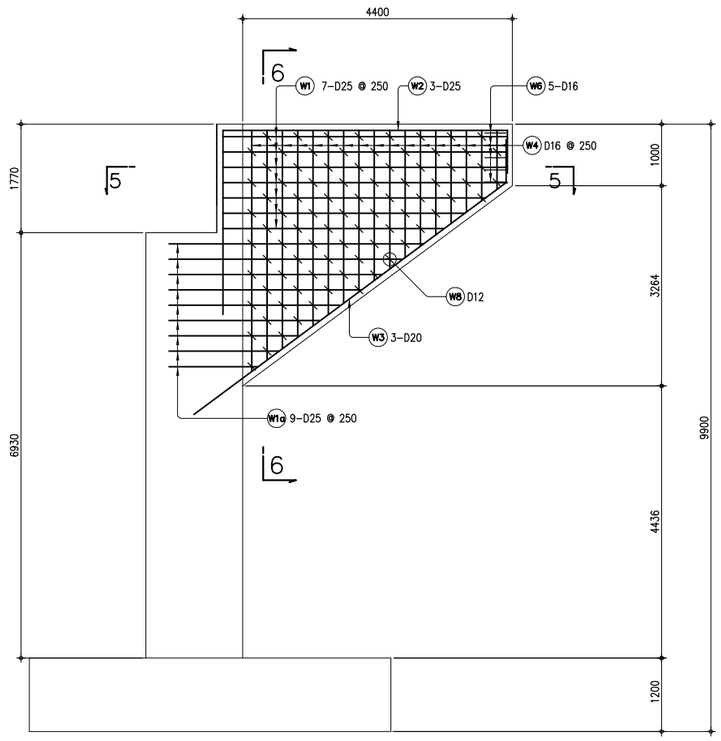
No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

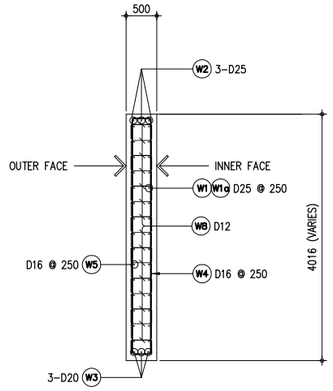
OVERPASS BRIDGE NO. 12
REINFORCEMENT & BAR BENDING OF WINFWALL (ABUT A-1)

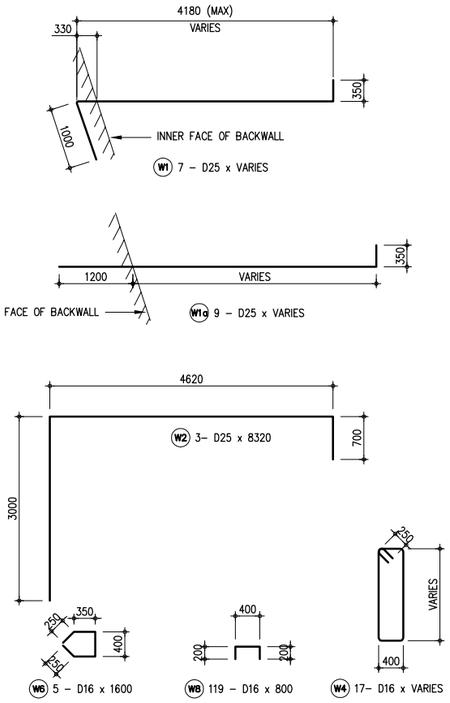
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-23

REINFORCEMENT OF WINGWALL ABUTMENT A2 Scale 1:50

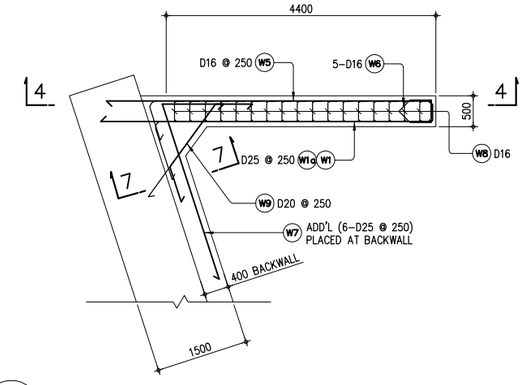


6 - 6



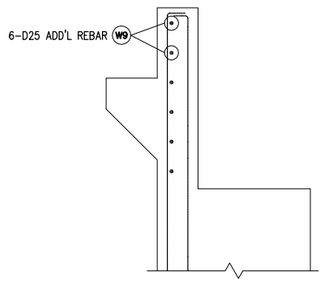


5 - 5

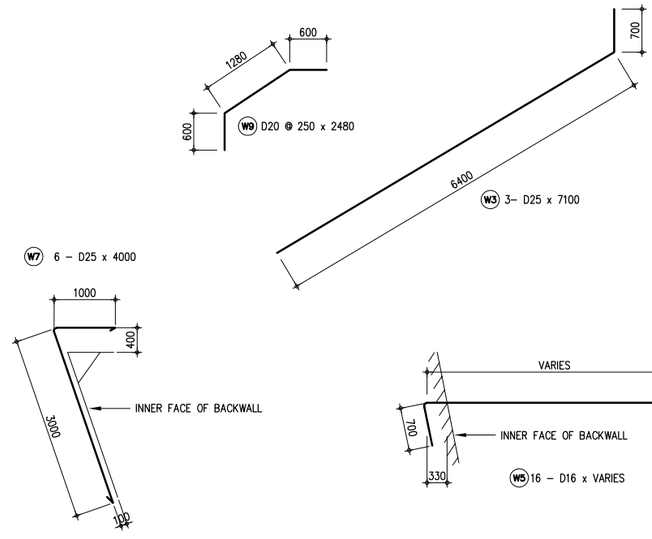


A – REBAR DETAIL OF WINGWALL ABUTMENT A1
SCALE 1:50

7 - 7



B – SECTION 7–7
SCALE 1:30



C – BAR BENDING DIAGRAM
SCALE 1:50

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)**
	No / REVISION / DATE	OVERPASS BRIDGE NO. 12 REINFORCEMENT AND BAR BENDING OF WINGWALL (ABUT A-2)
		DESIGNED BY: / CHECKED BY: / APPROVED BY:
		DWG. NO. K06-24

ESTIMATED QUANTITIES FOR ABUTMENT A1

REINFORCING BARS

LOCATION	BAR MARK	BAR SHAPE	SPACING	QTY. (pcs)	SIZE (mm)	DIMENSION mm (OUT TO OUT) a	b	c	d	e	f	g	LENGTH PER BAR (mm)	TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	TOTAL WEIGHT (kg)	CONCRETE VOLUME (m^3)
PARAPET	P1	AS SHOWN	AS SHOWN	45	20	2900							2900	130.50	2.466	321.81	
	P2	AS SHOWN	AS SHOWN	45	20	2900							2900	130.50	2.466	321.81	
	P3	AS SHOWN	AS SHOWN	7	20	11360							11360	79.52	2.466	196.10	
	P4	AS SHOWN	AS SHOWN	7	20	11360							11360	79.52	2.466	196.10	
	P5	AS SHOWN	AS SHOWN	2	20	5680	5680						11360	22.72	2.466	56.03	
	P6	AS SHOWN	AS SHOWN	6	20	240	2800						3040	18.24	2.466	44.98	
	P7	AS SHOWN	AS SHOWN	6	20	240	2800						3040	18.24	2.466	44.98	
	P8	AS SHOWN	AS SHOWN	45	16	240	315	240					795	35.78	1.579	56.49	
	P9	AS SHOWN	AS SHOWN	45	16	232	315	232					779	35.06	1.579	55.35	
	U1	AS SHOWN	AS SHOWN	3	16	8960							8960	26.88	1.579	42.44	
	U2	AS SHOWN	AS SHOWN	35	25	1190	160	840	240				2430	85.05	3.854	327.78	
	U3	AS SHOWN	AS SHOWN	21	25	625							625	13.13	3.854	50.58	
	SUB-TOTAL QUANTITY FOR PARAPET															1714.46	
STEM	A1	AS SHOWN	AS SHOWN	55	25	500	7868						8368	460.24	3.854	1773.76	
	A2	AS SHOWN	AS SHOWN	55	32	500	7868						8368	460.24	6.313	2905.50	
	A3	AS SHOWN	AS SHOWN	27	20	11360							11360	306.72	2.466	756.37	
	A4	AS SHOWN	AS SHOWN	27	20	11360							11360	306.72	2.466	756.37	
	A5	AS SHOWN	AS SHOWN	6	20	5680	5680						11360	68.16	2.466	168.08	
	A6	AS SHOWN	AS SHOWN	55	16	640	1400	640					2680	147.40	1.579	232.74	
	A7	AS SHOWN	AS SHOWN	12	20	500	6950						7450	89.40	2.466	220.46	
	A8	AS SHOWN	AS SHOWN	52	16	200	500	1300	500	200			2700	140.40	1.579	221.69	
	A9	AS SHOWN	AS SHOWN	14	16	150	150	1400	150	150			2000	28.00	1.579	44.21	
	A10	AS SHOWN	AS SHOWN	162	16	240	1400	240					1880	304.56	1.579	480.90	
	SUB-TOTAL QUANTITY FOR STEM															7560.09	
FOOTING	F1	AS SHOWN	AS SHOWN	59	25	500	5600	1300					7400	436.60	3.854	1682.66	
	F2	AS SHOWN	AS SHOWN	59	25	1300	5600	500					7400	436.60	3.854	1682.66	
	F3	AS SHOWN	AS SHOWN	24	25	11720							11720	281.28	3.854	1084.05	
	F4	AS SHOWN	AS SHOWN	30	25	11720							11720	351.60	3.854	1355.07	
	F5	AS SHOWN	AS SHOWN	313	16	240	1500	240					1980	619.74	1.579	978.57	
	F6	AS SHOWN	AS SHOWN	12	20	11720							11720	140.64	2.466	346.82	
	F7	AS SHOWN	AS SHOWN	12	20	500	5600	500					6600	79.20	2.466	195.31	
	F8	AS SHOWN	AS SHOWN	60	16	200	500	1500	500	200			2900	174.00	1.579	274.75	
	SUB-TOTAL QUANTITY FOR FOOTING															7599.87	
WINGWALL (X2)	W1	AS SHOWN	AS SHOWN	10	32	240	4470						4710	47.10	6.313	297.34	
	W2	AS SHOWN	AS SHOWN	4	32	240	4006						4246	16.98	6.313	107.22	
	W3	AS SHOWN	AS SHOWN	22	32	240	3093						3333	73.33	6.313	462.91	
	W4	AS SHOWN	AS SHOWN	30	20	240	2703						2943	88.29	2.466	217.72	
	W5	AS SHOWN	AS SHOWN	4	32	1053	7225						8278	33.11	6.313	209.04	
	W6	AS SHOWN	AS SHOWN	10	25	240	4470						4710	47.10	3.854	181.52	
	W7	AS SHOWN	AS SHOWN	4	25	240	4006						4246	16.98	3.854	65.46	
	W8	AS SHOWN	AS SHOWN	22	25	240	3093						3333	73.33	3.854	282.60	
	W9	AS SHOWN	AS SHOWN	30	20	240	2703						2943	88.29	2.466	217.72	
	W10	AS SHOWN	AS SHOWN	150	16	300	390	240					930	139.50	1.579	220.27	
	W11	AS SHOWN	AS SHOWN	10	16	240	420	240					900	9.00	1.579	14.21	
	W12	AS SHOWN	AS SHOWN	30	16	232	420	232					884	26.52	1.579	41.88	
	W13	AS SHOWN	AS SHOWN	36	16	240	818	240					1298	46.73	1.579	73.78	
	W14	AS SHOWN	AS SHOWN	36	16	240	1553	240					2033	73.19	2900	115.56	
	SUB-TOTAL QUANTITY FOR WINGWALL															2507.23	
	GRAND TOTAL FOR ABUT. A1															19,381.66	

ESTIMATED QUANTITIES FOR ABUTMENT A2

REINFORCING BARS

LOCATION	BAR MARK	BAR SHAPE	SPACING	QTY. (pcs)	SIZE (mm)	DIMENSION mm (OUT TO OUT) a	b	c	d	e	f	g	LENGTH PER BAR (mm)	TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	TOTAL WEIGHT (kg)	CONCRETE VOLUME (m^3)
PARAPET	P1	AS SHOWN	AS SHOWN	45	20	2900							2900	130.50	2.466	321.81	
	P2	AS SHOWN	AS SHOWN	45	20	2900							2900	130.50	2.466	321.81	
	P3	AS SHOWN	AS SHOWN	7	20	11360							11360	79.52	2.466	196.10	
	P4	AS SHOWN	AS SHOWN	7	20	11360							11360	79.52	2.466	196.10	
	P5	AS SHOWN	AS SHOWN	2	20	5680	5680						11360	22.72	2.466	56.03	
	P6	AS SHOWN	AS SHOWN	6	20	240	2800						3040	18.24	2.466	44.98	
	P7	AS SHOWN	AS SHOWN	6	20	240	2800						3040	18.24	2.466	44.98	
	P8	AS SHOWN	AS SHOWN	45	16	240	315	240					795	35.78	1.579	56.49	
	P9	AS SHOWN	AS SHOWN	45	16	232	315	232					779	35.06	1.579	55.35	
	U1	AS SHOWN	AS SHOWN	3	16	8960							8960	26.88	1.579	42.44	
	U2	AS SHOWN	AS SHOWN	35	25	1190	160	840	240				2430	85.05	3.854	327.78	
	U3	AS SHOWN	AS SHOWN	21	25	625							625	13.13	3.854	50.58	
	SUB-TOTAL QUANTITY FOR PARAPET															1,714.46	
STEM	A1	AS SHOWN	AS SHOWN	55	25	500	7868						8268	454.74	3.854	1752.57	
	A2	AS SHOWN	AS SHOWN	55	32	500	7868						8268	454.74	6.313	2870.77	
	A3	AS SHOWN	AS SHOWN	27	20	11360							11360	306.72	2.466	756.37	
	A4	AS SHOWN	AS SHOWN	27	20	11360							11360	306.72	2.466	756.37	
	A5	AS SHOWN	AS SHOWN	6	20	5680	5680						11360	68.16	2.466	168.08	
	A6	AS SHOWN	AS SHOWN	55	16	640	1400	640					2680	147.40	1.579	232.74	
	A7	AS SHOWN	AS SHOWN	12	20	500	6950						7350	88.20	2.466	217.50	
	A8	AS SHOWN	AS SHOWN	52	16	200	500	1300	500	200			2700	140.40	1.579	221.69	
	A9	AS SHOWN	AS SHOWN	14	16	150	150	1400	150	150			2000	28.00	1.579	44.21	
	A10	AS SHOWN	AS SHOWN	162	16	240	1400	240					1880	304.56	1.579	480.90	
	SUB-TOTAL QUANTITY FOR STEM															7,501.22	
FOOTING	F1	AS SHOWN	AS SHOWN	59	25	500	5600	1300					7400	436.60	3.854	1682.66	
	F2	AS SHOWN	AS SHOWN	59	25	1300	5600	500					7400	436.60	3.854	1682.66	
	F3	AS SHOWN	AS SHOWN	24	25	11720							11720	281.28	3.854	1084.05	
	F4	AS SHOWN	AS SHOWN	30	25	11720							11720	351.60	3.854	1355.07	
	F5	AS SHOWN	AS SHOWN	313	16	240	1500	240					1980	619.74	1.579	978.57	
	F6	AS SHOWN	AS SHOWN	12	20	11720							11720	140.64	2.466	346.82	
	F7	AS SHOWN	AS SHOWN	12	20	500	5600	500					6600	79.20	2.466	195.31	
	F8	AS SHOWN	AS SHOWN	60	16	200	500	1500	500	200			2900	174.00	1.579	274.75	
	SUB-TOTAL QUANTITY FOR FOOTING															7,599.87	
WINGWALL (X2)	W1	AS SHOWN	AS SHOWN	10	32	240	4470						4710	47.10	6.313	297.34	
	W2	AS SHOWN	AS SHOWN	4	32	240	4006						4246	16.98	6.313	107.22	
	W3	AS SHOWN	AS SHOWN	22	32	240	3093						3333	73.33	6.313	462.91	
	W4	AS SHOWN	AS SHOWN	30	20	240	2703						2943	88.29	2.466	217.72	
	W5	AS SHOWN	AS SHOWN	4	32	1053	7225						8278	33.11	6.313	209.04	
	W6	AS SHOWN	AS SHOWN	10	25	240	4470						4710	47.10	3.854	181.52	
	W7	AS SHOWN	AS SHOWN	4	25	240	4006						4246	16.98	3.854	65.46	
	W8	AS SHOWN	AS SHOWN	22	25	240	3093						3333	73.33	3.854	282.60	
	W9	AS SHOWN	AS SHOWN	30	20	240	2703						2943	88.29	2.466	217.72	
	W10	AS SHOWN	AS SHOWN	150	16	300	390	240					930	139.50	1.579	220.27	
	W11	AS SHOWN	AS SHOWN	10	16	240	420	240					900	9.00	1.579	14.21	
	W12	AS SHOWN	AS SHOWN	30	16	232	420	232					884	26.52	1.579	41.88	
	W13	AS SHOWN	AS SHOWN	36	16	240	818	240					1298	46.73	1.579	73.78	
	W14	AS SHOWN	AS SHOWN	36	16	240	1553	240					2033	73.19	2900	115.56	
	SUB-TOTAL QUANTITY FOR WINGWALL															2,507.23	
	GRAND TOTAL FOR ABUT. A2															19,322.78	

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

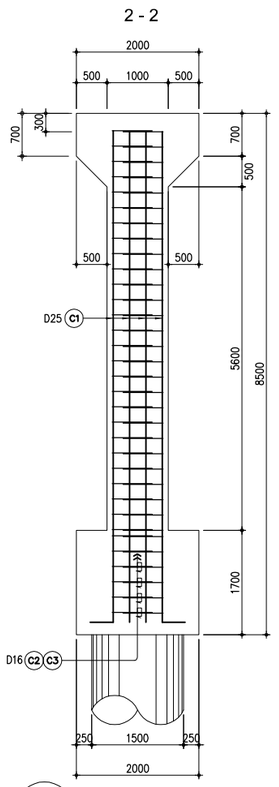
No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

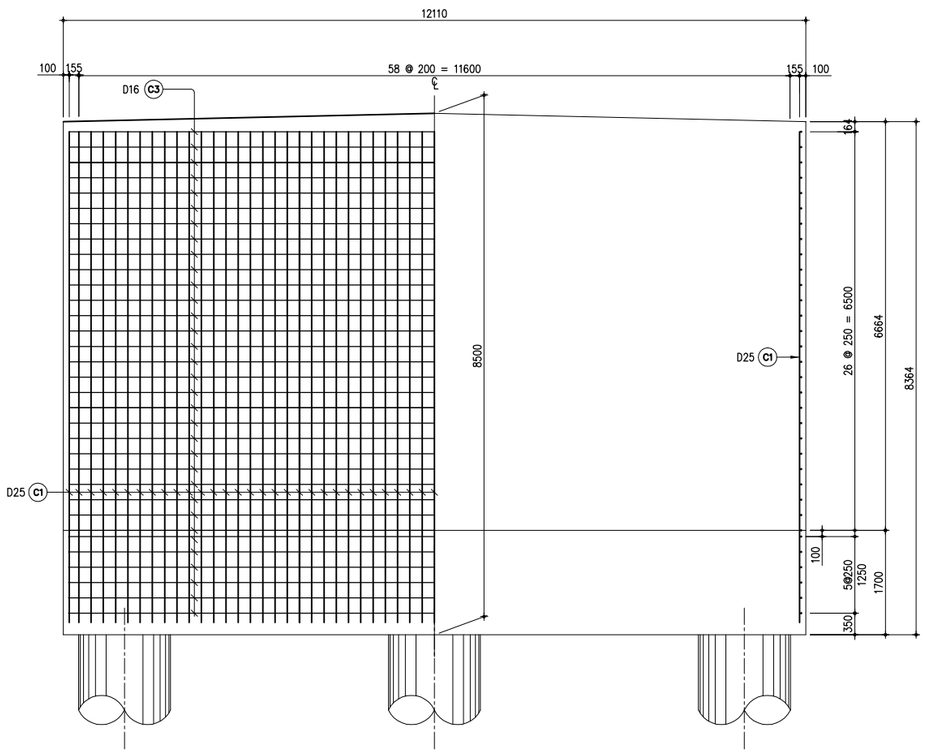
OVERPASS BRIDGE NO. 12
ESTIMATED QUANTITY OF ABUTMENT A1 AND A2

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-25

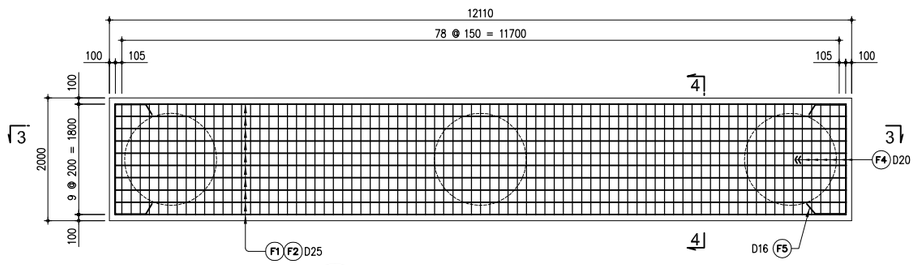
REINFORCEMENT OF P1 PIER (1) Scale 1:50



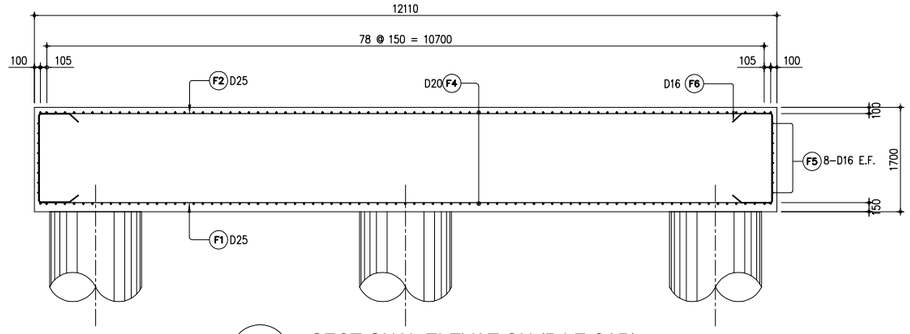
2 - 2 SECTION
SCALE 1:50



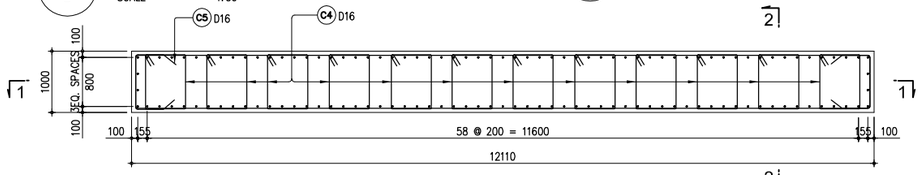
1 - 1 SECTIONAL ELEVATION
SCALE 1:50



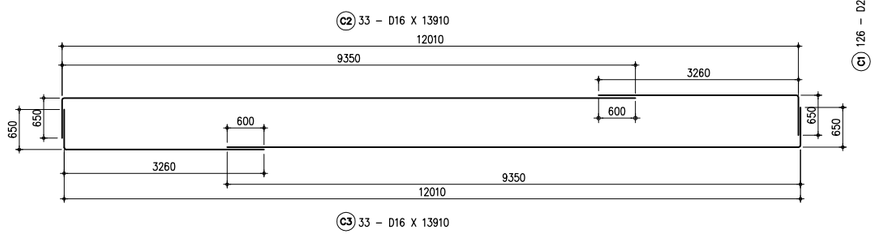
B REINFORCEMENT PLAN (PILE CAP)
SCALE 1:50

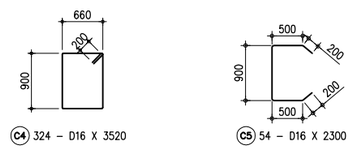


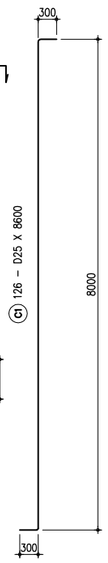
3 - 3 SECTIONAL ELEVATION (PILE CAP)
SCALE 1:50

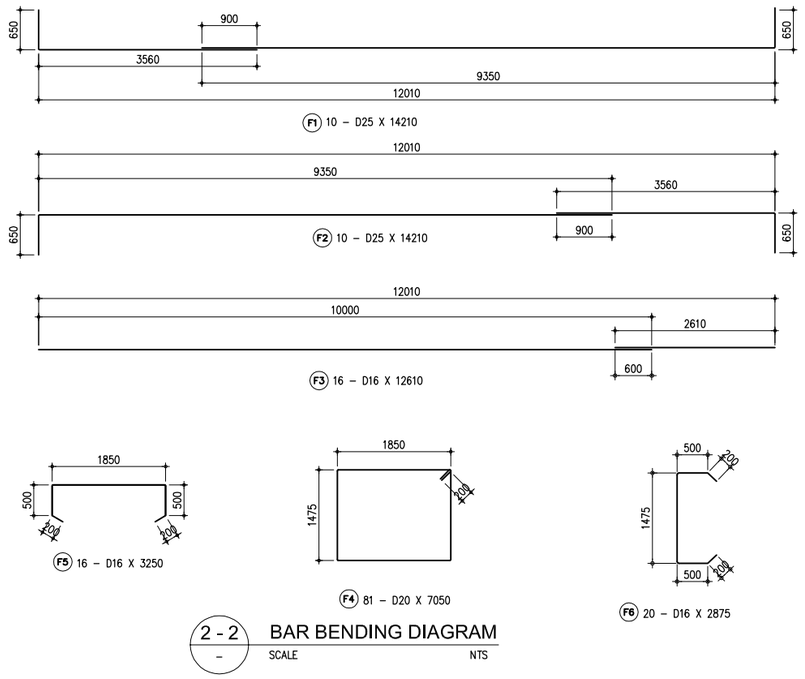


A REINFORCEMENT PLAN
SCALE 1:50



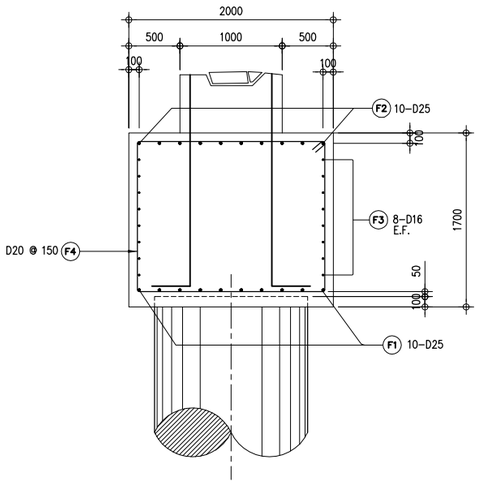






2 - 2 BAR BENDING DIAGRAM
SCALE NTS

4 - 4



4 - 4 SECTION (PILE CAP)
SCALE 1:30

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

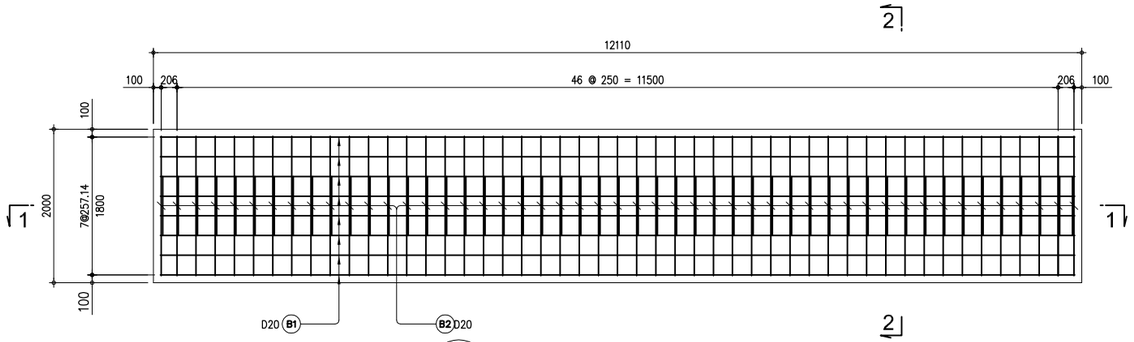
No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

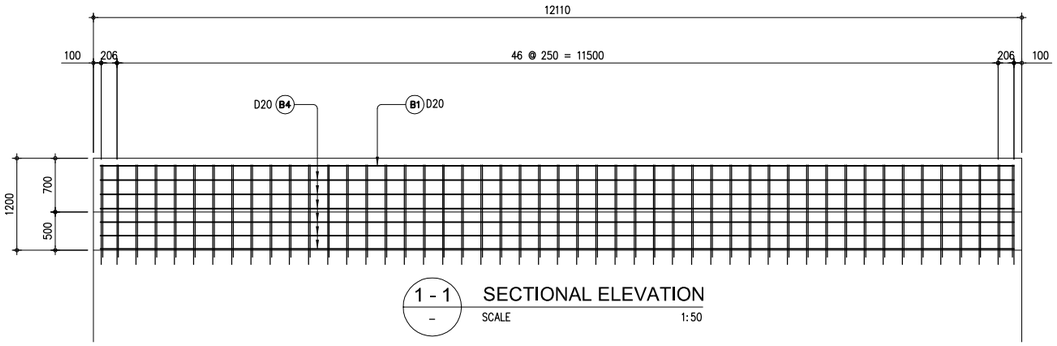
OVERPASS BRIDGE NO. 12
REINFORCEMENT BAR ARRANGEMENT OF PIER (1/2)

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-26

REINFORCEMENT OF P1 PIER (2) Scale 1:50

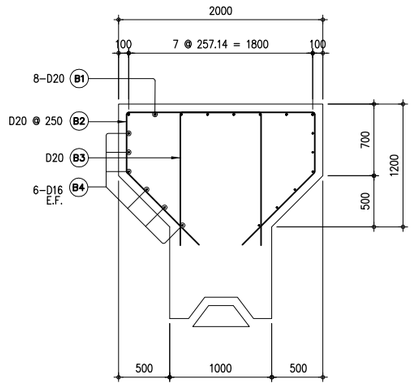


A REINFORCEMENT PLAN
– SCALE 1:50



1 - 1 SECTIONAL ELEVATION
– SCALE 1:50

2 - 2



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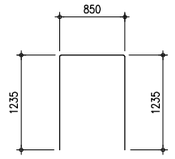

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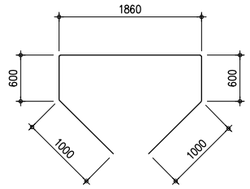

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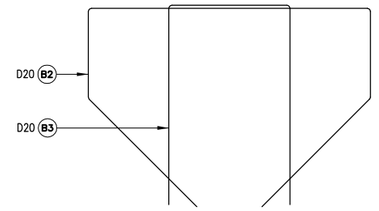

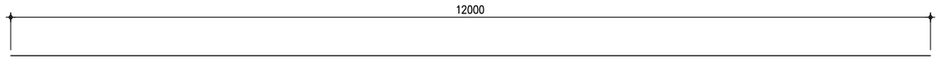

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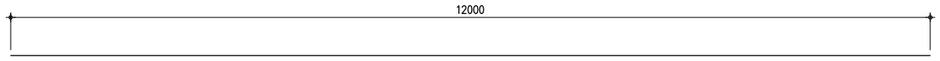


B4 12–D16 X 12000

B BAR BENDING DIAGRAM
– SCALE NTS

OVERPASS BRIDGE NO.12 QUANTITIES OF REINFORCING BAR AND DIAGRAMS FOR PIER

LOCATION	BAR MARK	SPACING	QTY. (pcs)	SIZE (mm)	DIMENSION mm (OUT TO OUT)						LENGTH PER BAR (mm)	TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	TOTAL WEIGHT (kg)
					a	b	c	d	e	f				
COLUMN	B1	AS SHOWN	8	20	12000						12000	96.00	2.466	236.74
	B2	AS SHOWN	48	20	1000	600	1860	600	1000		5060	242.88	2.466	598.94
	B3	AS SHOWN	48	20	1235	850	1235				3320	159.36	2.466	392.98
	B4	AS SHOWN	12	16	12000						12000	144.00	1.579	227.38
	C1	AS SHOWN	130	25	300	8000	300				8600	1118.00	3.854	4308.77
	C2	AS SHOWN	33	16	650	9350	3260	650			13910	459.03	1.579	724.81
	C3	AS SHOWN	33	16	650	3260	9350	650			13910	459.03	1.579	724.81
	C4	AS SHOWN	324	16	200	660	900	660	900	200	3520	1140.48	1.579	1800.82
	C5	AS SHOWN	54	16	200	500	900	500	200		2300	124.20	1.579	196.11
													SUB–TOTAL QUANTITY FOR COLUMN	9,211.35
PILECAP	F1	AS SHOWN	10	25	650	3560	9350	650			14210	142.10	3.854	547.65
	F2	AS SHOWN	10	25	650	9350	3560	650			14210	142.10	3.854	547.65
	F3	AS SHOWN	16	16	10000	2610					12610	201.76	1.579	318.58
	F4	AS SHOWN	81	20	200	1850	1475	1850	1475	200	7050	571.05	2.466	1408.21
	F5	AS SHOWN	16	16	200	500	1850	500	200		3250	52.00	1.579	82.11
	F6	AS SHOWN	20	16	200	500	1475	500	200		2875	57.50	1.579	90.79
													SUB–TOTAL QUANTITY FOR PILECAP	2,995.00
													GRAND TOTAL QUANTITY FOR PIER	12,206.35

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

JICA JAPAN INTERNATIONAL COOPERATION AGENCY
JAPAN
ORICONSUL
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

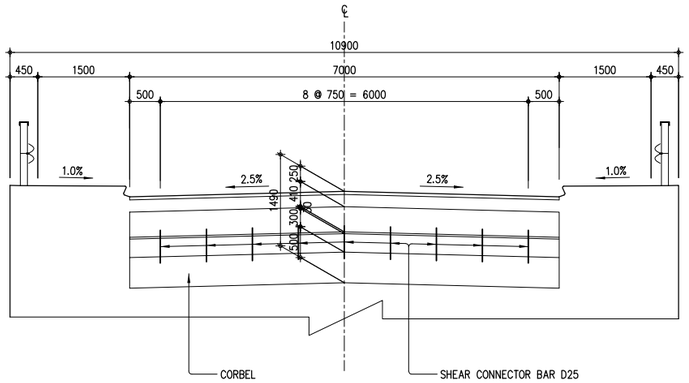
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

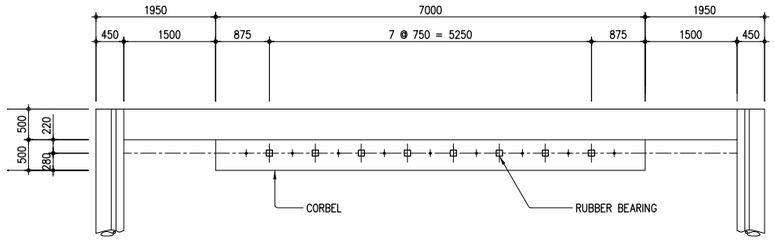
OVERPASS BRIDGE NO. 12
REINFORCEMENT BAR ARRANGEMENT OF PIER (2/2)

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-27

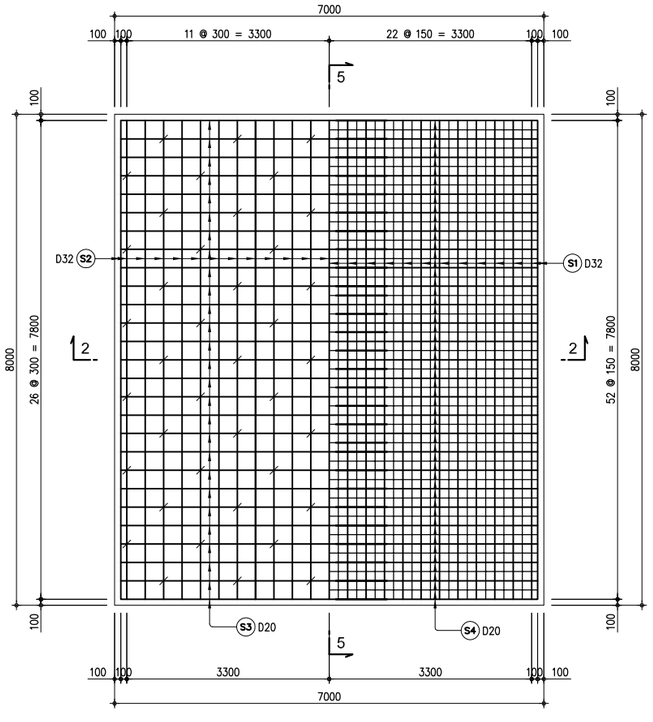
REINFORCEMENT OF APPROACH SLAB (1) Scale 1:50

1 - 1

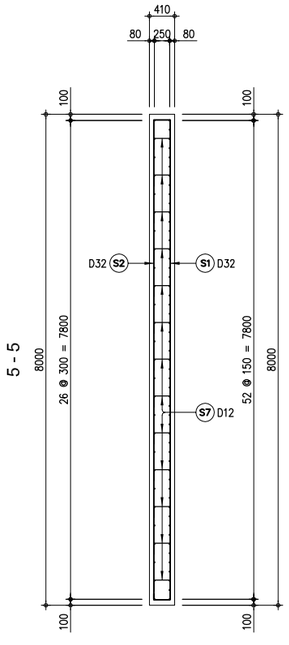




3 - 3

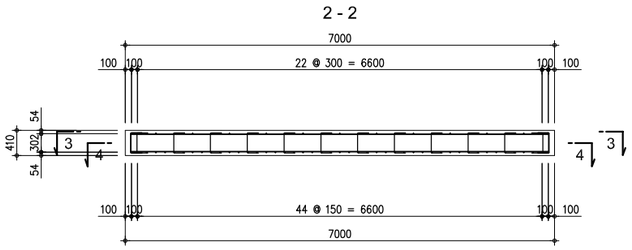


4 - 4

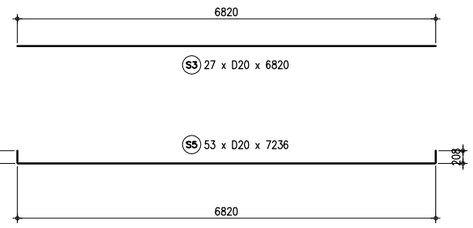


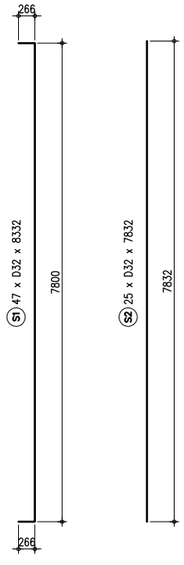
5 - 5

2 - 2

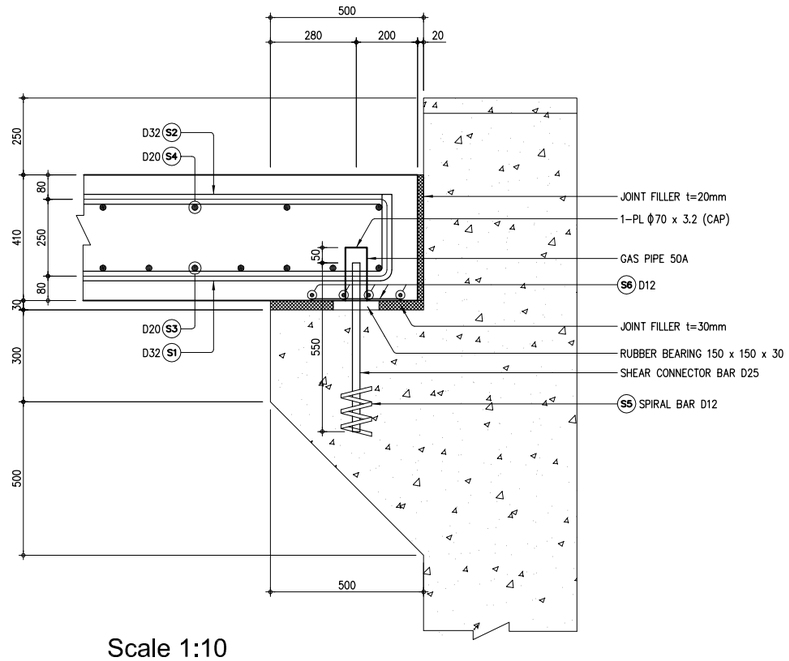


Scale 1:50

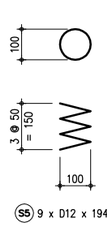


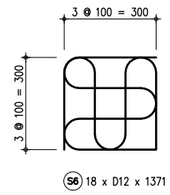


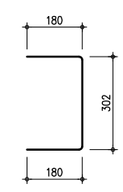
DETAILED OF PEDESTAL Scale 1:10



Scale 1:10







REINFORCING BARS										
BAR BENDING	BAR MARK	BAR SHAPE	QTY.	SIZE	DIMENSIONS a	DIMENSIONS b	LENGTH PER BAR (mm)	TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	TOTAL WEIGHT (kg)
	S1	A	47	D32	7800	532	8332	391.60	6.314	2472.59
	S2	B	25	D32	7832	–	7832	195.80	6.314	1236.28
	S3	C	27	D20	6820	–	6820	184.14	2.466	454.09
	S4	A	53	D20	6820	416	7236	383.51	2.466	945.73
	S5	E	9	D12	1942	–	1942	17.48	0.888	15.52
	S6	F	18	D12	1371	–	1371	24.68	0.888	21.91
	S7	A	66	D12	302	360	662	43.69	0.888	38.80
								D32		3708.87
								D20		1399.82
								D12		76.23
								TOTAL		5184.92
	SGP	50A	–	–	–	–	–	–	–	GAS PIPE
	PL	G	–	–	–	–	–	–	–	CAP
							CONCRETE			
							FORM			
							BEARING (T=30mm)			
							JOINT FILLER (T–20mm)			
							JOINT FILLER (T–30mm)			

A B C D E F

NOTE: QUANTITIES ARE FOR (1) ONE APPROACH ONLY.

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Road Development Authority

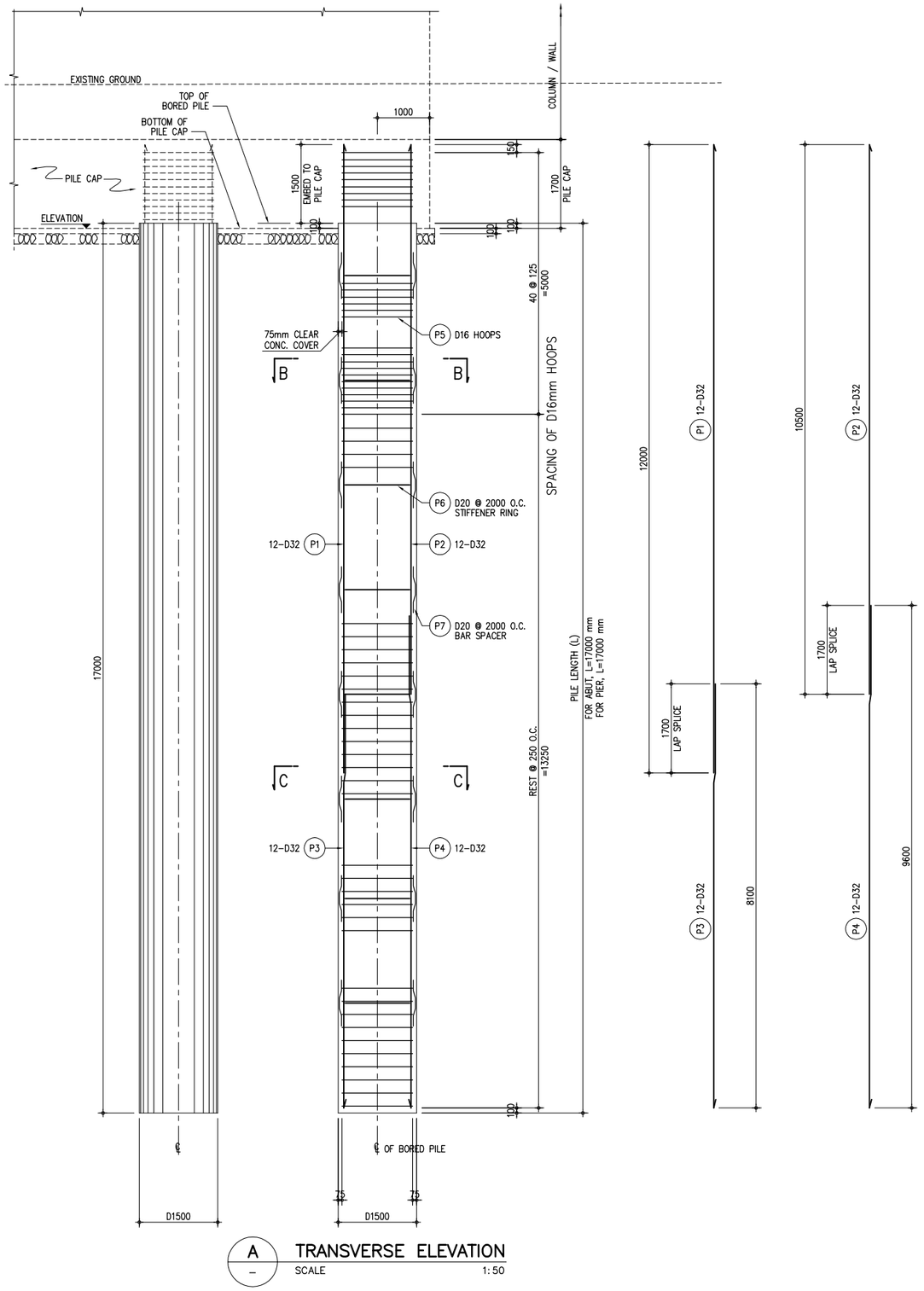
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

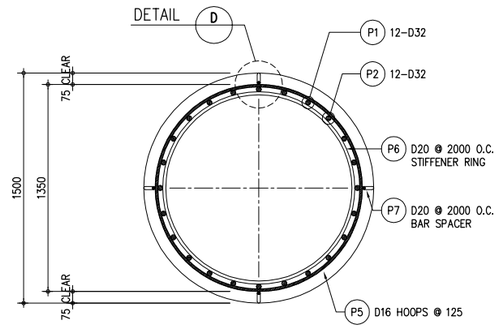
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

OVERPASS BRIDGE NO. 12
REINFORCEMENT BAR ARRANGEMENT OF APPROACH SLAB

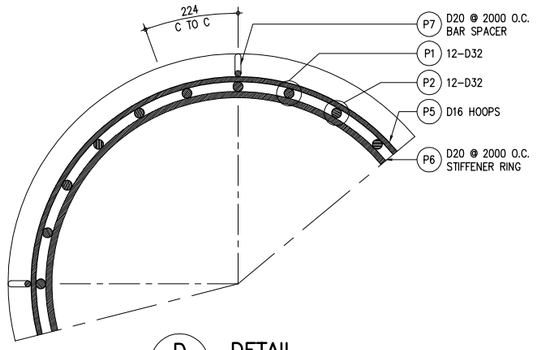
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-28



A TRANSVERSE ELEVATION
SCALE 1:50

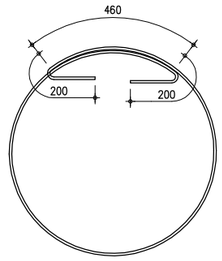


B SECTION
SCALE 1:20

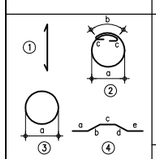


D DETAIL
SCALE 1:10

C SECTION
SCALE 1:20



E HOOPS SPLICE DETAIL
SCALE NONE

REINFORCING BARS																CONCRETE
BAR BENDING	LOCATION	BAR MARK	BAR SHAPE	SPACING (mm)	QTY	SIZE	DIMENSION (mm) a	b	c	d	e	LENGTH PER BAR (m)	TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	TOTAL WEIGHT (kg)	VOLUME (m^3)
	BORED PILE	P1	1	224	12	D32	12000	–	–	–	–	12.00	144	6.313	909.07	30.22
		P2	1	224	12	D32	10500	–	–	–	–	10.50	126	6.313	795.44	
		P3	1	224	12	D32	8100	–	–	–	–	8.10	97.2	6.313	613.62	
		P4	1	224	12	D32	9600	–	–	–	–	9.60	115.2	6.313	727.26	
		P5	2	125/250	94	D16	1350	460	200	–	–	5.10	99.10	1.579	156.48	
		P6	3	2000	8	D20	1254	460	–	–	–	4.40	35.20	2.466	86.80	
		P7	4	2000	32	D20	200	140	200	140	200	0.88	28.16	2.466	69.44	
															3,358.11	

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PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

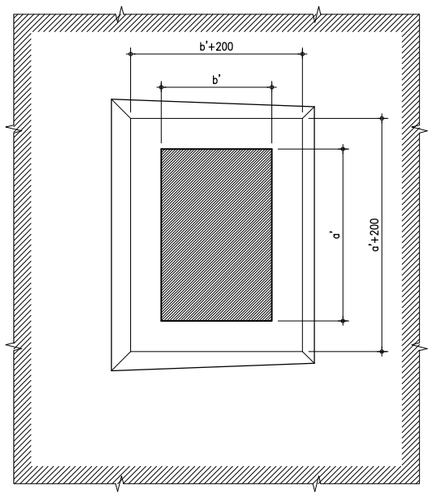
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

OVERPASS BRIDGE NO. 12
Dmm BORED PILE REBAR DETAILS (L-17.00m)

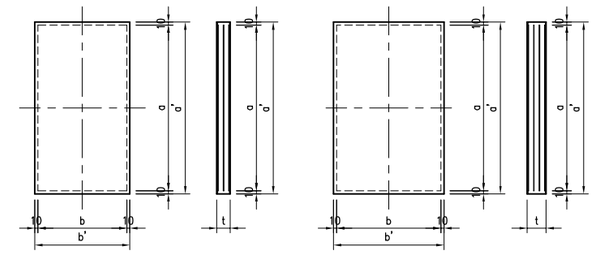
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-29

DIMENSIONS OF BEARING PAD

TYPE	Dimensions a' x b' x t (mm)	Chloroprene Layers		Reinforcement Plate				Surface Layer
		Thickness of Layer	Number of Layers	Transversal Width	Longitudinal Width	Thickness & Number		Thickness & Number
		te (mm)	ne	a (mm)	b (mm)	t1x n (mm)	t2 x n (mm)	ts x n (mm)
Fix	360 x 260 x 36	12	2	340	240	2 x 3	-	3 x 2
Move	410 x 310 x 54	12	3	390	290	2 x 4	-	3 x 2



PLAN



PLAN SECTION PLAN SECTION

SECTION SECTION

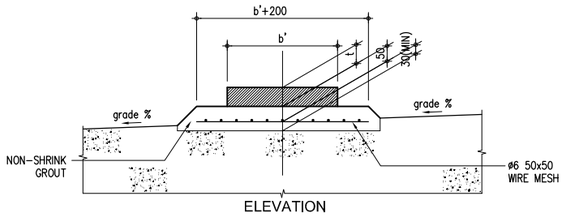
ELASTOMERIC MATERIAL (POLY-CHLOROPRENE)

ITEM		UNIT	REQUIRED VALUE	TEST METHOD
Static Shearing Elasticity Modulus		kgf/cm2	10 ± 1	JIS K6254
Hardness		-	A60 ± 5	JIS K6253
Elongation		%	440 or more	JIS K6251
Tensile Strength		Kg/cm2	150 or more	JIS K6251
Fatigue Test	Strength Changing Ration for 25 % Elongation	%	between -10 and +100	JIS K6257 (100°C x 70 hrs)
	Elongation Ratio	%	-50 or more	
Ratio of Compressive Permanent Strain		%	35 or less	JIS K6262 (100°C x 22hrs)
Ozone Deterioration		-	No crack to be observed by naked eye	JIS K6259
Moisture Absorption (Mass Change Ratio Due to Water)		%	10 or less	JIS K6258
Low Temperature Resistance		Degree	-30°C or less	JIS K6260
Resistance to Stripping		kgf/cm	7 or more	JIS K6256

REINFORCEMENT PLATE (STEEL PLATE)

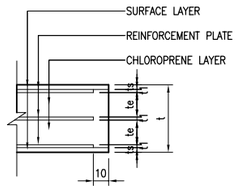
ITEM	UNIT	REQUIRED VALUE	TEST METHOD
Ultimate Strength	N/mm2	400 or more	JIS G3101
Elongation	%	21 or more	
Yield Strength	N/mm2	245 or more	

Note: All Elastomeric Bearing Pads shall be designed in accordance with Japan Road Association Standard or other equivalent Standard



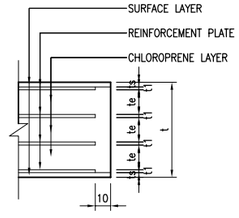
ELEVATION

1 / - BEARING PAD SCALE 1:10



ELEVATION

A / - 2 LAYERS TYPE SCALE NTS



ELEVATION

B / - 3 LAYERS TYPE SCALE NTS

LOCATIONS OF ELASTOMERIC BEARING PADS

BRIDGE NO.			OB-12			Total Number
BRIDGE TYPE			PC-I			
LOCATION			A1	P1	A2	
SUPPORT CONDITION			M	F	M	
ELASTOMERIC BEARING PAD	FIX	360 x 260 x 36		12		12
	MOVE	410 x 310 x 54	6		6	12

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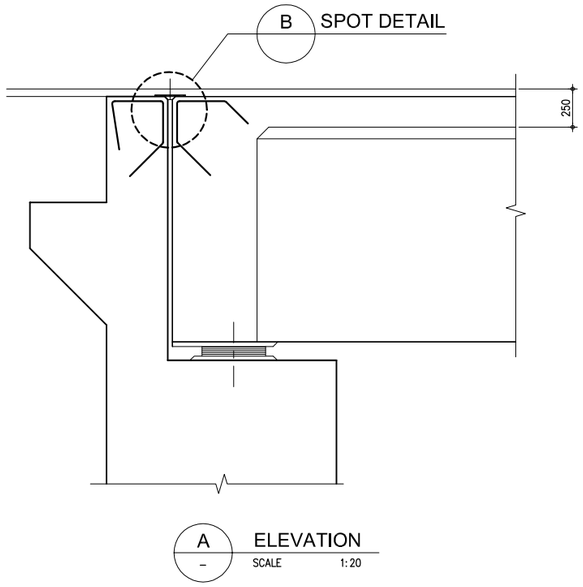
No	REVISION	DATE

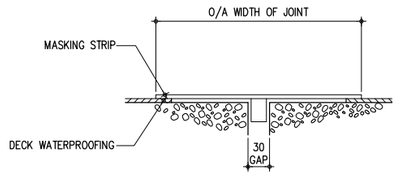
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

OVERPASS BRIDGE NO. 12
LOCATION AND DETAIL OF BEARINGS

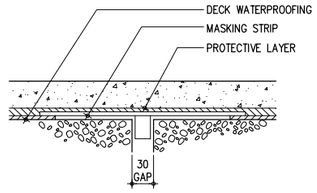
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-30



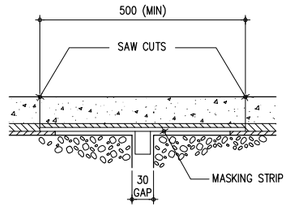
A ELEVATION
SCALE 1:20



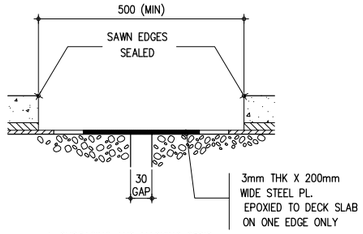
1. EXPANSION GAP COVERED WITH MASKING STRIP (HARDBOARD OR PLYWOOD) WITH WOOD FILLET ENGAGING IN EXPANSION GAP WITH SUFFICIENT CLEARANCE TO ALLOW FOR THERMAL MOVEMENTS.



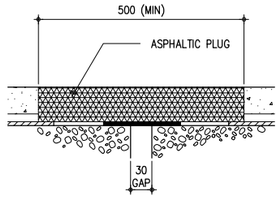
2. SURFACING LAID OVER JOINT.



3. SAW CUT EACH SIDE OF MASKING STRIP.

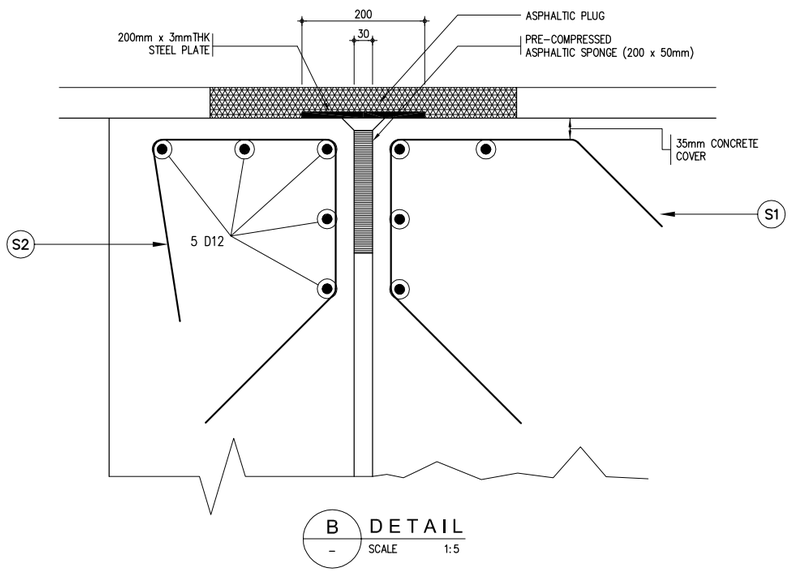


4. SURFACING AND MASKING STRIP REMOVED AND EXPOSED CONCRETE PREPARED AND CLEANED. SAWN EDGES PRIMED WITH WATERPROOF SEALER.

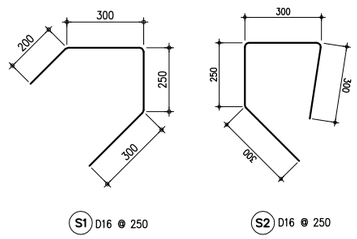


5. FOR A BONDED SYSTEM THE JOINT MATERIAL CAN NOW BE INSTALLED.

C TYPICAL INSTALLATION PROCEDURE
SCALE N T S

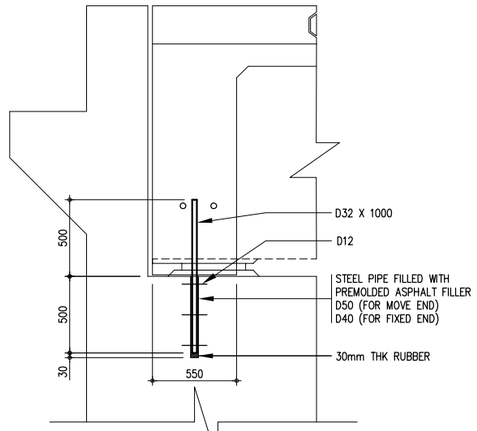


B DETAIL
SCALE 1:5

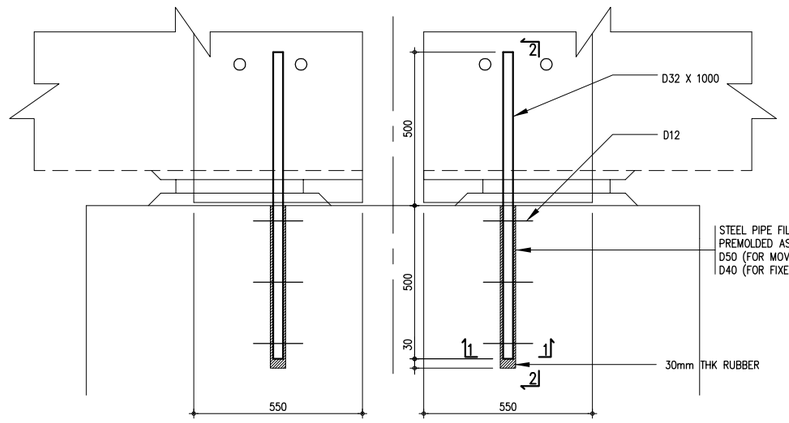


BAR BENDING DIAGRAM

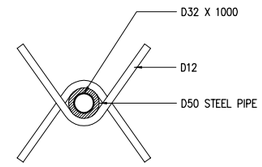
1 DETAIL OF EXPANSION JOINT
SCALE AS SHOWN



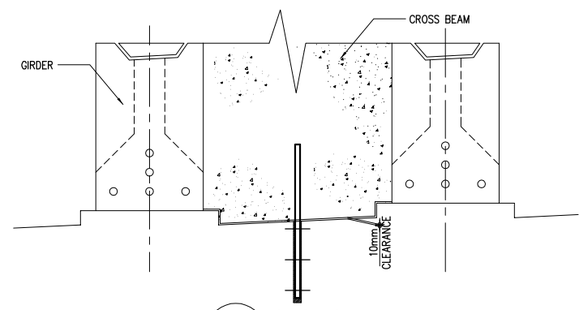
D MOVED END (ABUTMENT)
SCALE 1:20



E FIXED END (PIER)
SCALE 1:10



F SECTION 1-1
SCALE 1:5



G SECTION 2-2
SCALE 1:20

2 ANCHORAGE DETAIL TYPICAL (MOVED AND FIXED)
SCALE AS SHOWN

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
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PACIFIC CONSULTANTS INTERNATIONAL

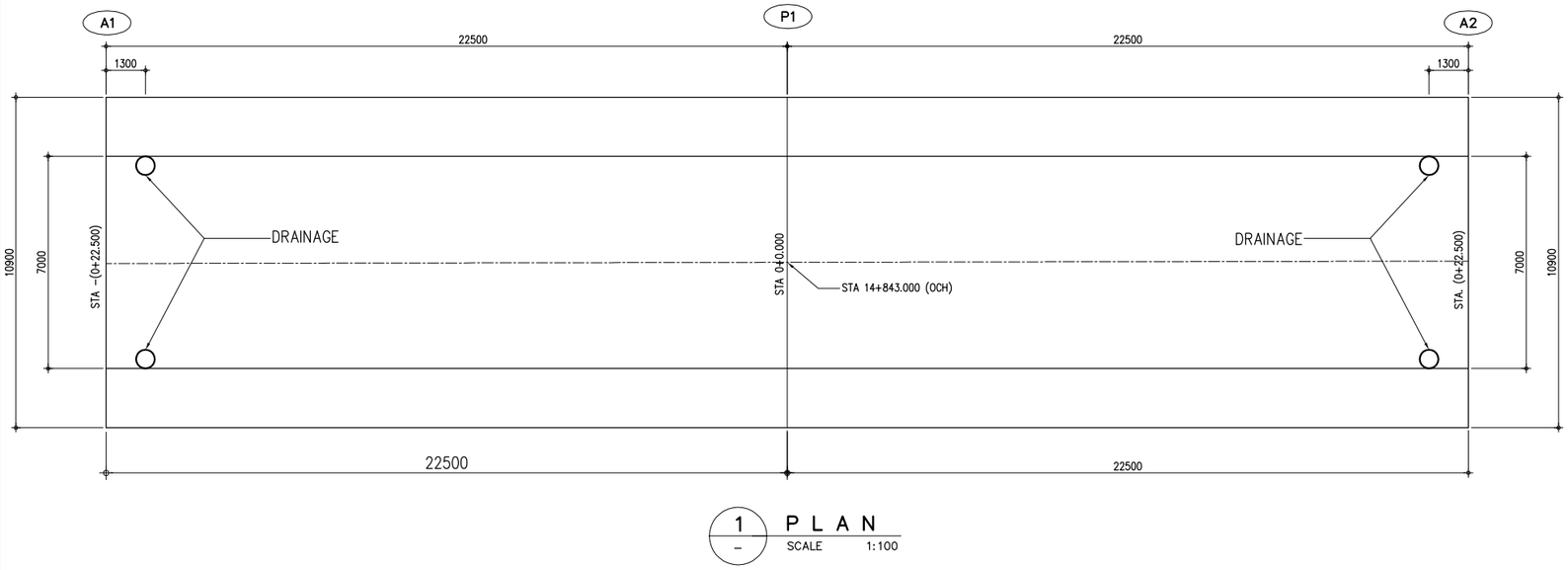
No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

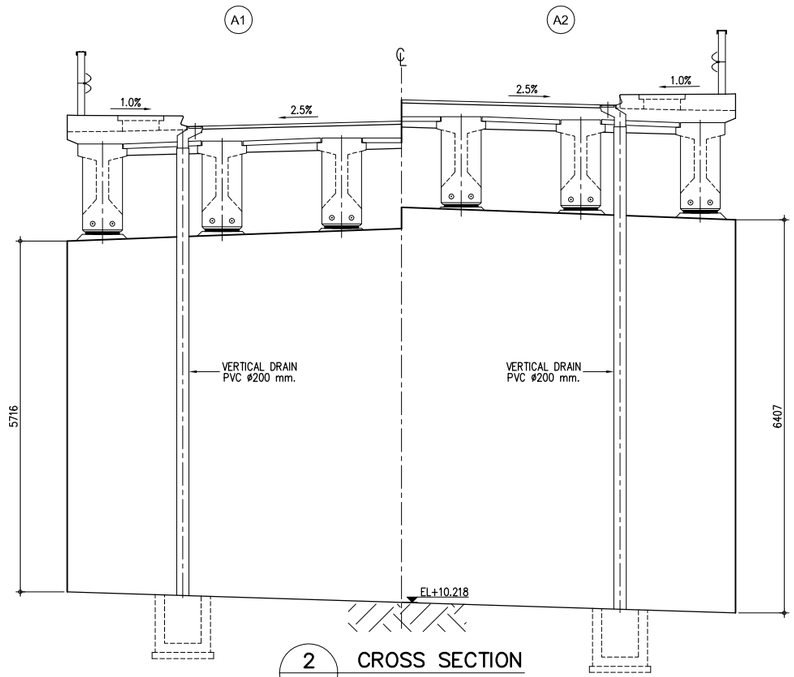
OVERPASS BRIDGE NO. 12
DETAILS OF EXPANSION JOINT / ANCHORAGE DETAIL TYPICAL (MOVED AND FIXED)

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-31

LAYOUT PLAN OF DRAINAGE (OB-12)



1 PLAN
SCALE 1:100



2 CROSS SECTION
SCALE 1:50

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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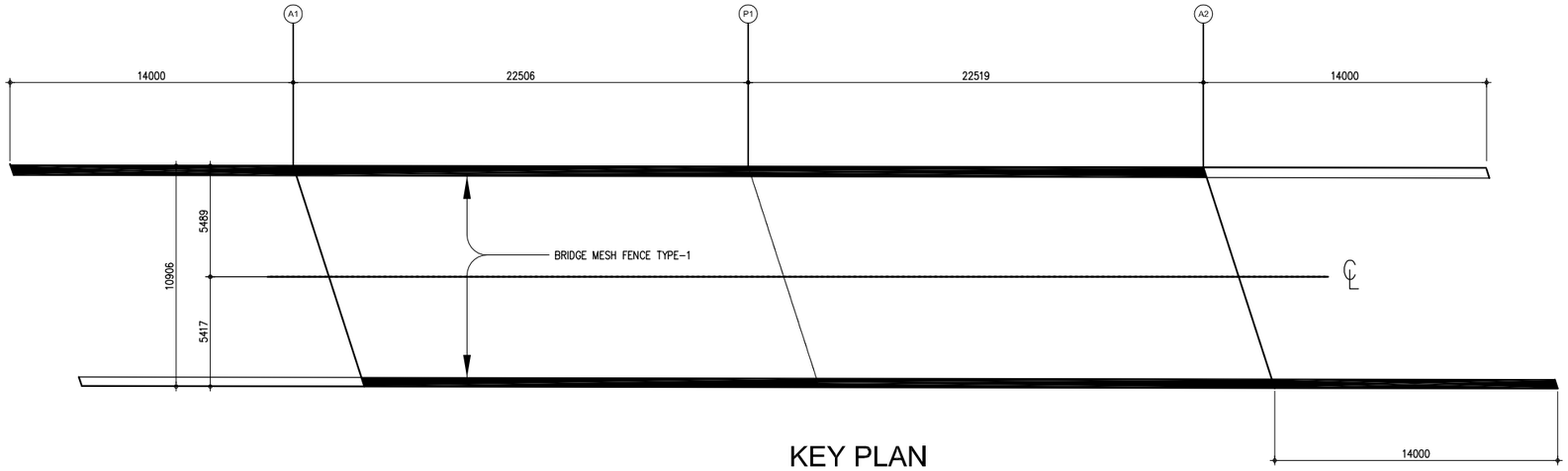
No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

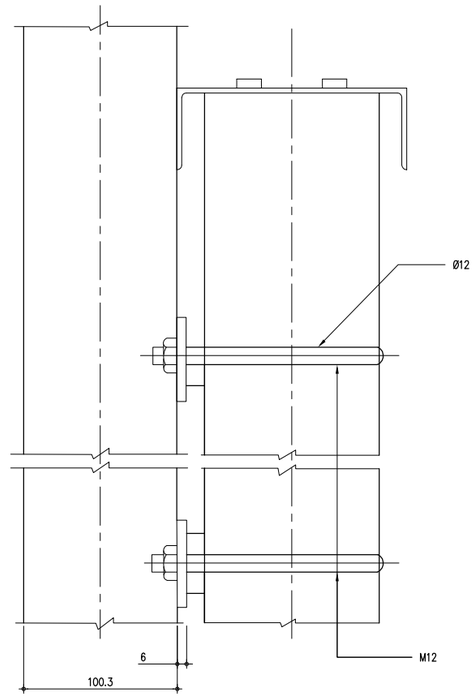
OVERPASS BRIDGE NO. 12
LAYOUT PLAN OF DRAINAGE

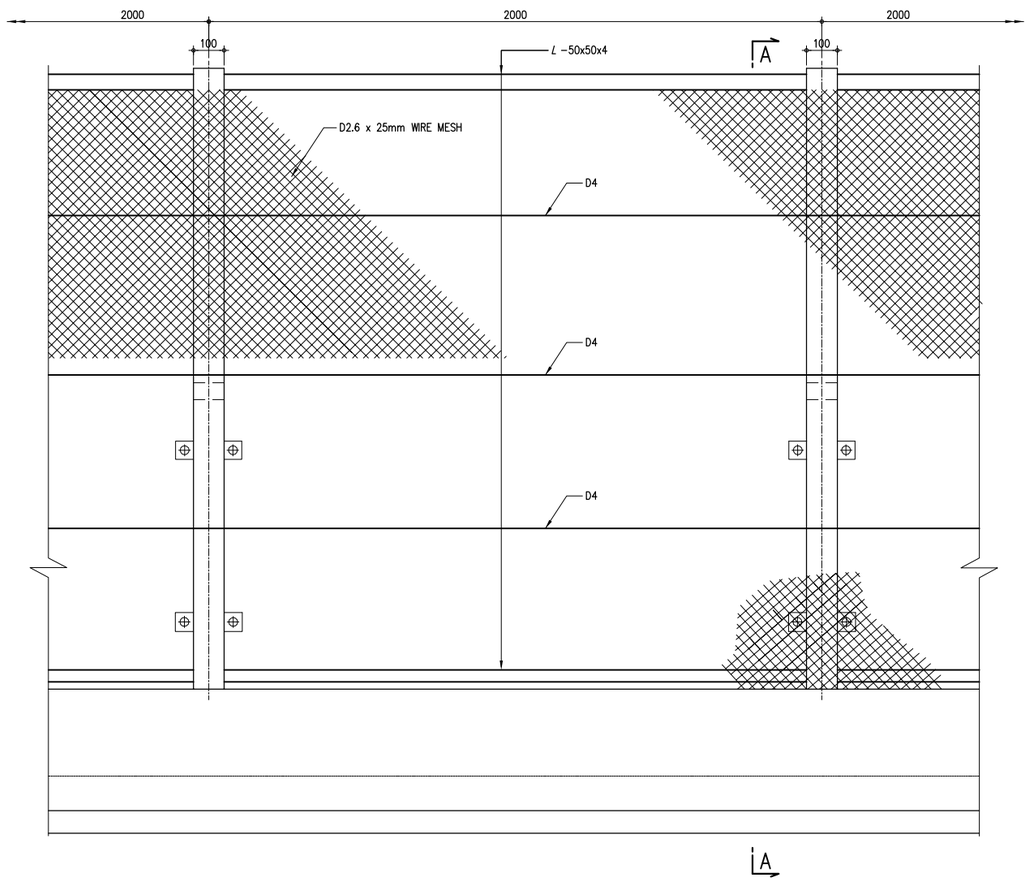
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K06-32

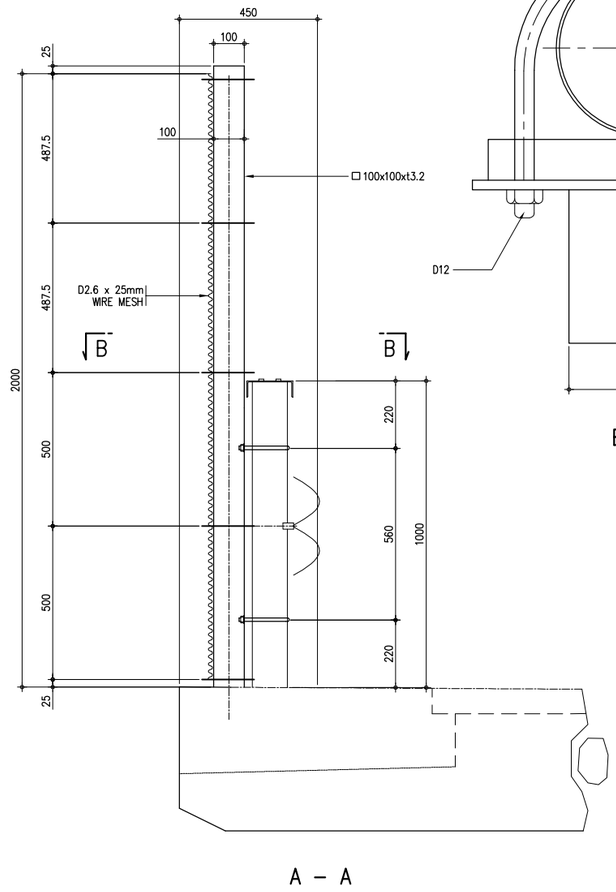
BRIDGE MESH FENCE (1)
TYPE-1



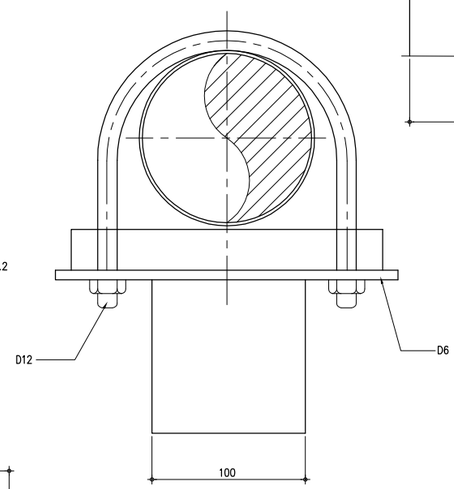
KEY PLAN



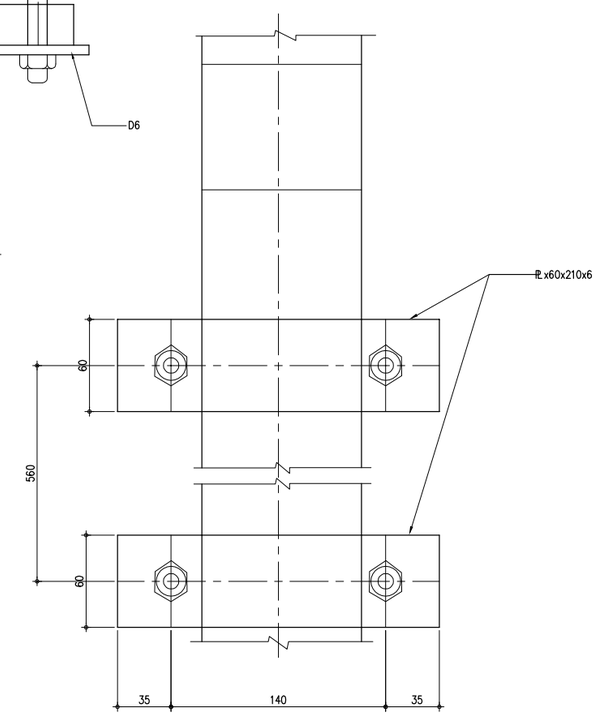




A – A



B – B



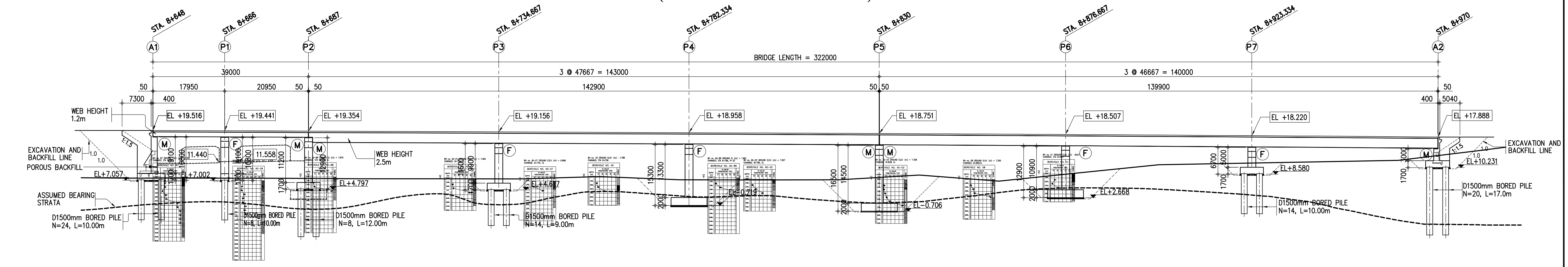
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)**
	No / REVISION / DATE	OVERPASS BRIDGE NO. 12 BRIDGE MESH FENCE (TYPE 1)
		DESIGNED BY: / CHECKED BY: / APPROVED BY:
		DWG. NO. K06-33

K07 VIADUCT NO.1(V1)-A1 INTERCHANGE VIADUCT

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT

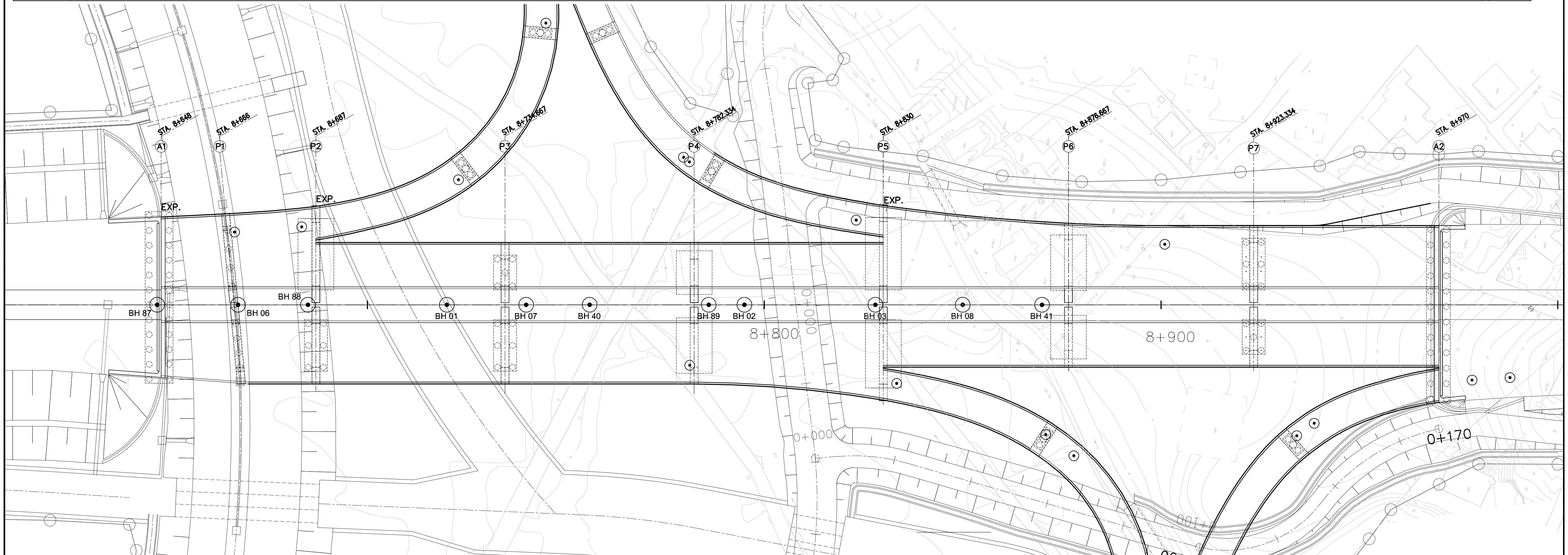
VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT

(STA. 8+648.00 - STA. 8+970.00)



2 PROFILE
SCALE 1:500

GRADE																		
FINISHED ROAD LEVELS	19.549	19.466	19.383	19.300	19.217	19.134	19.051	18.968	18.885	18.798	18.703	18.600	18.488	18.369	18.242	18.106	17.963	17.811
EXISTING GROUND LEVELS	7.552	7.608	7.566	7.428	7.415	7.381	7.955	7.151	7.111	7.149	8.341	6.833	8.897	10.932	11.294	11.656	12.018	14.430
STATION (km)	8640	8660	8680	8700	8720	8740	8760	8780	8800	8820	8840	8860	8880	8900	8920	8940	8960	8980
CURVE BAND																		
SUPERELEVATION																		



THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

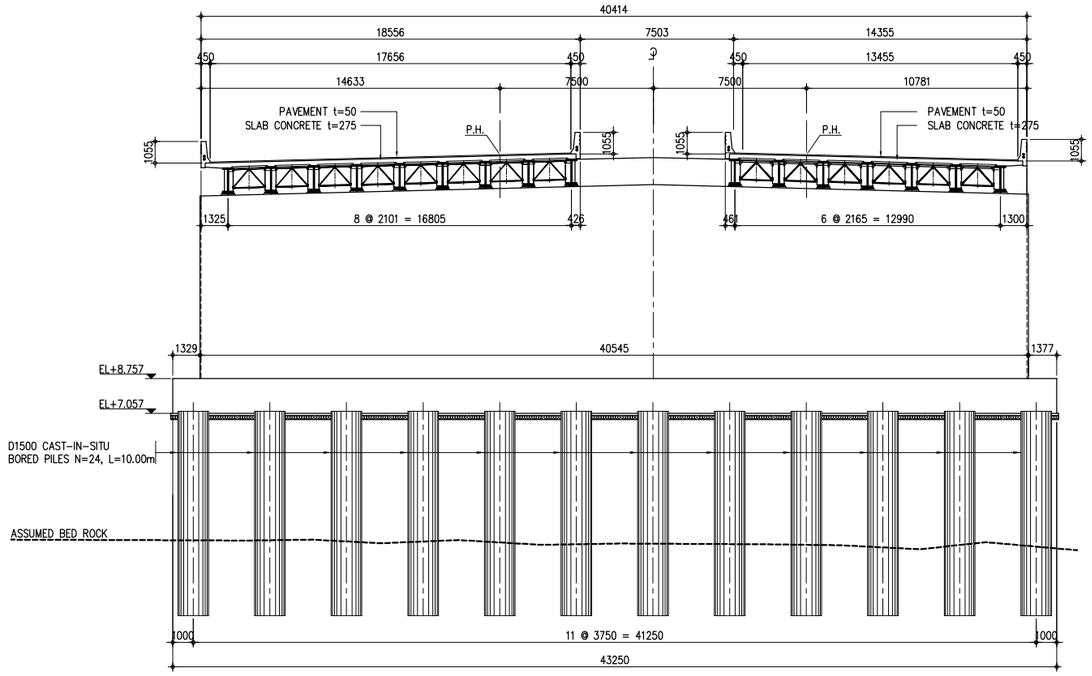
JAPAN INTERNATIONAL COOPERATION AGENCY
JAPAN
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL
ORICONSUL

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

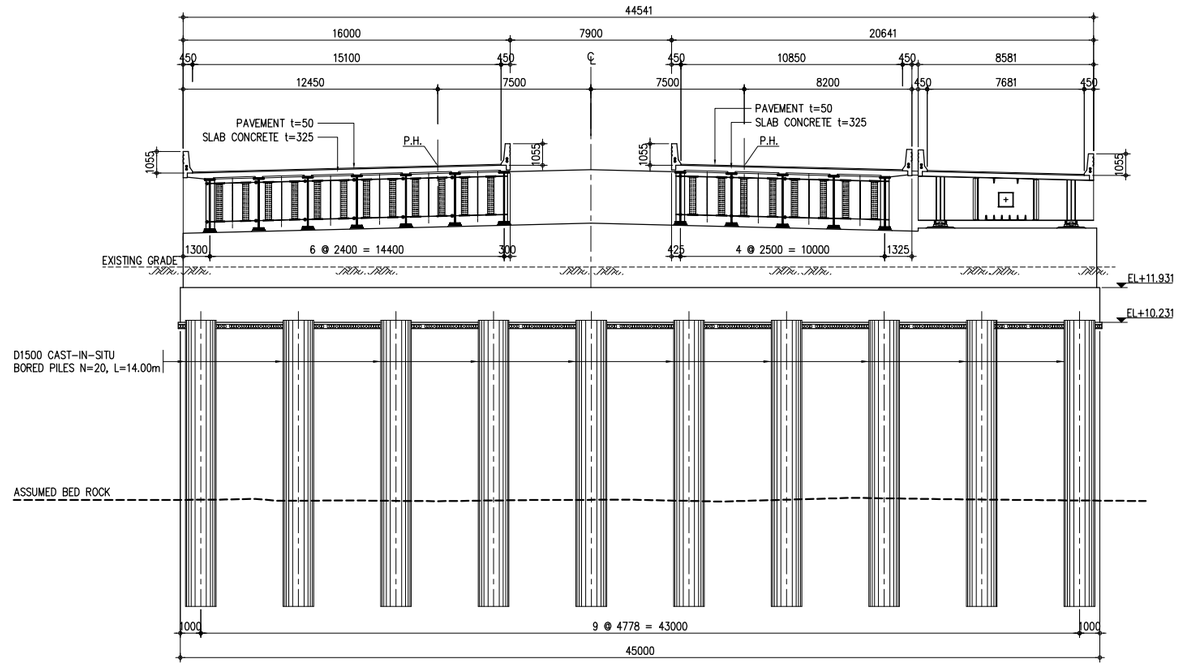
VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT
GENERAL VIEW (STA. 8+648.00 - STA. 8+970.00)

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K07-00-A



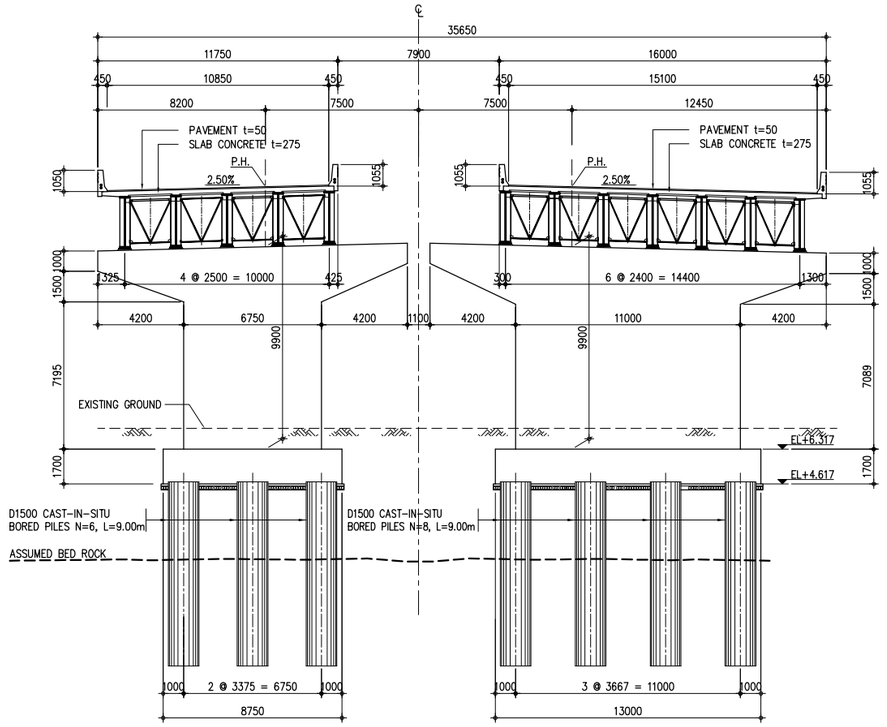
A — CROSS SECTION OF ABUTMENT A1

SCALE 1:150



B — CROSS SECTION OF ABUTMENT A2

SCALE 1:150



C — TYPICAL CROSS SECTION OF PIER

SCALE 1:150

TABLE FOR P.H	
PIER NO.	P.H
P1	19.441
P2	19.354
P3	19.156
P4	18.958
P5	18.751
P6	18.507
P7	18.220
ABUT-A1	19.516
ABUT-A2	17.888

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

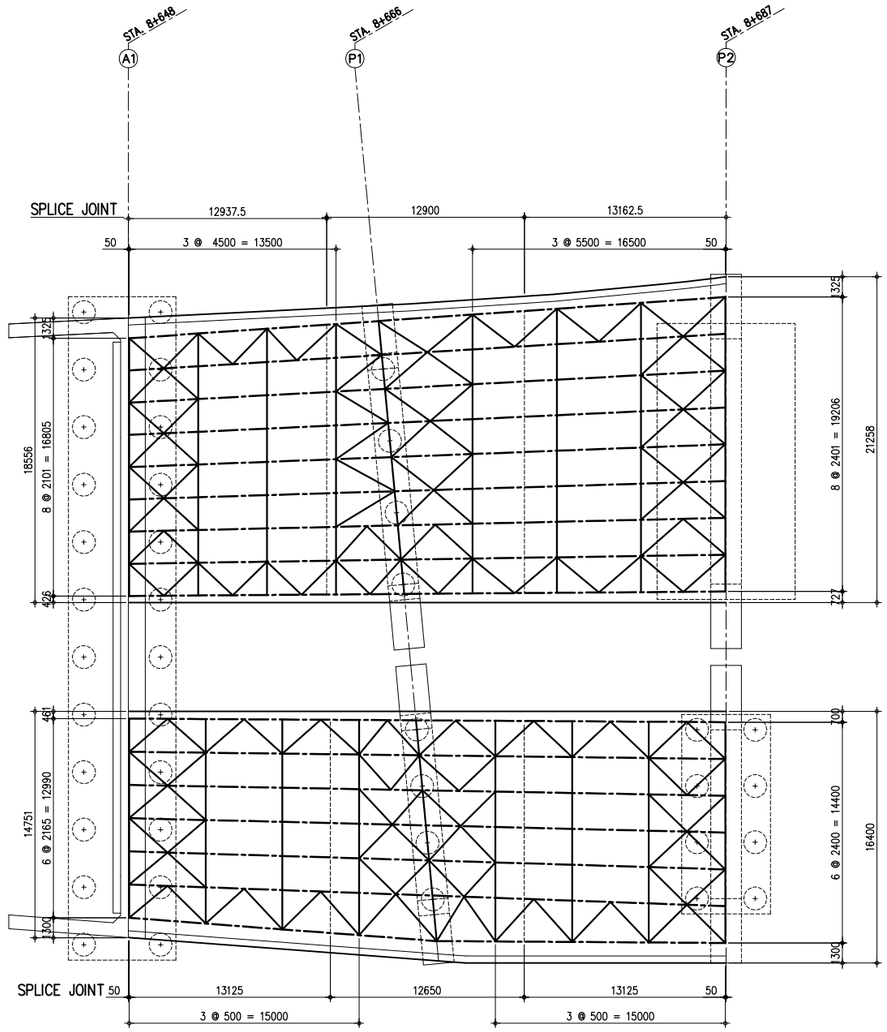
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT
TYPICAL CROSS SECTION OF PIER AND ABUTMENT

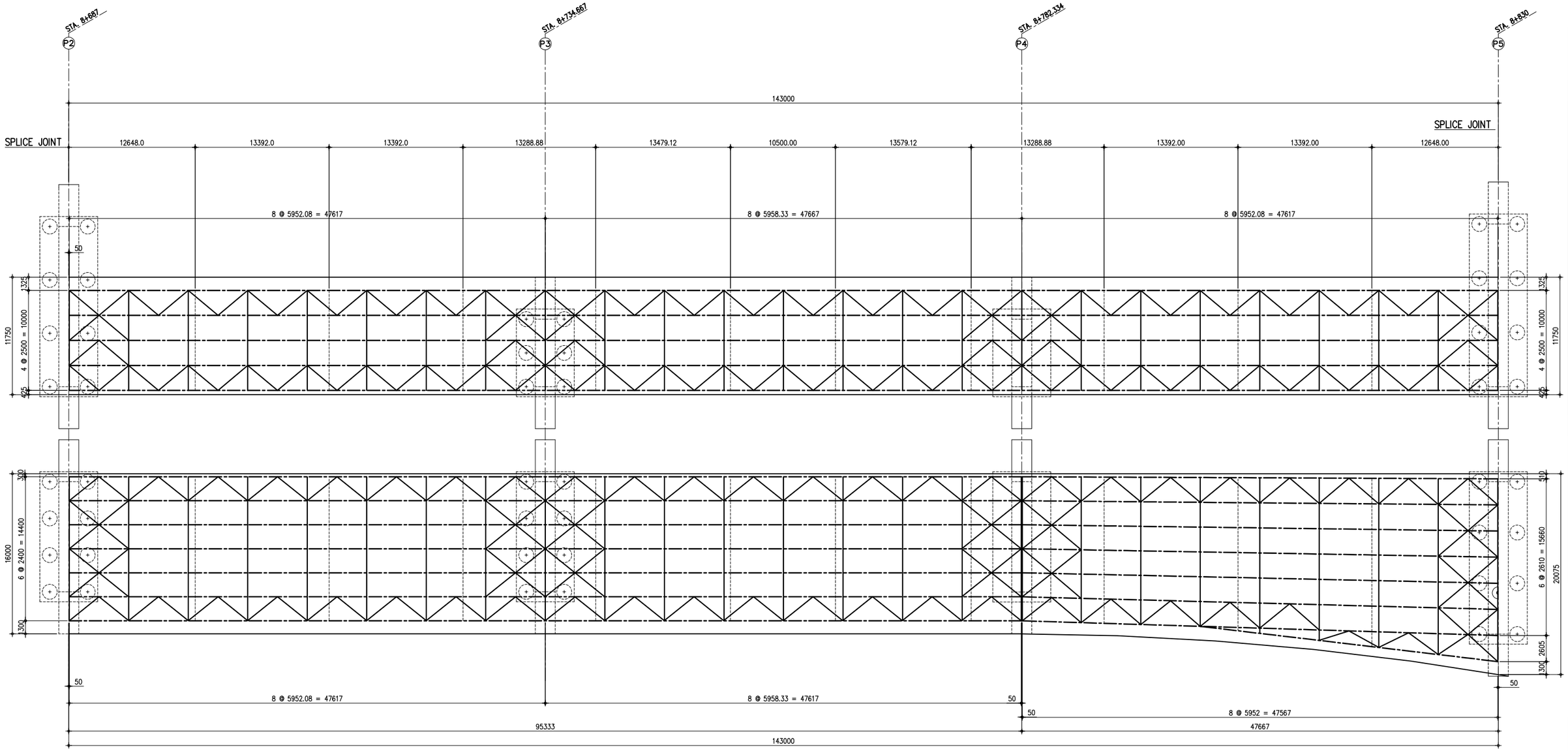
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K07-00-B



A — LAYOUT PLAN

SCALE 1: 200

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	No	REVISION	DATE	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)** VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT LAYOUT PLAN (A1 - P2)	DESIGNED BY: CHECKED BY: APPROVED BY: DWG. NO.	 K07-01



A – LAYOUT PLAN
SCALE 1:200

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

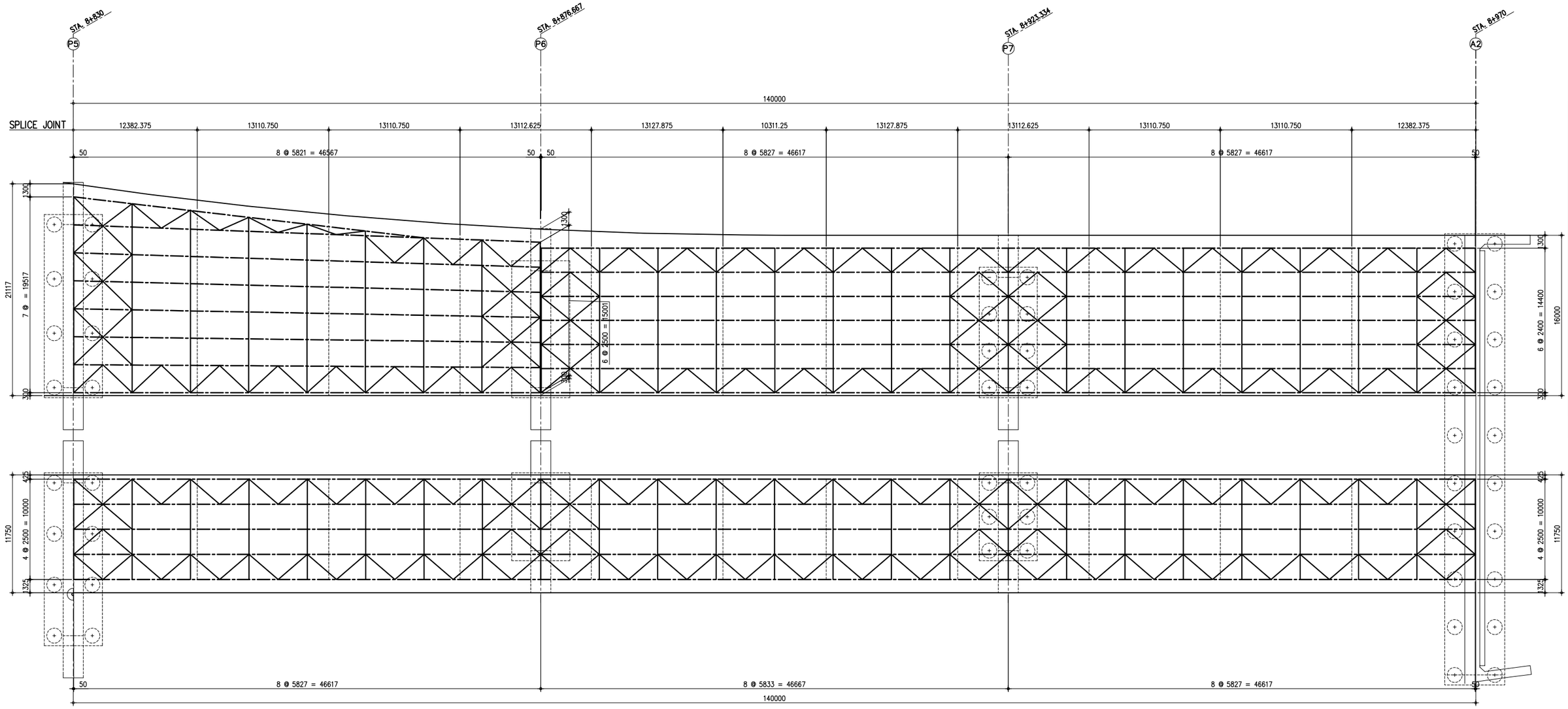
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT
LAYOUT PLAN (P2 - P5)

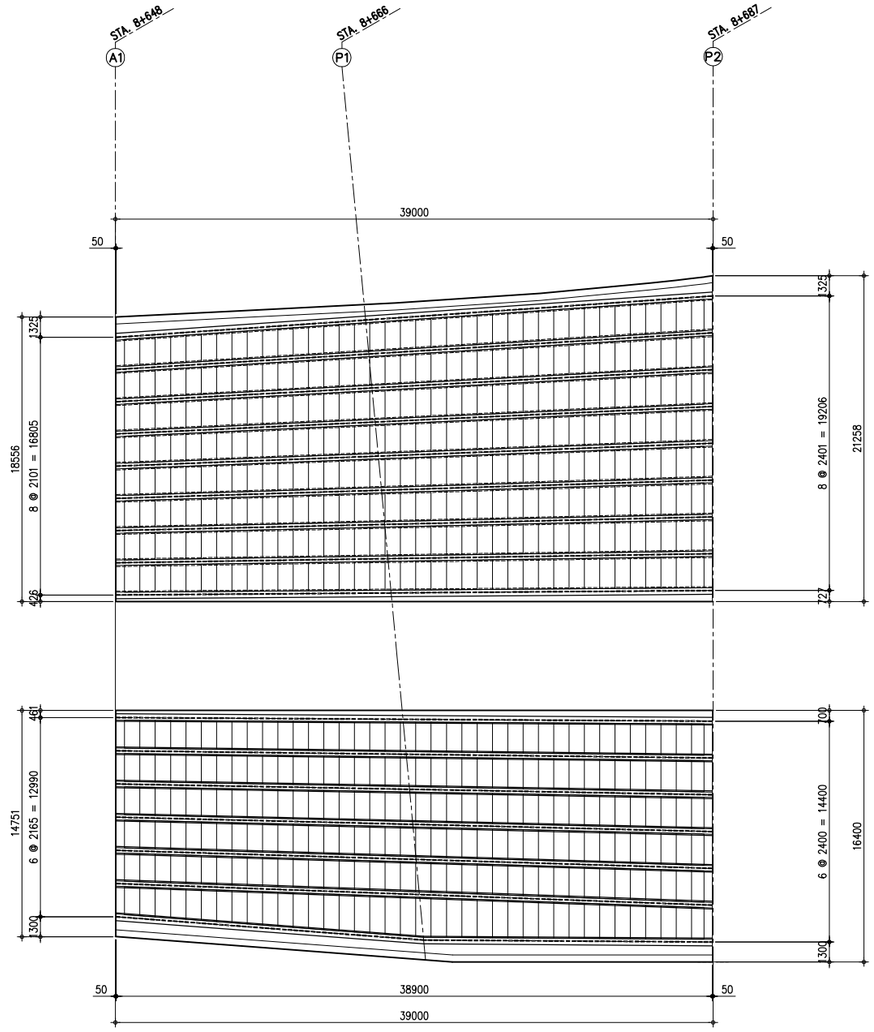
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K07-02



A – LAYOUT PLAN

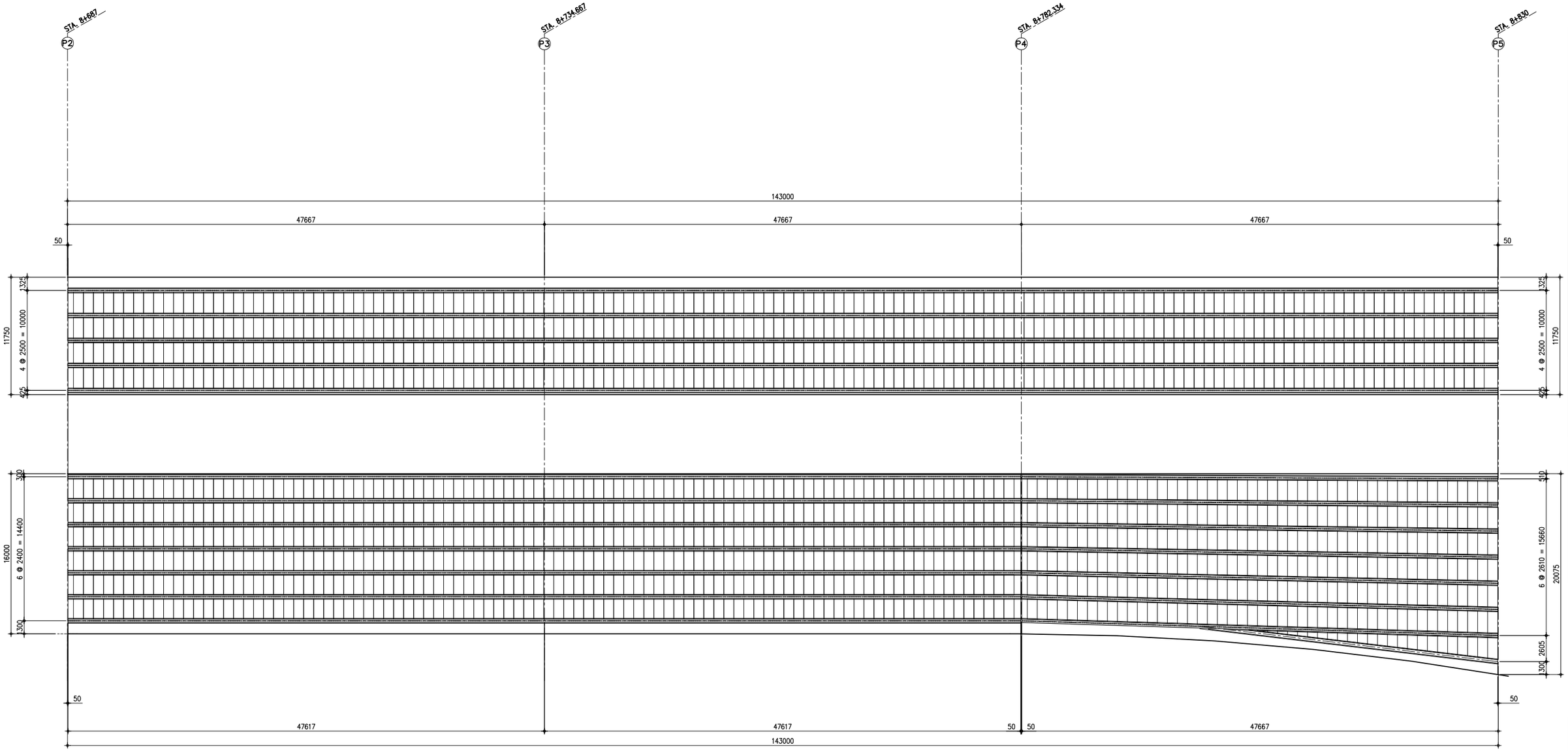
SCALE 1: 200

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** ***(NORTHERN SECTION 1)***
	No / REVISION / DATE	VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT LAYOUT PLAN (P5 - A2)
		DESIGNED BY: / CHECKED BY: / APPROVED BY:
		DWG. NO. K07-03



A – PRECAST PLATE LAYOUT
SCALE 1:200

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	No	REVISION	DATE	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)** VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT PRECAST PLATE LAYOUT (ABUTMENT A1 - PIER P2)	DESIGNED BY: CHECKED BY: APPROVED BY: DWG. NO. K07-04



A – PRECAST PLATE LAYOUT

SCALE 1: 200

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

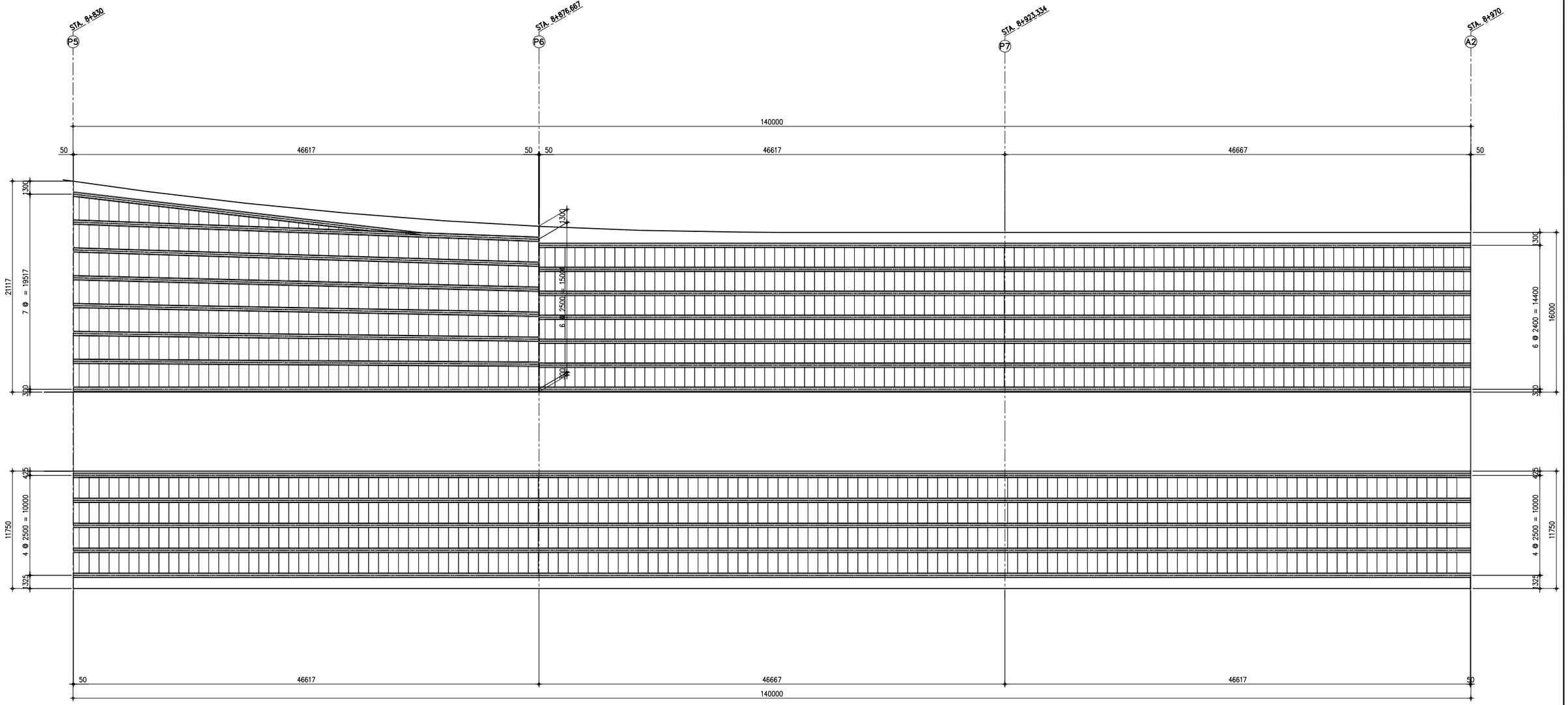
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT
PRECAST PLATE LAYOUT (PIER P2 - P5)

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K07-05



A PRECAST PLATE LAYOUT

SCALE 1: 200

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

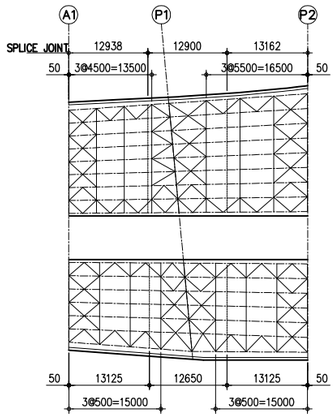
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

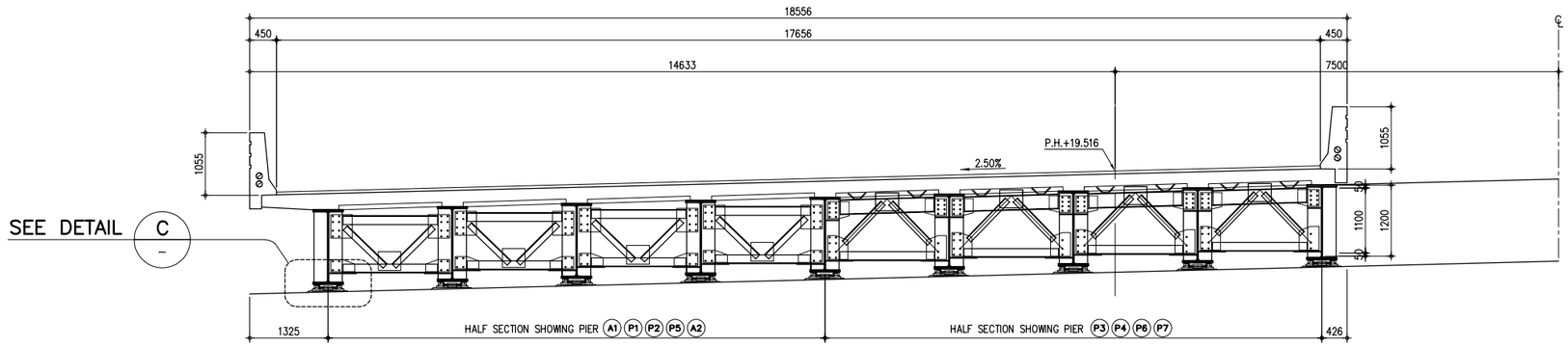
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT
PRECAST PLATE LAYOUT (PIER P5 - ABUTMENT A2)

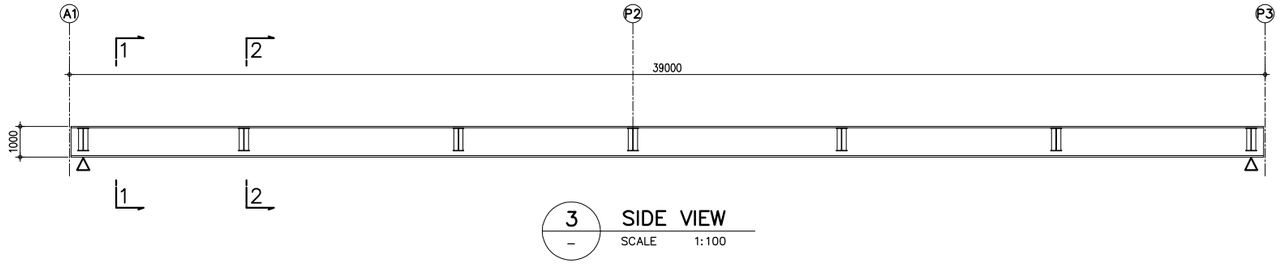
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K07-06



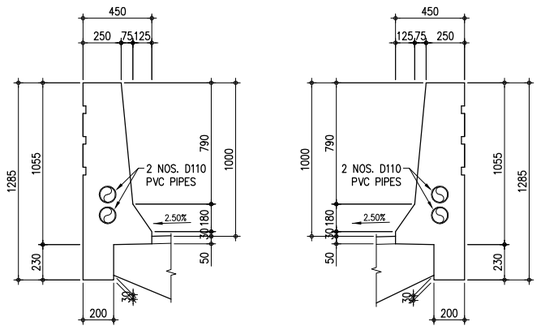
1 — PLAN
SCALE 1:500



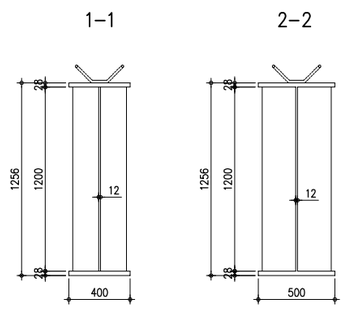
2 — CROSS SECTION (TYPICAL)
SCALE 1:50



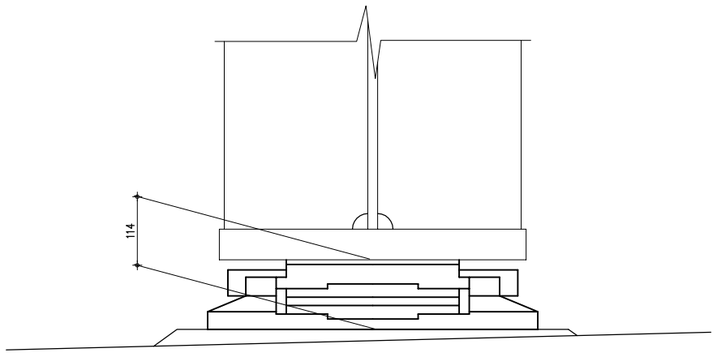
3 — SIDE VIEW
SCALE 1:100



A — DETAILS OF NEW JERSEY BARRIER
SCALE 1:20

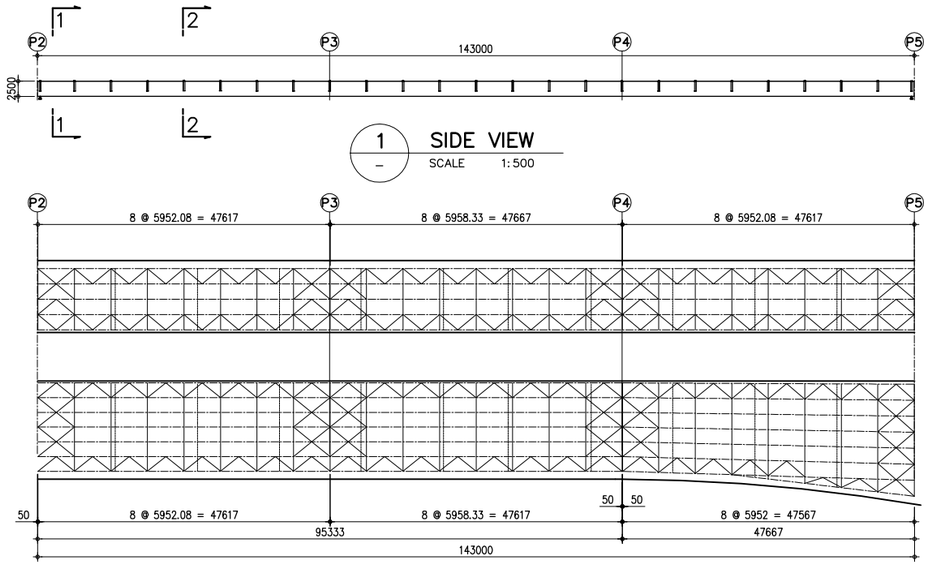


B — STEEL I–GIRDER CROSS SECTION
SCALE 1:20



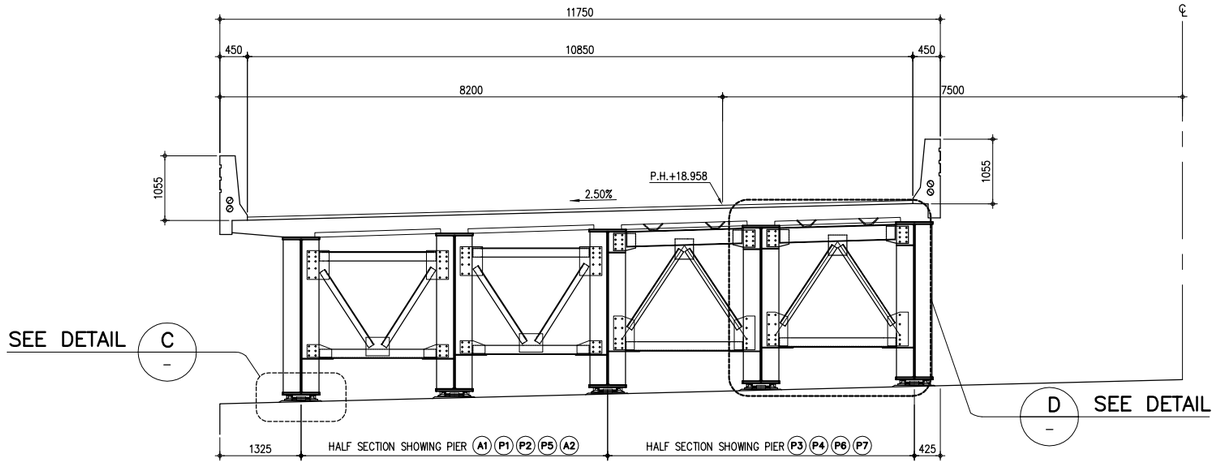
C — SPOT DETAIL
SCALE 1:5

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	No	REVISION	DATE	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)** VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT TYPICAL STEEL I-GIRDER LAYOUT & DIMENSION DETAIL (1/3)	DESIGNED BY: CHECKED BY: APPROVED BY: DWG. NO. K07-07

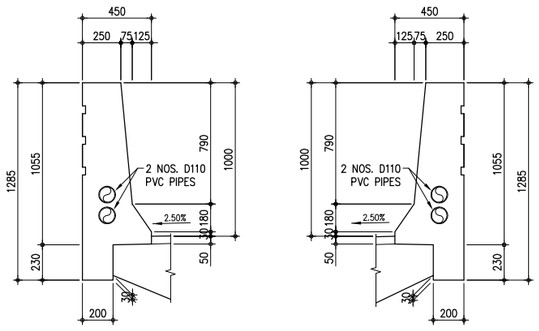


1 – SIDE VIEW
SCALE 1:500

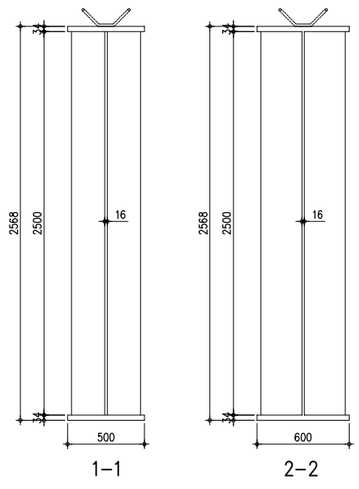
2 – P L A N
SCALE 1:500



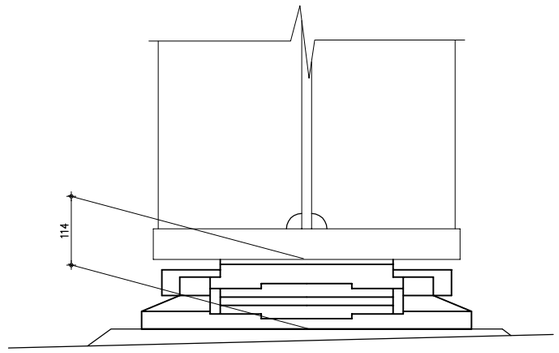
3 – CROSS SECTION (TYPICAL)
SCALE 1:50



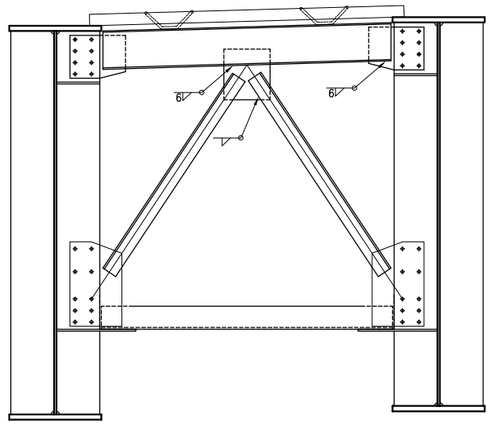
A – DETAILS OF NEW JERSEY BARRIER
SCALE 1:20



B – STEEL I–GIRDER CROSS SECTION
SCALE 1:20



C – SPOT DETAIL
SCALE 1:5



D – SPOT DETAIL
SCALE 1:5

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

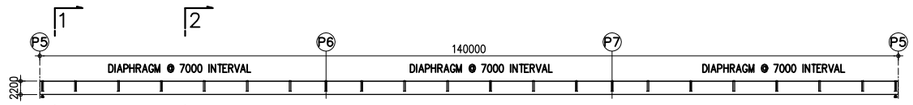
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

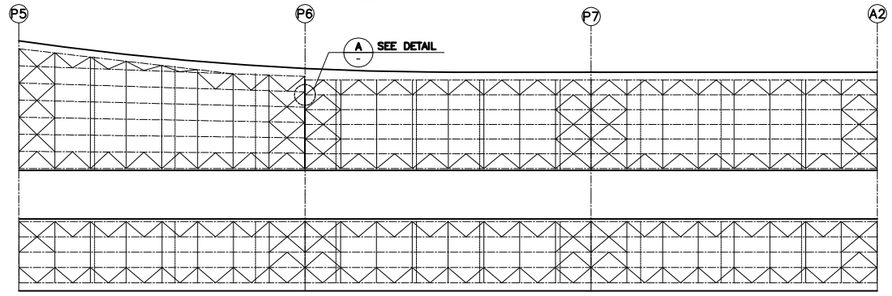
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT
TYPICAL STEEL I-GIRDER LAYOUT & DIMENSION DETAIL (2/3)

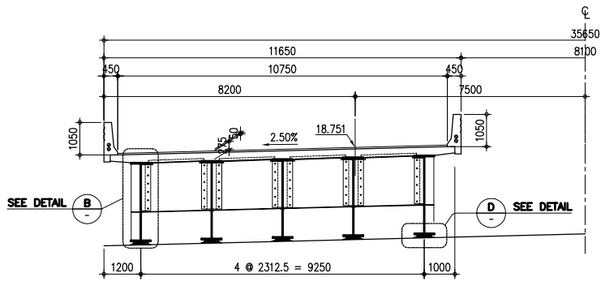
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K07-08



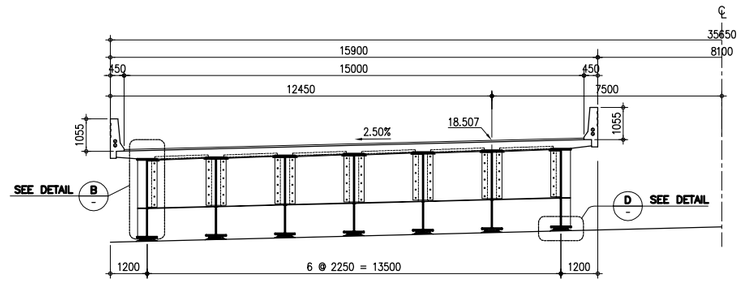
1 SIDE VIEW
SCALE 1:500



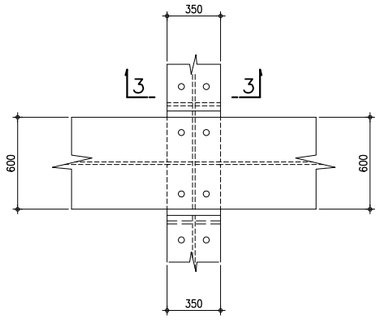
2 TYPICAL PLAN
SCALE 1:500



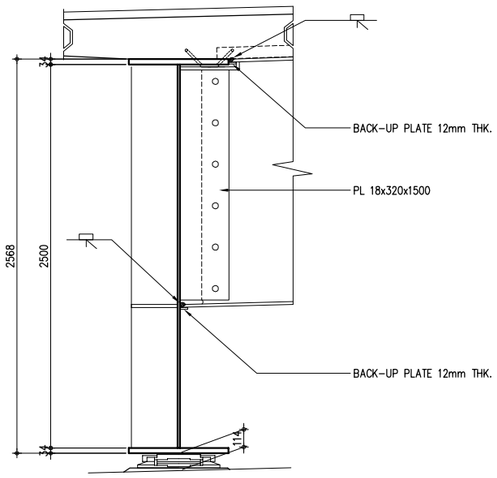
3 SECTION @ INTERMEDIATE DIAPHRAGM
SCALE 1:100



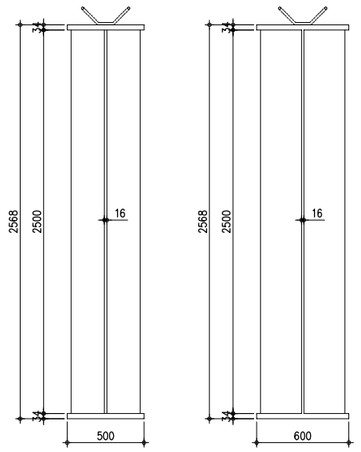
3 SECTION @ INTERMEDIATE DIAPHRAGM
SCALE 1:100



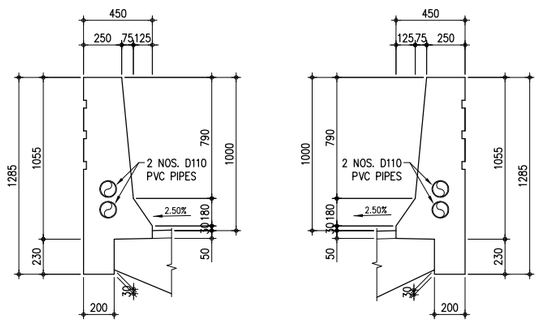
A DETAIL A
SCALE 1:20



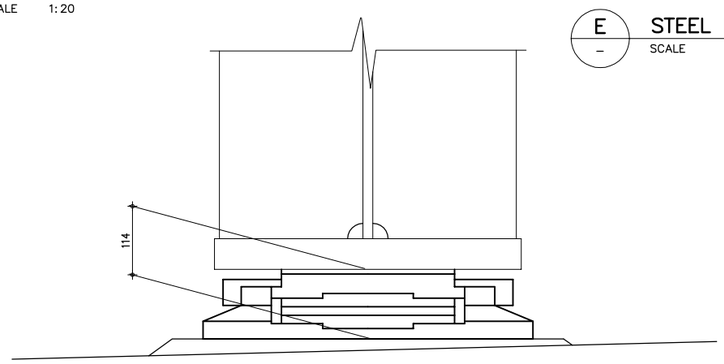
B DETAIL B
SCALE 1:20



E STEEL I–GIRDER CROSS SECTION
SCALE 1:20



C DETAILS OF NEW JERSEY BARRIER
SCALE 1:20

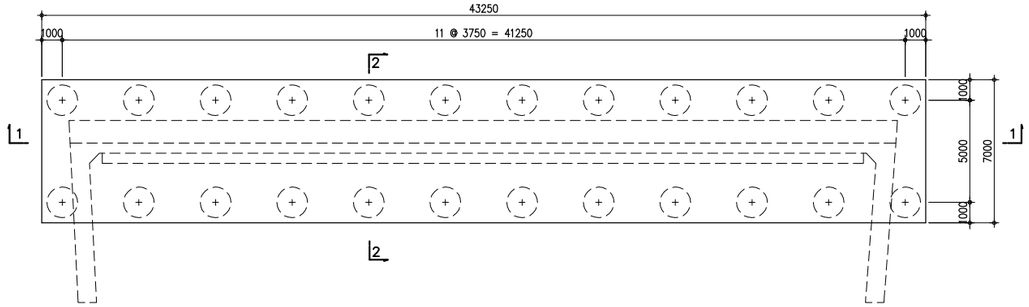


D SPOT DETAIL
SCALE 1:5

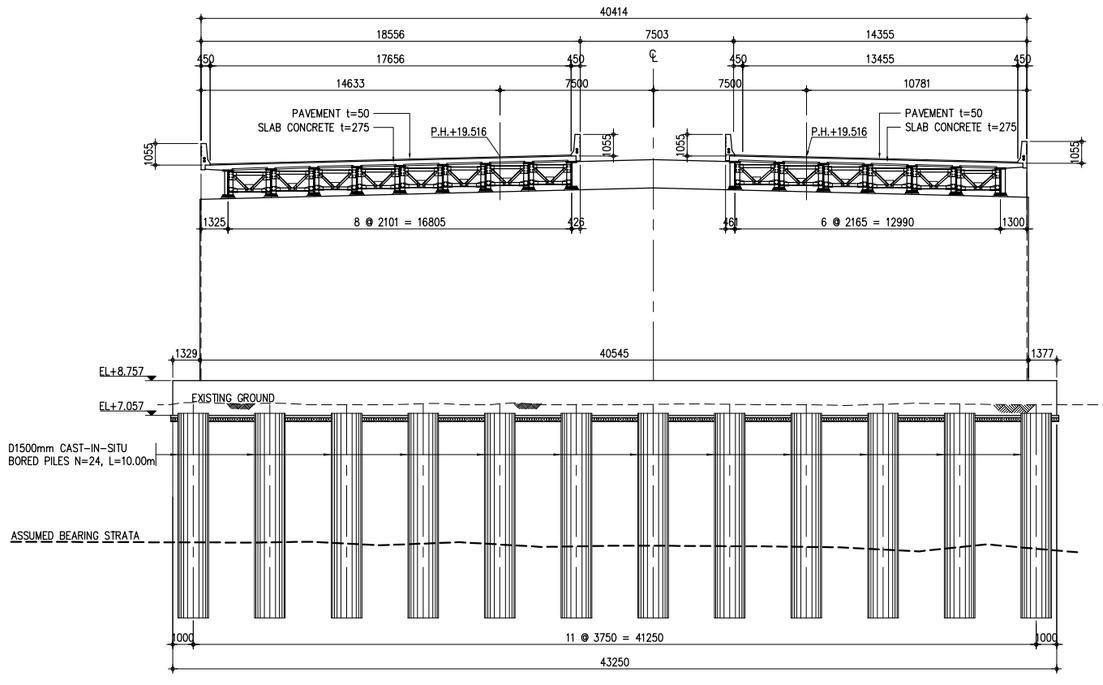
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)** VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT TYPICAL STEEL I-GIRDER LAYOUT & DIMENSION DETAIL (3/3)

No	REVISION	DATE

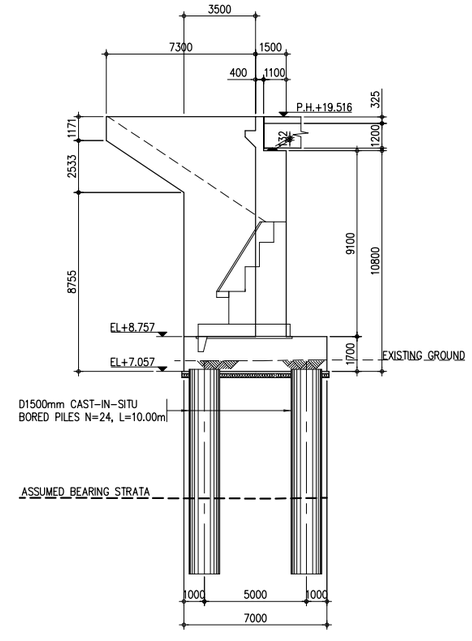
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K07-09



A – PLAN OF ABUTMENT – A1
SCALE 1:150



B – SECTION 1–1
SCALE 1:150



C – SECTION 2–2
SCALE 1:150

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

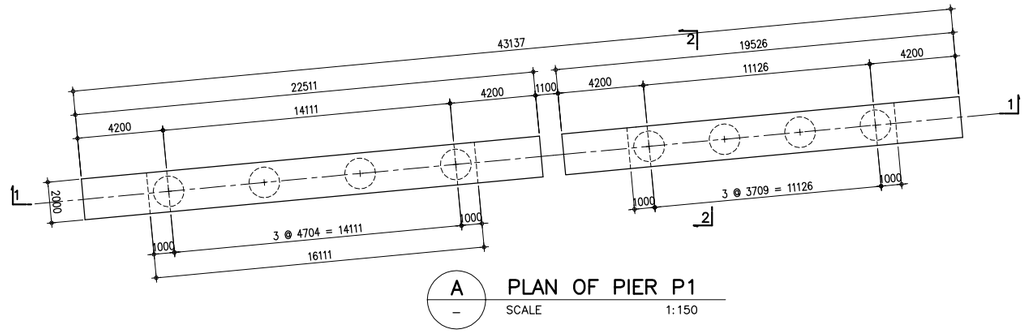
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

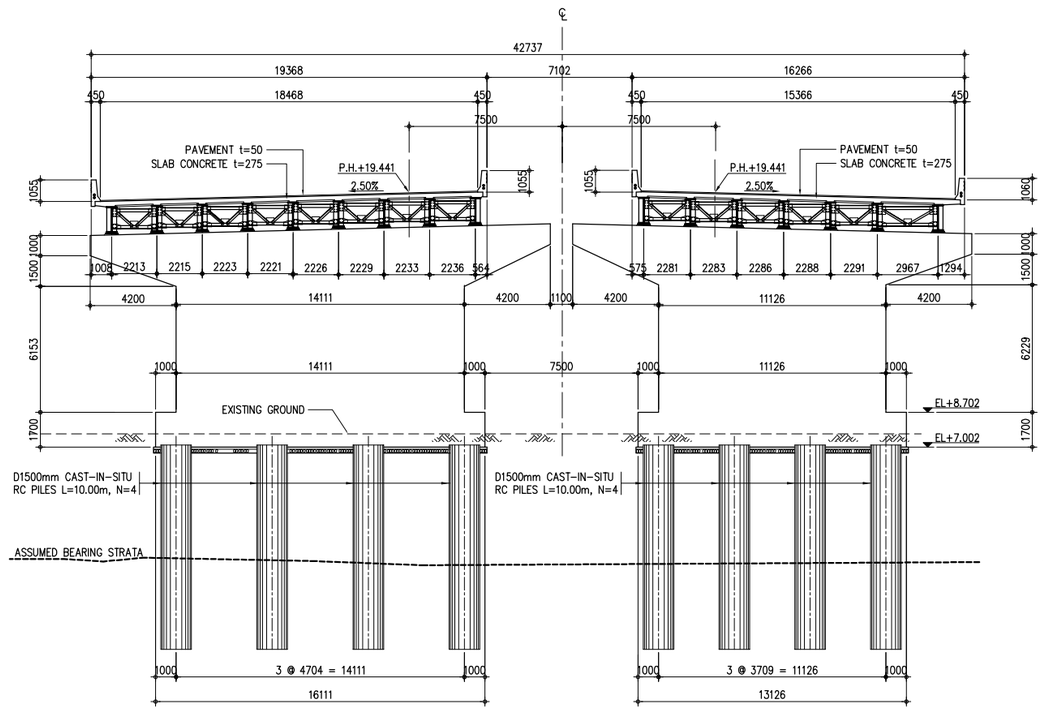
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT
DIMENSION DETAIL FOR ABUTMENT - A1

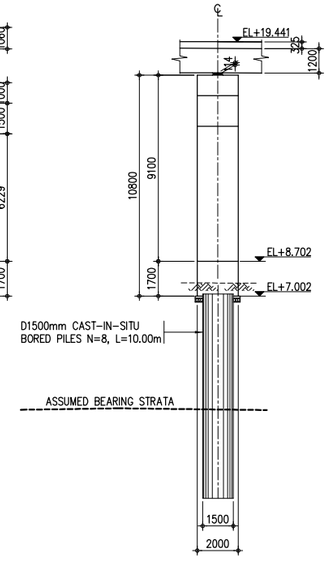
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K07-10



A — PLAN OF PIER P1
SCALE 1:150



B — SECTION 1–1
SCALE 1:150



C — SECTION 2–2
SCALE 1:150

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

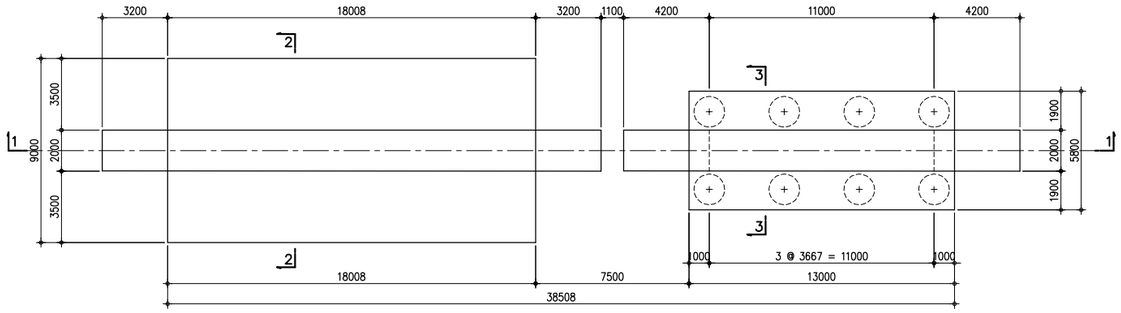
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

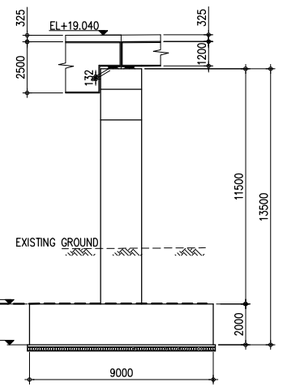
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT
DIMENSION DETAIL FOR PIER-P1

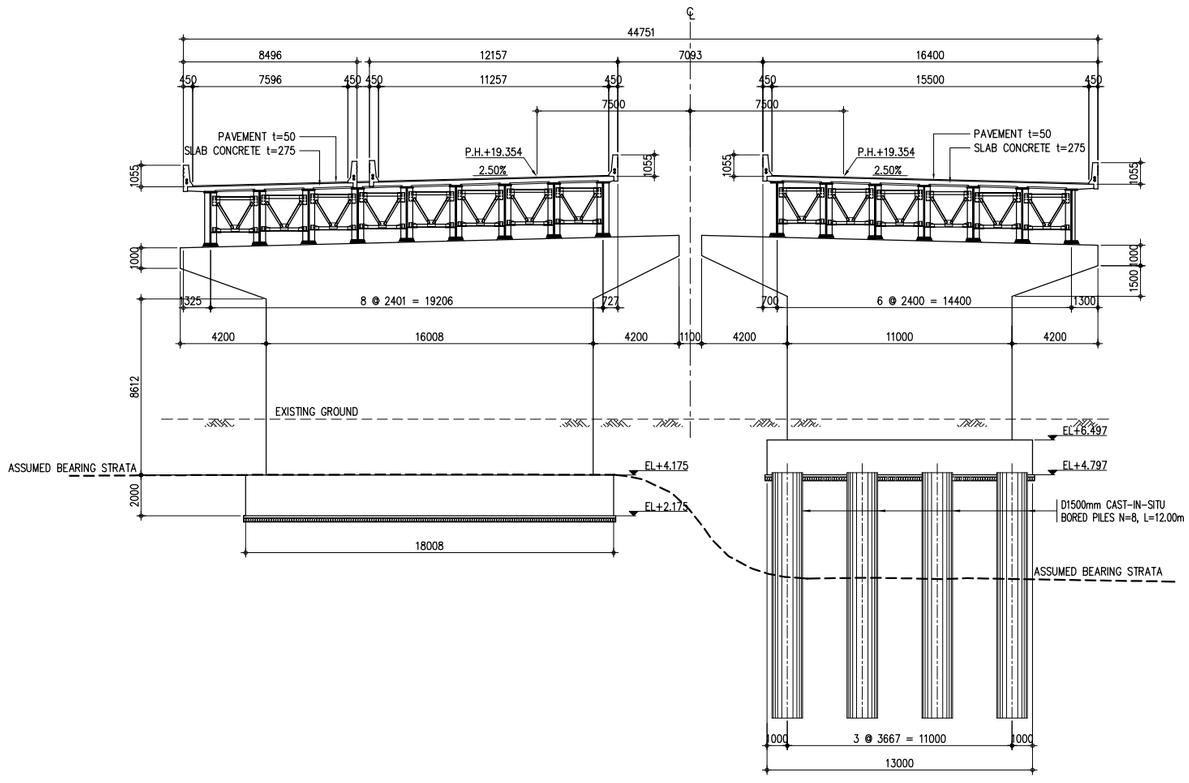
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K07-11



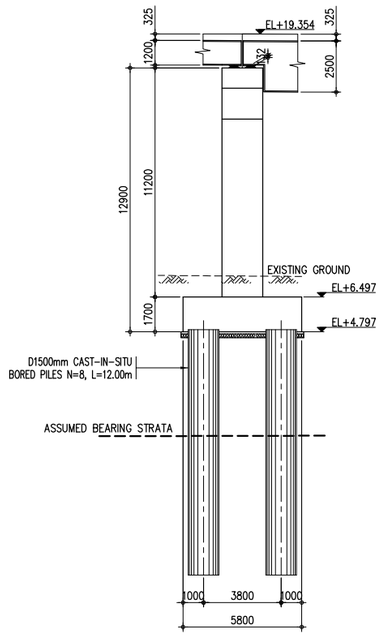
A — PLAN OF PIER P2
SCALE 1:150



C — SECTION 2–2
SCALE 1:150



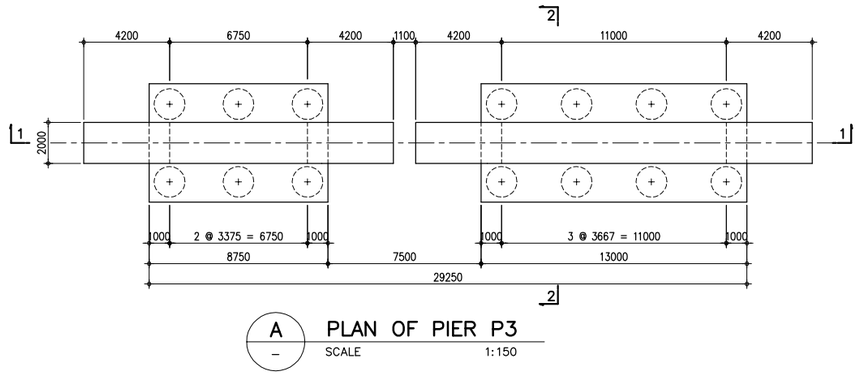
B — SECTION 1–1
SCALE 1:150



D — SECTION 3–3
SCALE 1:150

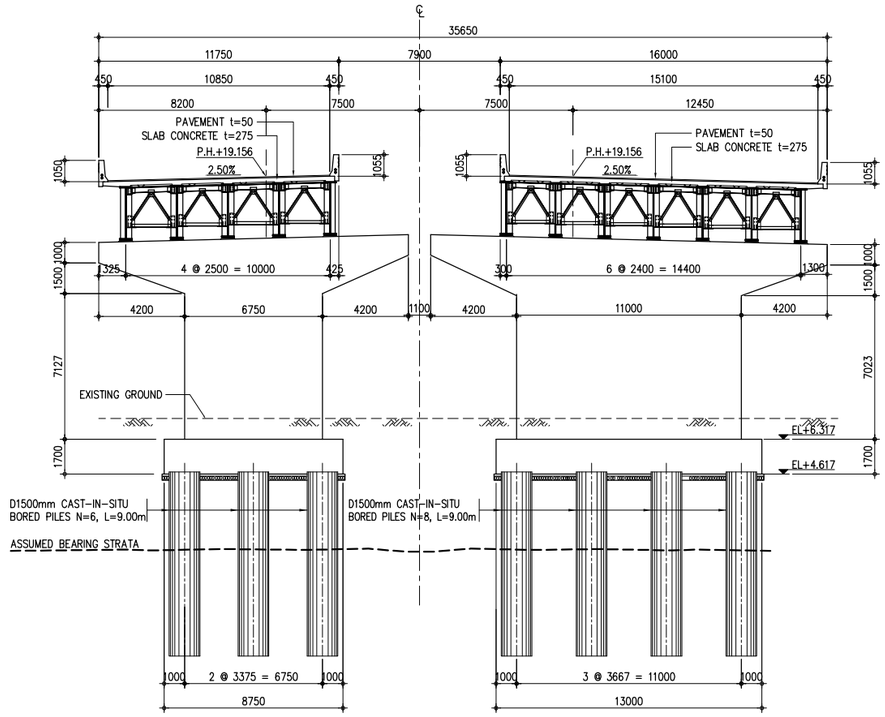
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** *(NORTHERN SECTION 1)*	DESIGNED BY:
		VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT DIMENSION DETAIL FOR PIER-P2	CHECKED BY:
			APPROVED BY:
			DWG. NO. K07-12

No	REVISION	DATE



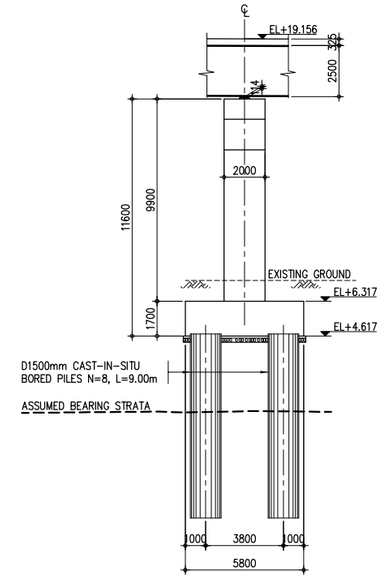
A — PLAN OF PIER P3

SCALE 1:150



B — SECTION 1–1

SCALE 1:150



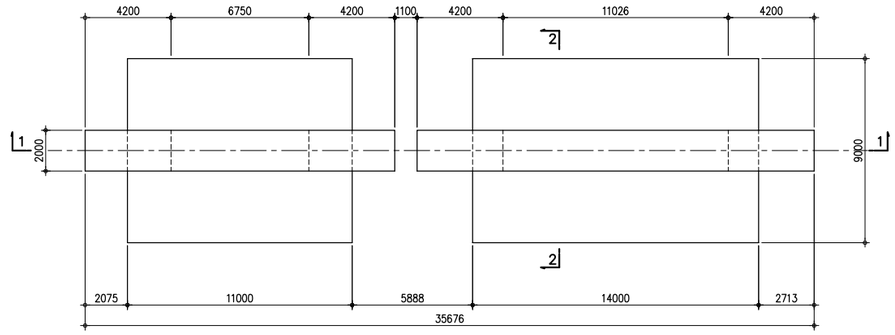
C — SECTION 2–2

SCALE 1:150

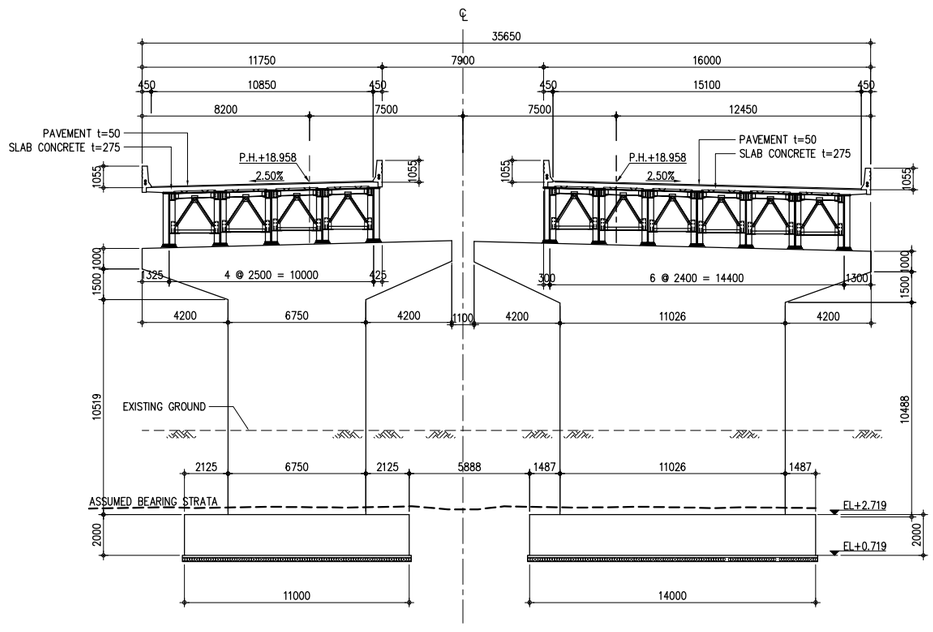
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	COLOMBO OUTER CIRCULAR HIGHWAY PROJECT (NORTHERN SECTION 1) VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT DIMENSION DETAIL FOR PIER-P3

No	REVISION	DATE

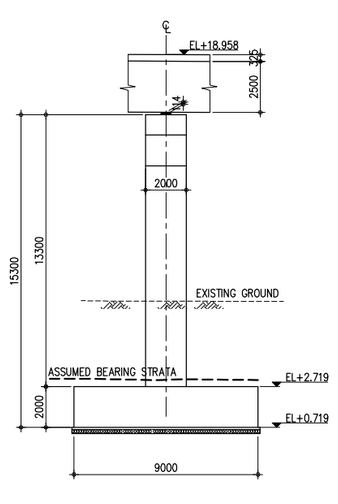
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K07-13



A — PLAN OF PIER P4
SCALE 1:150

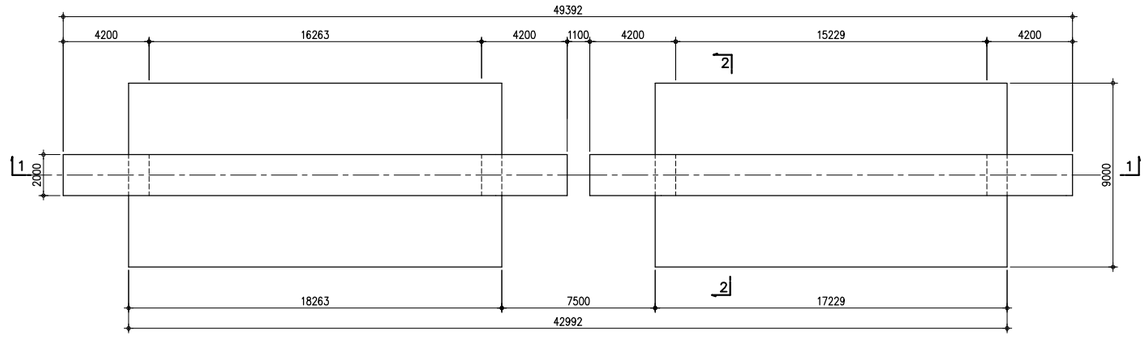


B — SECTION 1–1
SCALE 1:150



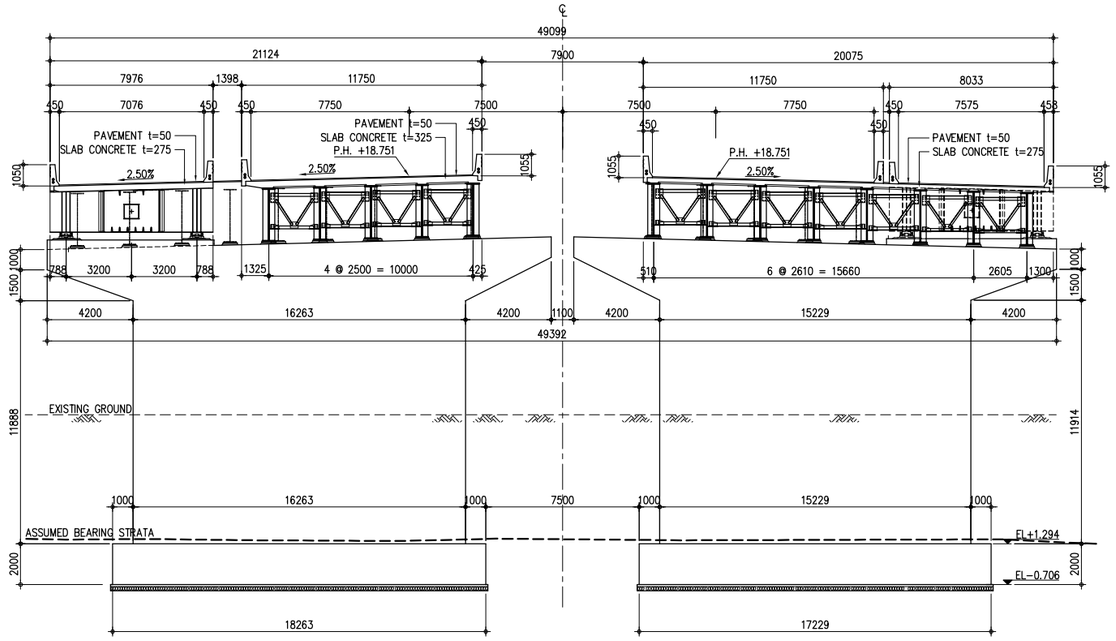
C — SECTION 2–2
SCALE 1:150

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)**
	No / REVISION / DATE	VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT DIMENSION DETAIL FOR PIER-P4
		DESIGNED BY: / CHECKED BY: / APPROVED BY: / DWG. NO. K07-14



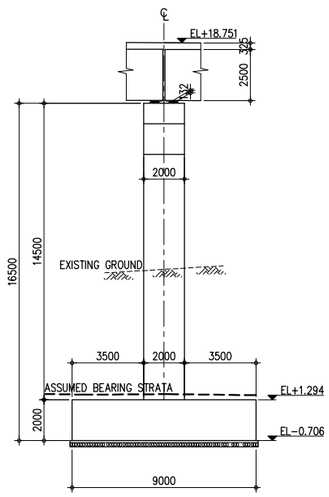
A — PLAN OF PIER P5

SCALE 1:150



B — SECTION 1–1

SCALE 1:150



C — SECTION 2–2

SCALE 1:150

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

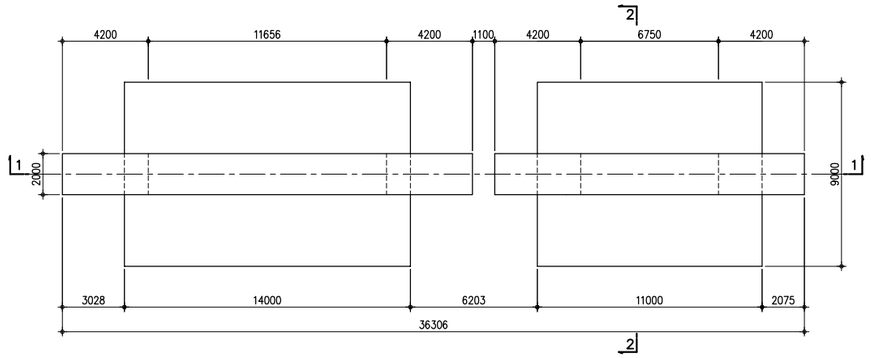
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

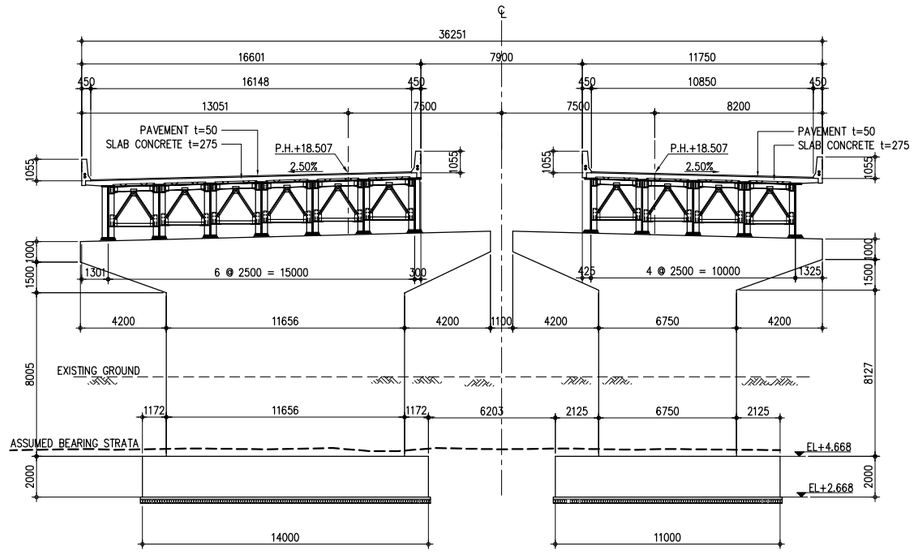
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT
DIMENSION DETAIL FOR PIER-P5

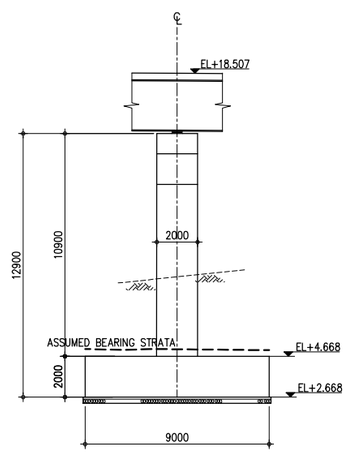
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K07-15



A — PLAN OF PIER P6
SCALE 1:150



B — SECTION 1–1
SCALE 1:150



C — SECTION 2–2
SCALE 1:150

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

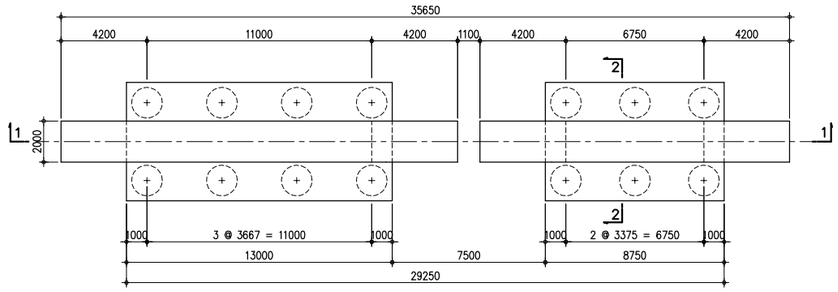
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

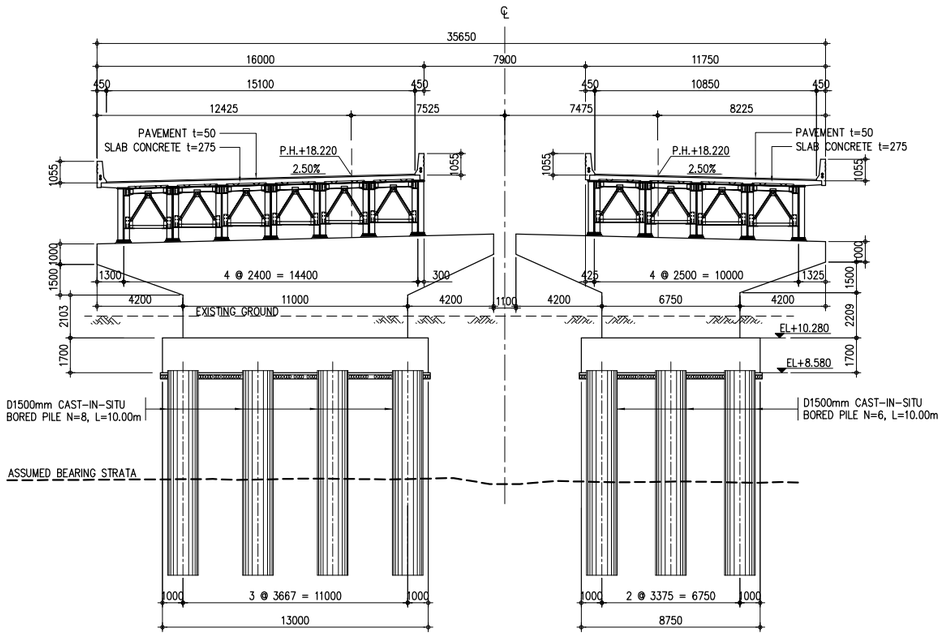
VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT
DIMENSION DETAIL FOR PIER-P6

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K07-16



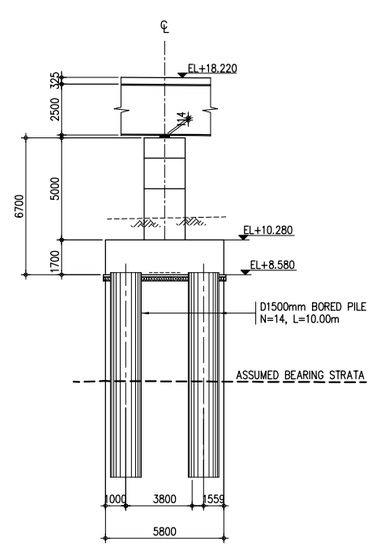
A — PLAN OF PIER P7

SCALE 1:150



B — SECTION 1–1

SCALE 1:150



C — SECTION 2–2

SCALE 1:150

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

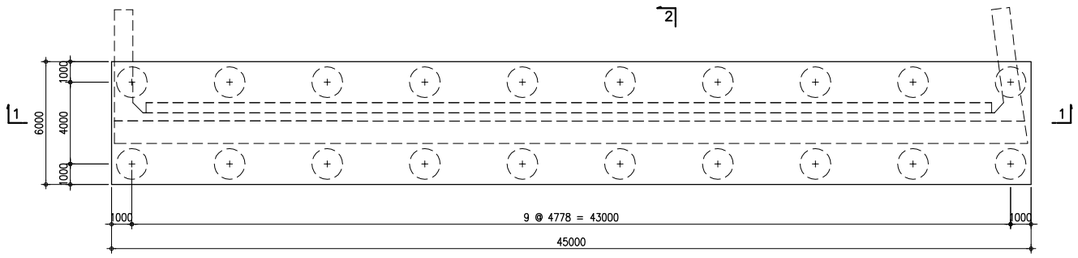
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

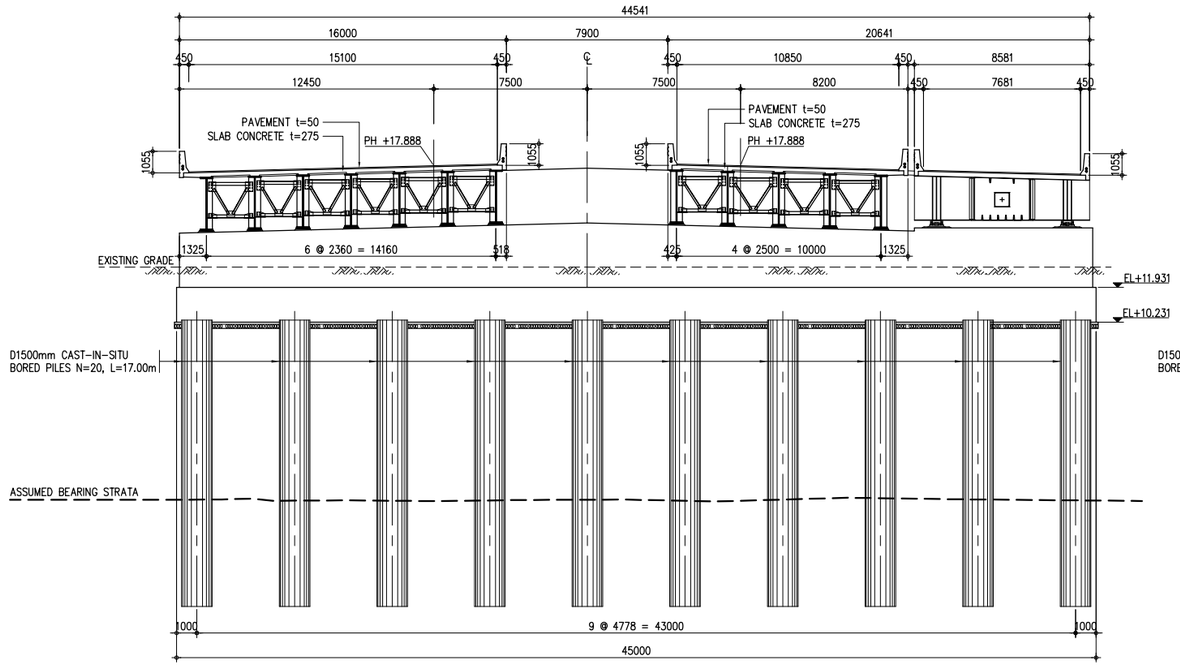
VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT
DIMENSION DETAIL FOR PIER-P7

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K07-17



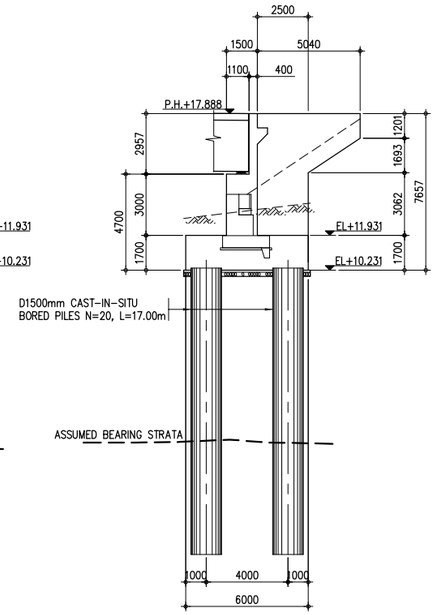
A — PLAN OF ABUTMENT – A2

SCALE 1:150



B — SECTION 1–1

SCALE 1:150



C — SECTION 2–2

SCALE 1:150

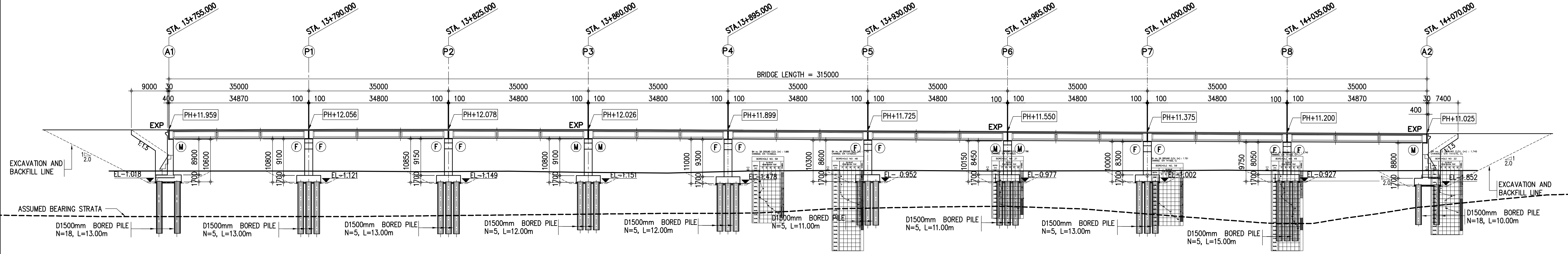
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JICA JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)**
	No / REVISION / DATE	VIADUCT NO.1 (V1) A1 INTERCHANGE VIADUCT DIMENSION DETAIL FOR ABUTMENT - A2
		DESIGNED BY: / CHECKED BY: / APPROVED BY: / DWG. NO. K07-18

K08 VIADUCT NO.2(V2)-THE 1ST BIYAGAMA VIADUCT

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT

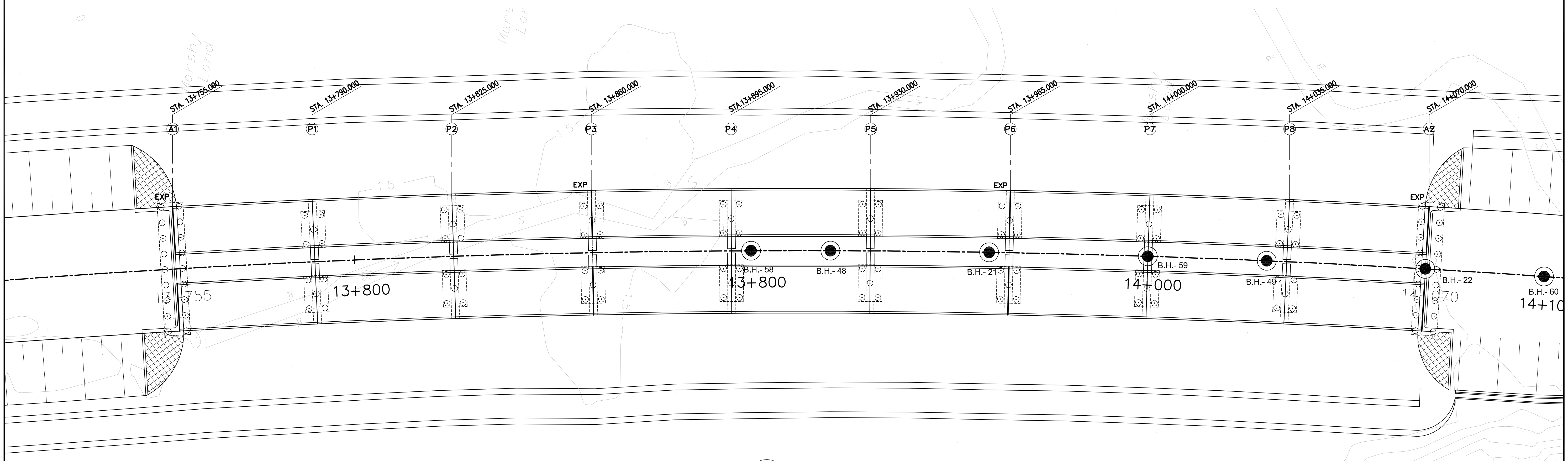
VIADUCT NO.2 (V2) - THE 1ST BIYAGAMA VIADUCT

(GENERAL VIEW - (STA. 13+755.00 - STA. 14+070.00))



2 – PROFILE
SCALE 1:500

STATION (km)	13760	13780	13800	13820	13840	13860	13880	13900	13920	13940	13960	13980	14000	14020	14040	14060	14080
GRADE																	
FINISHED ROAD LEVELS	11.977	12.036	12.070	12.080	12.065	12.026	11.963	11.875	11.775	11.675	11.575	11.475	11.375	11.275	11.175	11.075	10.975
EXISTING GROUND LEVELS	1.665	1.683	1.614	1.501	1.641	1.353	1.164	1.690	1.783	1.789	1.666	1.733	1.752	1.863	1.663	1.736	1.818
CURVE BAND	R=2700 L=1849.755 m.																
SUPERELEVATION	+2.5 % / −2.5 %																



1 – PLAN
SCALE 1:500

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

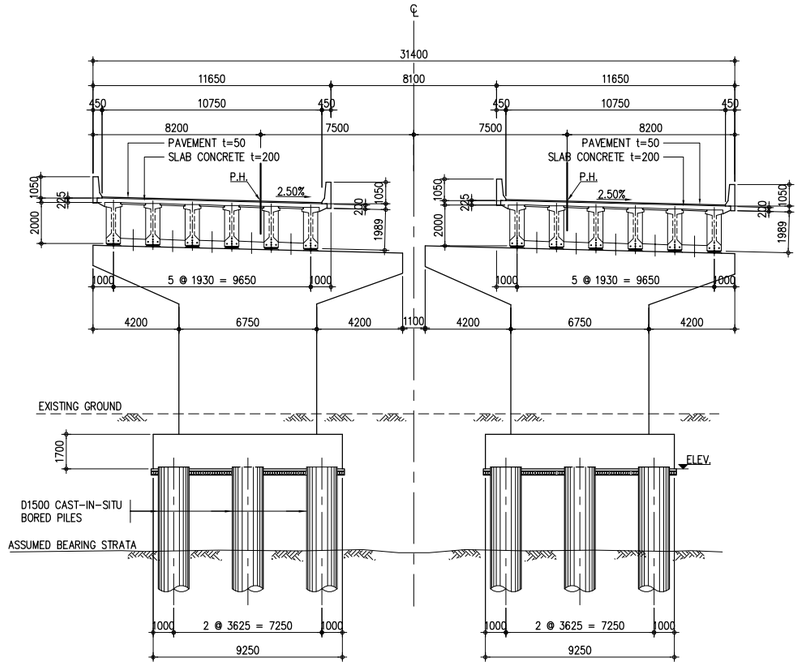
JICA JAPAN INTERNATIONAL COOPERATION AGENCY
JAPAN
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL
ORICONSUL

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

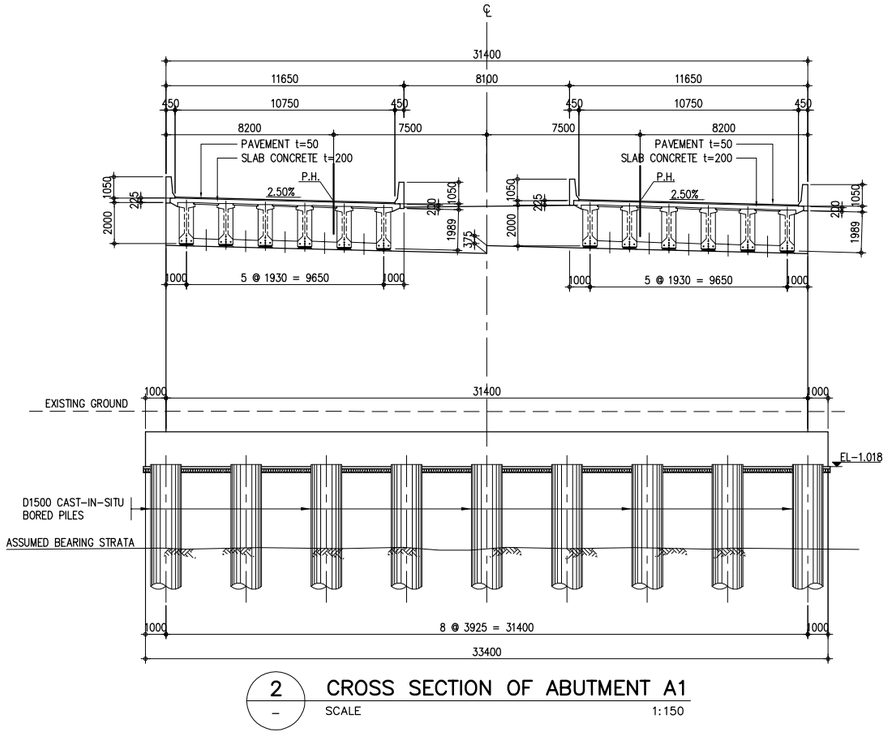
VIADUCT NO.2 (V2) - THE 1ST BIYAGAMA VIADUCT
GENERAL VIEW - (STA. 13+755.00 - STA. 14+070.00)

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K08-00-A



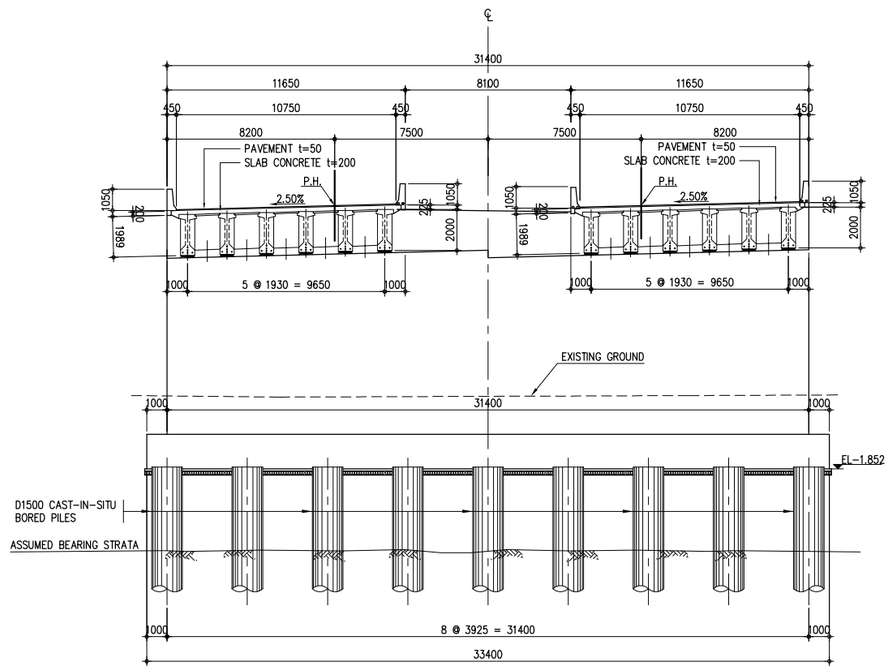
1 — TYPICAL CROSS SECTION OF PIER 1–8

SCALE 1:150



2 — CROSS SECTION OF ABUTMENT A1

SCALE 1:150



3 — CROSS SECTION OF ABUTMENT A2

SCALE 1:150

TABLE FOR P.H.	
PIER NO.	P.H.
P–01	12.056
P–02	12.078
P–03	12.026
P–04	11.899
P–05	11.919
P–06	11.550
P–07	11.375
P–08	11.200
ABUT–A1	11.959
ABUT–A2	11.025

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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Road Development Authority

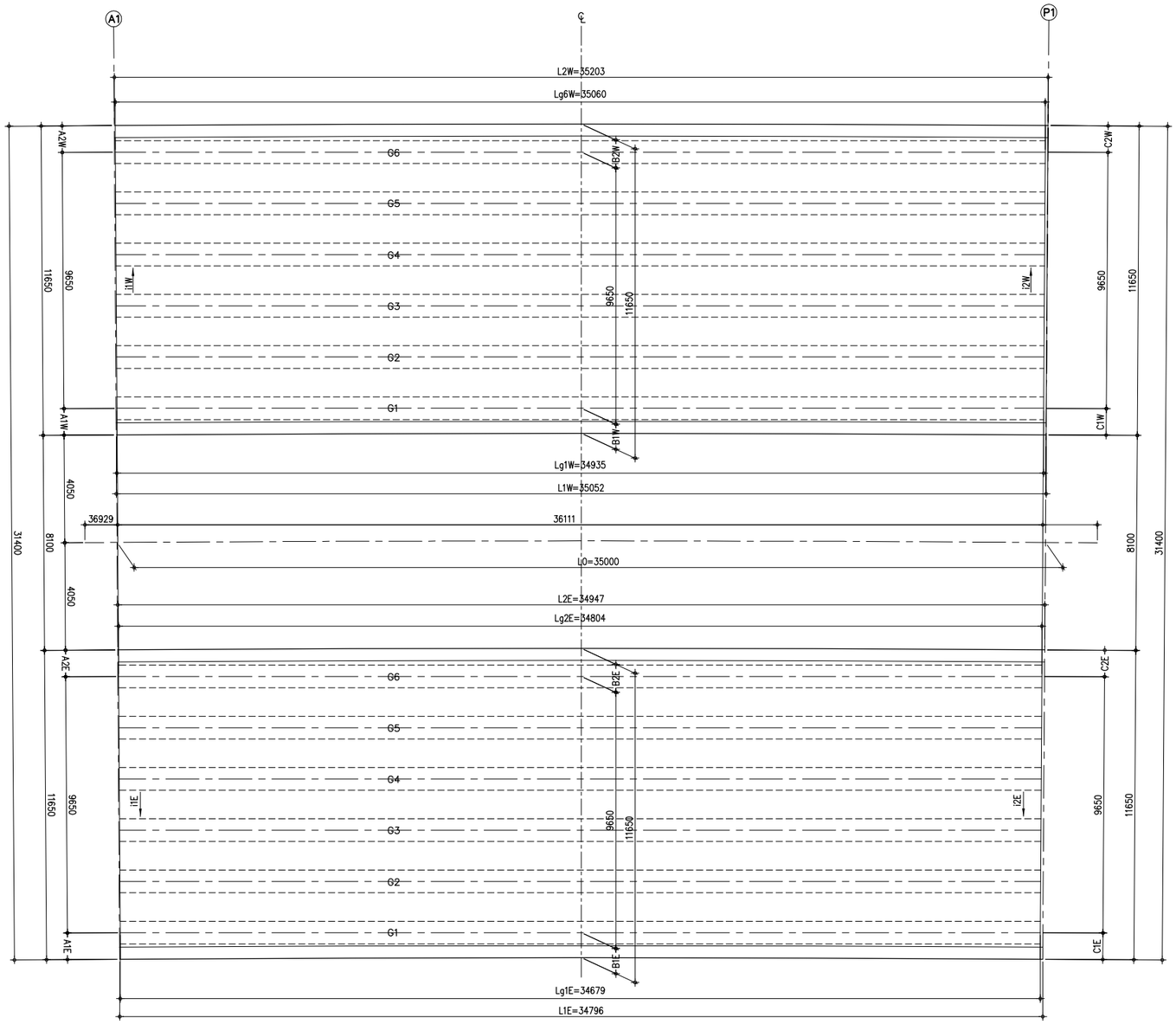
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO. 2 (V2) - THE 1ST BIYAGAMA VIADUCT
TYPICAL CROSS SECTION OF PIER AND ABUTMENT

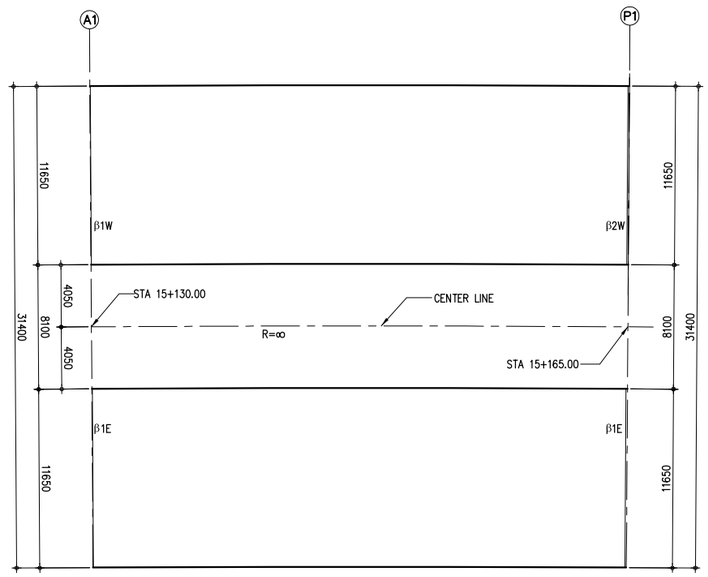
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K08-00-B



1 LAYOUT PLAN
SCALE 1:100

	WEST BOUND
	A1~P1
Lo (m)	35.000
L1W (m)	35.052
L2W (m)	35.203
θ1W (°)	0°0'0"
θ2W (°)	0°0'0"
e1W/e2W (mm)	30/100
i1W (%)	2.5
i2W (%)	2.5
A1W/A2W (mm)	1000/1000
B1W/B2W(mm)	943/1057
C1W/C2W (mm)	999/1001
Lg1W (m)	34.935
Lg2W (m)	34.960
Lg3W (m)	34.985
Lg4W (m)	35.010
Lg5W (m)	35.035
Lg6W (m)	35.060
SPAN LENGTH (m)	L=35.000
REMARKS	

	EAST BOUND
	A1~P1
Lo (m)	35.000
L1E (m)	34.796
L2E (m)	34.947
θ1E (°)	0°0'0"
θ2E (°)	0°0'0"
e1E/e2E (mm)	30/100
i1E (%)	2.5
i2E (%)	2.5
A1E/A2E (mm)	1000/1000
B1E/B2E (mm)	944/1057
C1E/C2E (mm)	999/1001
Lg1E (m)	34.679
Lg2E (m)	34.704
Lg3E (m)	34.729
Lg4E (m)	34.754
Lg5E (m)	34.779
Lg6E (m)	34.804
SPAN LENGTH (m)	L=35.000
REMARKS	



THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

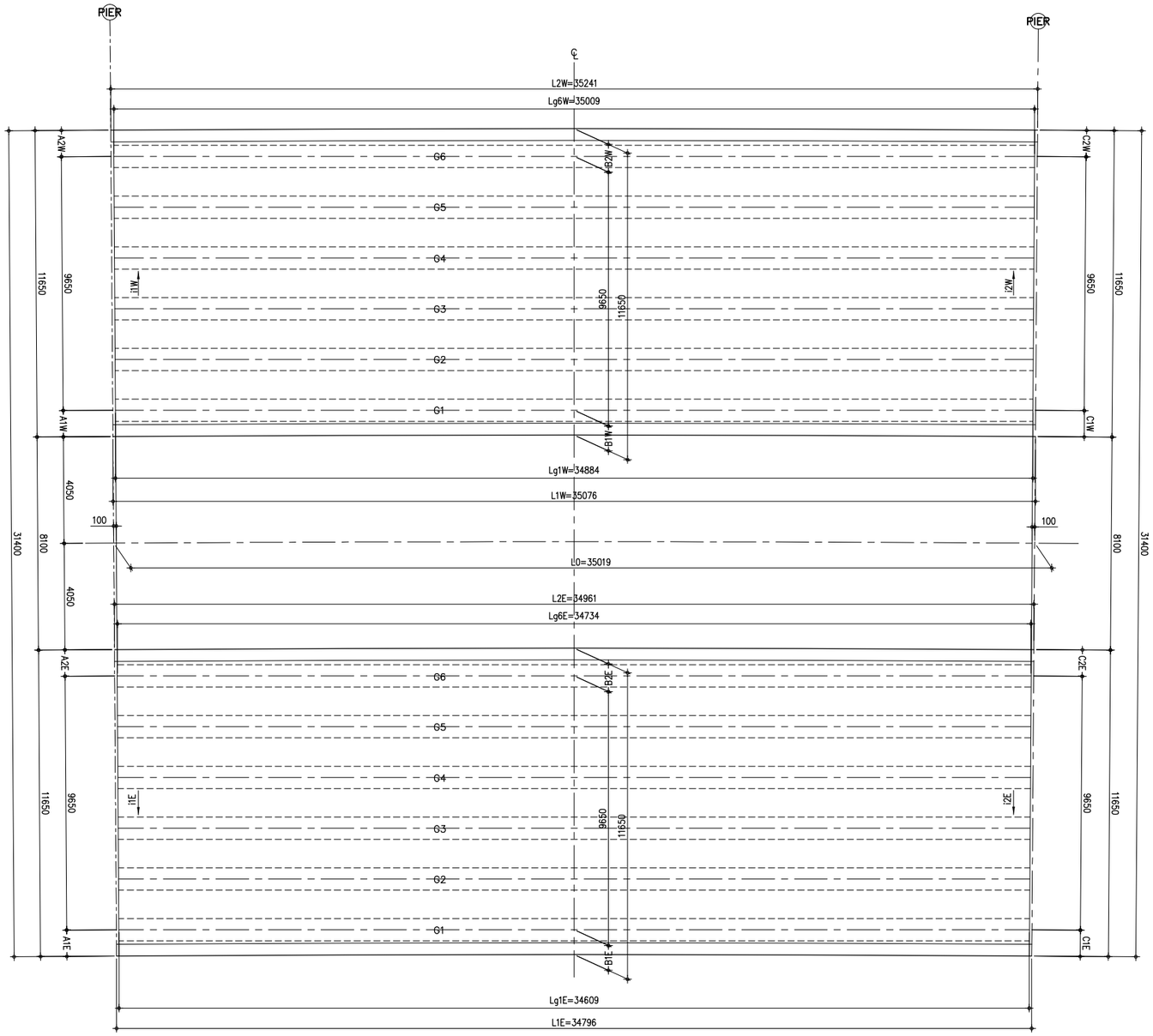
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

HIGHWAY BRIDGE NO. 2 (V2)
LAYOUT PLAN (ABUTMENT A1 TO PIER P1)

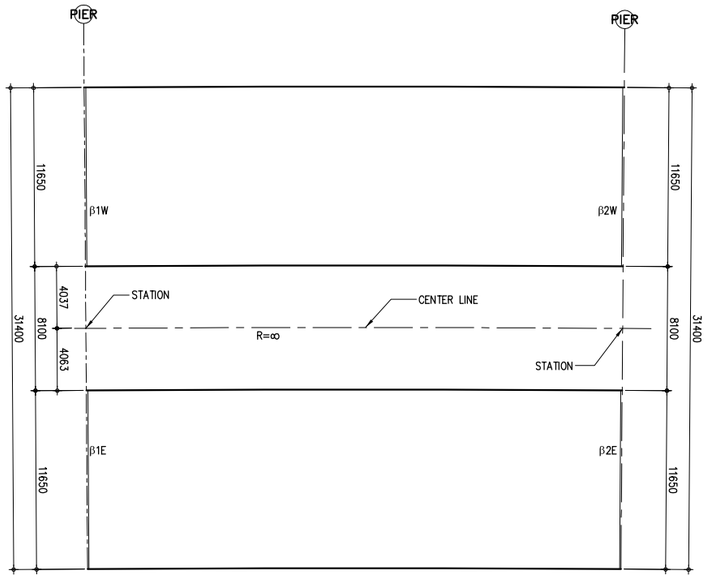
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K08-01



1 LAYOUT PLAN
SCALE 1:100

	WEST BOUND
	P1~P2
Lo (m)	35.019
L1W (m)	35.076
L2W (m)	35.241
θ1W (°)	0°0'0"
θ2W (°)	0°0'0"
e1W/e2W (mm)	100/100
i1W (%)	2.5
i2W (%)	2.5
A1W/A2W (mm)	999/1001
B1W/B2W(mm)	943/1057
C1W/C2W (mm)	999/1001
Lg1W (m)	34.884
Lg2W (m)	34.909
Lg3W (m)	34.934
Lg4W (m)	34.959
Lg5W (m)	34.984
Lg6W (m)	35.009
SPAN LENGTH (m)	L=35.019
REMARKS	

	EAST BOUND
	P1~P2
Lo (m)	35.019
L1E (m)	34.796
L2E (m)	34.961
θ1E (°)	0°0'0"
θ2E (°)	0°0'0"
e1E/e2E (mm)	100/100
i1E (%)	2.5
i2E (%)	2.5
A1E/A2E (mm)	1000/1001
B1E/B2E (mm)	944/1057
C1E/C2E (mm)	999/1001
Lg1E (m)	34.609
Lg2E (m)	34.634
Lg3E (m)	34.659
Lg4E (m)	34.684
Lg5E (m)	34.709
Lg6E (m)	34.734
SPAN LENGTH (m)	L=35.019
REMARKS	



THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

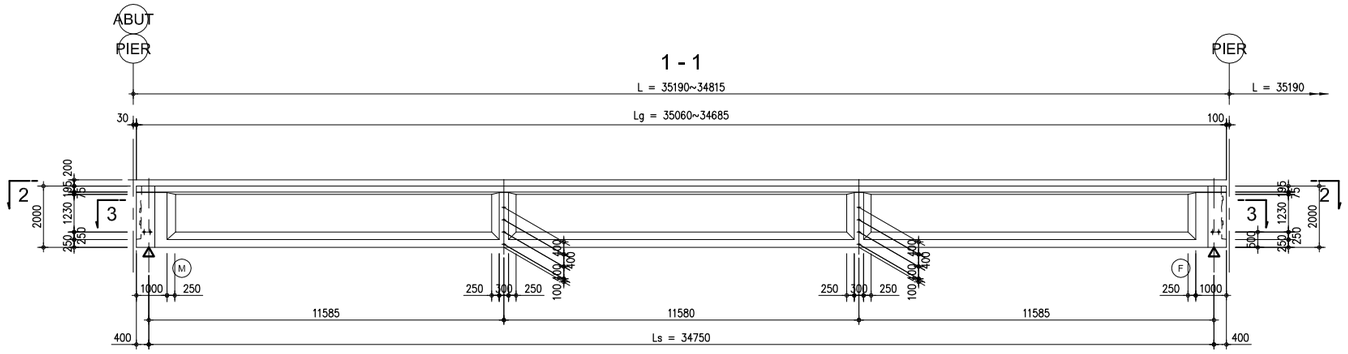
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

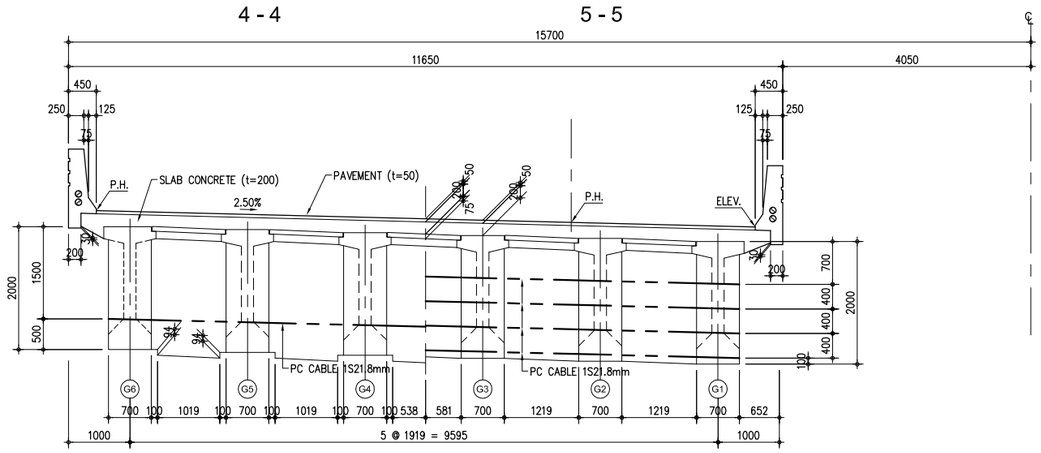
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

HIGHWAY BRIDGE NO. 2 (V2)
LAYOUT PLAN TYPICAL

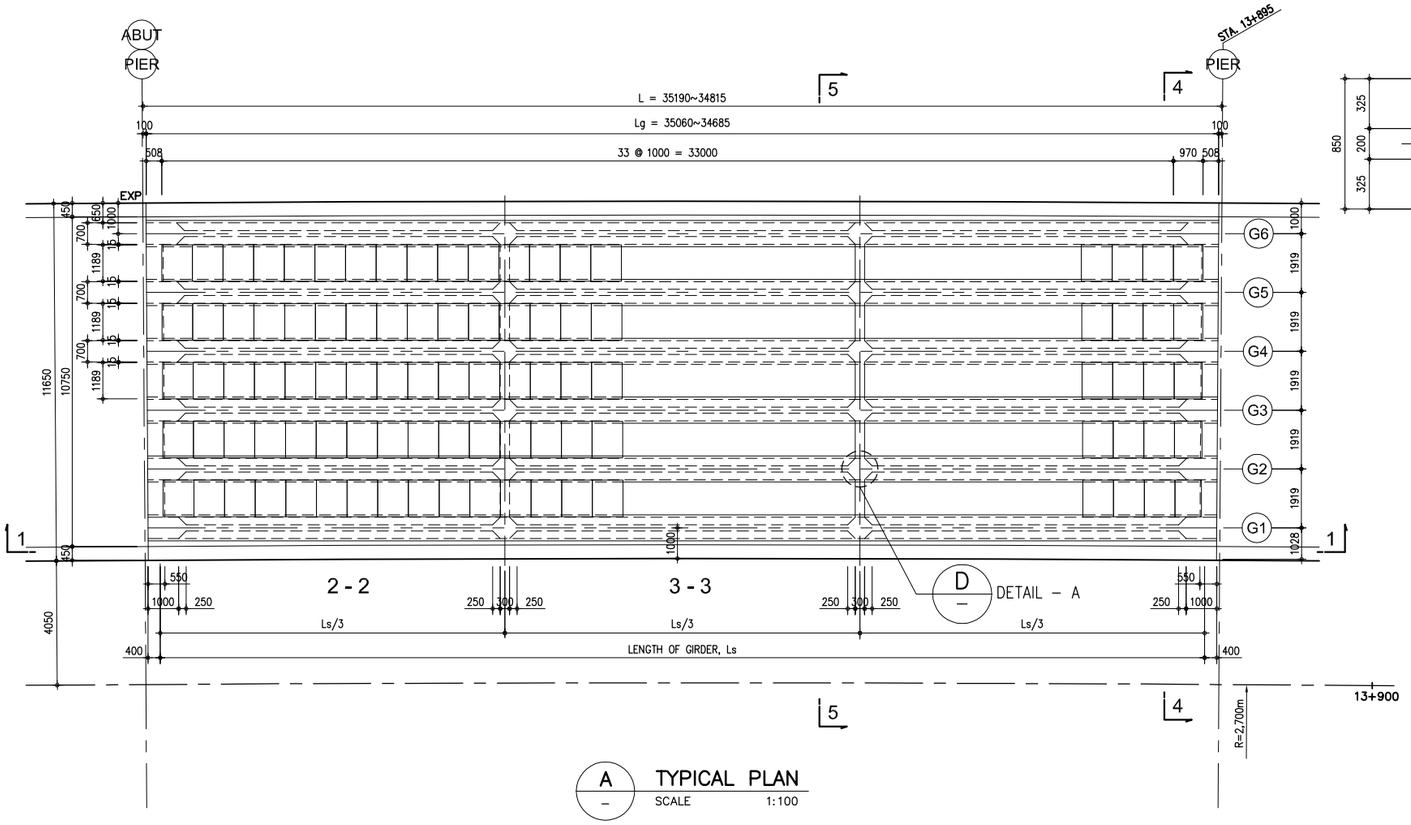
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	KO8-02



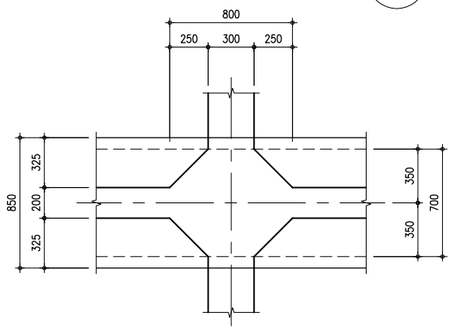
B — SIDE VIEW
SCALE 1:100



C — CROSS SECTION (TYPICAL)
SCALE 1:50

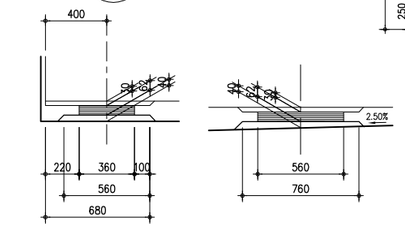


A — TYPICAL PLAN
SCALE 1:100

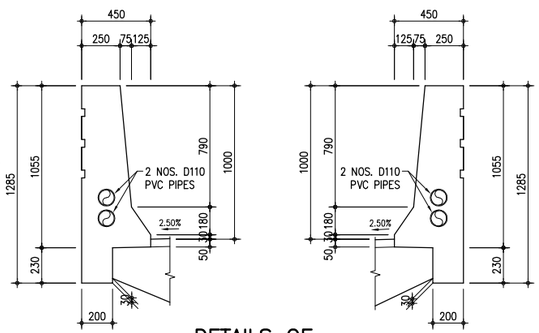


D — DETAIL–A
SCALE 1:20

E — GIRDER CROSS SECTION
SCALE 1:20



F — BEARING DETAILS
SCALE 1:20



G — DETAILS OF NEW JERSEY BARRIER
SCALE 1:20

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

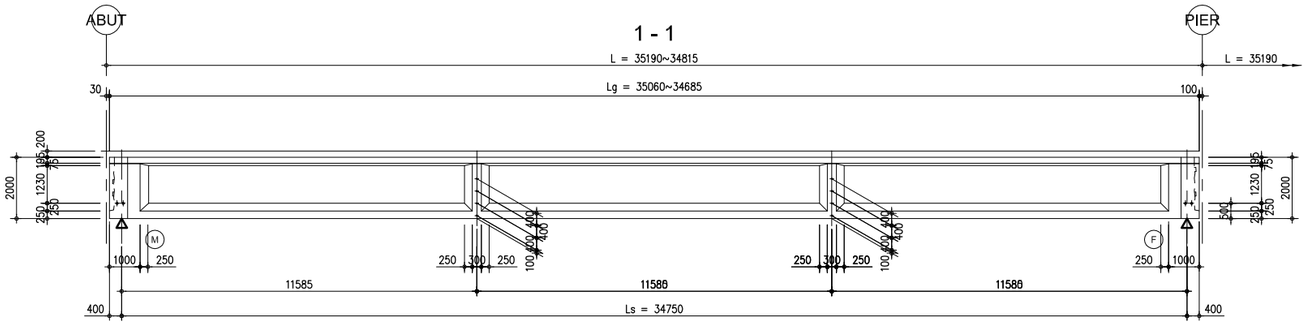
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

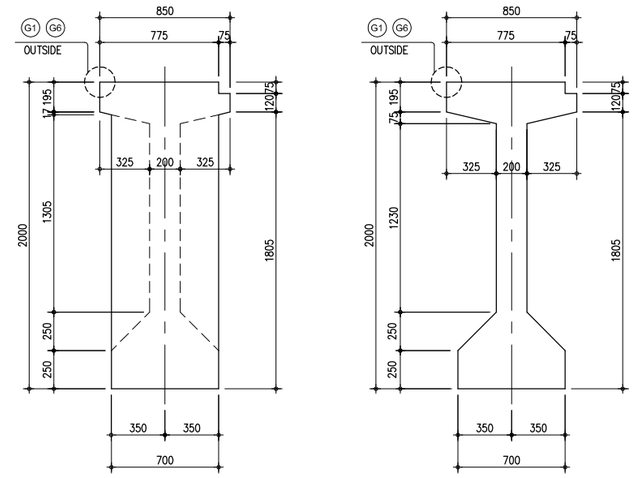
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO. 2 (V2) - THE 1st BIYAGAMA VIADUCT
TYPICAL PCI GIRDER LAYOUT DIMENSION DETAIL

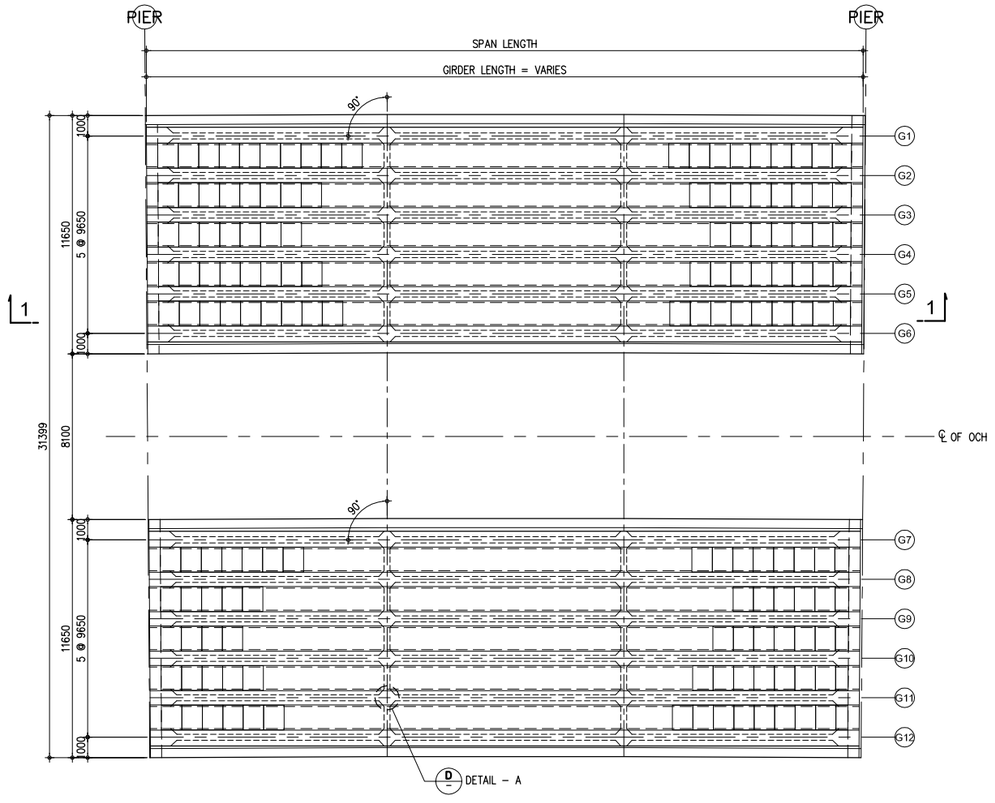
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	KO8-03



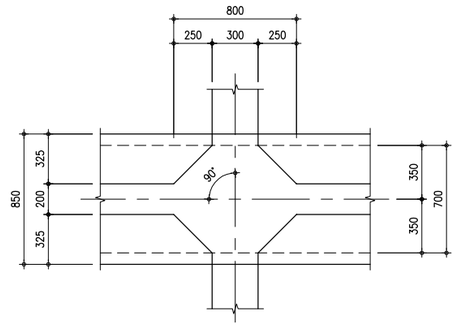
B — SIDE VIEW
SCALE 1:100



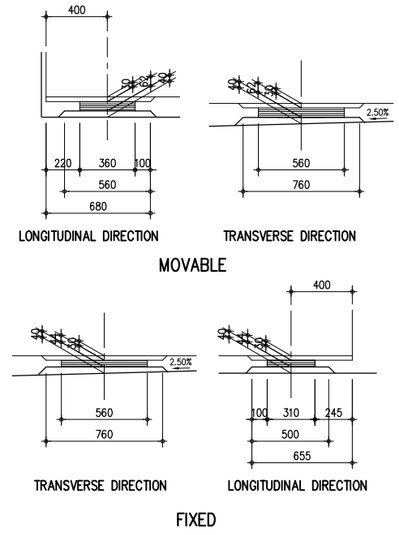
E — GIRDER CROSS SECTION
SCALE 1:20



A — TYPICAL PLAN
SCALE 1:150



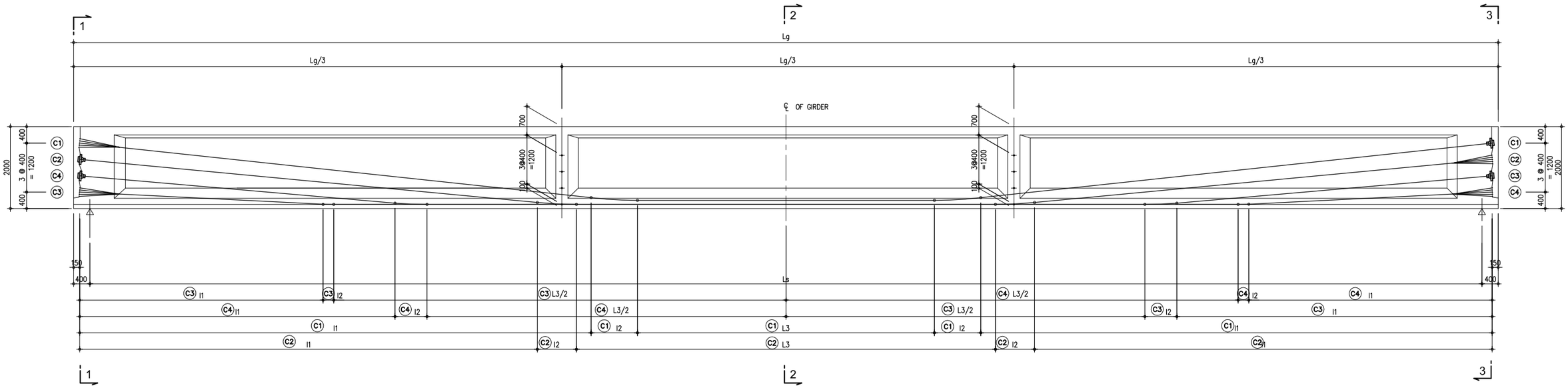
D — DETAIL–A
SCALE 1:20



F — BEARING DETAILS
SCALE 1:20

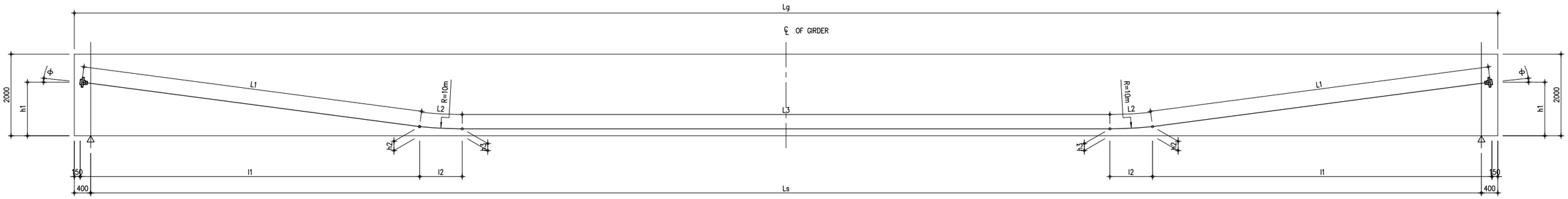
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JICA JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)**	DESIGNED BY:
		VIADUCT NO. 2 (V2) - THE 1st BIYAGAMA VIADUCT TYPICAL PCI GIRDER LAYOUT DIMENSION DETAIL (ABUT-A1 TO ABUT-A2)	CHECKED BY:
			APPROVED BY:
			DWG. NO. K08-04

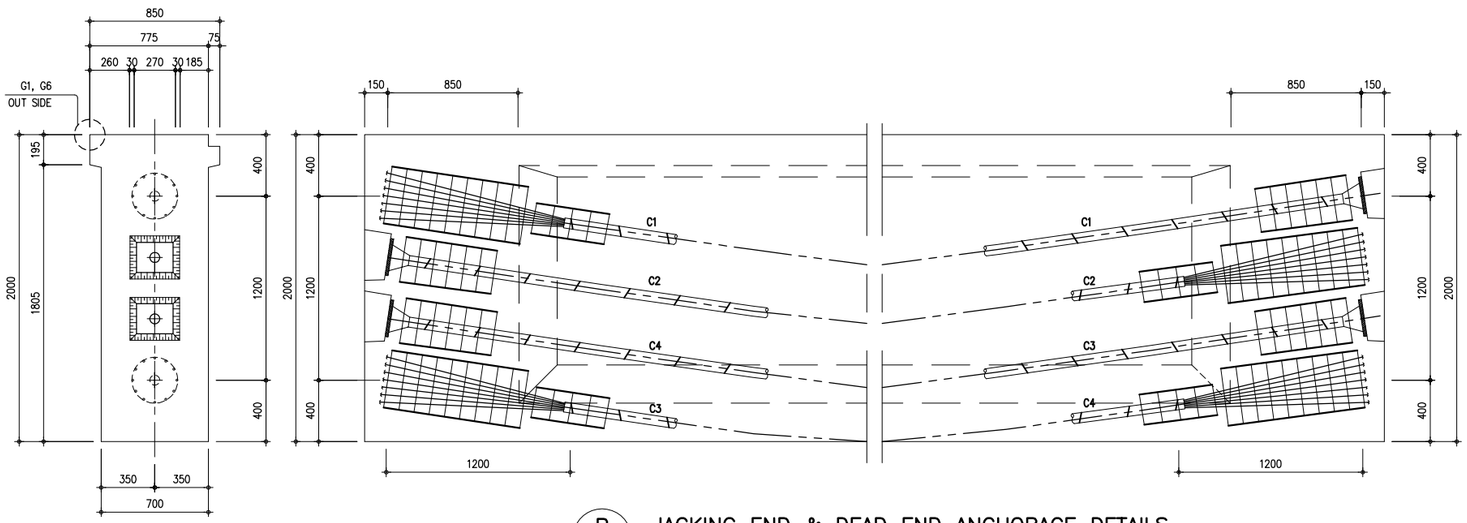
No	REVISION	DATE



A — CABLE ARRANGEMENT

SCALE 1:50

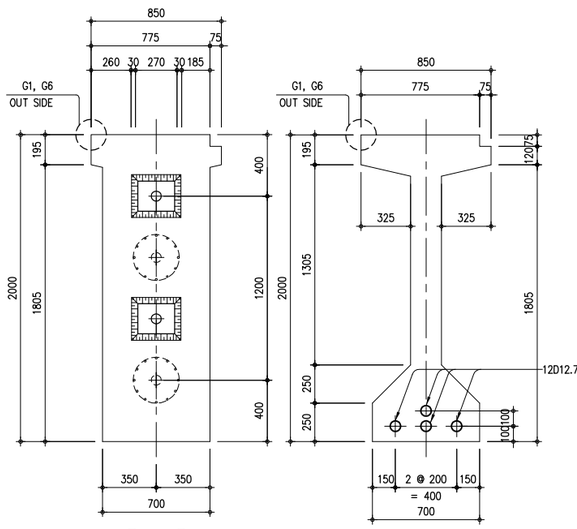




1 – 1

B — JACKING END & DEAD END ANCHORAGE DETAILS

SCALE 1:20



3 – 3

2 – 2

NOTES:

PRESTRESSED CONCRETE:

* CONCRETE CUBE STRENGTH, fcu = 50 MPa
* AT TRANSFER OF PRESTRESS, fci = 36 MPa

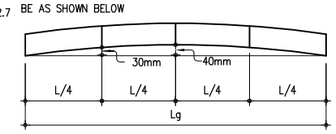
PRESTRESSING STRANDS:

* 1 – D12.7 IS A 7 – WIRE STRAND WITH NOMINAL TENSILE STRENGTH, fpu = 1860 MPa
* TOTAL NO. OF STRANDS = 4x12D12.7 =48D12.7
* JACKING STRESS, fpo = 1302 MPa
* TOTAL JACKING FORCE, Po = 4536 KN
* CABLE DUCT INSIDE DIAMETER (12–D12.7) = 65mm.

REINFORCING STEEL :

* ALL REINFORCING STEEL SHALL BE GRADE 460 WITH MINIMUM CHARACTERISTC STRENGTH, fy = 460 MPa

GIRDER PRE–CAMBER PRIOR TO STRESSING SHALL BE AS SHOWN BELOW



ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

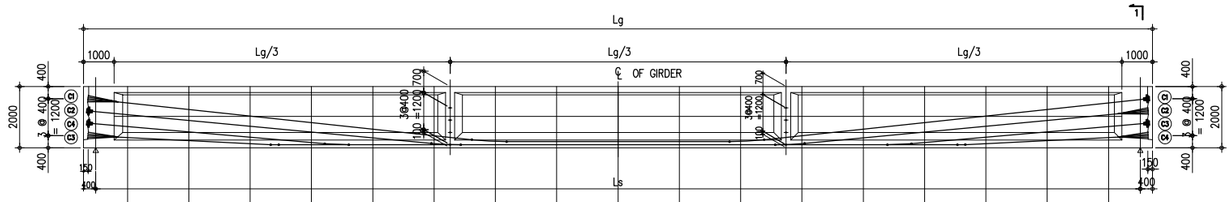
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

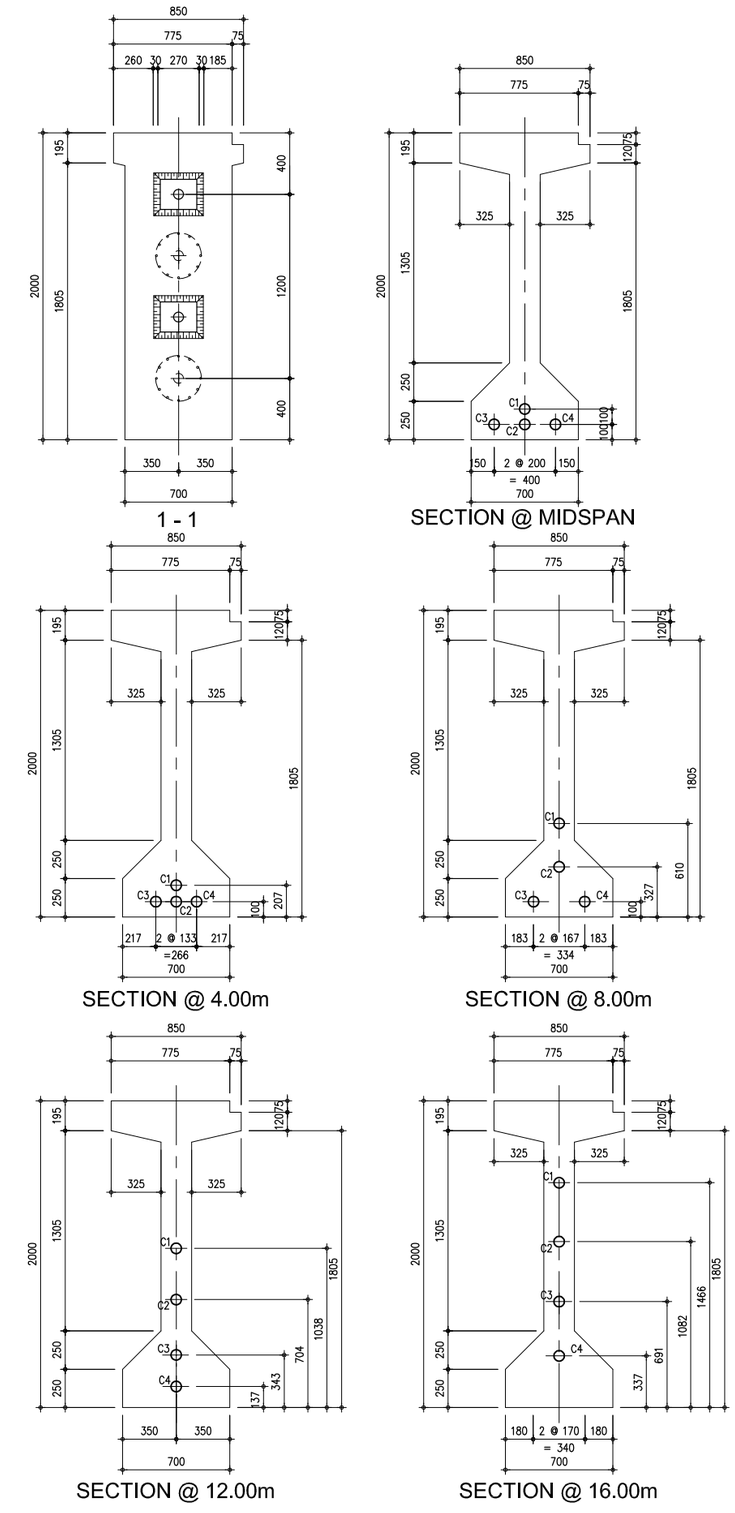
VIADUCT NO.2 (V2) THE 1ST BIYAGAMA VIADUCT
TYPICAL ARRANGEMENT OF PC TENDON (1/2)

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	KO8-05



CABLE PROFILE (mm)			DISTANCE FROM ℄ (m)	16.00	14.00	12.00	10.00	8.00	6.00	4.00	2.00	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	
	A1 – P1	C1	DEAD END ▶	1463	1249	1036	823	609	396	207	200	200	200	207	396	609	823	1036	1249	1463	◀ JACKING END
		C2	JACKING END ▶	1079	891	703	514	326	138	100	100	100	100	100	138	326	514	703	891	1079	◀ DEAD END
		C3	DEAD END ▶	336	236	137	100	100	100	100	100	100	100	100	100	100	168	342	515	689	◀ JACKING END
		C4	JACKING END ▶	689	515	342	168	100	100	100	100	100	100	100	100	100	100	137	236	336	◀ DEAD END
	P1 – P2	C1	DEAD END ▶	1466	1252	1038	824	610	396	207	200	200	200	207	396	610	824	1038	1252	1466	◀ JACKING END
		C2	JACKING END ▶	1082	893	704	515	327	138	100	100	100	100	100	138	327	515	704	893	1082	◀ DEAD END
		C3	DEAD END ▶	337	237	137	100	100	100	100	100	100	100	100	100	100	168	343	517	691	◀ JACKING END
		C4	JACKING END ▶	691	517	343	168	100	100	100	100	100	100	100	100	100	100	137	237	337	◀ DEAD END
	P2 – P3	C1	DEAD END ▶	1466	1252	1038	824	610	396	207	200	200	200	207	396	610	824	1038	1252	1466	◀ JACKING END
		C2	JACKING END ▶	1082	893	704	515	327	138	100	100	100	100	100	138	327	515	704	893	1082	◀ DEAD END
		C3	DEAD END ▶	337	237	137	100	100	100	100	100	100	100	100	100	100	168	343	517	691	◀ JACKING END
		C4	JACKING END ▶	691	517	343	168	100	100	100	100	100	100	100	100	100	100	137	237	337	◀ DEAD END
	P3 – P4	C1	DEAD END ▶	1466	1252	1038	824	610	396	207	200	200	200	207	396	610	824	1038	1252	1466	◀ JACKING END
		C2	JACKING END ▶	1082	893	704	515	327	138	100	100	100	100	100	138	327	515	704	893	1082	◀ DEAD END
		C3	DEAD END ▶	337	237	137	100	100	100	100	100	100	100	100	100	100	168	343	517	691	◀ JACKING END
		C4	JACKING END ▶	691	517	343	168	100	100	100	100	100	100	100	100	100	100	137	237	337	◀ DEAD END
	P4 – P5	C1	DEAD END ▶	1466	1252	1038	824	610	396	207	200	200	200	207	396	610	824	1038	1252	1466	◀ JACKING END
		C2	JACKING END ▶	1082	893	704	515	327	138	100	100	100	100	100	138	327	515	704	893	1082	◀ DEAD END
		C3	DEAD END ▶	337	237	137	100	100	100	100	100	100	100	100	100	100	168	343	517	691	◀ JACKING END
		C4	JACKING END ▶	691	517	343	168	100	100	100	100	100	100	100	100	100	100	137	237	337	◀ DEAD END
	P5 – P6	C1	DEAD END ▶	1466	1252	1038	824	610	396	207	200	200	200	207	396	610	824	1038	1252	1466	◀ JACKING END
		C2	JACKING END ▶	1082	893	704	515	327	138	100	100	100	100	100	138	327	515	704	893	1082	◀ DEAD END
		C3	DEAD END ▶	337	237	137	100	100	100	100	100	100	100	100	100	100	168	343	517	691	◀ JACKING END
		C4	JACKING END ▶	691	517	343	168	100	100	100	100	100	100	100	100	100	100	137	237	337	◀ DEAD END
	P6 – P7	C1	DEAD END ▶	1466	1252	1038	824	610	396	207	200	200	200	207	396	610	824	1038	1252	1466	◀ JACKING END
		C2	JACKING END ▶	1082	893	704	515	327	138	100	100	100	100	100	138	327	515	704	893	1082	◀ DEAD END
		C3	DEAD END ▶	337	237	137	100	100	100	100	100	100	100	100	100	100	168	343	517	691	◀ JACKING END
		C4	JACKING END ▶	691	517	343	168	100	100	100	100	100	100	100	100	100	100	137	237	337	◀ DEAD END
	P7 – P8	C1	DEAD END ▶	1466	1252	1038	824	610	396	207	200	200	200	207	396	610	824	1038	1252	1466	◀ JACKING END
		C2	JACKING END ▶	1082	893	704	515	327	138	100	100	100	100	100	138	327	515	704	893	1082	◀ DEAD END
		C3	DEAD END ▶	337	237	137	100	100	100	100	100	100	100	100	100	100	168	343	517	691	◀ JACKING END
		C4	JACKING END ▶	691	517	343	168	100	100	100	100	100	100	100	100	100	100	137	237	337	◀ DEAD END
	P8 – A2	C1	DEAD END ▶	1463	1249	1036	823	609	396	207	200	200	200	207	396	609	823	1036	1249	1463	◀ JACKING END
		C2	JACKING END ▶	1079	891	703	514	326	138	100	100	100	100	100	138	326	514	703	891	1079	◀ DEAD END
		C3	DEAD END ▶	336	236	137	100	100	100	100	100	100	100	100	100	100	168	342	515	689	◀ JACKING END
		C4	JACKING END ▶	689	515	342	168	100	100	100	100	100	100	100	100	100	100	137	236	336	◀ DEAD END

A — CABLE PROFILE
SCALE 1:100



B — GIRDER CROSS SECTION
SCALE 1:20

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

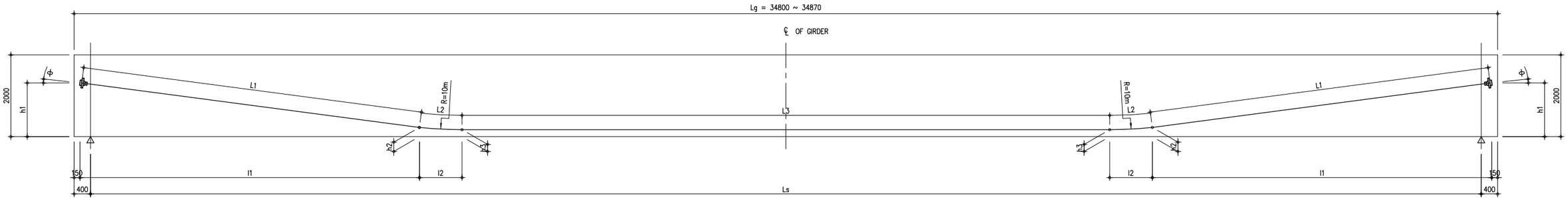
No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.2 (V2) THE 1ST BIYAGAMA VIADUCT
TYPICAL GIRDER CABLE ARRANGEMENT (2/2)

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K08-06

SPAN	Lg	Ls	CABLE NO.	l1	l2	L1	L2	L3	$2\frac{2}{1}L + 3$	h1	h2	h3	θ = (degree)	TOTAL LENGTH	TOTAL WEIGHT
A1 – P1	34870	34070	C1	12518	1132	12588	1134	7270	34714	1600	264	200	6°5'	138.63 m	1287.60 kg./1girder
			C2	11198	958	11248	960	10257	34673	1200	146	100	5°23'		
			C3	7716	785	7745	785	17569	34629	800	131	100	4°57'		
			C4	5955	262	5963	262	22136	34613	400	103	100	2°51'		
P1 – P2	34800	34000	C1	12483	1132	12554	1134	7270	34646	1600	264	200	6°6'	138.32 m	1284.72 kg./1girder
			C2	11163	958	11213	960	10257	34603	1200	146	100	5°24'		
			C3	7681	785	7710	785	17569	34559	800	131	100	4°59'		
			C4	5920	262	5928	262	22136	34516	400	103	100	2°52'		
P2 – P3	34800	34000	C1	12483	1132	12554	1134	7270	34646	1600	264	200	6°6'	138.32 m	1284.72 kg./1girder
			C2	11163	958	11213	960	10257	34603	1200	146	100	5°24'		
			C3	7681	785	7710	785	17569	34559	800	131	100	4°59'		
			C4	5920	262	5928	262	22136	34516	400	103	100	2°52'		
P3 – P4	34800	34000	C1	12483	1132	12554	1134	7270	34646	1600	264	200	6°6'	138.32 m	1284.72 kg./1girder
			C2	11163	958	11213	960	10257	34603	1200	146	100	5°24'		
			C3	7681	785	7710	785	17569	34559	800	131	100	4°59'		
			C4	5920	262	5928	262	22136	34516	400	103	100	2°52'		
P4 – P5	34800	34000	C1	12483	1132	12554	1134	7270	34646	1600	264	200	6°6'	138.32 m	1284.72 kg./1girder
			C2	11163	958	11213	960	10257	34603	1200	146	100	5°24'		
			C3	7681	785	7710	785	17569	34559	800	131	100	4°59'		
			C4	5920	262	5928	262	22136	34516	400	103	100	2°52'		
P5 – P6	34800	34000	C1	12483	1132	12554	1134	7270	34646	1600	264	200	6°6'	138.32 m	1284.72 kg./1girder
			C2	11163	958	11213	960	10257	34603	1200	146	100	5°24'		
			C3	7681	785	7710	785	17569	34559	800	131	100	4°59'		
			C4	5920	262	5928	262	22136	34516	400	103	100	2°52'		
P6 – P7	34800	34000	C1	12483	1132	12554	1134	7270	34646	1600	264	200	6°6'	138.32 m	1284.72 kg./1girder
			C2	11163	958	11213	960	10257	34603	1200	146	100	5°24'		
			C3	7681	785	7710	785	17569	34559	800	131	100	4°59'		
			C4	5920	262	5928	262	22136	34516	400	103	100	2°52'		
P7 – P8	34800	34000	C1	12483	1132	12554	1134	7270	34646	1600	264	200	6°6'	138.32 m	1284.72 kg./1girder
			C2	11163	958	11213	960	10257	34603	1200	146	100	5°24'		
			C3	7681	785	7710	785	17569	34559	800	131	100	4°59'		
			C4	5920	262	5928	262	22136	34516	400	103	100	2°52'		
P8 – A2	34870	34070	C1	12518	1132	12588	1134	7270	34714	1600	264	200	6°5'	138.63 m	1287.60 kg./1girder
			C2	11198	958	11248	960	10257	34673	1200	146	100	5°23'		
			C3	7716	785	7745	785	17569	34629	800	131	100	4°57'		
			C4	5955	262	5963	262	22136	34613	400	103	100	2°51'		



C – CABLE LAYOUT
SCALE 1:50

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

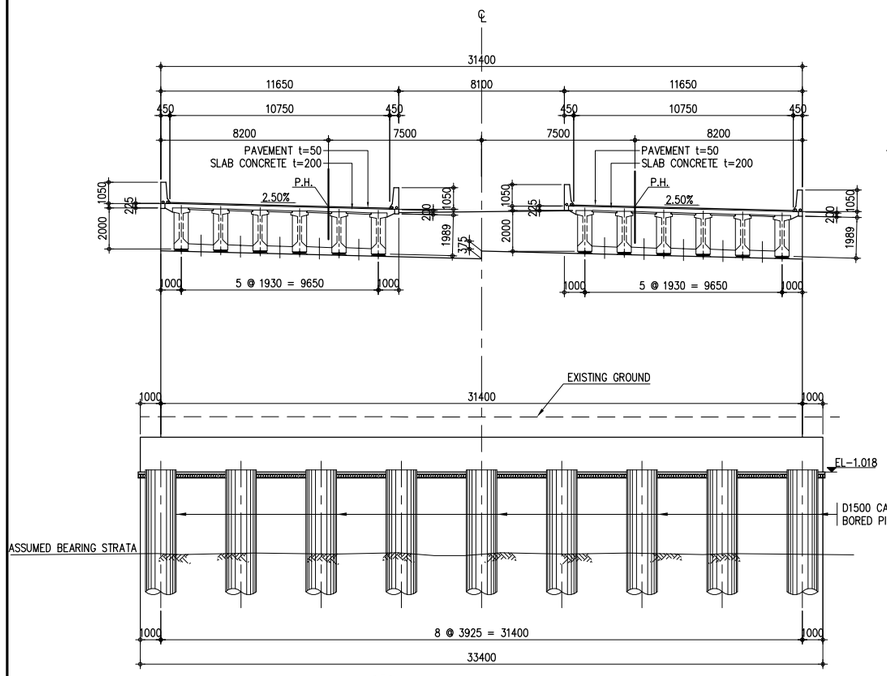
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

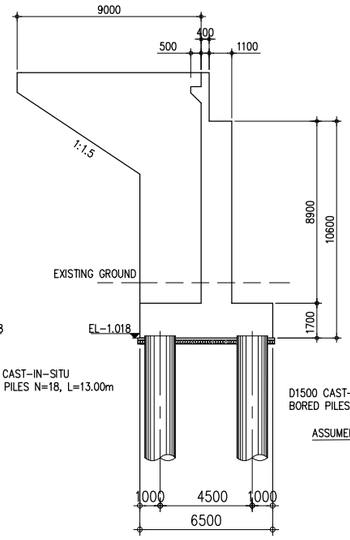
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.2 (V2) THE 1ST BIYAGAMA VIADUCT
LAYOUT OF PC TENDON

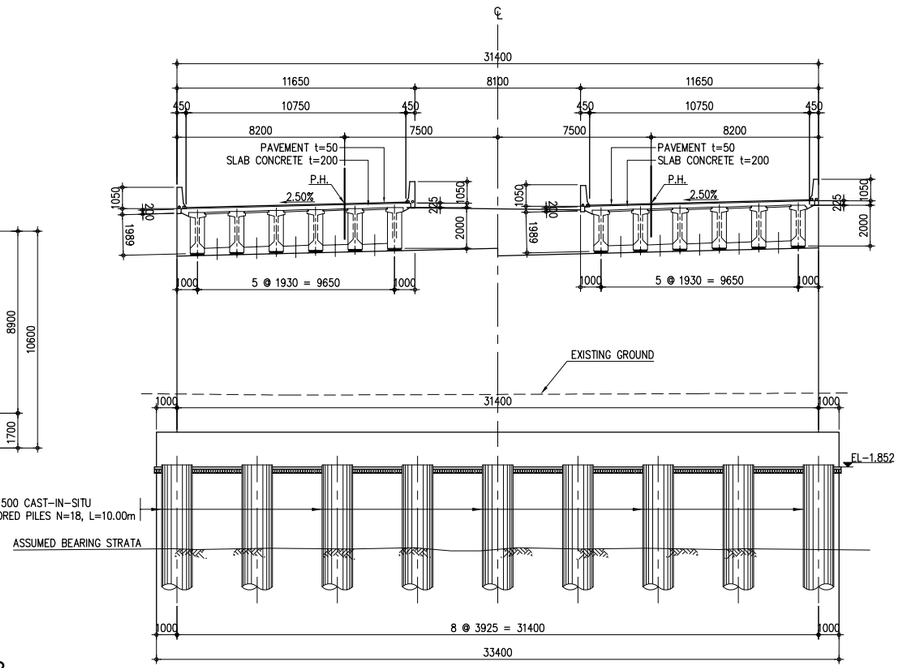
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K08-07



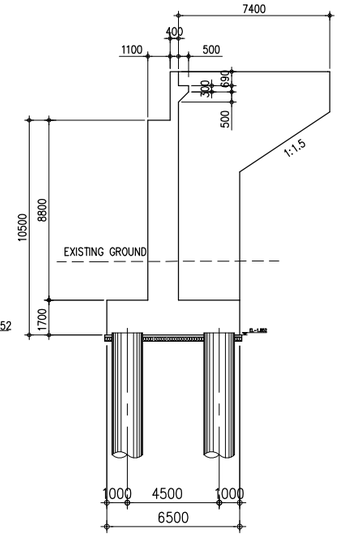
2 — SECTION 1–1
SCALE 1:150



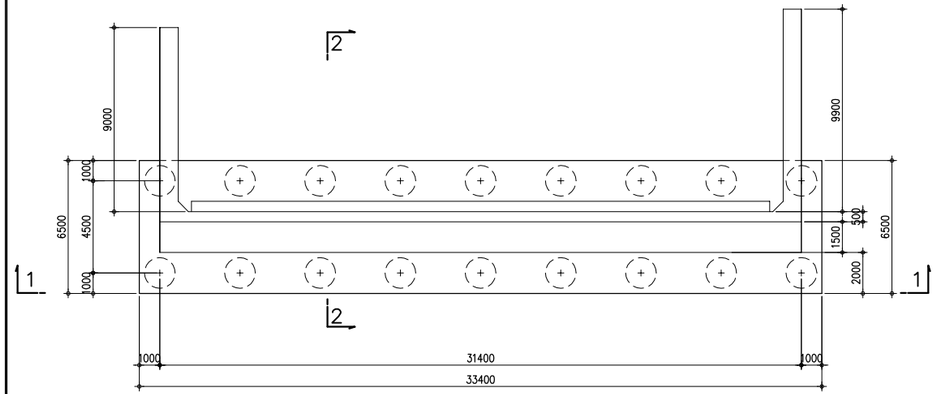
2 — SECTION 2–2
SCALE 1:150



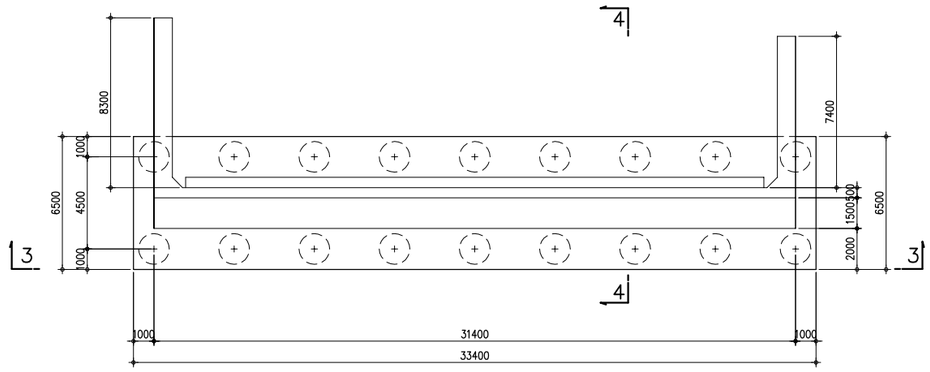
4 — SECTION 3–3
SCALE 1:150



5 — SECTION 4–4
SCALE 1:150



1 — PLAN OF ABUTMENT A1
SCALE 1:150



3 — PLAN OF ABUTMENT A2
SCALE 1:150

SCHEDULE OF ABUTMENT

ABUTMENT NO.	ABUTMENT LOCATION	EXISTING GRADE ELEV. A	TOP OF FOOTING ELEV. B	BOTTOM OF FOOTING ELEV. C	H	P.H.	PILE LENGTH	NO. OF PILE
A1	STA. 13+755.00	1.667	0.682	−1.018	10.600	11.959	13.00	18
A2	STA. 14+070.00	1.773	−0.152	−1.852	10.500	11.025	10.00	18

A — DIMENSION DETAILS FOR ABUTMENT A1 & A2
SCALE 1:150

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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Road Development Authority

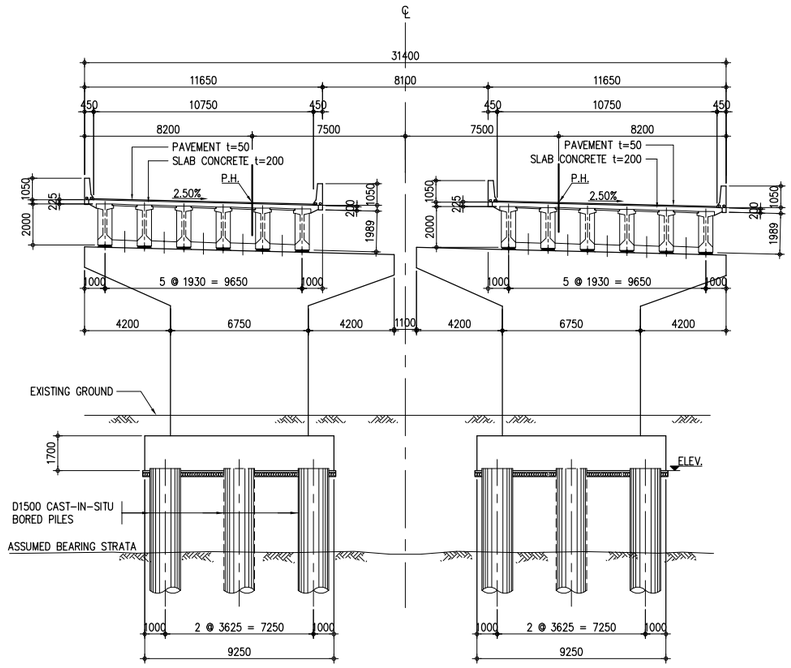
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

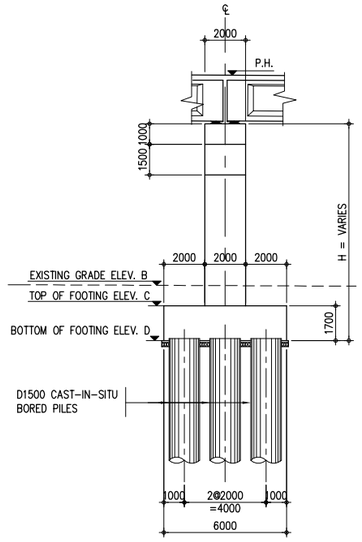
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.2 (V2) THE 1ST BIYAGAMA VIADUCT
DIMENSION DETAILS OF ABUTMENT A1 & A2

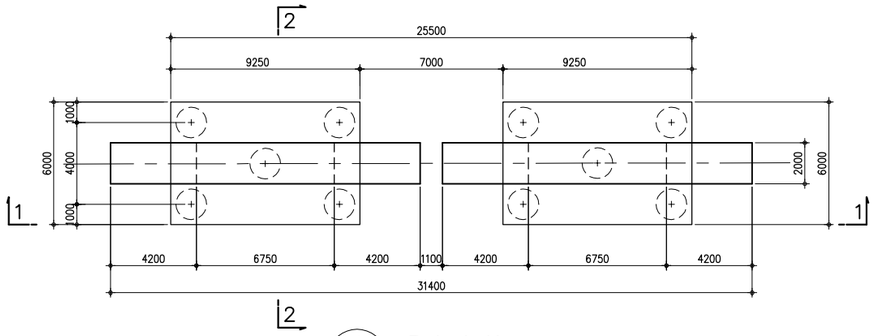
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K08-08



2 — SECTION 1–1
SCALE 1:150



3 — SECTION 2–2
SCALE 1:150



1 — PLAN
SCALE 1:150

SCHEDULE OF PIER

PIER NO.	PIER LOCATION	TOP OF PIER ELEV. A	EXISTING GRADE ELEV. B	TOP OF FOOTING ELEV. C	BOTTOM OF FOOTING ELEV. D	H	P.H.	PILE LENGTH	NO. OF PILE
P-1	STA. 15+165.00	9.679	1.645	0.579	−1.121	10.800	12.056	13.00	10
P-2	STA. 15+200.00	9.701	1.529	0.551	−1.149	10.850	12.078	13.00	10
P-3	STA. 15+235.00	9.649	1.343	0.549	−1.151	10.800	12.026	12.00	10
P-4	STA.15+270.00	9.522	1.558	0.222	−1.478	11.000	11.899	12.00	10
P-5	STA. 15+305.00	9.348	1.786	0.748	−0.952	10.300	11.725	11.00	10
P-6	STA. 15+340.00	9.173	1.680	0.723	−0.977	10.150	11.550	11.00	10
P-7	STA. 15+375.00	8.998	1.752	0.698	−1.002	10.000	11.375	13.00	10
P-8	STA. 15+410.00	8.823	1.703	0.773	−1.002	9.750	11.200	15.00	10

A — DIMENSION DETAILS FOR PIER P1, P2, P3, P4, P5, P6, P7 & P8
SCALE AS SHOWN

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.2 (V2) THE 1ST BIYAGAMA VIADUCT
DIMENSION DETAILS OF PIER P1, P2, P3, P4, P5, P6, P7 & P8

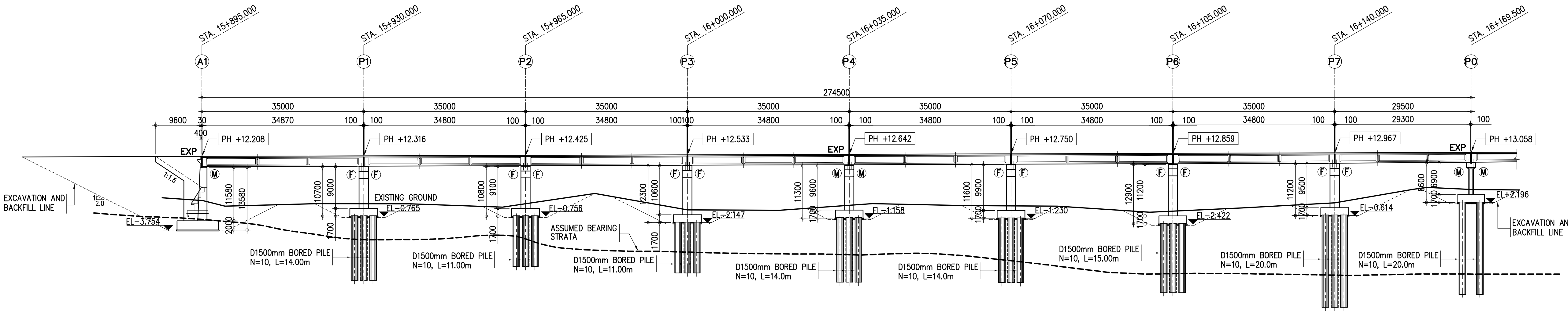
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K08-09

K10 VIADUCT NO.4(V4)-KELANI RIVER ACCESS VIADUCT

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT

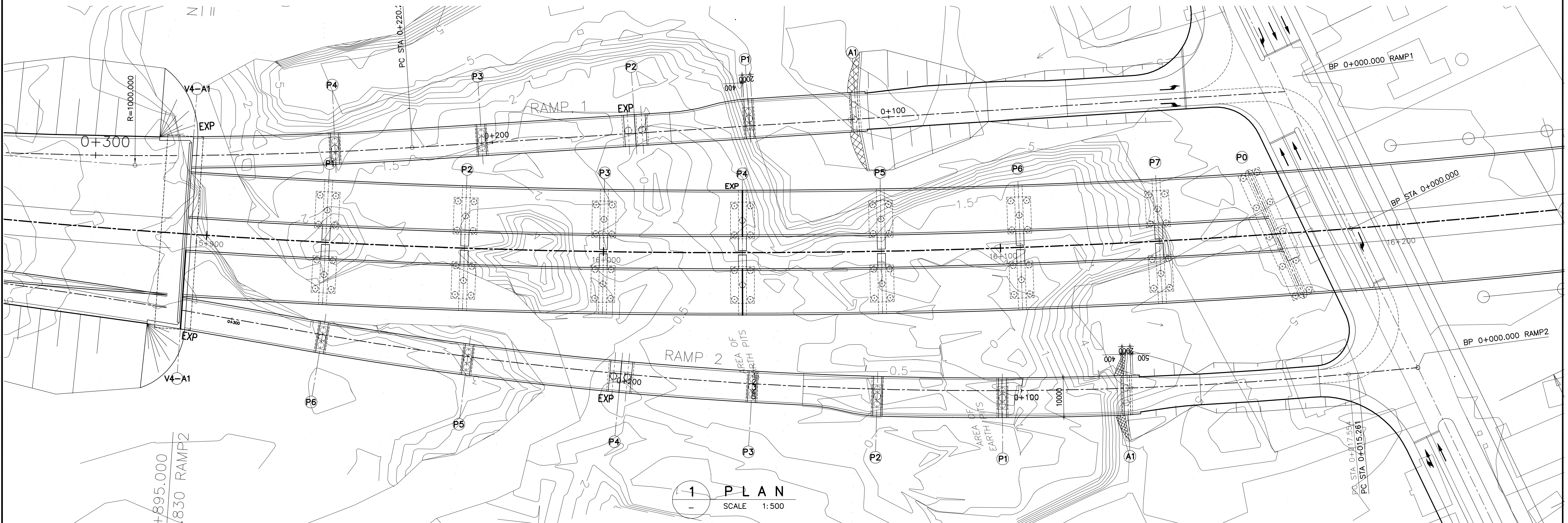
VIADUCT NO.4 (V4) - KELANI RIVER ACCES VIADUCT

(GENERAL VIEW STA. 15+895.00 - STA. 16+169.50)



2 PROFILE
SCALE 1:500

GRADE	0.310% L=1,200m														
FINISHED ROAD LEVELS	12.223	12.285	12.347	12.409	12.471	12.533	12.595	12.657	12.719	12.781	12.843	12.905	12.967	13.029	13.091
EXISTING GROUND LEVELS	1.400	1.944	1.894	1.197	4.144	0.589	0.507	1.944	1.533	1.395	0.086	1.005	2.140	5.449	4.911
STATION (km)	15900	15920	15940	15960	15980	16000	16020	16040	16060	16080	16100	16120	16140	16160	16180
CURVE BAND	R=2000 L=991.683 m.														
SUPERELEVATION	+2.5 % / −2.5 %														

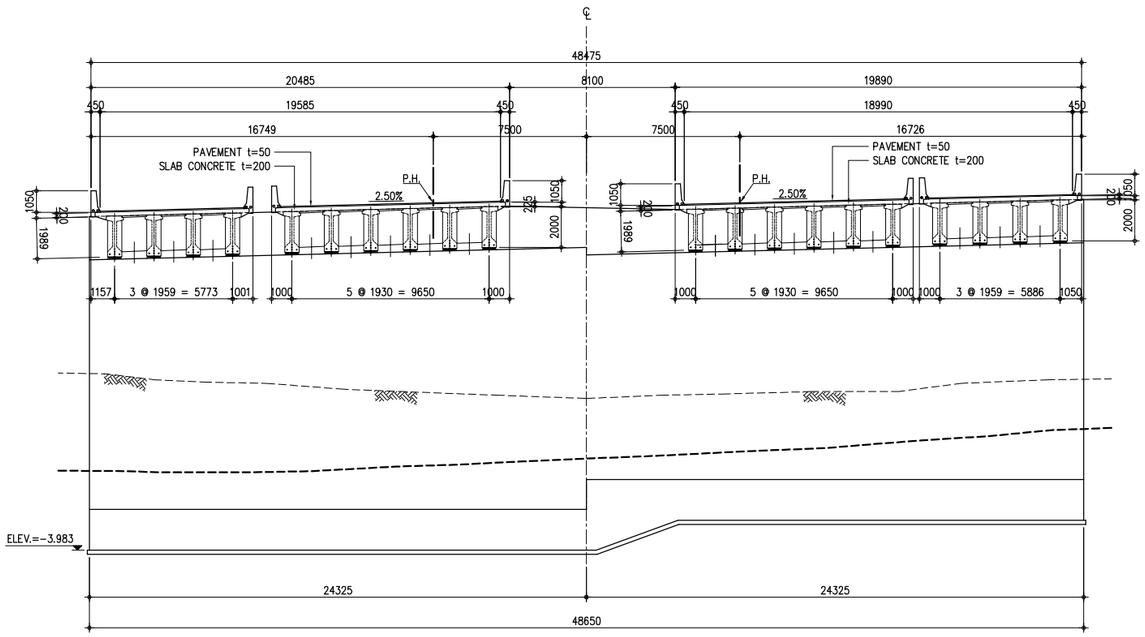


1 PLAN
SCALE 1:500

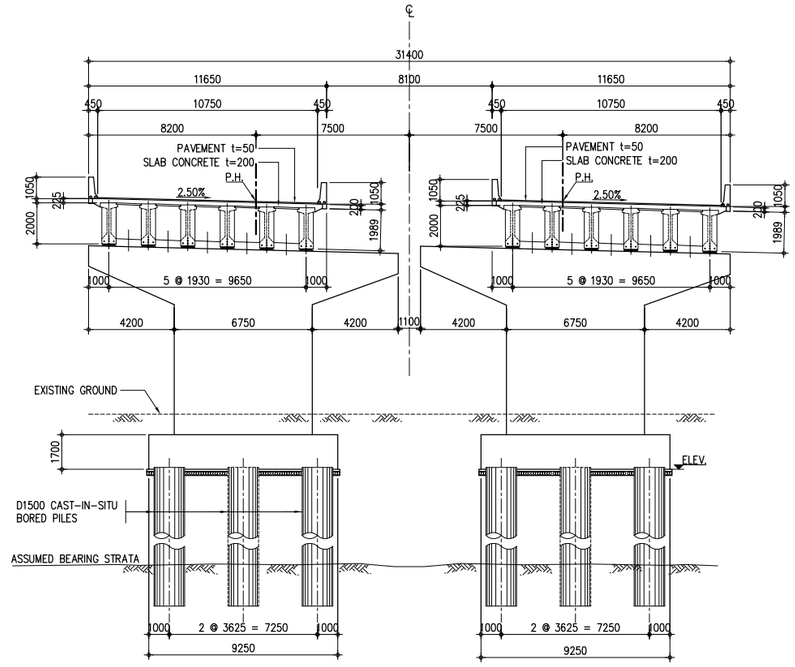
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT Road Development Authority	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT (NORTHERN SECTION 1)	DESIGNED BY:	
	CHECKED BY:	
VIADUCT NO.4 (V4) - KELANI RIVER ACCES VIADUCT GENERAL VIEW STA. 15+895.00 - STA. 16+169.50	APPROVED BY:	
	DWG. NO.	K10-00-A



1 – TYPICAL CROSS SECTION OF ABUTMENT
SCALE 1:150



2 – TYPICAL CROSS SECTION OF PIER
SCALE 1:150

TABLE FOR P.H.	
PIER NO.	P.H.
P1	12.316
P2	12.425
P3	12.533
P4	12.642
P5	12.750
P6	12.859
P7	12.967
ABUT-A1	12.208
ABUT-A2	13.058

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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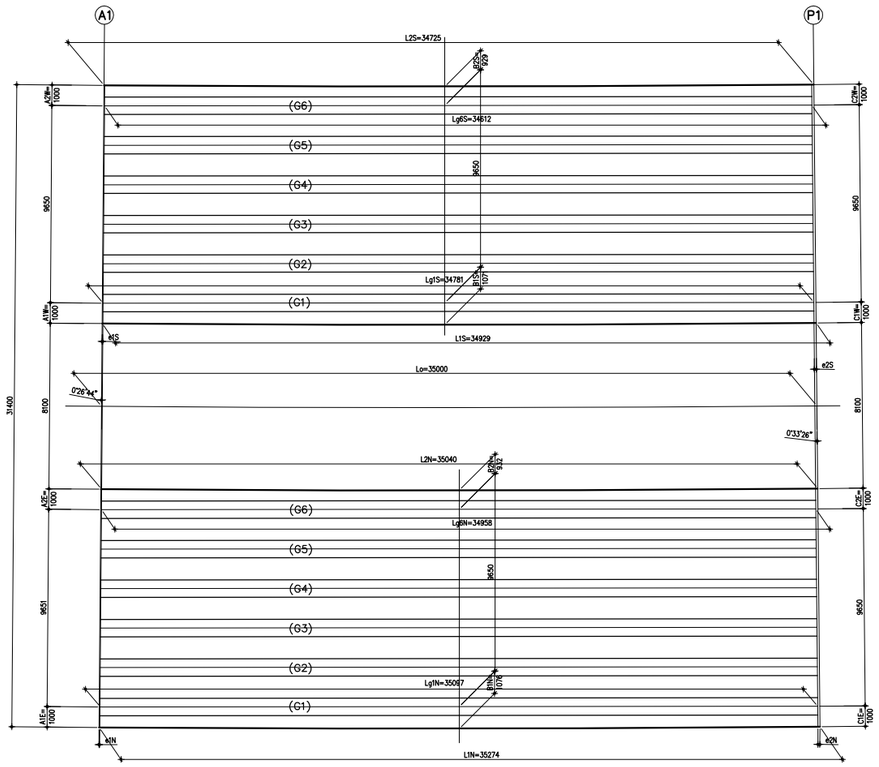
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

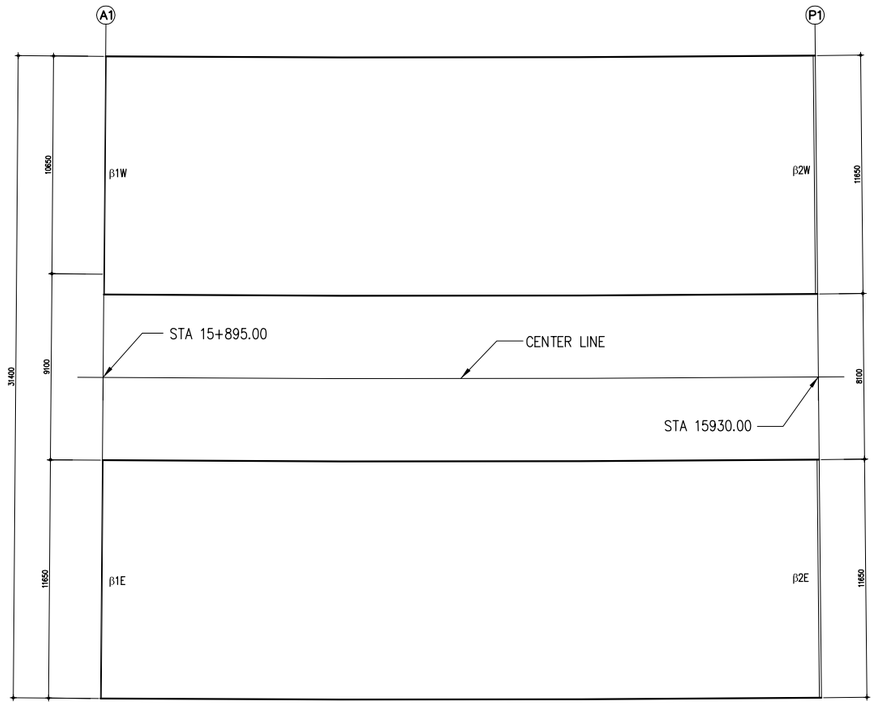
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.4 (V4) - KELANI RIVER ACCES VIADUCT
TYPICAL CROSS SECTION OF ABUTMENT & PIER

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K10-00-B



1 LAYOUT PLAN
SCALE 1:150



	WEST BOUND
	P0~P1
Lo (m)	35.000
L1W (m)	34.929
L2W (m)	34.725
β1W (°)	0°26'44"
β2W (°)	0°33'26"
e1S/e2W (mm)	100/100
i1W (%)	2.5
i2S (%)	2.5
A1W/A2W (mm)	1000/1000
B1W/B2W(mm)	1071/929
C1W/C2W (mm)	1000/1000
Lg1W (m)	34.929
Lg2W (m)	34.747
Lg3W (m)	34.714
Lg4W (m)	34.680
Lg5W (m)	34.646
Lg6W (m)	34.612
SPAN LENGTH (m)	L=35.500
REMARKS	

	EAST BOUND
	P0~P1
Lo (m)	35.000
L1E (m)	35.274
L2E (m)	35.040
β1E (°)	0°26'44"
β2E (°)	0°33'26"
e1E/e2E (mm)	100/100
i1E (%)	2.5
i2E (%)	2.5
A1E/A2E (mm)	1000/1000
B1E/B2E (mm)	1076/932
C1E/C2E (mm)	1000/1000
Lg1E (m)	35.097
Lg2E (m)	35.093
Lg3E (m)	35.059
Lg4E (m)	35.025
Lg5E (m)	34.992
Lg6E (m)	34.958
SPAN LENGTH (m)	L=35.000
REMARKS	

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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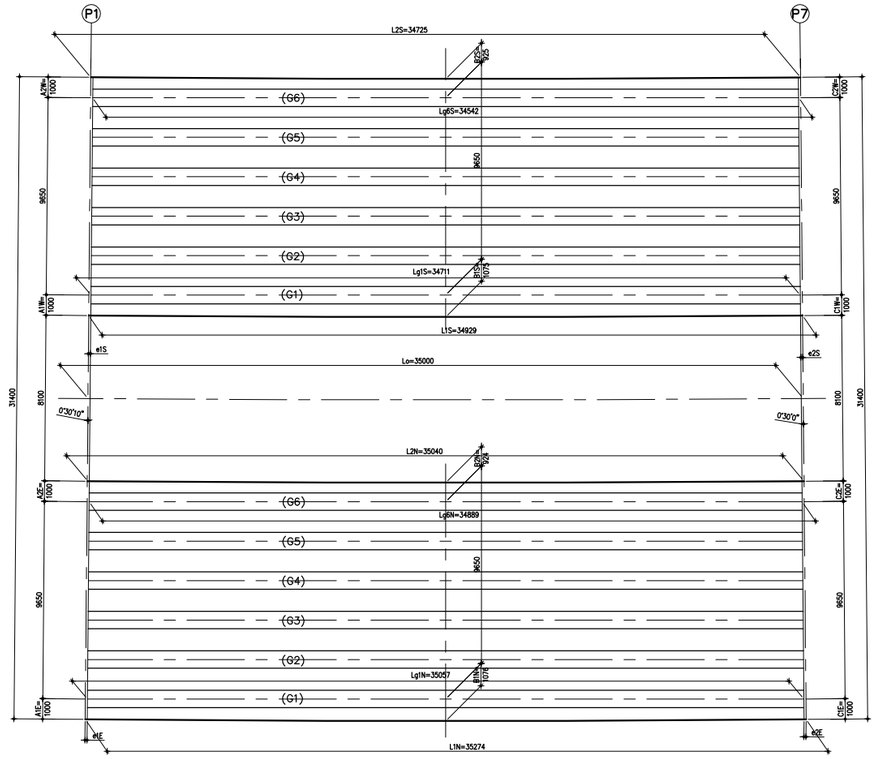
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

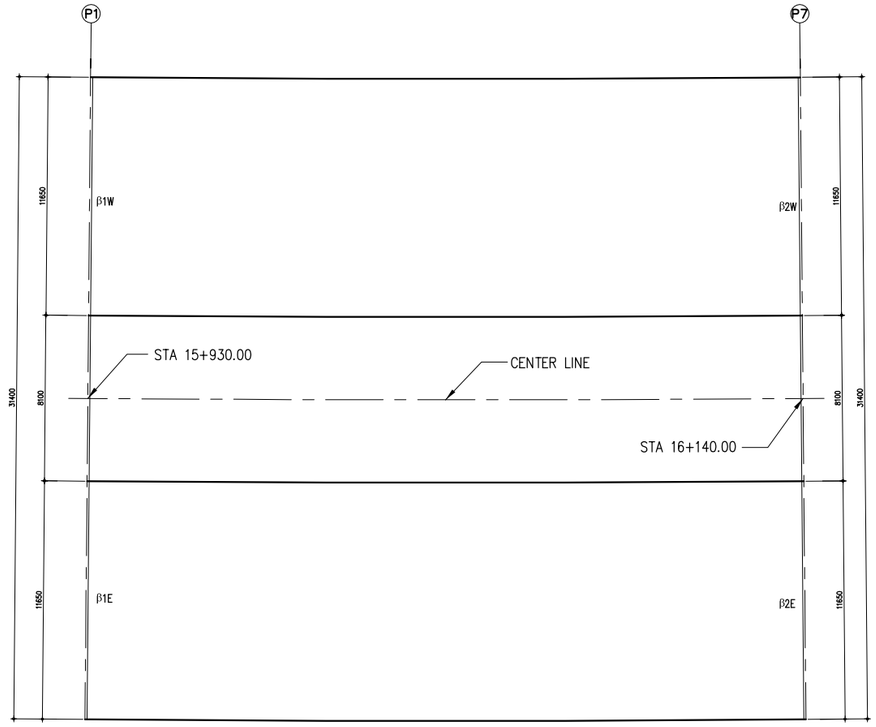
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.4 (V4) - KELANI RIVER ACCES VIADUCT
LAYOUT PLAN OF ABUTMENT A1 TO PIER P1

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K10-01



1 – LAYOUT PLAN
SCALE 1:150



	WEST BOUND
	P0~P1
Lo (m)	35.000
L1W (m)	34.929
L2W (m)	34.725
β1W (°)	0°30'10"
β2W (°)	0°30'0"
e1W/e2W (mm)	100/100
i1W (%)	2.5
i2W (%)	2.5
A1W/A2W (mm)	1000/1000
B1W/B2W(mm)	1075/925
C1W/C2W (mm)	1000/1000
Lg1W (m)	34.929
Lg2W (m)	34.677
Lg3W (m)	34.644
Lg4W (m)	34.610
Lg5W (m)	34.576
Lg6W (m)	34.542
SPAN LENGTH (m)	L=35.500
REMARKS	

	EAST BOUND
	P0~P1
Lo (m)	35.000
L1E (m)	35.274
L2E (m)	35.040
β1E (°)	0°30'10"
β2E (°)	0°30'0"
e1E/e2E (mm)	100/100
i1E (%)	2.5
i2E (%)	2.5
A1E/A2E (mm)	1000/1000
B1E/B2E (mm)	1076/924
C1E/C2E (mm)	1000/1000
Lg1E (m)	35.057
Lg2E (m)	35.023
Lg3E (m)	34.989
Lg4E (m)	34.955
Lg5E (m)	34.992
Lg6E (m)	34.888
SPAN LENGTH (m)	L=35.000
REMARKS	

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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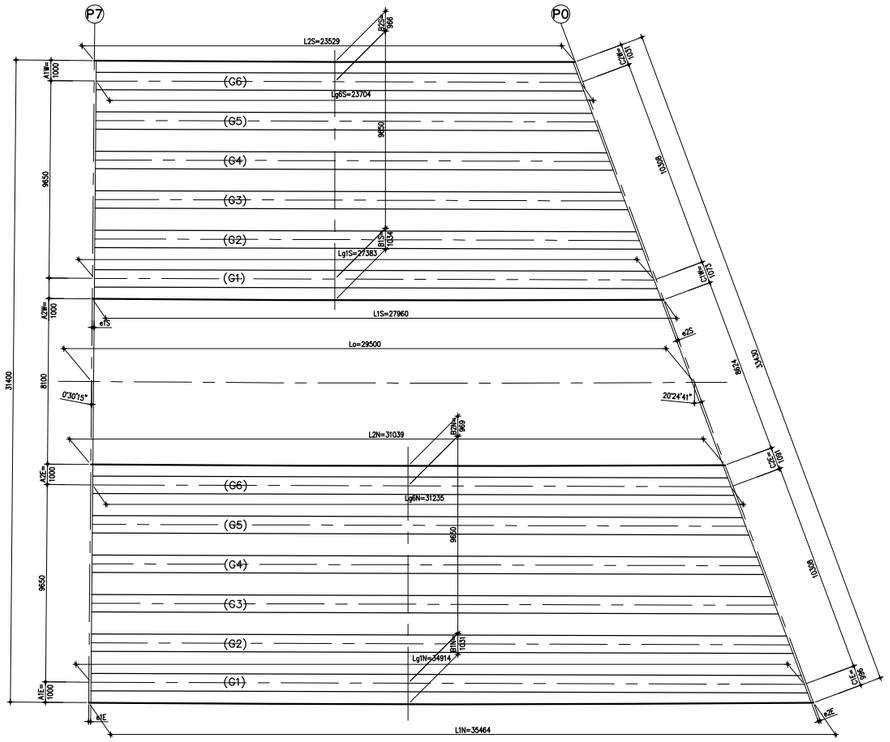
No	REVISION	DATE

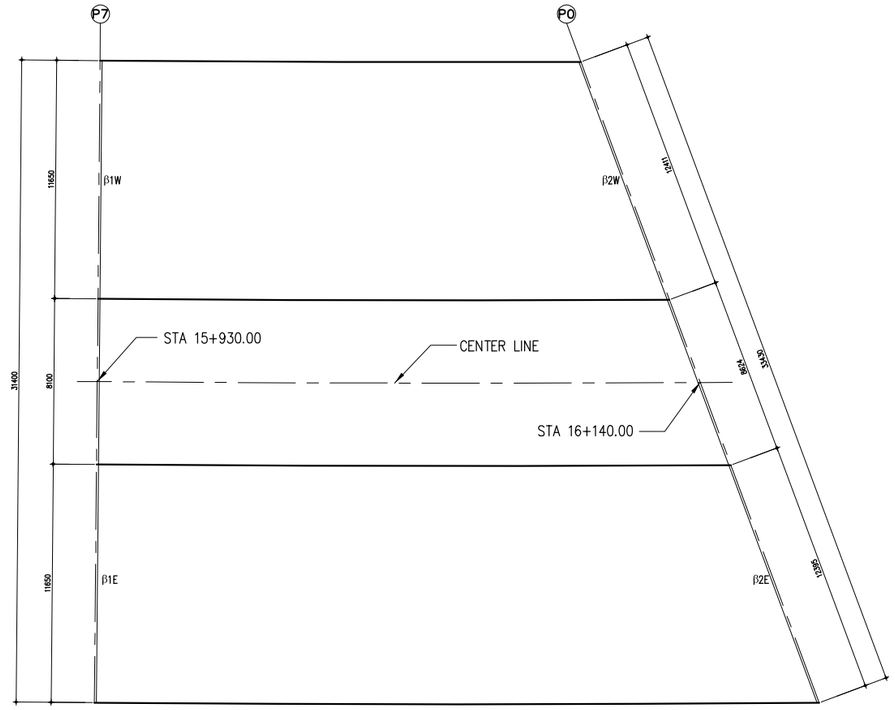
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.4 (V4) - KELANI RIVER ACCES VIADUCT
LAYOUT PLAN OF PIER P1 TO PIER P7

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K10-02



1 – LAYOUT PLAN
SCALE 1:150



	WEST BOUND
	P0~P1
Lo (m)	29.500
L1W (m)	27.960
L2W (m)	23.529
β1W (°)	0°30'15"
β2W (°)	20°24'41"
e1W/e2W (mm)	100/100
i1W (%)	2.5
i2W (%)	2.5
A1W/A2W (mm)	1000/1000
B1W/B2W(mm)	1034/966
C1W/C2W (mm)	1073/1031
Lg1W (m)	27.383
Lg2W (m)	26.648
Lg3W (m)	25.912
Lg4W (m)	25.176
Lg5W (m)	24.440
Lg6W (m)	23.704
SPAN LENGTH (m)	L=29.500
REMARKS	

	EAST BOUND
	P0~P1
Lo (m)	29.500
L1E (m)	35.464
L2E (m)	31.039
β1E (°)	0°30'15"
β2E (°)	20°24'41"
e1E/e2E (mm)	100/100
i1E (%)	2.5
i2E (%)	2.5
A1E/A2E (mm)	1000/1000
B1E/B2E (mm)	1031/969
C1E/C2E (mm)	996/1031
Lg1E (m)	35.464
Lg2E (m)	34.179
Lg3E (m)	33.443
Lg4E (m)	32.707
Lg5E (m)	31.971
Lg6E (m)	31.235
SPAN LENGTH (m)	29.500
REMARKS	

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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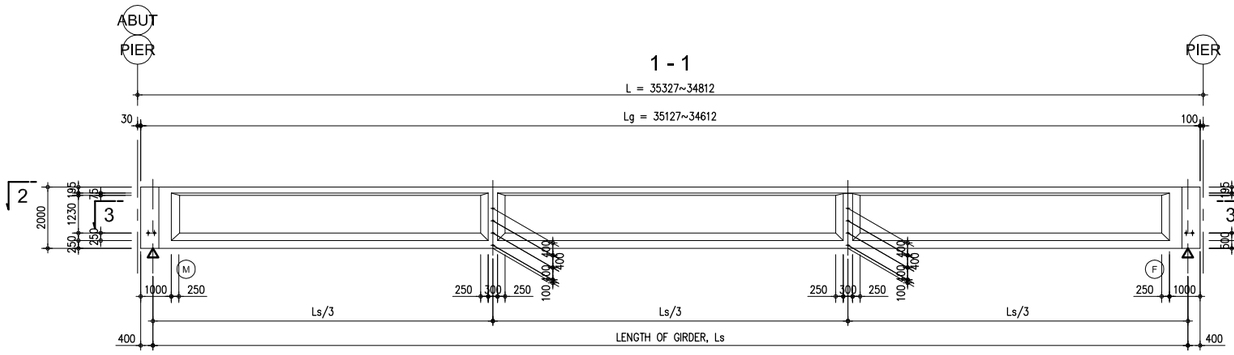
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

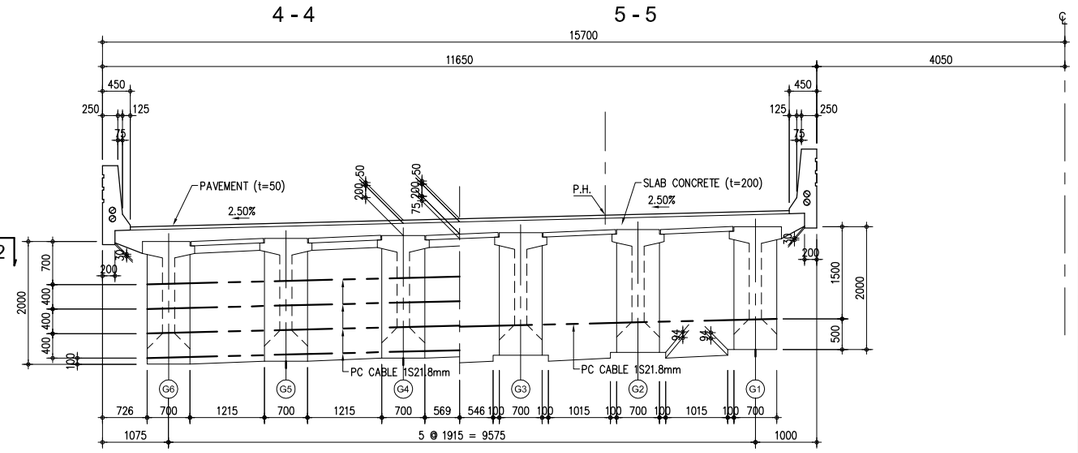
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.4 (V4) - KELANI RIVER ACCES VIADUCT
LAYOUT PLAN OF PIER P7 TO P0

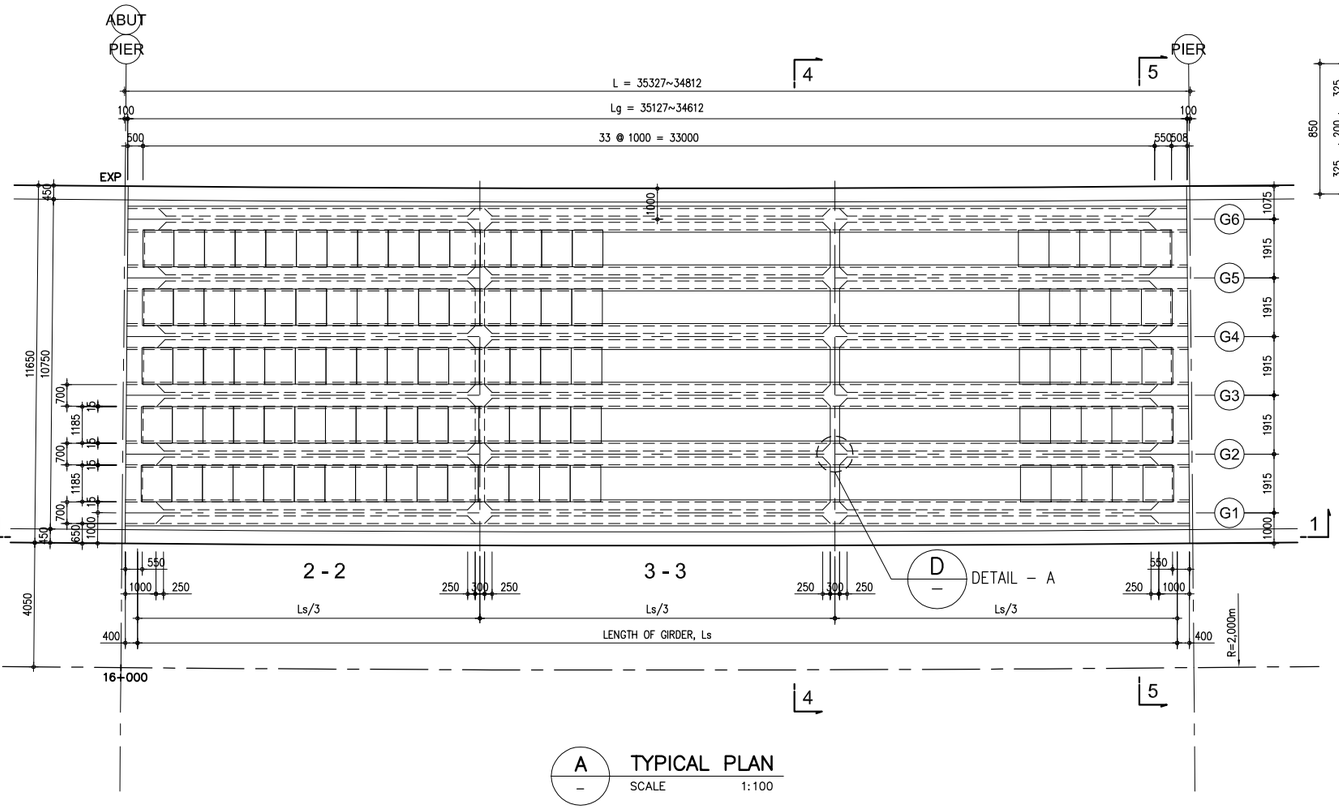
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K10-03



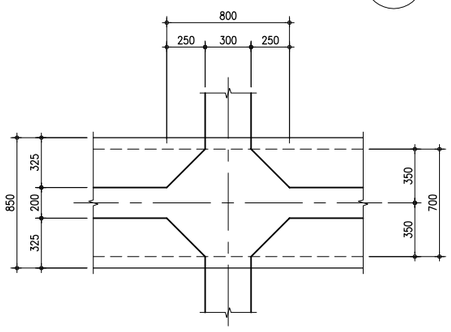
B — SIDE VIEW
SCALE 1:100



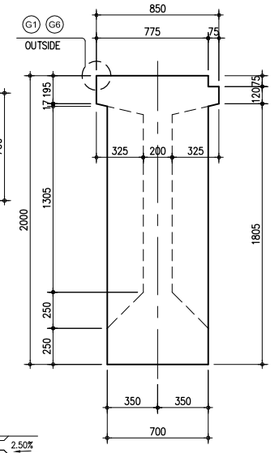
C — CROSS SECTION (TYPICAL)
SCALE 1:50

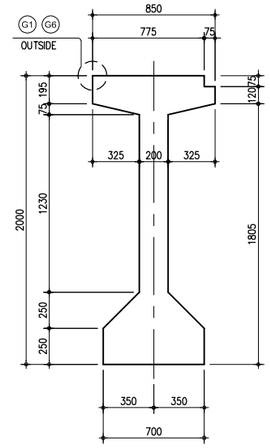


A — TYPICAL PLAN
SCALE 1:100

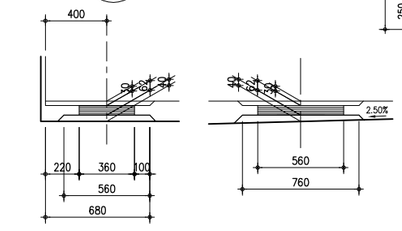


D — DETAIL–A
SCALE 1:20

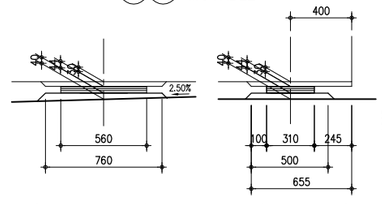




E — GIRDER CROSS SECTION
SCALE 1:20

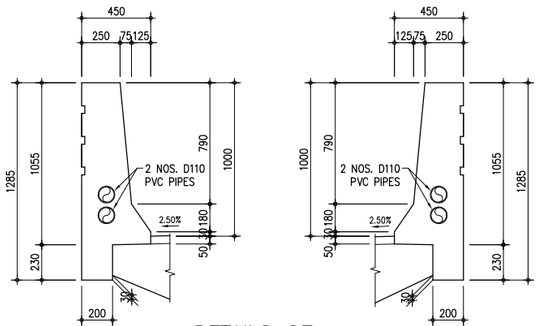


A1 P3 MOVABLE



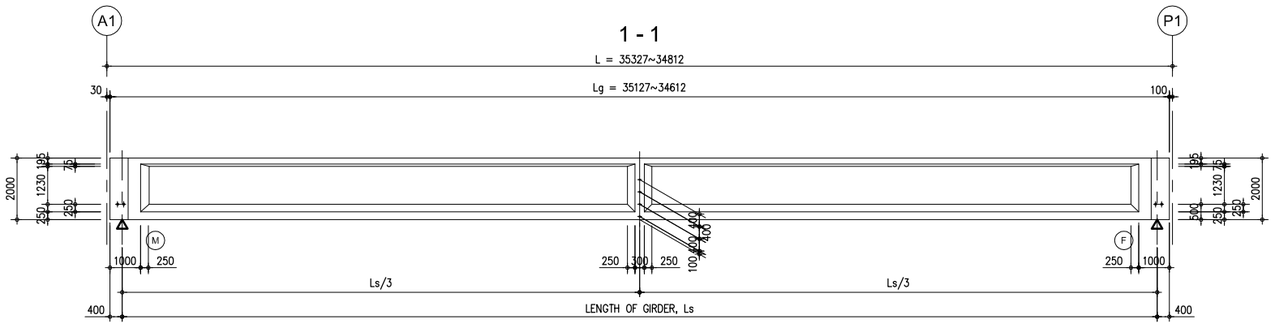
P4 FIXED

F — BEARING DETAILS
SCALE 1:20

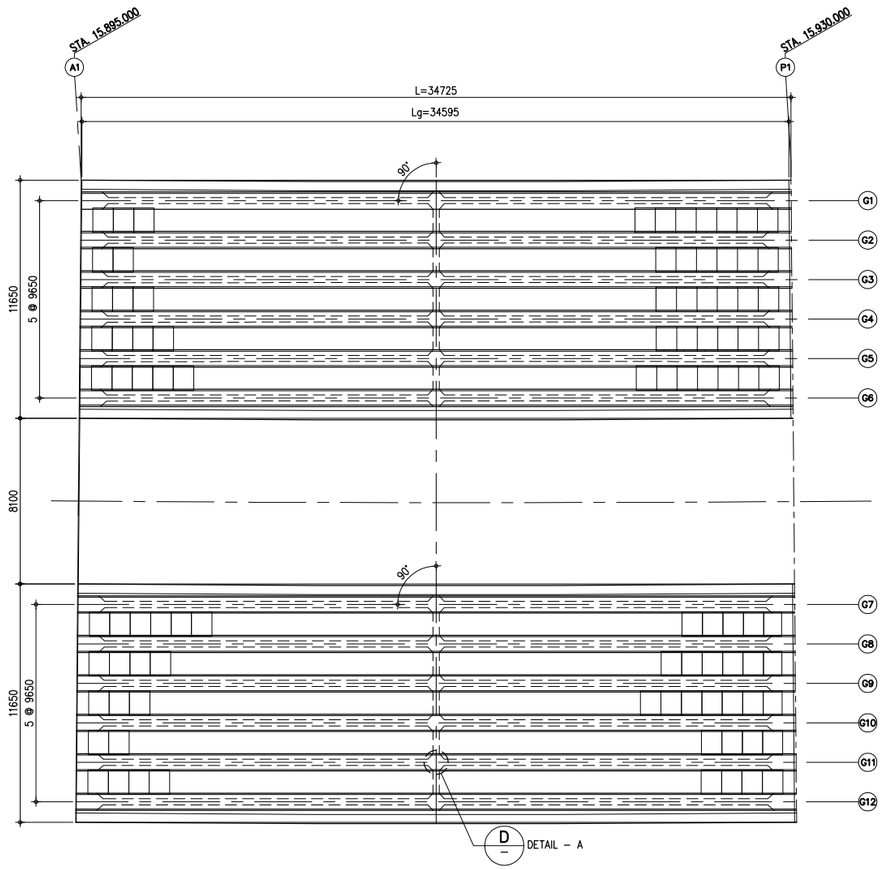


G — DETAILS OF NEW JERSEY BARRIER
SCALE 1:20

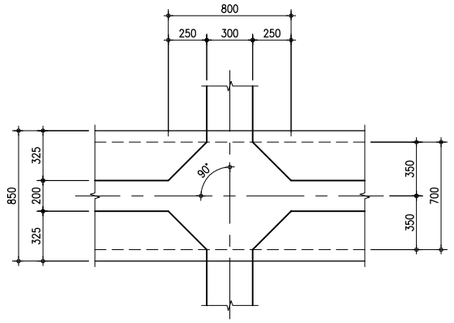
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)**
	No / REVISION / DATE	VIADUCT NO.4 (V4)-KELANI RIVER ACCESS VIADUCT TYPICAL PCI GIRDER LAYOUT DIMENSION DETAIL
		DESIGNED BY: / CHECKED BY: / APPROVED BY: / DWG. NO. K10-04



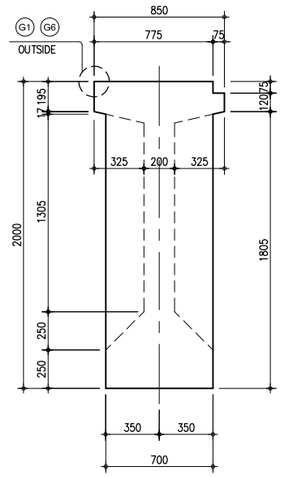
B — SIDE VIEW
SCALE 1:100

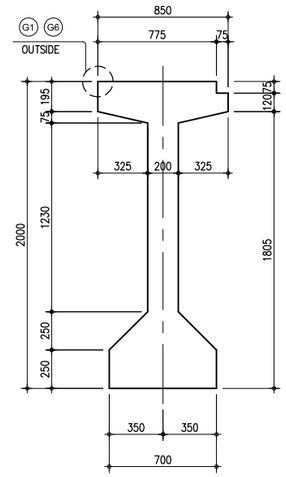


A — TYPICAL PLAN
SCALE 1:150

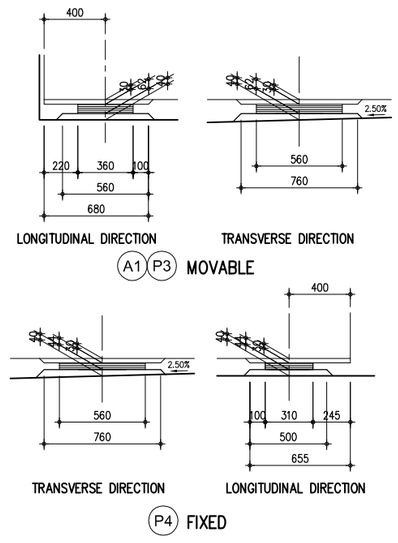


D — DETAIL–A
SCALE 1:20





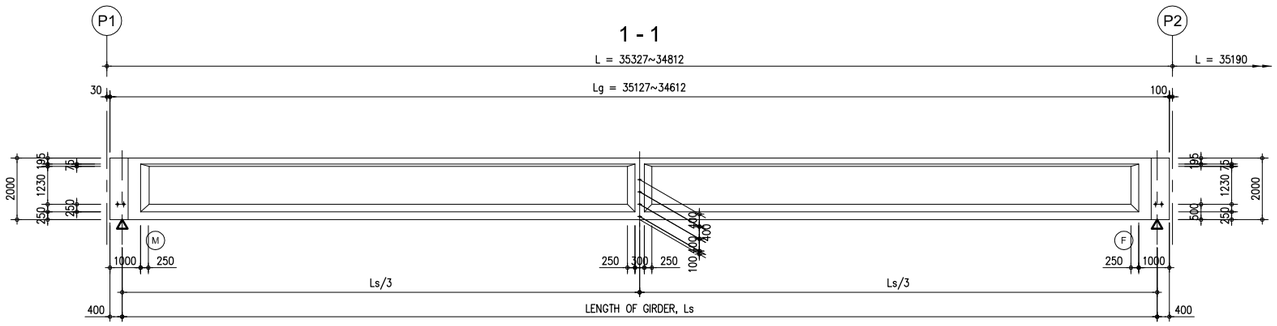
E — GIRDER CROSS SECTION
SCALE 1:20



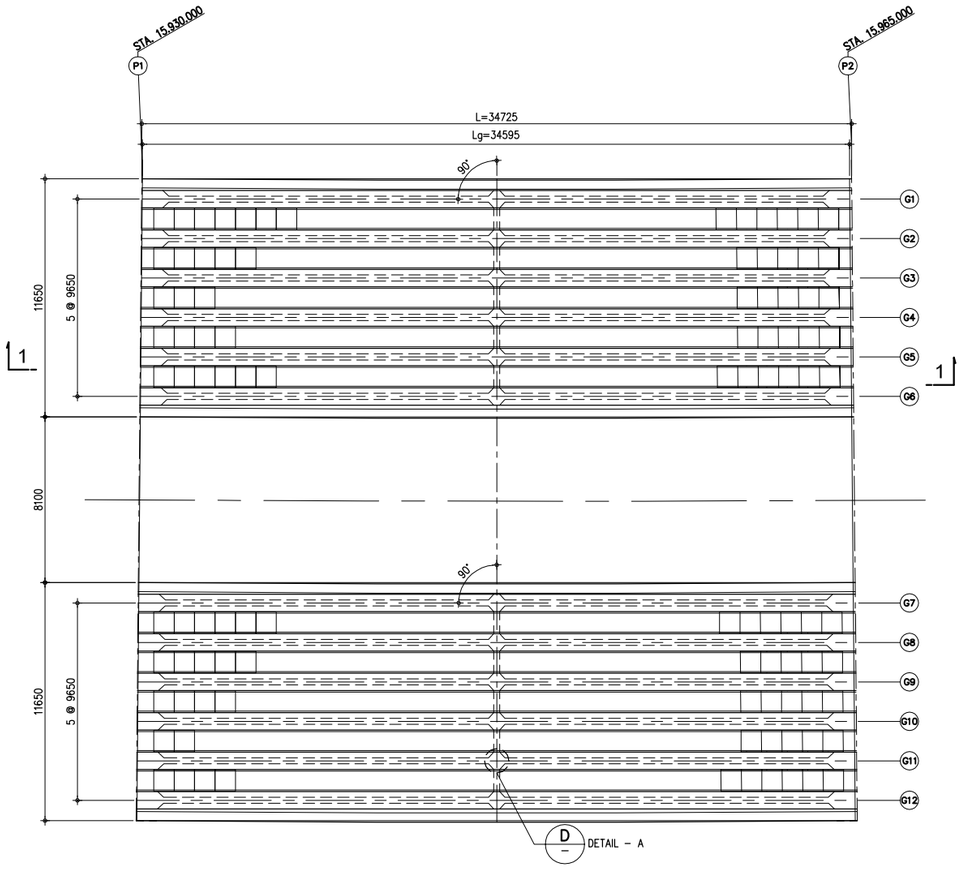
F — BEARING DETAILS
SCALE 1:20

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	**COLOMBO OUTER CIRCULAR HIGHWAY PROJECT** **(NORTHERN SECTION 1)**	DESIGNED BY:
			CHECKED BY:
		VIADUCT NO.4 (V4)-KELANI RIVER ACCESS VIADUCT PCI GIRDER LAYOUT DIMENSION DETAIL (ABUTMENT A1 TO PIER P1)	APPROVED BY:
			DWG. NO. K10-05

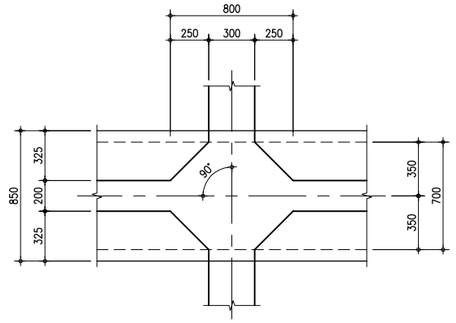
No	REVISION	DATE



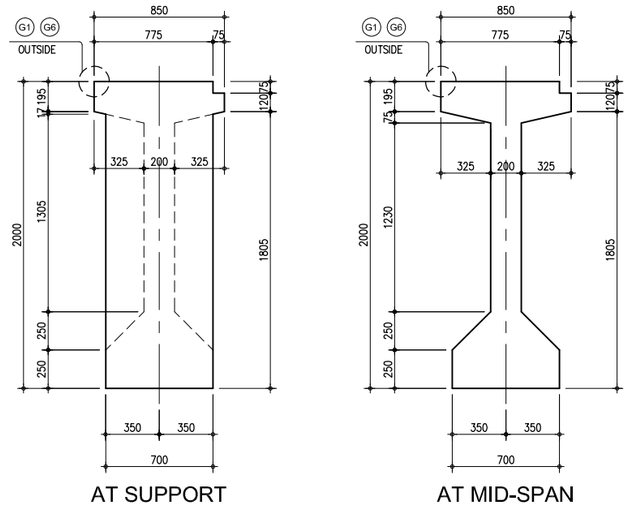
B SIDE VIEW
SCALE 1:100



A TYPICAL PLAN
SCALE 1:150

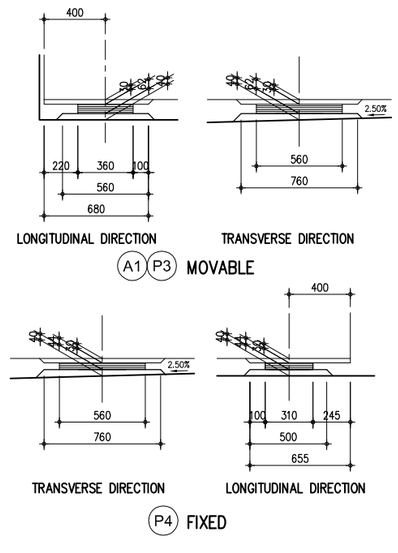


D DETAIL–A
SCALE 1:20



AT SUPPORT AT MID-SPAN

E GIRDER CROSS SECTION
SCALE 1:20



F BEARING DETAILS
SCALE 1:20

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

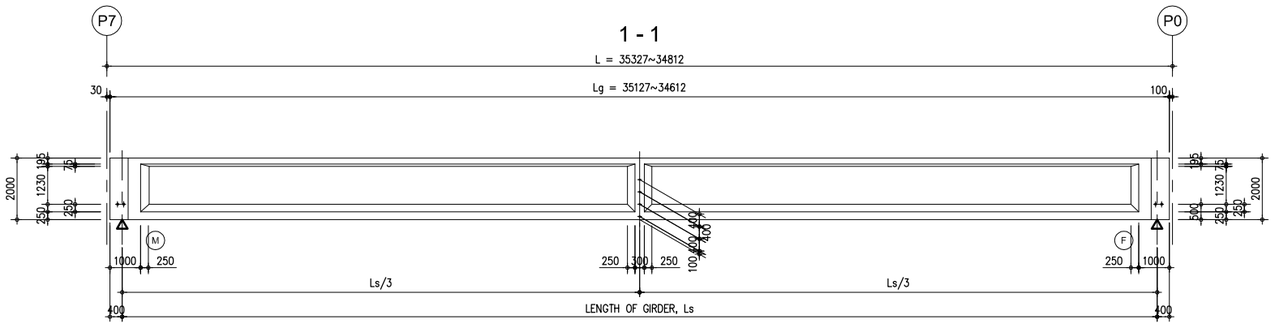
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

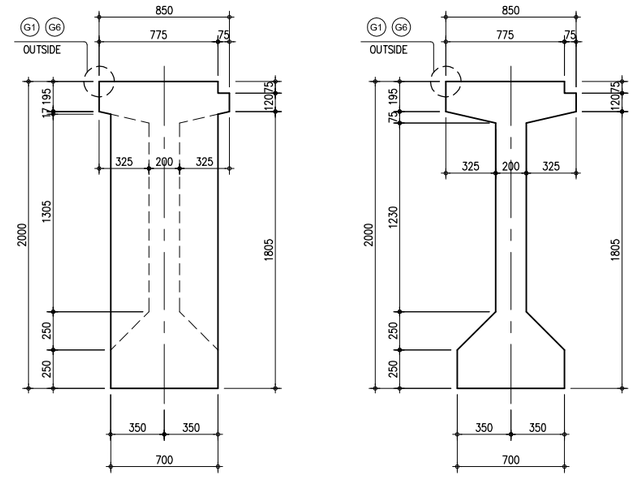
COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.4 (V4)-KELANI RIVER ACCESS VIADUCT
PCI GIRDER LAYOUT DIMENSION DETAIL (TYPICAL TO PIER P1 TO P7)

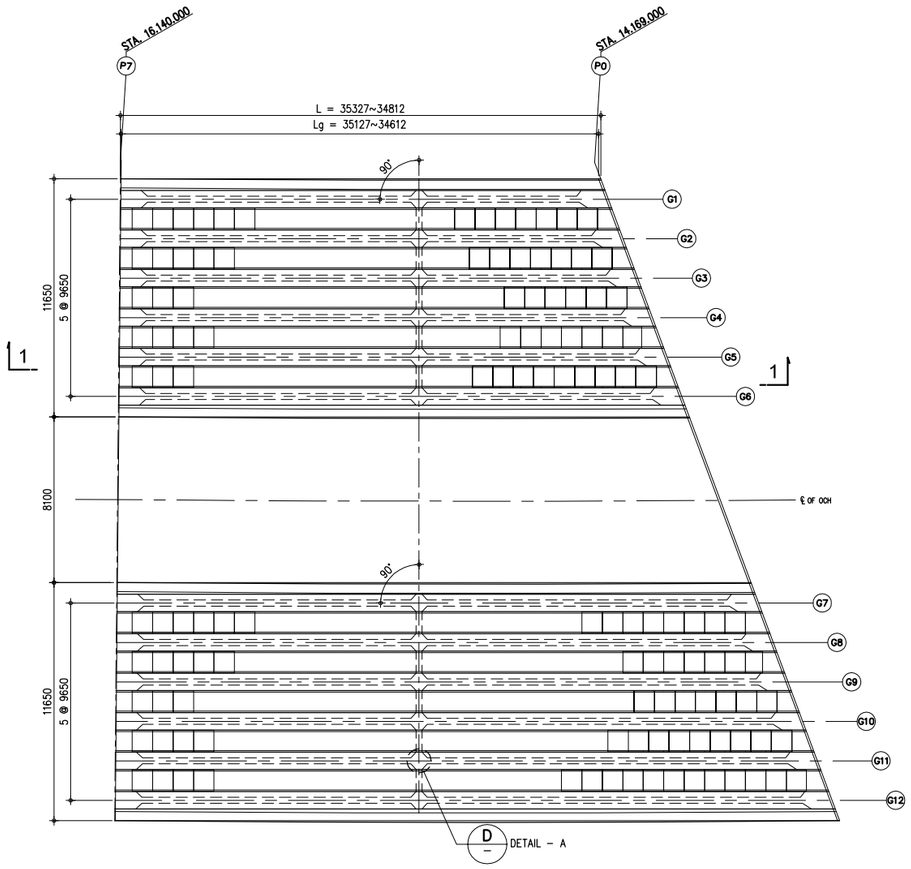
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K10-06



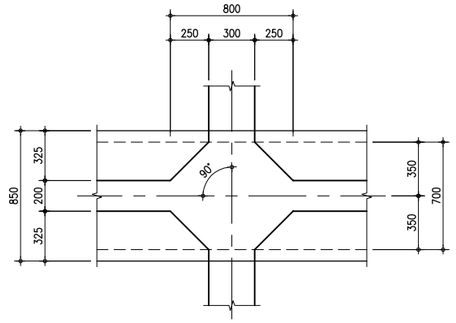
B — SIDE VIEW
SCALE 1:100



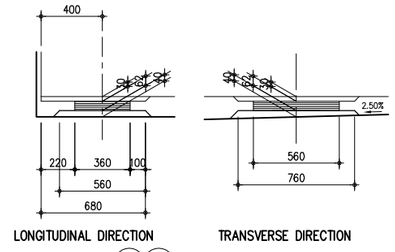
E — GIRDER CROSS SECTION
SCALE 1:20



A — TYPICAL PLAN
SCALE 1:150



D — DETAIL–A
SCALE 1:20



F — BEARING DETAILS
SCALE 1:20

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

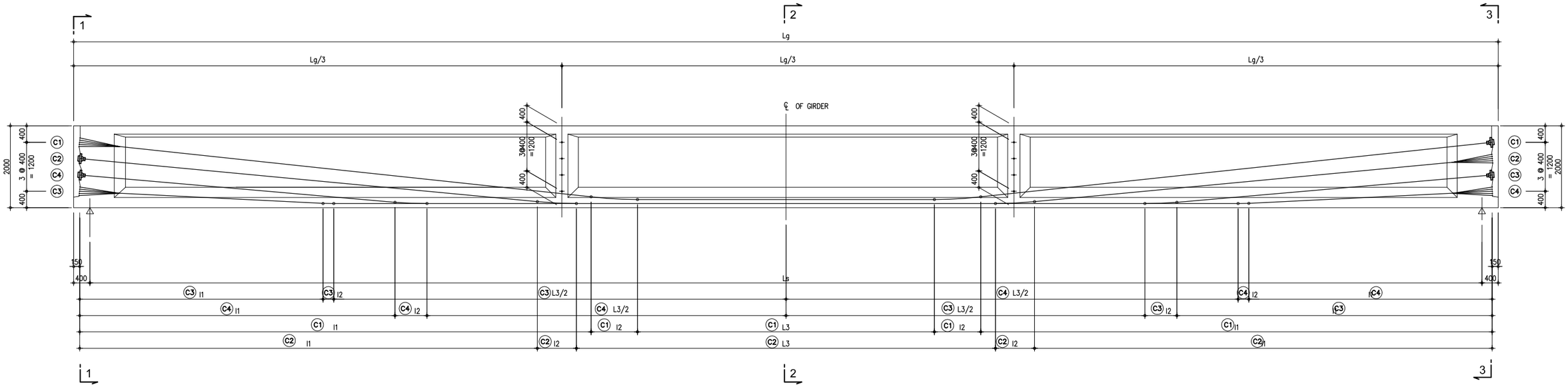
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

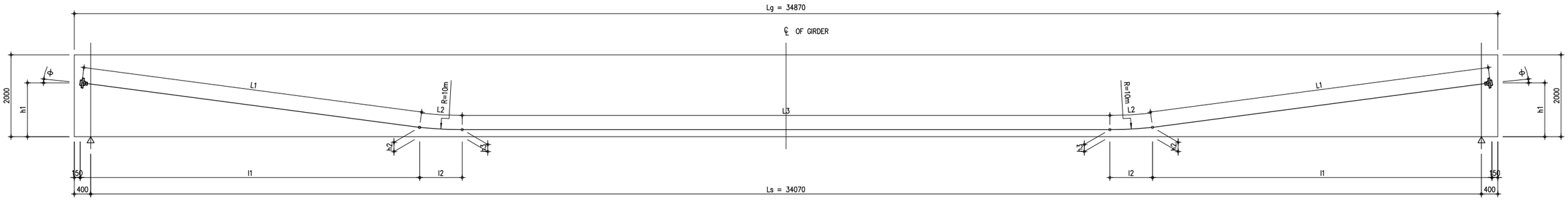
VIADUCT NO.4 (V4)-KELANI RIVER ACCESS VIADUCT
PCI GIRDER LAYOUT DIMENSION DETAIL (PIER P7 TO P0)

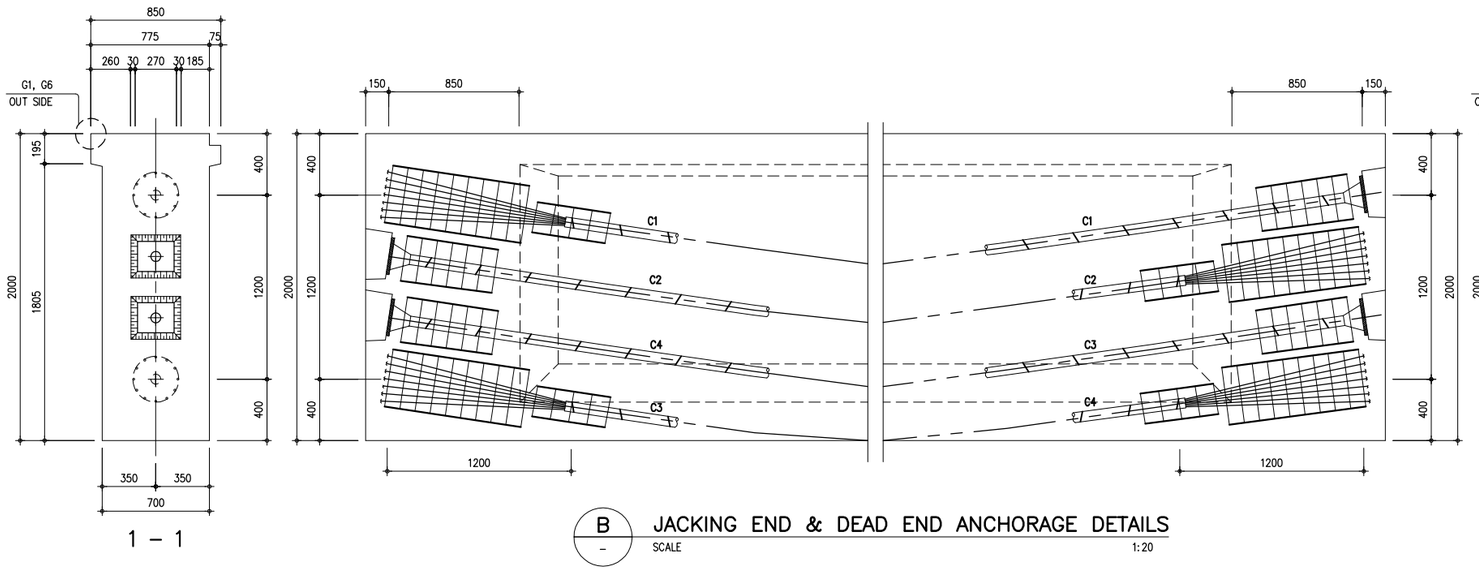
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K10-07



A — CABLE ARRANGEMENT

SCALE 1:50

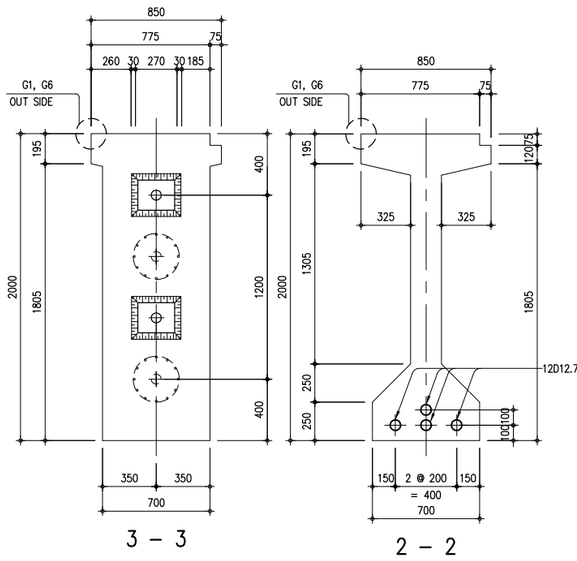




1 – 1

B — JACKING END & DEAD END ANCHORAGE DETAILS

SCALE 1:20



3 – 3

2 – 2

NOTES:

PRESTRESSED CONCRETE:

* CONCRETE CUBE STRENGTH, fcu = 50 MPa
* AT TRANSFER OF PRESTRESS, fci = 36 MPa

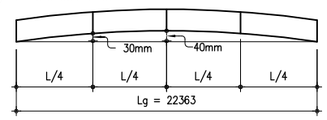
PRESTRESSING STRANDS:

* 1 – D12.7 IS A 7 – WIRE STRAND WITH NOMINAL TENSILE STRENGTH, fpu = 1860 MPa
* TOTAL NO. OF STRANDS = 4x12D12.7 =48D12.7
* JACKING STRESS, fpo = 1302 MPa
* TOTAL JACKING FORCE, Po = 4536 KN
* CABLE DUCT INSIDE DIAMETER (12–D12.7) = 65mm.

REINFORCING STEEL :

* ALL REINFORCING STEEL SHALL BE GRADE 460 WITH MINIMUM CHARACTERISTC STRENGTH, fy = 460 MPa

GIRDER PRE–CAMBER PRIOR TO STRESSING SHALL BE AS SHOWN BELOW



ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

JAPAN INTERNATIONAL COOPERATION AGENCY

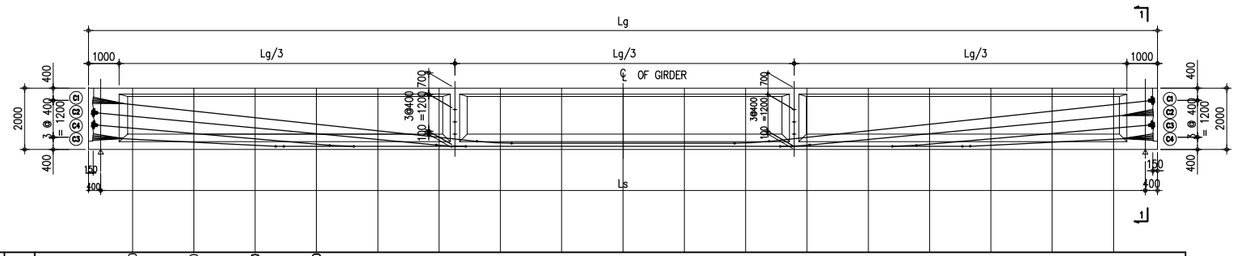
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

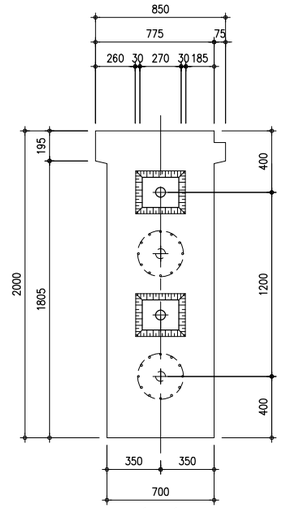
VIADUCT NO.4 (V4) - KELANI RIVER ACCES VIADUCT
PC CABLE ARRANGEMENT (1/3)

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K10-08

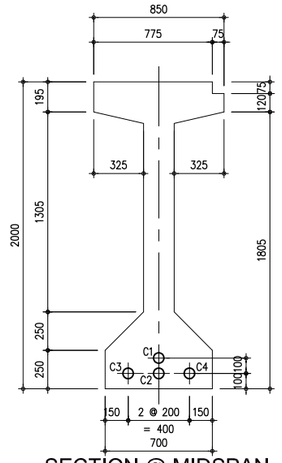


CABLE PROFILE (mm)			DISTANCE FROM ℄ (m)	16.00	14.00	12.00	10.00	8.00	6.00	4.00	2.00	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00		
A1 – P1	C1	DEAD END ▶		1463	1249	1036	822	609	396	207	200	200	200	207	396	609	822	1036	1249	1463	◀ JACKING END	C1
	C2	JACKING END ▶		1079	891	703	514	326	138	100	100	100	100	100	138	362	514	703	891	1079	◀ DEAD END	C2
	C3	DEAD END ▶		336	236	169	100	100	100	100	100	100	100	100	100	100	168	342	515	689	◀ JACKING END	C3
	C4	JACKING END ▶		688	515	342	168	100	100	100	100	100	100	100	100	100	100	137	236	336	◀ DEAD END	C4
P1 – P2	C1	DEAD END ▶		1463	1249	1036	822	609	396	207	200	200	200	207	396	609	822	1036	1249	1463	◀ JACKING END	C1
	C2	JACKING END ▶		1079	891	703	514	326	138	100	100	100	100	100	138	362	514	703	891	1079	◀ DEAD END	C2
	C3	DEAD END ▶		336	236	169	100	100	100	100	100	100	100	100	100	100	168	342	515	689	◀ JACKING END	C3
	C4	JACKING END ▶		688	515	342	168	100	100	100	100	100	100	100	100	100	100	137	236	336	◀ DEAD END	C4
P2 – P3	C1	DEAD END ▶		1463	1249	1036	822	609	396	207	200	200	200	207	396	609	822	1036	1249	1463	◀ JACKING END	C1
	C2	JACKING END ▶		1079	891	703	514	326	138	100	100	100	100	100	138	362	514	703	891	1079	◀ DEAD END	C2
	C3	DEAD END ▶		336	236	169	100	100	100	100	100	100	100	100	100	100	168	342	515	689	◀ JACKING END	C3
	C4	JACKING END ▶		688	515	342	168	100	100	100	100	100	100	100	100	100	100	137	236	336	◀ DEAD END	C4
P3 – P4	C1	DEAD END ▶		1463	1249	1036	822	609	396	207	200	200	200	207	396	609	822	1036	1249	1463	◀ JACKING END	C1
	C2	JACKING END ▶		1079	891	703	514	326	138	100	100	100	100	100	138	362	514	703	891	1079	◀ DEAD END	C2
	C3	DEAD END ▶		336	236	169	100	100	100	100	100	100	100	100	100	100	168	342	515	689	◀ JACKING END	C3
	C4	JACKING END ▶		688	515	342	168	100	100	100	100	100	100	100	100	100	100	137	236	336	◀ DEAD END	C4
P4 – P5	C1	DEAD END ▶		1463	1249	1036	822	609	396	207	200	200	200	207	396	609	822	1036	1249	1463	◀ JACKING END	C1
	C2	JACKING END ▶		1079	891	703	514	326	138	100	100	100	100	100	138	362	514	703	891	1079	◀ DEAD END	C2
	C3	DEAD END ▶		336	236	169	100	100	100	100	100	100	100	100	100	100	168	342	515	689	◀ JACKING END	C3
	C4	JACKING END ▶		688	515	342	168	100	100	100	100	100	100	100	100	100	100	137	236	336	◀ DEAD END	C4
P5 – P6	C1	DEAD END ▶		1463	1249	1036	822	609	396	207	200	200	200	207	396	609	822	1036	1249	1463	◀ JACKING END	C1
	C2	JACKING END ▶		1079	891	703	514	326	138	100	100	100	100	100	138	362	514	703	891	1079	◀ DEAD END	C2
	C3	DEAD END ▶		336	236	169	100	100	100	100	100	100	100	100	100	100	168	342	515	689	◀ JACKING END	C3
	C4	JACKING END ▶		688	515	342	168	100	100	100	100	100	100	100	100	100	100	137	236	336	◀ DEAD END	C4
P6 – P7	C1	DEAD END ▶		1463	1249	1036	822	609	396	207	200	200	200	207	396	609	822	1036	1249	1463	◀ JACKING END	C1
	C2	JACKING END ▶		1079	891	703	514	326	138	100	100	100	100	100	138	362	514	703	891	1079	◀ DEAD END	C2
	C3	DEAD END ▶		336	236	169	100	100	100	100	100	100	100	100	100	100	168	342	515	689	◀ JACKING END	C3
	C4	JACKING END ▶		688	515	342	168	100	100	100	100	100	100	100	100	100	100	137	236	336	◀ DEAD END	C4
P7 – A0	C1	DEAD END ▶		1463	1249	1036	822	609	396	207	200	200	200	207	396	609	822	1036	1249	1463	◀ JACKING END	C1
	C2	JACKING END ▶		1079	891	703	514	326	138	100	100	100	100	100	138	362	514	703	891	1079	◀ DEAD END	C2
	C3	DEAD END ▶		336	236	169	100	100	100	100	100	100	100	100	100	100	168	342	515	689	◀ JACKING END	C3
	C4	JACKING END ▶		688	515	342	168	100	100	100	100	100	100	100	100	100	100	137	236	336	◀ DEAD END	C4

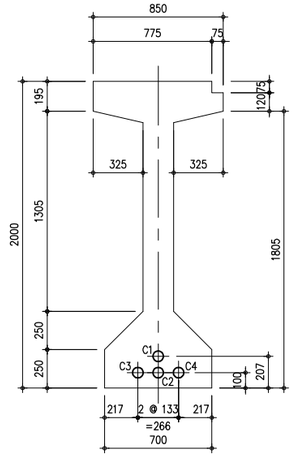
A — CABLE PROFILE
SCALE 1:100



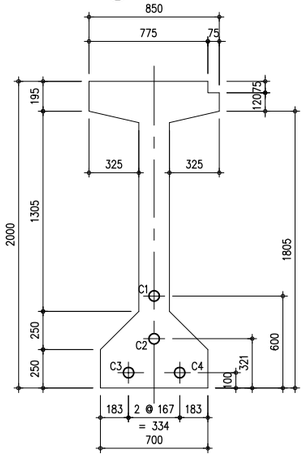
1 - 1



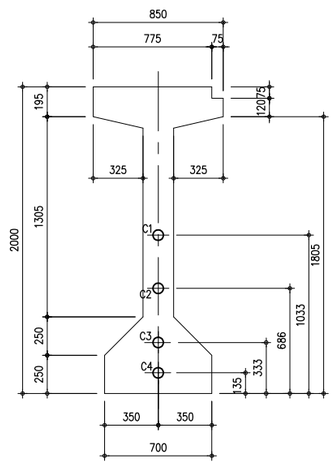
SECTION @ MIDSPAN



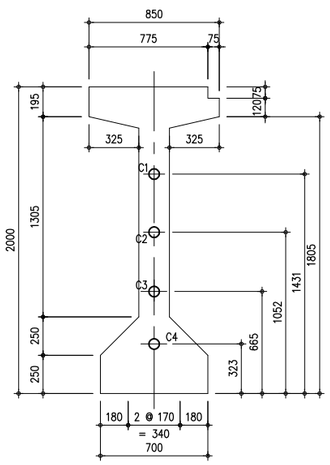
SECTION @ 4.00m



SECTION @ 8.00m



SECTION @ 12.00m



SECTION @ 16.00m

B — GIRDER CROSS SECTION
SCALE 1:20

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

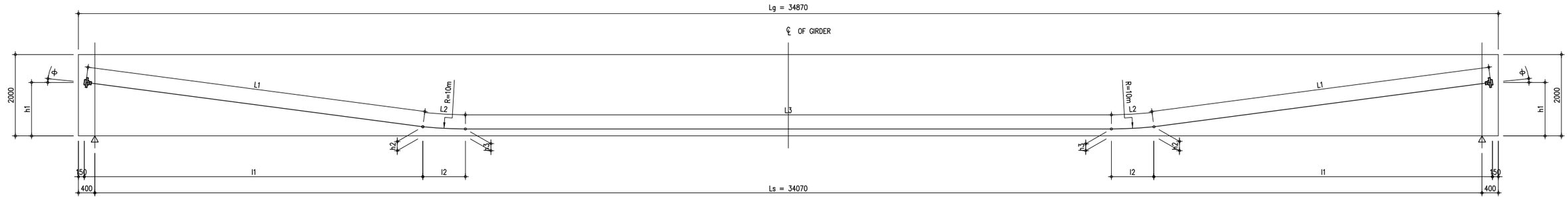
No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.4 (V4) - KELANI RIVER ACCES VIADUCT
PC CABLE ARRANGEMENT (2/3)

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K10-09

SPAN	Lg	Ls	CABLE NO.	l1	l2	L1	L2	L3	$2\sum_{1}^{2}L + 3$	h1	h2	h3	θ = (degree)	TOTAL LENGTH	TOTAL WEIGHT
A1 – P1	34870	34070	C1	25036	1132	25072	1134	7270	59681	1600	264	200	3°3'	231.73 m	2,152.27 kg./1girder
			C2	20905	958	20932	960	11749	55532	1200	146	138	2°53'		
			C3	15431	785	15445	785	17569	50030	800	131	100	2°29'		
			C4	31910	262	31911	262	2136	66483	400	103	100	0°32'		
P1 – P2	34800	34000	C1	24966	1132	25002	1134	7270	59541	1600	264	200	3°4'	231.73 m	2,147.08 kg./1girder
			C2	20835	958	20862	960	11749	55392	1200	146	138	2°54'		
			C3	15361	785	15376	785	17569	49890	800	131	100	2°29'		
			C4	31840	262	31841	262	2136	66343	400	103	100	0°32'		
P2 – P3	34800	34000	C1	24966	1132	25002	1134	7270	59541	1600	264	200	3°4'	231.73 m	2,147.08 kg./1girder
			C2	20835	958	20862	960	11749	55392	1200	146	138	2°54'		
			C3	15361	785	15376	785	17569	49890	800	131	100	2°29'		
			C4	31840	262	31841	262	2136	66343	400	103	100	0°32'		
P3 – P4	34800	34000	C1	24966	1132	25002	1134	7270	59541	1600	264	200	3°4'	231.73 m	2,147.08 kg./1girder
			C2	20835	958	20862	960	11749	55392	1200	146	138	2°54'		
			C3	15361	785	15376	785	17569	49890	800	131	100	2°29'		
			C4	31840	262	31841	262	2136	66343	400	103	100	0°32'		
P4 – P5	34800	34000	C1	24966	1132	25002	1134	7270	59541	1600	264	200	3°4'	231.73 m	2,147.08 kg./1girder
			C2	20835	958	20862	960	11749	55392	1200	146	138	2°54'		
			C3	15361	785	15376	785	17569	49890	800	131	100	2°29'		
			C4	31840	262	31841	262	2136	66343	400	103	100	0°32'		
P5 – P6	34800	34000	C1	24966	1132	25002	1134	7270	59541	1600	264	200	3°4'	231.73 m	2,147.08 kg./1girder
			C2	20835	958	20862	960	11749	55392	1200	146	138	2°54'		
			C3	15361	785	15376	785	17569	49890	800	131	100	2°29'		
			C4	31840	262	31841	262	2136	66343	400	103	100	0°32'		
P6 – P7	34800	34000	C1	24966	1132	25002	1134	7270	59541	1600	264	200	3°4'	231.73 m	2,147.08 kg./1girder
			C2	20835	958	20862	960	11749	55392	1200	146	138	2°54'		
			C3	15361	785	15376	785	17569	49890	800	131	100	2°29'		
			C4	31840	262	31841	262	2136	66343	400	103	100	0°32'		
P7 – A0	29300	28500	C1	19466	1132	19512	1134	7270	48652	1600	264	200	3°56'	187.22 m	1,738.92 kg./1girder
			C2	15335	958	15371	960	11749	44411	1200	146	138	2°56'		
			C3	9861	785	9884	785	17569	38906	800	131	100	2°53'		
			C4	26340	262	26342	262	2136	55343	400	103	100	0°39'		



C – CABLE LAYOUT
SCALE 1:50

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

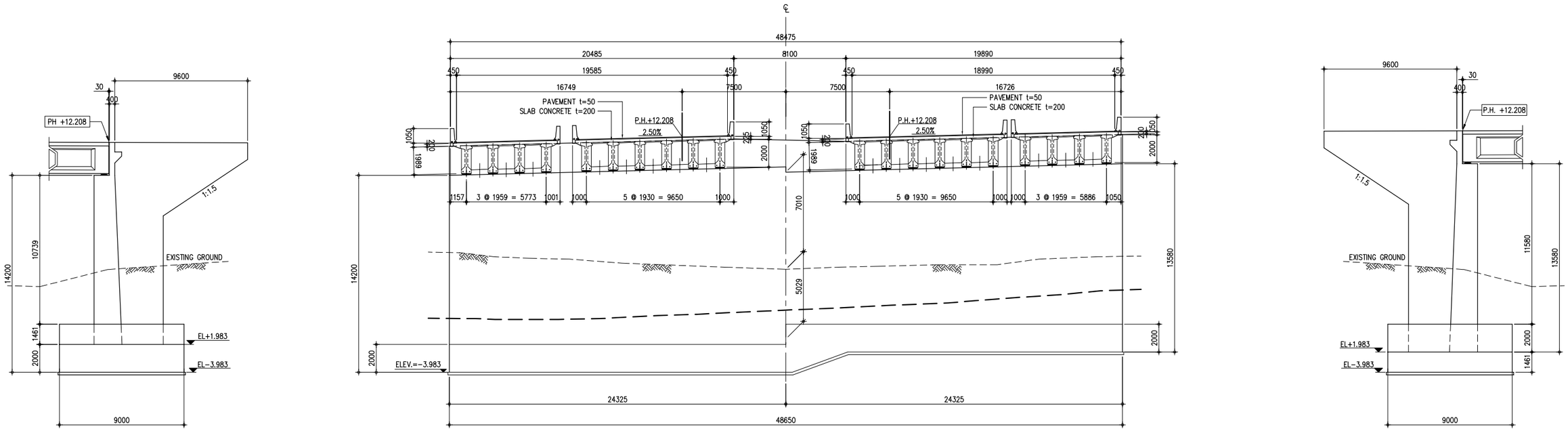
JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

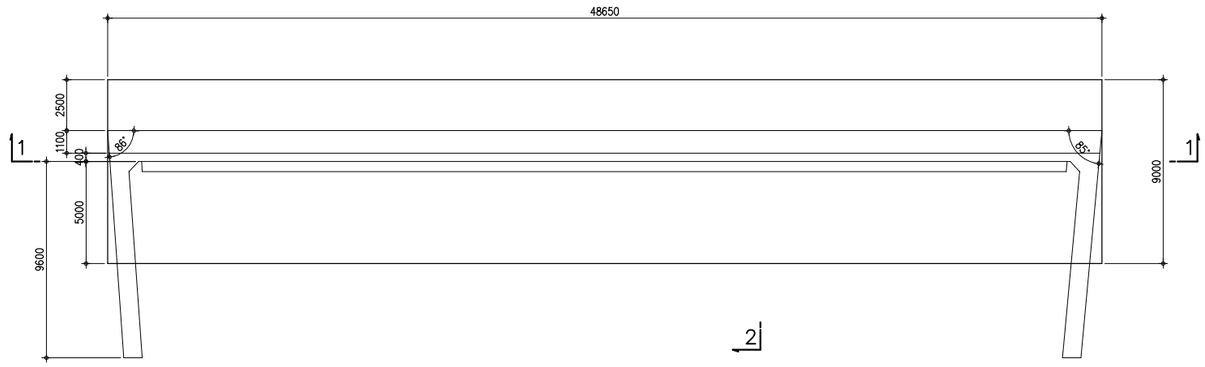
VIADUCT NO.4 (V4) - KELANI RIVER ACCES VIADUCT
PC CABLE ARRANGEMENT (3/3)

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K10-10



2 — SECTION 1−1
SCALE 1:150

3 — SECTION 2−2
SCALE 1:150



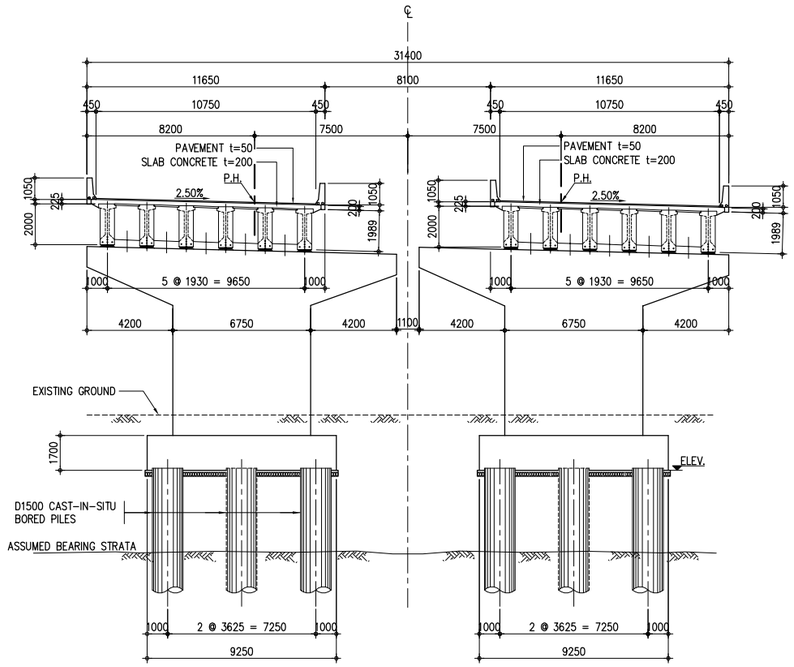
1 — PLAN OF ABUTMENT A1
SCALE 1:150

A — DIMENSION DETAIL FOR ABUTMENT A1
SCALE 1:100

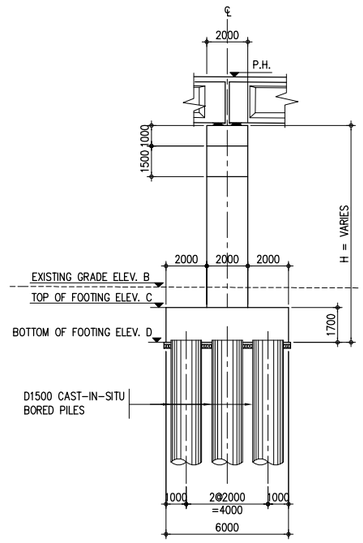
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT **Road Development Authority**	JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS COMPANY LIMITED in association with PACIFIC CONSULTANTS INTERNATIONAL	COLOMBO OUTER CIRCULAR HIGHWAY PROJECT (NORTHERN SECTION 1) VIADUCT NO.4 (V4) - KELANI RIVER ACCES VIADUCT DIMENSION DETAILS OF ABUTMENT A1

No	REVISION	DATE

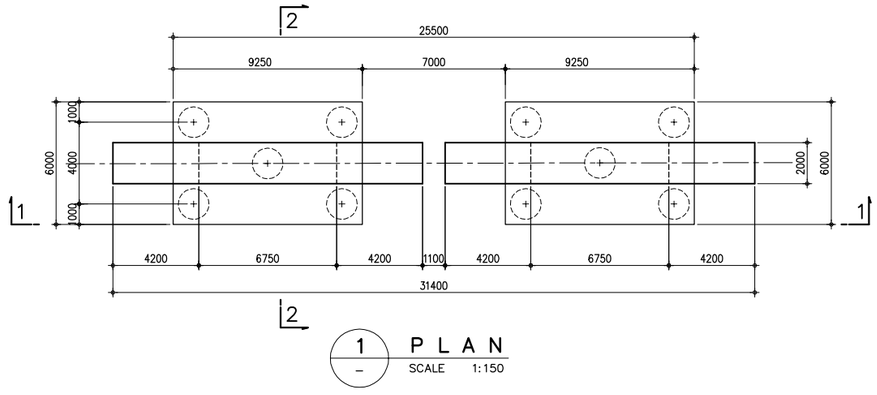
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K10-11



2 SECTION 1–1
SCALE 1:150



3 SECTION 2–2
SCALE 1:150



1 PLAN
SCALE 1:150

SCHEDULE OF PIER

PIER NO.	PIER LOCATION	TOP OF PIER ELEV. A	EXISTING GRADE ELEV. B	TOP OF FOOTING ELEV. C	BOTTOM OF FOOTING ELEV. D	H	P.H	PILE LENGTH	NO. OF PILE
P-1	STA. 15+930.00	9.935	1.919	0.935	−0.765	10.700	12.316	14.00	10
P-2	STA. 15+965.00	10.044	1.934	0.944	−0.756	10.800	12.425	11.00	10
P-3	STA. 16+000.00	10.152	0.589	−0.448	−2.148	12.300	12.533	11.00	10
P-4	STA. 16+035.00	10.261	1.585	0.542	−1.158	11.300	12.642	14.00	10
P-5	STA. 16+070.00	10.369	1.464	0.469	−1.231	11.600	12.750	14.00	10
P-6	STA. 16+105.00	10.478	0.316	0.722	−2.422	12.900	12.859	15.00	10
P-7	STA. 16+140.00	10.586	2.140	1.086	−0.614	12.200	12.967	20.00	10

A DIMENSION DETAILS FOR PIER P1, P2, P3, P4, P5, P6 & P7
SCALE 1:150

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT
Road Development Authority

JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS COMPANY LIMITED
in association with
PACIFIC CONSULTANTS INTERNATIONAL

No	REVISION	DATE

COLOMBO OUTER CIRCULAR HIGHWAY PROJECT
(NORTHERN SECTION 1)

VIADUCT NO.4 (V4) - KELANI RIVER ACCES VIADUCT
DIMENSION DETAILS OF PIER P1, P2, P3, P4, P5, P6, & P7

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	K10-12