

REPUBLIQUE DE COTE D'IVOIRE



Union - Discipline - Travail

MINISTRE DES INFRASTRUCTURES ECONOMIQUES
AGENCE DE GESTION DES ROUTES (AGEROUTE)

ÉTUDE PRÉPARATOIRE POUR LE PROJET D'AMÉLIORATION DU CARREFOUR DE SOLIBRA EN RÉPUBLIQUE DE CÔTE D'IVOIRE

PLANS DE CONCEPTION D'AVANT-PROJET



AGENCE JAPONAISE DE COOPÉRATION INTERNATIONALE (JICA)



ORIENTAL CONSULTANTS GLOBAL CO., LTD.

CENTRAL CONSULTANT INC.

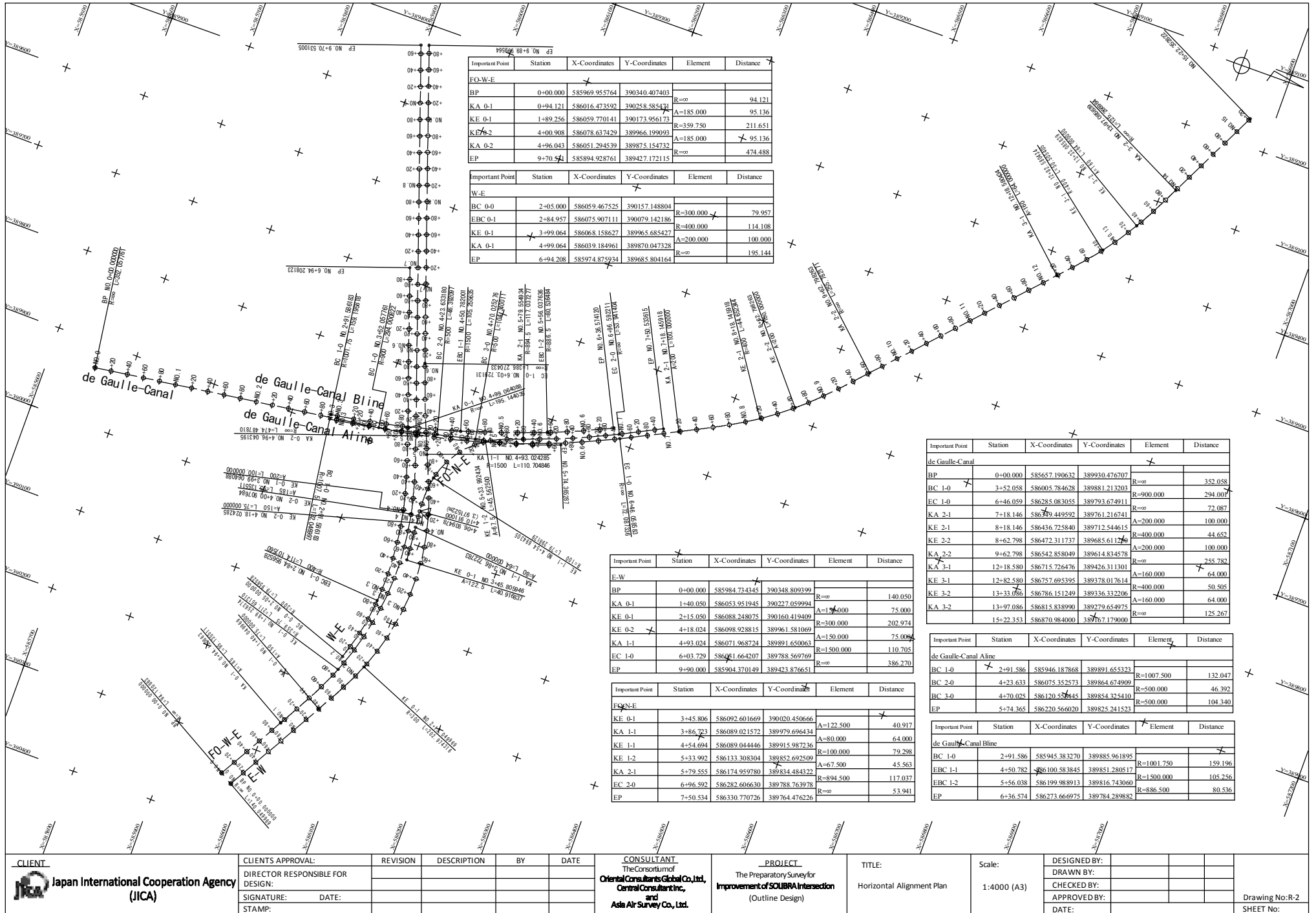
ASIA AIR SURVEY CO., LTD.



Drawing Title	Scale (in A3)	Page	Remarks
Road Drawings			
SOLIBRA Intersection Improvement Plan	1:2,500	R-1	
Horizontal Alignment Plan	1:4,000	R-2	
Boulevard Valery Giscard d'Estaing (VGE) Improvement Plan	1:2,000	R-3 → R-4	
Boulevard De Gaulle-Canal Improvement Plan	1:2,000	R-5	
Profile of Boulevard Valery Giscard d'Estaing (VGE)	H=1:2,000 V=1:400	R-6 → R-9	
Profile of De Gaulle	H=1:2,000 V=1:400	R-10 → R-11	
Typical Cross Section (VGE)	1:400	R-12 → R-13	
Typical Cross Section (De Gaulle -Canal)	1:400	R-14 → R-15	
Road Structure Details	As Shown	R-16 → R-19	
Road Safety Sign Post Layout Plan	1:1,600	R-20 → R-22	
Road Safety Facilities	Non	R23	
Road Markings	1:100, 1:40	R24	
Flyover Bridge Drawings			
Flyover Bridge Layout Plan FO W-E	1:2,000	B-1 → B-2	
Flyover Bridge Layout Plan FO N-E	1:2,000	B-3	
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SOLIBRA F/O Bridge Election Procedure	1:1,000	B-17	
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Electrical Drawings			
Traffic Light (Signal) Layout Plan	1:500	E-1 → E-2	
Traffic Light (Signal) Type 1,2,3 & 5 Details	As Shown	E-3	
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Street Lights Layout Plan	1:1,000	E-7 → E-10	
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Street Light (Type 5) Detail	As Shown	E-13	
Street Light (Type 6) Detail	As Shown	E-14	
Cable Connection & Hand hole	Non,	E-15	



 Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:					<u>CONSULTANT</u> The Consortium of Oriental Consultants Global Co., Ltd., Central Consultants Inc., and Asia Air Survey Co., Ltd.	<u>PROJECT</u> The Preparatory Survey for Improvement of SOLIBRA Intersection (Outline Design)	TITLE: SOLIBRA Intersection Improvement Plan	Scale: 1:2500 (A3)	DESIGNED BY:			Drawing No: R-1 SHEET No:
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REVISION					DESCRIPTION	BY	DATE						



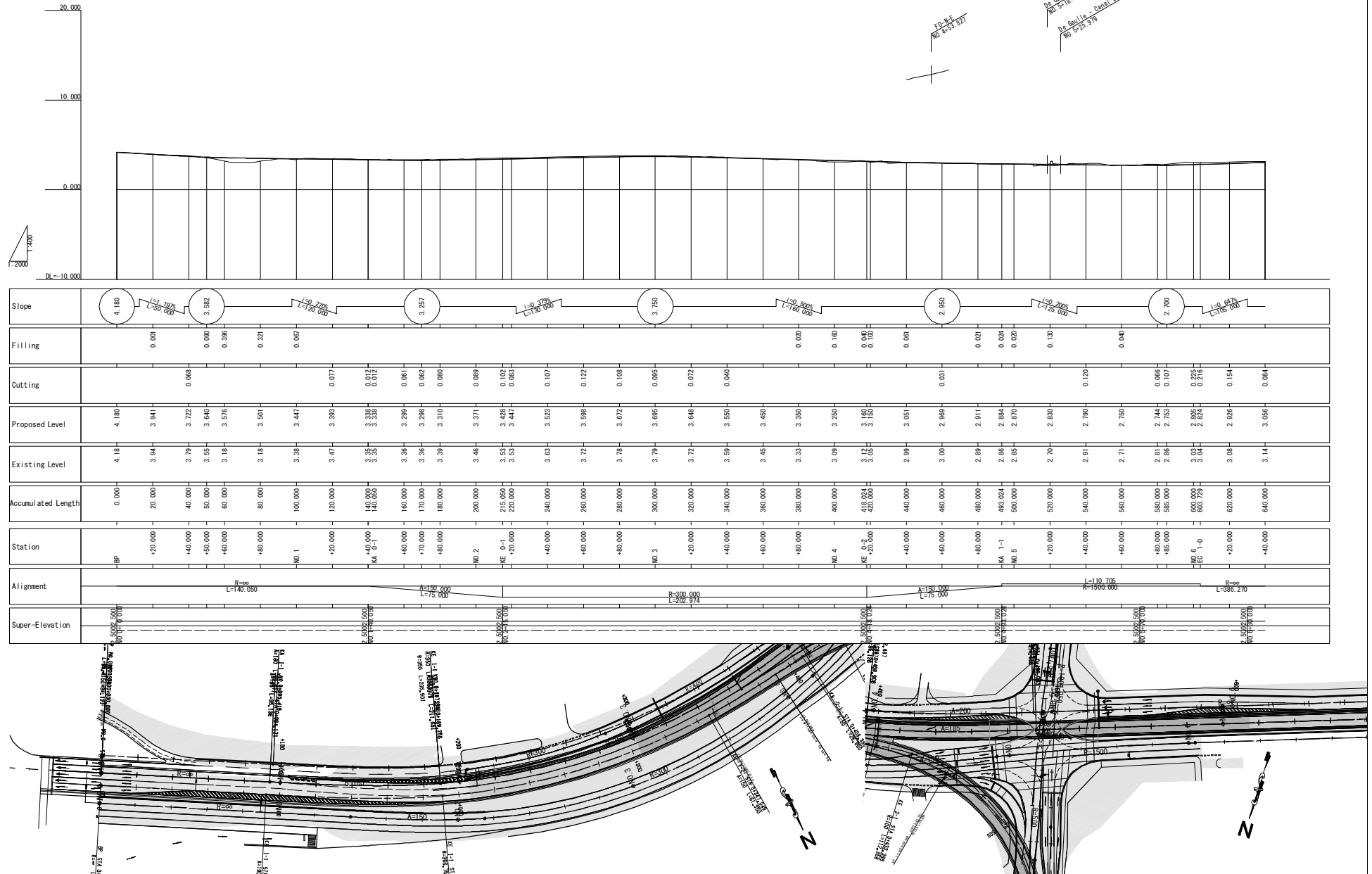
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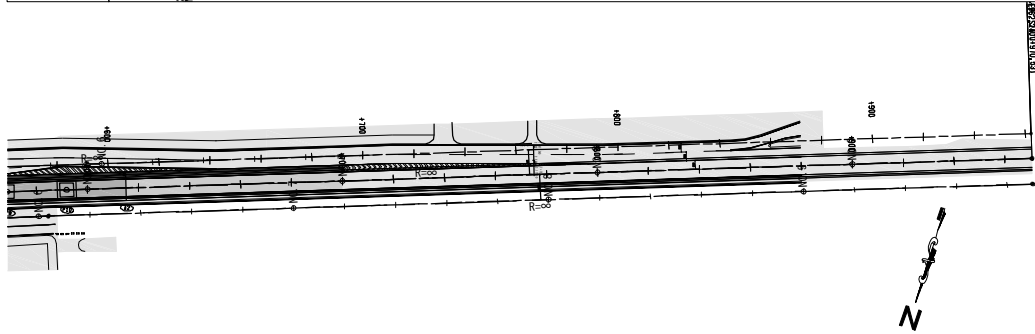
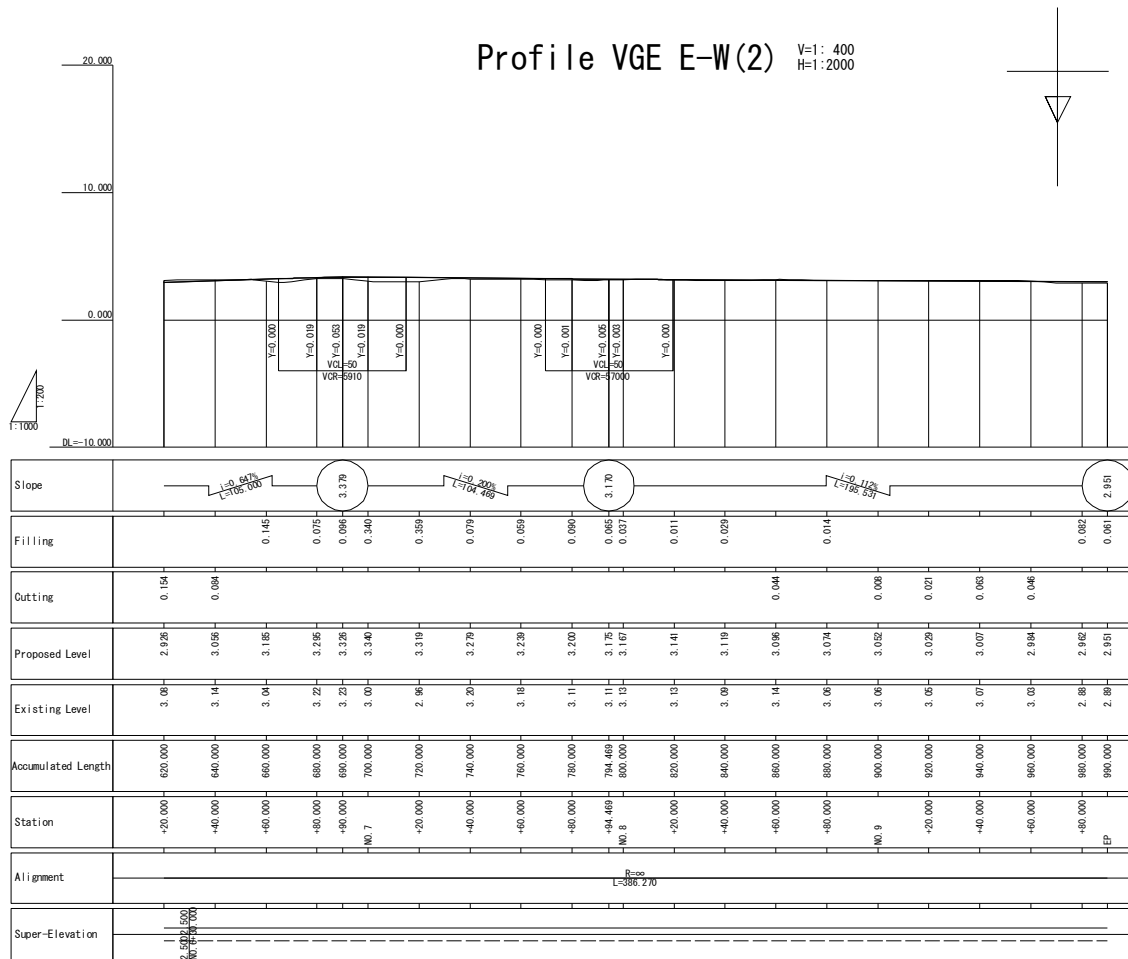


 Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	<u>CONSULTANT</u> The Consortium of Oriental Consultants Global Co., Ltd., Central Consultants Inc., and Asia Air Survey Co., Ltd.	<u>PROJECT</u> The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Boulevard Valéry Giscard d'Estaing (VGE) Improvement Plan (2/2)	Scale: 1:2000 (A3)	DESIGNED BY:			Drawing No: R-4 SHEET No:
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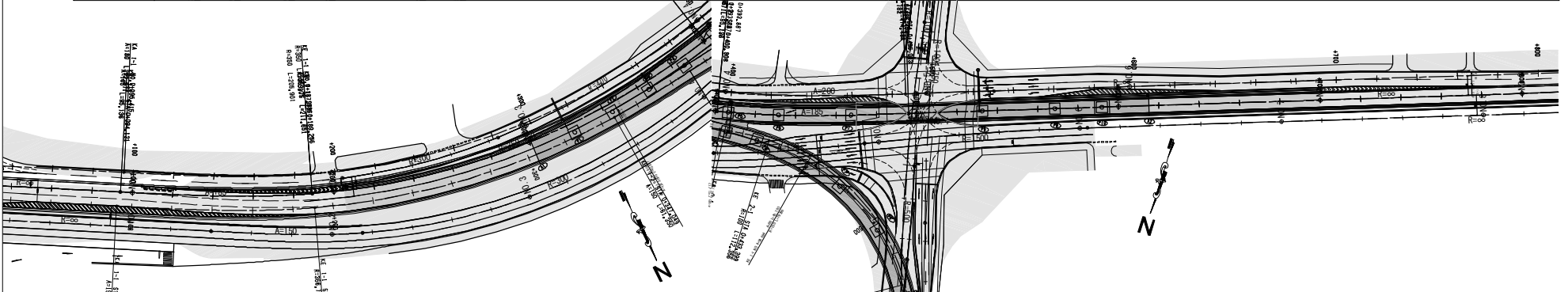
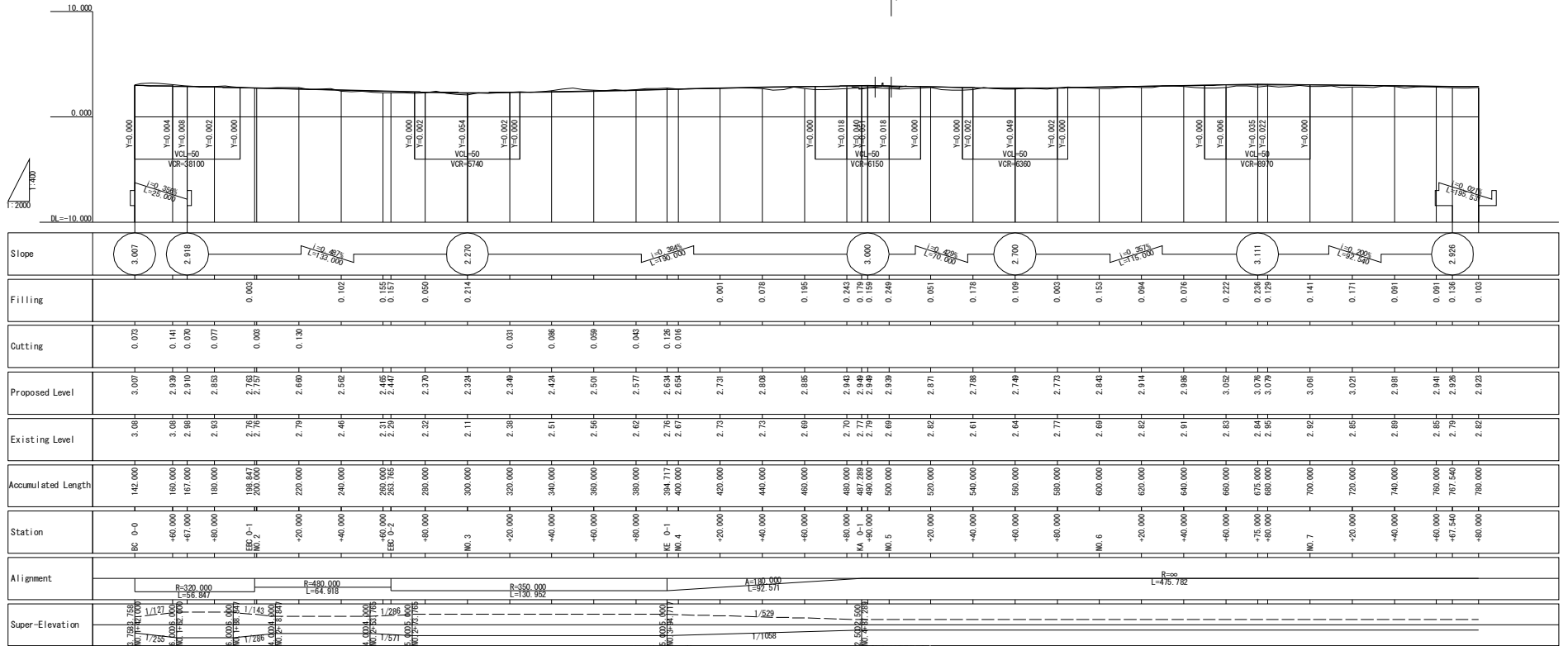
Profile VGE E-W(1) V=1:400
H=1:2000





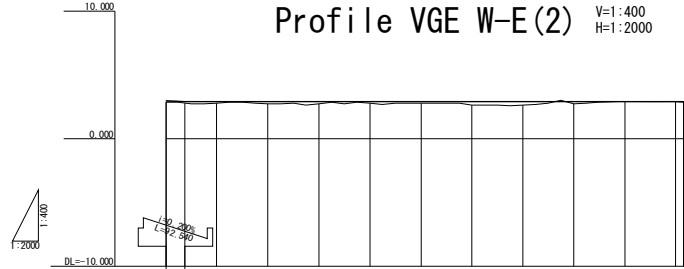
Profile VGE W-E(1) V=1:400 H=1:2000

De Saule - Canal Aline
NO 43 570
De Saule - Canal Bline
NO 54 7 048

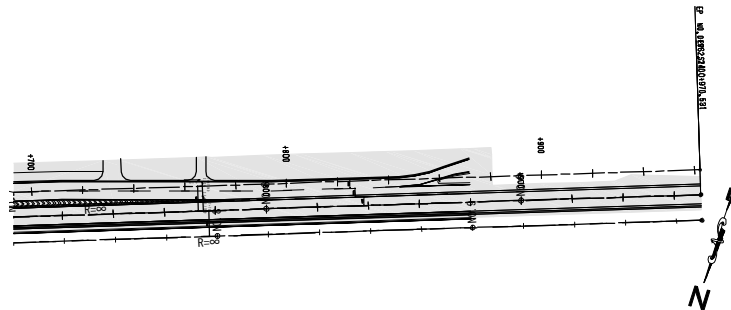


CLIENT Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL: DIRECTOR RESPONSIBLE FOR DESIGN: SIGNATURE: _____ DATE: _____ STAMP:	REVISION DESCRIPTION BY DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultants Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Profile of Boulevard Valéry Giscard d'Estaing (VGE) (1/2)	Scale: H=1:2000 V=1:400 (A3)	DESIGNED BY: DRAWN BY: CHECKED BY: APPROVED BY: DATE:	Drawing No: R-8 SHEET No:

Profile VGE W-E(2) V=1:400
H=1:2000

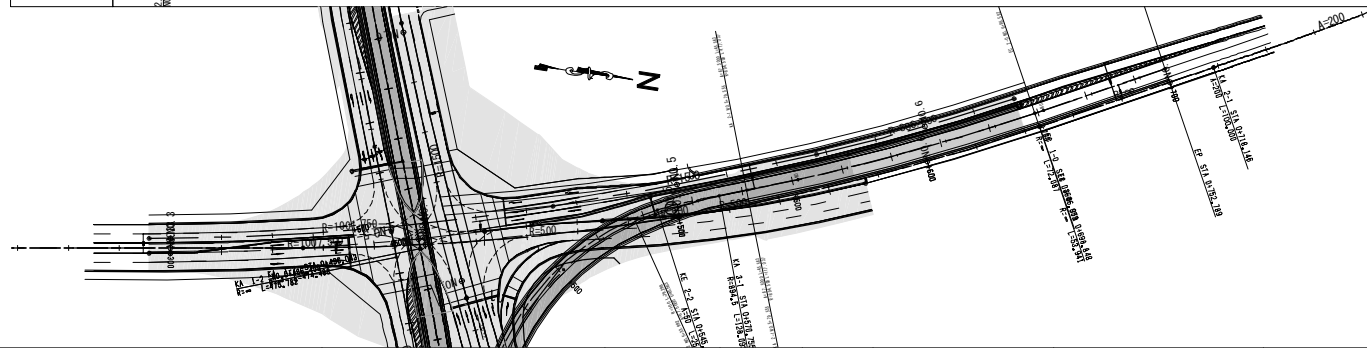


Slope	2.926 </											
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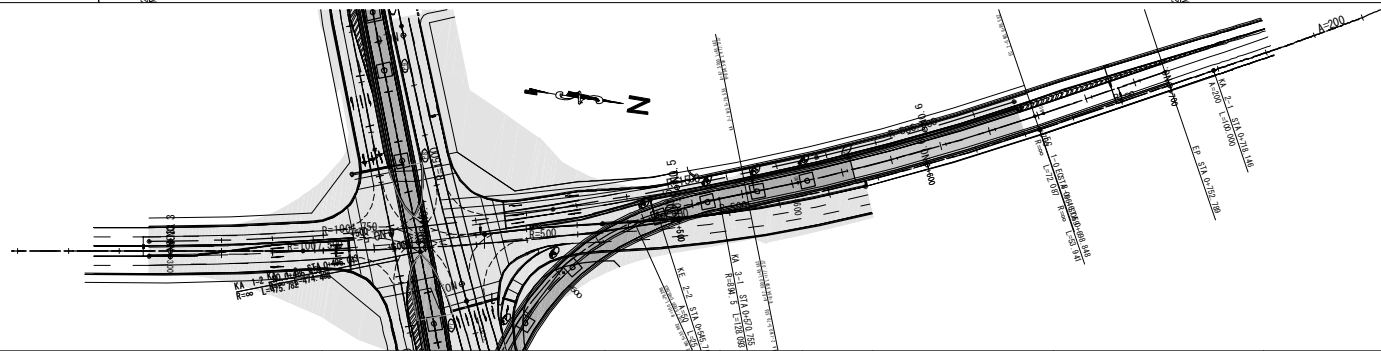


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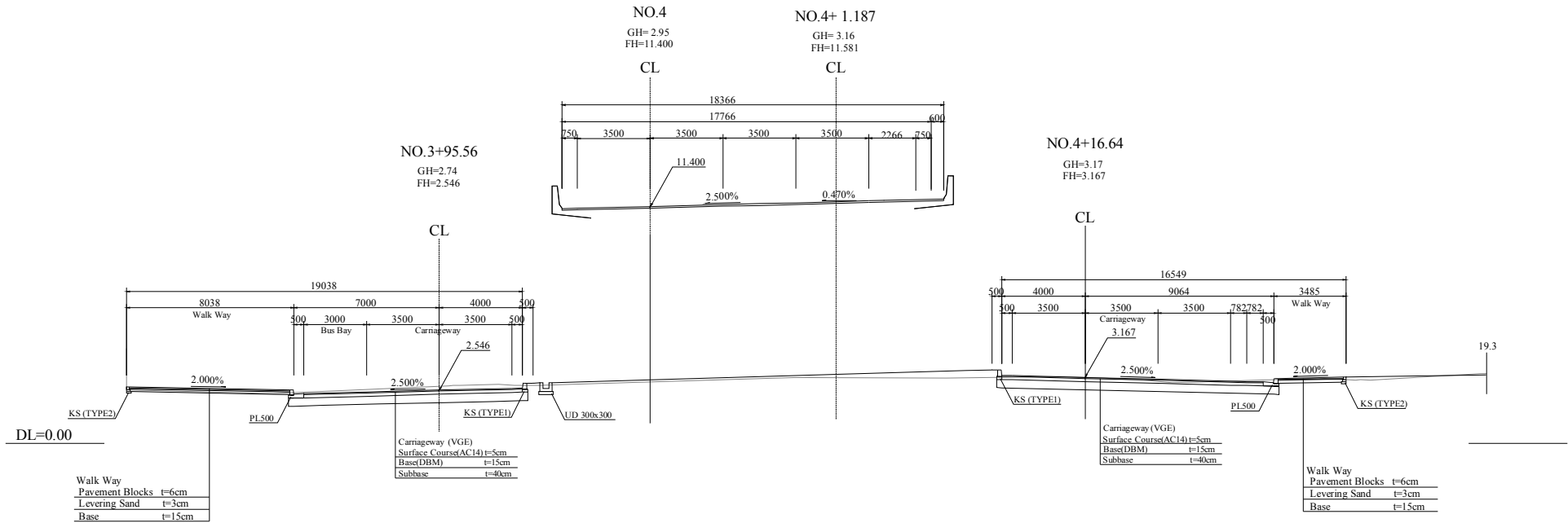
V=1: 400
H=1: 2000



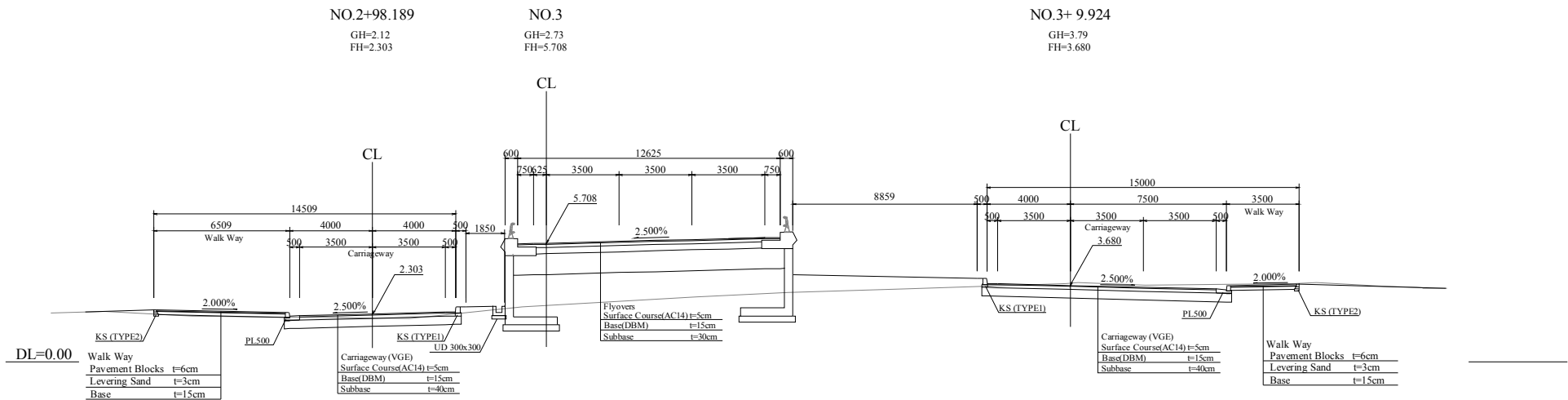
V=1: 400
H=1: 2000



Bridge Section(VGE)

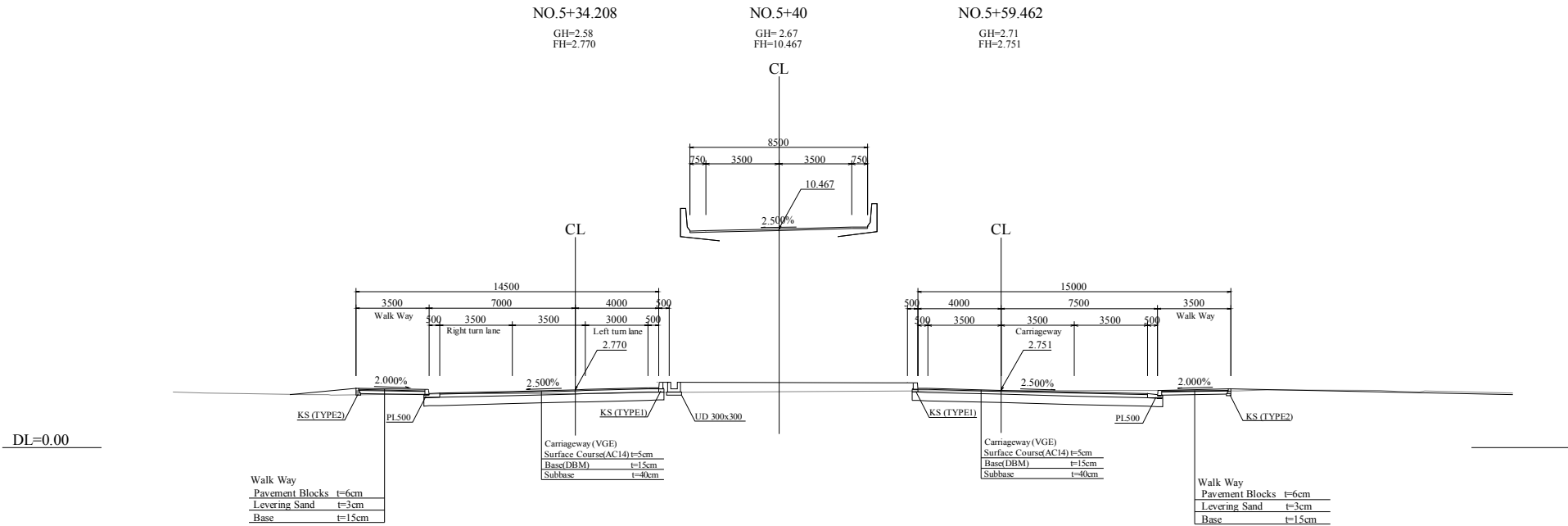


Wall Section(VGE)



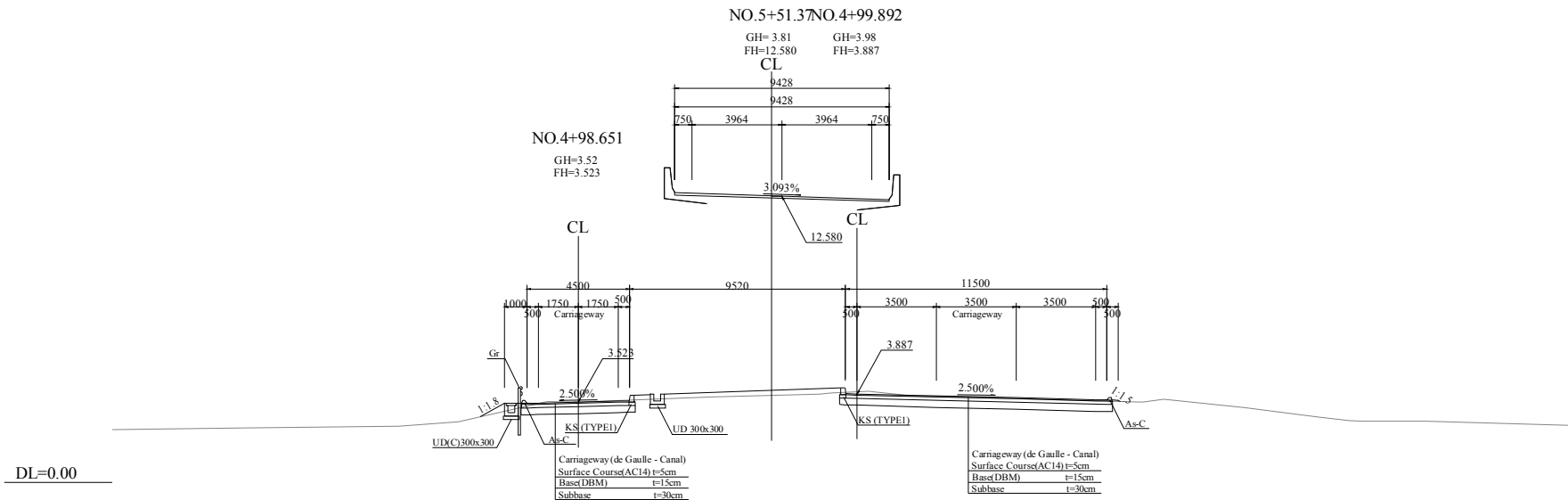
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	DIRECTOR RESPONSIBLE FOR DESIGN:										DRAWN BY:				
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Intersection(VGE)

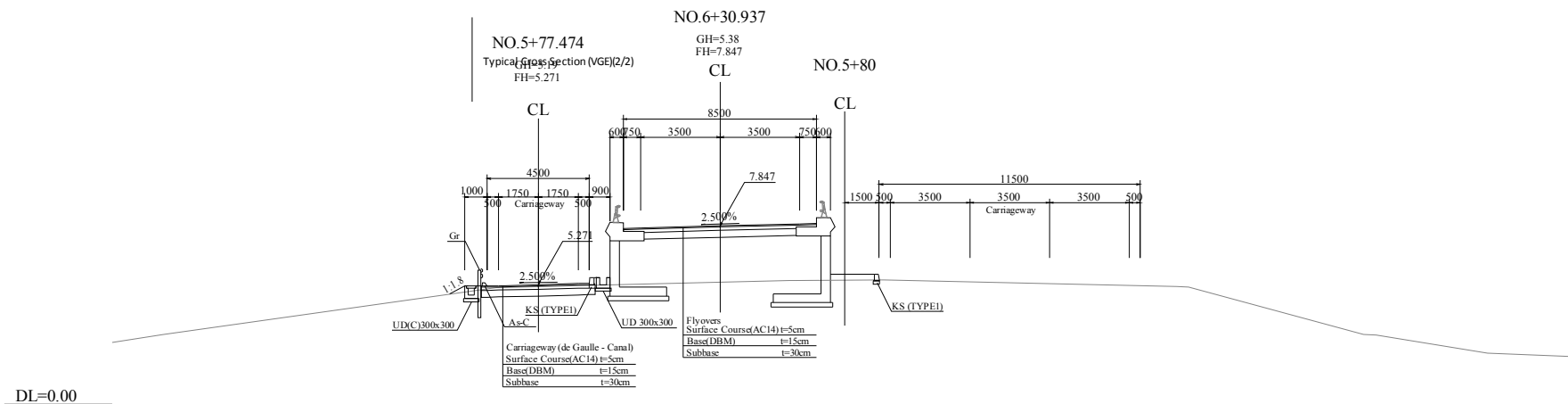


CLIENT  Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultants, Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Typical Cross Section (VGE)(2/2)	Scale: 1:400 (A3)	DESIGNED BY:				Drawing No: R-13 SHEET No:
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Bridge Section(de Gaulle - Canal)

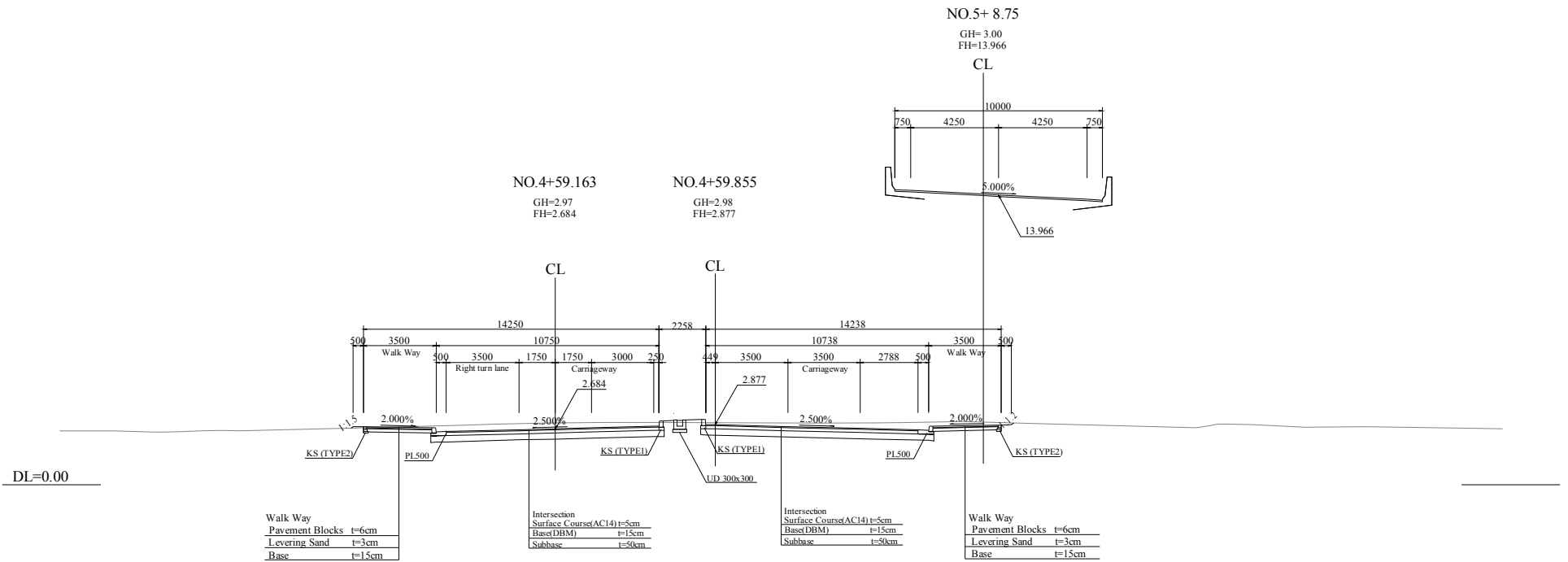


Wall Section(de Gaulle - Canal)



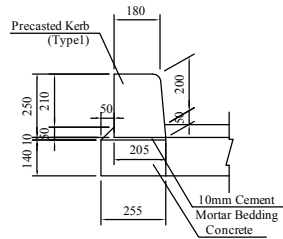
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Intersection(de Gaulle - Canal)



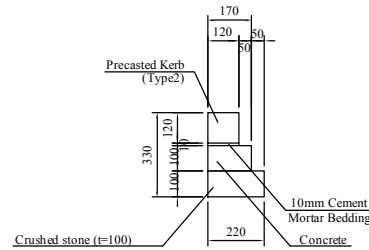
CLIENT Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultants Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Typical Cross Section (de Gaulle - Canal) (2/2)	Scale: 1:400 (A3)	DESIGNED BY:				Drawing No: R-15 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:										DRAWN BY:				
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KS(TYPE1) Scale 1:20



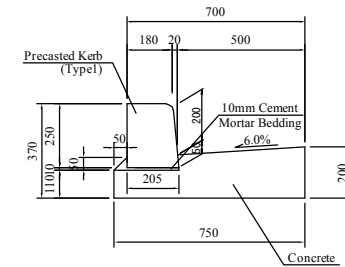
MATERIALS LIST				PER 10m
ITEM	STANDARD	UNIT	QUANTITY	REMARK
Concrete	$\sigma_{ck}=18\text{MPa}$	cu.m	0.357	
Form		sq.m	2.800	
Cement mortar	1:3	cu.m	0.033	
Precast kerb	Type1	nos	16.7	

KS(TYPE2) Scale 1:20



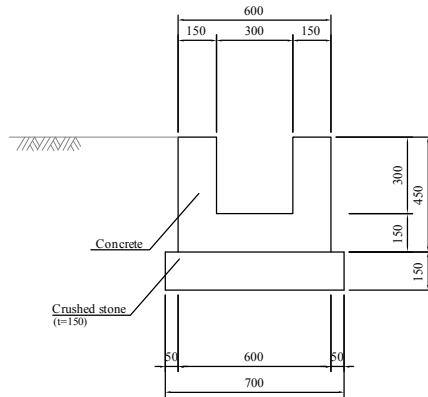
MATERIALS LIST				PER 10m
ITEM	STANDARD	UNIT	QUANTITY	REMARK
Concrete	$\sigma_{ck}=18\text{MPa}$	cu.m	0.170	
Form		sq.m	2.000	
Cement mortar	1:3	cu.m	0.012	
Precast kerb	Type2	nos	16.7	
Crushed stone	t=100mm	cu.m	0.220	

PL500 Scale 1:20



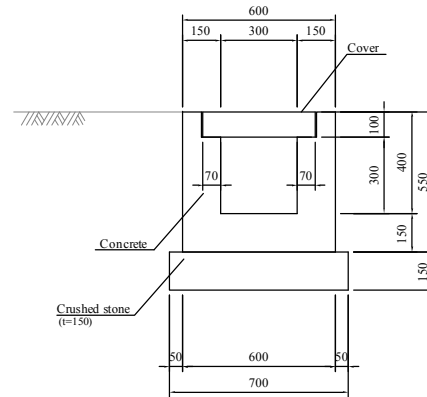
MATERIALS LIST				PER 10m
ITEM	STANDARD	UNIT	QUANTITY	REMARK
Concrete	$\sigma_{ck}=18\text{MPa}$	cu.m	1.145	
Form		sq.m	3.100	
Cement mortar	1:3	cu.m	0.033	
Precast kerb	Type1	nos	16.7	

UD300x300 Scale 1:20



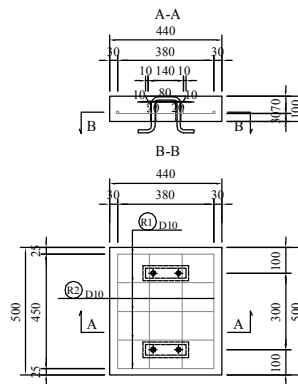
MATERIALS LIST				PER 10m
ITEM	STANDARD	UNIT	QUANTITY	REMARK
Concrete	$\sigma_{ck}=18\text{MPa}$	cu.m	1.800	
Form		sq.m	15.000	
Crushed stone	t=150	cu.m	1.050	

UD(C)300x300 Scale 1:20



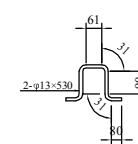
MATERIALS LIST				PER 10m
ITEM	STANDARD	UNIT	QUANTITY	REMARK
Concrete	$\sigma_{ck}=18\text{MPa}$	cu.m	1.950	
Form		sq.m	19.000	
Crushed stone	t=150	cu.m	1.050	
Cover	300x300	nos	20	

(Cover)

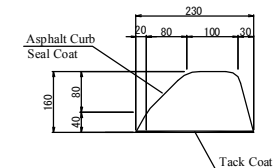


MATERIALS LIST(Cover)				PER Each
CLASSIFICATION	STANDARD	UNIT	QUANTITY	REMARK
CONCRETE	$\sigma_{ck}=18\text{MPa}$	cu.m	0.022	
FORM		sq.m	0.408	
REINFORCED	D10,p13	kg	3.174	

Handle



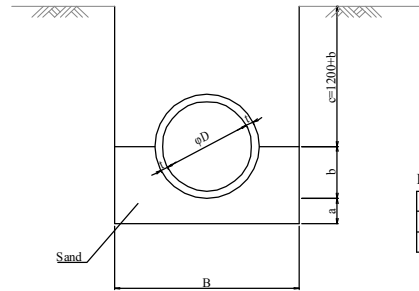
As-C Scale 1:10



MATERIALS LIST				PER 10m
ITEM	STANDARD	UNIT	QUANTITY	REMARK
Asphalt Curb		cu.m	0.300	
Seal Coat		sq.m	4.600	
Tack Coat		sq.m	2.300	

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	DIRECTOR RESPONSIBLE FOR DESIGN:										DRAWN BY:				
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P(H) φ1000
P(H) φ1500



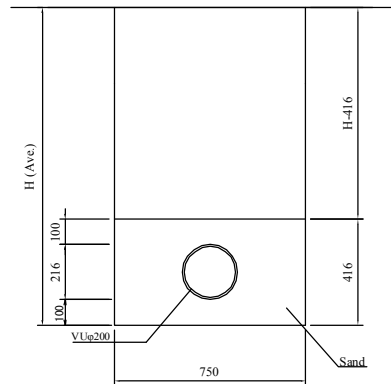
DIMENSION LIST

D	t	B	a	b	c
1000	82	2050	200	582	1782
1500	140	2650	200	890	2090

MATERIAL LIST

ITEM	STANDARD	UNIT	QUANTITY		REMARKS
			φ1000	φ1500	
Pipe Culvert	φ1000 (L=2430)	nos.	4.1	—	
	φ1500 (L=2430)	nos.	—	4.1	
Filling Material	Sand	cu.m	10.710	16.443	

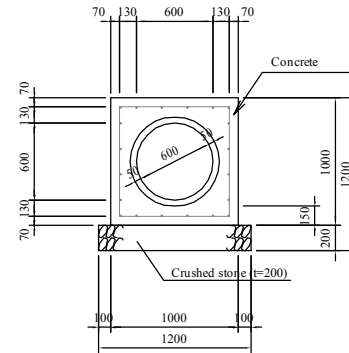
VUφ200 Scale 1:20



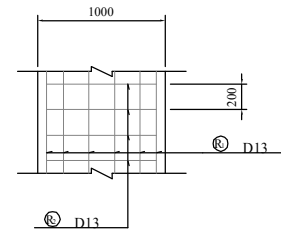
MATERIAL LIST (MULTI CELL TYPE)

ITEM	STANDARD	UNIT	QUANTITY	REMARKS
Pipe	VUφ200	m	10.000	
Filling Material	Sand	cu.m	2.754	

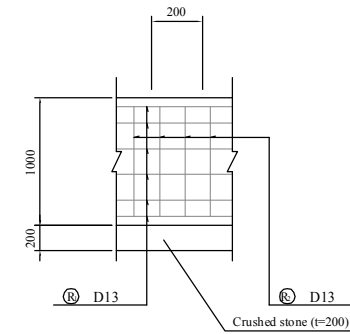
P4 φ600 Scale 1:40



(SKY VIEW)



(SIDE VIEW)



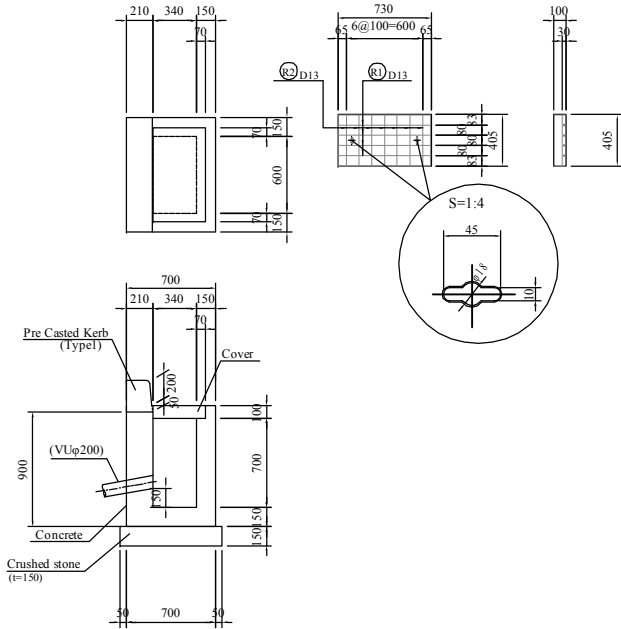
MATERIALS LIST

ITEM	STANDARD	UNIT	QUANTITY	REMARK
Pipe Culvert	φ600		4.6	
Concrete	σck=18MPa	cu.m	6.152	
Form		sq.m	20.000	
Crushed stone	t=200	cu.m	2.400	
Reinforced	D13	kg	416.905	

<u>CLIENT</u>  Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	<u>CONSULTANT</u> The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	<u>PROJECT</u> The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Road Structure Details (2/4)	Scale: As Shown (A3)	DESIGNED BY:				Drawing No: R-17 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:										DRAWN BY:				
	SIGNATURE: DATE:										CHECKED BY:				
	STAMP:										APPROVED BY:				
											DATE:				

CP 340x600x800

(Cover 340x600)



MATERIALS LIST(Cover)

PER Each

ITEM	STANDARD	UNIT	QUANTITY	REMARK
Concrete	σck=18MPa	cu.m	0.030	
Form		sq.m	0.296	
Reinforced	D13	kg	5.726	
Plate	SS400	kg	5.702	
Suspender		nos	2	

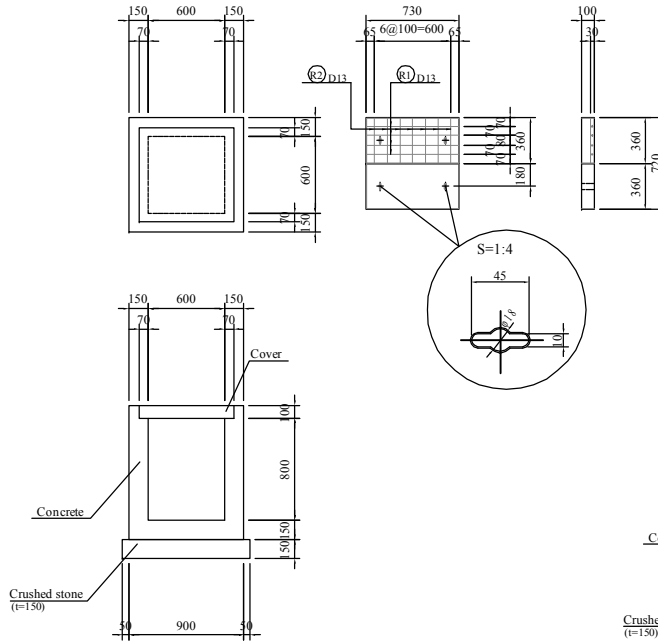
MATERIALS LIST

PER Each

ITEM	STANDARD	UNIT	QUANTITY	REMARK
Concrete	ack=18MPa	cu.m	0.510	
Form		sq.m	2.721	
Crushed stone	t=150	cu.m	0.108	
Cover	340x600	nos	1	

CP 600x600x800

(Cover 600x600)



MATERIALS LIST(Cover)

PER Each

ITEM	STANDARD	UNIT	QUANTITY	REMARK
Concrete	$\sigma_{ck}=18\text{MPa}$	cum	0.026	
Form		sq.m	0.263	
Reinforced	D13	kg	5.413	
Plate	SS400	kg	5.476	
Suspender		nos	2	

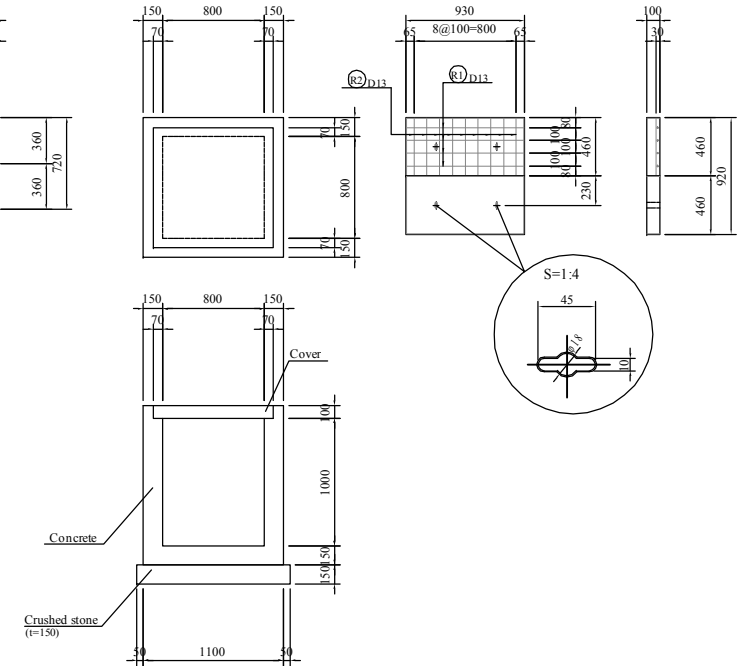
MATERIALS LIST

PER Each

ITEM	STANDARD	UNIT	QUANTITY	REMARK
Concrete	σ _{ck} =18MPa	cu.m	0.508	
Form		sq.m	6.356	
Crushed stone	t=150	cu.m	0.150	
Cover	600 x600	nos	2	

CP 800x800x1000

(Cover 800x800)



MATERIALS LIST(Cover)

PER Each

ITEM	STANDARD	UNIT	QUANTITY	REMARK
Concrete	$\sigma_{ck}=18\text{MPa}$	cu.m	0.043	
Form		sq.m	0.428	
Reinforced	D13	kg	7.821	
Plate	SS400	kg	6.983	
Suspender		nos	2	

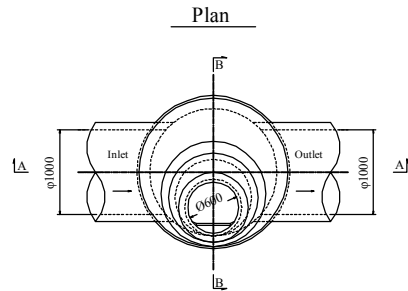
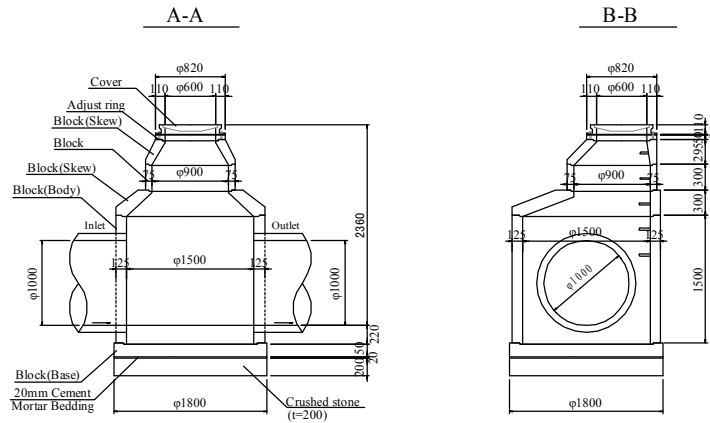
MATERIALS LIST

PER Each

ITEM	STANDARD	UNIT	QUANTITY	REMARK
Concrete	$\sigma_{ck}=18\text{MPa}$	cu.m	0.784	
Form		sq.m	9.556	
Crushed stone	$t=150$	cu.m	0.144	
Cover	800x800	nos	2	

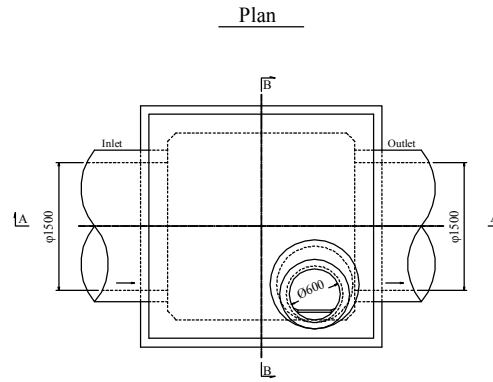
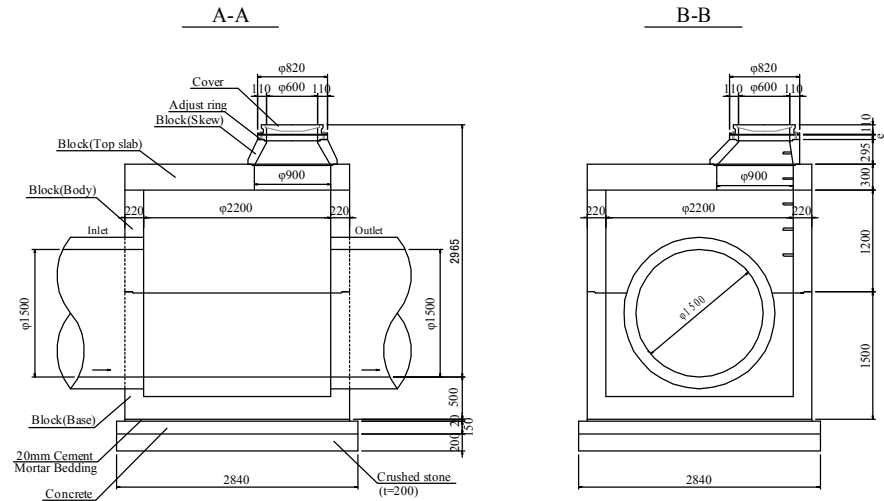
CLIENT  Japan International Cooperation Agency (JICA)		CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.		PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)		TITLE: Road Structure Details (3/4)		Scale: As Shown (A3)		DESIGNED BY:						Drawing No: R-18
		DIRECTOR RESPONSIBLE FOR DESIGN:												DRAWN BY:								
		SIGNATURE:		DATE:										CHECKED BY:								
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														DATE:					SHEET No:			

MH(TYPE1)



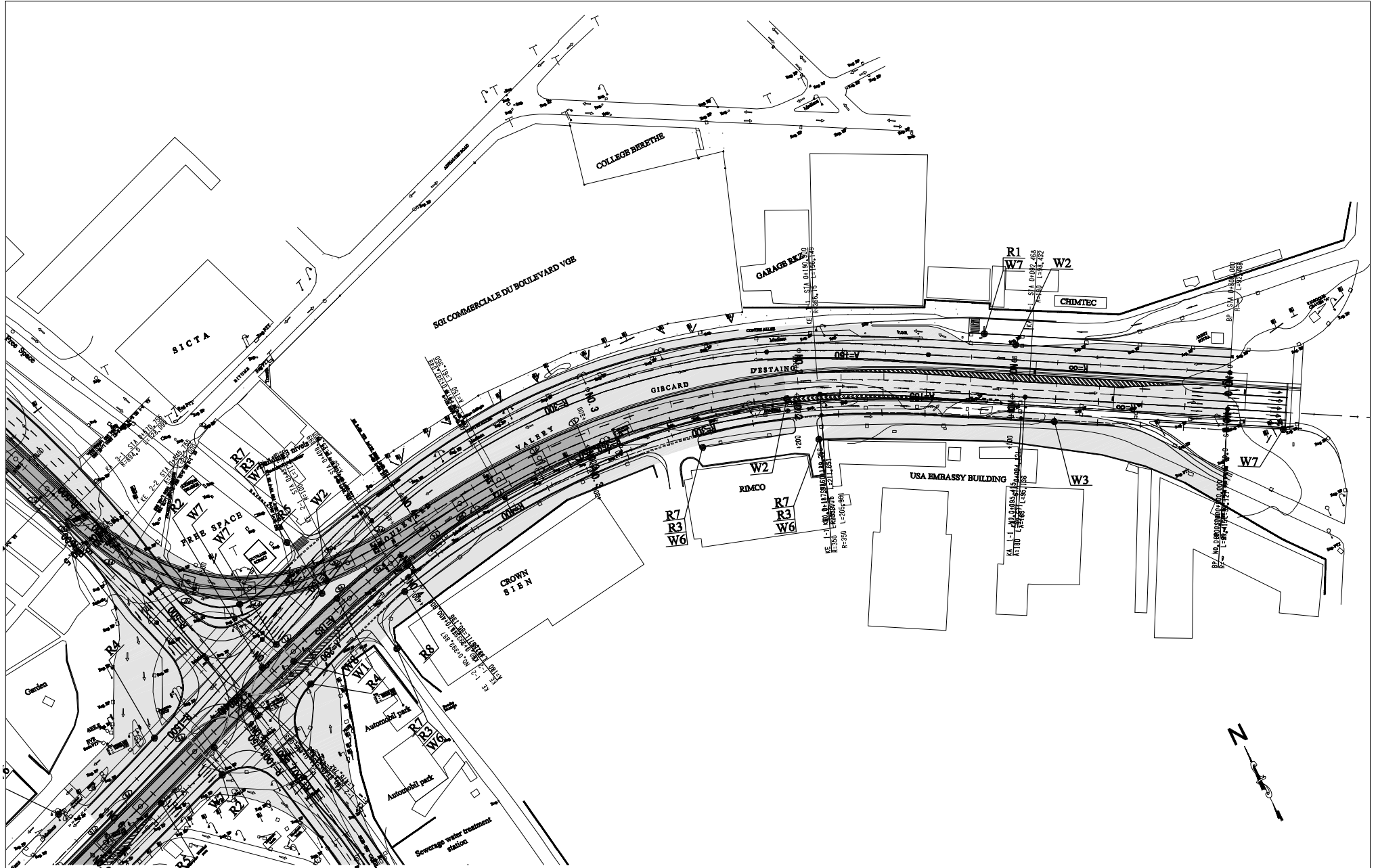
MATERIALS LIST				PER Each	
ITEM	STANDARD	UNIT	QUANTITY	REMARK	
Block(Base)		nos	1		
Block(Body)	φ1500x1500	nos	1		
Block(Skew)	φ600xφ900x295	nos	1		
	φ900xφ1500x300	nos	1		
Block	φ900x300	nos	1		
Adjust ring	φ600x50	nos	1		
Cover	φ600	nos	1		
Cement mortar	1:3	cu.m	0.051		
Crushed stone	t=200mm	cu.m	0.509		

MH(TYPE2)



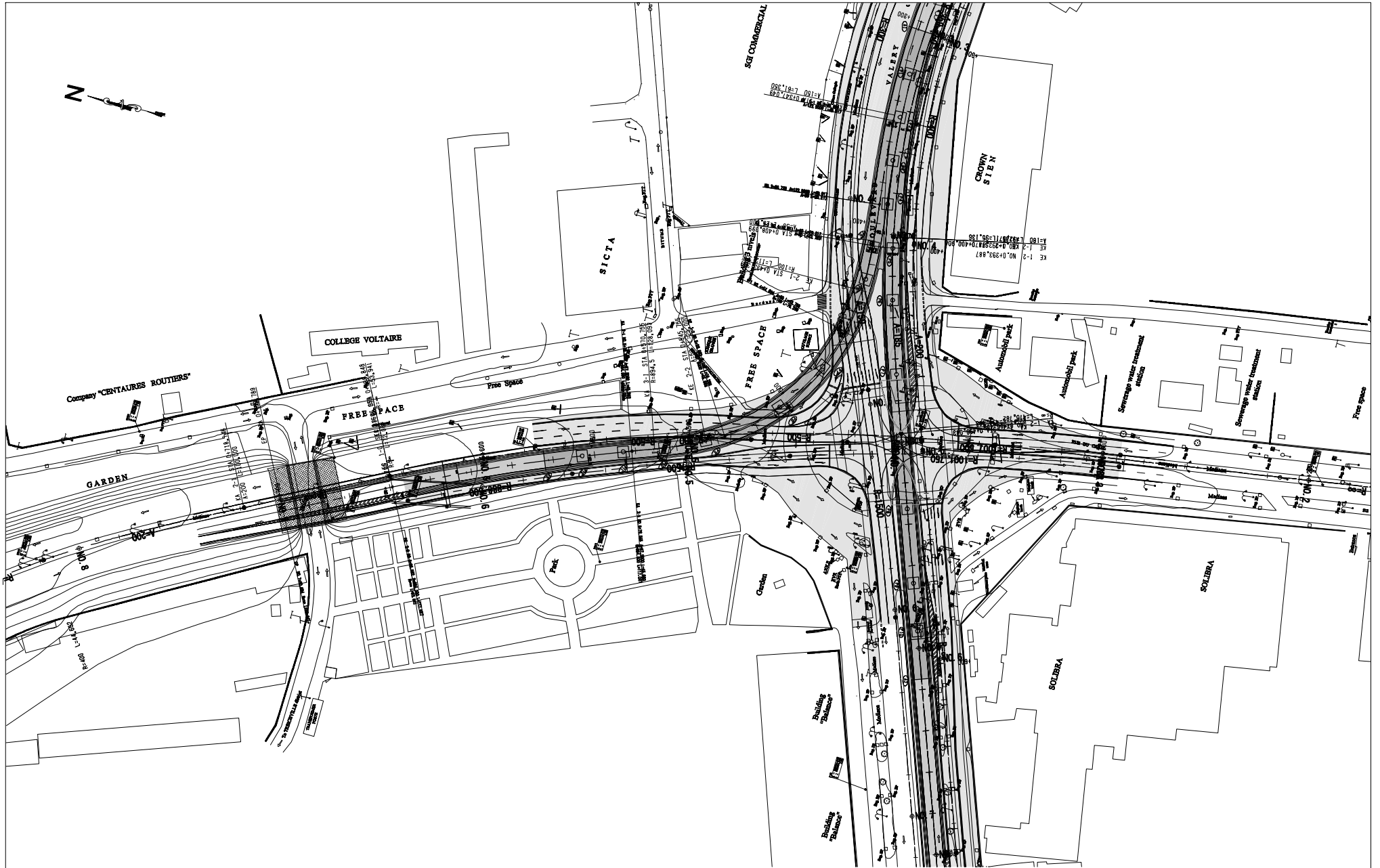
MATERIALS LIST				PER Each	
ITEM	STANDARD	UNIT	QUANTITY	REMARK	
Block(Base)	2200x2200x1500	nos	1		
Block(Body)	2200x2200x1200	nos	1		
Block(Top slab)	2640x2640x300	nos	1		
Block(Skew)	φ600xφ900x295	nos	1		
Adjust ring	φ600x50	nos	1		
Cover	φ600	nos	1		
Concrete	σck=18MPa	cu.m	1.210		
Form		sq.m	1.704		
Cement mortar	1:3	cu.m	0.139		
Crushed stone	t=200mm	cu.m	1.613		

CLIENT Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultants Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Road Structure Details(4/4)	Scale: 1:60 (A3)	DESIGNED BY:				Drawing No: R-19 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:										DRAWN BY:				
	SIGNATURE: DATE:										CHECKED BY:				
	STAMP:										APPROVED BY:				
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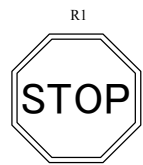


<u>CLIENT</u>  Japan International Cooperation Agency (JICA)	<u>CLIENTS APPROVAL</u> DIRECTOR RESPONSIBLE FOR DESIGN: SIGNATURE: _____ DATE: _____ STAMP: _____	REVISION	DESCRIPTION	BY	DATE	<u>CONSULTANT</u> The Consortium of Oriental Consultants Global Co., Ltd., Central Consultants Inc., and Asia Air Survey Co., Ltd.	<u>PROJECT</u> The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Road Safety Sign Posts Layout Plan (1/3)	Scale: 1:1600 (A3)	DESIGNED BY: _____ DRAWN BY: _____ CHECKED BY: _____ APPROVED BY: _____ DATE: _____	Drawing No: R-20 SHEET No: _____
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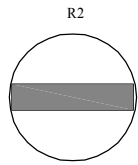
 Japan International Cooperation Agency (JICA)		CLIENTS APPROVAL: DIRECTOR RESPONSIBLE FOR DESIGN: SIGNATURE: DATE: STAMP:					REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Road Safety Sign Posts Layout Plan (2/3)	Scale: 1:1600 (A3)	DESIGNED BY:						
											DRAWN BY:										
												CHECKED BY:									
												APPROVED BY:						Drawing No: R-21			
												DATE:						SHEET No:			



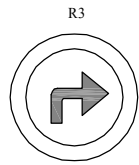
CLIENT  Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOLBRA Intersection (Outline Design)	TITLE: Road Safety Sign Posts Layout Plan (3/3)	Scale: 1:1600 (A3)	DESIGNED BY:				Drawing No: R-22 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:										DRAWN BY:				
	SIGNATURE: DATE:										CHECKED BY:				
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											DATE:				



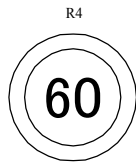
STOP



NO ENTRY



TURN RIGHT AHEAD



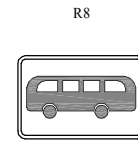
SPEED LIMIT



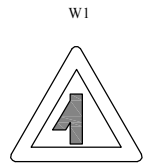
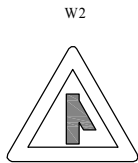
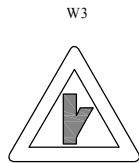
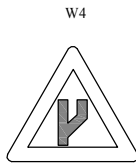
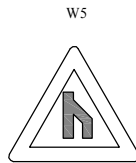
HEIGHT LIMIT

NO CYCLISTS AND
PEDESTRIANS

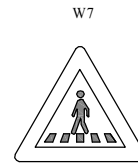
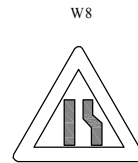
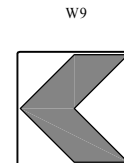
GIVE WAY



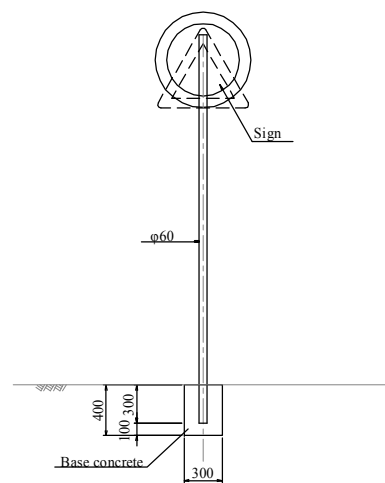
BUS STOP

SHARP JUNCTION
(LEFT)SHARP JUNCTION
(RIGHT)SHARP JUNCTION
(HALF RIGHT)START OF DUAL
ROADWAYEND OF DUAL
ROADWAY

PEDESTRIANS

PEDESTRIAN
CROSSINGROAD NARROWS
FROM RIGHT SIDESHARP CURVE
CHEVRON
(TO THE LEFT)

Sign post

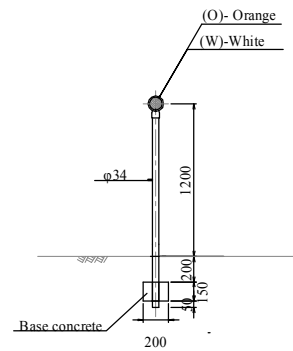


MATERIAL LIST

ITEM	STANDARD	UNIT	QUANTITY	PER each	
					REMARKS
Base concrete	σck=18MPa	cu.m	0.035		
Sign post		nos	1		

DEL(O)

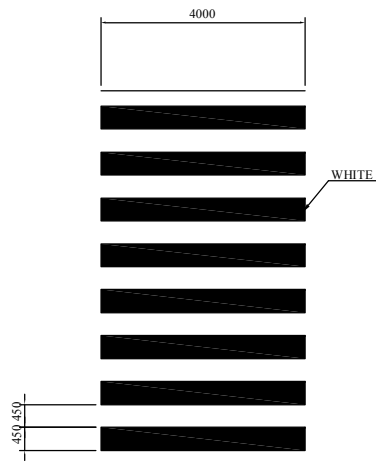
DEL(W)



MATERIAL LIST

ITEM	STANDARD	UNIT	QUANTITY	PER each	
					REMARKS
Base concrete	σck=18MPa	cu.m	0.006		
DEL		nos	1		

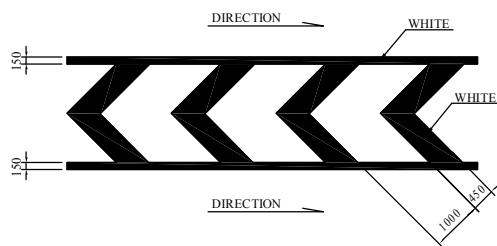
Pedestrian-Crossing (W=450mm)
SCALE 1:100



Stop Line (W=450mm) SCALE 1:100



Zebra Marking SCALE 1:100



Countinuouse Line (W=150mm) SCALE 1:100

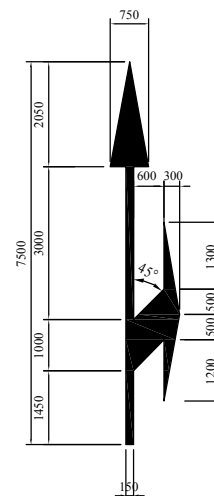


Lane Line (W=150mm) NO SCALE

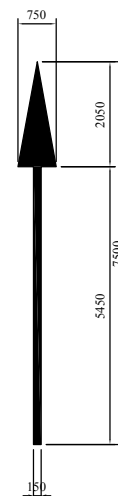


Arrow Mark SCALE 1:100

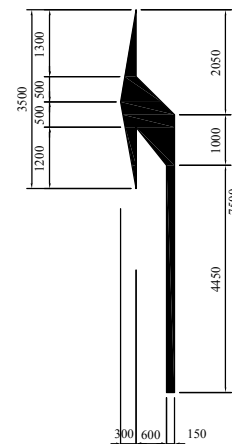
Straight-Turn



Straight

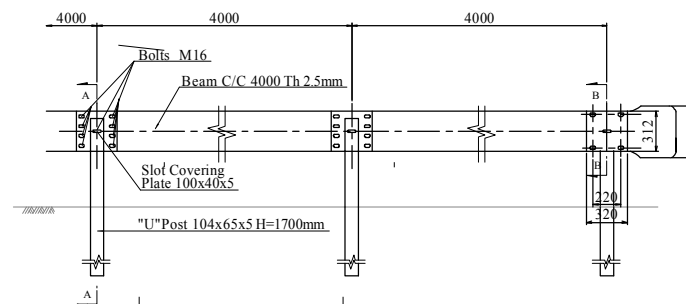


Turn

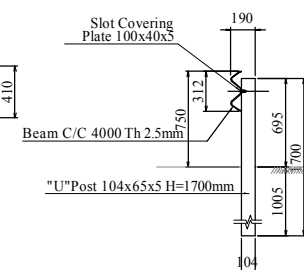


GR SCALE 1:40

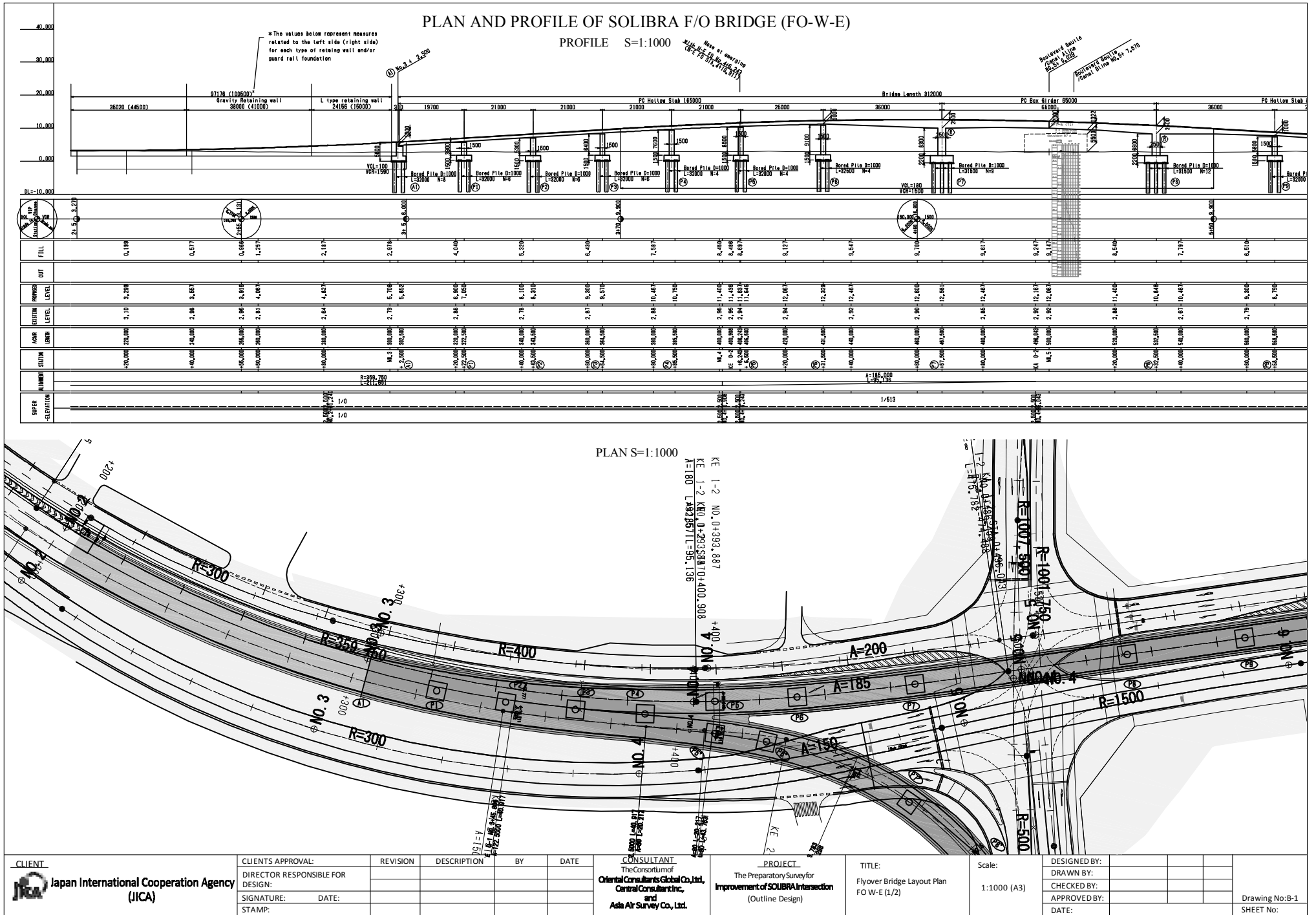
VIEW

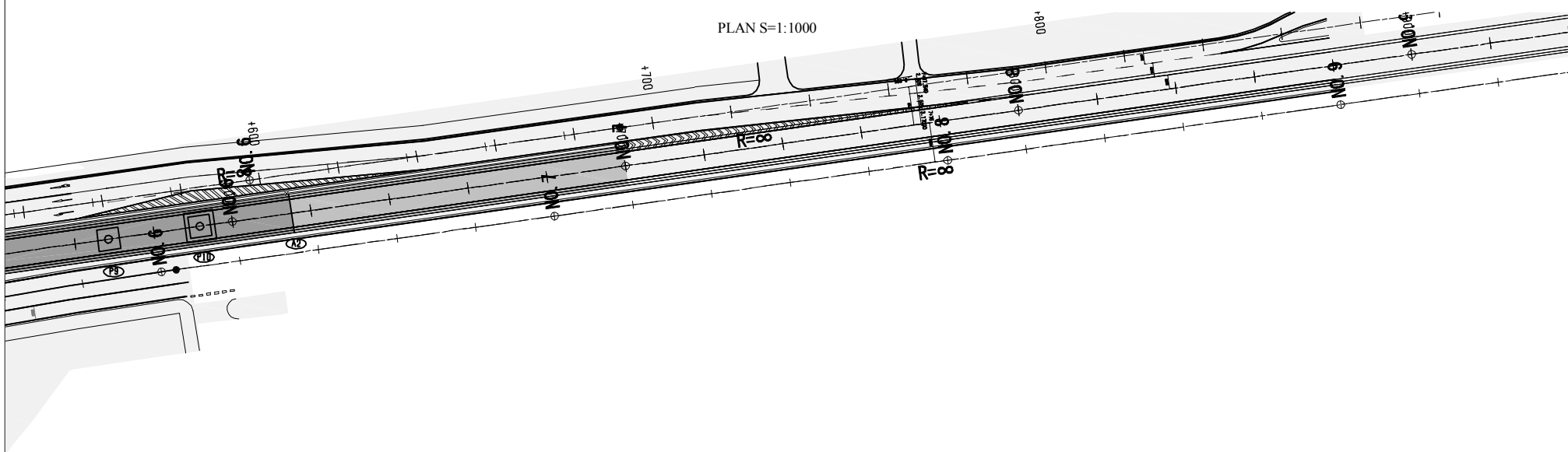
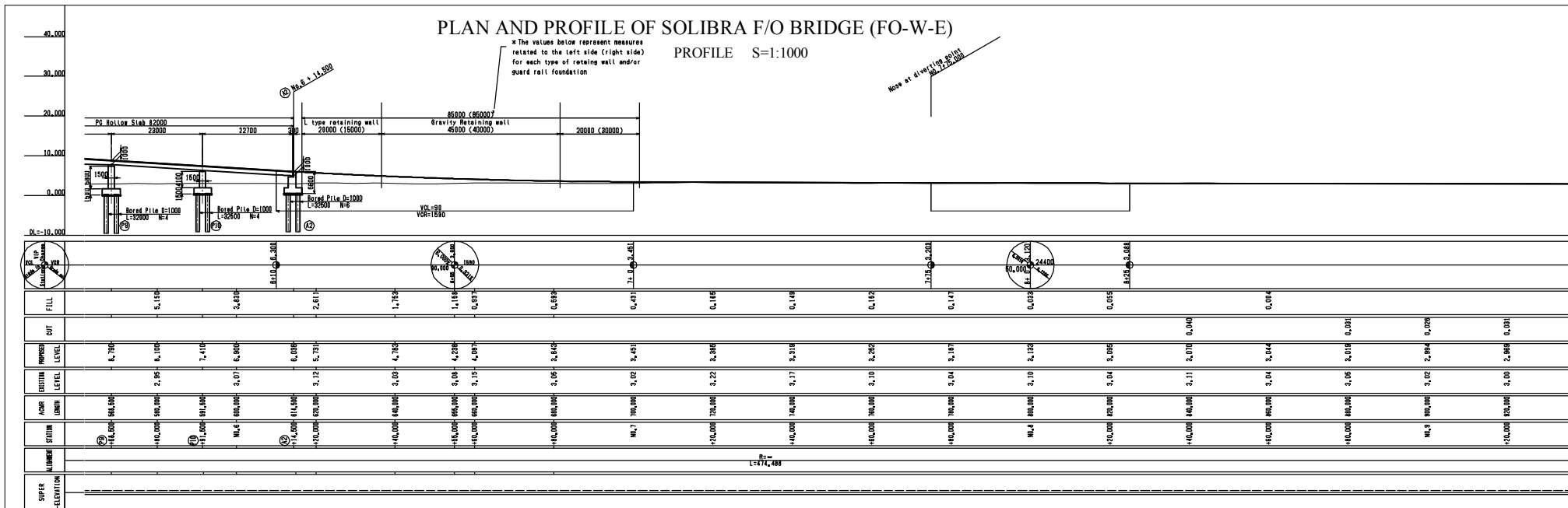


A - A

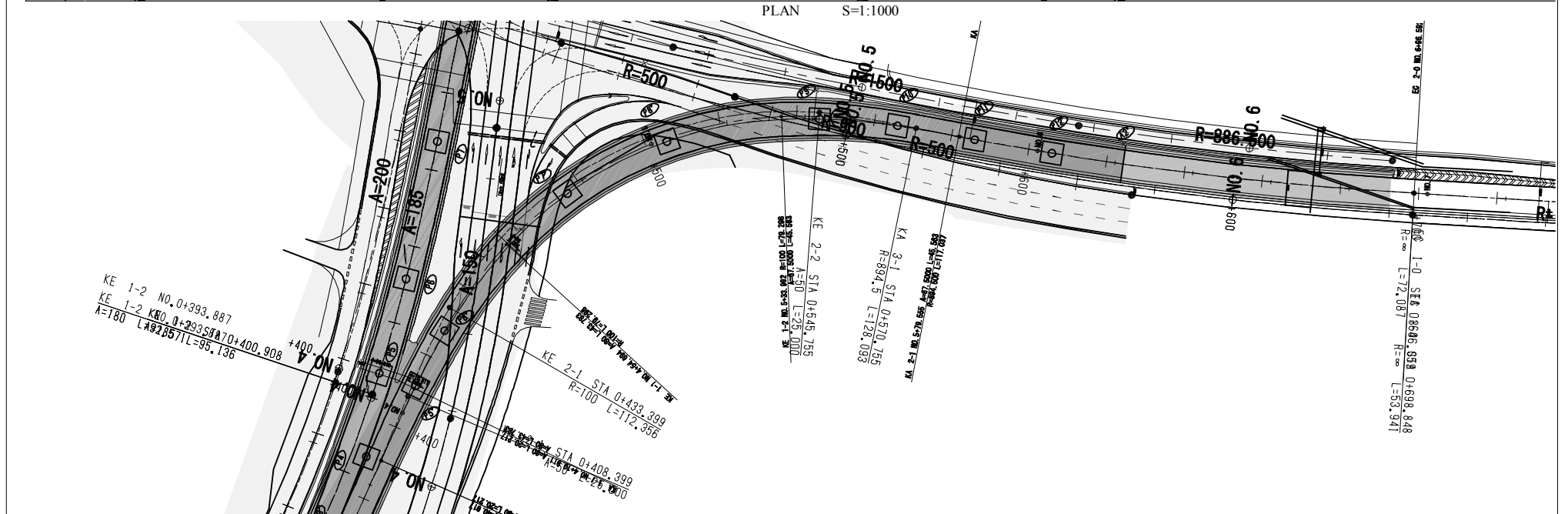
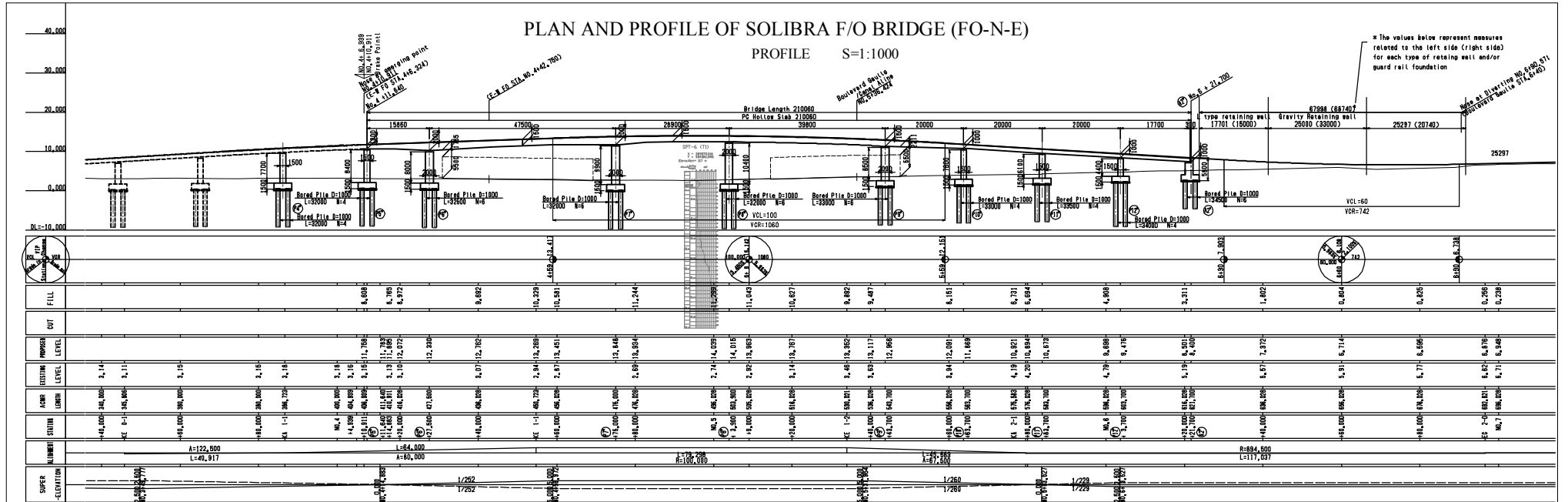


 Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:					CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Road Markings	Scale: 1:100 (A3)	DESIGNED BY:			Drawing No: R-24
	DIRECTOR RESPONSIBLE FOR DESIGN:									DRAWN BY:			
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	SIGNATURE: DATE:									APPROVED BY:			
	STAMP:									DATE:			



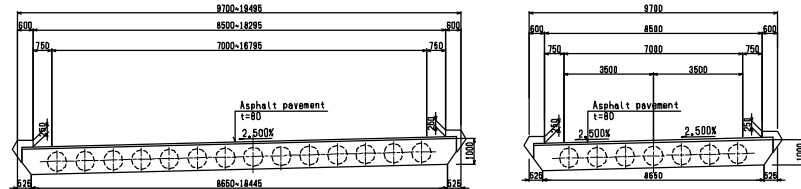
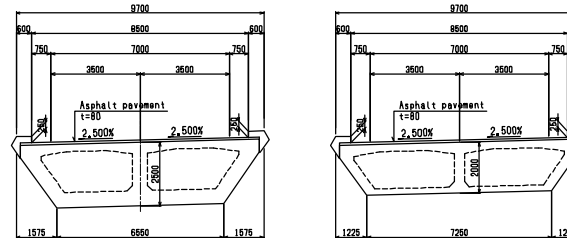


 Japan International Cooperation Agency (JICA)	CLIENT	CLIENTS APPROVAL:	REVISION	DESCRIPTION	BY	DATE	<u>CONSULTANT</u> The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	<u>PROJECT</u> The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Flyover Bridge Layout Plan FO W-E (2/2)	Scale: 1:1000 (A3)	DESIGNED BY:				Drawing No:B-2 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:										DRAWN BY:				
	SIGNATURE: DATE:										CHECKED BY:				
	STAMP:										APPROVED BY:				
											DATE:				



CLIENT  Japan International Cooperation Agency (JICA)		CLIENTS APPROVAL:				REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultants Inc., and Asia Air Survey Co., Ltd.		PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)		TITLE: Flyover Bridge Layout Plan FO N-E		Scale: 1:1000 (A3)	DESIGNED BY:						
		DIRECTOR RESPONSIBLE FOR DESIGN:																					
		SIGNATURE: DATE:																					
		STAMP:																					

CROSS-SECTION OF SOLIBRA F/O BRIDGE (1)

SECTION S=1:200
(PC HOLLOW SLAB BRIDGE)SECTION S=1:200
(PC BOX GIRDER BRIDGE)

DESIGN CRITERIA (FO-W-E)

CATEGORY	PRESTRESSED CONCRETE ROAD BRIDGE
TYPE	7 SPAN PC HOLLOW SLAB BRIDGE 1 SPAN PC BOX GIRDER BRIDGE 3 SPAN PC HOLLOW SLAB BRIDGE
TOTAL BRIDGE LENGTH	L=312,000m
BRIDGE LENGTH	7 SPAN PC HOLLOW SLAB : L=186,0m(20,0+4*21,0+26,0) 1 SPAN PC BOX GIRDER : L=65,0m 3 SPAN PC HOLLOW SLAB : L=82,0m(38,0+23,0+23,0)
WIDTH	TOTAL 8,700~13,800m
LIVE-LOAD	B-Live Load
ANGLE OF SKEW	90° 00' 00"
RADIUS OF CURVATURE	R=389,750 ~ A=185,000
SECTION SLOPE	i=2,500%
LONGITUDINAL SLOPE	i=6,000% i=6,000%

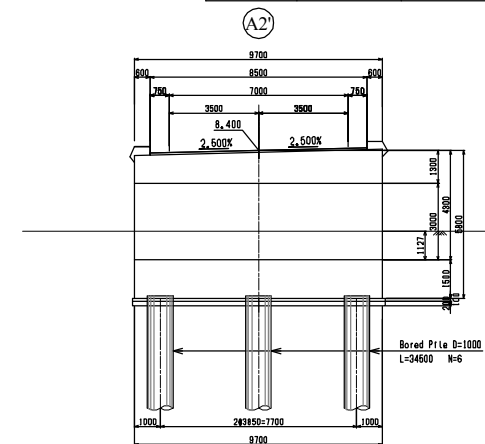
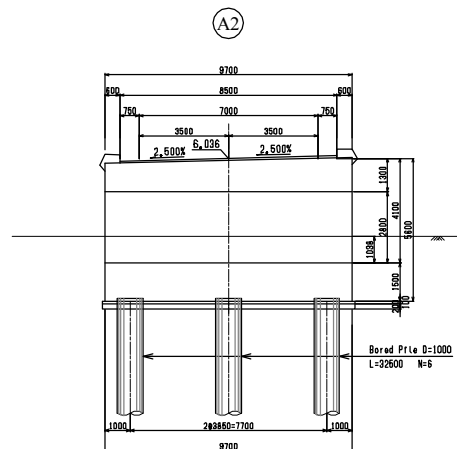
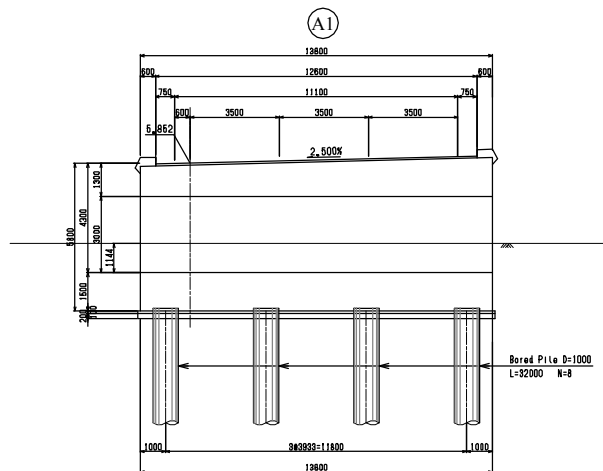
DESIGN CRITERIA (FO-N-E)

CATEGORY	PRESTRESSED CONCRETE ROAD BRIDGE
TYPE	8 SPAN PC HOLLOW SLAB BRIDGE
TOTAL BRIDGE LENGTH	L=210,060m
BRIDGE LENGTH	8 SPAN PC HOLLOW SLAB : L=210,060m (18,860+4*18,800+18,800+18,800+18,800)
WIDTH	TOTAL 8,700~11,200m
LIVE-LOAD	B-Live Load
ANGLE OF SKEW	90° 00' 00"
RADIUS OF CURVATURE	A=80,000 ~ R=100,000 ~ A=67,000
SECTION SLOPE	i=2,500%~6,000%
LONGITUDINAL SLOPE	i=3,400% i=5,880%

MATERIALS

CONCRETE	PC HOLLOW SLAB PC BOX GIRDER SUBSTRUCTURE	$\sigma_{ck}=38,0$ N/mm ² $\sigma_{ck}=35,0$ N/mm ² P7, P8 : $\sigma_{ck}=30,0$ N/mm ² except P7, P8 : $\sigma_{ck}=24,0$ N/mm ²
PC STEEL	PC HOLLOW SLAB PC BOX GIRDER	12S12,7 (SWPR7BL) 1528,6 (SWPR19L) 12S12,7 (SWPR7BL) 19S16,2 (SWPR7BL) 1528,6 (SWPR19L)
DEFORMED BAR	SUPERSTRUCTURE SUBSTRUCTURE	SD345 SD345

CROSS SECTION S=1:200



CLIENT	CLIENTS APPROVAL:	REVISION	DESCRIPTION	BY	DATE	CONSULTANT	PROJECT	TITLE	Scale:	DESIGNED BY:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:	Drawing No: B-4	SHEET No:
Japan International Cooperation Agency (JICA)	DIRECTOR RESPONSIBLE FOR DESIGN: SIGNATURE: _____ DATE: _____ STAMP:					The Consortium of Oriental Consultants Global Co., Ltd., Central Consultants Inc., and Asia Air Survey Co., Ltd.	The Preparatory Survey for Improvement of SOLIBRA F/O BRIDGE (Outline Design)	CROSS-SECTION OF SOLIBRA F/O BRIDGE -INBOUND (1)	1:200 (A3)							

CROSS-SECTION OF SOLIBRA F/O BRIDGE (2)

CROSS SECTION S=1:200

(P1) (P2) (P3)

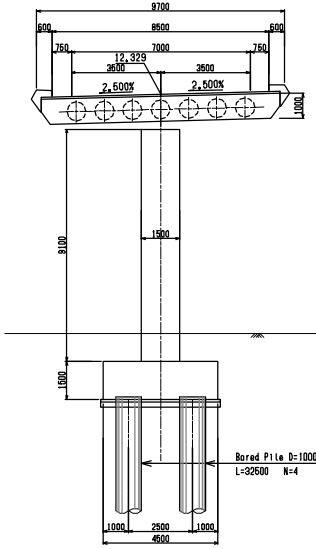
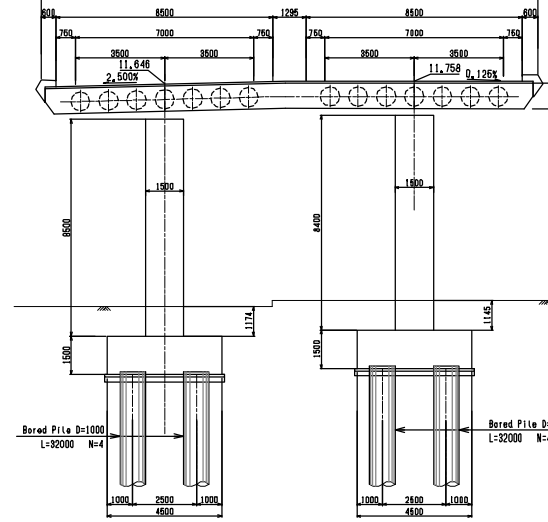
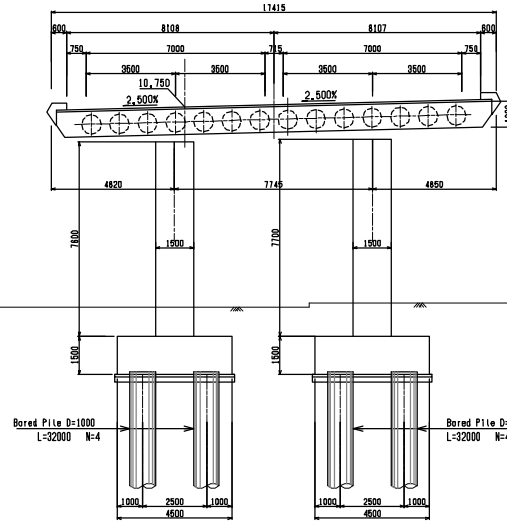
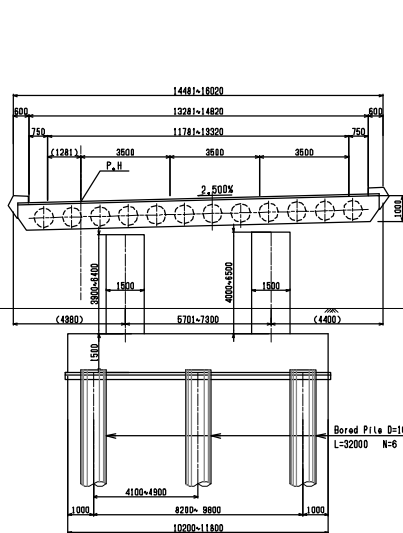
(P4)

(P4')

(P5)

(P5')

(P6)



(P7)

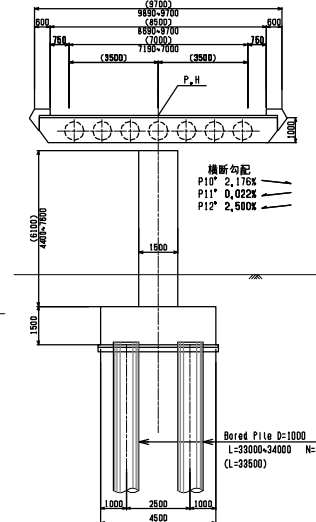
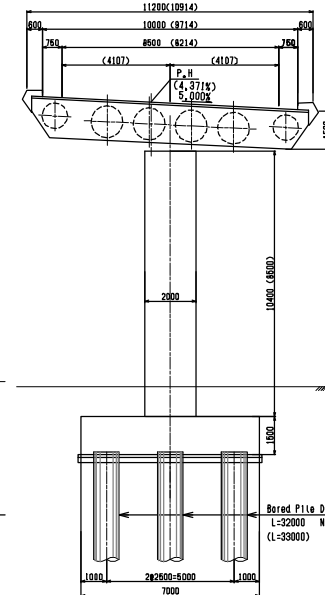
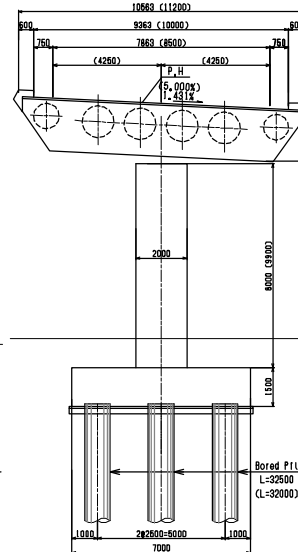
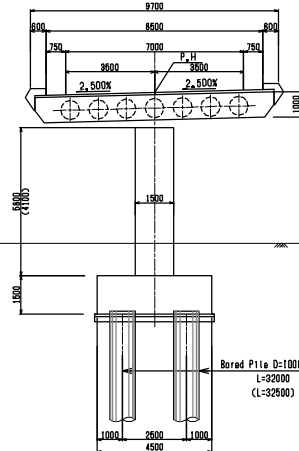
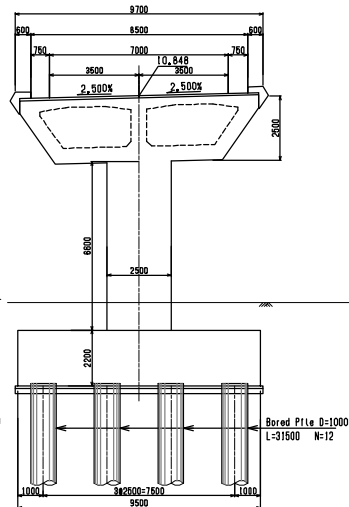
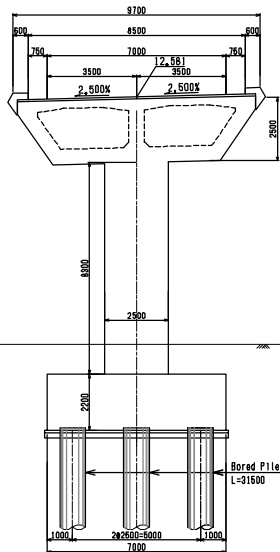
(P8)

(P9) (P10)

(P6') (P7')

(P8') (P9')

(P10') (P11') (P12')

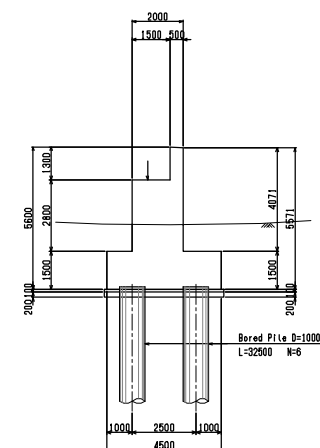


CLIENT Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL: DIRECTOR RESPONSIBLE FOR DESIGN: SIGNATURE: DATE: STAMP:	REVISION DESCRIPTION BY DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd. Central Consultants Inc. and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOLIBRA Intersection (Outline Design)	TITLE: CROSS-SECTION OF SOLIBRA F/O BRIDGE -INBOUND (2)	Scale: 1:200 (A3)	DESIGNED BY: DRAWN BY: CHECKED BY: APPROVED BY: DATE: Drawing No: B-5 SHEET No:
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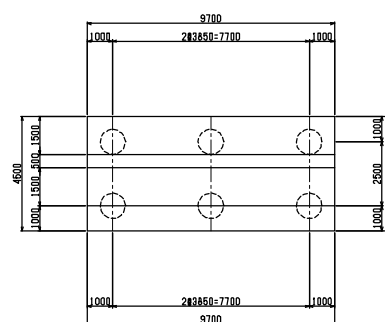
S=1:200

A2

SIDE VIEW



PLAN VIEW

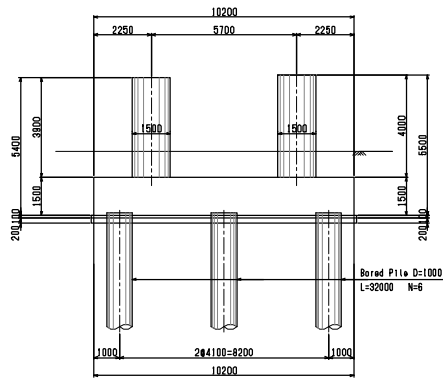


 Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:	REVISION	DESCRIPTION	BY	DATE	<u>CONSULTANT</u> The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	<u>PROJECT</u> The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Substructure & Foundation (1)	Scale: 1:200 (A3)	DESIGNED BY:			Drawing No: B-6 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:									DRAWN BY:			
	SIGNATURE: DATE:									CHECKED BY:			
	STAMP:									APPROVED BY:			
										DATE:			

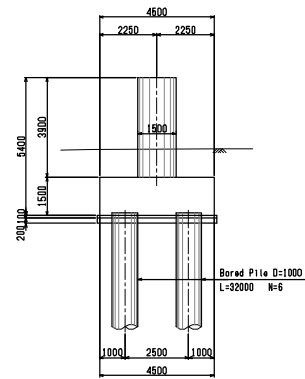
SUBSTRUCTURE AND FOUNDATION (2) S=1:200

P1

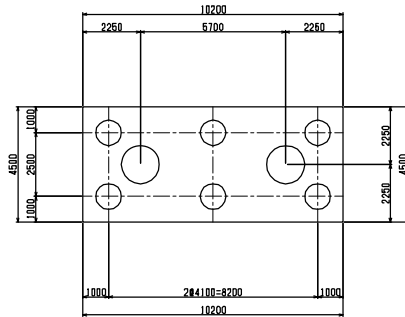
FRONT VIEW



SIDE VIEW

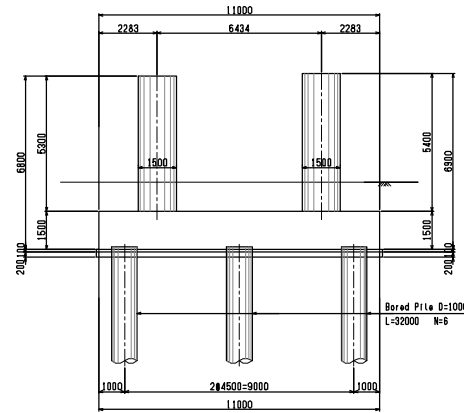


PLAN VIEW

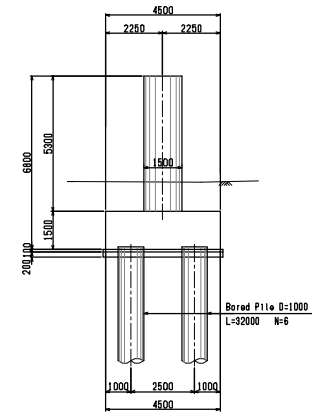


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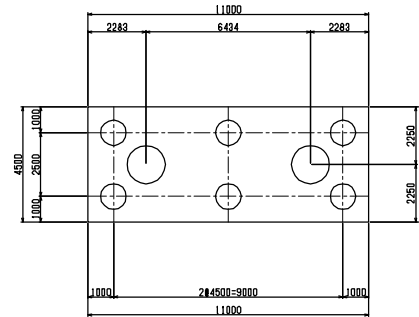
FRONT VIEW



SIDE VIEW



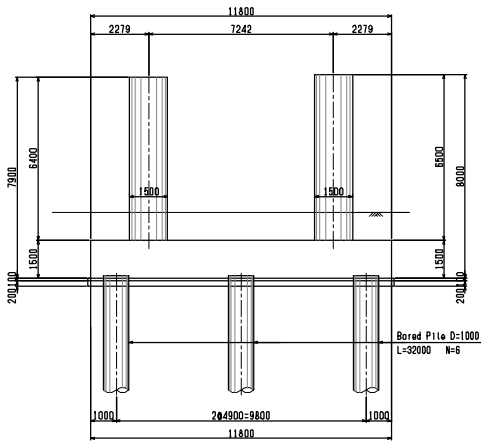
PLAN VIEW



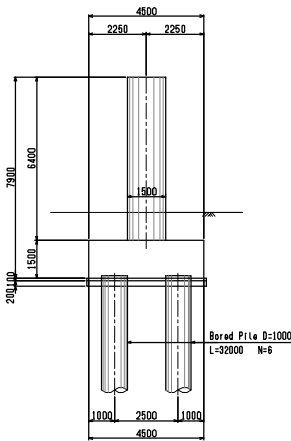
 Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:					CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Substructure & Foundation (2)	Scale: 1:200 (A3)	DESIGNED BY:				Drawing No: B-7 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:									DRAWN BY:				
	SIGNATURE: DATE:									CHECKED BY:				
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P3

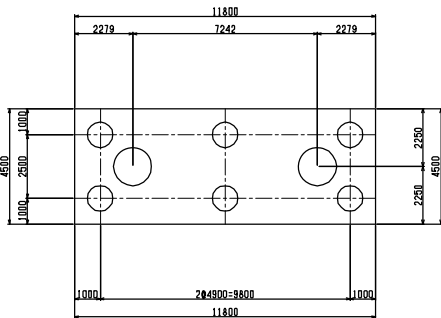
FRONT VIEW



SIDE VIEW

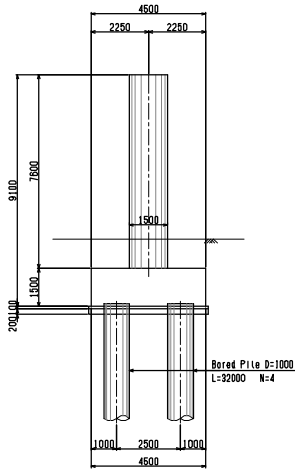


PLAN VIEW

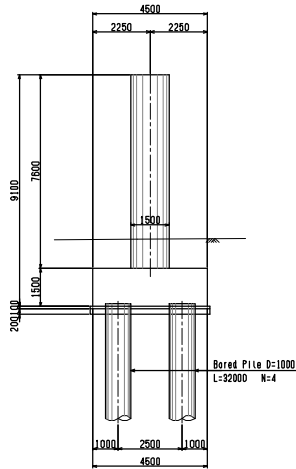


P4

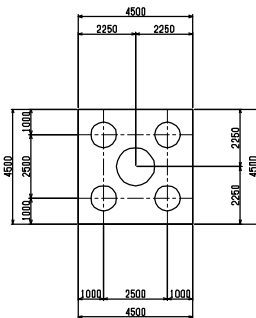
FRONT VIEW



SIDE VIEW

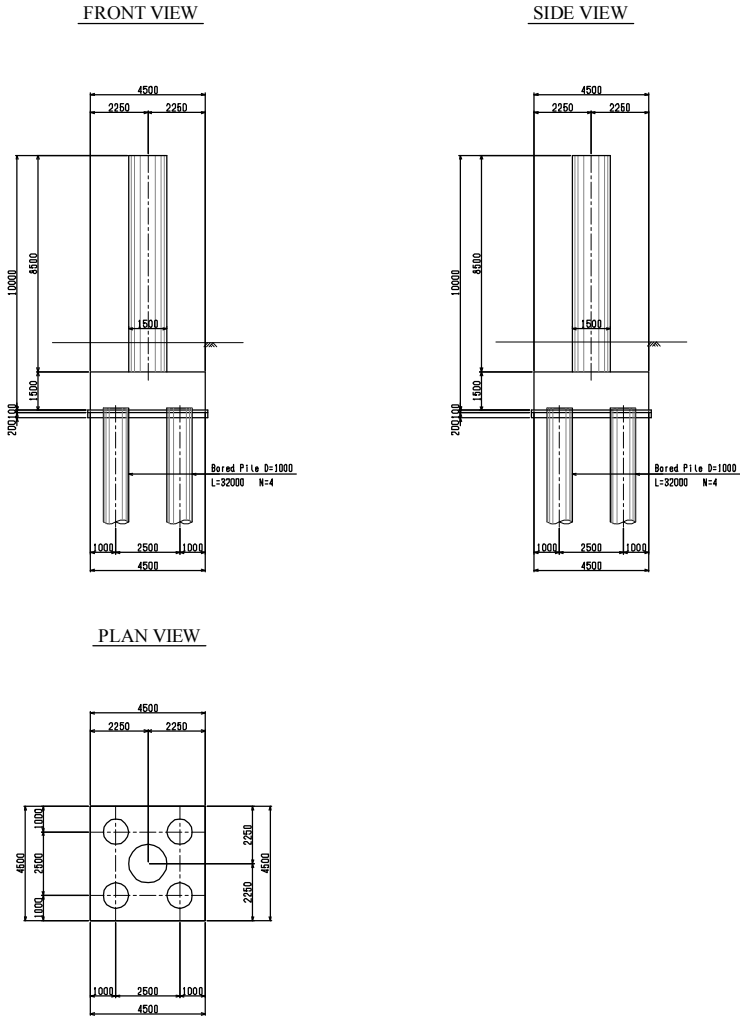


PLAN VIEW

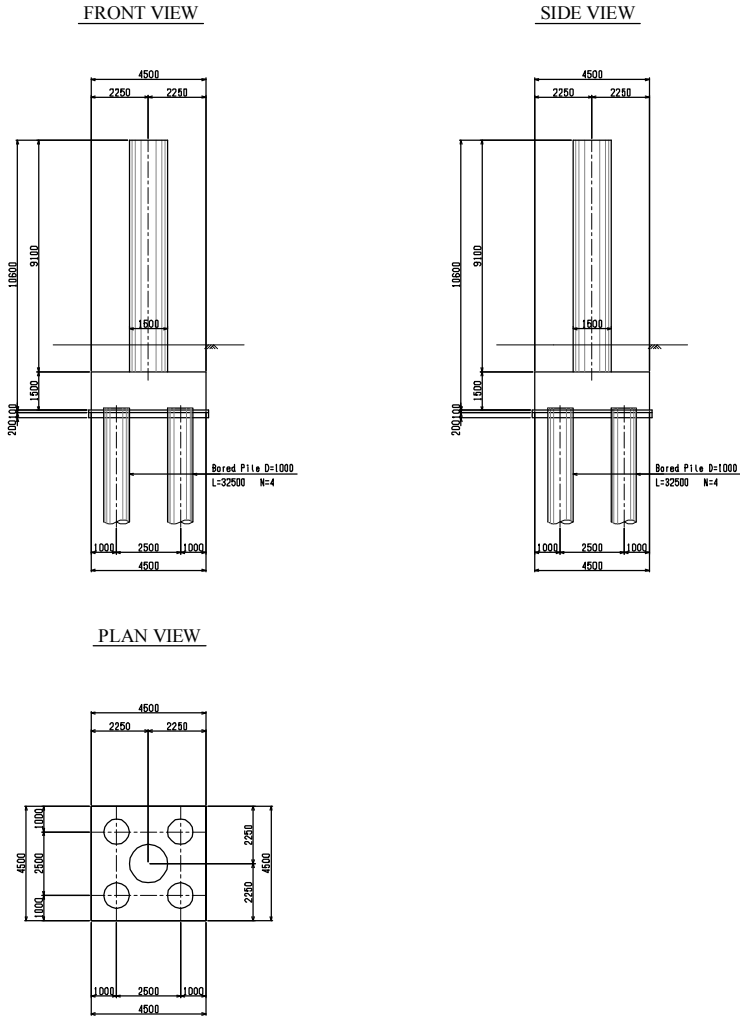


CLIENT  Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Substructure & Foundation (3)	Scale: 1:200 (A3)	DESIGNED BY:				Drawing No: B-8 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:										DRAWN BY:				
	SIGNATURE: DATE:										CHECKED BY:				
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P5



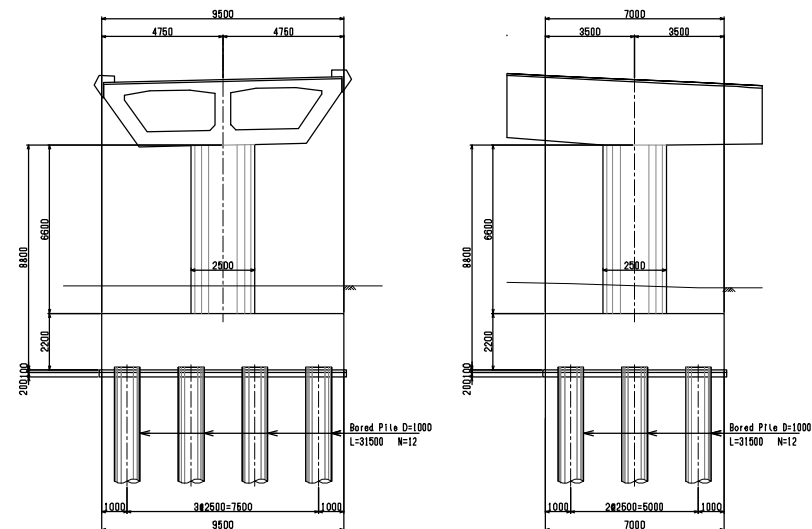
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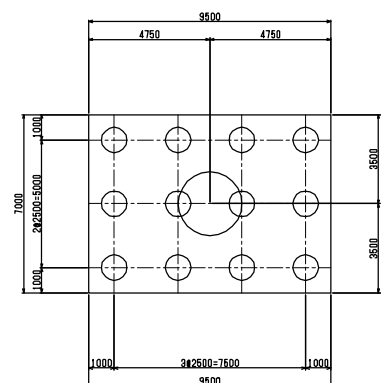
 Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:					CONSULTANT The Consortium of Oriental Consultants Global Co.,Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Substructure & Foundation (4)	Scale: 1:200 (A3)	DESIGNED BY:				Drawing No: B-9 SHEET No:				
	DIRECTOR RESPONSIBLE FOR DESIGN:									DRAWN BY:								
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P8

SIDE VIEW

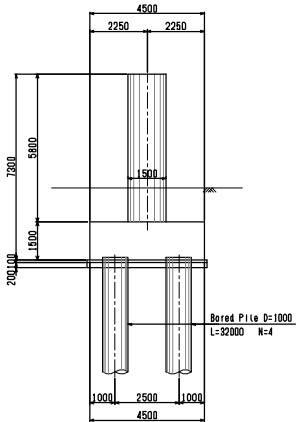


PLAN VIEW

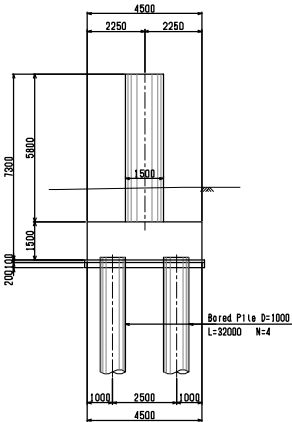


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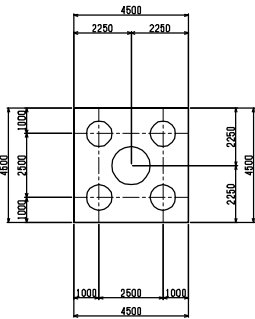
FRONT VIEW



SIDE VIEW

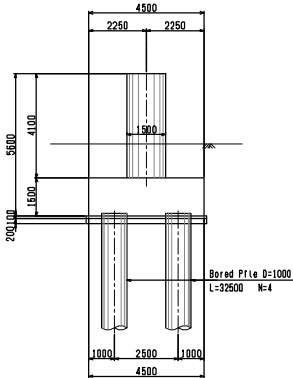


PLAN VIEW

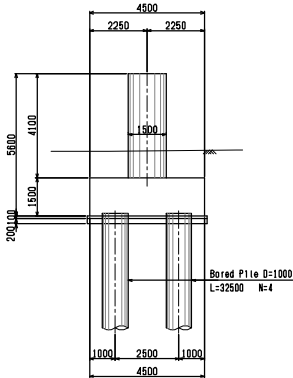


P10

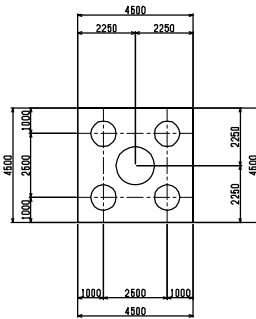
FRONT VIEW



SIDE VIEW



PLAN VIEW

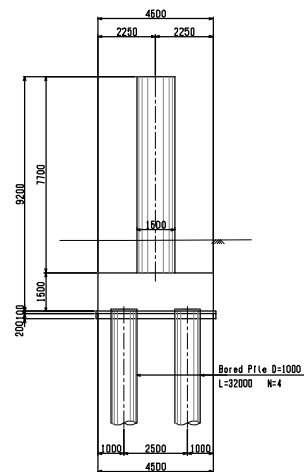
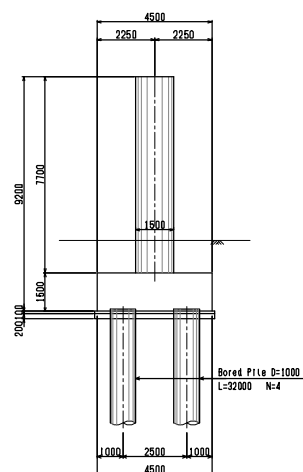


 Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:					<u>CONSULTANT</u> The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	<u>PROJECT</u> The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Substructure & Foundation (6)	Scale: 1:200 (A3)	DESIGNED BY:				Drawing No: B-11 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:									DRAWN BY:				
	SIGNATURE: DATE:									CHECKED BY:				
	STAMP:									APPROVED BY:				
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S=1:200

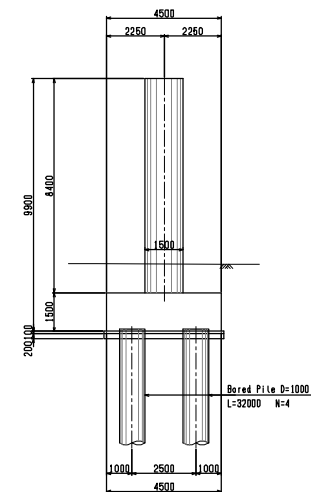
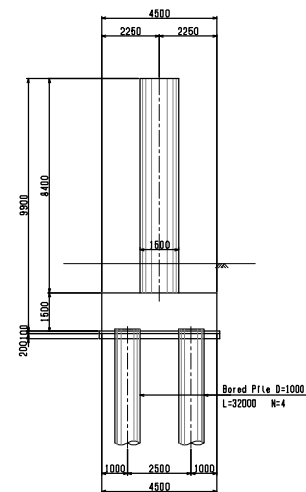
P5'

SIDE VIEW

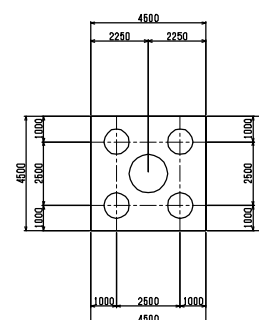
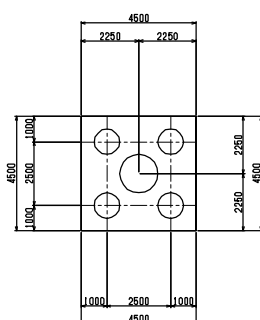


FRONT VIEW

SIDE VIEW



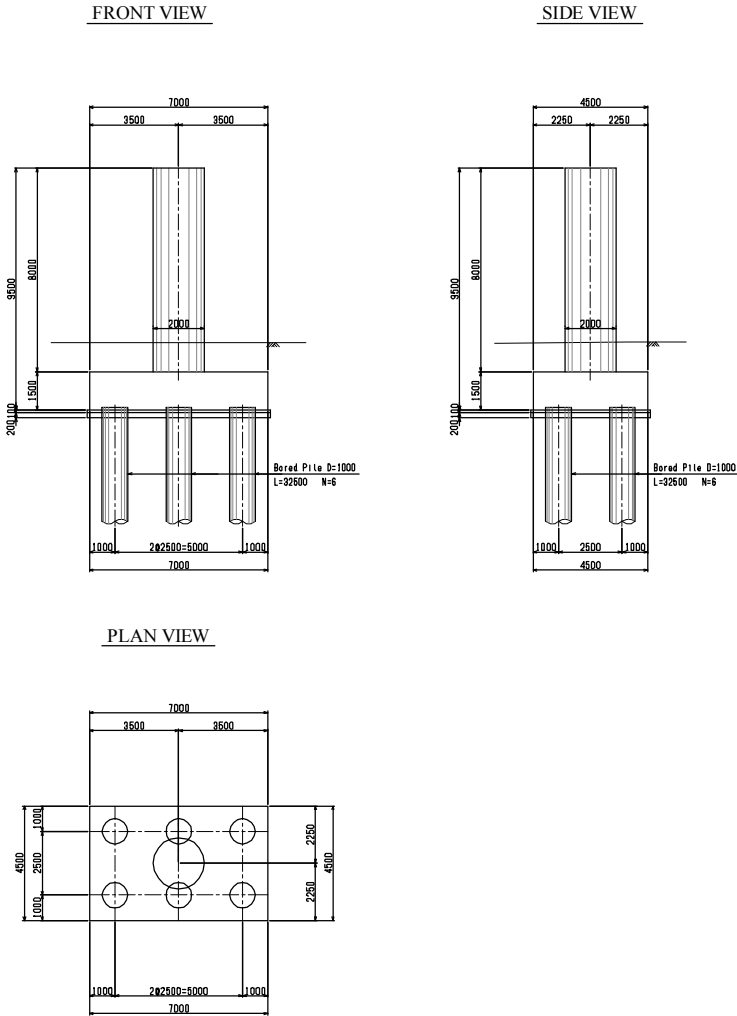
PLAN VIEW



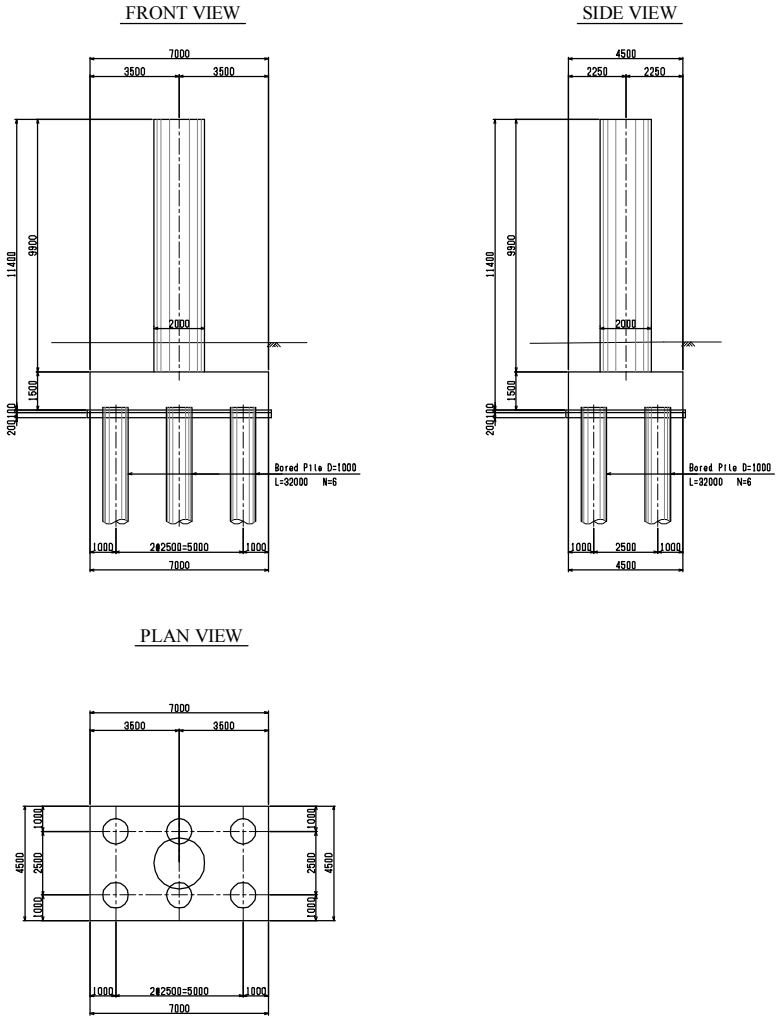
 Japan International Cooperation Agency (JICA)	CUSTOMER APPROVAL:	REVISION	DESCRIPTION	BY	DATE	<u>CONSULTANT</u> The Consortium of Oriental Consultants Global Co., Ltd. , Central Consultant Inc. , and Astla Air Survey Co., Ltd.	<u>PROJECT</u> The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Substructure & Foundation (7)	Scale: 1:200 (A3)	DESIGNED BY:				Drawing No:B-12 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:									DRAWN BY:				
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	STAMP:									APPROVED BY:				

SUBSTRUCTURE AND FOUNDATION (8) S=1:200

P6'



P7'

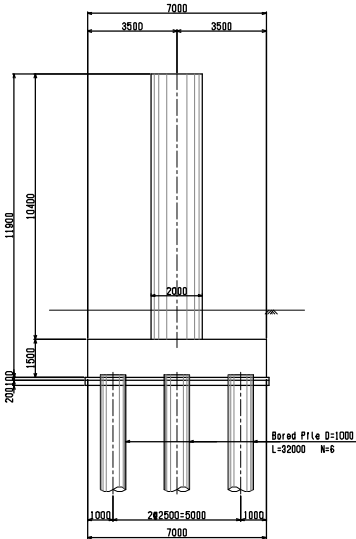


<u>CLIENT</u>  Japan International Cooperation Agency (JICA)	<u>CLIENTS APPROVAL:</u>		REVISION	DESCRIPTION	BY	DATE	<u>CONSULTANT</u> The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	<u>PROJECT</u> The Preparatory Survey for Improvement of SCUBRA Intersection (Outline Design)	TITLE: Substructure & Foundation (8)	Scale: 1:200 (A3)	DESIGNED BY:				Drawing No: B-13 SHEET No:
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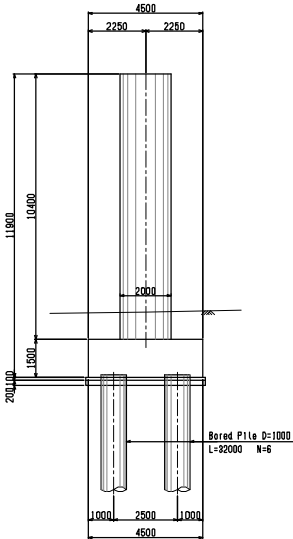
SUBSTRUCTURE AND FOUNDATION (9) S=1:200

P8'

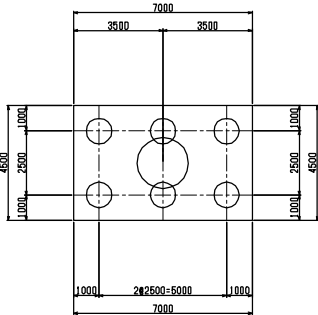
FRONT VIEW



SIDE VIEW

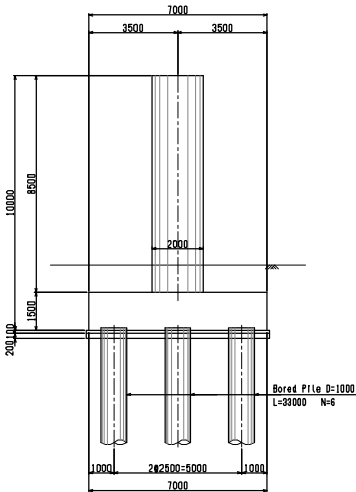


PLAN VIEW

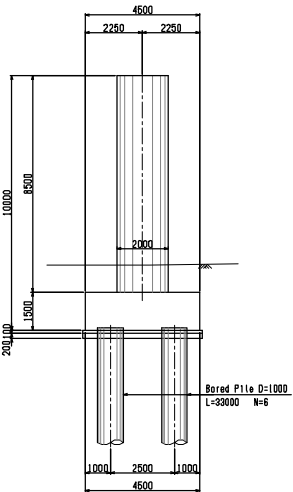


P9'

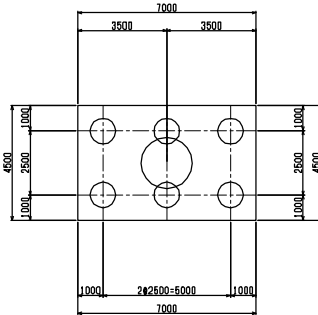
FRONT VIEW



SIDE VIEW



PLAN VIEW

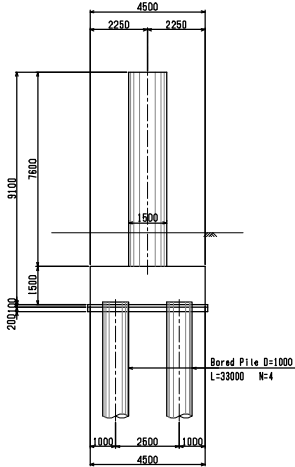


CLIENT  Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Substructure & Foundation (9)	Scale: 1:200 (A3)	DESIGNED BY:				Drawing No: B-14 SHEET No:
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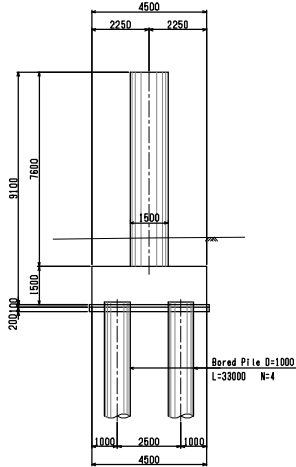
SUBSTRUCTURE AND FOUNDATION (10) S=1:200

P10'

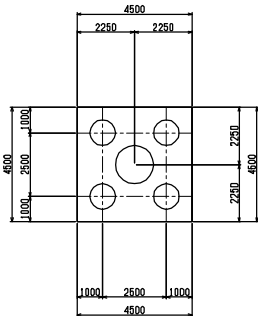
FRONT VIEW



SIDE VIEW

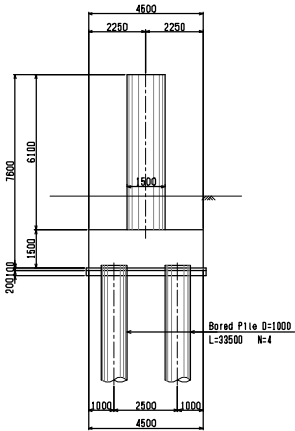


PLAN VIEW

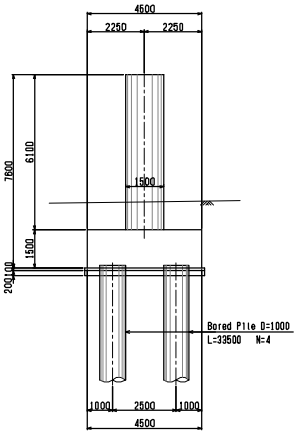


P11'

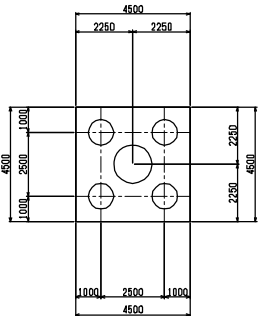
FRONT VIEW



SIDE VIEW



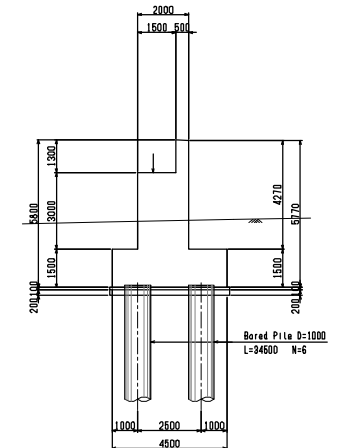
PLAN VIEW



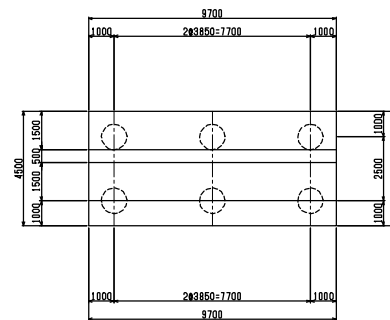
CLIENT  Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Substructure & Foundation (10)	Scale: 1:200 (A3)	DESIGNED BY:				Drawing No: B-15 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:										DRAWN BY:				
	SIGNATURE: DATE:										CHECKED BY:				
	STAMP:										APPROVED BY:				
											DATE:				

A2'

SIDE VIEW



PLAN VIEW



S=NTS

The diagram illustrates the construction of a bridge deck. It shows a series of piers labeled P5, P6, P7, P8, P9, P10, and A2. The bridge deck is shown as a series of segments supported by these piers. Scaffolding is indicated on both sides of the deck structure, particularly around piers P5, P6, and P9. The deck appears to be a continuous structure with some internal supports or segments.

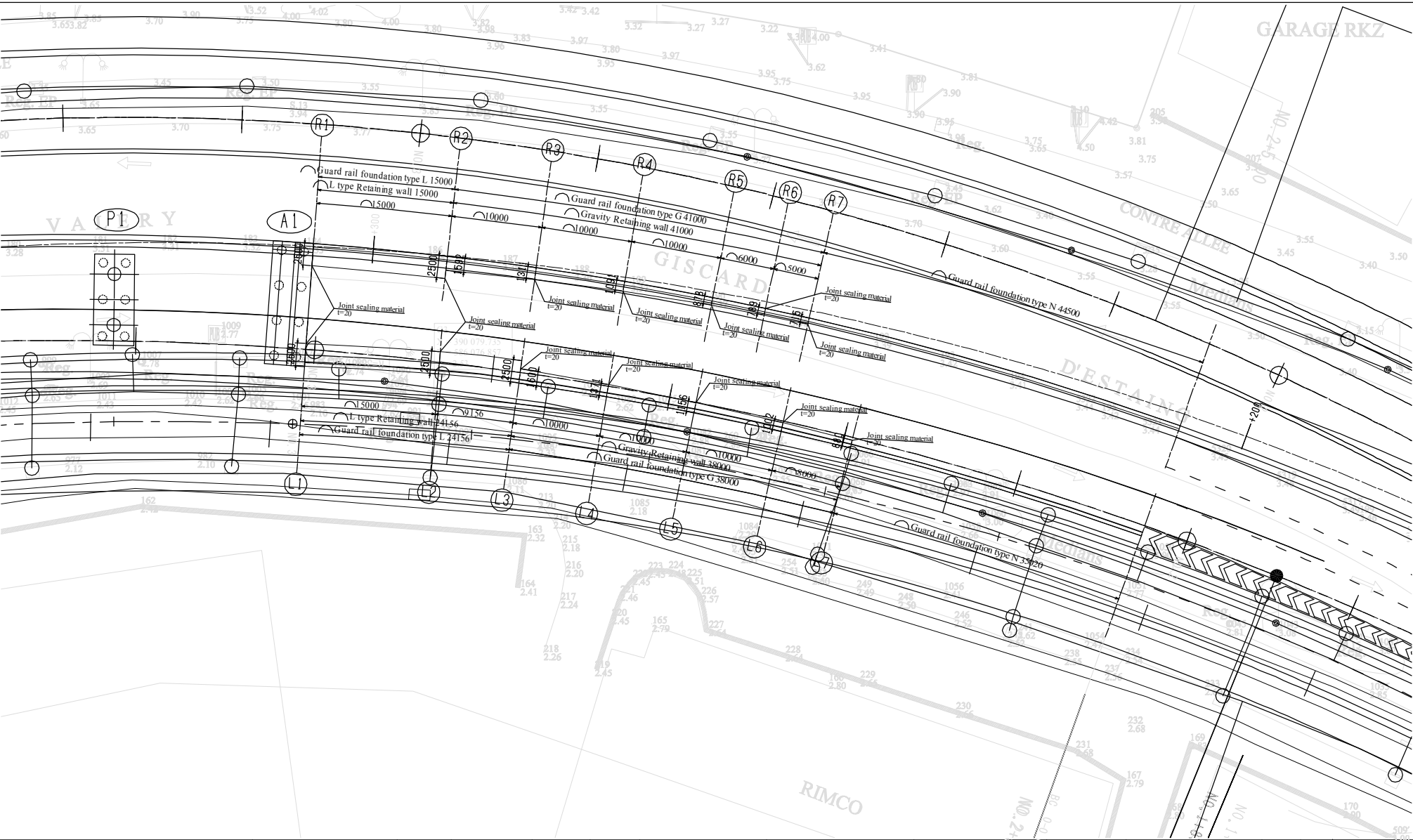
Step-4: Assemble the closure segment



The diagram illustrates the assembly of the closure segment. A central 'Suspended stage' is shown between piers P7 and P8. The 'Closure segment' is the section of the bridge deck being assembled, located between the suspended stage and the main bridge structure. The bridge is supported by piers P5, P6, P7, P8, P9, P10, and A2.

 Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:	REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOLIBRA Intersection (Outline Design)	TITLE: SOLIBRA F/O BRIDGE ERECTION PROCEDURE	Scale: 1:1000 (A3)	DESIGNED BY:			Drawing No: B-17 SHEET No:
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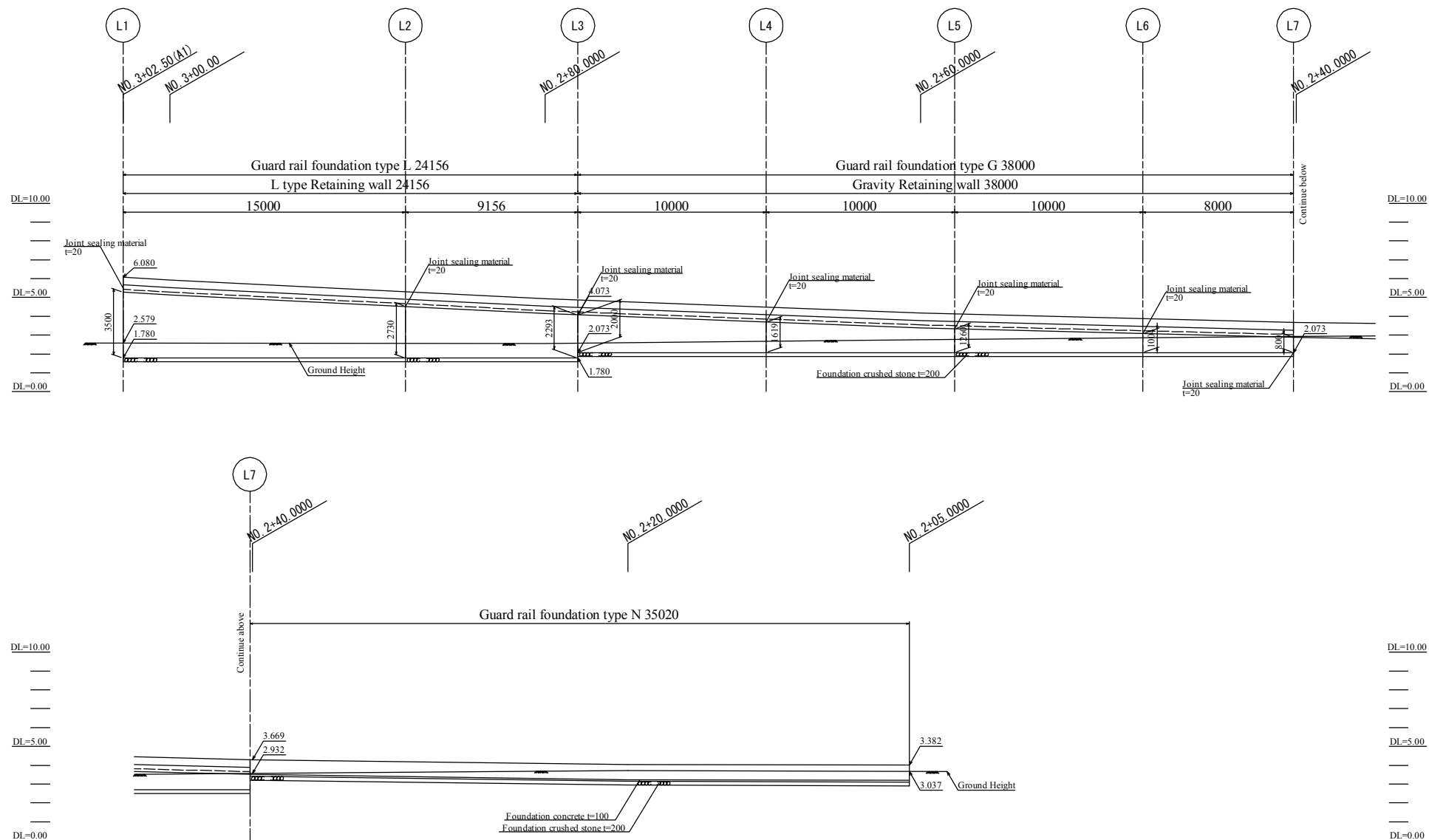
Retaning wall - Plan (A1)



資-60

CLIENT Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants CO., LTD., Oriental Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of Solibra Intersection (Outline Design)	TITLE: Retaining Wall (I)	Scale: 1:400	DESIGNED BY:				Drawing No:B-18 SHEET No:
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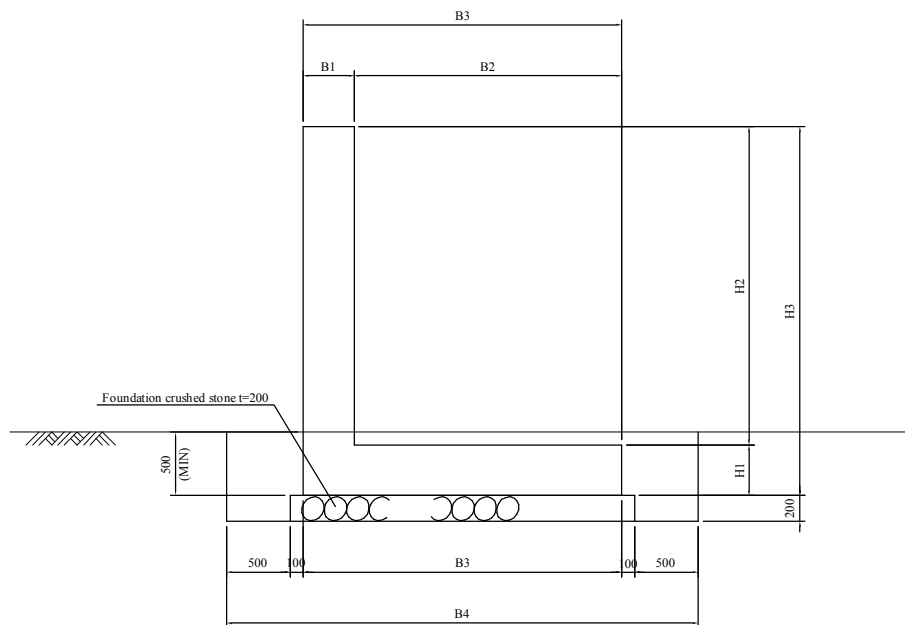
FO W-E A1 (L)



CLIENT Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:	REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants CO., LTD., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of Solihra Intersection (Outline Design)	TITLE: Retaining Wall (2)	Scale: 1:100	DESIGNED BY:				Drawing No: B-19 SHEET No:
	DIRECTOR RESPONSIBLE FOR HIGHWAY DESIGN:									DRAWN BY:				
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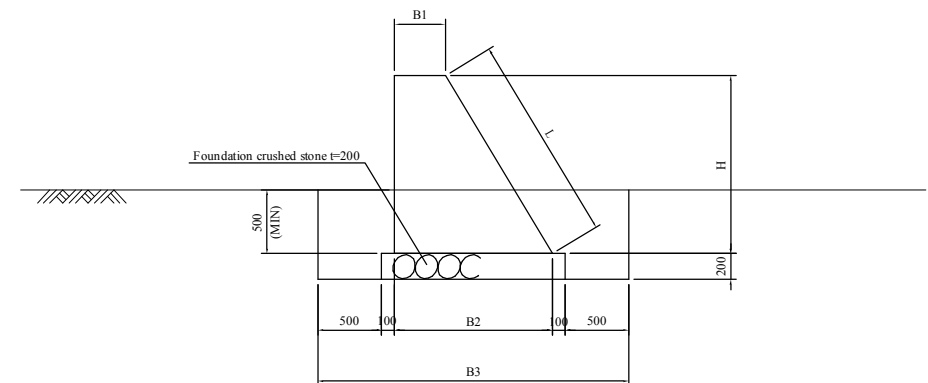
FO W-E A1 (L)

L type Retaining wall



	L1	L2	L3
B1	400	400	400
B2	2100	2100	2100
B3	2500	2500	2500
B4	3700	3700	3700
H1	400	400	400
H2	3100	2330	1893
H3	3500	2730	2293

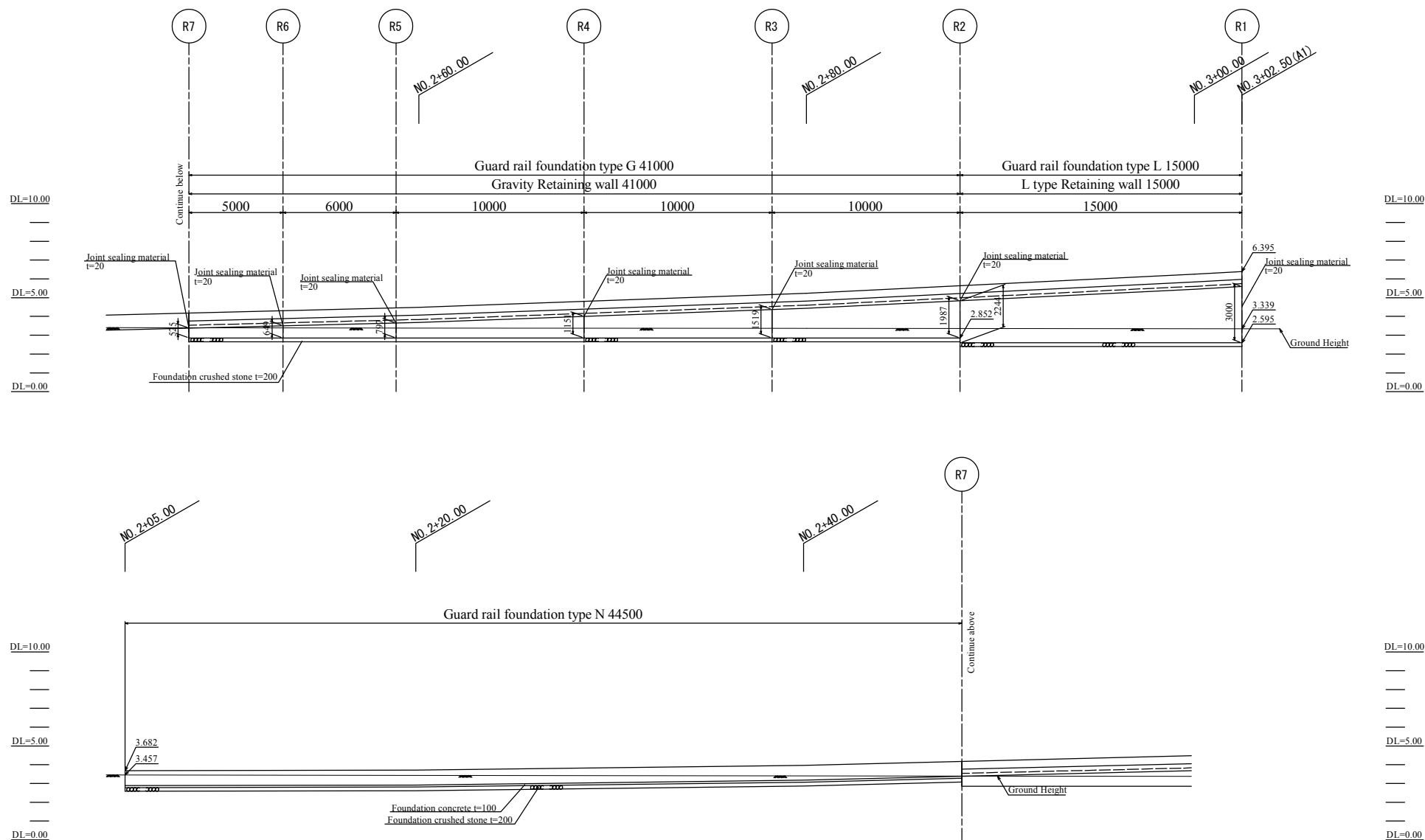
Gravity Retaining wall



	L3	L4	L5	L6	L7
B1	400	400	400	400	400
B2	1600	1371	1156	1002	880
B3	2800	2571	2356	2202	2080
H	2000	1619	1260	1004	800
L	2332	1888	1469	1171	933

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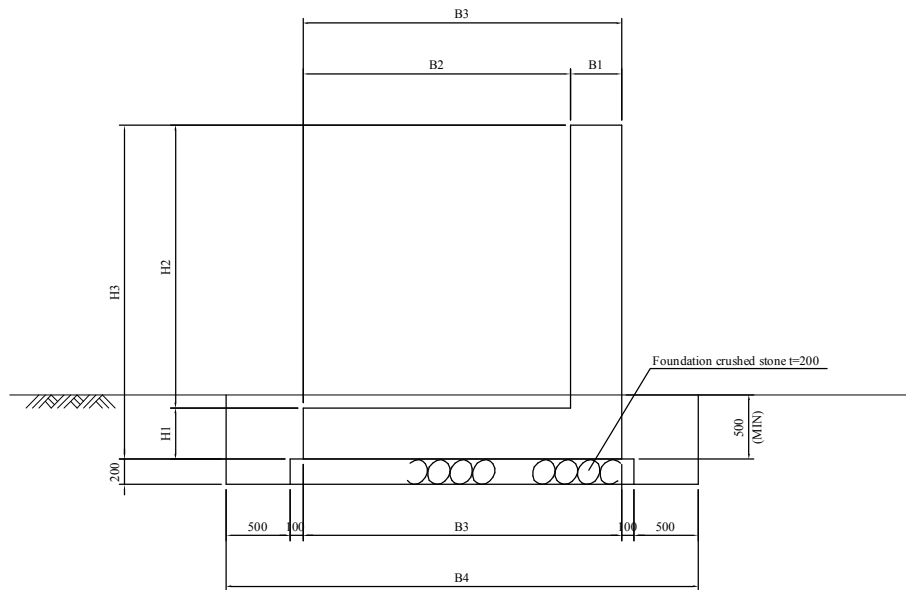
FO W-E A1(R)



CLIENT Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:	REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of Solibra Intersection (Outline Design)	TITLE: Retaining Wall (4)	Scale: 1:100	DESIGNED BY:				Drawing No: B-21 SHEET No:
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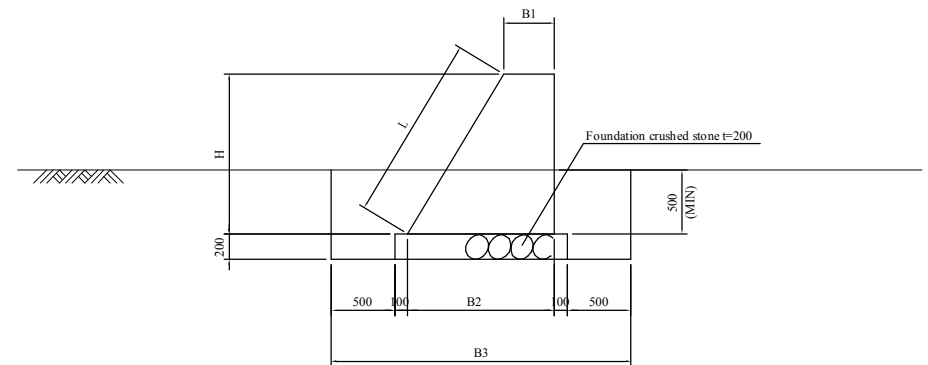
FO W-E A1 (R)

L type Retaining wall



	R1	R2
B1	400	400
B2	2100	2100
B3	2500	2500
B4	3700	3700
H1	400	400
H2	2600	1844
H3	3000	2244

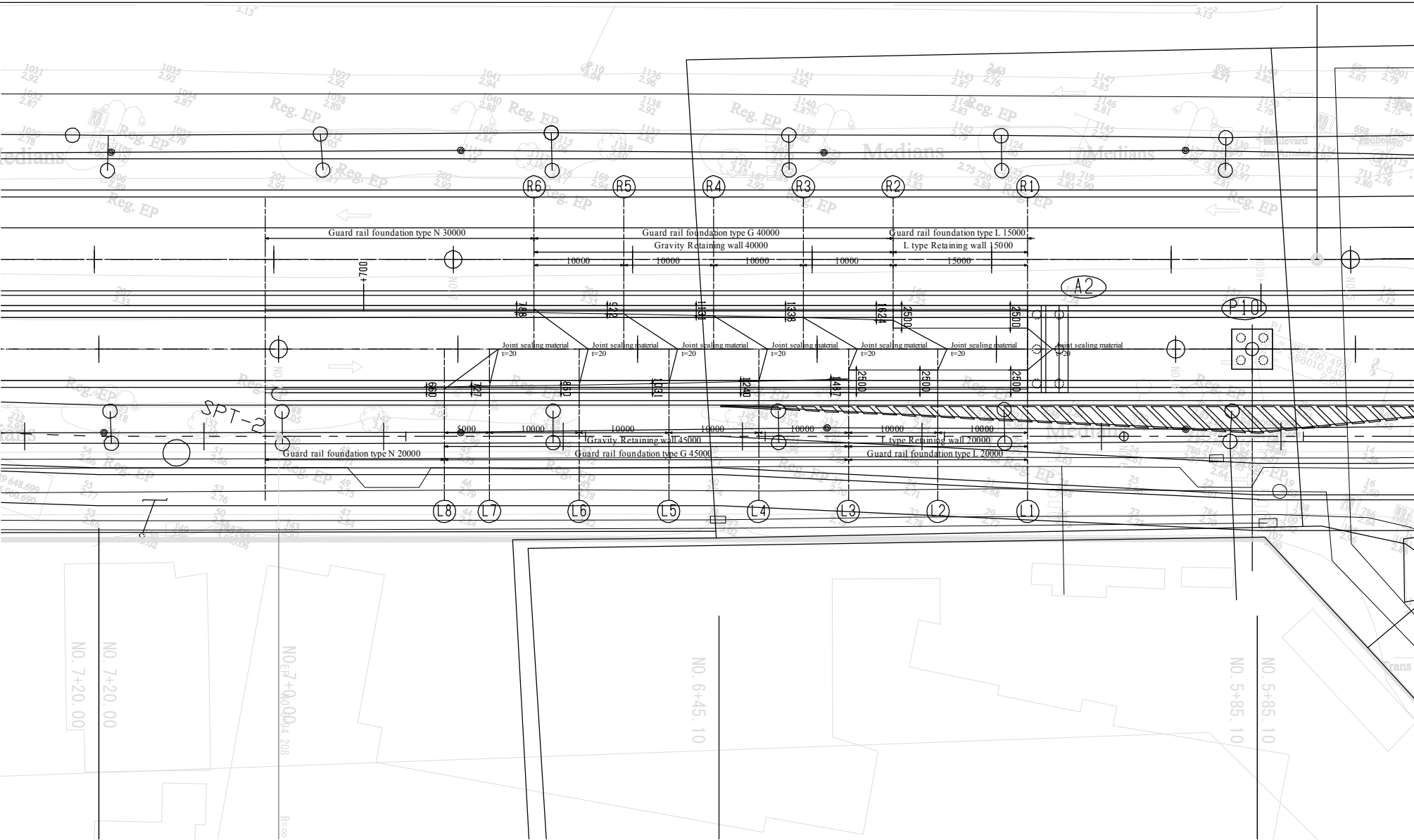
Gravity Retaining wall



	R2	R3	R4	R5	R6	R7
B1	400	400	400	400	400	400
B2	1592	1311	1091	878	789	715
B3	2792	2511	2291	2078	1989	1915
H	1987	1519	1151	797	649	525
L	2317	1771	1342	929	757	612

<u>CLIENT</u>  Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:	REVISION	DESCRIPTION	BY	DATE	<u>CONSULTANT</u> The Consortium of Oriental Consultants CO., LTD., Central Consultant Inc., and Asia Air Survey Co., Ltd.	<u>PROJECT</u> The Preparatory Survey for Improvement of Solibra Intersection (Outline Design)	TITLE: Retaining Wall (5)	Scale: NTS	DESIGNED BY:				Drawing No.: B-22 SHEET No:
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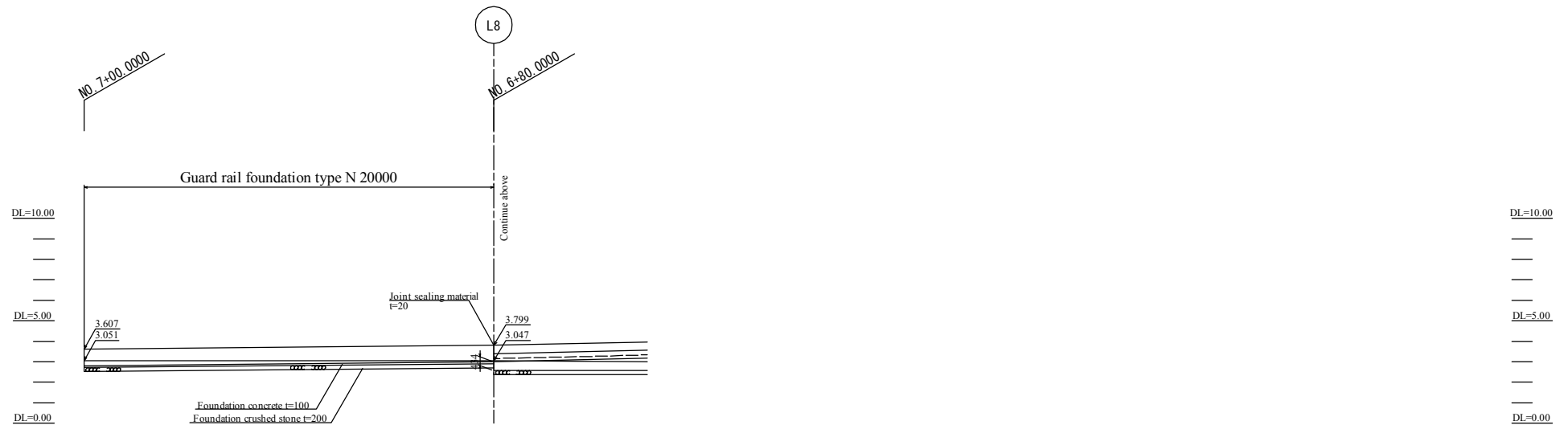
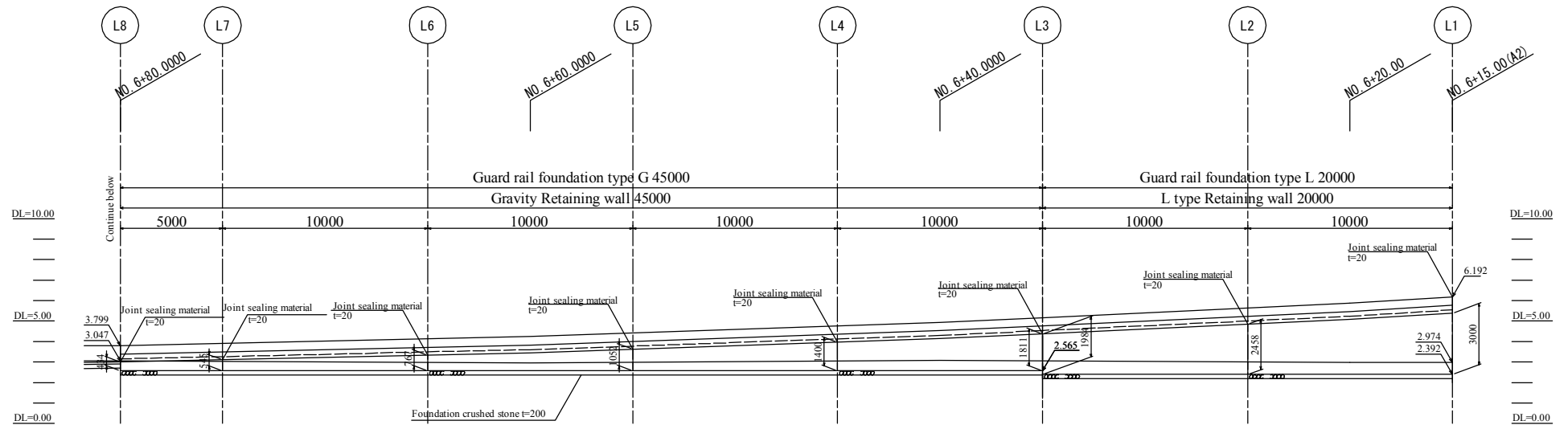
Retaning wall - Plan (A2)



資-65

CLIENT  Japan International Cooperation Agency (JICA)		CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants CO.,LTD., Central Consultant Inc., and Asia Air Survey Co., Ltd.		PROJECT The Preparatory Survey for Improvement of Solihra Intersection (Outline Design)		TITLE: Retaining Wall (6)	Scale: 1:200	DESIGNED BY:				Drawing No:B-23 SHEET No:
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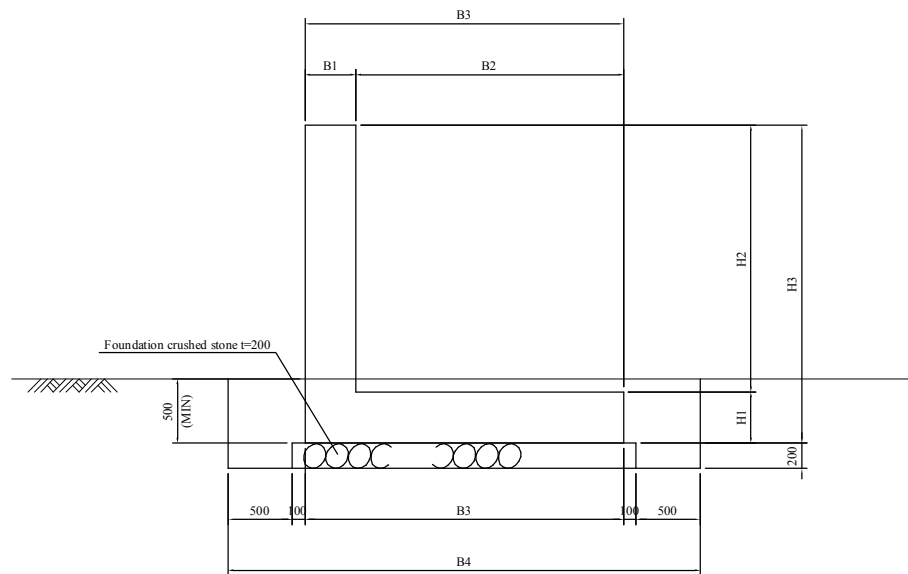
FO W-E A2 (L)



CLIENT Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants CO., LTD., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of Solihra Intersection (Outline Design)	TITLE: Retaining Wall (7)	Scale: 1:100	DESIGNED BY:				Drawing No: B-24 SHEET No:
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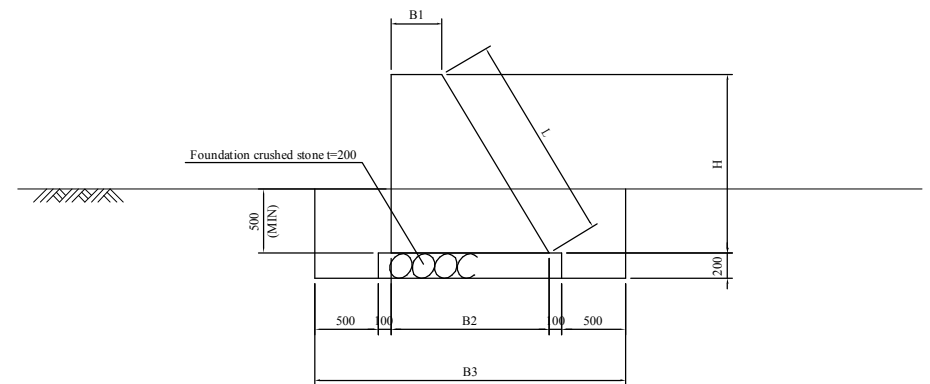
FO W-E A2 (L)

L type Retaining wall



	L1	L2	L3
B1	400	400	400
B2	2100	2100	2100
B3	2500	2500	2500
B4	3700	3700	3700
H1	400	400	400
H2	2600	2058	1584
H3	3000	2458	1984

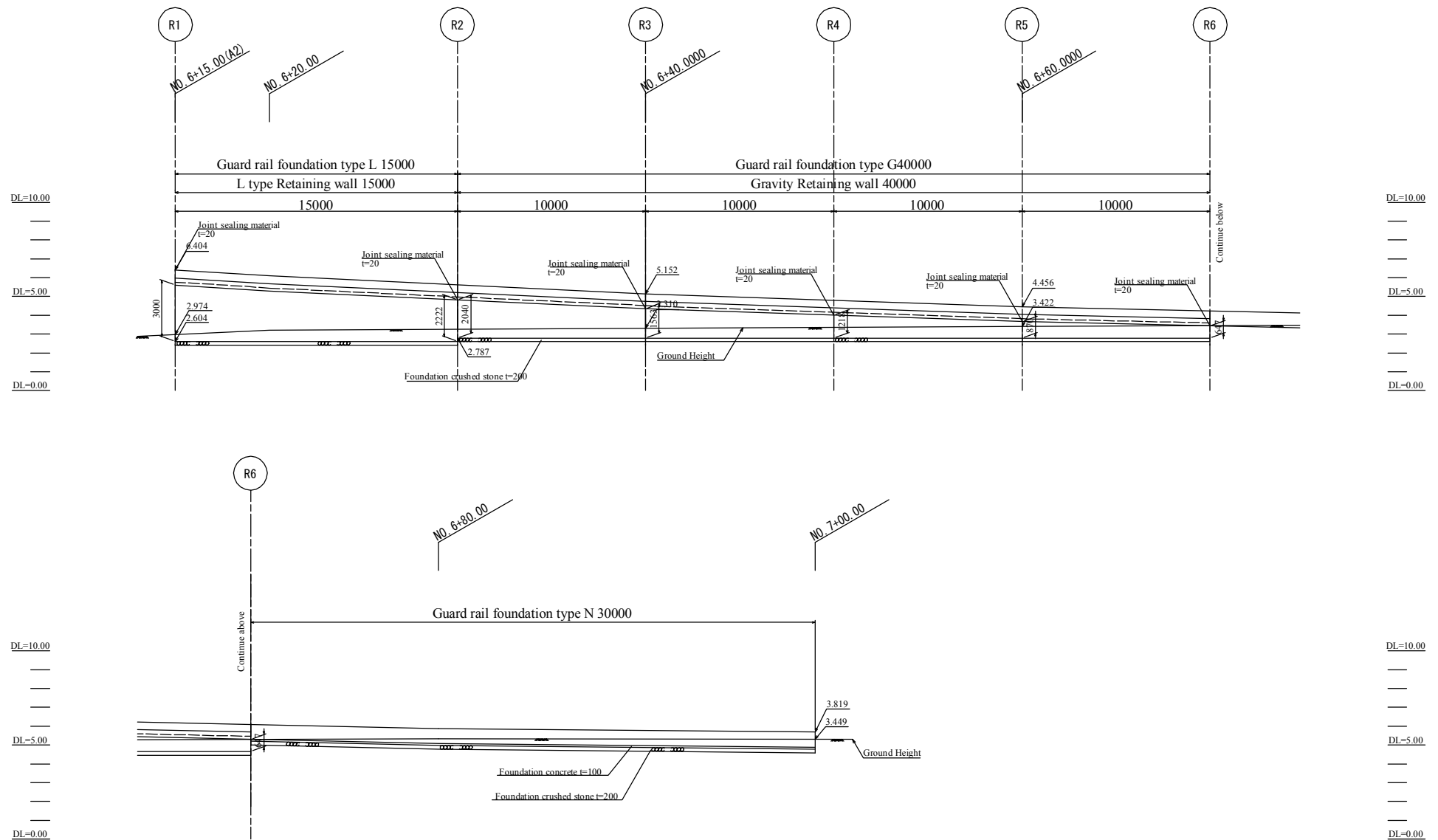
Gravity Retaining wall



	L3	L4	L5	L6	L7	L8
B1	400	400	400	400	400	400
B2	1487	1240	1031	860	727	660
B3	2687	2440	2231	2060	1927	1860
H	1811	1400	1052	767	545	434
L	2112	1633	1227	894	636	506

CLIENT  Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:	REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants CO., LTD., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of Solibra Intersection (Outline Design)	TITLE: Retaining Wall (8)	Scale: NTS	DESIGNED BY:				Drawing No: B-25 SHEET No:
	DIRECTOR RESPONSIBLE FOR HIGHWAY DESIGN:									DRAWN BY:				
	SIGNATURE: DATE:									CHECKED BY:				
	STAMP:									APPROVED BY:				
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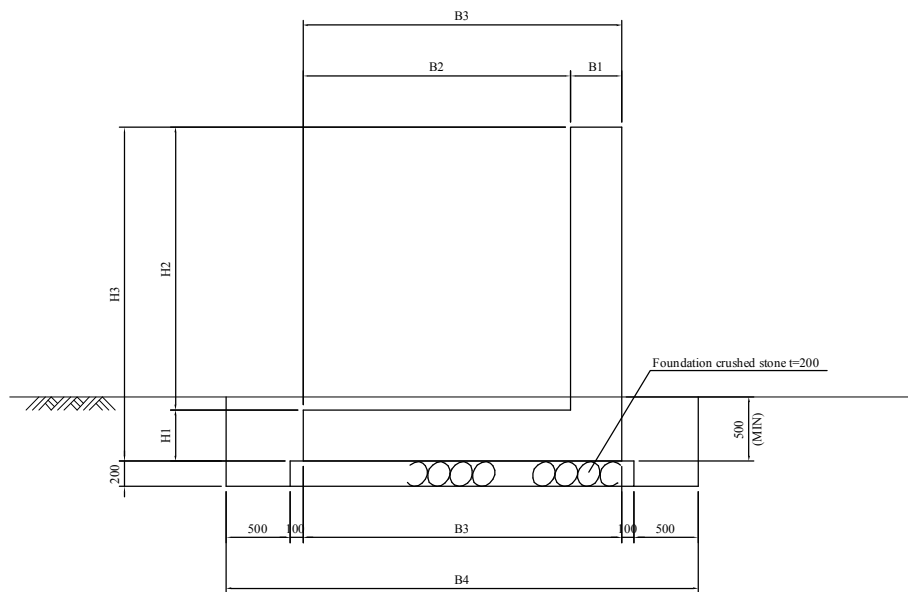
FO W-E A2 (R)



<u>CLIENT</u>  Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	<u>CONSULTANT</u> The Consortium of Oriental Consultants CO, LTD., Central Consultant Inc., and Asia Air Survey Co., Ltd.	<u>PROJECT</u> The Preparatory Survey for Improvement of Solihra Intersection (Outline Design)	TITLE: Retaining Wall (9)	Scale: 1:100	DESIGNED BY:				Drawing No: B-26 SHEET No:
	DIRECTOR RESPONSIBLE FOR HIGHWAY DESIGN:										DRAWN BY:				
	SIGNATURE: DATE:										CHECKED BY:				
	STAMP:										APPROVED BY:				
											DATE:				

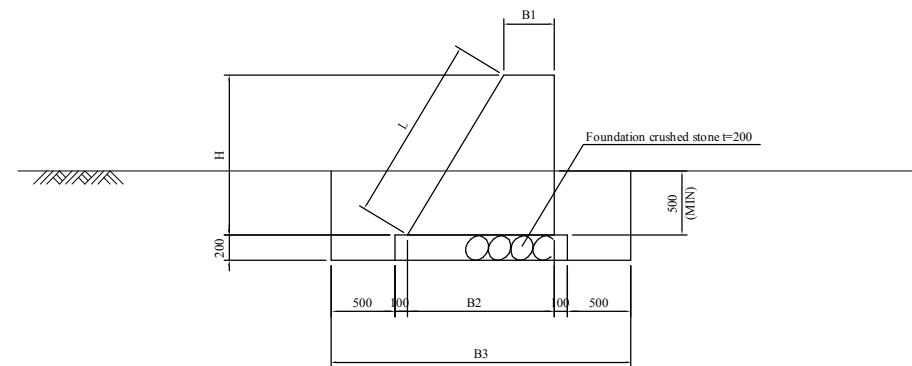
FO W-E A2 (R)

L type Retaining wall



	R1	R2
B1	400	400
B2	2100	2100
B3	2500	2500
B4	3700	3700
H1	400	400
H2	2600	1822
H3	3000	2222

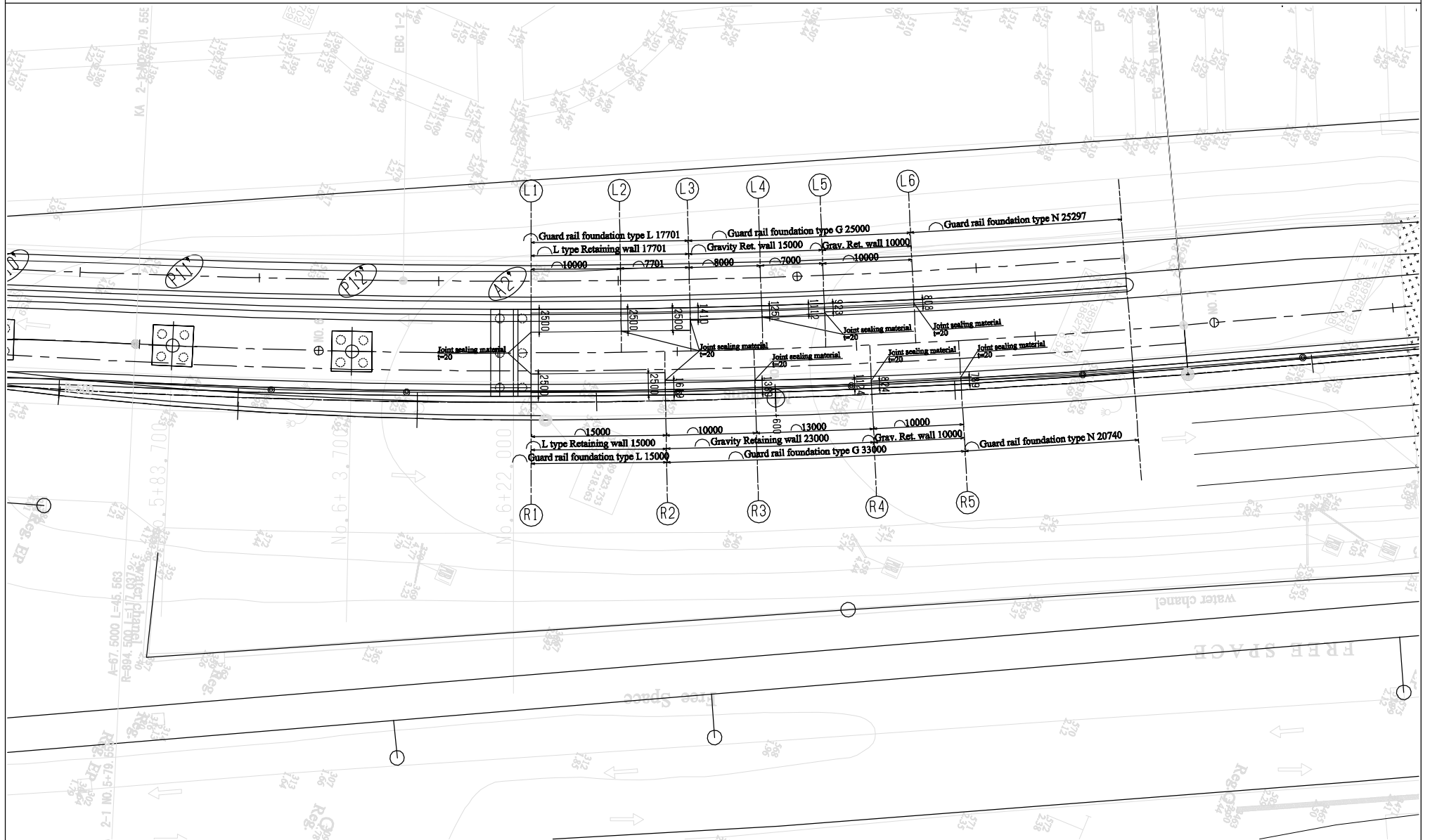
Gravity Retaining wall



	R2	R3	R4	R5	R6
B1	400	400	400	400	400
B2	1624	1338	1131	922	788
B3	2824	2538	2331	2122	1988
H	2040	1563	1218	870	647
L	2379	1823	1420	1015	755

CLIENT  Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:	REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants CO., LTD., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of Solibra Intersection (Outline Design)	TITLE: Retaining Wall (10)	Scale: NTS	DESIGNED BY:			Drawing No: B-27
	DIRECTOR RESPONSIBLE FOR HIGHWAY DESIGN:									DRAWN BY:			
	SIGNATURE: DATE:									CHECKED BY:			
	STAMP:									APPROVED BY:			
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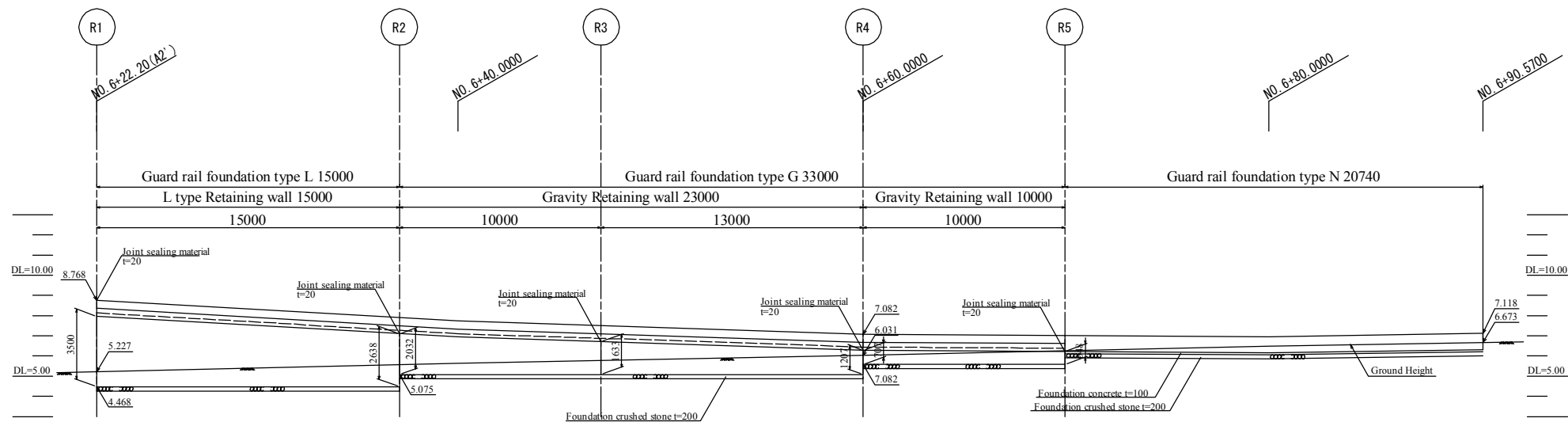
Retaning wall - Plan (A2')



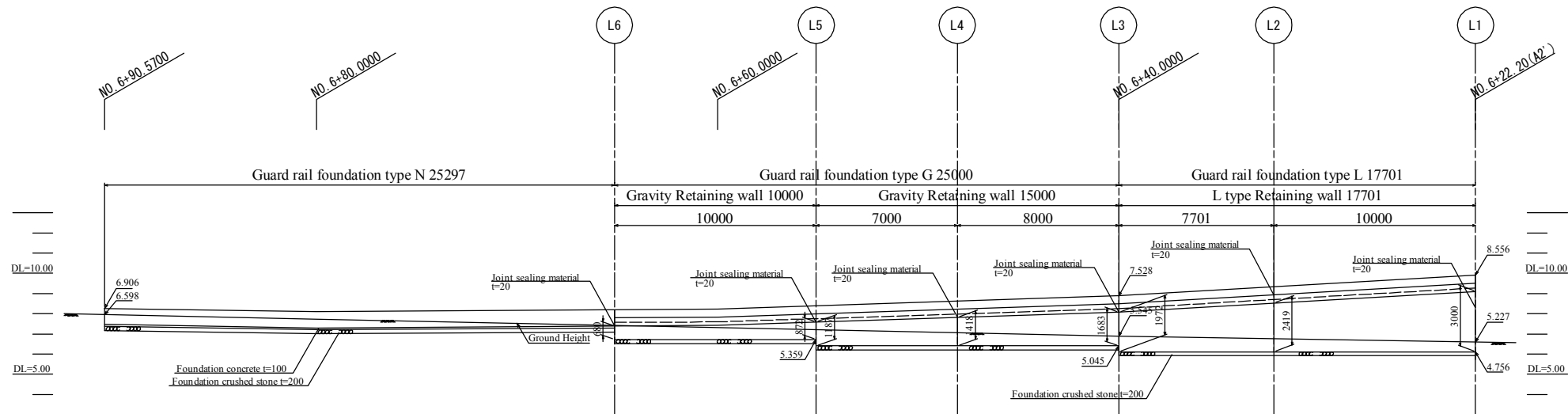
資-70

 Japan International Cooperation Agency (JICA)	CLIENT		CLIENTS APPROVAL:	REVISION	DESCRIPTION	BY	DATE	CONSULTANT	PROJECT	TITLE:	Scale:	DESIGNED BY:				
			DIRECTOR RESPONSIBLE FOR HIGHWAY DESIGN:					The Consortium of Oriental Consultants CO.,LTD., Central Consultant Inc., and Asia Air Survey Co., Ltd.	The Preparatory Survey for Improvement of Solihra Intersection (Outline Design)	Retaining Wall (11)	1:200	DRAWN BY:				
			SIGNATURE: DATE:									CHECKED BY:				
			STAMP:									APPROVED BY:				
												DATE:				
SHEET No:																

FO N-E A2' (R)



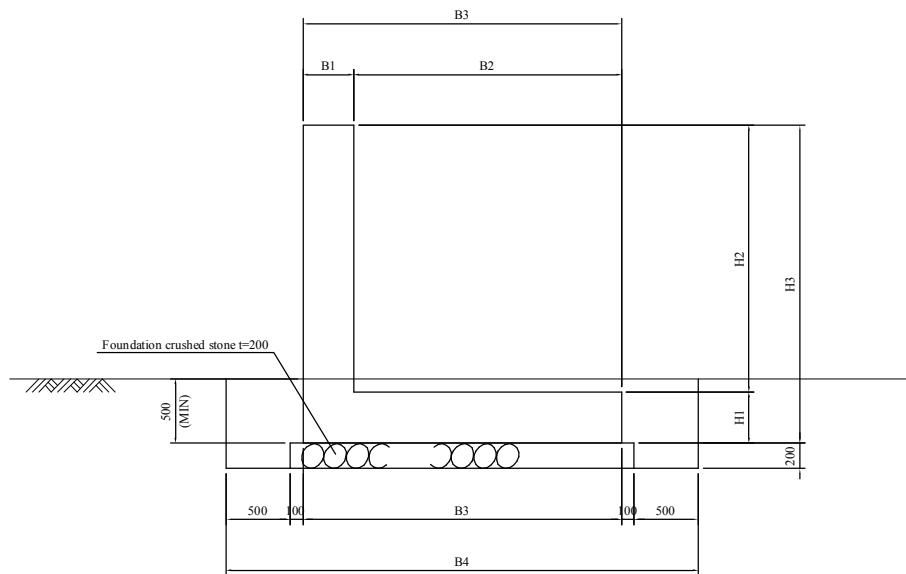
FO N-E A2' (L)



CLIENT  Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:	REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants CO., LTD., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of Solihua Intersection (Outline Design)	TITLE: Retaining Wall (12)	Scale: 1:100	DESIGNED BY:				Drawing No: B-29 SHEET No:
	DIRECTOR RESPONSIBLE FOR HIGHWAY DESIGN:									DRAWN BY:				
	SIGNATURE: DATE:									CHECKED BY:				
	STAMP:									APPROVED BY:				
										DATE:				

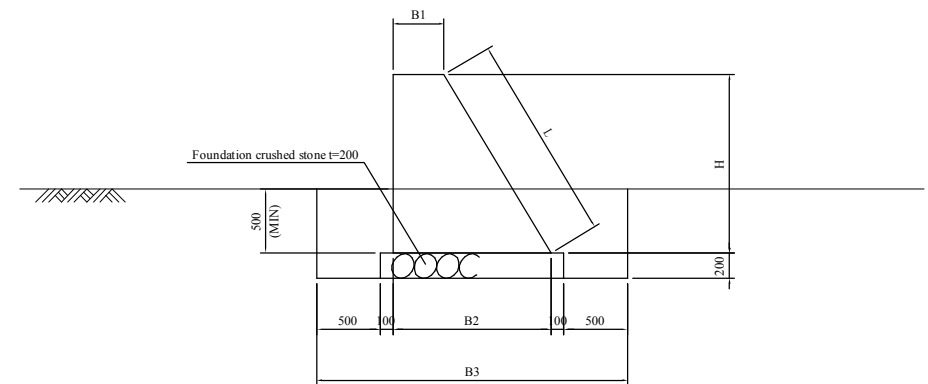
FO N-E A2' (L)

L type Retaining wall



	L1	L2	L3
B1	400	400	400
B2	2100	2100	2100
B3	2500	2500	2500
B4	3700	3700	3700
H1	400	400	400
H2	2600	2019	1572
H3	3000	2419	1972

Gravity Retaining wall



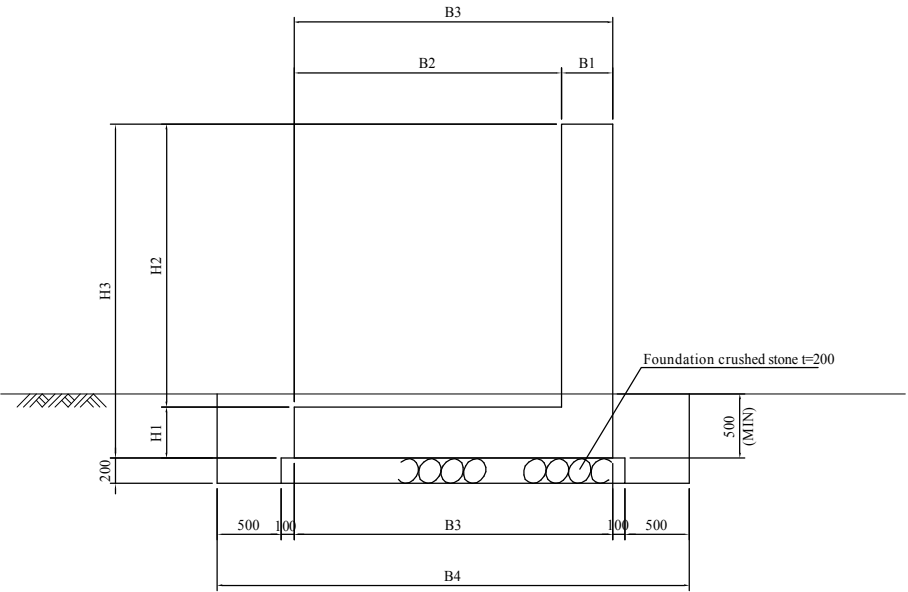
	L3	L4	L5
B1	400	400	400
B2	1410	1251	1112
B3	2610	2451	2312
H	1683	1418	1187
L	1963	1654	1384

	L5	L6
B1	400	400
B2	923	808
B3	2123	2008
H	872	680
L	1017	793

CLIENT  Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:	REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants CO., LTD., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of Solibra Intersection (Outline Design)	TITLE:	Scale:	DESIGNED BY:				Drawing No: B-30
	DIRECTOR RESPONSIBLE FOR HIGHWAY DESIGN:									DRAWN BY:				
	SIGNATURE: DATE:									CHECKED BY:				
	STAMP:									APPROVED BY:				
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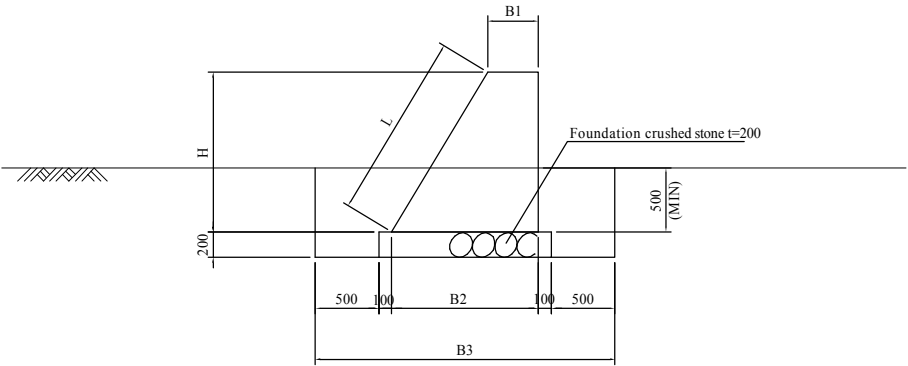
FO N-E A2' (R)

L type Retaining wall



	R1	R2
B1	400	400
B2	2100	2100
B3	2500	2500
B4	3700	3700
H1	400	400
H2	3100	2238
H3	3500	2638

Gravity Retaining wall

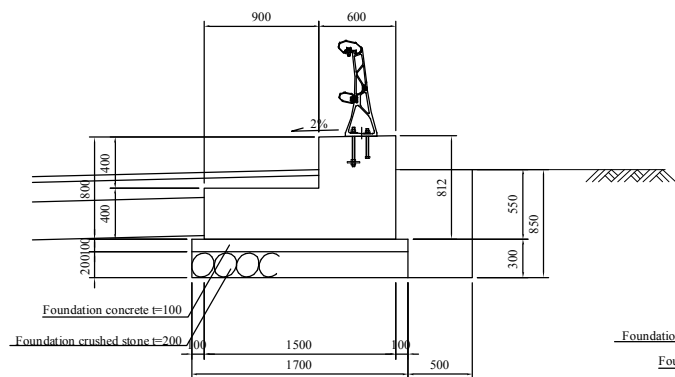


	R2	R3	R4
B1	400	400	400
B2	1619	1380	1124
B3	2819	2580	2324
H	2032	1633	1207
L	2370	1904	1408

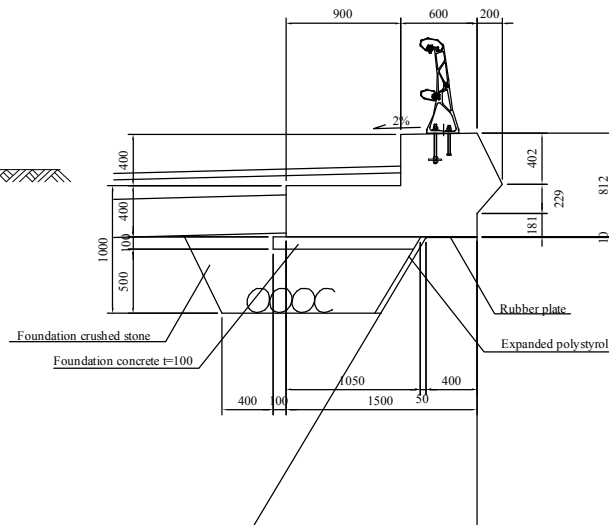
	R4	R5
B1	400	400
B2	824	789
B3	2024	1989
H	707	648
L	824	756

CLIENT  Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:	REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants CO, LTD., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of Solibra Intersection (Outline Design)	TITLE: Retaining Wall (14)	Scale: NTS	DESIGNED BY:				Drawing No: B-31 SHEET No:
	DIRECTOR RESPONSIBLE FOR HIGHWAY DESIGN:									DRAWN BY:				
	SIGNATURE: DATE:									CHECKED BY:				
	STAMP:									APPROVED BY:				
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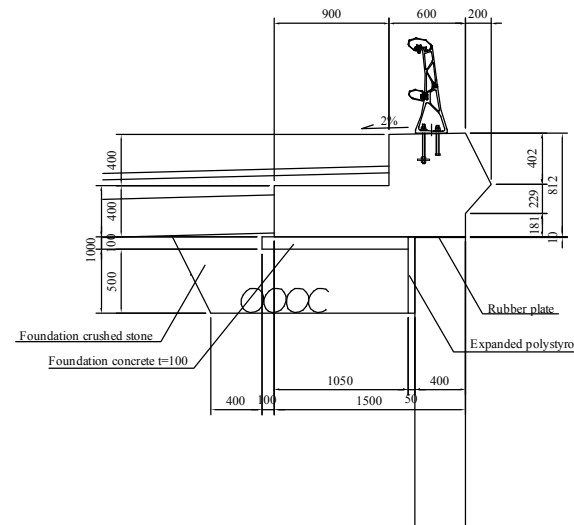
Guard rail foundation typeN



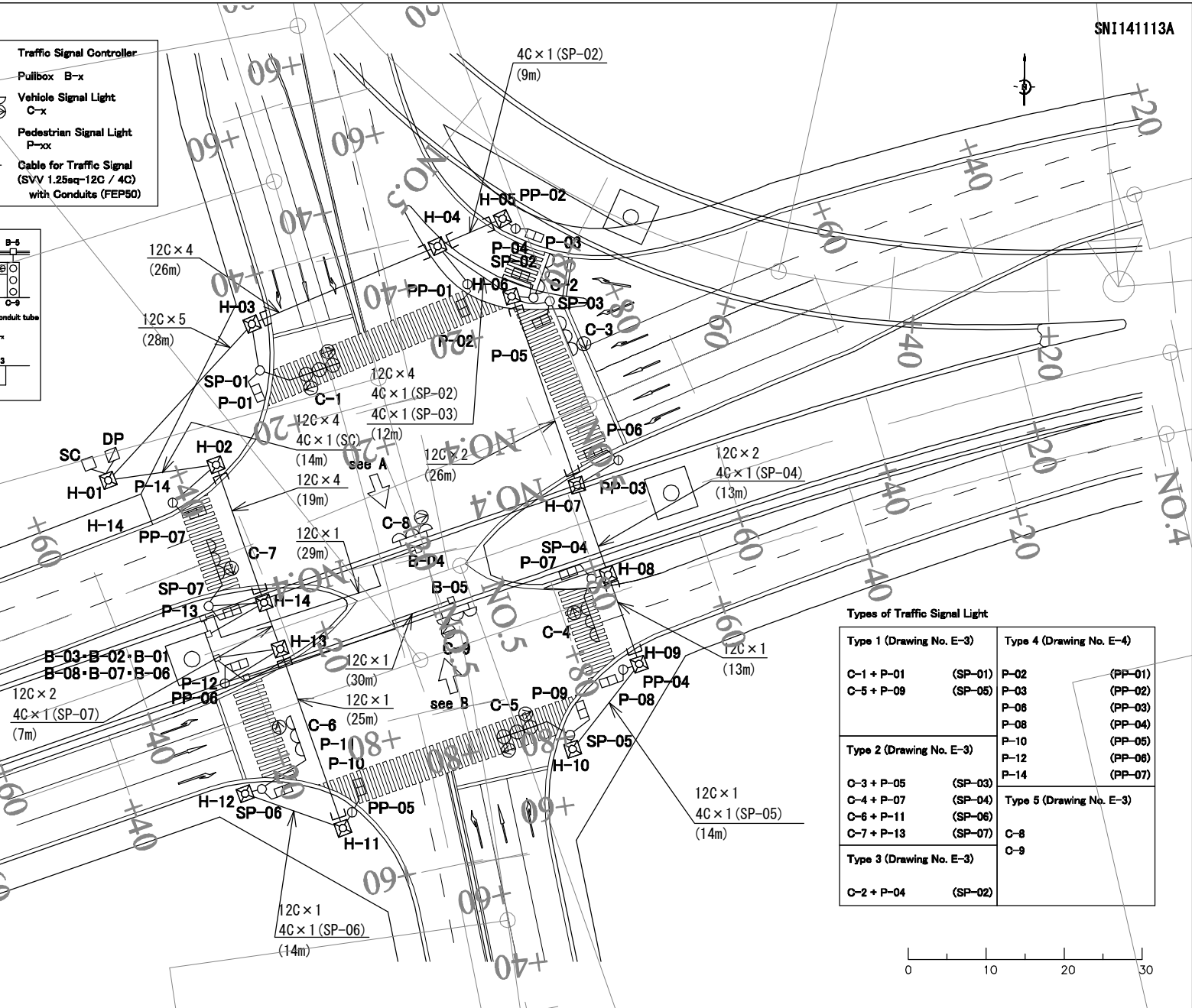
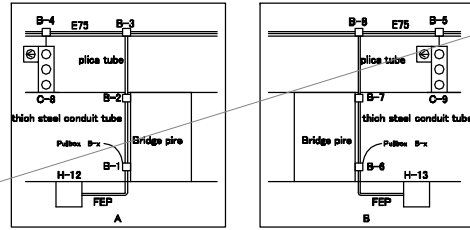
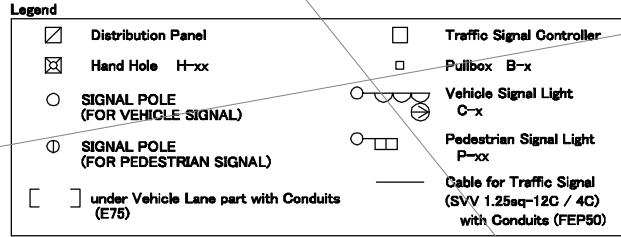
Guard rail foundation typeG



Guard rail foundation type L

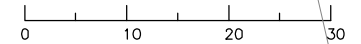


<u>CLIENT</u>  Japan International Cooperation Agency (JICA)	<u>CLIENTS APPROVAL:</u>	<u>REVISION</u>	<u>DESCRIPTION</u>	<u>BY</u>	<u>DATE</u>	<u>CONSULTANT</u> The Consortium of Oriental Consultants CO, LTD., Central Consultant Inc., and Asia Air Survey Co., Ltd.	<u>PROJECT</u> The Preparatory Survey for Improvement of Solihra Intersection (Outline Design)	<u>TITLE:</u> Retaining Wall (15)	<u>Scale:</u> 1:20	<u>DESIGNED BY:</u>				Drawing No: B-32 SHEET No:
	<u>DIRECTOR RESPONSIBLE FOR HIGHWAY DESIGN:</u>									<u>DRAWN BY:</u>				
	<u>SIGNATURE:</u> <u>DATE:</u>									<u>CHECKED BY:</u>				
	<u>STAMP:</u>									<u>APPROVED BY:</u>				
										<u>DATE:</u>				

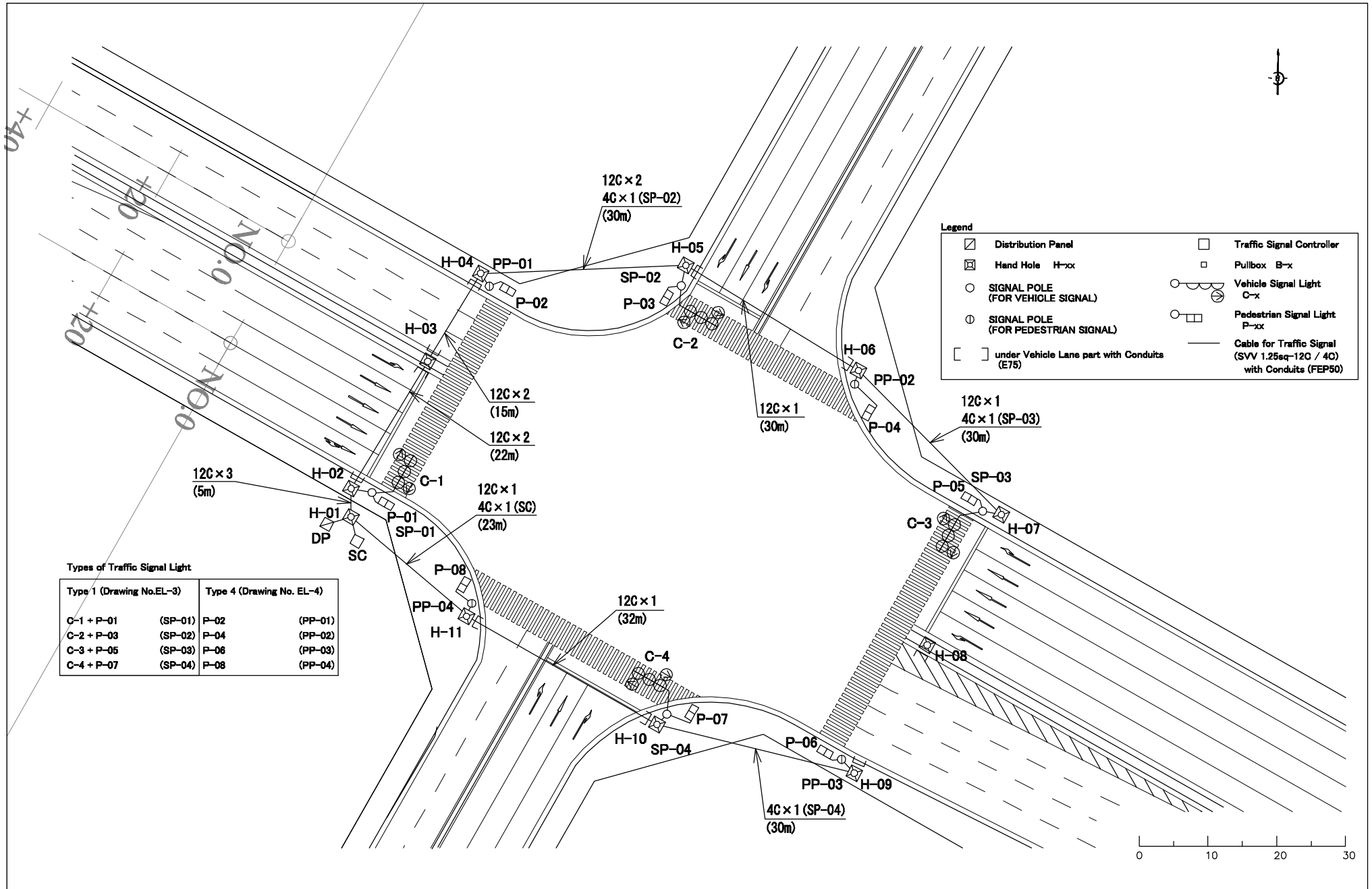


Types of Traffic Signal Light

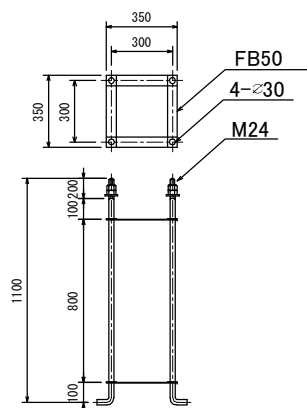
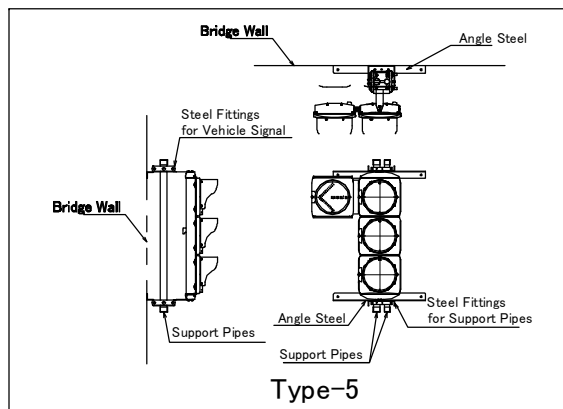
Type 1 (Drawing No. E-3)	Type 4 (Drawing No. E-4)
C-1 + P-01 (SP-01)	P-02 (PP-01)
C-5 + P-09 (SP-05)	P-03 (PP-02)
	P-06 (PP-03)
	P-08 (PP-04)
	P-10 (PP-05)
	P-12 (PP-06)
	P-14 (PP-07)
Type 2 (Drawing No. E-3)	Type 5 (Drawing No. E-3)
C-3 + P-05 (SP-03)	C-8
C-4 + P-07 (SP-04)	C-9
C-6 + P-11 (SP-06)	
C-7 + P-13 (SP-07)	
Type 3 (Drawing No. E-3)	
C-2 + P-04 (SP-02)	



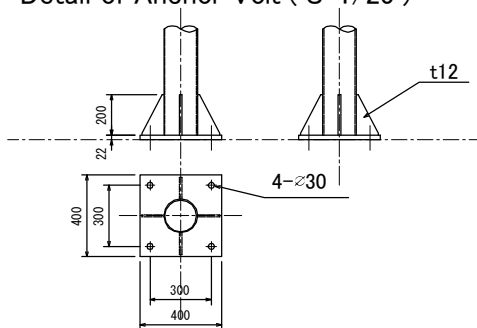
CLIENT Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultants Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOLIBRA Intersection (Outline Design)	TITLE: Traffic Lights (Signal) Layout Plan (1/2) SOLIBRA Intersection	Scale: 1:500 (A3)	DESIGNED BY:				Drawing No: E-1 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:										DRAWN BY:				
	SIGNATURE:										CHECKED BY:				
	DATE:										APPROVED BY:				
	STAMP:										DATE:				



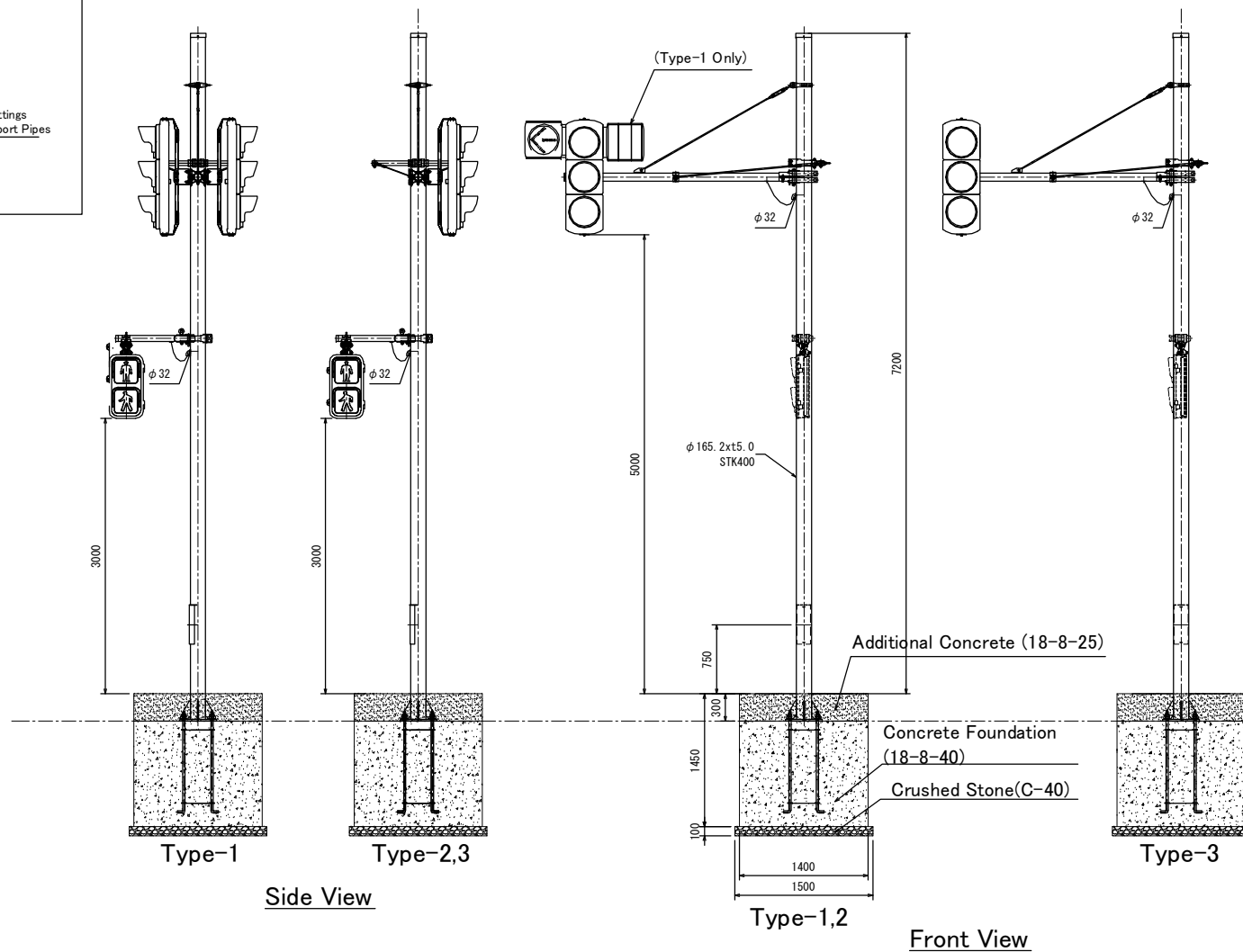
CLIENT Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOLIBRA Intersection (Outline Design)	TITLE: Traffic Lights (Signal) Layout Plan (2/2) SOLIBRA East Intersection	Scale: 1:500 (A3)	DESIGNED BY:				Drawing No: E-2 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:										DRAWN BY:				
	SIGNATURE: DATE:										CHECKED BY:				
	STAMP:										APPROVED BY:				
											DATE:				



Detail of Anchor Bolt (S=1/25)

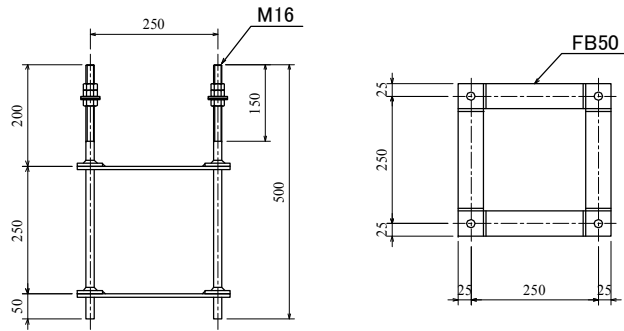


Detail of Base Plate (S=1/25)

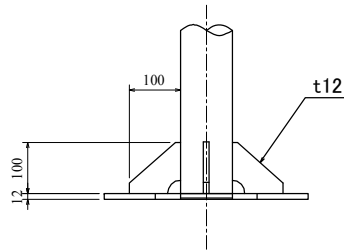


Traffic Light (Signal) Elevation (S=1/50)

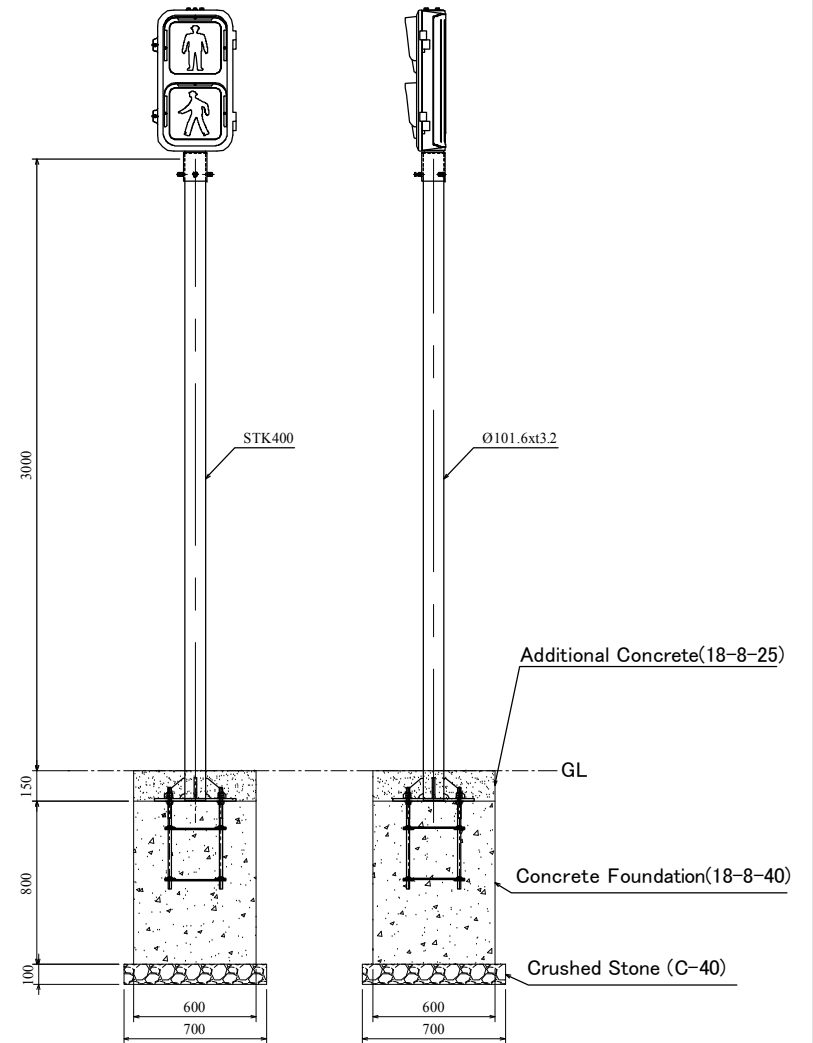
CLIENT Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Traffic Light(Signal) Type-1,2,3&5 Details	Scale: As Shown(A3)	DESIGNED BY:			Drawing No: E-3 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:										DRAWN BY:			
	SIGNATURE:										CHECKED BY:			
	DATE:										APPROVED BY:			
	STAMP:										DATE:			



Detail of Anchor Bolt (S=1/10)

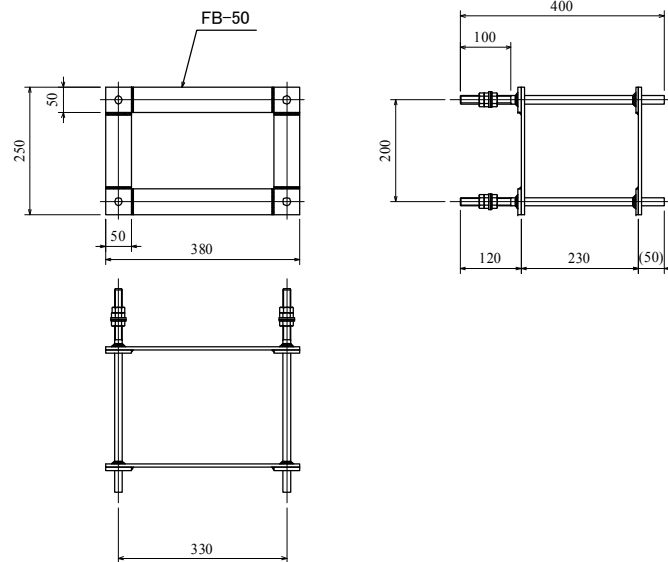


Detail of Base Plate (S=1/10)

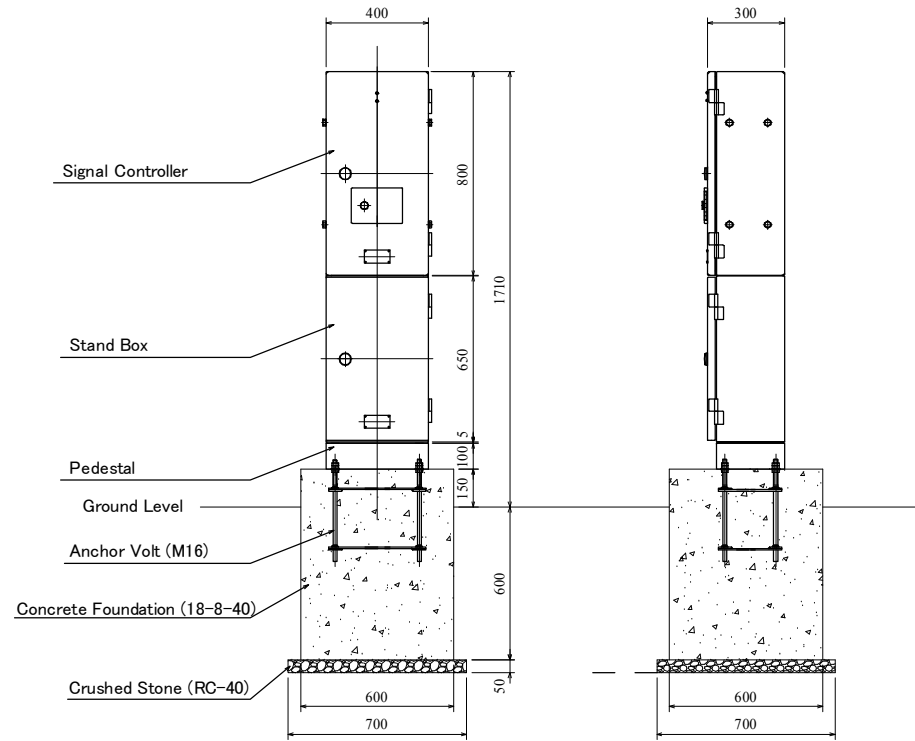


Pedestrian Pole (S=1/25)

 Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:					CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOLUBRA Intersection (Outline Design)	TITLE: Traffic Light (Signal) Type-4 Detail	Scale: As Shown (A3)	DESIGNED BY:				Drawing No: E-4 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:									DRAWN BY:				
	SIGNATURE: DATE:									CHECKED BY:				
	STAMP:									APPROVED BY:				
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DETAIL OF ANCHOR BOLTS (S=1/10)

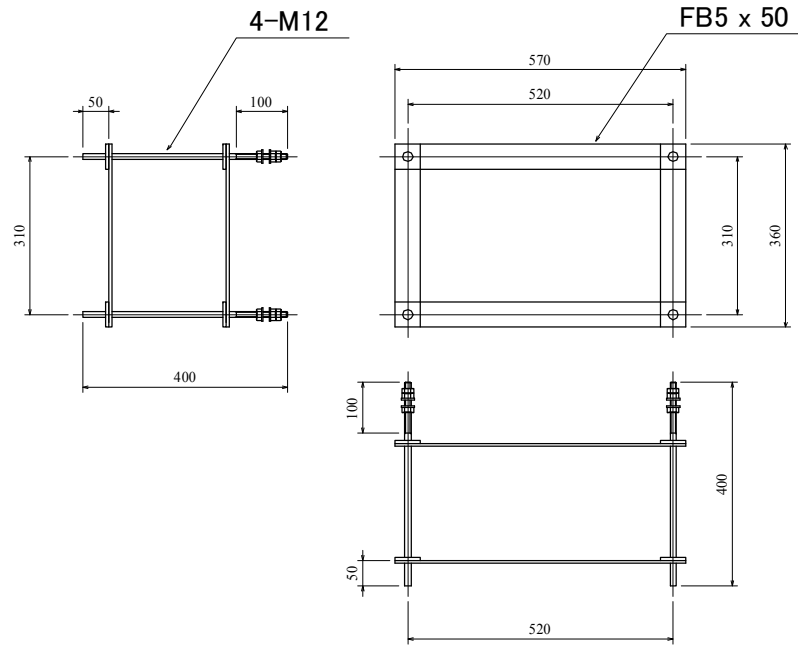


FRONT VIEW

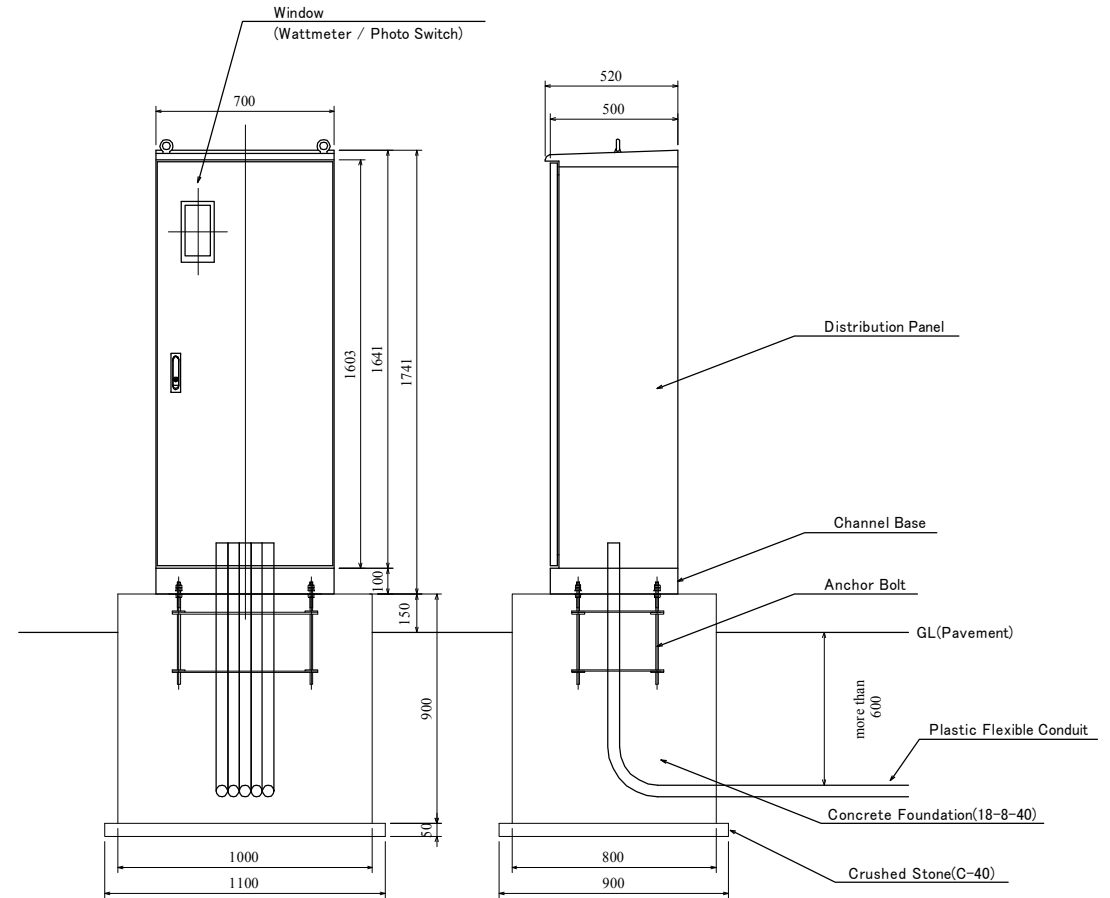
SIDE VIEW

INSTALLATION DRAWING (S=1/20)

 Japan International Cooperation Agency (JICA)	<u>CLIENTS APPROVAL:</u>					<u>CONSULTANT</u> The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	<u>PROJECT</u> The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	<u>TITLE:</u> Traffic Lights (Signal) Controller	<u>Scale:</u> As Shown(A3)	<u>DESIGNED BY:</u>			Drawing No: E-5 SHEET No:
	<u>DIRECTOR RESPONSIBLE FOR DESIGN:</u>									<u>DRAWN BY:</u>			
	<u>SIGNATURE:</u> <u>DATE:</u>									<u>CHECKED BY:</u>			
	<u>STAMP:</u>									<u>APPROVED BY:</u>			
										<u>DATE:</u>			

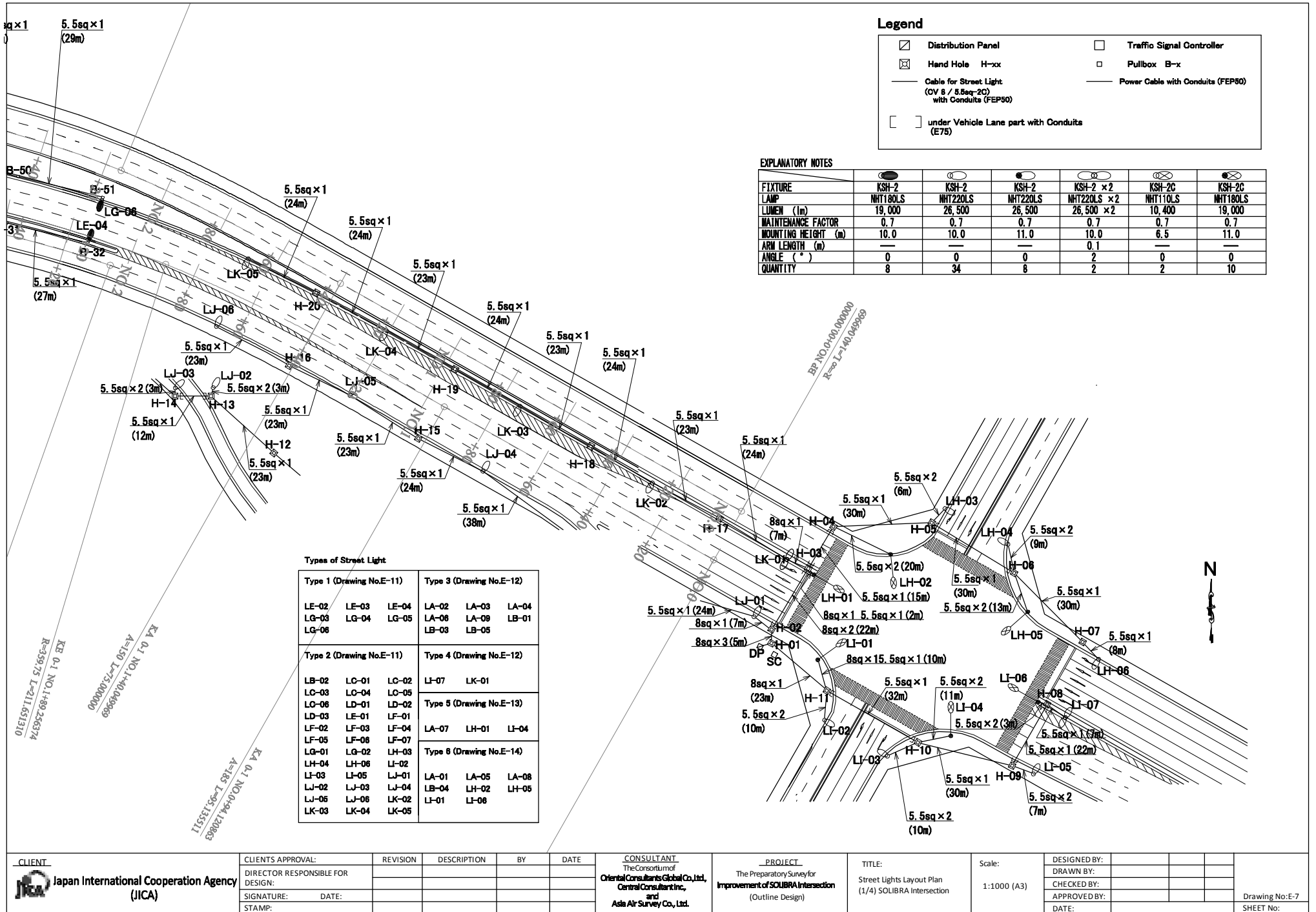


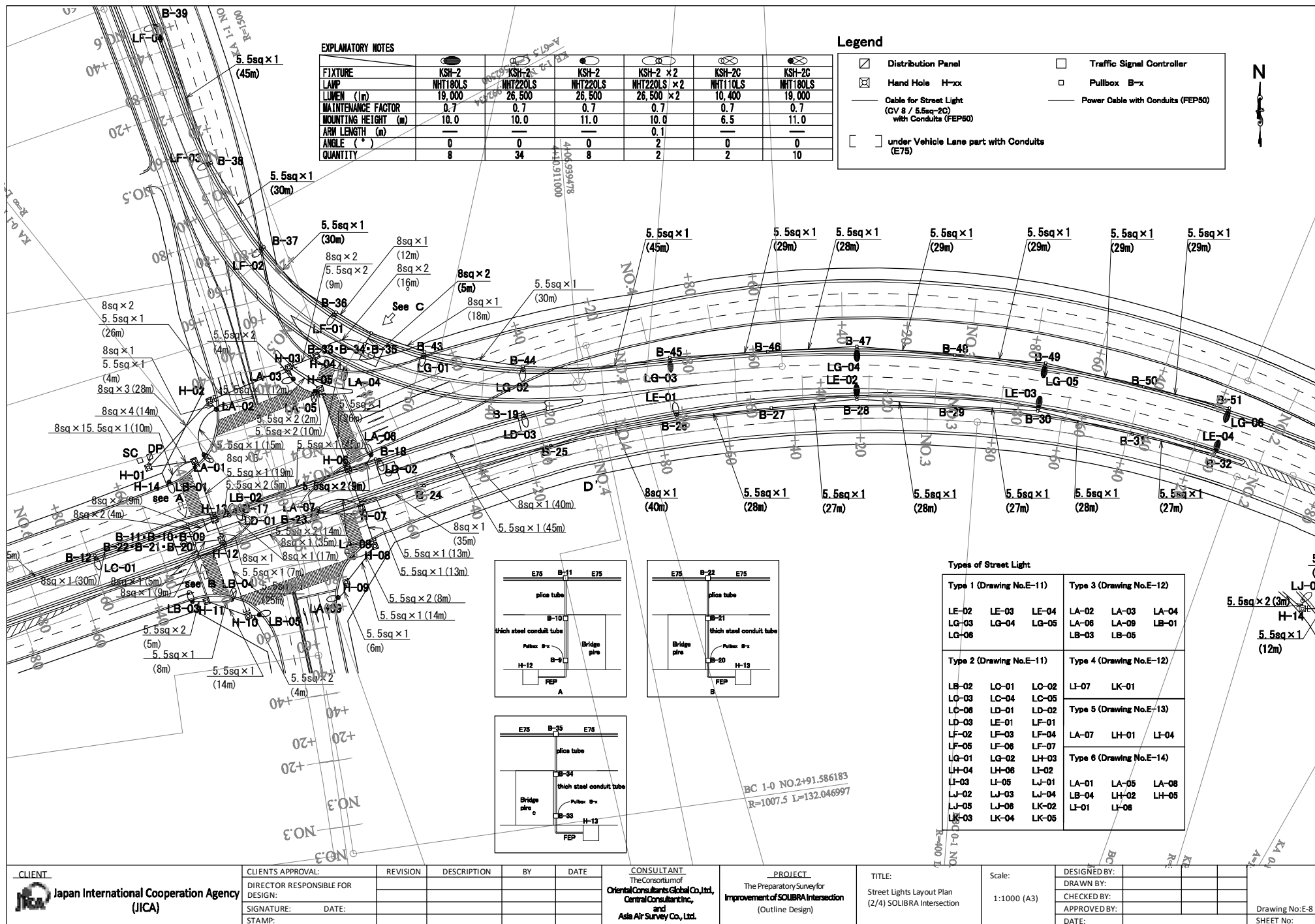
DETAIL OF ANCHOR BOLTS (S=1/10)



Distribution Elevation (S=1/20)

 Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:					CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultants Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Distribution Panel	Scale: As Shown	DESIGNED BY:				Drawing No: E-6
	DIRECTOR RESPONSIBLE FOR DESIGN:									DRAWN BY:				
	SIGNATURE: DATE:									CHECKED BY:				
	STAMP:									APPROVED BY:				
										DATE:				







Legend

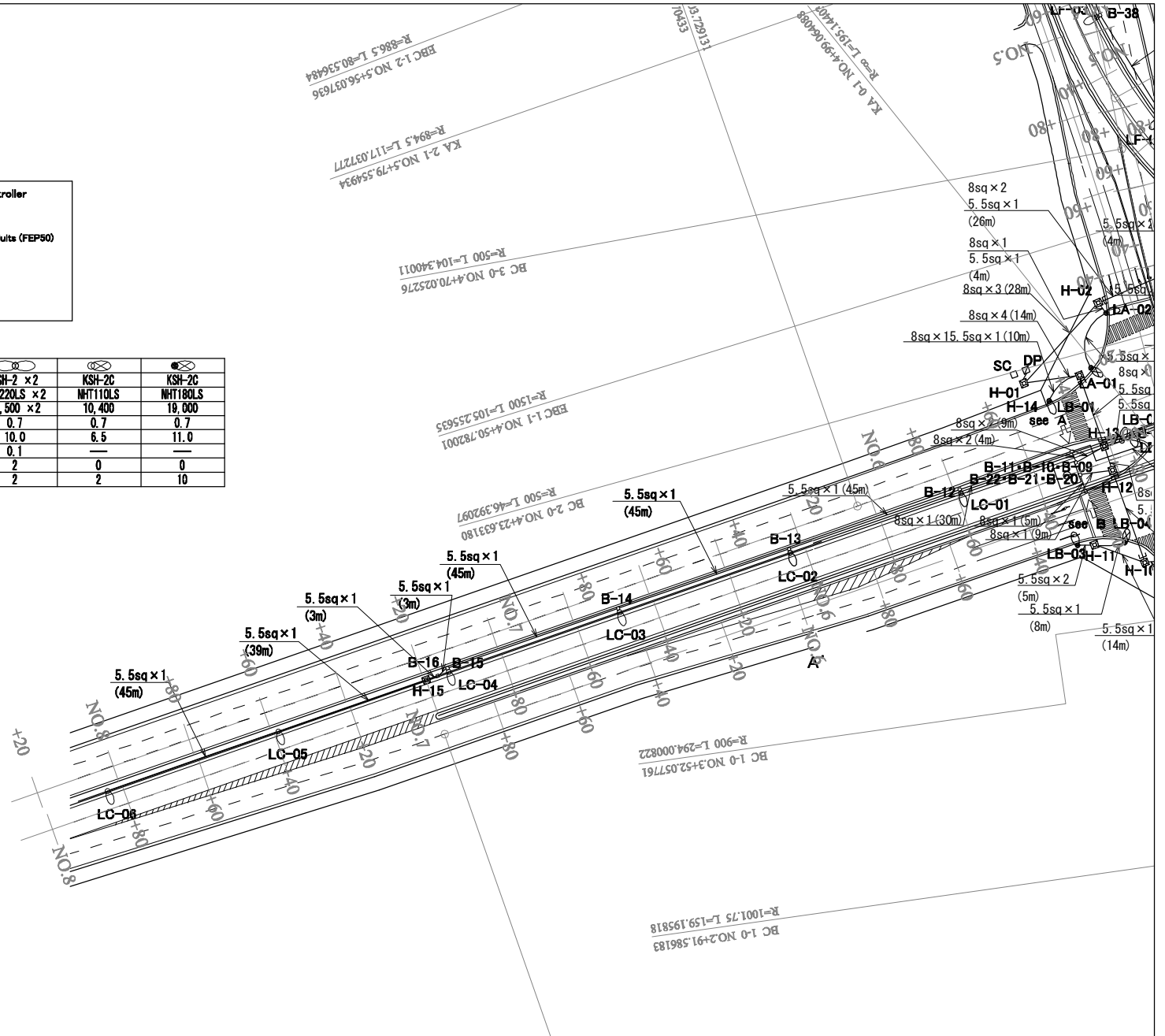
- ☒ Distribution Panel
- ☐ Traffic Signal Controller
- ☒ Hand Hole H-xx
- ☐ Pullbox B-x
- Cable for Street Light (CV 8 / 5.5sq-2C) with Conduits (FEP80)
- Power Cable with Conduits (FEP50)
- ☐ under Vehicle Lane part with Conduits (E75)

EXPLANATORY NOTES

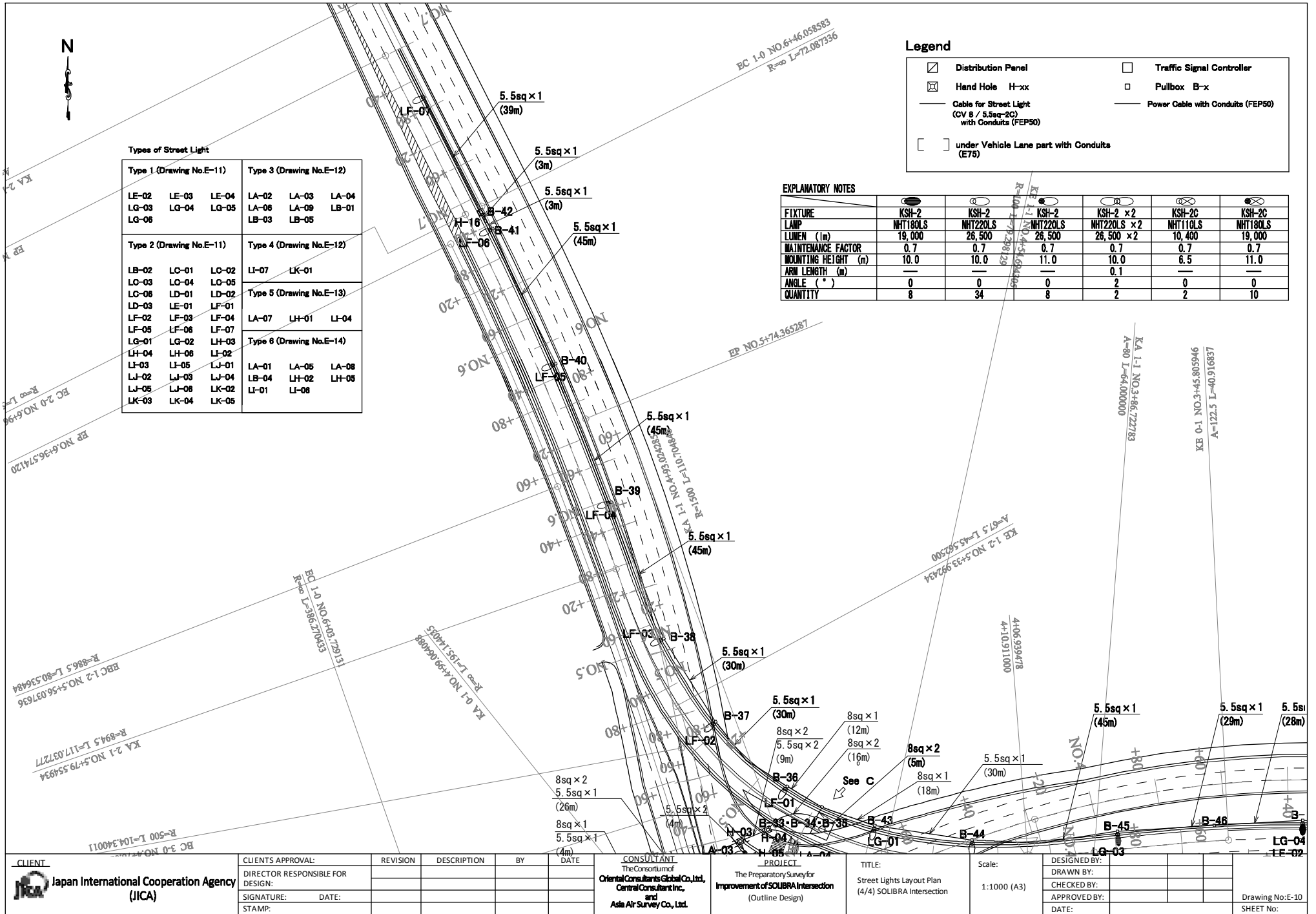
FIXTURE	KSH-2	KSH-2	KSH-2	KSH-2 x 2	KSH-2C	KSH-2C
LAMP	NHT180LS	NHT220LS	NHT220LS	NHT220LS x 2	NHT110LS	NHT180LS
LUMEN (lm)	19,000	26,500	26,500	26,500 x 2	10,400	19,000
MAINTENANCE FACTOR	0.7	0.7	0.7	0.7	0.7	0.7
MOUNTING HEIGHT (m)	10.0	10.0	11.0	10.0	6.5	11.0
ARM LENGTH (m)	—	—	—	0.1	—	—
ANGLE (°)	0	0	0	2	0	0
QUANTITY	8	34	8	2	2	10

Types of Street Light

Type 1 (Drawing No.E-11)			Type 3 (Drawing No.E-12)		
LE-02	LE-03	LE-04	LA-02	LA-03	LA-04
LG-03	LG-04	LG-05	LA-06	LA-09	LB-01
LG-06			LB-03	LB-06	
Type 2 (Drawing No.E-11)			Type 4 (Drawing No.E-12)		
LB-02	LC-01	LC-02	LI-07	LK-01	
LC-03	LC-04	LC-05	Type 5 (Drawing No.E-13)		
LC-06	LD-01	LD-02	Type 6 (Drawing No.E-14)		
LD-03	LE-01	LE-02	LA-07	LH-01	LI-04
LE-03	LE-04	LE-05			
LE-06	LE-07	LE-08	LA-01	LA-05	LA-08
LE-09	LE-10	LE-11	LA-02	LA-06	LA-09
LE-12	LE-13	LE-14	LA-03	LA-07	LA-10
LE-15	LE-16	LE-17	LA-04	LA-08	LA-11
LE-18	LE-19	LE-20	LA-05	LA-09	LA-12
LE-21	LE-22	LE-23	LA-06	LA-10	LA-13
LE-24	LE-25	LE-26	LA-07	LA-11	LA-14
LE-27	LE-28	LE-29	LA-08	LA-12	LA-15
LE-30	LE-31	LE-32	LA-09	LA-13	LA-16
LE-33	LE-34	LE-35	LA-10	LA-14	LA-17
LE-36	LE-37	LE-38	LA-11	LA-15	LA-18
LE-39	LE-40	LE-41	LA-12	LA-16	LA-19
LE-42	LE-43	LE-44	LA-13	LA-17	LA-20
LE-45	LE-46	LE-47	LA-14	LA-18	LA-21
LE-48	LE-49	LE-50	LA-15	LA-19	LA-22
LE-51	LE-52	LE-53	LA-16	LA-20	LA-23
LE-54	LE-55	LE-56	LA-17	LA-21	LA-24
LE-57	LE-58	LE-59	LA-18	LA-22	LA-25
LE-60	LE-61	LE-62	LA-19	LA-23	LA-26
LE-63	LE-64	LE-65	LA-20	LA-24	LA-27
LE-66	LE-67	LE-68	LA-21	LA-25	LA-28
LE-69	LE-70	LE-71	LA-22	LA-26	LA-29
LE-72	LE-73	LE-74	LA-23	LA-27	LA-30
LE-75	LE-76	LE-77	LA-24	LA-28	LA-31
LE-78	LE-79	LE-80	LA-25	LA-29	LA-32
LE-81	LE-82	LE-83	LA-26	LA-30	LA-33
LE-84	LE-85	LE-86	LA-27	LA-31	LA-34
LE-87	LE-88	LE-89	LA-28	LA-32	LA-35
LE-90	LE-91	LE-92	LA-29	LA-33	LA-36
LE-93	LE-94	LE-95	LA-30	LA-34	LA-37
LE-96	LE-97	LE-98	LA-31	LA-35	LA-38
LE-99	LE-100	LE-101	LA-32	LA-36	LA-39
LE-102	LE-103	LE-104	LA-33	LA-37	LA-40
LE-105	LE-106	LE-107	LA-34	LA-38	LA-41
LE-108	LE-109	LE-110	LA-35	LA-39	LA-42
LE-111	LE-112	LE-113	LA-36	LA-40	LA-43
LE-114	LE-115	LE-116	LA-37	LA-41	LA-44
LE-117	LE-118	LE-119	LA-38	LA-42	LA-45
LE-120	LE-121	LE-122	LA-39	LA-43	LA-46
LE-123	LE-124	LE-125	LA-40	LA-44	LA-47
LE-126	LE-127	LE-128	LA-41	LA-45	LA-48
LE-129	LE-130	LE-131	LA-42	LA-46	LA-49
LE-132	LE-133	LE-134	LA-43	LA-47	LA-50
LE-135	LE-136	LE-137	LA-44	LA-48	LA-51
LE-138	LE-139	LE-140	LA-45	LA-49	LA-52
LE-141	LE-142	LE-143	LA-46	LA-50	LA-53
LE-144	LE-145	LE-146	LA-47	LA-51	LA-54
LE-147	LE-148	LE-149	LA-48	LA-52	LA-55
LE-150	LE-151	LE-152	LA-49	LA-53	LA-56
LE-153	LE-154	LE-155	LA-50	LA-54	LA-57
LE-156	LE-157	LE-158	LA-51	LA-55	LA-58
LE-159	LE-160	LE-161	LA-52	LA-56	LA-59
LE-162	LE-163	LE-164	LA-53	LA-57	LA-60
LE-165	LE-166	LE-167	LA-54	LA-58	LA-61
LE-168	LE-169	LE-170	LA-55	LA-59	LA-62
LE-171	LE-172	LE-173	LA-56	LA-60	LA-63
LE-174	LE-175	LE-176	LA-57	LA-61	LA-64
LE-177	LE-178	LE-179	LA-58	LA-62	LA-65
LE-180	LE-181	LE-182	LA-59	LA-63	LA-66
LE-183	LE-184	LE-185	LA-60	LA-64	LA-67
LE-186	LE-187	LE-188	LA-61	LA-65	LA-68
LE-189	LE-190	LE-191	LA-62	LA-66	LA-69
LE-192	LE-193	LE-194	LA-63	LA-67	LA-70
LE-195	LE-196	LE-197	LA-64	LA-68	LA-71
LE-198	LE-199	LE-200	LA-65	LA-69	LA-72



CLIENT	CLIENTS APPROVAL	REVISION	DESCRIPTION	BY	DATE	CONSULTANT	PROJECT	TITLE	Scale	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DATE	Drawing No:E-9	SHEET No:
Japan International Cooperation Agency (JICA)	DIRECTOR RESPONSIBLE FOR DESIGN: SIGNATURE: _____ DATE: _____ STAMP:					The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	The Preparatory Survey for Improvement of SOLIBRA Intersection (Outline Design)	Street Lights Layout Plan (3/4) SOLIBRA Intersection	1:1000 (A3)							



Types of Street Light					
Type 1 (Drawing No.E-11)			Type 3 (Drawing No.E-12)		
LE-02	LE-03	LE-04	LA-02	LA-03	LA-04
LG-03	LG-04	LG-05	LA-06	LA-09	LB-01
LG-06			LB-03	LB-05	
Type 2 (Drawing No.E-11)			Type 4 (Drawing No.E-12)		
LB-02	LG-01	LG-02	LI-07	LI-01	
LC-03	LG-04	LG-05			
LC-06	LD-01	LD-02	Type 5 (Drawing No.E-13)		
LD-03	LE-01	LE-01	LA-07	LI-01	LI-04
LF-02	LF-03	LF-04			
LF-05	LF-06	LF-07	Type 6 (Drawing No.E-14)		
LG-01	LG-02	LI-03	LA-01	LA-05	LA-08
LI-04	LI-06	LI-02	LB-04	LI-02	LI-05
LI-03	LI-05	LI-01	LI-01	LI-06	
LI-02	LI-03	LI-04			
LI-05	LI-06	LI-02			
LI-03	LI-04	LI-05			
LI-04	LI-05	LI-06			
LI-05	LI-06	LI-07			
LI-06	LI-07	LI-08			
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LI-98	LI-99	LI-100			

Legend

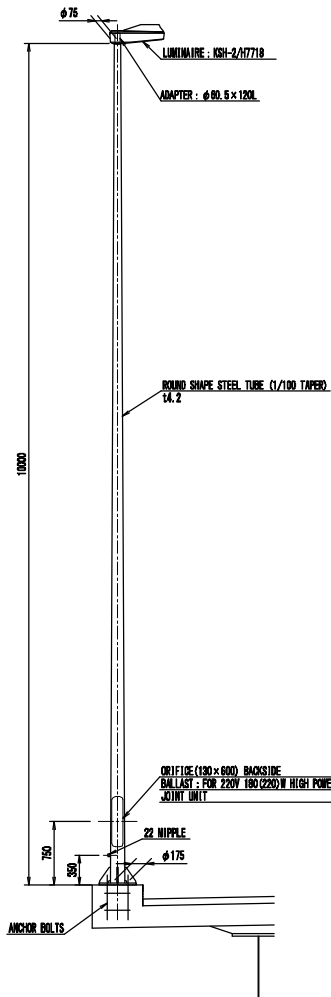
	Distribution Panel		Traffic Signal Controller
	Hand Hole H-xx		Pullbox B-x
	Cable for Street Light (CV 8 / 5.5sq-2C) with Conduits (FEP50)		Power Cable with Conduits (FEP50)
	under Vehicle Lane part with Conduits (E75)		

EXPLANATORY NOTES

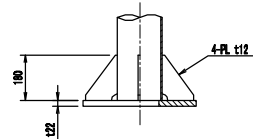
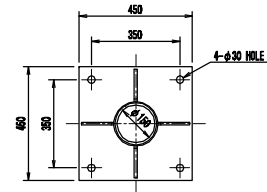
FIXTURE	KSH-2	KSH-2	KSH-2	KSH-2 x 2	KSH-2C	KSH-2C
LAMP	NHT180LS	NHT220LS	NHT220LS	NHT220LS x 2	NHT110LS	NHT180LS
LUMEN (lm)	19,000	26,500	26,500	26,500 x 2	10,400	19,000
MAINTENANCE FACTOR	0.7	0.7	0.7	0.7	0.7	0.7
MOUNTING HEIGHT (m)	10.0	10.0	11.0	10.0	6.5	11.0
ARM LENGTH (m)	—	—	—	0.1	—	—
ANGLE (°)	0	0	0	2	0	0
QUANTITY	8	34	8	2	2	10

CLIENT Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:	REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultants Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOLIBRA Intersection (Outline Design)	TITLE: Street Lights Layout Plan (4/4) SOLIBRA Intersection	Scale: 1:1000 (A3)	DESIGNED BY:		Drawing No: E-10 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:									DRAWN BY:		
	SIGNATURE: DATE:											

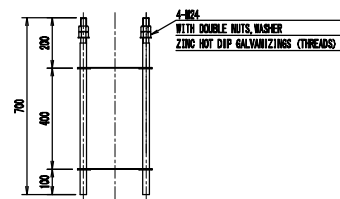
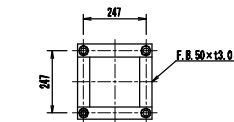
ELEVATION DIAGRAM OF LIGHTING S=1:60



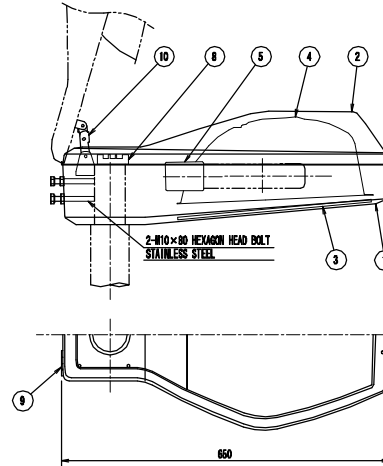
BASE-PLATE DETAIL S=1:20



ANCHOR BOLTS DETAIL S=1:20

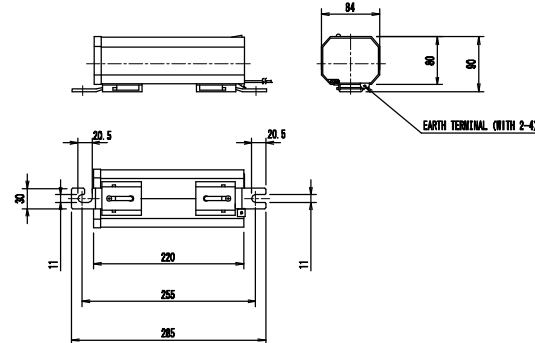


LUMINAIRES DETAIL S=1:10
(KSH-2)

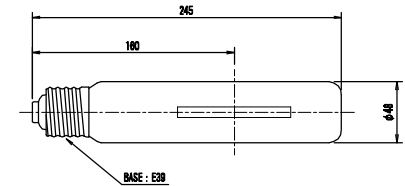


No.	PARTS	MATERIAL	QTY	SUMMARY
1	BODY	ALUMINIUM ALLOY DIE CASTING	1	
2	UPPER COVER	ALUMINIUM ALLOY DIE CASTING	1	
3	FRONT GLASS	TEMPERED GLASS 14	1	CLEAR
4	REFLECTOR	ALUMINIUM ALLOY SHEET	1	ALUMITE TREATMENT
5	LAMP SOCKET	PORCELAIN	1	E30
6	LATCH	ALUMINIUM ALLOY DIE CASTING	1	
7	OPEN PREVENTION SPACER	STAINLESS STEEL	1	
8	TERMINAL BLOCK	STAINLESS STEEL	1	3P - TERMINAL SCREW
9	HINGE	STAINLESS STEEL	2	
10	OPEN-CLOSE STOPPER	STAINLESS STEEL	1	

BALLAST DETAIL S=1:N
(FOR 220V 180W(220W))

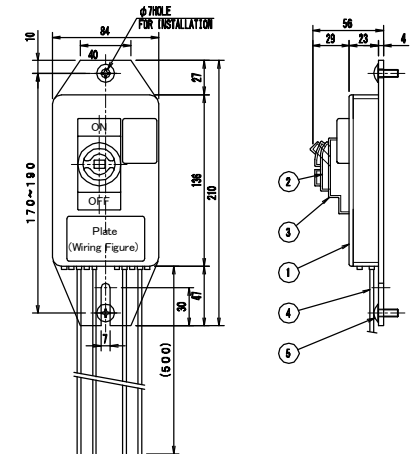


LAMP DETAIL S=1:4
(NHT180(220)LS)



TYPE	WATER MARK	LAMP INUTAGE (W)	LAMP VOLTAGE (V)	LAMP CURRENT (A)	INITIAL LUMENS FOR COLOR TEMPERATURE (lm)	AVERAGE COLOR RENDERING INDEX (Ra)	AVERAGE LIFE (h)
TYPE 1	CLEAR	180	120	1.80	20,000	25	24,000
TYPE 2	CLEAR	220	130	2.10	26,500	26	24,000

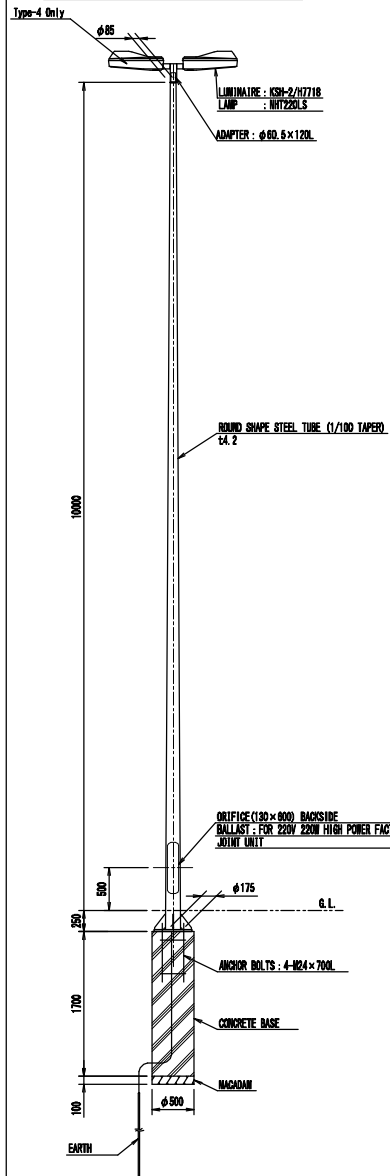
JOINT UNIT DETAIL S=1:4
(EFMN-15A)



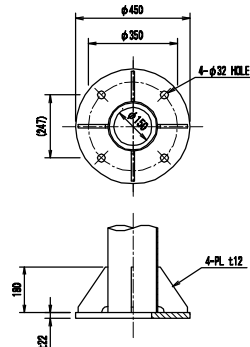
No.	PARTS	MATERIAL	G T	SUMMARY
1	BODY	ABS RESIN	1	BLACK
2	CIRCUIT-BREAKERS FOR OVERCURRENT PROTECTION	ALUMINUM ALLOY DIE CASTING	1	2P, 30AF, 15AT, 110/220V
3	CIRCUIT-BREAKERS OVER	EP-RESIN	1	BLACK
4	LEAD WIRE	CU-18 WIRE	1SET	2mm ² × 500mm
5	THREADED HEAD SCREW (DIN913B)	STAINLESS STEEL	2	M6 × 16

ELEVATION DIAGRAM OF LIGHTING S=1:60, 20, 10

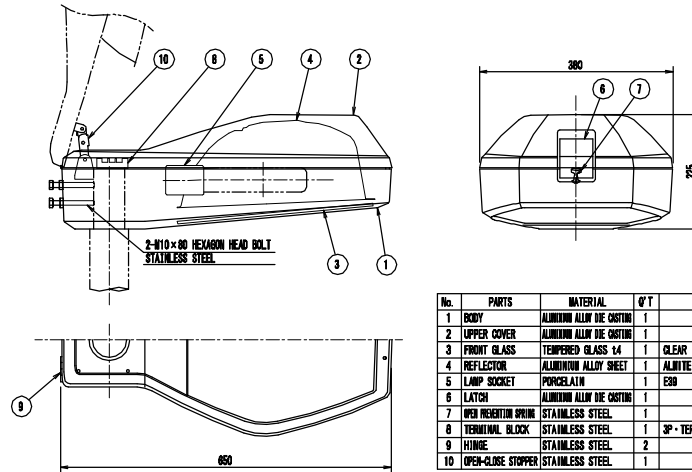
ELEVATION DIAGRAM OF LIGHTING S=1:60



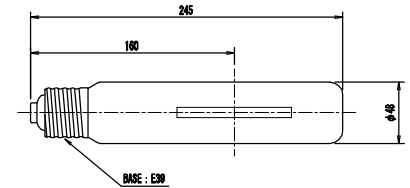
BASE-PLATE DETAIL S=1:20



LUMINAIRES DETAIL S=1:10
(KSH-2)



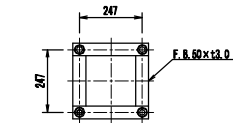
LAMP DETAIL S=1:4
(NHT220LS)



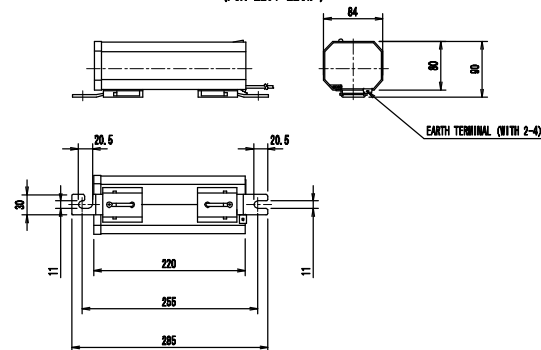
No.	PARTS	MATERIAL	Q'T	SUMMARY
1	BODY	ALUMINUM ALLOY DIE CASTING	1	
2	UPPER COVER	ALUMINUM ALLOY DIE CASTING	1	
3	FRONT GLASS	TEMPERED GLASS 14	1	CLEAR
4	REFLECTOR	ALUMINUM ALLOY SHEET	1	ALWAYS TREATMENT
5	LAMP SOCKET	PORCELAIN	1	E80
6	LATCH	ALUMINUM ALLOY DIE CASTING	1	
7	OPEN PREVENTION SPRING	STAINLESS STEEL	1	
8	TERMINAL BLOCK	STAINLESS STEEL	1	3P + TERMINAL SCREW
9	HINGE	STAINLESS STEEL	2	
10	OPEN-CLOSE STOPPER	STAINLESS STEEL	1	

TYPE	WET-ON-DRY FRESH	LAMP WATTAGE (W)	LAMP VOLTAGE (V)	LAMP CURRENT (A)	INITIAL LIGHTING HOUR (hr)	COLOR TEMPERATURE (K)	AVERAGE COLOR RENDERING INDEX (Ra)	AVERAGE LIFE (h)
NHT220LS	CLEAR	220	130	2.10	26,500	2100	25	24,000

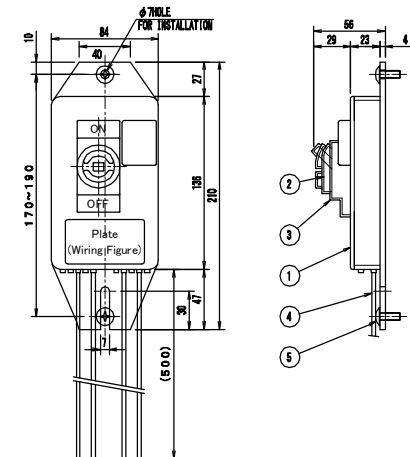
ANCHOR BOLTS DETAIL S=1:20



BALLAST DETAIL S=1:N
(FOR 220V 220W)



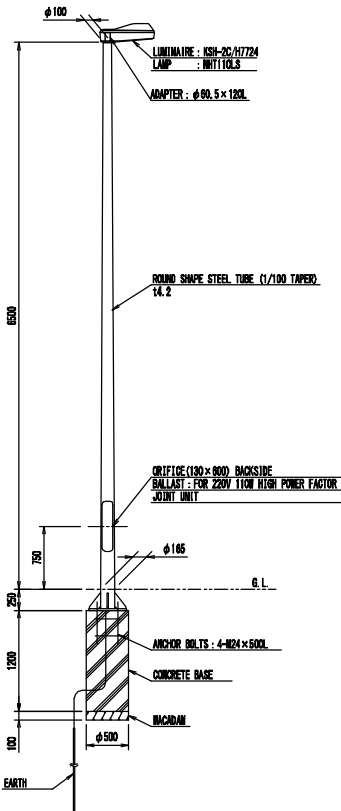
JOINT UNIT DETAIL S=1:4
(EFMN-15A)



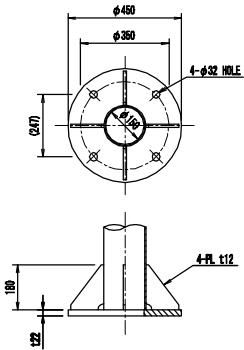
No.	PARTS	MATERIAL	Q'T	SUMMARY
1	BODY	ABS RESIN	1	BLACK
2	CIRCUIT-BREAKERS FOR OVERCURRENT PROTECTION	ALUMINIUM ALLOY DIE CASTING	1	2P, 30AF, 15AT, 110/220V
3	CIRCUIT-BREAKERS OTHER	EP-RUBBER	1	BLACK
4	LEAD WIRE	EN-1E WIRE	1SET	2mm ² × 600mm
5	TRUSSED HEAD SCREW	STAINLESS STEEL	2	M6 × 16

ELEVATION DIAGRAM OF LIGHTING S=1:30,10,5

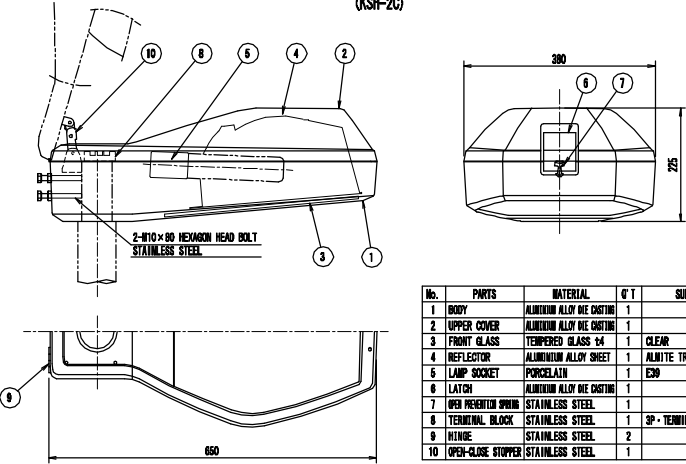
ELEVATION DIAGRAM OF LIGHTING S=1:60



BASE-PLATE DETAIL S=1:20

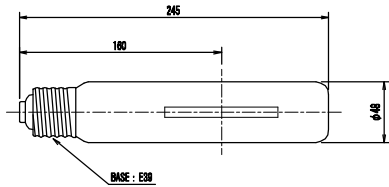


LUMINAIRES DETAIL S=1:10 (KSH-2C)



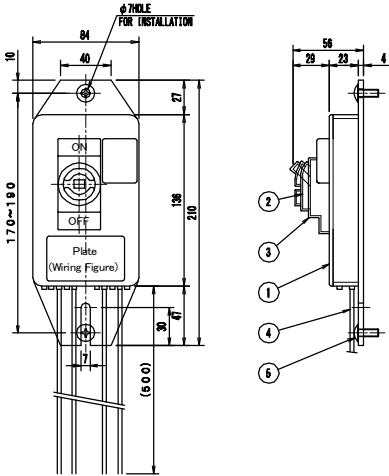
No.	PARTS	MATERIAL	Q'T	SUMMARY
1	BODY	ALUMINUM ALLOY DIE CASTING	1	
2	UPPER COVER	ALUMINUM ALLOY DIE CASTING	1	
3	FRONT GLASS	TEMPERED GLASS 14	1	CLEAR
4	REFLECTOR	ALUMINUM ALLOY SHEET	1	ALUMITE TREATMENT
5	LAMP SOCKET	PORCELAIN	1	E39
6	LATCH	ALUMINUM ALLOY DIE CASTING	1	
7	OPEN PREVENTOR SPRING	STAINLESS STEEL	1	
8	TERMINAL BLOCK	STAINLESS STEEL	1	3P - TERMINAL SCREW IN
9	HINGE	STAINLESS STEEL	2	
10	OPEN-CLOSE STOPPER	STAINLESS STEEL	1	

LAMP DETAIL S=1:4 (NHT110LS)



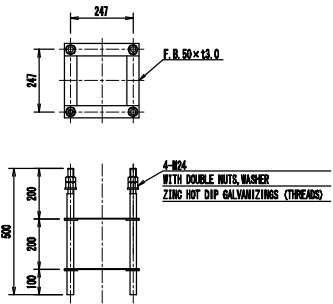
TYPE	OPERATING METHOD	LAMP WATTAGE (W)	LAMP VOLTAGE (V)	LAMP CURRENT (A)	INITIAL BURNING HOURS (hr)	COLOR TEMPERATURE (K)	AVERAGE COLOR RENDERING INDEX (Ra)	AVERAGE LIFE (h)
NHT110LS	CLEAR	110	115	1.15	11,000	2100	25	24,000

JOINT UNIT DETAIL S=1:2 (EFMN-15A)

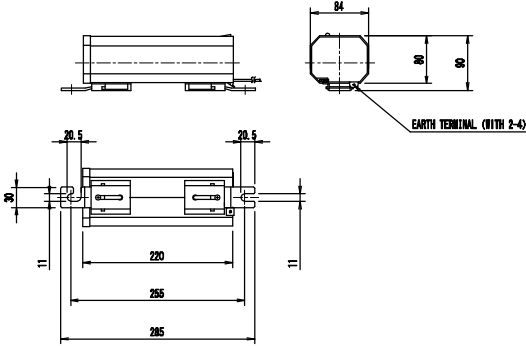


No.	PARTS	MATERIAL	Q'T	SUMMARY
1	BODY	ABS RESIN	1	BLACK
2	CURRENT-BREAKER FOR OVERCURRENT PROTECTION	ALUMINUM ALLOY DIE CASTING	1	2P, 30AF, 15AT, 110/220V
3	CURRENT-BREAKER COVER	EP-RUBBER	1	BLACK
4	LEAD WIRE	EW-IE WIRE	1SET	2mm ² x 500mm
5	TRIMMED HEAD SCREW (RING RESIN)	STAINLESS STEEL	2	M5 x 16

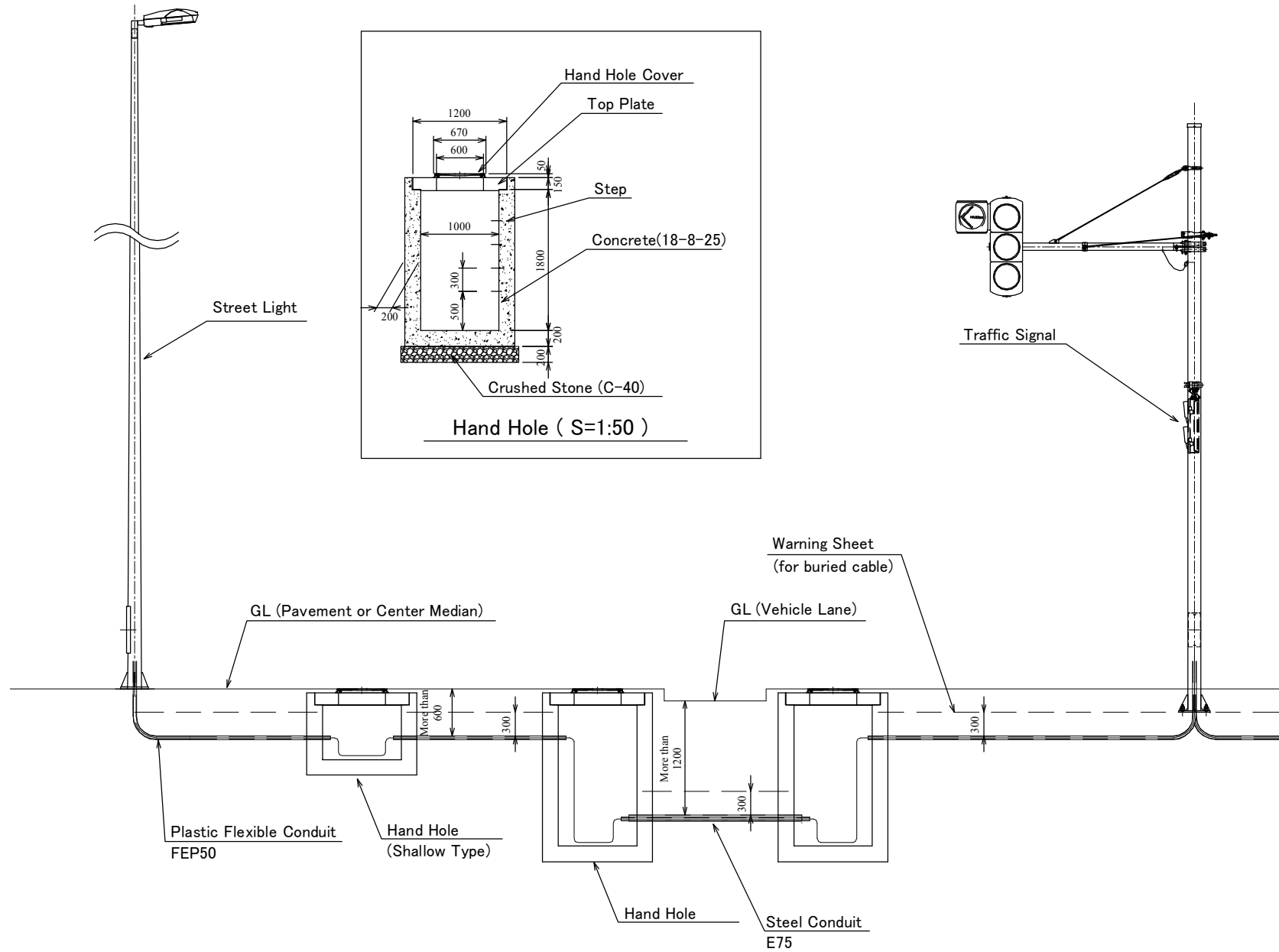
ANCHOR BOLTS DETAIL S=1:20



BALLAST DETAIL S=1:N (FOR 220V 110W)



CLIENT Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:	REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultants Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Street Light (Type-5) Detail	Scale: 1:1000 (A3)	DESIGNED BY:			Drawing No: E-13 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:									DRAWN BY:			
	SIGNATURE:	DATE:								CHECKED BY:			
	STAMP:									APPROVED BY:			
										DATE:			



CLIENT  Japan International Cooperation Agency (JICA)	CLIENTS APPROVAL:		REVISION	DESCRIPTION	BY	DATE	CONSULTANT The Consortium of Oriental Consultants Global Co., Ltd., Central Consultant Inc., and Asia Air Survey Co., Ltd.	PROJECT The Preparatory Survey for Improvement of SOUBRA Intersection (Outline Design)	TITLE: Cable Connection & Hand Hole	Scale: Non, 1:50 (A3)	DESIGNED BY:				Drawing No: E-15 SHEET No:
	DIRECTOR RESPONSIBLE FOR DESIGN:										DRAWN BY:				
	SIGNATURE:	DATE:									CHECKED BY:				
	STAMP:										APPROVED BY:				
											DATE:				