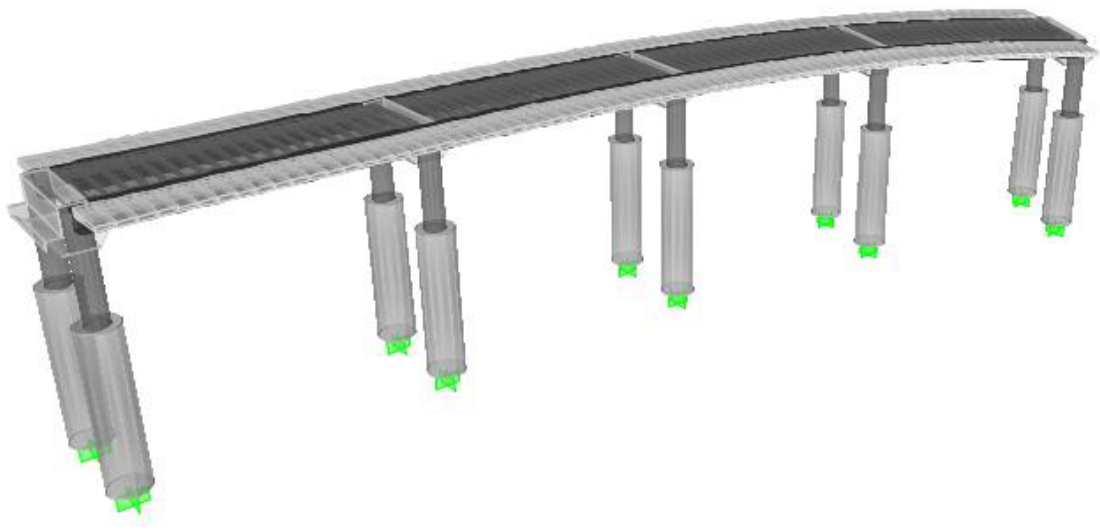


DETAILED DESIGN FOR BALARAJA FLYOVER

NORTH JAVA CORRIDOR FLYOVER PROJECT

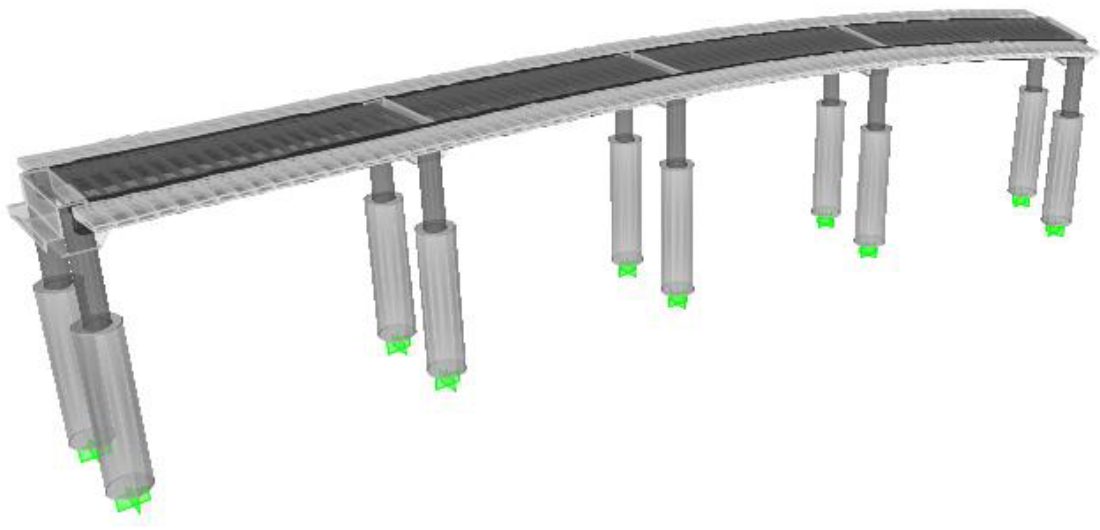


KATAHIRA & ENGINEERS
INTERNATIONAL

PART 1

BALARAJA FLYOVER P6-A2

NORTH JAVA CORRIDOR FLYOVER PROJECT



KATAHIRA & ENGINEERS
INTERNATIONAL

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CHAPTER 2 DESIGN OF MAIN GIRDER

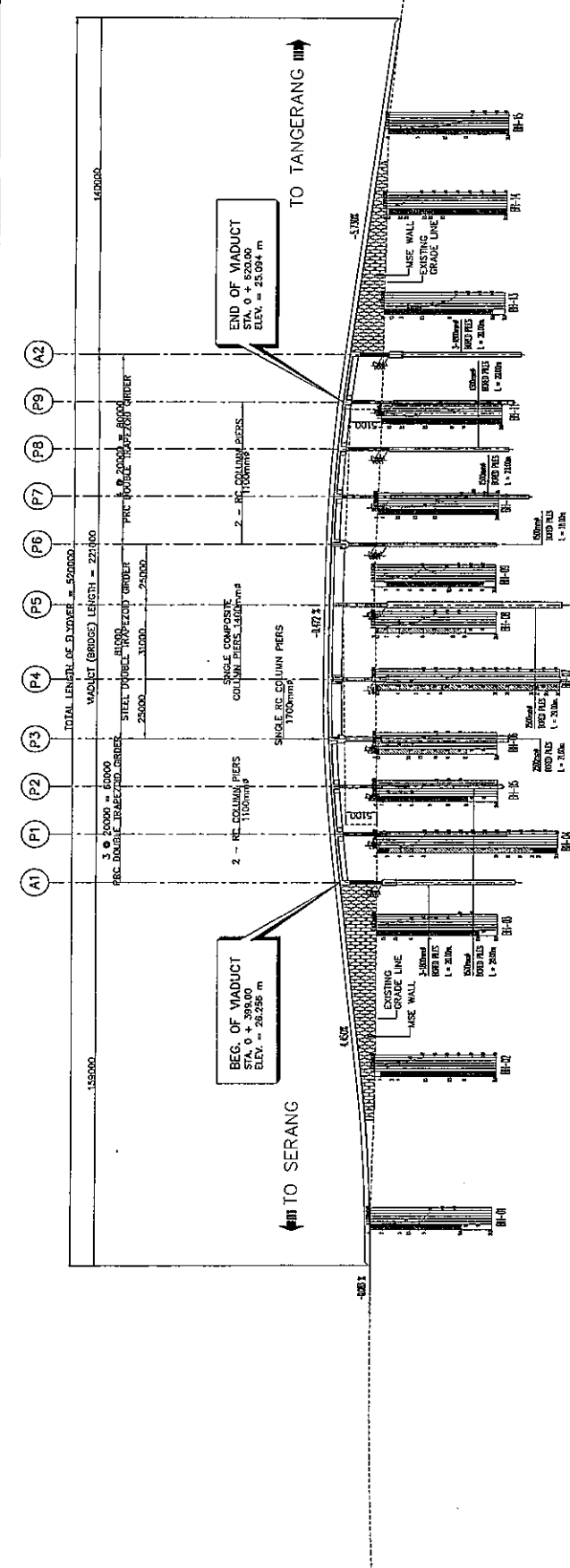
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CHAPTER 1 DESIGN CONDITIONS

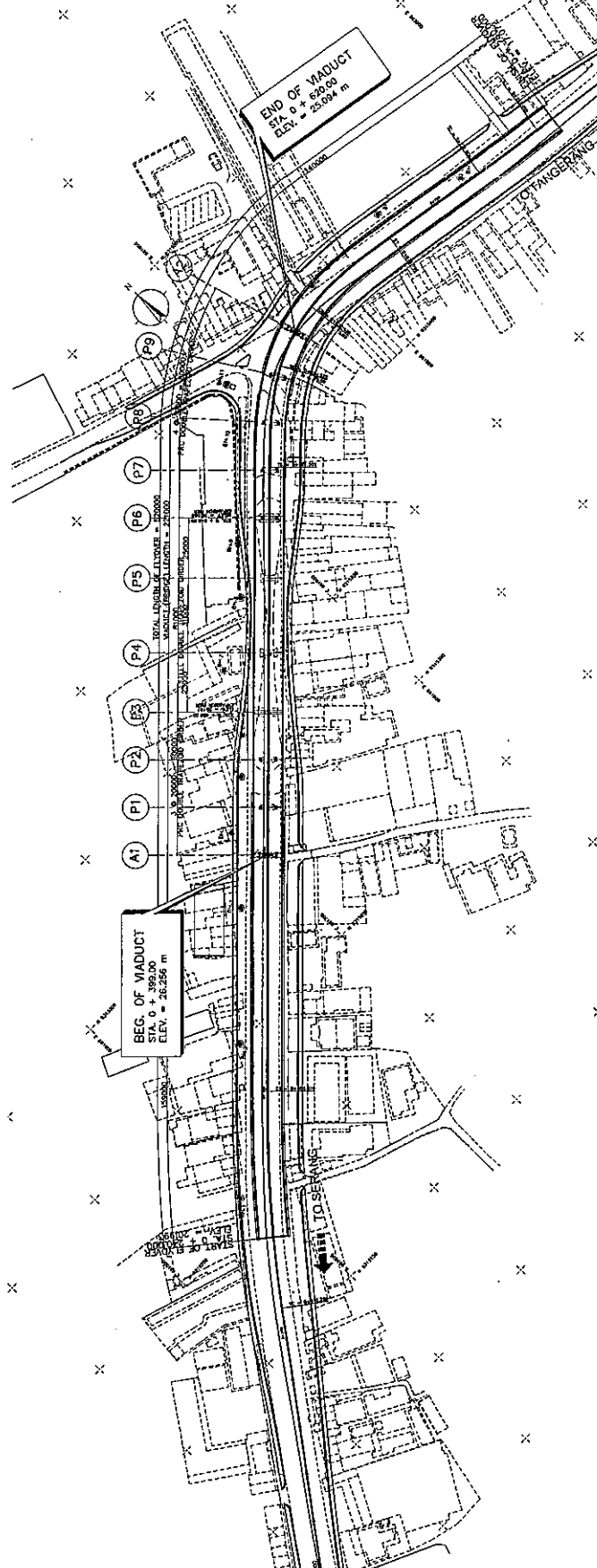
1.1 DESIGN CONDITION

- (1) Road Name : North Java Corridor (Serang – Balaraja – Tangerang)
- (2) Bridge Name : Balaraja Flyover
- (3) Road Class : I
- (4) Bridge Type : Pre-stressed Reinforcement Concrete (PRC) 3 span continuous Double Trapezoid Girder (A1 – P3) and PRC 4 span continuous Double Trapezoid Girder (P6 – A2)
- (5) Design Speed : 40 km/hr
- (6) Bridge Width : 13.0m (0.75m+5.5m+0.5m+5.5m+0.75m)
- (7) Pavement : Asphalt, thickness=75mm and additional 50mm for future resurfacing
- (8) Bridge Angle : 90 degree
- (9) Horizontal curvature : A1 – P3, $R=\infty$ and P6 – A2, $R=85\text{m}$
- (10) Vertical Grade : A1 – P3, $I=4.436\%$  and P6 – A2, $I=5.772\%$ 
- (11) Cross Slope : A1 – P3, $I=2\%$ and P6 – A2, $I=2\%$ to 5.7%
- (12) Span Composition : A1 – P3, 3@20m and P6 – A2, 4@20m

1.2 GENERAL VIEW



2 GENERAL ELEVATION
SCALE H=1:2000; V=1:500



1 GENERAL PLAN
SCALE 1:2000

FIGURE 12.1-1 (3/7)
12-5
BALARAJA FLYOVER

1.3 MATERIALS PROPERTIES AND ALLOWABLE STRESS

1.3.1 Materials Properties

(1) Concrete

Concrete Compressive strength: The 28-days compressive strength and corresponding elastic modulus E_c , shall be as shown below:

Concrete Class	Characteristic Compressive Strength MPa	Application of Structure	Elastic Modulus E_c ($\times 10^4$ MPa)
A-2	35	PRC Girder and Slab	3.18
B-1	30	Curb, wheel guard, railing and attachment etc.	2.94

The coefficient of thermal expansion shall be 1.0×10^{-5} (per deg Celsius).

(2) Reinforcing Steel

Type	Grade	Yield Point (N/mm ²)	Application standard		
			SII	JIS	BS
Round Bars	SR 24	240	SII 0136	G 3112	BS 4449
Deformed Bars	SD 40	390	SII 0136	G 3112	BS 4449

(3) Pre-stressing Tendons

The type of pre-stressing of tendons shown below shall be used.

Notation	Utilization	Nominal Diameter (mm)	Yield Strength (kg/mm ²)	Braking Strength (kg/mm ²)	Application Standard	
					JIS	ASTM
PC 7 Wire Strand SWPR 7B	PRC Girder	T 12.7	160	190	G 3536	A 416
PC 19 Wire Strand SWPR 19	Diaphragm of PC I-Girder and T-Girder	T 21.8	160	190	G 3536	A 416

Modulus of elasticity: 2.0×10^5 MPa

Coefficient of thermal expansion = 1.2×10^{-5} (per deg Celsius).

1.3.2 Allowable Stress

(1) Concrete

(a) Method of Crack Width Control

1.3.2 Allowable Stress
(1) Concrete
(a) Method of Crack Width Control

Partial Pre-stressed Concrete Member (Method of Crack Width Control)

	Bending Moment		Shear & Torsional Force	
	Verified Items	Limited Value	Verified Items	Limited Value
Method A	Crack Width	0.0035 C	Diagonal Tensile Stress of Concrete	Design Tension Strength of Concrete
Method B	Concrete Tensile Stress	$fk = k \times 0.23 \times f_{ck}^{2/3} / gc$	Diagonal Tensile Stress of Concrete	Design Tension Strength of Concrete
Method C	Concrete Tensile Stress	None of Tensile Stress	Diagonal Tensile Stress of Concrete	Design Tension Strength of Concrete

For Girder

D (Permanent Loads)	Method B	Verified the Concrete Tensile Stress	Less than 1.39 N/mm ²
(Permanent Loads + Temperature effect)			
D+L			
(Permanent Loads + Live Load)	Method A	Crack Width Control	0.0035 C C: Cover
D+L+T			

$$fk = k \times 0.23 \times f_{ck}^{2/3} / gc = 0.6 / (1.2^{1/3}) \times 0.23 \times 35^{2/3} / 1.0 = 1.39 \text{ N/mm}^2$$

For Slab

D (Permanent Loads)	Method C	Verified the Concrete Tensile Stress	None of Tensile Stress
(Permanent + Temperature effect)			
D+L			
(Permanent + Live Load)	Method B	Verified the Concrete Tensile Stress	Less than 2.21 N/mm ²
D+L+T			
(Permanent + Live + Temperature)			
D+W			
(Permanent + Wind Load)	Method A	Crack Width Control	0.0035 C C: Cover
D+T+C			
(Permanent + Live + Collision Load)			

$$fk = k \times 0.23 \times f_{ck}^{2/3} / gc = 0.6 / (0.3^{1/3}) \times 0.23 \times 35^{2/3} / 1.0 = 2.21 \text{ N/mm}^2$$

(b) Allowable Stress

Designation			Concrete Strength (MPa)				
			30.0	35.0	40.0	45.0	50.0
Compression Stress due to Bending	Immediately after pre-stressing	For Rectangular sections	15.0	17.0	19.0	21.0	21.0
		For T and Box sections	14.0	16.0	18.0	20.0	20.0
	Other Case	For Rectangular sections	12.0	13.5	15.0	17.0	17.0
		For T and Box sections	11.0	12.5	14.0	16.0	16.0
Compression Stress due to Axial Load	Immediately after pre-stressing		12.0	12.5	14.5	16.0	18.0
	Other Case		8.5	9.5	11.0	13.5	13.5
Tensile Stress due to Bending	Immediately after pre-stressing		1.2	1.3	1.5	1.8	1.8
	In case without Traffic Load		0.0	0.0	0.0	0.0	0.0
	Slabs and Joints between Pre-cast Segments		0.0	0.0	0.0	0.0	0.0
	Other Case		1.2	1.3	1.5	1.8	1.8
Tensile Stress due to Axial Load			0.0	0.0	0.0	0.0	0.0
Shear Stress	Shear and Torsion Considered Separately		0.8	0.9	1.0	1.2	1.2
	Shear and Torsion Considered Simultaneously		1.1	1.2	1.3	1.5	1.5
Bond Stress	Round Bars		0.9	0.9	1.0	1.0	1.0
	Deformed Bars		1.8	1.9	2.0	2.0	2.0

(2) Reinforcing Steel

Grade	Yield strength f_{sy} (MPa)	Allowable stress (MPa)	
		Tension $0.5 \times f_{sy} \leq 170$	Compression $0.5 \times f_{sy} \leq 110$
BJTD 40	400	170	110
BJTD 24	240	120	110

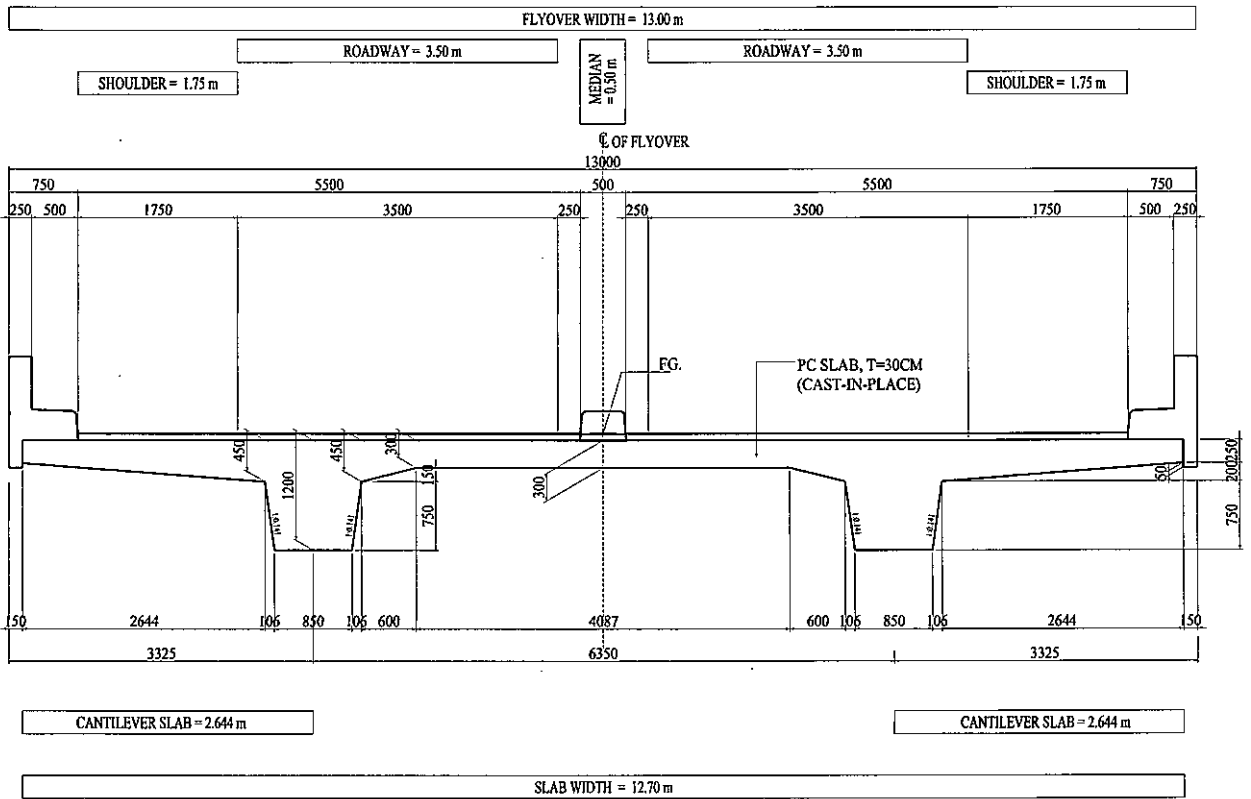
(3) Pre-stressing Tendons

	Nominal diameter	During pre-stressing	After pre-stressing	Under design load
PC wire SWPR 1 A	Ø 7	1215	1085	930
PC wire SWPR 1 A	Ø 8	1170	1050	900
PC 7-wire Strand SWPR 7 A	T 12.4	1350	1225	1050
PC 7-wire Strand SWPR 7 B	T 12.7	1440	1330	1140
PC 7-wire Strand SWPR 7 B	T 15.2	1440	1330	1140
PC 19-wire Strand SWPR 19	T 19.3	1440	1330	1140
PC bar SBPR 785 / 1030	Ø	720	680	600

1.4 TYPICAL CROSS SECTION

3/22/12

1.4. TYPICAL CROSS SECTION



1.4. TYPICAL CROSS SECTION (8 Sheets)

1.5 CODES AND STANDARDS

Design Codes and Standards are as followings:

- Bridge Design Code, Draft, Volume 1 and Volume 2 – Bridge Management System 1992, Direktorat Jenderal Bina Marga Departemen Pekerjann Umum.
- Bridge Design Manual, Draft, Volume 1 and Volume 2 – Bridge Management System 1992, Direktorat Jenderal Bina Marga Departemen Pekerjann Umum.
- Pembebanan untuk jembatan, RSNI4.
(Loading for Bridges)
- Standar perencanaan ketahanan gempa untuk jembatan, SNI.
(Design Standard of Earthquake Resistance for Bridges)
- Perencanaan struktur beton untuk jembatan, RSNI
(Design of Concrete Structure for Bridge)
- Perencanaan struktur baja untuk jembatan, ASNI4
(Design of Steel Structure for Bridge)
- AASHTO LRFD Bridge Design Specifications, 3rd Edition.

For design requirements not covered by the above Codes and Standards the following references will be used as required:

- Japanese Specifications for Highway Bridges
- AS 5100, Bridge Design, Australian Standard, 2004
- EN 1994 Eurocode 4: Design of Composite Steel and Concrete Structures
- FHWA-IF-99-025, “Drilled Shafts: Construction Procedures and Design Methods”, 1999
- FHWA-NHI-00-043, “Mechanically Stabilized Earth Walls and Reinforced Soil Slopes, Design & Construction Guidelines”, 2001
- NCHRP Report 529, “Guidelines and Recommended Standard for Geofoam Applications in Highway Embankments”, Transport Research Board, 2004

CHAPTER 2 DESIGN OF MAIN GIRDER

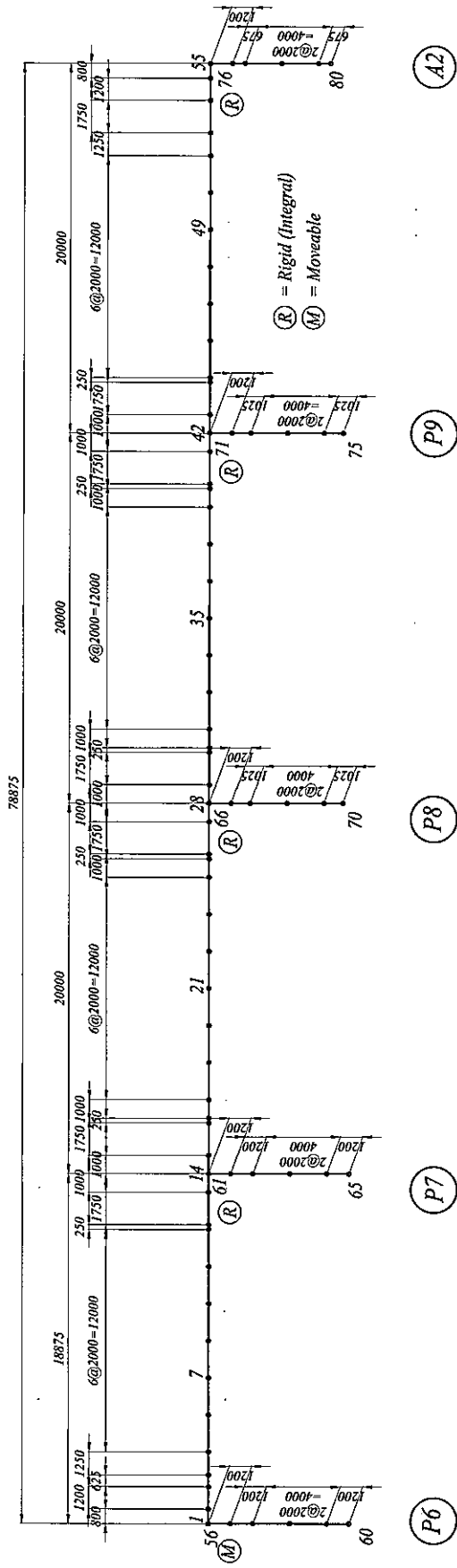
2.1 STRUCTURAL DIMENSIONS AND ANALYSIS MODEL

2.1.1 Structural Dimensions

2.1.2 Analysis Model

(1) Analysis Model

STRUCTURAL ANALYSIS MODEL
(BALARAJA FLYOVER 4 SPAN CONTINUOUS P6-A2 B= 13.0m 2 Columns)



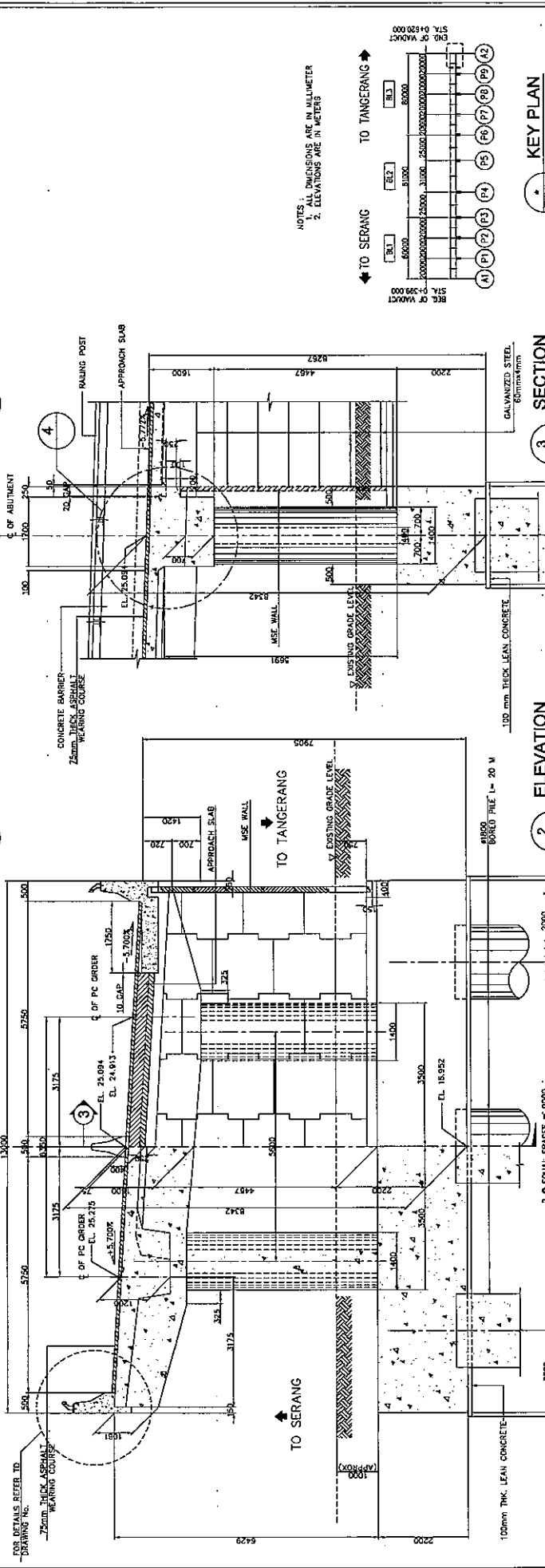
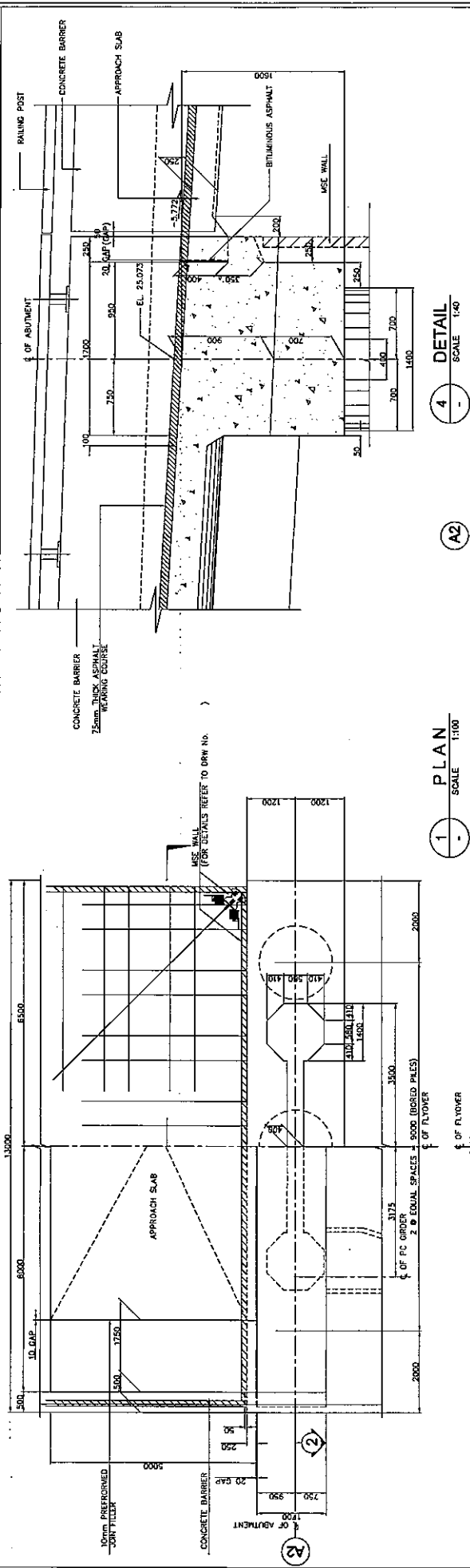
2 RC columns, ϕ 1100 mm	2 RC columns, ϕ 1100 mm	2 RC columns, ϕ 1100 mm	2 RC columns, ϕ 1100 mm	2 RC columns, ϕ 1400 mm
2 nos. ϕ 1500 mm Bored Piles	2 nos. ϕ 1500 mm Bored Piles	2 nos. ϕ 1500 mm Bored Piles	2 nos. ϕ 1500 mm Bored Piles	3 nos. ϕ 1800 mm Bored Piles

Spring Constant at bottom of Pier

Design Section	Kx (kN/m)	Ky (kN/m)	K_{θ} (kN/rad)	$K_{x\theta}$ (kN/rad)
60	7.34×10^4	1.60×10^6	6.06×10^6	-4.26×10^5
65	7.34×10^4	1.60×10^6	6.06×10^6	-4.26×10^5
70	7.34×10^4	1.60×10^6	6.06×10^6	-4.26×10^5
75	7.34×10^4	1.60×10^6	6.06×10^6	-4.26×10^5
80	1.81×10^5	3.25×10^6	1.77×10^7	-1.12×10^6

(2) Structural Dimension of Abutment and Pier

 JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY: Name: A. GOURLEY Sign: [Signature] Date: [Date]	CHECKED BY: Name: T. OKUMURA Sign: [Signature] Date: [Date]	SUBMITTED BY: Name: M. KUCHE Sign: [Signature] Date: [Date]	APPROVED BY: H. HERRY WZA, MEM-SE NP. 1. 11003400 Date: [Date]	REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS APPROVED BY: [Signature]	PROJECT AND LOCATION: DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	DRAWING TITLE: ABUTMENT LAYOUT & DIMENSIONS (ABUT. A2)	DRAWING NO.: BSS-000
	SCALE: 1 : 100 1 : 40	FINAL SIZE A3	SHEET NO.: 00 / 000					



NOTES:
 1. ALL DIMENSIONS ARE IN MILLIMETER
 2. ELEVATIONS ARE IN METERS

TO SERANG ← → TO TANGERANG

KEY PLAN
 SCALE 1:4000

SECTION
 SCALE 1:1100

ELEVATION
 SCALE 1:1100

100mm THK. LEAN CONCRETE

MSE WALL
 BORED PILE L = 20 M

GALVANIZED STEEL
 60mm x 6mm

100mm THK. LEAN CONCRETE

2 @ EQUAL SPACES = 9000

9000 (BORED PILES)
 2 @ EQUAL SPACES

10 GAP

1700

750

950

1200

1500

2000

3175

3500

4500

5000

5350

5750

6000

6500

7000

7500

8000

8500

9000

9500

10000

C OF FLYOVER

C OF PC ORDER

C OF ABUTMENT

C OF FLYOVER

EL. 24.084

EL. 24.613

EL. 24.700

EL. 18.952

100mm THK. LEAN CONCRETE

MSE WALL

BORED PILE L = 20 M

GALVANIZED STEEL

60mm x 6mm

100mm THK. LEAN CONCRETE

2 @ EQUAL SPACES = 9000

9000 (BORED PILES)

2 @ EQUAL SPACES

10 GAP

1700

750

950

1200

1500

2000

3175

3500

4500

5000

5350

5750

6000

6500

7000

7500

8000

8500

9000

9500

10000

JAPAN INTERNATIONAL COOPERATION AGENCY
KATAHIRA & ENGINEERS INTERNATIONAL

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF HIGHWAYS

PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) (BANTEN PROVINCE)

DESIGNED BY : A. GOURLEY, S. GUSE, M. KIUCHI
CHECKED BY :
APPROVED BY : H. HERRY WAZA M.Eng.Sc
NIP. : 110038400

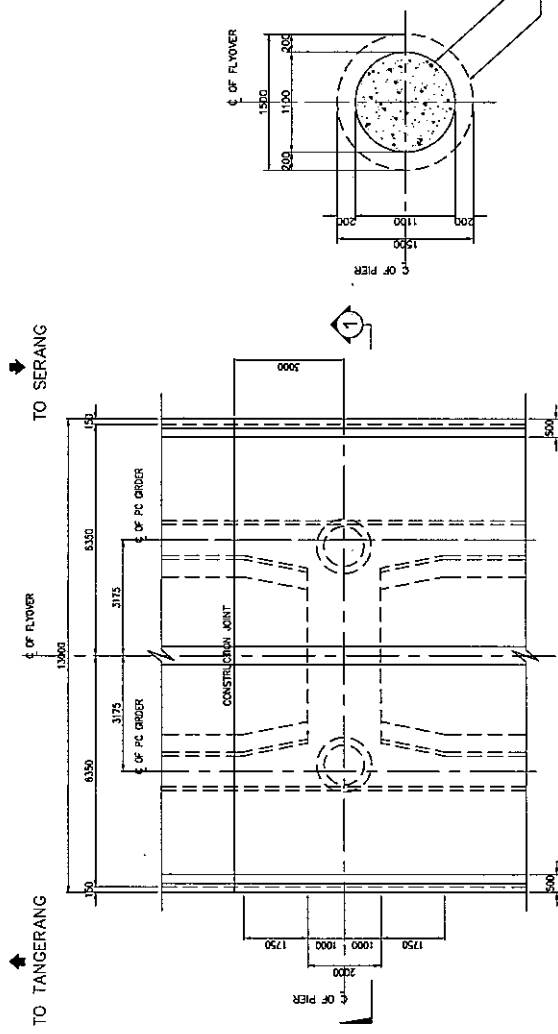
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1 : 60
1 : 150
1 : 2000
P.A.L. SIZE : A3

DRAWING TITLE : PIER LAYOUT P8/P9 (FIXED)

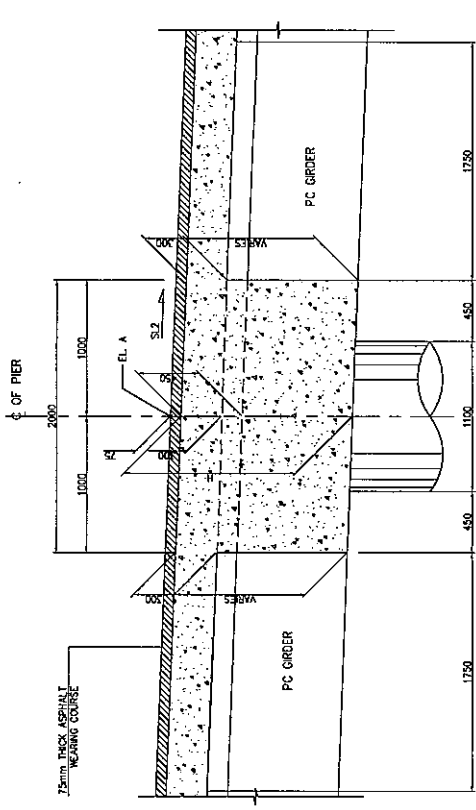
DRAWING NO. : 000-000
SHEET NO. : 0 / 000

SCHEDULE OF PIERS (FIXED)

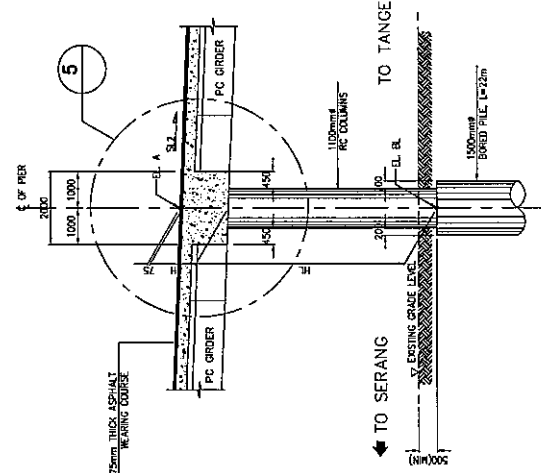
PIER	EL. A	EL. AL	EL. AR	EL. BL	EL. BR	SL. 1L	SL. 1R	SL. 2	H	HL	HR	H1	H2	H3	H4	H5	H6
P8	27.090	27.203	26.937	19.765	19.765	-3.057	-3.057	-5.720	1200	814	503	1103	1297	724	705	369	531
P9	28.227	28.371	28.043	18.831	18.831	-5.171	-5.171	-5.720	1200	823	505	1134	1384	723	777	313	597



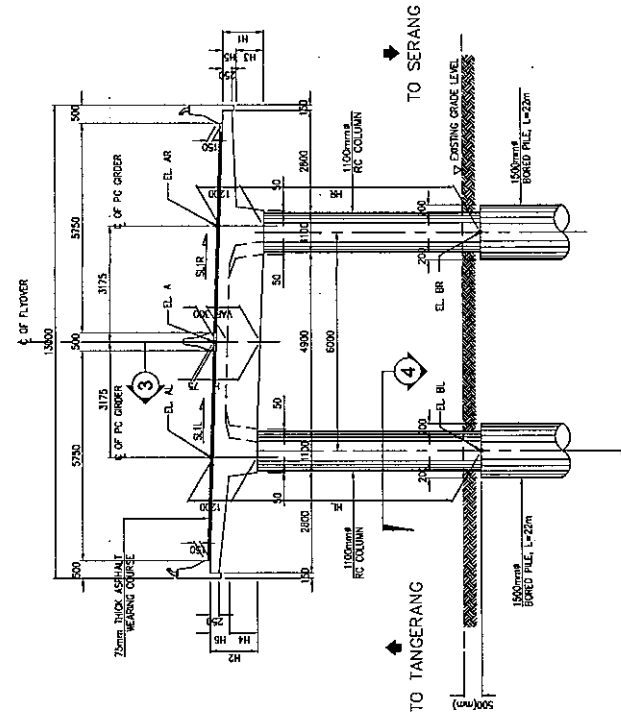
2 PLAN SCALE : 1:150



5 DETAIL SCALE : 1:40

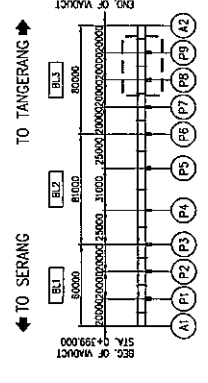


3 SECTION SCALE : 1:150

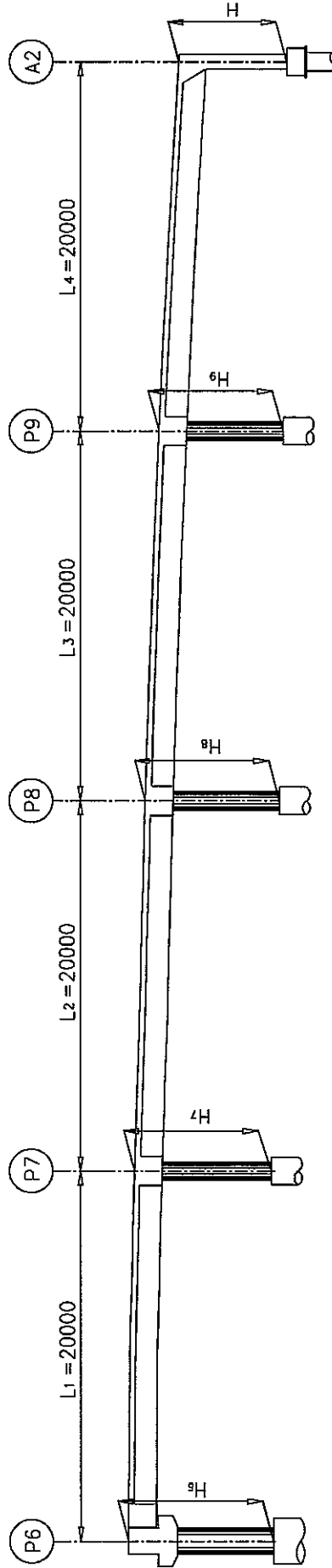


1 ELEVATION SCALE : 1:150

NOTES :
1. DIMENSIONS ARE IN MILLIMETER
2. ELEVATIONS ARE IN METERS



FRAME P6-A2



L_1	=	20	m	H_6	=	7.635	m	(7.6)
L_2	=	20	m	H_7	=	7.598	m	(7.6)
L_3	=	20	m	H_8	=	7.249	m	(7.25)
L_4	=	20	m	H_9	=	7.249	m	(7.25)
				H	=	6.567	m	(6.55)

(3) Spring Constant of Foundation

SUMMARY OF SPRING CONSTANT ANALYSIS FOR NORTH JAVA FLYOVER

SPRING CONSTANT ANALYSIS FOR MERAK FLYOVER - SINGLE PILE - SECTION P13-A2

BORED PILE	PILE DIA. 2500 MM			PILE DIA. 1800 MM (ABUTMENT)			PILE DIA. 1500 MM		
	LOAD & DEFORMATION	SPRING CONSTANT		LOAD & DEFORMATION	SPRING CONSTANT		LOAD & DEFORMATION	SPRING CONSTANT	
AXIAL	P = 4000 kN	$K_v = 1.00E+06$ kN/m		P = 4000 kN	$K_v = 6.17E+05$ kN/m		P = 4000 kN	$K_v = 5.30E+05$ kN/m	
	$\Delta z = 0.00399$ m			$\Delta z = 0.00648$ m			$\Delta z = 0.00755$ m		
LATERAL	P = 400 kN	$K_h = 5.18E+04$ kN/m		P = 400 kN	$K_h = 1.81E+04$ kN/m		P = 400 kN	$K_h = 1.05E+04$ kN/m	
	$\Delta x = 7.72E-03$ m			$\Delta x = 2.21E-02$ m			$\Delta x = 3.81E-02$ m		
MOMENT	P = 400 kN	$K_{\theta} = 4.93E+05$ kN/rad		P = 400 kN	$K_{\theta} = 1.59E+05$ kN/rad		P = 400 kN	$K_{\theta} = 8.71E+04$ kN/rad	
	$\theta = 0.00081$ rad			$\theta = 0.00252$ rad			$\theta = 0.00459$ rad		
	M = 400 kN.m	$K_0 = 1.45E+07$ kN.m/rad		M = 400 kN.m	$K_0 = 4.19E+06$ kN.m/rad		M = 400 kN.m	$K_0 = 2.13E+06$ kN.m/rad	
	$\theta = 0.00003$ rad		$\theta = 0.00010$ rad		$\theta = 0.00019$ rad		$\theta = 0.00019$ rad		

SPRING CONSTANT ANALYSIS FOR MERAK FLYOVER - SINGLE PILE - SECTION A1 - P9

BORED PILE	PILE DIA. 2500 MM			PILE DIA. 1800 MM (ABUTMENT)			PILE DIA. 1500 MM		
	LOAD & DEFORMATION	SPRING CONSTANT		LOAD & DEFORMATION	SPRING CONSTANT		LOAD & DEFORMATION	SPRING CONSTANT	
AXIAL	P = 4000 kN	$K_v = 1.20E+06$ kN/m		P = 4000 kN	$K_v = 8.13E+05$ kN/m		P = 4000 kN	$K_v = 6.98E+05$ kN/m	
	$\Delta z = 0.00333$ m			$\Delta z = 0.00492$ m			$\Delta z = 0.00573$ m		
LATERAL	P = 400 kN	$K_h = 8.81E+04$ kN/m		P = 400 kN	$K_h = 3.25E+04$ kN/m		P = 400 kN	$K_h = 1.91E+04$ kN/m	
	$\Delta x = 4.54E-03$ m			$\Delta x = 1.23E-02$ m			$\Delta x = 2.09E-02$ m		
MOMENT	P = 400 kN	$K_{\theta} = 7.10E+05$ kN/rad		P = 400 kN	$K_{\theta} = 2.35E+05$ kN/rad		P = 400 kN	$K_{\theta} = 1.31E+05$ kN/rad	
	$\theta = 0.00056$ rad			$\theta = 0.00170$ rad			$\theta = 0.00306$ rad		
	M = 400 kN.m	$K_0 = 1.75E+07$ kN.m/rad		M = 400 kN.m	$K_0 = 5.10E+06$ kN.m/rad		M = 400 kN.m	$K_0 = 2.60E+06$ kN.m/rad	
	$\theta = 0.00002$ rad		$\theta = 0.00008$ rad		$\theta = 0.00015$ rad		$\theta = 0.00015$ rad		

SPRING CONSTANT ANALYSIS FOR MERAK FLYOVER - SINGLE PILE - SECTION P9 - P13

BORED PILE	PILE DIA. 2500 MM			PILE DIA. 1800 MM (ABUTMENT)			PILE DIA. 1500 MM		
	LOAD & DEFORMATION	SPRING CONSTANT		LOAD & DEFORMATION	SPRING CONSTANT		LOAD & DEFORMATION	SPRING CONSTANT	
AXIAL	P = 4000 kN	$K_v = 1.06E+06$ kN/m		P = 4000 kN	$K_v = 6.60E+05$ kN/m		P = 4000 kN	$K_v = 5.68E+05$ kN/m	
	$\Delta z = 0.00377$ m			$\Delta z = 0.00606$ m			$\Delta z = 0.00704$ m		
LATERAL	P = 400 kN	$K_h = 6.29E+04$ kN/m		P = 400 kN	$K_h = 2.31E+04$ kN/m		P = 400 kN	$K_h = 1.38E+04$ kN/m	
	$\Delta x = 6.36E-03$ m			$\Delta x = 1.73E-02$ m			$\Delta x = 2.89E-02$ m		
MOMENT	P = 400 kN	$K_{\theta} = 5.81E+05$ kN/rad		P = 400 kN	$K_{\theta} = 1.94E+05$ kN/rad		P = 400 kN	$K_{\theta} = 1.09E+05$ kN/rad	
	$\theta = 0.00069$ rad			$\theta = 0.00206$ rad			$\theta = 0.00366$ rad		
	M = 400 kN.m	$K_0 = 1.53E+07$ kN.m/rad		M = 400 kN.m	$K_0 = 4.49E+06$ kN.m/rad		M = 400 kN.m	$K_0 = 2.31E+06$ kN.m/rad	
	$\theta = 0.00003$ rad		$\theta = 0.00009$ rad		$\theta = 0.00017$ rad		$\theta = 0.00017$ rad		

SPRING CONSTANT ANALYSIS FOR BALARAJA FLYOVER - SINGLE PILE

BORED PILE	PILE DIA. 2500 MM		PILE DIA. 1800 MM (ABUTMENT)		PILE DIA. 1500 MM	
	LOAD & DEFORMATION	SPRING CONSTANT	LOAD & DEFORMATION	SPRING CONSTANT	LOAD & DEFORMATION	SPRING CONSTANT
AXIAL	P = 4000 kN Δz = 0.00338 m	$K_v = 1.18E+06$ kN/m	P = 4000 kN Δz = 0.00369 m	$K_v = 1.08E+06$ kN/m	P = 4000 kN Δz = 0.00500 m	$K_v = 8.00E+05$ kN/m
	P = 400 kN Δx = 0.00247 m	$K_h = 1.62E+05$ kN/m	P = 400 kN Δx = 0.00663 m	$K_h = 6.03E+04$ kN/m	P = 400 kN Δx = 0.0109 m	$K_h = 3.67E+04$ kN/m
LATERAL	P = 400 kN θ = 0.00036 rad	$K_{\theta} = 1.11E+06$ kN/rad	P = 400 kN θ = 0.00107 rad	$K_{\theta} = 3.74E+05$ kN/rad	P = 400 kN θ = 0.00188 rad	$K_{\theta} = 2.13E+05$ kN/rad
	M = 400 kN.m θ = 0.00002 rad	$K_{\phi} = 2.01E+07$ kN.m/rad	M = 400 kN.m θ = 0.00007 rad	$K_{\phi} = 5.89E+06$ kN.m/rad	M = 400 kN.m θ = 0.00013 rad	$K_{\phi} = 3.03E+06$ kN.m/rad

SPRING CONSTANT ANALYSIS FOR NAGREG FLYOVER

BORED PILE	PILE DIA. 2500 MM		PILE DIA. 1800 MM (ABUTMENT)		PILE DIA. 1500 MM	
	LOAD & DEFORMATION	SPRING CONSTANT	LOAD & DEFORMATION	SPRING CONSTANT	LOAD & DEFORMATION	SPRING CONSTANT
AXIAL	P = 4000 kN Δz = 0.00274 m	$K_v = 1.46E+06$ kN/m	P = 4000 kN Δz = 0.00312 m	$K_v = 1.28E+06$ kN/m	P = 4000 kN Δz = 0.00395 m	$K_v = 1.01E+06$ kN/m
	P = 400 kN Δx = 0.00251 m	$K_h = 1.59E+05$ kN/m	P = 400 kN Δx = 0.0058 m	$K_h = 6.90E+04$ kN/m	P = 400 kN Δx = 0.00921 m	$K_h = 4.34E+04$ kN/m
LATERAL	P = 400 kN θ = 0.00036 rad	$K_{\theta} = 1.12E+06$ kN/rad	P = 400 kN θ = 0.00096 rad	$K_{\theta} = 4.18E+05$ kN/rad	P = 400 kN θ = 0.00167 rad	$K_{\theta} = 2.40E+05$ kN/rad
	M = 400 kN.m θ = 0.00002 rad	$K_{\phi} = 1.98E+07$ kN.m/rad	M = 400 kN.m θ = 0.00007 rad	$K_{\phi} = 6.11E+06$ kN.m/rad	M = 400 kN.m θ = 0.00013 rad	$K_{\phi} = 3.15E+06$ kN.m/rad

SPRING CONSTANT ANALYSIS FOR GEBANG FLYOVER

BORED PILE	PILE DIA. 2500 MM		PILE DIA. 1800 MM (ABUTMENT)		PILE DIA. 1500 MM	
	LOAD & DEFORMATION	SPRING CONSTANT	LOAD & DEFORMATION	SPRING CONSTANT	LOAD & DEFORMATION	SPRING CONSTANT
AXIAL	P = 4000 kN Δz = 0.00307 m	$K_v = 1.30E+06$ kN/m	P = 4000 kN Δz = 0.00367 m	$K_v = 1.09E+06$ kN/m	P = 4000 kN Δz = 0.00474 m	$K_v = 8.44E+05$ kN/m
	P = 400 kN Δx = 1.28E-02 m	$K_h = 3.13E+04$ kN/m	P = 400 kN Δx = 3.31E-02 m	$K_h = 1.21E+04$ kN/m	P = 400 kN Δx = 5.58E-02 m	$K_h = 7.17E+03$ kN/m
LATERAL	P = 400 kN θ = 0.00110 rad	$K_{\theta} = 3.64E+05$ kN/rad	P = 400 kN θ = 0.00314 rad	$K_{\theta} = 1.27E+05$ kN/rad	P = 400 kN θ = 0.00561 rad	$K_{\theta} = 7.13E+04$ kN/rad
	M = 400 kN.m θ = 0.00003 rad	$K_{\phi} = 1.25E+07$ kN.m/rad	M = 400 kN.m θ = 0.00011 rad	$K_{\phi} = 3.77E+06$ kN.m/rad	M = 400 kN.m θ = 0.00021 rad	$K_{\phi} = 1.93E+06$ kN.m/rad

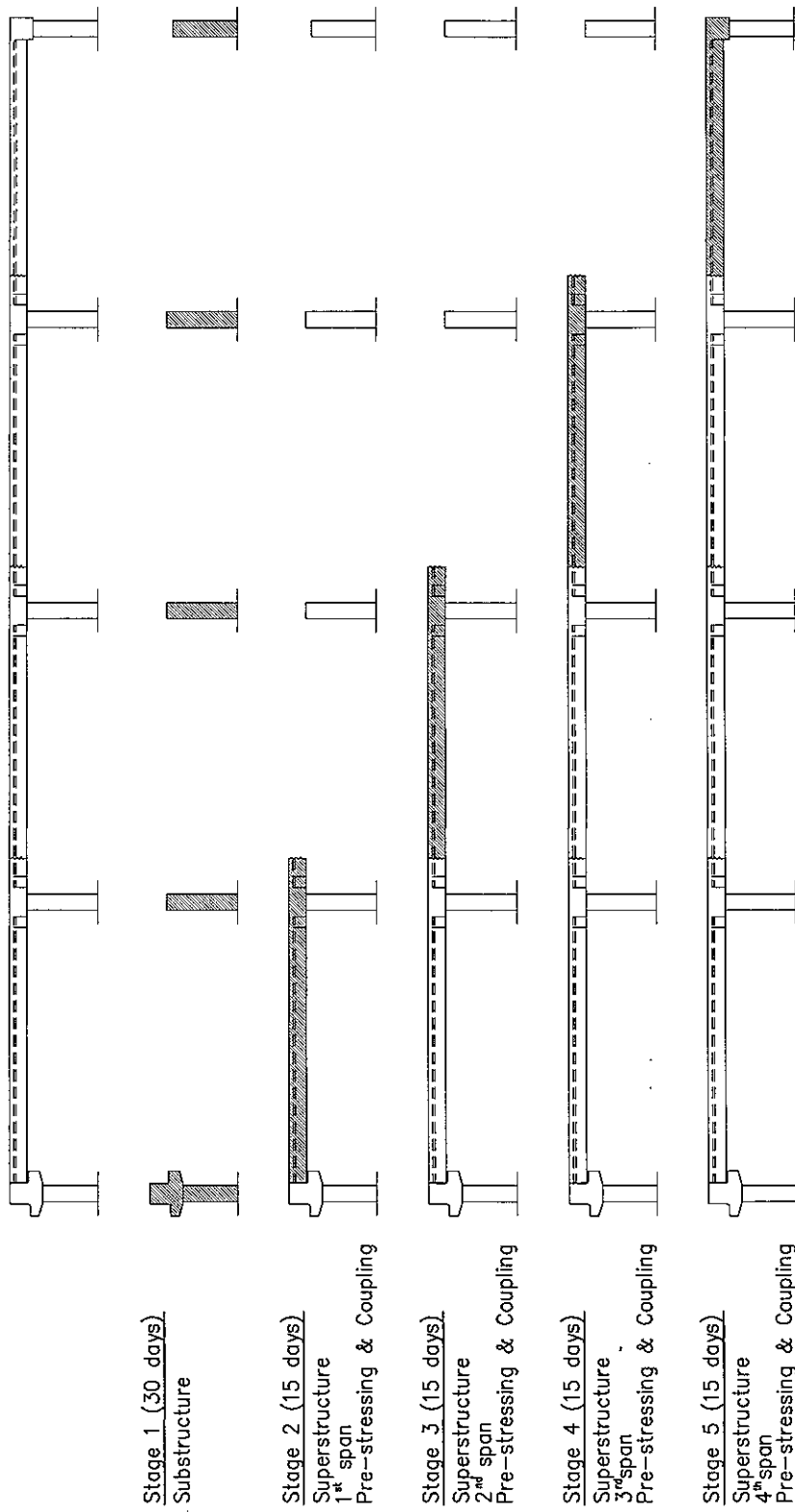
SPRING CONSTANT ANALYSIS FOR PETERONGAN FLYOVER

BORED PILE	PILE DIA. 2500 MM		PILE DIA. 1800 MM (ABUTMENT)		PILE DIA. 1500 MM	
	LOAD & DEFORMATION	SPRING CONSTANT	LOAD & DEFORMATION	SPRING CONSTANT	LOAD & DEFORMATION	SPRING CONSTANT
AXIAL	P = 4000 kN Δz = 0.00290 m	K _v = 1.38E+06 kN/m	P = 4000 kN Δz = 0.00371 m	K _v = 1.08E+06 kN/m	P = 4000 kN Δz = 0.00437 m	K _v = 9.15E+05 kN/m
LATERAL	P = 400 kN Δx = 4.01E-03 m	K _h = 9.88E+04 kN/m	P = 400 kN Δx = 0.01140 m	K _h = 3.51E+04 kN/m	P = 400 kN Δx = 1.98E-02 m	K _h = 2.02E+04 kN/m
	P = 400 kN θ = 0.00054 rad	K _{ho} = 7.46E+05 kN/rad	P = 400 kN θ = 0.00166 rad	K _{ho} = 2.41E+05 kN/rad	P = 400 kN θ = 0.00306 rad	K _{ho} = 1.31E+05 kN/rad
MOMENT	M = 400 kN.m θ = 0.00002 rad	K _o = 1.80E+07 kN.m/rad	M = 400 kN.m θ = 0.00008 rad	K _o = 5.19E+06 kN.m/rad	M = 400 kN.m θ = 0.00015 rad	K _o = 2.61E+06 kN.m/rad

SPRING CONSTANT ANALYSIS FOR TANGGULANGIN FLYOVER

BORED PILE	PILE DIA. 2500 MM		PILE DIA. 1800 MM (ABUTMENT)		PILE DIA. 1500 MM	
	LOAD & DEFORMATION	SPRING CONSTANT	LOAD & DEFORMATION	SPRING CONSTANT	LOAD & DEFORMATION	SPRING CONSTANT
AXIAL	P = 4000 kN Δz = 0.00292 m	K _v = 1.37E+06 kN/m	P = 4000 kN Δz = 0.00412 m	K _v = 9.71E+05 kN/m	P = 4000 kN Δz = 0.00536 m	K _v = 7.46E+05 kN/m
LATERAL	P = 400 kN Δx = 5.16E-03 m	K _h = 7.75E+04 kN/m	P = 400 kN Δx = 0.01320 m	K _h = 3.03E+04 kN/m	P = 400 kN Δx = 2.05E-02 m	K _h = 1.95E+04 kN/m
	P = 400 kN θ = 0.00058 rad	K _{ho} = 6.96E+05 kN/rad	P = 400 kN θ = 0.00166 rad	K _{ho} = 2.41E+05 kN/rad	P = 400 kN θ = 0.00287 rad	K _{ho} = 1.39E+05 kN/rad
MOMENT	M = 400 kN.m θ = 0.00002 rad	K _o = 1.64E+07 kN.m/rad	M = 400 kN.m θ = 0.00008 rad	K _o = 4.87E+06 kN.m/rad	M = 400 kN.m θ = 0.00016 rad	K _o = 2.53E+06 kN.m/rad

2.1.3 Construction Sequence and Time Schedule for Design



Stage 6 (15 days)
 Pre-stressing completion Fly Over
 To bridge Surface Construction 30 days
 Completion of Bridge Surface
 Construction to first
 Live Loading 30 days.

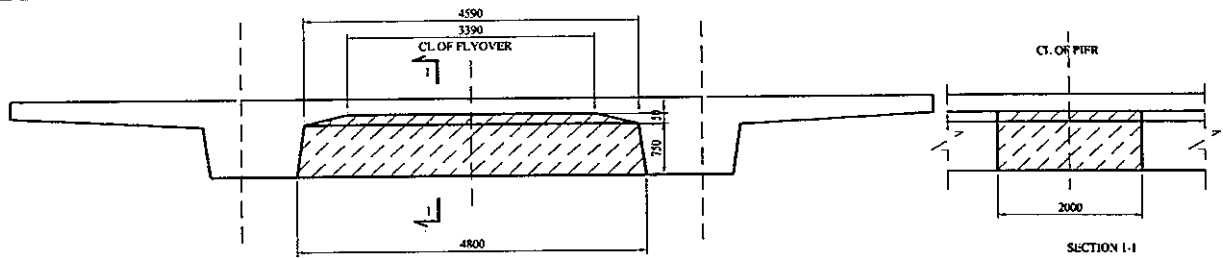
2.1.4 Loadings

(1) Self weight of Girder including Slab

Self weight shall be calculated by computer automatically design by using the unit weight 25 kN/m³

(2) CROSS BEAM

A. INTERMEDIATE CROSS BEAM CONCRETE



INTERMEDIATE CROSS BEAM SECTION AREA

$$0.5 \times (4.590 + 3.390) \times 0.150 = 0.599 \text{ m}^2$$

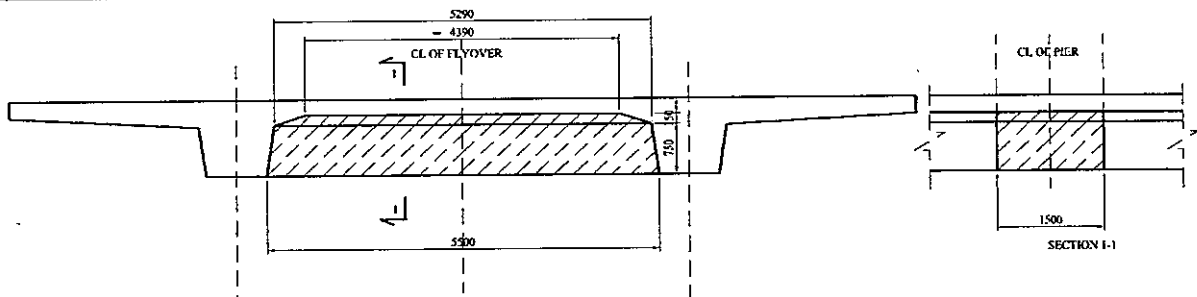
$$0.5 \times (4.590 + 4.800) \times 0.750 = 3.521 \text{ m}^2$$

4.120 m²

INTERMEDIATE CROSS BEAM CONCRETE WEIGHT

$$4.120 \times 2.000 \times 25 = 206.000 \text{ kN (AT PIER)}$$

B. END CROSS BEAM CONCRETE AT ABUTMENT



END CROSS BEAM SECTION AREA

$$0.5 \times (5.290 + 4.390) \times 0.150 = 0.726 \text{ m}^2$$

$$0.5 \times (5.290 + 5.500) \times 0.750 = 4.046 \text{ m}^2$$

4.772 m²

END CROSS BEAM CONCRETE WEIGHT

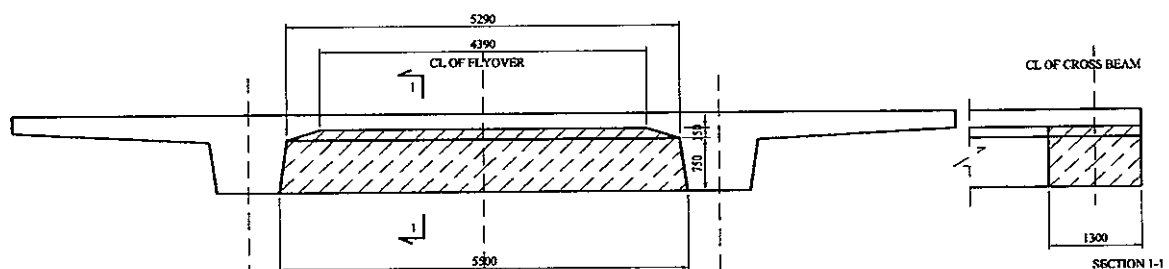
$$4.772 \times 1.500 \times 25 = 178.950 \text{ kN}$$

$$6.545 \times 0.750 \times 25 = 122.719 \text{ kN}$$

refer to section property

$$301.669 \text{ kN (AT ABUTMENT)}$$

C. END CROSS BEAM CONCRETE AT PIER



END CROSS BEAM SECTION AREA

$$0.5 \times (5.290 + 4.390) \times 0.150 = 0.726 \text{ m}^2$$

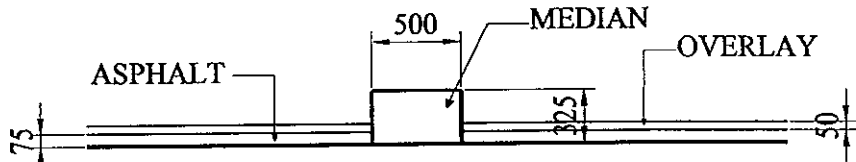
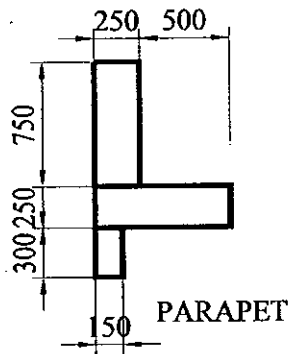
$$0.5 \times (5.290 + 5.500) \times 0.750 = 4.046 \text{ m}^2$$

4.772 m²

END CROSS BEAM CONCRETE WEIGHT

$$4.772 \times 1.300 \times 25 = 155.090 \text{ kN (AT PIER)}$$

(3) SUPERIMPOSED DEAD LOAD (13 m flyover width)



(1). PARAPET

0.250	x	0.750	x	25	=	4.688 kN/m
0.250	x	0.750	x	25	=	4.688 kN/m
0.300	x	0.150	x	25	=	1.125 kN/m
						10.501 kN/m x 2
						21.002 kN/m

(2). MEDIAN

0.500	x	0.325	x	25	=	4.063 kN/m
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(3). ASPHALT

Width clearance for asphalt = *flyover width total - parapet width x 2 - median width*

13.000 m	-	0.750 m	x	2	-	0.5 m	=	11.000 m
0.075 m	x	11.000	x	22	=	18.150 kN/m		
0.050 m	x	11.000	x	22	=	12.100 kN/m		
						30.250 kN/m		

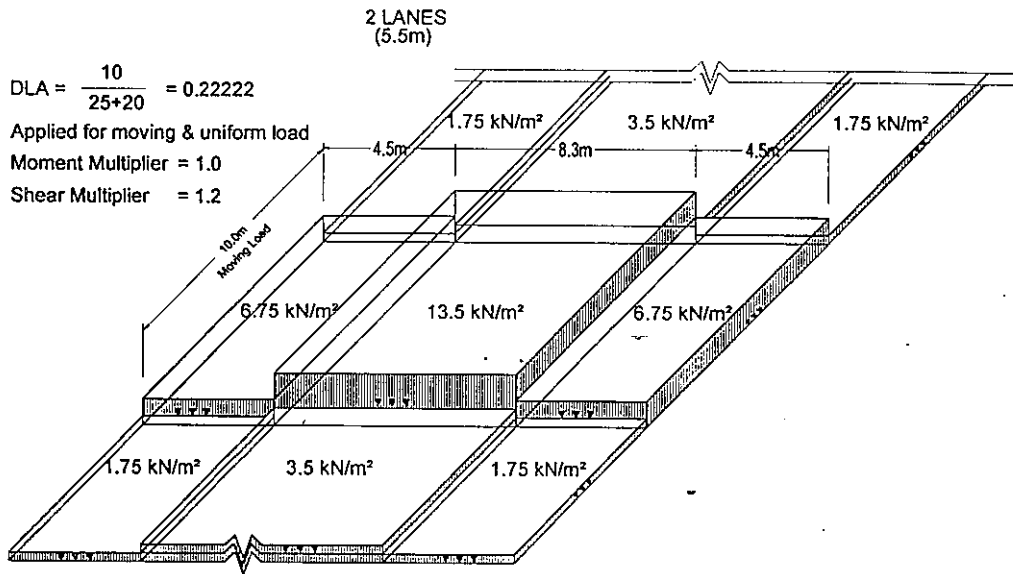
SUPERIMPOSED DEAD LOAD TOTAL (SDL):

21.002	+	4.063	+	30.250	=	55.315 kN/m
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(4) Live Load (Refer to Comparison Study Report)

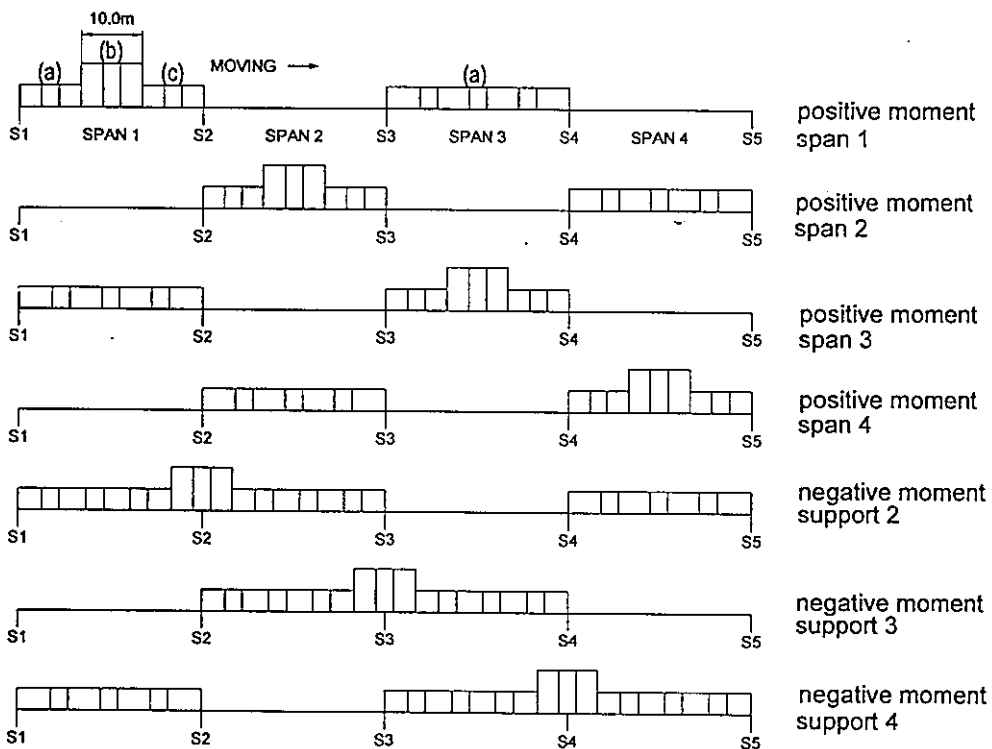
The applied live load equivalent of the design load of the Project is established from the comparison cases to be the JRA Live Load over the full carriageway width with multiplication factor 1.35.

JAPAN BRIDGE LOADING (‘L’ LOADING)

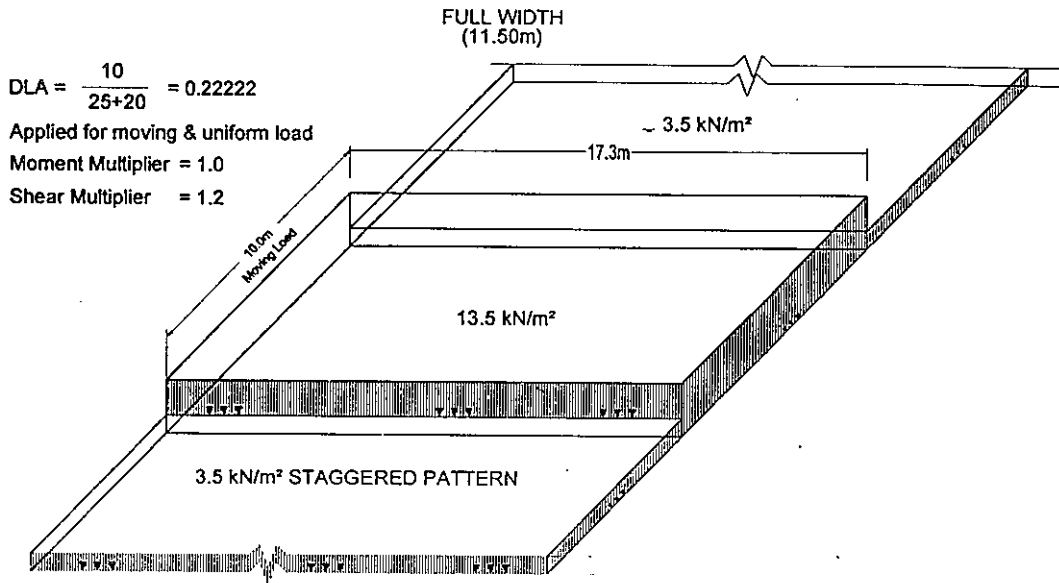


APPLICATION TO 11.50 m' ROADWAY WIDTH FOR EACH GIRDER

no impact 14.875 kN/m' 57.375 kN/m' 14.875 kN/m'
 with impact 18.181 kN/m' 70.125 kN/m' 18.181 kN/m'
 (a) (b) (c)

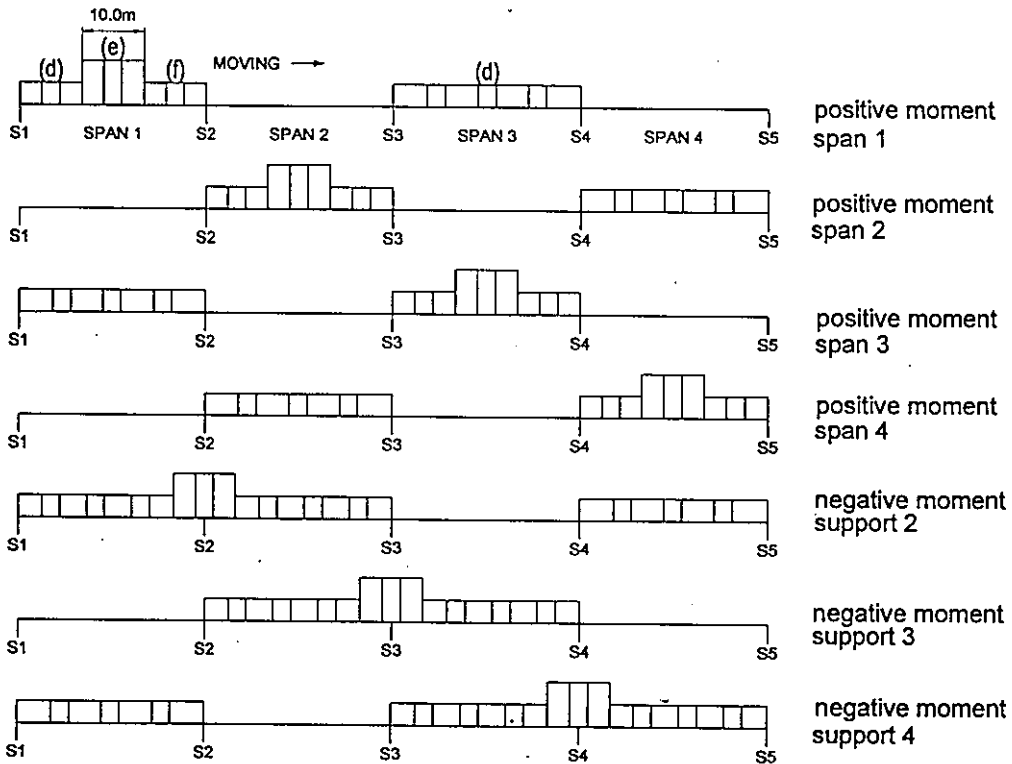


JAPAN BRIDGE LOADING ('L' LOADING)

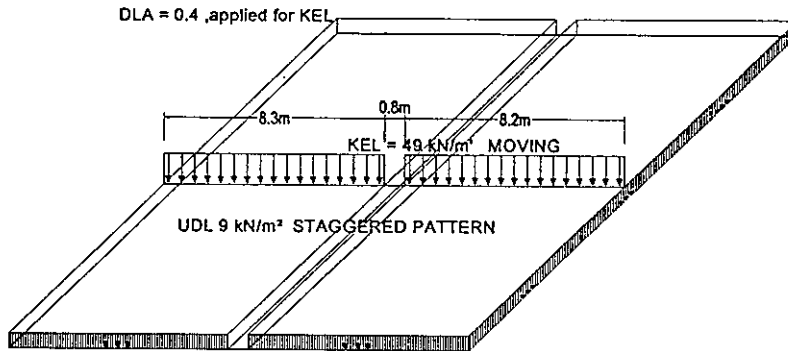


APPLICATION TO 11.50 m' ROADWAY WIDTH FOR EACH DIRDER

no impact	20.125 kN/m'	77.625 kN/m'	20.125 kN/m'
with impact	24.597 kN/m'	94.875 kN/m'	24.597 kN/m'
	(d)	(e)	(f)

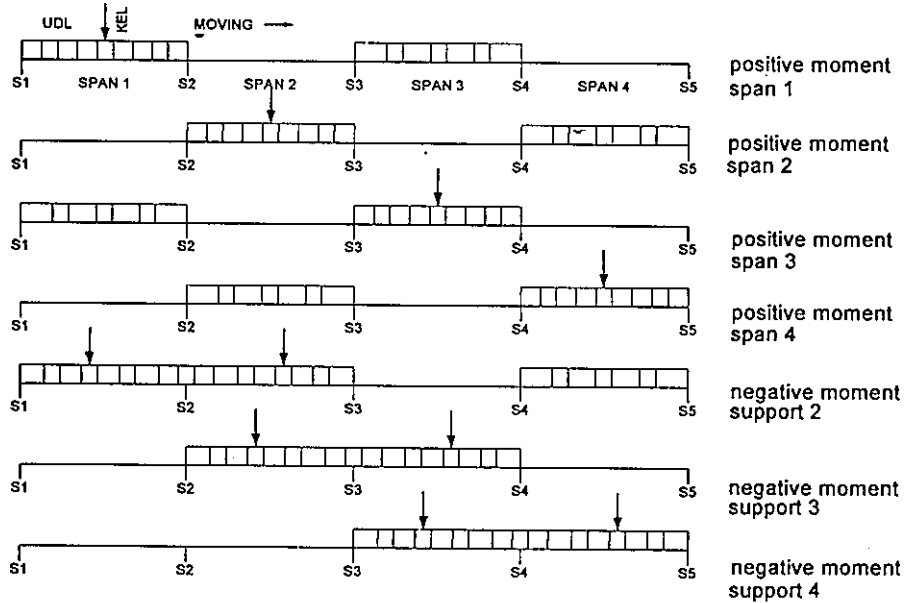


INDONESIA BRIDGE LOADING
(‘D’ LOADING)



APPLICATION TO 11.50 m' ROADWAY WIDTH FOR EACH GIRDER

no impact	UDL = 49.50 kN/m'	KEL = 269.50 kN/m'
with impact	UDL = 49.50 kN/m'	KEL = 377.30 kN/m'



II.3. COMPARISON CASE

Case 1: Regulated JRA Live Load for 2 lanes

Case 2: JRA Live Load for 3 lanes

Case 3: JRA Live Load for full carriage width

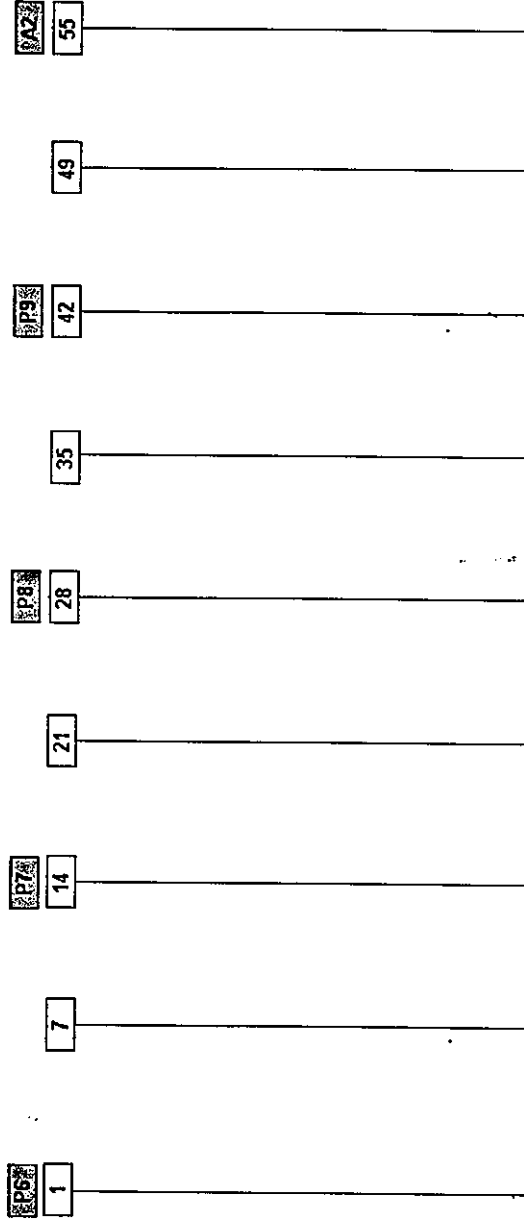
Case 4: 1.35 x Case 3

Case 5: Design Code Live Load

Please refer to comparison table and figures in the following pages.

COMPARISON OF BENDING MOMENT RESULTS

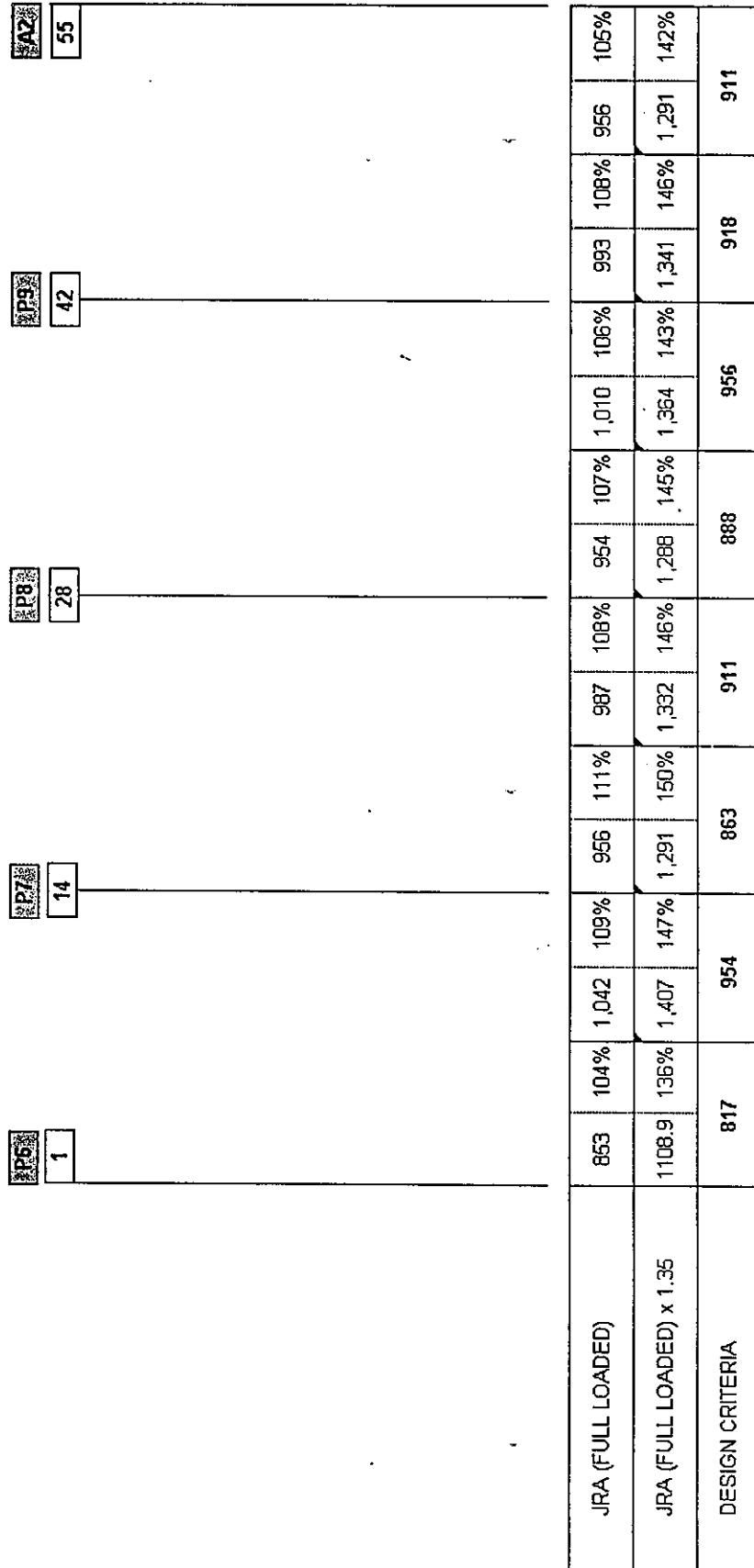
BALARAJA FLYOVER



Case	Regulated, W = 5.5m (2 lane)	W = 8.25m (3 lane)	W = 11.5 (full)	W = 11.5m (full) x 1.35	North Java Criteria	1 - OLD 1994	2 - NEW 2004
Case-1	4,304	5,196	5,822	7,860	6,694	2,400	5,023
Case-2	3,466	4,128	4,688	6,329	5,482	1,809	3,778
Case-3	3,488	4,264	4,720	6,372	5,755	1,797	3,755
Case-4	3,452	4,356	4,670	6,305	6,162	2,218	4,344
Case-5	3,428	4,714	5,082	6,861	6,118	2,448	4,815
1994 Criteria	61%	74%	82%	111%	61%	31%	65%
2004 Criteria	64%	78%	87%	117%	61%	36%	69%
1 - OLD 1994	61%	75%	83%	112%	61%	35%	69%
2 - NEW 2004	64%	83%	91%	123%	64%	23%	49%

COMPARISON OF SHEAR RESULTS

BALARAJA FLYOVER



(5) Temperature Effect

Temperature change per year: 10 °C

Temperature change per day: 5 °C

(6) Earthquake (Static Analysis, refer to Structural Design Criteria)

$$T_{EQ} = K_h \cdot I \cdot W_T$$

where:

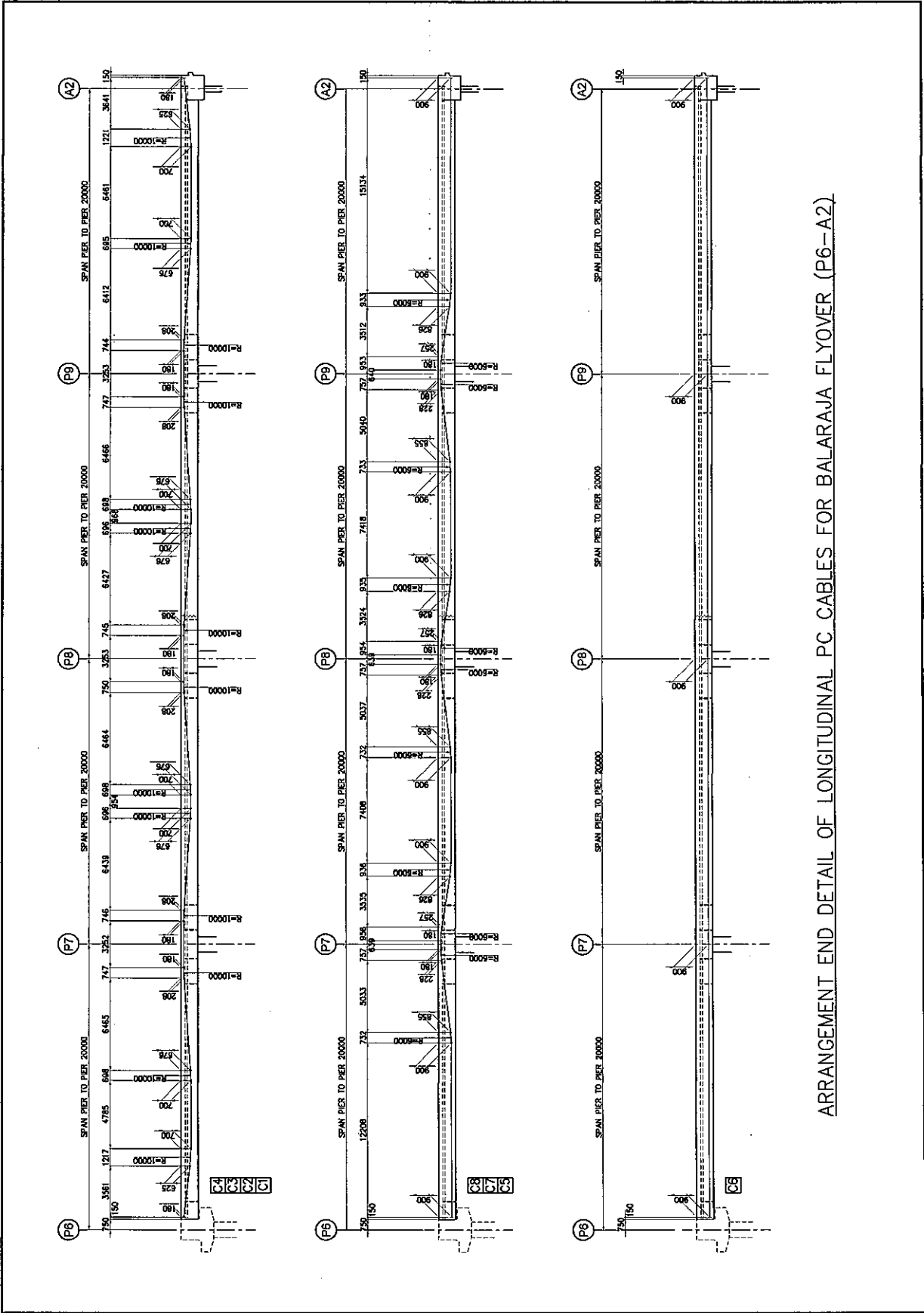
$$K_h = C_{plastic} \cdot S$$

and:

T_{EQ}	=	Total base shear force in the direction being considered (kN)
K_h	=	Coefficient of horizontal seismic loading
$C_{plastic}$	=	Plastic base shear coefficient for the appropriate zone, period and site conditions
I	=	Importance factor (refer Table 2.2.4-5)
S	=	Structural type number (refer Table 2.2.4-6)
W_T	=	Total nominal weight of structure subject to seismic acceleration, taken as dead load plus superimposed dead load (kN)

	Zone	$C_{plastic}$ (max)	S	K_h	I	$K_h \times I$
MERAK	2	0.21	1.225	0.257	1.2	0.31
BALARAJA NAGREG GEBANG	3	0.18	1.225	0.221	1.2	0.27
PETERONGAN TANGGULANGIN	4	0.15	1.225	0.184	1.2	0.22

2.1.5 Arrangement and Detail of Longitudinal PC Tendons



ARRANGEMENT END DETAIL OF LONGITUDINAL PC CABLES FOR BALARAJA FLYOVER (P6-A2)

2.2 SECTION PROPERTIES

*** BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

*** CONST1 ***

コンクリート単体積重量 25.0000 kN/m3

Unit Weight of Concrete of Main Beam

主桁断面総数 55

主桁以外の断面総数

25

ウェブ本数

2

Number of Main Beam Section

Number of Section except Main Beam

Number of Web

任意形断面のみで計算

Only Optional Section is inputted

支間数 4

Number of Span

支間の各部材数 13 14 14 13

Number of Member on Each Span

*** PETERONGAN Flyover 4 Span Continuous A1-P4 B=13.0m 2columns

*** CONST1 ***

Section Property 1

断面諸元 1

断面	A	A(IN)	YO	YU	IX	IY	IJ	QX	QX1	QX2	WO	WU	R2	Section
(51)	5.915	0.000	0.335	-0.865	0.552	74.030	0.451	0.706	0.683	0.382	1.651	-0.638	0.093	
(52)	5.915	0.000	0.335	-0.865	0.552	74.030	0.451	0.706	0.683	0.382	1.651	-0.638	0.093	
(53)	5.915	0.000	0.335	-0.865	0.552	74.030	0.451	0.706	0.683	0.382	1.651	-0.638	0.093	
(54)	5.915	0.000	0.335	-0.865	0.552	74.030	0.451	0.706	0.683	0.382	1.651	-0.638	0.093	
(55)	5.915	0.000	0.335	-0.865	0.552	74.030	0.451	0.706	0.683	0.382	1.651	-0.638	0.093	
(56)	1.624	0.000	0.700	-0.700	0.210	0.210		0.248	0.000	0.000	0.300	-0.300	0.130	
(57)	1.624	0.000	0.700	-0.700	0.210	0.210		0.248	0.000	0.000	0.300	-0.300	0.130	
(58)	1.624	0.000	0.700	-0.700	0.210	0.210		0.248	0.000	0.000	0.300	-0.300	0.130	
(59)	1.624	0.000	0.700	-0.700	0.210	0.210		0.248	0.000	0.000	0.300	-0.300	0.130	
(60)	1.624	0.000	0.700	-0.700	0.210	0.210		0.248	0.000	0.000	0.300	-0.300	0.130	
(61)	0.950	0.000	0.550	-0.550	0.072	0.072	0.144	0.111	0.000	0.000	0.131	-0.131	0.076	
(62)	0.950	0.000	0.550	-0.550	0.072	0.072	0.144	0.111	0.000	0.000	0.131	-0.131	0.076	
(63)	0.950	0.000	0.550	-0.550	0.072	0.072	0.144	0.111	0.000	0.000	0.131	-0.131	0.076	
(64)	0.950	0.000	0.550	-0.550	0.072	0.072	0.144	0.111	0.000	0.000	0.131	-0.131	0.076	
(65)	0.950	0.000	0.550	-0.550	0.072	0.072	0.144	0.111	0.000	0.000	0.131	-0.131	0.076	
(66)	0.950	0.000	0.550	-0.550	0.072	0.072	0.144	0.111	0.000	0.000	0.131	-0.131	0.076	
(67)	0.950	0.000	0.550	-0.550	0.072	0.072	0.144	0.111	0.000	0.000	0.131	-0.131	0.076	
(68)	0.950	0.000	0.550	-0.550	0.072	0.072	0.144	0.111	0.000	0.000	0.131	-0.131	0.076	
(69)	0.950	0.000	0.550	-0.550	0.072	0.072	0.144	0.111	0.000	0.000	0.131	-0.131	0.076	
(70)	0.950	0.000	0.550	-0.550	0.072	0.072	0.144	0.111	0.000	0.000	0.131	-0.131	0.076	
(71)	0.950	0.000	0.550	-0.550	0.072	0.072	0.144	0.111	0.000	0.000	0.131	-0.131	0.076	
(72)	0.950	0.000	0.550	-0.550	0.072	0.072	0.144	0.111	0.000	0.000	0.131	-0.131	0.076	
(73)	0.950	0.000	0.550	-0.550	0.072	0.072	0.144	0.111	0.000	0.000	0.131	-0.131	0.076	
(74)	0.950	0.000	0.550	-0.550	0.072	0.072	0.144	0.111	0.000	0.000	0.131	-0.131	0.076	
(75)	0.950	0.000	0.550	-0.550	0.072	0.072	0.144	0.111	0.000	0.000	0.131	-0.131	0.076	
(76)	1.539	0.000	0.700	-0.700	0.189	0.189	0.377	0.229	0.000	0.000	0.269	-0.269	0.123	
(77)	1.539	0.000	0.700	-0.700	0.189	0.189	0.377	0.229	0.000	0.000	0.269	-0.269	0.123	
(78)	1.539	0.000	0.700	-0.700	0.189	0.189	0.377	0.229	0.000	0.000	0.269	-0.269	0.123	
(79)	1.539	0.000	0.700	-0.700	0.189	0.189	0.377	0.229	0.000	0.000	0.269	-0.269	0.123	
(80)	1.539	0.000	0.700	-0.700	0.189	0.189	0.377	0.229	0.000	0.000	0.269	-0.269	0.123	

*** PETERONGAN Flyover 4 Span Continuous A1-P4 B=13.0m 2columns

*** CONSTI ***

Section Property 2

断面諸元 2

断面	AF	YOF	U	A/U	WEIGHT	AV. A	XP	AV. A*XP	AV. IX	AV. IY	AV. IJ	AV. A/U	Section
(1)	3.777	0.149	28.561	0.229	163.625	6.545	0.800	5.236	0.693	77.875	0.771	0.229	
(2)	3.777	0.149	28.561	0.229	163.625	6.545	1.200	7.854	0.693	77.875	0.771	0.229	
(3)	3.777	0.149	28.561	0.229	163.625	6.222	1.750	10.889	0.619	75.929	0.590	0.218	
(4)	3.777	0.149	28.561	0.207	147.884	5.915	1.250	7.394	0.552	74.032	0.451	0.207	
(5)	3.777	0.149	28.561	0.207	147.884	5.915	2.000	11.831	0.552	74.032	0.451	0.207	
(6)	3.777	0.149	28.561	0.207	147.884	5.915	2.000	11.831	0.552	74.032	0.451	0.207	
(7)	3.777	0.149	28.561	0.207	147.884	5.915	2.000	11.831	0.552	74.032	0.451	0.207	
(8)	3.777	0.149	28.561	0.207	147.884	5.915	2.000	11.831	0.552	74.032	0.451	0.207	
(9)	3.777	0.149	28.561	0.207	147.884	5.915	2.000	11.831	0.552	74.032	0.451	0.207	
(10)	3.777	0.149	28.561	0.207	147.884	5.915	2.000	11.831	0.552	74.032	0.451	0.207	
(11)	3.777	0.149	28.561	0.207	147.884	5.915	0.250	1.479	0.552	74.032	0.451	0.207	
(12)	3.777	0.149	28.561	0.207	147.884	6.222	1.750	10.889	0.619	75.929	0.590	0.218	
(13)	3.777	0.149	28.561	0.229	163.625	6.545	1.000	6.545	0.693	77.875	0.771	0.229	
(14)	3.777	0.149	28.561	0.229	163.625	6.545	1.000	6.545	0.693	77.875	0.771	0.229	
(15)	3.777	0.149	28.561	0.229	163.625	6.222	1.750	10.889	0.619	75.928	0.590	0.218	
(16)	3.777	0.149	28.561	0.207	147.875	5.915	0.250	1.479	0.552	74.030	0.451	0.207	
(17)	3.777	0.149	28.561	0.207	147.875	5.915	1.000	5.915	0.552	74.030	0.451	0.207	
(18)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(19)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(20)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(21)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(22)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(23)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(24)	3.777	0.149	28.561	0.207	147.875	5.915	1.000	5.915	0.552	74.030	0.451	0.207	
(25)	3.777	0.149	28.561	0.207	147.875	5.915	0.250	1.479	0.552	74.030	0.451	0.207	

*** PETERONGAN Flyover 4 Span Continuous A1-P4 B=13.0m 2columns

*** CONSTI ***

Section Property 2

断面諸元 2

断面	AF	YOF	U	A/U	WEIGHT	AV. A	XP	AV. A*XP	AV. IX	AV. IY	AV. IJ	AV. A/U	Section
(26)	3.777	0.149	28.561	0.207	147.875	6.222	1.750	10.889	0.619	75.928	0.590	0.218	
(27)	3.777	0.149	28.561	0.229	163.625	6.545	1.000	6.545	0.693	77.875	0.771	0.229	
(28)	3.777	0.149	28.561	0.229	163.625	6.545	1.000	6.545	0.693	77.875	0.771	0.229	
(29)	3.777	0.149	28.561	0.229	163.625	6.222	1.750	10.889	0.619	75.928	0.590	0.218	
(30)	3.777	0.149	28.561	0.207	147.875	5.915	0.250	1.479	0.552	74.030	0.451	0.207	
(31)	3.777	0.149	28.561	0.207	147.875	5.915	1.000	5.915	0.552	74.030	0.451	0.207	
(32)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(33)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(34)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(35)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(36)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(37)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(38)	3.777	0.149	28.561	0.207	147.875	5.915	1.000	5.915	0.552	74.030	0.451	0.207	
(39)	3.777	0.149	28.561	0.207	147.875	5.915	0.250	1.479	0.552	74.030	0.451	0.207	
(40)	3.777	0.149	28.561	0.207	147.875	6.222	1.750	10.889	0.619	75.928	0.590	0.218	
(41)	3.777	0.149	28.561	0.229	163.625	6.545	1.000	6.545	0.693	77.875	0.771	0.229	
(42)	3.777	0.149	28.561	0.229	163.625	6.545	1.000	6.545	0.693	77.875	0.771	0.229	
(43)	3.777	0.149	28.561	0.229	163.625	6.222	1.750	10.889	0.619	75.928	0.590	0.218	
(44)	3.777	0.149	28.561	0.207	147.875	5.915	0.250	1.479	0.552	74.030	0.451	0.207	
(45)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(46)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(47)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(48)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(49)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	
(50)	3.777	0.149	28.561	0.207	147.875	5.915	2.000	11.830	0.552	74.030	0.451	0.207	

*** PETERONGAN Flyover 4 Span Continuous A1-P4 B=13.0m 2columns

*** CONST1 ***

Section Property 2

断面 断面	AF	YOF	U	A/U	WEIGHT	AV. A	XP	AV. A*XP	AV. IX	AV. IY	AV. IJ	AV. A/U	Section
(51)	3.777	0.149	28.561	0.207	147.875	5.915	1.250	7.394	0.552	74.030	0.451	0.207	
(52)	3.777	0.149	28.561	0.207	147.875	5.915	0.625	3.697	0.552	74.030	0.451	0.207	
(53)	3.777	0.149	28.561	0.207	147.875	5.915	1.200	7.098	0.552	74.030	0.451	0.207	
(54)	3.777	0.149	28.561	0.207	147.875	5.915	0.800	4.732	0.552	74.030	0.451	0.207	
(55)	3.777	0.149	28.561	0.207	147.875								
(56)	0.150	1.160	4.639	0.350	40.595	1.624			0.210	0.210	0.000		
(57)	0.150	1.160	4.639	0.350	40.595	1.624			0.210	0.210	0.000		
(58)	0.150	1.160	4.639	0.350	40.595	1.624			0.210	0.210	0.000		
(59)	0.150	1.160	4.639	0.350	40.595	1.624			0.210	0.210	0.000		
(60)	0.150	1.160	4.639	0.350	40.595	1.242			0.123	0.123	0.000		
(61)	0.065	0.864	3.456	0.275	23.758	0.950			0.072	0.072	0.144		
(62)	0.065	0.864	3.456	0.275	23.758	0.950			0.072	0.072	0.144		
(63)	0.065	0.864	3.456	0.275	23.758	0.950			0.072	0.072	0.144		
(64)	0.065	0.864	3.456	0.275	23.758	0.950			0.072	0.072	0.144		
(65)	0.065	0.864	3.456	0.275	23.758	0.950			0.072	0.072	0.144		
(66)	0.065	0.864	3.456	0.275	23.758	0.950			0.072	0.072	0.144		
(67)	0.065	0.864	3.456	0.275	23.758	0.950			0.072	0.072	0.144		
(68)	0.065	0.864	3.456	0.275	23.758	0.950			0.072	0.072	0.144		
(69)	0.065	0.864	3.456	0.275	23.758	0.950			0.072	0.072	0.144		
(70)	0.065	0.864	3.456	0.275	23.758	0.950			0.072	0.072	0.144		
(71)	0.065	0.864	3.456	0.275	23.758	0.950			0.072	0.072	0.144		
(72)	0.065	0.864	3.456	0.275	23.758	0.950			0.072	0.072	0.144		
(73)	0.065	0.864	3.456	0.275	23.758	0.950			0.072	0.072	0.144		
(74)	0.065	0.864	3.456	0.275	23.758	0.950			0.072	0.072	0.144		
(75)	0.065	0.864	3.456	0.275	23.758	1.210			0.116	0.116	0.233		

*** PETERONGAN Flyover 4 Span Continuous A1-P4 B=13.0m 2columns

*** CONSTI ***

Section Property 2

断面 断面	AF	YOF	U	A/U	WEIGHT	AV. A	XP	AV. A*XP	AV. IX	AV. IY	AV. IJ	AV. A/U	Section
(76)	0.135	1.100	4.398	0.350	38.485	1.539			0.189	0.189	0.377		
(77)	0.135	1.100	4.398	0.350	38.485	1.539			0.189	0.189	0.377		
(78)	0.135	1.100	4.398	0.350	38.485	1.539			0.189	0.189	0.377		
(79)	0.135	1.100	4.398	0.350	38.485	1.539			0.189	0.189	0.377		
(80)	0.135	1.100	4.398	0.350	38.485	1.539			0.189	0.189	0.377		

TOTAL VOLUME (主桁 AV.A*XP) = 475.352

2.3 CONSTRUCTION STAGE AND LOADINGS

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

** X, Y 座標 (m) **

節点	X (m)	Y (m)	Node
1	0.000	0.335	
2	0.800	0.335	
3	2.000	0.335	
4	2.625	0.335	
5	3.875	0.335	
6	5.875	0.335	
7	7.875	0.335	
8	9.875	0.335	
9	11.875	0.335	
10	13.875	0.335	
11	15.875	0.335	
12	16.125	0.335	
13	17.875	2.524	
14	18.875	2.524	
15	19.875	2.524	
16	21.625	0.335	
17	21.875	0.335	
18	22.875	0.335	
19	24.875	0.335	
20	26.875	0.335	
21	28.875	0.335	
22	30.875	0.335	
23	32.875	0.335	
24	34.875	0.335	
25	35.875	0.335	
26	36.125	0.335	
27	37.875	0.375	
28	38.875	0.375	
29	39.875	0.375	
30	41.625	0.335	
31	41.875	0.335	
32	42.875	0.335	
33	44.875	0.335	
34	46.875	0.335	
35	48.875	0.335	
36	50.875	0.335	
37	52.875	0.335	
38	54.875	0.335	
39	55.875	0.335	
40	56.125	0.335	
41	57.875	0.375	
42	58.875	0.375	
43	59.875	0.375	
44	61.625	0.335	
45	61.875	0.335	
46	63.875	0.335	
47	65.875	0.335	
48	67.875	0.335	
49	69.875	0.335	
50	71.875	0.335	

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

** X, Y 座標 (m) **

X, Y Co-ordinate (m)

節点	X (m)	Y (m)	Node
51	73.875	0.335	
52	75.125	0.335	
53	76.875	0.375	
54	78.075	0.375	
55	78.875	0.375	
56	0.000	1.200	
57	0.000	2.400	
58	0.000	4.400	
59	0.000	6.400	
60	0.000	7.600	
61	18.875	1.200	
62	18.875	2.400	
63	18.875	4.400	
64	18.875	6.400	
65	18.875	7.600	
66	38.875	1.200	
67	38.875	2.225	
68	38.875	4.225	
69	38.875	6.225	
70	38.875	7.250	
71	58.875	1.200	
72	58.875	2.225	
73	58.875	4.225	
74	58.875	6.225	
75	58.875	7.260	
76	78.875	1.200	
77	78.875	1.875	
78	78.875	3.875	
79	78.875	5.875	
80	78.875	6.550	

***BALARAJA Flyover 4 Span Continuous PG-A2 B=13.0m 2columns

Rigid Zone

主桁の剛域

13 14 27 28 41 42 54

** 要素の入力 **

要素 Number	節点 Node	断面 Section	個数 Number	A(m ²)	I(m ⁴)	E(N/mm ²)	GAM(kN/m ³)	L(m)	Element Number
1	1			5.91500	0.55235	31800.	25.000	0.800	
2	2			5.91500	0.55235	31800.	25.000	1.200	
3	3			5.91500	0.55235	31800.	25.000	0.625	
4	4			5.91500	0.55235	31800.	25.000	1.250	
5	5			5.91500	0.55235	31800.	25.000	2.000	
6	6			5.91500	0.55235	31800.	25.000	2.000	
7	7			5.91500	0.55235	31800.	25.000	2.000	
8	8			5.91500	0.55235	31800.	25.000	2.000	
9	9			5.91500	0.55235	31800.	25.000	2.000	
10	10			5.91500	0.55235	31800.	25.000	2.000	
11	11			5.91500	0.55235	31800.	25.000	2.000	
12	12			5.91500	0.55235	31800.	25.000	0.250	
13	13			6.22203	0.61875	31800.	25.000	1.750	
14	14			6545.00008	693.12549	31800.	25.000	1.000	
15	15			6545.00008	693.12549	31800.	25.000	1.750	
16	16			6.22203	0.61875	31800.	25.000	0.250	
17	17			5.91500	0.55235	31800.	25.000	1.000	
18	18			5.91500	0.55235	31800.	25.000	2.000	
19	19			5.91500	0.55235	31800.	25.000	2.000	
20	20			5.91500	0.55235	31800.	25.000	2.000	
21	21			5.91500	0.55235	31800.	25.000	2.000	
22	22			5.91500	0.55235	31800.	25.000	2.000	
23	23			5.91500	0.55235	31800.	25.000	2.000	
24	24			5.91500	0.55235	31800.	25.000	1.000	
25	25			5.91500	0.55235	31800.	25.000	0.250	
26	26			6.22203	0.61875	31800.	25.000	1.750	
27	27			6545.00008	693.12549	31800.	25.000	1.000	
28	28			6545.00008	693.12549	31800.	25.000	1.000	
29	29			6.22203	0.61875	31800.	25.000	1.750	
30	30			5.91500	0.55235	31800.	25.000	0.250	
31	31			5.91500	0.55235	31800.	25.000	1.000	
32	32			5.91500	0.55235	31800.	25.000	2.000	
33	33			5.91500	0.55235	31800.	25.000	2.000	
34	34			5.91500	0.55235	31800.	25.000	2.000	
35	35			5.91500	0.55235	31800.	25.000	2.000	
36	36			5.91500	0.55235	31800.	25.000	2.000	
37	37			5.91500	0.55235	31800.	25.000	2.000	
38	38			5.91500	0.55235	31800.	25.000	1.000	
39	39			5.91500	0.55235	31800.	25.000	0.250	
40	40			6.22203	0.61875	31800.	25.000	1.750	
41	41			6545.00008	693.12549	31800.	25.000	1.000	
42	42			6545.00008	693.12549	31800.	25.000	1.000	
43	43			6.22203	0.61875	31800.	25.000	1.750	
44	44			5.91500	0.55235	31800.	25.000	0.250	
45	45			5.91500	0.55235	31800.	25.000	2.000	
46	46			5.91500	0.55235	31800.	25.000	2.000	
47	47			5.91500	0.55235	31800.	25.000	2.000	
48	48			5.91500	0.55235	31800.	25.000	2.000	
49	49			5.91500	0.55235	31800.	25.000	2.000	
50	50			5.91500	0.55235	31800.	25.000	2.000	

Rigid Zone

Element Data

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

** 要素の入り **

要素	節点	断面	個数	A(m ²)	I(m ⁴)	E(N/mm ²)	GAM(kN/m ³)	L(m)	Element	NodeSection	Number
51				5.91500	0.55235	31800.	25.000	1.250			
52				6.22203	0.61875	31800.	25.000	1.750			
53				6.54500	0.69313	31800.	25.000	1.200			
54				6545.00008	693.12549	31800.	25.000	0.865			
55	1	56	0	1000.00000	1000.00000	29400.	0.000	1.200			
56	56	57	2	1.90066	0.14374	29400.	25.000	1.200			
57	57	58	2	1.90066	0.14374	29400.	25.000	2.000			
58	58	59	2	1.90066	0.14374	29400.	25.000	2.000			
59	59	60	2	1.90066	0.14374	29400.	25.000	1.200			
60	14	61	0	1000.00000	1000.00000	29400.	0.000	0.825			
61	61	62	2	1.90066	0.14374	29400.	25.000	1.200			
62	62	63	2	1.90066	0.14374	29400.	25.000	2.000			
63	63	64	2	1.90066	0.14374	29400.	25.000	2.000			
64	64	65	2	1.90066	0.14374	29400.	25.000	1.200			
65	28	66	0	1000.00000	1000.00000	29400.	0.000	0.825			
66	66	67	2	1.90066	0.14374	29400.	25.000	1.025			
67	67	68	2	1.90066	0.14374	29400.	25.000	2.000			
68	68	69	2	1.90066	0.14374	29400.	25.000	2.000			
69	69	70	2	1.90066	0.14374	29400.	25.000	1.025			
70	42	71	0	1000.00000	1000.00000	29400.	0.000	0.825			
71	71	72	2	1.90066	0.14374	29400.	25.000	1.025			
72	72	73	2	1.90066	0.14374	29400.	25.000	2.000			
73	73	74	2	1.90066	0.14374	29400.	25.000	2.000			
74	74	75	2	1.90066	0.14374	29400.	25.000	1.025			
75	55	76	0	1000.00000	1000.00000	29400.	0.000	0.825			
76	76	77	2	3.24760	0.42060	29400.	25.000	0.675			
77	77	78	2	3.24760	0.42060	29400.	25.000	2.000			
78	78	79	2	3.24760	0.42060	29400.	25.000	2.000			
79	79	80	2	3.24760	0.42060	29400.	25.000	0.675			

* STAGE 1 *
 Stage i
 Number of Input for Element
 Number of Input for Support
 Number of Input for Dead Load
 Number of Input for Erection Load
 Number of Input for Pre-stress

部材入力
 部材 KX0 (kN/m) KY0 (kN/m) KR0 (kNm/rad) KX1 (kN/m) KY1 (kN/m) KR1 (kNm/rad)
 55 79 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00

Element Data
 Element

支点の入力
 節点 XYR KX (kN/m) KY (kN/m) KR (kNm/rad) KX-Y (kN/m) KX-R (kN/rad) KY-R (kN/rad)
 60 000 0.73400E+05 0.16000E+07 0.60600E+07 0.00000E+00 -0.42600E+06 0.00000E+00
 65 000 0.73400E+05 0.16000E+07 0.60600E+07 0.00000E+00 -0.42600E+06 0.00000E+00
 70 000 0.73400E+05 0.16000E+07 0.60600E+07 0.00000E+00 -0.42600E+06 0.00000E+00
 75 000 0.73400E+05 0.16000E+07 0.60600E+07 0.00000E+00 -0.42600E+06 0.00000E+00
 80 000 0.18100E+06 0.32500E+07 0.17700E+08 0.00000E+00 -0.11200E+07 0.00000E+00

Support Data
 Node

* STAGE 2 *
 変更する部材数 2
 変更する支点数 0
 載荷する荷重数 2
 架設用荷重数 0
 導入ケーブル数 2

部材入力
 部材 KX0 (kN/m) KY0 (kN/m) KR0 (kNm/rad) KX1 (kN/m) KY1 (kN/m) KR1 (kNm/rad)
 1 16 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00
 55 55 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00 -0.30000E+01 -0.30000E+01

載荷荷重の入力
 0 - 1 LOAD C1 C2 C3 C4
 1 1 1 0.000 155.090 0.000 0.000
 14 14 1 0.000 206.000 0.000 0.000

Dead Load Data

プレストレスケーブルの入力
 X0 (m) X1 (m) 本数 C. 番号 連続 グラウト
 -0.225 21.725 4 1 0 0
 -0.225 21.725 4 2 0 0

Pre-stress Data
 X0 (m) X1 (m) Nos. of Cable Name of Cable Continuous Condition of Cable Grout Condition

* STAGE 3 *

変更する部材数 1
 変更する支点数 0
 載荷する荷重数 1
 架設用荷重数 0
 導入ケープル数 2

部材入力
 部材 部材 KY0 (kN/m) KY0 (kN/m) KX0 (kNm/rad) KX1 (kN/m) KY1 (kN/m) KY1 (kNm/rad)
 17 30 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00

載荷荷重の入力

0 - 1 LOAD C1 C2 C3 C4
 28 28 1 0.000 206.000 0.000 0.000

プレストレスケープルの入力
 X0 (m) X1 (m) 本数 C. 番号 連続 グラウト
 21.725 41.725 4 1 1 0.001 0.001 0
 21.725 41.725 4 2 1 0.001 0.001 0

* STAGE 4 *

変更する部材数 1
 変更する支点数 0
 載荷する荷重数 2
 架設用荷重数 0
 導入ケープル数 2

部材入力
 部材 部材 KY0 (kN/m) KY0 (kN/m) KX0 (kNm/rad) KX1 (kN/m) KY1 (kN/m) KY1 (kNm/rad)
 31 44 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00

載荷荷重の入力

0 - 1 LOAD C1 C2 C3 C4
 42 42 1 0.000 206.000 0.000 0.000
 35 35 1 0.000 35.790 0.000 0.000

プレストレスケープルの入力
 X0 (m) X1 (m) 本数 C. 番号 連続 グラウト
 41.725 61.725 4 1 1 0.001 0.001 0

* STAGE 4 *

プレストレストケープルの入力
 X0(m) 41.725
 X1(m) 61.725
 C. 番号 連続 1 0.001 0.001
 グラウト 0

* STAGE 5 *

変更する部材数 1
 変更する支点数 0
 載荷する荷重数 2
 架設用荷重数 0
 導入ケープル数 2

部材入力
 部材 KX0 (kN/m) KY0 (kN/m) KR0 (kNm/rad) KX1 (kN/m) KY1 (kN/m) KR1 (kNm/rad)
 45 54 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00 0.00000E+00

載荷荷重の入力

0 - 1 LOAD C1 C2 C3 C4
 55 55 1 0.000 301.669 0.000 0.000
 49 49 1 0.000 35.790 0.000 0.000

プレストレストケープルの入力

X0(m) 61.725
 X1(m) 79.475
 C. 番号 連続 1 0.001 0.001
 2 1 0.001 0.001
 グラウト 0

* STAGE 6 *

変更する部材数 0
 変更する支点数 0
 載荷する荷重数 0
 架設用荷重数 0
 導入ケープル数 2

プレストレストケープルの入力

X0(m) -0.225
 X1(m) 79.475
 C. 番号 連続 3 0.001 0.001
 4 4 0.001 0.001
 グラウト 0

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

Superimposed Dead Load

橋面工 *						
0 - 1	LOAD	C1	C2	C3	C4	
1	54	3	55.315	0.000	0.000	0.000

* 温度 *
年変化 T (°C) = 10.000

0 - 1	ALF				
1	54	10.000	AF (m2)	EF (m)	
			0.0000	0.0000	

* 日変化 *
T (°C) TYPE

5.000	0	
-------	---	--

* 雪荷重 *

0 - 1	LOAD	C1	C2	C3	C4

* 地震 *

	震度	0.270
	震度	0.000

* 活荷重 TL25 *

LP1 (m) = 10.000 P1(S)/P1(M) = 1.20

0 - 1	P1 (kN/m2)	P2 (kN/m2)	主荷重 (m)	従荷重 (M)	P (kN)/T. L.
1	55	13.500	4.725	11.000	0.000
					200.000

0 - 1 0 - 1 衝撃 (L) 衝撃 (T) T荷重割増 P1(N)/P1(M)

1	54	1	55	0.222	0.286	1.500	0.000
---	----	---	----	-------	-------	-------	-------

Temperature
Temperature Change Year T(deg)
Temperature Change Day T(deg)

Snow Load

Earthquake Seismic Coefficient after Completion
Earthquake Seismic Coefficient under Construction

Live Load TL25

台数/T.L. 群集 (kN/m) Main Live Loading width Sub Live Loading width Number of vehicle Sidewalk Live Lo

Impact (L) Impact (T) Increasing coefficient for T Load

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

各スパンに費やした日数 (日)

1) 30 2) 15 3) 15 4) 15 5) 15 6) 15

構造系完成～橋面工施工 (日) 30
 橋面工施工～最初の活荷重載荷 (日) 30

Days for each construction Stage

From immediately after Completion to Superimposed Dead Loading (day)
 From superimposed Dead Loading to initial Live Loading

2.4 PRE-STRESSING

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

* PRESTRESS *

AP (cm ²)	DUCT (cm)	RAM (1/m)	RMU (1/rad)	SET RELAX (mm) (%)	EP (N/mm ²)	SIGPY KP (N/mm ²)	SIGPU (N/mm ²)	----	----	S=1-3
1	11.845	0.004	0.300	8.0 1.5	200000.	0. 1	1860.	0.00000	0.00000	0.0 0.00000 0.0

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

Cable 1 (upper) - 1 ジャッキ端 (N/mm²) 1270.000 Direction of Pre-stressing to be given (From both side/left/right) Pre-stress at Jack
 本数 4 右引

POINT	X (m)	Y (m)	DX (m)	L (m)	R (m)	ALPHA (°)
1	-0.2250	0.1800	3.6280	3.6553	0.0000	0.0000
2	3.4030	0.6255	1.2187	1.2217	10.0000	6.9999
3	4.6217	0.7000	4.4678	4.4678	0.0000	0.0000
4	9.0895	0.7000	0.6976	0.6981	10.0000	4.0000
5	9.7871	0.6756	6.7396	6.7560	0.0000	0.0000
6	16.5266	0.2044	0.6976	0.6981	-10.0000	4.0000
7	17.2242	0.1800	3.3018	3.3018	0.0000	0.0000
8	20.5260	0.1800	0.6971	0.6977	-10.0000	3.9975
9	21.2231	0.2043	0.5019	0.5031	0.0000	0.0000
10	21.7250	0.2394				

* L(m) = 21.9997

セトルロス範囲 右端から 12.5965(m) Range of set-loss for Pre-stressing From Pre-stressing side

POINT	X (m)	Y (m)	SIGPH	SIGPV
1	0.0000	0.2076	1046.006	128.432
2	0.8000	0.3059	1049.400	128.849
3	2.0000	0.4532	1054.491	129.474
4	2.6250	0.5299	1057.143	129.800
5	3.8750	0.6721	1082.924	81.091
6	5.8750	0.7000	1119.355	0.000
7	7.8750	0.7000	1128.345	0.000
8	9.8750	0.6696	1106.501	-77.375
9	11.8750	0.5296	1097.086	-76.716
10	13.8750	0.3898	1087.671	-76.058
11	15.8750	0.2499	1078.256	-75.399
12	16.1250	0.2324	1077.079	-75.317
13	17.8750	0.1800	1045.960	0.000
14	18.8750	0.1800	1041.042	0.000
15	19.8750	0.1800	1036.124	0.000
16	21.6250	0.2324	998.730	69.793

Cable 1 (upper) - 2 ジャッキ端 (N/mm²) 1270.000
 本数 4 右引

POINT	X (m)	Y (m)	DX (m)	L (m)	R (m)	ALPHA (°)
1	21.7250	0.2394				

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

Cable 本数	1 (upper) - 4 右引	2 ジャッキ端 (N/mm2)	1270.000	DX(m)	Y(m)	L(m)	R(m)	ALPHA(°)
POINT	X(m)	Y(m)	DX(m)	L(m)	R(m)	ALPHA(°)		
2	27.9629	0.6756	6.2379	6.2531	0.0000	0.0000		
3	28.6605	0.7000	0.6976	0.6982	10.0000	4.0004		
4	29.0895	0.7000	0.4289	0.4289	0.0000	0.0000		
5	29.7871	0.6756	0.6976	0.6981	10.0000	4.0000		
6	36.5266	0.2044	6.7396	6.7560	0.0000	0.0000		
7	37.2242	0.1800	0.6976	0.6981	-10.0000	4.0000		
8	40.5260	0.1800	3.3018	3.3018	0.0000	0.0000		
9	41.2231	0.2043	0.6971	0.6977	-10.0000	3.9875		
10	41.7250	0.2394	0.5019	0.5031	0.0000	0.0000		

* L(m) = 20.0352

セトルロス範囲 右端から 12.5965(m)

POINT	X(m)	Y(m)	SIGPH	SIGPV
17	21.8750	0.2499	1076.033	75.250
18	22.8750	0.3198	1080.399	75.556
19	24.8750	0.4597	1089.132	76.166
20	26.8750	0.5996	1097.865	76.777
21	28.8750	0.7000	1132.832	0.000
22	30.8750	0.5996	1101.793	-77.045
23	32.8750	0.4597	1092.379	-76.387
24	34.8750	0.3199	1082.964	-75.729
25	35.8750	0.2499	1078.256	-75.399
26	36.1250	0.2324	1077.079	-75.317
27	37.8750	0.1800	1045.960	0.000
28	38.8750	0.1800	1041.042	0.000
29	39.8750	0.1800	1036.124	0.000
30	41.6250	0.2324	998.730	69.794

Cable 本数	1 (upper) - 4 右引	3 ジャッキ端 (N/mm2)	1270.000	DX(m)	Y(m)	L(m)	R(m)	ALPHA(°)
POINT	X(m)	Y(m)	DX(m)	L(m)	R(m)	ALPHA(°)		
1	41.7250	0.2394	6.2379	6.2531	0.0000	0.0000		
2	47.9629	0.6756	0.6976	0.6982	10.0000	4.0004		
3	48.6605	0.7000						

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

Cable 1 (upper) - 4
 本数 4 右引 ジャッキ端 (N/mm²) 1270.000

POINT	X(m)	Y(m)	DX(m)	L(m)	R(m)	ALPHA(°)
6	79.4750	0.1800	3.6280	3.6553	0.0000	0.0000

* L(m) = 17.7961

セトロス範囲 右端から 11.8620(m)

POINT	X(m)	Y(m)	SIGPH	SIGPV
45	61.8750	0.2499	1114.499	77.940
46	63.8750	0.3898	1123.544	78.573
47	65.8750	0.5296	1132.589	79.205
48	67.8750	0.6695	1139.264	79.672
49	69.8750	0.7000	1108.383	0.000
50	71.8750	0.7000	1098.892	0.000
51	73.8750	0.7000	1089.400	0.000
52	75.1250	0.6877	1063.755	-52.905
53	76.8750	0.4992	1022.004	-125.485
54	78.0750	0.3519	1015.952	-124.742
55	78.8750	0.2537	1011.918	-124.247

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

Cable 本数	1 (upper) - 4 右引	3	ジャッキ端 (N/mm ²) 1270.000			
POINT	X(m)	Y(m)	DX(m)	L(m)	R(m)	ALPHA(°)
4	49.0895	0.7000	0.4290	0.4290	0.0000	0.0000
5	49.7871	0.6756	6.7396	6.7560	0.0000	0.0000
6	56.5266	0.2044	0.6976	0.6981	-10.0000	4.0000
7	57.2242	0.1800	3.3018	3.3018	0.0000	0.0000
8	60.5260	0.1800	0.6971	0.6977	-10.0000	3.9975
9	61.2231	0.2043	0.5019	0.5031	0.0000	0.0000
10	61.7250	0.2394				

* L(m) = 20.0352

セトロス範囲 右端から 12.5965(m)

POINT	X(m)	Y(m)	SIGPH	SIGPV
31	41.8750	0.2499	1076.033	75.250
32	42.8750	0.3198	1080.399	75.556
33	44.8750	0.4597	1089.132	76.166
34	46.8750	0.5996	1097.865	76.777
35	48.8750	0.7000	1132.832	0.000
36	50.8750	0.5996	1101.793	-77.045
37	52.8750	0.4597	1092.379	-76.387
38	54.8750	0.3199	1082.964	-75.729
39	55.8750	0.2499	1078.256	-75.399
40	56.1250	0.2324	1077.079	-75.317
41	57.8750	0.1800	1045.960	0.000
42	58.8750	0.1800	1041.042	0.000
43	59.8750	0.1800	1036.124	0.000
44	61.6250	0.2324	998.730	69.794

Cable 本数	1 (upper) - 4 右引	4	ジャッキ端 (N/mm ²) 1270.000			
POINT	X(m)	Y(m)	DX(m)	L(m)	R(m)	ALPHA(°)
1	61.7250	0.2394	6.2379	6.2531	0.0000	0.0000
2	67.9629	0.6756	0.6976	0.6982	10.0000	4.0003
3	68.6605	0.7000	5.9677	5.9677	0.0000	0.0000
4	74.6283	0.7000	1.2187	1.2217	10.0000	6.9999
5	75.8470	0.6255				

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns ***
 鋼材自重 (kN/m/本)= 0.000

* Cable * SECTION NUM	1 (upper) YP (m)	合計	* SIGPH YP (m)	* SIGPH SIGPV (N/mm2)	鋼材種類= 1	WEB	鋼材自重 (kN/m/本)=
1	4	0.208	1046.006	128.432			0.000
2	4	0.306	1049.400	128.849			0.000
3	4	0.453	1054.491	129.474			0.000
4	4	0.530	1057.143	129.800			0.000
5	4	0.672	1082.924	81.091			0.000
6	4	0.700	1119.355	0.000			0.000
7	4	0.700	1128.345	0.000			0.000
8	4	0.669	1106.501	-77.375			0.000
9	4	0.530	1097.086	-76.716			0.000
10	4	0.390	1087.671	-76.058			0.000
11	4	0.250	1078.256	-75.399			0.000
12	4	0.232	1077.079	-75.317			0.000
13	4	0.180	1045.960	0.000			0.000
14	4	0.180	1041.042	0.000			0.000
15	4	0.180	1036.124	0.000			0.000
16	4	0.232	998.730	69.793			0.000
17	4	0.250	1076.033	75.250			0.000
18	4	0.320	1080.399	75.556			0.000
19	4	0.460	1089.132	76.166			0.000
20	4	0.600	1097.865	76.777			0.000
21	4	0.700	1132.832	0.000			0.000
22	4	0.600	1101.793	-77.045			0.000
23	4	0.460	1092.379	-76.387			0.000
24	4	0.320	1082.964	-75.729			0.000
25	4	0.250	1078.256	-75.399			0.000
26	4	0.232	1077.079	-75.317			0.000
27	4	0.180	1045.960	0.000			0.000
28	4	0.180	1041.042	0.000			0.000
29	4	0.180	1036.124	0.000			0.000
30	4	0.232	998.730	69.794			0.000
31	4	0.250	1076.033	75.250			0.000
32	4	0.320	1080.399	75.556			0.000
33	4	0.460	1089.132	76.166			0.000
34	4	0.600	1097.865	76.777			0.000
35	4	0.700	1132.832	0.000			0.000
36	4	0.600	1101.793	-77.045			0.000
37	4	0.460	1092.379	-76.387			0.000
38	4	0.320	1082.964	-75.729			0.000
39	4	0.250	1078.256	-75.399			0.000
40	4	0.232	1077.079	-75.317			0.000
41	4	0.180	1045.960	0.000			0.000
42	4	0.180	1041.042	0.000			0.000
43	4	0.180	1036.124	0.000			0.000
44	4	0.232	998.730	69.794			0.000
45	4	0.250	1114.499	77.940			0.000
46	4	0.390	1123.544	78.573			0.000
47	4	0.530	1132.589	79.205			0.000
48	4	0.669	1139.264	79.672			0.000
49	4	0.700	1108.383	0.000			0.000
50	4	0.700	1098.892	0.000			0.000

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns ***

0.000

鋼材自重 (kN/m/本)=

* Cable * SECTION NUM	1 (upper) YP (m)	合計 *	鋼材種類= 1 SIGPV (N/mm2)	WEB	鋼材自重 (kN/m/本)=
51	4	0.700	1089.400	0.000	
52	4	0.688	1063.755	-52.905	
53	4	0.499	1022.004	-125.485	
54	4	0.352	1015.952	-124.742	
55	4	0.254	1011.918	-124.247	

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

Cable 本数	2 (lower) - 右引	1 ジャッキ端 (N/mm2)	1270.000			
POINT	X(m)	Y(m)	DX(m)	L(m)	R(m)	ALPHA(°)
1	-0.2250	0.9000	12.1191	12.1191	0.0000	0.0000
2	11.8941	0.9000	0.7312	0.7330	6.0000	7.0000
3	12.6253	0.8553	5.1354	5.1740	0.0000	0.0000
4	17.7608	0.2247	0.7312	0.7330	-6.0000	7.0000
5	18.4920	0.1800	0.6608	0.6608	0.0000	0.0000
6	19.1528	0.1800	0.9386	0.9425	-6.0000	8.9998
7	20.0914	0.2539	1.6336	1.6540	0.0000	0.0000
8	21.7250	0.5126				

* L(m) = 22.0164

セトロス範囲 右端から 9.6797(m)

POINT	X(m)	Y(m)	SIGPH	SIGPV
1	0.0000	0.9000	1031.945	0.000
2	0.8000	0.9000	1035.326	0.000
3	2.0000	0.9000	1040.396	0.000
4	2.6250	0.9000	1043.037	0.000
5	3.8750	0.9000	1048.319	0.000
6	5.8750	0.9000	1056.771	0.000
7	7.8750	0.9000	1065.222	0.000
8	9.8750	0.9000	1073.673	0.000
9	11.8750	0.9000	1082.124	0.000
10	13.8750	0.7018	1043.017	-128.067
11	15.8750	0.4563	1033.916	-126.950
12	16.1250	0.4256	1032.779	-126.810
13	17.8750	0.2118	1020.346	-105.481
14	18.8750	0.1800	984.788	0.000
15	19.8750	0.2236	928.489	112.578
16	21.6250	0.4968	901.755	142.821

Cable 本数	2 (lower) - 右引	2 ジャッキ端 (N/mm2)	1270.000			
POINT	X(m)	Y(m)	DX(m)	L(m)	R(m)	ALPHA(°)
1	21.7250	0.5126	1.9795	2.0042	0.0000	0.0000
2	23.7045	0.8261	0.9386	0.9425	6.0000	9.0002
3	24.6431	0.9000				

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

Cable 本数	2 (lower) - 右引	2	ジャッキ端 (N/mm2)	1270.000		
POINT	X(m)	Y(m)	DX(m)	L(m)	R(m)	ALPHA(°)
4	31.8941	0.9000	7.2510	7.2510	0.0000	0.0000
5	32.6253	0.8553	0.7312	0.7330	6.0000	7.0000
6	37.7608	0.2247	5.1354	5.1740	0.0000	0.0000
7	38.4920	0.1800	0.7312	0.7330	-6.0000	7.0000
8	39.1528	0.1800	0.6608	0.6608	0.0000	0.0000
9	40.0914	0.2539	0.9386	0.9425	-6.0000	8.9398
10	41.7250	0.5126	1.6336	1.6540	0.0000	0.0000

* L(m) = 20.0950

セトロス範囲 右端から 9.6797(m)

POINT	X(m)	Y(m)	SIGPH	SIGPV
17	21.8750	0.5364	979.519	155.144
18	22.8750	0.6947	983.499	155.774
19	24.8750	0.9000	1052.257	0.000
20	26.8750	0.9000	1060.790	0.000
21	28.8750	0.9000	1069.323	0.000
22	30.8750	0.9000	1077.857	0.000
23	32.8750	0.8246	1047.568	-128.626
24	34.8750	0.5791	1038.467	-127.508
25	35.8750	0.4563	1033.916	-126.950
26	36.1250	0.4256	1032.779	-126.810
27	37.8750	0.2118	1020.346	-105.481
28	38.8750	0.1800	984.788	0.000
29	39.8750	0.2236	928.489	112.577
30	41.6250	0.4968	901.755	142.821

Cable 2 (lower) - 3
本数 4 右引 ジャッキ端 (N/mm2) 1270.000

POINT	X(m)	Y(m)	DX(m)	L(m)	R(m)	ALPHA(°)
1	41.7250	0.5126	1.9795	2.0042	0.0000	0.0000
2	43.7045	0.8261	0.9386	0.9425	6.0000	9.0001
3	44.6431	0.9000	7.2510	7.2510	0.0000	0.0000
4	51.8941	0.9000	0.7312	0.7330	6.0000	7.0000
5	52.6253	0.8553				

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

Cable 2 (lower) - 3 ジャッキ端 (N/mm2) 1270.000
 本数 4 右引

POINT	X(m)	Y(m)	DX(m)	L(m)	R(m)	ALPHA(°)
6	57.7608	0.2247	5.1354	5.1740	0.0000	0.0000
7	58.4920	0.1800	0.7312	0.7330	-6.0000	7.0000
8	59.1528	0.1800	0.6608	0.6608	0.0000	0.0000
9	60.0914	0.2539	0.9386	0.9425	-6.0000	8.9998
10	61.7250	0.5126	1.6336	1.6540	0.0000	0.0000

* L(m) = 20.0950

セットロス範囲 右端から 9.6797(m)

POINT	X(m)	Y(m)	SIGPH	SIGPV
31	41.8750	0.5364	979.519	155.143
32	42.8750	0.6947	983.500	155.774
33	44.8750	0.9000	1052.257	0.000
34	46.8750	0.9000	1060.790	0.000
35	48.8750	0.9000	1069.323	0.000
36	50.8750	0.9000	1077.857	0.000
37	52.8750	0.8246	1047.568	-128.626
38	54.8750	0.5791	1038.467	-127.508
39	55.8750	0.4563	1033.916	-126.950
40	56.1250	0.4256	1032.779	-126.810
41	57.8750	0.2118	1020.346	-105.481
42	58.8750	0.1800	984.788	0.000
43	59.8750	0.2236	928.489	112.577
44	61.6250	0.4968	901.755	142.821

Cable 2 (lower) - 4 ジャッキ端 (N/mm2) 1270.000
 本数 4 右引

POINT	X(m)	Y(m)	DX(m)	L(m)	R(m)	ALPHA(°)
1	61.7250	0.5126	1.9795	2.0042	0.0000	0.0000
2	63.7045	0.8261	0.9386	0.9425	6.0000	9.0002
3	64.6431	0.9000	14.8319	14.8319	0.0000	0.0000
4	79.4750	0.9000				

* L(m) = 17.7785

セットロス範囲 右端から 15.1038(m)

POINT	X(m)	Y(m)	SIGPH	SIGPV
45	61.8750	0.5364	1115.161	176.628
46	63.8750	0.8506	1138.796	146.998

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

Cable 本数	2 (lower) - 4 右引	4 ジャッキ端 (N/mm ²)	1270.000
POINT	X(m)	Y(m)	SIGPV
47	65.8750	0.9000	1156.365
48	67.8750	0.9000	1146.501
49	69.8750	0.9000	1136.636
50	71.8750	0.9000	1126.772
51	73.8750	0.9000	1116.907
52	75.8750	0.9000	1107.042
53	76.8750	0.9000	1097.177
54	78.0750	0.9000	1087.312
55	78.8750	0.9000	1077.447

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

0.000

鋼材自重 (kN/m/本)=

WEB

1

鋼材種類=

SIGPV (N/mm²)

合計 *

SIGPH

2 (lower)

YP (m)

SECTION NUM

1	4	0.900	1031.945	0.000	0.000	0.000	0.000
2	4	0.900	1035.326	0.000	0.000	0.000	0.000
3	4	0.900	1040.396	0.000	0.000	0.000	0.000
4	4	0.900	1043.037	0.000	0.000	0.000	0.000
5	4	0.900	1048.319	0.000	0.000	0.000	0.000
6	4	0.900	1056.771	0.000	0.000	0.000	0.000
7	4	0.900	1065.222	0.000	0.000	0.000	0.000
8	4	0.900	1073.673	0.000	0.000	0.000	0.000
9	4	0.900	1082.124	0.000	0.000	0.000	0.000
10	4	0.702	1043.017	-128.067	0.000	0.000	0.000
11	4	0.456	1033.916	-126.950	0.000	0.000	0.000
12	4	0.426	1032.779	-126.810	0.000	0.000	0.000
13	4	0.212	1020.346	-105.481	0.000	0.000	0.000
14	4	0.180	984.788	0.000	0.000	0.000	0.000
15	4	0.224	928.489	112.578	0.000	0.000	0.000
16	4	0.497	901.755	142.821	0.000	0.000	0.000
17	4	0.536	979.519	155.144	0.000	0.000	0.000
18	4	0.695	983.499	155.774	0.000	0.000	0.000
19	4	0.900	1052.257	0.000	0.000	0.000	0.000
20	4	0.900	1060.790	0.000	0.000	0.000	0.000
21	4	0.900	1069.323	0.000	0.000	0.000	0.000
22	4	0.900	1077.857	0.000	0.000	0.000	0.000
23	4	0.825	1047.568	-128.626	0.000	0.000	0.000
24	4	0.579	1038.467	-127.508	0.000	0.000	0.000
25	4	0.456	1033.916	-126.950	0.000	0.000	0.000
26	4	0.426	1032.779	-126.810	0.000	0.000	0.000
27	4	0.212	1020.346	-105.481	0.000	0.000	0.000
28	4	0.180	984.788	0.000	0.000	0.000	0.000
29	4	0.224	928.489	112.577	0.000	0.000	0.000
30	4	0.497	901.755	142.821	0.000	0.000	0.000
31	4	0.536	979.519	155.143	0.000	0.000	0.000
32	4	0.695	983.500	155.774	0.000	0.000	0.000
33	4	0.900	1052.257	0.000	0.000	0.000	0.000
34	4	0.900	1060.790	0.000	0.000	0.000	0.000
35	4	0.900	1069.323	0.000	0.000	0.000	0.000
36	4	0.900	1077.857	0.000	0.000	0.000	0.000
37	4	0.825	1047.568	-128.626	0.000	0.000	0.000
38	4	0.579	1038.467	-127.508	0.000	0.000	0.000
39	4	0.456	1033.916	-126.950	0.000	0.000	0.000
40	4	0.426	1032.779	-126.810	0.000	0.000	0.000
41	4	0.212	1020.346	-105.481	0.000	0.000	0.000
42	4	0.180	984.788	0.000	0.000	0.000	0.000
43	4	0.224	928.489	112.577	0.000	0.000	0.000
44	4	0.497	901.755	142.821	0.000	0.000	0.000
45	4	0.536	1115.161	176.628	0.000	0.000	0.000
46	4	0.851	1138.796	146.998	0.000	0.000	0.000
47	4	0.900	1156.365	0.000	0.000	0.000	0.000
48	4	0.900	1146.501	0.000	0.000	0.000	0.000
49	4	0.900	1136.636	0.000	0.000	0.000	0.000
50	4	0.900	1126.772	0.000	0.000	0.000	0.000

***BALARAJA Flyover 4 Span Continuous F6-A2 B=13.0m 2columns ***

* Cable * SECTION NUM	2 (Lower) YP (m)	合計 * SIGPH (N/mm ²)	鋼材種類= 1 SIGPV (N/mm ²)	WEB	鋼材自重 (kN/m/本)=	0.000
51	4	0.900	1116.907	0.000		
52	4	0.900	1110.742	0.000		
53	4	0.900	1102.110	0.000		
54	4	0.900	1096.192	0.000		
55	4	0.900	1092.246	0.000		

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

Cable 本数	3 (upper) 4 同引	ジャッキ端 (N/mm ²)		1270.000				
POINT	X(m)	Y(m)	DX(m)	L(m)	R(m)	ALPHA(°)		
1	-0.2250	0.1800	3.6280	3.6553	0.0000	0.0000		
2	3.4030	0.6255	1.2187	1.2217	10.0000	6.9999		
3	4.6217	0.7000	4.4678	4.4678	0.0000	0.0000		
4	9.0895	0.7000	0.6976	0.6981	10.0000	4.0000		
5	9.7871	0.6756	6.7396	6.7560	0.0000	0.0000		
6	16.5266	0.2044	0.6976	0.6981	-10.0000	4.0000		
7	17.2242	0.1800	3.3016	3.3016	0.0000	0.0000		
8	20.5258	0.1800	0.6976	0.6981	-10.0000	4.0000		
9	21.2234	0.2044	6.7396	6.7560	0.0000	0.0000		
10	27.9629	0.6756	0.6976	0.6981	10.0000	4.0000		
11	28.6605	0.7000	0.4290	0.4290	0.0000	0.0000		
12	29.0895	0.7000	0.6976	0.6981	10.0000	4.0000		
13	29.7871	0.6756	6.7396	6.7560	0.0000	0.0000		
14	36.5266	0.2044	0.6976	0.6981	-10.0000	4.0000		
15	37.2242	0.1800	3.3016	3.3016	0.0000	0.0000		
16	40.5258	0.1800	0.6976	0.6981	-10.0000	4.0000		
17	41.2234	0.2044	6.7396	6.7560	0.0000	0.0000		
18	47.9629	0.6756	0.6976	0.6981	10.0000	4.0000		
19	48.6605	0.7000	0.4290	0.4290	0.0000	0.0000		
20	49.0895	0.7000	0.6976	0.6981	10.0000	4.0000		
21	49.7871	0.6756	6.7396	6.7560	0.0000	0.0000		
22	56.5266	0.2044	0.6976	0.6981	-10.0000	4.0000		
23	57.2242	0.1800						

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

Cable 本数	3 (upper) 4 両引	1	ジャッキ端 (N/mm2)	1270.000	DX(m)	L(m)	R(m)	ALPHA(°)
POINT	X(m)	Y(m)			3.3016	3.3016	0.0000	0.0000
24	60.5258	0.1800	0.6976	0.6981	-10.0000	4.0000		
25	61.2234	0.2044	6.7396	6.7560	0.0000	0.0000		
26	67.9629	0.6756	0.6976	0.6981	10.0000	4.0000		
27	68.6605	0.7000	5.9678	5.9678	0.0000	0.0000		
28	74.6283	0.7000	1.2187	1.2217	10.0000	6.9999		
29	75.8470	0.6255	3.6280	3.6553	0.0000	0.0000		
30	79.4750	0.1800						

* L(m) = 79.8661

セトロス範囲 左端から 12.5295(m) 右端から 11.8627(m)

POINT	X(m)	Y(m)	SIGPH	SIGPV
1	0.0000	0.2076	1004.087	123.285
2	0.8000	0.3059	1008.121	123.781
3	2.0000	0.4532	1014.173	124.524
4	2.6250	0.5299	1017.325	124.911
5	3.8750	0.6721	1045.711	78.304
6	5.8750	0.7000	1085.807	0.000
7	7.8750	0.7000	1095.326	0.000
8	9.8750	0.6695	1126.422	-78.768
9	11.8750	0.5296	1135.512	-79.403
10	13.8750	0.3898	1130.326	-79.041
11	15.8750	0.2499	1121.236	-78.405
12	16.1250	0.2324	1120.100	-78.325
13	17.8750	0.1800	1091.878	0.000
14	18.8750	0.1800	1087.528	0.000
15	19.8750	0.1800	1083.178	0.000
16	21.6250	0.2324	1050.763	73.477
17	21.8750	0.2499	1049.722	73.404
18	22.8750	0.3199	1045.559	73.113
19	24.8750	0.4597	1037.232	72.531
20	26.8750	0.5996	1028.905	71.948
21	28.8750	0.7000	1001.929	0.000
22	30.8750	0.5996	971.009	-67.900
23	32.8750	0.4597	963.293	-67.360
24	34.8750	0.3199	955.577	-66.821
25	35.8750	0.2499	951.719	-66.551
26	36.1250	0.2324	950.754	-66.484
27	37.8750	0.1800	926.800	0.000
28	38.8750	0.1800	923.107	0.000

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

Cable 本数	3 (upper) 4	1 同引	ジャッキ端 (N/mm2)	1270.000
POINT	X(m)	Y(m)	SIGPH	SIGPV
29	39.8750	0.1800	921.256	0.000
30	41.6250	0.2324	945.067	66.086
31	41.8750	0.2499	946.026	66.153
32	42.8750	0.3199	949.861	66.421
33	44.8750	0.4597	957.531	66.957
34	46.8750	0.5996	965.201	67.494
35	48.8750	0.7000	995.936	0.000
36	50.8750	0.5996	1022.750	-71.518
37	52.8750	0.4597	1031.027	-72.097
38	54.8750	0.3199	1039.304	-72.676
39	55.8750	0.2499	1043.443	-72.965
40	56.1250	0.2324	1044.478	-73.037
41	57.8750	0.1800	1076.699	0.000
42	58.8750	0.1800	1081.023	0.000
43	59.8750	0.1800	1085.347	0.000
44	61.6250	0.2324	1113.399	77.857
45	61.8750	0.2499	1114.529	77.936
46	63.8750	0.3898	1123.565	78.568
47	65.8750	0.5296	1132.601	79.200
48	67.8750	0.6695	1139.262	79.665
49	69.8750	0.7000	1108.383	0.000
50	71.8750	0.7000	1098.892	0.000
51	73.8750	0.7000	1089.401	0.000
52	75.1250	0.6877	1063.755	-52.905
53	76.8750	0.4992	1022.004	-125.485
54	78.0750	0.3519	1015.952	-124.742
55	78.8750	0.2537	1011.918	-124.247

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

0.000

鋼材自重 (kN/m/本)=

WEB

1

鋼材種類=

合計 *

3 (upper)

YP(m)

SECTION NUM

1	4	1004.087	123.285	0.208	971.009	-67.900	0.000
2	4	1008.121	123.781	0.306	963.293	-67.360	0.000
3	4	1014.173	124.524	0.453	955.577	-66.821	0.000
4	4	1017.325	124.911	0.530	951.719	-66.551	0.000
5	4	1045.711	78.304	0.672	950.754	-66.484	0.000
6	4	1085.807	0.000	0.700	926.800	0.000	0.000
7	4	1095.326	0.000	0.700	923.107	0.000	0.000
8	4	1126.422	-78.768	0.669	921.256	0.000	0.000
9	4	1135.512	-79.403	0.530	945.067	66.086	0.000
10	4	1130.326	-78.041	0.390	946.026	66.153	0.000
11	4	1121.236	-78.405	0.250	949.861	66.421	0.000
12	4	1120.100	-78.325	0.232	957.531	66.957	0.000
13	4	1091.878	0.000	0.180	965.201	67.494	0.000
14	4	1087.528	0.000	0.180	995.936	0.000	0.000
15	4	1083.178	0.000	0.180	1022.750	-71.518	0.000
16	4	1050.763	73.477	0.232	1031.027	-72.097	0.000
17	4	1049.722	73.404	0.250	1039.304	-72.676	0.000
18	4	1045.559	73.113	0.320	1043.443	-72.965	0.000
19	4	1037.232	72.531	0.460	1044.478	-73.037	0.000
20	4	1028.905	71.948	0.600	1076.699	0.000	0.000
21	4	1001.929	0.000	0.700	1081.023	0.000	0.000
22	4	971.009	-67.900	0.600	1085.347	0.000	0.000
23	4	963.293	-67.360	0.460	1113.399	77.857	0.000
24	4	955.577	-66.821	0.320	1114.529	77.936	0.000
25	4	951.719	-66.551	0.250	1123.565	78.568	0.000
26	4	950.754	-66.484	0.232	1132.601	79.200	0.000
27	4	926.800	0.000	0.180	1139.262	79.665	0.000
28	4	923.107	0.000	0.180	1108.383	0.000	0.000
29	4	921.256	0.000	0.180	1098.892	0.000	0.000
30	4	945.067	66.086	0.232			
31	4	946.026	66.153	0.250			
32	4	949.861	66.421	0.320			
33	4	957.531	66.957	0.460			
34	4	965.201	67.494	0.600			
35	4	995.936	0.000	0.700			
36	4	1022.750	-71.518	0.600			
37	4	1031.027	-72.097	0.460			
38	4	1039.304	-72.676	0.320			
39	4	1043.443	-72.965	0.250			
40	4	1044.478	-73.037	0.232			
41	4	1076.699	0.000	0.180			
42	4	1081.023	0.000	0.180			
43	4	1085.347	0.000	0.180			
44	4	1113.399	77.857	0.232			
45	4	1114.529	77.936	0.250			
46	4	1123.565	78.568	0.390			
47	4	1132.601	79.200	0.530			
48	4	1139.262	79.665	0.669			
49	4	1108.383	0.000	0.700			
50	4	1098.892	0.000	0.700			

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns ***

鋼材自重 (kN/m/本) = 0.000

* Cable * SECTION NUM	3 (upper) YP (m)	合計 *	鋼材種類 = SIGPY (N/mm2)	WEB	鋼材自重 (kN/m/本) =
51	4	1089.401	0.000		
52	4	1063.755	-52.905		
53	4	1022.004	-125.485		
54	4	1015.952	-124.742		
55	4	1011.918	-124.247		

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

Cable 本数	4 (lower) - 両引	1 ジャッキ端 (N/mm ²)	1270.000
POINT	X (m)	Y (m)	DX (m) L (m) R (m) ALPHA (°)
24	63.7045	0.8261	3.6131 3.6581 0.0000 0.0000
25	64.6431	0.9000	0.9386 0.9425 6.0000 9.0000
26	79.4750	0.9000	14.8319 14.8319 0.0000 0.0000

* L(m) = 79.9850

セトロス範囲 左端から 12.6667 (m) 右端から 15.1038 (m)

POINT	X (m)	Y (m)	SIGPH	SIGPV
1	0.0000	0.9000	1080.589	0.000
2	0.8000	0.9000	1084.556	0.000
3	2.0000	0.9000	1090.507	0.000
4	2.6250	0.9000	1093.606	0.000
5	3.8750	0.9000	1099.805	0.000
6	5.8750	0.9000	1109.723	0.000
7	7.8750	0.9000	1119.640	0.000
8	9.8750	0.9000	1129.558	0.000
9	11.8750	0.9000	1139.475	0.000
10	13.8750	0.7018	1148.524	-141.022
11	15.8750	0.4563	1139.316	-139.891
12	16.1250	0.4256	1138.165	-139.750
13	17.8750	0.2118	1126.216	-116.425
14	18.8750	0.1800	1093.239	0.000
15	19.8750	0.2236	1042.693	126.426
16	21.6250	0.4968	1018.740	161.352
17	21.8750	0.5364	1017.709	161.189
18	22.8750	0.6947	1013.588	160.537
19	24.8750	0.9000	971.123	0.000
20	26.8750	0.9000	963.459	0.000
21	28.8750	0.9000	955.794	0.000
22	30.8750	0.9000	948.130	0.000
23	32.8750	0.8246	899.916	-110.496
24	34.8750	0.5791	892.730	-109.614
25	35.8750	0.4563	889.137	-109.173
26	36.1250	0.4256	888.239	-109.063
27	37.8750	0.2118	878.913	-90.860
28	38.8750	0.1800	853.178	0.000
29	39.8750	0.2236	858.497	104.093
30	41.6250	0.4968	869.428	137.704
31	41.8750	0.5364	870.309	137.843
32	42.8750	0.6947	873.834	138.402
33	44.8750	0.9000	934.913	0.000
34	46.8750	0.9000	942.494	0.000
35	48.8750	0.9000	950.076	0.000
36	50.8750	0.9000	957.658	0.000

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

Cable 4 (lower) - 1 ジャッキ端 (N/mm2) 1270.000
本数 2 同引

POINT	X(m)	Y(m)	SIGPH	SIGPV
37	52.8750	0.8246	993.899	-122.036
38	54.8750	0.5791	1001.985	-123.029
39	55.8750	0.4563	1006.028	-123.525
40	56.1250	0.4256	1007.039	-123.649
41	57.8750	0.2118	1022.259	-105.679
42	58.8750	0.1800	1064.131	0.000
43	59.8750	0.2236	1100.054	133.381
44	61.6250	0.4968	1114.061	176.450
45	61.8750	0.5364	1115.190	176.629
46	63.8750	0.8506	1138.797	146.997
47	65.8750	0.9000	1156.365	0.000
48	67.8750	0.9000	1146.500	0.000
49	69.8750	0.9000	1136.636	0.000
50	71.8750	0.9000	1126.771	0.000
51	73.8750	0.9000	1116.907	0.000
52	75.1250	0.9000	1110.742	0.000
53	76.8750	0.9000	1102.110	0.000
54	78.0750	0.9000	1096.192	0.000
55	78.8750	0.9000	1092.246	0.000

Cable 4 (lower) - 2 ジャッキ端 (N/mm2) 1270.000
本数 2 同引

POINT	X(m)	Y(m)	DX(m)	L(m)	R(m)	ALPHA(°)
1	-0.2250	0.9000	79.7000	79.7000	0.0000	0.0000
2	79.4750	0.9000	79.7000	79.7000	0.0000	0.0000

* L(m) = 79.7000

セトロス範囲 左端から 19.1789(m) 右端から 19.1789(m)

POINT	X(m)	Y(m)	SIGPH	SIGPV
1	0.0000	0.9000	1104.128	0.000
2	0.8000	0.9000	1107.608	0.000
3	2.0000	0.9000	1112.828	0.000
4	2.6250	0.9000	1115.547	0.000
5	3.8750	0.9000	1120.984	0.000
6	5.8750	0.9000	1129.684	0.000
7	7.8750	0.9000	1138.383	0.000
8	9.8750	0.9000	1147.083	0.000
9	11.8750	0.9000	1155.783	0.000
10	13.8750	0.9000	1164.482	0.000
11	15.8750	0.9000	1173.182	0.000
12	16.1250	0.9000	1174.270	0.000
13	17.8750	0.9000	1181.882	0.000
14	18.8750	0.9000	1186.232	0.000
15	19.8750	0.9000	1182.568	0.000

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

Cable 本数	4 同引	2 ジャッキ端 (N/mm ²)	1270.000
POINT	X(m)	Y(m)	SIGPV
16	21.6250	0.9000	1174.956
17	21.8750	0.9000	1173.868
18	22.8750	0.9000	1169.518
19	24.8750	0.9000	1160.819
20	26.8750	0.9000	1152.119
21	28.8750	0.9000	1143.419
22	30.8750	0.9000	1134.719
23	32.8750	0.9000	1126.020
24	34.8750	0.9000	1117.320
25	35.8750	0.9000	1112.970
26	36.1250	0.9000	1111.883
27	37.8750	0.9000	1104.271
28	38.8750	0.9000	1099.921
29	39.8750	0.9000	1097.746
30	41.6250	0.9000	1105.358
31	41.8750	0.9000	1106.445
32	42.8750	0.9000	1110.795
33	44.8750	0.9000	1119.495
34	46.8750	0.9000	1128.195
35	48.8750	0.9000	1136.894
36	50.8750	0.9000	1145.594
37	52.8750	0.9000	1154.294
38	54.8750	0.9000	1162.994
39	55.8750	0.9000	1167.343
40	56.1250	0.9000	1168.431
41	57.8750	0.9000	1176.043
42	58.8750	0.9000	1180.393
43	59.8750	0.9000	1184.743
44	61.6250	0.9000	1180.794
45	61.8750	0.9000	1179.707
46	63.8750	0.9000	1171.007
47	65.8750	0.9000	1162.307
48	67.8750	0.9000	1153.608
49	69.8750	0.9000	1144.908
50	71.8750	0.9000	1136.208
51	73.8750	0.9000	1127.509
52	75.1250	0.9000	1122.071
53	76.8750	0.9000	1114.459
54	78.0750	0.9000	1109.239
55	78.8750	0.9000	1105.759

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

0.000

鋼材自重 (kN/m/本)=

WEB

鋼材種類= 1

合計 * SIGPH

4 (lower) YP (m)

* Cable * SECTION NUM

SECTION NUM	4 (lower) YP (m)	合計 * SIGPH	鋼材種類= 1	WEB	鋼材自重 (kN/m/本)=
1	0.900	1092.359	SIGPV (N/mm ²)		
2	0.900	1096.082			
3	0.900	1101.667			
4	0.900	1104.576			
5	0.900	1110.394			
6	0.900	1119.703			
7	0.900	1129.012			
8	0.900	1138.320			
9	0.900	1147.629			
10	0.802	1156.503			
11	0.681	1156.249			
12	0.666	1156.217			
13	0.554	1154.049			
14	0.555	1139.735			
15	0.583	1112.631			
16	0.713	1096.848			
17	0.731	1095.789			
18	0.805	1091.553			
19	0.900	1065.971			
20	0.900	1057.789			
21	0.900	1049.607			
22	0.900	1041.425			
23	0.867	1012.968			
24	0.757	1005.025			
25	0.703	1001.054			
26	0.689	1000.061			
27	0.595	991.592			
28	0.585	976.549			
29	0.603	976.121			
30	0.722	987.393			
31	0.740	988.377			
32	0.810	992.315			
33	0.900	1027.204			
34	0.900	1035.345			
35	0.900	1043.485			
36	0.900	1051.626			
37	0.865	1074.096			
38	0.751	1082.489			
39	0.695	1086.686			
40	0.680	1087.735			
41	0.580	1099.151			
42	0.559	1122.262			
43	0.574	1142.399			
44	0.704	1147.427			
45	0.723	1147.448			
46	0.876	1154.902			
47	0.900	1159.336			
48	0.900	1150.054			
49	0.900	1140.772			
50	0.900	1131.490			

***BALARAJA Flyover 4 Span Continuous F6-A2 B=13.0m 2columns ***

0.000

* Cable * SECTION NUM	4 (Lower) YP (m)	合計 * SIGPH	鋼材種類= 1 SIGPV (N/mm ²)	WEB	鋼材自重 (kN/m/本)=
51	0.900	1122.208	0.000		
52	0.900	1116.406	0.000		
53	0.900	1108.285	0.000		
54	0.900	1102.715	0.000		
55	0.900	1099.002	0.000		

2.5 UNDER CONSTRUCTION STAGE

2.5.1 Displacement

* 節点 1 * 架設中変位 TOTAL *

Stage	D+PS		D+PS+T(MAX)		D+PS+T(MIN)		D+PS+EQ(MAX)		D+PS+EQ(MIN)	
	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)
1	0.00	0.21	0.0000	0.00	0.00	0.21	0.0000	2.28	0.21	-0.1694
2	-3.18	1.31	0.1958	-1.24	-3.18	1.31	-0.3576	20.79	1.41	0.6077
3	-3.30	1.26	0.0115	-3.30	-3.54	1.26	-0.2930	16.78	1.28	0.1312
4	-3.57	1.27	0.0616	-3.57	-4.24	1.27	0.2800	15.86	1.31	0.2182
5	-3.19	1.27	0.0496	-3.19	-4.37	1.27	-0.2780	10.53	1.29	0.1491
6	1.51	1.43	-1.3692	1.51	0.34	1.43	-1.6968	15.34	1.45	-1.2698
MAX Stage	1.51	1.43	0.1958	1.51	0.34	1.43	0.0000	20.79	1.45	0.6077
MIN Stage	-3.57	0.21	-1.3692	-3.57	-4.37	0.21	-1.6968	2.28	0.21	-1.2698

* 節点 14 * 架設中変位 TOTAL *

Stage	D+PS		D+PS+T(MAX)		D+PS+T(MIN)		D+PS+EQ(MAX)		D+PS+EQ(MIN)	
	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)
1	0.00	0.21	0.0000	0.00	0.00	0.21	0.0000	2.27	0.21	-0.1694
2	-4.10	1.81	-0.7558	-1.61	-4.10	1.80	-0.7558	19.83	1.90	-0.4066
3	-4.23	2.67	-0.3159	-3.91	-4.23	2.54	-0.3159	15.82	2.80	-0.1309
4	-4.50	2.59	-0.4117	-4.50	-4.61	2.53	-0.4117	14.90	2.65	-0.1540
5	-4.13	2.60	-0.3887	-4.13	-4.74	2.53	-0.3887	9.67	2.66	-0.2282
6	-0.42	2.37	-0.1000	-0.42	-1.03	2.29	-0.1000	13.38	2.43	0.0605
MAX Stage	0.00	2.67	0.0000	0.00	0.00	2.54	0.0000	19.83	2.80	0.1694
MIN Stage	-4.50	0.21	-0.7558	-4.50	-4.74	0.21	-0.7558	2.27	0.21	-0.2282

* 節点 28 * 架設中変位 TOTAL *

Stage	D+PS		D+PS+T(MAX)		D+PS+T(MIN)		D+PS+EQ(MAX)		D+PS+EQ(MIN)	
	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)
1	0.00	0.20	0.0000	0.00	0.00	0.20	0.0000	2.04	0.20	-0.1515
2	-0.95	1.75	-0.6354	-0.07	-0.95	1.75	-0.6354	19.07	1.91	-0.2402
3	-1.24	2.65	-0.1985	-0.78	-1.24	2.60	-0.2757	18.15	2.69	-0.1139
4	-0.86	2.57	-0.2677	-0.86	-0.90	2.57	-0.2736	12.91	2.62	-0.1304
5	1.95	2.68	-0.2924	1.95	1.91	2.68	-0.2983	15.72	2.72	-0.1551
6	1.95	2.68	0.0000	1.95	1.91	2.68	0.0000	19.07	2.72	0.1515
MAX Stage	1.95	2.68	0.0000	1.95	1.91	2.68	0.0000	19.07	2.72	0.1515
MIN Stage	-1.24	0.20	-0.6354	-0.86	-0.90	0.20	-0.6354	2.04	0.20	-0.2402

* 節点 42 * 架設中変位 TOTAL *

Stage	D+PS		D+PS+T(MAX)		D+PS+T(MIN)		D+PS+EQ(MAX)		D+PS+EQ(MIN)	
	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)
1	0.00	0.20	0.00	0.20	0.00	0.00	2.04	0.20	-2.04	0.20
2	0.00	0.20	0.00	0.20	0.00	0.00	2.04	0.20	-2.04	0.20
3	0.00	0.20	0.00	0.20	0.00	0.00	2.04	0.20	-2.04	0.20
4	-1.11	1.76	-0.6551	1.81	1.76	-0.6551	18.25	1.90	-20.47	1.63
5	-0.74	2.67	-0.2660	2.67	2.62	-0.3069	12.99	2.80	-14.47	2.55
6	1.18	2.60	-0.3686	1.71	2.55	-0.4095	14.92	2.73	-12.55	2.47
MAX Stage	1.18	2.67	0.0000	1.71	2.62	0.0000	18.25	2.80	-2.04	2.55
MIN Stage	-1.11	0.20	-0.6551	-0.21	0.20	-0.6551	2.04	0.20	-20.47	0.20

* 節点 55 * 架設中変位 TOTAL *

Stage	D+PS		D+PS+T(MAX)		D+PS+T(MIN)		D+PS+EQ(MAX)		D+PS+EQ(MIN)	
	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)
1	0.00	0.15	0.0000	0.00	0.15	0.0000	1.03	0.15	-1.03	0.15
2	0.00	0.15	0.0000	0.00	0.15	0.0000	1.03	0.15	-1.03	0.15
3	0.00	0.15	0.0000	0.00	0.15	0.0000	1.03	0.15	-1.03	0.15
4	0.00	0.15	0.0000	0.00	0.15	0.0000	1.03	0.15	-1.03	0.15
5	-0.50	0.78	-0.1477	0.59	0.78	-0.1477	13.16	0.86	-14.17	0.70
6	0.41	0.80	0.5446	1.50	0.82	0.7469	14.08	0.88	-13.25	0.72
MAX Stage	0.41	0.80	0.5446	1.50	0.82	0.7469	14.08	0.88	-13.25	0.72
MIN Stage	-0.50	0.15	-0.1477	0.00	0.15	-0.1477	1.03	0.15	-14.17	0.15

* 節点 56 * 架設中変位 TOTAL *

Stage	D+PS		D+PS+T(MAX)		D+PS+T(MIN)		D+PS+EQ(MAX)		D+PS+EQ(MIN)	
	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)
1	0.00	0.21	0.0000	0.00	0.21	0.0000	2.14	0.21	-2.14	0.21
2	0.00	0.21	0.0000	0.00	0.21	0.0000	2.14	0.21	-2.14	0.21
3	0.00	0.21	0.0000	0.00	0.21	0.0000	2.14	0.21	-2.14	0.21
4	0.00	0.21	0.0000	0.00	0.21	0.0000	2.14	0.21	-2.14	0.21
5	0.00	0.21	0.0000	0.00	0.21	0.0000	2.14	0.21	-2.14	0.21
6	0.00	0.21	0.0000	0.00	0.21	0.0000	2.14	0.21	-2.14	0.21
MAX Stage	0.00	0.21	0.0000	0.00	0.21	0.0000	2.14	0.21	-2.14	0.21
MIN Stage	0.00	0.21	0.0000	0.00	0.21	0.0000	2.14	0.21	-2.14	0.21

* 節点 60 * 架設中変位 TOTAL *

Stage	D+PS		D+PS+T(MAX)		D+PS+T(MIN)		D+PS+EQ(MAX)		D+PS+EQ(MIN)	
	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)
1	0.00	0.19	0.00	0.19	0.00	0.19	0.00	0.19	0.00	0.19
2	0.00	1.12	0.00	1.13	0.00	1.12	0.00	1.20	0.00	1.16
3	0.00	1.08	0.00	1.14	0.00	1.08	0.00	1.10	0.00	1.16
4	0.00	1.09	0.00	1.14	0.00	1.09	0.00	1.12	0.00	1.16
5	0.00	1.09	0.00	1.14	0.00	1.09	0.00	1.11	0.00	1.16
6	0.00	1.22	0.00	1.27	0.00	1.22	0.00	1.24	0.00	1.16
MAX Stage	0.00	1.22	0.00	1.27	0.00	1.22	0.00	1.24	0.00	1.16
MIN Stage	0.00	0.19	0.00	0.19	0.00	0.19	0.00	0.19	0.00	0.19

* 節点 61 * 架設中変位 TOTAL *

Stage	D+PS		D+PS+T(MAX)		D+PS+T(MIN)		D+PS+EQ(MAX)		D+PS+EQ(MIN)	
	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)
1	0.00	0.21	0.00	0.21	0.00	0.21	0.00	0.21	0.00	0.21
2	-3.48	1.81	-1.36	1.81	-3.48	1.80	-0.7558	1.90	-0.0406	1.71
3	-3.97	2.67	-3.66	2.67	-3.97	2.54	-0.3159	2.80	-0.4308	2.54
4	-4.16	2.59	-4.16	2.59	-4.35	2.53	-0.4117	2.65	-0.1539	2.53
5	-3.81	2.60	-3.81	2.60	-4.47	2.53	-0.3887	2.66	-0.2282	2.54
6	-0.33	2.37	-0.33	2.37	-1.00	2.29	-0.1000	2.43	0.0605	2.31
MAX Stage	0.00	2.67	0.00	2.67	0.00	2.54	0.0000	2.80	0.1694	2.54
MIN Stage	-4.16	0.21	-0.7558	0.21	-4.47	0.21	-0.7558	0.21	-0.2282	0.21

* 節点 65 * 架設中変位 TOTAL *

Stage	D+PS		D+PS+T(MAX)		D+PS+T(MIN)		D+PS+EQ(MAX)		D+PS+EQ(MIN)	
	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)
1	0.00	0.19	0.00	0.19	0.00	0.19	0.00	0.19	0.00	0.19
2	-0.68	1.54	-0.27	1.54	-0.68	1.53	-0.1175	1.62	1.1163	1.46
3	-2.01	2.27	-1.84	2.27	-2.01	2.16	-0.1901	2.38	0.9052	2.16
4	-1.92	2.20	-1.92	2.20	-2.26	2.15	-0.2106	2.25	0.8572	2.15
5	-1.73	2.21	-1.73	2.21	-2.33	2.15	-0.2172	2.26	0.5759	2.16
6	0.00	2.01	0.00	2.01	-0.61	1.95	-0.0524	2.06	0.7407	1.96
MAX Stage	0.00	2.27	0.00	2.27	0.00	2.16	0.0000	2.38	1.1163	2.16
MIN Stage	-2.01	0.19	-0.1910	0.19	-2.33	0.19	-0.2172	0.19	0.1030	0.19

* 節点 66 * 架設中変位 TOTAL *

Stage	D+PS		D+PS+T(MAX)		D+PS+T(MIN)		D+PS+EQ(MAX)		D+PS+EQ(MIN)	
	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)
1	0.00	0.20	0.00	0.20	0.00	0.20	0.0000	0.20	0.1515	0.20
2	0.00	1.12	0.00	1.13	0.00	1.12	0.0000	1.20	0.1515	1.16
3	-0.43	1.75	-0.43	1.81	-0.43	1.75	-0.6354	1.92	-0.2401	1.60
4	-1.08	2.65	-0.55	2.65	-1.08	2.60	-0.2757	2.69	-0.1139	2.60
5	-0.64	2.57	-0.64	2.60	-0.68	2.57	-0.2736	2.62	-0.1303	2.53
6	2.20	2.68	2.20	2.70	2.16	2.68	-0.2983	2.72	-0.1550	2.64
MAX Stage	2.20	2.68	2.20	2.70	2.16	2.68	0.0000	2.72	0.1515	2.64
MIN Stage	-1.08	0.20	-0.6354	0.20	-1.08	0.20	-0.6354	0.20	-0.2401	0.20

* 節点 70 * 架設中変位 TOTAL *

Stage	D+PS		D+PS+T(MAX)		D+PS+T(MIN)		D+PS+EQ(MAX)		D+PS+EQ(MIN)			
	X(mm)	Y(mm)	R(mrad)	Y(mm)	R(mrad)	Y(mm)	R(mrad)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)
1	0.00	0.18	0.0000	0.00	0.18	0.0000	1.08	0.18	0.0955	-1.08	0.18	-0.0955
2	0.00	0.18	0.0000	0.00	0.18	0.0000	1.08	0.18	0.0955	-1.08	0.18	-0.0955
3	1.10	1.51	0.0335	1.15	1.56	0.0552	14.22	1.64	1.1194	-12.02	1.38	-1.0524
4	-0.32	2.27	-0.0432	0.22	2.27	-0.0082	-0.32	2.30	1.0492	-13.86	2.23	-1.1356
5	0.14	2.21	-0.0120	0.14	2.23	-0.0120	0.13	2.21	0.7533	-9.28	2.17	-0.7773
6	2.20	2.30	0.1517	2.20	2.32	0.1517	2.19	2.30	0.1501	-7.22	2.26	-0.6136
MAX Stage	2.20	2.30	0.1517	2.20	2.32	0.1517	2.19	2.30	0.1501	-7.22	2.26	-0.6136
MIN Stage	-0.32	0.18	-0.0432	0.00	0.18	-0.0120	-0.32	0.18	0.0432	-13.86	0.18	-1.1356

* 節点 71 * 架設中変位 TOTAL *

Stage	D+PS		D+PS+T(MAX)		D+PS+T(MIN)		D+PS+EQ(MAX)		D+PS+EQ(MIN)			
	X(mm)	Y(mm)	R(mrad)	Y(mm)	R(mrad)	Y(mm)	R(mrad)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)
1	0.00	0.20	0.0000	0.00	0.20	0.0000	1.92	0.20	0.1515	-1.92	0.20	-0.1515
2	0.00	0.20	0.0000	0.00	0.20	0.0000	1.92	0.20	0.1515	-1.92	0.20	-0.1515
3	0.00	0.20	0.0000	0.00	0.20	0.0000	1.92	0.20	0.1515	-1.92	0.20	-0.1515
4	-0.57	1.76	-0.6551	0.25	1.81	-0.4059	-0.57	1.76	-0.6551	-19.58	1.63	-1.0735
5	-0.52	2.67	-0.2660	0.04	2.67	-0.2660	-0.52	2.62	-0.3069	-14.27	2.55	-0.2862
6	1.49	2.60	-0.3686	2.05	2.60	-0.3686	1.49	2.55	-0.4095	-12.26	2.47	-0.3887
MAX Stage	1.49	2.67	0.0000	2.05	2.67	0.0000	1.49	2.62	0.0000	-1.92	2.55	-0.1515
MIN Stage	-0.57	0.20	-0.6551	0.00	0.20	-0.4059	-0.57	0.20	-0.6551	-19.58	0.20	-1.0735

* 節点 75 * 架設中変位 TOTAL *

Stage	D+PS		D+PS+T(MAX)		D+PS+T(MIN)		D+PS+EQ(MAX)		D+PS+EQ(MIN)			
	X(mm)	Y(mm)	R(mrad)	Y(mm)	R(mrad)	Y(mm)	R(mrad)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)
1	0.00	0.18	0.0000	0.00	0.18	0.0000	1.08	0.18	0.0955	-1.08	0.18	-0.0955
2	0.00	0.18	0.0000	0.00	0.18	0.0000	1.08	0.18	0.0955	-1.08	0.18	-0.0955
3	0.00	0.18	0.0000	0.00	0.18	0.0000	1.08	0.18	0.0955	-1.08	0.18	-0.0955
4	1.05	1.52	0.0275	1.07	1.55	0.0513	13.63	1.63	1.0723	-11.54	1.40	-1.0173
5	0.22	2.29	-0.0053	0.71	2.29	0.0303	0.22	2.25	-0.0053	-9.61	2.18	-0.7903
6	1.87	2.23	0.1183	2.35	2.23	0.1540	1.87	2.19	0.1183	-7.96	2.12	-0.6667
MAX Stage	1.87	2.29	0.1183	2.35	2.29	0.1540	1.87	2.25	0.1183	-1.08	2.18	-0.0955
MIN Stage	0.00	0.18	-0.0053	0.00	0.18	-0.0053	0.00	0.18	-0.0053	-11.54	0.18	-1.0173

* 節点 76 * 架設中変位 TOTAL *

Stage	D+PS			D+PS+T(MAX)			D+PS+T(MIN)			D+PS+EQ(MAX)			D+PS+EQ(MIN)		
	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)
1	0.00	0.15	0.0000	0.00	0.15	0.0000	0.00	0.15	0.0000	0.97	0.15	0.0709	-0.97	0.15	-0.0709
2	0.00	0.15	0.0000	0.00	0.15	0.0000	0.00	0.15	0.0000	0.97	0.15	0.0709	-0.97	0.15	-0.0709
3	0.00	0.15	0.0000	0.00	0.15	0.0000	0.00	0.15	0.0000	0.97	0.15	0.0709	-0.97	0.15	-0.0709
4	0.00	0.15	0.0000	0.00	0.15	0.0000	0.00	0.15	0.0000	0.97	0.15	0.0709	-0.97	0.15	-0.0709
5	-0.38	0.78	-0.1477	0.54	0.80	0.0546	-0.38	0.78	-0.1477	12.76	0.86	0.4845	-13.52	0.70	-0.7799
6	-0.04	0.80	0.5445	0.89	0.82	0.7468	-0.04	0.80	0.5445	13.11	0.88	1.1767	-13.18	0.72	-0.0877
MAX Stage	0.00	0.80	0.5445	0.89	0.82	0.7468	0.00	0.80	0.5445	13.11	0.88	1.1767	-0.97	0.72	-0.0709
MIN Stage	-0.38	0.15	-0.1477	0.00	0.15	0.0000	-0.38	0.15	-0.1477	0.97	0.15	0.0709	-13.52	0.15	-0.7799

* 節点 80 * 架設中変位 TOTAL *

Stage	D+PS			D+PS+T(MAX)			D+PS+T(MIN)			D+PS+EQ(MAX)			D+PS+EQ(MIN)		
	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)
1	0.00	0.13	0.0000	0.00	0.13	0.0000	0.00	0.13	0.0000	0.62	0.13	0.0483	-0.62	0.13	-0.0483
2	0.00	0.13	0.0000	0.00	0.13	0.0000	0.00	0.13	0.0000	0.62	0.13	0.0483	-0.62	0.13	-0.0483
3	0.00	0.13	0.0000	0.00	0.13	0.0000	0.00	0.13	0.0000	0.62	0.13	0.0483	-0.62	0.13	-0.0483
4	0.00	0.13	0.0000	0.00	0.13	0.0000	0.00	0.13	0.0000	0.62	0.13	0.0483	-0.62	0.13	-0.0483
5	0.03	0.67	-0.0129	0.30	0.69	0.0264	0.03	0.67	-0.0129	8.84	0.74	0.6625	-8.78	0.60	-0.6884
6	-1.22	0.69	-0.0303	-0.95	0.70	0.0090	-1.22	0.69	-0.0303	7.59	0.76	0.6452	-10.03	0.62	-0.7058
MAX Stage	0.03	0.69	0.0000	0.30	0.70	0.0264	0.03	0.69	0.0000	8.84	0.76	0.6625	-0.62	0.62	-0.0483
MIN Stage	-1.22	0.13	-0.0303	-0.95	0.13	0.0000	-1.22	0.13	-0.0303	0.62	0.13	0.0483	-10.03	0.13	-0.7058

2.5.2 Reaction and Sectional Force

* 節点 60 * 架設中反力 TOTAL *

Stage	RX (kN)	D+PS RY (kN)	RM (kNm)	RX (kN)	D+PS+T (MAX) RY (kN)	RM (kNm)	RX (kN)	D+PS+T (MIN) RY (kN)	RM (kNm)	RX (kN)	D+PS+EQ (MAX) RY (kN)	RM (kNm)	RX (kN)	D+PS+EQ (MIN) RY (kN)	RM (kNm)
1	0	0	0	0	0	304	0	0	0	0	41	304	131	-41	304
2	0	1797	0	0	1810	0	0	1797	0	0	41	1923	131	-41	1670
3	0	1726	0	0	1817	0	0	1726	0	0	41	1761	131	-41	1692
4	0	1742	0	0	1821	0	0	1742	0	0	41	1789	131	-41	1696
5	0	1738	0	0	1822	0	0	1738	0	0	41	1768	131	-41	1709
6	0	1950	0	0	2033	0	0	1950	0	0	41	1979	131	-41	1921
MAX Stage	1	6	1	1	6	1	1	6	1	1	1	6	1	1	6
MIN Stage	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

* 節点 65 * 架設中反力 TOTAL *

Stage	RX (kN)	D+PS RY (kN)	RM (kNm)	RX (kN)	D+PS+T (MAX) RY (kN)	RM (kNm)	RX (kN)	D+PS+T (MIN) RY (kN)	RM (kNm)	RX (kN)	D+PS+EQ (MAX) RY (kN)	RM (kNm)	RX (kN)	D+PS+EQ (MIN) RY (kN)	RM (kNm)
1	0	0	0	0	0	304	0	0	0	0	41	304	131	-41	304
2	0	2466	-421	0	2466	-165	0	2462	-421	0	534	2592	902	-534	2339
3	-66	3632	-295	-60	3632	-275	-66	3461	-295	-66	441	3808	684	-574	3456
4	-59	3523	-337	-59	3523	-315	-75	3440	-337	-75	420	3606	634	-540	3439
5	-53	3541	-312	-53	3541	-312	-78	3439	-322	293	3621	363	-399	3461	-989
6	3	3223	-49	3	3223	-49	-22	3121	-59	349	3303	626	-343	3142	-726
MAX Stage	3	6	3	1	6	3	1	3	1	2	3	3	2	1	5
MIN Stage	3	1	1	3	1	1	4	1	1	2	1	1	1	3	1

* 節点 70 * 架設中反力 TOTAL *

Stage	RX (kN)	D+PS RY (kN)	RM (kNm)	RX (kN)	D+PS+T (MAX) RY (kN)	RM (kNm)	RX (kN)	D+PS+T (MIN) RY (kN)	RM (kNm)	RX (kN)	D+PS+EQ (MAX) RY (kN)	RM (kNm)	RX (kN)	D+PS+EQ (MIN) RY (kN)	RM (kNm)
1	0	0	0	0	0	287	0	0	0	0	38	287	117	-38	287
2	0	287	0	0	287	0	0	287	0	0	38	287	117	-38	287
3	66	2414	-265	66	2493	-153	60	2414	-265	566	2624	725	-433	2204	-1257
4	-5	3628	-124	18	3628	-124	-5	3571	-131	522	3684	729	-533	3573	-978
5	15	3530	-132	15	3563	-132	15	3530	-136	380	3588	494	-349	3471	-758
6	96	3673	-17	96	3707	-17	96	3673	-21	461	3732	609	-268	3615	-644
MAX Stage	6	6	6	1	6	6	1	6	1	3	6	6	4	1	6
MIN Stage	4	1	1	3	1	1	3	1	1	1	1	1	1	4	1

***BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

* 節点 75 * 架設中反力 TOTAL *

Stage	D+PS		D+PS+T (MAX)		D+PS+T (MIN)		D+PS+EQ (MAX)		D+PS+EQ (MIN)			
	RX (kN)	RY (kN)	RM (kNm)	RX (kN)	RY (kN)	RM (kNm)	RX (kN)	RY (kN)	RM (kNm)	RX (kN)	RY (kN)	RM (kNm)
1	0	287	0	0	287	0	0	38	287	-38	287	-117
2	0	287	0	0	287	0	0	38	287	-38	287	-117
3	0	287	0	0	287	0	0	38	287	-38	287	-117
4	65	2424	-279	65	2486	-146	56	543	2609	691	-413	2239
5	18	3666	-126	38	3666	-117	18	3596	3840	443	-368	3492
6	86	3567	-78	107	3567	-69	86	3497	3741	491	-300	3393
MAX Stage	86	3666	0	107	3666	0	86	3596	3840	691	-38	3492
MIN Stage	0	287	-279	0	287	-146	0	38	287	-413	287	-1250

* 節点 80 * 架設中反力 TOTAL *

Stage	D+PS		D+PS+T (MAX)		D+PS+T (MIN)		D+PS+EQ (MAX)		D+PS+EQ (MIN)			
	RX (kN)	RY (kN)	RM (kNm)	RX (kN)	RY (kN)	RM (kNm)	RX (kN)	RY (kN)	RM (kNm)	RX (kN)	RY (kN)	RM (kNm)
1	0	434	0	0	434	0	0	58	434	-58	434	-156
2	0	434	0	0	434	0	0	58	434	-58	434	-156
3	0	434	0	0	434	0	0	58	434	-58	434	-156
4	0	434	0	0	434	0	0	58	434	-58	434	-156
5	19	2173	-259	24	2228	131	19	2173	2398	1829	-818	1948
6	-186	2235	829	-181	2290	1219	-186	2235	2460	2918	-1024	-1260
MAX Stage	19	2235	829	24	2290	1219	19	2235	2460	2918	-58	2010
MIN Stage	-186	434	-259	-181	434	0	-186	58	434	-1024	434	-2348

BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns
STAGE 2
BENDING MOMENT

DEAD LOAD
ERECTION LOAD
SCALE = 1 / 380
ICM = 2856.5 KNM

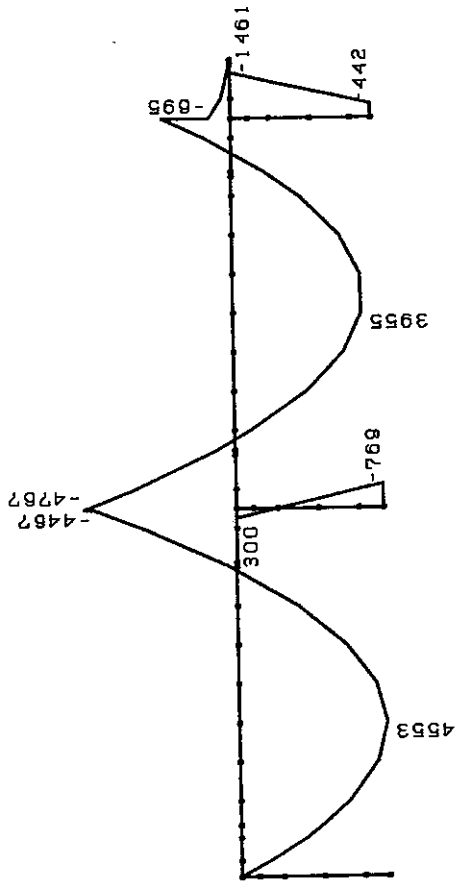


DEAD LOAD SCALE = 1 / 380
 DIRECTION LOAD ICM = 2384.0 KNM

BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

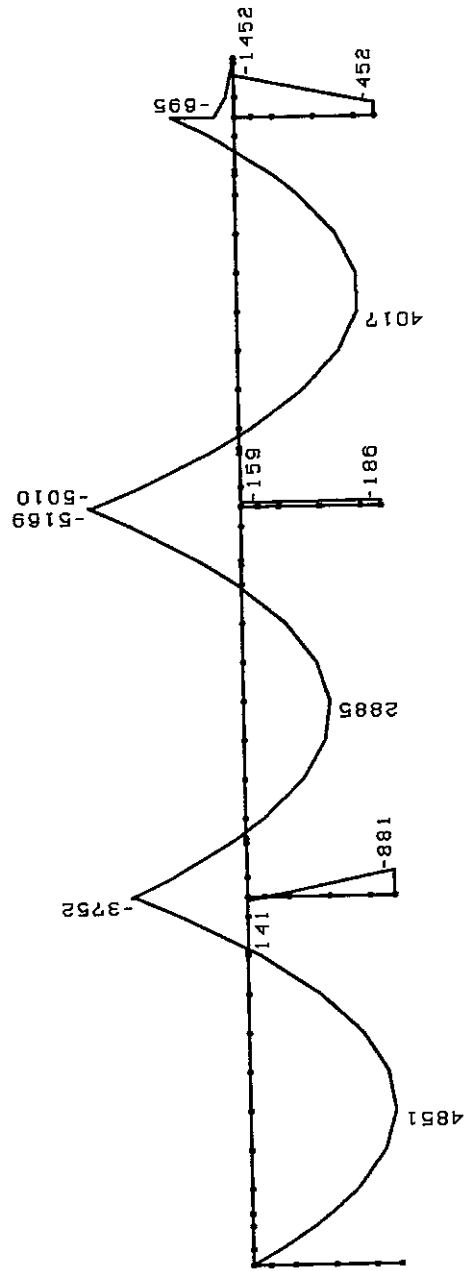
STAGE 3

BENDING MOMENT



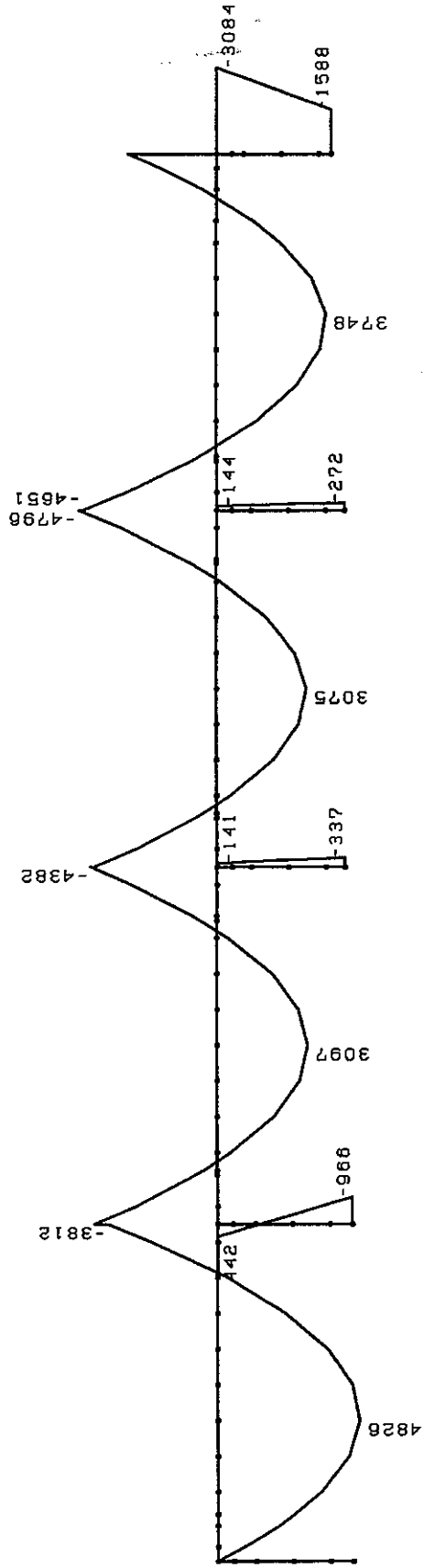
DEAD LOAD SCALE = 1 / 380
 ERECTION LOAD ICM = 2584.9 KNM

BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns
 STAGE 4
 BENDING MOMENT



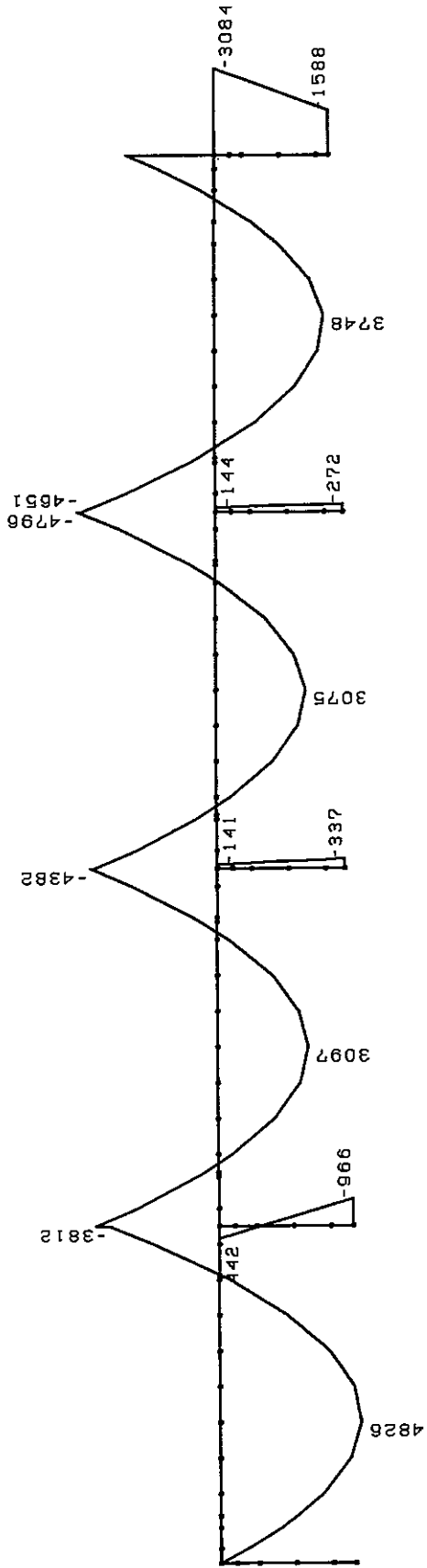
BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns
 BENDING MOMENT
 STAGE 5

DEAD LOAD SCALE = 1 / 380
 ERECTION LOAD 1CM = 2413.4 KNM



BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns
 BENDING MOMENT
 STAGE 6

DEAD LOAD SCALE = 1 / 380
 ERECTION LOAD
 ICM = 2413.4 KNM



2.6 AFTER CONSTRUCTION COMPLETION STAGE

2.6.1 Displacement

* 完成後變位 * Displacement after Construction Completion *

	(1)			(2)			(3)			(4)			Superimposed Dead Load (Year)	(Day-Beam) (Pier 1)	(Pier 2) (Stay)	Temperature	Snow Load	Earthquake	Support Down	Live Load	Earth Pressure	Serviceability	Earthquake from right direction	Earthquake from left direction	
	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)													(MAX)
橋面工 (全)	-0.84	0.29	0.4779	-0.84	0.67	0.4711	-0.84	1.22	0.4376	-0.84	1.48	0.4107													
橋面工 (床版)	-5.65	0.01	0.0335	-5.57	0.03	0.0333	-5.45	0.07	0.0323	-5.39	0.09	0.0315													
橋面工 (柱 1)	-1.18	0.06	0.0000	-1.16	0.00	0.0000	-1.11	-0.47	-0.2101	-1.09	-0.59	-0.1772													
橋面工 (柱 2)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000													
橋面工 (Stay)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000													
地震支點移動 (MAX)	36.19	-0.06	-0.2637	36.19	-0.27	-0.2623	36.18	-0.58	-0.2549	36.18	-0.74	-0.2485													
地震支點移動 (MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000													
活荷重 (MAX)	0.55	1.03	1.7639	0.55	2.31	1.7439	0.55	4.30	1.6417	0.55	5.29	1.5568													
活荷重 (MIN)	-2.46	-0.11	-0.4322	-2.46	-0.45	-0.4295	-2.46	-0.96	-0.4154	-2.46	-1.22	-0.4032													
土圧 常時	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000													
土圧 右地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000													
土圧 左地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000													
側土圧 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000													
側土圧 (MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000													

	(5)			(6)			(7)			(8)			Side Earth Pressure	(MAX)	(MIN)
	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)			
橋面工 (全)	-0.84	1.95	0.3412	-0.84	2.50	0.1999	-0.84	2.74	0.0435	-0.84	2.68	-0.1028			
橋面工 (床版)	-5.26	0.13	0.0292	-5.06	0.18	0.0236	-4.86	0.22	0.0157	-4.66	0.25	0.0055			
橋面工 (柱 1)	-1.05	-0.78	-0.1171	-0.99	-0.93	-0.0362	-0.93	-0.93	0.0258	-0.86	-0.84	0.0688			
橋面工 (柱 2)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000			
橋面工 (Stay)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000			
地震支點移動 (MAX)	36.18	-1.04	-0.2306	36.18	-1.46	-0.1876	36.17	-1.78	-0.1269	36.17	-1.95	-0.0485			
地震支點移動 (MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000			
活荷重 (MAX)	0.55	7.08	1.3320	0.55	9.23	0.8690	0.55	10.31	0.3889	0.55	10.24	0.0948			
活荷重 (MIN)	-2.46	-1.70	-0.3690	-2.46	-2.36	-0.2875	-2.46	-2.82	-0.1920	-2.46	-3.02	-0.4388			
土圧 常時	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000			
土圧 右地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000			
土圧 左地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000			
側土圧 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000			
側土圧 (MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000			

	(9)			(10)			(11)			(12)			Side Earth Pressure	(MAX)	(MIN)
	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)			
橋面工 (全)	-0.84	2.36	-0.2138	-0.84	1.87	-0.2643	-0.84	1.36	-0.2292	-0.84	1.30	-0.2175			
橋面工 (床版)	-4.46	0.24	-0.0070	-4.26	0.22	-0.0217	-4.06	0.16	-0.0388	-4.04	0.15	-0.0411			
橋面工 (柱 1)	-0.80	-0.67	0.0929	-0.73	-0.48	0.0981	-0.67	-0.29	0.0844	-0.66	-0.27	0.0813			
橋面工 (柱 2)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000			
橋面工 (Stay)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000			
地震支點移動 (MAX)	36.16	-1.96	0.0475	36.15	-1.75	0.1612	36.15	-1.30	0.2925	36.14	-1.23	0.3101			
地震支點移動 (MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000			
活荷重 (MAX)	0.55	9.11	0.1720	0.55	7.16	0.3875	0.55	4.77	0.6393	0.55	4.47	0.6732			
活荷重 (MIN)	-2.46	-2.88	-0.8550	-2.46	-2.35	-1.1604	-2.46	-1.36	-1.2472	-2.46	-1.20	-1.2393			
土圧 常時	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000			
土圧 右地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000			
土圧 左地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000			
側土圧 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000			
側土圧 (MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000			

* 完成後変位 *

橋面工 温度 (床版) (柱 1) (柱 2) (Stay)	(13)			(14)			(15)			(16)		
	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)
地震 支点移動 (MAX)	-0.84	1.01	-0.0975	-0.84	0.92	-0.0974	-0.84	0.82	-0.0973	-0.84	0.77	0.0330
活荷重 (MAX)	-3.86	0.07	-0.0563	-3.76	0.01	-0.0563	-3.66	0.05	-0.0563	-3.49	-0.13	-0.0356
土圧 常時 右地震 (MIN)	0.00	-0.61	0.0650	-0.61	-0.08	0.0650	-0.61	-0.01	0.0650	-0.56	0.09	0.0535
側土圧 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	36.12	-0.58	0.4257	36.12	-0.16	0.4258	36.12	0.27	0.4256	36.13	0.82	0.2096
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.55	2.56	0.8983	0.55	1.97	0.8984	0.55	2.30	0.8986	0.55	3.85	1.0378
	-2.45	-0.06	-1.0693	-2.45	-0.17	-1.0692	-2.45	-0.37	-1.0690	-2.46	-1.51	-0.8020
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000

橋面工 温度 (床版) (柱 1) (柱 2) (Stay)	(17)			(18)			(19)			(20)		
	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)
地震 支点移動 (MAX)	-0.84	0.78	0.0473	-0.84	0.85	0.0901	-0.84	1.07	0.1167	-0.84	1.28	0.0856
活荷重 (MAX)	-3.46	-0.14	-0.0326	-3.37	-0.17	-0.0213	-3.17	-0.19	-0.0226	-2.97	-0.18	0.0110
土圧 常時 右地震 (MIN)	0.00	0.00	0.0000	-0.52	0.15	0.0382	-0.45	0.00	0.0173	-0.39	0.22	0.0095
側土圧 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	36.13	0.87	0.1793	36.13	0.99	0.0685	36.12	0.94	-0.1037	36.11	0.62	-0.2097
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.55	4.10	1.0432	0.55	5.10	1.0267	0.55	6.92	0.8462	0.55	8.16	0.5423
	-2.46	-1.70	-0.7618	-2.46	-2.36	-0.6081	-2.46	-3.27	-0.3449	-2.46	-3.67	-0.2344
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000

橋面工 温度 (床版) (柱 1) (柱 2) (Stay)	(21)			(22)			(23)			(24)		
	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)
地震 支点移動 (MAX)	-0.84	1.39	0.0220	-0.84	1.36	0.0488	-0.84	1.21	-0.1017	-0.84	0.99	-0.1115
活荷重 (MAX)	-2.77	-0.15	0.0195	-2.57	-0.11	0.0228	-2.37	-0.06	0.0210	-2.17	-0.02	0.0141
土圧 常時 右地震 (MIN)	0.00	-0.33	0.0119	-0.26	0.18	-0.0202	-0.20	0.13	-0.0241	-0.14	0.08	-0.0238
側土圧 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	36.10	0.15	-0.2495	36.09	-0.34	-0.2233	36.08	-0.70	-0.1309	36.07	-0.82	0.0276
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.55	8.61	0.2873	0.55	8.18	0.2831	0.55	6.95	0.3852	0.55	6.14	0.5459
	-2.46	-3.65	-0.2742	-2.46	-3.30	-0.5348	-2.46	-2.90	-0.8419	-2.46	-2.07	-1.0310
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000

* 完成後変位 *

	(25)			(26)			(27)			(28)		
	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)
橋面工	-0.84	0.88	-0.0924	-0.84	0.86	-0.0845	-0.84	0.78	-0.0004	-0.84	0.78	-0.0003
温度	-2.07	-0.01	0.0087	-2.05	-0.01	0.0072	-1.87	0.00	-0.0047	-1.77	-0.01	-0.0047
(全)	0.06	0.06	-0.0221	0.10	0.05	-0.0215	0.04	0.03	-0.0059	0.04	0.02	-0.0059
(床版)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(柱 1)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(柱 2)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(Stay)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
雪	36.06	-0.74	0.1317	36.06	-0.70	0.1603	36.04	-0.25	0.3626	36.04	0.11	0.3627
地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
支点移動	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.55	4.13	0.6719	0.55	3.88	0.7045	0.53	2.29	0.9192	0.53	1.89	0.9193
活荷重	-2.46	-1.48	-1.0530	-2.46	-1.32	-1.0494	-2.45	-0.44	-0.9214	-2.45	-0.28	-0.9212
(MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
土圧	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
常時	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
右地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
左地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
側土圧	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000

	(29)			(30)			(31)			(32)		
	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)
橋面工	-0.84	0.78	-0.0902	-0.83	0.87	0.0920	-0.83	0.89	0.1009	-0.83	1.00	0.1236
温度	-1.67	-0.01	0.0047	-1.50	-0.02	0.0066	-1.47	-0.02	0.0014	-1.37	-0.02	0.0040
(全)	0.00	0.02	-0.0059	0.01	0.02	0.0101	0.02	0.02	0.0109	0.05	0.04	0.0132
(床版)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(柱 1)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(柱 2)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(Stay)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
雪	36.04	0.48	0.3626	36.05	0.99	0.2265	36.04	1.04	0.2068	36.04	1.21	0.1332
地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
支点移動	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.53	2.27	0.9194	0.56	3.85	1.0439	0.56	4.10	1.0472	0.56	5.10	1.0224
活荷重	-2.45	-0.40	-0.9211	-2.47	-1.30	-0.6986	-2.47	-1.46	-0.6649	-2.47	-2.04	-0.5354
(MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
土圧	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
常時	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
右地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
左地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
側土圧	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000

	(33)			(34)			(35)			(36)		
	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)
橋面工	-0.83	1.26	0.1182	-0.83	1.45	0.0657	-0.84	1.50	-0.0085	-0.84	1.41	-0.0793
温度	-1.18	-0.01	0.0076	-0.98	0.01	0.0089	-0.78	0.03	0.0080	-0.58	0.04	0.0047
(全)	0.11	0.07	0.0155	0.18	0.10	0.0143	0.24	0.12	0.0097	0.30	0.13	0.0018
(床版)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(柱 1)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(柱 2)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(Stay)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
雪	36.03	1.35	0.0091	36.02	1.27	-0.0839	36.01	1.03	-0.1459	35.99	0.71	-0.1768
地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
支点移動	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.56	6.90	0.8323	0.56	8.11	0.5223	0.56	8.53	0.2665	0.56	8.07	0.2387
活荷重	-2.47	-2.84	-0.3353	-2.47	-3.22	-0.2307	-2.47	-3.26	-0.2757	-2.47	-3.23	-0.5426
(MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
土圧	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
常時	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
右地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
左地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
側土圧	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000

* 完成後変位 *

橋面工 温度 (床版) (柱 1) (柱 2) (Stay)	(37)			(38)			(39)			(40)		
	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)
雪	-0.84	1.21	-0.1216	-0.84	0.96	-0.1100	-0.84	0.87	-0.0762	-0.84	0.85	-0.0643
地震	-0.38	0.05	-0.0098	-0.18	0.04	-0.0085	-0.08	0.03	-0.0133	-0.06	0.02	-0.0145
支点移動 (MAX)	0.37	0.13	-0.0096	0.43	0.09	-0.0244	0.46	0.06	-0.0330	0.47	0.05	-0.0353
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
活荷重 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	35.98	0.35	-0.1766	35.96	0.02	-0.1454	35.96	-0.11	-0.1182	35.95	-0.14	-0.1101
土圧 常時	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
右地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
左地震	0.56	6.82	0.3383	0.56	5.03	0.5405	0.55	4.05	0.6674	0.55	3.81	0.7003
側土圧 (MAX)	-2.47	-2.84	-0.8405	-2.47	-2.01	-1.0112	-2.47	-1.43	-1.0206	-2.47	-1.27	-1.0149
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000

橋面工 温度 (全) (床版) (柱 1) (柱 2) (Stay)	(41)			(42)			(43)			(44)		
	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)
雪	-0.84	0.83	0.0496	-0.84	0.88	0.0497	-0.84	0.93	0.0498	-0.83	1.13	0.1705
地震	0.11	-0.01	-0.0236	0.21	-0.03	-0.0236	0.31	-0.05	-0.0236	0.49	-0.11	-0.0348
支点移動 (MAX)	0.53	-0.01	-0.0409	0.53	-0.05	-0.0409	0.53	-0.09	-0.0409	0.58	-0.18	-0.0516
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
活荷重 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	35.94	-0.28	-0.0507	35.94	-0.34	-0.0507	35.94	-0.39	-0.0509	35.93	-0.73	-0.3281
土圧 常時	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
右地震	0.58	2.30	0.9168	0.58	1.91	0.9169	0.58	2.30	0.9170	0.56	3.90	1.0627
左地震	-2.50	-0.37	-0.8644	-2.50	-0.18	-0.8642	-2.50	-0.03	-0.8641	-2.47	-1.07	-0.6269
側土圧 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000

橋面工 温度 (全) (床版) (柱 1) (柱 2) (Stay)	(45)			(46)			(47)			(48)		
	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)
雪	-0.83	1.18	0.1826	-0.83	1.60	0.2245	-0.83	2.02	0.1861	-0.83	2.31	0.0927
地震	0.51	-0.12	-0.0360	0.71	-0.20	-0.0423	0.91	-0.28	-0.0413	1.11	-0.36	-0.0331
支点移動 (MAX)	0.59	-0.19	-0.0542	0.65	-0.31	-0.0677	0.71	-0.45	-0.0688	0.78	-0.58	-0.0573
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
活荷重 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	35.93	-0.82	-0.3637	35.91	-1.78	-0.5728	35.90	-3.02	-0.6467	35.89	-4.27	-0.5554
土圧 常時	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
右地震	0.56	4.16	1.0687	0.56	6.17	0.9861	0.56	7.80	0.7248	0.56	8.70	0.4010
左地震	-2.47	-1.21	-0.5917	-2.47	-2.10	-0.3359	-2.47	-2.53	-0.1316	-2.47	-2.59	-0.1235
側土圧 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000

* 完成後変位 *

	(49)			(50)			(51)			(52)		
	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)
橋面工 (全)	-0.83	2.37	-0.0307	-0.84	2.18	-0.1587	-0.84	1.75	-0.2662	-0.84	1.39	-0.3118
温度 (床版)	1.31	-0.41	-0.0177	1.51	-0.42	0.0050	1.70	-0.39	0.0349	1.83	-0.33	0.0572
(柱 1)	0.00	0.00	0.0000	0.00	-0.70	0.0029	0.00	0.00	0.0000	1.01	-0.56	0.0886
(柱 2)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(Stay)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
雪	35.87	-5.27	-0.3891	35.86	-5.74	-0.0576	35.84	-5.41	0.4090	35.83	-4.68	0.7692
地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
支点移動 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
活荷重 (MAX)	0.56	8.71	0.1985	0.56	7.80	0.2526	0.56	6.11	0.2864	0.56	4.76	0.2860
(MIN)	-2.48	-2.36	-0.3770	-2.48	-1.93	-0.7279	-2.48	-1.40	-1.0321	-2.48	-1.04	-1.1475
土圧 常時	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
右地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
左地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000

	(53)			(54)			(55)			(56)		
	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)
橋面工 (全)	-0.82	0.82	-0.3317	-0.82	0.43	-0.3153	-0.82	0.17	-0.3153	0.00	0.29	0.0000
温度 (床版)	2.00	-0.20	0.0892	2.12	-0.08	0.1112	2.20	0.01	0.1112	0.00	0.01	0.0000
(柱 1)	1.06	-0.35	0.1522	1.09	-0.14	0.2023	1.09	0.02	0.2023	0.00	0.06	0.0000
(柱 2)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(Stay)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
雪	35.77	-2.89	1.2955	35.76	-1.11	1.6633	35.76	0.00	0.0000	0.00	0.00	0.0000
地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
支点移動 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
活荷重 (MAX)	0.55	2.73	0.2632	0.56	1.39	0.2353	0.56	0.60	0.2353	0.00	1.03	0.0000
(MIN)	-2.44	-0.56	-1.1660	-2.44	-0.26	-1.0851	-2.44	-0.07	-1.0850	0.00	-0.11	0.0000
土圧 常時	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
右地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
左地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000

	(57)			(58)			(59)			(60)		
	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)
橋面工 (全)	0.00	0.28	0.0000	0.00	0.27	0.0000	0.00	0.25	0.0000	0.00	0.24	0.0000
温度 (床版)	0.00	0.01	0.0000	0.00	0.01	0.0000	0.00	0.01	0.0000	0.00	0.01	0.0000
(柱 1)	0.00	0.06	0.0000	0.00	0.06	0.0000	0.00	0.05	0.0000	0.00	0.05	0.0000
(柱 2)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(Stay)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
雪	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
地震	3.86	-0.06	0.3378	3.20	-0.05	0.3221	2.60	-0.05	0.2676	2.31	-0.05	0.2061
支点移動 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
活荷重 (MAX)	0.00	1.00	0.0000	0.00	0.95	0.0000	0.00	0.90	0.0000	0.00	0.87	0.0000
(MIN)	0.00	-0.11	0.0000	0.00	-0.10	0.0000	0.00	-0.10	0.0000	0.00	-0.09	0.0000
土圧 常時	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
右地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
左地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000

* 完成後変位 *

	(61)			(62)			(63)			(64)		
	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)
橋面工	-0.76	0.92	-0.0974	-0.64	0.89	-0.0912	-0.47	0.84	-0.0747	-0.35	0.80	-0.0505
温度	-3.72	0.01	-0.0563	-3.59	0.01	-0.1511	-3.18	0.01	-0.2398	-2.69	0.01	-0.2422
(床版)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(柱 1)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(柱 2)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(Stay)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
地震	35.77	-0.16	0.4259	34.68	-0.15	1.3436	30.96	-0.15	2.2373	26.27	-0.14	2.3150
支点移動 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
活荷重 (MAX)	0.65	1.97	0.8984	1.31	1.91	0.6092	2.35	1.82	0.2338	2.63	1.72	0.0386
(MIN)	-2.38	-0.17	-1.0691	-2.65	-0.17	-0.7606	-2.95	-0.16	-0.3475	-3.05	-0.15	-0.1543
土圧 常時	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
右地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
左地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
側土圧 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000

	(65)			(66)			(67)			(68)		
	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)
橋面工	-0.30	0.77	-0.0323	-0.84	0.78	-0.0003	-0.82	0.76	-0.0223	-0.75	0.72	-0.0489
温度	-2.42	0.01	-0.2022	-1.77	-0.01	-0.0047	-1.74	-0.01	-0.0503	-1.58	-0.01	-0.1048
(床版)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(柱 1)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(柱 2)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(Stay)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
地震	23.68	-0.13	1.9598	35.74	0.11	0.3628	34.92	0.11	1.1921	31.42	0.10	2.1717
支点移動 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
活荷重 (MAX)	2.56	1.67	0.1218	0.82	1.89	0.9193	1.50	1.84	0.6645	2.30	1.75	0.2606
(MIN)	-2.90	-0.14	-0.1644	-2.41	-0.28	-0.9212	-2.52	-0.27	-0.6793	-2.73	-0.26	-0.2911
土圧 常時	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
右地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
左地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
側土圧 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000

	(69)			(70)			(71)			(72)		
	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)	X(mm)	Y(mm)	R(mrad)
橋面工	-0.64	0.68	-0.0536	-0.59	0.66	-0.0475	-0.88	0.88	0.0497	-0.91	0.86	0.0135
温度	-1.35	-0.01	-0.1135	-1.24	-0.01	-0.1003	0.23	-0.03	-0.0236	0.25	-0.03	-0.0113
(床版)	-0.02	0.02	-0.0025	-0.01	0.02	-0.0016	0.56	-0.05	-0.0409	0.59	-0.05	-0.0154
(柱 1)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(柱 2)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(Stay)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
地震	26.81	0.10	2.2866	24.60	0.10	2.0025	35.99	-0.34	-0.0505	35.53	-0.33	0.8927
支点移動 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
活荷重 (MAX)	2.48	1.66	0.0400	2.40	1.61	0.1198	1.18	1.91	0.9168	1.87	1.86	0.6121
(MIN)	-2.85	-0.24	-0.1523	-2.74	-0.24	-0.1520	-3.12	-0.18	-0.8642	-3.79	-0.18	-0.6177
土圧 常時	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
右地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
左地震	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
側土圧 (MAX)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000
(MIN)	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.0000

* 完成後変位 *

	(73)		(74)		(75)		(76)	
	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)
橋面工	-0.88	0.81	-0.79	0.77	-0.73	0.75	-0.56	0.17
温度 (全)	0.26	-0.03	0.23	-0.03	0.22	0.03	2.11	0.01
(床版)	0.58	-0.05	0.52	-0.04	0.49	0.03	0.92	0.02
(柱 1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(柱 2)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(Stay)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
支点移動 (MAX)	32.44	-0.31	27.93	-0.29	25.68	-0.29	34.39	0.22
(MIN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
活荷重 (MAX)	2.63	1.77	2.75	1.68	2.65	1.63	0.41	0.60
(MIN)	-4.39	-0.17	-4.28	-0.16	-4.05	-0.15	-1.57	-0.07
土圧 常時	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
右地震	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
左地震	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
側土圧 (MAX)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(MIN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	(77)		(78)		(79)		(80)	
	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)	X(mm)	Y(mm)
橋面工	-0.37	0.17	0.05	0.16	0.23	0.15	0.25	0.15
温度 (全)	2.03	0.01	1.74	0.01	1.47	0.01	1.39	0.01
(床版)	0.79	0.02	0.49	0.02	0.31	0.02	0.27	0.02
(柱 1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(柱 2)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(Stay)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
支点移動 (MAX)	33.16	0.21	28.77	0.20	24.30	0.19	23.01	0.18
(MIN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
活荷重 (MAX)	0.37	0.58	0.92	0.55	1.43	0.52	1.46	0.50
(MIN)	-1.00	-0.07	-0.79	-0.07	-0.71	-0.06	-0.68	-0.06
土圧 常時	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
右地震	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
左地震	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
側土圧 (MAX)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(MIN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.6.2 Reaction and Sectional Force

* Reaction after Construction Completion *

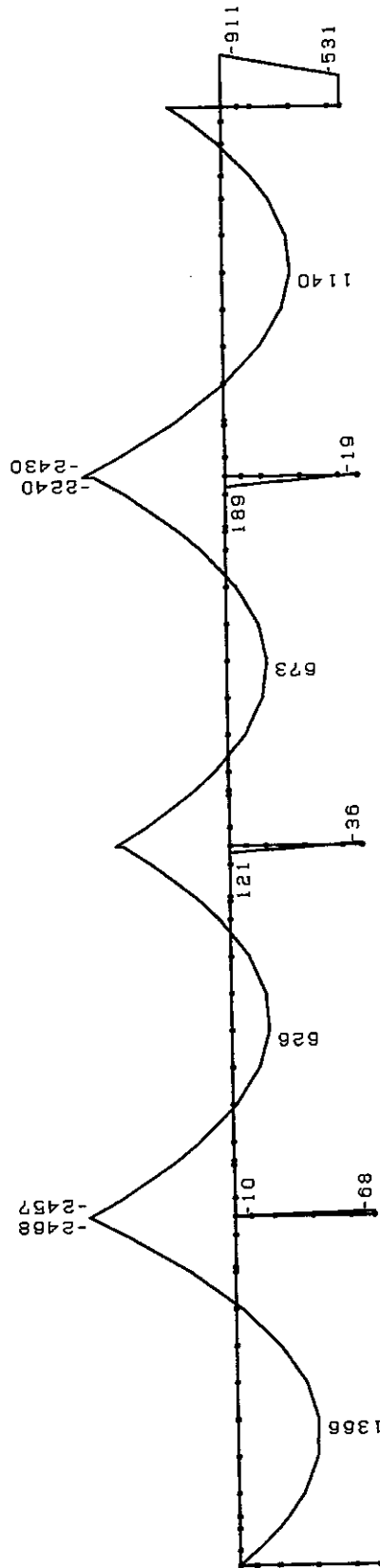
* 完成後反力 *

	(60)			(65)			(70)			(75)			Superimposed Dead Load (Year) (Day-Beam) (Pier 1) (Pier 2) (Stay)
	RX (kN)	RY (kN)	RM (kNm)	RX (kN)	RY (kN)	RM (kNm)	RX (kN)	RY (kN)	RM (kNm)	RX (kN)	RY (kN)	RM (kNm)	
橋面工 温度 (全)	0	391	0	-8	1237	-68	-23	1059	-36	-30	1197	-19	Temperature
支點移動 (床版)	0	10	0	-91	12	-195	-48	-12	-79	9	-41	1	(Day-Beam)
支點移動 (柱 1)	0	83	0	-25	-101	0	0	33	-3	20	-69	8	(Pier 1)
支點移動 (柱 2)	0	0	0	0	0	0	0	0	0	0	0	0	(Pier 2)
支點移動 (Stay)	0	0	0	0	0	0	0	0	0	0	0	0	(Stay)
雪	82	-77	262	903	-212	1789	952	154	1657	1010	-457	1507	Snow Load
支點移動 (MAX)	0	0	0	0	0	0	0	0	0	0	0	0	Earthquake
支點移動 (MIN)	0	0	0	0	0	0	0	0	0	0	0	0	Support Down
活荷重	0	0	0	152	1969	-396	142	1759	-347	152	1757	-317	Live Load
	0	0	0	-159	1723	278	-153	1649	329	-214	1675	240	Earth Pressure
	0	1583	0	5	2951	-127	6	2852	6	-29	2887	-37	Serviceability
	0	-168	0	45	-263	-41	-70	-416	-6	-32	-278	76	Earthquake from right direction
	0	0	0	-140	1762	310	-144	1747	374	-198	1886	281	Earthquake from left direction
	0	0	0	133	1990	-426	132	1769	-395	147	1856	-338	Side Earth Pressure
土圧	0	0	0	0	0	0	0	0	0	0	0	0	(MAX)
側土圧	0	0	0	0	0	0	0	0	0	0	0	0	(MIN)

	(80)			(80)			(80)			(80)			Superimposed Dead Load (Year) (Day-Beam) (Pier 1) (Pier 2) (Stay)
	RX (kN)	RY (kN)	RM (kNm)	RX (kN)	RY (kN)	RM (kNm)	RX (kN)	RY (kN)	RM (kNm)	RX (kN)	RY (kN)	RM (kNm)	
橋面工 温度 (全)	61	477	-531	61	477	-531	61	477	-531	61	477	-531	Temperature
支點移動 (床版)	130	31	355	130	31	355	130	31	355	130	31	355	(Day-Beam)
支點移動 (柱 1)	5	54	390	5	54	390	5	54	390	5	54	390	(Pier 1)
支點移動 (柱 2)	0	0	0	0	0	0	0	0	0	0	0	0	(Pier 2)
支點移動 (Stay)	0	0	0	0	0	0	0	0	0	0	0	0	(Stay)
雪	2186	593	5504	2186	593	5504	2186	593	5504	2186	593	5504	Snow Load
支點移動 (MAX)	0	0	0	0	0	0	0	0	0	0	0	0	Earthquake
支點移動 (MIN)	0	0	0	0	0	0	0	0	0	0	0	0	Support Down
活荷重	304	1460	-1957	304	1460	-1957	304	1460	-1957	304	1460	-1957	Live Load
	-95	-212	363	-95	-212	363	-95	-212	363	-95	-212	363	Earth Pressure
	262	1861	-1768	262	1861	-1768	262	1861	-1768	262	1861	-1768	Serviceability
	-93	-219	385	-93	-219	385	-93	-219	385	-93	-219	385	Earthquake from right direction
	-66	-197	431	-66	-197	431	-66	-197	431	-66	-197	431	Earthquake from left direction
	280	1544	-2023	280	1544	-2023	280	1544	-2023	280	1544	-2023	Side Earth Pressure
土圧	0	0	0	0	0	0	0	0	0	0	0	0	(MAX)
側土圧	0	0	0	0	0	0	0	0	0	0	0	0	(MIN)

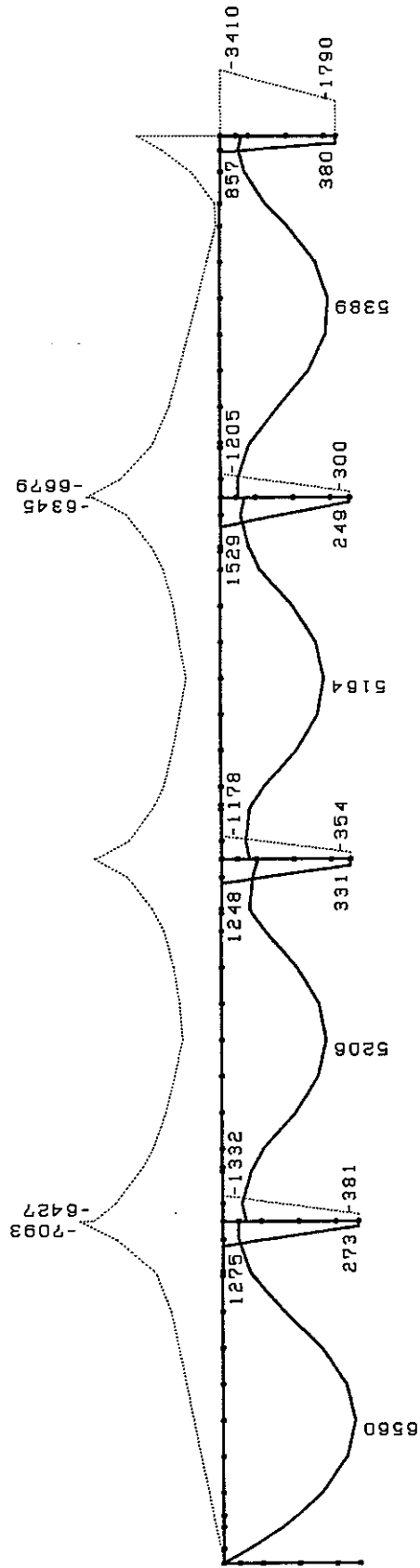
SCALE = 1 / 380
 1CM = 1234.1 KNM

BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns
 BENDING MOMENT OF SURFACE WORK DI



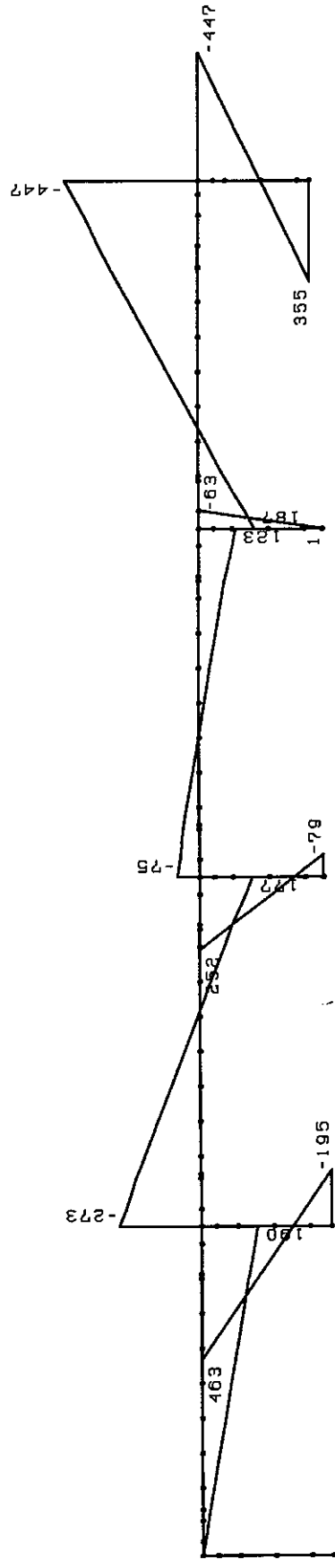
BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns
 BENDING MOMENT OF LIVE LOAD (M-MAXIMUM)

— MAX SCALE = 1 / 380
 - - - MIN ICM = 3546.6 KMM



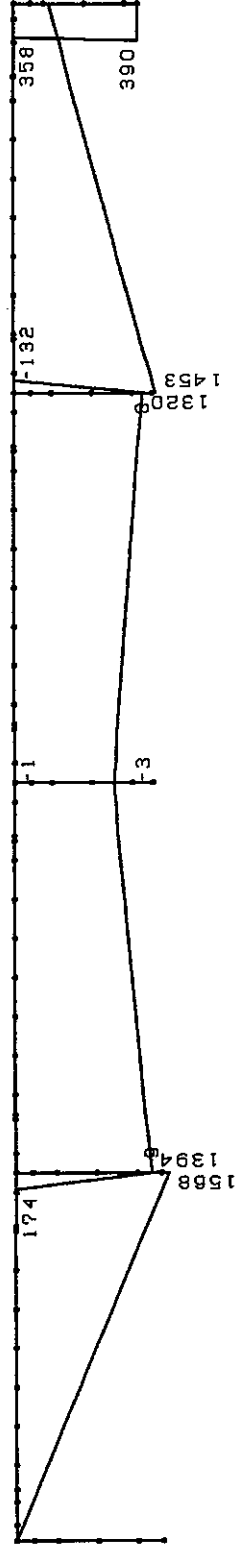
BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns
 BENDING MOMENT OF TEMP (YEAR)

SCALE = 1 / 380
 ICM = 231.8 KNM



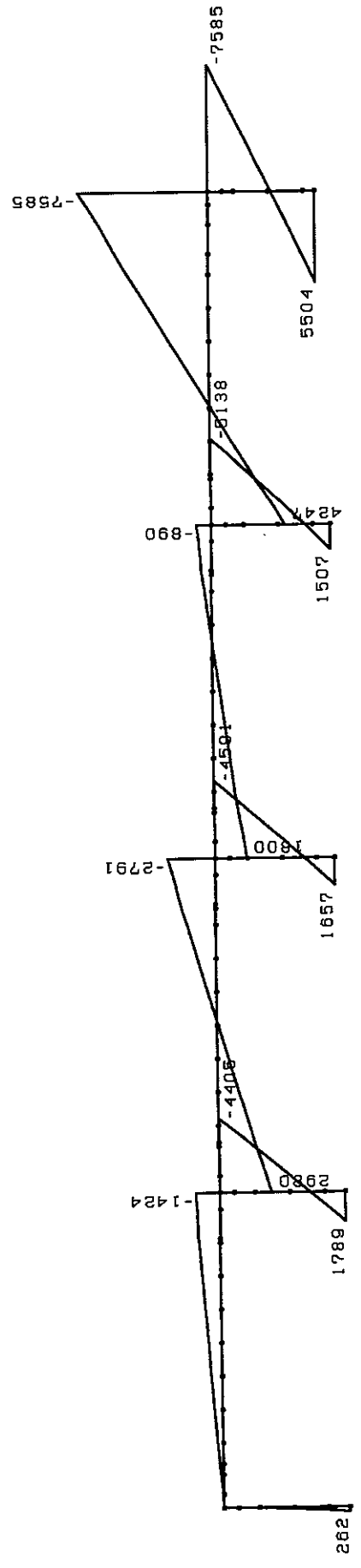
BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns
BENDING MOMENT OF TEMP (SLAB, DAY)

SCALE = 1 / 380
1CM = 784.4 KNM



SCALE = 1 / 380
 1CM = 3792.6 KNM

BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns
 BENDING MOMENT OF EARTHQUAKE



2.7 TORSIONAL FORCE CALCULATION BY GRILLAGE ANALYSIS

(Refer to Report “Calculation of Torsional Moment due to Live Load by Grillage Analysis”)

THE TORSIONAL EFFECT DUE TO LIVE LOAD

1. THE SUMMARY

Based on the advanced trial design, effect of torsional moments are not critical in design. Therefore, the torsional moments are applied only one case to similar bridges that have have same width. The grouping of torsional moments are as follows,

Group 1 Balaraja, Nagreg, Peterongan and Tanggulangin Flyover

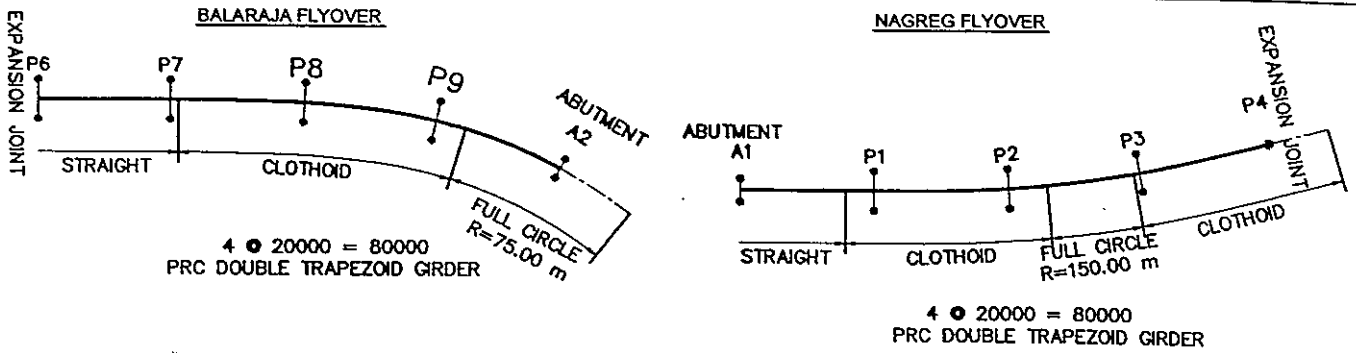
- a) The torsional effects are carried out by grillage analysis for PRC sub frames at curves which consist of,
 - Sub-frame P6 - A2 (4 spans), width 13.00 m for Balāraja Flyover
 - Sub-frame A1 - P4 (4 spans), width 13.00 m for Nagreg Flyover
 - Sub-frame P8 - A2 (2 spans), width 13.00 m for Nagreg Flyover
- b) *The torsional moment results of selected sub-frames are summarized and then sorted to get maximum values applying for the intermediate and end spans of sub frames as shown on the table-1 attached.*

Group 2 Gebang and Merak Flyover

The method is the same as Group1 mentioned above. The grillage analysis is carried out for the sub-frame P4-P8 of Gebang which is defined as a representative for all sub-frames of Gebang and Merak Flyover. The results of applied torsional moments are shown on the Table-2 attached.

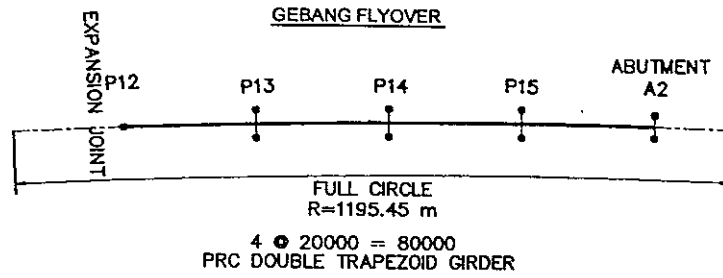
The applied torsional moments are added to the live load which analyzed by CONST as a special two dimensional PC structure software.

TABLE-1 APPLIED TORSIONAL MOMENTS FOR FLYOVER GROUP I



	Balaraja			Nagreg			Applied Torsional Moment	
	P6-A2	A1-P4	P8-A2	P6-A2	A1-P4	P8-A2	Total (T+)	Total (T-)
	Total (T+)	Total (T+)	Total (T+)	Total (T-)	Total (T-)	Total (T-)		
Side Span	416.0	308.0	334.5	-416.0	-308.0	-506.9	416.0	-506.9
	376.6	279.0	306.8	-376.6	-279.0	-453.9	376.6	-453.9
	273.6	202.6	227.0	-273.6	-202.6	-324.5	273.6	-324.5
	145.8	108.0	126.4	-145.8	-108.0	-167.1	280.2	-167.1
	34.8	26.2	52.3	-34.8	-26.2	-33.7	245.3	-155.3
	127.6	94.4	170.7	-127.6	-94.4	-91.0	187.8	-180.3
	218.8	162.0	276.9	-218.8	-162.0	-167.6	276.9	-230.4
	268.0	198.4	325.3	-268.0	-198.4	-216.3	325.3	-270.1
	272.8	202.0	313.6	-272.8	-202.0	-234.7	313.6	-272.8
	270.2	200.2	293.9	-270.2	-200.2	-247.3	293.9	-270.2
Pi	265.8	197.0	263.9	-265.8	-197.0	-266.0	265.8	-265.8
	265.8	197.0	232.7	-265.8	-197.0	-296.2	265.8	-265.8
Mid Span	163.8	121.4		-163.8	-121.4		208.9	-245.9
	165.8	122.8		-165.8	-122.8		213.5	-248.2
	165.2	122.4		-165.2	-122.4		248.2	-269.2
	156.8	116.2		-156.8	-116.2		269.2	-281.4
	112.2	83.0		-112.2	-83.0		281.4	-246.1
	44.8	38.6		-44.8	-38.6		246.1	-188.4
	44.8	38.6		-44.8	-38.6		188.4	-172.1
	112.2	83.0		-112.2	-83.0		246.1	-188.4
	156.8	116.2		-156.8	-116.2		281.4	-246.1
	165.2	122.4		-165.2	-122.4		269.2	-281.4
Pi+1	165.8	122.8		-165.8	-122.8		248.2	-269.2
	163.8	121.4		-163.8	-121.4		213.5	-248.2
	163.8	121.4		-163.8	-121.4		208.9	-245.9
Mid Span	208.9	155.1		-213.5	-158.3		208.9	-245.9
	187.4	141.7		-248.2	-183.9		213.5	-248.2
	176.4	134.1		-269.2	-199.5		248.2	-269.2
	167.2	127.5		-281.4	-208.4		269.2	-281.4
	162.2	123.4		-246.1	-183.7		281.4	-246.1
	172.1	130.2		-188.4	-146.1		246.1	-188.4
	188.4	146.1		-172.1	-130.2		188.4	-172.1
	246.1	184.7		-162.2	-123.4		246.1	-188.4
	281.4	208.4		-167.2	-127.5		281.4	-246.1
	269.2	199.5		-176.4	-134.1		269.2	-281.4
Pi+2	248.2	183.9		-187.4	-141.7		248.2	-269.2
	213.5	158.3		-208.9	-155.1		213.5	-248.2
	174.2	129.1		-245.9	-182.1		208.9	-245.9
Side Span	208.9	155.1	164.4	-177.7	-158.3	-163.2	265.8	-265.8
	187.5	141.7	153.0	-218.8	-184.1	-179.8	265.8	-265.8
	176.4	134.2	144.9	-252.2	-199.6	-187.6	293.0	-270.2
	167.2	127.5	131.6	-271.2	-208.5	-184.7	313.6	-272.8
	162.2	123.3	92.9	-270.1	-183.7	-133.4	325.3	-270.1
	172.1	130.2	38.0	-230.4	-146.1	-53.8	276.9	-230.4
	187.8	145.9	55.8	-180.3	-130.5	-35.6	187.8	-180.3
	245.3	183.1	133.7	-155.3	-123.6	-92.9	245.3	-155.3
	280.2	207.5	182.6	-159.6	-127.9	-133.9	280.2	-167.1
	264.1	195.7	185.3	-179.1	-136.1	-147.3	273.6	-324.5
Pi+2	213.0	157.7	169.2	-210.1	-156.0	-156.3	376.6	-453.9
	173.8	128.8	158.0	-243.2	-183.4	-166.9	416.0	-506.9

TABLE-2 APPLIED TORSIONAL MOMENTS FOR FLYOVER GROUP II



	Gebang P11-A2		Applied Torsional Moment	
	Total (T+)	Total (T-)	Total (T+)	Total (T-)
Side Span	337.8	-389.2	337.8	-389.2
	305.1	-351.6	305.1	-351.6
	222.8	-257.4	222.8	-257.4
	121.4	-140.8	177.1	-141.3
	40.8	-42.9	129.1	-102.1
	123.3	-107.2	123.3	-107.2
	209.2	-180.5	209.2	-180.5
	255.2	-218.0	255.2	-218.0
	254.5	-221.5	254.5	-221.5
	246.6	-220.4	246.6	-220.4
	235.0	-219.8	235.0	-219.8
	227.9	-226.7	227.9	-226.7
Pi			Pi	
Mid Span	150.3	-173.9	169.2	-173.9
	150.5	-181.1	173.9	-181.1
	149.6	-184.2	181.1	-184.2
	142.4	-178.6	184.2	-178.6
	102.7	-129.9	178.6	-142.4
	43.1	-54.7	129.9	-102.7
	54.7	-43.1	54.7	-43.1
	129.9	-102.7	129.9	-102.7
	178.6	-142.4	178.6	-142.4
	184.2	-149.6	184.2	-178.6
	181.1	-150.5	181.1	-184.2
	173.9	-150.3	173.9	-181.1
169.2	-154.6	169.2	-173.9	
Pi+1			Pi+1	
Side Span	150.4	-174.0	227.9	-226.7
	150.5	-181.2	235.0	-219.8
	149.8	-184.4	246.6	-220.4
	142.5	-178.8	254.5	-221.5
	102.9	-130.1	255.2	-218.0
	43.6	-55.3	209.2	-180.5
	54.5	-43.0	123.3	-107.2
	129.1	-102.1	129.1	-102.1
	177.1	-141.3	177.1	-141.3
	186.1	-152.3	222.8	-257.4
	175.4	-151.8	305.1	-351.6
	170.7	-156.2	337.8	-389.2

2.8 CREEP AND SHRINKAGE

*** BALA

相対湿度 70 パーセント
基本流動係数 F0 2.000
基本乾燥収縮 E0-0.250E-03
有効係数 KW 3.000
遅れ弾性係数 V0 0.400

外ケープルに対するクリュー乾燥収縮減少量計算法 = 0 : 無視

セメント硬化速度係数 KZ
I START 1
I END 54

KZ 1

OUTPUT 変位 1
断面力 ステージ別 0

Relative Humidity
Basic Flow Coefficient for Creep
Basic Shrinkage
Coefficient for effective thickness of structural member
Delayed Elastic Coefficient

Calculation method for Creep and shrinkage of External Cable = 0 : Neglect

Hardening Speed Coefficient of Cement

Output Condition
Displacement Reaction Section Force Each Stage

Displacement at Creep Completion

*** BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

** 終了時 変位 **

Node Self-weight + Superimposed Dead Load Erection Load Girder internal Cable Stay Cable

節点	自重+橋面工		架設荷重		桁内Cable (FS)		Stay (FS)		R(mrad)	R(mrad)	R(mrad)
	X (mm)	Y (mm)	X (mm)	Y (mm)	X (mm)	Y (mm)	X (mm)	Y (mm)			
1	-5.31	-0.10	3.5754	0.00	0.0000	16.48	0.03	0.00	-5.7636	0.00	0.0000
2	-5.32	2.75	3.5220	0.00	0.0000	16.31	-4.41	0.00	-6.3368	0.00	0.0000
3	-5.32	6.84	3.2596	0.00	0.0000	16.05	-10.38	0.00	-4.8792	0.00	0.0000
4	-5.32	8.81	3.0467	0.00	0.0000	15.92	-13.10	0.00	-4.1299	0.00	0.0000
5	-5.33	12.29	2.5021	0.00	0.0000	15.66	-17.65	0.00	-3.1248	0.00	0.0000
6	-5.35	16.24	1.4032	0.00	0.0000	15.24	-22.20	0.00	-1.4343	0.00	0.0000
7	-5.37	17.82	0.1764	0.00	0.0000	14.80	-23.45	0.00	0.1586	0.00	0.0000
8	-5.40	16.98	-0.9902	0.00	0.0000	14.37	-21.68	0.00	1.5804	0.00	0.0000
9	-5.41	14.03	-1.9083	0.00	0.0000	13.92	-17.35	0.00	2.8706	0.00	0.0000
10	-5.42	9.64	-2.3828	0.00	0.0000	13.46	-11.43	0.00	3.1066	0.00	0.0000
11	-5.42	4.94	-2.1969	0.00	0.0000	12.99	-5.52	0.00	2.6381	0.00	0.0000
12	-5.42	4.40	-2.1180	0.00	0.0000	12.93	-4.88	0.00	2.5126	0.00	0.0000
13	-5.35	1.36	-1.2385	0.00	0.0000	12.48	-1.40	0.00	1.3628	0.00	0.0000
14	-5.35	0.16	-1.1643	0.00	0.0000	12.45	-0.09	0.00	1.2734	0.00	0.0000
15	-5.38	-0.97	-1.0893	0.00	0.0000	12.43	1.14	0.00	1.1868	0.00	0.0000
16	-5.38	-1.94	-0.1110	0.00	0.0000	12.10	1.99	0.00	-0.1085	0.00	0.0000
17	-5.38	-1.95	-0.0069	0.00	0.0000	12.05	1.95	0.00	-0.2556	0.00	0.0000
18	-2.79	0.34	0.8376	0.00	0.0000	10.39	0.29	0.00	-0.9975	0.00	0.0000
19	-2.79	2.27	1.0047	0.00	0.0000	9.94	-2.12	0.00	-1.2728	0.00	0.0000
20	-2.80	4.06	0.7244	0.00	0.0000	9.50	-4.41	0.00	-0.9486	0.00	0.0000
21	-2.82	5.01	0.1997	0.00	0.0000	9.07	-5.68	0.00	-0.2610	0.00	0.0000
22	-2.83	4.82	-0.3775	0.00	0.0000	8.64	-5.40	0.00	0.5129	0.00	0.0000
23	-2.84	3.59	-0.8176	0.00	0.0000	8.21	-3.79	0.00	1.0272	0.00	0.0000
24	-2.85	1.78	-0.9185	0.00	0.0000	7.78	-1.62	0.00	1.0333	0.00	0.0000
25	-2.85	0.92	-0.7807	0.00	0.0000	7.57	-0.69	0.00	0.7930	0.00	0.0000
26	-2.85	0.73	-0.7218	0.00	0.0000	7.51	-0.51	0.00	0.7078	0.00	0.0000
27	-2.84	-0.03	-0.0540	0.00	0.0000	7.15	0.10	0.00	-0.0805	0.00	0.0000
28	-2.84	-0.02	0.0032	0.00	0.0000	7.13	0.00	0.00	-0.1327	0.00	0.0000
29	-2.84	0.77	0.7564	0.00	0.0000	6.75	-1.40	0.00	-0.1971	0.00	0.0000
30	-2.83	0.97	0.8188	0.00	0.0000	6.71	-1.69	0.00	-1.1192	0.00	0.0000
31	-2.82	2.84	1.2095	0.00	0.0000	6.55	-3.36	0.00	-1.2142	0.00	0.0000
32	-2.47	5.24	1.1053	0.00	0.0000	6.13	-6.52	0.00	-1.5460	0.00	0.0000
33	-2.48	7.01	0.6142	0.00	0.0000	5.70	-8.97	0.00	-1.4898	0.00	0.0000
34	-2.49	7.57	-0.0625	0.00	0.0000	5.28	-9.93	0.00	-0.9016	0.00	0.0000
35	-2.51	6.77	-0.7251	0.00	0.0000	4.85	-8.98	0.00	-0.0090	0.00	0.0000
36	-2.53	4.82	-1.1737	0.00	0.0000	4.42	-6.45	0.00	0.9210	0.00	0.0000
37	-2.55	2.35	-1.2026	0.00	0.0000	3.97	-3.22	0.00	1.5375	0.00	0.0000
38	-2.56	1.24	-0.9969	0.00	0.0000	3.75	-1.77	0.00	1.5683	0.00	0.0000
39	-2.56	1.00	-0.9177	0.00	0.0000	3.69	-1.45	0.00	1.3020	0.00	0.0000
40	-2.55	-0.03	-0.0888	0.00	0.0000	3.29	-0.06	0.00	1.2060	0.00	0.0000
41	-2.55	-0.01	0.0486	0.00	0.0000	3.27	0.21	0.00	0.2405	0.00	0.0000
42	-2.55	-0.01	0.9064	0.00	0.0000	3.25	0.42	0.00	0.1727	0.00	0.0000
43	-2.54	1.15	0.9898	0.00	0.0000	2.82	-0.25	0.00	-0.8421	0.00	0.0000
44	-2.54	4.87	1.5490	0.00	0.0000	2.82	-0.47	0.00	-0.9519	0.00	0.0000
45	-2.25	7.77	1.2711	0.00	0.0000	2.51	-3.38	0.00	-1.4446	0.00	0.0000
46	-2.25	9.09	0.6338	0.00	0.0000	2.03	-6.10	0.00	-1.2099	0.00	0.0000
47	-2.29	10.20	-0.1635	0.00	0.0000	1.55	-8.02	0.00	-0.6566	0.00	0.0000
48	-2.31	9.09	-0.9198	0.00	0.0000	1.08	-8.66	0.00	0.0048	0.00	0.0000
49	-2.31	6.68	-1.4332	0.00	0.0000	0.62	-8.04	0.00	0.5974	0.00	0.0000
50	-2.36	4.79	-1.5507	0.00	0.0000	-0.13	-4.81	0.00	1.0937	0.00	0.0000
51	-2.37	2.19	-1.3516	0.00	0.0000	-0.57	-2.38	0.00	1.3431	0.00	0.0000
52	-2.32	0.77	-0.9687	0.00	0.0000	-0.82	-0.92	0.00	1.3394	0.00	0.0000
53	-2.32	0.00	0.0000	0.00	0.0000	0.00	0.00	0.00	1.0697	0.00	0.0000
54	-2.32	0.00	0.0000	0.00	0.0000	0.00	0.00	0.00	0.0000	0.00	0.0000

** 終了時 変位 **

節点	乾燥収縮		Shrinkage		Relaxation		TOTAL	
	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)	R (mrad)	X (mm)	Y (mm)
1	9.64	1.12	0.1000	-0.19	0.00	0.0495	20.61	1.05
2	9.49	1.17	0.0857	-0.19	0.04	0.0461	20.30	-0.45
3	9.28	1.26	0.0626	-0.19	0.09	0.0400	19.83	-2.19
4	9.17	1.30	0.0495	-0.19	0.11	0.0363	19.58	-2.88
5	8.95	1.34	0.0218	-0.19	0.15	0.0281	19.09	-3.86
6	8.59	1.34	-0.0193	-0.18	0.20	0.0142	18.30	-4.43
7	8.24	1.27	-0.0504	-0.18	0.21	0.0008	17.49	-4.15
8	7.88	1.15	-0.0687	-0.18	0.20	-0.0116	16.68	-3.35
9	7.53	1.01	-0.0690	-0.17	0.17	-0.0217	15.86	-2.15
10	7.18	0.89	-0.0411	-0.17	0.12	-0.0270	15.05	-0.77
11	6.82	0.87	0.0222	-0.16	0.06	-0.0254	14.23	0.35
12	6.78	0.88	0.0330	-0.16	0.06	-0.0247	14.13	0.46
13	6.47	1.00	0.1153	-0.16	0.02	-0.0174	13.43	0.97
14	6.28	1.14	0.1203	-0.16	0.00	-0.0169	13.23	1.21
15	6.10	1.24	0.1198	-0.16	-0.02	-0.0163	13.03	1.39
16	5.80	1.44	0.1052	-0.16	-0.03	-0.0057	12.37	1.46
17	5.75	1.47	0.1017	-0.16	-0.04	-0.0057	12.27	1.43
18	5.60	1.55	0.0854	-0.10	0.01	0.0106	13.09	2.19
19	5.25	1.68	0.0416	-0.10	0.04	0.0116	12.30	1.87
20	4.90	1.71	-0.0063	-0.10	0.06	0.0081	11.50	1.42
21	4.54	1.65	-0.0516	-0.09	0.07	0.0017	10.70	1.05
22	4.19	1.51	-0.0854	-0.09	0.06	-0.0052	9.91	1.00
23	3.84	1.33	-0.0969	-0.09	0.05	-0.0101	9.12	1.17
24	3.49	1.15	-0.0774	-0.08	0.03	-0.0110	8.34	1.33
25	3.31	1.08	-0.0539	-0.08	0.02	-0.0086	7.95	1.32
26	3.27	1.07	-0.0463	-0.08	0.01	-0.0090	7.85	1.31
27	2.96	1.03	0.0159	-0.08	0.00	-0.0034	7.20	1.11
28	2.78	1.09	0.0199	-0.08	0.00	-0.0031	6.99	1.03
29	2.60	1.07	0.0212	-0.08	0.00	-0.0026	6.79	0.88
30	2.29	1.13	0.0382	-0.07	0.00	0.0040	6.14	0.50
31	2.25	1.14	0.0394	-0.07	0.00	0.0046	6.05	0.42
32	2.15	1.18	0.0418	-0.07	0.03	0.0119	6.15	0.69
33	1.80	1.25	0.0282	-0.07	0.05	0.0108	5.37	0.02
34	1.45	1.28	0.0040	-0.07	0.07	0.0060	4.59	-0.62
35	1.10	1.26	-0.0238	-0.07	0.08	-0.0010	3.80	-1.02
36	0.75	1.19	-0.0459	-0.06	0.07	-0.0079	3.00	-0.96
37	0.40	1.09	-0.0515	-0.06	0.05	-0.0122	2.21	-0.50
38	0.05	1.00	-0.0316	-0.06	0.02	-0.0116	1.41	0.16
39	-0.12	0.98	-0.0101	-0.05	0.01	-0.0090	1.01	0.46
40	-0.17	0.98	-0.0032	-0.05	0.01	-0.0082	0.91	0.53
41	-0.47	1.02	0.0526	-0.05	0.00	-0.0001	0.22	0.99
42	-0.66	1.12	0.0561	-0.05	0.00	0.0005	0.02	1.30
43	-0.84	1.13	0.0607	-0.05	0.00	0.0011	-0.19	1.54
44	-1.14	1.30	0.1354	-0.05	0.01	0.0100	-0.85	1.98
45	-1.41	1.65	0.1693	-0.05	0.01	0.0109	-0.95	2.03
46	-1.41	1.65	0.1693	-0.05	0.07	0.0196	-1.20	3.20
47	-1.76	1.98	0.1595	-0.04	0.13	0.0165	-2.04	3.75
48	-2.11	2.26	0.1181	-0.04	0.13	0.0102	-2.89	4.09
49	-2.46	2.43	0.0516	-0.04	0.15	0.0020	-3.73	4.11
50	-2.82	2.45	-0.0350	-0.03	0.14	-0.0066	-4.57	3.64
51	-3.17	2.28	-0.1402	-0.03	0.12	-0.0154	-5.40	2.74
52	-3.39	2.06	-0.2148	-0.03	0.10	-0.0211	-5.92	2.14
53	-3.68	1.59	-0.3115	-0.03	0.06	-0.0264	-6.59	-0.3501
54	-3.89	1.18	-0.3704	-0.02	0.02	-0.0282	-7.05	-0.2876

** 終了時 変位 **

節点	自重+橋面工		架設荷重		桁内Cable (PS)		Stay (PS)		R (mrad)	
	X (mm)	Y (mm)	X (mm)	Y (mm)	X (mm)	Y (mm)	X (mm)	Y (mm)	X (mm)	Y (mm)
55	-2.32	0.01	0.00	0.00	-0.83	-0.07	1.0415	0.00	0.0000	0.0000
56	0.00	-0.10	0.00	0.00	0.00	0.03	0.0000	0.00	0.0000	0.0000
57	0.00	-0.09	0.00	0.00	0.00	0.03	0.0000	0.00	0.0000	0.0000
58	0.00	-0.08	0.00	0.00	0.00	0.02	0.0000	0.00	0.0000	0.0000
59	0.00	-0.08	0.00	0.00	0.00	0.02	0.0000	0.00	0.0000	0.0000
60	0.00	-0.07	0.00	0.00	11.40	-0.09	1.2741	0.00	0.0000	0.0000
61	-4.39	0.16	0.00	0.00	9.83	-0.09	1.3270	0.00	0.0000	0.0000
62	-3.12	0.15	0.00	0.00	7.26	-0.08	1.1994	0.00	0.0000	0.0000
63	-1.55	0.13	0.00	0.00	5.21	-0.07	0.8023	0.00	0.0000	0.0000
64	-0.66	0.12	0.00	0.00	4.46	-0.07	0.4346	0.00	0.0000	0.0000
65	-0.44	0.11	0.00	0.00	7.24	0.00	-0.1304	0.00	0.0000	0.0000
66	-2.84	-0.06	0.00	0.00	7.20	0.00	0.1831	0.00	0.0000	0.0000
67	-2.79	-0.05	0.00	0.00	6.43	0.00	0.5321	0.00	0.0000	0.0000
68	-2.44	-0.05	0.00	0.00	5.31	0.00	0.5337	0.00	0.0000	0.0000
69	-1.99	-0.04	0.00	0.00	4.82	0.00	0.3999	0.00	0.0000	0.0000
70	-1.80	-0.04	0.00	0.00	3.07	0.21	0.2409	0.00	0.0000	0.0000
71	-2.53	-0.03	0.00	0.00	2.80	0.20	0.2854	0.00	0.0000	0.0000
72	-2.46	-0.03	0.00	0.00	2.20	0.18	0.2991	0.00	0.0000	0.0000
73	-2.13	-0.02	0.00	0.00	1.67	0.16	0.2160	0.00	0.0000	0.0000
74	-1.72	-0.02	0.00	0.00	1.49	0.16	0.1360	0.00	0.0000	0.0000
75	-1.56	-0.02	0.00	0.00	-1.69	-0.07	1.0343	0.00	0.0000	0.0000
76	-1.55	0.01	0.00	0.00	-2.30	-0.07	0.7849	0.00	0.0000	0.0000
77	-0.98	0.01	0.00	0.00	-3.25	-0.06	0.2090	0.00	0.0000	0.0000
78	0.18	0.01	0.00	0.00	-3.30	-0.06	-0.1230	0.00	0.0000	0.0000
79	0.64	0.01	0.00	0.00	-3.20	-0.05	-0.1800	0.00	0.0000	0.0000
80	0.67	0.01	0.00	0.00						

*** BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

** 終了時 変位 **

節点	乾燥収縮		Relaxation		TOTAL		X (mm)	Y (mm)	R (mrad)
	X (mm)	Y (mm)	X (mm)	Y (mm)	X (mm)	Y (mm)			
55	-4.04	0.93	-0.3745	0.00	-0.0282	0.87	-0.2894	0.87	0.0000
56	0.00	1.12	0.0000	0.00	0.0000	1.05	0.0000	1.05	0.0000
57	0.00	0.91	0.0000	0.00	0.0000	0.84	0.0000	0.84	0.0000
58	0.00	0.55	0.0000	0.00	0.0000	0.49	0.0000	0.49	0.0000
59	0.00	0.20	0.0000	0.00	0.0000	0.15	0.0000	0.15	0.0000
60	0.00	-0.02	0.0000	0.00	0.0000	-0.06	0.0000	-0.06	0.0000
61	6.18	1.14	0.1218	0.00	-0.0169	1.20	0.2157	1.20	0.2157
62	5.89	0.92	0.3444	0.00	-0.0207	0.99	0.6964	0.99	0.6964
63	4.99	0.57	0.5220	0.00	-0.0205	0.63	1.0877	0.63	1.0877
64	3.97	0.21	0.4580	0.00	-0.0122	0.26	0.9667	0.26	0.9667
65	3.50	0.00	0.3036	0.00	-0.0033	0.05	0.6482	0.05	0.6482
66	2.76	1.09	0.0207	0.00	-0.0031	1.03	-0.1105	1.03	-0.1105
67	2.69	0.90	0.1193	0.00	-0.0066	0.85	0.1896	0.85	0.1896
68	2.33	0.55	0.2207	0.00	-0.0094	0.49	0.5223	0.49	0.5223
69	1.89	0.19	0.2014	0.00	-0.0065	0.14	0.5207	0.14	0.5207
70	1.71	0.01	0.1447	0.00	-0.0028	-0.04	0.3903	-0.04	0.3903
71	-0.70	1.12	0.0558	0.00	0.0004	1.30	0.2756	1.30	0.2756
72	-0.74	0.93	0.0125	0.00	-0.0030	1.11	0.1838	1.11	0.1838
73	-0.70	0.57	-0.0410	0.00	-0.0062	0.73	0.0493	0.73	0.0493
74	-0.60	0.22	-0.0534	0.00	-0.0048	0.36	-0.0263	0.36	-0.0263
75	-0.55	0.03	-0.0438	0.00	-0.0023	0.17	-0.0422	0.17	-0.0422
76	-3.73	0.93	-0.3753	0.00	-0.0280	0.87	-0.2931	0.87	-0.2931
77	-3.47	0.81	-0.3917	0.00	-0.0215	0.75	-0.4050	0.75	-0.4050
78	-2.69	0.46	-0.3670	0.00	-0.0063	0.41	-0.5663	0.41	-0.5663
79	-2.08	0.11	-0.2326	0.00	0.0026	0.06	-0.4385	0.06	-0.4385
80	-1.94	-0.01	-0.1624	0.00	0.0042	-0.06	-0.3380	-0.06	-0.3380

*** BALARAJA Flyover 4 Span Continuous P6-A2 B=13.0m 2columns

** 終了時 反力 **

節点	自重+橋面工		架設荷重		桁内Cable(PS)		Stay(PS)		RM (kNm)
	RX (kN)	RY (kN)	RX (kN)	RY (kN)	RX (kN)	RY (kN)	RX (kN)	RY (kN)	
60	0.0	-113.3	0.0	0.0	0.0	37.0	0.0	0.0	0.0
65	4.9	181.5	0.0	0.0	142.4	-105.2	0.0	0.0	0.0
70	-67.7	-65.6	0.0	0.0	183.5	-5.0	0.0	0.0	0.0
75	-58.0	-31.1	0.0	0.0	51.1	248.2	0.0	0.0	0.0
80	120.9	28.5	0.0	0.0	-377.0	-175.1	0.0	0.0	0.0
節点	乾燥収縮		Relaxation		TOTAL				RM (kNm)
	RX (kN)	RY (kN)	RX (kN)	RY (kN)	RX (kN)	RY (kN)	RX (kN)	RY (kN)	
60	0.0	-24.1	0.0	0.2	0.0	-100.1	0.0	0.0	0.0
65	127.6	0.2	-1.3	0.0	273.6	76.6	737.1	0.0	0.0
70	63.7	12.5	-1.0	-0.1	178.5	-58.2	364.2	0.0	0.0
75	-21.7	49.6	-0.8	0.2	-29.5	266.9	19.9	0.0	0.0
80	-169.6	-38.2	3.1	-0.3	-422.7	-185.1	-1024.5	0.0	0.0

** 終了時 外的及び内の不静定力 **

部材	自重+橋面工			架設荷重			桁内Cable (PS)			M (kNm)	Stay (PS) S (kN)	N (kN)	M (kNm)	Stay (PS) S (kN)	M (kNm)
	N (kN)	S (kN)	M (kNm)	N (kN)	S (kN)	M (kNm)	N (kN)	S (kN)	M (kNm)						
1	-52	-204	0	0	0	0	1207	94	0	0	0	469	0	0	
2	-52	-204	-162	0	0	0	1207	94	0	0	0	567	0	0	
2	-215	-190	-162	0	0	0	1420	94	0	0	0	567	0	0	
3	-215	-190	-394	0	0	0	1420	94	0	0	0	733	0	0	
3	-396	-180	-394	0	0	0	1647	95	0	0	0	733	0	0	
4	-396	-180	-525	0	0	0	1647	95	0	0	0	875	0	0	
4	-583	-175	-525	0	0	0	1904	102	0	0	0	875	0	0	
5	-583	-175	-776	0	0	0	1904	102	0	0	0	1107	0	0	
5	-808	-153	-776	0	0	0	2093	25	0	0	0	1107	0	0	
6	-808	-153	-1106	0	0	0	2093	25	0	0	0	1223	0	0	
6	-912	-118	-1106	0	0	0	2045	9	0	0	0	1223	0	0	
7	-912	-118	-1342	0	0	0	2045	9	0	0	0	1247	0	0	
7	-849	-83	-1342	0	0	0	1896	-3	0	0	0	1247	0	0	
8	-849	-83	-1485	0	0	0	1896	-3	0	0	0	1192	0	0	
8	-599	-55	-1485	0	0	0	1566	-44	0	0	0	1192	0	0	
9	-599	-55	-1639	0	0	0	1566	-44	0	0	0	977	0	0	
9	-217	-50	-1639	0	0	0	1031	-64	0	0	0	977	0	0	
10	-217	-50	-1595	0	0	0	1031	-64	0	0	0	700	0	0	
10	59	-73	-1595	0	0	0	684	-14	0	0	0	700	0	0	
11	59	-73	-1747	0	0	0	684	-14	0	0	0	594	0	0	
11	68	-87	-1747	0	0	0	703	9	0	0	0	594	0	0	
12	68	-87	-1785	0	0	0	703	9	0	0	0	552	0	0	
12	-41	-88	-1785	0	0	0	815	11	0	0	0	552	0	0	
13	-41	-88	-1979	0	0	0	815	11	0	0	0	593	0	0	
13	-26	-110	-1979	0	0	0	102	36	0	0	0	593	0	0	
14	-26	-110	-2127	0	0	0	102	36	0	0	0	681	0	0	
14	-20	65	-1752	0	0	0	243	-67	0	0	0	976	0	0	
15	-20	65	-1639	0	0	0	243	-67	0	0	0	849	0	0	
15	1	42	-1639	0	0	0	859	-34	0	0	0	849	0	0	
16	1	42	-1510	0	0	0	859	-34	0	0	0	752	0	0	
16	141	37	-1510	0	0	0	683	-26	0	0	0	752	0	0	
17	141	37	-1476	0	0	0	683	-26	0	0	0	771	0	0	
17	173	26	-1476	0	0	0	683	-26	0	0	0	771	0	0	
18	173	26	-1411	0	0	0	679	-8	0	0	0	777	0	0	
18	94	8	-1411	0	0	0	679	-8	0	0	0	777	0	0	
19	94	8	-1374	0	0	0	788	21	0	0	0	777	0	0	
19	-154	15	-1374	0	0	0	788	21	0	0	0	877	0	0	
20	-154	15	-1357	0	0	0	1124	-1	0	0	0	877	0	0	
20	-358	41	-1357	0	0	0	1124	-1	0	0	0	954	0	0	
21	-358	41	-1357	0	0	0	1429	-7	0	0	0	954	0	0	
21	-397	75	-1283	0	0	0	1429	-7	0	0	0	972	0	0	
21	-397	75	-1112	0	0	0	1490	-96	0	0	0	972	0	0	
22	-397	75	-1112	0	0	0	1490	-96	0	0	0	723	0	0	
22	-245	101	-1112	0	0	0	1490	-96	0	0	0	723	0	0	
23	-245	101	-873	0	0	0	1224	-124	0	0	0	723	0	0	
23	-21	105	-873	0	0	0	1224	-124	0	0	0	353	0	0	
24	-21	105	-652	0	0	0	903	-123	0	0	0	353	0	0	
24	68	92	-652	0	0	0	903	-123	0	0	0	5	0	0	
25	68	92	-569	0	0	0	803	-95	0	0	0	5	0	0	
25	65	89	-569	0	0	0	803	-95	0	0	0	-135	0	0	
26	65	89	-553	0	0	0	820	-88	0	0	0	-135	0	0	
26	-8	89	-553	0	0	0	820	-88	0	0	0	-198	0	0	
26	-8	89	-429	0	0	0	877	-90	0	0	0	-198	0	0	
27	-13	70	-429	0	0	0	877	-90	0	0	0	-349	0	0	
28	-13	70	-389	0	0	0	228	-68	0	0	0	-349	0	0	
28	-13	70	-389	0	0	0	228	-68	0	0	0	-381	0	0	

*** BALARAJA Flyover 4 Span Continuous PG-A2 B=13.0m 2columns

** 終了時 外的及び内の不静定力 **

部材	N (kN)	乾燥収縮 S (kN)	M (kNm)	N (kN)	Relaxation S (kN)	M (kNm)	N (kN)	TOTAL S (kN)	M (kNm)	N (kN)	S (kN)	M (kNm)
1	621	-22	145	-8	0	-3	1767	-131	610	1767		
2	621	-22	146	-8	0	-3	1767	-131	547	1767		
2	615	-23	146	-9	0	-3	1810	-118	547	1810		
3	609	-23	154	-9	0	-3	1810	-118	489	1810		
3	609	-23	154	-10	0	-3	1849	-107	489	1849		
4	609	-23	172	-10	0	-4	1849	-107	517	1849		
4	603	-22	172	-12	0	-4	1911	-94	517	1911		
5	603	-22	171	-12	0	-5	1911	-94	496	1911		
5	603	-21	171	-13	0	-5	1874	-147	496	1874		
6	603	-21	141	-13	0	-5	1874	-147	252	1874		
6	611	-21	141	-13	0	-5	1730	-128	252	1730		
7	611	-21	97	-13	0	-4	1730	-128	-1	1730		
7	622	-21	97	-12	0	-4	1656	-106	-1	1656		
8	622	-21	39	-12	0	-3	1656	-106	-255	1656		
8	637	-21	39	-10	0	-3	1593	-119	-255	1593		
9	637	-21	-49	-10	0	-1	1593	-119	-611	1593		
9	652	-21	-49	-7	0	-1	1458	-134	-611	1458		
10	652	-21	-178	-7	0	1	1391	-109	-1070	1391		
10	654	-23	-178	-5	0	1	1391	-109	-1454	1391		
11	654	-23	-306	-5	0	3	1412	-98	-1454	1412		
11	647	-22	-306	-5	0	3	1412	-98	-1598	1412		
12	647	-22	-370	-5	0	3	1402	-98	-1598	1402		
12	634	-23	-370	-5	0	3	1402	-98	-1848	1402		
13	634	-23	-468	-5	0	4	1402	-96	-1848	1402		
13	634	-23	-468	0	0	4	735	-96	-1961	735		
14	660	-24	-521	0	0	4	735	-96	-720	735		
14	790	-23	54	-2	0	0	1010	-24	-720	1010		
15	790	-23	60	-2	0	0	1010	-24	-728	1010		
15	761	-20	60	-6	0	0	1614	-12	-728	1614		
16	761	-20	84	-5	0	0	1614	-12	-671	1614		
16	749	-24	84	-5	0	0	1567	-14	-671	1567		
17	749	-24	127	-5	0	0	1567	-14	-576	1567		
17	755	-23	126	-5	0	0	1601	-6	-576	1601		
18	755	-23	157	-5	0	0	1601	-6	-475	1601		
18	743	-23	157	-5	0	0	1619	4	-475	1619		
19	743	-23	177	-5	0	-1	1619	4	-319	1619		
19	743	-23	177	-7	0	-1	1694	-9	-319	1694		
20	732	-22	180	-7	0	-2	1694	-9	-223	1694		
20	732	-22	180	-9	0	-2	1790	10	-223	1790		
20	729	-21	153	-9	0	-2	1790	10	-158	1790		
21	729	-21	153	-9	0	-2	1820	-41	-158	1820		
21	738	-21	153	-10	0	-2	1820	-41	-299	1820		
22	738	-21	89	-10	0	-1	1727	-43	-299	1727		
22	757	-21	89	-8	0	0	1727	-43	-533	1727		
23	757	-21	-15	-8	0	0	1648	-39	-533	1648		
23	773	-22	-15	-6	0	0	1648	-39	-783	1648		
24	773	-22	-139	-6	0	1	1640	-24	-783	1640		
24	775	-22	-139	-5	0	1	1640	-24	-919	1640		
25	775	-22	-218	-5	0	2	1651	-21	-919	1651		
25	775	-22	-218	-6	0	2	1651	-21	-1013	1651		
26	773	-22	-266	-6	0	3	1626	-26	-1013	1626		
26	764	-26	-266	-6	0	3	1626	-26	-1141	1626		
27	764	-26	-367	-6	0	3	1007	-21	-1141	1007		
27	794	-23	-367	-1	0	3	1007	-21	-1186	1007		
28	794	-23	-420	-1	0	3	1007	-21	-1186	1007		

** 終了時 外的及び内の不静定力 **

部材	自重+橋面工		架設荷重		桁内Cable (PS)		M (kNm)	N (kN)	S (kN)	M (kNm)	N (kN)	S (kN)	M (kNm)	N (kN)	S (kN)	M (kNm)	N (kN)	S (kN)	
	N (kN)	M (kNm)	N (kN)	S (kN)	N (kN)	S (kN)													N (kN)
28	-81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	-81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	-51	-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	-51	-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	29	-27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	30	-27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	32	-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	31	-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	33	-94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	32	-94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	34	-358	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33	-358	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	35	-541	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	34	-541	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	36	-528	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	35	-528	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	37	-313	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	36	-313	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	38	-50	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	37	-50	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	39	36	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	38	36	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	40	23	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	39	23	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	41	-78	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	40	-78	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	42	-85	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	41	-85	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	43	-143	-31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	42	-143	-31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	44	-109	-68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	43	-109	-68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	45	-109	-62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	44	-109	-62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	46	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	45	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	47	-258	-86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	46	-258	-86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	48	-553	-74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	47	-553	-74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	49	-726	-41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	48	-726	-41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	50	-704	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	49	-704	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	51	-509	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	50	-509	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	52	-248	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52	51	-248	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52	53	54	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	52	54	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	54	216	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	53	216	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	55	-77	-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	54	-77	-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

*** BALARAJA Flyover 4 Span Continuous PG-A2 B=13.0m 2columns

** 終了時 外的及び内的不静定力 **

部材	N (kN)	S (kN)	M (kNm)	N (kN)	Relaxation S (kN)	M (kNm)	N (kN)	S (kN)	M (kNm)	N (kN)	TOTAL S (kN)	M (kNm)	N (kN)	S (kN)	M (kNm)
28	858	-11	-130	-2	0	0	0	0	0	1186	-82	-322	1186	-82	-322
29	858	-11	-110	-2	0	1	0	0	1	1186	-82	-81	1186	-82	-81
29	828	-7	-110	-6	0	1	0	0	1	1762	-68	-381	1762	-68	-381
30	828	-7	-62	-6	0	0	0	0	0	1762	-68	-420	1762	-68	-420
30	822	-12	-62	-6	0	0	0	0	0	1739	-73	-420	1739	-73	-420
31	822	-12	-15	-6	0	0	0	0	0	1739	-73	-338	1739	-73	-338
31	833	-11	-16	-6	0	0	0	0	0	1790	-65	-339	1790	-65	-339
32	833	-11	28	-6	0	0	0	0	0	1790	-65	-293	1790	-65	-293
32	826	-11	28	-7	0	0	0	0	0	1834	-50	-293	1834	-50	-293
33	826	-11	75	-7	0	0	0	0	0	1834	-50	-245	1834	-50	-245
33	816	-11	75	-9	0	0	0	0	0	1928	-69	-245	1928	-69	-245
34	816	-11	102	-9	0	0	0	0	0	1928	-69	-262	1928	-69	-262
34	811	-10	102	-11	0	0	0	0	0	2038	-43	-262	2038	-43	-262
35	811	-10	99	-11	0	0	0	0	0	2038	-43	-303	2038	-43	-303
35	815	-9	99	-11	0	0	0	0	0	2093	-95	-303	2093	-95	-303
36	815	-9	57	-11	0	0	0	0	0	2093	-95	-553	2093	-95	-553
36	829	-9	57	-9	0	0	0	0	0	2011	-98	-912	2011	-98	-912
37	829	-9	-25	-9	0	0	0	0	0	1916	-100	-912	1916	-100	-912
37	842	-10	-25	-7	0	0	0	0	0	1916	-100	-1296	1916	-100	-1296
38	842	-10	-126	-7	0	0	0	0	0	1886	-83	-1296	1886	-83	-1296
38	842	-10	-126	-6	0	0	0	0	0	1886	-83	-1501	1886	-83	-1501
39	842	-10	-193	-6	0	0	0	0	0	1886	-83	-1501	1886	-83	-1501
39	840	-10	-193	-7	0	0	0	0	0	1891	-80	-1615	1891	-80	-1615
40	840	-10	-239	-7	0	0	0	0	0	1861	-89	-1615	1861	-89	-1615
40	832	-15	-239	-7	0	0	0	0	0	1861	-89	-1859	1861	-89	-1859
41	832	-15	-322	-7	0	0	0	0	0	1196	-78	-1859	1196	-78	-1859
41	864	-11	-322	-3	0	0	0	0	0	1196	-78	-1963	1196	-78	-1963
42	864	-11	-363	-3	0	0	0	0	0	1196	-78	-2184	1196	-78	-2184
42	842	38	-480	-3	0	0	0	0	0	1168	182	-2184	1168	182	-2184
43	842	38	-408	-3	0	0	0	0	0	1168	182	-1971	1168	182	-1971
43	812	41	-408	-8	0	0	0	0	0	1814	192	-1971	1814	192	-1971
44	812	41	-270	-8	0	0	0	0	0	1814	192	-1535	1814	192	-1535
44	817	35	-270	-7	0	0	0	0	0	1837	193	-1535	1837	193	-1535
45	817	35	-193	-7	0	0	0	0	0	1837	193	-1343	1837	193	-1343
45	832	35	-193	-7	0	0	0	0	0	1937	203	-1344	1937	203	-1344
46	832	35	-40	-7	0	0	0	0	0	1937	203	-751	1937	203	-751
46	815	34	-40	-10	0	0	0	0	0	1945	171	-751	1945	171	-751
47	815	34	96	-10	0	0	0	0	0	1945	171	-245	1945	171	-245
47	789	34	96	-12	0	0	0	0	0	1888	182	-245	1888	182	-245
48	789	34	200	-12	0	0	0	0	0	1888	182	201	1888	182	201
48	765	34	200	-13	0	0	0	0	0	1809	160	201	1809	160	201
49	765	34	283	-13	0	0	0	0	0	1809	160	551	1809	160	551
49	747	34	283	-14	0	0	0	0	0	1752	189	551	1752	189	551
50	747	34	353	-14	0	0	0	0	0	1752	189	931	1752	189	931
50	732	34	353	-14	0	0	0	0	0	1845	228	931	1845	228	931
51	732	34	421	-14	0	0	0	0	0	1845	228	1382	1845	228	1382
51	720	34	421	-14	0	0	0	0	0	1845	228	1382	1845	228	1382
52	720	34	449	-14	0	0	0	0	0	2002	246	1382	2002	246	1382
52	743	32	449	-14	0	0	0	0	0	1617	246	1617	1617	246	1617
53	743	32	463	-11	0	0	0	0	0	142	142	1617	142	142	1617
53	743	32	463	-9	0	0	0	0	0	1953	142	1716	1953	142	1716
54	770	36	463	-3	0	0	0	0	0	1867	198	1716	1867	198	1716
54	848	38	475	-3	0	0	0	0	0	1867	198	1744	1867	198	1744
55	848	38	501	-3	0	0	0	0	0	1190	187	1744	1190	187	1744
55	848	38	501	-3	0	0	0	0	0	1190	187	1765	1190	187	1765

** 終了時 外的及び内の不静定力 **

部材	N (kN)	自重+橋面工 S (kN)	M (kNm)	N (kN)	架設荷重 S (kN)	M (kNm)	N (kN)	桁内Cable (PS) S (kN)	M (kNm)	N (kN)	Stay (PS) S (kN)	M (kNm)
1	113	0	0	0	0	0	-37	0	0	0	0	0
56	113	0	0	0	0	0	-37	0	0	0	0	0
56	113	0	0	0	0	0	-37	0	0	0	0	0
57	113	0	0	0	0	0	-37	0	0	0	0	0
57	113	0	0	0	0	0	-37	0	0	0	0	0
58	113	0	0	0	0	0	-37	0	0	0	0	0
58	113	0	0	0	0	0	-37	0	0	0	0	0
59	113	0	0	0	0	0	-37	0	0	0	0	0
59	113	0	0	0	0	0	-37	0	0	0	0	0
60	113	0	0	0	0	0	-37	0	0	0	0	0
14	61	4	-374	0	0	0	105	142	-296	0	0	0
61	14	4	-370	0	0	0	105	142	-178	0	0	0
61	62	4	-370	0	0	0	105	142	-178	0	0	0
62	61	4	-365	0	0	0	105	142	-7	0	0	0
62	63	4	-365	0	0	0	105	142	-7	0	0	0
63	62	4	-355	0	0	0	105	142	277	0	0	0
63	64	4	-355	0	0	0	105	142	277	0	0	0
64	63	4	-345	0	0	0	105	142	561	0	0	0
64	65	4	-345	0	0	0	105	142	561	0	0	0
65	64	4	-339	0	0	0	105	142	732	0	0	0
28	66	65	314	0	0	0	5	183	-891	0	0	0
66	28	65	-67	258	0	0	5	183	-740	0	0	0
66	67	65	-67	258	0	0	5	183	-740	0	0	0
67	66	65	-67	189	0	0	5	183	-552	0	0	0
67	68	65	-67	189	0	0	5	183	-552	0	0	0
68	67	65	-67	53	0	0	5	183	-185	0	0	0
68	69	65	-67	53	0	0	5	183	-185	0	0	0
69	68	65	-67	-81	0	0	5	183	181	0	0	0
69	70	65	-67	-81	0	0	5	183	181	0	0	0
70	69	65	-67	-150	0	0	5	183	369	0	0	0
42	71	31	262	0	0	0	-248	51	-160	0	0	0
42	71	31	262	0	0	0	-248	51	-160	0	0	0
71	42	31	-58	214	0	0	-248	51	-117	0	0	0
71	72	31	-58	214	0	0	-248	51	-117	0	0	0
72	71	31	-58	154	0	0	-248	51	-65	0	0	0
72	73	31	-58	154	0	0	-248	51	-65	0	0	0
73	72	31	-58	38	0	0	-248	51	36	0	0	0
73	74	31	-58	38	0	0	-248	51	36	0	0	0
74	73	31	-58	-77	0	0	-248	51	138	0	0	0
74	75	31	-58	-77	0	0	-248	51	138	0	0	0
75	74	31	-58	-137	0	0	-248	51	191	0	0	0
55	76	-28	120	-1491	0	0	175	-377	2722	0	0	0
55	76	-28	120	-1491	0	0	175	-377	2722	0	0	0
76	55	-28	120	-1391	0	0	175	-377	2411	0	0	0
76	77	-28	120	-1391	0	0	175	-377	2411	0	0	0
77	76	-28	120	-1309	0	0	175	-377	2157	0	0	0
77	76	-28	120	-1309	0	0	175	-377	2157	0	0	0
77	78	-28	120	-1309	0	0	175	-377	1403	0	0	0
78	77	-28	120	-1068	0	0	175	-377	1403	0	0	0
78	79	-28	120	-826	0	0	175	-377	649	0	0	0
79	78	-28	120	-826	0	0	175	-377	649	0	0	0
79	80	-28	120	-826	0	0	175	-377	649	0	0	0
80	79	-28	120	-744	0	0	175	-377	394	0	0	0

** 終了時 外的及び内の不静定力 **

部材	N (kN)	乾燥収縮 S (kN)	M (kNm)	N (kN)	Relaxation S (kN)	M (kNm)	N (kN)	TOTAL S (kN)	M (kNm)	N (kN)	S (kN)	M (kNm)
1	56	0	0	0	0	0	98	0	0	0	0	0
56	1	0	0	0	0	0	98	0	0	0	0	0
56	57	24	0	0	0	0	98	0	0	0	0	0
57	56	24	0	0	0	0	98	0	0	0	0	0
57	58	24	0	0	0	0	98	0	0	0	0	0
58	57	24	0	0	0	0	98	0	0	0	0	0
58	59	24	0	0	0	0	98	0	0	0	0	0
59	58	24	0	0	0	0	98	0	0	0	0	0
59	60	24	0	0	0	0	98	0	0	0	0	0
60	59	24	0	0	0	0	98	0	0	0	0	0
14	61	0	127	0	-1	4	-75	271	-1238	271	271	-1238
61	14	0	127	0	-1	3	-75	271	-1012	271	271	-1012
61	62	0	127	0	-1	3	-75	271	-1012	271	271	-1012
62	61	0	127	0	-1	2	-75	271	-684	271	271	-684
62	63	0	127	0	-1	0	-75	271	-137	271	271	-137
63	62	0	127	0	-1	0	-75	271	-137	271	271	-137
63	64	0	127	0	-1	-2	-75	271	408	271	271	408
64	63	0	127	0	-1	-2	-75	271	408	271	271	408
64	65	0	127	0	-1	-4	-75	271	736	271	271	736
65	64	0	127	0	-1	3	57	177	-861	177	177	-861
28	66	63	-288	0	-1	2	57	177	-715	177	177	-715
66	28	63	-236	0	-1	2	57	177	-715	177	177	-715
66	67	63	-236	0	-1	1	57	177	-531	177	177	-531
67	66	63	-170	0	-1	1	57	177	-531	177	177	-531
67	68	63	-170	0	-1	0	57	177	-175	177	177	-175
68	67	63	-43	0	-1	0	57	177	-175	177	177	-175
68	69	63	-43	0	-1	-3	57	177	180	177	177	180
69	68	63	84	0	-1	-3	57	177	180	177	177	180
69	70	63	84	0	-1	-4	57	177	363	177	177	363
70	69	63	149	0	-1	2	-266	-27	221	-27	-27	221
42	71	-49	-21	118	0	1	-266	-27	197	-27	-27	197
71	42	-49	-21	100	0	1	-266	-27	197	-27	-27	197
71	72	-49	-21	100	0	0	-266	-27	166	-27	-27	166
72	71	-49	-21	78	0	0	-266	-27	166	-27	-27	166
72	73	-49	-21	78	0	0	-266	-27	166	-27	-27	166
73	72	-49	-21	34	0	0	-266	-27	107	-27	-27	107
73	74	-49	-21	34	0	0	-266	-27	107	-27	-27	107
74	73	-49	-21	-8	0	-2	-266	-27	49	-27	-27	49
74	75	-49	-21	-8	0	-2	-266	-27	49	-27	-27	49
75	74	-49	-21	-30	0	-3	-266	-27	19	-27	-27	19
55	76	38	-169	347	0	6	185	-422	1584	-422	-422	1584
76	55	38	-169	207	0	8	185	-422	1235	-422	-422	1235
76	77	38	-169	207	0	8	185	-422	1235	-422	-422	1235
77	76	38	-169	93	0	10	185	-422	951	-422	-422	951
77	78	38	-169	93	0	10	185	-422	951	-422	-422	951
78	77	38	-169	-245	0	3	17	-422	106	-422	-422	106
78	79	38	-169	-245	0	3	17	-422	106	-422	-422	106
79	78	38	-169	-585	0	3	185	-422	-737	-422	-422	-737
79	80	38	-169	-585	0	3	185	-422	-737	-422	-422	-737
80	79	38	-169	-699	0	25	185	-422	-1022	-422	-422	-1022