



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



MINISTRY OF PUBLIC WORKS
REPUBLIC OF INDONESIA

**DETAILED DESIGN STUDY
OF
NORTH JAVA CORRIDOR FLYOVER PROJECT
IN THE REPUBLIC OF INDONESIA**

**FINAL REPORT
DESIGN REPORT
(PC BRIDGE)**

DECEMBER 2006



KATAHIRA & ENGINEERS INTERNATIONAL

SD
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TABLE OF CONTENTS

- I. COMPARISON STUDY FOR PC SUPERSTRUCTURE

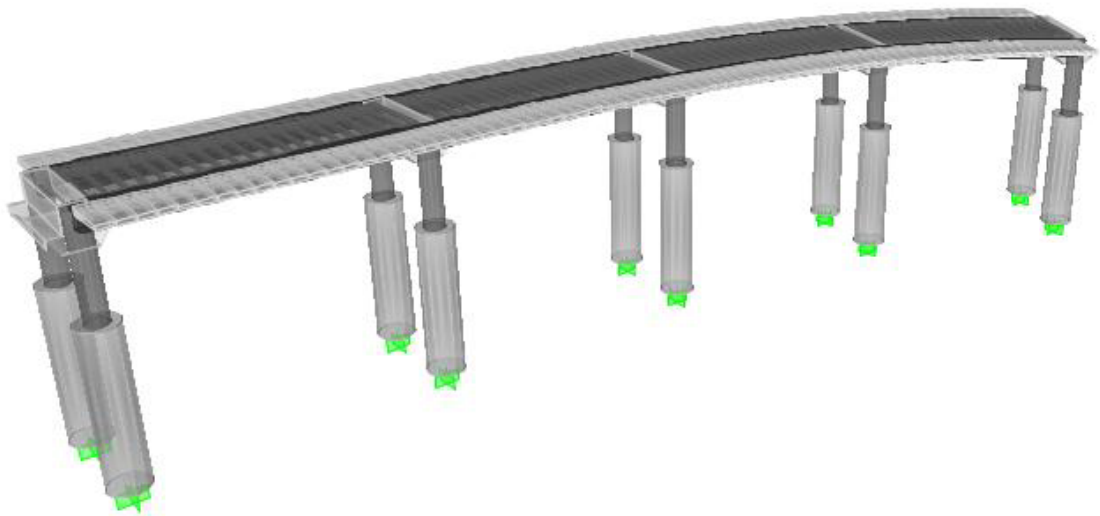
- II. CALCULATION OF TORSIONAL MOMENT DUE TO LIVE LOAD BY GRILLAGE ANALYSIS

- III. SLAB DESIGN FOR PRC SUPERSTRUCTURE

- IV. DETAILED DESIGN FOR BALARAJA FLYOVER
PART 1 : BALARAJA FLYOVER P6 – A2
PART 2 : BALARAJA FLYOVER A1 – P3

COMPARISON STUDY FOR PC SUPERSTRUCTURE

NORTH JAVA CORRIDOR FLYOVER PROJECT



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TABLE OF CONTENTS

COMPARISON STUDY

I. STUDY FOR SLAB	1
I.1. COMPARISON STUDY FOR DECK SLAB (STUDY CASES & RESULTS)	1
I.2. DECK SLAB PROPORTION FOR GIRDER SPACE (WIDTH B=9 m).....	2
I.3. DECK SLAB PROPORTION FOR SLAB THICKNESS (WIDTH B=9 m).....	3
I.4. DECK SLAB PROPORTION FOR GIRDER SPACE (WIDTH B=11.5 m).....	4
I.5. A DECK SLAB PROPORTION FOR SLAB THICKNESS (WIDTH B=11.5 m).....	5
I.6. DECK SLAB PROPORTION FOR GIRDER SPACE (WIDTH B=13 m).....	6
I.7. DECK SLAB PROPORTION FOR SLAB THICKNESS (WIDTH B=13 m))	7
II. STUDY FOR LIVE LOAD	7
II.1. APPLIED DESIGN SOFTWARE.....	8
II.2. ADJUSMENT FOR LIVE LOAD.....	9
II.3. COMPARISON CASE	11
II.4. APPLIED LIVE LOAD	14
II.5. SELECTED OUTPUT.....	14
III. LOAD FACTOR EVALUATION.....	29

COMPARISON STUDY

I. STUDY FOR SLAB

I.1. COMPARISON STUDY FOR DECK SLAB (STUDY CASES & RESULTS)

Section										
Comparison Study for Girder Space & Length of Cantilever Span	1 st Step	BW = 9.0 m			BW = 13.0 m			BW = 11.5 m (As a reference)		
		GS = 4.25 m	GS = 4.50 m	GS = 4.75 m	GS = 6.0 m	GS = 6.5 m	GS = 7.0 m	GS = 5.5 m	GS = 5.75 m	GS = 6.0 m
		LCS = 2.225 m	LCS = 2.100 m	LCS = 1.975 m	LCS = 3.350 m	LCS = 3.100 m	LCS = 2.850 m	LCS = 2.850 m	LCS = 2.725 m	LCS = 2.600 m
	2 nd Step	No Need additional study			Balanced GS maybe in between 6.0 m - 6.5 m			Balanced GS maybe in between 5.6 m - 5.75 m		
		GS = 4.250 m, LCS = 2.225 m			GS = 6.350 m, LCS = 3.175 m			GS = 5.600 m, LCS = 2.800 m		
Comparison Study for Slab thickness	St = 23 cm			St = 29 cm			St = 26 cm			
	St = 24 cm	St = 25 cm	St = 28 cm	St = 30 cm	St = 31 cm	St = 27 cm	St = 28 cm	St = 29 cm	St = 30 cm	
Consideration for Sub Structure										
Applied Dimension	GS = 4.500 m LCS = 2.100 m St = 24 cm			GS = 6.350 m LCS = 3.175 m St = 30 cm			GS = 5.600 m LCS = 2.800 m St = 27 cm			

I.2. DECK SLAB PROPORTION FOR GIRDER SPACE (WIDTH B=9 m)

Section											
Arrangement of PC Cable & Re-bar	PC Cable: SWPR19L IT 21.8 mm Space of PC Cable: @625 mm (multiples of Re-bar space @125) Space & Cover of Re-bar: @125, C = 45 mm										
		GS = 4.25 m			GS = 4.5 m			GS = 4.75 m			
		① , ⑤	② , ④	③	① , ⑤	② , ④	③	① , ⑤	② , ④	③	
D	M (KN-m)	-3	16	2	6	16	2	8	15	3	
	δc	Upper	1.2	1.7	1.8	1.3	1.6	1.9	1.3	1.6	1.9
		Lower	0.9	0.4	1.5	0.8	0.4	1.5	0.7	0.4	1.4
D + L	M (KN-m)	-62	-47	39	-58	-53	43	-55	-59	47	
	δc (N/mm ²)	Upper	-1.4	-0.8	5.7	-1.3	-1.1	6.2	-1.1	-1.3	6.6
		Lower	3.5	2.9	-2.4	3.4	3.1	-2.8	3.2	3.4	-3.3
		Cw (mm)	0.065	0.048	0.077	0.060	0.054	0.090	0.055	0.062	0.105
D + L + VL	M (KN-m)	-86	-66	39	-82	-72	43	-79	-78	47	
	δc (N/mm ²)	Upper	-2.4	-1.6	5.7	-2.2	-1.8	6.2	-2.1	-2.1	6.6
		Lower	4.4	3.6	-2.4	4.3	3.9	-2.8	4.1	4.1	-3.3
		Cw (mm)	0.106	0.072	0.077	0.100	0.082	0.090	0.093	0.094	0.105
Cwa	0.157 mm										
Judgement	$C_w < C_{wa} = 0.157\text{mm}$ Balance of tensile stress δc at each design section under (D+L) & (D+L+VL)										
Decision	Based on the above design results, Space of Girder = 4.25 m										

I.3. DECK SLAB PROPORTION FOR SLAB THICKNESS (WIDTH B=9 m)

Section											
Arrangement of PC Cable & Re-bar		PC Cable: SWPR19L IT 21.8 mm Space of PC Cable: @625 mm (multiples of Re-bar space @125) Space & Cover of Re-bar: @125, C = 45 mm									
		t = 23 cm			t = 24 cm			t = 25 cm			
		① , ⑤	② , ④	③	① , ⑤	② , ④	③	① , ⑤	② , ④	③	
D	M (kN-m)	2	16	4	-3	16	2	-5	17	-1	
	σ_c	Upper	1.2	1.7	2.2	1.2	1.7	1.8	1.2	1.6	1.5
Lower		1.0	0.4	1.3	0.9	0.4	1.5	0.8	0.3	1.7	
D + L	M (kN-m)	-63	-48	42	-62	-4.7	39	-61	-46	37	
	σ_c (N/mm ²)	Upper	-1.6	-0.9	6.5	-1.4	-0.8	5.7	-1.3	-0.8	5.1
		Lower	3.7	3.0	-3.0	3.5	2.9	-2.4	3.3	2.7	-2.0
CW (mm)	0.069	0.049	0.093	0.065	0.048	0.077	0.061	0.046	0.065		
D + L + VL	M (kN-m)	-87	-66	42	-86	-66	39	-85	-65	37	
	σ_c (N/mm ²)	Upper	-2.5	-1.7	6.5	-2.4	-1.6	5.7	-2.2	-1.5	5.1
		Lower	4.7	3.8	-3.0	4.4	3.6	-2.4	4.2	3.4	-2.0
CW (mm)	0.112	0.075	0.093	0.106	0.072	0.077	0.100	0.069	0.065		
Cwa		0.157 mm									
Judgement		<i>C_w < C_{wa} = 0.157mm</i> <i>Balance of tensile stress σ_c at each design section under (D+L) & (D+L+VL)</i> <i>To minimize the slab thickness in order to reduce the Girder self-weight</i>									
Decision		Based on the above design results, Slab Thickness = 24 cm									

I.4. DECK SLAB PROPORTION FOR GIRDER SPACE (WIDTH B=11.5 m)

Section											
	Arrangement of PC Cable & Re-bar PC Cable: SWPR19L IT 21.8 mm Space of PC Cable: @625 mm (multiples of Re-bar space @ 125) Space & Cover of Re-bar: @ 125, C = 45 mm										
		GS = 5.5 m			GS = 5.75 m			GS = 6.0 m			
		(1), (5)	(2), (4)	(3)	(1), (5)	(2), (4)	(3)	(1), (5)	(2), (4)	(3)	
D	M (KN-m)	-6	11	-3	-3	9	-2	0	8	-1	
	σ_c	Upper	0.8	1.3	1.3	0.9	1.3	1.4	0.9	1.2	1.5
		Lower	1.2	0.6	1.7	1.1	0.6	1.7	1.0	0.7	1.6
D + L	M (KN-m)	-88	-69	51	-77	-74	53	-68	-76	56	
	σ_c (N/mm ²)	Upper	-2.0	-1.4	5.7	-1.7	-1.6	5.9	-1.4	-1.6	6.1
		Lower	4.0	3.3	-2.7	3.6	3.5	-2.9	3.3	3.5	-3.1
	CW (mm)	0.095	0.068	0.091	0.078	0.075	0.097	0.066	0.078	0.105	
D + L + VL	M (KN-m)	-112	-89	51	-101	-94	53	-93	-96	56	
	σ_c (N/mm ²)	Upper	-2.9	-2.1	5.7	-2.5	-2.3	5.9	-2.2	-2.3	6.1
		Lower	4.8	4.0	-2.7	4.4	4.2	-2.9	4.1	4.2	-3.1
	CW (mm)	0.138	0.100	0.091	0.119	0.108	0.097	0.104	0.111	0.105	
Cwa	0.157 mm										
Judgement	$C_w < C_{wa} = 0.157\text{mm}$ Balance of tensile stress σ_c at each design section under (D+L) & (D+L+VL)										
Decision	Based on the above design results, Space of Girder = 5.60 m										

Additional design		
GS = 5.6 m		
(1), (5)	(2), (4)	(3)
-5	10	-3
0.8	1.3	1.3
1.1	0.6	1.7
-84	-72	52
-1.9	-1.5	5.8
3.8	3.4	-2.7
0.088	0.072	0.093
-108	-92	52
-2.7	-2.2	5.8
4.6	4.1	-2.7
0.130	0.104	0.093
Cwa = 0.157mm		

I.5. DECK SLAB PROPORTION FOR SLAB THICKNESS (WIDTH B=11.5 m)

Section											
Arrangement of PC Cable & Re-bar		PC Cable: SWPR19L IT 21.8 mm Space of PC Cable: @ 625 mm (multiples of Re-bar space @ 125) Space & Cover of Re-bar: @ 125, C = 45 mm									
		t = 26 cm			t = 27 cm			t = 28 cm			
		① . ⑤	② . ④	③	① . ⑤	② . ④	③	① . ⑤	② . ④	③	
D	M (KN-m)	-7	10	0	-5	10	-3	-4	11	-4	
	σ_c	Upper	0.8	1.3	1.6	0.8	1.3	1.3	0.8	1.3	1.1
		Lower	1.2	0.6	1.6	1.1	0.6	1.7	1.1	0.6	1.8
D + L	M (KN-m)	-85	-73	54	-84	-72	52	-82	-71	50	
	σ_c (N/mm ²)	Upper	-2.0	-1.6	6.4	-1.9	-1.5	5.8	-1.7	-1.4	5.3
		Lower	4.0	3.6	-3.2	3.8	3.4	-2.7	3.6	3.2	-2.4
Cw (mm)	-0.093	0.075	0.107	0.088	0.072	0.093	0.083	0.069	0.082		
D + L + VL	M (KN-m)	-109	-93	54	-108	-92	52	-107	-91	50	
	σ_c (N/mm ²)	Upper	-2.9	-2.3	6.4	-2.7	-2.2	5.8	-2.5	-2.1	5.3
		Lower	4.9	4.3	-3.2	4.6	4.1	-2.7	4.4	3.9	-2.4
Cw (mm)	0.137	0.109	0.109	0.130	0.104	0.093	0.123	0.100	0.082		
Cwa		0.157 mm									
Judgement		<i>Cw < Cwa = 0.157mm</i> Balance of tensile stress σ_c at each design section under (D+L) & (D+L+VL) To minimize the slab thickness in order to reduce the Girder self-weight									
Decision		Based on the above design results, Slab Thickness = 27 cm									

I.6. DECK SLAB PROPORTION FOR GIRDER SPACE (WIDTH B=13 m)

Section											
Arrangement of PC Cable & Re-bar	PC Cable: SWPR19L IT 21.8 mm Space of PC Cable: @625 mm (multiples of Re-bar space @125) Space & Cover of Re-bar: @125, C = 45 mm										
		GS = 6.0 m			GS = 6.5 m			GS = 7.0 m			
		① , ⑤	② , ④	③	① , ⑤	② , ④	③	① , ⑤	② , ④	③	
D	M (KN-m)	-20	9	-9	-12	5	-7	-5	1	-5	
	σ_c	Upper	0.3	1.1	0.7	0.5	1.0	0.9	0.7	0.9	1.0
		Lower	1.5	0.6	1.9	1.3	0.7	1.8	1.1	0.9	1.7
D + L	M (KN-m)	-118	-90	48	-94	-116	55	-73	-130	67	
	σ_c (N/mm ²)	Upper	-2.6	-1.8	4.5	-1.9	-2.6	5.0	-1.3	-3.0	5.8
		Lower	4.4	3.6	-1.9	3.7	4.3	-2.3	3.1	4.7	-3.1
		CW (mm)	0.129	0.089	0.070	0.093	0.131	0.085	0.065	0.153	0.117
D + L + VL	M (KN-m)	-145	-111	48	-121	-138	55	-100	-152	67	
	σ_c (N/mm ²)	Upper	-3.4	-2.4	4.5	-2.7	-3.2	5.0	-2.1	-3.6	5.8
		Lower	5.2	4.2	-1.9	4.5	5.0	-2.3	3.9	5.4	-3.1
		CW (mm)	0.175 ^{NG}	0.123	0.070	0.136	0.168 ^{NG}	0.085	0.104	0.191 ^{NG}	0.117
Cwa		0.157 mm									
Judgement		$C_w < C_{wa} = 0.157\text{mm}$ Balance of tensile stress σ_c at each design section under (D+L) & (D+L+VL)									
Decision		Based on the above design results, Space of Girder = 6.35 m									

Additional design		
GS = 6.35 m		
① , ⑤	② , ④	③
-15	6	-7
0.5	1.1	0.8
1.4	0.7	1.8
-101	-108	53
-2.1	-2.3	4.8
3.9	4.1	-2.2
0.104	0.117	0.080
-128	-130	53
-2.9	-3.0	4.8
4.7	4.7	-2.2
0.148 ^{NG}	0.154 ^{NG}	0.080
Cwa = 0.157mm		

I.7. DECK SLAB PROPORTION FOR SLAB THICKNESS (WIDTH B=13 m)

Section												
Arrangement of PC Cable & Re-bar		PC Cable: SWPR19L IT 21.8 mm Space of PC Cable: @625 mm (multiples of Re-bar space @125) Space & Cover of Re-bar: @125, C = 45 mm										
		t = 29 cm			t = 30 cm			t = 31 cm				
		(1, 5)	(2, 4)	(3)	(1, 5)	(2, 4)	(3)	(1, 5)	(2, 4)	(3)		
D	M (KN-m)	-16	6	-5	-15	6	-7	-14	7	-9		
	σ_c	Upper		0.4	1.1	1.0	0.6	1.1	0.8	0.5	1.1	0.7
		Lower		1.4	0.7	1.8	1.4	0.7	1.8	1.3	0.7	1.9
D + L	M (KN-m)	-103	-109	54	-101	-108	53	-100	-107	51		
	σ_c (N/mm ²)	Upper		-2.2	-2.5	5.3	-2.1	-2.3	4.8	-2.0	-2.2	4.5
		Lower		4.1	4.3	-2.5	3.9	4.1	-2.2	3.7	3.9	-1.9
	CW (mm)	0.109	0.123	0.089	0.104	0.117	0.080	0.098	0.112	0.072		
D + L + VL	M (KN-m)	-130	-130	54	-128	-130	53	-127	-129	51		
	σ_c (N/mm ²)	Upper		-3.1	-3.1	5.3	-2.9	-3.0	4.8	-2.7	-2.8	4.5
		Lower		5.0	5.0	-2.5	4.7	4.7	-2.2	4.5	4.5	-1.9
	CW (mm)	0.155	0.160 ^{NG}	0.089	0.148	0.154	0.080	0.141	0.147	0.072		
Cwa		0.157 mm										
Judgement		Cw < Cwa = 0.157mm Balance of tensile stress σ_c at each design section under (D+L) & (D+L+VL) To minimize the slab thickness in order to reduce the Girder self-weight										
Decision		Based on the above design results, Slab Thickness = 30 cm										

II. STUDY FOR LIVE LOAD

II.1. APPLIED DESIGN SOFTWARE

Design software based on the Japanese Standard "CONST" is applied in design for PC superstructure of Project Flyover.

CONST is logical and compatible with the workflow process of road and bridge design, and was developed with the highest quality in order to improve and simplify the process of design for road and bridge professionals, worldwide.

Capabilities of CONST Software are;

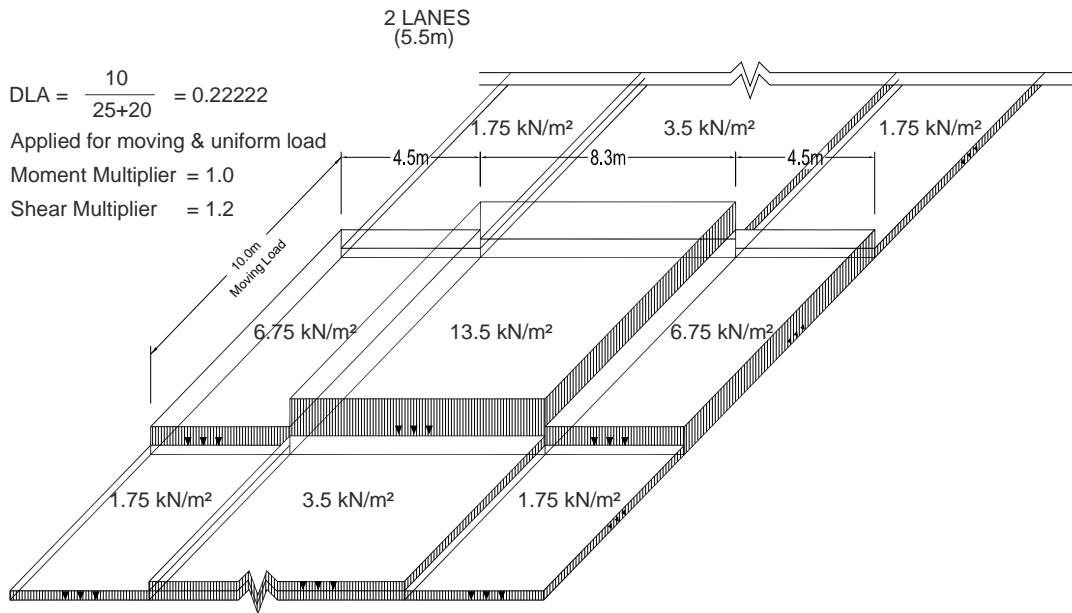
- Automatic design of any kind of concrete bridges such as integrated continuous girder, arch bridge, and cable stayed bridge etc.
- Analysis of secondary effect due to creep, shrinkage and pre-stressing according to the construction sequence.
- RC, PRC and PC structural design

By continual trial design using CONST software, a concrete bridge superstructure can be easily optimized.

II.2. ADJUSTMENT FOR LIVE LOAD

In order to obtain the equivalent result with design code live load of the Project, it is necessary to make some adjustment to Japanese Standard Live Load.

JAPAN BRIDGE LOADING (‘L’ LOADING)



$$DLA = \frac{10}{25+20} = 0.22222$$

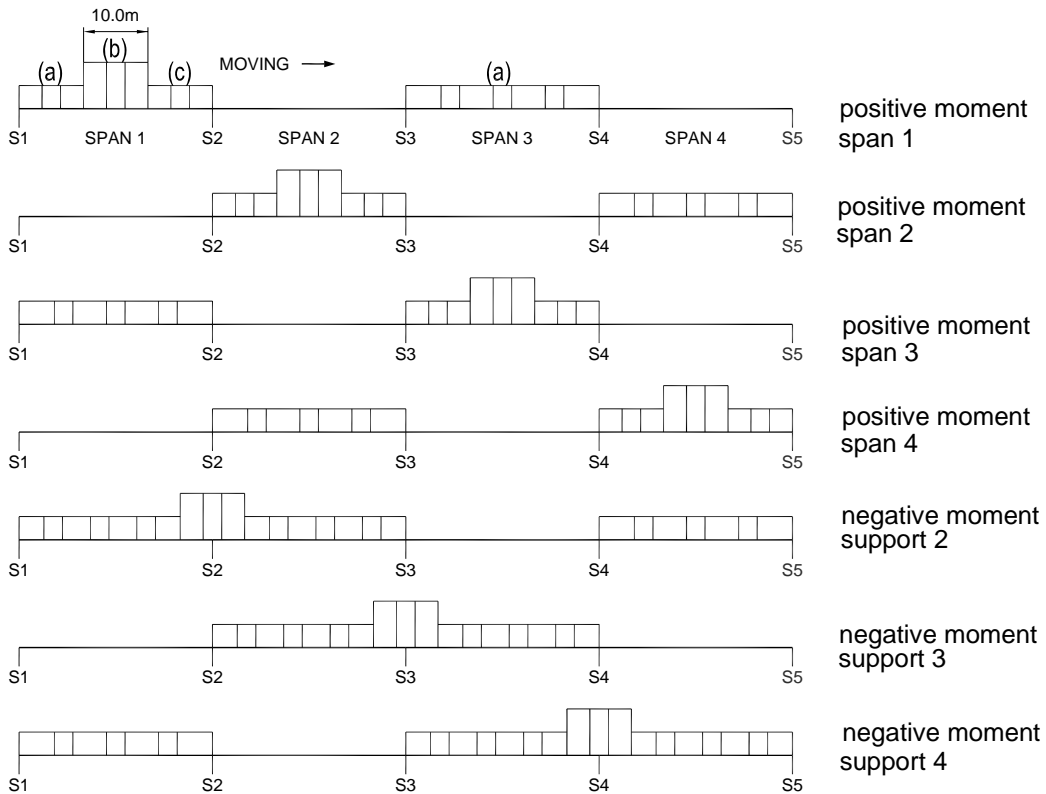
Applied for moving & uniform load

Moment Multiplier = 1.0

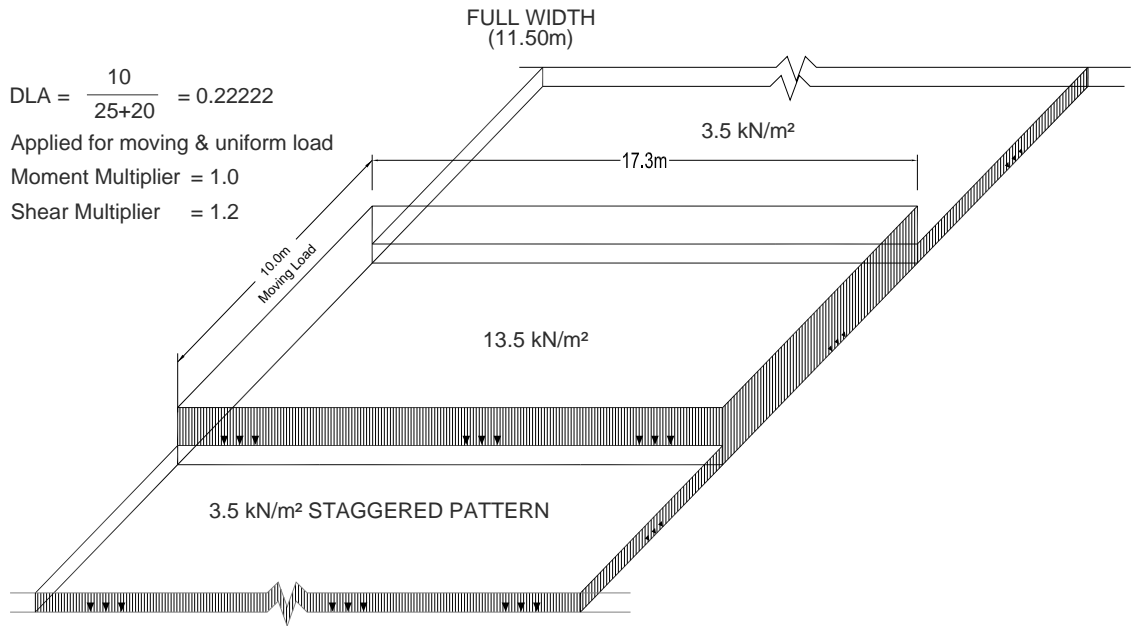
Shear Multiplier = 1.2

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)

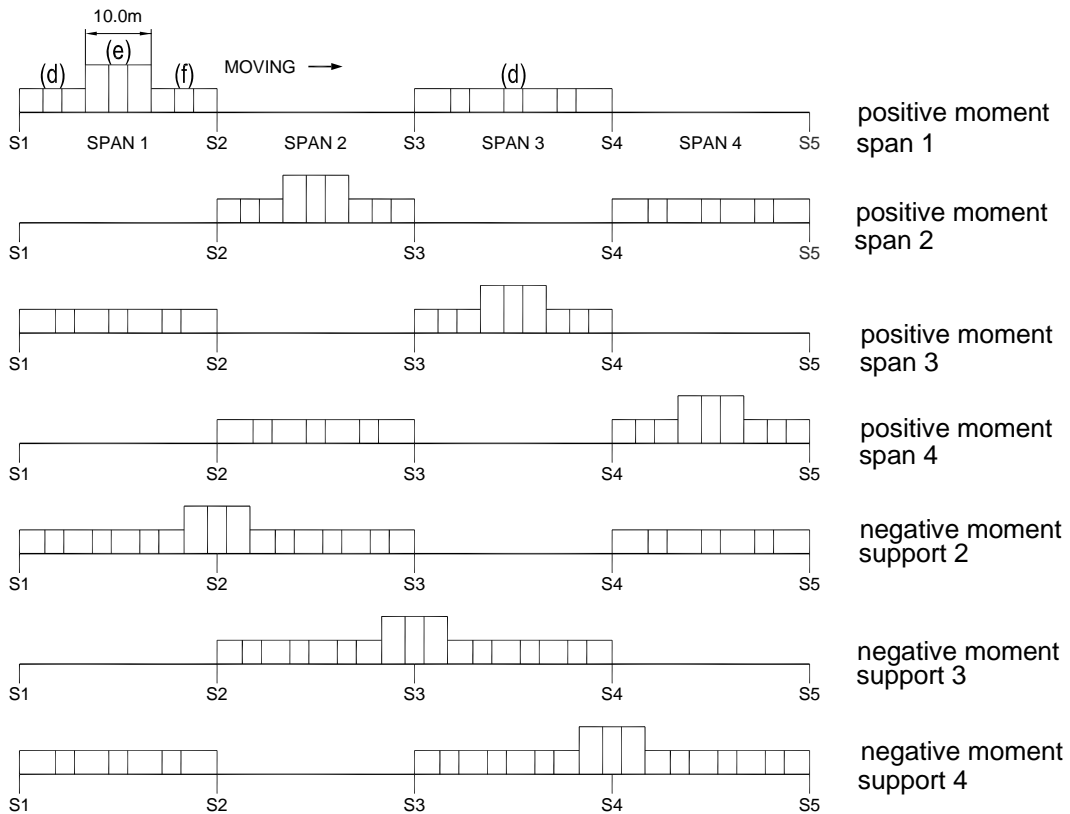


JAPAN BRIDGE LOADING ('L' LOADING)

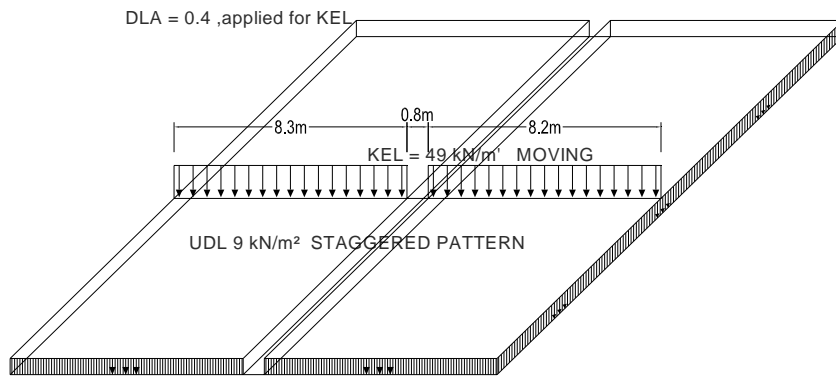


APPLICATION TO 11.50 m' ROADWAY WIDTH FOR EACH DIRDER

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)

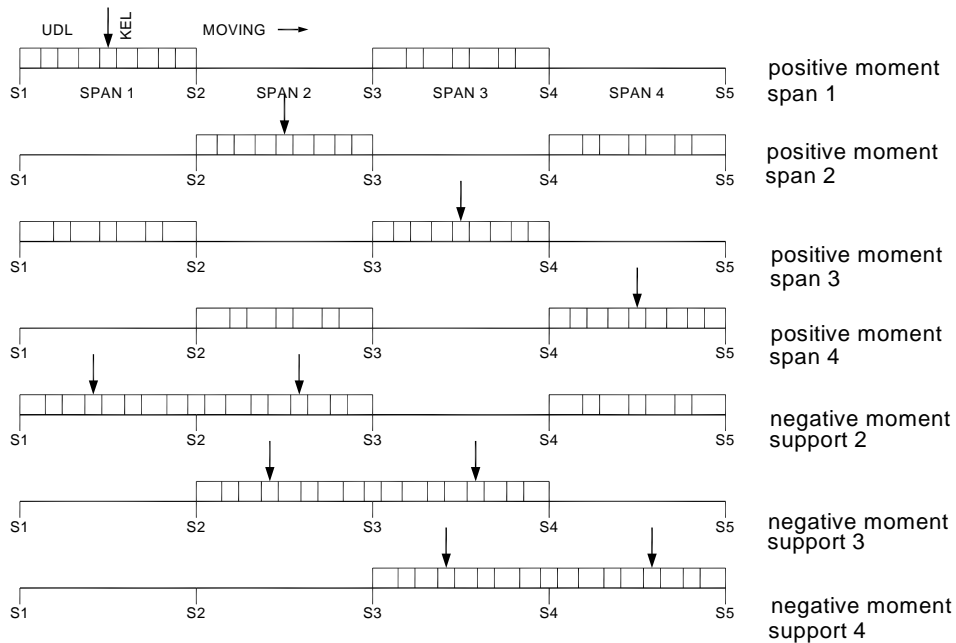


INDONESIA BRIDGE LOADING (‘D’ LOADING)



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

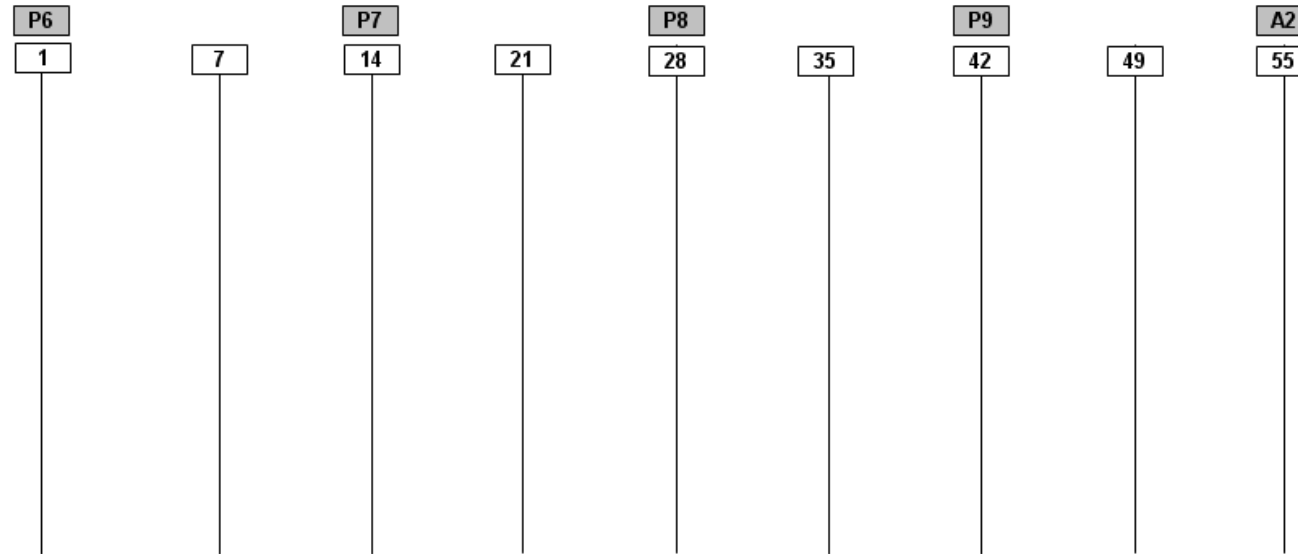
Case 4: 1.35 x Case 3

Case 5: Design Code Live Load

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

COMPARISON OF BENDING MOMENT RESULTS

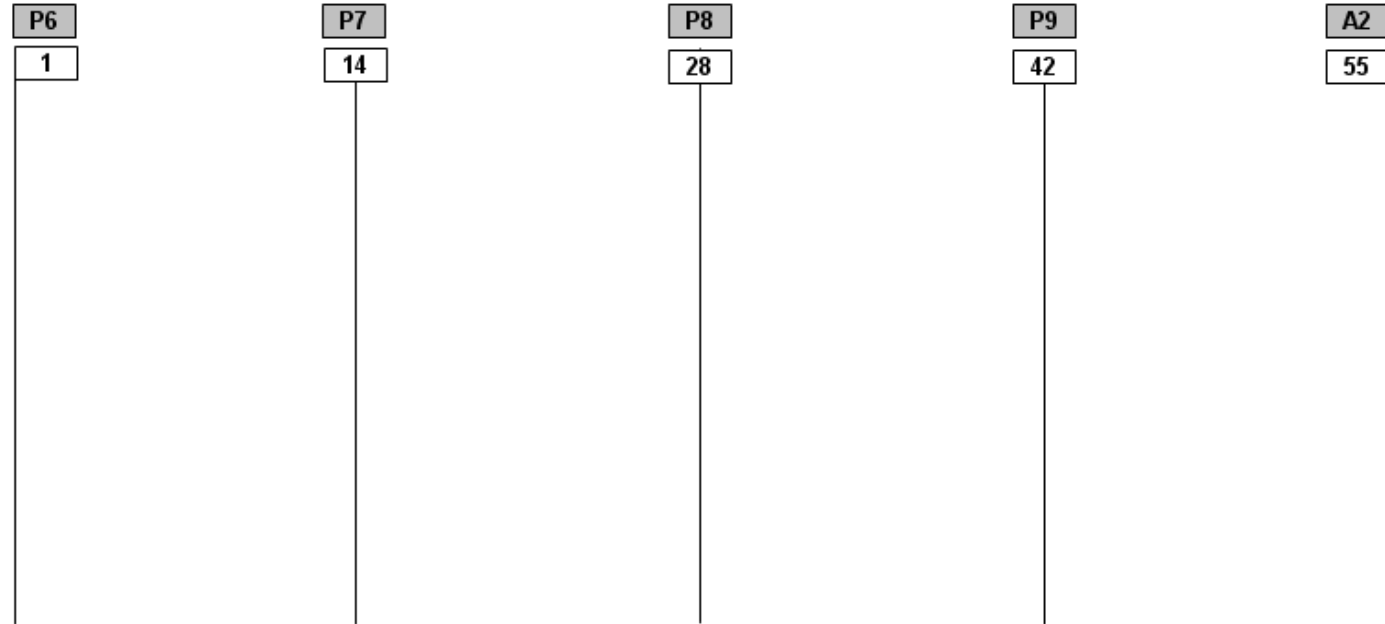
BALARAJA FLYOVER



JAPANESE	Case-1	Regulated, W = 5.5m (2 lane)	4,304	64%	-3,820	58%	3,466	63%	-3,452	56%	3,488	61%	-3,428	50%	3,740	61%	-1,894	64%
	Case-2	W = 8.25m (3 lane)	5,196	78%	-4,864	74%	4,128	75%	-4,356	71%	4,264	74%	-4,714	68%	4,574	75%	-2,468	83%
	Case-3	W = 11.5 (full)	5,822	87%	-5,168	78%	4,688	86%	-4,670	76%	4,720	82%	-5,082	74%	5,062	83%	-2,696	91%
	Case-4	W = 11.5m (full) x 1.35	7,860	117%	-6,977	106%	6,329	115%	-6,305	102%	6,372	111%	-6,861	99%	6,834	112%	-3,640	123%
Case-5		North Java Criteria	6,694		-6,590		5,482		-6,162		5,755		-6,901		6,118		-2,960	
AASHTO	1 - OLD 1994		2,400	36%	-2,536	38%	1,809	33%	2,218	36%	1,797	31%	-2,448	35%	2,037	33%	-677	23%
	2 - NEW 2004		5,023	75%	-4,948	75%	3,778	69%	4,344	70%	3,755	65%	-4,815	70%	4,249	69%	-1,463	49%

COMPARISON OF SHEAR RESULTS

BALARAJA FLYOVER



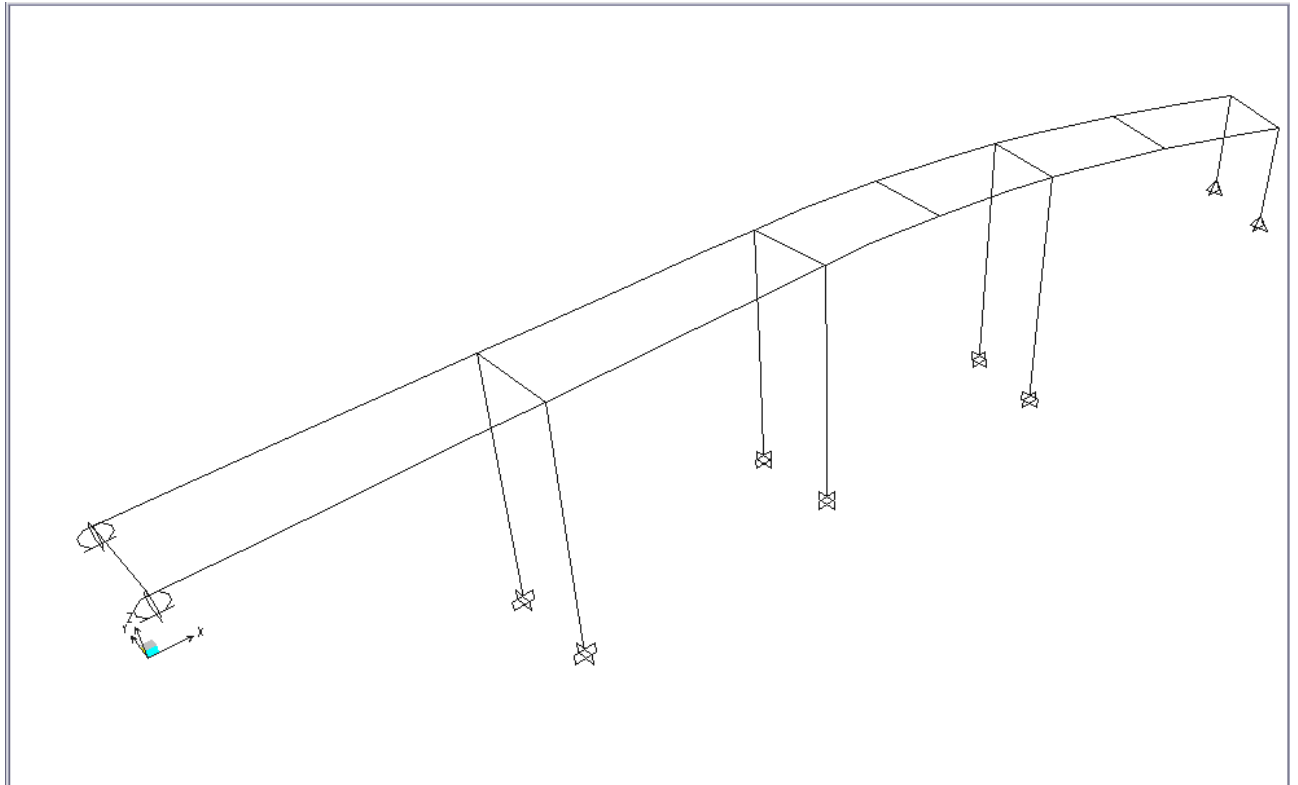
JRA (FULL LOADED)	853	104%	1,042	109%	956	111%	987	108%	954	107%	1,010	106%	993	108%	956	105%
JRA (FULL LOADED) x 1.35	1108.9	136%	1,407	147%	1,291	150%	1,332	146%	1,288	145%	1,364	143%	1,341	146%	1,291	142%
DESIGN CRITERIA	817		954		863		911		888		956		918		911	

II.4. APPLIED LIVE LOAD

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

II.5. SELECTED OUTPUT

The selected out put of bending moment results for each girder in SAP2000 model below can be shown in the following pages.



CASE 1 : REGULATED JRA LIVE LOAD FOR TWO LANES, W=5.5 METER (sheet 1 of 2)

Frame	Station	Output Case	Case Type	Step Type	P	V2	(1.2 x V2)	V3	T	M2	M3
Text	m	Text	Text	Text	KN	KN	KN	KN	KN-m	KN-m	KN-m
MAXIMUM BENDING MOMENT (AT MID SPAN)											
G100	0.00	TRAFFIC	Combination	Max	1	39	48	0	94	2	212
G100	2.00	TRAFFIC	Combination	Max	1	39	48	0	82	2	924
G100	4.00	TRAFFIC	Combination	Max	1	39	48	0	71	2	1581
G101	0.00	TRAFFIC	Combination	Max	1	62	78	0	52	2	1581
G101	3.00	TRAFFIC	Combination	Max	1	98	123	0	44	2	1948
G101	6.00	TRAFFIC	Combination	Max	1	160	200	0	37	2	2152
G102	0.00	TRAFFIC	Combination	Max	1	226	282	0	45	2	2152
G102	3.00	TRAFFIC	Combination	Max	1	335	419	0	52	2	1525
G102	6.00	TRAFFIC	Combination	Max	1	445	556	0	58	2	734
G103	0.00	TRAFFIC	Combination	Max	1	489	612	0	77	2	734
G103	2.00	TRAFFIC	Combination	Max	1	573	716	0	88	2	73
G103	4.00	TRAFFIC	Combination	Max	1	642	803	0	93	2	-68
G104	0.00	TRAFFIC	Combination	Max	48	32	40	3	95	32	-46
G104	2.00	TRAFFIC	Combination	Max	48	32	40	3	89	25	160
G104	4.00	TRAFFIC	Combination	Max	48	32	40	3	77	18	740
G105	0.00	TRAFFIC	Combination	Max	48	32	40	3	58	18	740
G105	3.00	TRAFFIC	Combination	Max	48	57	72	3	49	9	1303
G105	6.00	TRAFFIC	Combination	Max	48	107	133	3	40	2	1733
G106	0.00	TRAFFIC	Combination	Max	48	167	209	3	43	2	1733
G106	3.00	TRAFFIC	Combination	Max	48	278	348	3	50	12	1329
G106	6.00	TRAFFIC	Combination	Max	48	390	487	3	57	23	778
G107	0.00	TRAFFIC	Combination	Max	48	437	546	3	76	23	778
G107	2.00	TRAFFIC	Combination	Max	48	524	655	3	87	31	226
G107	4.00	TRAFFIC	Combination	Max	48	608	760	3	99	39	153
G108	0.00	TRAFFIC	Combination	Max	12	35	44	2	129	10	-17
G108	2.07	TRAFFIC	Combination	Max	12	35	44	2	116	9	101
G108	4.15	TRAFFIC	Combination	Max	12	35	44	2	116	14	721
G109	0.00	TRAFFIC	Combination	Max	11	43	54	1	93	14	723
G109	3.11	TRAFFIC	Combination	Max	11	77	96	1	95	12	1492
G109	6.22	TRAFFIC	Combination	Max	11	157	197	1	97	22	1744
G110	0.00	TRAFFIC	Combination	Max	12	160	200	2	170	21	1743
G110	3.11	TRAFFIC	Combination	Max	12	281	351	2	159	26	1471
G110	6.22	TRAFFIC	Combination	Max	12	419	524	2	159	33	688
G111	0.00	TRAFFIC	Combination	Max	12	434	542	5	174	33	686
G111	2.07	TRAFFIC	Combination	Max	12	530	663	5	177	37	72
G111	4.15	TRAFFIC	Combination	Max	12	622	778	5	177	41	-36
G112	0.00	TRAFFIC	Combination	Max	33	-6	-8	3	135	50	-122
G112	2.07	TRAFFIC	Combination	Max	33	-6	-7	3	126	63	19
G112	4.15	TRAFFIC	Combination	Max	33	5	7	3	126	80	670
G113	0.00	TRAFFIC	Combination	Max	33	17	21	3	100	80	673
G113	3.11	TRAFFIC	Combination	Max	33	48	60	3	100	81	1516
G113	6.22	TRAFFIC	Combination	Max	33	114	142	3	100	83	1870
G114	0.00	TRAFFIC	Combination	Max	33	128	159	6	133	86	1871
G114	3.11	TRAFFIC	Combination	Max	33	244	304	6	121	69	1699
G114	6.22	TRAFFIC	Combination	Max	33	377	471	6	121	52	991
G115	0.00	TRAFFIC	Combination	Max	33	392	490	14	157	52	989
G115	2.07	TRAFFIC	Combination	Max	33	488	610	14	161	23	303
G115	4.15	TRAFFIC	Combination	Max	33	589	736	14	161	2	231

CASE 1 : REGULATED JRA LIVE LOAD FOR TWO LANES, W=5.5 METER (sheet 2 of 2)

Frame	Station	OutputCase	CaseType	StepType	P	V2	(1.2 x V2)	V3	T	M2	M3
Text	m	Text	Text	Text	KN	KN	KN	KN	KN-m	KN-m	KN-m
MINIMUM BENDING MOMENT (AT SUPPORT)											
G100	0.00	TRAFFIC	Combination	Min	-1	-526	-631	0	-93	-2	-212
G100	2.00	TRAFFIC	Combination	Min	-1	-429	-514	0	-82	-2	-71
G100	4.00	TRAFFIC	Combination	Min	-1	-334	-400	0	-71	-2	-142
G101	0.00	TRAFFIC	Combination	Min	-1	-230	-276	0	-52	-2	-142
G101	3.00	TRAFFIC	Combination	Min	-1	-150	-180	0	-46	-2	-249
G101	6.00	TRAFFIC	Combination	Min	-1	-83	-100	0	-39	-2	-356
G102	0.00	TRAFFIC	Combination	Min	-1	-20	-24	0	-44	-2	-356
G102	3.00	TRAFFIC	Combination	Min	-1	-11	-13	0	-51	-2	-462
G102	6.00	TRAFFIC	Combination	Min	-1	-2	-2	0	-59	-2	-569
G103	0.00	TRAFFIC	Combination	Min	-1	4	5	0	-78	-2	-569
G103	2.00	TRAFFIC	Combination	Min	-1	6	7	0	-89	-2	-883
G103	4.00	TRAFFIC	Combination	Min	-1	6	7	0	-94	-2	-1910
G104	0.00	TRAFFIC	Combination	Min	-56	-589	-707	-4	-92	-39	-1824
G104	2.00	TRAFFIC	Combination	Min	-56	-533	-639	-4	-87	-32	-991
G104	4.00	TRAFFIC	Combination	Min	-56	-437	-525	-4	-76	-24	-763
G105	0.00	TRAFFIC	Combination	Min	-56	-329	-394	-4	-57	-24	-763
G105	3.00	TRAFFIC	Combination	Min	-56	-242	-290	-4	-50	-13	-600
G105	6.00	TRAFFIC	Combination	Min	-56	-155	-186	-4	-43	-3	-455
G106	0.00	TRAFFIC	Combination	Min	-56	-77	-93	-4	-40	-3	-455
G106	3.00	TRAFFIC	Combination	Min	-56	-57	-68	-4	-49	-13	-537
G106	6.00	TRAFFIC	Combination	Min	-56	-54	-65	-4	-57	-23	-619
G107	0.00	TRAFFIC	Combination	Min	-56	-54	-65	-4	-77	-23	-619
G107	2.00	TRAFFIC	Combination	Min	-56	-54	-65	-4	-89	-30	-830
G107	4.00	TRAFFIC	Combination	Min	-56	-54	-65	-4	-95	-37	-1726
G108	0.00	TRAFFIC	Combination	Min	-60	-588	-705	-8	-176	-46	-1674
G108	2.07	TRAFFIC	Combination	Min	-60	-527	-632	-8	-176	-33	-762
G108	4.15	TRAFFIC	Combination	Min	-60	-425	-510	-8	-174	-20	-572
G109	0.00	TRAFFIC	Combination	Min	-60	-372	-446	-6	-157	-20	-573
G109	3.11	TRAFFIC	Combination	Min	-60	-277	-333	-6	-159	-9	-482
G109	6.22	TRAFFIC	Combination	Min	-60	-143	-171	-6	-157	-9	-405
G110	0.00	TRAFFIC	Combination	Min	-60	-124	-149	-3	-99	-9	-405
G110	3.11	TRAFFIC	Combination	Min	-60	-76	-91	-3	-99	-8	-498
G110	6.22	TRAFFIC	Combination	Min	-60	-34	-41	-3	-99	-9	-591
G111	0.00	TRAFFIC	Combination	Min	-60	-34	-41	-3	-124	-9	-590
G111	2.07	TRAFFIC	Combination	Min	-60	-34	-41	-3	-124	-14	-804
G111	4.15	TRAFFIC	Combination	Min	-60	-34	-41	-3	-132	-23	-1714
G112	0.00	TRAFFIC	Combination	Min	-140	-612	-734	-9	-197	-24	-1879
G112	2.07	TRAFFIC	Combination	Min	-140	-556	-667	-9	-197	-25	-907
G112	4.15	TRAFFIC	Combination	Min	-140	-458	-549	-9	-196	-27	-610
G113	0.00	TRAFFIC	Combination	Min	-140	-405	-486	-3	-181	-27	-611
G113	3.11	TRAFFIC	Combination	Min	-140	-312	-375	-3	-182	-25	-459
G113	6.22	TRAFFIC	Combination	Min	-140	-176	-211	-3	-178	-23	-308
G114	0.00	TRAFFIC	Combination	Min	-141	-151	-182	-2	-103	-25	-308
G114	3.11	TRAFFIC	Combination	Min	-141	-104	-125	-2	-102	-19	-155
G114	6.22	TRAFFIC	Combination	Min	-141	-54	-64	-2	-97	-13	-33
G115	0.00	TRAFFIC	Combination	Min	-141	-52	-62	-3	-91	-13	-33
G115	2.07	TRAFFIC	Combination	Min	-141	-52	-62	-3	-98	-6	-166
G115	4.15	TRAFFIC	Combination	Min	-141	-52	-62	-3	-117	-5	-997

CASE 2 : JRA LIVE LOAD FOR THREE LANES, W= 8.25 METER (sheet 1 of 2)

Frame	Station	OutputCase	CaseType	StepType	P	V2	(1.2 x V2)	V3	T	M2	M3
Text	m	Text	Text	Text	KN	KN	KN	KN	KN-m	KN-m	KN-m
MAXIMUM BENDING MOMENT (AT MID SPAN)											
G100	0.00	TRAFFIC	Combination	Max	1	49	59	0	109	3	259
G100	2.00	TRAFFIC	Combination	Max	1	49	59	0	96	3	1126
G100	4.00	TRAFFIC	Combination	Max	1	54	64	0	82	3	1925
G101	0.00	TRAFFIC	Combination	Max	1	54	64	0	82	3	1925
G101	3.00	TRAFFIC	Combination	Max	1	113	135	0	68	3	2582
G101	6.00	TRAFFIC	Combination	Max	1	240	288	0	64	3	2598
G102	0.00	TRAFFIC	Combination	Max	1	240	288	0	64	3	2598
G102	3.00	TRAFFIC	Combination	Max	1	420	504	0	72	3	1999
G102	6.00	TRAFFIC	Combination	Max	1	593	712	0	90	3	859
G103	0.00	TRAFFIC	Combination	Max	1	593	712	0	90	3	859
G103	2.00	TRAFFIC	Combination	Max	1	703	844	0	102	3	71
G103	4.00	TRAFFIC	Combination	Max	1	806	967	0	115	3	-112
G104	0.00	TRAFFIC	Combination	Max	61	37	45	4	118	38	-98
G104	2.00	TRAFFIC	Combination	Max	61	37	45	4	104	30	183
G104	4.00	TRAFFIC	Combination	Max	61	37	45	4	89	22	863
G105	0.00	TRAFFIC	Combination	Max	61	37	45	4	89	22	863
G105	3.00	TRAFFIC	Combination	Max	61	65	78	4	72	9	1738
G105	6.00	TRAFFIC	Combination	Max	61	172	206	4	66	2	2064
G106	0.00	TRAFFIC	Combination	Max	61	172	206	4	66	2	2064
G106	3.00	TRAFFIC	Combination	Max	61	344	412	4	72	14	1773
G106	6.00	TRAFFIC	Combination	Max	61	523	628	4	89	28	916
G107	0.00	TRAFFIC	Combination	Max	61	523	628	4	89	28	916
G107	2.00	TRAFFIC	Combination	Max	61	642	770	4	102	38	283
G107	4.00	TRAFFIC	Combination	Max	61	747	896	4	118	47	175
G108	0.00	TRAFFIC	Combination	Max	14	42	51	2	158	13	-44
G108	2.07	TRAFFIC	Combination	Max	14	42	51	2	144	11	118
G108	4.15	TRAFFIC	Combination	Max	14	42	51	2	144	17	874
G109	0.00	TRAFFIC	Combination	Max	14	42	51	1	115	17	877
G109	3.11	TRAFFIC	Combination	Max	14	102	122	1	117	15	1798
G109	6.22	TRAFFIC	Combination	Max	14	192	231	1	119	28	2132
G110	0.00	TRAFFIC	Combination	Max	14	177	213	3	200	26	2131
G110	3.11	TRAFFIC	Combination	Max	14	342	410	3	190	33	1791
G110	6.22	TRAFFIC	Combination	Max	14	519	623	3	192	42	827
G111	0.00	TRAFFIC	Combination	Max	14	519	623	6	210	42	824
G111	2.07	TRAFFIC	Combination	Max	14	671	805	6	212	46	72
G111	4.15	TRAFFIC	Combination	Max	14	764	917	6	212	52	-69
G112	0.00	TRAFFIC	Combination	Max	41	-9	-11	4	166	61	-176
G112	2.07	TRAFFIC	Combination	Max	41	-5	-6	4	156	78	2
G112	4.15	TRAFFIC	Combination	Max	41	8	9	4	156	99	807
G113	0.00	TRAFFIC	Combination	Max	41	8	9	3	124	99	811
G113	3.11	TRAFFIC	Combination	Max	41	54	64	3	124	101	1847
G113	6.22	TRAFFIC	Combination	Max	41	137	165	3	124	104	2286
G114	0.00	TRAFFIC	Combination	Max	42	137	164	7	154	108	2287
G114	3.11	TRAFFIC	Combination	Max	42	294	352	7	143	86	2073
G114	6.22	TRAFFIC	Combination	Max	42	466	559	7	145	65	1204
G115	0.00	TRAFFIC	Combination	Max	41	466	559	17	189	65	1201
G115	2.07	TRAFFIC	Combination	Max	41	618	742	17	193	29	358
G115	4.15	TRAFFIC	Combination	Max	41	721	865	17	193	2	291

CASE 2 : JRA LIVE LOAD FOR THREE LANES, W= 8.25 METER (sheet 2 of 2)

Frame	Station	OutputCase	CaseType	StepType	P	V2	(1.2 x V2)	V3	T	M2	M3
Text	m	Text	Text	Text	KN	KN	KN	KN	KN-m	KN-m	KN-m
MINIMUM BENDING MOMENT (AT SUPPORT)											
G100	0.00	TRAFFIC	Combination	Min	-1	-640	-768	0	-108	-2	-259
G100	2.00	TRAFFIC	Combination	Min	-1	-520	-624	0	-95	-2	-90
G100	4.00	TRAFFIC	Combination	Min	-1	-402	-482	0	-83	-2	-180
G101	0.00	TRAFFIC	Combination	Min	-1	-402	-482	0	-83	-2	-180
G101	3.00	TRAFFIC	Combination	Min	-1	-231	-277	0	-68	-3	-315
G101	6.00	TRAFFIC	Combination	Min	-1	-92	-111	0	-65	-3	-450
G102	0.00	TRAFFIC	Combination	Min	-1	-92	-111	0	-65	-3	-450
G102	3.00	TRAFFIC	Combination	Min	-1	-33	-40	0	-73	-3	-585
G102	6.00	TRAFFIC	Combination	Min	-1	0	-1	0	-91	-3	-719
G103	0.00	TRAFFIC	Combination	Min	-1	0	-1	0	-91	-3	-719
G103	2.00	TRAFFIC	Combination	Min	-1	9	11	0	-104	-3	-1151
G103	4.00	TRAFFIC	Combination	Min	-1	9	11	0	-117	-3	-2432
G104	0.00	TRAFFIC	Combination	Min	-72	-767	-921	-5	-115	-48	-2332
G104	2.00	TRAFFIC	Combination	Min	-72	-654	-785	-5	-101	-39	-1266
G104	4.00	TRAFFIC	Combination	Min	-72	-535	-643	-5	-89	-29	-969
G105	0.00	TRAFFIC	Combination	Min	-72	-535	-642	-5	-89	-29	-969
G105	3.00	TRAFFIC	Combination	Min	-72	-356	-427	-5	-72	-15	-765
G105	6.00	TRAFFIC	Combination	Min	-72	-184	-221	-5	-66	-4	-586
G106	0.00	TRAFFIC	Combination	Min	-72	-184	-221	-5	-66	-4	-586
G106	3.00	TRAFFIC	Combination	Min	-72	-87	-104	-5	-72	-15	-655
G106	6.00	TRAFFIC	Combination	Min	-72	-68	-81	-5	-89	-28	-767
G107	0.00	TRAFFIC	Combination	Min	-72	-68	-81	-5	-89	-28	-767
G107	2.00	TRAFFIC	Combination	Min	-72	-68	-81	-5	-104	-36	-1040
G107	4.00	TRAFFIC	Combination	Min	-72	-68	-81	-5	-111	-44	-2198
G108	0.00	TRAFFIC	Combination	Min	-73	-743	-892	-9	-212	-58	-2096
G108	2.07	TRAFFIC	Combination	Min	-73	-596	-715	-9	-211	-41	-981
G108	4.15	TRAFFIC	Combination	Min	-73	-500	-599	-9	-204	-25	-725
G109	0.00	TRAFFIC	Combination	Min	-74	-500	-599	-7	-190	-25	-726
G109	3.11	TRAFFIC	Combination	Min	-74	-317	-380	-7	-190	-11	-615
G109	6.22	TRAFFIC	Combination	Min	-74	-160	-191	-7	-189	-11	-516
G110	0.00	TRAFFIC	Combination	Min	-74	-185	-222	-4	-122	-11	-515
G110	3.11	TRAFFIC	Combination	Min	-74	-89	-106	-4	-122	-10	-624
G110	6.22	TRAFFIC	Combination	Min	-74	-42	-50	-4	-122	-11	-733
G111	0.00	TRAFFIC	Combination	Min	-73	-42	-50	-3	-153	-11	-732
G111	2.07	TRAFFIC	Combination	Min	-73	-42	-50	-3	-156	-17	-1010
G111	4.15	TRAFFIC	Combination	Min	-73	-42	-50	-3	-168	-28	-2149
G112	0.00	TRAFFIC	Combination	Min	-173	-777	-932	-11	-236	-30	-2357
G112	2.07	TRAFFIC	Combination	Min	-173	-633	-760	-11	-236	-32	-1147
G112	4.15	TRAFFIC	Combination	Min	-173	-545	-654	-11	-233	-34	-760
G113	0.00	TRAFFIC	Combination	Min	-174	-545	-654	-4	-220	-34	-762
G113	3.11	TRAFFIC	Combination	Min	-174	-380	-456	-4	-219	-32	-573
G113	6.22	TRAFFIC	Combination	Min	-174	-200	-240	-4	-215	-30	-384
G114	0.00	TRAFFIC	Combination	Min	-175	-220	-264	-2	-128	-31	-383
G114	3.11	TRAFFIC	Combination	Min	-175	-126	-151	-2	-123	-24	-193
G114	6.22	TRAFFIC	Combination	Min	-175	-65	-78	-2	-120	-16	-41
G115	0.00	TRAFFIC	Combination	Min	-174	-65	-78	-4	-112	-16	-41
G115	2.07	TRAFFIC	Combination	Min	-174	-65	-78	-4	-129	-7	-200
G115	4.15	TRAFFIC	Combination	Min	-174	-65	-78	-4	-142	-6	-1234

CASE 3 : JRA LIVE LOAD FOR FULL CARRIAGE WIDTH, W= 11.00 METER (sheet 1 of 2)

Frame	Station	OutputCase	CaseType	StepType	P	V2	(1.2 x V2)	V3	T	M2	M3
Text	m	Text	Text	Text	KN	KN	KN	KN	KN-m	KN-m	KN-m
MAXIMUM BENDING MOMENT (AT MID SPAN)											
G100	0.00	TRAFFIC	Combination	Max	1	52	63	0	127	3	287
G100	2.00	TRAFFIC	Combination	Max	1	52	63	0	111	3	1250
G100	4.00	TRAFFIC	Combination	Max	1	52	63	0	96	3	2139
G101	0.00	TRAFFIC	Combination	Max	1	84	101	0	70	3	2139
G101	3.00	TRAFFIC	Combination	Max	1	133	159	0	60	3	2636
G101	6.00	TRAFFIC	Combination	Max	1	217	260	0	50	3	2911
G102	0.00	TRAFFIC	Combination	Max	1	305	366	0	61	3	2911
G102	3.00	TRAFFIC	Combination	Max	1	454	544	0	70	3	2063
G102	6.00	TRAFFIC	Combination	Max	1	602	722	0	79	3	994
G103	0.00	TRAFFIC	Combination	Max	1	662	794	0	104	3	994
G103	2.00	TRAFFIC	Combination	Max	1	775	930	0	119	3	98
G103	4.00	TRAFFIC	Combination	Max	1	869	1042	0	125	3	-92
G104	0.00	TRAFFIC	Combination	Max	65	43	52	5	128	43	-62
G104	2.00	TRAFFIC	Combination	Max	65	43	52	5	120	34	216
G104	4.00	TRAFFIC	Combination	Max	65	43	52	5	104	24	1001
G105	0.00	TRAFFIC	Combination	Max	65	43	52	5	78	24	1001
G105	3.00	TRAFFIC	Combination	Max	65	78	93	5	66	12	1763
G105	6.00	TRAFFIC	Combination	Max	65	144	173	5	54	2	2344
G106	0.00	TRAFFIC	Combination	Max	65	226	271	5	58	2	2344
G106	3.00	TRAFFIC	Combination	Max	65	377	452	5	68	17	1798
G106	6.00	TRAFFIC	Combination	Max	65	527	633	5	78	31	1052
G107	0.00	TRAFFIC	Combination	Max	65	591	709	5	103	31	1052
G107	2.00	TRAFFIC	Combination	Max	65	709	850	5	118	42	306
G107	4.00	TRAFFIC	Combination	Max	65	823	987	5	133	52	207
G108	0.00	TRAFFIC	Combination	Max	16	48	57	2	174	14	-23
G108	2.07	TRAFFIC	Combination	Max	16	48	57	2	156	12	137
G108	4.15	TRAFFIC	Combination	Max	16	48	57	2	156	18	976
G109	0.00	TRAFFIC	Combination	Max	16	58	70	2	125	18	978
G109	3.11	TRAFFIC	Combination	Max	16	104	125	2	128	17	2019
G109	6.22	TRAFFIC	Combination	Max	16	213	256	2	131	30	2360
G110	0.00	TRAFFIC	Combination	Max	16	216	260	3	230	28	2358
G110	3.11	TRAFFIC	Combination	Max	16	380	456	3	215	36	1991
G110	6.22	TRAFFIC	Combination	Max	16	567	680	3	215	45	931
G111	0.00	TRAFFIC	Combination	Max	16	587	704	7	235	45	928
G111	2.07	TRAFFIC	Combination	Max	16	718	861	7	239	50	97
G111	4.15	TRAFFIC	Combination	Max	16	842	1010	7	239	56	-49
G112	0.00	TRAFFIC	Combination	Max	44	-8	-10	4	182	67	-165
G112	2.07	TRAFFIC	Combination	Max	44	-8	-10	4	170	85	26
G112	4.15	TRAFFIC	Combination	Max	44	7	9	4	170	108	907
G113	0.00	TRAFFIC	Combination	Max	45	23	27	3	136	108	910
G113	3.11	TRAFFIC	Combination	Max	45	65	78	3	136	109	2051
G113	6.22	TRAFFIC	Combination	Max	45	154	184	3	136	112	2530
G114	0.00	TRAFFIC	Combination	Max	45	173	207	8	179	117	2531
G114	3.11	TRAFFIC	Combination	Max	45	330	395	8	164	93	2298
G114	6.22	TRAFFIC	Combination	Max	45	510	612	8	164	70	1340
G115	0.00	TRAFFIC	Combination	Max	44	530	636	18	213	70	1338
G115	2.07	TRAFFIC	Combination	Max	44	660	792	18	218	32	409
G115	4.15	TRAFFIC	Combination	Max	44	797	956	18	218	2	312

CASE 3 : JRA LIVE LOAD FOR FULL CARRIAGE WIDTH, W= 11.00 METER (sheet 2 of 2)

Frame	Station	Output Case	Case Type	Step Type	P	V2	(1.2 x V2)	V3	T	M2	M3
Text	m	Text	Text	Text	KN	KN	KN	KN	KN-m	KN-m	KN-m
MAXIMUM SHEAR (AT SUPPORT), MINIMUM BENDING MOMENT (AT SUPPORT)											
G100	0.00	TRAFFIC	Combination	Min	-1	-711	-853	0	-125	-3	-287
G100	2.00	TRAFFIC	Combination	Min	-1	-580	-696	0	-111	-3	-96
G100	4.00	TRAFFIC	Combination	Min	-1	-451	-541	0	-96	-3	-192
G101	0.00	TRAFFIC	Combination	Min	-1	-312	-374	0	-71	-3	-192
G101	3.00	TRAFFIC	Combination	Min	-1	-203	-244	0	-62	-3	-337
G101	6.00	TRAFFIC	Combination	Min	-1	-112	-135	0	-53	-3	-481
G102	0.00	TRAFFIC	Combination	Min	-1	-27	-32	0	-59	-3	-481
G102	3.00	TRAFFIC	Combination	Min	-1	-15	-18	0	-70	-3	-626
G102	6.00	TRAFFIC	Combination	Min	-1	-3	-3	0	-80	-3	-770
G103	0.00	TRAFFIC	Combination	Min	-1	5	6	0	-106	-3	-770
G103	2.00	TRAFFIC	Combination	Min	-1	8	10	0	-121	-3	-1194
G103	4.00	TRAFFIC	Combination	Min	-1	8	10	0	-128	-3	-2584
G104	0.00	TRAFFIC	Combination	Min	-76	-797	-956	-5	-125	-53	-2467
G104	2.00	TRAFFIC	Combination	Min	-76	-721	-865	-5	-118	-43	-1340
G104	4.00	TRAFFIC	Combination	Min	-76	-592	-710	-5	-103	-32	-1032
G105	0.00	TRAFFIC	Combination	Min	-76	-445	-534	-5	-77	-32	-1032
G105	3.00	TRAFFIC	Combination	Min	-76	-327	-392	-5	-68	-17	-812
G105	6.00	TRAFFIC	Combination	Min	-76	-209	-251	-5	-58	-5	-615
G106	0.00	TRAFFIC	Combination	Min	-76	-104	-125	-5	-54	-5	-615
G106	3.00	TRAFFIC	Combination	Min	-76	-77	-92	-5	-66	-18	-726
G106	6.00	TRAFFIC	Combination	Min	-76	-73	-88	-5	-78	-31	-837
G107	0.00	TRAFFIC	Combination	Min	-76	-73	-88	-5	-104	-31	-837
G107	2.00	TRAFFIC	Combination	Min	-76	-73	-88	-5	-120	-40	-1123
G107	4.00	TRAFFIC	Combination	Min	-76	-73	-88	-5	-129	-49	-2335
G108	0.00	TRAFFIC	Combination	Min	-81	-795	-954	-10	-238	-62	-2265
G108	2.07	TRAFFIC	Combination	Min	-81	-712	-855	-10	-238	-44	-1031
G108	4.15	TRAFFIC	Combination	Min	-81	-575	-690	-10	-235	-27	-774
G109	0.00	TRAFFIC	Combination	Min	-81	-503	-604	-8	-212	-27	-776
G109	3.11	TRAFFIC	Combination	Min	-81	-375	-450	-8	-215	-12	-653
G109	6.22	TRAFFIC	Combination	Min	-81	-193	-232	-8	-212	-12	-548
G110	0.00	TRAFFIC	Combination	Min	-81	-168	-202	-4	-134	-12	-548
G110	3.11	TRAFFIC	Combination	Min	-81	-102	-123	-4	-134	-11	-673
G110	6.22	TRAFFIC	Combination	Min	-81	-46	-55	-4	-134	-12	-799
G111	0.00	TRAFFIC	Combination	Min	-81	-46	-55	-4	-167	-12	-798
G111	2.07	TRAFFIC	Combination	Min	-81	-46	-55	-4	-167	-19	-1087
G111	4.15	TRAFFIC	Combination	Min	-81	-46	-55	-4	-178	-32	-2319
G112	0.00	TRAFFIC	Combination	Min	-189	-828	-993	-12	-266	-32	-2541
G112	2.07	TRAFFIC	Combination	Min	-189	-752	-903	-12	-266	-34	-1228
G112	4.15	TRAFFIC	Combination	Min	-189	-619	-743	-12	-266	-36	-826
G113	0.00	TRAFFIC	Combination	Min	-190	-548	-657	-4	-245	-36	-827
G113	3.11	TRAFFIC	Combination	Min	-190	-422	-507	-4	-246	-34	-622
G113	6.22	TRAFFIC	Combination	Min	-190	-238	-285	-4	-241	-32	-416
G114	0.00	TRAFFIC	Combination	Min	-191	-205	-246	-3	-140	-33	-416
G114	3.11	TRAFFIC	Combination	Min	-191	-141	-169	-3	-138	-25	-210
G114	6.22	TRAFFIC	Combination	Min	-191	-72	-87	-3	-131	-17	-44
G115	0.00	TRAFFIC	Combination	Min	-190	-70	-84	-5	-123	-17	-44
G115	2.07	TRAFFIC	Combination	Min	-190	-70	-84	-5	-133	-8	-225
G115	4.15	TRAFFIC	Combination	Min	-190	-70	-84	-5	-158	-7	-1348

CASE 5 : DESIGN CRITERIA LIVE LOAD (sheet 1 of 8)

Frame	Station	Output Case	CaseType	StepType	P	V2	V3	T	M2	M3
Text	m	Text	Text	Text	KN	KN	KN	KN-m	KN-m	KN-m
MAXIMUM SHEAR (AT SUPPORT), MAXIMUM BENDING MOMENT (AT MID SPAN)										
G100	0.00	TRAFFIC	LinMoving	Max	1	65	0	315	5	449
G100	0.50	TRAFFIC	LinMoving	Max	1	74	0	306	5	706
G100	1.00	TRAFFIC	LinMoving	Max	1	83	0	297	5	962
G100	1.50	TRAFFIC	LinMoving	Max	1	92	0	288	5	1218
G100	2.00	TRAFFIC	LinMoving	Max	1	101	0	279	5	1475
G100	2.50	TRAFFIC	LinMoving	Max	1	117	0	271	5	1720
G100	3.00	TRAFFIC	LinMoving	Max	1	134	0	263	5	1966
G100	3.50	TRAFFIC	LinMoving	Max	1	150	0	255	5	2212
G100	4.00	TRAFFIC	LinMoving	Max	1	166	0	247	5	2458
G101	0.00	TRAFFIC	LinMoving	Max	1	167	0	180	5	2458
G101	0.50	TRAFFIC	LinMoving	Max	1	186	0	179	5	2532
G101	1.00	TRAFFIC	LinMoving	Max	1	205	0	178	5	2606
G101	1.50	TRAFFIC	LinMoving	Max	1	224	0	177	5	2680
G101	2.00	TRAFFIC	LinMoving	Max	1	243	0	175	5	2754
G101	2.50	TRAFFIC	LinMoving	Max	1	262	0	174	5	2828
G101	3.00	TRAFFIC	LinMoving	Max	1	281	0	173	5	2902
G101	3.50	TRAFFIC	LinMoving	Max	1	301	0	172	5	2976
G101	4.00	TRAFFIC	LinMoving	Max	1	320	0	170	5	3050
G101	4.50	TRAFFIC	LinMoving	Max	1	339	0	169	5	3124
G101	5.00	TRAFFIC	LinMoving	Max	1	358	0	168	5	3198
G101	5.50	TRAFFIC	LinMoving	Max	1	377	0	167	5	3273
G101	6.00	TRAFFIC	LinMoving	Max	1	396	0	165	5	3347
G102	0.00	TRAFFIC	LinMoving	Max	1	484	0	177	5	3347
G102	0.50	TRAFFIC	LinMoving	Max	1	501	0	179	5	3179
G102	1.00	TRAFFIC	LinMoving	Max	1	519	0	180	5	3011
G102	1.50	TRAFFIC	LinMoving	Max	1	536	0	182	5	2843
G102	2.00	TRAFFIC	LinMoving	Max	1	553	0	184	5	2676
G102	2.50	TRAFFIC	LinMoving	Max	1	571	0	185	5	2508
G102	3.00	TRAFFIC	LinMoving	Max	1	588	0	187	5	2340
G102	3.50	TRAFFIC	LinMoving	Max	1	605	0	189	5	2172
G102	4.00	TRAFFIC	LinMoving	Max	1	623	0	191	5	2005
G102	4.50	TRAFFIC	LinMoving	Max	1	640	0	192	5	1837
G102	5.00	TRAFFIC	LinMoving	Max	1	657	0	194	5	1669
G102	5.50	TRAFFIC	LinMoving	Max	1	675	0	196	5	1501
G102	6.00	TRAFFIC	LinMoving	Max	1	692	0	197	5	1334
G103	0.00	TRAFFIC	LinMoving	Max	1	761	0	259	5	1334
G103	0.50	TRAFFIC	LinMoving	Max	1	783	0	267	5	1154
G103	1.00	TRAFFIC	LinMoving	Max	1	805	0	275	5	974
G103	1.50	TRAFFIC	LinMoving	Max	1	827	0	283	5	794
G103	2.00	TRAFFIC	LinMoving	Max	1	850	0	292	5	614
G103	2.50	TRAFFIC	LinMoving	Max	1	876	0	295	5	543
G103	3.00	TRAFFIC	LinMoving	Max	1	902	0	299	5	473
G103	3.50	TRAFFIC	LinMoving	Max	1	928	0	302	5	403
G103	4.00	TRAFFIC	LinMoving	Max	1	954	0	306	5	332
G104	0.00	TRAFFIC	LinMoving	Max	77	85	8	307	81	549
G104	0.50	TRAFFIC	LinMoving	Max	77	86	8	303	77	593
G104	1.00	TRAFFIC	LinMoving	Max	77	88	8	300	73	638
G104	1.50	TRAFFIC	LinMoving	Max	77	90	8	296	69	682

CASE 5 : DESIGN CRITERIA LIVE LOAD (sheet 2 of 8)

Frame	Station	Output Case	CaseType	StepType	P	V2	V3	T	M2	M3
Text	m	Text	Text	Text	KN	KN	KN	KN-m	KN-m	KN-m
MAXIMUM SHEAR (AT SUPPORT), MAXIMUM BENDING MOMENT (AT MID SPAN)										
G104	2.00	TRAFFIC	LinMoving	Max	77	91	8	293	65	726
G104	2.50	TRAFFIC	LinMoving	Max	77	104	8	284	60	877
G104	3.00	TRAFFIC	LinMoving	Max	77	117	8	274	56	1027
G104	3.50	TRAFFIC	LinMoving	Max	77	130	8	265	52	1177
G104	4.00	TRAFFIC	LinMoving	Max	77	143	8	256	48	1328
G105	0.00	TRAFFIC	LinMoving	Max	77	158	8	196	48	1328
G105	0.50	TRAFFIC	LinMoving	Max	77	174	8	194	44	1446
G105	1.00	TRAFFIC	LinMoving	Max	77	189	8	192	41	1563
G105	1.50	TRAFFIC	LinMoving	Max	77	205	8	191	37	1681
G105	2.00	TRAFFIC	LinMoving	Max	77	220	8	189	33	1799
G105	2.50	TRAFFIC	LinMoving	Max	77	236	8	188	30	1916
G105	3.00	TRAFFIC	LinMoving	Max	77	251	8	186	26	2034
G105	3.50	TRAFFIC	LinMoving	Max	77	267	8	184	22	2152
G105	4.00	TRAFFIC	LinMoving	Max	77	283	8	183	19	2270
G105	4.50	TRAFFIC	LinMoving	Max	77	298	8	181	15	2387
G105	5.00	TRAFFIC	LinMoving	Max	77	314	8	179	11	2505
G105	5.50	TRAFFIC	LinMoving	Max	77	329	8	178	8	2623
G105	6.00	TRAFFIC	LinMoving	Max	77	345	8	176	4	2741
G106	0.00	TRAFFIC	LinMoving	Max	77	419	8	176	4	2741
G106	0.50	TRAFFIC	LinMoving	Max	77	437	8	178	8	2632
G106	1.00	TRAFFIC	LinMoving	Max	77	454	8	180	12	2524
G106	1.50	TRAFFIC	LinMoving	Max	77	472	8	181	16	2416
G106	2.00	TRAFFIC	LinMoving	Max	77	489	8	183	19	2308
G106	2.50	TRAFFIC	LinMoving	Max	77	507	8	185	23	2200
G106	3.00	TRAFFIC	LinMoving	Max	77	524	8	186	27	2092
G106	3.50	TRAFFIC	LinMoving	Max	77	541	8	188	31	1984
G106	4.00	TRAFFIC	LinMoving	Max	77	559	8	189	35	1876
G106	4.50	TRAFFIC	LinMoving	Max	77	576	8	191	39	1767
G106	5.00	TRAFFIC	LinMoving	Max	77	594	8	193	43	1659
G106	5.50	TRAFFIC	LinMoving	Max	77	611	8	194	46	1551
G106	6.00	TRAFFIC	LinMoving	Max	77	629	8	196	50	1443
G107	0.00	TRAFFIC	LinMoving	Max	77	695	8	264	50	1443
G107	0.50	TRAFFIC	LinMoving	Max	77	720	8	272	54	1302
G107	1.00	TRAFFIC	LinMoving	Max	77	744	8	281	59	1161
G107	1.50	TRAFFIC	LinMoving	Max	77	768	8	289	63	1020
G107	2.00	TRAFFIC	LinMoving	Max	77	792	8	297	67	879
G107	2.50	TRAFFIC	LinMoving	Max	77	822	8	306	72	867
G107	3.00	TRAFFIC	LinMoving	Max	77	852	8	316	76	855
G107	3.50	TRAFFIC	LinMoving	Max	77	881	8	325	80	843
G107	4.00	TRAFFIC	LinMoving	Max	77	911	8	334	85	831
G108	0.00	TRAFFIC	LinMoving	Max	42	75	5	371	32	437
G108	0.46	TRAFFIC	LinMoving	Max	42	78	5	366	31	486
G108	0.92	TRAFFIC	LinMoving	Max	42	80	5	364	30	536
G108	1.38	TRAFFIC	LinMoving	Max	42	83	5	362	28	587
G108	1.84	TRAFFIC	LinMoving	Max	42	86	5	359	27	637

CASE 5 : DESIGN CRITERIA LIVE LOAD (sheet 3 of 8)

Frame	Station	Output Case	CaseType	StepType	P	V2	V3	T	M2	M3
Text	m	Text	Text	Text	KN	KN	KN	KN-m	KN-m	KN-m
MAXIMUM SHEAR (AT SUPPORT), MAXIMUM BENDING MOMENT (AT MID SPAN)										
G108	2.31	TRAFFIC	LinMoving	Max	42	94	5	350	27	738
G108	2.77	TRAFFIC	LinMoving	Max	42	107	5	333	29	889
G108	3.23	TRAFFIC	LinMoving	Max	42	121	5	316	30	1040
G108	3.69	TRAFFIC	LinMoving	Max	42	134	5	300	31	1191
G108	4.15	TRAFFIC	LinMoving	Max	42	147	5	283	33	1342
G109	0.00	TRAFFIC	LinMoving	Max	42	159	4	249	33	1338
G109	0.48	TRAFFIC	LinMoving	Max	42	180	4	251	33	1508
G109	0.96	TRAFFIC	LinMoving	Max	42	198	4	252	32	1680
G109	1.44	TRAFFIC	LinMoving	Max	42	215	4	252	32	1852
G109	1.91	TRAFFIC	LinMoving	Max	42	233	4	253	32	2024
G109	2.39	TRAFFIC	LinMoving	Max	42	250	4	253	32	2196
G109	2.87	TRAFFIC	LinMoving	Max	42	267	4	254	32	2369
G109	3.35	TRAFFIC	LinMoving	Max	42	286	4	255	33	2487
G109	3.83	TRAFFIC	LinMoving	Max	42	306	4	255	35	2552
G109	4.31	TRAFFIC	LinMoving	Max	42	326	4	256	38	2617
G109	4.79	TRAFFIC	LinMoving	Max	42	347	4	256	40	2683
G109	5.27	TRAFFIC	LinMoving	Max	42	367	4	257	43	2748
G109	5.74	TRAFFIC	LinMoving	Max	42	387	4	257	46	2813
G109	6.22	TRAFFIC	LinMoving	Max	42	407	4	258	48	2878
G110	0.00	TRAFFIC	LinMoving	Max	42	427	5	394	47	2870
G110	0.48	TRAFFIC	LinMoving	Max	42	451	5	388	47	2794
G110	0.96	TRAFFIC	LinMoving	Max	42	468	5	388	47	2723
G110	1.44	TRAFFIC	LinMoving	Max	42	486	5	387	48	2651
G110	1.91	TRAFFIC	LinMoving	Max	42	504	5	386	48	2580
G110	2.39	TRAFFIC	LinMoving	Max	42	521	5	385	48	2509
G110	2.87	TRAFFIC	LinMoving	Max	42	539	5	384	48	2437
G110	3.35	TRAFFIC	LinMoving	Max	42	559	5	383	49	2314
G110	3.83	TRAFFIC	LinMoving	Max	42	580	5	382	50	2140
G110	4.31	TRAFFIC	LinMoving	Max	42	601	5	381	52	1966
G110	4.79	TRAFFIC	LinMoving	Max	42	623	5	380	53	1792
G110	5.27	TRAFFIC	LinMoving	Max	42	644	5	379	55	1618
G110	5.74	TRAFFIC	LinMoving	Max	42	666	5	378	56	1444
G110	6.22	TRAFFIC	LinMoving	Max	42	687	5	377	58	1270
G111	0.00	TRAFFIC	LinMoving	Max	42	723	11	409	58	1274
G111	0.46	TRAFFIC	LinMoving	Max	42	752	11	412	60	1126
G111	0.92	TRAFFIC	LinMoving	Max	42	772	11	414	63	980
G111	1.38	TRAFFIC	LinMoving	Max	42	793	11	416	65	834
G111	1.84	TRAFFIC	LinMoving	Max	42	814	11	418	67	689
G111	2.30	TRAFFIC	LinMoving	Max	42	839	11	422	70	589
G111	2.77	TRAFFIC	LinMoving	Max	42	868	11	426	73	534
G111	3.23	TRAFFIC	LinMoving	Max	42	897	11	431	75	480
G111	3.69	TRAFFIC	LinMoving	Max	42	926	11	435	78	426
G111	4.15	TRAFFIC	LinMoving	Max	42	956	11	440	81	371

CASE 5 : DESIGN CRITERIA LIVE LOAD (sheet 4 of 8)

Frame	Station	Output Case	CaseType	StepType	P	V2	V3	T	M2	M3
Text	m	Text	Text	Text	KN	KN	KN	KN-m	KN-m	KN-m
MAXIMUM SHEAR (AT SUPPORT), MAXIMUM BENDING MOMENT (AT MID SPAN)										
G112	0.00	TRAFFIC	LinMoving	Max	58	13	6	383	138	223
G112	0.46	TRAFFIC	LinMoving	Max	58	19	6	378	140	295
G112	0.92	TRAFFIC	LinMoving	Max	58	25	6	376	141	370
G112	1.38	TRAFFIC	LinMoving	Max	58	31	6	374	143	445
G112	1.84	TRAFFIC	LinMoving	Max	58	37	6	371	144	521
G112	2.31	TRAFFIC	LinMoving	Max	58	46	6	362	146	638
G112	2.77	TRAFFIC	LinMoving	Max	58	56	6	345	148	798
G112	3.23	TRAFFIC	LinMoving	Max	58	66	6	328	150	957
G112	3.69	TRAFFIC	LinMoving	Max	58	76	6	311	152	1117
G112	4.15	TRAFFIC	LinMoving	Max	58	87	6	295	154	1276
G113	0.00	TRAFFIC	LinMoving	Max	58	97	8	251	154	1274
G113	0.48	TRAFFIC	LinMoving	Max	58	117	8	251	152	1460
G113	0.96	TRAFFIC	LinMoving	Max	58	133	8	251	151	1647
G113	1.44	TRAFFIC	LinMoving	Max	58	148	8	251	149	1834
G113	1.91	TRAFFIC	LinMoving	Max	58	163	8	251	147	2021
G113	2.39	TRAFFIC	LinMoving	Max	58	179	8	251	146	2209
G113	2.87	TRAFFIC	LinMoving	Max	58	194	8	251	144	2396
G113	3.35	TRAFFIC	LinMoving	Max	58	211	8	251	143	2533
G113	3.83	TRAFFIC	LinMoving	Max	58	230	8	252	142	2621
G113	4.31	TRAFFIC	LinMoving	Max	58	249	8	252	141	2709
G113	4.79	TRAFFIC	LinMoving	Max	58	267	8	252	140	2796
G113	5.27	TRAFFIC	LinMoving	Max	58	286	8	252	138	2884
G113	5.74	TRAFFIC	LinMoving	Max	58	305	8	253	137	2971
G113	6.22	TRAFFIC	LinMoving	Max	58	324	8	253	136	3059
G114	0.00	TRAFFIC	LinMoving	Max	59	340	11	343	143	3054
G114	0.48	TRAFFIC	LinMoving	Max	59	363	11	337	138	3001
G114	0.96	TRAFFIC	LinMoving	Max	59	381	11	336	133	2952
G114	1.44	TRAFFIC	LinMoving	Max	59	399	11	335	128	2904
G114	1.91	TRAFFIC	LinMoving	Max	59	417	11	334	123	2855
G114	2.39	TRAFFIC	LinMoving	Max	59	435	11	333	118	2807
G114	2.87	TRAFFIC	LinMoving	Max	59	453	11	332	112	2758
G114	3.35	TRAFFIC	LinMoving	Max	59	475	11	331	107	2654
G114	3.83	TRAFFIC	LinMoving	Max	59	501	11	329	103	2494
G114	4.31	TRAFFIC	LinMoving	Max	59	527	11	327	98	2333
G114	4.79	TRAFFIC	LinMoving	Max	59	553	11	326	93	2173
G114	5.27	TRAFFIC	LinMoving	Max	59	579	11	324	88	2013
G114	5.74	TRAFFIC	LinMoving	Max	59	605	11	322	84	1852
G114	6.22	TRAFFIC	LinMoving	Max	59	631	11	321	79	1692
G115	0.00	TRAFFIC	LinMoving	Max	59	665	21	390	79	1686
G115	0.46	TRAFFIC	LinMoving	Max	59	695	21	392	70	1497
G115	0.92	TRAFFIC	LinMoving	Max	59	717	21	394	60	1313
G115	1.38	TRAFFIC	LinMoving	Max	59	739	21	396	51	1130
G115	1.84	TRAFFIC	LinMoving	Max	59	760	21	398	42	946
G115	2.31	TRAFFIC	LinMoving	Max	59	787	21	401	34	806
G115	2.77	TRAFFIC	LinMoving	Max	59	818	21	405	27	709
G115	3.23	TRAFFIC	LinMoving	Max	59	849	21	409	19	613
G115	3.69	TRAFFIC	LinMoving	Max	59	880	21	413	12	516
G115	4.15	TRAFFIC	LinMoving	Max	59	911	21	417	5	420

CASE 5 : DESIGN CRITERIA LIVE LOAD (sheet 5 of 8)

Frame	Station	Output Case	CaseType	StepType	P	V2	V3	T	M2	M3
Text	m	Text	Text	Text	KN	KN	KN	KN-m	KN-m	KN-m
MAXIMUM SHEAR (AT SUPPORT), MINIMUM BENDING MOMENT (AT SUPPORT)										
G100	0.00	TRAFFIC	LinMoving	Min	-2	-817	0	-317	-5	-448
G100	0.50	TRAFFIC	LinMoving	Min	-2	-782	0	-308	-5	-361
G100	1.00	TRAFFIC	LinMoving	Min	-2	-748	0	-300	-5	-275
G100	1.50	TRAFFIC	LinMoving	Min	-2	-713	0	-291	-5	-188
G100	2.00	TRAFFIC	LinMoving	Min	-2	-679	0	-282	-5	-102
G100	2.50	TRAFFIC	LinMoving	Min	-2	-648	0	-274	-5	-127
G100	3.00	TRAFFIC	LinMoving	Min	-2	-617	0	-266	-5	-152
G100	3.50	TRAFFIC	LinMoving	Min	-2	-586	0	-259	-5	-177
G100	4.00	TRAFFIC	LinMoving	Min	-2	-556	0	-251	-5	-203
G101	0.00	TRAFFIC	LinMoving	Min	-2	-320	0	-185	-5	-203
G101	0.50	TRAFFIC	LinMoving	Min	-2	-314	0	-183	-5	-228
G101	1.00	TRAFFIC	LinMoving	Min	-2	-308	0	-182	-5	-253
G101	1.50	TRAFFIC	LinMoving	Min	-2	-302	0	-181	-5	-279
G101	2.00	TRAFFIC	LinMoving	Min	-2	-297	0	-180	-5	-304
G101	2.50	TRAFFIC	LinMoving	Min	-2	-291	0	-178	-5	-329
G101	3.00	TRAFFIC	LinMoving	Min	-2	-285	0	-177	-5	-355
G101	3.50	TRAFFIC	LinMoving	Min	-2	-279	0	-176	-5	-380
G101	4.00	TRAFFIC	LinMoving	Min	-2	-273	0	-175	-5	-406
G101	4.50	TRAFFIC	LinMoving	Min	-2	-267	0	-173	-5	-431
G101	5.00	TRAFFIC	LinMoving	Min	-2	-261	0	-172	-5	-456
G101	5.50	TRAFFIC	LinMoving	Min	-2	-255	0	-171	-5	-482
G101	6.00	TRAFFIC	LinMoving	Min	-2	-249	0	-170	-5	-507
G102	0.00	TRAFFIC	LinMoving	Min	-2	-78	0	-181	-5	-507
G102	0.50	TRAFFIC	LinMoving	Min	-2	-76	0	-183	-5	-536
G102	1.00	TRAFFIC	LinMoving	Min	-2	-75	0	-184	-5	-566
G102	1.50	TRAFFIC	LinMoving	Min	-2	-73	0	-186	-5	-595
G102	2.00	TRAFFIC	LinMoving	Min	-2	-72	0	-188	-5	-625
G102	2.50	TRAFFIC	LinMoving	Min	-2	-71	0	-189	-5	-654
G102	3.00	TRAFFIC	LinMoving	Min	-2	-69	0	-191	-5	-684
G102	3.50	TRAFFIC	LinMoving	Min	-2	-68	0	-193	-5	-713
G102	4.00	TRAFFIC	LinMoving	Min	-2	-66	0	-195	-5	-743
G102	4.50	TRAFFIC	LinMoving	Min	-2	-65	0	-196	-5	-772
G102	5.00	TRAFFIC	LinMoving	Min	-2	-64	0	-198	-5	-801
G102	5.50	TRAFFIC	LinMoving	Min	-2	-62	0	-200	-5	-831
G102	6.00	TRAFFIC	LinMoving	Min	-2	-61	0	-201	-5	-860
G103	0.00	TRAFFIC	LinMoving	Min	-2	-29	0	-259	-5	-860
G103	0.50	TRAFFIC	LinMoving	Min	-2	-28	0	-268	-5	-1099
G103	1.00	TRAFFIC	LinMoving	Min	-2	-28	0	-276	-5	-1339
G103	1.50	TRAFFIC	LinMoving	Min	-2	-27	0	-285	-5	-1578
G103	2.00	TRAFFIC	LinMoving	Min	-2	-27	0	-293	-5	-1817
G103	2.50	TRAFFIC	LinMoving	Min	-2	-23	0	-297	-5	-2186
G103	3.00	TRAFFIC	LinMoving	Min	-2	-19	0	-300	-5	-2556
G103	3.50	TRAFFIC	LinMoving	Min	-2	-16	0	-304	-5	-2925
G103	4.00	TRAFFIC	LinMoving	Min	-2	-12	0	-307	-5	-3295
G104	0.00	TRAFFIC	LinMoving	Min	-95	-863	-9	-310	-89	-3390
G104	0.50	TRAFFIC	LinMoving	Min	-95	-848	-9	-307	-85	-3041
G104	1.00	TRAFFIC	LinMoving	Min	-95	-833	-9	-303	-80	-2692
G104	1.50	TRAFFIC	LinMoving	Min	-95	-819	-9	-300	-76	-2343

CASE 5 : DESIGN CRITERIA LIVE LOAD (sheet 6 of 8)

Frame	Station	Output Case	CaseType	StepType	P	V2	V3	T	M2	M3
Text	m	Text	Text	Text	KN	KN	KN	KN-m	KN-m	KN-m
MAXIMUM SHEAR (AT SUPPORT), MINIMUM BENDING MOMENT (AT SUPPORT)										
G104	2.00	TRAFFIC	LinMoving	Min	-95	-804	-9	-296	-72	-1994
G104	2.50	TRAFFIC	LinMoving	Min	-95	-777	-9	-288	-67	-1785
G104	3.00	TRAFFIC	LinMoving	Min	-95	-750	-9	-280	-63	-1576
G104	3.50	TRAFFIC	LinMoving	Min	-95	-723	-9	-272	-59	-1368
G104	4.00	TRAFFIC	LinMoving	Min	-95	-696	-9	-264	-55	-1159
G105	0.00	TRAFFIC	LinMoving	Min	-95	-502	-9	-194	-55	-1159
G105	0.50	TRAFFIC	LinMoving	Min	-95	-495	-9	-192	-51	-1127
G105	1.00	TRAFFIC	LinMoving	Min	-95	-487	-9	-190	-47	-1095
G105	1.50	TRAFFIC	LinMoving	Min	-95	-479	-9	-189	-43	-1064
G105	2.00	TRAFFIC	LinMoving	Min	-95	-472	-9	-187	-39	-1032
G105	2.50	TRAFFIC	LinMoving	Min	-95	-464	-9	-186	-35	-1000
G105	3.00	TRAFFIC	LinMoving	Min	-95	-456	-9	-184	-31	-968
G105	3.50	TRAFFIC	LinMoving	Min	-95	-449	-9	-182	-27	-936
G105	4.00	TRAFFIC	LinMoving	Min	-95	-441	-9	-181	-23	-904
G105	4.50	TRAFFIC	LinMoving	Min	-95	-433	-9	-179	-19	-873
G105	5.00	TRAFFIC	LinMoving	Min	-95	-426	-9	-177	-15	-841
G105	5.50	TRAFFIC	LinMoving	Min	-95	-418	-9	-176	-11	-809
G105	6.00	TRAFFIC	LinMoving	Min	-95	-411	-9	-174	-7	-777
G106	0.00	TRAFFIC	LinMoving	Min	-95	-193	-9	-174	-7	-777
G106	0.50	TRAFFIC	LinMoving	Min	-95	-191	-9	-176	-11	-806
G106	1.00	TRAFFIC	LinMoving	Min	-95	-189	-9	-178	-15	-834
G106	1.50	TRAFFIC	LinMoving	Min	-95	-187	-9	-179	-18	-863
G106	2.00	TRAFFIC	LinMoving	Min	-95	-185	-9	-181	-22	-891
G106	2.50	TRAFFIC	LinMoving	Min	-95	-184	-9	-183	-26	-920
G106	3.00	TRAFFIC	LinMoving	Min	-95	-182	-9	-184	-30	-948
G106	3.50	TRAFFIC	LinMoving	Min	-95	-180	-9	-186	-33	-977
G106	4.00	TRAFFIC	LinMoving	Min	-95	-178	-9	-188	-37	-1005
G106	4.50	TRAFFIC	LinMoving	Min	-95	-176	-9	-189	-41	-1034
G106	5.00	TRAFFIC	LinMoving	Min	-95	-174	-9	-191	-45	-1062
G106	5.50	TRAFFIC	LinMoving	Min	-95	-172	-9	-192	-48	-1091
G106	6.00	TRAFFIC	LinMoving	Min	-95	-171	-9	-194	-52	-1119
G107	0.00	TRAFFIC	LinMoving	Min	-95	-121	-9	-258	-52	-1119
G107	0.50	TRAFFIC	LinMoving	Min	-95	-121	-9	-267	-56	-1273
G107	1.00	TRAFFIC	LinMoving	Min	-95	-120	-9	-276	-61	-1426
G107	1.50	TRAFFIC	LinMoving	Min	-95	-119	-9	-285	-65	-1580
G107	2.00	TRAFFIC	LinMoving	Min	-95	-118	-9	-294	-69	-1733
G107	2.50	TRAFFIC	LinMoving	Min	-95	-117	-9	-298	-73	-2070
G107	3.00	TRAFFIC	LinMoving	Min	-95	-117	-9	-301	-77	-2407
G107	3.50	TRAFFIC	LinMoving	Min	-95	-116	-9	-305	-81	-2744
G107	4.00	TRAFFIC	LinMoving	Min	-95	-115	-9	-308	-85	-3081
G108	0.00	TRAFFIC	LinMoving	Min	-111	-888	-13	-423	-75	-3030
G108	0.46	TRAFFIC	LinMoving	Min	-111	-862	-13	-422	-70	-2717
G108	0.92	TRAFFIC	LinMoving	Min	-111	-849	-13	-421	-66	-2405
G108	1.38	TRAFFIC	LinMoving	Min	-111	-835	-13	-419	-61	-2093
G108	1.84	TRAFFIC	LinMoving	Min	-111	-822	-13	-417	-57	-1781

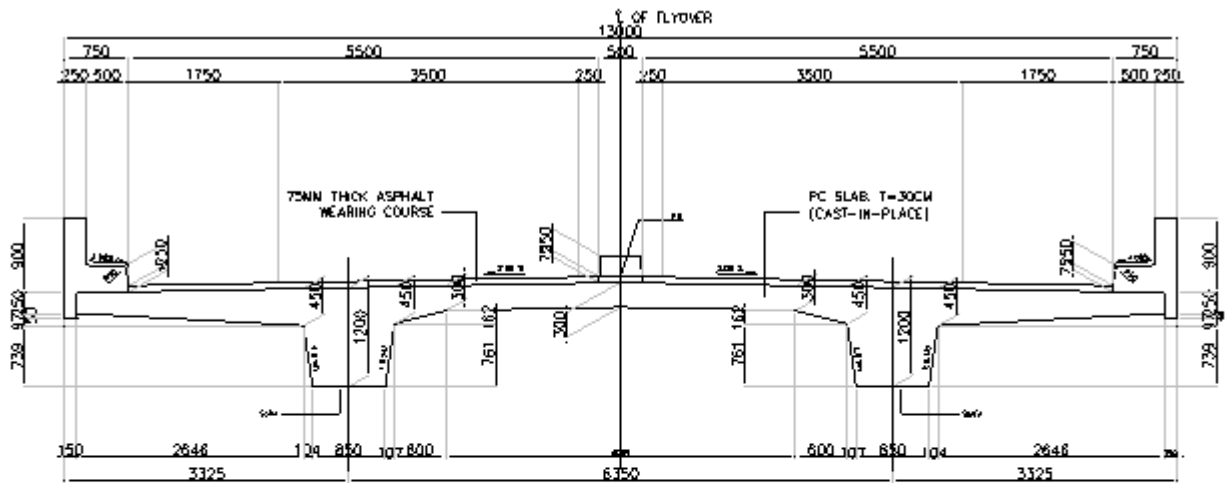
CASE 5 : DESIGN CRITERIA LIVE LOAD (sheet 7 of 8)

Frame	Station	Output Case	CaseType	StepType	P	V2	V3	T	M2	M3
Text	m	Text	Text	Text	KN	KN	KN	KN-m	KN-m	KN-m
MAXIMUM SHEAR (AT SUPPORT), MINIMUM BENDING MOMENT (AT SUPPORT)										
G108	2.31	TRAFFIC	LinMoving	Min	-111	-801	-13	-415	-53	-1541
G108	2.77	TRAFFIC	LinMoving	Min	-111	-774	-13	-412	-49	-1374
G108	3.23	TRAFFIC	LinMoving	Min	-111	-747	-13	-408	-45	-1207
G108	3.69	TRAFFIC	LinMoving	Min	-111	-720	-13	-405	-41	-1040
G108	4.15	TRAFFIC	LinMoving	Min	-111	-693	-13	-401	-38	-873
G109	0.00	TRAFFIC	LinMoving	Min	-111	-603	-10	-360	-38	-864
G109	0.48	TRAFFIC	LinMoving	Min	-111	-586	-10	-367	-35	-841
G109	0.96	TRAFFIC	LinMoving	Min	-111	-577	-10	-369	-33	-824
G109	1.44	TRAFFIC	LinMoving	Min	-111	-567	-10	-371	-31	-806
G109	1.91	TRAFFIC	LinMoving	Min	-111	-558	-10	-374	-29	-789
G109	2.39	TRAFFIC	LinMoving	Min	-111	-549	-10	-376	-26	-771
G109	2.87	TRAFFIC	LinMoving	Min	-111	-539	-10	-378	-24	-753
G109	3.35	TRAFFIC	LinMoving	Min	-111	-524	-10	-379	-23	-740
G109	3.83	TRAFFIC	LinMoving	Min	-111	-502	-10	-379	-23	-732
G109	4.31	TRAFFIC	LinMoving	Min	-111	-481	-10	-379	-24	-723
G109	4.79	TRAFFIC	LinMoving	Min	-111	-460	-10	-379	-24	-714
G109	5.27	TRAFFIC	LinMoving	Min	-111	-438	-10	-378	-24	-706
G109	5.74	TRAFFIC	LinMoving	Min	-111	-417	-10	-378	-24	-697
G109	6.22	TRAFFIC	LinMoving	Min	-111	-396	-10	-378	-24	-689
G110	0.00	TRAFFIC	LinMoving	Min	-111	-305	-6	-257	-25	-688
G110	0.48	TRAFFIC	LinMoving	Min	-111	-297	-6	-257	-24	-701
G110	0.96	TRAFFIC	LinMoving	Min	-111	-292	-6	-257	-24	-714
G110	1.44	TRAFFIC	LinMoving	Min	-111	-287	-6	-257	-23	-727
G110	1.91	TRAFFIC	LinMoving	Min	-111	-282	-6	-256	-23	-740
G110	2.39	TRAFFIC	LinMoving	Min	-111	-277	-6	-256	-22	-752
G110	2.87	TRAFFIC	LinMoving	Min	-111	-273	-6	-256	-22	-765
G110	3.35	TRAFFIC	LinMoving	Min	-111	-261	-6	-256	-22	-785
G110	3.83	TRAFFIC	LinMoving	Min	-111	-242	-6	-255	-23	-810
G110	4.31	TRAFFIC	LinMoving	Min	-111	-223	-6	-255	-24	-836
G110	4.79	TRAFFIC	LinMoving	Min	-111	-205	-6	-254	-25	-862
G110	5.27	TRAFFIC	LinMoving	Min	-111	-186	-6	-254	-26	-887
G110	5.74	TRAFFIC	LinMoving	Min	-111	-167	-6	-253	-27	-913
G110	6.22	TRAFFIC	LinMoving	Min	-111	-149	-6	-252	-28	-939
G111	0.00	TRAFFIC	LinMoving	Min	-111	-89	-7	-267	-28	-946
G111	0.46	TRAFFIC	LinMoving	Min	-111	-88	-7	-312	-30	-1114
G111	0.92	TRAFFIC	LinMoving	Min	-111	-87	-7	-329	-32	-1288
G111	1.38	TRAFFIC	LinMoving	Min	-111	-87	-7	-345	-34	-1461
G111	1.84	TRAFFIC	LinMoving	Min	-111	-86	-7	-362	-36	-1634
G111	2.30	TRAFFIC	LinMoving	Min	-111	-84	-7	-372	-40	-1880
G111	2.77	TRAFFIC	LinMoving	Min	-111	-80	-7	-375	-44	-2197
G111	3.23	TRAFFIC	LinMoving	Min	-111	-77	-7	-378	-48	-2515
G111	3.69	TRAFFIC	LinMoving	Min	-111	-73	-7	-381	-52	-2832
G111	4.15	TRAFFIC	LinMoving	Min	-111	-70	-7	-383	-57	-3150

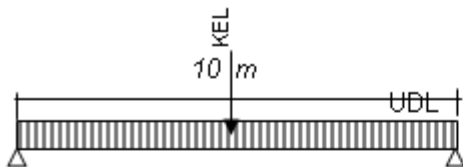
CASE 5 : DESIGN CRITERIA LIVE LOAD (sheet 8 of 8)

Frame	Station	Output Case	CaseType	StepType	P	V2	V3	T	M2	M3
Text	m	Text	Text	Text	KN	KN	KN	KN-m	KN-m	KN-m
MINIMUM BENDING MOMENT (AT SUPPORT)										
G112	0.00	TRAFFIC	LinMoving	Min	-208	-918	-15	-456	-89	-3451
G112	0.46	TRAFFIC	LinMoving	Min	-208	-901	-15	-455	-87	-3112
G112	0.92	TRAFFIC	LinMoving	Min	-208	-888	-15	-454	-85	-2774
G112	1.38	TRAFFIC	LinMoving	Min	-208	-876	-15	-452	-83	-2436
G112	1.84	TRAFFIC	LinMoving	Min	-208	-864	-15	-450	-80	-2099
G112	2.31	TRAFFIC	LinMoving	Min	-208	-844	-15	-448	-78	-1829
G112	2.77	TRAFFIC	LinMoving	Min	-208	-817	-15	-445	-76	-1628
G112	3.23	TRAFFIC	LinMoving	Min	-208	-789	-15	-441	-74	-1426
G112	3.69	TRAFFIC	LinMoving	Min	-208	-762	-15	-438	-72	-1225
G112	4.15	TRAFFIC	LinMoving	Min	-208	-734	-15	-435	-70	-1023
G113	0.00	TRAFFIC	LinMoving	Min	-208	-652	-8	-394	-70	-1013
G113	0.48	TRAFFIC	LinMoving	Min	-208	-634	-8	-400	-67	-956
G113	0.96	TRAFFIC	LinMoving	Min	-208	-625	-8	-401	-65	-904
G113	1.44	TRAFFIC	LinMoving	Min	-208	-615	-8	-403	-62	-851
G113	1.91	TRAFFIC	LinMoving	Min	-208	-605	-8	-405	-60	-799
G113	2.39	TRAFFIC	LinMoving	Min	-208	-595	-8	-407	-58	-746
G113	2.87	TRAFFIC	LinMoving	Min	-208	-586	-8	-408	-55	-694
G113	3.35	TRAFFIC	LinMoving	Min	-208	-570	-8	-409	-53	-651
G113	3.83	TRAFFIC	LinMoving	Min	-208	-549	-8	-408	-52	-617
G113	4.31	TRAFFIC	LinMoving	Min	-208	-528	-8	-408	-50	-584
G113	4.79	TRAFFIC	LinMoving	Min	-208	-507	-8	-407	-49	-550
G113	5.27	TRAFFIC	LinMoving	Min	-208	-486	-8	-407	-47	-516
G113	5.74	TRAFFIC	LinMoving	Min	-208	-465	-8	-406	-46	-483
G113	6.22	TRAFFIC	LinMoving	Min	-208	-444	-8	-406	-44	-449
G114	0.00	TRAFFIC	LinMoving	Min	-210	-344	-5	-270	-47	-449
G114	0.48	TRAFFIC	LinMoving	Min	-210	-335	-5	-270	-45	-420
G114	0.96	TRAFFIC	LinMoving	Min	-210	-329	-5	-270	-43	-391
G114	1.44	TRAFFIC	LinMoving	Min	-210	-323	-5	-270	-41	-361
G114	1.91	TRAFFIC	LinMoving	Min	-210	-318	-5	-269	-39	-332
G114	2.39	TRAFFIC	LinMoving	Min	-210	-312	-5	-269	-37	-303
G114	2.87	TRAFFIC	LinMoving	Min	-210	-306	-5	-269	-35	-273
G114	3.35	TRAFFIC	LinMoving	Min	-210	-294	-5	-269	-33	-245
G114	3.83	TRAFFIC	LinMoving	Min	-210	-273	-5	-268	-31	-218
G114	4.31	TRAFFIC	LinMoving	Min	-210	-253	-5	-267	-29	-191
G114	4.79	TRAFFIC	LinMoving	Min	-210	-233	-5	-266	-27	-164
G114	5.27	TRAFFIC	LinMoving	Min	-210	-213	-5	-266	-25	-137
G114	5.74	TRAFFIC	LinMoving	Min	-210	-193	-5	-265	-23	-110
G114	6.22	TRAFFIC	LinMoving	Min	-210	-173	-5	-264	-21	-82
G115	0.00	TRAFFIC	LinMoving	Min	-209	-106	-6	-217	-21	-82
G115	0.46	TRAFFIC	LinMoving	Min	-209	-105	-6	-279	-19	-143
G115	0.92	TRAFFIC	LinMoving	Min	-209	-104	-6	-293	-16	-209
G115	1.38	TRAFFIC	LinMoving	Min	-209	-103	-6	-306	-13	-274
G115	1.84	TRAFFIC	LinMoving	Min	-209	-102	-6	-320	-11	-339
G115	2.31	TRAFFIC	LinMoving	Min	-209	-98	-6	-334	-10	-495
G115	2.77	TRAFFIC	LinMoving	Min	-209	-93	-6	-349	-10	-742
G115	3.23	TRAFFIC	LinMoving	Min	-209	-88	-6	-364	-11	-988
G115	3.69	TRAFFIC	LinMoving	Min	-209	-82	-6	-378	-11	-1234
G115	4.15	TRAFFIC	LinMoving	Min	-209	-77	-6	-393	-11	-1480

III. LOAD FACTOR EVALUATION



NO	COMPONENT		AREA	U/W	WEIGHT
			(M2)	(KN/M3)	(KN/M)
SDL=		34.323			Kn/m
1	CONCRETE BARRIER	2 x 0.4266	0.8532	25	21.330
2	MEDIAN		0.1568	25	3.920
3	ASPHALT T=75 MM	2 x 0.2062	0.4124	22	9.073
DL =		147.918			Kn/m
1	RC SLAB AND GIRDER		5.9167	25	147.918
TOTAL WEIGHT					182.240



$UDL = 49.5 \text{ KN/m} \times 2 = 99.0 \text{ KN/m}$
 $KEL = 377.3 \text{ KN/m} \times 2 = 754.6 \text{ KN/m}$
 $DL = 147.92 \text{ KN/m}$
 $SDL = 34.323 \text{ KN/m}$

$M_{dl} = 1/8 \times q_{DL} \times l^2 = 0.125 \times 147.9175 \times 10 \times 10 = 1848.97 \text{ KNm}$

$M_{sdl} = 1/8 \times q_{SDL} \times l^2 = 0.125 \times 34.3228 \times 10 \times 10 = 429.035 \text{ KNm}$

$M_{II} = 1/8 \times U_{DL} \times l^2 + 1/4 \times KEL \times l$
 $= 0.125 \times 49.5 \times 10 \times 10 + 0.25 \times 377 \times 10 = 1562 \text{ KNm}$

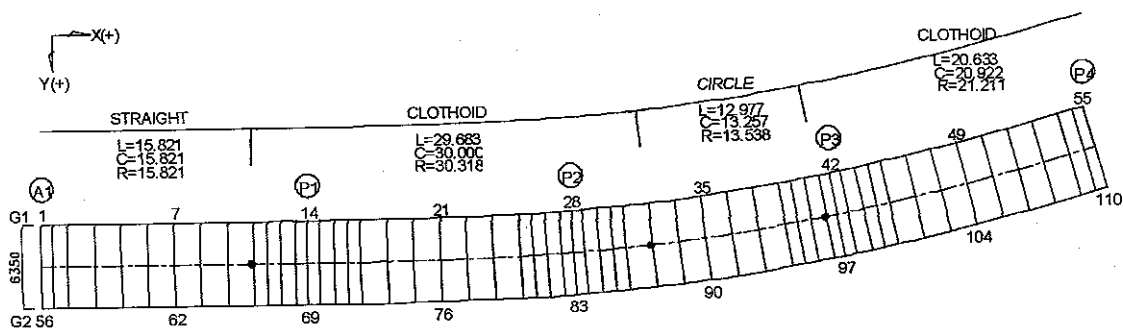
$MU = 1.3 (M_{dl} + M_{sdl}) + 2.5 (M_{II}) \dots\dots\dots(\text{JAPAN CRITERIA})$
 $= 1.3 (1849 + 429.04) + 2.5 (1562) = 6866.4 \text{ KNm}$

$MU = 1.3 M_{dl} + 2.0 M_{sdl} + 1.8 M_{II} \dots\dots\dots(\text{INDONESIA CRITERIA})$
 $= 1.3 (1849) + 2.0 (429.04) + 1.8 (1562) = 6073.33 \text{ KNm}$

$MU_{(\text{JAPAN CRITERIA})} > MU_{(\text{INDONESIA CRITERIA})}$

NORTH JAVA CORRIDOR FLYOVER PROJECT

CALCULATION OF TORSIONAL MOMENT DUE TO LIVE LOAD BY GRILLAGE ANALYSIS



KATAHIRA & ENGINEERS
INTERNATIONAL

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 same width. The grouping of torsional moments are as follows,

Group 1 Balaraja, Nagreg, Peterongan and Tanggulangin Flyover

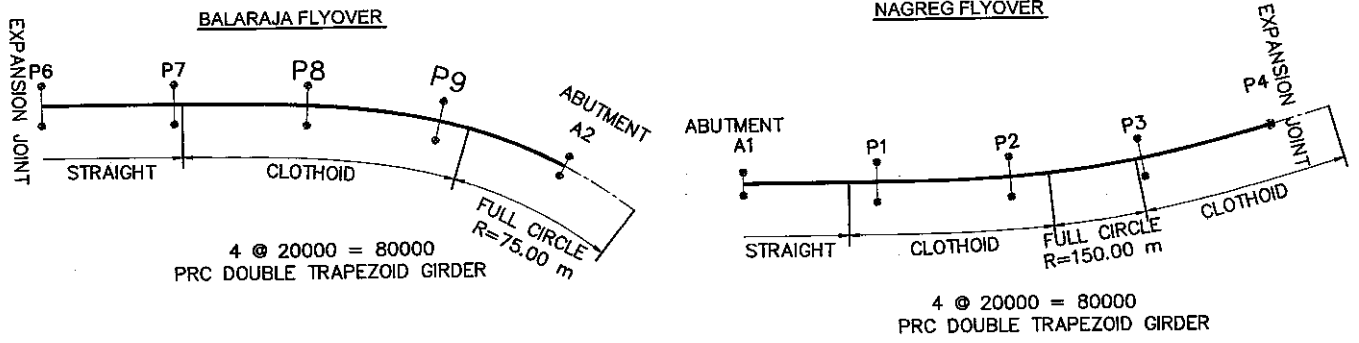
- a) The torsional effects are carried out by grillage analysis for PRC sub frames at curves which consist of,
 - Sub-frame P6 - A2 (4 spans), width 13.00 m for Balaraja Flyover
 - Sub-frame A1 - P4 (4 spans), width 13.00 m for Nagreg Flyover
 - Sub-frame P8 - A2 (2 spans), width 13.00 m for Nagreg Flyover
- 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.

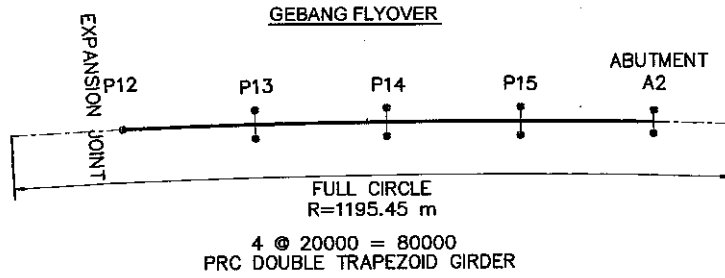
The applied torsional moments are added to the live load which analyzed by CONST as a special two dimensional PC structure software.

TABLE-1 APPLIED TORSIONAL MOMENTS FOR FLYOVER GROUP I



	Balaraja			Nagreg			Applied Torsional Moment	
	P6-A2	Nagreg		P6-A2	Nagreg		Total (T+)	Total (T-)
	Total (T+)	A1-P4	P8-A2	Total (T-)	A1-P4	P8-A2		
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	144.8	-252.2	-199.6	-187.6	293.9	-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	-136.6	-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				
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				
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

Selection of objective Flyover to be overall designed

Width	Span length & Nos. of Span	Name of Flyover	Straight or Curve	Soil Condition	Pier Height	Gradient	Crossfall	
11.5m	20 m 2 span	NAGREG P8-A2	Curve (R=165m)	Medium	6.933 - 8.896	5.000 - (-3.232)	1.0 - 2.0	
		TANGGULANGIN A1-P2	Curve (R=270m)	Soft	6.9-9.5	5.000 - (-3.232)	1.0 - 2.0	
	As a 2 spans continuous Flyover to be designed, NAGREG P8-A2 shall be selected because of - Almost same Flyover type - Smaller radius of horizontal curvature shall cause more severe effect on the superstructure design - Medium soil shall cause more severe effect on the superstructure design rather than soft soil - Shorter Pier shall cause more severe effect on the superstructure design however, - Difference of abovementioned design conditions shall give a little different design results therefore, for the design of TANGGULANGIN A1-P2 Only the comparison of sectional force shall be done and examined.							
	20 m 3 span	BALARAJA A1-P3	Straight	Medium	6.615 - 8.256	4.436 - (-0.472)	2.0	
		PETERONGAN A1-P3	Straight		6.5-9.8	4.500		
		PETERONGAN P7-P10	Straight		9.0-	4.000		
		PETERONGAN P10-A2	Straight		6.4-9.0	4.000		
	As a 3 spans continuous Flyover to be designed, BALARAJA A1-P3 shall be selected because of - Almost same Flyover type - Shorter Pier shall cause more severe effect on the superstructure design however, - Difference of pier height shall give a little different design results therefore, for the design of PETERONGAN A1-P3, P7-P10 and P10-A2 Only the comparison of sectional force shall be done and examined.							
	20 m 4 span	BALARAJA P6-A2	Curve (R=85m)	Medium	5.852 - 7.849	0.472 - 5.772	2.0-5.5	
		NAGREG A1-P4	Curve (R=150m)		6.976 - 9.590	5.000	2.0 - 5.3	
		TANGGULANGIN P7-A2	Curve (R=270m)	Soft	7.0-10.0	4.500		
		As a 4 spans continuous Flyover to be designed, BALARAJA P6-A2 shall be selected because of - Almost same Flyover type - Smaller radius of horizontal curvature shall cause more severe effect on the superstructure design - Medium soil shall cause more severe effect on the superstructure design rather than soft soil - Shorter Pier shall cause more severe effect on the superstructure design however, - Difference of abovementioned design conditions shall give a little different design results except the effect of radius of curvature therefore, for the design of NAGREG A1-P4 and TANGGULANGIN P7-A2 Only the comparison of sectional force, shall be done and examined, especially torsional force shall be carefully examined.						
8.75m	20 m 3 span	GEBANG A1-P3	Straight	Soft	6.901 - 8.321	4.718 - (-1.259)	2.0	
		GEBANG P11-A2	Curve (R=500m)		6.578 - 7.412	1.259 - 4.000	2.0 - 3.5	
As a 3 spans continuous GEBANG Flyover to be designed, P11-A2 shall be selected because of - Almost same Flyover type - Shorter Pier shall cause more severe effect on the superstructure design however, - Difference of pier height shall give a little different design results therefore, for the design of A1-P3 Only the comparison of sectional force shall be done and examined.								

THE ANALYSIS IN DETAILS

The grillage analysis is carried out using Gbitter II computer software that can be described as follows,

Step 1 Selection of sub-frames for analysis.

Step 2 Preparation of Data Input

- a) Preparing plan of grillage framing, nodal points and coordinate of nodes,
- b) Preparing one line longitudinal dimension for nodes numbering of piers and support condition.
- c) Preparing longitudinal section dimension for grillage and cross framing for section properties input.
- d) Preparing dimension of cross section for main girder properties input.

Step 3. Data Input

The structure information in Step 1 are input in Gbitter II followed by Live load.

The material properties input,

- Modulus elasticity of concrete, $E_c = 31800 \text{ N/mm}^2$
- Poisson ratio of concrete, $\nu = 0.1667$

Step 4. Output

The results of each selected sub-frames are summarized then compiled for each group (Table 1 and Table 2). In those table, the maximum torsional moments are sorted to get Applied Torsional Moment for each group.

As evidences, attached herein the complete results of the sub-frames Balaraja P6-A2, Nagreg A1-P4, P8-A2 and Gebang P12-A2, which are consist of

1. Selection of Sub-Frames to be analyzed,
2. Preparation of data input for each sub-frame
3. Summary of results for each sub-frame
4. Results in details for selected sub-frames (Balaraja P6-A2 and Gebang P11-A2).

Selection of Sub-Frames to be analyzed

Selection of objective to be overall designed

Width	Span length & Nos. of Span	Name of Flyover	Straight of Curve	Soil Condition	Pier Height	Gradient	Crossfall	
13 m	20 m 2 span	NAGREG P8-A2	Curve(R=165m)	Medium	6.933 - 8.896	5.000 - (-3.232)	1.0 - 2.0	
		TANGGULANGIN A1-P2	Curve(R=270m)	Soft	6.9-9.5	5.000 - (-3.232)	1.0 - 2.0	
	<p>As a 2 spans continuous Flyover to be designed, NAGREG P8-A2 shall be selected because of</p> <ul style="list-style-type: none"> - Almost same Flyover type - Smaller radius of horizontal curvature shall cause more severe effect on the supestructure design - Medium soil Shall cause more curvature effect on the superstructure design rather than soft soil - Shorter Pier shall cause effect on the superstructure design <p>however,</p> <ul style="list-style-type: none"> - Difference of above mentioned design conditions shall give a little different design results <p>therefore, for the design of TANGGULANGIN A1-P2</p> <p>Only the comparison of sectional force shall be done and examined.</p>							
	20 m 3 span	BALARAJ A1-P3	Straight	Medium	6.615 - 8.256	4.436 - (-0.472)	2.0	
		PETERONGAN A1-P3	Straight		6.5-9.8	4.500		
		PETERONGAN P7-P10	Straight		9.0-	4.000		
		PETERONGAN P10-A2	Straight		6.4-9.0	4.000		
	<p>As a 3 spans continuous Flyover to be designed, BALARAJA A1-P3 shall be selected because of</p> <ul style="list-style-type: none"> - Almost same Flyover type - Shorter Pier shall cause more severe effect on the superstructure design <p>however,</p> <ul style="list-style-type: none"> - Difference of pier height shall give alittle different design <p>therefore, for the design of PETERONGAN A1-P3, P7-P10 and P10-A2</p> <p>Only the comparison of sectional force shall be done and examined.</p>							
	20 m 4 span	BALARAJA P6-A2	Curve(R=85m)	Medium	5.852-7.849	0.472 - 5.772	2.0-5.5	
		NAGREG A1-P4	Curve(R=150m)		6.976 - 9.590	5.000	2.0 - 5.3	
		TANGGULANGIN P7-A2	Curve(R=270m)	Soft	7.0-10.0	4.500		
	<p>As a 4 spans continuous Flyover to be designed, BALARAJA P6-A2 shall be selected because of</p> <ul style="list-style-type: none"> - Almost same Flyover type - Smaller radius of horizontal curvatur shall cause more severe effect on the supestructure design - Medium soil Shall cause more severe effect on the superstructure design rather than soft soil - Shorter Pier shall cause severe effect on the superstructure design <p>however,</p> <ul style="list-style-type: none"> -Difference of above mentioned design condition shall give a little different results except the effect of radius of curvature <p>therefore, for the design of NAGREG A1-P4 and TANGGULANGIN P7-A2</p> <p>Only the comparison of sectional force shall be done and examined, especially tosonal force shall be carefully examined</p>							
9 m	20 m 3 span	GEBANG A1-P3	Straight	soft	9.901 - 8.321	4.718 - (-1.259)	2.0	
		GEBANG P11-A2	Curve (R=500m)		6.378 - 7.412	1.259 - 4.000	2.0 - 3.5	
		<p>As a 3 spans continuous GEBANG Flyover to be designed, P11-A2 shall be selected because of</p> <ul style="list-style-type: none"> Almost same Flyover type - Shorter Pier shall cause more severe effect on the superstructure design <p>however,</p> <ul style="list-style-type: none"> - Difference of Pier height shall give a little different design results <p>therefore, for the design of A1-P3</p> <p>only the comparison of sectional force shall be done and examined.</p>						

SUMMARY OF RESULTS FOR EACH SUB FRAME

BALARAJA P6 - A2

NAGREG A1 - P4

NAGREG P8 - A2

GEBANG P11 - A2

SUMMARY OF RESULTS FOR BALARAJA P6-A2

BALARAJA P6-A2 (R=85m)							
G1 Node	G1(T+)	G1(T-)	Total (T+)	G2(T+)	G2(T-)	Total (T-)	G2 Node
1							56
2	208.0	-208.0	416.0	208.0	-208.0	-416.0	57
3	188.3	-188.3	376.6	188.3	-188.3	-376.6	58
4	136.8	-136.8	273.6	136.8	-136.8	-273.6	59
5	72.9	-72.9	145.8	72.9	-72.9	-145.8	60
6	17.4	-17.4	34.8	17.4	-17.4	-34.8	61
7	63.8	-63.8	127.6	63.8	-63.8	-127.6	62
8	109.4	-109.4	218.8	109.4	-109.4	-218.8	63
9	134.0	-134.0	268.0	134.0	-134.0	-268.0	64
10	136.4	-136.4	272.8	136.4	-136.4	-272.8	65
11	135.1	-135.1	270.2	135.1	-135.1	-270.2	66
12	132.9	-132.9	265.8	132.9	-132.9	-265.8	67
13	132.9	-132.9	265.8	132.9	-132.9	-265.8	68
14							69
15	81.9	-81.9	163.8	81.9	-81.9	-163.8	70
16	82.9	-82.9	165.8	82.9	-82.9	-165.8	71
17	82.6	-82.6	165.2	82.6	-82.6	-165.2	72
18	78.4	-78.4	156.8	78.4	-78.4	-156.8	73
19	56.1	-56.1	112.2	56.1	-56.1	-112.2	74
20	22.4	-22.4	44.8	22.4	-22.4	-44.8	75
21	22.4	-22.4	44.8	22.4	-22.4	-44.8	76
22	56.1	-56.1	112.2	56.1	-56.1	-112.2	77
23	78.4	-78.4	156.8	78.4	-78.4	-156.8	78
24	82.6	-82.6	165.2	82.6	-82.6	-165.2	79
25	82.9	-82.9	165.8	82.9	-82.9	-165.8	80
26	81.9	-81.9	163.8	81.9	-81.9	-163.8	81
27	81.9	-81.9	163.8	81.9	-81.9	-163.8	82
28							83
29	94.0	-94.0	208.9	114.9	-119.5	-213.5	84
30	93.4	-123.6	187.4	94.0	-124.6	-248.2	85
31	93.8	-140.9	176.4	82.6	-128.3	-269.2	86
32	93.3	-151.4	167.2	73.9	-130.0	-281.4	87
33	85.4	-127.6	162.2	76.8	-118.5	-246.1	88
34	78.2	-85.9	172.1	93.9	-102.5	-188.4	89
35	85.9	-78.2	188.4	102.5	-93.9	-172.1	90
36	127.6	-85.4	246.1	118.5	-76.8	-162.2	91
37	151.4	-93.3	281.4	130.0	-73.9	-167.2	92
38	140.9	-93.8	269.2	128.3	-82.6	-176.4	93
39	123.6	-93.4	248.2	124.6	-94.0	-187.4	94
40	94.0	-94.0	213.5	119.5	-114.9	-208.9	95
41	58.0	-98.4	174.2	116.2	-147.5	-245.9	96
42							97
43	94.0	-58.1	208.9	114.9	-119.6	-177.7	98
44	93.5	-94.1	187.5	94.0	-124.7	-218.8	99
45	93.8	-123.8	176.4	82.6	-128.4	-252.2	100
46	93.4	-141.1	167.2	73.8	-130.1	-271.2	101
47	85.5	-151.6	162.2	76.7	-118.5	-270.1	102
48	78.3	-127.8	172.1	93.8	-102.6	-230.4	103
49	85.4	-86.1	187.8	102.4	-94.2	-180.3	104
50	127.0	-78.2	245.3	118.3	-77.1	-155.3	105
51	150.5	-85.3	280.2	129.7	-74.3	-159.6	106
52	136.7	-93.2	264.1	127.4	-85.9	-179.1	107
53	93.2	-93.9	213.0	119.8	-116.2	-210.1	108
54	57.3	-94.4	173.8	116.5	-148.8	-243.2	109
55							110

SUMMARY OF RESULTS FOR NAGREG A1-P4

NAGREG A1-P4 (R=150m)							
G1 Node	G1(T+)	G1(T-)	Total (T+)	G2(T+)	G2(T-)	Total (T-)	G2 Node
1							56
2	154.0	-154.0	308.0	154.0	-154.0	-308.0	57
3	139.5	-139.5	279.0	139.5	-139.5	-279.0	58
4	101.3	-101.3	202.6	101.3	-101.3	-202.6	59
5	54.0	-54.0	108.0	54.0	-54.0	-108.0	60
6	13.1	-13.1	26.2	13.1	-13.1	-26.2	61
7	47.2	-47.2	94.4	47.2	-47.2	-94.4	62
8	81.0	-81.0	162.0	81.0	-81.0	-162.0	63
9	99.2	-99.2	198.4	99.2	-99.2	-198.4	64
10	101.0	-101.0	202.0	101.0	-101.0	-202.0	65
11	100.1	-100.1	200.2	100.1	-100.1	-200.2	66
12	98.5	-98.5	197.0	98.5	-98.5	-197.0	67
13	98.5	-98.5	197.0	98.5	-98.5	-197.0	68
14							69
15	60.7	-60.7	121.4	60.7	-60.7	-121.4	70
16	61.4	-61.4	122.8	61.4	-61.4	-122.8	71
17	61.2	-61.2	122.4	61.2	-61.2	-122.4	72
18	58.1	-58.1	116.2	58.1	-58.1	-116.2	73
19	41.5	-41.5	83.0	41.5	-41.5	-83.0	74
20	19.3	-19.3	38.6	19.3	-19.3	-38.6	75
21	19.3	-19.3	38.6	19.3	-19.3	-38.6	76
22	41.5	-41.5	83.0	41.5	-41.5	-83.0	77
23	58.1	-58.1	116.2	58.1	-58.1	-116.2	78
24	61.2	-61.2	122.4	61.2	-61.2	-122.4	79
25	61.4	-61.4	122.8	61.4	-61.4	-122.8	80
26	60.7	-60.7	121.4	60.7	-60.7	-121.4	81
27	60.7	-60.7	121.4	60.7	-60.7	-121.4	82
28							83
29	69.6	-69.7	155.1	85.5	-88.6	-158.3	84
30	69.2	-91.6	141.7	72.5	-92.3	-183.9	85
31	69.5	-104.4	134.1	64.6	-95.1	-199.5	86
32	70.1	-112.1	127.5	57.4	-96.3	-208.4	87
33	66.5	-95.9	123.4	56.9	-87.8	-183.7	88
34	60.7	-70.1	130.2	69.5	-76.0	-146.1	89
35	70.1	-60.7	146.1	76.0	-69.5	-130.2	90
36	96.9	-66.5	184.7	87.8	-56.9	-123.4	91
37	112.1	-70.1	208.4	96.3	-57.4	-127.5	92
38	104.4	-69.5	199.5	95.1	-64.6	-134.1	93
39	91.6	-69.2	183.9	92.3	-72.5	-141.7	94
40	69.7	-69.6	158.3	88.6	-85.5	-155.1	95
41	43.0	-72.9	129.1	86.1	-109.2	-182.1	96
42							97
43	69.6	-69.7	155.1	85.5	-88.6	-158.3	98
44	69.2	-91.7	141.7	72.5	-92.4	-184.1	99
45	69.6	-104.5	134.2	64.6	-95.1	-199.6	100
46	70.1	-112.2	127.5	57.4	-96.3	-208.5	101
47	66.5	-95.9	123.3	56.8	-87.8	-183.7	102
48	60.7	-70.1	130.2	69.5	-76.0	-146.1	103
49	69.9	-60.7	145.9	76.0	-69.8	-130.5	104
50	95.5	-66.5	183.1	87.6	-57.1	-123.6	105
51	111.4	-70.2	207.5	96.1	-57.7	-127.9	106
52	101.3	-69.6	195.7	94.4	-67.0	-136.6	107
53	69.0	-69.9	157.7	88.7	-86.1	-156.0	108
54	42.5	-73.2	128.8	86.3	-110.2	-183.4	109
55							110

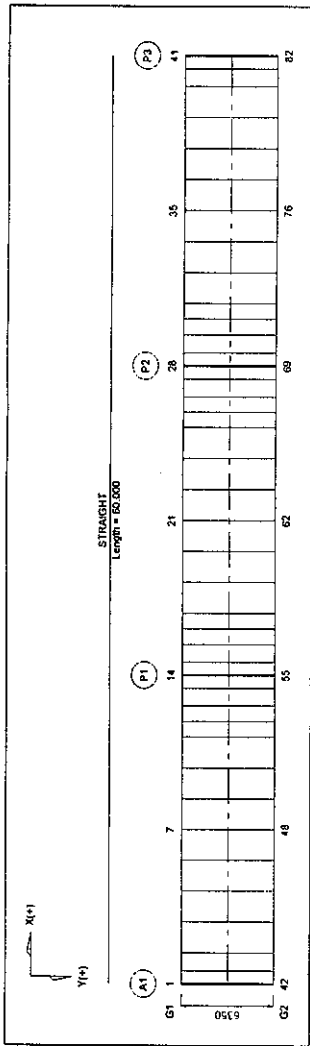
NAGREG P8-A2 (R=165m)							
G1 Node	G1(T+)	G1(T-)	Total (T+)	G2(T+)	G2(T-)	Total (T-)	G2 Node
1							28
2	186.0	-273.4	334.5	148.5	-233.5	-506.9	29
3	171.5	-246.2	306.8	135.3	-207.7	-453.9	30
4	126.7	-176.3	227.0	100.3	-148.2	-324.5	31
5	69.4	-90.5	126.4	57.0	-76.6	-167.1	32
6	32.2	-20.8	52.3	20.1	-12.9	-33.7	33
7	96.9	-56.2	170.7	73.8	-34.8	-91.0	34
8	154.4	-98.7	276.9	122.5	-68.9	-167.6	35
9	178.4	-122.8	325.3	146.9	-93.5	-216.3	36
10	167.3	-127.1	313.6	146.3	-107.6	-234.7	37
11	151.8	-128.2	293.9	142.1	-119.1	-247.3	38
12	128.2	-129.7	263.9	135.7	-136.3	-266.0	39
13	101.6	-134.7	232.7	131.1	-161.5	-296.2	40
14			0.0			0.0	41
15	80.0	-79.4	164.4	84.4	-83.8	-163.2	42
16	80.0	-93.8	153.0	73.0	-86.0	-179.8	43
17	79.3	-101.2	144.9	65.6	-86.4	-187.6	44
18	75.1	-102.1	131.6	56.5	-82.6	-184.7	45
19	53.7	-74.3	92.9	39.2	-59.1	-133.4	46
20	22.3	-30.4	38.0	15.7	-23.4	-53.8	47
21	32.2	-21.7	55.8	23.6	-13.9	-35.6	48
22	74.7	-53.8	133.7	59.0	-39.1	-92.9	49
23	100.5	-75.7	182.6	82.1	-58.2	-133.9	50
24	99.6	-80.3	185.3	85.7	-67.0	-147.3	51
25	86.1	-79.7	169.2	83.1	-76.6	-156.3	52
26	75.8	-80.6	158.0	82.2	-86.3	-166.9	53
27							54

SUMMARY OF RESULTS FOR GEBANG P11-A2

GEBANG P11-A2 (R=505m)							
G1 Node	G1(T+)	G1(T-)	Total (T+)	G2(T+)	G2(T-)	Total (T-)	G2 Node
1							42
2	167.3	-192.7	337.8	170.5	-196.5	-389.2	43
3	151.0	-174.0	305.1	154.1	-177.6	-351.6	44
4	110.2	-127.3	222.8	112.6	-130.1	-257.4	45
5	60.0	-69.6	121.4	61.4	-71.2	-140.8	46
6	20.4	-21.4	40.8	20.4	-21.5	-42.9	47
7	61.2	-53.2	123.3	62.1	-54.0	-107.2	48
8	103.6	-89.4	209.2	105.6	-91.1	-180.5	49
9	126.3	-107.9	255.2	128.9	-110.1	-218.0	50
10	125.2	-108.9	254.5	129.3	-112.6	-221.5	51
11	120.3	-107.5	246.6	126.3	-112.9	-220.4	52
12	113.0	-105.9	235.0	122.0	-113.9	-219.8	53
13	107.5	-107.6	227.9	120.4	-119.1	-226.7	54
14							55
15	73.9	-85.5	150.3	76.4	-88.4	-173.9	56
16	75.1	-90.3	150.5	75.4	-90.8	-181.1	57
17	75.3	-92.6	149.6	74.3	-91.6	-184.2	58
18	72.2	-90.4	142.4	70.2	-88.2	-178.6	59
19	52.3	-66.0	102.7	50.4	-63.9	-129.9	60
20	22.2	-28.1	43.1	20.9	-26.6	-54.7	61
21	28.1	-22.2	54.7	26.6	-20.9	-43.1	62
22	66.0	-52.3	129.9	63.9	-50.4	-102.7	63
23	90.4	-72.2	178.6	88.2	-70.2	-142.4	64
24	92.6	-75.3	184.2	91.6	-74.3	-149.6	65
25	90.3	-75.1	181.1	90.8	-75.4	-150.5	66
26	85.5	-73.9	173.9	88.4	-76.4	-150.3	67
27	81.4	-74.6	169.2	87.8	-80.0	-154.6	68
28							69
29	74.0	-85.5	150.4	76.4	-88.5	-174.0	70
30	75.1	-90.4	150.5	75.4	-90.8	-181.2	71
31	75.4	-92.7	149.8	74.4	-91.7	-184.4	72
32	72.3	-90.5	142.5	70.2	-88.3	-178.8	73
33	52.4	-66.1	102.9	50.5	-64.0	-130.1	74
34	22.5	-28.4	43.6	21.1	-26.9	-55.3	75
35	28.0	-22.2	54.5	26.5	-20.8	-43.0	76
36	65.6	-52.0	129.1	63.5	-50.1	-102.1	77
37	89.7	-71.7	177.1	87.4	-69.6	-141.3	78
38	93.3	-76.4	186.1	92.8	-75.9	-152.3	79
39	86.1	-74.6	175.4	89.3	-77.2	-151.8	80
40	82.1	-75.3	170.7	88.6	-80.9	-156.2	81
41							82

DATA PREPARATION FOR GBITTER II INPUT

BALARAJA FLYOVER A1 - P3
 Coordinates of points
 For Gbiter II Input

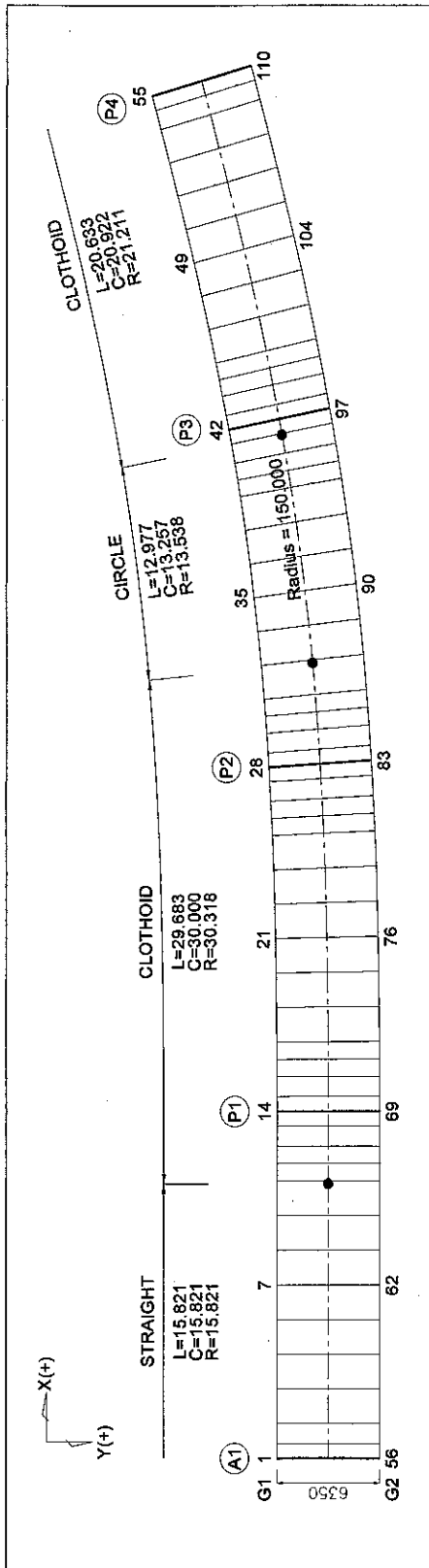


node No	Unit	R(m)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
length between points	[m]		0.000	0.850	1.150	2.000	2.000	2.000	2.000	2.000	2.000	2.000	1.000	1.000	1.000	1.000	1.150	1.150	1.000	1.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000
coordinate of a	[m]		0.000	0.850	2.000	4.000	6.000	8.000	10.000	12.000	14.000	16.000	17.000	19.000	19.150	20.000	20.850	22.000	23.000	24.000	26.000	28.000	30.000	32.000	34.000	36.000	38.000	40.000	42.000
length from point No.	[m]																												
radius	[m]																												
degree	[*]																												
G1(X)	[m]		0.000000	0.850000	2.000000	4.000000	6.000000	8.000000	10.000000	12.000000	14.000000	16.000000	17.000000	19.000000	19.150000	20.000000	20.850000	22.000000	23.000000	24.000000	26.000000	28.000000	30.000000	32.000000	34.000000	36.000000	38.000000	40.000000	42.000000
G1(Y)	[m]		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
CL(X)	[m]		0.000000	0.850000	2.000000	4.000000	6.000000	8.000000	10.000000	12.000000	14.000000	16.000000	17.000000	19.000000	19.150000	20.000000	20.850000	22.000000	23.000000	24.000000	26.000000	28.000000	30.000000	32.000000	34.000000	36.000000	38.000000	40.000000	42.000000
CL(Y)	[m]		3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000
G2(X)	[m]		0.000000	0.850000	2.000000	4.000000	6.000000	8.000000	10.000000	12.000000	14.000000	16.000000	17.000000	19.000000	19.150000	20.000000	20.850000	22.000000	23.000000	24.000000	26.000000	28.000000	30.000000	32.000000	34.000000	36.000000	38.000000	40.000000	42.000000
G2(Y)	[m]		6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000

node No	Unit	R(m)	28	29	30	31	32	33	34	35	36	37	38	39	40	41
length between points	[m]		0.850	0.850	1.150	1.000	1.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	1.150	0.850
coordinate of a	[m]		40.000	40.850	42.000	43.000	44.000	46.000	48.000	50.000	52.000	54.000	56.000	58.000	59.150	60.000
length from point No.	[m]															
radius	[m]															
degree	[*]															
G1(X)	[m]		40.000000	40.850000	42.000000	43.000000	44.000000	46.000000	48.000000	50.000000	52.000000	54.000000	56.000000	58.000000	59.150000	60.000000
G1(Y)	[m]		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
CL(X)	[m]		40.000000	40.850000	42.000000	43.000000	44.000000	46.000000	48.000000	50.000000	52.000000	54.000000	56.000000	58.000000	59.150000	60.000000
CL(Y)	[m]		3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000	3.175000
G2(X)	[m]		40.000000	40.850000	42.000000	43.000000	44.000000	46.000000	48.000000	50.000000	52.000000	54.000000	56.000000	58.000000	59.150000	60.000000
G2(Y)	[m]		6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000	6.350000

Date : April 26, 2006
 Prepared by : TZR
 Checked by : HH
 Drawing by : SRY

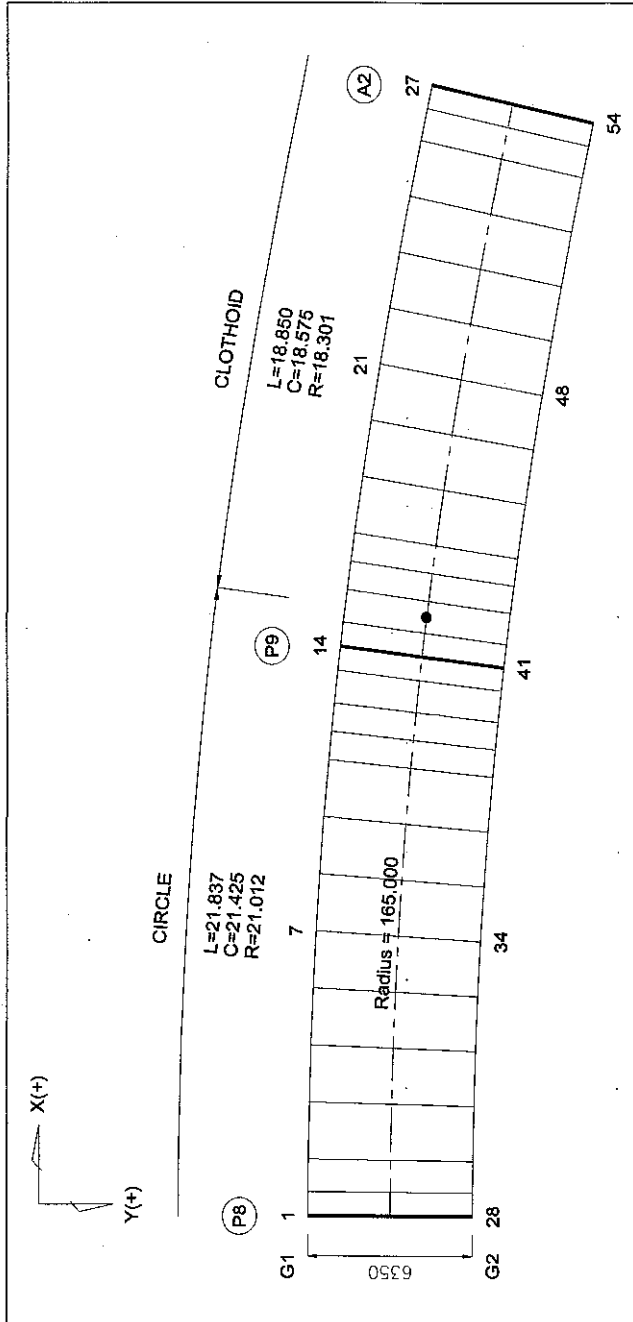
NAGREG FLYOVER A1 - P4
NODES ID AND COORDINATES



node No	Unit	R(m)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
length between points	[m]		0.0000	0.8500	1.1500	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	1.0000	1.1500	0.8500	0.8500	1.0000	1.0000	1.0000	1.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	1.0000	1.1500
coordinate of x	[m]		0.0000	0.8500	2.0000	4.0000	6.0000	8.0000	10.0000	12.0000	14.0000	16.0000	17.0000	18.0000	19.1500	20.0000	20.8500	22.0000	23.0000	24.0000	25.0000	26.0000	28.0000	30.0000	32.0000	34.0000	36.0000	37.0000	38.0000	39.1500
length from point No.28	[m]		0.0000	0.8500	2.0000	4.0000	6.0000	8.0000	10.0000	12.0000	14.0000	16.0000	17.0000	18.0000	19.1500	20.0000	20.8500	22.0000	23.0000	24.0000	25.0000	26.0000	28.0000	30.0000	32.0000	34.0000	36.0000	37.0000	38.0000	39.1500
radian	[rad]																													
degree	[°]																													
G1(X)	[m]		0.0000	0.8500	2.0000	4.0000	6.0000	8.0000	10.0000	12.0000	14.0000	16.0000	17.0000	18.0000	19.1500	20.0000	20.8500	22.0000	23.0000	24.0000	25.0000	26.0000	28.0000	30.0000	32.0000	34.0000	36.0000	37.0000	38.0000	39.1500
G1(Y)	[m]		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0013	-0.0027	-0.0047	-0.0087	-0.0202	-0.0388	-0.0665	-0.1048	-0.1555	-0.2203	-0.3011	-0.3478	-0.3992	-0.4644	-0.5167	
CL(X)	[m]		0.0000	0.8500	2.0000	4.0000	6.0000	8.0000	10.0000	12.0000	14.0000	16.0000	17.0000	18.0000	19.1500	20.0000	20.8500	22.0000	23.0000	24.0000	25.0000	26.0000	28.0000	30.0000	32.0000	34.0000	36.0000	37.0000	38.0000	39.1500
CL(Y)	[m]		3.1750	3.1750	3.1750	3.1750	3.1750	3.1750	3.1750	3.1750	3.1750	3.1750	3.1748	3.1745	3.1737	3.1723	3.1703	3.1683	3.1647	3.1360	3.1081	3.0694	3.0182	2.9525	2.8707	2.8232	2.7710	2.7048	2.6516	
G2(X)	[m]		0.0000	0.8500	2.0000	4.0000	6.0000	8.0000	10.0000	12.0000	14.0000	16.0000	17.0000	18.0000	19.1500	20.0000	20.8500	22.0000	23.0000	24.0000	25.0000	26.0000	28.0000	30.0000	32.0000	34.0000	36.0000	37.0000	38.0000	39.1500
G2(Y)	[m]		6.3500	6.3500	6.3500	6.3500	6.3500	6.3500	6.3500	6.3500	6.3500	6.3500	6.3498	6.3495	6.3487	6.3473	6.3452	6.3413	6.3288	6.3108	6.2827	6.2436	6.1918	6.1254	6.0424	5.9943	5.9413	5.8748	5.8200	

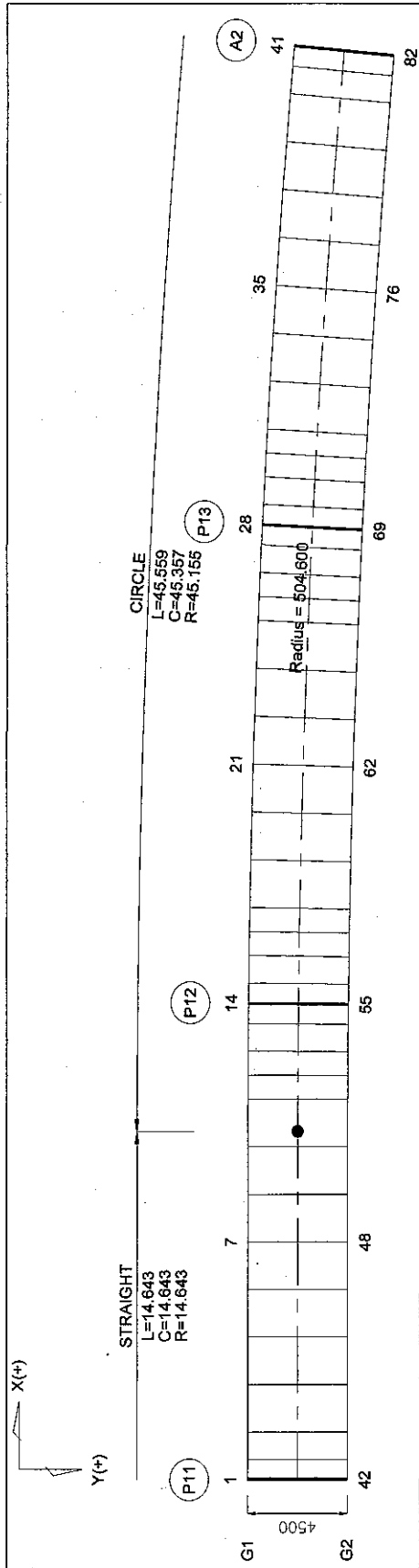
node No	Unit	R(m)	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
length between points	[m]		0.8500	0.8500	1.1500	1.0000	1.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	1.0000	1.0000	1.1500	0.8500	0.8500	1.5000	1.0000	1.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	1.5000
coordinate of x	[m]		40.0000	40.8500	42.0000	43.0000	44.0000	46.0000	48.0000	50.0000	52.0000	54.0000	56.0000	57.0000	58.0000	59.1500	60.0000	60.8500	62.0000	63.0000	64.0000	66.0000	68.0000	70.0000	72.0000	74.0000	76.0000	78.0000	80.0000	
length from point No.28	[m]		0.0000	0.8500	2.0000	3.0000	4.0000	6.0000	8.0000	10.0000	12.0000	14.0000	16.0000	17.0000	18.0000	19.1500	20.0000	20.8500	22.0000	23.0000	24.0000	26.0000	28.0000	30.0000	32.0000	34.0000	36.0000	38.0000	39.1500	
radian	[rad]																													
degree	[°]																													
G1(X)	[m]		40.6169	41.7432	43.8982	45.6484	47.5946	49.5378	51.4779	53.4142	55.3465	56.3110	57.2744	58.3809	59.1982	60.0147	61.1180	63.0380	64.9649	66.8694	68.7635	70.6655	72.6060	74.5170	75.4713	76.4268	77.5251	78.3364	78.3364	
G1(Y)	[m]		-0.5728	-0.6551	-0.8158	-1.0010	-1.2118	-1.4484	-1.7110	-1.9984	-2.3136	-2.4804	-2.8535	-2.8606	-3.0192	-3.1922	-3.4089	-3.8247	-4.2613	-4.7180	-5.1936	-5.6880	-6.1934	-6.7147	-6.9797	-7.2478	-7.5589	-7.7908	-7.9008	
CL(X)	[m]		40.8379	41.9848	43.9781	45.9691	47.9575	49.8428	51.9247	53.9029	55.8769	56.8623	57.8465	58.9769	59.8113	60.6448	61.7712	63.7260	65.6761	67.6215	69.5628	71.4993	73.4322	75.3617	76.3253	77.2881	78.3946	79.2119	79.2119	
CL(Y)	[m]		2.5945	2.5107	2.3469	2.1577	1.9424	1.7008	1.4324	1.1377	0.8168	0.6484	0.4965	0.2579	0.0851	-0.0704	-0.3028	-0.7251	-1.1693	-1.6334	-2.1156	-2.6145	-3.1278	-3.6542	-3.9217	-4.1916	-4.5053	-4.7388		
G2(X)	[m]		41.0589	42.2265	44.2580	46.2896	48.3203	50.3476	52.3715	54.3915	56.4074	57.4136	58.4187	59.3729	60.4244	61.2750	62.4244	64.4141	66.3973	68.3736	70.3414	72.3030	74.2585	76.2065	77.1792	78.1494	79.2840	80.0873	80.0873	
G2(Y)	[m]		5.7618	5.6765	5.5095	5.3165	5.0986	4.8497	4.5758	4.2749	3.9471	3.7732	3.5925	3.3765	3.2113	3.0415	2.8043	2.3744	1.9227	1.4513	0.9623	0.4571	-0.0622	-0.5696	-0.8537	-1.1358	-1.4516	-1.6869		

NAGREG FLYOVER P8 - A2
NODES ID AND COORDINATES



node No	Unit	R(m)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
length between points	[m]		0.0000	0.8500	1.7000	2.5500	3.4000	4.2500	5.1000	5.9500	6.8000	7.6500	8.5000	9.3500	10.2000	11.0500	11.9000	12.7500	13.6000	14.4500	15.3000	16.1500	17.0000	17.8500	18.7000	19.5500	20.4000	21.2500	22.1000	22.9500	
coordinate of x	[m]		0.0000	0.8500	1.7000	2.5500	3.4000	4.2500	5.1000	5.9500	6.8000	7.6500	8.5000	9.3500	10.2000	11.0500	11.9000	12.7500	13.6000	14.4500	15.3000	16.1500	17.0000	17.8500	18.7000	19.5500	20.4000	21.2500	22.1000	22.9500	
length from point No.	[m]																														
radian	[rad]																														
degree	[°]																														
G1(X)	[m]		0.0000	0.8664	1.7328	2.5992	3.4656	4.3320	5.1984	6.0648	6.9312	7.7976	8.6640	9.5304	10.3968	11.2632	12.1296	12.9960	13.8624	14.7288	15.5952	16.4616	17.3280	18.1944	19.0608	19.9272	20.7936	21.6600	22.5264	23.3928	
G1(Y)	[m]		0.0000	0.0022	0.0124	0.0484	0.1112	0.2048	0.3304	0.4888	0.6704	0.8760	1.0956	1.3284	1.5744	1.8328	2.0936	2.3568	2.6224	2.8904	3.1608	3.4336	3.7088	3.9864	4.2664	4.5488	4.8328	5.1184	5.4056	5.6944	
CL(X)	[m]		0.0000	0.8500	1.7000	2.5500	3.4000	4.2500	5.1000	5.9500	6.8000	7.6500	8.5000	9.3500	10.2000	11.0500	11.9000	12.7500	13.6000	14.4500	15.3000	16.1500	17.0000	17.8500	18.7000	19.5500	20.4000	21.2500	22.1000	22.9500	
CL(Y)	[m]		3.1750	3.1772	3.1871	3.2235	3.2841	3.3688	3.4779	3.6112	3.7686	3.9501	4.1558	4.3856	4.6384	4.9136	5.2112	5.5304	5.8704	6.2312	6.6128	7.0152	7.4384	7.8816	8.3456	8.8296	9.3336	9.8576	10.4016	10.9656	
G2(X)	[m]		0.0000	0.8338	1.6676	2.5014	3.3352	4.1690	5.0028	5.8366	6.6704	7.5042	8.3380	9.1718	10.0056	10.8394	11.6732	12.5070	13.3408	14.1746	15.0084	15.8422	16.6760	17.5098	18.3436	19.1774	20.0112	20.8450	21.6788	22.5126	23.3464
G2(Y)	[m]		8.3500	8.3521	8.3618	8.3975	8.4570	8.5402	8.6471	8.7776	8.9322	9.1102	9.3120	9.5373	9.7843	10.0512	10.3372	10.6420	10.9656	11.3080	11.6692	12.0492	12.4480	12.8644	13.2984	13.7496	14.2176	14.7024	15.2040	15.7220	16.2564

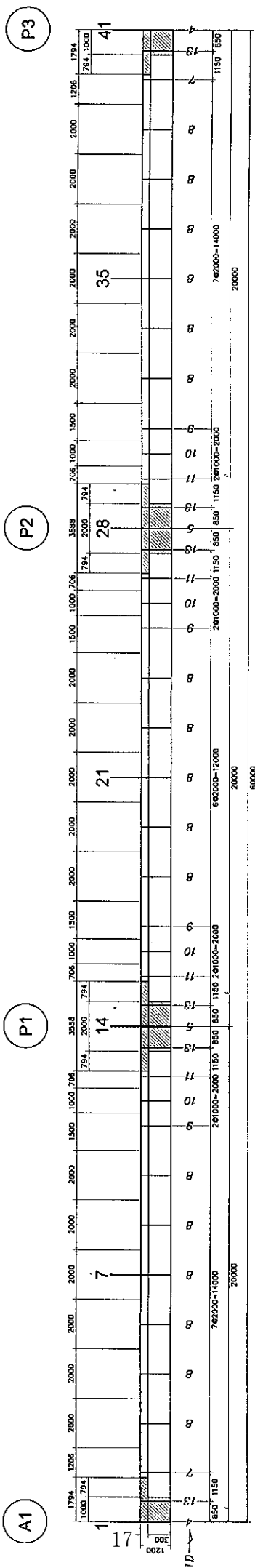
GEBANG FLYOVER P11 - A2
NODES ID AND COORDINATES



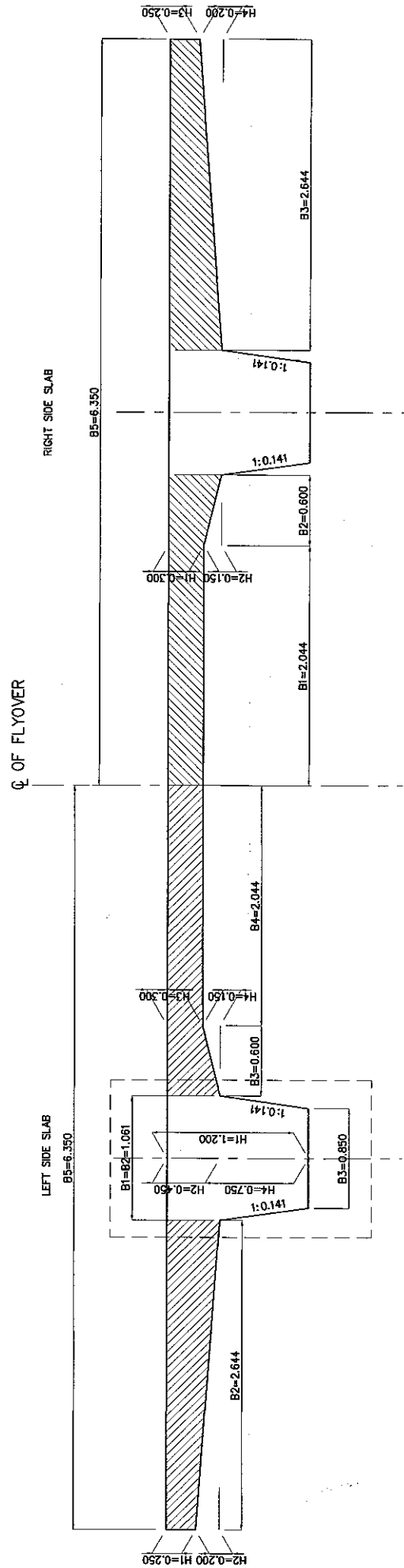
node No	Unit	R(m)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
length between points	[m]		0.0000	0.8500	1.1500	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	1.0000	1.0000	1.0000	0.8500	0.8500	1.1500	1.0000	1.0000	2.0000	2.0000	
coordinates of x	[m]		0.0000	0.8500	2.0000	4.0000	6.0000	8.0000	10.0000	12.0000	14.0000	16.0000	17.0000	18.0000	19.1500	20.0000	20.8500	22.0000	23.0000	24.0000	24.0000	26.0000	28.0000
length from point No.	[m]																						
radian	[rad]																						
degree	[°]																						
G1(X)	[m]		0.0000	0.8500	2.0000	4.0000	6.0000	8.0000	10.0000	12.0000	14.0000	16.0000	17.0105	18.0149	19.1700	20.0239	20.8775	22.0325	23.0368	24.0412	26.0497	28.0580	
G1(Y)	[m]		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0016	0.0055	0.0112	0.0202	0.0298	0.0383	0.0539	0.0695	0.0871	0.1284	0.1778	
CL(X)	[m]		0.0000	0.8500	2.0000	4.0000	6.0000	8.0000	10.0000	12.0000	14.0000	16.0000	17.0000	18.0000	19.1499	19.9999	20.8498	21.8997	22.8998	23.8995	25.8990	27.8984	
CL(Y)	[m]		2.2500	2.2500	2.2500	2.2500	2.2500	2.2500	2.2500	2.2500	2.2500	2.2518	2.2555	2.2612	2.2701	2.2784	2.2882	2.3036	2.3192	2.3368	2.3778	2.4288	
G2(X)	[m]		0.0000	0.8500	2.0000	4.0000	6.0000	8.0000	10.0000	12.0000	14.0000	15.9959	16.9995	17.9950	18.1298	19.0760	20.8222	21.9089	22.9624	23.9577	25.9484	27.9389	
G2(Y)	[m]		4.5000	4.5000	4.5000	4.5000	4.5000	4.5000	4.5000	4.5000	4.5000	4.5018	4.5055	4.5111	4.5200	4.5283	4.5380	4.5534	4.5689	4.5984	4.6272	4.6760	

node No	Unit	R(m)	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
length between points	[m]		2.0000	2.0000	2.0000	2.0000	1.0000	1.0000	1.1500	0.8500	0.8500	1.1500	1.0000	1.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	1.1500	0.8500
coordinates of x	[m]		30.0000	32.0000	34.0000	36.0000	37.0000	38.0000	39.1500	40.0000	40.8500	42.0000	43.0000	44.0000	46.0000	48.0000	50.0000	52.0000	54.0000	56.0000	58.0000	60.0000	61.1500	62.0000
length from point No.	[m]																							
radian	[rad]																							
degree	[°]																							
G1(X)	[m]		30.0981	32.0740	34.0815	36.0988	37.0923	38.0958	39.2498	40.1023	40.9550	42.1085	43.1115	44.1143	46.1198	48.1243	50.1286	52.1323	54.1354	56.1379	58.1398	59.2905	60.1409	
G1(Y)	[m]		0.2347	0.2998	0.3729	0.4539	0.4974	0.5429	0.5977	0.6398	0.6834	0.7447	0.8001	0.8575	0.9783	1.1071	1.2437	1.3884	1.5409	1.7014	1.8699	1.9703	2.0462	
CL(X)	[m]		28.9976	31.9966	33.9953	35.9936	36.9927	37.9917	38.1404	38.6893	40.8382	41.9868	42.9851	43.9834	45.9798	47.9737	49.9711	51.9659	53.9601	55.9537	57.9467	59.0923	60.2089	
CL(Y)	[m]		2.4837	2.5465	2.6212	2.7018	2.7452	2.7605	2.8450	2.8970	2.9304	3.0468	3.1037	3.2240	3.3521	3.4882	3.6322	3.7841	3.9439	4.1115	4.2871	4.4715	4.2871	
G2(X)	[m]		28.9282	31.9192	33.9090	35.8984	36.8890	37.8875	38.0311	39.8763	40.7214	41.8647	42.6587	43.8526	45.8401	47.8271	49.8155	51.7995	53.7848	55.7695	57.7536	59.6941	59.7370	
G2(Y)	[m]		4.7328	4.7972	4.8698	4.9489	4.9930	5.0381	5.0923	5.1341	5.1774	5.2381	5.2930	5.3499	5.4996	5.5972	5.7327	5.8760	6.0272	6.1863	6.3532	6.4528	6.5281	

BALARAJA FLYOVER A1 - P3 CROSSING SECTION PROPERTIES ID



CROSS SECTION AND DIMENSION FOR 13 M BRIDGE WIDTH



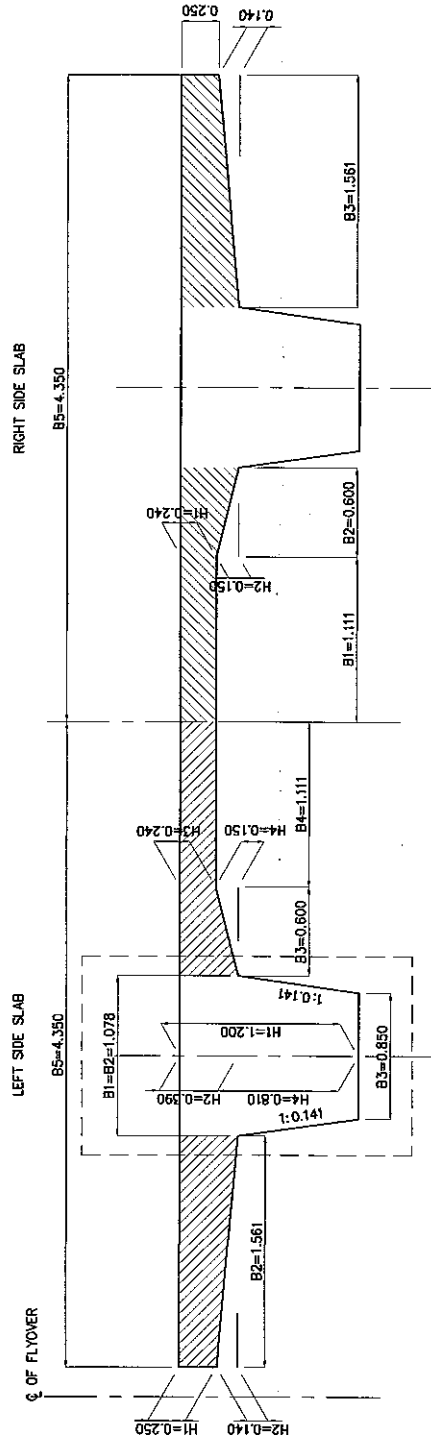
GIRDER SECTION (3 INPUT LINES)

NUMBER	SECTION ID	SECTION TYPE	1
B1	1.061	0	1.061
B2	1.061	0	1.061
B3	0.850	0	0.850
B4	0	0	0
B5	0	0	0
B6	0	0	0
Mod. of Elasticity 31800			
H1	1.200	0	1.200
H2	0.450	0	0.450
H3	0	0	0
H4	0.750	0	0.750
H5	0	0	0
H6	0	0	0

SLAB SECTION (5 INPUT LINES)

NUMBER	SECTION ID	SECTION TYPE	2	RIGHT SIDE	SECTION ID	3
B1	0	0	0	B1	2.044	2.044
B2	2.644	0	2.644	B2	0.600	0.600
B3	0.600	0	0.600	B3	2.644	2.644
B4	2.044	0	2.044	B4	0	0
B5	6.350	0	6.350	B5	6.350	6.350
Mod. of Elasticity 31800				Mod. of Elasticity 31800		
H1	0.250	0	0.250	H1	0.300	0.300
H2	0.200	0	0.200	H2	0.150	0.150
H3	0.300	0	0.300	H3	0.250	0.250
H4	0.150	0	0.150	H4	0.200	0.200
H5	0.0000001	0	0.0000001	H5	0.0000001	0.0000001
BaLL	blank	blank	blank	BaLL	blank	blank
BaRR	blank	blank	blank	BaRR	blank	blank

CROSS SECTION AND DIMENSION FOR 9 M BRIDGE WIDTH



GRADER SECTION (3 INPUT LINES)

NUMBER SECTION TYPE	1
B1	1.078
B2	1.078
B3	0.850
B4	0
B5	0
Mod. of Elasticity	31800
H1	0
H2	1.200
H3	0.390
H4	0
H5	0.810
BeFL	0
BeFR	0

SLAB SECTION (5 INPUT LINES)

NUMBER SECTION TYPE	2	3
B1	0	1.231
B2	1.581	0.479
B3	0.600	1.559
B4	1.111	0
B5	4.350	4.350
Mod. of Elasticity	31800	31800
H1	0.250	0.250
H2	0.171	0.140
H3	0.240	0.240
H4	0.137	0.150
H5	0.0000001	0.0000001
BeFL	blank	blank
BeFR	blank	blank

COMPLETE RESULTS OF BALARAJA P6-A2 SUB-FRAME

* FORCE (AFTER CONSTRUCTION) *

	5-		6-		7-		6-		7-		6-	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨカシゴ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨカシゴ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シラシラ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カカシゴ	72.9	527.4	-21.3	72.9	479.9	-32.1	17.4	1533.5	-174.0	17.4	992.0	-314.2
T+	-72.9	1995.4	281.4	-72.9	2238.9	4.5	-17.4	1163.6	137.8	-17.4	1400.2	-3.1
M+	-39.0	2549.4	160.4	-47.0	2614.5	-86.7	0.4	2612.9	-72.5	-3.4	2275.0	-310.9
M-	23.8	-44.0	21.7	32.9	-75.0	36.2	-2.3	-74.1	25.1	4.9	-104.4	41.0
S+	-31.2	2462.9	487.9	-43.2	2508.0	369.2	3.0	2506.9	383.7	-6.5	2253.0	273.3
S-	-21.9	2513.9	-363.5	-43.2	2508.0	-481.2	2.1	2546.2	-469.1	-6.5	2253.0	-577.1
REACTION (T, TM) *LIVE*												
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	7-		8-		9-		8-		9-		8-	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨカシゴ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨカシゴ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シラシラ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カカシゴ	63.8	1955.8	-330.2	63.8	1142.0	-607.1	109.4	1306.6	-551.8	109.4	120.7	-763.4
T+	-63.8	372.2	-93.0	-63.8	199.7	-103.9	-109.4	188.4	-116.3	-109.4	-24.4	-124.6
M+	42.0	2281.6	-297.7	21.4	1776.9	-664.3	51.7	1786.6	-654.8	31.2	1168.2	-741.4
M-	-26.5	-108.6	31.1	-16.3	-123.6	48.8	-39.4	-131.1	41.5	31.3	-283.6	-398.8
S+	34.7	2258.5	286.3	21.4	1776.9	186.1	51.7	1786.6	195.6	31.2	1168.2	109.0
S-	24.3	2276.0	-566.8	43.0	1026.7	-709.3	65.7	1043.2	-701.4	75.2	122.0	-897.5
REACTION (T, TM) *LIVE*												
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	9-10	10-9	10-11	11-10
	T (KNM)	M (KNM)	S (KN)	S (KN)
キヨウゴ	0.0	0.0	0.0	0.0
シヨウバン	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0
シデン	0.0	0.0	0.0	0.0
チンカ	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0
カクゴ	134.0	228.8	-795.5	136.4
T+	-134.0	-45.1	-133.0	-136.4
M+	48.3	1178.5	-736.0	13.5
M-	16.6	-279.6	-405.5	92.9
S+	48.3	1178.5	114.3	-10.3
S-	90.0	140.6	-892.4	92.3
REACTION (T, TM)	*LIVE*			
MAX	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	11-12	12-11	12-13	13-12
	T (KNM)	M (KNM)	S (KN)	S (KN)
キヨウゴ	0.0	0.0	0.0	0.0
シヨウバン	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0
シデン	0.0	0.0	0.0	0.0
チンカ	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0
カクゴ	135.1	-1968.2	-907.2	132.9
T+	-135.1	-425.2	-137.1	-132.9
M+	14.4	287.5	-826.9	-51.5
M-	91.1	-2228.5	-976.6	92.9
S+	-11.0	-45.8	80.4	0.0
S-	92.1	-1960.0	-1174.8	76.8
REACTION (T, TM)	*LIVE*			
MAX	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	13- 14		14- 13		14- 15		15- 14	
	T (KNM)	S (KN)	T (KNM)	S (KN)	T (KNM)	S (KN)	T (KNM)	S (KN)
キヨクメコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツチ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
チンカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクゾウ	132.9	-3764.7	132.9	-4489.9	81.9	-270.7	81.9	-226.8
エキ	-132.9	-690.3	-132.9	-793.8	-81.9	-3260.1	-81.9	-2642.1
オト	-51.5	154.4	-49.4	215.8	45.6	268.8	47.6	203.2
チンカ	92.9	-4285.2	91.7	-5199.8	-61.3	-3814.9	-63.5	-2996.3
T+	0.0	0.0	-48.5	210.1	-50.7	-3565.2	-55.6	-2834.9
T-	76.8	-3822.4	69.7	-4577.9	39.9	257.7	43.7	196.1
M+								
M-								
S+								
S-								
REACTION(T, TM)								
LIVE								
MAX	0.0	0.0	958.1	-85.4	58.6	-90.0	0.0	0.0
MIN	0.0	0.0	138.1	1228.3	820.2	1114.8	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	15- 16		16- 15		16- 17		17- 16	
	T (KNM)	S (KN)	T (KNM)	S (KN)	T (KNM)	S (KN)	T (KNM)	S (KN)
キヨクメコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツチ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
チンカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクゾウ	81.9	-226.8	81.9	-167.5	82.9	-164.6	82.9	-113.6
エキ	-81.9	-2642.1	-81.9	-1806.2	-82.9	-1807.2	-82.9	-1116.0
オト	47.6	203.2	43.9	133.2	44.7	134.9	-11.9	342.9
チンカ	-63.5	-2996.3	-65.4	-1989.8	-66.3	-1992.2	-65.5	-1236.8
T+	-55.6	-2834.9	-61.3	-1885.2	-61.9	-1887.5	-65.1	-1135.2
T-	43.7	196.1	3.1	-14.4	3.0	-14.1	9.1	-40.9
M+								
M-								
S+								
S-								
REACTION(T, TM)								
LIVE								
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	21- 22		22- 21		22- 23		23- 22	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨウメノコ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シラシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガシノコ	22.4	1397.7	-64.3	22.4	1046.2	-340.9	56.1	1259.0
T+	-22.4	145.4	-5.6	-22.4	126.8	-15.9	-56.1	115.4
T-	14.5	1877.6	-420.6	6.8	1708.2	-559.5	32.1	1713.4
M+	-11.1	-149.9	40.6	-5.2	-140.2	56.1	-24.5	-144.1
M-	14.5	1877.6	429.8	6.8	1708.2	290.9	32.1	1713.4
S+	14.5	1877.6	-420.6	6.8	1708.2	-559.5	32.1	1713.4
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REACTION (T, TM)	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	23- 24		24- 23		24- 25		25- 24	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨウメノコ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シラシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガシノコ	78.4	627.6	-522.9	78.4	-497.2	-714.7	82.6	-469.2
T+	-78.4	42.9	-46.2	-78.4	-46.2	-53.7	-82.6	-58.1
T-	35.7	1256.3	-673.9	16.9	634.0	-777.4	20.5	638.5
M+	-27.2	-119.2	61.7	59.4	-646.3	-622.4	59.2	-637.4
M-	35.7	1256.3	176.4	-12.9	-66.9	76.5	-15.7	-70.3
S+	35.7	1256.3	-673.9	62.3	-498.0	-843.4	65.6	-487.8
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REACTION (T, TM)	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	25- 26			26- 25			26- 27			27- 26		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
コウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクジコウ	82.9	-1116.0	-768.0	82.9	-1807.2	-798.6	81.9	-1806.2	-802.0	81.9	-2642.1	-820.2
T+	-82.9	-113.6	-57.2	-82.9	-164.6	-58.0	-81.9	-167.5	-57.8	-81.9	-226.8	-68.6
M+	11.9	342.9	-813.7	-44.7	134.9	1.0	-43.9	133.2	1.1	-47.6	203.2	82.2
M-	65.5	-1236.8	-786.4	66.3	-1992.2	-920.1	65.4	-1989.8	-920.2	63.5	-2996.3	-1035.7
S+	-9.1	-40.9	81.5	-3.0	-14.1	86.0	-3.1	-14.4	86.0	-43.7	196.1	93.5
S-	65.1	-1135.2	-955.7	61.3	-1887.5	-1066.7	61.3	-1885.2	-1066.8	55.6	-2834.9	-1187.5
REACTION(T, TM)	*LIVE*											
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	27- 28			28- 27			28- 29			29- 28		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
コウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクジコウ	81.9	-2642.1	-820.2	81.9	-3260.1	-820.2	98.4	-508.6	123.1	98.4	-411.4	123.1
T+	-81.9	-226.8	-58.6	-81.9	-270.7	-58.6	-58.0	-3022.2	699.7	-58.0	-2475.2	699.7
M+	-47.6	203.2	82.2	-45.6	268.8	90.0	46.9	256.8	-84.2	49.3	193.7	-76.2
M-	63.5	-2996.3	-1035.7	61.3	-3814.9	-1114.6	-29.9	-4023.7	1127.8	-31.5	-3163.1	1047.1
S+	-43.7	196.1	93.5	-39.9	257.7	102.1	-23.6	-3763.7	1284.2	-26.3	-2994.7	1200.3
S-	55.6	-2834.9	-1187.5	50.7	-3565.2	-1269.9	40.9	247.8	-95.7	0.0	0.0	-88.1
REACTION(T, TM)	*LIVE*											
MAX	0.0	0.0	0.0	820.2	-90.0	-102.1	123.1	-84.2	1284.2	0.0	0.0	0.0
MIN	0.0	0.0	0.0	58.6	1114.6	1269.9	699.7	1127.8	-95.7	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	29- 30		30- 29		30- 31		31- 30	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨクマコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツチ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクゾウ	94.0	-265.8	66.7	94.0	-196.2	67.2	93.4	-143.8
T+	-94.0	-2633.3	860.7	-94.0	-1922.7	841.1	-123.6	-1965.0
T-	51.9	193.2	-76.2	47.6	128.8	6.4	50.5	129.7
M+	-73.8	-3162.5	1047.1	-74.7	-2105.0	930.1	-106.3	-2106.7
M-	-66.3	-2994.2	1200.3	-71.6	-1995.8	1077.5	-101.2	-1997.5
S+	0.0	0.0	-88.1	3.8	-15.1	-85.7	3.5	-14.8
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REACTION (T, TM)	*LIVE*							
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	31- 32		32- 31		32- 33		33- 32	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨクマコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツチ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクゾウ	93.8	-77.6	35.9	93.8	-44.8	36.5	93.3	-26.8
T+	-140.9	-1212.1	821.1	-140.9	-480.5	787.1	-151.4	-541.2
T-	-20.7	351.2	-36.5	-43.4	657.0	-74.5	-29.6	652.8
M+	-122.1	-1317.8	794.9	-110.3	-683.5	625.9	-127.0	-692.0
M-	-121.4	-1212.3	964.3	-121.7	-528.2	849.1	-132.3	-537.8
S+	10.0	-41.2	-81.0	-43.4	657.0	-74.5	15.9	-68.8
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REACTION (T, TM)	*LIVE*							
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	33- 34		34- 33		34- 35		35- 34		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キリカマコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シロカハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ソノチカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カサコエ	85.4	60.1	36.1	85.4	119.2	32.8	78.2	194.0	35.1
T+	-127.6	546.7	561.7	-127.6	1305.3	276.4	-85.9	1143.5	307.6
M+	-37.9	1283.7	-175.2	-79.4	1748.7	-304.9	-30.8	1744.6	-302.1
M-	24.7	-110.8	27.2	42.1	-124.5	45.6	31.7	-122.0	43.0
S+	-37.9	1283.7	675.2	-79.4	1748.7	545.4	-30.8	1744.6	548.2
S-	-37.9	1283.7	-175.2	-79.4	1748.7	-304.9	-30.8	1744.6	-302.1
REACTION (T, TM)	*LIVE*								
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	35- 36		36- 35		36- 37		37- 36		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キリカマコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シロカハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ソノチカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カサコエ	85.9	1452.2	-31.1	85.9	1143.5	-307.6	127.6	1305.3	-276.4
T+	-78.2	241.4	-21.9	-78.2	194.0	-35.1	-85.4	119.2	-32.8
M+	46.8	1900.1	-407.5	30.8	1744.6	-548.2	79.4	1748.7	-545.4
M-	-43.9	-102.4	27.8	-31.7	-122.0	45.1	-42.1	-124.5	42.5
S+	63.9	1890.4	442.5	30.8	1744.6	302.1	79.4	1748.7	304.9
S-	63.9	1890.4	-407.9	30.8	1744.6	-548.2	79.4	1748.7	-545.4
REACTION (T, TM)	*LIVE*								
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	37- 38	38- 39	39- 38	
	T (KNM)	M (KNM)	S (KN)	T (KNM)
キヨウゴ	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0
シツ	0.0	0.0	0.0	0.0
チンカ	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0
カクゾウ	151.4	667.5	-534.8	151.4
T+	-93.3	30.6	-33.6	-93.3
T-	76.5	1290.6	-672.2	76.5
M+	-35.7	-115.3	57.9	-35.7
M-	76.5	1290.6	178.2	76.5
S+	76.5	1290.6	-672.2	76.5
S-	76.5	1290.6	-672.2	76.5
REACTION(T, TM)	*LIVE*			
	MAX	0.0	0.0	0.0
	MIN	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	39- 40	40- 41	41- 40	
	T (KNM)	M (KNM)	S (KN)	T (KNM)
キヨウゴ	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0
シツ	0.0	0.0	0.0	0.0
チンカ	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0
カクゾウ	123.6	-1189.4	-831.5	123.6
T+	-93.4	-102.0	-46.5	-93.4
T-	25.5	352.7	-813.7	25.5
M+	103.1	-1313.4	-796.5	103.1
M-	-11.1	-42.3	80.8	-11.1
S+	104.6	-1207.7	-964.5	104.6
S-	104.6	-1207.7	-964.5	104.6
REACTION(T, TM)	*LIVE*			
	MAX	0.0	0.0	0.0
	MIN	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	41- 42		42- 41		42- 43		43- 42	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツ チツカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクゾウ コウ	58.0	-2475.2	-699.6	58.0	-3022.1	-699.6	98.4	-508.9
T+	-98.4	-411.4	-123.1	-98.4	-3036.2	704.6	-58.1	-2485.6
M+	-49.4	193.7	76.2	-46.9	256.8	-84.2	49.4	193.7
M-	31.5	-3163.1	-1046.9	29.9	-4023.7	-1127.6	-30.0	-4025.3
S+	0.0	0.0	88.1	-40.9	247.8	95.7	-23.7	-3765.2
S-	26.3	-2994.7	-1200.3	23.6	-3763.7	-1284.2	40.9	247.8
REACTION (T, TM)	*LIVE*							
MAX	0.0	0.0	0.0	699.6	-84.2	-95.7	123.1	-84.2
MIN	0.0	-0.0	0.0	123.1	1127.6	1284.2	704.6	1127.9

* FORCE (AFTER CONSTRUCTION) *

	43- 44		44- 43		44- 45		45- 44	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツ チツカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクゾウ コウ	94.0	-266.0	66.7	94.0	-196.4	67.2	93.5	-143.9
T+	-94.1	-2833.7	860.2	-94.1	-1923.5	840.6	-123.8	-1966.2
M+	51.9	193.2	-76.2	47.6	128.8	6.4	50.5	129.7
M-	-73.9	-3163.9	1047.4	-74.8	-2106.1	930.1	-106.4	-2107.8
S+	-66.3	-2995.6	1200.5	-71.7	-1996.8	1077.8	-101.3	-1998.6
S-	0.0	0.0	-88.1	3.8	-15.1	-85.7	3.5	-14.8
REACTION (T, TM)	*LIVE*							
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	45- 46			46- 45			46- 47			47- 46		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨウメノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カウジ	93.8	-77.7	35.9	93.8	-44.8	36.6	93.4	-26.8	31.5	93.4	30.6	33.6
T+	-141.1	-1212.9	821.3	-141.1	-481.1	787.3	-151.5	-541.4	749.7	-76.5	666.7	535.3
M+	-20.7	351.2	-36.5	-43.4	657.0	-74.5	-29.6	652.8	-73.7	-76.5	1290.6	-178.2
M-	-122.3	-1318.7	795.3	-110.4	-684.2	626.2	-127.1	-692.7	627.1	35.7	-115.3	30.1
S+	-121.5	-1213.2	964.5	-121.9	-528.8	849.4	-132.4	-538.4	849.5	-76.5	1290.6	672.2
S-	9.9	-41.2	-81.0	-43.4	657.0	-74.5	15.9	-68.8	-74.9	-76.5	1290.6	-178.2
REACTION (T, TM)	*LIVE*											
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	47- 48			48- 47			48- 49			49- 48		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨウメノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カウジ	85.5	60.1	36.1	85.5	119.3	32.8	78.3	194.0	35.2	78.3	241.8	22.0
T+	-127.8	546.2	562.1	-127.8	1305.6	276.7	-86.1	1139.8	309.3	-86.1	1451.6	32.6
M+	-38.0	1283.7	-175.2	-79.5	1748.7	-304.9	-30.9	1744.5	-302.1	-46.9	1900.1	-429.2
M-	24.7	-110.8	27.3	42.1	-124.5	45.6	31.7	-122.0	43.0	43.9	-102.3	60.3
S+	-38.0	1283.7	675.2	-79.5	1748.7	545.4	-30.9	1744.5	548.2	-63.9	1890.4	407.9
S-	-38.0	1283.7	-175.2	-79.5	1748.7	-304.9	-30.9	1744.5	-302.1	-63.9	1890.4	-442.5
REACTION (T, TM)	*LIVE*											
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	49-50		50-49		50-51		51-50	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨカシゴク	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨカシゴク	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ゴク	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シノチカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガシゴク	85.4	1449.7	-32.1	85.4	1139.9	-308.2	127.0	1304.0
T+	-78.2	243.4	-21.6	-78.2	196.4	-35.0	-85.3	120.4
M+	46.5	1900.1	-407.6	30.3	1744.4	-548.3	78.8	1748.6
M-	-43.9	-102.3	27.8	-31.5	-121.9	45.2	-41.9	-124.4
S+	63.6	1890.4	442.4	30.3	1744.4	302.1	78.8	1748.6
S-	63.6	1890.4	-407.9	30.3	1744.4	-548.3	78.8	1748.6
REACTION (T, TM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	51-52		52-51		52-53		53-52	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨカシゴク	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨカシゴク	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ゴク	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シノチカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガシゴク	150.5	666.4	-535.4	150.5	-541.9	-746.0	136.7	-449.5
T+	-93.2	31.3	-33.8	-93.2	-26.6	-31.9	-93.9	-60.8
M+	75.4	1290.3	-672.4	28.5	652.4	-776.9	47.2	658.0
M-	-35.2	-115.0	58.0	126.3	-692.6	-627.8	103.5	-681.3
S+	75.4	1290.3	178.0	-15.5	-68.5	74.9	47.2	658.0
S-	75.4	1290.3	-672.4	131.2	-538.6	-849.5	116.9	-525.7
REACTION (T, TM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	53- 54		54- 53		54- 55		55- 54	
	T (KNM)	S (KN)	T (KNM)	S (KN)	T (KNM)	S (KN)	T (KNM)	S (KN)
キヨウメンコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
モ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シテ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
チカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガシ	93.2	-1916.8	93.2	-2823.8	57.3	-2459.8	57.3	-3000.4
功	-94.4	-199.3	-94.4	-270.4	-98.9	-419.1	-98.9	-520.1
T+	-46.9	137.4	-52.2	191.6	-49.7	192.1	-47.1	255.0
M+	73.4	-2104.9	73.0	-3152.7	30.8	-3153.2	29.1	-4011.0
M-	-3.9	-15.1	0.0	0.0	0.0	0.0	-41.2	246.0
S+	70.6	-1984.8	65.3	-2982.2	25.5	-2982.7	22.9	-3750.8
S-		-1076.5		-1199.3		-1199.3		-1283.1
REACTION(T, TM)								
LIVE								
MAX	0.0	0.0	0.0	0.0	0.0	0.0	692.0	-84.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	127.6	1125.9
								1283.1

* FORCE (AFTER CONSTRUCTION) *

	56- 57		57- 56		57- 58		58- 57	
	T (KNM)	S (KN)	T (KNM)	S (KN)	T (KNM)	S (KN)	T (KNM)	S (KN)
キヨウメンコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
モ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シテ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
チカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガシ	208.0	-404.5	208.0	91.7	208.0	91.7	208.0	727.0
功	-208.0	404.5	-208.0	430.4	-208.0	430.4	-208.0	464.2
T+	-204.9	410.0	-123.0	616.1	-123.0	616.1	36.0	1294.3
M+	204.9	-410.0	136.6	-68.3	136.6	-68.3	-39.2	-20.2
M-	153.7	-323.0	162.9	303.8	162.9	303.8	168.3	949.5
S+	0.0	0.0	-16.7	-10.1	-16.7	-10.1	51.4	1267.0
S-								-131.6
REACTION(T, TM)								
LIVE								
MAX	658.5	36.7	0.0	0.0	0.0	0.0	0.0	0.0
MIN	34.6	733.3	-88.1	-88.1	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	58- 59		59- 58		59- 60		60- 59	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨカシノコ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨカハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
コト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
コト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツノチカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カワジノコ	188.3	694.1	605.6	188.3	1663.2	452.6	136.8	1555.9
T+	-188.3	480.0	26.2	-188.3	522.2	20.2	-136.8	538.8
T-	30.4	1290.0	-128.0	58.3	2122.1	-256.7	36.4	2113.5
M+	-33.0	-15.5	11.0	-63.5	-35.0	25.5	-39.6	-25.7
M-	153.3	931.5	742.0	83.2	2078.1	590.1	51.9	2065.9
S+	43.3	1260.9	-129.1	83.2	2078.1	-260.3	51.9	2065.9
S-								
REACTION (T, TM)								
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	60- 61		61- 60		61- 62		62- 61	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨカシノコ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨカハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
コト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
コト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツノチカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カワジノコ	72.9	1995.4	281.4	72.9	2238.9	4.5	17.4	1163.6
T+	-72.9	527.4	-21.3	-72.9	479.9	-32.1	-17.4	1533.5
T-	39.0	2549.4	160.4	47.0	2614.5	-86.7	-0.4	2612.9
M+	-23.8	-44.0	21.7	-32.9	-75.0	36.2	2.3	-74.1
M-	31.2	2462.9	487.9	43.2	2508.0	369.2	-3.0	2506.9
S+	21.9	2513.9	-363.5	43.2	2508.0	-481.2	-2.1	2546.2
S-								
REACTION (T, TM)								
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	62- 63		63- 62		63- 64		64- 63		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シテノチカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクガノコウ	63.8	372.2	-93.0	63.8	199.7	-103.9	109.4	188.4	-24.4
T+	-63.8	1955.8	-330.2	-63.8	1142.0	-607.1	-109.4	1306.6	-116.3
T-	-42.0	2281.6	-297.7	-21.4	1776.9	-664.3	-51.7	1786.6	-654.8
M+	26.5	-108.6	31.1	16.3	-123.6	48.8	39.4	-131.1	41.5
M-	-34.7	2258.5	286.3	-21.4	1776.9	186.1	-51.7	1786.6	195.6
S+	-24.3	2276.0	-566.8	-43.0	1026.7	-709.3	-65.7	1043.2	-701.4
S-									
REACTION(T, TM)	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	64- 65		65- 64		65- 66		66- 65		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シテノチカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクガノコウ	134.0	-45.1	-133.0	134.0	-281.0	-135.4	136.4	-297.0	-136.3
T+	-134.0	228.8	-796.5	-134.0	-1221.3	-858.0	-136.4	-1194.1	-870.6
T-	-48.3	1178.5	-736.0	-22.3	547.7	-803.9	-25.8	552.8	-802.8
M+	-16.6	-279.6	-405.5	-86.5	-1448.6	-849.9	-84.1	-1437.7	-847.8
M-	-48.3	1178.5	114.3	17.0	-73.6	74.1	19.7	-77.5	73.3
S+	-90.0	140.6	-892.4	-92.8	-1188.2	-1083.4	-95.2	-1175.1	-1082.6
S-									
REACTION(T, TM)	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	66- 67		67- 66		67- 68		68- 67		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨウゴウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
チツ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクゴウ	135.1	-425.2	-137.1	135.1	-546.6	-137.9	132.9	-690.3	-138.1
T+	-135.1	-1968.2	-907.2	-135.1	-2786.5	-937.9	-132.9	-3764.7	-958.1
M+	-14.4	287.5	-826.9	47.7	95.2	-10.4	51.5	154.4	75.6
M-	-91.1	-2228.5	-976.4	-94.5	-3136.6	-1064.6	-92.7	-4285.2	-1162.0
S+	11.0	-45.8	80.4	3.6	-15.9	85.7	0.0	0.0	88.1
S-	-92.1	-1960.0	-1174.8	-86.5	-2809.3	-1263.0	-85.4	-3822.4	-1358.2
REACTION (T, TM)	*LIVE*								
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	68- 69		69- 68		69- 70		70- 69		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨウゴウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
チツ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクゴウ	132.9	-690.3	-138.1	132.9	-793.8	-138.1	81.9	-3260.1	820.2
T+	-132.9	-3764.7	-958.1	-132.9	-4489.9	-958.1	-81.9	-270.7	58.6
M+	51.5	154.4	75.6	49.4	215.8	85.4	-45.6	268.8	-90.0
M-	-92.9	-4285.2	-1162.0	-91.7	-5199.8	-1228.3	61.3	-3814.9	1114.8
S+	0.0	0.0	88.1	48.5	210.1	94.3	50.7	-3565.2	1269.9
S-	-76.8	-3822.4	-1358.2	-69.7	-4577.9	-1422.8	-39.9	257.7	-102.1
REACTION (T, TM)	*LIVE*								
MAX	0.0	0.0	0.0	138.1	-85.4	-94.3	820.2	-90.0	1269.9
MIN	0.0	0.0	0.0	958.1	1228.3	1422.8	58.6	1114.8	-102.1

* FORCE (AFTER CONSTRUCTION) *

	74- 75		75- 74		75- 76		76- 75		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨクマコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツ シンカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクジ' エウ	56.1	545.1	549.2	56.1	1259.0	272.5	22.4	1046.2	340.9
T+	-56.1	55.5	39.7	-56.1	115.4	28.9	-22.4	126.8	15.9
T-	19.5	1248.7	-171.3	32.1	1713.4	-298.9	6.8	1708.2	-290.9
M+	-14.9	-113.4	22.5	-24.5	-144.1	38.1	-5.2	-140.2	32.0
M-	19.5	1248.7	679.0	32.1	1713.4	551.5	6.8	1708.2	559.5
S+	19.5	1248.7	-171.3	32.1	1713.4	-298.9	14.5	1877.6	420.6
S-	19.5	1248.7	-171.3	32.1	1713.4	-298.9	14.5	1877.6	-429.8
REACTION(T, TM)									
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	76- 77		77- 76		77- 78		78- 77		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨクマコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツ シンカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクジ' エウ	22.4	145.4	-5.6	22.4	126.8	-15.9	56.1	115.4	-28.9
T+	-22.4	1397.7	-64.3	-22.4	1046.2	-340.9	-56.1	1259.0	-272.5
T-	-14.5	1877.6	-420.6	-6.8	1708.2	-559.5	-32.1	1713.4	-551.5
M+	11.1	-149.9	40.6	5.2	-140.2	56.1	24.5	-144.1	50.0
M-	-14.5	1877.6	429.8	-6.8	1708.2	290.9	-32.1	1713.4	298.9
S+	-14.5	1877.6	-420.6	-6.8	1708.2	-559.5	-32.1	1713.4	-551.5
S-	-14.5	1877.6	-420.6	-6.8	1708.2	-559.5	-32.1	1713.4	-551.5
REACTION(T, TM)									
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	78- 79		79- 78		79- 80		80- 79	
	T (KNM)	M (KNM)	T (KNM)	M (KNM)	T (KNM)	M (KNM)	T (KNM)	M (KNM)
キヨウシノコ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シテン チカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガジ エ	78.4	42.9	78.4	-46.2	82.6	-58.1	82.6	-107.5
T+	-78.4	627.6	-78.4	-497.2	-82.6	-469.2	-82.6	-1123.5
M+	-35.7	1256.3	-16.9	634.0	-20.5	638.5	-10.9	341.3
M-	27.2	-119.2	61.7	-622.4	-59.2	-637.4	-65.8	-1241.6
S+	-35.7	1256.3	176.4	12.9	15.7	-70.3	8.3	-39.7
S-	-35.7	1256.3	-62.3	-498.0	-65.6	-487.8	-64.6	-1140.3
REACTION (T, TM) *LIVE*								
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	80- 81		81- 80		81- 82		82- 81	
	T (KNM)	M (KNM)	T (KNM)	M (KNM)	T (KNM)	M (KNM)	T (KNM)	M (KNM)
キヨウシノコ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シテン チカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガジ エ	82.9	-113.6	82.9	-164.6	81.9	-167.5	81.9	-226.8
T+	-82.9	-1116.0	-82.9	-1807.2	-81.9	-1806.2	-81.9	-2642.1
M+	-11.9	342.9	44.7	134.9	43.9	133.2	47.6	203.2
M-	-65.5	-1236.8	-66.3	-1992.2	-65.4	-1989.8	-63.5	-2996.3
S+	9.1	-40.9	3.0	-14.1	3.1	-14.4	43.7	196.1
S-	-65.1	-1135.2	-61.9	-1887.5	-61.3	-1885.2	-55.6	-2834.9
REACTION (T, TM) *LIVE*								
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	90- 91		91- 90		91- 92		92- 91			
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	
キヨウボクゴウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
キ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シラソ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
チカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
カワジゴウ	102.5	176.5	-31.1	102.5	113.2	-41.4	118.5	142.6	-49.8	
T+	-93.9	1357.6	45.0	-93.9	1205.7	-238.9	-76.8	1146.4	-216.5	
M+	-61.8	1758.8	-402.7	-65.3	1631.9	-544.2	-39.7	1637.1	-540.5	
M-	53.2	-122.3	29.9	43.6	-134.1	46.5	48.7	-139.1	44.2	
S+	-61.8	1758.8	447.7	-65.3	1631.9	306.2	-39.7	1637.1	309.9	
S-	-61.8	1758.8	-402.7	-65.3	1631.9	-544.2	-39.7	1637.1	-540.5	
REACTION(T, TM)	*LIVE*									
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	92- 93		93- 92		93- 94		94- 93			
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	
キヨウボクゴウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
キ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シラソ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
チカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
カワジゴウ	130.0	44.6	-75.9	130.0	-102.8	-92.4	128.3	-107.9	-89.3	
T+	-73.9	505.4	-474.3	-73.9	426.5	-595.6	-82.6	435.7	-601.8	
M+	-20.8	1214.6	-668.0	-15.2	617.6	-774.8	-7.9	621.7	-773.7	
M-	37.9	-123.8	59.3	-33.7	-588.4	-597.3	-41.3	-582.1	-596.8	
S+	-20.8	1214.6	182.4	-15.2	617.6	75.6	-7.9	621.7	76.7	
S-	-20.8	1214.6	-668.0	-41.4	-444.9	-821.8	-50.7	-436.3	-821.8	
REACTION(T, TM)	*LIVE*									
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	94- 95	95- 94	95- 96	96- 95
	T (KNM)	M (KNM)	S (KN)	T (KNM)
キヨウメイコウ	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0
ゾウチノカ	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0
カクゾウコウ	124.6	-177.2	-81.9	124.6
T+	-94.0	-982.8	-658.2	-94.0
M+	-3.1	334.7	-812.5	-1.8
M-	-60.8	-1139.3	-763.0	-60.7
S+	10.4	-43.6	81.1	3.4
S-	-61.3	-1042.7	-934.4	-56.1
REACTION (T, TM)	*LIVE*			
MAX	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	96- 97	97- 96	97- 98	98- 97
	T (KNM)	M (KNM)	S (KN)	T (KNM)
キヨウメイコウ	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0
ゾウチノカ	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0
カクゾウコウ	116.2	-208.1	-38.4	116.2
T+	-147.5	-2481.3	-812.8	-147.5
M+	64.0	166.5	82.7	61.6
M-	-119.3	-2790.4	-1015.8	-115.5
S+	63.2	162.0	92.4	57.6
S-	-106.2	-2642.9	-1164.9	-96.5
REACTION (T, TM)	*LIVE*			
MAX	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	98- 99			99- 98			99- 100			100- 99		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨウシヨウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シデン チンカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カウシヨウ	114.9	-2359.7	747.8	114.9	-1627.3	734.6	94.0	-1552.1	681.5	94.0	-963.1	658.2
T+	-119.6	-283.9	68.9	-119.6	-216.1	66.3	-124.7	-248.7	85.5	-124.7	-177.3	82.0
M+	-61.9	167.2	-82.7	0.6	109.9	-11.5	1.8	109.5	-11.5	3.1	334.7	-37.9
M-	81.9	-2792.2	1016.0	85.5	-1845.2	900.3	60.7	-1847.7	899.9	60.8	-1139.7	763.1
S+	70.8	-2644.5	1165.1	80.0	-1748.3	1045.1	56.1	-1750.9	1044.7	61.3	-1043.2	934.5
S-	-61.0	162.6	-92.4	-3.4	-15.4	-85.9	-3.4	-15.0	-85.9	-10.4	-43.6	-81.1
REACTION(T, TM)	*LIVE*			*LIVE*			*LIVE*			*LIVE*		
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	100- 101			101- 100			101- 102			102- 101		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨウシヨウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シデン チンカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カウシヨウ	82.6	-955.3	626.9	82.6	-435.9	601.8	73.8	-426.3	596.3	73.8	505.6	474.3
T+	-128.4	-184.9	92.4	-128.4	-108.1	89.3	-130.1	-103.0	92.4	-130.1	44.6	76.0
M+	6.0	333.3	-37.6	7.9	621.7	-76.7	15.2	617.7	-75.6	20.8	1214.6	-182.4
M-	47.9	-1143.7	764.2	41.2	-582.4	597.0	33.6	-588.7	597.5	-37.9	-123.8	28.8
S+	48.1	-1047.7	934.2	50.7	-436.6	821.9	41.3	-445.2	821.9	20.8	1214.6	668.0
S-	-10.3	-42.1	-81.3	7.9	621.7	-76.7	15.2	617.7	-75.6	20.8	1214.6	-182.4
REACTION(T, TM)	*LIVE*			*LIVE*			*LIVE*			*LIVE*		
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	102-103		103-102		103-104		104-103	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨカゾウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨカハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シラン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
チカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カカゾウ	76.7	569.8	479.2	76.7	1146.4	216.5	93.8	1357.9
T+	-118.5	41.9	66.8	-118.5	142.7	49.9	-102.6	176.5
M+	35.5	1207.6	-178.4	39.7	1637.0	-310.0	61.7	1758.5
M-	-31.8	-117.1	28.3	-48.7	-139.0	43.9	-53.2	-122.3
S+	35.5	1207.6	672.0	39.7	1637.0	540.4	61.7	1758.5
S-	35.5	1207.6	-178.4	39.7	1637.0	-310.0	61.7	1758.5
REACTION (T, TM)	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	104-105		105-104		105-106		106-105	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨカゾウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨカハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シラン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
チカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カカゾウ	102.4	175.8	-31.1	102.4	112.6	-41.3	118.3	142.0
T+	-94.2	1358.8	45.1	-94.2	1207.1	-228.8	-77.1	1148.1
M+	-62.0	1758.5	-402.7	-65.4	1631.6	-544.2	-39.9	1636.8
M-	53.2	-122.3	29.9	43.5	-134.0	46.6	48.6	-139.0
S+	-62.0	1758.5	447.7	-65.4	1631.6	306.1	-39.9	1636.8
S-	-62.0	1758.5	-402.7	-65.4	1631.6	-544.2	-39.9	1636.8
REACTION (T, TM)	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	106-107			107-108			108-107		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨウゴク	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ユキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツチ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクゴク	129.7	44.4	-75.5	129.7	-102.1	-91.5	127.4	-108.7	-87.4
T+	-74.3	506.4	-475.1	-74.3	-425.6	-596.4	-85.9	-434.3	-610.9
M+	-20.9	1214.2	-668.1	-15.4	617.2	-774.8	-6.9	622.6	-773.1
M-	37.5	-123.7	59.4	-34.3	-588.9	-597.3	-44.1	-580.6	-596.7
S+	-20.9	1214.2	182.3	-15.4	617.2	75.5	-6.9	622.6	77.3
S-	-20.9	1214.2	-668.1	-41.9	-445.6	-821.9	-54.6	-434.1	-821.7
REACTION (T, TM)	*LIVE*			*LIVE*			*LIVE*		
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	108-109			109-108			109-110			110-109		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨウゴク	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ユキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツチ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクゴク	119.8	-213.8	-66.3	119.8	-281.6	-68.8	116.5	-205.9	-37.5	116.5	-232.6	-37.5
T+	-116.2	-1629.7	-737.1	-116.2	-2364.3	-750.3	-148.8	-2484.1	-816.0	-148.8	-3074.7	-816.0
M+	57.1	111.4	-80.1	62.4	165.9	82.4	64.5	165.3	82.4	62.0	229.1	91.1
M-	-87.0	-1844.0	-876.4	-84.1	-2781.2	-1009.4	-121.4	-2780.1	-1009.3	-117.2	-3548.8	-1093.1
S+	3.4	-15.5	85.9	61.6	161.3	92.2	63.7	160.7	92.2	58.1	222.2	101.2
S-	-81.9	-1737.0	-1043.6	-72.7	-2631.8	-1163.6	-107.9	-2630.8	-1163.6	-98.2	-3320.0	-1245.5
REACTION (T, TM)	*LIVE*			*LIVE*			*LIVE*			*LIVE*		
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

COMPLETE RESULTS OF GEBANG P11-A2 SUB-FRAME

* FORCE (AFTER CONSTRUCTION) *

	5--		6		6--		5		7		6--		7		7--		6	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨメ/コウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨ/ハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツ/チンガ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガシ/コウ	60.0	498.0	-2.2	60.0	480.0	-17.4	20.4	1114.5	-124.1	20.4	731.4	-225.6	20.4	731.4	-225.6	20.4	731.4	-225.6
T+	-69.6	1205.4	210.3	-69.6	1398.8	17.1	-21.4	838.5	95.1	-21.4	991.7	-8.0	-21.4	991.7	-8.0	-21.4	991.7	-8.0
M+	-15.1	1863.9	-273.0	-33.2	1900.1	-68.0	0.4	1898.6	-52.9	-4.6	1680.9	-430.9	-4.6	1680.9	-430.9	-4.6	1680.9	-430.9
M-	0.2	0.0	-0.2	1.6	-0.6	-0.2	-0.2	-0.6	-1.0	1.1	-3.2	-1.6	1.1	-3.2	-1.6	1.1	-3.2	-1.6
S+	-26.6	1772.3	371.5	-41.2	1805.2	278.7	4.5	1803.7	299.2	-8.0	1630.9	212.1	-8.0	1630.9	212.1	-8.0	1630.9	212.1
S-	-15.1	1863.9	-273.0	-41.2	1805.2	-364.2	2.5	1883.4	-349.5	-4.6	1680.9	-430.9	-4.6	1680.9	-430.9	-4.6	1680.9	-430.9
REACTION (T, TM)	*LIVE*																	
	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	7--		8		8--		7		9		8--		9		9--		8	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨメ/コウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨ/ハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツ/チンガ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガシ/コウ	61.2	1233.9	-208.4	61.2	704.6	-401.4	103.6	856.9	-346.2	103.6	95.1	-498.3	103.6	95.1	-498.3	103.6	95.1	-498.3
T+	-53.2	392.8	-93.4	-53.2	215.9	-108.6	-89.4	216.1	-122.6	-89.4	-11.4	-134.6	-89.4	-11.4	-134.6	-89.4	-11.4	-134.6
M+	19.2	1683.1	-420.2	10.4	1316.5	-493.3	29.1	1320.9	-484.9	29.1	876.1	-549.9	29.1	876.1	-549.9	29.1	876.1	-549.9
M-	-3.4	-3.5	-3.6	-5.0	-11.4	-3.5	-16.6	-13.4	-8.1	33.4	-207.3	-251.2	33.4	-207.3	-251.2	33.4	-207.3	-251.2
S+	33.9	1634.8	230.9	18.4	1303.0	150.3	51.0	1310.9	165.0	29.6	376.1	93.0	29.6	376.1	93.0	29.6	376.1	93.0
S-	19.2	1683.1	-420.2	32.6	753.6	-515.8	47.3	765.6	-507.9	55.5	96.6	-651.0	55.5	96.6	-651.0	55.5	96.6	-651.0
REACTION (T, TM)	*LIVE*																	
	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	9-10		10-9		10-11		11-10		11-10		10-11		11-10		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨウメコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウバン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シテシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カサヅゴ	126.3	197.4	-506.1	126.3	-765.8	-571.6	126.3	-734.3	-583.7	125.2	-1261.0	-605.6	125.2	-1261.0	-605.6
T+	-107.9	-20.8	-142.6	-107.9	-277.6	-147.5	-108.9	-290.7	-149.5	-108.9	-423.6	-151.1	-108.9	-423.6	-151.1
T-	50.2	885.2	-541.0	22.7	424.3	-600.5	28.4	429.1	-598.5	14.8	225.7	-620.9	14.8	225.7	-620.9
M+	36.3	-290.4	-249.8	60.6	-1048.1	-614.8	57.4	-1041.3	-614.3	62.9	-1619.3	-706.3	62.9	-1619.3	-706.3
M-	50.2	885.2	-101.9	22.7	424.3	42.3	28.4	429.1	44.4	-12.4	-31.7	22.8	-12.4	-31.7	22.8
S+	65.8	108.5	-645.6	70.2	-854.4	-785.9	69.5	-845.5	-785.0	68.8	-1421.2	-853.5	68.8	-1421.2	-853.5
S-															
REACTION (T, TM)															
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	11-12		12-11		12-13		13-12		13-12		12-13		13-12		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨウメコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウバン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シテシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カサヅゴ	120.3	-1246.2	-609.8	120.3	-1798.5	-631.6	113.0	-1781.6	-629.2	113.0	-2441.2	-641.9	113.0	-2441.2	-641.9
T+	-107.5	-434.3	-152.5	-107.5	-570.0	-153.9	-105.9	-586.1	-157.2	-105.9	-747.3	-158.1	-105.9	-747.3	-158.1
T-	16.4	227.5	-620.3	5.3	73.4	-636.0	5.7	73.9	-635.9	-15.6	28.8	23.5	-15.6	28.8	23.5
M+	57.9	-1615.7	-706.2	62.2	-2275.7	-771.6	55.2	-2274.0	-772.1	57.1	-3113.8	-845.0	57.1	-3113.8	-845.0
M-	16.4	227.5	22.5	-4.4	-13.1	29.0	-4.6	-13.5	28.9	0.0	0.0	32.1	0.0	0.0	32.1
S+	65.6	-1416.7	-853.6	63.1	-2037.2	-919.8	57.4	-2035.0	-920.3	53.0	-2781.3	-992.2	53.0	-2781.3	-992.2
S-															
REACTION (T, TM)															
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	13- 14		14- 13		14- 15		15- 14	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツノチンカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクシノエウ	107.5	-2410.4	-631.8	107.5	-2890.2	-631.8	74.6	-379.7
T+	-107.6	-774.2	-165.4	-107.6	-898.9	-165.4	-81.4	-1771.4
M+	-15.6	28.9	23.5	-17.0	51.3	30.3	30.3	58.8
M-	50.1	-3113.9	-845.0	50.5	-3783.0	-895.1	-50.7	-2795.6
S+	0.0	0.0	32.1	-23.1	48.8	33.7	-42.9	-2617.6
S-	46.7	-2781.4	-992.2	43.1	-3339.3	-1041.5	28.2	83.4
REACTION(T, TM)	*LIVE*							
MAX	0.0	0.0	0.0	631.8	-30.3	-33.7	86.5	-36.1
MIN	0.0	0.0	0.0	165.4	895.1	1041.5	555.0	819.0

* FORCE (AFTER CONSTRUCTION) *

	15- 16		16- 15		16- 17		17- 16	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツノチンカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクシノエウ	73.9	-298.7	80.8	73.9	-216.6	80.0	75.1	-207.5
T+	-85.5	-1794.0	565.2	-85.5	-1215.6	552.3	-90.3	-1224.8
M+	30.4	58.7	-30.7	-5.4	87.9	-9.7	-5.0	87.4
M-	-57.3	-2192.0	759.2	-58.1	-1451.9	672.7	-63.0	-1453.8
S+	-51.5	-2076.7	871.3	-56.2	-1376.0	780.7	-60.4	-1378.0
S-	30.7	57.8	-34.9	4.2	-9.3	-29.7	4.0	-8.9
REACTION(T, TM)	*LIVE*							
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	17- 18			18- 17			18- 19			19- 18		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨメ/エウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨカ/ハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シテ/チンカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カカゾ/エウ	75.3	-132.3	74.5	75.3	-67.4	73.1	72.2	-57.1	69.5	72.2	58.7	60.1
T+	-92.6	-754.7	526.2	-92.6	-301.1	504.1	-90.4	-332.1	488.9	-90.4	431.6	347.6
M+	-13.5	263.1	-30.8	-25.9	486.9	-62.1	-20.0	482.4	-60.0	-44.1	938.8	-143.4
M-	-64.1	-904.6	571.8	-57.2	-463.8	450.1	-60.5	-471.0	450.7	-35.4	-36.1	111.0
S+	-64.6	-829.9	697.5	-64.8	-352.6	613.2	-63.9	-361.2	614.3	-44.1	938.8	499.5
S-	-13.5	263.1	-30.8	-25.9	486.9	-62.1	-20.0	482.4	-60.0	-44.1	938.8	-143.4
REACTION(T, TM)	*LIVE*											
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	19- 20			20- 19			20- 21			21- 20		
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)
キヨメ/エウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨカ/ハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シテ/チンカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カカゾ/エウ	52.3	66.6	51.2	52.3	144.4	37.9	22.2	197.0	10.8	22.2	200.9	-2.5
T+	-66.0	352.7	376.2	-66.0	840.3	180.9	-28.1	628.8	249.4	-28.1	898.2	55.9
M+	-21.7	931.4	-134.8	-39.4	1264.7	-234.6	-3.3	1261.3	-214.5	-11.7	1385.9	-317.4
M-	-31.8	-42.9	112.7	17.3	-20.2	1.8	2.9	-18.3	-2.9	7.3	-18.4	2.7
S+	-21.7	931.4	508.0	-39.4	1264.7	408.3	-5.9	1259.8	421.2	-18.8	1380.1	314.1
S-	-21.7	931.4	-134.8	-39.4	1264.7	-234.6	-5.9	1259.8	-221.6	-18.8	1380.1	-328.8
REACTION(T, TM)	*LIVE*											
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	21- 22		22- 21		22- 23		23- 22	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
コウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シラノチカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カカシコウ	28.1	898.2	-55.9	28.1	628.8	-249.4	66.0	840.3
T+	-22.2	200.9	2.5	-22.2	197.0	-10.8	-52.3	144.4
T-	11.7	1385.9	-309.3	3.3	1261.3	-412.3	39.4	1264.7
M+	-7.3	-18.4	-2.7	-2.9	-18.3	2.9	-17.3	-20.2
M-	18.8	1380.1	328.8	5.9	1259.8	221.6	39.4	1264.7
S+	18.8	1380.1	-314.1	5.9	1259.8	-421.2	39.4	1264.7
S-								
REACTION(T, TM)								
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	23- 24		24- 23		24- 25		25- 24	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
コウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シラノチカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カカシコウ	90.4	431.3	-347.7	90.4	-332.1	-488.9	92.6	-301.1
T+	-72.2	58.7	-60.1	-72.2	-57.1	-69.5	-75.3	-67.4
T-	44.1	938.8	-499.5	20.0	482.4	-582.8	25.9	486.9
M+	35.4	-36.1	-111.0	60.5	-471.0	-450.7	57.2	-463.8
M-	44.1	938.8	143.4	20.0	482.4	60.0	25.9	486.9
S+	44.1	938.8	-499.5	63.9	-361.2	-614.3	64.8	-352.6
S-								
REACTION(T, TM)								
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	29-30	30-29	30-31	31-30
	T (KNM)	M (KNM)	S (KN)	T (KNM)
キヨクノコウ	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0
シラシ	0.0	0.0	0.0	0.0
チンガ	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0
カガシ	74.0	-298.9	80.8	74.0
エツ	-85.5	-1794.0	564.8	-90.4
T+	30.4	58.7	-30.7	-15.3
M+	-57.3	-2192.8	789.3	-60.8
M-	-51.6	-2077.5	871.4	-62.8
S+	30.7	57.8	-34.9	-15.3
S-				
REACTION (T, TM)				
LIVE				
MAX	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	31-32	32-31	32-33	33-32
	T (KNM)	M (KNM)	S (KN)	T (KNM)
キヨクノコウ	0.0	0.0	0.0	0.0
シヨクハシ	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0
シラシ	0.0	0.0	0.0	0.0
チンガ	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0
カガシ	75.4	-132.5	74.5	72.3
エツ	-92.7	-755.3	525.8	-90.5
T+	-13.5	263.1	-30.8	-44.1
M+	-64.2	-905.0	571.8	-35.5
M-	-64.7	-830.4	697.6	-44.1
S+	-13.5	263.1	-30.8	-44.1
S-				
REACTION (T, TM)				
LIVE				
MAX	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	37- 38		38- 37		38- 39		39- 38			
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	
キヨクノコト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シヨクノコト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シツノチンカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
カクゾノコト	89.7	430.0	-348.6	89.7	-333.3	-486.9	93.3	-1227.8	-554.9	
T+	-71.7	59.1	-59.9	-71.7	-56.2	-69.1	-76.4	-203.6	-77.4	
T-	43.3	938.4	-499.8	19.3	481.7	-583.0	28.3	487.7	-633.3	
M+	35.4	-36.1	-111.0	60.5	-471.6	-451.3	56.0	-1454.7	-654.6	
M-	43.3	938.4	143.1	19.3	481.7	59.8	28.3	487.7	63.1	
S+	43.3	938.4	-499.8	63.3	-362.0	-614.6	65.0	-350.6	-612.9	
S-	43.3	938.4	-499.8	63.3	-362.0	-614.6	65.0	-350.6	-612.9	
REACTION(T, TM)	*LIVE*		*LIVE*		*LIVE*		*LIVE*		*LIVE*	
	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	39- 40		40- 39		40- 41		41- 40			
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	
キヨクノコト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シヨクノコト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シツノチンカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
カクゾノコト	86.1	-1213.5	-552.9	86.1	-1792.3	-565.7	82.1	-1770.0	-555.5	
T+	-74.6	-217.5	-80.8	-74.6	-300.5	-81.7	-75.3	-316.1	-87.3	
T-	5.5	86.1	-633.1	-30.7	57.6	30.5	-30.6	57.7	30.5	
M+	58.3	-1451.3	-655.3	57.9	-2183.8	-754.2	53.0	-2183.9	-754.2	
M-	-4.3	-9.5	29.6	-31.0	56.7	34.6	-30.9	56.7	34.6	
S+	56.6	-1367.6	-779.7	52.0	-2067.2	-870.2	47.4	-2067.3	-870.2	
S-	56.6	-1367.6	-779.7	52.0	-2067.2	-870.2	47.4	-2067.3	-870.2	
REACTION(T, TM)	*LIVE*		*LIVE*		*LIVE*		*LIVE*		*LIVE*	
	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	42- 43		43- 42		43- 44		44- 43			
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	
キヨウジノコ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シラン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
チカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
カガジノコ	170.5	-271.9	395.0	170.5	25.8	386.6	170.5	406.0	363.9	
T+	-196.5	312.7	59.3	-196.5	357.0	58.7	-196.5	415.7	57.3	
M+	-192.8	319.1	62.1	-123.1	488.0	367.0	17.3	912.9	-91.5	
M-	167.3	-277.7	451.8	125.6	-61.0	155.3	-1.4	-1.3	-1.2	
S+	94.3	-166.9	644.3	99.0	257.5	577.4	41.2	882.8	501.6	
S-	0.0	0.0	-53.6	-20.3	24.8	-48.1	41.2	882.8	-98.4	
REACTION (T, TM)	*LIVE*									
MAX	395.0	62.1	644.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	59.3	451.8	-53.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	44- 45		45- 44		45- 46		46- 45			
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	
キヨウジノコ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シラン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
チカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
カガジノコ	154.1	384.8	365.3	154.1	966.0	266.9	112.6	877.6	303.1	
T+	-177.6	428.0	48.6	-177.6	509.3	42.2	-130.1	516.7	23.1	
M+	14.1	911.1	-90.0	27.6	1490.4	-179.9	16.2	1486.9	-174.8	
M-	14.0	-1.8	9.8	-4.8	-1.1	-0.7	-2.2	-0.6	-1.3	
S+	33.6	878.5	505.0	66.0	1434.3	407.9	38.8	1425.9	420.0	
S-	33.6	878.5	-95.0	66.0	1434.3	-192.0	38.8	1425.9	-180.0	
REACTION (T, TM)	*LIVE*									
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	46- 47		47- 46		47- 48		48- 47			
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	
キヨウメ/エウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
エウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シツ シツカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
カカゾウ	61.4	1110.2	187.4	61.4	1280.3	12.4	20.4	789.7	64.0	895.1
T+	-71.2	522.2	-8.8	-71.2	496.0	-20.2	-21.5	975.0	-94.2	-186.3
M+	17.1	1773.7	102.2	19.4	1803.9	-67.1	-0.8	1803.3	-58.3	-399.2
M-	-1.3	-0.8	-1.3	-3.4	-2.5	-0.5	0.3	-2.4	-2.1	-7.3
S+	22.3	1689.4	344.2	34.4	1716.0	258.1	-3.7	1714.9	274.9	6.6
S-	22.3	1689.4	-255.8	34.4	1716.0	-341.9	-1.7	1773.0	-326.3	6.6
REACTION(T, TM)	*LIVE*		*LIVE*		*LIVE*		*LIVE*		*LIVE*	
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	48- 49		49- 48		49- 50		50- 49			
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	
キヨウメ/エウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
エウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シツ シツカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
カカゾウ	62.1	396.4	-98.9	62.1	213.2	-110.0	105.6	215.3	-128.0	105.6
T+	-54.0	1130.1	-191.9	-54.0	645.8	-366.8	-91.1	776.7	-317.5	-91.1
M+	-11.7	1573.5	-392.9	-15.4	1223.3	-464.0	-42.2	1229.9	-452.2	-24.9
M-	6.8	-7.7	-6.4	7.7	-19.5	-3.9	24.0	-22.3	-10.4	-19.9
S+	-28.1	1546.5	209.8	-15.4	1223.3	136.0	-42.2	1229.9	147.7	-24.9
S-	-11.7	1573.5	-392.9	-21.0	709.4	-487.9	-27.2	718.4	-483.6	-35.6
REACTION(T, TM)	*LIVE*		*LIVE*		*LIVE*		*LIVE*		*LIVE*	
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	50- 51		51- 50		51- 52		52- 51	
	T (KNM)	M (KNM)	S (KN)	M (KNM)	T (KNM)	M (KNM)	T (KNM)	M (KNM)
キヨクノコト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクノコト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
キ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シテノチカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガシゴト	128.9	-31.4	-148.1	128.9	-295.3	-152.0	129.3	-438.2
T+	-110.1	166.0	-463.0	-110.1	-705.5	-519.7	-112.6	-1160.6
T-	-40.3	819.9	-510.3	-19.0	388.0	-562.9	-11.6	205.1
M+	11.7	-197.0	-294.9	-31.6	-1006.8	-882.9	-32.3	-1003.1
M-	-40.3	819.9	89.7	-19.0	388.0	37.1	-21.6	392.1
S+	-39.2	84.5	-612.8	-45.2	-823.3	-741.0	-48.0	-817.2
S-								
REACTION(T, TM)								
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	52- 53		53- 52		53- 54		54- 53	
	T (KNM)	M (KNM)	S (KN)	M (KNM)	T (KNM)	M (KNM)	T (KNM)	M (KNM)
キヨクノコト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨクノコト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
キ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シテノチカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガシゴト	126.3	-438.6	-149.4	126.3	-570.3	-150.5	122.0	-707.9
T+	-112.9	1158.7	-557.4	-112.9	-1658.8	-576.6	-113.9	-2276.3
T-	-12.2	206.6	-580.4	-4.1	66.4	-594.0	-4.1	66.8
M+	-40.3	-1542.5	-666.4	-45.7	-2158.6	-727.2	-49.2	-2157.4
M-	15.1	42.6	42.3	5.0	-16.2	50.0	5.2	-16.7
S+	-50.9	-1350.1	-803.3	-49.3	-1925.1	-863.1	-53.2	-1923.3
S-								
REACTION(T, TM)								
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	54-	55	55-	54	55-	56	56-	55
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨウジツコ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
コ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
チカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガシコ	120.4	-685.6	-139.7	120.4	-789.7	-139.7	80.0	-1996.9
T+	-119.1	-2301.8	-604.1	-119.1	-2756.4	-604.1	-87.8	-319.7
T-	15.5	46.6	42.2	5.2	82.6	49.9	-39.0	121.8
M+	-58.4	-2938.1	-791.3	-58.9	-3558.6	-836.8	47.4	-2565.2
M-	0.0	0.0	53.6	0.0	0.0	53.6	40.6	-2400.3
S+	-54.9	-2611.5	-928.3	-50.6	-3124.1	-972.6	-38.0	119.6
S-								
REACTION (T, TM)								
MAX	0.0	0.0	0.0	139.7	-49.9	-53.6	512.7	-51.2
MIN	0.0	0.0	0.0	604.1	836.8	972.6	68.7	757.2

* FORCE (AFTER CONSTRUCTION) *

	56-	57	57-	56	57-	58	58-	57
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨウジツコ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
コ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
チカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガシコ	76.4	-1592.3	503.5	76.4	-1081.7	492.3	75.4	-1075.3
T+	-88.4	-283.0	74.0	-88.4	-208.5	73.1	-90.8	-212.4
T-	-40.8	85.5	-44.2	3.5	81.1	-8.9	3.5	80.7
M+	44.1	-2012.3	702.4	44.6	-1334.0	622.4	42.5	-1335.5
M-	40.0	-1905.5	806.1	43.7	-1263.7	722.8	41.3	-1265.3
S+	0.0	0.0	-53.6	-4.7	-12.7	-50.7	-4.4	-12.2
S-								
REACTION (T, TM)								
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	58- 59		59- 58		59- 60		60- 59	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨウゴコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツク	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
チ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ミ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
メ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガシ	74.3	-661.6	458.5	74.3	-269.7	439.2	70.2	-288.8
ト	-91.6	-142.1	77.0	-91.6	-75.5	75.5	-88.2	-65.5
ミ	9.5	243.3	-28.2	17.4	451.0	-57.1	14.8	447.3
メ	39.6	-831.0	529.0	33.7	-426.9	416.2	34.3	-431.9
シ	41.2	-762.1	646.2	41.2	-324.1	568.7	38.2	-330.4
ト	-12.2	-30.4	-45.5	17.4	451.0	-57.1	14.8	447.3
REACTION (T, TM)	*LIVE*							
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	60- 61		61- 60		61- 62		62- 61	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨウゴコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツク	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
チ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ミ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガシ	50.4	320.1	329.7	50.4	740.6	157.2	20.9	591.8
ト	-63.9	66.3	55.0	-63.9	151.2	41.8	-26.6	149.0
ミ	16.5	866.8	-125.0	26.5	1178.9	-217.7	5.6	1174.9
メ	-20.5	-48.7	20.8	-34.9	-42.5	34.4	-6.4	-37.7
シ	16.5	866.8	475.0	26.5	1178.9	382.3	5.6	1174.9
ト	16.5	866.8	-125.0	26.5	1178.9	-217.7	5.6	1174.9
REACTION (T, TM)	*LIVE*							
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	66- 67		67- 66		67- 68		68- 67	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨウゴコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツ チンチ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクシゴウ	90.8	-145.5	-75.7	90.8	-212.4	-76.9	88.4	-208.5
T+	-75.4	-667.8	-466.1	-75.4	-1075.3	-485.0	-76.4	-1081.7
T-	-10.2	244.7	-571.3	-3.5	80.7	-591.2	-3.5	81.1
M+	-40.2	-828.2	-528.7	-42.5	-1335.5	-622.1	-44.6	-1334.0
M-	13.4	-32.0	45.0	4.4	-12.2	50.8	4.7	-12.7
S+	-43.0	-758.8	-646.2	-41.3	-1265.3	-722.4	-39.9	-1263.7
S-								
REACTION(T, TM)								
LIVE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	68- 69		69- 68		69- 70		70- 69	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨウゴコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツ チンチ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクシゴウ	87.8	-268.5	-68.7	87.8	-319.7	-68.7	80.1	-2001.8
T+	-80.0	-1612.7	-512.7	-80.0	-1996.9	-512.7	-87.9	-319.9
T-	40.9	85.4	44.2	39.0	121.8	51.2	-39.1	121.8
M+	-48.6	-2012.2	-702.2	-47.4	-2565.2	-757.1	47.4	-2566.0
M-	0.0	0.0	53.6	38.0	119.6	56.4	40.6	-2401.1
S+	-44.2	-1905.4	-805.1	-40.6	-2400.3	-863.0	-38.1	119.6
S-								
REACTION(T, TM)								
LIVE	0.0	0.0	0.0	68.7	-51.2	-56.4	514.7	-51.2
MAX	0.0	0.0	0.0	512.7	757.1	863.0	68.7	757.3
MIN	0.0	0.0	0.0					

* FORCE (AFTER CONSTRUCTION) *

	70- 71		71- 70		71- 72		72- 71	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨウメコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シデン チンカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクゾウ コウ	76.4	-1593.6	504.1	76.4	-1082.4	492.9	75.4	-1075.4
T+	-88.5	-283.2	73.9	-88.5	-208.6	73.0	-90.8	-212.6
T-	-40.8	85.5	-44.2	3.5	81.1	-8.9	3.5	80.7
M+	44.1	-2013.0	702.5	44.6	-1334.5	622.5	42.5	-1336.0
M-	40.0	-1906.2	806.2	43.8	-1264.3	722.9	41.3	-1265.9
S+	0.0	0.0	-53.6	-4.7	-12.7	-50.7	-4.4	-12.2
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REACTION (T, TM)	*LIVE*		*LIVE*		*LIVE*		*LIVE*	
	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	72- 73		73- 72		73- 74		74- 73	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨウメコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シヨウハン	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シデン チンカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カクゾウ コウ	74.4	-661.9	458.6	74.4	-269.9	439.3	70.2	-289.4
T+	-91.7	-142.2	77.1	-91.7	-75.5	75.6	-88.3	-65.7
T-	9.5	243.3	-28.2	17.4	451.0	-57.1	14.7	447.3
M+	39.6	-831.4	529.0	33.7	-427.2	416.4	34.3	-432.1
M-	41.2	-762.5	646.4	41.2	-324.4	568.8	38.2	-330.7
S+	-12.2	-30.4	-45.5	17.4	451.0	-57.1	14.7	447.3
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REACTION (T, TM)	*LIVE*		*LIVE*		*LIVE*		*LIVE*	
	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	74- 75		75- 74		75- 76		76- 75	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨメノコ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シロハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
チノカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガシ	50.5	319.7	329.9	50.5	740.8	157.3	21.1	588.5
エ	-64.0	66.2	55.1	-64.0	151.2	41.9	-26.9	148.7
M+	16.5	866.8	-125.0	26.5	1178.9	-217.7	5.6	1174.9
M-	-20.5	-48.7	20.8	-34.9	-42.5	34.5	-6.4	-37.7
S+	16.5	866.8	475.0	26.5	1178.9	382.3	5.6	1174.9
S-	16.5	866.8	-125.0	26.5	1178.9	-217.7	5.6	1174.9
REACTION(T, TM)								
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	76- 77		77- 76		77- 78		78- 77	
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)
キヨメノコ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シロハシ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
オト	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
エキ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
シツ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
チノカ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
カガシ	26.5	192.6	-6.3	26.5	171.1	-17.9	63.5	151.4
エ	-20.8	802.6	-42.1	-20.8	581.4	-214.6	-50.1	740.4
M+	-11.8	1287.8	-293.8	-5.5	1174.8	-393.5	-26.2	1178.8
M-	16.1	-32.6	19.8	6.1	-37.6	31.7	34.6	-42.4
S+	-11.8	1287.8	306.2	-5.5	1174.8	206.5	-26.2	1178.8
S-	-11.8	1287.8	-293.8	-5.5	1174.8	-393.5	-26.2	1178.8
REACTION(T, TM)								
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	78- 79		79- 78		79- 80		80- 79			
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	
キヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
コウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
カクシノコウ	87.4	57.9	-64.2	87.4	-64.5	-73.6	92.8	-213.3	-78.9	
T+	-69.6	376.7	-308.5	-69.6	-289.5	-427.2	-75.9	-1072.5	-483.2	
M+	-29.3	872.5	-467.9	-14.3	446.7	-544.9	-18.9	451.6	-80.5	
M-	38.4	-55.6	24.9	-34.3	-432.3	-416.9	-33.5	-425.9	-605.7	
S+	-29.3	872.5	132.1	-14.3	446.7	55.1	-18.9	451.6	4.4	
S-	-29.3	872.5	-467.9	-37.9	-331.1	-569.7	-42.3	-322.7	-568.4	
REACTION(T, TM)	*LIVE*									
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* FORCE (AFTER CONSTRUCTION) *

	80- 81		81- 80		81- 82		82- 81			
	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	T (KNM)	M (KNM)	S (KN)	
キヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
コウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
シヨクノコウ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
T+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
T-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
S-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
カクシノコウ	89.3	-208.5	-73.5	89.3	-283.6	-74.4	88.6	-320.8	-69.1	
T+	-77.2	-1081.0	-498.9	-77.2	-1593.1	-505.1	-80.9	-1998.8	-514.4	
M+	-3.6	81.2	-591.1	41.3	84.0	43.8	39.6	120.2	50.8	
M-	-45.0	-1333.4	-606.2	-44.9	-2004.8	-697.7	-48.1	-2555.6	-755.9	
S+	4.8	-12.9	50.6	0.0	0.0	53.6	38.5	118.0	56.0	
S-	-44.5	-1255.9	-721.8	-40.6	-1896.7	-806.0	-41.2	-2390.7	-862.0	
REACTION(T, TM)	*LIVE*									
MAX	0.0	0.0	0.0	0.0	0.0	0.0	69.1	-50.8	-56.0	
MIN	0.0	0.0	0.0	0.0	0.0	0.0	514.4	755.9	862.0	