

■ 상형진(C2교)

1) 합성 전

< BEFORE COMPOSITE SELF-WEIGHT LOAD >

SYSTEM
LENGTH=M

FORCE=KN

JOINT

```
1 X= 0.000 Y=0.000 Z=0.000
2 X= 4.400 Y=0.000 Z=-0.166
3 X= 9.400 Y=0.000 Z=-0.354
4 X= 14.400 Y=0.000 Z=-0.542
5 X= 19.400 Y=0.000 Z=-0.730
6 X= 24.400 Y=0.000 Z=-0.919
7 X= 29.400 Y=0.000 Z=-1.107
8 X= 34.400 Y=0.000 Z=-1.295
9 X= 39.400 Y=0.000 Z=-1.483
10 X= 44.400 Y=0.000 Z=-1.672
11 X= 49.400 Y=0.000 Z=-1.860
12 X= 54.400 Y=0.000 Z=-2.048
13 X= 59.400 Y=0.000 Z=-2.236
14 X= 64.400 Y=0.000 Z=-2.425
15 X= 69.400 Y=0.000 Z=-2.613
16 X= 74.400 Y=0.000 Z=-2.801
17 X= 79.400 Y=0.000 Z=-2.989
18 X= 84.400 Y=0.000 Z=-3.178
19 X= 89.400 Y=0.000 Z=-3.366
20 X= 94.400 Y=0.000 Z=-3.554
21 X= 99.400 Y=0.000 Z=-3.742
22 X= 104.400 Y=0.000 Z=-3.931
23 X= 109.400 Y=0.000 Z=-4.119
24 X= 114.400 Y=0.000 Z=-4.307
25 X= 119.400 Y=0.000 Z=-4.495
26 X= 124.400 Y=0.000 Z=-4.684
27 X= 128.800 Y=0.000 Z=-4.849
28 X= 0.000 Y=0.000 Z=-0.900
29 X= 0.000 Y=1.132 Z=-0.900
30 X= 0.000 Y=-1.132 Z=-0.900
31 X= 39.400 Y=0.000 Z=-2.483
32 X= 39.400 Y=1.132 Z=-2.483
33 X= 39.400 Y=-1.132 Z=-2.483
34 X= 89.400 Y=0.000 Z=-4.366
35 X= 89.400 Y=1.132 Z=-4.366
36 X= 89.400 Y=-1.132 Z=-4.366
37 X= 128.800 Y=0.000 Z=-5.749
38 X= 128.800 Y=1.132 Z=-5.749
39 X= 128.800 Y=-1.132 Z=-5.749
```

LOCAL

```
ADD= 29 ANG=0.000
ADD= 30 ANG=0.000
ADD= 32 ANG=0.000
ADD= 33 ANG=0.000
ADD= 35 ANG=0.000
ADD= 36 ANG=0.000
ADD= 38 ANG=0.000
ADD= 39 ANG=0.000
```

RESTRAINT

```
ADD= 29 DOF= U2, U3,
ADD= 30 DOF= U2, U3,
ADD= 32 DOF= U2, U3,
ADD= 33 DOF= U2, U3,
ADD= 35 DOF= U1, U2, U3,
ADD= 36 DOF= U1, U2, U3,
ADD= 38 DOF= U2, U3,
ADD= 39 DOF= U2, U3,
```

MATERIAL

```
Name=1
E=2.05e+008
Name=2
```

```
33 J= 19, 34 Sec= 8
34 J= 35, 34 Sec= 8
35 J= 36, 34 Sec= 8
36 J= 27, 37 Sec= 8
37 J= 38, 37 Sec= 8
38 J= 39, 37 Sec= 8
```

LOAD

Name=STEEL : STEEL SELF-WEIGHT LOAD
Type=Distributed Span

```
Add= 1 RD=0.000, 1.000 Uzp=-18.948, -19.579
Add= 2 RD=0.000, 1.000 Uzp=-19.579, -19.579
Add= 3 RD=0.000, 1.000 Uzp=-19.579, -21.491
Add= 4 RD=0.000, 1.000 Uzp=-21.491, -21.491
Add= 5 RD=0.000, 1.000 Uzp=-21.491, -27.227
Add= 6 RD=0.000, 1.000 Uzp=-27.227, -28.330
Add= 7 RD=0.000, 1.000 Uzp=-28.330, -38.889
Add= 8 RD=0.000, 1.000 Uzp=-38.889, -38.889
Add= 9 RD=0.000, 1.000 Uzp=-38.889, -38.889
Add= 10 RD=0.000, 1.000 Uzp=-38.889, -27.227
Add= 11 RD=0.000, 1.000 Uzp=-27.227, -27.227
Add= 12 RD=0.000, 1.000 Uzp=-27.227, -19.579
Add= 13 RD=0.000, 1.000 Uzp=-19.579, -19.579
Add= 14 RD=0.000, 1.000 Uzp=-19.579, -19.579
Add= 15 RD=0.000, 1.000 Uzp=-19.579, -27.227
Add= 16 RD=0.000, 1.000 Uzp=-27.227, -27.227
Add= 17 RD=0.000, 1.000 Uzp=-27.227, -38.889
Add= 18 RD=0.000, 1.000 Uzp=-38.889, -38.889
Add= 19 RD=0.000, 1.000 Uzp=-38.889, -38.889
Add= 20 RD=0.000, 1.000 Uzp=-38.889, -28.330
Add= 21 RD=0.000, 1.000 Uzp=-28.330, -27.227
Add= 22 RD=0.000, 1.000 Uzp=-27.227, -21.491
Add= 23 RD=0.000, 1.000 Uzp=-21.491, -21.491
Add= 24 RD=0.000, 1.000 Uzp=-21.491, -19.579
Add= 25 RD=0.000, 1.000 Uzp=-19.579, -19.579
Add= 26 RD=0.000, 1.000 Uzp=-19.579, -18.948
```

Name=CONC : SLAB SELF-WEIGHT LOAD
Type=Distributed Span

```
Add= 1 RD=0.000, 0.432 Uzp=-105.645, -105.645 R1=3.253, 3.253
Add= 1 RD=0.432, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 2 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 3 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 4 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 5 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 6 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 7 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 8 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 9 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 10 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 11 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 12 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 13 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 14 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 15 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 16 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 17 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 18 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 19 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 20 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 21 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 22 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 23 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 24 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 25 RD=0.000, 1.000 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 26 RD=0.000, 0.568 Uzp=-63.145, -63.145 R1=3.253, 3.253
Add= 26 RD=0.568, 1.000 Uzp=-105.645, -105.645 R1=3.253, 3.253
```

COMBO

Name=STEEL Type=ADD :
LOAD=STEEL sf=1.000

Name=CONC Type=ADD :

E=2.05e+008

Name=3

E=2.05e+008

Name=4

E=2.05e+008

Name=5

E=2.05e+008

Name=6

E=2.05e+008

Name=7

E=2.05e+008

Name=8

E=2.05e+008

FRAME SECTION

```
Name= 1 Mat= 1 A=0.14428 I=0.09166334, 0.22775602 J=0.16468857 : GIRDER
Name= 2 Mat= 2 A=0.14908 I=0.11497784, 0.24172617 J=0.19802632 : GIRDER
Name= 3 Mat= 3 A=0.16364 I=0.12988957, 0.25780235 J=0.21851401 : GIRDER
Name= 4 Mat= 4 A=0.20732 I=0.17497905, 0.30603090 J=0.27247871 : GIRDER
Name= 5 Mat= 5 A=0.21572 I=0.18192754, 0.31356736 J=0.27247871 : GIRDER
Name= 6 Mat= 6 A=0.29612 I=0.25586348, 0.43341656 J=0.39256765 : GIRDER
Name= 7 Mat= 7 A=0.20732 I=0.17366694, 0.30603090 J=0.27247871 : GIRDER
Name= 8 Mat= 8 A=10.000000 I=10.00000000, 10.00000000 J=10.00000000 : SHOE
Name= 9 Type=Nonpr Sec= 1, 2 Elvar=2.1
Name= 10 Type=Nonpr Sec= 2, 1
Name= 11 Type=Nonpr Sec= 2, 3
Name= 12 Type=Nonpr Sec= 2, 4
Name= 13 Type=Nonpr Sec= 3, 2
Name= 14 Type=Nonpr Sec= 3, 4
Name= 15 Type=Nonpr Sec= 4, 2
Name= 16 Type=Nonpr Sec= 4, 3
Name= 17 Type=Nonpr Sec= 4, 5
Name= 18 Type=Nonpr Sec= 4, 7
Name= 19 Type=Nonpr Sec= 5, 4
Name= 20 Type=Nonpr Sec= 5, 6
Name= 21 Type=Nonpr Sec= 6, 5
Name= 22 Type=Nonpr Sec= 6, 7
Name= 23 Type=Nonpr Sec= 7, 4
Name= 24 Type=Nonpr Sec= 7, 6
```

FRAME

```
1 J= 1, 2 Sec= 9 Local=12 Pldir=+Z,+X NSEG=4
2 J= 2, 3 Sec= 2
3 J= 3, 4 Sec=11
4 J= 4, 5 Sec= 3
5 J= 5, 6 Sec=14
6 J= 6, 7 Sec=17
7 J= 7, 8 Sec=20
8 J= 8, 9 Sec= 6
9 J= 9, 10 Sec= 6
10 J= 10, 11 Sec=22
11 J= 11, 12 Sec=23
12 J= 12, 13 Sec=15
13 J= 13, 14 Sec= 2
14 J= 14, 15 Sec= 2
15 J= 15, 16 Sec=12
16 J= 16, 17 Sec=18
17 J= 17, 18 Sec=24
18 J= 18, 19 Sec= 6
19 J= 19, 20 Sec= 6
20 J= 20, 21 Sec=21
21 J= 21, 22 Sec=19
22 J= 22, 23 Sec=16
23 J= 23, 24 Sec= 3
24 J= 24, 25 Sec=13
25 J= 25, 26 Sec= 2
26 J= 26, 27 Sec=10
27 J= 1, 28 Sec= 8
28 J= 29, 28 Sec= 8
29 J= 30, 28 Sec= 8
30 J= 9, 31 Sec= 8
31 J= 32, 31 Sec= 8
32 J= 33, 31 Sec= 8
```

LOAD=CONC sf=1.000

OUTPUT

ELEM=JOINT TYPE=DISP,REAC LOAD=** COMB=**
ELEM=FRAME TYPE=FORCE LOAD=** COMB=**

2. 합성 후

< AFTER COMPOSITE SELF-WEIGHT LOAD >

SYSTEM
LENGTH=M FORCE=KN

JOINT

1	X= 0.000	Y=0.000	Z=0.000
2	X= 4.400	Y=0.000	Z=-0.166
3	X= 9.400	Y=0.000	Z=-0.354
4	X= 14.400	Y=0.000	Z=-0.542
5	X= 19.400	Y=0.000	Z=-0.730
6	X= 24.400	Y=0.000	Z=-0.919
7	X= 29.400	Y=0.000	Z=-1.107
8	X= 34.400	Y=0.000	Z=-1.295
9	X= 39.400	Y=0.000	Z=-1.483
10	X= 44.400	Y=0.000	Z=-1.672
11	X= 49.400	Y=0.000	Z=-1.860
12	X= 54.400	Y=0.000	Z=-2.048
13	X= 59.400	Y=0.000	Z=-2.236
14	X= 64.400	Y=0.000	Z=-2.425
15	X= 69.400	Y=0.000	Z=-2.613
16	X= 74.400	Y=0.000	Z=-2.801
17	X= 79.400	Y=0.000	Z=-2.989
18	X= 84.400	Y=0.000	Z=-3.178
19	X= 89.400	Y=0.000	Z=-3.366
20	X= 94.400	Y=0.000	Z=-3.554
21	X= 99.400	Y=0.000	Z=-3.742
22	X= 104.400	Y=0.000	Z=-3.931
23	X= 109.400	Y=0.000	Z=-4.119
24	X= 114.400	Y=0.000	Z=-4.307
25	X= 119.400	Y=0.000	Z=-4.495
26	X= 124.400	Y=0.000	Z=-4.684
27	X= 128.800	Y=0.000	Z=-4.849
28	X= 0.000	Y=0.000	Z=-0.900
29	X= 0.000	Y=1.132	Z=-0.900
30	X= 0.000	Y=-1.132	Z=-0.900
31	X= 39.400	Y=0.000	Z=-2.483
32	X= 39.400	Y=1.132	Z=-2.483
33	X= 39.400	Y=-1.132	Z=-2.483
34	X= 89.400	Y=0.000	Z=-4.366
35	X= 89.400	Y=1.132	Z=-4.366
36	X= 89.400	Y=-1.132	Z=-4.366
37	X= 128.800	Y=0.000	Z=-5.749
38	X= 128.800	Y=1.132	Z=-5.749
39	X= 128.800	Y=-1.132	Z=-5.749

LOCAL

ADD= 29 ANG=0.000

ADD= 30 ANG=0.000

ADD= 32 ANG=0.000

ADD= 33 ANG=0.000

ADD= 35 ANG=0.000

ADD= 36 ANG=0.000

ADD= 38 ANG=0.000

ADD= 39 ANG=0.000

RESTRAINT

ADD= 29 DOF= U2, U3,

ADD= 30 DOF= U2, U3,

ADD= 32 DOF= U2, U3,

ADD= 33 DOF= U2, U3,

ADD= 35 DOF= U1, U2, U3,

ADD= 36 DOF= U1, U2, U3,

ADD= 38 DOF= U2, U3,

ADD= 39 DOF= U2, U3,

MATERIAL

Name=1

E=2.05e+008

Name=2

E=2.05e+008

Name=3

35 J= 36, 34 Sec= 8

36 J= 27, 37 Sec= 8

37 J= 38, 37 Sec= 8

38 J= 39, 37 Sec= 8

LOAD

Name=AFTER : AFTER SELF-WEIGHT LOAD (부속시설하중 포함)

Type=Distributed Span

ADD= 1 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 2 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 3 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 4 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 5 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 6 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 7 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 8 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 9 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 10 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 11 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 12 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 13 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 14 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 15 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 16 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 17 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 18 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 19 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 20 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 21 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 22 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 23 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 24 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 25 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

ADD= 26 RD=0.000, 1.000 Uzp=-34.964, -34.964 R1=-0.000, -0.000

COMBO

Name=AFTER Type=ADD ;

LOAD=AFTER sf=1.000

OUTPUT

ELEM=JOINT TYPE=DISP,REAC LOAD=+ COMB=+

ELEM=FRAME TYPE=FORCE LOAD=+ COMB=+

E=2.05e+008

Name=4

E=2.05e+008

Name=5

E=2.05e+008

Name=6

E=2.05e+008

Name=7

E=2.05e+008

Name=8

E=2.05e+008

FRAME SECTION

Name= 1	Mat= 1	A=0.44358	I=0.20529126,	2.02976600	J=0.23430317	: GIRDER
Name= 2	Mat= 2	A=0.44838	I=0.25328391,	2.04373615	J=0.27458622	: GIRDER
Name= 3	Mat= 3	A=0.46294	I=0.27691297,	2.05981233	J=0.29340872	: GIRDER
Name= 4	Mat= 4	A=0.50662	I=0.34514812,	2.10804087	J=0.33640465	: GIRDER
Name= 5	Mat= 5	A=0.51502	I=0.36684537,	2.11557734	J=0.33640465	: GIRDER
Name= 6	Mat= 6	A=0.59542	I=0.48135075,	2.23542654	J=0.46139340	: GIRDER
Name= 7	Mat= 7	A=0.50662	I=0.36626752,	2.10804087	J=0.33640465	: GIRDER
Name= 8	Mat= 8	A=10.00000	I=10.00000000,	10.00000000	J=10.00000000	: SHOE
Name= 9	Type=Nonpr	Sec= 1,	2	Elvar=-2,1		
Name= 10	Type=Nonpr	Sec= 2,	1			
Name= 11	Type=Nonpr	Sec= 2,	3			
Name= 12	Type=Nonpr	Sec= 2,	4			
Name= 13	Type=Nonpr	Sec= 3,	2			
Name= 14	Type=Nonpr	Sec= 3,	4			
Name= 15	Type=Nonpr	Sec= 4,	2			
Name= 16	Type=Nonpr	Sec= 4,	3			
Name= 17	Type=Nonpr	Sec= 4,	5			
Name= 18	Type=Nonpr	Sec= 4,	7			
Name= 19	Type=Nonpr	Sec= 5,	4			
Name= 20	Type=Nonpr	Sec= 5,	6			
Name= 21	Type=Nonpr	Sec= 6,	5			
Name= 22	Type=Nonpr	Sec= 6,	7			
Name= 23	Type=Nonpr	Sec= 7,	4			
Name= 24	Type=Nonpr	Sec= 7,	6			

FRAME

1	J= 1,	2	Sec= 9	Local=12	Pldir=Z,X	NSEG=4
2	J= 2,	3	Sec= 2			
3	J= 3,	4	Sec=11			
4	J= 4,	5	Sec= 3			
5	J= 5,	6	Sec=14			
6	J= 6,	7	Sec=17			
7	J= 7,	8	Sec=20			
8	J= 8,	9	Sec= 6			
9	J= 9,	10	Sec= 6			
10	J= 10,	11	Sec=22			
11	J= 11,	12	Sec=23			
12	J= 12,	13	Sec=15			
13	J= 13,	14	Sec= 2			
14	J= 14,	15	Sec= 2			
15	J= 15,	16	Sec=12			
16	J= 16,	17	Sec=18			
17	J= 17,	18	Sec=24			
18	J= 18,	19	Sec= 6			
19	J= 19,	20	Sec= 6			
20	J= 20,	21	Sec=21			
21	J= 21,	22	Sec=19			
22	J= 22,	23	Sec=16			
23	J= 23,	24	Sec= 3			
24	J= 24,	25	Sec=13			
25	J= 25,	26	Sec= 2			
26	J= 26,	27	Sec=10			
27	J= 1,	28	Sec= 8			
28	J= 29,	28	Sec= 8			
29	J= 30,	28	Sec= 8			
30	J= 9,	31	Sec= 8			
31	J= 32,	31	Sec= 8			
32	J= 33,	31	Sec= 8			
33	J= 19,	34	Sec= 8			
34	J= 35,	34	Sec= 8			

3. 활하중 재하시

< MOVING LOAD >

SYSTEM
LENGTH=M FORCE=KN

JOINT

1	X= 0.000	Y=0.000	Z=0.000
2	X= 4.400	Y=0.000	Z=-0.166
3	X= 9.400	Y=0.000	Z=-0.354
4	X= 14.400	Y=0.000	Z=-0.542
5	X= 19.400	Y=0.000	Z=-0.730
6	X= 24.400	Y=0.000	Z=-0.919
7	X= 29.400	Y=0.000	Z=-1.107
8	X= 34.400	Y=0.000	Z=-1.295
9	X= 39.400	Y=0.000	Z=-1.483
10	X= 44.400	Y=0.000	Z=-1.672
11	X= 49.400	Y=0.000	Z=-1.860
12	X= 54.400	Y=0.000	Z=-2.048
13	X= 59.400	Y=0.000	Z=-2.236
14	X= 64.400	Y=0.000	Z=-2.425
15	X= 69.400	Y=0.000	Z=-2.613
16	X= 74.400	Y=0.000	Z=-2.801
17	X= 79.400	Y=0.000	Z=-2.989
18	X= 84.400	Y=0.000	Z=-3.178
19	X= 89.400	Y=0.000	Z=-3.366
20	X= 94.400	Y=0.000	Z=-3.554
21	X= 99.400	Y=0.000	Z=-3.742
22	X= 104.400	Y=0.000	Z=-3.931
23	X= 109.400	Y=0.000	Z=-4.119
24	X= 114.400	Y=0.000	Z=-4.307
25	X= 119.400	Y=0.000	Z=-4.495
26	X= 124.400	Y=0.000	Z=-4.684
27	X= 128.800	Y=0.000	Z=-4.849
28	X= 0.000	Y=0.000	Z=-0.900
29	X= 0.000	Y=1.132	Z=-0.900
30	X= 0.000	Y=-1.132	Z=-0.900
31	X= 39.400	Y=0.000	Z=-2.483
32	X= 39.400	Y=1.132	Z=-2.483
33	X= 39.400	Y=-1.132	Z=-2.483
34	X= 89.400	Y=0.000	Z=-4.366
35	X= 89.400	Y=1.132	Z=-4.366
36	X= 89.400	Y=-1.132	Z=-4.366
37	X= 128.800	Y=0.000	Z=-5.749
38	X= 128.800	Y=1.132	Z=-5.749
39	X= 128.800	Y=-1.132	Z=-5.749

LOCAL

ADD= 29 ANG=0.000

ADD= 30 ANG=0.000

ADD= 32 ANG=0.000

ADD= 33 ANG=0.000

ADD= 35 ANG=0.000

ADD= 36 ANG=0.000

ADD= 38 ANG=0.000

ADD= 39 ANG=0.000

RESTRAINT

ADD= 29 DOF= U2, U3,

ADD= 30 DOF= U2, U3,

ADD= 32 DOF= U2, U3,

ADD= 33 DOF= U2, U3,

ADD= 35 DOF= U1, U2, U3,

ADD= 36 DOF= U1, U2, U3,

ADD= 38 DOF= U2, U3,

ADD= 39 DOF= U2, U3,

MATERIAL

Name=1

E=2.05e+008

Name=2

E=2.05e+008

Name=3

E=2.05e+008
Name=4
E=2.05e+008
Name=5
E=2.05e+008
Name=6
E=2.05e+008
Name=7
E=2.05e+008
Name=8
E=2.05e+008

FRAME SECTION
Name= 1 Mat= 1 A=0.44358 I=0.20529126, 2.02976600 J=0.23430317 : GIRDER
Name= 2 Mat= 2 A=0.44838 I=0.25328391, 2.04373615 J=0.27458622 : GIRDER
Name= 3 Mat= 3 A=0.46294 I=0.27691297, 2.05961233 J=0.29340672 : GIRDER
Name= 4 Mat= 4 A=0.50662 I=0.34514812, 2.10804067 J=0.33640465 : GIRDER
Name= 5 Mat= 5 A=0.51502 I=0.36684537, 2.11557734 J=0.33640465 : GIRDER
Name= 6 Mat= 6 A=0.59542 I=0.48135075, 2.23542654 J=0.46139340 : GIRDER
Name= 7 Mat= 7 A=0.50662 I=0.36626752, 2.10804067 J=0.33640465 : GIRDER
Name= 8 Mat= 8 A=10.00000 I=10.00000000, 10.00000000 J=10.00000000 : SHOE
Name= 9 Type=Nonpr Sec= 1, 2 Elvar=2.1
Name= 10 Type=Nonpr Sec= 2, 1
Name= 11 Type=Nonpr Sec= 2, 3
Name= 12 Type=Nonpr Sec= 2, 4
Name= 13 Type=Nonpr Sec= 3, 2
Name= 14 Type=Nonpr Sec= 3, 4
Name= 15 Type=Nonpr Sec= 4, 2
Name= 16 Type=Nonpr Sec= 4, 3
Name= 17 Type=Nonpr Sec= 4, 5
Name= 18 Type=Nonpr Sec= 4, 7
Name= 19 Type=Nonpr Sec= 5, 4
Name= 20 Type=Nonpr Sec= 5, 6
Name= 21 Type=Nonpr Sec= 6, 5
Name= 22 Type=Nonpr Sec= 6, 7
Name= 23 Type=Nonpr Sec= 7, 4
Name= 24 Type=Nonpr Sec= 7, 6

FRAME
1 J= 1, 2 Sec= 9 Local=12 Pldir=Z,X NSEG=4
2 J= 2, 3 Sec= 2
3 J= 3, 4 Sec=11
4 J= 4, 5 Sec= 3
5 J= 5, 6 Sec=14
6 J= 6, 7 Sec=17
7 J= 7, 8 Sec=20
8 J= 8, 9 Sec= 6
9 J= 9, 10 Sec= 6
10 J= 10, 11 Sec=22
11 J= 11, 12 Sec=23
12 J= 12, 13 Sec=15
13 J= 13, 14 Sec= 2
14 J= 14, 15 Sec= 2
15 J= 15, 16 Sec=12
16 J= 16, 17 Sec=18
17 J= 17, 18 Sec=24
18 J= 18, 19 Sec= 6
19 J= 19, 20 Sec= 6
20 J= 20, 21 Sec=21
21 J= 21, 22 Sec=19
22 J= 22, 23 Sec=16
23 J= 23, 24 Sec= 3
24 J= 24, 25 Sec=13
25 J= 25, 26 Sec= 2
26 J= 26, 27 Sec=10
27 J= 1, 28 Sec= 8
28 J= 29, 28 Sec= 8
29 J= 30, 28 Sec= 8
30 J= 9, 31 Sec= 8
31 J= 32, 31 Sec= 8
32 J= 33, 31 Sec= 8
33 J= 19, 34 Sec= 8
34 J= 35, 34 Sec= 8

35 J= 36, 34 Sec= 8
36 J= 27, 37 Sec= 8
37 J= 38, 37 Sec= 8
38 J= 39, 37 Sec= 8

LANE
: Case = 1 ----- GL Max DB 1선
Name=L1G1
Path= 1, 8, 1, Ecc=2.300
Path= 9, 18, 1, Ecc=2.300
Path= 19, 26, 1, Ecc=2.300

: Case = 2 ----- GL Max DB 2선
Name=L2G1
Path= 1, 8, 1, Ecc=0.500
Path= 9, 18, 1, Ecc=0.500
Path= 19, 26, 1, Ecc=0.500

: Case = 3 ----- GR Max DB 1선
Name=L3G1
Path= 1, 8, 1, Ecc=-2.300
Path= 9, 18, 1, Ecc=-2.300
Path= 19, 26, 1, Ecc=-2.300

: Case = 4 ----- GR Max DB 2선
Name=L4G1
Path= 1, 8, 1, Ecc=-0.500
Path= 9, 18, 1, Ecc=-0.500
Path= 19, 26, 1, Ecc=-0.500

: Case = 5 ----- GL Max DL 1선
Name=L5G1
Path= 1, 8, 1, Ecc=2.300
Path= 9, 18, 1, Ecc=2.300
Path= 19, 26, 1, Ecc=2.300

: Case = 6 ----- GL Max DL 2선
Name=L6G1
Path= 1, 8, 1, Ecc=0.500
Path= 9, 18, 1, Ecc=0.500
Path= 19, 26, 1, Ecc=0.500

: Case = 7 ----- GR Max DL 1선
Name=L7G1
Path= 1, 8, 1, Ecc=-2.300
Path= 9, 18, 1, Ecc=-2.300
Path= 19, 26, 1, Ecc=-2.300

: Case = 8 ----- GR Max DL 2선
Name=L8G1
Path= 1, 8, 1, Ecc=-0.500
Path= 9, 18, 1, Ecc=-0.500
Path= 19, 26, 1, Ecc=-0.500

VEHICLES
Name=1 TYPE=Gen : DB-24
P=24.000
D=4.200 P=96.000
D=4.200 9.000 P=96.000
Name=2 TYPE=Gen : DL-24
W=4.233 PM=36.000 PXM=52.000

Vehicle Class
Name=1
Vehi=1
Name=2
Vehi=2
Bridge Response
Elem=Frame
Add==

Elem=Joint Type=DISP
Add==
Elem=Joint Type=REAC
Add==
MOVING LOAD
Name= 1 Rf=1.000 : GL Max DB 1선
Lane= L1G1 Class=1 Lmin= 1 Lmax= 1 Sf=2.000
Name= 2 Rf=1.000 : GL Max DB 2선
Lane= L2G1 Class=1 Lmin= 1 Lmax= 1 Sf=4.000
Name= 3 Rf=1.000 : GR Max DB 1선
Lane= L3G1 Class=1 Lmin= 1 Lmax= 1 Sf=2.000
Name= 4 Rf=1.000 : GR Max DB 2선
Lane= L4G1 Class=1 Lmin= 1 Lmax= 1 Sf=4.000
Name= 5 Rf=1.000 : GL Max DL 1선
Lane= L5G1 Class=2 Lmin= 1 Lmax= 1 Sf=3.000
Name= 6 Rf=1.000 : GL Max DL 2선
Lane= L6G1 Class=2 Lmin= 1 Lmax= 1 Sf=6.000
Name= 7 Rf=1.000 : GR Max DL 1선
Lane= L7G1 Class=2 Lmin= 1 Lmax= 1 Sf=3.000
Name= 8 Rf=1.000 : GR Max DL 2선
Lane= L8G1 Class=2 Lmin= 1 Lmax= 1 Sf=6.000
COMBO
Name=GLXDB1 Type=ENVE : GL Max DB 1선
MOVE=1 sf=1.189
Name=GLXDB2 Type=ENVE : GL Max DB 2선
MOVE=2 sf=1.189
Name=GRXDB1 Type=ENVE : GR Max DB 1선
MOVE=3 sf=1.189
Name=GRXDB2 Type=ENVE : GR Max DB 2선
MOVE=4 sf=1.189
Name=GLXDL1 Type=ENVE : GL Max DL 1선
MOVE=5 sf=1.189
Name=GLXDL2 Type=ENVE : GL Max DL 2선
MOVE=6 sf=1.189
Name=GRXDL1 Type=ENVE : GR Max DL 1선
MOVE=7 sf=1.189
Name=GRXDL2 Type=ENVE : GR Max DL 2선
MOVE=8 sf=1.189
Name=DB Type=ENVE :
COMB=GLXDB1 sf=1.000
COMB=GLXDB2 sf=1.000
COMB=GRXDB1 sf=1.000
COMB=GRXDB2 sf=1.000
Name=DL Type=ENVE :
COMB=GLXDL1 sf=1.000
COMB=GLXDL2 sf=1.000
COMB=GRXDL1 sf=1.000
COMB=GRXDL2 sf=1.000
Name=CAR Type=ENVE :
COMB=DB sf=1.000
COMB=DL sf=1.000
Name=DESIGN Type=ENVE :
COMB=CAR sf=1.000

OUTPUT
ELEM=JOINT TYPE=DISP,REAC LOAD== COMB==
ELEM=FRAME TYPE=FORCE LOAD== COMB==

4) 부등침하

< UNEQUAL SETTLEMENT >

SYSTEM
LENGTH=M FORCE=KN

JOINT

1	X= 0.000	Y=0.000	Z=0.000
2	X= 4.400	Y=0.000	Z=-0.166
3	X= 9.400	Y=0.000	Z=-0.354
4	X= 14.400	Y=0.000	Z=-0.542
5	X= 19.400	Y=0.000	Z=-0.730
6	X= 24.400	Y=0.000	Z=-0.919
7	X= 29.400	Y=0.000	Z=-1.107
8	X= 34.400	Y=0.000	Z=-1.295
9	X= 39.400	Y=0.000	Z=-1.483
10	X= 44.400	Y=0.000	Z=-1.672
11	X= 49.400	Y=0.000	Z=-1.860
12	X= 54.400	Y=0.000	Z=-2.048
13	X= 59.400	Y=0.000	Z=-2.236
14	X= 64.400	Y=0.000	Z=-2.425
15	X= 69.400	Y=0.000	Z=-2.613
16	X= 74.400	Y=0.000	Z=-2.801
17	X= 79.400	Y=0.000	Z=-2.989
18	X= 84.400	Y=0.000	Z=-3.178
19	X= 89.400	Y=0.000	Z=-3.366
20	X= 94.400	Y=0.000	Z=-3.554
21	X= 99.400	Y=0.000	Z=-3.742
22	X= 104.400	Y=0.000	Z=-3.931
23	X= 109.400	Y=0.000	Z=-4.119
24	X= 114.400	Y=0.000	Z=-4.307
25	X= 119.400	Y=0.000	Z=-4.495
26	X= 124.400	Y=0.000	Z=-4.684
27	X= 128.800	Y=0.000	Z=-4.849
28	X= 0.000	Y=0.000	Z=-0.900
29	X= 0.000	Y=1.132	Z=-0.900
30	X= 0.000	Y=-1.132	Z=-0.900
31	X= 39.400	Y=0.000	Z=-2.483
32	X= 39.400	Y=1.132	Z=-2.483
33	X= 39.400	Y=-1.132	Z=-2.483
34	X= 89.400	Y=0.000	Z=-4.366
35	X= 89.400	Y=1.132	Z=-4.366
36	X= 89.400	Y=-1.132	Z=-4.366
37	X= 128.800	Y=0.000	Z=-5.749
38	X= 128.800	Y=1.132	Z=-5.749
39	X= 128.800	Y=-1.132	Z=-5.749

LOCAL

ADD= 29 ANG=0.000
ADD= 30 ANG=0.000
ADD= 32 ANG=0.000
ADD= 33 ANG=0.000
ADD= 35 ANG=0.000
ADD= 36 ANG=0.000
ADD= 38 ANG=0.000
ADD= 39 ANG=0.000

RESTRAINT

ADD= 29 DOF= U2, U3,
ADD= 30 DOF= U2, U3,
ADD= 32 DOF= U2, U3,
ADD= 33 DOF= U2, U3,
ADD= 35 DOF= U1, U2, U3,
ADD= 36 DOF= U1, U2, U3,
ADD= 38 DOF= U2, U3,
ADD= 39 DOF= U2, U3,

MATERIAL

Name=1
E=2.05e+008
Name=2
E=2.05e+008
Name=3

E=2.05e+008
Name=4
E=2.05e+008
Name=5
E=2.05e+008
Name=6
E=2.05e+008
Name=7
E=2.05e+008
Name=8
E=2.05e+008

FRAME SECTION

Name= 1	Mat= 1	A=0.44358	I=0.20529126,	2.02976600	J=0.23430317	: GIRDER
Name= 2	Mat= 2	A=0.44838	I=0.25328391,	2.04373615	J=0.27458622	: GIRDER
Name= 3	Mat= 3	A=0.46294	I=0.27691297,	2.05981233	J=0.29340872	: GIRDER
Name= 4	Mat= 4	A=0.50662	I=0.34514812,	2.10804087	J=0.33640465	: GIRDER
Name= 5	Mat= 5	A=0.51502	I=0.36684537,	2.11557734	J=0.33640465	: GIRDER
Name= 6	Mat= 6	A=0.59542	I=0.48135075,	2.23542654	J=0.46139340	: GIRDER
Name= 7	Mat= 7	A=0.50662	I=0.36626752,	2.10804087	J=0.33640465	: GIRDER
Name= 8	Mat= 8	A=10.00000	I=10.00000000,	10.00000000	J=10.00000000	: SHOE
Name= 9	Type=Nonpr	Sec= 1,	2	Elvar=-2.1		
Name= 10	Type=Nonpr	Sec= 2,	1			
Name= 11	Type=Nonpr	Sec= 2,	3			
Name= 12	Type=Nonpr	Sec= 2,	4			
Name= 13	Type=Nonpr	Sec= 3,	2			
Name= 14	Type=Nonpr	Sec= 3,	4			
Name= 15	Type=Nonpr	Sec= 4,	2			
Name= 16	Type=Nonpr	Sec= 4,	3			
Name= 17	Type=Nonpr	Sec= 4,	5			
Name= 18	Type=Nonpr	Sec= 4,	7			
Name= 19	Type=Nonpr	Sec= 5,	4			
Name= 20	Type=Nonpr	Sec= 5,	6			
Name= 21	Type=Nonpr	Sec= 6,	5			
Name= 22	Type=Nonpr	Sec= 6,	7			
Name= 23	Type=Nonpr	Sec= 7,	4			
Name= 24	Type=Nonpr	Sec= 7,	6			

FRAME

1	J= 1,	2	Sec= 9	Local=12	Pldir=Z,X	NSEG=4
2	J= 2,	3	Sec= 2			
3	J= 3,	4	Sec=11			
4	J= 4,	5	Sec= 3			
5	J= 5,	6	Sec=14			
6	J= 6,	7	Sec=17			
7	J= 7,	8	Sec=20			
8	J= 8,	9	Sec= 6			
9	J= 9,	10	Sec= 6			
10	J= 10,	11	Sec=22			
11	J= 11,	12	Sec=23			
12	J= 12,	13	Sec=15			
13	J= 13,	14	Sec= 2			
14	J= 14,	15	Sec= 2			
15	J= 15,	16	Sec=12			
16	J= 16,	17	Sec=18			
17	J= 17,	18	Sec=24			
18	J= 18,	19	Sec= 6			
19	J= 19,	20	Sec= 6			
20	J= 20,	21	Sec=21			
21	J= 21,	22	Sec=19			
22	J= 22,	23	Sec=16			
23	J= 23,	24	Sec= 3			
24	J= 24,	25	Sec=13			
25	J= 25,	26	Sec= 2			
26	J= 26,	27	Sec=10			
27	J= 1,	28	Sec= 8			
28	J= 29,	28	Sec= 8			
29	J= 30,	28	Sec= 8			
30	J= 9,	31	Sec= 8			
31	J= 32,	31	Sec= 8			
32	J= 33,	31	Sec= 8			
33	J= 19,	34	Sec= 8			
34	J= 35,	34	Sec= 8			

35 J= 36, 34 Sec= 8
36 J= 27, 37 Sec= 8
37 J= 38, 37 Sec= 8
38 J= 39, 37 Sec= 8

LOAD

Name=A1 : UNEQUAL SETTLEMENT
Type=RESTRAINT DISPLACEMENT
Add= 29 Uz=-0.010
Add= 30 Uz=-0.010

Name=P1 : UNEQUAL SETTLEMENT
Type=RESTRAINT DISPLACEMENT
Add= 32 Uz=-0.010
Add= 33 Uz=-0.010

Name=P2 : UNEQUAL SETTLEMENT
Type=RESTRAINT DISPLACEMENT
Add= 35 Uz=-0.010
Add= 36 Uz=-0.010

Name=A2 : UNEQUAL SETTLEMENT
Type=RESTRAINT DISPLACEMENT
Add= 38 Uz=-0.010
Add= 39 Uz=-0.010

COMBO

Name=2N1 Type=ENVE :
LOAD=A1 sf=1.000
LOAD=P1 sf=1.000

Name=2N2 Type=ENVE :
LOAD=A1 sf=1.000
LOAD=P2 sf=1.000

Name=2N3 Type=ENVE :
LOAD=A1 sf=1.000
LOAD=A2 sf=1.000

Name=2N4 Type=ENVE :
LOAD=P1 sf=1.000
LOAD=P2 sf=1.000

Name=2N5 Type=ENVE :
LOAD=P1 sf=1.000
LOAD=A2 sf=1.000

Name=2N6 Type=ENVE :
LOAD=P2 sf=1.000
LOAD=A2 sf=1.000

Name=3N1 Type=ENVE :
LOAD=A1 sf=1.000
LOAD=P1 sf=1.000
LOAD=P2 sf=1.000

Name=3N2 Type=ENVE :
LOAD=A1 sf=1.000
LOAD=P1 sf=1.000
LOAD=A2 sf=1.000

Name=3N3 Type=ENVE :
LOAD=A1 sf=1.000
LOAD=P2 sf=1.000
LOAD=A2 sf=1.000

Name=3N4 Type=ENVE :
LOAD=P1 sf=1.000
LOAD=P2 sf=1.000
LOAD=A2 sf=1.000

Name=2N Type=ENVE :
COMB=2N1 sf=1.000

COMB=2N2 sf=1.000
COMB=2N3 sf=1.000
COMB=2N4 sf=1.000
COMB=2N5 sf=1.000
COMB=2N6 sf=1.000

Name=3N Type=ENVE :
COMB=3N1 sf=1.000
COMB=3N2 sf=1.000
COMB=3N3 sf=1.000
COMB=3N4 sf=1.000

Name=SETTLE Type=ENVE :
LOAD=A1 sf=1.000
LOAD=P1 sf=1.000
LOAD=P2 sf=1.000
LOAD=A2 sf=1.000
COMB=2N sf=1.000
COMB=3N sf=1.000

OUTPUT

ELEM=JOINT	TYPE=DSP,REAC	LOAD=>	COMB=>
ELEM=FRAME	TYPE=FORCE	LOAD=>	COMB=>