INSTITUT TEKNOLOGI NASIONAL
Jl. Bendungan Sigura-gura 2
Jl. Raya Karanglo Km. 2
Malang

SEMINAR HASIL TUGAS AKHIR
PRODI TEKNIK SIPIL S-1

FORM REVISI / PERBAIKAN

NAMA : Ronald Febrianto
NIM : 1521125
JUDUL : Alternatif Perencanaan Struktur atas Jembatan Rangka Baja Tipe A-Half Through Arch dengan Metode LRFD pada Jembatan Cisadane, Kelurahan Gedang Barang, Bogor Jawa Barat

Perbaikan materi Seminar Hasil Tugas Akhir meliputi :

Perbaikan Laporan Seminar Hasil Tugas Akhir harus diselesaikan **selambatnya 14 hari** terhitung sejak pelaksanaan Seminar. **Bila melebihi 14 hari, maka tidak dapat diikutkan Ujian Skripsi.**

Malang, 5 Februari 2020
Dosen Pembahas

(A. Agus S.)

==

Revisi telah diperbaiki dan disetujui :

Malang, ____________ 2020
Dosen Pembimbing

(..............................)

Malang, ____________ 2020
Dosen Pembahas

1/09 2020

(..............................)

INSTITUT TEKNOLOGI NASIONAL
Jl. Bendungan Sigura-gura 2
Jl. Raya Karanglo Km. 2
Malang

UJIAN TUGAS AKHIR
PRODI TEKNIK SIPIL S-1

FORM REVISI / PERBAIKAN

BIDANG ..... Struktur

Nama : Ronald Febriando

NIM : 152125

Hari / tanggal : **Kamis, 6 Februari 2020**

Perbaikan materi Tugas Akhir meliputi :

Sempurnakan Lap. TA.

Perbaikan Tugas Akhir harus diselesaikan **selambatnya 14 hari** terhitung sejak pelaksanaan Ujian dilaksanakan. **Bila melebihi** masa 14 hari, maka **tidak dapat diikutkan Yudisium**.

Malang, 6 Februari 2020
Dosen Penguji

(.....)

Dosen Pembimbing

(.....)

Tugas Akhir telah diperbaiki dan disetujui :
Malang, .../...../.....
Dosen Penguji

1/09. 2020

(.....)

INSTITUT TEKNOLOGI NASIONAL
Jl. Bendungan Sigura-gura 2
Jl. Raya Karanglo Km. 2
Malang

SEMINAR HASIL TUGAS AKHIR
PRODI TEKNIK SIPIL S-1

FORM REVISI / PERBAIKAN

NAMA : RONALD FEBRIANTO
NIM : 15.21.125
JUDUL : .....
.....
.....

Perbaikan materi Seminar Hasil Tugas Akhir meliputi :

> Pahami Lendutan
> Pahami Pasal Sumpul

Perbaikan Laporan Seminar Hasil Tugas Akhir harus diselesaikan **selambatnya 14 hari** terhitung sejak pelaksanaan Seminar. **Bila melebihi 14 hari, maka tidak dapat diikutkan Ujian Skripsi.**

Malang, 5 Februari 2020
Dosen Pembahas

(.....)

Revisi telah diperbaiki dan disetujui :

Malang, _____ 2020
Dosen Pembimbing

(.....)

Malang, 12-9- 2020
Dosen Pembahas

(.....)

INSTITUT TEKNOLOGI NASIONAL
Jl. Bendungan Sigura-gura 2
Jl. Raya Karanglo Km. 2
Malang

UJIAN TUGAS AKHIR
PRODI TEKNIK SIPIL S-1

FORM REVISI / PERBAIKAN

BIDANG Struktur

Nama : Ronald Febrianto

NIM : 1521128

Hari / tanggal : **Kamis, 6 Februari 2020**

Perbaikan materi Tugas Akhir meliputi :

> Shear conektor ✓
> Sambungan
– menentukan jumlah baut
– M = ... ?
> Plat Simpul → kontrol ...
> Perbaiki Profil WF
> Meletakkan Elastomer

Perbaikan Tugas Akhir harus diselesaikan **selambatnya 14 hari** terhitung sejak pelaksanaan Ujian dilaksanakan. **Bila melebihi** masa 14 hari, maka **tidak dapat diikutkan Yudisium**.

Malang, 6 Februari 2020
Dosen Penguji

(..................................)

Tugas Akhir telah diperbaiki dan disetujui :
Malang, 12 / 9 / 2020
Dosen Penguji

(..................................)

Dosen Pembimbing

(..................................)

```
STAAD SPACE
START JOB INFORMATION
ENGINEER DATE 04-Jan-20
END JOB INFORMATION
INPUT WIDTH 79
UNIT METER KN
JOINT COORDINATES
1 0 0 0; 2 1 0 0; 3 2.75 0 0; 4 4.5 0 0; 5 6.25 0 0; 6 8 0 0; 7 9 0 0;
MEMBER INCIDENCES
1 1 2; 2 2 3; 3 3 4; 4 4 5; 5 5 6; 6 6 7;
DEFINE MATERIAL START
ISOTROPIC STEEL
E 2.05e+008
POISSON 0.3
DENSITY 76.8195
ALPHA 1.2e-005
DAMP 0.03
TYPE STEEL
STRENGTH FY 253200 FU 407800 RY 1.5 RT 1.2
END DEFINE MATERIAL
MEMBER PROPERTY JAPANESE
1 TO 6 TABLE ST H100X50X5X7
CONSTANTS
MATERIAL STEEL ALL
SUPPORTS
2 TO 6 PINNED
LOAD 1 LOADTYPE Dead  TITLE BEBAN MATI
MEMBER LOAD
1 6 UNI GY -19.4841
2 TO 5 UNI GY -10.2063
1 CON GY -1.905 0.15
6 CON GY -1.905 0.85
LOAD 2 LOADTYPE Live  TITLE BEBAN HIDUP
JOINT LOAD
6 MZ -14.71
2 MZ 14.71
MEMBER LOAD
2 3 CON GY -220.65 1.25
4 5 CON GY -220.65 0.5
1 6 UNI GY -8.82598
LOAD COMB 3 KOMBINASI
1 1.0 2 1.0
PERFORM ANALYSIS
PARAMETER 1
CODE LRFD
CHECK CODE ALL
FINISH
```

Job Information

	Engineer	Checked	Approved
Name:			
Date:	04-Jan-20		

Project ID	
Project Name	

Structure Type	SPACE FRAME

Number of Nodes	7	Highest Node	7
Number of Elements	6	Highest Beam	6

Number of Basic Load Cases	-2
Number of Combination Load Cases	1

Included in this printout are data for:

All	The Whole Structure

Included in this printout are results for load cases:

Type	L/C	Name
Primary	1	BEBAN MATI
Primary	2	BEBAN HIDUP
Combination	3	KOMBINASI

Nodes

Node	X (cm)	Y (cm)	Z (cm)
1	0.000	0.000	0.000
2	100.000	0.000	0.000
3	275.000	0.000	0.000
4	450.000	0.000	0.000
5	625.000	0.000	0.000
6	800.000	0.000	0.000
7	900.000	0.000	0.000

Beams

Beam	Node A	Node B	Length (cm)	Property	β (degrees)
1	1	2	100.000	1	0
2	2	3	175.000	1	0
3	3	4	175.000	1	0
4	4	5	175.000	1	0
5	5	6	175.000	1	0
6	6	7	100.000	1	0

Materials

Mat	Name	E (kN/mm^2)	ν	Density (kg/m^3)	α (/°C)
1	STEEL	205.000	0.300	7.83E+3	12E -6
2	STAINLESSSTEEL	197.930	0.300	7.83E+3	18E -6
3	ALUMINUM	68.948	0.330	2.71E+3	23E -6
4	CONCRETE	21.718	0.170	2.4E+3	10E -6

Supports

Node	X (kN/mm)	Y (kN/mm)	Z (kN/mm)	rX (kN-m/deg)	rY (kN-m/deg)	rZ (kN-m/deg)
2	Fixed	Fixed	Fixed	-	-	-
3	Fixed	Fixed	Fixed	-	-	-
4	Fixed	Fixed	Fixed	-	-	-
5	Fixed	Fixed	Fixed	-	-	-
6	Fixed	Fixed	Fixed	-	-	-

Section Properties

Prop	Section	Area (cm^2)	I_{yy} (cm^4)	I_{zz} (cm^4)	J (cm^4)	Material
1	H100X50X5X7	11.850	14.800	187.000	1.531	STEEL

Combination Load Cases

Comb.	Combination L/C Name	Primary	Primary L/C Name	Factor
3	KOMBINASI	1	BEBAN MATI	1.00
		2	BEBAN HIDUP	1.00

Beam Maximum Moments

Distances to maxima are given from beam end A.

Beam	Node A	Length (cm)	L/C		d (cm)	Max My (kg-m)	d (cm)	Max Mz (kg-m)
1	1	100.000	1:BEBAN MAT	Max +ve	0.000	0.000	100.000	1.16E+3
				Max -ve	0.000	0.000	0.000	0.000
			2:BEBAN HIDU	Max +ve	0.000	0.000	100.000	450.000
				Max -ve	0.000	0.000	0.000	-0.000
			3:KOMBINASI	Max +ve	0.000	0.000	100.000	1.61E+3
				Max -ve	0.000	0.000	0.000	-0.000
2	2	175.000	1:BEBAN MAT	Max +ve	0.000	0.000	0.000	1.16E+3
				Max -ve	0.000	0.000	145.833	-11.860
			2:BEBAN HIDU	Max +ve	0.000	0.000	175.000	4.34E+3
				Max -ve	0.000	0.000	116.667	-3.95E+3
			3:KOMBINASI	Max +ve	0.000	0.000	175.000	4.36E+3
				Max -ve	0.000	0.000	116.667	-3.91E+3
3	3	175.000	1:BEBAN MAT	Max +ve	0.000	0.000	175.000	385.097
				Max -ve	0.000	0.000	72.917	-215.415

Beam Maximum Moments Cont...

Beam	Node A	Length (cm)	L/C		d (cm)	Max My (kg-m)	d (cm)	Max Mz (kg-m)
			2:BEBAN HIDU	Max +ve	0.000	0.000	175.000	4.74E+3
				Max -ve	0.000	0.000	116.667	-2.89E+3
			3:KOMBINASI	Max +ve	0.000	0.000	175.000	5.13E+3
				Max -ve	0.000	0.000	116.667	-2.98E+3
4	4	175.000	1:BEBAN MATI	Max +ve	0.000	0.000	0.000	385.097
				Max -ve	0.000	0.000	102.083	-215.414
			2:BEBAN HIDU	Max +ve	0.000	0.000	0.000	4.74E+3
				Max -ve	0.000	0.000	58.333	-2.89E+3
			3:KOMBINASI	Max +ve	0.000	0.000	0.000	5.13E+3
				Max -ve	0.000	0.000	58.333	-2.98E+3
5	5	175.000	1:BEBAN MATI	Max +ve	0.000	0.000	175.000	1.16E+3
				Max -ve	0.000	0.000	29.167	-11.860
			2:BEBAN HIDU	Max +ve	0.000	0.000	0.000	4.34E+3
				Max -ve	0.000	0.000	58.333	-3.95E+3
			3:KOMBINASI	Max +ve	0.000	0.000	0.000	4.36E+3
				Max -ve	0.000	0.000	58.333	-3.91E+3
6	6	100.000	1:BEBAN MATI	Max +ve	0.000	0.000	0.000	1.16E+3
				Max -ve	0.000	0.000	100.000	-0.000
			2:BEBAN HIDU	Max +ve	0.000	0.000	0.000	450.000
				Max -ve	0.000	0.000		
			3:KOMBINASI	Max +ve	0.000	0.000	0.000	1.61E+3
				Max -ve	0.000	0.000		

Beam Force Detail

Sign convention as diagrams:- positive above line, negative below line except Fx where positive is compression. Distance d is given from beam end A.

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
1	1:BEBAN MATI	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		10.000	0.000	-237.534	0.000	0.000	0.000	11.685
		20.000	0.000	-591.621	0.000	0.000	0.000	51.105
		30.000	0.000	-790.304	0.000	0.000	0.000	120.201
		40.000	0.000	-988.986	0.000	0.000	0.000	208.614
		50.000	0.000	-1.19E+3	0.000	0.000	0.000	316.343
		60.000	0.000	-1.39E+3	0.000	0.000	0.000	446.148
		70.000	0.000	-1.59E+3	0.000	0.000	0.000	595.269
		80.000	0.000	-1.78E+3	0.000	0.000	0.000	763.706
		90.000	0.000	-1.98E+3	0.000	0.000	0.000	951.460
		100.000	-0.000	-2.18E+3	-0.000	-0.000	-0.000	1.16E+3
	2:BEBAN HIDU	0.000	0.000	-0.000	0.000	0.000	0.000	-0.000
		10.000	0.000	-90.000	0.000	0.000	0.000	5.000
		20.000	0.000	-180.000	0.000	0.000	0.000	18.750
		30.000	0.000	-270.000	0.000	0.000	0.000	41.250
		40.000	0.000	-360.000	0.000	0.000	0.000	72.500
		50.000	0.000	-450.000	0.000	0.000	0.000	112.500
		60.000	0.000	-540.000	0.000	0.000	0.000	162.500
		70.000	0.000	-630.000	0.000	0.000	0.000	221.250

Beam Force Detail Cont...

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
		80.000	0.000	-720.000	0.000	0.000	0.000	288.750
		90.000	0.000	-810.000	0.000	0.000	0.000	365.000
		100.000	-0.000	-900.000	-0.000	-0.000	-0.000	450.000
	3:KOMBINASI	0.000	0.000	0.000	0.000	0.000	0.000	-0.000
		10.000	0.000	-327.534	0.000	0.000	0.000	16.685
		20.000	0.000	-771.621	0.000	0.000	0.000	69.855
		30.000	0.000	-1.06E+3	0.000	0.000	0.000	161.451
		40.000	0.000	-1.35E+3	0.000	0.000	0.000	281.114
		50.000	0.000	-1.64E+3	0.000	0.000	0.000	428.843
		60.000	0.000	-1.93E+3	0.000	0.000	0.000	608.647
		70.000	0.000	-2.22E+3	0.000	0.000	0.000	816.519
		80.000	0.000	-2.5E+3	0.000	0.000	0.000	1.05E+3
		90.000	0.000	-2.79E+3	0.000	0.000	0.000	1.32E+3
		100.000	-0.000	-3.08E+3	-0.000	-0.000	-0.000	1.61E+3
2	1:BEBAN MATI	0.000	0.000	1.56E+3	0.000	0.000	0.000	1.16E+3
		17.500	0.000	1.38E+3	0.000	0.000	0.000	902.986
		35.000	0.000	1.2E+3	0.000	0.000	0.000	678.430
		52.500	0.000	1.02E+3	0.000	0.000	0.000	484.862
		70.000	0.000	832.909	0.000	0.000	0.000	322.281
		87.500	0.000	650.777	0.000	0.000	0.000	190.687
		105.000	0.000	468.645	0.000	0.000	0.000	94.509
		122.500	0.000	286.513	0.000	0.000	0.000	29.318
		140.000	0.000	104.381	0.000	0.000	0.000	-4.885
		157.500	0.000	-77.750	0.000	0.000	0.000	-8.101
		175.000	-0.000	-259.882	-0.000	-0.000	-0.000	19.671
	2:BEBAN HIDU	0.000	0.000	5.06E+3	0.000	0.000	0.000	1.95E+3
		17.500	0.000	5.06E+3	0.000	0.000	0.000	1.06E+3
		35.000	0.000	5.06E+3	0.000	0.000	0.000	178.712
		52.500	0.000	5.06E+3	0.000	0.000	0.000	-706.933
		70.000	0.000	5.06E+3	0.000	0.000	0.000	-1.59E+3
		87.500	0.000	5.06E+3	0.000	0.000	0.000	-2.48E+3
		105.000	0.000	5.06E+3	0.000	0.000	0.000	-3.36E+3
		122.500	0.000	-3.94E+3	0.000	0.000	0.000	-3.69E+3
		140.000	0.000	-17.4E+3	0.000	0.000	0.000	-1.76E+3
		157.500	0.000	-17.4E+3	0.000	0.000	0.000	1.29E+3
		175.000	-0.000	-17.4E+3	-0.000	-0.000	-0.000	4.34E+3
	3:KOMBINASI	0.000	0.000	6.62E+3	0.000	0.000	0.000	3.11E+3
		17.500	0.000	6.44E+3	0.000	0.000	0.000	1.97E+3
		35.000	0.000	6.26E+3	0.000	0.000	0.000	857.142
		52.500	0.000	6.08E+3	0.000	0.000	0.000	-222.072
		70.000	0.000	5.89E+3	0.000	0.000	0.000	-1.27E+3
		87.500	0.000	5.71E+3	0.000	0.000	0.000	-2.29E+3
		105.000	0.000	5.53E+3	0.000	0.000	0.000	-3.27E+3
		122.500	0.000	-3.65E+3	0.000	0.000	0.000	-3.66E+3
		140.000	0.000	-17.3E+3	0.000	0.000	0.000	-1.77E+3
		157.500	0.000	-17.5E+3	0.000	0.000	0.000	1.28E+3
		175.000	-0.000	-17.7E+3	-0.000	-0.000	-0.000	4.36E+3
3	1:BEBAN MATI	0.000	0.000	701.844	0.000	0.000	0.000	19.671

Beam Force Detail Cont...

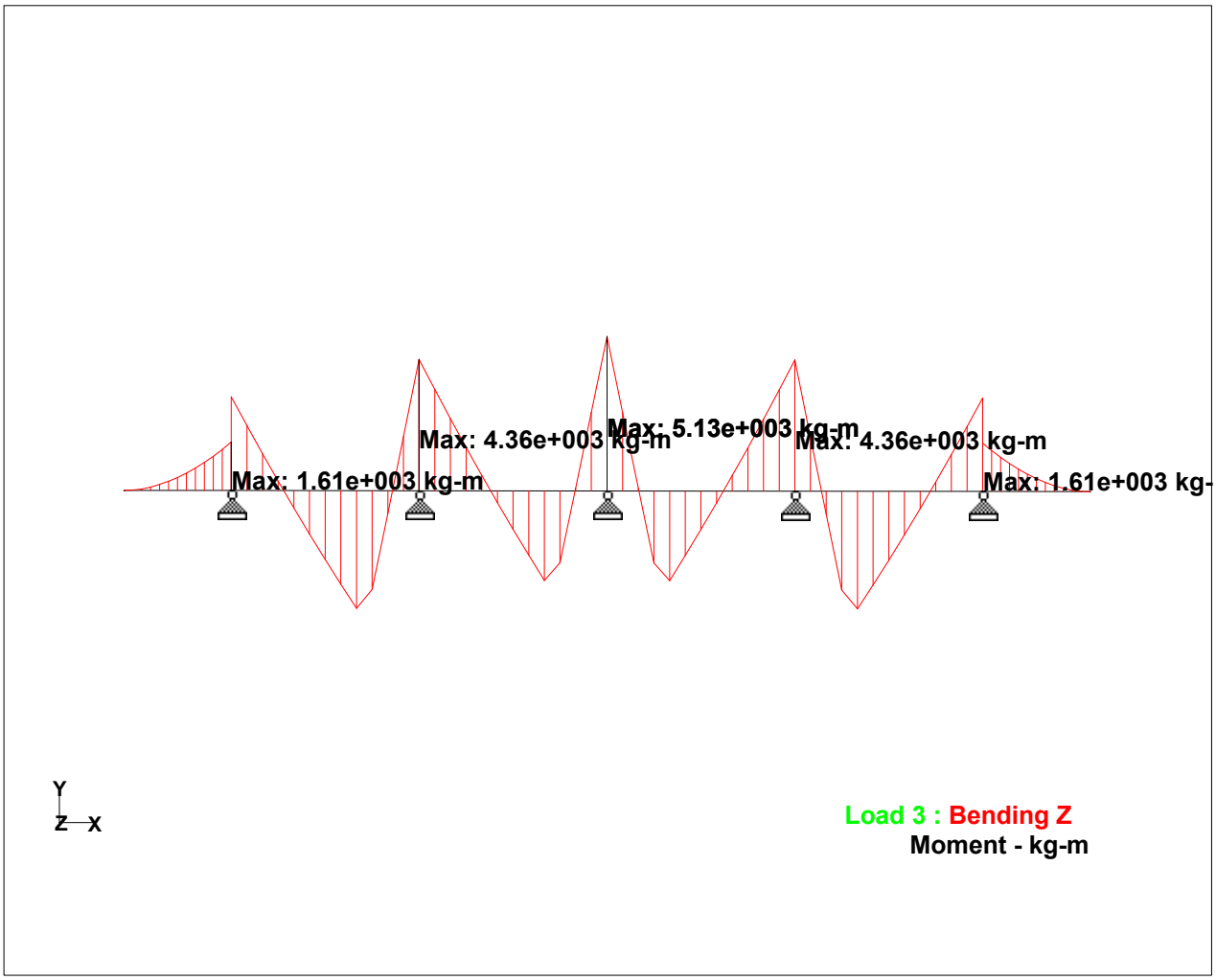
			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
		17.500	0.000	519.713	0.000	0.000	0.000	-85.444
		35.000	0.000	337.581	0.000	0.000	0.000	-159.572
		52.500	0.000	155.449	0.000	0.000	0.000	-202.712
		70.000	0.000	-26.683	0.000	0.000	0.000	-214.865
		87.500	0.000	-208.815	0.000	0.000	0.000	-196.029
		105.000	0.000	-390.947	0.000	0.000	0.000	-141.780
		122.500	0.000	-573.078	0.000	0.000	0.000	-56.542
		140.000	0.000	-755.210	0.000	0.000	0.000	59.683
		157.500	0.000	-937.342	0.000	0.000	0.000	206.896
		175.000	-0.000	-1.12E+3	-0.000	-0.000	-0.000	385.097
	2:BEBAN HIDL	0.000	0.000	6.2E+3	0.000	0.000	0.000	4.34E+3
		17.500	0.000	6.2E+3	0.000	0.000	0.000	3.26E+3
		35.000	0.000	6.2E+3	0.000	0.000	0.000	2.17E+3
		52.500	0.000	6.2E+3	0.000	0.000	0.000	1.09E+3
		70.000	0.000	6.2E+3	0.000	0.000	0.000	4.117
		87.500	0.000	6.2E+3	0.000	0.000	0.000	-1.08E+3
		105.000	0.000	6.2E+3	0.000	0.000	0.000	-2.17E+3
		122.500	0.000	-2.8E+3	0.000	0.000	0.000	-2.69E+3
		140.000	0.000	-16.3E+3	0.000	0.000	0.000	-960.324
		157.500	0.000	-16.3E+3	0.000	0.000	0.000	1.89E+3
		175.000	-0.000	-16.3E+3	-0.000	-0.000	-0.000	4.74E+3
	3:KOMBINASI	0.000	0.000	6.9E+3	0.000	0.000	0.000	4.36E+3
		17.500	0.000	6.72E+3	0.000	0.000	0.000	3.17E+3
		35.000	0.000	6.54E+3	0.000	0.000	0.000	2.01E+3
		52.500	0.000	6.35E+3	0.000	0.000	0.000	886.267
		70.000	0.000	6.17E+3	0.000	0.000	0.000	-210.748
		87.500	0.000	5.99E+3	0.000	0.000	0.000	-1.28E+3
		105.000	0.000	5.81E+3	0.000	0.000	0.000	-2.31E+3
		122.500	0.000	-3.37E+3	0.000	0.000	0.000	-2.74E+3
		140.000	0.000	-17.1E+3	0.000	0.000	0.000	-900.641
		157.500	0.000	-17.2E+3	0.000	0.000	0.000	2.1E+3
		175.000	-0.000	-17.4E+3	-0.000	-0.000	-0.000	5.13E+3
4	1:BEBAN MATI	0.000	0.000	1.12E+3	0.000	0.000	0.000	385.097
		17.500	0.000	937.342	0.000	0.000	0.000	206.896
		35.000	0.000	755.210	0.000	0.000	0.000	59.683
		52.500	0.000	573.078	0.000	0.000	0.000	-56.542
		70.000	0.000	390.947	0.000	0.000	0.000	-141.779
		87.500	0.000	208.815	0.000	0.000	0.000	-196.029
		105.000	0.000	26.683	0.000	0.000	0.000	-214.865
		122.500	0.000	-155.449	0.000	0.000	0.000	-202.712
		140.000	0.000	-337.580	0.000	0.000	0.000	-159.572
		157.500	0.000	-519.712	0.000	0.000	0.000	-85.444
		175.000	-0.000	-701.844	-0.000	-0.000	-0.000	19.671
	2:BEBAN HIDL	0.000	0.000	16.3E+3	0.000	0.000	0.000	4.74E+3
		17.500	0.000	16.3E+3	0.000	0.000	0.000	1.89E+3
		35.000	0.000	16.3E+3	0.000	0.000	0.000	-960.323
		52.500	0.000	2.8E+3	0.000	0.000	0.000	-2.69E+3
		70.000	0.000	-6.2E+3	0.000	0.000	0.000	-2.17E+3

Beam Force Detail Cont...

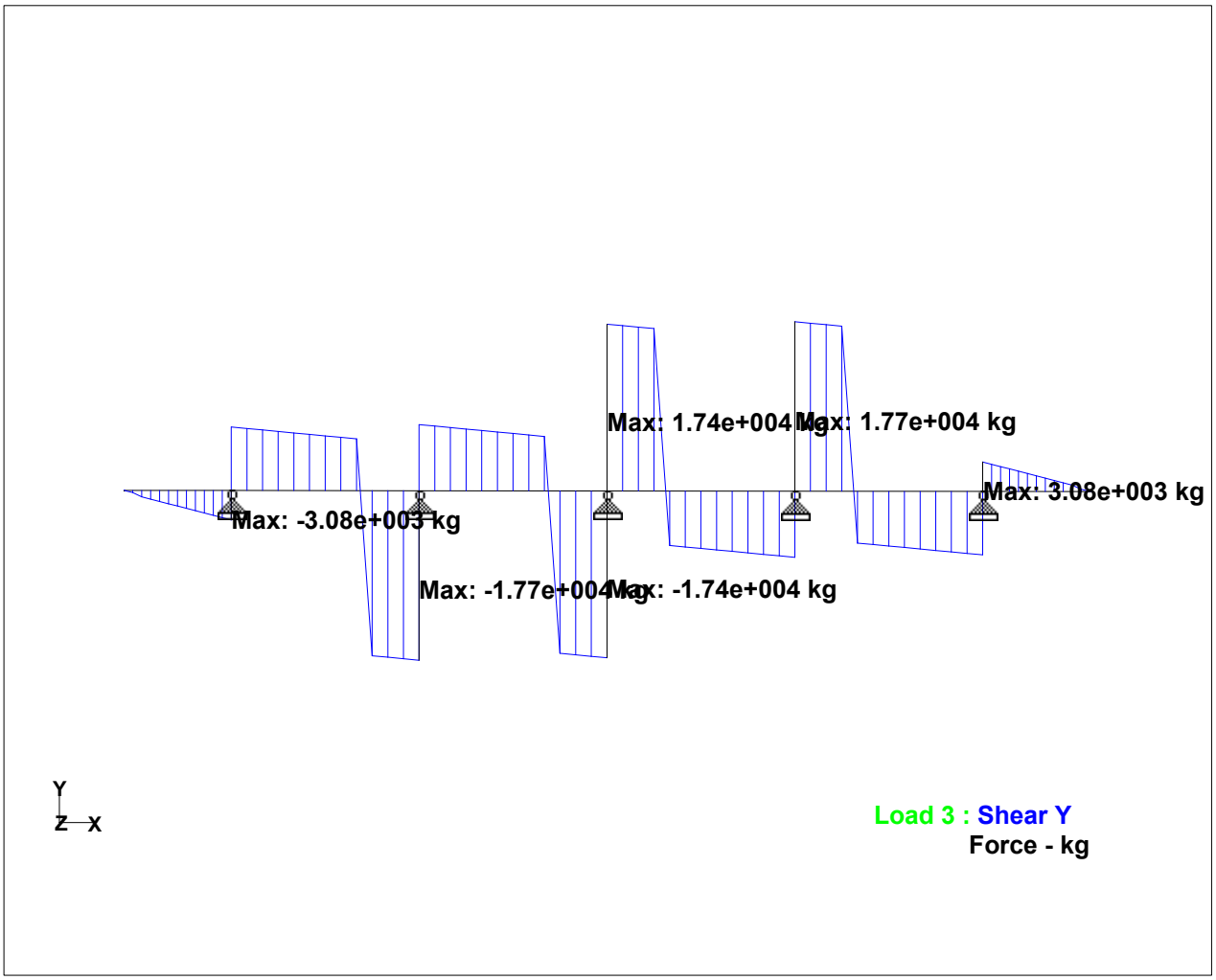
			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
		87.500	0.000	-6.2E+3	0.000	0.000	0.000	-1.08E+3
		105.000	0.000	-6.2E+3	0.000	0.000	0.000	4.119
		122.500	0.000	-6.2E+3	0.000	0.000	0.000	1.09E+3
		140.000	0.000	-6.2E+3	0.000	0.000	0.000	2.17E+3
		157.500	0.000	-6.2E+3	0.000	0.000	0.000	3.26E+3
		175.000	-0.000	-6.2E+3	-0.000	-0.000	-0.000	4.34E+3
	3:KOMBINASI	0.000	0.000	17.4E+3	0.000	0.000	0.000	5.13E+3
		17.500	0.000	17.2E+3	0.000	0.000	0.000	2.1E+3
		35.000	0.000	17.1E+3	0.000	0.000	0.000	-900.640
		52.500	0.000	3.37E+3	0.000	0.000	0.000	-2.74E+3
		70.000	0.000	-5.81E+3	0.000	0.000	0.000	-2.31E+3
		87.500	0.000	-5.99E+3	0.000	0.000	0.000	-1.28E+3
		105.000	0.000	-6.17E+3	0.000	0.000	0.000	-210.746
		122.500	0.000	-6.35E+3	0.000	0.000	0.000	886.267
		140.000	0.000	-6.54E+3	0.000	0.000	0.000	2.01E+3
		157.500	0.000	-6.72E+3	0.000	0.000	0.000	3.17E+3
		175.000	-0.000	-6.9E+3	-0.000	-0.000	-0.000	4.36E+3
5	1:BEBAN MATI	0.000	0.000	259.882	0.000	0.000	0.000	19.671
		17.500	0.000	77.750	0.000	0.000	0.000	-8.101
		35.000	0.000	-104.382	0.000	0.000	0.000	-4.886
		52.500	0.000	-286.513	0.000	0.000	0.000	29.318
		70.000	0.000	-468.645	0.000	0.000	0.000	94.509
		87.500	0.000	-650.777	0.000	0.000	0.000	190.687
		105.000	0.000	-832.909	0.000	0.000	0.000	322.281
		122.500	0.000	-1.02E+3	0.000	0.000	0.000	484.862
		140.000	0.000	-1.2E+3	0.000	0.000	0.000	678.430
		157.500	0.000	-1.38E+3	0.000	0.000	0.000	902.987
		175.000	-0.000	-1.56E+3	-0.000	-0.000	-0.000	1.16E+3
	2:BEBAN HIDU	0.000	0.000	17.4E+3	0.000	0.000	0.000	4.34E+3
		17.500	0.000	17.4E+3	0.000	0.000	0.000	1.29E+3
		35.000	0.000	17.4E+3	0.000	0.000	0.000	-1.76E+3
		52.500	0.000	3.94E+3	0.000	0.000	0.000	-3.69E+3
		70.000	0.000	-5.06E+3	0.000	0.000	0.000	-3.36E+3
		87.500	0.000	-5.06E+3	0.000	0.000	0.000	-2.48E+3
		105.000	0.000	-5.06E+3	0.000	0.000	0.000	-1.59E+3
		122.500	0.000	-5.06E+3	0.000	0.000	0.000	-706.935
		140.000	0.000	-5.06E+3	0.000	0.000	0.000	178.711
		157.500	0.000	-5.06E+3	0.000	0.000	0.000	1.06E+3
		175.000	-0.000	-5.06E+3	-0.000	-0.000	-0.000	1.95E+3
	3:KOMBINASI	0.000	0.000	17.7E+3	0.000	0.000	0.000	4.36E+3
		17.500	0.000	17.5E+3	0.000	0.000	0.000	1.28E+3
		35.000	0.000	17.3E+3	0.000	0.000	0.000	-1.77E+3
		52.500	0.000	3.65E+3	0.000	0.000	0.000	-3.66E+3
		70.000	0.000	-5.53E+3	0.000	0.000	0.000	-3.27E+3
		87.500	0.000	-5.71E+3	0.000	0.000	0.000	-2.29E+3
		105.000	0.000	-5.89E+3	0.000	0.000	0.000	-1.27E+3
		122.500	0.000	-6.08E+3	0.000	0.000	0.000	-222.073
		140.000	0.000	-6.26E+3	0.000	0.000	0.000	857.141

Beam Force Detail Cont...

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
		157.500	0.000	-6.44E+3	0.000	0.000	0.000	1.97E+3
		175.000	-0.000	-6.62E+3	-0.000	-0.000	-0.000	3.11E+3
6	1:BEBAN MAT	0.000	0.000	2.18E+3	0.000	0.000	0.000	1.16E+3
		10.000	0.000	1.98E+3	0.000	0.000	0.000	951.460
		20.000	0.000	1.78E+3	0.000	0.000	0.000	763.706
		30.000	0.000	1.59E+3	0.000	0.000	0.000	595.269
		40.000	0.000	1.39E+3	0.000	0.000	0.000	446.148
		50.000	0.000	1.19E+3	0.000	0.000	0.000	316.343
		60.000	0.000	988.987	0.000	0.000	0.000	208.614
		70.000	0.000	790.304	0.000	0.000	0.000	120.201
		80.000	0.000	591.621	0.000	0.000	0.000	51.105
		90.000	0.000	237.534	0.000	0.000	0.000	11.685
		100.000	-0.000	0.000	-0.000	-0.000	-0.000	-0.000
	2:BEBAN HIDU	0.000	0.000	900.000	0.000	0.000	0.000	450.000
		10.000	0.000	810.000	0.000	0.000	0.000	365.000
		20.000	0.000	720.000	0.000	0.000	0.000	288.750
		30.000	0.000	630.000	0.000	0.000	0.000	221.250
		40.000	0.000	540.000	0.000	0.000	0.000	162.500
		50.000	0.000	450.000	0.000	0.000	0.000	112.500
		60.000	0.000	360.000	0.000	0.000	0.000	72.500
		70.000	0.000	270.000	0.000	0.000	0.000	41.250
		80.000	0.000	180.000	0.000	0.000	0.000	18.750
		90.000	0.000	90.000	0.000	0.000	0.000	5.000
		100.000	-0.000	-0.000	-0.000	-0.000	-0.000	0.000
	3:KOMBINASI	0.000	0.000	3.08E+3	0.000	0.000	0.000	1.61E+3
		10.000	0.000	2.79E+3	0.000	0.000	0.000	1.32E+3
		20.000	0.000	2.5E+3	0.000	0.000	0.000	1.05E+3
		30.000	0.000	2.22E+3	0.000	0.000	0.000	816.519
		40.000	0.000	1.93E+3	0.000	0.000	0.000	608.648
		50.000	0.000	1.64E+3	0.000	0.000	0.000	428.843
		60.000	0.000	1.35E+3	0.000	0.000	0.000	281.114
		70.000	0.000	1.06E+3	0.000	0.000	0.000	161.451
		80.000	0.000	771.621	0.000	0.000	0.000	69.855
		90.000	0.000	327.534	0.000	0.000	0.000	16.685
		100.000	-0.000	0.000	-0.000	-0.000	-0.000	0.000



Whole Structure Mz 35.6901kg-m:1cm 3 KOMBINASI



Whole Structure Fy 112.169kg:1cm 3 KOMBINASI

```
STAAD SPACE
START JOB INFORMATION
ENGINEER DATE 16-Apr-19
END JOB INFORMATION
INPUT WIDTH 79
UNIT METER KG
JOINT COORDINATES
1 0 0 0; 2 1 0 0; 3 2.75001 0 0; 4 4.50001 0 0; 5 6.25001 0 0; 6 8.00002 0 0;
7 9.00002 0 0;
MEMBER INCIDENCES
1 1 2; 2 2 3; 3 3 4; 4 4 5; 5 5 6; 6 6 7;
DEFINE MATERIAL START
ISOTROPIC STEEL
E 2.03889e+010
POISSON 0.3
DENSITY 7833.37
ALPHA 6e-006
DAMP 0.03
TYPE STEEL
STRENGTH FY 2.53104e+007 FU 4.07779e+007 RY 1.5 RT 1.2
END DEFINE MATERIAL
MEMBER PROPERTY JAPANESE
1 TO 6 TABLE ST H100X50X5X7
CONSTANTS
MATERIAL STEEL ALL
SUPPORTS
2 TO 6 FIXED
LOAD 1 LOADTYPE Dead  TITLE BEBAN MATI
MEMBER LOAD
1 6 UNI GY -1986.8
2 TO 5 UNI GY -1040.8
1 CON GY -194.256 0.5
6 CON GY -194.256 0.85
LOAD 2 LOADTYPE Live REDUCIBLE TITLE BEBAN HIDUP
JOINT LOAD
6 MZ -1500
2 MZ 1500
MEMBER LOAD
2 3 CON GY -22500 0.5
4 5 CON GY -22500 1.25
1 6 UNI GY -900
LOAD COMB 3 COMBINATION LOAD CASE 3
1 1.0 2 1.0
PERFORM ANALYSIS
PARAMETER 1
CODE LRFD
CHECK CODE ALL
FINISH
```

Job Information

	Engineer	Checked	Approved
Name:			
Date:	16-Apr-19		

Project ID	
Project Name	

Structure Type	SPACE FRAME

Number of Nodes	7	Highest Node	7
Number of Elements	6	Highest Beam	6

Number of Basic Load Cases	-2
Number of Combination Load Cases	1

Included in this printout are data for:

All	The Whole Structure

Included in this printout are results for load cases:

Type	L/C	Name
Primary	1	BEBAN MATI
Primary	2	BEBAN HIDUP
Combination	3	COMBINATION LOAD CASE 3

Nodes

Node	X (cm)	Y (cm)	Z (cm)
1	0.000	0.000	0.000
2	100.000	0.000	0.000
3	275.001	0.000	0.000
4	450.001	0.000	0.000
5	625.001	0.000	0.000
6	800.002	0.000	0.000
7	900.002	0.000	0.000

Beams

Beam	Node A	Node B	Length (cm)	Property	β (degrees)
1	1	2	100.000	1	0
2	2	3	175.001	1	0
3	3	4	175.000	1	0
4	4	5	175.000	1	0
5	5	6	175.001	1	0
6	6	7	100.000	1	0

Section Properties

Prop	Section	Area (cm^2)	I_{yy} (cm^4)	I_{zz} (cm^4)	J (cm^4)	Material
1	H100X50X5X7	11.850	14.800	187.000	1.531	STEEL

Materials

Mat	Name	E (kN/mm^2)	ν	Density (kg/m^3)	α (/°C)
1	STEEL	199.947	0.300	7.83E+3	6E -6
2	STAINLESSSTEEL	197.930	0.300	7.83E+3	18E -6
3	ALUMINUM	68.948	0.330	2.71E+3	23E -6
4	CONCRETE	21.718	0.170	2.4E+3	10E -6

Supports

Node	X (kN/mm)	Y (kN/mm)	Z (kN/mm)	rX (kN-m/deg)	rY (kN-m/deg)	rZ (kN-m/deg)
2	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
3	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
4	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
5	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
6	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed

Combination Load Cases

Comb.	Combination L/C Name	Primary	Primary L/C Name	Factor
3	COMBINATION LOAD CASE 3	1	BEBAN MATI	1.00
		2	BEBAN HIDUP	1.00

Beam Force Detail

Sign convention as diagrams:- positive above line, negative below line except Fx where positive is compression. Distance d is given from beam end A.

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
1	1:BEBAN MATI	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		10.000	0.000	-198.680	0.000	0.000	0.000	11.038
		20.000	0.000	-397.360	0.000	0.000	0.000	41.392
		30.000	0.000	-596.040	0.000	0.000	0.000	91.062
		40.000	0.000	-794.720	0.000	0.000	0.000	160.048
		50.000	0.000	-993.400	0.000	0.000	0.000	248.350
		60.000	0.000	-1.39E+3	0.000	0.000	0.000	378.153
		70.000	0.000	-1.59E+3	0.000	0.000	0.000	527.273
		80.000	0.000	-1.78E+3	0.000	0.000	0.000	695.709
		90.000	0.000	-1.98E+3	0.000	0.000	0.000	883.460
		100.000	-0.000	-2.18E+3	-0.000	-0.000	-0.000	1.09E+3
	2:BEBAN HIDU	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Beam Force Detail Cont...

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
		10.000	0.000	-90.000	0.000	0.000	0.000	5.000
		20.000	0.000	-180.000	0.000	0.000	0.000	18.750
		30.000	0.000	-270.000	0.000	0.000	0.000	41.250
		40.000	0.000	-360.000	0.000	0.000	0.000	72.500
		50.000	0.000	-450.000	0.000	0.000	0.000	112.500
		60.000	0.000	-540.000	0.000	0.000	0.000	162.500
		70.000	0.000	-630.000	0.000	0.000	0.000	221.250
		80.000	0.000	-720.000	0.000	0.000	0.000	288.750
		90.000	0.000	-810.000	0.000	0.000	0.000	365.000
		100.000	-0.000	-900.000	-0.000	-0.000	-0.000	450.000
	3:COMBINATIC	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		10.000	0.000	-288.680	0.000	0.000	0.000	16.038
		20.000	0.000	-577.360	0.000	0.000	0.000	60.142
		30.000	0.000	-866.040	0.000	0.000	0.000	132.312
		40.000	0.000	-1.15E+3	0.000	0.000	0.000	232.548
		50.000	0.000	-1.44E+3	0.000	0.000	0.000	360.850
		60.000	0.000	-1.93E+3	0.000	0.000	0.000	540.653
		70.000	0.000	-2.22E+3	0.000	0.000	0.000	748.523
		80.000	0.000	-2.5E+3	0.000	0.000	0.000	984.459
		90.000	0.000	-2.79E+3	0.000	0.000	0.000	1.25E+3
		100.000	-0.000	-3.08E+3	-0.000	-0.000	-0.000	1.54E+3
2	1:BEBAN MATI	0.000	0.000	910.705	0.000	0.000	0.000	265.624
		17.500	0.000	728.564	0.000	0.000	0.000	123.958
		35.000	0.000	546.423	0.000	0.000	0.000	13.281
		52.500	0.000	364.282	0.000	0.000	0.000	-66.406
		70.000	0.000	182.141	0.000	0.000	0.000	-115.104
		87.501	0.000	-0.000	0.000	0.000	0.000	-132.812
		105.001	0.000	-182.141	0.000	0.000	0.000	-115.104
		122.501	0.000	-364.282	0.000	0.000	0.000	-66.406
		140.001	0.000	-546.423	0.000	0.000	0.000	13.281
		157.501	0.000	-728.565	0.000	0.000	0.000	123.958
		175.001	-0.000	-910.706	-0.000	-0.000	-0.000	265.624
	2:BEBAN HIDU	0.000	0.000	18E+3	0.000	0.000	0.000	5.74E+3
		17.500	0.000	18E+3	0.000	0.000	0.000	2.58E+3
		35.000	0.000	18E+3	0.000	0.000	0.000	-574.006
		52.500	0.000	4.54E+3	0.000	0.000	0.000	-2.61E+3
		70.000	0.000	-4.46E+3	0.000	0.000	0.000	-2.39E+3
		87.501	0.000	-4.46E+3	0.000	0.000	0.000	-1.61E+3
		105.001	0.000	-4.46E+3	0.000	0.000	0.000	-826.525
		122.501	0.000	-4.46E+3	0.000	0.000	0.000	-45.916
		140.001	0.000	-4.46E+3	0.000	0.000	0.000	734.692
		157.501	0.000	-4.46E+3	0.000	0.000	0.000	1.52E+3
		175.001	-0.000	-4.46E+3	-0.000	-0.000	-0.000	2.3E+3
	3:COMBINATIC	0.000	0.000	19E+3	0.000	0.000	0.000	6.01E+3
		17.500	0.000	18.8E+3	0.000	0.000	0.000	2.71E+3
		35.000	0.000	18.6E+3	0.000	0.000	0.000	-560.724
		52.500	0.000	4.9E+3	0.000	0.000	0.000	-2.67E+3
		70.000	0.000	-4.28E+3	0.000	0.000	0.000	-2.5E+3

Beam Force Detail Cont...

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
		87.501	0.000	-4.46E+3	0.000	0.000	0.000	-1.74E+3
		105.001	0.000	-4.64E+3	0.000	0.000	0.000	-941.629
		122.501	0.000	-4.82E+3	0.000	0.000	0.000	-112.322
		140.001	0.000	-5.01E+3	0.000	0.000	0.000	747.973
		157.501	0.000	-5.19E+3	0.000	0.000	0.000	1.64E+3
		175.001	-0.000	-5.37E+3	-0.000	-0.000	-0.000	2.56E+3
3	1:BEBAN MATI	0.000	0.000	910.700	0.000	0.000	0.000	265.621
		17.500	0.000	728.560	0.000	0.000	0.000	123.956
		35.000	0.000	546.420	0.000	0.000	0.000	13.281
		52.500	0.000	364.280	0.000	0.000	0.000	-66.405
		70.000	0.000	182.140	0.000	0.000	0.000	-115.102
		87.500	0.000	0.000	0.000	0.000	0.000	-132.811
		105.000	0.000	-182.140	0.000	0.000	0.000	-115.103
		122.500	0.000	-364.280	0.000	0.000	0.000	-66.405
		140.000	0.000	-546.420	0.000	0.000	0.000	13.281
		157.500	0.000	-728.560	0.000	0.000	0.000	123.956
		175.000	-0.000	-910.700	-0.000	-0.000	-0.000	265.621
	2:BEBAN HIDU	0.000	0.000	18E+3	0.000	0.000	0.000	5.74E+3
		17.500	0.000	18E+3	0.000	0.000	0.000	2.58E+3
		35.000	0.000	18E+3	0.000	0.000	0.000	-573.980
		52.500	0.000	4.54E+3	0.000	0.000	0.000	-2.61E+3
		70.000	0.000	-4.46E+3	0.000	0.000	0.000	-2.39E+3
		87.500	0.000	-4.46E+3	0.000	0.000	0.000	-1.61E+3
		105.000	0.000	-4.46E+3	0.000	0.000	0.000	-826.531
		122.500	0.000	-4.46E+3	0.000	0.000	0.000	-45.918
		140.000	0.000	-4.46E+3	0.000	0.000	0.000	734.695
		157.500	0.000	-4.46E+3	0.000	0.000	0.000	1.52E+3
		175.000	-0.000	-4.46E+3	-0.000	-0.000	-0.000	2.3E+3
	3:COMBINATIO	0.000	0.000	19E+3	0.000	0.000	0.000	6.01E+3
		17.500	0.000	18.8E+3	0.000	0.000	0.000	2.71E+3
		35.000	0.000	18.6E+3	0.000	0.000	0.000	-560.699
		52.500	0.000	4.9E+3	0.000	0.000	0.000	-2.67E+3
		70.000	0.000	-4.28E+3	0.000	0.000	0.000	-2.5E+3
		87.500	0.000	-4.46E+3	0.000	0.000	0.000	-1.74E+3
		105.000	0.000	-4.64E+3	0.000	0.000	0.000	-941.634
		122.500	0.000	-4.82E+3	0.000	0.000	0.000	-112.324
		140.000	0.000	-5.01E+3	0.000	0.000	0.000	747.976
		157.500	0.000	-5.19E+3	0.000	0.000	0.000	1.64E+3
		175.000	-0.000	-5.37E+3	-0.000	-0.000	-0.000	2.56E+3
4	1:BEBAN MATI	0.000	0.000	910.700	0.000	0.000	0.000	265.621
		17.500	0.000	728.560	0.000	0.000	0.000	123.956
		35.000	0.000	546.420	0.000	0.000	0.000	13.281
		52.500	0.000	364.280	0.000	0.000	0.000	-66.405
		70.000	0.000	182.140	0.000	0.000	0.000	-115.102
		87.500	0.000	0.000	0.000	0.000	0.000	-132.810
		105.000	0.000	-182.140	0.000	0.000	0.000	-115.102
		122.500	0.000	-364.280	0.000	0.000	0.000	-66.405
		140.000	0.000	-546.420	0.000	0.000	0.000	13.281

Beam Force Detail Cont...

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
		157.500	0.000	-728.560	0.000	0.000	0.000	123.956
		175.000	-0.000	-910.700	-0.000	-0.000	-0.000	265.621
	2:BEBAN HIDU	0.000	0.000	4.46E+3	0.000	0.000	0.000	2.3E+3
		17.500	0.000	4.46E+3	0.000	0.000	0.000	1.52E+3
		35.000	0.000	4.46E+3	0.000	0.000	0.000	734.694
		52.500	0.000	4.46E+3	0.000	0.000	0.000	-45.918
		70.000	0.000	4.46E+3	0.000	0.000	0.000	-826.529
		87.500	0.000	4.46E+3	0.000	0.000	0.000	-1.61E+3
		105.000	0.000	4.46E+3	0.000	0.000	0.000	-2.39E+3
		122.500	0.000	-4.54E+3	0.000	0.000	0.000	-2.61E+3
		140.000	0.000	-18E+3	0.000	0.000	0.000	-573.982
		157.500	0.000	-18E+3	0.000	0.000	0.000	2.58E+3
		175.000	-0.000	-18E+3	-0.000	-0.000	-0.000	5.74E+3
	3:COMBINATIC	0.000	0.000	5.37E+3	0.000	0.000	0.000	2.56E+3
		17.500	0.000	5.19E+3	0.000	0.000	0.000	1.64E+3
		35.000	0.000	5.01E+3	0.000	0.000	0.000	747.975
		52.500	0.000	4.82E+3	0.000	0.000	0.000	-112.323
		70.000	0.000	4.64E+3	0.000	0.000	0.000	-941.632
		87.500	0.000	4.46E+3	0.000	0.000	0.000	-1.74E+3
		105.000	0.000	4.28E+3	0.000	0.000	0.000	-2.5E+3
		122.500	0.000	-4.9E+3	0.000	0.000	0.000	-2.67E+3
		140.000	0.000	-18.6E+3	0.000	0.000	0.000	-560.701
		157.500	0.000	-18.8E+3	0.000	0.000	0.000	2.71E+3
		175.000	-0.000	-19E+3	-0.000	-0.000	-0.000	6.01E+3
5	1:BEBAN MATI	0.000	0.000	910.706	0.000	0.000	0.000	265.624
		17.500	0.000	728.564	0.000	0.000	0.000	123.958
		35.000	0.000	546.423	0.000	0.000	0.000	13.281
		52.500	0.000	364.282	0.000	0.000	0.000	-66.406
		70.000	0.000	182.141	0.000	0.000	0.000	-115.104
		87.501	0.000	0.000	0.000	0.000	0.000	-132.812
		105.001	0.000	-182.141	0.000	0.000	0.000	-115.104
		122.501	0.000	-364.282	0.000	0.000	0.000	-66.406
		140.001	0.000	-546.423	0.000	0.000	0.000	13.281
		157.501	0.000	-728.564	0.000	0.000	0.000	123.958
		175.001	-0.000	-910.706	-0.000	-0.000	-0.000	265.624
	2:BEBAN HIDU	0.000	0.000	4.46E+3	0.000	0.000	0.000	2.3E+3
		17.500	0.000	4.46E+3	0.000	0.000	0.000	1.52E+3
		35.000	0.000	4.46E+3	0.000	0.000	0.000	734.712
		52.500	0.000	4.46E+3	0.000	0.000	0.000	-45.925
		70.000	0.000	4.46E+3	0.000	0.000	0.000	-826.562
		87.501	0.000	4.46E+3	0.000	0.000	0.000	-1.61E+3
		105.001	0.000	4.46E+3	0.000	0.000	0.000	-2.39E+3
		122.501	0.000	-4.54E+3	0.000	0.000	0.000	-2.61E+3
		140.001	0.000	-18E+3	0.000	0.000	0.000	-573.928
		157.501	0.000	-18E+3	0.000	0.000	0.000	2.58E+3
		175.001	-0.000	-18E+3	-0.000	-0.000	-0.000	5.74E+3
	3:COMBINATIC	0.000	0.000	5.37E+3	0.000	0.000	0.000	2.56E+3
		17.500	0.000	5.19E+3	0.000	0.000	0.000	1.64E+3

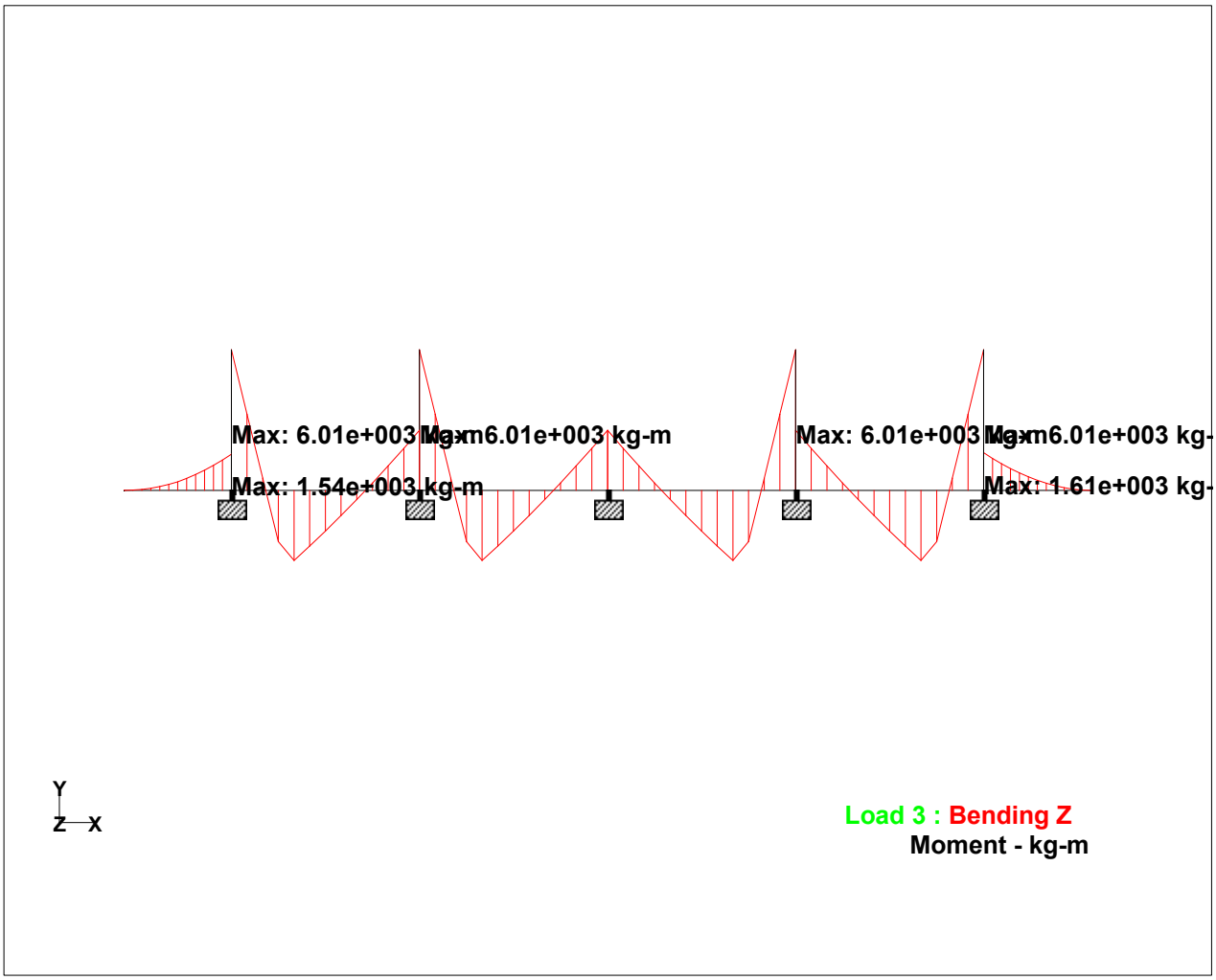
Beam Force Detail Cont...

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
		35.000	0.000	5.01E+3	0.000	0.000	0.000	747.993
		52.500	0.000	4.83E+3	0.000	0.000	0.000	-112.332
		70.000	0.000	4.64E+3	0.000	0.000	0.000	-941.666
		87.501	0.000	4.46E+3	0.000	0.000	0.000	-1.74E+3
		105.001	0.000	4.28E+3	0.000	0.000	0.000	-2.5E+3
		122.501	0.000	-4.9E+3	0.000	0.000	0.000	-2.67E+3
		140.001	0.000	-18.6E+3	0.000	0.000	0.000	-560.647
		157.501	0.000	-18.8E+3	0.000	0.000	0.000	2.71E+3
		175.001	-0.000	-18.9E+3	-0.000	-0.000	-0.000	6.01E+3
6	1:BEBAN MAT	0.000	0.000	2.18E+3	0.000	0.000	0.000	1.16E+3
		10.000	0.000	1.98E+3	0.000	0.000	0.000	951.450
		20.000	0.000	1.78E+3	0.000	0.000	0.000	763.698
		30.000	0.000	1.59E+3	0.000	0.000	0.000	595.263
		40.000	0.000	1.39E+3	0.000	0.000	0.000	446.143
		50.000	0.000	1.19E+3	0.000	0.000	0.000	316.340
		60.000	0.000	988.976	0.000	0.000	0.000	208.612
		70.000	0.000	790.296	0.000	0.000	0.000	120.200
		80.000	0.000	591.616	0.000	0.000	0.000	51.105
		90.000	0.000	237.531	0.000	0.000	0.000	11.685
		100.000	-0.000	0.000	-0.000	-0.000	-0.000	-0.000
	2:BEBAN HIDU	0.000	0.000	900.000	0.000	0.000	0.000	450.000
		10.000	0.000	810.000	0.000	0.000	0.000	365.000
		20.000	0.000	720.000	0.000	0.000	0.000	288.750
		30.000	0.000	630.000	0.000	0.000	0.000	221.250
		40.000	0.000	540.000	0.000	0.000	0.000	162.500
		50.000	0.000	450.000	0.000	0.000	0.000	112.500
		60.000	0.000	360.000	0.000	0.000	0.000	72.500
		70.000	0.000	270.000	0.000	0.000	0.000	41.250
		80.000	0.000	180.000	0.000	0.000	0.000	18.750
		90.000	0.000	90.000	0.000	0.000	0.000	5.000
		100.000	-0.000	0.000	-0.000	-0.000	-0.000	-0.000
	3:COMBINATIO	0.000	0.000	3.08E+3	0.000	0.000	0.000	1.61E+3
		10.000	0.000	2.79E+3	0.000	0.000	0.000	1.32E+3
		20.000	0.000	2.5E+3	0.000	0.000	0.000	1.05E+3
		30.000	0.000	2.22E+3	0.000	0.000	0.000	816.513
		40.000	0.000	1.93E+3	0.000	0.000	0.000	608.643
		50.000	0.000	1.64E+3	0.000	0.000	0.000	428.840
		60.000	0.000	1.35E+3	0.000	0.000	0.000	281.112
		70.000	0.000	1.06E+3	0.000	0.000	0.000	161.450
		80.000	0.000	771.616	0.000	0.000	0.000	69.855
		90.000	0.000	327.531	0.000	0.000	0.000	16.685
		100.000	-0.000	0.000	-0.000	-0.000	-0.000	-0.000

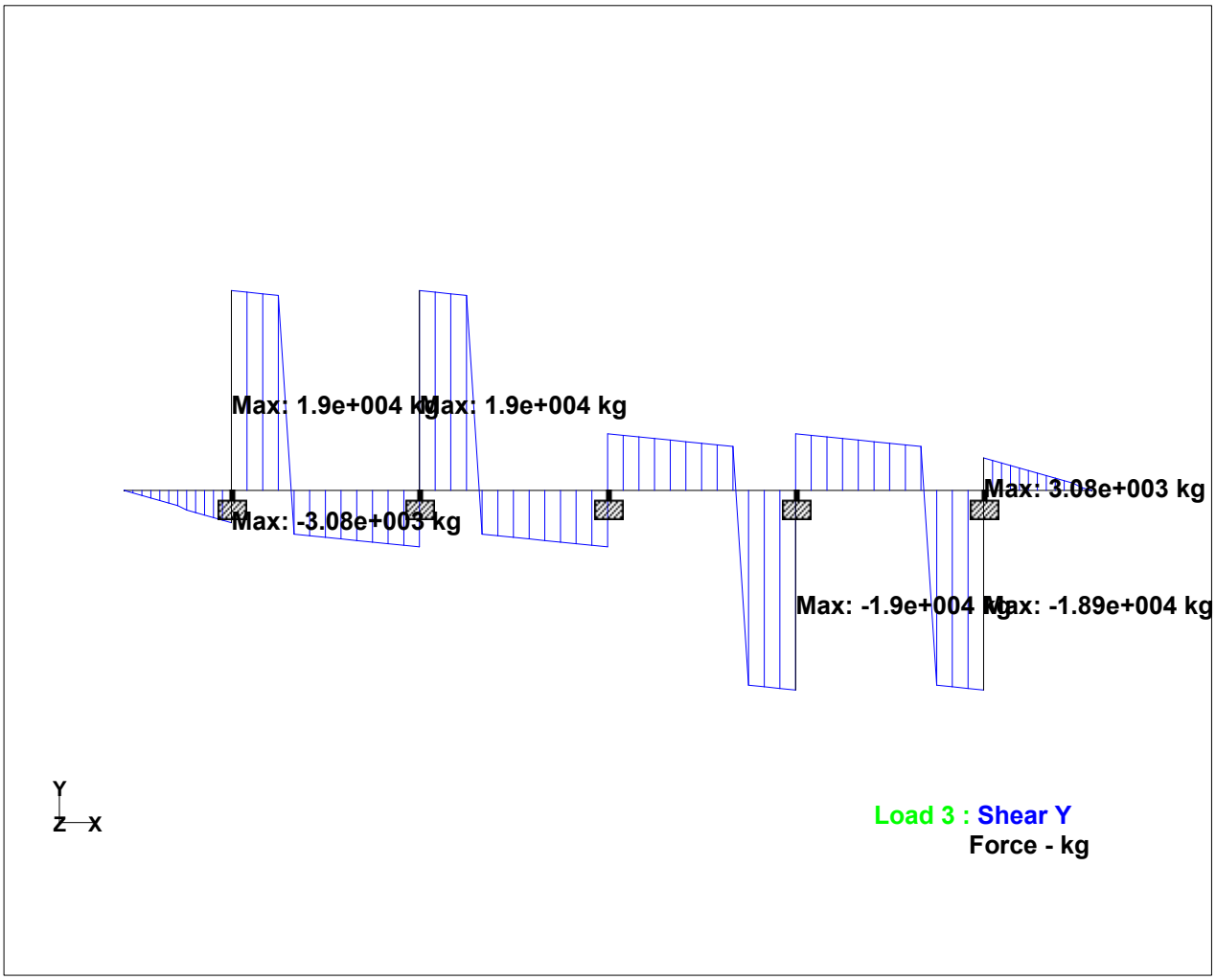
Beam Maximum Moments

Distances to maxima are given from beam end A.

Beam	Node A	Length (cm)	L/C		d (cm)	Max My (kg-m)	d (cm)	Max Mz (kg-m)
1	1	100.000	1:BEBAN MAT	Max +ve	0.000	0.000	100.000	1.09E+3
				Max -ve	0.000	0.000		
			2:BEBAN HIDU	Max +ve	0.000	0.000	100.000	450.000
				Max -ve	0.000	0.000	0.000	0.000
			3:COMBINATIC	Max +ve	0.000	0.000	100.000	1.54E+3
				Max -ve	0.000	0.000		
2	2	175.001	1:BEBAN MAT	Max +ve	0.000	0.000	175.001	265.624
				Max -ve	0.000	0.000	87.501	-132.812
			2:BEBAN HIDU	Max +ve	0.000	0.000	0.000	5.74E+3
				Max -ve	0.000	0.000	58.334	-2.91E+3
			3:COMBINATIC	Max +ve	0.000	0.000	0.000	6.01E+3
				Max -ve	0.000	0.000	58.334	-3E+3
3	3	175.000	1:BEBAN MAT	Max +ve	0.000	0.000	0.000	265.621
				Max -ve	0.000	0.000	87.500	-132.811
			2:BEBAN HIDU	Max +ve	0.000	0.000	0.000	5.74E+3
				Max -ve	0.000	0.000	58.333	-2.91E+3
			3:COMBINATIC	Max +ve	0.000	0.000	0.000	6.01E+3
				Max -ve	0.000	0.000	58.333	-3E+3
4	4	175.000	1:BEBAN MAT	Max +ve	0.000	0.000	0.000	265.621
				Max -ve	0.000	0.000	87.500	-132.810
			2:BEBAN HIDU	Max +ve	0.000	0.000	175.000	5.74E+3
				Max -ve	0.000	0.000	116.667	-2.91E+3
			3:COMBINATIC	Max +ve	0.000	0.000	175.000	6.01E+3
				Max -ve	0.000	0.000	116.667	-3E+3
5	5	175.001	1:BEBAN MAT	Max +ve	0.000	0.000	0.000	265.624
				Max -ve	0.000	0.000	87.501	-132.812
			2:BEBAN HIDU	Max +ve	0.000	0.000	175.001	5.74E+3
				Max -ve	0.000	0.000	116.667	-2.91E+3
			3:COMBINATIC	Max +ve	0.000	0.000	175.001	6.01E+3
				Max -ve	0.000	0.000	116.667	-3E+3
6	6	100.000	1:BEBAN MAT	Max +ve	0.000	0.000	0.000	1.16E+3
				Max -ve	0.000	0.000	100.000	-0.000
			2:BEBAN HIDU	Max +ve	0.000	0.000	0.000	450.000
				Max -ve	0.000	0.000	100.000	-0.000
			3:COMBINATIC	Max +ve	0.000	0.000	0.000	1.61E+3
				Max -ve	0.000	0.000	100.000	-0.000



Whole Structure Mz 45.8872kg-m:1cm 3 COMBINATION LOAD CASE 3



Whole Structure Fy 101.972kg:1cm 3 COMBINATION LOAD CASE 3

```
STAAD PLANE
START JOB INFORMATION
ENGINEER DATE 16-Apr-19
END JOB INFORMATION
INPUT WIDTH 79
UNIT METER KG
JOINT COORDINATES
1 0 0 0; 2 1 0 0; 3 2.75001 0 0; 4 4.50001 0 0; 5 6.25001 0 0; 6 8.00002 0 0;
7 9.00002 0 0;
MEMBER INCIDENCES
1 1 2; 2 2 3; 3 3 4; 4 4 5; 5 5 6; 6 6 7;
DEFINE MATERIAL START
ISOTROPIC STEEL
E 2.03889e+010
POISSON 0.3
DENSITY 7833.37
ALPHA 6e-006
DAMP 0.03
TYPE STEEL
STRENGTH FY 2.53104e+007 FU 4.07779e+007 RY 1.5 RT 1.2
END DEFINE MATERIAL
MEMBER PROPERTY JAPANESE
1 TO 6 TABLE ST H100X50X5X7
CONSTANTS
MATERIAL STEEL ALL
SUPPORTS
2 TO 6 PINNED
LOAD 1 LOADTYPE Dead  TITLE BEBAN MATI
MEMBER LOAD
1 6 UNI GY -1986.8
2 TO 5 UNI GY -1040.8
1 CON GY -194.256 0.15
6 CON GY -194.256 0.85
LOAD 2 LOADTYPE Live REDUCIBLE TITLE BEBAN HIDUP
JOINT LOAD
6 MZ -1500
2 MZ 1500
MEMBER LOAD
2 3 CON GY -22500 0.8
4 5 CON GY -22500 0.95
1 6 UNI GY -900
LOAD COMB 3 COMBINATION LOAD CASE 3
1 1.0 2 1.0
PERFORM ANALYSIS
PARAMETER 1
CODE AISC UNIFIED 2010
CHECK CODE ALL
FINISH
```

Job Information

	Engineer	Checked	Approved
Name:			
Date:	16-Apr-19		

Project ID	
Project Name	

Structure Type	PLANE FRAME

Number of Nodes	7	Highest Node	7
Number of Elements	6	Highest Beam	6

Number of Basic Load Cases	-2
Number of Combination Load Cases	1

Included in this printout are data for:

All	The Whole Structure

Included in this printout are results for load cases:

Type	L/C	Name
Primary	1	BEBAN MATI
Primary	2	BEBAN HIDUP
Combination	3	COMBINATION LOAD CASE 3

Nodes

Node	X (cm)	Y (cm)	Z (cm)
1	0.000	0.000	0.000
2	100.000	0.000	0.000
3	275.001	0.000	0.000
4	450.001	0.000	0.000
5	625.001	0.000	0.000
6	800.002	0.000	0.000
7	900.002	0.000	0.000

Beams

Beam	Node A	Node B	Length (cm)	Property	β (degrees)
1	1	2	100.000	1	0
2	2	3	175.001	1	0
3	3	4	175.000	1	0
4	4	5	175.000	1	0
5	5	6	175.001	1	0
6	6	7	100.000	1	0

Section Properties

Prop	Section	Area (cm^2)	I_{yy} (cm^4)	I_{zz} (cm^4)	J (cm^4)	Material
1	H100X50X5X7	11.850	14.800	187.000	1.531	STEEL

Materials

Mat	Name	E (kN/mm^2)	ν	Density (kg/m^3)	α (/°C)
1	STEEL	199.947	0.300	7.83E+3	6E -6
2	STAINLESSSTEEL	197.930	0.300	7.83E+3	18E -6
3	ALUMINUM	68.948	0.330	2.71E+3	23E -6
4	CONCRETE	21.718	0.170	2.4E+3	10E -6

Supports

Node	X (kN/mm)	Y (kN/mm)	Z (kN/mm)	rX (kN-m/deg)	rY (kN-m/deg)	rZ (kN-m/deg)
2	Fixed	Fixed	Fixed	-	-	-
3	Fixed	Fixed	Fixed	-	-	-
4	Fixed	Fixed	Fixed	-	-	-
5	Fixed	Fixed	Fixed	-	-	-
6	Fixed	Fixed	Fixed	-	-	-

Combination Load Cases

Comb.	Combination L/C Name	Primary	Primary L/C Name	Factor
3	COMBINATION LOAD CASE 3	1	BEBAN MATI	1.00
		2	BEBAN HIDUP	1.00

Beam Force Detail

Sign convention as diagrams:- positive above line, negative below line except Fx where positive is compression. Distance d is given from beam end A.

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
1	1:BEBAN MATI	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		10.000	0.000	-237.531	0.000	0.000	0.000	11.685
		20.000	0.000	-591.616	0.000	0.000	0.000	51.104
		30.000	0.000	-790.296	0.000	0.000	0.000	120.200
		40.000	0.000	-988.976	0.000	0.000	0.000	208.612
		50.000	0.000	-1.19E+3	0.000	0.000	0.000	316.340
		60.000	0.000	-1.39E+3	0.000	0.000	0.000	446.143
		70.000	0.000	-1.59E+3	0.000	0.000	0.000	595.263
		80.000	0.000	-1.78E+3	0.000	0.000	0.000	763.698
		90.000	0.000	-1.98E+3	0.000	0.000	0.000	951.450
		100.000	-0.000	-2.18E+3	-0.000	-0.000	-0.000	1.16E+3
	2:BEBAN HIDU	0.000	0.000	-0.000	0.000	0.000	0.000	0.000

Beam Force Detail Cont...

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
		10.000	0.000	-90.000	0.000	0.000	0.000	5.000
		20.000	0.000	-180.000	0.000	0.000	0.000	18.750
		30.000	0.000	-270.000	0.000	0.000	0.000	41.250
		40.000	0.000	-360.000	0.000	0.000	0.000	72.500
		50.000	0.000	-450.000	0.000	0.000	0.000	112.500
		60.000	0.000	-540.000	0.000	0.000	0.000	162.500
		70.000	0.000	-630.000	0.000	0.000	0.000	221.250
		80.000	0.000	-720.000	0.000	0.000	0.000	288.750
		90.000	0.000	-810.000	0.000	0.000	0.000	365.000
		100.000	-0.000	-900.000	-0.000	-0.000	-0.000	450.000
	3:COMBINATIC	0.000	0.000	-0.000	0.000	0.000	0.000	0.000
		10.000	0.000	-327.531	0.000	0.000	0.000	16.685
		20.000	0.000	-771.616	0.000	0.000	0.000	69.854
		30.000	0.000	-1.06E+3	0.000	0.000	0.000	161.450
		40.000	0.000	-1.35E+3	0.000	0.000	0.000	281.112
		50.000	0.000	-1.64E+3	0.000	0.000	0.000	428.840
		60.000	0.000	-1.93E+3	0.000	0.000	0.000	608.643
		70.000	0.000	-2.22E+3	0.000	0.000	0.000	816.513
		80.000	0.000	-2.5E+3	0.000	0.000	0.000	1.05E+3
		90.000	0.000	-2.79E+3	0.000	0.000	0.000	1.32E+3
		100.000	-0.000	-3.08E+3	-0.000	-0.000	-0.000	1.61E+3
2	1:BEBAN MATI	0.000	0.000	1.56E+3	0.000	0.000	0.000	1.16E+3
		17.500	0.000	1.38E+3	0.000	0.000	0.000	902.969
		35.000	0.000	1.2E+3	0.000	0.000	0.000	678.410
		52.500	0.000	1.02E+3	0.000	0.000	0.000	484.840
		70.000	0.000	832.895	0.000	0.000	0.000	322.260
		87.501	0.000	650.754	0.000	0.000	0.000	190.669
		105.001	0.000	468.613	0.000	0.000	0.000	94.495
		122.501	0.000	286.472	0.000	0.000	0.000	29.310
		140.001	0.000	104.331	0.000	0.000	0.000	-4.886
		157.501	0.000	-77.811	0.000	0.000	0.000	-8.091
		175.001	-0.000	-259.952	-0.000	-0.000	-0.000	19.692
	2:BEBAN HIDU	0.000	0.000	10E+3	0.000	0.000	0.000	1.95E+3
		17.500	0.000	10E+3	0.000	0.000	0.000	192.839
		35.000	0.000	10E+3	0.000	0.000	0.000	-1.56E+3
		52.500	0.000	10E+3	0.000	0.000	0.000	-3.32E+3
		70.000	0.000	10E+3	0.000	0.000	0.000	-5.08E+3
		87.501	0.000	-12.5E+3	0.000	0.000	0.000	-5.15E+3
		105.001	0.000	-12.5E+3	0.000	0.000	0.000	-2.97E+3
		122.501	0.000	-12.5E+3	0.000	0.000	0.000	-787.468
		140.001	0.000	-12.5E+3	0.000	0.000	0.000	1.39E+3
		157.501	0.000	-12.5E+3	0.000	0.000	0.000	3.57E+3
		175.001	-0.000	-12.5E+3	-0.000	-0.000	-0.000	5.75E+3
	3:COMBINATIC	0.000	0.000	11.6E+3	0.000	0.000	0.000	3.11E+3
		17.500	0.000	11.4E+3	0.000	0.000	0.000	1.1E+3
		35.000	0.000	11.2E+3	0.000	0.000	0.000	-885.912
		52.500	0.000	11.1E+3	0.000	0.000	0.000	-2.84E+3
		70.000	0.000	10.9E+3	0.000	0.000	0.000	-4.76E+3

Beam Force Detail Cont...

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
		87.501	0.000	-11.8E+3	0.000	0.000	0.000	-4.96E+3
		105.001	0.000	-12E+3	0.000	0.000	0.000	-2.87E+3
		122.501	0.000	-12.2E+3	0.000	0.000	0.000	-758.158
		140.001	0.000	-12.4E+3	0.000	0.000	0.000	1.39E+3
		157.501	0.000	-12.5E+3	0.000	0.000	0.000	3.57E+3
		175.001	-0.000	-12.7E+3	-0.000	-0.000	-0.000	5.77E+3
3	1:BEBAN MATI	0.000	0.000	701.893	0.000	0.000	0.000	19.692
		17.500	0.000	519.753	0.000	0.000	0.000	-85.431
		35.000	0.000	337.613	0.000	0.000	0.000	-159.566
		52.500	0.000	155.473	0.000	0.000	0.000	-202.711
		70.000	0.000	-26.667	0.000	0.000	0.000	-214.866
		87.500	0.000	-208.807	0.000	0.000	0.000	-196.033
		105.000	0.000	-390.947	0.000	0.000	0.000	-141.784
		122.500	0.000	-573.087	0.000	0.000	0.000	-56.545
		140.000	0.000	-755.227	0.000	0.000	0.000	59.682
		157.500	0.000	-937.367	0.000	0.000	0.000	206.899
		175.000	-0.000	-1.12E+3	-0.000	-0.000	-0.000	385.105
	2:BEBAN HIDU	0.000	0.000	13.1E+3	0.000	0.000	0.000	5.75E+3
		17.500	0.000	13.1E+3	0.000	0.000	0.000	3.47E+3
		35.000	0.000	13.1E+3	0.000	0.000	0.000	1.18E+3
		52.500	0.000	13.1E+3	0.000	0.000	0.000	-1.11E+3
		70.000	0.000	13.1E+3	0.000	0.000	0.000	-3.4E+3
		87.500	0.000	-9.43E+3	0.000	0.000	0.000	-4E+3
		105.000	0.000	-9.43E+3	0.000	0.000	0.000	-2.35E+3
		122.500	0.000	-9.43E+3	0.000	0.000	0.000	-699.808
		140.000	0.000	-9.43E+3	0.000	0.000	0.000	949.703
		157.500	0.000	-9.43E+3	0.000	0.000	0.000	2.6E+3
		175.000	-0.000	-9.43E+3	-0.000	-0.000	-0.000	4.25E+3
	3:COMBINATIO	0.000	0.000	13.8E+3	0.000	0.000	0.000	5.77E+3
		17.500	0.000	13.6E+3	0.000	0.000	0.000	3.38E+3
		35.000	0.000	13.4E+3	0.000	0.000	0.000	1.02E+3
		52.500	0.000	13.2E+3	0.000	0.000	0.000	-1.31E+3
		70.000	0.000	13E+3	0.000	0.000	0.000	-3.61E+3
		87.500	0.000	-9.63E+3	0.000	0.000	0.000	-4.19E+3
		105.000	0.000	-9.82E+3	0.000	0.000	0.000	-2.49E+3
		122.500	0.000	-10E+3	0.000	0.000	0.000	-756.353
		140.000	0.000	-10.2E+3	0.000	0.000	0.000	1.01E+3
		157.500	0.000	-10.4E+3	0.000	0.000	0.000	2.81E+3
		175.000	-0.000	-10.5E+3	-0.000	-0.000	-0.000	4.63E+3
4	1:BEBAN MATI	0.000	0.000	1.12E+3	0.000	0.000	0.000	385.105
		17.500	0.000	937.368	0.000	0.000	0.000	206.899
		35.000	0.000	755.228	0.000	0.000	0.000	59.682
		52.500	0.000	573.088	0.000	0.000	0.000	-56.545
		70.000	0.000	390.948	0.000	0.000	0.000	-141.784
		87.500	0.000	208.808	0.000	0.000	0.000	-196.033
		105.000	0.000	26.668	0.000	0.000	0.000	-214.866
		122.500	0.000	-155.473	0.000	0.000	0.000	-202.711
		140.000	0.000	-337.612	0.000	0.000	0.000	-159.566

Beam Force Detail Cont...

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
		157.500	0.000	-519.753	0.000	0.000	0.000	-85.431
		175.000	-0.000	-701.893	-0.000	-0.000	-0.000	19.692
	2:BEBAN HIDU	0.000	0.000	9.43E+3	0.000	0.000	0.000	4.25E+3
		17.500	0.000	9.43E+3	0.000	0.000	0.000	2.6E+3
		35.000	0.000	9.43E+3	0.000	0.000	0.000	949.709
		52.500	0.000	9.43E+3	0.000	0.000	0.000	-699.799
		70.000	0.000	9.43E+3	0.000	0.000	0.000	-2.35E+3
		87.500	0.000	9.43E+3	0.000	0.000	0.000	-4E+3
		105.000	0.000	-13.1E+3	0.000	0.000	0.000	-3.4E+3
		122.500	0.000	-13.1E+3	0.000	0.000	0.000	-1.11E+3
		140.000	0.000	-13.1E+3	0.000	0.000	0.000	1.18E+3
		157.500	0.000	-13.1E+3	0.000	0.000	0.000	3.47E+3
		175.000	-0.000	-13.1E+3	-0.000	-0.000	-0.000	5.75E+3
	3:COMBINATIC	0.000	0.000	10.5E+3	0.000	0.000	0.000	4.63E+3
		17.500	0.000	10.4E+3	0.000	0.000	0.000	2.81E+3
		35.000	0.000	10.2E+3	0.000	0.000	0.000	1.01E+3
		52.500	0.000	10E+3	0.000	0.000	0.000	-756.344
		70.000	0.000	9.82E+3	0.000	0.000	0.000	-2.49E+3
		87.500	0.000	9.63E+3	0.000	0.000	0.000	-4.19E+3
		105.000	0.000	-13E+3	0.000	0.000	0.000	-3.61E+3
		122.500	0.000	-13.2E+3	0.000	0.000	0.000	-1.31E+3
		140.000	0.000	-13.4E+3	0.000	0.000	0.000	1.02E+3
		157.500	0.000	-13.6E+3	0.000	0.000	0.000	3.38E+3
		175.000	-0.000	-13.8E+3	-0.000	-0.000	-0.000	5.77E+3
5	1:BEBAN MATI	0.000	0.000	259.951	0.000	0.000	0.000	19.692
		17.500	0.000	77.810	0.000	0.000	0.000	-8.092
		35.000	0.000	-104.331	0.000	0.000	0.000	-4.886
		52.500	0.000	-286.472	0.000	0.000	0.000	29.310
		70.000	0.000	-468.613	0.000	0.000	0.000	94.495
		87.501	0.000	-650.754	0.000	0.000	0.000	190.669
		105.001	0.000	-832.895	0.000	0.000	0.000	322.260
		122.501	0.000	-1.02E+3	0.000	0.000	0.000	484.840
		140.001	0.000	-1.2E+3	0.000	0.000	0.000	678.410
		157.501	0.000	-1.38E+3	0.000	0.000	0.000	902.970
		175.001	-0.000	-1.56E+3	-0.000	-0.000	-0.000	1.16E+3
	2:BEBAN HIDU	0.000	0.000	12.5E+3	0.000	0.000	0.000	5.75E+3
		17.500	0.000	12.5E+3	0.000	0.000	0.000	3.57E+3
		35.000	0.000	12.5E+3	0.000	0.000	0.000	1.39E+3
		52.500	0.000	12.5E+3	0.000	0.000	0.000	-787.522
		70.000	0.000	12.5E+3	0.000	0.000	0.000	-2.97E+3
		87.501	0.000	12.5E+3	0.000	0.000	0.000	-5.15E+3
		105.001	0.000	-10E+3	0.000	0.000	0.000	-5.08E+3
		122.501	0.000	-10E+3	0.000	0.000	0.000	-3.32E+3
		140.001	0.000	-10E+3	0.000	0.000	0.000	-1.56E+3
		157.501	0.000	-10E+3	0.000	0.000	0.000	192.864
		175.001	-0.000	-10E+3	-0.000	-0.000	-0.000	1.95E+3
	3:COMBINATIC	0.000	0.000	12.7E+3	0.000	0.000	0.000	5.77E+3
		17.500	0.000	12.5E+3	0.000	0.000	0.000	3.57E+3

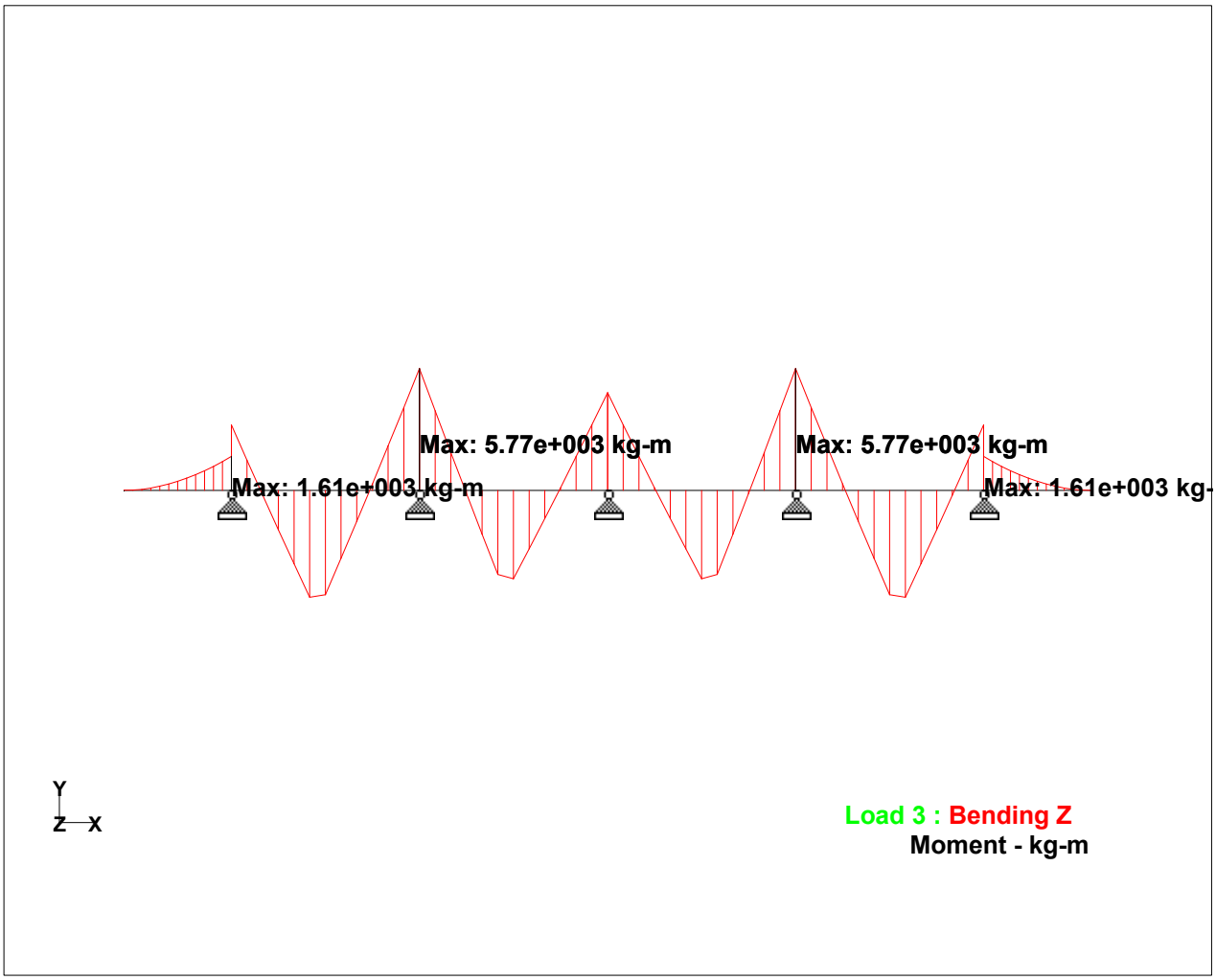
Beam Force Detail Cont...

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
		35.000	0.000	12.4E+3	0.000	0.000	0.000	1.39E+3
		52.500	0.000	12.2E+3	0.000	0.000	0.000	-758.212
		70.000	0.000	12E+3	0.000	0.000	0.000	-2.87E+3
		87.501	0.000	11.8E+3	0.000	0.000	0.000	-4.96E+3
		105.001	0.000	-10.9E+3	0.000	0.000	0.000	-4.76E+3
		122.501	0.000	-11.1E+3	0.000	0.000	0.000	-2.84E+3
		140.001	0.000	-11.2E+3	0.000	0.000	0.000	-885.863
		157.501	0.000	-11.4E+3	0.000	0.000	0.000	1.1E+3
		175.001	-0.000	-11.6E+3	-0.000	-0.000	-0.000	3.11E+3
6	1:BEBAN MAT	0.000	0.000	2.18E+3	0.000	0.000	0.000	1.16E+3
		10.000	0.000	1.98E+3	0.000	0.000	0.000	951.450
		20.000	0.000	1.78E+3	0.000	0.000	0.000	763.698
		30.000	0.000	1.59E+3	0.000	0.000	0.000	595.263
		40.000	0.000	1.39E+3	0.000	0.000	0.000	446.143
		50.000	0.000	1.19E+3	0.000	0.000	0.000	316.340
		60.000	0.000	988.976	0.000	0.000	0.000	208.612
		70.000	0.000	790.296	0.000	0.000	0.000	120.200
		80.000	0.000	591.616	0.000	0.000	0.000	51.105
		90.000	0.000	237.531	0.000	0.000	0.000	11.685
		100.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	2:BEBAN HIDU	0.000	0.000	900.000	0.000	0.000	0.000	450.000
		10.000	0.000	810.000	0.000	0.000	0.000	365.000
		20.000	0.000	720.000	0.000	0.000	0.000	288.750
		30.000	0.000	630.000	0.000	0.000	0.000	221.250
		40.000	0.000	540.000	0.000	0.000	0.000	162.500
		50.000	0.000	450.000	0.000	0.000	0.000	112.500
		60.000	0.000	360.000	0.000	0.000	0.000	72.500
		70.000	0.000	270.000	0.000	0.000	0.000	41.250
		80.000	0.000	180.000	0.000	0.000	0.000	18.750
		90.000	0.000	90.000	0.000	0.000	0.000	5.000
		100.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	3:COMBINATIO	0.000	0.000	3.08E+3	0.000	0.000	0.000	1.61E+3
		10.000	0.000	2.79E+3	0.000	0.000	0.000	1.32E+3
		20.000	0.000	2.5E+3	0.000	0.000	0.000	1.05E+3
		30.000	0.000	2.22E+3	0.000	0.000	0.000	816.513
		40.000	0.000	1.93E+3	0.000	0.000	0.000	608.643
		50.000	0.000	1.64E+3	0.000	0.000	0.000	428.840
		60.000	0.000	1.35E+3	0.000	0.000	0.000	281.112
		70.000	0.000	1.06E+3	0.000	0.000	0.000	161.450
		80.000	0.000	771.616	0.000	0.000	0.000	69.855
		90.000	0.000	327.531	0.000	0.000	0.000	16.685
		100.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000

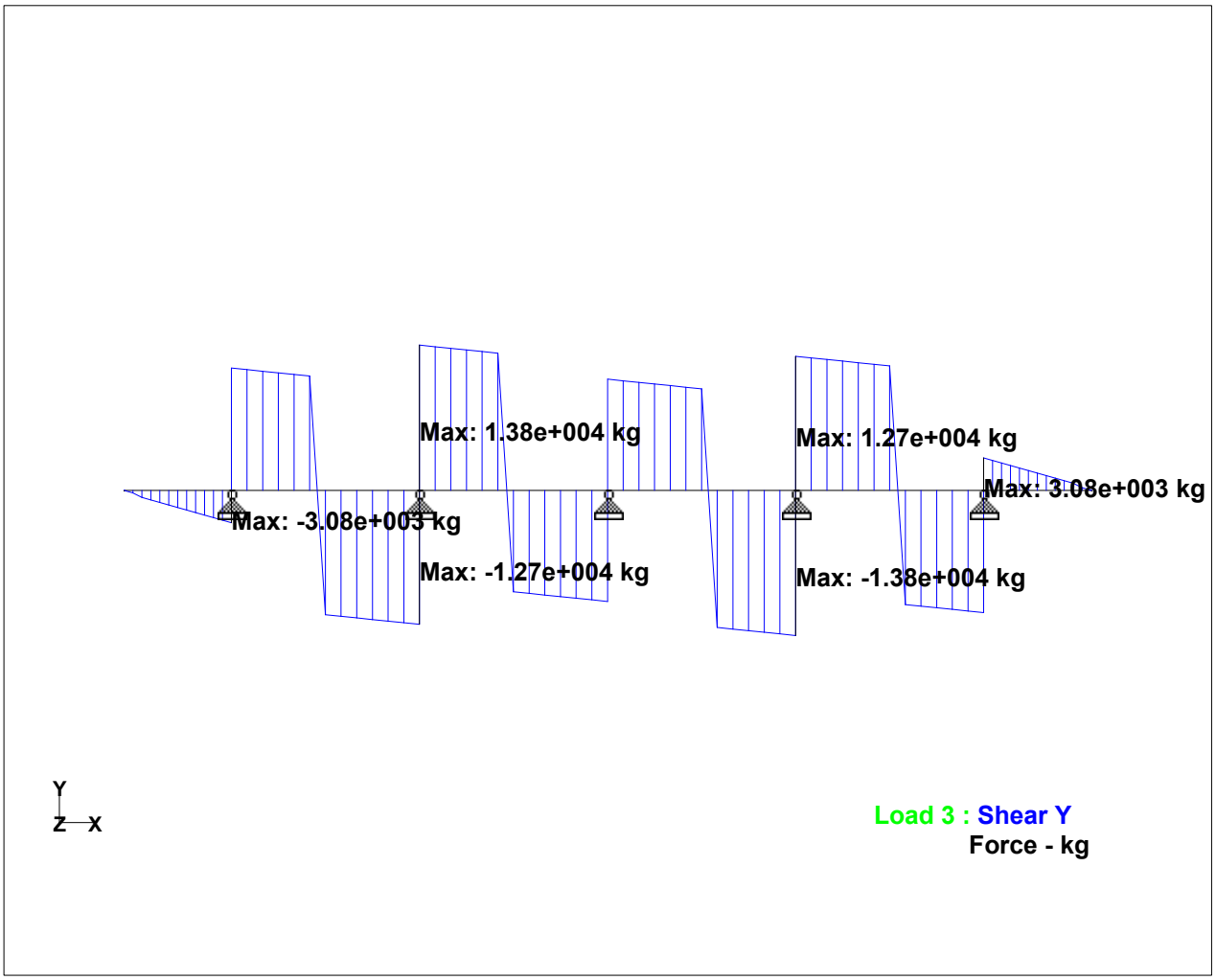
Beam Maximum Moments

Distances to maxima are given from beam end A.

Beam	Node A	Length (cm)	L/C		d (cm)	Max My (kg-m)	d (cm)	Max Mz (kg-m)
1	1	100.000	1:BEBAN MAT	Max +ve	0.000	0.000	100.000	1.16E+3
				Max -ve	0.000	0.000	0.000	0.000
			2:BEBAN HIDU	Max +ve	0.000	0.000	100.000	450.000
				Max -ve	0.000	0.000		
			3:COMBINATIC	Max +ve	0.000	0.000	100.000	1.61E+3
				Max -ve	0.000	0.000		
2	2	175.001	1:BEBAN MAT	Max +ve	0.000	0.000	0.000	1.16E+3
				Max -ve	0.000	0.000	145.834	-11.857
			2:BEBAN HIDU	Max +ve	0.000	0.000	175.001	5.75E+3
				Max -ve	0.000	0.000	72.917	-5.37E+3
			3:COMBINATIC	Max +ve	0.000	0.000	175.001	5.77E+3
				Max -ve	0.000	0.000	72.917	-5.07E+3
3	3	175.000	1:BEBAN MAT	Max +ve	0.000	0.000	175.000	385.105
				Max -ve	0.000	0.000	72.917	-215.417
			2:BEBAN HIDU	Max +ve	0.000	0.000	0.000	5.75E+3
				Max -ve	0.000	0.000	87.500	-4E+3
			3:COMBINATIC	Max +ve	0.000	0.000	0.000	5.77E+3
				Max -ve	0.000	0.000	87.500	-4.19E+3
4	4	175.000	1:BEBAN MAT	Max +ve	0.000	0.000	0.000	385.105
				Max -ve	0.000	0.000	102.083	-215.417
			2:BEBAN HIDU	Max +ve	0.000	0.000	175.000	5.75E+3
				Max -ve	0.000	0.000	87.500	-4E+3
			3:COMBINATIC	Max +ve	0.000	0.000	175.000	5.77E+3
				Max -ve	0.000	0.000	87.500	-4.19E+3
5	5	175.001	1:BEBAN MAT	Max +ve	0.000	0.000	175.001	1.16E+3
				Max -ve	0.000	0.000	29.167	-11.857
			2:BEBAN HIDU	Max +ve	0.000	0.000	0.000	5.75E+3
				Max -ve	0.000	0.000	102.084	-5.37E+3
			3:COMBINATIC	Max +ve	0.000	0.000	0.000	5.77E+3
				Max -ve	0.000	0.000	102.084	-5.07E+3
6	6	100.000	1:BEBAN MAT	Max +ve	0.000	0.000	0.000	1.16E+3
				Max -ve	0.000	0.000	100.000	-0.000
			2:BEBAN HIDU	Max +ve	0.000	0.000	0.000	450.000
				Max -ve	0.000	0.000	100.000	-0.000
			3:COMBINATIC	Max +ve	0.000	0.000	0.000	1.61E+3
				Max -ve	0.000	0.000	100.000	-0.000



Whole Structure Mz 50.9858kg-m:1cm 3 COMBINATION LOAD CASE 3



Whole Structure Fy 101.972kg:1cm 3 COMBINATION LOAD CASE 3

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STAAD SPACE
START JOB INFORMATION
ENGINEER DATE 05-Dec-18
END JOB INFORMATION
INPUT WIDTH 79
UNIT METER KG
JOINT COORDINATES
1 0 0 0; 2 9 0 0;
MEMBER INCIDENCES
1 1 2;
DEFINE MATERIAL START
ISOTROPIC CONCRETE
E 2.21467e+009
POISSON 0.17
DENSITY 2402.62
ALPHA 1e-005
DAMP 0.05
TYPE CONCRETE
STRENGTH FCU 2.81228e+006
END DEFINE MATERIAL
MEMBER PROPERTY AMERICAN
1 PRIS YD 0.01 ZD 0.01
CONSTANTS
MATERIAL CONCRETE ALL
SUPPORTS
1 2 PINNED
LOAD 1 LOADTYPE Dead  TITLE GELAGAR MEMANJANG
MEMBER LOAD
1 CON GY -699.6 1
1 CON GY -699.6 2.75
1 CON GY -699.6 4.5
1 CON GY -699.6 6.25
1 CON GY -699.6 8
LOAD COMB 2 COMBINATION LOAD CASE 2
1 1.0
PERFORM ANALYSIS
FINISH
```

Job Information

	Engineer	Checked	Approved
Name:			
Date:	05-Dec-18		

Project ID	
Project Name	

Structure Type	SPACE FRAME

Number of Nodes	2	Highest Node	2
Number of Elements	1	Highest Beam	1

Number of Basic Load Cases	-2
Number of Combination Load Cases	1

Included in this printout are data for:

All	The Whole Structure

Included in this printout are results for load cases:

Type	L/C	Name
Primary	1	GELAGAR MEMANJANG
Combination	2	COMBINATION LOAD CASE 2

Nodes

Node	X (cm)	Y (cm)	Z (cm)
1	0.000	0.000	0.000
2	900.000	0.000	0.000

Beams

Beam	Node A	Node B	Length (cm)	Property	β (degrees)
1	1	2	900.000	1	0

Section Properties

Prop	Section	Area (cm^2)	I_{yy} (cm^4)	I_{zz} (cm^4)	J (cm^4)	Material
1	Rect 0.01x0.01	1.000	0.083	0.083	0.141	CONCRETE

Materials

Mat	Name	E (kN/mm^2)	ν	Density (kg/m^3)	α (/°C)
1	STEEL	205.000	0.300	7.83E+3	12E -6

Supports

Node	X (kN/mm)	Y (kN/mm)	Z (kN/mm)	rX (kN-m/deg)	rY (kN-m/deg)	rZ (kN-m/deg)
1	Fixed	Fixed	Fixed	-	-	-
2	Fixed	Fixed	Fixed	-	-	-

Combination Load Cases

Comb.	Combination L/C Name	Primary	Primary L/C Name	Factor
2	COMBINATION LOAD CASE 2	1	GELAGAR MEMANJANG	1.00

Beam Force Detail

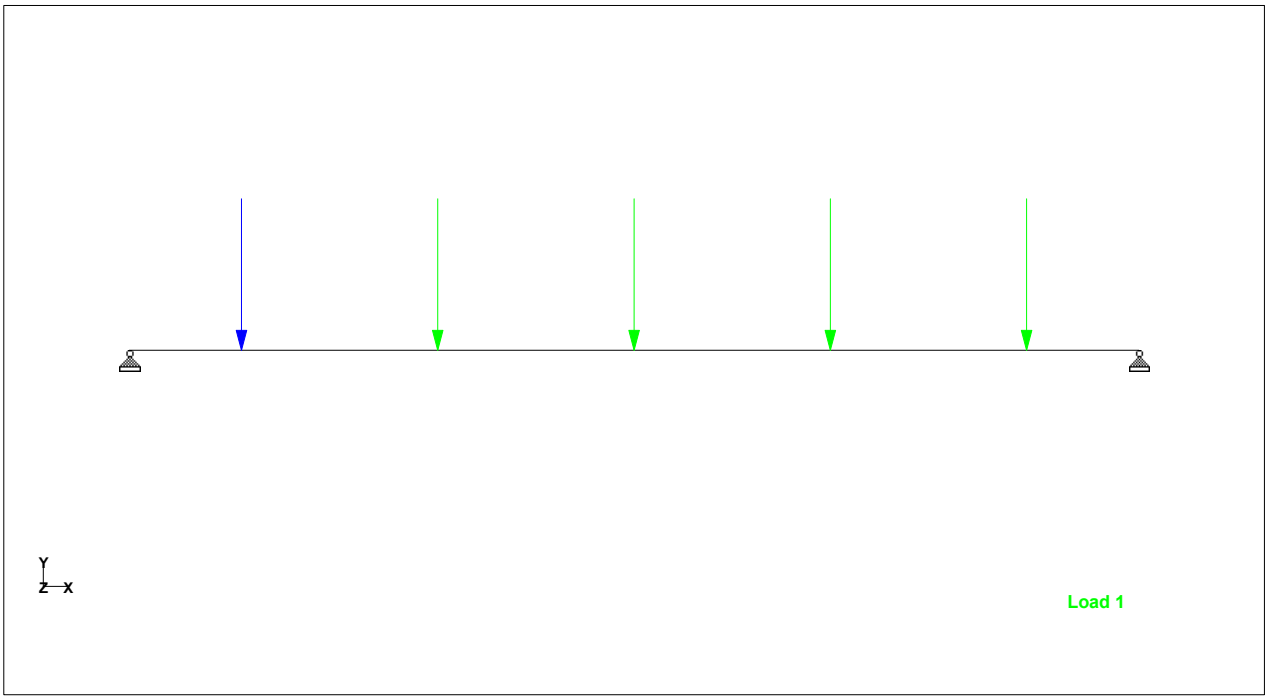
Sign convention as diagrams:- positive above line, negative below line except Fx where positive is compression. Distance d is given from beam end A.

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
1	1:GELAGAR M	0.000	0.000	1.75E+3	0.000	0.000	0.000	-0.000
		90.000	0.000	1.61E+3	0.000	0.000	0.000	-1.5E+3
		180.000	0.000	1.05E+3	0.000	0.000	0.000	-2.59E+3
		270.000	0.000	629.640	0.000	0.000	0.000	-3.43E+3
		360.000	0.000	349.800	0.000	0.000	0.000	-3.88E+3
		450.000	0.000	349.800	0.000	0.000	0.000	-4.2E+3
		540.000	0.000	-349.800	0.000	0.000	0.000	-3.88E+3
		630.000	0.000	-629.640	0.000	0.000	0.000	-3.43E+3
		720.000	0.000	-1.05E+3	0.000	0.000	0.000	-2.59E+3
		810.000	0.000	-1.61E+3	0.000	0.000	0.000	-1.5E+3
		900.000	-0.000	-1.75E+3	-0.000	-0.000	-0.000	-0.000
	2:COMBINATIC	0.000	0.000	1.75E+3	0.000	0.000	0.000	-0.000
		90.000	0.000	1.61E+3	0.000	0.000	0.000	-1.5E+3
		180.000	0.000	1.05E+3	0.000	0.000	0.000	-2.59E+3
		270.000	0.000	629.640	0.000	0.000	0.000	-3.43E+3
		360.000	0.000	349.800	0.000	0.000	0.000	-3.88E+3
		450.000	0.000	349.800	0.000	0.000	0.000	-4.2E+3
		540.000	0.000	-349.800	0.000	0.000	0.000	-3.88E+3
		630.000	0.000	-629.640	0.000	0.000	0.000	-3.43E+3
		720.000	0.000	-1.05E+3	0.000	0.000	0.000	-2.59E+3
		810.000	0.000	-1.61E+3	0.000	0.000	0.000	-1.5E+3
		900.000	-0.000	-1.75E+3	-0.000	-0.000	-0.000	-0.000

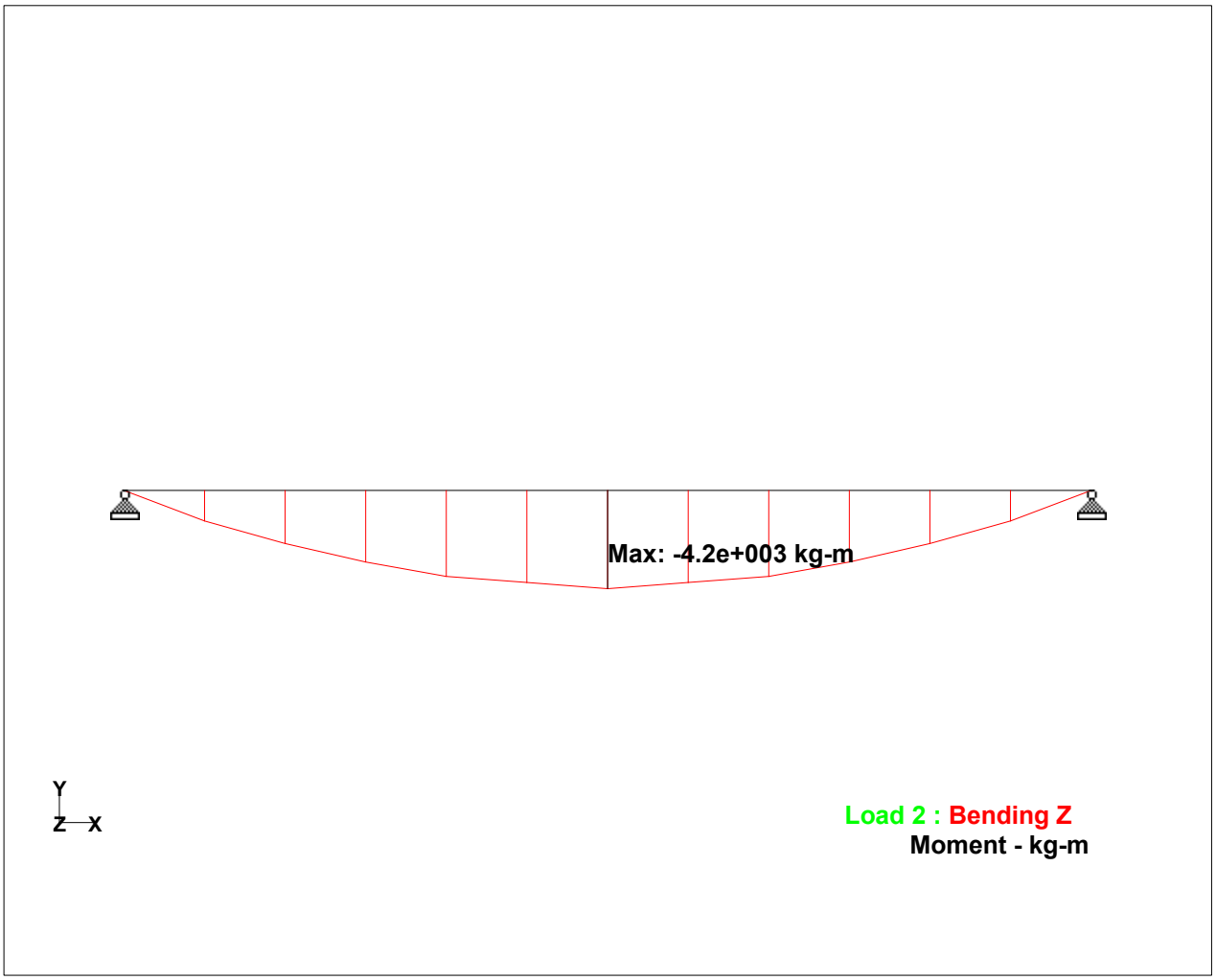
Beam Maximum Moments

Distances to maxima are given from beam end A.

Beam	Node A	Length (cm)	L/C		d (cm)	Max My (kg-m)	d (cm)	Max Mz (kg-m)
1	1	900.000	1:GELAGAR M	Max +ve	0.000	0.000	900.000	-0.000
				Max -ve	0.000	0.000	450.000	-4.2E+3
			2:COMBINATIC	Max +ve	0.000	0.000	900.000	-0.000
				Max -ve	0.000	0.000	450.000	-4.2E+3



Whole Structure



Whole Structure Mz 45.8872kg-m:1cm 2 COMBINATION LOAD CASE 2

```
STAAD SPACE
START JOB INFORMATION
ENGINEER DATE 05-Dec-18
END JOB INFORMATION
INPUT WIDTH 79
UNIT METER KG
JOINT COORDINATES
1 0 0 0; 2 9 0 0;
MEMBER INCIDENCES
1 1 2;
DEFINE MATERIAL START
ISOTROPIC CONCRETE
E 2.21467e+009
POISSON 0.17
DENSITY 2402.62
ALPHA 1e-005
DAMP 0.05
TYPE CONCRETE
STRENGTH FCU 2.81228e+006
END DEFINE MATERIAL
MEMBER PROPERTY
1 PRIS YD 0.01 ZD 0.01
CONSTANTS
MATERIAL CONCRETE ALL
SUPPORTS
1 2 PINNED
LOAD 1 LOADTYPE Dead  TITLE BEBAN MATI
MEMBER LOAD
1 UNI GY -2331.21 0 1
1 UNI GY -2331.21 8 9
1 UNI GY -1734.59 1 8
LOAD COMB 2 COMBINATION LOAD CASE 2
1 1.0
PERFORM ANALYSIS
FINISH
```

Job Information

	Engineer	Checked	Approved
Name:			
Date:	05-Dec-18		

Project ID	
Project Name	

Structure Type	SPACE FRAME

Number of Nodes	2	Highest Node	2
Number of Elements	1	Highest Beam	1

Number of Basic Load Cases	-2
Number of Combination Load Cases	1

Included in this printout are data for:

All	The Whole Structure

Included in this printout are results for load cases:

Type	L/C	Name
Primary	1	BEBAN MATI
Combination	2	COMBINATION LOAD CASE 2

Nodes

Node	X (cm)	Y (cm)	Z (cm)
1	0.000	0.000	0.000
2	900.000	0.000	0.000

Beams

Beam	Node A	Node B	Length (cm)	Property	β (degrees)
1	1	2	900.000	1	0

Section Properties

Prop	Section	Area (cm^2)	I_{yy} (cm^4)	I_{zz} (cm^4)	J (cm^4)	Material
1	Rect 0.01x0.01	1.000	0.083	0.083	0.141	CONCRETE

Materials

Mat	Name	E (kN/mm^2)	ν	Density (kg/m^3)	α (/°C)
1	STEEL	205.000	0.300	7.83E+3	12E -6

Supports

Node	X (kN/mm)	Y (kN/mm)	Z (kN/mm)	rX (kN-m/deg)	rY (kN-m/deg)	rZ (kN-m/deg)
1	Fixed	Fixed	Fixed	-	-	-
2	Fixed	Fixed	Fixed	-	-	-

Combination Load Cases

Comb.	Combination L/C Name	Primary	Primary L/C Name	Factor
2	COMBINATION LOAD CASE 2	1	BEBAN MATI	1.00

Beam Force Detail

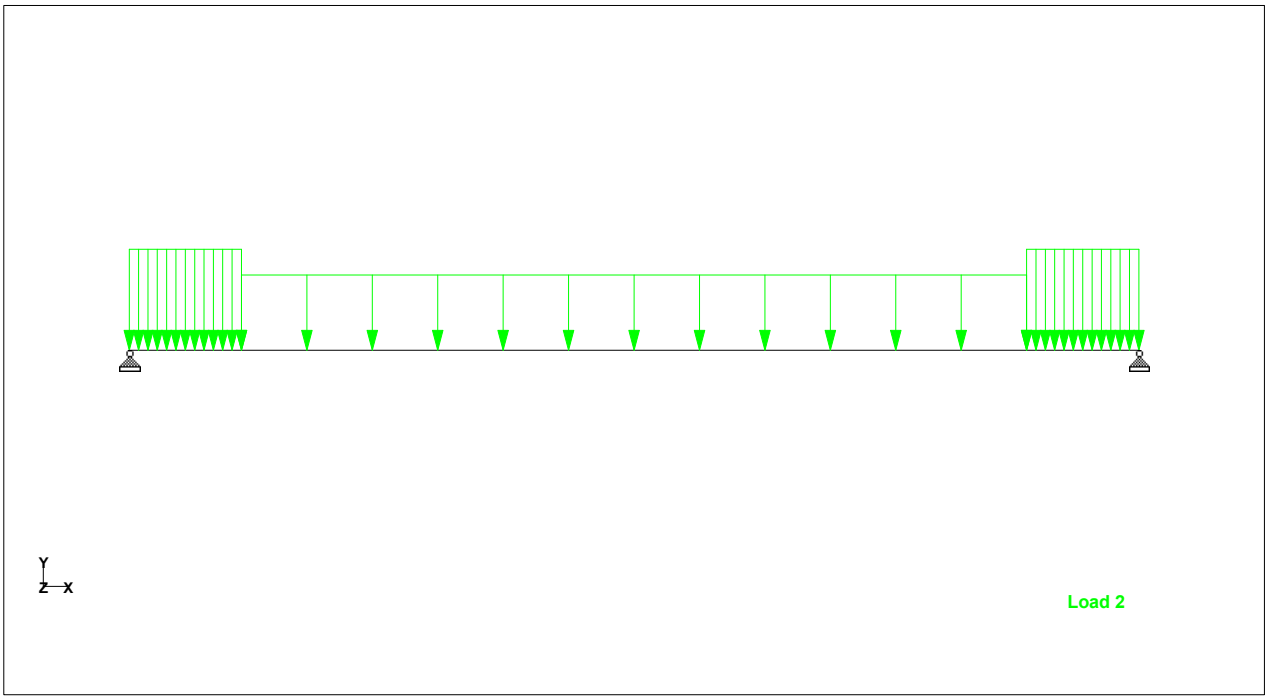
Sign convention as diagrams:- positive above line, negative below line except Fx where positive is compression. Distance d is given from beam end A.

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
1	1:BEBAN MAT	0.000	0.000	8.4E+3	0.000	0.000	0.000	0.000
		90.000	0.000	6.36E+3	0.000	0.000	0.000	-6.53E+3
		180.000	0.000	4.68E+3	0.000	0.000	0.000	-11.4E+3
		270.000	0.000	3.12E+3	0.000	0.000	0.000	-14.9E+3
		360.000	0.000	1.56E+3	0.000	0.000	0.000	-17.1E+3
		450.000	0.000	0.000	0.000	0.000	0.000	-17.9E+3
		540.000	0.000	-1.56E+3	0.000	0.000	0.000	-17.1E+3
		630.000	0.000	-3.12E+3	0.000	0.000	0.000	-14.9E+3
		720.000	0.000	-4.68E+3	0.000	0.000	0.000	-11.4E+3
		810.000	0.000	-6.36E+3	0.000	0.000	0.000	-6.53E+3
		900.000	-0.000	-8.4E+3	-0.000	-0.000	-0.000	0.000
	2:COMBINATI	0.000	0.000	8.4E+3	0.000	0.000	0.000	0.000
		90.000	0.000	6.36E+3	0.000	0.000	0.000	-6.53E+3
		180.000	0.000	4.68E+3	0.000	0.000	0.000	-11.4E+3
		270.000	0.000	3.12E+3	0.000	0.000	0.000	-14.9E+3
		360.000	0.000	1.56E+3	0.000	0.000	0.000	-17.1E+3
		450.000	0.000	0.000	0.000	0.000	0.000	-17.9E+3
		540.000	0.000	-1.56E+3	0.000	0.000	0.000	-17.1E+3
		630.000	0.000	-3.12E+3	0.000	0.000	0.000	-14.9E+3
		720.000	0.000	-4.68E+3	0.000	0.000	0.000	-11.4E+3
		810.000	0.000	-6.36E+3	0.000	0.000	0.000	-6.53E+3
		900.000	-0.000	-8.4E+3	-0.000	-0.000	-0.000	0.000

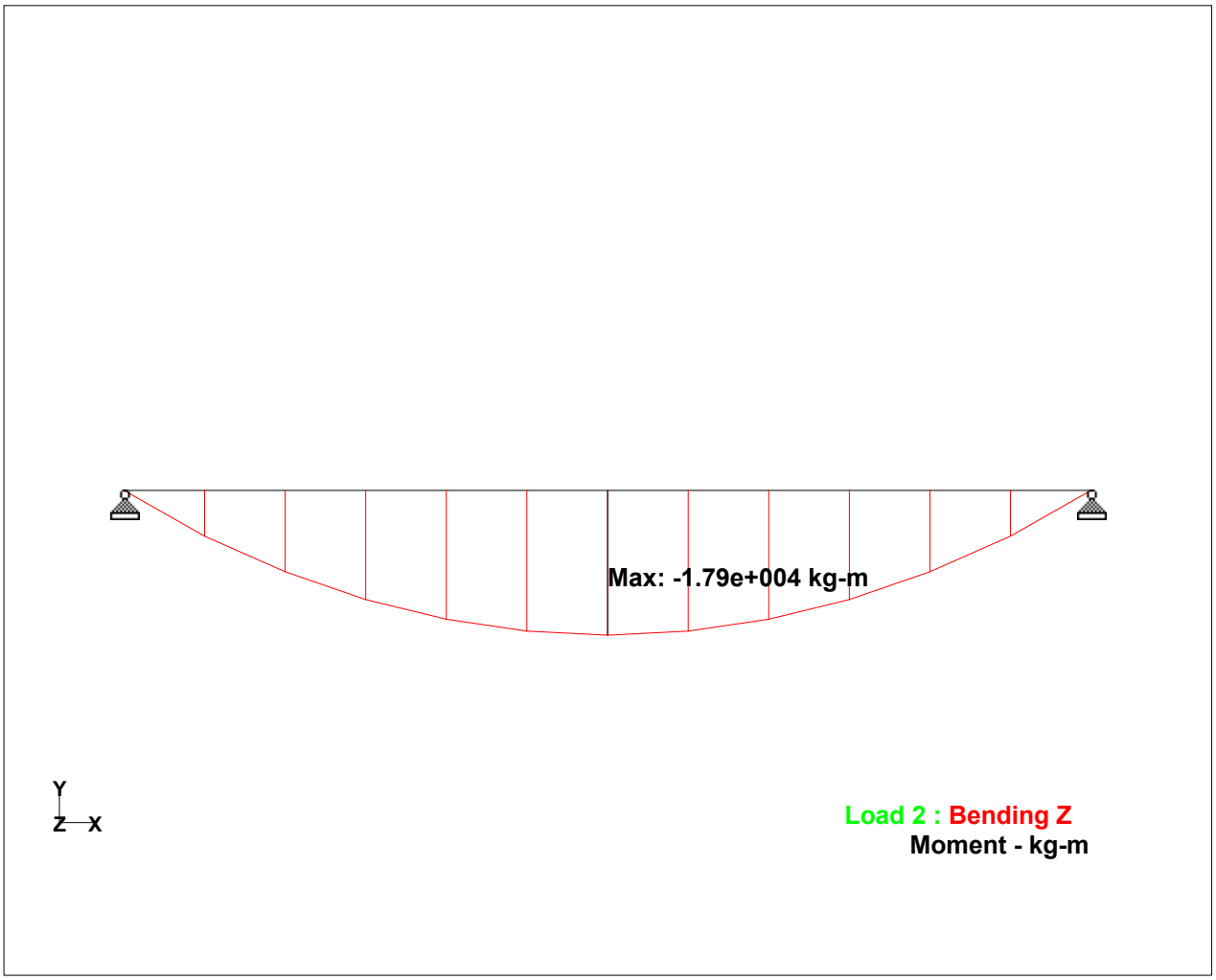
Beam Maximum Moments

Distances to maxima are given from beam end A.

Beam	Node A	Length (cm)	L/C		d (cm)	Max My (kg-m)	d (cm)	Max Mz (kg-m)
1	1	900.000	1:BEBAN MAT	Max +ve	0.000	0.000	900.000	0.000
				Max -ve	0.000	0.000	450.000	-17.9E+3
			2:COMBINATI	Max +ve	0.000	0.000	900.000	0.000
				Max -ve	0.000	0.000	450.000	-17.9E+3



Whole Structure



Whole Structure Mz 132.563kg-m:1cm 2 COMBINATION LOAD CASE 2

```
STAAD SPACE
START JOB INFORMATION
ENGINEER DATE 05-Dec-18
END JOB INFORMATION
INPUT WIDTH 79
UNIT METER KG
JOINT COORDINATES
1 0 0 0; 2 9 0 0;
MEMBER INCIDENCES
1 1 2;
DEFINE MATERIAL START
ISOTROPIC CONCRETE
E 2.21467e+009
POISSON 0.17
DENSITY 2402.62
ALPHA 1e-005
DAMP 0.05
TYPE CONCRETE
STRENGTH FCU 2.81228e+006
END DEFINE MATERIAL
MEMBER PROPERTY AMERICAN
1 PRIS YD 0.01 ZD 0.01
CONSTANTS
MATERIAL CONCRETE ALL
SUPPORTS
1 2 PINNED
LOAD 1 LOADTYPE Live REDUCIBLE TITLE BEBAN HIDUP
MEMBER LOAD
1 UNI GY -499.2 1 8
PERFORM ANALYSIS
FINISH
```

Job Information

	Engineer	Checked	Approved
Name:			
Date:	05-Dec-18		

Project ID	
Project Name	

Structure Type	SPACE FRAME

Number of Nodes	2	Highest Node	2
Number of Elements	1	Highest Beam	1

Number of Basic Load Cases	-2
Number of Combination Load Cases	1

Included in this printout are data for:

All	The Whole Structure

Included in this printout are results for load cases:

Type	L/C	Name
Primary	1	BEBAN HIDUP
Combination	2	COMBINATION LOAD CASE 2

Nodes

Node	X (cm)	Y (cm)	Z (cm)
1	0.000	0.000	0.000
2	900.000	0.000	0.000

Beams

Beam	Node A	Node B	Length (cm)	Property	β (degrees)
1	1	2	900.000	1	0

Section Properties

Prop	Section	Area (cm^2)	I_{yy} (cm^4)	I_{zz} (cm^4)	J (cm^4)	Material
1	Rect 0.01x0.01	1.000	0.083	0.083	0.141	CONCRETE

Materials

Mat	Name	E (kN/mm^2)	ν	Density (kg/m^3)	α (/°C)
1	STEEL	205.000	0.300	7.83E+3	12E -6

Supports

Node	X (kN/mm)	Y (kN/mm)	Z (kN/mm)	rX (kN-m/deg)	rY (kN-m/deg)	rZ (kN-m/deg)
1	Fixed	Fixed	Fixed	-	-	-
2	Fixed	Fixed	Fixed	-	-	-

Combination Load Cases

Comb.	Combination L/C Name	Primary	Primary L/C Name	Factor
2	COMBINATION LOAD CASE 2	1	BEBAN HIDUP	1.00

Beam Force Detail

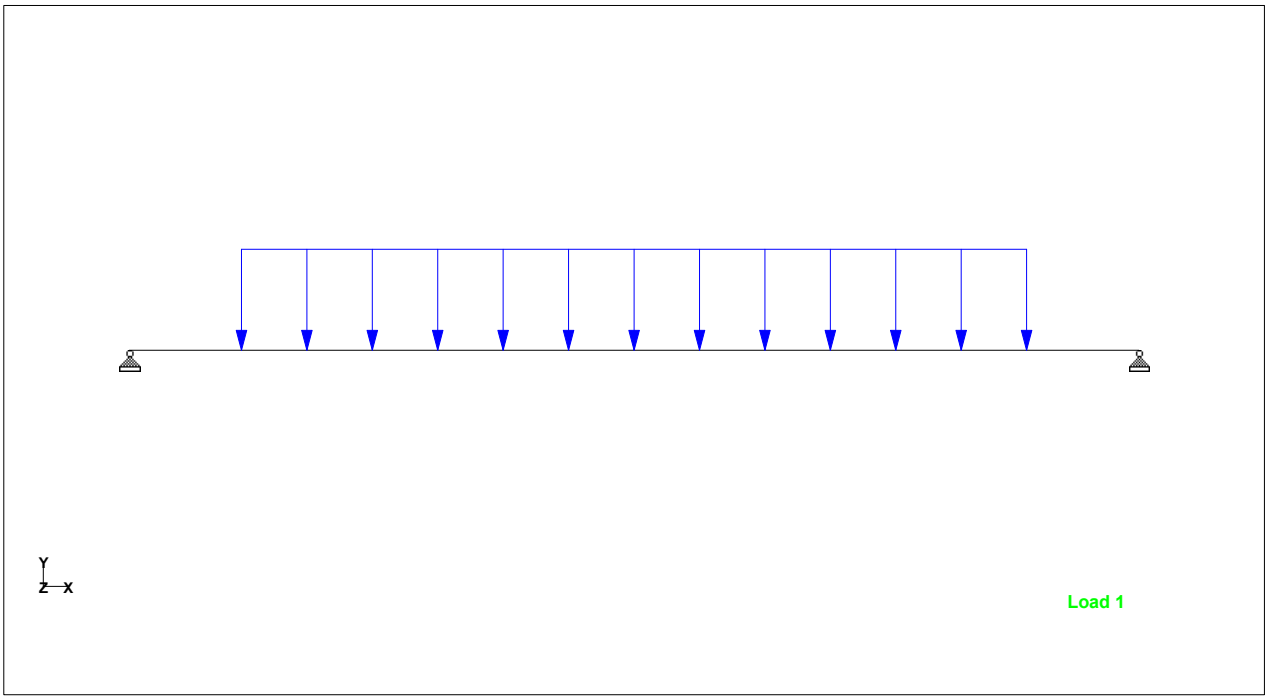
Sign convention as diagrams:- positive above line, negative below line except Fx where positive is compression. Distance d is given from beam end A.

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
1	1:BEBAN HIDU	0.000	0.000	16.2E+3	0.000	0.000	0.000	0.000
		90.000	0.000	15.8E+3	0.000	0.000	0.000	-14.5E+3
		180.000	0.000	12.5E+3	0.000	0.000	0.000	-27.4E+3
		270.000	0.000	8.34E+3	0.000	0.000	0.000	-36.8E+3
		360.000	0.000	4.17E+3	0.000	0.000	0.000	-42.5E+3
		450.000	0.000	-0.002	0.000	0.000	0.000	-44.6E+3
		540.000	0.000	-4.17E+3	0.000	0.000	0.000	-42.5E+3
		630.000	0.000	-8.34E+3	0.000	0.000	0.000	-36.8E+3
		720.000	0.000	-12.5E+3	0.000	0.000	0.000	-27.4E+3
		810.000	0.000	-15.8E+3	0.000	0.000	0.000	-14.5E+3
		900.000	-0.000	-16.2E+3	-0.000	-0.000	-0.000	-0.000
	2:COMBINATIC	0.000	0.000	16.2E+3	0.000	0.000	0.000	0.000
		90.000	0.000	15.8E+3	0.000	0.000	0.000	-14.5E+3
		180.000	0.000	12.5E+3	0.000	0.000	0.000	-27.4E+3
		270.000	0.000	8.34E+3	0.000	0.000	0.000	-36.8E+3
		360.000	0.000	4.17E+3	0.000	0.000	0.000	-42.5E+3
		450.000	0.000	-0.002	0.000	0.000	0.000	-44.6E+3
		540.000	0.000	-4.17E+3	0.000	0.000	0.000	-42.5E+3
		630.000	0.000	-8.34E+3	0.000	0.000	0.000	-36.8E+3
		720.000	0.000	-12.5E+3	0.000	0.000	0.000	-27.4E+3
		810.000	0.000	-15.8E+3	0.000	0.000	0.000	-14.5E+3
		900.000	-0.000	-16.2E+3	-0.000	-0.000	-0.000	-0.000

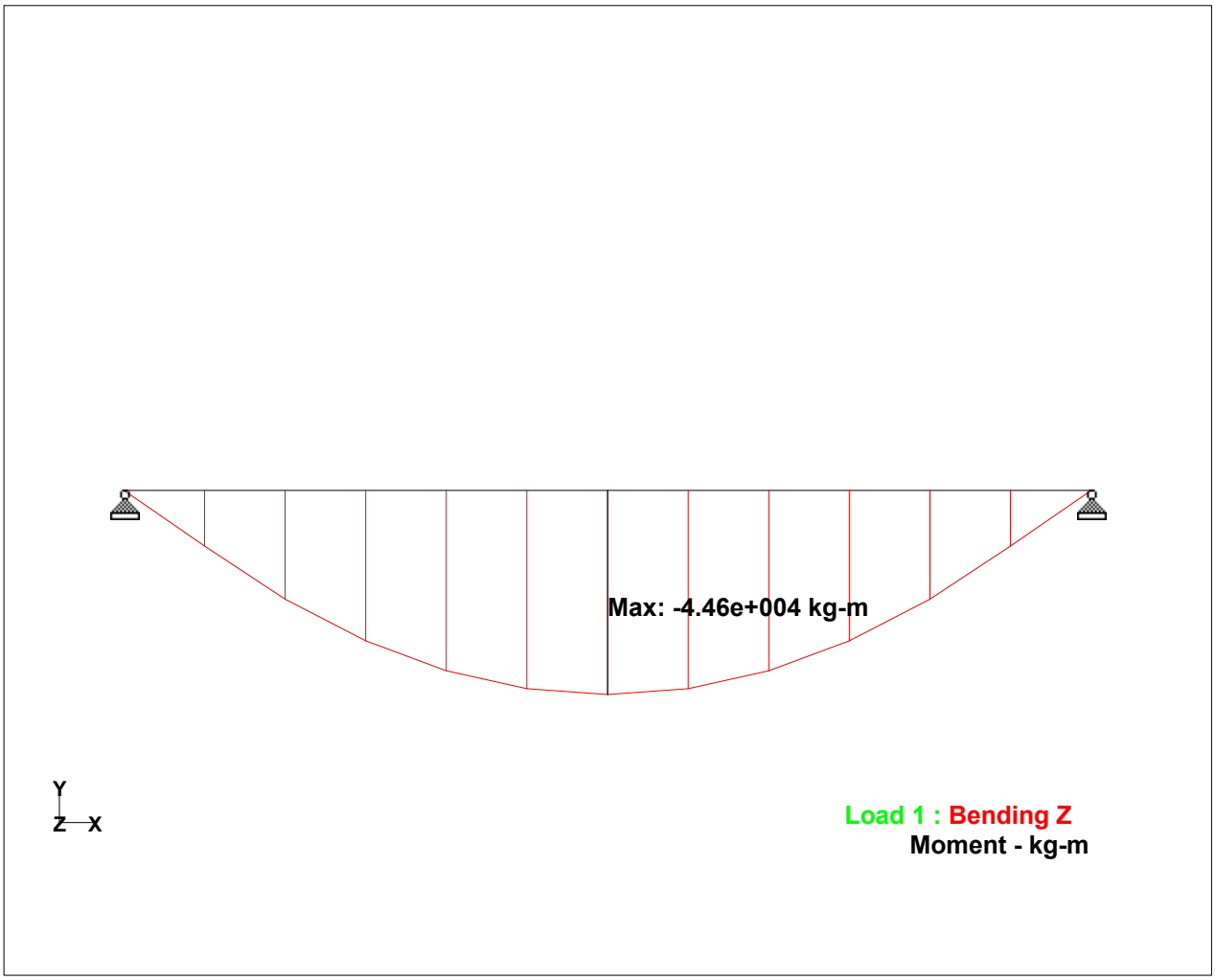
Beam Maximum Moments

Distances to maxima are given from beam end A.

Beam	Node A	Length (cm)	L/C		d (cm)	Max My (kg-m)	d (cm)	Max Mz (kg-m)
1	1	900.000	1:BEBAN HIDU	Max +ve	0.000	0.000	0.000	0.000
				Max -ve	0.000	0.000	450.000	-44.6E+3
			2:COMBINATIC	Max +ve	0.000	0.000	0.000	0.000
				Max -ve	0.000	0.000	450.000	-44.6E+3



Whole Structure



Whole Structure Mz 234.535kg-m:1cm 1 BEBAN HIDUP

```
STAAD SPACE
START JOB INFORMATION
ENGINEER DATE 05-Dec-18
END JOB INFORMATION
INPUT WIDTH 79
UNIT METER KG
JOINT COORDINATES
1 0 0 0; 2 9 0 0;
MEMBER INCIDENCES
1 1 2;
DEFINE MATERIAL START
ISOTROPIC CONCRETE
E 2.21467e+009
POISSON 0.17
DENSITY 2402.62
ALPHA 1e-005
DAMP 0.05
TYPE CONCRETE
STRENGTH FCU 2.81228e+006
END DEFINE MATERIAL
MEMBER PROPERTY AMERICAN
1 PRIS YD 0.01 ZD 0.01
CONSTANTS
MATERIAL CONCRETE ALL
SUPPORTS
1 2 PINNED
LOAD 1 LOADTYPE Live REDUCIBLE TITLE BEBAN HIDUP
MEMBER LOAD
1 UNI GY -4632.72 1 8
LOAD COMB 2 COMBINATION LOAD CASE 2
1 1.0
PERFORM ANALYSIS
FINISH
```

Job Information

	Engineer	Checked	Approved
Name:			
Date:	05-Dec-18		

Project ID	
Project Name	

Structure Type	SPACE FRAME

Number of Nodes	2	Highest Node	2
Number of Elements	1	Highest Beam	1

Number of Basic Load Cases	-2
Number of Combination Load Cases	0

Included in this printout are data for:

All	The Whole Structure

Included in this printout are results for load cases:

Type	L/C	Name
Primary	1	BEBAN HIDUP

Nodes

Node	X (cm)	Y (cm)	Z (cm)
1	0.000	0.000	0.000
2	900.000	0.000	0.000

Beams

Beam	Node A	Node B	Length (cm)	Property	β (degrees)
1	1	2	900.000	1	0

Section Properties

Prop	Section	Area (cm^2)	I_{yy} (cm^4)	I_{zz} (cm^4)	J (cm^4)	Material
1	Rect 0.01x0.01	1.000	0.083	0.083	0.141	CONCRETE

Materials

Mat	Name	E (kN/mm^2)	ν	Density (kg/m^3)	α (/°C)
1	STEEL	205.000	0.300	7.83E+3	12E -6
2	STAINLESSSTEEL	197.930	0.300	7.83E+3	18E -6

Supports

Node	X (kN/mm)	Y (kN/mm)	Z (kN/mm)	rX (kN-m/deg)	rY (kN-m/deg)	rZ (kN-m/deg)
1	Fixed	Fixed	Fixed	-	-	-
2	Fixed	Fixed	Fixed	-	-	-

Combination Load Cases

There is no data of this type.

Beam Force Detail

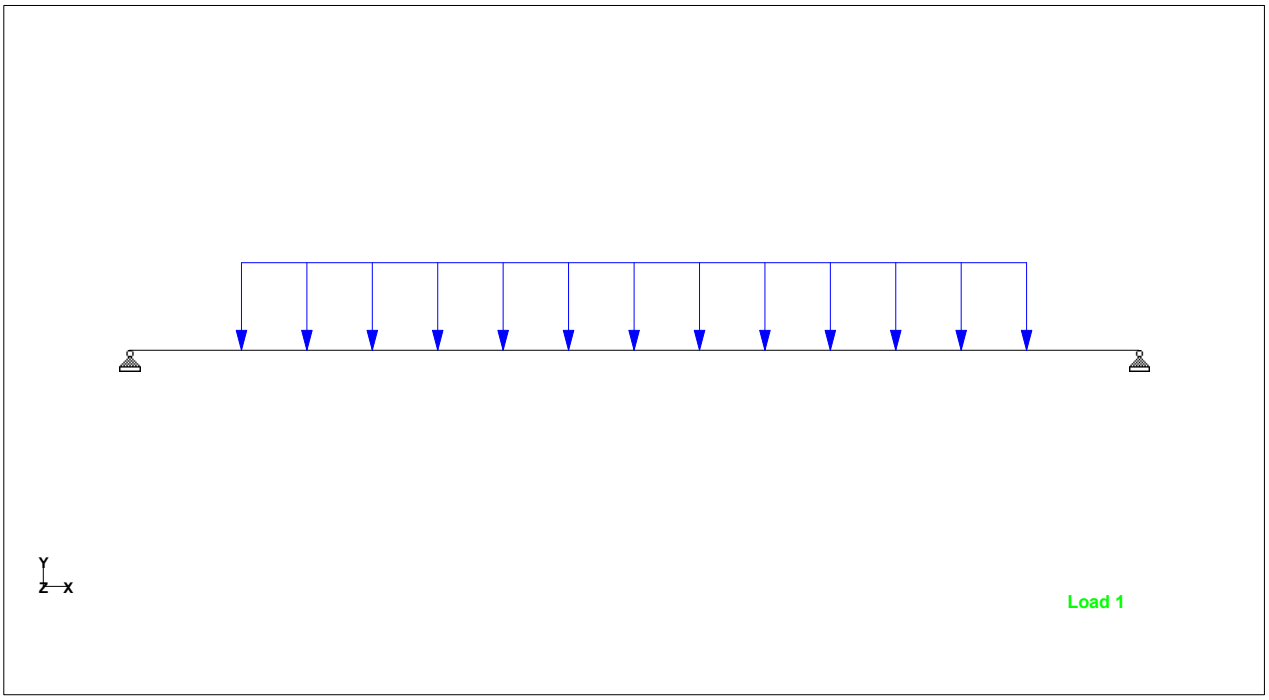
Sign convention as diagrams:- positive above line, negative below line except Fx where positive is compression. Distance d is given from beam end A.

			Axial	Shear		Torsion	Bending	
Beam	L/C	d (cm)	Fx (kg)	Fy (kg)	Fz (kg)	Mx (kg-m)	My (kg-m)	Mz (kg-m)
1	1:BEBAN HIDU	0.000	0.000	1.75E+3	0.000	0.000	0.000	0.000
		90.000	0.000	1.7E+3	0.000	0.000	0.000	-1.56E+3
		180.000	0.000	1.35E+3	0.000	0.000	0.000	-2.95E+3
		270.000	0.000	898.560	0.000	0.000	0.000	-3.96E+3
		360.000	0.000	449.280	0.000	0.000	0.000	-4.58E+3
		450.000	0.000	-0.000	0.000	0.000	0.000	-4.8E+3
		540.000	0.000	-449.280	0.000	0.000	0.000	-4.58E+3
		630.000	0.000	-898.560	0.000	0.000	0.000	-3.96E+3
		720.000	0.000	-1.35E+3	0.000	0.000	0.000	-2.95E+3
		810.000	0.000	-1.7E+3	0.000	0.000	0.000	-1.56E+3
		900.000	-0.000	-1.75E+3	-0.000	-0.000	-0.000	-0.000

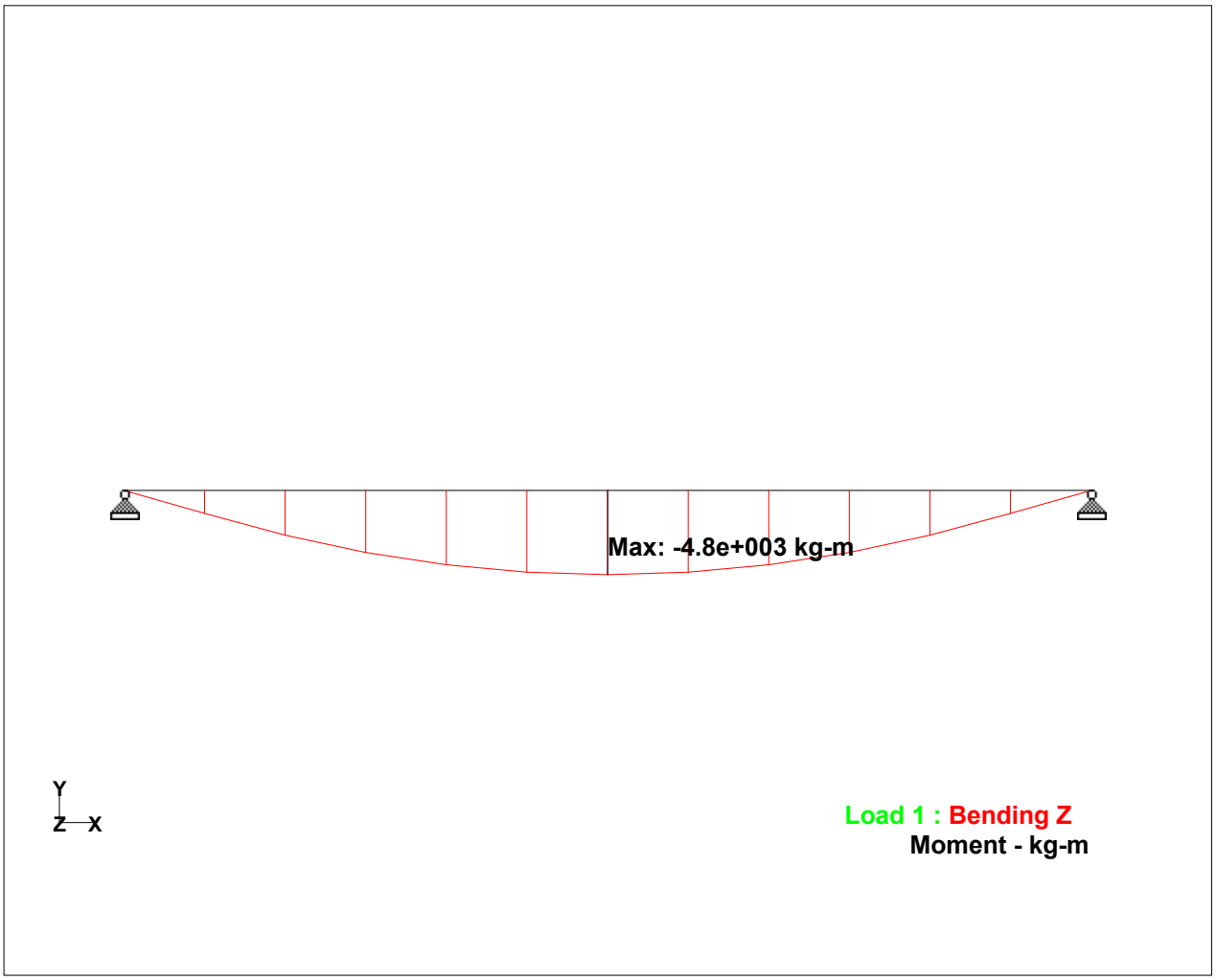
Beam Maximum Moments

Distances to maxima are given from beam end A.

Beam	Node A	Length (cm)	L/C		d (cm)	Max My (kg-m)	d (cm)	Max Mz (kg-m)
1	1	900.000	1:BEBAN HIDU	Max +ve	0.000	0.000	0.000	0.000
				Max -ve	0.000	0.000	450.000	-4.8E+3



Whole Structure



Whole Structure Mz 61.183kg-m:1cm 1 BEBAN HIDUP

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STAAD SPACE
START JOB INFORMATION
ENGINEER DATE 07-Jan-20
END JOB INFORMATION
INPUT WIDTH 79
UNIT METER KG
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42 95 3.444 9; 43 100 3.444 0; 44 100 3.444 9; 45 105 3.444 0; 46 105 3.444 9;
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52 120 3.444 9; 53 125 3.444 0; 54 125 3.444 9; 55 130 3.444 0; 56 130 3.444 9;
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67 0 3.444 8; 68 5 3.444 1; 69 5 3.444 2.75; 70 5 3.444 4.5; 71 5 3.444 6.25;
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TABLE 2
UNIT CM NEWTON
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WF800X400X12X20
800 90 5 40 5 936667 54166.7 6666.67 450 266.667
TABLE 3 3
TABLE 4 4
TABLE 5 5
TABLE 6 6
TABLE 7 7
TABLE 8 9
TABLE 9 10
TABLE 11 11
TABLE 12 13
TABLE 13 14
TABLE 14 15
TABLE 15 16
TABLE 16 17
TABLE 17 16
TABLE 18 18
TABLE 19 19
TABLE 20 21
TABLE 21 21
TABLE 22 22
TABLE 24 24
TABLE 25 24
TABLE 26 26
TABLE 27 27
TABLE 28 29
TABLE 29 29
TABLE 30 30
TABLE 31 31
TABLE 32 32
TABLE 33 33
TABLE 34 34
TABLE 36 36
TABLE 38 38
TABLE 42 42
TABLE 43 43
TABLE 44 43
TABLE 45 45
TABLE 46 46
TABLE 47 47
TABLE 48 48
TABLE 49 49
TABLE 50 50
TABLE 51 51
TABLE 52 52
TABLE 53 53
TABLE 54 54
TABLE 55 55
TABLE 56 56
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TABLE 57 57
TABLE 58 58
TABLE 59 59
TABLE 60 60
TABLE 61 61
TABLE 62 62
END
UNIT METER KG
SUPPORTS
1 2 PINNED
61 62 FIXED BUT FX FZ MX MY MZ
DEFINE MATERIAL START
ISOTROPIC STEEL
E 2.09042e+010
POISSON 0.3
DENSITY 7833.41
ALPHA 1.2e-005
DAMP 0.03
TYPE STEEL
STRENGTH FY 2.58192e+007 FU 4.1584e+007 RY 1.5 RT 1.2
END DEFINE MATERIAL
UNIT MMS NEWTON
MEMBER PROPERTY JAPANESE
298 299 318 TO 320 337 TO 340 353 356 357 366 367 376 377 386 387 396 397 -
406 407 416 417 426 427 467 468 477 478 491 492 513 TO 516 527 528 -
547 TO 550 563 564 575 576 587 588 602 603 TABLE ST CHS355.6X6
UNIT CM NEWTON
MEMBER PROPERTY JAPANESE
65 TO 93 TABLE ST H428X407X20X35
94 TO 233 TABLE ST H350X350X12X19
UNIT MMS NEWTON
MEMBER PROPERTY JAPANESE
297 312 TO 315 325 326 332 334 341 346 351 352 362 364 374 375 384 385 394 -
395 402 403 412 413 423 424 463 464 473 474 483 488 499 500 507 508 521 524 -
532 533 543 544 557 560 569 571 581 584 593 596 599 TABLE ST H200X200X8X12
722 TO 725 TABLE SD L250X250X35
234 TO 289 405 619 TO 684 686 TO 717 720 721 TABLE SD L250X250X35
UNIT METER KG
MEMBER PROPERTY JAPANESE
3 36 TABLE ST H428X407X20X35
UNIT MMS NEWTON
UNIT METER KG
MEMBER PROPERTY
294 295 304 305 310 311 323 324 331 333 343 344 354 355 363 365 372 373 380 -
383 392 393 404 414 415 422 425 428 TO 452 454 TO 456 461 462 465 466 475 -
476 479 480 486 487 489 490 497 498 501 502 509 TO 512 522 523 525 526 535 -
536 TO 538 545 546 551 552 558 559 561 562 570 572 TO 574 582 583 585 586 -
594 595 600 604 TO 608 615 616 UPTABLE 59 WF1100X900X50X50
1 2 4 TO 35 37 TO 64 290 TO 293 300 TO 303 306 TO 309 316 317 321 322 327 -
328 TO 330 335 336 342 345 347 TO 350 358 TO 361 368 TO 371 378 379 381 382 -
388 TO 391 398 TO 401 408 TO 411 418 TO 421 457 TO 460 469 TO 472 481 482 -
484 485 493 TO 496 503 TO 506 517 TO 520 529 TO 531 534 539 TO 542 -
553 TO 556 565 TO 568 577 TO 580 589 TO 592 597 598 601 609 TO 614 -
685 UPTABLE 59 WF1100X900X50X50
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CONSTANTS
BETA 90 MEMB 1 2 4 TO 35 37 TO 64 290 TO 295 300 TO 311 316 317 321 TO 324 -
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418 TO 422 425 428 TO 452 454 TO 462 465 466 469 TO 472 475 476 479 TO 482 -
484 TO 487 489 490 493 TO 498 501 TO 506 509 TO 512 517 TO 520 522 523 525 -
526 529 TO 531 534 TO 542 545 546 551 TO 556 558 TO 562 565 TO 568 570 572 -
573 TO 574 577 TO 580 582 583 585 586 589 TO 592 594 595 597 598 600 601 604 -
605 TO 616 685
MATERIAL STEEL ALL
MEMBER RELEASE
94 TO 233 START MX MY MZ
94 TO 233 END MX MY MZ
65 TO 93 START MZ
65 TO 93 END MZ
MEMBER OFFSET
65 TO 93 START 0 -0.03 0
65 TO 93 END 0 -0.03 0
MEMBER TENSION
298 299 318 TO 320 337 TO 340 353 356 357 366 367 376 377 386 387 396 397 -
406 407 416 417 426 427 467 468 477 478 491 492 513 TO 516 527 528 -
547 TO 550 563 564 575 576 587 588 602 603
UNIT MMS NEWTON
MEMBER TRUSS
1 2 4 TO 35 37 TO 64 290 TO 295 300 TO 311 316 317 321 TO 324 327 TO 331 333 -
335 336 342 TO 345 347 TO 350 354 355 358 TO 361 363 365 368 TO 373 -
378 TO 383 388 TO 393 398 TO 401 404 405 408 TO 411 414 415 418 TO 422 425 -
428 TO 452 454 TO 462 465 466 469 TO 472 475 476 479 TO 482 484 TO 487 489 -
490 493 TO 498 501 TO 506 509 TO 512 517 TO 520 522 523 525 526 529 TO 531 -
534 TO 542 545 546 551 TO 556 558 559 561 562 565 TO 568 570 572 TO 574 577 -
578 TO 580 582 583 585 586 589 TO 592 594 595 597 598 600 601 604 TO 616 685
UNIT METER KG
SLAVE FX FY FZ MX MY MZ MASTER 2 JOINT 208 TO 211 214 215 218 219 222 223 -
226 227 230 231 234 235 238 239 242 243 246 247 250 251 254 255 258 259 266 -
267 270 271 274 275 278 279 282 283 286 287 290 291 294 295 298 299 302 303 -
306 307 310 311 314 TO 317 319 321 323 325 327 329 331 333 335 337 339 341 -
345 347 349 351 353 355 357 359 361 363 365 367
LOAD 1 LOADTYPE Dead  TITLE BM AKIBAT PERATAAN BEBAN MEMANJANG
MEMBER LOAD
94 98 99 103 104 108 109 113 114 118 119 123 124 128 129 133 134 138 139 143 -
144 148 149 153 154 158 159 163 164 168 169 173 174 178 179 183 184 188 189 -
193 194 198 199 203 204 208 209 213 214 218 219 223 224 228 229 -
233 UNI GY -2754.34
95 TO 97 100 TO 102 105 TO 107 110 TO 112 115 TO 117 120 TO 122 125 TO 127 -
130 TO 132 135 TO 137 140 TO 142 145 TO 147 150 TO 152 155 TO 157 -
160 TO 162 165 TO 167 170 TO 172 175 TO 177 180 TO 182 185 TO 187 -
190 TO 192 195 TO 197 200 TO 202 205 TO 207 210 TO 212 215 TO 217 -
220 TO 222 225 TO 227 230 TO 232 UNI GY -1746.95
LOAD 2 LOADTYPE Live REDUCIBLE TITLE BH BTR AKIBAT BEBAN MEMANJANG
MEMBER LOAD
94 98 99 103 104 108 109 113 114 118 119 123 124 128 129 133 134 138 139 143 -
144 148 149 153 154 158 159 163 164 168 169 173 174 178 179 183 184 188 189 -
193 194 198 199 203 204 208 209 213 214 218 219 223 224 228 229 -
233 UNI GY -917.203
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95 TO 97 100 TO 102 105 TO 107 110 TO 112 115 TO 117 120 TO 122 125 TO 127 -
130 TO 132 135 TO 137 140 TO 142 145 TO 147 150 TO 152 155 TO 157 -
160 TO 162 165 TO 167 170 TO 172 175 TO 177 180 TO 182 185 TO 187 -
190 TO 192 195 TO 197 200 TO 202 205 TO 207 210 TO 212 215 TO 217 -
220 TO 222 225 TO 227 230 TO 232 UNI GY -1834.41
LOAD 4 LOADTYPE Dead  TITLE BM AKIBAT BEBAN MELINTANG
MEMBER LOAD
65 TO 93 UNI GY -1517.77 1 8
65 TO 93 UNI GY -2649.1 8 9
65 TO 93 UNI GY -2649.1 0 1
LOAD 5 LOADTYPE Live REDUCIBLE TITLE BH 'D' BTR AKIBAT BEBAN MELINTANG
MEMBER LOAD
65 TO 93 UNI GY -1593.75 1 8
LOAD 7 LOADTYPE Dead  TITLE BM SELFWEIGHT
SELFWEIGHT Y -1
LOAD 8 LOADTYPE None  TITLE BEBAN REM
MEMBER LOAD
67 TO 93 UMOM PZ 2025
LOAD 9 LOADTYPE Wind  TITLE BEBAN ANGIN GELAGAR INDUK
JOINT LOAD
3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 -
55 57 59 FZ 262.8
LOAD 10 LOADTYPE Wind  TITLE BEBAN ANGIN KIRI KABEL
JOINT LOAD
5 57 FZ 215.244
7 55 212 308 FZ 1687.5
9 53 216 304 FZ 3271.54
11 51 220 300 FZ 4171.98
13 49 224 296 FZ 6026.62
15 47 228 292 FZ 7197.66
17 45 232 288 FZ 8230.79
19 43 236 284 FZ 9126.11
21 41 240 280 FZ 9883.73
23 39 244 276 FZ 10503.6
25 37 248 272 FZ 10985.9
27 35 252 268 FZ 11364.8
29 33 256 264 FZ 11536.8
31 260 FZ 11605.7
LOAD 11 LOADTYPE Wind  TITLE BEBAN ANGIN RANGKA PELENGKUNG
JOINT LOAD
1 61 208 316 FZ 1596.67
5 57 210 314 FZ 3057.26
212 214 308 310 FZ 2885.11
216 218 304 306 FZ 2726.89
220 222 300 302 FZ 2582.28
224 226 296 298 FZ 2471.36
228 230 292 294 FZ 2347.06
232 234 288 290 FZ 2230.85
236 238 284 286 FZ 2141.32
240 242 280 282 FZ 2065.61
244 246 276 278 FZ 2003.62
248 250 272 274 FZ 1955.45
252 254 268 270 FZ 1907.6
256 258 264 266 FZ 1873.37
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260 262 FZ 1849.39
LOAD 12 LOADTYPE Seismic  TITLE BEBAN GEMPA
JOINT LOAD
1 5 57 61 208 210 212 214 216 218 220 222 224 226 228 230 232 234 236 238 -
240 242 244 246 248 250 252 254 256 258 260 262 264 266 268 270 272 274 276 -
278 280 282 284 286 288 290 292 294 296 298 300 302 304 306 308 310 314 -
316 FZ 14958.9
LOAD 3 LOADTYPE Live  TITLE BH 'D' BTG AKIBAT BEBAN MELINTANG
MEMBER LOAD
65 TO 93 UNI GY -12740
LOAD COMB 13 KUAT 1
1 1.0 4 1.0 7 1.0 8 1.0
LOAD COMB 14 KUAT 2
1 1.0 2 1.0 4 1.0 5 1.0 7 1.0 10 1.0 11 1.0 3 1.0
LOAD COMB 15 KUAT 3
1 1.0 2 1.0 4 1.0 5 1.0 7 1.0 3 1.0
LOAD COMB 16 KUAT 4
1 1.0 2 1.0 4 1.0 5 1.0 7 1.0 9 1.0 10 1.0 11 1.0 3 1.0
LOAD COMB 17 DAYA LAYAN 1
1 1.0 2 1.0 4 1.0 5 1.0 7 1.0 8 1.0 9 1.0 10 1.0 11 1.0 3 1.0
LOAD COMB 18 DAYA LAYAN 2
1 1.0 4 1.0 7 1.0 8 1.0
LOAD COMB 19 DAYA LAYAN 3
1 1.0 4 1.0 7 1.0 9 1.0 10 1.0 11 1.0
LOAD COMB 20 EXTRIM1
1 1.0 4 1.0 7 1.0 8 1.0 12 1.0
UNIT MMS NEWTON
PERFORM ANALYSIS
PARAMETER 1
CODE LRFD
FU 550 ALL
FYLD 410 ALL
RATIO 1 ALL
TRACK 2 ALL
CHECK CODE ALL
PARAMETER 2
CODE LRFD
STEEL MEMBER TAKE OFF ALL
PARAMETER 3
CODE LRFD
STEEL TAKE OFF ALL
PERFORM ANALYSIS
FINISH
```

Job Information

	Engineer	Checked	Approved
Name:			
Date:	07-Jan-20		

Project ID	
Project Name	

Structure Type	SPACE FRAME

Number of Nodes	395	Highest Node	397
Number of Elements	719	Highest Beam	725

Number of Basic Load Cases	-2
Number of Combination Load Cases	8

Included in this printout are data for:

All	The Whole Structure

Included in this printout are results for load cases:

Type	L/C	Name
Primary	1	BM AKIBAT PERATAAN BEBAN MEMANJ
Primary	2	BH BTR AKIBAT BEBAN MEMANJANG
Primary	4	BM AKIBAT BEBAN MELINTANG
Primary	5	BH 'D' BTR AKIBAT BEBAN MELINTANG
Primary	7	BM SELFWEIGHT
Primary	8	BEBAN REM
Primary	9	BEBAN ANGIN GELAGAR INDUK
Primary	10	BEBAN ANGIN KIRI KABEL
Primary	11	BEBAN ANGIN RANGKA PELENGKUNG
Primary	12	BEBAN GEMPA
Primary	3	BH 'D' BTG AKIBAT BEBAN MELINTANG
Combination	13	KUAT 1
Combination	14	KUAT 2
Combination	15	KUAT 3
Combination	16	KUAT 4
Combination	17	DAYA LAYAN 1
Combination	18	DAYA LAYAN 2
Combination	19	DAYA LAYAN 3
Combination	20	EXTRIM1

Section Properties

Prop	Section	Area (cm^2)	I_{yy} (cm^4)	I_{zz} (cm^4)	J (cm^4)	Material
1	CHS355.6X6	65.900	10.1E+3	10.1E+3	20.1E+3	STEEL
2	H428X407X20X35	360.700	39.4E+3	119E+3	1.27E+3	STEEL
3	H350X350X12X19	171.900	13.6E+3	39.8E+3	179.109	STEEL
4	H200X200X8X12	63.530	1.6E+3	4.72E+3	26.249	STEEL
5	L250X250X35 SD	325.200	37.1E+3	18.6E+3	1.33E+3	STEEL
6	L250X250X35 SD	325.200	37.1E+3	18.6E+3	1.33E+3	STEEL
7	H428X407X20X35	360.700	39.4E+3	119E+3	1.27E+3	STEEL
8	WF1100X900X50X50	1.4E+3	609E+3	2.9E+6	11.7E+3	STEEL
9	WF1100X900X50X50	1.4E+3	609E+3	2.9E+6	11.7E+3	STEEL

Materials

Mat	Name	E (kN/mm^2)	ν	Density (kg/m^3)	α (/°C)
1	STEEL	205.000	0.300	7.83E+3	12E -6
2	STAINLESSSTEEL	197.930	0.300	7.83E+3	18E -6
3	ALUMINUM	68.948	0.330	2.71E+3	23E -6
4	CONCRETE	21.718	0.170	2.4E+3	10E -6

Supports

Node	X (kN/mm)	Y (kN/mm)	Z (kN/mm)	rX (kN-m/deg)	rY (kN-m/deg)	rZ (kN-m/deg)
1	Fixed	Fixed	Fixed	-	-	-
2	Fixed	Fixed	Fixed	-	-	-
61	-	Fixed	-	-	-	-
62	-	Fixed	-	-	-	-

Combination Load Cases

Comb.	Combination L/C Name	Primary	Primary L/C Name	Factor
13	KUAT 1	1	BM AKIBAT PERATAAN BEBAN MEMANJ	1.00
		4	BM AKIBAT BEBAN MELINTANG	1.00
		7	BM SELFWEIGHT	1.00
		8	BEBAN REM	1.00
14	KUAT 2	1	BM AKIBAT PERATAAN BEBAN MEMANJ	1.00
		2	BH BTR AKIBAT BEBAN MEMANJANG	1.00
		4	BM AKIBAT BEBAN MELINTANG	1.00
		5	BH 'D' BTR AKIBAT BEBAN MELINTANG	1.00
		7	BM SELFWEIGHT	1.00
		10	BEBAN ANGIN KIRI KABEL	1.00
		11	BEBAN ANGIN RANGKA PELENGKUNG	1.00
		3	BH 'D' BTG AKIBAT BEBAN MELINTANG	1.00
15	KUAT 3	1	BM AKIBAT PERATAAN BEBAN MEMANJ	1.00
		2	BH BTR AKIBAT BEBAN MEMANJANG	1.00
		4	BM AKIBAT BEBAN MELINTANG	1.00

Combination Load Cases Cont...

Comb.	Combination L/C Name	Primary	Primary L/C Name	Factor
		5	BH 'D' BTR AKIBAT BEBAN MELINTANG	1.00
		7	BM SELFWEIGHT	1.00
		3	BH 'D' BTG AKIBAT BEBAN MELINTANG	1.00
16	KUAT 4	1	BM AKIBAT PERATAAN BEBAN MEMANJ	1.00
		2	BH BTR AKIBAT BEBAN MEMANJANG	1.00
		4	BM AKIBAT BEBAN MELINTANG	1.00
		5	BH 'D' BTR AKIBAT BEBAN MELINTANG	1.00
		7	BM SELFWEIGHT	1.00
		9	BEBAN ANGIN GELAGAR INDUK	1.00
		10	BEBAN ANGIN KIRI KABEL	1.00
		11	BEBAN ANGIN RANGKA PELENGKUNG	1.00
		3	BH 'D' BTG AKIBAT BEBAN MELINTANG	1.00
17	DAYA LAYAN 1	1	BM AKIBAT PERATAAN BEBAN MEMANJ	1.00
		2	BH BTR AKIBAT BEBAN MEMANJANG	1.00
		4	BM AKIBAT BEBAN MELINTANG	1.00
		5	BH 'D' BTR AKIBAT BEBAN MELINTANG	1.00
		7	BM SELFWEIGHT	1.00
		8	BEBAN REM	1.00
		9	BEBAN ANGIN GELAGAR INDUK	1.00
		10	BEBAN ANGIN KIRI KABEL	1.00
		11	BEBAN ANGIN RANGKA PELENGKUNG	1.00
		3	BH 'D' BTG AKIBAT BEBAN MELINTANG	1.00
18	DAYA LAYAN 2	1	BM AKIBAT PERATAAN BEBAN MEMANJ	1.00
		4	BM AKIBAT BEBAN MELINTANG	1.00
		7	BM SELFWEIGHT	1.00
		8	BEBAN REM	1.00
19	DAYA LAYAN 3	1	BM AKIBAT PERATAAN BEBAN MEMANJ	1.00
		4	BM AKIBAT BEBAN MELINTANG	1.00
		7	BM SELFWEIGHT	1.00
		9	BEBAN ANGIN GELAGAR INDUK	1.00
		10	BEBAN ANGIN KIRI KABEL	1.00
		11	BEBAN ANGIN RANGKA PELENGKUNG	1.00
20	EXTRIM1	1	BM AKIBAT PERATAAN BEBAN MEMANJ	1.00
		4	BM AKIBAT BEBAN MELINTANG	1.00
		7	BM SELFWEIGHT	1.00
		8	BEBAN REM	1.00
		12	BEBAN GEMPA	1.00

Reactions

Node	L/C	Horizontal FX (kg)	Vertical FY (kg)	Horizontal FZ (kg)	Moment MX (kg-m)	MY (kg-m)	MZ (kg-m)
1	1:BM AKIBAT F	0.000	0.000	0.000	0.000	0.000	0.000
	2:BH BTR AKIE	0.000	0.000	0.000	0.000	0.000	0.000
	4:BM AKIBAT E	-0.000	78.2E+3	851.399	0.000	0.000	0.000
	5:BH 'D' BTR A	-0.000	54.8E+3	596.537	0.000	0.000	0.000
	7:BM SELFWE	0.002	349E+3	4.82E+3	0.000	0.000	0.000
	8:BEBAN REM	0.000	0.000	0.000	0.000	0.000	0.000
	9:BEBAN ANG	-59.3E+3	-16.2E+3	-3.51E+3	0.000	0.000	0.000
	10:BEBAN ANC	-1.54E+6	-407E+3	-92.6E+3	0.000	0.000	0.000
	11:BEBAN ANC	-566E+3	-218E+3	-3.73E+3	0.000	0.000	0.000
	12:BEBAN GEI	-3.71E+6	-1.45E+6	-26.3E+3	0.000	0.000	0.000
	3:BH 'D' BTG A	-0.000	563E+3	6.13E+3	0.000	0.000	0.000
	13:KUAT 1	0.002	427E+3	5.67E+3	0.000	0.000	0.000
	14:KUAT 2	-2.11E+6	420E+3	-84E+3	0.000	0.000	0.000
	15:KUAT 3	0.002	1.04E+6	12.4E+3	0.000	0.000	0.000
	16:KUAT 4	-2.17E+6	404E+3	-87.5E+3	0.000	0.000	0.000
	17:DAYA LAYA	-2.17E+6	404E+3	-87.5E+3	0.000	0.000	0.000
	18:DAYA LAYA	0.002	427E+3	5.67E+3	0.000	0.000	0.000
	19:DAYA LAYA	-2.17E+6	-214E+3	-94.2E+3	0.000	0.000	0.000
	20:EXTRIM1	-3.71E+6	-1.02E+6	-20.6E+3	0.000	0.000	0.000
2	1:BM AKIBAT F	0.000	0.000	0.000	0.000	0.000	0.000
	2:BH BTR AKIE	0.000	0.000	0.000	0.000	0.000	0.000
	4:BM AKIBAT E	2.98E+3	5.61E+3	-851.399	0.000	0.000	0.000
	5:BH 'D' BTR A	2.09E+3	3.93E+3	-596.537	0.000	0.000	0.000
	7:BM SELFWE	9.45E+3	737E+3	-4.82E+3	0.000	0.000	0.000
	8:BEBAN REM	0.000	0.000	0.000	0.000	0.000	0.000
	9:BEBAN ANG	12.7E+3	10.9E+3	-4.11E+3	0.000	0.000	0.000
	10:BEBAN ANC	357E+3	302E+3	-107E+3	0.000	0.000	0.000
	11:BEBAN ANC	11.9E+3	10.5E+3	-69.3E+3	0.000	0.000	0.000
	12:BEBAN GEI	76E+3	66.1E+3	-452E+3	0.000	0.000	0.000
	3:BH 'D' BTG A	21.5E+3	40.4E+3	-6.13E+3	0.000	0.000	0.000
	13:KUAT 1	12.4E+3	743E+3	-5.67E+3	0.000	0.000	0.000
	14:KUAT 2	405E+3	1.1E+6	-189E+3	0.000	0.000	0.000
	15:KUAT 3	36E+3	787E+3	-12.4E+3	0.000	0.000	0.000
	16:KUAT 4	418E+3	1.11E+6	-193E+3	0.000	0.000	0.000
	17:DAYA LAYA	418E+3	1.11E+6	-193E+3	0.000	0.000	0.000
	18:DAYA LAYA	12.4E+3	743E+3	-5.67E+3	0.000	0.000	0.000
	19:DAYA LAYA	394E+3	1.07E+6	-186E+3	0.000	0.000	0.000
	20:EXTRIM1	88.5E+3	809E+3	-458E+3	0.000	0.000	0.000
61	1:BM AKIBAT F	0.000	0.000	0.000	0.000	0.000	0.000
	2:BH BTR AKIE	0.000	0.000	0.000	0.000	0.000	0.000
	4:BM AKIBAT E	0.000	153E+3	0.000	0.000	0.000	0.000
	5:BH 'D' BTR A	0.000	107E+3	0.000	0.000	0.000	0.000
	7:BM SELFWE	0.000	684E+3	0.000	0.000	0.000	0.000
	8:BEBAN REM	0.000	0.000	0.000	0.000	0.000	0.000
	9:BEBAN ANG	0.000	13.3E+3	0.000	0.000	0.000	0.000
	10:BEBAN ANC	0.000	354E+3	0.000	0.000	0.000	0.000
	11:BEBAN ANC	0.000	87.1E+3	0.000	0.000	0.000	0.000
	12:BEBAN GEI	0.000	560E+3	0.000	0.000	0.000	0.000

Reactions Cont...

Node	L/C	Horizontal FX (kg)	Vertical FY (kg)	Horizontal FZ (kg)	Moment MX (kg-m)	MY (kg-m)	MZ (kg-m)
	3:BH 'D' BTG A	0.000	1.1E+6	0.000	0.000	0.000	0.000
	13:KUAT 1	0.000	837E+3	0.000	0.000	0.000	0.000
	14:KUAT 2	0.000	2.49E+6	0.000	0.000	0.000	0.000
	15:KUAT 3	0.000	2.04E+6	0.000	0.000	0.000	0.000
	16:KUAT 4	0.000	2.5E+6	0.000	0.000	0.000	0.000
	17:DAYA LAYA	0.000	2.5E+6	0.000	0.000	0.000	0.000
	18:DAYA LAYA	0.000	837E+3	0.000	0.000	0.000	0.000
	19:DAYA LAYA	0.000	1.29E+6	0.000	0.000	0.000	0.000
	20:EXTRIM1	0.000	1.4E+6	0.000	0.000	0.000	0.000
62	1:BM AKIBAT F	0.000	0.000	0.000	0.000	0.000	0.000
	2:BH BTR AKIE	0.000	0.000	0.000	0.000	0.000	0.000
	4:BM AKIBAT E	0.000	78.2E+3	0.000	0.000	0.000	0.000
	5:BH 'D' BTR A	0.000	54.8E+3	0.000	0.000	0.000	0.000
	7:BM SELFWE	0.000	348E+3	0.000	0.000	0.000	0.000
	8:BEBAN REM	0.000	0.000	0.000	0.000	0.000	0.000
	9:BEBAN ANG	0.000	-13.3E+3	0.000	0.000	0.000	0.000
	10:BEBAN AN(	0.000	-354E+3	0.000	0.000	0.000	0.000
	11:BEBAN AN(	0.000	-87.1E+3	0.000	0.000	0.000	0.000
	12:BEBAN GEI	0.000	-560E+3	0.000	0.000	0.000	0.000
	3:BH 'D' BTG A	0.000	563E+3	0.000	0.000	0.000	0.000
	13:KUAT 1	0.000	426E+3	0.000	0.000	0.000	0.000
	14:KUAT 2	0.000	602E+3	0.000	0.000	0.000	0.000
	15:KUAT 3	0.000	1.04E+6	0.000	0.000	0.000	0.000
	16:KUAT 4	0.000	589E+3	0.000	0.000	0.000	0.000
	17:DAYA LAYA	0.000	589E+3	0.000	0.000	0.000	0.000
	18:DAYA LAYA	0.000	426E+3	0.000	0.000	0.000	0.000
	19:DAYA LAYA	0.000	-28.8E+3	0.000	0.000	0.000	0.000
	20:EXTRIM1	0.000	-134E+3	0.000	0.000	0.000	0.000

Utilization Ratio

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
1	WF1100X90	WF1100X90	0.396	1.000	0.396	COMPRESSI	16	1.4E+3	2.9E+6	609E+3	11.7E+3
2	WF1100X90	WF1100X90	0.010	1.000	0.010	COMPRESSI	16	1.4E+3	2.9E+6	609E+3	11.7E+3
3	H428X407X	H428X407X	0.074	1.000	0.074	LRFD-H1-1B-	12	360.700	119E+3	39.4E+3	1.27E+3
4	WF1100X90	WF1100X90	0.855	1.000	0.855	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
5	WF1100X90	WF1100X90	0.110	1.000	0.110	COMPRESSI	16	1.4E+3	2.9E+6	609E+3	11.7E+3
6	WF1100X90	WF1100X90	0.011	1.000	0.011	TENSION	19	1.4E+3	2.9E+6	609E+3	11.7E+3
7	WF1100X90	WF1100X90	0.013	1.000	0.013	COMPRESSI	16	1.4E+3	2.9E+6	609E+3	11.7E+3
8	WF1100X90	WF1100X90	0.213	1.000	0.213	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
9	WF1100X90	WF1100X90	0.189	1.000	0.189	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
10	WF1100X90	WF1100X90	0.164	1.000	0.164	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
11	WF1100X90	WF1100X90	0.141	1.000	0.141	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
12	WF1100X90	WF1100X90	0.117	1.000	0.117	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
13	WF1100X90	WF1100X90	0.095	1.000	0.095	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
14	WF1100X90	WF1100X90	0.073	1.000	0.073	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
15	WF1100X90	WF1100X90	0.053	1.000	0.053	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
16	WF1100X90	WF1100X90	0.033	1.000	0.033	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
17	WF1100X90	WF1100X90	0.015	1.000	0.015	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
18	WF1100X90	WF1100X90	0.009	1.000	0.009	COMPRESSI	12	1.4E+3	2.9E+6	609E+3	11.7E+3
19	WF1100X90	WF1100X90	0.016	1.000	0.016	TENSION	10	1.4E+3	2.9E+6	609E+3	11.7E+3
20	WF1100X90	WF1100X90	0.028	1.000	0.028	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
21	WF1100X90	WF1100X90	0.040	1.000	0.040	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
22	WF1100X90	WF1100X90	0.050	1.000	0.050	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
23	WF1100X90	WF1100X90	0.059	1.000	0.059	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
24	WF1100X90	WF1100X90	0.067	1.000	0.067	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
25	WF1100X90	WF1100X90	0.073	1.000	0.073	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
26	WF1100X90	WF1100X90	0.079	1.000	0.079	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
27	WF1100X90	WF1100X90	0.083	1.000	0.083	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
28	WF1100X90	WF1100X90	0.087	1.000	0.087	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
29	WF1100X90	WF1100X90	0.089	1.000	0.089	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
30	WF1100X90	WF1100X90	0.091	1.000	0.091	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
31	WF1100X90	WF1100X90	0.093	1.000	0.093	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
32	WF1100X90	WF1100X90	0.094	1.000	0.094	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
33	WF1100X90	WF1100X90	0.094	1.000	0.094	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
34	WF1100X90	WF1100X90	0.001	1.000	0.001	COMPRESSI	12	1.4E+3	2.9E+6	609E+3	11.7E+3
35	WF1100X90	WF1100X90	0.211	1.000	0.211	COMPRESSI	15	1.4E+3	2.9E+6	609E+3	11.7E+3
36	H428X407X	H428X407X	0.034	1.000	0.034	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
37	WF1100X90	WF1100X90	0.511	1.000	0.511	COMPRESSI	16	1.4E+3	2.9E+6	609E+3	11.7E+3
38	WF1100X90	WF1100X90	0.001	1.000	0.001	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
39	WF1100X90	WF1100X90	0.090	1.000	0.090	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
40	WF1100X90	WF1100X90	0.089	1.000	0.089	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
41	WF1100X90	WF1100X90	0.088	1.000	0.088	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
42	WF1100X90	WF1100X90	0.086	1.000	0.086	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
43	WF1100X90	WF1100X90	0.084	1.000	0.084	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
44	WF1100X90	WF1100X90	0.081	1.000	0.081	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
45	WF1100X90	WF1100X90	0.077	1.000	0.077	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
46	WF1100X90	WF1100X90	0.072	1.000	0.072	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
47	WF1100X90	WF1100X90	0.066	1.000	0.066	COMPRESSI	10	1.4E+3	2.9E+6	609E+3	11.7E+3
48	WF1100X90	WF1100X90	0.060	1.000	0.060	COMPRESSI	10	1.4E+3	2.9E+6	609E+3	11.7E+3
49	WF1100X90	WF1100X90	0.052	1.000	0.052	COMPRESSI	10	1.4E+3	2.9E+6	609E+3	11.7E+3
50	WF1100X90	WF1100X90	0.043	1.000	0.043	COMPRESSI	10	1.4E+3	2.9E+6	609E+3	11.7E+3
51	WF1100X90	WF1100X90	0.033	1.000	0.033	COMPRESSI	10	1.4E+3	2.9E+6	609E+3	11.7E+3
52	WF1100X90	WF1100X90	0.029	1.000	0.029	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
53	WF1100X90	WF1100X90	0.032	1.000	0.032	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
54	WF1100X90	WF1100X90	0.035	1.000	0.035	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
55	WF1100X90	WF1100X90	0.038	1.000	0.038	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
56	WF1100X90	WF1100X90	0.044	1.000	0.044	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
57	WF1100X90	WF1100X90	0.061	1.000	0.061	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
58	WF1100X90	WF1100X90	0.080	1.000	0.080	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
59	WF1100X90	WF1100X90	0.099	1.000	0.099	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
60	WF1100X90	WF1100X90	0.119	1.000	0.119	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
61	WF1100X90	WF1100X90	0.140	1.000	0.140	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
62	WF1100X90	WF1100X90	0.162	1.000	0.162	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
63	WF1100X90	WF1100X90	0.184	1.000	0.184	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
64	WF1100X90	WF1100X90	0.206	1.000	0.206	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
65	H428X407X	H428X407X	0.785	1.000	0.785	LRFD-H1-1B-	16	360.700	119E+3	39.4E+3	1.27E+3
66	H428X407X	H428X407X	0.786	1.000	0.786	LRFD-H1-1B-	14	360.700	119E+3	39.4E+3	1.27E+3
67	H428X407X	H428X407X	0.776	1.000	0.776	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
68	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
69	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
70	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
71	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
72	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
73	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
74	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
75	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
76	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
77	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
78	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
79	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
80	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
81	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
82	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
83	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
84	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
85	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
86	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
87	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
88	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
89	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
90	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
91	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
92	H428X407X	H428X407X	0.777	1.000	0.777	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
93	H428X407X	H428X407X	0.776	1.000	0.776	LRFD-H1-1B-	15	360.700	119E+3	39.4E+3	1.27E+3
94	H350X350X	H350X350X	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
95	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
96	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
97	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
98	H350X350X	H350X350X	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
99	H350X350X	H350X350X	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
100	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
101	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
102	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
103	H350X350X	H350X350X	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
104	H350X350X	H350X350X	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
105	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
106	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
107	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
108	H350X350X	H350X350X	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
109	H350X350X	H350X350X	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
110	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
111	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
112	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
113	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
114	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
115	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
116	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
117	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
118	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
119	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
120	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
121	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
122	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
123	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
124	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
125	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
126	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
127	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
128	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
129	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
130	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
131	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
132	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
133	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
134	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
135	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
136	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
137	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
138	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
139	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
140	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
141	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
142	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
143	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
144	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
145	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
146	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
147	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
148	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
149	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
150	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
151	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
152	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
153	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
154	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
155	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
156	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
157	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
158	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
159	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
160	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
161	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
162	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
163	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
164	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
165	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
166	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
167	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
168	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
169	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
170	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
171	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
172	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
173	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
174	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
175	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
176	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
177	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
178	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
179	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
180	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
181	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
182	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
183	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
184	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
185	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
186	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
187	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
188	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
189	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
190	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
191	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
192	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
193	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
194	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
195	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
196	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
197	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
198	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
199	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
200	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
201	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
202	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
203	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
204	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
205	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
206	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
207	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
208	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
209	H350X350X'	H350X350X'	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
210	H350X350X'	H350X350X'	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
211	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
212	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
213	H350X350X	H350X350X	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
214	H350X350X	H350X350X	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
215	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
216	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
217	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
218	H350X350X	H350X350X	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
219	H350X350X	H350X350X	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
220	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
221	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
222	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
223	H350X350X	H350X350X	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
224	H350X350X	H350X350X	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
225	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
226	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
227	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
228	H350X350X	H350X350X	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
229	H350X350X	H350X350X	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
230	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
231	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
232	H350X350X	H350X350X	0.130	1.000	0.130	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
233	H350X350X	H350X350X	0.133	1.000	0.133	LRFD-H1-1B-	14	171.900	39.8E+3	13.6E+3	179.000
234	L250X250X3	L250X250X3	0.506	1.000	0.506	LRFD-H1-1A-	19	325.200	18.6E+3	37.1E+3	1.33E+3
235	L250X250X3	L250X250X3	0.102	1.000	0.102	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
236	L250X250X3	L250X250X3	0.518	1.000	0.518	LRFD-H1-1A-	16	325.200	18.6E+3	37.1E+3	1.33E+3
237	L250X250X3	L250X250X3	0.108	1.000	0.108	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
238	L250X250X3	L250X250X3	0.512	1.000	0.512	LRFD-H1-1A-	19	325.200	18.6E+3	37.1E+3	1.33E+3
239	L250X250X3	L250X250X3	0.106	1.000	0.106	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
240	L250X250X3	L250X250X3	0.505	1.000	0.505	LRFD-H1-1A-	19	325.200	18.6E+3	37.1E+3	1.33E+3
241	L250X250X3	L250X250X3	0.105	1.000	0.105	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
242	L250X250X3	L250X250X3	0.496	1.000	0.496	LRFD-H1-1A-	19	325.200	18.6E+3	37.1E+3	1.33E+3
243	L250X250X3	L250X250X3	0.103	1.000	0.103	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
244	L250X250X3	L250X250X3	0.484	1.000	0.484	LRFD-H1-1A-	19	325.200	18.6E+3	37.1E+3	1.33E+3
245	L250X250X3	L250X250X3	0.101	1.000	0.101	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
246	L250X250X3	L250X250X3	0.468	1.000	0.468	LRFD-H1-1A-	19	325.200	18.6E+3	37.1E+3	1.33E+3
247	L250X250X3	L250X250X3	0.098	1.000	0.098	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
248	L250X250X3	L250X250X3	0.451	1.000	0.451	LRFD-H1-1A-	19	325.200	18.6E+3	37.1E+3	1.33E+3
249	L250X250X3	L250X250X3	0.096	1.000	0.096	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
250	L250X250X3	L250X250X3	0.431	1.000	0.431	LRFD-H1-1A-	19	325.200	18.6E+3	37.1E+3	1.33E+3
251	L250X250X3	L250X250X3	0.093	1.000	0.093	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
252	L250X250X3	L250X250X3	0.410	1.000	0.410	LRFD-H1-1A-	19	325.200	18.6E+3	37.1E+3	1.33E+3
253	L250X250X3	L250X250X3	0.090	1.000	0.090	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
254	L250X250X3	L250X250X3	0.387	1.000	0.387	LRFD-H1-1A-	19	325.200	18.6E+3	37.1E+3	1.33E+3
255	L250X250X3	L250X250X3	0.087	1.000	0.087	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
256	L250X250X3	L250X250X3	0.363	1.000	0.363	LRFD-H1-1A-	19	325.200	18.6E+3	37.1E+3	1.33E+3
257	L250X250X3	L250X250X3	0.084	1.000	0.084	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
258	L250X250X3	L250X250X3	0.338	1.000	0.338	LRFD-H1-1A-	19	325.200	18.6E+3	37.1E+3	1.33E+3
259	L250X250X3	L250X250X3	0.082	1.000	0.082	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
260	L250X250X3	L250X250X3	0.314	1.000	0.314	LRFD-H1-1A-	19	325.200	18.6E+3	37.1E+3	1.33E+3
261	L250X250X3	L250X250X3	0.079	1.000	0.079	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
262	L250X250X3	L250X250X3	0.289	1.000	0.289	LRFD-H1-1A-	19	325.200	18.6E+3	37.1E+3	1.33E+3
263	L250X250X3	L250X250X3	0.077	1.000	0.077	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
264	L250X250X3	L250X250X3	0.265	1.000	0.265	LRFD-H1-1A-	19	325.200	18.6E+3	37.1E+3	1.33E+3
265	L250X250X3	L250X250X3	0.074	1.000	0.074	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
266	L250X250X3	L250X250X3	0.151	1.000	0.151	LRFD-H1-1B-	19	325.200	18.6E+3	37.1E+3	1.33E+3
267	L250X250X3	L250X250X3	0.072	1.000	0.072	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
268	L250X250X3	L250X250X3	0.139	1.000	0.139	LRFD-H1-1B-	19	325.200	18.6E+3	37.1E+3	1.33E+3
269	L250X250X3	L250X250X3	0.069	1.000	0.069	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
270	L250X250X3	L250X250X3	0.128	1.000	0.128	LRFD-H1-1B-	19	325.200	18.6E+3	37.1E+3	1.33E+3
271	L250X250X3	L250X250X3	0.067	1.000	0.067	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
272	L250X250X3	L250X250X3	0.117	1.000	0.117	LRFD-H1-1B-	19	325.200	18.6E+3	37.1E+3	1.33E+3
273	L250X250X3	L250X250X3	0.065	1.000	0.065	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
274	L250X250X3	L250X250X3	0.107	1.000	0.107	LRFD-H1-1B-	19	325.200	18.6E+3	37.1E+3	1.33E+3
275	L250X250X3	L250X250X3	0.063	1.000	0.063	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
276	L250X250X3	L250X250X3	0.097	1.000	0.097	LRFD-H1-1B-	19	325.200	18.6E+3	37.1E+3	1.33E+3
277	L250X250X3	L250X250X3	0.062	1.000	0.062	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
278	L250X250X3	L250X250X3	0.092	1.000	0.092	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
279	L250X250X3	L250X250X3	0.062	1.000	0.062	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
280	L250X250X3	L250X250X3	0.092	1.000	0.092	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
281	L250X250X3	L250X250X3	0.062	1.000	0.062	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
282	L250X250X3	L250X250X3	0.092	1.000	0.092	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
283	L250X250X3	L250X250X3	0.063	1.000	0.063	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
284	L250X250X3	L250X250X3	0.092	1.000	0.092	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
285	L250X250X3	L250X250X3	0.062	1.000	0.062	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
286	L250X250X3	L250X250X3	0.095	1.000	0.095	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
287	L250X250X3	L250X250X3	0.066	1.000	0.066	LRFD-H1-1B-	15	325.200	18.6E+3	37.1E+3	1.33E+3
288	L250X250X3	L250X250X3	0.075	1.000	0.075	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
289	L250X250X3	L250X250X3	0.056	1.000	0.056	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
290	WF1100X90	WF1100X90	0.385	1.000	0.385	COMPRESSI	16	1.4E+3	2.9E+6	609E+3	11.7E+3
291	WF1100X90	WF1100X90	0.013	1.000	0.013	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
292	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
293	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
294	WF1100X90	WF1100X90	0.443	1.000	0.443	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
295	WF1100X90	WF1100X90	0.021	1.000	0.021	COMPRESSI	10	1.4E+3	2.9E+6	609E+3	11.7E+3
297	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
298	CHS355.6X6	CHS355.6X6	0.324	1.000	0.324	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
299	CHS355.6X6	CHS355.6X6	0.324	1.000	0.324	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
300	WF1100X90	WF1100X90	0.050	1.000	0.050	TENSION	19	1.4E+3	2.9E+6	609E+3	11.7E+3
301	WF1100X90	WF1100X90	0.382	1.000	0.382	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
302	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
303	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
304	WF1100X90	WF1100X90	0.041	1.000	0.041	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
305	WF1100X90	WF1100X90	0.203	1.000	0.203	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
306	WF1100X90	WF1100X90	0.183	1.000	0.183	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
307	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
308	WF1100X90	WF1100X90	0.024	1.000	0.024	TENSION	19	1.4E+3	2.9E+6	609E+3	11.7E+3
309	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
310	WF1100X90	WF1100X90	0.029	1.000	0.029	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
311	WF1100X90	WF1100X90	0.099	1.000	0.099	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
312	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
313	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
314	H200X200X8	H200X200X8	0.278	1.000	0.278	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
315	H200X200X8	H200X200X8	0.266	1.000	0.266	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
316	WF1100X90	WF1100X90	0.086	1.000	0.086	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
317	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
318	CHS355.6X6	CHS355.6X6	0.325	1.000	0.325	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
319	CHS355.6X6	CHS355.6X6	0.325	1.000	0.325	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
320	CHS355.6X6	CHS355.6X6	0.325	1.000	0.325	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
321	WF1100X90	WF1100X90	0.012	1.000	0.012	TENSION	19	1.4E+3	2.9E+6	609E+3	11.7E+3
322	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
323	WF1100X90	WF1100X90	0.023	1.000	0.023	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
324	WF1100X90	WF1100X90	0.050	1.000	0.050	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
325	H200X200X8	H200X200X8	0.270	1.000	0.270	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
326	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
327	WF1100X90	WF1100X90	0.006	1.000	0.006	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
328	WF1100X90	WF1100X90	0.041	1.000	0.041	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
329	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
330	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
331	WF1100X90	WF1100X90	0.020	1.000	0.020	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
332	H200X200X8	H200X200X8	0.276	1.000	0.276	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
333	WF1100X90	WF1100X90	0.027	1.000	0.027	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
334	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
335	WF1100X90	WF1100X90	0.003	1.000	0.003	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
336	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
337	CHS355.6X6	CHS355.6X6	0.326	1.000	0.326	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
338	CHS355.6X6	CHS355.6X6	0.326	1.000	0.326	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
339	CHS355.6X6	CHS355.6X6	0.326	1.000	0.326	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
340	CHS355.6X6	CHS355.6X6	0.326	1.000	0.326	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
341	H200X200X8	H200X200X8	0.283	1.000	0.283	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
342	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
343	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
344	WF1100X90	WF1100X90	0.023	1.000	0.023	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
345	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
346	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
347	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
348	WF1100X90	WF1100X90	0.009	1.000	0.009	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
349	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
350	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
351	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
352	H200X200X8	H200X200X8	0.292	1.000	0.292	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
353	CHS355.6X6	CHS355.6X6	0.325	1.000	0.325	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
354	WF1100X90	WF1100X90	0.021	1.000	0.021	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
355	WF1100X90	WF1100X90	0.018	1.000	0.018	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
356	CHS355.6X6	CHS355.6X6	0.327	1.000	0.327	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
357	CHS355.6X6	CHS355.6X6	0.327	1.000	0.327	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
358	WF1100X90	WF1100X90	0.004	1.000	0.004	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
359	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
360	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
361	WF1100X90	WF1100X90	0.001	1.000	0.001	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
362	H200X200X8	H200X200X8	0.288	1.000	0.288	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
363	WF1100X90	WF1100X90	0.020	1.000	0.020	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
364	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
365	WF1100X90	WF1100X90	0.018	1.000	0.018	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
366	CHS355.6X6	CHS355.6X6	0.327	1.000	0.327	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
367	CHS355.6X6	CHS355.6X6	0.327	1.000	0.327	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
368	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
369	WF1100X90	WF1100X90	0.000	1.000	0.000	TENSION	19	1.4E+3	2.9E+6	609E+3	11.7E+3
370	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
371	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
372	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
373	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
374	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
375	H200X200X8	H200X200X8	0.288	1.000	0.288	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
376	CHS355.6X6	CHS355.6X6	0.327	1.000	0.327	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
377	CHS355.6X6	CHS355.6X6	0.327	1.000	0.327	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
378	WF1100X90	WF1100X90	0.001	1.000	0.001	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
379	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
380	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
381	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
382	WF1100X90	WF1100X90	0.001	1.000	0.001	COMPRESSI	15	1.4E+3	2.9E+6	609E+3	11.7E+3
383	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
384	H200X200X8	H200X200X8	0.293	1.000	0.293	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
385	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
386	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
387	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
388	WF1100X90	WF1100X90	0.001	1.000	0.001	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
389	WF1100X90	WF1100X90	0.002	1.000	0.002	COMPRESSI	15	1.4E+3	2.9E+6	609E+3	11.7E+3
390	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
391	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
392	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
393	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
394	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
395	H200X200X8	H200X200X8	0.298	1.000	0.298	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
396	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
397	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
398	WF1100X90	WF1100X90	0.001	1.000	0.001	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
399	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
400	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
401	WF1100X90	WF1100X90	0.004	1.000	0.004	COMPRESSI	14	1.4E+3	2.9E+6	609E+3	11.7E+3
402	H200X200X8	H200X200X8	0.296	1.000	0.296	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
403	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
404	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
405	L250X250X3	L250X250X3	0.053	1.000	0.053	TENSION	15	325.200	18.6E+3	37.1E+3	1.33E+3
406	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
407	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
408	WF1100X90	WF1100X90	0.001	1.000	0.001	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
409	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
410	WF1100X90	WF1100X90	0.004	1.000	0.004	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
411	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
412	H200X200X8	H200X200X8	0.082	1.000	0.082	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
413	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
414	WF1100X90	WF1100X90	0.018	1.000	0.018	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
415	WF1100X90	WF1100X90	0.018	1.000	0.018	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
416	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
417	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
418	WF1100X90	WF1100X90	0.006	1.000	0.006	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
419	WF1100X90	WF1100X90	0.001	1.000	0.001	COMPRESSI	14	1.4E+3	2.9E+6	609E+3	11.7E+3
420	WF1100X90	WF1100X90	0.001	1.000	0.001	COMPRESSI	14	1.4E+3	2.9E+6	609E+3	11.7E+3
421	WF1100X90	WF1100X90	0.006	1.000	0.006	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
422	WF1100X90	WF1100X90	0.002	1.000	0.002	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
423	H200X200X8	H200X200X8	0.542	1.000	0.542	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
424	H200X200X8	H200X200X8	0.542	1.000	0.542	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
425	WF1100X90	WF1100X90	0.002	1.000	0.002	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
426	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
427	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
428	WF1100X90	WF1100X90	0.018	1.000	0.018	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
429	WF1100X90	WF1100X90	0.018	1.000	0.018	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
430	WF1100X90	WF1100X90	0.002	1.000	0.002	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
431	WF1100X90	WF1100X90	0.001	1.000	0.001	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
432	WF1100X90	WF1100X90	0.002	1.000	0.002	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
433	WF1100X90	WF1100X90	0.010	1.000	0.010	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
434	WF1100X90	WF1100X90	0.003	1.000	0.003	COMPRESSI	15	1.4E+3	2.9E+6	609E+3	11.7E+3
435	WF1100X90	WF1100X90	0.003	1.000	0.003	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
436	WF1100X90	WF1100X90	0.003	1.000	0.003	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
437	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	12	1.4E+3	2.9E+6	609E+3	11.7E+3
438	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
439	WF1100X90	WF1100X90	0.004	1.000	0.004	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
440	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
441	WF1100X90	WF1100X90	0.005	1.000	0.005	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
442	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
443	WF1100X90	WF1100X90	0.008	1.000	0.008	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
444	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
445	WF1100X90	WF1100X90	0.014	1.000	0.014	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
446	WF1100X90	WF1100X90	0.002	1.000	0.002	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
447	WF1100X90	WF1100X90	0.026	1.000	0.026	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
448	WF1100X90	WF1100X90	0.006	1.000	0.006	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
449	WF1100X90	WF1100X90	0.051	1.000	0.051	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
450	WF1100X90	WF1100X90	0.013	1.000	0.013	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
451	WF1100X90	WF1100X90	0.104	1.000	0.104	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
452	WF1100X90	WF1100X90	0.026	1.000	0.026	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
454	WF1100X90	WF1100X90	0.390	1.000	0.390	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
455	WF1100X90	WF1100X90	0.139	1.000	0.139	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
456	WF1100X90	WF1100X90	0.209	1.000	0.209	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
457	WF1100X90	WF1100X90	0.005	1.000	0.005	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
458	WF1100X90	WF1100X90	0.005	1.000	0.005	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
459	WF1100X90	WF1100X90	0.001	1.000	0.001	COMPRESSI	14	1.4E+3	2.9E+6	609E+3	11.7E+3
460	WF1100X90	WF1100X90	0.001	1.000	0.001	COMPRESSI	14	1.4E+3	2.9E+6	609E+3	11.7E+3
461	WF1100X90	WF1100X90	0.017	1.000	0.017	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
462	WF1100X90	WF1100X90	0.017	1.000	0.017	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
463	H200X200X8	H200X200X8	0.526	1.000	0.526	LRFD-H1-1A-	12	63.530	4.72E+3	1.6E+3	26.200
464	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
465	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
466	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
467	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
468	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
469	WF1100X90	WF1100X90	0.002	1.000	0.002	COMPRESSI	12	1.4E+3	2.9E+6	609E+3	11.7E+3
470	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
471	WF1100X90	WF1100X90	0.000	1.000	0.000	TENSION	7	1.4E+3	2.9E+6	609E+3	11.7E+3
472	WF1100X90	WF1100X90	0.000	1.000	0.000	TENSION	7	1.4E+3	2.9E+6	609E+3	11.7E+3
473	H200X200X8	H200X200X8	0.300	1.000	0.300	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
474	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
475	WF1100X90	WF1100X90	0.018	1.000	0.018	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
476	WF1100X90	WF1100X90	0.018	1.000	0.018	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
477	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
478	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
479	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
480	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
481	WF1100X90	WF1100X90	0.001	1.000	0.001	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
482	WF1100X90	WF1100X90	0.001	1.000	0.001	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
483	H200X200X8	H200X200X8	0.298	1.000	0.298	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
484	WF1100X90	WF1100X90	0.000	1.000	0.000	TENSION	7	1.4E+3	2.9E+6	609E+3	11.7E+3
485	WF1100X90	WF1100X90	0.000	1.000	0.000	TENSION	7	1.4E+3	2.9E+6	609E+3	11.7E+3
486	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
487	WF1100X90	WF1100X90	0.018	1.000	0.018	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
488	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
489	WF1100X90	WF1100X90	0.001	1.000	0.001	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
490	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
491	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
492	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
493	WF1100X90	WF1100X90	0.001	1.000	0.001	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
494	WF1100X90	WF1100X90	0.001	1.000	0.001	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
495	WF1100X90	WF1100X90	0.000	1.000	0.000	TENSION	7	1.4E+3	2.9E+6	609E+3	11.7E+3
496	WF1100X90	WF1100X90	0.000	1.000	0.000	TENSION	7	1.4E+3	2.9E+6	609E+3	11.7E+3
497	WF1100X90	WF1100X90	0.018	1.000	0.018	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
498	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
499	H200X200X8	H200X200X8	0.293	1.000	0.293	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
500	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
501	WF1100X90	WF1100X90	0.002	1.000	0.002	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
502	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
503	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
504	WF1100X90	WF1100X90	0.000	1.000	0.000	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
505	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
506	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
507	H200X200X8	H200X200X8	0.288	1.000	0.288	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
508	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
509	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
510	WF1100X90	WF1100X90	0.018	1.000	0.018	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
511	WF1100X90	WF1100X90	0.002	1.000	0.002	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
512	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
513	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
514	CHS355.6X6	CHS355.6X6	0.328	1.000	0.328	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
515	CHS355.6X6	CHS355.6X6	0.327	1.000	0.327	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
516	CHS355.6X6	CHS355.6X6	0.327	1.000	0.327	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
517	WF1100X90	WF1100X90	0.000	1.000	0.000	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
518	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
519	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
520	WF1100X90	WF1100X90	0.000	1.000	0.000	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
521	H200X200X8	H200X200X8	0.288	1.000	0.288	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
522	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
523	WF1100X90	WF1100X90	0.018	1.000	0.018	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
524	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
525	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
526	WF1100X90	WF1100X90	0.002	1.000	0.002	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
527	CHS355.6X6	CHS355.6X6	0.327	1.000	0.327	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
528	CHS355.6X6	CHS355.6X6	0.327	1.000	0.327	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
529	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
530	WF1100X90	WF1100X90	0.001	1.000	0.001	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
531	WF1100X90	WF1100X90	0.000	1.000	0.000	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
532	H200X200X8	H200X200X8	0.290	1.000	0.290	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
533	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
534	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
535	WF1100X90	WF1100X90	0.018	1.000	0.018	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
536	WF1100X90	WF1100X90	0.020	1.000	0.020	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
537	WF1100X90	WF1100X90	0.002	1.000	0.002	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
538	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
539	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
540	WF1100X90	WF1100X90	0.001	1.000	0.001	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
541	WF1100X90	WF1100X90	0.001	1.000	0.001	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
542	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
543	H200X200X8	H200X200X8	0.288	1.000	0.288	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
544	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
545	WF1100X90	WF1100X90	0.018	1.000	0.018	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
546	WF1100X90	WF1100X90	0.020	1.000	0.020	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
547	CHS355.6X6	CHS355.6X6	0.327	1.000	0.327	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
548	CHS355.6X6	CHS355.6X6	0.327	1.000	0.327	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
549	CHS355.6X6	CHS355.6X6	0.326	1.000	0.326	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
550	CHS355.6X6	CHS355.6X6	0.326	1.000	0.326	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
551	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
552	WF1100X90	WF1100X90	0.002	1.000	0.002	COMPRESSI	20	1.4E+3	2.9E+6	609E+3	11.7E+3
553	WF1100X90	WF1100X90	0.002	1.000	0.002	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
554	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
555	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
556	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
557	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
558	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
559	WF1100X90	WF1100X90	0.021	1.000	0.021	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
560	H200X200X8	H200X200X8	0.283	1.000	0.283	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
561	WF1100X90	WF1100X90	0.002	1.000	0.002	TENSION	20	1.4E+3	2.9E+6	609E+3	11.7E+3
562	WF1100X90	WF1100X90	0.003	1.000	0.003	COMPRESSI	16	1.4E+3	2.9E+6	609E+3	11.7E+3
563	CHS355.6X6	CHS355.6X6	0.326	1.000	0.326	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
564	CHS355.6X6	CHS355.6X6	0.326	1.000	0.326	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
565	WF1100X90	WF1100X90	0.004	1.000	0.004	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
566	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
567	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
568	WF1100X90	WF1100X90	0.004	1.000	0.004	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
569	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
570	WF1100X90	WF1100X90	0.023	1.000	0.023	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
571	H200X200X8	H200X200X8	0.284	1.000	0.284	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
572	WF1100X90	WF1100X90	0.019	1.000	0.019	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
573	WF1100X90	WF1100X90	0.003	1.000	0.003	TENSION	19	1.4E+3	2.9E+6	609E+3	11.7E+3
574	WF1100X90	WF1100X90	0.004	1.000	0.004	COMPRESSI	16	1.4E+3	2.9E+6	609E+3	11.7E+3
575	CHS355.6X6	CHS355.6X6	0.325	1.000	0.325	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
576	CHS355.6X6	CHS355.6X6	0.325	1.000	0.325	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
577	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
578	WF1100X90	WF1100X90	0.010	1.000	0.010	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
579	WF1100X90	WF1100X90	0.008	1.000	0.008	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
580	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
581	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
582	WF1100X90	WF1100X90	0.018	1.000	0.018	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3
583	WF1100X90	WF1100X90	0.027	1.000	0.027	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
584	H200X200X8	H200X200X8	0.269	1.000	0.269	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
585	WF1100X90	WF1100X90	0.005	1.000	0.005	TENSION	19	1.4E+3	2.9E+6	609E+3	11.7E+3
586	WF1100X90	WF1100X90	0.006	1.000	0.006	COMPRESSI	16	1.4E+3	2.9E+6	609E+3	11.7E+3
587	CHS355.6X6	CHS355.6X6	0.325	1.000	0.325	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
588	CHS355.6X6	CHS355.6X6	0.325	1.000	0.325	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
589	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
590	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
591	WF1100X90	WF1100X90	0.021	1.000	0.021	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
592	WF1100X90	WF1100X90	0.017	1.000	0.017	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
593	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
594	WF1100X90	WF1100X90	0.020	1.000	0.020	COMPRESSI	10	1.4E+3	2.9E+6	609E+3	11.7E+3
595	WF1100X90	WF1100X90	0.036	1.000	0.036	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
596	H200X200X8	H200X200X8	0.280	1.000	0.280	LRFD-H1-1A-	20	63.530	4.72E+3	1.6E+3	26.200
597	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
598	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
599	H200X200X8	H200X200X8	0.037	1.000	0.037	LRFD-H1-1B-	7	63.530	4.72E+3	1.6E+3	26.200
600	WF1100X90	WF1100X90	0.027	1.000	0.027	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
601	WF1100X90	WF1100X90	0.034	1.000	0.034	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
602	CHS355.6X6	CHS355.6X6	0.324	1.000	0.324	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
603	CHS355.6X6	CHS355.6X6	0.324	1.000	0.324	HSS TENSIO	14	65.900	10.1E+3	10.1E+3	20.2E+3
604	WF1100X90	WF1100X90	0.018	1.000	0.018	TENSION	15	1.4E+3	2.9E+6	609E+3	11.7E+3

Utilization Ratio Cont...

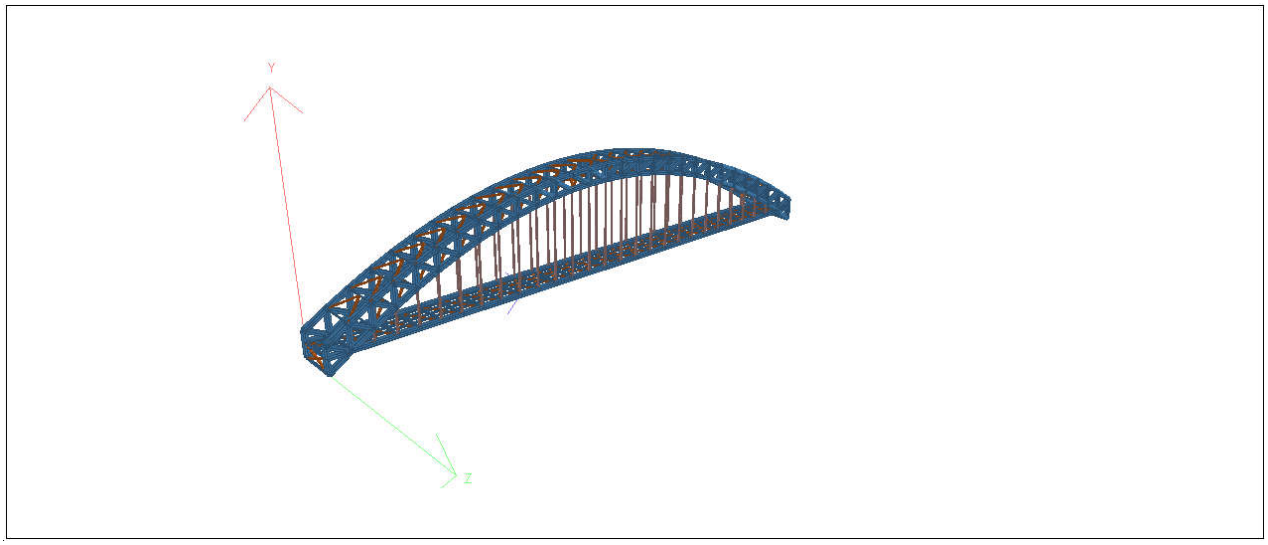
Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
605	WF1100X90	WF1100X90	0.010	1.000	0.010	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
606	WF1100X90	WF1100X90	0.010	1.000	0.010	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
607	WF1100X90	WF1100X90	0.019	1.000	0.019	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
608	WF1100X90	WF1100X90	0.020	1.000	0.020	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
609	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
610	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
611	WF1100X90	WF1100X90	0.195	1.000	0.195	COMPRESSI	15	1.4E+3	2.9E+6	609E+3	11.7E+3
612	WF1100X90	WF1100X90	0.491	1.000	0.491	COMPRESSI	16	1.4E+3	2.9E+6	609E+3	11.7E+3
613	WF1100X90	WF1100X90	0.000	1.000	0.000	COMPRESSI	7	1.4E+3	2.9E+6	609E+3	11.7E+3
614	WF1100X90	WF1100X90	0.000	1.000	0.000	TENSION	14	1.4E+3	2.9E+6	609E+3	11.7E+3
615	WF1100X90	WF1100X90	0.070	1.000	0.070	TENSION	16	1.4E+3	2.9E+6	609E+3	11.7E+3
616	WF1100X90	WF1100X90	0.068	1.000	0.068	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
619	L250X250X3	L250X250X3	0.026	1.000	0.026	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
620	L250X250X3	L250X250X3	0.026	1.000	0.026	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
621	L250X250X3	L250X250X3	0.159	1.000	0.159	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
622	L250X250X3	L250X250X3	0.167	1.000	0.167	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
623	L250X250X3	L250X250X3	0.026	1.000	0.026	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
624	L250X250X3	L250X250X3	0.026	1.000	0.026	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
625	L250X250X3	L250X250X3	0.188	1.000	0.188	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
626	L250X250X3	L250X250X3	0.196	1.000	0.196	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
627	L250X250X3	L250X250X3	0.026	1.000	0.026	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
628	L250X250X3	L250X250X3	0.026	1.000	0.026	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
629	L250X250X3	L250X250X3	0.181	1.000	0.181	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
630	L250X250X3	L250X250X3	0.188	1.000	0.188	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
631	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
632	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
633	L250X250X3	L250X250X3	0.168	1.000	0.168	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
634	L250X250X3	L250X250X3	0.175	1.000	0.175	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
635	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
636	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
637	L250X250X3	L250X250X3	0.152	1.000	0.152	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
638	L250X250X3	L250X250X3	0.158	1.000	0.158	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
639	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
640	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
641	L250X250X3	L250X250X3	0.127	1.000	0.127	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
642	L250X250X3	L250X250X3	0.133	1.000	0.133	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
643	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
644	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
645	L250X250X3	L250X250X3	0.140	1.000	0.140	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
646	L250X250X3	L250X250X3	0.146	1.000	0.146	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
647	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
648	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
649	L250X250X3	L250X250X3	0.142	1.000	0.142	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
650	L250X250X3	L250X250X3	0.148	1.000	0.148	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
651	L250X250X3	L250X250X3	0.024	1.000	0.024	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
652	L250X250X3	L250X250X3	0.024	1.000	0.024	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
653	L250X250X3	L250X250X3	0.127	1.000	0.127	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
654	L250X250X3	L250X250X3	0.133	1.000	0.133	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
655	L250X250X3	L250X250X3	0.024	1.000	0.024	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3

Utilization Ratio Cont...

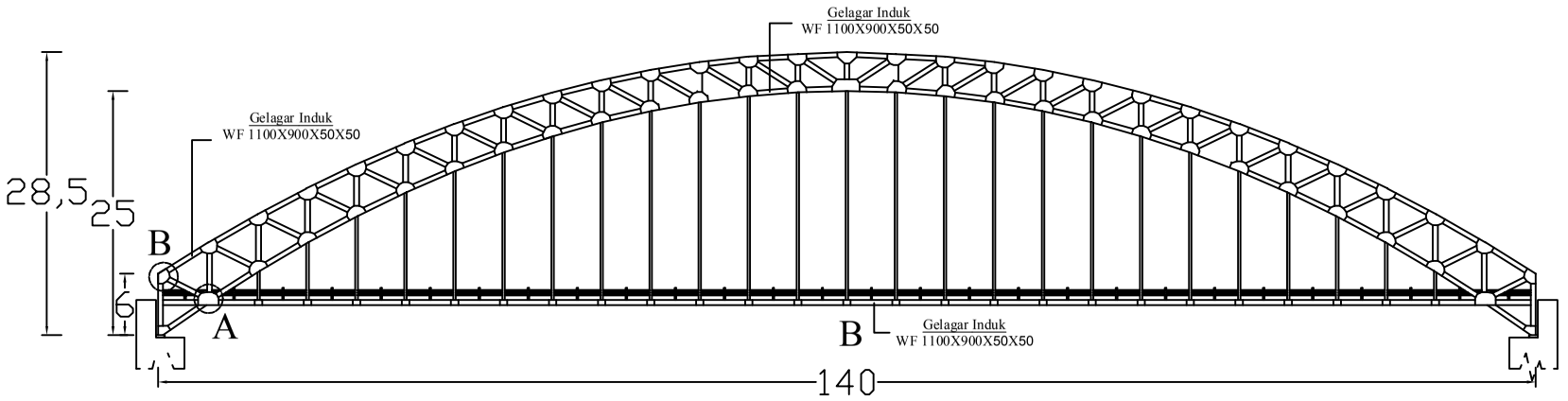
Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
656	L250X250X3	L250X250X3	0.024	1.000	0.024	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
657	L250X250X3	L250X250X3	0.114	1.000	0.114	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
658	L250X250X3	L250X250X3	0.119	1.000	0.119	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
659	L250X250X3	L250X250X3	0.024	1.000	0.024	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
660	L250X250X3	L250X250X3	0.024	1.000	0.024	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
661	L250X250X3	L250X250X3	0.123	1.000	0.123	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
662	L250X250X3	L250X250X3	0.128	1.000	0.128	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
663	L250X250X3	L250X250X3	0.024	1.000	0.024	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
664	L250X250X3	L250X250X3	0.024	1.000	0.024	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
665	L250X250X3	L250X250X3	0.091	1.000	0.091	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
666	L250X250X3	L250X250X3	0.091	1.000	0.091	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
667	L250X250X3	L250X250X3	0.083	1.000	0.083	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
668	L250X250X3	L250X250X3	0.081	1.000	0.081	LRFD-H1-1B-	15	325.200	18.6E+3	37.1E+3	1.33E+3
669	L250X250X3	L250X250X3	0.091	1.000	0.091	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
670	L250X250X3	L250X250X3	0.091	1.000	0.091	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
671	L250X250X3	L250X250X3	0.083	1.000	0.083	LRFD-H1-1B-	14	325.200	18.6E+3	37.1E+3	1.33E+3
672	L250X250X3	L250X250X3	0.081	1.000	0.081	LRFD-H1-1B-	15	325.200	18.6E+3	37.1E+3	1.33E+3
673	L250X250X3	L250X250X3	0.107	1.000	0.107	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
674	L250X250X3	L250X250X3	0.112	1.000	0.112	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
675	L250X250X3	L250X250X3	0.024	1.000	0.024	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
676	L250X250X3	L250X250X3	0.024	1.000	0.024	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
677	L250X250X3	L250X250X3	0.111	1.000	0.111	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
678	L250X250X3	L250X250X3	0.117	1.000	0.117	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
679	L250X250X3	L250X250X3	0.024	1.000	0.024	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
680	L250X250X3	L250X250X3	0.024	1.000	0.024	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
681	L250X250X3	L250X250X3	0.127	1.000	0.127	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
682	L250X250X3	L250X250X3	0.133	1.000	0.133	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
683	L250X250X3	L250X250X3	0.024	1.000	0.024	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
684	L250X250X3	L250X250X3	0.024	1.000	0.024	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
685	WF1100X90	WF1100X90	0.044	1.000	0.044	COMPRESSI	19	1.4E+3	2.9E+6	609E+3	11.7E+3
686	L250X250X3	L250X250X3	0.142	1.000	0.142	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
687	L250X250X3	L250X250X3	0.148	1.000	0.148	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
688	L250X250X3	L250X250X3	0.024	1.000	0.024	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
689	L250X250X3	L250X250X3	0.024	1.000	0.024	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
690	L250X250X3	L250X250X3	0.140	1.000	0.140	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
691	L250X250X3	L250X250X3	0.146	1.000	0.146	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
692	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
693	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
694	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
695	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
696	L250X250X3	L250X250X3	0.133	1.000	0.133	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
697	L250X250X3	L250X250X3	0.139	1.000	0.139	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
698	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
699	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
700	L250X250X3	L250X250X3	0.136	1.000	0.136	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
701	L250X250X3	L250X250X3	0.142	1.000	0.142	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
702	L250X250X3	L250X250X3	0.180	1.000	0.180	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
703	L250X250X3	L250X250X3	0.187	1.000	0.187	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
704	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3

Utilization Ratio Cont...

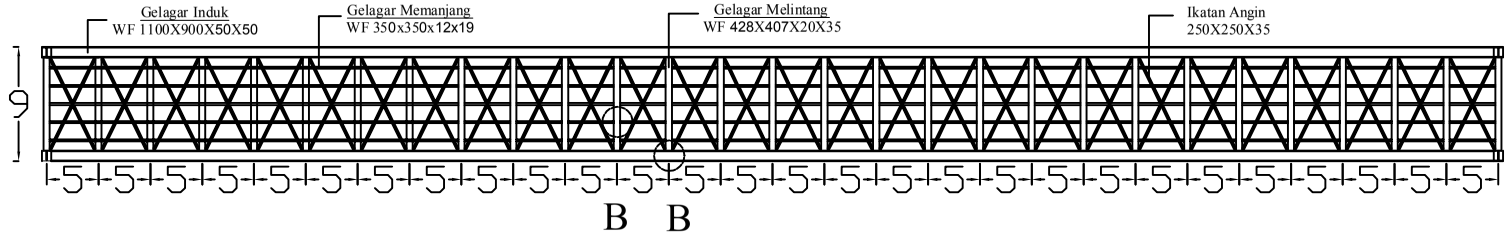
Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
705	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
706	L250X250X3	L250X250X3	0.147	1.000	0.147	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
707	L250X250X3	L250X250X3	0.154	1.000	0.154	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
708	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
709	L250X250X3	L250X250X3	0.025	1.000	0.025	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
710	L250X250X3	L250X250X3	0.183	1.000	0.183	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
711	L250X250X3	L250X250X3	0.190	1.000	0.190	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
712	L250X250X3	L250X250X3	0.026	1.000	0.026	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
713	L250X250X3	L250X250X3	0.026	1.000	0.026	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
714	L250X250X3	L250X250X3	0.026	1.000	0.026	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
715	L250X250X3	L250X250X3	0.026	1.000	0.026	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
716	L250X250X3	L250X250X3	0.154	1.000	0.154	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
717	L250X250X3	L250X250X3	0.162	1.000	0.162	LRFD-H1-1B-	20	325.200	18.6E+3	37.1E+3	1.33E+3
720	L250X250X3	L250X250X3	0.026	1.000	0.026	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
721	L250X250X3	L250X250X3	0.026	1.000	0.026	LRFD-H1-1B-	7	325.200	18.6E+3	37.1E+3	1.33E+3
722	L250X250X3	L250X250X3	0.099	1.000	0.099	LRFD-H1-1B-	19	325.200	18.6E+3	37.1E+3	1.33E+3
723	L250X250X3	L250X250X3	0.529	1.000	0.529	LRFD-H1-1A-	16	325.200	18.6E+3	37.1E+3	1.33E+3
724	L250X250X3	L250X250X3	0.102	1.000	0.102	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3
725	L250X250X3	L250X250X3	0.099	1.000	0.099	LRFD-H1-1B-	16	325.200	18.6E+3	37.1E+3	1.33E+3



3D Rendered View



TAMPAK SAMPING
Skala 1: 500



TAMPAK ATAS
Skala 1: 500

INSTITUT TEKNOLOGI
NASIONAL MALANG

NAMA PEKERJAAN

PERENCANAAN JEMBATAN
A HALF THROUGH ARCH

REVISI	TANDA TANGAN

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DOSEN PEMBIMBING 2

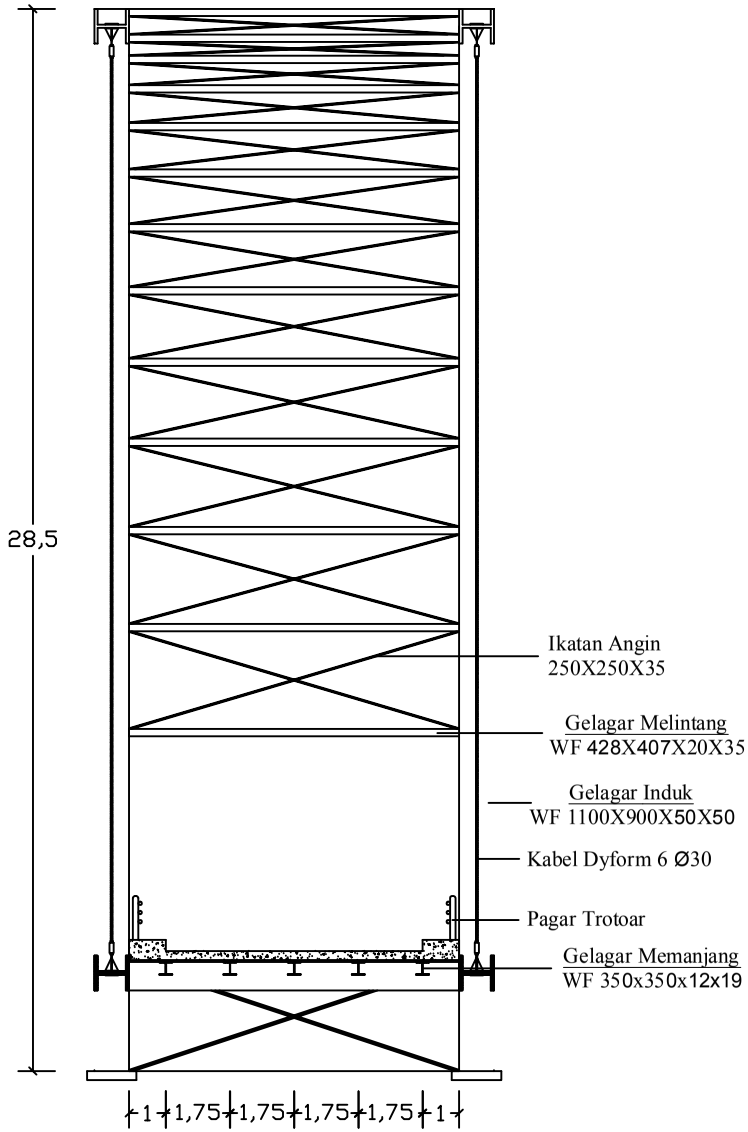
Mohammad Erfan, ST.,MT

PERENCANA

Ronald Febrianto
(1521125)

NAMA GAMBAR	SKALA
DENAH DAN TAMPAK JEMBATAN	1:500

KODE GMBR	No. LEMBAR	JML LEMBAR



TAMPAK DEPAN
Skala 1: 200

INSTITUT TEKNOLOGI NASIONAL MALANG

NAMA PEKERJAAN
PERENCANAAN JEMBATAN A HALF THROUGH ARCH

REVISI	TANDA TANGAN

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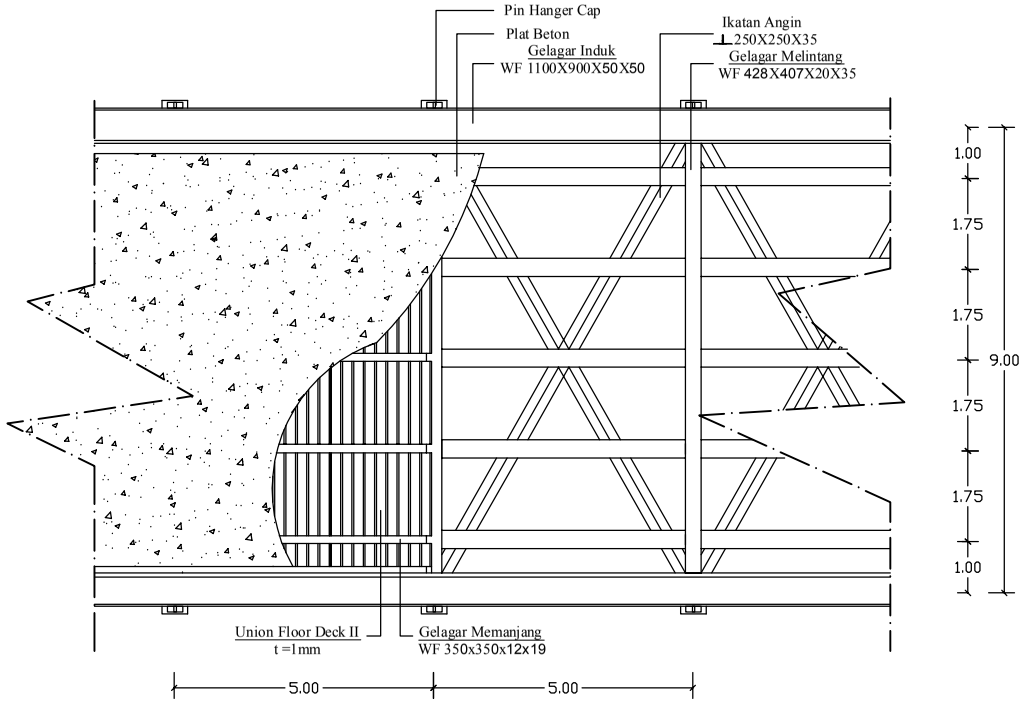
PERENCANA
Ronald Febrianto (1521125)

NAMA GAMBAR	SKALA
TAMPAK DEPAN	1:200

KODE GMBR	No. LEMBAR	JML LEMBAR



DETAIL JEMBATAN
Skala 1:100

INSTITUT TEKNOLOGI
NASIONAL MALANG

NAMA PEKERJAAN

PERENCANAAN JEMBATAN
A HALF THROUGH ARCH

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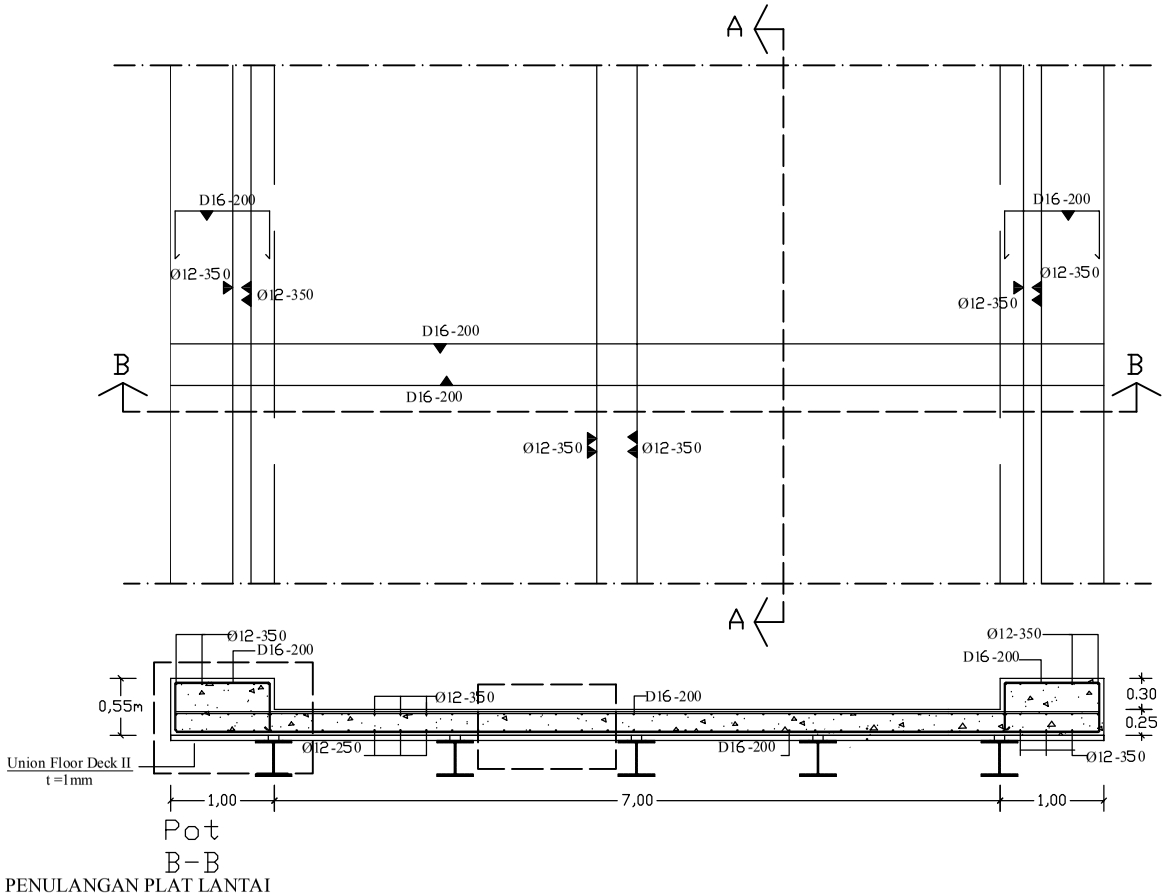
Ronald Febrianto
(1521125)

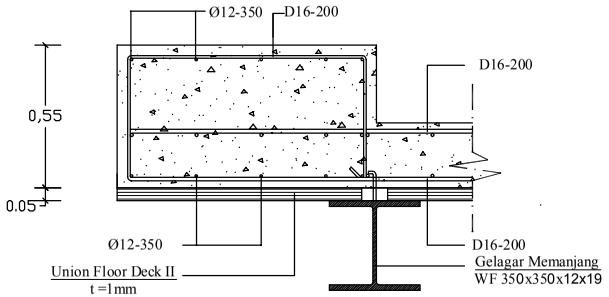
NAMA GAMBAR	SKALA
DETAIL JEMABATAN	1:100

KODE GMBR	No. LEMBAR	JML LEMBAR



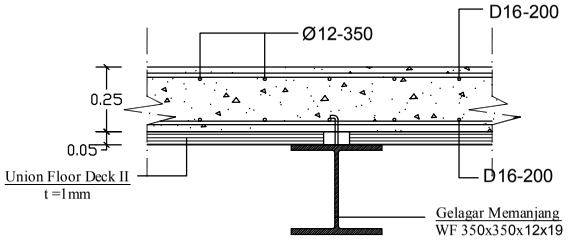
PENULANGAN PLAT LANTAI

Skala 1: 50



DETAIL PLAT TROTOAR

Skala 1:20



DETAIL PLAT LANTAI KENDARAAN

Skala 1:20

INSTITUT TEKNOLOGI NASIONAL MALANG

NAMA PEKERJAAN

PERENCANAAN JEMBATAN
A HALF THROUGH ARCH

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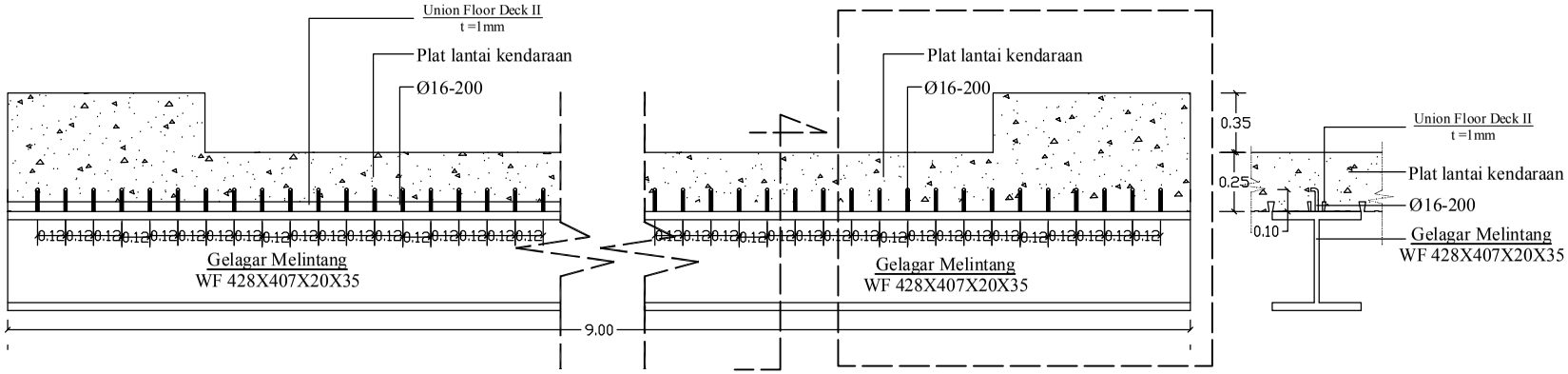
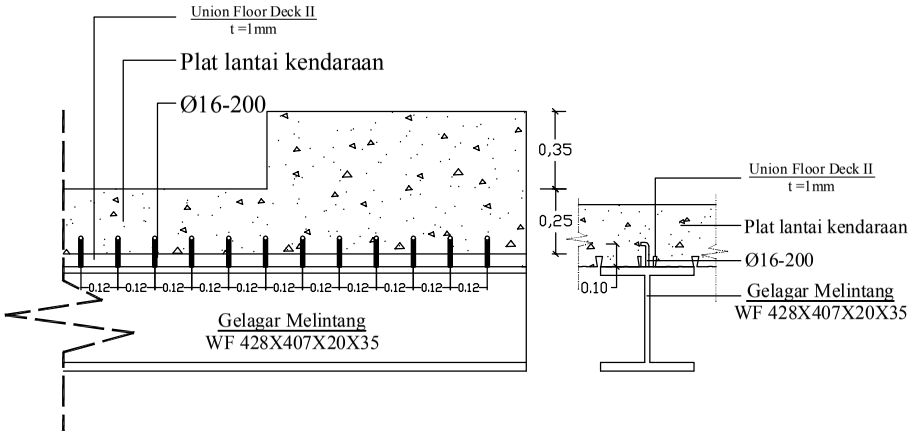
(1521125)

NAMA GAMBAR	SKALA
RENCANA PLAT LANTAI	1:50

KODE GMBR	No. LEMBAR	JML LEMBAR



Sheer Conector Gelagar Melintang
Skala 1: 25



Sheer Conector Gelagar Melintang
Skala 1: 20

INSTITUT TEKNOLOGI NASIONAL MALANG

NAMA PEKERJAAN

PERENCANAAN JEMBATAN
A HALF THROUGH ARCH

REVISI	TANDA TANGAN

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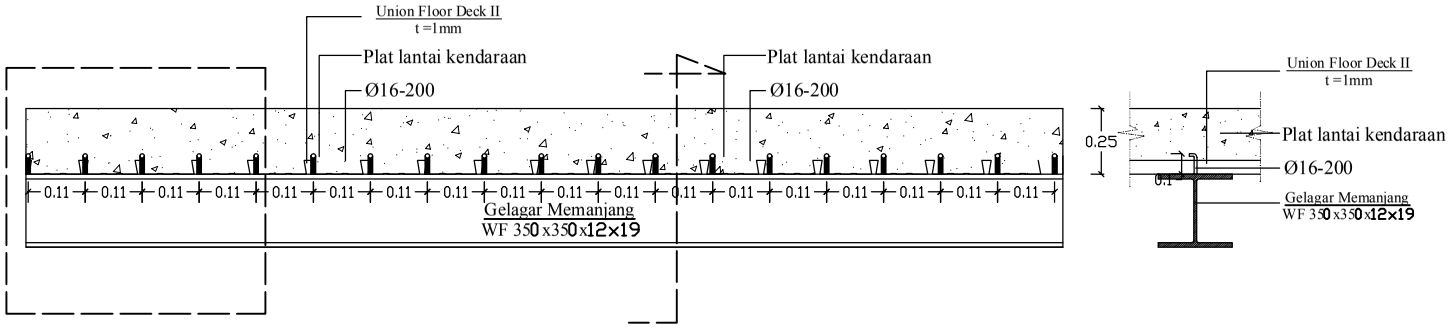
Ronald Febrianto
(1521125)

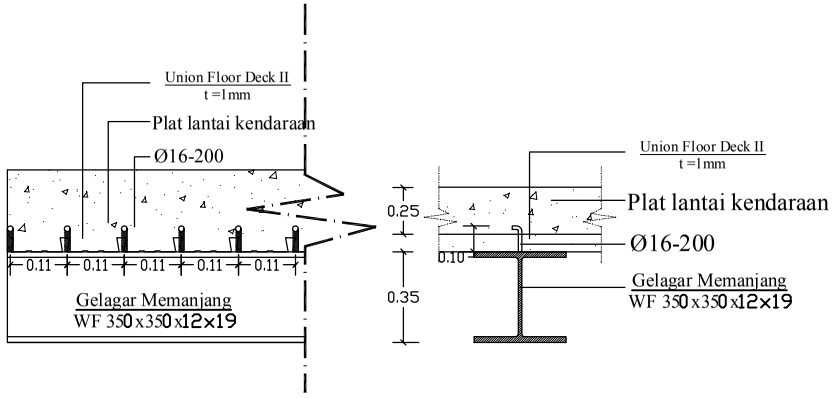
NAMA GAMBAR	SKALA
RENCANA SHEER CONECTOR	1:25

KODE GMBR	No. LEMBAR	JML LEMBAR



Sheer Conector Gelagar Memanjang

Skala 1: 25



Sheer Conector Gelagar Memanjang

Skala 1: 20

INSTITUT TEKNOLOGI NASIONAL MALANG

NAMA PEKERJAAN

PERENCANAAN JEMBATAN A HALF THROUGH ARCH

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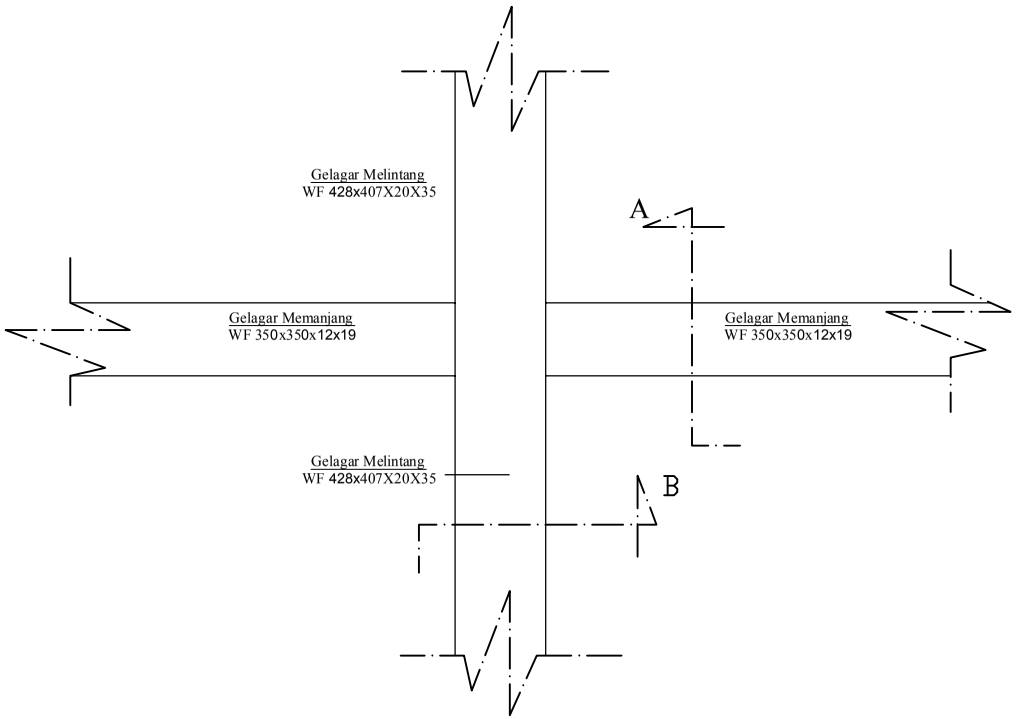
PERENCANA

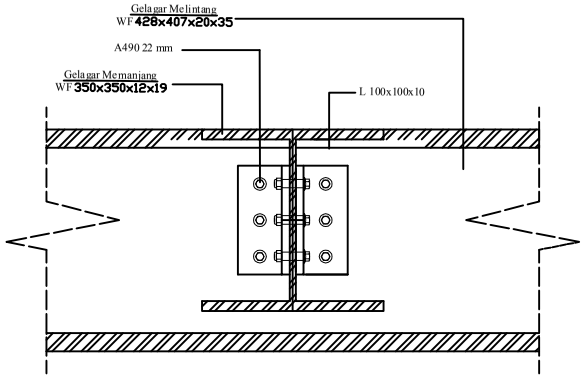
Ronald Febrianto
(1521125)

NAMA GAMBAR	SKALA
RENCANA SHEER CONECTOR	1:25

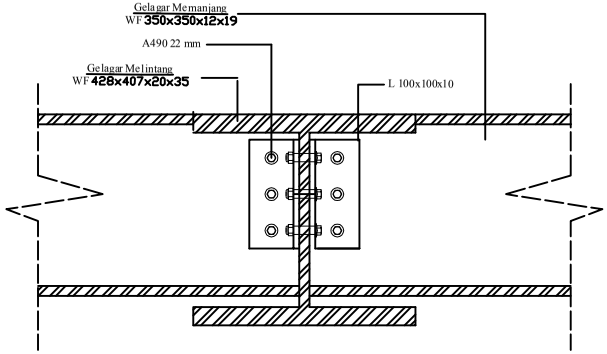
KODE GMBR	No. LEMBAR	JML LEMBAR



SAMBUNGAN GELAGAR MELINTANG DAN MEMANJANG
Skala 1:10



DETAIL POTONGAN A
Skala 1:10



DETAIL POTONGAN B
Skala 1:10

INSTITUT TEKNOLOGI NASIONAL MALANG

NAMA PEKERJAAN

PERENCANAAN JEMBATAN
A HALF THROUGH ARCH

REVISI	TANDA TANGAN

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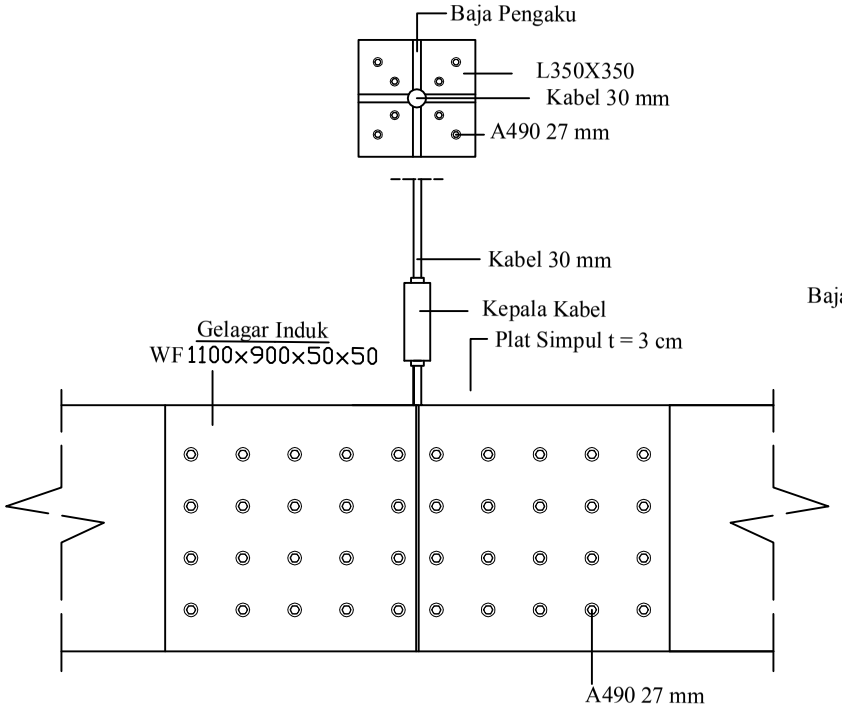
PERENCANA

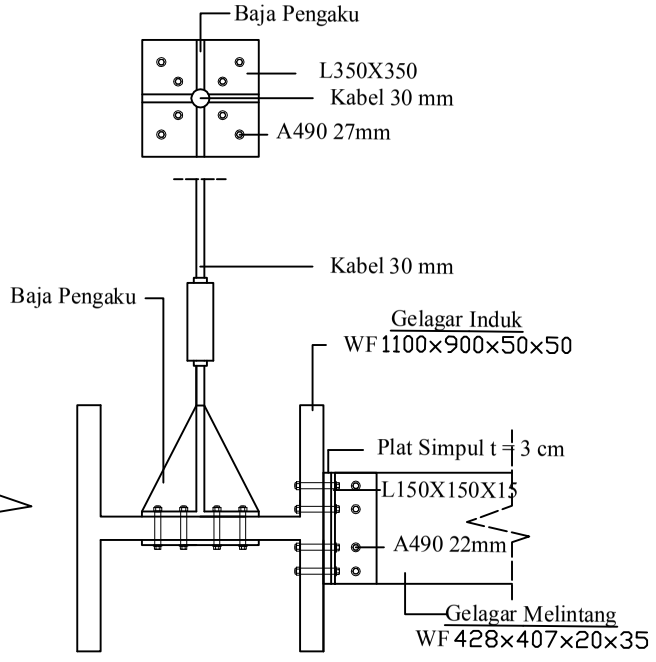
Ronald Febrianto
(1521125)

NAMA GAMBAR	SKALA
RENCANA SHEER CONECTOR	1:10

KODE GMBR	No. LEMBAR	JML LEMBAR



DETAIL SAMBUNGAN INDUK KE INDUK
Skala 1: 200



DETAIL SAMBUNGAN MELINTANG KE INDUK
Skala 1: 200

INSTITUT TEKNOLOGI
NASIONAL MALANG

NAMA PEKERJAAN

PERENCANAAN JEMBATAN
A HALF THROUGH ARCH

REVISI	TANDA TANGAN

DOSEN PEMBIMBING 1

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DOSEN PEMBIMBING 2

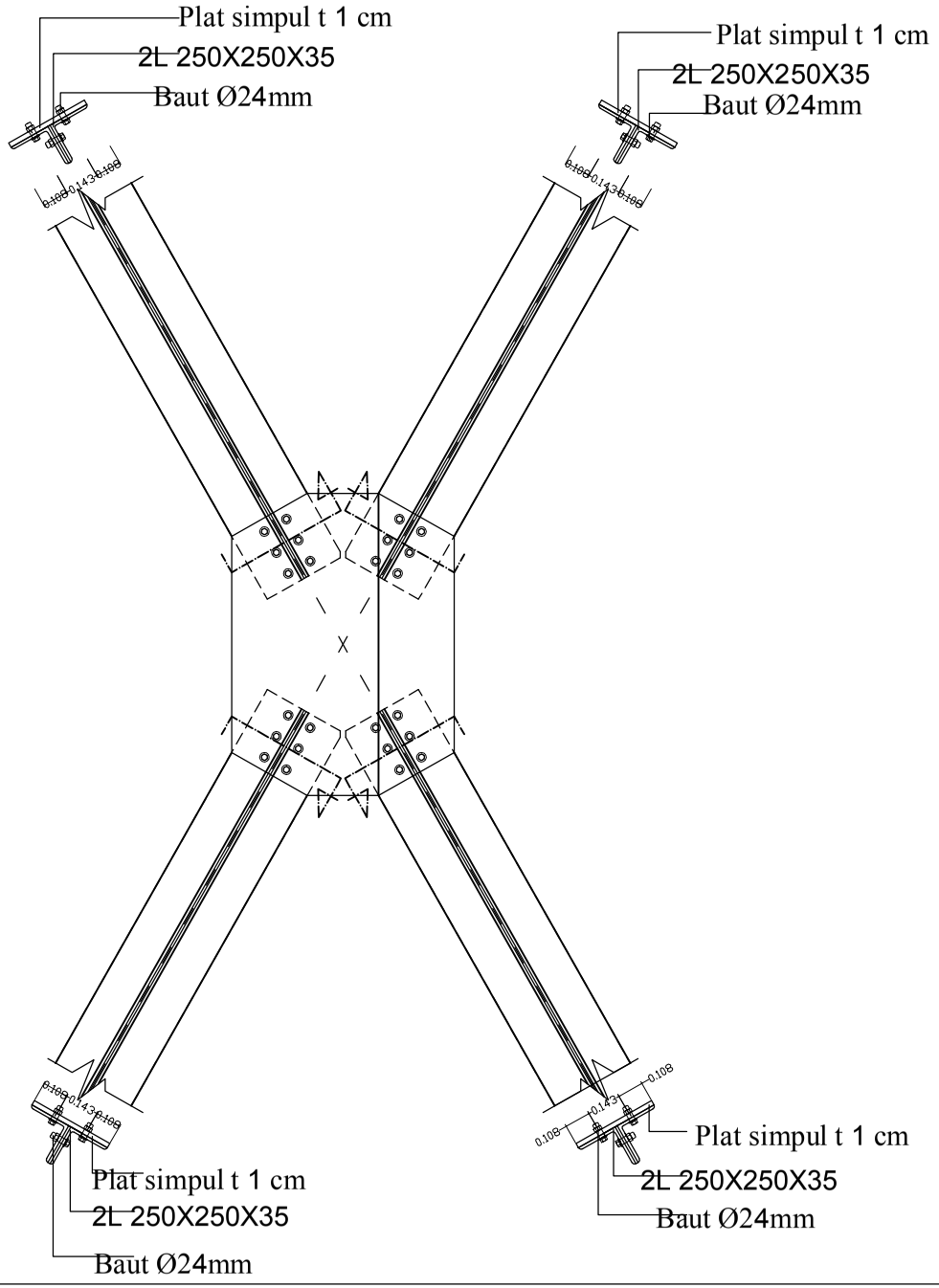
Mohammad Erfan, ST.,MT

PERENCANA

Ronald Febrianto
(1521125)

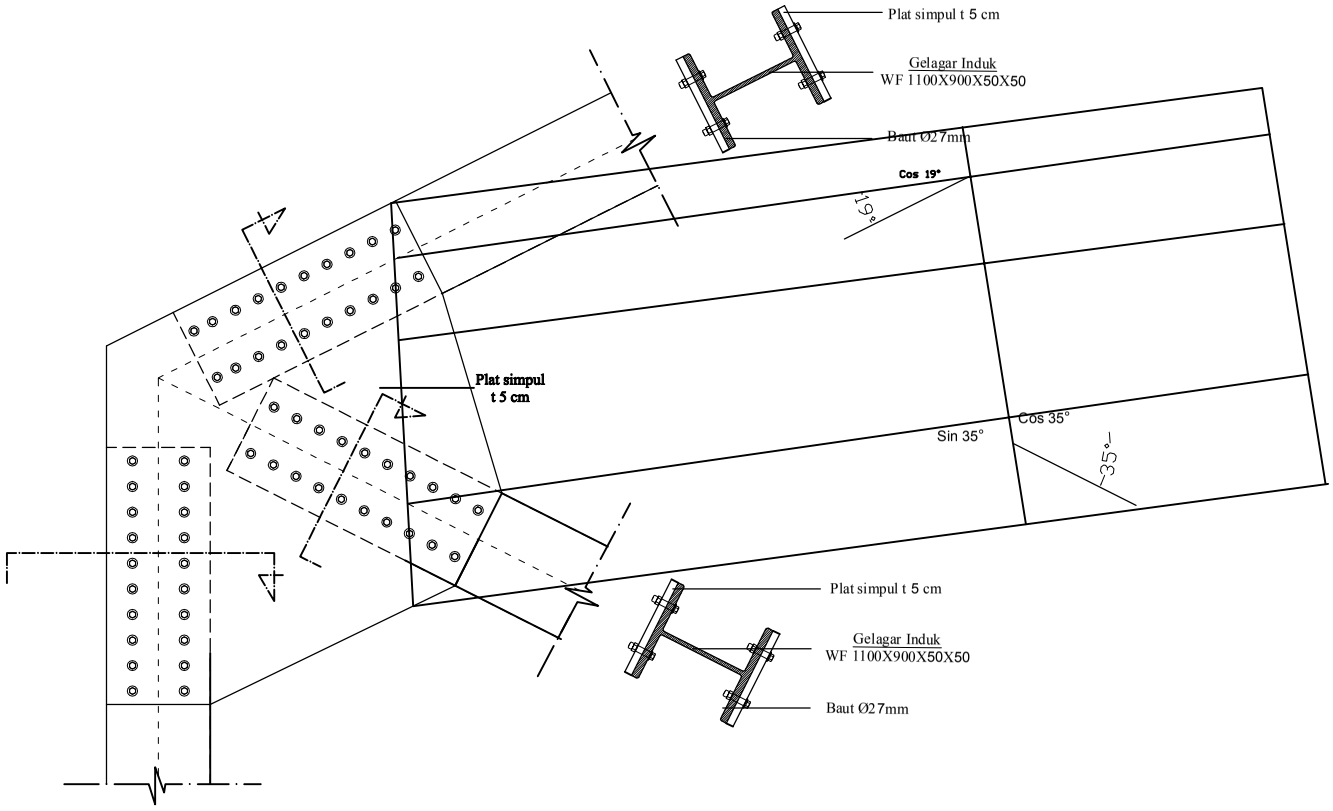
NAMA GAMBAR	SKALA
DETAIL SAMBUNGAN MELINTANG KE INDUK	1:200

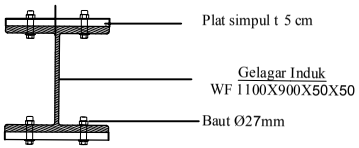
KODE GMBR	No. LEMBAR	JML LEMBAR

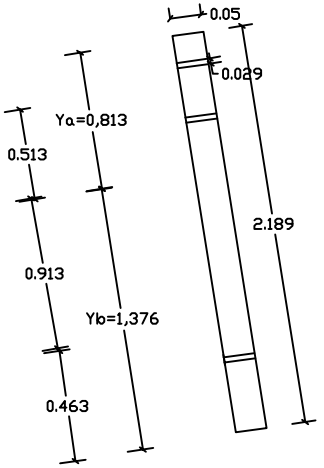


INSTITUT TEKNOLOGI NASIONAL MALANG

NAMA PEKERJAAN	
PERENCANAAN JEMBATAN A HALF THROUGH ARCH	
REVISI	TANDA TANGAN
DOSEN PEMBIMBING 1	
Ir. Ester Priskasari, MT.	
DOSEN PEMBIMBING 2	
Mohammad Erfan, ST.,MT	
PERENCANA	
Ronald Febrianto (1521125)	
NAMA GAMBAR	SKALA
DENAH DAN TAMPAK JEMBATAN	1:500
KODE GMBR / No. LEMBAR / JML LEMBAR	







INSTITUT TEKNOLOGI
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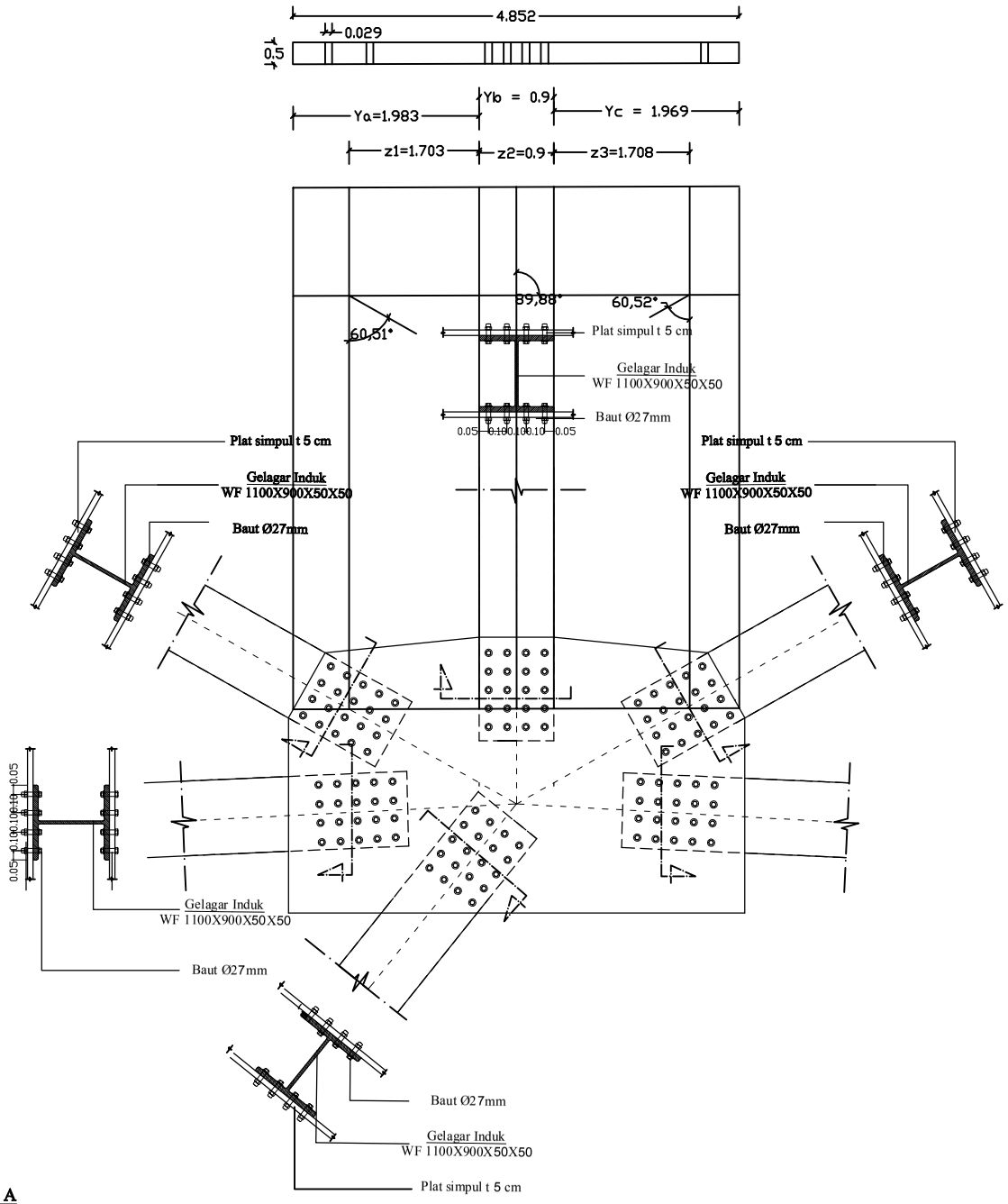
NAMA GAMBAR	SKALA
DENAH DAN TAMPAK JEMBATAN	1:500

KODE GMBR	No. LEMBAR	JML LEMBAR



Detail Sambungan A
Skala 1: 25

INSTITUT TEKNOLOGI NASIONAL MALANG

NAMA PEKERJAAN

PERENCANAAN JEMBATAN
A HALF THROUGH ARCH

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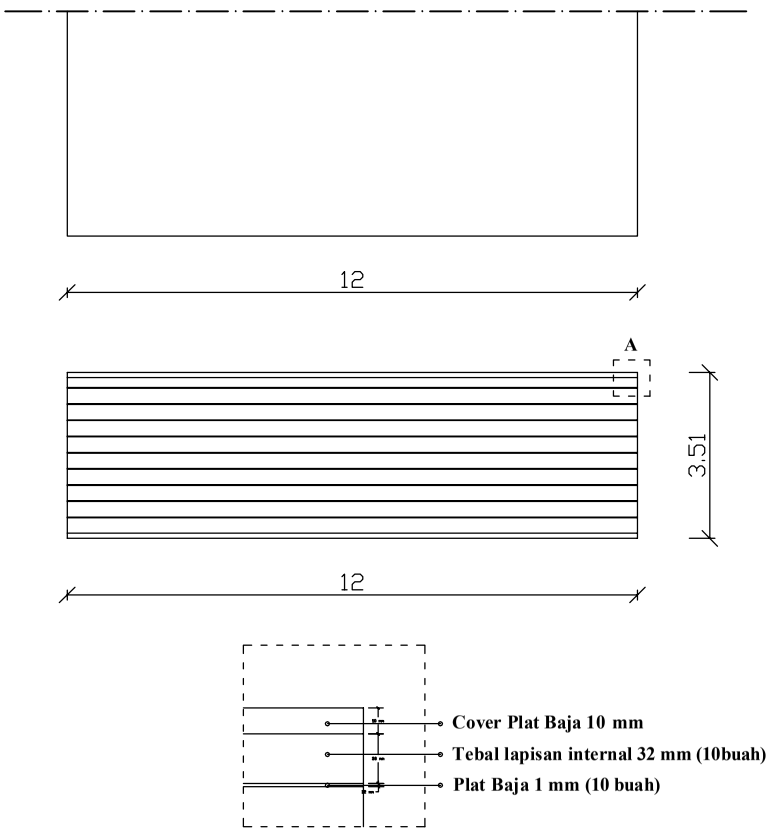

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