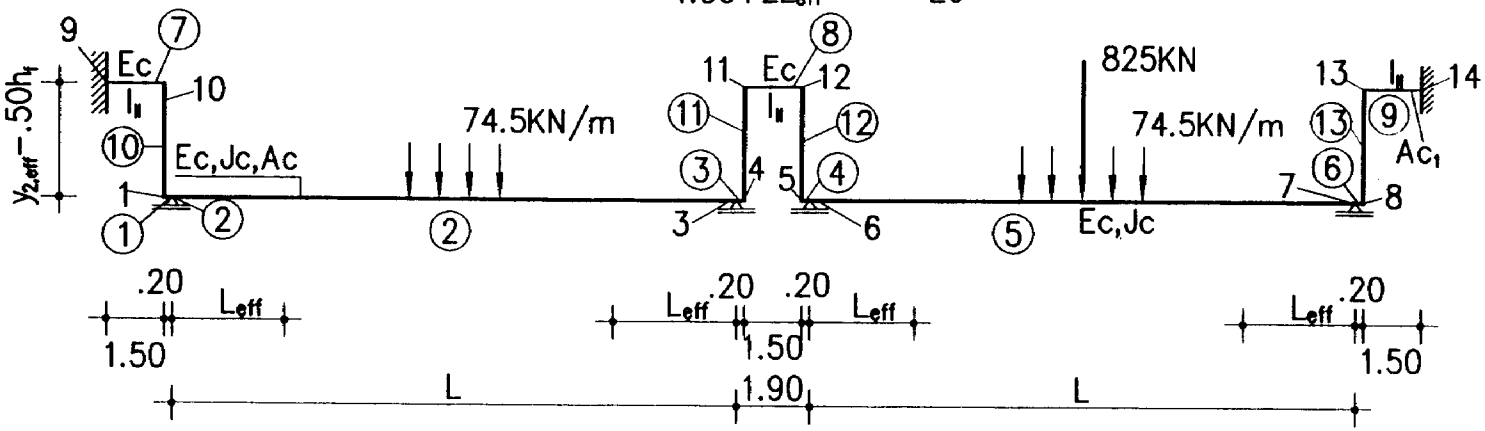
$$Ac_1 = \frac{1.50}{1.50+L_{eff}}\ 1.2As\frac{Es}{Ec}$$

$$Ac_2 = \frac{1.50}{1.50+2L_{eff}}\ 1.2As\frac{Es}{Ec}$$



ΠΙΝΑΚΑΣ ΔΕΔΟΜΕΝΩΝ

L=33.0m	E_c =32 GPa
b=12.0m	a=6.25
$A_{c,eff}$ =5.100m^2	g_1 =30.7KN/m
$J_{c,eff}$=2.784m	q=43.8KN/m
h_b =2.15m	g_1 +q=74.5KN/m
h_{ft}=0.275m	Q=825KN
$h_{f,eff}$=0.20m	A_{st}=739cm^2(3ϕ14/75)
$h_{(np.)}$=0.075m	ρ=3.1%
$y_{2,eff}$ =0.73m	A_{sb}=20,5$\frac{cm^2}{m}$(ϕ14/75κ.+ ϕ14/75ο.+
	T=- 50° C
	Leff=L/4 =8,25m

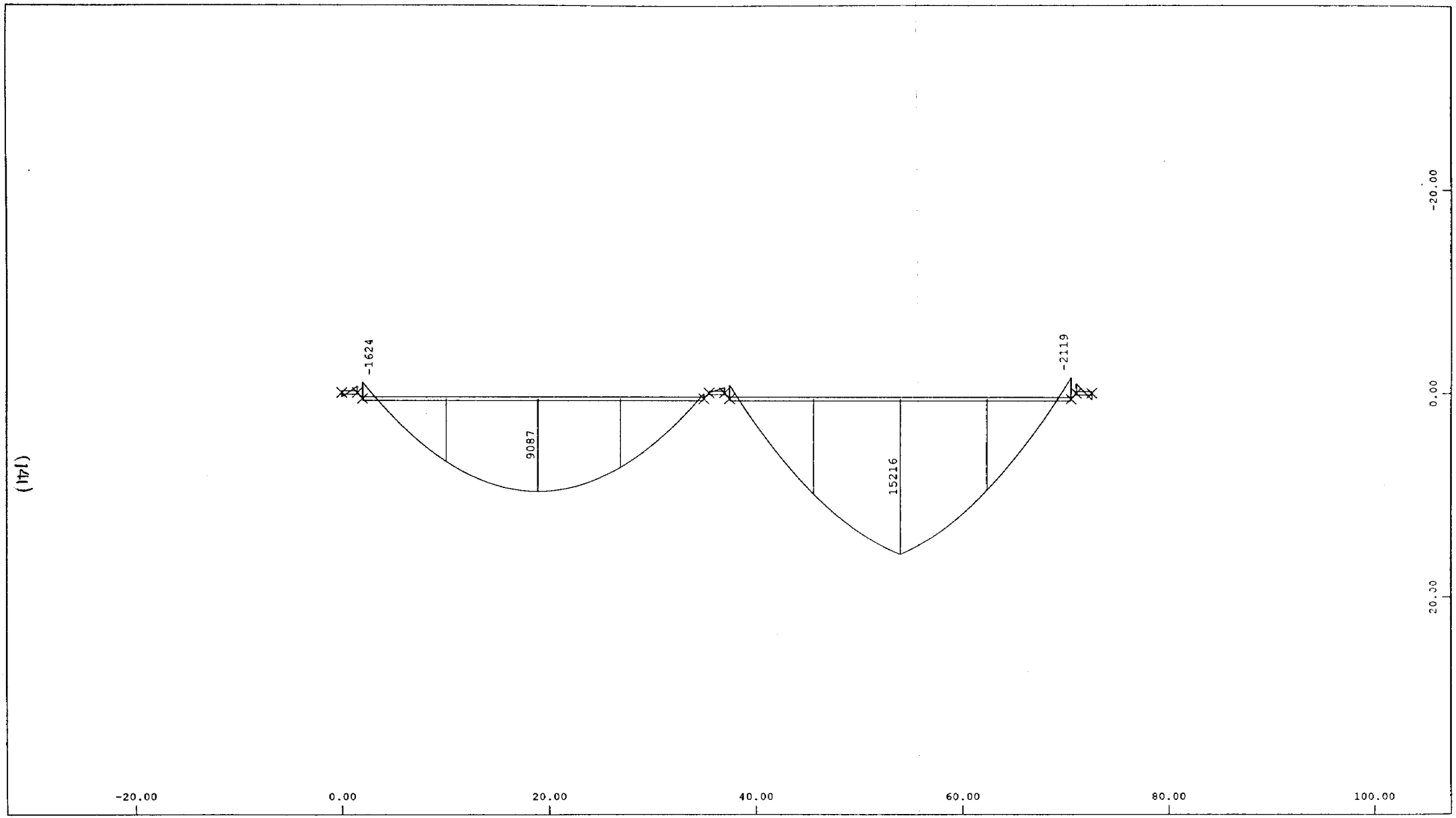
$I_{II} = 3.544a\rho bh_{f,eff}^3/12 = 0.1772\rho \approx I_I/1,5 \approx 0,0053\ m^4$

```
PROG GENF
HEAD
HEAD
PAGE LINE 75 LANO 1 LANI 1 MARG 3 FIRS 1
ECHO FULL FULL
SYST OPTI NO
SYST SPAC
CONC 1 B    35  EC 32000
CONC 2 B    35  EC 32000 $ 14400
STEE 3 BST  500
LET#1 33.00
NODE  1  1.50 0.00 0.58
      2  2.00 ==
      3  2.00+#1 ==
      4  2.00+#1+0.50 ==
      5  2.00+#1+2.00 ==
      6  2.00+#1+2.50 ==
      7  2.00+#1+2.50+#1 ==
      8  2.00+#1+2.50+#1+0.50 ==
      9  0.00 0.00 0.00
      10 1.50 ==
      11 2.00+#1+0.50
      12 2.00+#1+2.00
      13 2.00+#1+2.50+#1+0.50
      14 2.00+#1+2.50+#1+2.00
NODE  (1  4 3) FIX PYYM
NODE  (2  3 1) FIX XPYM
NODE  (5  8 3) FIX PYYM
NODE  (6  7 1) FIX XPYM
NODE (10 13 1) FIX PYYM
NODE  (9 14 5) FIX PPMM
NODE 10 FIX KF NREF 2
     1  FIX KF NREF 2
     11 FIX KF NREF 3
     4  FIX KF NREF 3
     12 FIX KF NREF 6
     5  FIX KF NREF 6
     13 FIX KF NREF 7
     8  FIX KF NREF 7
$
RECT NO 1  H 10 B 10 MNO 1              $ ΑΚΑΜΠΤΕΣ ΔΟΚΟΙ
SVAL NO 2 MNO 1 A 5.92   IY 3.072
SVAL NO 3 MNO 2 A 0.0853 IY 0.0053
SVAL NO 4 MNO 2 A 0.0462 IY 0.0053
$
$BEAM 1  1  2   NCS 1
BEAM 2  2  3   NCS 2
$     3  3  4   NCS 1
$     4  5  6   NCS 1
     5  6  7   NCS 2
$     6  7  8   NCS 1
     7  9 10   NCS 3
     8 11 12   NCS 4
     9 13 14   NCS 3
$    10  1 10   NCS 1
$    11  4 11   NCS 1
$    12  5 12   NCS 1
$    13  8 13   NCS 1
BSEC 2  8.10 2 SECT
BSEC 2 24.90 2 SECT
BSEC 5  8.10 2 SECT
BSEC 5 24.90 2 SECT
END

PROG GRAF
HEAD FINITE ELEMENT DISCRETIZATION
$PAGE FIRS -1 LANO 1 LANI 1
PAGE FIRS 3 LANO 1 LANI 1
SIZE LP FORM STAN
SCHH H1 0.22 H2 0.22 H3 0.16 H4 0.17 H6 0.19 MS 0.35
$SIZE  W 27 H 20 SC 0
$SCHH 0.18 0.18 0.15 0.15
COLO MONO $ COLO C5 6000
```

```
$                                                    3D VIEW ALL
GRP 0,1
VIEW STAN 0 0 -1 POSY
STRU SECT 1 OFFE +1 OFFN +4 ; AND ; STRU 1 1
VIEW STAN .5 1 -.4 POSZ
STRU SECT 1 OFFE +1 OFFN +4 ; AND ; STRU 1 1
STRU NUME 1 MFIX 4
STRU NUMN 1 MARK 1
$                                                    TOP VIEW
END

PROG STAR2
HEAD ENTATIKA METEΘH
PAGE FIRS 1 LINE 75 MARG 3 LANO 1 LANI 1
ECHO FULL FULL
ECHO NODE FULL
CTRL I
LC 1 TITL 'FORTIA MON.+KIN.'
UL 2 PZ 74.50
UL 5 PZ 74.50
SL NO 5 TYPE PZ P 825 A 16.5
LC 2 TITL 'FORT. MON.+KIN.+(-50o C)'
UL 2 PZ 74.50
UL 5 PZ 74.50
SL NO 5 TYPE PZ P 825 A 16.5
UL 2 TS -50
UL 5 TS -50
UL (7 9 1) TS -50
END

PROG GRAF -E $ INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
HEAD INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
PAGE FIRS 3 LANO 1 LANI 1
SIZE LP FORM STAN
SCHH H1 0.22 H2 0.22 H3 0.16 H4 0.17 H6 0.19 MS 0.35

$PAGE FIRS 1 LANO 1 LANI 1
$SIZE 4 0 W 20 H 27 $ SPLI 2X1
$SIZE W 27 H 20 $SPLI 2X1
$SCHH H1 0.22 H2 0.22 H3 0.16 H4 0.17 H6 0.19 MS 0.35
$
COLO MONO
VIEW STAN 0 1 0 POSZ
GRP  0
$
LC 1 TITE 'LOAD CASE 1'
BEAM MY UNIT 5000. ; BEAM VZ UNIT 1000. ; BEAM N UNIT 250.
LC 2 TITE 'LOAD CASE 2'
BEAM MY UNIT 3500. ; BEAM VZ UNIT 1000. ; BEAM N UNIT 2500.
$LC 3 TITE 'PRESTRESSING V'
$BEAM MY UNIT 5000. ; BEAM VZ UNIT 1000. $ BEAM MT UNIT 500.
$LC 4 TITE 'PRESTRES. UNRESTR. Vo'
$BEAM MY UNIT 5000. ; BEAM VZ UNIT 1000.
$LC 5 TITE 'PARASITIC FORCES Vp'
$BEAM MY UNIT 5000. ; BEAM VZ UNIT 100.  $ BEAM MT UNIT 500.
$LC 33 TITE 'SHRINKAGE'
$BEAM MY UNIT  500. ; BEAM VZ UNIT  50. $ BEAM MT UNIT  50.
$LC 11 TITE 'TRAFFIC LOADS-MAX MY' ; BEAM MY UNIT 1500. ; AND
$LC 12 TITE 'TRAFFIC LOADS-MIN MY' ; BEAM MY UNIT 1500
$LC 13 TITE 'TRAFFIC LOADS-MAX VZ' ; BEAM VZ UNIT  500. ; AND
$LC 14 TITE 'TRAFFIC LOADS-MIN VZ' ; BEAM VZ UNIT  500
$LC 15 TITE 'TRAFFIC LOADS-MAX MT' ; BEAM MT UNIT 1000. ; AND
$LC 16 TITE 'TRAFFIC LOADS-MIN MT' ; BEAM MT UNIT 1000
$LC 36 TITE 'BREAKING LOADS'
$BEAM MY UNIT 250. ; BEAM VZ UNIT 20. $ BEAM MT UNIT 50.
$LC 38 TITE 'T=+25 C'
$BEAM MY UNIT  500. ; BEAM VZ UNIT  50. $ BEAM MT UNIT 100.
$LC 40 TITE 'DT=+7 C'
$BEAM MY UNIT 1500. ; BEAM VZ UNIT 100. $ BEAM MT UNIT 200.
$LC 41 TITE 'DT=-3.5 C'
$BEAM MY UNIT 1500. ; BEAM VZ UNIT 100. $ BEAM MT UNIT 200.
$LC 42 TITE 'SETTLEMENT M1'
$BEAM MY UNIT 1500. ; BEAM VZ UNIT 100. $ BEAM MT UNIT  200.
```

```
$LC 44 TITE 'SETTLEMENT M1+M2'
$BEAM MY UNIT 1500. ; BEAM VZ UNIT 100. $ BEAM MT UNIT  200.
$LC 45 TITE 'REPLACEMENT BEARINGS A1'
$BEAM MY UNIT 1500. ; BEAM VZ UNIT 100. $ BEAM MT UNIT  200.
$
```

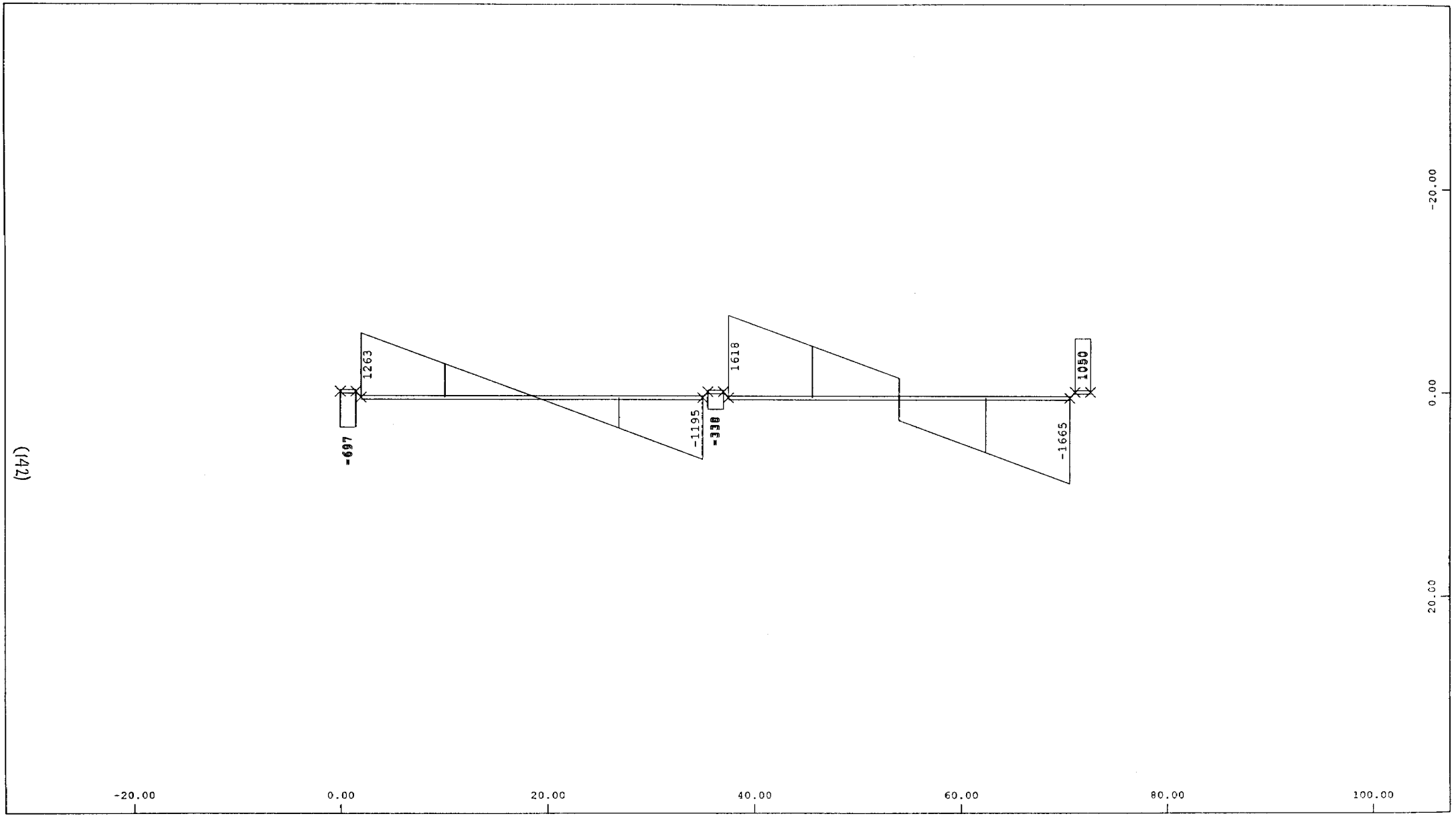
METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM MOMENTS MY LC 1 LOAD CASE 1 1 CM = 5000 kNm

M 1 : 500

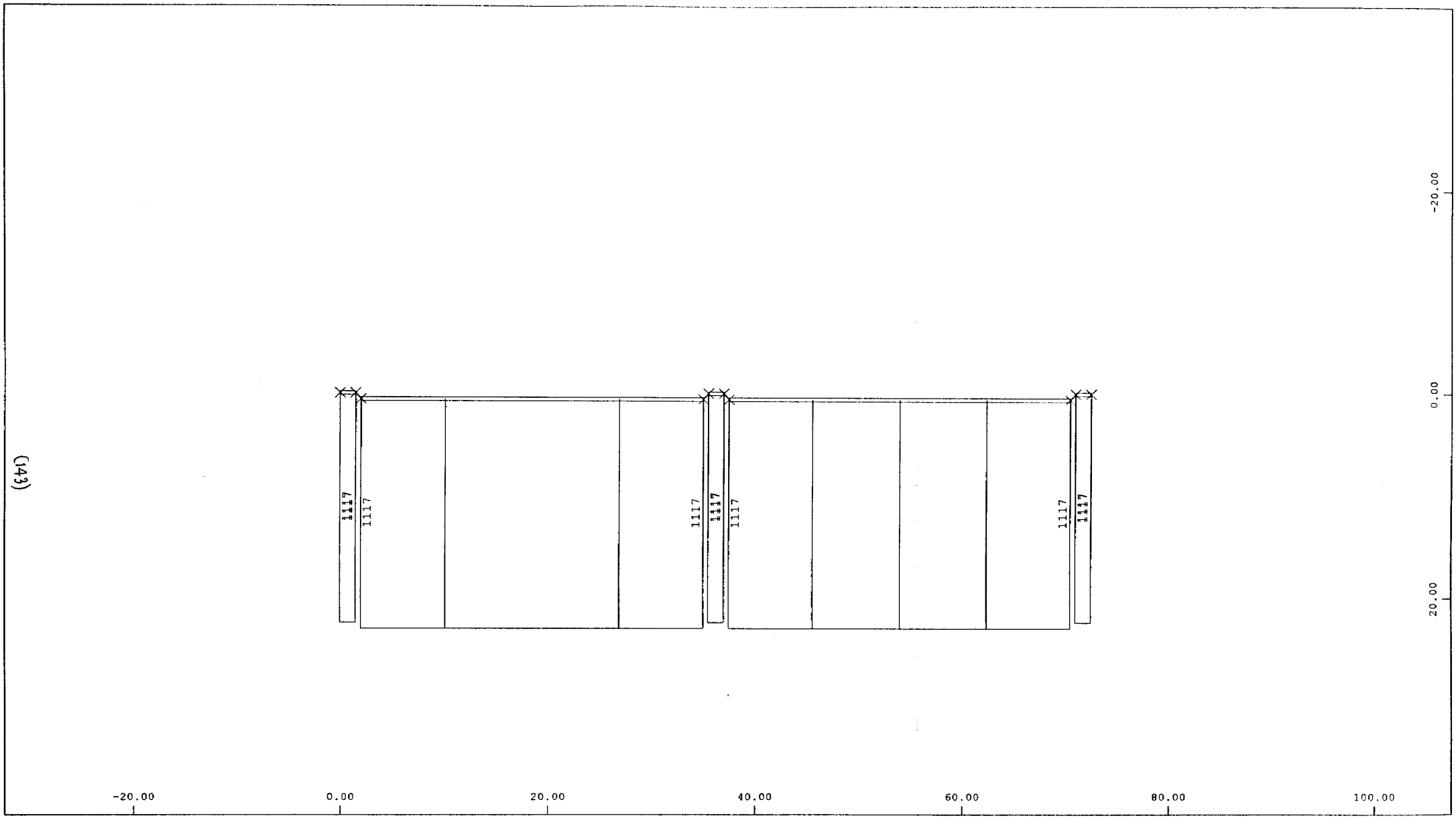
METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM SHEAR FORCES QZ LC 1 LOAD CASE 1 1 CM = 1000 kN

M 1 : 500

METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9



(143)

INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM NORMAL FORCES LC 1 LOAD CASE 1 1 CM = 250.0 kN

M 1 : 500

METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9

ΘΑΜΙΣΤΙΚΗ ΜΕΘΟΔΟΣ

$0{,}5(350-1995)-3.814\left(3.500-\frac{14.338}{5{,}1}\right)\simeq -823-2190=-3013=-1{,}38\Delta N_1 \rightarrow \Delta N_1=2183 \rightarrow N_1=14338+2183=16.521\ kN$

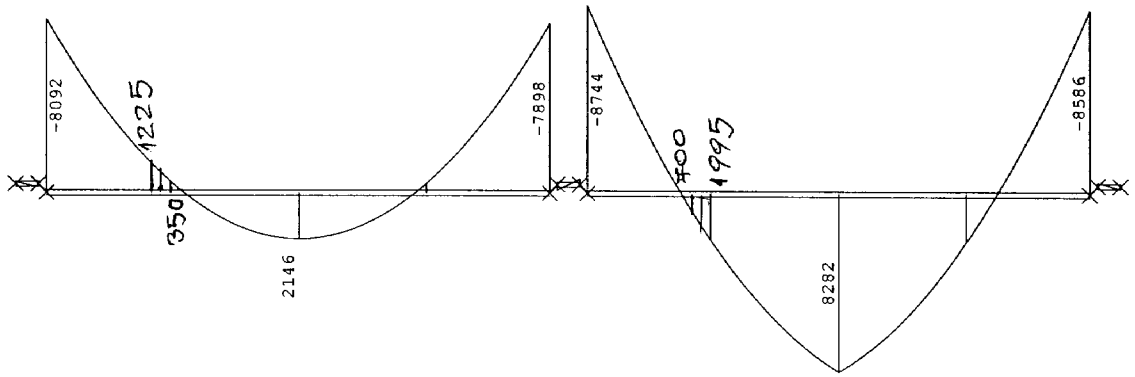
$x_1=19{,}15\times 14.338/16.521=16{,}6\ m \rightarrow L_{eff,1}\simeq 0{,}5(16{,}6-2{,}65)=7{,}0\ m \rightarrow 0{,}5(1225-700)-2190=-1{,}38\Delta N_2 \rightarrow \Delta N_2\simeq 1397\ kN$

$N_2=15735\ kN \rightarrow x_2=19{,}15\times 14.338/15.735=16{,}40\ m \rightarrow L_{eff,2}\simeq 7{,}45\ m \rightarrow 0{,}5(875-1225)-2190=-1{,}38\Delta N_3 \rightarrow \Delta N_3\simeq 1714\ kN$

$N_3\simeq 16000\ kN \rightarrow L_{eff}\simeq 7{,}30\ m$

ΣΥΜΕΡΑΣΜΑ

Η μικρή διαφοροποίηση συμφωνικής με τις άλλες περιπτώσεις ίδιου πλάτους b και T αποδίδεται στην καμπυλή επιφορά της πλάκας για φατνίωμα, η οποία στην παρούσα περίπτωση είναι ισχυρότερη.

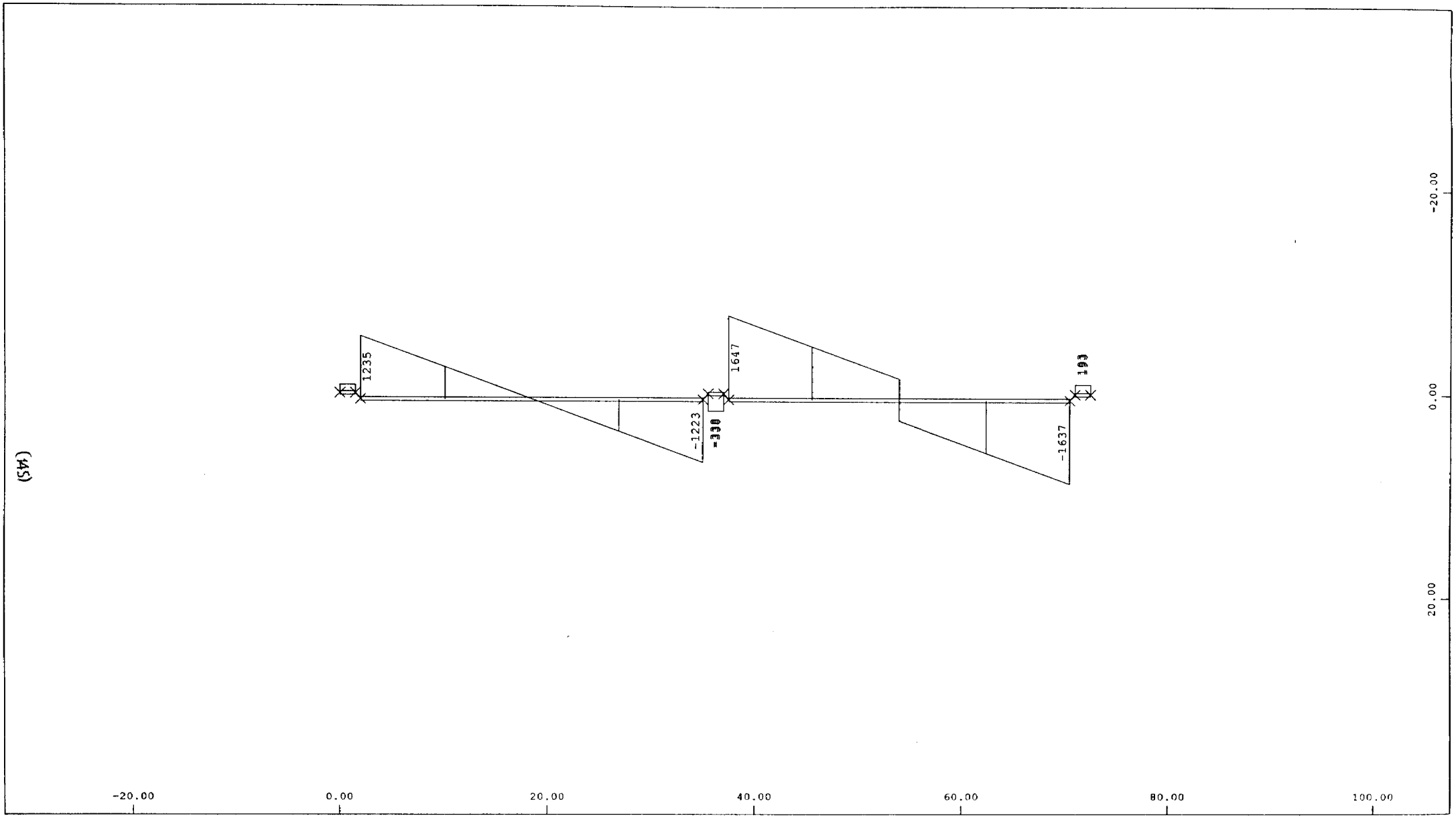


INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM MOMENTS MY LC 2 LOAD CASE 2 1 CM = 3500 kNm

M 1 : 500

(144)

METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9

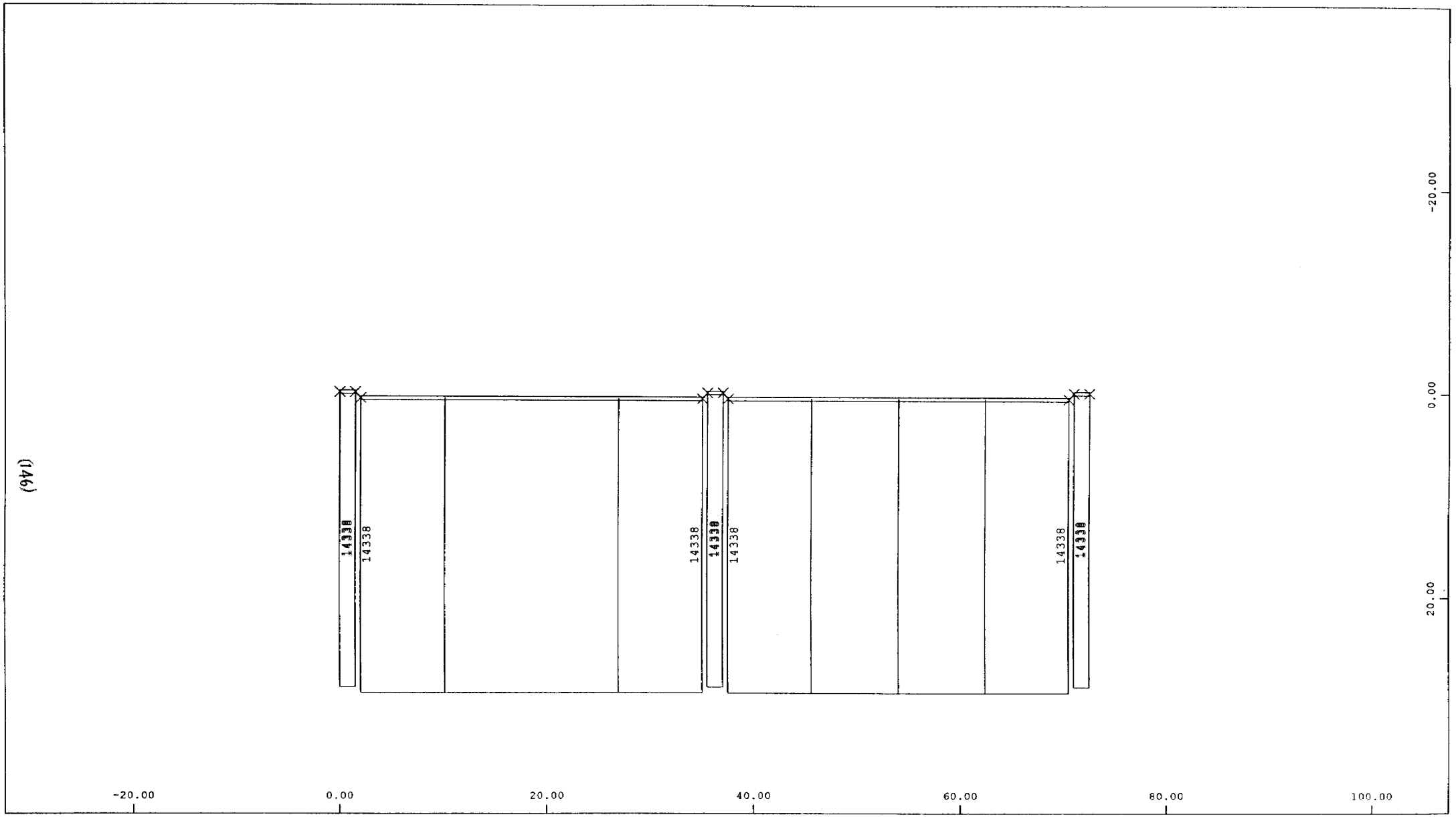


INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM SHEAR FORCES QZ LC 2 LOAD CASE 2 1 CM = 1000 kN

M 1 : 500

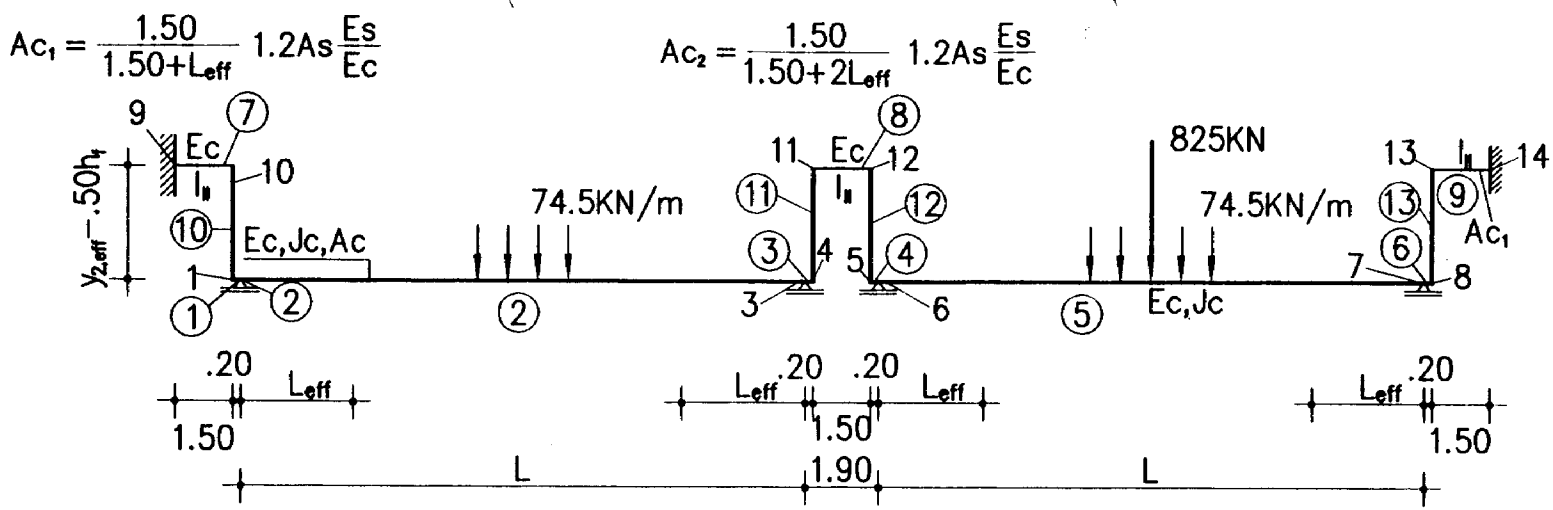
METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9

(146)



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM NORMAL FORCES LC 2 LOAD CASE 2 1 CM = 2500 kN

M 1 : 500

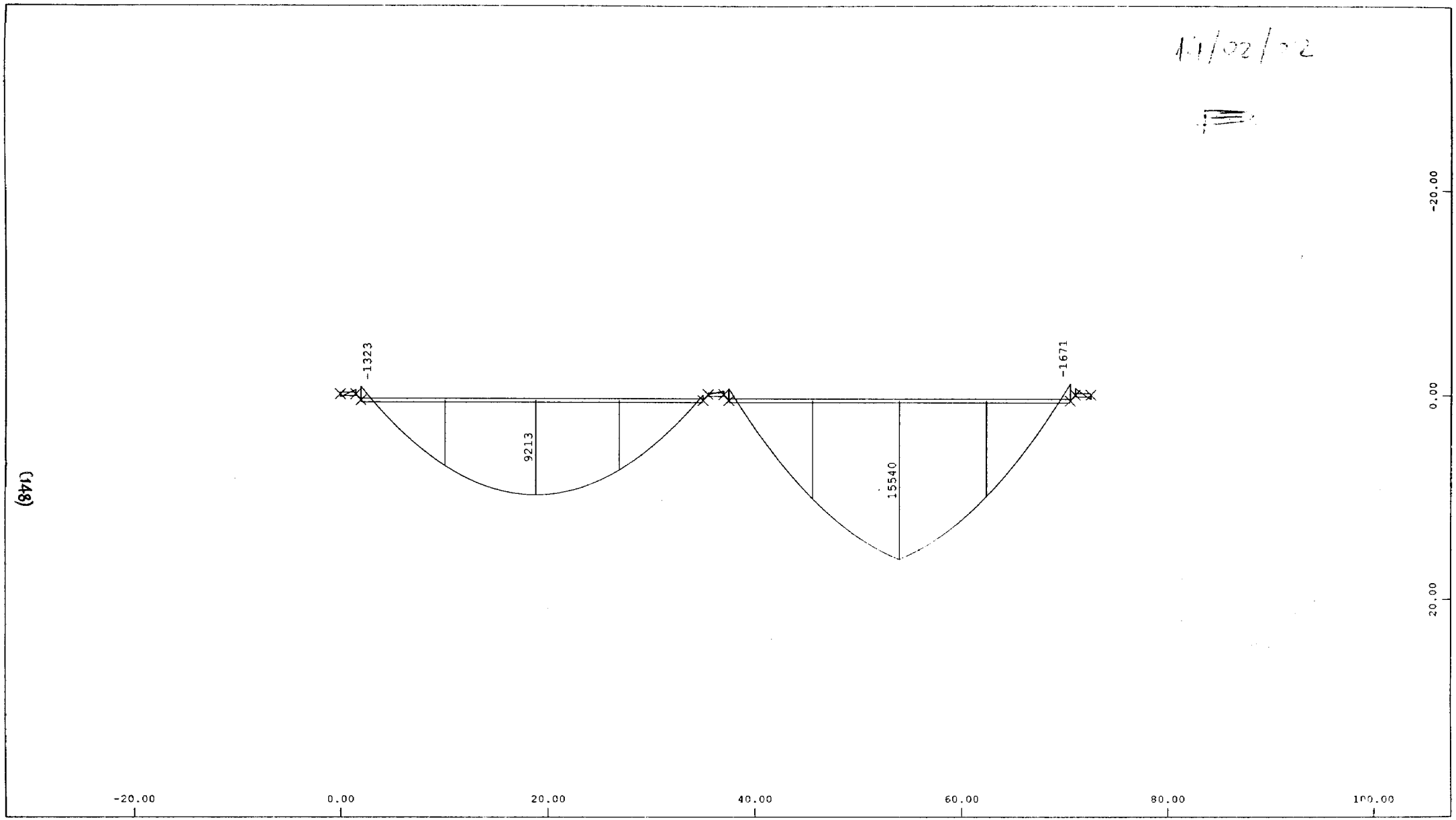


ΠΙΝΑΚΑΣ ΔΕΔΟΜΕΝΩΝ

L=33.0m	E_c =32 GPa
b=12.0m	a=6.25
$A_{c,eff}$ =5.100m^2	g_1 =30.7KN/m
$J_{c,eff}$=2.784m	q=43.8KN/m
h_b =2.15m	g_1 +q=74.5KN/m
h_{ft}=0.275m	Q=825KN
$h_{f,eff}$=0.20m	A_{st}=723cm^2 (3φ14/75)
$h_{(πρ.)}$=0.075m	ρ=3.1 %
$y_{2,eff}$ =0.73m	A_{sb}=20,5cm^2/m (φ14/75π. +φ14/75κ.
	T=-50° C
	Leff= L/4 ≃ 8,25 m

$I_{II} = 3.544 a\rho b h_{f,eff}^3/12 = 0.1772\rho \approx J_I/2,25 \simeq 0,0035 m^4$

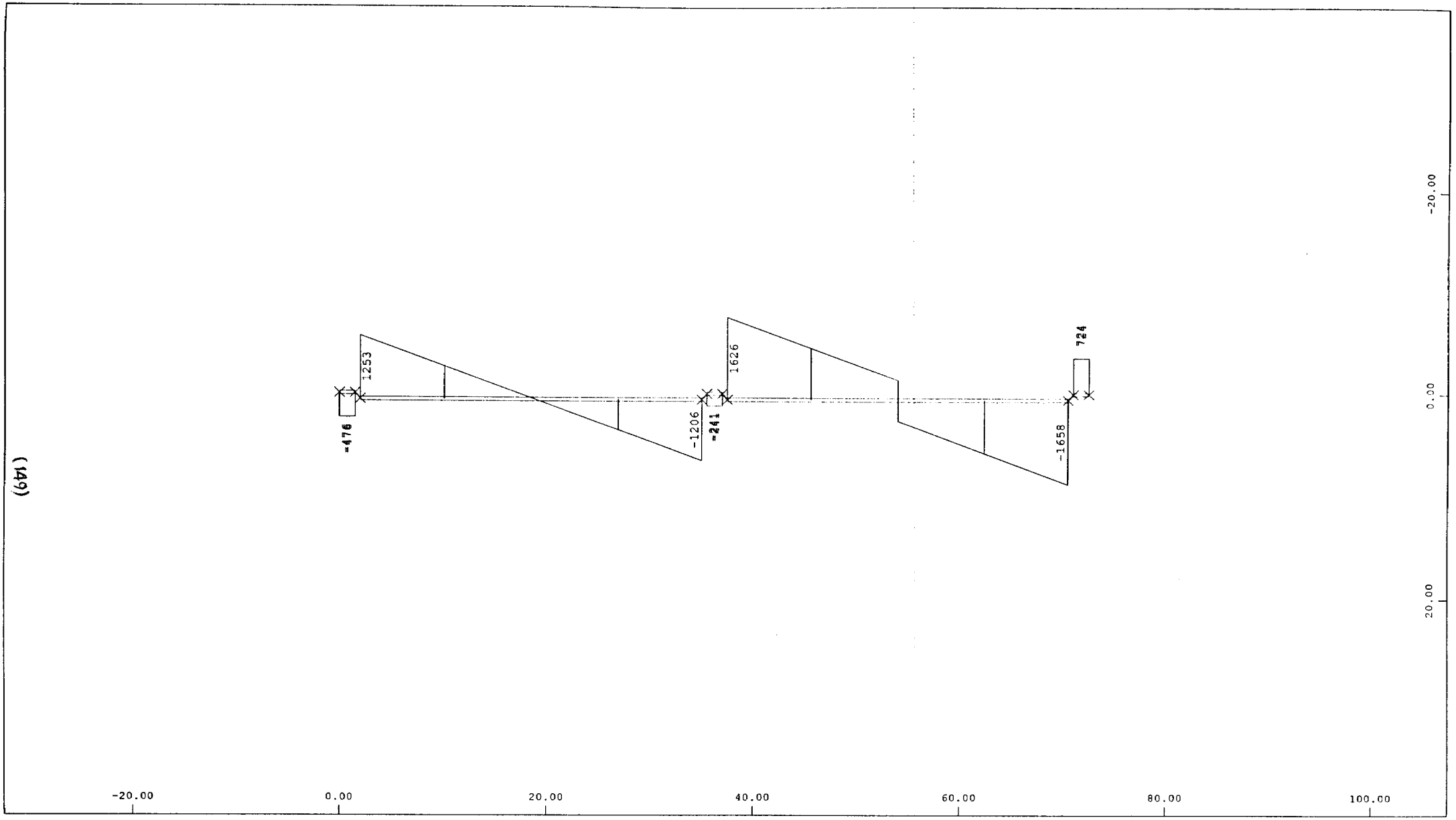
METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM MOMENTS MY LC 1 LOAD CASE 1 1 CM = 5000 kNm

M 1 : 500

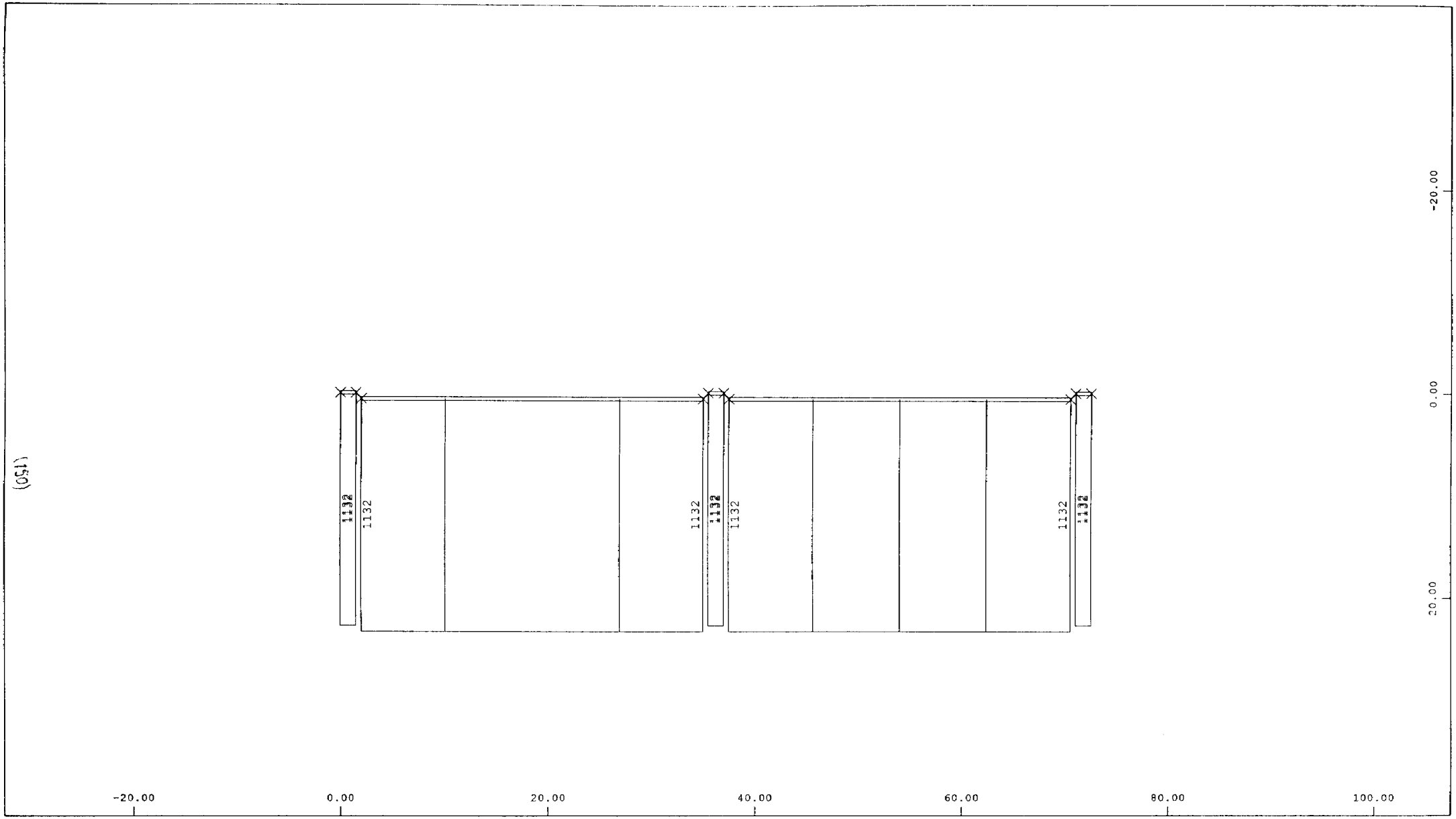
METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM SHEAR FORCES QZ LC 1 LOAD CASE 1 1 CM = 1000 kN

M 1: 500

METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM NORMAL FORCES LC 1 LOAD CASE 1 1 CM = 250.0 kN

M 1 : 500

METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9

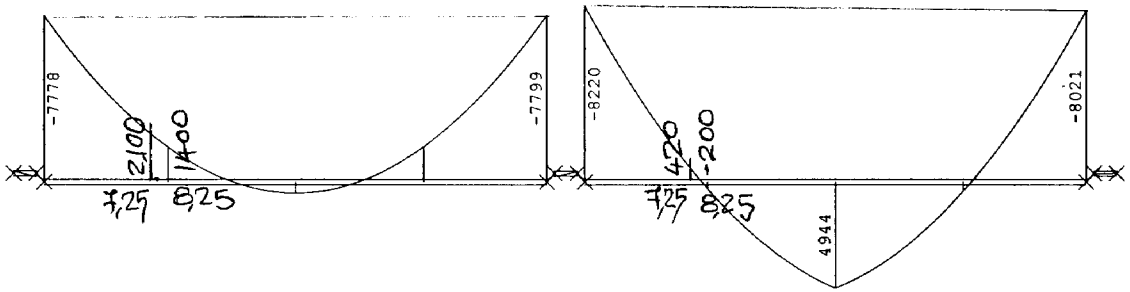
ΘΑΜΙΣΤΙΚΗ ΜΕΘΟΔΟΣ

$0{,}5(1400-200)-3{,}814\left(3.500-\frac{13863}{51}\right)=600-2982=-2382=-1{,}38\,\Delta N_1 \rightarrow \Delta N_1=1726\ kN \rightarrow N_1=15.588\ kN$

$X_1=19{,}15\times13.863/15.588=16{,}00\ m \rightarrow L_{eff,1}\simeq 7{,}25\ m \rightarrow 0{,}5(2100+420)-2982=-1{,}38\,\Delta N_2 \rightarrow \Delta N_2=1248\ kN \rightarrow N_2\simeq 15111\ kN$

$X_2=19{,}15\times13.863/15111\simeq 16{,}50\ m \rightarrow L_{eff,2}\simeq 7{,}50\ m \rightarrow 0{,}5(1820+\Phi)-2982\simeq-1{,}38\,\Delta N_3 \rightarrow \Delta N_3=1501\ kN \rightarrow N_3=15.400\ kN$

$L_{eff}=7{,}35\ m$



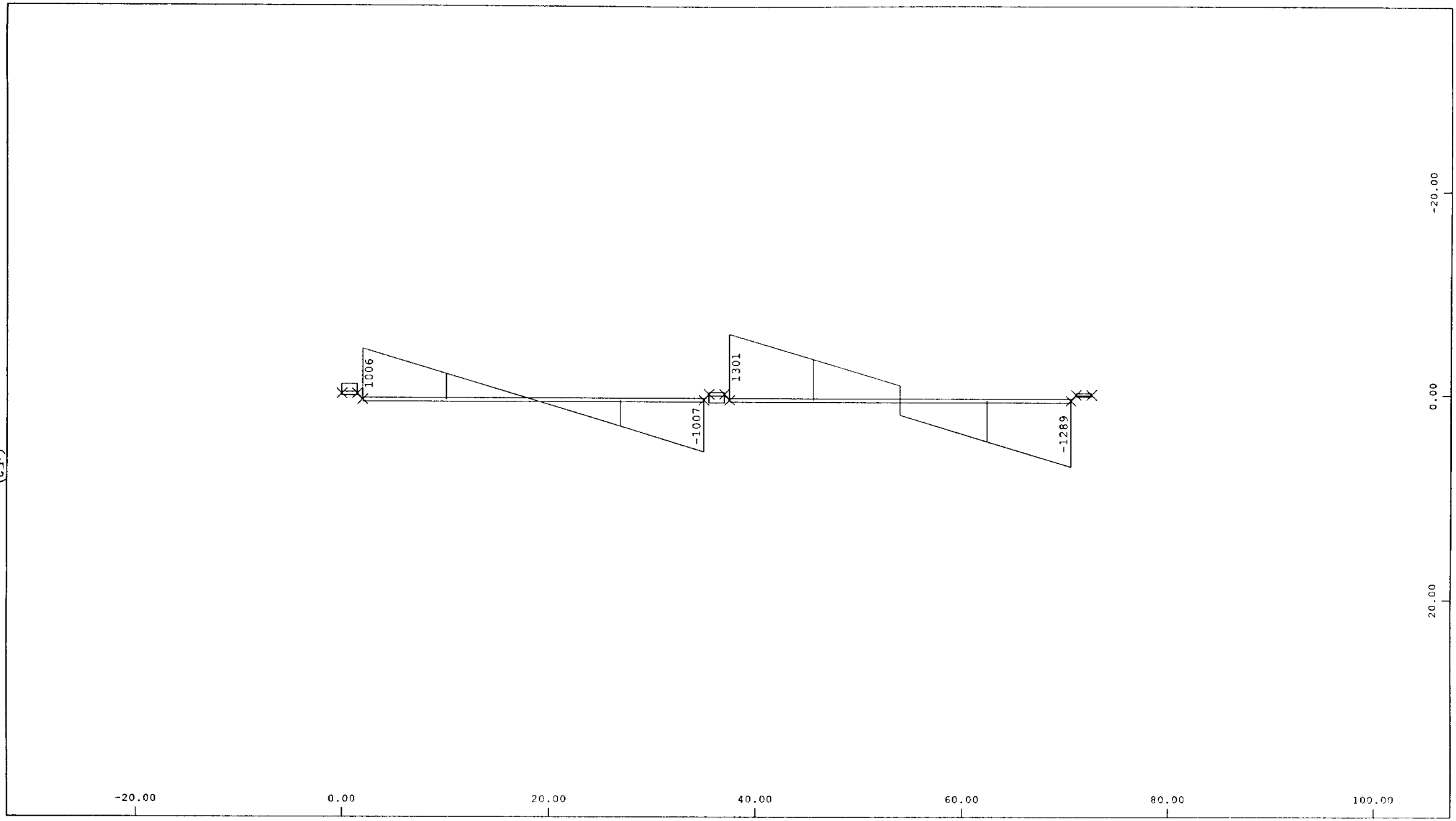
-20.00 0.00 20.00 40.00 60.00 80.00 100.00

-20.00 0.00 20.00

INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM MOMENTS MY LC 2 LOAD CASE 2 1 CM = 3500 kNm

M 1 : 500

METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9



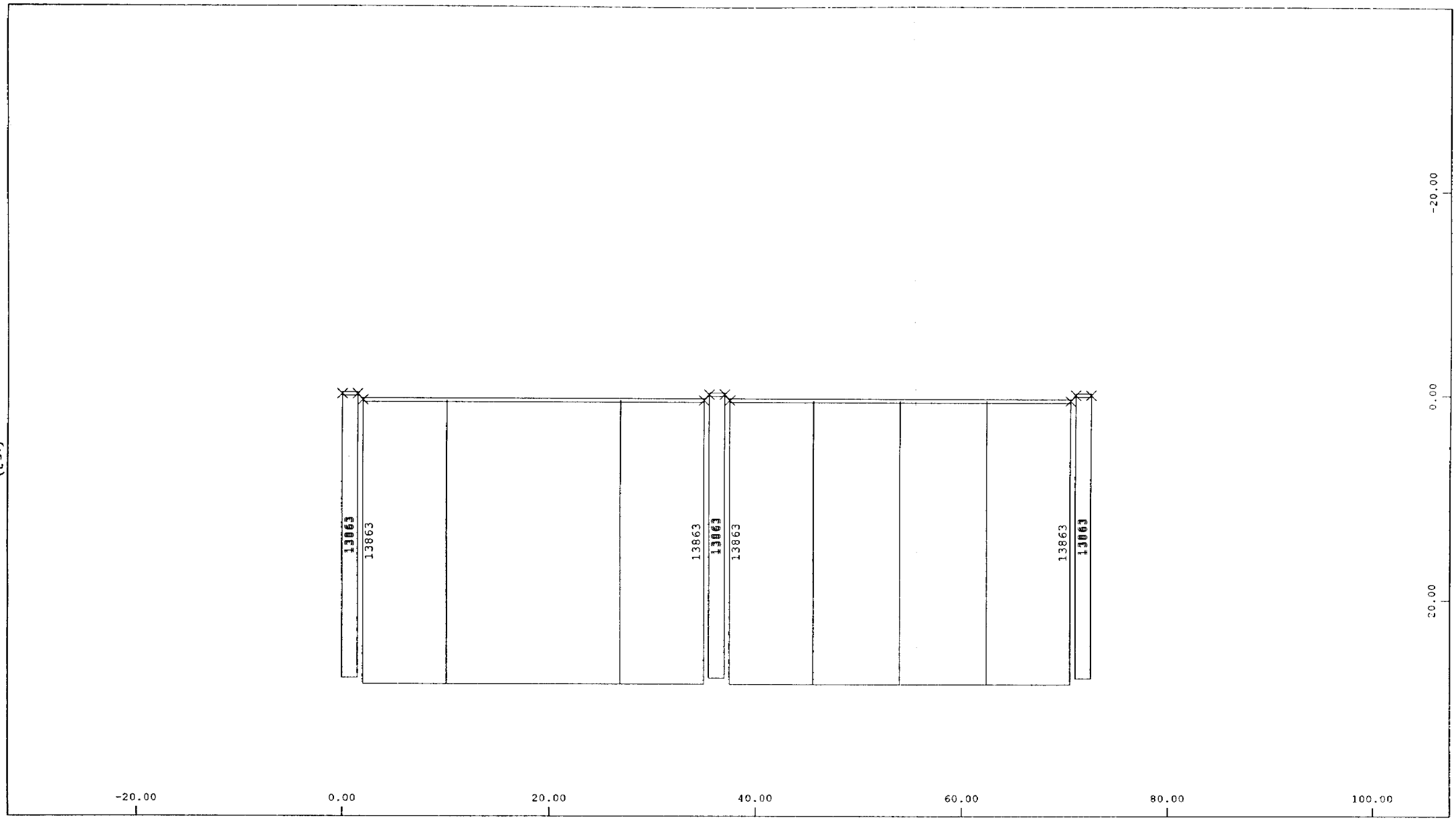
(152)

INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM SHEAR FORCES QZ LC 2 LOAD CASE 2 1 CM = 1000 kN

M 1 : 500

METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9

(153)

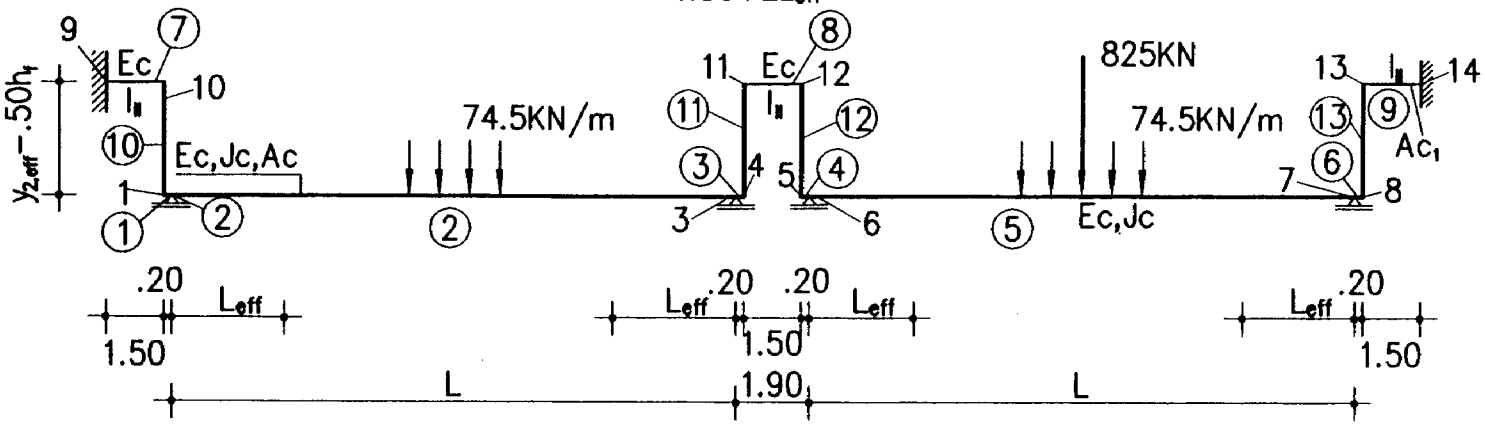


INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM NORMAL FORCES LC 2 LOAD CASE 2 1 CM = 2500 kN

M 1 : 500

$$Ac_1 = \frac{1.50}{1.50+L_{eff}}\ 1.2As\frac{Es}{Ec}$$

$$Ac_2 = \frac{1.50}{1.50+2L_{eff}}\ 1.2As\frac{Es}{Ec}$$



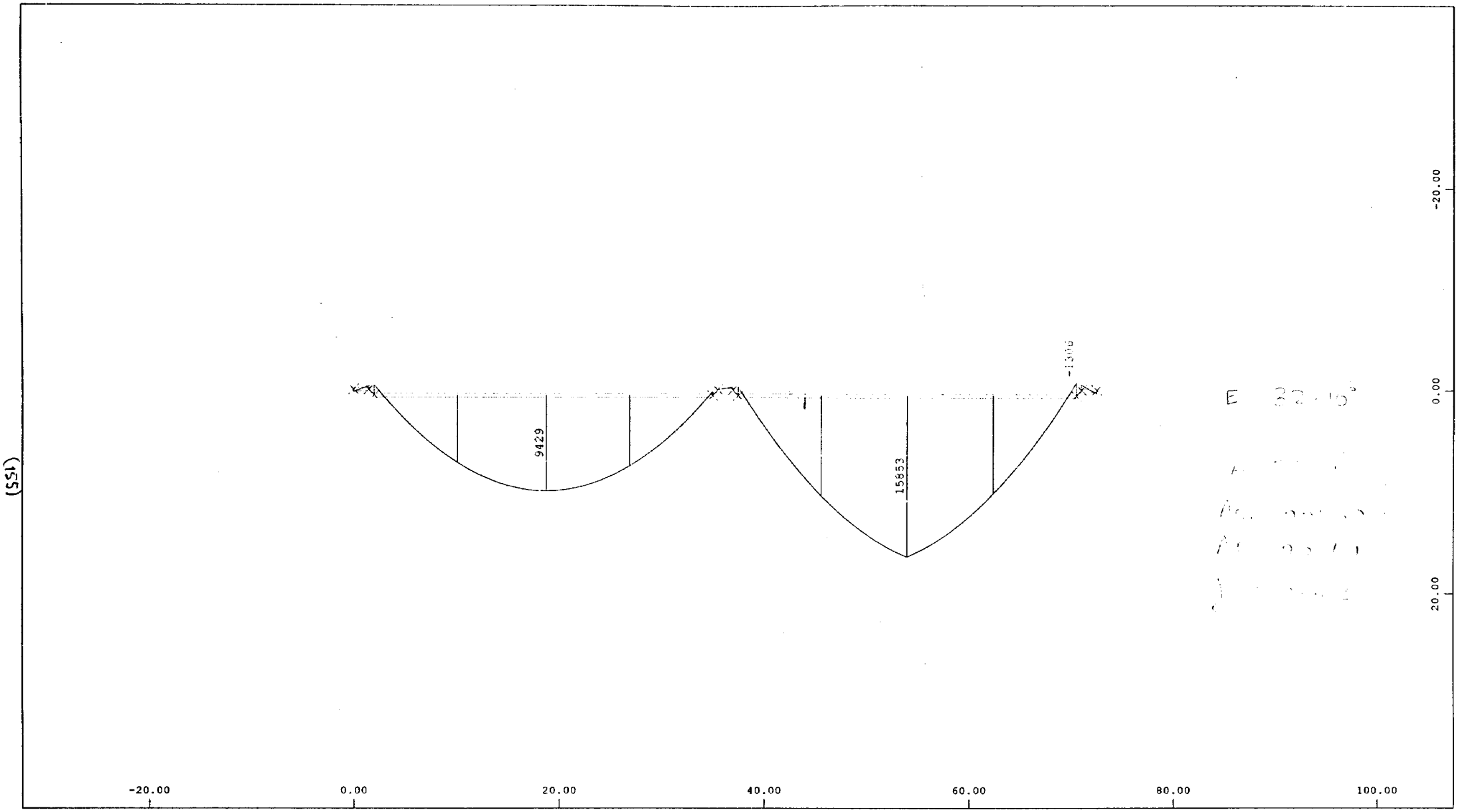
ΠΙΝΑΚΑΣ ΔΕΔΟΜΕΝΩΝ

L=33.0m	E_c =32 GPa
b=12.0m	a=6.25
$A_{c,eff}$ =5.100m^2	g_1 =30.7KN/m
$J_{c,eff}$=2.784m	q=43.8KN/m
h_b =2.15m	g_1 +q=74.5KN/m
h_{ft}=0.275m	Q=825KN
$h_{f,eff}$=0.20m	A_{st}=502 cm^2 (2φ14/75)
$h_{(πρ.)}$=0.075m	ρ=2,05 %
$y_{2,eff}$ =0.73m	A_{sb}=20,5cm^2/m (φ14/75m + φ14/75κ
	T= -50° C
	Leff=L/4 ≃ 8,25 m

$I_{II}=3.544a\rho bh_{f,eff}^3/12=0.1772\rho \simeq I_I/3 \simeq 0{,}0027\ m^4$

13/02/02

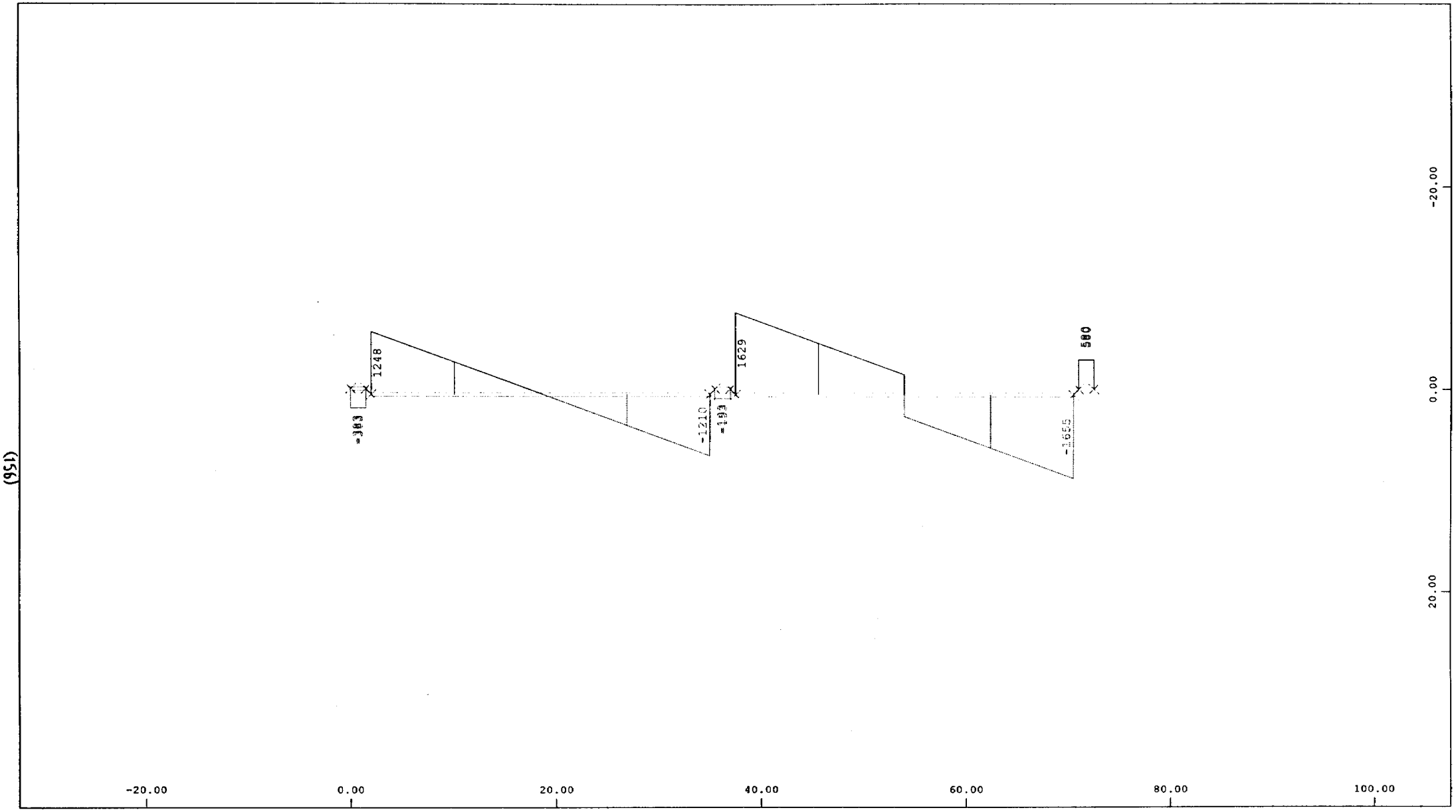
METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM MOMENTS MY LC 1 LOAD CASE 1 1 CM = 5000 kNm

M 1 : 500

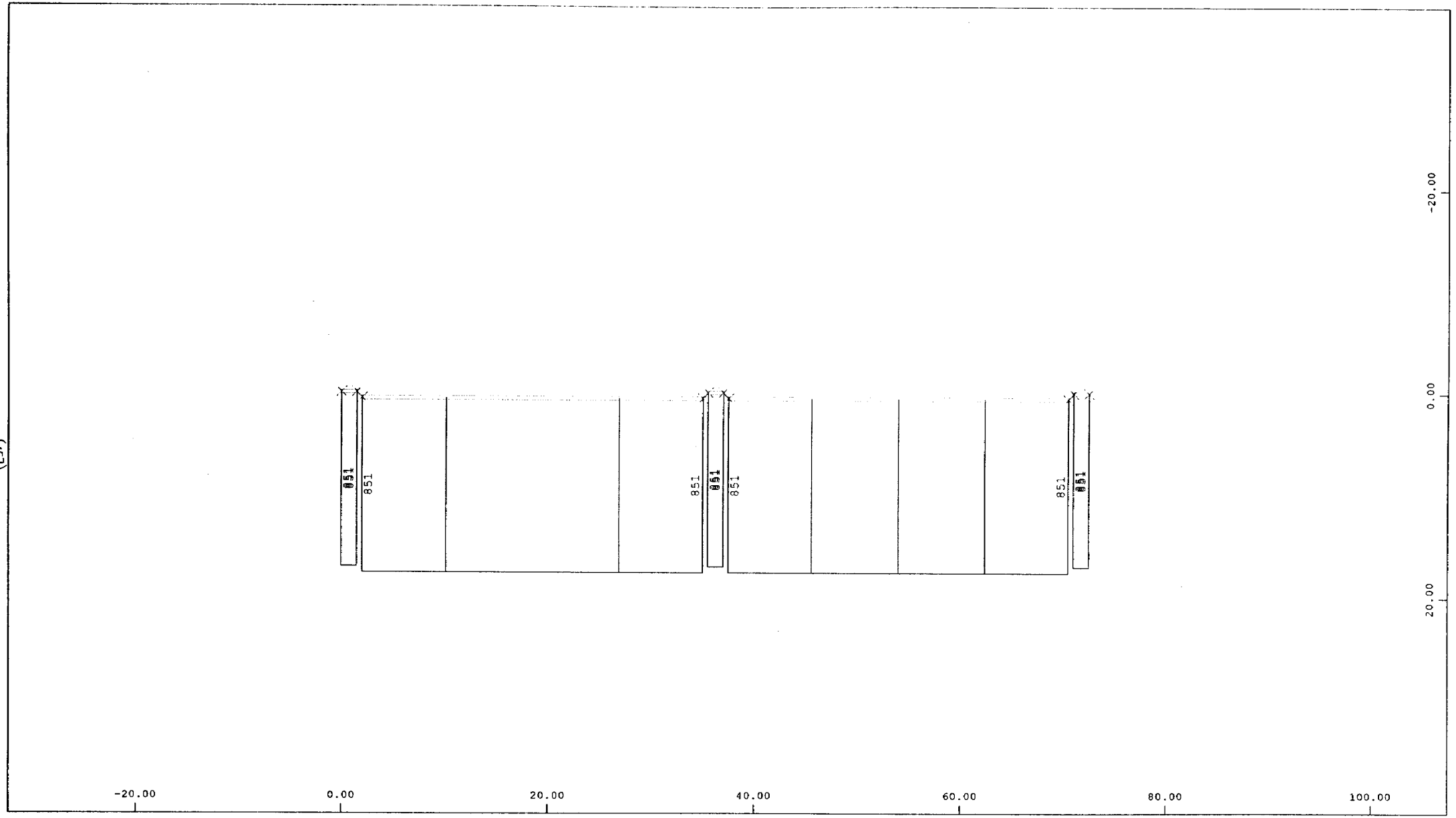
METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM SHEAR FORCES QZ LC 1 LOAD CASE 1 1 CM = 1000 kN

M 1 : 500

METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM NORMAL FORCES LC 1 LOAD CASE 1 1 CM = 250.0 kN

M 1 : 500

METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9

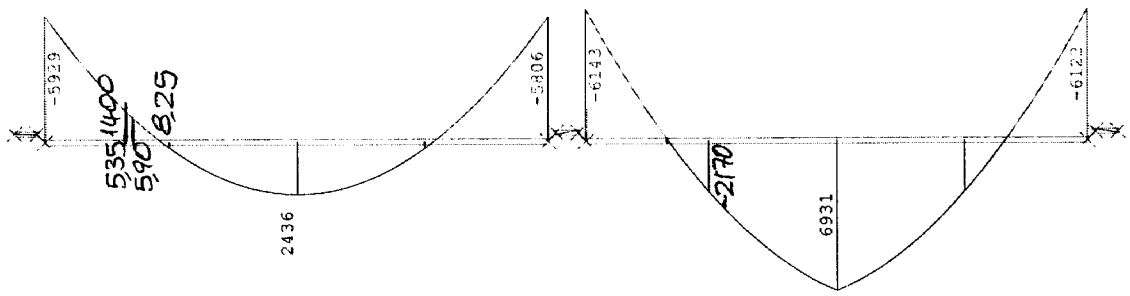
ΘΑΜΙΣΤΙΚΗ ΜΕΘΟΔΟΣ

$0{,}5(\varnothing - 2170) - 3{,}814\left(3500 - \frac{10.277}{5{,}1}\right) \simeq -1085 - 5663 = -6748 = -1{,}38\,\Delta N_1 \rightarrow \Delta N_1 = 4890\ kN \rightarrow N_1 = 4890 + 10.277 = 15167\ kN$

$X_1 = 19{,}15 \times 10.277 / 15167 \simeq 12{,}20\ m \rightarrow L_{eff,1} = 5{,}35\ m \rightarrow 0{,}5(1400 + \varnothing) - 5663 = -1{,}38\,\Delta N_2 \rightarrow \Delta N_2 \simeq 3596\ kN \rightarrow N_2 \simeq 13.873\ kN$

$X_2 \simeq$ " $/ 13873 \simeq 13{,}33\ m \rightarrow L_{eff,2} \simeq 5{,}90\ m \rightarrow 0{,}5(1050 + \varnothing)$ − " $\simeq$ " $\Delta N_3 \rightarrow \Delta N_3 \simeq 3723\ kN \rightarrow N_3 \simeq 14.000\ kN$

$L_{eff} \simeq 5{,}85\ m$

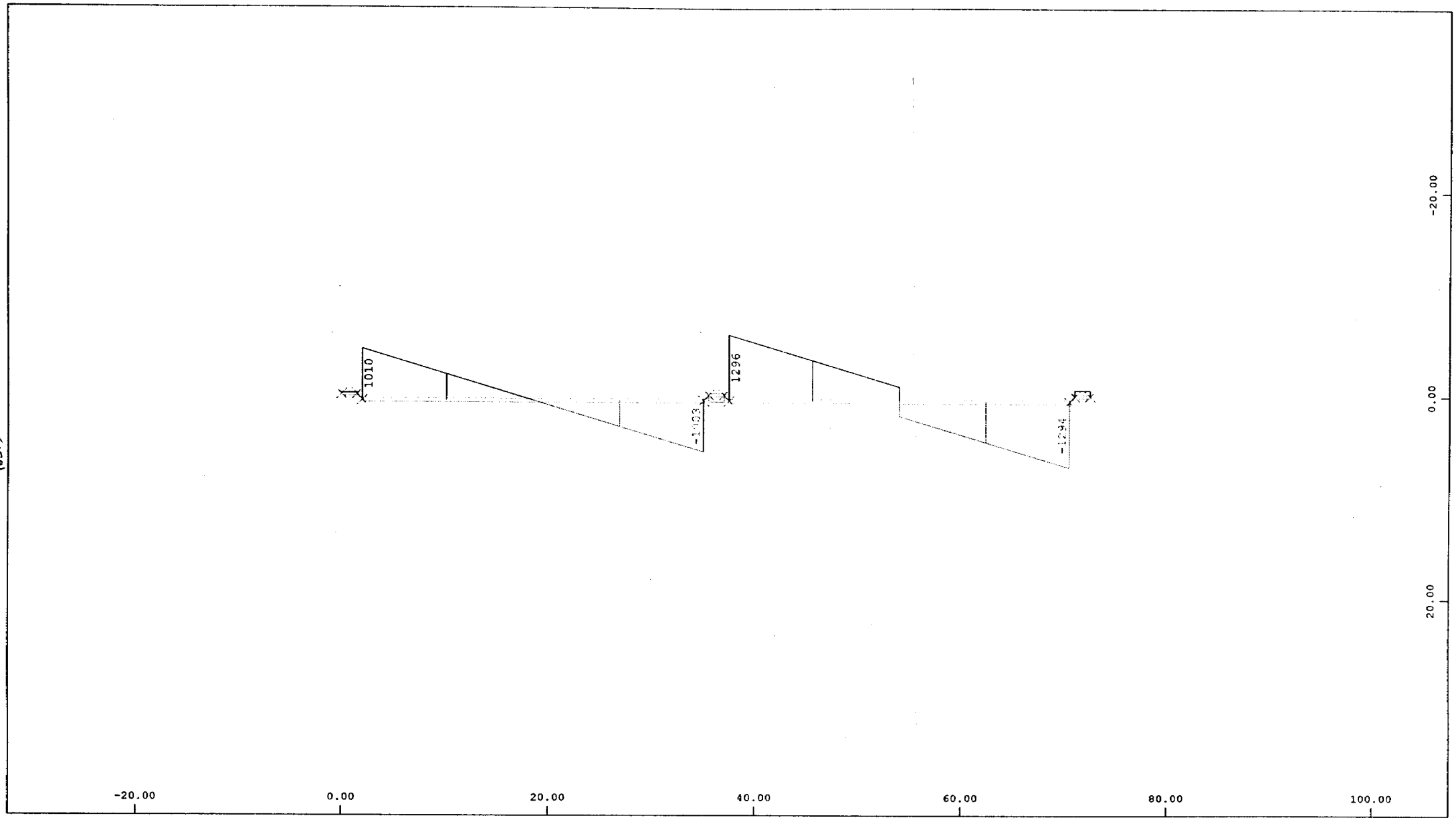


(851)

INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM MOMENTS MY LC 2 LOAD CASE 2 1 CM = 3500 kNm

M 1 : 500

METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9

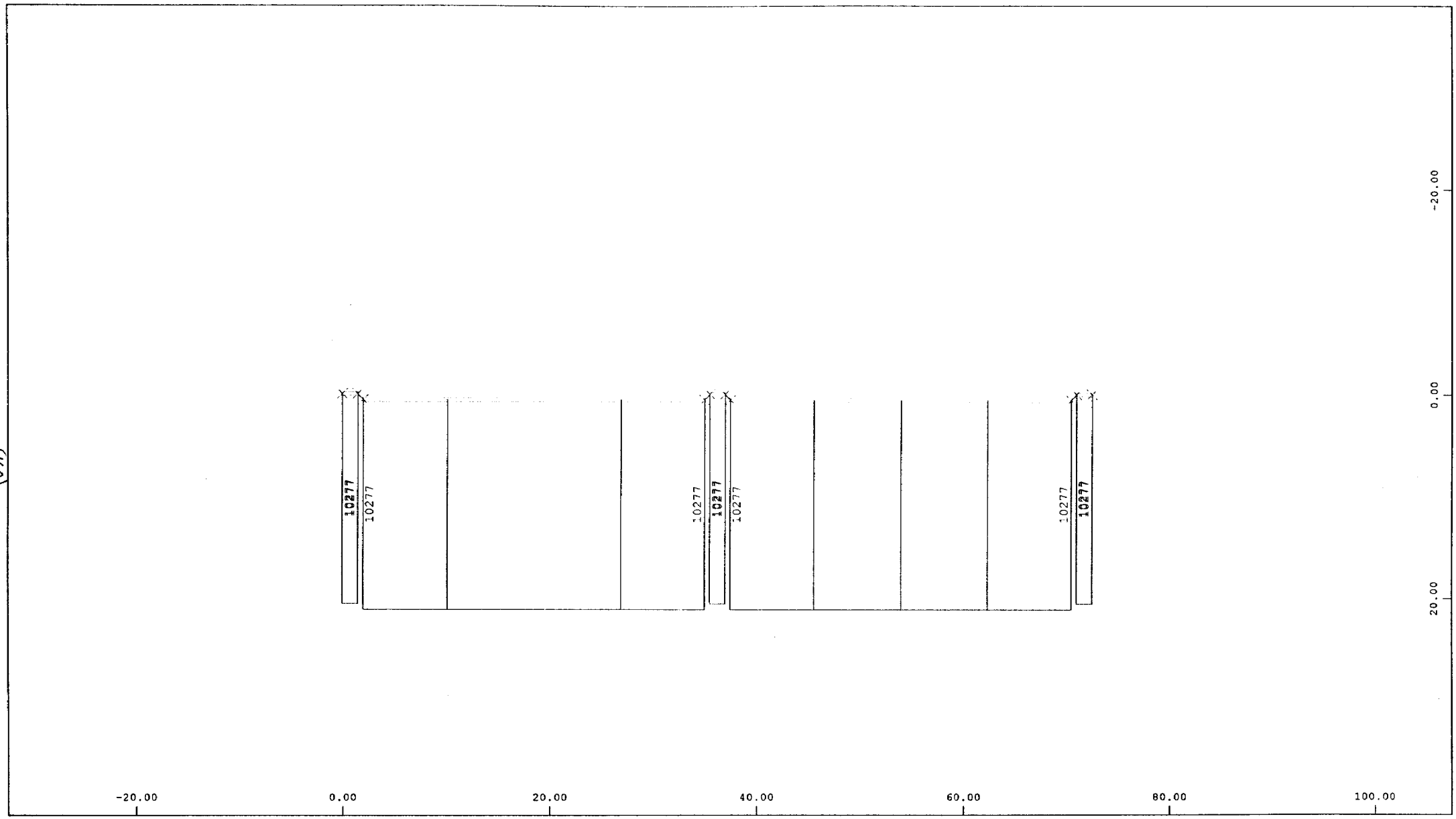


(159)

INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM SHEAR FORCES QZ LC 2 LOAD CASE 2 1 CM = 1000 kN

M 1 : 500

METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9

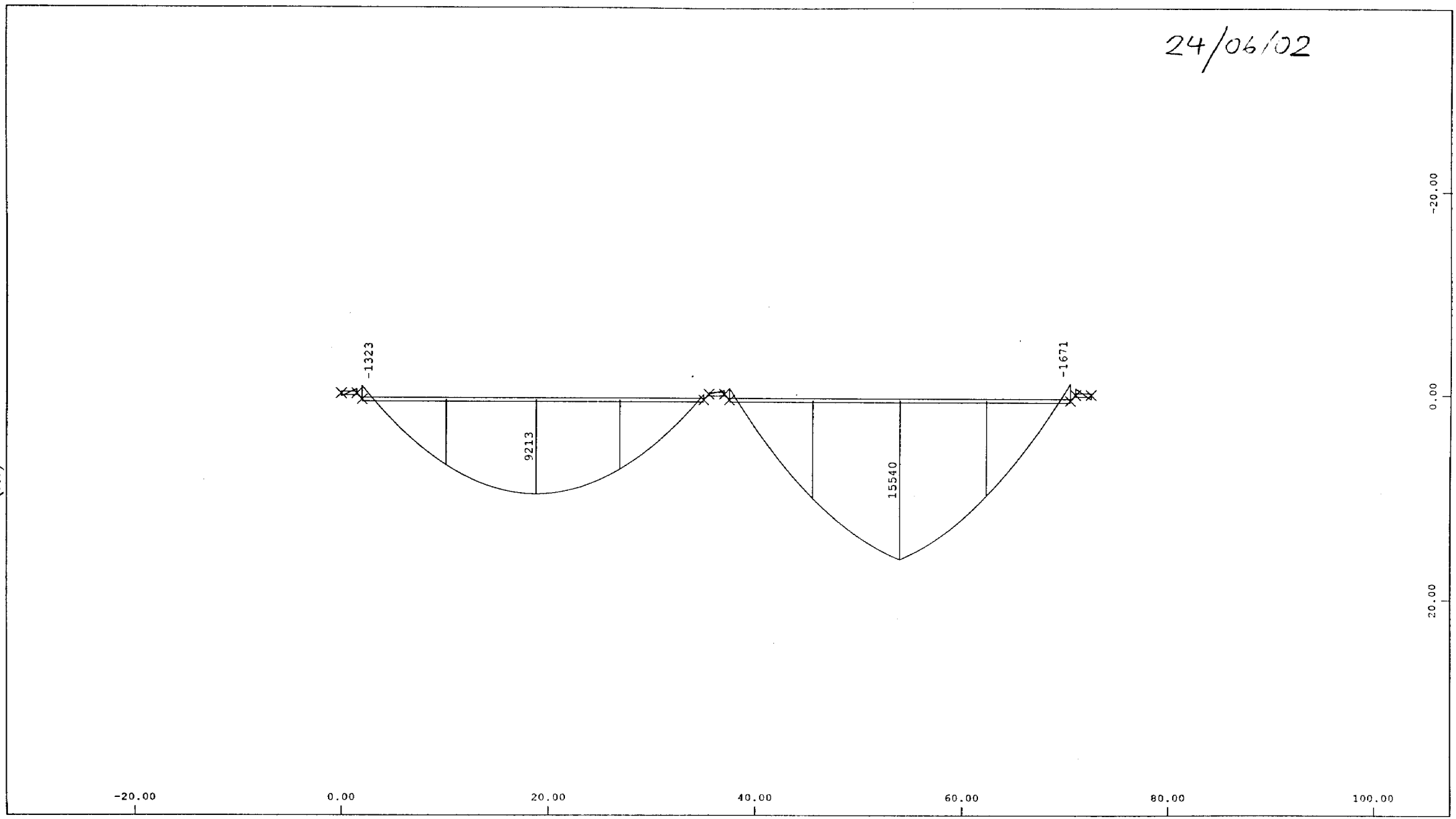


INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM NORMAL FORCES LC 2 LOAD CASE 2 1 CM = 2500 kN

M 1 : 500

METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9

24/06/02

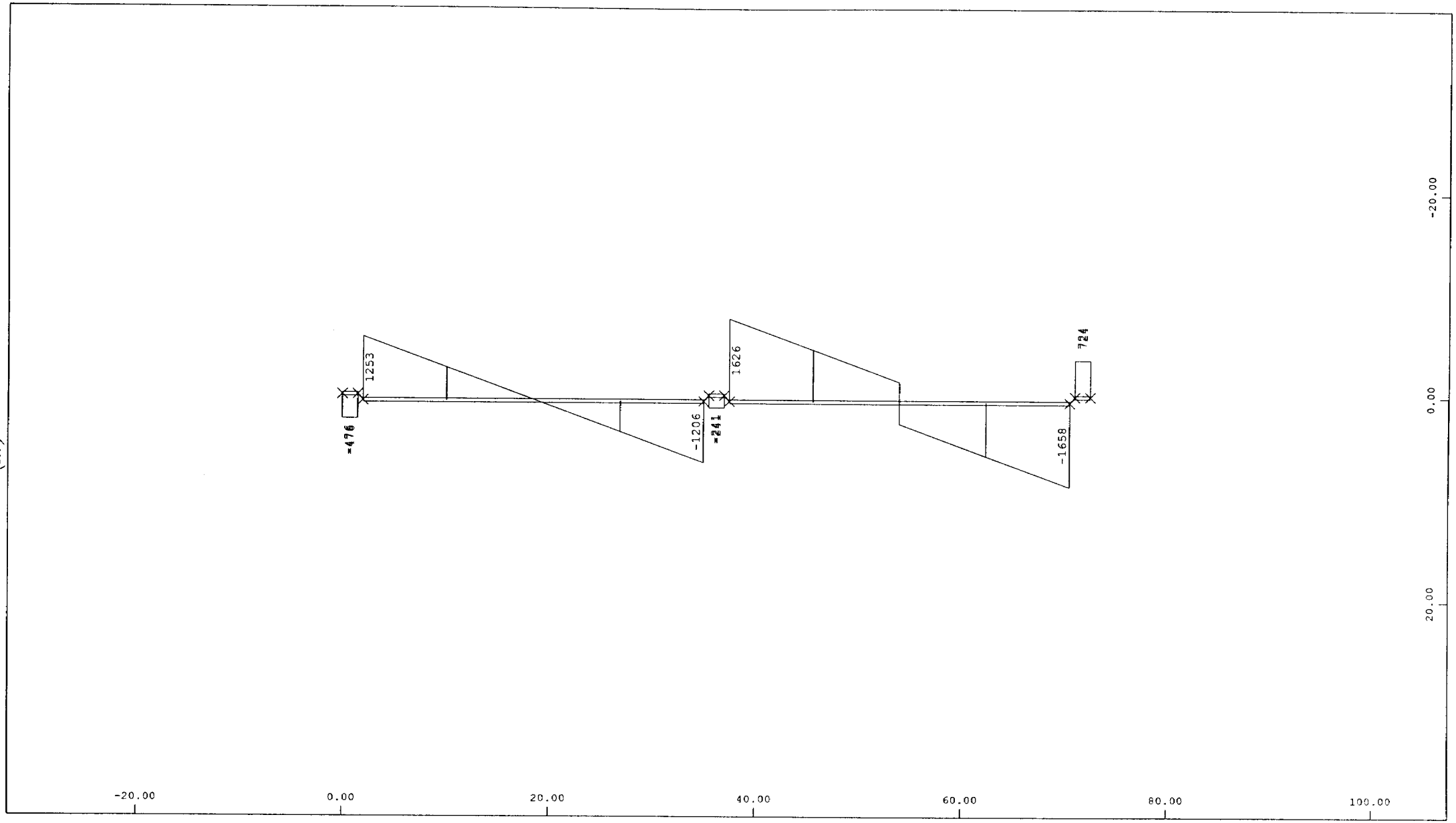


(161)

INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM MOMENTS MY LC 1 LOAD CASE 1 1 CM = 5000 kNm

M 1 : 500

METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9

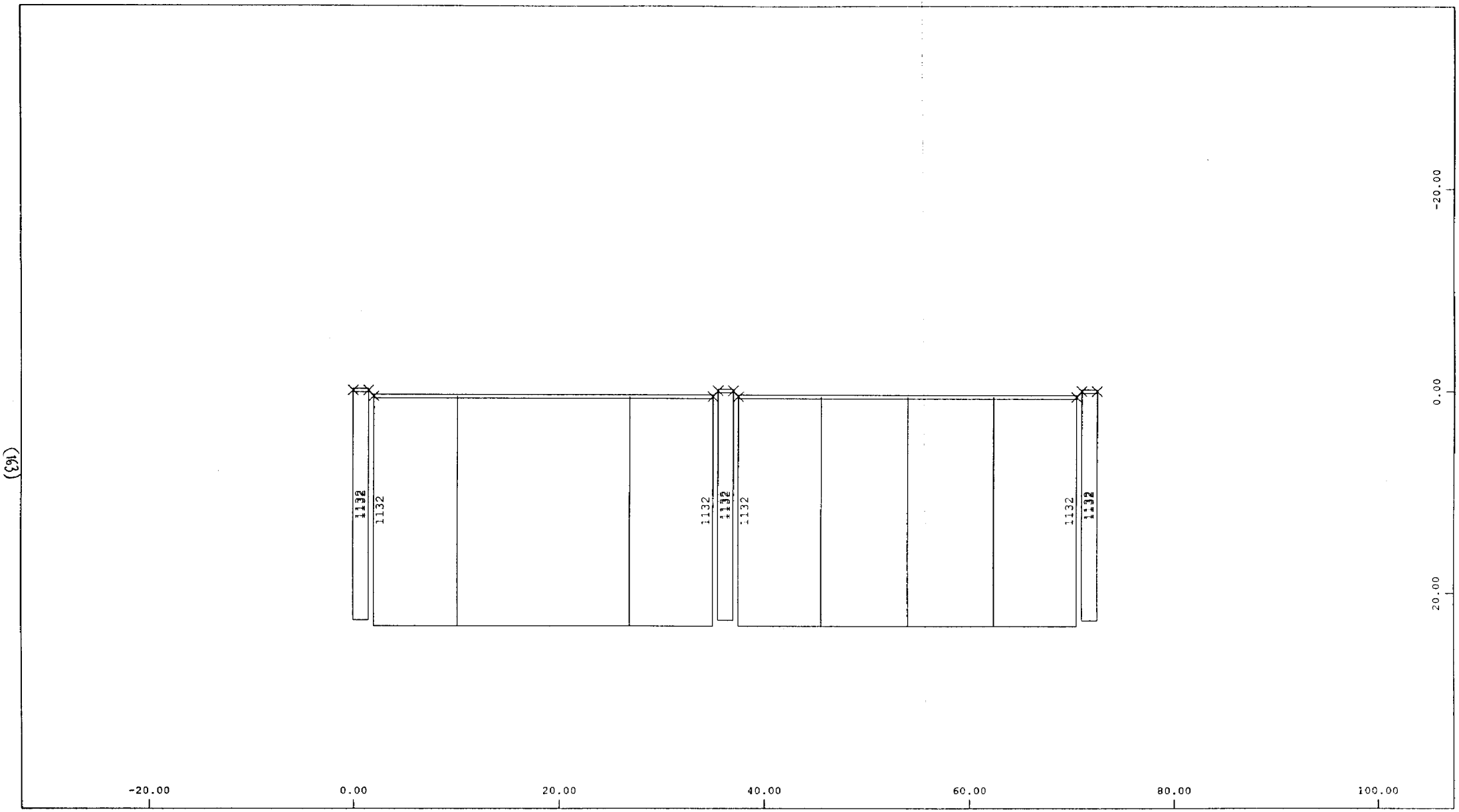


(162)

INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM SHEAR FORCES QZ LC 1 LOAD CASE 1 1 CM = 1000 kN

M 1 : 500

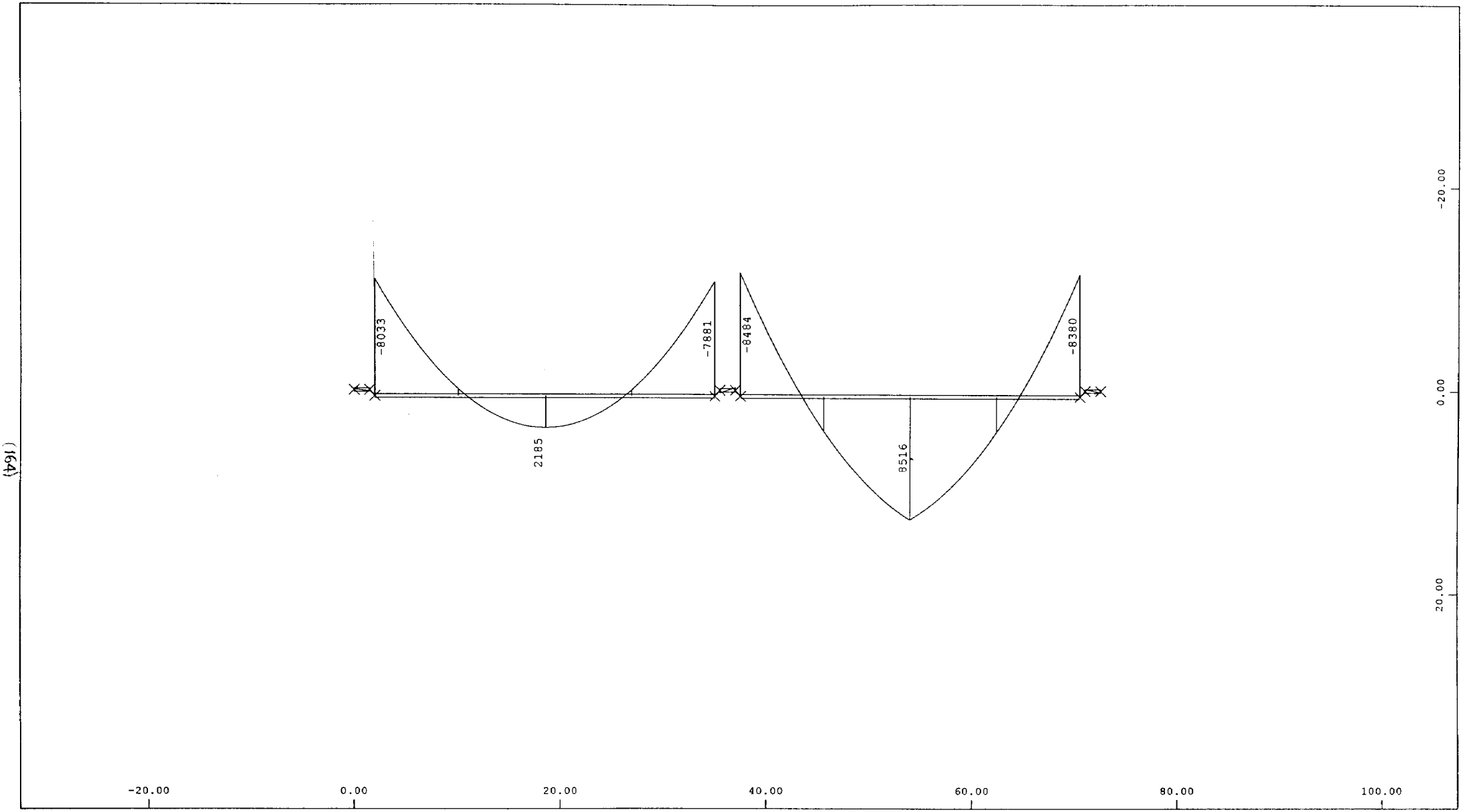
METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM NORMAL FORCES LC 1 LOAD CASE 1 1 CM = 250.0 kN

M 1 : 500

METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9

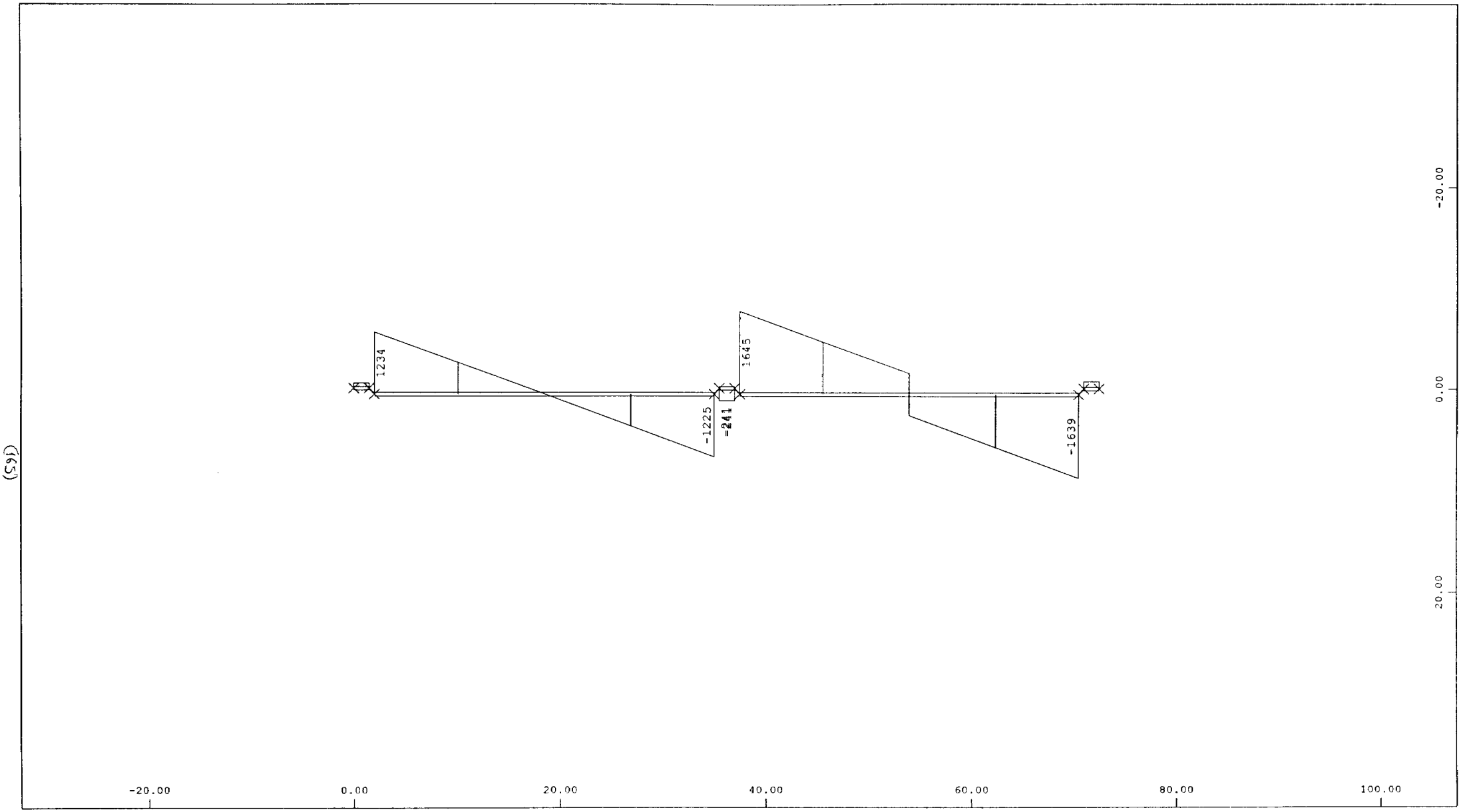


(164)

INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM MOMENTS MY LC 2 LOAD CASE 2 1 CM = 3500 kNm

M 1 : 500

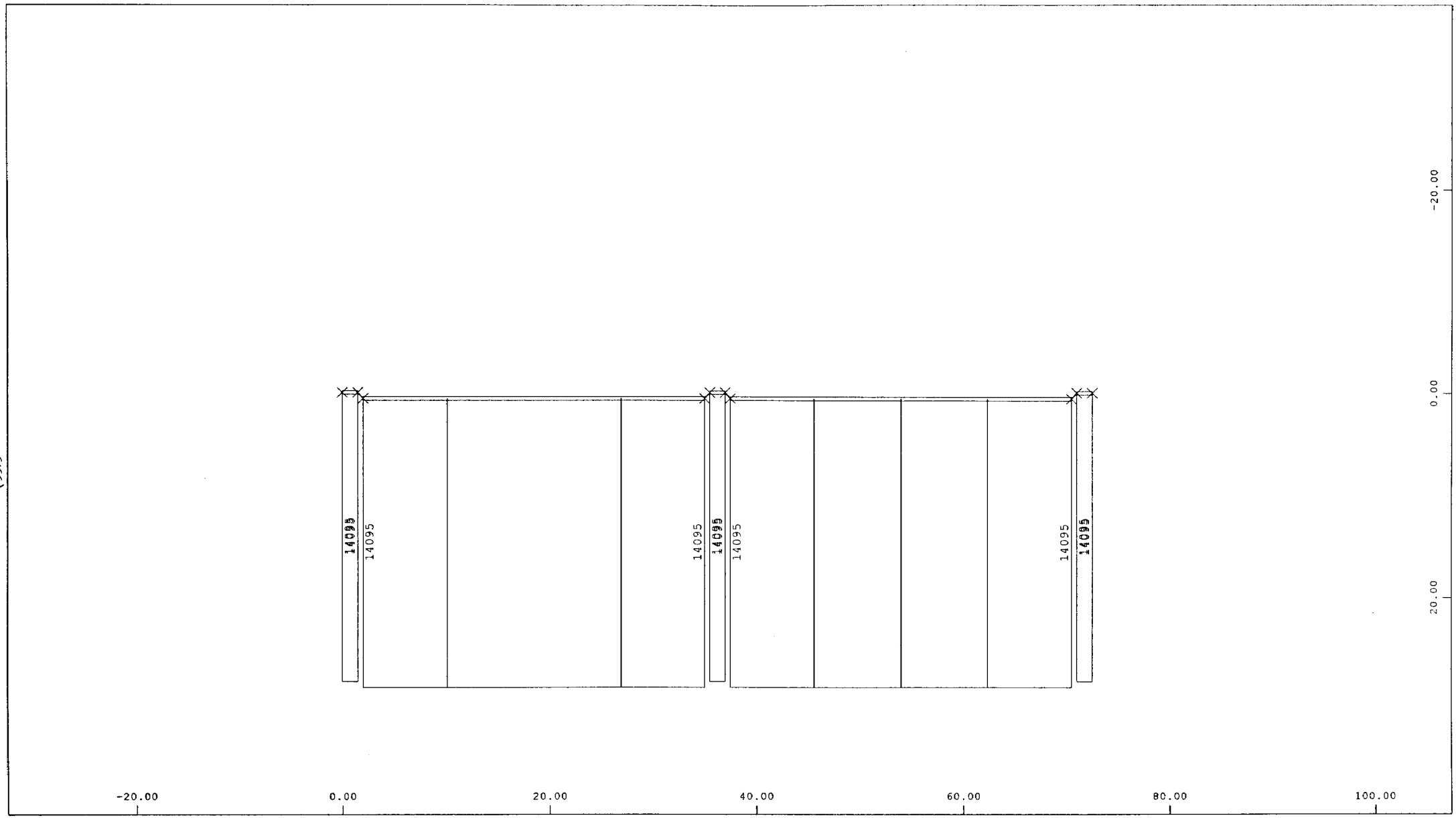
METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM SHEAR FORCES QZ LC 2 LOAD CASE 2 1 CM = 1000 kN

M 1 : 500

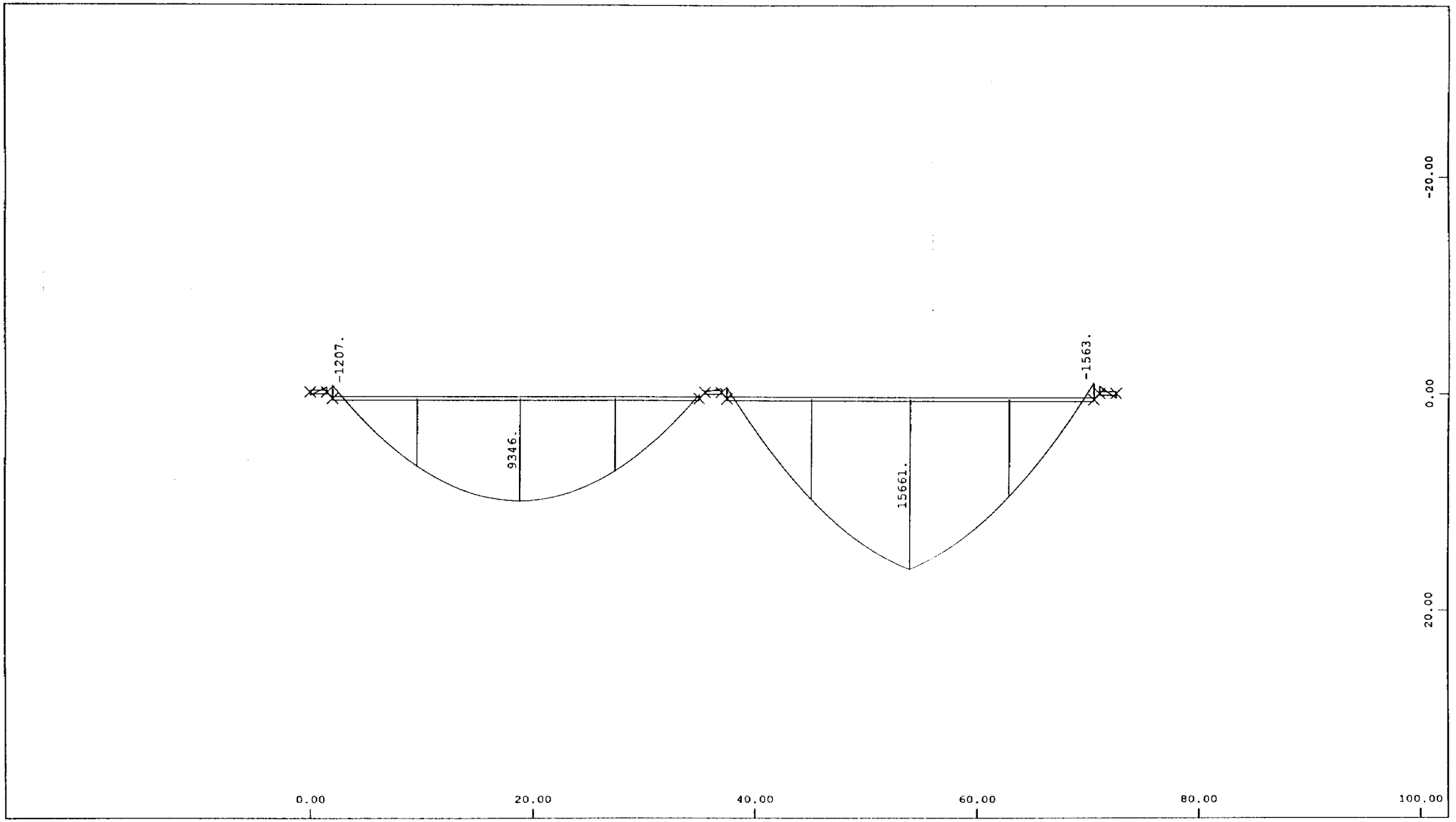
METE SYSM S.A. 18 P. Mela St. GR 54622 Thessaloniki, Tel. 031-256826-9



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM NORMAL FORCES LC 2 LOAD CASE 2 1 CM = 2500 kN

M 1 : 500

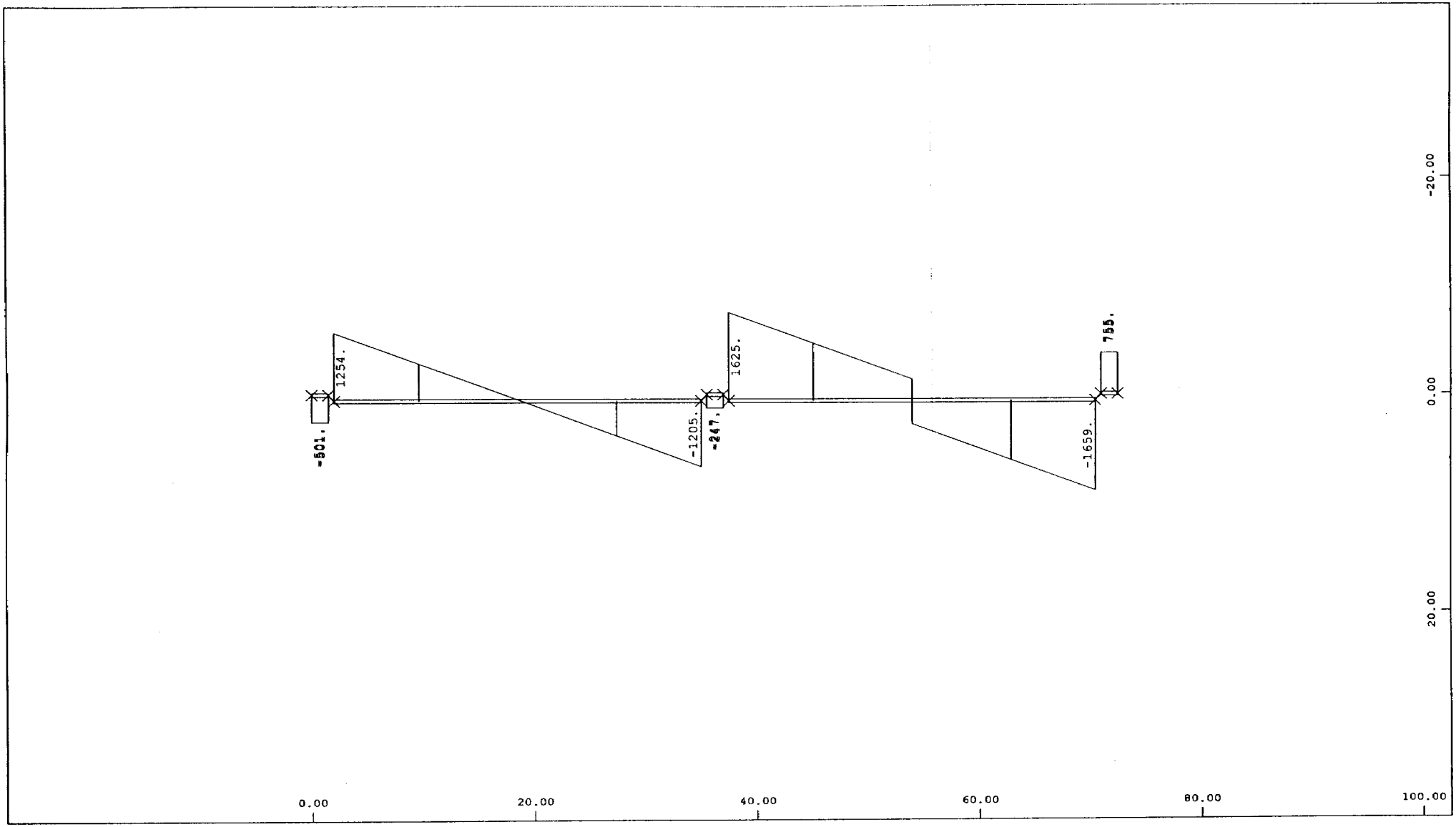
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM MOMENTS MY LC 1 LOAD CASE 1 1 CM = 5000. kNm

M 1 : 500

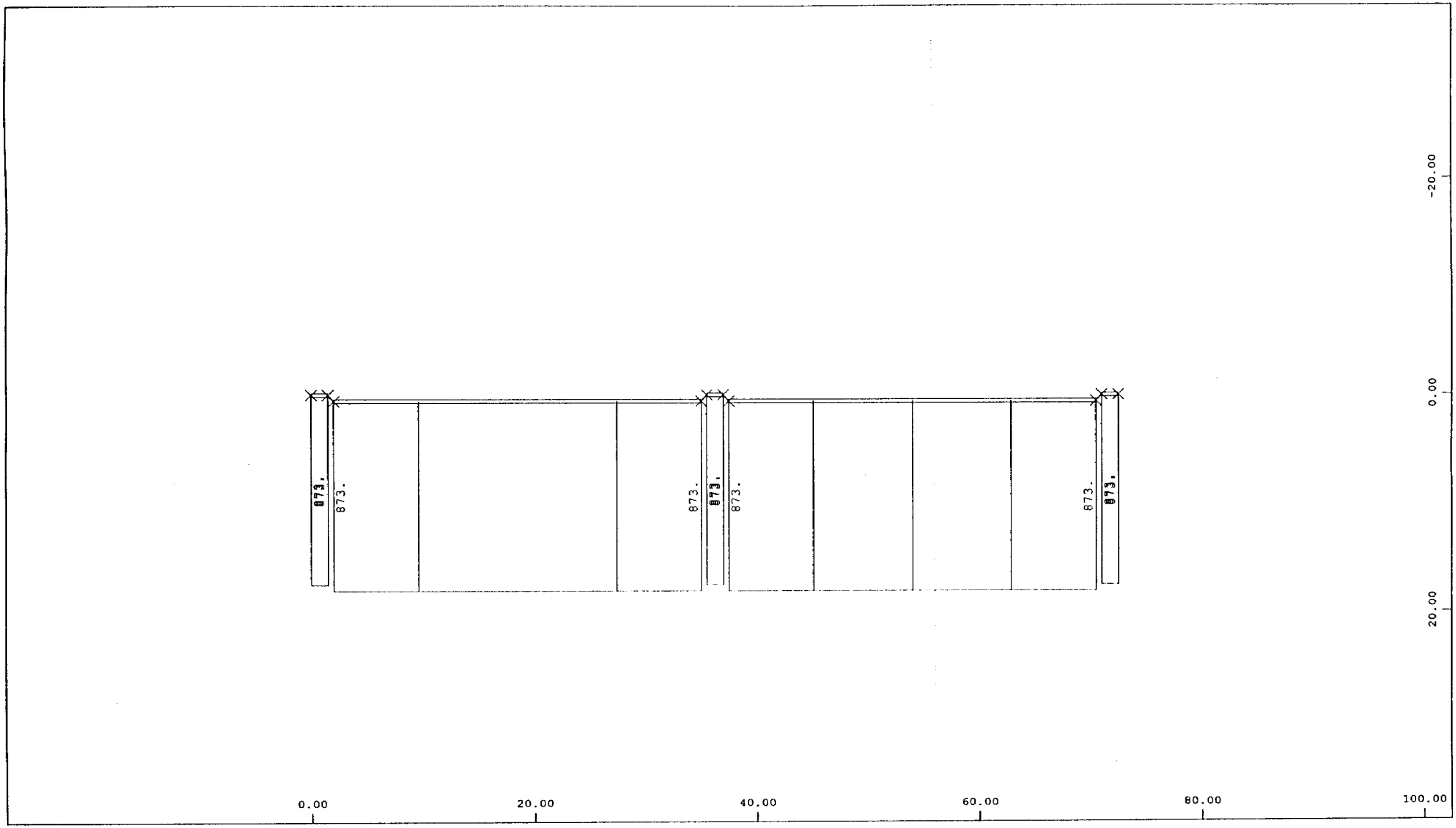
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM CROSS FORCES QZ LC 1 LOAD CASE 1 1 CM = 1000. kN

M 1 : 500

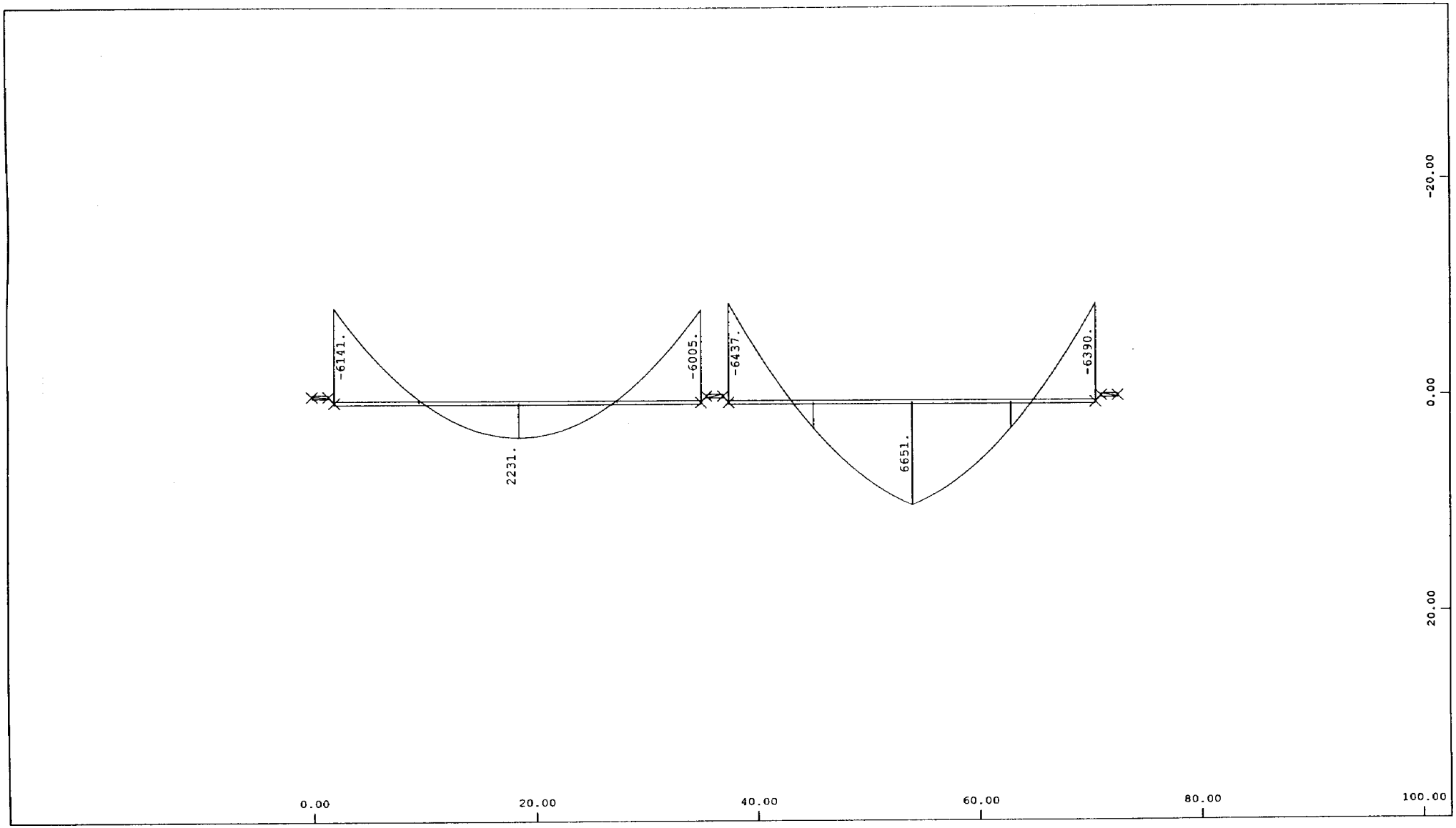
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM NORMAL FORCES LC 1 LOAD CASE 1 1 CM = 250.0 kN

M 1 : 500

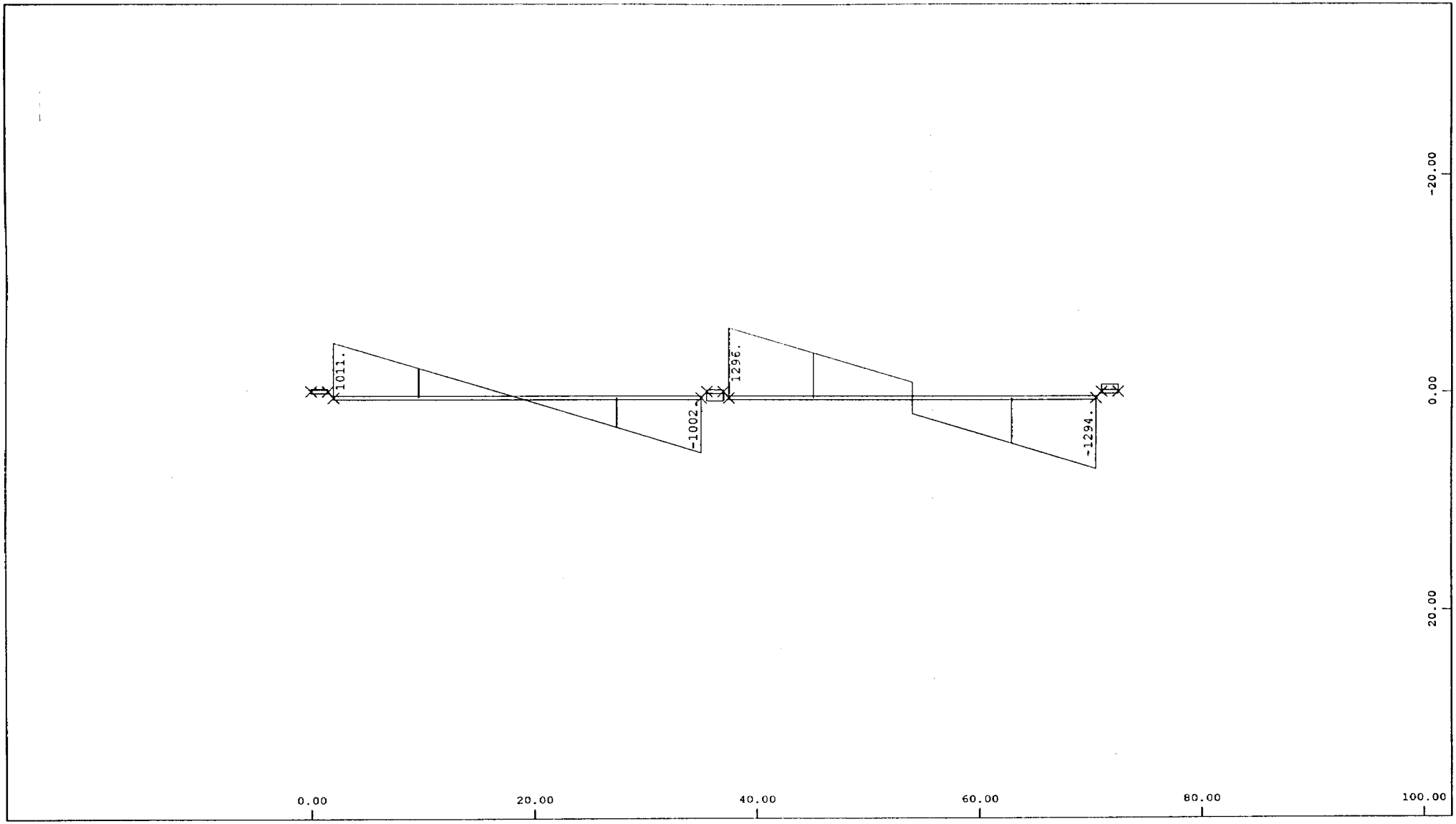
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM MOMENTS MY LC 2 LOAD CASE 2 1 CM = 3500. kNm

M 1 : 500

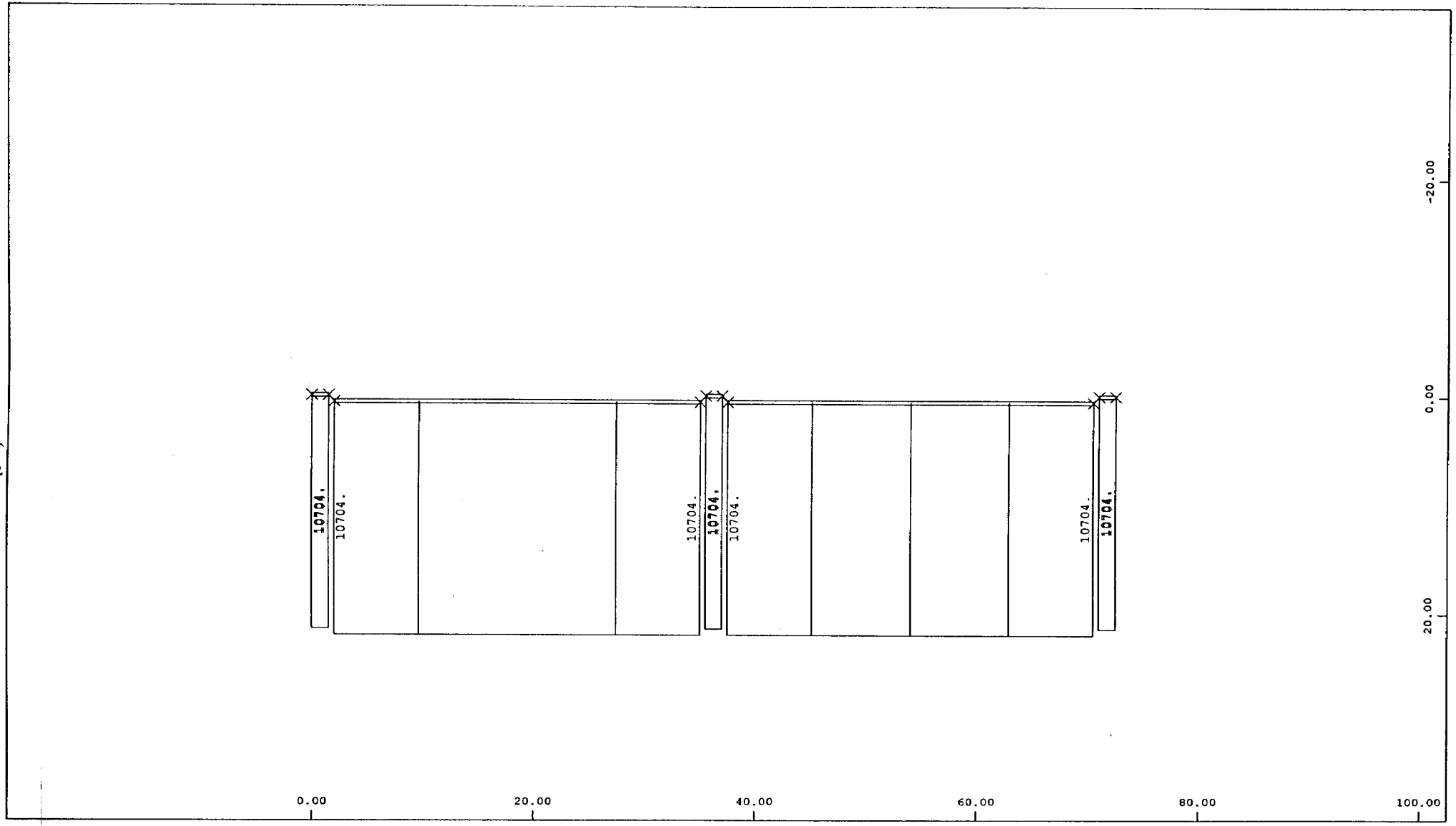
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM CROSS FORCES QZ LC 2 LOAD CASE 2 1 CM = 1000. kN

M 1 : 500

SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632

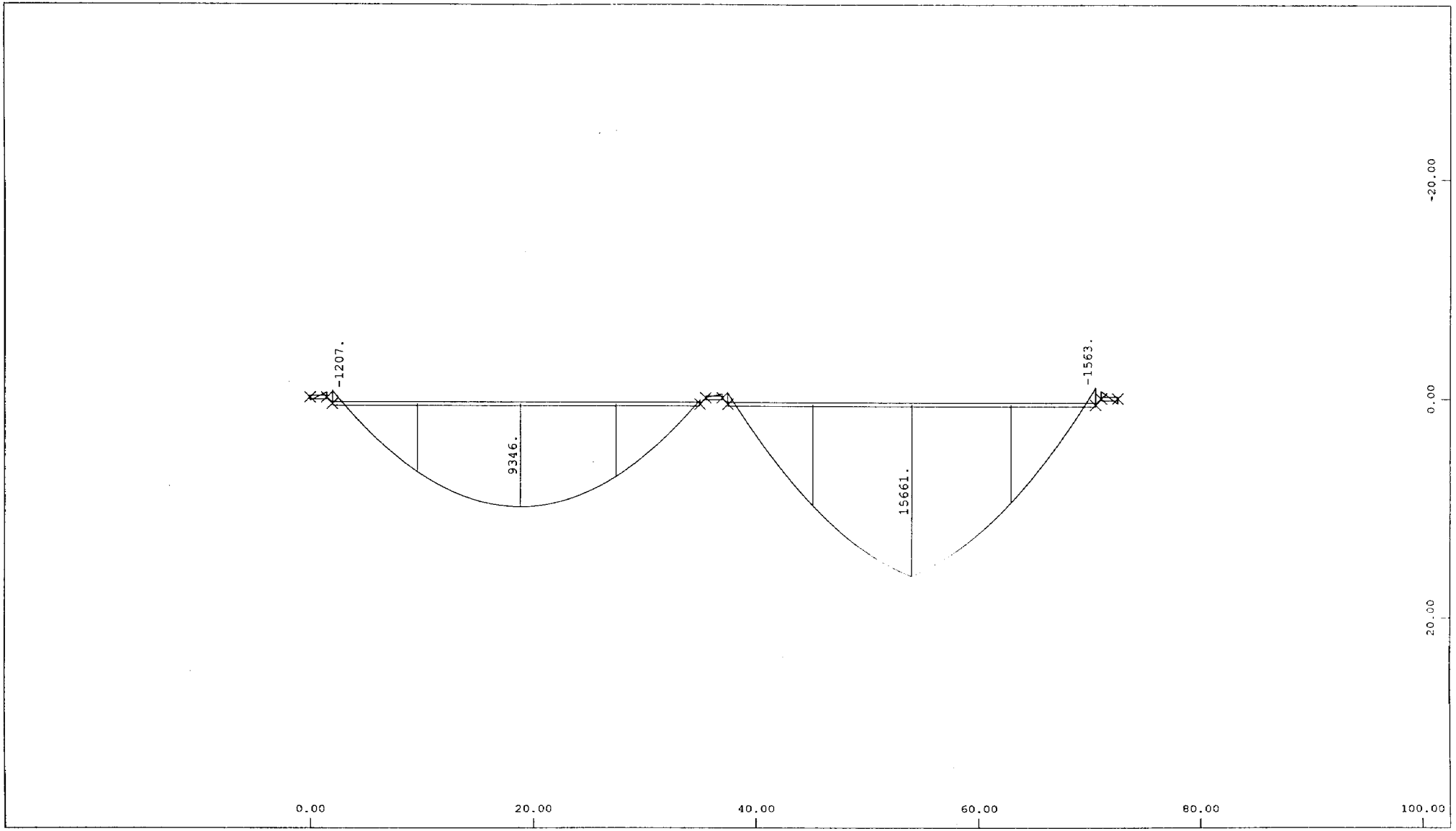


(172)

INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM NORMAL FORCES LC 2 LOAD CASE 2 1 CM = 2500. kN

M 1 : 500

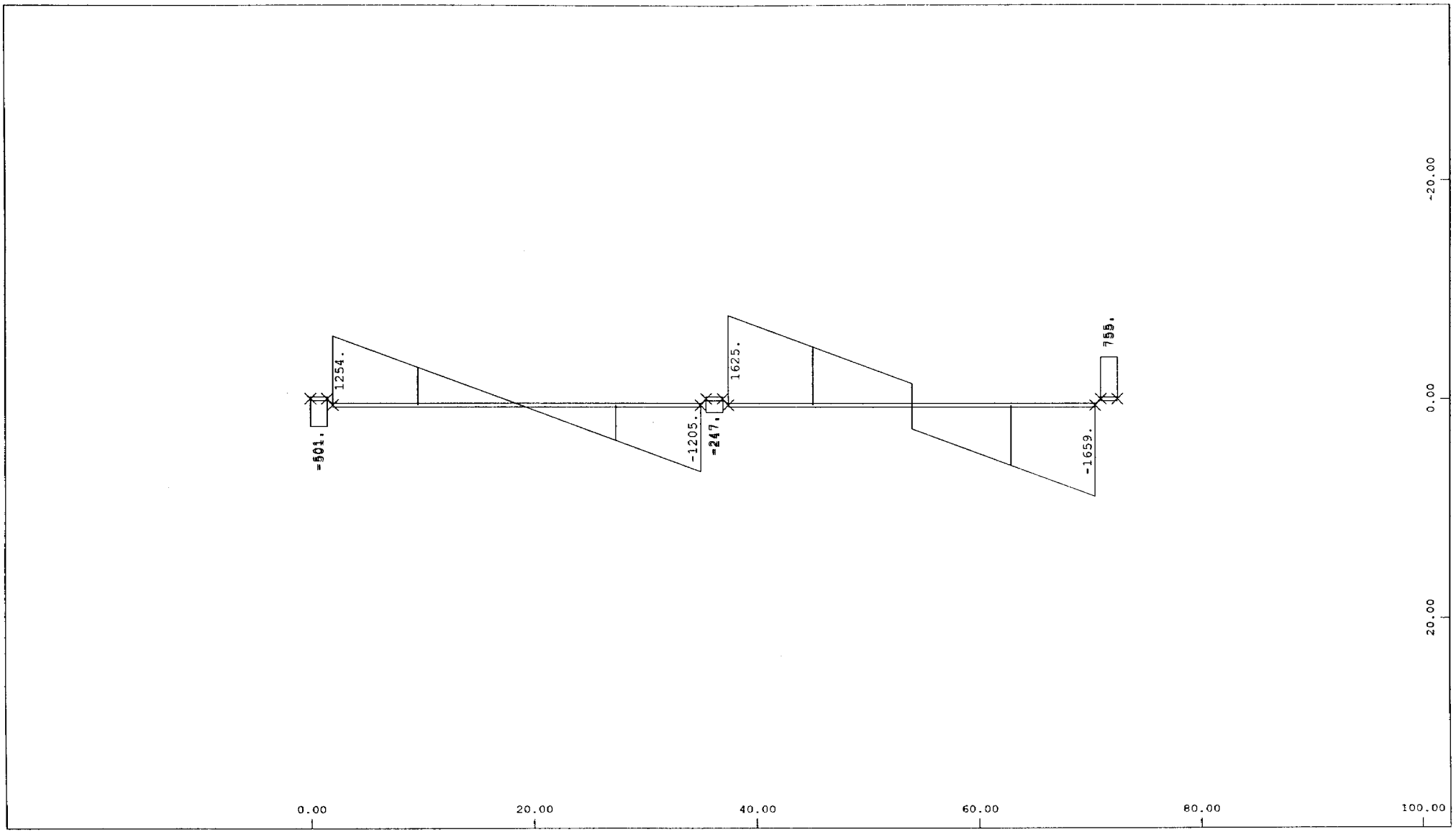
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM MOMENTS MY LC 1 LOAD CASE 1 1 CM = 5000. kNm

M 1 : 500

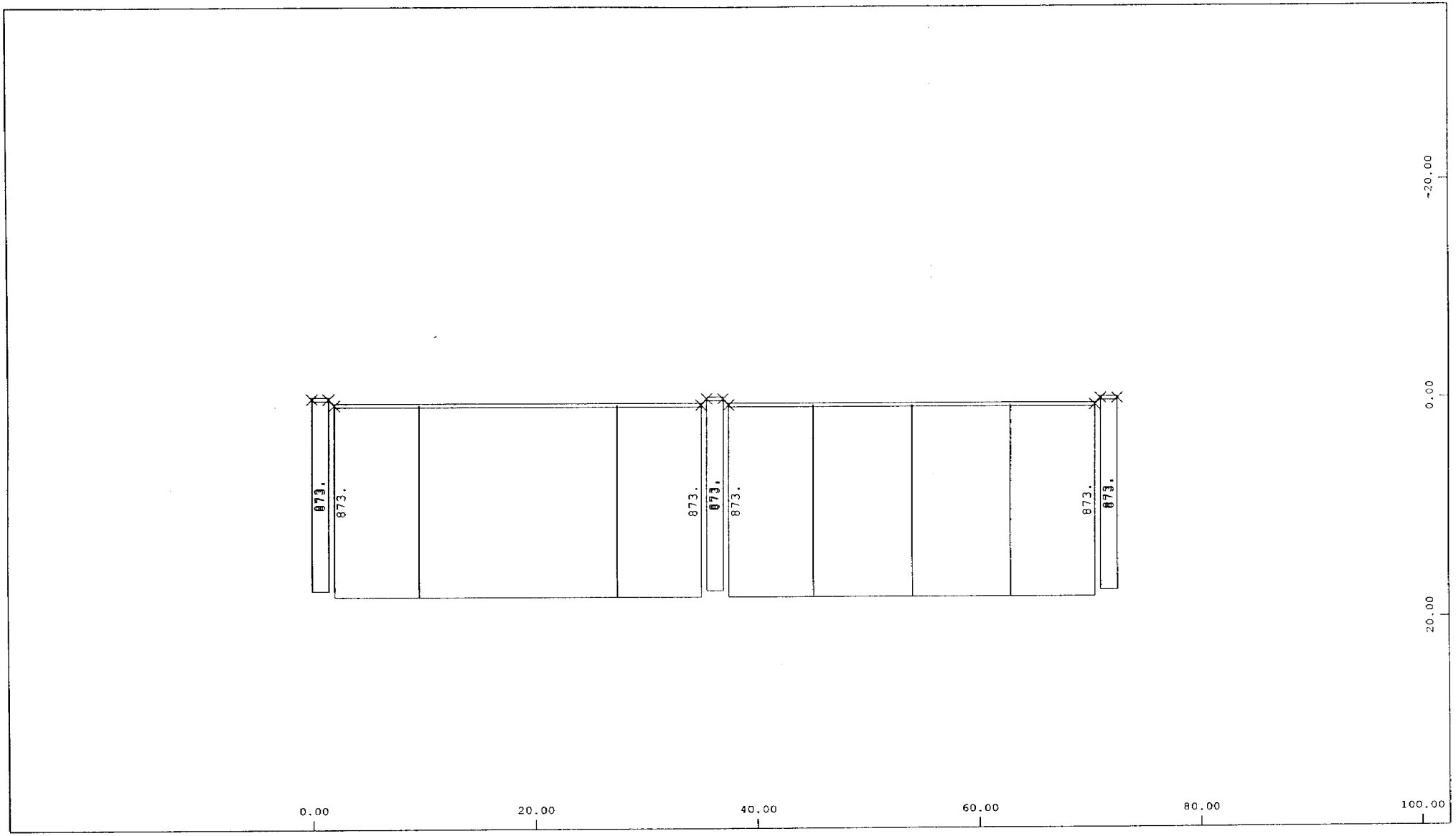
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM CROSS FORCES QZ LC 1 LOAD CASE 1 1 CM = 1000. kN

M 1 : 500

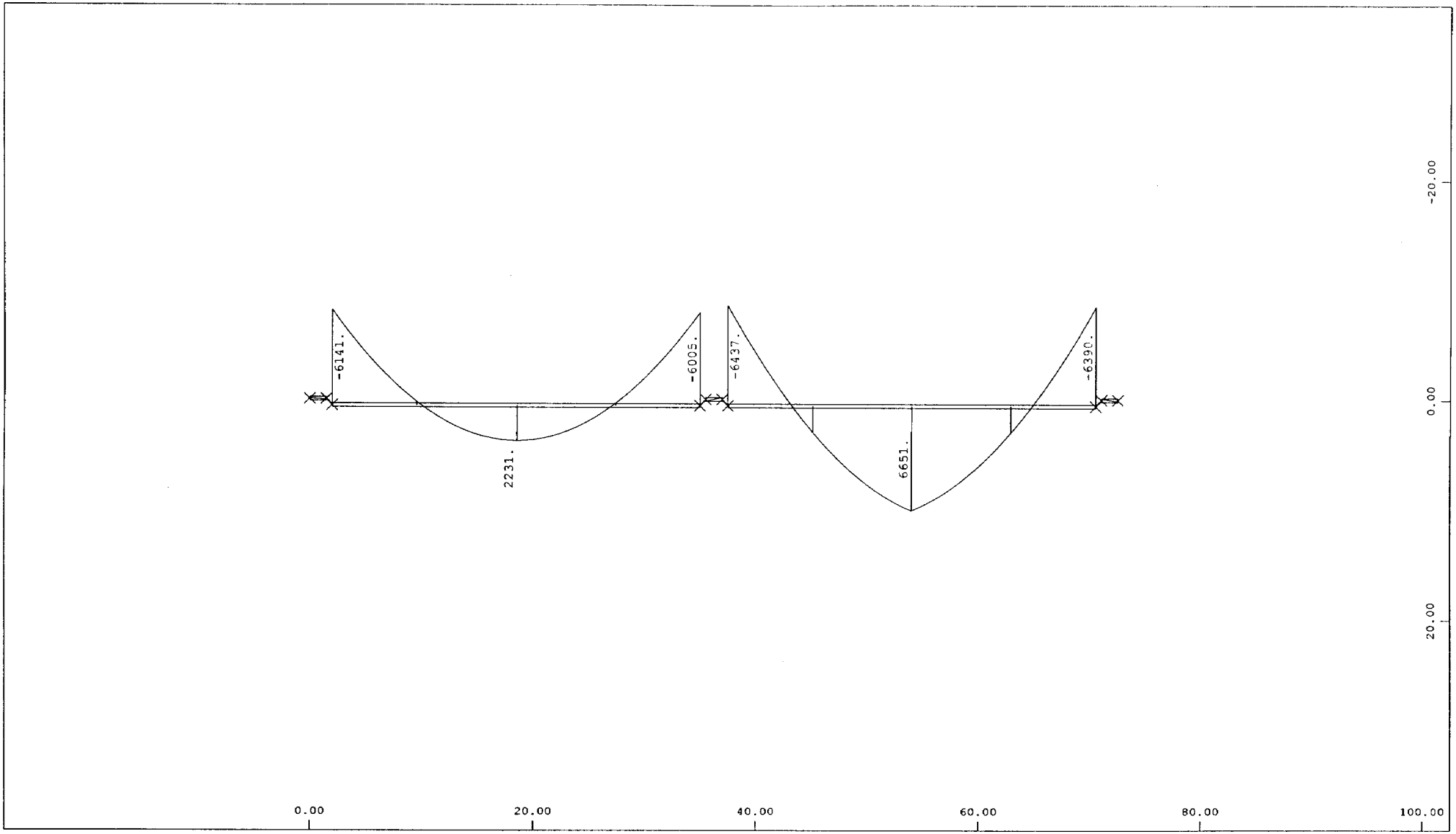
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM NORMAL FORCES LC 1 LOAD CASE 1 1 CM = 250.0 kN

M 1 : 500

SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632

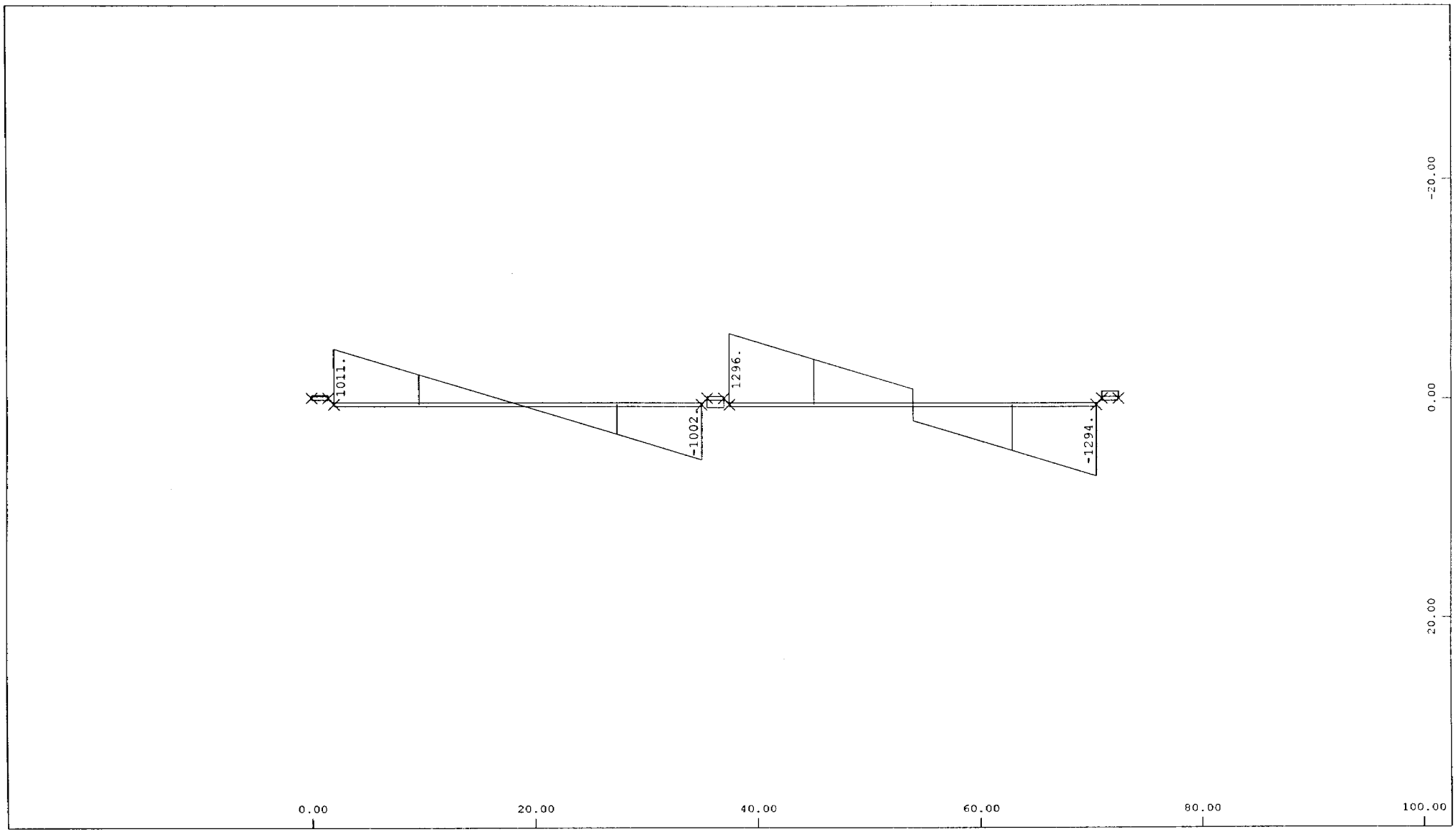


INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM MOMENTS MY LC 2 LOAD CASE 2 1 CM = 3500. kNm

M 1 : 500

SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632

(tf)

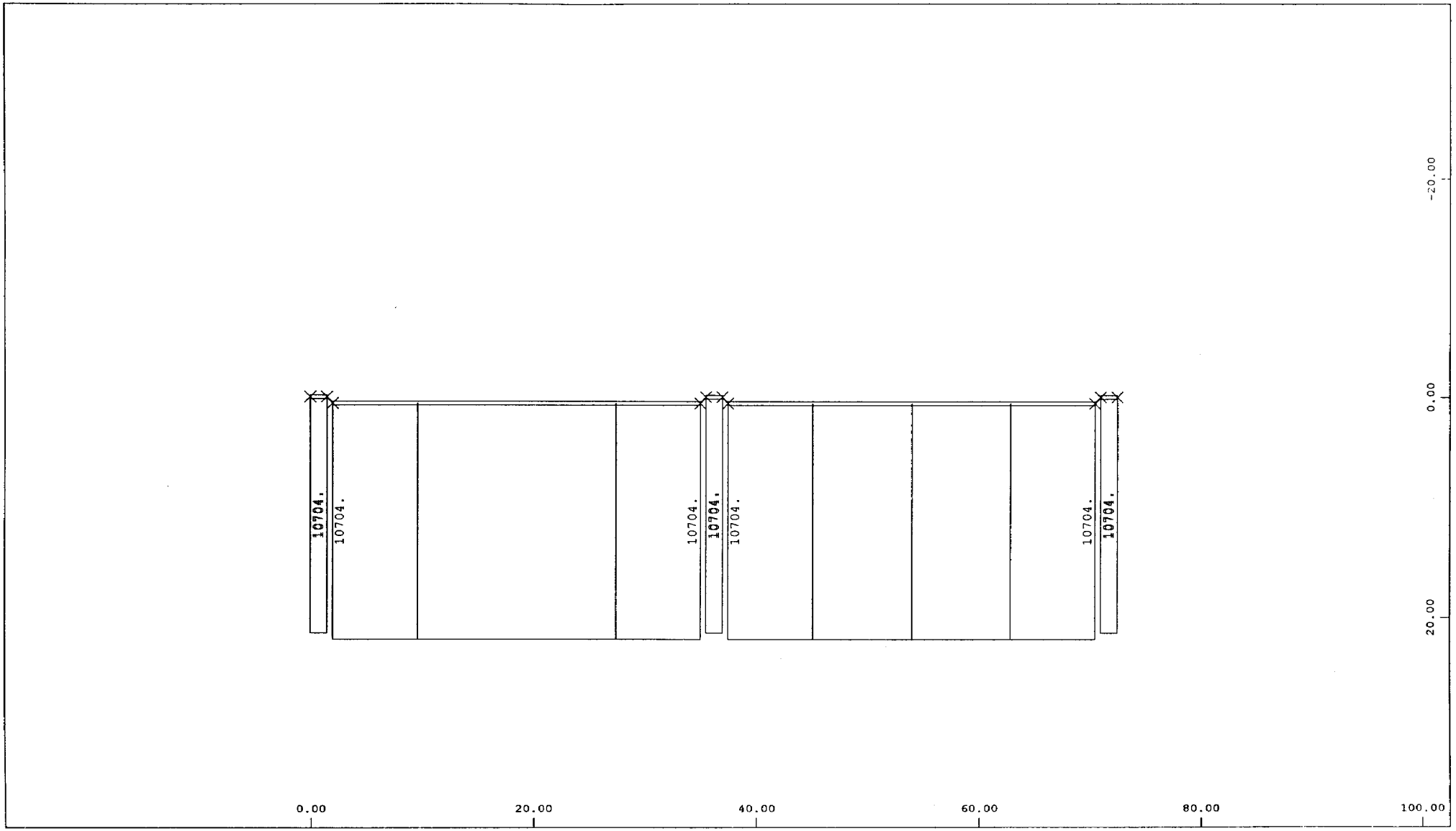


INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM CROSS FORCES QZ LC 2 LOAD CASE 2 1 CM = 1000. kN

M 1 : 500

y x
z

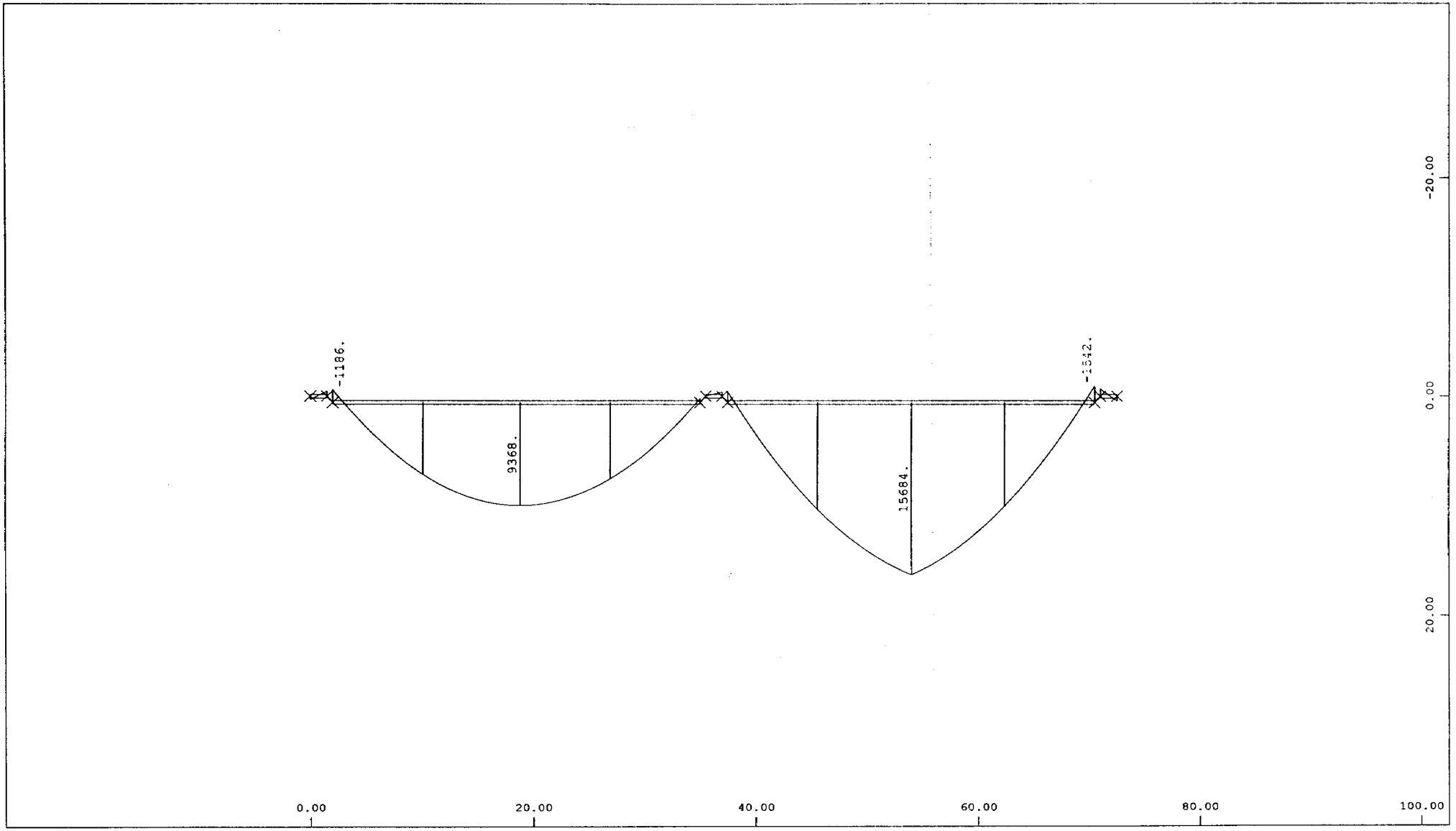
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM NORMAL FORCES LC 2 LOAD CASE 2 1 CM = 2500. kN

M 1 : 500

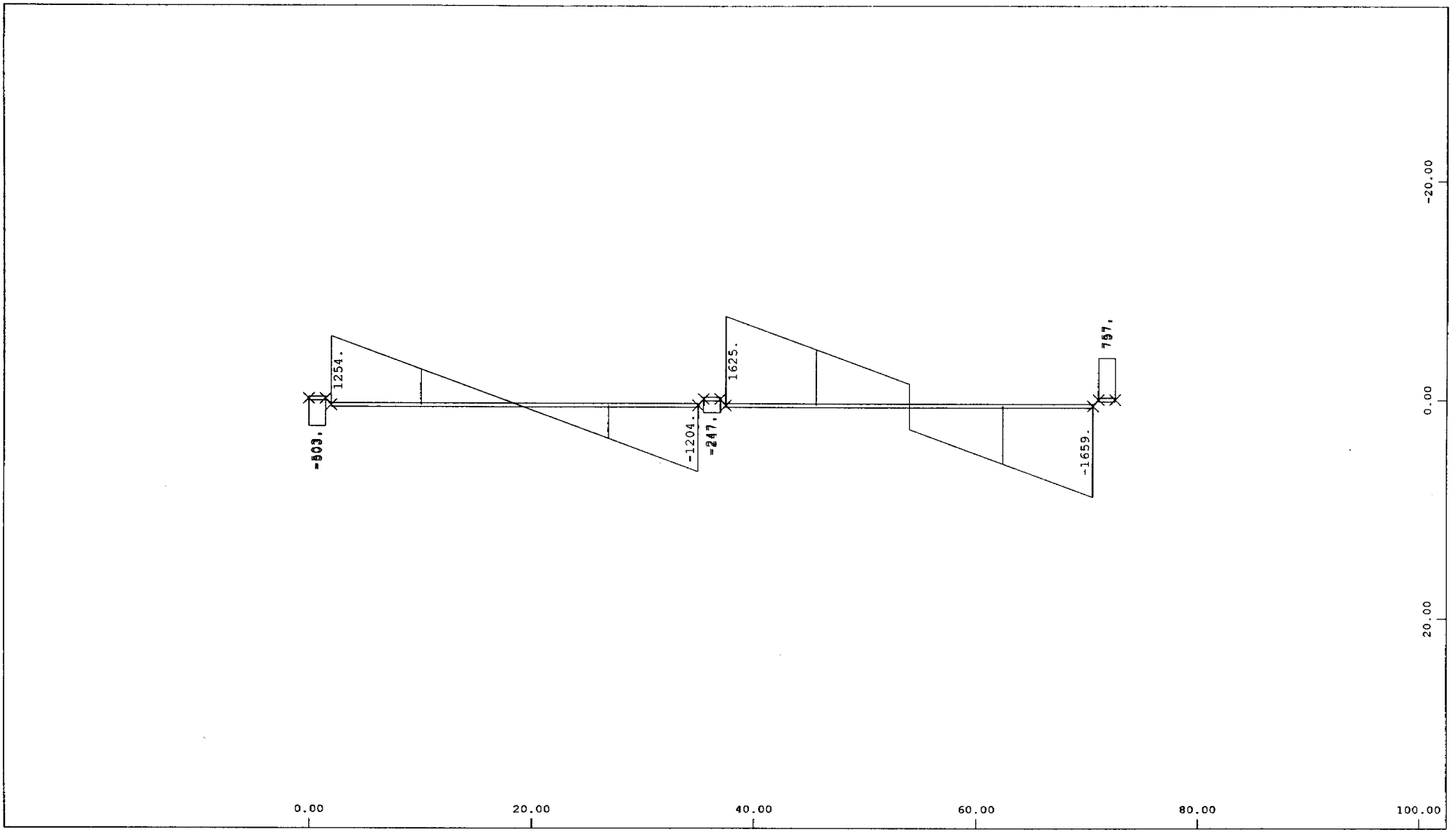
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM MOMENTS MY LC 1 LOAD CASE 1 1 CM = 5000. kNm

M 1 : 500

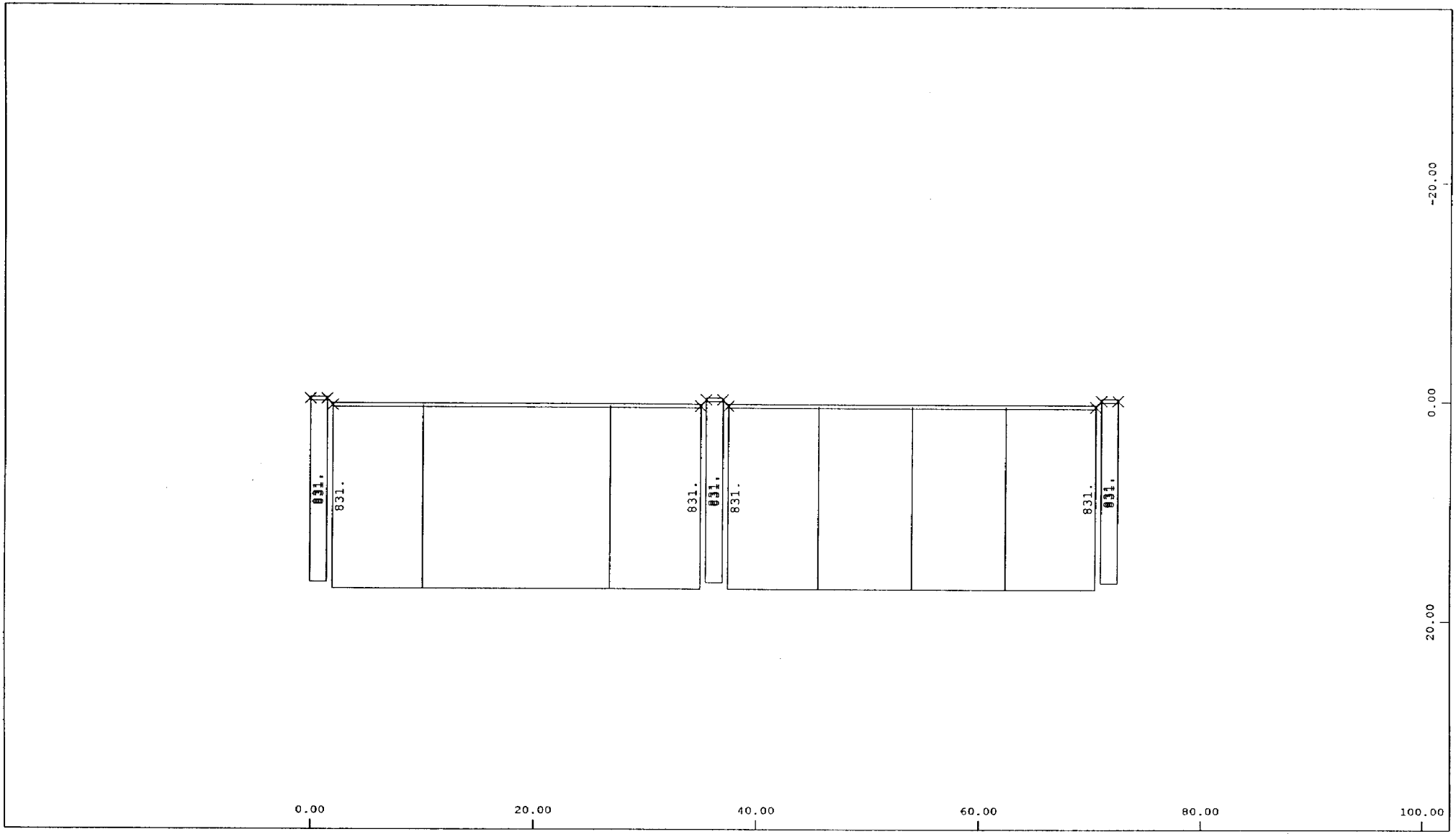
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM CROSS FORCES QZ LC 1 LOAD CASE 1 1 CM = 1000. kN

M 1 : 500

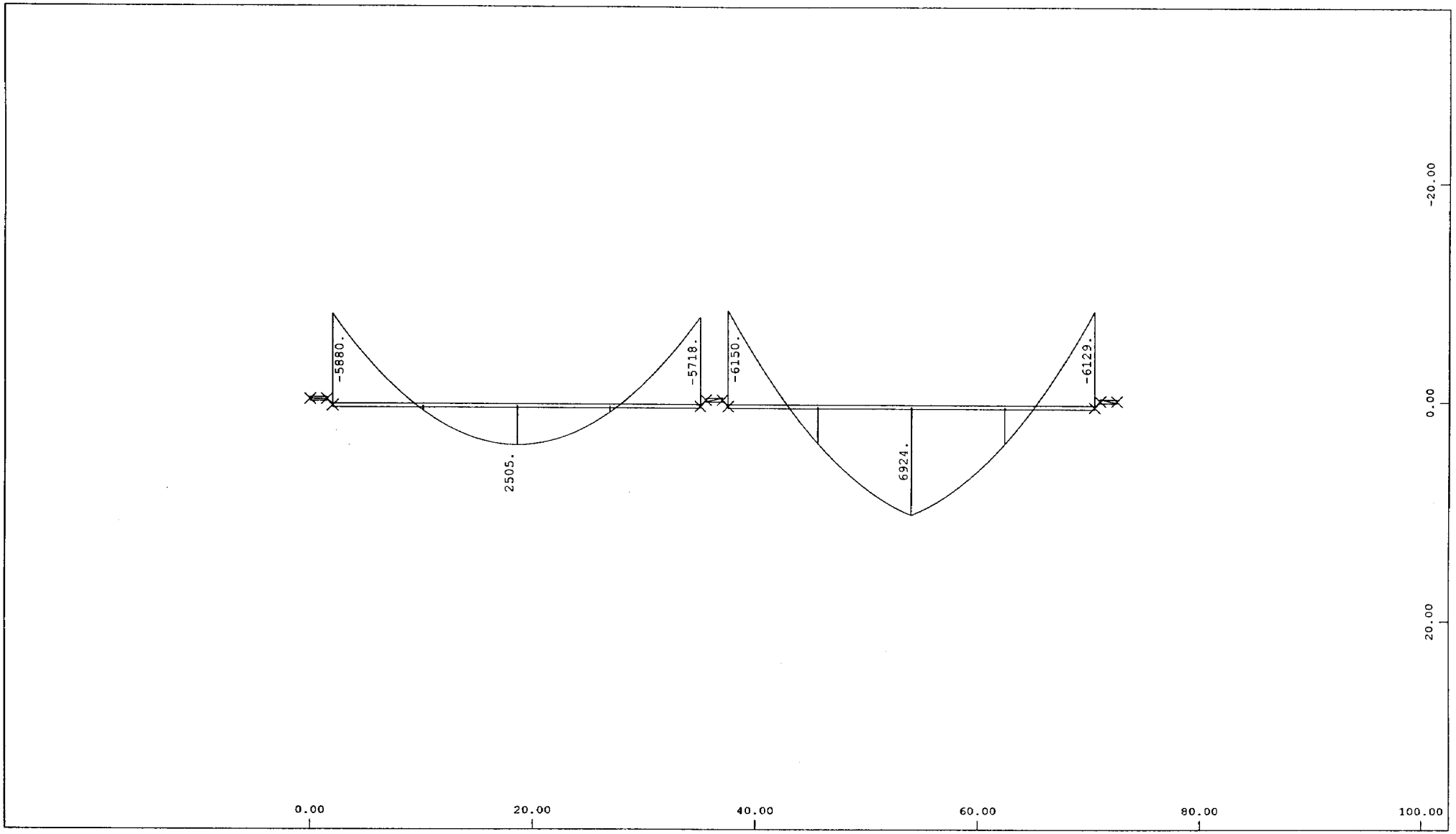
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM NORMAL FORCES LC 1 LOAD CASE 1 1 CM = 250.0 kN

M 1 : 500

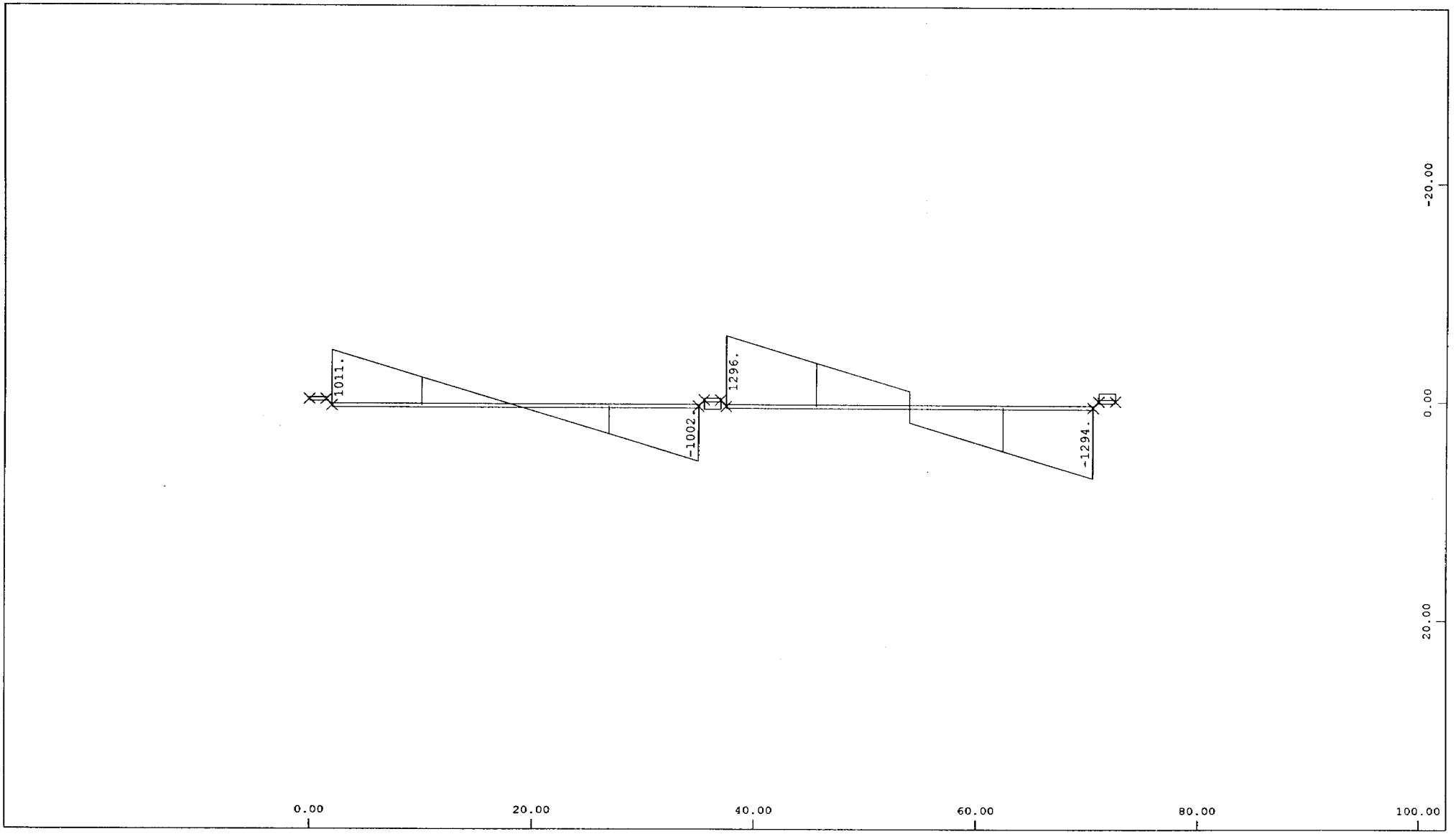
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM MOMENTS MY LC 2 LOAD CASE 2 1 CM = 3500. kNm

M 1 : 500

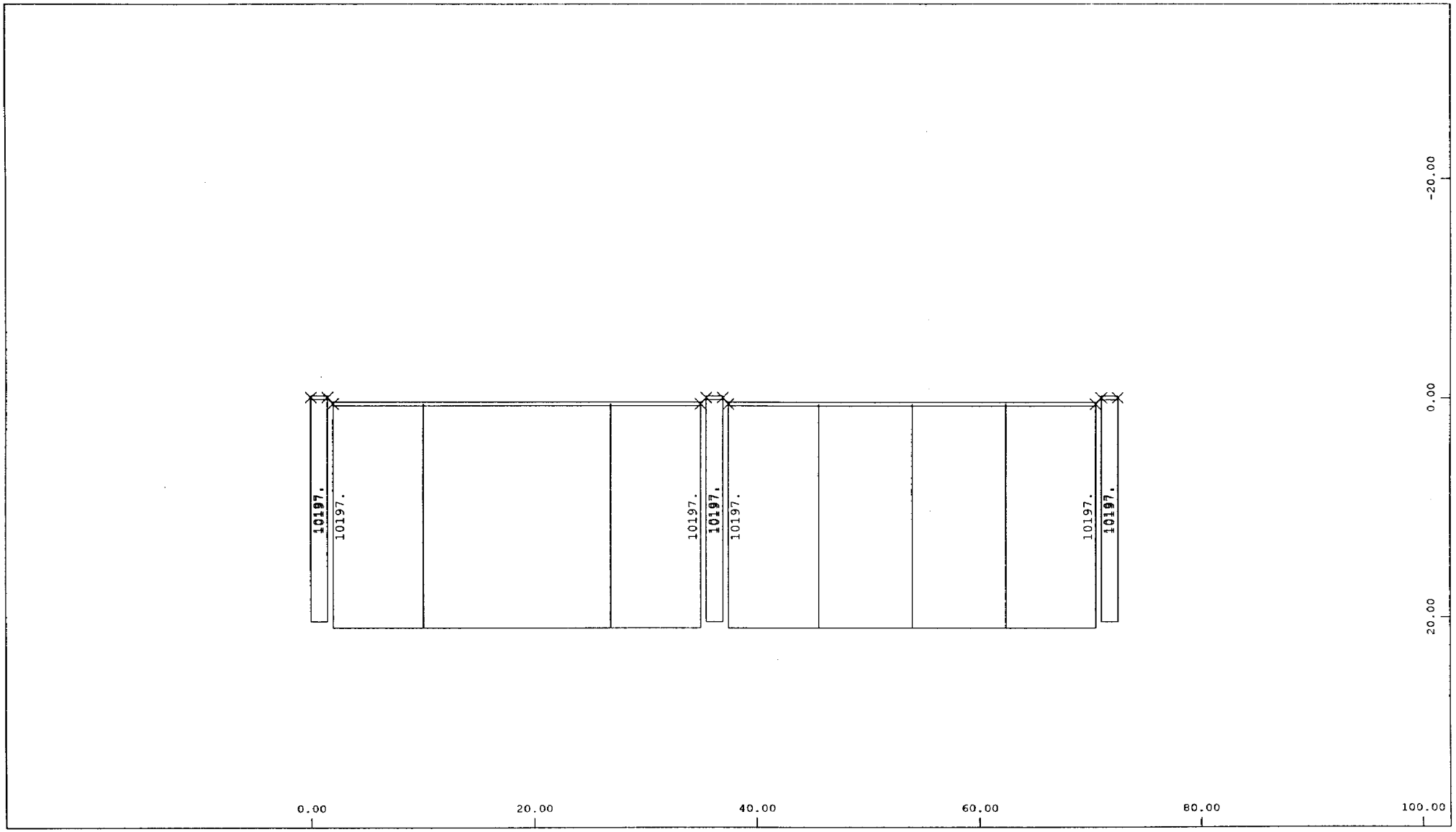
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM CROSS FORCES QZ LC 2 LOAD CASE 2 1 CM = 1000. kN

M 1 : 500

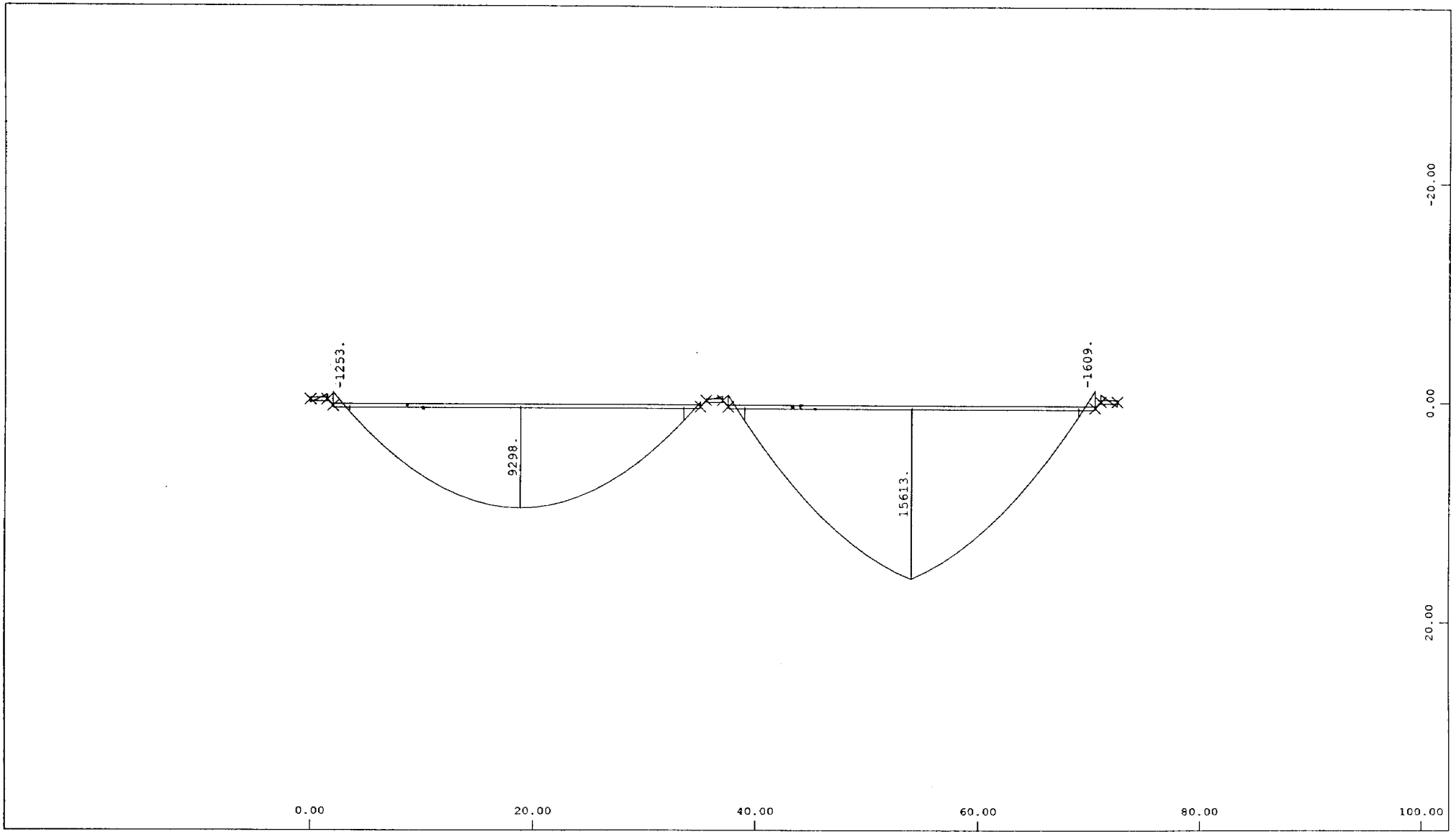
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM NORMAL FORCES LC 2 LOAD CASE 2 1 CM = 2500. kN

M 1 : 500

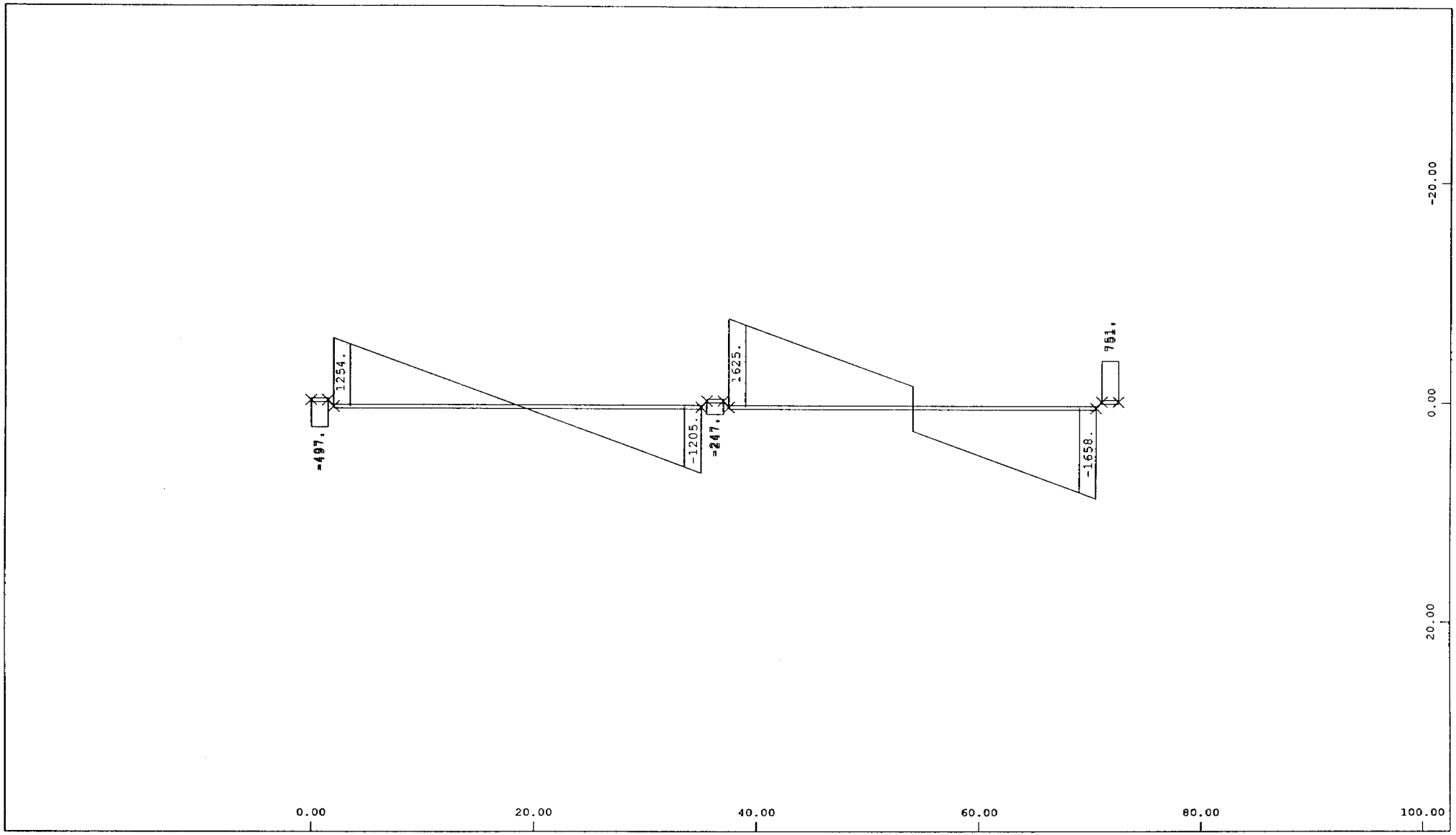
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM MOMENTS MY LC 1 LOAD CASE 1 1 CM = 5000. kNm

M 1 : 500

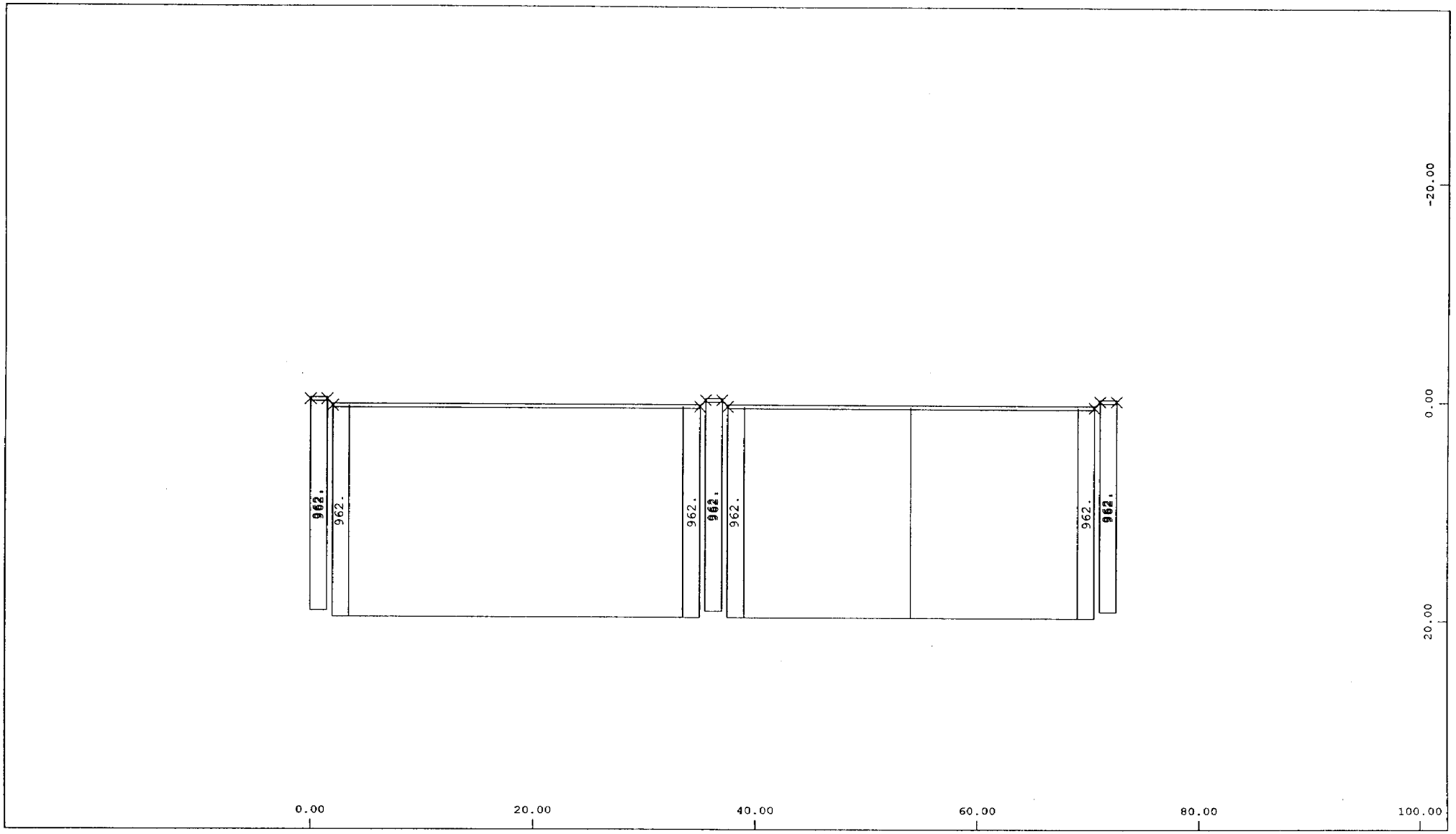
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM CROSS FORCES QZ LC 1 LOAD CASE 1 1 CM = 1000. kN

M 1 : 500

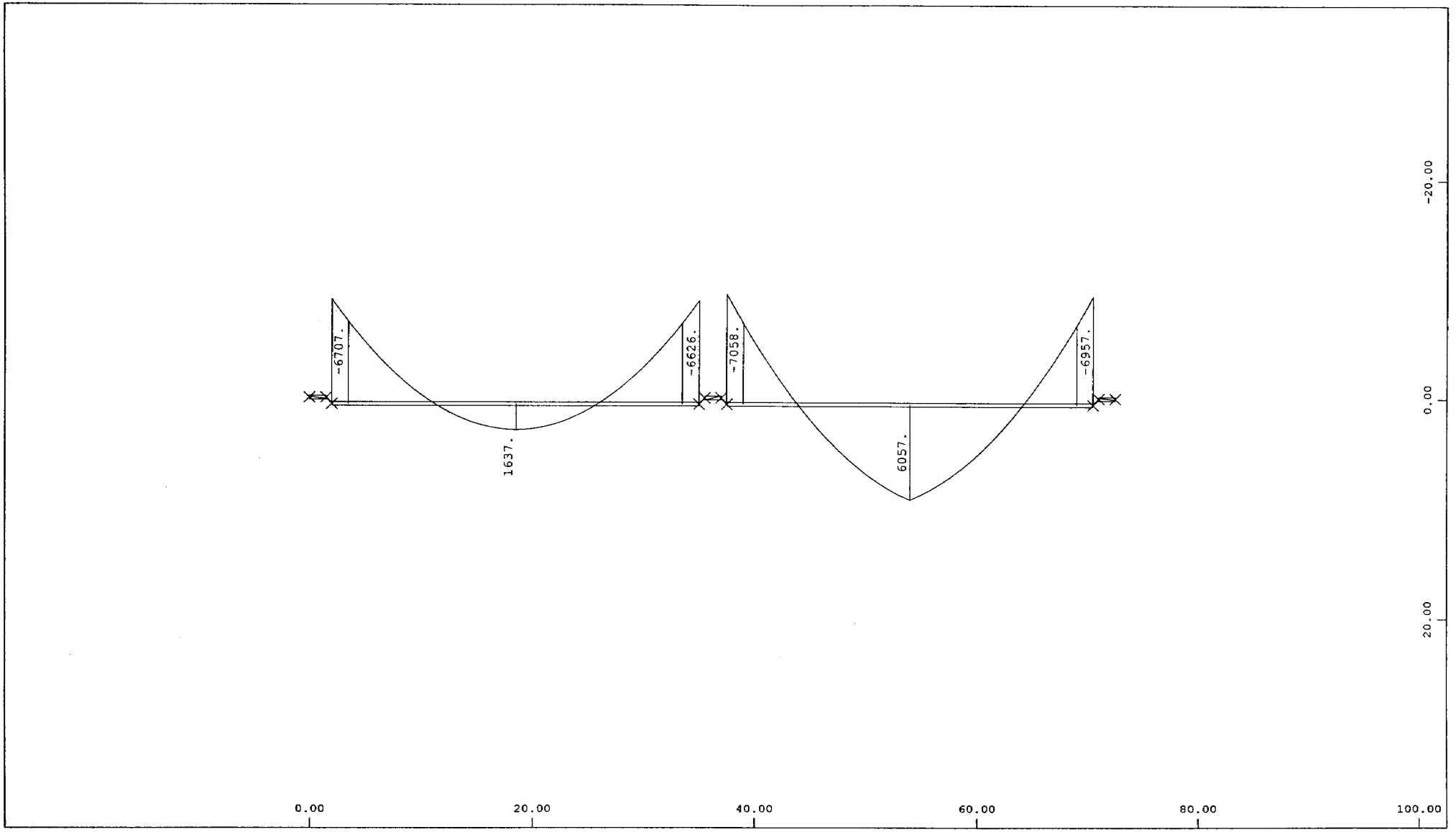
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM NORMAL FORCES LC 1 LOAD CASE 1 1 CM = 250.0 kN

M 1 : 500

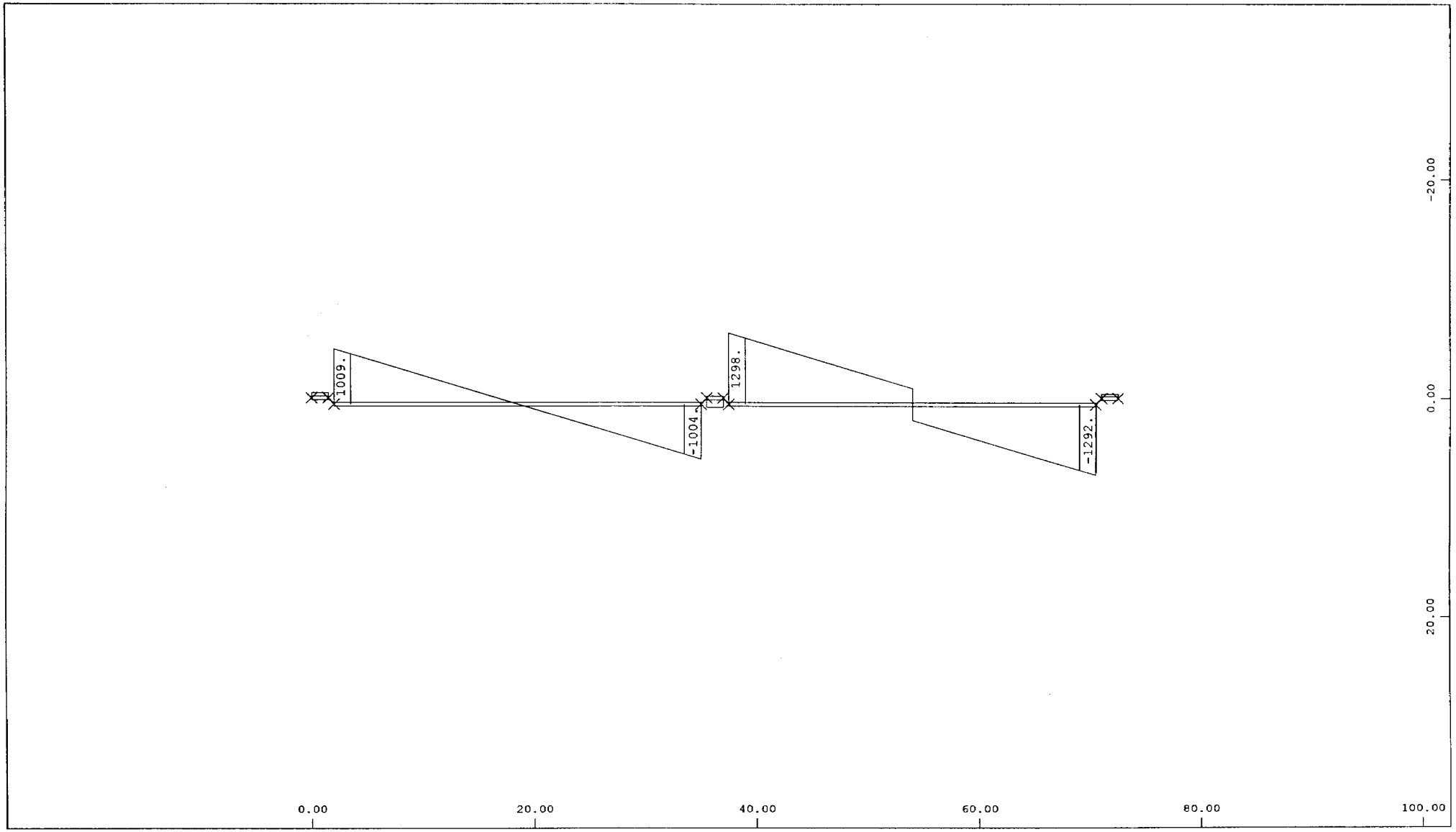
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM MOMENTS MY LC 2 LOAD CASE 2 1 CM = 3500. kNm

M 1 : 500

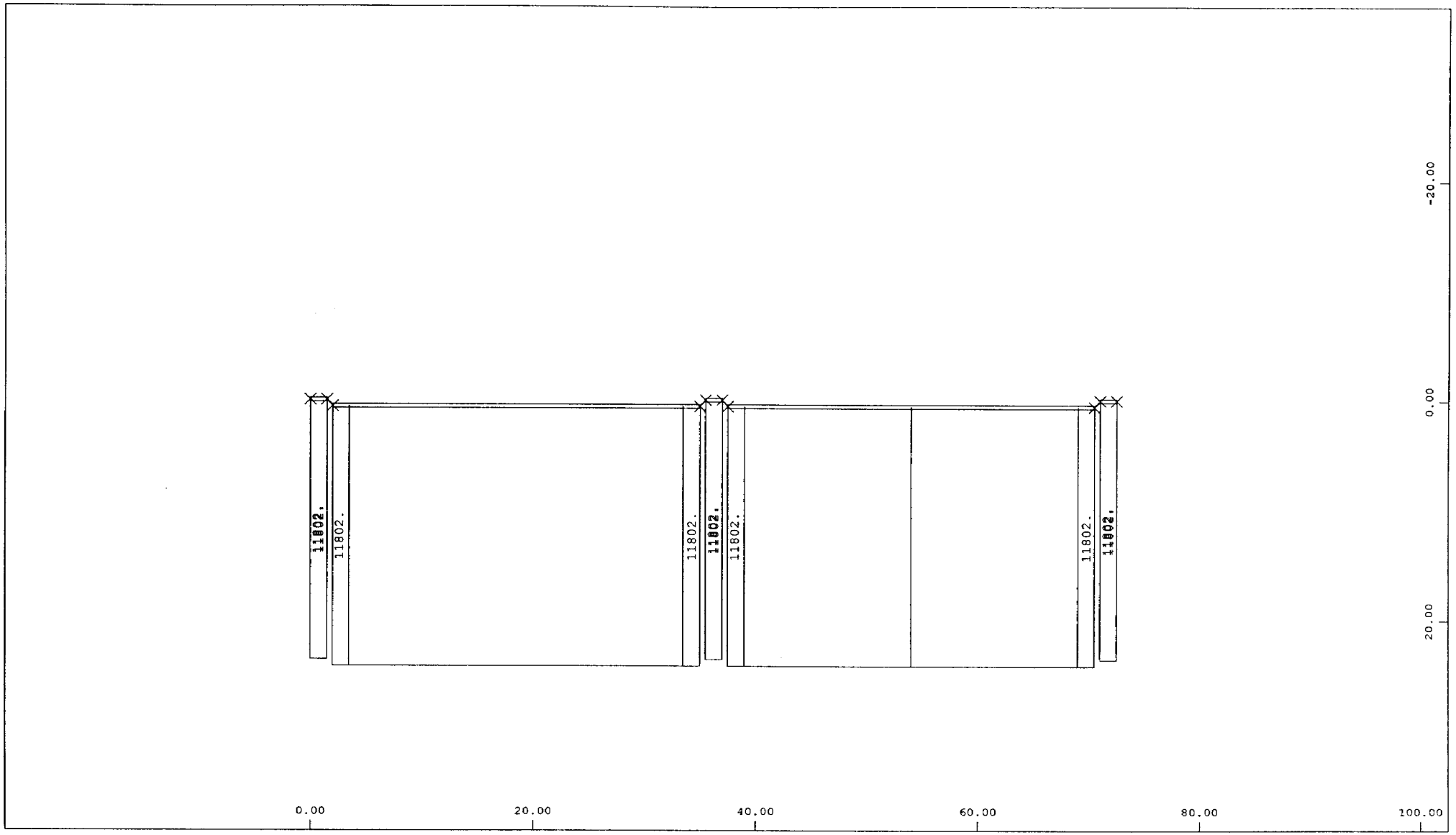
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM CROSS FORCES QZ LC 2 LOAD CASE 2 1 CM = 1000. kN

M 1 : 500

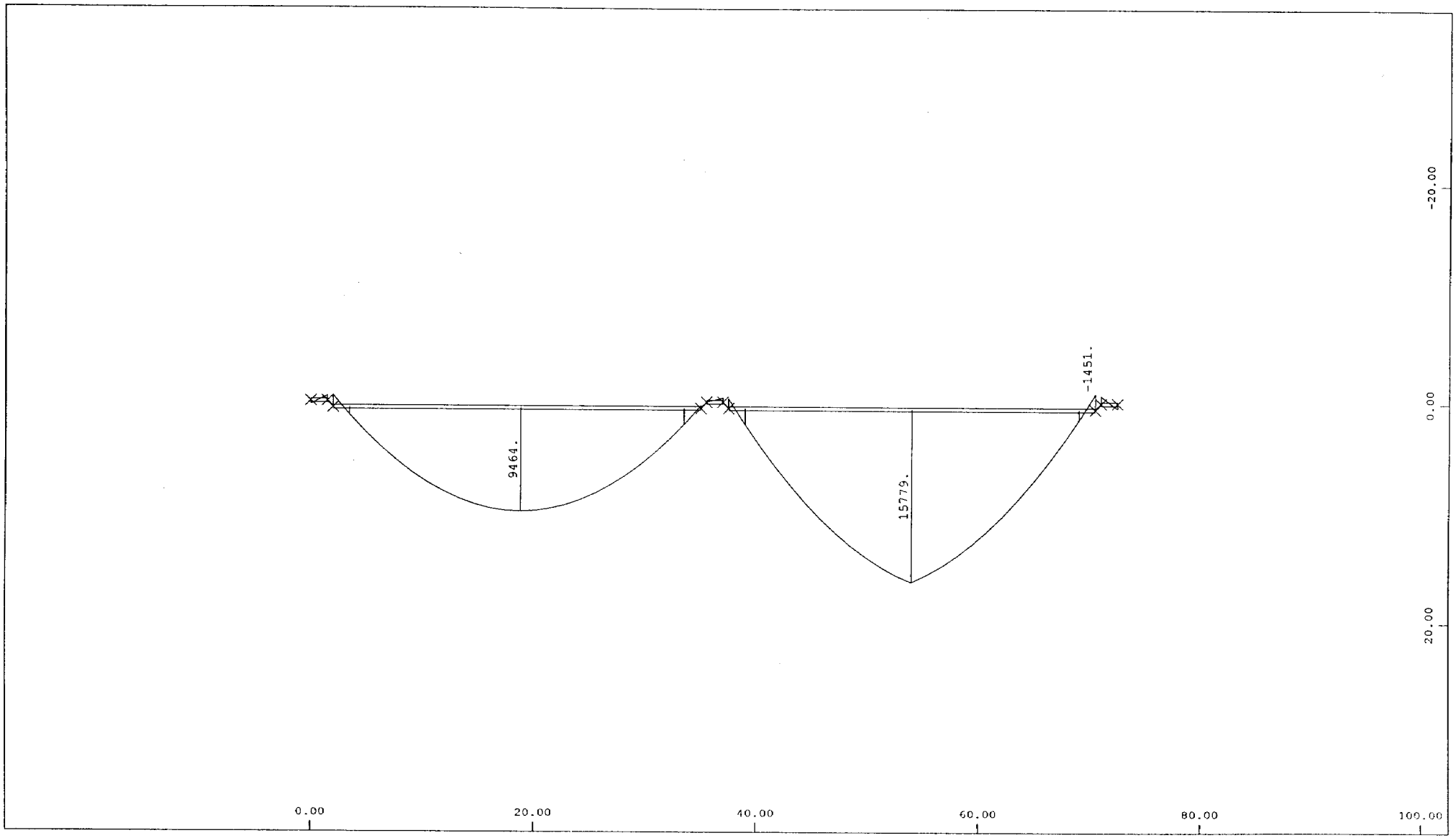
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM NORMAL FORCES LC 2 LOAD CASE 2 1 CM = 2500. kN

M 1 : 500

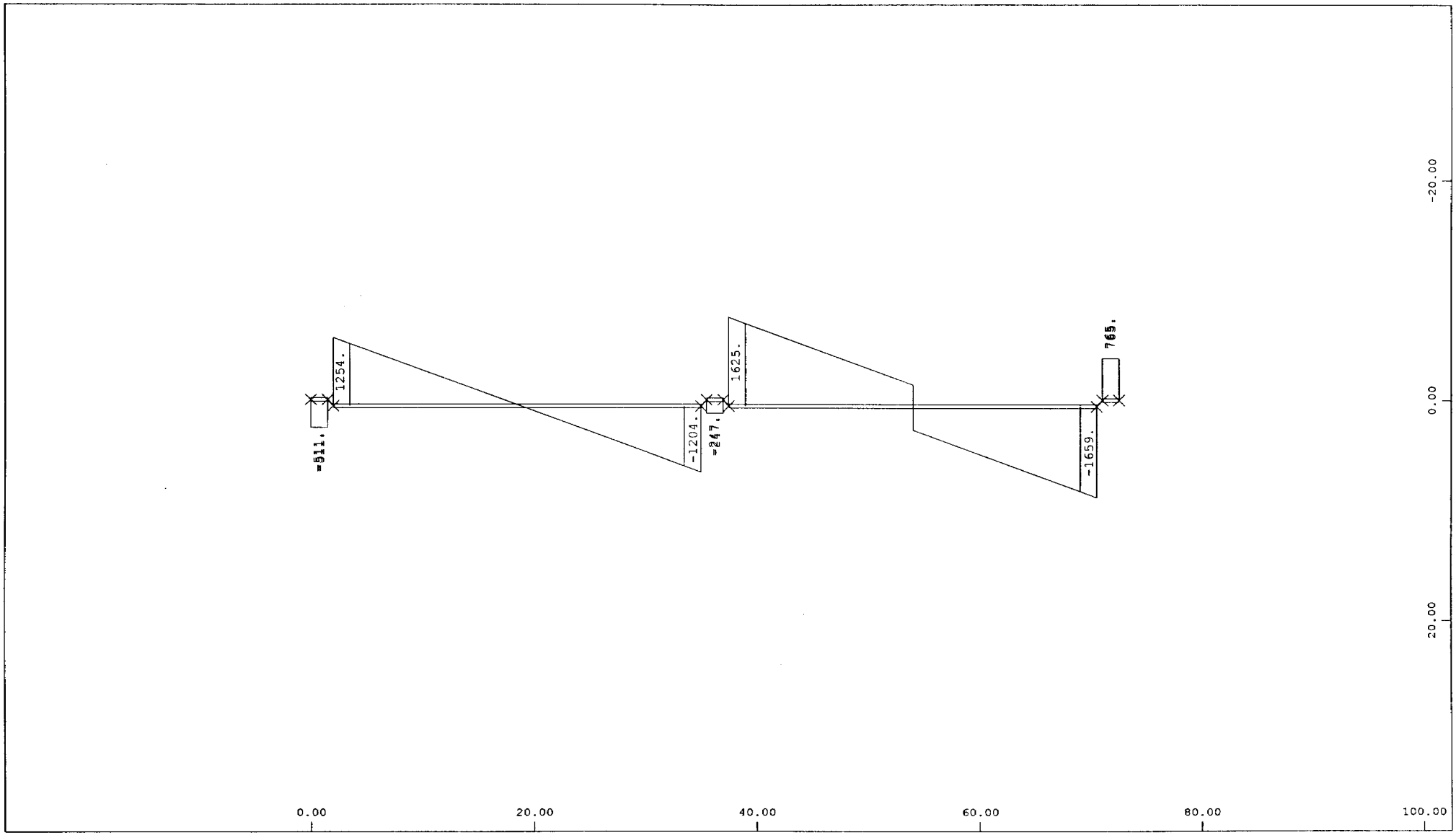
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM MOMENTS MY LC 1 LOAD CASE 1 1 CM = 5000. kNm

M 1 : 500

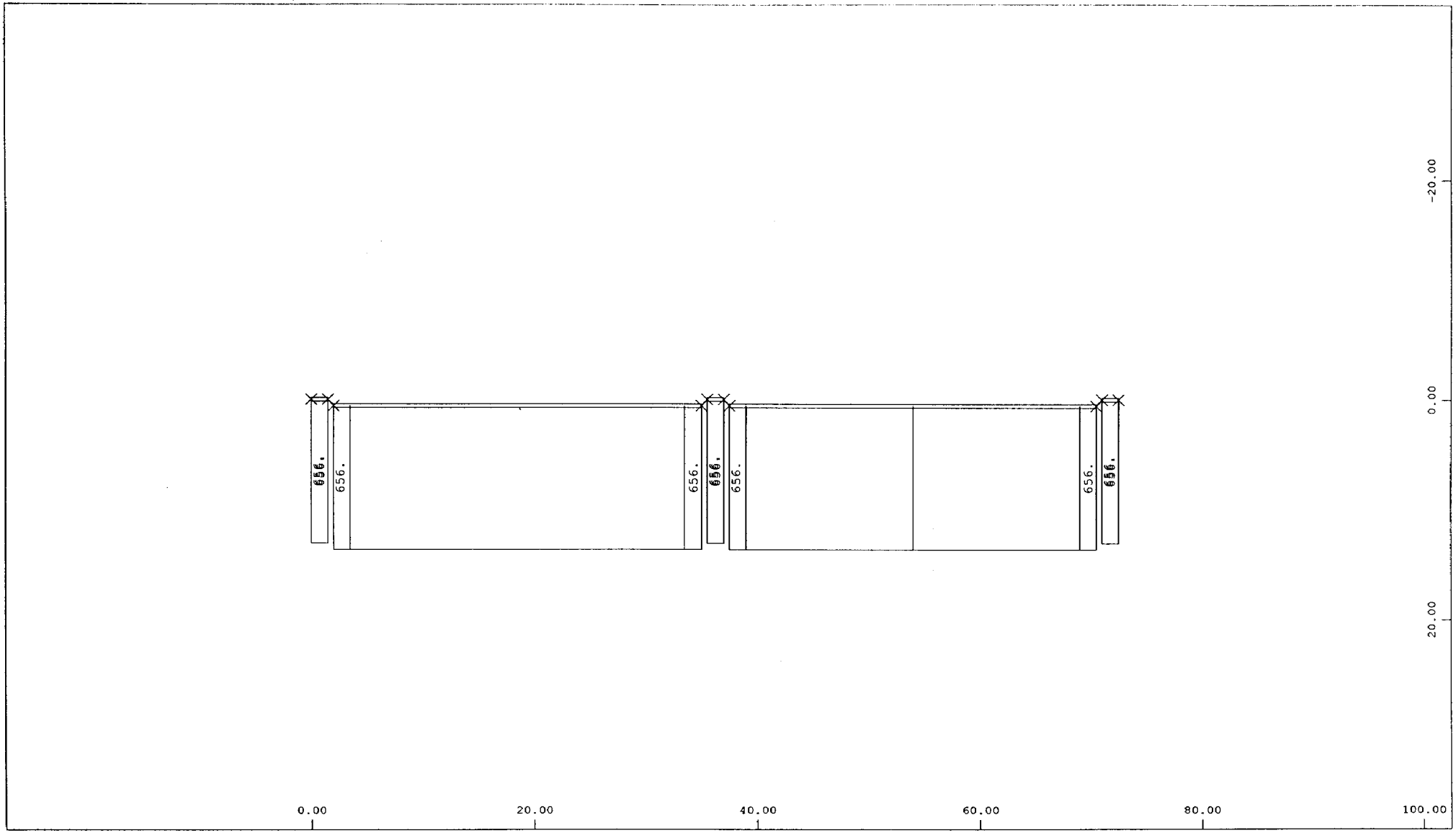
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
———BEAM CROSS FORCES QZ LC 1 LOAD CASE 1 1 CM = 1000. kN

M 1 : 500

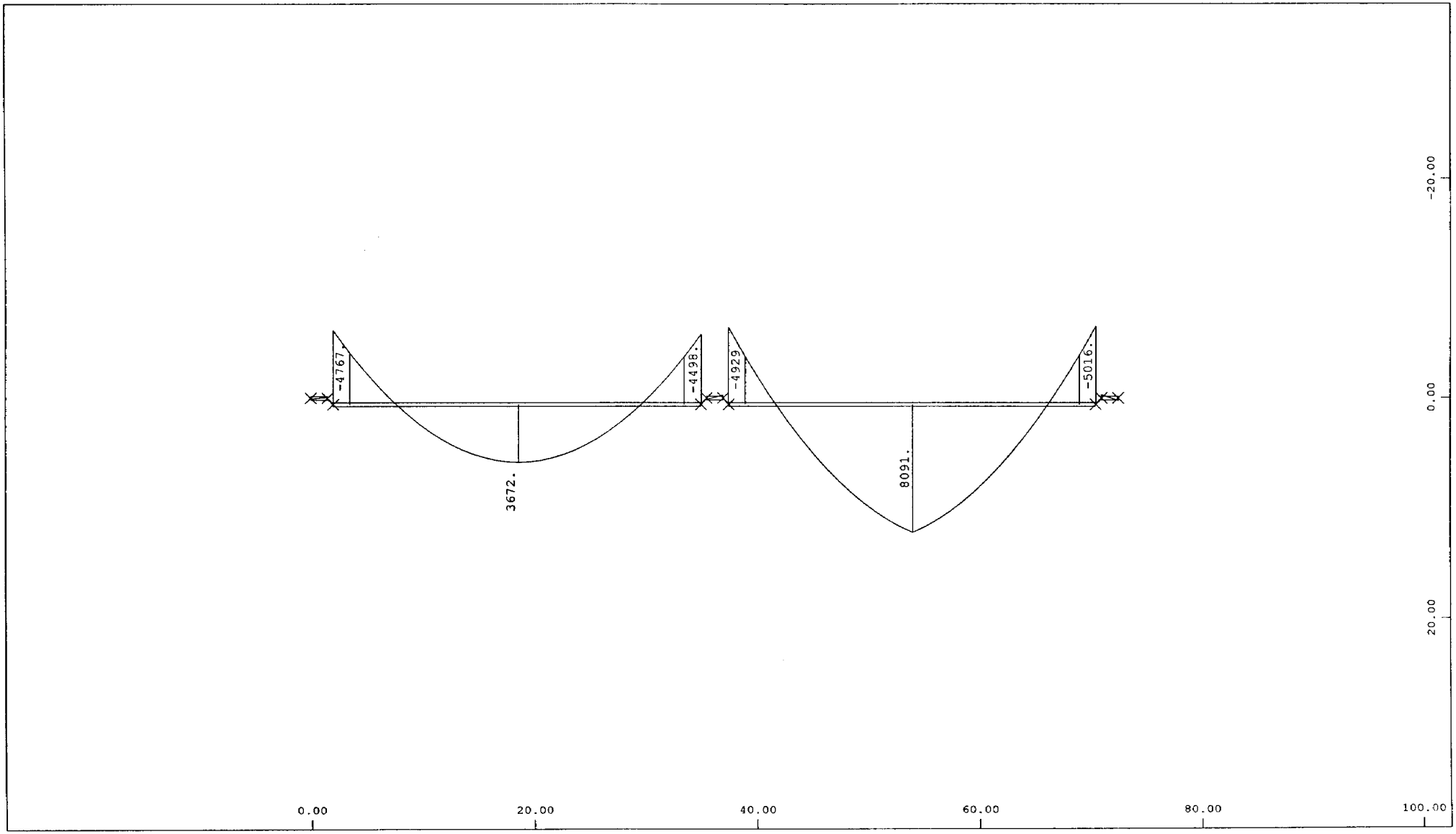
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM NORMAL FORCES LC 1 LOAD CASE 1 1 CM = 250.0 kN

M 1 : 500

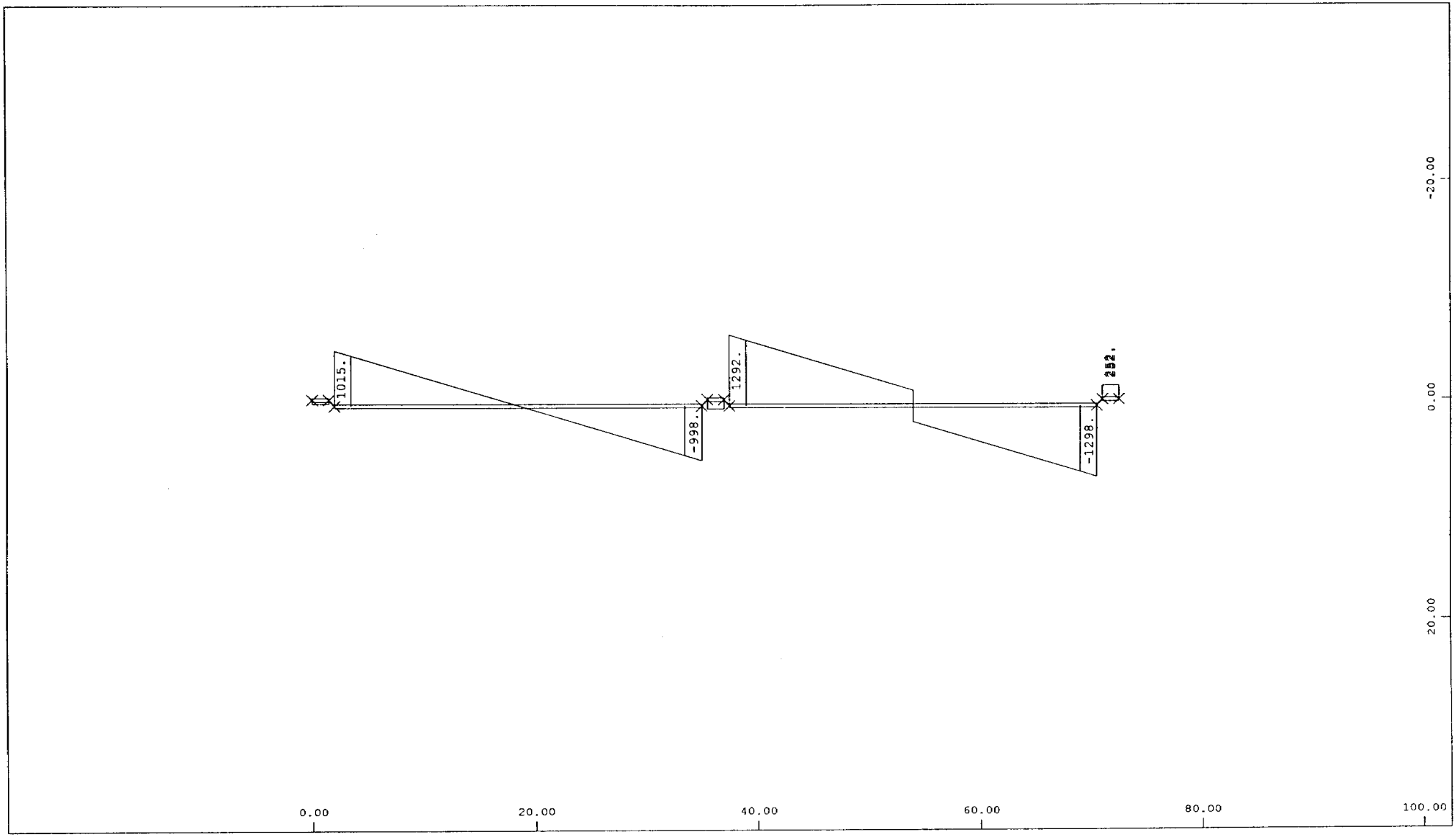
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM MOMENTS MY LC 2 LOAD CASE 2 1 CM = 3500. kNm

M 1 : 500

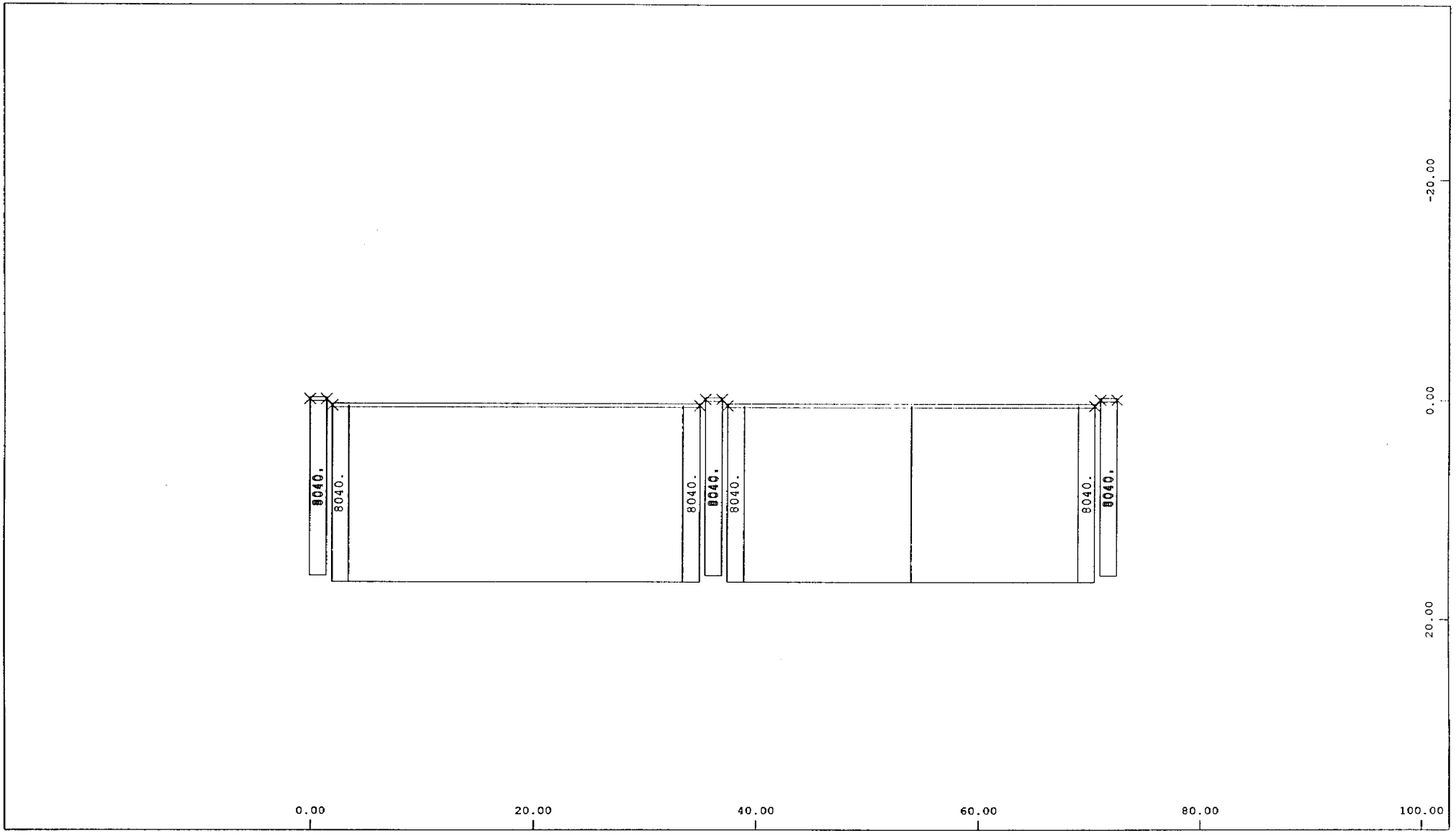
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM CROSS FORCES QZ LC 2 LOAD CASE 2 1 CM = 1000. kN

M 1 : 500

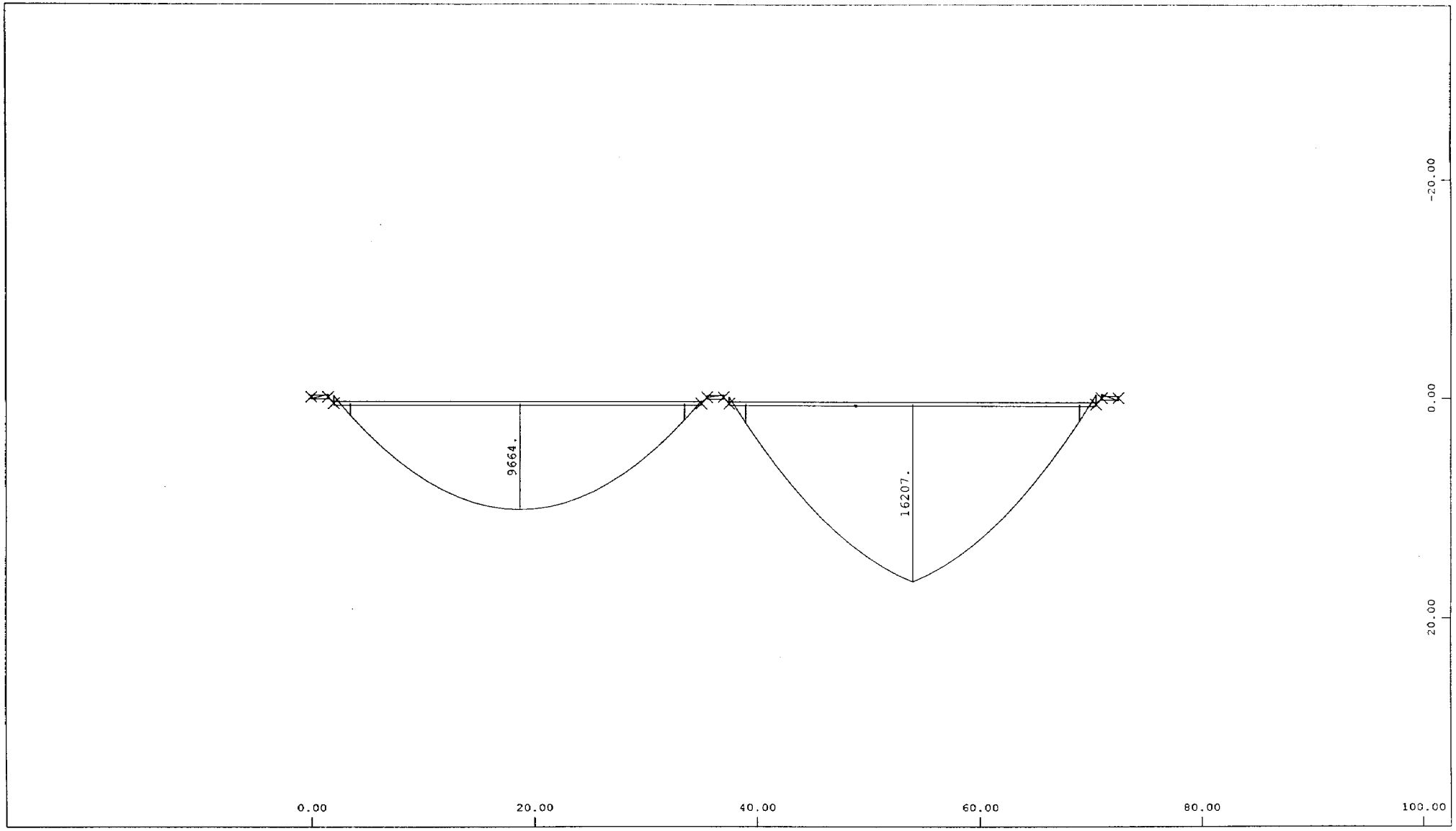
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM NORMAL FORCES LC 2 LOAD CASE 2 1 CM = 2500. kN

M 1 : 500

SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632

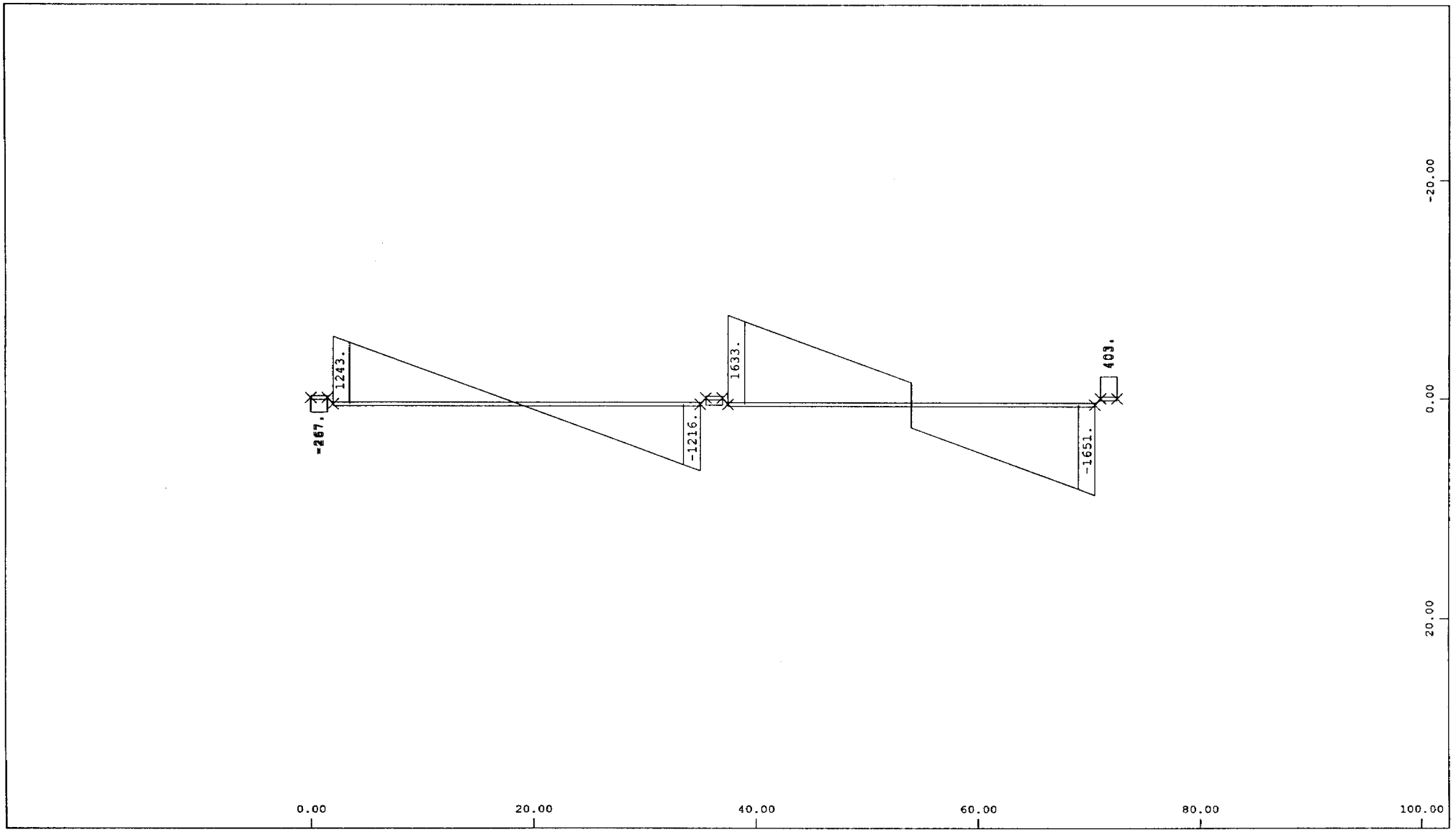


INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM MOMENTS MY LC 1 LOAD CASE 1 1 CM = 5000. kNm

M 1 : 500

Y X
Z

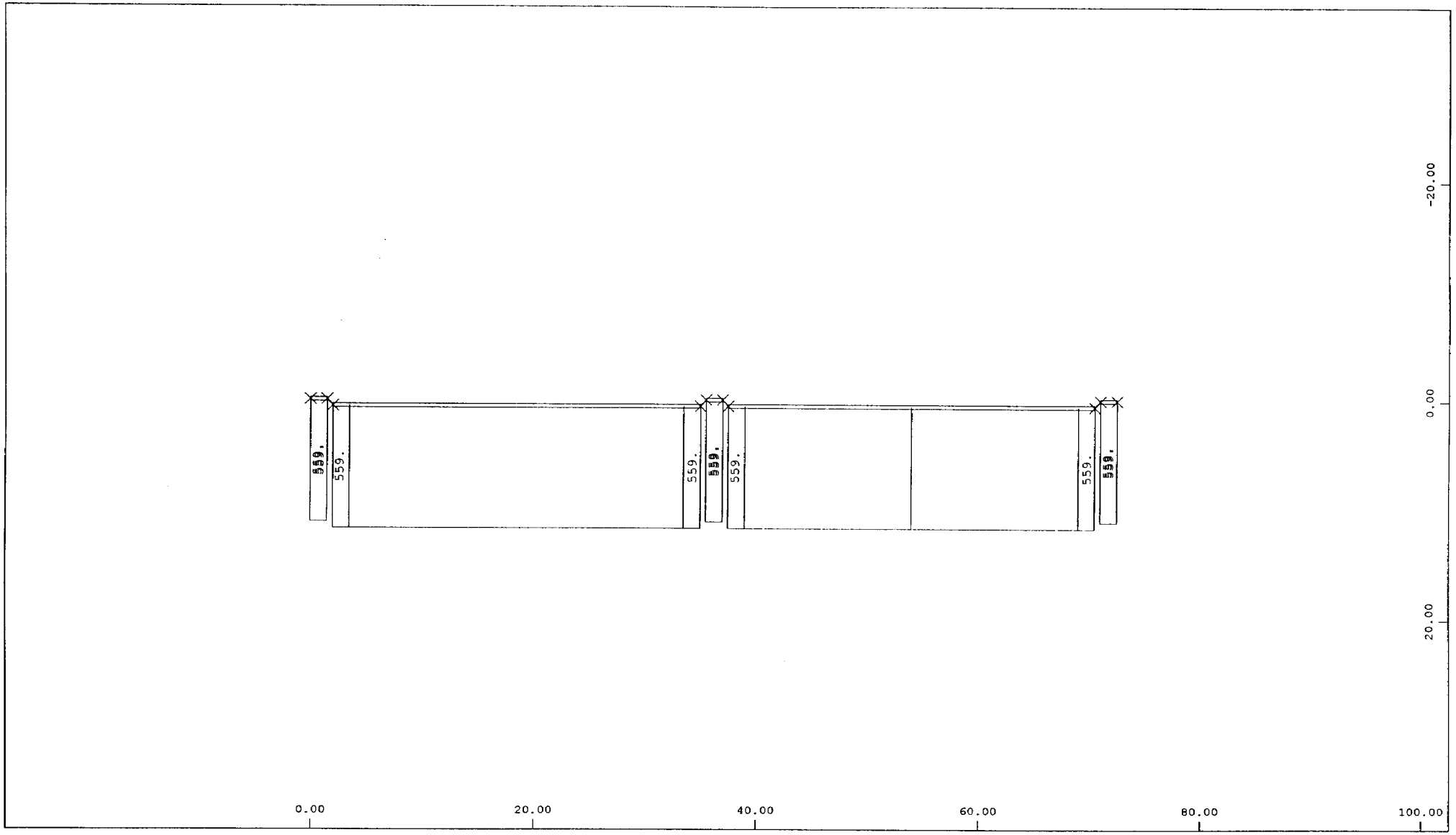
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM CROSS FORCES QZ LC 1 LOAD CASE 1 1 CM = 1000. kN

M 1 : 500

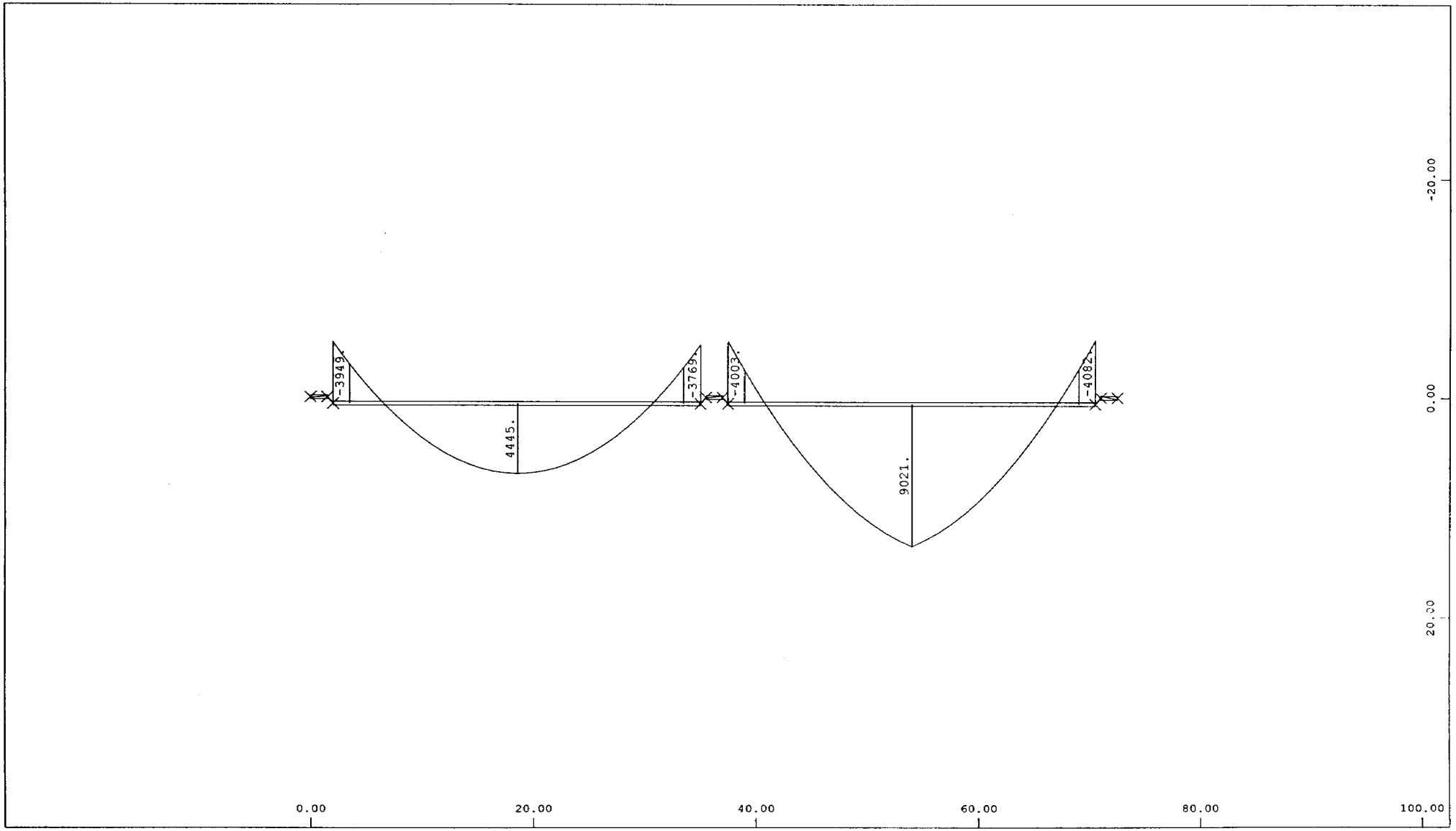
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM NORMAL FORCES LC 1 LOAD CASE 1 1 CM = 250.0 kN

M 1 : 500

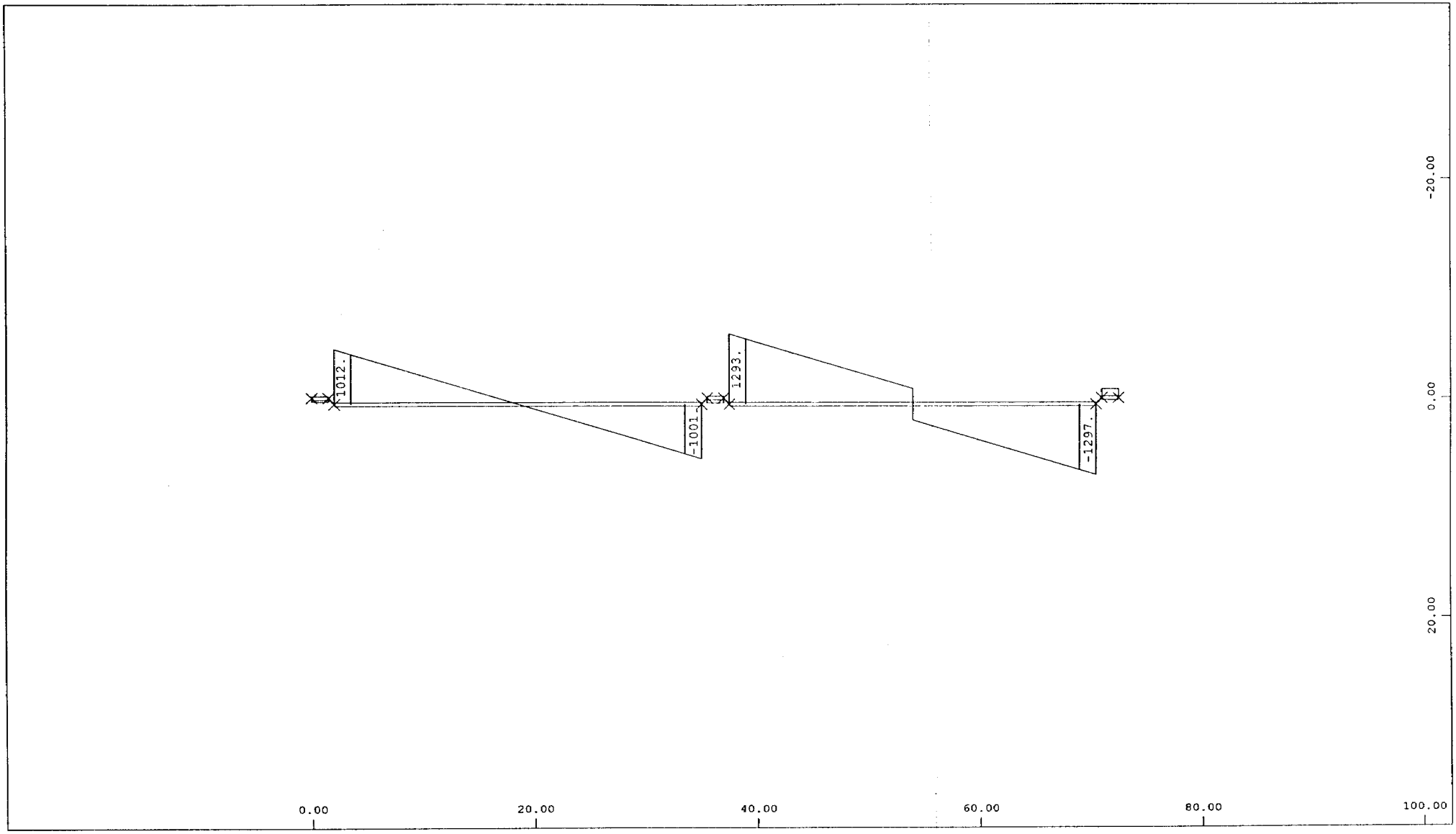
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM MOMENTS MY LC 2 LOAD CASE 2 1 CM = 3500. kNm

M 1 : 500

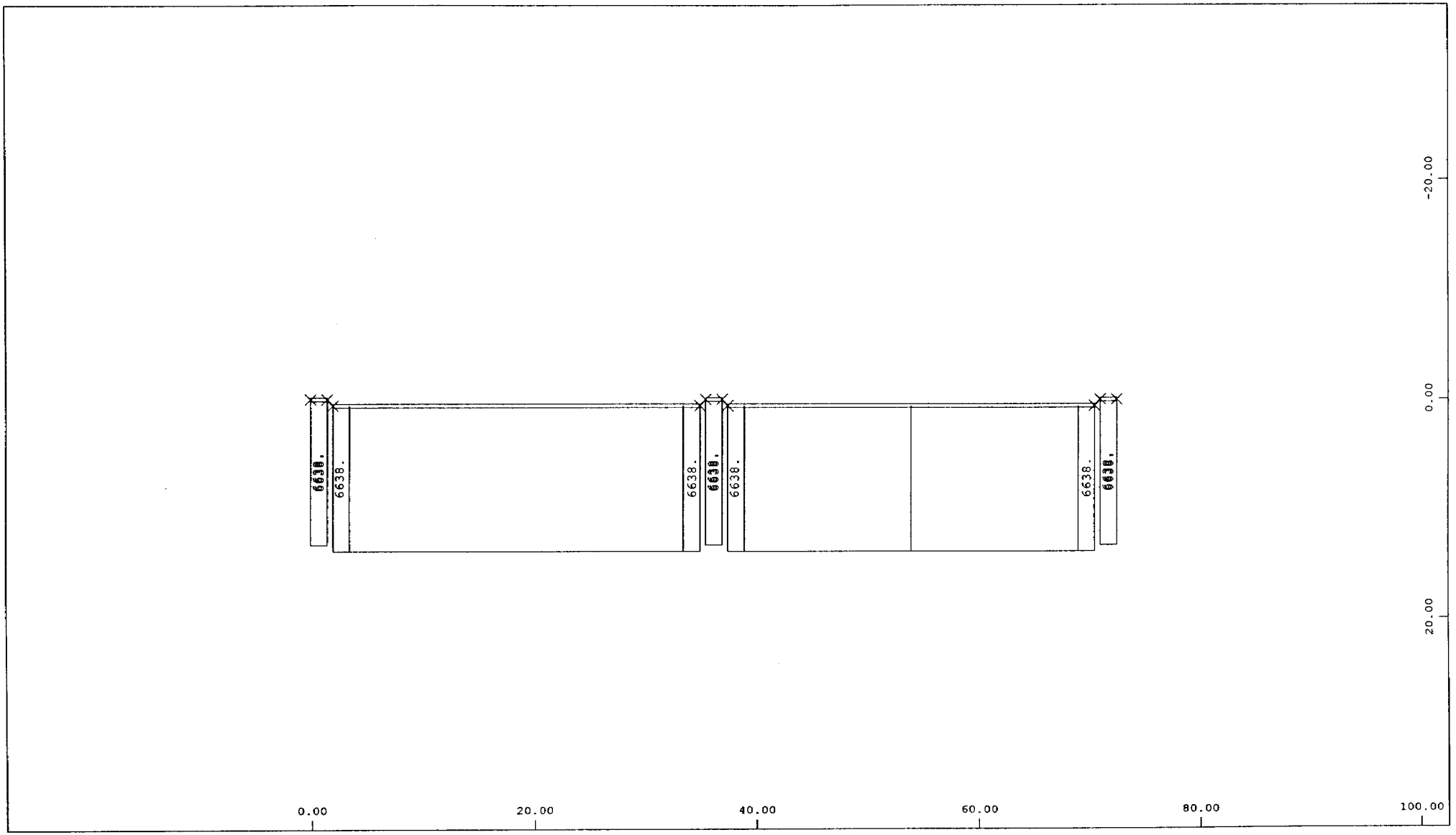
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM CROSS FORCES QZ LC 2 LOAD CASE 2 1 CM = 1000. kN

M 1 : 500

SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM NORMAL FORCES LC 2 LOAD CASE 2 1 CM = 2500. kN

M 1 : 500

(202)

```
 1 PROG GENF
 2 $ Dat : C:\sofistik\dat\it\new.dat  (.#01)                    09/13/2001
 3 $ Job : it/TEGOS:000916                                          23:43
 4 HEAD
 5 HEAD
 6 PAGE LINE 75 LANO 1 LANI 1 MARG 3 FIRS 1
 7 ECHO FULL FULL
 8 SYST OPTI NO
 9 SYST SPAC
10 CONC 1 B    35  EC 32000
11 CONC 2 B    35  EC 18150
12 STEE 3 BST  500
13 LET#1 33.00
14 NODE  1  1.50 0.00 0.58
15       2  2.00 ==
16       3  2.00+#1 ==
17       4  2.00+#1+0.50 ==
18       5  2.00+#1+2.00 ==
19       6  2.00+#1+2.50 ==
20       7  2.00+#1+2.50+#1 ==
21       8  2.00+#1+2.50+#1+0.50 ==
22       9  0.00 0.00 0.00
23       10 1.50 ==
24       11 2.00+#1+0.50
25       12 2.00+#1+2.00
26       13 2.00+#1+2.50+#1+0.50
27       14 2.00+#1+2.50+#1+2.00
28 NODE  (1  4 3) FIX PYYM
29 NODE  (2  3 1) FIX XPYM
30 NODE  (5  8 3) FIX PYYM
31 NODE  (6  7 1) FIX XPYM
32 NODE (10 13 1) FIX PYYM
33 NODE  (9 14 5) FIX PPMM
34 NODE 10 FIX KF NREF 2
35      1  FIX KF NREF 2
36      11 FIX KF NREF 3
37      4  FIX KF NREF 3
38      12 FIX KF NREF 6
39      5  FIX KF NREF 6
40      13 FIX KF NREF 7
41      8  FIX KF NREF 7
42 $
43 RECT NO 1  H 10 B 10 MNO 1              $ ΑΚΑΜΠΤΕΣ ΔΟΚΟΙ
44 SVAL NO 2 MNO 1 A 5.92 IY 3.072
45 SVAL NO 3 MNO 2 A 0.186  IY 0.008
46 SVAL NO 4 MNO 2 A 0.104  IY 0.008
47 $
48 $BEAM 1  1  2   NCS 1
49 BEAM 2  2  3   NCS 2
50 $     3  3  4   NCS 1
51 $     4  5  6   NCS 1
52       5  6  7   NCS 2
53 $     6  7  8   NCS 1
54       7  9 10   NCS 3
55       8 11 12   NCS 4
56       9 13 14   NCS 3
57 $    10  1 10   NCS 1
58 $    11  4 11   NCS 1
59 $    12  5 12   NCS 1
60 $    13  8 13   NCS 1
61 BSEC 2  1.50 2 SECT
62 BSEC 2 31.50 2 SECT
63 BSEC 5  1.50 2 SECT
64 BSEC 5 31.50 2 SECT
65 END
```

M A X I M U M N O D A L P A R A M E T E R S

max-No	Xmin/Xmax	Ymin/Ymax	Zmin/Zmax
14	0.000	0.000	0.000
	72.500	0.000	0.580

N O D E S

number	X (m)	Y (m)	Z (m)	supports/number of unknown						
1	1.500	0.000	0.580	*	*	*	*	*	*	*
2	2.000	0.000	0.580		PY	PZ	MX		MZ	
3	35.000	0.000	0.580		PY	PZ	MX		MZ	
4	35.500	0.000	0.580	*	*	*	*	*	*	*
5	37.000	0.000	0.580	*	*	*	*	*	*	*
6	37.500	0.000	0.580		PY	PZ	MX		MZ	
7	70.500	0.000	0.580		PY	PZ	MX		MZ	
8	71.000	0.000	0.580	*	*	*	*	*	*	*
9	0.000	0.000	0.000	PX	PY	PZ	MX	MY	MZ	
10	1.500	0.000	0.000	*	*	*	*	*	*	*
11	35.500	0.000	0.000	*	*	*	*	*	*	*
12	37.000	0.000	0.000	*	*	*	*	*	*	*
13	71.000	0.000	0.000	*	*	*	*	*	*	*
14	72.500	0.000	0.000	PX	PY	PZ	MX	MY	MZ	

K I N E M A T I C C O N S T R A I N T S

node	LV	type	refered to	dx	dy	dz
10	1	KF	2	-0.500	0.000	-0.580
1	1	KF	2	-0.500	0.000	0.000
11	1	KF	3	0.500	0.000	-0.580
4	1	KF	3	0.500	0.000	0.000
12	1	KF	6	-0.500	0.000	-0.580
5	1	KF	6	-0.500	0.000	0.000
13	1	KF	7	0.500	0.000	-0.580
8	1	KF	7	0.500	0.000	0.000

M A T E R I A L S

No. 1 B 35 (DIN 1045)

Young-module	32000	[MPa]	Safetyfactor	1.00	[-]
Poisson-Ratio	0.20	[-]	Strength fc	23.00	[MPa]
Shear-module	13333	[MPa]	Nominal Strength	35.00	[MPa]
Compress.module	17778	[MPa]	Tens.Str. fctm	3.21	[MPa]
Weight	25.0	[kN/m3]	Tens.Str. fctk	2.67	[MPa]
Weight buoyancy	0.0	[kN/m3]	Tens.Str. fctm	3.85	[MPa]
Temperat. coeff.	1.00E-05	[-]	Compr.fail.ener.	20.00	[kN/m]
			Tens.fail.energ.	0.05	[kN/m]
			Friction crack	0.20	[-]

No. 2 B 35 (DIN 1045)

Young-module	18150	[MPa]	Safetyfactor	1.00	[-]
Poisson-Ratio	0.20	[-]	Strength fc	23.00	[MPa]
Shear-module	7563	[MPa]	Nominal Strength	35.00	[MPa]
Compress.module	10083	[MPa]	Tens.Str. fctm	3.21	[MPa]
Weight	25.0	[kN/m3]	Tens.Str. fctk	2.67	[MPa]
Weight buoyancy	0.0	[kN/m3]	Tens.Str. fctm	3.85	[MPa]
Temperat. coeff.	1.00E-05	[-]	Compr.fail.ener.	20.00	[kN/m]
			Tens.fail.energ.	0.05	[kN/m]
			Friction crack	0.20	[-]

M A T E R I A L S

No. 3 BST 500 (DIN 1045)

Young-module	210000	[MPa]	Safetyfactor	1.00	[-]
Poisson-Ratio	0.30	[-]	Yield stress fy	500.00	[MPa]
Shear-module	80769	[MPa]	Tensile str. ft	550.00	[MPa]
Compress.module	175000	[MPa]	Plastic strain	10.00	[o/o]
Weight	78.5	[kN/m3]	Relaxation .70ft	0.00	[-]
Weight buoyancy	0.0	[kN/m3]	Relaxation .55ft	0.00	[-]
Temperat. coeff.	1.20E-05	[-]	Bondval R (DIN)	200.00	[-]
			Bondval K1 (EC2)	0.80	[-]
			Hardening module	0.00	[MPa]

C R O S S - S E C T I O N S S T A T I C P R O P E R T I E S

No	MNo / MNs	A[m2] / It[m4]	Ay/Az/Ayz [m2]	Iy/Iz/Iyz [m4]	ys/zs [m]	y/z-sc [m]	modules [MPa]	gam [kN/m3]
1	1	1.0000E+02		8.333E+02	0.000	0.000	32000	25.0
	3	1.400E+03		8.333E+02	0.000	0.000	13333	
=	1000./1000. [cm]							
=	(H-AS 100./100. [cm])							
2	1	5.9200E+00		3.072E+00	0.000	0.000	32000	25.0
		5.064E+00		3.072E+00	0.000	0.000	13333	
3	2	1.8600E-01		8.000E-03	0.000	0.000	18150	25.0
		1.895E-03		8.000E-03	0.000	0.000	7563	
4	2	1.0400E-01		8.000E-03	0.000	0.000	18150	25.0
		1.852E-04		8.000E-03	0.000	0.000	7563	

B E A M E L E M E N T S

beam-No.	node-No.	x (M)	NP	NCO	hinges	direction of local y-axis		
2	2	0.000	2			0.00	1.00	0.00
		1.500	2					
		31.500	2					
	3	33.000	2					
5	6	0.000	2			0.00	1.00	0.00
		1.500	2					
		31.500	2					
	7	33.000	2					
7	9	0.000	3			0.00	1.00	0.00
	10	1.500	3					
8	11	0.000	4			0.00	1.00	0.00
	12	1.500	4					
9	13	0.000	3			0.00	1.00	0.00
	14	1.500	3					

```
++ FFCLOS   31: .$gb
   SHOULD BE  : .\new.$gb
   SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632
   GRAF   - GRAPHICS FOR FINITE ELEMENTS   (V 5.4-95)   9/13/01  Page:



    1 PROG GRAF
    2 $ Dat : C:\sofistik\dat\it\new.dat  (.#02)                    09/13/2001
    3 $ Job : it/TEGOS:000916                                          23:43
    4 HEAD FINITE ELEMENT DISCRETIZATION
    5 PAGE FIRS -1 LANO 1 LANI 1
    6 SIZE  W 27 H 20 SC 0
    7 SCHH 0.18 0.18 0.15 0.15
    8 COLO C5 6000
    9 $                                          3D VIEW ALL
   10 GRP 0,1
   11 VIEW STAN 0 0 -1 POSY
   12 STRU SECT 1 OFFE +1 OFFN +4 ; AND ; STRU 1 1
   13 VIEW STAN .5 1 -.4 POSZ
   14 STRU SECT 1 OFFE +1 OFFN +4 ; AND ; STRU 1 1
   15 STRU NUME 1 MFIX 4
   16 STRU NUMN 1 MARK 1
   17 $                                         TOP VIEW
   18 END
```

```
 1 PROG STAR2
 2 $ Dat : C:\sofistik\dat\it\new.dat  (.#03)                    09/13/2001
 3 $ Job : it/TEGOS:000916                                          23:43
 4 HEAD ΕΝΤΑΤΙΚΑ ΜΕΓΕΘΗ ΛΟΓΩ ΜΟΝΙΜΩΝ ΚΑΙ ΠΡΟΣΘΕΤΩΝ ΜΟΝΙΜΩΝ ΦΟΡΤΙΩΝ
 5 PAGE FIRS 1 LINE 75 MARG 3 LANO 1 LANI 1
 6 ECHO FULL FULL
 7 ECHO NODE FULL
 8 CTRL I
 9 LC 1 TITL 'FORTIA MON.+KIN.'
10 UL 2 PZ 74.50
11 UL 5 PZ 74.50
12 SL NO 5 TYPE PZ P 825 A 16.5
13 LC 2 TITL 'FORT. MON.+KIN.+(-50o C)'
14 UL 2 PZ 61.0
15 UL 5 PZ 61.0
16 SL NO 5 TYPE PZ P 577 A 16.5
17 UL 2 TS -50
18 UL 5 TS -50
19 UL (7 9 1) TS -50
20 END
```

ΕΝΤΑΤΙΚΑ ΜΕΓΕΘΗ ΛΟΓΩ ΜΟΝΙΜΩΝ ΚΑΙ ΠΡΟΣΘΕΤΩΝ ΜΟΝΙΜΩΝ ΦΟΡΤΙΩΝ

L O A D C A S E 1 FORTIA MON.+KIN.
load - factor 1.000
factor dl-x 0.000
factor dl-y 0.000
factor dl-z 0.000

B E A M L O A D S

beamno	type	a(m)	l(m)	load1	load2	(dim)	ya(m)	za(m)	ye(m)	ze(m)
2	ULPZ	0.00	33.00	74.50		KN/M				
5	SLPZ	16.50		825.00		KN				
5	ULPZ	0.00	33.00	74.50		KN/M				

L O A D C A S E 2 FORT. MON.+KIN.+(-50o C)
load - factor 1.000
factor dl-x 0.000
factor dl-y 0.000
factor dl-z 0.000

B E A M L O A D S

beamno	type	a(m)	l(m)	load1	load2	(dim)	ya(m)	za(m)	ye(m)	ze(m)
2	ULPZ	0.00	33.00	61.00		KN/M				
2	ULTS	0.00	33.00	-50.00		K				
5	SLPZ	16.50		577.00		KN				
5	ULPZ	0.00	33.00	61.00		KN/M				
5	ULTS	0.00	33.00	-50.00		K				
7	ULTS	0.00	1.50	-50.00		K				
8	ULTS	0.00	1.50	-50.00		K				
9	ULTS	0.00	1.50	-50.00		K				

M A X I M U M N O D A L V A L U E S

max-No	Xmin/Xmax	Ymin/Ymax	Zmin/Zmax
14	0.000	0.000	0.000
	72.500	0.000	0.580

K I N E M A T I C C O N S T R A I N T S

node	LV	type	refered	dx	dy	dz
10	1	KF	2	-0.500	0.000	-0.580
1	1	KF	2	-0.500	0.000	0.000
11	1	KF	3	0.500	0.000	-0.580
4	1	KF	3	0.500	0.000	0.000
12	1	KF	6	-0.500	0.000	-0.580
5	1	KF	6	-0.500	0.000	0.000
13	1	KF	7	0.500	0.000	-0.580
8	1	KF	7	0.500	0.000	0.000

N O D E S

number	X (m)	Y (m)	Z (m)	support/number of unknown					
1	1.500	0.000	0.580	*	*	*	*	*	*
				-7	-8	-9	-10	-11	-12
2	2.000	0.000	0.580		PY	PZ	MX		MZ
				1	0	0	0	2	0
3	35.000	0.000	0.580		PY	PZ	MX		MZ
				3	0	0	0	4	0
4	35.500	0.000	0.580	*	*	*	*	*	*
				-19	-20	-21	-22	-23	-24
5	37.000	0.000	0.580	*	*	*	*	*	*
				-31	-32	-33	-34	-35	-36
6	37.500	0.000	0.580		PY	PZ	MX		MZ
				5	0	0	0	6	0
7	70.500	0.000	0.580		PY	PZ	MX		MZ
				7	0	0	0	8	0
8	71.000	0.000	0.580	*	*	*	*	*	*
				-43	-44	-45	-46	-47	-48
9	0.000	0.000	0.000	PX	PY	PZ	MX	MY	MZ
				0	0	0	0	0	0

ΕΝΤΑΤΙΚΑ ΜΕΓΕΘΗ ΛΟΓΩ ΜΟΝΙΜΩΝ ΚΑΙ ΠΡΟΣΘΕΤΩΝ ΜΟΝΙΜΩΝ ΦΟΡΤΙΩΝ

N O D E S

number	X (m)	Y (m)	Z (m)	support/number of unknown					
10	1.500	0.000	0.000	*	*	*	*	*	*
				-1	-2	-3	-4	-5	-6
11	35.500	0.000	0.000	*	*	*	*	*	*
				-13	-14	-15	-16	-17	-18
12	37.000	0.000	0.000	*	*	*	*	*	*
				-25	-26	-27	-28	-29	-30
13	71.000	0.000	0.000	*	*	*	*	*	*
				-37	-38	-39	-40	-41	-42
14	72.500	0.000	0.000	PX	PY	PZ	MX	MY	MZ
				0	0	0	0	0	0

M A T E R I A L S

No. 1 B 35 (DIN 1045)

Young-module	32000	[MPa]	Safetyfactor	1.00	[-]
Poisson-Ratio	0.20	[-]	Strength fc	23.00	[MPa]
Shear-module	13333	[MPa]	Nominal Strength	35.00	[MPa]
Compress.module	17778	[MPa]	Tens.Str. fctm	3.21	[MPa]
Weight	25.0	[kN/m3]	Tens.Str. fctk	2.67	[MPa]
Weight buoyancy	0.0	[kN/m3]	Tens.Str. fctm	3.85	[MPa]
Temperat. coeff.	1.00E-05	[-]	Compr.fail.ener.	20.00	[kN/m]
			Tens.fail.energ.	0.05	[kN/m]
			Friction crack	0.20	[-]

No. 2 B 35 (DIN 1045)

Young-module	18150	[MPa]	Safetyfactor	1.00	[-]
Poisson-Ratio	0.20	[-]	Strength fc	23.00	[MPa]
Shear-module	7563	[MPa]	Nominal Strength	35.00	[MPa]
Compress.module	10083	[MPa]	Tens.Str. fctm	3.21	[MPa]
Weight	25.0	[kN/m3]	Tens.Str. fctk	2.67	[MPa]
Weight buoyancy	0.0	[kN/m3]	Tens.Str. fctm	3.85	[MPa]
Temperat. coeff.	1.00E-05	[-]	Compr.fail.ener.	20.00	[kN/m]
			Tens.fail.energ.	0.05	[kN/m]
			Friction crack	0.20	[-]

No. 3 BST 500 (DIN 1045)

Young-module	210000	[MPa]	Safetyfactor	1.00	[-]
Poisson-Ratio	0.30	[-]	Yield stress fy	500.00	[MPa]
Shear-module	80769	[MPa]	Tensile str. ft	550.00	[MPa]
Compress.module	175000	[MPa]	Plastic strain	10.00	[o/o]
Weight	78.5	[kN/m3]	Relaxation .70ft	0.00	[-]
Weight buoyancy	0.0	[kN/m3]	Relaxation .55ft	0.00	[-]
Temperat. coeff.	1.20E-05	[-]	Bondval R (DIN)	200.00	[-]
			Bondval K1 (EC2)	0.80	[-]
			Hardening module	0.00	[MPa]

C R O S S - S E C T I O N S S T A T I C P R O P E R T I E S

No	MNo / MNs	A[m2] / It[m4]	Ay/Az/Ayz [m2]	Iy/Iz/Iyz [m4]	ys/zs [m]	y/z-sc [m]	modules [MPa]	gam [kN/m3]
1	1	1.0000E+02		8.333E+02	0.000	0.000	32000	25.0
	3	1.400E+03		8.333E+02	0.000	0.000	13333	
=	1000./1000. [cm]							
=	(H-AS 100./100. [cm])							
2	1	5.9200E+00		3.072E+00	0.000	0.000	32000	25.0
		5.064E+00		3.072E+00	0.000	0.000	13333	
3	2	1.8600E-01		8.000E-03	0.000	0.000	18150	25.0
		1.895E-03		8.000E-03	0.000	0.000	7563	
4	2	1.0400E-01		8.000E-03	0.000	0.000	18150	25.0
		1.852E-04		8.000E-03	0.000	0.000	7563	

ΕΝΤΑΤΙΚΑ ΜΕΓΕΘΗ ΛΟΓΩ ΜΟΝΙΜΩΝ ΚΑΙ ΠΡΟΣΘΕΤΩΝ ΜΟΝΙΜΩΝ ΦΟΡΤΙΩΝ

B E A M E L E M E N T S

beam-No.	node-No.	x (M)	NCO	hinges	direction of local y-axis		
2	2	0.000	2		0.00	1.00	0.00
		1.500	2				
		31.500	2				
	3	33.000	2				
5	6	0.000	2		0.00	1.00	0.00
		1.500	2				
		31.500	2				
	7	33.000	2				
7	9	0.000	3		0.00	1.00	0.00
	10	1.500	3				
8	11	0.000	4		0.00	1.00	0.00
	12	1.500	4				
9	13	0.000	3		0.00	1.00	0.00
	14	1.500	3				

ΕΝΤΑΤΙΚΑ ΜΕΓΕΘΗ ΛΟΓΩ ΜΟΝΙΜΩΝ ΚΑΙ ΠΡΟΣΘΕΤΩΝ ΜΟΝΙΜΩΝ ΦΟΡΤΙΩΝ

linear results Loadfactor 1.00

B E A M F O R C E S A N D M O M E N T S

loadcase 1 FORTIA MON.+KIN. linear results

beam No	x (m)	N (kN)	Q-Y (kN)	Q-Z (kN)	M-T (kNm)	M-Y (kNm)	M-Z (kNm)
2	0.00	1349.27	0.00	1258.65	0.00	-1612.37	0.00
	1.50	1349.27	0.00	1146.90	0.00	191.80	0.00
	31.50	1349.27	0.00	-1088.10	0.00	1073.92	0.00
	33.00	1349.27	0.00	-1199.85	0.00	-642.04	0.00
5	0.00	1349.27	0.00	1621.83	0.00	-1389.45	0.00
	1.50	1349.27	0.00	1510.08	0.00	959.49	0.00
	16.50	1349.27	0.00	392.58	0.00	15229.47	0.00
	16.50	1349.27	0.00	-432.42	0.00	15229.47	0.00
	31.50	1349.27	0.00	-1549.92	0.00	361.95	0.00
	33.00	1349.27	0.00	-1661.67	0.00	-2046.73	0.00
7	0.00	1349.27	0.00	-592.71	0.00	355.62	0.00
	1.50	1349.27	0.00	-592.71	0.00	-533.44	0.00
8	0.00	1349.27	0.00	-298.96	0.00	-8.94	0.00
	1.50	1349.27	0.00	-298.96	0.00	-457.39	0.00
9	0.00	1349.27	0.00	902.97	0.00	-812.67	0.00
	1.50	1349.27	0.00	902.97	0.00	541.78	0.00

B E A M D I S P L A C E M E N T S

loadcase 1 FORTIA MON.+KIN. linear results

beam No	x (m)	U (mm)	V-Y (mm)	V-Z (mm)	PHI-X (o/oo)	PHI-Y (o/oo)	PHI-Z (o/oo)
2	0.00	0.067	0.000	0.000	0.000	-0.918	0.000
	1.50	0.077	0.000	1.389	0.000	-0.929	0.000
	31.50	0.291	0.000	1.460	0.000	0.969	0.000
	33.00	0.302	0.000	0.000	0.000	0.973	0.000
5	0.00	-0.023	0.000	0.000	0.000	-1.436	0.000
	1.50	-0.012	0.000	2.161	0.000	-1.439	0.000
	16.50	0.095	0.000	15.607	0.000	0.009	0.000
	16.50	0.095	0.000	15.607	0.000	0.009	0.000
	31.50	0.201	0.000	2.113	0.000	1.412	0.000
	33.00	0.212	0.000	0.000	0.000	1.399	0.000
7	0.00	0.000	0.000	0.000	0.000	0.000	0.000
	1.50	0.600	0.000	-0.459	0.000	-0.918	0.000
8	0.00	-0.262	0.000	-0.486	0.000	0.973	0.000
	1.50	0.810	0.000	-0.718	0.000	-1.436	0.000
9	0.00	-0.600	0.000	-0.700	0.000	1.399	0.000
	1.50	0.000	0.000	0.000	0.000	0.000	0.000

N O D A L R E A C T I O N S

loadcase 1 FORTIA MON.+KIN. linear results

nodes No	P-X (kN)	P-Y (kN)	P-Z (kN)	M-X (kNm)	M-Y (kNm)	M-Z (kNm)
2	0.00	0.00	-1851.4	0.00	0.00	0.00
3	0.00	0.00	-900.88	0.00	0.00	0.00
6	0.00	0.00	-1920.8	0.00	0.00	0.00
7	0.00	0.00	-2564.6	0.00	0.00	0.00
9	-1349.3	0.00	592.71	0.00	-355.62	0.00
14	1349.27	0.00	902.97	0.00	541.78	0.00

N O D A L D I S P L A C E M E N T S

loadcase 1 FORTIA MON.+KIN. linear results

nodes No	V-X (mm)	V-Y (mm)	V-Z (mm)	PHI-X (o/oo)	PHI-Y (o/oo)	PHI-Z (o/oo)
1	0.067	0.000	-0.459	0.000	-0.918	0.000
2	0.067	0.000	0.000	0.000	-0.918	0.000
3	0.302	0.000	0.000	0.000	0.973	0.000
4	0.302	0.000	-0.486	0.000	0.973	0.000
5	-0.023	0.000	-0.718	0.000	-1.436	0.000
6	-0.023	0.000	0.000	0.000	-1.436	0.000

ΕΝΤΑΤΙΚΑ ΜΕΓΕΘΗ ΛΟΓΩ ΜΟΝΙΜΩΝ ΚΑΙ ΠΡΟΣΘΕΤΩΝ ΜΟΝΙΜΩΝ ΦΟΡΤΙΩΝ

N O D A L D I S P L A C E M E N T S

loadcase 1 FORTIA MON.+KIN. linear results

nodes No	V-X (mm)	V-Y (mm)	V-Z (mm)	PHI-X (o/oo)	PHI-Y (o/oo)	PHI-Z (o/oo)
7	0.212	0.000	0.000	0.000	1.399	0.000
8	0.212	0.000	-0.700	0.000	1.399	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000
10	0.600	0.000	-0.459	0.000	-0.918	0.000
11	-0.262	0.000	-0.486	0.000	0.973	0.000
12	0.810	0.000	-0.718	0.000	-1.436	0.000
13	-0.600	0.000	-0.700	0.000	1.399	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000

F O R C E S O F C O N S T R A I N T S

LASTFALL 1 FORTIA MON.+KIN. linear results

node	PX[kN]	PY[kN]	PZ[kN]	MX[kNm]	MY[kNm]	MZ[kNm]
1	0.0	0.0	0.0	0.00	0.00	0.00
4	0.0	0.0	0.0	0.00	0.00	0.00
5	0.0	0.0	0.0	0.00	0.00	0.00
8	0.0	0.0	0.0	0.00	0.00	0.00
10	1349.3	0.0	-592.7	0.00	-533.44	0.00
11	-1349.3	0.0	299.0	0.00	8.94	0.00
12	1349.3	0.0	-299.0	0.00	-457.39	0.00
13	-1349.3	0.0	-903.0	0.00	812.67	0.00

Sum of reactions and loads

Loadcase number	P-X (kN)	P-Y (kN)	P-Z (kN)
1	0.0	0.0	5742.0
	0.0	0.0	-5742.0

ΕΝΤΑΤΙΚΑ ΜΕΓΕΘΗ ΛΟΓΩ ΜΟΝΙΜΩΝ ΚΑΙ ΠΡΟΣΘΕΤΩΝ ΜΟΝΙΜΩΝ ΦΟΡΤΙΩΝ

linear results Loadfactor 1.00

B E A M F O R C E S A N D M O M E N T S
loadcase 2 FORT. MON.+KIN.+(-50o C) linear results

beam No	x (m)	N (kN)	Q-Y (kN)	Q-Z (kN)	M-T (kNm)	M-Y (kNm)	M-Z (kNm)
2	0.00	16817.86	0.00	1000.09	0.00	-9189.59	0.00
	1.50	16817.86	0.00	908.59	0.00	-7758.07	0.00
	31.50	16817.86	0.00	-921.41	0.00	-7950.31	0.00
	33.00	16817.86	0.00	-1012.91	0.00	-9401.04	0.00
5	0.00	16817.86	0.00	1308.04	0.00	-9923.77	0.00
	1.50	16817.86	0.00	1216.54	0.00	-8030.33	0.00
	16.50	16817.86	0.00	301.54	0.00	3355.30	0.00
	16.50	16817.86	0.00	-275.46	0.00	3355.30	0.00
	31.50	16817.86	0.00	-1190.46	0.00	-7639.07	0.00
	33.00	16817.86	0.00	-1281.96	0.00	-9493.38	0.00
7	0.00	16817.86	0.00	403.41	0.00	-242.04	0.00
	1.50	16817.86	0.00	403.41	0.00	363.07	0.00
8	0.00	16817.86	0.00	-209.09	0.00	248.77	0.00
	1.50	16817.86	0.00	-209.09	0.00	-64.87	0.00
9	0.00	16817.86	0.00	-186.41	0.00	167.77	0.00
	1.50	16817.86	0.00	-186.41	0.00	-111.85	0.00

B E A M D I S P L A C E M E N T S
loadcase 2 FORT. MON.+KIN.+(-50o C) linear results

beam No	x (m)	U (mm)	V-Y (mm)	V-Z (mm)	PHI-X (o/oo)	PHI-Y (o/oo)	PHI-Z (o/oo)
2	0.00	7.085	0.000	0.000	0.000	0.625	0.000
	1.50	6.468	0.000	-0.838	0.000	0.496	0.000
	31.50	-5.868	0.000	-0.853	0.000	-0.505	0.000
	33.00	-6.485	0.000	0.000	0.000	-0.637	0.000
5	0.00	6.680	0.000	0.000	0.000	0.313	0.000
	1.50	6.063	0.000	-0.363	0.000	0.176	0.000
	16.50	-0.105	0.000	0.533	0.000	-0.006	0.000
	16.50	-0.105	0.000	0.533	0.000	-0.006	0.000
	31.50	-6.273	0.000	-0.332	0.000	-0.158	0.000
	33.00	-6.890	0.000	0.000	0.000	-0.289	0.000
7	0.00	0.000	0.000	0.000	0.000	0.000	0.000
	1.50	6.723	0.000	0.313	0.000	0.625	0.000
8	0.00	-6.116	0.000	0.318	0.000	-0.637	0.000
	1.50	6.499	0.000	0.156	0.000	0.313	0.000
9	0.00	-6.723	0.000	0.144	0.000	-0.289	0.000
	1.50	0.000	0.000	0.000	0.000	0.000	0.000

N O D A L R E A C T I O N S
loadcase 2 FORT. MON.+KIN.+(-50o C) linear results

nodes No	P-X (kN)	P-Y (kN)	P-Z (kN)	M-X (kNm)	M-Y (kNm)	M-Z (kNm)
2	0.00	0.00	-596.68	0.00	0.00	0.00
3	0.00	0.00	-803.82	0.00	0.00	0.00
6	0.00	0.00	-1517.1	0.00	0.00	0.00
7	0.00	0.00	-1095.5	0.00	0.00	0.00
9	-16818.	0.00	-403.41	0.00	242.04	0.00
14	16817.9	0.00	-186.41	0.00	-111.85	0.00

N O D A L D I S P L A C E M E N T S
loadcase 2 FORT. MON.+KIN.+(-50o C) linear results

nodes No	V-X (mm)	V-Y (mm)	V-Z (mm)	PHI-X (o/oo)	PHI-Y (o/oo)	PHI-Z (o/oo)
1	7.085	0.000	0.313	0.000	0.625	0.000
2	7.085	0.000	0.000	0.000	0.625	0.000
3	-6.485	0.000	0.000	0.000	-0.637	0.000
4	-6.485	0.000	0.318	0.000	-0.637	0.000
5	6.680	0.000	0.156	0.000	0.313	0.000
6	6.680	0.000	0.000	0.000	0.313	0.000

ΕΝΤΑΤΙΚΑ ΜΕΓΕΘΗ ΛΟΓΩ ΜΟΝΙΜΩΝ ΚΑΙ ΠΡΟΣΘΕΤΩΝ ΜΟΝΙΜΩΝ ΦΟΡΤΙΩΝ

N O D A L D I S P L A C E M E N T S

loadcase 2 FORT. MON.+KIN.+(-50o C) linear results

nodes No	V-X (mm)	V-Y (mm)	V-Z (mm)	PHI-X (o/oo)	PHI-Y (o/oo)	PHI-Z (o/oo)
7	-6.890	0.000	0.000	0.000	-0.289	0.000
8	-6.890	0.000	0.144	0.000	-0.289	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000
10	6.723	0.000	0.313	0.000	0.625	0.000
11	-6.116	0.000	0.318	0.000	-0.637	0.000
12	6.499	0.000	0.156	0.000	0.313	0.000
13	-6.723	0.000	0.144	0.000	-0.289	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000

F O R C E S O F C O N S T R A I N T S

LASTFALL 2 FORT. MON.+KIN.+(-50o C) linear results

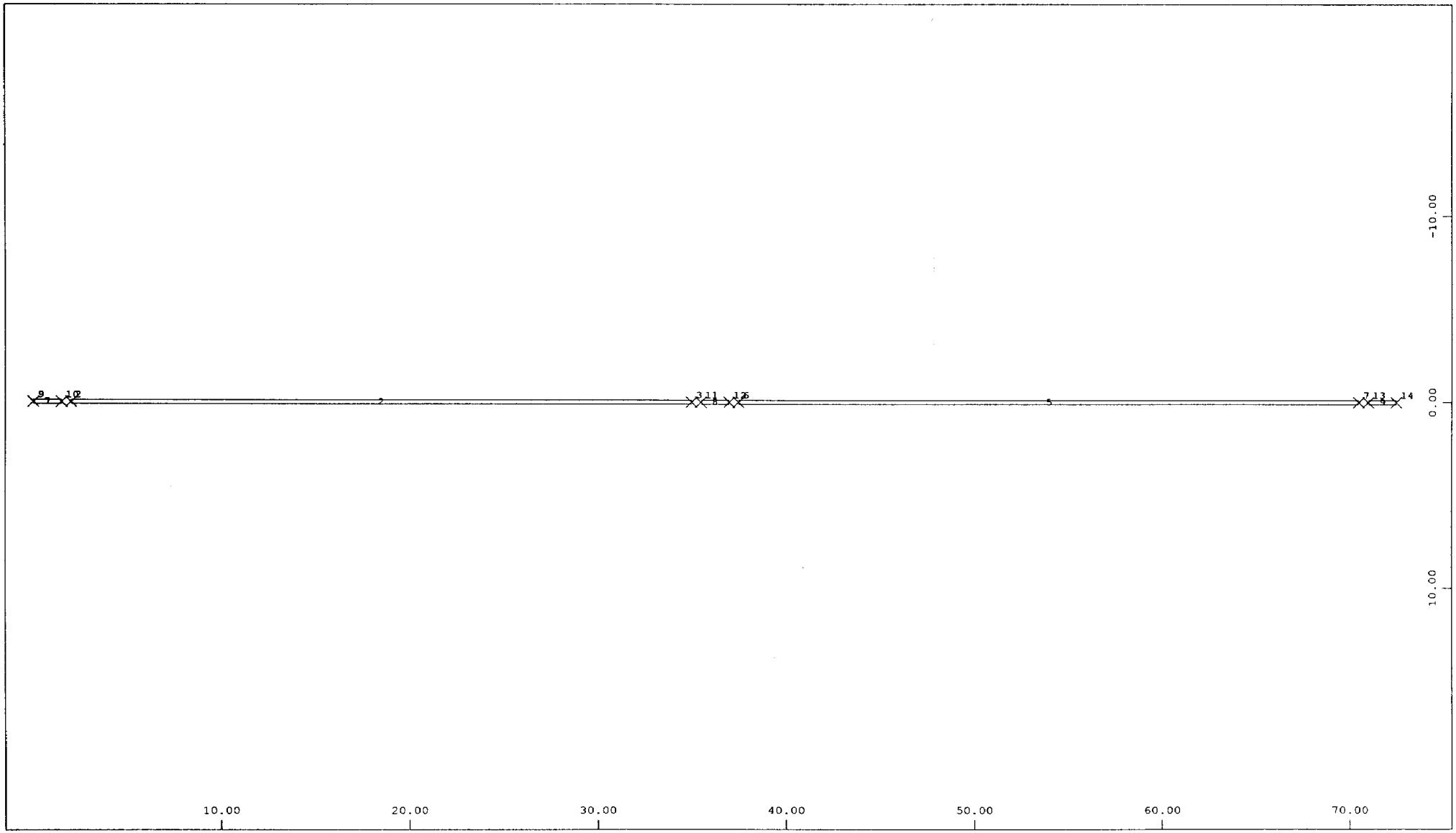
node	PX[kN]	PY[kN]	PZ[kN]	MX[kNm]	MY[kNm]	MZ[kNm]
1	0.0	0.0	0.0	0.00	0.00	0.00
4	0.0	0.0	0.0	0.00	0.00	0.00
5	0.0	0.0	0.0	0.00	0.00	0.00
8	0.0	0.0	0.0	0.00	0.00	0.00
10	16817.9	0.0	403.4	0.00	363.07	0.00
11	-16817.9	0.0	209.1	0.00	-248.77	0.00
12	16817.9	0.0	-209.1	0.00	-64.87	0.00
13	-16817.9	0.0	186.4	0.00	-167.77	0.00

Sum of reactions and loads

Loadcase number	P-X (kN)	P-Y (kN)	P-Z (kN)
2	0.0	0.0	4603.0
	0.0	0.0	-4603.0

```
++ FFCLOS   31: .$gb
   SHOULD BE  : .\new.$gb
```

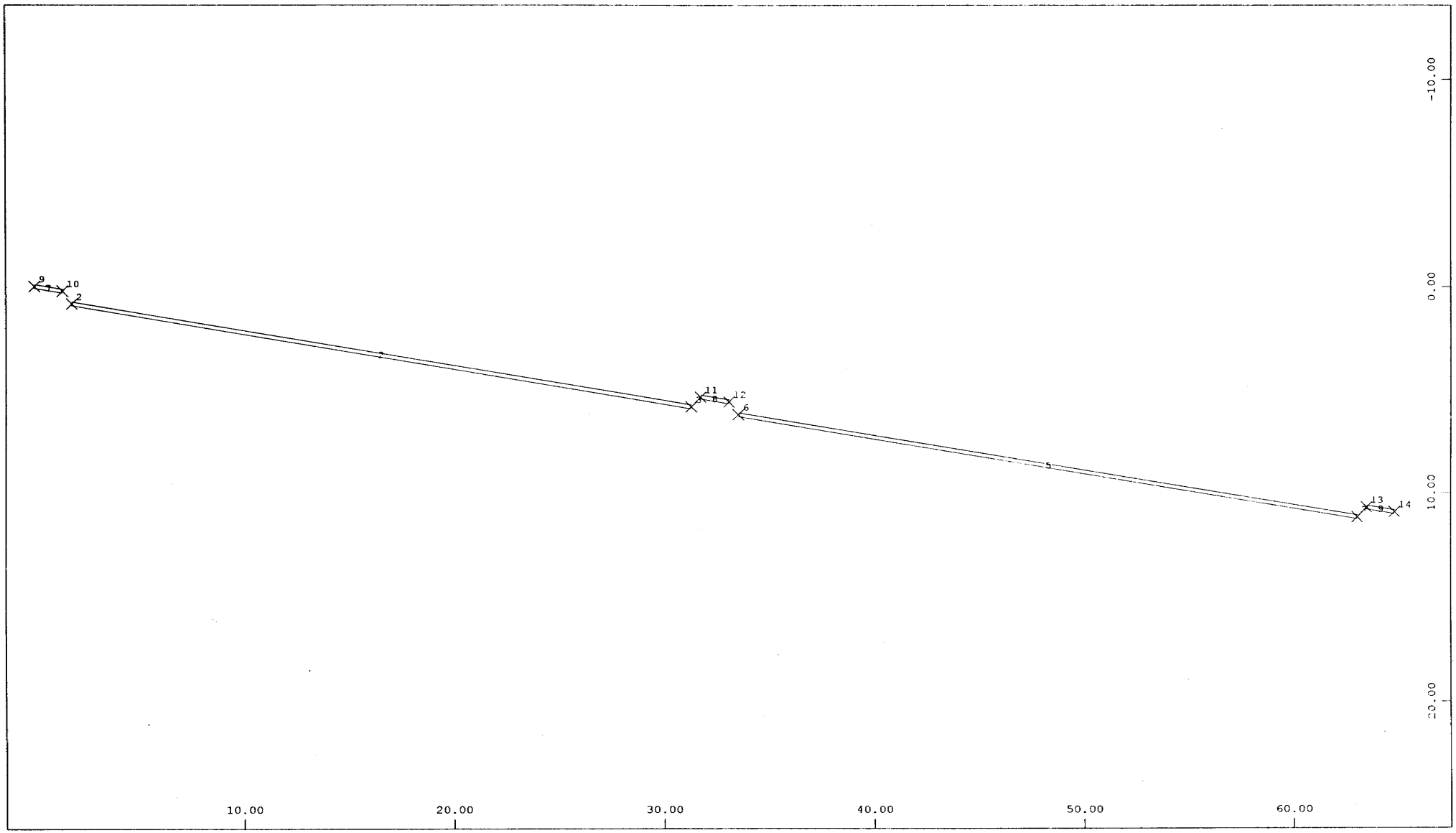
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



FINITE ELEMENT DISCRETIZATION
SECTOR OF SYSTEM, ELEMENT GROUP 0 1
NODE AND SECTIONS
NODE AND ELEMENT NUMBERS

M 1 : 296

SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632

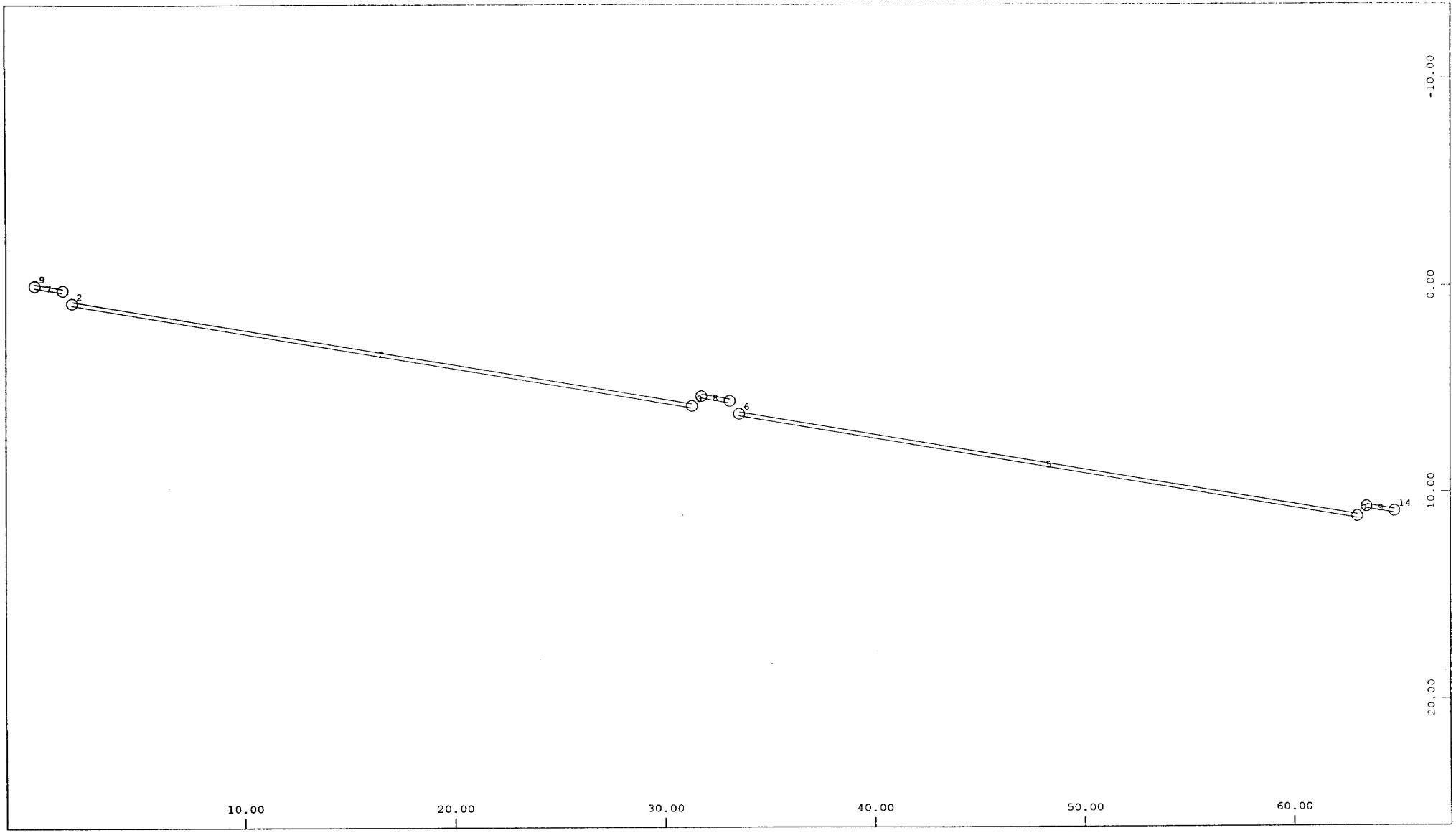


FINITE ELEMENT DISCRETIZATION
SECTOR OF SYSTEM, ELEMENT GROUP 0 1
NODE AND SECTIONS
NODE AND ELEMENT NUMBERS

M 1 : 265
X = 0.907
Y = 0.539
Z = 0.442

(212)

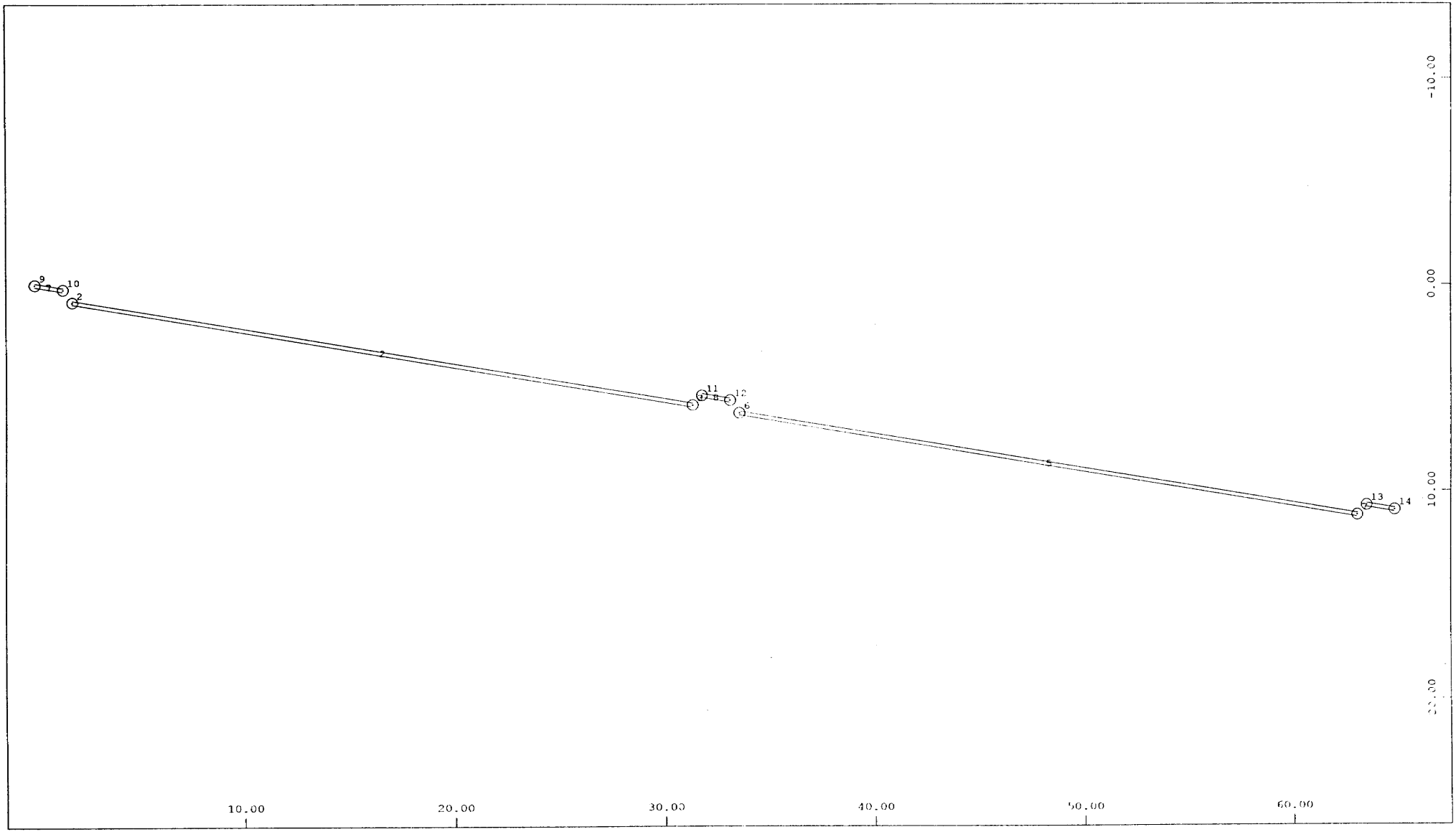
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



FINITE ELEMENT DISCRETIZATION
SECTOR OF SYSTEM, ELEMENT GROUP 0 1
ELEMENT NUMBERS

M 1 : 265
X = 0.907
Y = 0.539
Z = 0.942

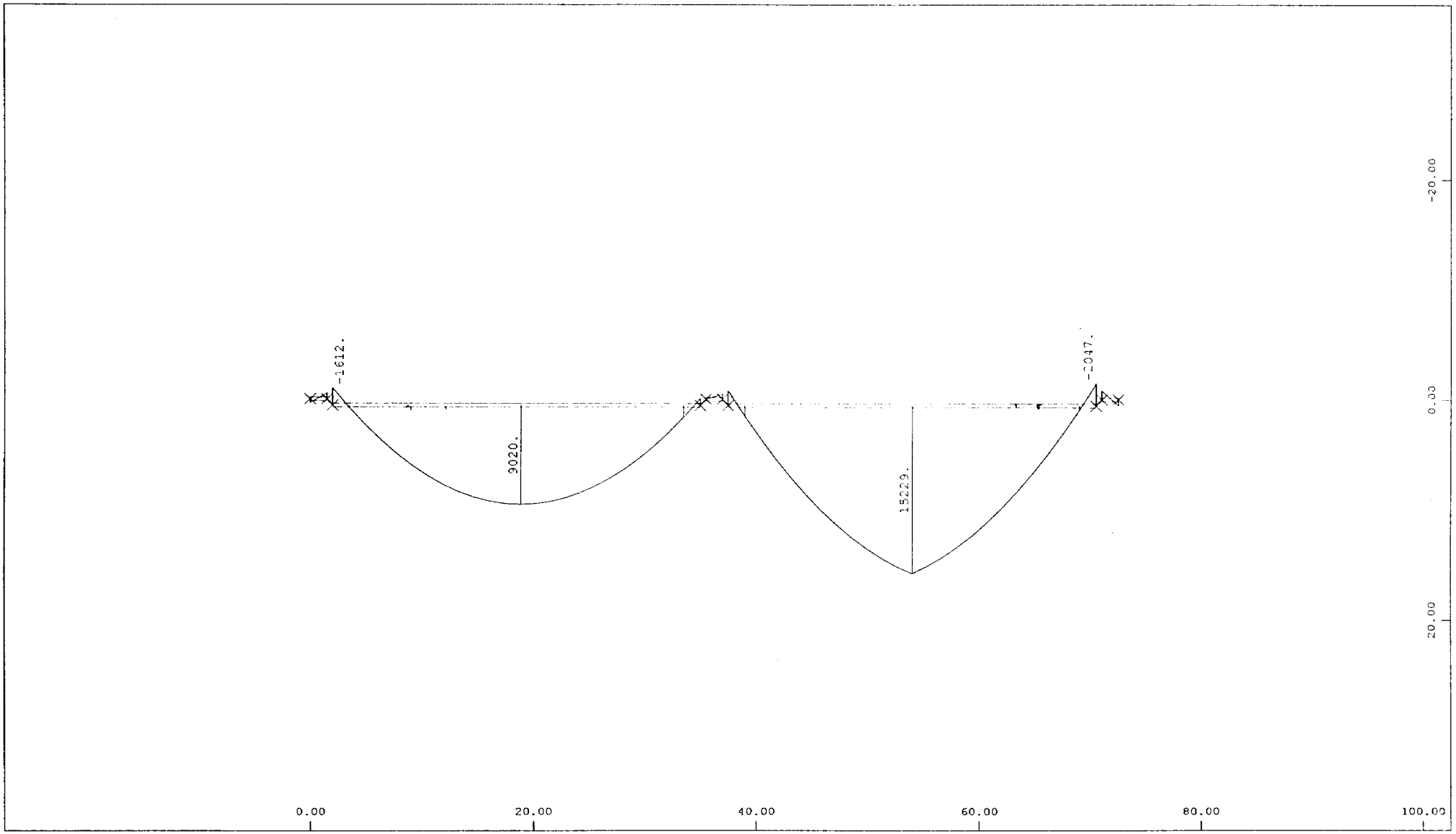
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



FINITE ELEMENT DISCRETIZATION
SECTOR OF SYSTEM, ELEMENT GROUP 0 1
NODE NUMBERS

M 1 : 265

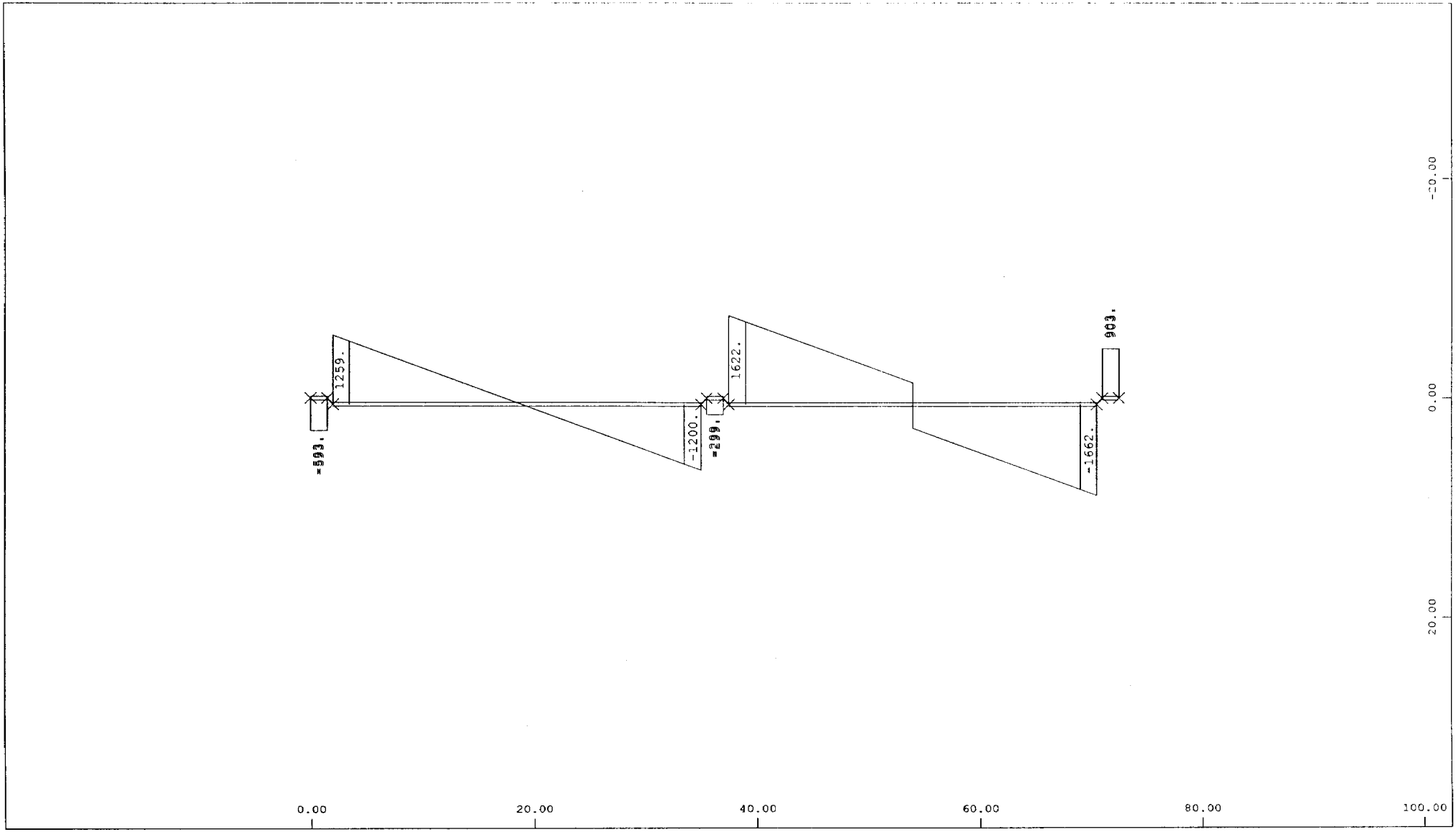
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM MOMENTS MY LC 1 LOAD CASE 1 1 CM = 5000. kNm

M 1 : 500

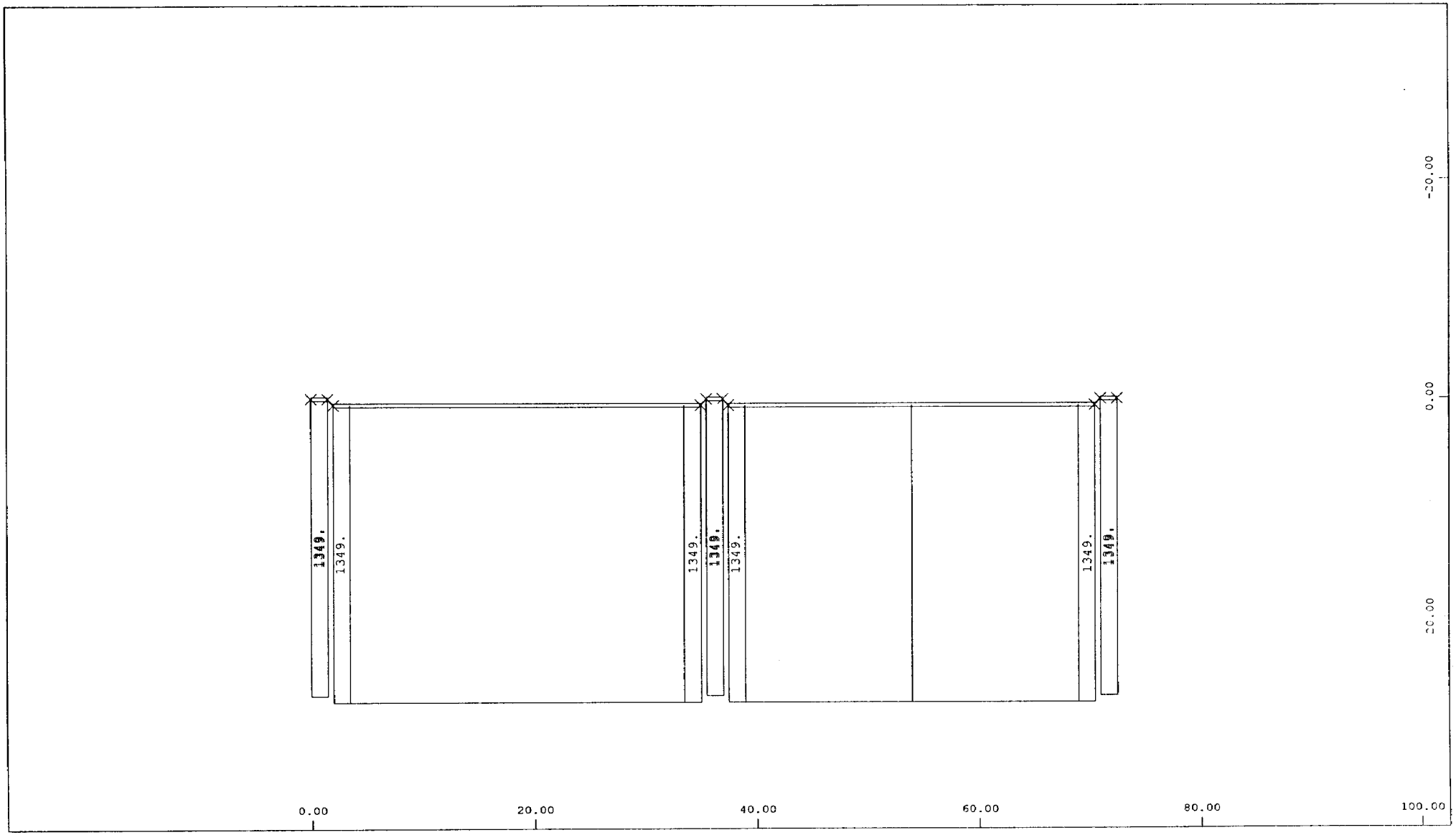
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM CROSS FORCES QZ LC 1 LOAD CASE 1 1 CM = 1000. kN

M 1 : 500

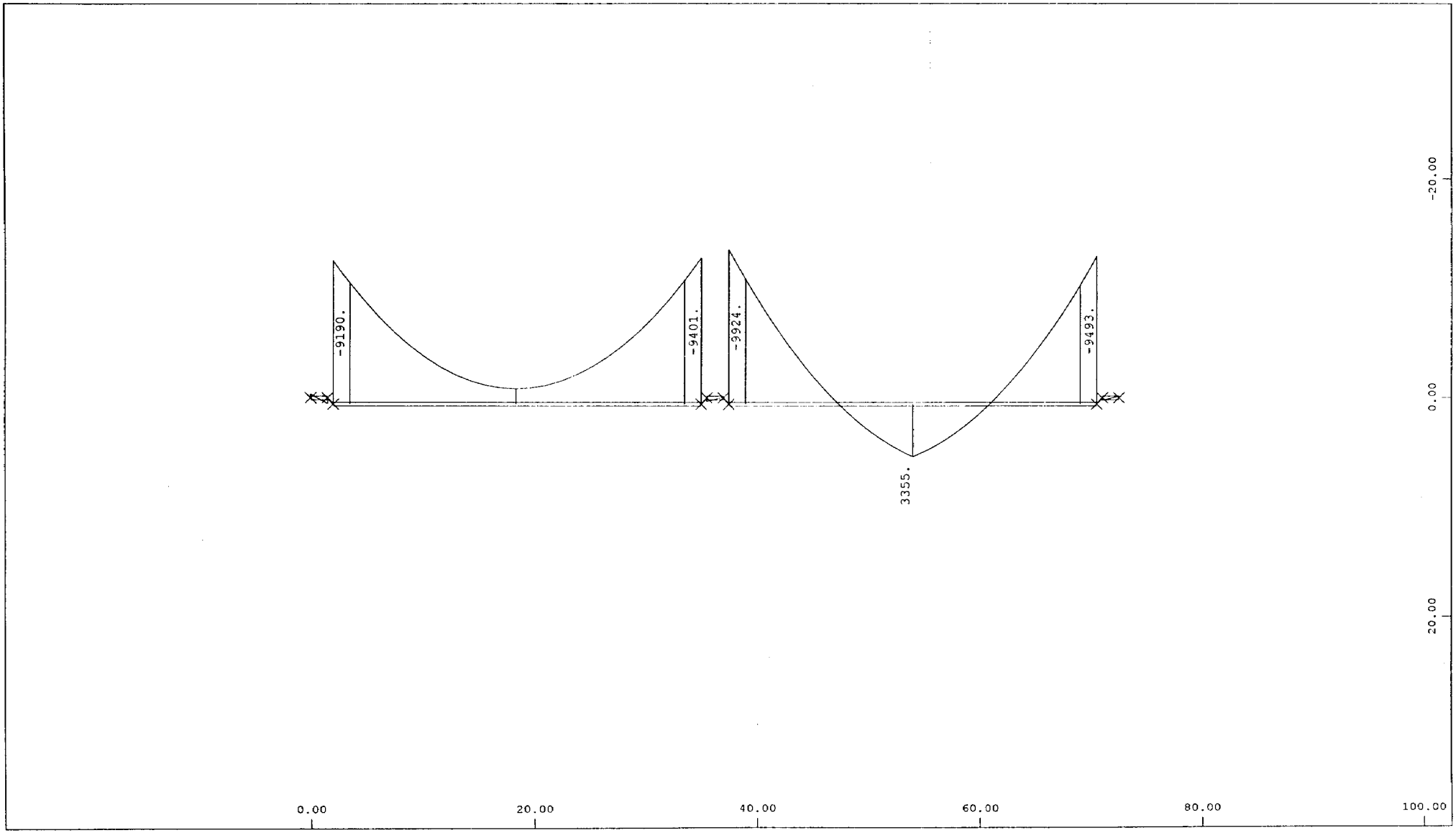
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM NORMAL FORCES LC 1 LOAD CASE 1 1 CM = 250.0 kN

M 1 : 500

SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632

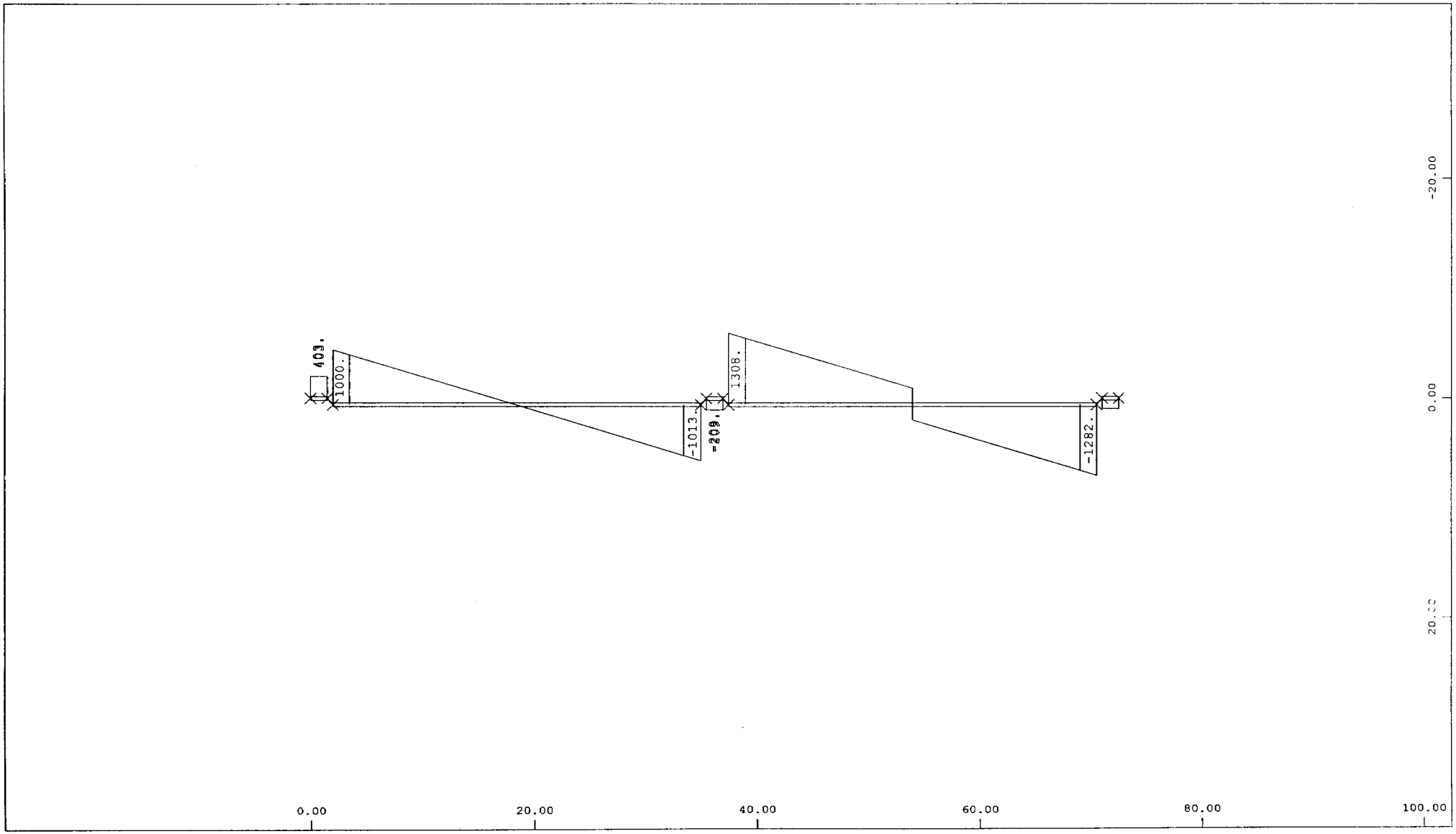


INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM MOMENTS MY LC 2 LOAD CASE 2 1 CM = 3500. kNm

M 1 : 500

(223)

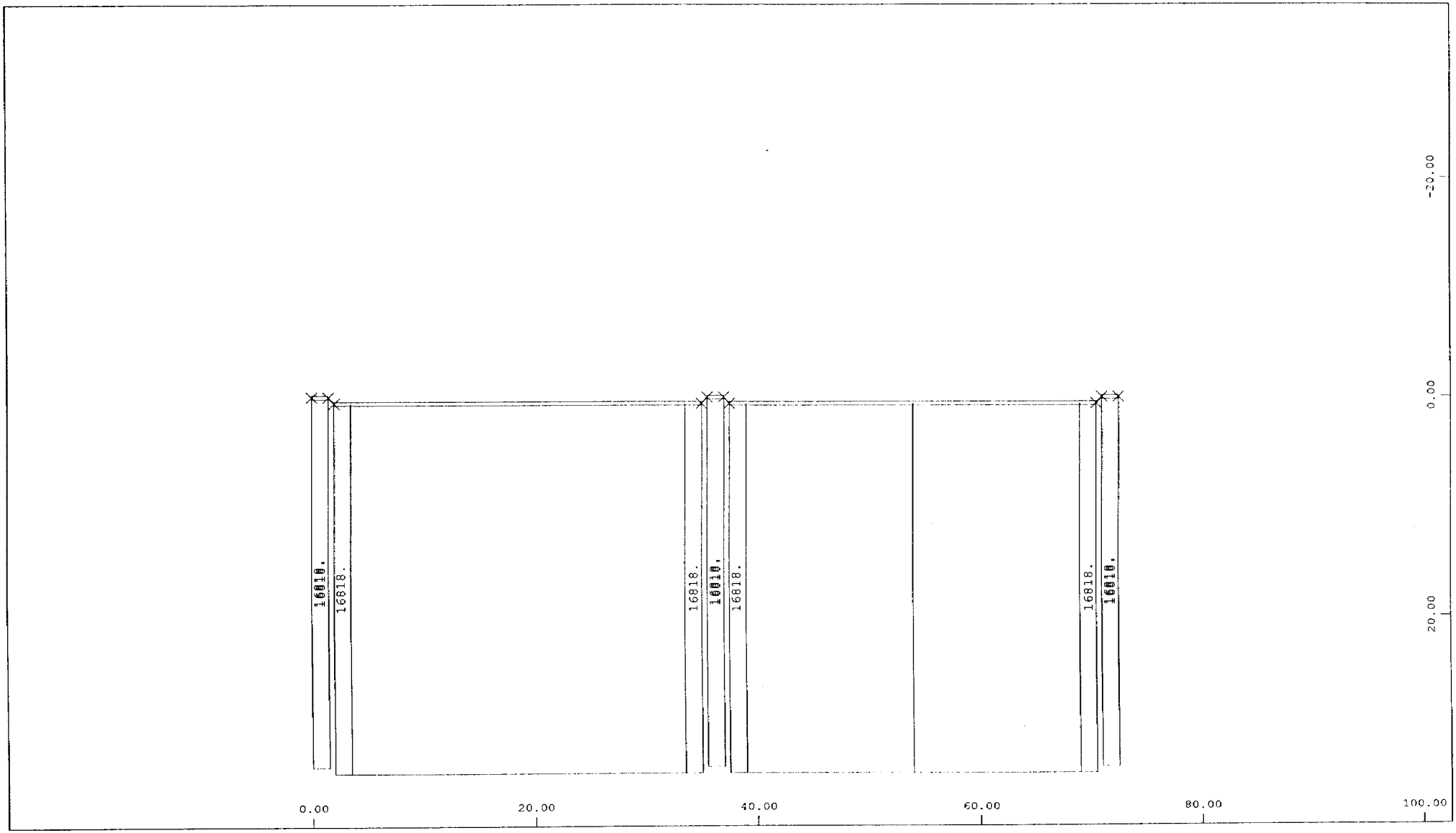
SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM CROSS FORCES QZ LC 2 LOAD CASE 2 1 CM = 1000. kN

M 1 : 500

SOFiSTiK Athen O.E. - 10433 Athens - Greece - Tel. 8220607, Fax 8251632



INTERNAL FORCED OF BRIDGE SUPERSTRUCTURE
SECTOR OF SYSTEM, ELEMENT GROUP 0
BEAM NORMAL FORCES LC 2 LOAD CASE 2 1 CM = 2500. kN

M 1 : 500