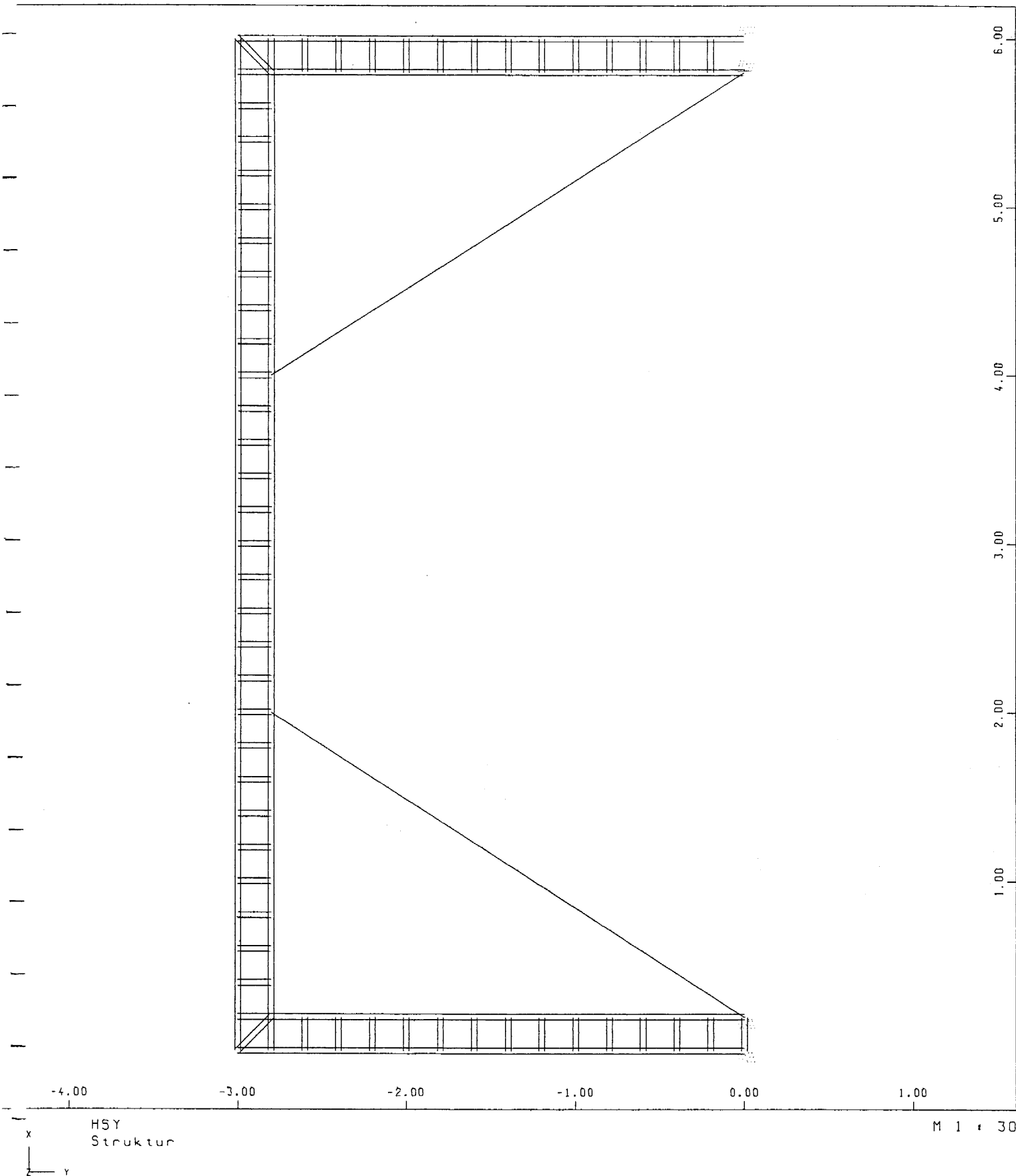


## **Παράρτημα Γ**

**Προσομοίωση φορέων  
(4<sup>ο</sup> κεφάλαιο)**

Στις επόμενες σελίδες παρατίθενται παραδείγματα προσομοίωσης ενός πλαισίου από οπλισμένο σκυρόδεμα ενισχυμένο με χαλύβδινα στοιχεία δυσκαμψίας. Τα προσομοιώματα έγιναν με τη βοήθεια του προγράμματος SOFiSTiK, χρησιμοποιώντας ελαστική ανάλυση. Αναφέρεται η περίπτωση όπου γίνεται ενίσχυση με μονώροφο και διώροφο έκκεντρο σύνδεσμο δυσκαμψίας.



ΜΟΝΩΡΟΦΗ ΕΝΙΣΧΥΣΗ,  $H/L = 0.5$ , ΕΚΚΕΝΤΡΟΣ ΣΥΝΔΕΣΜΟΣ,  
ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΔΙΑΤΜΗΤΙΚΩΝ ΣΥΝΔΕΣΜΩΝ  $\alpha = 20\text{cm}$

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

Loadcase    2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
1	.000	.000	.000	-32.0	28.5	-59.78
2	.006	-.001	.054	.0	.0	.00
3	.021	-.002	.103	.0	.0	.00
4	.047	-.002	.146	.0	.0	.00
5	.080	-.003	.184	.0	.0	.00

HSY  
 HORIZONTAL LOAD

N O D A L D I S P L A C E M E N T S A N D R E A C T I O N S  
 Loadcase 2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
6	.120	-.003	.216	.0	.0	.00
7	.166	-.004	.242	.0	.0	.00
8	.216	-.004	.263	.0	.0	.00
9	.270	-.004	.278	.0	.0	.00
10	.327	-.005	.287	.0	.0	.00
11	.385	-.005	.291	.0	.0	.00
12	.443	-.005	.289	.0	.0	.00
13	.500	-.005	.281	.0	.0	.00
14	.555	-.005	.268	.0	.0	.00
15	.607	-.004	.250	.0	.0	.00
16	.656	-.003	.239	.0	.0	.00
17	.653	.043	.219	.0	.0	.00
18	.650	.083	.184	.0	.0	.00
19	.647	.117	.148	.0	.0	.00
20	.644	.143	.113	.0	.0	.00
21	.641	.162	.078	.0	.0	.00
22	.638	.174	.044	.0	.0	.00
23	.635	.180	.011	.0	.0	.00
24	.632	.178	-.022	.0	.0	.00
25	.629	.171	-.055	.0	.0	.00
26	.626	.157	-.087	.0	.0	.00
27	.623	.136	-.119	.0	.0	.00
28	.621	.109	-.144	.0	.0	.00
29	.619	.079	-.162	.0	.0	.00
30	.617	.045	-.173	.0	.0	.00
31	.615	.010	-.176	.0	.0	.00
32	.614	-.025	-.173	.0	.0	.00
33	.612	-.059	-.163	.0	.0	.00
34	.611	-.090	-.145	.0	.0	.00
35	.609	-.116	-.121	.0	.0	.00
36	.608	-.138	-.090	.0	.0	.00
37	.608	-.152	-.058	.0	.0	.00
38	.607	-.161	-.027	.0	.0	.00
39	.607	-.163	.005	.0	.0	.00
40	.606	-.159	.037	.0	.0	.00
41	.606	-.148	.070	.0	.0	.00
42	.605	-.131	.103	.0	.0	.00
43	.605	-.107	.136	.0	.0	.00
44	.604	-.077	.169	.0	.0	.00
45	.604	-.040	.202	.0	.0	.00
46	.605	.003	.216	.0	.0	.00
47	.561	.004	.226	.0	.0	.00
48	.514	.004	.244	.0	.0	.00
49	.464	.004	.258	.0	.0	.00
50	.411	.004	.266	.0	.0	.00
51	.358	.004	.268	.0	.0	.00
52	.304	.004	.266	.0	.0	.00
53	.252	.004	.258	.0	.0	.00
54	.202	.004	.244	.0	.0	.00
55	.155	.003	.225	.0	.0	.00
56	.112	.003	.201	.0	.0	.00
57	.074	.003	.172	.0	.0	.00
58	.044	.002	.137	.0	.0	.00

HSY  
 HORIZONTAL LOAD

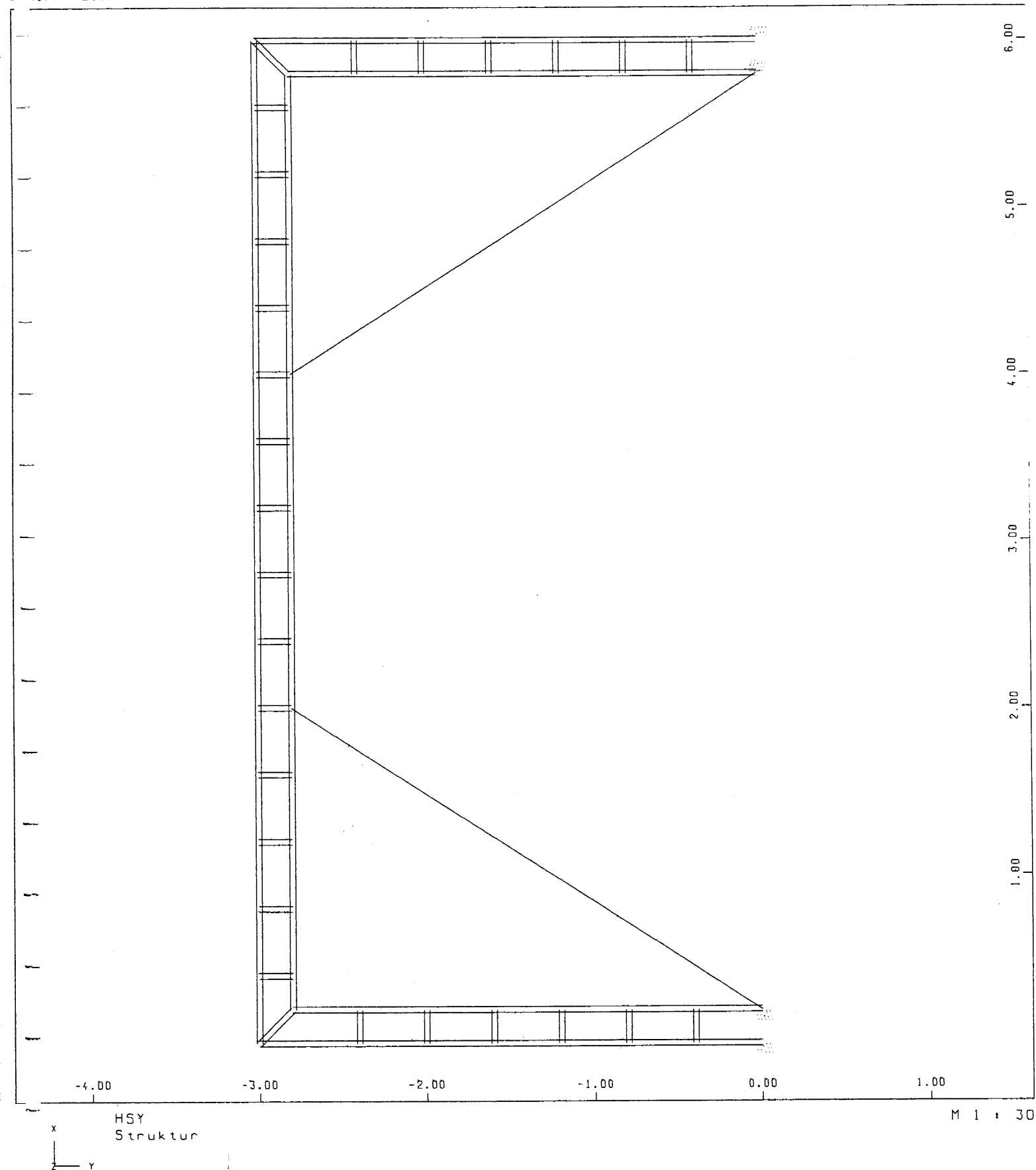
N O D A L D I S P L A C E M E N T S A N D R E A C T I O N S  
 Loadcase 2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
72	2.126	.031	.675	.0	.0	.00
73	1.989	.030	.693	.0	.0	.00
74	1.849	.029	.708	.0	.0	.00
75	1.706	.028	.720	.0	.0	.00
76	1.561	.028	.730	.0	.0	.00
77	1.415	.027	.738	.0	.0	.00
78	1.267	.025	.738	.0	.0	.00
79	1.120	.024	.729	.0	.0	.00
80	.976	.023	.713	.0	.0	.00
81	.835	.022	.688	.0	.0	.00
82	.701	.020	.659	.0	.0	.00
83	.572	.018	.621	.0	.0	.00
84	.453	.016	.574	.0	.0	.00
85	.343	.014	.518	.0	.0	.00
86	.246	.012	.453	.0	.0	.00
87	.162	.010	.381	.0	.0	.00
88	.094	.007	.300	.0	.0	.00
89	.043	.005	.209	.0	.0	.00
90	.011	.002	.109	.0	.0	.00
91	.000	.000	.000	-48.9	-83.4	-118.47
101	.000	.000	.000	-.9	-23.4	-.49
102	.021	.009	.193	.0	.0	.00
103	.072	.018	.305	.0	.0	.00
104	.137	.027	.335	.0	.0	.00
105	.201	.036	.285	.0	.0	.00

HSY  
 HORIZONTAL LOAD

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

Loadcase	2						
nodes		V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No		[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
59		.020	.001	.097	.0	.0	.00
60		.005	.001	.051	.0	.0	.00
61		.000	.000	.000	-30.4	-26.0	-56.02
101		.000	.000	.000	-18.5	2.4	-.12
102		.006	.010	.054	.0	.0	.00
103		.021	.019	.103	.0	.0	.00
104		.047	.027	.146	.0	.0	.00
105		.080	.034	.183	.0	.0	.00



ΜΟΝΩΡΟΦΗ ΕΝΙΣΧΥΣΗ,  $H/L = 0.5$ , ΕΚΚΕΝΤΡΟΣ ΣΥΝΔΕΣΜΟΣ,  
ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΔΙΑΤΜΗΤΙΚΩΝ ΣΥΝΔΕΣΜΩΝ  $\alpha = 40\text{cm}$



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

Loadcase    2

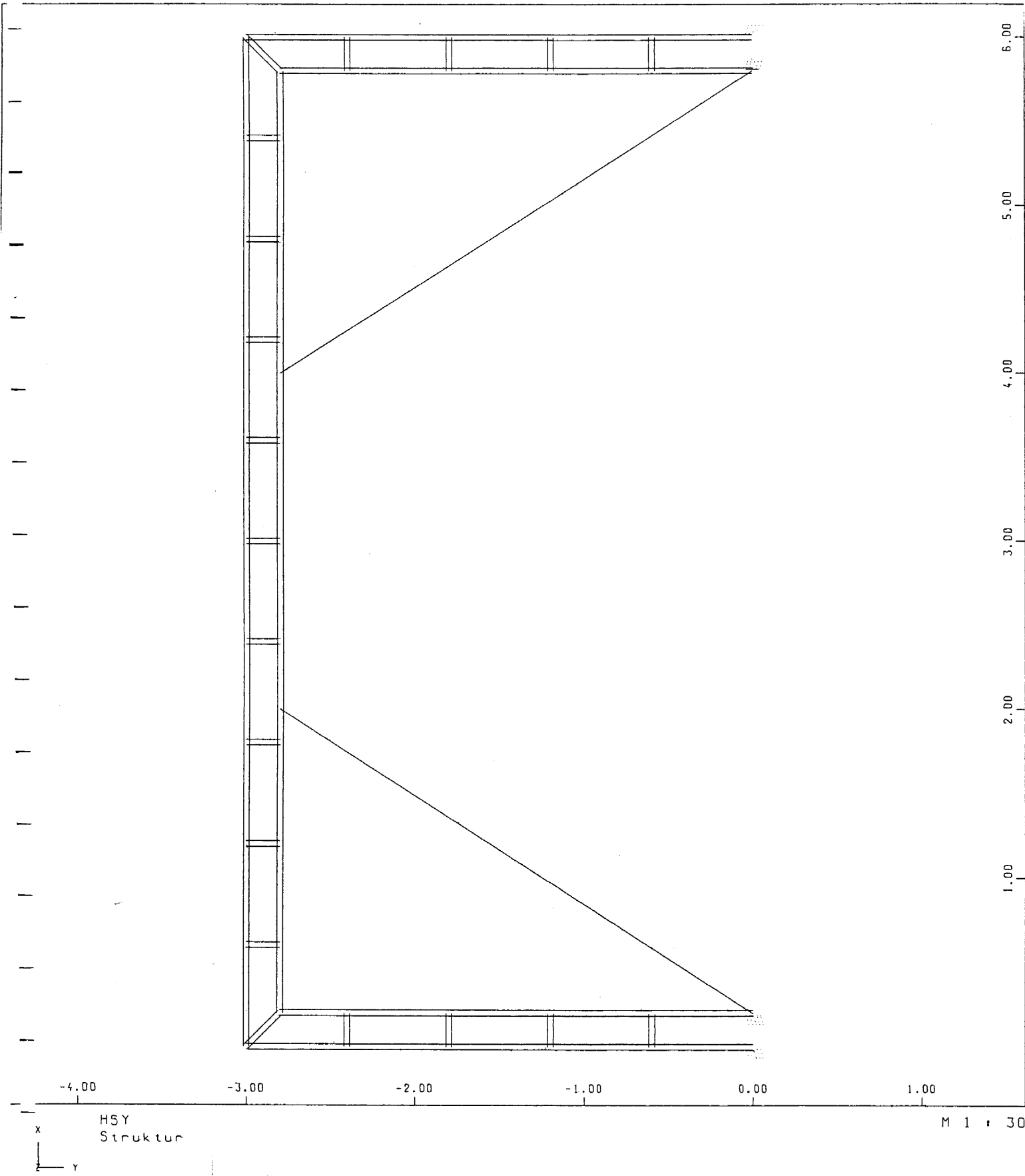
nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
1	.000	.000	.000	-31.2	26.1	-60.06
2	.006	-.001	.055	.0	.0	.00
3	.022	-.002	.104	.0	.0	.00
4	.047	-.002	.147	.0	.0	.00
5	.080	-.003	.185	.0	.0	.00
6	.121	-.003	.218	.0	.0	.00
7	.167	-.004	.245	.0	.0	.00
8	.218	-.004	.266	.0	.0	.00
9	.273	-.004	.282	.0	.0	.00
10	.331	-.004	.293	.0	.0	.00
11	.390	-.004	.298	.0	.0	.00
12	.450	-.004	.298	.0	.0	.00
13	.509	-.004	.291	.0	.0	.00
14	.566	-.004	.281	.0	.0	.00
15	.620	-.004	.265	.0	.0	.00
16	.671	-.004	.242	.0	.0	.00

HSY  
 HORIZONTAL LOAD

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

Loadcase 2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
17	.668	.042	.211	.0	.0	.00
18	.665	.081	.178	.0	.0	.00
19	.662	.113	.145	.0	.0	.00
20	.659	.139	.111	.0	.0	.00
21	.656	.157	.078	.0	.0	.00
22	.653	.170	.045	.0	.0	.00
23	.650	.176	.013	.0	.0	.00
24	.647	.175	-.020	.0	.0	.00
25	.644	.168	-.052	.0	.0	.00
26	.641	.154	-.084	.0	.0	.00
27	.639	.134	-.116	.0	.0	.00
28	.636	.108	-.141	.0	.0	.00
29	.634	.078	-.159	.0	.0	.00
30	.632	.045	-.170	.0	.0	.00
31	.631	.011	-.174	.0	.0	.00
32	.629	-.024	-.170	.0	.0	.00
33	.627	-.057	-.160	.0	.0	.00
34	.626	-.088	-.142	.0	.0	.00
35	.625	-.114	-.118	.0	.0	.00
36	.624	-.134	-.087	.0	.0	.00
37	.623	-.149	-.055	.0	.0	.00
38	.623	-.157	-.024	.0	.0	.00
39	.622	-.158	.007	.0	.0	.00
40	.622	-.154	.038	.0	.0	.00
41	.621	-.143	.069	.0	.0	.00
42	.621	-.126	.100	.0	.0	.00
43	.620	-.103	.131	.0	.0	.00
44	.620	-.074	.162	.0	.0	.00
45	.620	-.038	.191	.0	.0	.00
46	.620	.003	.219	.0	.0	.00
47	.573	.003	.241	.0	.0	.00
48	.524	.003	.257	.0	.0	.00
49	.471	.004	.267	.0	.0	.00
50	.417	.004	.274	.0	.0	.00
51	.362	.004	.275	.0	.0	.00
52	.307	.004	.271	.0	.0	.00
53	.254	.004	.261	.0	.0	.00
54	.203	.003	.247	.0	.0	.00
55	.155	.003	.227	.0	.0	.00
56	.112	.003	.203	.0	.0	.00
57	.075	.002	.172	.0	.0	.00
58	.044	.002	.137	.0	.0	.00
59	.020	.001	.097	.0	.0	.00
60	.005	.001	.051	.0	.0	.00
61	.000	.000	.000	-29.5	-23.5	-56.08
101	.000	.000	.000	-19.3	4.9	-.12
102	.006	.010	.055	.0	.0	.00
103	.022	.019	.102	.0	.0	.00
104	.047	.027	.148	.0	.0	.00
105	.080	.034	.184	.0	.0	.00



ΜΟΝΩΡΟΦΗ ΕΝΙΣΧΥΣΗ, Η/Λ = 0.5, ΕΚΚΕΝΤΡΟΣ ΣΥΝΔΕΣΜΟΣ,  
ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΔΙΑΤΜΗΤΙΚΩΝ ΣΥΝΔΕΣΜΩΝ α = 60cm

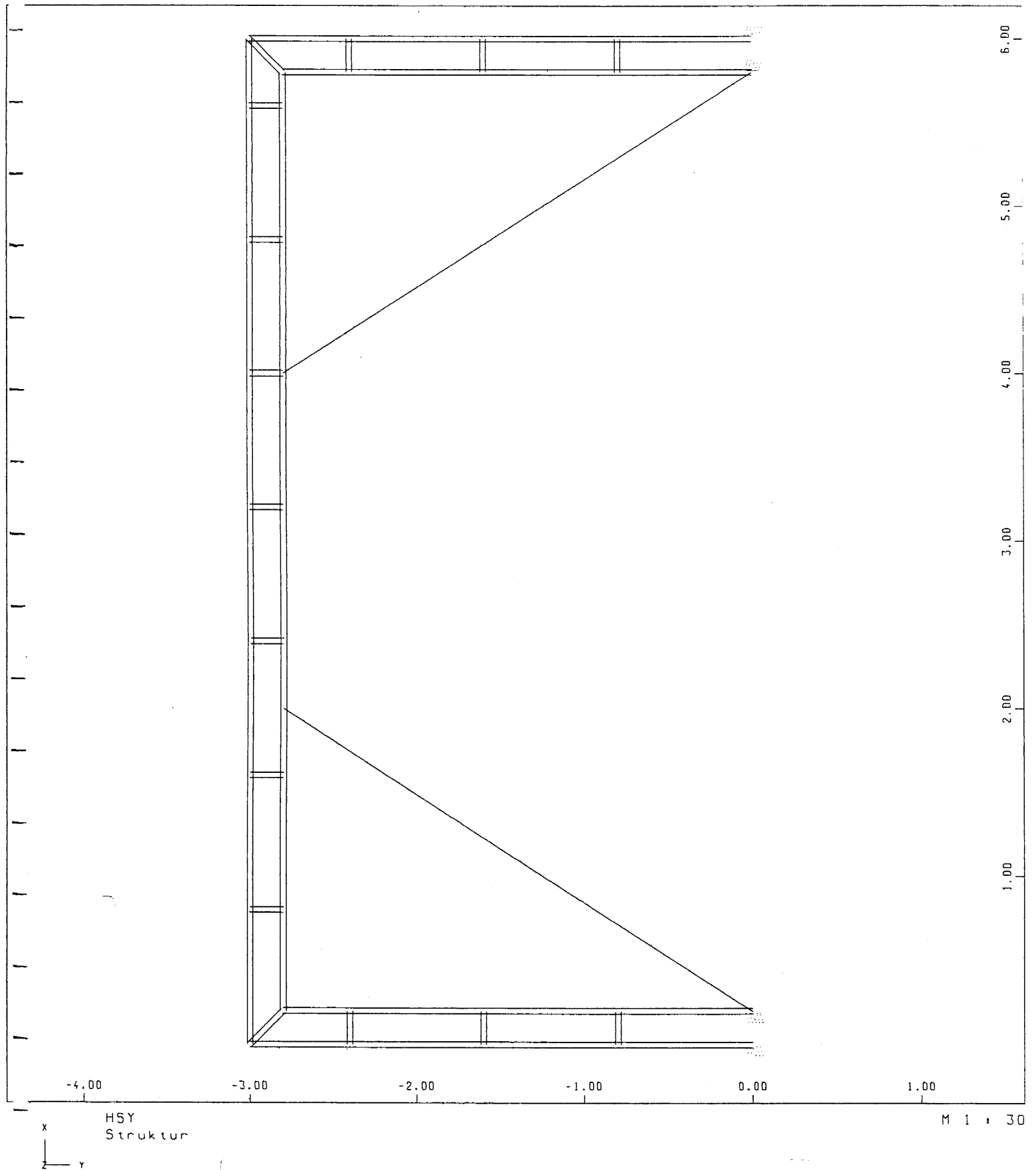
N O D A L   D I S P L A C E M E N T S   A N D   R E A C T I O N S  
Loadcase   2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
1	.000	.000	.000	-33.4	27.8	-63.88
2	.006	-.001	.058	.0	.0	.00
3	.023	-.002	.110	.0	.0	.00
4	.050	-.002	.156	.0	.0	.00
5	.085	-.003	.196	.0	.0	.00
6	.128	-.004	.230	.0	.0	.00
7	.177	-.004	.258	.0	.0	.00
8	.231	-.004	.281	.0	.0	.00
9	.289	-.005	.298	.0	.0	.00
10	.349	-.005	.308	.0	.0	.00
11	.412	-.005	.313	.0	.0	.00
12	.474	-.005	.312	.0	.0	.00
13	.536	-.005	.305	.0	.0	.00
14	.596	-.005	.293	.0	.0	.00
15	.653	-.005	.275	.0	.0	.00
16	.706	-.004	.251	.0	.0	.00
17	.703	.042	.215	.0	.0	.00
18	.699	.082	.180	.0	.0	.00
19	.696	.114	.146	.0	.0	.00
20	.693	.140	.111	.0	.0	.00
21	.690	.159	.077	.0	.0	.00
22	.687	.171	.043	.0	.0	.00
23	.685	.176	.010	.0	.0	.00
24	.682	.175	-.022	.0	.0	.00
25	.679	.167	-.054	.0	.0	.00
26	.676	.153	-.088	.0	.0	.00
27	.674	.133	-.116	.0	.0	.00
28	.671	.107	-.138	.0	.0	.00
29	.669	.078	-.156	.0	.0	.00
30	.668	.045	-.167	.0	.0	.00
31	.666	.011	-.170	.0	.0	.00
32	.664	-.023	-.168	.0	.0	.00
33	.662	-.055	-.158	.0	.0	.00
34	.661	-.085	-.140	.0	.0	.00

HSY  
HORIZONTAL LOAD

N O D A L    D I S P L A C E M E N T S    A N D    R E A C T I O N S  
Loadcase    2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
35	.660	-.111	-.118	.0	.0	.00
36	.659	-.132	-.091	.0	.0	.00
37	.658	-.147	-.058	.0	.0	.00
38	.657	-.156	-.027	.0	.0	.00
39	.657	-.158	.004	.0	.0	.00
40	.656	-.154	.035	.0	.0	.00
41	.656	-.144	.067	.0	.0	.00
42	.655	-.127	.099	.0	.0	.00
43	.655	-.104	.132	.0	.0	.00
44	.654	-.075	.163	.0	.0	.00
45	.654	-.039	.195	.0	.0	.00
46	.654	.004	.228	.0	.0	.00
47	.606	.004	.251	.0	.0	.00
48	.554	.004	.269	.0	.0	.00
49	.499	.005	.281	.0	.0	.00
50	.442	.005	.289	.0	.0	.00
51	.384	.005	.290	.0	.0	.00
52	.326	.004	.286	.0	.0	.00
53	.270	.004	.277	.0	.0	.00
54	.216	.004	.262	.0	.0	.00
55	.165	.004	.241	.0	.0	.00
56	.119	.003	.215	.0	.0	.00
57	.079	.003	.183	.0	.0	.00
58	.046	.002	.146	.0	.0	.00
59	.021	.001	.103	.0	.0	.00
60	.006	.001	.055	.0	.0	.00
61	.000	.000	.000	-31.7	-25.3	-59.91
101	.000	.000	.000	-17.2	1.7	-.13
102	.006	.009	.059	.0	.0	.00
103	.023	.019	.110	.0	.0	.00
104	.050	.028	.154	.0	.0	.00
105	.085	.035	.197	.0	.0	.00



ΜΟΝΩΡΟΦΗ ΕΝΙΣΧΥΣΗ,  $H/L = 0.5$ , ΕΚΚΕΝΤΡΟΣ ΣΥΝΔΕΣΜΟΣ,  
ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΔΙΑΤΜΗΤΙΚΩΝ ΣΥΝΔΕΣΜΩΝ  $\alpha = 80\text{cm}$

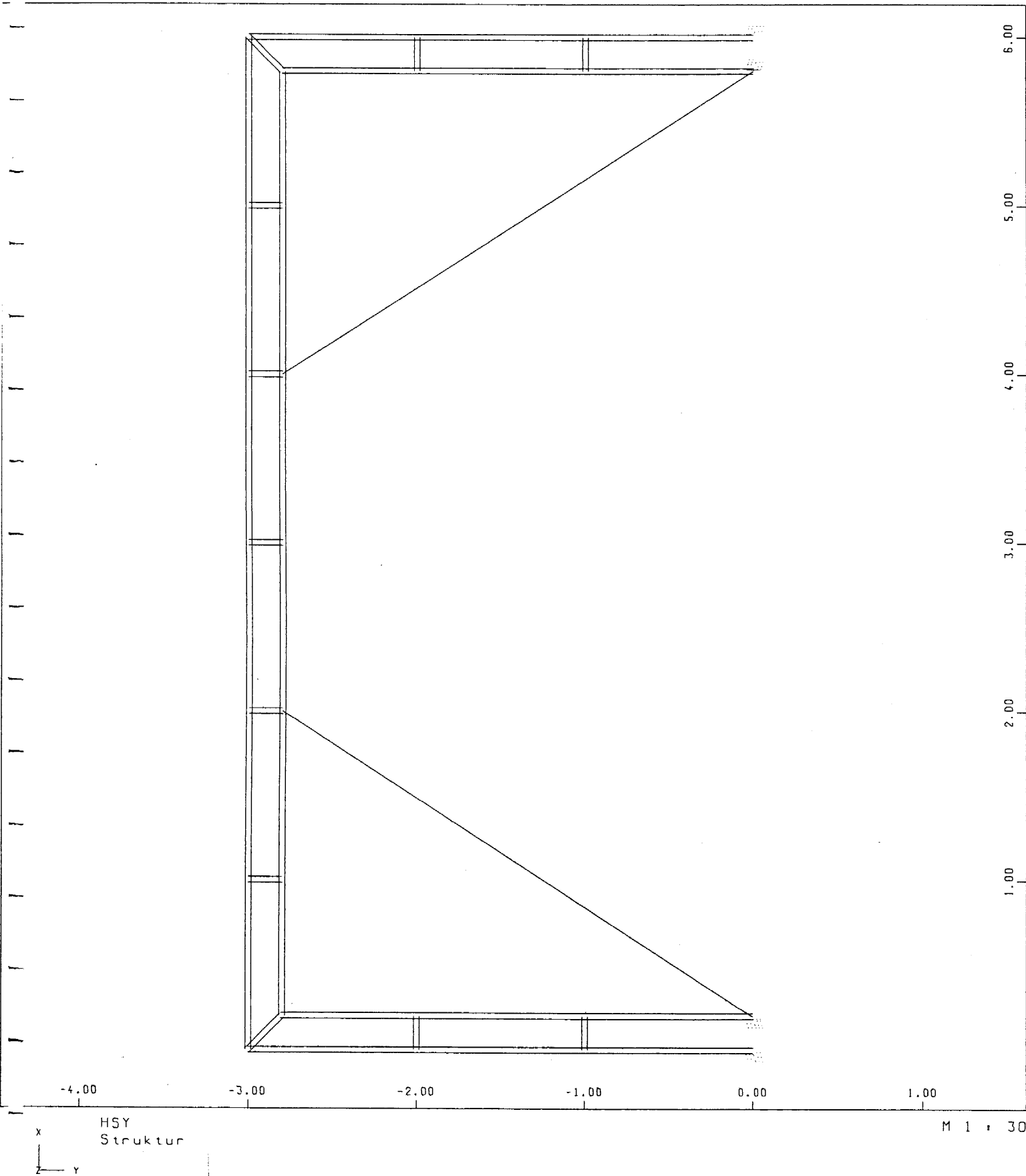
N O D A L   D I S P L A C E M E N T S   A N D   R E A C T I O N S						
Loadcase	2					
nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
1	.000	.000	.000	-35.8	30.7	-66.98
2	.006	-.001	.061	.0	.0	.00
3	.024	-.002	.115	.0	.0	.00
4	.052	-.003	.162	.0	.0	.00
5	.088	-.004	.203	.0	.0	.00
6	.133	-.004	.239	.0	.0	.00
7	.183	-.005	.267	.0	.0	.00
8	.239	-.005	.289	.0	.0	.00
9	.299	-.006	.304	.0	.0	.00
10	.361	-.006	.315	.0	.0	.00
11	.424	-.006	.318	.0	.0	.00
12	.488	-.006	.315	.0	.0	.00
13	.550	-.006	.305	.0	.0	.00
14	.609	-.006	.291	.0	.0	.00
15	.666	-.006	.269	.0	.0	.00
16	.717	-.006	.241	.0	.0	.00
17	.714	.038	.201	.0	.0	.00
18	.711	.075	.161	.0	.0	.00
19	.708	.103	.124	.0	.0	.00
20	.704	.124	.088	.0	.0	.00
21	.702	.138	.052	.0	.0	.00
22	.699	.145	.018	.0	.0	.00
23	.696	.146	-.014	.0	.0	.00
24	.693	.140	-.045	.0	.0	.00
25	.691	.127	-.077	.0	.0	.00
26	.688	.109	-.106	.0	.0	.00
27	.686	.086	-.129	.0	.0	.00
28	.683	.058	-.148	.0	.0	.00
29	.681	.027	-.163	.0	.0	.00
30	.680	-.007	-.170	.0	.0	.00
31	.678	-.041	-.170	.0	.0	.00
32	.676	-.074	-.162	.0	.0	.00
33	.675	-.106	-.150	.0	.0	.00
34	.673	-.134	-.131	.0	.0	.00
35	.672	-.158	-.105	.0	.0	.00
36	.671	-.175	-.070	.0	.0	.00
37	.670	-.186	-.038	.0	.0	.00
38	.670	-.191	-.006	.0	.0	.00
39	.669	-.189	.026	.0	.0	.00
40	.669	-.180	.058	.0	.0	.00
41	.668	-.165	.090	.0	.0	.00
42	.668	-.144	.122	.0	.0	.00
43	.667	-.116	.153	.0	.0	.00
44	.667	-.083	.185	.0	.0	.00
45	.667	-.043	.214	.0	.0	.00
46	.666	.003	.242	.0	.0	.00
47	.616	.003	.264	.0	.0	.00

HSY  
 HORIZONTAL LOAD

N O D A L D I S P L A C E M E N T S A N D R E A C T I O N S  
 Loadcase 2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
48	.561	.004	.279	.0	.0	.00
49	.505	.004	.289	.0	.0	.00
50	.446	.004	.296	.0	.0	.00
51	.387	.004	.296	.0	.0	.00
52	.328	.004	.291	.0	.0	.00
53	.271	.004	.279	.0	.0	.00
54	.216	.003	.264	.0	.0	.00
55	.165	.003	.243	.0	.0	.00
56	.120	.003	.216	.0	.0	.00
57	.080	.003	.183	.0	.0	.00
58	.046	.002	.146	.0	.0	.00
59	.021	.001	.103	.0	.0	.00
60	.006	.001	.055	.0	.0	.00
61	.000	.000	.000	-30.7	-21.7	-59.79
101	.000	.000	.000	-14.4	-1.7	-.14
102	.006	.009	.062	.0	.0	.00
103	.024	.018	.116	.0	.0	.00
104	.052	.027	.162	.0	.0	.00
105	.088	.037	.200	.0	.0	.00





ΜΟΝΩΡΟΦΗ ΕΝΙΣΧΥΣΗ,  $H/L = 0.5$ , ΕΚΚΕΝΤΡΟΣ ΣΥΝΔΕΣΜΟΣ,  
ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΔΙΑΤΜΗΤΙΚΩΝ ΣΥΝΔΕΣΜΩΝ  $\alpha = 100\text{cm}$

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

Loadcase     2  
nodes

No	V-X [mm]	V-Y [mm]	PHI-Z [mrad]	P-X [kN]	P-Y [kN]	M-Z [kNm]
1	.000	.000	.000	-31.1	21.9	-60.80
2	.006	-.001	.056	.0	.0	.00
3	.022	-.001	.105	.0	.0	.00
4	.047	-.002	.149	.0	.0	.00
5	.081	-.003	.186	.0	.0	.00
6	.121	-.003	.218	.0	.0	.00
7	.168	-.003	.246	.0	.0	.00
8	.219	-.004	.268	.0	.0	.00
9	.275	-.004	.284	.0	.0	.00
10	.333	-.004	.294	.0	.0	.00
11	.392	-.004	.299	.0	.0	.00
12	.452	-.004	.299	.0	.0	.00
13	.511	-.004	.294	.0	.0	.00
14	.569	-.004	.283	.0	.0	.00
15	.624	-.004	.266	.0	.0	.00
16	.675	-.004	.243	.0	.0	.00
17	.672	.042	.210	.0	.0	.00
18	.669	.080	.177	.0	.0	.00
19	.666	.113	.144	.0	.0	.00
20	.663	.138	.111	.0	.0	.00
21	.660	.157	.079	.0	.0	.00
22	.657	.170	.046	.0	.0	.00
23	.654	.176	.014	.0	.0	.00
24	.651	.175	-.019	.0	.0	.00
25	.648	.168	-.051	.0	.0	.00
26	.645	.155	-.083	.0	.0	.00
27	.643	.135	-.116	.0	.0	.00
28	.641	.109	-.142	.0	.0	.00
29	.639	.078	-.160	.0	.0	.00
30	.637	.045	-.170	.0	.0	.00
31	.635	.011	-.172	.0	.0	.00
32	.633	-.024	-.171	.0	.0	.00
33	.632	-.057	-.161	.0	.0	.00
34	.631	-.088	-.144	.0	.0	.00
35	.629	-.114	-.119	.0	.0	.00
36	.628	-.135	-.085	.0	.0	.00
37	.627	-.149	-.054	.0	.0	.00
38	.627	-.156	-.023	.0	.0	.00
39	.626	-.158	.008	.0	.0	.00
40	.626	-.153	.039	.0	.0	.00
41	.625	-.142	.070	.0	.0	.00
42	.625	-.125	.100	.0	.0	.00
43	.625	-.102	.130	.0	.0	.00
44	.624	-.073	.160	.0	.0	.00
45	.624	-.038	.190	.0	.0	.00
46	.624	.003	.220	.0	.0	.00
47	.577	.003	.243	.0	.0	.00
48	.527	.003	.259	.0	.0	.00
49	.474	.003	.270	.0	.0	.00
50	.419	.004	.276	.0	.0	.00
51	.364	.004	.276	.0	.0	.00
52	.309	.004	.272	.0	.0	.00
53	.255	.003	.263	.0	.0	.00

HSY  
 HORIZONTAL LOAD

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

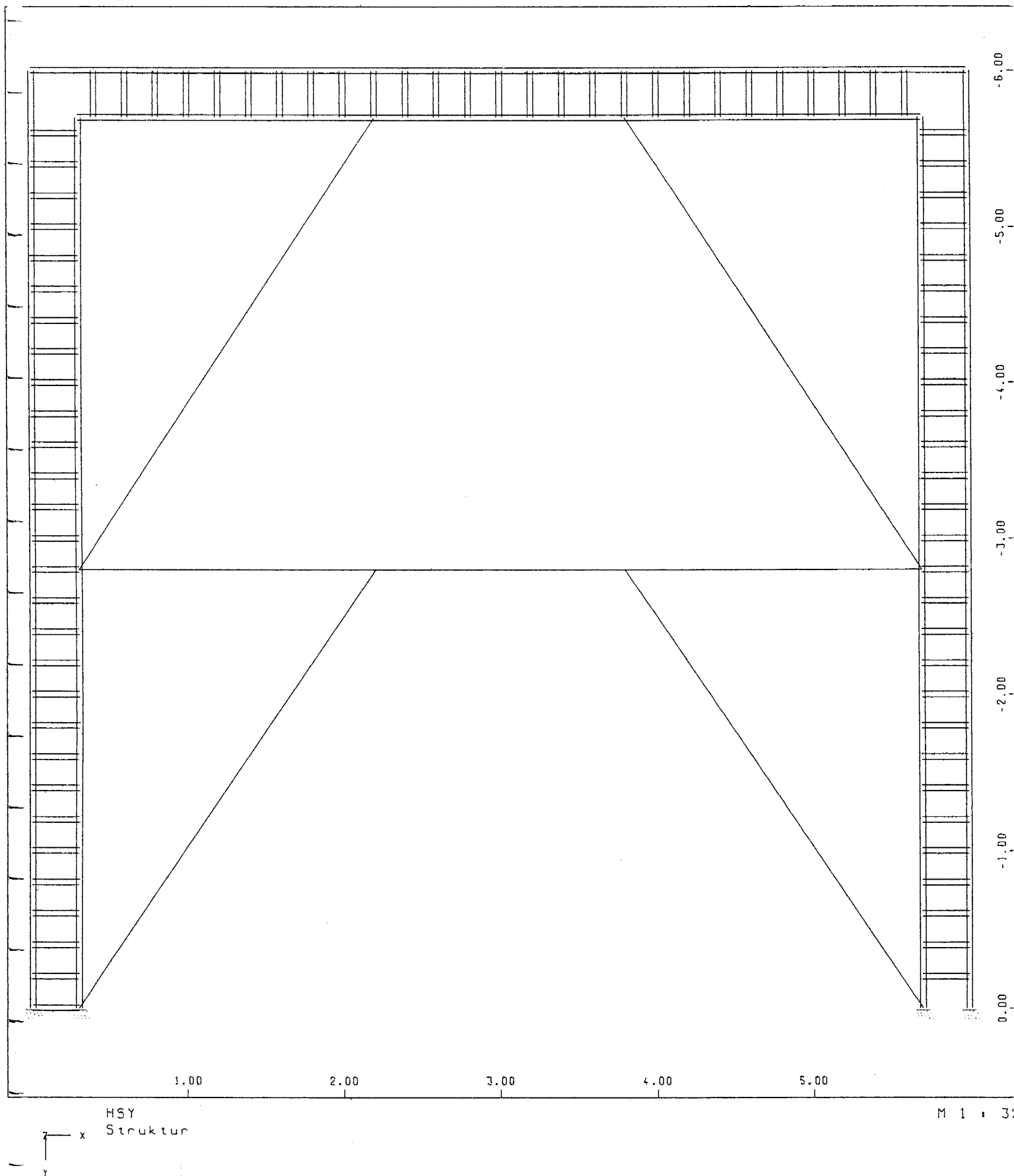
Loadcase 2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
54	.204	.003	.249	.0	.0	.00
55	.156	.003	.228	.0	.0	.00
56	.113	.003	.203	.0	.0	.00
57	.075	.002	.173	.0	.0	.00
58	.044	.002	.139	.0	.0	.00
59	.020	.001	.098	.0	.0	.00
60	.005	.001	.052	.0	.0	.00
61	.000	.000	.000	-29.4	-19.5	-56.76
101	.000	.000	.000	-19.4	9.1	-.13
102	.006	.008	.056	.0	.0	.00
103	.022	.016	.106	.0	.0	.00
104	.048	.024	.149	.0	.0	.00
105	.081	.032	.185	.0	.0	.00

HSY  
 HORIZONTAL LOAD

N O D A L D I S P L A C E M E N T S A N D R E A C T I O N S  
 Loadcase 2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
35	.660	-.111	-.118	.0	.0	.00
36	.659	-.132	-.091	.0	.0	.00
37	.658	-.147	-.058	.0	.0	.00
38	.657	-.156	-.027	.0	.0	.00
39	.657	-.158	.004	.0	.0	.00
40	.656	-.154	.035	.0	.0	.00
41	.656	-.144	.067	.0	.0	.00
42	.655	-.127	.099	.0	.0	.00
43	.655	-.104	.132	.0	.0	.00
44	.654	-.075	.163	.0	.0	.00
45	.654	-.039	.195	.0	.0	.00
46	.654	.004	.228	.0	.0	.00
47	.606	.004	.251	.0	.0	.00
48	.554	.004	.269	.0	.0	.00
49	.499	.005	.281	.0	.0	.00
50	.442	.005	.289	.0	.0	.00
51	.384	.005	.290	.0	.0	.00
52	.326	.004	.286	.0	.0	.00
53	.270	.004	.277	.0	.0	.00
54	.216	.004	.262	.0	.0	.00
55	.165	.004	.241	.0	.0	.00
56	.119	.003	.215	.0	.0	.00
57	.079	.003	.183	.0	.0	.00
58	.046	.002	.146	.0	.0	.00
59	.021	.001	.103	.0	.0	.00
60	.006	.001	.055	.0	.0	.00
61	.000	.000	.000	-31.7	-25.3	-59.91
101	.000	.000	.000	-17.2	1.7	-.13
102	.006	.009	.059	.0	.0	.00
103	.023	.019	.110	.0	.0	.00
104	.050	.028	.154	.0	.0	.00
105	.085	.035	.197	.0	.0	.00



ΔΙΩΡΟΦΗ ΕΝΙΣΧΥΣΗ,  $H/L = 1.0$ , ΕΚΚΕΝΤΡΟΣ ΣΥΝΔΕΣΜΟΣ,  
ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΔΙΑΤΜΗΤΙΚΩΝ ΣΥΝΔΕΣΜΩΝ  $\alpha = 20\text{cm}$

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

Loadcase   2

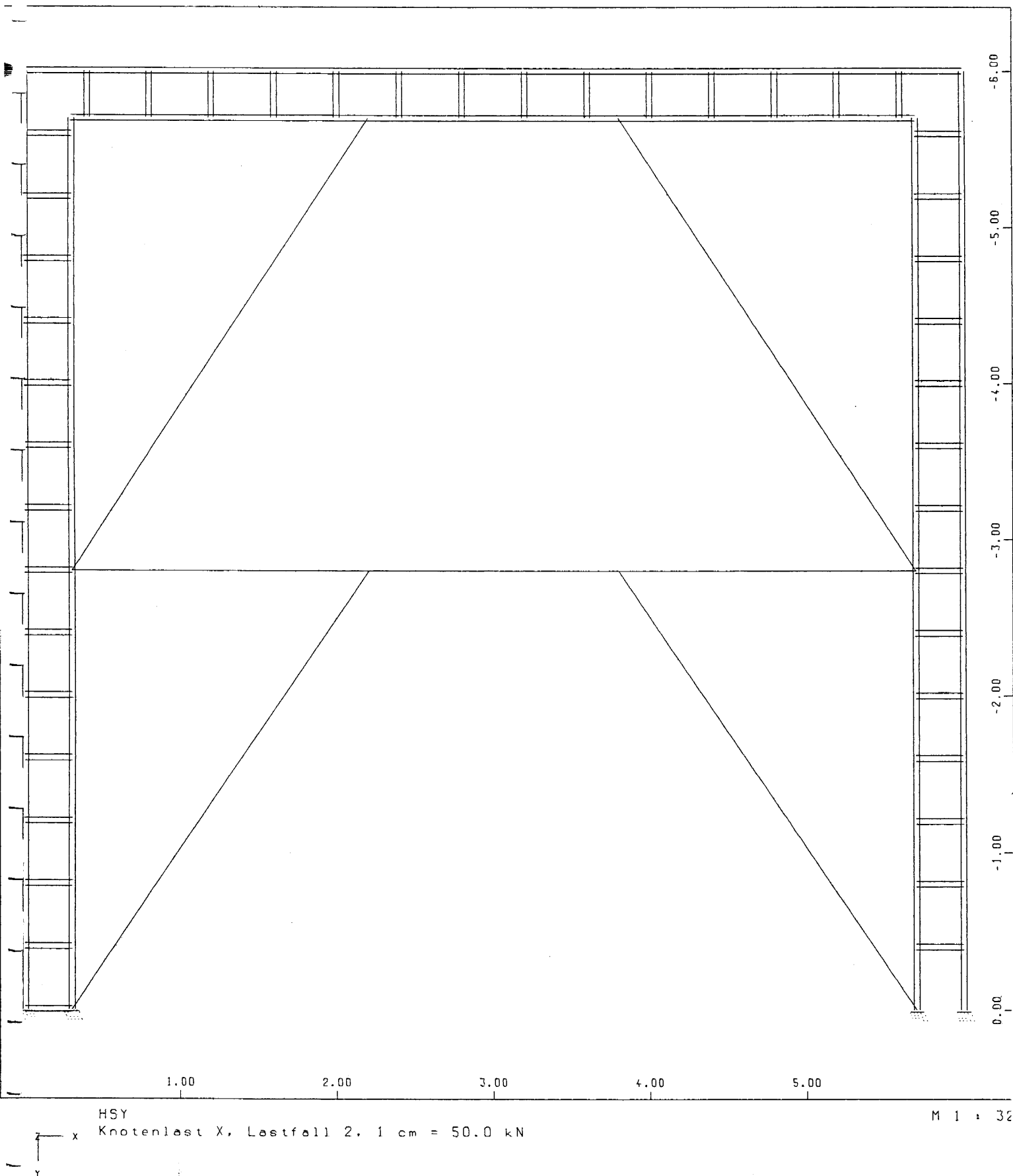
nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
1	.000	.000	.000	-49.3	119.0	-90.99
2	.008	-.003	.083	.0	.0	.00
3	.033	-.007	.158	.0	.0	.00
4	.071	-.010	.224	.0	.0	.00
5	.122	-.013	.283	.0	.0	.00
6	.184	-.016	.335	.0	.0	.00
7	.255	-.018	.378	.0	.0	.00
8	.335	-.021	.413	.0	.0	.00
9	.420	-.023	.441	.0	.0	.00
10	.510	-.025	.460	.0	.0	.00
11	.604	-.027	.472	.0	.0	.00
12	.699	-.029	.476	.0	.0	.00
13	.794	-.031	.472	.0	.0	.00
14	.887	-.032	.461	.0	.0	.00
15	.978	-.033	.443	.0	.0	.00
16	1.065	-.033	.432	.0	.0	.00
17	1.151	-.033	.423	.0	.0	.00
18	1.234	-.032	.413	.0	.0	.00
19	1.316	-.032	.402	.0	.0	.00
20	1.395	-.032	.391	.0	.0	.00
21	1.472	-.031	.379	.0	.0	.00
22	1.547	-.031	.367	.0	.0	.00
23	1.619	-.030	.354	.0	.0	.00
24	1.688	-.030	.340	.0	.0	.00
25	1.755	-.029	.325	.0	.0	.00
26	1.819	-.029	.310	.0	.0	.00
27	1.879	-.028	.294	.0	.0	.00
28	1.936	-.028	.278	.0	.0	.00
29	1.990	-.027	.261	.0	.0	.00
30	2.041	-.027	.247	.0	.0	.00
31	2.089	-.026	.236	.0	.0	.00
32	2.085	.020	.219	.0	.0	.00
33	2.080	.061	.195	.0	.0	.00
34	2.076	.098	.166	.0	.0	.00
35	2.072	.128	.136	.0	.0	.00
36	2.068	.152	.104	.0	.0	.00
37	2.063	.169	.071	.0	.0	.00
38	2.059	.180	.037	.0	.0	.00
39	2.055	.184	.002	.0	.0	.00
40	2.050	.181	-.034	.0	.0	.00
41	2.046	.171	-.072	.0	.0	.00
42	2.042	.152	-.112	.0	.0	.00
43	2.039	.125	-.156	.0	.0	.00
44	2.036	.091	-.188	.0	.0	.00

HSY  
 HORIZONTAL LOAD

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

Loadcase 2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
45	2.034	.051	-.208	.0	.0	.00
46	2.032	.008	-.214	.0	.0	.00
47	2.030	-.034	-.208	.0	.0	.00
48	2.029	-.074	-.189	.0	.0	.00
49	2.028	-.109	-.157	.0	.0	.00
50	2.028	-.136	-.113	.0	.0	.00
51	2.028	-.155	-.074	.0	.0	.00
52	2.029	-.166	-.037	.0	.0	.00
53	2.030	-.170	-.001	.0	.0	.00
54	2.031	-.166	.033	.0	.0	.00
55	2.032	-.157	.065	.0	.0	.00
56	2.032	-.140	.097	.0	.0	.00
57	2.033	-.118	.127	.0	.0	.00
58	2.034	-.090	.155	.0	.0	.00
59	2.034	-.056	.182	.0	.0	.00
60	2.035	-.017	.204	.0	.0	.00
61	2.036	.025	.217	.0	.0	.00
62	1.992	.026	.227	.0	.0	.00
63	1.945	.027	.241	.0	.0	.00
64	1.895	.027	.258	.0	.0	.00
65	1.842	.028	.275	.0	.0	.00
66	1.785	.028	.292	.0	.0	.00
67	1.725	.029	.308	.0	.0	.00
68	1.662	.029	.323	.0	.0	.00
69	1.596	.030	.338	.0	.0	.00
70	1.527	.030	.352	.0	.0	.00
71	1.455	.031	.365	.0	.0	.00
72	1.381	.031	.378	.0	.0	.00
73	1.304	.032	.390	.0	.0	.00
74	1.225	.032	.402	.0	.0	.00
75	1.143	.032	.413	.0	.0	.00
76	1.060	.033	.424	.0	.0	.00
77	.974	.033	.436	.0	.0	.00
78	.885	.032	.455	.0	.0	.00
79	.792	.030	.468	.0	.0	.00
80	.698	.029	.473	.0	.0	.00
81	.604	.027	.470	.0	.0	.00
82	.511	.025	.459	.0	.0	.00
83	.421	.023	.440	.0	.0	.00
84	.335	.021	.413	.0	.0	.00
85	.256	.018	.378	.0	.0	.00
86	.184	.016	.335	.0	.0	.00
87	.122	.013	.284	.0	.0	.00
88	.071	.010	.225	.0	.0	.00
89	.033	.007	.158	.0	.0	.00
90	.008	.003	.083	.0	.0	.00
91	.000	.000	.000	-50.2	-119.2	-91.49
101	.000	.000	.000	-.3	-54.9	-.20
102	.008	.021	.080	.0	.0	.00
103	.033	.040	.155	.0	.0	.00
104	.071	.057	.222	.0	.0	.00
105	.122	.072	.281	.0	.0	.00
106	.184	.084	.332	.0	.0	.00



ΔΙΩΡΟΦΗ ΕΝΙΣΧΥΣΗ,  $H/L = 1.0$ , ΕΚΚΕΝΤΡΟΣ ΣΥΝΔΕΣΜΟΣ,  
ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΔΙΑΤΜΗΤΙΚΩΝ ΣΥΝΔΕΣΜΩΝ  $\alpha = 40\text{cm}$



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

Loadcase    2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
1	.000	.000	.000	-49.4	116.4	-93.27
2	.009	-.003	.085	.0	.0	.00
3	.033	-.007	.161	.0	.0	.00
4	.073	-.010	.230	.0	.0	.00
5	.125	-.013	.289	.0	.0	.00
6	.188	-.016	.342	.0	.0	.00
7	.261	-.018	.386	.0	.0	.00
8	.342	-.021	.424	.0	.0	.00
9	.430	-.023	.452	.0	.0	.00
10	.523	-.025	.474	.0	.0	.00
11	.619	-.027	.486	.0	.0	.00
12	.717	-.029	.492	.0	.0	.00
13	.815	-.031	.489	.0	.0	.00
14	.912	-.032	.480	.0	.0	.00
15	1.006	-.033	.462	.0	.0	.00
16	1.098	-.033	.453	.0	.0	.00
17	1.188	-.033	.443	.0	.0	.00
18	1.275	-.033	.434	.0	.0	.00
19	1.361	-.032	.423	.0	.0	.00

HSY

HORIZONTAL LOAD

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

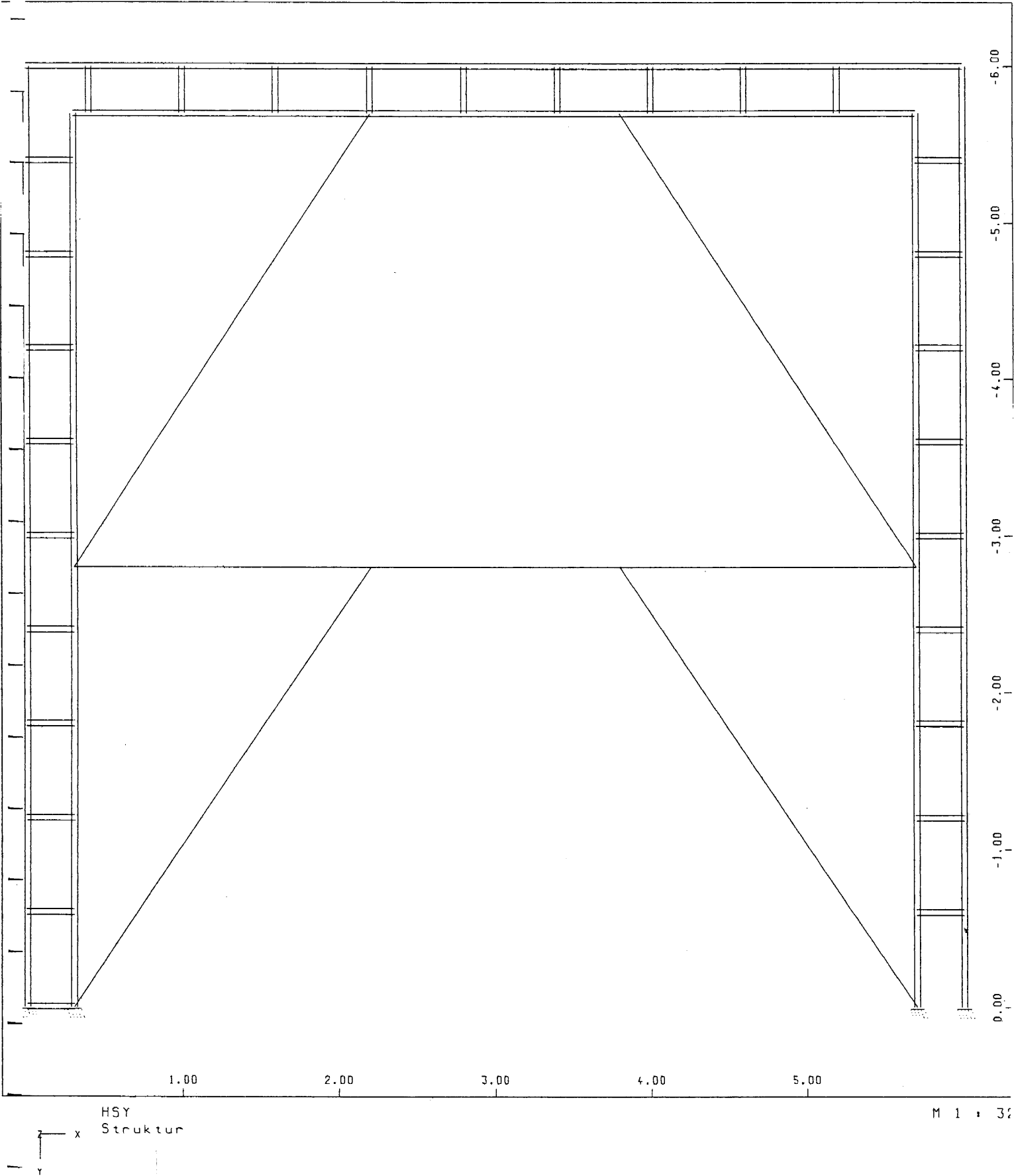
Loadcase 2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
20	1.445	-.032	.412	.0	.0	.00
21	1.526	-.032	.400	.0	.0	.00
22	1.605	-.031	.388	.0	.0	.00
23	1.681	-.031	.374	.0	.0	.00
24	1.754	-.030	.359	.0	.0	.00
25	1.824	-.030	.344	.0	.0	.00
26	1.892	-.029	.328	.0	.0	.00
27	1.955	-.029	.310	.0	.0	.00
28	2.016	-.028	.292	.0	.0	.00
29	2.072	-.028	.274	.0	.0	.00
30	2.125	-.027	.258	.0	.0	.00
31	2.176	-.026	.246	.0	.0	.00
32	2.171	.021	.228	.0	.0	.00
33	2.167	.065	.203	.0	.0	.00
34	2.163	.102	.171	.0	.0	.00
35	2.158	.133	.139	.0	.0	.00
36	2.154	.158	.106	.0	.0	.00
37	2.150	.175	.072	.0	.0	.00
38	2.146	.186	.037	.0	.0	.00
39	2.141	.190	.001	.0	.0	.00
40	2.137	.186	-.037	.0	.0	.00
41	2.133	.175	-.076	.0	.0	.00
42	2.129	.155	-.121	.0	.0	.00
43	2.125	.127	-.158	.0	.0	.00
44	2.123	.092	-.192	.0	.0	.00
45	2.121	.052	-.210	.0	.0	.00
46	2.119	.009	-.218	.0	.0	.00
47	2.117	-.034	-.210	.0	.0	.00
48	2.116	-.075	-.193	.0	.0	.00
49	2.115	-.110	-.159	.0	.0	.00
50	2.115	-.139	-.122	.0	.0	.00
51	2.115	-.159	-.078	.0	.0	.00
52	2.116	-.171	-.040	.0	.0	.00
53	2.117	-.175	-.003	.0	.0	.00
54	2.118	-.172	.032	.0	.0	.00
55	2.118	-.162	.065	.0	.0	.00
56	2.119	-.146	.098	.0	.0	.00
57	2.120	-.123	.130	.0	.0	.00
58	2.120	-.094	.160	.0	.0	.00
59	2.121	-.059	.189	.0	.0	.00
60	2.122	-.019	.213	.0	.0	.00
61	2.123	.025	.228	.0	.0	.00
62	2.076	.026	.238	.0	.0	.00
63	2.027	.027	.254	.0	.0	.00
64	1.975	.028	.273	.0	.0	.00
65	1.918	.028	.291	.0	.0	.00
66	1.858	.029	.309	.0	.0	.00
67	1.795	.029	.326	.0	.0	.00
68	1.728	.030	.342	.0	.0	.00
69	1.658	.030	.358	.0	.0	.00
70	1.585	.031	.372	.0	.0	.00
71	1.509	.031	.386	.0	.0	.00
72	1.430	.032	.399	.0	.0	.00

HSY  
 HORIZONTAL LOAD

N O D A L D I S P L A C E M E N T S A N D R E A C T I O N S  
 Loadcase 2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
73	1.349	.032	.411	.0	.0	.00
74	1.266	.032	.423	.0	.0	.00
75	1.180	.033	.433	.0	.0	.00
76	1.092	.033	.445	.0	.0	.00
77	1.002	.033	.455	.0	.0	.00
78	.909	.032	.474	.0	.0	.00
79	.813	.031	.484	.0	.0	.00
80	.716	.029	.489	.0	.0	.00
81	.619	.027	.484	.0	.0	.00
82	.523	.025	.472	.0	.0	.00
83	.430	.023	.451	.0	.0	.00
84	.343	.021	.424	.0	.0	.00
85	.262	.018	.386	.0	.0	.00
86	.189	.016	.343	.0	.0	.00
87	.125	.013	.290	.0	.0	.00
88	.073	.010	.230	.0	.0	.00
89	.034	.007	.161	.0	.0	.00
90	.009	.003	.085	.0	.0	.00
91	.000	.000	.000	-50.3	-116.6	-93.78
101	.000	.000	.000	-.2	-53.0	-.20
102	.009	.020	.086	.0	.0	.00
103	.033	.040	.155	.0	.0	.00
104	.073	.057	.232	.0	.0	.00
105	.125	.073	.283	.0	.0	.00



ΔΙΩΡΟΦΗ ΕΝΙΣΧΥΣΗ, Η/Λ = 1.0, ΕΚΚΕΝΤΡΟΣ ΣΥΝΔΕΣΜΟΣ,  
ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΔΙΑΤΜΗΤΙΚΩΝ ΣΥΝΔΕΣΜΩΝ  $\alpha = 60\text{cm}$

HSY

HORIZONTAL LOAD

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

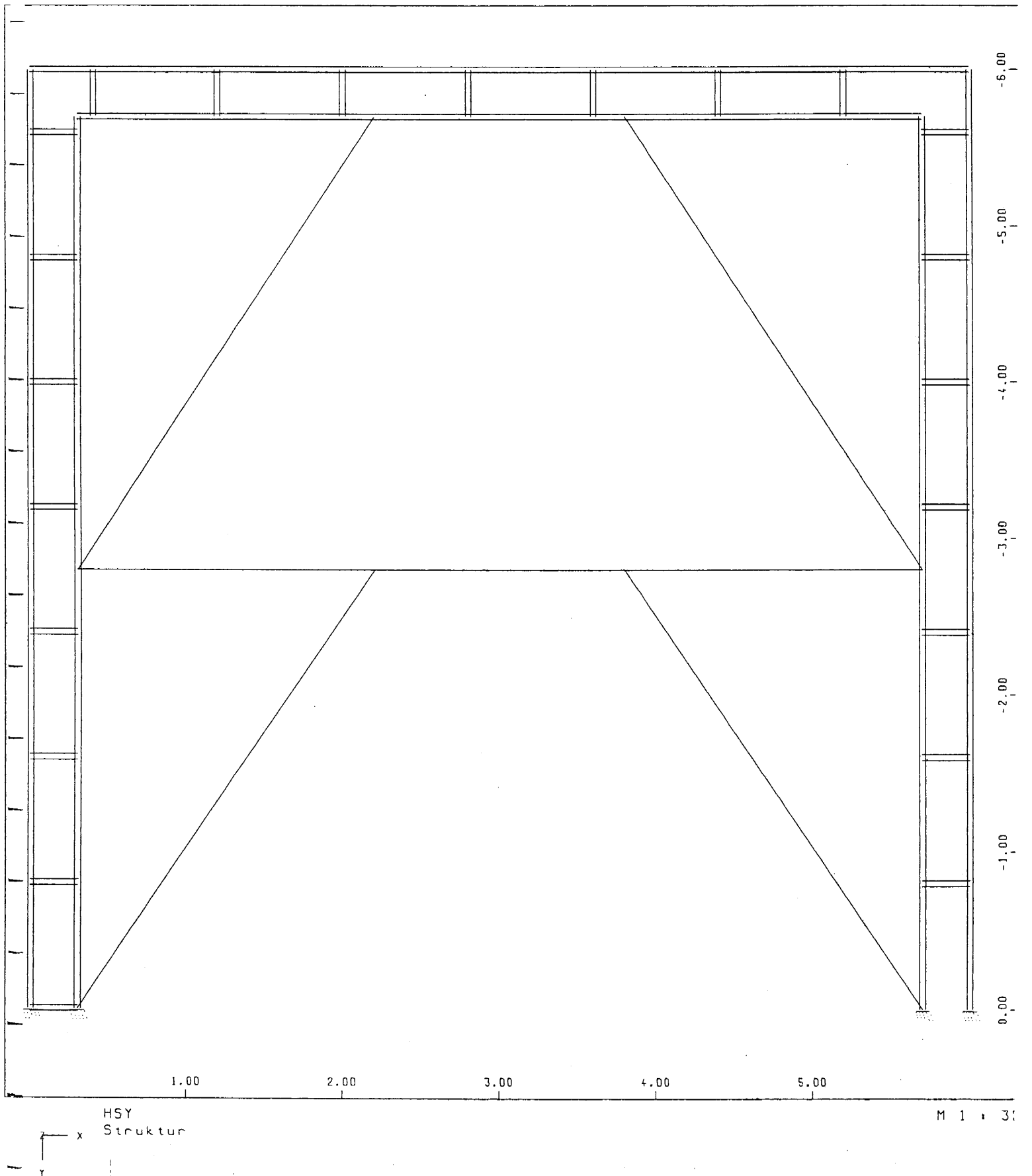
Loadcase 2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
54	2.256	-.144	.008	.0	.0	.00
55	2.257	-.139	.041	.0	.0	.00
56	2.257	-.128	.073	.0	.0	.00
57	2.258	-.110	.103	.0	.0	.00
58	2.258	-.086	.139	.0	.0	.00
59	2.258	-.054	.174	.0	.0	.00
60	2.258	-.016	.207	.0	.0	.00
61	2.258	.028	.239	.0	.0	.00
62	2.208	.029	.262	.0	.0	.00
63	2.153	.029	.285	.0	.0	.00
64	2.094	.029	.308	.0	.0	.00
65	2.031	.029	.327	.0	.0	.00
66	1.964	.030	.344	.0	.0	.00
67	1.893	.030	.361	.0	.0	.00
68	1.819	.031	.377	.0	.0	.00
69	1.742	.031	.392	.0	.0	.00
70	1.663	.031	.405	.0	.0	.00
71	1.580	.032	.418	.0	.0	.00
72	1.495	.032	.430	.0	.0	.00
73	1.408	.033	.441	.0	.0	.00
74	1.319	.033	.453	.0	.0	.00
75	1.227	.033	.463	.0	.0	.00
76	1.134	.033	.472	.0	.0	.00
77	1.037	.032	.490	.0	.0	.00
78	.938	.031	.501	.0	.0	.00
79	.838	.031	.505	.0	.0	.00
80	.736	.029	.508	.0	.0	.00
81	.635	.027	.501	.0	.0	.00
82	.536	.025	.486	.0	.0	.00
83	.441	.023	.465	.0	.0	.00
84	.351	.021	.435	.0	.0	.00
85	.268	.018	.395	.0	.0	.00
86	.193	.016	.351	.0	.0	.00
87	.128	.013	.297	.0	.0	.00
88	.074	.010	.234	.0	.0	.00
89	.034	.007	.166	.0	.0	.00
90	.009	.003	.088	.0	.0	.00
91	.000	.000	.000	-49.8	-114.0	-95.92
101	.000	.000	.000	-.2	-51.5	-.21
102	.009	.020	.091	.0	.0	.00
103	.035	.039	.166	.0	.0	.00
104	.075	.059	.226	.0	.0	.00
105	.128	.072	.302	.0	.0	.00

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

Loadcase   2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
1	.000	.000	.000	-49.8	114.3	-96.26
2	.009	-.003	.088	.0	.0	.00
3	.035	-.007	.166	.0	.0	.00
4	.075	-.010	.235	.0	.0	.00
5	.128	-.013	.299	.0	.0	.00
6	.194	-.016	.353	.0	.0	.00
7	.269	-.018	.397	.0	.0	.00
8	.352	-.021	.437	.0	.0	.00
9	.443	-.023	.468	.0	.0	.00
10	.539	-.025	.488	.0	.0	.00
11	.638	-.027	.505	.0	.0	.00
12	.740	-.029	.511	.0	.0	.00
13	.842	-.031	.509	.0	.0	.00
14	.944	-.032	.505	.0	.0	.00
15	1.044	-.032	.495	.0	.0	.00
16	1.141	-.033	.477	.0	.0	.00
17	1.236	-.033	.469	.0	.0	.00
18	1.329	-.033	.460	.0	.0	.00
19	1.420	-.032	.450	.0	.0	.00
20	1.509	-.032	.440	.0	.0	.00
21	1.596	-.032	.429	.0	.0	.00
22	1.680	-.031	.417	.0	.0	.00
23	1.763	-.031	.405	.0	.0	.00
24	1.842	-.030	.391	.0	.0	.00
25	1.919	-.030	.377	.0	.0	.00
26	1.993	-.029	.362	.0	.0	.00
27	2.064	-.029	.346	.0	.0	.00
28	2.131	-.028	.329	.0	.0	.00
29	2.195	-.028	.313	.0	.0	.00
30	2.256	-.027	.297	.0	.0	.00
31	2.314	-.026	.281	.0	.0	.00
32	2.310	.028	.256	.0	.0	.00
33	2.306	.076	.225	.0	.0	.00
34	2.302	.118	.194	.0	.0	.00
35	2.298	.153	.161	.0	.0	.00
36	2.294	.182	.127	.0	.0	.00
37	2.290	.204	.093	.0	.0	.00
38	2.285	.219	.057	.0	.0	.00
39	2.281	.227	.020	.0	.0	.00
40	2.277	.227	-.020	.0	.0	.00
41	2.272	.219	-.060	.0	.0	.00
42	2.268	.203	-.102	.0	.0	.00
43	2.265	.177	-.153	.0	.0	.00
44	2.263	.143	-.188	.0	.0	.00
45	2.260	.103	-.206	.0	.0	.00
46	2.258	.060	-.219	.0	.0	.00
47	2.257	.016	-.216	.0	.0	.00
48	2.255	-.025	-.197	.0	.0	.00
49	2.255	-.063	-.175	.0	.0	.00
50	2.255	-.094	-.141	.0	.0	.00
51	2.254	-.118	-.095	.0	.0	.00
52	2.255	-.134	-.060	.0	.0	.00
53	2.256	-.142	-.025	.0	.0	.00



ΔΙΩΡΟΦΗ ΕΝΙΣΧΥΣΗ,  $H/L = 1.0$ , ΕΚΚΕΝΤΡΟΣ ΣΥΝΔΕΣΜΟΣ,  
ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΔΙΑΤΜΗΤΙΚΩΝ ΣΥΝΔΕΣΜΩΝ  $\alpha = 80\text{cm}$

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

Loadcase    2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
1	.000	.000	.000	-49.6	113.1	-102.20
2	.010	-.003	.094	.0	.0	.00
3	.037	-.007	.178	.0	.0	.00
4	.080	-.010	.252	.0	.0	.00
5	.137	-.013	.317	.0	.0	.00
6	.207	-.016	.379	.0	.0	.00
7	.288	-.018	.431	.0	.0	.00
8	.379	-.021	.474	.0	.0	.00



HSY  
 HORIZONTAL LOAD

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

Loadcase 2

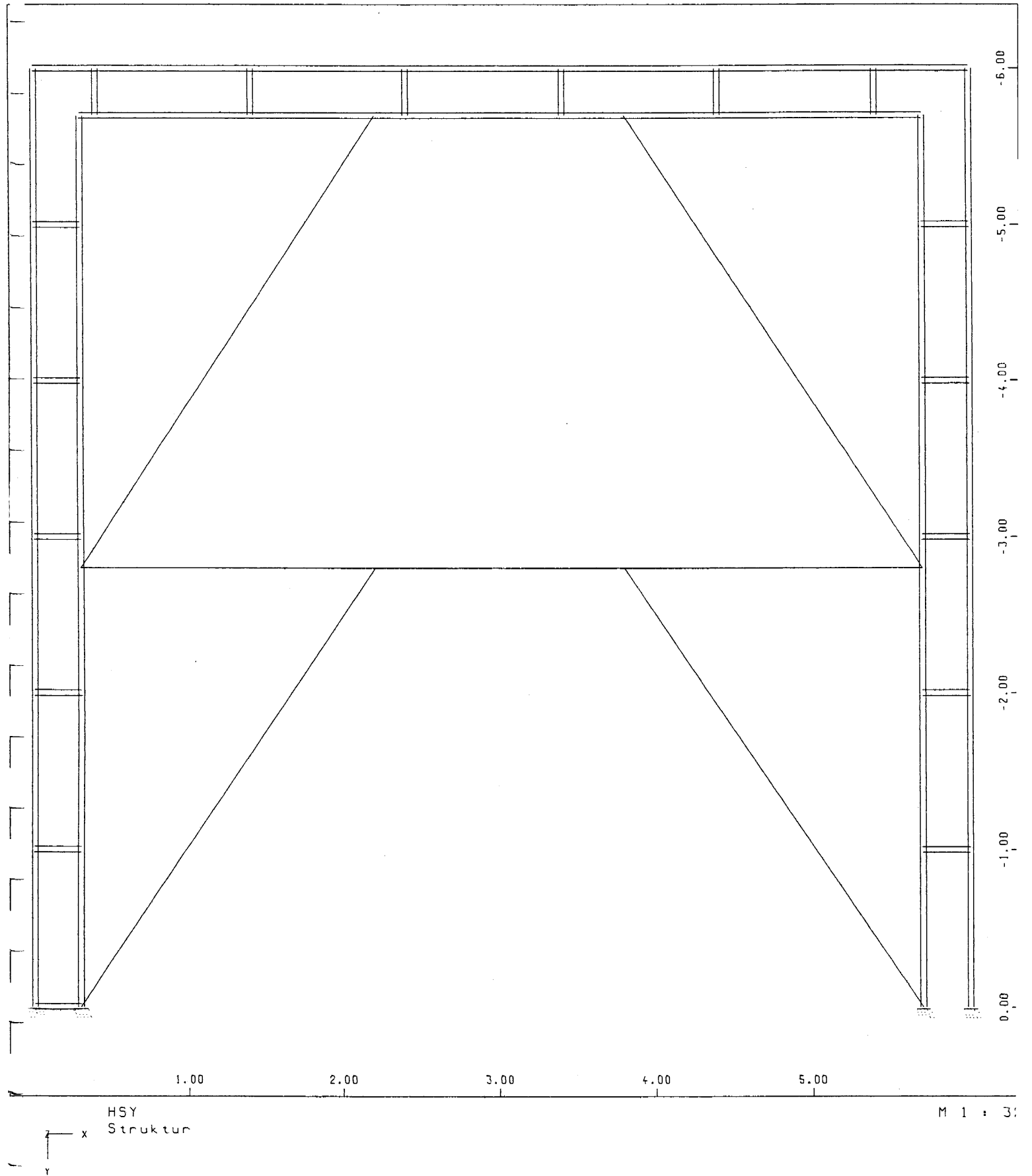
nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
9	.477	-.024	.507	.0	.0	.00
10	.581	-.026	.537	.0	.0	.00
11	.691	-.028	.558	.0	.0	.00
12	.804	-.029	.569	.0	.0	.00
13	.918	-.031	.570	.0	.0	.00
14	1.032	-.032	.573	.0	.0	.00
15	1.147	-.033	.570	.0	.0	.00
16	1.260	-.033	.561	.0	.0	.00
17	1.371	-.034	.547	.0	.0	.00
18	1.479	-.034	.539	.0	.0	.00
19	1.586	-.034	.530	.0	.0	.00
20	1.691	-.034	.518	.0	.0	.00
21	1.793	-.034	.504	.0	.0	.00
22	1.893	-.033	.490	.0	.0	.00
23	1.989	-.033	.474	.0	.0	.00
24	2.082	-.033	.456	.0	.0	.00
25	2.172	-.032	.435	.0	.0	.00
26	2.256	-.032	.414	.0	.0	.00
27	2.337	-.032	.391	.0	.0	.00
28	2.413	-.031	.365	.0	.0	.00
29	2.483	-.031	.338	.0	.0	.00
30	2.548	-.030	.315	.0	.0	.00
31	2.609	-.029	.297	.0	.0	.00
32	2.604	.029	.272	.0	.0	.00
33	2.600	.080	.238	.0	.0	.00
34	2.595	.123	.196	.0	.0	.00
35	2.591	.158	.155	.0	.0	.00
36	2.587	.185	.114	.0	.0	.00
37	2.583	.204	.074	.0	.0	.00
38	2.579	.214	.032	.0	.0	.00
39	2.575	.217	-.009	.0	.0	.00
40	2.571	.211	-.049	.0	.0	.00
41	2.566	.197	-.089	.0	.0	.00
42	2.563	.174	-.141	.0	.0	.00
43	2.560	.142	-.179	.0	.0	.00
44	2.557	.103	-.205	.0	.0	.00
45	2.554	.061	-.217	.0	.0	.00
46	2.553	.016	-.228	.0	.0	.00
47	2.551	-.030	-.224	.0	.0	.00
48	2.550	-.073	-.204	.0	.0	.00
49	2.548	-.110	-.168	.0	.0	.00
50	2.549	-.140	-.133	.0	.0	.00
51	2.549	-.163	-.095	.0	.0	.00
52	2.550	-.178	-.056	.0	.0	.00
53	2.550	-.185	-.013	.0	.0	.00
54	2.551	-.184	.024	.0	.0	.00
55	2.551	-.175	.062	.0	.0	.00
56	2.552	-.159	.099	.0	.0	.00
57	2.553	-.136	.137	.0	.0	.00
58	2.553	-.105	.172	.0	.0	.00
59	2.554	-.067	.207	.0	.0	.00
60	2.555	-.022	.241	.0	.0	.00
61	2.556	.030	.274	.0	.0	.00

HSY  
 HORIZONTAL LOAD

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

Loadcase 2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
62	2.498	.030	.301	.0	.0	.00
63	2.435	.030	.331	.0	.0	.00
64	2.366	.030	.357	.0	.0	.00
65	2.292	.031	.382	.0	.0	.00
66	2.214	.031	.404	.0	.0	.00
67	2.131	.032	.424	.0	.0	.00
68	2.044	.032	.443	.0	.0	.00
69	1.954	.032	.461	.0	.0	.00
70	1.860	.033	.476	.0	.0	.00
71	1.763	.033	.490	.0	.0	.00
72	1.664	.033	.504	.0	.0	.00
73	1.562	.033	.515	.0	.0	.00
74	1.458	.034	.525	.0	.0	.00
75	1.352	.034	.533	.0	.0	.00
76	1.244	.033	.548	.0	.0	.00
77	1.133	.032	.558	.0	.0	.00
78	1.021	.032	.562	.0	.0	.00
79	.909	.031	.561	.0	.0	.00
80	.796	.029	.560	.0	.0	.00
81	.685	.027	.550	.0	.0	.00
82	.577	.025	.531	.0	.0	.00
83	.473	.023	.502	.0	.0	.00
84	.376	.021	.470	.0	.0	.00
85	.286	.018	.428	.0	.0	.00
86	.206	.016	.376	.0	.0	.00
87	.136	.013	.315	.0	.0	.00
88	.080	.010	.251	.0	.0	.00
89	.037	.007	.177	.0	.0	.00
90	.009	.003	.093	.0	.0	.00
91	.000	.000	.000	-50.1	-112.7	-101.90
101	.000	.000	.000	-.1	-52.4	-.22
102	.010	.020	.097	.0	.0	.00
103	.038	.040	.181	.0	.0	.00
104	.081	.060	.250	.0	.0	.00
105	.137	.080	.306	.0	.0	.00



ΔΙΩΡΟΦΗ ΕΝΙΣΧΥΣΗ,  $H/L = 1.0$ , ΕΚΚΕΝΤΡΟΣ ΣΥΝΔΕΣΜΟΣ,  
ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΔΙΑΤΜΗΤΙΚΩΝ ΣΥΝΔΕΣΜΩΝ  $\alpha = 100\text{cm}$

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

Loadcase    2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
1	.000	.000	.000	-49.4	81.3	-118.45
2	.011	-.002	.109	.0	.0	.00
3	.043	-.005	.209	.0	.0	.00
4	.094	-.007	.299	.0	.0	.00
5	.162	-.009	.380	.0	.0	.00
6	.245	-.012	.451	.0	.0	.00
7	.342	-.014	.516	.0	.0	.00
8	.451	-.016	.572	.0	.0	.00
9	.571	-.017	.618	.0	.0	.00
10	.698	-.019	.655	.0	.0	.00
11	.832	-.021	.683	.0	.0	.00
12	.971	-.022	.708	.0	.0	.00
13	1.115	-.023	.724	.0	.0	.00
14	1.260	-.024	.732	.0	.0	.00
15	1.407	-.025	.732	.0	.0	.00
16	1.552	-.026	.723	.0	.0	.00
17	1.696	-.027	.714	.0	.0	.00
18	1.838	-.027	.703	.0	.0	.00

HSY  
 HORIZONTAL LOAD

N O D A L D I S P L A C E M E N T S A N D R E A C T I O N S  
 Loadcase 2

nodes	V-X	V-Y	PHI-Z	P-X	P-Y	M-Z
No	[mm]	[mm]	[mrad]	[kN]	[kN]	[kNm]
19	1.977	-.028	.690	.0	.0	.00
20	2.114	-.029	.675	.0	.0	.00
21	2.247	-.029	.658	.0	.0	.00
22	2.377	-.030	.643	.0	.0	.00
23	2.504	-.030	.625	.0	.0	.00
24	2.627	-.030	.606	.0	.0	.00
25	2.746	-.030	.584	.0	.0	.00
26	2.860	-.030	.559	.0	.0	.00
27	2.970	-.030	.535	.0	.0	.00
28	3.074	-.030	.509	.0	.0	.00
29	3.173	-.030	.480	.0	.0	.00
30	3.266	-.029	.449	.0	.0	.00
31	3.353	-.029	.416	.0	.0	.00
32	3.349	.050	.370	.0	.0	.00
33	3.346	.119	.323	.0	.0	.00
34	3.342	.179	.275	.0	.0	.00
35	3.339	.229	.226	.0	.0	.00
36	3.335	.269	.177	.0	.0	.00
37	3.332	.300	.127	.0	.0	.00
38	3.328	.320	.077	.0	.0	.00
39	3.325	.330	.026	.0	.0	.00
40	3.321	.331	-.023	.0	.0	.00
41	3.317	.321	-.072	.0	.0	.00
42	3.314	.302	-.120	.0	.0	.00
43	3.310	.273	-.166	.0	.0	.00
44	3.308	.235	-.212	.0	.0	.00
45	3.306	.190	-.243	.0	.0	.00
46	3.304	.139	-.258	.0	.0	.00
47	3.302	.087	-.259	.0	.0	.00
48	3.301	.037	-.244	.0	.0	.00
49	3.300	-.010	-.227	.0	.0	.00
50	3.300	-.054	-.203	.0	.0	.00
51	3.300	-.091	-.173	.0	.0	.00
52	3.299	-.122	-.136	.0	.0	.00
53	3.299	-.145	-.092	.0	.0	.00
54	3.298	-.159	-.045	.0	.0	.00
55	3.298	-.163	.003	.0	.0	.00
56	3.297	-.157	.054	.0	.0	.00
57	3.297	-.141	.107	.0	.0	.00
58	3.296	-.114	.162	.0	.0	.00
59	3.295	-.076	.219	.0	.0	.00
60	3.295	-.027	.277	.0	.0	.00
61	3.294	.034	.336	.0	.0	.00
62	3.223	.034	.380	.0	.0	.00
63	3.143	.034	.421	.0	.0	.00
64	3.055	.034	.459	.0	.0	.00
65	2.959	.034	.495	.0	.0	.00
66	2.857	.034	.528	.0	.0	.00
67	2.748	.033	.559	.0	.0	.00
68	2.634	.033	.587	.0	.0	.00
69	2.513	.033	.613	.0	.0	.00
70	2.389	.032	.636	.0	.0	.00
71	2.259	.032	.655	.0	.0	.00