

VYHODNOCENÍ VNITŘNÍCH SIL

PONTEX s.r.o., PRAHA, Bezova 1658

str.

DEFOR plus V93 (c) FEM consulting Brno 15/10 1993
 24. kveten 1994 (08:22)
 RAM CD - 2

list 1

KOMB-KOMBBINACE 1 - 1.1xSTALE

SUPER-KRAJNÍ SLOUPY

Seznam vyhodnocovaných prutu:

1 -16

VNITŘNÍ SILY V PRUTECH (kN, kNm)

	N-x	Q-y	M-z	Kombinace
--	-----	-----	-----	-----------

PRUT 8	max N-x			
x= 5.36	-148.90	13.08	-135.05	1 2

PRUT 1	min N-x			
x= .00	-3029.12	-40.41	101.65	1 2 3 4 5 9

PRUT 15		max M-z		
x= 4.76	-1078.37	40.73	118.43	1 2 3 4 6

PRUT 16		min M-z		
x= 4.76	-792.10	-52.66	-197.64	1 2 4 5 9

KOMB-KOMBBINACE 1 - 1.1xSTALE

SUPER-PRUTY VNITŘNÍ

Seznam vyhodnocovaných prutu:

17 -32

VNITŘNÍ SILY V PRUTECH (kN, kNm)

	N-x	Q-y	M-z	Kombinace
--	-----	-----	-----	-----------

PRUT 32	max N-x			
x= 4.96	-143.72	-7.96	-17.05	1 2 3 5

PRUT 17	min N-x			
x= .00	-1643.68	-29.14	62.01	1 2 3 4 5 9

PRUT 23		max M-z		
x= 4.76	-352.39	58.71	147.66	1 2 4 6

PRUT 32		min M-z		
x= 4.96	-203.93	-58.46	-168.76	1 2 4 5 9

PONTEX s.r.o., PRAHA, Bezova 1658

str.

DEFOR plus V93 (c) FEM consulting Brno 15/10 1993

list 1

24. kveten 1994 (08:22)

RAM CD - 2

KOMB-KOMBINACE 2 - 0.9xSTALE

SUPER-KRAJNI SLOUPY

Seznam vyhodnocovanych prutu:

1 -16

VNITRNI SILY V PRUTECH (kN, kNm)

N-x Q-y M-z Kombinace

PRUT	8	max N-x							
x=	5.36	-121.83	10.70	-110.50	1	2			

PRUT	1	min N-x							
x=	.00	-2690.96	-38.52	98.53	1	2	3	4	5 9

PRUT	8			max M-z					
x=	5.36	-607.83	67.44	121.64	1	2	6		

PRUT	16			min M-z					
x=	4.76	-755.78	-53.37	-199.91	1	2	4	5	9

KOMB-KOMBINACE 2 - 0.9xSTALE

SUPER-PRUTY VNITRNI

Seznam vyhodnocovanych prutu:

17 -32

VNITRNI SILY V PRUTECH (kN, kNm)

N-x Q-y M-z Kombinace

PRUT	32	max N-x							
x=	4.96	-116.77	-6.41	-13.71	1	2	3	5	

PRUT	17	min N-x							
x=	.00	-1413.89	-28.58	60.88	1	2	3	4	5 9

PRUT	23			max M-z					
x=	4.76	-299.26	59.25	148.44	1	2	4	6	

PRUT	32			min M-z					
x=	4.96	-176.99	-56.91	-165.42	1	2	4	5	9

POSOUZENÍ KRAJNÍCH SLoupŮ (800x800)

MAX N_1 , ODP M - PRUT ⑧

→ Vzhledem k nepostačujícímu stupni
vztužení je počítáno jako

PROSTÝ BETON

POSOUZENÍ BETONOVÉHO PRUREZU

Rbd=	11.5
Rbtd=	.9
Eb=	27000
Gbs=	.9
Gbg=	1.879254
Nd=	121.83
Mf=	110.5
Ndl=	121.83
Mfl=	110.5
B=	.8
H=	.8
L=	4.5
Le=	6.75
Lambda=	29.22836
Ef=	.9070016
Ea=	2.083333E-02
Ee=	.9070016
O=	1.133752
Omin=	.300625
Kep=	.1891589
Mdtl=	159.232
Mdt=	159.232
Klt=	2
Ncr=	12243.67
Eta=	1.01005
Ed=	.9161173
Nu1=	165.9386
Nu2=	841.5832

UNOSNOST JE TREBA STANOVIT:
ad 4/

$$N_M = 165,9 \text{ kN} > 121,8 \text{ kN} = N_d$$

PRŮŘEZ VÝCHOVSE.

MIN N_1 ODP 14. PRUT ①

POSOUZENÍ BETONOVÉHO PRŮREZU

Rbd=	11.5
Rbtd=	.9
Eb=	27000
Gbs=	.9
Gbg=	.7477523
Nd=	3029.12
Mf=	101.65
Ndl=	3029.12
Mfl=	101.65
B=	.8
H=	.8
L=	4.5
Le=	6.75
Lambda=	29.22836
Ef=	.0335576
Ea=	2.083333E-02
Ee=	.0335576
O=	.041947
Omin=	.300625
Kep=	.374571
Mdtl=	1313.298
Mdt=	1313.298
Klt=	2
Ncr=	24244.83
Eta=	1.142777
Ed=	3.834886E-02
Nu1=	-544.1378
Nu2=	5144.389

1.14.2014

$$k_1 = h - 2e_d = 0.8 - 2 \cdot 0.0316 = 0.72 \text{ m}$$

$$N_k = 10 \cdot 0.8 \cdot 0.72 \cdot 0.9 \cdot 11.5 = 5961.6 \text{ kN} \quad \text{a} \quad 10 \cdot 0.8 \cdot 0.8 \cdot 0.9 \cdot 0.9 \cdot 11.5 = 5299.2$$

$$N_k = 5299.2 > 3029.1 \text{ kN} = N_d$$

PRŮŘEZ VÝKONOVÉ

MAX M_1 ODP N - PRUŽ (8)

POSOUZENÍ BETONOVÉHO PRUŽU

Rbd=	11.5
Rbtd=	.9
Eb=	27000
Gbs=	.9
Gbg=	3.247266
Nd=	607.83
Mf=	121.64
Ndl=	607.83
Mfl=	121.64
B=	.8
H=	.8
L=	4.5
Le=	6.75
Lambda=	29.22836
Ef=	.2001217
Ea=	2.083333E-02
Ee=	.2001217
O=	.2501522
Omin=	.300625
Kep=	.374571
Mdtl=	364.772
Mdt=	364.772
Klt=	2
Ncr=	24244.83
Eta=	1.025715
Ed=	.2052679
Nu1=	3120.211
Nu2=	2608.378

UNOSNOST JE TREBA STANOVIT:
ad 3/

$$N_A = 1,0 \cdot 0,8 \cdot (0,8 - 2,0 \cdot 205) \cdot 0,9 \cdot 11,5 = 3229,2 \text{ kN} \leq 1,0 \cdot 0,8^2 \cdot 0,9 \cdot 11,5 = 5299,2 \text{ kN}$$

$$N_A = 3229,2 > 607,8 \text{ kN} = N_d$$

Průřez - VÝKON

MIN 14, ODP N - Prv 16

POSOUZENI BETONOVEHO PRUREZU

Rbd=	11.5
Rbtd=	.9
Eb=	27000
Gbs=	.9
Gbg=	2.512341
Nd=	755.78
Mf=	199.91
Ndl=	755.78
Mfl=	199.91
B=	.8
H=	.8
L=	4.5
Le=	6.75
Lambda=	29.22836
Ef=	.2645082
Ea=	2.083333E-02
Ee=	.2645082
O=	.3306352
Omin=	.300625
Kep=	.3554366
Mdtl=	502.222
Mdt=	502.222
Klt=	2
Ncr=	23006.32
Eta=	1.033967
Ed=	.2734927
Nu1=	1238.969
Nu2=	2170.953

UNOSNOST JE TREBA STANOVIT:
ad 4/

$$N_{d1} = N_{d1} = 1238,969 \text{ kN} > 755,78 \text{ kN} = N_d$$

Prv 16 Ukryt

POSOUZENÍ VNITŘNÍCH SLOUPŮ (750x500)

Max N. ODP 11 - 31

POSOUZENÍ BETONOVÉHO PRŮREZU

Rbd=	11.5
Rbtd=	.9
Eb=	27000
Gbs=	.9
Gbg=	-10.60226
Nd=	116.77
Mf=	13.71
Ndl=	116.77
Mfl=	13.71
B=	.5
H=	.75
L=	4.5
Le=	6.75
Lambda=	31.17691
Ef=	.1174103
Ea=	1.583333E-02
Ee=	.1174103
O=	.1565471
Omin=	.295
Kep=	.378481
Mdt1=	57.49875
Mdt=	57.49875
Klt=	2
Ncr=	12616.03
Eta=	1.009342
Ed=	.1185072
Nu1=	61999.77
Nu2=	1992.37

UNOSNOST JE TREBA STANOVIT:
ad 3/

$$N_m = 10 \cdot 0,5 \cdot (0,75 - 2 \cdot 0,119) \cdot 0,9 \cdot 11,5 = 2649,6 \text{ kN} \leq 10 \cdot 0,8 \cdot 0,9 \cdot 0,75 \cdot 0,9 \cdot 11,5 = 3405,0 \text{ kN}$$

$$N_m = 2649,6 \text{ kN} > 16177 \text{ kN} = N_d$$

PRŮŘEZ VYHODNĚ

MIN N_1 ODP M. - PLOT (17)

POSOUZENI BETONOVEHO PRUREZU

Rbd=	11.5
Rbtd=	.9
Eb=	27000
Gbs=	.9
Gbg=	.675793
Nd=	1643.68
Mf=	62.01
Ndl=	1643.68
Mfl=	62.01
B=	.5
H=	.75
L=	4.5
Le=	6.75
Lambda=	31.17691
Ef=	3.772632E-02
Ea=	1.583333E-02
Ee=	3.772632E-02
O=	5.030176E-02
Omin=	.295
Kep=	.378481
Mdtl=	678.39
Mdt=	678.39
Klt=	2
Ncr=	12616.03
Eta=	1.149802
Ed=	.0433778
Nu1=	-314.3632
Nu2=	2881.355

$$N_u = 1.0 \cdot 0.75 \cdot (0.75 - 2 \cdot 0.043) \cdot 0.9 \cdot 11.5 \cdot 3436.2 \text{ kN} \leq 1.0 \cdot 0.8 \cdot 0.3 \cdot 0.75 \cdot 0.9 \cdot 11.5 \cdot 3105.0 \text{ kN}$$

$$N_u = 3105.0 \text{ kN} > 1643.7 \text{ kN} = N_d$$

Průběh výpočtu

MAX N_1 ODP N - PRUT ②

POSOUZENI BETONOVEHO PRUREZU

Rbd=	11.5
Rbtd=	.9
Eb=	27000
Gbs=	.9
Gbg=	2.002679
Nd=	299.26
Mf=	148.44
Ndl=	299.26
Mfl=	148.44
B=	.5
H=	.75
L=	4.5
Le=	6.75
Lambda=	31.17691
Ef=	.4960235
Ea=	1.583333E-02
Ee=	.4960235
O=	.6613647
Omin=	.295
Kep=	.2444774
Mdtl=	260.6625
Mdt=	260.6625
Klt=	2
Ncr=	8149.248
Eta=	1.038122
Ed=	.514933
Nu1=	195.0059
Nu2=	758.1359

UNOSNOST JE TREBA STANOVIT:
ad 4/

$$N_M = N_{M1} = 195,0 \text{ kN} < 299,26 \text{ kN} \cdot U_d$$

Průběh KREMKOVÝDE.

M1N M odp N - PLW (S2)

POSOUZENI BETONOVEHO PRUREZU

Rbd=	11.5
Rbtd=	.9
Eb=	27000
Gbs=	.9
Gbg=	1.883445
Nd=	203.93
Mf=	168.76
Ndl=	203.93
Mfl=	168.76
B=	.5
H=	.75
L=	4.5
Le=	6.75
Lambda=	31.17691
Ef=	.8275388
Ea=	1.583333E-02
Ee=	.8275388
O=	1.103385
Omin=	.295
Kep=	.1914088
Mdtl=	245.2337
Mdt=	245.2337
Klt=	2
Ncr=	6380.294
Eta=	1.033018
Ed=	.8548623
Nu1=	97.98016
Nu2=	495.127

UNOSNOST JE TREBA STANOVIT:
ad 4/

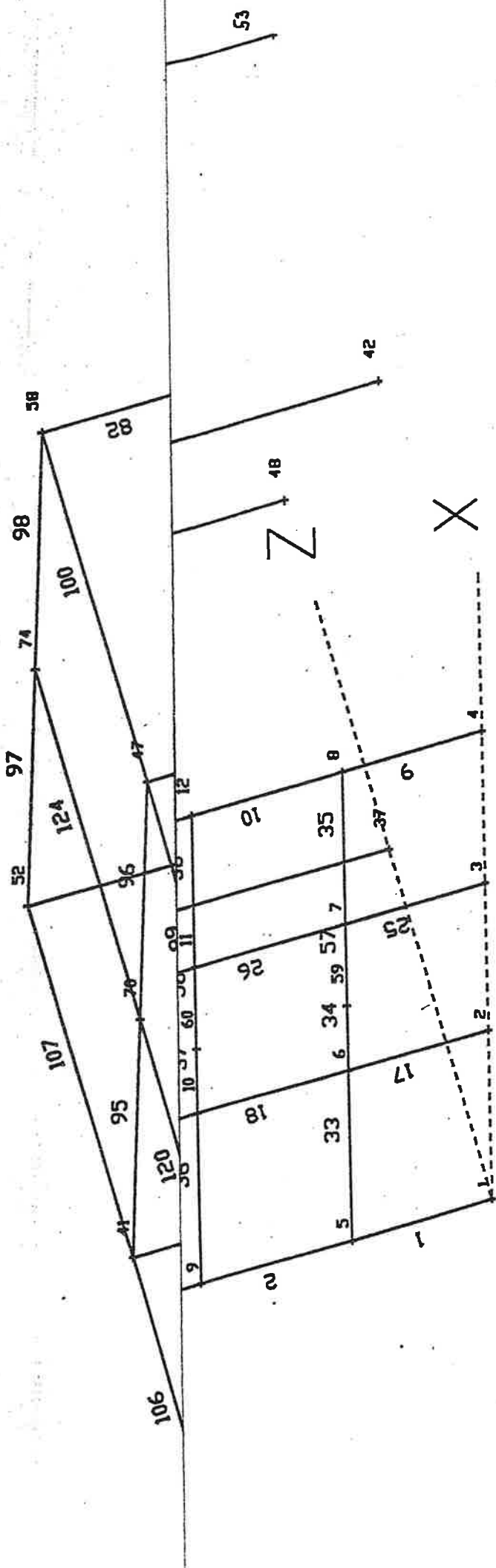
$$N_m = N_{m1} = 97,98 \text{ kN} < 203,93 \text{ kN} = N_d$$

PRŮKAZ NEVYHOVUJE

POSOUZENÍ KRAJNÍHO RÁMU CD

PROSTOROVÝ MODEL

STATIC SCHEMA



RAM CD

ZÁKLADNÍ VSTUPNÍ DATA

RAM CD - KRAJNÍ, PROSTOROVÝ MODEL

TYP KONSTRUKCE 5= prost. ram
 POCET UZLU 74
 POCET PRUTU 124
 POCET PODPOR 20

POPIS SOURADNIC UZLU

CISLO PODP.	SOURADNICE	SOURADNICE	SOURADNICE	
UZLU	UZEL	X [m]	Y [m]	Z [m]
1	1	0.	0.	0.
2	1	4.15	0.	0.
3	1	7.75	0.	0.
4	1	11.5	0.	0.
5	0	0.	3.55	0.
6	0	4.15	3.55	0.
7	0	7.75	3.55	0.
8	0	11.5	3.55	0.
9	0	0.	7.34	0.
10	0	4.15	7.34	0.
11	0	7.75	7.34	0.
12	0	11.5	7.34	0.
13	0	0.	11.125	0.
14	0	4.15	11.125	0.
15	0	7.75	11.125	0.
16	0	11.5	11.125	0.
17	0	0.	16.675	0.
18	0	4.15	16.675	0.
19	0	7.75	16.675	0.
20	0	11.5	16.675	0.
21	0	0.	22.225	0.
22	0	4.15	22.225	0.
23	0	7.75	22.225	0.
24	0	11.5	22.225	0.
25	0	0.	26.925	0.
26	0	4.15	26.925	0.
27	0	7.75	26.925	0.
28	0	11.5	26.925	0.
29	0	0.	31.69	0.
30	0	4.15	31.69	0.
31	0	7.75	31.69	0.
32	0	11.5	31.69	0.
33	0	0.	37.05	0.
34	0	4.15	36.8335	0.
35	0	7.75	36.6457	0.
36	0	11.5	36.45	0.
37	1	0.	0.	9.
38	0	0.	11.125	9.
39	0	0.	22.225	9.
40	0	0.	26.925	9.
41	0	0.	37.05	9.
42	1	11.5	0.	9.
43	0	11.5	11.125	9.
44	0	11.5	22.225	9.
45	0	11.5	26.925	9.
46	0	11.5	31.69	9.

47	0	11.5	36.45	9.
48	1	0.	0.	18.
49	1	0.	11.125	18.
50	1	0.	22.225	18.
51	1	0.	26.925	18.
52	1	0.	37.05	18.
53	1	11.5	0.	18.
54	1	11.5	11.125	18.
55	1	11.5	22.225	18.
56	1	11.5	26.925	18.
57	0	11.5	31.69	18.
58	1	11.5	36.45	18.
59	0	5.75	3.55	0.
60	0	5.75	7.34	0.
61	0	5.75	11.125	0.
62	0	5.75	16.675	0.
63	0	5.75	22.225	0.
64	0	5.75	26.925	0.
65	0	5.75	31.69	0.
66	0	5.75	36.75	0.
67	0	5.75	11.125	9.
68	0	5.75	22.225	9.
69	0	5.75	26.925	9.
70	0	5.75	36.75	9.
71	1	5.75	11.125	18.
72	1	5.75	22.225	18.
73	1	5.75	26.925	18.
74	1	5.75	36.75	18.

POPIS KODOVYCH CISEL PRUTU

CISLO PRUTU	CISLO POCAT. UZLU	CISLO KONC. UZLU
1	1	5
2	5	9
3	9	13
4	13	17
5	17	21
6	21	25
7	25	29
8	29	33
9	4	8
10	8	12
11	12	16
12	16	20
13	20	24
14	24	28
15	28	32
16	32	36
17	2	6
18	6	10
19	10	14
20	14	18
21	18	22
22	22	26
23	26	30
24	30	34
25	3	7
26	7	11
27	11	15

28	15	19
29	19	23
30	23	27
31	27	31
32	31	35
33	5	6
34	6	59
35	7	8
36	9	10
37	10	60
38	11	12
39	13	14
40	14	61
41	15	16
42	17	18
43	18	62
44	19	20
45	21	22
46	22	63
47	23	24
48	25	26
49	26	64
50	27	28
51	29	30
52	30	65
53	31	32
54	33	34
55	34	66
56	35	36
57	59	7
58	60	11
59	61	15
60	62	19
61	63	23
62	64	27
63	65	31
64	66	35
65	37	38
66	38	39
67	39	40
68	42	43
69	43	44
70	48	49
71	49	50
72	50	51
73	53	54
74	54	55
75	44	45
76	55	56
77	40	41
78	51	52
79	45	46
80	46	47
81	56	57
82	57	58
83	38	67
84	67	43
85	49	71
86	71	54
87	39	68

59	63	.188	.188	.188	.0031	.001	.0088
						Beta=	0.
54	56	.720	.720	.720	.0723	.0384	.0486
						Beta=	0.
64	0	.720	.720	.720	.0723	.0384	.0486
						Beta=	0.
65	74	1.8	1.8	1.8	.396	.15	.486
						Beta=	0.
75	76	1.5	1.5	1.5	.2936	.1250	.2813
						Beta=	0.
77	78	1.05	1.05	1.05	.1183	.0429	.1969
						Beta=	0.
79	82	.84	.84	.84	.0864	.0343	.1008
						Beta=	0.
83	86	2.024	2.024	2.024	.4111	.1428	.8163
						Beta=	0.
91	94	2.024	2.024	2.024	.4111	.1428	.8163
						Beta=	0.
87	90	1.38	1.38	1.38	.2336	.0973	.2588
						Beta=	0.
95	98	.87	.87	.87	.0732	.0244	.1631
						Beta=	0.
99	100	1.08	1.08	1.08	.1487	.1296	.0729
						Beta=	0.
101	105	.188	.188	.188	.0031	.0010	.0088
						Beta=	0.
108	110	.188	.188	.188	.0031	.0010	.0088
						Beta=	0.
117	120	.188	.188	.188	.0031	.0010	.0088
						Beta=	0.
111	0	.662	.662	.662	.0373	.0117	.1145
						Beta=	0.
112	0	2.2	2.2	2.2	.5856	.2218	.7333
						Beta=	0.
113	0	1.067	1.067	1.067	.0969	.0299	.3011
						Beta=	0.
106	107	.635	.635	.635	.0514	.0448	.0252
						Beta=	0.
114	0	1.037	1.037	1.037	.1229	.0448	.1792
						Beta=	0.
115	0	.529	.529	.529	.0274	.0093	.0583
						Beta=	0.
116	0	1.201	1.201	1.201	.1111	.0337	.4287
						Beta=	0.
121	0	1.428	1.428	1.428	.1790	.0567	.51
						Beta=	0.
122	0	.529	.529	.529	.0274	.0093	.0583
						Beta=	0.
123	0	1.656	1.656	1.656	.3723	.1825	.2862
						Beta=	0.
124	0	.499	.499	.499	.0319	.014	.0307
						Beta=	0.

POPIS UVOLNENI PODPOROVYCH UZLU
CISLO UVOLNENI VE SMERU

UZLU	X	Y	Z	MX	MY	MZ
49	1	1	0	0	0	1
50	1	1	0	0	0	1
51	1	1	0	0	0	1
52	1	1	0	0	0	1
54	1	1	0	0	0	1
55	1	1	0	0	0	1
56	1	1	0	1	0	1
58	1	1	0	0	0	1
71	1	1	0	0	0	1
72	1	1	0	0	0	1
73	1	1	0	0	0	1
74	1	1	0	0	0	1

ŽATÍŽEVÍ

➤ ŽATÍŽEVÍ (KROMĚ BH) BYLA PŘEVZATA Z VÍPOČTU K1

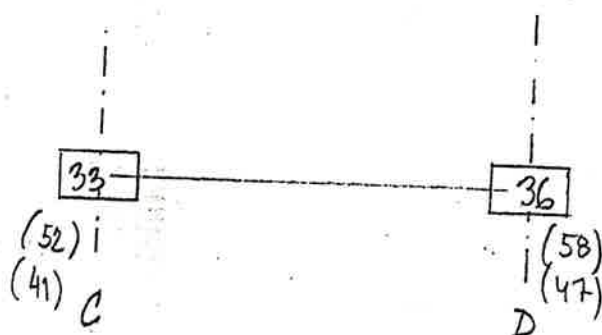
➤ ŽATÍŽEVÍ OD BAGHOUSE BYLO PRACOVÁNO LOUPEŽ DLE

PODELAGU OD ENERGOPROJEKTU KATOWICE

- POPIS ŽATÍŽEVÍ JE NA NÁLEŽNOSTI SPRÁVČŮ

ŽATÍŽENÍ OD BAGHOUSE
(DLE PODKLADU OD EP KATOWICE)

BEALCE	ŽATÍŽENÍ VETŘEN	UŽEL 0.33	36	41	47
PONTX → R_x EP → R_x KATOWICE (PROJEKT, UŽEL 0.33 BAW)	Y+	-174,6	0	-23,43	0
	Y-	-32,5	0	-163,5	0
	X+	-100,6	0	-95,4	0
	X-	94,9	0	101,1	0
R_z R_y (PROJEKT)	Y+	-254,9	-192,0	47,1	113,8
	Y-	-64,1	-123,7	237,9	182,1
	X+	-155,8	-155,6	146,2	150,2
	X-	-148,1	-143,8	136,8	137,3
R_y R_z (GUSCH)	Y+	590,6	637,4	805,7	861,1
	Y-	797,2	852,6	599,0	645,9
	X+	695,6	746,8	700,6	751,8
	X-	746,3	695,2	752,2	701,1



ZATÍŽENÍ PRO PROGRAM DETOR

- 218 -

RAM CD - KRAJNÍ, PROSTOROVÝ MODEL

POPIS ZATEZOVACÍCH STAVŮ - ZS 1

NAZEV :

STALE

ZATÍŽENÍ PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU V SERII	TYPY	ZATIZENI	POCATECNI INTENZITA	KONCOVA INTENZITA	POLOHA ZACATKU	POLOHA KONCE				
PRVNI POSL.	T1	T2	SM	T3	T4	T5				
77	78	0	0	2	0	0	1	-244.	9.2	
79	0	0	0	2	0	0	1	-250.	.875	
81	0	0	0	2	0	0	1	-250.	.875	
77	78	0	1	3	0	0	1	244.	9.2	
79	0	0	1	3	0	0	1	-250.	.875	
81	0	0	1	3	0	0	1	-250.	.875	
1	16	0	0	1	1	0	0	-16.		
17	32	0	0	1	1	0	0	-9.4		
33	38	0	0	2	1	0	1	-9.		
57	58	0	0	2	1	0	1	-9.		
39	53	0	0	2	1	0	1	-4.7		
59	63	0	0	2	1	0	1	-4.7		
54	56	0	0	2	1	0	1	-18.		
64	0	0	0	2	1	0	1	-18.		
51	0	0	0	2	1	1	1	-25.7	.4	2.075
48	0	0	0	2	1	1	1	-25.7	.4	2.075
45	0	0	0	2	1	1	1	-25.4	.4	2.075
42	0	0	0	2	1	1	1	-30.	.4	2.075
39	0	0	0	2	1	1	1	-30.	.4	2.075
36	0	0	0	2	1	1	1	-20.5	.4	2.075
33	0	0	0	2	1	1	1	-20.5	.4	2.075
51	0	0	0	2	1	1	1	-9.	2.075	4.15
48	0	0	0	2	1	1	1	-9.	2.075	4.15
45	0	0	0	2	1	1	1	-9.	2.075	4.15
42	0	0	0	2	1	1	1	-1.	2.075	4.15
39	0	0	0	2	1	1	1	-1.	2.075	4.15
36	0	0	0	2	1	1	1	-7.	2.075	4.15
33	0	0	0	2	1	1	1	-7.	2.075	4.15
52	0	0	0	2	1	0	1	-9.		
49	0	0	0	2	1	0	1	-9.		
46	0	0	0	2	1	0	1	-9.		
43	0	0	0	2	1	0	1	-1.		
40	0	0	0	2	1	0	1	-1.		
37	0	0	0	2	1	0	1	-7.		
34	0	0	0	2	1	0	1	-7.		
63	0	0	0	2	1	1	1	-9.	0.	.2
62	0	0	0	2	1	1	1	-9.	0.	.2
61	0	0	0	2	1	1	1	-9.	0.	.2
60	0	0	0	2	1	1	1	-1.	0.	.2
59	0	0	0	2	1	1	1	-1.	0.	.2
58	0	0	0	2	1	1	1	-7.	0.	.2
57	0	0	0	2	1	1	1	-7.	0.	.2
63	0	0	0	2	1	1	1	-25.7	0.2	1.625
62	0	0	0	2	1	1	1	-25.7	0.2	1.625
61	0	0	0	2	1	1	1	-25.4	0.2	1.625
60	0	0	0	2	1	1	1	-30.	0.2	1.625
59	0	0	0	2	1	1	1	-30.	0.2	1.625

58	0	0	0	2	1	1	1	-20.5	0.2	1.625
57	0	0	0	2	1	1	1	-20.5	0.2	1.625
53	0	0	0	2	1	0	1	-25.7		
50	0	0	0	2	1	0	1	-25.7		
47	0	0	0	2	1	0	1	-25.4		
44	0	0	0	2	1	0	1	-30.		
41	0	0	0	2	1	0	1	-30.		
38	0	0	0	2	1	0	1	-20.5		
35	0	0	0	2	1	0	1	-20.5		
5	0	0	0	2	0	0	1	-36.	1.85	
4	0	0	0	2	0	0	1	-36.	3.7	
22	0	0	0	2	0	0	1	-55.1	2.35	
21	0	0	0	2	0	0	1	-55.1	3.7	
20	0	0	0	2	0	0	1	-55.1	1.85	
19	0	0	0	2	0	0	1	-55.1	1.89	
18	0	0	0	2	0	0	1	-55.1	1.89	
30	0	0	0	2	0	0	1	-13.7	2.35	
29	0	0	0	2	0	0	1	-13.7	3.7	
28	0	0	0	2	0	0	1	-13.7	1.85	
27	0	0	0	2	0	0	1	-13.7	1.89	
26	0	0	0	2	0	0	1	-13.7	1.89	
8	0	0	0	2	0	0	1	-203.	4.26	
8	0	0	1	3	0	0	1	203.	4.26	
54	0	0	0	2	0	0	1	-64.	3.225	
55	0	0	0	2	0	0	1	-80.	1.25	
55	0	0	0	2	0	0	1	-81.	2.925	
48	49	0	0	2	1	0	1	-11.3		
65	74	0	0	1	1	0	0	-45.		
75	76	0	0	1	1	0	0	-37.5		
77	78	0	0	1	1	0	0	-26.25		
79	82	0	0	1	1	0	0	-21.0		
83	86	0	0	2	1	0	1	-44.0		
91	94	0	0	2	1	0	1	-44.0		
87	90	0	0	2	1	0	1	-30.0		
95	98	0	0	2	1	0	1	-18.9		
99	100	0	0	2	1	0	1	-23.5		
101	105	0	0	2	1	0	1	-4.1		
108	110	0	0	2	1	0	1	-4.1		
111	0	0	0	2	1	0	1	-14.40		
112	0	0	0	2	1	0	1	-48.		
113	0	0	0	2	1	0	1	-23.20		
106	107	0	0	2	1	0	1	-13.80		
114	0	0	0	2	1	0	1	-22.54		
115	0	0	0	2	1	0	1	-11.500		
116	0	0	0	2	1	0	1	-36.100		
120	0	0	0	2	1	0	1	-37.1		
124	0	0	0	2	1	0	1	-37.1		
106	107	0	0	2	1	0	1	-19.8		
99	100	0	0	2	1	0	1	-15.		
119	0	0	0	2	1	0	1	-80.5		
123	0	0	0	2	1	0	1	-80.5		
108	0	0	0	2	1	0	1	-48.8		
114	0	0	0	2	1	0	1	-48.8		
103	0	0	0	2	1	0	1	-31.5		
111	0	0	0	2	1	0	1	-31.5		
118	0	0	0	2	1	0	1	-35.5		
122	0	0	0	2	1	0	1	-35.5		
109	0	0	0	2	1	0	1	-23.		
115	0	0	0	2	1	0	1	-23.		
104	0	0	0	2	1	0	1	-23.		

112	0	0	0	2	1	0	1	-23.	
117	0	0	0	2	1	0	1	-67.5	
121	0	0	0	2	1	0	1	-67.5	
110	0	0	0	2	1	0	1	-23.	
116	0	0	0	2	1	0	1	-23.	
105	0	0	0	2	1	0	1	-36.	
113	0	0	0	2	1	0	1	-36.	
105	0	0	1	3	1	0	1	-45.	
113	0	0	1	3	1	0	1	-45.	
66	0	0	0	2	0	0	1	-73.4	7.4
69	0	0	0	2	0	0	1	-73.4	7.4
71	0	0	0	2	0	0	1	-146.7	7.4
74	0	0	0	2	0	0	1	-146.7	7.4
66	0	0	1	3	0	0	1	-102.7	7.4
69	0	0	1	3	0	0	1	102.7	7.4
71	0	0	1	3	0	0	1	-205.4	7.4
74	0	0	1	3	0	0	1	205.4	7.4
109	0	0	0	2	1	0	1	-19.4	
115	0	0	0	2	1	0	1	-19.4	
110	0	0	0	2	1	0	1	-59.4	
116	0	0	0	2	1	0	1	-59.4	
104	0	0	0	2	1	0	1	-4.3	
112	0	0	0	2	1	0	1	-4.3	
101	103	0	0	2	1	0	1	-40.5	
111	0	0	0	2	1	0	1	-40.5	
65	0	0	0	2	0	0	1	-161.7	7.7
68	0	0	0	2	0	0	1	-161.7	7.7

ZATIZENI UZLU [kN,kNm], [mm, mm/m]
 CISLO UZLU TYPY ZATIZ. VELIKOST
 V SERII ZATIZENI
 PRVNI POSL. T1 T2 SMER

58	0	0	0	2	-106.
57	0	0	0	2	-18.
56	0	0	0	2	-65.
55	0	0	0	2	-216.
54	0	0	0	2	-104.4
52	0	0	0	2	-62.1
51	0	0	0	2	-101.4
50	0	0	0	2	-51.8
49	0	0	0	2	-162.5
74	0	0	0	2	-166.95
52	0	0	0	2	-89.1
58	0	0	0	2	-67.5
73	0	0	0	2	-362.2
51	0	0	0	2	-219.6
56	0	0	0	2	-141.9
72	0	0	0	2	-159.8
50	0	0	0	2	-103.5
55	0	0	0	2	-103.5
71	0	0	0	2	-303.8
49	0	0	0	2	-103.5
54	0	0	0	2	-162.
50	0	0	0	2	-87.5
49	0	0	0	2	-267.3
55	0	0	0	2	-19.4
56	57	0	0	2	-182.3
5	0	0	0	2	-18.
9	0	0	0	2	-36.
13	0	0	0	2	-36.

21	0	0	0	2	-36.
25	0	0	0	2	-18.
18	0	0	0	2	-55.1
19	0	0	0	2	-13.7
33	0	0	0	2	-52.
36	0	0	0	2	-146.
32	0	0	0	2	-32.4
28	0	0	0	2	-32.4

POPIS ZATEZOVACICH STAVU - ZS 2

NAZEV :

PRITIZENI OD RADY E

ZATIZENI PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU	TYPY	ZATIZENI	POCATECNI	KONCOVA	POLOHA	POLOHA
V SERII			INTENZITA	INTENZITA	ZACATKU	KONCE
PRVNI POSL.	T1	T2	SM	T3	T4	T5
68	0	0	0	2	0	0
						1
						-37.5
						3.55
68	0	0	0	2	0	0
						1
						-37.5
						7.34
69	0	0	0	2	0	0
						1
						-37.5
						5.55

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU TYPY ZATIZ. VELIKOST

V SERII				ZATIZENI
PRVNI POSL.	T1	T2	SMER	
8	0	0	0	2
				-37.5
12	0	0	0	2
				-37.5
16	0	0	0	2
				-37.5
20	0	0	0	2
				-37.5
28	0	0	0	2
				-37.5
43	0	0	0	2
				-37.5
45	0	0	0	2
				-37.5

POPIS ZATEZOVACICH STAVU - ZS 3

NAZEV :

UZITNE

ZATIZENI PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU	TYPY	ZATIZENI	POCATECNI	KONCOVA	POLOHA	POLOHA
V SERII			INTENZITA	INTENZITA	ZACATKU	KONCE
PRVNI POSL.	T1	T2	SM	T3	T4	T5
33	34	0	0	2	1	0
						0
						-7.5
36	37	0	0	2	1	0
						0
						-7.5
39	40	0	0	2	1	0
						0
						-7.5
42	43	0	0	2	1	0
						0
						-7.5
45	46	0	0	2	1	0
						0
						-7.5
48	49	0	0	2	1	0
						0
						-7.5
48	49	0	0	2	1	0
						0
						-12.
83	94	0	0	2	1	0
						0
						-72.0

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU TYPY ZATIZ. VELIKOST

V SERII				ZATIZENI
PRVNI POSL.	T1	T2	SMER	
27	28	0	0	2
				-21.

POPIS ZATEZOVACICH STAVU - ZS 4

NAZEV :

SNIH

ZATIZENI PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU V SERII		TYPY ZATIZENI					POCATECNI INTENZITA	KONCOVA INTENZITA	POLOHA ZACATKU	POLOHA KONCE
PRVNI	POS.	T1	T2	SM	T3	T4	T5			
8		0	0	0	2	0	0	1	-40.	4.26
8		0	0	1	3	0	0	1	40.	4.26
77		0	0	0	2	0	0	1	-78.	4.26
77		0	0	1	3	0	0	1	78.	4.26
78		0	0	0	2	0	0	1	-78.	4.26
78		0	0	1	3	0	0	1	78.	4.26

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU TYPY ZATIZ. VELIKOST
V SERII ZATIZENI

PRVNI POSL.	T1	T2	SMER		
28	0	0	0	2	-40.
28	0	0	1	3	-40.
45	0	0	0	2	-78.
45	0	0	1	3	-78.
56	0	0	0	2	-78.
56	0	0	1	3	-78.

POPIS ZATEZOVACICH STAVU - ZS 5

NAZEV :

VITR

ZATIZENI PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU TYPY ZATIZENI								POCATECNI	KONCOVA	POLOHA	POLOHA
V SERII								INTENZITA	INTENZITA	ZACATKU	KONCE
PRVNI	POSL.	T1	T2	SM	T3	T4	T5				
15	16	0	0	1	1	0	1	-1.65			
79	82	0	0	1	1	0	1	-1.65			

POPIS ZATEZOVACICH STAVU - ZS 6

NAZEV :

Y+

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU TYPY ZATIZ. VELIKOST
V SERII ZATIZENI

PRVNI POSL.	T1	T2	SMER		
33	0	0	0	1	172.6
33	0	0	0	2	-590.6
33	0	0	0	3	254.9
36	0	0	0	2	-637.4
36	0	0	0	3	192.
52	0	0	0	1	172.6
52	0	0	0	2	-590.6
52	0	0	0	3	254.9
58	0	0	0	2	-637.4
58	0	0	0	3	192.
41	0	0	0	1	23.43

41	0	0	0	2	-805.7
47	0	0	0	3	-47.1
47	0	0	0	2	-861.1
47	0	0	0	3	-113.8

POPIS ZATEZOVACICH STAVU - ZS 7

NAZEV :

Y-

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU TYPY ZATIZ. VELIKOST

V SERII

ZATIZENI

PRVNI POSL. T1 T2 SMER

33	0	0	0	1	32.5
33	0	0	0	2	-797.2
33	0	0	0	3	64.1
36	0	0	0	2	-852.6
36	0	0	0	3	123.7
52	0	0	0	1	32.5
52	0	0	0	2	-797.2
52	0	0	0	3	64.1
58	0	0	0	2	-852.6
58	0	0	0	3	123.7
41	0	0	0	1	163.5
41	0	0	0	2	-599.0
41	0	0	0	3	-237.9
47	0	0	0	2	-645.9
47	0	0	0	3	-182.1

POPIS ZATEZOVACICH STAVU - ZS 8

NAZEV :

X+

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU TYPY ZATIZ. VELIKOST

V SERII

ZATIZENI

PRVNI POSL. T1 T2 SMER

33	0	0	0	1	100.6
33	0	0	0	2	-695.6
33	0	0	0	3	155.8
36	0	0	0	2	-746.8
36	0	0	0	3	155.6
52	0	0	0	1	100.6
52	0	0	0	2	-695.6
52	0	0	0	3	155.8
58	0	0	0	2	-746.8
58	0	0	0	3	155.6
41	0	0	0	1	95.4
41	0	0	0	2	-700.6
41	0	0	0	3	-146.2
47	0	0	0	2	-751.8
47	0	0	0	3	-150.2

POPIS ZATEZOVACICH STAVU - ZS 9

NAZEV :

X-

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU TYPY ZATIZ. VELIKOST

V SERII

ZATIZENI

PRVNI POSL. T1 T2 SMER

33	0	0	0	1	-94.9
33	0	0	0	2	-746.3
33	0	0	0	3	148.1
36	0	0	0	2	-695.2
36	0	0	0	3	143.8
52	0	0	0	1	-94.9
52	0	0	0	2	-746.3
52	0	0	0	3	148.1
58	0	0	0	2	-695.2
58	0	0	0	3	143.8
41	0	0	0	1	-101.1
41	0	0	0	2	-752.2
41	0	0	0	3	-136.8
47	0	0	0	2	-701.1
47	0	0	0	3	-137.3

VÝPOČET EXTREMNÍCH ÚČINKŮ

RAM CD - KRAJNÍ, PROSTOROVÝ MODEL

SUPERPOSICE ZATEZOVACÍCH STAVŮ - POPIS KOMBINACÍ

NAZEV :

KOMB-KOMBINACE 1 - 1.1xSTALE

Císlo kombinace: 1

POPIS SUPERPOSICI ZATEZOVACÍCH STAVŮ

ZAT. STAVY	1	2	3	4	5	6	7	8	9
SKUPINY :	0	0	1	2	3	4	4	4	4
KOEFICIENTY:	1.1	1.1	1.	1.4	1.2	1.	1.	1.	1.

NAZEV :

KOMB-KOMBINACE 2 - 0.9xSTALE

Císlo kombinace: 2

POPIS SUPERPOSICI ZATEZOVACÍCH STAVŮ

ZAT. STAVY	1	2	3	4	5	6	7	8	9
SKUPINY :	0	0	1	2	3	4	4	4	4
KOEFICIENTY:	.9	.9	1.	1.4	1.2	1.	1.	1.	1.

- 1 - STALE
- 2 - PRITÍŽENÍ OD RADY E
- 3 - UŽITNÉ
- 4 - SNÍH
- 5 - VÍTR
- 6 - Y+
- 7 - Y-
- 8 - X+
- 9 - X-

VYHODNOCENÍ VNITŘNÍCH SIL

226-

RAM CD - 2

KOMB-KOMBINACE 1 - 1.1xSTALE

SUPER-KRAJNÍ SLOUPY

Seznam vyhodnocovaných prutů:

1 -16

VNITŘNÍ SILY V PRUTECH (kN, kNm)

		N-x	Q-y	Q-z	M-x	M-y	M-z	Kombinace
PRUT	8	max N-x						
x=	5.36	-283.25	10.70	31.13	-1.80	165.11	-143.11	1 2 5
PRUT	1	min N-x						
x=	.00	-3638.58	-26.73	32.24	-7.72	-119.46	63.89	1 2 3 4 5 9
PRUT	3					max M-y		
x=	3.79	-2434.31	-6.52	39.70	7.51	269.00	-15.09	1 2 3 5
PRUT	4					min M-y		
x=	.00	-1908.81	-4.05	42.78	4.71	-286.91	10.46	1 2 3
PRUT	12						max M-z	
x=	.00	-2431.59	-22.61	19.78	1.34	-132.74	111.98	1 2 4 5 9
PRUT	8						min M-z	
x=	5.36	-295.48	15.17	32.24	-2.39	172.63	-169.16	1 2 3 4

Seznam vyhodnocovaných prutů:

17 -32

VNITŘNÍ SILY V PRUTECH (kN, kNm)

		N-x	Q-y	Q-z	M-x	M-y	M-z	Kombinace
PRUT	24	max N-x						
x=	5.14	-266.27	-10.32	15.94	-1.67	93.67	-32.15	1 2 3 4
PRUT	17	min N-x						
x=	.00	-2124.08	7.71	8.62	-3.37	-31.41	-13.91	1 2 3 4 7
PRUT	24					max M-y		
x=	5.14	-311.44	16.31	16.09	-.09	95.08	43.83	1 2 3 4 6
PRUT	23					min M-y		
x=	.00	-491.39	-17.86	14.54	.71	-57.98	53.42	1 2 3 4 5 9
PRUT	30						max M-z	
x=	4.70	-876.89	38.87	9.32	-.16	27.94	96.37	1 2 3 4 6
PRUT	30						min M-z	
x=	.00	-940.56	38.87	9.32	-.16	-15.86	-86.32	1 2 3 4 6

RAM CD - 2

KOMB-KOMBINACE 2 - 0.9xSTALE

SUPER-KRAJNI SLOUPY

Seznam vyhodnocovanych prutu:

1 -16

VNITRNI SILY V PRUTECH (kN, kNm)

		N-x	Q-y	Q-z	M-x	M-y	M-z	Kombinace				
PRUT	8	max N-x										
x=	5.36	-231.68	8.97	25.46	-1.40	135.05	-116.85	1	2	5		
PRUT	1	min N-x										
x=	.00	-3153.79	-25.53	26.36	-6.08	-97.69	62.73	1	2	3	4	5 9
PRUT	3					max M-y						
x=	3.79	-2015.16	-6.41	32.51	6.22	220.30	-13.62	1	2	3	5	
PRUT	4					min M-y						
x=	.00	-1578.85	-3.75	35.07	3.86	-235.10	9.67	1	2	3		
PRUT	12						max M-z					
x=	.00	-2074.71	-21.98	16.15	1.77	-108.40	103.38	1	2	4	5	9
PRUT	16						min M-z					
x=	4.76	-874.85	-45.87	50.21	6.38	124.88	-154.45	1	2	4	9	

Seznam vyhodnocovanych prutu:

17 -32

VNITRNI SILY V PRUTECH (kN, kNm)

		N-x	Q-y	Q-z	M-x	M-y	M-z	Kombinace				
PRUT	24	max N-x										
x=	5.14	-214.96	-8.64	13.12	-1.37	77.20	-26.80	1	2	3	4	
PRUT	17	min N-x										
x=	.00	-1795.73	7.71	7.05	-2.74	-25.71	-13.84	1	2	3	4	7
PRUT	24					max M-y						
x=	5.14	-260.13	17.99	13.28	.20	78.61	49.17	1	2	3	4	6
PRUT	23					min M-y						
x=	.00	-415.60	-16.18	11.99	.55	-47.80	47.27	1	2	3	4	5 9
PRUT	30						max M-z					
x=	4.70	-743.60	35.70	7.66	.03	22.51	87.96	1	2	3	4	6
PRUT	30						min M-z					
x=	.00	-795.69	35.70	7.66	.03	-13.50	-79.84	1	2	3	4	6

POSOUZENÍ KRAJINĚ PLOUČI (300 x 300)

MAX N_1 OD 11 - PRUT ⑧

POSOUZENÍ BETONOVÉHO PRUREZU

Rbd=	11.5
Rbtd=	.9
Eb=	27000
Gbs=	.9
Gbg=	2.019523
Nd=	231.68
Mf=	116.85
Ndl=	231.68
Mfl=	116.85
B=	.8
H=	.8
L=	4.5
Le=	6.75
Lambda=	29.22836
Ef=	.5043595
Ea=	2.083333E-02
Ee=	.5043595
O=	.6304494
Omin=	.300625
Kep=	.2505922
Mdtl=	209.522
Mdt=	209.522
Klt=	2
Ncr=	16220.06
Eta=	1.01449
Ed=	.5116679
Nu1=	368.9576
Nu2=	1369.3

UNOSNOST JE TREBA STANOVIT:
ad 4/

$$N_u = 368,96 \text{ kN} > 231,68 \text{ kN} = N_d$$

PROJEKT VYKONAL

M10 N, OPA M - PRUT (1)

POSOUZENI BETONOVEHO PRUREZU

Rbd=	11.5
Rbtd=	.9
Eb=	27000
Gbs=	.9
Gbg=	.8862503
Nd=	3638.58
Mf=	63.89
Ndl=	3638.58
Mfl=	63.89
B=	.8
H=	.8
L=	4.5
Le=	6.75
Lambda=	29.22836
Ef=	1.755905E-02
Ea=	2.083333E-02
Ee=	2.083333E-02
O=	2.194881E-02
Omin=	.300625
Kep=	.374571
Mdtl=	1519.322
Mdt=	1519.322
Klt=	2
Ncr=	24244.83
Eta=	1.176577
Ed=	2.451201E-02
Nu1=	-562.9193
Nu2=	5595.35

UNOSNOST JE TREBA STANOVIT:
ad 4/

NALAZ VÝSTŘEŽNOST - PRŮŘEZ VYHOVUJE S REZERVOU

MAX M , ODP N - PROT $\left(\frac{1}{2}\right)$

POSOUZENI BETONOVEHO PRUREZU

Rbd=	11.5
Rbtd=	.9
Eb=	27000
Gbs=	.9
Gbg=	.6042774
Nd=	2431.59
Mf=	111.98
Ndl=	2431.59
Mfl=	111.98
B=	.8
H=	.8
L=	4.5
Le=	6.75
Lambda=	29.22836
Ef=	4.605217E-02
Ea=	2.083333E-02
Ee=	4.605217E-02
O=	5.756522E-02
Omin=	.300625
Kep=	.374571
Mdtl=	1084.616
Mdt=	1084.616
Klt=	2
Ncr=	24244.83
Eta=	1.111473
Ed=	5.118576E-02
Nu1=	-508.4465
Nu2=	4786.497

UNOSNOST JE TREBA STANOVIT:
ad 4/

HALA VÍŠKEDNOST - PŘÍP. VÝPOČET S REZERVOU

11111 H, 000 H - PLOT (8)

POSOUZENI BETONOVEHO PRUREZU

Rbd=	11.5
Rbtd=	.9
Eb=	27000
Gbs=	.9
Gbg=	1.977708
Nd=	295.48
Mf=	169.16
Ndl=	295.48
Mfl=	169.16
B=	.8
H=	.8
L=	4.5
Le=	6.75
Lambda=	29.22836
Ef=	.5724922
Ea=	2.083333E-02
Ee=	.5724922
O=	.7156152
Omin=	.300625
Kep=	.2348675
Mdtl=	287.352
Mdt=	287.352
Klt=	2
Ncr=	15202.25
Eta=	1.019822
Ed=	.5838401
Nu1=	303.4343
Nu2=	1231.501

UNOSNOST JE TREBA STANOVIT:
ad 4/

$$N_H = 303,43 \text{ kN} > 295,48 \text{ kN} = N_d$$

Príloha VYHODNOTENIE

POSOUZENÍ VYTRŽNÝCH SLoupů (750 x 500)

MAX. N, ODP. M - 7007 (24)

POSOUZENÍ BETONOVÉHO PRUREZU

Rbd= 11.5
 Rbtd= .9
 Eb= 27000
 Gbs= .9
 Gbg= -286.1358

Nd= 214.96
 Mf= 26.8
 Ndl= 214.96
 Mfl= 26.8

B= .5
 H= .75
 L= 4.5
 Le= 6.75

Lambda= 31.17691
 Ef= .1246744
 Ea= 1.583333E-02
 Ee= .1246744

O= .1662325
 Omin= .295
 Kep= .378481

Mdtl= 107.41
 Mdt= 107.41
 Klt= 2

Ncr= 12616.03
 Eta= 1.017334
 Ed= .1268355

Nu1= -5919101
 Nu2= 1926.481

UNOSNOST, JE TREBA STANOVIT:
 ad 4/

MAX. VYTRŽNOST - PŘÍČNÝ ÚČINNOST S PŘÍČNÝ

HL, N₁ ODR M - 7007 (17)

POSOUZENI BETONOVEHO PRUREZU

Rbd=	11.5
Rbtd=	.9
Eb=	27000
Gbs=	.9
Gbg=	.9585354
Nd=	2124.08
Mf=	13.91
Ndl=	2124.08
Mfl=	13.91
B=	.5
H=	.75
L=	4.5
Le=	6.75
Lambda=	31.17691
Ef=	6.548717E-03
Ea=	1.583333E-02
Ee=	1.583333E-02
O=	8.731623E-03
Omin=	.295
Kep=	.378481
Mdtl=	810.44
Mdt=	810.44
Klt=	2
Ncr=	12616.03
Eta=	1.202448
Ed=	1.903877E-02
Nu1=	-343.4689
Nu2=	3368.234

UNOSNOST JE TREBA STANOVIT:
ad 4/

HALA VYSTUPEK - PŘÍKŮZ VYKONÁVÁ S BEZPEČNOSTÍ

K4

MAX M₁ odp N - PRUT (30)

POSOUZENI BETONOVEHO PRUREZU

Rbd= 11.5
Rbtd= .9
Eb= 27000
Gbs= .9
Gbg= -4.45851

Nd= 876.89
Mf= 96.37
Ndl= 876.89
Mfl= 96.37

B= .5
H= .75
L= 4.5
Le= 6.75

Lambda= 31.17691
Ef= .1098998
Ea= 1.583333E-02
Ee= .1098998

O= .146533
Omin= .295
Kep= .378481

Mdtl= 425.2038
Mdt= 425.2038
Klt= 2

Ncr= 12616.03
Eta= 1.074698
Ed= .118109

Nu1= 24566.13
Nu2= 1995.632

UNOSNOST JE TREBA STANOVIT:
ad 3/

$$N_A = 10 \cdot 95 \cdot (0,75 - 2 \cdot 0,110) \cdot 0,9 \cdot 11,5 = 2660,0 \text{ kN} > 846,9 \text{ kN} = N_d$$

PRŮČEK VYHOVUJE

VYZTUŽENÍ V ŘADĚ 2

M 1 : 100

KOTVENÍ K BET.
KONSTRUKCI OPÁSÁNÍ

