

Osnovni podaci o modelu, Ulazni podaci - Konstrukcija

Datoteka:
Datum proračuna:

B_Osmine_ZAPAD.twp
19.4.2016

Način proračuna:

3D model

☒ Teorija I-og reda

☒ Modalna analiza

☐ Stabilnost

☐ Teorija II-og reda

☒ Seizmički proračun

☐ Faze građenja

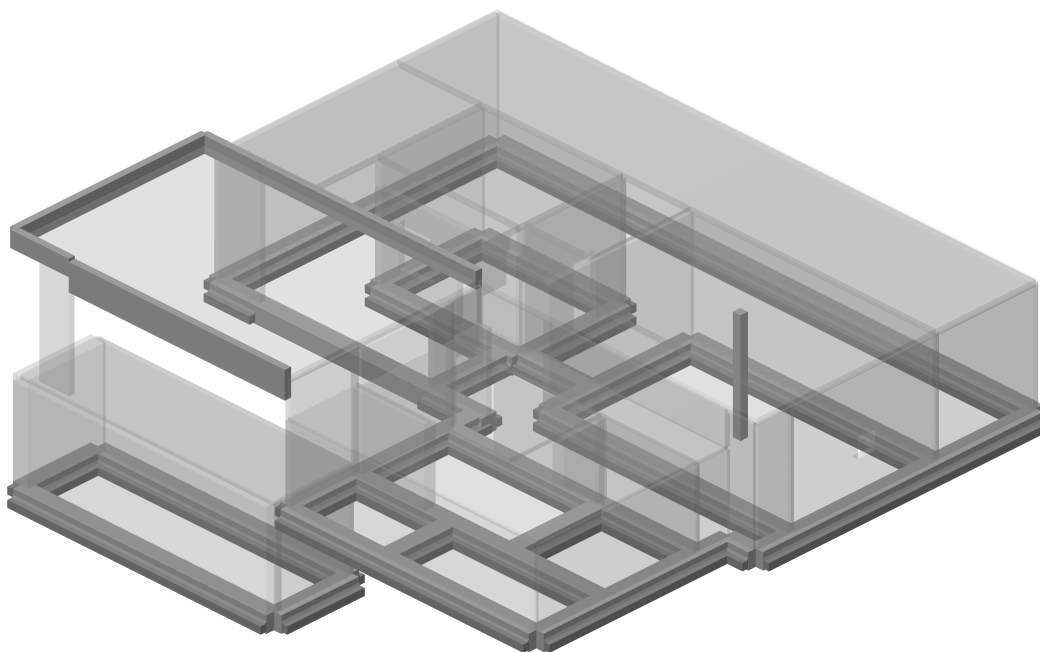
☐ Nelinearni proračun

Veličina modela

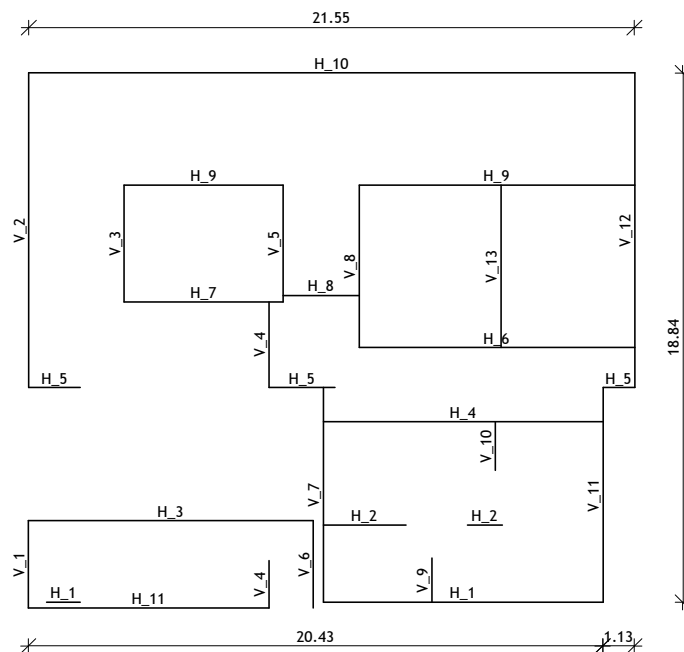
Broj čvorova: 7651
Broj pločastih elemenata: 6675
Broj grednih elemenata: 512
Broj graničnih elemenata: 2754
Broj osnovnih slučajeva opterećenja: 4
Broj kombinacija opterećenja: 12

Jedinice mjera

Dužina: m [cm,mm]
Sila: kN
Temperatura: Celsius



Izometrija



Dispozicija okvira

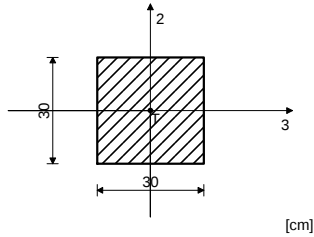
CANOSA INŽENJERING d.o.o.	Investitor: HOTEL OSMINE d.o.o.	Strana: 2/25
Građevina: HOTEL OSMINE - REKONSTR., DOGR. I NADOGRADNJA - zgrada B-zapad		Dbk., 24.4.2016.

Tabela materijala							
No	Naziv materijala	E[kN/m ²]	μ	γ [kN/m ³]	α [1/C]	Em[kN/m ²]	μ_m
1	Beton C25/30	3.150e+7	0.20	25.00	1.000e-5	3.150e+7	0.20
2	Beton C16/20	2.850e+7	0.20	25.00	1.000e-5	2.850e+7	0.20
3	Betonski blok	7.500e+6	0.20	18.00	1.000e-5	7.500e+6	0.20
4	Beton C25/30	3.050e+7	0.20	25.00	1.000e-5	3.050e+7	0.20

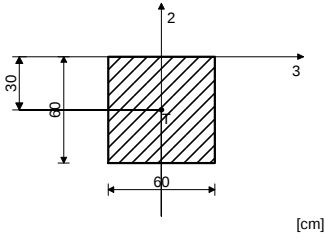
Setovi ploča								
No	d[m]	e[m]	Materijal	Tip proračuna	Ortotropija	E2[kN/m ²]	G[kN/m ²]	α
<1>	0.250	0.125	1	Tanka ploča	Izotropna			
<2>	0.160	0.080	1	Tanka ploča	Izotropna			
<3>	0.450	0.225	2	Tanka ploča	Izotropna			
<4>	0.250	0.125	3	Opeka/Blokovi	Izotropna			
<5>	0.200	0.100	1	Tanka ploča	Izotropna			
<6>	0.600	0.300	1	Tanka ploča	Izotropna			
<7>	0.200	0.100	1	Tanka ploča	Izotropna			
<8>	0.600	0.300	2	Tanka ploča	Izotropna			
<9>	0.280	0.140	4	Tanka ploča	Izotropna			

Setovi greda

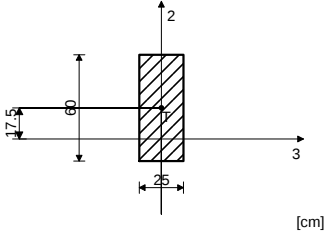
Set: 1 Presjek: b/d=30/30, Fiktivna ekscentričnost								
Mat.	A1	A2	A3	I1	I2	I3		
1 - Beton C25/30	9.000e-2	7.500e-2	7.500e-2	1.141e-3	6.750e-4	6.750e-4		



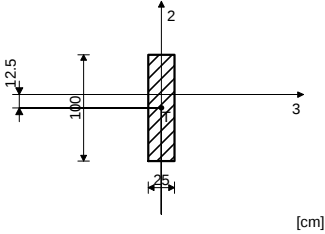
Set: 2 Presjek: b/d=60/60, Fiktivna ekscentričnost								
Mat.	A1	A2	A3	I1	I2	I3		
1 - Beton C25/30	3.600e-1	3.000e-1	3.000e-1	1.825e-2	1.080e-2	1.080e-2		



Set: 3 Presjek: b/d=25/60, Fiktivna ekscentričnost								
Mat.	A1	A2	A3	I1	I2	I3		
4 - Beton C25/30	1.500e-1	1.250e-1	1.250e-1	2.307e-3	7.812e-4	4.500e-3		



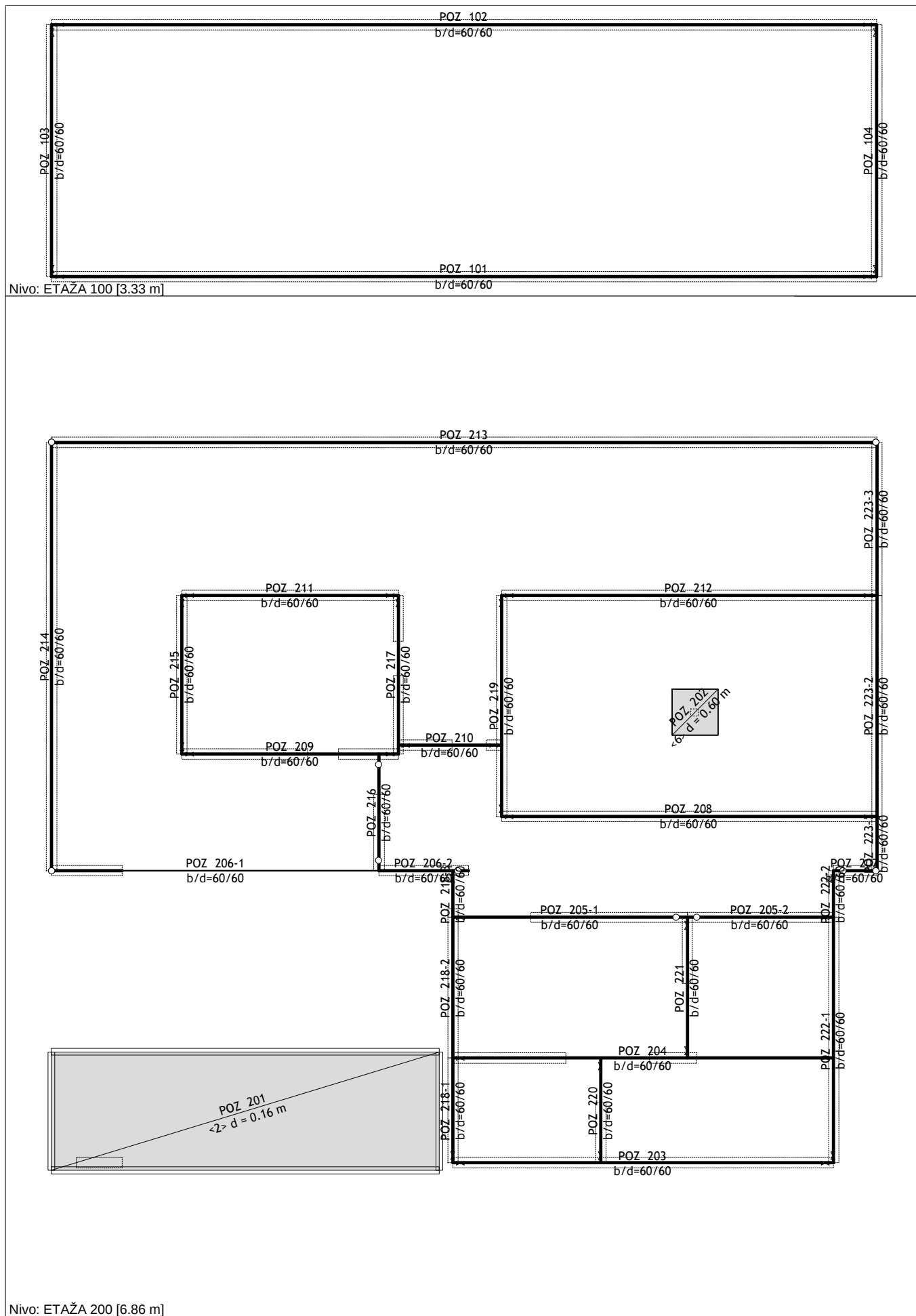
Set: 4 Presjek: b/d=25/100, Fiktivna ekscentričnost								
Mat.	A1	A2	A3	I1	I2	I3		
4 - Beton C25/30	2.500e-1	2.083e-1	2.083e-1	4.388e-3	1.302e-3	2.083e-2		

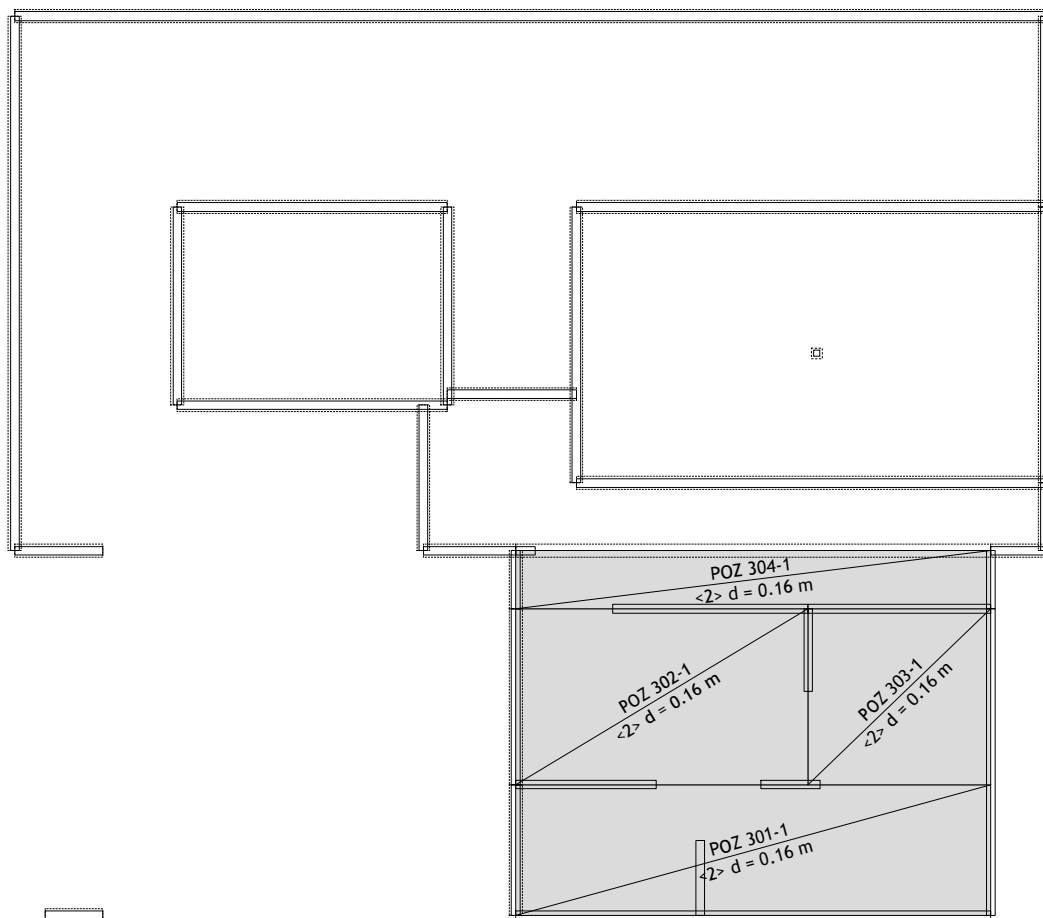


Setovi površinskih ležajeva			
Set	K,R1	K,R2	K,R3
1	1.000e+5	1.000e+5	1.000e+5

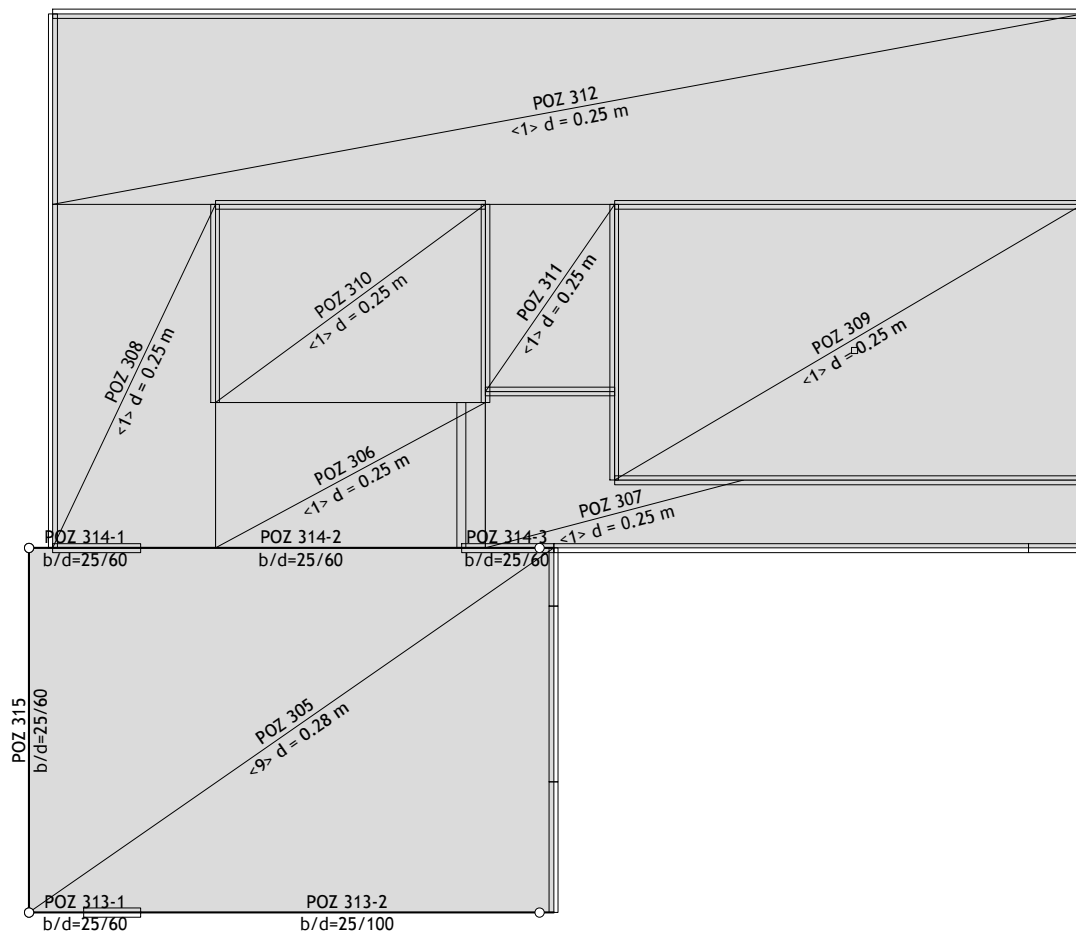
Setovi linijskih ležajeva					
Set	K,R1	K,R2	K,R3	K,M1	Tlo [m]
1	1.000e+5	1.000e+5	1.000e+5		0.600

PLAN POZICIJA





Nivo: ETAŽA 300 [9.69 m]



Nivo: ETAŽA 300A [10.96 m]

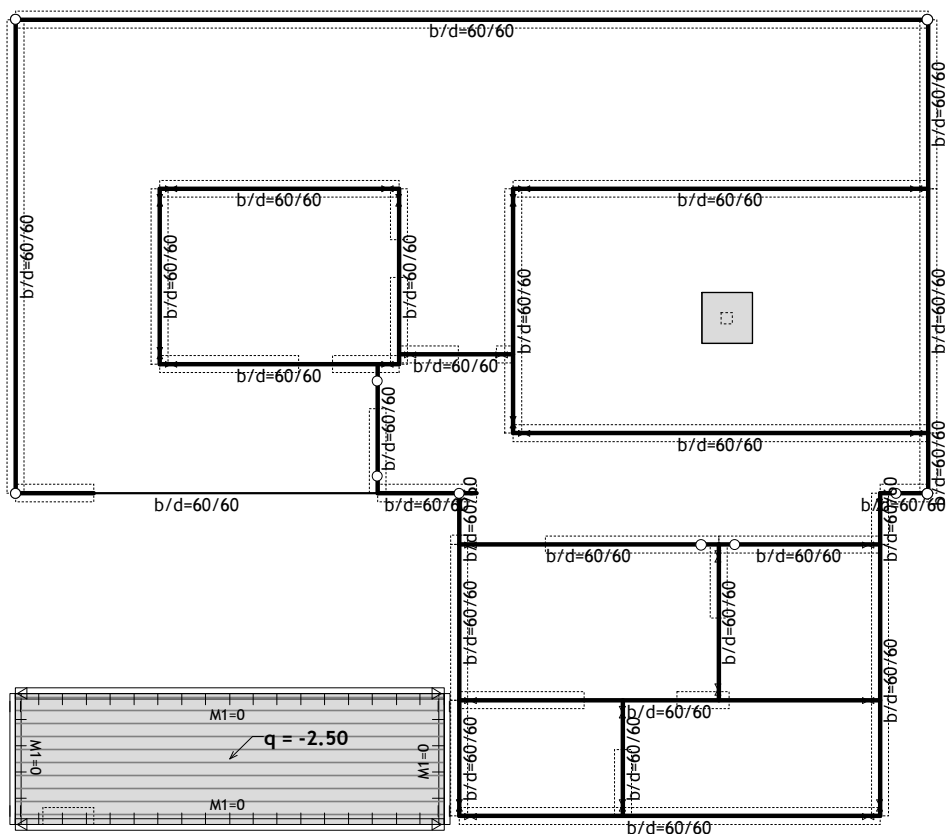
Ulazni podaci - Opterećenje

Lista slučajeva opterećenja

LC	Naziv
1	STALNO (g)
2	UPORABNO
3	POTRES X-SMJER
4	POTRES Y-SMJER
5	Komb.: 1.35xI+1.5xII
6	Komb.: I+1.5xII
7	Komb.: I+0.3xII+IV
8	Komb.: I+0.3xII-1xIV

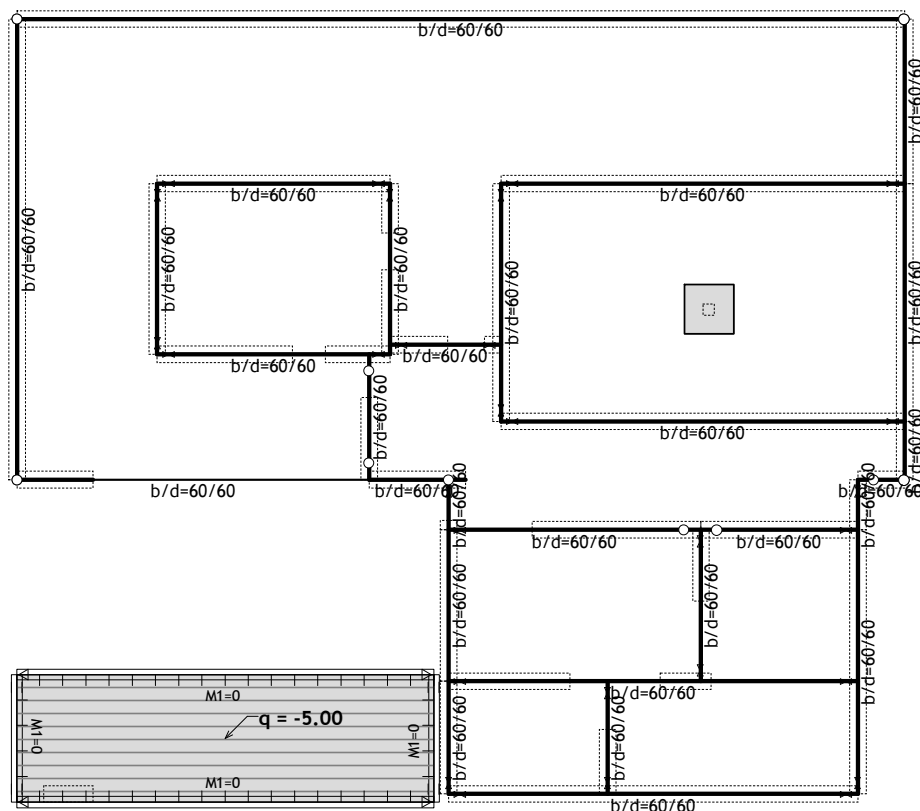
LC	Naziv
9	Komb.: I+0.3xII-1xIII
10	Komb.: I+0.3xII+III
11	Komb.: I-1xIV
12	Komb.: I-1xIII
13	Komb.: I+IV
14	Komb.: I+III
15	Komb.: 1.35xI
16	Komb.: I+II

Opt. 1: STALNO (g)



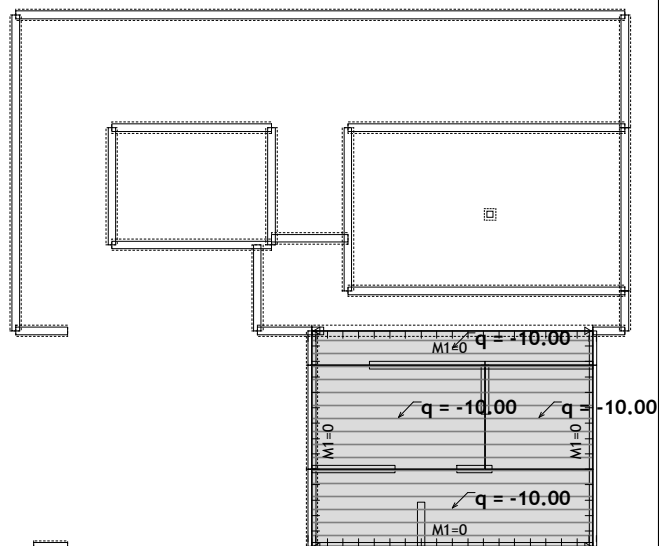
Nivo: ETAŽA 200 [6.86 m]

Opt. 2: UPORABNO



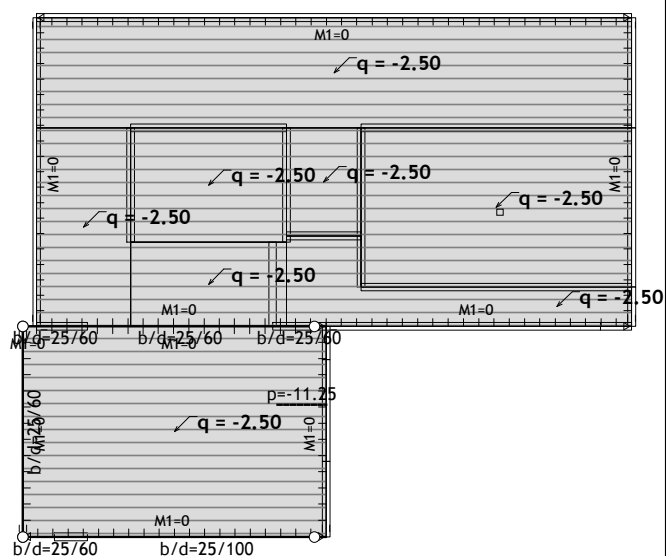
Nivo: ETAŽA 200 [6.86 m]

Opt. 1: STALNO (g)



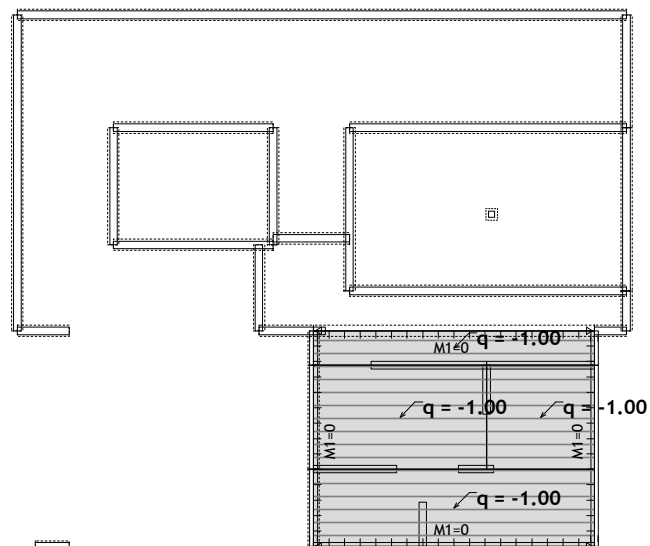
Nivo: ETAŽA 300 [9.69 m]

NIVU. ET A ZA 300 9
Opt. 1: STALNO (g)



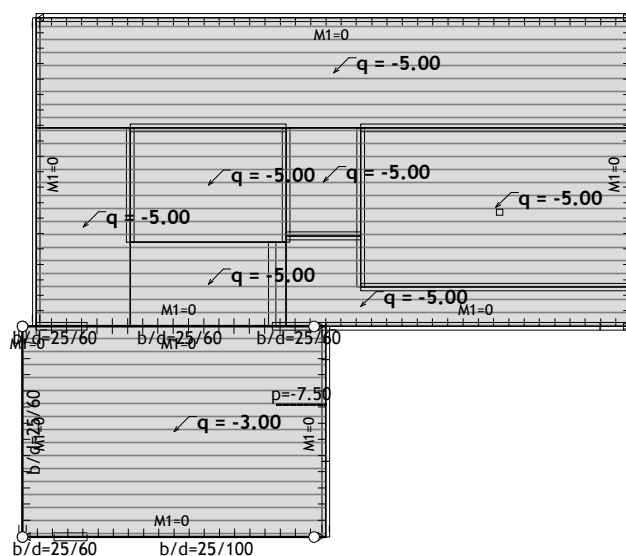
Nivo: ETAŽA 300A [10.96 m]

Opt. 2: UPORABNO



Nivo: ETAŽA 300 [9.69 m]

NIVU. ET AZA 300	9.
Opt. 2: UPORABNO	



Nivo: ETAŽA 300A [10.96 m]

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Modalna analiza, Seizmički proračun		

Napredne opcije seizmičkog proračuna:

Mase grupirane u nivoima izabranih ploča
 Spriječeno osciliranje u Z pravcu

Faktori opterećenja za proračun masa		
No	Naziv	Koeficijent
1	STALNO (g)	1.00
2	UPORABNO	0.30

Raspored masa po visini objekta					
Nivo	Z [m]	X [m]	Y [m]	Masa [T]	T/m²
ETAŽA 300A	10.96	32.62	41.60	393.97	1.21
ETAŽA 300	9.69	38.02	37.21	254.22	3.35
ETAŽA 200	6.86	33.89	38.92	329.92	10.05
ETAŽA 100	3.33	27.99	31.96	71.91	
Ukupno:	8.84	34.01	39.04	1050.01	

Položaj centara krutosti po visini objekta (približna metoda)			
Nivo	Z [m]	X [m]	Y [m]
ETAŽA 300A	10.96	26.24	48.52
ETAŽA 300	9.69	26.68	48.04
ETAŽA 200	6.86	26.95	43.71
ETAŽA 100	3.33	26.25	31.64

Ekscentricitet po visini objekta (približna metoda)			
Nivo	Z [m]	eox [m]	eoy [m]
ETAŽA 300A	10.96	6.38	6.92
ETAŽA 300	9.69	11.34	10.83
ETAŽA 200	6.86	6.94	4.78
ETAŽA 100	3.33	1.75	0.32

Periodi osciliranja konstrukcije								
No	T [s]	f [Hz]	No	T [s]	f [Hz]	No	T [s]	f [Hz]
1	0.1250	8.0012	8	0.0397	25.1763	15	0.0271	36.9392
2	0.0857	11.6639	9	0.0341	29.2924	16	0.0271	36.9393
3	0.0841	11.8945	10	0.0338	29.5777	17	0.0258	38.6875
4	0.0589	16.9721	11	0.0318	31.4479	18	0.0254	39.4462
5	0.0569	17.5795	12	0.0295	33.8881	19	0.0250	40.0471
6	0.0519	19.2790	13	0.0290	34.4392	20	0.0249	40.1825
7	0.0490	20.4158	14	0.0271	36.9327			

Seizmički proračun: EC8 (EN 1998)

Razred tla: A
 Razred važnosti: II ($\gamma=1.0$)
 Odnos a_g/g : 0.34
 Koeficijent prigušenja: 0.05

Faktori pravca potresa:					
Slučaj opterećenja	Kut α [°]	k, α	k, $\alpha+90^\circ$	kz	Faktor P.
POTRES X-SMJER	0.000	1.000	0.300	0.300	2.000*
POTRES Y-SMJER	90.000	1.000	0.300	0.300	2.000*

Tip spektra				
Slučaj opterećenja	S	Tb	Tc	Td
POTRES X-SMJER	1.000	0.100	0.400	3.000
POTRES Y-SMJER	1.000	0.100	0.400	3.000

POTRES X-SMJER

Konstrukcija regularna po visini, Sustav zidova sa nepovezanim zidovima, klasa duktilnosti DC'M':
 $q_0=3.0$

Sustav zidova, dvojni sustav sa dominantnim zidovima i sustav sa jezgrom: $\alpha_0=1.00$, $k_w=0.67$.

Faktor ponašanja: $q=q_0-k_w=2.00$

Nivo	Z [m]	Ton 1			Ton 2			Ton 3		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
ETAŽA 300A	10.96	1.68	1.15	15.74	801.12	995.87	10.45	452.28	-499.02	19.85
ETAŽA 300	9.69	0.72	0.65	0.14	396.93	523.46	57.64	258.22	-209.37	-21.45
ETAŽA 200	6.86	-0.61	112.78	9.37	152.95	145.71	13.94	98.57	-76.16	-0.26
ETAŽA 100	3.33	-0.39	8.74	8.35	11.06	-1.46	3.44	7.51	-0.52	2.03
	$\Sigma=$	1.41	123.32	33.58	1362.1	1663.6	85.47	816.57	-785.08	0.16

Nivo	Z [m]	Ton 4			Ton 5			Ton 6		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
ETAŽA 300A	10.96	-45.68	-6.04	19.79	308.30	55.40	101.89	0.85	-0.46	23.25
ETAŽA 300	9.69	-20.62	20.21	1.90	85.36	-190.79	-17.01	-2.56	-1.22	-0.22
ETAŽA 200	6.86	83.31	4.56	5.64	177.86	-28.76	10.96	44.75	-1.63	3.33
ETAŽA 100	3.33	49.50	-2.07	4.82	43.43	-2.27	3.17	9.45	6.40	2.03
	$\Sigma=$	66.50	16.66	32.16	614.95	-166.42	99.01	52.48	3.08	28.38

Nivo	Z [m]	Ton 7			Ton 8			Ton 9		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
ETAŽA 300A	10.96	37.36	-92.81	3.93	-87.33	52.66	16.40	0.14	-0.08	-4.56
ETAŽA 300	9.69	32.59	133.28	-3.26	150.23	-39.75	16.09	-0.09	0.11	-0.02
ETAŽA 200	6.86	21.05	13.40	-0.57	55.50	3.30	4.33	-0.57	-1.77	-2.09
ETAŽA 100	3.33	-0.91	-0.09	-0.07	4.39	0.99	-0.63	0.62	22.29	-1.86
	$\Sigma=$	90.09	53.78	0.04	122.78	17.19	36.19	0.11	20.55	-8.53

Nivo	Z [m]	Ton 10			Ton 11			Ton 12		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
ETAŽA 300A	10.96	-0.45	-0.17	-0.05	1.48	2.00	1.70	-0.06	0.07	1.59
ETAŽA 300	9.69	0.49	0.23	0.20	-1.20	-1.19	2.67	0.03	-0.07	0.01
ETAŽA 200	6.86	-0.01	0.01	0.01	-0.00	-3.89	0.29	0.65	-0.01	0.26

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ETAŽA 100	3.33	0.01	-0.03	0.00	0.06	-0.02	-0.01	-1.10	0.16	0.18
	Σ=	0.03	0.05	0.16	0.34	-3.10	4.65	-0.48	0.15	2.04

Nivo	Z [m]	Ton 13			Ton 14			Ton 15		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
ETAŽA 300A	10.96	-4.85	-2.06	-0.91	-15.06	-25.55	0.63	0.00	0.00	-0.00
ETAŽA 300	9.69	4.85	2.58	-3.24	11.89	24.54	6.40	-0.00	-0.00	-0.00
ETAŽA 200	6.86	2.09	-0.90	-0.14	22.19	25.77	-0.67	-0.00	2.20	0.00
ETAŽA 100	3.33	0.00	-0.00	-0.00	1.27	-0.08	-0.31	-0.00	0.00	0.00
	Σ=	2.09	-0.37	-4.29	20.30	24.69	6.05	-0.00	2.20	-0.00

Nivo	Z [m]	Ton 16			Ton 17			Ton 18		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
ETAŽA 300A	10.96	0.00	0.00	-0.00	-0.01	0.00	-0.36	0.36	-0.09	-0.09
ETAŽA 300	9.69	-0.00	-0.00	-0.00	0.00	-0.00	0.00	-0.37	-0.05	-0.07
ETAŽA 200	6.86	7.35	0.00	0.00	0.32	-0.33	-0.53	0.89	25.25	-0.02
ETAŽA 100	3.33	-0.00	0.00	0.00	-0.71	5.58	-0.50	-0.02	-0.00	0.00
	Σ=	7.35	0.00	-0.00	-0.40	5.25	-1.38	0.87	25.11	-0.17

Nivo	Z [m]	Ton 19			Ton 20		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
ETAŽA 300A	10.96	4.66	0.55	-0.17	-1.54	0.94	-0.60
ETAŽA 300	9.69	-5.28	0.30	0.13	1.46	-1.21	0.28
ETAŽA 200	6.86	14.50	-3.28	0.12	0.74	0.21	-0.03
ETAŽA 100	3.33	-0.16	0.00	0.04	-0.07	-0.00	0.01
	Σ=	13.72	-2.43	0.11	0.59	-0.07	-0.34

POTRES Y-SMJER

Konstrukcija regularna po visini, Sustav zidova sa nepovezanim zidovima, klasa duktilnosti DC'M':
qo=3.0

Sustav zidova, dvojni sustav sa dominantnim zidovima i sustav sa jezgrom: αo=1.00, kw=0.67.

Faktor ponašanja: q=qo-kw=2.00

Nivo	Z [m]	Ton 1			Ton 2			Ton 3		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
ETAŽA 300A	10.96	4.62	3.14	43.16	543.74	675.92	7.09	-801.67	884.53	-35.18
ETAŽA 300	9.69	1.98	1.79	0.37	269.41	355.29	39.12	-457.70	371.12	38.03
ETAŽA 200	6.86	-1.68	309.35	25.69	103.81	98.89	9.46	-174.72	134.99	0.47
ETAŽA 100	3.33	-1.06	23.98	22.90	7.51	-0.99	2.34	-13.30	0.93	-3.59
	Σ=	3.86	338.26	92.12	924.46	1129.1	58.01	-1447.39	1391.6	-0.28

Nivo	Z [m]	Ton 4			Ton 5			Ton 6		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
ETAŽA 300A	10.96	-3.58	-0.47	1.55	-166.51	-29.92	-55.03	-0.06	0.03	-1.56
ETAŽA 300	9.69	-1.62	1.58	0.15	-46.10	103.04	9.19	0.17	0.08	0.01
ETAŽA 200	6.86	6.53	0.36	0.44	-96.06	15.53	-5.92	-2.99	0.11	-0.22
ETAŽA 100	3.33	3.88	-0.16	0.38	-23.46	1.23	-1.71	-0.63	-0.43	-0.14
	Σ=	5.21	1.31	2.52	-332.13	89.88	-53.48	-3.51	-0.21	-1.90

Nivo	Z [m]	Ton 7			Ton 8			Ton 9		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
ETAŽA 300A	10.96	9.41	-23.38	0.99	5.53	-3.33	-1.04	0.69	-0.41	-22.02
ETAŽA 300	9.69	8.21	33.58	-0.82	-9.50	2.52	-1.02	-0.43	0.55	-0.09
ETAŽA 200	6.86	5.30	3.38	-0.14	-3.51	-0.21	-0.27	-2.74	-8.55	-10.09
ETAŽA 100	3.33	-0.23	-0.02	-0.02	-0.28	-0.06	0.04	3.02	107.70	-9.01
	Σ=	22.70	13.55	0.01	-7.77	-1.09	-2.29	0.53	99.29	-41.21

Nivo	Z [m]	Ton 10			Ton 11			Ton 12		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
ETAŽA 300A	10.96	-0.42	-0.15	-0.05	-3.31	-4.47	-3.80	-0.33	0.34	8.33
ETAŽA 300	9.69	0.45	0.21	0.18	2.69	2.65	-5.97	0.14	-0.35	0.05
ETAŽA 200	6.86	-0.01	0.01	0.01	0.00	8.70	-0.65	3.41	-0.03	1.35
ETAŽA 100	3.33	0.01	-0.02	0.00	-0.14	0.05	0.02	-5.75	0.81	0.92
	Σ=	0.03	0.05	0.15	-0.76	6.93	-10.40	-2.52	0.77	10.66

Nivo	Z [m]	Ton 13			Ton 14			Ton 15		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
ETAŽA 300A	10.96	16.12	6.83	3.01	-10.41	-17.67	0.44	0.00	0.00	-0.00
ETAŽA 300	9.69	-16.11	-8.58	10.75	8.23	16.98	4.43	-0.00	-0.00	-0.00
ETAŽA 200	6.86	-6.94	2.99	0.48	15.34	17.83	-0.47	-0.00	7.34	0.00
ETAŽA 100	3.33	-0.00	0.00	0.00	0.88	-0.06	-0.21	-0.00	0.00	0.00
	Σ=	-6.94	1.24	14.25	14.04	17.08	4.19	-0.00	7.34	-0.00

Nivo	Z [m]	Ton 16			Ton 17			Ton 18		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
ETAŽA 300A	10.96	-0.00	-0.00	0.00	-0.05	0.02	-2.33	1.07	-0.26	-0.26
ETAŽA 300	9.69	0.00	0.00	0.00	0.02	-0.01	0.01	-1.10	-0.16	-0.20
ETAŽA 200	6.86	-2.20	-0.00	-0.00	2.06	-2.13	-3.40	2.65	75.00	-0.05
ETAŽA 100	3.33	0.00	-0.00	-0.00	-4.59	36.09	-3.21	-0.06	-0.00	0.01
	Σ=	-2.20	-0.00	0.00	-2.56	33.96	-8.93	2.57	74.58	-0.50

Nivo	Z [m]	Ton 19			Ton 20		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
ETAŽA 300A	10.96	-2.33	-0.27	0.09	1.16	-0.71	0.45
ETAŽA 300	9.69	2.64	-0.15	-0.06	-1.10	0.92	-0.21
ETAŽA 200	6.86	-7.25	1.64	-0.06	-0.55	-0.15	0.02
ETAŽA 100	3.33	0.08	-0.00	-0.02	0.05	0.00	-0.01
	Σ=	-6.86	1.21	-0.06	-0.44	0.05	0.26

Faktori participacije - Relativno učešće

Ton \ Naziv	1. POTRES X	2. POTRES Y
1	0.014	0.105
2	0.529	0.250
3	0.163	0.525
4	0.023	0.000
5	0.167	0.050

CANOSA INŽENJERING d.o.o.	Investitor: HOTEL OSMINE d.o.o.	Strana: 9/25
Građevina: HOTEL OSMINE - REKONSTR., DOGR. I NADOGRADNJA - zgrada B-zapad		Dbk., 24.4.2016.

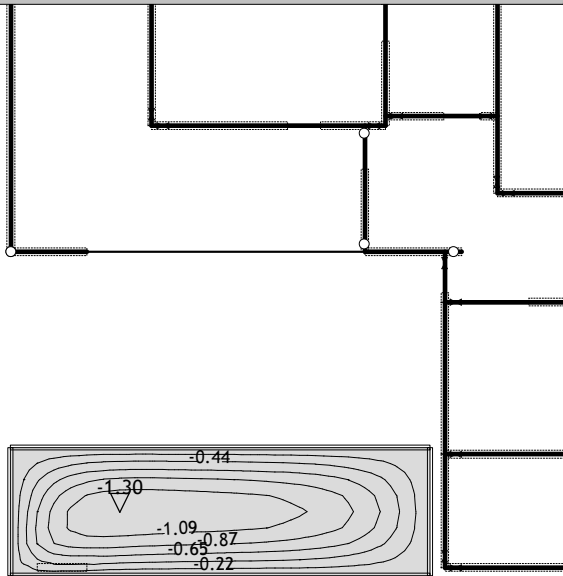
6	0.017	0.000
7	0.030	0.002
8	0.039	0.000
9	0.001	0.025
10	0.000	0.000
11	0.000	0.001
12	0.000	0.001
13	0.000	0.002
14	0.008	0.004
15	0.000	0.002
16	0.002	0.000
17	0.000	0.009
18	0.002	0.021
19	0.004	0.001
20	0.000	0.000

Faktori participacije - Sudjelujuće mase

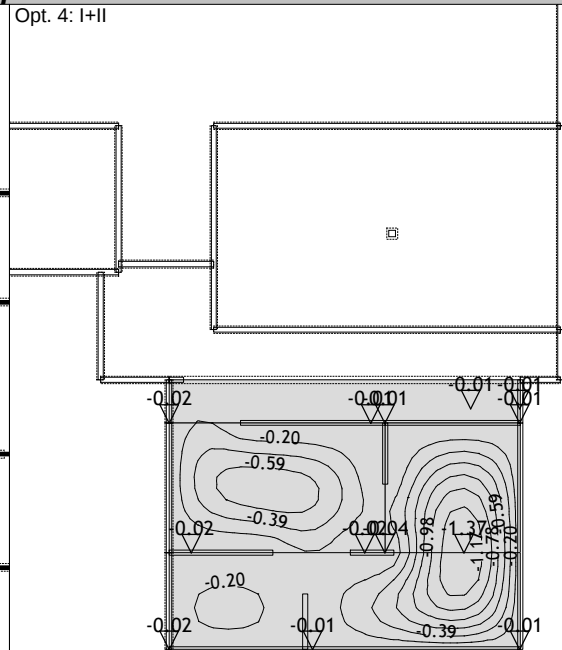
Ton	UX (%)	UY (%)	UZ (%)	ΣUX (%)	ΣUY (%)	ΣUZ (%)
1	0.00	7.17	0.53	0.00	7.17	0.53
2	24.07	35.91	0.09	24.07	43.08	0.63
3	28.33	26.18	0.00	52.40	69.26	0.63
4	1.54	0.10	0.36	53.94	69.35	0.99
5	18.19	1.33	0.47	72.13	70.69	1.46
6	1.31	0.00	0.38	73.44	70.69	1.84
7	2.29	0.82	0.00	75.73	71.51	1.84
8	3.45	0.07	0.30	79.18	71.58	2.14
9	0.00	3.75	0.65	79.18	75.32	2.79
10	0.00	0.00	0.01	79.18	75.33	2.80
11	0.00	0.40	0.90	79.19	75.72	3.69
12	0.05	0.00	0.82	79.23	75.73	4.51
13	0.22	0.01	0.91	79.45	75.73	5.43
14	0.48	0.72	0.04	79.93	76.45	5.47
15	0.00	0.25	0.00	79.93	76.70	5.47
16	0.25	0.00	0.00	80.19	76.70	5.47
17	0.01	1.26	0.09	80.20	77.96	5.56
18	0.00	2.65	0.00	80.20	80.61	5.56
19	0.51	0.02	0.00	80.71	80.63	5.56
20	0.03	0.00	0.01	80.73	80.63	5.56

Statički proračun

Opt. 4: I+II



Opt. 4: I+II



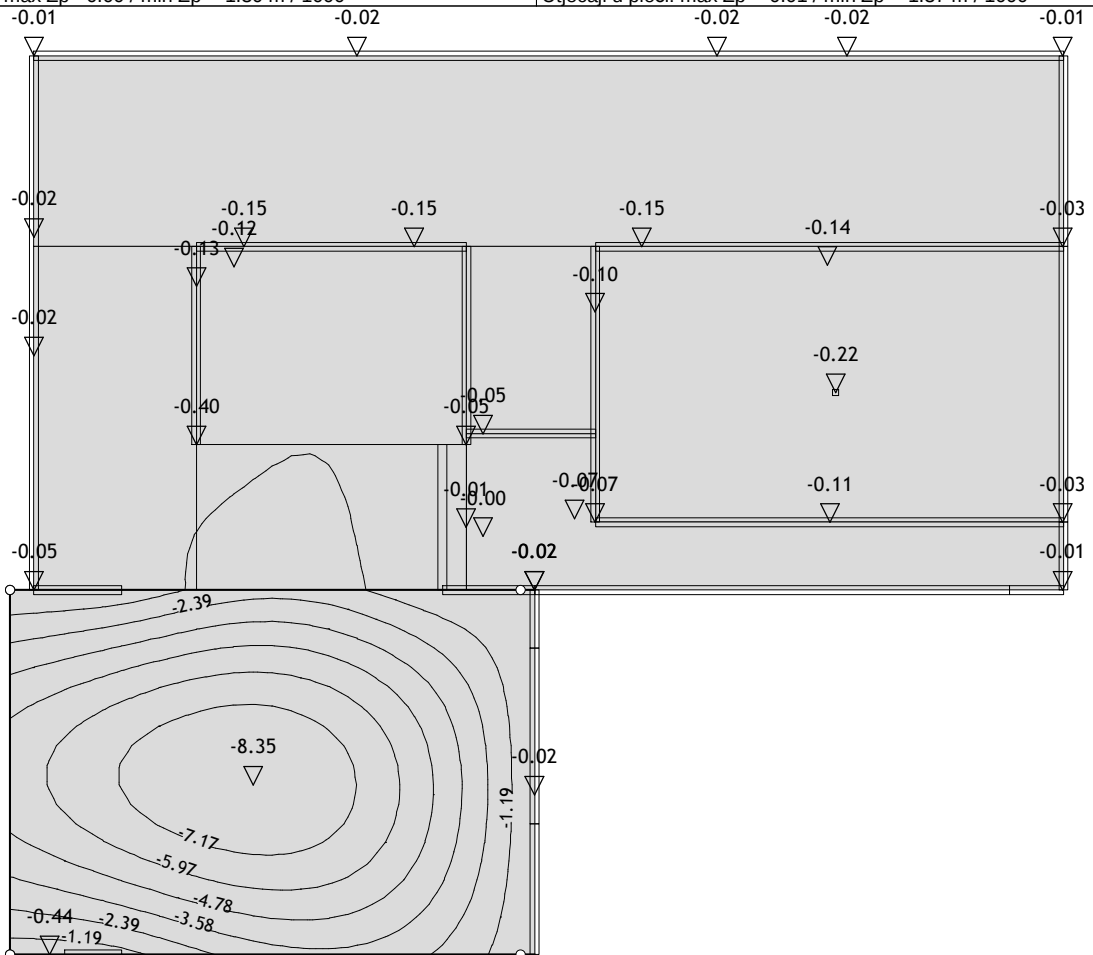
Nivo: ETAŽA 200 [6.86 m]

Utjecaji u ploči: max Zp= 0.00 / min Zp= -1.30 m / 1000

Opt. 4: I+II

Nivo: ETAŽA 300 [9.69 m]

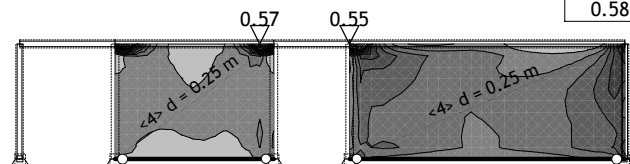
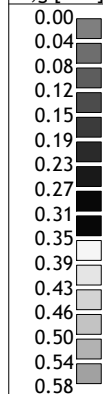
Utjecaji u ploči: max Zp= -0.01 / min Zp= -1.37 m / 1000

[illegible]

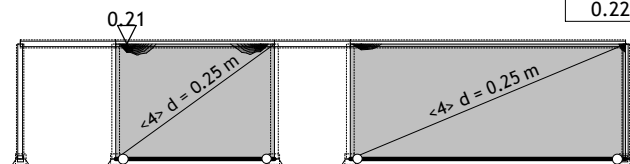
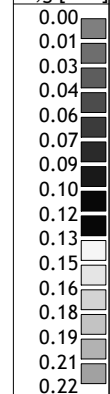
Nivo: ETAŽA 300A [10.96 m]

Utjecaji u ploči: max Zp= -0.00 / min Zp= -8.35 m / 1000

Opt. 17: [Anv] 5-16

 $\sigma_{1,g}$ [MPa]

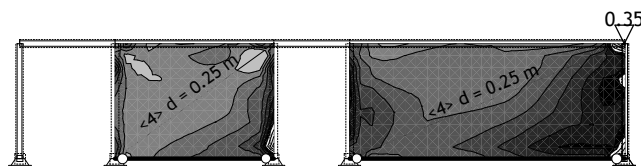
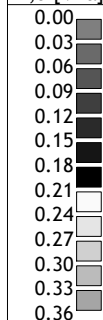
Opt. 17: [Anv] 5-16

 $\sigma_{2,g}$ [MPa]

Okvir: H_9

Utjecaji u ploči: max $\sigma_{1,g}$ = 0.57 / min $\sigma_{1,g}$ = 0.00 MPa

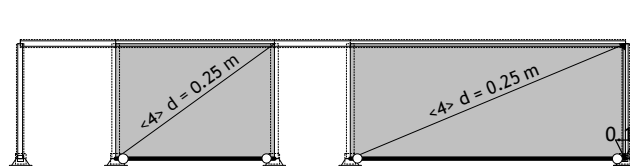
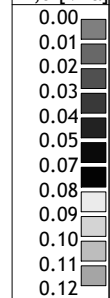
Opt. 17: [Anv] 5-16

 $\sigma_{1,d}$ [MPa]

Okvir: H_9

Utjecaji u ploči: max $\sigma_{2,g}$ = 0.21 / min $\sigma_{2,g}$ = 0.00 MPa

Opt. 17: [Anv] 5-16

 $\sigma_{2,d}$ [MPa]

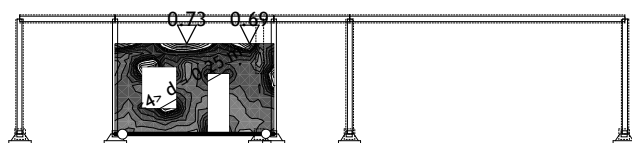
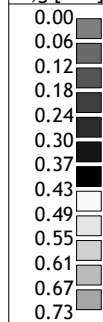
Okvir: H_9

Utjecaji u ploči: max $\sigma_{1,d}$ = 0.35 / min $\sigma_{1,d}$ = 0.00 MPa

Okvir: H_9

Utjecaji u ploči: max $\sigma_{2,d}$ = 0.11 / min $\sigma_{2,d}$ = 0.00 MPa

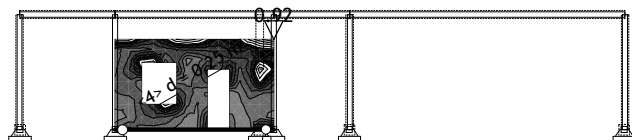
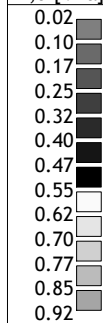
Opt. 17: [Anv] 5-16

 $\sigma_{1,g}$ [MPa]

Okvir: H_7

Utjecaji u ploči: max $\sigma_{1,g}$ = 0.73 / min $\sigma_{1,g}$ = 0.00 MPa

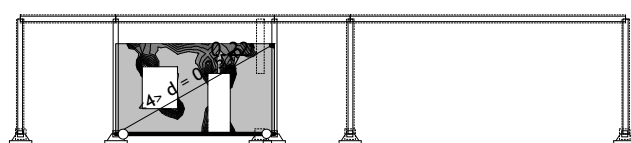
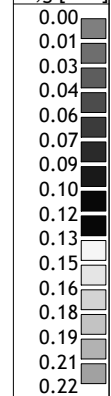
Opt. 17: [Anv] 5-16

 $\sigma_{1,d}$ [MPa]

Okvir: H_7

Utjecaji u ploči: max $\sigma_{1,d}$ = 0.92 / min $\sigma_{1,d}$ = 0.02 MPa

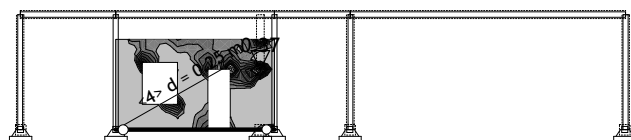
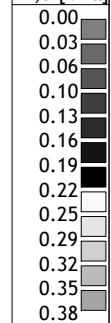
Opt. 17: [Anv] 5-16

 $\sigma_{2,g}$ [MPa]

Okvir: H_7

Utjecaji u ploči: max $\sigma_{2,g}$ = 0.22 / min $\sigma_{2,g}$ = 0.00 MPa

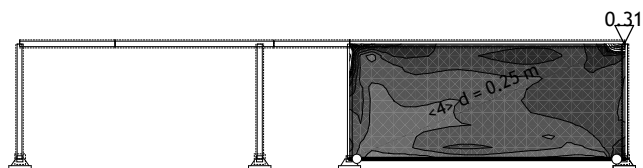
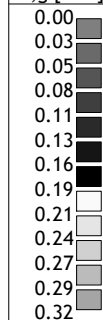
Opt. 17: [Anv] 5-16

 $\sigma_{2,d}$ [MPa]

Okvir: H_7

Utjecaji u ploči: max $\sigma_{2,d}$ = 0.37 / min $\sigma_{2,d}$ = 0.00 MPa

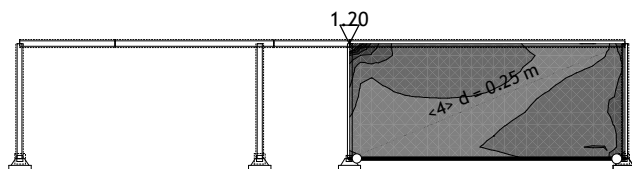
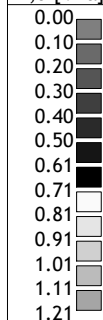
Opt. 17: [Anv] 5-16

 $\sigma_{1,g}$ [MPa]

Okvir: H_6

Utjecaji u ploči: max $\sigma_{1,g}$ = 0.31 / min $\sigma_{1,g}$ = 0.01 MPa

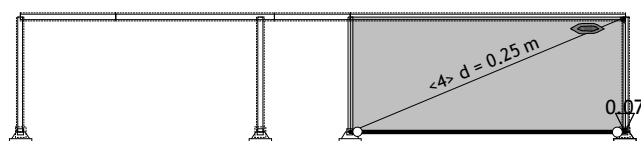
Opt. 17: [Anv] 5-16

 $\sigma_{1,d}$ [MPa]

Okvir: H_6

Utjecaji u ploči: max $\sigma_{1,d}$ = 1.20 / min $\sigma_{1,d}$ = 0.00 MPa

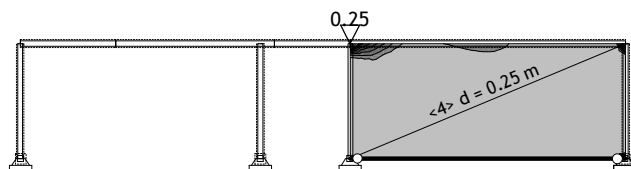
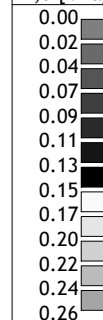
Opt. 17: [Anv] 5-16

 $\sigma_{2,g}$ [MPa]

Okvir: H_6

Utjecaji u ploči: max $\sigma_{2,g}$ = 0.07 / min $\sigma_{2,g}$ = 0.00 MPa

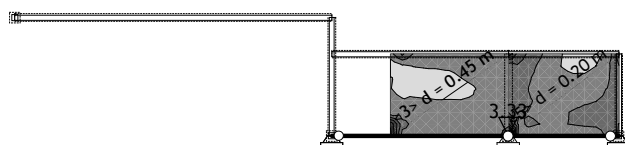
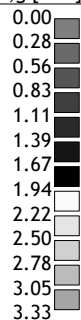
Opt. 17: [Anv] 5-16

 $\sigma_{2,d}$ [MPa]

Okvir: H_6

Utjecaji u ploči: max $\sigma_{2,d}$ = 0.25 / min $\sigma_{2,d}$ = 0.00 MPa

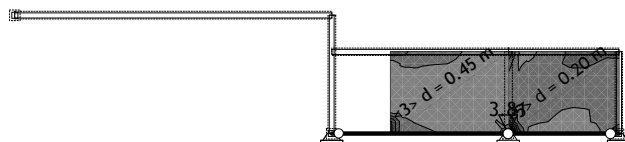
Opt. 17: [Anv] 5-16

 $\sigma_{1,g}$ [MPa]

Okvir: H_4

Utjecaji u ploči: max $\sigma_{1,g}$ = 3.33 / min $\sigma_{1,g}$ = 0.00 MPa

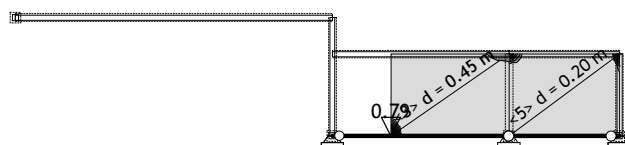
Opt. 17: [Anv] 5-16

 $\sigma_{1,d}$ [MPa]

Okvir: H_4

Utjecaji u ploči: max $\sigma_{1,d}$ = 3.81 / min $\sigma_{1,d}$ = 0.16 MPa

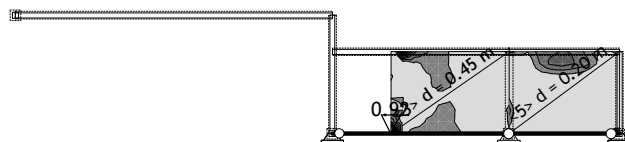
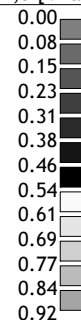
Opt. 17: [Anv] 5-16

 $\sigma_{2,g}$ [MPa]

Okvir: H_4

Utjecaji u ploči: max $\sigma_{2,g}$ = 0.79 / min $\sigma_{2,g}$ = 0.00 MPa

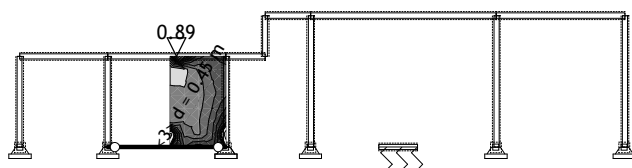
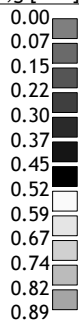
Opt. 17: [Anv] 5-16

 $\sigma_{2,d}$ [MPa]

Okvir: H_4

Utjecaji u ploči: max $\sigma_{2,d}$ = 0.92 / min $\sigma_{2,d}$ = 0.00 MPa

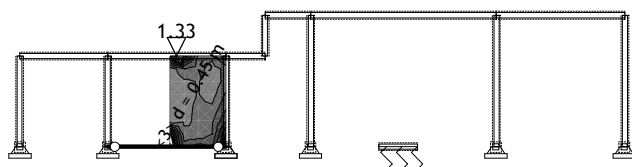
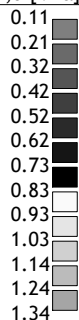
Opt. 17: [Anv] 5-16

 $\sigma_{1,g}$ [MPa]

Okvir: V_10

Utjecaji u ploči: max $\sigma_{1,g}$ = 0.89 / min $\sigma_{1,g}$ = 0.00 MPa

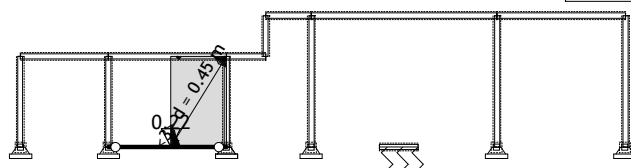
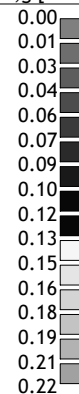
Opt. 17: [Anv] 5-16

 $\sigma_{1,d}$ [MPa]

Okvir: V_10

Utjecaji u ploči: max $\sigma_{1,d}$ = 1.33 / min $\sigma_{1,d}$ = 0.11 MPa

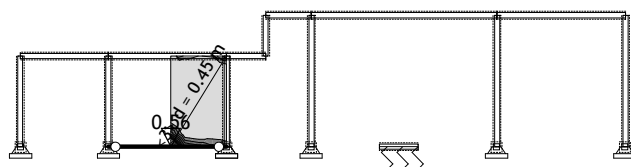
Opt. 17: [Anv] 5-16

 $\sigma_{2,g}$ [MPa]

Okvir: V_10

Utjecaji u ploči: max $\sigma_{2,g}$ = 0.22 / min $\sigma_{2,g}$ = 0.00 MPa

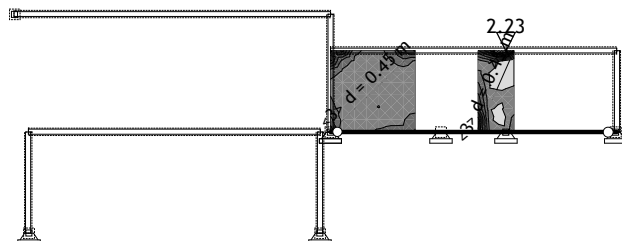
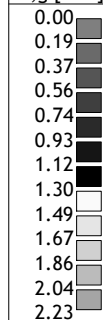
Opt. 17: [Anv] 5-16

 $\sigma_{2,d}$ [MPa]

Okvir: V_10

Utjecaji u ploči: max $\sigma_{2,d}$ = 0.56 / min $\sigma_{2,d}$ = 0.00 MPa

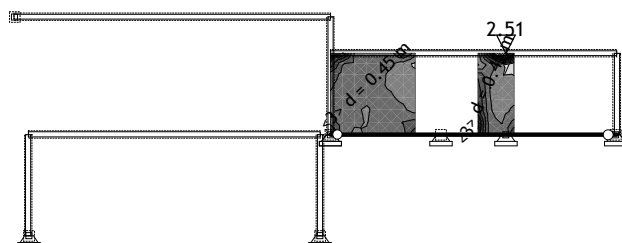
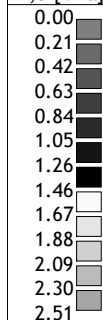
Opt. 17: [Anv] 5-16

 $\sigma_{1,g}$ [MPa]

Okvir: H_2

Utjecaji u ploči: max $\sigma_{1,g}$ = 2.23 / min $\sigma_{1,g}$ = 0.00 MPa

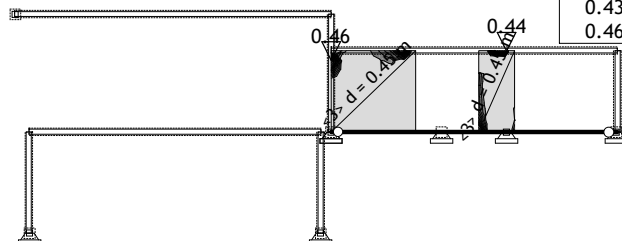
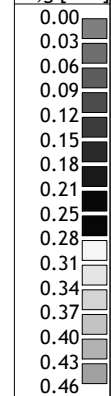
Opt. 17: [Anv] 5-16

 $\sigma_{1,d}$ [MPa]

Okvir: H_2

Utjecaji u ploči: max $\sigma_{1,d}$ = 2.51 / min $\sigma_{1,d}$ = 0.00 MPa

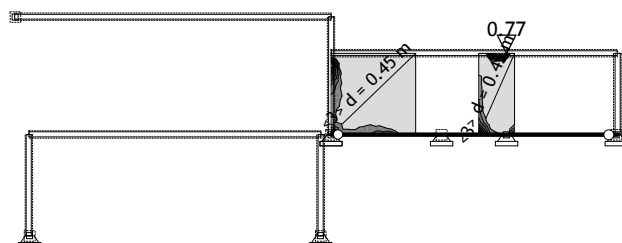
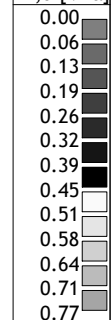
Opt. 17: [Anv] 5-16

 $\sigma_{2,g}$ [MPa]

Okvir: H_2

Utjecaji u ploči: max $\sigma_{2,g}$ = 0.46 / min $\sigma_{2,g}$ = 0.00 MPa

Opt. 17: [Anv] 5-16

 $\sigma_{2,d}$ [MPa]

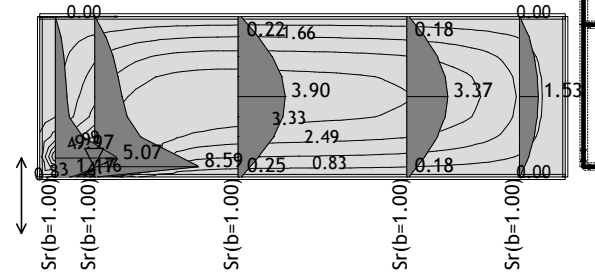
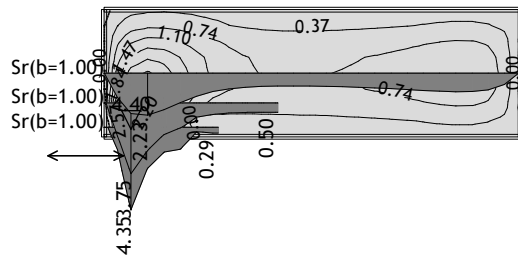
Okvir: H_2

Utjecaji u ploči: max $\sigma_{2,d}$ = 0.77 / min $\sigma_{2,d}$ = 0.00 MPa

Dimenzioniranje (beton)

Mjerodavno optećenje: 1.35xI+1.50xII
TPBK, C 25/30, B 500B, a=3.50 cm

Mjerodavno opterećenje: $1.35xI + 1.50xII$
TPBK, C 25/30, B500B, $a=3.50$ cm



Nivo: ETAŽA 200 [6.86 m]

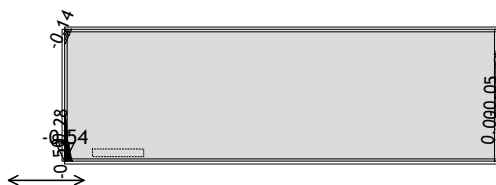
Aa - d.zona - Pravic 1 - max Aa1,d= 4.40 cm²/m

Mjerodavno opterećenje: $1.35xI + 1.50xII$
TPBK, C 25/30, B500B, $a = 3.50 \text{ cm}$

Nivo: ETAŽA 200 [6.86 m]

Aa - d.zona - Pravic 2 - max Aa2,d= 9.97 cm²/m

Mjerodavno opterećenje: 1.35xI+1.50xII
TPBK, C 25/30, B500B, a=3.50 cm



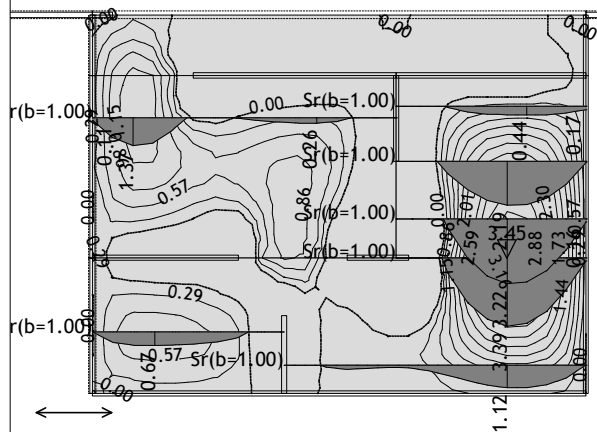
Nivo: ETAŽA 200 [6.86 m]

Aa - g.zona - Pravac 1 - max Aa1,g= -0.54 cm²/m

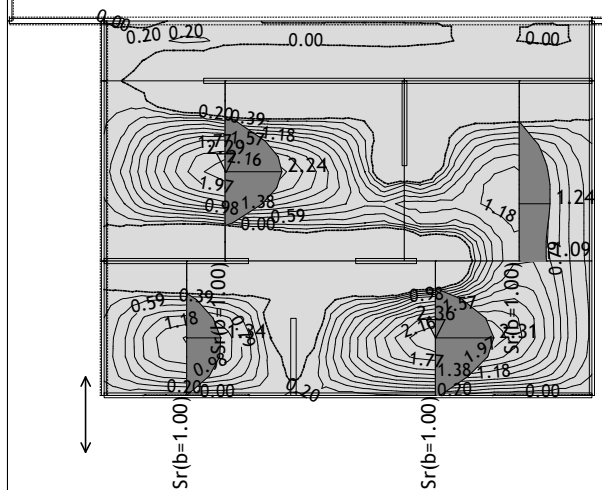
Nivo: ETAŽA 200 [6.86 m]

Aa - g.zona - Pravac 2 - max Aa2,g= -0.54 cm²/m

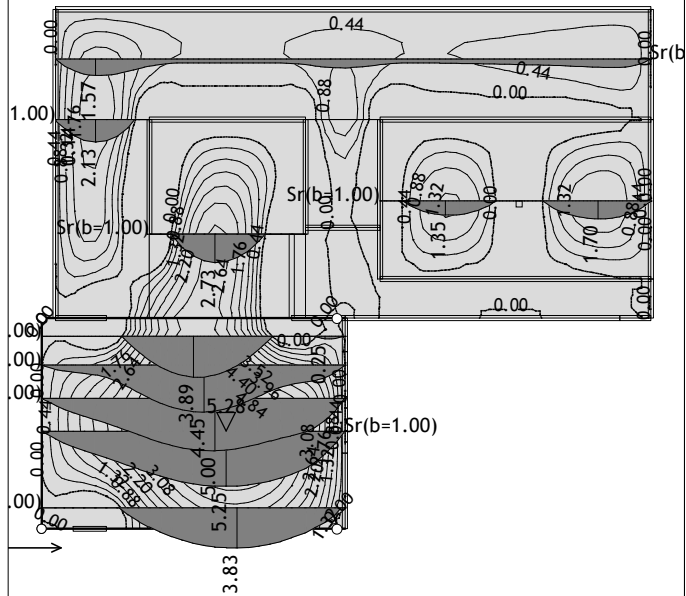
Mjerodavno opterećenje: 1.35xI+1.50xII
TPBK, C 25/30, B500B, a=3.50 cm



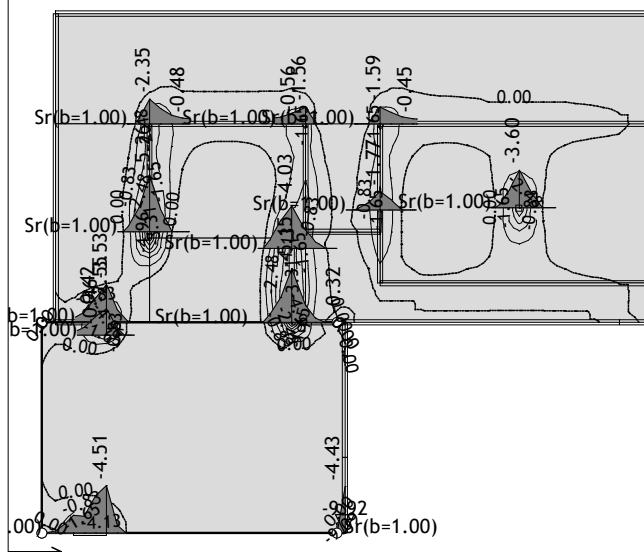
Mjerodavno opterećenje: 1.35xI+1.50xII
TPBK, C 25/30, B500B, a=3.50 cm



Mjerodavno opterećenje: $1.35xI + 1.50xII$
TPBK, C 25/30, B500B, $a=3.50$ cm

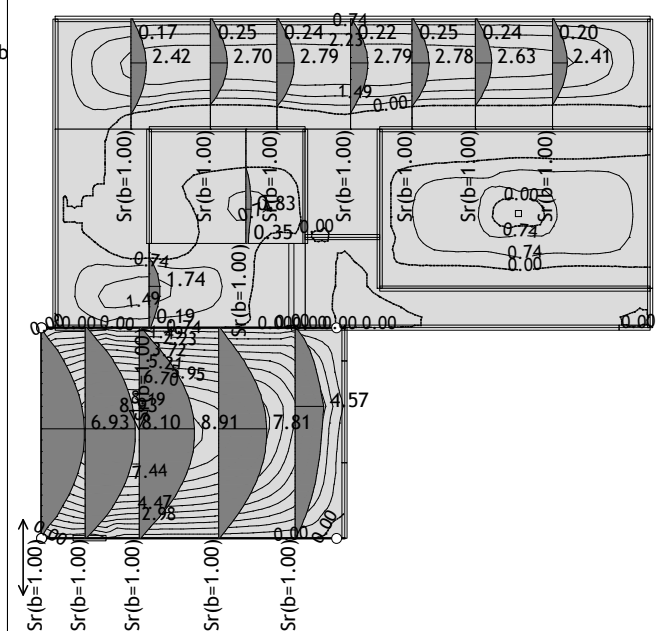


Nivo: ETAŽA 300A [10.96 m]
Aa - d.zona - Prvac 1 - max Aa1,d= 5.28 cm ² /m
Mjerodavno opterećenje: 1.35xI+1.50xII
TPBK, C 25/30, B500B, a=3.50 cm

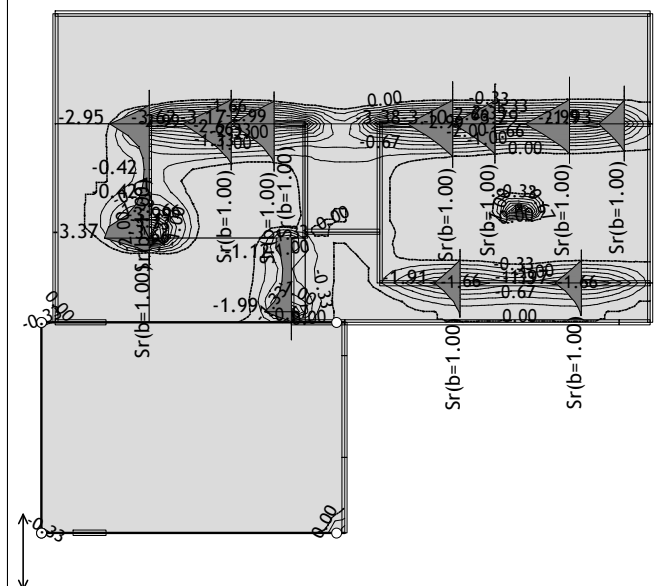


Nivo: ETAŽA 300A [10.96 m]
Aa - g.zona - Pravac 1 - max Aa1,g= -9.92 cm²/m

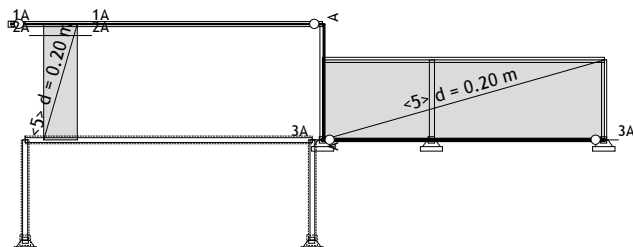
Mjerodavno opterećenje: 1.35xl+1.50xll
TPBK, C 25/30, B500B, a=3.50 cm



Nivo: ETAŽA 300A [10.96 m]
Aa - d.zona - Pravac 2 - max Aa2,d= 8.93 cm ² /m
Mjerodavno opterećenje: 1.35xI+1.50xII
TPBK, C 25/30, B500B, a=3.50 cm



Nivo: ETAŽA 300A [10.96 m]
Aa - g.zona - Pravec 2 - max Aa2,g= -3.99 cm²/m



Okvir: H_1
Dispozicija presjeka

Okvir: H_1

TPBK

C 25/30 ($\gamma_C = 1.50$, $\gamma_S = 1.15$)

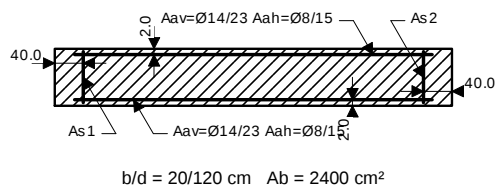
Kutna armatura B500B

Uzdužna armatura B500B

Dimenzioniranje grupe slučajeva opterećenja: 5-16

Presjek 1A - 1A (Z=10.96m)

Mjerodavni presjek za savijanje



Mjerodavna kombinacija za savijanje: I+0.30xII+III
Mjerodavna kombinacija za posmik: I+0.30xII-1.00xIII

Msd = -220.08 kNm

Nsd = -294.32 kN

Vsd = -14.68 kN

$\epsilon_b/\epsilon_a = -3.500/11.780 \%$

As1 = 0.44 cm² (min:3.60)

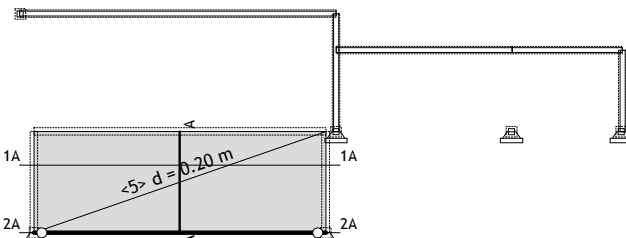
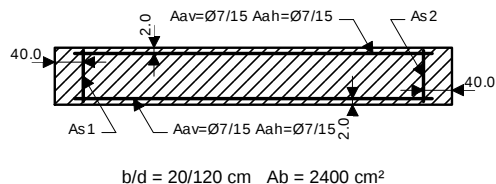
As2 = 0.44 cm² (min:3.60)

Aav = ± 2.54 cm²/m (min: ± 2.00) (odab: $\pm \text{Ø}14/23$)

Aah = ± 0.15 cm²/m (min: ± 2.00) (odab: $\pm \text{Ø}8/15$)

Presjek 2A - 2A (Z=10.55m)

Mjerodavni presjek za posmik



Okvir: H_3
Dispozicija presjeka

Mjerodavna kombinacija za savijanje: I+III

Mjerodavna kombinacija za posmik: I+0.30xII+III

Msd = -221.91 kNm

Nsd = -367.15 kN

Vsd = 86.16 kN

$\epsilon_b/\epsilon_a = -3.500/11.635 \%$

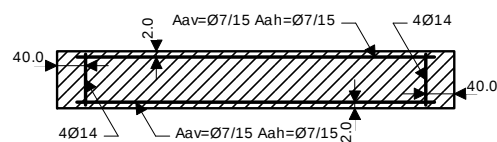
As1 = 0.20 cm² (min:3.60)

As2 = 0.20 cm² (min:3.60)

Aav = ± 1.15 cm²/m (min: ± 2.00) (odab: $\pm \text{Ø}7/15$)

Aah = ± 0.91 cm²/m (min: ± 2.00) (odab: $\pm \text{Ø}7/15$)

Presjek 3A - 3A (Z=6.86m)



b/d = 20/994 cm Ab = 19880 cm²

Mjerodavna kombinacija za savijanje: I+0.30xII-1.00xIII

Mjerodavna kombinacija za posmik: I+0.30xII-1.00xIV

Msd = 691.32 kNm

Nsd = -498.13 kN

Vsd = -193.44 kN

As1 = 0.00 cm² (min:29.82) (odab:4Ø14)

As2 = 0.00 cm² (min:29.82) (odab:4Ø14)

Aav = ± 0.00 cm²/m (min: ± 2.00) (odab: $\pm \text{Ø}7/15$)

Aah = ± 0.25 cm²/m (min: ± 2.00) (odab: $\pm \text{Ø}7/15$)

Okvir: H_3

TPBK

C 25/30 ($\gamma_C = 1.50$, $\gamma_S = 1.15$)

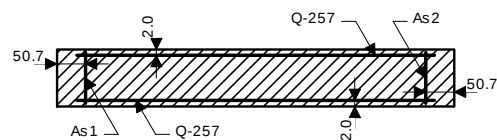
Kutna armatura B500B

Uzdužna armatura B500B

Dimenzioniranje grupe slučajeva opterećenja: 5-16

Presjek 1A - 1A (Z=5.68m)

Mjerodavni presjek za posmik



b/d = 20/1013 cm Ab = 20260 cm²

Mjerodavna kombinacija za savijanje: 1.35xI+1.50xII

Mjerodavna kombinacija za posmik: I+0.30xII+III

Msd = 202.06 kNm

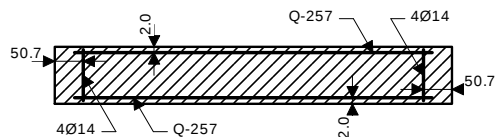
Nsd = -293.83 kN

Vsd = 182.53 kN

As1 = 0.00 cm² (min:30.39)As2 = 0.00 cm² (min:30.39)Aav = ±0.00 cm²/m (min:±2.00)Aah = ±0.23 cm²/m (min:±2.00) (odab:±Q-257)

Presjek 2A - 2A (Z=3.33m)

Mjerodavni presjek za savijanje

b/d = 20/1013 cm Ab = 20260 cm²

Mjerodavna kombinacija za savijanje: I+IV

Mjerodavna kombinacija za posmik: I+0.30xII+III

Msd = 463.27 kNm

Nsd = 57.19 kN

Vsd = 106.91 kN

εb/εa = -0.426/25.000 ‰

As1 = 0.00 cm² (min:30.39)As2 = 0.00 cm² (min:30.39)Aav = ±0.19 cm²/m (min:±2.00)Aah = ±0.13 cm²/m (min:±2.00)

(odab:4Ø14)

(odab:4Ø14)

(odab:±Q-257)

Okvir: H_4
Dispozicija presjeka

Okvir: H_4

TPBK

C 25/30 (γC = 1.50, γS = 1.15)

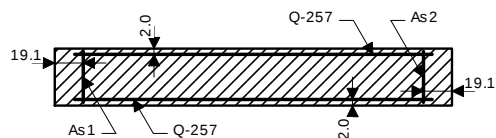
Kutna armatura B500B

Uzdužna armatura B500B

Dimenzioniranje grupe slučajeva opterećenja: 5-16

Presjek 1A - 1A (Z=7.67m)

Mjerodavni presjek za posmik

b/d = 20/382 cm Ab = 7640 cm²

Mjerodavna kombinacija za savijanje: 1.35xI+1.50xII

Mjerodavna kombinacija za posmik: I-1.00xIII

Msd = -53.07 kNm

Nsd = -215.00 kN

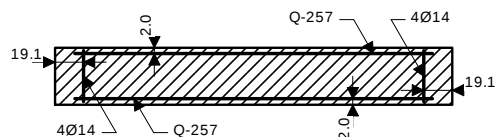
Vsd = -317.25 kN

Okvir: H_5
Dispozicija presjekaAs1 = 0.00 cm² (min:11.46)As2 = 0.00 cm² (min:11.46)Aav = ±0.00 cm²/m (min:±2.00)Aah = ±1.05 cm²/m (min:±2.00)

(odab:±Q-257)

Presjek 2A - 2A (Z=6.86m)

Mjerodavni presjek za savijanje

b/d = 20/382 cm Ab = 7640 cm²

Mjerodavna kombinacija za savijanje: 1.35xI+1.50xII

Mjerodavna kombinacija za posmik: I-1.00xIII

Msd = -54.59 kNm

Nsd = -245.09 kN

Vsd = -199.05 kN

As1 = 0.00 cm² (min:11.46)As2 = 0.00 cm² (min:11.46)Aav = ±0.00 cm²/m (min:±2.00)Aah = ±0.66 cm²/m (min:±2.00)

(odab:4Ø14)

(odab:4Ø14)

(odab:±Q-257)

Okvir: H_5

TPBK

C 25/30 ($\gamma_C = 1.50$, $\gamma_S = 1.15$)

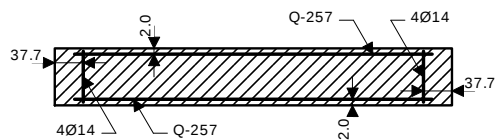
Kutna armatura B500B

Uzdužna armatura B500B

Dimenzioniranje grupe slučajeva opterećenja: 5-16

Presjek 1A - 1A (Z=10.96m)

Mjerodavni presjek za savijanje



$$b/d = 20/193 \text{ cm} \quad A_b = 3860 \text{ cm}^2$$

Mjerodavna kombinacija za savijanje: 1.35xI+1.50xII

Mjerodavna kombinacija za posmik: I+0.30xII-1.00xIV

Msd = 280.57 kNm

Nsd = -53.54 kN

Vsd = -82.38 kN

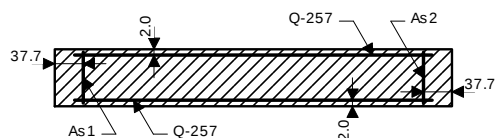
 $\epsilon_b/\epsilon_a = -2.607/25.000 \text{ ‰}$

As1 = 0.00 cm² (min:5.79) (odab:4Ø14)

As2 = 0.00 cm² (min:5.79) (odab:4Ø14)

Aav = $\pm 2.50 \text{ cm}^2/\text{m}$ (min: ± 2.00)Aah = $\pm 0.54 \text{ cm}^2/\text{m}$ (min: ± 2.00) (odab: $\pm Q-257$)**Presjek 2A - 2A (Z=10.54m)**

Mjerodavni presjek za posmik



$$b/d = 20/193 \text{ cm} \quad A_b = 3860 \text{ cm}^2$$

Mjerodavna kombinacija za savijanje: I+0.30xII+IV

Mjerodavna kombinacija za posmik: I+0.30xII-1.00xIV

Msd = 258.99 kNm

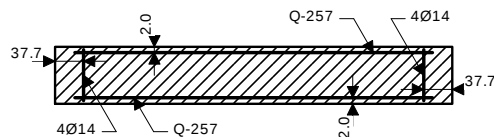
Nsd = -149.29 kN

Vsd = -295.92 kN

 $\epsilon_b/\epsilon_a = -2.439/25.000 \text{ ‰}$

As1 = 0.00 cm² (min:5.79)

As2 = 0.00 cm² (min:5.79)

Aav = $\pm 1.32 \text{ cm}^2/\text{m}$ (min: ± 2.00)Aah = $\pm 1.94 \text{ cm}^2/\text{m}$ (min: ± 2.00) (odab: $\pm Q-257$)**Presjek 3A - 3A (Z=6.86m)**

$$b/d = 20/184 \text{ cm} \quad A_b = 3680 \text{ cm}^2$$

Mjerodavna kombinacija za savijanje: I+III

Mjerodavna kombinacija za posmik: 1.35xI+1.50xII

Msd = 129.10 kNm

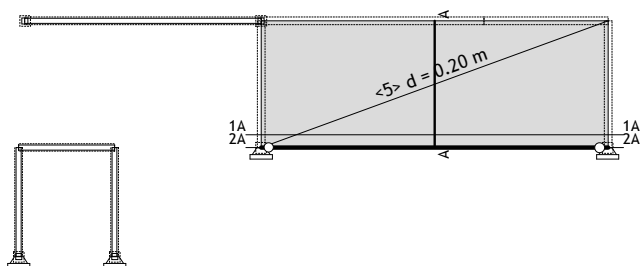
Nsd = -64.66 kN

Vsd = 111.93 kN

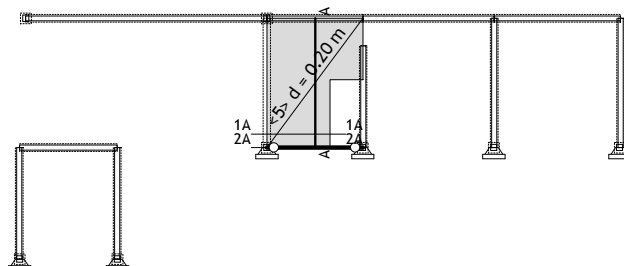
 $\epsilon_b/\epsilon_a = -1.593/25.000 \text{ ‰}$

As1 = 0.00 cm² (min:5.52) (odab:4Ø14)

As2 = 0.00 cm² (min:5.52) (odab:4Ø14)

Aav = $\pm 0.86 \text{ cm}^2/\text{m}$ (min: ± 2.00)Aah = $\pm 0.77 \text{ cm}^2/\text{m}$ (min: ± 2.00) (odab: $\pm Q-257$)**Okvir: V_2**

Dispozicija presjeka

**Okvir: V_4**

Dispozicija presjeka

Okvir: V 2

TPBK

C 25/30 ($\gamma_C = 1.50$, $\gamma_S = 1.15$)

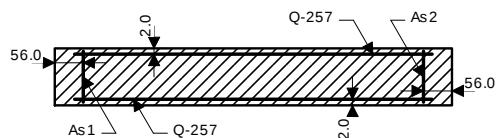
Kutna armatura B500B

Uzdužna armatura B500B

Dimenzioniranje grupe slučajeva opterećenja: 5-16

Presjek 1A - 1A (Z=7.27m)

Mjerodavni presjek za posmik



$$b/d = 20/1120 \text{ cm} \quad A_b = 22400 \text{ cm}^2$$

Mjerodavna kombinacija za savijanje: I+0.30xII-1.00xIV

Mjerodavna kombinacija za posmik: I+0.30xII-1.00xIV

Msd = 1050.58 kNm

Nsd = -680.61 kN

Vsd = -601.77 kN

As1 = 0.00 cm² (min:33.60)

As2 = 0.00 cm² (min:33.60)

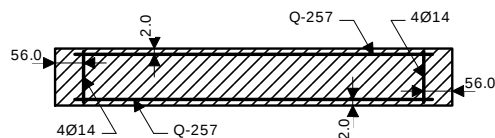
Aav = ±0.00 cm²/m (min:±2.00)

Aah = ±0.68 cm²/m (min:±2.00)

(odab:±Q-257)

Presjek 2A - 2A (Z=6.86m)

Mjerodavni presjek za savijanje



$$b/d = 20/1120 \text{ cm} \quad A_b = 22400 \text{ cm}^2$$

Mjerodavna kombinacija za savijanje: I+0.30xII-1.00xIV

Mjerodavna kombinacija za posmik: I+0.30xII-1.00xIV

Msd = 1215.59 kNm

Nsd = -739.94 kN

Vsd = -375.83 kN

As1 = 0.00 cm² (min:33.60) (odab:4Ø14)

As2 = 0.00 cm² (min:33.60) (odab:4Ø14)

Aav = ±0.00 cm²/m (min:±2.00)

Aah = ±0.42 cm²/m (min:±2.00) (odab:±Q-257)

Okvir: V 4

TPBK

C 25/30 ($\gamma_C = 1.50$, $\gamma_S = 1.15$)

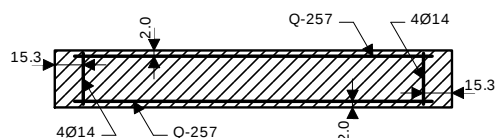
Kutna armatura B500B

Uzdužna armatura B500B

Dimenzioniranje grupe slučajeva opterećenja: 5-16

Presjek 1A - 1A (Z=7.29m)

Mjerodavni presjek za posmik



$$b/d = 20/200 \text{ cm} \quad A_b = 4000 \text{ cm}^2$$

Mjerodavna kombinacija za savijanje: I+IV

Mjerodavna kombinacija za posmik: I-1.00xIV

Msd = -207.98 kNm

Nsd = -36.86 kN

Vsd = -297.11 kN

 $\epsilon_b/\epsilon_a = -1.756/25.000 \%$

As1 = 0.00 cm² (min:6.00) (odab:4Ø14)

As2 = 0.00 cm² (min:6.00) (odab:4Ø14)

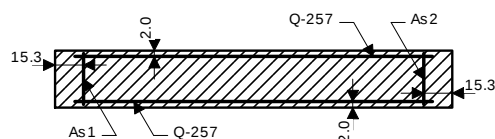
Aav = ±1.23 cm²/m (min:±2.00)

Aah = ±1.88 cm²/m (min:±2.00)

(odab:±Q-257)

Presjek 2A - 2A (Z=6.86m)

Mjerodavni presjek za savijanje



$$b/d = 20/200 \text{ cm} \quad A_b = 4000 \text{ cm}^2$$

Mjerodavna kombinacija za savijanje: I+IV

Mjerodavna kombinacija za posmik: I-1.00xIV

Msd = -238.72 kNm

Nsd = -23.20 kN

Vsd = -136.47 kN

 $\epsilon_b/\epsilon_a = -1.925/25.000 \%$

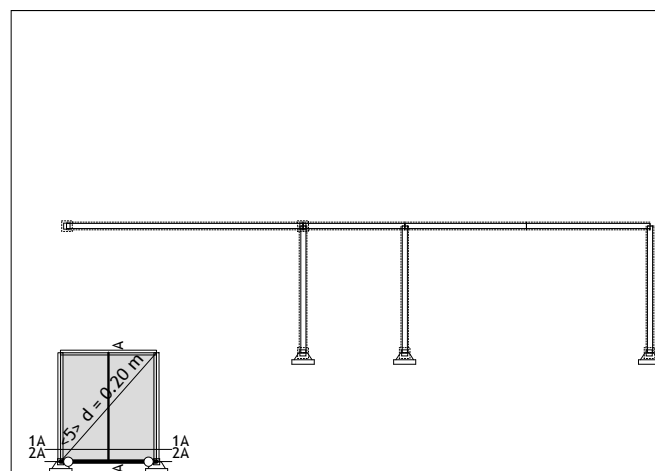
As1 = 0.00 cm² (min:6.00)

As2 = 0.00 cm² (min:6.00)

Aav = ±1.56 cm²/m (min:±2.00)

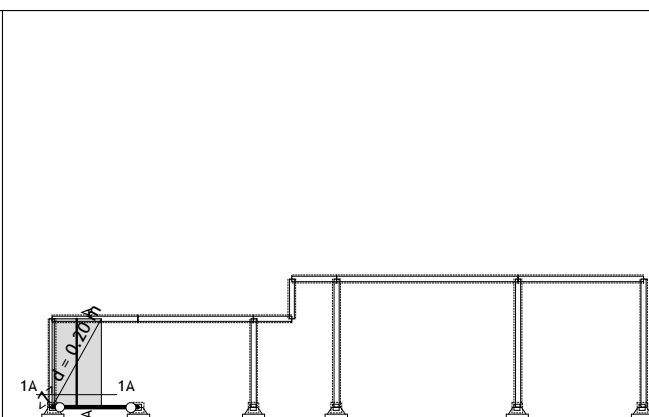
Aah = ±0.86 cm²/m (min:±2.00)

(odab:±Q-257)



Okvir: V_6

Dispozicija presjeka



Okvir: V_9

Dispozicija presjeka

Okvir: V 6

TPBK

C 25/30 ($\gamma_C = 1.50$, $\gamma_S = 1.15$)

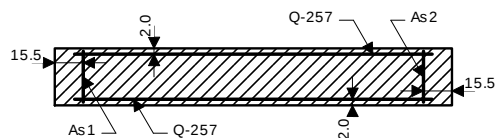
Kutna armatura B500B

Uzdužna armatura B500B

Dimenzioniranje grupe slučajeva opterećenja: 5-16

Presjek 1A - 1A (Z=3.72m)

Mjerodavni presjek za posmik



$$b/d = 20/310 \text{ cm} \quad A_b = 6200 \text{ cm}^2$$

Mjerodavna kombinacija za savijanje: I+III

Mjerodavna kombinacija za posmik: I+0.30xII+IV

Msd = 41.50 kNm

Nsd = -20.41 kN

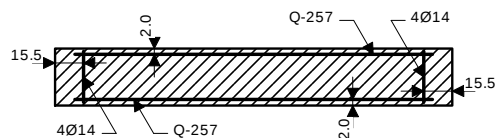
Vsd = 173.23 kN

$$\epsilon_b/\epsilon_a = -0.420/25.000 \text{ ‰}$$

$$\begin{aligned} As1 &= 0.00 \text{ cm}^2 & (\text{min: } 9.30) \\ As2 &= 0.00 \text{ cm}^2 & (\text{min: } 9.30) \\ Aav &= \pm 0.03 \text{ cm}^2/\text{m} & (\text{min: } \pm 2.00) \\ Aah &= \pm 0.71 \text{ cm}^2/\text{m} & (\text{min: } \pm 2.00) \end{aligned} \quad (\text{odab: } \pm Q-257)$$

Presjek 2A - 2A (Z=3.33m)

Mjerodavni presjek za savijanje



$$b/d = 20/310 \text{ cm} \quad A_b = 6200 \text{ cm}^2$$

Mjerodavna kombinacija za savijanje: I+III

Mjerodavna kombinacija za posmik: I+0.30xII+IV

Msd = 63.25 kNm

Nsd = -24.51 kN

Vsd = 129.10 kN

$$\begin{aligned} \epsilon_b/\epsilon_a &= -0.525/25.000 \text{ ‰} \\ As1 &= 0.00 \text{ cm}^2 & (\text{min: } 9.30) & (\text{odab: } 4\emptyset 14) \\ As2 &= 0.00 \text{ cm}^2 & (\text{min: } 9.30) & (\text{odab: } 4\emptyset 14) \\ Aav &= \pm 0.07 \text{ cm}^2/\text{m} & (\text{min: } \pm 2.00) \\ Aah &= \pm 0.53 \text{ cm}^2/\text{m} & (\text{min: } \pm 2.00) & (\text{odab: } \pm Q-257) \end{aligned}$$

Okvir: V 9

TPBK

C 25/30 ($\gamma_C = 1.50$, $\gamma_S = 1.15$)

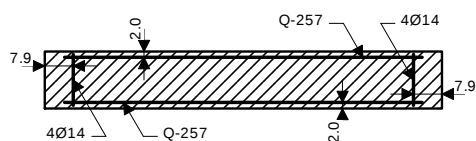
Kutna armatura B500B

Uzdužna armatura B500B

Dimenzioniranje grupe slučajeva opterećenja: 5-16

Presjek 1A - 1A (Z=7.26m)

Mjerodavni presjek za savijanje i posmik



$$b/d = 20/157 \text{ cm} \quad A_b = 3140 \text{ cm}^2$$

Mjerodavna kombinacija za savijanje: I+IV

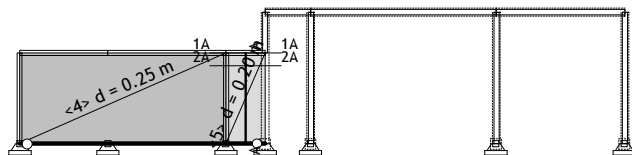
Mjerodavna kombinacija za posmik: I+0.30xII+IV

Msd = 96.57 kNm

Nsd = 37.64 kN

Vsd = 93.53 kN

$$\begin{aligned} \epsilon_b/\epsilon_a &= -1.407/25.000 \text{ ‰} \\ As1 &= 0.00 \text{ cm}^2 & (\text{min: } 4.71) & (\text{odab: } 4\emptyset 14) \\ As2 &= 0.00 \text{ cm}^2 & (\text{min: } 4.71) & (\text{odab: } 4\emptyset 14) \\ Aav &= \pm 1.36 \text{ cm}^2/\text{m} & (\text{min: } \pm 2.00) \\ Aah &= \pm 0.75 \text{ cm}^2/\text{m} & (\text{min: } \pm 2.00) & (\text{odab: } \pm Q-257) \end{aligned}$$



Okvir: V_11
Dispozicija presjeka

Okvir: V_11

TPBK

C 25/30 ($\gamma_C = 1.50$, $\gamma_S = 1.15$)

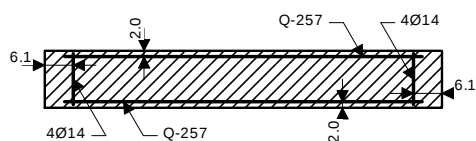
Kutna armatura B500B

Uzdužna armatura B500B

Dimenzioniranje grupe slučajeva opterećenja: 5-16

Presjek 1A - 1A (Z=9.69m)

Mjerodavni presjek za posmik



$$b/d = 20/122 \text{ cm} \quad A_b = 2440 \text{ cm}^2$$

Mjerodavna kombinacija za savijanje: I+0.30xII+IV

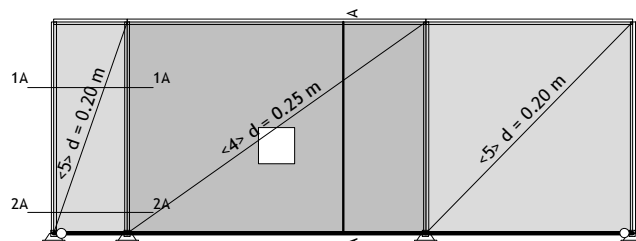
Mjerodavna kombinacija za posmik: I+0.30xII+III

Msd = -28.56 kNm

Nsd = -13.68 kN

Vsd = 119.96 kN

$$\epsilon_b/\epsilon_a = -0.939/25.000 \%$$

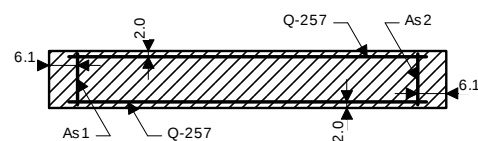


Okvir: V_12
Dispozicija presjeka

As1 =	0.00 cm ²	(min:3.66)	(odab:4Ø14)
As2 =	0.00 cm ²	(min:3.66)	(odab:4Ø14)
Aav =	±0.36 cm ² /m	(min:±2.00)	
Aah =	±1.24 cm ² /m	(min:±2.00)	(odab:±Q-257)

Presjek 2A - 2A (Z=9.29m)

Mjerodavni presjek za savijanje



$$b/d = 20/122 \text{ cm} \quad A_b = 2440 \text{ cm}^2$$

Mjerodavna kombinacija za savijanje: I+III

Mjerodavna kombinacija za posmik: I+0.30xII+IV

Msd = -31.59 kNm

Nsd = -13.66 kN

Vsd = 95.40 kN

$$\epsilon_b/\epsilon_a = -0.994/25.000 \%$$

As1 =	0.00 cm ²	(min:3.66)	
As2 =	0.00 cm ²	(min:3.66)	
Aav =	±0.42 cm ² /m	(min:±2.00)	
Aah =	±0.99 cm ² /m	(min:±2.00)	(odab:±Q-257)

Okvir: V_12

TPBK

C 25/30 ($\gamma_C = 1.50$, $\gamma_S = 1.15$)

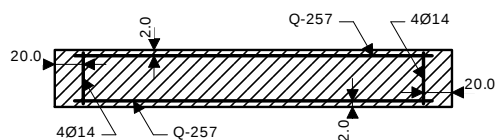
Kutna armatura B500B

Uzdužna armatura B500B

Dimenzioniranje grupe slučajeva opterećenja: 5-16

Presjek 1A - 1A (Z=9.69m)

Mjerodavni presjek za savijanje



$$b/d = 20/142 \text{ cm} \quad A_b = 2840 \text{ cm}^2$$

Mjerodavna kombinacija za savijanje: I+0.30xII+III

Mjerodavna kombinacija za posmik: I+0.30xII+IV

Msd = -20.77 kNm

Nsd = 12.77 kN

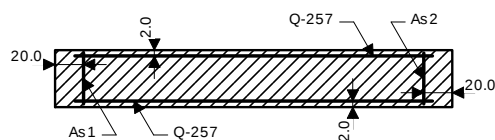
Vsd = 64.26 kN

$$\epsilon_b/\epsilon_a = -0.708/25.000 \%$$

As1 =	0.00 cm ²	(min:4.26)	(odab:4Ø14)
As2 =	0.00 cm ²	(min:4.26)	(odab:4Ø14)
Aav =	±0.48 cm ² /m	(min:±2.00)	
Aah =	±0.57 cm ² /m	(min:±2.00)	(odab:±Q-257)

Presjek 2A - 2A (Z=7.26m)

Mjerodavni presjek za posmik



$$b/d = 20/142 \text{ cm} \quad A_b = 2840 \text{ cm}^2$$

Mjerodavna kombinacija za savijanje: I+0.30xII-1.00xIII

Mjerodavna kombinacija za posmik: I+0.30xII+IV

Msd = -17.54 kNm

Nsd = -83.02 kN

Vsd = 68.78 kN

As1 =	0.00 cm ²	(min:4.26)	
As2 =	0.00 cm ²	(min:4.26)	
Aav =	±0.00 cm ² /m	(min:±2.00)	
Aah =	±0.61 cm ² /m	(min:±2.00)	(odab:±Q-257)