BRONZA d.o.o. SPLIT

Sjedište: SPLIT; Jurja Šižgorića 20

OIB: 74595996156 MBS: 060068323

žiro-račun: **HR8123400091100043955**

mob: **092/2448014**

GLAVNI PROJEKT

GRAĐEVINA:	**VIŠENAMJENSKA SPORTSKA DVORANA - Špaco**
LOKACIJA:	**k.č. 1680/2 k.o. 301612 Milna** **(dio 1715/1, 1680/2 i dio 1680/1; k.o. Milna)**
INVESTITOR:	**Općina Milna** **Sridnja kala 1, 21405 Milna** **OIB: 41430773588**
Z.O.P:	**OKDG 06-24**
RAZINA RAZRADE:	**GLAVNI PROJEKT**
BROJ MAPE:	**2**
	SVEZAK 3
STRUKOVNA ODREDNICA:	**GRAĐEVINSKI PROJEKT -** **PROJEKT KONSTRUKCIJE**
TD:	**34/2024-K**
GLAVNI PROJEKTANT :	Davor Hauptmann, d. i. a. (A3207)
PROJEKTANT:	Jelena Samardžić, mag. ing. aedif. G 5097
DIREKTOR:	Jelena Samardžić, mag. ing. aedif.
DATUM IZRADE:	srpanj 2024. godine

Davor Hauptmann
Digitally signed by Davor Hauptmann
Date: 2024.07.26 08:40:39 +02'00'

Jelena Samardžić
Digitalno potpisao: Jelena Samardžić
Datum: 2024.07.24 13:53:30 +02'00'

JELENA SAMARDŽIĆ
Digitalno potpisao: JELENA SAMARDŽIĆ
Datum: 2024.07.24 13:55:10 +02'00'

MJESTO ZA ŠTAMBILJ ZA OVJERU KONTROLE PROJEKTA

Pregledao ovlašteni revident za:

Kontrolu projekta s obzirom na mehaničku otpornost i stabilnost betonskih i zidanih konstrukcija

Redni broj evidencije: 91/15

Broj upisa: R 29

Prof. dr. sc. Alen Harapin, dipl. ing. građ.
Ovlašteni inženjer građevinarstva

Broj izvješća: 2024-R57

Datum: Srpanj 2024.

Digitalni potpis: Alen Harapin
Digitally signed by Alen Harapin
Date: 2024.07.25 10:47:23+02'00'

Ovlašteni revident za
MEHANIČKU OTPORNOST I STABILNOST METALNIH I SPREGNUTIH KONSTRUKCIJE

Prof. dr.sc. Bernardin Peroš, dipl.ing.građ.

Redni broj evidencije: 18/14
Ovl. inž. građ. HKIG -G, 534

Hrvatska komora inženjera građevinarstva
G - 534

Bernardin Peroš
2024.07.25 12:24:17 +02'00'

POPIS MAPA GLAVNOG PROJEKTA:

ZOP: OKDG 06 - 24

MAPA 1	GLAVNI ARHITEKTONSKI PROJEKT	KREIRANJE d.o.o. Split Davor Hauptmann, d.i.a. (A3207) T.D. 006/24
MAPA 2	GLAVNI GRAĐEVINSKI PROJEKT projekt konstrukcije	BRONZA d.o.o. Split Jelena Samardžić, mag.ing.aedif. (G5097) T.D 34/2024-K
MAPA 3	GLAVNI GRAĐEVINSKI PROJEKT projekt fizikalnih svojstava zgrade	BRONZA d.o.o. Split Jelena Samardžić, mag.ing.aedif. (G5097) T.D. 34/2024-F
MAPA 4	GLAVNI ELEKTROTEHNIČKI PROJEKT - projekt elektroinstalacija	STRILAM d.o.o. Split Antun Stipišić, d.i.el. (E2807) TD-E 08/24
MAPA 5	GLAVNI ELEKTROTEHNIČKI PROJEKT - projekt vatrodojave	STRILAM d.o.o. Split Antun Stipišić, d.i.el. (E2807) TD-V 08/24
MAPA 6	GLAVNI STROJARSKI PROJEKT termotehničkih instalacija	Marit Holten d.o.o. Split Lada Biuk, dipl.ing.stroj. (S 528) TD SI-129/24
MAPA 7	GLAVNI STROJARSKI PROJEKT vodovoda i odvodnje	Marit Holten d.o.o. Split Lada Biuk, dipl.ing.stroj. (S 528) TD VK-130/24

POPIS ELABORATA

GEODETSKI ELABORAT	SURVEYING d.o.o. Split Vinko Ružić dipl.ing.geod. (GEO920) PR 2023-26
ELABORAT ZAŠTITE OD POŽARA	PRO TEST d.o.o. Split Petar Silobrčić, dipl.ing.stroj. (S1857) TD-ZOP-73/24
ELABORAT ZNR	PRO TEST d.o.o. Split Petar Silobrčić, dipl.ing.stroj. (S1857) TD-ZNR-73/24
GEOTEHNIČKI ELABORAT	INSTITUT IGH d.d., RC SPLIT Ivica Samardžija, dipl. ing. građ. (G486) OE 72150 - 43/24

SADRŽAJ

SVEZAK 1

OPĆI DIO PROJEKTA

TEHNIČKI DIO PROJEKTA

SVEZAK 2

OPĆI DIO PROJEKTA

TEHNIČKI DIO PROJEKTA

PRORAČUN KONSTRUKCIJA – TEKSTUALNI DIO....17

SVEZAK 3

OPĆI DIO PROJEKTA

TEHNIČKI DIO PROJEKTA

SVEZAK 4

OPĆI DIO PROJEKTA

TEHNIČKI DIO PROJEKTA

PLANOVI POZICIJA

Rješenje o upisu u sudski registar:

REPUBLIKA HRVATSKA
TRGOVAČKI SUD U SPLITU

IZVADAK IZ SUDSKOG REGISTRA

SUBJEKT UPISA

MBS:
060068323

OIB:
74595996156

EUID:
HRSR.060068323

TVRTKA:
1 BRONZA, d.o.o. za proizvodnju, trgovinu i usluge

1 BRONZA, d.o.o.

SJEDIŠTE/ADRESA:
1 Split (Grad Split)
Šižgorićeva 20

ADRESA ELEKTRONIČKE POŠTE:
4 jelenasamardzic_1@yahoo.com

PRAVNI OBLIK:
1 društvo s ograničenom odgovornošću

PREDMET POSLOVANJA:

1	51.47	- Trg. na veliko ostalim proizv. za kućanstvo
2	*	- kupnja i prodaja robe
2	*	- pružanje usluga u trgovini
2	*	- obavljanje trgovačkog posredovanja na domaćem i inozemnom tržištu
2	*	- zastupanje inozemnih tvrtki
2	*	- usluge informacijskog društva
2	*	- prerada drva, proizvodnja proizvoda od drva i pluta, osim namještaja
2	*	- proizvodnja namještaja
2	*	- popravak predmeta za osobnu uporabu i kućanstvo
2	*	- djelatnost javnoga cestovnog prijevoza putnika i tereta u domaćem i međunarodnom prometu
2	*	- agencijska djelatnost u cestovnom prometu
2	*	- prijevoz za vlastite potrebe
2	*	- organiziranje izložbi, sajmova i drugih priredbi
2	*	- pripremanje i usluživanje jela, pića i napitaka i pružanje usluge smještaja
2	*	- pripremanje jela, pića i napitaka za potrošnju na drugom mjestu sa ili bez usluživanja (u prijevoznom sredstvu, na priredbama i slično) i opskrba tim jelima, pićima i napitcima (catering)
2	*	- turističke usluge u nautičkom turizmu
2	*	- turističke usluge u ostalim oblicima turističke

D004, 2022-06-14 08:43:00 Stranica: 1 od 4

REPUBLIKA HRVATSKA
TRGOVAČKI SUD U SPLITU

IZVADAK IZ SUDSKOG REGISTRA

SUBJEKT UPISA

PREDMET POSLOVANJA:

		ponude
2	*	- ostale turističke usluge
2	*	- turističke usluge koje uključuju športsko-rekreativne ili pustolovne aktivnosti
2	*	- projektiranje i građenje građevina te stručni nadzor građenja
2	*	- energetsko certificiranje, energetski pregled zgrade i redoviti pregled sustava grijanja i sustava hlađenja ili klimatizacije u zgradi
2	*	- stručni poslovi prostornog uređenja
2	*	- obavljanje djelatnosti upravljanja projektom građenja
2	*	- poslovi upravljanja nekretninom i održavanja nekretnina
2	*	- posredovanje u prometu nekretnina
2	*	- poslovanje nekretninama
2	*	- iznajmljivanje vlastitih nekretnina
2	*	- sportska priprema
2	*	- sportska rekreacija
2	*	- sportska poduka
2	*	- organiziranje sportskih natjecanja
2	*	- vođenje sportskih natjecanja
2	*	- upravljanje i održavanje sportskom građevinom
2	*	- sudska vještačenja iz oblasti građevina
2	*	- usluge grafičkog dizajna
2	*	- proizvodnja, izdavanje računalnih programa (softvera), pružanje savjeta o računalnoj i programskoj opremi, usluge obrade podataka, izrade i upravljanje bazama podataka
2	*	- pružanje Internet usluga
2	*	- izrada Internet stranica i multimedijalnih prezentacija
2	*	- uređenje interijera i eksterijera
2	*	- promidžba (reklama i propaganda)
2	*	- savjetovanje u vezi s poslovanjem i upravljanjem
2	*	- knjigovodstvene i računovodstvene usluge
2	*	- organiziranje i održavanje stručnih seminara, tečajeva i kongresa
2	*	- organiziranje izložbi, sajmova i drugih priredbi
2	*	- djelatnost informacijskog društva
2	*	- proizvodnja suvenira od raznih vrsta materijala (tekstila, kamena, keramike, kože, drva, papira, gume, plastike, metala i stakla i drugo)
2	*	- proizvodnja nakita
2	*	- djelatnost pružanja medijskih usluga televizije i/ili radija

OSNIVAČI/ČLANOVI DRUŠTVA:

D004, 2022-06-14 08:43:00 Stranica: 2 od 4

REPUBLIKA HRVATSKA
TRGOVAČKI SUD U SPLITU

IZVADAK IZ SUDSKOG REGISTRA

SUBJEKT UPISA

OSNIVAČI/ČLANOVI DRUŠTVA:

5 Jelena Samardžić, OIB: 06440230964
Split, Ulica Petra Šegedina 18
5 - član društva

OSOBE OVLAŠTENE ZA ZASTUPANJE:

3 Jelena Samardžić, OIB: 06440230964
Split, Ulica Petra Šegedina 18
3 - član uprave
3 - direktor, zastupa pojedinačno i samostalno od 8. veljače 2017.g.

TEMELJNI KAPITAL:
2 20.000,00 kuna

PRAVNI ODNOSI:
Osnivački akt:
1 Izjava o usklađenju sa ZTD od 7.12.1995.god.
2 Odlukom člana Društva od 22. rujna 2015. godine, izmijenjena je Izjava od 7. prosinca 1995. godine, u bitnim odredbama, koje se odnose na predmet poslovanja, temeljni kapital i poslovne udjele društva.
Potpuni tekst Izjave o usklađenju od 22. rujna 2015. godine, dostavljen je u Zbirku isprava suda.
5 Odlukom člana Društva od 19. svibnja 2022. izmijenjena je Izjava o usklađenju od 22. rujna 2015. u čl. 1. odredbe o članovima društva, čl. 4 odredbe o predmetu poslovanja i u čl. 6 odredbe o poslovnim udjelima.

Promjene temeljnog kapitala:
2 Odlukom člana Društva od 22. rujna 2015. godine, povećan je temeljni kapital, sa iznosa od 18.700,00 kuna, za iznos od 1.300,00 kuna, na iznos od 20.000,00 kuna, uplatom u novcu, povećanog uloga za novi poslovni udio.

OSTALI PODACI:
1 RUL I-10607

FINANCIJSKA IZVJEŠĆA:

	Predano	God.	Za razdoblje	Vrsta izvještaja
eu	07.03.22	2021	01.01.21 - 31.12.21	GFI-POD izvještaj

Upise u glavnu knjigu proveli su:

RBU	Tt	Datum	Naziv suda
0001	Tt-95/7702-4	30.09.1997	Trgovački sud u Splitu

D004, 2022-06-14 08:43:00 Stranica: 3 od 4

REPUBLIKA HRVATSKA
TRGOVAČKI SUD U SPLITU

IZVADAK IZ SUDSKOG REGISTRA

SUBJEKT UPISA

Upise u glavnu knjigu proveli su:

RBU	Tt	Datum	Naziv suda
0002	Tt-15/7048-2	16.10.2015	Trgovački sud u Splitu
0003	Tt-17/1168-2	15.02.2017	Trgovački sud u Splitu
0004	Tt-21/5456-2	09.04.2021	Trgovački sud u Splitu
0005	Tt-22/4835-4	06.06.2022	Trgovački sud u Splitu
eu	/	19.06.2009	elektronički upis
eu	/	21.06.2010	elektronički upis
eu	/	31.03.2011	elektronički upis
eu	/	27.03.2012	elektronički upis
eu	/	28.03.2013	elektronički upis
eu	/	27.03.2014	elektronički upis
eu	/	24.03.2015	elektronički upis
eu	/	25.03.2016	elektronički upis
eu	/	24.04.2017	elektronički upis
eu	/	06.04.2018	elektronički upis
eu	/	17.04.2019	elektronički upis
eu	/	03.03.2020	elektronički upis
eu	/	02.03.2021	elektronički upis
eu	/	07.03.2022	elektronički upis

U Splitu, 14. lipnja 2022.

Ovlaštena osoba

REPUBLIKA HRVATSKA
TRGOVAČKI SUD U SPLITU R3- 1845/22

Ovaj izvadak istovjetan je podacima upisanim u Glavnoj knjizi Sudskog registra.
Sudska pristojba plaćana u iznosu 40,00 kn, po Tar. br. 29. Uredbe o tarifi sudskih pristojbi (NN 53/19, 92/21)
U Splitu, 14.6.2022.

Ovlašteni službenik
Ana Ivandić

D004, 2022-06-14 08:43:00 Stranica: 4 od 4

REPUBLIKA HRVATSKA

HRVATSKA KOMORA
INŽENJERA GRAĐEVINARSTVA
10000 Zagreb, Ulica grada Vukovara 271

Klasa: UP/I-360-01/14-01/5097
Urbroj: 500-03-14-1
Zagreb, 09. prosinca 2014. godine

Na temelju članka 103. stavaka 1. i 2. Zakona o arhitektonskim i inženjerskim poslovima i djelatnostima u prostornom uređenju i gradnji ("Narodne novine", broj 152/08., 49/11. i 25/13.) i članka 61. Statuta Hrvatske komore inženjera građevinarstva ("Narodne novine", broj 52/09., 4/12. i 81/13.), Odbor za upis Hrvatske komore inženjera građevinarstva, rješavajući po Zahtjevu za upis **SAMARDŽIĆ JELENE, magistre inženjerke građevinarstva (mag.ing.aedif.), SPLIT, ULICA PETRA ŠEGEDINA 18,** u Imenik ovlaštenih inženjera građevinarstva Hrvatske komore inženjera građevinarstva, donio je

RJEŠENJE
o upisu u Imenik ovlaštenih inženjera građevinarstva Hrvatske komore inženjera građevinarstva

1. U **Imenik ovlaštenih inženjera građevinarstva HKIG** upisuje se **SAMARDŽIĆ JELENA, mag.ing.aedif.,** SPLIT, pod rednim brojem **5097**, s danom upisa **08.12.2014**. godine.

2. Upisom u Imenik ovlaštenih inženjera građevinarstva HKIG, **SAMARDŽIĆ JELENA, mag.ing.aedif.**, stječe pravo na uporabu strukovnog naziva **"ovlašteni inženjer građevinarstva"** i može obavljati poslove projektiranja u svojstvu odgovorne osobe (projektanta i/ili glavnog projektanta) u okviru zadaće građevinske struke, te poslove stručnog nadzora građenja u svojstvu odgovorne osobe (nadzornog inženjera) u okviru zadaće građevinske struke u skladu s člancima 15. i 16. te s tim u vezi s člancima 59. i 62. Zakona o arhitektonskim i inženjerskim poslovima i djelatnostima u prostornom uređenju i gradnji, te ostala prava i dužnosti sukladno posebnim propisima.

3. Ovlaštenom inženjeru građevinarstva HKIG izdaje **"pečat"** i **"inženjersku iskaznicu"**, koji su trajno vlasništvo HKIG.
Ovlašteni inženjer građevinarstva svojim potpisom i otiskom pečata potvrđuje istinitost i točnost proračuna, crteža, izjava, podataka, izvješća, očitovanja i drugih podataka koji su sastavnim dijelovima dokumenata koje izrađuje ili potpisuje u skladu sa zakonima koji uređuju projektiranje i/ili stručni nadzor građenja, ovim Statutom i drugim aktima Komore, te preuzima odgovornost za izrađene sadržaje tih dokumenata. Ovlašteni inženjer građevinarstva iskaznicom dokazuje identitet i javne ovlasti u obavljanju poslova projektiranja i/ili stručnog nadzora građenja u svojstvu odgovorne osobe.

4. Ovlašteni inženjer građevinarstva dobiva posredstvom HKIG policu osiguranja od profesionalne odgovornosti od odabranog osiguravatelja. Polica se izdaje za razdoblje od godinu dana i obnavlja svake godine. Premija osiguranja uračunata je u članarinu ovlaštenog inženjera građevinarstva.

5. Ovlašteni inženjer građevinarstva dužan je plaćati HKIG članarinu i ostala davanja koja utvrde tijela HKIG, osim u slučaju mirovanja članstva, te pri prestanku članstva u HKIG podmiriti sve dospjele financijske obveze prema istima.

6. Ovlašteni inženjer građevinarstva ima prava i dužnosti u skladu s člancima 83., 84. i 85. Statuta Hrvatske komore inženjera građevinarstva.

7. Podnositelj Zahtjeva za upis u Imenik ovlaštenih inženjera građevinarstva HKIG uplatio je upisninu u iznosu od 1.000,00 kn (slovima: tisuću kuna) u korist računa HKIG.

Obrazloženje

SAMARDŽIĆ JELENA, mag.ing.aedif., podnijela je Zahtjev za upis u Imenik ovlaštenih inženjera građevinarstva HKIG.

Odbor za upis HKIG proveo je postupak razmatranja dostavljenog potpunog Zahtjeva imenovane za upis u Imenik ovlaštenih inženjera građevinarstva HKIG u skladu s člancima 24. i 25. Pravilnika o upisima HKIG, te je ocijenio da imenovana u skladu s člankom 105. Zakona o arhitektonskim i inženjerskim poslovima i djelatnostima u prostornom uređenju i gradnji ("Narodne novine", broj 152/08., 49/11. i 25/13.) i člankom 61. Statuta HKIG ("Narodne novine", broj 52/09., 4/12. i 81/13.) ispunjava uvjete za upis u Imenik ovlaštenih inženjera građevinarstva HKIG.

Ovlašteni inženjer građevinarstva upisom u Imenik ovlaštenih inženjera građevinarstva HKIG stječe pravo na obavljanje poslova projektiranja u svojstvu odgovorne osobe (projektanta i/ili glavnog projektanta) u okviru zadaće građevinske struke te poslova stručnog nadzora građenja u svojstvu odgovorne osobe (nadzornog inženjera) u okviru zadaće građevinske struke sve u skladu s člancima 15. i 16. te s tim u vezi s člancima 59. i 62. Zakona o arhitektonskim i inženjerskim poslovima i djelatnostima u prostornom uređenju i gradnji ("Narodne novine", broj 152/08., 49/11. i 25/13.), sve u okviru strukovnih zadataka u skladu s člankom 77. Statuta HKIG ("Narodne novine", broj 52/09., 4/12. i 81/13.), te ostala prava i dužnosti sukladno posebnim propisima.

Ovlašteni inženjer građevinarstva može poslove projektiranja i/ili stučnog nadzora građenja prema članku 19. stavku 1. Zakona o arhitektonskim i inženjerskim poslovima i djelatnostima u prostornom uređenju i gradnji ("Narodne novine", broj 152/08., 49/11. i 25/13.), obavljati samostalno u vlastitom uredu, zajedničkom uredu, projektantskom društvu ili u drugoj pravnoj osobi registriranoj za tu djelatnost.

Ovlašteni inženjer građevinarstva u skladu s člankom 62. stavkom 6. Statuta HKIG ("Narodne novine", broj 52/09., 4/12. i 81/13.), svojim potpisom i otiskom pečata potvrđuje istinitost i točnost proračuna, crteža, izjava, podataka, izvješća, očitovanja i drugih podataka koji su sastavnim dijelovima dokumenata koje izrađuje ili potpisuje u skladu sa zakonima koji uređuju projektiranje i/ili stručni nadzor građenja, ovim Statutom i drugim aktima Komore, te preuzima odgovornost za izrađene sadržaje tih dokumenata. Ovlašteni inženjer građevinarstva iskaznicom dokazuje identitet i javne ovlasti u obavljanju poslova projektiranja i/ili stručnog nadzora građenja u svojstvu odgovorne osobe.

Ovlašteni inženjer građevinarstva, osim u slučaju mirovanja članstva, dobiva posredstvom HKIG policu osiguranja od profesionalne odgovornosti od odabranog osiguravatelja. Polica se izdaje za razdoblje od godinu dana i obnavlja svake godine. Premija osiguranja uračunata je u članarinu ovlaštenog inženjera građevinarstva.

Upisom u Imenik ovlaštenih inženjera građevinarstva HKIG imenovana stječe pravo na "pečat" i "inženjersku iskaznicu" koje joj izdaje HKIG, a koji su trajno vlasništvo HKIG temeljem članka 62. podstavka 2. Statuta HKIG ("Narodne novine", broj 52/09., 4/12. i 81/13.).

Ovlašteni inženjer građevinarstva ima prava i dužnosti u skladu s člancima 83., 84. i 85. Statuta Hrvatske komore inženjera građevinarstva.

Prava ovlaštenog inženjera građevinarstva jesu: surađivati u radu svih tijela i radnih tijela Komore; birati i biti biran u tijela Komore; biti imenovan u radna tijela i tijela Komore; koristiti pravne i stručne usluge koje pruža Komora; prisustvovati seminarima, simpozijima i ostalim stručnim usavršavanjima, te susretima koje organizira Komora; pravo na stalno stručno usavršavanje i primanje Glasila Komore; pravo na pomoć i organiziranje obvezatnog osiguranja od odgovornosti; pravo na slobodno istupanje iz članstva Komore; podnošenje zahtjeva za pokretanje stegovnog postupka;

podnošenje prigovora na rad pojedinih tijela Komore; davanje prijedloga za donošenje novih te za izmjene i dopune akata Komore; podnošenje zahtjeva za mirovanje članstva u Komori.

Dužnosti ovlaštenog inženjera građevinarstva jesu: poštovanje Statuta, Kodeksa strukovne etike, pravila struke, svih akata koje su donijela mjerodavna tijela Komore; savjesno obavljanje funkcije u tijelima Komore i ostalim tijelima u koje su birani, odnosno imenovani; redovito obavještavanje Komore, odnosno njezinih mjerodavnih tijela, te službi Komore o svim podatcima, koje određuju propisi iz područja građenja, Statut i ostali akti Komore, u roku od petnaest dana od nastanka promjene; na zahtjev Komore javiti Komori i njezinim tijelima podatke značajne u svezi s provjerom poštovanja Kodeksa strukovne etike i ostalih akata Komore, prije svega u stegovnim i ostalim postupcima koji se vode u Komori; plaćanje upisnine, redovito plaćanje članarine i ostalih naknada utvrđenih propisima, Statutom i ostalim aktima Komore, u roku dospijeća navedenom na računu; redovito uredno podmirivati troškove osiguranja od profesionalne odgovornosti, ako nije određeno drugačije; u slučaju prestanka članstva u Komori podmiriti sve dospjele obveze prema Komori; poštivati Zakon i druge propise koji uređuju poslove ovlaštenog inženjera građevinarstva.

Ovlašteni inženjer građevinarstva je dužan u skladu s člankom 86. stavcima 1. i 2. Statuta Hrvatske komore inženjera građevinarstva, redovito plaćati članarinu.

Ovlašteni inženjer građevinarstva dužan je u obavljanju poslova projektiranja i/ili stručnog nadzora građenja za koje je stručno kompetentan, poštivati odredbe Zakona i posebnih zakona, tehnička pravila, standarde, norme te osobno odgovarati za svoj rad i snositi odgovornost prema trećim osobama i javnosti.

U skladu s točkom II. Odluke o visini članarine, upisnine i naknade za poslove kojima Hrvatska komora inženjera građevinarstva ostvaruje vlastite prihode, uplaćena je upisnina u iznosu od 1.000,00 kn (slovima: tisuću kuna) u korist računa Hrvatske komore inženjera građevinarstva broj: 2360000-1102087559.

Upravna pristojba plaćena je upravnim biljegom emisije Republike Hrvatske koji je zalijepljen na podnesak i poništen, u vrijednosti 20,00 kn (slovima: dvadeset kuna) prema tarifnom br. 1 i u vrijednosti od 50,00 kn (slovima: pedeset kuna), prema tar.br. 2. Zakona o upravnim pristojbama („Narodne novine" br. 8/96. 77/96. 131/97. 69/98. 66/99. 145/99. 116/00. 110/04. 150/05. 153/05. 129/06. 117/07. 25/08. 60/08. 20/10. 69/10. 126/11. 112/12. i 9/13.).

Na temelju svega prethodno navedenog riješeno je kao u dispozitivu, te predsjednik HKIG u skladu s člankom 28. stavkom 1. Pravilnika o upisima Hrvatske komore inženjera građevinarstva donosi ovo rješenje.

Pouka o pravnom lijeku:

Protiv ovog Rješenja žalba nije dopuštena, ali se može pokrenuti upravni spor podnošenjem tužbe nadležnom upravnom sudu u roku od 30 dana od primitka ovog Rješenja.

Predsjednik
Hrvatske komore inženjera građevinarstva

Zvonimir Sever, dipl.ing.građ.

Dostaviti:

1. **JELENA SAMARDŽIĆ**, 21000 SPLIT, ULICA PETRA ŠEGEDINA 18
2. U Zbirku isprava Komore
3. Pismohrana Komore

S U R A D N I C I

Investitor:	**OPĆINA MILNA**
Tvrtka:	**BRONZA d.o.o. J. Šižgorića 20, 21000 SPLIT**
Građevina:	**VIŠENAMJENSKA SPORTSKA DVORANA - Špaco**
Razina razrade:	**GLAVNI PROJEKT**
Vrsta projekta:	**GRAĐEVINSKI PROJEKT – PROJEKT KONSTRUKCIJE**
Zajednička oznaka projekta:	**OKDG 06 - 24**
Mapa:	**2**
Oznaka projekta:	**34/2024-K**
Datum izrade:	**srpanj 2024.**
Projektant:	**Jelena Samardžić, mag.ing.aedif.**

U izradi ovog projekta sudjelovali su:

Projektant konstrukcije:	**Jelena Samardžić, mag.ing.aedif.**	BRONZA d.o.o.
Suradnik:	**Diana Baričević, dipl.ing.građ.**	BRONZA d.o.o.

Split, srpanj 2024.

Ovlašteni inženjer:
Jelena Samardžić, mag.ing.aedif.

Investitor:	**OPĆINA MILNA**
Tvrtka:	**BRONZA d.o.o. J. Šižgorića 20, 21000 SPLIT**
Građevina:	**VIŠENAMJENSKA SPORTSKA DVORANA - Špaco**
Razina razrade:	**GLAVNI PROJEKT**
Vrsta projekta:	**GRAĐEVINSKI PROJEKT – PROJEKT KONSTRUKCIJE**
Zajednička oznaka projekta:	**OKDG 06 - 24**
Mapa:	**2**
Oznaka projekta:	**34/2024-K**
Datum izrade:	**srpanj 2024.**
Projektant:	**Jelena Samardžić, mag.ing.aedif.**

PRORAČUN KONSTRUKCIJA

TEKSTUALNI DIO

PRORAČUN ARMIRANOBETONSKIH STUPOVA

Model čelične konstrukcije krova na armiranobetoskim stupovima bez vjetrovnih spregova

Modelirana je čelična konstrukcija krova bez zatega te armiranobetonski stupovi D = 50 cm bez armiranobetonskih zidova uz stupove.

Iz modela za proračun čelična konstrukcije krova uklonjeni su zatezni štapovi te proveden proračun.

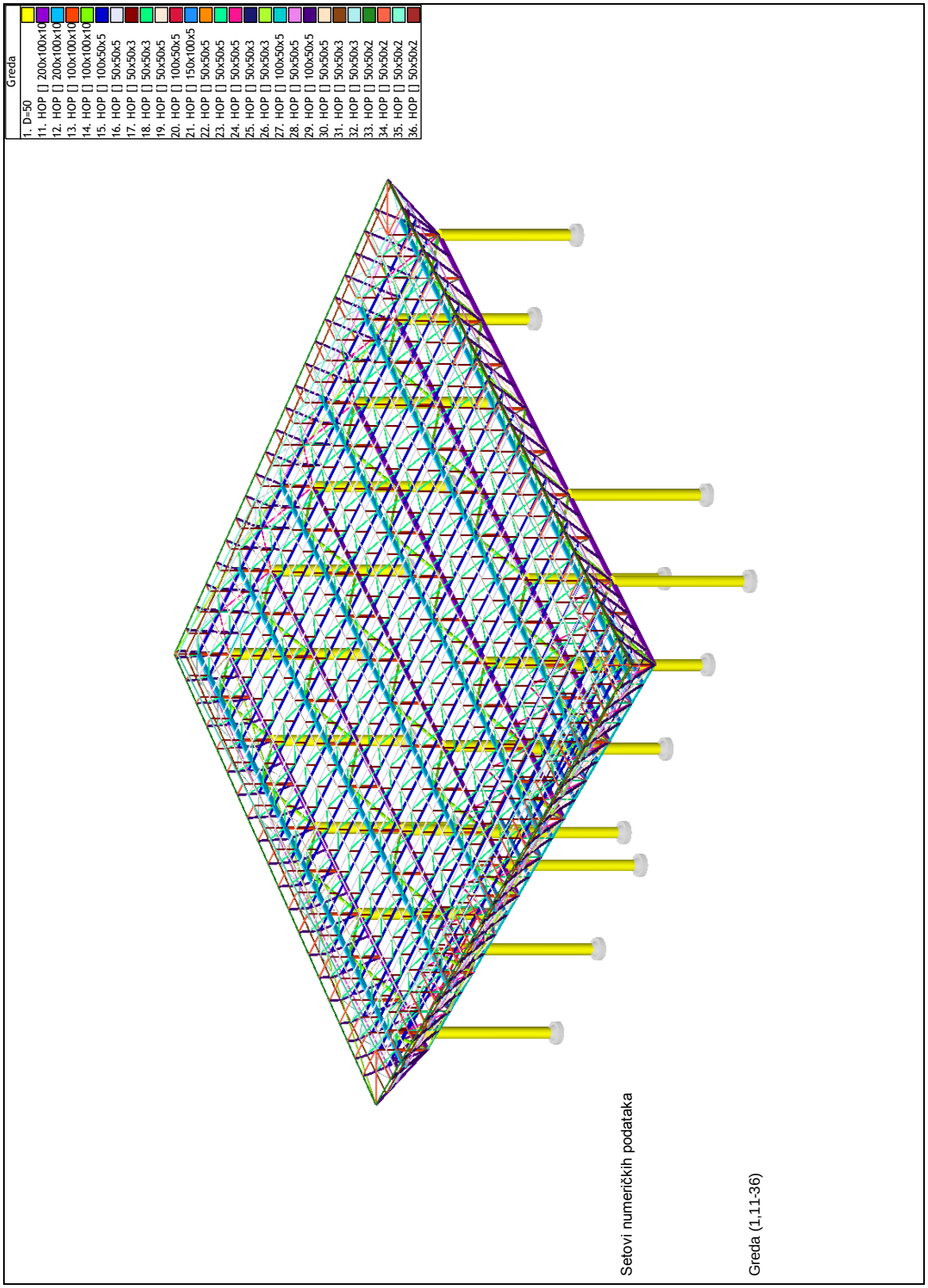
Konstrukcija

Kao u modelu za proračun čelične konstrukcije krova (prikazano u svesku 1), ali bez zateznih štapova vjetrovnih spregova (POZ 37).

Opterećenja

Kao u modelu za proračun čelične konstrukcije krova (prikazano u svesku 1).

Prostorni prikaz modela konstrukcije



Modalna analiza

Faktori opterećenja za proračun masa

No	Naziv	Koeficijent
1	vlastita težina (g)	1.00
2	dodatno stalno	1.00
3	fasada	1.00
4	uporabno	0.30
5	tribine	0.00
6	snijeg	0.00
7	vjetar tlak +x	0.00
8	vjetar vlak +x	0.00
9	vjetar tlak +y	0.00
10	vjetar vlak +y	0.00
11	vjetar tlak -x	0.00
12	vjetar vlak -x	0.00
13	vjetar tlak -y	0.00
14	vjetar vlak -y	0.00

Raspored masa po visini objekta

Nivo	Z [m]	X [m]	Y [m]	Masa [T]	T/m2
POZ 200 - krov	8.80	12.97	9.74	16.33	
POZ 200 - kosi krov - sljeme	8.60	18.86	9.93	31.94	
POZ 200 - kosi krov - vijenac	8.30	5.75	10.08	30.74	
POZ 200 - gornja pojasnica GK	7.80	12.85	10.01	71.68	
POZ 200 - donja pojasnica GK	6.30	12.20	8.86	57.47	
tribina 5	5.40	0.00	0.00	0.00	
tribina 4	4.95	0.00	0.00	0.00	
tribina 3	4.50	0.00	0.00	0.00	
tribina 2	4.05	0.00	0.00	0.00	
tribina 1	3.60	0.00	0.00	0.00	
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	
POZ 000 - temelji	0.00	11.19	10.27	33.11	
Ukupno:	6.61	12.37	9.75	241.27	

Položaj centara krutosti po visini objekta

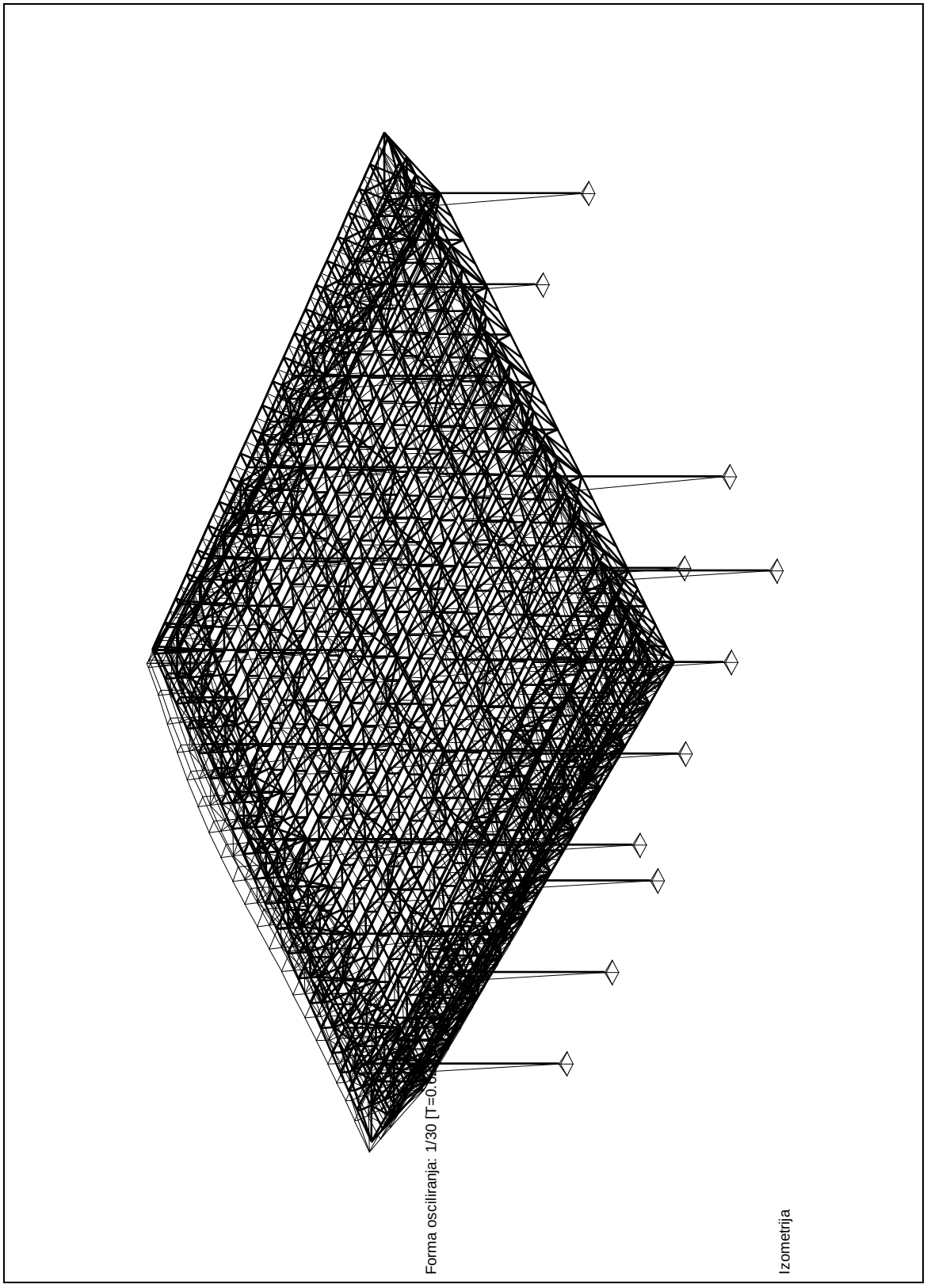
Nivo	Z [m]	X [m]	Y [m]
POZ 200 - krov	8.80	12.80	9.73
POZ 200 - kosi krov - sljeme	8.60	14.38	9.68
POZ 200 - kosi krov - vijenac	8.30	12.86	9.67
POZ 200 - gornja pojasnica GK	7.80	12.58	9.65
POZ 200 - donja pojasnica GK	6.30	11.28	10.23
tribina 5	5.40	11.19	10.27
tribina 4	4.95	11.19	10.27
tribina 3	4.50	11.19	10.27
tribina 2	4.05	11.19	10.27
tribina 1	3.60	11.19	10.27
POZ 100 - strop prizemlja	3.15	11.19	10.27
POZ 000 - temelji	0.00	11.19	10.27

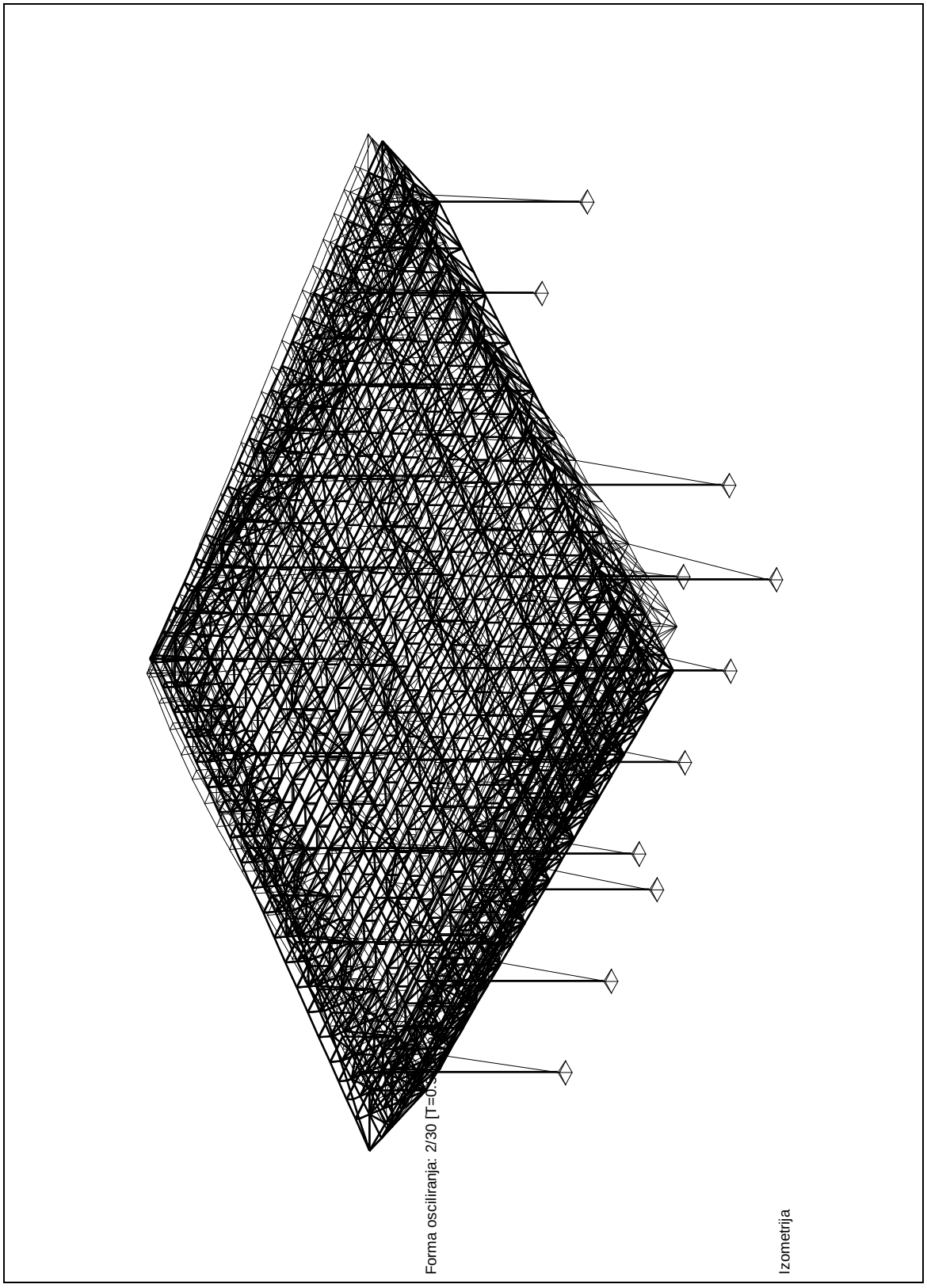
Ekscentricitet po visini objekta

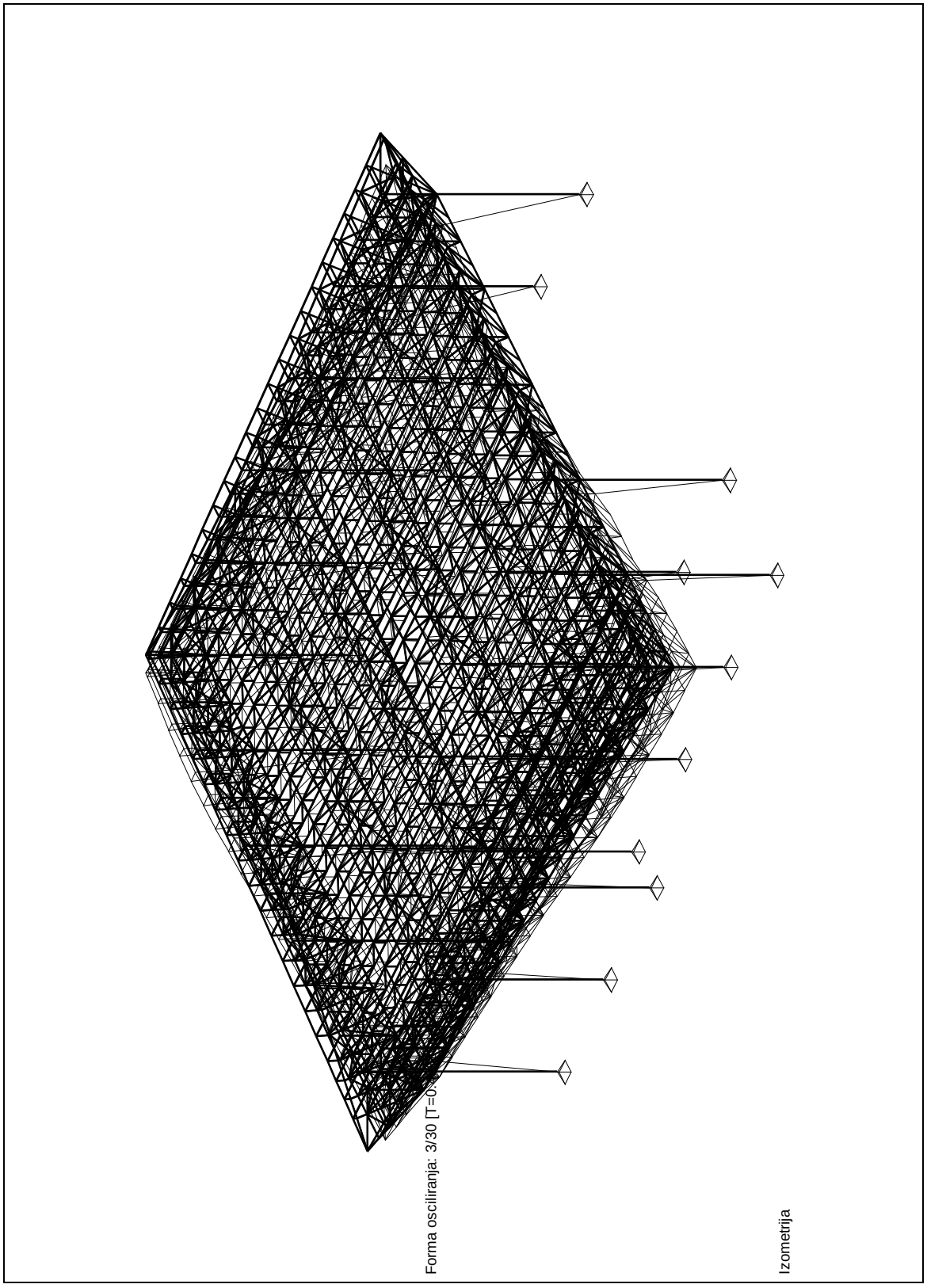
Nivo	Z [m]	eox [m]	eoy [m]
POZ 200 - krov	8.80	0.17	0.01
POZ 200 - kosi krov - sljeme	8.60	4.49	0.24
POZ 200 - kosi krov - vijenac	8.30	7.12	0.41
POZ 200 - gornja pojasnica GK	7.80	0.27	0.37
POZ 200 - donja pojasnica GK	6.30	0.92	1.37
tribina 5	5.40	11.19	10.27
tribina 4	4.95	11.19	10.27
tribina 3	4.50	11.19	10.27
tribina 2	4.05	11.19	10.27
tribina 1	3.60	11.19	10.27
POZ 100 - strop prizemlja	3.15	11.19	10.27
POZ 000 - temelji	0.00	0.00	0.00

Periodi osciliranja konstrukcije

No	T [s]	f [Hz]
1	0.6296	1.5883
2	0.5202	1.9224
3	0.4882	2.0483
4	0.4231	2.3636
5	0.3560	2.8088
6	0.3432	2.9135
7	0.2803	3.5677
8	0.2599	3.8479
9	0.2254	4.4368
10	0.1959	5.1039
11	0.1912	5.2313
12	0.1752	5.7077
13	0.1588	6.2970
14	0.1541	6.4889
15	0.1431	6.9903
16	0.1406	7.1105
17	0.1383	7.2288
18	0.1331	7.5149
19	0.1302	7.6809
20	0.1281	7.8071
21	0.1233	8.1086
22	0.1128	8.8651
23	0.1123	8.9069
24	0.1116	8.9597
25	0.1109	9.0187
26	0.1108	9.0252
27	0.1100	9.0910
28	0.1094	9.1391
29	0.1090	9.1763
30	0.1088	9.1883


Forma oscilir
Izometrija


Forma oscilliranja: 2/30 [T=0.
Izometrija


Forma osciliranja: 3/30 [T=0.
Izometrija

Seizmički proračun

Izvršena je analiza za tip 1 i tip 2 i odabran je tip 1 kao mjerodavan jer se javljaju nešto veći rezultati.

Seizmički proračun: EUROCODE

Kategorija tla:	A
Kategorija značaja:	II (γ=1.2)
Odnos ag/g:	0.27
Faktor ponašanja:	5
Koeficijent prigušenja	0.05
S:	0.9
Tb:	0.05
Tc:	0.15
Td:	1

Faktori pravca potresa:

Naziv	Kx	Ky	Kz
Potres X	1.000	0.300	0.000
Potres Y	0.300	1.000	0.000

Potres X

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]
POZ 200 - krov	8.80	5.58	-0.03	-0.12	0.87	1.25	0.05	-0.10	0.42	0.01
POZ 200 - kosi krov - sljeme	8.60	14.08	-0.23	-0.15	1.00	4.39	0.07	-0.13	1.22	0.01
POZ 200 - kosi krov - vijenac	8.30	12.47	0.06	-0.13	0.80	0.44	0.02	-0.11	0.58	0.00
POZ 200 - gornja pojasnica GK	7.80	29.56	-0.20	-0.34	2.21	5.37	0.12	-0.29	1.97	0.01
POZ 200 - donja pojasnica GK	6.30	16.97	-0.12	-0.10	3.52	3.67	0.06	-0.50	1.39	0.01
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.01	-0.00	-0.00	0.00	0.00	0.00	-0.00	0.00	0.00
	Σ=	78.66	-0.53	-0.84	8.40	15.13	0.32	-1.13	5.59	0.04

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]
POZ 200 - krov	8.80	0.07	0.29	0.02	0.61	-0.35	0.00	0.25	0.52	0.01
POZ 200 - kosi krov - sljeme	8.60	0.11	-0.67	0.00	0.04	0.19	0.01	0.01	-0.53	-0.00
POZ 200 - kosi krov - vijenac	8.30	0.10	2.94	0.02	-0.02	-0.33	0.01	0.00	0.69	0.01
POZ 200 - gornja pojasnica GK	7.80	0.23	2.28	0.03	0.36	-0.29	0.02	0.17	0.43	0.00
POZ 200 - donja pojasnica GK	6.30	0.48	1.58	0.01	1.36	-0.46	0.00	0.67	0.72	-0.00
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	0.00
	Σ=	0.99	6.42	0.08	2.36	-1.24	0.04	1.12	1.84	0.02

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]
POZ 200 - krov	8.80	0.05	0.07	0.03	0.10	-0.02	0.06	-0.01	0.12	-0.00
POZ 200 - kosi krov - sljeme	8.60	0.07	0.61	0.05	0.08	-0.25	0.07	0.00	-0.02	-0.00
POZ 200 - kosi krov - vijenac	8.30	0.07	-0.53	0.01	0.12	0.21	0.01	0.00	-0.07	-0.00
POZ 200 - gornja pojasnica GK	7.80	0.16	0.07	0.08	0.27	-0.03	0.11	0.00	0.01	-0.00
POZ 200 - donja pojasnica GK	6.30	0.50	0.23	0.04	0.81	-0.09	0.03	0.01	0.19	-0.00
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	-0.00
	Σ=	0.85	0.44	0.21	1.38	-0.19	0.28	0.01	0.23	-0.01

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]
POZ 200 - krov	8.80	0.11	0.00	-0.01	0.01	-0.00	-0.00	0.00	0.06	-0.00
POZ 200 - kosi krov - sljeme	8.60	-0.06	-0.01	-0.01	-0.01	-0.00	0.00	-0.00	-0.10	-0.00
POZ 200 - kosi krov - vijenac	8.30	-0.07	-0.01	-0.01	-0.01	0.02	0.00	-0.00	0.00	-0.00
POZ 200 - gornja pojasnica GK	7.80	-0.05	0.00	-0.02	-0.01	0.00	0.00	-0.00	-0.02	-0.01
POZ 200 - donja pojasnica GK	6.30	0.13	0.02	-0.02	0.02	0.02	0.00	0.01	0.17	-0.00
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	0.00	0.00	-0.00
	Σ=	0.07	0.00	-0.06	0.01	0.04	0.00	0.01	0.11	-0.02

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]

POZ 200 - krov	8.80	-0.03	0.01	0.04	-0.00	-0.00	0.00	0.00	0.01	-0.01
POZ 200 - kosi krov - sljeme	8.60	0.01	0.06	0.01	0.00	-0.02	0.00	0.00	-0.03	0.03
POZ 200 - kosi krov - vijenac	8.30	0.02	-0.04	-0.00	0.00	0.02	-0.00	-0.00	-0.04	0.02
POZ 200 - gornja pojasnica GK	7.80	-0.01	-0.00	0.02	-0.00	0.00	0.00	-0.00	-0.02	0.04
POZ 200 - donja pojasnica GK	6.30	0.06	-0.06	0.05	0.00	-0.00	0.00	0.00	0.12	-0.01
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.00	-0.00	0.00	0.00	-0.00	0.00	0.00	0.00	0.00
	Σ=	0.04	-0.03	0.12	0.00	-0.00	0.00	0.00	0.04	0.06

		Ton 16			Ton 17			Ton 18		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.02	-0.03	-0.04	0.01	-0.02	-0.02	0.02	0.00	-0.01
POZ 200 - kosi krov - sljeme	8.60	0.00	-0.07	0.18	-0.00	-0.08	-0.14	-0.01	0.05	0.03
POZ 200 - kosi krov - vijenac	8.30	-0.01	0.01	0.12	0.00	-0.00	-0.12	-0.01	-0.04	-0.06
POZ 200 - gornja pojasnica GK	7.80	-0.02	0.01	0.29	-0.01	-0.00	-0.28	-0.02	0.01	-0.03
POZ 200 - donja pojasnica GK	6.30	0.02	0.12	-0.03	-0.01	0.15	-0.07	0.02	-0.01	-0.03
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.00	0.00	0.00	-0.00	0.00	-0.00	0.00	0.00	-0.00
	Σ=	0.01	0.04	0.52	-0.00	0.05	-0.64	0.01	0.01	-0.10

		Ton 19			Ton 20			Ton 21		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	-0.02	-0.04	-0.02	0.03	-0.02	-0.05	0.03	-0.00	0.09
POZ 200 - kosi krov - sljeme	8.60	0.01	-0.07	-0.01	-0.01	-0.05	-0.37	-0.03	-0.07	0.26
POZ 200 - kosi krov - vijenac	8.30	0.01	-0.09	-0.00	-0.04	-0.07	0.37	-0.03	-0.03	-0.08
POZ 200 - gornja pojasnica GK	7.80	0.03	-0.02	-0.02	-0.08	-0.02	-0.03	-0.06	-0.07	0.23
POZ 200 - donja pojasnica GK	6.30	-0.04	0.32	-0.02	0.17	0.23	-0.01	0.12	0.21	0.21
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	-0.00	0.00	-0.00	0.00	0.00	-0.00	0.00	0.00	0.00
	Σ=	-0.02	0.10	-0.07	0.07	0.07	-0.09	0.03	0.03	0.71

		Ton 22			Ton 23			Ton 24		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	-0.03	0.01	0.08	-0.00	-0.00	-0.00	0.00	-0.00	-0.00
POZ 200 - kosi krov - sljeme	8.60	-0.03	0.00	0.05	0.00	0.00	-0.00	-0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	-0.01	-0.00	0.11	-0.00	0.00	0.00	-0.00	-0.00	-0.00
POZ 200 - gornja pojasnica GK	7.80	-0.00	-0.02	0.20	0.00	-0.00	-0.00	-0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.10	0.01	0.09	-0.00	-0.00	-0.00	0.00	-0.00	-0.00
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.00	-0.00	0.00	0.00	-0.00	-0.00	0.00	0.00	-0.00
	Σ=	0.03	-0.00	0.53	0.00	-0.00	-0.00	0.00	0.00	-0.00

		Ton 25			Ton 26			Ton 27		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	-0.00	0.00	0.00	0.00	0.00	-0.00	0.00	-0.00	-0.00
POZ 200 - kosi krov - sljeme	8.60	-0.00	-0.00	0.00	0.00	0.00	-0.00	0.00	0.00	-0.00
POZ 200 - kosi krov - vijenac	8.30	-0.00	0.00	0.00	0.00	0.00	-0.00	-0.00	0.00	-0.00
POZ 200 - gornja pojasnica GK	7.80	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	-0.00	0.00	-0.00
POZ 200 - donja pojasnica GK	6.30	0.00	0.00	0.00	-0.00	-0.00	-0.00	0.00	-0.00	-0.00
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.00	0.00	0.00	-0.00	0.00	-0.00	0.00	0.00	-0.00
	Σ=	0.00	0.00	0.00	-0.00	0.00	-0.00	0.00	0.00	-0.00

		Ton 28			Ton 29			Ton 30		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	-0.00	-0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	-0.00	0.00	0.00	-0.00	0.00	-0.00	-0.00	-0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	-0.00	0.00	0.00	-0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	-0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.00	0.00	0.00	0.00	-0.00	-0.00	0.01	0.00	0.00
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.00	-0.00	0.00	0.00	-0.00	-0.00	0.00	-0.00	0.00
	Σ=	0.00	-0.00	0.00	0.00	-0.00	-0.00	0.00	-0.00	0.01

Nivo	Z [m]	Svi tonovi		
		Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	7.57	2.25	0.11
POZ 200 - kosi krov - sljeme	8.60	15.14	4.30	0.08
POZ 200 - kosi krov - vijenac	8.30	13.29	3.73	0.28
POZ 200 - gornja pojasnica GK	7.80	32.46	9.45	0.43
POZ 200 - donja pojasnica GK	6.30	24.44	8.40	0.22
tribina 5	5.40	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.01	0.01	0.00
	Σ=	92.91	28.15	1.13

Potres Y

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]
POZ 200 - krov	8.80	1.64	-0.01	-0.03	1.18	1.71	0.07	-0.97	4.03	0.07
POZ 200 - kosi krov - sljeme	8.60	4.14	-0.07	-0.05	1.36	5.99	0.09	-1.23	11.64	0.07
POZ 200 - kosi krov - vijenac	8.30	3.66	0.02	-0.04	1.09	0.61	0.03	-1.01	5.53	0.02
POZ 200 - gornja pojasnica GK	7.80	8.69	-0.06	-0.10	3.02	7.33	0.16	-2.72	18.81	0.11
POZ 200 - donja pojasnica GK	6.30	4.99	-0.04	-0.03	4.81	5.01	0.08	-4.78	13.21	0.12
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.00	-0.00	-0.00	0.00	0.00	0.00	-0.00	0.01	0.00
	Σ=	23.12	-0.16	-0.25	11.45	20.64	0.44	-10.72	53.23	0.38

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]
POZ 200 - krov	8.80	0.17	0.66	0.05	-0.16	0.09	-0.00	0.33	0.68	0.01
POZ 200 - kosi krov - sljeme	8.60	0.25	-1.55	0.01	-0.01	-0.05	-0.00	0.02	-0.69	-0.00
POZ 200 - kosi krov - vijenac	8.30	0.22	6.77	0.04	0.01	0.09	-0.00	0.00	0.91	0.01
POZ 200 - gornja pojasnica GK	7.80	0.54	5.26	0.07	-0.10	0.08	-0.00	0.22	0.56	0.00
POZ 200 - donja pojasnica GK	6.30	1.11	3.65	0.01	-0.37	0.12	-0.00	0.88	0.94	-0.00
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.00	0.00	0.00	-0.00	0.00	-0.00	0.00	0.00	0.00
	Σ=	2.28	14.80	0.18	-0.63	0.33	-0.01	1.46	2.40	0.02

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]
POZ 200 - krov	8.80	0.04	0.05	0.02	0.02	-0.00	0.01	-0.03	0.35	-0.00
POZ 200 - kosi krov - sljeme	8.60	0.05	0.43	0.04	0.01	-0.04	0.01	0.01	-0.06	-0.01
POZ 200 - kosi krov - vijenac	8.30	0.05	-0.38	0.00	0.02	0.04	0.00	0.01	-0.20	-0.00
POZ 200 - gornja pojasnica GK	7.80	0.12	0.05	0.06	0.05	-0.00	0.02	0.01	0.02	-0.01
POZ 200 - donja pojasnica GK	6.30	0.36	0.16	0.03	0.14	-0.02	0.01	0.03	0.57	-0.01
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	-0.00
	Σ=	0.60	0.31	0.15	0.24	-0.03	0.05	0.02	0.68	-0.03

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]
POZ 200 - krov	8.80	0.04	0.00	-0.00	0.02	-0.01	-0.00	0.00	0.18	-0.01
POZ 200 - kosi krov - sljeme	8.60	-0.02	-0.00	-0.00	-0.01	-0.01	0.00	-0.01	-0.29	-0.01
POZ 200 - kosi krov - vijenac	8.30	-0.02	-0.00	-0.00	-0.01	0.05	0.00	-0.00	0.00	-0.00
POZ 200 - gornja pojasnica GK	7.80	-0.02	0.00	-0.01	-0.01	0.01	0.00	-0.00	-0.06	-0.02
POZ 200 - donja pojasnica GK	6.30	0.05	0.01	-0.01	0.04	0.04	0.00	0.03	0.47	-0.01
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	0.00	0.00	-0.00
	Σ=	0.03	0.00	-0.02	0.02	0.09	0.01	0.02	0.30	-0.05

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]
POZ 200 - krov	8.80	0.01	-0.00	-0.02	0.00	0.00	-0.00	0.01	0.03	-0.04
POZ 200 - kosi krov - sljeme	8.60	-0.00	-0.03	-0.00	-0.00	0.01	-0.00	0.00	-0.08	0.08
POZ 200 - kosi krov - vijenac	8.30	-0.01	0.02	0.00	-0.00	-0.01	0.00	-0.00	-0.11	0.05
POZ 200 - gornja pojasnica GK	7.80	0.01	0.00	-0.01	0.00	-0.00	-0.00	-0.01	-0.06	0.11
POZ 200 - donja pojasnica GK	6.30	-0.03	0.03	-0.03	-0.00	0.00	-0.00	0.01	0.34	-0.02
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

POZ 000 - temelji	0.00	-0.00	0.00	-0.00	-0.00	0.00	-0.00	0.00	0.00	0.00
	Σ=	-0.02	0.02	-0.06	-0.00	0.00	-0.00	0.01	0.12	0.17

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]
POZ 200 - krov	8.80	0.03	-0.04	-0.06	0.05	-0.09	-0.08	0.02	0.00	-0.01
POZ 200 - kosi krov - sljeme	8.60	0.01	-0.12	0.30	-0.02	-0.31	-0.59	-0.01	0.06	0.04
POZ 200 - kosi krov - vijenac	8.30	-0.01	0.02	0.19	0.01	-0.01	-0.51	-0.01	-0.05	-0.08
POZ 200 - gornja pojasnica GK	7.80	-0.03	0.01	0.47	-0.03	-0.01	-1.15	-0.02	0.01	-0.04
POZ 200 - donja pojasnica GK	6.30	0.03	0.20	-0.05	-0.02	0.62	-0.29	0.02	-0.01	-0.03
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.00	0.00	0.00	-0.00	0.00	-0.01	0.00	0.00	-0.00
	Σ=	0.02	0.06	0.87	-0.01	0.20	-2.62	0.01	0.01	-0.12

Nivo	Z [m]	Ton 19			Ton 20			Ton 21		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	-0.16	-0.26	-0.16	0.03	-0.02	-0.05	0.03	-0.00	0.09
POZ 200 - kosi krov - sljeme	8.60	0.06	-0.50	-0.03	-0.01	-0.05	-0.37	-0.03	-0.07	0.27
POZ 200 - kosi krov - vijenac	8.30	0.08	-0.60	-0.02	-0.04	-0.07	0.37	-0.03	-0.03	-0.08
POZ 200 - gornja pojasnica GK	7.80	0.19	-0.17	-0.12	-0.08	-0.02	-0.03	-0.06	-0.07	0.23
POZ 200 - donja pojasnica GK	6.30	-0.28	2.19	-0.11	0.17	0.23	-0.01	0.12	0.21	0.22
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	-0.00	0.00	-0.00	0.00	0.00	-0.00	0.00	0.00	0.00
	Σ=	-0.11	0.67	-0.45	0.07	0.07	-0.09	0.03	0.03	0.73

Nivo	Z [m]	Ton 22			Ton 23			Ton 24		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	-0.01	0.00	0.02	0.00	0.00	0.00	0.00	-0.00	-0.00
POZ 200 - kosi krov - sljeme	8.60	-0.01	0.00	0.01	-0.00	-0.00	0.00	-0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	-0.00	-0.00	0.03	0.00	-0.00	-0.00	-0.00	-0.00	-0.00
POZ 200 - gornja pojasnica GK	7.80	-0.00	-0.01	0.06	-0.00	0.00	0.00	-0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.03	0.00	0.03	0.00	0.00	0.00	0.00	-0.00	-0.00
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.00	-0.00	0.00	-0.00	0.00	0.00	0.00	0.00	-0.00
	Σ=	0.01	-0.00	0.15	-0.00	0.00	0.00	0.00	0.00	-0.00

Nivo	Z [m]	Ton 25			Ton 26			Ton 27		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	-0.00	0.00	0.00	0.00	0.01	-0.00	0.00	-0.00	-0.00
POZ 200 - kosi krov - sljeme	8.60	-0.00	-0.00	0.00	0.00	0.00	-0.00	0.00	0.00	-0.00
POZ 200 - kosi krov - vijenac	8.30	-0.00	0.00	0.00	0.00	0.00	-0.01	-0.00	0.00	-0.00
POZ 200 - gornja pojasnica GK	7.80	-0.00	-0.00	0.00	-0.00	-0.01	-0.01	-0.00	0.00	-0.00
POZ 200 - donja pojasnica GK	6.30	0.00	0.00	0.00	-0.00	-0.01	-0.00	0.00	-0.00	-0.00
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.00	0.00	0.00	-0.00	0.00	-0.00	0.00	0.00	-0.00
	Σ=	0.00	0.00	0.00	-0.00	0.00	-0.02	0.00	0.00	-0.00

Nivo	Z [m]	Ton 28			Ton 29			Ton 30		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	-0.00	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	-0.00	-0.00	-0.00	-0.00	0.00	0.00	-0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	-0.00	-0.00	-0.00	-0.00	-0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.00	-0.00	-0.00	0.00	-0.00	-0.00	0.00	0.00	0.00
tribina 5	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tribina 1	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 000 - temelji	0.00	-0.00	0.00	-0.00	0.00	-0.00	-0.00	0.00	-0.00	0.00
	Σ=	-0.00	0.00	-0.00	0.00	-0.00	-0.00	0.00	-0.00	0.00

Nivo	Z [m]	Svi tonovi		
		Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	2.29	7.36	-0.12
POZ 200 - kosi krov - sljeme	8.60	4.55	14.21	-0.16
POZ 200 - kosi krov - vijenac	8.30	3.99	12.59	0.00
POZ 200 - gornja pojasnica GK	7.80	9.75	31.67	-0.20
POZ 200 - donja pojasnica GK	6.30	7.31	27.94	-0.11
tribina 5	5.40	0.00	0.00	0.00
tribina 4	4.95	0.00	0.00	0.00
tribina 3	4.50	0.00	0.00	0.00
tribina 2	4.05	0.00	0.00	0.00

tribina 1	3.60	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	0.00	0.00	0.00
POZ 000 - temelji	0.00	0.00	0.02	-0.00
	Σ=	27.88	93.78	-0.58

Faktori participacije - Relativno učešće

Ton \ Naziv	1. Potres X	2. Potres Y
1	0.775	0.066
2	0.128	0.236
3	0.005	0.490
4	0.029	0.152
5	0.020	0.001
6	0.016	0.028
7	0.010	0.005
8	0.013	0.000
9	0.001	0.007
10	0.001	0.000
11	0.000	0.001
12	0.000	0.003
13	0.000	0.000
14	0.000	0.000
15	0.000	0.001
16	0.000	0.001
17	0.000	0.002
18	0.000	0.000
19	0.000	0.006
20	0.001	0.001
21	0.000	0.000
22	0.000	0.000
23	0.000	0.000
24	0.000	0.000
25	0.000	0.000
26	0.000	0.000
27	0.000	0.000
28	0.000	0.000
29	0.000	0.000
30	0.000	0.000

Faktori participacije - Sudjelujuće mase

Ton	UX (%)	UY (%)	UZ (%)	ΣUX (%)	ΣUY (%)	ΣUZ (%)
1	73.38	0.00	0.01	73.38	0.00	0.01
2	5.07	16.47	0.01	78.45	16.48	0.02
3	2.14	52.74	0.00	80.59	69.22	0.02
4	0.31	13.17	0.00	80.90	82.39	0.02
5	2.61	0.72	0.00	83.51	83.11	0.02
6	0.69	1.89	0.00	84.21	85.00	0.02
7	0.57	0.15	0.04	84.77	85.15	0.06
8	1.03	0.02	0.04	85.81	85.17	0.10
9	0.00	0.42	0.00	85.81	85.59	0.10
10	0.04	0.00	0.02	85.84	85.59	0.12
11	0.00	0.04	0.00	85.85	85.63	0.12
12	0.00	0.14	0.00	85.85	85.78	0.13
13	0.03	0.01	0.17	85.87	85.79	0.29
14	0.00	0.00	0.00	85.87	85.79	0.30
15	0.00	0.05	0.11	85.87	85.84	0.40
16	0.00	0.02	4.53	85.88	85.86	4.93
17	0.00	0.08	14.55	85.88	85.94	19.48
18	0.00	0.00	0.47	85.88	85.95	19.95
19	0.01	0.29	0.13	85.89	86.24	20.09
20	0.02	0.02	0.03	85.91	86.26	20.12
21	0.01	0.01	4.91	85.92	86.27	25.02
22	0.01	0.00	4.45	85.93	86.27	29.47
23	0.00	0.00	0.00	85.93	86.27	29.47
24	0.00	0.00	0.00	85.93	86.27	29.47
25	0.00	0.00	0.00	85.93	86.27	29.47
26	0.00	0.00	0.06	85.93	86.27	29.53
27	0.00	0.00	0.01	85.93	86.27	29.54
28	0.00	0.00	0.06	85.93	86.27	29.60
29	0.00	0.00	0.00	85.93	86.27	29.60
30	0.00	0.00	0.02	85.93	86.27	29.62

Aktivirano je 85,93% mase u x-smjeru i 86,27% u y-smjeru.

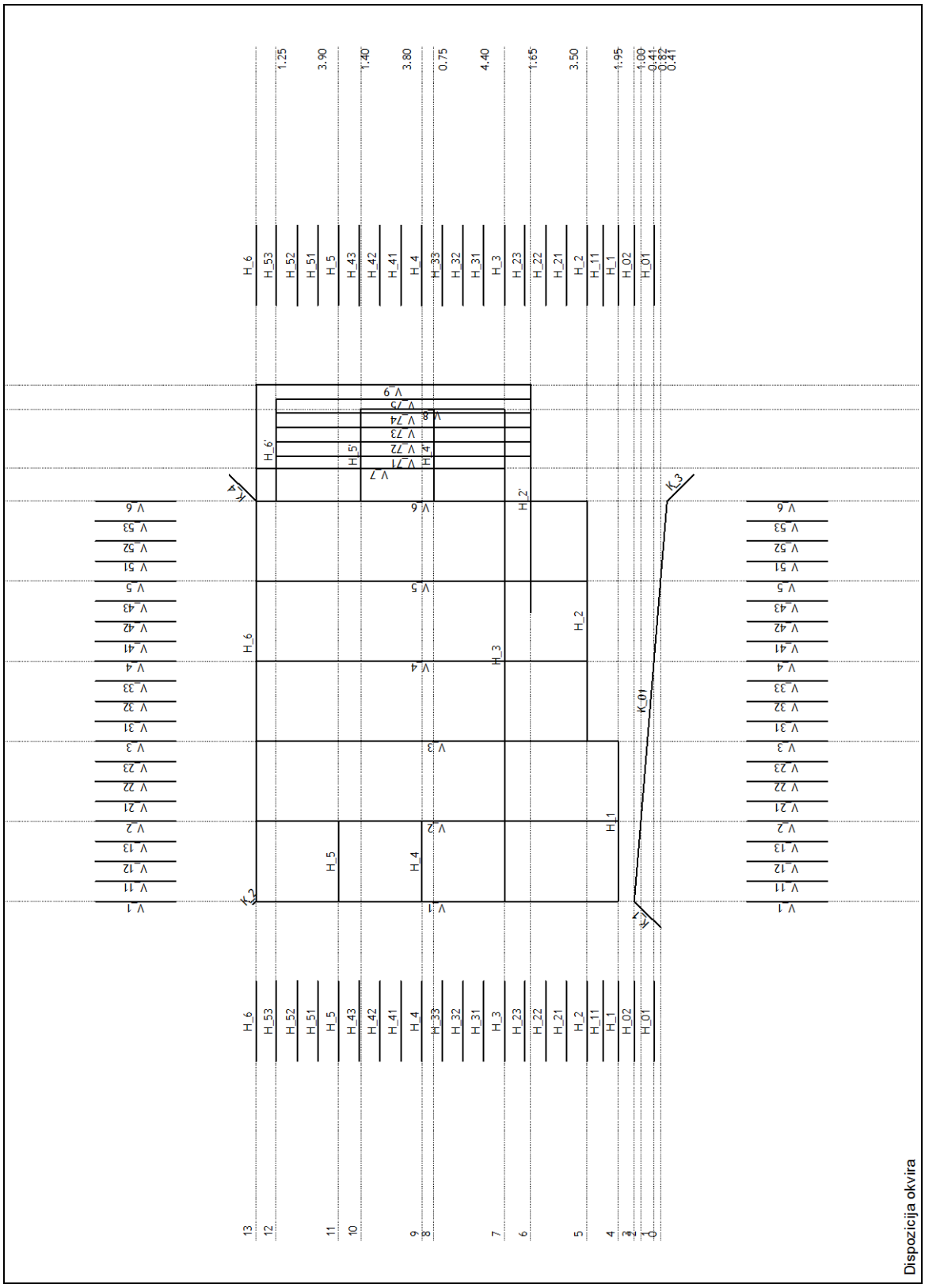
Koeficijenti za seizmičko opterećenje uvećani su:

x-smjer: 100 / 85,93 = 1,16

y-smjer: 100 / 86,27 = 1,16

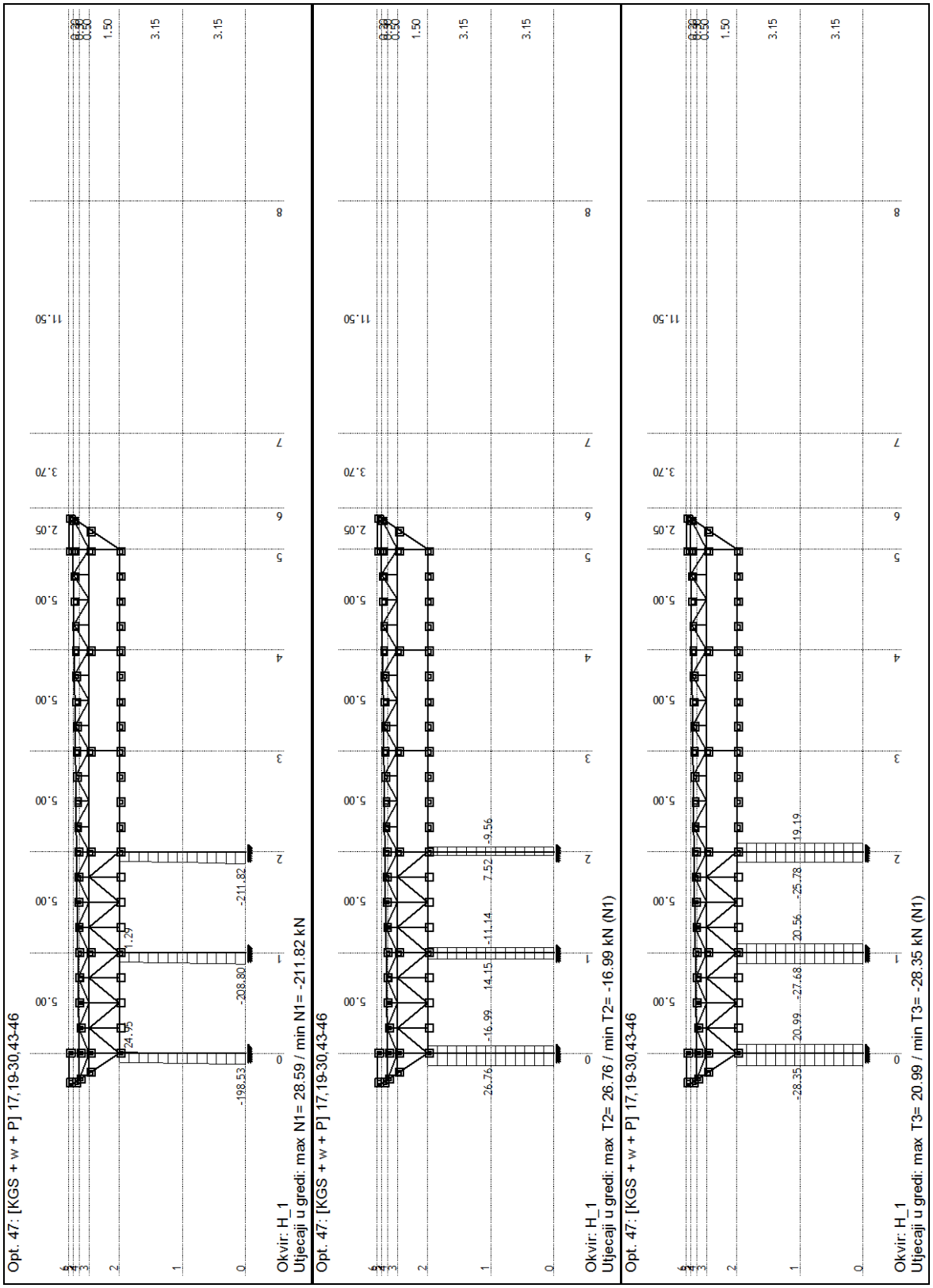
PRORAČUN STUPOVA

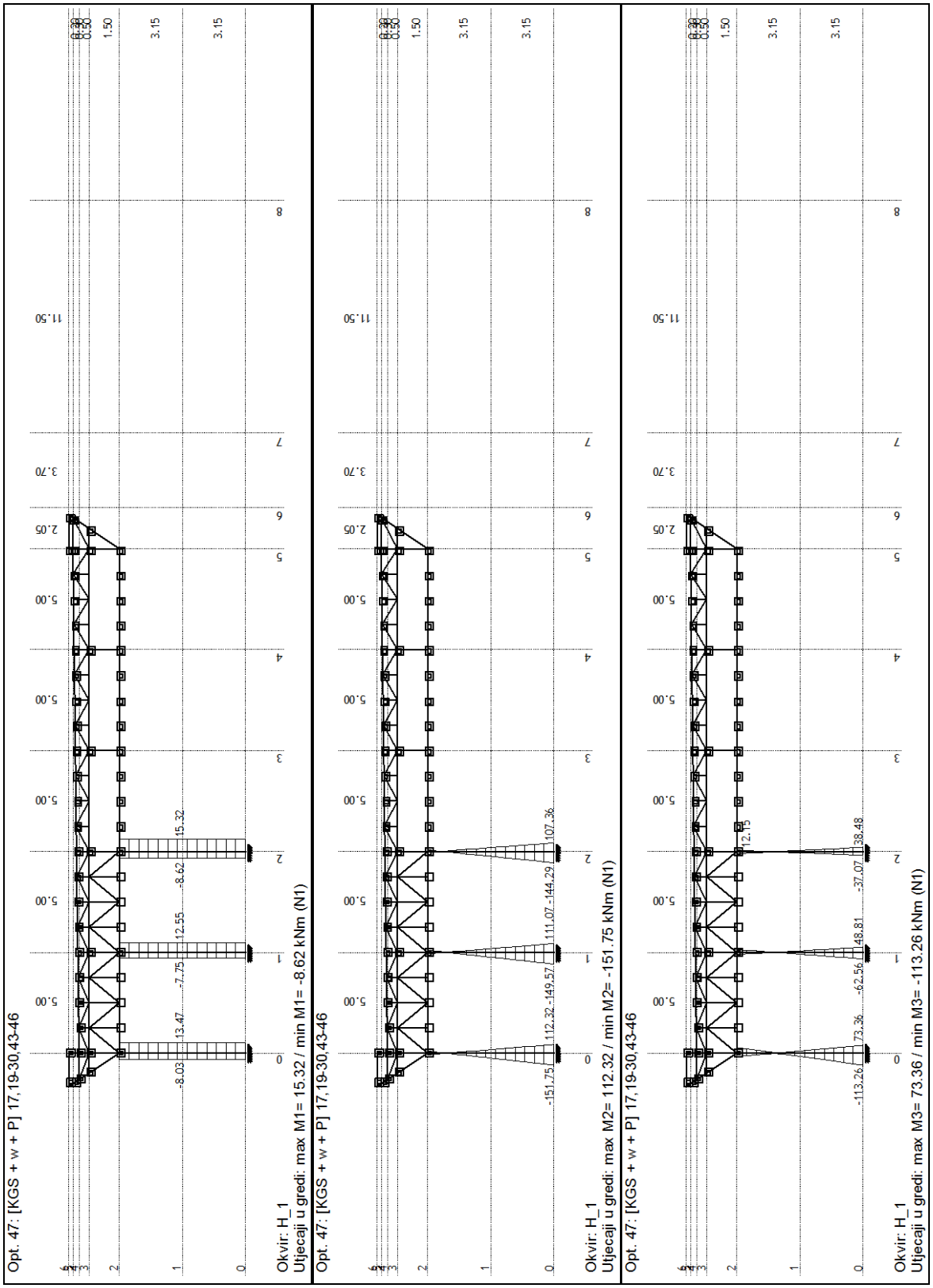
Proračun je izvršen za anvelopu seizmičkog opterećenja. Proračun je razložen po osima (okvirima). Dimenzioniranje je izvršeno za mjerodavne kombinacije.



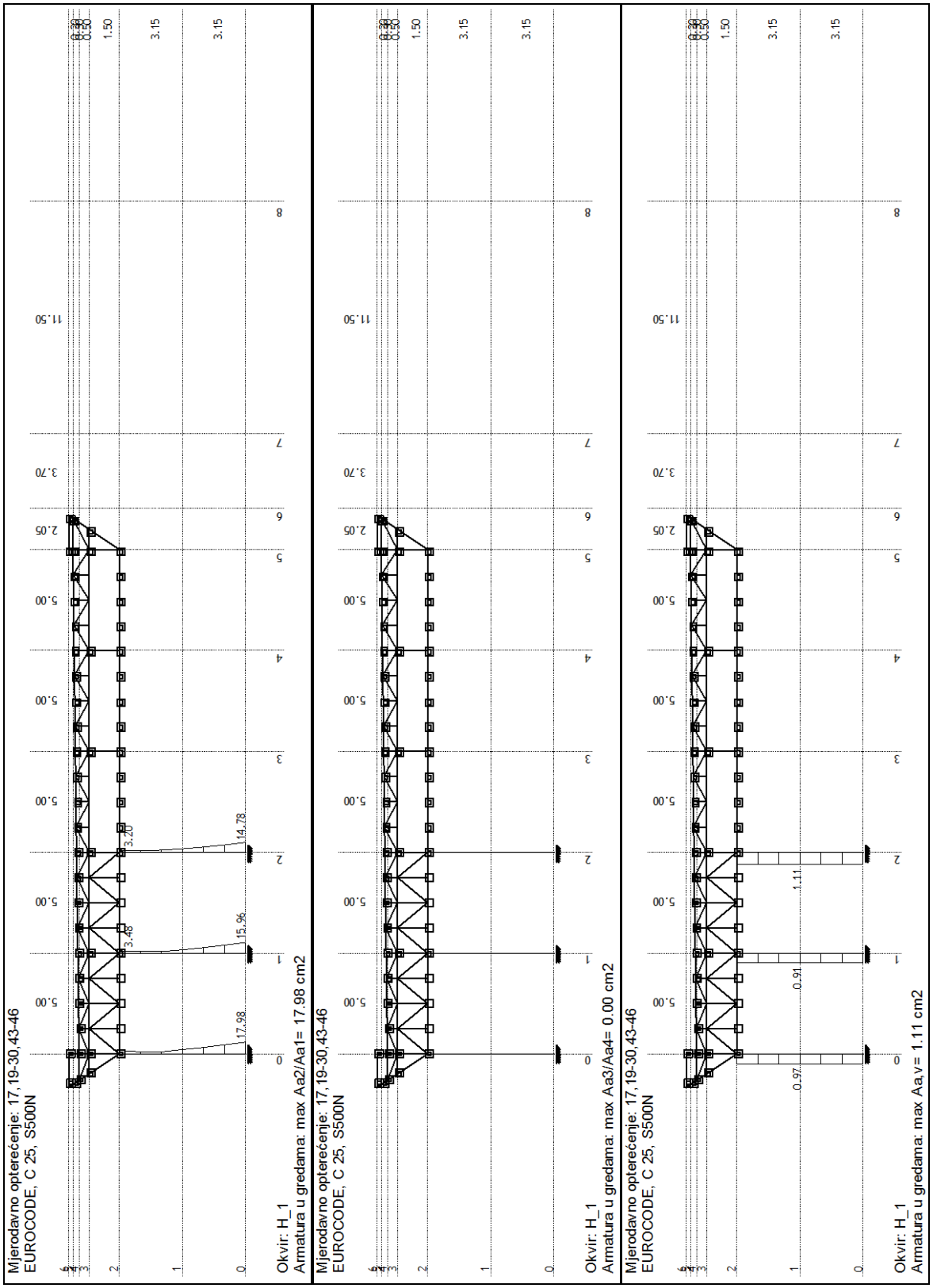
Stupovi osi H_1

KGS




Opt. 47: [KGS + w + P] 17,19-30,43-46
Okvir: H_1
Utjecaji u gredi: max M1= 15.32 / min M1= -8.62 kNm (N1)
Opt. 47: [KGS + w + P] 17,19-30,43-46
Okvir: H_1
Utjecaji u gredi: max M2= 112.32 / min M2= -151.75 kNm (N1)
Opt. 47: [KGS + w + P] 17,19-30,43-46
Okvir: H_1
Utjecaji u gredi: max M3= 73.36 / min M3= -113.26 kNm (N1)

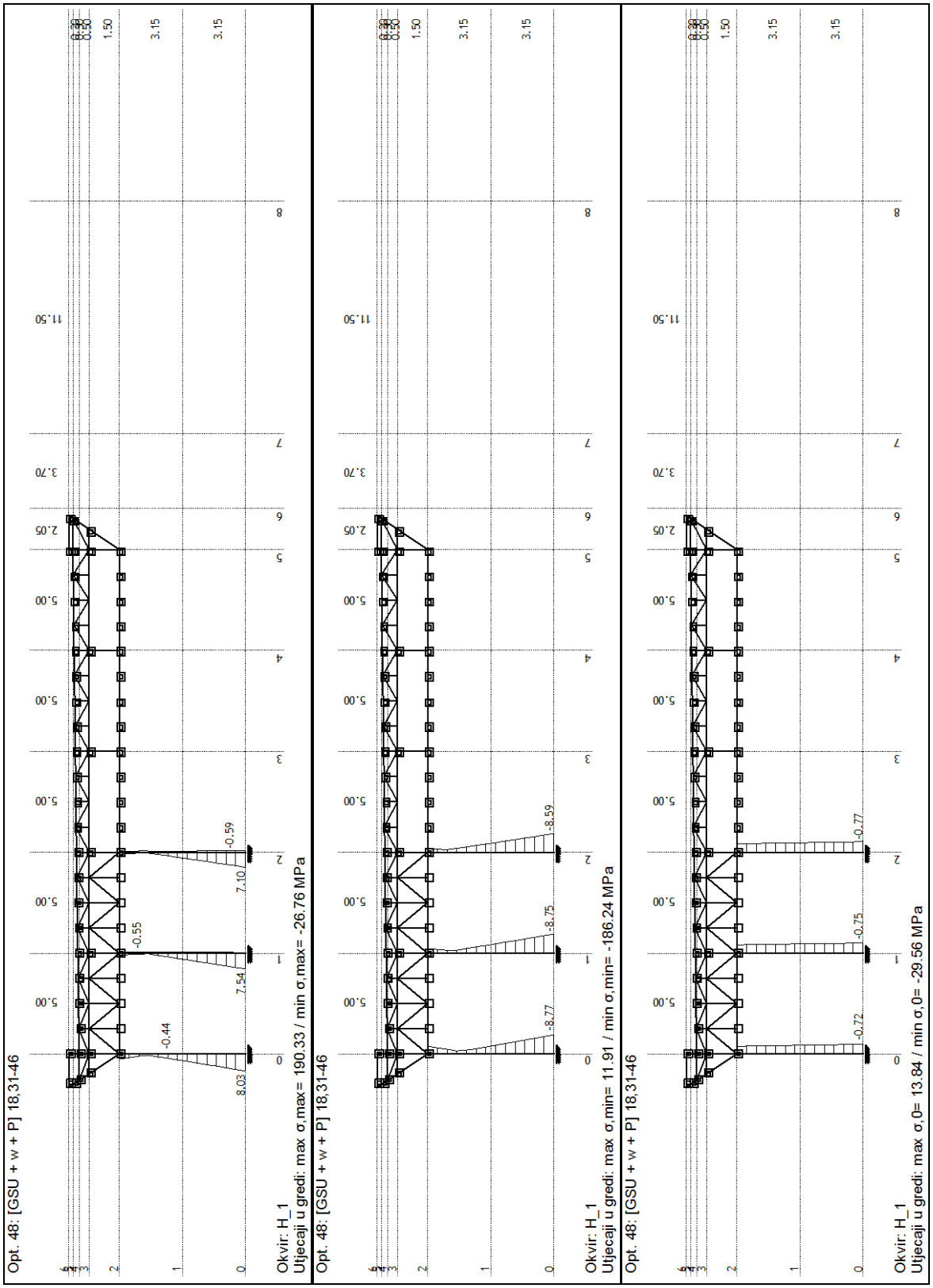
Potrebna armatura

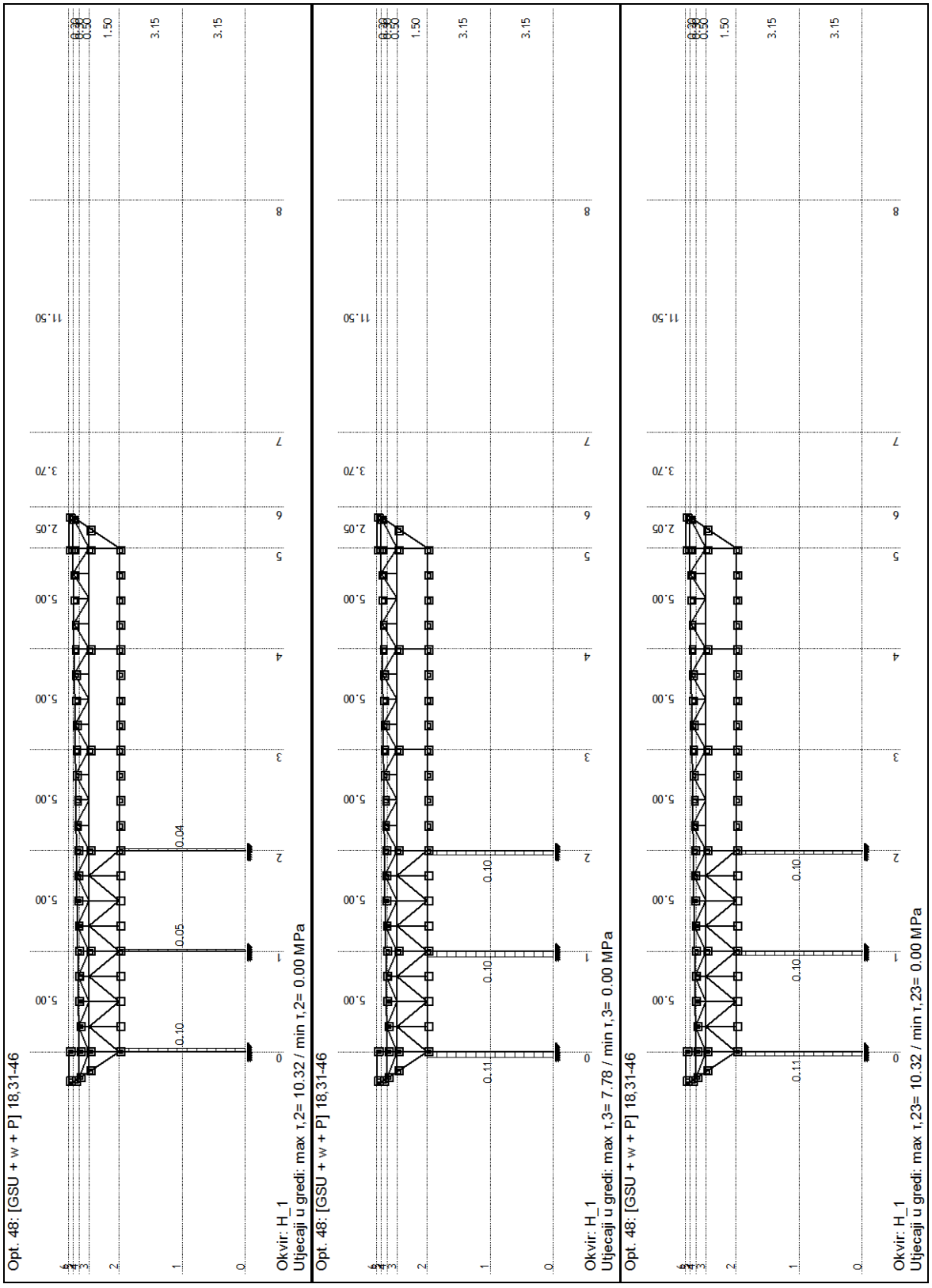


Odabrana armatura

Stupove armirati šipkama 12Ø16 te vilicama Ø8/15. Materijal izvedbe je beton C30/37 te armatura B500.

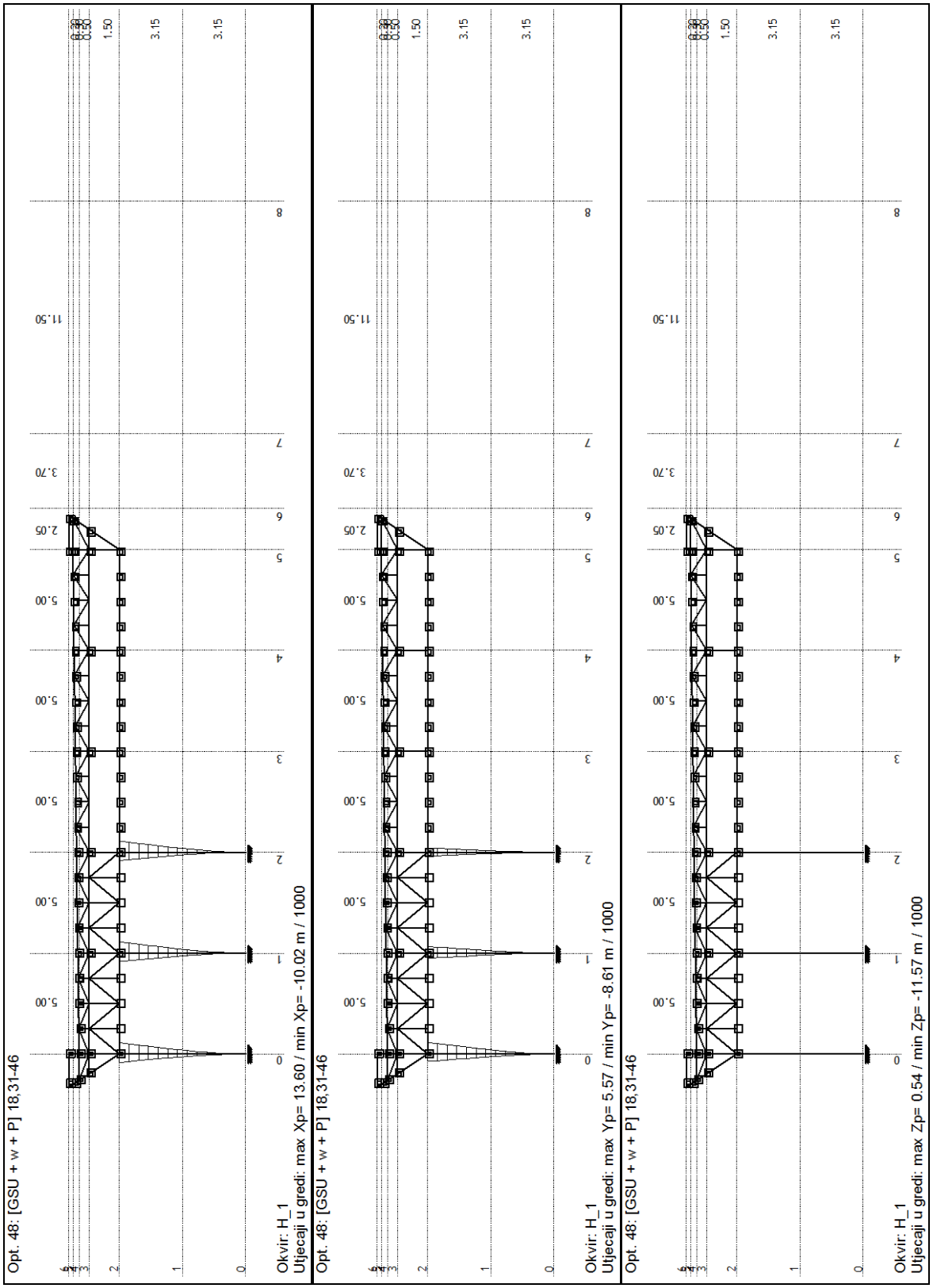
GSU


Opt. 48: [GSU + w + P] 18,31-46
Okvir: H_1
Utjecaji u gredi: max σ,max= 190.33 / min σ,max= -26.76 MPa
Opt. 48: [GSU + w + P] 18,31-46
Okvir: H_1
Utjecaji u gredi: max σ,min= 11.91 / min σ,min= -186.24 MPa
Opt. 48: [GSU + w + P] 18,31-46
Okvir: H_1
Utjecaji u gredi: max σ,0= 13.84 / min σ,0= -29.56 MPa



Naprezanja armiranobetonskih stupova zadovoljavaju.

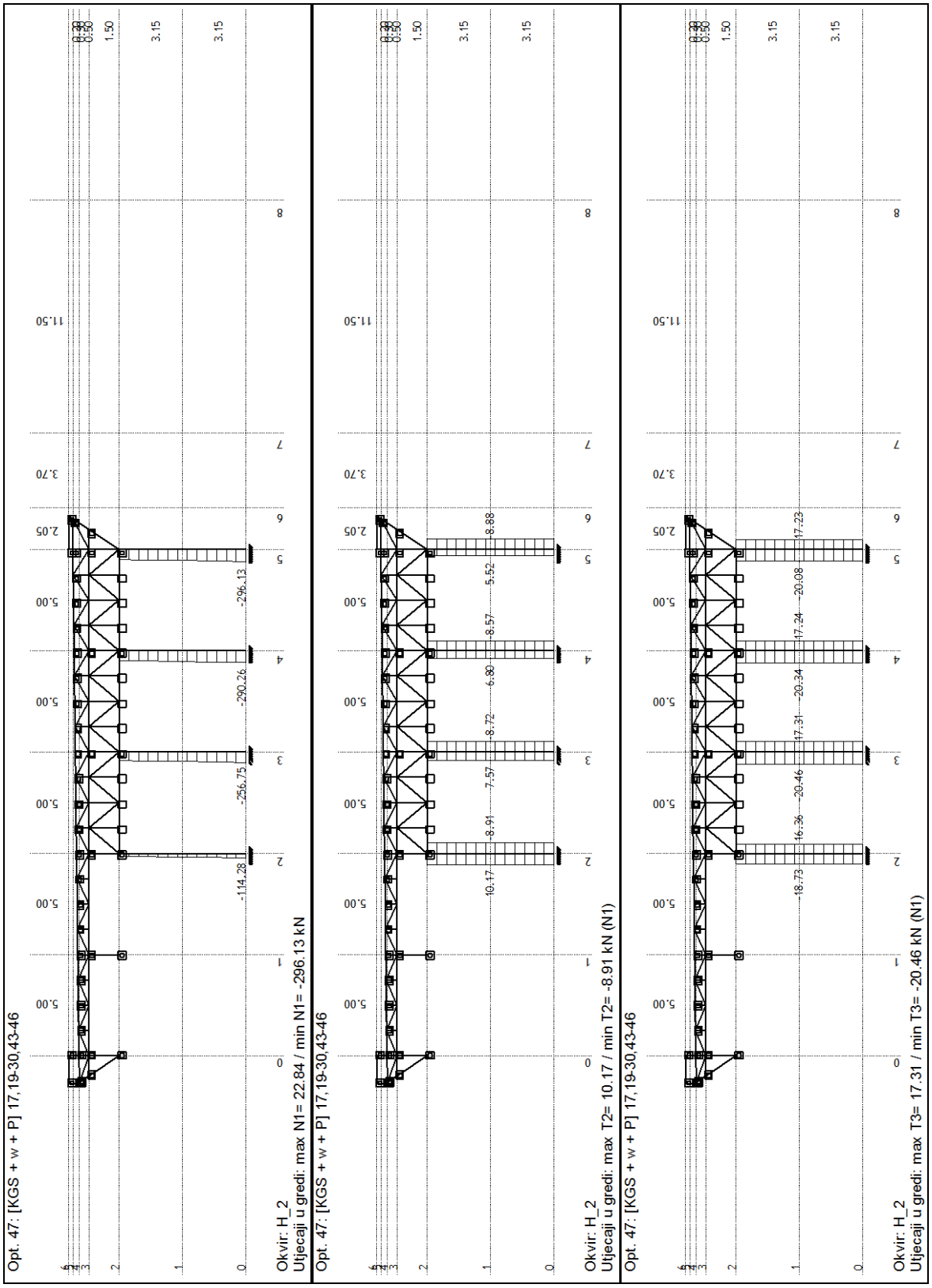
Pomaci

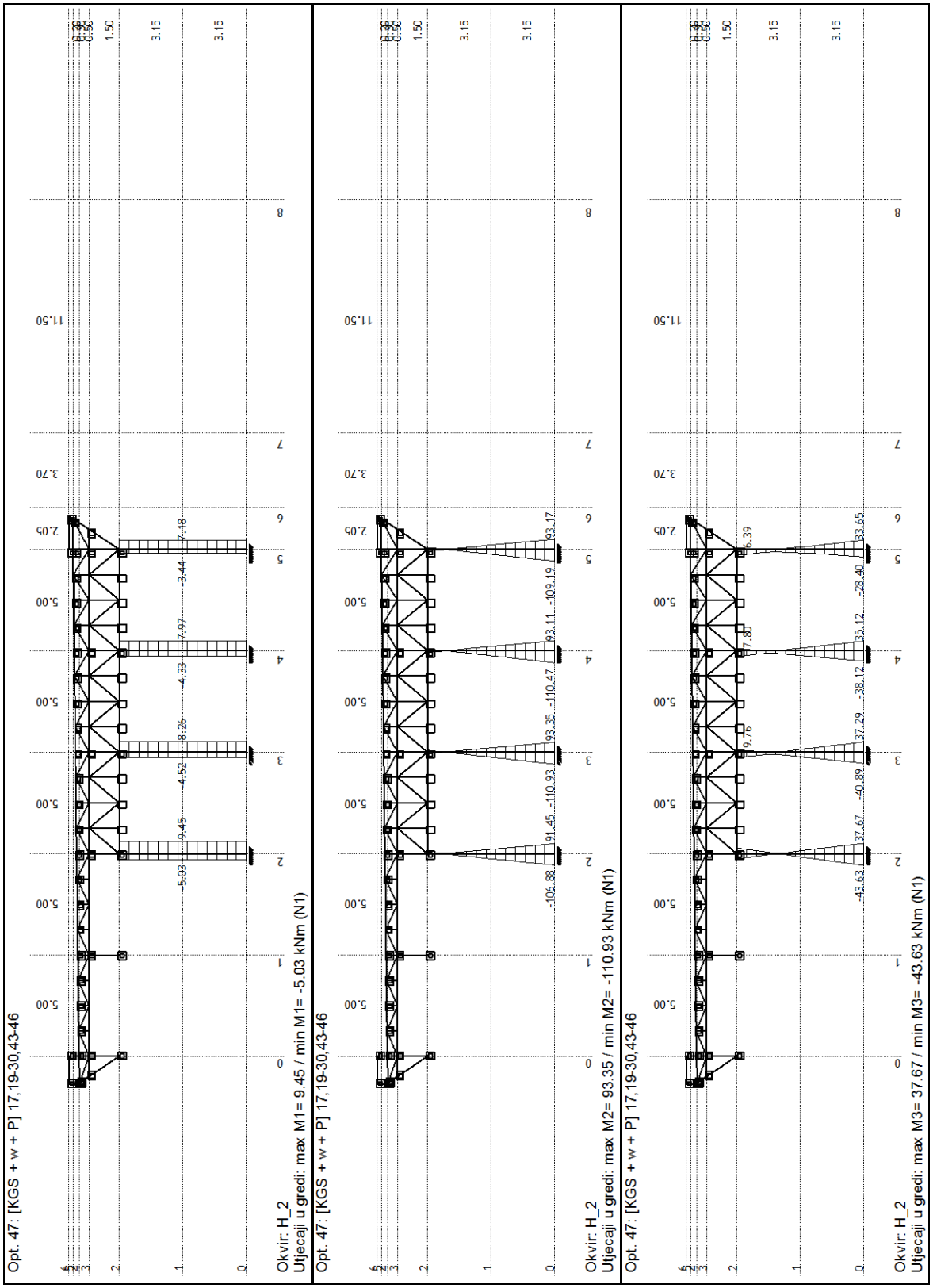


Pomaci armiranobetonskih stupova zadovoljavaju.

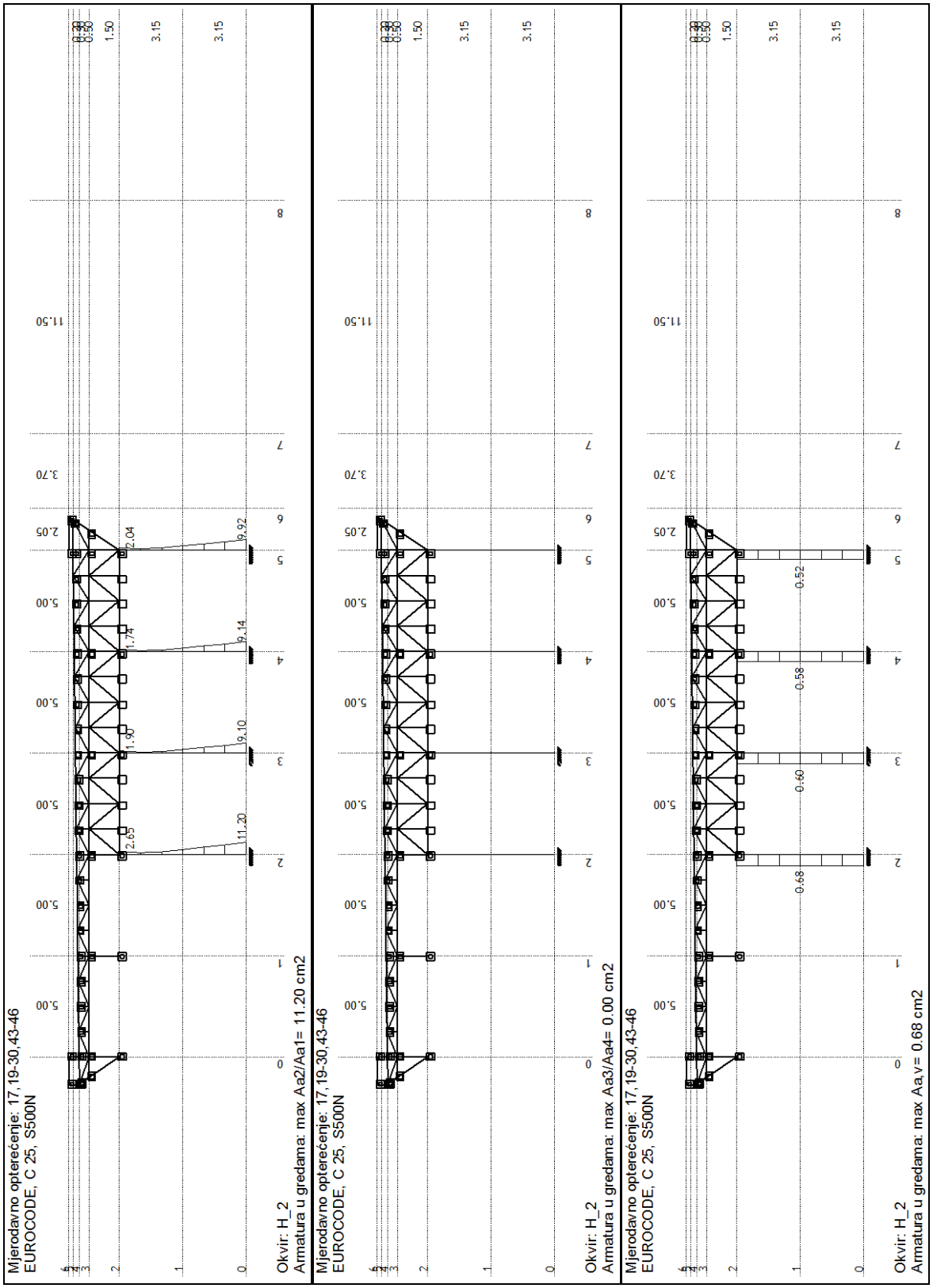
Stupovi osi H_2

KGS




Opt. 47: [KGS + w + P] 17,19-30,43-46
Okvir: H_2
Utjecaji u gredi: max M1= 9.45 / min M1= -5.03 kNm (N1)
Opt. 47: [KGS + w + P] 17,19-30,43-46
Okvir: H_2
Utjecaji u gredi: max M2= 93.35 / min M2= -110.93 kNm (N1)
Opt. 47: [KGS + w + P] 17,19-30,43-46
Okvir: H_2
Utjecaji u gredi: max M3= 37.67 / min M3= -43.63 kNm (N1)

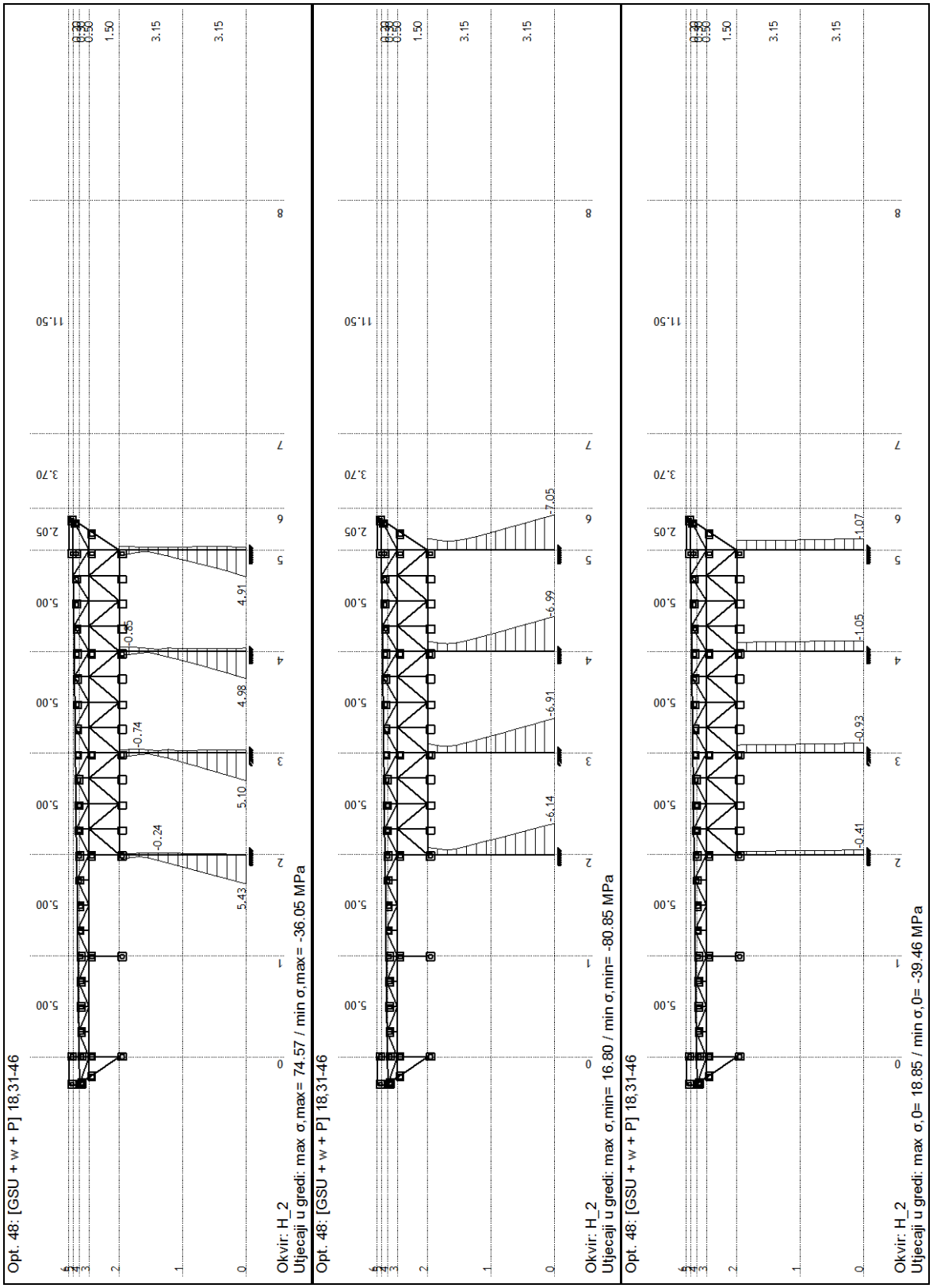
Potrebna armatura

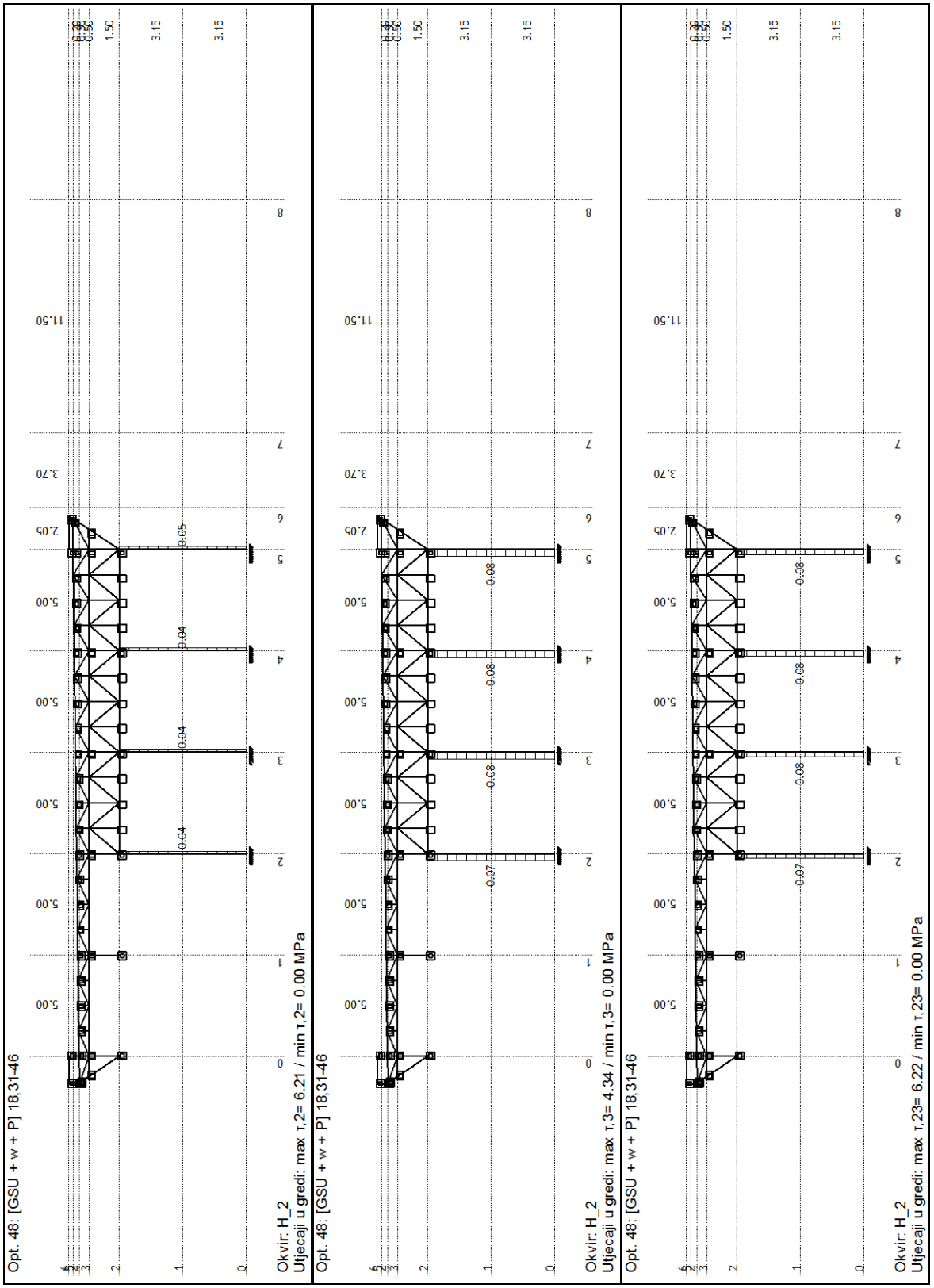


Odabrana armatura

Stupove armirati šipkama 12Ø16 te vilicama Ø8/15. Materijal izvedbe je beton C30/37 te armatura B500.

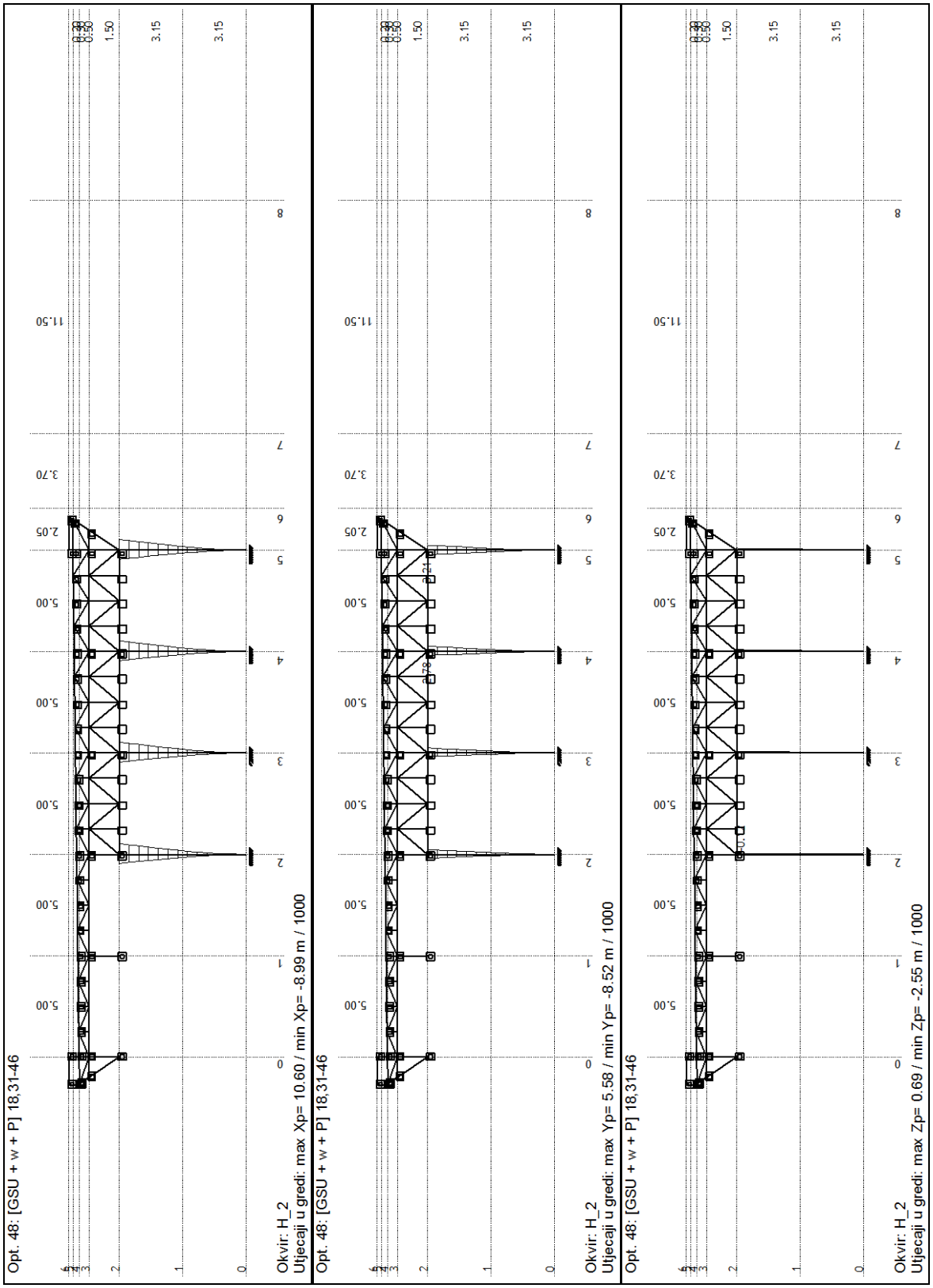
GSU


Opt. 48: [GSU + w + P] 18,31-46
Okvir: H_2
Utjecaji u gredi: max σ,max= 74.57 / min σ,max= -36.05 MPa
Opt. 48: [GSU + w + P] 18,31-46
Okvir: H_2
Utjecaji u gredi: max σ,min= 16.80 / min σ,min= -80.85 MPa
Opt. 48: [GSU + w + P] 18,31-46
Okvir: H_2
Utjecaji u gredi: max σ,0= 18.85 / min σ,0= -39.46 MPa



Naprezanja armiranobetonskih stupova zadovoljavaju.

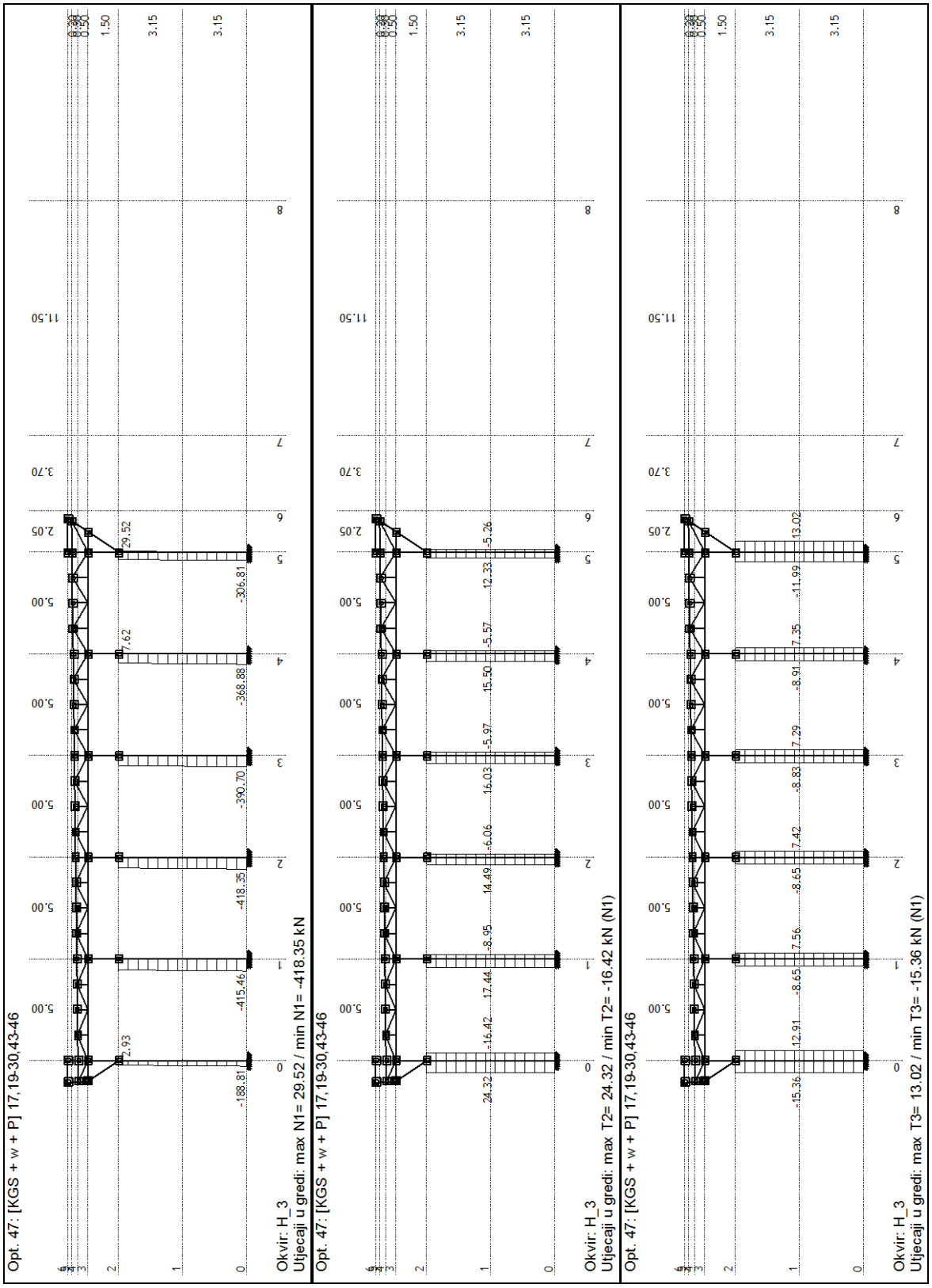
Pomaci

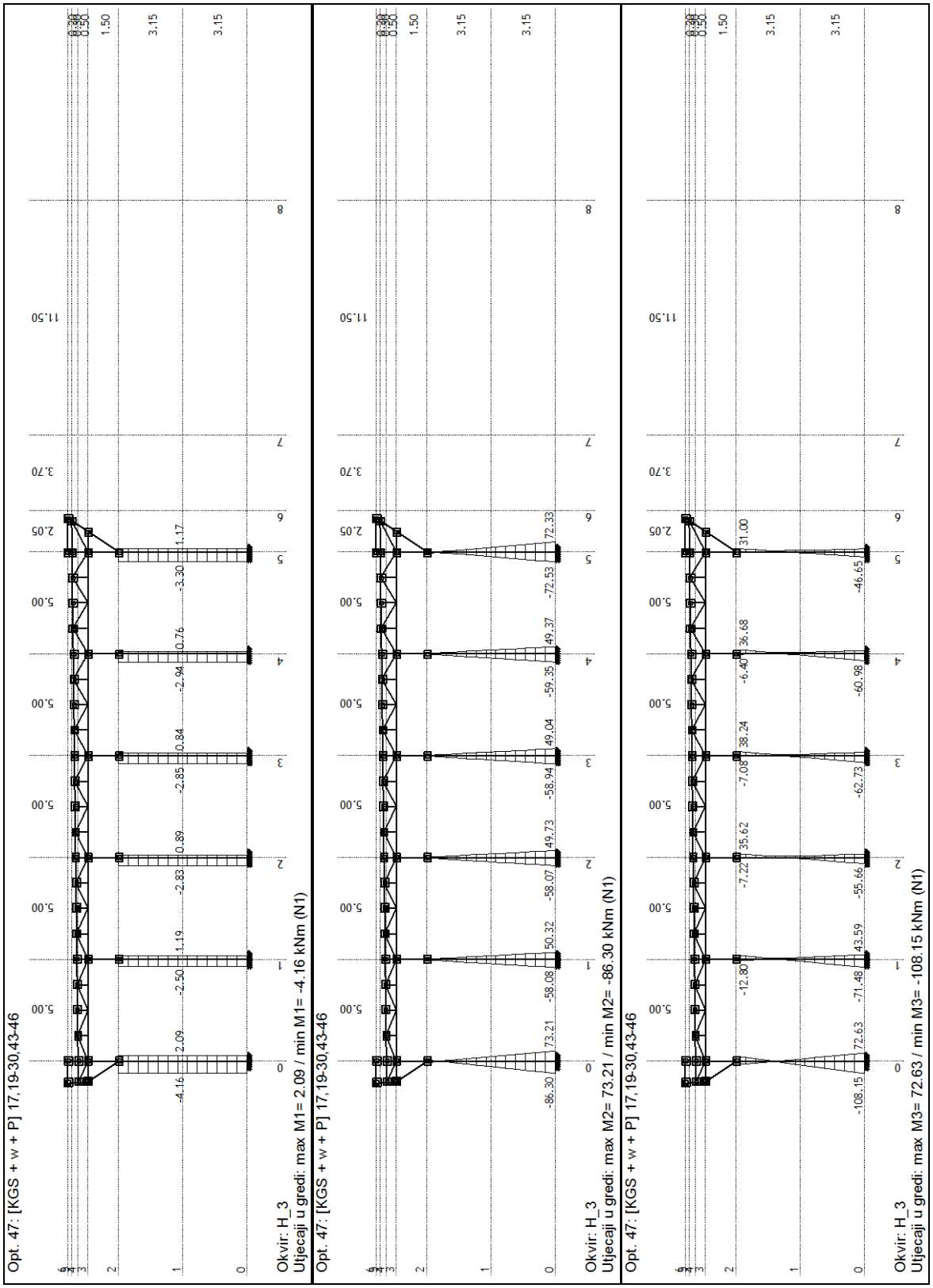


Pomaci armiranobetonskih stupova zadovoljavaju.

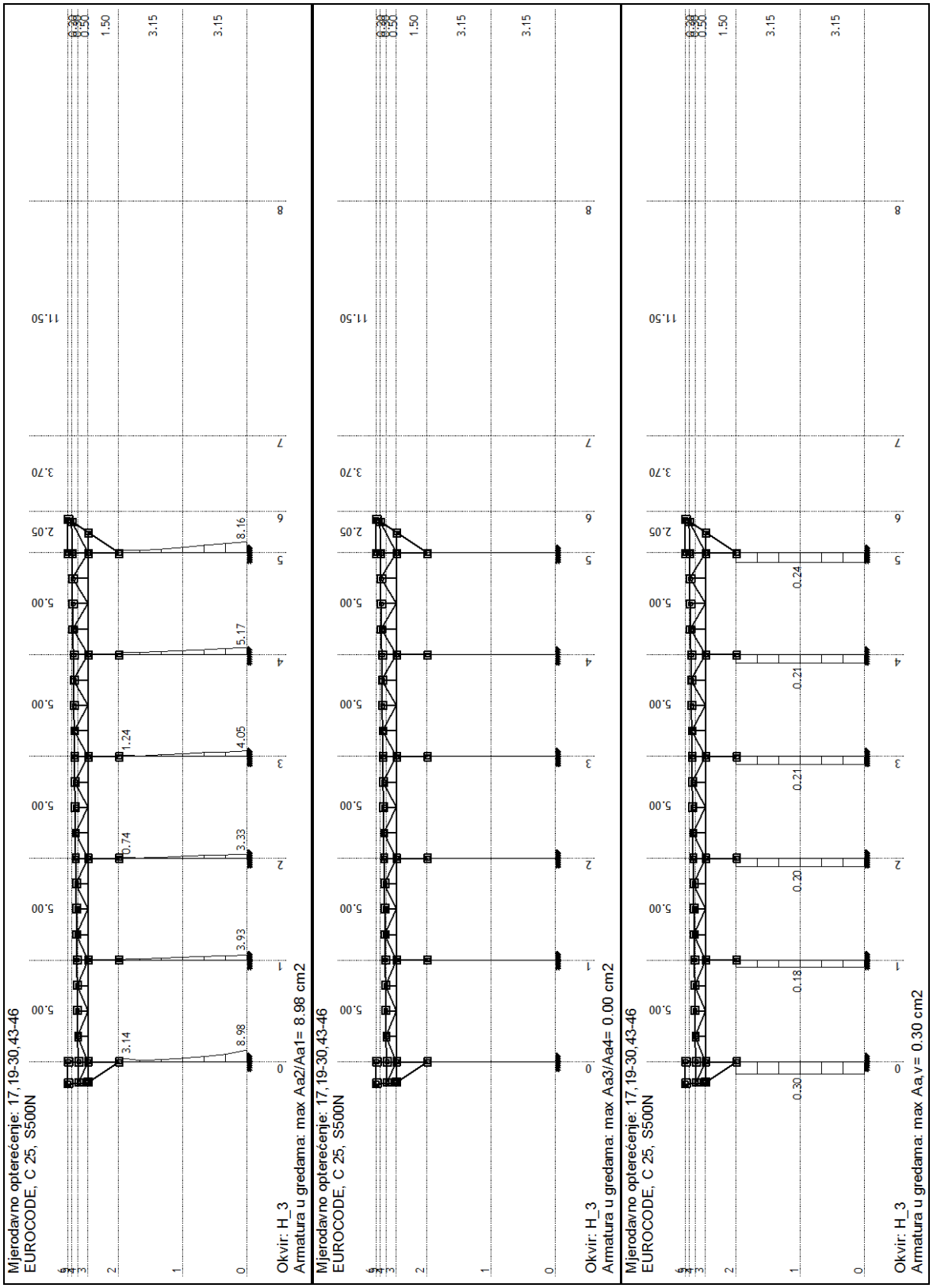
Stupovi osi H_3

KGS




Opt. 47: [KGS + w + P] 17,19-30,43-46
Okvir: H_3
Utjecaji u gredi: max M1= 2.09 / min M1= -4.16 kNm (N1)
Opt. 47: [KGS + w + P] 17,19-30,43-46
Okvir: H_3
Utjecaji u gredi: max M2= 73.21 / min M2= -86.30 kNm (N1)
Opt. 47: [KGS + w + P] 17,19-30,43-46
Okvir: H_3
Utjecaji u gredi: max M3= 72.63 / min M3= -108.15 kNm (N1)

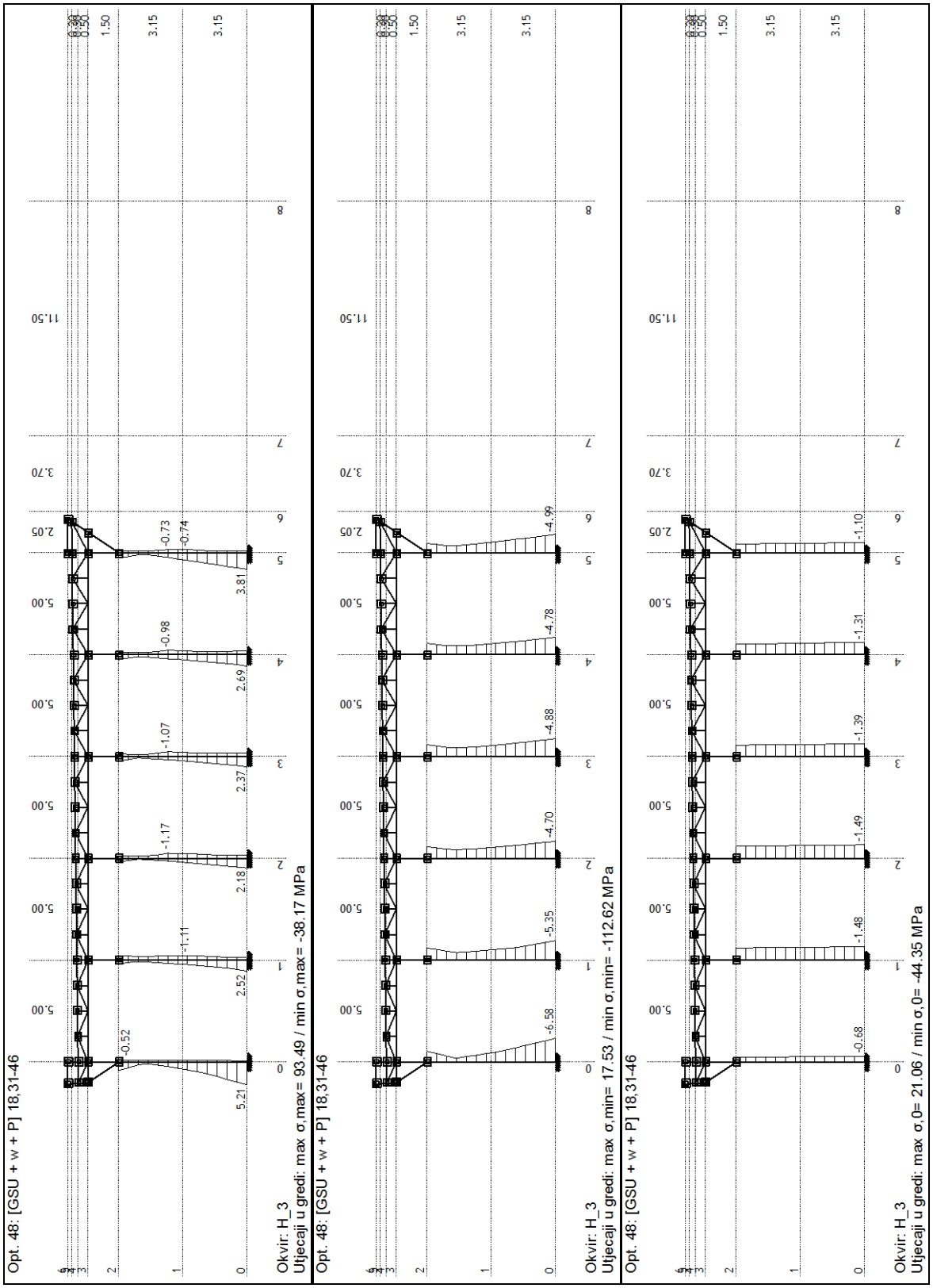
Potrebna armatura

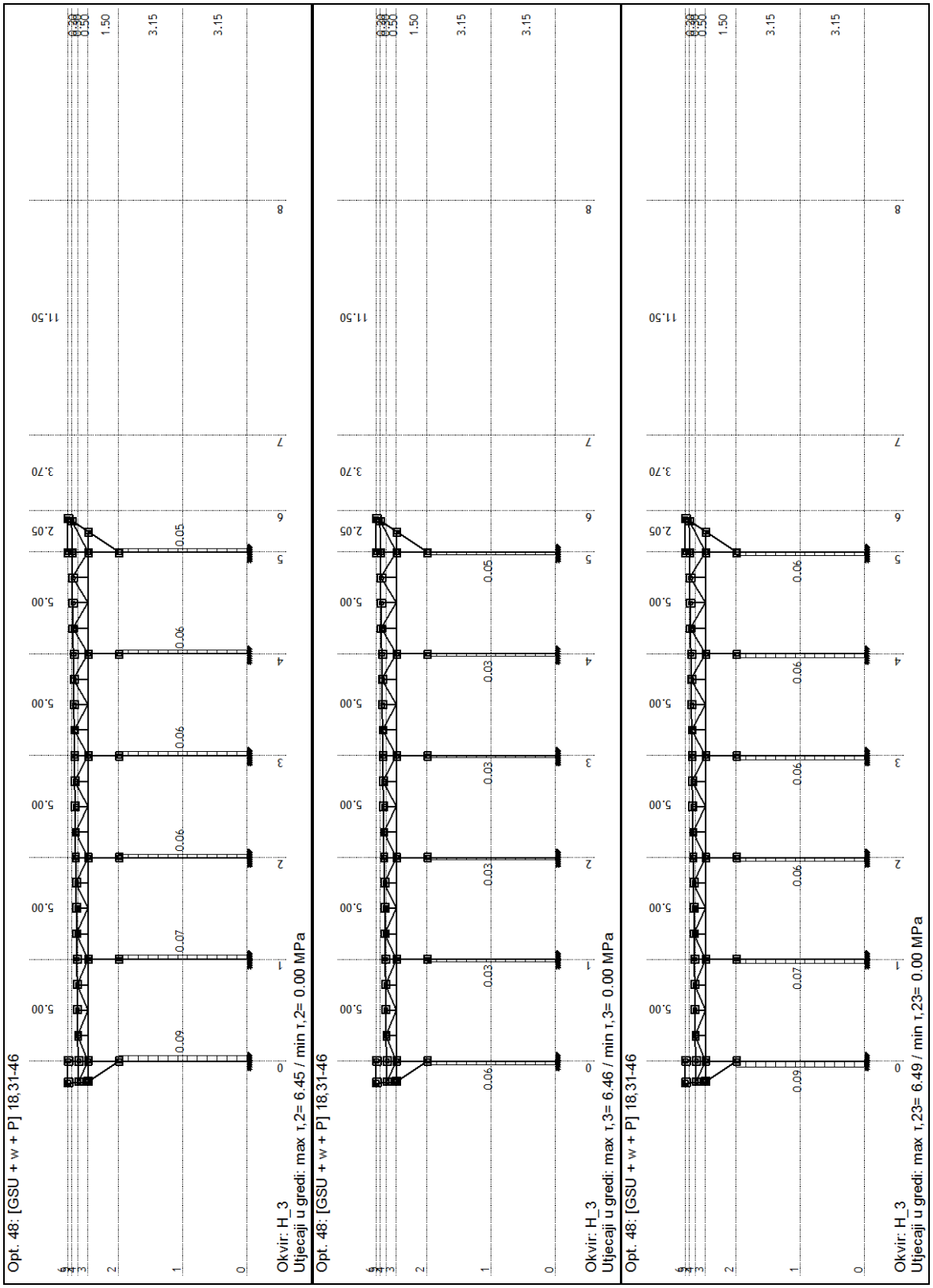


Odabrana armatura

Stupove armirati šipkama 12Ø16 te vilicama Ø8/15. Materijal izvedbe je beton C30/37 te armatura B500.

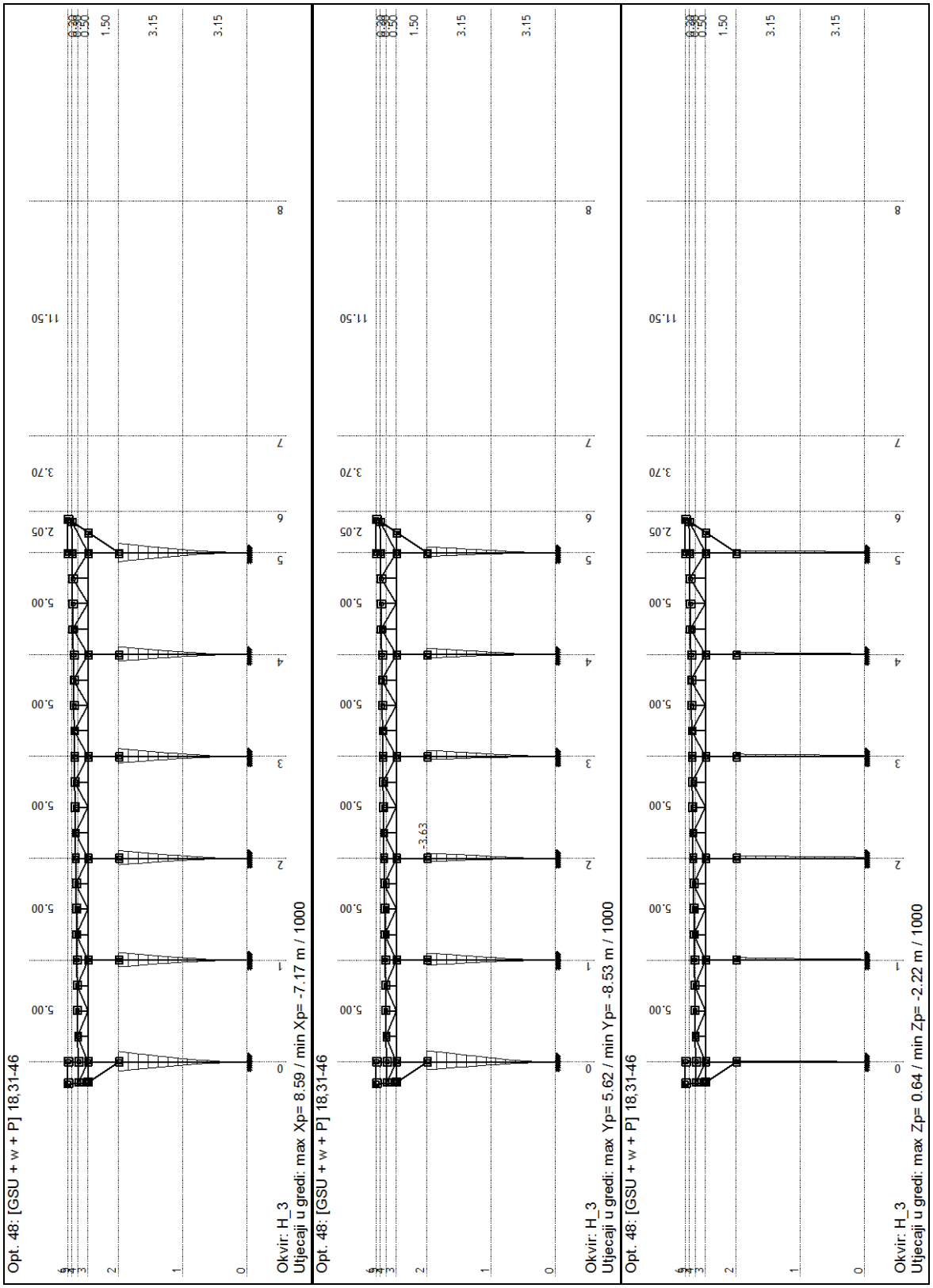
GSU


Opt. 48: [GSU + w + P] 18,31-46
Okvir: H_3
Utjecaji u gredi: max σ,max= 93.49 / min σ,max= -38.17 MPa
Opt. 48: [GSU + w + P] 18,31-46
Okvir: H_3
Utjecaji u gredi: max σ,min= 17.53 / min σ,min= -112.62 MPa
Opt. 48: [GSU + w + P] 18,31-46
Okvir: H_3
Utjecaji u gredi: max σ,0= 21.06 / min σ,0= -44.35 MPa



Naprezanja armiranobetonskih stupova zadovoljavaju.

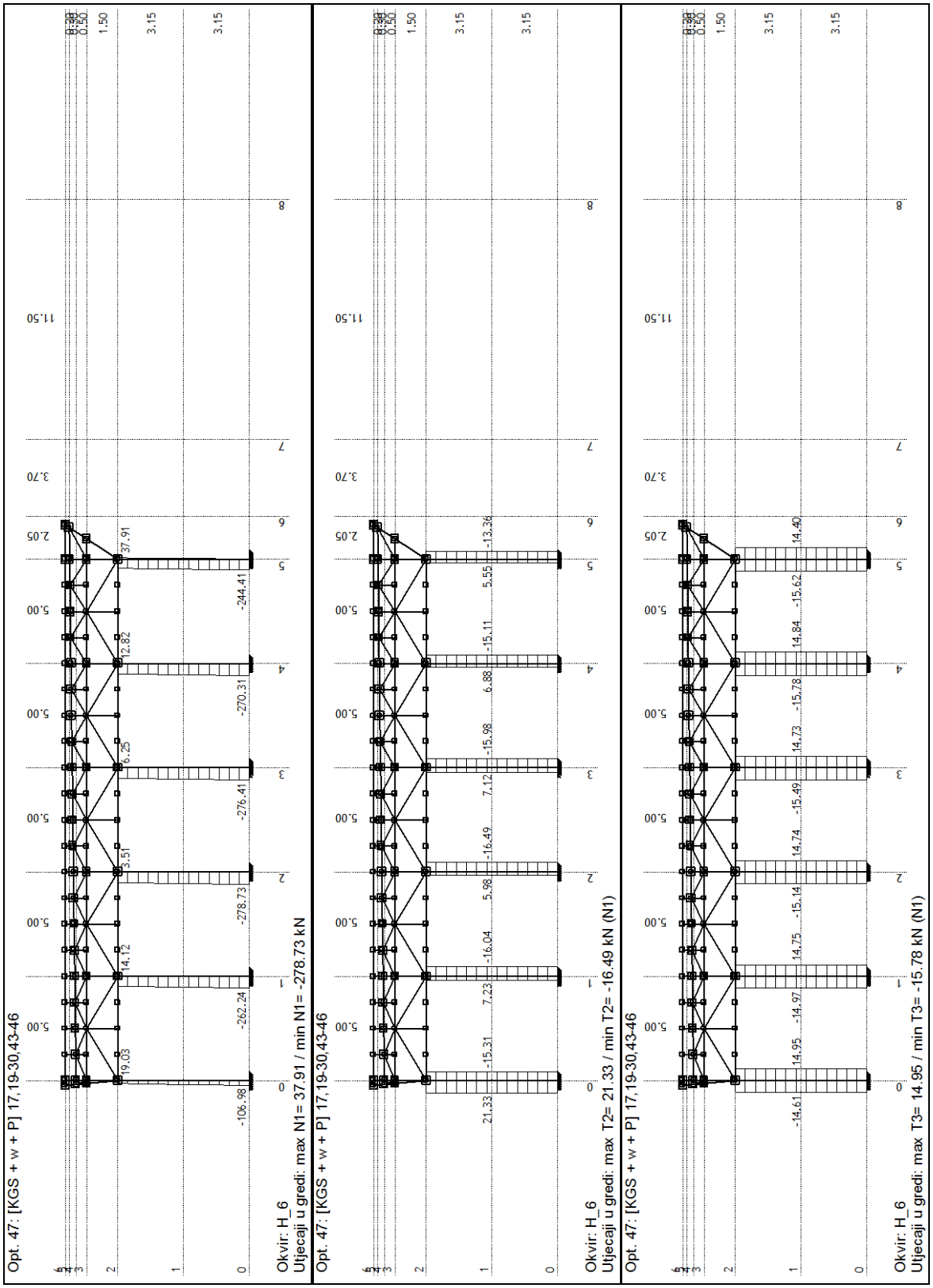
Pomaci

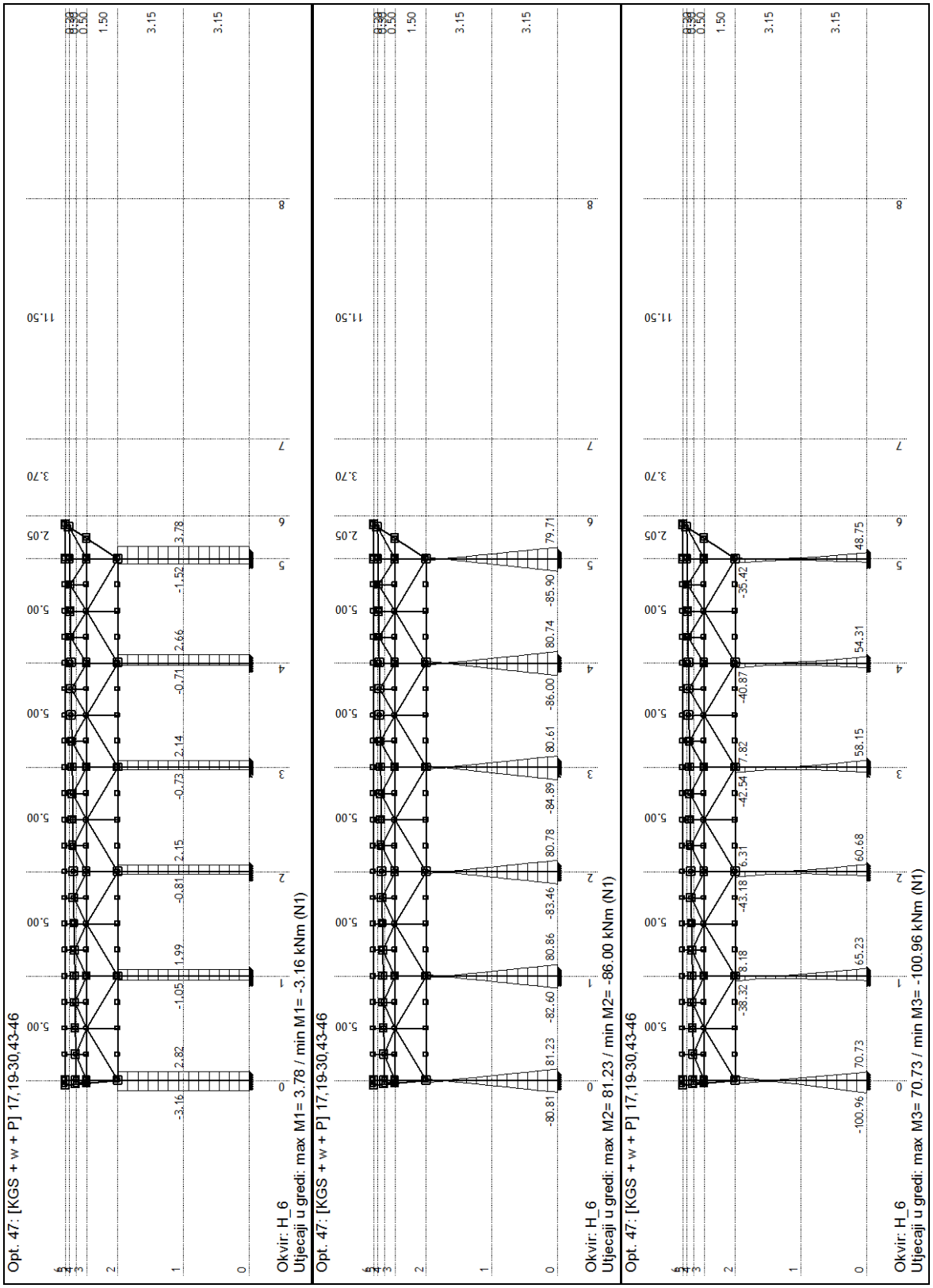


Pomaci armiranobetonskih stupova zadovoljavaju.

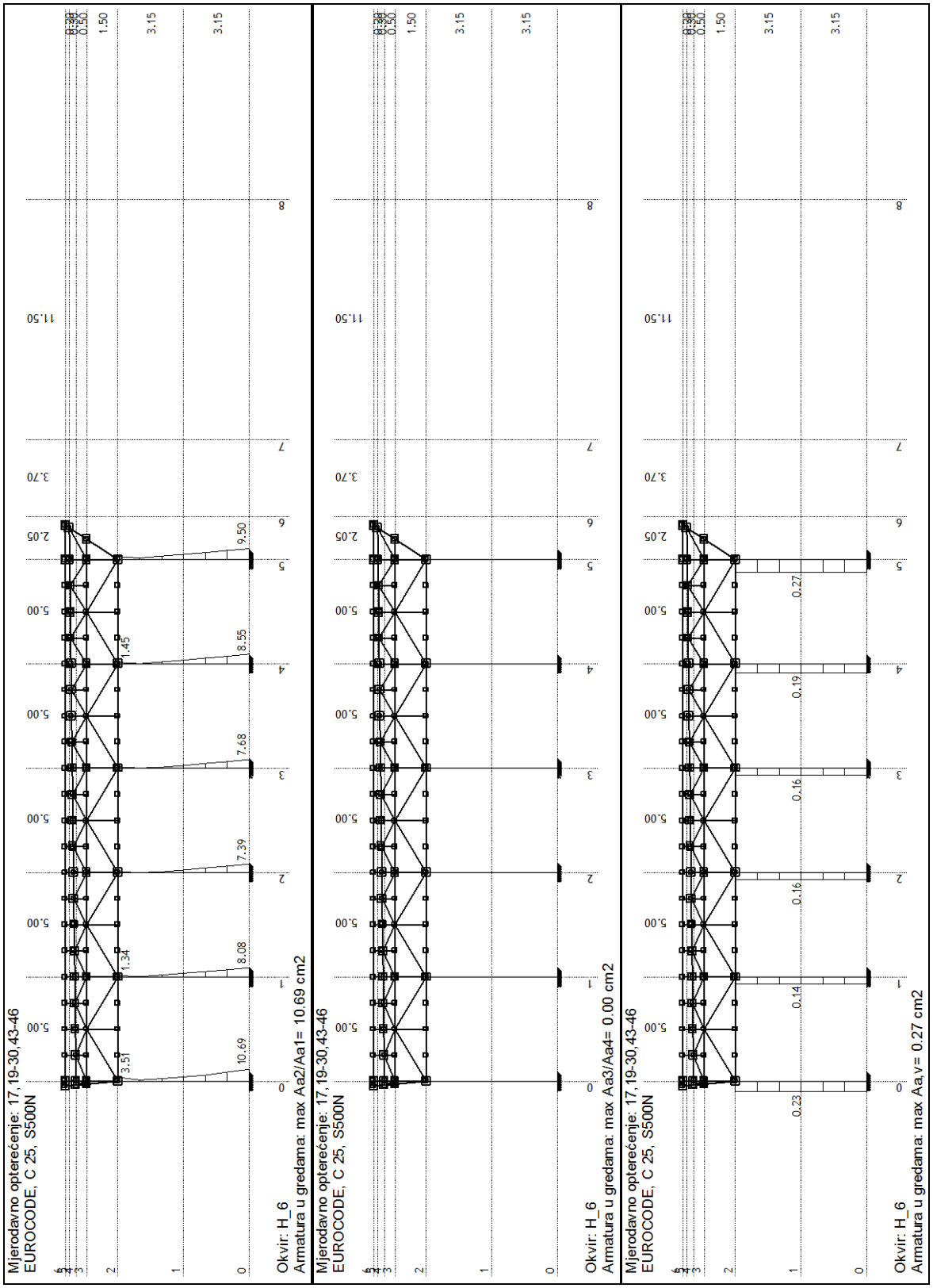
Stupovi osi H_6

KGS




Opt. 47: [KGS + w + P] 17,19-30,43-46
Okvir: H_6
Utjecaji u gredi: max M1= 3.78 / min M1= -3.16 kNm (N1)
Opt. 47: [KGS + w + P] 17,19-30,43-46
Okvir: H_6
Utjecaji u gredi: max M2= 81.23 / min M2= -86.00 kNm (N1)
Opt. 47: [KGS + w + P] 17,19-30,43-46
Okvir: H_6
Utjecaji u gredi: max M3= 70.73 / min M3= -100.96 kNm (N1)

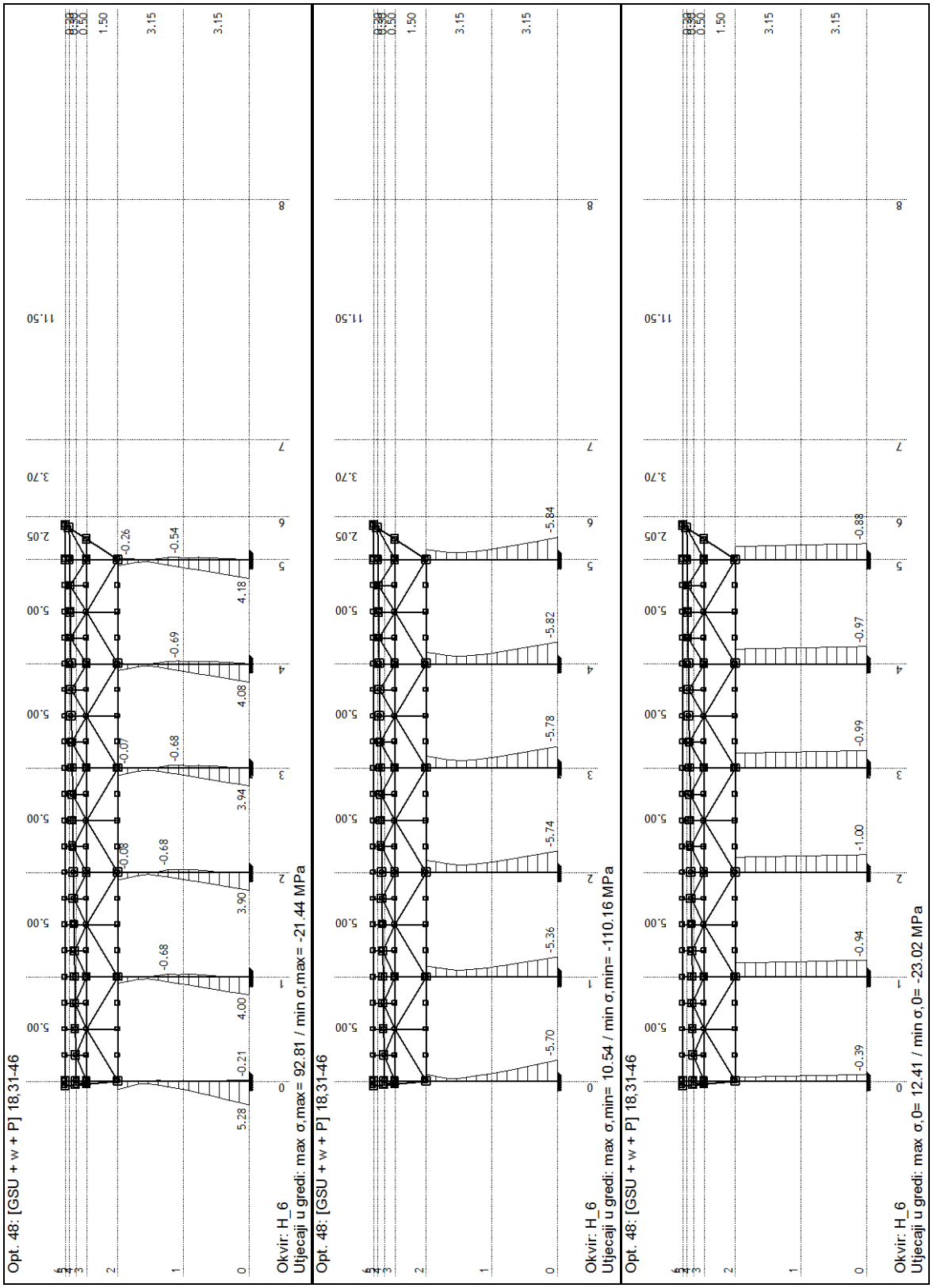
Potrebna armatura

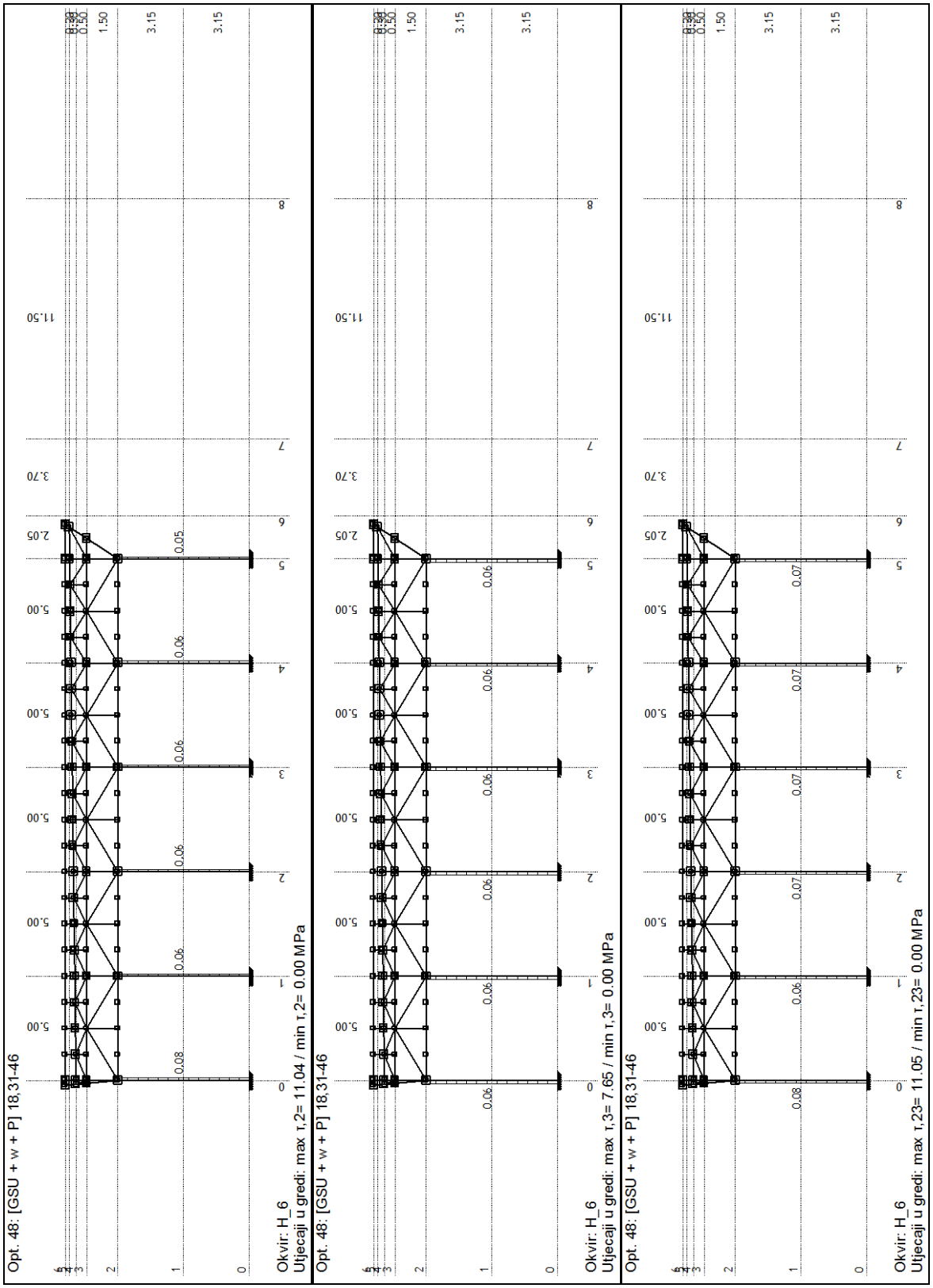


Odabrana armatura

Stupove armirati šipkama 12Ø16 te vilicama Ø8/15. Materijal izvedbe je beton C30/37 te armatura B500.

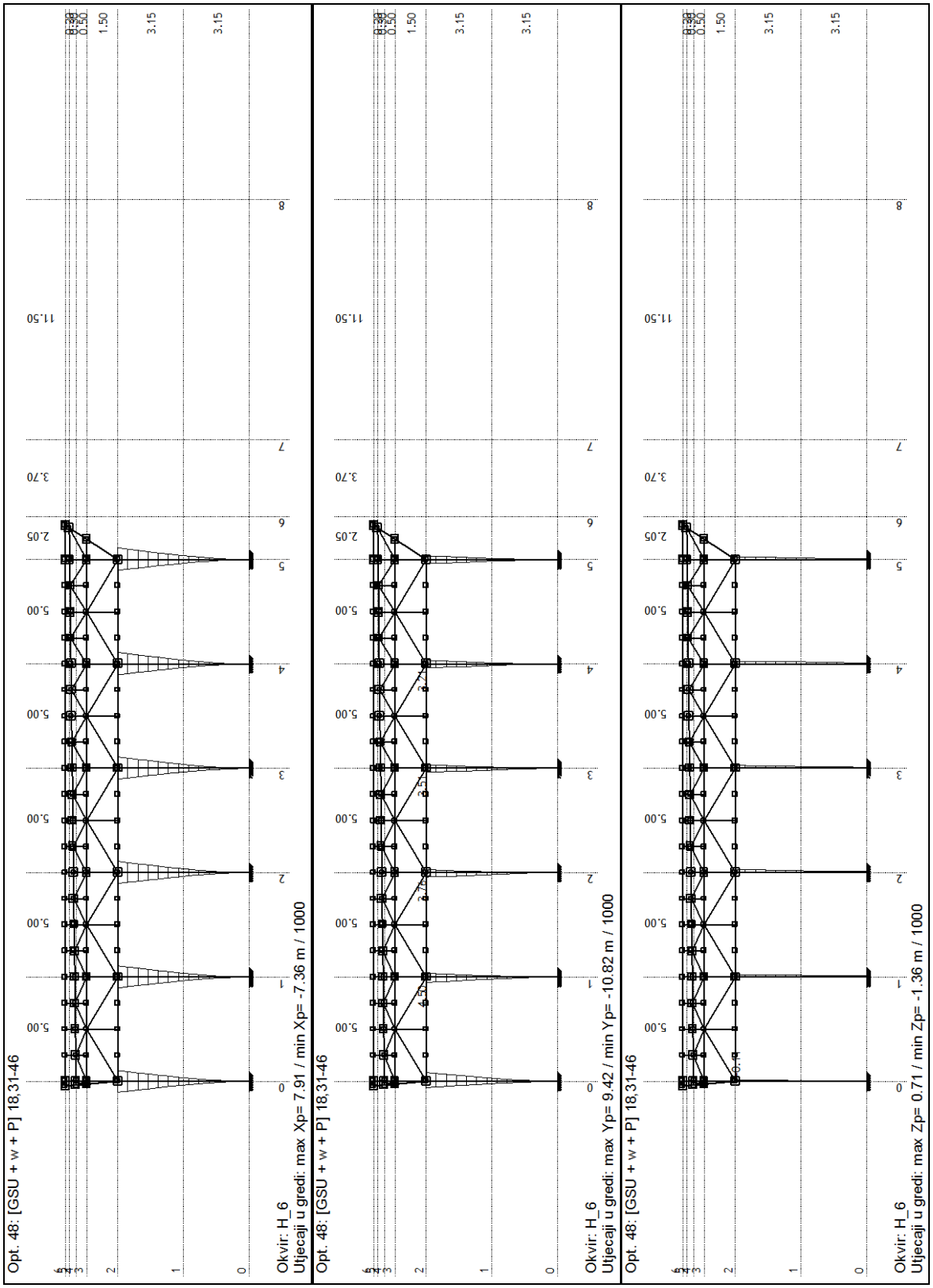
GSU


Opt. 48: [GSU + w + P] 18,31-46
Okvir: H_6
Utjecaji u gredi: max σ,max= 92.81 / min σ,max= -21.44 MPa
Opt. 48: [GSU + w + P] 18,31-46
Okvir: H_6
Utjecaji u gredi: max σ,min= 10.54 / min σ,min= -110.16 MPa
Opt. 48: [GSU + w + P] 18,31-46
Okvir: H_6
Utjecaji u gredi: max σ,0= 12.41 / min σ,0= -23.02 MPa



Naprezanja armiranobetonskih stupova zadovoljavaju.

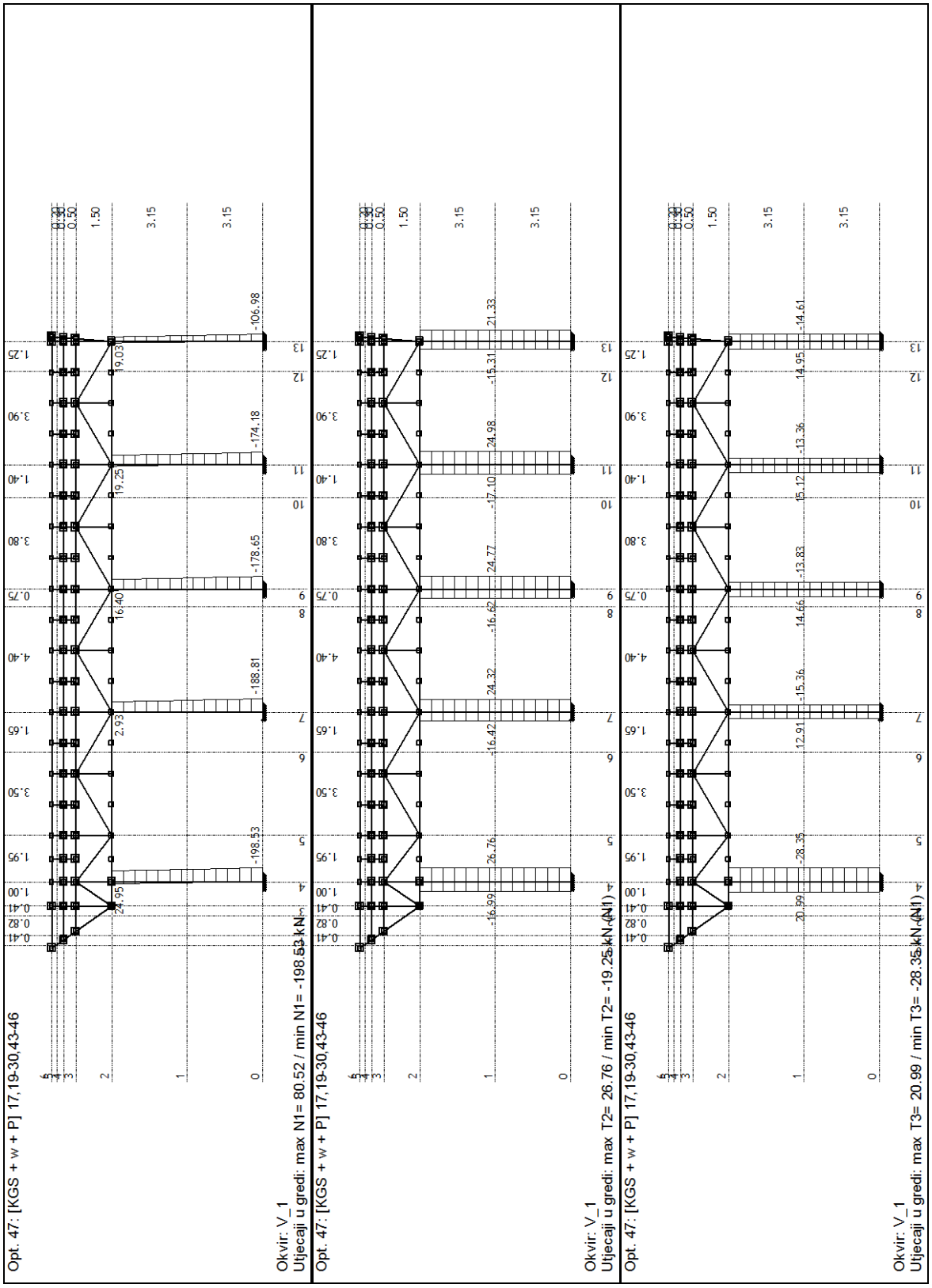
Pomaci

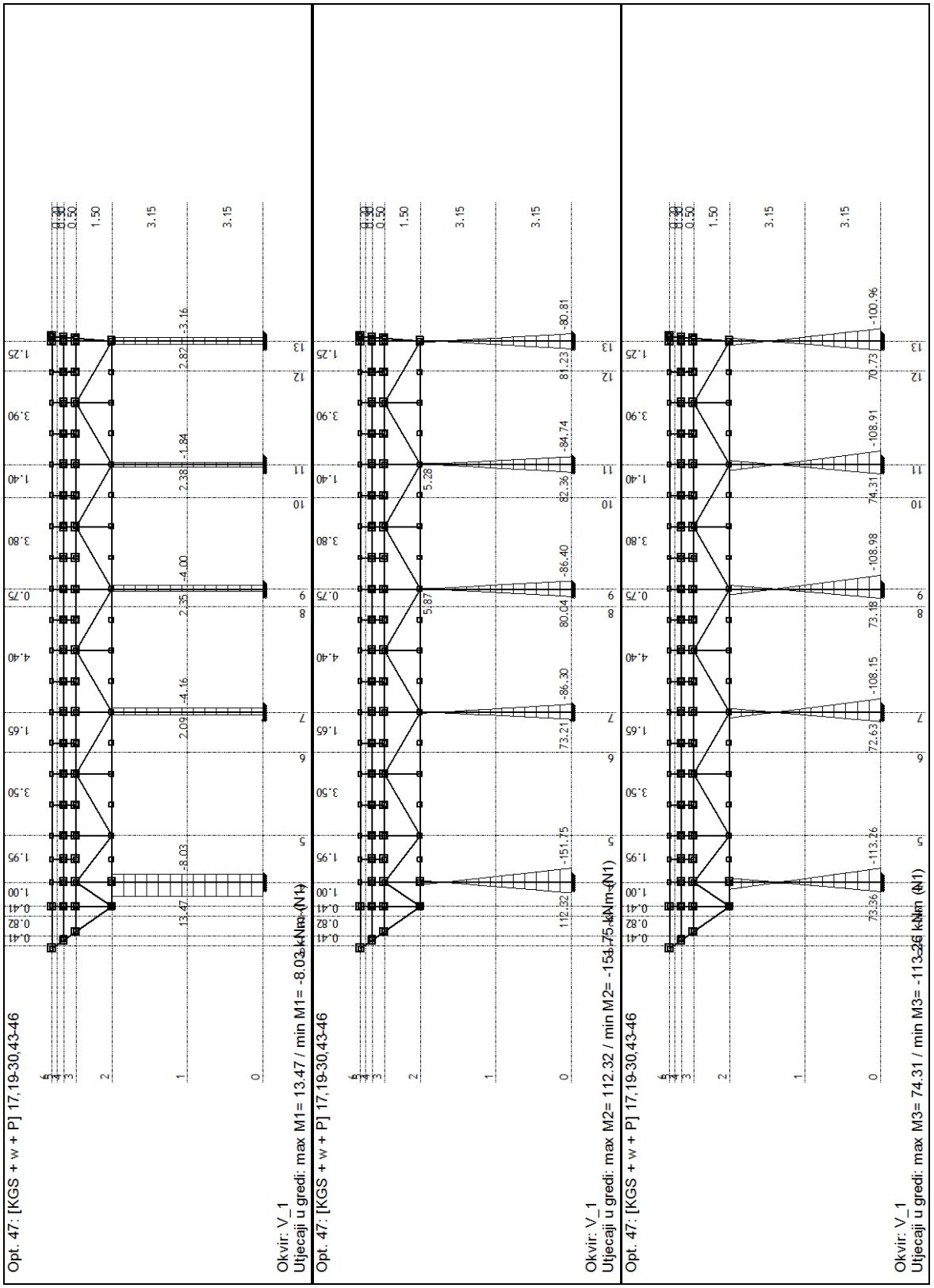


Pomaci armiranobetonskih stupova zadovoljavaju.

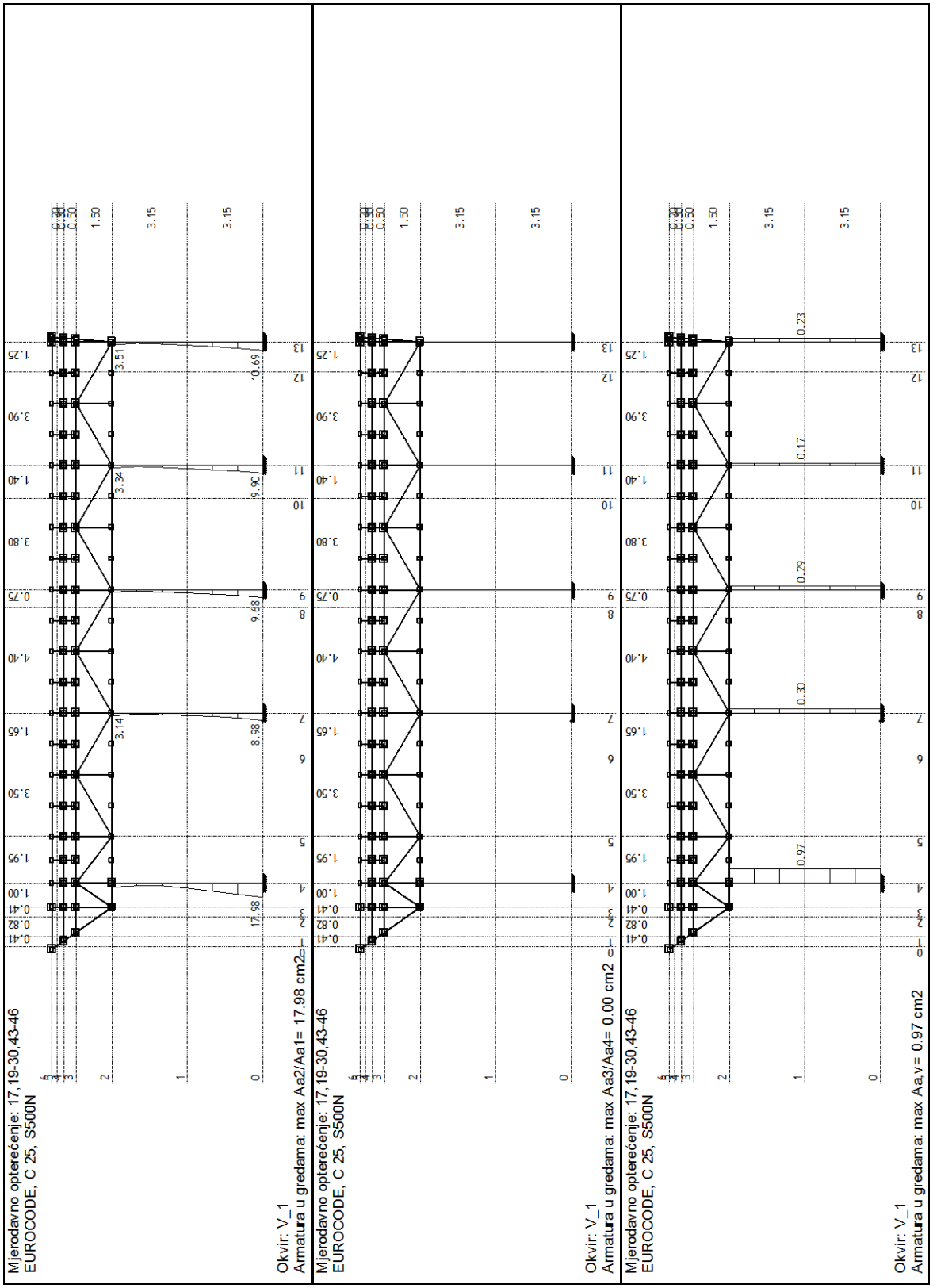
Stupovi osi V_1

KGS




Opt. 47: [KGS + w + P] 17,19-30,43-46
Okvir: V_1
Utjecaji u gredi: max M1= 13.47 / min M1= -8.03 kNm (N1)
Opt. 47: [KGS + w + P] 17,19-30,43-46
Okvir: V_1
Utjecaji u gredi: max M2= 112.32 / min M2= -151.75 kNm (N1)
Opt. 47: [KGS + w + P] 17,19-30,43-46
Okvir: V_1
Utjecaji u gredi: max M3= 74.31 / min M3= -113.26 kNm (N1)

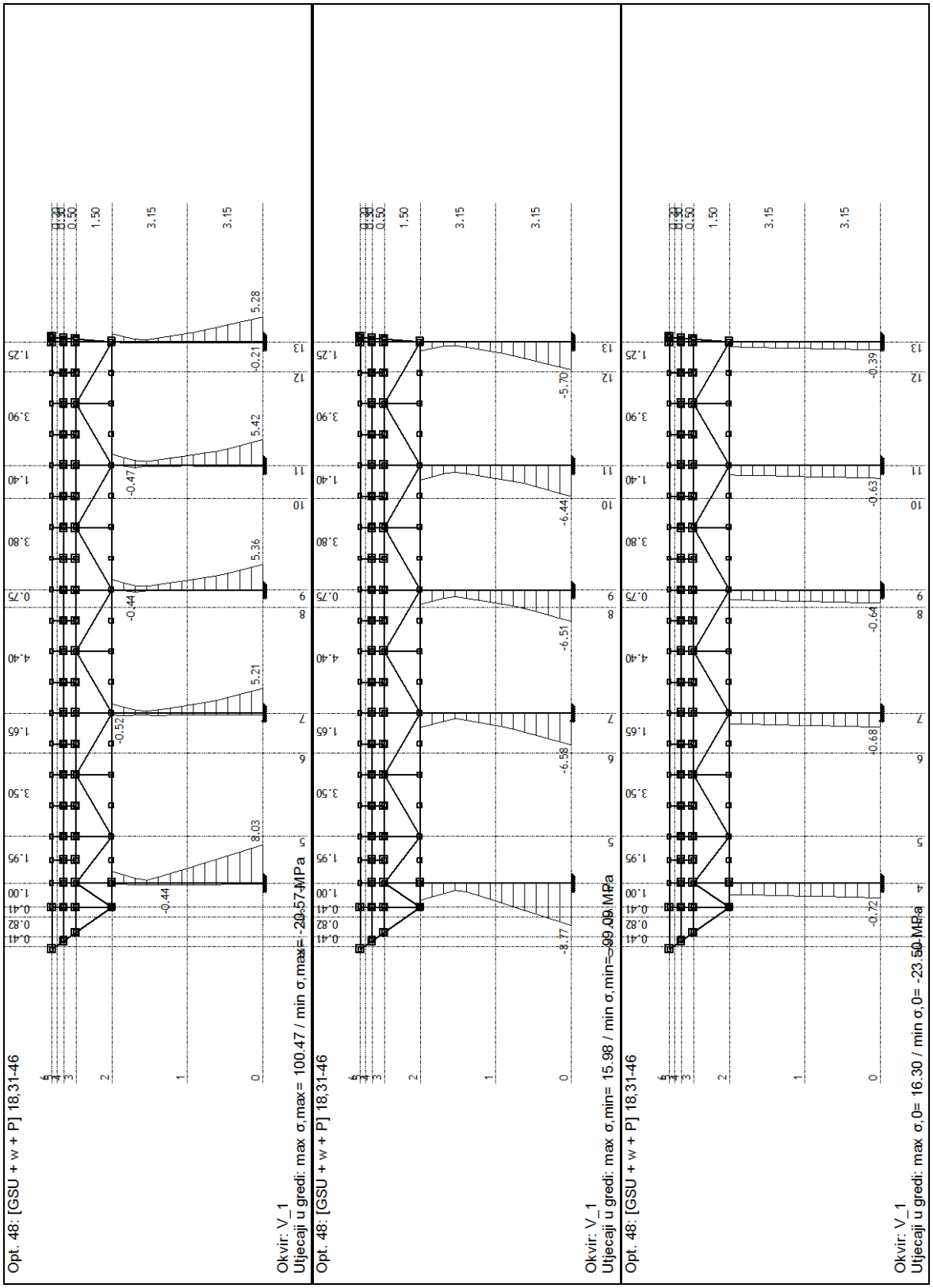
Potrebna armatura



Odabrana armatura

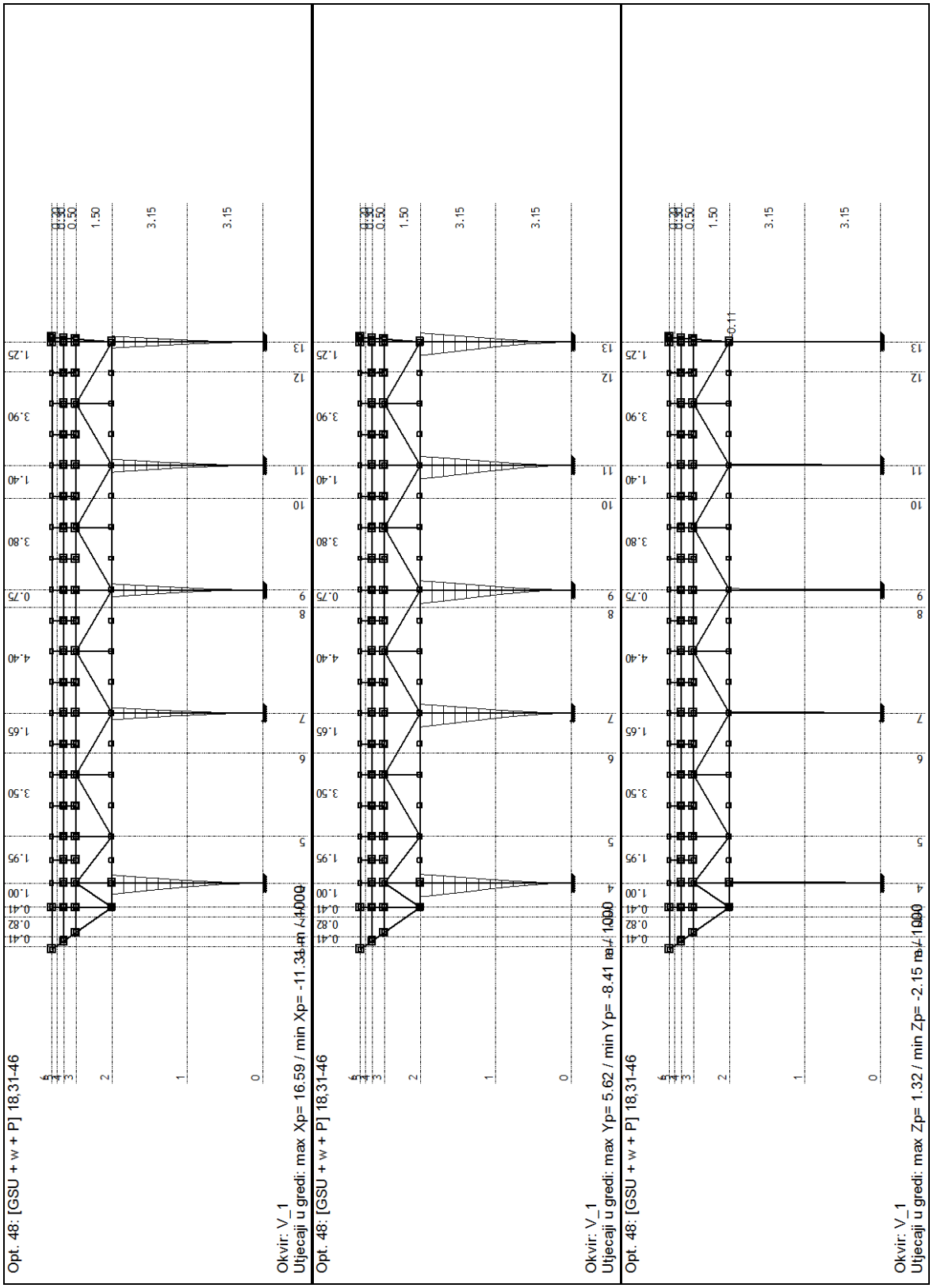
Stupove armirati šipkama 12Ø16 te vilicama Ø8/15. Materijal izvedbe je beton C30/37 te armatura B500.

GSU


Opt. 48: [GSU + w + P] 18,31-46
Okvir: V_1
Utjecaji u gredi: max σ,max= 100.47 / min σ,max= -20.57 MPa
Opt. 48: [GSU + w + P] 18,31-46
Okvir: V_1
Utjecaji u gredi: max σ,min= 15.98 / min σ,min= -99.09 MPa
Opt. 48: [GSU + w + P] 18,31-46
Okvir: V_1
Utjecaji u gredi: max σ,0= 16.30 / min σ,0= -23.50 MPa

Naprezanja armiranobetonskih stupova zadovoljavaju.

Pomaci

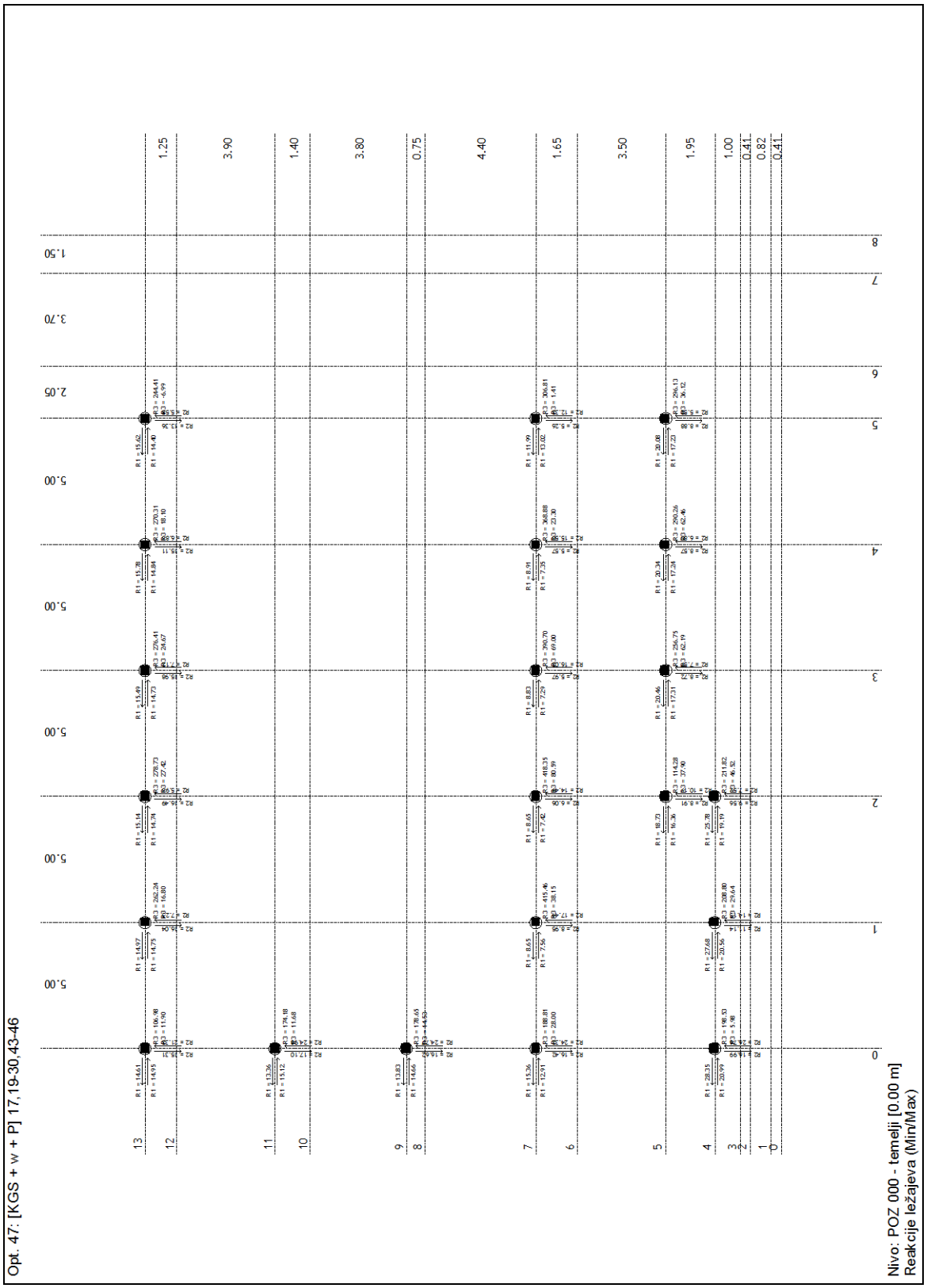


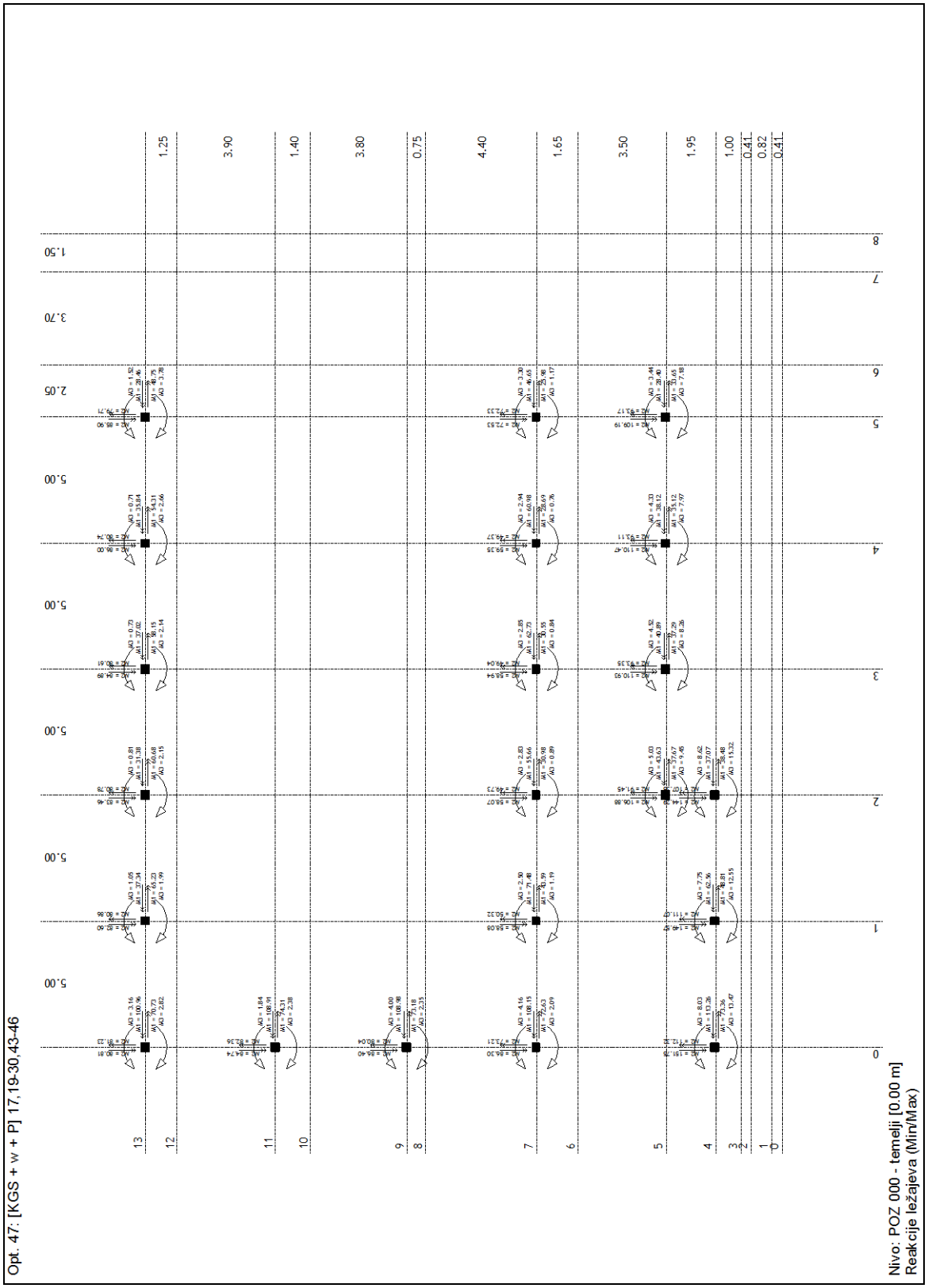
Pomaci armiranobetonskih stupova zadovoljavaju.

PRORAČUN TEMELJA

POZ 000

Reakcije





U proračun stopa dodane su reakcije iz modela za armiranobetonsku konstrukciju.

Proračun stopa prikazan je nakon proračuna modela armiranobetonske konstrukcije.

PRORAČUN ARMIRANOBETONSKE KONSTRUKCIJE

Model armiranobetonske konstrukcije

Modelirane su međukatna etaža POZ 100, tribine T100, kosi krov uz tribine T200 te armiranobetonski zidova i armiranobetonske grede.

U modelu su modelirani i "zamjenski" armiranobetonski stupovi dimenzija 20×20 cm na mjestima stvarnih armiranobetonskih stupova D = 50 cm gdje je bilo potrebno zbog realnih oslonaca armiranobetonske ploče.

Konstrukcija

Shema nivoa

Naziv	z [m]	h [m]
POZ 200 - krov	8.80	0.20
POZ 200 - kosi krov - sljeme	8.60	0.30
POZ 200 - kosi krov - vijenac	8.30	0.50
POZ 200 - gornja pojasnica GK	7.80	1.50
POZ 200 - donja pojasnica GK	6.30	0.90
tribina 5	5.40	0.45
tribina 4	4.95	0.45
tribina 3	4.50	0.45
tribina 2	4.05	0.45
tribina 1	3.60	0.45
POZ 100 - strop prizemlja	3.15	3.15
POZ 000 - temelji	0.00	

Tabela materijala

No	Naziv materijala	E[kN/m2]	μ	γ[kN/m3]	αt[1/C]	Em[kN/m2]	μm
1	Beton C30/37	3.200e+7	0.20	25.00	1.000e-5	3.200e+7	0.20

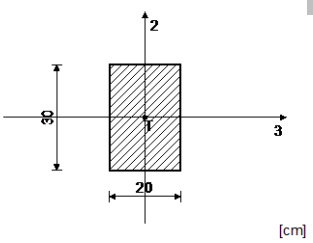
Setovi ploča

No	d[m]	e[m]	Materijal	Tip proračuna	Ortotropija	E2[kN/m2]	G[kN/m2]	α
<1>	0.200	0.100	1	Tanka ploča	Izotropna			
<3>	0.250	0.125	1	Tanka ploča	Izotropna			
<4>	0.200	0.100	1	Tanka ploča	Izotropna			

Setovi greda

Set: 2 Presjek: b/d=20/30, Fiktivna ekscentričnost

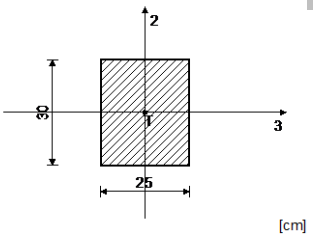
Mat.	A1	A2	A3	I1	I2	I3
1 - Beton C30/37	6.000e-2	5.000e-2	5.000e-2	4.695e-4	2.000e-4	4.500e-4



[cm]

Set: 3 Presjek: b/d=25/30, Fiktivna ekscentričnost

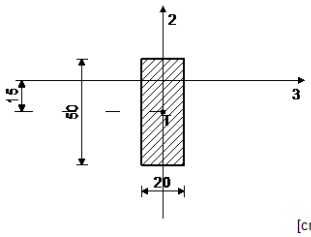
Mat.	A1	A2	A3	I1	I2	I3
1 - Beton C30/37	7.500e-2	6.250e-2	6.250e-2	7.752e-4	3.906e-4	5.625e-4



[cm]

Set: 4 Presjek: b/d=20/50, Fiktivna ekscentričnost

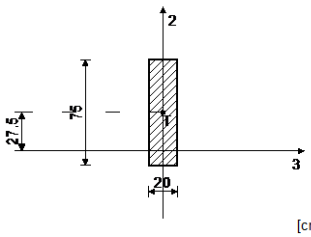
Mat.	A1	A2	A3	I1	I2	I3
1 - Beton C30/37	1.000e-1	8.333e-2	8.333e-2	9.981e-4	3.333e-4	2.083e-3



[cm]

Set: 5 Presjek: b/d=20/75, Fiktivna ekscentričnost

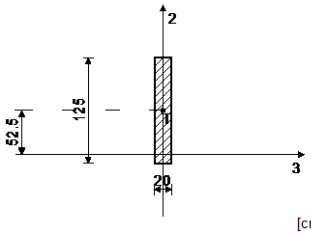
Mat.	A1	A2	A3	I1	I2	I3
1 - Beton C30/37	1.500e-1	1.250e-1	1.250e-1	1.664e-3	5.000e-4	7.031e-3



[cm]

Set: 6 Presjek: b/d=20/125, Fiktivna ekscentričnost

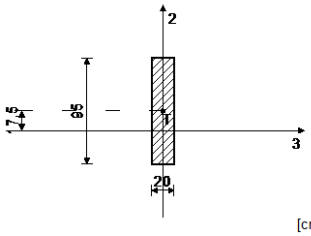
Mat.	A1	A2	A3	I1	I2	I3
1 - Beton C30/37	2.500e-1	2.083e-1	2.083e-1	2.997e-3	8.333e-4	3.255e-2



[cm]

Set: 7 Presjek: b/d=20/95, Fiktivna ekscentričnost

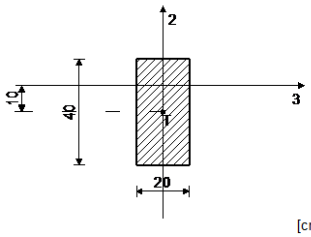
Mat.	A1	A2	A3	I1	I2	I3
1 - Beton C30/37	1.900e-1	1.583e-1	1.583e-1	2.197e-3	6.333e-4	1.429e-2



[cm]

Set: 8 Presjek: b/d=20/40, Fiktivna ekscentričnost

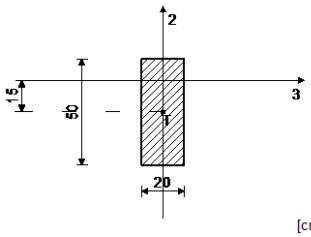
Mat.	A1	A2	A3	I1	I2	I3
1 - Beton C30/37	8.000e-2	6.667e-2	6.667e-2	7.324e-4	2.667e-4	1.067e-3



[cm]

Set: 9 Presjek: b/d=20/50, Fiktivna ekscentričnost

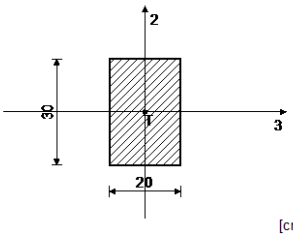
Mat.	A1	A2	A3	I1	I2	I3
1 - Beton C30/37	1.000e-1	8.333e-2	8.333e-2	9.981e-4	3.333e-4	2.083e-3



[cm]

Set: 10 Presjek: b/d=20/30, Fiktivna ekscentričnost

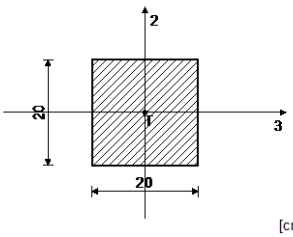
Mat.	A1	A2	A3	I1	I2	I3
1 - Beton C30/37	6.000e-2	5.000e-2	5.000e-2	4.695e-4	2.000e-4	4.500e-4



[cm]

Set: 38 Presjek: b/d=20/20, Fiktivna ekscentričnost

Mat.	A1	A2	A3	I1	I2	I3
1 - Beton C30/37	4.000e-2	3.333e-2	3.333e-2	2.253e-4	1.333e-4	1.333e-4



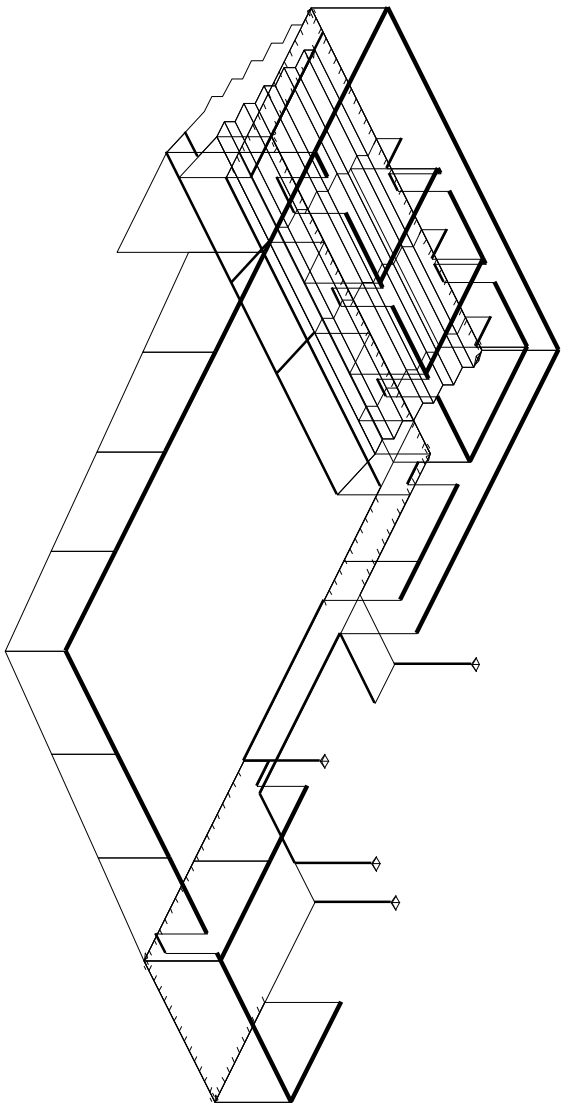
[cm]

Setovi linijskih ležajeva

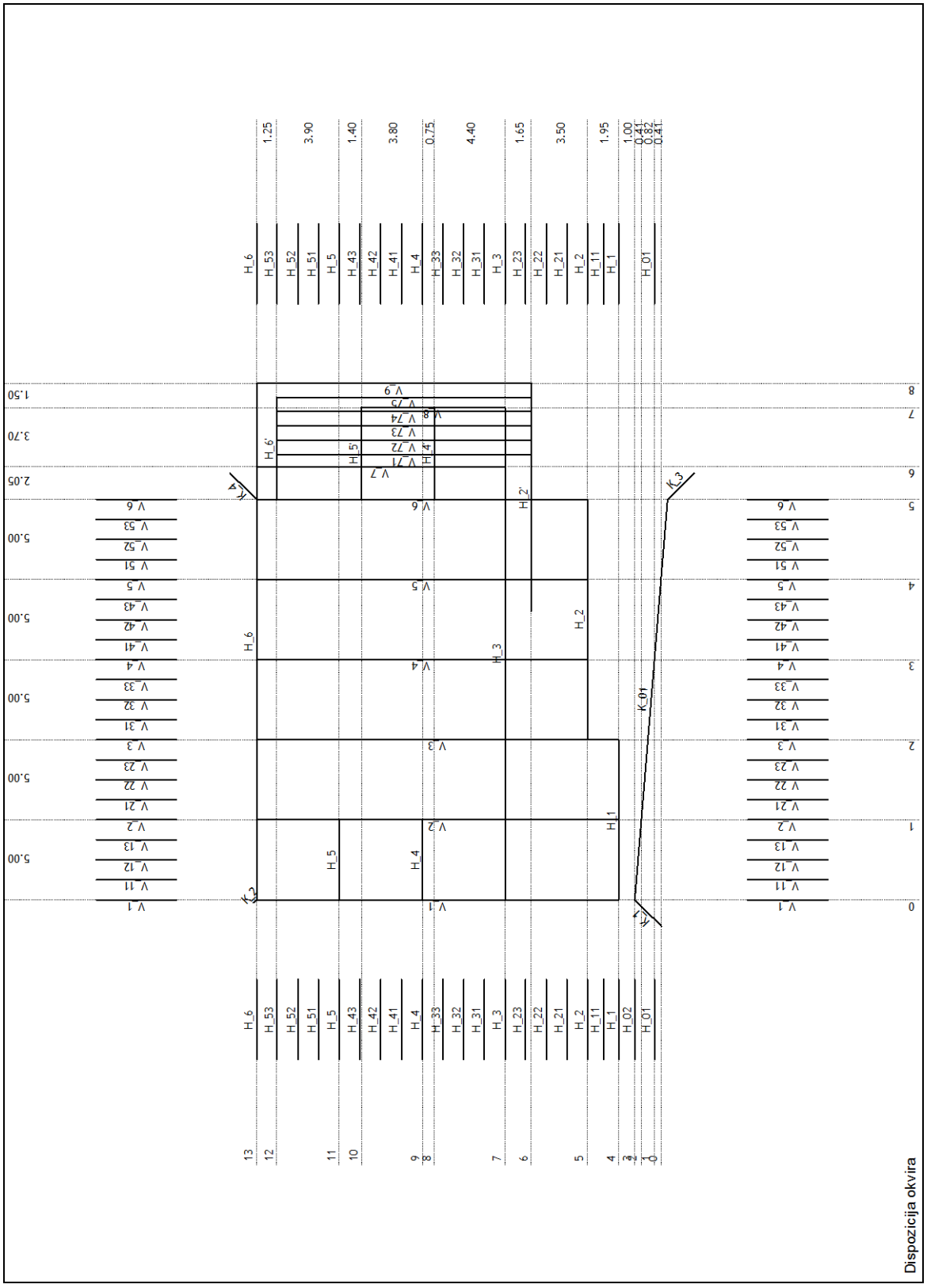
Set	K,R1	K,R2	K,R3	K,M1	Tlo [m]
1	1.500e+6	1.500e+6	1.500e+6	1.500e+6	
2	1.500e+6	1.500e+6	1.500e+6	1.500e+6	

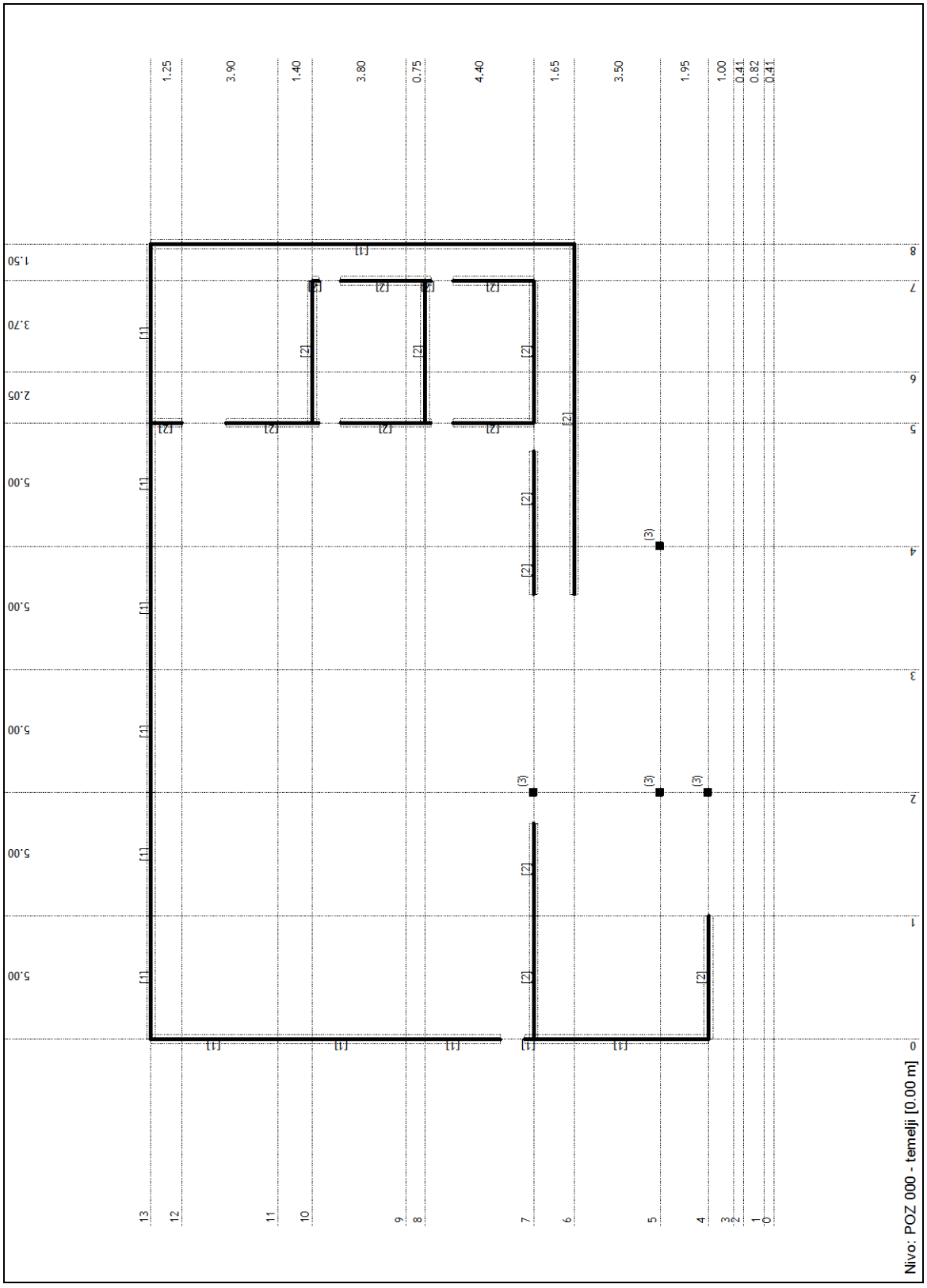
Setovi točkastih ležajeva

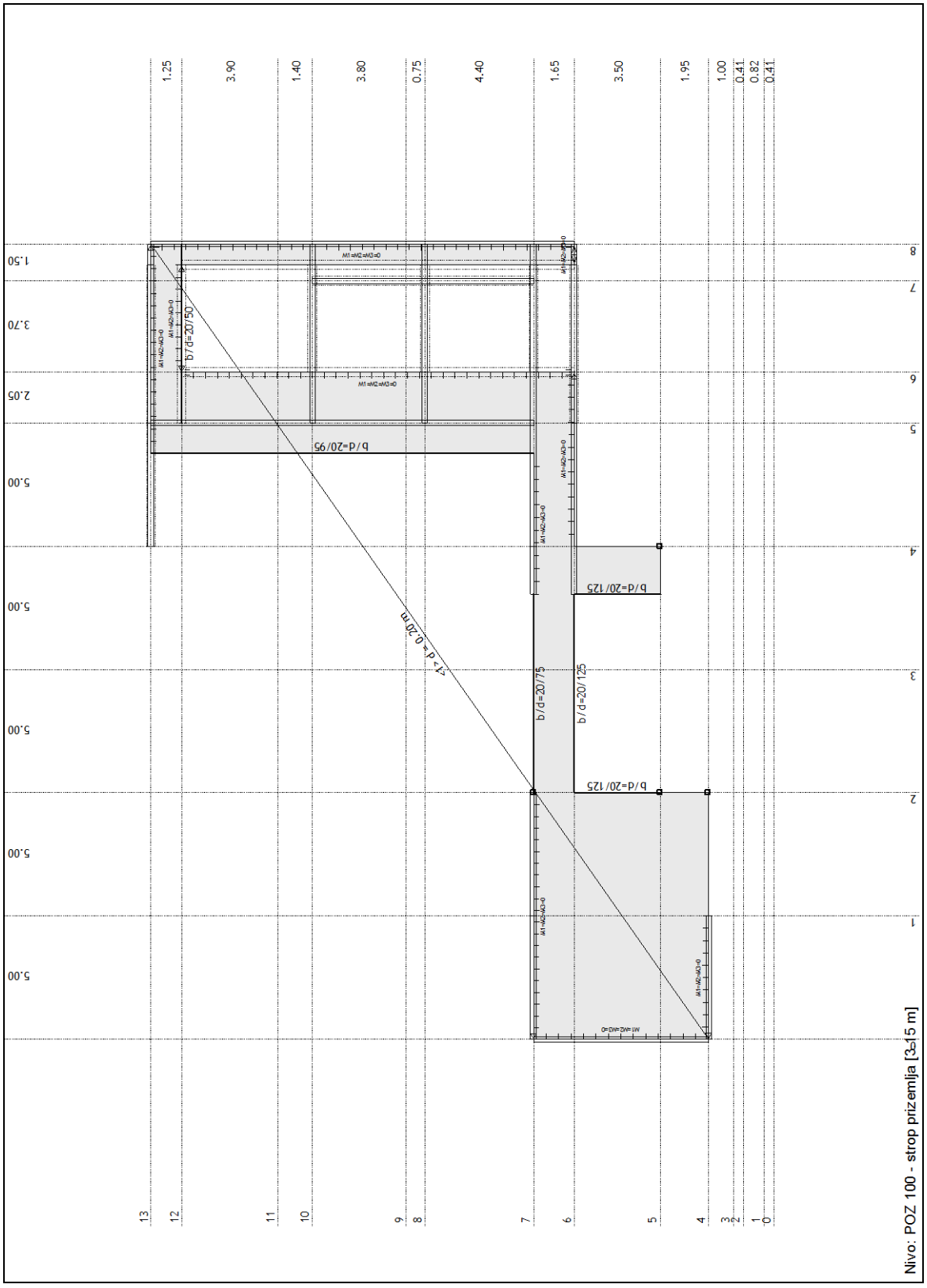
	K,R1	K,R2	K,R3	K,M1	K,M2	K,M3
3	1.500e+6	1.500e+6	1.500e+6	1.500e+6	1.500e+6	1.500e+6

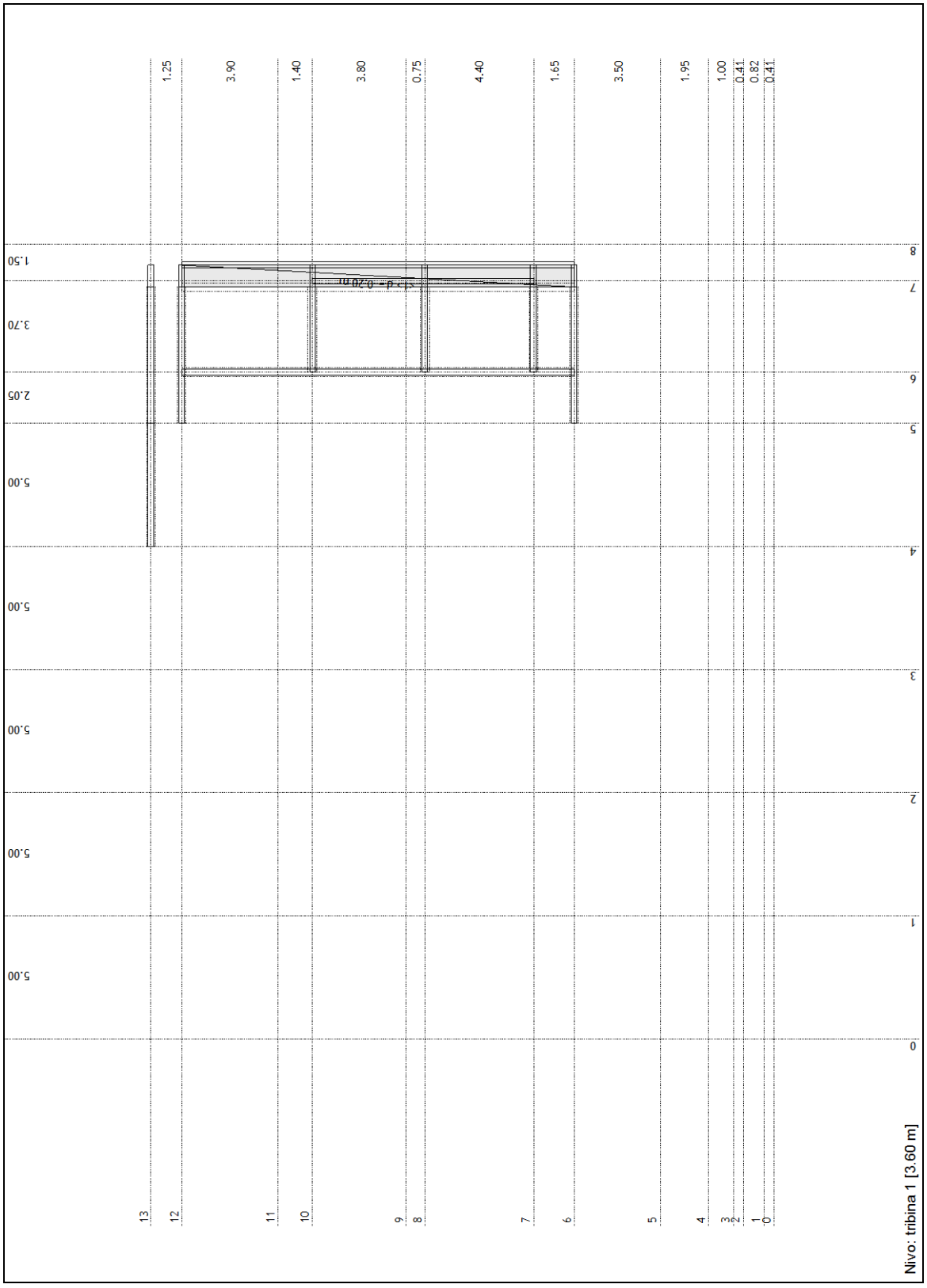


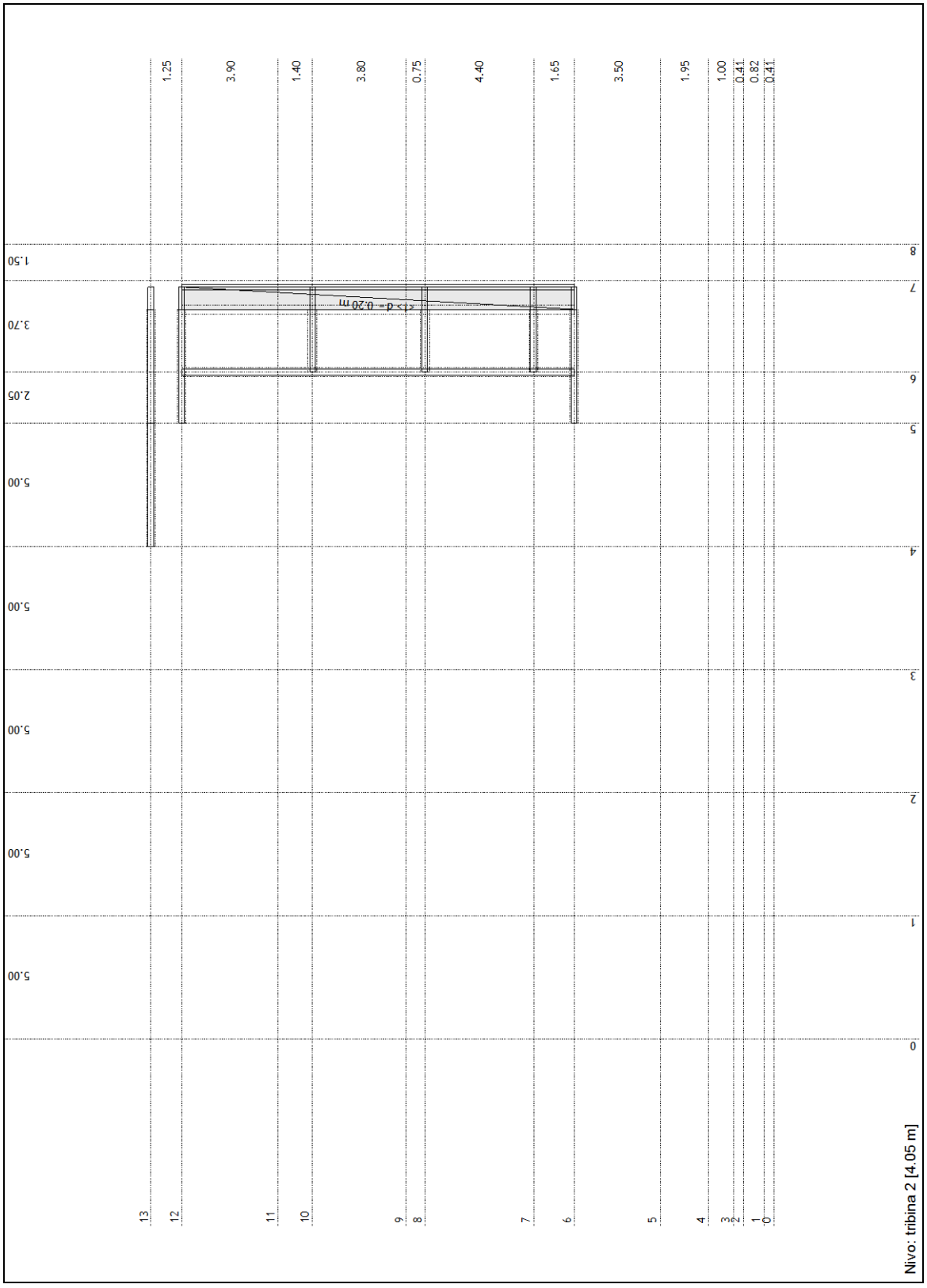
Izometrija

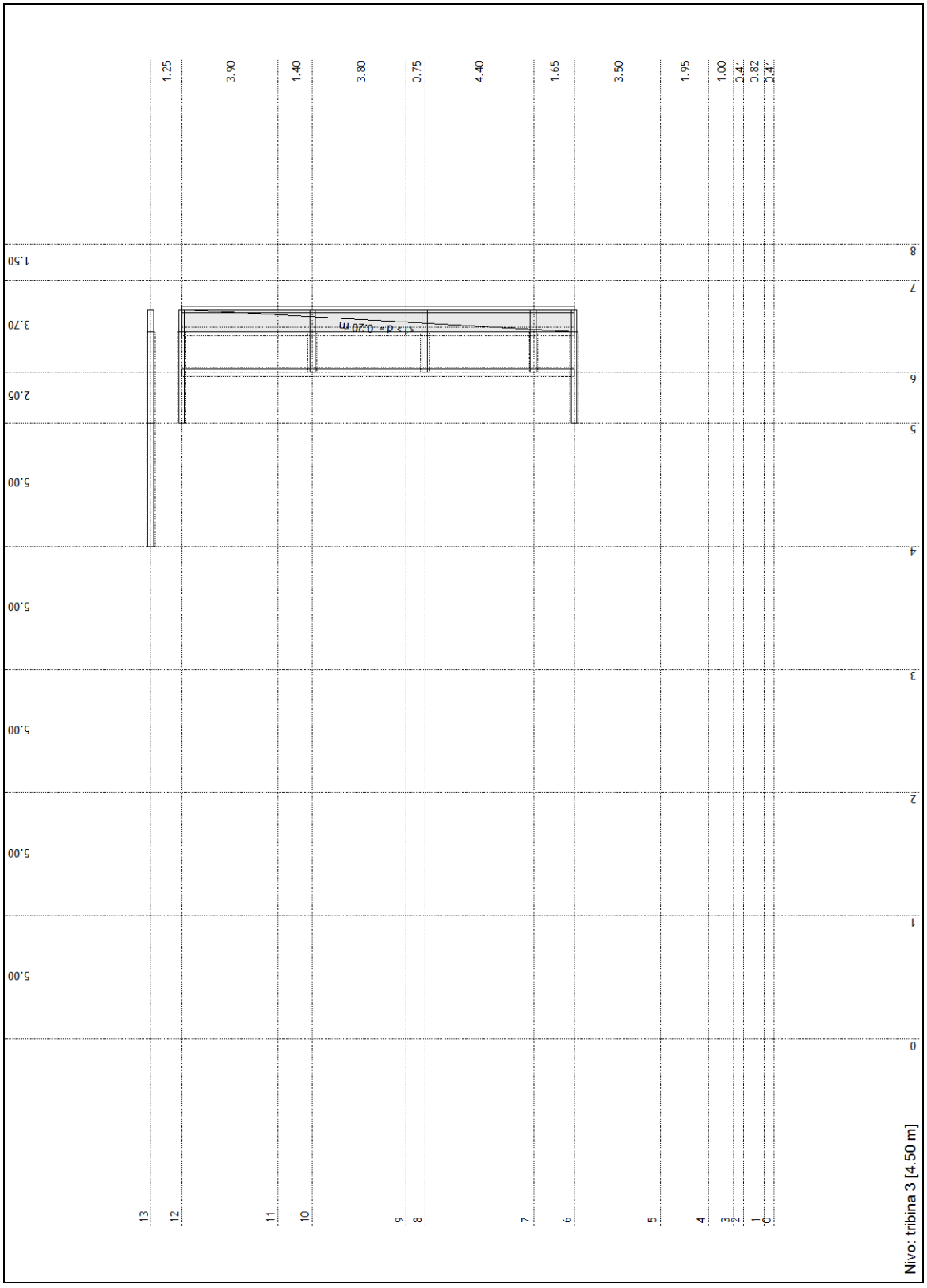

Dispozicija okvira

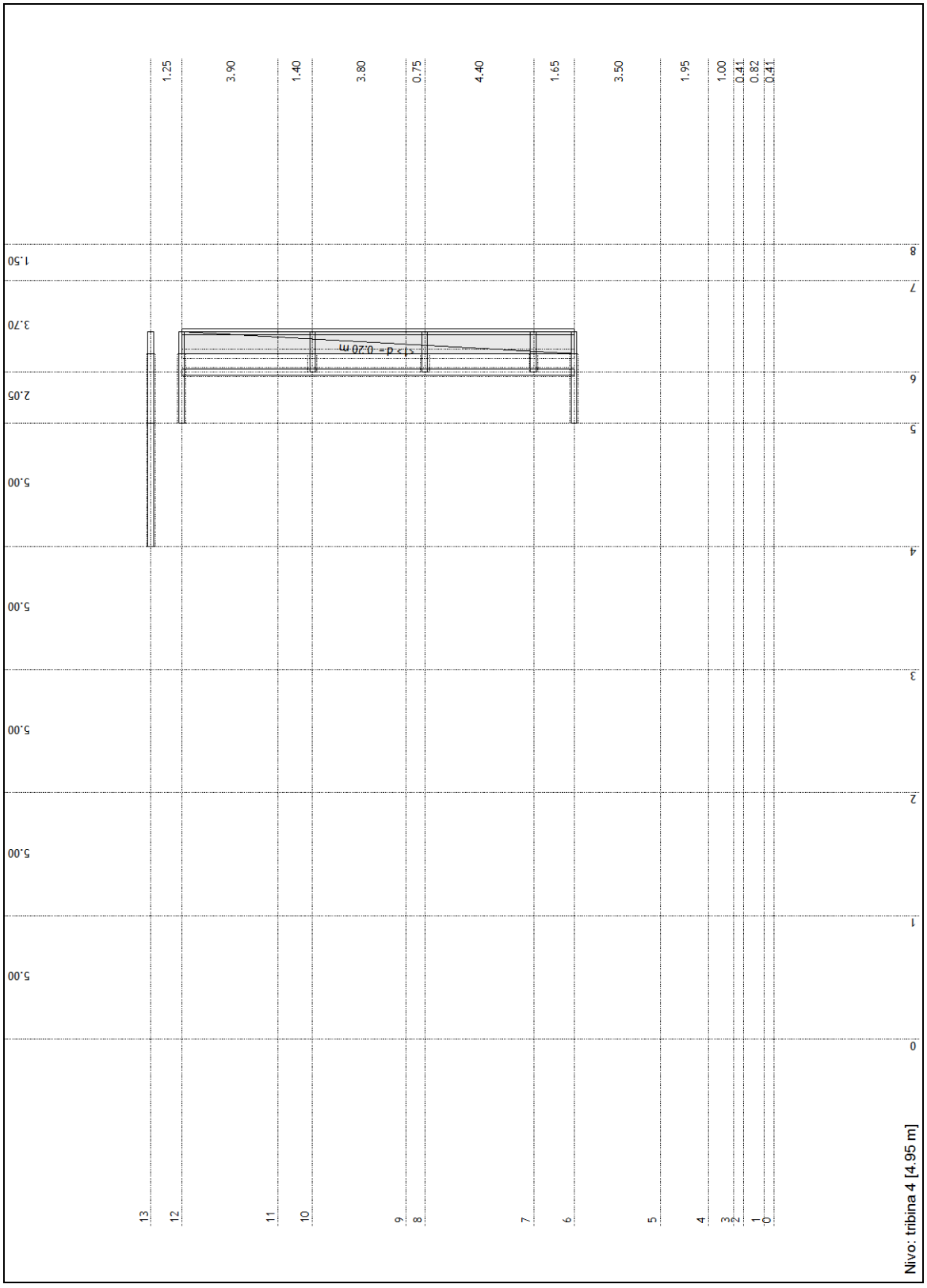

1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
Nivo: POZ 000 - temelji [0.00 m]

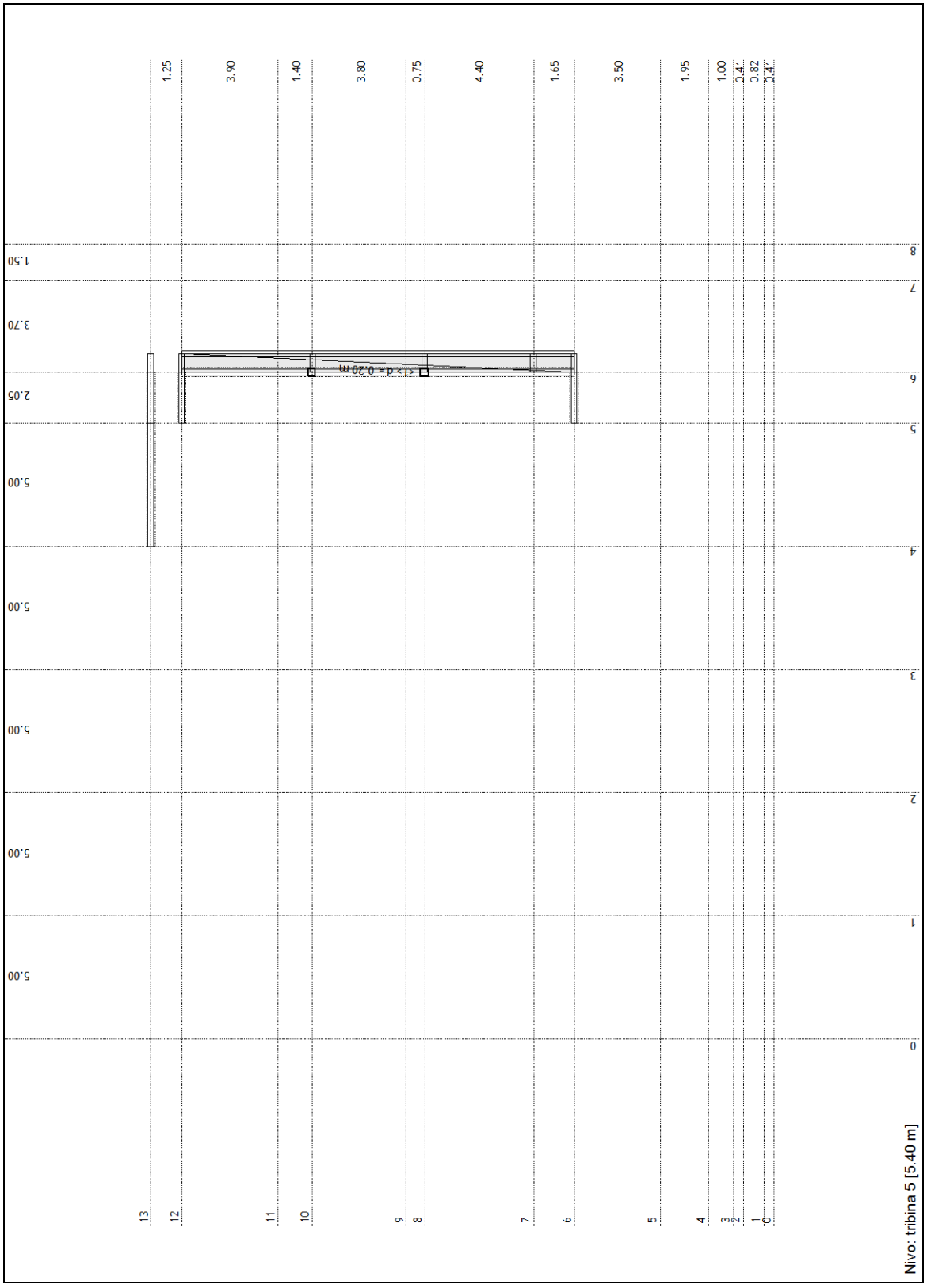

Nivo: POZ 100 - strop prizemlja [3.05 m]
b/d=20/50
b/d=20/95
b/d=20/125
b/d=20/75
b/d=20/125
b/d=20/125
d = 0.40 m

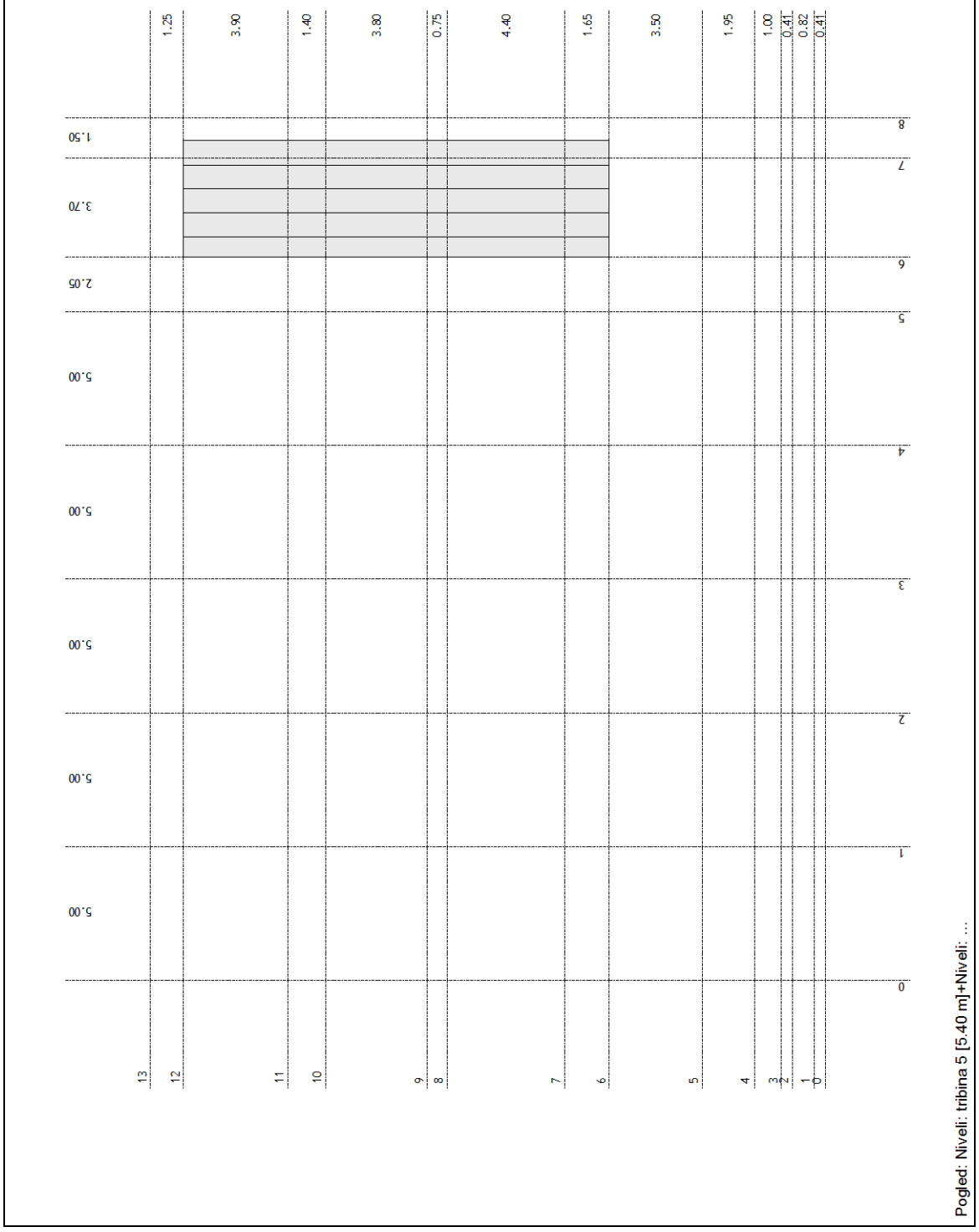

1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Nivo: tribina 1 [3.60 m]

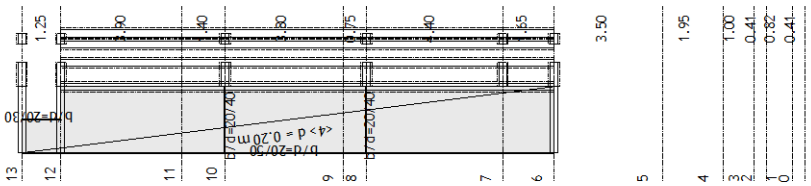

1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
d = 0.20 m
8
7
6
5
4
3
2
1
0
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Nivo: tribina 2 [4.05 m]


1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
d = 0.20 m
8
7
6
5
4
3
2
1
0
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Nivo: tribina 3 [4.50 m]

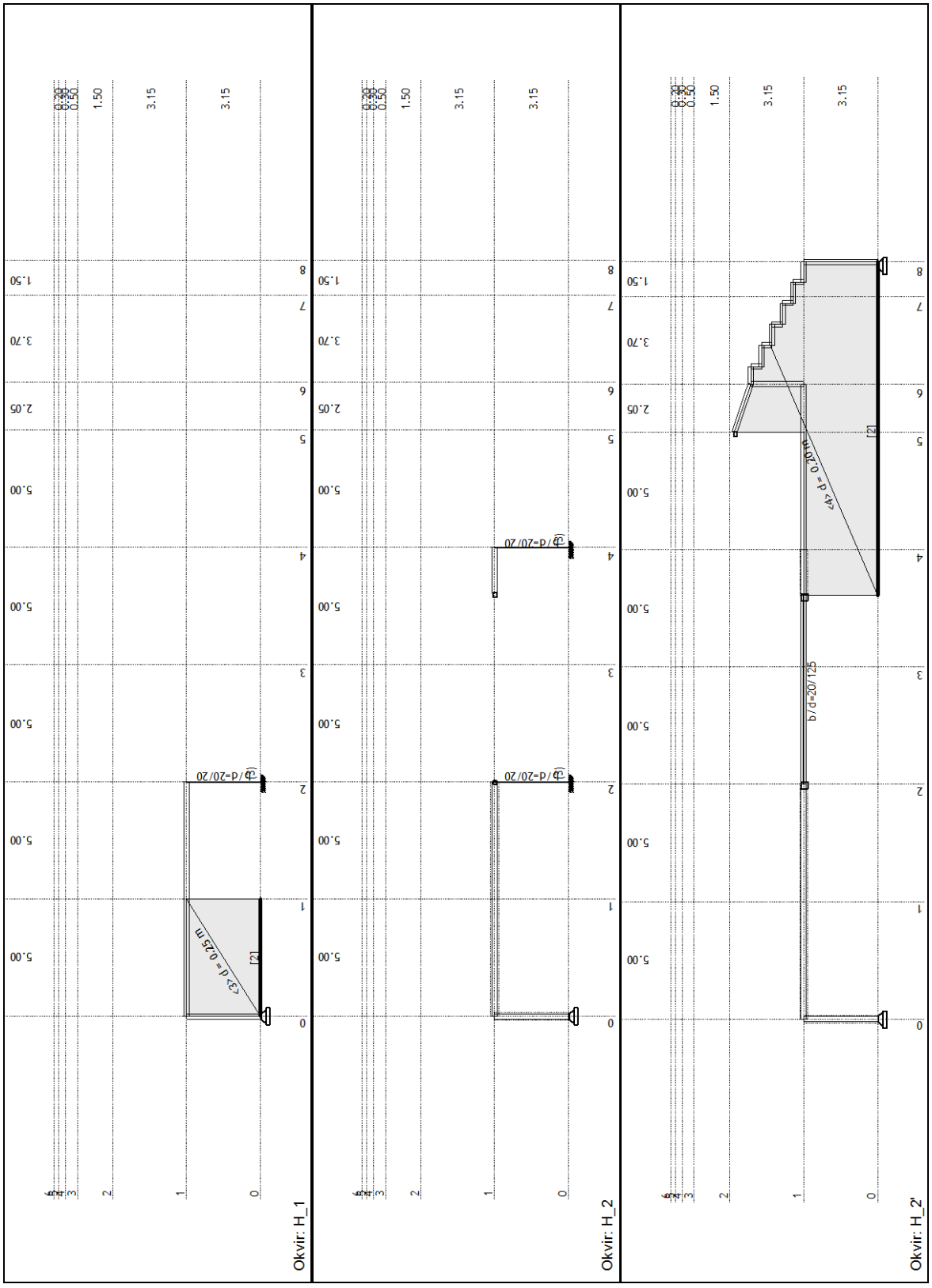

1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
d = 0.20 m
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Nivo: tribina 4 [4.95 m]

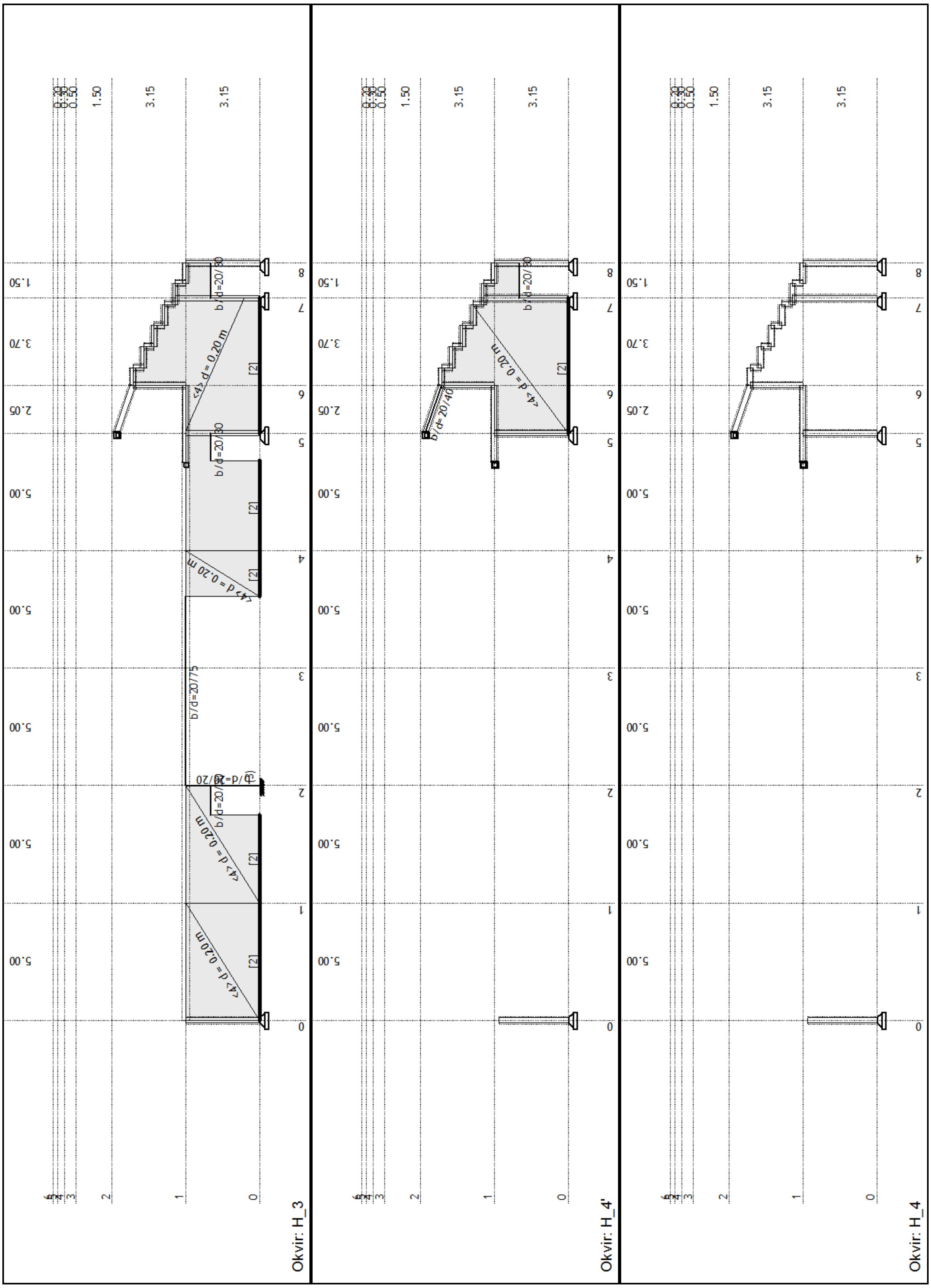

1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
0
1
2
3
4
5
6
7
8
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Nivo: tribina 5 [5.40 m]


1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
8
7
6
5
4
3
2
1
0
Pogled: Niveli: tribina 5 [5.40 m]+Niveli: ...

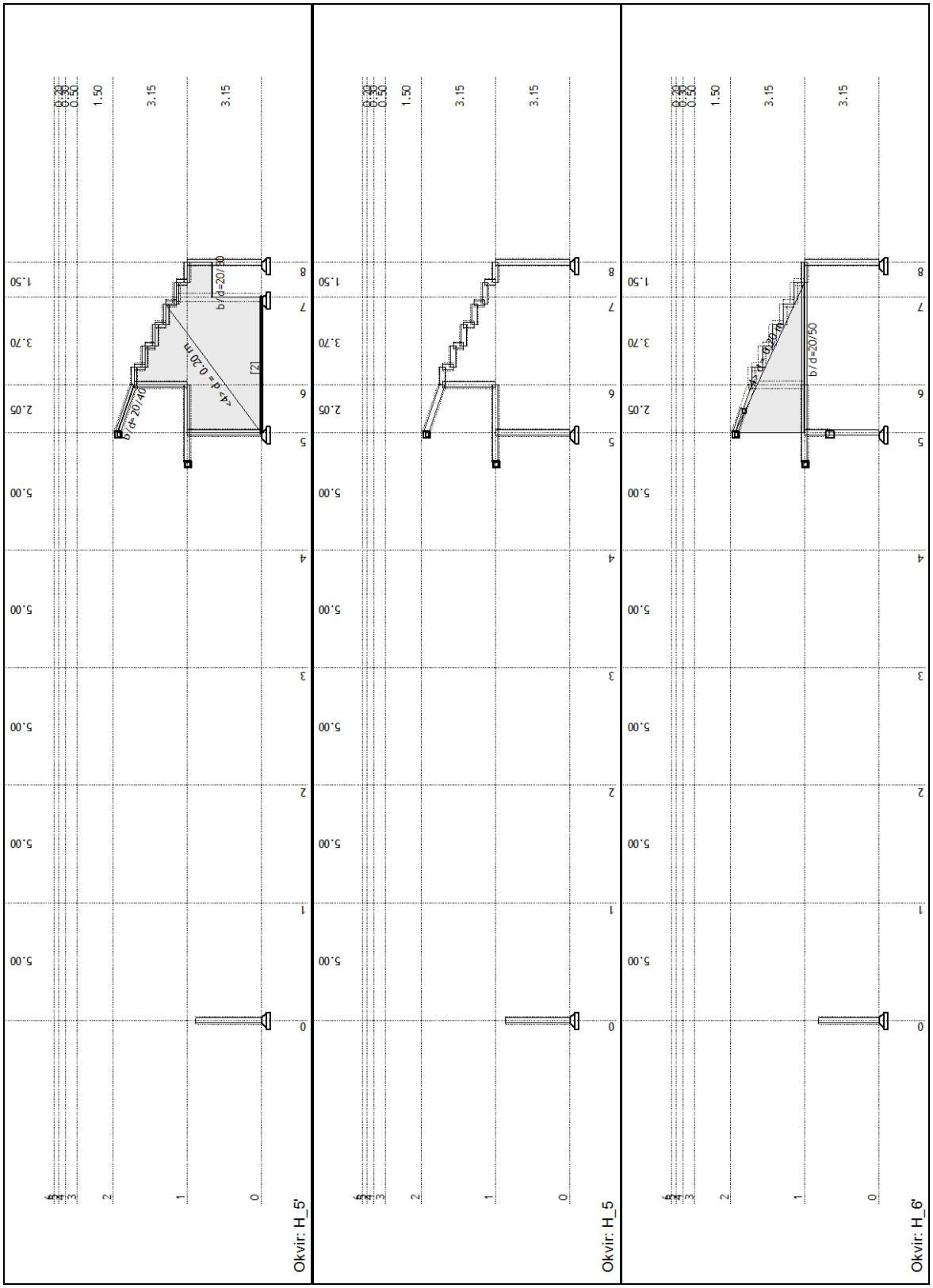


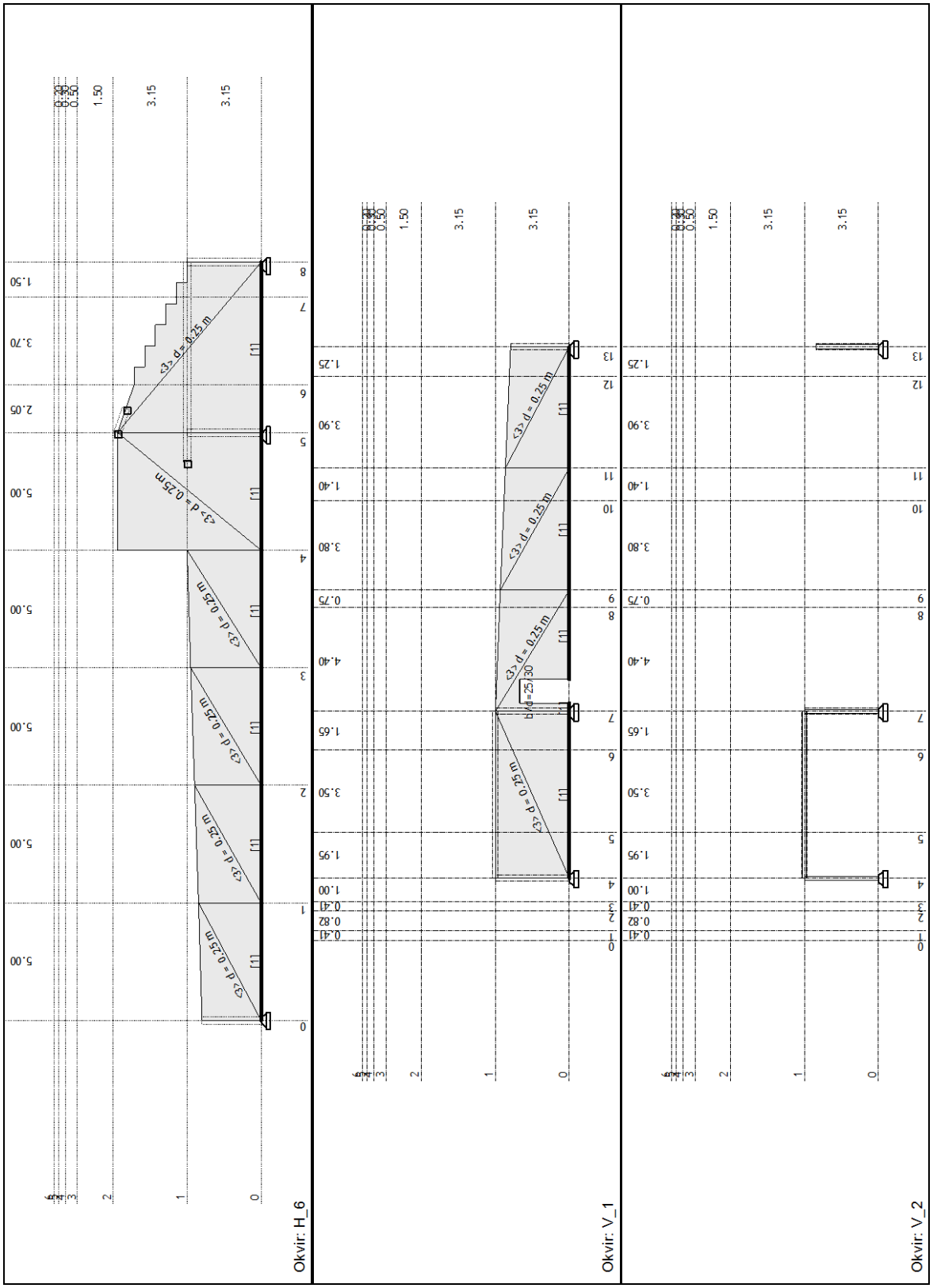
Pogled: T100 - kosa tribina

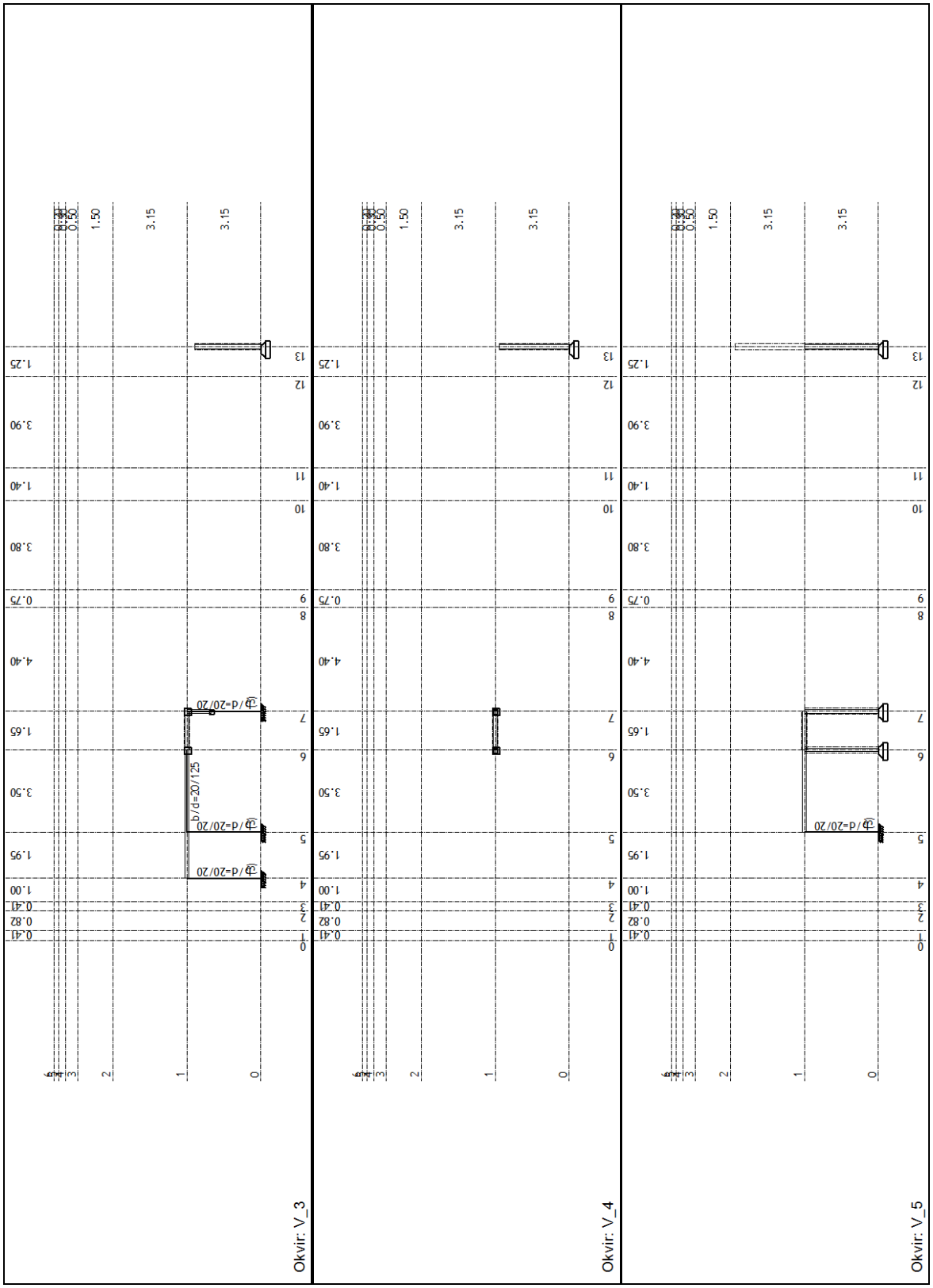

Okvir: H_1
Okvir: H_2
Okvir: H_2'
b/d=20/125
[2]

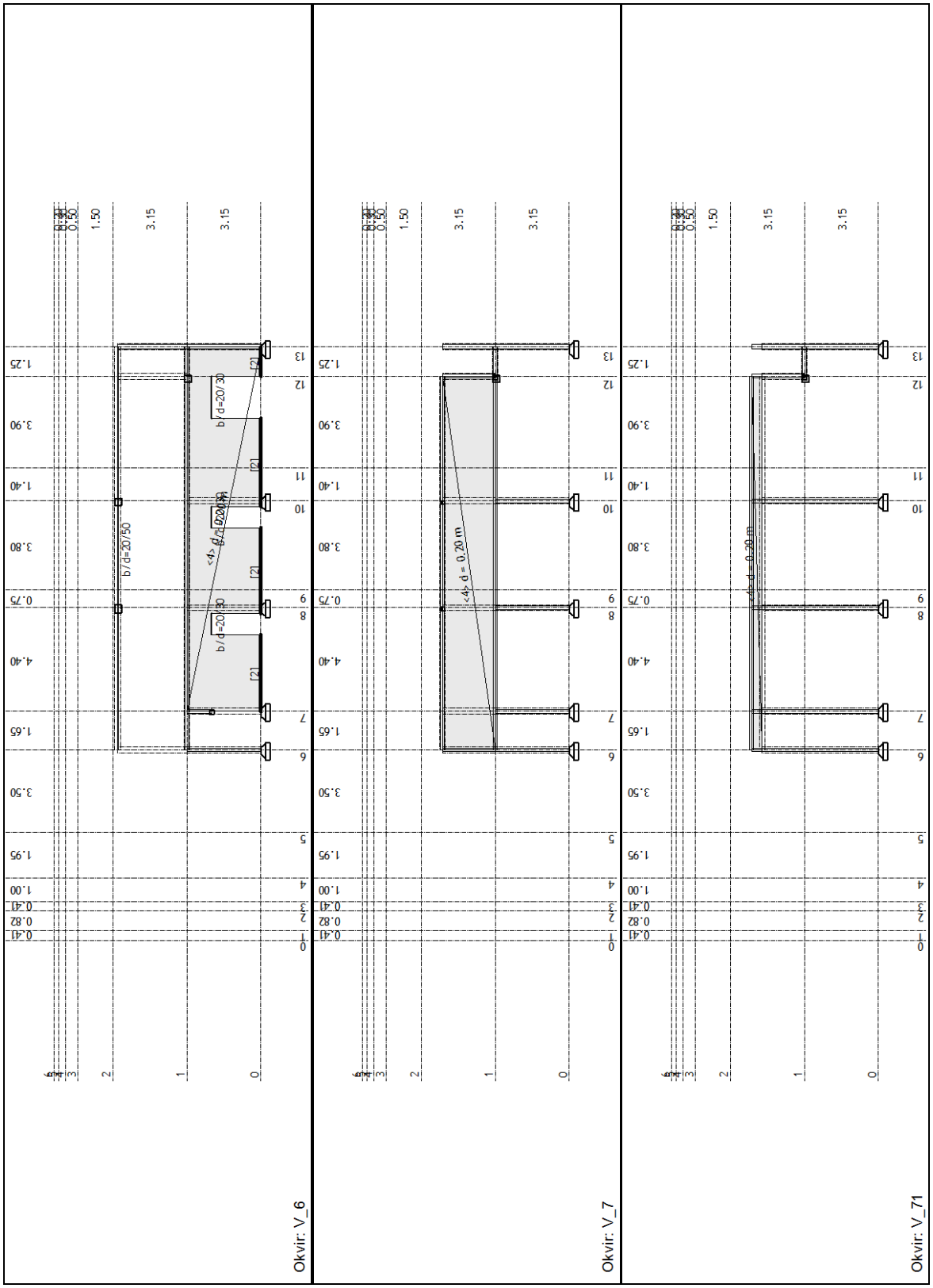


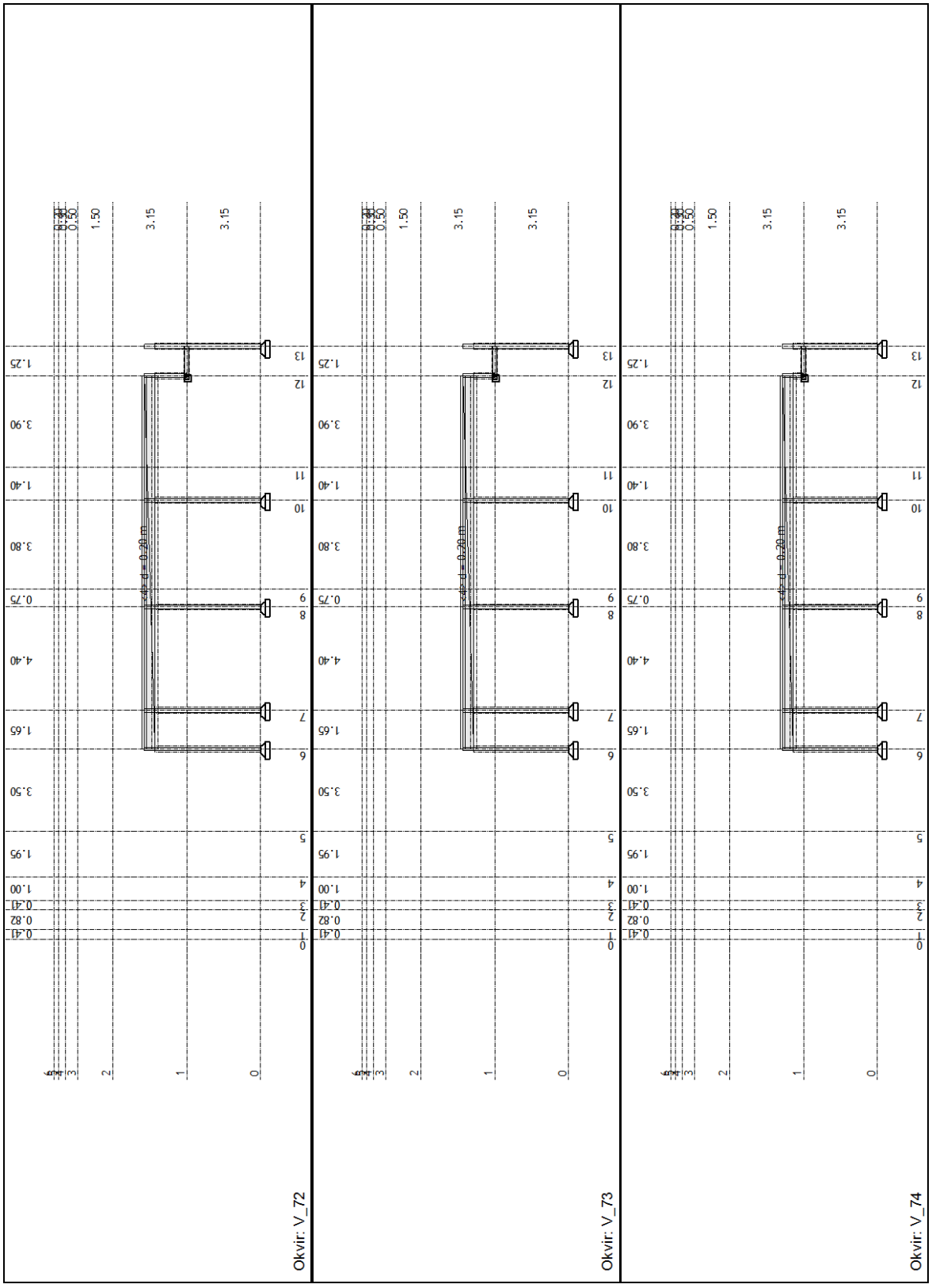
Okvir: H_3
Okvir: H_4'
Okvir: H_4

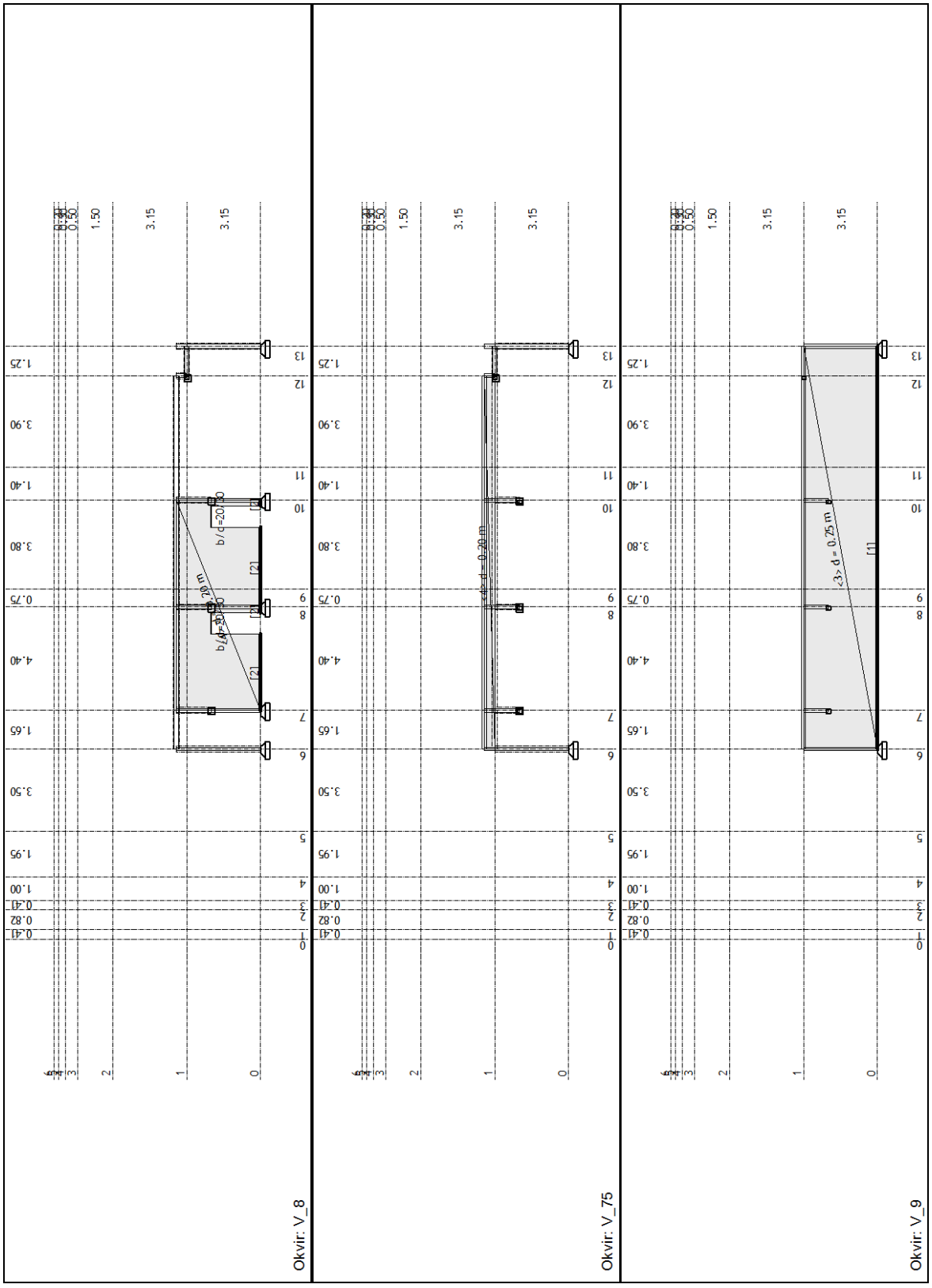

Okvir: H_5'
Okvir: H_5
Okvir: H_6'
b/d=20/50
b/d=20/40
47°
d = 0.20 m
[2]
0.20
0.30
0.50
1.50
3.15
3.15
5.00
2.05
3.70
1.50


Okvir: H_6
Okvir: V_1
Okvir: V_2
d = 0.25 m
b/d=25/30


Okvir: V_3
Okvir: V_4
Okvir: V_5
b/d=20/125
b/d=20/20


Okvir: V_6
Okvir: V_7
Okvir: V_71
b / d=20/30
b / d=20/50
<4> d = 0.20 m
1.50
3.15
3.15
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41

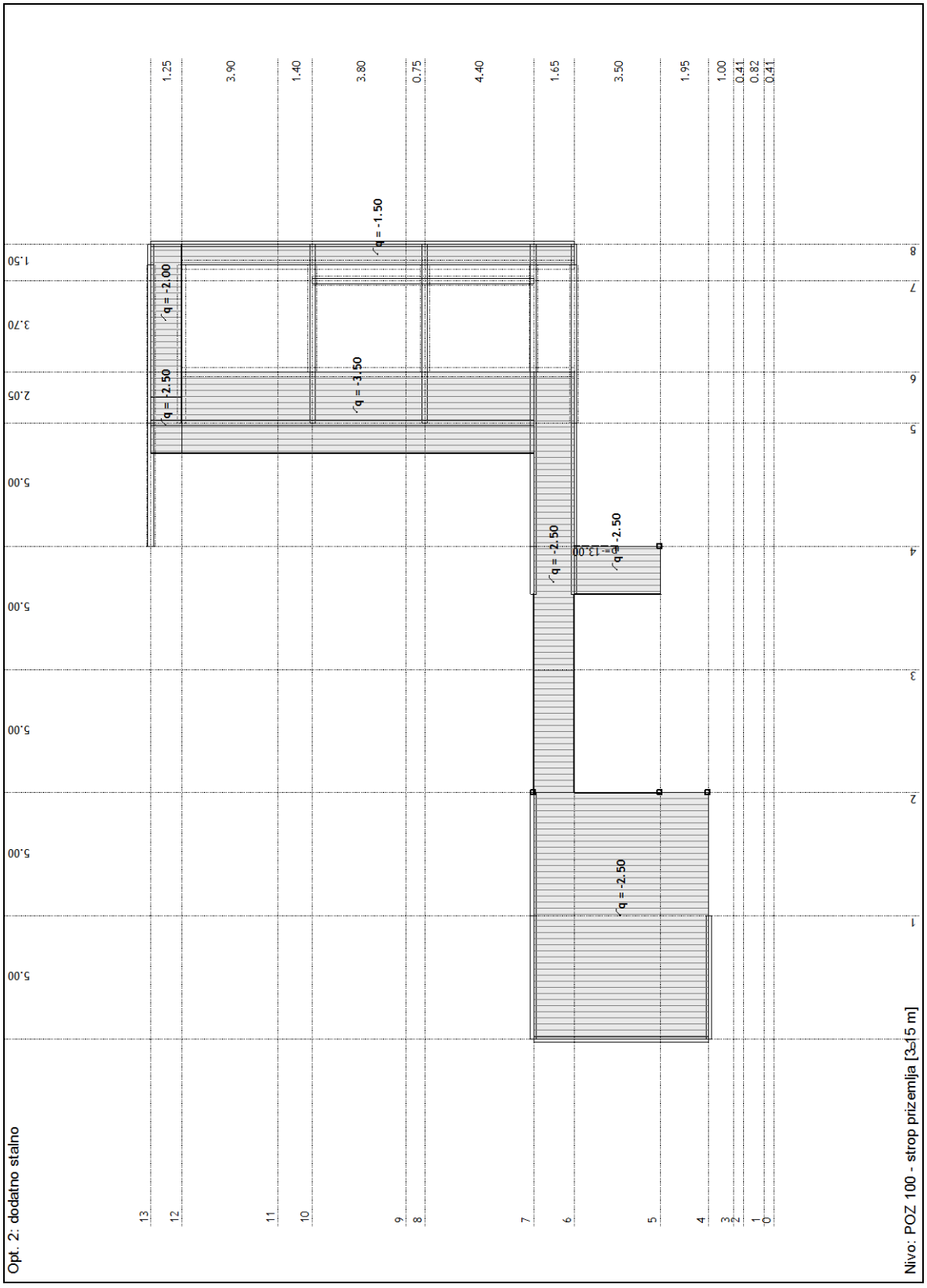

0.50
1.50
3.15
3.15
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.40
0.82
0.40
Okvir: V_72
Okvir: V_73
Okvir: V_74

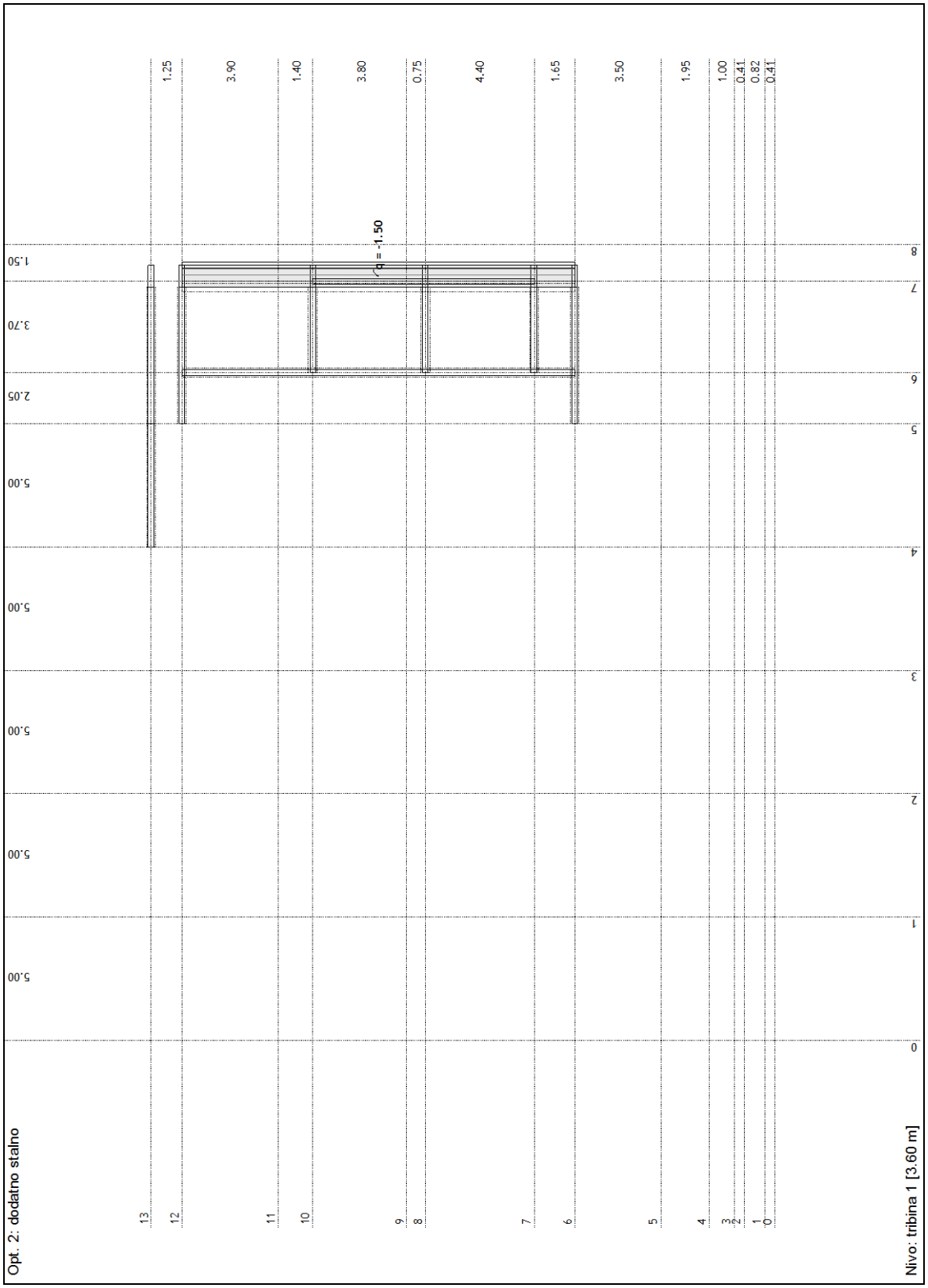

Okvir: V_8
Okvir: V_75
Okvir: V_9

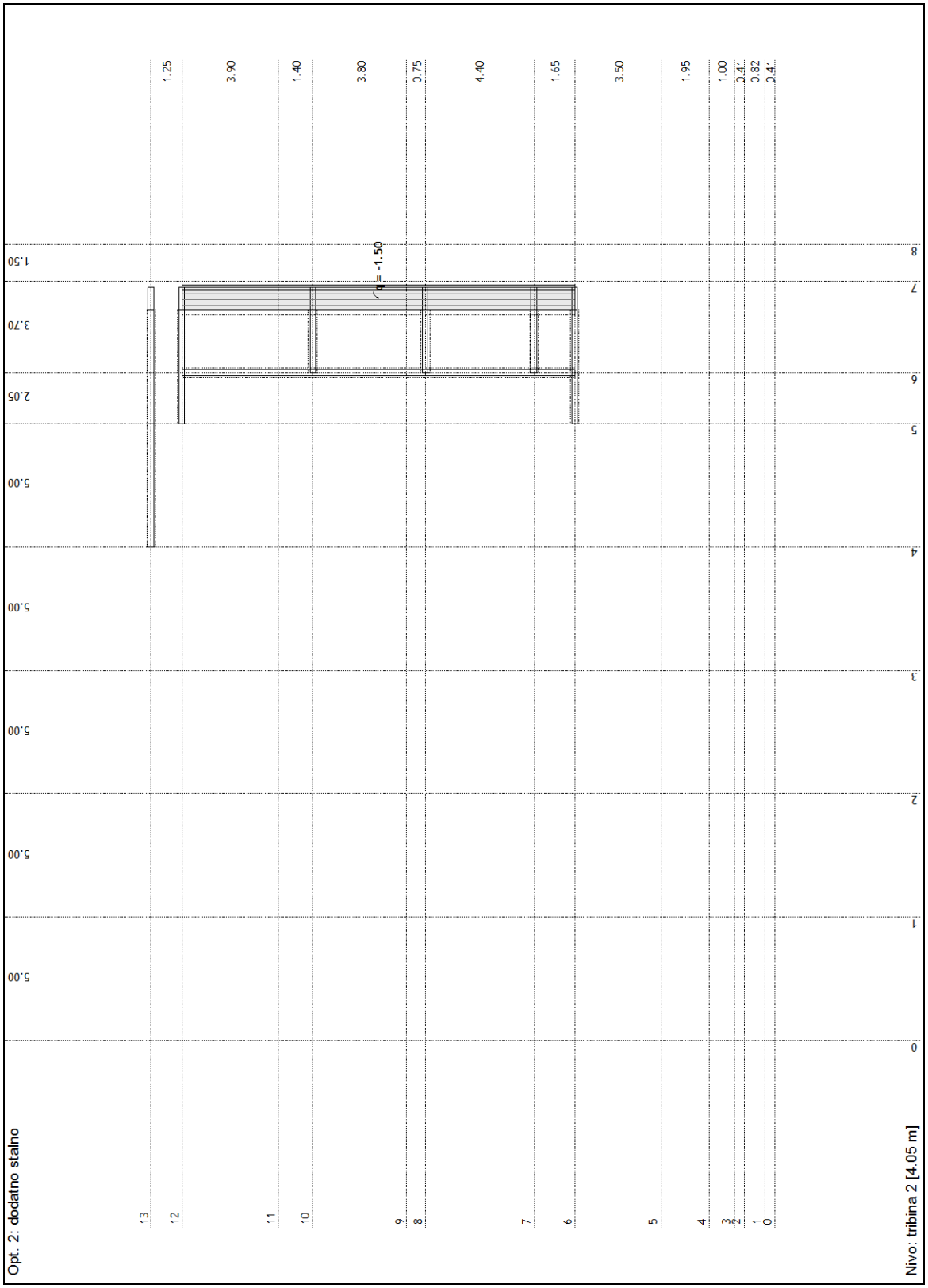
Opterećenja

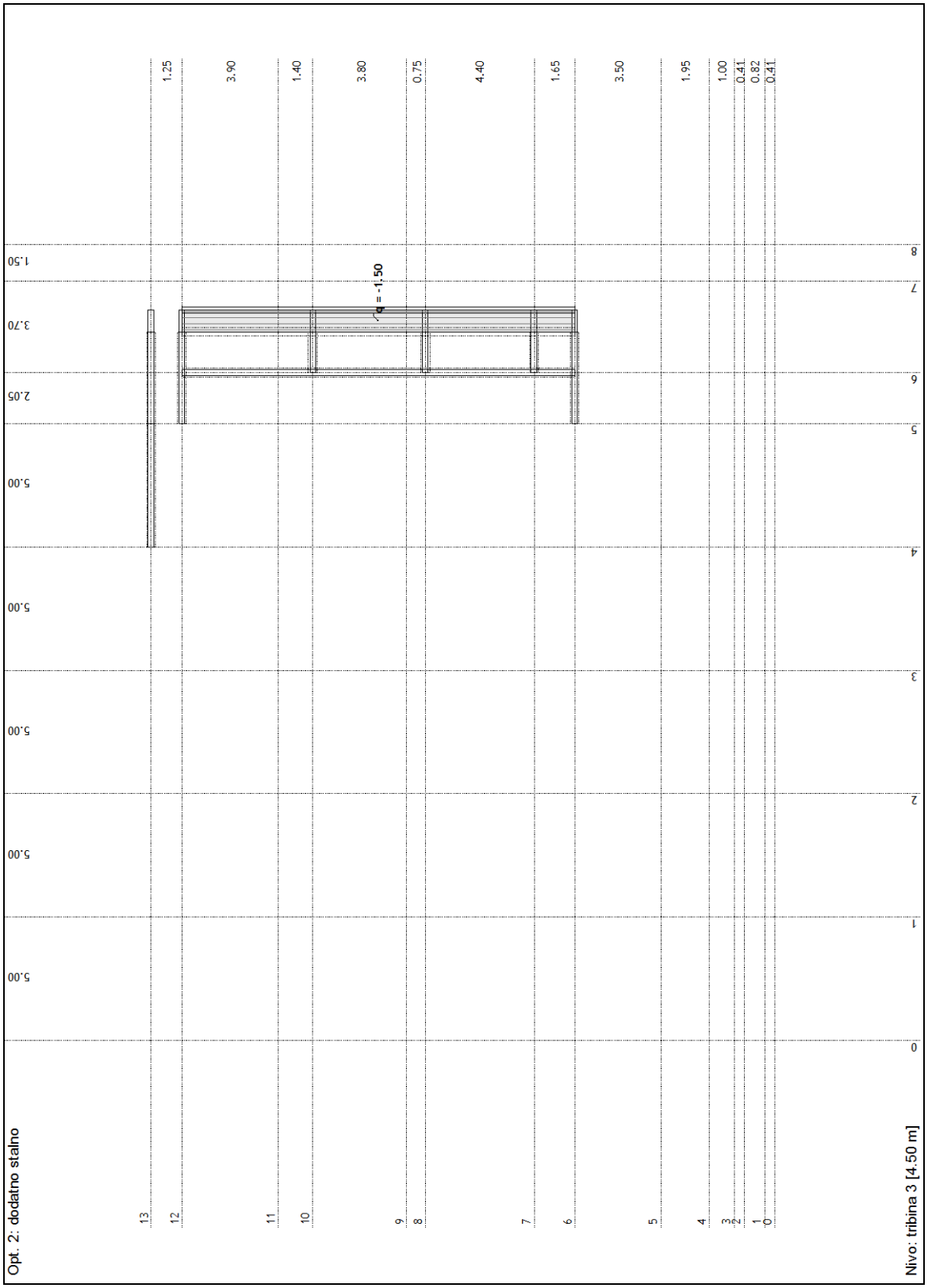
Lista slučajeva opterećenja

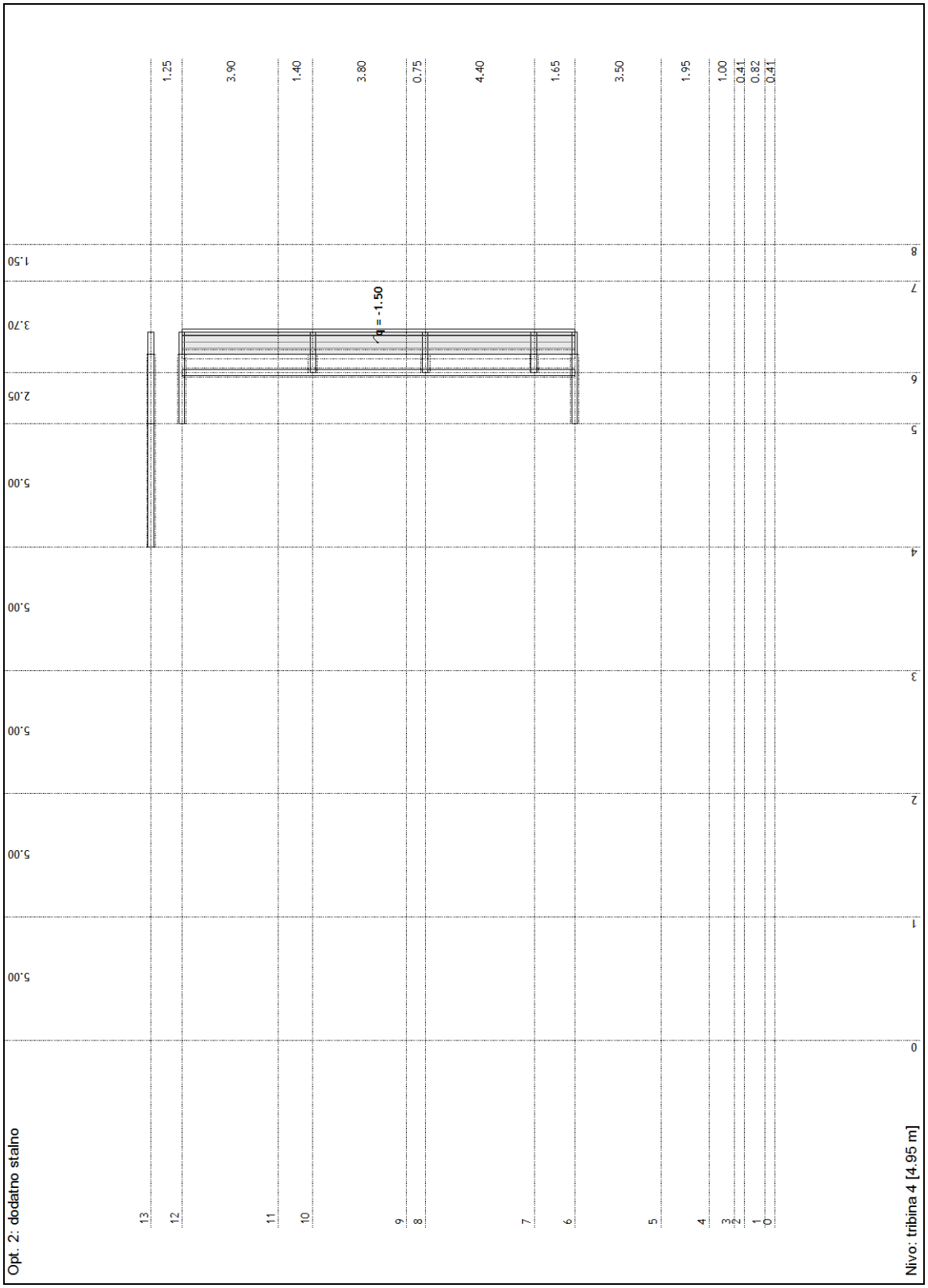
No	Naziv
1	vlastita težina (g)
2	dodatno stalno
3	uporabno
4	tribine
5	Potres X
6	Potres Y
7	Komb.: 1.35xI+1.35xII+1.5 xIII+3xIV
8	Komb.: I+II+III+2xIV
9	Komb.: I+II+0.3xIII+0.3xIV+ +1.2xV
10	Komb.: I+II+0.3xIII+0.3xI V-1.2xV
11	Komb.: I+II+0.3xIII+0.3xIV+ +1.18xVI
12	Komb.: I+II+0.3xIII+0.3xI V-1.18xVI

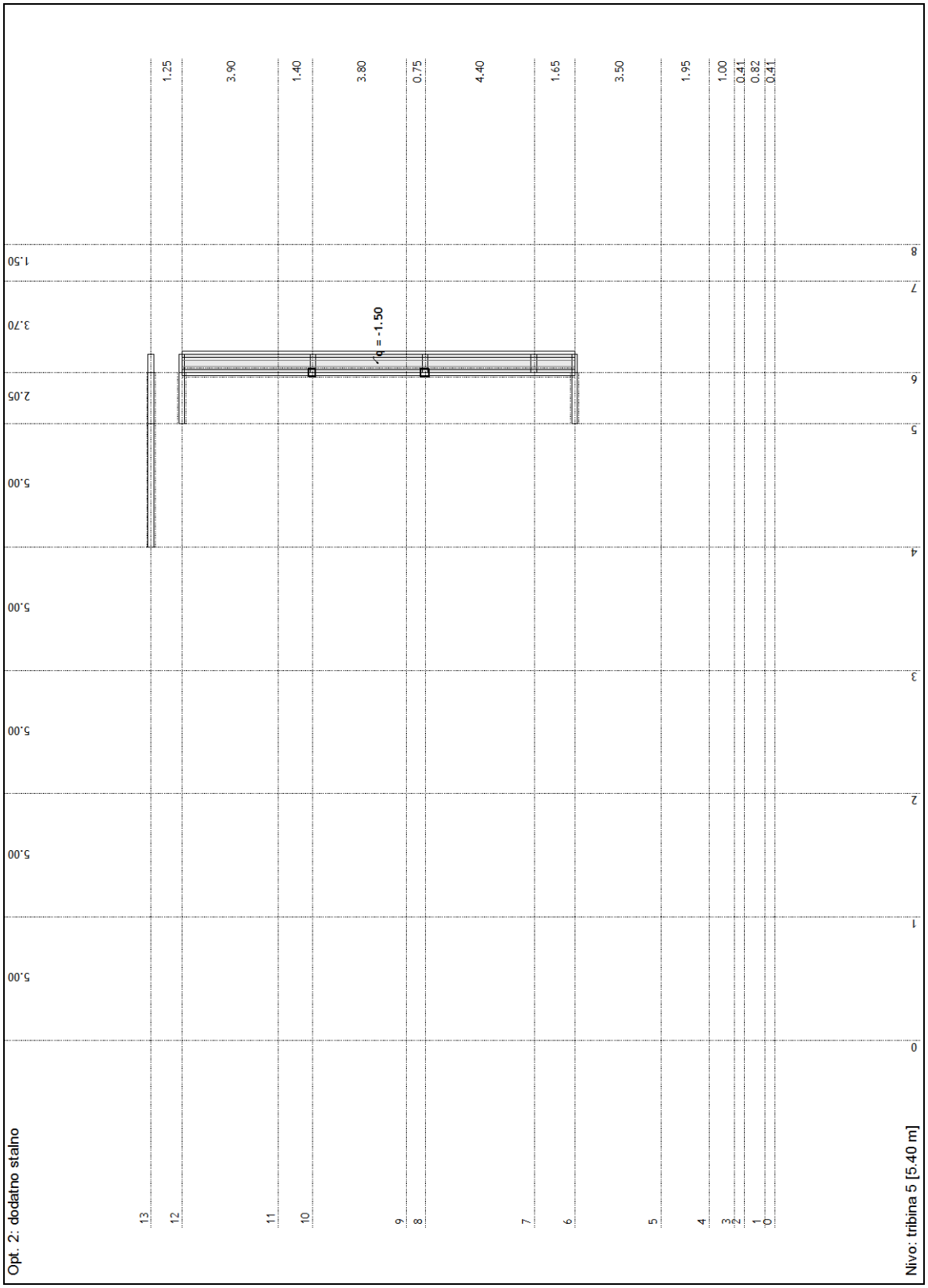

Opt. 2: dodatno stalno
Nivo: POZ 100 - strop prizemlja [3.05 m]
q = -1.50
q = -2.00
q = -2.50
q = -3.50
q = -2.50
q = -2.50
q = -2.50

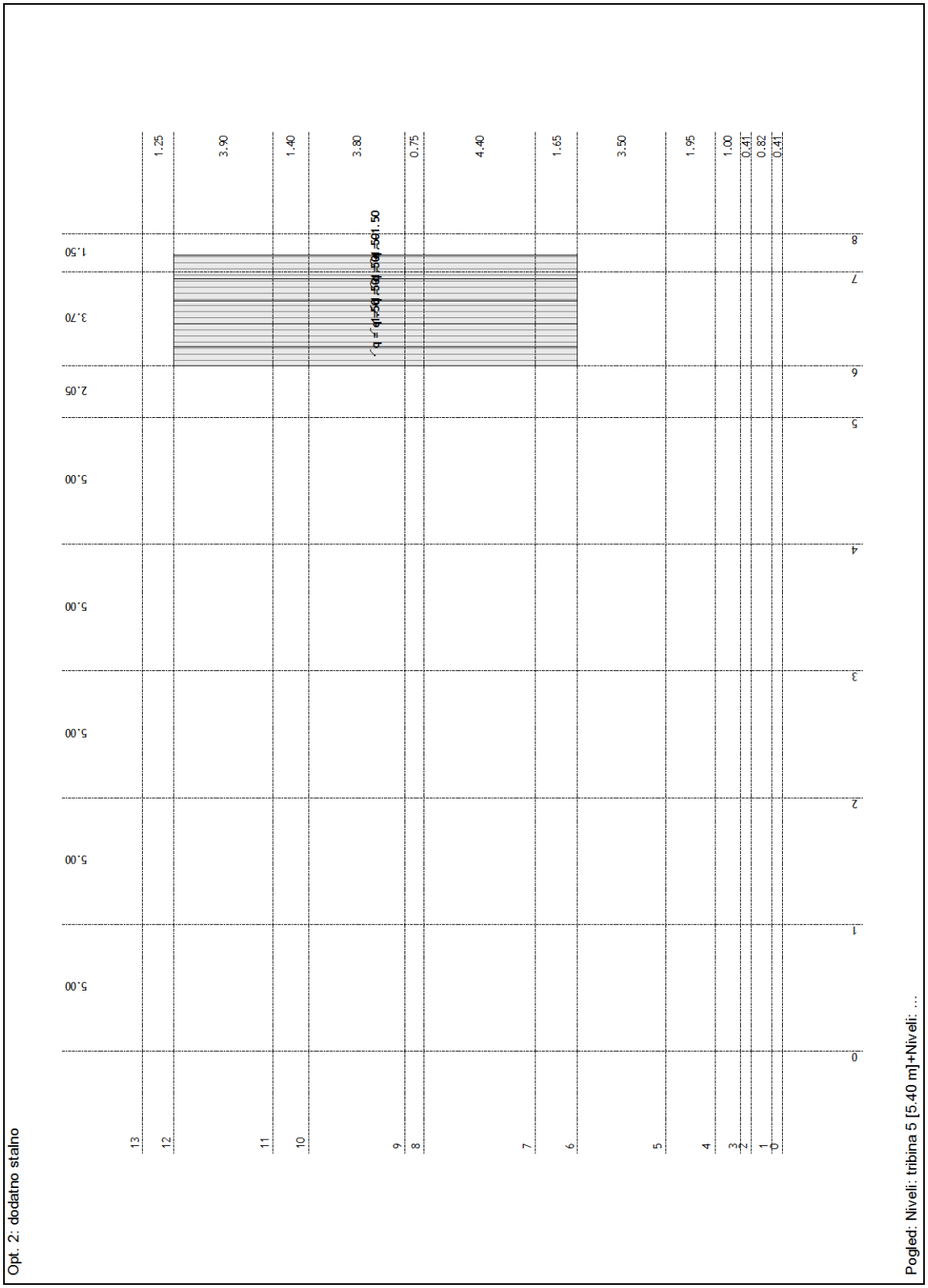

1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
g = -1.50
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 2: dodatno stalno
Nivo: tribina 1 [3.60 m]

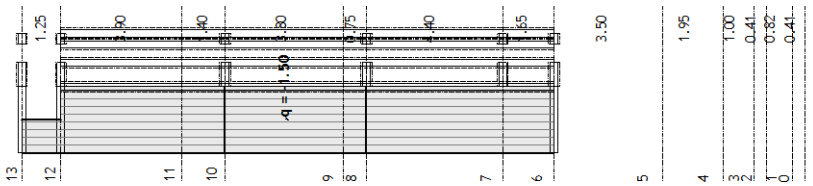

Opt. 2: dodatno stalno
Nivo: tribina 2 [4.05 m]
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
z = -1.50
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0


1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
q = -1,50
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 2: dodatno stalno
Nivo: tribina 3 [4.50 m]


1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 2: dodatno stalno
Nivo: tribina 4 [4.95 m]

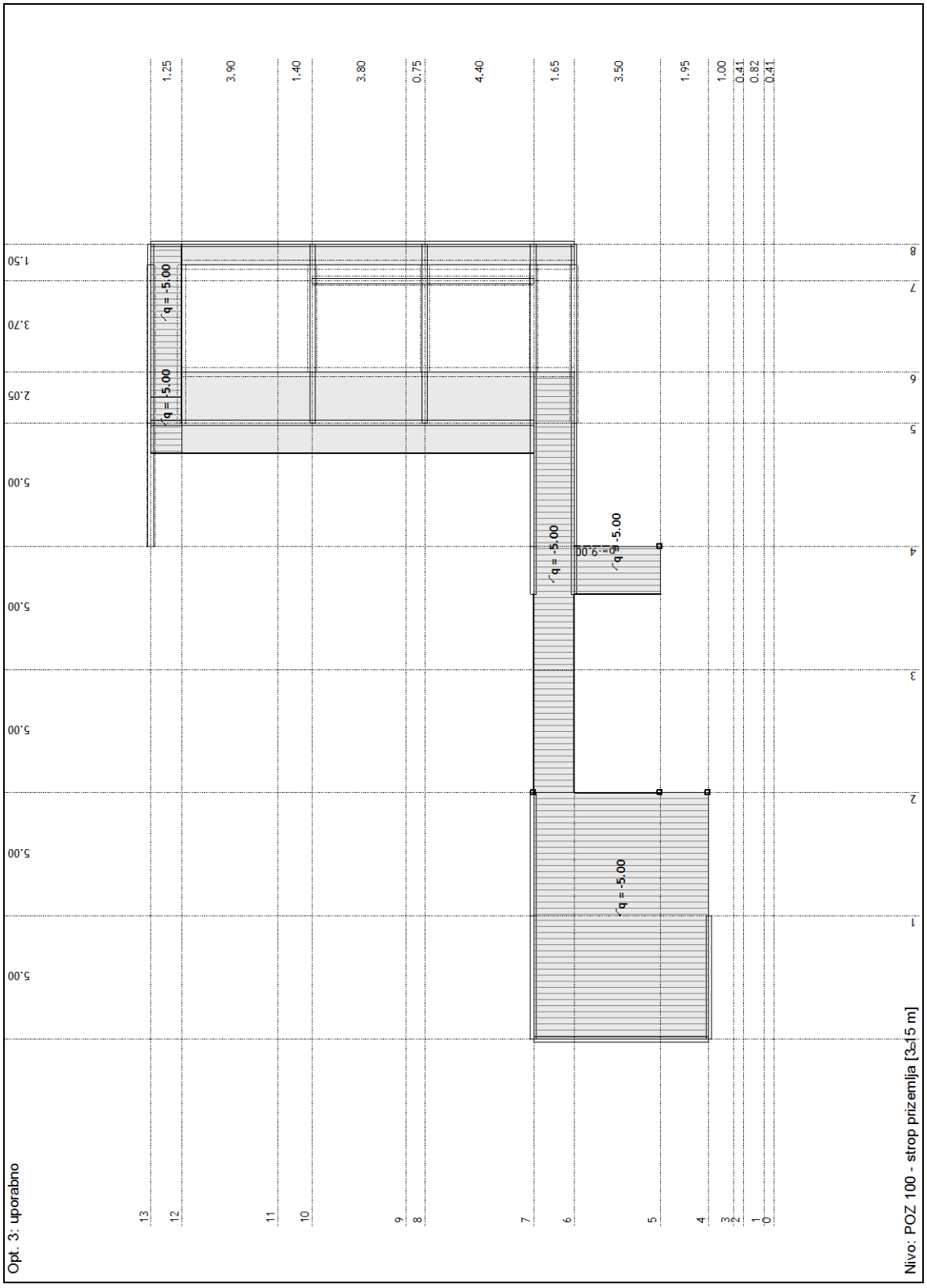

1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
q = -1.50
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 2: dodatno stalno
Nivo: tribina 5 [5.40 m]

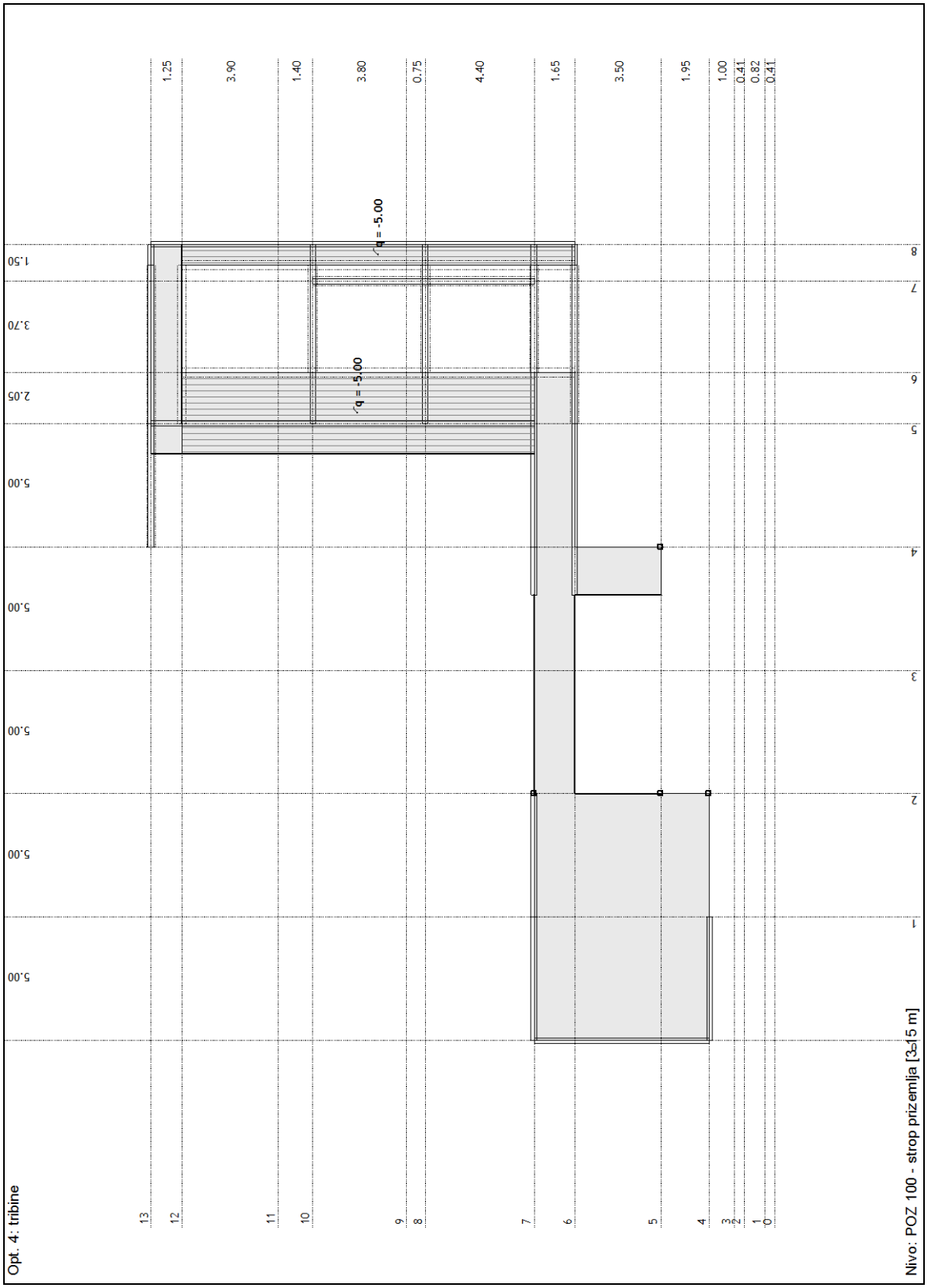

Opt. 2: dodatno stalno
Pogled: Niveli: tribina 5 [5.40 m]+Niveli: ...
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
0
1
2
3
4
5
6
7
8
13
12
11
10
9
8
7
6
5
4
3
2
1
0

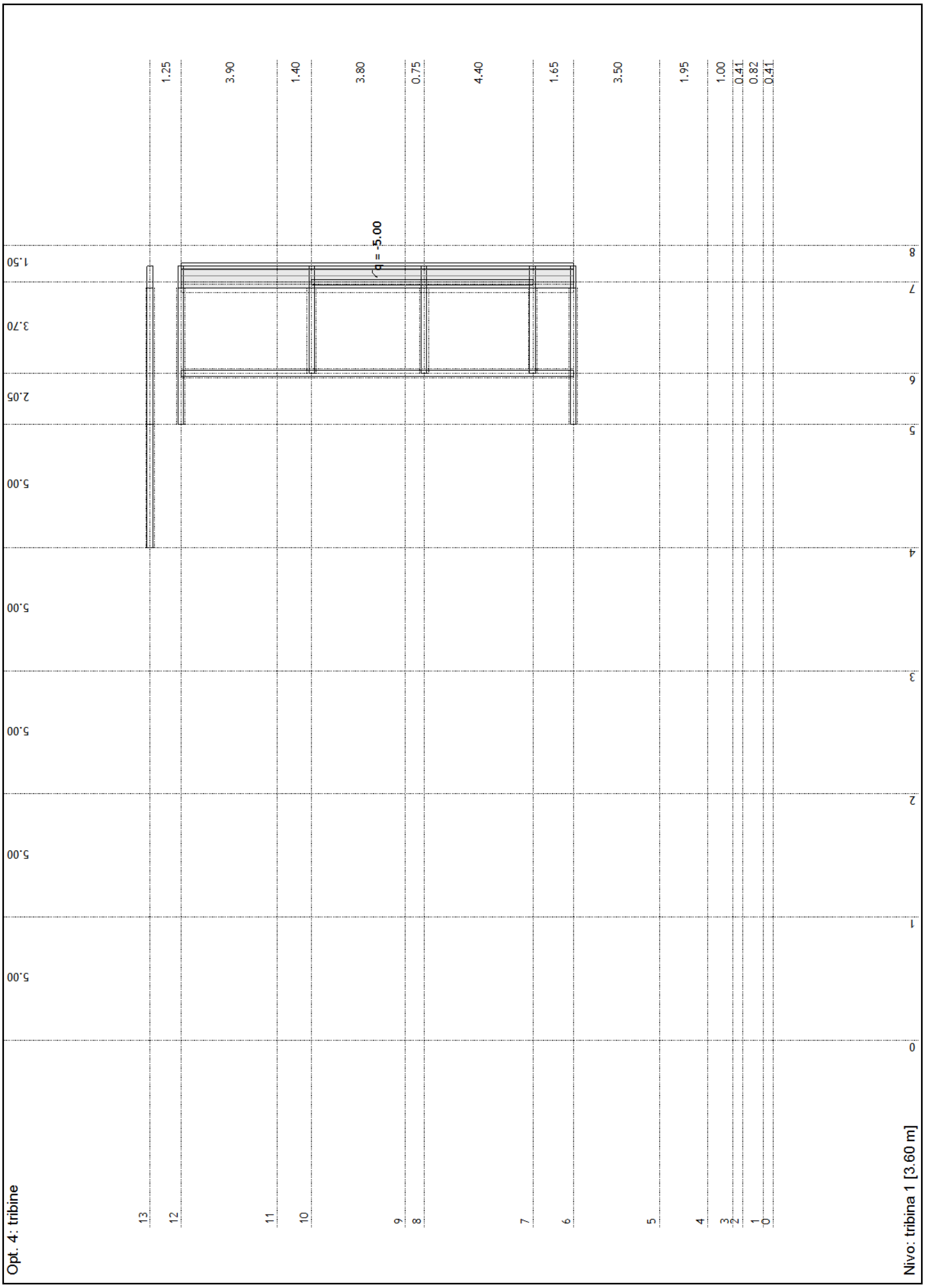


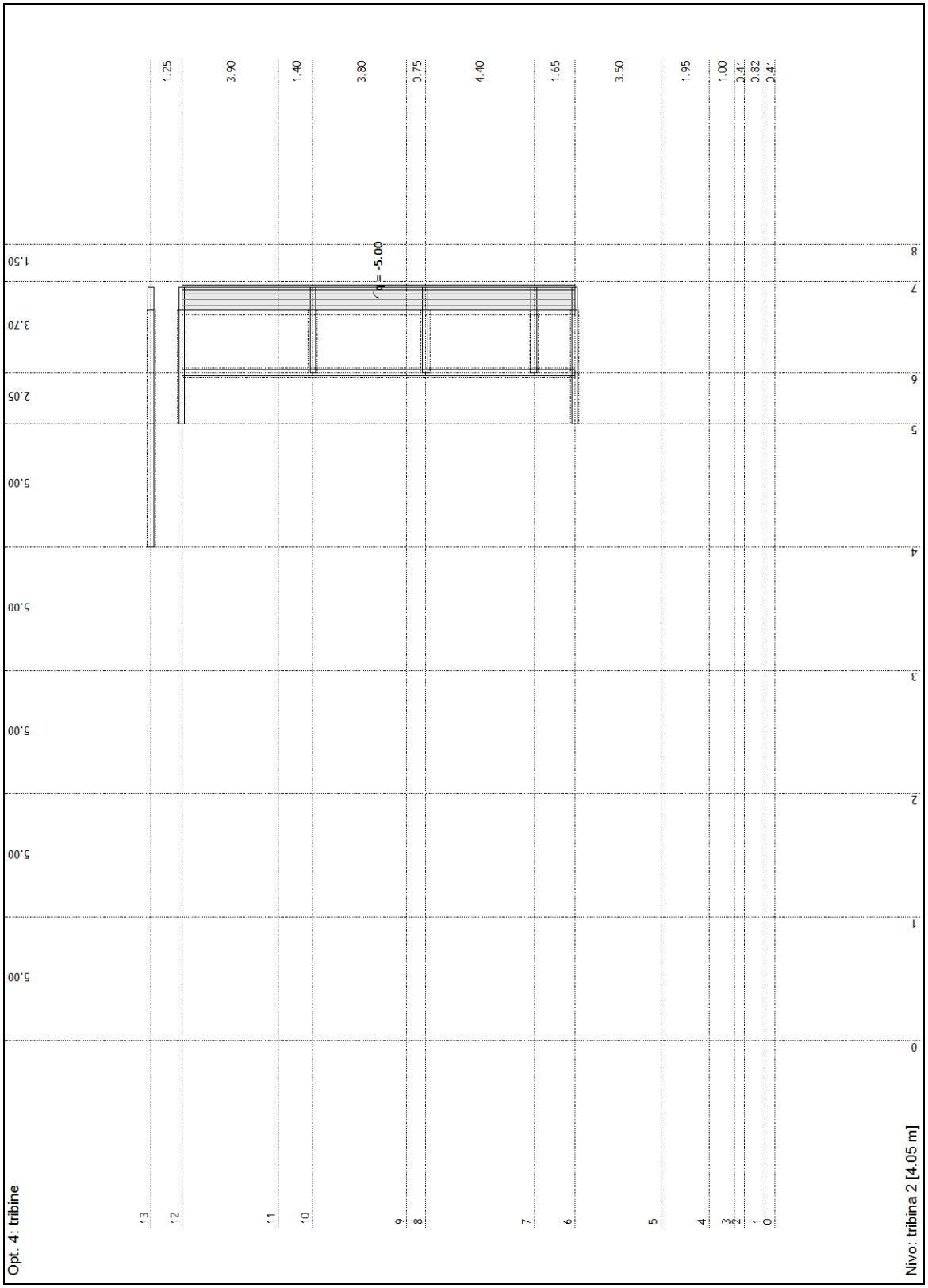
Opt. 2: dodatno stalno

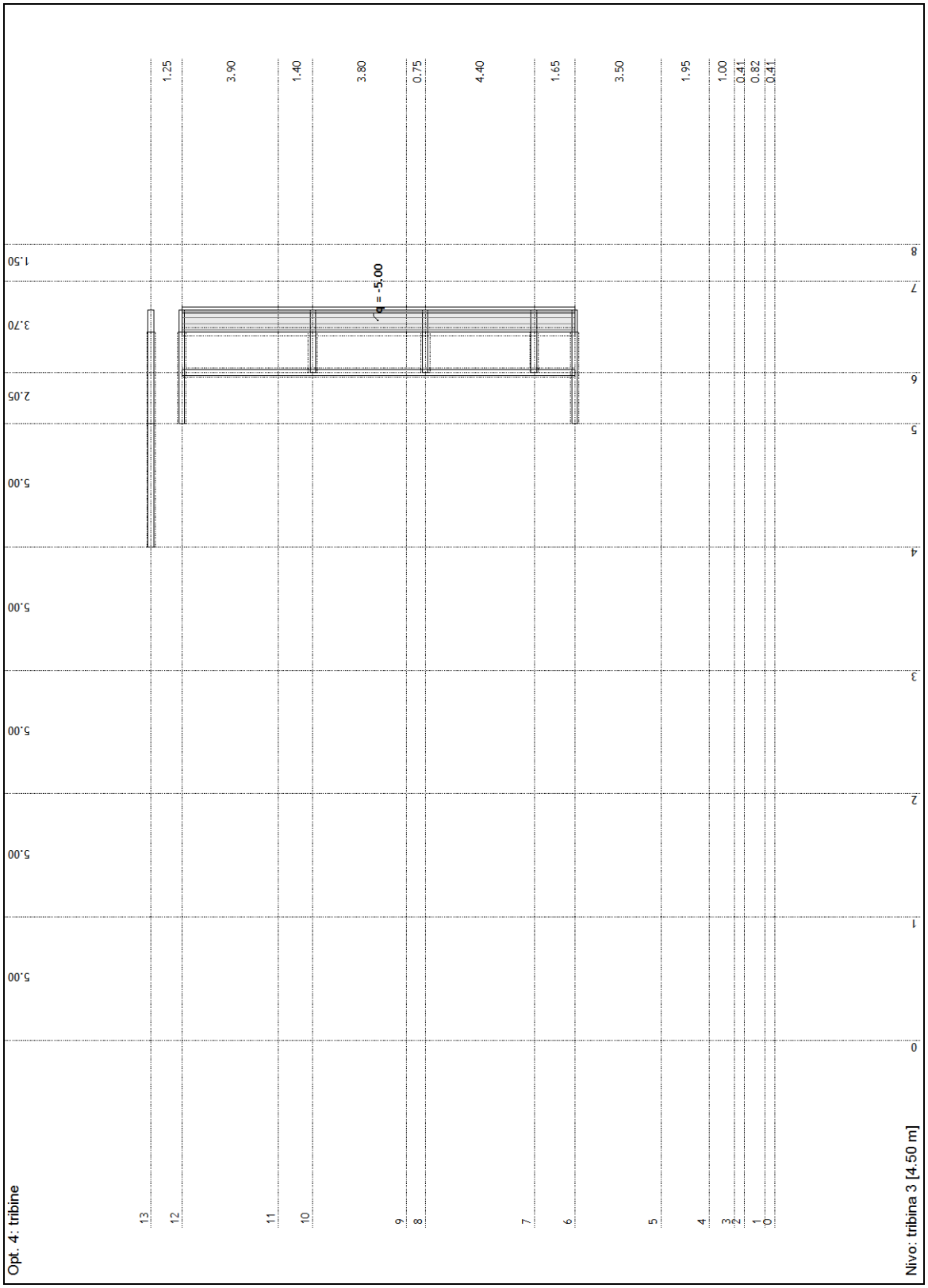
Pogled: T100 - kosa tribina

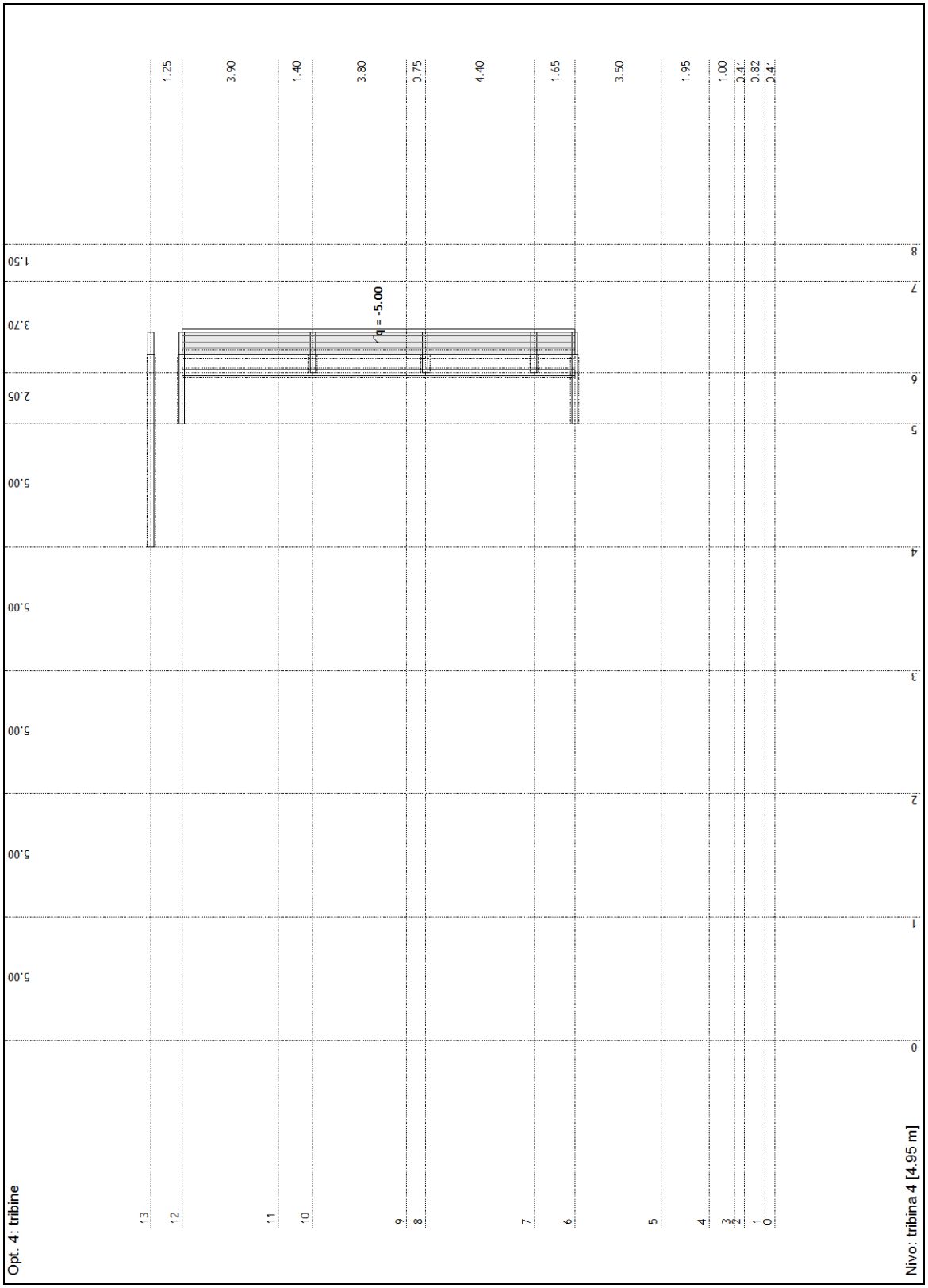

1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
q = -5.00
q = -5.00
q = -5.00
q = -5.00
q = -5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
8
7
6
5
4
3
2
1
Opt. 3: uporabno
Nivo: POZ 100 - strop prizemlja [3.05 m]

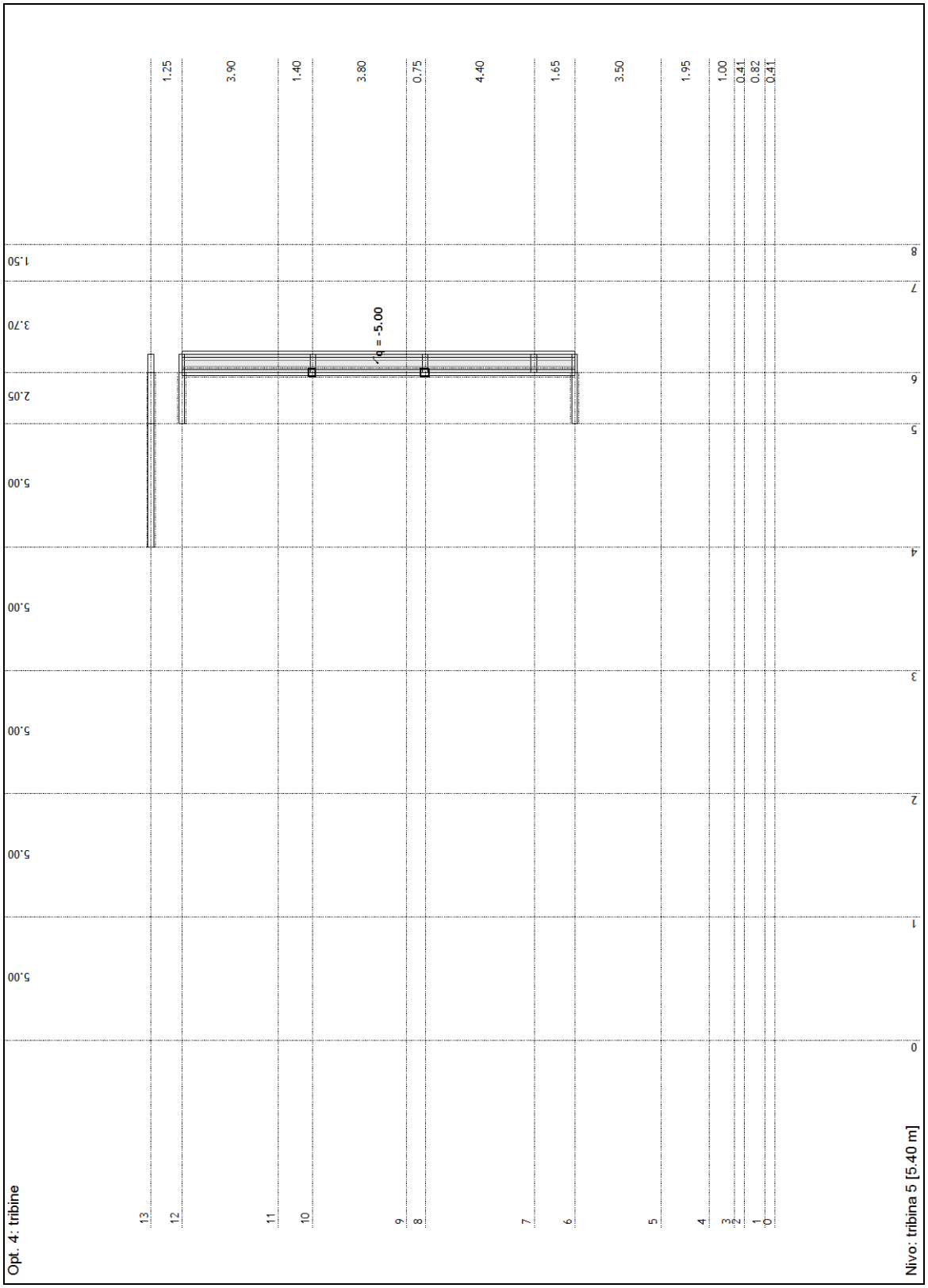

Opt. 4: tribine
Nivo: POZ 100 - strop prizemlja [3 od 5 m]
q = -5.00
q = -5.00
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
8
7
6
5
4
3
2
1

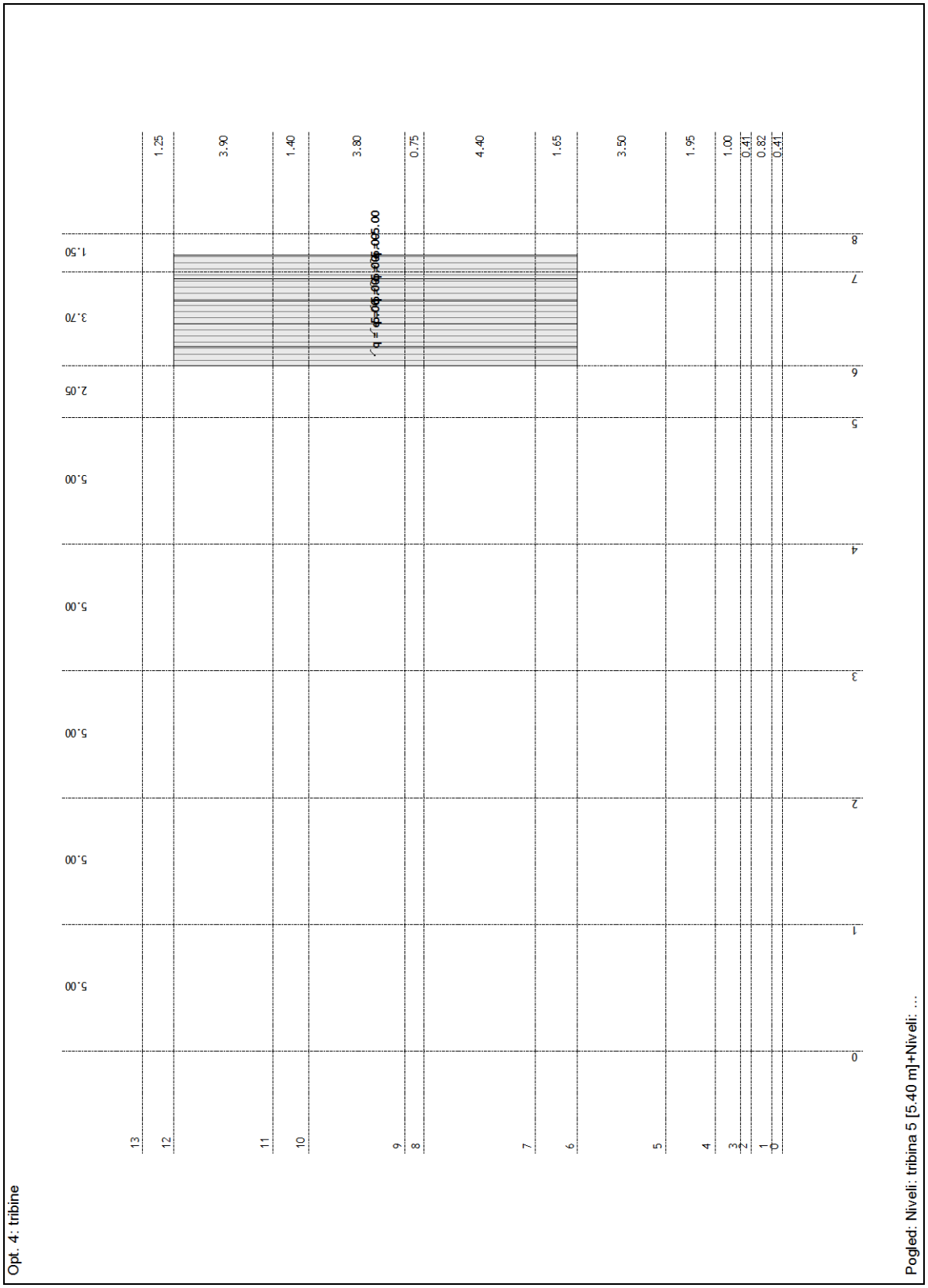

Opt. 4: tribine
Nivo: tribina 1 [3.60 m]
q = -5.00
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00

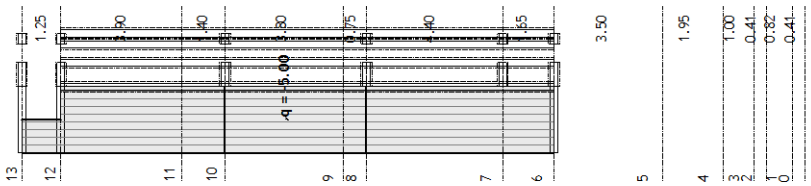

Opt. 4: tribine
Nivo: tribina 2 [4.05 m]
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
z = -5.00
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
8
7
6
5
4
3
2
1
0


1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
q = -5,00
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 4: tribine
Nivo: tribina 3 [4.50 m]


1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
= -5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 4: tribine
Nivo: tribina 4 [4.95 m]


1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
q = -5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 4: tribine
Nivo: tribina 5 [5.40 m]


Opt. 4: tribine
Pogled: Niveli: tribina 5 [5.40 m]+Niveli: ...
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
0
1
2
3
4
5
6
7
8
0
1
2
3
4
5
6
7
8
9
10
11
12
13



Opt. 4: tribine

Pogled: T100 - kosa tribina

Modalna analiza

Faktori opterećenja za proračun masa

No	Naziv	Koeficijent
1	vlastita težina (g)	1.00
2	dodatno stalno	1.00
3	uporabno	0.30
4	tribine	0.30

Raspored masa po visini objekta

Nivo	Z [m]	X [m]	Y [m]	Masa [T]	T/m2
POZ 200 - krov	8.80	0.00	0.00	0.00	
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	
POZ 200 - donja pojasnica GK	6.30	25.07	14.61	17.50	
tribina 5	5.40	26.59	14.14	35.72	3.00
tribina 4	4.95	27.52	14.29	23.90	1.67
tribina 3	4.50	28.15	14.26	24.94	1.74
tribina 2	4.05	28.74	14.27	26.23	1.83
tribina 1	3.60	29.38	14.17	28.55	2.00
POZ 100 - strop prizemlja	3.15	18.80	10.72	323.56	1.83
POZ 000 - temelji	0.00	16.03	13.22	136.43	
Ukupno:	2.86	20.45	12.17	616.83	

Položaj centara krutosti po visini objekta

Nivo	Z [m]	X [m]	Y [m]
tribina 5	5.40	27.30	21.64
tribina 4	4.95	27.65	20.67
tribina 3	4.50	28.10	19.31
tribina 2	4.05	28.55	18.09
tribina 1	3.60	29.07	17.19
POZ 100 - strop prizemlja	3.15	28.85	12.60
POZ 000 - temelji	0.00	28.33	10.28

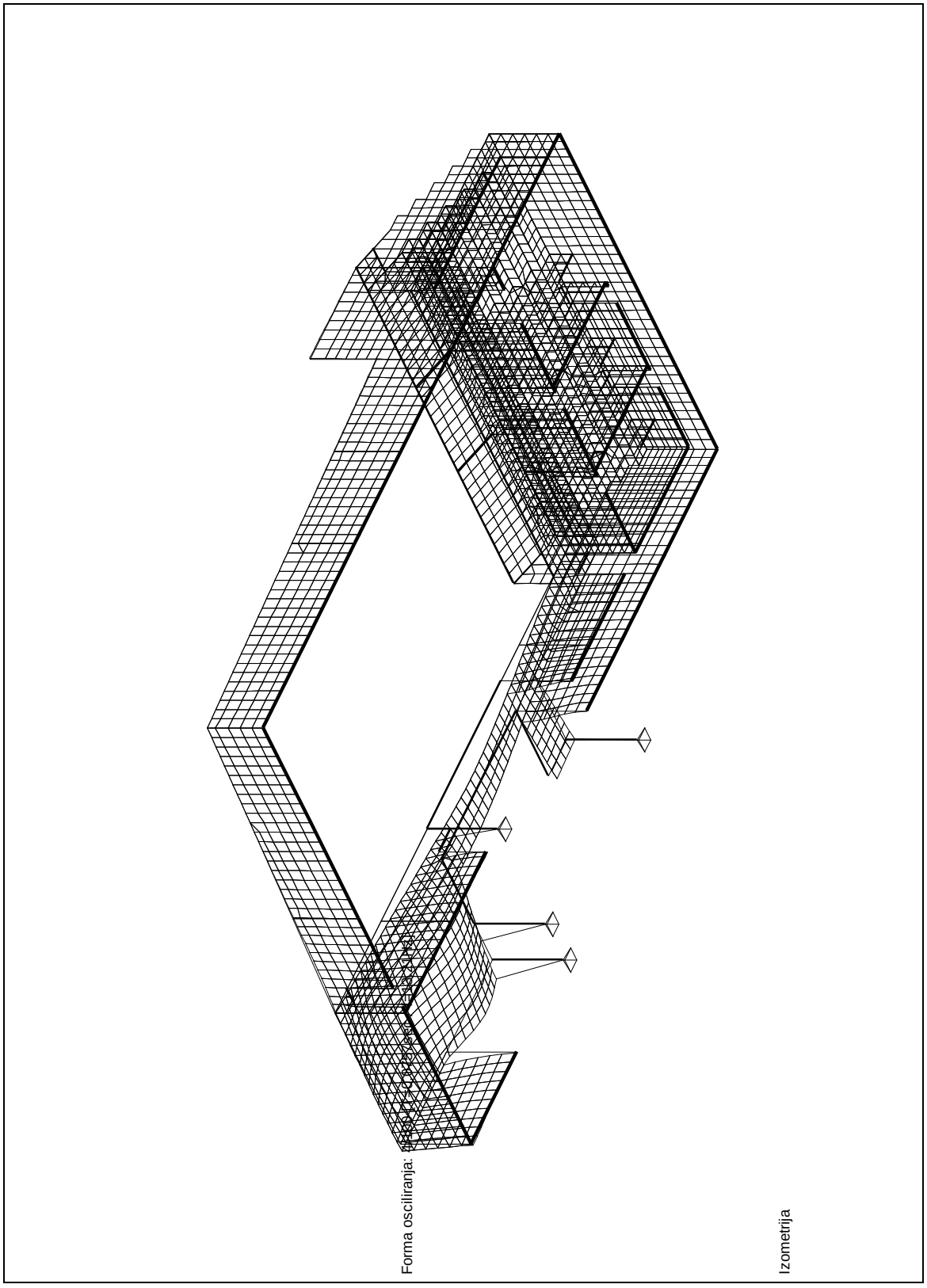
Ekscentricitet po visini objekta

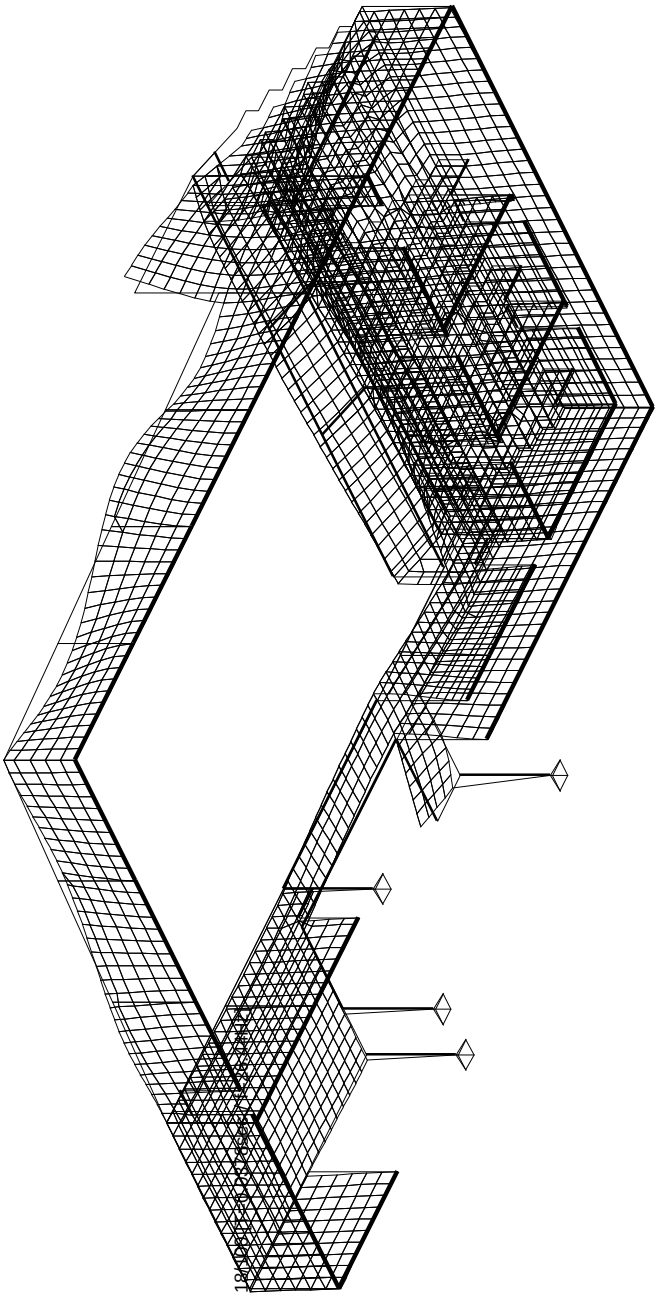
Nivo	Z [m]	eox [m]	eoy [m]
tribina 5	5.40	0.71	7.50
tribina 4	4.95	0.13	6.38
tribina 3	4.50	0.05	5.05
tribina 2	4.05	0.19	3.83
tribina 1	3.60	0.31	3.02
POZ 100 - strop prizemlja	3.15	10.04	1.88
POZ 000 - temelji	0.00	12.29	2.93

Periodi osciliranja konstrukcije

No	T [s]	f [Hz]
1	0.1354	7.3872
2	0.0850	11.7591
3	0.0764	13.0905
4	0.0757	13.2058
5	0.0644	15.5206
6	0.0631	15.8570
7	0.0617	16.2068
8	0.0549	18.2270
9	0.0516	19.3827
10	0.0508	19.6948
11	0.0482	20.7578
12	0.0460	21.7319
13	0.0459	21.7898
14	0.0418	23.9262
15	0.0408	24.5005
16	0.0396	25.2817
17	0.0384	26.0733
18	0.0378	26.4362
19	0.0370	27.0000
20	0.0367	27.2578
21	0.0339	29.5125
22	0.0333	30.0512
23	0.0325	30.7416
24	0.0319	31.3769
25	0.0314	31.8428
26	0.0299	33.4863
27	0.0295	33.9145
28	0.0293	34.1620
29	0.0274	36.4414
30	0.0272	36.7985
31	0.0270	37.0956
32	0.0252	39.6183
33	0.0246	40.5832
34	0.0239	41.7691
35	0.0230	43.4763
36	0.0229	43.7206
37	0.0225	44.4033

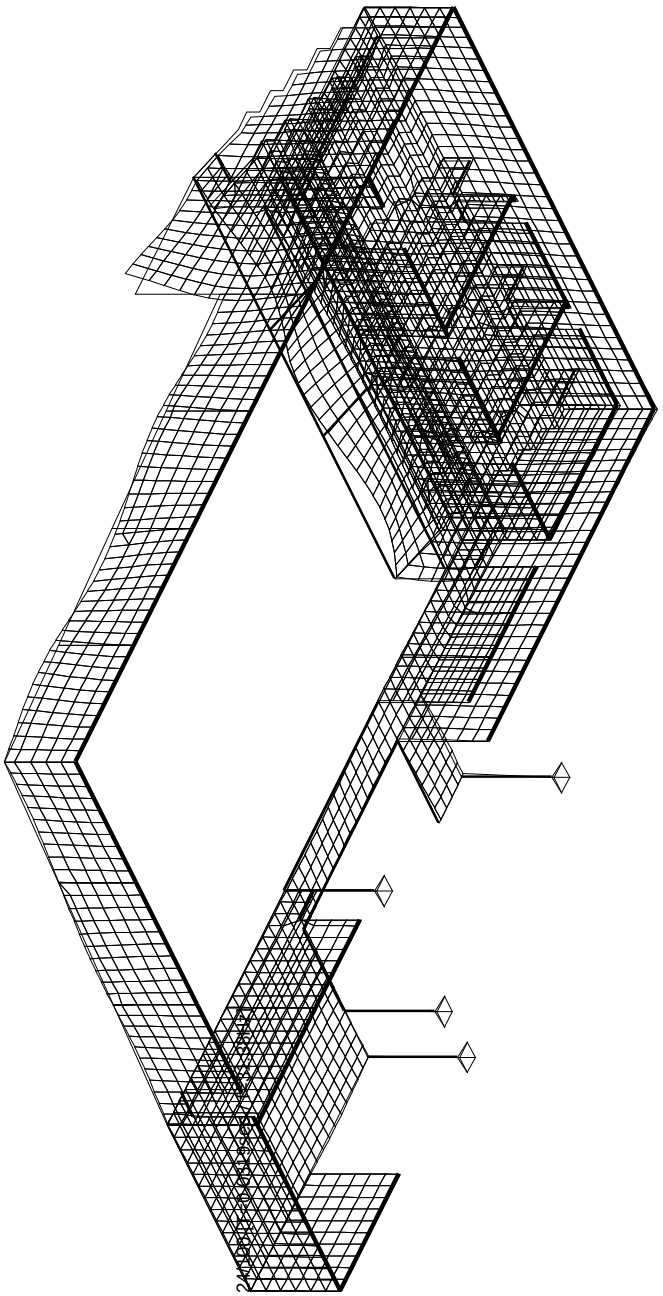
38	0.0215	46.4951
39	0.0214	46.7244
40	0.0210	47.5661
41	0.0209	47.8145
42	0.0206	48.5833
43	0.0206	48.6405
44	0.0204	49.0489
45	0.0197	50.8193
46	0.0194	51.5200
47	0.0193	51.8388
48	0.0189	52.9605
49	0.0188	53.1337
50	0.0186	53.7060
51	0.0184	54.3802
52	0.0182	54.9346
53	0.0180	55.5449
54	0.0177	56.6072
55	0.0174	57.3639
56	0.0172	58.0592
57	0.0172	58.0950
58	0.0171	58.4911
59	0.0169	59.3331
60	0.0167	59.8359
61	0.0165	60.6203
62	0.0164	60.9011
63	0.0163	61.2427
64	0.0160	62.3765
65	0.0158	63.1823
66	0.0157	63.7542
67	0.0156	64.2580
68	0.0155	64.6530
69	0.0154	64.8959
70	0.0153	65.1923
71	0.0151	66.0898
72	0.0151	66.4205
73	0.0150	66.6794
74	0.0148	67.6622
75	0.0146	68.3245
76	0.0146	68.6483
77	0.0145	68.9105
78	0.0145	69.1597
79	0.0143	69.7331
80	0.0142	70.2078
81	0.0141	70.8365
82	0.0141	70.9327
83	0.0140	71.5144
84	0.0138	72.3645
85	0.0136	73.3117
86	0.0135	73.8225
87	0.0134	74.7772
88	0.0133	75.3435
89	0.0132	75.6058
90	0.0132	75.9294
91	0.0130	77.2174
92	0.0129	77.6030
93	0.0126	79.3502
94	0.0125	79.8209
95	0.0125	80.2006
96	0.0124	80.7484
97	0.0124	80.9271
98	0.0123	81.3539
99	0.0122	82.2520
100	0.0121	82.9505


Forma osciliranja:
Izometrija



Forma osciliranja: 1

Izometrija



Forma osciliranja: 2

Izometrija

Seizmički proračun

Izvršena je analiza za tip 1 i tip 2 i odabran je tip 1 kao mjerodavan jer se javljaju nešto veći rezultati.

Seizmički proračun: EUROCODE

Kategorija tla:	A
Kategorija značaja:	II (γ=1.2)
Odnos ag/g:	0.27
Faktor ponašanja:	2.4
Koeficijent prigušenja	0.05
S:	0.9
Tb:	0.05
Tc:	0.15
Td:	1

Faktori pravca potresa:

Naziv	Kx	Ky	Kz
Potres X	1.000	0.300	0.000
Potres Y	0.300	1.000	0.000

Potres X

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]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.00	0.00	0.00	-0.06	1.30	-0.05	0.05	0.09	0.01
tribina 5	5.40	0.00	0.00	-0.00	-0.09	1.82	-0.02	0.08	0.17	-0.01
tribina 4	4.95	0.00	0.00	-0.00	-0.04	1.22	-0.00	0.05	0.10	-0.01
tribina 3	4.50	0.00	0.00	-0.00	-0.04	1.04	0.00	0.05	0.09	-0.01
tribina 2	4.05	0.00	0.00	-0.00	-0.04	0.86	0.00	0.05	0.09	-0.02
tribina 1	3.60	0.00	0.00	-0.00	-0.03	0.68	0.00	0.05	0.08	-0.02
POZ 100 - strop prizemlja	3.15	0.04	0.06	-2.88	-0.23	4.80	0.12	2.64	22.61	-5.63
POZ 000 - temelji	0.00	0.00	0.00	-0.00	-0.01	0.45	-0.00	0.17	0.63	0.02
	Σ=	0.04	0.07	-2.89	-0.54	12.17	0.05	3.15	23.86	-5.68

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]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.22	0.47	0.03	0.04	0.01	0.09	9.14	0.13	23.44
tribina 5	5.40	0.40	0.91	-0.05	0.04	0.03	0.03	5.53	0.29	8.72
tribina 4	4.95	0.25	0.52	-0.04	0.02	0.02	-0.00	1.20	0.18	0.16
tribina 3	4.50	0.25	0.49	-0.06	0.02	0.01	-0.00	0.91	0.16	0.17
tribina 2	4.05	0.24	0.45	-0.10	0.01	0.01	-0.00	0.74	0.13	0.15
tribina 1	3.60	0.25	0.42	-0.11	0.01	0.01	-0.00	0.66	0.10	0.11
POZ 100 - strop prizemlja	3.15	9.97	107.57	8.07	0.37	0.04	4.15	1.92	0.97	0.74
POZ 000 - temelji	0.00	0.65	2.90	-0.05	0.02	-0.02	0.02	0.26	0.07	0.16
	Σ=	12.24	113.74	7.68	0.53	0.11	4.28	20.36	2.03	33.64

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]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.01	0.02	-0.06	0.00	-0.46	-0.03	0.04	0.15	-0.04
tribina 5	5.40	0.01	0.04	-0.03	0.03	-0.59	-0.00	0.09	0.25	-0.02
tribina 4	4.95	0.01	0.02	-0.00	0.02	-0.36	0.01	0.06	0.14	-0.01
tribina 3	4.50	0.01	0.02	-0.00	0.02	-0.26	0.00	0.06	0.13	-0.02
tribina 2	4.05	0.01	0.02	-0.01	0.02	-0.18	0.00	0.05	0.11	-0.03
tribina 1	3.60	0.01	0.02	-0.01	0.01	-0.11	0.00	0.05	0.10	-0.03
POZ 100 - strop prizemlja	3.15	0.19	2.29	-3.11	0.25	10.67	-0.06	29.11	2.16	0.91
POZ 000 - temelji	0.00	0.01	0.09	-0.02	0.08	2.42	-0.00	12.88	0.26	0.01
	Σ=	0.23	2.51	-3.23	0.43	11.13	-0.08	42.35	3.28	0.77

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]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.01	0.02	-0.01	0.11	0.08	0.17	0.31	1.29	-0.30
tribina 5	5.40	0.02	0.03	-0.00	0.16	0.10	0.18	0.72	2.19	-0.26
tribina 4	4.95	0.01	0.02	-0.00	0.06	0.04	0.04	0.45	1.28	-0.18
tribina 3	4.50	0.01	0.02	-0.00	0.05	0.04	0.03	0.41	1.12	-0.26
tribina 2	4.05	0.01	0.02	-0.01	0.04	0.04	0.02	0.37	0.97	-0.33
tribina 1	3.60	0.01	0.02	-0.01	0.04	0.04	0.02	0.36	0.83	-0.34
POZ 100 - strop prizemlja	3.15	-0.06	0.31	2.03	0.01	0.40	-0.02	-2.05	5.67	-2.37
POZ 000 - temelji	0.00	-0.02	0.01	0.02	-0.00	0.00	0.00	-0.22	1.42	-0.06
	Σ=	-0.02	0.45	2.02	0.47	0.74	0.45	0.36	14.78	-4.08

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]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.08	0.03	-0.08	0.00	0.01	-0.00	0.01	-0.01	-0.00
tribina 5	5.40	0.19	0.17	-0.05	0.01	0.02	-0.00	0.02	-0.01	0.00
tribina 4	4.95	0.12	0.11	-0.03	0.00	0.01	-0.00	0.01	-0.01	0.00
tribina 3	4.50	0.11	0.14	-0.05	0.00	0.01	-0.00	0.01	-0.01	0.00
tribina 2	4.05	0.10	0.15	-0.07	0.00	0.01	-0.00	0.01	-0.01	-0.00
tribina 1	3.60	0.09	0.17	-0.07	0.00	0.01	-0.00	0.01	-0.01	-0.00
POZ 100 - strop prizemlja	3.15	-0.35	0.86	-0.58	-0.00	-0.01	0.19	0.47	-0.11	1.11
POZ 000 - temelji	0.00	-0.05	-0.70	-0.01	-0.00	-0.01	0.00	0.02	-0.01	0.01
	Σ=	0.29	0.93	-0.96	0.02	0.04	0.17	0.55	-0.17	1.12

		Ton 16			Ton 17			Ton 18		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.01	-0.07	-0.00	0.60	2.63	-0.48	13.86	21.12	-8.77
tribina 5	5.40	0.02	-0.07	0.00	1.31	3.87	-0.58	30.72	39.81	-9.00
tribina 4	4.95	0.01	-0.03	-0.00	0.73	2.12	-0.55	16.93	23.14	-9.26
tribina 3	4.50	0.01	-0.01	-0.00	0.61	1.66	-0.76	14.23	21.46	-13.45
tribina 2	4.05	0.01	0.00	-0.00	0.51	1.22	-0.89	12.06	19.38	-16.15
tribina 1	3.60	0.01	0.02	-0.00	0.50	0.85	-0.85	11.67	17.30	-15.63
POZ 100 - strop prizemlja	3.15	-0.12	0.41	-0.06	4.18	0.82	1.55	96.76	121.55	12.53
POZ 000 - temelji	0.00	0.38	0.24	-0.00	0.83	-2.75	-0.05	6.29	14.86	-1.18
	Σ=	0.32	0.48	-0.07	9.27	10.42	-2.61	202.51	278.62	-60.90

		Ton 19			Ton 20			Ton 21		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.10	1.94	-0.53	0.03	0.10	-0.03	10.82	-2.96	12.70
tribina 5	5.40	0.37	3.57	-0.40	0.05	0.18	-0.04	17.07	-4.97	10.20
tribina 4	4.95	0.07	2.09	-0.50	0.02	0.10	-0.04	9.22	-2.79	3.37
tribina 3	4.50	-0.10	1.93	-0.74	0.01	0.09	-0.06	8.67	-2.40	2.90
tribina 2	4.05	-0.22	1.76	-0.86	0.01	0.08	-0.07	8.11	-2.04	2.33
tribina 1	3.60	-0.28	1.61	-0.79	0.00	0.07	-0.06	7.82	-1.76	1.58
POZ 100 - strop prizemlja	3.15	0.13	10.71	-17.08	0.03	0.67	-2.55	48.63	-7.02	5.49
POZ 000 - temelji	0.00	0.23	0.86	-0.33	0.00	0.10	-0.04	4.48	-1.38	0.71
	Σ=	0.30	24.49	-21.22	0.16	1.40	-2.89	114.83	-25.32	39.29

		Ton 22			Ton 23			Ton 24		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.02	0.01	0.01	0.36	-1.29	-0.89	19.52	-13.79	-24.55
tribina 5	5.40	0.04	0.01	-0.00	1.26	-1.54	-0.34	57.30	-28.69	-3.07
tribina 4	4.95	0.02	0.01	-0.01	0.78	-0.79	-0.12	36.41	-19.19	1.60
tribina 3	4.50	0.01	0.00	-0.02	0.70	-0.51	-0.23	34.23	-19.89	-1.58
tribina 2	4.05	0.01	0.00	-0.02	0.63	-0.25	-0.31	31.99	-20.12	-4.29
tribina 1	3.60	0.01	-0.00	-0.02	0.62	-0.07	-0.31	31.67	-20.23	-5.79
POZ 100 - strop prizemlja	3.15	0.21	-0.41	0.36	2.97	-1.90	-0.38	210.89	-124.72	-17.83
POZ 000 - temelji	0.00	0.03	-0.02	0.01	0.16	-0.93	-0.06	20.44	-11.38	-1.26
	Σ=	0.34	-0.40	0.29	7.48	-7.28	-2.65	442.44	-258.01	-56.76

		Ton 25			Ton 26			Ton 27		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-2.71	3.87	-2.36	-0.26	-0.35	0.25	0.00	0.00	-0.00
tribina 5	5.40	-1.35	8.63	8.24	-0.79	-0.60	-0.31	0.00	0.00	0.00
tribina 4	4.95	2.99	6.44	11.99	-0.60	-0.37	-0.42	0.00	0.00	0.00
tribina 3	4.50	5.40	7.32	15.62	-0.63	-0.36	-0.50	0.00	0.00	0.00
tribina 2	4.05	6.30	8.05	16.40	-0.61	-0.34	-0.48	0.00	0.00	0.00
tribina 1	3.60	5.46	8.73	13.68	-0.55	-0.33	-0.36	0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	79.59	83.78	25.25	4.86	-1.09	-1.01	-0.01	0.00	-0.00
POZ 000 - temelji	0.00	4.76	7.81	2.08	0.32	-0.16	-0.06	-0.00	0.00	-0.00
	Σ=	100.43	134.63	90.91	1.73	-3.60	-2.89	-0.00	0.01	0.00

		Ton 28			Ton 29			Ton 30		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.14	0.18	-0.13	0.04	0.46	0.02	-0.09	0.95	0.05
tribina 5	5.40	0.42	0.63	0.26	0.07	0.50	0.11	-0.25	1.02	-0.09
tribina 4	4.95	0.35	0.48	0.35	0.09	0.23	0.13	-0.12	0.44	-0.05
tribina 3	4.50	0.38	0.59	0.42	0.12	0.11	0.21	-0.09	0.19	-0.04
tribina 2	4.05	0.36	0.66	0.42	0.14	-0.01	0.25	-0.07	-0.02	-0.05
tribina 1	3.60	0.30	0.70	0.32	0.12	-0.11	0.22	-0.05	-0.15	-0.05
POZ 100 - strop prizemlja	3.15	2.45	0.94	0.61	4.20	-3.49	-0.21	6.88	-4.27	-0.02
POZ 000 - temelji	0.00	2.14	0.07	0.06	0.55	-0.73	0.04	0.85	-0.97	-0.01
	Σ=	6.54	4.25	2.30	5.34	-3.04	0.77	7.05	-2.80	-0.26

		Ton 31			Ton 32			Ton 33		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]

POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.29	1.30	0.17	-0.04	0.12	0.01	-0.04	-0.05	-0.00
tribina 5	5.40	-0.71	3.71	0.29	-0.07	0.31	0.01	-0.03	0.02	0.09
tribina 4	4.95	-0.26	2.81	0.43	-0.03	0.24	0.02	-0.02	0.07	0.05
tribina 3	4.50	-0.11	3.18	0.70	-0.02	0.27	0.03	-0.02	0.11	0.03
tribina 2	4.05	-0.07	3.39	0.77	-0.01	0.28	0.04	-0.02	0.14	0.01
tribina 1	3.60	-0.19	3.48	0.59	-0.01	0.28	0.03	-0.02	0.17	-0.00
POZ 100 - strop prizemlja	3.15	86.50	-30.02	-0.03	10.42	-1.88	2.86	23.36	-6.14	-2.24
POZ 000 - temelji	0.00	7.04	-3.10	0.13	1.01	-0.35	0.40	2.09	-1.15	-0.09
	Σ=	91.90	-15.24	3.07	11.25	-0.74	3.39	25.29	-6.83	-2.17

		Ton 34			Ton 35			Ton 36		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.15	-0.29	0.03	0.32	-1.21	-0.68	-0.45	-0.65	-0.23
tribina 5	5.40	0.18	-0.46	1.25	2.02	-0.77	1.72	0.24	0.15	1.69
tribina 4	4.95	0.09	-0.12	0.73	1.28	0.28	1.18	0.53	1.36	1.73
tribina 3	4.50	-0.08	0.07	0.36	1.03	0.74	0.72	0.47	2.02	1.28
tribina 2	4.05	-0.25	0.23	-0.02	0.76	1.10	0.24	0.17	2.44	0.42
tribina 1	3.60	-0.30	0.34	-0.12	0.71	1.38	0.06	0.11	2.65	-0.05
POZ 100 - strop prizemlja	3.15	0.88	2.89	2.62	1.12	7.32	3.44	6.73	12.92	4.82
POZ 000 - temelji	0.00	0.05	0.19	0.19	0.33	0.81	0.25	0.67	1.88	0.37
	Σ=	0.42	2.85	5.06	7.57	9.65	6.93	8.48	22.77	10.04

		Ton 37			Ton 38			Ton 39		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.16	0.32	-0.21	0.02	-0.10	0.22	0.00	-0.03	-0.02
tribina 5	5.40	0.64	0.23	0.42	-0.52	-0.29	-0.94	0.06	0.00	0.10
tribina 4	4.95	0.33	-0.04	0.13	-0.25	-0.05	-0.55	0.03	0.00	0.06
tribina 3	4.50	0.27	-0.22	0.07	-0.13	0.00	-0.42	0.01	0.01	0.05
tribina 2	4.05	0.26	-0.32	0.10	-0.02	-0.04	-0.31	-0.01	0.03	0.03
tribina 1	3.60	0.28	-0.33	0.14	0.05	-0.17	-0.26	-0.02	0.05	0.02
POZ 100 - strop prizemlja	3.15	0.32	0.20	0.53	2.16	-2.53	-1.31	-0.04	0.01	0.09
POZ 000 - temelji	0.00	0.29	0.50	0.04	0.18	-0.53	-0.16	0.13	-0.01	0.01
	Σ=	2.55	0.33	1.22	1.49	-3.71	-3.72	0.16	0.06	0.34

		Ton 40			Ton 41			Ton 42		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.11	0.04	0.01	0.16	-0.03	-0.08	-0.03	0.03	0.26
tribina 5	5.40	-0.14	0.50	-1.38	-0.04	0.62	-1.80	-0.51	-0.04	-0.75
tribina 4	4.95	-0.31	0.57	-1.19	-0.40	0.80	-1.64	-0.22	-0.14	-0.42
tribina 3	4.50	-0.03	0.69	-0.65	0.01	0.99	-0.84	-0.16	-0.18	-0.44
tribina 2	4.05	0.46	0.71	0.22	0.80	1.06	0.54	-0.15	-0.15	-0.52
tribina 1	3.60	0.79	0.67	0.62	1.33	1.02	1.21	-0.10	-0.07	-0.52
POZ 100 - strop prizemlja	3.15	3.53	2.01	4.45	1.08	1.96	-4.51	1.92	1.80	-0.07
POZ 000 - temelji	0.00	0.42	0.57	0.25	0.17	0.78	-0.47	0.09	0.49	-0.13
	Σ=	4.85	5.77	2.32	3.11	7.20	-7.60	0.84	1.75	-2.59

		Ton 43			Ton 44			Ton 45		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.68	-0.40	3.29	-0.42	0.01	-0.12	0.00	-0.01	-0.00
tribina 5	5.40	-8.26	-0.59	-14.19	-0.75	-0.17	0.17	0.01	-0.02	0.01
tribina 4	4.95	-5.04	-1.03	-10.03	-0.65	-0.07	-0.25	0.01	-0.01	0.01
tribina 3	4.50	-2.81	-0.90	-7.96	-0.39	-0.02	0.10	0.00	-0.01	0.01
tribina 2	4.05	0.57	-0.05	-4.04	0.37	0.01	1.22	0.00	-0.01	0.01
tribina 1	3.60	3.68	1.42	-1.10	0.92	-0.01	1.96	0.00	-0.01	0.01
POZ 100 - strop prizemlja	3.15	48.61	19.23	-15.74	4.07	-0.10	2.97	0.04	-0.29	0.07
POZ 000 - temelji	0.00	4.50	2.62	-2.47	0.36	-0.13	0.34	0.03	0.54	0.01
	Σ=	40.57	20.31	-52.24	3.52	-0.48	6.37	0.10	0.20	0.12

		Ton 46			Ton 47			Ton 48		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.02	0.47	-0.09	-0.13	-0.64	0.23	-0.07	-0.03	-0.00
tribina 5	5.40	0.07	1.13	-0.40	-0.81	-1.51	-0.67	0.04	-0.21	0.70
tribina 4	4.95	-0.01	0.65	-0.24	-0.30	-0.91	-0.29	0.04	-0.18	0.44
tribina 3	4.50	-0.05	0.52	-0.23	-0.20	-0.82	-0.32	0.03	-0.19	0.42
tribina 2	4.05	-0.17	0.35	-0.29	-0.11	-0.69	-0.40	0.04	-0.20	0.42
tribina 1	3.60	-0.28	0.12	-0.37	0.00	-0.48	-0.40	0.01	-0.22	0.41
POZ 100 - strop prizemlja	3.15	4.26	8.73	-2.60	7.97	9.08	-2.10	0.36	0.65	2.03
POZ 000 - temelji	0.00	0.77	4.08	-0.18	1.07	5.01	-0.16	0.15	0.51	0.29
	Σ=	4.61	16.05	-4.40	7.49	9.04	-4.10	0.59	0.13	4.72

Nivo	Z [m]	Ton 49			Ton 50			Ton 51		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.02	-0.01	-0.00	0.02	-0.07	0.00	0.06	0.36	-0.08
tribina 5	5.40	-0.02	0.03	-0.23	0.03	-0.06	0.00	0.18	0.49	0.20
tribina 4	4.95	-0.02	0.04	-0.14	-0.00	-0.02	-0.03	0.13	0.28	0.08
tribina 3	4.50	-0.01	0.04	-0.13	-0.01	0.00	-0.03	0.09	0.26	0.03
tribina 2	4.05	-0.01	0.04	-0.13	0.00	0.02	-0.00	0.06	0.26	-0.02
tribina 1	3.60	-0.01	0.05	-0.13	0.02	0.03	0.03	0.01	0.30	-0.08
POZ 100 - strop prizemlja	3.15	-0.08	0.27	-0.11	-0.03	0.18	-0.03	3.99	-0.08	-0.70
POZ 000 - temelji	0.00	0.00	0.15	-0.05	0.00	0.11	-0.00	0.51	0.39	-0.02
	Σ=	-0.12	0.61	-0.95	0.02	0.18	-0.07	5.04	2.26	-0.59

Nivo	Z [m]	Ton 52			Ton 53			Ton 54		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.06	0.07	0.06	0.04	-0.02	0.11	-0.16	-0.01	-0.13
tribina 5	5.40	0.13	0.12	0.14	0.04	-0.03	0.16	-0.33	-0.01	-0.17
tribina 4	4.95	0.03	0.10	-0.01	-0.03	-0.01	-0.00	0.03	-0.01	0.28
tribina 3	4.50	0.00	0.13	-0.03	-0.04	0.00	-0.02	0.13	0.00	0.37
tribina 2	4.05	0.03	0.15	0.02	0.01	0.01	0.06	0.04	0.02	0.15
tribina 1	3.60	0.05	0.16	0.07	0.05	0.01	0.14	-0.08	0.04	-0.10
POZ 100 - strop prizemlja	3.15	0.29	-0.56	0.29	0.26	-0.06	1.50	0.47	-0.00	-0.27
POZ 000 - temelji	0.00	0.01	-0.21	0.04	-0.01	0.01	0.15	-0.01	0.04	0.00
	Σ=	0.61	-0.03	0.57	0.33	-0.10	2.09	0.10	0.07	0.12

Nivo	Z [m]	Ton 55			Ton 56			Ton 57		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.01	0.01	0.00	0.05	0.05	0.11	-0.12	0.06	-0.04
tribina 5	5.40	-0.04	0.00	0.01	0.01	0.11	-0.12	-0.27	0.00	0.13
tribina 4	4.95	0.00	-0.00	0.04	-0.05	0.08	-0.20	0.09	-0.02	0.43
tribina 3	4.50	0.02	-0.01	0.04	-0.05	0.08	-0.19	0.17	-0.02	0.49
tribina 2	4.05	0.01	-0.01	0.02	-0.03	0.06	-0.15	0.12	-0.01	0.30
tribina 1	3.60	0.00	-0.01	-0.00	0.08	0.04	-0.01	-0.07	0.02	-0.00
POZ 100 - strop prizemlja	3.15	0.48	0.20	0.77	0.33	0.29	-0.25	2.92	2.71	1.65
POZ 000 - temelji	0.00	0.02	-0.07	0.03	0.19	-0.36	-0.05	0.10	-1.23	0.27
	Σ=	0.48	0.10	0.90	0.53	0.36	-0.85	2.94	1.53	3.23

Nivo	Z [m]	Ton 58			Ton 59			Ton 60		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.13	-0.12	0.06	0.19	-0.01	-0.10	-0.13	-0.39	-0.22
tribina 5	5.40	0.03	-0.20	-0.56	0.43	-0.01	0.06	-0.08	-0.76	0.09
tribina 4	4.95	-0.06	-0.09	-0.56	0.19	-0.01	-0.13	-0.05	-0.39	0.02
tribina 3	4.50	-0.07	-0.05	-0.61	0.09	-0.01	-0.22	-0.09	-0.26	-0.10
tribina 2	4.05	0.00	-0.02	-0.52	0.09	-0.00	-0.15	-0.05	-0.09	-0.09
tribina 1	3.60	0.22	0.01	-0.27	0.08	0.02	-0.12	0.02	0.13	-0.01
POZ 100 - strop prizemlja	3.15	0.95	0.68	-1.22	0.08	0.59	1.16	1.00	2.18	0.60
POZ 000 - temelji	0.00	0.32	0.52	-0.27	-0.28	0.67	0.04	0.12	1.22	0.03
	Σ=	1.52	0.74	-3.94	0.86	1.23	0.53	0.73	1.63	0.33

Nivo	Z [m]	Ton 61			Ton 62			Ton 63		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	2.33	-0.62	-1.67	0.03	0.13	1.41	-0.01	0.05	-0.09
tribina 5	5.40	5.97	-0.76	0.17	-1.32	0.16	-0.34	0.08	0.06	0.05
tribina 4	4.95	2.01	-0.12	-2.22	0.10	0.12	0.93	-0.02	0.02	-0.07
tribina 3	4.50	0.66	0.22	-3.20	0.72	0.08	1.63	-0.07	0.00	-0.13
tribina 2	4.05	0.45	0.57	-2.32	0.47	0.07	0.81	-0.05	-0.01	-0.07
tribina 1	3.60	0.45	0.90	-1.47	-0.21	0.13	-0.47	0.01	-0.03	0.05
POZ 100 - strop prizemlja	3.15	-4.41	4.39	-7.73	2.91	-0.80	-0.81	0.01	0.06	0.08
POZ 000 - temelji	0.00	0.33	1.06	-1.58	0.12	0.71	0.22	0.12	0.03	-0.01
	Σ=	7.78	5.64	-20.01	2.81	0.59	3.38	0.07	0.17	-0.20

Nivo	Z [m]	Ton 64			Ton 65			Ton 66		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.89	0.21	0.69	-0.25	0.21	-0.18	0.00	-0.00	0.01
tribina 5	5.40	-2.74	0.21	-0.57	-0.56	0.26	-0.28	-0.00	-0.00	0.01
tribina 4	4.95	-0.50	-0.20	0.97	0.03	0.09	0.31	-0.00	0.00	-0.00
tribina 3	4.50	0.19	-0.48	1.30	0.13	0.02	0.24	-0.00	0.00	-0.00
tribina 2	4.05	0.40	-0.74	0.84	0.21	-0.07	0.14	-0.00	0.00	0.00
tribina 1	3.60	0.42	-0.95	0.37	0.31	-0.19	0.17	-0.00	0.01	-0.00
POZ 100 - strop prizemlja	3.15	16.68	7.05	-0.79	2.27	-2.01	1.68	0.03	0.05	0.02
POZ 000 - temelji	0.00	1.48	3.18	0.37	0.33	-1.08	0.20	-0.03	0.05	0.00

	Σ=	15.04	8.27	3.19	2.47	-2.76	2.28	-0.01	0.11	0.04

Nivo	Z [m]	Ton 67			Ton 68			Ton 69		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.55	0.91	-0.18	-0.10	0.19	-0.01	-1.16	-0.01	0.61
tribina 5	5.40	-0.99	1.56	0.19	-0.12	0.19	0.25	-2.73	-0.33	1.36
tribina 4	4.95	-0.20	1.14	0.56	-0.10	0.07	0.04	-0.67	-0.40	1.61
tribina 3	4.50	-0.07	1.22	0.41	-0.12	0.02	-0.03	-0.12	-0.54	1.65
tribina 2	4.05	0.09	1.21	0.31	-0.09	-0.02	-0.02	-0.04	-0.63	0.87
tribina 1	3.60	0.41	1.15	0.55	0.04	-0.04	0.12	1.01	-0.70	1.49
POZ 100 - strop prizemlja	3.15	7.96	-1.46	2.77	0.55	-0.35	0.80	10.41	-0.65	4.89
POZ 000 - temelji	0.00	0.51	2.99	0.39	0.20	0.02	0.11	2.92	-0.23	1.21
	Σ=	7.16	8.74	5.00	0.25	0.07	1.27	9.62	-3.50	13.69

Nivo	Z [m]	Ton 70			Ton 71			Ton 72		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.01	-0.02	-0.00	0.12	0.49	1.00	0.13	0.29	0.29
tribina 5	5.40	0.04	-0.05	0.02	-1.81	0.74	-1.22	-0.33	0.29	-0.66
tribina 4	4.95	0.01	-0.04	-0.01	1.43	0.55	1.97	0.51	0.11	0.64
tribina 3	4.50	0.00	-0.04	-0.01	2.35	0.49	2.36	0.74	0.09	0.81
tribina 2	4.05	-0.01	-0.04	-0.02	1.98	0.34	0.39	0.52	0.05	0.20
tribina 1	3.60	-0.01	-0.04	-0.02	2.04	0.09	-0.76	0.43	-0.03	-0.20
POZ 100 - strop prizemlja	3.15	-0.03	0.17	-0.17	20.15	2.42	-4.98	0.66	-2.70	-3.27
POZ 000 - temelji	0.00	-0.00	0.19	-0.02	5.11	-6.99	-0.05	-0.25	0.43	-0.22
	Σ=	0.01	0.14	-0.23	31.37	-1.88	-1.30	2.41	-1.46	-2.42

Nivo	Z [m]	Ton 73			Ton 74			Ton 75		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.05	-0.04	-0.05	-0.23	0.34	-0.04	0.08	-0.45	0.08
tribina 5	5.40	-0.00	0.03	0.21	-0.29	1.03	0.52	-0.12	-0.61	-0.31
tribina 4	4.95	-0.09	0.06	-0.12	-0.08	0.97	0.19	0.24	-0.41	0.05
tribina 3	4.50	-0.13	0.06	-0.20	-0.18	1.14	-0.16	0.38	-0.55	0.09
tribina 2	4.05	-0.06	0.05	-0.10	-0.19	1.17	-0.34	0.38	-0.66	-0.10
tribina 1	3.60	0.00	0.04	-0.02	0.06	1.10	-0.15	0.35	-0.73	-0.30
POZ 100 - strop prizemlja	3.15	1.30	-0.33	0.86	2.53	-5.13	5.02	0.61	1.13	-0.56
POZ 000 - temelji	0.00	-0.18	-0.22	0.05	1.02	-0.10	0.52	0.48	0.49	-0.16
	Σ=	0.79	-0.34	0.63	2.63	0.50	5.54	2.40	-1.79	-1.19

Nivo	Z [m]	Ton 76			Ton 77			Ton 78		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.07	0.04	0.02	0.11	0.15	-0.03	0.15	0.20	0.00
tribina 5	5.40	-0.10	0.11	0.08	0.17	0.22	-0.11	0.17	0.32	-0.26
tribina 4	4.95	-0.05	0.09	0.05	0.03	0.09	-0.18	0.10	0.15	-0.17
tribina 3	4.50	-0.06	0.11	-0.00	0.05	0.04	-0.10	0.16	0.09	-0.04
tribina 2	4.05	-0.08	0.11	-0.06	0.10	-0.01	0.03	0.20	0.02	0.06
tribina 1	3.60	-0.05	0.10	-0.03	0.04	-0.07	-0.02	0.11	-0.06	-0.06
POZ 100 - strop prizemlja	3.15	0.27	-0.30	0.19	0.03	-0.82	-0.17	0.60	-0.78	-0.26
POZ 000 - temelji	0.00	0.16	-0.12	0.02	-0.17	-0.21	-0.07	0.37	-0.33	-0.12
	Σ=	0.01	0.15	0.27	0.35	-0.62	-0.66	1.87	-0.39	-0.84

Nivo	Z [m]	Ton 79			Ton 80			Ton 81		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.18	-0.08	0.01	-0.32	0.23	-0.26	0.16	0.08	0.11
tribina 5	5.40	0.15	-0.05	-0.42	0.13	-0.05	1.89	0.05	0.18	-0.33
tribina 4	4.95	0.24	0.00	0.00	-0.68	-0.12	-0.41	0.22	0.25	0.17
tribina 3	4.50	0.33	-0.01	0.15	-1.14	-0.11	-1.15	0.27	0.42	0.26
tribina 2	4.05	0.31	-0.04	0.10	-0.73	-0.01	-0.50	0.22	0.56	0.17
tribina 1	3.60	0.18	-0.07	-0.08	-0.07	0.18	0.53	0.18	0.73	0.13
POZ 100 - strop prizemlja	3.15	-1.96	0.37	-0.71	5.02	0.22	4.49	-0.62	-0.66	-0.73
POZ 000 - temelji	0.00	3.67	0.36	-0.10	1.22	0.52	0.47	-0.12	0.32	-0.04
	Σ=	3.10	0.49	-1.04	3.45	0.85	5.05	0.35	1.89	-0.27

Nivo	Z [m]	Ton 82			Ton 83			Ton 84		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.03	0.01	0.02	0.01	-0.00	0.01	0.03	0.22	0.05
tribina 5	5.40	0.01	0.02	-0.06	-0.24	-0.21	-0.67	0.03	0.06	0.04
tribina 4	4.95	0.04	0.04	0.03	0.09	-0.20	-0.07	0.04	-0.09	0.06
tribina 3	4.50	0.05	0.07	0.05	0.25	-0.27	0.11	0.03	-0.14	0.05
tribina 2	4.05	0.04	0.10	0.03	0.15	-0.28	-0.16	0.04	-0.12	0.07
tribina 1	3.60	0.03	0.13	0.02	0.05	-0.23	-0.46	0.03	-0.03	0.08

POZ 100 - strop prizemlja	3.15	-0.18	-0.16	-0.42	0.37	1.74	-3.69	-0.22	0.48	0.82
POZ 000 - temelji	0.00	-0.02	0.06	-0.05	0.26	0.39	-0.61	-0.04	0.39	0.15
	Σ=	-0.01	0.26	-0.39	0.95	0.93	-5.52	-0.06	0.76	1.32

		Ton 85			Ton 86			Ton 87		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.00	-0.00	0.00	-0.00	0.00	0.01	-0.38	0.19	-0.13
tribina 5	5.40	-0.01	0.01	-0.00	-0.01	0.02	-0.00	-0.66	-0.08	-0.15
tribina 4	4.95	-0.00	0.01	0.00	0.00	0.01	0.01	-0.59	-0.23	-0.52
tribina 3	4.50	-0.00	0.01	0.00	0.00	0.02	0.00	-0.21	-0.35	-0.03
tribina 2	4.05	-0.00	0.01	0.00	0.00	0.02	0.00	-0.04	-0.40	0.04
tribina 1	3.60	0.00	0.01	0.00	0.01	0.02	0.01	-0.18	-0.42	-0.42
POZ 100 - strop prizemlja	3.15	0.01	-0.06	0.05	0.01	-0.09	-0.05	2.93	0.36	0.02
POZ 000 - temelji	0.00	0.00	0.01	0.01	0.01	0.02	-0.03	1.01	0.13	-0.17
	Σ=	-0.00	0.01	0.07	0.02	0.02	-0.06	1.87	-0.80	-1.36

		Ton 88			Ton 89			Ton 90		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.10	-0.28	0.01	-0.21	0.06	-0.04	-0.09	0.18	0.02
tribina 5	5.40	-0.30	-0.30	-0.30	-0.26	0.07	0.56	-0.15	0.15	-0.01
tribina 4	4.95	-0.26	-0.09	-0.34	-0.11	0.13	0.02	-0.28	0.07	-0.43
tribina 3	4.50	0.08	0.08	0.16	-0.01	0.09	-0.06	0.20	0.14	0.27
tribina 2	4.05	0.16	0.24	0.19	0.24	0.04	0.04	0.35	0.20	0.35
tribina 1	3.60	-0.08	0.35	-0.33	0.58	0.02	0.25	-0.00	0.24	-0.40
POZ 100 - strop prizemlja	3.15	1.30	0.55	1.03	1.07	0.14	1.14	0.42	-0.92	-0.60
POZ 000 - temelji	0.00	0.63	0.46	0.03	0.40	0.06	0.26	0.40	-0.29	-0.11
	Σ=	1.43	1.01	0.47	1.70	0.60	2.18	0.84	-0.25	-0.92

		Ton 91			Ton 92			Ton 93		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.87	0.01	0.10	-0.04	-0.08	0.02	-0.30	-0.04	-0.07
tribina 5	5.40	-1.52	0.00	0.75	-0.06	-0.07	0.06	-0.20	-0.02	0.78
tribina 4	4.95	-0.75	-0.09	0.09	0.01	-0.04	0.08	-0.31	0.00	-0.02
tribina 3	4.50	-0.75	-0.12	-0.38	-0.05	-0.02	-0.01	-0.10	0.01	0.15
tribina 2	4.05	-0.22	-0.10	-0.13	-0.08	0.01	-0.05	0.13	0.01	0.33
tribina 1	3.60	0.96	-0.06	1.13	-0.04	0.03	0.02	0.11	-0.00	0.12
POZ 100 - strop prizemlja	3.15	5.04	0.34	1.62	0.61	-0.15	-0.35	1.24	-0.33	1.48
POZ 000 - temelji	0.00	1.30	-0.08	0.48	0.01	-0.34	-0.05	-0.09	-0.20	0.41
	Σ=	3.19	-0.10	3.65	0.37	-0.66	-0.28	0.49	-0.57	3.19

		Ton 94			Ton 95			Ton 96		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.02	0.02	-0.02	0.01	0.02	0.00	0.01	-0.04	0.02
tribina 5	5.40	0.01	0.03	0.10	0.01	0.02	-0.05	0.00	-0.05	-0.03
tribina 4	4.95	-0.01	0.03	0.01	0.01	0.01	-0.01	0.01	-0.04	0.01
tribina 3	4.50	-0.03	0.03	-0.02	0.01	-0.00	-0.00	0.02	-0.03	0.01
tribina 2	4.05	-0.03	0.03	-0.03	0.00	-0.01	-0.01	0.02	-0.02	0.02
tribina 1	3.60	-0.00	0.04	-0.00	-0.01	-0.02	-0.01	0.01	-0.01	-0.00
POZ 100 - strop prizemlja	3.15	0.13	0.02	-0.55	-0.03	-0.10	0.03	-0.04	0.11	0.20
POZ 000 - temelji	0.00	-0.10	0.07	-0.07	0.03	-0.01	-0.01	0.05	0.02	0.05
	Σ=	-0.05	0.27	-0.58	0.04	-0.10	-0.04	0.08	-0.06	0.27

		Ton 97			Ton 98			Ton 99		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.04	0.05	0.05	0.03	-0.26	0.12	0.01	-0.00	0.01
tribina 5	5.40	-0.16	0.15	-0.16	-0.02	-0.25	-0.13	-0.01	0.00	-0.03
tribina 4	4.95	-0.01	0.13	-0.11	0.08	-0.11	0.04	0.01	0.00	0.01
tribina 3	4.50	0.17	0.16	0.06	0.13	-0.00	0.05	0.00	0.01	-0.00
tribina 2	4.05	0.23	0.17	0.02	0.15	0.12	0.02	-0.00	0.01	-0.01
tribina 1	3.60	0.11	0.17	-0.24	0.08	0.20	-0.11	-0.00	0.01	-0.00
POZ 100 - strop prizemlja	3.15	0.58	-0.61	-1.79	-0.46	0.94	-1.26	-0.01	-0.01	-0.03
POZ 000 - temelji	0.00	0.11	-0.27	-0.31	0.11	0.15	-0.20	0.01	-0.01	-0.01
	Σ=	0.99	-0.04	-2.49	0.09	0.79	-1.47	-0.00	0.01	-0.06

		Ton 100			Svi tonovi		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.02	-0.04	-0.11	48.73	16.98	2.83
tribina 5	5.40	0.08	-0.08	0.09	97.22	33.08	0.51
tribina 4	4.95	-0.02	-0.06	-0.12	64.66	21.32	-0.64
tribina 3	4.50	0.04	-0.05	-0.01	67.40	21.54	-1.65

tribina 2	4.05	0.07	-0.03	0.02	69.01	21.65	-5.05
tribina 1	3.60	0.04	-0.01	-0.06	73.60	22.00	-7.35
POZ 100 - strop prizemlja	3.15	0.12	0.46	-1.44	795.69	269.07	4.85
POZ 000 - temelji	0.00	0.14	-0.37	-0.27	97.06	28.35	-0.50
	Σ=	0.45	-0.17	-1.90	1313.4	433.99	-7.00

Potres Y

		Ton 1			Ton 2			Ton 3		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.00	0.00	0.00	-0.22	5.02	-0.20	0.11	0.21	0.02
tribina 5	5.40	0.00	0.00	-0.00	-0.35	7.04	-0.09	0.20	0.41	-0.02
tribina 4	4.95	0.00	0.00	-0.00	-0.17	4.72	-0.01	0.13	0.24	-0.02
tribina 3	4.50	0.00	0.00	-0.00	-0.15	4.01	0.00	0.13	0.22	-0.03
tribina 2	4.05	0.00	0.00	-0.00	-0.14	3.31	0.01	0.12	0.21	-0.05
tribina 1	3.60	0.00	0.00	-0.00	-0.13	2.64	0.02	0.12	0.19	-0.05
POZ 100 - strop prizemlja	3.15	0.05	0.09	-3.93	-0.90	18.53	0.44	6.36	54.41	-13.54
POZ 000 - temelji	0.00	0.00	0.00	-0.01	-0.03	1.74	-0.00	0.41	1.52	0.04
	Σ=	0.05	0.09	-3.93	-2.10	47.01	0.18	7.58	57.42	-13.65

		Ton 4			Ton 5			Ton 6		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.56	1.20	0.08	0.02	0.01	0.04	3.55	0.05	9.10
tribina 5	5.40	1.02	2.31	-0.13	0.02	0.01	0.02	2.15	0.11	3.39
tribina 4	4.95	0.64	1.33	-0.11	0.01	0.01	-0.00	0.47	0.07	0.06
tribina 3	4.50	0.64	1.24	-0.16	0.01	0.01	-0.00	0.35	0.06	0.06
tribina 2	4.05	0.62	1.15	-0.25	0.01	0.01	-0.00	0.29	0.05	0.06
tribina 1	3.60	0.63	1.06	-0.29	0.01	0.01	-0.00	0.26	0.04	0.04
POZ 100 - strop prizemlja	3.15	25.25	272.43	20.43	0.18	0.02	1.98	0.74	0.38	0.29
POZ 000 - temelji	0.00	1.63	7.36	-0.12	0.01	-0.01	0.01	0.10	0.03	0.06
	Σ=	30.99	288.06	19.44	0.25	0.05	2.04	7.90	0.79	13.06

		Ton 7			Ton 8			Ton 9		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.04	0.05	-0.17	0.01	-1.38	-0.10	0.01	0.05	-0.01
tribina 5	5.40	0.01	0.09	-0.07	0.10	-1.77	-0.01	0.03	0.09	-0.01
tribina 4	4.95	0.02	0.06	-0.01	0.06	-1.06	0.02	0.02	0.05	-0.00
tribina 3	4.50	0.03	0.05	-0.01	0.05	-0.79	0.01	0.02	0.05	-0.01
tribina 2	4.05	0.03	0.05	-0.01	0.05	-0.53	0.01	0.02	0.04	-0.01
tribina 1	3.60	0.03	0.04	-0.01	0.04	-0.32	0.01	0.02	0.04	-0.01
POZ 100 - strop prizemlja	3.15	0.51	6.02	-8.16	0.76	31.84	-0.17	10.74	0.80	0.34
POZ 000 - temelji	0.00	0.01	0.23	-0.04	0.23	7.23	-0.00	4.75	0.09	0.00
	Σ=	0.60	6.59	-8.48	1.30	33.21	-0.24	15.63	1.21	0.29

		Ton 10			Ton 11			Ton 12		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.03	0.07	-0.02	0.14	0.10	0.22	0.96	4.02	-0.92
tribina 5	5.40	0.06	0.13	-0.01	0.21	0.13	0.23	2.25	6.82	-0.80
tribina 4	4.95	0.04	0.07	-0.01	0.08	0.05	0.05	1.39	3.97	-0.55
tribina 3	4.50	0.04	0.07	-0.01	0.07	0.05	0.04	1.28	3.49	-0.80
tribina 2	4.05	0.03	0.06	-0.02	0.05	0.05	0.03	1.15	3.01	-1.03
tribina 1	3.60	0.03	0.06	-0.02	0.05	0.05	0.02	1.12	2.59	-1.05
POZ 100 - strop prizemlja	3.15	-0.23	1.20	7.70	0.01	0.50	-0.02	-6.36	17.61	-7.37
POZ 000 - temelji	0.00	-0.07	0.05	0.06	-0.00	0.01	0.01	-0.68	4.42	-0.18
	Σ=	-0.07	1.70	7.67	0.60	0.95	0.57	1.11	45.93	-12.69

		Ton 13			Ton 14			Ton 15		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.14	0.05	-0.13	0.00	0.01	-0.00	-0.00	0.00	0.00
tribina 5	5.40	0.34	0.31	-0.10	0.01	0.02	-0.00	-0.00	0.00	-0.00
tribina 4	4.95	0.21	0.20	-0.06	0.01	0.01	-0.00	-0.00	0.00	-0.00
tribina 3	4.50	0.19	0.24	-0.10	0.00	0.01	-0.00	-0.00	0.00	-0.00
tribina 2	4.05	0.17	0.27	-0.13	0.00	0.01	-0.01	-0.00	0.00	0.00
tribina 1	3.60	0.17	0.30	-0.13	0.00	0.01	-0.01	-0.00	0.00	0.00
POZ 100 - strop prizemlja	3.15	-0.62	1.53	-1.03	-0.01	-0.01	0.30	-0.00	0.00	-0.01
POZ 000 - temelji	0.00	-0.08	-1.24	-0.02	-0.00	-0.01	0.00	-0.00	0.00	-0.00
	Σ=	0.52	1.66	-1.70	0.03	0.07	0.28	-0.00	0.00	-0.01

		Ton 16			Ton 17			Ton 18		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.01	-0.09	-0.00	0.64	2.80	-0.51	16.44	25.05	-10.40

tribina 5	5.40	0.03	-0.09	0.00	1.40	4.12	-0.62	36.44	47.22	-10.67
tribina 4	4.95	0.01	-0.04	-0.00	0.77	2.26	-0.59	20.08	27.45	-10.98
tribina 3	4.50	0.01	-0.02	-0.00	0.64	1.77	-0.80	16.87	25.46	-15.95
tribina 2	4.05	0.01	0.01	-0.00	0.54	1.30	-0.95	14.31	22.98	-19.16
tribina 1	3.60	0.01	0.02	-0.01	0.53	0.91	-0.91	13.84	20.52	-18.54
POZ 100 - strop prizemlja	3.15	-0.15	0.50	-0.07	4.45	0.87	1.65	114.77	144.18	14.86
POZ 000 - temelji	0.00	0.46	0.29	-0.00	0.89	-2.92	-0.06	7.46	17.62	-1.40
	Σ=	0.40	0.59	-0.09	9.87	11.09	-2.77	240.22	330.50	-72.24

		Ton 19			Ton 20			Ton 21		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.32	6.25	-1.71	0.06	0.25	-0.08	0.92	-0.25	1.08
tribina 5	5.40	1.19	11.49	-1.28	0.13	0.44	-0.11	1.45	-0.42	0.87
tribina 4	4.95	0.23	6.74	-1.61	0.06	0.26	-0.11	0.78	-0.24	0.29
tribina 3	4.50	-0.32	6.22	-2.37	0.03	0.23	-0.15	0.74	-0.20	0.25
tribina 2	4.05	-0.71	5.65	-2.77	0.02	0.21	-0.17	0.69	-0.17	0.20
tribina 1	3.60	-0.89	5.16	-2.54	0.01	0.18	-0.16	0.67	-0.15	0.13
POZ 100 - strop prizemlja	3.15	0.41	34.46	-54.92	0.08	1.66	-6.33	4.14	-0.60	0.47
POZ 000 - temelji	0.00	0.73	2.78	-1.07	0.00	0.25	-0.09	0.38	-0.12	0.06
	Σ=	0.95	78.76	-68.26	0.40	3.48	-7.19	9.78	-2.16	3.35

		Ton 22			Ton 23			Ton 24		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.03	-0.01	-0.01	-0.34	1.23	0.85	-6.70	4.73	8.42
tribina 5	5.40	-0.05	-0.02	0.00	-1.20	1.47	0.33	-19.66	9.85	1.05
tribina 4	4.95	-0.02	-0.01	0.02	-0.75	0.76	0.11	-12.49	6.58	-0.55
tribina 3	4.50	-0.01	-0.01	0.03	-0.67	0.48	0.22	-11.75	6.83	0.54
tribina 2	4.05	-0.01	-0.00	0.03	-0.60	0.24	0.29	-10.98	6.91	1.47
tribina 1	3.60	-0.01	0.00	0.03	-0.59	0.07	0.30	-10.87	6.94	1.99
POZ 100 - strop prizemlja	3.15	-0.28	0.56	-0.49	-2.82	1.81	0.37	-72.37	42.80	6.12
POZ 000 - temelji	0.00	-0.04	0.03	-0.01	-0.15	0.88	0.05	-7.01	3.91	0.43
	Σ=	-0.46	0.54	-0.40	-7.12	6.93	2.52	-151.84	88.54	19.48

		Ton 25			Ton 26			Ton 27		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-3.17	4.52	-2.76	1.24	1.66	-1.19	0.34	0.68	-0.29
tribina 5	5.40	-1.58	10.09	9.64	3.72	2.84	1.45	0.99	1.18	0.44
tribina 4	4.95	3.50	7.54	14.03	2.84	1.73	1.99	0.77	0.73	0.59
tribina 3	4.50	6.32	8.57	18.28	2.99	1.70	2.36	0.82	0.72	0.72
tribina 2	4.05	7.37	9.42	19.18	2.89	1.62	2.27	0.79	0.68	0.70
tribina 1	3.60	6.38	10.21	16.01	2.59	1.54	1.71	0.69	0.65	0.52
POZ 100 - strop prizemlja	3.15	93.12	98.03	29.55	-22.95	5.15	4.77	-5.67	0.34	-1.26
POZ 000 - temelji	0.00	5.57	9.14	2.44	-1.49	0.77	0.28	-0.26	0.11	-0.01
	Σ=	117.51	157.52	106.36	-8.19	17.01	13.66	-1.52	5.09	1.41

		Ton 28			Ton 29			Ton 30		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.11	0.14	-0.11	-0.01	-0.15	-0.01	0.01	-0.10	-0.01
tribina 5	5.40	0.34	0.50	0.21	-0.02	-0.16	-0.03	0.03	-0.11	0.01
tribina 4	4.95	0.28	0.38	0.27	-0.03	-0.07	-0.04	0.01	-0.05	0.01
tribina 3	4.50	0.30	0.47	0.34	-0.04	-0.03	-0.07	0.01	-0.02	0.00
tribina 2	4.05	0.29	0.53	0.33	-0.05	0.00	-0.08	0.01	0.00	0.01
tribina 1	3.60	0.24	0.56	0.25	-0.04	0.04	-0.07	0.01	0.02	0.01
POZ 100 - strop prizemlja	3.15	1.95	0.74	0.49	-1.36	1.13	0.07	-0.75	0.47	0.00
POZ 000 - temelji	0.00	1.70	0.05	0.05	-0.18	0.24	-0.01	-0.09	0.11	0.00
	Σ=	5.20	3.38	1.83	-1.73	0.98	-0.25	-0.77	0.31	0.03

		Ton 31			Ton 32			Ton 33		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.04	0.18	0.02	-0.01	0.03	0.00	-0.00	-0.00	-0.00
tribina 5	5.40	-0.10	0.52	0.04	-0.02	0.07	0.00	-0.00	0.00	0.00
tribina 4	4.95	-0.04	0.40	0.06	-0.01	0.06	0.00	-0.00	0.00	0.00
tribina 3	4.50	-0.02	0.45	0.10	-0.00	0.06	0.01	-0.00	0.00	0.00
tribina 2	4.05	-0.01	0.48	0.11	-0.00	0.07	0.01	-0.00	0.00	0.00
tribina 1	3.60	-0.03	0.49	0.08	-0.00	0.07	0.01	-0.00	0.01	-0.00
POZ 100 - strop prizemlja	3.15	12.21	-4.24	-0.00	2.49	-0.45	0.68	0.76	-0.20	-0.07
POZ 000 - temelji	0.00	0.99	-0.44	0.02	0.24	-0.08	0.10	0.07	-0.04	-0.00
	Σ=	12.97	-2.15	0.43	2.69	-0.18	0.81	0.83	-0.22	-0.07

		Ton 34			Ton 35			Ton 36		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.34	-0.68	0.08	0.37	-1.38	-0.77	-0.75	-1.08	-0.39
tribina 5	5.40	0.42	-1.08	2.92	2.30	-0.87	1.96	0.40	0.25	2.80
tribina 4	4.95	0.20	-0.27	1.71	1.45	0.32	1.34	0.88	2.25	2.87
tribina 3	4.50	-0.18	0.17	0.85	1.17	0.84	0.82	0.78	3.34	2.11
tribina 2	4.05	-0.59	0.53	-0.04	0.86	1.26	0.28	0.28	4.03	0.69
tribina 1	3.60	-0.70	0.79	-0.28	0.81	1.57	0.07	0.18	4.38	-0.08
POZ 100 - strop prizemlja	3.15	2.06	6.75	6.12	1.28	8.33	3.91	11.12	21.35	7.97
POZ 000 - temelji	0.00	0.11	0.43	0.46	0.38	0.92	0.28	1.11	3.11	0.62
	Σ=	0.98	6.65	11.82	8.62	10.99	7.89	14.02	37.63	16.59

		Ton 37			Ton 38			Ton 39		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.07	0.13	-0.09	-0.15	0.88	-1.96	0.00	-0.02	-0.01
tribina 5	5.40	0.26	0.10	0.17	4.52	2.55	8.20	0.04	0.00	0.06
tribina 4	4.95	0.14	-0.02	0.05	2.22	0.44	4.83	0.02	0.00	0.04
tribina 3	4.50	0.11	-0.09	0.03	1.16	-0.00	3.68	0.01	0.01	0.03
tribina 2	4.05	0.11	-0.13	0.04	0.20	0.32	2.72	-0.01	0.02	0.02
tribina 1	3.60	0.12	-0.14	0.06	-0.45	1.50	2.24	-0.01	0.03	0.01
POZ 100 - strop prizemlja	3.15	0.13	0.08	0.22	-18.90	22.15	11.42	-0.03	0.01	0.05
POZ 000 - temelji	0.00	0.12	0.21	0.02	-1.60	4.62	1.42	0.08	-0.00	0.01
	Σ=	1.06	0.14	0.51	-13.00	32.45	32.56	0.09	0.03	0.20

		Ton 40			Ton 41			Ton 42		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.12	0.04	0.01	0.25	-0.05	-0.12	-0.04	0.04	0.38
tribina 5	5.40	-0.15	0.55	-1.52	-0.06	0.96	-2.78	-0.74	-0.06	-1.09
tribina 4	4.95	-0.34	0.63	-1.30	-0.61	1.23	-2.53	-0.33	-0.20	-0.61
tribina 3	4.50	-0.03	0.76	-0.71	0.02	1.53	-1.30	-0.24	-0.26	-0.64
tribina 2	4.05	0.51	0.78	0.24	1.23	1.63	0.83	-0.22	-0.22	-0.76
tribina 1	3.60	0.87	0.74	0.68	2.05	1.58	1.87	-0.15	-0.10	-0.77
POZ 100 - strop prizemlja	3.15	3.87	2.21	4.88	1.66	3.02	-6.96	2.82	2.63	-0.10
POZ 000 - temelji	0.00	0.47	0.63	0.28	0.27	1.20	-0.73	0.13	0.72	-0.19
	Σ=	5.32	6.33	2.55	4.80	11.11	-11.72	1.23	2.56	-3.80

		Ton 43			Ton 44			Ton 45		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.47	-0.28	2.29	-0.07	0.00	-0.02	0.00	-0.02	-0.00
tribina 5	5.40	-5.75	-0.41	-9.88	-0.13	-0.03	0.03	0.02	-0.03	0.02
tribina 4	4.95	-3.51	-0.71	-6.98	-0.11	-0.01	-0.04	0.01	-0.01	0.01
tribina 3	4.50	-1.96	-0.62	-5.54	-0.07	-0.00	0.02	0.01	-0.01	0.01
tribina 2	4.05	0.40	-0.03	-2.81	0.06	0.00	0.21	0.00	-0.01	0.01
tribina 1	3.60	2.56	0.99	-0.77	0.16	-0.00	0.33	0.00	-0.01	0.01
POZ 100 - strop prizemlja	3.15	33.84	13.38	-10.95	0.69	-0.02	0.51	0.06	-0.43	0.11
POZ 000 - temelji	0.00	3.13	1.82	-1.72	0.06	-0.02	0.06	0.04	0.80	0.01
	Σ=	28.24	14.14	-36.36	0.60	-0.08	1.09	0.14	0.29	0.18

		Ton 46			Ton 47			Ton 48		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.04	0.87	-0.17	-0.15	-0.71	0.26	-0.03	-0.02	-0.00
tribina 5	5.40	0.13	2.09	-0.73	-0.90	-1.67	-0.74	0.02	-0.10	0.34
tribina 4	4.95	-0.02	1.20	-0.44	-0.33	-1.00	-0.33	0.02	-0.08	0.21
tribina 3	4.50	-0.10	0.96	-0.42	-0.22	-0.90	-0.35	0.01	-0.09	0.20
tribina 2	4.05	-0.31	0.65	-0.54	-0.12	-0.76	-0.44	0.02	-0.10	0.20
tribina 1	3.60	-0.51	0.23	-0.68	0.00	-0.53	-0.44	0.01	-0.11	0.20
POZ 100 - strop prizemlja	3.15	7.88	16.15	-4.82	8.81	10.04	-2.32	0.17	0.31	0.98
POZ 000 - temelji	0.00	1.42	7.55	-0.33	1.19	5.54	-0.18	0.07	0.24	0.14
	Σ=	8.52	29.70	-8.13	8.29	10.00	-4.54	0.29	0.06	2.27

		Ton 49			Ton 50			Ton 51		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.18	-0.11	-0.02	0.04	-0.19	0.01	0.04	0.24	-0.05
tribina 5	5.40	-0.14	0.31	-2.06	0.08	-0.17	0.01	0.12	0.32	0.13
tribina 4	4.95	-0.15	0.34	-1.26	-0.01	-0.05	-0.08	0.09	0.18	0.06
tribina 3	4.50	-0.10	0.38	-1.17	-0.03	0.00	-0.08	0.06	0.17	0.02
tribina 2	4.05	-0.13	0.39	-1.17	0.01	0.05	-0.00	0.04	0.17	-0.02
tribina 1	3.60	-0.07	0.41	-1.17	0.04	0.07	0.07	0.01	0.20	-0.05
POZ 100 - strop prizemlja	3.15	-0.67	2.35	-1.01	-0.09	0.47	-0.09	2.63	-0.05	-0.46
POZ 000 - temelji	0.00	0.04	1.29	-0.47	0.00	0.30	-0.01	0.33	0.26	-0.01
	Σ=	-1.03	5.35	-8.34	0.04	0.49	-0.18	3.33	1.49	-0.39

		Ton 52			Ton 53			Ton 54		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.02	0.02	0.01	-0.00	0.00	-0.00	-0.14	-0.01	-0.11
tribina 5	5.40	0.03	0.03	0.03	-0.00	0.00	-0.00	-0.28	-0.01	-0.15
tribina 4	4.95	0.01	0.03	-0.00	0.00	0.00	0.00	0.03	-0.01	0.24
tribina 3	4.50	0.00	0.03	-0.01	0.00	-0.00	0.00	0.12	0.00	0.32
tribina 2	4.05	0.01	0.04	0.01	-0.00	-0.00	-0.00	0.04	0.02	0.12
tribina 1	3.60	0.01	0.04	0.02	-0.00	-0.00	-0.00	-0.07	0.04	-0.09
POZ 100 - strop prizemlja	3.15	0.07	-0.14	0.07	-0.00	0.00	-0.02	0.40	-0.00	-0.23
POZ 000 - temelji	0.00	0.00	-0.05	0.01	0.00	-0.00	-0.00	-0.01	0.03	0.00
	Σ=	0.15	-0.01	0.14	-0.00	0.00	-0.02	0.08	0.06	0.10

Nivo	Z [m]	Ton 55			Ton 56			Ton 57		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.01	0.00	0.00	0.04	0.04	0.09	-0.09	0.04	-0.03
tribina 5	5.40	-0.02	0.00	0.00	0.01	0.09	-0.10	-0.19	0.00	0.09
tribina 4	4.95	0.00	-0.00	0.02	-0.04	0.07	-0.16	0.06	-0.01	0.31
tribina 3	4.50	0.01	-0.00	0.02	-0.04	0.06	-0.16	0.12	-0.01	0.35
tribina 2	4.05	0.01	-0.00	0.01	-0.03	0.05	-0.12	0.08	-0.00	0.21
tribina 1	3.60	0.00	-0.00	-0.00	0.07	0.03	-0.01	-0.05	0.01	-0.00
POZ 100 - strop prizemlja	3.15	0.23	0.09	0.37	0.27	0.24	-0.20	2.07	1.93	1.17
POZ 000 - temelji	0.00	0.01	-0.04	0.01	0.15	-0.29	-0.04	0.07	-0.87	0.19
	Σ=	0.23	0.05	0.43	0.43	0.29	-0.69	2.08	1.08	2.29

Nivo	Z [m]	Ton 58			Ton 59			Ton 60		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.09	-0.08	0.04	0.22	-0.01	-0.13	-0.20	-0.60	-0.33
tribina 5	5.40	0.02	-0.14	-0.38	0.52	-0.01	0.07	-0.12	-1.16	0.14
tribina 4	4.95	-0.04	-0.06	-0.39	0.22	-0.02	-0.16	-0.08	-0.59	0.03
tribina 3	4.50	-0.05	-0.04	-0.42	0.11	-0.01	-0.26	-0.14	-0.39	-0.14
tribina 2	4.05	0.00	-0.01	-0.36	0.11	-0.00	-0.19	-0.08	-0.14	-0.14
tribina 1	3.60	0.15	0.01	-0.18	0.09	0.02	-0.14	0.02	0.19	-0.02
POZ 100 - strop prizemlja	3.15	0.66	0.47	-0.84	0.10	0.71	1.40	1.51	3.30	0.91
POZ 000 - temelji	0.00	0.22	0.36	-0.19	-0.33	0.81	0.05	0.19	1.85	0.05
	Σ=	1.05	0.51	-2.71	1.04	1.49	0.64	1.11	2.47	0.50

Nivo	Z [m]	Ton 61			Ton 62			Ton 63		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	1.96	-0.52	-1.40	0.02	0.06	0.67	-0.02	0.09	-0.15
tribina 5	5.40	5.03	-0.64	0.15	-0.63	0.08	-0.16	0.14	0.09	0.09
tribina 4	4.95	1.69	-0.10	-1.87	0.05	0.06	0.45	-0.04	0.03	-0.12
tribina 3	4.50	0.55	0.19	-2.69	0.34	0.04	0.78	-0.12	0.00	-0.21
tribina 2	4.05	0.38	0.48	-1.95	0.22	0.03	0.39	-0.08	-0.02	-0.11
tribina 1	3.60	0.38	0.76	-1.24	-0.10	0.06	-0.23	0.02	-0.05	0.07
POZ 100 - strop prizemlja	3.15	-3.71	3.69	-6.50	1.39	-0.38	-0.39	0.02	0.09	0.13
POZ 000 - temelji	0.00	0.28	0.90	-1.33	0.06	0.34	0.11	0.19	0.04	-0.02
	Σ=	6.55	4.75	-16.84	1.35	0.28	1.62	0.11	0.28	-0.32

Nivo	Z [m]	Ton 64			Ton 65			Ton 66		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.65	0.15	0.50	0.31	-0.26	0.22	0.00	-0.02	0.04
tribina 5	5.40	-2.00	0.15	-0.42	0.69	-0.32	0.35	-0.01	-0.00	0.05
tribina 4	4.95	-0.37	-0.14	0.71	-0.04	-0.11	-0.38	-0.02	0.01	-0.02
tribina 3	4.50	0.14	-0.35	0.95	-0.16	-0.02	-0.30	-0.02	0.02	-0.00
tribina 2	4.05	0.29	-0.54	0.61	-0.25	0.09	-0.17	-0.01	0.02	0.00
tribina 1	3.60	0.31	-0.69	0.27	-0.39	0.23	-0.21	-0.03	0.04	-0.01
POZ 100 - strop prizemlja	3.15	12.16	5.14	-0.57	-2.80	2.48	-2.07	0.15	0.26	0.13
POZ 000 - temelji	0.00	1.08	2.32	0.27	-0.40	1.33	-0.25	-0.15	0.26	0.03
	Σ=	10.97	6.03	2.33	-3.05	3.41	-2.81	-0.07	0.59	0.21

Nivo	Z [m]	Ton 67			Ton 68			Ton 69		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.61	1.02	-0.20	-0.05	0.10	-0.00	0.08	0.00	-0.04
tribina 5	5.40	-1.11	1.74	0.21	-0.07	0.10	0.13	0.20	0.02	-0.10
tribina 4	4.95	-0.22	1.27	0.62	-0.05	0.04	0.02	0.05	0.03	-0.11
tribina 3	4.50	-0.08	1.35	0.45	-0.06	0.01	-0.02	0.01	0.04	-0.12
tribina 2	4.05	0.10	1.35	0.34	-0.05	-0.01	-0.01	0.00	0.05	-0.06
tribina 1	3.60	0.45	1.29	0.61	0.02	-0.02	0.07	-0.07	0.05	-0.11
POZ 100 - strop prizemlja	3.15	8.86	-1.62	3.08	0.29	-0.19	0.43	-0.74	0.05	-0.35
POZ 000 - temelji	0.00	0.57	3.33	0.43	0.11	0.01	0.06	-0.21	0.02	-0.09
	Σ=	7.97	9.72	5.56	0.13	0.04	0.67	-0.69	0.25	-0.98

		Ton 70			Ton 71			Ton 72		

Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.04	-0.05	-0.01	0.03	0.12	0.24	-0.05	-0.11	-0.11
tribina 5	5.40	0.10	-0.14	0.05	-0.44	0.18	-0.30	0.12	-0.11	0.25
tribina 4	4.95	0.02	-0.10	-0.03	0.35	0.13	0.48	-0.19	-0.04	-0.24
tribina 3	4.50	0.00	-0.11	-0.03	0.57	0.12	0.58	-0.28	-0.03	-0.30
tribina 2	4.05	-0.02	-0.11	-0.04	0.48	0.08	0.10	-0.20	-0.02	-0.07
tribina 1	3.60	-0.02	-0.11	-0.04	0.50	0.02	-0.19	-0.16	0.01	0.07
POZ 100 - strop prizemlja	3.15	-0.09	0.48	-0.45	4.93	0.59	-1.22	-0.25	1.01	1.22
POZ 000 - temelji	0.00	-0.01	0.52	-0.06	1.25	-1.71	-0.01	0.09	-0.16	0.08
	Σ=	0.03	0.38	-0.62	7.67	-0.46	-0.32	-0.90	0.55	0.90

		Ton 73			Ton 74			Ton 75		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.01	0.01	0.01	-0.11	0.16	-0.02	-0.04	0.26	-0.05
tribina 5	5.40	0.00	-0.00	-0.03	-0.14	0.48	0.24	0.07	0.35	0.18
tribina 4	4.95	0.01	-0.01	0.02	-0.04	0.45	0.09	-0.14	0.24	-0.03
tribina 3	4.50	0.02	-0.01	0.03	-0.09	0.53	-0.07	-0.22	0.32	-0.05
tribina 2	4.05	0.01	-0.01	0.02	-0.09	0.54	-0.16	-0.22	0.38	0.06
tribina 1	3.60	-0.00	-0.01	0.00	0.03	0.51	-0.07	-0.20	0.42	0.17
POZ 100 - strop prizemlja	3.15	-0.20	0.05	-0.13	1.17	-2.38	2.33	-0.35	-0.65	0.32
POZ 000 - temelji	0.00	0.03	0.03	-0.01	0.47	-0.05	0.24	-0.28	-0.28	0.09
	Σ=	-0.12	0.05	-0.10	1.22	0.23	2.57	-1.38	1.03	0.68

		Ton 76			Ton 77			Ton 78		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.20	0.10	0.05	-0.32	-0.45	0.09	0.02	0.02	0.00
tribina 5	5.40	-0.29	0.32	0.24	-0.52	-0.66	0.34	0.02	0.03	-0.03
tribina 4	4.95	-0.14	0.26	0.15	-0.08	-0.27	0.55	0.01	0.01	-0.02
tribina 3	4.50	-0.18	0.31	-0.01	-0.15	-0.13	0.29	0.02	0.01	-0.00
tribina 2	4.05	-0.24	0.32	-0.17	-0.30	0.03	-0.09	0.02	0.00	0.01
tribina 1	3.60	-0.14	0.30	-0.09	-0.11	0.22	0.07	0.01	-0.01	-0.01
POZ 100 - strop prizemlja	3.15	0.76	-0.85	0.53	-0.10	2.50	0.52	0.06	-0.08	-0.03
POZ 000 - temelji	0.00	0.44	-0.34	0.07	0.51	0.64	0.22	0.04	-0.03	-0.01
	Σ=	0.02	0.42	0.76	-1.08	1.87	1.99	0.19	-0.04	-0.08

		Ton 79			Ton 80			Ton 81		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.08	-0.03	0.01	-0.16	0.12	-0.13	0.35	0.18	0.24
tribina 5	5.40	0.07	-0.02	-0.18	0.07	-0.03	0.96	0.11	0.39	-0.72
tribina 4	4.95	0.11	0.00	0.00	-0.34	-0.06	-0.21	0.48	0.55	0.36
tribina 3	4.50	0.14	-0.00	0.07	-0.58	-0.06	-0.59	0.58	0.91	0.56
tribina 2	4.05	0.13	-0.02	0.04	-0.37	-0.01	-0.25	0.47	1.22	0.37
tribina 1	3.60	0.08	-0.03	-0.03	-0.03	0.09	0.27	0.38	1.58	0.27
POZ 100 - strop prizemlja	3.15	-0.86	0.16	-0.31	2.55	0.11	2.28	-1.35	-1.42	-1.58
POZ 000 - temelji	0.00	1.60	0.16	-0.04	0.62	0.26	0.24	-0.26	0.70	-0.08
	Σ=	1.36	0.21	-0.46	1.75	0.43	2.57	0.77	4.10	-0.58

		Ton 82			Ton 83			Ton 84		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.11	0.02	0.08	0.01	-0.00	0.01	0.12	0.95	0.20
tribina 5	5.40	0.03	0.08	-0.25	-0.24	-0.21	-0.66	0.14	0.28	0.15
tribina 4	4.95	0.16	0.16	0.12	0.09	-0.20	-0.07	0.17	-0.40	0.27
tribina 3	4.50	0.19	0.28	0.19	0.25	-0.27	0.11	0.15	-0.62	0.23
tribina 2	4.05	0.15	0.39	0.12	0.15	-0.27	-0.15	0.16	-0.52	0.30
tribina 1	3.60	0.12	0.52	0.08	0.05	-0.23	-0.45	0.13	-0.14	0.36
POZ 100 - strop prizemlja	3.15	-0.74	-0.64	-1.72	0.36	1.72	-3.66	-0.94	2.08	3.58
POZ 000 - temelji	0.00	-0.07	0.24	-0.19	0.26	0.39	-0.60	-0.18	1.70	0.65
	Σ=	-0.06	1.06	-1.56	0.94	0.93	-5.48	-0.25	3.32	5.74

		Ton 85			Ton 86			Ton 87		
Nivo	Z [m]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.02	-0.00	0.01	-0.00	0.00	0.00	0.06	-0.03	0.02
tribina 5	5.40	-0.04	0.05	-0.01	-0.00	0.01	-0.00	0.10	0.01	0.02
tribina 4	4.95	-0.01	0.04	0.01	0.00	0.01	0.01	0.09	0.03	0.08
tribina 3	4.50	-0.00	0.06	0.01	0.00	0.02	0.00	0.03	0.05	0.00
tribina 2	4.05	-0.00	0.06	0.00	0.00	0.02	0.00	0.01	0.06	-0.01
tribina 1	3.60	0.00	0.05	0.01	0.01	0.02	0.01	0.03	0.06	0.06
POZ 100 - strop prizemlja	3.15	0.05	-0.23	0.22	0.00	-0.08	-0.04	-0.43	-0.05	-0.00
POZ 000 - temelji	0.00	0.02	0.04	0.05	0.01	0.02	-0.03	-0.15	-0.02	0.03
	Σ=	-0.00	0.05	0.30	0.02	0.02	-0.05	-0.28	0.12	0.20

Nivo	Z [m]	Ton 88			Ton 89			Ton 90		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.09	-0.23	0.01	-0.13	0.03	-0.02	-0.00	0.00	0.00
tribina 5	5.40	-0.25	-0.25	-0.25	-0.15	0.04	0.33	-0.00	0.00	-0.00
tribina 4	4.95	-0.22	-0.07	-0.28	-0.06	0.07	0.01	-0.00	0.00	-0.00
tribina 3	4.50	0.06	0.07	0.14	-0.01	0.05	-0.03	0.00	0.00	0.00
tribina 2	4.05	0.14	0.20	0.16	0.14	0.02	0.02	0.00	0.00	0.00
tribina 1	3.60	-0.06	0.29	-0.27	0.34	0.01	0.15	-0.00	0.00	-0.00
POZ 100 - strop prizemlja	3.15	1.08	0.45	0.85	0.63	0.08	0.67	0.00	-0.01	-0.01
POZ 000 - temelji	0.00	0.52	0.38	0.03	0.24	0.03	0.16	0.00	-0.00	-0.00
	Σ=	1.18	0.83	0.39	1.01	0.36	1.29	0.01	-0.00	-0.01

Nivo	Z [m]	Ton 91			Ton 92			Ton 93		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.24	0.00	0.03	0.13	0.25	-0.07	0.38	0.05	0.09
tribina 5	5.40	-0.41	0.00	0.20	0.18	0.21	-0.20	0.25	0.03	-1.01
tribina 4	4.95	-0.20	-0.03	0.02	-0.02	0.14	-0.26	0.39	-0.00	0.03
tribina 3	4.50	-0.20	-0.03	-0.10	0.14	0.06	0.03	0.13	-0.01	-0.19
tribina 2	4.05	-0.06	-0.03	-0.04	0.24	-0.02	0.16	-0.17	-0.01	-0.42
tribina 1	3.60	0.26	-0.01	0.31	0.13	-0.08	-0.06	-0.14	0.00	-0.16
POZ 100 - strop prizemlja	3.15	1.36	0.09	0.44	-1.93	0.47	1.12	-1.60	0.42	-1.91
POZ 000 - temelji	0.00	0.35	-0.02	0.13	-0.04	1.07	0.17	0.12	0.26	-0.53
	Σ=	0.86	-0.03	0.99	-1.18	2.09	0.89	-0.64	0.73	-4.10

Nivo	Z [m]	Ton 94			Ton 95			Ton 96		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.14	0.20	-0.15	-0.21	-0.33	-0.04	-0.01	0.02	-0.01
tribina 5	5.40	0.07	0.25	0.83	-0.10	-0.32	0.73	-0.00	0.03	0.02
tribina 4	4.95	-0.07	0.21	0.09	-0.17	-0.11	0.09	-0.01	0.02	-0.00
tribina 3	4.50	-0.21	0.23	-0.17	-0.14	0.04	0.02	-0.01	0.02	-0.01
tribina 2	4.05	-0.21	0.26	-0.24	-0.01	0.20	0.08	-0.01	0.01	-0.01
tribina 1	3.60	-0.01	0.29	-0.03	0.09	0.32	0.12	-0.00	0.01	0.00
POZ 100 - strop prizemlja	3.15	1.01	0.15	-4.38	0.51	1.60	-0.49	0.02	-0.06	-0.11
POZ 000 - temelji	0.00	-0.81	0.54	-0.55	-0.54	0.21	0.09	-0.03	-0.01	-0.03
	Σ=	-0.39	2.14	-4.61	-0.57	1.60	0.60	-0.05	0.04	-0.16

Nivo	Z [m]	Ton 97			Ton 98			Ton 99		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	-0.01	0.01	0.01	0.08	-0.64	0.29	0.06	-0.00	0.13
tribina 5	5.40	-0.04	0.04	-0.04	-0.06	-0.62	-0.33	-0.08	0.02	-0.28
tribina 4	4.95	-0.00	0.03	-0.03	0.20	-0.28	0.10	0.06	0.05	0.07
tribina 3	4.50	0.04	0.04	0.02	0.32	-0.00	0.12	0.02	0.06	-0.01
tribina 2	4.05	0.06	0.04	0.01	0.37	0.29	0.05	-0.03	0.06	-0.07
tribina 1	3.60	0.03	0.04	-0.06	0.20	0.51	-0.26	-0.03	0.06	-0.04
POZ 100 - strop prizemlja	3.15	0.15	-0.16	-0.46	-1.15	2.35	-3.14	-0.13	-0.07	-0.31
POZ 000 - temelji	0.00	0.03	-0.07	-0.08	0.28	0.36	-0.50	0.12	-0.05	-0.05
	Σ=	0.26	-0.01	-0.64	0.23	1.98	-3.65	-0.02	0.12	-0.57

Nivo	Z [m]	Ton 100			Svi tonovi		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
POZ 200 - krov	8.80	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - sljeme	8.60	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - kosi krov - vijenac	8.30	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - gornja pojasnica GK	7.80	0.00	0.00	0.00	0.00	0.00	0.00
POZ 200 - donja pojasnica GK	6.30	0.00	0.00	0.01	14.91	54.68	0.70
tribina 5	5.40	-0.01	0.01	-0.01	30.34	107.93	1.82
tribina 4	4.95	0.00	0.00	0.01	20.18	69.75	0.95
tribina 3	4.50	-0.00	0.00	0.00	20.35	70.38	-0.59
tribina 2	4.05	-0.01	0.00	-0.00	20.62	70.72	-2.10
tribina 1	3.60	-0.00	0.00	0.01	22.09	72.22	-2.39
POZ 100 - strop prizemlja	3.15	-0.01	-0.04	0.12	247.31	865.04	-6.64
POZ 000 - temelji	0.00	-0.01	0.03	0.02	29.33	98.81	-0.98
	Σ=	-0.04	0.01	0.15	405.14	1409.5	-9.24

Faktori participacije - Relativno učešće

Ton \ Naziv	1. Potres X	2. Potres Y
1	0.000	0.000
2	0.002	0.030
3	0.007	0.039
4	0.032	0.194
5	0.000	0.000
6	0.015	0.002
7	0.001	0.004
8	0.003	0.022
9	0.030	0.004
10	0.000	0.001

11	0.000	0.001
12	0.003	0.030
13	0.000	0.001
14	0.000	0.000
15	0.000	0.000
16	0.000	0.000
17	0.009	0.009
18	0.198	0.263
19	0.005	0.052
20	0.000	0.002
21	0.074	0.001
22	0.000	0.000
23	0.004	0.003
24	0.253	0.028
25	0.098	0.126
26	0.000	0.010
27	0.000	0.003
28	0.005	0.003
29	0.003	0.000
30	0.004	0.000
31	0.060	0.001
32	0.008	0.000
33	0.016	0.000
34	0.001	0.005
35	0.007	0.009
36	0.011	0.027
37	0.002	0.000
38	0.000	0.019
39	0.000	0.000
40	0.005	0.005
41	0.004	0.008
42	0.001	0.002
43	0.032	0.015
44	0.002	0.000
45	0.000	0.000
46	0.007	0.021
47	0.007	0.008
48	0.000	0.000
49	0.000	0.003
50	0.000	0.000
51	0.004	0.002
52	0.000	0.000
53	0.000	0.000
54	0.000	0.000
55	0.000	0.000
56	0.000	0.000
57	0.002	0.001
58	0.001	0.001
59	0.001	0.001
60	0.001	0.002
61	0.007	0.004
62	0.002	0.000
63	0.000	0.000
64	0.012	0.006
65	0.001	0.002
66	0.000	0.000
67	0.007	0.008
68	0.000	0.000
69	0.006	0.000
70	0.000	0.000
71	0.021	0.001
72	0.001	0.000
73	0.000	0.000
74	0.002	0.000
75	0.001	0.000
76	0.000	0.000
77	0.000	0.001
78	0.001	0.000
79	0.002	0.000
80	0.003	0.001
81	0.001	0.003
82	0.000	0.001
83	0.001	0.001
84	0.000	0.002
85	0.000	0.000
86	0.000	0.000
87	0.001	0.000
88	0.001	0.001
89	0.001	0.000
90	0.001	0.000
91	0.002	0.000
92	0.000	0.001
93	0.000	0.000
94	0.000	0.001
95	0.000	0.001
96	0.000	0.000
97	0.001	0.000
98	0.000	0.001
99	0.000	0.000
100	0.000	0.000

Faktori participacije - Sudjelujuće mase

Ton	UX (%)	UY (%)	UZ (%)	ΣUX (%)	ΣUY (%)	ΣUZ (%)
1	0.00	0.00	7.90	0.00	0.00	7.90
2	0.01	2.60	0.00	0.01	2.61	7.90
3	0.05	3.02	0.17	0.06	5.62	8.07
4	0.18	15.23	0.07	0.24	20.86	8.14
5	0.03	0.00	1.77	0.26	20.86	9.91
6	1.08	0.01	2.95	1.34	20.87	12.86
7	0.00	0.35	0.58	1.34	21.22	13.44
8	0.00	1.79	0.00	1.35	23.01	13.44
9	2.26	0.01	0.00	3.61	23.02	13.44
10	0.00	0.09	1.91	3.61	23.12	15.35
11	0.02	0.04	0.02	3.62	23.16	15.36
12	0.00	2.56	0.20	3.63	25.72	15.56
13	0.01	0.09	0.09	3.63	25.81	15.65
14	0.00	0.00	0.06	3.64	25.81	15.71
15	0.04	0.00	0.15	3.67	25.82	15.86
16	0.01	0.03	0.00	3.68	25.84	15.86
17	0.41	0.52	0.03	4.10	26.37	15.89
18	8.58	16.24	0.78	12.68	42.60	16.66
19	0.00	4.73	3.55	12.68	47.33	20.21
20	0.00	0.20	0.87	12.68	47.53	21.08
21	7.59	0.37	0.89	20.27	47.90	21.97
22	0.03	0.05	0.02	20.31	47.95	21.99
23	0.66	0.63	0.08	20.96	48.57	22.08
24	33.67	11.45	0.55	54.64	60.02	22.63
25	4.51	8.11	3.70	59.15	68.13	26.33
26	0.29	1.27	0.82	59.45	69.40	27.15
27	0.03	0.36	0.03	59.48	69.76	27.18
28	0.35	0.15	0.04	59.83	69.91	27.22
29	0.42	0.14	0.01	60.25	70.05	27.23
30	0.52	0.08	0.00	60.77	70.13	27.23
31	6.33	0.17	0.01	67.10	70.30	27.24
32	0.76	0.00	0.07	67.86	70.31	27.30
33	1.84	0.13	0.01	69.70	70.44	27.32
34	0.01	0.43	1.35	69.71	70.87	28.67
35	0.37	0.60	0.31	70.08	71.47	28.98
36	0.32	2.30	0.45	70.40	73.77	29.43
37	0.17	0.00	0.04	70.57	73.77	29.47
38	0.41	2.53	2.55	70.97	76.30	32.02
39	0.01	0.00	0.04	70.98	76.30	32.06
40	0.25	0.35	0.06	71.23	76.65	32.12
41	0.13	0.68	0.76	71.36	77.33	32.87
42	0.04	0.16	0.34	71.39	77.49	33.21
43	2.44	0.61	4.05	73.84	78.10	37.26
44	0.25	0.00	0.83	74.09	78.10	38.10
45	0.00	0.02	0.01	74.10	78.12	38.11
46	0.16	1.91	0.14	74.25	80.04	38.25
47	0.39	0.56	0.12	74.64	80.60	38.36
48	0.04	0.00	2.47	74.68	80.60	40.84
49	0.01	0.40	0.97	74.69	81.00	41.81
50	0.00	0.03	0.00	74.69	81.03	41.81
51	0.31	0.06	0.00	75.01	81.10	41.82
52	0.04	0.00	0.04	75.05	81.10	41.86
53	0.03	0.00	1.04	75.08	81.10	42.90
54	0.01	0.00	0.01	75.08	81.10	42.91
55	0.03	0.00	0.11	75.11	81.10	43.02
56	0.03	0.01	0.08	75.15	81.12	43.10
57	0.18	0.05	0.22	75.33	81.17	43.32
58	0.09	0.02	0.64	75.42	81.19	43.96
59	0.04	0.09	0.02	75.47	81.28	43.97
60	0.03	0.16	0.01	75.50	81.43	43.98
61	0.46	0.24	3.04	75.96	81.68	47.02
62	0.19	0.01	0.28	76.15	81.68	47.30
63	0.00	0.02	0.02	76.15	81.70	47.32
64	0.93	0.28	0.04	77.08	81.98	47.36
65	0.27	0.34	0.23	77.35	82.32	47.59
66	0.00	0.04	0.01	77.35	82.37	47.60
67	0.38	0.57	0.19	77.73	82.93	47.78
68	0.02	0.00	0.43	77.75	82.93	48.21
69	0.78	0.10	1.59	78.54	83.04	49.80
70	0.00	0.03	0.07	78.54	83.06	49.87
71	2.33	0.01	0.00	80.86	83.07	49.88
72	0.22	0.08	0.22	81.08	83.15	50.09
73	0.07	0.01	0.04	81.15	83.16	50.14
74	0.18	0.01	0.81	81.33	83.17	50.94
75	0.23	0.13	0.06	81.55	83.30	51.00
76	0.00	0.03	0.10	81.55	83.33	51.10
77	0.05	0.17	0.19	81.61	83.49	51.29
78	0.15	0.01	0.03	81.75	83.50	51.32
79	0.22	0.01	0.02	81.97	83.51	51.34
80	0.24	0.01	0.51	82.21	83.52	51.85
81	0.01	0.29	0.01	82.22	83.81	51.85
82	0.00	0.08	0.17	82.22	83.88	52.02
83	0.05	0.05	1.83	82.27	83.94	53.86
84	0.00	0.25	0.75	82.27	84.19	54.61
85	0.00	0.00	0.12	82.27	84.19	54.73
86	0.00	0.00	0.01	82.28	84.19	54.74
87	0.16	0.03	0.08	82.43	84.22	54.82
88	0.09	0.04	0.01	82.52	84.27	54.83
89	0.11	0.01	0.19	82.64	84.28	55.02
90	0.07	0.01	0.08	82.71	84.29	55.10

91	0.24	0.00	0.32	82.94	84.29	55.41
92	0.06	0.19	0.03	83.00	84.47	55.45
93	0.06	0.07	2.34	83.06	84.55	57.79
94	0.01	0.17	0.78	83.07	84.72	58.57
95	0.02	0.13	0.02	83.08	84.85	58.59
96	0.01	0.00	0.09	83.09	84.86	58.68
97	0.08	0.00	0.47	83.17	84.86	59.15
98	0.00	0.14	0.49	83.17	85.00	59.64
99	0.00	0.01	0.22	83.17	85.01	59.86
100	0.04	0.01	0.68	83.21	85.01	60.54

Aktivirano je 83,21% mase u x-smjeru i 85,01% u y-smjeru.

Koeficijenti za seizmičko opterećenje uvećani su:

x-smjer: 100 / 83,21 = 1,20
y-smjer: 100 / 85,01 = 1,18

PRORAČUN MEĐUKATNIH KONSTRUKCIJA

DIMENZIONIRANJE MEĐUKATNE KONSTRUKCIJE

Ploče su, zajedno s pripadajućim gredama modelirane u programskom paketu. Izlazni rezultati za ploče i grede prikazani su na stranicama u nastavku.

Ploče

Ploče d = 20,0 cm

U sljedećoj tablici prikazani su ultimativni momenti nosivosti za odabranu armaturu za dane dimenzije ploča:

Postupak dimenzioniranja:

C 30/37 $f_{cd} = \frac{f_{ck}}{\gamma_c} = 30 / 1{,}5 = 20{,}0$ MPa; $f_{cd} = 2{,}0$ kN/cm^2

B500 $f_{yd} = \frac{f_{yk}}{\gamma_s} = 500 / 1{,}15 = 435{,}0$ MPa; $f_{yd} = 43{,}5$ kN/cm^2

b = 100 cm; h = 20,0 cm; d = 17,0 cm

$A_{s1,min} = 0{,}0015 \times b_t \times d = 0{,}0015 \times 100 \times 17 = 2{,}55$ cm^2

$\mu_{Rd,lim} = 0.159; \quad \zeta_{lim} \approx 0.829 \quad \varepsilon_c / \varepsilon_s = 3.5/10.0\,‰$

$M_{Rd,c} = \mu_{Rd,lim}\, b\, d^2\, f_{cd} = 0.159 \cdot b\, d^2\, f_{cd}$

$M_{Rd,s} = A_s\, \zeta_{lim}\, d\, f_{yd}$

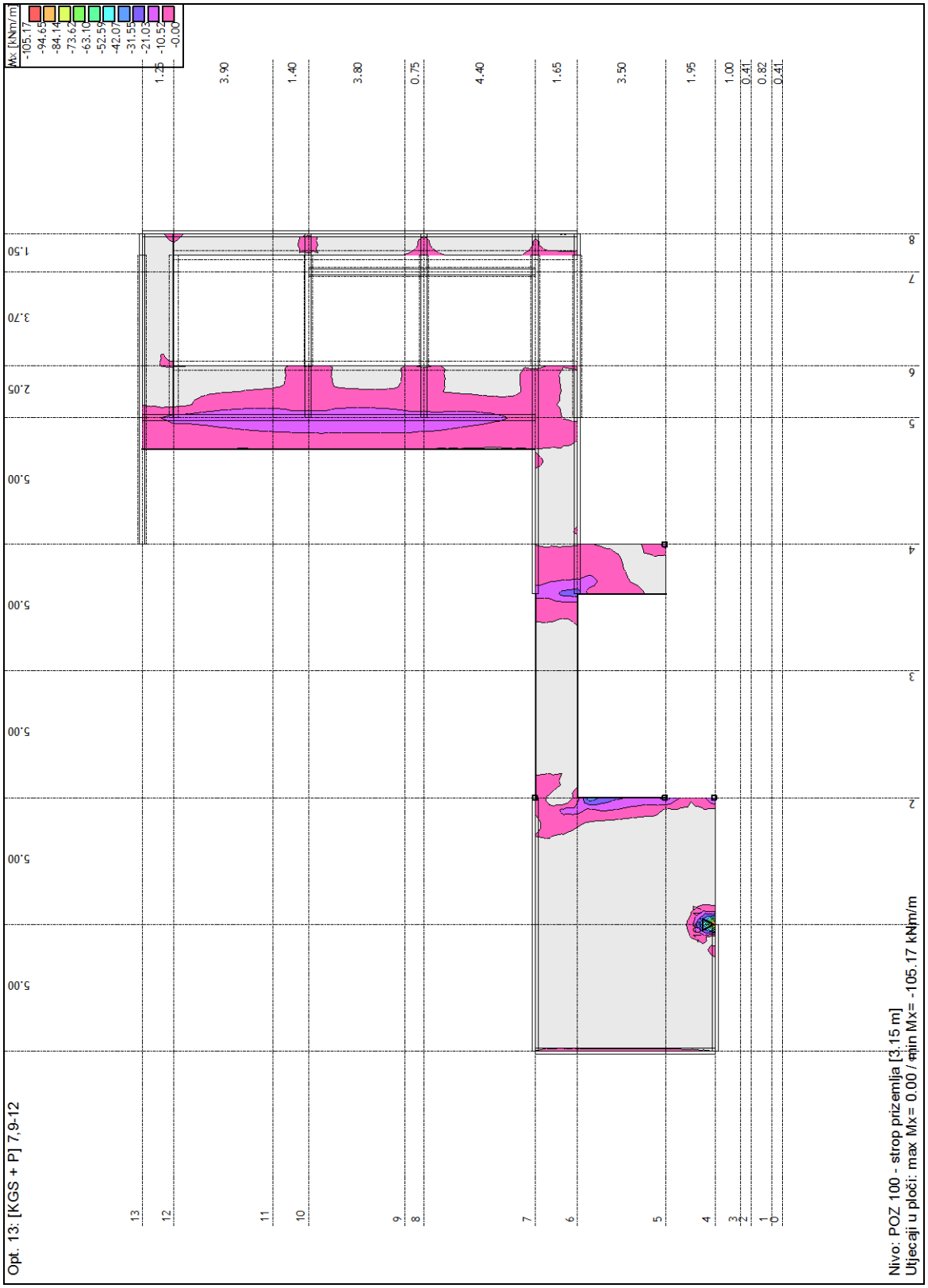
Armatura	Površina A_{s1}	Moment nosivosti betona $M_{Rd,c}$	Moment nosivosti armature $M_{Rd,s}$	Postotak armature
	[cm^2/m']	[kNm/m']	[kNm/m']	%
Q188	1,88	91,90	13,04	0,09
Q196	1,96	91,90	13,60	0,10
Q257	2,57	91,90	17,83	0,13
Q283	2,83	91,90	19,63	0,14
Q335	3,35	91,90	23,24	0,17
Q385	3,85	91,90	26,71	0,19
Q503	5,03	91,90	34,89	0,25

Odabrana armatura za pojedine ploče (pozicije) i na pojedinim mjestima naznačena je u tehničkom opisu. Zbog preraspodjele kod dugotrajnih efekata armatura u polju je uvijek birana veća od izračunate, a armatura na ležajevima u skladu s izračunatom.

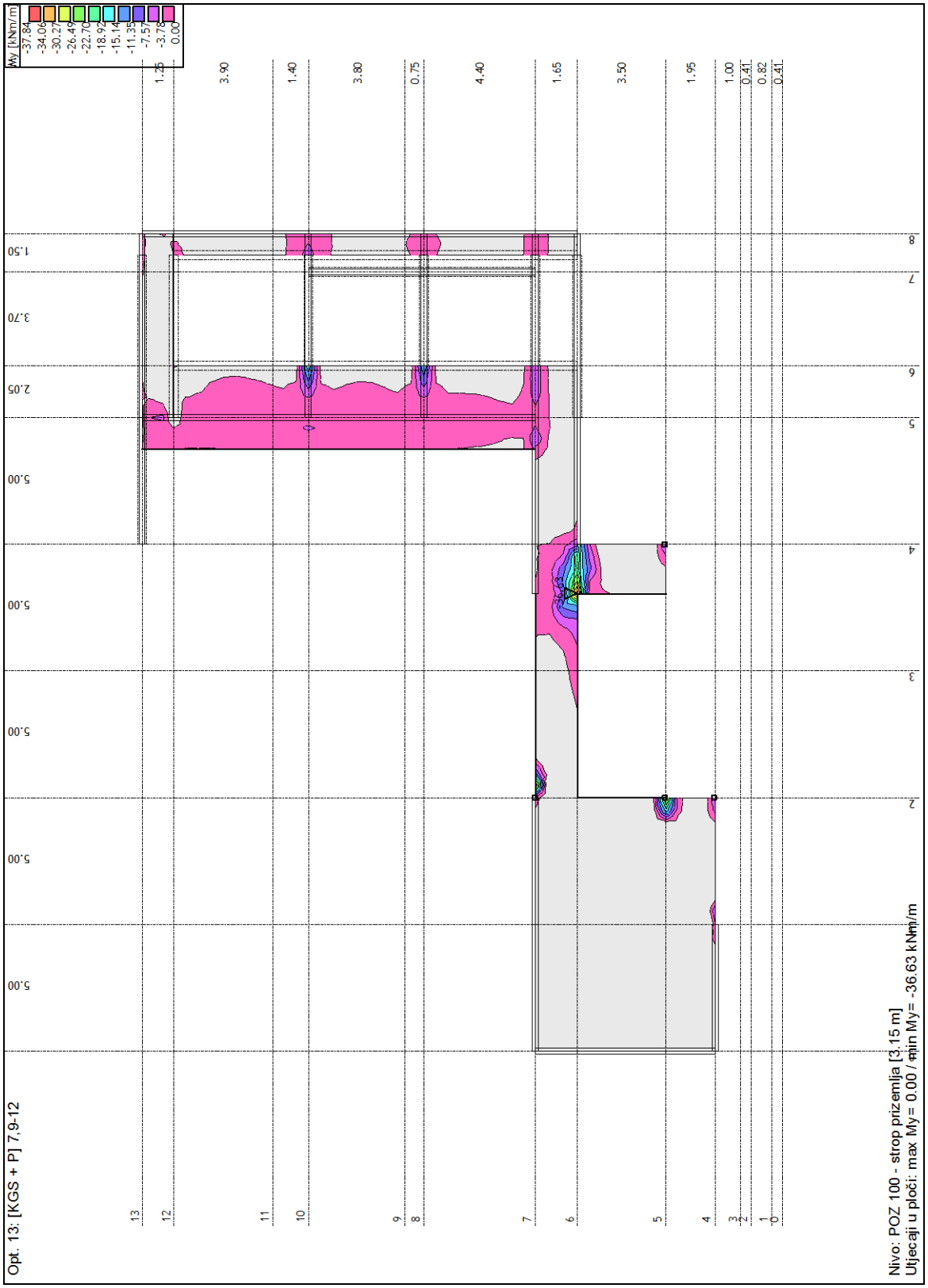
POZ P100

KGS


Mx [kNm/m]
0.00
4.91
9.83
14.74
19.65
24.57
29.48
34.39
39.30
44.22
49.13
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
49.12
Opt. 13: [KGS + P] 7,9-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u pločí: max Mx= 49.12 €min Mx= 0.00 kNm/m

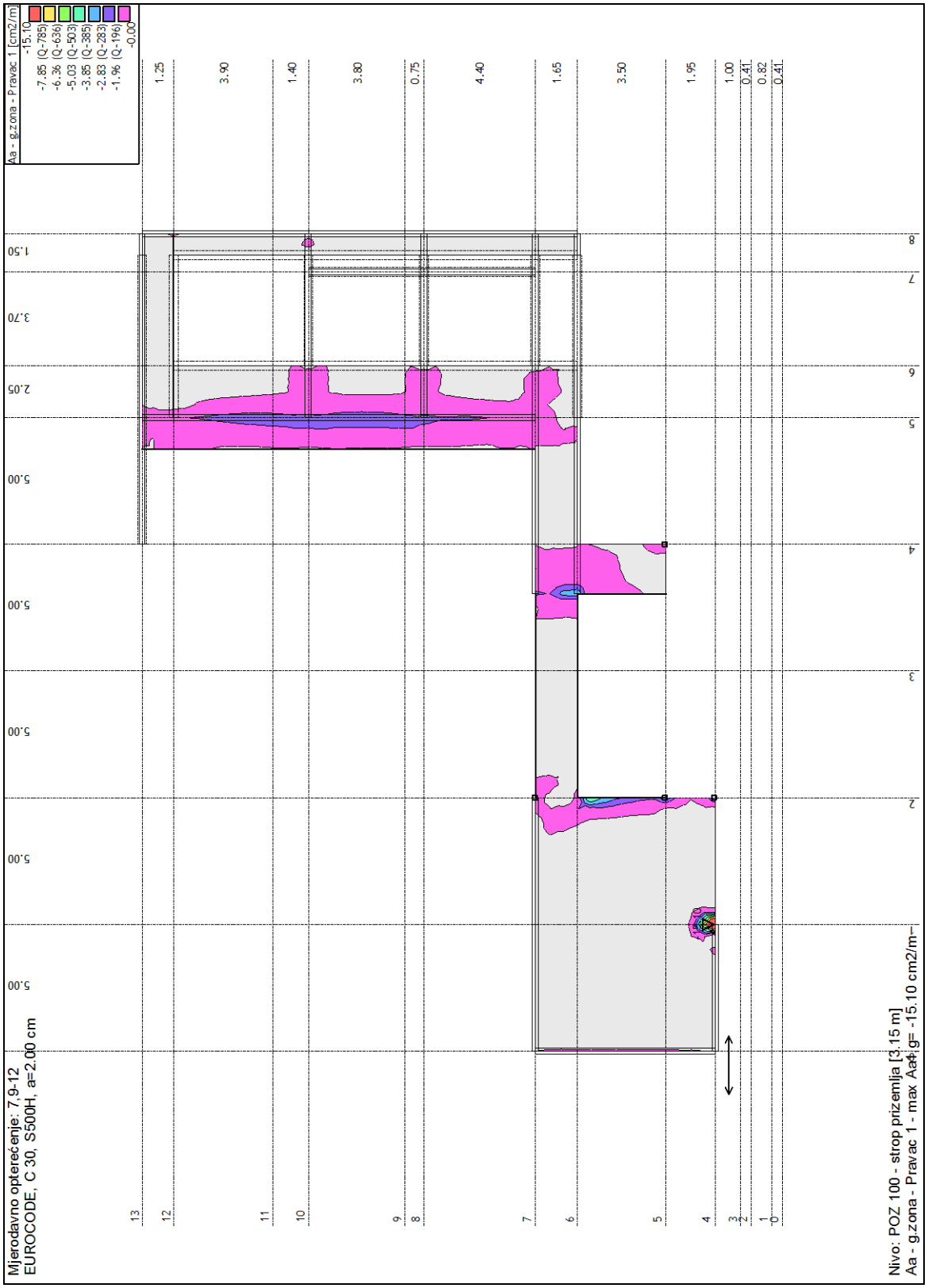

Mx [kNm/m]
-105.17
-94.65
-84.14
-73.62
-63.10
-52.59
-42.07
-31.55
-21.03
-10.52
-0.00
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 13: [KGS + P] 7,9-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u ploči: max Mx= 0.00 / min Mx= -105.17 kNm/m

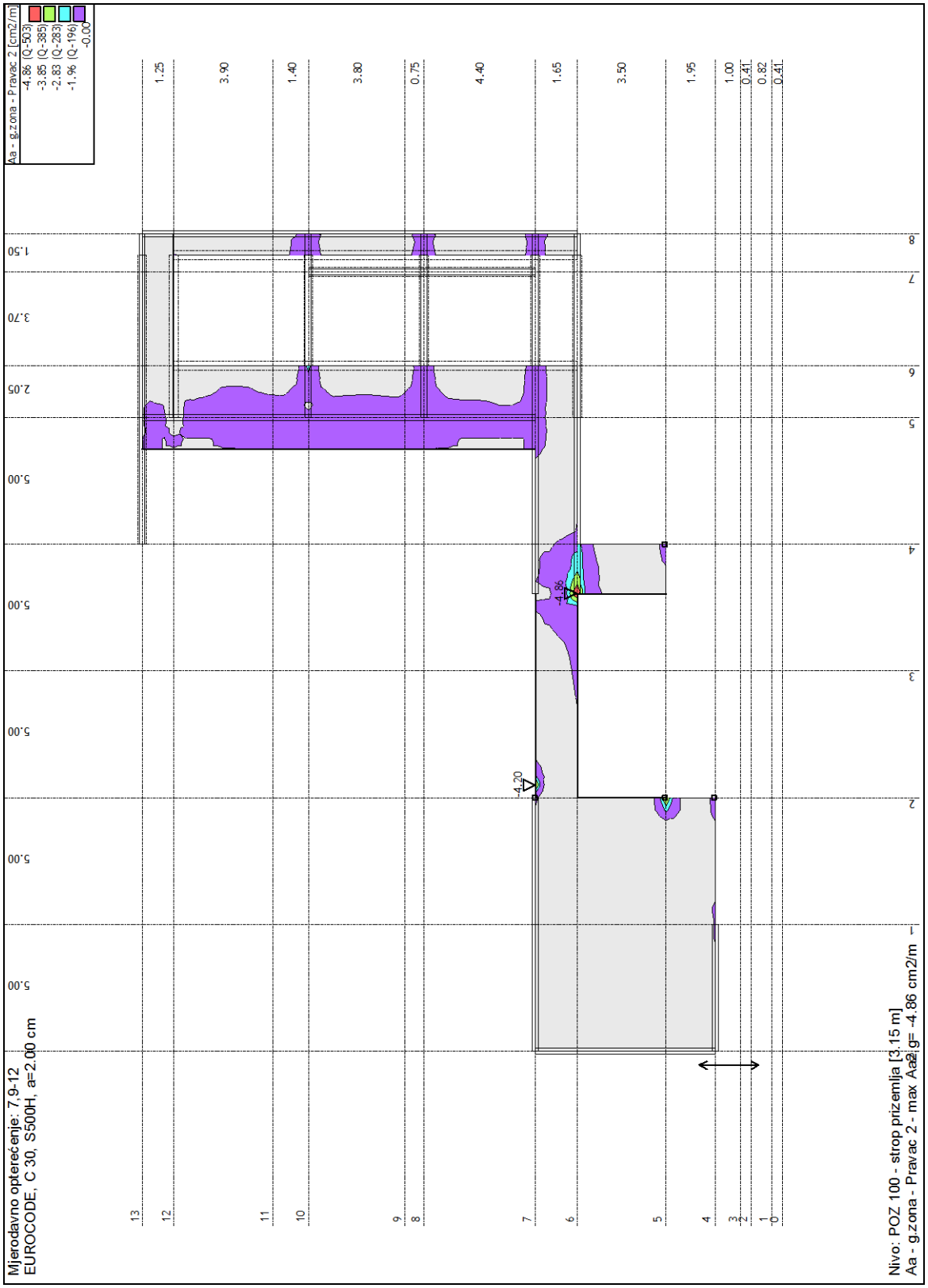

My [kNm/m]
0.00
9.72
19.44
29.16
38.88
48.59
58.31
68.03
77.75
87.47
97.19
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 13: [KGS + P] 7,9-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u ploči: max My= 97.19 ∠min My= 0.00 kNm/m


My [kNm/m]
-37.84
-34.06
-30.27
-26.49
-22.70
-18.92
-15.14
-11.35
-7.57
-3.78
0.00
Opt. 13: [KGS + P] 7,9-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u ploči: max My= 0.00 / min My= -36.63 kNm/m

Potrebna armatura


Aa - d.zona - Pravac 2 [cm2/m]
0.00
1.96 (Q-196)
2.83 (Q-283)
3.85 (Q-385)
5.03 (Q-503)
6.36 (Q-636)
7.85 (Q-785)
13.80
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Mjerodavno opterećenje: 7.9-12
EUROCODE, C 30, S500H, a=2.00 cm
Nivo: POZ 100 - strop prizemlja [3.15 m]
Aa - d.zona - Pravac 2 - max Aa2 d= 13.80 cm2/m


Aa - g.zona - Pravac 1 [cm2/m]
-15.10
-7.85 (Q:-785)
-6.36 (Q:-636)
-5.03 (Q:-503)
-3.85 (Q:-385)
-2.83 (Q:-283)
-1.96 (Q:-196)
-0.00
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Mjerodavno opterećenje: 7.9-12
EUROCODE, C 30, S500H, a=2.00 cm
Nivo: POZ 100 - strop prizemlja [3.15 m]
Aa - g.zona - Pravac 1 - max Aa,g= -15.10 cm2/m

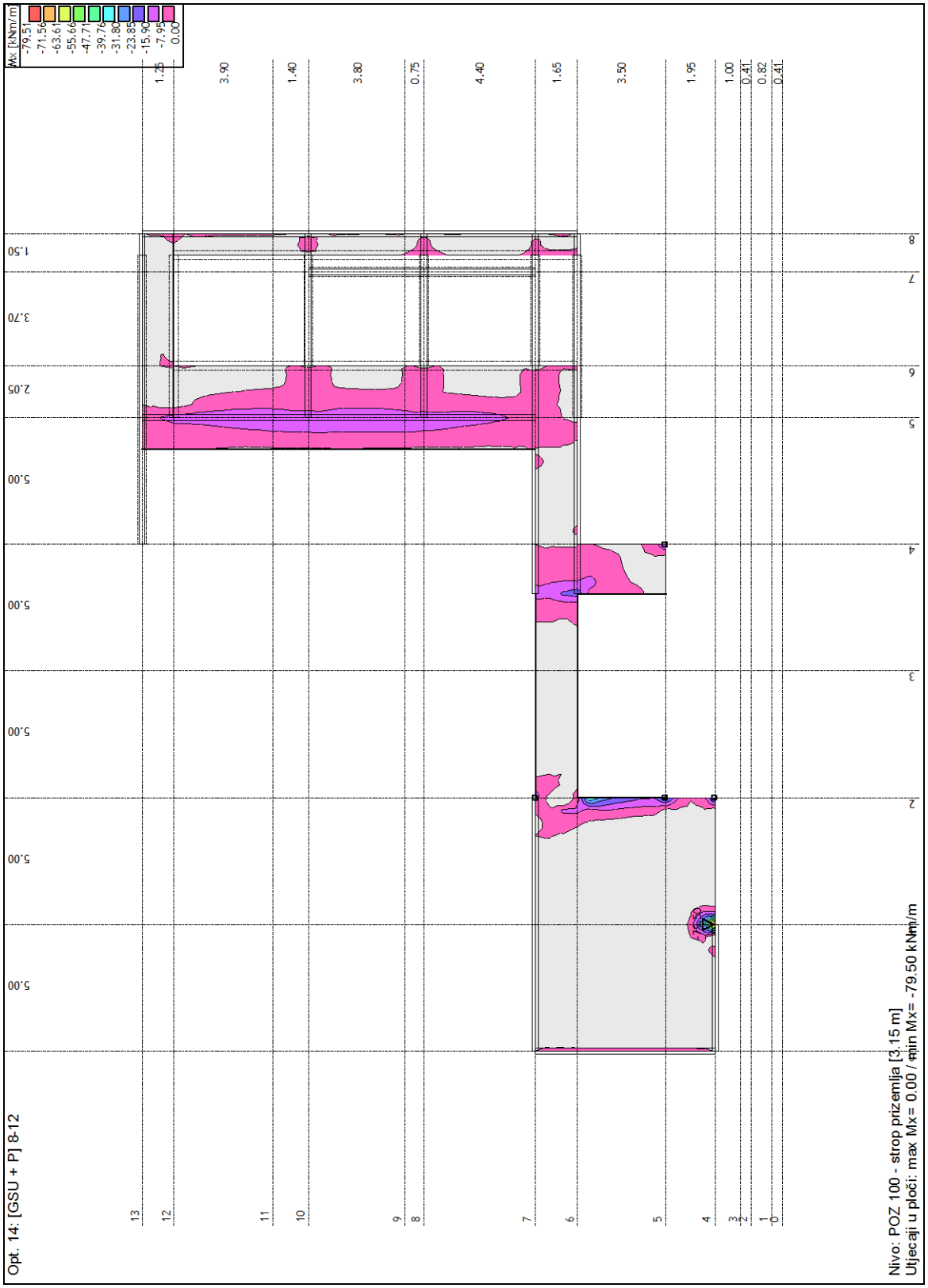


Odabrana armatura

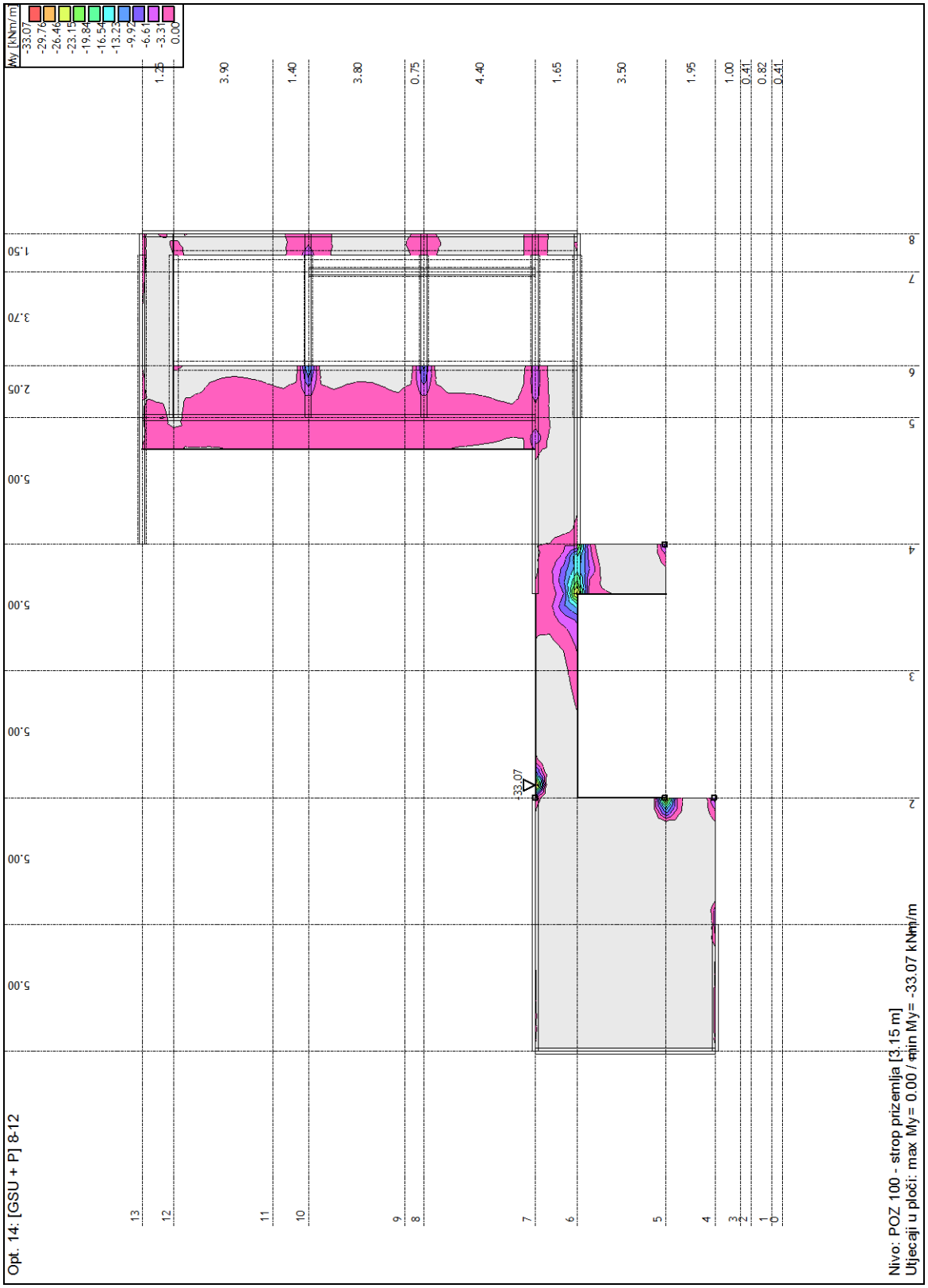
Monolitnu armiranobetonsku ploču u polju x1-x3/y1-y3 armirati u donjoj zoni mrežama Q785 te na mjestima najvećih momenata u oba smjera ojačati šipkama Ø10/30, a ostala polja armirati mrežama Q385. Gornju zonu preko zidova armirati mrežama Q385, a ostalo mrežama Q283. Ploču i zidove te grede po rubu povezali U-vilicama Ø8/15, a spoj ojačati uzdužnim šipkama Ø12. Materijal izvedbe je beton C30/37 i armatura B500.

GSU


Mx [kNm/m]
0.00
3.48
6.97
10.46
13.94
17.43
20.91
24.40
27.88
31.37
34.85
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
34.84
Opt. 14: [GSU + P] 8-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u ploči: max Mx= 34.84 ∕ min Mx= 0.00 kNm/m


Mx [kNm/m]
-79.51
-71.56
-63.61
-55.66
-47.71
-39.76
-31.80
-23.85
-15.90
-7.95
0.00
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
Opt. 14: [GSU + P] 8-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u ploči: max Mx= 0.00 / min Mx= -79.50 kNm/m


My [kNm/m]
0.00
7.33
14.67
22.00
29.34
36.67
44.00
51.34
58.67
66.01
73.34
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
Opt. 14: [GSU + P] 8-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u ploči: max My= 73.33 /min My= 0.00 kNm/m


My [kNm/m]
-33.07
-29.76
-26.46
-23.15
-19.84
-16.54
-13.23
-9.92
-6.61
-3.31
0.00
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
33.07
Opt. 14: [GSU + P] 8-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u ploči: max My= 0.00 / min My= -33.07 kNm/m

Pukotine

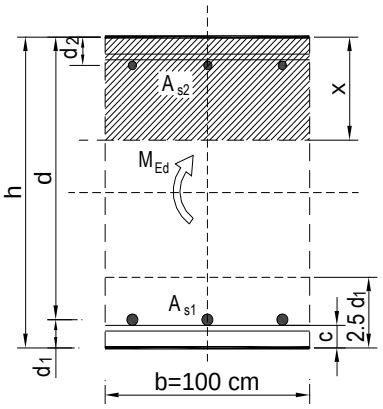
Granična vrijednost širine pukotine: $w_g = 0.3\,mm$ (EC-2)

Dio ploče između osiju x1 i x3 te y1 i y3

x-smjer

b =	100,0	cm	d =	16,0	cm	h =	20,0	cm
f_{ck} =	30,0	MN/m²	f_{ctm} =	2,90	MN/m²	w_g =	0,30	mm
A_{s1} =	7,85	cm²	A_{s2} =	0,00	cm²	$d_1 = d_2$ =	4,0	cm
E_s =	200,00	GN/m²	E_{cm} =	32,80	GN/m²	$\alpha_e = E_s/E_{cm}$ =	6,10	
M_{Ed} =	31,4	kNm	k_t =	0,40				
σ_s =	269,06	MN/m²						
x =	3,46	cm	$\rho_{p,eff}$ =	0,0079				
$(\varepsilon_{sm}-\varepsilon_{cm})$ =	0,000572	<	$0.6\cdot\sigma_s/E_s$ =	0,000807				
Ø =	10,0	mm	c =	4,00	cm			
k_1 =	0,8		k_2 =	0,50				
k_3 =	3,4		k_4 =	0,43				
$s_{r,max}$ =	352,45	mm						

$w_k = s_{r,max}\cdot(\varepsilon_{sm}-\varepsilon_{cm})$ = 0,284 mm < w_g



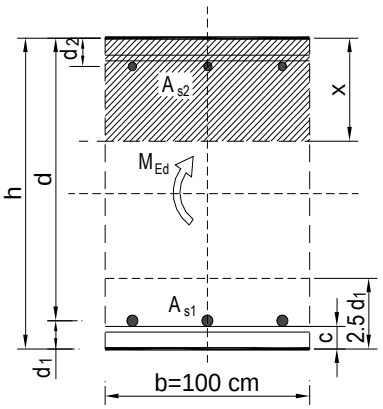
Na mjestima gdje su momenti manji od 31,37 kNm armatura je:

u polju: Q785 7,85 cm²

x-smjer

b =	100,0	cm	d =	16,0	cm	h =	20,0	cm
f_{ck} =	30,0	MN/m²	f_{ctm} =	2,90	MN/m²	w_g =	0,30	mm
A_{s1} =	10,47	cm²	A_{s2} =	0,00	cm²	$d_1 = d_2$ =	4,0	cm
E_s =	200,00	GN/m²	E_{cm} =	32,80	GN/m²	$\alpha_e = E_s/E_{cm}$ =	6,10	
M_{Ed} =	34,8	kNm	k_t =	0,40				
σ_s =	226,46	MN/m²						
x =	3,93	cm	$\rho_{p,eff}$ =	0,0105				
$(\varepsilon_{sm}-\varepsilon_{cm})$ =	0,000544	<	$0.6\cdot\sigma_s/E_s$ =	0,000679				
Ø =	10,0	mm	c =	4,00	cm			
k_1 =	0,8		k_2 =	0,50				
k_3 =	3,4		k_4 =	0,43				
$s_{r,max}$ =	298,34	mm						

$w_k = s_{r,max}\cdot(\varepsilon_{sm}-\varepsilon_{cm})$ = 0,203 mm < w_g



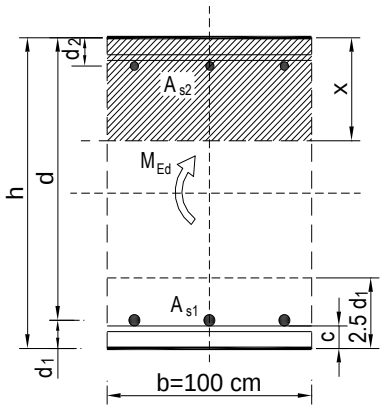
Na mjestima najvećih momenata armatura je:

uz rub: Q785 + Ø10/30 7,85 + 0,79 × 100/30 = 7,85 + 2,63 = 10,48 cm²

y-smjer

b =	100,0	cm	d =	16,0	cm	h =	20,0	cm
f_{ck} =	30,0	MN/m^2	f_{ctm} =	2,90	MN/m^2	w_g =	0,30	mm
A_{s1} =	10,47	cm^2	A_{s2} =	0,00	cm^2	$d_1 = d_2$ =	4,0	cm
E_s =	200,00	GN/m^2	E_{cm} =	32,80	GN/m^2	$\alpha_e = E_s/E_{cm}$ =	6,10	
M_{Ed} =	45,4	kNm	k_t =	0,40				
σ_s =	295,23	MN/m^2						
x =	3,93	cm	$\rho_{p,eff}$ =	0,0105				
$(\varepsilon_{sm}-\varepsilon_{cm})$ =	0,000888	>	$0.6\cdot\sigma_s/E_s$ =	0,000886				
Ø =	10,0	mm	c =	4,00	cm			
k_1 =	0,8		k_2 =	0,50				
k_3 =	3,4		k_4 =	0,43				
$s_{r,max}$ =	298,34	mm						

$w_k = s_{r,max} \cdot (\varepsilon_{sm}-\varepsilon_{cm})$ = 0,265 mm < w_g



Na mjestima najvećih momenata armatura je:

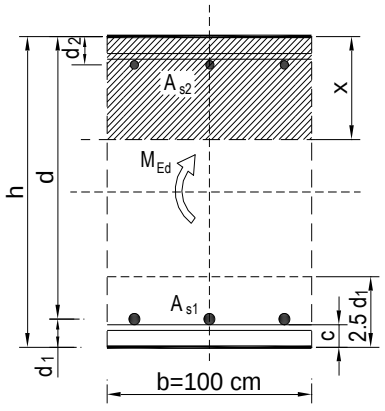
u polju: Q785 + Ø10/30 7,85 + 0,79 × 100/30 = 7,85 + 2,63 = 10,48 cm^2

Pukotine zadovoljavaju.

y-smjer

b =	100,0	cm	d =	16,0	cm	h =	20,0	cm
f_{ck} =	30,0	MN/m^2	f_{ctm} =	2,90	MN/m^2	w_g =	0,30	mm
A_{s1} =	7,85	cm^2	A_{s2} =	0,00	cm^2	$d_1 = d_2$ =	4,0	cm
E_s =	200,00	GN/m^2	E_{cm} =	32,80	GN/m^2	$\alpha_e = E_s/E_{cm}$ =	6,10	
M_{Ed} =	29,3	kNm	k_t =	0,40				
σ_s =	251,65	MN/m^2						
x =	3,46	cm	$\rho_{p,eff}$ =	0,0079				
$(\varepsilon_{sm}-\varepsilon_{cm})$ =	0,000485	<	$0.6\cdot\sigma_s/E_s$ =	0,000755				
Ø =	10,0	mm	c =	4,00	cm			
k_1 =	0,8		k_2 =	0,50				
k_3 =	3,4		k_4 =	0,43				
$s_{r,max}$ =	352,45	mm						

$w_k = s_{r,max} \cdot (\varepsilon_{sm}-\varepsilon_{cm})$ = 0,266 mm < w_g

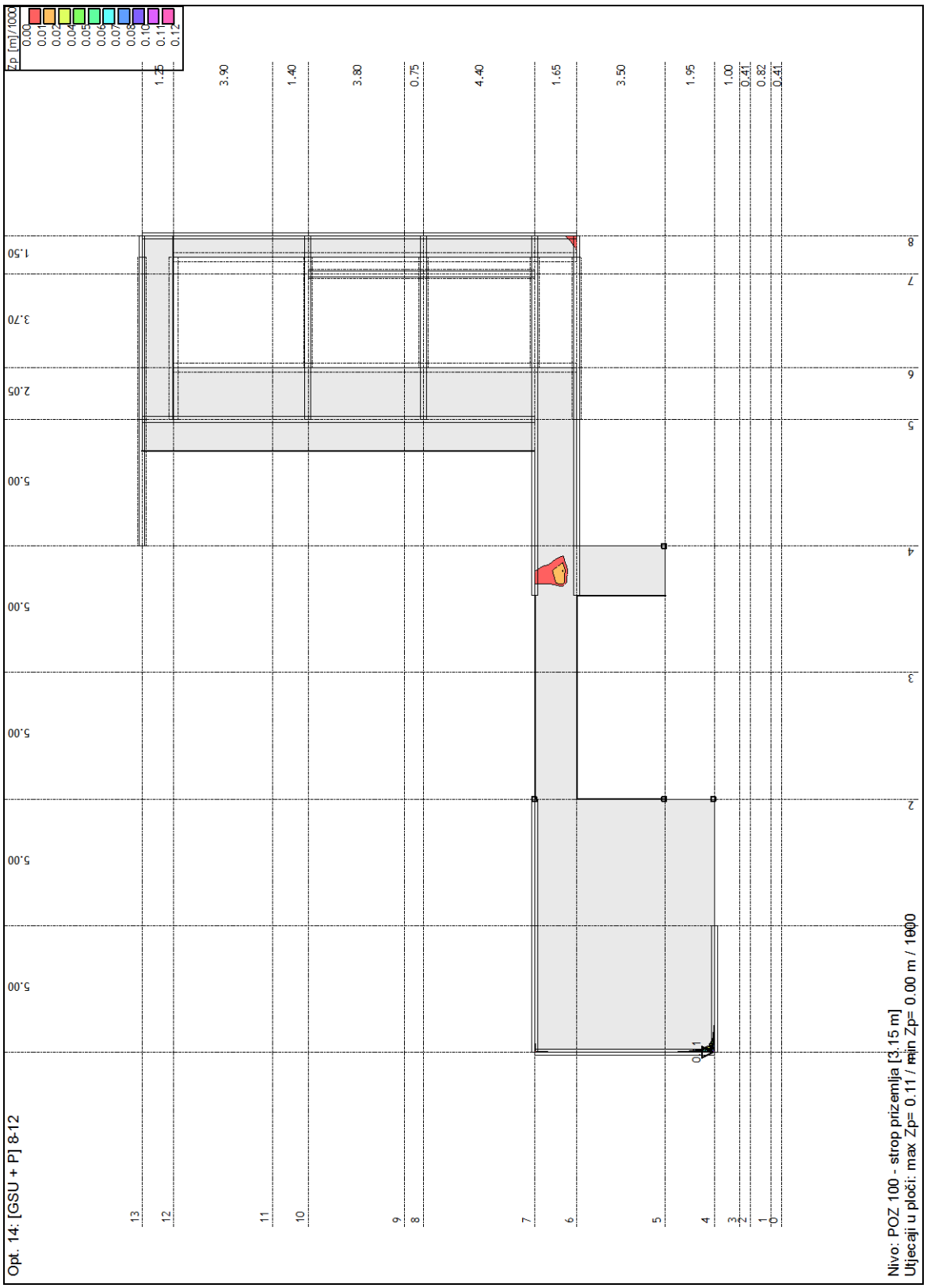


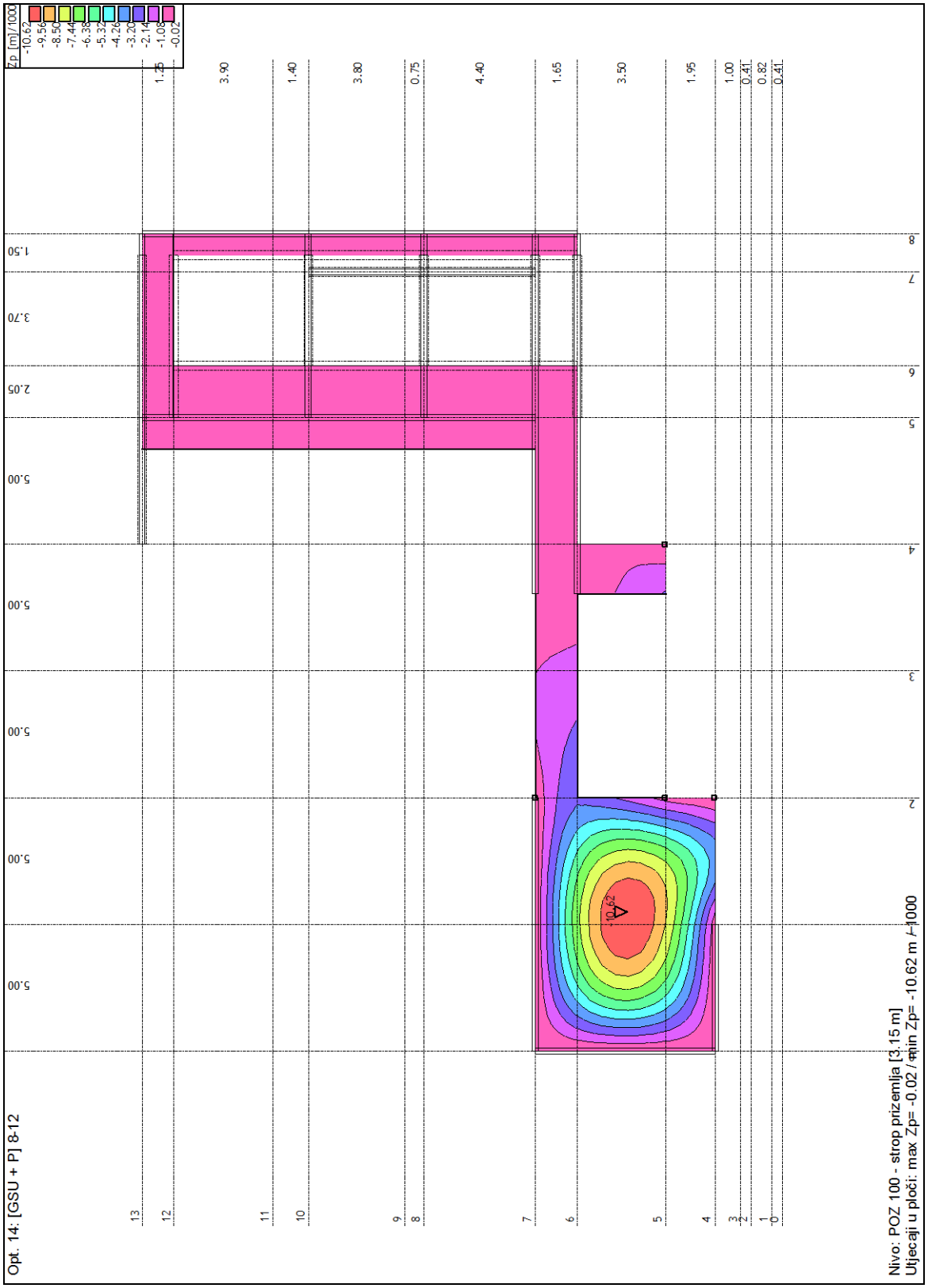
Na mjestima gdje su momenti manji od 29,34 kNm armatura je:

u polju: Q785 7,85 cm^2

Pukotine zadovoljavaju.

Progibi


Zp [m]/1000
0.00
0.01
0.02
0.04
0.05
0.06
0.07
0.08
0.10
0.11
0.12
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 14: [GSU + P] 8-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u ploči: max Zp= 0.11 / min Zp= 0.00 m / 1000


Zp [m]/1000
-10.62
-9.56
-8.50
-7.44
-6.38
-5.32
-4.26
-3.20
-2.14
-1.08
-0.02
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
-10.62
Opt. 14: [GSU + P] 8-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u pločí: max Zp= -0.02 / min Zp= -10.62 m /1000

Polje ploče između osiju x1 i x3 te y1 i y3

y-smjer

Granična vrijednost progiba: $v_{lim} = L / 250$

Duljina raspona: $L = 710$ cm

$v_{lim} = L / 250 = 710 / 250 = 2,84$ cm

Kratkotrajni progib: $v_{t0} = zp = 10,62$ mm

Dugotrajni progib: $v_{t\infty} = \varphi(\infty) \times K_r \times v_{t0}$

$\varphi(\infty) = 2,4$ - konačni koeficijent puzanja

$K_r \leq 0,85$

Ukupni progib: $v_{fin} = v_{t0} + v_{t\infty}$

$v_{fin} = v_{t0} + \varphi(\infty) \times K_r \times v_{t0} = (1+2,4 \times 0,85) \times v_{t0} = 3,04 \times 10,62 = 32,28$ mm $= 3,28$ cm

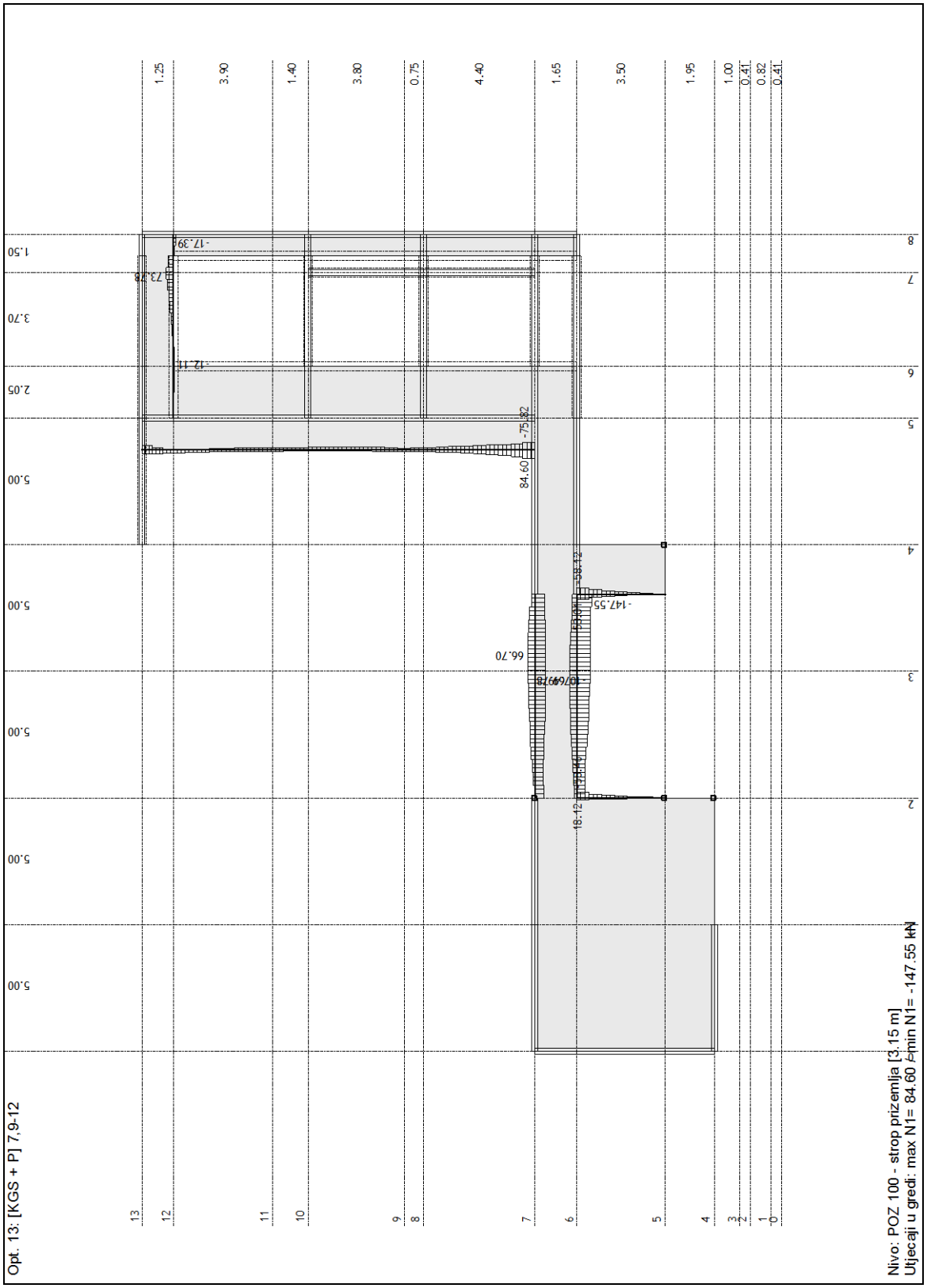
$v_{fin} = 3,28$ cm > $v_{dop} = 2,84$ cm

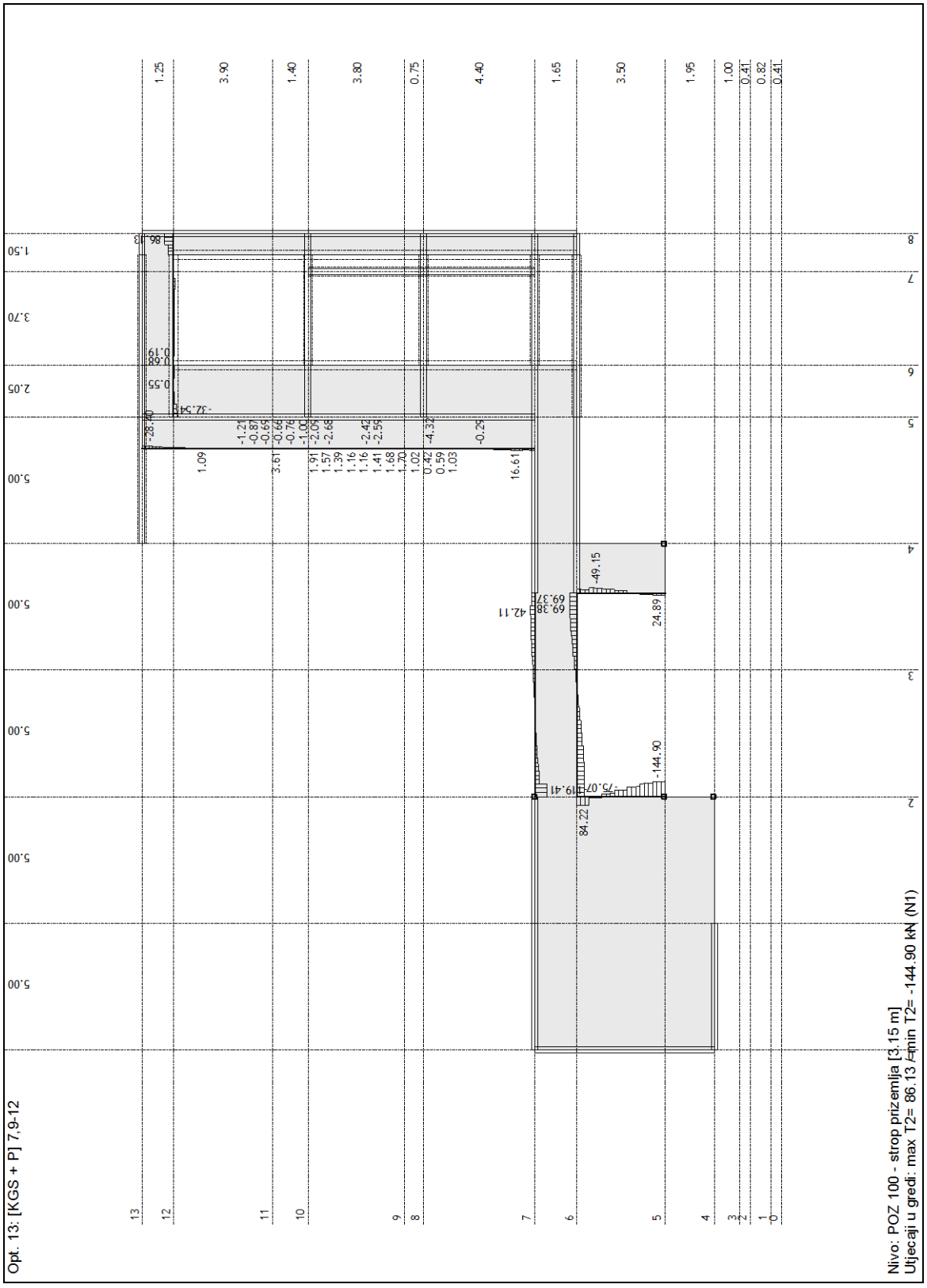
Sredinu polja izvesti s nadvišenjem 1 cm.

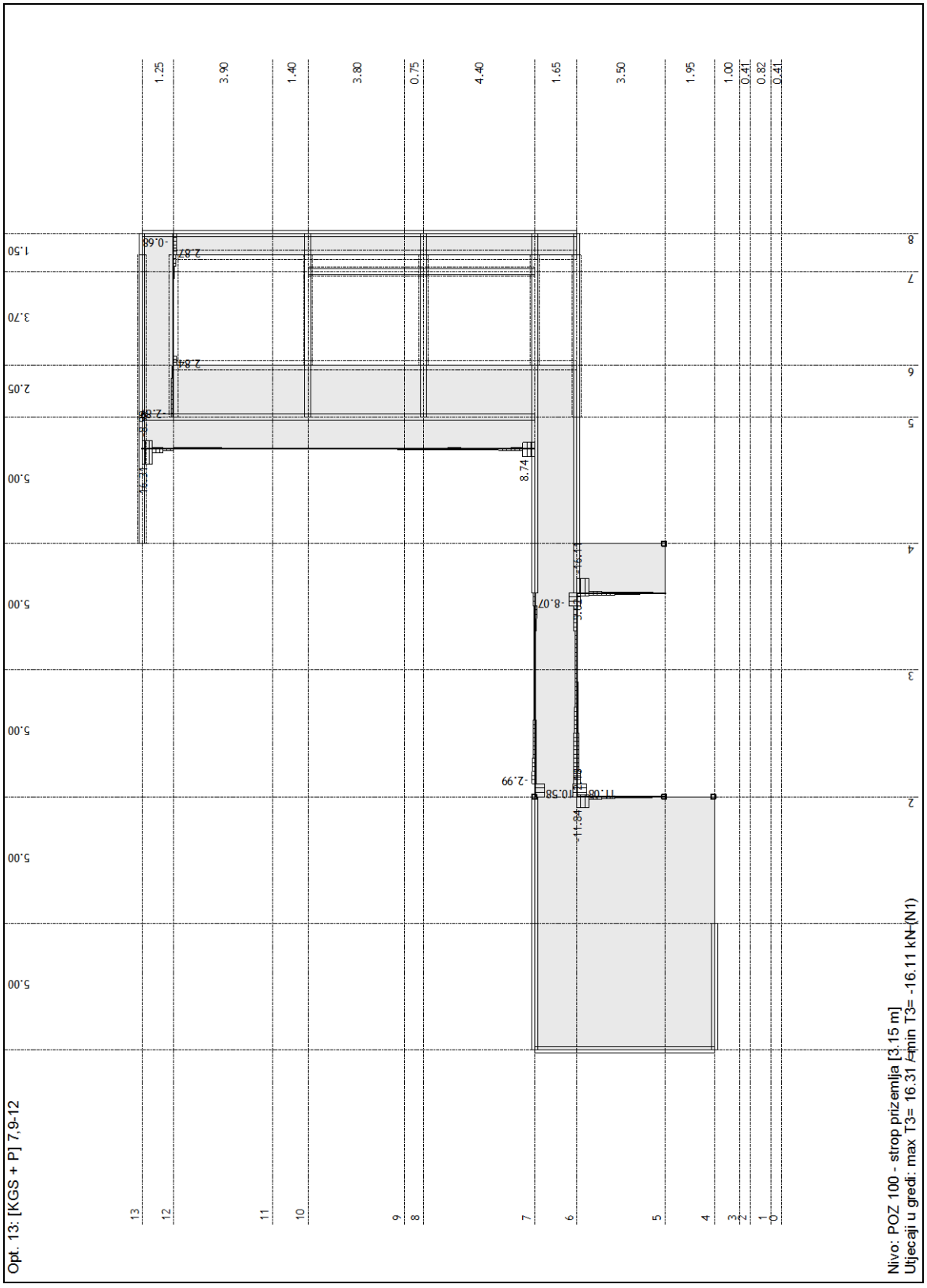
Progibi ostalih polja ploče zadovoljavaju.

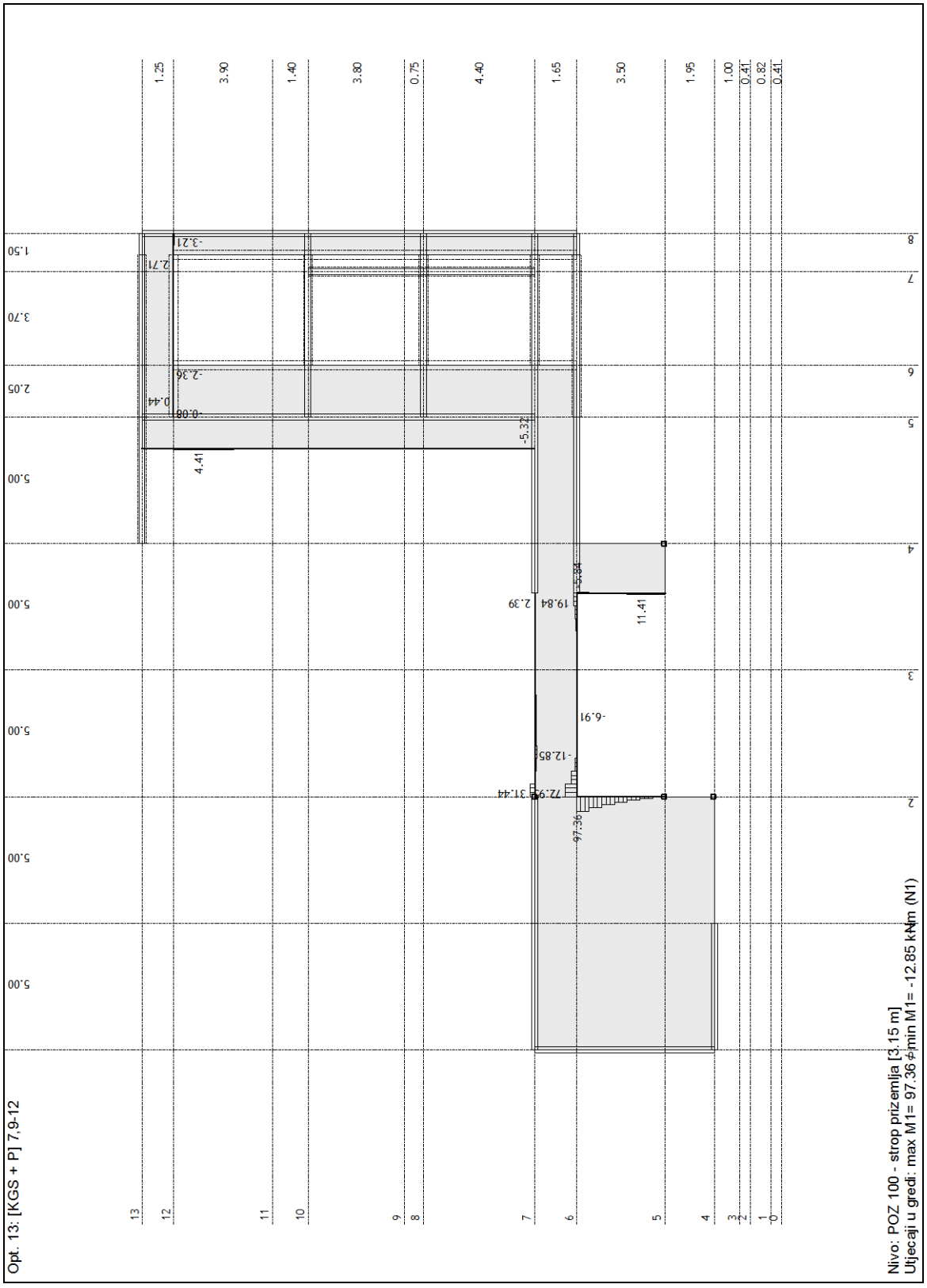
Grede 100

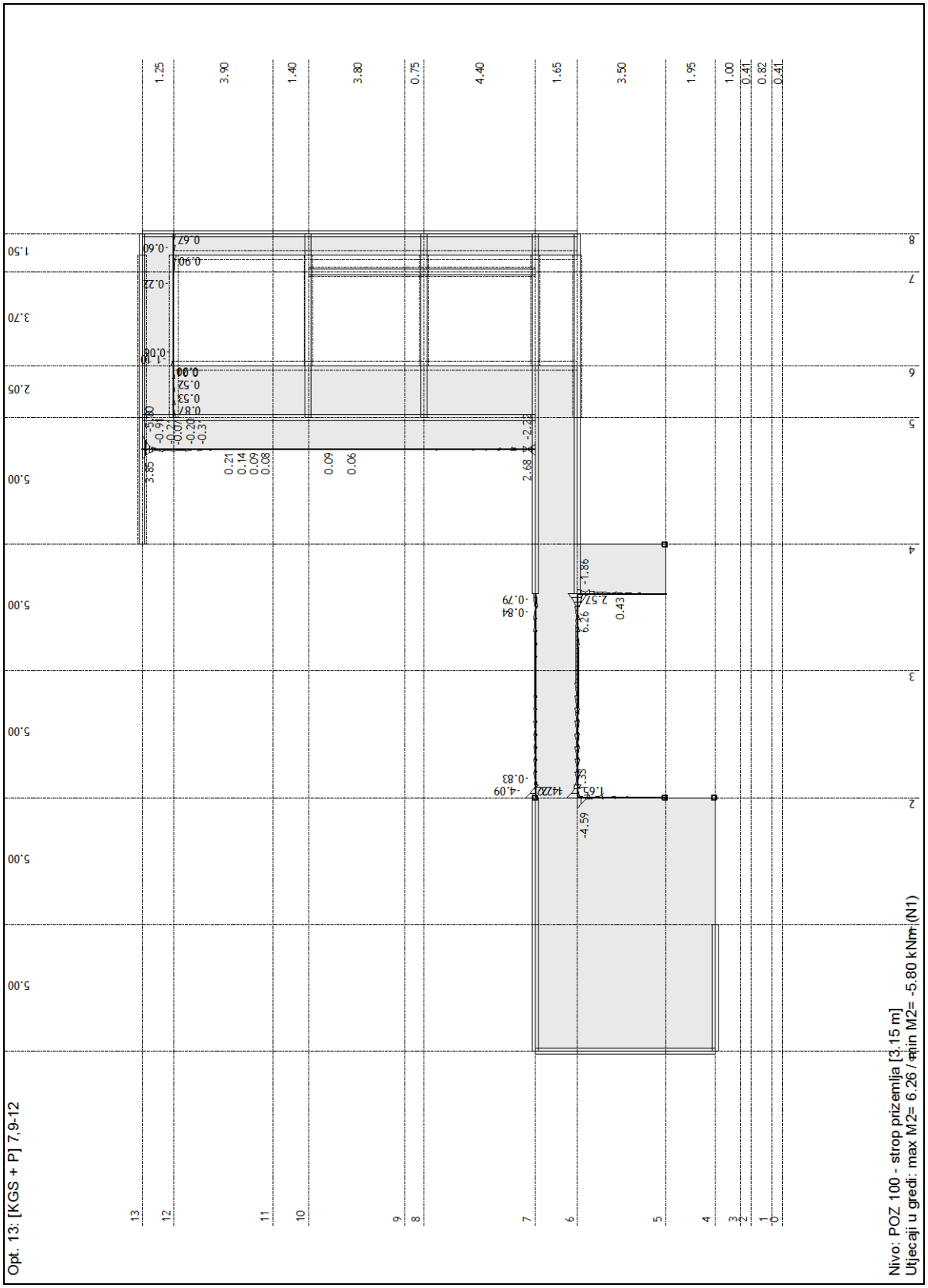
KGS

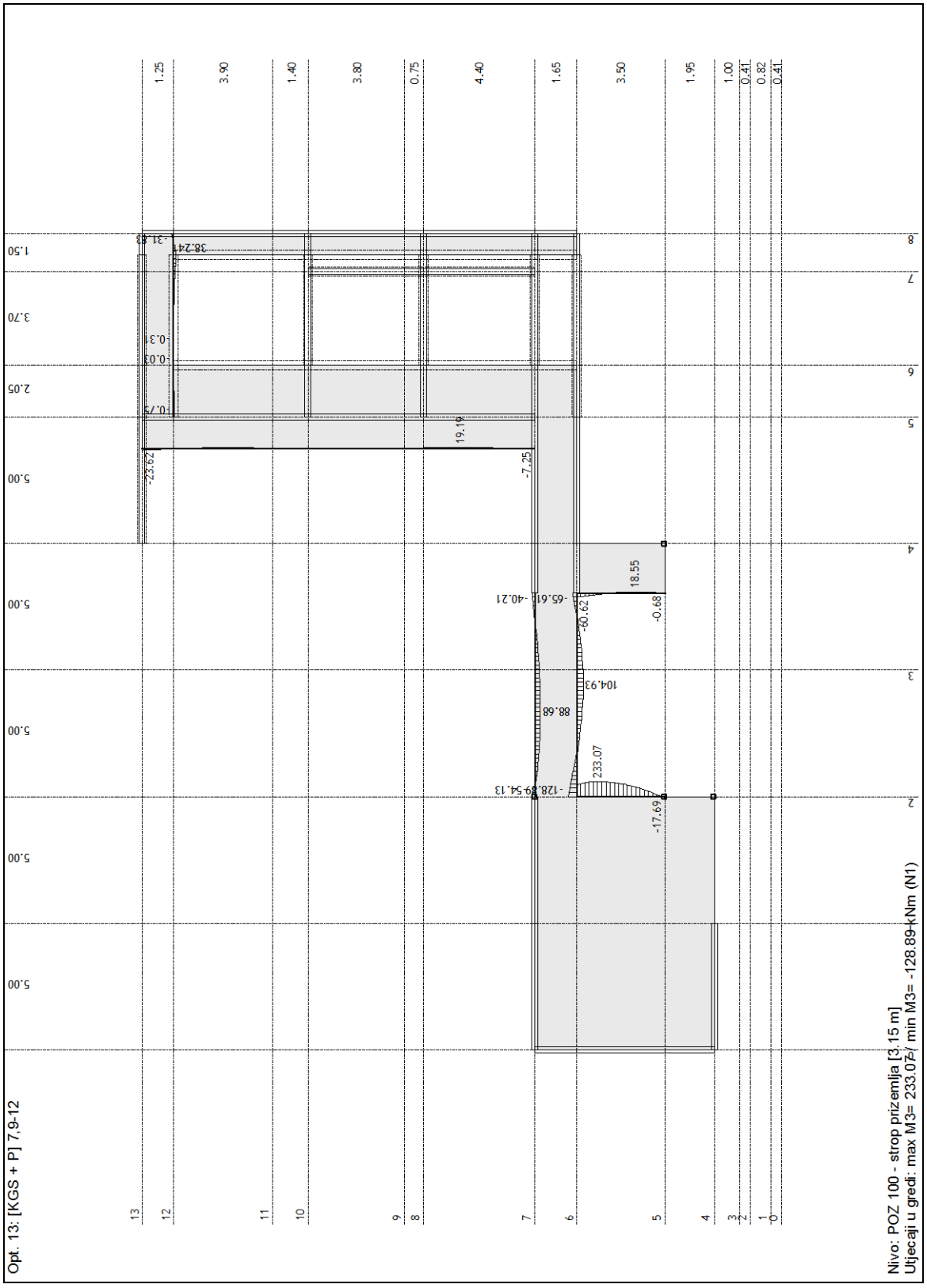



Opt. 13: [KGS + P] 7,9-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u gredi: max T2= 86.13 /min T2= -144.90 kN (N1)
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
-144.90
-49.15
24.89
42.11
84.22
16.61

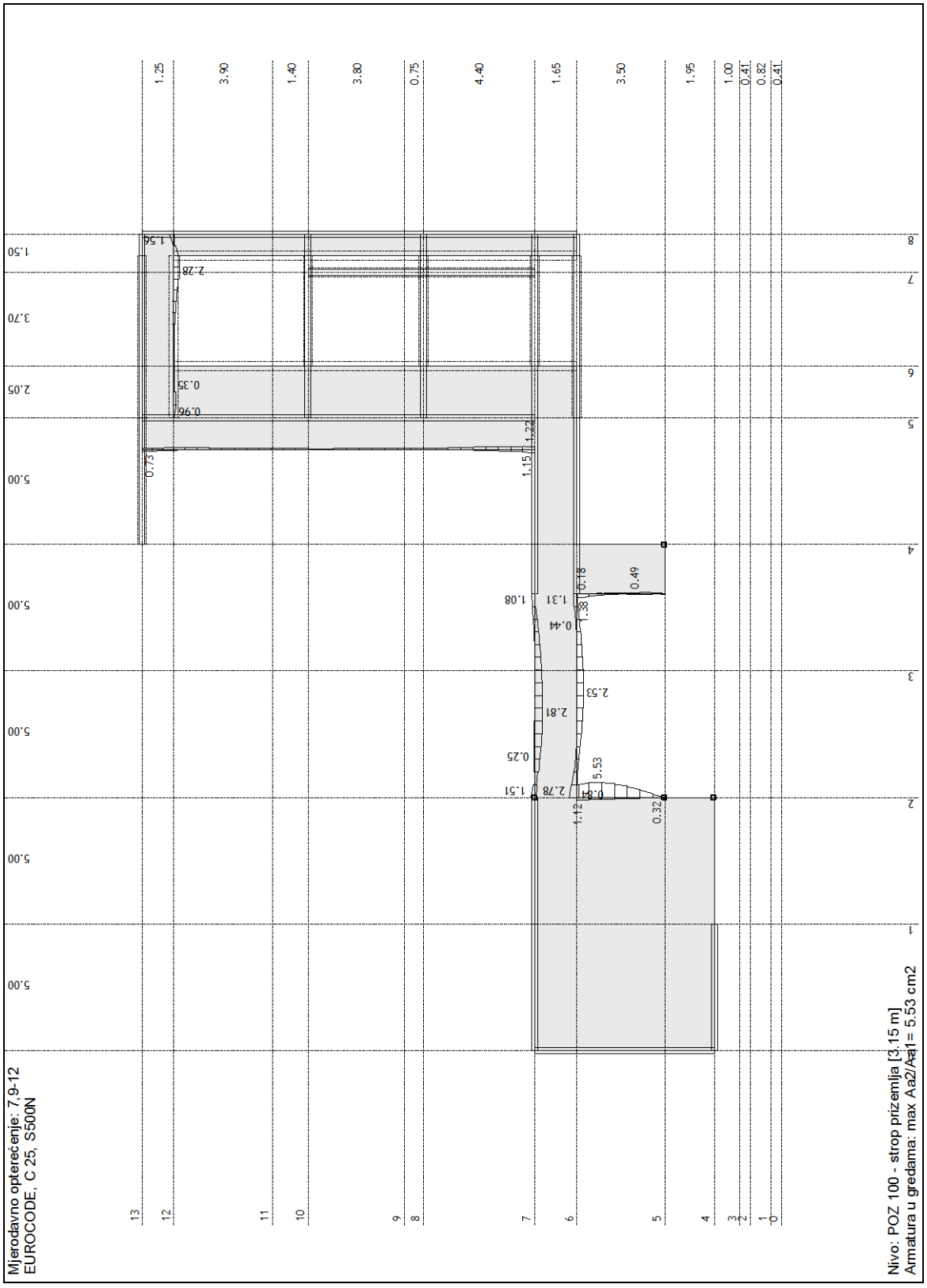

Opt. 13: [KGS + P] 7,9-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u gredi: max T3= 16.31 /-min T3= -16.11 kN (N1)

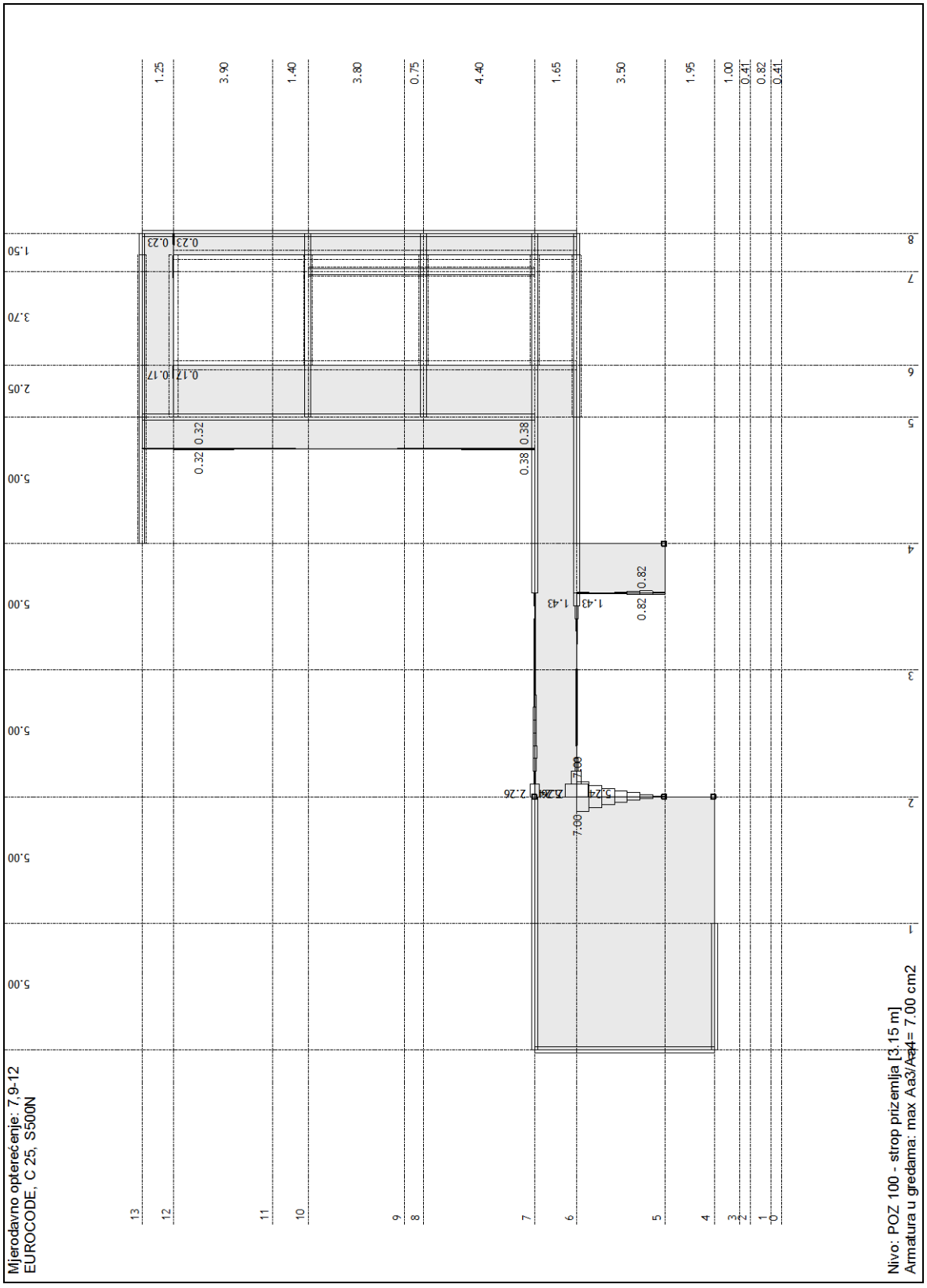

Opt. 13: [KGS + P] 7,9-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u gredi: max M1= 97.36 ₼min M1= -12.85 kNm (N1)

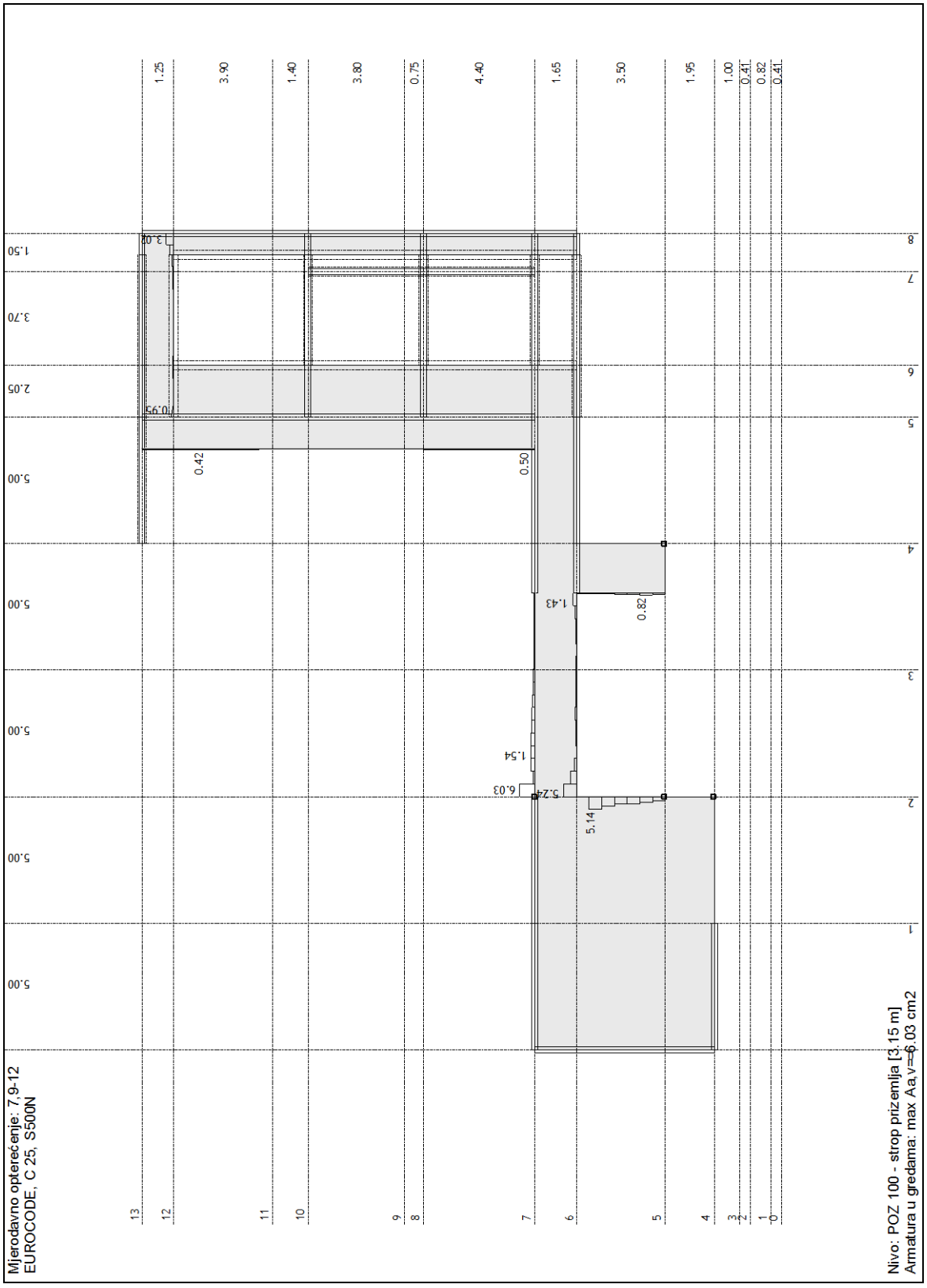

Opt. 13: [KGS + P] 7,9-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u gredi: max M2= 6.26 / min M2= -5.80 kNm (N1)


Opt. 13: [KGS + P] 7,9-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u gredi: max M3= 233.07 / min M3= -128.89 kNm (N1)
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
38.24
-31.83
19.19
-23.62
-7.25
18.55
-65.61
-40.21
-60.62
-0.68
104.93
88.68
233.07
-128.89
-54.13
-17.69

Potrebna armatura



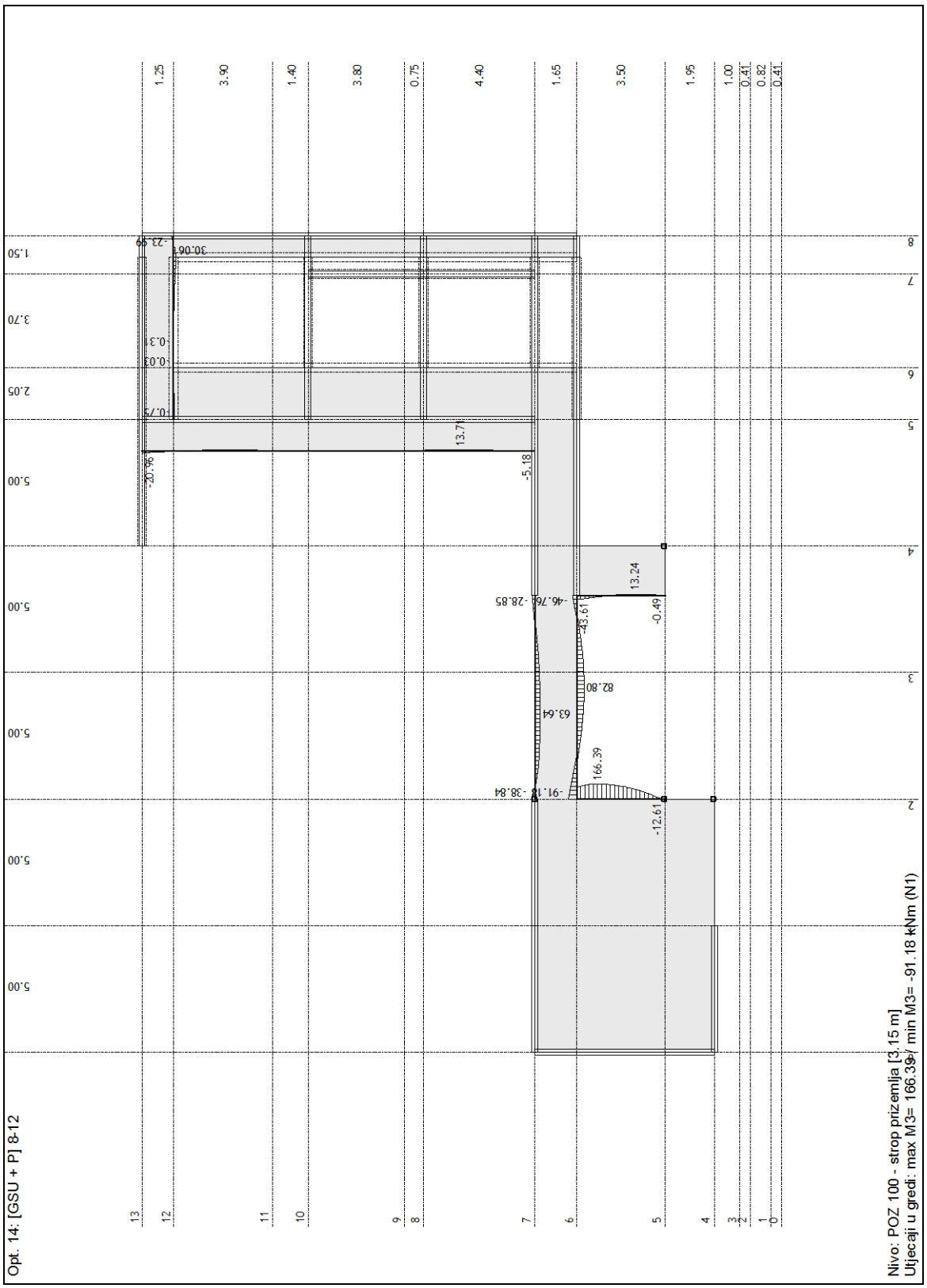

Mjerodavno opterećenje: 7,9-12
EUROCODE, C 25, S500N
Nivo: POZ 100 - strop prizemlja [3.15 m]
Armatura u gredama: max Aa3/Aa4= 7.00 cm2



Odabrana armatura

Grede armirati prema pozicijama šipkama Ø14 te vilicama Ø8/15. Materijal izvedbe je beton C30/37 i armatura B500.

GSU


Opt. 14: [GSU + P] 8-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u gredi: max M3= 166.39, min M3= -91.18 kNm (N1)

Pukotine

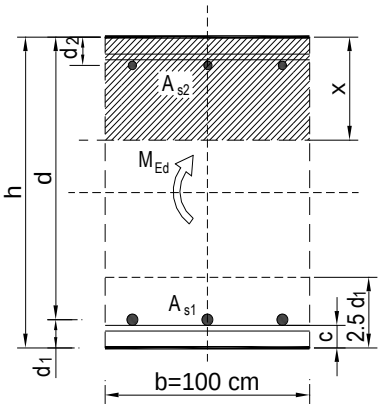
Granična vrijednost širine pukotine: $w_g = 0.3\,mm$ (EC-2)

Greda na osi x2'

x-smjer

b =	20,0	cm	d =	120,0	cm	h =	125,0	cm
f_{ck} =	30,0	MN/m^2	f_{ctm} =	2,90	MN/m^2	w_g =	0,30	mm
A_{s1} =	4,62	cm^2	A_{s2} =	0,00	cm^2	$d_1 = d_2$ =	5,0	cm
E_s =	200,00	GN/m^2	E_{cm} =	32,80	GN/m^2	$\alpha_e = E_s/E_{cm}$ =	6,10	
M_{Ed} =	82,8	kNm	k_t =	0,40				
σ_s =	156,83	MN/m^2						
x =	17,03	cm	$\rho_{p,eff}$ =	0,0185				
$(\varepsilon_{sm}-\varepsilon_{cm})$ =	0,000435	<	$0.6\cdot\sigma_s/E_s$ =	0,000470				
Ø =	14,0	mm	c =	5,00	cm			
k_1 =	0,8		k_2 =	0,50				
k_3 =	3,4		k_4 =	0,43				
$s_{r,max}$ =	298,84	mm						

$w_k = s_{r,max}\cdot(\varepsilon_{sm}-\varepsilon_{cm})$ = 0,141 mm < w_g



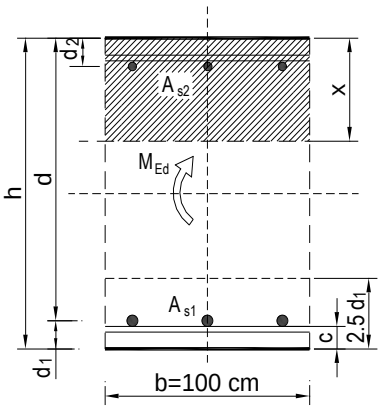
Na mjestima najvećih momenata armatura je:

u polju: 3 Ø14 4,62 cm^2

x-smjer

b =	20,0	cm	d =	120,0	cm	h =	125,0	cm
f_{ck} =	30,0	MN/m^2	f_{ctm} =	2,90	MN/m^2	w_g =	0,30	mm
A_{s1} =	4,62	cm^2	A_{s2} =	0,00	cm^2	$d_1 = d_2$ =	5,0	cm
E_s =	200,00	GN/m^2	E_{cm} =	32,80	GN/m^2	$\alpha_e = E_s/E_{cm}$ =	6,10	
M_{Ed} =	91,2	kNm	k_t =	0,40				
σ_s =	172,70	MN/m^2						
x =	17,03	cm	$\rho_{p,eff}$ =	0,0185				
$(\varepsilon_{sm}-\varepsilon_{cm})$ =	0,000515	<	$0.6\cdot\sigma_s/E_s$ =	0,000518				
Ø =	14,0	mm	c =	5,00	cm			
k_1 =	0,8		k_2 =	0,50				
k_3 =	3,4		k_4 =	0,43				
$s_{r,max}$ =	298,84	mm						

$w_k = s_{r,max}\cdot(\varepsilon_{sm}-\varepsilon_{cm})$ = 0,155 mm < w_g



Na mjestima najvećih momenata armatura je:

na zidu 3 Ø14 4,62 cm^2

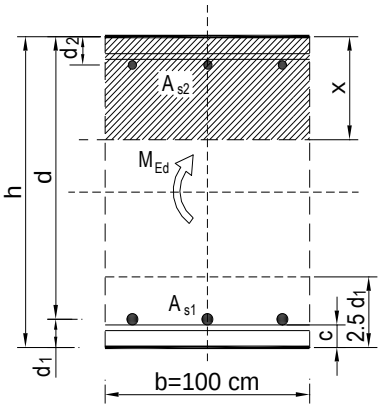
Pukotine zadovoljavaju.

Greda na osi y3

x-smjer

b =	20,0	cm	d =	120,0	cm	h =	125,0	cm
f_{ck} =	30,0	MN/m^2	f_{ctm} =	2,90	MN/m^2	w_g =	0,30	mm
A_{s1} =	6,16	cm^2	A_{s2} =	0,00	cm^2	$d_1 = d_2$ =	5,0	cm
E_s =	200,00	GN/m^2	E_{cm} =	32,80	GN/m^2	$\alpha_e = E_s/E_{cm}$ =	6,10	
M_{Ed} =	166,4	kNm	k_t =	0,40				
σ_s =	238,03	MN/m^2						
x =	19,43	cm	$\rho_{p,eff}$ =	0,0246				
$(\varepsilon_{sm}-\varepsilon_{cm})$ =	0,000920	>	$0.6\cdot\sigma_s/E_s$ =	0,000714				
Ø =	14,0	mm	c =	5,00	cm			
k_1 =	0,8		k_2 =	0,50				
k_3 =	3,4		k_4 =	0,43				
$s_{r,max}$ =	266,63	mm						

$w_k = s_{r,max}\cdot(\varepsilon_{sm}-\varepsilon_{cm})$ = 0,245 mm < w_g

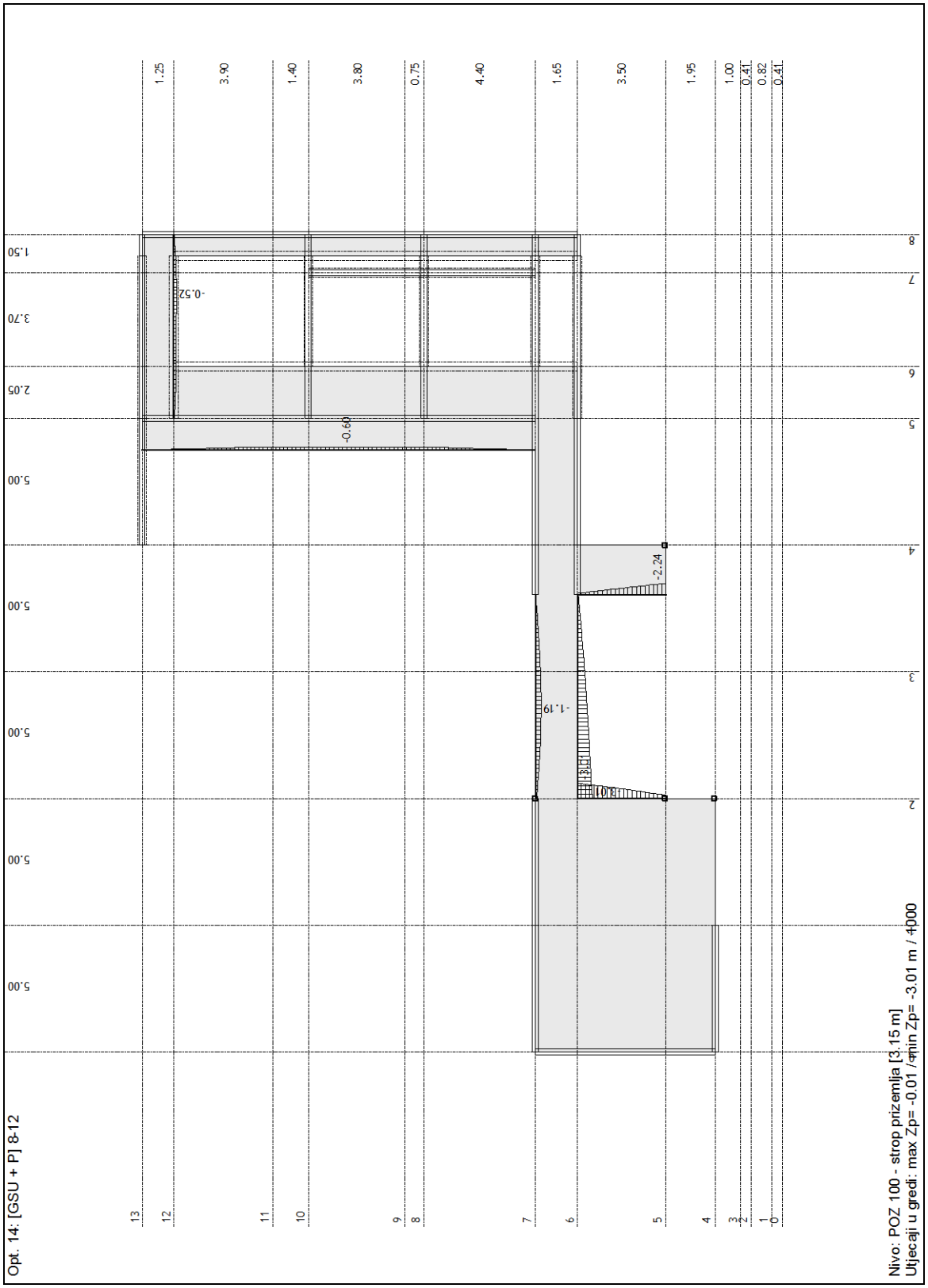


Na mjestima najvećih momenata armatura je:

u polju: 4 Ø14 6,16 cm^2

Pukotine zadovoljavaju.

Progibi


1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
-0.52
-0.69
-2.24
-1.19
Opt. 14: [GSU + P] 8-12
Nivo: POZ 100 - strop prizemlja [3.15 m]
Utjecaji u gred: max Zp= -0.01 / min Zp= -3.01 m / 4000

Greda na osi y3

y-smjer

Granična vrijednost progiba: $v_{lim} = L / 250$

Duljina raspona: $L = 515$ cm

$v_{lim} = L / 250 = 515 / 250 = 2,06$ cm

Kratkotrajni progib: $v_{t0} = zp = 3,01$ mm

Dugotrajni progib: $v_{t\infty} = \varphi(\infty) \times K_r \times v_{t0}$

$\varphi(\infty) = 2,4$ - konačni koeficijent puzanja

$K_r \leq 0,85$

Ukupni progib: $v_{fin} = v_{t0} + v_{t\infty}$

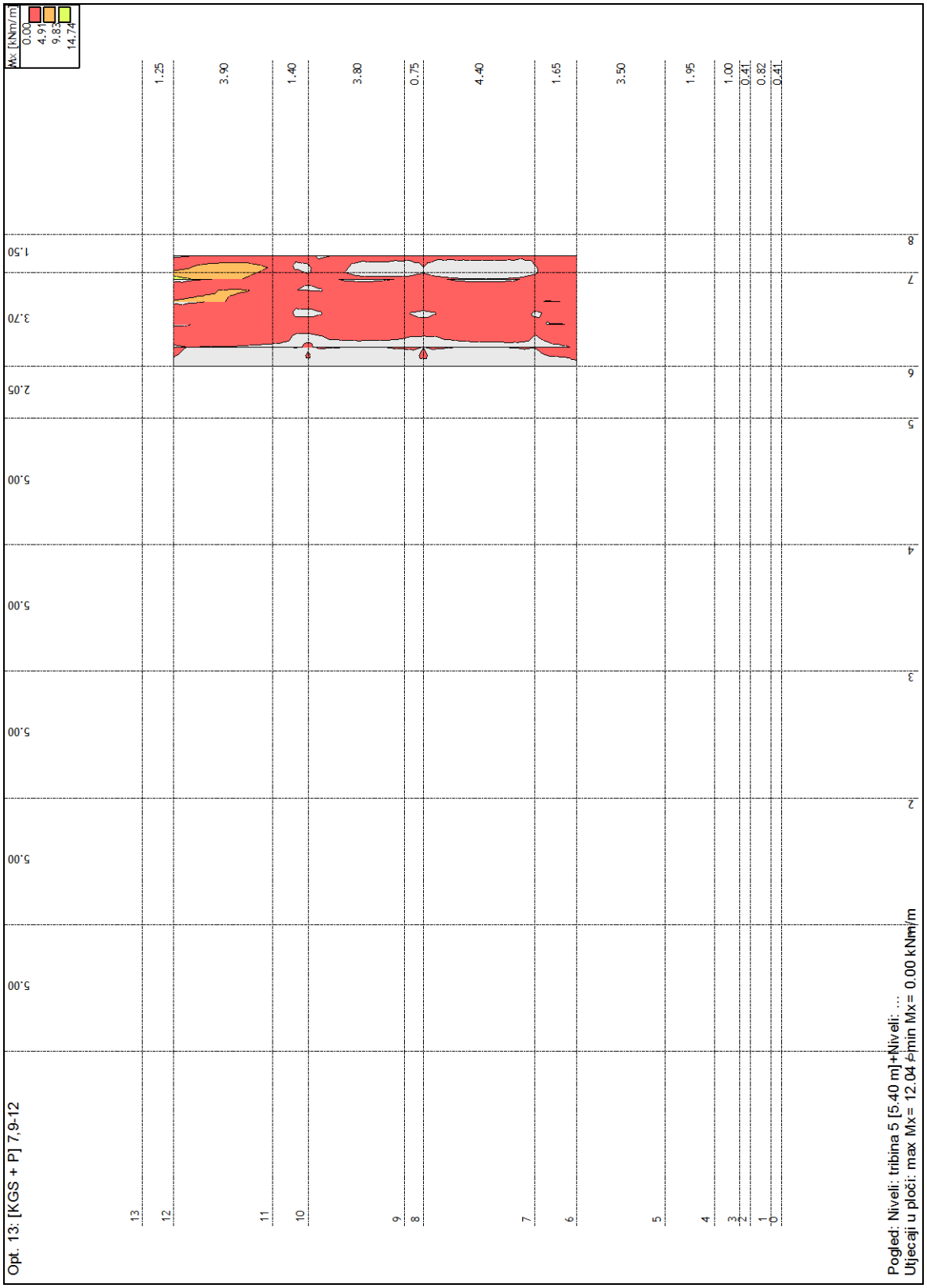
$v_{fin} = v_{t0} + \varphi(\infty) \times K_r \times v_{t0} = (1+2,4 \times 0,85) \times v_{t0} = 3,04 \times 3,01 = 9,15$ mm $= 0,92$ cm

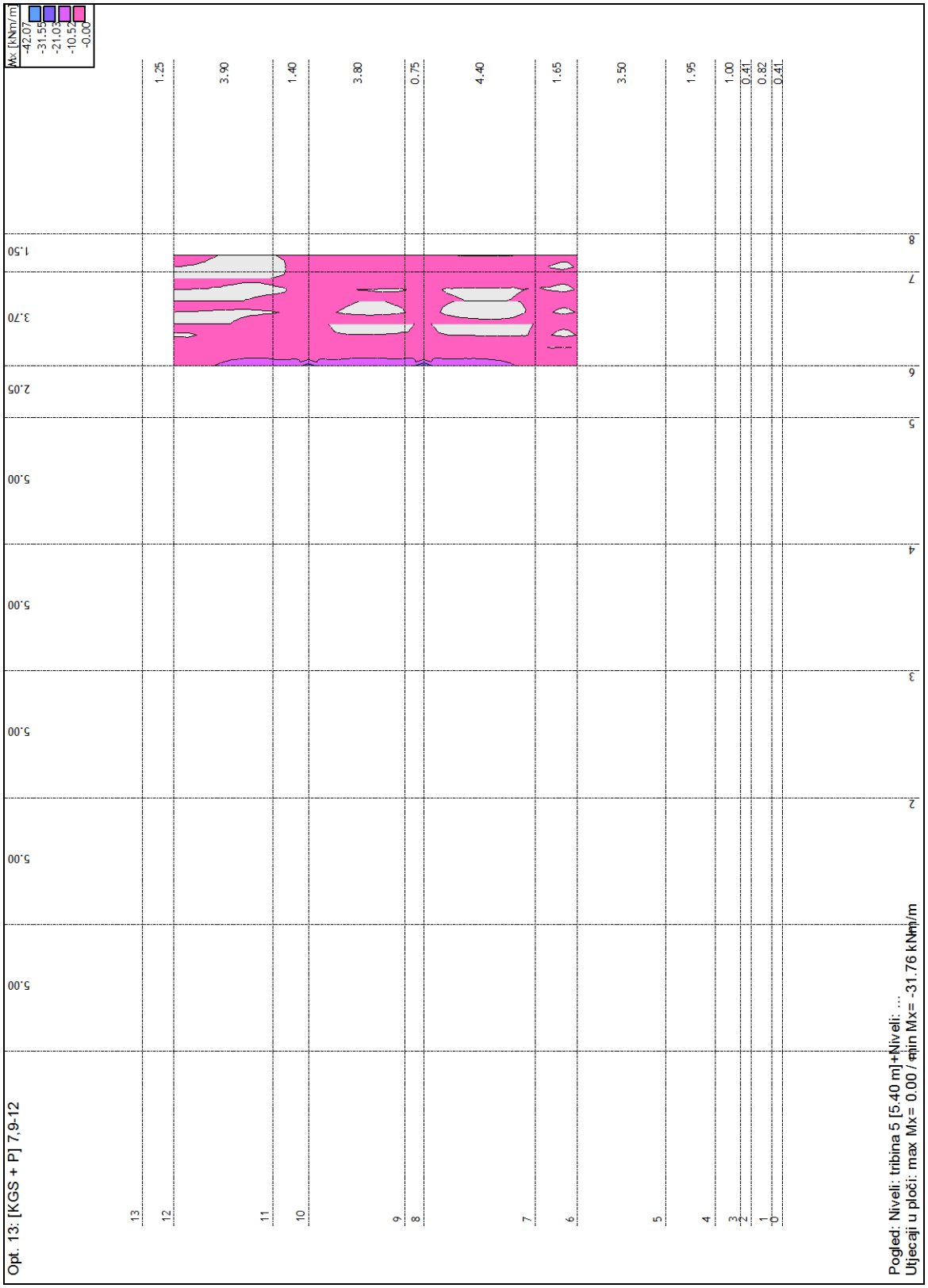
$v_{fin} = 0,92$ cm $<$ $v_{dop} = 2,06$ cm

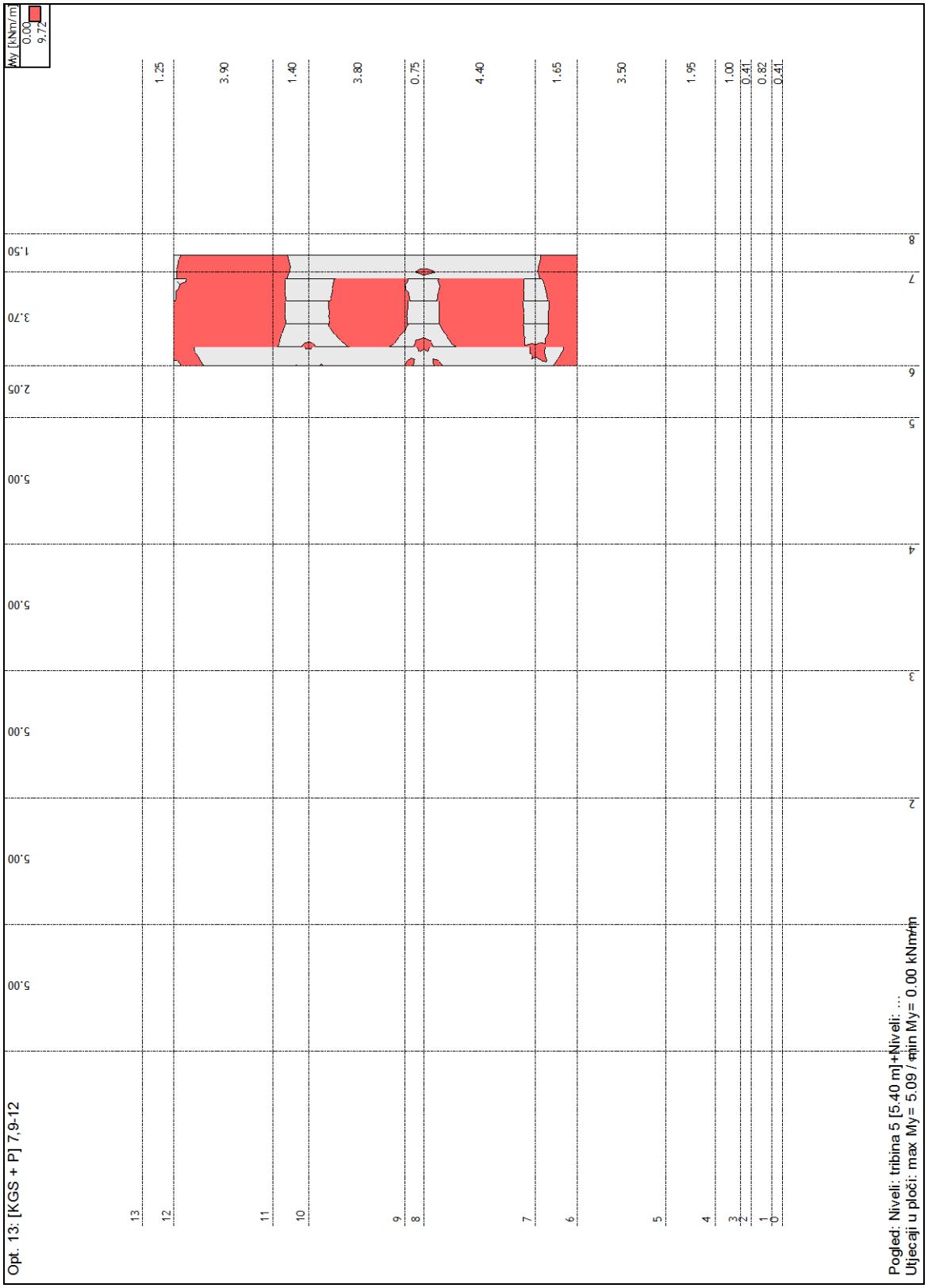
Progibi zadovoljavaju.

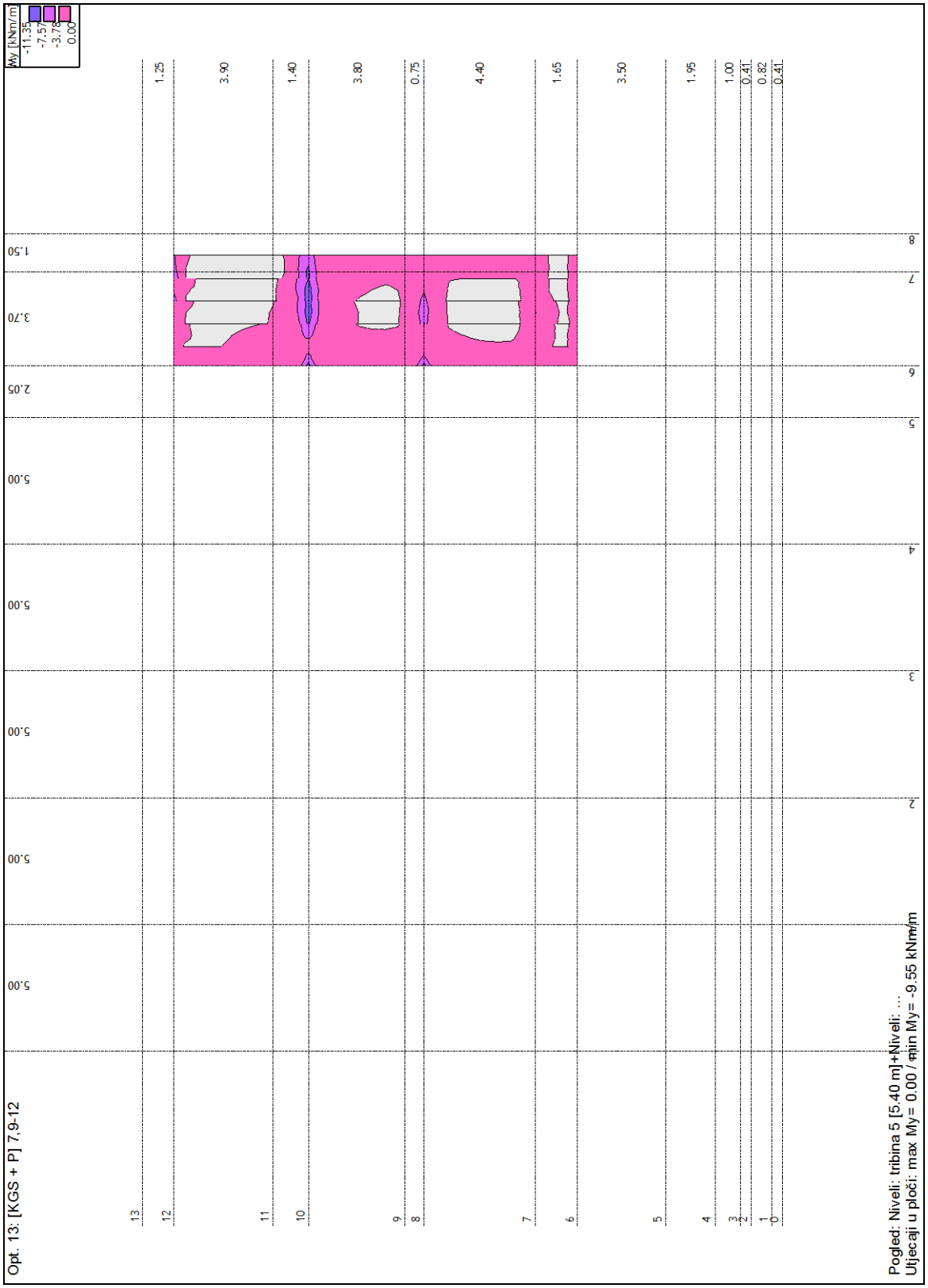
POZ T100 - tribine (5 nivoa)

KGS

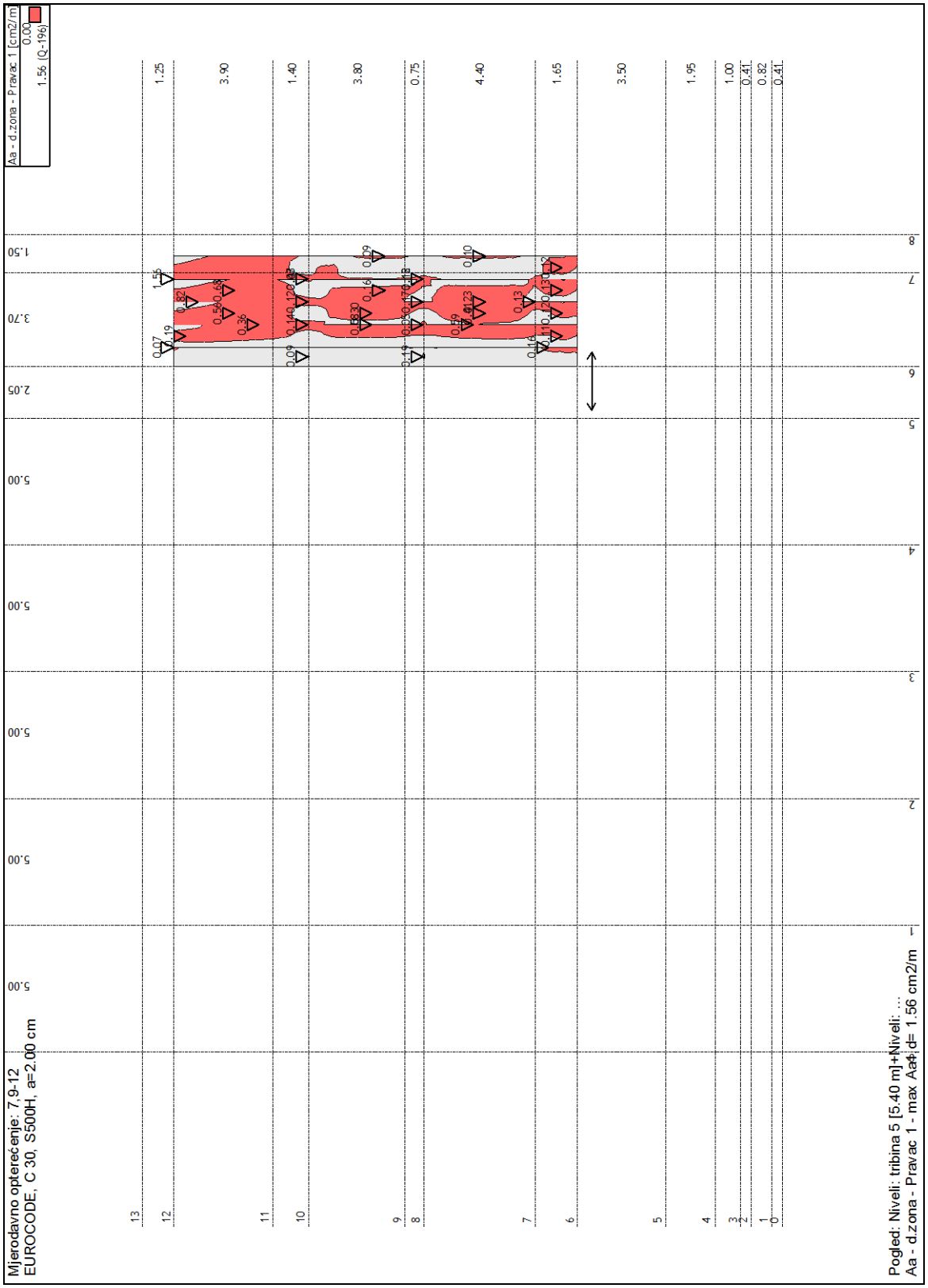


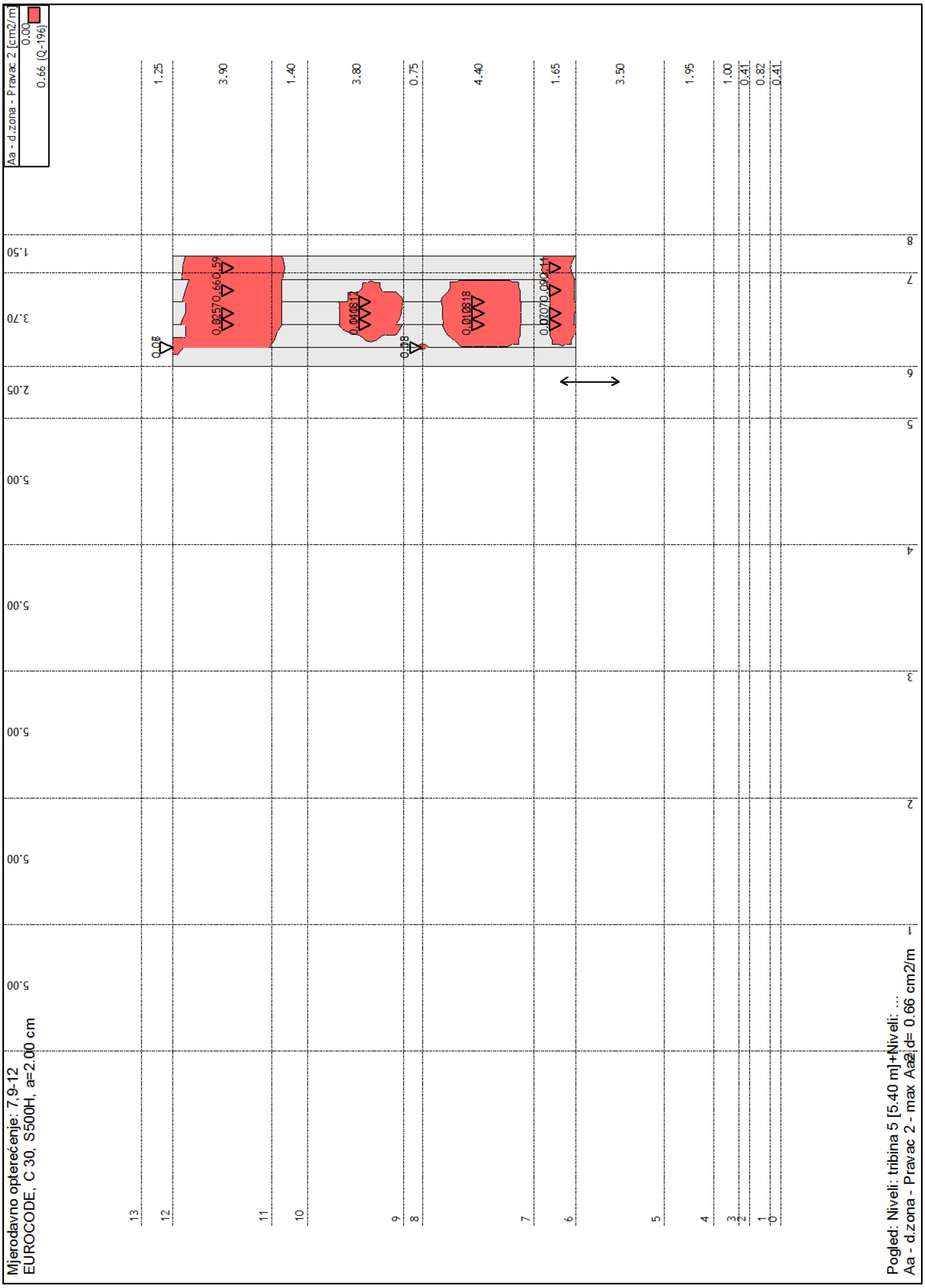

Mx [kNm/m]
-42.07
-31.55
-21.03
-10.52
-0.00
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
8
7
6
5
4
3
2
Opt. 13: [KGS + P] 7,9-12
Pogled: Niveli: tribina 5 [5.40 m]+Niveli: ...
Utjecaji u pločí: max Mx= 0.00 / min Mx= -31.76 kNm/m


My [kNm/m]
0.00
9.72
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
8
7
6
5
4
3
2
Opt. 13: [KGS + P] 7,9-12
Pogled: Niveli: tribina 5 [5.40 m]+Niveli: ...
Utjecaji u ploči: max My= 5.09 / min My= 0.00 kNm/m

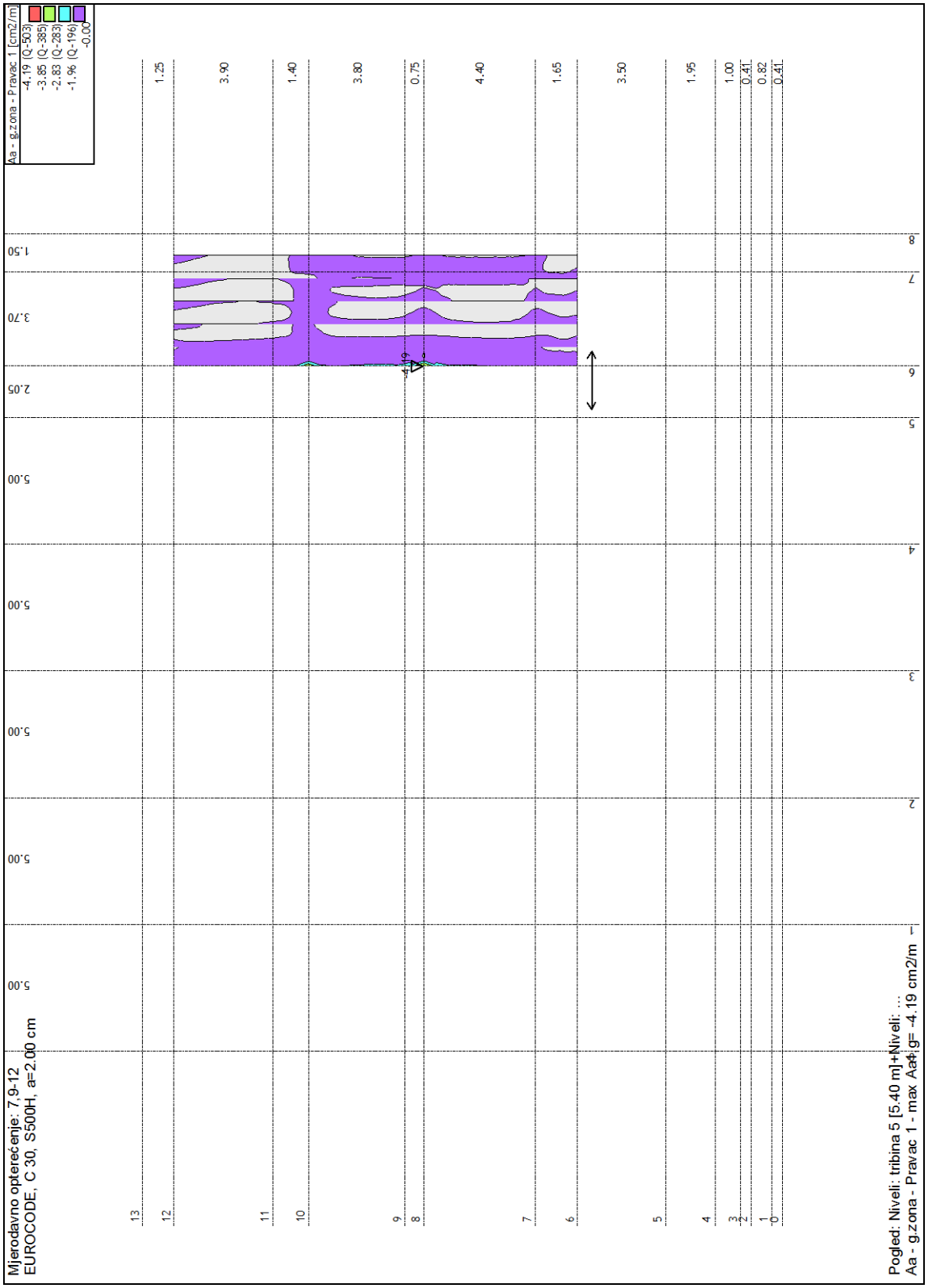

My [kNm/m]
-11.35
-7.57
-3.78
0.00
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
8
7
6
5
4
3
2
Opt. 13: [KGS + P] 7,9-12
Pogled: Niveli: tribina 5 [5.40 m]+Niveli: ...
Utjecaji u ploči: max My= 0.00 / min My= -9.55 kNm/m

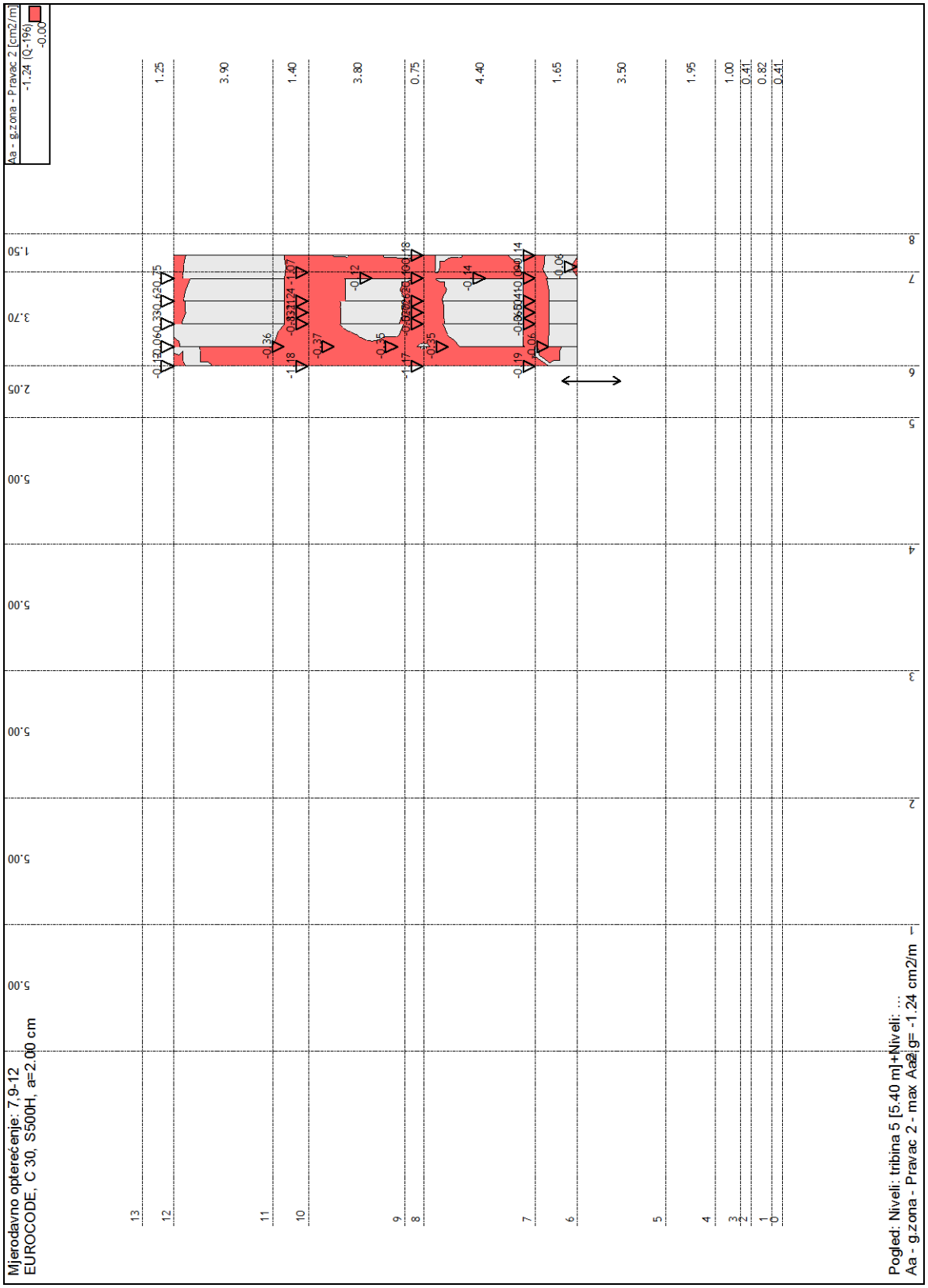
Potrebna armatura





Aa - d.zona - Pravac 2 [cm2/m]
0.00
0.66 (Q-196)
Mjerodavno opterećenje: 7,9-12
EUROCODE, C 30, S500H, a=2.00 cm
Pogled: Niveli: tribina 5 [5.40 m]+Niveli: ...
Aa - d.zona - Pravac 2 - max Aa2,d= 0.66 cm2/m

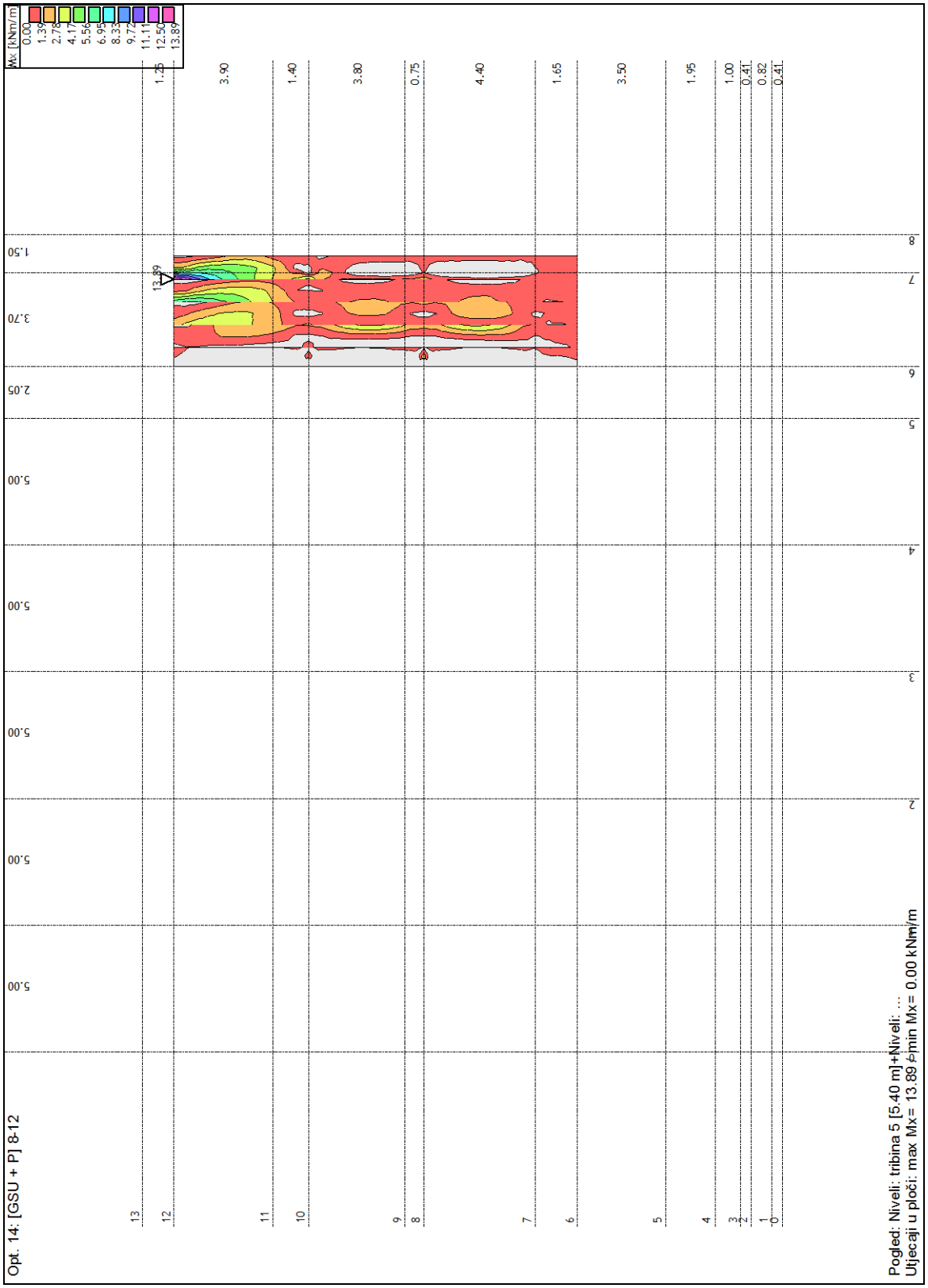

Aa - g.zona - Pravac 1 [cm2/m]
-4.19 (Q-503)
-3.85 (Q-385)
-2.83 (Q-283)
-1.96 (Q-196)
-0.00
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
-4.19
Mjerodavno opterećenje: 7.9-12
EUROCODE, C 30, S500H, a=2.00 cm
Pogled: Niveli: tribina 5 [5.40 m]+Niveli: ...
Aa - g.zona - Pravac 1 - max Aa: g= -4.19 cm2/m

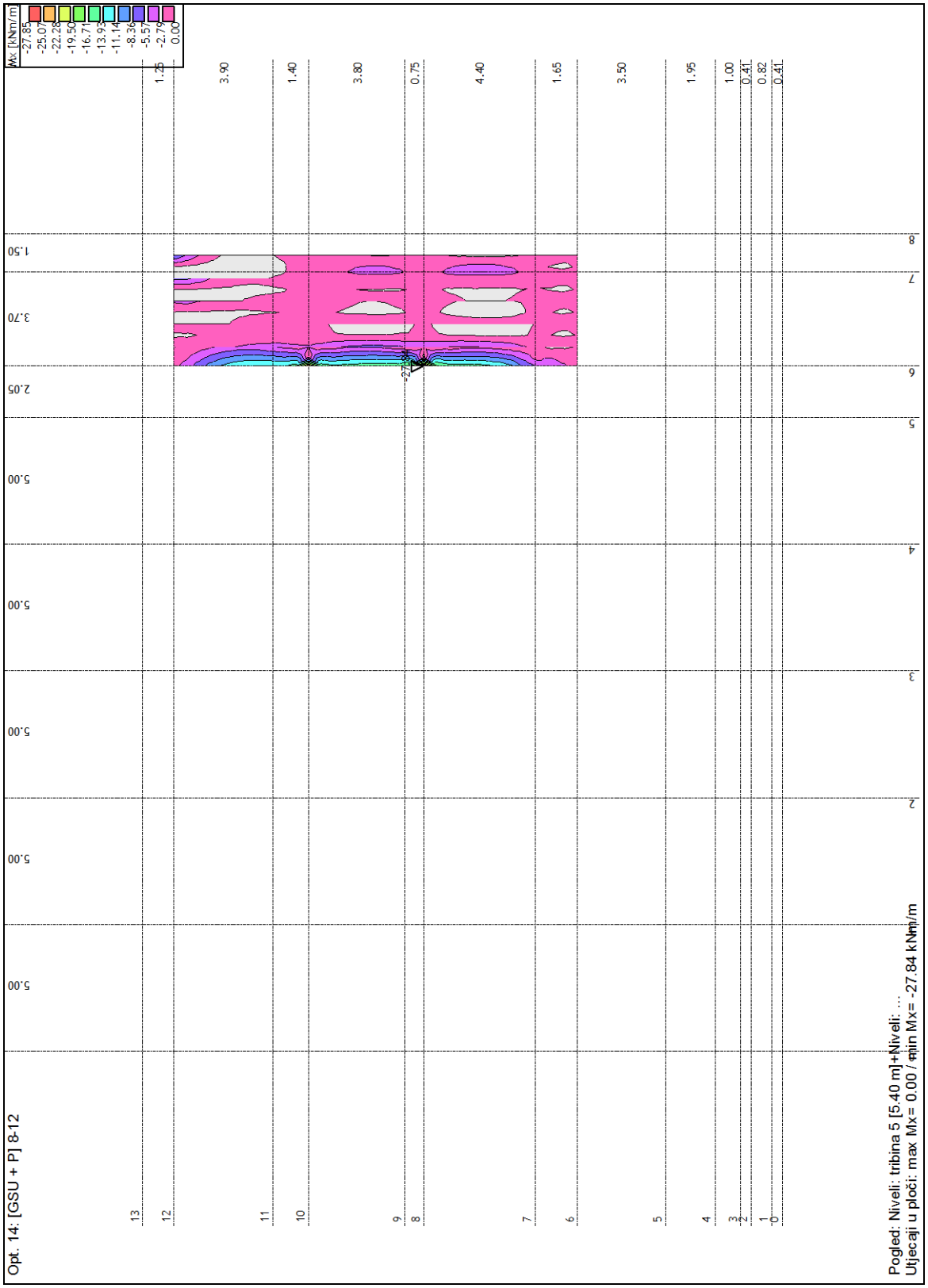


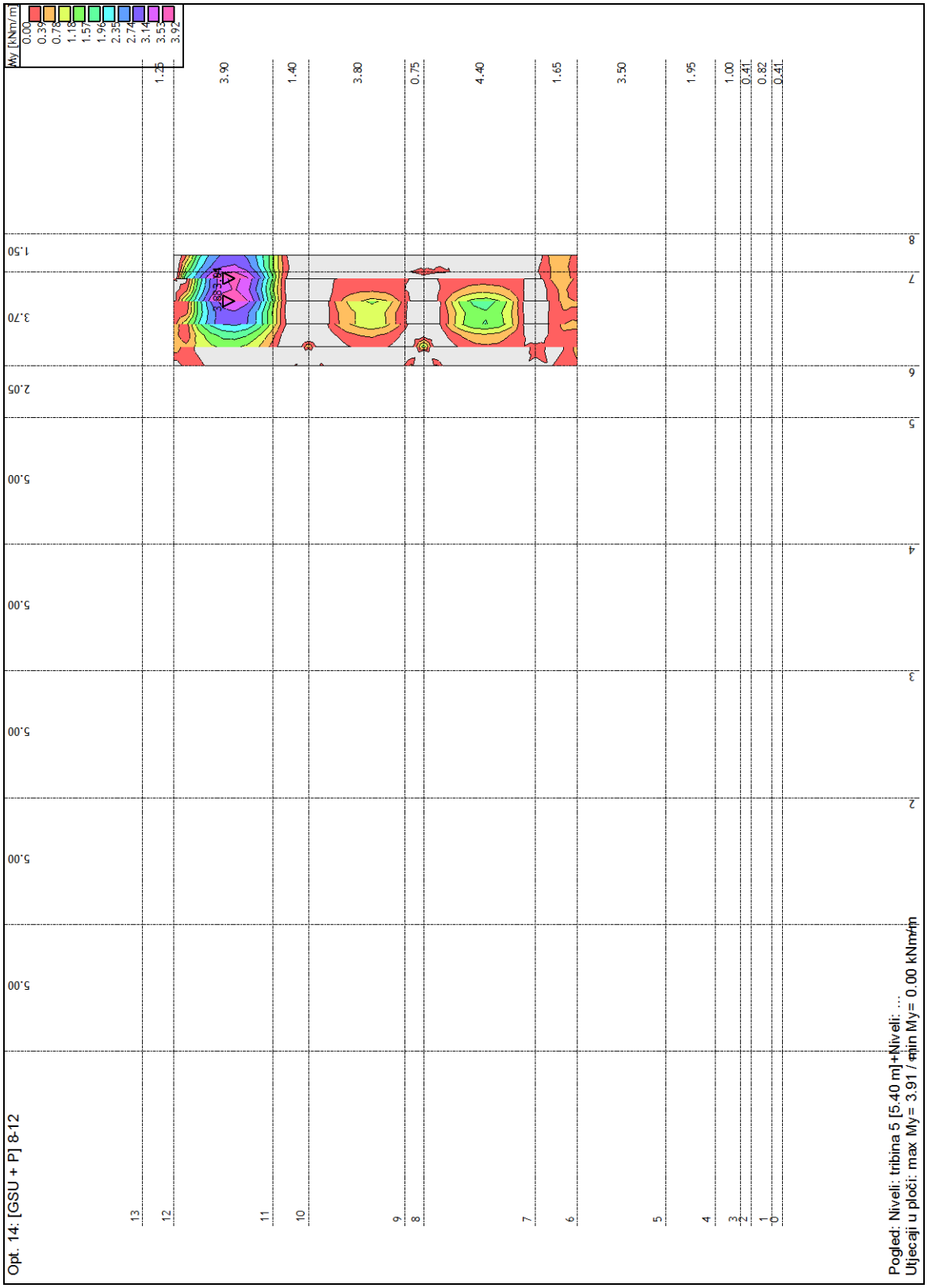
Odabrana armatura

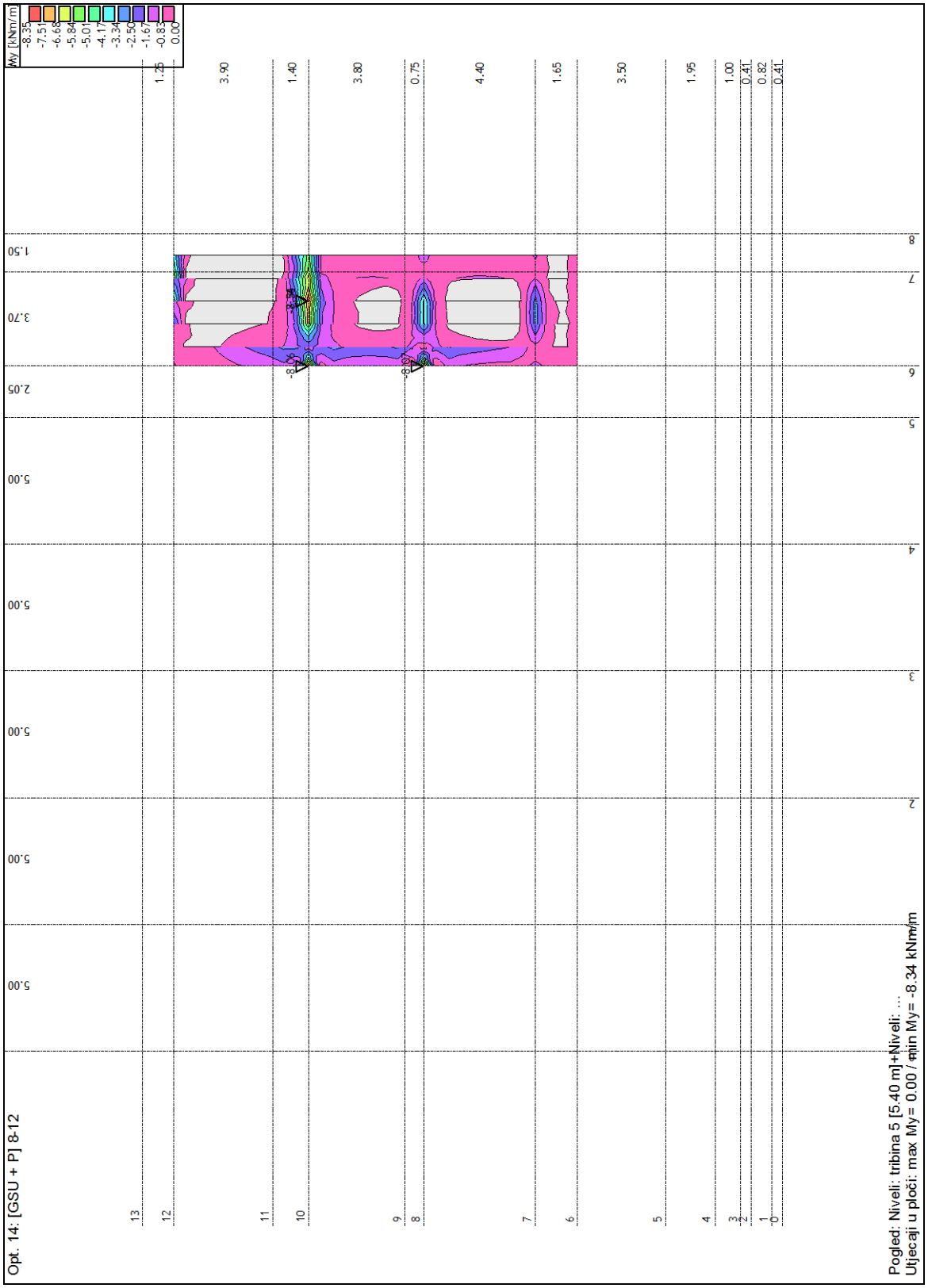
Monolitne armiranobetonske ploče armirati u obje zone mrežama Q283. Ploče i zidove (vertikalne elemente tribina) po rubu povezali U-vilicama Ø8/15, a spoj ojačati uzdužnim šipkama Ø12. Materijal izvedbe je beton C30/37 i armatura B500.

GSU


Mx [kNm/m]
0.00
1.39
2.78
4.17
5.56
6.95
8.33
9.72
11.11
12.50
13.89
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
13.89
Opt. 14: [GSU + P] 8-12
Pogled: Niveli: tribina 5 [5.40 m]+Niveli: ...
Utjecaji u ploči: max Mx= 13.89 ⇗min Mx= 0.00 kNm/m


Mx [kNm/m]
-27.85
-25.07
-22.28
-19.50
-16.71
-13.93
-11.14
-8.36
-5.57
-2.79
0.00
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 14: [GSU + P] 8-12
Pogled: Niveli: tribina 5 [5.40 m]+Niveli: ...
Utjecaji u pločí: max Mx= 0.00 / min Mx= -27.84 kNm/m


My [kNm/m]
0.00
0.39
0.78
1.18
1.57
1.96
2.35
2.74
3.14
3.53
3.92
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
13
12
11
10
9
8
7
6
5
4
3
2
1
0
8
7
6
5
4
3
2
Opt. 14: [GSU + P] 8-12
Pogled: Niveli: tribina 5 [5.40 m]+Niveli: ...
Utjecaji u ploči: max My= 3.91 / min My= 0.00 kNm/m


My [kNm/m]
-8.35
-7.51
-6.68
-5.84
-5.01
-4.17
-3.34
-2.50
-1.67
-0.83
0.00
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
-8.34
-8.07
Opt. 14: [GSU + P] 8-12
Pogled: Niveli: tribina 5 [5.40 m]+Niveli: ...
Utjecaji u pločí: max My= 0.00 / min My= -8.34 kNm/m

Pukotine

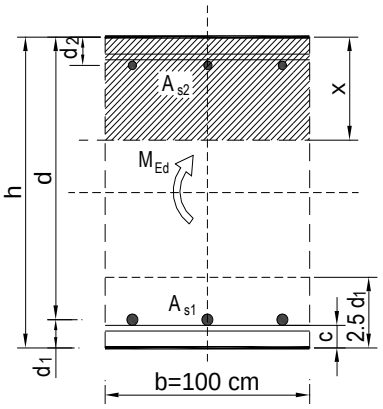
Granična vrijednost širine pukotine: $w_g = 0.3\,mm$ (EC-2)

Ploče kaskadnih tribina

x-smjer

b =	100,0	cm	d =	17,0	cm	h =	20,0	cm
f_{ck} =	30,0	MN/m^2	f_{ctm} =	2,90	MN/m^2	w_g =	0,30	mm
A_{s1} =	2,83	cm^2	A_{s2} =	0,00	cm^2	$d_1 = d_2$ =	3,0	cm
E_s =	200,00	GN/m^2	E_{cm} =	32,80	GN/m^2	$\alpha_e = E_s/E_{cm}$ =	6,10	
M_{Ed} =	12,2	kNm	k_t =	0,40				
σ_s =	265,56	MN/m^2						
x =	2,25	cm	$\rho_{p,eff}$ =	0,0038				
$(\varepsilon_{sm}-\varepsilon_{cm})$ =	-0,000244	<	$0.6\cdot\sigma_s/E_s$ =	0,000797				
Ø =	6,0	mm	c =	3,00	cm			
k_1 =	0,8		k_2 =	0,50				
k_3 =	3,4		k_4 =	0,43				
$s_{r,max}$ =	372,56	mm						

$w_k = s_{r,max}\cdot(\varepsilon_{sm}-\varepsilon_{cm})$ = 0,297 mm < w_g



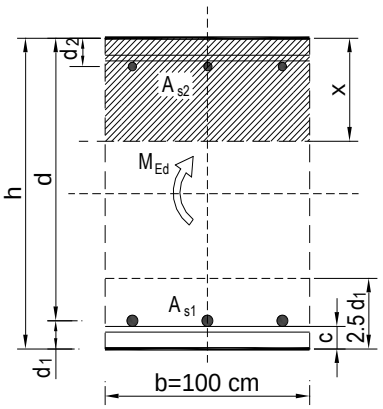
Na mjestima najvećih momenata armatura je:

u polju: Q283 2,83 cm^2

y-smjer

b =	100,0	cm	d =	17,0	cm	h =	20,0	cm
f_{ck} =	30,0	MN/m^2	f_{ctm} =	2,90	MN/m^2	w_g =	0,30	mm
A_{s1} =	2,83	cm^2	A_{s2} =	0,00	cm^2	$d_1 = d_2$ =	3,0	cm
E_s =	200,00	GN/m^2	E_{cm} =	32,80	GN/m^2	$\alpha_e = E_s/E_{cm}$ =	6,10	
M_{Ed} =	3,9	kNm	k_t =	0,40				
σ_s =	85,33	MN/m^2						
x =	2,25	cm	$\rho_{p,eff}$ =	0,0038				
$(\varepsilon_{sm}-\varepsilon_{cm})$ =	-0,001145	<	$0.6\cdot\sigma_s/E_s$ =	0,000256				
Ø =	6,0	mm	c =	3,00	cm			
k_1 =	0,8		k_2 =	0,50				
k_3 =	3,4		k_4 =	0,43				
$s_{r,max}$ =	372,56	mm						

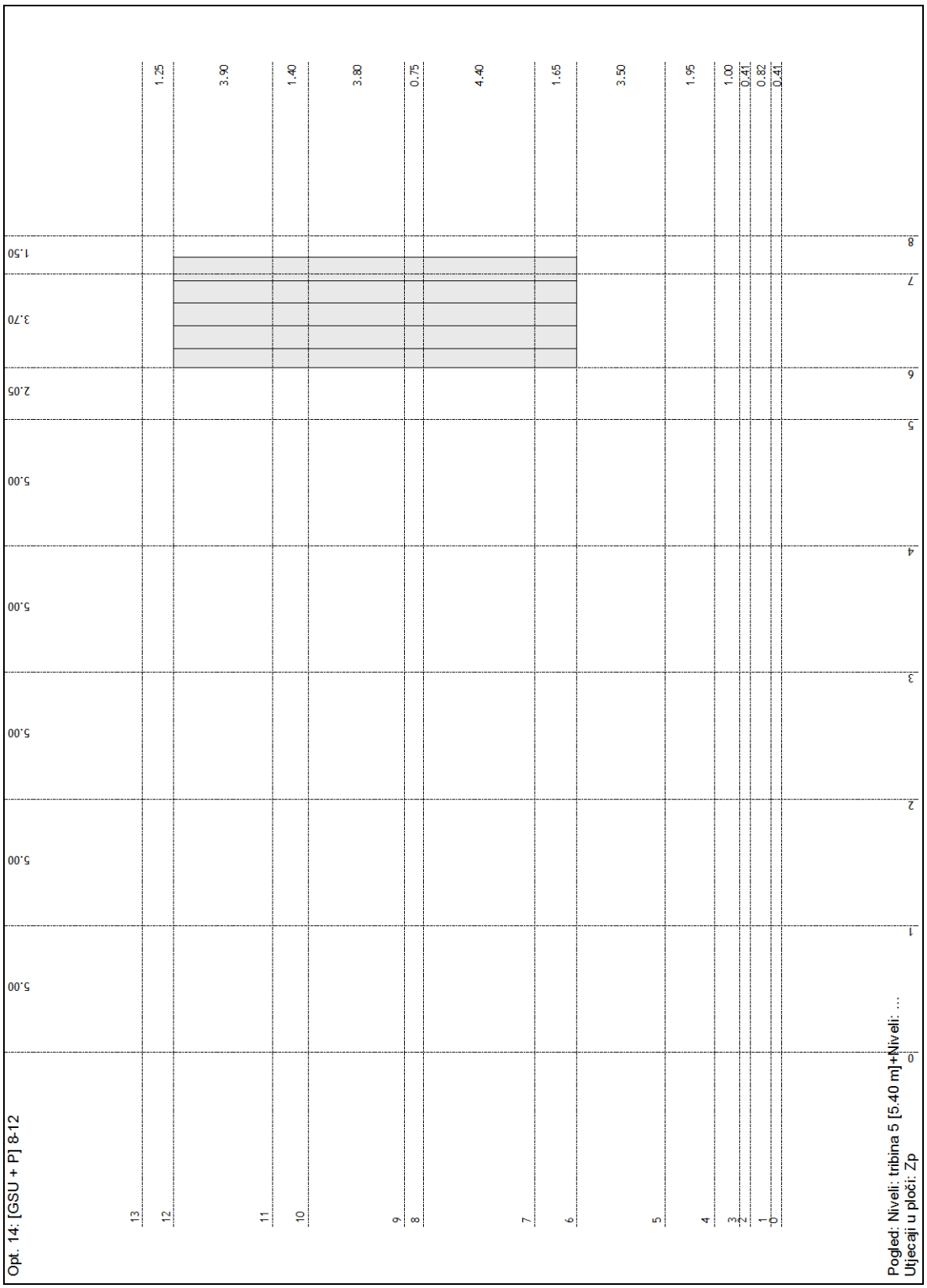
$w_k = s_{r,max}\cdot(\varepsilon_{sm}-\varepsilon_{cm})$ = 0,095 mm < w_g

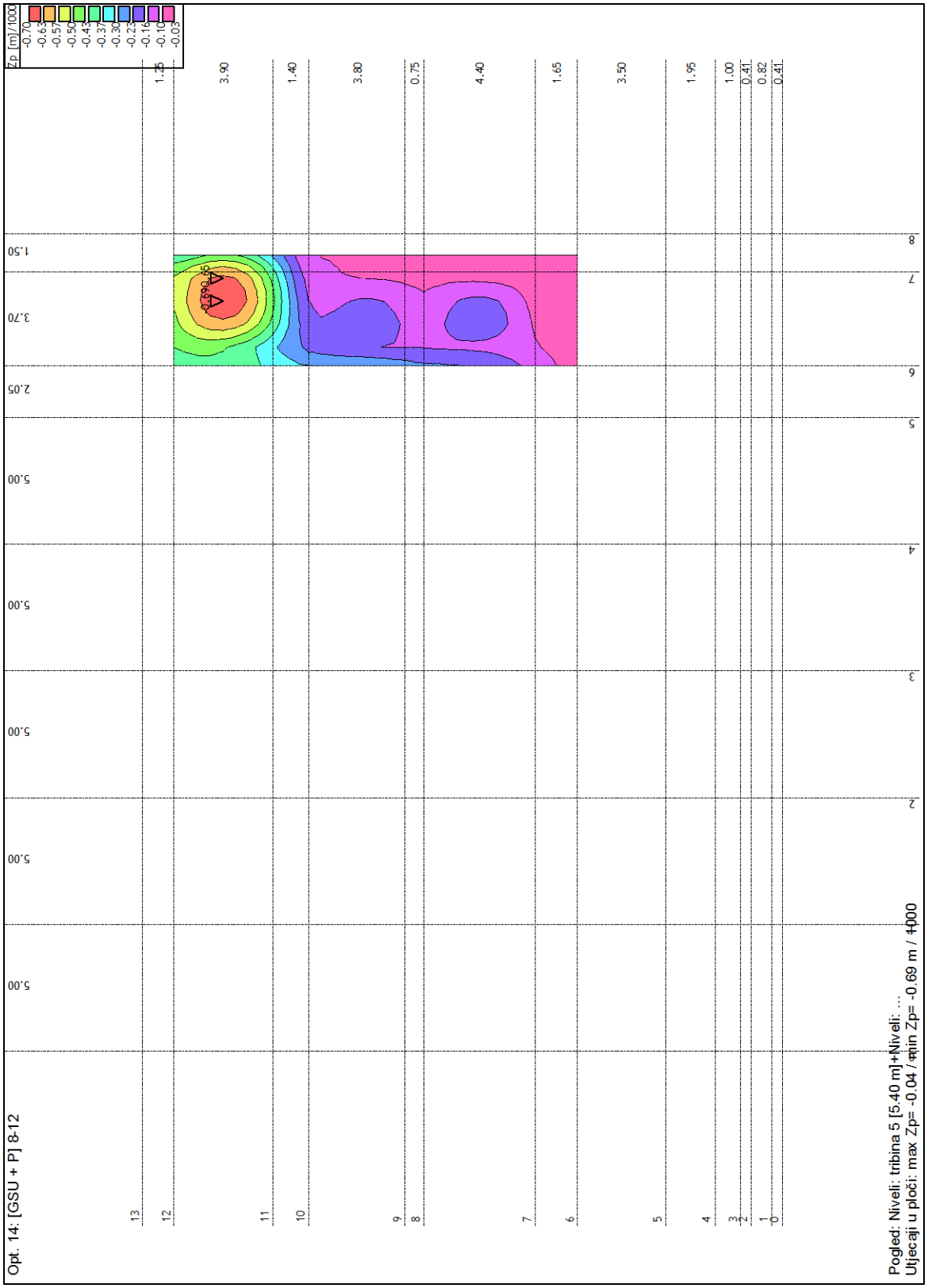


Na mjestima najvećih momenata armatura je:

u polju: Q283 2,83 cm^2

Progibi


Opt. 14: [GSU + P] 8-12
Pogled: Niveli: tribina 5 [5.40 m]+Niveli: ...
Utjecaji u pločí: Zp
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
5.00
2.05
3.70
1.50


Zp [m]/1000
-0.70
-0.63
-0.57
-0.50
-0.43
-0.37
-0.30
-0.23
-0.16
-0.10
-0.03
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
5.00
-0.69
13
12
11
10
9
8
7
6
5
4
3
2
1
0
8
7
6
5
4
3
2
Opt. 14: [GSU + P] 8-12
Pogled: Niveli: tribina 5 [5.40 m]+Niveli: ...
Utjecaji u ploči: max Zp= -0.04 / min Zp= -0.69 m / 1000

Polje

y-smjer

Granična vrijednost progiba: $v_{lim} = L / 250$

Duljina raspona: $L = 530$ cm

$v_{lim} = L / 250 = 530 / 250 = 2,12$ cm

Kratkotrajni progib: $v_{t0} = zp = 0,69$ mm

Dugotrajni progib: $v_{t\infty} = \varphi(\infty) \times K_r \times v_{t0}$

$\varphi(\infty) = 2,4$ - konačni koeficijent puzanja

$K_r \leq 0,85$

Ukupni progib: $v_{fin} = v_{t0} + v_{t\infty}$

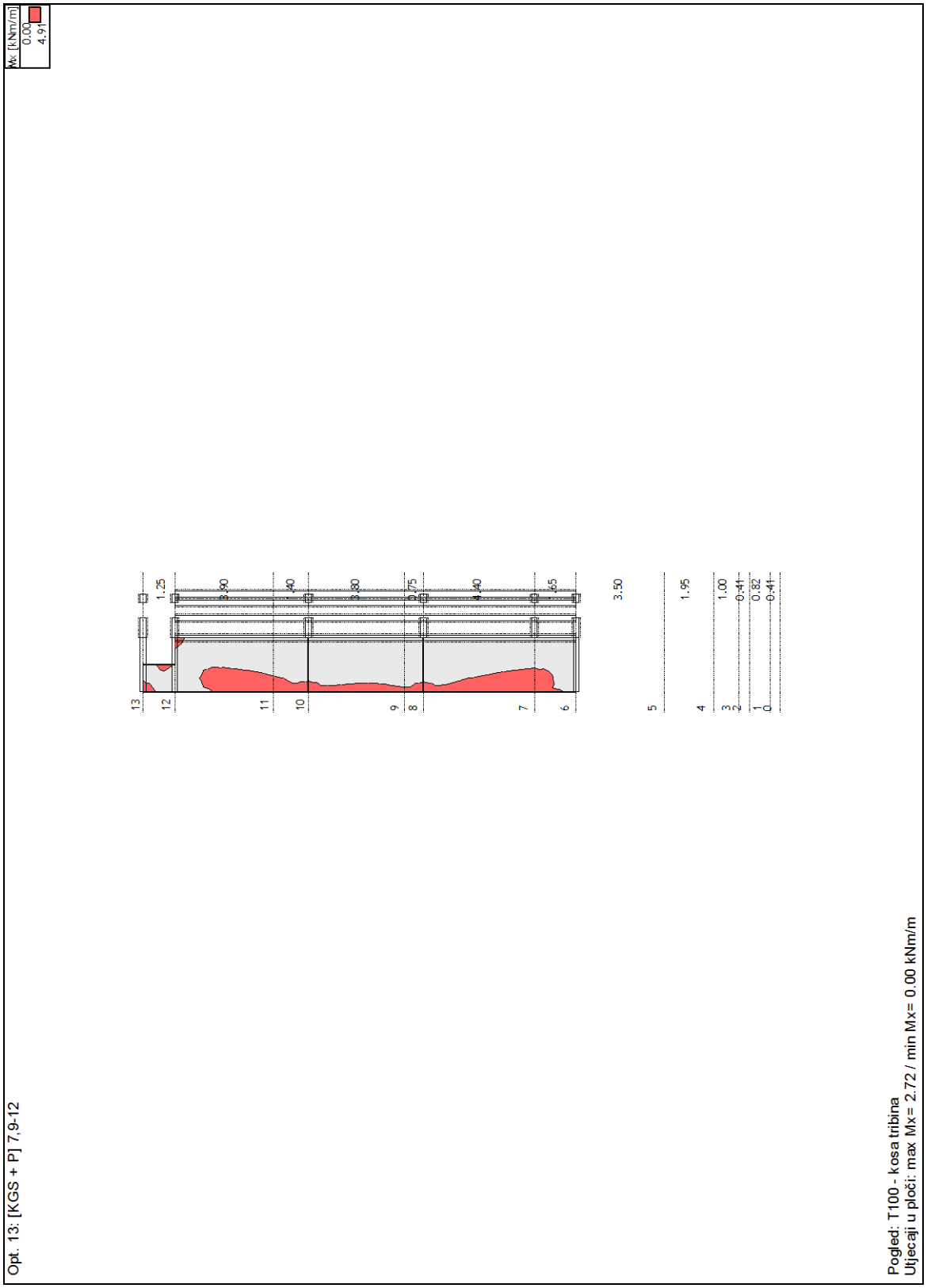
$v_{fin} = v_{t0} + \varphi(\infty) \times K_r \times v_{t0} = (1+2,4 \times 0,85) \times v_{t0} = 3,04 \times 0,69 = 2,10$ mm $= 0,21$ cm

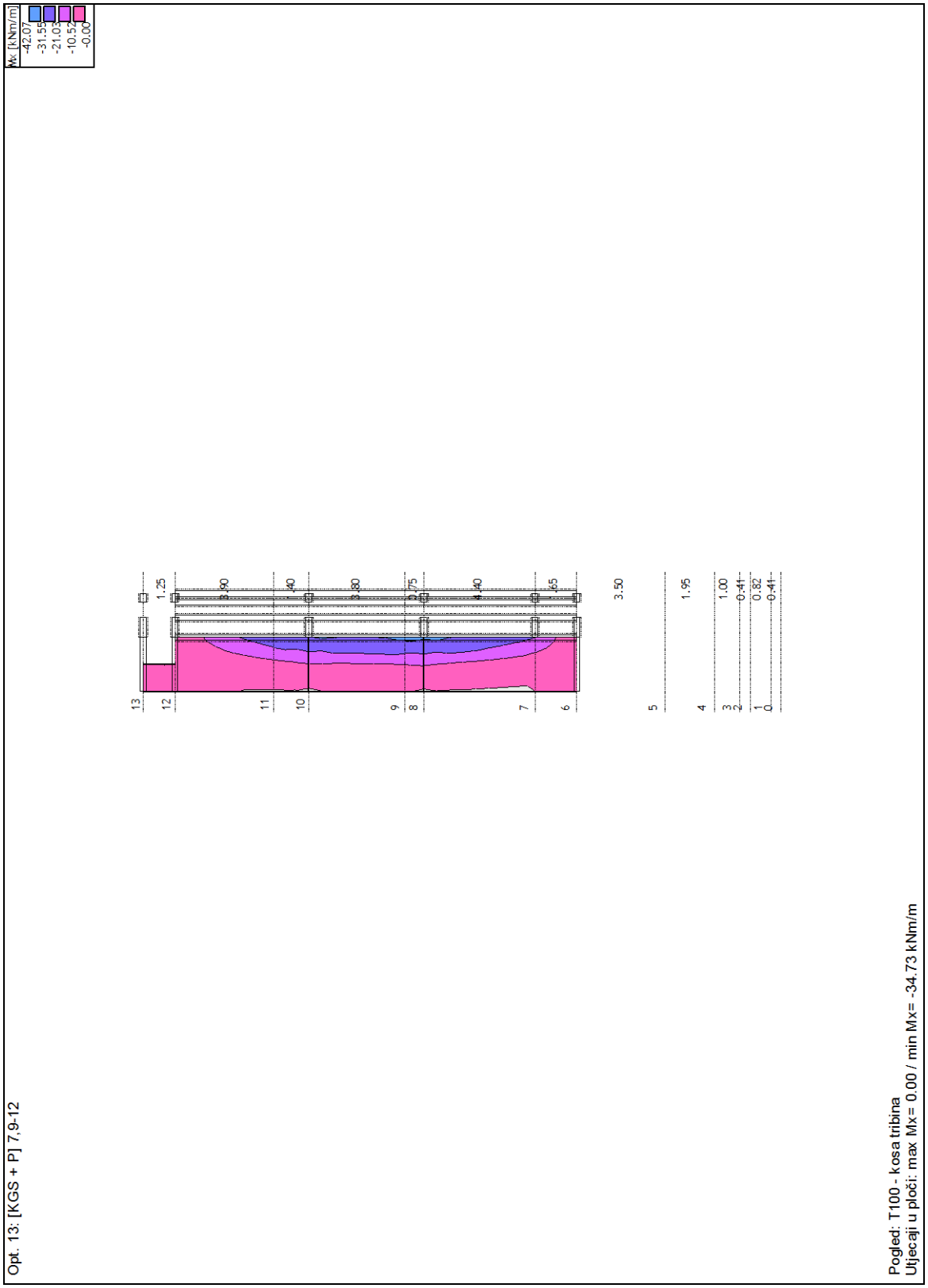
$v_{fin} = 2,12$ cm > $v_{dop} = 0,21$ cm

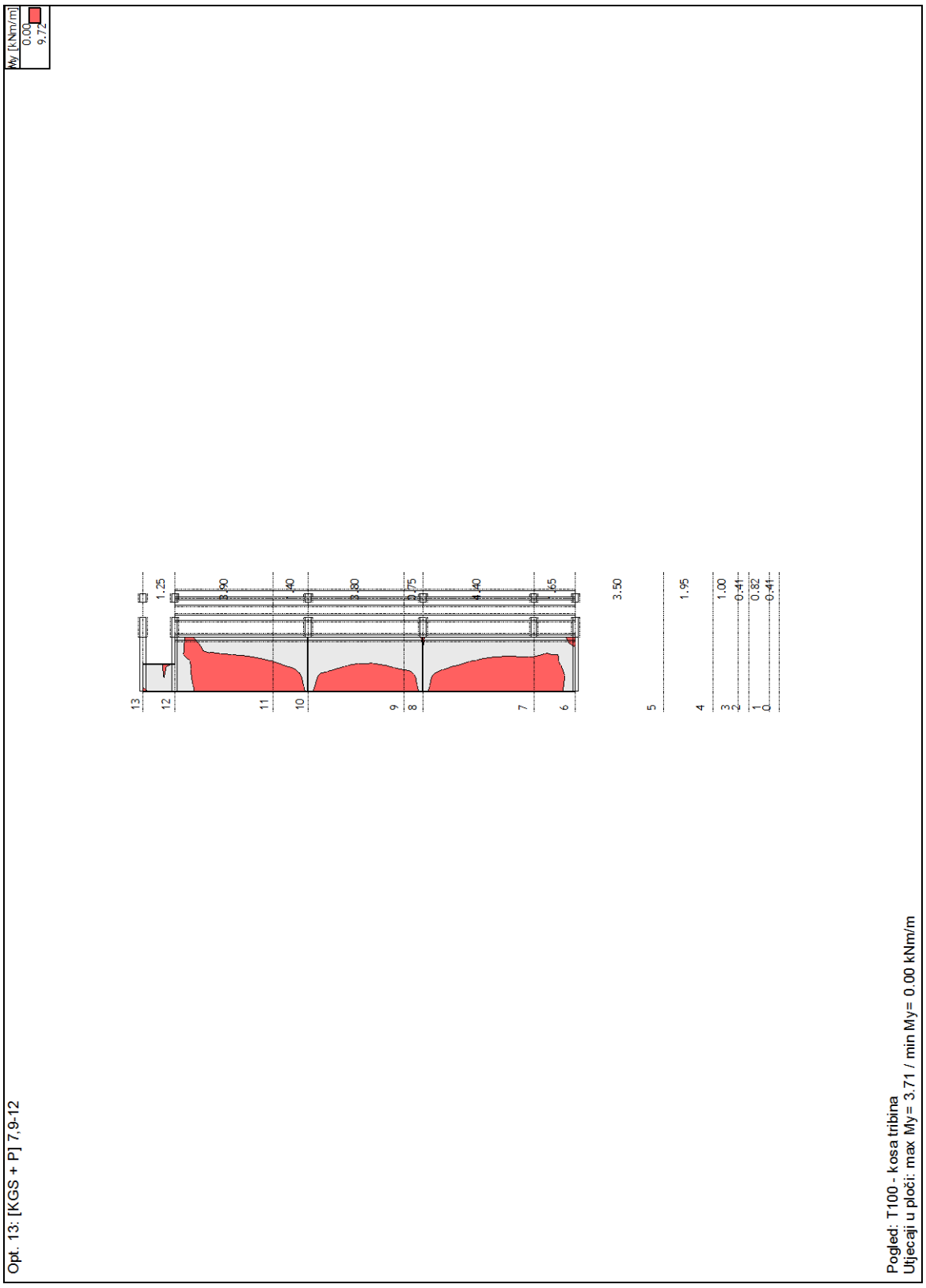
Progibi ploča zadovoljavaju.

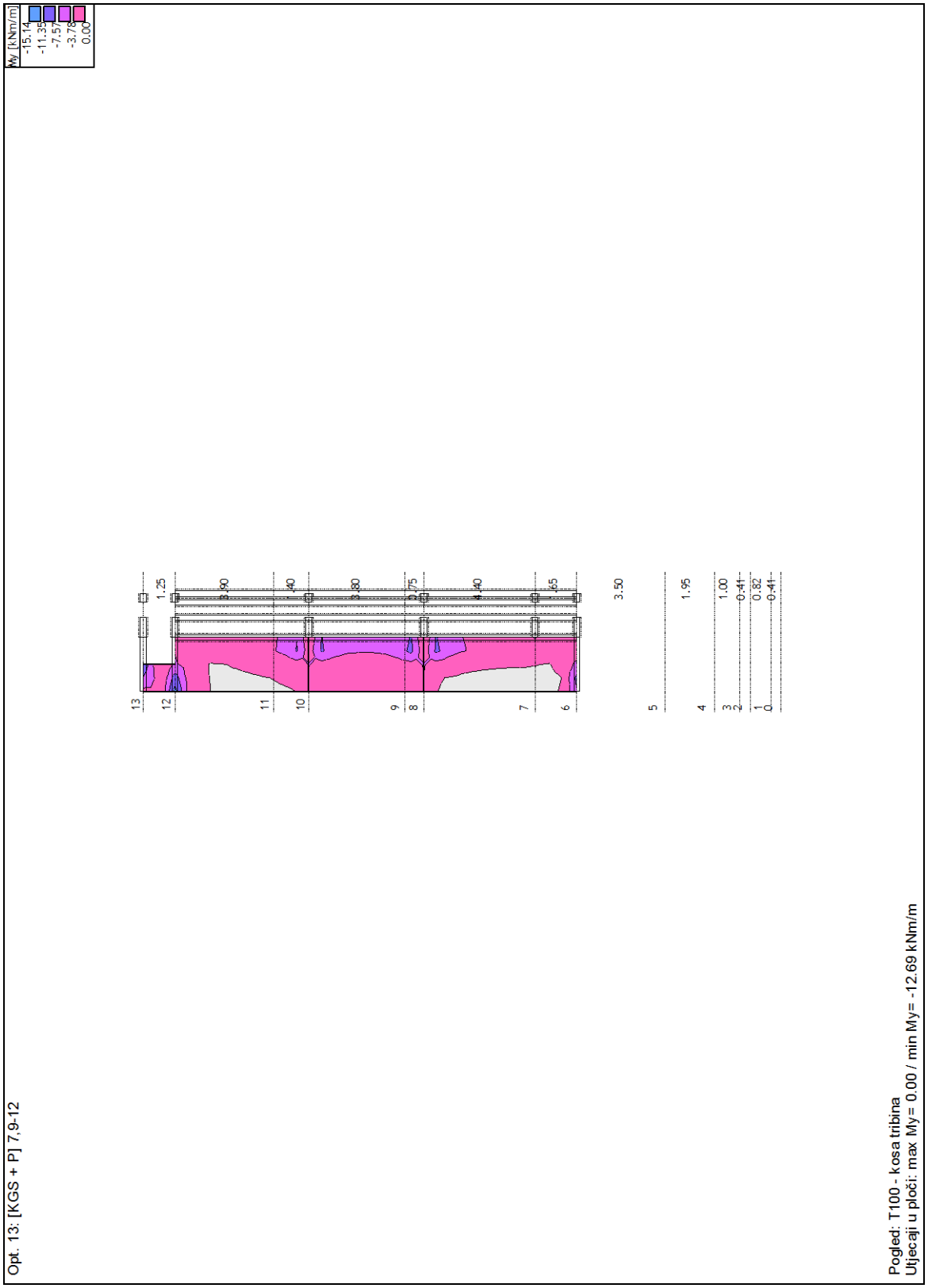
POZ T200 - kosa ploča tribina

KGS

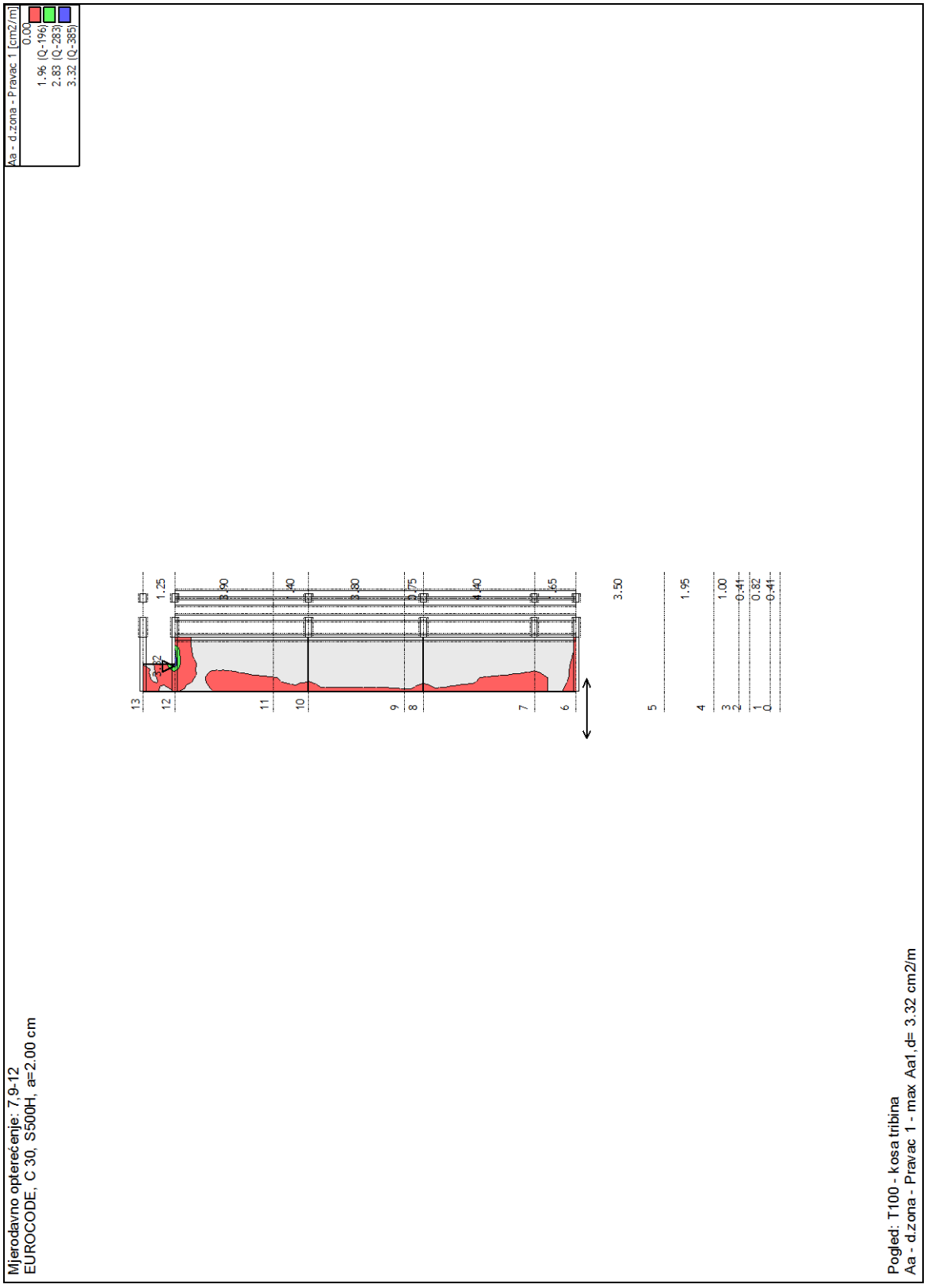


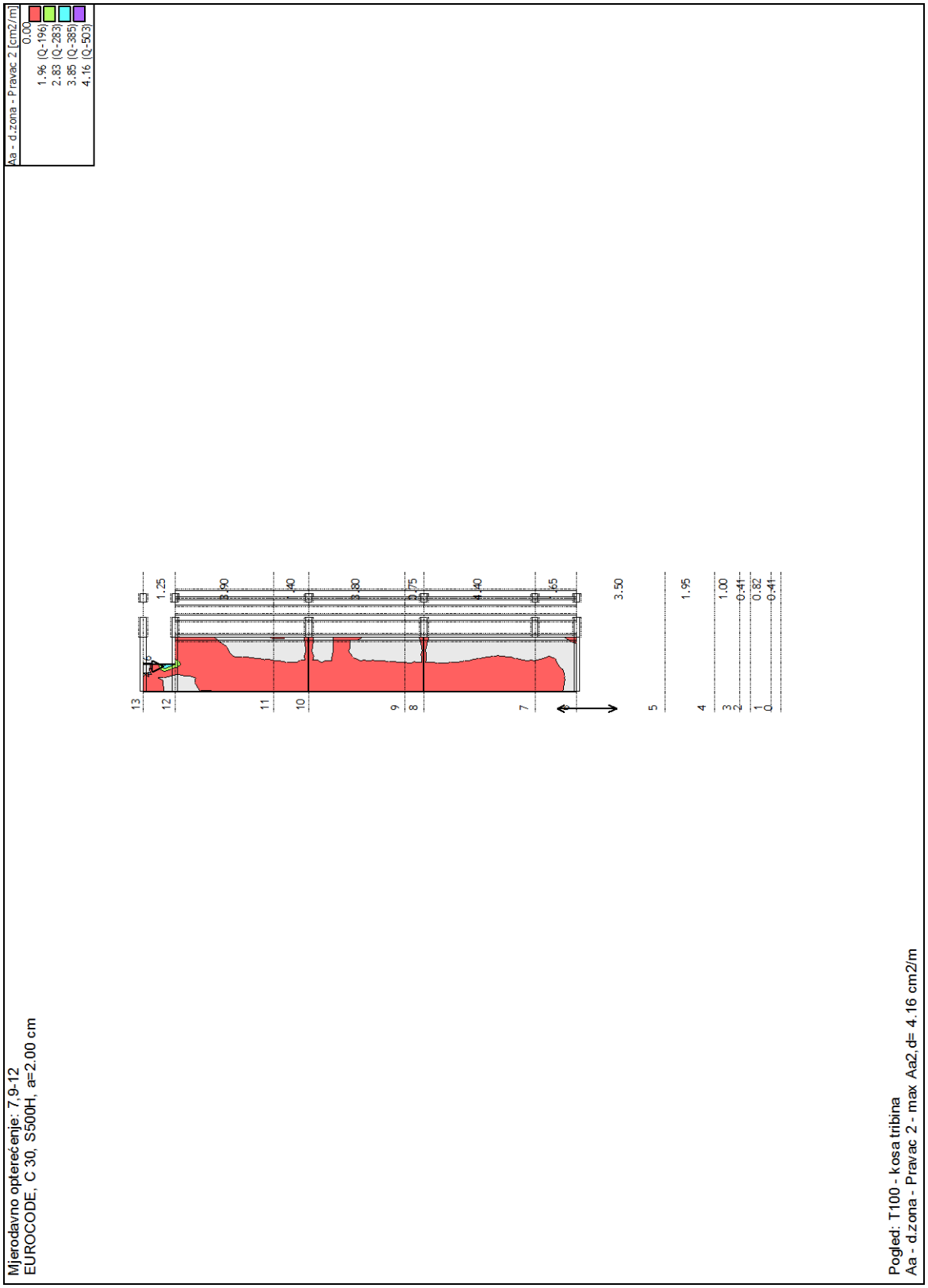

Mx [kNm/m]
-42.07
-31.55
-21.03
-10.52
-0.00
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 13: [KGS + P] 7,9-12
Pogled: T100 - kosa tribina
Utjecaji u ploči: max Mx= 0.00 / min Mx= -34.73 kNm/m


My [kNm/m]
0.00
9.72
1.25
3.80
1.40
3.80
1.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 13: [KGS + P] 7,9-12
Pogled: T100 - kosa tribina
Utjecaji u ploči: max My= 3.71 / min My= 0.00 kNm/m


My [kNm/m]
-15.14
-11.35
-7.57
-3.78
0.00
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 13: [KGS + P] 7,9-12
Pogled: T100 - kosa tribina
Utjecaji u ploči: max My= 0.00 / min My= -12.69 kNm/m

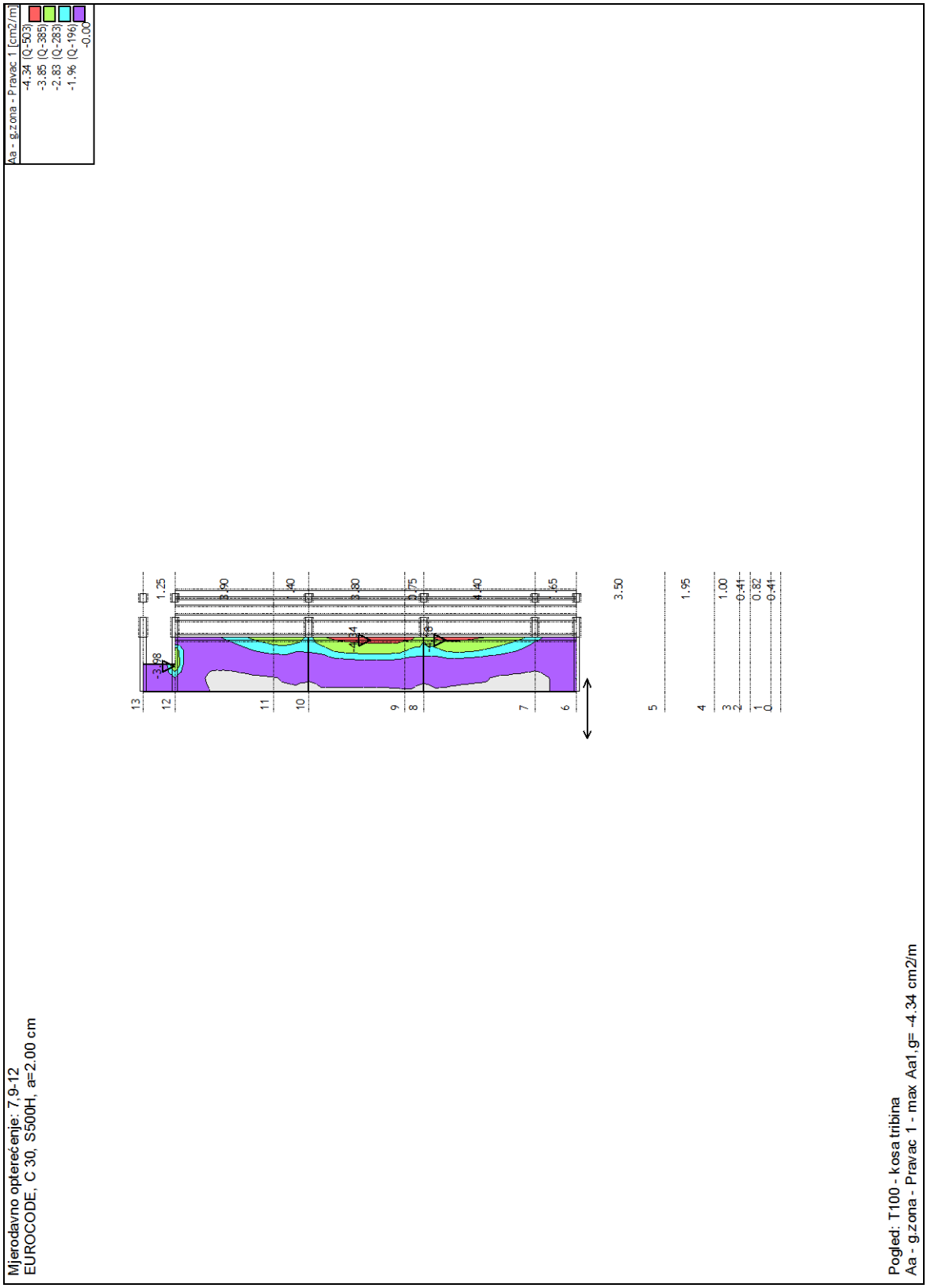
Potrebna armatura





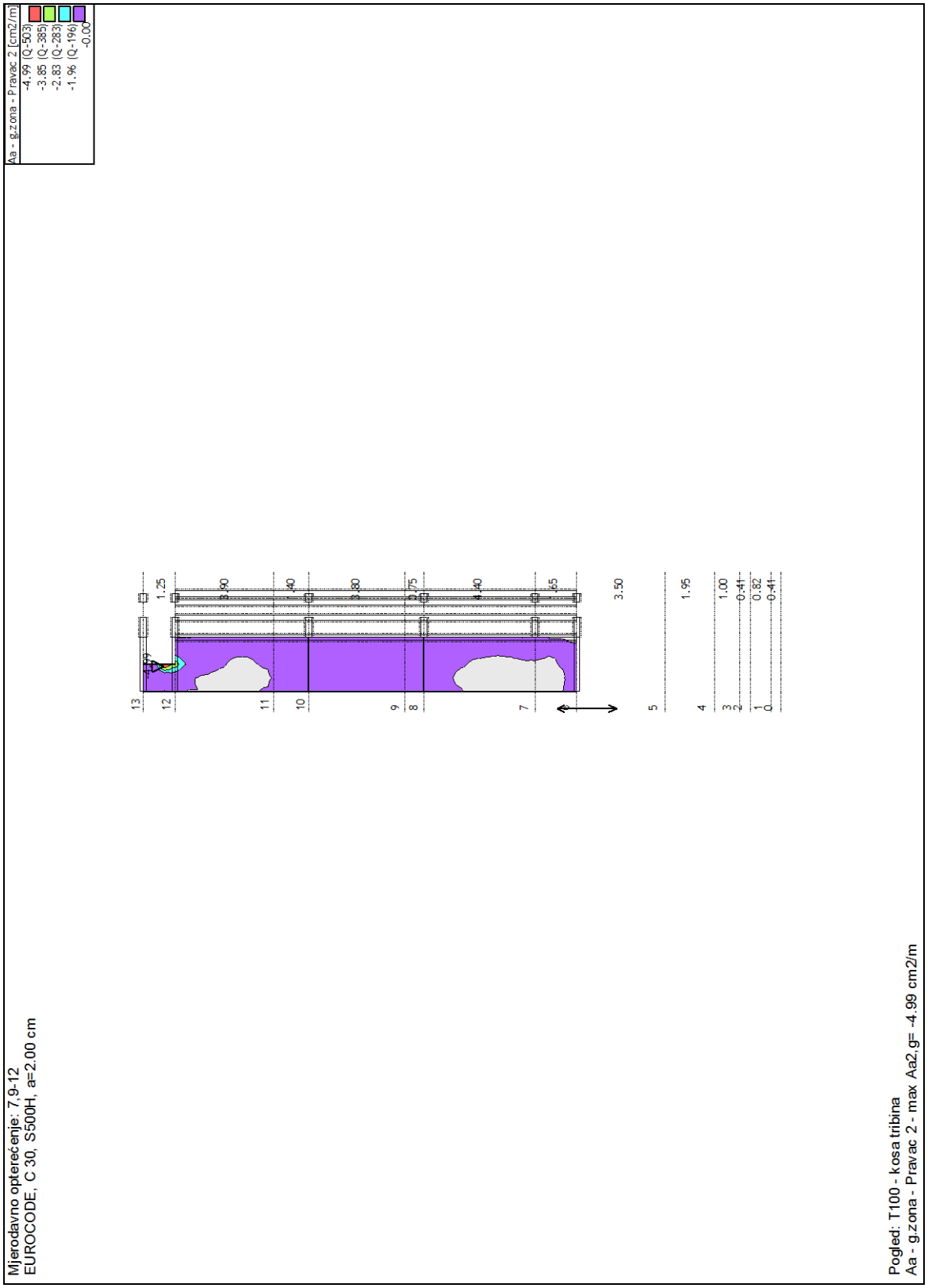
Mjerodavno opterećenje: 7,9-12
EUROCODE, C 30, S500H, a=2.00 cm

Pogled: T100 - kosa tribina
Aa - d.zona - Pravac 2 - max Aa2,d= 4.16 cm2/m



Mjerodavno opterećenje: 7,9-12
EUROCODE, C 30, S500H, a=2.00 cm

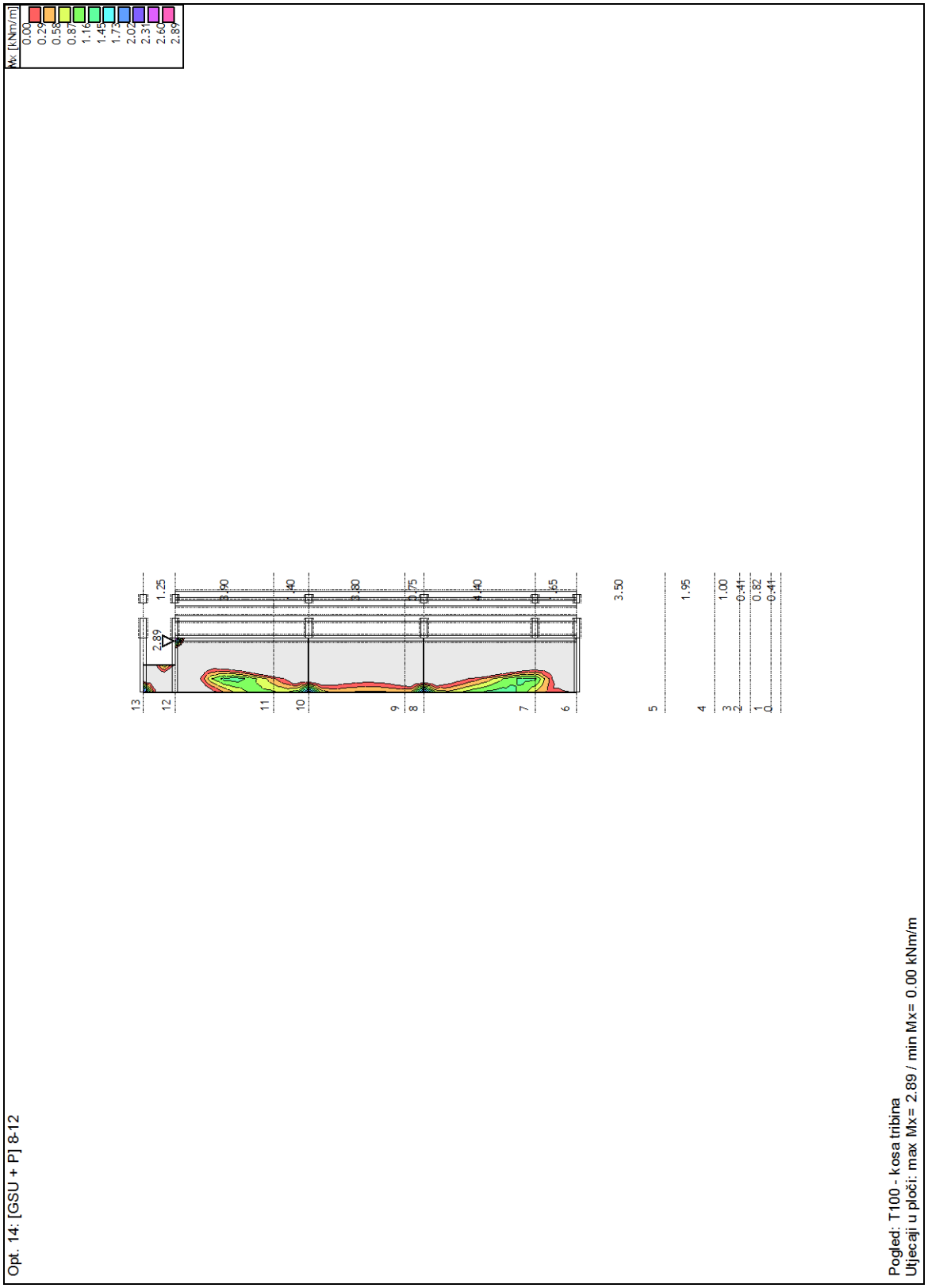
Pogled: T100 - kosa tribina
Aa - g.zona - Pravac 1 - max Aa1,g= -4.34 cm2/m

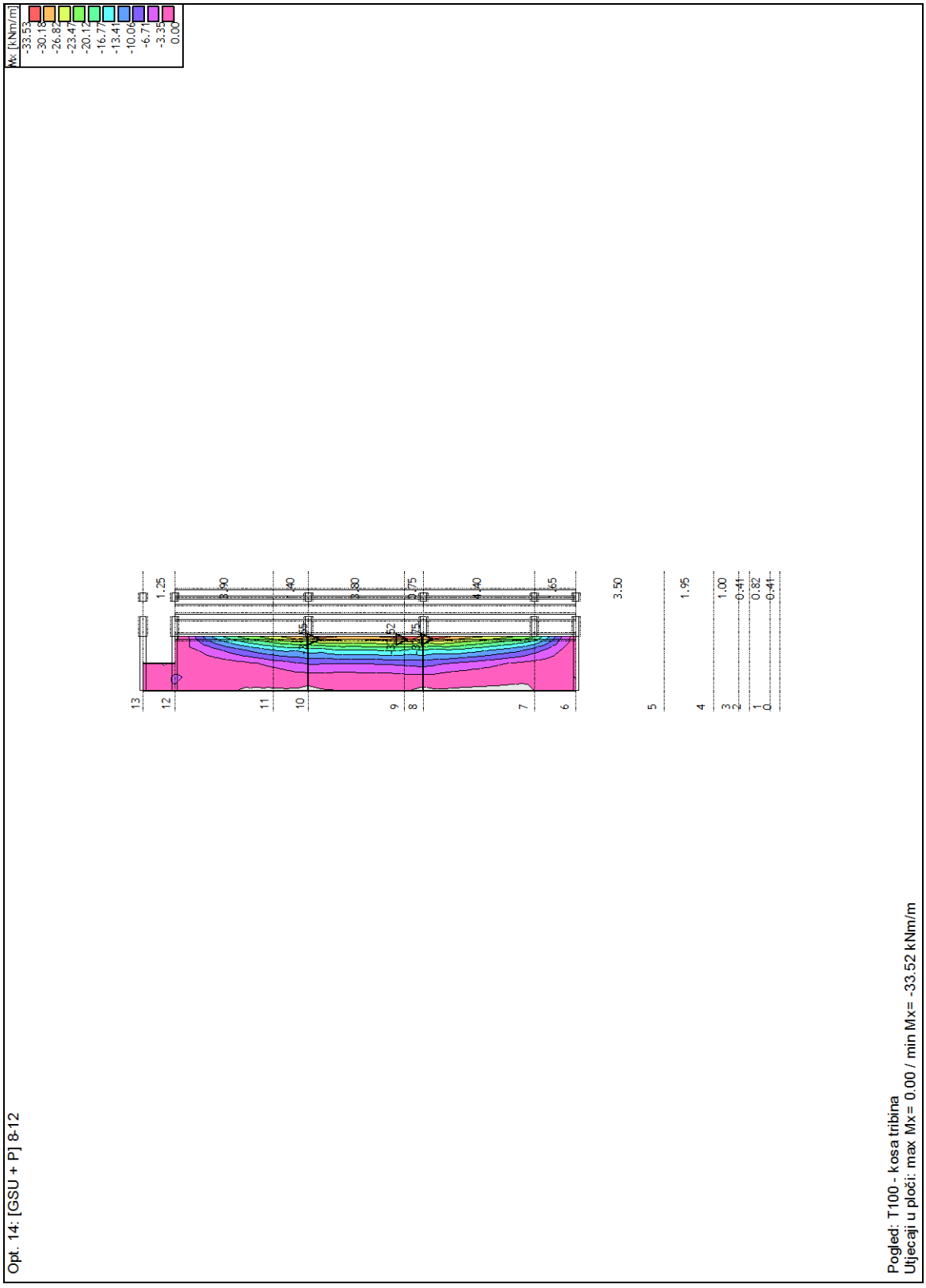


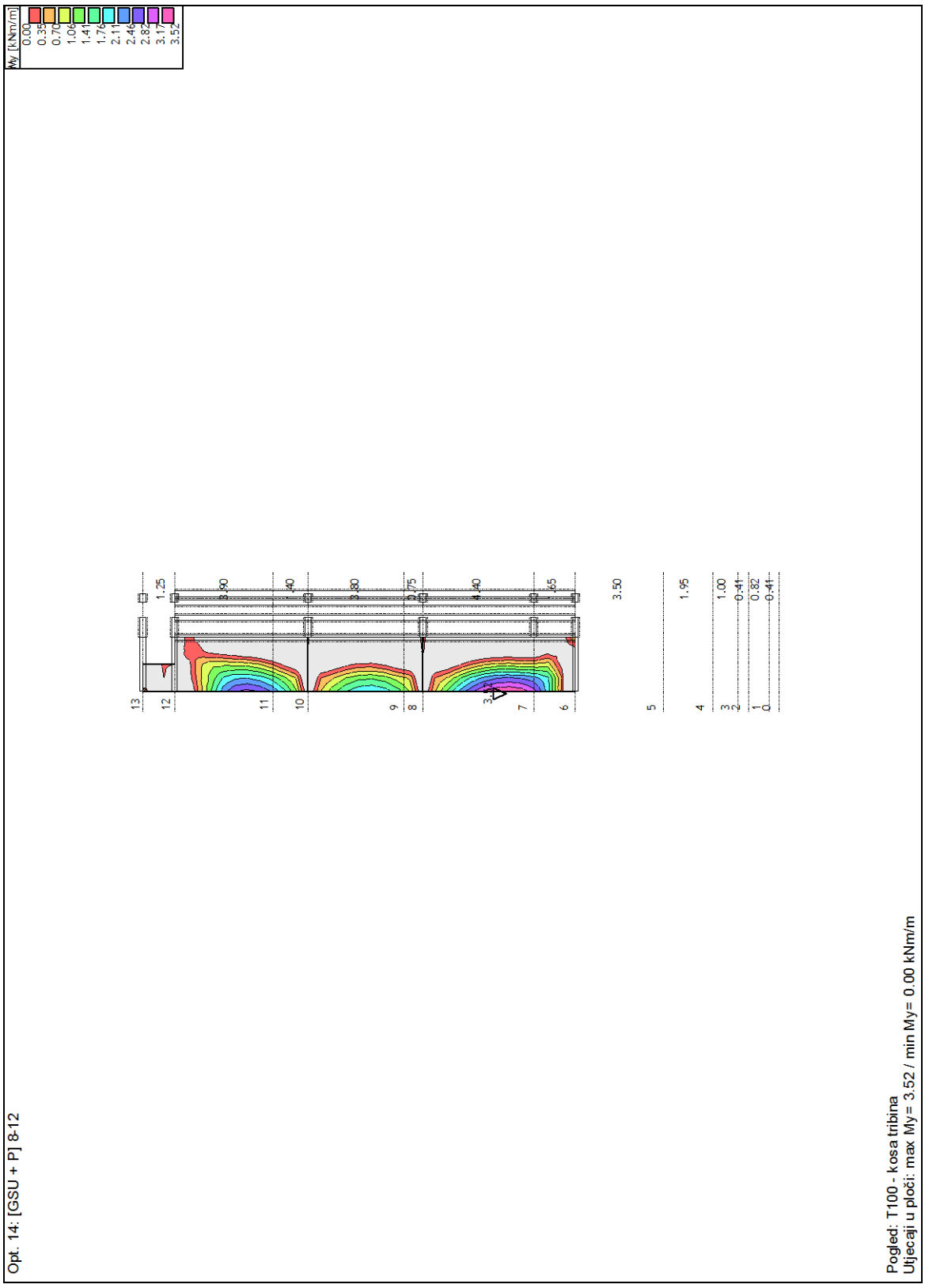
Odabrana armatura

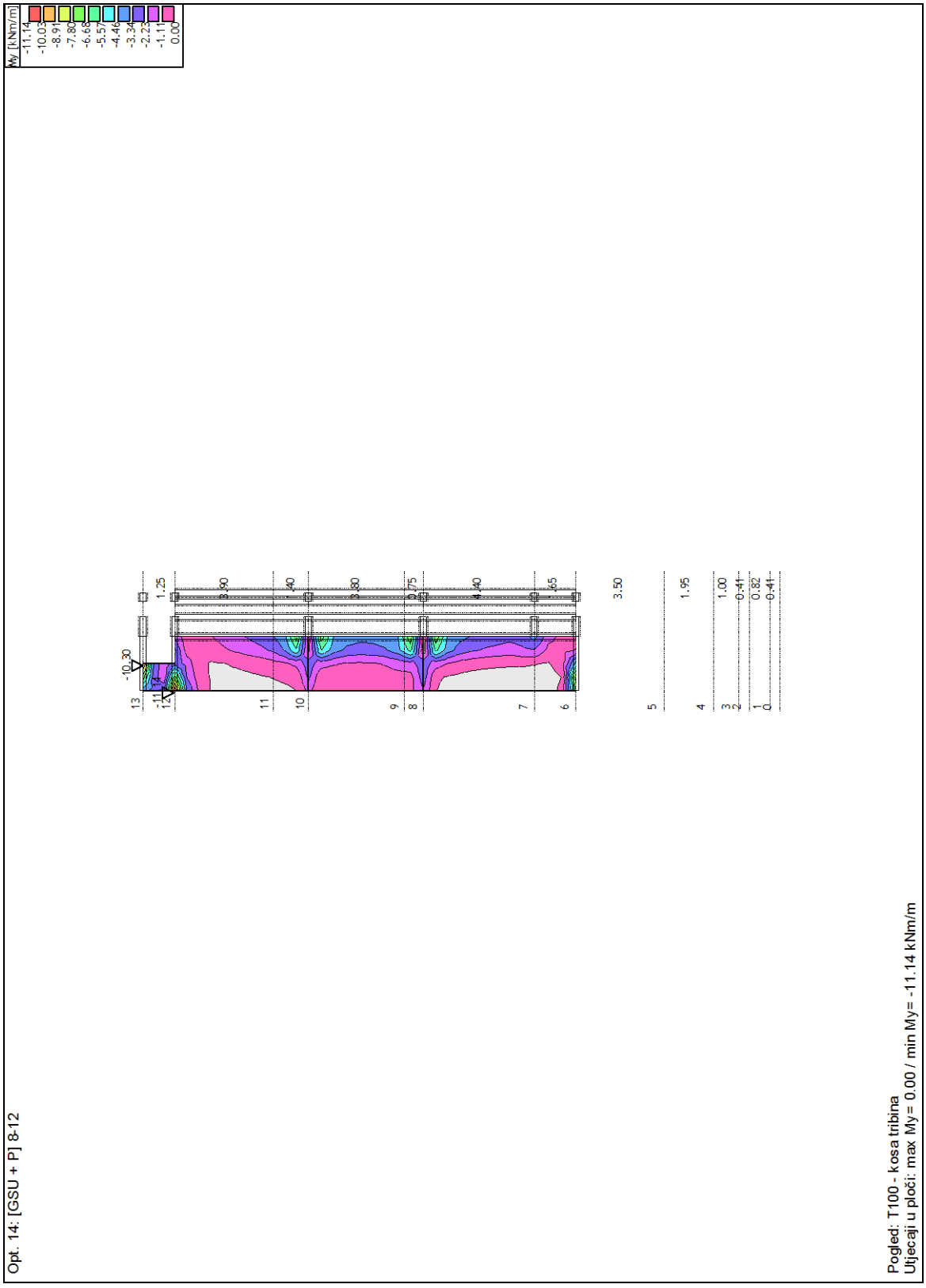
Monolitnu armiranobetonsku ploču armirati u obje zone mrežama Q385. Ploču i zidove po rubu povezali U-vilicama Ø8/15, a spoj ojačati uzdužnim šipkama Ø12. Materijal izvedbe je beton C30/37 i armatura B500.

GSU


Mx [kNm/m]
0.00
0.29
0.58
0.87
1.16
1.45
1.73
2.02
2.31
2.60
2.89
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
2.89
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 14: [GSU + PJ] 8-12
Pogled: T100 - kosa tribina
Utjecaji u ploči: max Mx= 2.89 / min Mx= 0.00 kNm/m


Mx [kNm/m]
-33.53
-30.18
-26.82
-23.47
-20.12
-16.77
-13.41
-10.06
-6.71
-3.35
0.00
1.25
3.80
1.40
3.80
0.75
3.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 14: [GSU + P] 8-12
Pogled: T100 - kosa tribina
Utjecaji u ploči: max Mx= 0.00 / min Mx= -33.52 kNm/m


My [kNm/m]
0.00
0.35
0.70
1.06
1.41
1.76
2.11
2.46
2.82
3.17
3.52
1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 14: [GSU + P] 8-12
Pogled: T100 - kosa tribina
Utjecaji u ploči: max My= 3.52 / min My= 0.00 kNm/m



Opt. 14: [GSU + P] 8-12

Pogled: T100 - kosa tribina
Utjecaji u ploči: max My= 0.00 / min My= -11.14 kNm/m

Pukotine

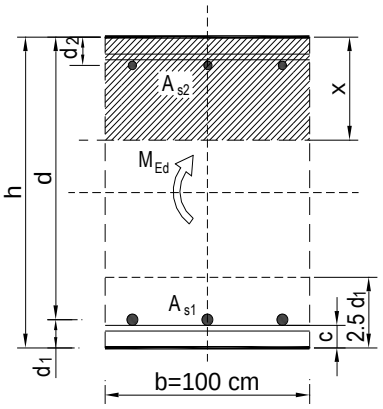
Granična vrijednost širine pukotine: $w_g = 0.3\,mm$ (EC-2)

Ploča kosog krova - tribine

x-smjer

b =	100,0	cm	d =	17,0	cm	h =	20,0	cm
f_{ck} =	30,0	MN/m^2	f_{ctm} =	2,90	MN/m^2	w_g =	0,30	mm
A_{s1} =	2,83	cm^2	A_{s2} =	0,00	cm^2	$d_1 = d_2$ =	3,0	cm
E_s =	200,00	GN/m^2	E_{cm} =	32,80	GN/m^2	$\alpha_e = E_s/E_{cm}$ =	6,10	
M_{Ed} =	2,9	kNm	k_t =	0,40				
σ_s =	62,91	MN/m^2						
x =	2,25	cm	$\rho_{p,eff}$ =	0,0038				
$(\varepsilon_{sm}-\varepsilon_{cm})$ =	-0,001257	<	$0.6\cdot\sigma_s/E_s$ =	0,000189				
Ø =	6,0	mm	c =	3,00	cm			
k_1 =	0,8		k_2 =	0,50				
k_3 =	3,4		k_4 =	0,43				
$s_{r,max}$ =	372,56	mm						

$w_k = s_{r,max}\cdot(\varepsilon_{sm}-\varepsilon_{cm})$ = 0,070 mm < w_g



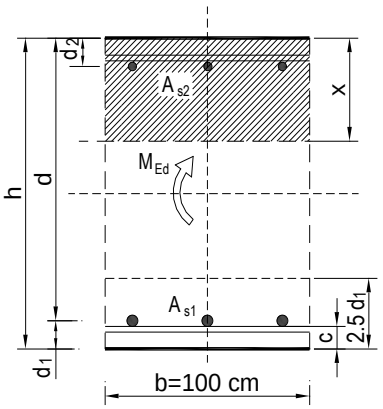
Na mjestima najvećih momenata armatura je:

u polju: Q385 3,85 cm^2

y-smjer

b =	100,0	cm	d =	17,0	cm	h =	20,0	cm
f_{ck} =	30,0	MN/m^2	f_{ctm} =	2,90	MN/m^2	w_g =	0,30	mm
A_{s1} =	2,83	cm^2	A_{s2} =	0,00	cm^2	$d_1 = d_2$ =	3,0	cm
E_s =	200,00	GN/m^2	E_{cm} =	32,80	GN/m^2	$\alpha_e = E_s/E_{cm}$ =	6,10	
M_{Ed} =	3,5	kNm	k_t =	0,40				
σ_s =	76,62	MN/m^2						
x =	2,25	cm	$\rho_{p,eff}$ =	0,0038				
$(\varepsilon_{sm}-\varepsilon_{cm})$ =	-0,001189	<	$0.6\cdot\sigma_s/E_s$ =	0,000230				
Ø =	6,0	mm	c =	3,00	cm			
k_1 =	0,8		k_2 =	0,50				
k_3 =	3,4		k_4 =	0,43				
$s_{r,max}$ =	372,56	mm						

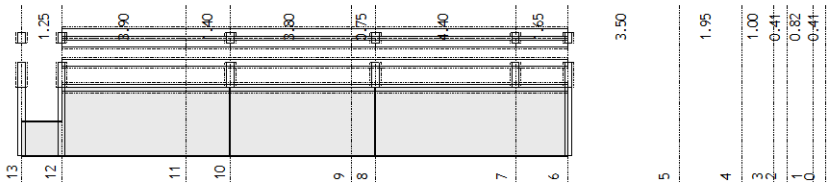
$w_k = s_{r,max}\cdot(\varepsilon_{sm}-\varepsilon_{cm})$ = 0,086 mm < w_g



Na mjestima najvećih momenata armatura je:

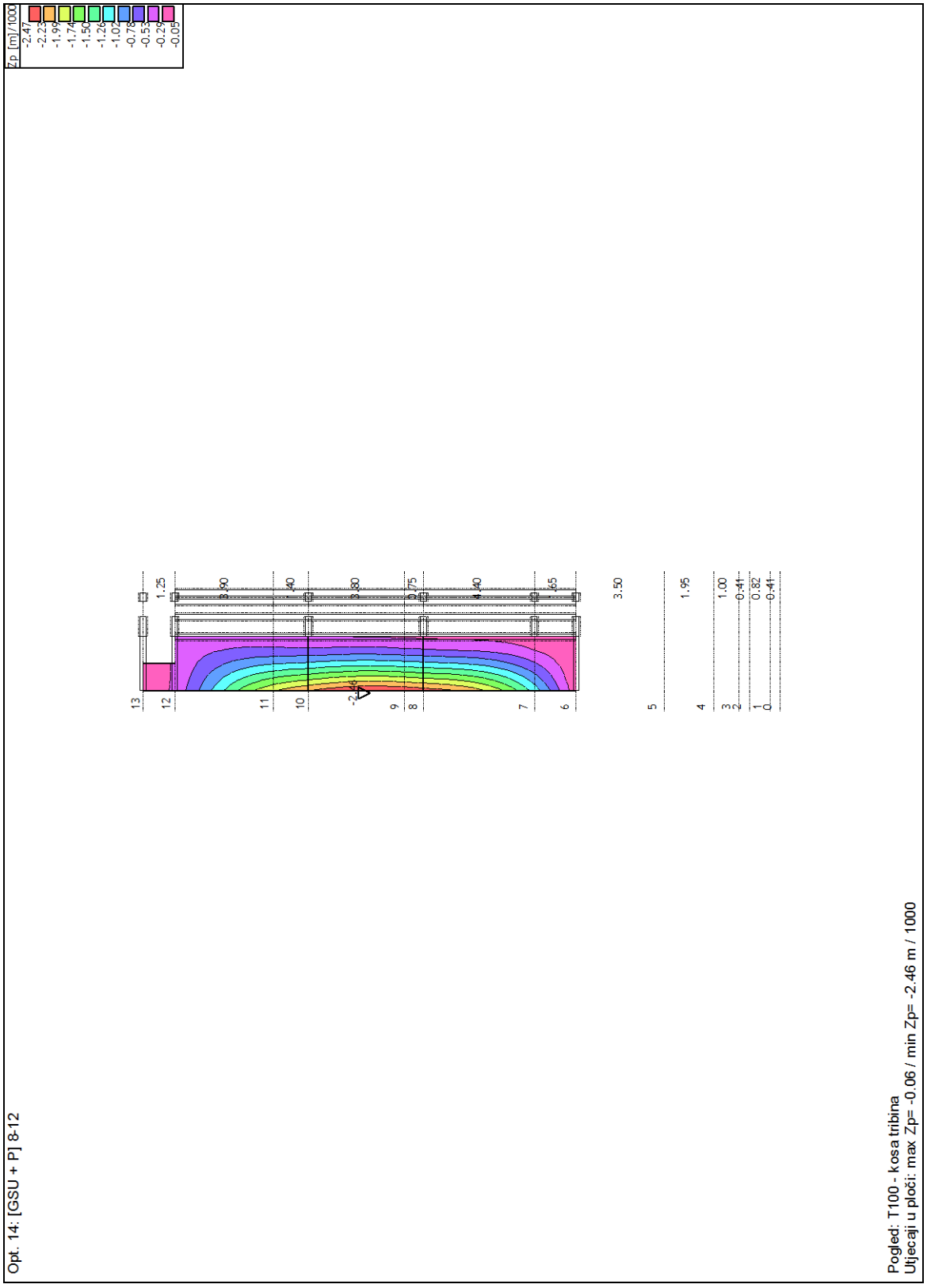
u polju: Q385 3,85 cm^2

Progibi



Opt. 14: [GSU + P] 8-12

Pogled: T100 - kosa tribina
Utjecaji u ploči: Zp


Zp [m]/1000
-2.47
-2.23
-1.99
-1.74
-1.50
-1.26
-1.02
-0.78
-0.53
-0.29
-0.05
1.25
3.50
1.95
1.00
0.41
0.82
0.41
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 14: [GSU + P] 8-12
Pogled: T100 - kosa tribina
Utjecaji u ploči: max Zp= -0.06 / min Zp= -2.46 m / 1000

Konzolno

x-smjer

Granična vrijednost progiba: $v_{lim} = L / 250$

Duljina raspona: $L = 2 \times l_k = 2 \times 215 \text{ cm} = 430 \text{ cm}$

$v_{lim} = L / 250 = 430 / 250 = 1,72 \text{ cm}$

Kratkotrajni progib: $v_{t0} = zp = 2,46 \text{ mm}$

Dugotrajni progib: $v_{t\infty} = \varphi(\infty) \times K_r \times v_{t0}$

$\varphi(\infty) = 2,4$ - konačni koeficijent puzanja

$K_r \leq 0,85$

Ukupni progib: $v_{fin} = v_{t0} + v_{t\infty}$

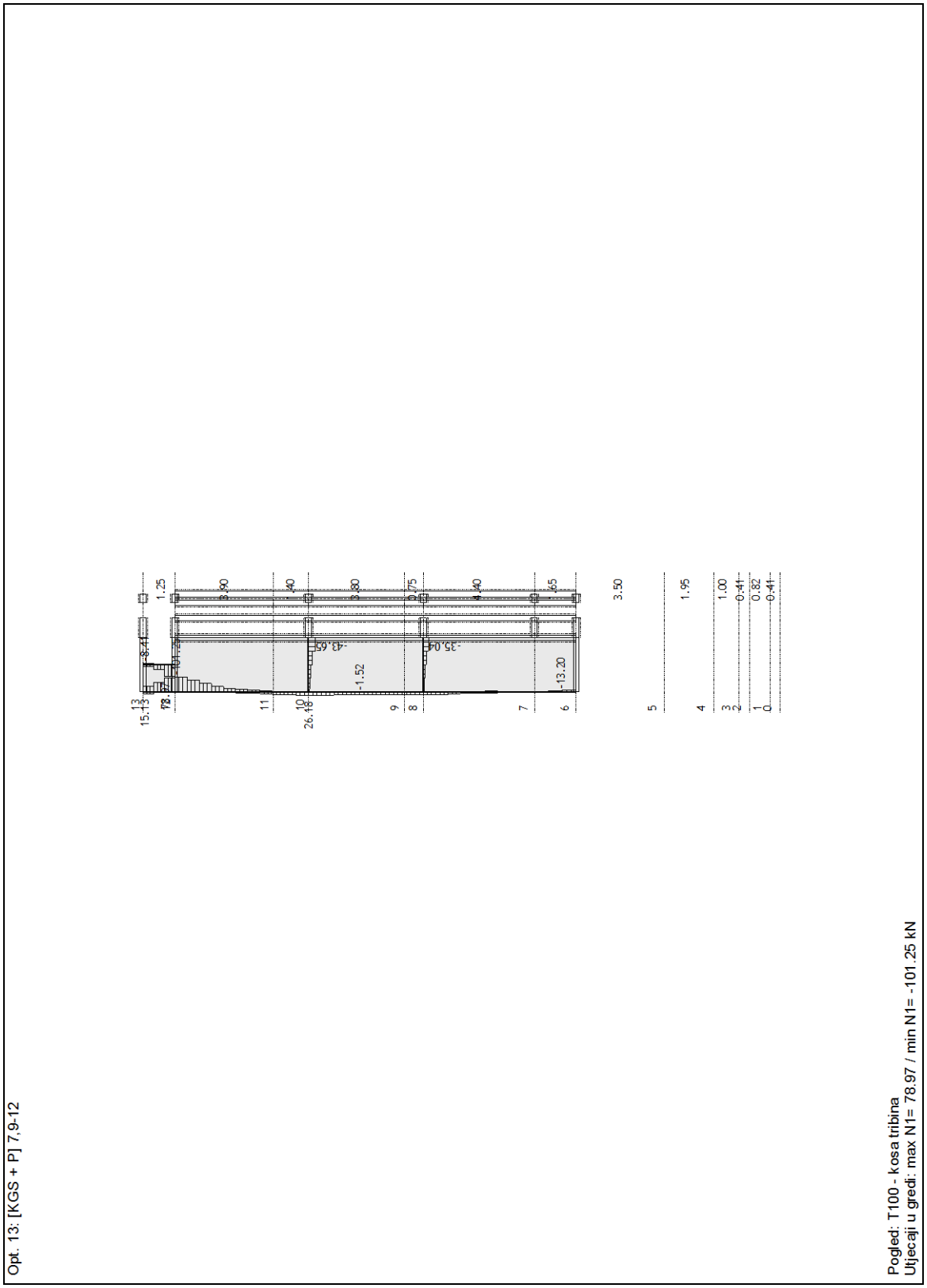
$v_{fin} = v_{t0} + \varphi(\infty) \times K_r \times v_{t0} = (1+2,4 \times 0,85) \times v_{t0} = 3,04 \times 2,46 = 7,48 \text{ mm} = 0,75 \text{ cm}$

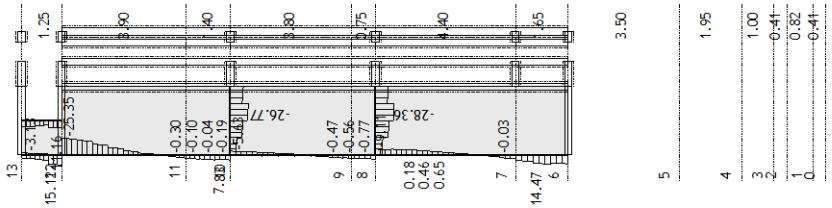
$v_{fin} = 0,75 \text{ cm} < v_{dop} = 1,72 \text{ cm}$

Progibi ploče zadovoljavaju.

Grede 200

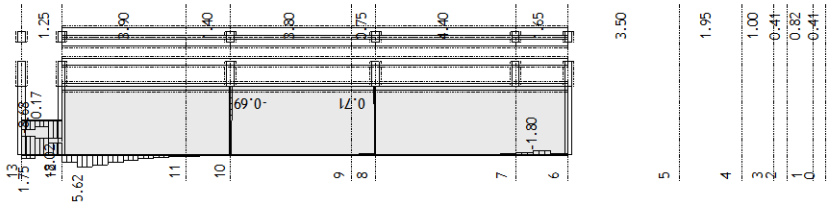
KGS





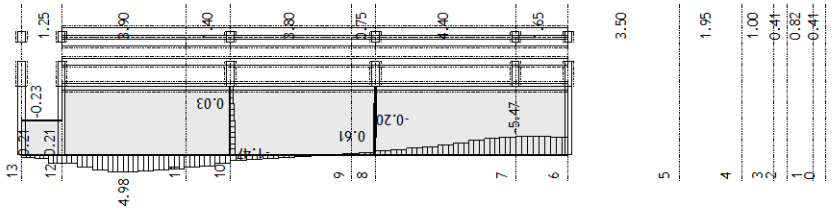
Opt. 13: [KGS + P] 7,9-12

Pogled: T100 - kosa tribina
Utjecaji u gredi: max T2= 15.12 / min T2= -28.36 kN (N1)



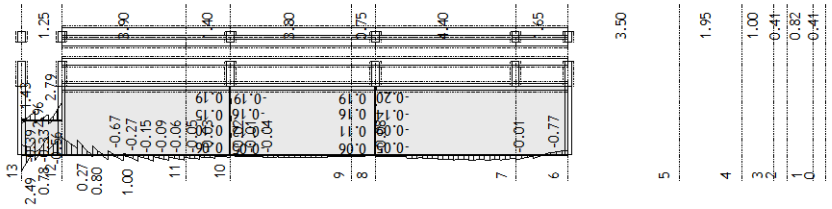
Opt. 13: [KGS + P] 7,9-12

Pogled: T100 - kosa tribina
Utjecaji u gredi: max T3= 5.62 / min T3= -8.68 kN (N1)



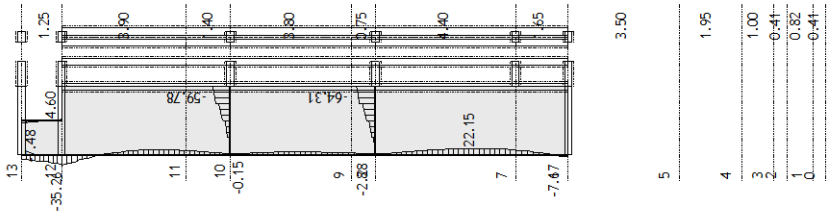
Opt. 13: [KGS + P] 7,9-12

Pogled: T100 - kosa tribina
Utjecaji u gredi: max M1= 4.98 / min M1= -5.47 kNm (N1)



Opt. 13: [KGS + P] 7,9-12

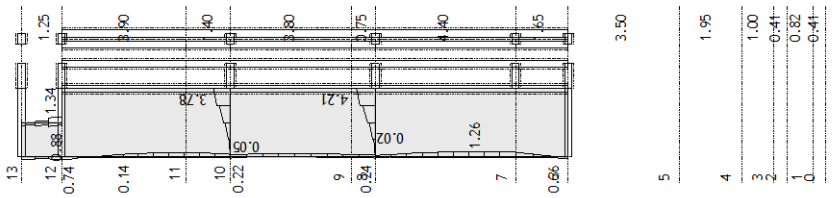
Pogled: T100 - kosa tribina
Utjecaji u gredi: max M2= 2.79 / min M2= -2.96 kNm (N1)



Opt. 13: [KGS + P] 7,9-12

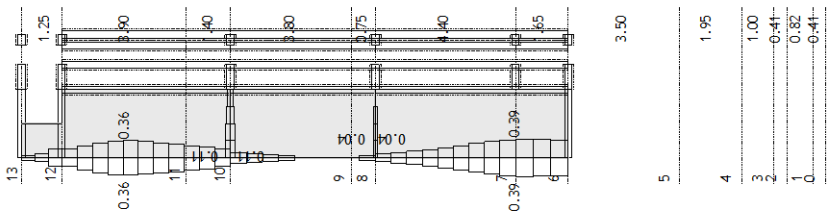
Pogled: T100 - kosa tribina
Utjecaji u gredi: max M3= 22.15 / min M3= -64.31 kNm (N1)

Potrebna armatura



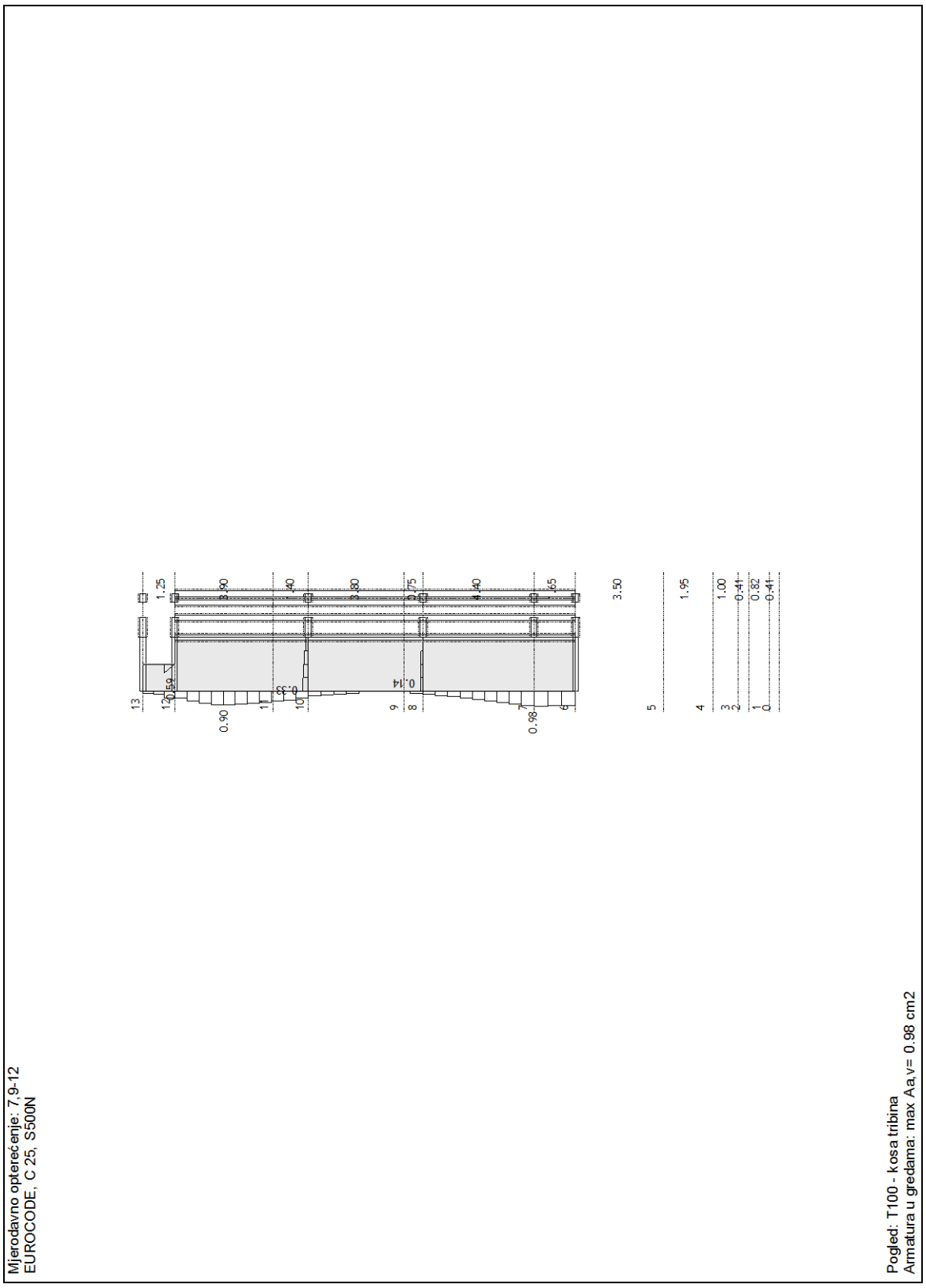
Mjerodavno opterećenje: 7,9-12
EUROCODE, C 25, S500N

Pogled: T100 - kosa tribina
Armatura u gredama: max Aa2/Aa1= 4.21 cm2



Mjerodavno opterećenje: 7,9-12
EUROCODE, C 25, S500N

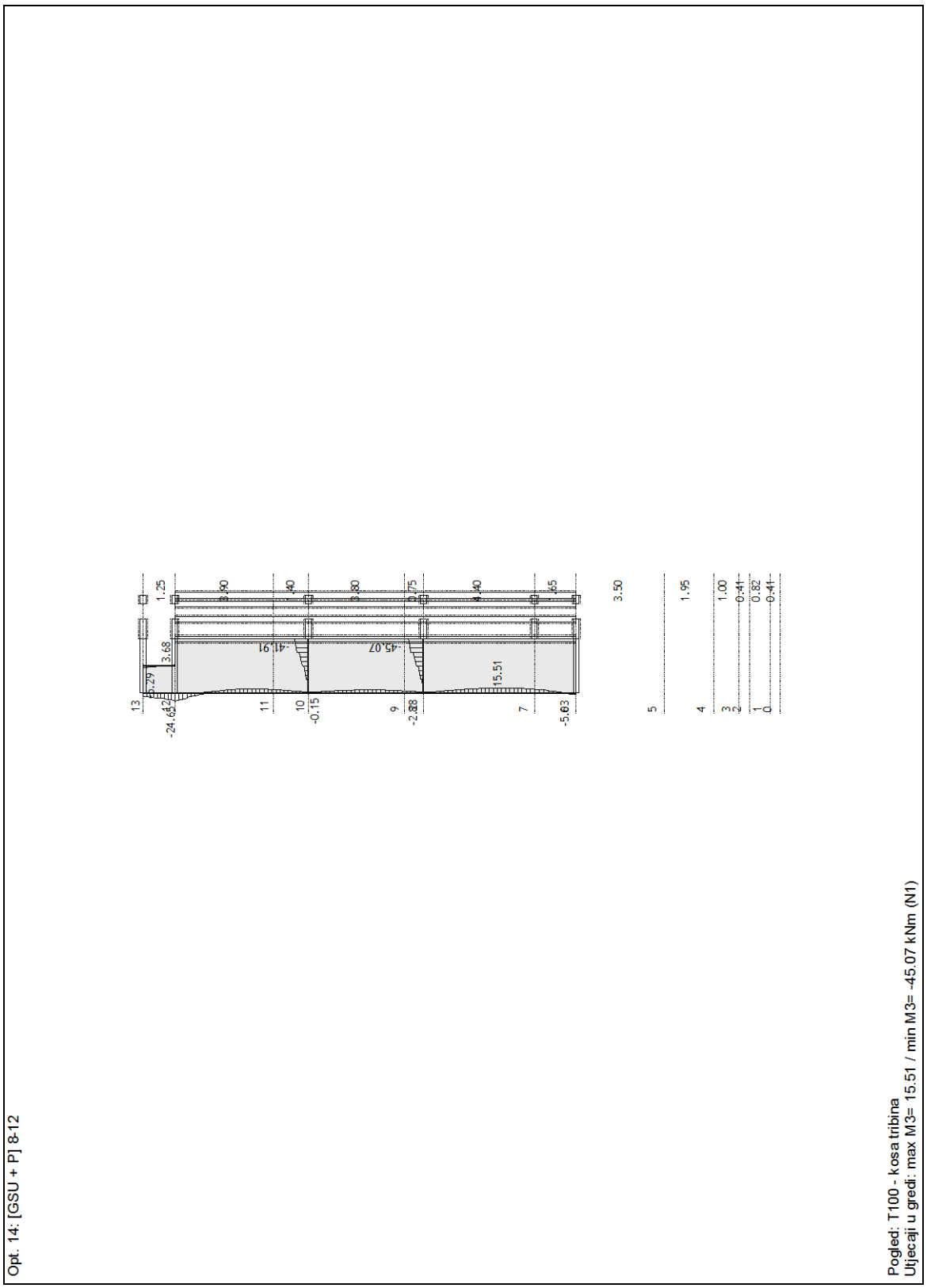
Pogled: T100 - kosa tribina
Armatura u gredama: max Aa3/Aa4= 0.39 cm2



Odabrana armatura

Grede armirati prema pozicijama šipkama Ø14 te vilicama Ø8/15. Materijal izvedbe je beton C30/37 i armatura B500.

GSU


1.25
8.90
1.40
8.80
0.75
8.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
3.68
0.29
-41.91
-45.07
15.51
-24.65
-0.15
-2.88
-5.63
13
12
11
10
9
7
5
4
3
2
1
0
Opt. 14: [GSU + P] 8-12
Pogled: T100 - kosa tribina
Utjecaji u gredi: max M3= 15.51 / min M3= -45.07 kNm (N1)

Pukotine

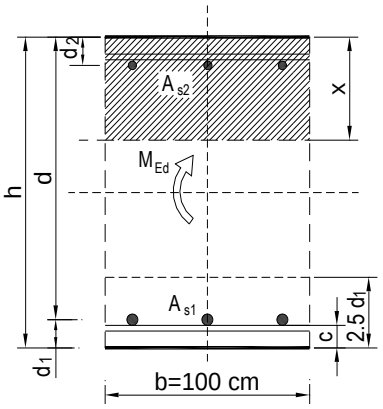
Granična vrijednost širine pukotine: $w_g = 0.3\,mm$ (EC-2)

Greda kosog krova - tribine

y-smjer

b =	20,0	cm	d =	45,0	cm	h =	50,0	cm
f_{ck} =	30,0	MN/m²	f_{ctm} =	2,90	MN/m²	w_g =	0,30	mm
A_{s1} =	4,62	cm²	A_{s2} =	0,00	cm²	$d_1 = d_2$ =	5,0	cm
E_s =	200,00	GN/m²	E_{cm} =	32,80	GN/m²	$\alpha_e = E_s/E_{cm}$ =	6,10	
M_{Ed} =	15,5	kNm	k_t =	0,40				
σ_s =	80,56	MN/m²						
x =	9,94	cm	$\rho_{p,eff}$ =	0,0185				
$(\varepsilon_{sm}-\varepsilon_{cm})$ =	0,000054	<	$0.6\cdot\sigma_s/E_s$ =	0,000242				
Ø =	14,0	mm	c =	5,00	cm			
k_1 =	0,8		k_2 =	0,50				
k_3 =	3,4		k_4 =	0,43				
$s_{r,max}$ =	298,84	mm						

$w_k = s_{r,max}\cdot(\varepsilon_{sm}-\varepsilon_{cm})$ = 0,072 mm < w_g



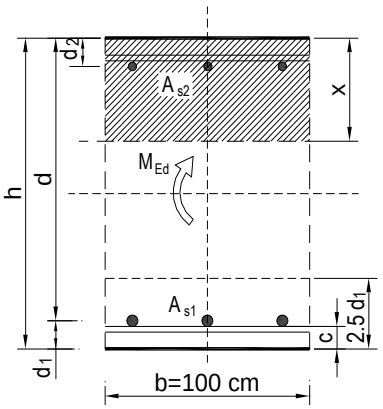
Na mjestima najvećih momenata armatura je:

u polju: 3 Ø14 4,62 cm²

y-smjer

b =	20,0	cm	d =	45,0	cm	h =	50,0	cm
f_{ck} =	30,0	MN/m²	f_{ctm} =	2,90	MN/m²	w_g =	0,30	mm
A_{s1} =	4,62	cm²	A_{s2} =	0,00	cm²	$d_1 = d_2$ =	5,0	cm
E_s =	200,00	GN/m²	E_{cm} =	32,80	GN/m²	$\alpha_e = E_s/E_{cm}$ =	6,10	
M_{Ed} =	24,7	kNm	k_t =	0,40				
σ_s =	128,04	MN/m²						
x =	9,94	cm	$\rho_{p,eff}$ =	0,0185				
$(\varepsilon_{sm}-\varepsilon_{cm})$ =	0,000291	<	$0.6\cdot\sigma_s/E_s$ =	0,000384				
Ø =	14,0	mm	c =	5,00	cm			
k_1 =	0,8		k_2 =	0,50				
k_3 =	3,4		k_4 =	0,43				
$s_{r,max}$ =	298,84	mm						

$w_k = s_{r,max}\cdot(\varepsilon_{sm}-\varepsilon_{cm})$ = 0,115 mm < w_g

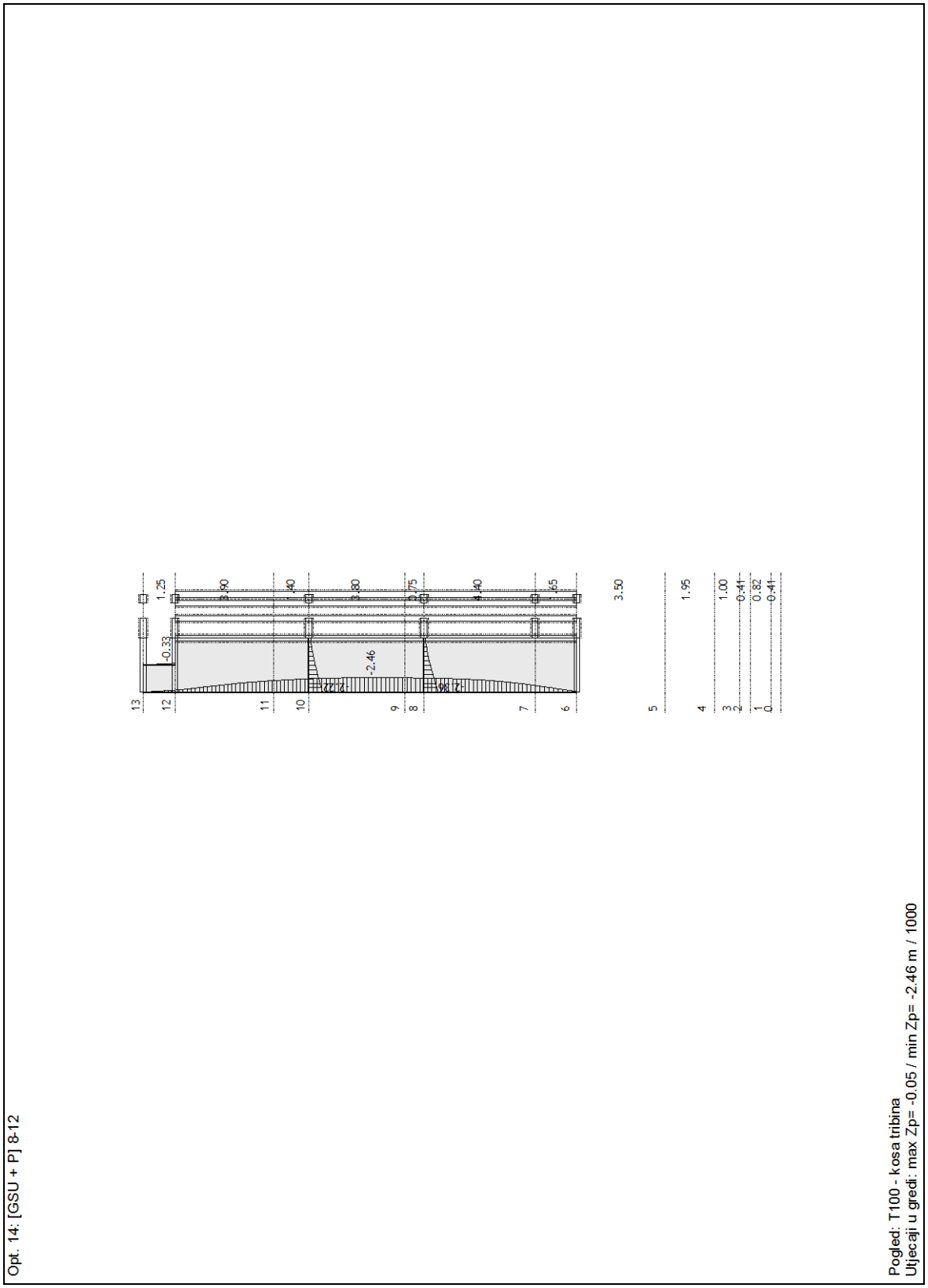


Na mjestima najvećih momenata armatura je:

na zidu: 3 Ø14 4,62 cm²

Pukotine zadovoljavaju.

Progibi


1.25
3.90
1.40
3.80
0.75
4.40
1.65
3.50
1.95
1.00
0.41
0.82
0.41
0.33
-2.46
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Opt. 14: [GSU + P] 8-12
Pogled: T100 - kosa tribina
Utjecaji u gredi: max Zp= -0.05 / min Zp= -2.46 m / 1000

Cijeli raspon

y-smjer

Granična vrijednost progiba: $v_{lim} = L / 250$

Duljina raspona: $L = 1715$ cm

$v_{lim} = L / 250 = 1715 / 250 = 6,86$ cm

Kratkotrajni progib: $v_{t0} = zp = 2,46$ mm

Dugotrajni progib: $v_{t\infty} = \varphi(\infty) \times K_r \times v_{t0}$

$\varphi(\infty) = 2,4$ - konačni koeficijent puzanja

$K_r \leq 0,85$

Ukupni progib: $v_{fin} = v_{t0} + v_{t\infty}$

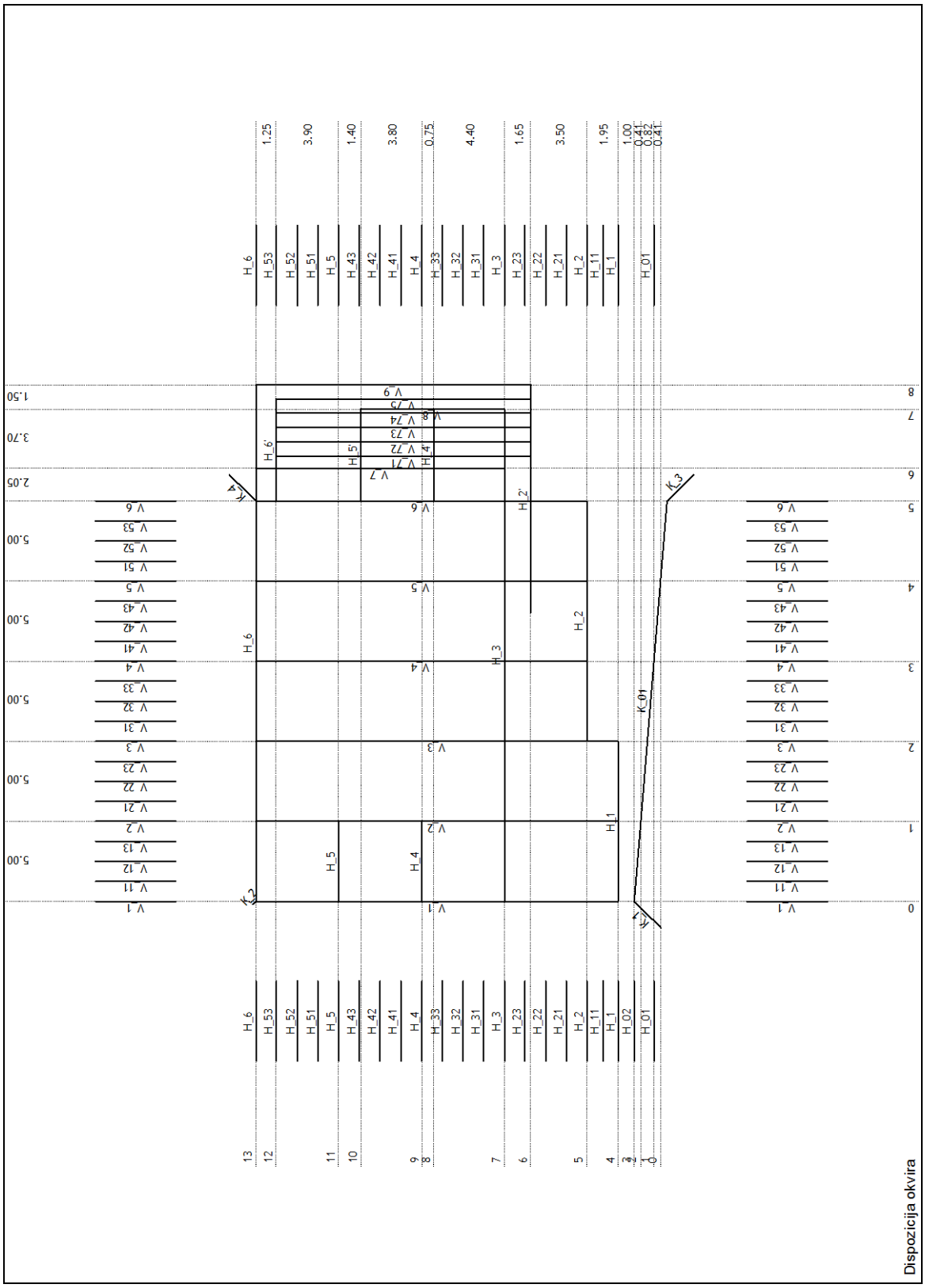
$v_{fin} = v_{t0} + \varphi(\infty) \times K_r \times v_{t0} = (1+2,4 \times 0,85) \times v_{t0} = 3,04 \times 2,46 = 7,48$ mm $= 0,75$ cm

$v_{fin} = 0,75$ cm $<$ $v_{dop} = 6,86$ cm

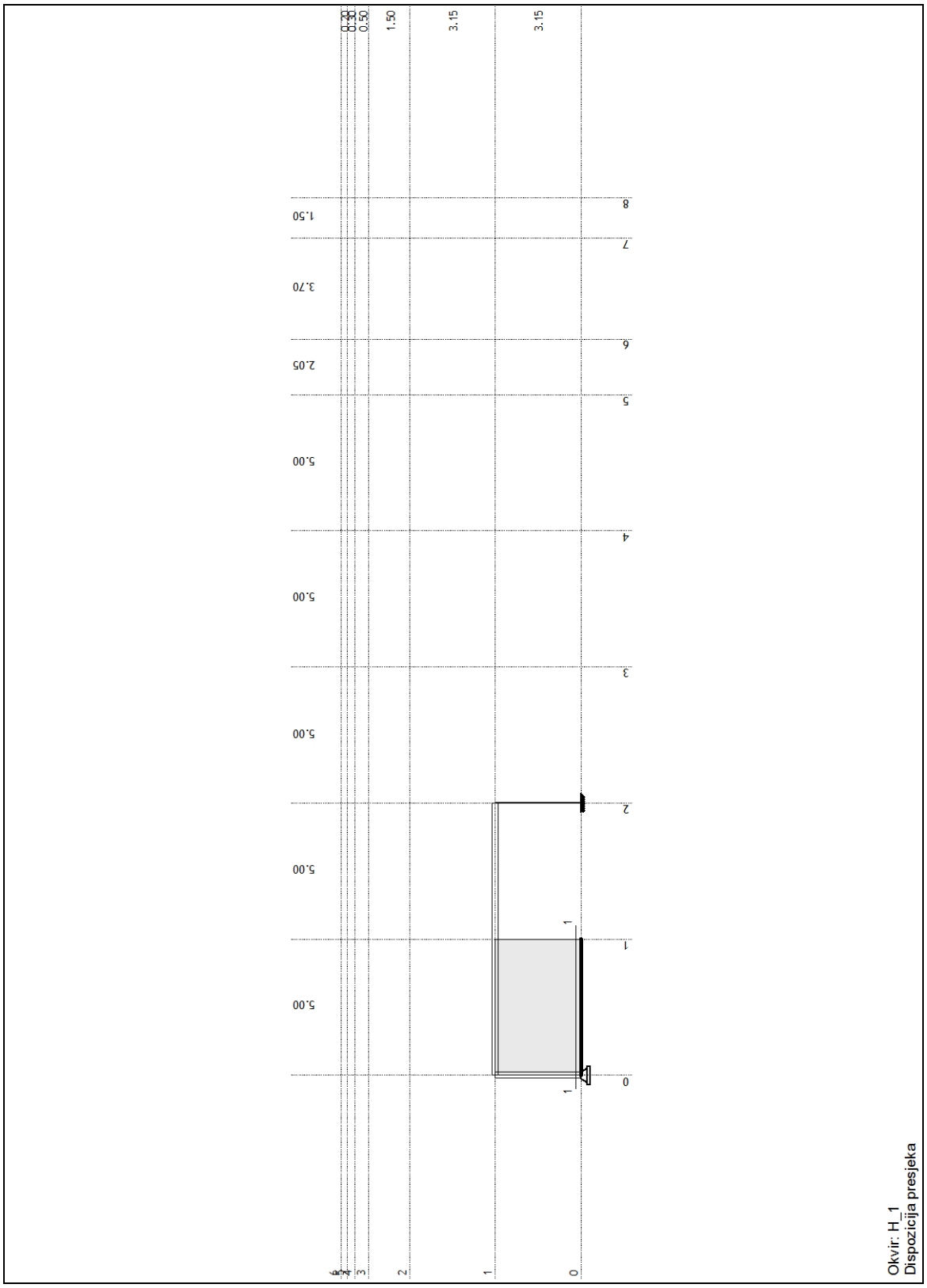
Progibi zadovoljavaju.

PRORAČUN ZIDOVA

Proračun je izvršen za anvelopu seizmičkog opterećenja. Proračun je razložen po osima (okvirima). Dimenzioniranje je izvršeno za mjerodavne kombinacija za savijanje te posmik.

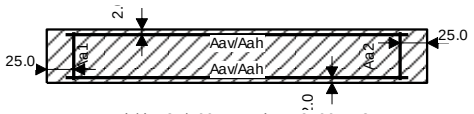


Zidovi osi H_1



Okvir: H_1

Presjek 1 - 1
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xl



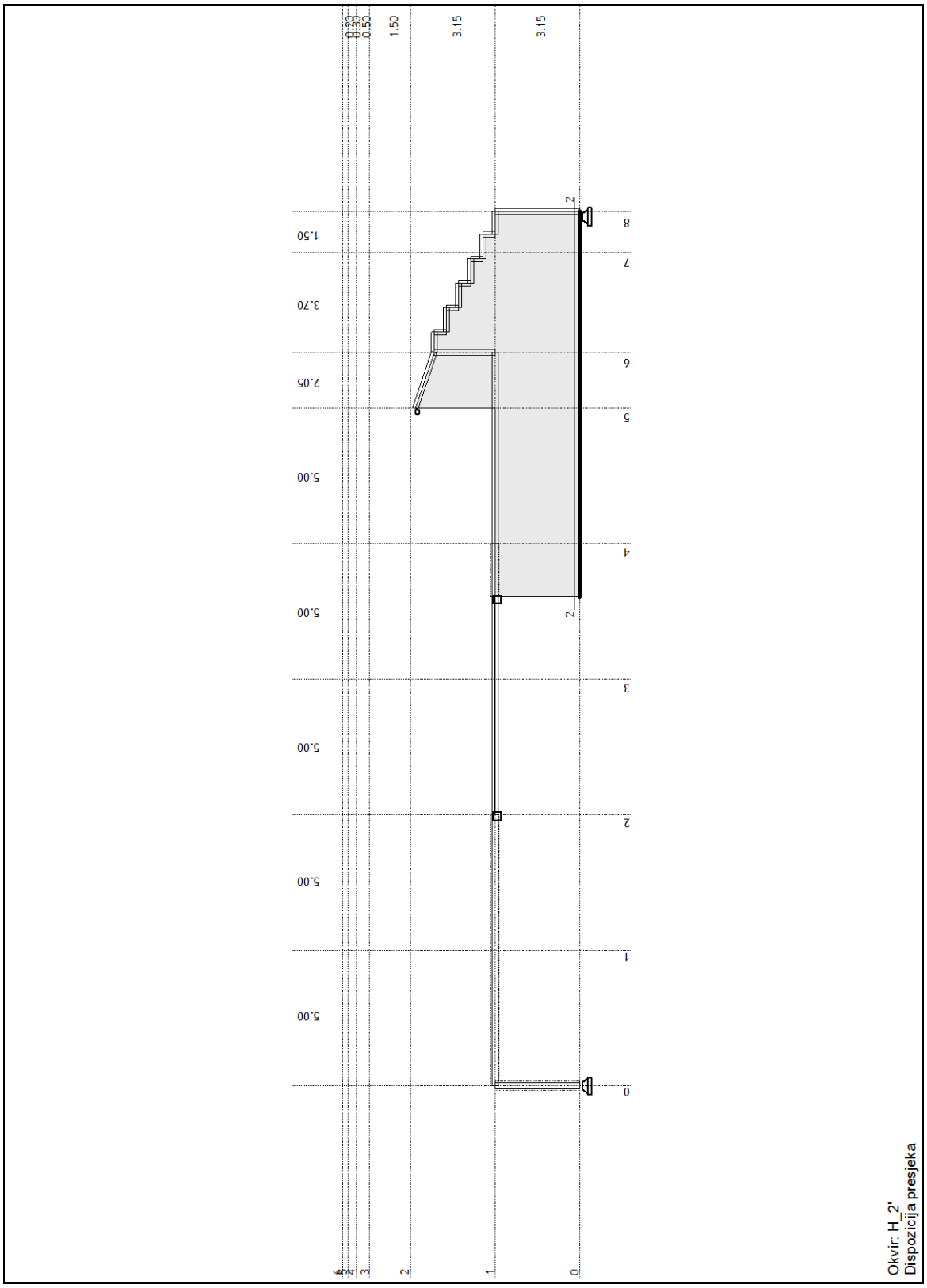
b/d = 25/500 cm Ab = 12500 cm2

No	N [kN]	T [kN]	M [kNm]
I	-204.6	11.0	-125.7
II	-55.9	6.2	-59.3
III	-111.8	12.5	-118.5
IV	-0.2	-0.5	-1.1
V	46.1	102.5	236.9
VI	84.9	226.5	551.8

Mu = -125.67 kNm
Nu = -204.59 kN
Tu = 10.96 kN

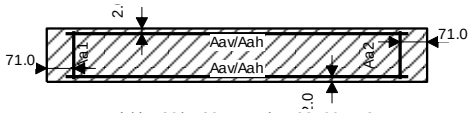
Aa1 =	0.00	cm2	(min:18.75)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:18.75)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.88)	
Aah =	±0.03	cm2/m	(min:±2.50)	(odab:±Q-257)

Zidovi osi H_2'



Okvir: H_2'

Presjek 2 - 2
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xl



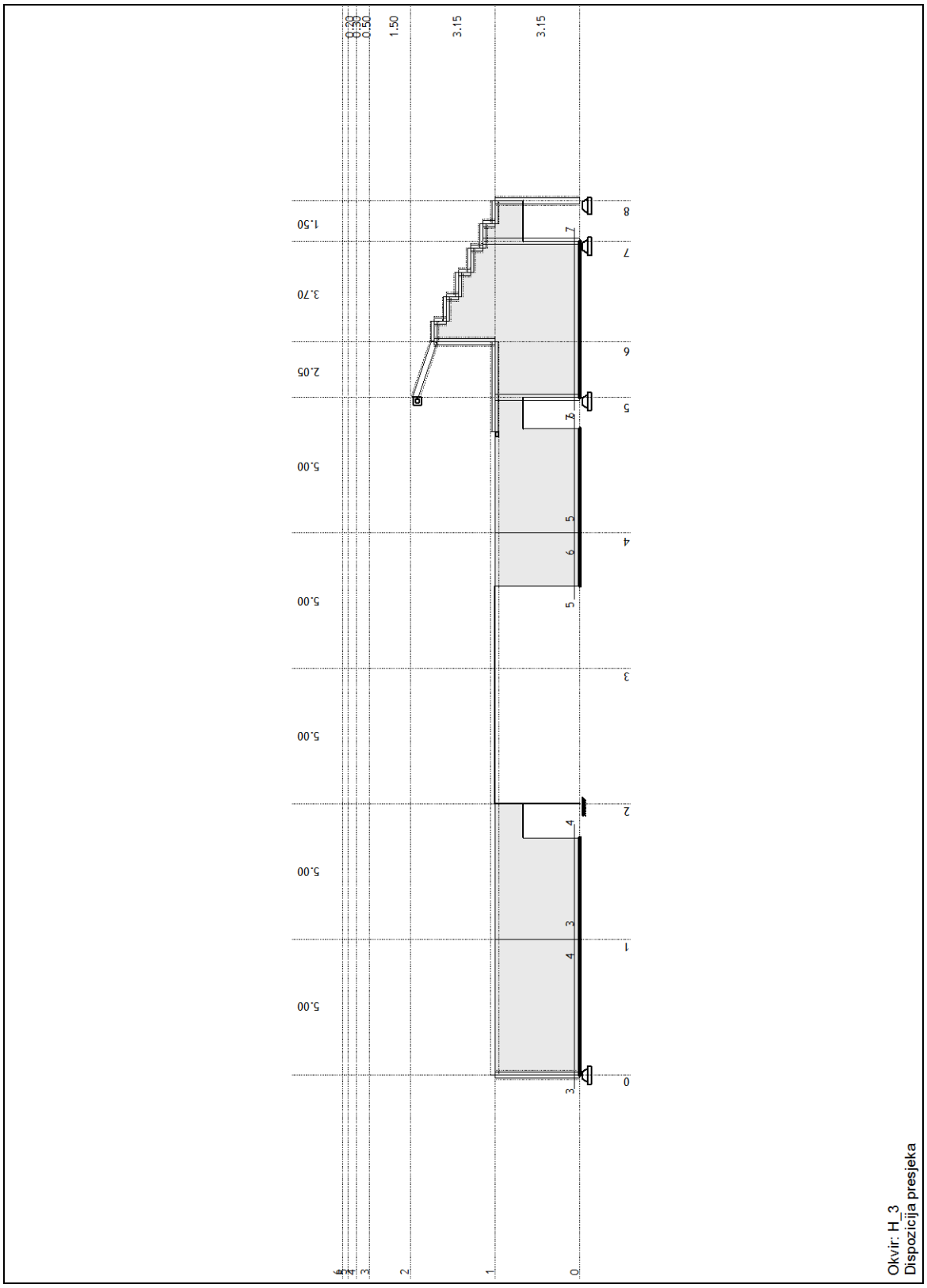
b/d = 20/1420 cm Ab = 28400 cm2

No	N [kN]	T [kN]	M [kNm]
I	-460.5	-42.5	519.9
II	-76.2	-13.9	276.9
III	-99.6	-34.7	437.4
IV	-38.7	12.5	-41.2
V	37.2	129.7	472.8
VI	48.1	168.7	475.2

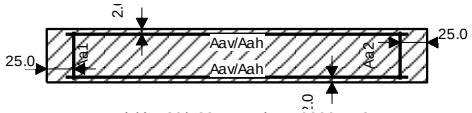
Mu = 519.87 kNm
Nu = -460.45 kN
Tu = -42.51 kN

Aa1 = 0.00 cm2 (min:42.60) (odab:2Ø14)
Aa2 = 0.00 cm2 (min:42.60) (odab:2Ø14)
Aav = ±0.00 cm2/m (min:±1.50)
Aah = ±0.04 cm2/m (min:±2.00) (odab:±Q-257)

Zidovi osi H_3



Presjek 3 - 3
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



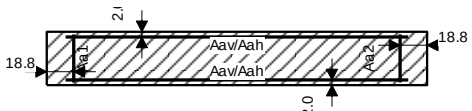
b/d = 20/500 cm Ab = 10000 cm2

No	N [kN]	T [kN]	M [kNm]
I	-136.9	23.7	-25.2
II	-28.4	8.1	-12.8
III	-56.6	15.6	-25.7
IV	-0.0	0.0	0.0
V	21.6	71.7	40.1
VI	44.5	104.7	72.7

Mu = -25.22 kNm
Nu = -136.92 kN
Tu = 23.68 kN

Aa1 =	0.00	cm2	(min:15.00)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:15.00)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.50)	
Aah =	±0.06	cm2/m	(min:±2.00)	(odab:±Q-257)

Presjek 4 - 4
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



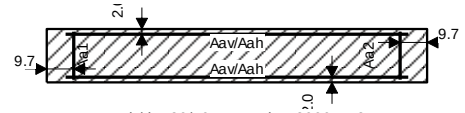
b/d = 20/375 cm Ab = 7500 cm2

No	N [kN]	T [kN]	M [kNm]
I	-154.3	35.2	-21.6
II	-38.8	7.7	-5.3
III	-77.9	15.1	-10.9
IV	0.0	0.1	0.0
V	44.4	48.0	23.4
VI	69.2	74.2	37.1

Mu = -21.59 kNm
Nu = -154.29 kN
Tu = 35.21 kN

Aa1 =	0.00	cm2	(min:11.25)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:11.25)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.50)	
Aah =	±0.12	cm2/m	(min:±2.00)	(odab:±Q-257)

Presjek 5 - 5
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



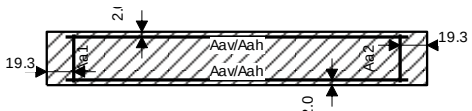
b/d = 20/195 cm Ab = 3900 cm2

No	N [kN]	T [kN]	M [kNm]
I	-48.2	-2.9	1.7
II	-6.1	-0.2	0.1
III	-11.5	-2.2	0.4
IV	-0.2	0.5	-0.2
V	25.8	13.5	4.7
VI	44.8	18.3	9.1

Mu = 1.69 kNm
Nu = -48.24 kN
Tu = -2.88 kN

Aa1 =	0.00	cm2	(min:5.85)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:5.85)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.50)	
Aah =	±0.02	cm2/m	(min:±2.00)	(odab:±Q-257)

Presjek 6 - 6
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



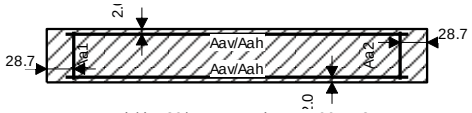
b/d = 20/385 cm Ab = 7700 cm2

No	N [kN]	T [kN]	M [kNm]
I	-96.4	4.3	-9.5
II	-13.9	2.4	-2.2
III	-18.7	-2.6	1.1
IV	-7.7	3.9	-5.3
V	19.3	35.4	24.1
VI	33.8	48.2	43.1

Mu = -9.52 kNm
Nu = -96.41 kN
Tu = 4.30 kN

Aa1 =	0.00	cm2	(min:11.55)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:11.55)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.50)	
Aah =	±0.01	cm2/m	(min:±2.00)	(odab:±Q-257)

Presjek 7 - 7
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



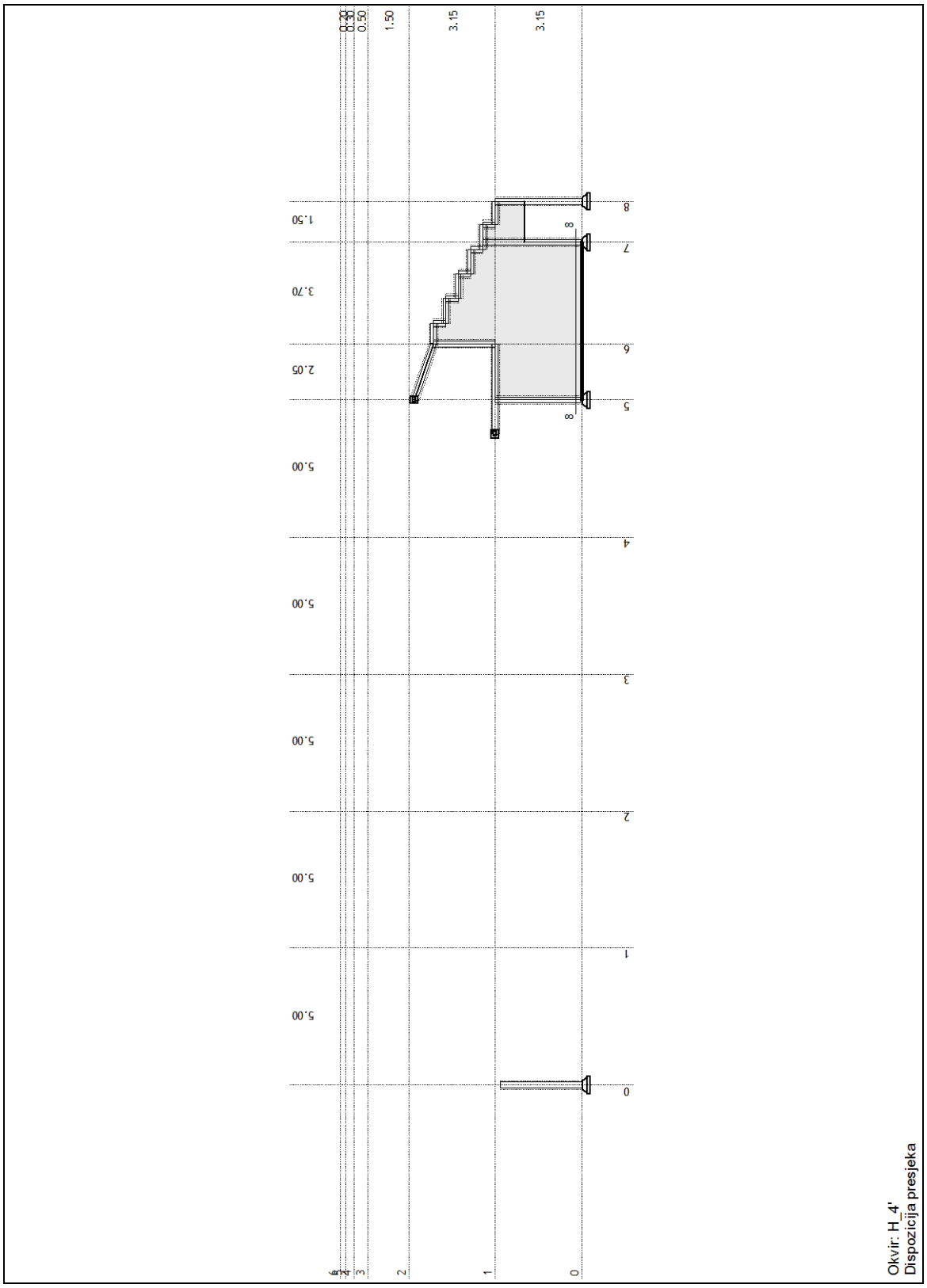
b/d = 20/575 cm Ab = 11500 cm2

No	N [kN]	T [kN]	M [kNm]
I	-229.3	0.4	12.4
II	-30.5	-1.7	13.2
III	-7.0	-1.4	8.0
IV	-70.0	-0.9	7.6
V	39.8	60.7	65.0
VI	63.9	34.1	25.0

Mu = 12.40 kNm
Nu = -229.30 kN
Tu = 0.37 kN

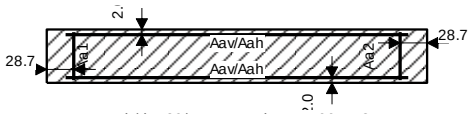
Aa1 =	0.00	cm2	(min:17.25)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:17.25)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.50)	
Aah =	±0.00	cm2/m	(min:±2.00)	(odab:±Q-257)

Zidovi osi H_4'



Okvir: H_4'

Presjek 8 - 8
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xl



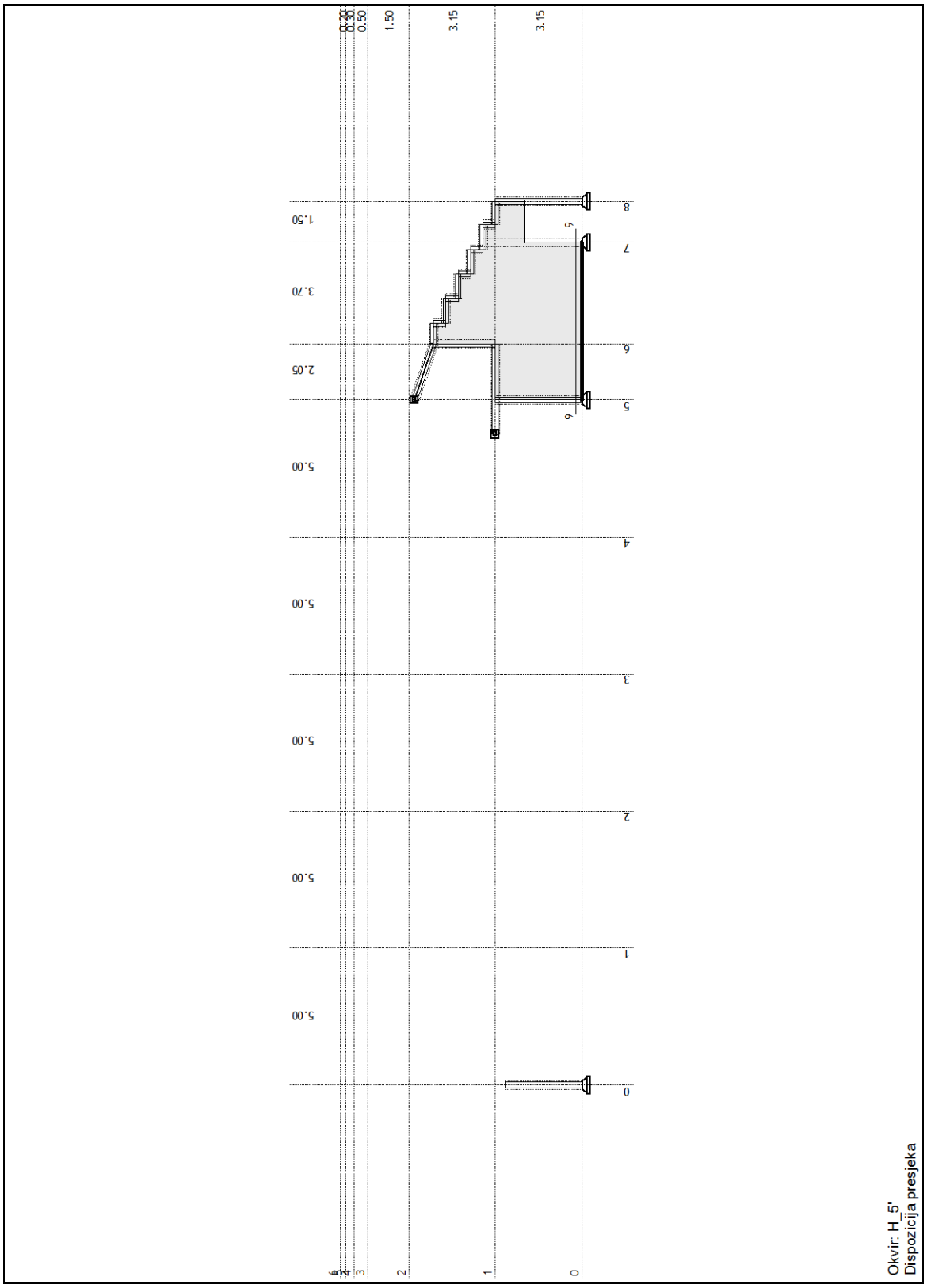
b/d = 20/575 cm Ab = 11500 cm2

No	N [kN]	T [kN]	M [kNm]
I	-309.3	-27.2	7.6
II	-49.1	-7.2	15.0
III	-0.5	0.6	0.3
IV	-122.2	-17.5	11.7
V	30.5	105.0	91.9
VI	28.7	46.3	46.5

Mu = 7.64 kNm
Nu = -309.29 kN
Tu = -27.19 kN

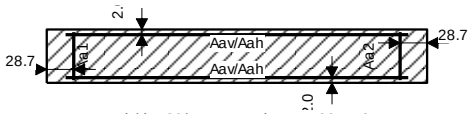
Aa1 =	0.00	cm2	(min:17.25)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:17.25)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.50)	
Aah =	±0.06	cm2/m	(min:±2.00)	(odab:±Q-257)

Zidovi osi H_5'



Okvir: H_5'

Presjek 9 - 9
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xl



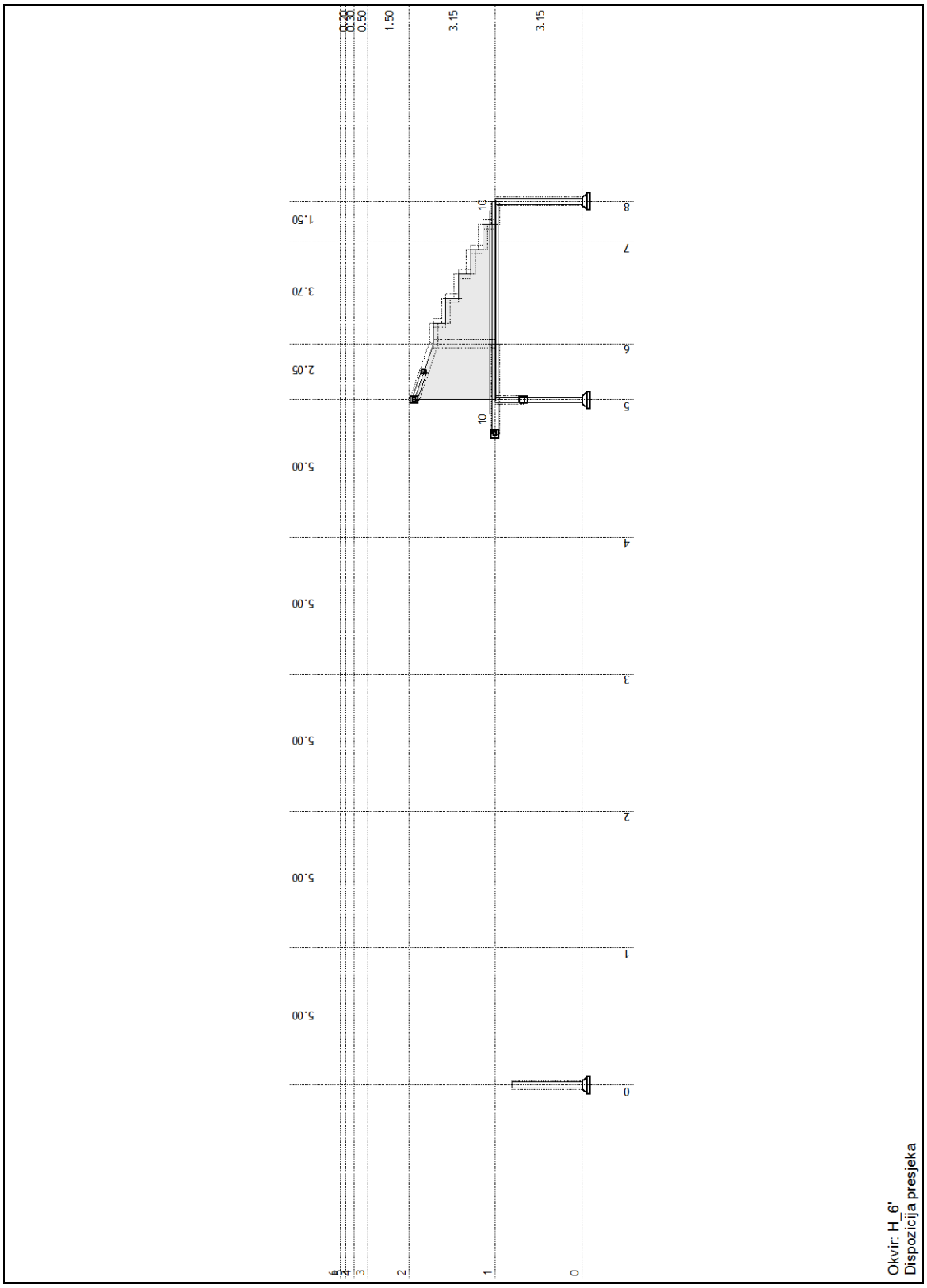
b/d = 20/575 cm Ab = 11500 cm2

No	N [kN]	T [kN]	M [kNm]
I	-400.2	-24.5	-34.7
II	-65.5	-7.0	8.0
III	-5.2	-1.4	-2.4
IV	-163.8	-12.8	-8.5
V	50.5	118.5	128.0
VI	62.1	53.6	108.1

Mu = -34.69 kNm
Nu = -400.20 kN
Tu = -24.46 kN

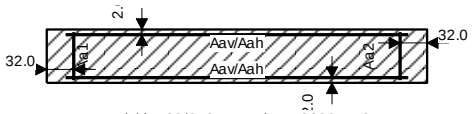
Aa1 =	0.00	cm2	(min:17.25)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:17.25)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.50)	
Aah =	±0.05	cm2/m	(min:±2.00)	(odab:±Q-257)

Zidovi osi H_6'



Okvir: H_6'

Presjek 10 - 10
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xl



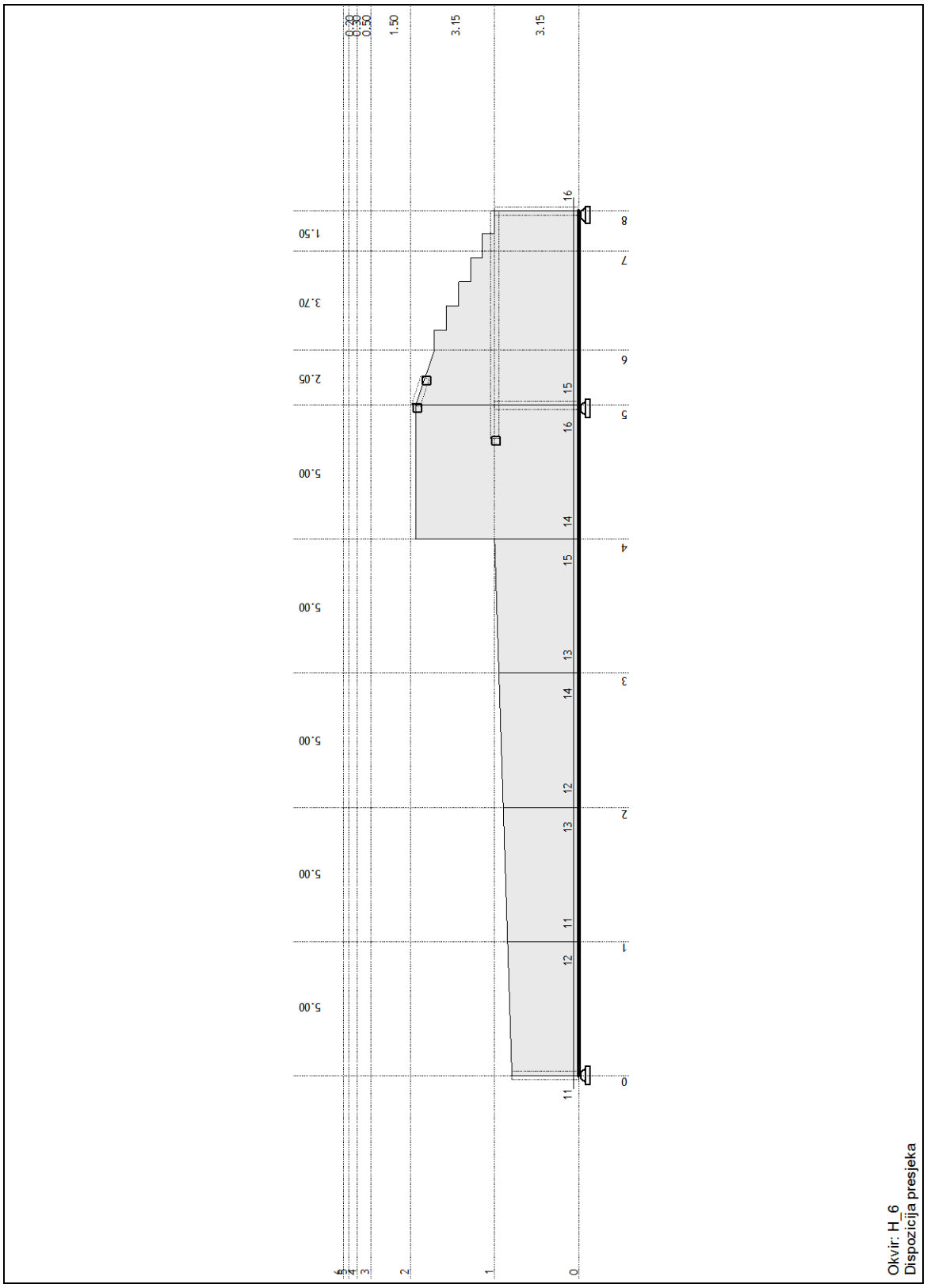
b/d = 20/640 cm Ab = 12800 cm2

No	N [kN]	T [kN]	M [kNm]
I	-127.9	117.0	350.5
II	-18.1	21.1	56.0
III	7.9	11.0	14.7
IV	-67.5	49.1	151.5
V	30.3	56.4	114.4
VI	36.4	45.4	59.0

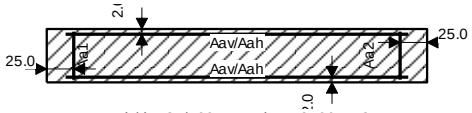
Mu = 350.54 kNm
Nu = -127.87 kN
Tu = 117.03 kN

Aa1 =	0.00	cm2	(min:19.20)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:19.20)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.50)	
Aah =	±0.23	cm2/m	(min:±2.00)	(odab:±Q-257)

Zidovi osi H_6



Presjek 11 - 11
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xl



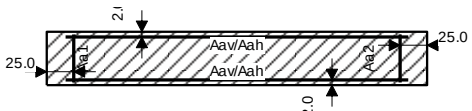
b/d = 25/500 cm Ab = 12500 cm2

No	N [kN]	T [kN]	M [kNm]
I	-73.2	2.2	-1.1
II	-0.0	0.1	0.0
III	-0.0	0.0	0.0
IV	-0.0	0.1	0.0
V	0.9	2.1	1.8
VI	1.8	1.3	2.5

Mu = -1.08 kNm
Nu = -73.22 kN
Tu = 2.25 kN

Aa1 =	0.00	cm2	(min:18.75)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:18.75)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.88)	
Aah =	±0.01	cm2/m	(min:±2.50)	(odab:±Q-257)

Presjek 12 - 12
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xl



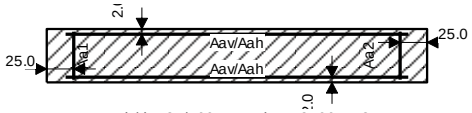
b/d = 25/500 cm Ab = 12500 cm2

No	N [kN]	T [kN]	M [kNm]
I	-77.3	1.6	-2.0
II	-0.0	0.1	-0.0
III	0.0	0.0	0.0
IV	-0.1	0.3	-0.0
V	0.9	3.8	0.6
VI	0.7	2.3	0.4

Mu = -1.99 kNm
Nu = -77.34 kN
Tu = 1.59 kN

Aa1 =	0.00	cm2	(min:18.75)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:18.75)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.88)	
Aah =	±0.00	cm2/m	(min:±2.50)	(odab:±Q-257)

Presjek 13 - 13
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



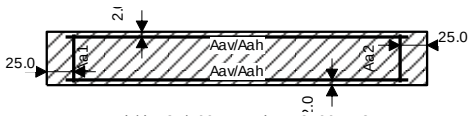
b/d = 25/500 cm Ab = 12500 cm2

No	N [kN]	T [kN]	M [kNm]
I	-83.2	3.0	-3.7
II	-0.1	0.4	-0.1
III	0.1	0.0	0.0
IV	-0.2	0.9	-0.2
V	4.5	10.7	3.3
VI	3.5	7.5	2.5

Mu = -3.74 kNm
Nu = -83.20 kN
Tu = 2.98 kN

Aa1 = 0.00 cm2 (min:18.75) (odab:2Ø14)
Aa2 = 0.00 cm2 (min:18.75) (odab:2Ø14)
Aav = ±0.00 cm2/m (min:±1.88)
Aah = ±0.01 cm2/m (min:±2.50) (odab:±Q-257)

Presjek 14 - 14
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



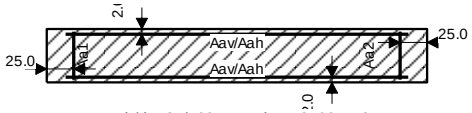
b/d = 25/500 cm Ab = 12500 cm2

No	N [kN]	T [kN]	M [kNm]
I	-115.8	20.2	-29.0
II	-2.0	2.3	-2.1
III	-0.6	0.7	-0.9
IV	-3.2	4.1	-3.1
V	23.6	30.6	12.4
VI	16.2	20.9	7.1

Mu = -29.03 kNm
Nu = -115.78 kN
Tu = 20.21 kN

Aa1 = 0.00 cm2 (min:18.75) (odab:2Ø14)
Aa2 = 0.00 cm2 (min:18.75) (odab:2Ø14)
Aav = ±0.00 cm2/m (min:±1.88)
Aah = ±0.05 cm2/m (min:±2.50) (odab:±Q-257)

Presjek 15 - 15
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



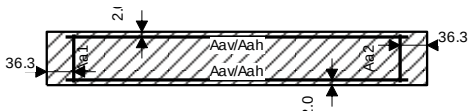
b/d = 25/500 cm Ab = 12500 cm2

No	N [kN]	T [kN]	M [kNm]
I	-210.8	38.1	-42.6
II	-14.0	8.3	-7.8
III	-8.1	3.9	-5.4
IV	-23.1	15.9	-13.7
V	29.1	44.8	20.5
VI	10.0	20.5	28.8

Mu = -42.57 kNm
Nu = -210.81 kN
Tu = 38.15 kN

Aa1 = 0.00 cm2 (min:18.75) (odab:2Ø14)
Aa2 = 0.00 cm2 (min:18.75) (odab:2Ø14)
Aav = ±0.00 cm2/m (min:±1.88)
Aah = ±0.10 cm2/m (min:±2.50) (odab:±Q-257)

Presjek 16 - 16
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



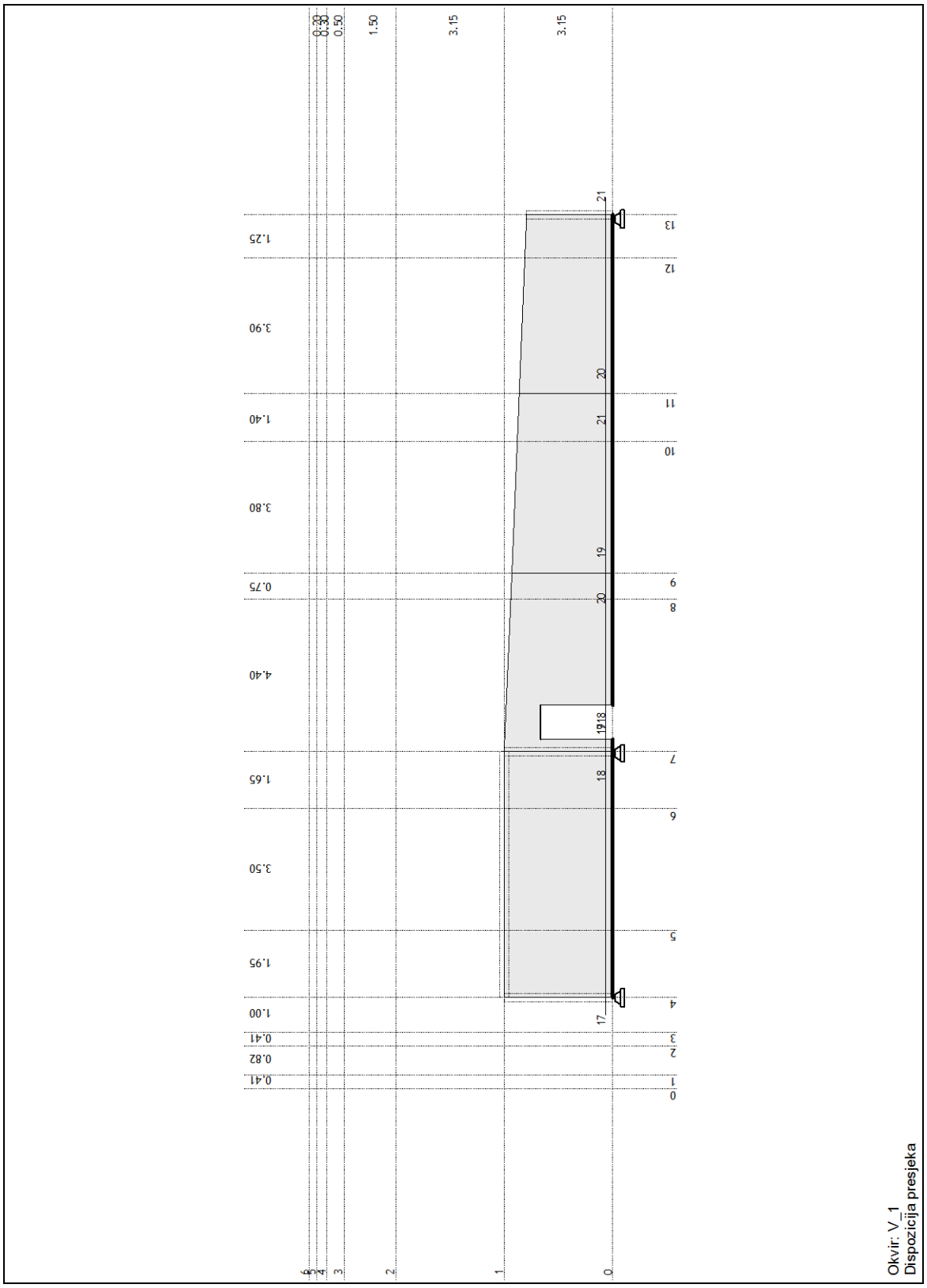
b/d = 25/725 cm Ab = 18125 cm2

No	N [kN]	T [kN]	M [kNm]
I	-295.9	-18.2	98.2
II	-23.5	-0.5	13.2
III	-22.9	-0.2	2.8
IV	-36.6	0.5	22.6
V	70.8	80.0	88.5
VI	96.0	59.0	66.6

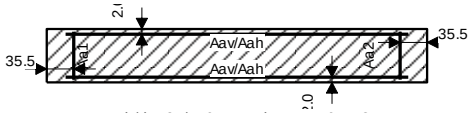
Mu = 98.16 kNm
Nu = -295.91 kN
Tu = -18.21 kN

Aa1 = 0.00 cm2 (min:27.19) (odab:2Ø14)
Aa2 = 0.00 cm2 (min:27.19) (odab:2Ø14)
Aav = ±0.00 cm2/m (min:±1.88)
Aah = ±0.03 cm2/m (min:±2.50) (odab:±Q-257)

Zidovi osi V_1



Presjek 17 - 17
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



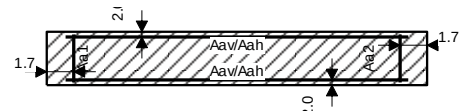
b/d = 25/710 cm Ab = 17750 cm2

No	N [kN]	T [kN]	M [kNm]
I	-175.7	5.8	-33.6
II	-23.7	1.9	-14.7
III	-47.3	3.8	-29.2
IV	0.3	-0.1	-1.0
V	66.0	50.7	229.3
VI	121.3	100.4	568.5

Mu = -33.64 kNm
Nu = -175.69 kN
Tu = 5.81 kN

Aa1 =	0.00	cm2	(min:26.62)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:26.62)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.88)	
Aah =	±0.01	cm2/m	(min:±2.50)	(odab:±Q-257)

Presjek 18 - 18
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



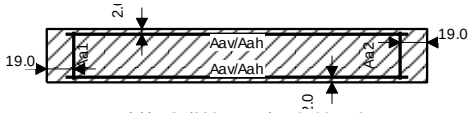
b/d = 25/35 cm Ab = 875 cm2

No	N [kN]	T [kN]	M [kNm]
I	-8.7	-0.7	-0.0
II	-0.7	-0.3	0.0
III	-1.4	-0.6	0.0
IV	-0.0	-0.0	-0.0
V	8.7	1.3	0.1
VI	17.5	3.1	0.2

Mu = -0.04 kNm
Nu = -8.70 kN
Tu = -0.68 kN

Aa1 =	0.00	cm2	(min:1.31)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:1.31)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.88)	
Aah =	±0.02	cm2/m	(min:±2.50)	(odab:±Q-257)

Presjek 19 - 19
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



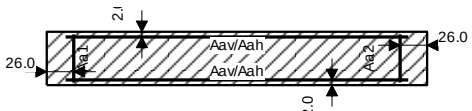
b/d = 25/380 cm Ab = 9500 cm2

No	N [kN]	T [kN]	M [kNm]
I	-69.7	-1.8	4.1
II	-0.4	-0.4	0.3
III	-0.7	-0.7	0.6
IV	-0.0	-0.1	-0.0
V	11.6	21.8	3.3
VI	21.9	48.7	2.3

Mu = 4.08 kNm
Nu = -69.72 kN
Tu = -1.79 kN

Aa1 = 0.00 cm2 (min:14.25) (odab:2Ø14)
Aa2 = 0.00 cm2 (min:14.25) (odab:2Ø14)
Aav = ±0.00 cm2/m (min:±1.88)
Aah = ±0.01 cm2/m (min:±2.50) (odab:±Q-257)

Presjek 20 - 20
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



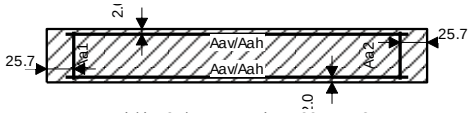
b/d = 25/520 cm Ab = 13000 cm2

No	N [kN]	T [kN]	M [kNm]
I	-83.5	-1.2	3.8
II	0.0	-0.1	0.0
III	0.0	-0.1	0.0
IV	-0.0	-0.1	0.0
V	6.9	15.9	4.3
VI	15.6	36.2	9.4

Mu = 3.77 kNm
Nu = -83.51 kN
Tu = -1.22 kN

Aa1 = 0.00 cm2 (min:19.50) (odab:2Ø14)
Aa2 = 0.00 cm2 (min:19.50) (odab:2Ø14)
Aav = ±0.00 cm2/m (min:±1.88)
Aah = ±0.00 cm2/m (min:±2.50) (odab:±Q-257)

Presjek 21 - 21
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



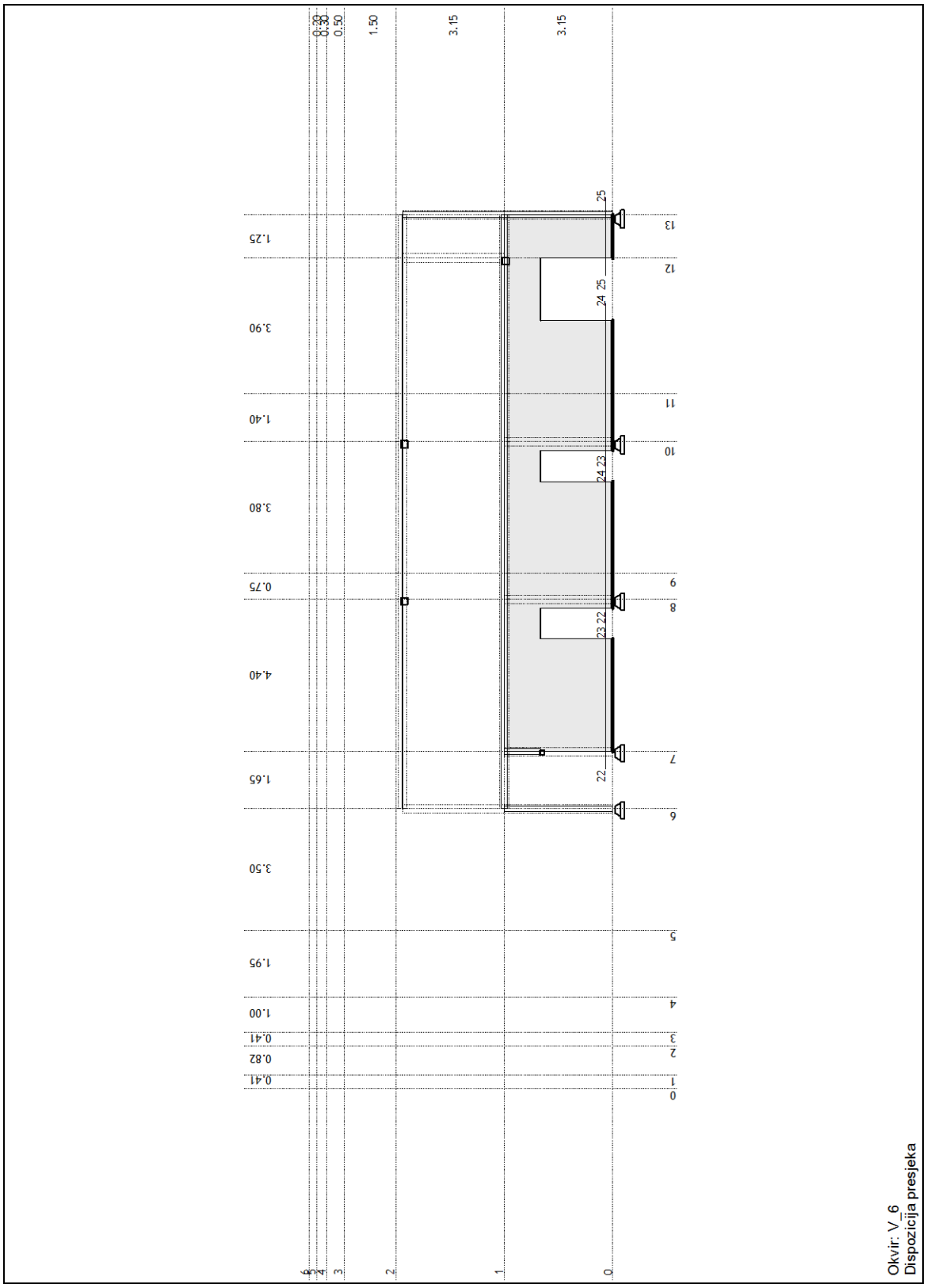
b/d = 25/515 cm Ab = 12875 cm2

No	N [kN]	T [kN]	M [kNm]
I	-76.2	-1.9	1.8
II	-0.0	-0.0	-0.0
III	-0.0	-0.0	-0.0
IV	-0.0	-0.0	-0.0
V	2.2	5.8	1.4
VI	4.5	13.1	1.0

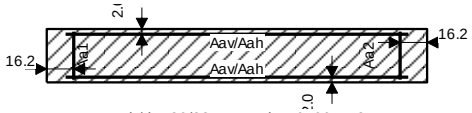
Mu = 1.82 kNm
Nu = -76.16 kN
Tu = -1.93 kN

Aa1 =	0.00	cm2	(min:19.31)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:19.31)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.88)	
Aah =	±0.00	cm2/m	(min:±2.50)	(odab:±Q-257)

Zidovi osi V_6



Presjek 22 - 22
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xl



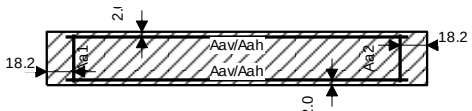
b/d = 20/325 cm Ab = 6500 cm2

No	N [kN]	T [kN]	M [kNm]
I	-118.2	2.8	-5.1
II	-25.5	3.3	-2.2
III	-4.8	-3.3	1.8
IV	-39.1	5.6	-3.9
V	21.5	42.4	16.6
VI	9.9	72.2	30.6

Mu = -5.13 kNm
Nu = -118.20 kN
Tu = 2.85 kN

Aa1 =	0.00	cm2	(min:9.75)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:9.75)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.50)	
Aah =	±0.01	cm2/m	(min:±2.00)	(odab:±Q-257)

Presjek 23 - 23
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xl



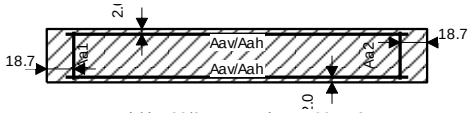
b/d = 20/365 cm Ab = 7300 cm2

No	N [kN]	T [kN]	M [kNm]
I	-160.5	0.9	-8.3
II	-37.1	1.2	-2.4
III	-0.9	-0.3	-0.1
IV	-61.2	0.7	-3.4
V	45.3	45.5	27.1
VI	12.9	81.0	43.8

Mu = -8.29 kNm
Nu = -160.53 kN
Tu = 0.93 kN

Aa1 =	0.00	cm2	(min:10.95)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:10.95)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.50)	
Aah =	±0.00	cm2/m	(min:±2.00)	(odab:±Q-257)

Presjek 24 - 24
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



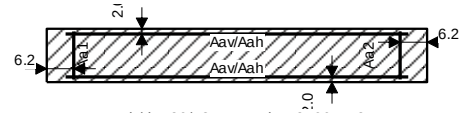
b/d = 20/375 cm Ab = 7500 cm2

No	N [kN]	T [kN]	M [kNm]
I	-204.7	11.8	-17.9
II	-45.7	2.4	-4.4
III	-3.8	2.0	-1.3
IV	-78.4	2.0	-7.0
V	44.8	40.9	33.8
VI	13.7	74.2	52.4

Mu = -17.91 kNm
Nu = -204.75 kN
Tu = 11.79 kN

Aa1 =	0.00	cm2	(min:11.25)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:11.25)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.50)	
Aah =	±0.04	cm2/m	(min:±2.00)	(odab:±Q-257)

Presjek 25 - 25
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



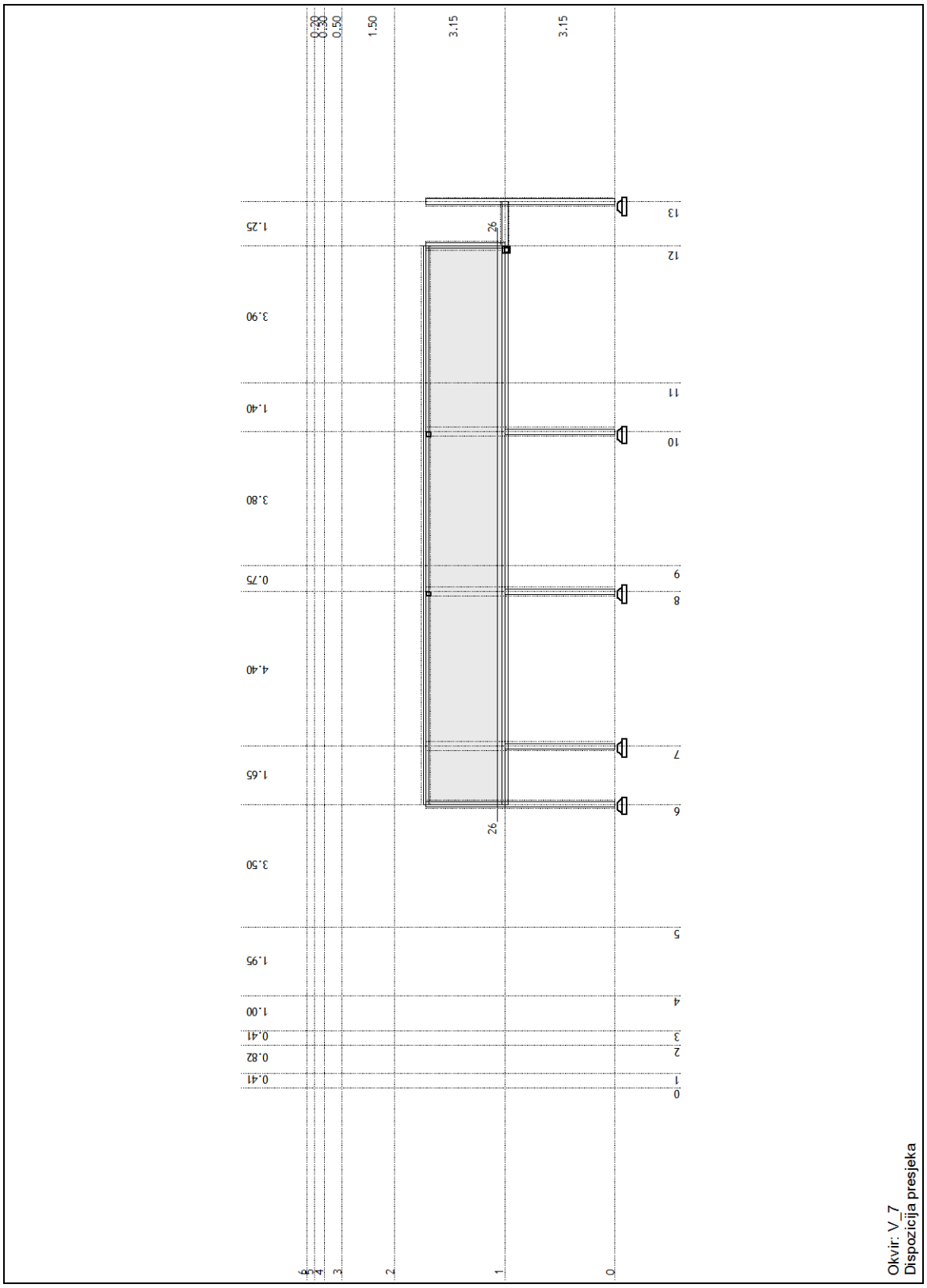
b/d = 20/125 cm Ab = 2500 cm2

No	N [kN]	T [kN]	M [kNm]
I	-74.6	-22.1	3.6
II	-9.6	-6.1	0.6
III	-4.4	-0.9	0.2
IV	-17.5	-12.2	1.1
V	6.9	9.7	1.7
VI	8.4	14.6	3.3

Mu = 3.63 kNm
Nu = -74.60 kN
Tu = -22.09 kN

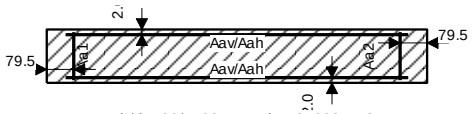
Aa1 =	0.00	cm2	(min:3.75)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:3.75)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.50)	
Aah =	±0.22	cm2/m	(min:±2.00)	(odab:±Q-257)

Zidovi osi V_7



Okvir: V_7

Presjek 26 - 26
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xl



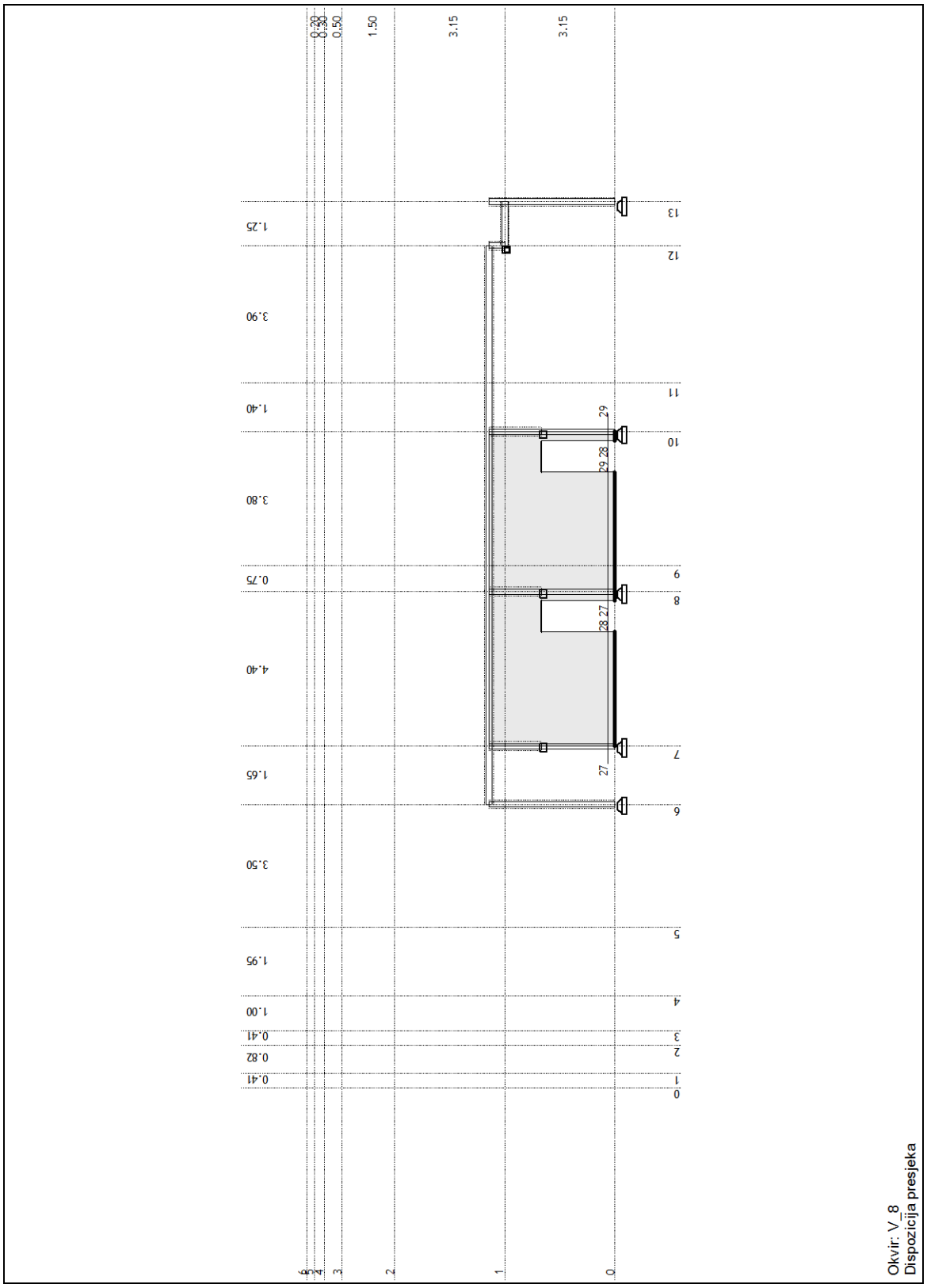
b/d = 20/1590 cm Ab = 31800 cm2

No	N [kN]	T [kN]	M [kNm]
I	-271.4	0.4	234.9
II	-27.8	0.5	47.5
III	0.8	-5.6	-19.7
IV	-127.0	3.5	138.0
V	50.6	65.8	57.8
VI	18.0	94.4	50.9

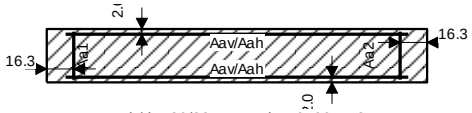
Mu = 234.85 kNm
Nu = -271.42 kN
Tu = 0.38 kN

Aa1 = 0.00 cm2 (min:47.70) (odab:2Ø14)
Aa2 = 0.00 cm2 (min:47.70) (odab:2Ø14)
Aav = ±0.00 cm2/m (min:±1.50)
Aah = ±0.00 cm2/m (min:±2.00) (odab:±Q-257)

Zidovi osi V_8



Presjek 27 - 27
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



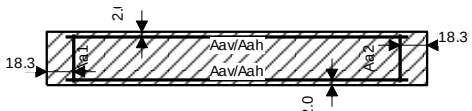
b/d = 20/325 cm Ab = 6500 cm2

No	N [kN]	T [kN]	M [kNm]
I	-114.6	2.1	-6.1
II	-9.8	0.4	-1.3
III	0.1	-0.2	-0.2
IV	-32.4	1.7	-3.1
V	29.4	16.5	11.8
VI	14.2	30.1	17.1

Mu = -6.06 kNm
Nu = -114.64 kN
Tu = 2.13 kN

Aa1 = 0.00 cm2 (min:9.75) (odab:2Ø14)
Aa2 = 0.00 cm2 (min:9.75) (odab:2Ø14)
Aav = ±0.00 cm2/m (min:±1.50)
Aah = ±0.01 cm2/m (min:±2.00) (odab:±Q-257)

Presjek 28 - 28
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



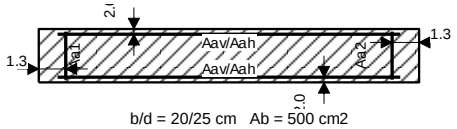
b/d = 20/365 cm Ab = 7300 cm2

No	N [kN]	T [kN]	M [kNm]
I	-163.1	5.7	-9.2
II	-17.3	1.1	-1.7
III	-1.2	0.5	-0.6
IV	-53.2	3.2	-3.7
V	44.1	17.5	15.4
VI	33.0	37.9	22.6

Mu = -9.19 kNm
Nu = -163.07 kN
Tu = 5.67 kN

Aa1 = 0.00 cm2 (min:10.95) (odab:2Ø14)
Aa2 = 0.00 cm2 (min:10.95) (odab:2Ø14)
Aav = ±0.00 cm2/m (min:±1.50)
Aah = ±0.02 cm2/m (min:±2.00) (odab:±Q-257)

Presjek 29 - 29
EUROCODE
C 30
Kutna armatura S500N
Uzdužna armatura S500N
Dimenzioniranje jednog slučaja opterećenja: 1.00xI



b/d = 20/25 cm Ab = 500 cm2

No	N [kN]	T [kN]	M [kNm]
I	-17.3	0.6	0.1
II	-2.2	0.1	0.0
III	-0.4	0.0	0.0
IV	-6.5	0.3	0.0
V	7.1	0.6	0.1
VI	7.0	0.4	0.2

Mu = 0.07 kNm
Nu = -17.32 kN
Tu = 0.63 kN

Aa1 =	0.00	cm2	(min:0.75)	(odab:2Ø14)
Aa2 =	0.00	cm2	(min:0.75)	(odab:2Ø14)
Aav =	±0.00	cm2/m	(min:±1.50)	
Aah =	±0.03	cm2/m	(min:±2.00)	(odab:±Q-257)

Odabrana armatura

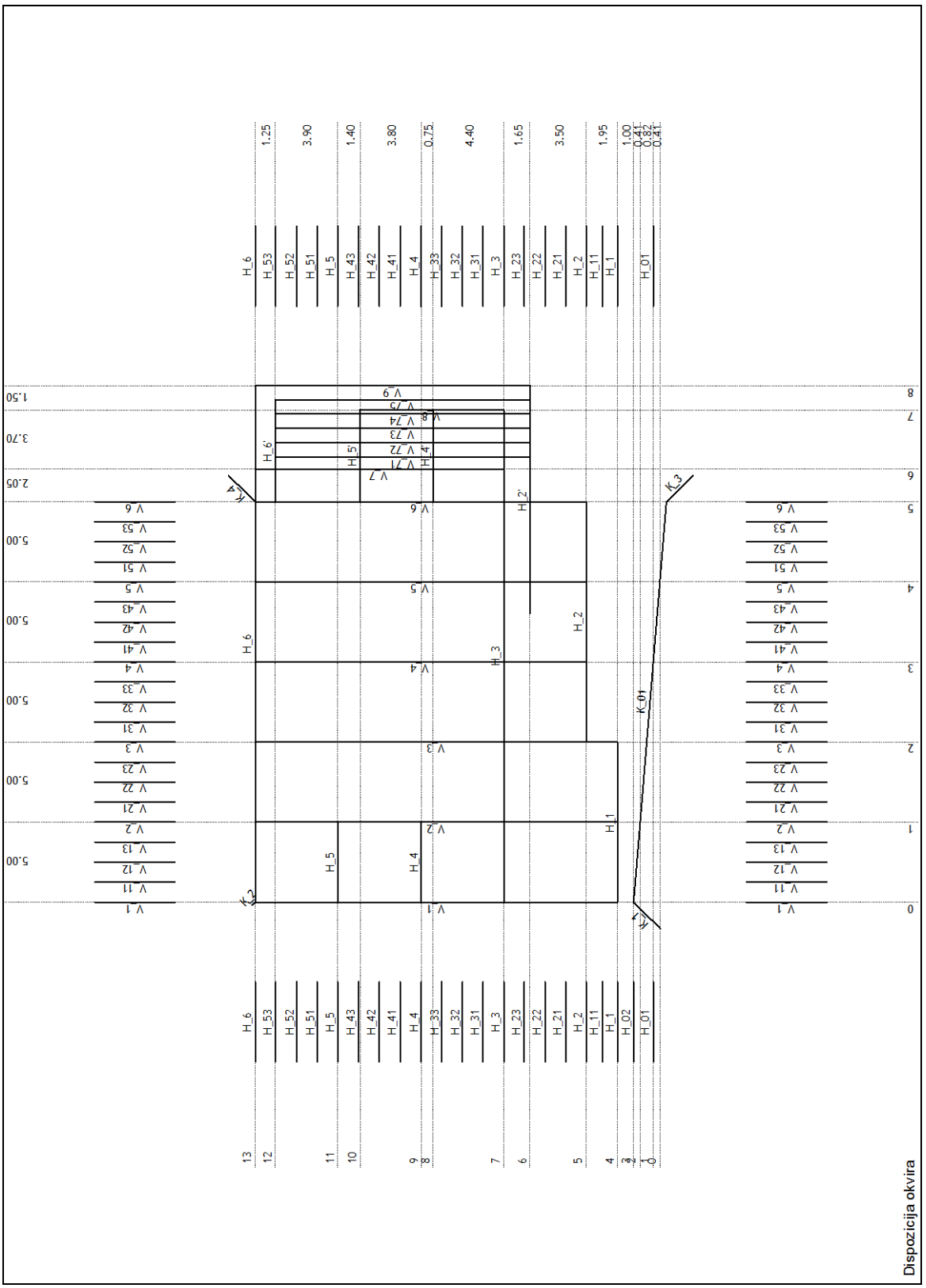
Zidove armirati obostrano mrežama Q257, sidriti u temelje vilicama Ø8/15, a kutove ojačiti šipkama Ø14 i zatvorenim vilicama Ø8/15 preklopljenim s mrežama minimalno 40 cm. Materijal izvedbe je beton C30/37 te armatura B500.

PRORAČUN STUPOVA

Za proračun stupova mjerodavan je model s čeličnim krovom.

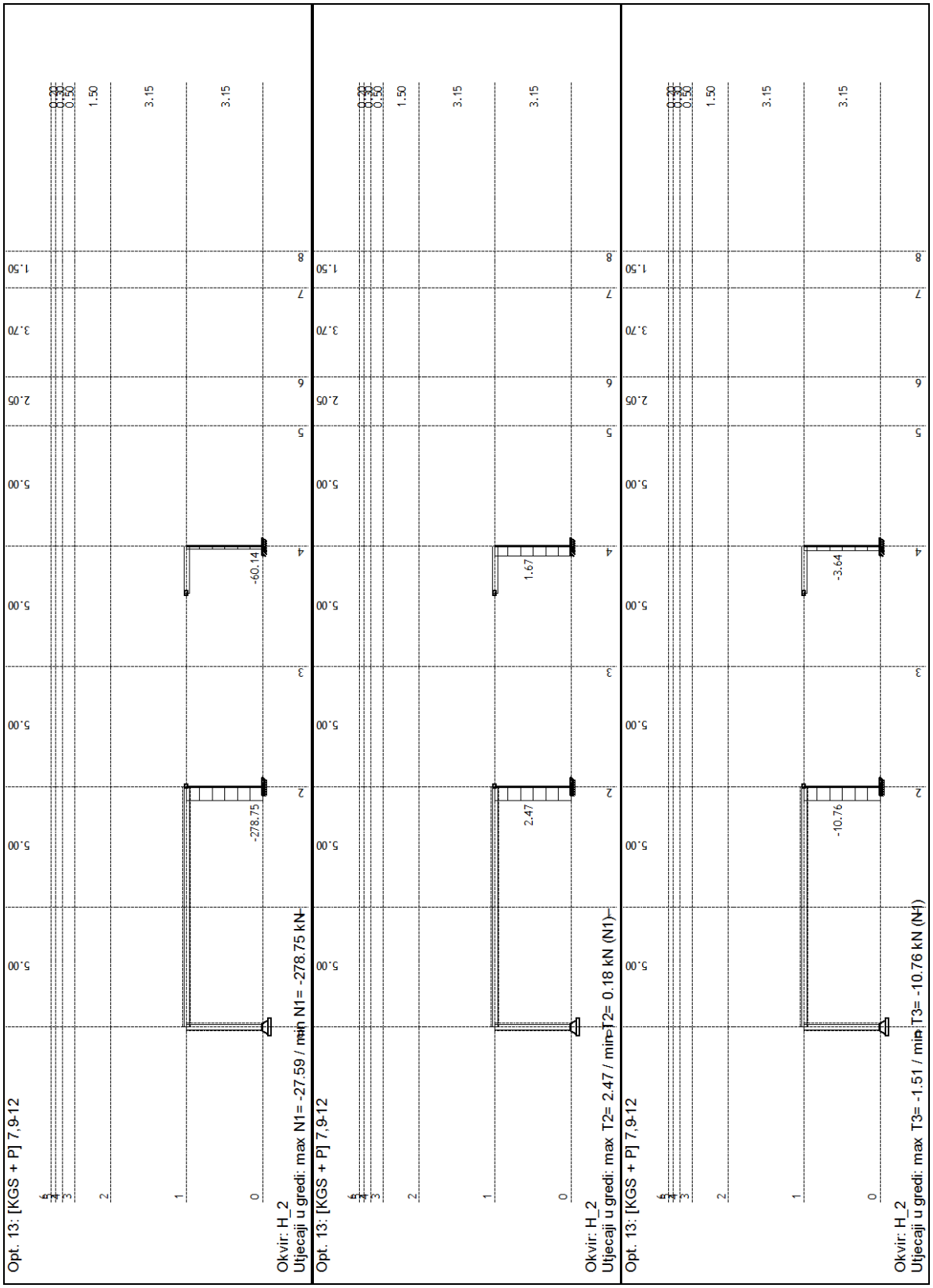
Ovdje je prikazan je proračun "zamjenskih" stupova 20×20 cm.

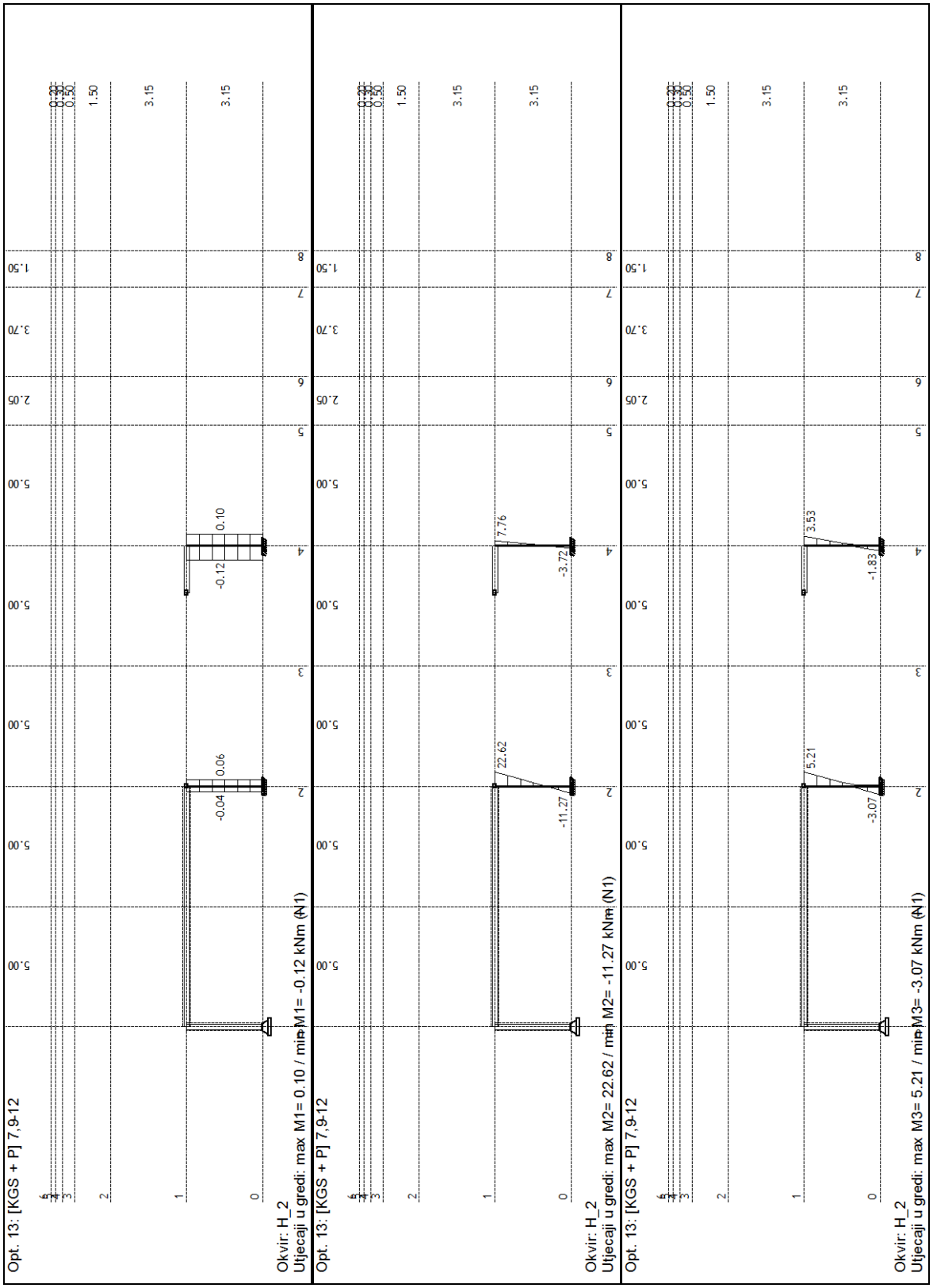
Proračun je izvršen za anvelopu seizmičkog opterećenja. Proračun je razložen po osima (okvirima). Dimenzioniranje je izvršeno za mjerodavne kombinacije.



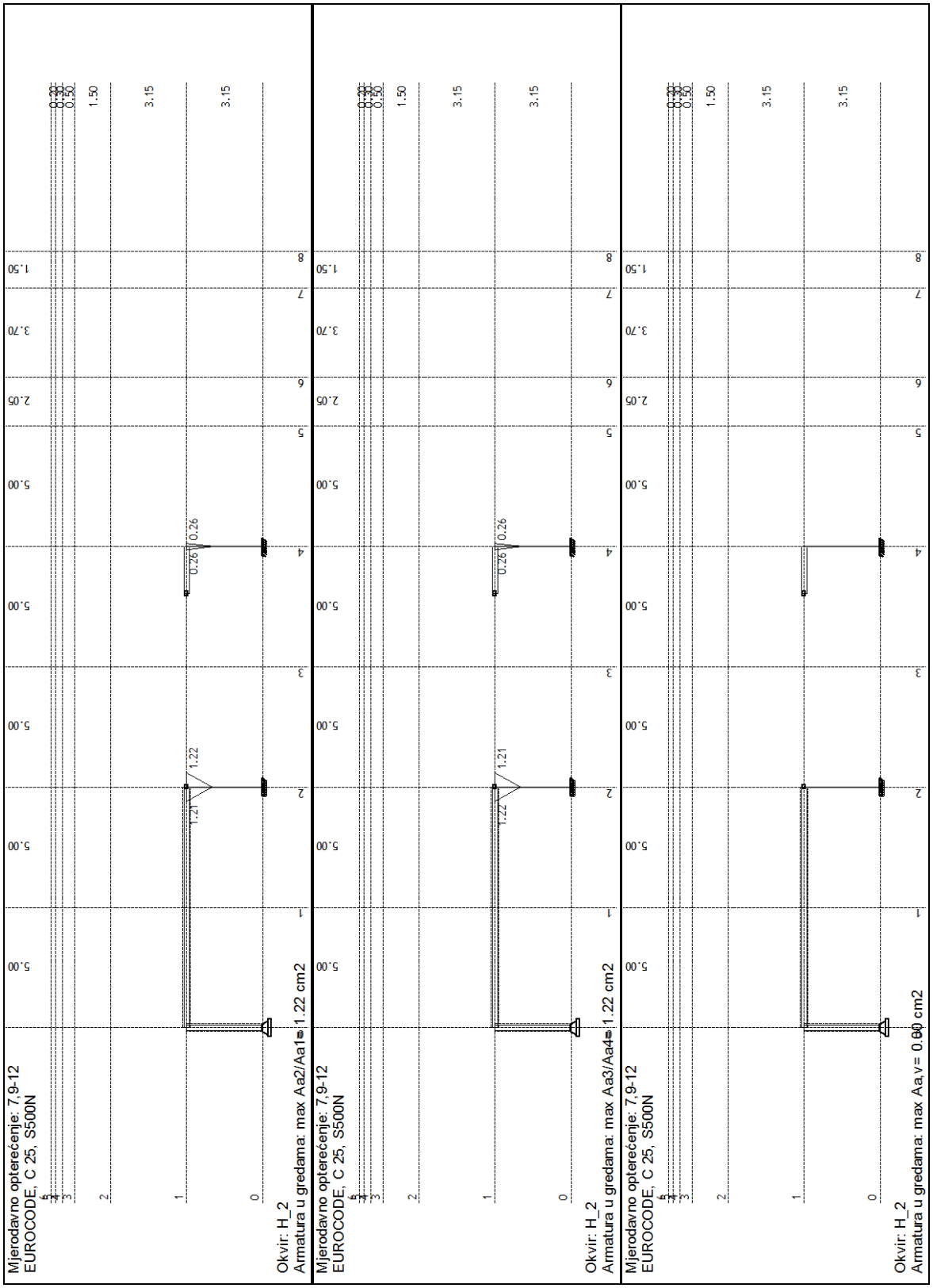
Stupovi osi H_2

KGS




Opt. 13: [KGS + P] 7,9-12
Okvir: H_2
Utjecaji u gredi: max M1= 0.10 / min M1= -0.12 kNm (N1)
0.10
-0.12
0.06
-0.04
Opt. 13: [KGS + P] 7,9-12
Okvir: H_2
Utjecaji u gredi: max M2= 22.62 / min M2= -11.27 kNm (N1)
22.62
-11.27
7.76
-3.72
Opt. 13: [KGS + P] 7,9-12
Okvir: H_2
Utjecaji u gredi: max M3= 5.21 / min M3= -3.07 kNm (N1)
5.21
-3.07
3.53
-1.83
3.15
1.50
5.00
2.05
3.70

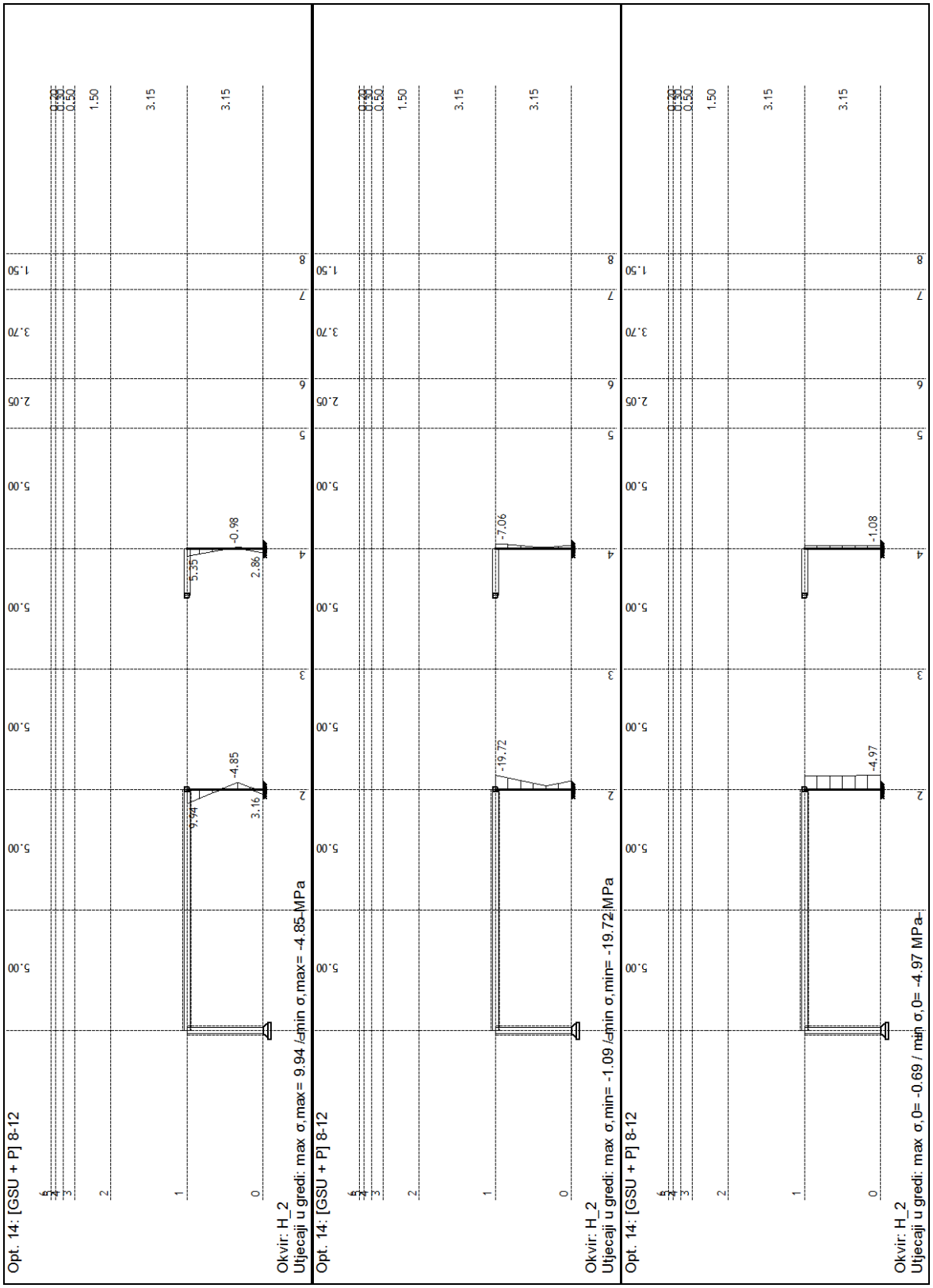
Potrebna armatura

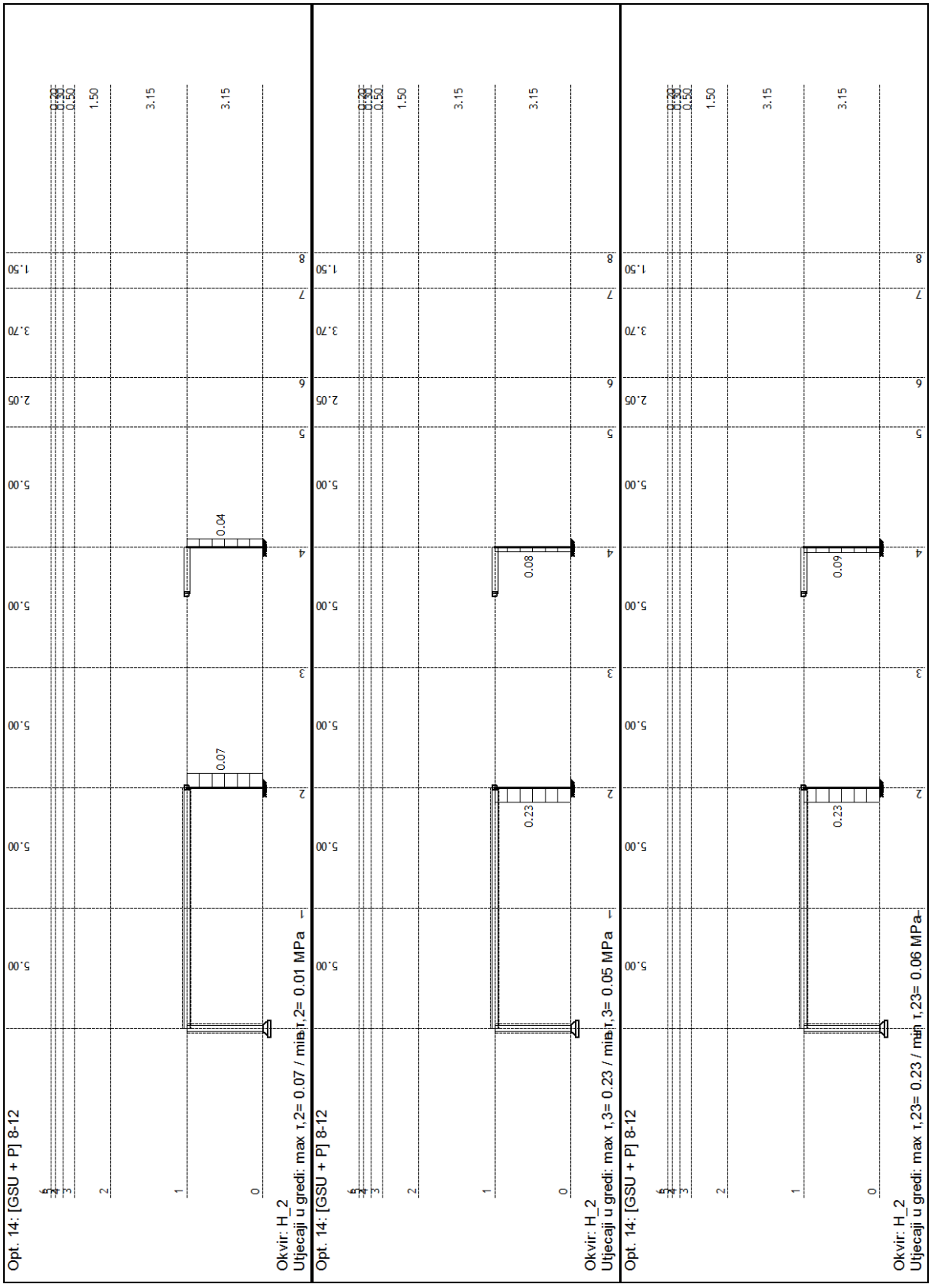


Odabrana armatura

Stupove armirati prema proračunu modela s čeličnim krovom.

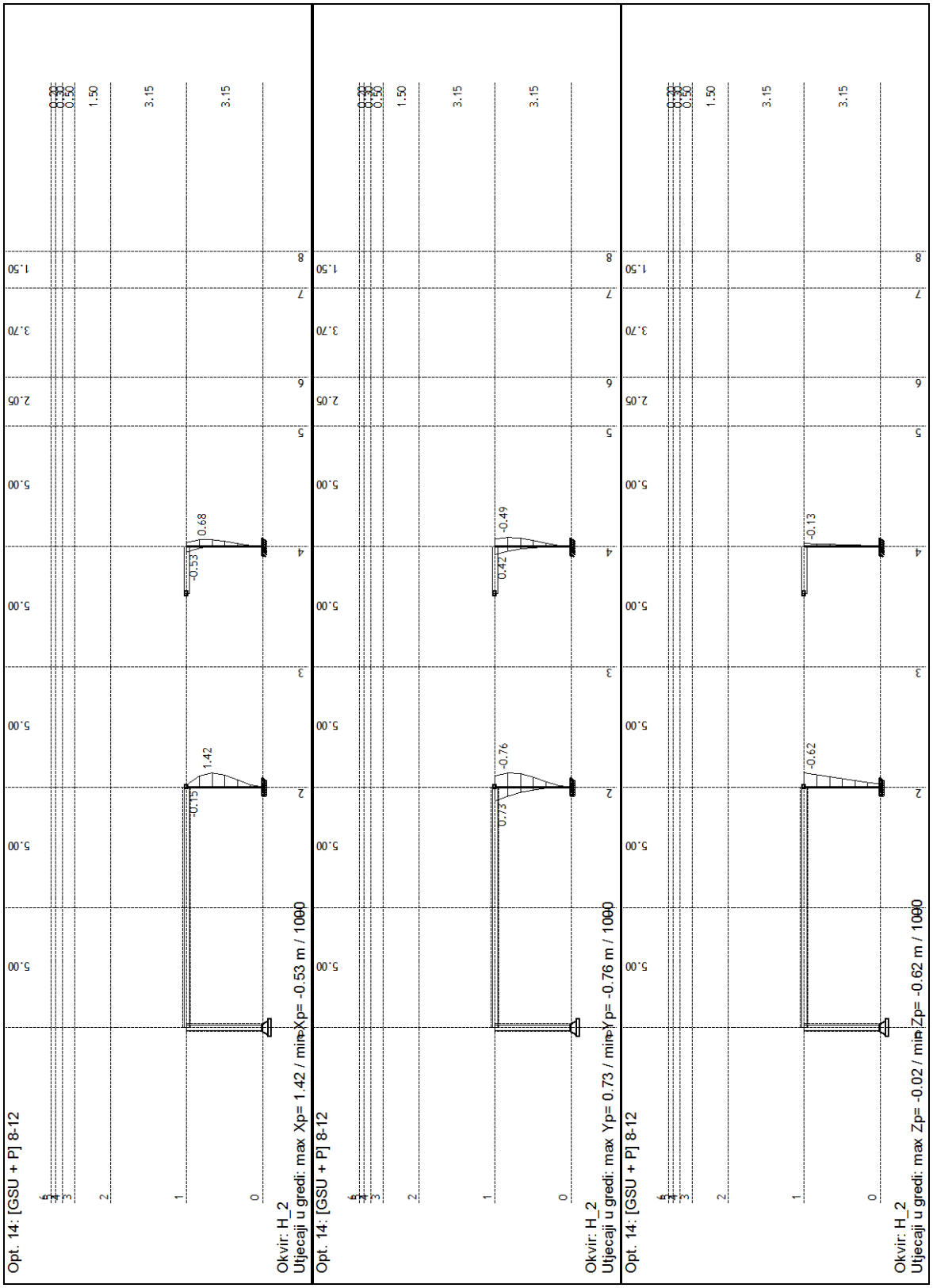
GSU


Opt. 14: [GSU + P] 8-12
Okvir: H_2
Utjecaji u gredi: max σ,max= 9.94 /min σ,max= -4.85 MPa
9.94
-4.85
3.16
-0.98
5.35
2.86
Opt. 14: [GSU + P] 8-12
Okvir: H_2
Utjecaji u gredi: max σ,min= -1.09 /min σ,min= -19.72 MPa
-19.72
-7.06
Opt. 14: [GSU + P] 8-12
Okvir: H_2
Utjecaji u gredi: max σ,0= -0.69 / min σ,0= -4.97 MPa
-4.97
-1.08
0.20
0.30
0.50
1.50
3.15
3.15
1.50
3.70
2.05
5.00
5.00
5.00
5.00
5.00
5.00
5.00
5.00
0
1
2
3
4
5
6
7
8



Za naprezanja armiranobetonskih stupova mjerodavan je model s čeličnim krovom.

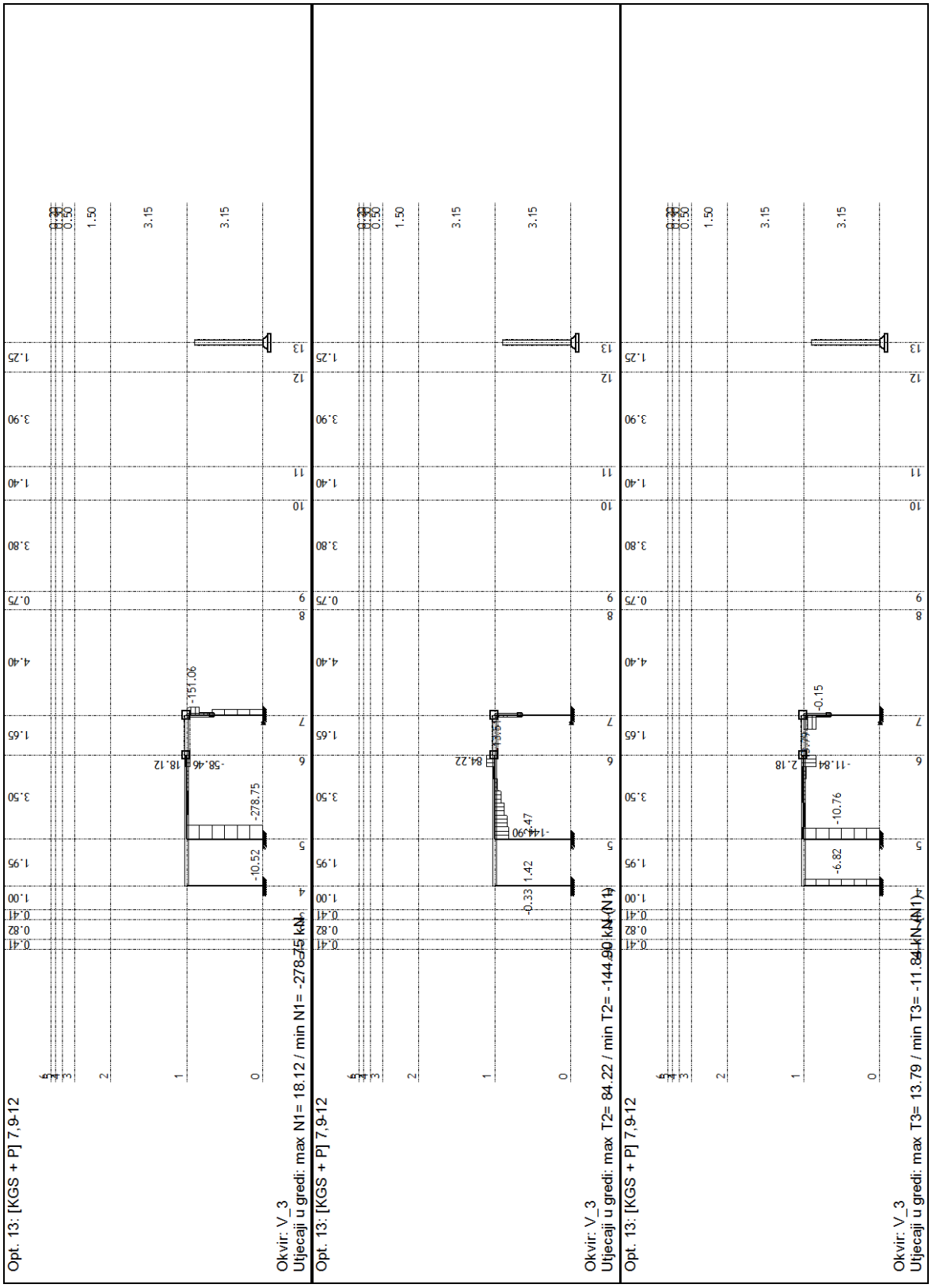
Pomaci

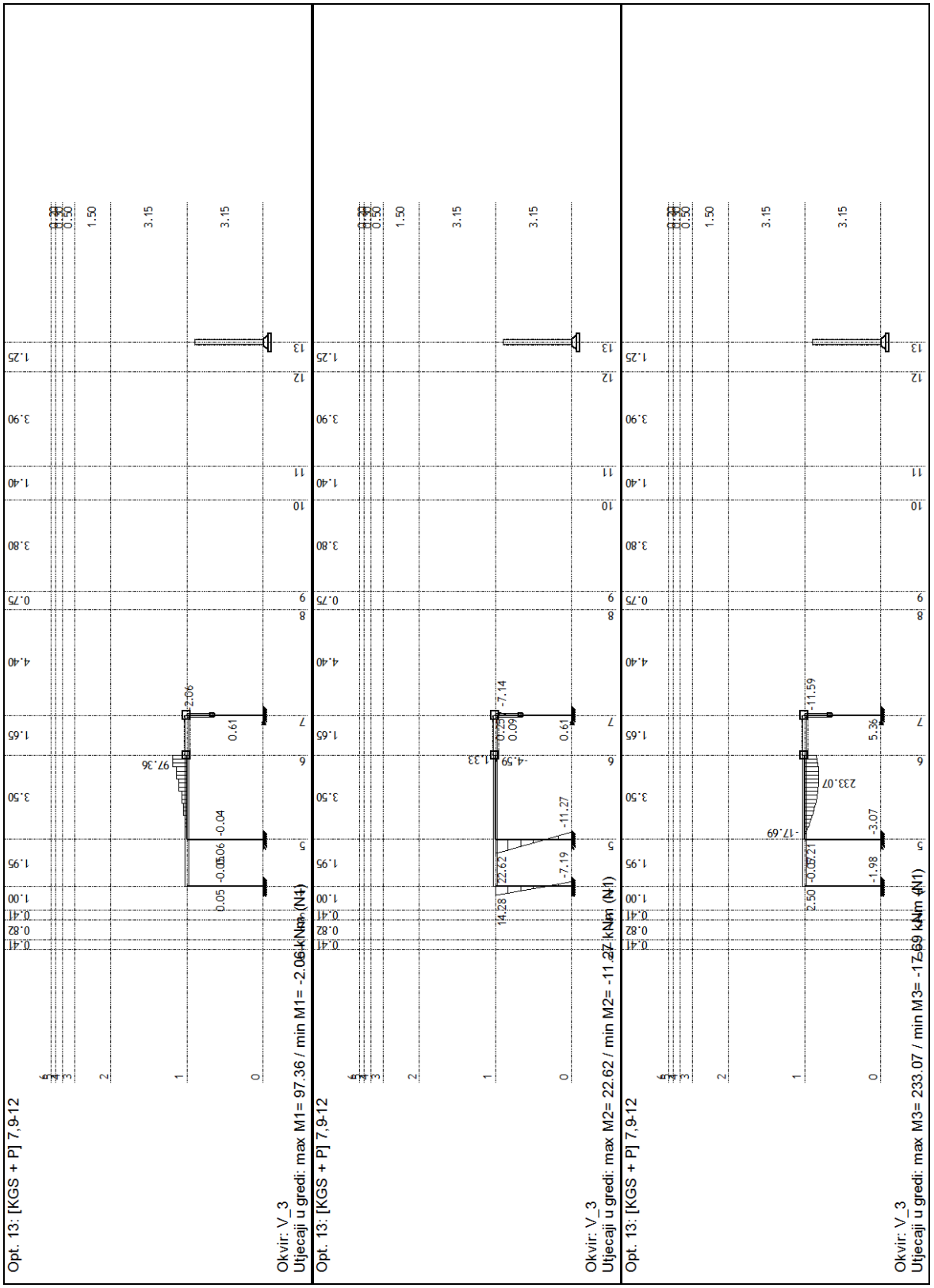


Za pomake armiranobetonskih stupova mjerodavan je model s čeličnim krovom.

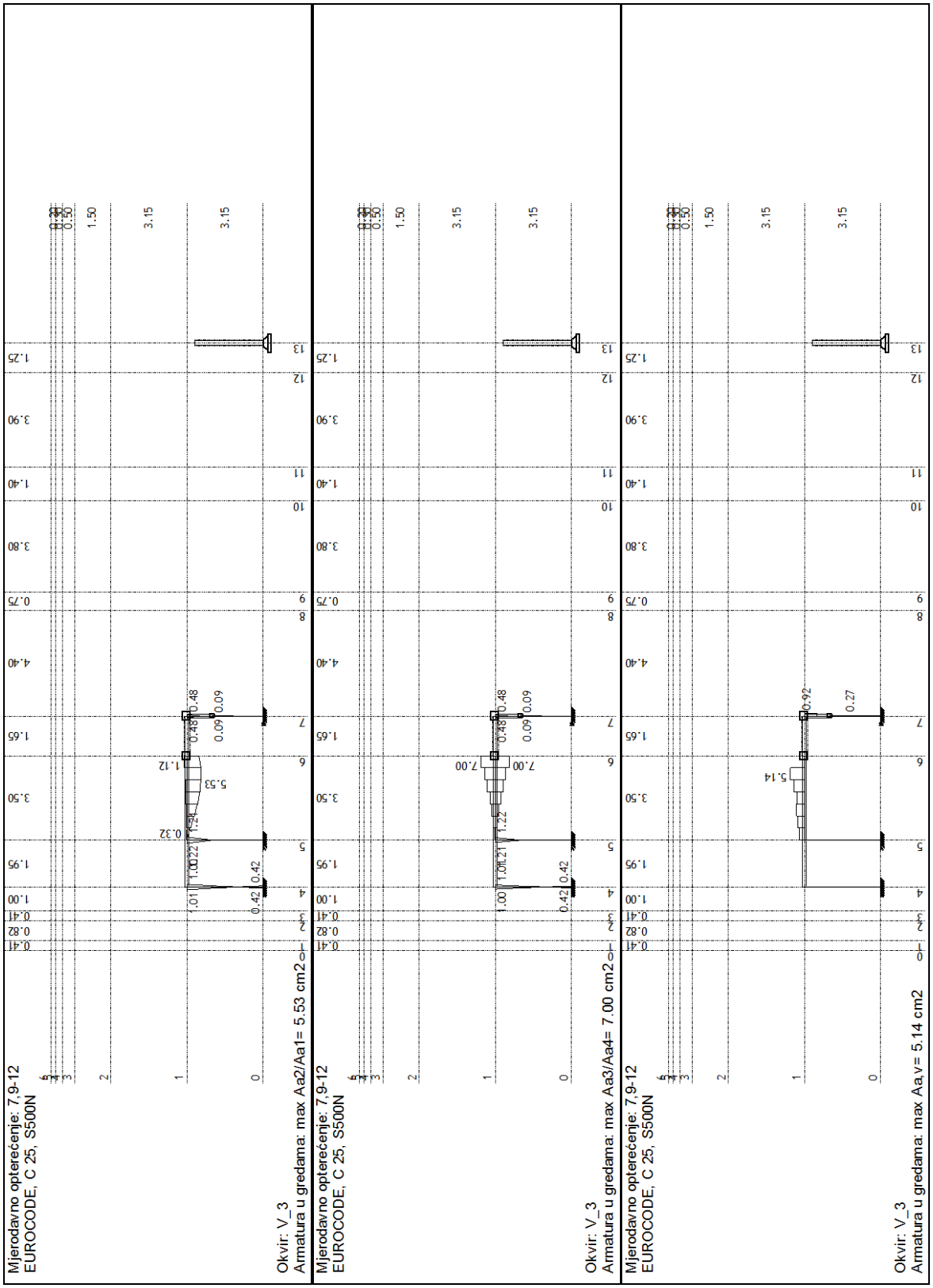
Stupovi osi V_3

KGS




Opt. 13: [KGS + P] 7,9-12
Okvir: V_3
Utjecaji u gredi: max M1= 97.36 / min M1= -2.06 kNm (N4)
Opt. 13: [KGS + P] 7,9-12
Okvir: V_3
Utjecaji u gredi: max M2= 22.62 / min M2= -11.27 kNm (N1)
Opt. 13: [KGS + P] 7,9-12
Okvir: V_3
Utjecaji u gredi: max M3= 233.07 / min M3= -17.69 kNm (N1)

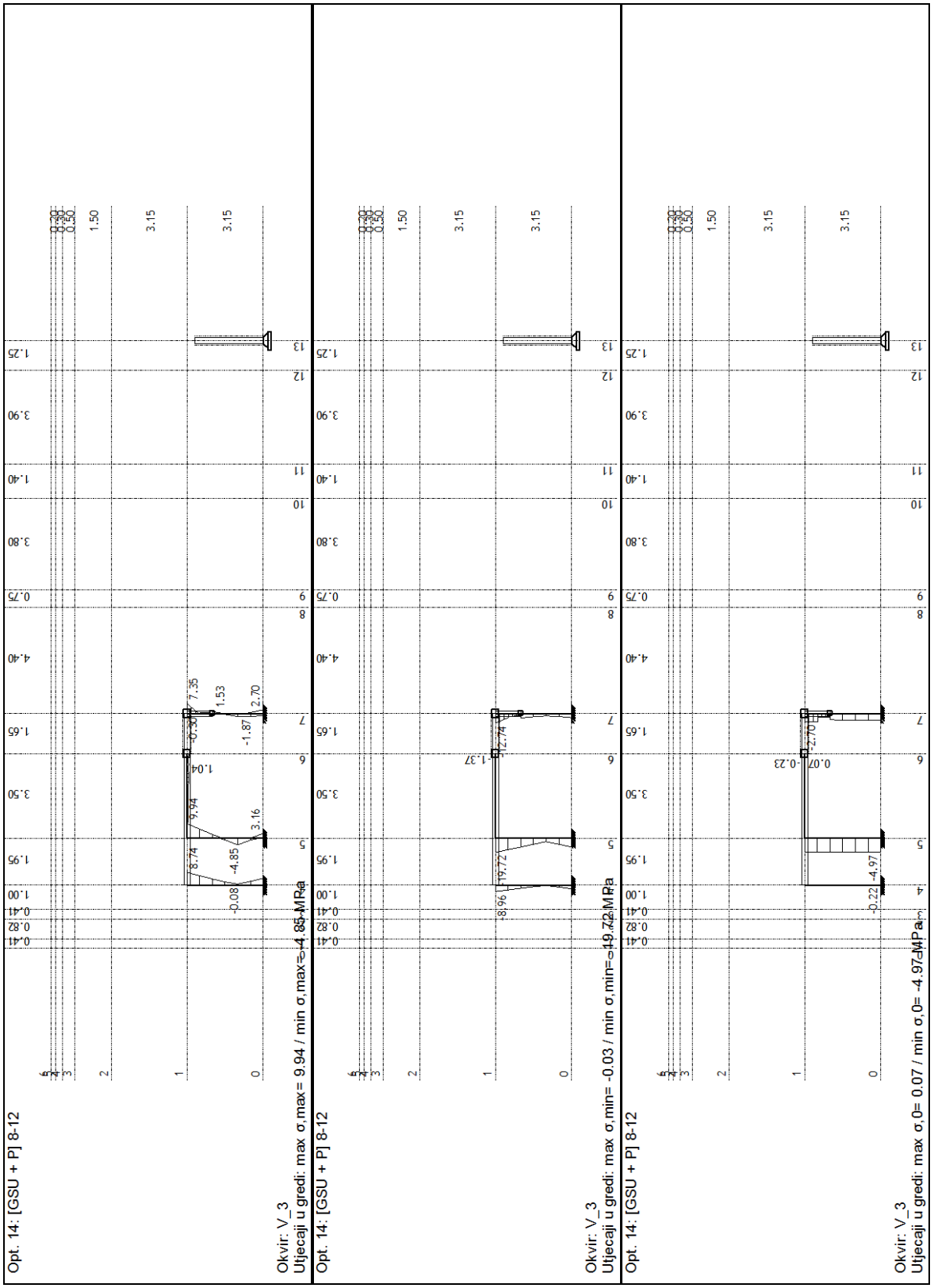
Potrebna armatura

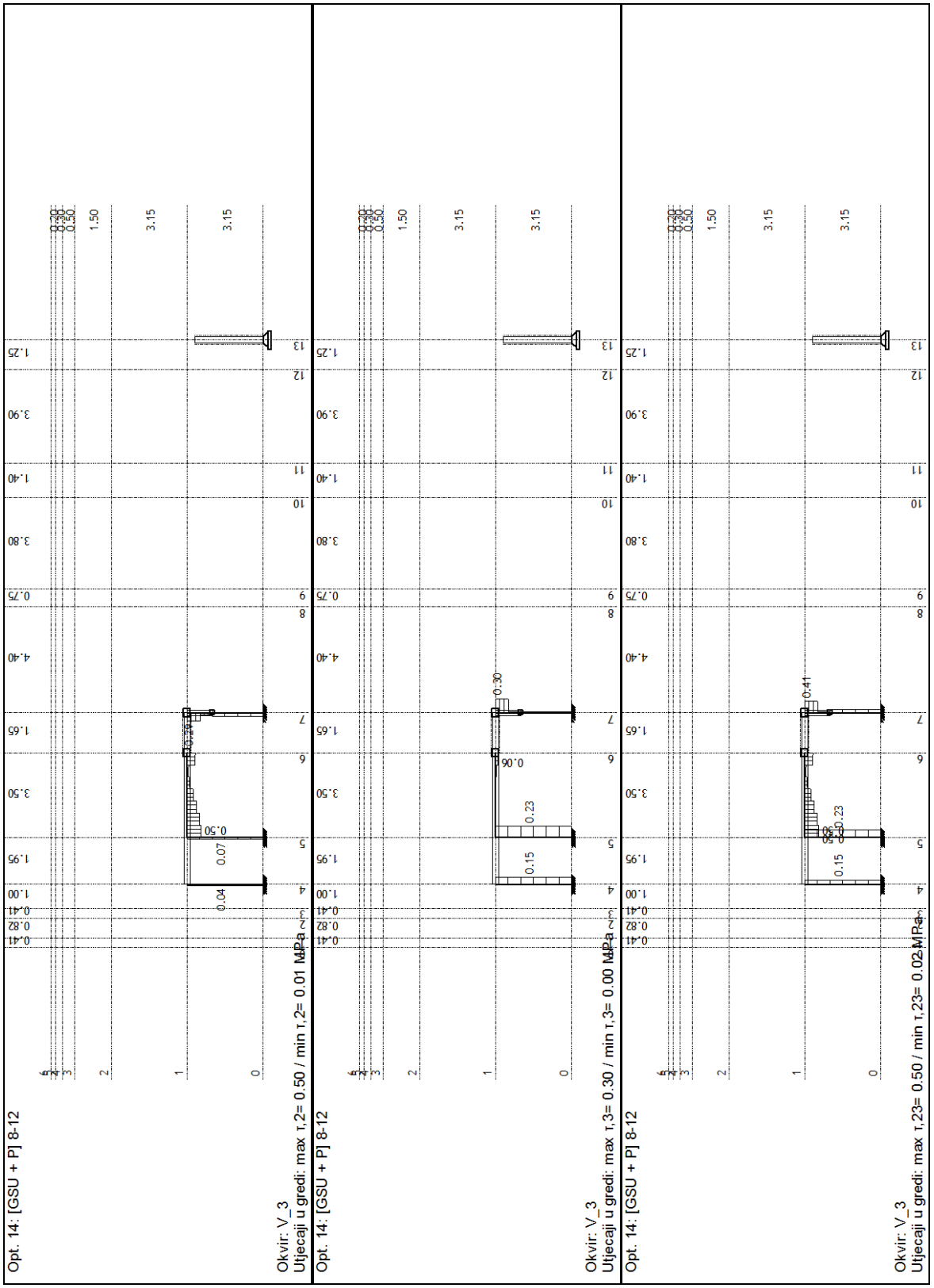


Odabrana armatura

Stupove armirati prema proračunu modela s čeličnim krovom.

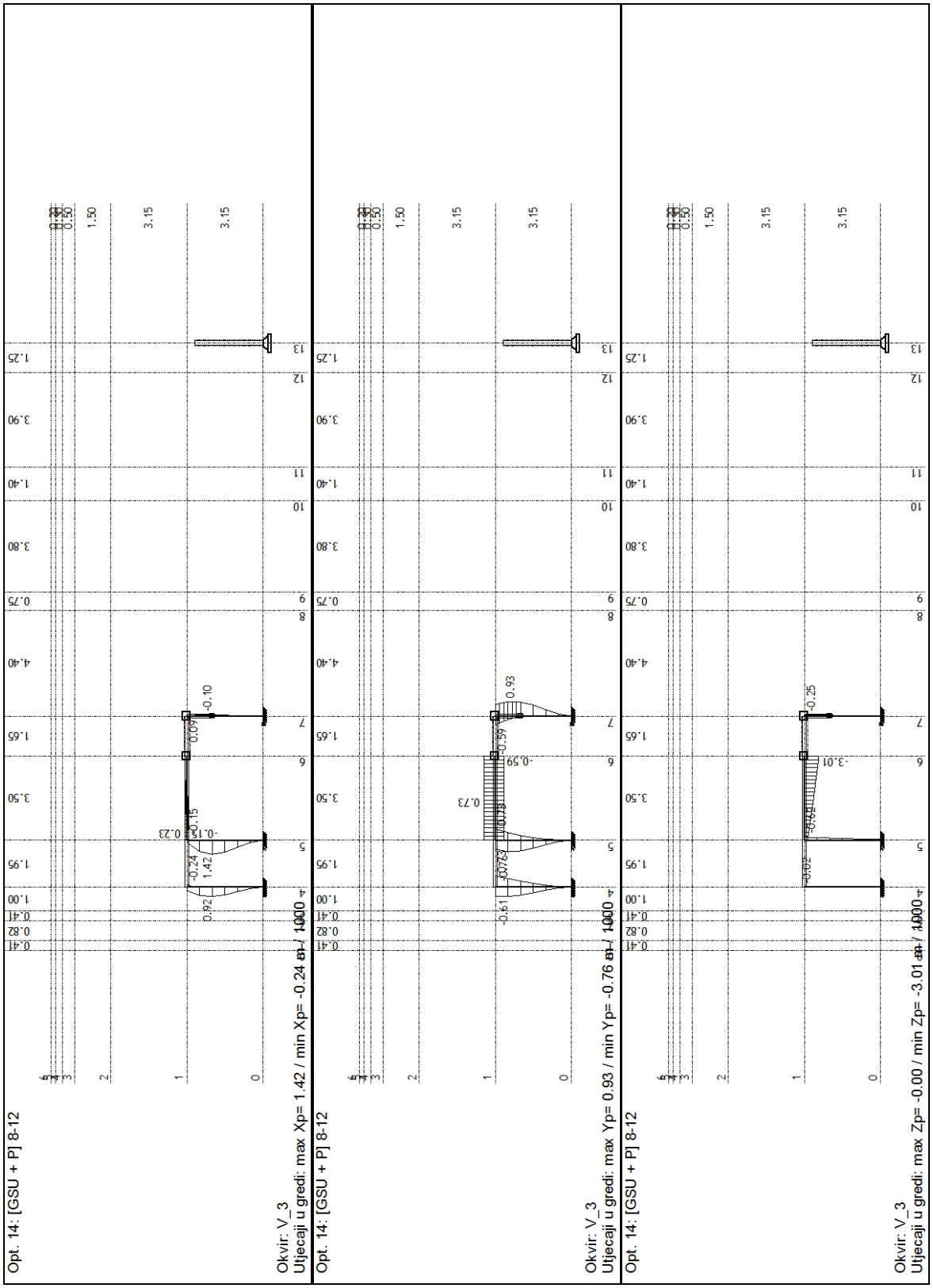
GSU


Opt. 14: [GSU + P] 8-12
Okvir: V_3
Utjecaji u gredi: max σ,max= 9.94 / min σ,max=-4.85 MPa
Opt. 14: [GSU + P] 8-12
Okvir: V_3
Utjecaji u gredi: max σ,min= -0.03 / min σ,min=-19.72 MPa
Opt. 14: [GSU + P] 8-12
Okvir: V_3
Utjecaji u gredi: max σ,0= 0.07 / min σ,0= -4.97 MPa



Za naprezanja armiranobetonskih stupova mjerodavan je model s čeličnim krovom.

Pomaci

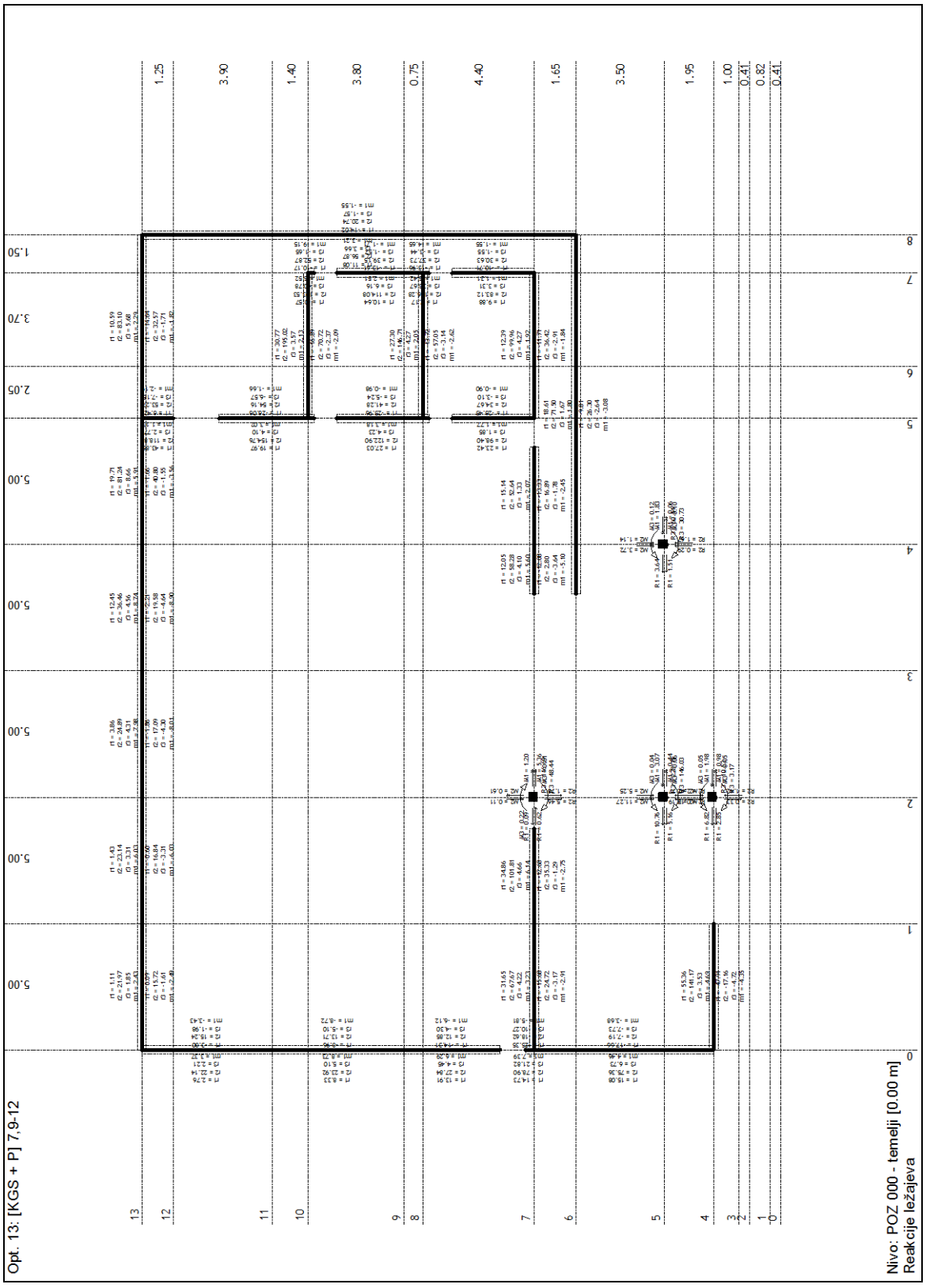


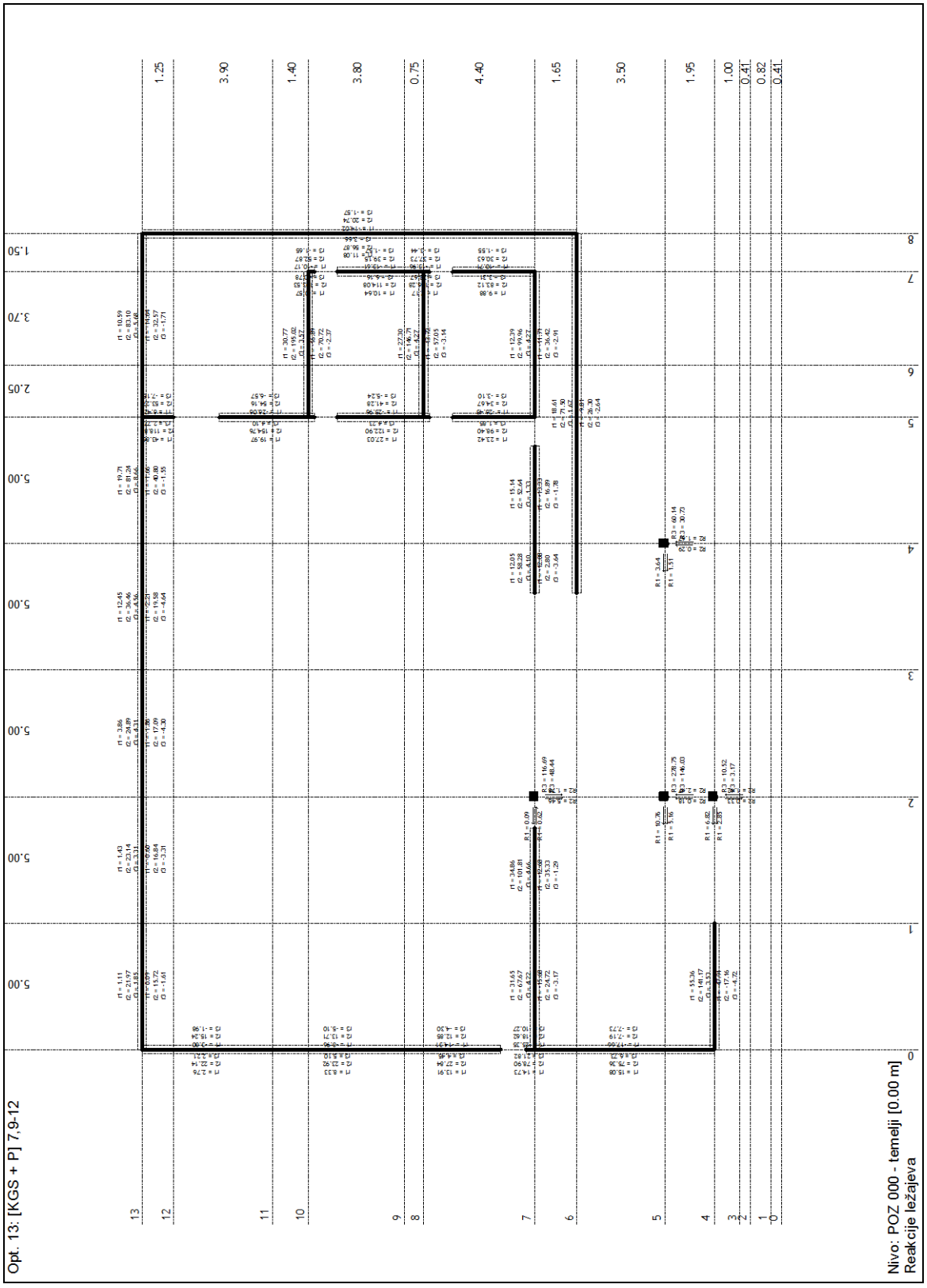
Za pomake armiranobetonskih stupova mjerodavan je model s čeličnim krovom.

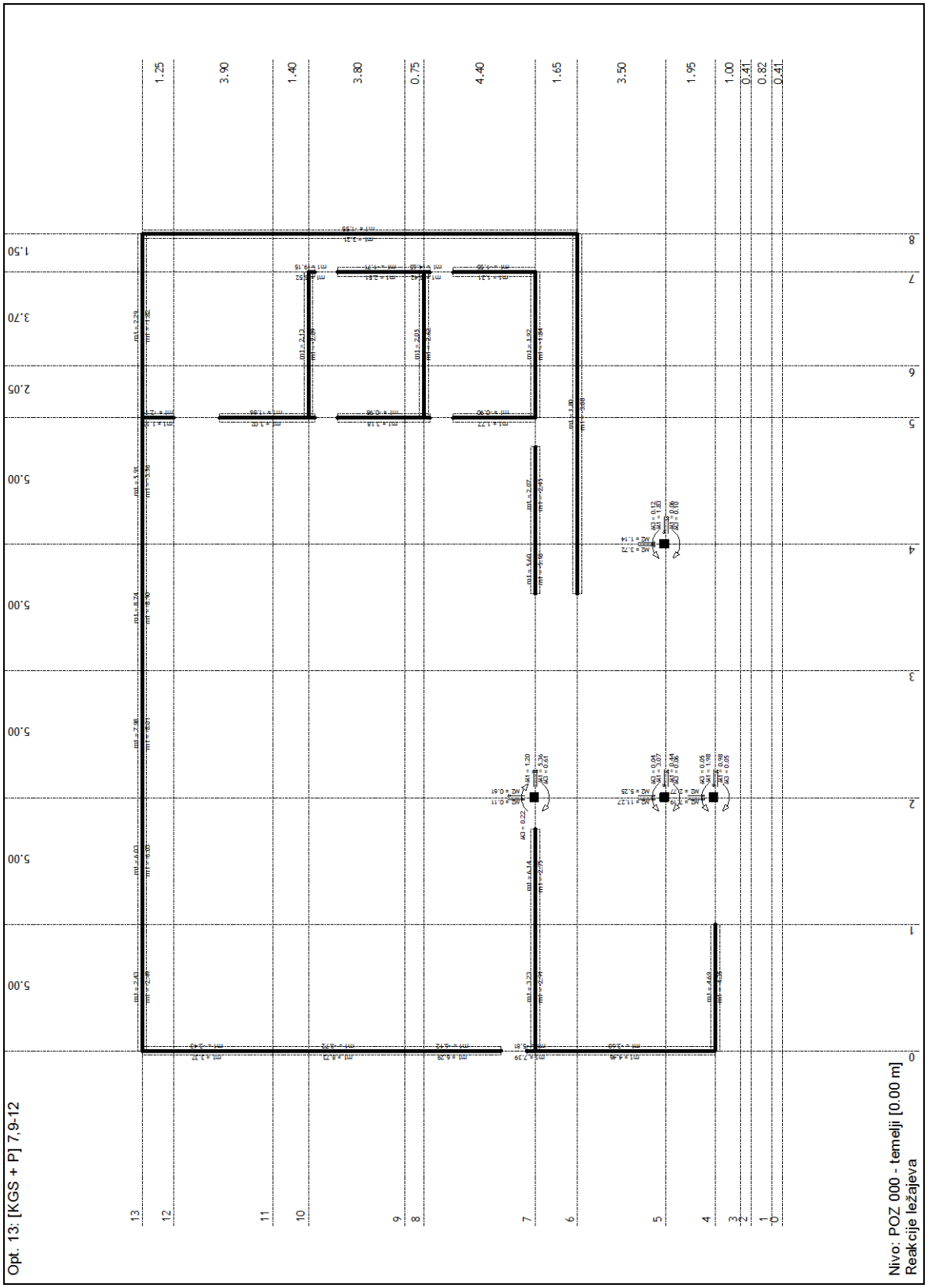
PRORAČUN TEMELJA

POZ 000

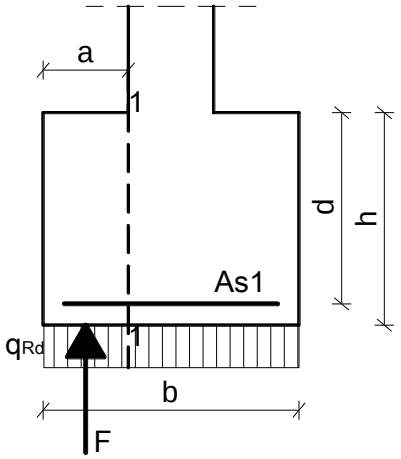
Reakcije




Opt. 13: [KGS + P] 7,9-12
Nivo: POZ 000 - temelji [0.00 m]
Reakcije ležajeva


Opt. 13: [KGS + P] 7,9-12
Nivo: POZ 000 - temelji [0.00 m]
Reakcije ležajeva

ARMATURA TEMELJNIH TRAKA



maksimalno rubno naprezanje:

$q_{Rd} = \sigma_{Rd} = 750{,}0 kN/m^2$

Prikazan je proračun za temeljnu traku širine 65 cm.

b = 65 cm;	h = 60 cm;	d = 55 cm	a = 20 cm
C 30/37	$f_{cd} = \frac{f_{ck}}{\gamma_c} = \frac{30}{1{,}5} = 30{,}0$ MPa;		$f_{cd} = 2{,}00$ kN/cm^2
B500A	$f_{yd} = \frac{f_{yk}}{\gamma_s} = \frac{500}{1{,}15} = 434{,}8$ MPa;		$f_{yd} = 43{,}48$ kN/cm^2

ukupna sila na konzolni dio temelja:

$F = q_{Rd} \cdot a_{-a} = 750{,}0 \cdot 0{,}20 = 150{,}0$ kN/m

moment i poprečna sila u presjeku 1-1:

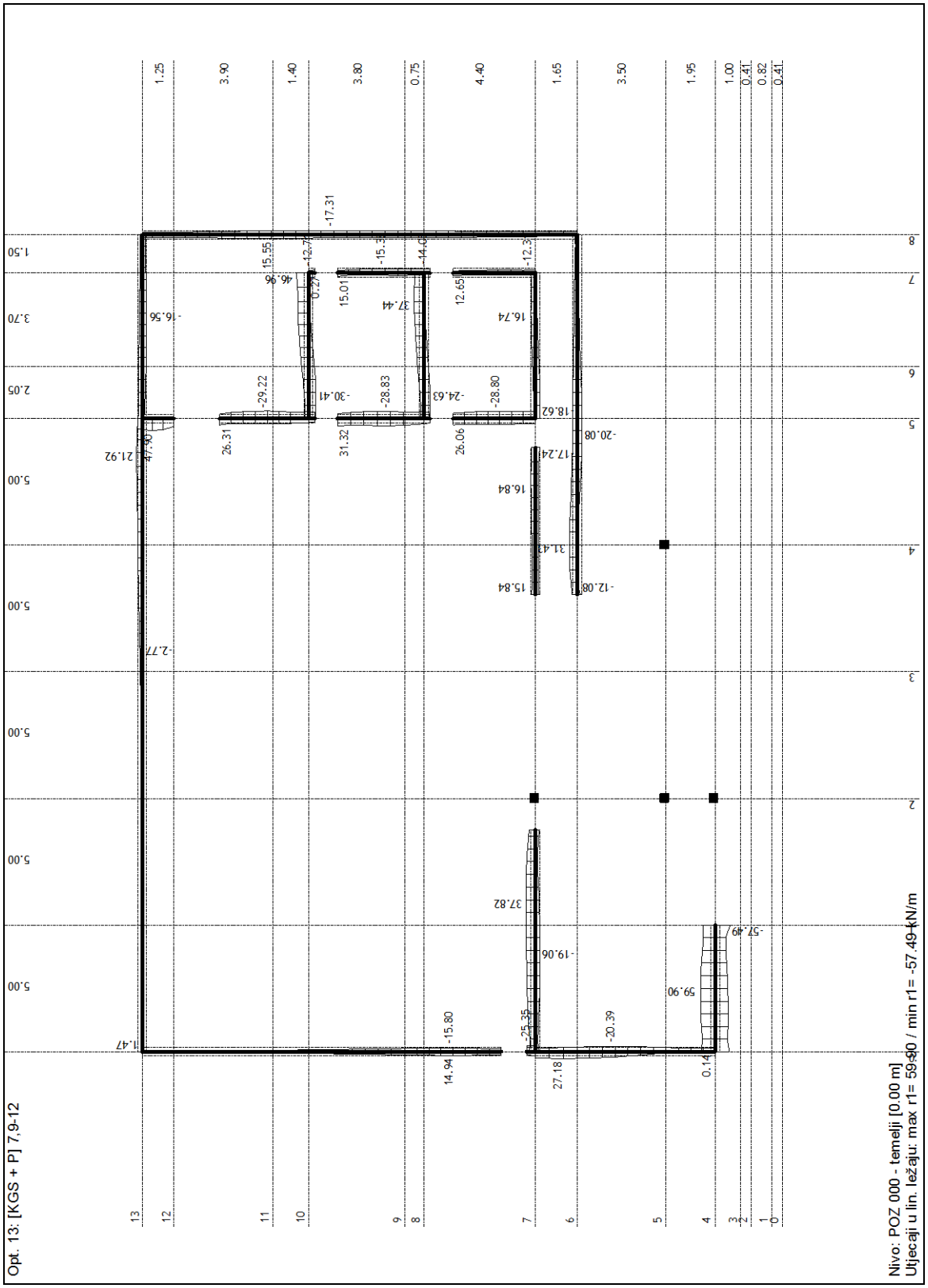
$M_{Sd,1\text{-}1} = F \times a / 2 = 150{,}0 \times 0{,}20 / 2 = 15{,}0$ kN/m^2

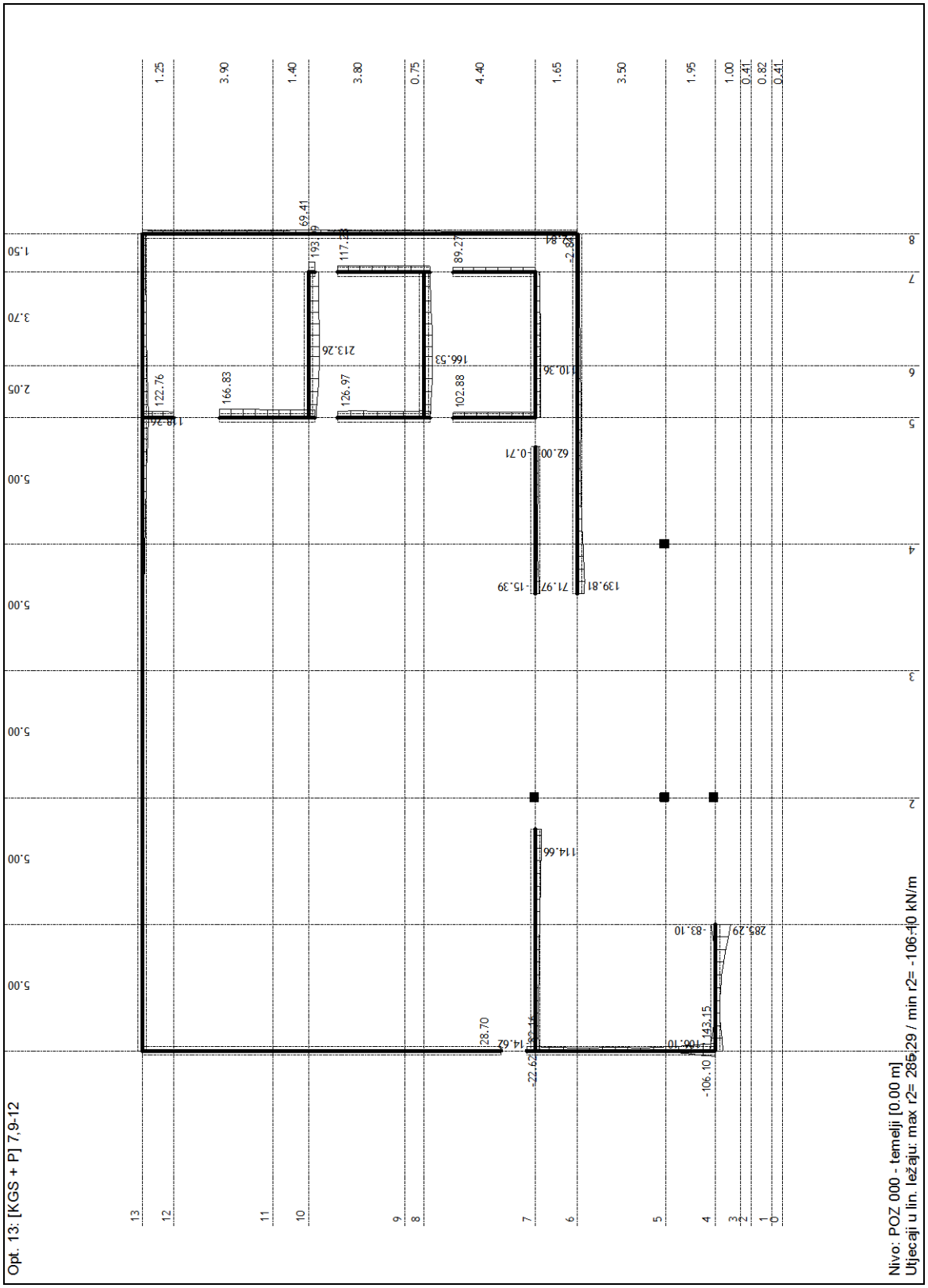
$T_{Sd,1\text{-}1} = F = 150{,}0$ kN

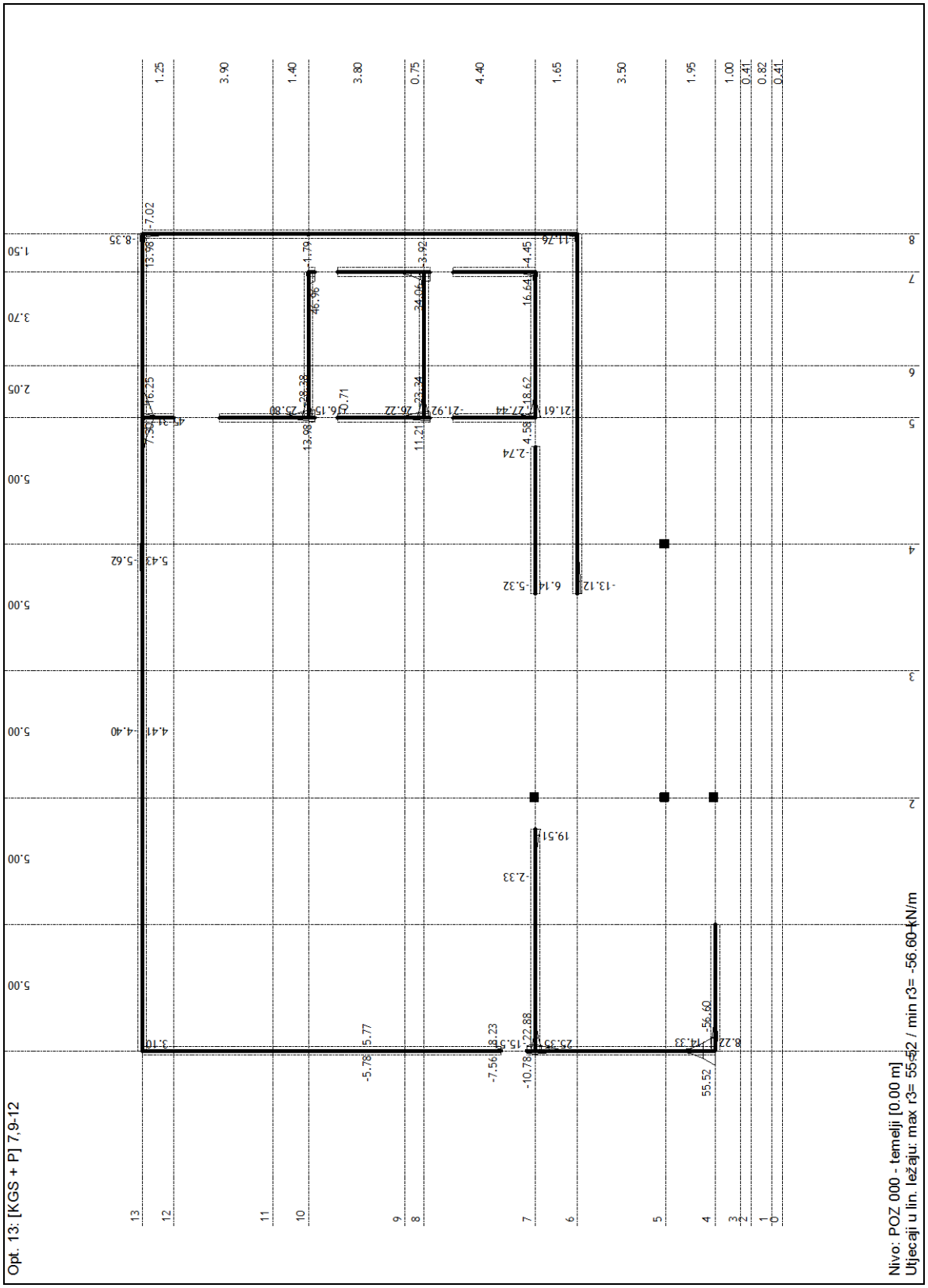
proračun armature:

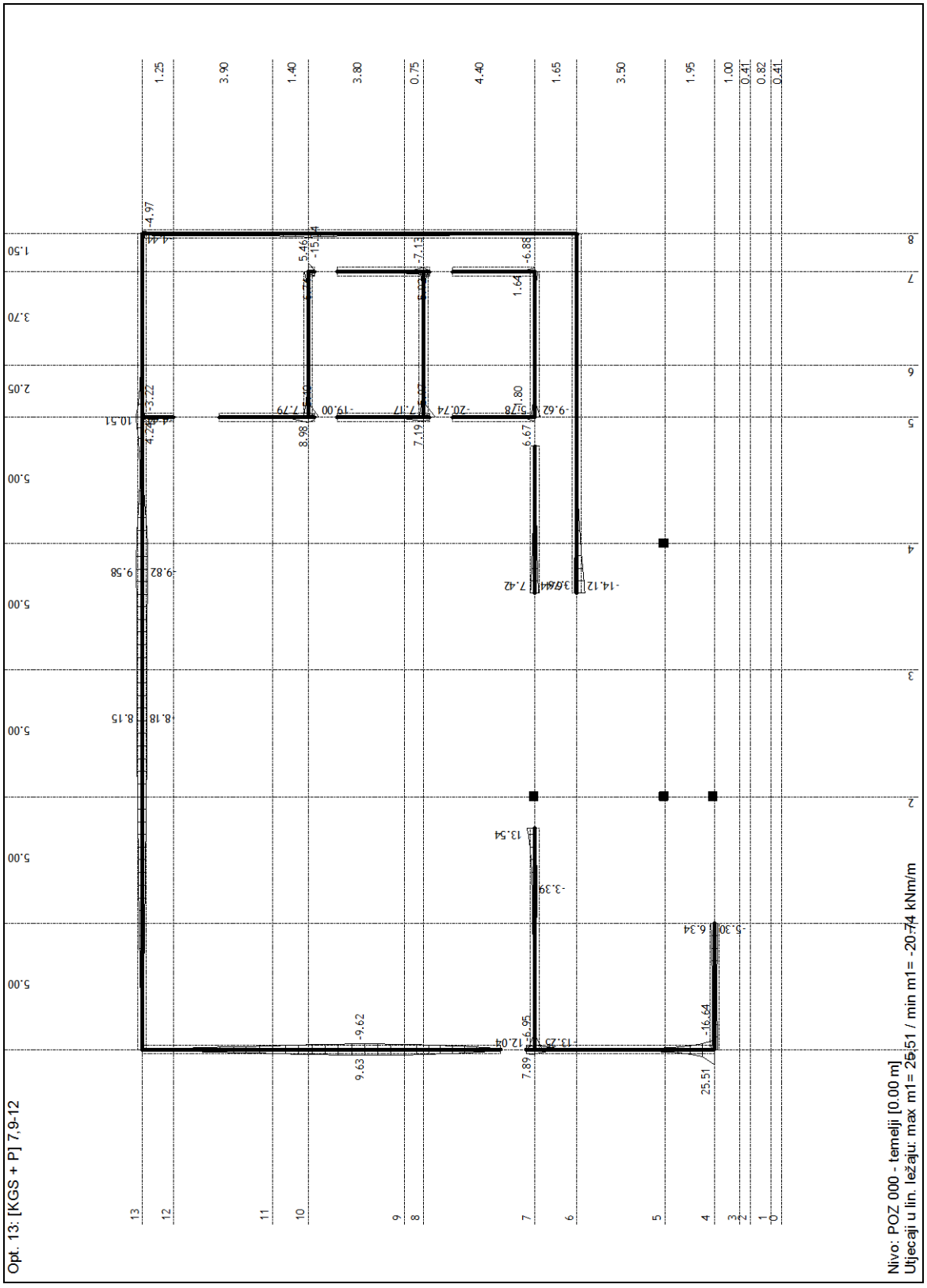
$A_{S1} = M_{Sd,1\text{-}1} / (\zeta_{lim} \times d \times f_{yd}) = 1500 / (0{,}9 \times 55{,}0 \times 43{,}48) = 0{,}70$ cm^2

Linijski ležajevi

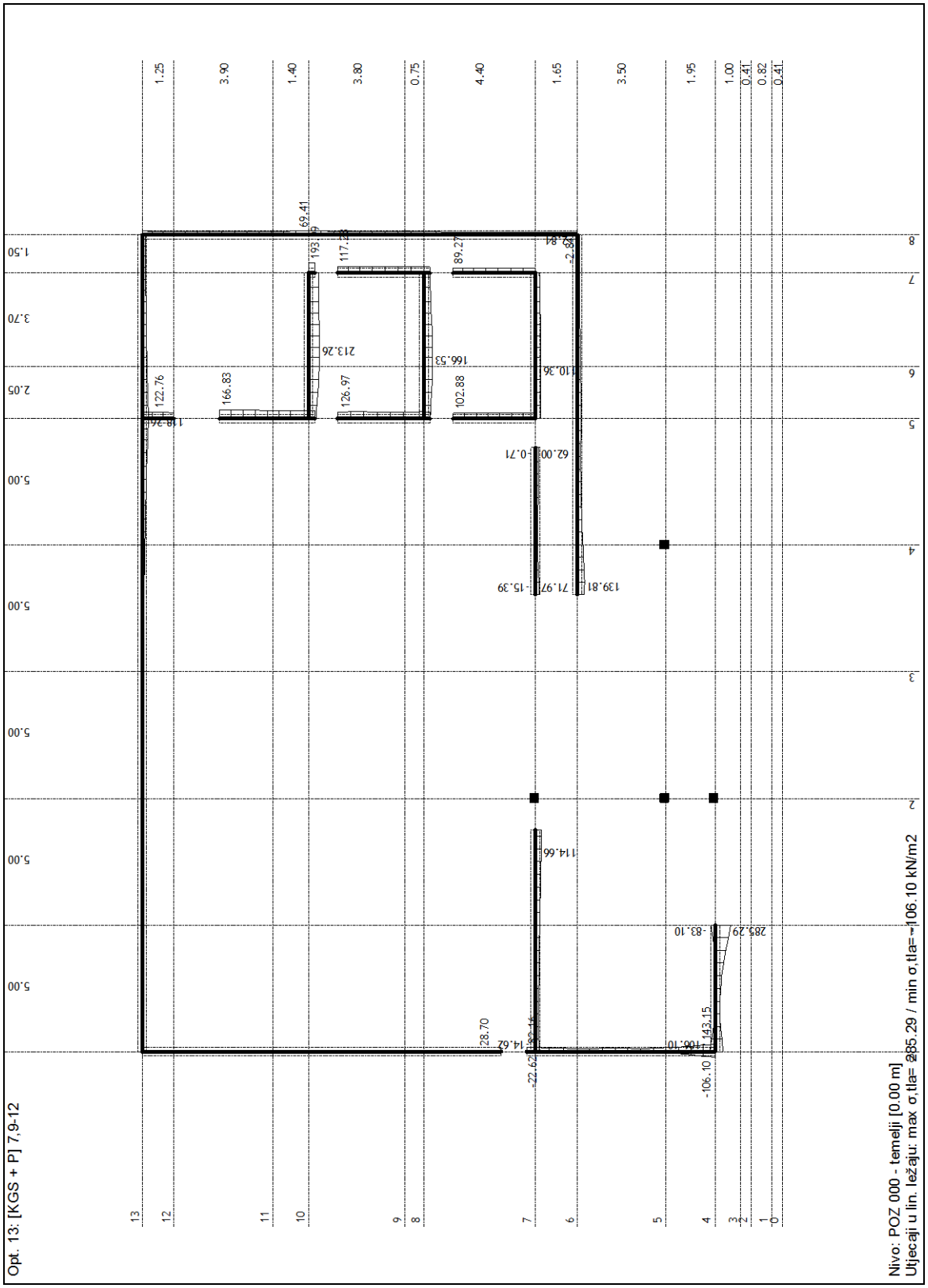



Opt. 13: [KGS + P] 7,9-12
Nivo: POZ 000 - temelji [0.00 m]
Utjecaji u lin. ležaju: max r2= 285.29 / min r2= -106.10 kN/m


Opt. 13: [KGS + P] 7,9-12
Nivo: POZ 000 - temelji [0.00 m]
Utjecaji u lin. ležaju: max r3= 55.52 / min r3= -56.60 kN/m

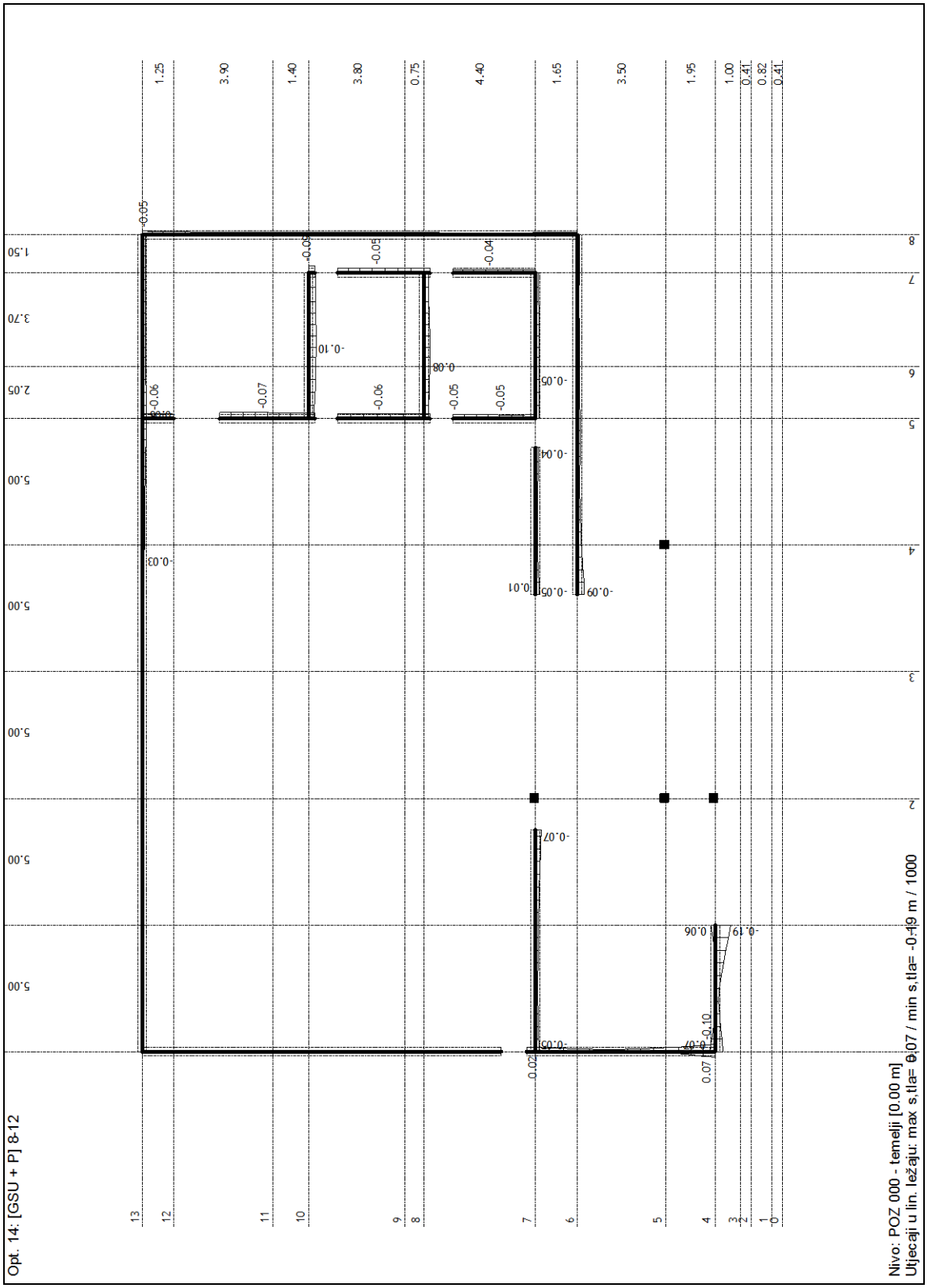

Opt. 13: [KGS + P] 7,9-12
Nivo: POZ 000 - temelji [0.00 m]
Utjecaji u lin. ležaju: max m1= 25.51 / min m1= -20.74 kNm/m

Naprezanje



Naprezanja zadovoljavaju.

Slijeganje



Slijeganja zadovoljavaju.

Temeljne stope

U proračunu stopa zbrojene su reakcije iz modela za armiranobetonske stupove i za armiranobetonsku konstrukciju.

Pojednostavljen je odabir dimenzija prema osima x1, x2, x3, x6 i y1 te stope za stupove na sjecištima osi y3 s osima x1 i x2.

os	**R1** *(kN)*	**R2** *(kN)*	**R3** *(kN)*	**M1** *(kNm)*	**M2** *(kNm)*
	V_y	**V_z**	**N**	**M_y**	**M_z**
x1	28,35	26,76	208,80	113,26	151,75
x2	23,98	8,47	350,40	42,87	114,19
x3	15,36	24,32	535,04	108,98	86,30
x6	15,78	21,33	278,73	100,96	86,00
y1	13,83	24,98	178,65	108,98	86,40
y3/x1	32,60	9,89	222,34	46,70	151,48
y3/x2	29,49	12,64	393,03	39,05	118,15

Stope na osi x1 - S001

BETON
C 30/37
$\gamma_b = 24$ kN/m^3

ARMATURA
B 500/550
$f_{yk} = 500$ N/mm^2
$\gamma_s = 1,15$
$f_{yd} = f_{yk} / \gamma_s = 434,8$ N/mm^2

TLO
$f_{tla,dop} = 0,75$ MN/m^2

REZNE SILE
$N = -208,8$ kN
$V_y = 28,35$ kN
$V_z = -26,76$ kN
$M_y = 113,26$ kN
$M_z = 151,75$ kN

SILE

$A = b_x \cdot b_y = 4$ m^2

$$W_x = \frac{b_x \cdot b_y^2}{6} = 1,33 \text{ m}^2$$

$$W_y = \frac{b_y \cdot b_x^2}{6} = 1,33 \text{ m}^2$$

$N_{sd} = N - \gamma_b \cdot b_x \cdot b_y \cdot d = -266,4$ kN

$M_{sd,x} = M_x + N \cdot c_y - V_y \cdot d = 129,32$ kNm

$M_{sd,y} = M_y - N \cdot c_x + V_x \cdot d = 168,76$ kNm

$$e_x = \frac{M_{sd,y}}{N_{sd}} = -63,35 \text{ cm}$$

$$e_y = \frac{M_{sd,x}}{N_{sd}} = -48,54 \text{ cm}$$

NAPREZANJA U TLU

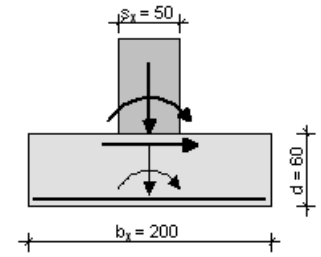
$\sigma_1 = 0,00$ MN/m^2
$\sigma_2 = 0,52967$ MN/m^2
$\sigma_3 = 0,01504$ MN/m^2
$\sigma_4 = 0,00$ MN/m^2

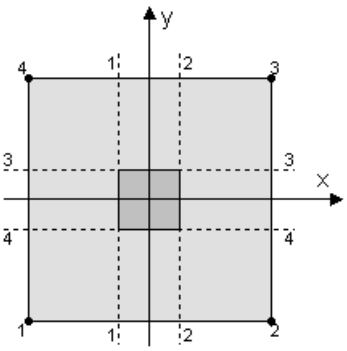
ARMATURA

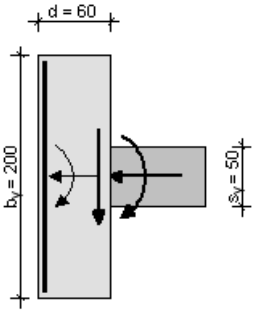
$M_{1-1} = -1,08$ kNm
$M_{2-2} = 75,55$ kNm
$M_{3-3} = -6,49$ kNm
$M_{4-4} = -34,87$ kNm

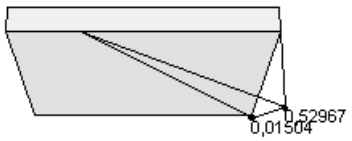
$$A_{sx} = \frac{M_{2-2}}{0.9 \cdot d \cdot f_{yd}} = \mathbf{3,51} \text{ cm}^2$$

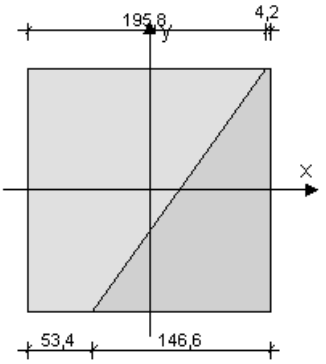
$$A_{sy} = \frac{M_{3-3}}{0.9 \cdot d \cdot f_{yd}} = \mathbf{0,30} \text{ cm}^2$$











Stope na osi x2 - S002

BETON
C 30/37
γ_b = 24 kN/m^3

ARMATURA
B 500/550
f_{yk} = 500 N/mm^2
γ_s = 1,15
$f_{yd} = f_{yk} / \gamma_s$ = 434,8 N/mm^2

TLO
$f_{tla,dop}$ = 0,75 MN/m^2

REZNE SILE
N = -350,4 kN
V_y = 23,98 kN
V_z = -8,47 kN
M_y = 42,87 kN
M_z = 114,19 kN

SILE

$A = b_x \cdot b_y = 2{,}56$ m^2

$$W_x = \frac{b_x \cdot b_y^2}{6} = 0{,}68 \text{ m}^2$$

$$W_y = \frac{b_y \cdot b_x^2}{6} = 0{,}68 \text{ m}^2$$

$N_{sd} = N - \gamma_b \cdot b_x \cdot b_y \cdot d = -387{,}26$ kN

$M_{sd,x} = M_x + N \cdot c_y - V_y \cdot d = 47{,}95$ kNm

$M_{sd,y} = M_y - N \cdot c_x + V_x \cdot d = 128{,}58$ kNm

$$e_x = \frac{M_{sd,y}}{N_{sd}} = -33{,}2 \text{ cm}$$

$$e_y = \frac{M_{sd,x}}{N_{sd}} = -12{,}38 \text{ cm}$$

NAPREZANJA U TLU

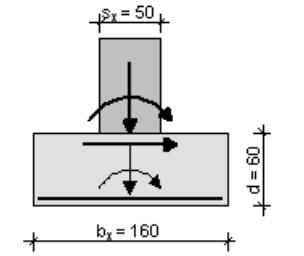
σ_1 = 0,0195 MN/m^2
σ_2 = 0,43384 MN/m^2
σ_3 = 0,2678 MN/m^2
σ_4 = 0,00 MN/m^2

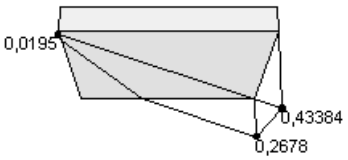
ARMATURA

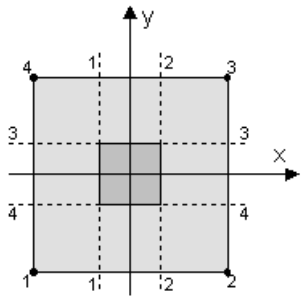
M_{1-1} = -3,94 kNm
M_{2-2} = 73,41 kNm
M_{3-3} = 49,03 kNm
M_{4-4} = 2,82 kNm

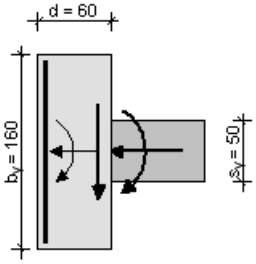
$$A_{sx} = \frac{M_{2-2}}{0.9 \cdot d \cdot f_{yd}} = \mathbf{3{,}41} \text{ cm}^2$$

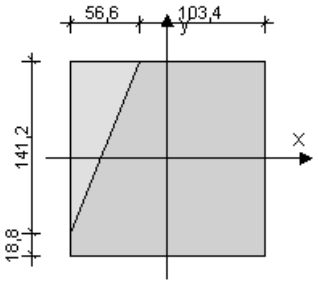
$$A_{sy} = \frac{M_{3-3}}{0.9 \cdot d \cdot f_{yd}} = \mathbf{2{,}28} \text{ cm}^2$$











Stope na osi x3 - S003

BETON
C 30/37
γ_b = 24 kN/m^3

ARMATURA
B 500/550
f_{yk} = 500 N/mm^2
γ_s = 1,15
$f_{yd} = f_{yk} / \gamma_s$ = 434,8 N/mm^2

TLO
$f_{tla,dop}$ = 0,75 MN/m^2

REZNE SILE
N = -535,04 kN
V_y = 15,36 kN
V_z = -24,32 kN
M_y = 108,98 kN
M_z = 86,3 kN

SILE

$A = b_x \cdot b_y = 2{,}56$ m^2

$$W_x = \frac{b_x \cdot b_y^2}{6} = 0{,}68 \text{ m}^2$$

$$W_y = \frac{b_y \cdot b_x^2}{6} = 0{,}68 \text{ m}^2$$

$N_{sd} = N - \gamma_b \cdot b_x \cdot b_y \cdot d = -571{,}9$ kN

$M_{sd,x} = M_x + N \cdot c_y - V_y \cdot d = 123{,}57$ kNm

$M_{sd,y} = M_y - N \cdot c_x + V_x \cdot d = 95{,}52$ kNm

$$e_x = \frac{M_{sd,y}}{N_{sd}} = -16{,}7 \text{ cm}$$

$$e_y = \frac{M_{sd,x}}{N_{sd}} = -21{,}61 \text{ cm}$$

NAPREZANJA U TLU

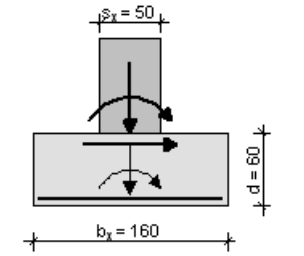
σ_1 = 0,26271 MN/m^2
σ_2 = 0,55248 MN/m^2
σ_3 = 0,18 MN/m^2
σ_4 = 0,00 MN/m^2

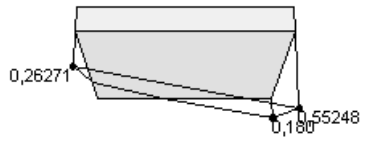
ARMATURA

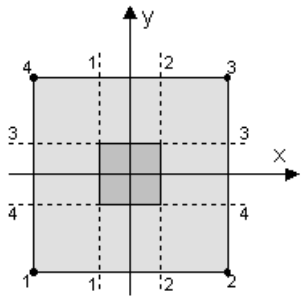
M_{1-1} = 14,26 kNm
M_{2-2} = 80,6 kNm
M_{3-3} = 88,31 kNm
M_{4-4} = 9,34 kNm

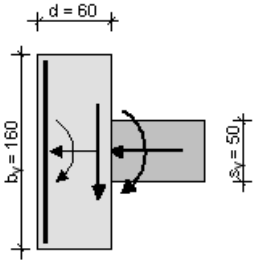
$$A_{sx} = \frac{M_{2-2}}{0.9 \cdot d \cdot f_{yd}} = \mathbf{3{,}74} \text{ cm}^2$$

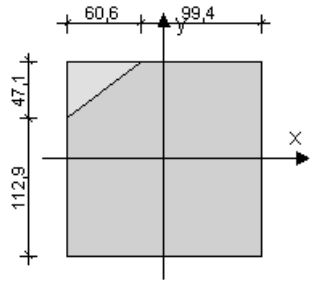
$$A_{sy} = \frac{M_{3-3}}{0.9 \cdot d \cdot f_{yd}} = \mathbf{4{,}10} \text{ cm}^2$$











Stope na osi x6 - S006

BETON
C 30/37
γ_b = 24 kN/m^3

ARMATURA
B 500/550
f_{yk} = 500 N/mm^2
γ_s = 1,15
$f_{yd} = f_{yk} / \gamma_s$ = 434,8 N/mm^2

TLO
$f_{tla,dop}$ = 0,75 MN/m^2

REZNE SILE
N = -278,73 kN
V_y = 15,78 kN
V_z = -21,33 kN
M_y = 100,96 kN
M_z = 86 kN

SILE

$A = b_x \cdot b_y = 2{,}56$ m^2

$$W_x = \frac{b_x \cdot b_y^2}{6} = 0{,}68 \text{ m}^2$$

$$W_y = \frac{b_y \cdot b_x^2}{6} = 0{,}68 \text{ m}^2$$

$N_{sd} = N - \gamma_b \cdot b_x \cdot b_y \cdot d = -315{,}59$ kN

$M_{sd,x} = M_x + N \cdot c_y - V_y \cdot d = 113{,}76$ kNm

$M_{sd,y} = M_y - N \cdot c_x + V_x \cdot d = 95{,}47$ kNm

$$e_x = \frac{M_{sd,y}}{N_{sd}} = -30{,}25 \text{ cm}$$

$$e_y = \frac{M_{sd,x}}{N_{sd}} = -36{,}05 \text{ cm}$$

NAPREZANJA U TLU

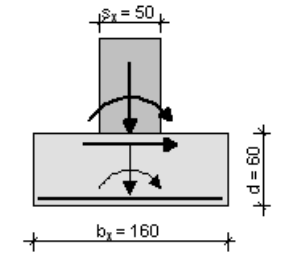
σ_1 = 0,11528 MN/m^2
σ_2 = 0,53769 MN/m^2
σ_3 = 0,04536 MN/m^2
σ_4 = 0,00 MN/m^2

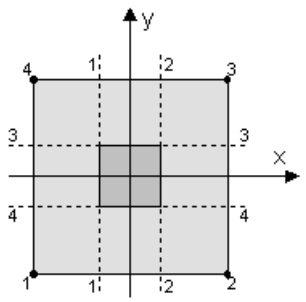
ARMATURA

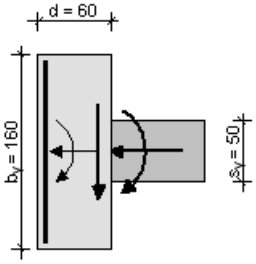
M_{1-1} = -18,99 kNm
M_{2-2} = 55,61 kNm
M_{3-3} = 64,96 kNm
M_{4-4} = -14,36 kNm

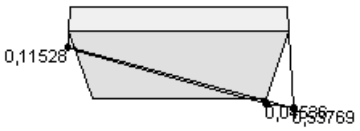
$$A_{sx} = \frac{M_{2-2}}{0.9 \cdot d \cdot f_{yd}} = \mathbf{2{,}58} \text{ cm}^2$$

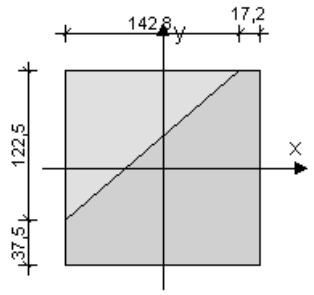
$$A_{sy} = \frac{M_{3-3}}{0.9 \cdot d \cdot f_{yd}} = \mathbf{3{,}02} \text{ cm}^2$$











Stope na osi y1 - S004

BETON
C 30/37
γ_b = 24 kN/m^3

ARMATURA
B 500/550
f_{yk} = 500 N/mm^2
γ_s = 1,15
$f_{yd} = f_{yk} / \gamma_s$ = 434,8 N/mm^2

TLO
$f_{tla,dop}$ = 0,75 MN/m^2

REZNE SILE
N = -178,65 kN
V_y = 13,83 kN
V_z = -24,98 kN
M_y = 108,98 kN
M_z = 86,4 kN

SILE

$A = b_x \cdot b_y$ = 3,24 m^2

$W_x = \frac{b_x \cdot b_y^2}{6}$ = 0,97 m^2

$W_y = \frac{b_y \cdot b_x^2}{6}$ = 0,97 m^2

$N_{sd} = N - \gamma_b \cdot b_x \cdot b_y \cdot d$ = -225,31 kN

$M_{sd,x} = M_x + N \cdot c_y - V_y \cdot d$ = 123,97 kNm

$M_{sd,y} = M_y - N \cdot c_x + V_x \cdot d$ = 94,7 kNm

$e_x = \frac{M_{sd,y}}{N_{sd}}$ = -42,03 cm

$e_y = \frac{M_{sd,x}}{N_{sd}}$ = -55,02 cm

NAPREZANJA U TLU

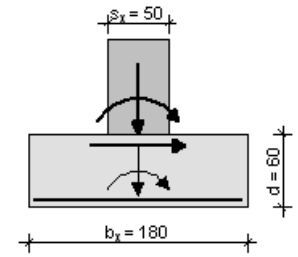
σ_1 = 0,03149 MN/m^2
σ_2 = 0,50344 MN/m^2
σ_3 = 0,00 MN/m^2
σ_4 = 0,00 MN/m^2

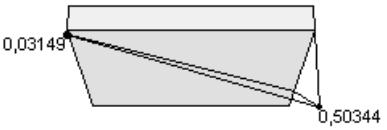
ARMATURA

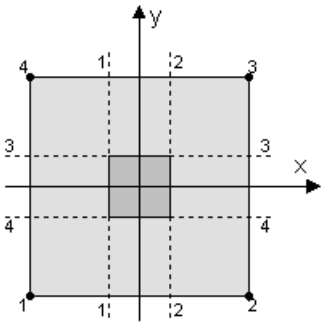
M_{1-1} = -25,29 kNm
M_{2-2} = 7,22 kNm
M_{3-3} = 59,02 kNm
M_{4-4} = -1,43 kNm

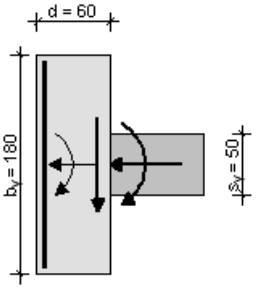
$A_{sx} = \frac{M_{2-2}}{0.9 \cdot d \cdot f_{yd}}$ = **0,34** cm^2

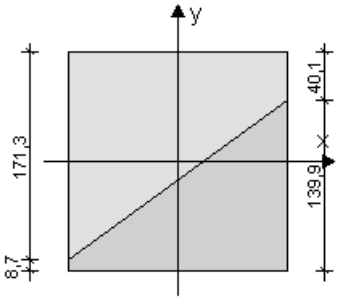
$A_{sy} = \frac{M_{3-3}}{0.9 \cdot d \cdot f_{yd}}$ = **2,74** cm^2











Stopa na sjecištu y3/x1 - S005'

BETON
C 30/37
γ_b = 24 kN/m^3

ARMATURA
B 500/550
f_{yk} = 500 N/mm^2
γ_s = 1,15
$f_{yd} = f_{yk} / \gamma_s$ = 434,8 N/mm^2

TLO
$f_{tla,dop}$ = 0,75 MN/m^2

REZNE SILE
N = -222,34 kN
V_y = 32,6 kN
V_z = 9,89 kN
M_y = 46,7 kN
M_z = 151,48 kN

SILE

$A = b_x \cdot b_y = 3{,}24$ m^2

$W_{V_x} = \frac{b_x \cdot b_y^2}{6} = 0{,}97$ m^2

$W_{V_y} = \frac{b_y \cdot b_x^2}{6} = 0{,}97$ m^2

$N_{sd} = N - \gamma_b \cdot b_x \cdot b_y \cdot d = -269$ kN

$M_{sd,x} = M_x + N \cdot c_y - V_y \cdot d = 40{,}77$ kNm

$M_{sd,y} = M_y - N \cdot c_x + V_x \cdot d = 171{,}04$ kNm

$e_x = \frac{M_{sd,y}}{N_{sd}} = -63{,}58$ cm

$e_y = \frac{M_{sd,x}}{N_{sd}} = -15{,}15$ cm

NAPREZANJA U TLU

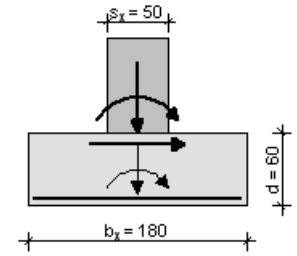
σ_1 = 0,00 MN/m^2
σ_2 = 0,4844 MN/m^2
σ_3 = 0,28559 MN/m^2
σ_4 = 0,00 MN/m^2

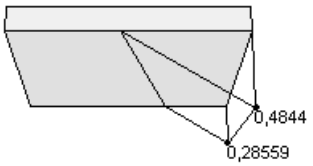
ARMATURA

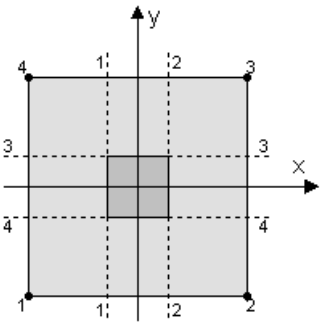
M_{1-1} = 0 kNm
M_{2-2} = 104,55 kNm
M_{3-3} = -42,38 kNm
M_{4-4} = -57,63 kNm

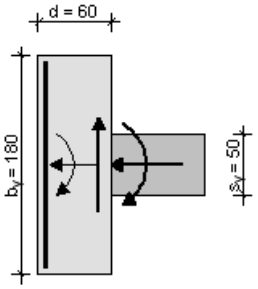
$A_{sx} = \frac{M_{2-2}}{0.9 \cdot d \cdot f_{yd}} =$ **4,86** cm^2

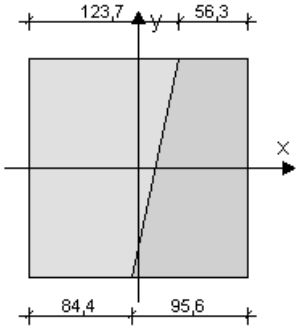
$A_{sy} = \frac{M_{3-3}}{0.9 \cdot d \cdot f_{yd}} =$ **1,97** cm^2











Stopa na sjecištu y3/x2 - S005"

BETON
C 30/37
γ_b = 24 kN/m^3

ARMATURA
B 500/550
f_{yk} = 500 N/mm^2
γ_s = 1,15
$f_{yd} = f_{yk} / \gamma_s$ = 434,8 N/mm^2

TLO
$f_{tla,dop}$ = 0,75 MN/m^2

REZNE SILE
N = -393,03 kN
V_y = 29,49 kN
V_z = -12,64 kN
M_y = 39,05 kN
M_z = 118,15 kN

SILE

$A = b_x \cdot b_y$ = 3,24 m^2

$W_x = \frac{b_x \cdot b_y^2}{6}$ = 0,97 m^2

$W_y = \frac{b_y \cdot b_x^2}{6}$ = 0,97 m^2

$N_{sd} = N - \gamma_b \cdot b_x \cdot b_y \cdot d$ = -439,69 kN

$M_{sd,x} = M_x + N \cdot c_y - V_y \cdot d$ = 46,63 kNm

$M_{sd,y} = M_y - N \cdot c_x + V_x \cdot d$ = 135,84 kNm

$e_x = \frac{M_{sd,y}}{N_{sd}}$ = -30,9 cm

$e_y = \frac{M_{sd,x}}{N_{sd}}$ = -10,61 cm

NAPREZANJA U TLU

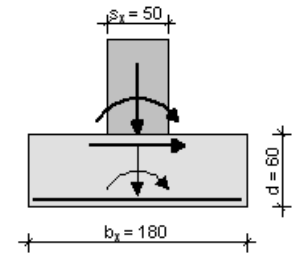
σ_1 = 0,04208 MN/m^2
σ_2 = 0,32794 MN/m^2
σ_3 = 0,22697 MN/m^2
σ_4 = 0,00 MN/m^2

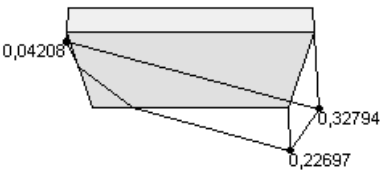
ARMATURA

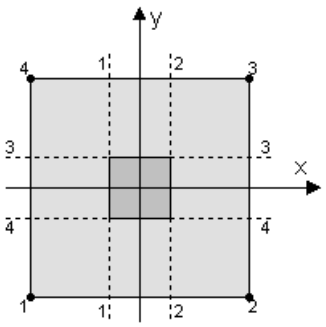
M_{1-1} = 5,93 kNm
M_{2-2} = 92,42 kNm
M_{3-3} = 65,73 kNm
M_{4-4} = 23,31 kNm

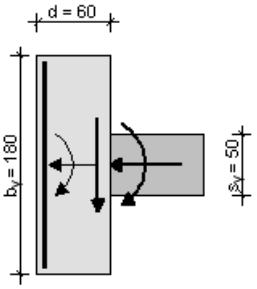
$A_{sx} = \frac{M_{2-2}}{0.9 \cdot d \cdot f_{yd}}$ = **4,29** cm^2

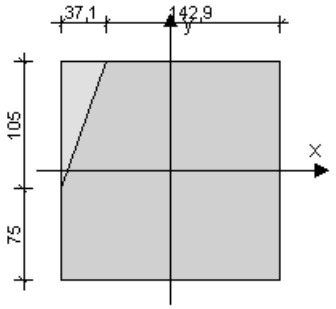
$A_{sy} = \frac{M_{3-3}}{0.9 \cdot d \cdot f_{yd}}$ = **3,05** cm^2











PRORAČUN STUBIŠTA

Izvršen je proračun za jedan krak stubišta kao slobodno oslonjena ploča što je na strani sigurnosti. Stubište armirati mrežom Q283 s klasičnim detaljima šipkama Ø8/10 na pregibima stubišta.

KRAK STUBIŠTA

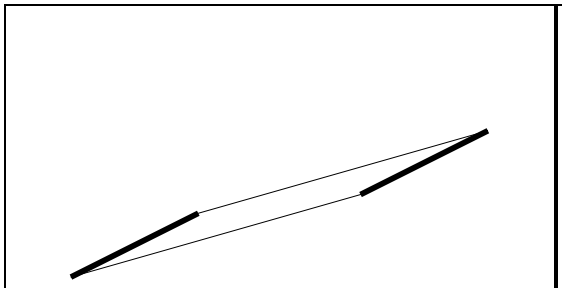
Konstrukcija

Tabela materijala

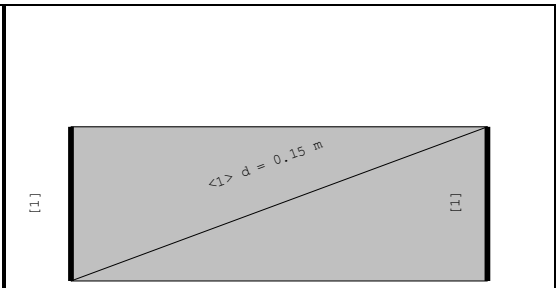
No	Naziv materijala	E[kN/m2]	μ	γ[kN/m3]	αt[1/C]	Em[kN/m2]	μm
1	Beton C25/30	3.050e+7	0.30	25.00	1.000e-5	3.050e+7	0.30

Setovi ploča

No	d[m]	e[m]	Materijal	Tip proračuna	Ortotropija	E2[kN/m2]	G[kN/m2]	α
<1>	0.150	0.075	1	Tanka ploča	Izotropna			



Izometrija



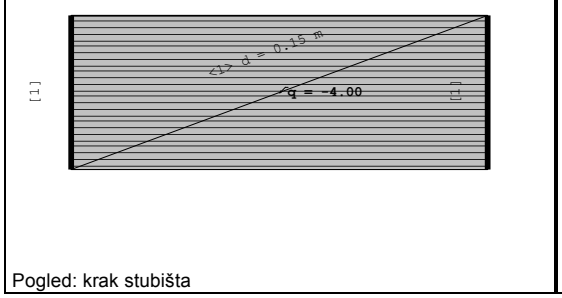
Pogled: krak stubišta

Opterećenja

Lista slučajeva opterećenja

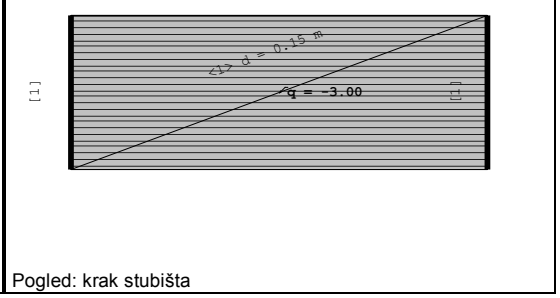
LC	Naziv	pX [kN]	pY [kN]	pZ [kN]
1	vlastita težina (g)	0.00	0.00	-12.24
2	dodatno stalno	0.00	0.00	-13.06
3	pokretno	0.00	0.00	-9.79
4	Komb.: 1.35xI+1.5xII+1.5xIII	0.00	0.00	-50.81
5	Komb.: I+II+III	0.00	0.00	-35.30

Opt. 2: dodatno stalno



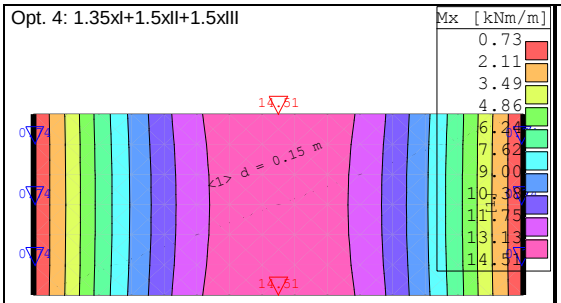
Pogled: krak stubišta

Opt. 3: pokretno

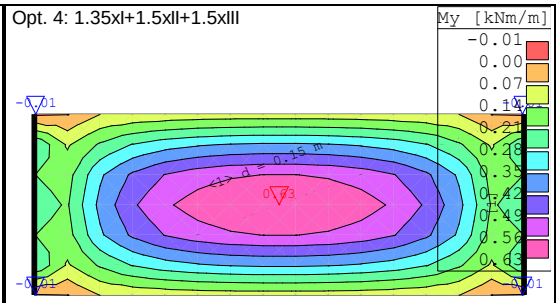


Pogled: krak stubišta

KGS

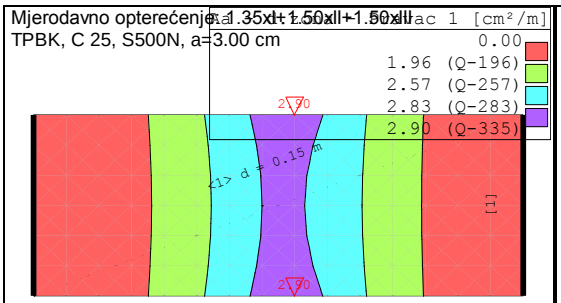


Pogled: krak stubišta
Utjecaji u ploči: max Mx= 14.51 / min Mx= 0.74 kNm/m

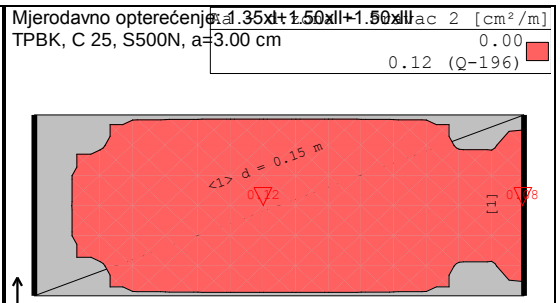


Pogled: krak stubišta
Utjecaji u ploči: max My= 0.63 / min My= -0.01 kNm/m

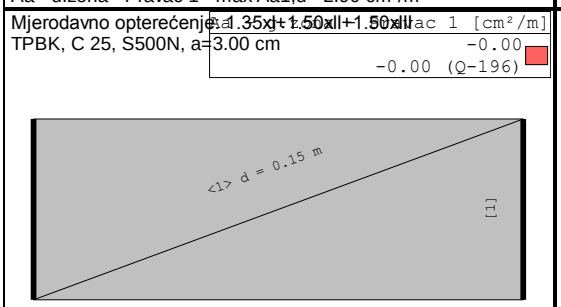
Armatura



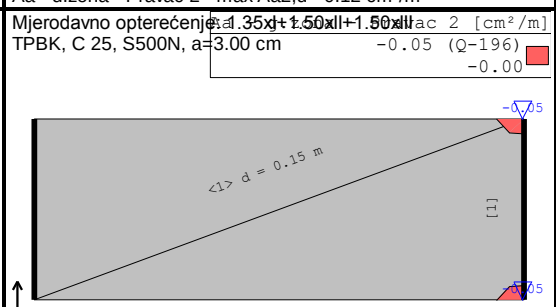
Pogled: krak stubišta
Aa - d.zona - Pravac 1 - max Aa1,d= 2.90 cm²/m



Pogled: krak stubišta
Aa - d.zona - Pravac 2 - max Aa2,d= 0.12 cm²/m

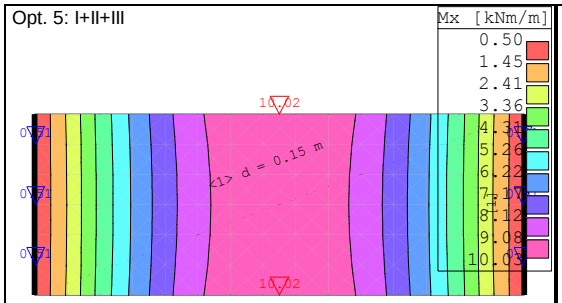


Pogled: krak stubišta
Aa - g.zona - Pravac 1

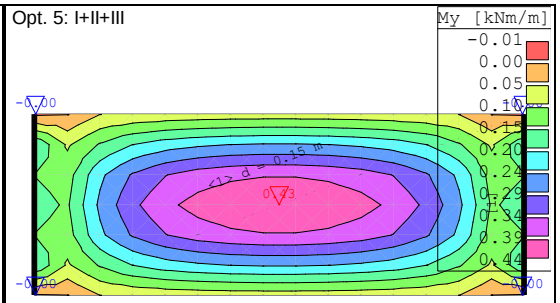


Pogled: krak stubišta
Aa - g.zona - Pravac 2 - max Aa2,g= -0.05 cm²/m

GSU



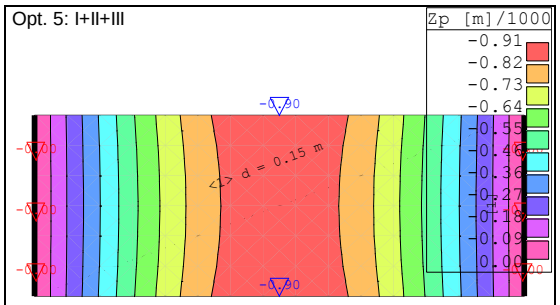
Pogled: krak stubišta
Utjecaji u ploči: max Mx= 10.02 / min Mx= 0.51 kNm/m



Pogled: krak stubišta
Utjecaji u ploči: max My= 0.43 / min My= -0.00 kNm/m

Pukotine zadovoljavaju.

Progibi



Pogled: krak stubišta
Utjecaji u ploči: max Zp= -0.00 / min Zp= -0.90 m / 1000

Progibi zadovoljavaju.

OTPORNOST NA POŽAR NOSIVIH KONSTRUKCIJA

Otpornost na požar nosivih i/ili nenosivih konstrukcija (zid, strop, stup, greda i drugo) je sposobnost konstrukcije ili njenjog dijela da kroz određeno vrijeme ispunja zahtijevanu nosivost (R) i/ili toplinsku izolaciju (I), i/ili cjelovitost (E), i/ili mehaničko djelovanje (M), u uvjetima djelovanja predviđenovog požara (standardnog ili projektiranog.

Vrijeme u kojem konstrukcija i elementi moraju očuvati nosivost i druga svojstva tijekom određenog vremena, čime se iskazuje otpornost na požar konstrukcije i elemenata, je najkraće vrijeme u kojem su zadovoljeni postavljeni uvjeti.

Prema Pravilniku o otpornosti na požar (NN 29/13), članak 5. stavak (5):

Otpornost na požar nosivih konstrukcija dokazuje se proračunom nosivosti i uporabljivosti konstrukcije za predviđena djelovanja i utjecaje na građevinu u Glavnom projektu, u okviru proračuna mehaničke otpornosti i stabilnosti.

Prema odredbama Pravilnika o otpornosti na požar (NN 29/13), članak 4. stavak 1, o zahtjevnosti zaštite od požara zgrade spadaju u:

Zgrade podskupine 3 (ZPS 3) su zgrade koje sadrže do tri nadzemne etaže s kotom poda najviše etaže za boravak ljudi do 7,00 metara mjereno od kote vanjskog terena s kojeg je moguća intervencija vatrogasaca, odnosno evakuacija ugroženih osoba, u kojima se okuplja manje od 300 osoba, a nisu obuhvaćene stavkom 1. ili 2. ovog članka.

Konstruktivni elementi dimenzioniraju se sukladno prilogu 1 Pravilnika.

OTPORNOST NA POŽAR

TABLICA 1. Zahtjevi za otpornost na požar konstrukcija i elemenata zgrada

	Klasa građevine (ZPS)	ZPS1	ZPS2	ZPS3	ZPS4	ZPS5	Visoke zgrade
1	**Nosivi dijelovi (osim stropova i zidova na granici požarnog odjeljka)**						
1.1	zadnji kat ili podkrovlje	BEZ ZAHTJE-VA	R 30	R 30	R 30	R 60	PREMA POSEBNOM PROPISU
1.2	suteren, prizemlje i katovi	R 30	R 30	R 60	R 60	R 90	
1.3	podrumske (podzemne etaže)	R 60	R 60	R 90	R 90	R 90	
2	**Pregradni zidovi**						
2.1	zadnji kat ili podkrovlje	NIJE PRIMJE-NJIVO	EI 30	EI 30	EI 60	EI 60	PREMA POSEBNOM PROPISU
2.2	suteren, prizemlje i katovi	NIJE PRIMJE-NJIVO	EI 30	EI 60	EI 60	EI 90	
2.3	podrumske (podzemne etaže)	NIJE PRIMJE-NJIVO	EI 60	EI 90	EI 90	EI 90	
3	**Zidovi i stropovi na granici požarnog odjeljka (REI nosivi zidovi, EI pregradni zidovi)**						
3.1	zidovi na granici požarnog **odjeljka** ili na granici parcele	REI 60 EI 60	REI 90 EI 90	REI 90 EI 90	REI 90 EI 90	REI 90 EI 90	PREMA POSEBNOM PROPISU
3.2	ostali zidovi i stropovi na granici požarnog **odjeljka**	NIJE PRIMJE-NJIVO	REI 90 EI 90	REI 90 EI 90	REI 90 EI 90	REI 90 EI 90	
4	**Stropovi i kosi krovovi s nagibom ne većim od 60 stupnjeva prema horizontali**						
4.1	Stropovi iznad zadnjeg kata	BEZ ZAHTJE-VA	R 30	R 30	R 30	R 60	PREMA POSEBNOM PROPISU
4.2	Međustropovi iznad ostalih katova	BEZ ZAHTJE-VA	REI 30	REI 60	REI 60	REI 90	
4.3	Stropovi između podrumskih (podzemnih etaža)	R 60	REI 60	REI 90	REI 90	REI 90	
5	**Balkonska ploča**	BEZ ZAHTJE-VA	BEZ ZAHTJE-VA	BEZ ZAHTJE-VA	R 30 ili naj-manje A2	R 30 i naj-manje A2	PREMA POSEBNOM PROPISU

Obzirom da se predmetna zgrada može se svrstati u zgrade podskupine 3 (ZPS 3) zahtjevana maksimalna otpornost na požar za nosive elemente je R 60, a za zidove i stropove na granicama požarnog odjeljka je REI 90 te EI 90.

Prilikom izrade statičkog proračuna korištene su za pojedine armiranobetonske konstruktivne elemente vrijednosti prema sljedećoj tablici:

Konstruktivni element	**Razred izloženosti**	**Klasa betona**	**Minimalni zaštitni sloj (mm)**	**Požarna otpornost (minuta)**	**Širina elementa b (mm)**
Nadzemni zidovi	XC1	C30/37	20	120	= 200
Stupovi	XC1	C30/37	20	120	= 500
Stupovi	XC1	C30/37	20	120	= 400
Grede	XC1	C30/37	20	120	= 400
Monolitne armiranobetonske ploče	XC1	C30/37	20	120	= 150
Monolitne armiranobetonske ploče	XC1	C30/37	20	120	= 200

Izabrane monolitne armiranobetonske konstrukcije zadovoljavaju uvjet.

Čelična konstrukcija bit će zaštićena prema elaboratu zaštite od požara protupožarnim premazom, a preporuča se proračun realnog požara iz čega će dobiti realan sustav protupožarne zaštite. Zaštita se sastoji od nanošenja temeljnog, ekspandirajućeg i završnog sloja, a debljina slojeva se određuje prema U/A faktoru profila.

Ovlašteni inženjer:
Jelena Samardžić, mag.ing.aedif.

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