## 3.1 NASLOVNA STRAN NAČRTA GRADBENIH KONSTRUKCIJ

ŠTEVILČNA OZNAKA NAČRTA IN VRSTA NAČRTA:

**NAČRT GRADBENIH KONSTRUKCIJ IN DRUGI GRADBENI NAČRT, št. SI 004/16**

INVESTITOR:

**OBČINA KOČEVJE**
Ljubljanska cesta 26, 1330 Kočevje

**ZDRAVSTVENI DOM KOČEVJE**
Roška cesta 18, 1330 Kočevje

OBJEKT:

**Rekonstrukcija in dozidava Zdravstvenega doma Kočevje**

VRSTA PROJEKTNE DOKUMENTACIJE

**PROJEKT ZA IZVEDBO**

ZA GRADNJO:

**NOVOGRADNJA IN REKONSTRUKCIJA**

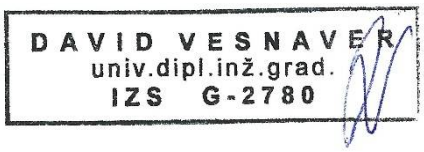
PROJEKTANT:

**EEP d.o.o.**
**Partizanska cesta 70, 6210 Sežana**
**odg. oseba: David Vesnaver, u.d.i.g.**

(podpis odgovorne osebe projektanta)

ODGOVORNI PROJEKTANT:

**David Vesnaver, u.d.i.g., G - 2780**




(osebni žig in podpis)

ŠTEVILKA NAČRTA, KRAJ IN DATUM IZDELAVE NAČRTA:

**SI 004/16** **Sežana – avgust 2019**

ODGOVORNI VODJA PROJEKTA:

**Robert Mašera, u.d.i.a., A - 1137**

(osebni žig in podpis)

## 3.2 KAZALO VSEBINE NAČRTA št. SI 004/16

**3.1 Naslovna stran načrta**
**3.2 Kazalo vsebine načrta**
**3.3 Izjava odgovornega projektanta načrta – NI POTREBNA**
**3.4 Tehnično poročilo**
**3.5 Risbe**

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- 03 Obstoječi objekt – Pogledi sten, detajli m 1:50., 1:10
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- 06 Armaturni načrt urgenca – AB temelji poz. T1 – T5 m 1:50, 1:20
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- 28 Pozicijski načrt – Ostrešje nadstrešek jug m 1:50, 1:10

# 3.4 TEHNIČNO POROČILO

VSEBINA:

- 3.4.1 – Tehnično poročilo
- 3.4.2 – Statični izračun

### 3.4.1 Tehnično poročilo

Projekt obravnava izvedene posege za modernizacijo in adaptacijo na nove potrebe iz vidika funkcionalnosti na kompleksu Zdravstvenega doma Kočevje (v nadaljevanju ZDK).

#### 3.4.1.1 Stanje objekta pred izvedbo

Kompleks je bil zgrajen v šestdesetih letih dvajsetega stoletja. Razdeljen je na osnovni trakt z etažnostjo K+P+2 ter trakt A z etažnostjo K+P. V kompleks se dostopa iz več vhodov. Glavni vhod glavnega trakta je opremljen z originalnim nadstreškom sestavljenim iz dveh AB plošč na stebrih. Vhod trakta A je opremljen s kovinskim nadstreškom, kritim s prosojno polikarbonatno kritino. Nadstrešek je precej degradiran. Kompleks je bil v celoti pred kratkim barvno osvežen in delno energetsko saniran. Obenem je bila zamenjana azbestna kritina trakta A. V kletnem delu trakta A je poleg ostalih ordinacij umeščena urgentna enota ZDK ter pisarne za patronažno službo. Prostori so neprimerni zaradi premajhne površine ter puščanje fekalne kanalizacije v kleti. Vhod urgence ima lasten dvojni kovinski nadstrešek. Pod njim so parkirana reševalna vozila. Ob zadnjo fasado glavnega trakta je umeščena še garaža za reševalna vozila. V glavnem traktU je bilo pred kratkim vgrajeno osebno dvigalo, primerno za invalide. Za objektom, pred vhodom v urgenco je urejeno manjše parkirišče z cca. 10PM za potrebe zaposlenih ter bolnikov urgence. Avtomobili patronažne službe so parkirani ob garaži za reševalna vozila ob zadnji fasadi glavnega trakta. Parkirišče ni pokrito.

Iz vidika nosilne konstrukcije se kompleks predstavlja v dobrem stanju ohranjenosti. Vidne so le manjše razpoke na konstrukcij. Objekti, ki sestavljajo kompleks, so zasnovani kot večetažna zidana konstrukcija z opečnim zidovjem iz opeke NF. Medetažne konstrukcije so izvedene kot monta AB stropovi (rebričasta plošča z opečnimi polnili. Ostrešje obeh objektov je leseno.

#### 3.4.1.2 Izvedena dela

S projektom se je izvedlo sledeče posege:

a) Gradnjo novega nadstreška ob vhodu v trakt A;
b) Gradnjo prizidka s prostori urgence na JV strani trakta A z navezavo s kletno etažo. V obsegu prizidka se je zgradil osnovni korpus s prostori urgentnega bloka, pokrito parkirišče za reševalna vozila na V fasadi, povezovalni nadstrešek ob J fasadi kletne etaže trakta A, ki se nadaljuje v nadstrešek nad parkiriščem za vozila patronažne službe;
c) Rekonstrukcijo kletnega dela trakta A za ureditev prostorov za reševalce v okviru programa urgence ZDK ter pisarne patronažne službe;
d) Sanacijo notranje fekalne kanalizacije kleti v traktu A;
e) Sanacijo SZ kletne stene trakta A – izvedba svetlobnega jaška, hidroizolacije, delna toplotna izolacija, ureditev drenaže, ureditev fekalne kanalizacije izven prostorov kleti trakta A, ureditev meteorne kanalizacije;
f) Ureditev parkirišča za zaposlene ter bolnike urgence za objektom ZDK

V načrtu gradbenih konstrukcij projekta za izvedbo (PZI) so bili obravnavani posegi pod točko a), b) in c), tako da bodo v nadaljevanju prikazane glavne konstrukcijske spremembe izvedenega stanje objekta glede na projekt PZI za vsak poseg posebej.

Poseg pod točko e) se **ni izvedel**.

a) Gradnja novega nadstreška ob vhodu v trakt A

*Projektirano stanje – PGD/PZI*

Pri vhodu v trakt A se poruši obstoječi stari nadstrešek, ki pokriva izbočen del kletne etaže, ki pred vhodom v trakt A oblikuje vstopno teraso. Ob tem izbočenem delu se izvedejo nove AB stopnice z obodnimi AB stenami na AB temeljni plošči. Nove AB stopnice imajo 2 rami z vmesnim podestom in vrhnjim podestom na koti obstoječe vstopne terase. Ob njej se postavi dvižna ploščad primerna za invalidski voziček. Nad novim stopniščem in obstoječo teraso se izvede novi nadstrešek, ki sloni na eni strani na obstoječi objekt, na drugi strani pa na niz jeklenih stebrov okrogle oblike.

Osnovna konstrukcija nadstreška je sestavljena iz križnolepljenih lesenih plošč debeline 16 cm.

*Izvedeno stanje – PID*

V fazi izvedbe zaradi hitrosti izvedbe in dobavljivosti konstrukcijskih materialov se je zamenjala osnovna konstrukcija nadstreška.

Glede na projektirano stanje PZI se je ohranilo jeklene okrogle stebre. Na te je pritrjen jeklen nosilec HEA200. V prečni smeri na stebre (in na obstoječi objekt) so na HEA200 pritrjeni jekleni nosilci IPE180, ki so sidrani tudi v obstoječi objekt. Vzporedno z nosilcem HEA200 so v nosilec IPE180 pritjeni jekleni pravokotni profili 100×60×5 mm in leseni pravokotni profili 14/18 cm.

Konstrukcija in detajli so razvidni z **listov 18-25**.

b) Gradnja prizidka s prostori urgence na JV strani trakta A z navezavo na kletno etažo

*Projektirano stanje – PGD/PZI*

Prizidek ima kvadratno tlorisno obliko. Zraven njega na vzhodni strani se nahaja še pokrito parkirišče za reševalna vozila. Nad pokritim parkiriščem se uredijo še tehnični prostori za vse potrebne inštalacije.

Objekta sta med seboj konstrukijsko povezana. Glavna nosilna konstrukcija je kombinacija AB stebrov in AB sten, preko katerih potekajo AB nosilci, ki podpirajo stropno AB ploščo debeline 22 cm. Med stebri so opečna polnila. Na plošči nad parkiriščem za reševalna vozila se tehnični prostori izvedejo v jekleni konstrukcij. Ta je zasnovana kot enoladijska hala z glavnimi okvirji sestavljenih iz HEA in IPE profilov. Preko njih je položena kritina iz sendvič pločevine. Vse skupaj je temeljeno na AB temeljni plošči oziroma AB pasovnih temeljih z AB talno ploščo.

Zahodno od prizidka se izvede povezovalni nadstrešek ob južni fasadi kletne etaže trakta A, ki se nadaljuje v nadstrešek nad parkiriščem za vozila patronažne službe. Glavno nosilno konstrukcijo tvorijo jekleni okrogli stebri in jekleni HEA profili v vlogi nosilcev, ki podpirajo ploščo nadstreška iz križnolepljenih lesenih plošč debeline 14 cm. Bodisi nosilci kot plošče so sidrani in naslanjajo na obstoječi objekt. Nadstreška sta temeljena na pasovnem oziroma AB točkovnem temelju. Pasovni temelj povezovalnega nadstreška je povezan z obstoječo konstrukcijo in preko AB temeljne vezi s točkovnim temeljem novega nadstreška nad parkiriščem.

*Izvedeno stanje – PID*

V fazi izvedbe zaradi hitrosti izvedbe in dobavljivosti konstrukcijskih materialov se je zamenjala glavna nosilna konstrukcija nadstreška zahodno od prizidka ob južni fasadi kletne etaže trakta A, ki se bnadlajuje v nadstrešek nad parkiriščem za vozila patronažne službe.

Glavno nosilno konstrukcijo nadstreška ob južni fasadi tvorijo jekleni okrogli stebri na katere je pritrjen jekleni nosilec HEA160. Vzporedno s tem nosilcem je na obstoječi stavbi sidran jekleni nosilec UPN160. V prečni smeri so v ta dva nosilca pritrjeni IPE160 in HEA160 profili v vlogi nosilcev, ki služijo kot prtrditvena podpora lesenim profilom 10/16 cm. Konstrukcija in detajli so razvidni na listu 28.
Glavno nosilno konstrukcijo nadstreška nad parkiriščem za vozila patronažne službe tvorita dva jeklena okvirja s konzolo, ki sta postavljena prečno na trakt B in sta sestavljena iz okroglih stebrov na katere je pritrjen jekleni nosilec HEB220. Oba okvirja služita za pritrditev jeklenih nosilcev HEA160. Le-ti so položeni vzporedno s traktom B in so pritrjeni tudi v obstoječi objekt in nadstrešek ob južni fasadi. Vzporedno ze jeklenima okvirjema (HEB220 in jekleni stebri) so med HEA160 nosilca pritjeni IPE160 in HEA160 nosilci, ki služijo kot prtrditvena podpora lesenim profilom 10/16 cm. Konstrukcija in detajli so razvidni na **listu 28**.

Ravno tako zaradi hitrosti izvedbe in dobavljivosti konstrukcijskih materialov se je zamenjala konstrukcija strehe nad pasažo med novim prizidkom in obstoječim objektom. Tu se je križnolepljene plošče zamenjalo z jeklenimi nosilci HEA 100 na medosni razdalji 1,00 m, preko katerih poteka jeklena trapezna pločevina tipa HI BOND. Poleg tega so se zaradi lepšega izgleda odstranili okrogli jekleni stebri na jugozahodnem vogalu prizidka, ki so že predhodno imeli sekundarno funkcijo in so delovali samo kot okras. Konstrukcija in detajli so razvidni z **listov 5-17**. Spremembe so pa vidne na **listih 5 in 12**.

Prizidek ima kvadratno tlorisno obliko. Zraven njega na vzhodni strani se nahaja še pokrito parkirišče za reševalna vozila. Nad pokritim parkiriščem se je uredilo še tehnične prostore za vse potrebne inštalacije.

Objekta sta med sabo konstrukijsko povezana. Glavna nosilna konstrukcija je kombinacija AB stebrov in AB sten, preko katerih potekajo AB nosilci, ki podpirajo stropno AB ploščo debeline 22 cm. Med stebri so opečna polnila. Na plošči nad parkiriščem za reševalna vozila so tehnični prostori izvedeni v jekleni

c) Rekonstrukcija kletnega dela trakta A za ureditev prostorov za reševalce v okviru programa ZDK ter pisarne

*Projektirano stanje – PGD/PZI*

JV del trakta A se v kletnih prostorih pri čemer se posega v samo nosilno konstrukcijo objekta, in sicer se izvedeta dva preboja v zavetrovalni steni in združenjem dveh obstoječih oken izvede novi vhod v pisane. Pri izvedbi prebojev je potrebno zagotoviti, da togost v horizontalni smeri ostane bolj ali manj nespremenjena tudi po posegu, kar dosežemo z vgradnjo jeklenih okvirjev, ki nadomestijo togost odvzetega dela zidu. Pri izvedbi novega vhoda se vgradi nova jeklena preklada, glede na dejstvo, da na enakem položaju imamo že obstoječa okna.

*Izvedeno stanje - PID*

V JV delu trakta A se je v kletnih prostorih z združitvijo dveh obstoječih oken izvedlo novi vhod v pisane. Pri izvedbi novega vhoda se je vgradila nova jeklena preklada. Poleg novega vhoda se je izvedlo 4 preboje nosilnih sten pri čemer se je zagotovilo, da togost v horizontalni smeri ostane bolj ali manj nespremenjena tudi po posegu, kar se je doseglo z vgradnjo jeklenih okvirjev, ki so nadomestili togost odvzetega dela zidu. Konstrukcija in detajli so razvidni z **listov 2, 3 in 4**.

### 3.4.1.3 Uporabljeni konstrukcijski materiali

Uporabljeni so bilo naslednji konstrukcijski materiali:

a) Gradnja novega nadstreška ob vhodu v trakt A:

- AB temelji:
  beton C30/37, armatuno jeklo S500 razreda duktilnosti B, razred izpostavljenosti XC2
- AB stene in AB polna plošča:
  beton C30/37, armatuno jeklo S500 razreda duktilnosti B, razred izpostavljenosti XC4+XF3+XD1
- jekleni elementi:
  jeklo S275 J0, vroče cinkani
- leseni profili:
  les C24, II. razred uporabe

b) Gradnja prizidka s prostori urgence na JV strani trakta A z navezavo na kletno etažo

- AB temelji:
  beton C30/37, armatuno jeklo S500 razreda duktilnosti B, razred izpostavljenosti XC2
- AB stebri, AB stene, AB nosilci, AB polna plošča prizidka s prostori urgence:
  beton C30/37, armatuno jeklo S500 razreda duktilnosti B, razred izpostavljenosti XC4
- AB stene, AB nosilci in AB polna plošča pokrito parkirišče za reševalna vozila:
  beton C30/37, armatuno jeklo S500 razreda duktilnosti B, razred izpostavljenosti XC4+XF3+XD1
- jekleni elementi:
  jeklo S275 J0
- polnila in malte:
  zidaki marke MB15, cementna malta M8
- leseni profili:
  les C24, II. razred uporabe

c) Rekonstrukcija kletnega dela trakta A za ureditev prostorov za reševalce v okviru programa ZDK ter pisarne

- jekleni elementi:
  jeklo S275 J0
- Opečne stene:
  zidaki marke MB15, cementna malta M8

- Obstoječa opečna stena:
  Stene iz polne opeke z apneno malto kot vezivo s sledečimi mehanskimi karakteristikami prevzeti iz strokovne literature in uveljavljenih standardov na temo posegov na obstoječih objektih:

- Srednja tlačna trdnost $f_m$ = 2,40 N/mm$^2$
- Srednja strižna trdnost $\tau_0$ = 0,060 N/mm$^2$
- Povrečna vrednost elastičnega modula $E$ = 1500 N/mm$^2$
- Povrečna vrednost strižnega modula $G$ = 500 N/mm$^2$
- Specifična teža $\gamma$ = 18,00 kN/m$^3$

Glede na to, da niso bile izvedene nobene specialistične preizkave na obstoječih konstrukcijskih materialih in so se izvedle le meritve dimenzij obstoječega stanja, po veljavnih standardih pademo v nivo poznavanja (*angl. knowledge level*) KL1 pri čemer se morajo mehanske karakteristike še dodatno reducirati z varnostnim faktorjem v vrednosti 1,35.

### 3.4.2 STATIČNI RAČUN IN OBTEŽBA

Obremenitve glavnih nosilnih elementov smo določili s pomočjo programa TOWER 3D, ki uporablja metodo končnih elementov, in s pomočjo klasičnih metod.

Z istim programom in s pomočjo Excel-a smo opravili tudi dimenzioniranje in kontrole v skladu z določili v standardih iz grupe EVROKOD.

V statičnem računu so upoštevane naslednje obtežbe:

- Lastna teža konstrukcije ( avtomatično zajeta v programu ),
- Stalna obtežba na konstrukcijo:
  - Teža tlakov
  - Teža fasade
  - Teža obešenih stropov
  - Teža stopnišč
- Koristna obtežba:
  - Kategorije površin C, F, H
  - Lahke premične predelne stene $q_{pred} = 0{,}50 kN/m^2$
- Karakteristična obremenitev snega na tleh $s_k = 1{,}79 kN/m^2$
- Obremenitev vetra izračunane na podlagi referenčne hitrosti $v_{b,0} = 20 m/s$ ter ustreznimi faktorji
- Potres z upoštevanjem projektnega pospeška tal $a_g = 0{,}150 g$ , tipa tal D in kategorije objekta IV.

Pri kontroli napetosti v tleh se je upoštevala sledeča dopustna napetost: $q_{dop} = 160 kPa$

Za simulacijo obnašanja temeljnih tal uporabimo Winklerjev model s koeficientom reakcije tal $k_v = 2240 kN/m^3$

## 3.4.2 STATIČNI IZRAČUN

VSEBINA:

- 3.4.2.1 – Statični izračun spremenjenih delov konstrukcije

## 3.4.2.2 Statični izračun spremenjenih delov konstrukcije

a) Gradnja novega nadstreška ob vhodu v trakt A

### *b) Vhodni podatki - Konstrukcija*

Tabele materialov

| No | Naziv materiala | E[kN/m2] | μ | γ[kN/m3] | αt[1/C] | Em[kN/m2] | μm |
|---|---|---|---|---|---|---|---|
| 1 | C 30/37 | 3.300e+7 | 0.20 | 25.00 | 1.000e-5 | 3.300e+7 | 0.20 |
| 2 | Jeklo | 2.100e+8 | 0.30 | 78.50 | 1.000e-5 | 2.100e+8 | 0.30 |
| 3 | Inox | 1.900e+8 | 0.30 | 78.50 | 1.000e-5 | 1.900e+8 | 0.30 |

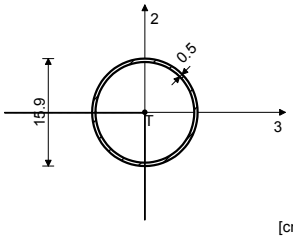
Seti plošč

| No | d[m] | e[m] | Material | Tip preračuna | Ortotropija | E2[kN/m2] | G[kN/m2] | α |
|---|---|---|---|---|---|---|---|---|
| <1> | 0.300 | 0.150 | 1 | Tanka plošča | Izotropna | | | |
| <2> | 0.200 | 0.100 | 1 | Tanka plošča | Izotropna | | | |

Seti gred

Set: 1 Prerez: D=15.9/0.5, Fiktivna ekscentričnost

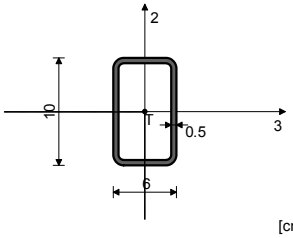
| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 2 - Jeklo | 2.419e-3 | 1.249e-3 | 1.249e-3 | 1.436e-5 | 7.179e-6 | 7.179e-6 |




[cm]

Set: 3 Prerez: HOP [] 100x60x5, Fiktivna ekscentričnost

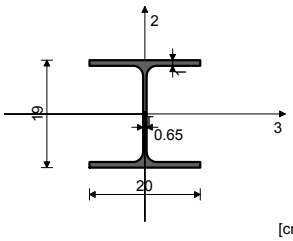
| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 2 - Jeklo | 1.436e-3 | 1.000e-3 | 6.000e-4 | 1.867e-6 | 8.071e-7 | 1.808e-6 |




[cm]

Set: 4 Prerez: IPBl 200, Fiktivna ekscentričnost

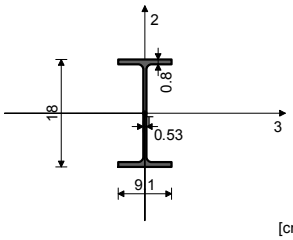
| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 2 - Jeklo | 5.380e-3 | 1.805e-3 | 3.575e-3 | 2.110e-7 | 1.340e-5 | 3.690e-5 |




[cm]

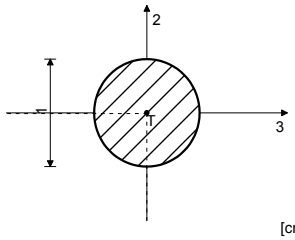
Set: 5 Prerez: IPE 180, Fiktivna ekscentričnost

| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 2 - Jeklo | 2.390e-3 | 1.120e-3 | 1.270e-3 | 4.800e-8 | 1.010e-6 | 1.320e-5 |




[cm]

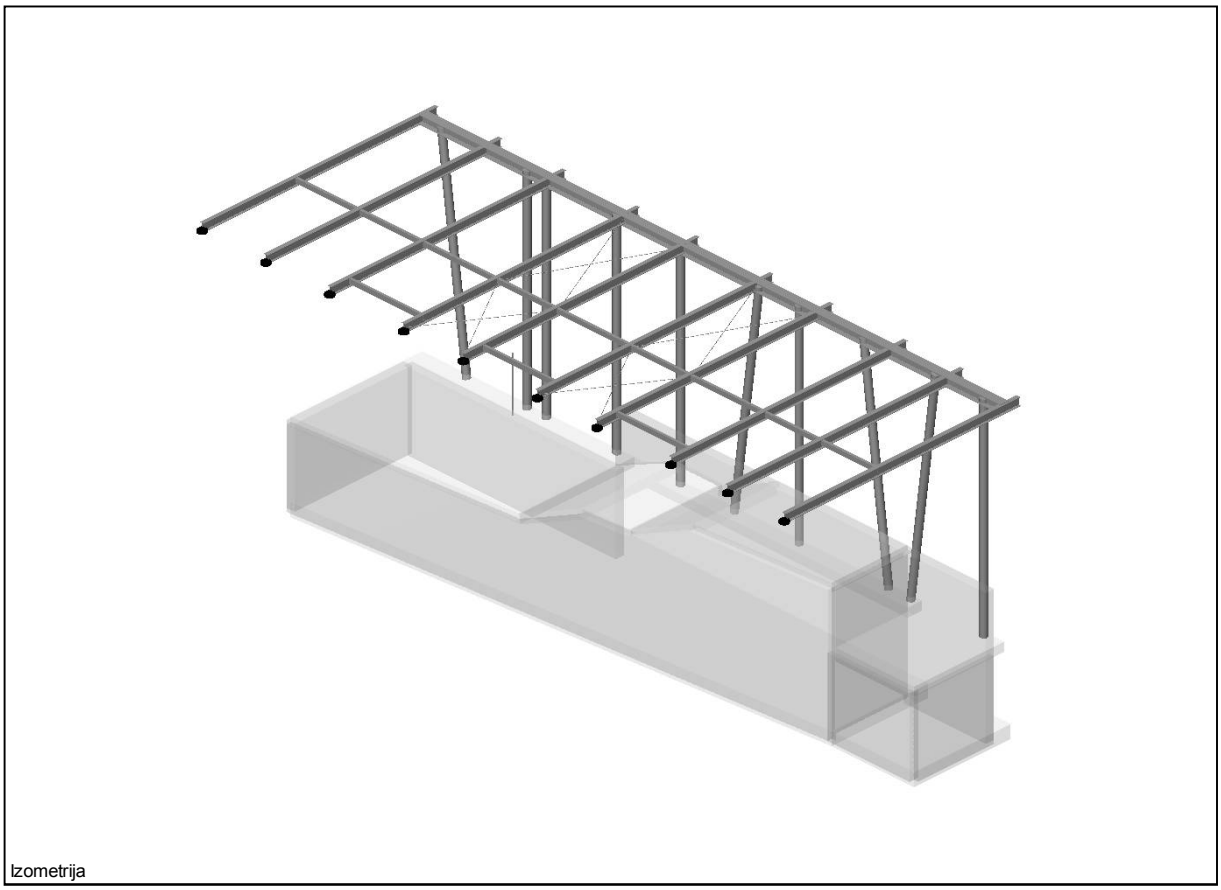
Set: 6 Prerez: D=1, Fiktivna ekscentričnost



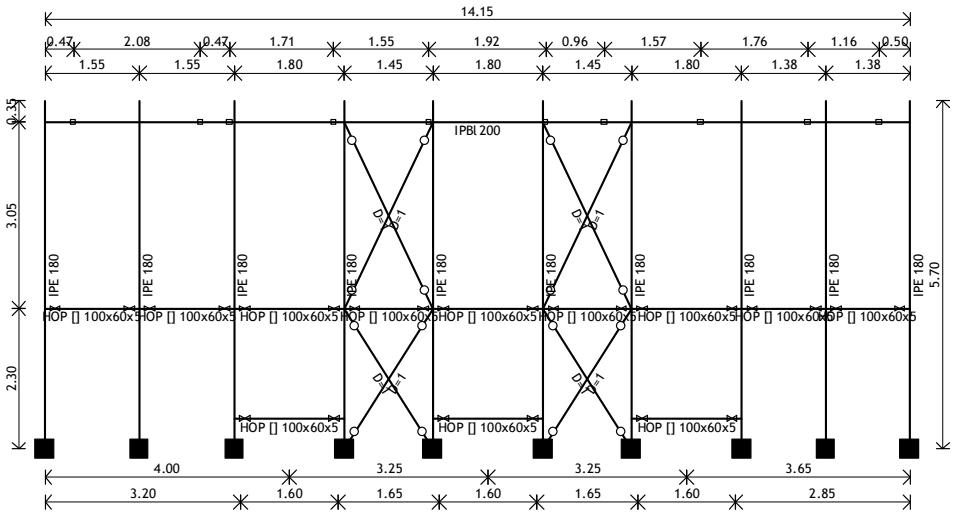

[cm]

| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 3 - Inox | 7.854e-5 | 7.069e-5 | 7.069e-5 | 9.817e-10 | 4.909e-10 | 4.909e-10 |

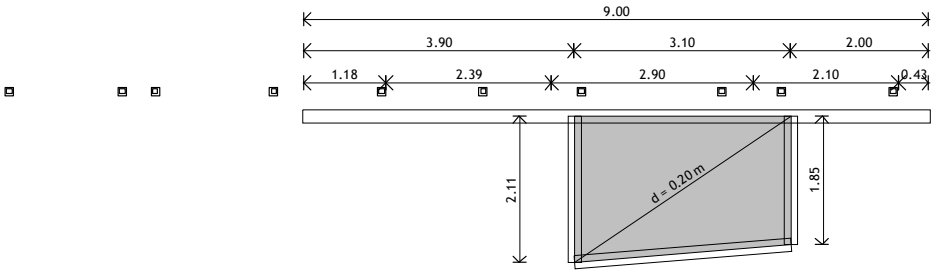
ST: EA1 x 0.5, EA2 x 1, EA3 x 1, EI1 x 1, EI2 x 1, EI3 x 1, γ x 1;
SE: EA1 x 0.5, EA2 x 1, EA3 x 1, EI1 x 1, EI2 x 1, EI3 x 1, γ x 1;



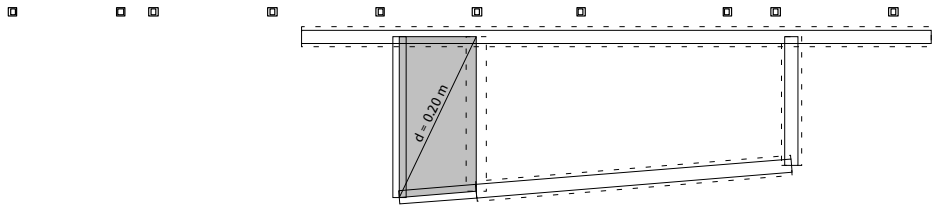
Izometrija



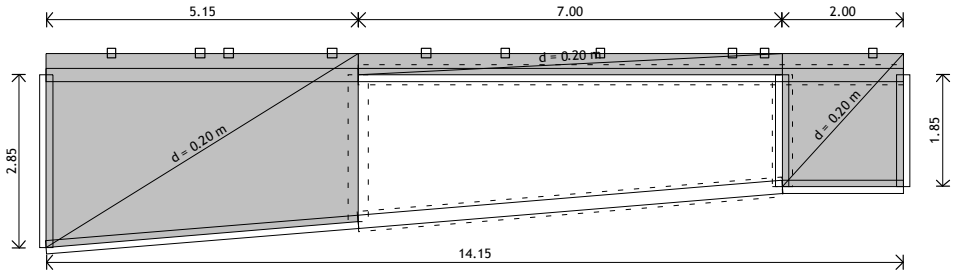

Nivo: streha [4.75 m]



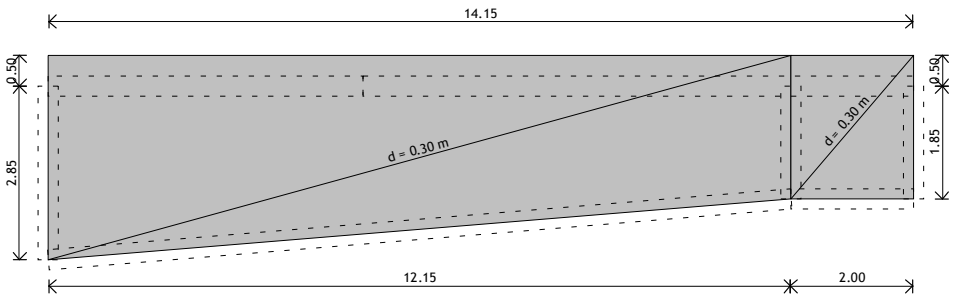

Nivo: vhod [1.25 m]




Nivo: podest [0.63 m]




Nivo: KT [0.00 m]



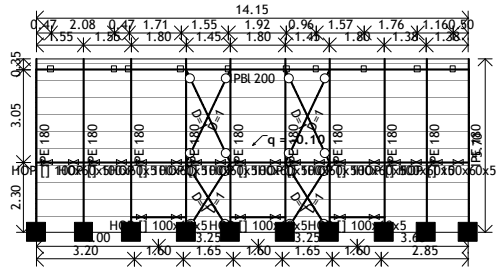

Nivo: temelji [-1.75 m]

## *Vhodni podatki - Obtežba*

Lista obtežnih primerov

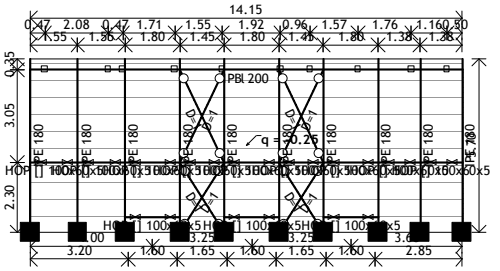
| LC | Naziv |
|---|---|
| 1 | LT (g) |
| 2 | Stalna |
| 3 | Zem. pritisk |
| 4 | Koristna kat. C3 |
| 5 | Sneg |
| 6 | Veter bočno |
| 7 | Veter čelno |
| 8 | Komb.: 1.35xI+1.35xII+1.5xIII+1.5xIV+0.75xV |
| 9 | Komb.: 1.35xI+1.35xII+1.5xIII+1.05xIV+1.5xV |
| 10 | Komb.: I+II+1.5xIII+1.5xVI |
| 11 | Komb.: I+II+1.5xIII+1.5xVII |
| 12 | Komb.: I+II+III+0.7xIV+V |
| 13 | Komb.: I+II+III+VI |
| 14 | Komb.: I+II+III+VII |

Obt. 1: LT (g)



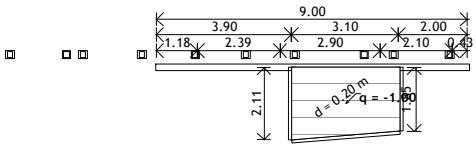

Nivo: streha [4.75 m]

Obt. 2: Stalna



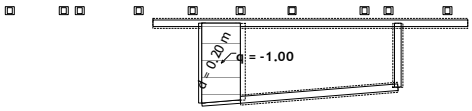

Nivo: streha [4.75 m]

Obt. 2: Stalna



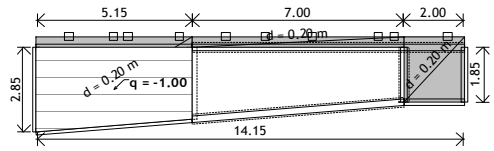

Nivo: vhod [1.25 m]

Obt. 2: Stalna



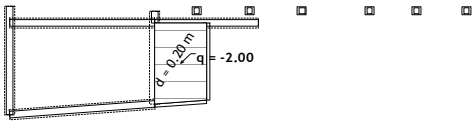

Nivo: podest [0.63 m]

Obt. 2: Stalna



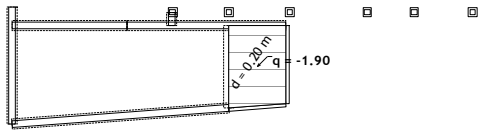

Nivo: KT [0.00 m]

Obt. 2: Stalna



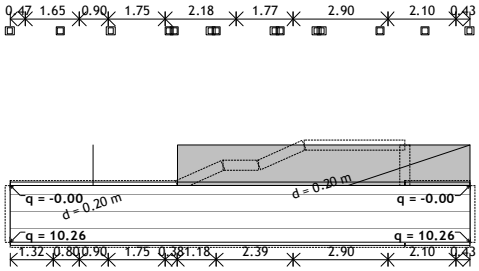

Pogled: 1 rama stopnic

Obt. 2: Stalna



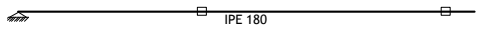

Pogled: 2 rama stopnic

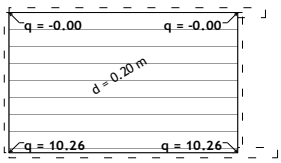
Obt. 3: Zem. pritisk




Okvir: H_1

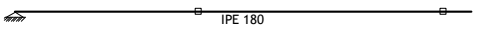
Obt. 3: Zem. pritisk

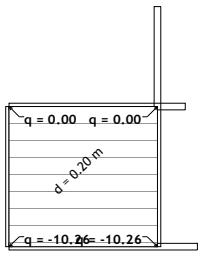



Okvir: V_4

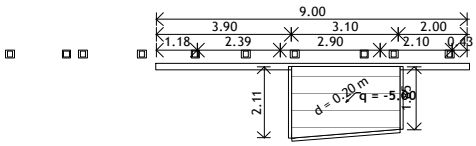
Obt. 3: Zem. pritisk



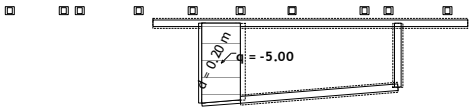

Okvir: V_6

Obt. 4: Koristna kat. C3



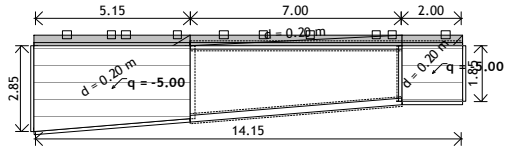

Nivo: vhod [1.25 m]

Obt. 4: Koristna kat. C3



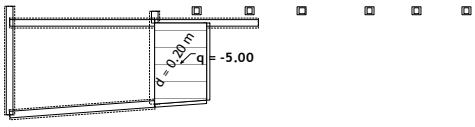

Nivo: podest [0.63 m]

Obt. 4: Koristna kat. C3



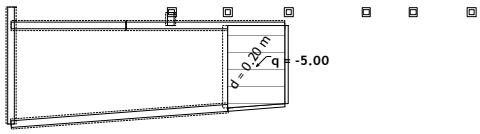

Nivo: KT [0.00 m]

Obt. 4: Koristna kat. C3



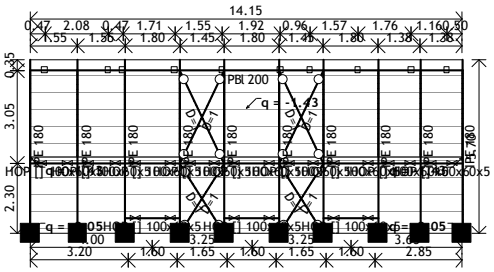

Pogled: 1 rama stopnic

Obt. 4: Koristna kat. C3



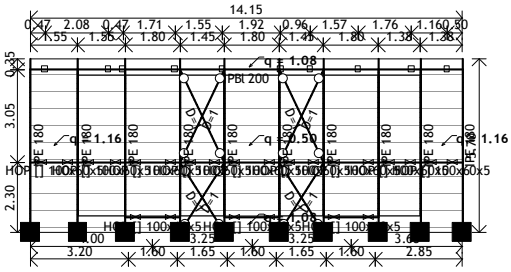

Pogled: 2 rama stopnic

Obt. 5: Sneg



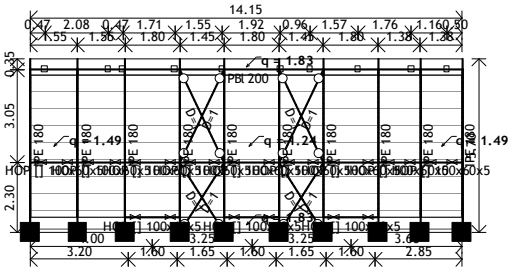

Nivo: streha [4.75 m]

Obt. 6: Veter bočno




Nivo: streha [4.75 m]

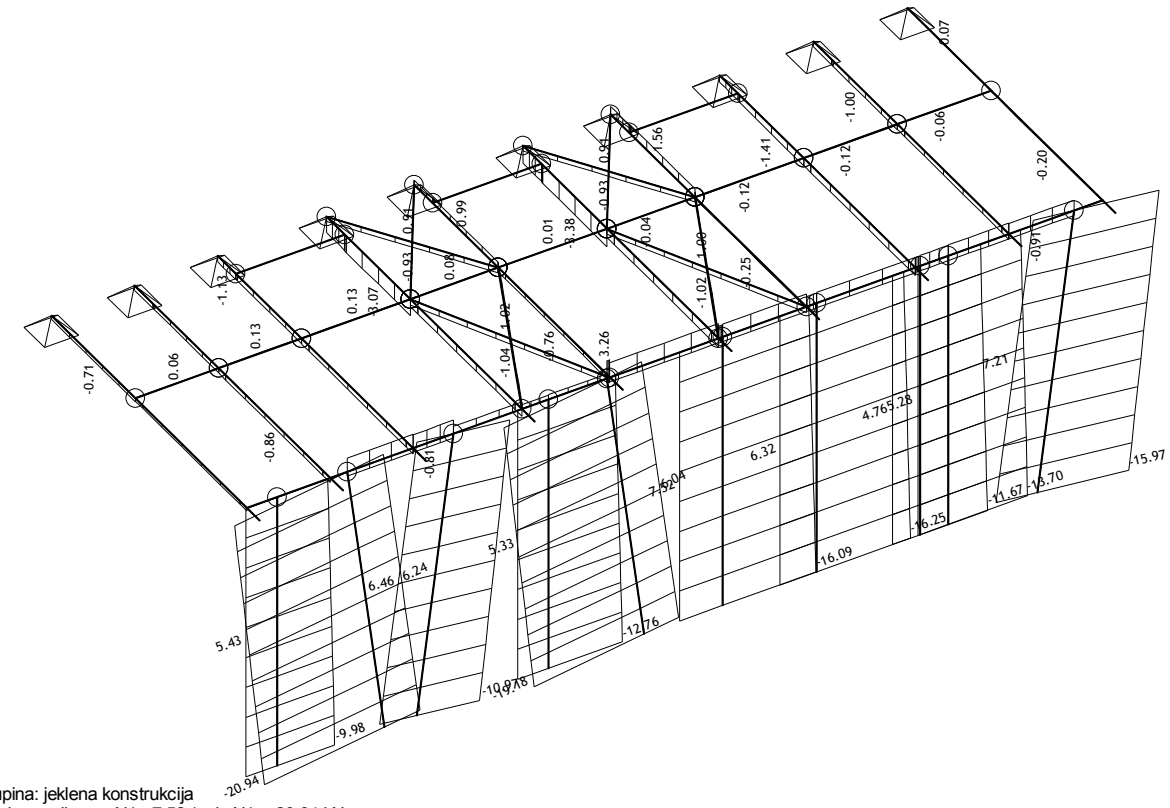
Obt. 7: Veter čelno




Nivo: streha [4.75 m]

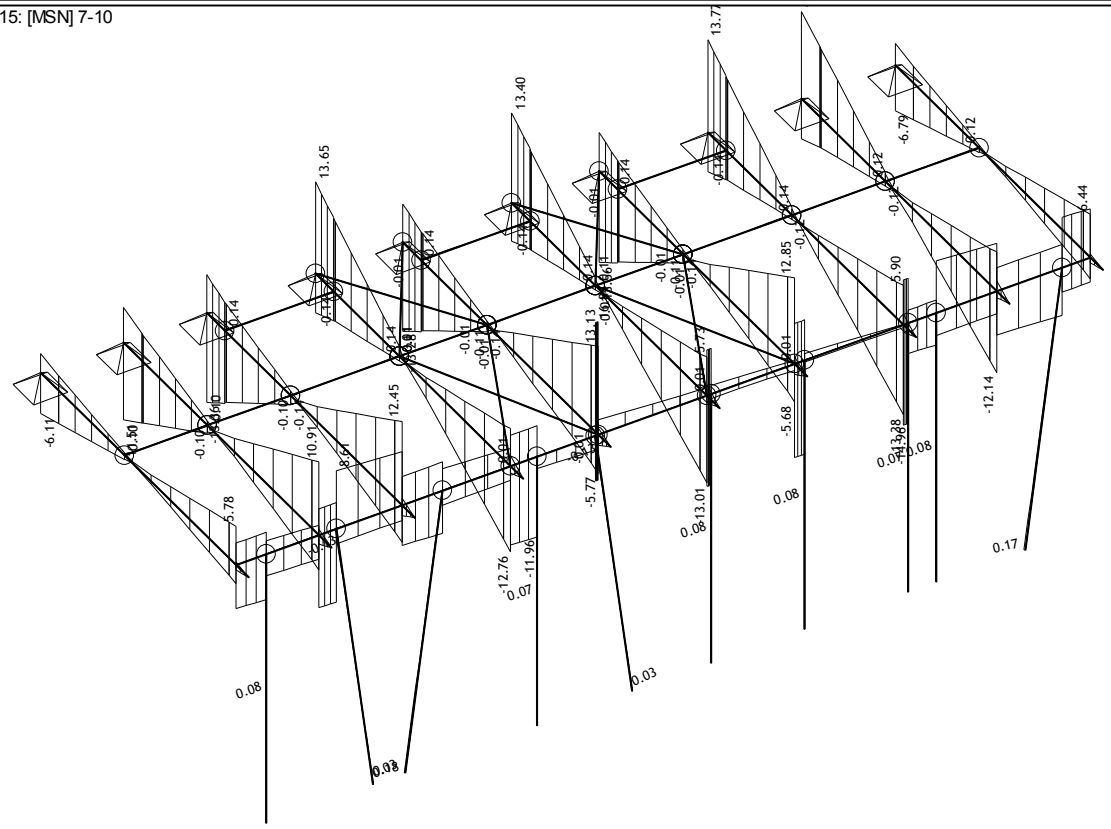
## *Statični preračun*

Obt. 15: [MSN] 7-10



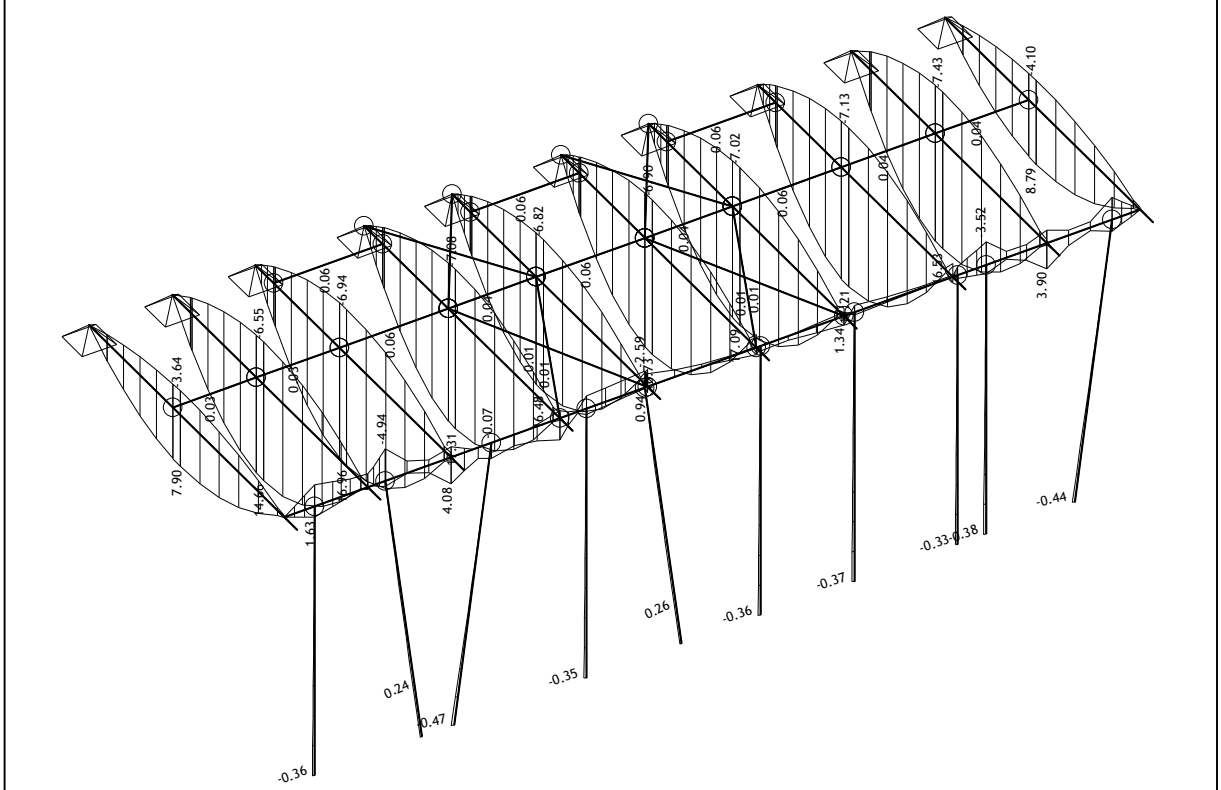

Skupina: jeklena konstrukcija
Vplivi v gredi: max N1= 7.52 / min N1= -20.94 kN

Obt. 15: [MSN] 7-10



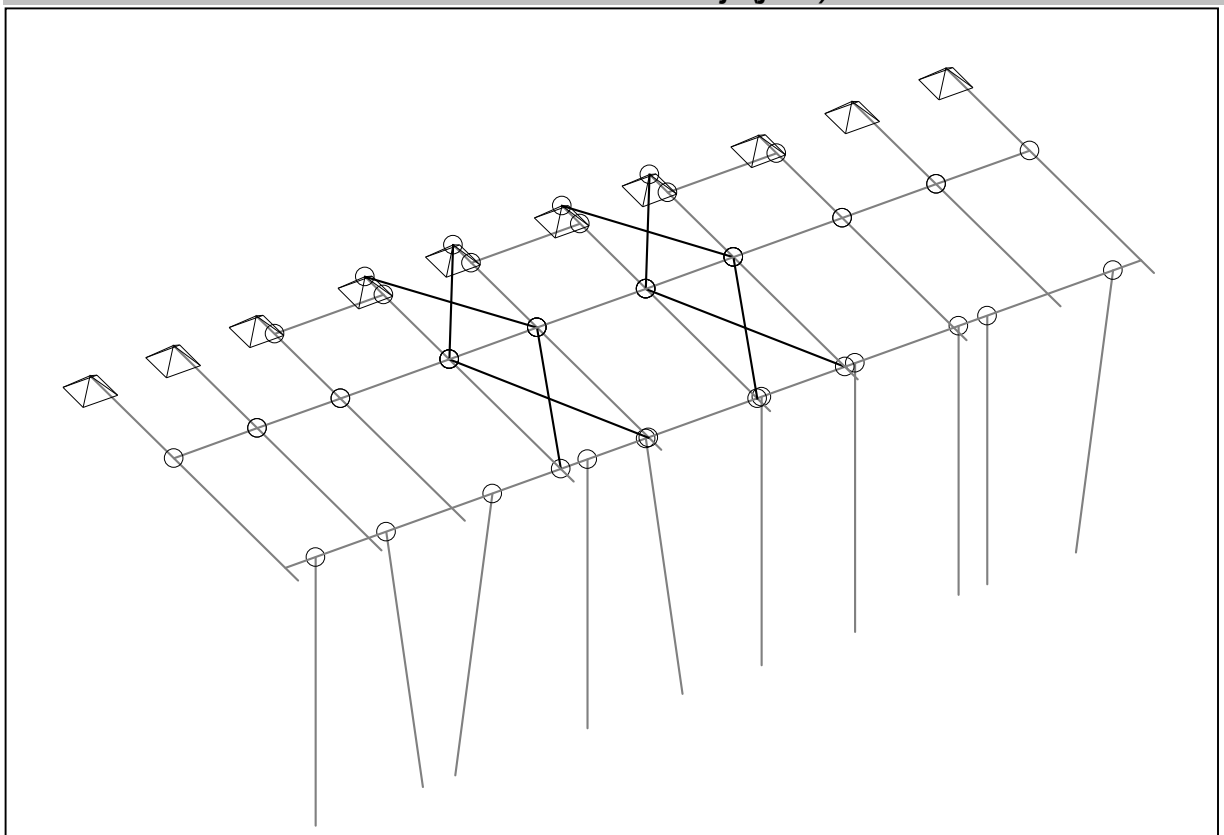

Skupina: jeklena konstrukcija
Vplivi v gredi: max T2= 16.84 / min T2= -14.96 kN

Obt. 15: [MSN] 7-10




Skupina: jeklena konstrukcija
Vplivi v gredi: max M3= 17.31 / min M3= -7.43 kNm

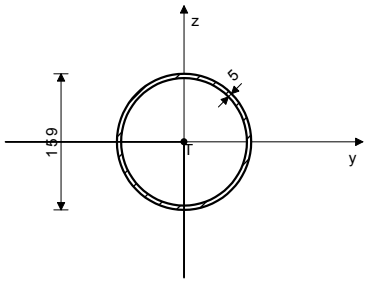
## Dimenzioniranje (jeklo)



Skupina: jeklena konstrukcija
Kontrola stabilnosti

**PALICA 1236-2103**
PREČNI PREREZ: Cevasti [S 275] [Set: 1]
EUROCODE 3 (EN 1993-1-1:2005)

GEOMETRIJSKE KARAKTERISTIKE prereza




[mm]

| | | |
|---|---|---|
| Ax = | 24.190 | cm2 |
| Ay = | 12.488 | cm2 |
| Az = | 12.488 | cm2 |
| Ix = | 1435.8 | cm4 |
| Iy = | 717.88 | cm4 |
| Iz = | 717.88 | cm4 |
| Wy = | 90.299 | cm3 |
| Wz = | 90.299 | cm3 |
| Wy,pl = | 118.62 | cm3 |
| Wz,pl = | 118.62 | cm3 |
| γM0 = | 1.050 | |
| γM1 = | 1.050 | |
| γM2 = | 1.250 | |
| Anet/A = | 0.900 | |

(fy = 27.5 kN/cm2, fu = 43.0 kN/cm2)

FAKTORJI IZKORIŠČENOSTI PO KOMBINACIJAH OBTEŽB
11. γ=0.16 10. γ=0.13 8. γ=0.12
9. γ=0.09

PALICA IZPOSTAVLJENA NATEGU IN UPOGIBU
(obtežni primer 11, konec palice)

| | | | |
|---|---|---|---|
| Računska osna sila | NEd = | 5.197 | kN |
| Prečna sila v z smeri | VEd,z = | 0.995 | kN |
| Upogibni moment okoli y osi | MEd,y = | 4.873 | kNm |
| Sistemska dolžina palice | L = | 475.00 | cm |

5.5 KLASIFIKACIJA PREČNIH PREREZOV
Razred prereza 1

6.2 NOSILNOST PREČNIH PREREZOV
6.2.3 Nateg

| | | | |
|---|---|---|---|
| Plast.rač.nosilnost bruto prereza | Npl,Rd = | 633.55 | kN |
| Mejna rač.nosilnost neto prereza | Nu,Rd = | 674.04 | kN |
| Računska nos. na nateg | Nt,Rd = | 633.55 | kN |

**Pogoj 6.5: NEd <= Nt,Rd (5.20 <= 633.55)**

6.2.5 Upogib y-y

| | | | |
|---|---|---|---|
| Plastični odpornostni moment | Wy,pl = | 118.62 | cm3 |
| Računska nosilnost na upogib | Mc,Rd = | 31.068 | kNm |

**Pogoj 6.12: MEd,y <= Mc,Rd,y (4.87 <= 31.07)**

6.2.6 Strig

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,z = | 188.83 | kN |
| Računska strižna nosilnost | Vc,Rd,z = | 188.83 | kN |

**Pogoj 6.17: VEd,z <= Vc,Rd,z (0.99 <= 188.83)**

6.2.10 Upogib z osno in prečno silo
Ni potrebno zmanjšanje upogibne nosilnosti
Pogoj: VEd,z <= 50%Vpl,Rd,z

6.2.9 Upogib in osna sila

| | | | |
|---|---|---|---|
| Razmerje NEd / Npl,Rd | | 0.008 | |
| Zmanjšana plast.upogibna nosilnost | MN,y,Rd = | 31.065 | kNm |
| Razmerje MEd,y / MN,y,Rd | | 0.157 | |

**Pogoj 6.41: (0.16 <= 1)**

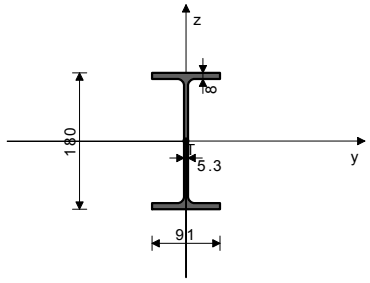
6.3 NOSILNOST ELEMENTA NA UKLON
6.3.2.1 Nosilnost na bočno-torzijski uklon

| | | | |
|---|---|---|---|
| Koeficient | C1 = | 1.841 | |
| Koeficient | C2 = | 0.000 | |
| Koeficient | C3 = | 0.944 | |
| Koef.ukl.dolžine za uklon | k = | 1.000 | |
| Koef.ukl.dolžine za vbočenje | kw = | 1.000 | |
| Koordinata | zg = | 0.000 | cm |
| Koordinata | zj = | 0.000 | cm |
| Razmak med bočnimi podporami | L = | 475.00 | cm |
| Sektorski vztrajnostni moment | Iw = | 0.000 | cm6 |
| Krit.moment bočne zvrnitve | Mcr = | 1609.5 | kNm |
| Ustrezni odpornostni moment | Wy = | 118.62 | cm3 |
| Koeficient imperf. | αLT = | 0.760 | |
| Brezdimenz.vitkost | λLT_ = | 0.142 | |
| Koeficient zmanjšanja | χLT = | 1.000 | |
| Računska uklonska nosilnost | Mb,Rd = | 31.068 | kNm |

**Pogoj 6.54: MEd,y <= Mb,Rd (4.87 <= 31.07)**

**PALICA 905-1859**
PREČNI PREREZ: IPE 180 [S 275] [Set: 5]
EUROCODE 3 (EN 1993-1-1:2005)

GEOMETRIJSKE KARAKTERISTIKE prereza




[mm]

| | | |
|---|---|---|
| Ax = | 23.900 | cm2 |
| Ay = | 12.696 | cm2 |
| Az = | 11.204 | cm2 |
| Ix = | 4.800 | cm4 |
| Iy = | 1320.0 | cm4 |
| Iz = | 101.00 | cm4 |
| Wy = | 146.67 | cm3 |
| Wz = | 22.198 | cm3 |
| Wy,pl = | 165.30 | cm3 |
| Wz,pl = | 33.124 | cm3 |
| γM0 = | 1.050 | |
| γM1 = | 1.050 | |
| γM2 = | 1.250 | |
| Anet/A = | 0.900 | |

(fy = 27.5 kN/cm2, fu = 43.0 kN/cm2)

FAKTORJI IZKORIŠČENOSTI PO KOMBINACIJAH OBTEŽB

9. γ=0.40 8. γ=0.25 11. γ=0.19
10. γ=0.05

PALICA IZPOSTAVLJENA PRITISKU IN UPOGIBU
(obtežni primer 9, na 320.0 cm od začetka palice)

| | | | |
|---|---|---|---|
| Računska osna sila | NEd = | -1.101 | kN |
| Prečna sila v y smeri | VEd,y = | 0.075 | kN |
| Prečna sila v z smeri | VEd,z = | -0.159 | kN |
| Upogibni moment okoli y osi | MEd,y = | 17.207 | kNm |
| Upogibni moment okoli z osi | MEd,z = | -0.087 | kNm |
| Sistemska dolžina palice | L = | 570.00 | cm |

5.5 KLASIFIKACIJA PREČNIH PREREZOV
Razred prereza 1

6.2 NOSILNOST PREČNIH PREREZOV
6.2.4 Tlak

| | | | |
|---|---|---|---|
| Računska nosilnost na tlak | Nc,Rd = | 625.95 | kN |

**Pogoj 6.9: NEd <= Nc,Rd (1.10 <= 625.95)**

6.2.5 Upogib y-y

| | | | |
|---|---|---|---|
| Plastični odpornostni moment | Wy,pl = | 165.30 | cm3 |
| Računska nosilnost na upogib | Mc,Rd = | 43.294 | kNm |

**Pogoj 6.12: MEd,y <= Mc,Rd,y (17.21 <= 43.29)**

6.2.5 Upogib z-z

| | | | |
|---|---|---|---|
| Plastični odpornostni moment | Wz,pl = | 33.124 | cm3 |
| Računska nosilnost na upogib | Mc,Rd = | 8.675 | kNm |

**Pogoj 6.12: MEd,z <= Mc,Rd,z (0.09 <= 8.68)**

6.2.6 Strig

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,z = | 169.42 | kN |
| Računska strižna nosilnost | Vc,Rd,z = | 169.42 | kN |

**Pogoj 6.17: VEd,z <= Vc,Rd,z (0.16 <= 169.42)**

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,y = | 191.98 | kN |
| Računska strižna nosilnost | Vc,Rd,y = | 191.98 | kN |

**Pogoj 6.17: VEd,y <= Vc,Rd,y (0.07 <= 191.98)**

6.2.10 Upogib z osno in prečno silo
Ni potrebno zmanjšanje upogibne nosilnosti
Pogoj: VEd,z <= 50%Vpl,Rd,z ; VEd,y <= 50%Vpl,Rd,y

6.2.9 Upogib in osna sila

| | | | |
|---|---|---|---|
| Razmerje NEd / Npl,Rd | | 0.002 | |
| Zmanjšana plast.upogibna nosilnost | MN,y,Rd = | 43.294 | kNm |
| Koeficient | α = | 2.000 | |
| Razmerje (My,Ed / MN,y,Rd)^α | | 0.158 | |
| Zmanjšana plast.upogibna nosilnost | MN,z,Rd = | 8.675 | kNm |
| Koeficient | β = | 1.000 | |
| Razmerje (Mz,Ed / MN,z,Rd)^β | | 0.010 | |

**Pogoj 6.41: (0.17 <= 1)**

6.3 NOSILNOST ELEMENTA NA UKLON
6.3.1.1 Nosilnost na uklon

| | | | |
|---|---|---|---|
| Uklonska dolžina y-y | l,y = | 570.00 | cm |
| Relativna vitkost y-y | λ_y = | 0.883 | |
| Uklonska krivulja za os y-y: A | α = | 0.210 | |
| Elastična kritična sila | Ncr,y = | 842.06 | kN |
| Koeficient nepopolnosti | χ,y = | 0.745 | |
| Računska uklonska nosilnost | Nb,Rd,y = | 466.16 | kN |

**Pogoj 6.46: NEd <= Nb,Rd,y (1.10 <= 466.16)**

| | | | |
|---|---|---|---|
| Uklonska dolžina z-z | l,z = | 60.000 | cm |
| Relativna vitkost z-z | λ_z = | 0.336 | |
| Uklonska krivulja za os z-z: B | α = | 0.340 | |
| Koeficient nepopolnosti | χ,z = | 0.951 | |
| Računska uklonska nosilnost | Nb.Rd,z = | 595.08 | kN |

**Pogoj 6.46: NEd <= Nb,Rd,z (1.10 <= 595.08)**

6.3.2.1 Nosilnost na bočno-torzijski uklon

| | | | |
|---|---|---|---|
| Koeficient | C1 = | 1.132 | |
| Koeficient | C2 = | 0.459 | |
| Koeficient | C3 = | 0.525 | |
| Koef.ukl.dolžine za uklon | k = | 1.000 | |
| Koef.ukl.dolžine za vbočenje | kw = | 1.000 | |
| Koordinata | zg = | 0.000 | cm |
| Koordinata | zj = | 0.000 | cm |
| Razmak med bočnimi podporami | L = | 60.000 | cm |
| Sektorski vztrajnostni moment | Iw = | 7431.2 | cm6 |
| Krit.moment bočne zvrnitve | Mcr = | 589.64 | kNm |
| Ustrezni odpornostni moment | Wy = | 165.30 | cm3 |
| Koeficient imperf. | αLT = | 0.210 | |
| Brezdimenz.vitkost | λLT_ = | 0.278 | |
| Koeficient zmanjšanja | χLT = | 0.983 | |
| Računska uklonska nosilnost | Mb,Rd = | 42.543 | kNm |

**Pogoj 6.54: MEd,y <= Mb,Rd (17.21 <= 42.54)**

6.3.3. Elementi konstantnega prečnega prereza obremenjeni z upogibom in osnim tlakom
Preračun koeficienta interakcije je izvršen z alternativno metodo št.2 (Aneks B)

| | | |
|---|---|---|
| Koeficient oblike momenta | Cmy = | 0.950 |
| Koeficient oblike momenta | Cmz = | 0.950 |
| Koeficient oblike momenta | CmLT = | 0.950 |
| Koeficient interakcije | kyy = | 0.952 |
| Koeficient interakcije | kyz = | 0.570 |
| Koeficient interakcije | kzy = | 0.936 |
| Koeficient interakcije | kzz = | 0.950 |

| | | |
|---|---|---|
| Koeficient nepopolnosti | χy = | 0.745 |
| NEd / (χy NRk / γM1) | | 0.002 |
| kyy * (MyEd + ΔMyEd) / ... | | 0.385 |
| kyz * (MzEd + ΔMzEd) / ... | | 0.006 |

**Pogoj 6.61: (0.39 <= 1)**

| | | |
|---|---|---|
| Koeficient nepopolnosti | χz = | 0.951 |
| NEd / (χz NRk / γM1) | | 0.002 |
| kzy * (MyEd + ΔMyEd) / ... | | 0.379 |
| kzz * (MzEd + ΔMzEd) / ... | | 0.010 |

**Pogoj 6.62: (0.39 <= 1)**

KONTROLA STRIŽNE NOSILNOSTI
(obtežni primer 9, na 35.0 cm od začetka palice)

| | | | |
|---|---|---|---|
| Računska osna sila | NEd = | -1.101 | kN |
| Prečna sila v y smeri | VEd,y = | 0.075 | kN |
| Prečna sila v z smeri | VEd,z = | -13.377 | kN |
| Upogibni moment okoli y osi | MEd,y = | -2.081 | kNm |
| Upogibni moment okoli z osi | MEd,z = | 0.126 | kNm |
| Sistemska dolžina palice | L = | 570.00 | cm |

6.2 NOSILNOST PREČNIH PREREZOV
6.2.6 Strig

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,z = | 131.43 | kN |
| Računska strižna nosilnost | Vc,Rd,z = | 131.43 | kN |

**Pogoj 6.17: VEd,z <= Vc,Rd,z (13.38 <= 131.43)**

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,y = | 181.24 | kN |
| Računska strižna nosilnost | Vc,Rd,y = | 181.24 | kN |

**Pogoj 6.17: VEd,y <= Vc,Rd,y (0.07 <= 181.24)**

# b.1) Prizidek s prostori urgence in pokrito parkirišče za reševalna vozila

## *Vhodni podatki - Konstrukcija*

**Tabele materialov**

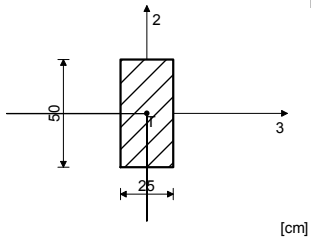
| No | Naziv materiala | E[kN/m2] | μ | γ[kN/m3] | αt[1/C] | Em[kN/m2] | μm |
|---|---|---|---|---|---|---|---|
| 1 | C 30/37 | 3.300e+7 | 0.20 | 25.00 | 1.000e-5 | 3.300e+7 | 0.20 |
| 2 | Jeklo | 2.100e+8 | 0.30 | 78.50 | 1.000e-5 | 2.100e+8 | 0.30 |
| 3 | Pletenica | 2.000e+8 | 0.30 | 78.50 | 1.000e-5 | 2.000e+8 | 0.30 |
| 4 | Les lamelirani GL24h | 1.160e+7 | 0.20 | 5.00 | 1.000e-5 | 1.160e+7 | 0.20 |

**Seti plošč**

| No | d[m] | e[m] | Material | Tip preračuna | Ortotropija | E2[kN/m2] | G[kN/m2] | α |
|---|---|---|---|---|---|---|---|---|
| <1> | 0.200 | 0.100 | 1 | Tanka plošča | Izotropna | | | |
| <2> | 0.220 | 0.110 | 1 | Tanka plošča | Izotropna | | | |
| <3> | 0.400 | 0.200 | 1 | Tanka plošča | Izotropna | | | |
| <5> | 0.250 | 0.125 | 1 | Tanka plošča | Izotropna | | | |
| <7> | 0.200 | 0.100 | 1 | Tanka plošča | Izotropna | | | |

**Seti gred**

Set: 1 Prerez: b/d=25/50, Fiktivna ekscentričnost

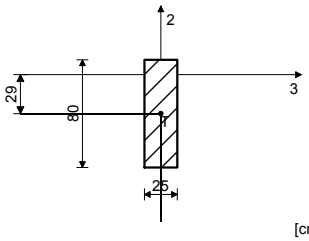



[cm]

| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 1 - C 30/37 | 1.250e-1 | 1.042e-1 | 1.042e-1 | 1.788e-3 | 6.510e-4 | 2.604e-3 |

ST: EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 1, EI2 x 1, EI3 x 1, γ x 1;
SE: EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.5, EI2 x 0.5, EI3 x 0.5, γ x 1;

Set: 2 Prerez: b/d=25/80, Fiktivna ekscentričnost

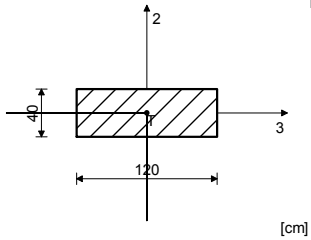



[cm]

| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 1 - C 30/37 | 2.000e-1 | 1.667e-1 | 1.667e-1 | 3.347e-3 | 1.042e-3 | 1.067e-2 |

ST: EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 1, EI2 x 1, EI3 x 1, γ x 1;
SE: EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.5, EI2 x 0.5, EI3 x 0.5, γ x 1;

Set: 3 Prerez: b/d=120/40, Fiktivna ekscentričnost

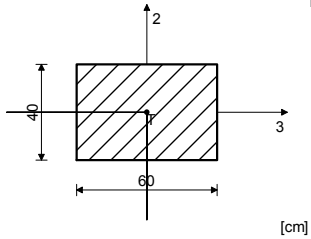



[cm]

| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 1 - C 30/37 | 4.800e-1 | 4.000e-1 | 4.000e-1 | 2.023e-2 | 5.760e-2 | 6.400e-3 |

ST: EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 1, EI2 x 1, EI3 x 1, γ x 1;
SE: EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.5, EI2 x 0.5, EI3 x 0.5, γ x 1;

Set: 4 Prerez: b/d=60/40, Fiktivna ekscentričnost




[cm]

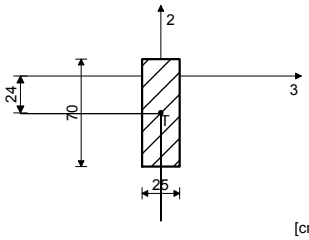
| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 1 - C 30/37 | 2.400e-1 | 2.000e-1 | 2.000e-1 | 7.512e-3 | 7.200e-3 | 3.200e-3 |

ST: EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 1, EI2 x 1, EI3 x 1, γ x 1;
SE: EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.5, EI2 x 0.5, EI3 x 0.5, γ x 1;

Set: 5 Prerez: b/d=25/70, Fiktivna ekscentričnost

| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 1 - C 30/37 | 1.750e-1 | 1.458e-1 | 1.458e-1 | 2.827e-3 | 9.115e-4 | 7.146e-3 |

ST: EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 1, EI2 x 1, EI3 x 1, γ x 1;
SE: EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.5, EI2 x 0.5, EI3 x 0.5, γ x 1;

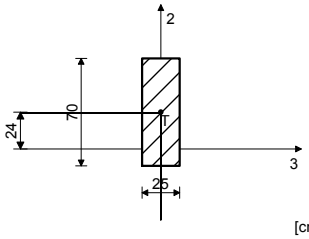



[cm]

Set: 6 Prerez: b/d=25/70, Fiktivna ekscentričnost

| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 1 - C 30/37 | 1.750e-1 | 1.458e-1 | 1.458e-1 | 2.827e-3 | 9.115e-4 | 7.146e-3 |

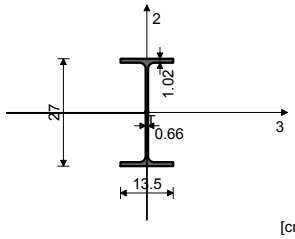
ST: EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 1, EI2 x 1, EI3 x 1, γ x 1;
SE: EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.5, EI2 x 0.5, EI3 x 0.5, γ x 1;




[cm]

Set: 7 Prerez: IPE 270, Fiktivna ekscentričnost

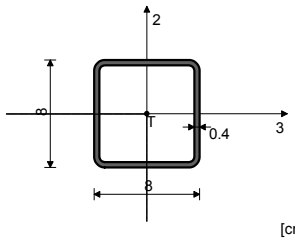
| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 2 - Jeklo | 4.590e-3 | 2.209e-3 | 2.381e-3 | 1.600e-7 | 4.200e-6 | 5.790e-5 |




[cm]

Set: 10 Prerez: HOP [] 80x80x4, Fiktivna ekscentričnost

| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 2 - Jeklo | 1.175e-3 | 6.400e-4 | 6.400e-4 | 1.798e-6 | 1.072e-6 | 1.072e-6 |

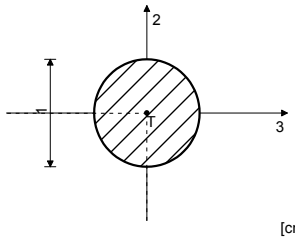



[cm]

Set: 11 Prerez: D=1, Fiktivna ekscentričnost

| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 3 - Pletenica | 7.854e-5 | 7.069e-5 | 7.069e-5 | 9.817e-10 | 4.909e-10 | 4.909e-10 |

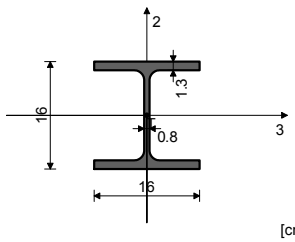
ST: EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 1, EI2 x 1, EI3 x 1, γ x 1;
SE: EA1 x 0.5, EA2 x 1, EA3 x 1, EI1 x 1, EI2 x 1, EI3 x 1, γ x 1;




[cm]

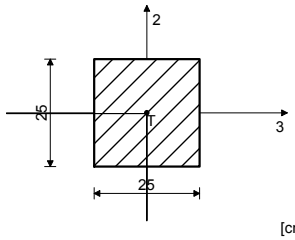
Set: 14 Prerez: IPB 160, Fiktivna ekscentričnost

| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 2 - Jeklo | 5.430e-3 | 1.764e-3 | 3.666e-3 | 3.140e-7 | 8.890e-6 | 2.490e-5 |




[cm]

Set: 17 Prerez: b/d=25/25, Fiktivna ekscentričnost

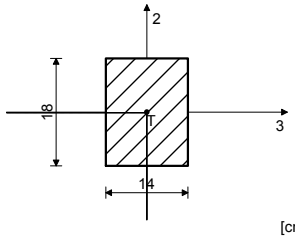



[cm]

| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 1 - C 30/37 | 6.250e-2 | 5.208e-2 | 5.208e-2 | 5.501e-4 | 3.255e-4 | 3.255e-4 |

ST: EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 1, EI2 x 1, EI3 x 1, γ x 1;
SE: EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.5, EI2 x 0.5, EI3 x 0.5, γ x 1;

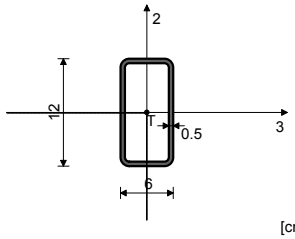
Set: 18 Prerez: b/d=14/18, Fiktivna ekscentričnost




[cm]

| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 4 - Les lameliran... | 2.520e-2 | 2.100e-2 | 2.100e-2 | 8.643e-5 | 4.116e-5 | 6.804e-5 |

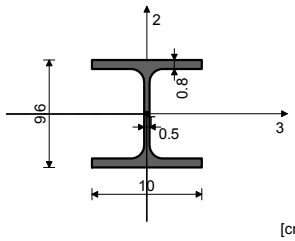
Set: 19 Prerez: HOP [] 120x60x5, Fiktivna ekscentričnost




[cm]

| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 2 - Jeklo | 1.636e-3 | 1.200e-3 | 6.000e-4 | 2.409e-6 | 9.133e-7 | 2.753e-6 |

Set: 21 Prerez: IPBl 100, Fiktivna ekscentričnost

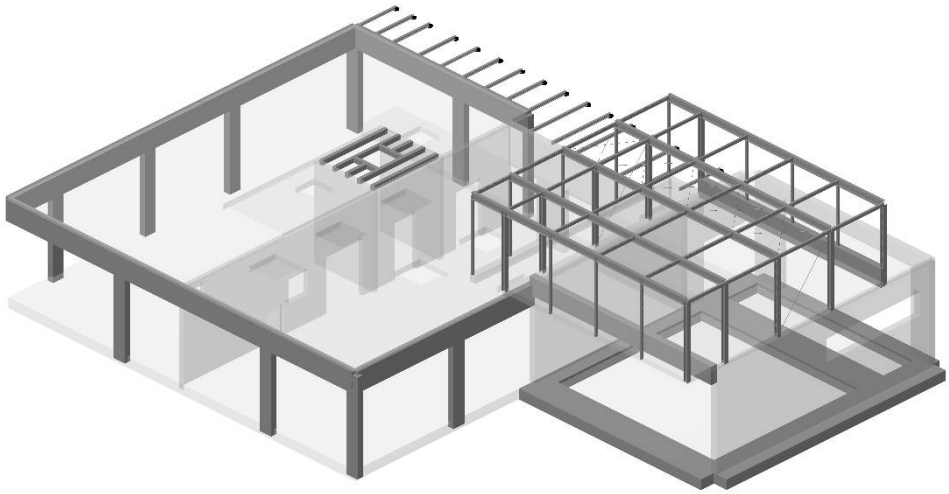



[cm]

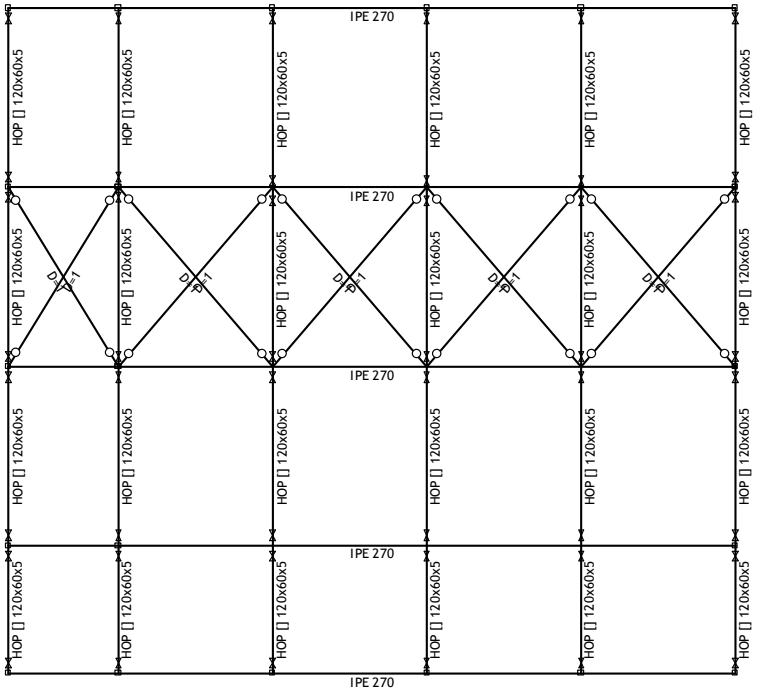
| Mat. | A1 | A2 | A3 | I1 | I2 | I3 |
|---|---|---|---|---|---|---|
| 2 - Jeklo | 2.120e-3 | 7.520e-4 | 1.368e-3 | 5.260e-8 | 1.340e-6 | 3.490e-6 |

Seti linijskih podpor

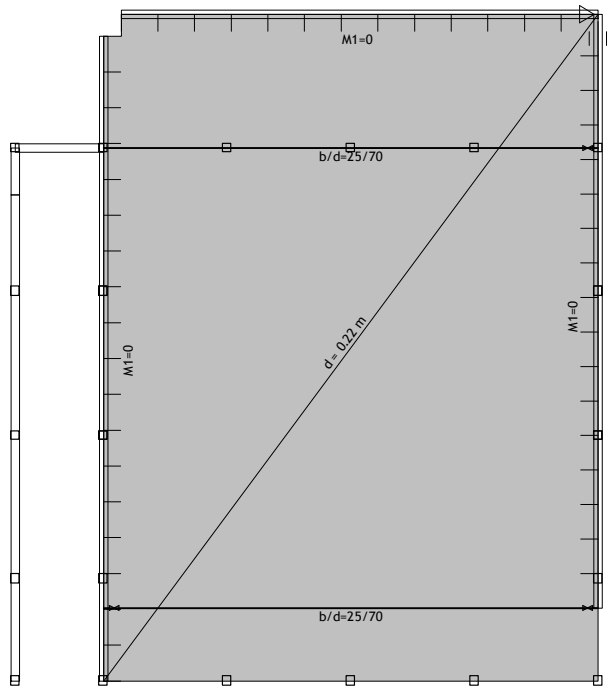
| Set | K,R1 | K,R2 | K,R3 | K,M1 | Tla [m] |
|---|---|---|---|---|---|
| 1 | 9.000e+3 | 9.000e+3 | 9.000e+3 | | 1.200 |
| 2 | 9.000e+3 | 9.000e+3 | 9.000e+3 | | 0.600 |



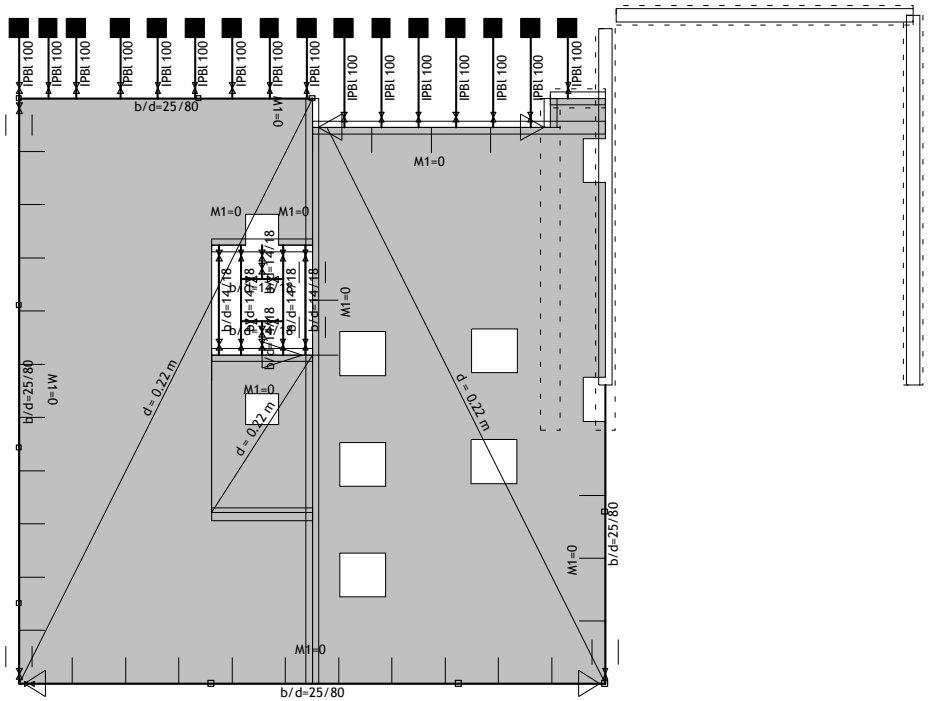
Izometrija



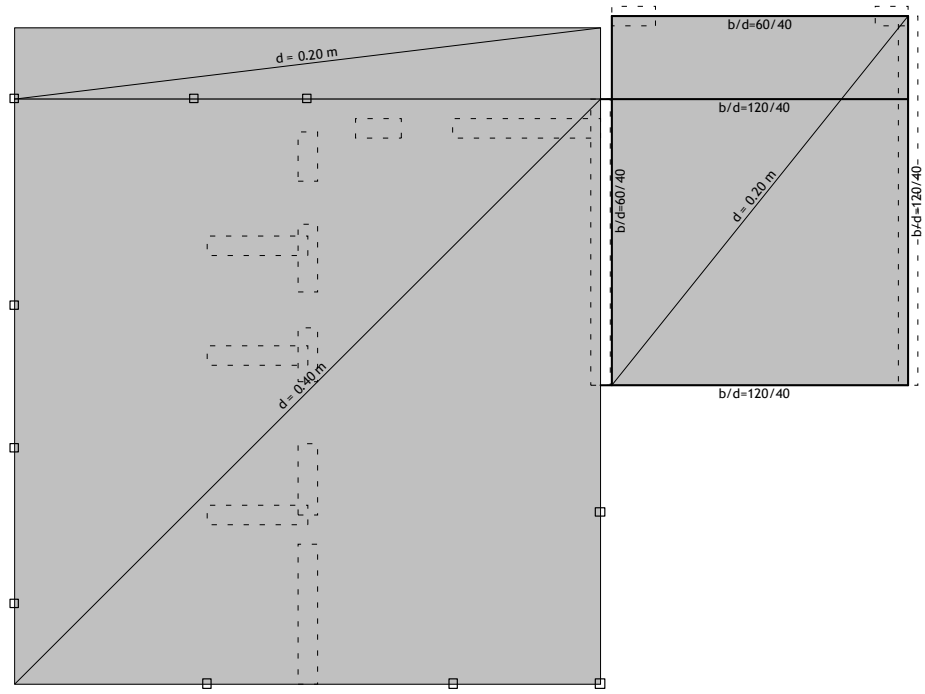

Nivo: streha T prostorv [7.15 m]




Nivo: Streha parkirisca [4.15 m]




Nivo: streha prizidka [3.85 m]



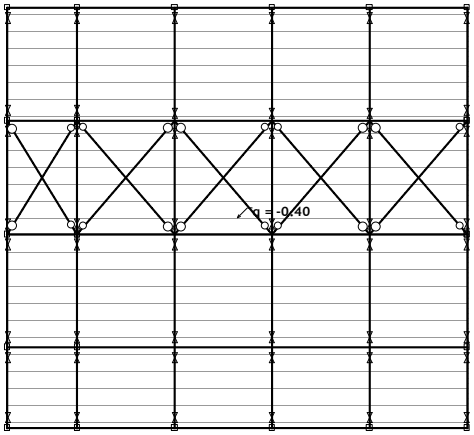

Nivo: temelji [0.00 m]

# *Vhodni podatki - Obtežba*

Lista obtežnih primerov

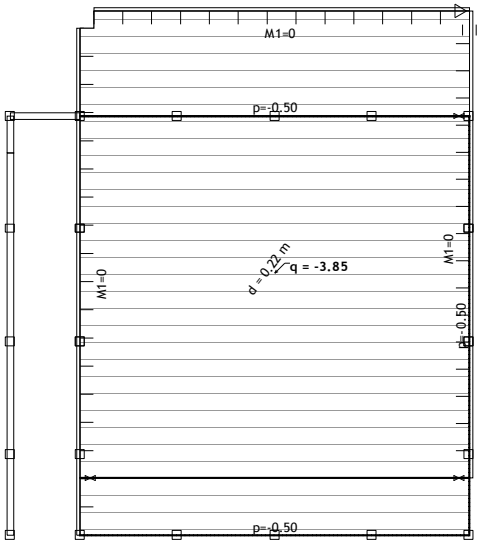
| LC | Naziv |
|---|---|
| 1 | LT (g) |
| 2 | Stalna |
| 3 | Pomične stene |
| 4 | Obodne stene |
| 5 | Težka oprema |
| 6 | Koristna obtežba kat C3 |
| 7 | Koristna obtežba kat. F |
| 8 | Koristna obtežba kat H |
| 9 | Sneg |
| 10 | Veter bočni |
| 11 | Veter čelni |
| 12 | Notranji srk |
| 13 | Notranji pritisk |
| 14 | Koristna obtežba kat. B |
| 15 | X (+e) |
| 16 | X (-e) |
| 17 | Y (+e) |
| 18 | Y (-e) |
| 19 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.5xVI+ +1.05xXIV |
| 20 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.5xVI+ +0.75xIX+1.05xXIV |
| 21 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.5xVI+0.9xX+ +0.9xXII+1.05xXIV |
| 22 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+ +1.5xVI+0.9xX+0.9xXIII+1.05xXIV |
| 23 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.5xVI+0.9xXI+ +0.9xXII+1.05xXIV |
| 24 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.5xVI+0.9xXI+ +0.9xXIII+1.05xXIV |
| 25 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.05xVI+ +1.5xVII+0.75xIX+1.05xXIV |
| 26 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.05xVI+ 1.5xVII+0.9xX+0.9xXII+1.05xXIV |
| 27 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.05xVI+ 1.5xVII+0.9xX+0.9xXIII+1.05xXIV |
| 28 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.05xVI+ +1.5xVII+0.9xXI+0.9xXII+1.05xXIV |
| 29 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.05xVI+ +1.5xVII+0.9xXI+0.9xXIII+1.05xXIV |
| 30 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.05xVI+ +1.05xVII+1.5xIX+1.05xXIV |
| 31 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.05xVI+ 1.05xVII+1.5xX+1.5xXII+1.05xXIV |
| 32 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.05xVI+ 1.05xVII+1.5xX+1.5xXIII+1.05xXIV |
| 33 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.05xVI+ +1.05xVII+1.5xXI+1.5xXII+1.05xXIV |
| 34 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.05xVI+ +1.05xVII+1.5xXI+1.5xXIII+1.05xXIV |
| 35 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.05xVI+ 1.05xVII+1.5xVIII+1.05xXIV |
| 36 | Komb.: 1.35xI+1.35xII+1.5xIII+1.35xIV+1.5xV+1.05xVI+ +1.05xVII+0.75xIX+1.5xXIV |
| 37 | Komb.: I+II+III+IV+V+0.6xVI+0.3xVII+0.3xXIV+XV |
| 38 | Komb.: I+II+III+IV+V+0.6xVI+0.3xVII+0.3xXIV-1xXV |
| 39 | Komb.: I+II+III+IV+V+0.6xVI+0.3xVII+0.3xXIV+XVI |
| 40 | Komb.: I+II+III+IV+V+0.6xVI+0.3xVII+0.3xXIV-1xXVI |
| 41 | Komb.: I+II+III+IV+V+0.6xVI+0.3xVII+0.3xXIV+XVII |
| 42 | Komb.: I+II+III+IV+V+0.6xVI+0.3xVII+0.3xXIV-1xXVII |
| 43 | Komb.: I+II+III+IV+V+0.6xVI+0.3xVII+0.3xXIV+XVIII |
| 44 | Komb.: I+II+III+IV+V+0.6xVI+0.3xVII+0.3xXIV-1xXVIII |
| 45 | Komb.: I+II+III+IV+V+VI+0.7xVII+0.7xXIV |
| 46 | Komb.: I+II+III+IV+V+VI+0.7xVII+0.5xIX+0.7xXIV |
| 47 | Komb.: I+II+III+IV+V+0.7xVI+VII+0.5xIX+0.7xXIV |
| 48 | Komb.: I+II+III+IV+V+0.7xVI+0.7xVII+IX+0.7xXIV |
| 49 | Komb.: I+II+III+IV+V+0.7xVI+0.7xVII+X+XII+0.7xXIV |
| 50 | Komb.: I+II+III+IV+V+0.7xVI+0.7xVII+X+XIII+0.7xXIV |
| 51 | Komb.: I+II+III+IV+V+0.7xVI+0.7xVII+XI+XII+0.7xXIV |
| 52 | Komb.: I+II+III+IV+V+0.7xVI+0.7xVII+XI+XIII+0.7xXIV |
| 53 | Komb.: 4xI+4xII+4xIII+4xIV+4xV+2xVI |

Obt. 2: Stalna



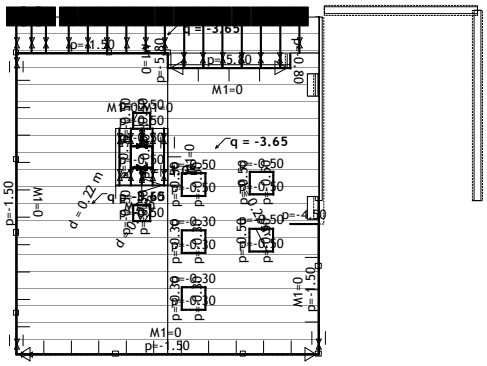

Nivo: streha T prostorv [7.15 m]

Obt. 2: Stalna



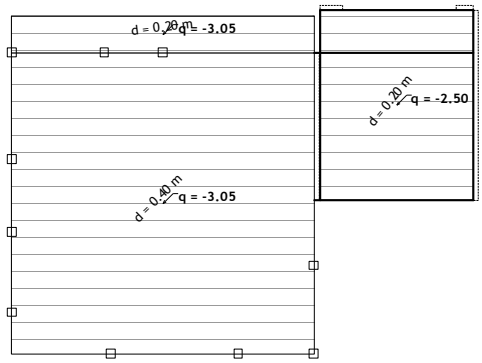

Nivo: Streha parkirisca [4.15 m]

Obt. 2: Stalna



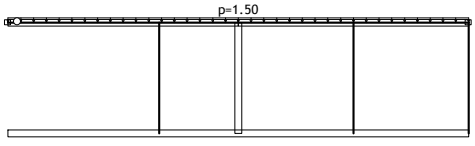

Nivo: streha prizidka [3.85 m]

Obt. 2: Stalna



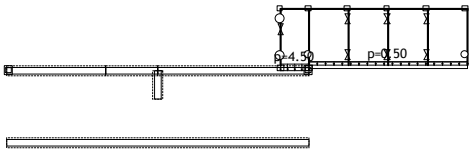

Nivo: temelji [0.00 m]

Obt. 2: Stalna



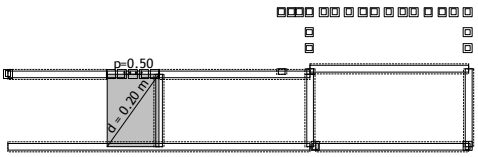

Okvir: H_1

Obt. 2: Stalna



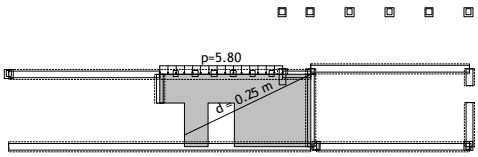

Okvir: H_13

Obt. 2: Stalna



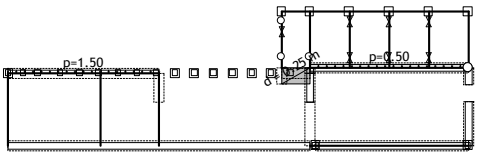

Okvir: H_14

Obt. 2: Stalna



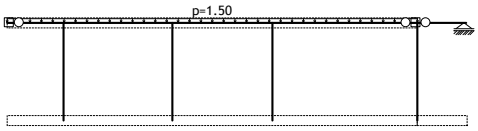

Okvir: H_19

Obt. 2: Stalna



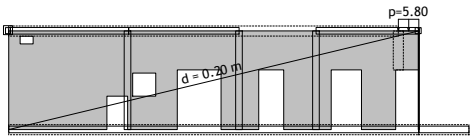

Okvir: H_7

Obt. 2: Stalna



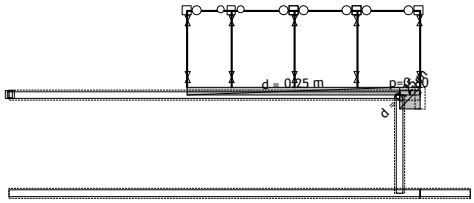

Okvir: V_2

Obt. 2: Stalna



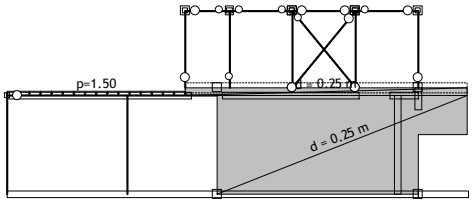

Okvir: V_1

Obt. 2: Stalna



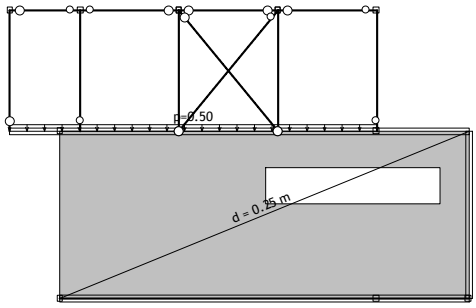

Okvir: V_5

Obt. 2: Stalna



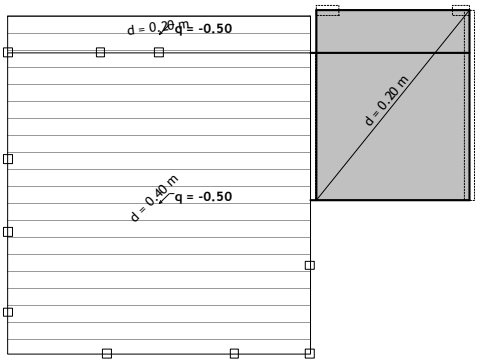

Okvir: V_3

Obt. 2: Stalna



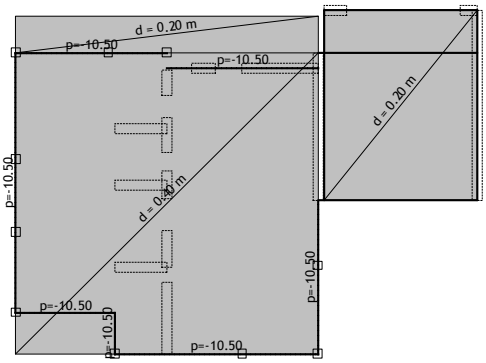

Okvir: V_4

Obt. 3: Pomične stene



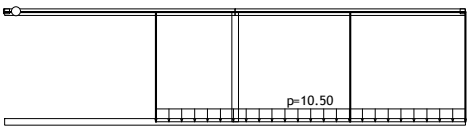

Nivo: temelji [0.00 m]

Obt. 4: Obodne stene



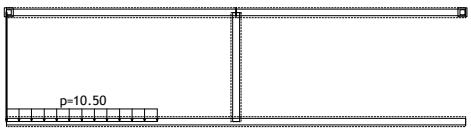

Nivo: temelji [0.00 m]

Obt. 4: Obodne stene



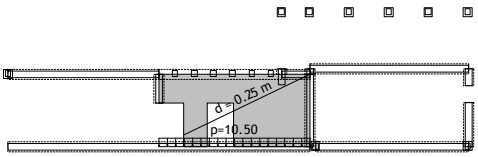

Okvir: H_1

Obt. 4: Obodne stene



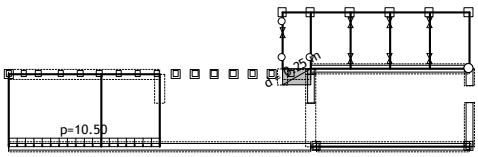

Okvir: H_9

Obt. 4: Obodne stene



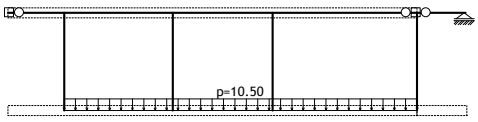

Okvir: H_19

Obt. 4: Obodne stene



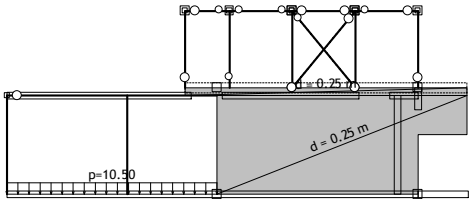

Okvir: H_7

Obt. 4: Obodne stene



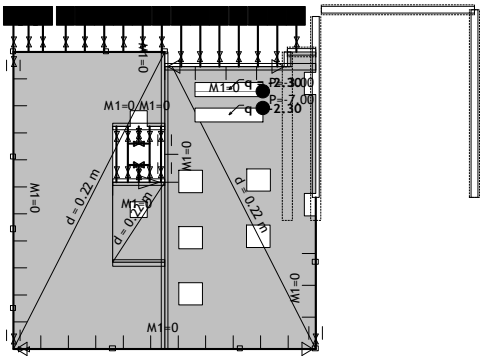

Okvir: V_2

Obt. 4: Obodne stene



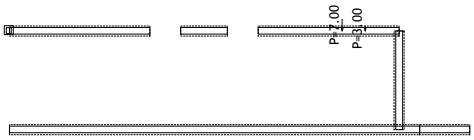

Okvir: V_3

Obt. 5: Težka oprema



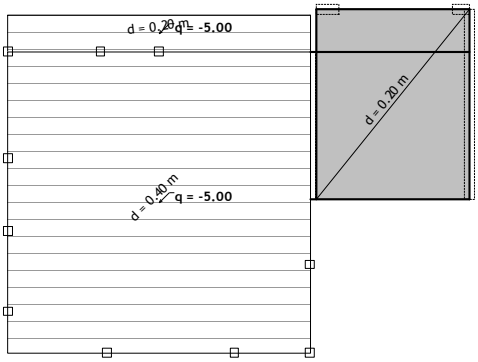

Nivo: streha prizidka [3.85 m]

Obt. 5: Težka oprema



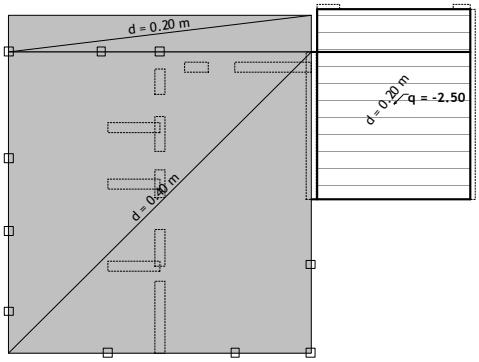

Okvir: V_6

Obt. 6: Koristna obtežba kat C3



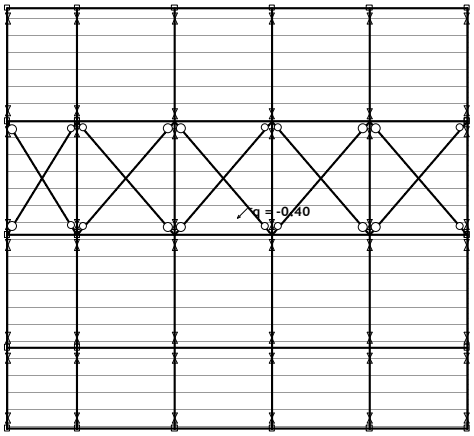

Nivo: temelji [0.00 m]

Obt. 7: Koristna obtežba kat. F



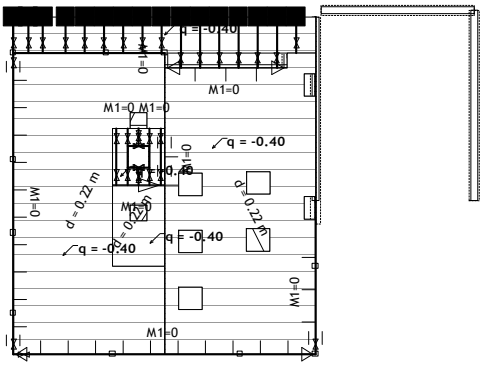

Nivo: temelji [0.00 m]

Obt. 8: Koristna obtežba kat H



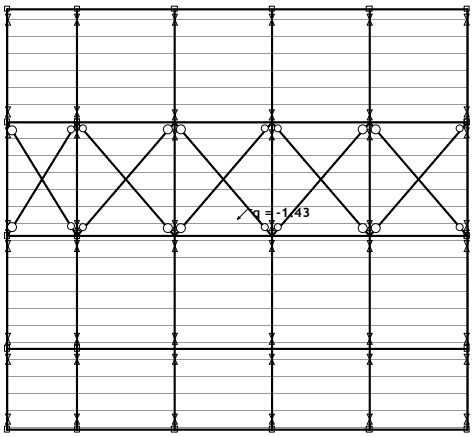

Nivo: streha T prostorv [7.15 m]

Obt. 8: Koristna obtežba kat H



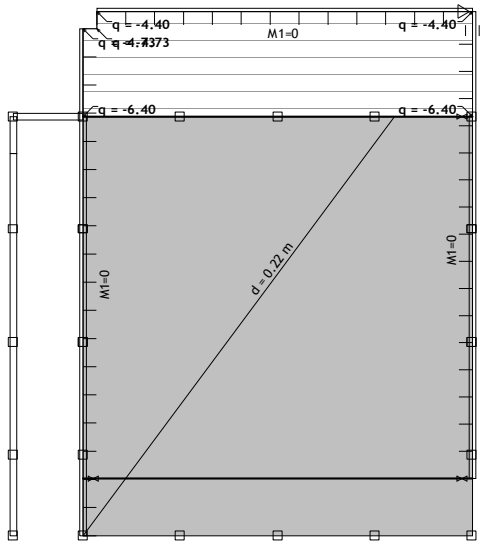

Nivo: streha prizidka [3.85 m]

Obt. 9: Sneg



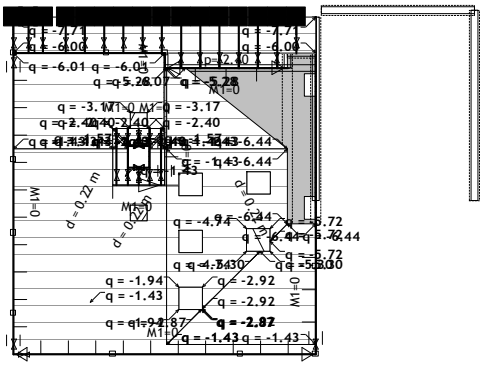

Nivo: streha T prostorv [7.15 m]

Obt. 9: Sneg



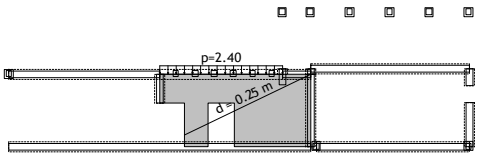

Nivo: Streha parkirisca [4.15 m]

Obt. 9: Sneg



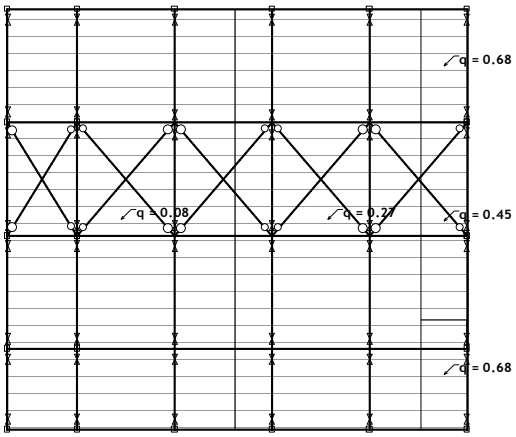

Nivo: streha prizidka [3.85 m]

Obt. 9: Sneg



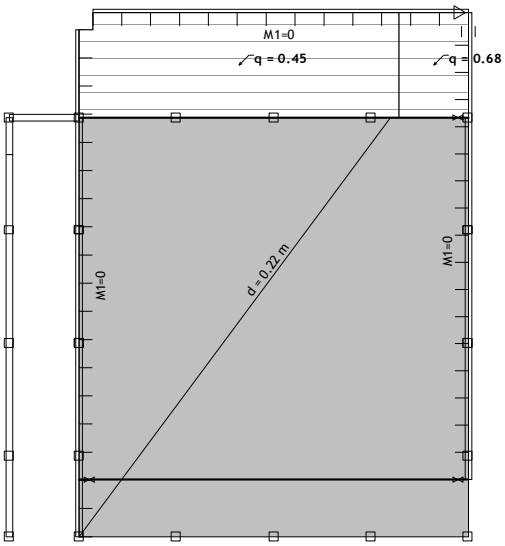

Okvir: H_19

Obt. 10: Veter bočni



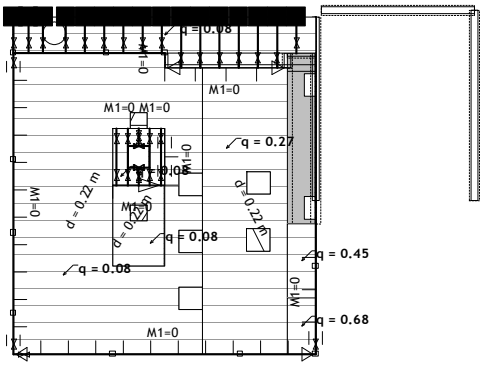

Nivo: streha T prostorv [7.15 m]

Obt. 10: Veter bočni



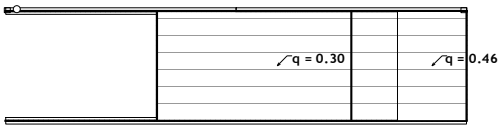

Nivo: Streha parkirisca [4.15 m]

Obt. 10: Veter bočni



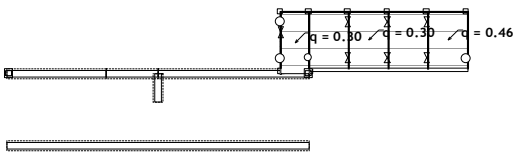

Nivo: streha prizidka [3.85 m]

Obt. 10: Veter bočni



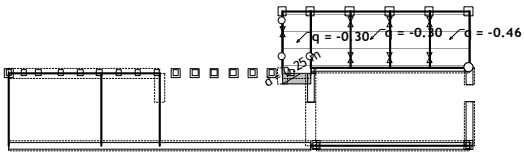

Okvir: H_1

Obt. 10: Veter bočni



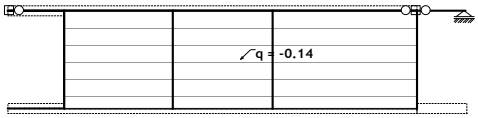

Okvir: H_13

Obt. 10: Veter bočni



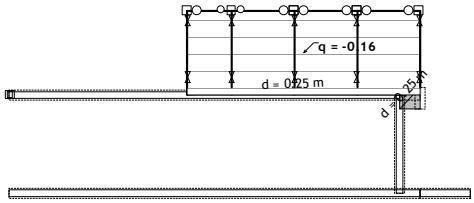

Okvir: H_7

Obt. 10: Veter bočni



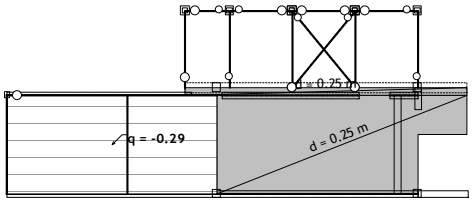

Okvir: V_2

Obt. 10: Veter bočni



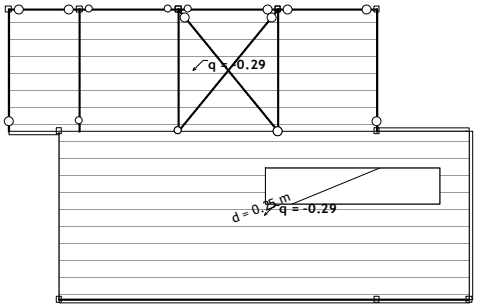

Okvir: V_5

Obt. 10: Veter bočni



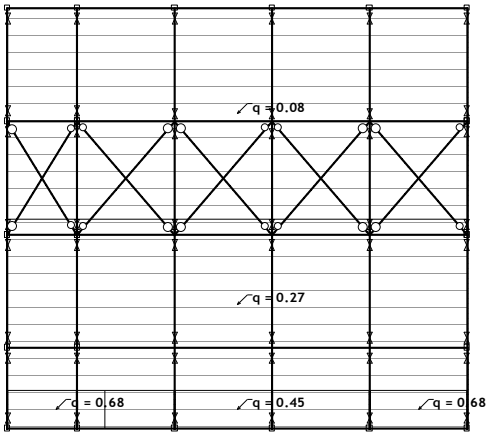

Okvir: V_3

Obt. 10: Veter bočni



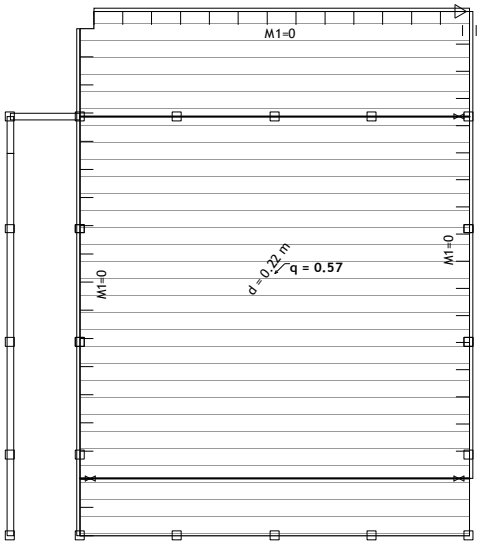

Okvir: V_4

Obt. 11: Veter čelni



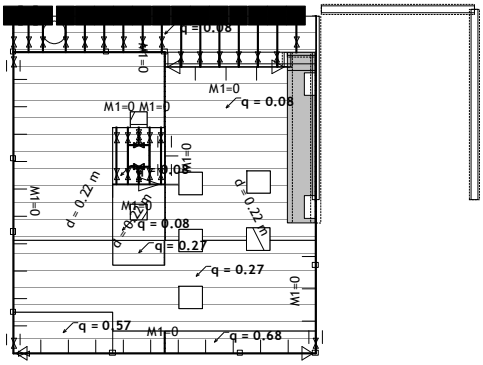

Nivo: streha T prostorv [7.15 m]

Obt. 11: Veter čelni



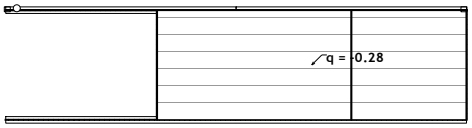

Nivo: Streha parkirisca [4.15 m]

Obt. 11: Veter čelni



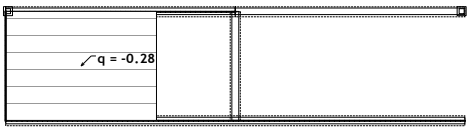

Nivo: streha prizidka [3.85 m]

Obt. 11: Veter čelni



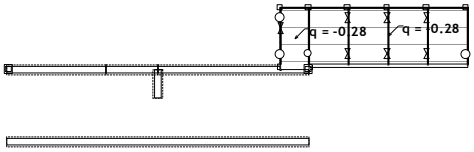

Okvir: H_1

Obt. 11: Veter čelni



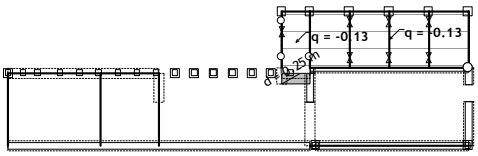

Okvir: H_9

Obt. 11: Veter čelni



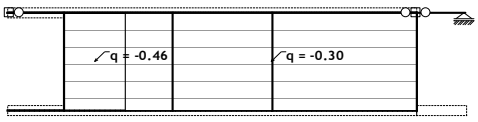

Okvir: H_13

Obt. 11: Veter čelni



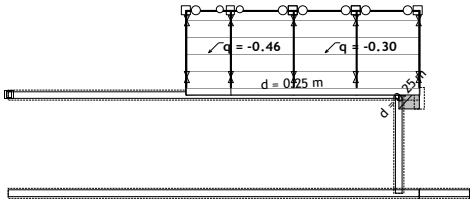

Okvir: H_7

Obt. 11: Veter čelni



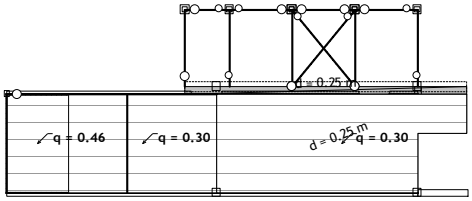

Okvir: V_2

Obt. 11: Veter čelni



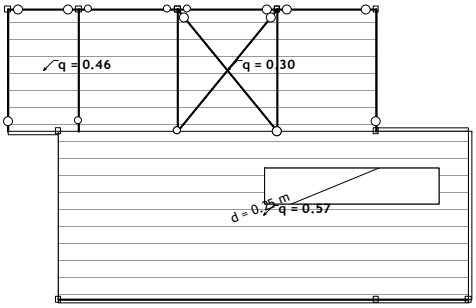

Okvir: V_5

Obt. 11: Veter čelni



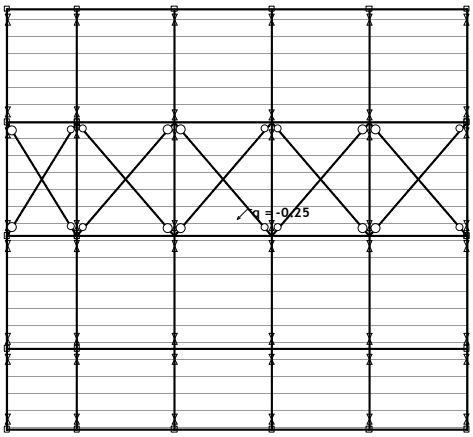

Okvir: V_3

Obt. 11: Veter čelni



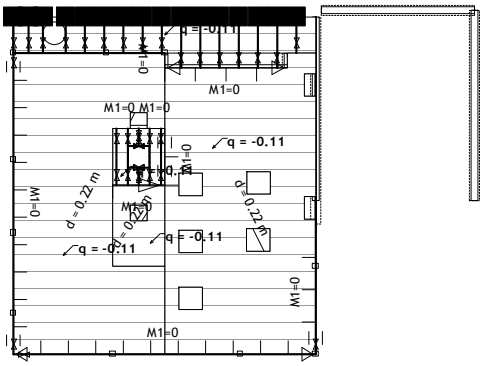

Okvir: V_4

Obt. 12: Notranji srk



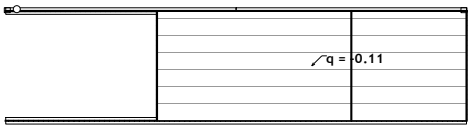

Nivo: streha T prostorv [7.15 m]

Obt. 12: Notranji srk



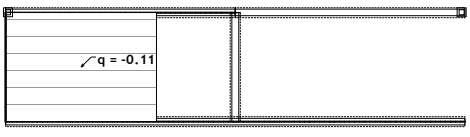

Nivo: streha prizidka [3.85 m]

Obt. 12: Notranji srk



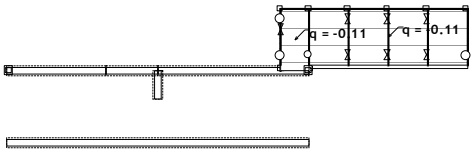

Okvir: H_1

Obt. 12: Notranji srk



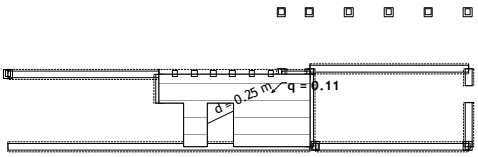

Okvir: H_9

Obt. 12: Notranji srk



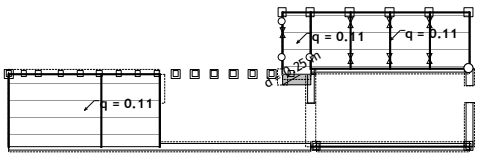

Okvir: H_13

Obt. 12: Notranji srk



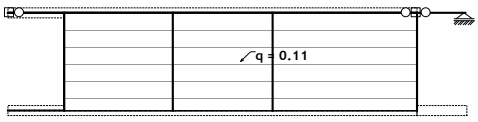

Okvir: H_19

Obt. 12: Notranji srk



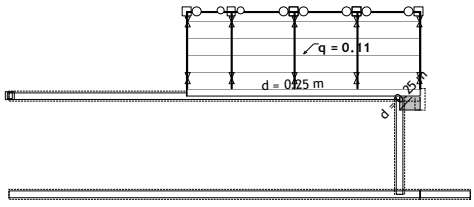

Okvir: H_7

Obt. 12: Notranji srk



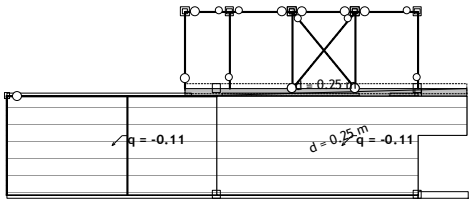

Okvir: V_2

Obt. 12: Notranji srk



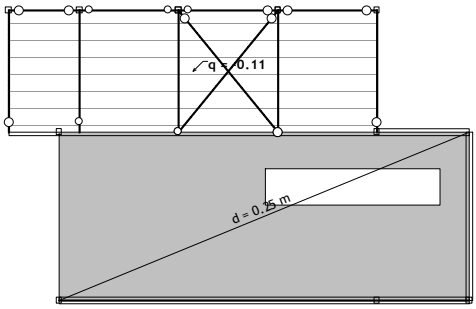

Okvir: V_5

Obt. 12: Notranji srk



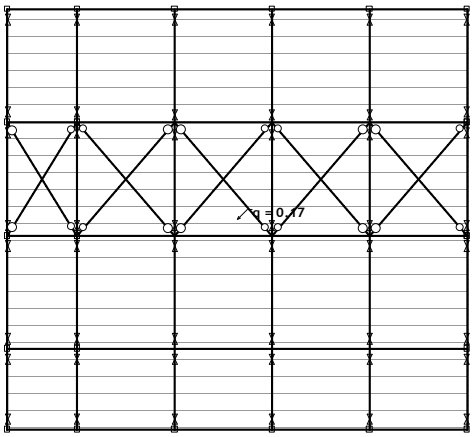

Okvir: V_3

Obt. 12: Notranji srk



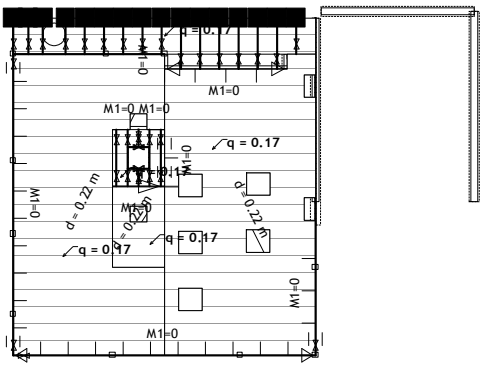

Okvir: V_4

Obt. 13: Notranji pritisk



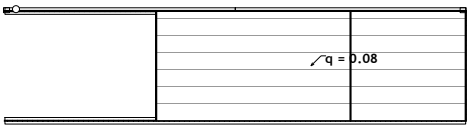

Nivo: streha T prostorv [7.15 m]

Obt. 13: Notranji pritisk



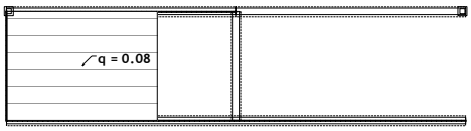

Nivo: streha prizidka [3.85 m]

Obt. 13: Notranji pritisk



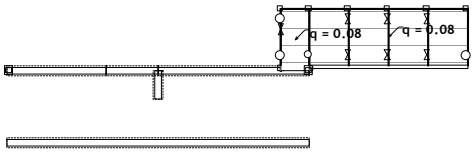

Okvir: H_1

Obt. 13: Notranji pritisk



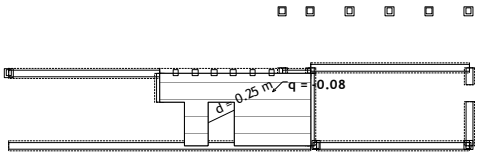

Okvir: H_9

Obt. 13: Notranji pritisk



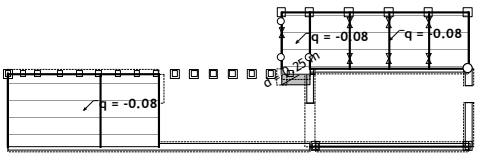

Okvir: H_13

Obt. 13: Notranji pritisk



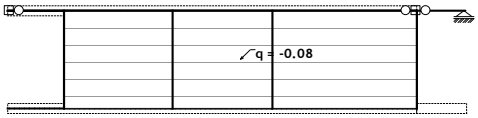

Okvir: H_19

Obt. 13: Notranji pritisk



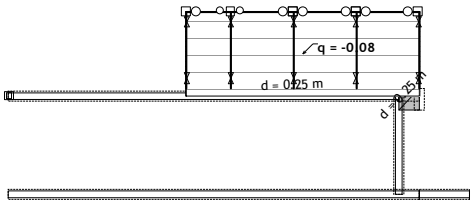

Okvir: H_7

Obt. 13: Notranji pritisk



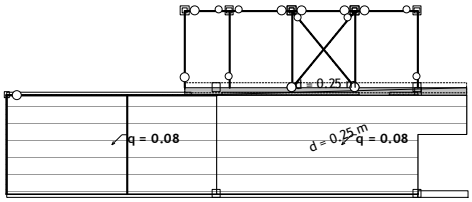

Okvir: V_2

Obt. 13: Notranji pritisk



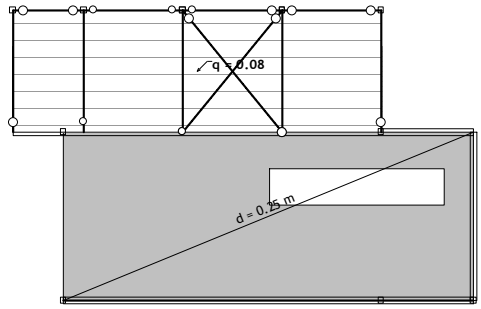

Okvir: V_5

Obt. 13: Notranji pritisk



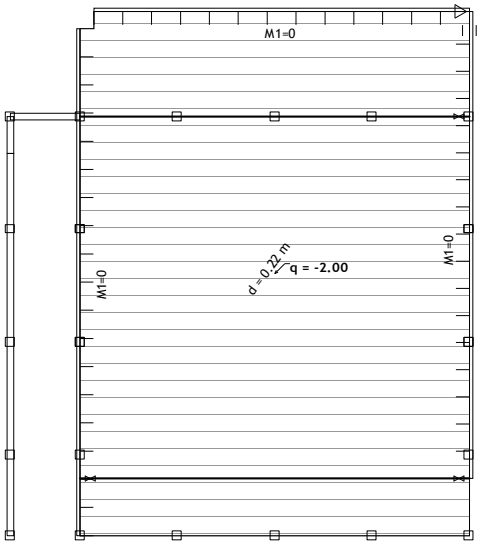

Okvir: V_3

Obt. 13: Notranji pritisk




Okvir: V_4

Obt. 14: Koristna obtežba kat. B




Nivo: Streha parkirisca [4.15 m]

# *Modalna analiza*

**Napredne opcije seizmičnega preračuna:**

Mase grupirane v nivojih izbranih etaž
Plošče - redukcija togosti na upogib: 0.500
Zidovi - redukcija togosti na upogib: 0.500
Preprečeno nihanje v Z smeri

Faktorji obtežb za preračun mas

| No | Naziv | Koeficient | |
|---|---|---|---|
| 1 | LT (g) | 1.00 | |
| 2 | Stalna | 1.00 | |
| 3 | Pomične stene | 1.00 | |
| 4 | Obodne stene | 1.00 | |
| 5 | Težka oprema | 1.00 | |
| 6 | Koristna obtežba kat C3 | 0.60 | |
| 7 | Koristna obtežba kat. F | 0.30 | |
| 8 | Koristna obtežba kat H | 0.00 | |
| 9 | Sneg | 0.00 | |
| 10 | Veter bočni | 0.00 | |
| 11 | Veter čelni | 0.00 | |
| 12 | Notranji srk | 0.00 | |
| 13 | Notranji pritisk | 0.00 | |
| 14 | Koristna obtežba kat. B | 0.30 | |

Razporeditev mas po višini objekta

| Nivo | Z [m] | X [m] | Y [m] | Masa [T] | T/m² |
|---|---|---|---|---|---|
| streha T prostorv | 7.15 | 19.50 | 11.36 | 6.87 | |
| Streha parkirisca | 4.15 | 20.18 | 12.61 | 111.36 | 1.17 |
| streha prizidka | 3.85 | 9.19 | 9.26 | 1034.58 | 4.46 |
| Skupno: | 3.90 | 10.31 | 9.59 | 1152.81 | |

Položaj centra togosti po višini objekta (približna metoda)

| Nivo | Z [m] | X [m] | Y [m] |
|---|---|---|---|
| streha T prostorv | 7.15 | 19.90 | 11.26 |
| Streha parkirisca | 4.15 | 18.68 | 18.23 |
| streha prizidka | 3.85 | 14.80 | 16.98 |

Ekscentriciteta po višini objekta (približna metoda)

| Nivo | Z [m] | eox [m] | eoy [m] |
|---|---|---|---|
| streha T prostorv | 7.15 | 0.40 | 0.10 |
| Streha parkirisca | 4.15 | 1.50 | 5.62 |
| streha prizidka | 3.85 | 5.61 | 7.73 |

# Seizmični preračun

Seizmični preračun: EC8 (EN 1998) SLO

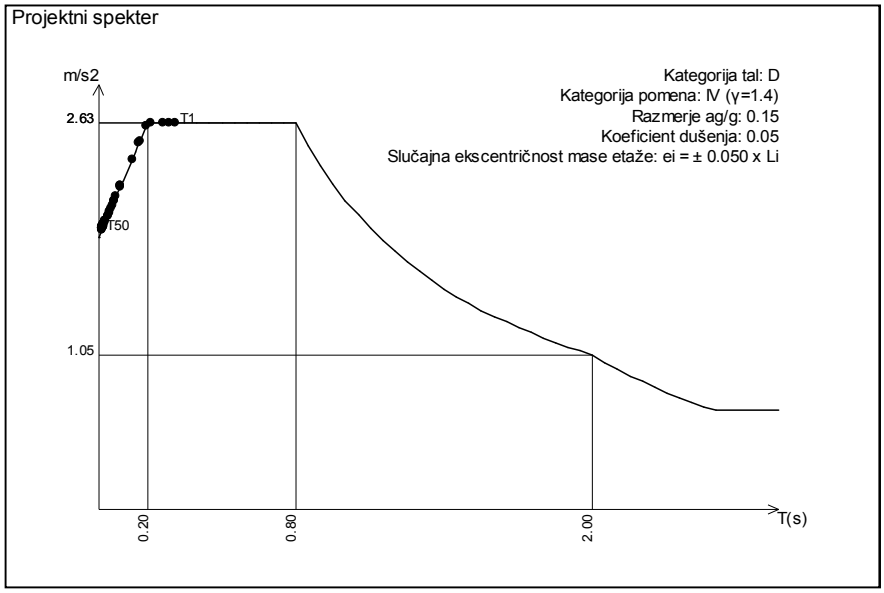
| | |
|---|---|
| Kategorija tal: | D |
| Kategorija pomena: | IV (γ=1.4) |
| Razmerje ag/g: | 0.15 |
| Koeficient dušenja: | 0.05 |
| Slučajna ekscentričnost mase etaže: | ei = ± 0.050 x Li |

Faktorji smeri potresa:

| Obtežni primer | Kot α[°] | k,α | k,α+90° | kz | Faktor O. |
|---|---|---|---|---|---|
| X | 0 | 1.000 | 0.300 | 0.000 | 2.640* |
| Y | 0 | 1.000 | 0.300 | 0.000 | 2.640* |

Tip spektra

| Obtežni primer | S | Tb | Tc | Td |
|---|---|---|---|---|
| X | 1.350 | 0.200 | 0.800 | 2.000 |
| Y | 1.350 | 0.200 | 0.800 | 2.000 |




X (+e)
Konstrukcija neregularna po višini, Okvirni sistemi (Okvirni: Enoetažni - αu/α1=1.1), Razred duktilnosti DCM:
qo=3αu/α1=3.30
Okvirni in dvojni dominantno okvirni sistem: αo=1.00, kw=1.00.
Faktor obnašanja: q=0.8·qo·kw=2.64

| 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] |
| streha T prostorv | 7.15 | 2.41 | 54.52 | 0.25 | 39.00 | -41.82 | 0.44 | -18.30 | -0.59 | -0.19 |
| Streha parkirisca | 4.15 | 11.31 | 16.58 | 0.24 | 109.05 | 62.11 | -15.27 | 2.45 | 3.09 | 0.62 |
| streha prizidka | 3.85 | 152.51 | -12.52 | -1.38 | 1327.9 | -501.73 | -50.36 | 42.46 | -20.77 | -4.51 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 166.23 | 58.59 | -0.89 | 1475.9 | -481.45 | -65.20 | 26.61 | -18.27 | -4.08 |

| 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] |
| streha T prostorv | 7.15 | -1.02 | -0.53 | -0.02 | -2.65 | -7.25 | -0.26 | 3.18 | 0.79 | -0.84 |
| Streha parkirisca | 4.15 | 0.70 | -0.49 | -0.37 | 70.19 | 119.18 | -23.78 | 16.63 | -23.38 | -9.78 |
| streha prizidka | 3.85 | 7.61 | -1.35 | -1.24 | 521.13 | 1387.9 | 14.78 | 71.76 | -44.80 | -5.23 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 7.29 | -2.36 | -1.64 | 588.67 | 1499.9 | -9.27 | 91.57 | -67.40 | -15.85 |

| 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] |
| streha T prostorv | 7.15 | -5.16 | 2.87 | -3.10 | -0.25 | 0.01 | -0.01 | -0.00 | -0.09 | -0.00 |
| Streha parkirisca | 4.15 | 64.22 | -83.59 | -34.59 | 0.05 | -0.07 | -0.01 | -0.01 | -0.04 | -0.03 |
| streha prizidka | 3.85 | 281.25 | -149.50 | -23.98 | 0.44 | -0.08 | -0.17 | 0.03 | 0.20 | -0.12 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 340.32 | -230.22 | -61.67 | 0.24 | -0.14 | -0.18 | 0.02 | 0.07 | -0.15 |

| 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] |
| streha T prostorv | 7.15 | -0.00 | 0.04 | -0.01 | -0.00 | -0.00 | 0.00 | 0.00 | -0.01 | 0.02 |
| Streha parkirisca | 4.15 | 0.46 | -0.15 | -0.18 | -0.00 | -0.00 | 0.00 | 0.14 | 1.15 | 0.43 |
| streha prizidka | 3.85 | 0.00 | 0.10 | 0.08 | 0.00 | 0.00 | -0.01 | -0.14 | -0.97 | 1.31 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.46 | -0.02 | -0.11 | 0.00 | -0.00 | -0.00 | 0.00 | 0.17 | 1.76 |

| 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] |
| streha T prostorv | 7.15 | 0.00 | -0.01 | -0.00 | -0.00 | -0.00 | 0.00 | 0.01 | 0.01 | -0.07 |
| Streha parkirisca | 4.15 | -0.00 | 0.01 | 0.00 | 0.01 | 0.02 | 0.00 | -1.98 | -3.39 | -0.96 |
| streha prizidka | 3.85 | 0.00 | 0.00 | -0.00 | -0.01 | -0.01 | 0.03 | 2.54 | 3.12 | -8.42 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.01 | 0.04 | 0.57 | -0.26 | -9.45 |

| 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] |
| streha T prostorv | 7.15 | -0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | -0.00 | 0.00 | -0.02 |
| Streha parkirisca | 4.15 | -0.00 | -0.01 | -0.00 | -0.00 | -0.00 | -0.00 | 0.90 | -0.11 | -0.34 |
| streha prizidka | 3.85 | 0.01 | 0.01 | -0.02 | 0.00 | 0.00 | -0.00 | -0.89 | 0.15 | 1.27 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | -0.02 | 0.00 | -0.00 | -0.00 | 0.01 | 0.04 | 0.92 |

| 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] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | -0.00 | 0.00 | -0.00 | -0.01 |
| Streha parkirisca | 4.15 | -0.49 | 0.15 | -0.10 | -0.00 | 0.00 | -0.00 | -0.23 | 0.32 | 0.67 |
| streha prizidka | 3.85 | 0.54 | -0.22 | -2.02 | 0.00 | 0.00 | -0.00 | 0.43 | -0.20 | 5.48 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.05 | -0.06 | -2.12 | 0.00 | 0.00 | -0.00 | 0.20 | 0.12 | 6.13 |

| 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] |
| streha T prostorv | 7.15 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.01 | 0.00 | -0.00 | -0.01 |
| Streha parkirisca | 4.15 | -0.62 | -0.13 | 0.36 | -1.06 | -0.06 | 0.17 | -0.19 | 0.06 | -0.31 |
| streha prizidka | 3.85 | 0.65 | 0.17 | -2.27 | 1.17 | 0.17 | -5.90 | 0.23 | -0.05 | -2.64 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.04 | 0.04 | -1.91 | 0.11 | 0.11 | -5.73 | 0.04 | 0.01 | -2.96 |

| 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] |
| streha T prostorv | 7.15 | -0.00 | -0.00 | -0.00 | 0.00 | -0.00 | -0.00 | 0.00 | -0.00 | -0.01 |
| Streha parkirisca | 4.15 | 0.02 | 0.00 | -0.01 | -0.02 | 0.03 | -0.11 | -0.43 | 0.13 | 0.06 |
| streha prizidka | 3.85 | -0.02 | -0.00 | 0.14 | 0.03 | -0.03 | -0.30 | 0.49 | -0.08 | -1.98 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.13 | 0.01 | 0.00 | -0.42 | 0.06 | 0.05 | -1.93 |

| 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] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | -0.00 | -0.00 | -0.00 | -0.00 | -0.00 | -0.00 | -0.00 |
| Streha parkirisca | 4.15 | -0.01 | 0.00 | 0.00 | 0.04 | 0.04 | -0.04 | 0.00 | 0.00 | -0.01 |
| streha prizidka | 3.85 | 0.01 | 0.00 | 0.02 | -0.04 | -0.03 | 0.49 | -0.00 | -0.00 | 0.05 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.02 | 0.00 | 0.01 | 0.45 | 0.00 | 0.00 | 0.04 |

| Nivo | Z [m] | Ton 31 | | | Ton 32 | | | Ton 33 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | 0.00 |
| Streha parkirisca | 4.15 | -0.90 | 0.45 | 0.84 | -0.02 | 0.00 | 0.01 | -0.07 | 0.04 | 0.12 |
| streha prizidka | 3.85 | 0.99 | -0.47 | -2.89 | 0.02 | -0.00 | -0.09 | 0.07 | -0.04 | -0.20 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.09 | -0.02 | -2.05 | 0.00 | -0.00 | -0.08 | 0.00 | -0.00 | -0.08 |

| Nivo | Z [m] | Ton 34 | | | Ton 35 | | | Ton 36 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | -0.00 | -0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | -0.03 | 0.06 | 0.03 | 0.00 | -0.00 | 0.00 | -0.01 | 0.01 | -0.07 |
| streha prizidka | 3.85 | 0.04 | -0.05 | 0.13 | -0.00 | 0.00 | 0.00 | 0.01 | -0.01 | -0.17 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.01 | 0.01 | 0.15 | -0.00 | 0.00 | 0.00 | 0.00 | -0.00 | -0.25 |

| Nivo | Z [m] | Ton 37 | | | Ton 38 | | | Ton 39 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | -0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | -0.02 | 0.01 | 0.02 | 0.00 | -0.00 | -0.01 | -0.00 | 0.03 | -0.12 |
| streha prizidka | 3.85 | 0.02 | -0.00 | -0.47 | 0.00 | 0.00 | 0.02 | 0.01 | -0.03 | -0.05 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.01 | 0.01 | -0.45 | 0.00 | -0.00 | 0.00 | 0.01 | 0.00 | -0.17 |

| Nivo | Z [m] | Ton 40 | | | Ton 41 | | | Ton 42 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | -0.00 | 0.00 | -0.00 | -0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | 0.01 | -0.07 | -0.03 | 0.01 | -0.04 | -0.04 | -0.01 | 0.00 | 0.00 |
| streha prizidka | 3.85 | -0.01 | 0.07 | 0.11 | -0.01 | 0.04 | 0.07 | 0.01 | 0.00 | -0.04 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.08 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | -0.04 |

| Nivo | Z [m] | Ton 43 | | | Ton 44 | | | Ton 45 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | 0.00 | -0.02 | -0.02 | 0.00 | -0.03 | -0.03 | -0.08 | -0.02 | 0.07 |
| streha prizidka | 3.85 | -0.00 | 0.02 | 0.03 | -0.00 | 0.04 | 0.05 | 0.09 | 0.02 | -0.15 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | -0.08 |

| Nivo | Z [m] | Ton 46 | | | Ton 47 | | | Ton 48 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | 0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | -0.06 | 0.12 | 0.10 | -0.03 | -0.02 | 0.04 | -0.01 | -0.02 | 0.06 |
| streha prizidka | 3.85 | 0.06 | -0.12 | -0.11 | 0.04 | 0.02 | -0.06 | 0.01 | 0.02 | 0.00 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.00 | -0.01 | -0.01 | 0.00 | -0.00 | -0.01 | 0.00 | -0.00 | 0.06 |

| Nivo | Z [m] | Ton 49 | | | Ton 50 | | |
|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | -0.01 | -0.00 | -0.00 | -0.00 |
| Streha parkirisca | 4.15 | 0.07 | 0.13 | 0.13 | 0.05 | 0.06 | -0.26 |
| streha prizidka | 3.85 | -0.06 | -0.13 | -0.21 | -0.05 | -0.06 | -0.26 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.02 | -0.00 | -0.10 | 0.00 | 0.00 | -0.53 |

X (-e)
Konstrukcija neregularna po višini, Okvirni sistemi (Okvirni: Enoetažni - αu/α1=1.1), Razred duktilnosti DCM:
qo=3αu/α1=3.30
Okvirni in dvojni dominantno okvirni sistem: αo=1.00, kw=1.00.
Faktor obnašanja: q=0.8·qo·kw=2.64

| 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] |
| streha T prostorv | 7.15 | 2.41 | 54.52 | 0.25 | 39.00 | -41.82 | 0.44 | -18.30 | -0.59 | -0.19 |
| Streha parkirisca | 4.15 | 11.31 | 16.58 | 0.24 | 109.05 | 62.11 | -15.27 | 2.45 | 3.09 | 0.62 |
| streha prizidka | 3.85 | 152.51 | -12.52 | -1.38 | 1327.9 | -501.73 | -50.36 | 42.46 | -20.77 | -4.51 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 166.23 | 58.59 | -0.89 | 1475.9 | -481.45 | -65.20 | 26.61 | -18.27 | -4.08 |

| 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] |
| streha T prostorv | 7.15 | -1.02 | -0.53 | -0.02 | -2.65 | -7.25 | -0.26 | 3.18 | 0.79 | -0.84 |
| Streha parkirisca | 4.15 | 0.70 | -0.49 | -0.37 | 70.19 | 119.18 | -23.78 | 16.63 | -23.38 | -9.78 |
| streha prizidka | 3.85 | 7.61 | -1.35 | -1.24 | 521.13 | 1387.9 | 14.78 | 71.76 | -44.80 | -5.23 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 7.29 | -2.36 | -1.64 | 588.67 | 1499.9 | -9.27 | 91.57 | -67.40 | -15.85 |

| 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] |
| streha T prostorv | 7.15 | -5.16 | 2.87 | -3.10 | -0.25 | 0.01 | -0.01 | -0.00 | -0.09 | -0.00 |
| Streha parkirisca | 4.15 | 64.22 | -83.59 | -34.59 | 0.05 | -0.07 | -0.01 | -0.01 | -0.04 | -0.03 |
| streha prizidka | 3.85 | 281.25 | -149.50 | -23.98 | 0.44 | -0.08 | -0.17 | 0.03 | 0.20 | -0.12 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 340.32 | -230.22 | -61.67 | 0.24 | -0.14 | -0.18 | 0.02 | 0.07 | -0.15 |

| 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] |
| streha T prostorv | 7.15 | -0.00 | 0.04 | -0.01 | -0.00 | -0.00 | 0.00 | 0.00 | -0.01 | 0.02 |
| Streha parkirisca | 4.15 | 0.46 | -0.15 | -0.18 | -0.00 | -0.00 | 0.00 | 0.14 | 1.15 | 0.43 |
| streha prizidka | 3.85 | 0.00 | 0.10 | 0.08 | 0.00 | 0.00 | -0.01 | -0.14 | -0.97 | 1.31 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.46 | -0.02 | -0.11 | 0.00 | -0.00 | -0.00 | 0.00 | 0.17 | 1.76 |

| 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] |
| streha T prostorv | 7.15 | 0.00 | -0.01 | -0.00 | -0.00 | -0.00 | 0.00 | 0.01 | 0.01 | -0.07 |
| Streha parkirisca | 4.15 | -0.00 | 0.01 | 0.00 | 0.01 | 0.02 | 0.00 | -1.98 | -3.39 | -0.96 |
| streha prizidka | 3.85 | 0.00 | 0.00 | -0.00 | -0.01 | -0.01 | 0.03 | 2.54 | 3.12 | -8.42 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.01 | 0.04 | 0.57 | -0.26 | -9.45 |

| 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] |
| streha T prostorv | 7.15 | -0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | -0.00 | 0.00 | -0.02 |
| Streha parkirisca | 4.15 | -0.00 | -0.01 | -0.00 | -0.00 | -0.00 | -0.00 | 0.90 | -0.11 | -0.34 |
| streha prizidka | 3.85 | 0.01 | 0.01 | -0.02 | 0.00 | 0.00 | -0.00 | -0.89 | 0.15 | 1.27 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | -0.02 | 0.00 | -0.00 | -0.00 | 0.01 | 0.04 | 0.92 |

| 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] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | -0.00 | 0.00 | -0.00 | -0.01 |
| Streha parkirisca | 4.15 | -0.49 | 0.15 | -0.10 | -0.00 | 0.00 | -0.00 | -0.23 | 0.32 | 0.67 |
| streha prizidka | 3.85 | 0.54 | -0.22 | -2.02 | 0.00 | 0.00 | -0.00 | 0.43 | -0.20 | 5.48 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.05 | -0.06 | -2.12 | 0.00 | 0.00 | -0.00 | 0.20 | 0.12 | 6.13 |

| 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] |
| streha T prostorv | 7.15 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.01 | 0.00 | -0.00 | -0.01 |
| Streha parkirisca | 4.15 | -0.62 | -0.13 | 0.36 | -1.06 | -0.06 | 0.17 | -0.19 | 0.06 | -0.31 |
| streha prizidka | 3.85 | 0.65 | 0.17 | -2.27 | 1.17 | 0.17 | -5.90 | 0.23 | -0.05 | -2.64 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.04 | 0.04 | -1.91 | 0.11 | 0.11 | -5.73 | 0.04 | 0.01 | -2.96 |

| 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] |
| streha T prostorv | 7.15 | -0.00 | -0.00 | -0.00 | 0.00 | -0.00 | -0.00 | 0.00 | -0.00 | -0.01 |
| Streha parkirisca | 4.15 | 0.02 | 0.00 | -0.01 | -0.02 | 0.03 | -0.11 | -0.43 | 0.13 | 0.06 |
| streha prizidka | 3.85 | -0.02 | -0.00 | 0.14 | 0.03 | -0.03 | -0.30 | 0.49 | -0.08 | -1.98 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.13 | 0.01 | 0.00 | -0.42 | 0.06 | 0.05 | -1.93 |

| 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] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | -0.00 | -0.00 | -0.00 | -0.00 | -0.00 | -0.00 | -0.00 |
| Streha parkirisca | 4.15 | -0.01 | 0.00 | 0.00 | 0.04 | 0.04 | -0.04 | 0.00 | 0.00 | -0.01 |
| streha prizidka | 3.85 | 0.01 | 0.00 | 0.02 | -0.04 | -0.03 | 0.49 | -0.00 | -0.00 | 0.05 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.02 | 0.00 | 0.01 | 0.45 | 0.00 | 0.00 | 0.04 |

| Nivo | Z [m] | Ton 31 | | | Ton 32 | | | Ton 33 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | 0.00 |
| Streha parkirisca | 4.15 | -0.90 | 0.45 | 0.84 | -0.02 | 0.00 | 0.01 | -0.07 | 0.04 | 0.12 |
| streha prizidka | 3.85 | 0.99 | -0.47 | -2.89 | 0.02 | -0.00 | -0.09 | 0.07 | -0.04 | -0.20 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.09 | -0.02 | -2.05 | 0.00 | -0.00 | -0.08 | 0.00 | -0.00 | -0.08 |

| Nivo | Z [m] | Ton 34 | | | Ton 35 | | | Ton 36 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | -0.00 | -0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | -0.03 | 0.06 | 0.03 | 0.00 | -0.00 | 0.00 | -0.01 | 0.01 | -0.07 |
| streha prizidka | 3.85 | 0.04 | -0.05 | 0.13 | -0.00 | 0.00 | 0.00 | 0.01 | -0.01 | -0.17 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.01 | 0.01 | 0.15 | -0.00 | 0.00 | 0.00 | 0.00 | -0.00 | -0.25 |

| Nivo | Z [m] | Ton 37 | | | Ton 38 | | | Ton 39 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | -0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | -0.02 | 0.01 | 0.02 | 0.00 | -0.00 | -0.01 | -0.00 | 0.03 | -0.12 |
| streha prizidka | 3.85 | 0.02 | -0.00 | -0.47 | 0.00 | 0.00 | 0.02 | 0.01 | -0.03 | -0.05 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.01 | 0.01 | -0.45 | 0.00 | -0.00 | 0.00 | 0.01 | 0.00 | -0.17 |

| Nivo | Z [m] | Ton 40 | | | Ton 41 | | | Ton 42 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | -0.00 | 0.00 | -0.00 | -0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | 0.01 | -0.07 | -0.03 | 0.01 | -0.04 | -0.04 | -0.01 | 0.00 | 0.00 |
| streha prizidka | 3.85 | -0.01 | 0.07 | 0.11 | -0.01 | 0.04 | 0.07 | 0.01 | 0.00 | -0.04 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.08 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | -0.04 |

| Nivo | Z [m] | Ton 43 | | | Ton 44 | | | Ton 45 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | 0.00 | -0.02 | -0.02 | 0.00 | -0.03 | -0.03 | -0.08 | -0.02 | 0.07 |
| streha prizidka | 3.85 | -0.00 | 0.02 | 0.03 | -0.00 | 0.04 | 0.05 | 0.09 | 0.02 | -0.15 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | -0.08 |

| Nivo | Z [m] | Ton 46 | | | Ton 47 | | | Ton 48 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | 0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | -0.06 | 0.12 | 0.10 | -0.03 | -0.02 | 0.04 | -0.01 | -0.02 | 0.06 |
| streha prizidka | 3.85 | 0.06 | -0.12 | -0.11 | 0.04 | 0.02 | -0.06 | 0.01 | 0.02 | 0.00 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.00 | -0.01 | -0.01 | 0.00 | -0.00 | -0.01 | 0.00 | -0.00 | 0.06 |

| Nivo | Z [m] | Ton 49 | | | Ton 50 | | |
|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | -0.01 | -0.00 | -0.00 | -0.00 |
| Streha parkirisca | 4.15 | 0.07 | 0.13 | 0.13 | 0.05 | 0.06 | -0.26 |
| streha prizidka | 3.85 | -0.06 | -0.13 | -0.21 | -0.05 | -0.06 | -0.26 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.02 | -0.00 | -0.10 | 0.00 | 0.00 | -0.53 |

Y (+e)
Konstrukcija neregularna po višini, Okvirni sistemi (Okvirni: Enoetažni - αu/α1=1.1), Razred duktilnosti DCM:
qo=3αu/α1=3.30
Okvirni in dvojni dominantno okvirni sistem: αo=1.00, kw=1.00.
Faktor obnašanja: q=0.8·qo·kw=2.64

| 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] |
| streha T prostorv | 7.15 | 2.41 | 54.52 | 0.25 | 39.00 | -41.82 | 0.44 | -18.30 | -0.59 | -0.19 |
| Streha parkirisca | 4.15 | 11.31 | 16.58 | 0.24 | 109.05 | 62.11 | -15.27 | 2.45 | 3.09 | 0.62 |
| streha prizidka | 3.85 | 152.51 | -12.52 | -1.38 | 1327.9 | -501.73 | -50.36 | 42.46 | -20.77 | -4.51 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 166.23 | 58.59 | -0.89 | 1475.9 | -481.45 | -65.20 | 26.61 | -18.27 | -4.08 |

| 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] |
| streha T prostorv | 7.15 | -1.02 | -0.53 | -0.02 | -2.65 | -7.25 | -0.26 | 3.18 | 0.79 | -0.84 |
| Streha parkirisca | 4.15 | 0.70 | -0.49 | -0.37 | 70.19 | 119.18 | -23.78 | 16.63 | -23.38 | -9.78 |
| streha prizidka | 3.85 | 7.61 | -1.35 | -1.24 | 521.13 | 1387.9 | 14.78 | 71.76 | -44.80 | -5.23 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 7.29 | -2.36 | -1.64 | 588.67 | 1499.9 | -9.27 | 91.57 | -67.40 | -15.85 |

| 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] |
| streha T prostorv | 7.15 | -5.16 | 2.87 | -3.10 | -0.25 | 0.01 | -0.01 | -0.00 | -0.09 | -0.00 |
| Streha parkirisca | 4.15 | 64.22 | -83.59 | -34.59 | 0.05 | -0.07 | -0.01 | -0.01 | -0.04 | -0.03 |
| streha prizidka | 3.85 | 281.25 | -149.50 | -23.98 | 0.44 | -0.08 | -0.17 | 0.03 | 0.20 | -0.12 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 340.32 | -230.22 | -61.67 | 0.24 | -0.14 | -0.18 | 0.02 | 0.07 | -0.15 |

| 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] |
| streha T prostorv | 7.15 | -0.00 | 0.04 | -0.01 | -0.00 | -0.00 | 0.00 | 0.00 | -0.01 | 0.02 |
| Streha parkirisca | 4.15 | 0.46 | -0.15 | -0.18 | -0.00 | -0.00 | 0.00 | 0.14 | 1.15 | 0.43 |
| streha prizidka | 3.85 | 0.00 | 0.10 | 0.08 | 0.00 | 0.00 | -0.01 | -0.14 | -0.97 | 1.31 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.46 | -0.02 | -0.11 | 0.00 | -0.00 | -0.00 | 0.00 | 0.17 | 1.76 |

| 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] |
| streha T prostorv | 7.15 | 0.00 | -0.01 | -0.00 | -0.00 | -0.00 | 0.00 | 0.01 | 0.01 | -0.07 |
| Streha parkirisca | 4.15 | -0.00 | 0.01 | 0.00 | 0.01 | 0.02 | 0.00 | -1.98 | -3.39 | -0.96 |
| streha prizidka | 3.85 | 0.00 | 0.00 | -0.00 | -0.01 | -0.01 | 0.03 | 2.54 | 3.12 | -8.42 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.01 | 0.04 | 0.57 | -0.26 | -9.45 |

| 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] |
| streha T prostorv | 7.15 | -0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | -0.00 | 0.00 | -0.02 |
| Streha parkirisca | 4.15 | -0.00 | -0.01 | -0.00 | -0.00 | -0.00 | -0.00 | 0.90 | -0.11 | -0.34 |
| streha prizidka | 3.85 | 0.01 | 0.01 | -0.02 | 0.00 | 0.00 | -0.00 | -0.89 | 0.15 | 1.27 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | -0.02 | 0.00 | -0.00 | -0.00 | 0.01 | 0.04 | 0.92 |

| 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] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | -0.00 | 0.00 | -0.00 | -0.01 |
| Streha parkirisca | 4.15 | -0.49 | 0.15 | -0.10 | -0.00 | 0.00 | -0.00 | -0.23 | 0.32 | 0.67 |
| streha prizidka | 3.85 | 0.54 | -0.22 | -2.02 | 0.00 | 0.00 | -0.00 | 0.43 | -0.20 | 5.48 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.05 | -0.06 | -2.12 | 0.00 | 0.00 | -0.00 | 0.20 | 0.12 | 6.13 |

| 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] |
| streha T prostorv | 7.15 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.01 | 0.00 | -0.00 | -0.01 |
| Streha parkirisca | 4.15 | -0.62 | -0.13 | 0.36 | -1.06 | -0.06 | 0.17 | -0.19 | 0.06 | -0.31 |
| streha prizidka | 3.85 | 0.65 | 0.17 | -2.27 | 1.17 | 0.17 | -5.90 | 0.23 | -0.05 | -2.64 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.04 | 0.04 | -1.91 | 0.11 | 0.11 | -5.73 | 0.04 | 0.01 | -2.96 |

| 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] |
| streha T prostorv | 7.15 | -0.00 | -0.00 | -0.00 | 0.00 | -0.00 | -0.00 | 0.00 | -0.00 | -0.01 |
| Streha parkirisca | 4.15 | 0.02 | 0.00 | -0.01 | -0.02 | 0.03 | -0.11 | -0.43 | 0.13 | 0.06 |
| streha prizidka | 3.85 | -0.02 | -0.00 | 0.14 | 0.03 | -0.03 | -0.30 | 0.49 | -0.08 | -1.98 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.13 | 0.01 | 0.00 | -0.42 | 0.06 | 0.05 | -1.93 |

| 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] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | -0.00 | -0.00 | -0.00 | -0.00 | -0.00 | -0.00 | -0.00 |
| Streha parkirisca | 4.15 | -0.01 | 0.00 | 0.00 | 0.04 | 0.04 | -0.04 | 0.00 | 0.00 | -0.01 |
| streha prizidka | 3.85 | 0.01 | 0.00 | 0.02 | -0.04 | -0.03 | 0.49 | -0.00 | -0.00 | 0.05 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.02 | 0.00 | 0.01 | 0.45 | 0.00 | 0.00 | 0.04 |

| Nivo | Z [m] | Ton 31 | | | Ton 32 | | | Ton 33 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | 0.00 |
| Streha parkirisca | 4.15 | -0.90 | 0.45 | 0.84 | -0.02 | 0.00 | 0.01 | -0.07 | 0.04 | 0.12 |
| streha prizidka | 3.85 | 0.99 | -0.47 | -2.89 | 0.02 | -0.00 | -0.09 | 0.07 | -0.04 | -0.20 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.09 | -0.02 | -2.05 | 0.00 | -0.00 | -0.08 | 0.00 | -0.00 | -0.08 |

| Nivo | Z [m] | Ton 34 | | | Ton 35 | | | Ton 36 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | -0.00 | -0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | -0.03 | 0.06 | 0.03 | 0.00 | -0.00 | 0.00 | -0.01 | 0.01 | -0.07 |
| streha prizidka | 3.85 | 0.04 | -0.05 | 0.13 | -0.00 | 0.00 | 0.00 | 0.01 | -0.01 | -0.17 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.01 | 0.01 | 0.15 | -0.00 | 0.00 | 0.00 | 0.00 | -0.00 | -0.25 |

| Nivo | Z [m] | Ton 37 | | | Ton 38 | | | Ton 39 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | -0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | -0.02 | 0.01 | 0.02 | 0.00 | -0.00 | -0.01 | -0.00 | 0.03 | -0.12 |
| streha prizidka | 3.85 | 0.02 | -0.00 | -0.47 | 0.00 | 0.00 | 0.02 | 0.01 | -0.03 | -0.05 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.01 | 0.01 | -0.45 | 0.00 | -0.00 | 0.00 | 0.01 | 0.00 | -0.17 |

| Nivo | Z [m] | Ton 40 | | | Ton 41 | | | Ton 42 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | -0.00 | 0.00 | -0.00 | -0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | 0.01 | -0.07 | -0.03 | 0.01 | -0.04 | -0.04 | -0.01 | 0.00 | 0.00 |
| streha prizidka | 3.85 | -0.01 | 0.07 | 0.11 | -0.01 | 0.04 | 0.07 | 0.01 | 0.00 | -0.04 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.08 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | -0.04 |

| Nivo | Z [m] | Ton 43 | | | Ton 44 | | | Ton 45 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | 0.00 | -0.02 | -0.02 | 0.00 | -0.03 | -0.03 | -0.08 | -0.02 | 0.07 |
| streha prizidka | 3.85 | -0.00 | 0.02 | 0.03 | -0.00 | 0.04 | 0.05 | 0.09 | 0.02 | -0.15 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | -0.08 |

| Nivo | Z [m] | Ton 46 | | | Ton 47 | | | Ton 48 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | 0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | -0.06 | 0.12 | 0.10 | -0.03 | -0.02 | 0.04 | -0.01 | -0.02 | 0.06 |
| streha prizidka | 3.85 | 0.06 | -0.12 | -0.11 | 0.04 | 0.02 | -0.06 | 0.01 | 0.02 | 0.00 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.00 | -0.01 | -0.01 | 0.00 | -0.00 | -0.01 | 0.00 | -0.00 | 0.06 |

| Nivo | Z [m] | Ton 49 | | | Ton 50 | | |
|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | -0.01 | -0.00 | -0.00 | -0.00 |
| Streha parkirisca | 4.15 | 0.07 | 0.13 | 0.13 | 0.05 | 0.06 | -0.26 |
| streha prizidka | 3.85 | -0.06 | -0.13 | -0.21 | -0.05 | -0.06 | -0.26 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.02 | -0.00 | -0.10 | 0.00 | 0.00 | -0.53 |

Y (-e)
Konstrukcija neregularna po višini, Okvirni sistemi (Okvirni: Enoetažni - αu/α1=1.1), Razred duktilnosti DCM:
qo=3αu/α1=3.30
Okvirni in dvojni dominantno okvirni sistem: αo=1.00, kw=1.00.
Faktor obnašanja: q=0.8·qo·kw=2.64

| 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] |
| streha T prostorv | 7.15 | 2.41 | 54.52 | 0.25 | 39.00 | -41.82 | 0.44 | -18.30 | -0.59 | -0.19 |
| Streha parkirisca | 4.15 | 11.31 | 16.58 | 0.24 | 109.05 | 62.11 | -15.27 | 2.45 | 3.09 | 0.62 |
| streha prizidka | 3.85 | 152.51 | -12.52 | -1.38 | 1327.9 | -501.73 | -50.36 | 42.46 | -20.77 | -4.51 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 166.23 | 58.59 | -0.89 | 1475.9 | -481.45 | -65.20 | 26.61 | -18.27 | -4.08 |

| 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] |
| streha T prostorv | 7.15 | -1.02 | -0.53 | -0.02 | -2.65 | -7.25 | -0.26 | 3.18 | 0.79 | -0.84 |
| Streha parkirisca | 4.15 | 0.70 | -0.49 | -0.37 | 70.19 | 119.18 | -23.78 | 16.63 | -23.38 | -9.78 |
| streha prizidka | 3.85 | 7.61 | -1.35 | -1.24 | 521.13 | 1387.9 | 14.78 | 71.76 | -44.80 | -5.23 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 7.29 | -2.36 | -1.64 | 588.67 | 1499.9 | -9.27 | 91.57 | -67.40 | -15.85 |

| 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] |
| streha T prostorv | 7.15 | -5.16 | 2.87 | -3.10 | -0.25 | 0.01 | -0.01 | -0.00 | -0.09 | -0.00 |
| Streha parkirisca | 4.15 | 64.22 | -83.59 | -34.59 | 0.05 | -0.07 | -0.01 | -0.01 | -0.04 | -0.03 |
| streha prizidka | 3.85 | 281.25 | -149.50 | -23.98 | 0.44 | -0.08 | -0.17 | 0.03 | 0.20 | -0.12 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 340.32 | -230.22 | -61.67 | 0.24 | -0.14 | -0.18 | 0.02 | 0.07 | -0.15 |

| 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] |
| streha T prostorv | 7.15 | -0.00 | 0.04 | -0.01 | -0.00 | -0.00 | 0.00 | 0.00 | -0.01 | 0.02 |
| Streha parkirisca | 4.15 | 0.46 | -0.15 | -0.18 | -0.00 | -0.00 | 0.00 | 0.14 | 1.15 | 0.43 |
| streha prizidka | 3.85 | 0.00 | 0.10 | 0.08 | 0.00 | 0.00 | -0.01 | -0.14 | -0.97 | 1.31 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.46 | -0.02 | -0.11 | 0.00 | -0.00 | -0.00 | 0.00 | 0.17 | 1.76 |

| 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] |
| streha T prostorv | 7.15 | 0.00 | -0.01 | -0.00 | -0.00 | -0.00 | 0.00 | 0.01 | 0.01 | -0.07 |
| Streha parkirisca | 4.15 | -0.00 | 0.01 | 0.00 | 0.01 | 0.02 | 0.00 | -1.98 | -3.39 | -0.96 |
| streha prizidka | 3.85 | 0.00 | 0.00 | -0.00 | -0.01 | -0.01 | 0.03 | 2.54 | 3.12 | -8.42 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.01 | 0.04 | 0.57 | -0.26 | -9.45 |

| 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] |
| streha T prostorv | 7.15 | -0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | -0.00 | 0.00 | -0.02 |
| Streha parkirisca | 4.15 | -0.00 | -0.01 | -0.00 | -0.00 | -0.00 | -0.00 | 0.90 | -0.11 | -0.34 |
| streha prizidka | 3.85 | 0.01 | 0.01 | -0.02 | 0.00 | 0.00 | -0.00 | -0.89 | 0.15 | 1.27 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | -0.02 | 0.00 | -0.00 | -0.00 | 0.01 | 0.04 | 0.92 |

| 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] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | -0.00 | 0.00 | -0.00 | -0.01 |
| Streha parkirisca | 4.15 | -0.49 | 0.15 | -0.10 | -0.00 | 0.00 | -0.00 | -0.23 | 0.32 | 0.67 |
| streha prizidka | 3.85 | 0.54 | -0.22 | -2.02 | 0.00 | 0.00 | -0.00 | 0.43 | -0.20 | 5.48 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.05 | -0.06 | -2.12 | 0.00 | 0.00 | -0.00 | 0.20 | 0.12 | 6.13 |

| 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] |
| streha T prostorv | 7.15 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.01 | 0.00 | -0.00 | -0.01 |
| Streha parkirisca | 4.15 | -0.62 | -0.13 | 0.36 | -1.06 | -0.06 | 0.17 | -0.19 | 0.06 | -0.31 |
| streha prizidka | 3.85 | 0.65 | 0.17 | -2.27 | 1.17 | 0.17 | -5.90 | 0.23 | -0.05 | -2.64 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.04 | 0.04 | -1.91 | 0.11 | 0.11 | -5.73 | 0.04 | 0.01 | -2.96 |

| 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] |
| streha T prostorv | 7.15 | -0.00 | -0.00 | -0.00 | 0.00 | -0.00 | -0.00 | 0.00 | -0.00 | -0.01 |
| Streha parkirisca | 4.15 | 0.02 | 0.00 | -0.01 | -0.02 | 0.03 | -0.11 | -0.43 | 0.13 | 0.06 |
| streha prizidka | 3.85 | -0.02 | -0.00 | 0.14 | 0.03 | -0.03 | -0.30 | 0.49 | -0.08 | -1.98 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.13 | 0.01 | 0.00 | -0.42 | 0.06 | 0.05 | -1.93 |

| 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] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | -0.00 | -0.00 | -0.00 | -0.00 | -0.00 | -0.00 | -0.00 |
| Streha parkirisca | 4.15 | -0.01 | 0.00 | 0.00 | 0.04 | 0.04 | -0.04 | 0.00 | 0.00 | -0.01 |
| streha prizidka | 3.85 | 0.01 | 0.00 | 0.02 | -0.04 | -0.03 | 0.49 | -0.00 | -0.00 | 0.05 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.02 | 0.00 | 0.01 | 0.45 | 0.00 | 0.00 | 0.04 |

| Nivo | Z [m] | Ton 31 | | | Ton 32 | | | Ton 33 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | 0.00 |
| Streha parkirisca | 4.15 | -0.90 | 0.45 | 0.84 | -0.02 | 0.00 | 0.01 | -0.07 | 0.04 | 0.12 |
| streha prizidka | 3.85 | 0.99 | -0.47 | -2.89 | 0.02 | -0.00 | -0.09 | 0.07 | -0.04 | -0.20 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.09 | -0.02 | -2.05 | 0.00 | -0.00 | -0.08 | 0.00 | -0.00 | -0.08 |

| Nivo | Z [m] | Ton 34 | | | Ton 35 | | | Ton 36 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | -0.00 | -0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | -0.03 | 0.06 | 0.03 | 0.00 | -0.00 | 0.00 | -0.01 | 0.01 | -0.07 |
| streha prizidka | 3.85 | 0.04 | -0.05 | 0.13 | -0.00 | 0.00 | 0.00 | 0.01 | -0.01 | -0.17 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.01 | 0.01 | 0.15 | -0.00 | 0.00 | 0.00 | 0.00 | -0.00 | -0.25 |

| Nivo | Z [m] | Ton 37 | | | Ton 38 | | | Ton 39 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | -0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | -0.02 | 0.01 | 0.02 | 0.00 | -0.00 | -0.01 | -0.00 | 0.03 | -0.12 |
| streha prizidka | 3.85 | 0.02 | -0.00 | -0.47 | 0.00 | 0.00 | 0.02 | 0.01 | -0.03 | -0.05 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.01 | 0.01 | -0.45 | 0.00 | -0.00 | 0.00 | 0.01 | 0.00 | -0.17 |

| Nivo | Z [m] | Ton 40 | | | Ton 41 | | | Ton 42 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | -0.00 | 0.00 | -0.00 | -0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | 0.01 | -0.07 | -0.03 | 0.01 | -0.04 | -0.04 | -0.01 | 0.00 | 0.00 |
| streha prizidka | 3.85 | -0.01 | 0.07 | 0.11 | -0.01 | 0.04 | 0.07 | 0.01 | 0.00 | -0.04 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.08 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | -0.04 |

| Nivo | Z [m] | Ton 43 | | | Ton 44 | | | Ton 45 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | 0.00 | -0.02 | -0.02 | 0.00 | -0.03 | -0.03 | -0.08 | -0.02 | 0.07 |
| streha prizidka | 3.85 | -0.00 | 0.02 | 0.03 | -0.00 | 0.04 | 0.05 | 0.09 | 0.02 | -0.15 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | -0.08 |

| Nivo | Z [m] | Ton 46 | | | Ton 47 | | | Ton 48 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | 0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| Streha parkirisca | 4.15 | -0.06 | 0.12 | 0.10 | -0.03 | -0.02 | 0.04 | -0.01 | -0.02 | 0.06 |
| streha prizidka | 3.85 | 0.06 | -0.12 | -0.11 | 0.04 | 0.02 | -0.06 | 0.01 | 0.02 | 0.00 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.00 | -0.01 | -0.01 | 0.00 | -0.00 | -0.01 | 0.00 | -0.00 | 0.06 |

| Nivo | Z [m] | Ton 49 | | | Ton 50 | | |
|---|---|---|---|---|---|---|---|
| | | Px [kN] | Py [kN] | Pz [kN] | Px [kN] | Py [kN] | Pz [kN] |
| streha T prostorv | 7.15 | 0.00 | -0.00 | -0.01 | -0.00 | -0.00 | -0.00 |
| Streha parkirisca | 4.15 | 0.07 | 0.13 | 0.13 | 0.05 | 0.06 | -0.26 |
| streha prizidka | 3.85 | -0.06 | -0.13 | -0.21 | -0.05 | -0.06 | -0.26 |
| Svetlobnik | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| temelji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Σ= | 0.02 | -0.00 | -0.10 | 0.00 | 0.00 | -0.53 |

Faktorji participacije - relativno sodelovanje

| Ton \ Naziv | 1. X (+e) | 2. X (-e) | 3. Y (+e) | 4. Y (-e) |
|---|---|---|---|---|
| 1 | 0.063 | 0.063 | 0.063 | 0.063 |
| 2 | 0.455 | 0.455 | 0.455 | 0.455 |
| 3 | 0.007 | 0.007 | 0.007 | 0.007 |
| 4 | 0.002 | 0.002 | 0.002 | 0.002 |
| 5 | 0.355 | 0.355 | 0.355 | 0.355 |
| 6 | 0.024 | 0.024 | 0.024 | 0.024 |
| 7 | 0.093 | 0.093 | 0.093 | 0.093 |
| 8 | 0.000 | 0.000 | 0.000 | 0.000 |
| 9 | 0.000 | 0.000 | 0.000 | 0.000 |
| 10 | 0.000 | 0.000 | 0.000 | 0.000 |
| 11 | 0.000 | 0.000 | 0.000 | 0.000 |
| 12 | 0.000 | 0.000 | 0.000 | 0.000 |
| 13 | 0.000 | 0.000 | 0.000 | 0.000 |
| 14 | 0.000 | 0.000 | 0.000 | 0.000 |
| 15 | 0.000 | 0.000 | 0.000 | 0.000 |

| | | | | |
|---|---|---|---|---|
| 16 | 0.000 | 0.000 | 0.000 | 0.000 |
| 17 | 0.000 | 0.000 | 0.000 | 0.000 |
| 18 | 0.000 | 0.000 | 0.000 | 0.000 |
| 19 | 0.000 | 0.000 | 0.000 | 0.000 |
| 20 | 0.000 | 0.000 | 0.000 | 0.000 |
| 21 | 0.000 | 0.000 | 0.000 | 0.000 |
| 22 | 0.000 | 0.000 | 0.000 | 0.000 |
| 23 | 0.000 | 0.000 | 0.000 | 0.000 |
| 24 | 0.000 | 0.000 | 0.000 | 0.000 |
| 25 | 0.000 | 0.000 | 0.000 | 0.000 |
| 26 | 0.000 | 0.000 | 0.000 | 0.000 |
| 27 | 0.000 | 0.000 | 0.000 | 0.000 |
| 28 | 0.000 | 0.000 | 0.000 | 0.000 |
| 29 | 0.000 | 0.000 | 0.000 | 0.000 |
| 30 | 0.000 | 0.000 | 0.000 | 0.000 |
| 31 | 0.000 | 0.000 | 0.000 | 0.000 |
| 32 | 0.000 | 0.000 | 0.000 | 0.000 |
| 33 | 0.000 | 0.000 | 0.000 | 0.000 |
| 34 | 0.000 | 0.000 | 0.000 | 0.000 |
| 35 | 0.000 | 0.000 | 0.000 | 0.000 |
| 36 | 0.000 | 0.000 | 0.000 | 0.000 |
| 37 | 0.000 | 0.000 | 0.000 | 0.000 |
| 38 | 0.000 | 0.000 | 0.000 | 0.000 |
| 39 | 0.000 | 0.000 | 0.000 | 0.000 |
| 40 | 0.000 | 0.000 | 0.000 | 0.000 |
| 41 | 0.000 | 0.000 | 0.000 | 0.000 |
| 42 | 0.000 | 0.000 | 0.000 | 0.000 |
| 43 | 0.000 | 0.000 | 0.000 | 0.000 |
| 44 | 0.000 | 0.000 | 0.000 | 0.000 |
| 45 | 0.000 | 0.000 | 0.000 | 0.000 |
| 46 | 0.000 | 0.000 | 0.000 | 0.000 |
| 47 | 0.000 | 0.000 | 0.000 | 0.000 |
| 48 | 0.000 | 0.000 | 0.000 | 0.000 |
| 49 | 0.000 | 0.000 | 0.000 | 0.000 |
| 50 | 0.000 | 0.000 | 0.000 | 0.000 |

Faktorji participacije - angažiranje mase

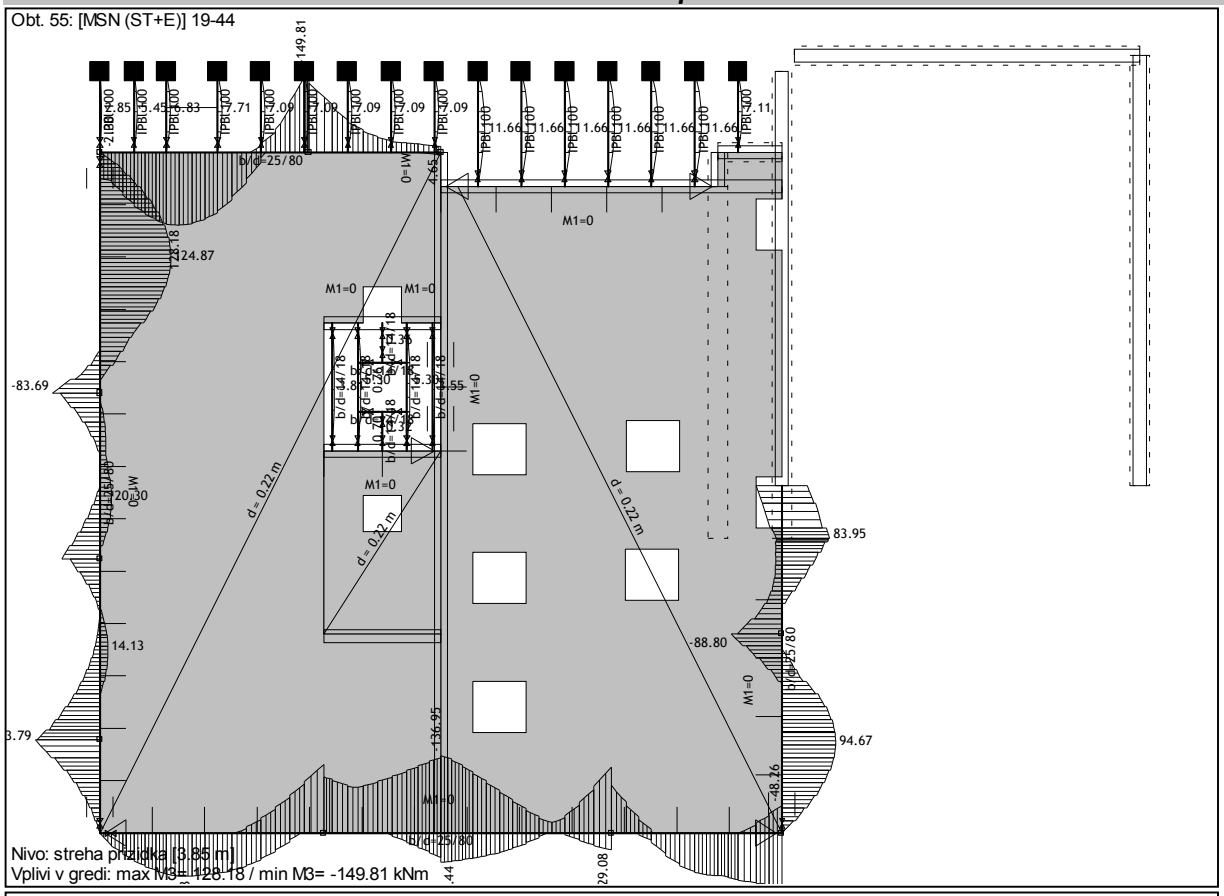
| Ton | U [α=0°] | U [α=0°] |
|---|---|---|
| 1 | 4.99 | 4.99 |
| 2 | 57.10 | 57.10 |
| 3 | 1.12 | 1.12 |
| 4 | 0.27 | 0.27 |
| 5 | 12.71 | 12.71 |
| 6 | 4.22 | 4.22 |
| 7 | 17.08 | 17.08 |
| 8 | 0.01 | 0.01 |
| 9 | 0.00 | 0.00 |
| 10 | 0.02 | 0.02 |
| 11 | 0.00 | 0.00 |
| 12 | 0.00 | 0.00 |
| 13 | 0.00 | 0.00 |
| 14 | 0.00 | 0.00 |
| 15 | 0.06 | 0.06 |
| 16 | 0.00 | 0.00 |
| 17 | 0.00 | 0.00 |
| 18 | 0.00 | 0.00 |
| 19 | 0.01 | 0.01 |
| 20 | 0.00 | 0.00 |
| 21 | 0.01 | 0.01 |
| 22 | 0.00 | 0.00 |
| 23 | 0.01 | 0.01 |
| 24 | 0.00 | 0.00 |
| 25 | 0.00 | 0.00 |
| 26 | 0.00 | 0.00 |
| 27 | 0.00 | 0.00 |
| 28 | 0.00 | 0.00 |
| 29 | 0.00 | 0.00 |
| 30 | 0.00 | 0.00 |
| 31 | 0.01 | 0.01 |
| 32 | 0.00 | 0.00 |
| 33 | 0.00 | 0.00 |
| 34 | 0.00 | 0.00 |
| 35 | 0.00 | 0.00 |
| 36 | 0.00 | 0.00 |
| 37 | 0.00 | 0.00 |
| 38 | 0.00 | 0.00 |
| 39 | 0.00 | 0.00 |
| 40 | 0.00 | 0.00 |
| 41 | 0.00 | 0.00 |
| 42 | 0.00 | 0.00 |
| 43 | 0.00 | 0.00 |
| 44 | 0.00 | 0.00 |
| 45 | 0.00 | 0.00 |
| 46 | 0.00 | 0.00 |
| 47 | 0.00 | 0.00 |
| 48 | 0.00 | 0.00 |
| 49 | 0.00 | 0.00 |
| 50 | 0.00 | 0.00 |
| ΣU (%) | 97.63 | 97.63 |

Prečne sile v osnovi

| Obtežni primer | Kot α[°] | VtB[kN] (Modal) |
|---|---|---|
| X | 0 | 2063.61 |
| Y | 0 | 2063.61 |

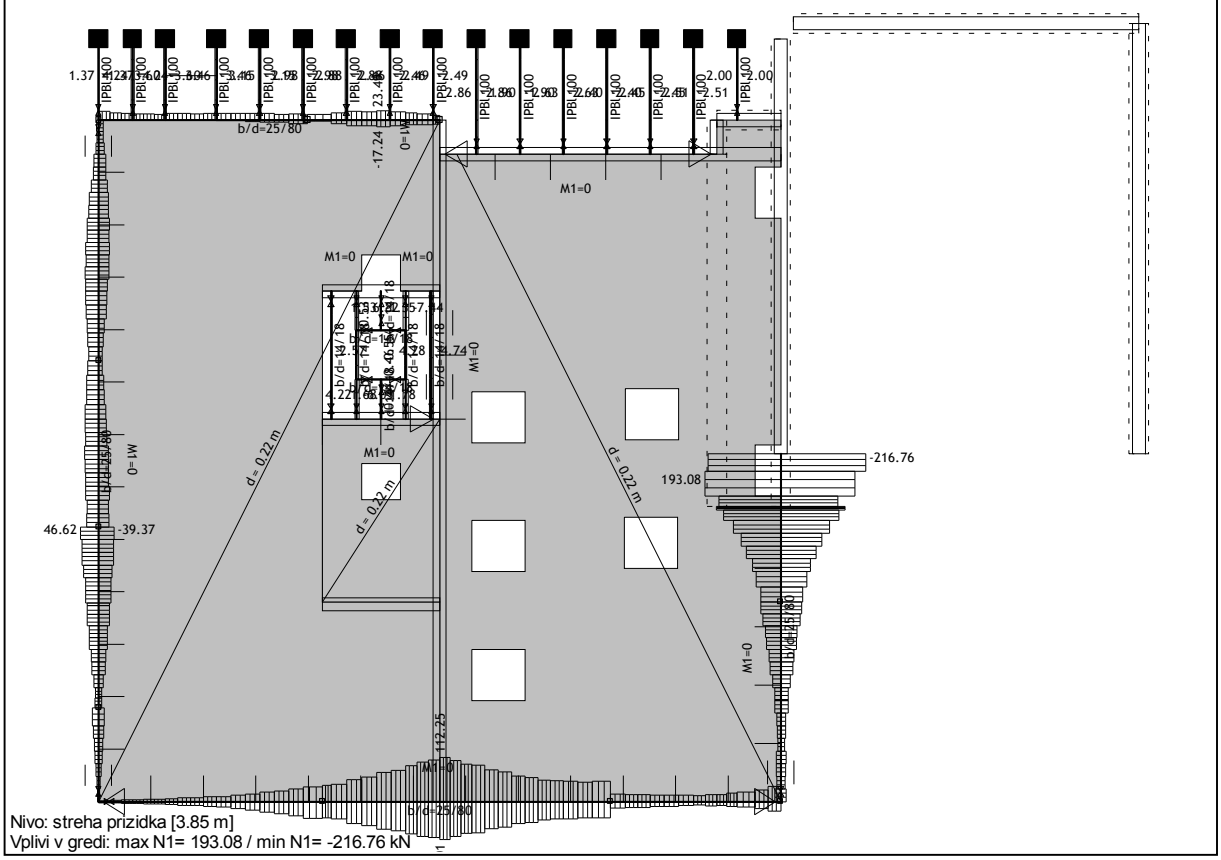
## Statični preračun

Obt. 55: [MSN (ST+E)] 19-44



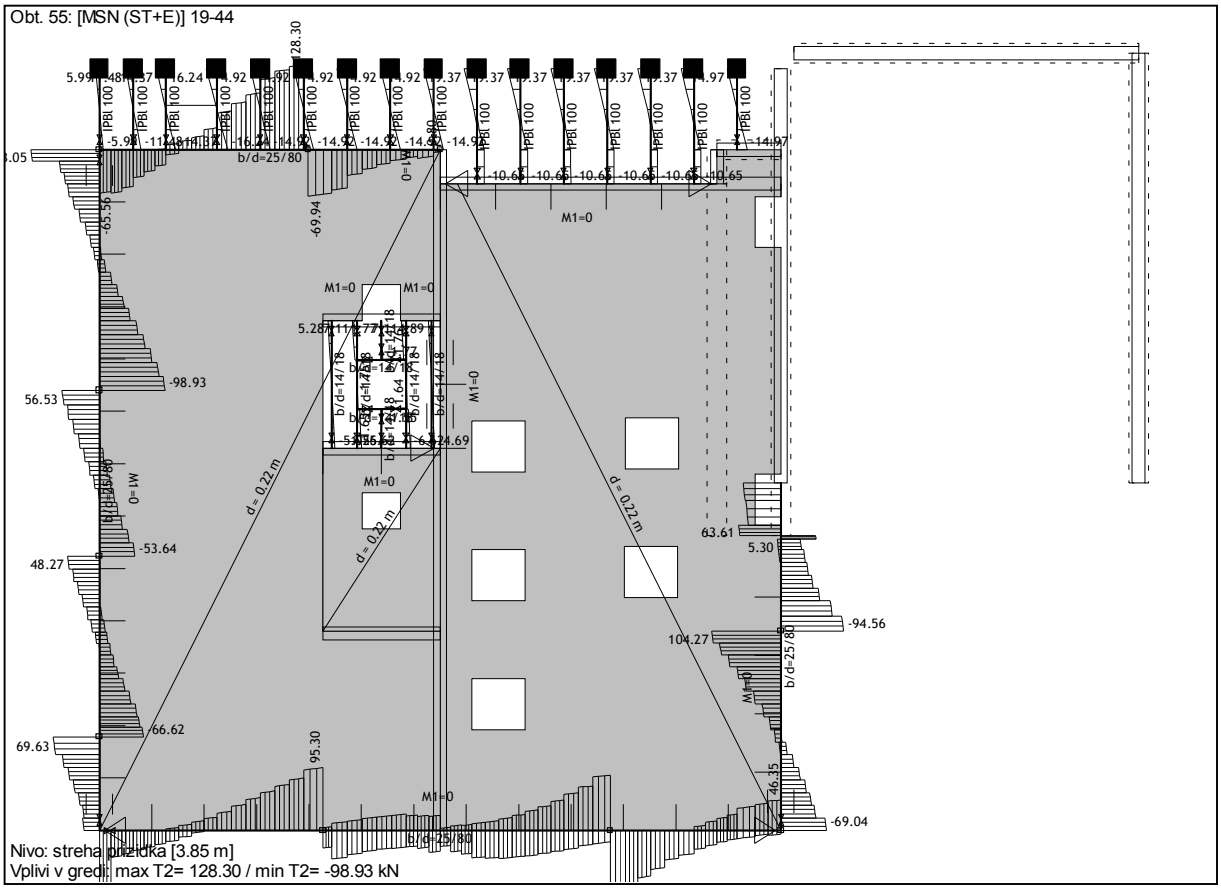

Nivo: streha prizidka [3.85 m]
Vplivi v gredi: max M3= 128.18 / min M3= -149.81 kNm

Obt. 55: [MSN (ST+E)] 19-44



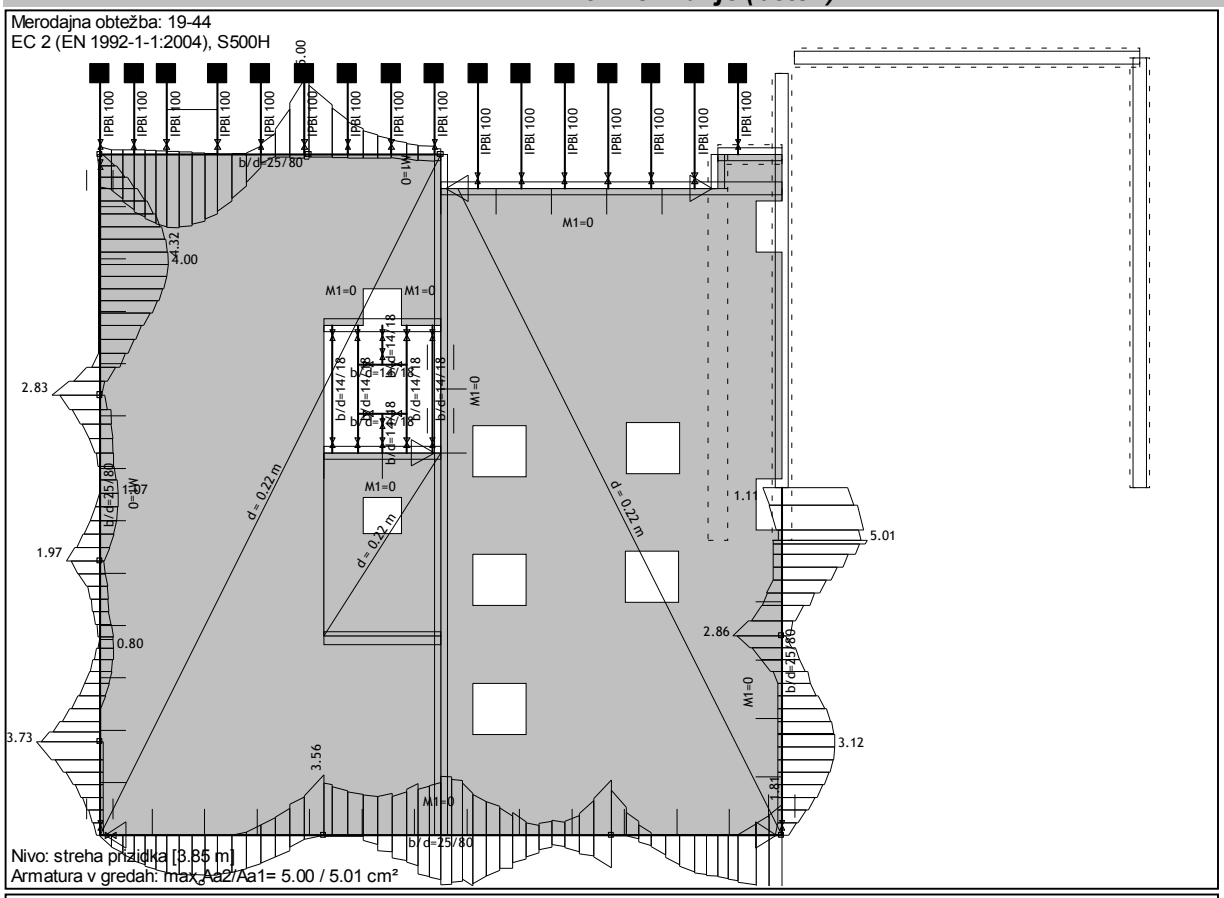

Nivo: streha prizidka [3.85 m]
Vplivi v gredi: max N1= 193.08 / min N1= -216.76 kN

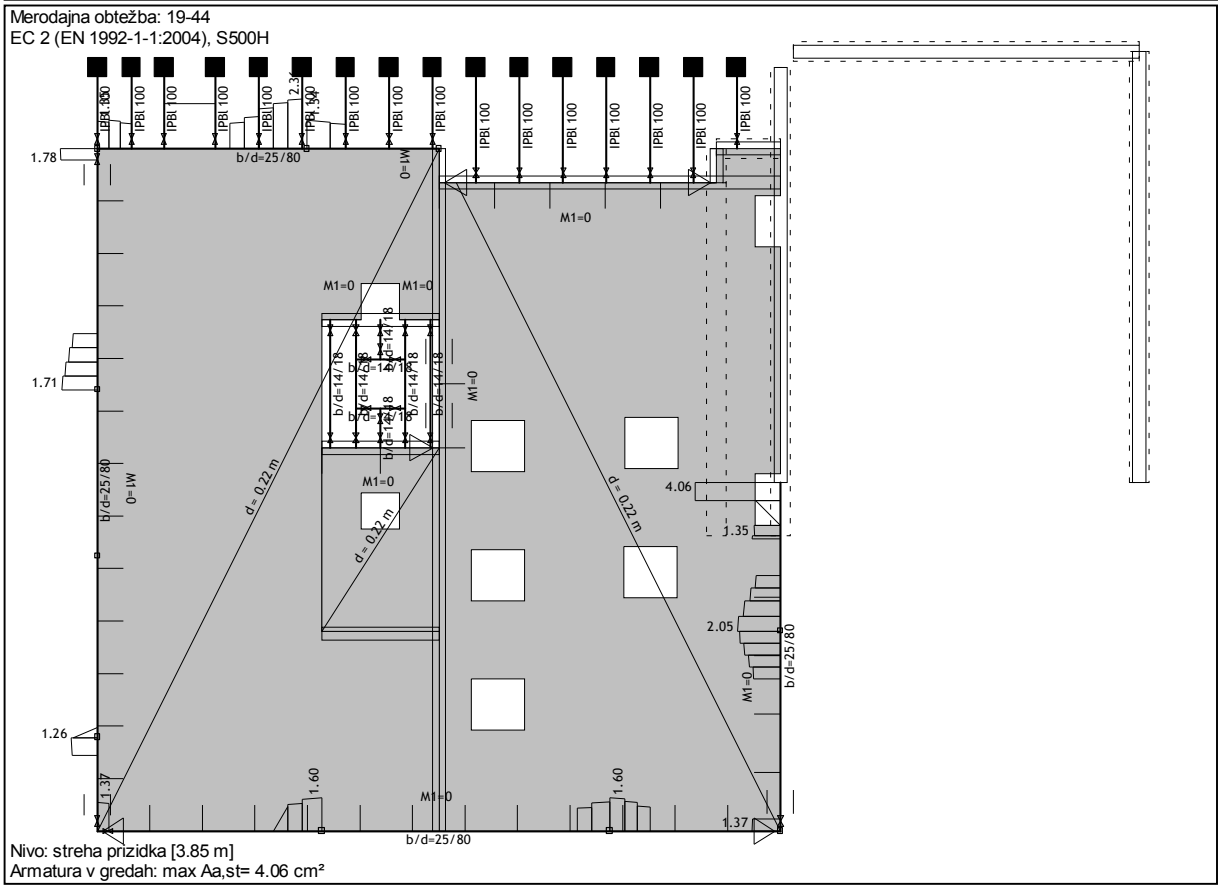
Obt. 55: [MSN (ST+E)] 19-44



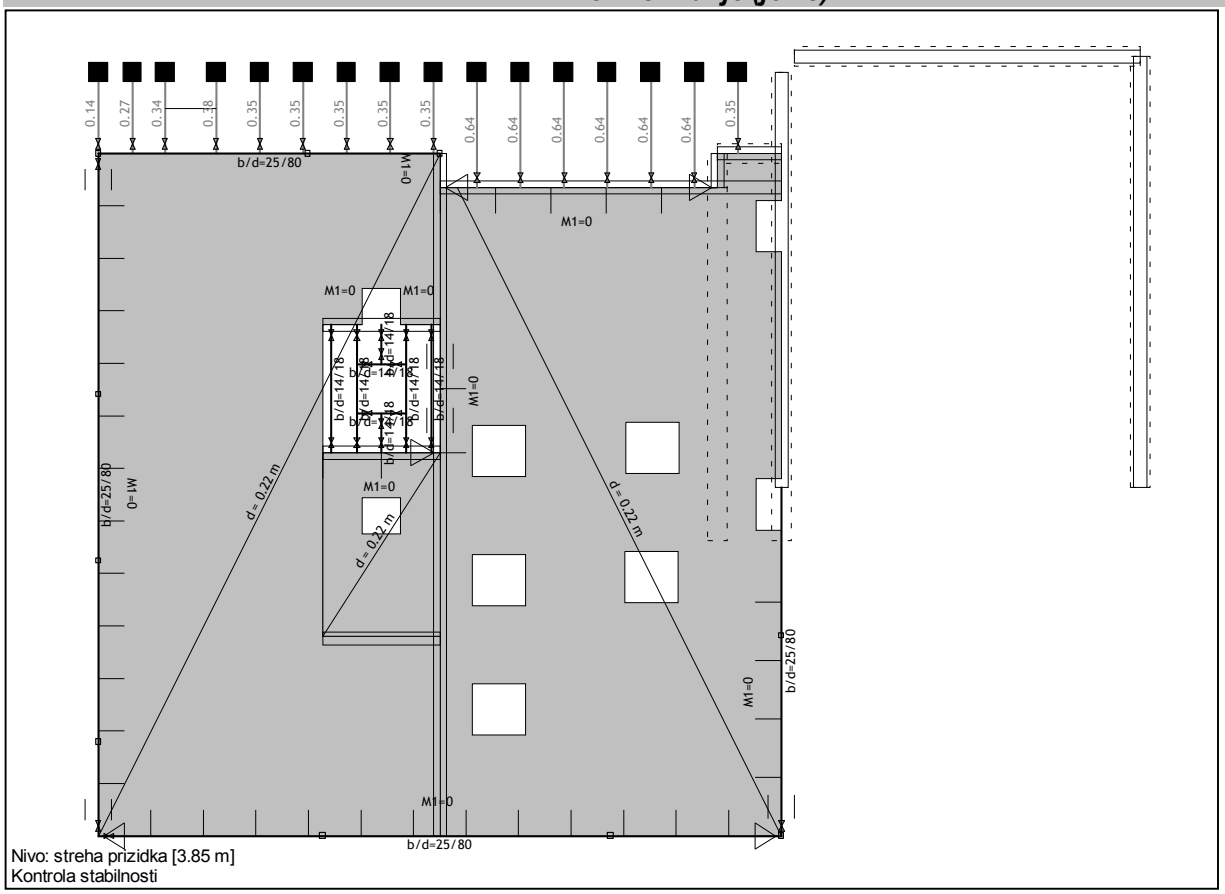

Nivo: streha prizidka [3.85 m]
Vplivi v gredi: max T2= 128.30 / min T2= -98.93 kN

## *Dimenzioniranje (beton)*



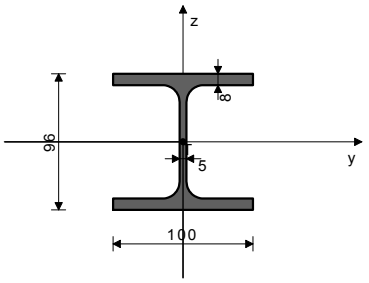
## Dimenzioniranje (jeklo)




Nivo: streha prizidka [3.85 m]
Kontrola stabilnosti

**PALICA 5270-4861**
PREČNI PREREZ: IPBI 100 [S 275] [Set: 21]
EUROCODE 3 (EN 1993-1-1:2005)

GEOMETRIJSKE KARAKTERISTIKE prereza




[mm]

| | | |
|---|---|---|
| Ax = | 21.200 | cm2 |
| Ay = | 13.680 | cm2 |
| Az = | 7.520 | cm2 |
| Ix = | 5.260 | cm4 |
| Iy = | 349.00 | cm4 |
| Iz = | 134.00 | cm4 |
| Wy = | 72.708 | cm3 |
| Wz = | 26.800 | cm3 |
| Wy,pl = | 80.543 | cm3 |
| Wz,pl = | 40.000 | cm3 |
| γM0 = | 1.050 | |
| γM1 = | 1.050 | |
| γM2 = | 1.250 | |
| Anet/A = | 0.900 | |

(fy = 27.5 kN/cm2, fu = 43.0 kN/cm2)

FAKTORJI IZKORIŠČENOSTI PO KOMBINACIJAH OBTEŽB

| | | |
|---|---|---|
| 30. γ=0.64 | 53. γ=0.63 | 48. γ=0.44 |
| 36. γ=0.42 | 25. γ=0.42 | 20. γ=0.42 |
| 46. γ=0.30 | 47. γ=0.30 | 35. γ=0.24 |
| 31. γ=0.22 | 33. γ=0.22 | 21. γ=0.21 |
| 26. γ=0.21 | 28. γ=0.21 | 23. γ=0.21 |
| 19. γ=0.21 | 27. γ=0.20 | 22. γ=0.20 |
| 29. γ=0.20 | 24. γ=0.20 | 32. γ=0.20 |
| 34. γ=0.20 | 40. γ=0.17 | 44. γ=0.17 |
| 42. γ=0.17 | 38. γ=0.17 | 51. γ=0.16 |
| 49. γ=0.16 | 39. γ=0.16 | 43. γ=0.16 |
| 37. γ=0.16 | 45. γ=0.16 | 41. γ=0.16 |
| 52. γ=0.15 | 50. γ=0.15 | |

PALICA IZPOSTAVLJENA UPOGIBU
(obtežni primer 30, na 143.3 cm od začetka palice)

| | | | |
|---|---|---|---|
| Prečna sila v y smeri | VEd,y = | -0.021 | kN |
| Prečna sila v z smeri | VEd,z = | -0.526 | kN |
| Upogibni moment okoli y osi | MEd,y = | 11.541 | kNm |
| Upogibni moment okoli z osi | MEd,z = | -0.028 | kNm |
| Sistemska dolžina palice | L = | 270.00 | cm |

5.5 KLASIFIKACIJA PREČNIH PREREZOV
Razred prereza 1

6.2 NOSILNOST PREČNIH PREREZOV
6.2.5 Upogib y-y

| | | | |
|---|---|---|---|
| Plastični odpornostni moment | Wy,pl = | 80.543 | cm3 |
| Računska nosilnost na upogib | Mc,Rd = | 21.094 | kNm |

**Pogoj 6.12: MEd,y <= Mc,Rd,y (11.54 <= 21.09)**

6.2.5 Upogib z-z

| | | | |
|---|---|---|---|
| Plastični odpornostni moment | Wz,pl = | 40.000 | cm3 |
| Računska nosilnost na upogib | Mc,Rd = | 10.476 | kNm |

**Pogoj 6.12: MEd,z <= Mc,Rd,z (0.03 <= 10.48)**

6.2.6 Strig

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,z = | 113.71 | kN |
| Računska strižna nosilnost | Vc,Rd,z = | 113.71 | kN |

**Pogoj 6.17: VEd,z <= Vc,Rd,z (0.53 <= 113.71)**

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,y = | 206.86 | kN |
| Računska strižna nosilnost | Vc,Rd,y = | 206.86 | kN |

**Pogoj 6.17: VEd,y <= Vc,Rd,y (0.02 <= 206.86)**

6.2.8 Upogib in strig
Ni potrebno zmanjšanje upogibne nosilnosti
Pogoj: VEd,z <= 50%Vpl.Rd,z ; VEd,y <= 50%Vpl,Rd,y

6.2.9 Upogib in osna sila

| | | | |
|---|---|---|---|
| Koeficient | α = | 2.000 | |
| Razmerje (My,Ed / Mpl,Rd,y)^α | | 0.299 | |

**Pogoj 6.41: (0.30 <= 1)**

6.3 NOSILNOST ELEMENTA NA UKLON
6.3.2.1 Nosilnost na bočno-torzijski uklon

| | | | |
|---|---|---|---|
| Koeficient | C1 = | 1.132 | |
| Koeficient | C2 = | 0.459 | |
| Koeficient | C3 = | 0.525 | |
| Koef.ukl.dolžine za uklon | k = | 1.000 | |
| Koef.ukl.dolžine za vbočenje | kw = | 1.000 | |
| Koordinata | zg = | 0.000 | cm |
| Koordinata | zj = | 0.000 | cm |
| Razmak med bočnimi podporami | L = | 270.00 | cm |
| Sektorski vztrajnostni moment | Iw = | 2581.3 | cm6 |
| Krit.moment bočne zvrnitve | Mcr = | 49.319 | kNm |
| Ustrezni odpornostni moment | Wy = | 80.543 | cm3 |
| Koeficient imperf. | αLT = | 0.210 | |
| Brezdimenz.vitkost | λLT_ = | 0.670 | |
| Koeficient zmanjšanja | χLT = | 0.861 | |
| Računska uklonska nosilnost | Mb,Rd = | 18.169 | kNm |

**Pogoj 6.54: MEd,y <= Mb,Rd (11.54 <= 18.17)**

KONTROLA STRIŽNE NOSILNOSTI
(obtežni primer 30, konec palice)

| | | | |
|---|---|---|---|
| Prečna sila v y smeri | VEd,y = | -0.021 | kN |
| Prečna sila v z smeri | VEd,z = | 19.371 | kN |
| Sistemska dolžina palice | L = | 270.00 | cm |

6.2 NOSILNOST PREČNIH PREREZOV

6.2.6 Strig

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,z = | 113.71 | kN |
| Računska strižna nosilnost | Vc,Rd,z = | 113.71 | kN |

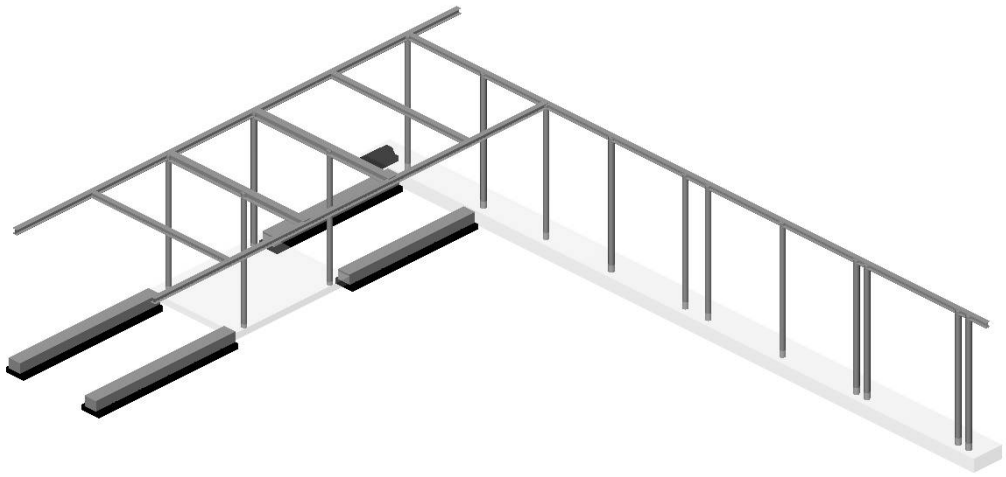
**Pogoj 6.17: VEd,z <= Vc,Rd,z (19.37 <= 113.71)**

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,y = | 206.86 | kN |
| Računska strižna nosilnost | Vc,Rd,y = | 206.86 | kN |

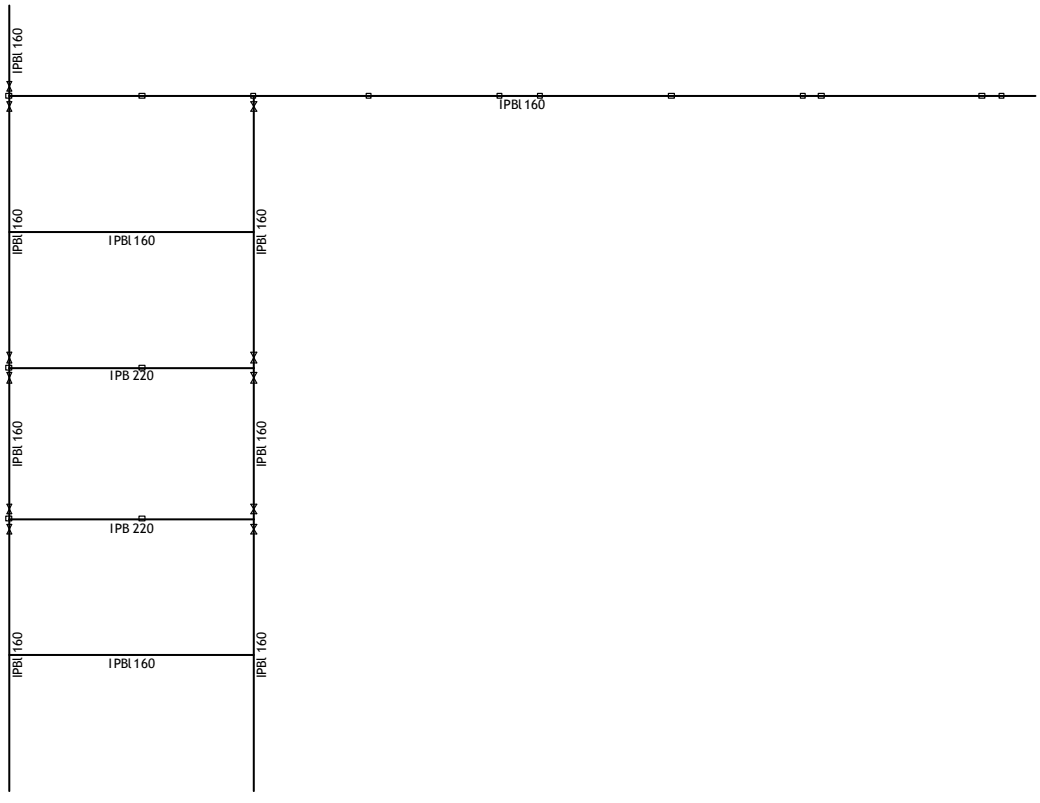
**Pogoj 6.17: VEd,y <= Vc,Rd,y (0.02 <= 206.86)**

## b.2) Povezovalni nadstrešek in nadstrešek nad parkiriščem za patronažo

***Vhodni podatki - Konstrukcija***



Izometrija



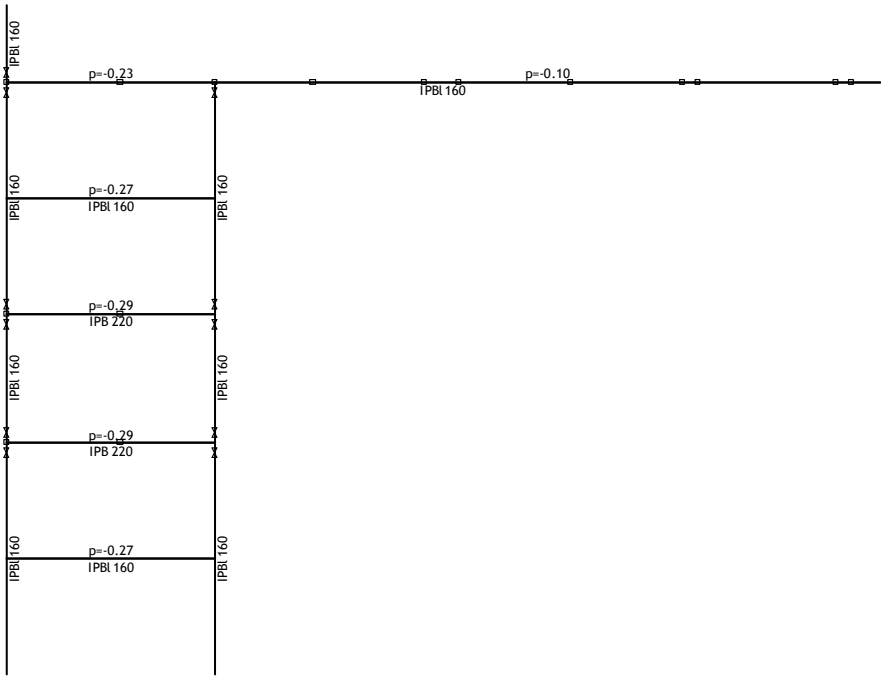

Nivo: nadstresek [3.85 m]

## *Vhodni podatki - Obtežba*

Lista obtežnih primerov

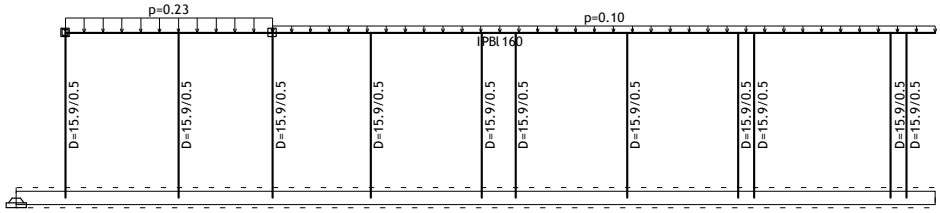
| LC | Naziv |
|---|---|
| 1 | LT (g) |
| 2 | Stalna |
| 3 | Sneg |
| 4 | Komb.: 1.35xI+1.35xII+1.5xIII |
| 5 | Komb.: I+II+III |

Obt. 1: LT (g)



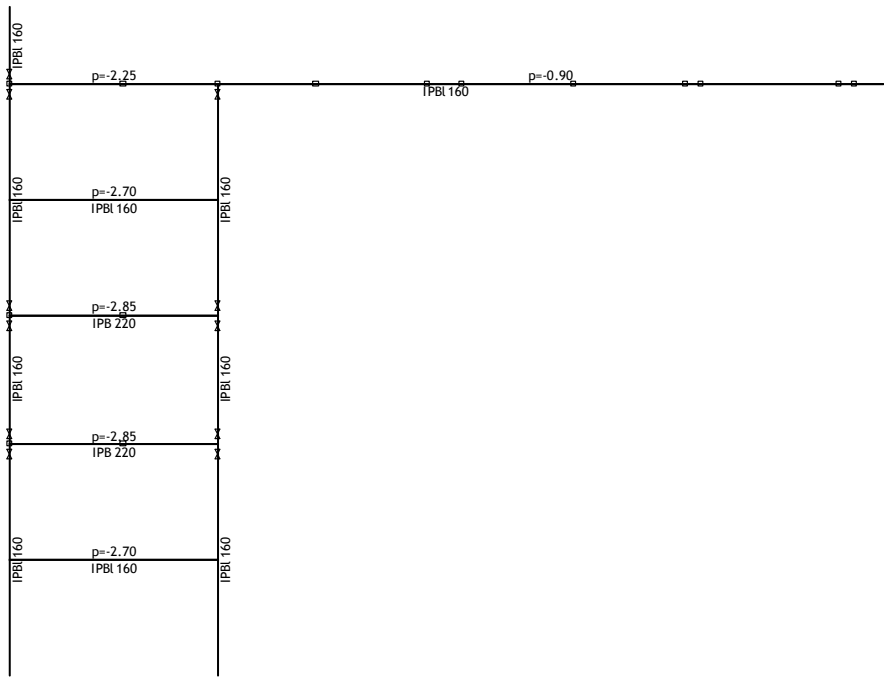

Nivo: nadstresek [3.85 m]

Obt. 1: LT (g)



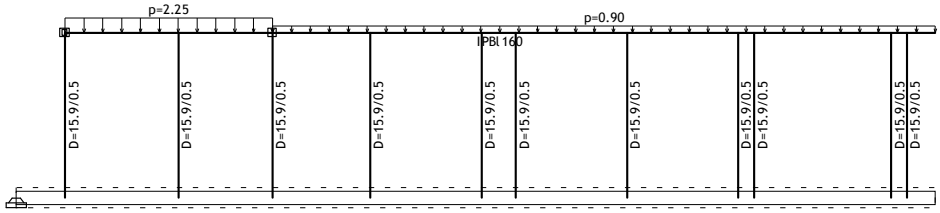

Okvir: H_1

Obt. 2: Stalna



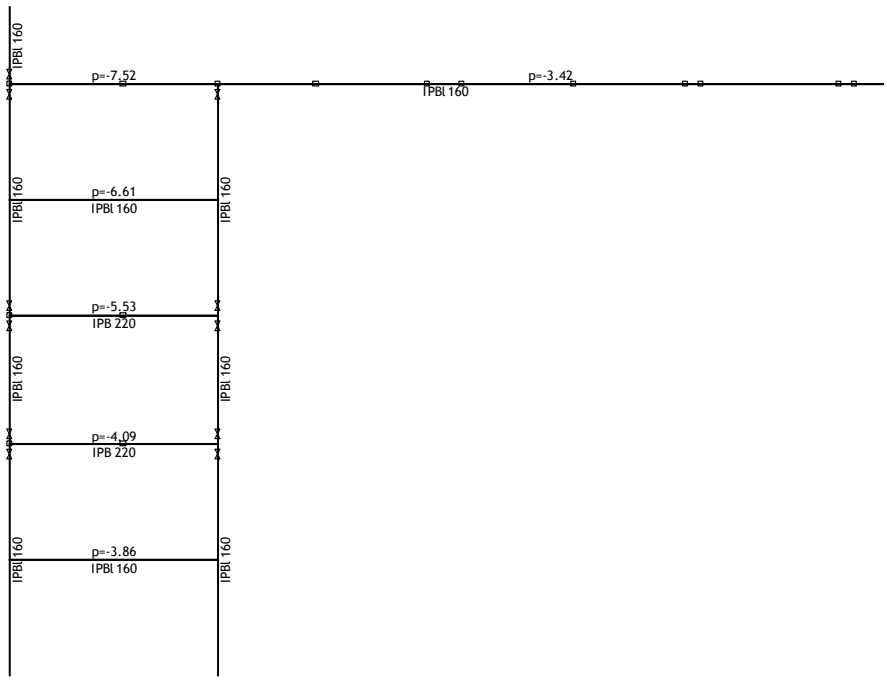

Nivo: nadstresek [3.85 m]

Obt. 2: Stalna



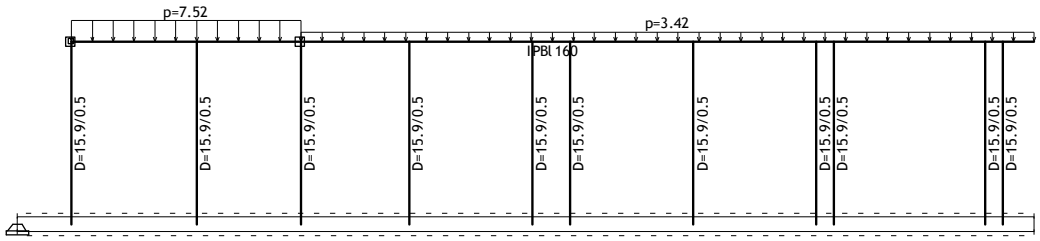

Okvir: H_1

Obt. 3: Sneg




Nivo: nadstresek [3.85 m]

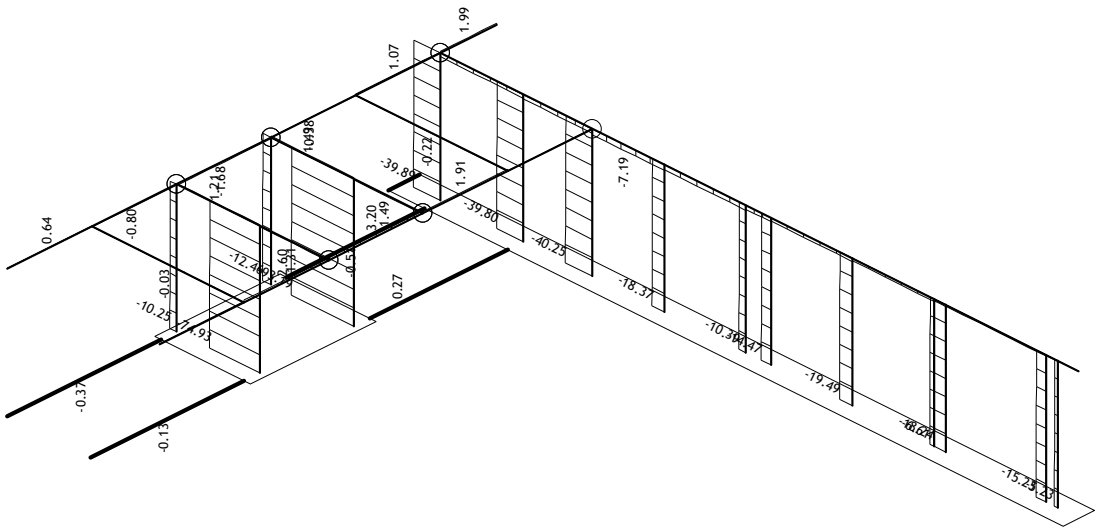
Obt. 3: Sneg




Okvir: H_1

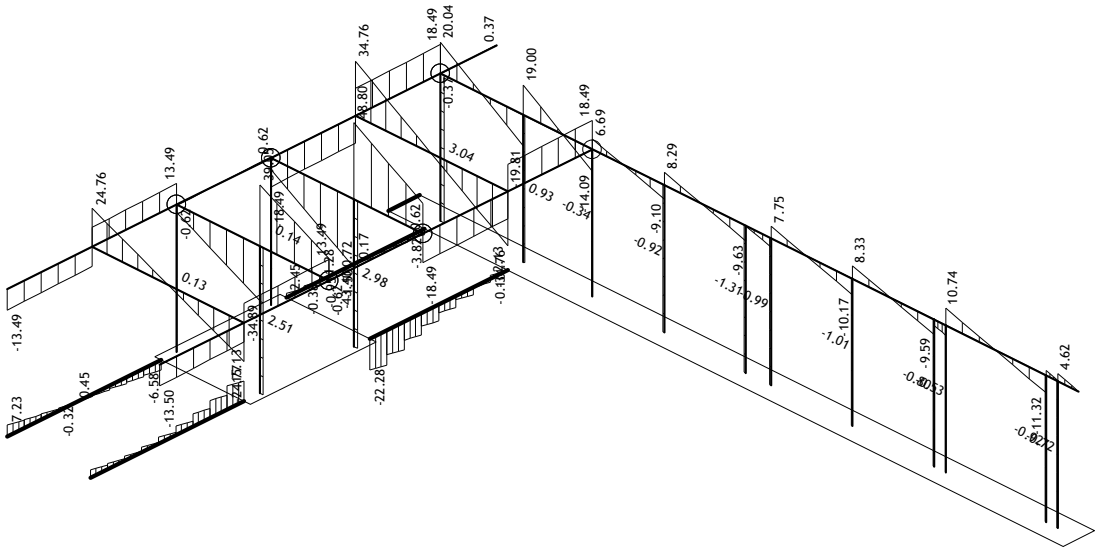
## *Statični preračun*

Obt. 4: 1.35xI+1.35xII+1.5xIII



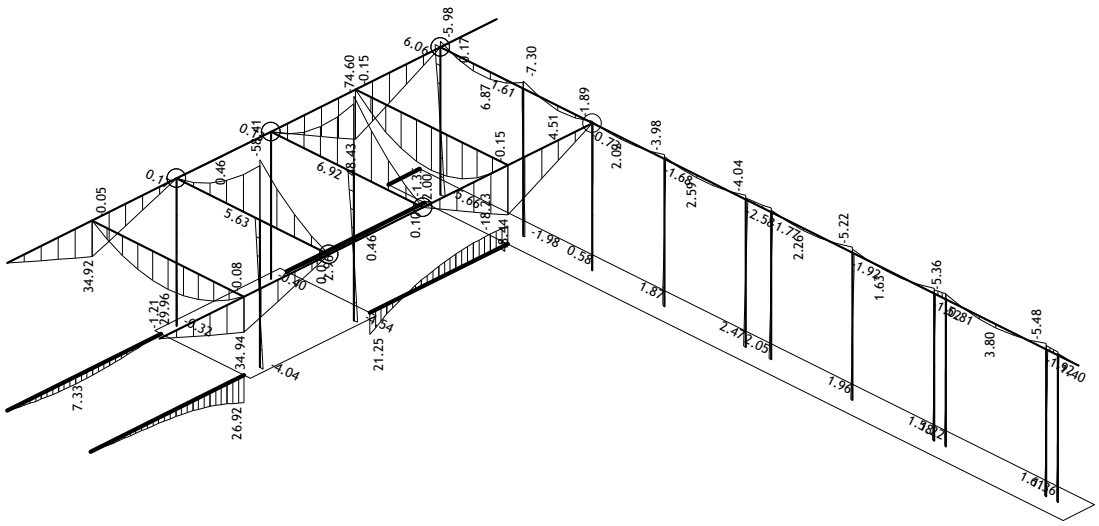
Izometrija
Vplivi v gredi: max N1= 3.20 / min N1= -93.19 kN

Obt. 4: 1.35xI+1.35xII+1.5xIII



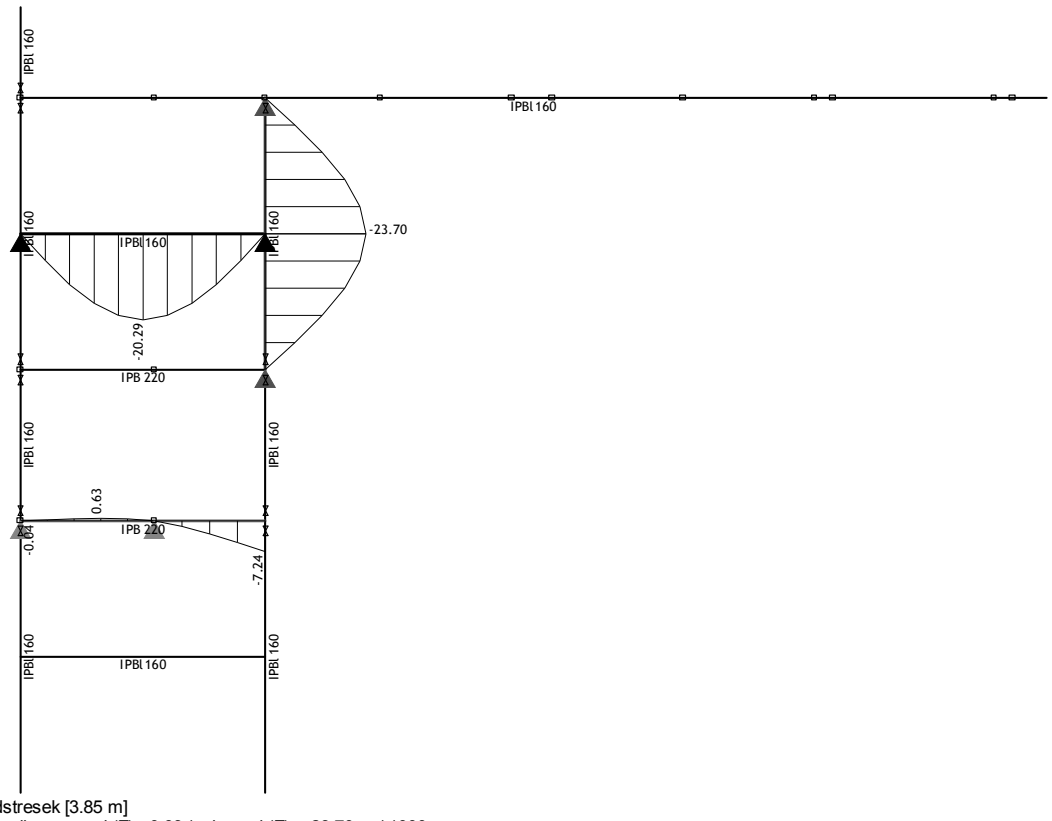
Izometrija
Vplivi v gredi: max T2= 48.80 / min T2= -43.40 kN

Obt. 4: 1.35xI+1.35xII+1.5xIII



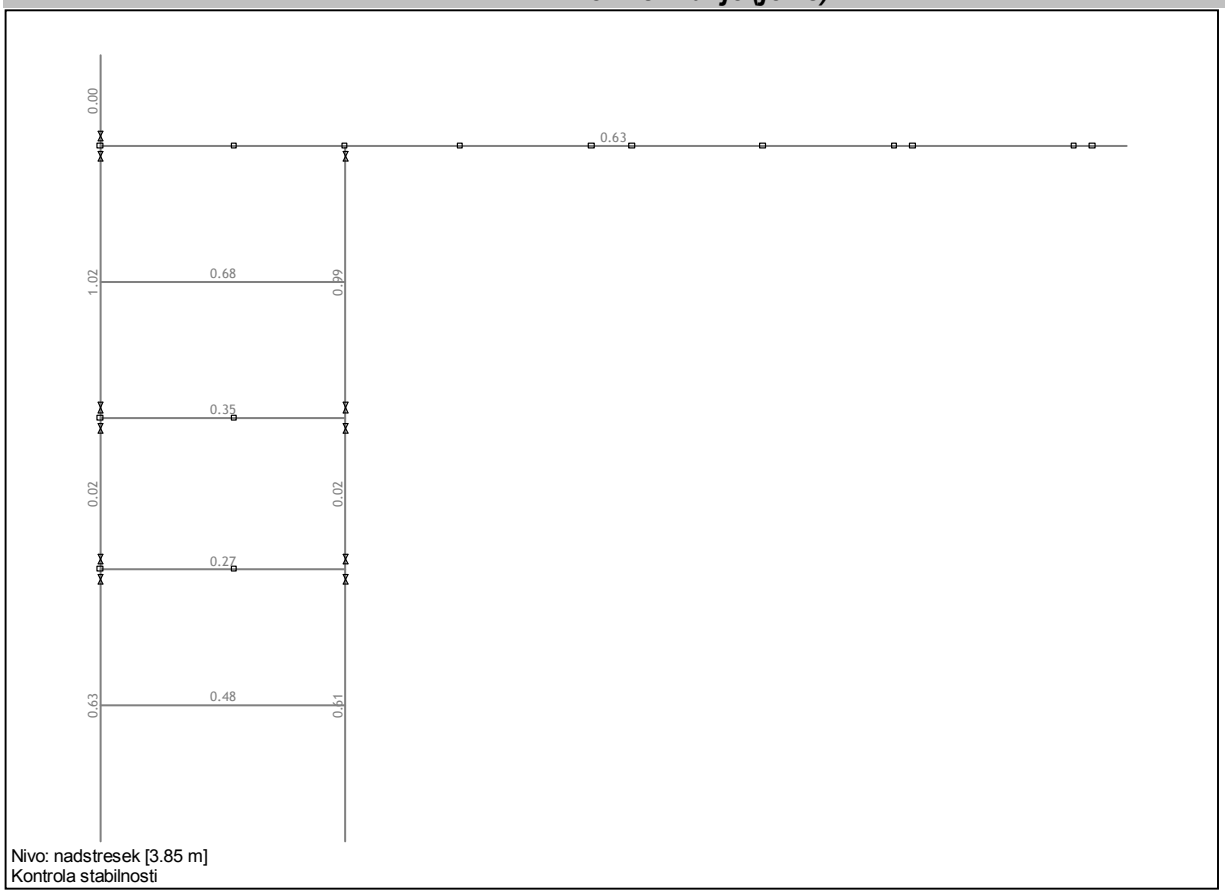
Izometrija
Vplivi v gredi: max M3= 48.44 / min M3= -74.60 kNm

Obt. 5: I+II+III




Nivo: nadstresek [3.85 m]
Vplivi v gredi: max u,rel.(Z)= 0.63 / min u,rel.(Z)= -23.70 m / 1000

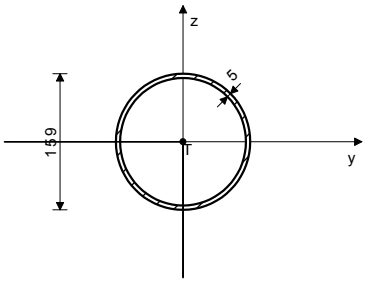
# Dimenzioniranje (jeklo)




Nivo: nadstresek [3.85 m]
Kontrola stabilnosti

**PALICA 240-311**
PREČNI PREREZ: Cevasti [S 275] [Set: 1]
EUROCODE 3 (EN 1993-1-1:2005)

GEOMETRIJSKE KARAKTERISTIKE prereza




[mm]

(fy = 27.5 kN/cm2, fu = 43.0 kN/cm2)

| | | |
|---|---|---|
| Ax = | 24.190 | cm2 |
| Ay = | 12.488 | cm2 |
| Az = | 12.488 | cm2 |
| Ix = | 1435.8 | cm4 |
| Iy = | 717.88 | cm4 |
| Iz = | 717.88 | cm4 |
| Wy = | 90.299 | cm3 |
| Wz = | 90.299 | cm3 |
| Wy,pl = | 118.62 | cm3 |
| Wz,pl = | 118.62 | cm3 |
| γM0 = | 1.050 | |
| γM1 = | 1.050 | |
| γM2 = | 1.250 | |
| Anet/A = | 0.900 | |

FAKTORJI IZKORIŠČENOSTI PO KOMBINACIJAH OBTEŽB
4. γ=0.33

PALICA IZPOSTAVLJENA PRITISKU IN UPOGIBU
(obtežni primer 4, začetek palice)

| | | | |
|---|---|---|---|
| Računska osna sila | NEd = | -92.208 | kN |
| Prečna sila v z smeri | VEd,z = | 2.979 | kN |
| Upogibni moment okoli y osi | MEd,y = | 6.923 | kNm |
| Moment torzije | Mt = | -0.059 | kNm |
| Sistemska dolžina palice | L = | 385.00 | cm |

5.5 KLASIFIKACIJA PREČNIH PREREZOV
Razred prereza 1

6.2 NOSILNOST PREČNIH PREREZOV
6.2.4 Tlak

| | | | |
|---|---|---|---|
| Računska nosilnost na tlak | Nc,Rd = | 633.55 | kN |

**Pogoj 6.9: NEd <= Nc,Rd (92.21 <= 633.55)**

6.2.5 Upogib y-y

| | | | |
|---|---|---|---|
| Plastični odpornostni moment | Wy,pl = | 118.62 | cm3 |
| Računska nosilnost na upogib | Mc,Rd = | 31.068 | kNm |

**Pogoj 6.12: MEd,y <= Mc,Rd,y (6.92 <= 31.07)**

6.2.6 Strig

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,z = | 188.83 | kN |
| Računska strižna nosilnost | Vc,Rd,z = | 188.83 | kN |

**Pogoj 6.17: VEd,z <= Vc,Rd,z (2.98 <= 188.83)**

6.2.10 Upogib z osno in prečno silo
Ni potrebno zmanjšanje upogibne nosilnosti
Pogoj: VEd,z <= 50%Vpl,Rd,z

6.2.9 Upogib in osna sila

| | | | |
|---|---|---|---|
| Razmerje NEd / Npl,Rd | | 0.146 | |
| Zmanjšana plast.upogibna nosilnost | MN,y,Rd = | 30.410 | kNm |
| Razmerje MEd,y / MN,y,Rd | | 0.228 | |

**Pogoj 6.41: (0.23 <= 1)**

6.3 NOSILNOST ELEMENTA NA UKLON
6.3.1.1 Nosilnost na uklon

| | | | |
|---|---|---|---|
| Uklonska dolžina y-y | l,y = | 385.00 | cm |
| Relativna vitkost y-y | λ_y = | 0.814 | |
| Uklonska krivulja za os y-y: A | α = | 0.210 | |
| Elastična kritična sila | Ncr,y = | 1003.8 | kN |
| Koeficient nepopolnosti | χ,y = | 0.788 | |
| Računska uklonska nosilnost | Nb,Rd,y = | 498.96 | kN |

**Pogoj 6.46: NEd <= Nb,Rd,y (92.21 <= 498.96)**

| | | | |
|---|---|---|---|
| Uklonska dolžina z-z | l,z = | 385.00 | cm |
| Relativna vitkost z-z | λ_z = | 0.814 | |
| Uklonska krivulja za os z-z: A | α = | 0.210 | |
| Koeficient nepopolnosti | χ,z = | 0.788 | |
| Računska uklonska nosilnost | Nb.Rd,z = | 498.96 | kN |

**Pogoj 6.46: NEd <= Nb,Rd,z (92.21 <= 498.96)**

6.3.2.1 Nosilnost na bočno-torzijski uklon

| | | | |
|---|---|---|---|
| Koeficient | C1 = | 1.132 | |
| Koeficient | C2 = | 0.459 | |
| Koeficient | C3 = | 0.525 | |
| Koef.ukl.dolžine za uklon | k = | 1.000 | |
| Koef.ukl.dolžine za vbočenje | kw = | 1.000 | |
| Koordinata | zg = | 0.000 | cm |
| Koordinata | zj = | 0.000 | cm |
| Razmak med bočnimi podporami | L = | 385.00 | cm |
| Sektorski vztrajnostni moment | Iw = | 0.000 | cm6 |
| Krit.moment bočne zvrnitve | Mcr = | 1221.3 | kNm |
| Ustrezni odpornostni moment | Wy = | 118.62 | cm3 |
| Koeficient imperf. | αLT = | 0.760 | |
| Brezdimenz.vitkost | λLT_ = | 0.163 | |
| Koeficient zmanjšanja | χLT = | 1.000 | |
| Računska uklonska nosilnost | Mb,Rd = | 31.068 | kNm |

**Pogoj 6.54: MEd,y <= Mb,Rd (6.92 <= 31.07)**

6.3.3. Elementi konstantnega prečnega prereza obremenjeni z upogibom in osnim tlakom
Preračun koeficienta interakcije je izvršen z alternativno metodo št.2 (Aneks B)

| | | | |
|---|---|---|---|
| Koeficient oblike momenta | Cmy = | 0.582 | |

| | | |
|---|---|---|
| Koeficient oblike momenta | Cmz = | 1.000 |
| Koeficient oblike momenta | CmLT = | 0.582 |
| Koeficient interakcije | kyy = | 0.648 |
| Koeficient interakcije | kyz = | 0.668 |
| Koeficient interakcije | kzy = | 0.389 |
| Koeficient interakcije | kzz = | 1.113 |
| Koeficient nepopolnosti | χy = | 0.788 |
| NEd / (χy NRk / γM1) | | 0.185 |
| kyy * (MyEd + ΔMyEd) / ... | | 0.144 |

**Pogoj 6.61: (0.33 <= 1)**

| | | |
|---|---|---|
| Koeficient nepopolnosti | χz = | 0.788 |
| NEd / (χz NRk / γM1) | | 0.185 |
| kzy * (MyEd + ΔMyEd) / ... | | 0.087 |

**Pogoj 6.62: (0.27 <= 1)**

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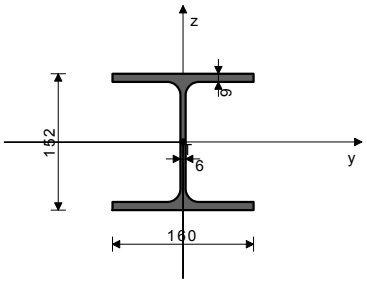
**PALICA 471-359**
PREČNI PREREZ: IPBI 160 [S 275] [Set: 2]
EUROCODE 3 (EN 1993-1-1:2005)

GEOMETRIJSKE KARAKTERISTIKE prereza




[mm]

| | | |
|---|---|---|
| Ax = | 38.800 | cm2 |
| Ay = | 25.560 | cm2 |
| Az = | 13.240 | cm2 |
| Ix = | 12.300 | cm4 |
| Iy = | 1670.0 | cm4 |
| Iz = | 616.00 | cm4 |
| Wy = | 219.74 | cm3 |
| Wz = | 77.000 | cm3 |
| Wy,pl = | 237.43 | cm3 |
| Wz,pl = | 115.20 | cm3 |
| γM0 = | 1.050 | |
| γM1 = | 1.050 | |
| γM2 = | 1.250 | |
| Anet/A = | 0.900 | |

(fy = 27.5 kN/cm2, fu = 43.0 kN/cm2)

FAKTORJI IZKORIŠČENOSTI PO KOMBINACIJAH OBTEŽB
4. γ=0.98

PALICA IZPOSTAVLJENA NATEGU IN UPOGIBU
(obtežni primer 4, na 270.0 cm od začetka palice)

| | | | |
|---|---|---|---|
| Računska osna sila | NEd = | 0.457 | kN |
| Prečna sila v y smeri | VEd,y = | -1.943 | kN |
| Prečna sila v z smeri | VEd,z = | 17.384 | kN |
| Upogibni moment okoli y osi | MEd,y = | 48.437 | kNm |
| Upogibni moment okoli z osi | MEd,z = | -2.058 | kNm |
| Moment torzije | Mt = | 0.055 | kNm |
| Sistemska dolžina palice | L = | 540.00 | cm |

5.5 KLASIFIKACIJA PREČNIH PREREZOV
Razred prereza 1

6.2 NOSILNOST PREČNIH PREREZOV
6.2.3 Nateg

| | | | |
|---|---|---|---|
| Plast.rač.nosilnost bruto prereza | Npl,Rd = | 1016.2 | kN |
| Mejna rač.nosilnost neto prereza | Nu,Rd = | 1081.1 | kN |
| Računska nos. na nateg | Nt,Rd = | 1016.2 | kN |

**Pogoj 6.5: NEd <= Nt,Rd (0.46 <= 1016.19)**

6.2.5 Upogib y-y

| | | | |
|---|---|---|---|
| Plastični odpornostni moment | Wy,pl = | 237.43 | cm3 |
| Računska nosilnost na upogib | Mc,Rd = | 62.185 | kNm |

**Pogoj 6.12: MEd,y <= Mc,Rd,y (48.44 <= 62.19)**

6.2.5 Upogib z-z

| | | | |
|---|---|---|---|
| Plastični odpornostni moment | Wz,pl = | 115.20 | cm3 |
| Računska nosilnost na upogib | Mc,Rd = | 30.171 | kNm |

**Pogoj 6.12: MEd,z <= Mc,Rd,z (2.06 <= 30.17)**

6.2.6 Strig

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,z = | 200.20 | kN |
| Računska strižna nosilnost | Vc,Rd,z = | 200.20 | kN |

**Pogoj 6.17: VEd,z <= Vc,Rd,z (17.38 <= 200.20)**

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,y = | 386.49 | kN |
| Računska strižna nosilnost | Vc,Rd,y = | 386.49 | kN |

**Pogoj 6.17: VEd,y <= Vc,Rd,y (1.94 <= 386.49)**

6.2.10 Upogib z osno in prečno silo
Ni potrebno zmanjšanje upogibne nosilnosti
Pogoj: VEd,z <= 50%Vpl,Rd,z ; VEd,y <= 50%Vpl,Rd,y

6.2.9 Upogib in osna sila

| | | | |
|---|---|---|---|
| Razmerje NEd / Npl,Rd | | 0.000 | |
| Zmanjšana plast.upogibna nosilnost | MN,y,Rd = | 62.185 | kNm |
| Koeficient | α = | 2.000 | |
| Razmerje (My,Ed / MN,y,Rd)^α | | 0.607 | |
| Zmanjšana plast.upogibna nosilnost | MN,z,Rd = | 30.171 | kNm |
| Koeficient | β = | 1.000 | |
| Razmerje (Mz,Ed / MN,z,Rd)^β | | 0.068 | |

**Pogoj 6.41: (0.67 <= 1)**

6.3 NOSILNOST ELEMENTA NA UKLON
6.3.2.1 Nosilnost na bočno-torzijski uklon

| | | | |
|---|---|---|---|
| Koeficient | C1 = | 1.365 | |
| Koeficient | C2 = | 0.553 | |
| Koeficient | C3 = | 1.730 | |
| Koef.ukl.dolžine za uklon | k = | 1.000 | |
| Koef.ukl.dolžine za vbočenje | kw = | 1.000 | |
| Koordinata | zg = | 0.000 | cm |
| Koordinata | zj = | 0.000 | cm |
| Razmak med bočnimi podporami | L = | 540.00 | cm |
| Sektorski vztrajnostni moment | Iw = | 31410 | cm6 |
| Krit.moment bočne zvrnitve | Mcr = | 99.628 | kNm |
| Ustrezni odpornostni moment | Wy = | 237.43 | cm3 |
| Koeficient imperf. | αLT = | 0.210 | |
| Brezdimenz.vitkost | λLT_ = | 0.810 | |
| Koeficient zmanjšanja | χLT = | 0.790 | |
| Računska uklonska nosilnost | Mb,Rd = | 49.139 | kNm |

**Pogoj 6.54: MEd,y <= Mb,Rd (48.44 <= 49.14)**

KONTROLA STRIŽNE NOSILNOSTI
(obtežni primer 4, konec palice)

| | | | |
|---|---|---|---|
| Računska osna sila | NEd = | 0.457 | kN |
| Prečna sila v y smeri | VEd,y = | -1.943 | kN |
| Prečna sila v z smeri | VEd,z = | 18.495 | kN |
| Upogibni moment okoli z osi | MEd,z = | 3.187 | kNm |
| Moment torzije | Mt = | 0.055 | kNm |
| Sistemska dolžina palice | L = | 540.00 | cm |

6.2 NOSILNOST PREČNIH PREREZOV
6.2.6 Strig

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,z = | 200.20 | kN |
| Računska strižna nosilnost | Vc,Rd,z = | 200.20 | kN |

**Pogoj 6.17: VEd,z <= Vc,Rd,z (18.49 <= 200.20)**

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,y = | 386.49 | kN |
| Računska strižna nosilnost | Vc,Rd,y = | 386.49 | kN |

**Pogoj 6.17: VEd,y <= Vc,Rd,y (1.94 <= 386.49)**

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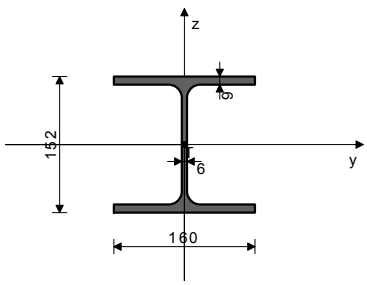
**PALICA 312-417**
PREČNI PREREZ: IPBI 160 [S 275] [Set: 2]
EUROCODE 3 (EN 1993-1-1:2005)

GEOMETRIJSKE KARAKTERISTIKE prereza




[mm]

| | | |
|---|---|---|
| Ax = | 38.800 | cm2 |
| Ay = | 25.560 | cm2 |
| Az = | 13.240 | cm2 |
| Ix = | 12.300 | cm4 |
| Iy = | 1670.0 | cm4 |
| Iz = | 616.00 | cm4 |
| Wy = | 219.74 | cm3 |
| Wz = | 77.000 | cm3 |
| Wy,pl = | 237.43 | cm3 |
| Wz,pl = | 115.20 | cm3 |
| γM0 = | 1.050 | |
| γM1 = | 1.050 | |
| γM2 = | 1.250 | |
| Anet/A = | 0.900 | |

(fy = 27.5 kN/cm2, fu = 43.0 kN/cm2)

FAKTORJI IZKORIŠČENOSTI PO KOMBINACIJAH OBTEŽB

4. γ=0.68

PALICA IZPOSTAVLJENA PRITISKU IN UPOGIBU
(obtežni primer 4, na 242.5 cm od začetka palice)

| | | | |
|---|---|---|---|
| Računska osna sila | NEd = | -0.217 | kN |
| Prečna sila v y smeri | VEd,y = | 1.449 | kN |
| Upogibni moment okoli y osi | MEd,y = | 42.000 | kNm |
| Upogibni moment okoli z osi | MEd,z = | 0.020 | kNm |
| Moment torzije | Mt = | 0.011 | kNm |
| Sistemska dolžina palice | L = | 485.00 | cm |

5.5 KLASIFIKACIJA PREČNIH PREREZOV
Razred prereza 1

6.2 NOSILNOST PREČNIH PREREZOV
6.2.4 Tlak

| | | | |
|---|---|---|---|
| Računska nosilnost na tlak | Nc,Rd = | 1016.2 | kN |

**Pogoj 6.9: NEd <= Nc,Rd (0.22 <= 1016.19)**

6.2.5 Upogib y-y

| | | | |
|---|---|---|---|
| Plastični odpornostni moment | Wy,pl = | 237.43 | cm3 |
| Računska nosilnost na upogib | Mc,Rd = | 62.185 | kNm |

**Pogoj 6.12: MEd,y <= Mc,Rd,y (42.00 <= 62.19)**

6.2.5 Upogib z-z

| | | | |
|---|---|---|---|
| Plastični odpornostni moment | Wz,pl = | 115.20 | cm3 |
| Računska nosilnost na upogib | Mc,Rd = | 30.171 | kNm |

**Pogoj 6.12: MEd,z <= Mc,Rd,z (0.02 <= 30.17)**

6.2.6 Strig

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,y = | 386.49 | kN |
| Računska strižna nosilnost | Vc,Rd,y = | 386.49 | kN |

**Pogoj 6.17: VEd,y <= Vc,Rd,y (1.45 <= 386.49)**

6.2.10 Upogib z osno in prečno silo
Ni potrebno zmanjšanje upogibne nosilnosti
Pogoj: VEd,y <= 50%Vpl,Rd,y

6.2.9 Upogib in osna sila

| | | | |
|---|---|---|---|
| Razmerje NEd / Npl,Rd | | 0.000 | |
| Zmanjšana plast.upogibna nosilnost | MN,y,Rd = | 62.185 | kNm |
| Koeficient | α = | 2.000 | |
| Razmerje (My,Ed / MN,y,Rd)^α | | 0.456 | |

**Pogoj 6.41: (0.46 <= 1)**

6.3 NOSILNOST ELEMENTA NA UKLON
6.3.1.1 Nosilnost na uklon

| | | | |
|---|---|---|---|
| Uklonska dolžina y-y | l,y = | 485.00 | cm |
| Relativna vitkost y-y | λ_y = | 0.852 | |
| Uklonska krivulja za os y-y: B | α = | 0.340 | |
| Elastična kritična sila | Ncr,y = | 1471.5 | kN |
| Koeficient nepopolnosti | χ,y = | 0.692 | |
| Računska uklonska nosilnost | Nb,Rd,y = | 703.37 | kN |

**Pogoj 6.46: NEd <= Nb,Rd,y (0.22 <= 703.37)**

| | | | |
|---|---|---|---|
| Uklonska dolžina z-z | l,z = | 60.000 | cm |
| Relativna vitkost z-z | λ_z = | 0.173 | |
| Uklonska krivulja za os z-z: C | α = | 0.490 | |
| Koeficient nepopolnosti | χ,z = | 1.000 | |
| Računska uklonska nosilnost | Nb.Rd,z = | 1016.2 | kN |

**Pogoj 6.46: NEd <= Nb,Rd,z (0.22 <= 1016.19)**

6.3.2.1 Nosilnost na bočno-torzijski uklon

| | | | |
|---|---|---|---|
| Koeficient | C1 = | 1.132 | |
| Koeficient | C2 = | 0.459 | |
| Koeficient | C3 = | 0.525 | |
| Koef.ukl.dolžine za uklon | k = | 1.000 | |
| Koef.ukl.dolžine za vbočenje | kw = | 1.000 | |
| Koordinata | zg = | 0.000 | cm |
| Koordinata | zj = | 0.000 | cm |
| Razmak med bočnimi podporami | L = | 60.000 | cm |
| Sektorski vztrajnostni moment | Iw = | 31410 | cm6 |
| Krit.moment bočne zvrnitve | Mcr = | 2944.4 | kNm |
| Ustrezni odpornostni moment | Wy = | 237.43 | cm3 |
| Koeficient imperf. | αLT = | 0.210 | |
| Brezdimenz.vitkost | λLT_ = | 0.149 | |
| Koeficient zmanjšanja | χLT = | 1.000 | |
| Računska uklonska nosilnost | Mb,Rd = | 62.185 | kNm |

**Pogoj 6.54: MEd,y <= Mb,Rd (42.00 <= 62.19)**

6.3.3. Elementi konstantnega prečnega prereza obremenjeni z upogibom in osnim tlakom
Preračun koeficienta interakcije je izvršen z alternativno metodo št.2 (Aneks B)

| | | | |
|---|---|---|---|
| Koeficient oblike momenta | Cmy = | 0.950 | |
| Koeficient oblike momenta | Cmz = | 0.400 | |
| Koeficient oblike momenta | CmLT = | 0.950 | |
| Koeficient interakcije | kyy = | 0.950 | |
| Koeficient interakcije | kyz = | 0.240 | |
| Koeficient interakcije | kzy = | 0.773 | |
| Koeficient interakcije | kzz = | 0.400 | |
| Koeficient nepopolnosti | χy = | 0.692 | |
| NEd / (χy NRk / γM1) | | 0.000 | |
| kyy * (MyEd + ΔMyEd) / ... | | 0.642 | |
| kyz * (MzEd + ΔMzEd) / ... | | 0.000 | |

**Pogoj 6.61: (0.64 <= 1)**

| | | | |
|---|---|---|---|
| Koeficient nepopolnosti | χz = | 1.000 | |
| NEd / (χz NRk / γM1) | | 0.000 | |
| kzy * (MyEd + ΔMyEd) / ... | | 0.522 | |
| kzz * (MzEd + ΔMzEd) / ... | | 0.000 | |

**Pogoj 6.62: (0.52 <= 1)**

KONTROLA STRIŽNE NOSILNOSTI
(obtežni primer 4, začetek palice)

| | | | |
|---|---|---|---|
| Računska osna sila | NEd = | -0.217 | kN |
| Prečna sila v y smeri | VEd,y = | 1.449 | kN |
| Prečna sila v z smeri | VEd,z = | -34.765 | kN |
| Upogibni moment okoli y osi | MEd,y = | -0.153 | kNm |
| Upogibni moment okoli z osi | MEd,z = | 3.534 | kNm |
| Moment torzije | Mt = | 0.011 | kNm |
| Sistemska dolžina palice | L = | 485.00 | cm |

6.2 NOSILNOST PREČNIH PREREZOV
6.2.6 Strig

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,z = | 200.20 | kN |
| Računska strižna nosilnost | Vc,Rd,z = | 200.20 | kN |

**Pogoj 6.17: VEd,z <= Vc,Rd,z (34.76 <= 200.20)**

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,y = | 386.49 | kN |
| Računska strižna nosilnost | Vc,Rd,y = | 386.49 | kN |

**Pogoj 6.17: VEd,y <= Vc,Rd,y (1.45 <= 386.49)**

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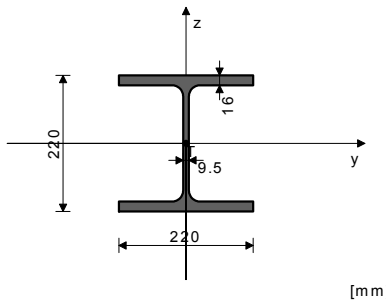
**PALICA 254-359**
PREČNI PREREZ: IPB 220 [S 275] [Set: 5]
EUROCODE 3 (EN 1993-1-1:2005)

GEOMETRIJSKE KARAKTERISTIKE prereza




[mm]

| | | | |
|---|---|---|---|
| Ax = | | 91.000 | cm2 |
| Ay = | | 63.120 | cm2 |
| Az = | | 27.880 | cm2 |
| Ix = | | 76.800 | cm4 |
| Iy = | | 8090.0 | cm4 |
| Iz = | | 2840.0 | cm4 |
| Wy = | | 735.45 | cm3 |
| Wz = | | 258.18 | cm3 |
| Wy,pl = | | 822.24 | cm3 |
| Wz,pl = | | 387.20 | cm3 |
| γM0 = | | 1.050 | |
| γM1 = | | 1.050 | |
| γM2 = | | 1.250 | |
| Anet/A = | | 0.900 | |

(fy = 27.5 kN/cm2, fu = 43.0 kN/cm2)

FAKTORJI IZKORIŠČENOSTI PO KOMBINACIJAH OBTEŽB
4. γ=0.35

PALICA IZPOSTAVLJENA PRITISKU IN UPOGIBU
(obtežni primer 4, na 220.0 cm od začetka palice)

| | | | |
|---|---|---|---|
| Računska osna sila | NEd = | -1.486 | kN |
| Prečna sila v y smeri | VEd,y = | 1.294 | kN |
| Prečna sila v z smeri | VEd,z = | 48.804 | kN |
| Upogibni moment okoli y osi | MEd,y = | -74.598 | kNm |
| Upogibni moment okoli z osi | MEd,z = | 0.379 | kNm |
| Sistemska dolžina palice | L = | 485.00 | cm |

5.5 KLASIFIKACIJA PREČNIH PREREZOV
Razred prereza 1

6.2 NOSILNOST PREČNIH PREREZOV
6.2.4 Tlak

| | | | |
|---|---|---|---|
| Računska nosilnost na tlak | Nc,Rd = | 2383.3 | kN |

**Pogoj 6.9: NEd <= Nc,Rd (1.49 <= 2383.33)**

6.2.5 Upogib y-y

| | | | |
|---|---|---|---|
| Plastični odpornostni moment | Wy,pl = | 822.24 | cm3 |
| Računska nosilnost na upogib | Mc,Rd = | 215.35 | kNm |

**Pogoj 6.12: MEd,y <= Mc,Rd,y (74.60 <= 215.35)**

6.2.5 Upogib z-z

| | | | |
|---|---|---|---|
| Plastični odpornostni moment | Wz,pl = | 387.20 | cm3 |
| Računska nosilnost na upogib | Mc,Rd = | 101.41 | kNm |

**Pogoj 6.12: MEd,z <= Mc,Rd,z (0.38 <= 101.41)**

6.2.6 Strig

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,z = | 421.58 | kN |
| Računska strižna nosilnost | Vc,Rd,z = | 421.58 | kN |

**Pogoj 6.17: VEd,z <= Vc,Rd,z (48.80 <= 421.58)**

| | | | |
|---|---|---|---|
| Računska strižna nosilnost | Vpl,Rd,y = | 954.44 | kN |
| Računska strižna nosilnost | Vc,Rd,y = | 954.44 | kN |

**Pogoj 6.17: VEd,y <= Vc,Rd,y (1.29 <= 954.44)**

6.2.10 Upogib z osno in prečno silo
Ni potrebno zmanjšanje upogibne nosilnosti
Pogoj: VEd,z <= 50%Vpl,Rd,z ; VEd,y <= 50%Vpl,Rd,y

6.2.9 Upogib in osna sila
Razmerje NEd / Npl,Rd 0.001
Zmanjšana plast.upogibna nosilnost MN,y,Rd = 215.35 kNm
Koeficient α = 2.000
Razmerje (My,Ed / MN,y,Rd)^α 0.120
**Pogoj 6.41: (0.12 <= 1)**

6.3 NOSILNOST ELEMENTA NA UKLON
6.3.1.1 Nosilnost na uklon
Uklonska dolžina y-y l,y = 485.00 cm
Relativna vitkost y-y λ_y = 0.593
Uklonska krivulja za os y-y: B α = 0.340
Elastična kritična sila Ncr,y = 7128.3 kN
Koeficient nepopolnosti χ,y = 0.841
Računska uklonska nosilnost Nb,Rd,y = 2003.9 kN
**Pogoj 6.46: NEd <= Nb,Rd,y (1.49 <= 2003.91)**

Uklonska dolžina z-z l,z = 60.000 cm
Relativna vitkost z-z λ_z = 0.124
Uklonska krivulja za os z-z: C α = 0.490
Koeficient nepopolnosti χ,z = 1.000
Računska uklonska nosilnost Nb.Rd,z = 2383.3 kN
**Pogoj 6.46: NEd <= Nb,Rd,z (1.49 <= 2383.33)**

6.3.2.1 Nosilnost na bočno-torzijski uklon
Koeficient C1 = 1.132
Koeficient C2 = 0.459
Koeficient C3 = 0.525
Koef.ukl.dolžine za uklon k = 1.000
Koef.ukl.dolžine za vbočenje kw = 1.000
Koordinata zg = 0.000 cm
Koordinata zj = 0.000 cm
Razmak med bočnimi podporami L = 60.000 cm
Sektorski vztrajnostni moment Iw = 2.95e+5 cm6

Krit.moment bočne zvrnitve Mcr = 19218 kNm
Ustrezni odpornostni moment Wy = 822.24 cm3
Koeficient imperf. αLT = 0.210
Brezdimenz.vitkost λLT_ = 0.108
Koeficient zmanjšanja χLT = 1.000
Računska uklonska nosilnost Mb,Rd = 215.35 kNm
**Pogoj 6.54: MEd,y <= Mb,Rd (74.60 <= 215.35)**

6.3.3. Elementi konstantnega prečnega prereza obremenjeni z upogibom in osnim tlakom
Preračun koeficienta interakcije je izvršen z alternativno metodo št.2 (Aneks B)
Koeficient oblike momenta Cmy = 0.950
Koeficient oblike momenta Cmz = 0.400
Koeficient oblike momenta CmLT = 0.950
Koeficient interakcije kyy = 0.950
Koeficient interakcije kyz = 0.240
Koeficient interakcije kzy = 0.724
Koeficient interakcije kzz = 0.400

Koeficient nepopolnosti χy = 0.841
NEd / (χy NRk / γM1) 0.001
kyy * (MyEd + ΔMyEd) / ... 0.329
kyz * (MzEd + ΔMzEd) / ... 0.001
**Pogoj 6.61: (0.33 <= 1)**

Koeficient nepopolnosti χz = 1.000
NEd / (χz NRk / γM1) 0.001
kzy * (MyEd + ΔMyEd) / ... 0.251
kzz * (MzEd + ΔMzEd) / ... 0.001
**Pogoj 6.62: (0.25 <= 1)**

# IZVLEČKI KONSTRUKCIJSKIH MATERIALOV

## 1.0 ARMATURNO JEKLO

## 2.0 BETON

## 3.0 KONSTRUKCIJSKO JEKLO

# 1.0 ZBIRNI IZVLEČEK ARMATURNIH PALIC IN MREŽ

| Palice izvleček | | | |
|---|---|---|---|
| Ø (mm) | ln (m) | Teža enote (kg/m) | Teža (kg) |
| S 500 | | | |
| 8 | 5069 | 0,40 | 2002,75 |
| 10 | 11271 | 0,62 | 6958,14 |
| 12 | 12 | 0,89 | 10,67 |
| 14 | 2427 | 1,21 | 2936,69 |
| 16 | 2426 | 1,58 | 3833,19 |
| 20 | 467 | 2,47 | 1152,34 |
| 24 | 168 | 3,56 | 598,01 |
| **Skupaj** | | | **17.491,80** |

| Mreže - izvleček | | | | | | |
|---|---|---|---|---|---|---|
| Oznaka mreže | B (cm) | L (cm) | n (kos) | Teža enote (kg/m2) | Skupna teža (kg) | Vgrajena količina (kg) |
| Q335 | 215 | 600 | 94 | 5,38 | 6528,30 | 2918,73 |
| Q424 | 215 | 600 | 12 | 6,81 | 1053,84 | 520,08 |
| Q524 | 215 | 600 | 171 | 8,42 | 18568,89 | 12054,54 |
| **Skupaj** | | | | | **26.151,03** | **15.493,34** |

# 2.0 POVZETEK VGRAJENEGA BETONA

*Projektirano stanje - PZI*

| **Vgrajeni beton temelji in nadzemno** | |
|---|---|
| Razred | Količina ($m^3$) |
| C30/37 | 315,13 |
| **Skupaj** | **315,13** |

*Izvedeno stanje - PID*

| **Vgrajeni beton temelji in nadzemno** | |
|---|---|
| Razred | Količina ($m^3$) |
| C30/37 | 313,67 |
| **Skupaj** | **313,67** |

# 3.0 IZVLEČEK KOLIČINE KONSTRUKCIJSKEGA JEKLA

| Tip | Kvaliteta jekla | Teža (kg) |
|---|---|---|
| 80x80x5 | S 275 J0 | 278,12 |
| 100x60x5 | S 275 J0 | 191,5 |
| 120x60x5 | S 275 J0 | 610,08 |
| HE100A | S 275 J0 | 133,53 |
| HE140B | S 275 J0 | 250,63 |
| HE140B | S 275 J0 | 345,09 |
| HE160B | S 275 J0 | 1225,63 |
| HEA100 | S 275 J0 | 636,18 |
| HEA160 | S 275 J0 | 1827,51 |
| HEA200 | S 275 J0 | 601,09 |
| HEB220 | S 275 J0 | 729,88 |
| IPE160 | S 275 J0 | 191,62 |
| IPE180 | S 275 J0 | 1021,55 |
| IPE270 | S 275 J0 | 1699,98 |
| L 120x10 | S 275 J0 | 93,13 |
| L 150x10 | S 275 J0 | 54 |
| UPN160 | S 275 J0 | 378 |
| Ø 10mm | S 275 J0 | 26,52 |
| cev 159/t=5 | S 275 J0 | 1387,88 |
| | | 11.681,93 |
| | Stiki | 1.168,19 |
| | | **12.850,23** |

## 3.5 RISBE

| | | | |
|---|---|---|---|
| ▪ | 01 | Situacija | m 1:100 |
| ▪ | 02 | Obstoječi objekt – Tloris kleti, Pozicija ukrepov | m 1:50 |
| ▪ | 03 | Obstoječi objekt – Pogledi sten, detajli | m 1:50., 1:10 |
| ▪ | 04 | Obstoječi objekt – Pogledi sten, detajli | m 1:50., 1:20, 1:10 |
| ▪ | 05 | Pozicijski načrt – AB temelji urgenca | m 1:50 |
| ▪ | 06 | Armaturni načrt urgenca – AB temelji poz. T1 – T5 | m 1:50, 1:20 |
| ▪ | 07 | Armaturni načrt urgenca – AB temeljna plošča poz. TP1 – TP3 | m 1:50, 1:20 |
| ▪ | 08 | Armaturni načrt urgenca – AB temelji sidra | m 1:50 |
| ▪ | 09 | Opažni načrti urgenca – Stene | m 1:50 |
| ▪ | 10 | Armaturni načrt urgenca – AB stebri poz. 1-4, AB stene poz. Z1, Z2 | m 1:50, 1:20 |
| ▪ | 11 | Armaturni načrt urgenca – AB stene poz. Z3 – Z8 | m 1:50 |
| ▪ | 12 | Pozicijski načrt – AB plošča nad pritličjem urgenca | m 1:50, 1:10 |
| ▪ | 13 | Armaturni načrt urgenca – AB nosilci poz. 102 - 108 | m 1:50, 1:20 |
| ▪ | 14 | Armaturni načrt urgenca – AB plošča poz. 100, 101 | m 1:50, 1;20 |
| ▪ | 15 | Armaturni načrt urgenca – AB plošča poz. 100, 101 | m 1:50 |
| ▪ | 16 | Jeklena konstrukcija urgenca – Tlorisi in prerezi | m 1:50, 1:20, 1:10 |
| ▪ | 17 | Jeklena konstrukcija urgenca – Vzdolžni okvirji | m 1:20, 1:10 |
| ▪ | 18 | Pozicijski načrt – novi vhod | m 1:50, 1:10 |
| ▪ | 19 | Armaturni načrt – AB temelji novi vhod | m 1:50, 1:20 |
| ▪ | 20 | Armaturni načrt – AB stene poz. N-Z1 – N-Z3 | m 1:50 |
| ▪ | 21 | Armaturni načrt – AB stene poz. N-Z4– N-Z6 | m 1:50 |
| ▪ | 22 | Armaturni načrt – AB plošča poz. N-P2 – N-P3 | m 1:50, 1:20 |
| ▪ | 23 | Armaturni načrt – AB plošča poz. N-P4 | m 1:50, 1:20 |
| ▪ | 24 | Armaturni načrt – AB stopnice novi vhod | m 1:50 |
| ▪ | 25 | Pozicijski načrt – Ostrešje novi vhod | m 1:50, 1:10 |
| ▪ | 26 | Pozicjski načrt – AB temelji nadstrešek jug | m 1:50, 1:10 |
| ▪ | 27 | Armaturni načrt – AB temelji nadstrešek jug | m 1:50, 1:20 |
| ▪ | 28 | Pozicijski načrt – Ostrešje nadstrešek jug | m 1:50, 1:10 |