Idejni projekt lokalne ceste

Komarac, Tomislava

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2022

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FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GEODEZIJE

ZAVRŠNI RAD

Tomislava Komarac

Split, 2022.

SVEUČILIŠTE U SPLITU
FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GEODEZIJE

IDEJNI PROJEKT LOKALNE CESTE

Završni rad

Split, 2022.

SVEUČILIŠTE U SPLITU
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Split, Matice hrvatske 15

STUDIJ: **PREDDIPLOMSKI SVEUČILIŠNI STUDIJ GRAĐEVINARSTVA**

KANDIDAT: **Tomislava Komarac**

MATIČNI BROJ (JMBAG): **0083226464**

KATEDRA: **Katedra za prometnice**

PREDMET: **Ceste**

ZADATAK ZA ZAVRŠNI RAD

Tema: Idejni projekt lokalne ceste

Opis zadatka: Tema završnog rada je izrada projekta lokalne ceste. Zadatak se rješava tako da se u programu koji se koristi pri projektiranju cesta AutoCad Civil 3D položi cesta na zadanoj geodetskoj podlozi, trasa se polaže od točke A do točke B. Također se u programu crtaju svi nacrti i izračunavaju ostali potrebni podatci. Proračun elemenata ceste radi se na temelju danih podataka programskog zadatka iz kolegija Ceste.

Zadatak treba sadržavati:

1. Kopiju programskog zadatka
2. Tehnički opis s prikazom korištenja programa Civil 3D
3. Građevinsku situaciju u mjerilu 1:1000
4. Uzdužni presjek u mjerilu 1:1000/100
5. Karakteristične poprečne presjeke u mjerilu 1:200
6. Obrada na računalu
7. Računalne ispise koordinatnih točaka osi
8. Proračun količina zemljanih radova
9. Proračun količine radova po presjecima

U Splitu, rujan 2022.

Voditelj završnog rada:

Prof. dr. sc. Dražen Cvitanić

Idejni projekt lokalne ceste

Sažetak: Idejni projekt ceste izvodi se na zadanoj geodetskoj podlozi u mjerilu 1:1000, prema zadatku iz kolegija Ceste. Cesta se formira od točke A koja se nalazi na 267 metara nadmorske visine prema točki B koja se nalazi na 249 metara nadmorske visine. Cesta se projektira za prosječni godišnji dnevni promet koji iznosi 950 vozila/dan (PGDP), na brdovitom terenu. Predviđena projektna brzina je 40 km/h. Duljina trase kontinuirane ceste je 425.88 metara. Idejno rješenje izrađeno je prema Pravilniku i osnovnim uvjetima za projektiranje ceste s elementima koji zadovoljavaju važeće propise, kao i sigurnosne i estetske kriterije.

Ključne riječi: idejni projekt, lokalna cesta, teren, projektna brzina, stacionaža, poprečni presjek, uzdužni presjek

Conceptual project of local road

Summary: The preliminary design of the road is performed on a given geodetic base at a scale of 1:1000,according to the task from course „Roads“. The road is formed from piont A located at 267 meters above sea level, to point B, which is located at 249 meters above sea level. The road is designed for an average annual daily traffic of 950 vehicles/day (PGDP),on mountainous terrain. The intended design speed is 40 km/h. The length of the continuous road is 425.88 meters. The conceptual design was made according to the Ordinance and the basic conditions for the design of roads with elements that meet the applicable regulations, as well as safety and aesthetic criteria.

Keywords: conceptual project, local road, terrain, design speed, stationing, cross section, longitudinal section

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1. PROGRAMSKI ZADATAK

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FAKULTET GRAĐEVINARSTVA, ARHITEKTURE
I GEODEZIJE

Split, ak.god. 2021/2022.

Katedra za prometnice

Studij: Preddiplomski

Nastavni predmet: CESTE

Student/ica: Tomislava Komarac

ZADATAK

Treba izraditi idejni projekt dionice ceste između točaka A i B naznačenih na priloženoj geodetskoj podlozi u mjerilu 1:1000.

Zadano je:

- ➔ PGDP - prosječni godišnji dnevni promet: **950 voz/dan**
- ➔ vrsta terena: **brdoviti.**

Idejni projekt treba sadržavati:

1. Tehnički opis
2. Proračun horizontalne geometrije
3. Proračun proširenja kolnika u krivini (ukupno i po presjecima)
4. Proračun vertikalne geometrije i kota nivelete
5. Proračun vitoperenja kolnika
6. Građevinska situacija MJ. 1:1000
7. Uzdužni presjek MJ. 1:1000/100
8. Normalni poprečni presjek MJ. 1:50
9. Karakteristični poprečni presjeci MJ. 1:100
10. Predmjer radova
11. Aproksimativni troškovnik

Predmetna nastavnica:

izv.prof.dr.sc. Deana Breški

2. TEHNIČKI OPIS

2.1. Općenito

Na priloženoj geodetskoj podlozi u mjerilu 1:1000 izrađen je idejni projekt ceste na dionici od točke A koja se nalazi na 267 metara nad morem, do točke B koja se nalazi na 249 metara nad morem. Duljina trase konstruirane ceste je 425.88 metara.

Cesta je projektirana za prosječni godišnji dnevni promet od 950 vozila na dan, a teren na kojem se izvodi je brdovit, te na temelju tih podataka prema Pravilniku cesta ulazi u 5. kategoriju. Temeljem kategorije ceste i stupnja ograničenja, predviđena projektna brzina iznosi 40 km/h.

2.2. Horizontalni elementi

Za određenu kategoriju prema Pravilniku, minimalni radijus krivine je 45 metara, a minimalna duljina prijelazne krivine iznosi 30 metara. U ovom projektu trasa konstruirane ceste sastoji se od tri pravca i tri krivine.
Prva krivina je radijusa 70 metara s prijelaznom krivinom dužine 40 metara.
Druga krivina je radijusa 45 metara s prijelaznom krivinom dužine 30 metara.
Treća krivina je radijusa 65 metara s prijelaznom krivinom dužine 40 metara.
Svaka krivina je konstruirana pomoću dvije prijelazne krivine oblika klotoide i jednog kružnog luka.

2.3. Vertikalni elementi

Maksimalni dozvoljeni nagib nivelete za predviđenu projektnu brzinu i kategoriju ceste je 12%, dok je minimalni radijus vertikalne krivine 300 metara. Nagib prvog pravca je S_1=3.46%, a drugog je S_2=4.87%. Tangenta je dužine 7.02 metara, a radijus vertikalne krivine je R=500 metara.

2.4. Poprečni presjek

Cesta sadrži dva kolnička traka širine 3 metra s dodatnim rubnim trakovima sa svake strane širine 0.20 metara. Poprečni nagib iznosi 2.5%, no u nekim stacionažama varira i do 7%. Uz cestu je izgrađena bankina širine 1 metar, nagiba 4%. Trasa je dijelom u usjeku, dijelom u zasjeku, te dijelom u nasipu pri čemu se izvode nagibi usjeka u omjeru 2:1, te nagibi nasipa u omjeru 1:1.5. U usjecima i zasjecima na strani iskopa izvode se rigoli za odvodnju vode i drenaža koja je postavljena u glinenu posteljicu.

2.5. Kolnička konstrukcija

Projektom je predviđena kolnička konstrukcija sa sljedećim slojevima:

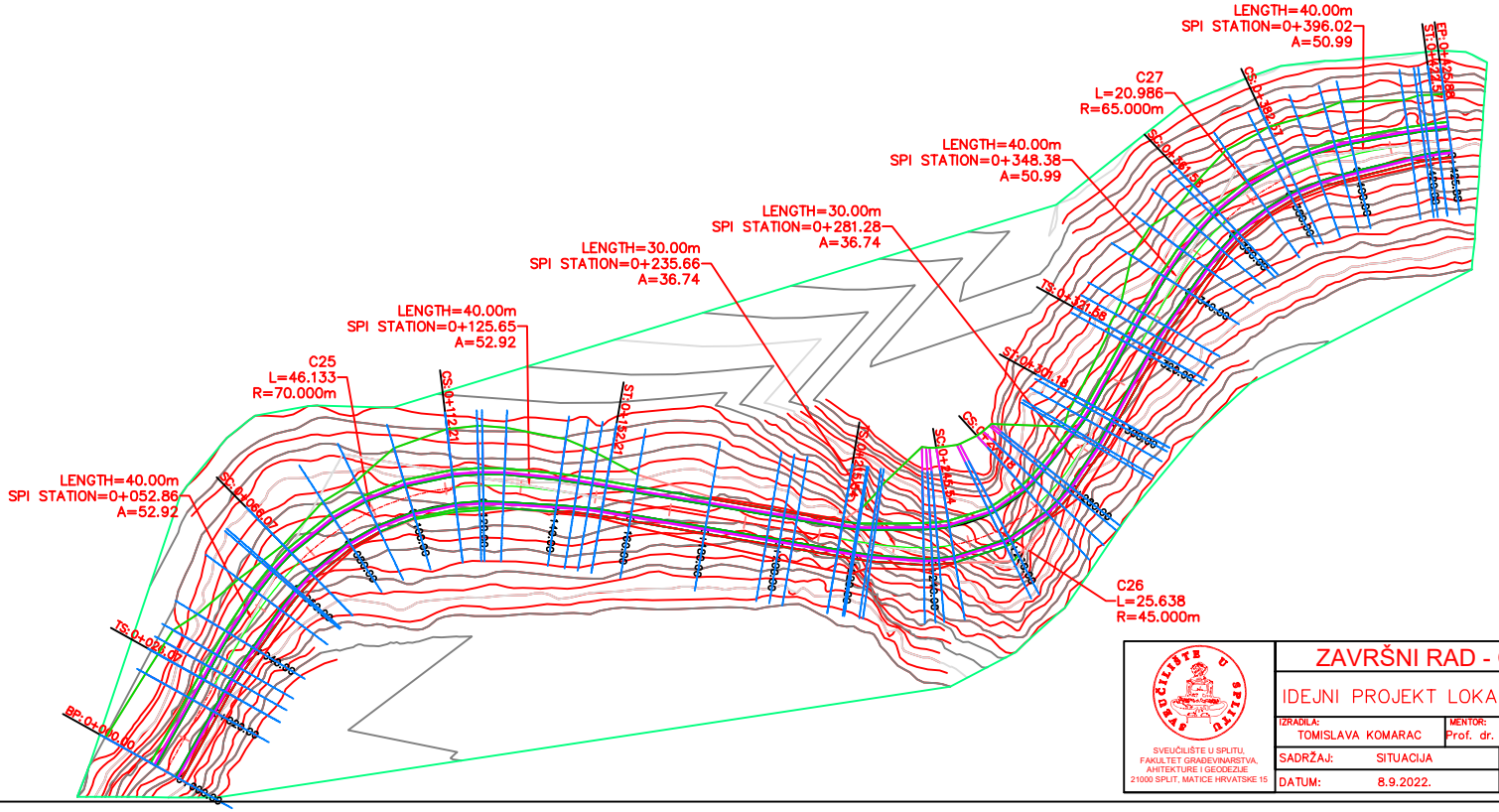
- asfalt-beton habajući sloj – AC11 surf BIT (50/70) AG4 M4 u debljini od 4 centimetra
- bitumenizirani nosivi sloj – AC22 base BIT (50/70) AG6 M2 u debljini od 6 centimetara
- mehanički zbijeni nosivi sloj debljine 30 centimetara

2.6. Odvodnja

Odvodnja kolnika predviđa se otvorenim sustavom odvodnje prihvaćanjem kolničkih pribrežnih voda u zasjeku i usjeku u betonske rigole, te kontroliranim ispuštanjem u teren direktno ili betonskim cijevni, propustima kroz trup kolnika.

3. GRAFIČKI PRILOZI

3.1. Situacija M 1:1000



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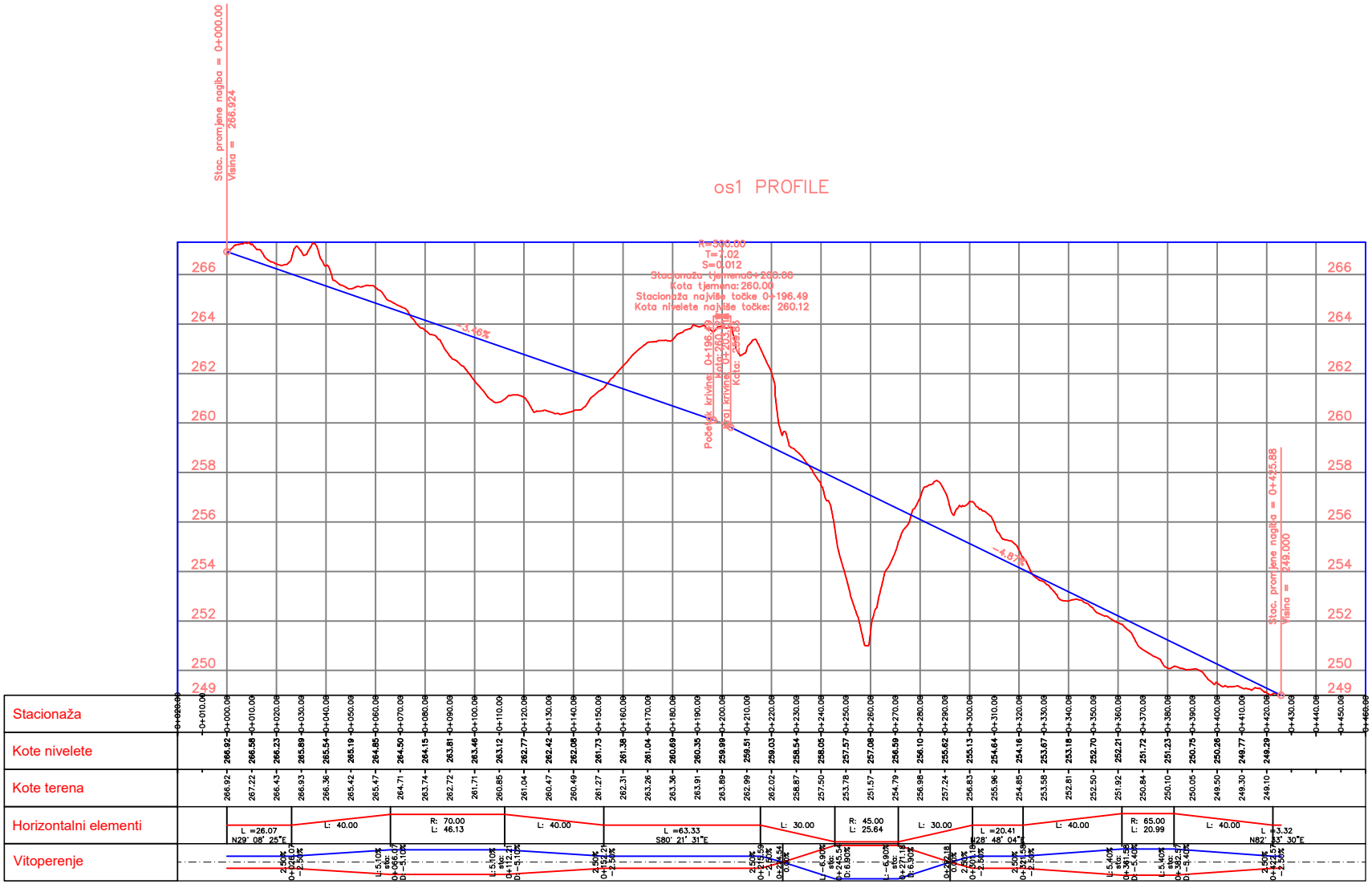
21000 SPLIT, MATICE HRVATSKE 15

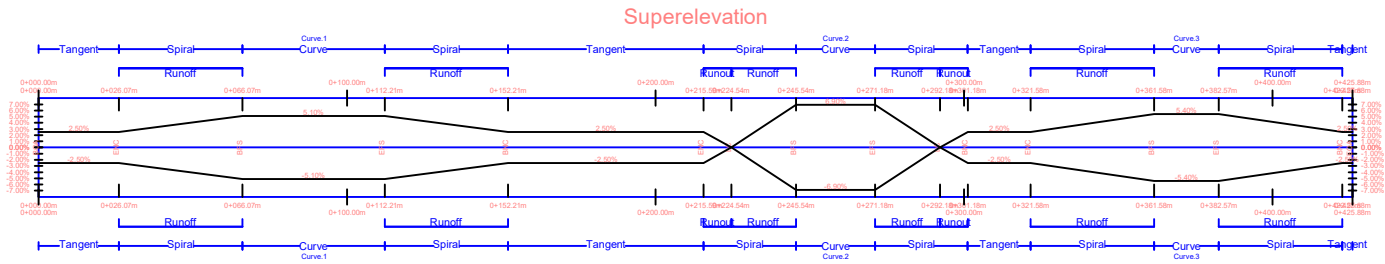
ZAVRŠNI RAD - CESTE

IDEJNI PROJEKT LOKALNE CESTE

IZRADILA: TOMISLAVA KOMARAC		MENTOR: Prof. dr. sc. Dražen Cvitanić	
SADRŽAJ:	SITUACIJA	MJERILO:	1:1000
DATUM:	8.9.2022.	PRILOG:	1

3.2. Uzdužni presjek M 1:1000/100





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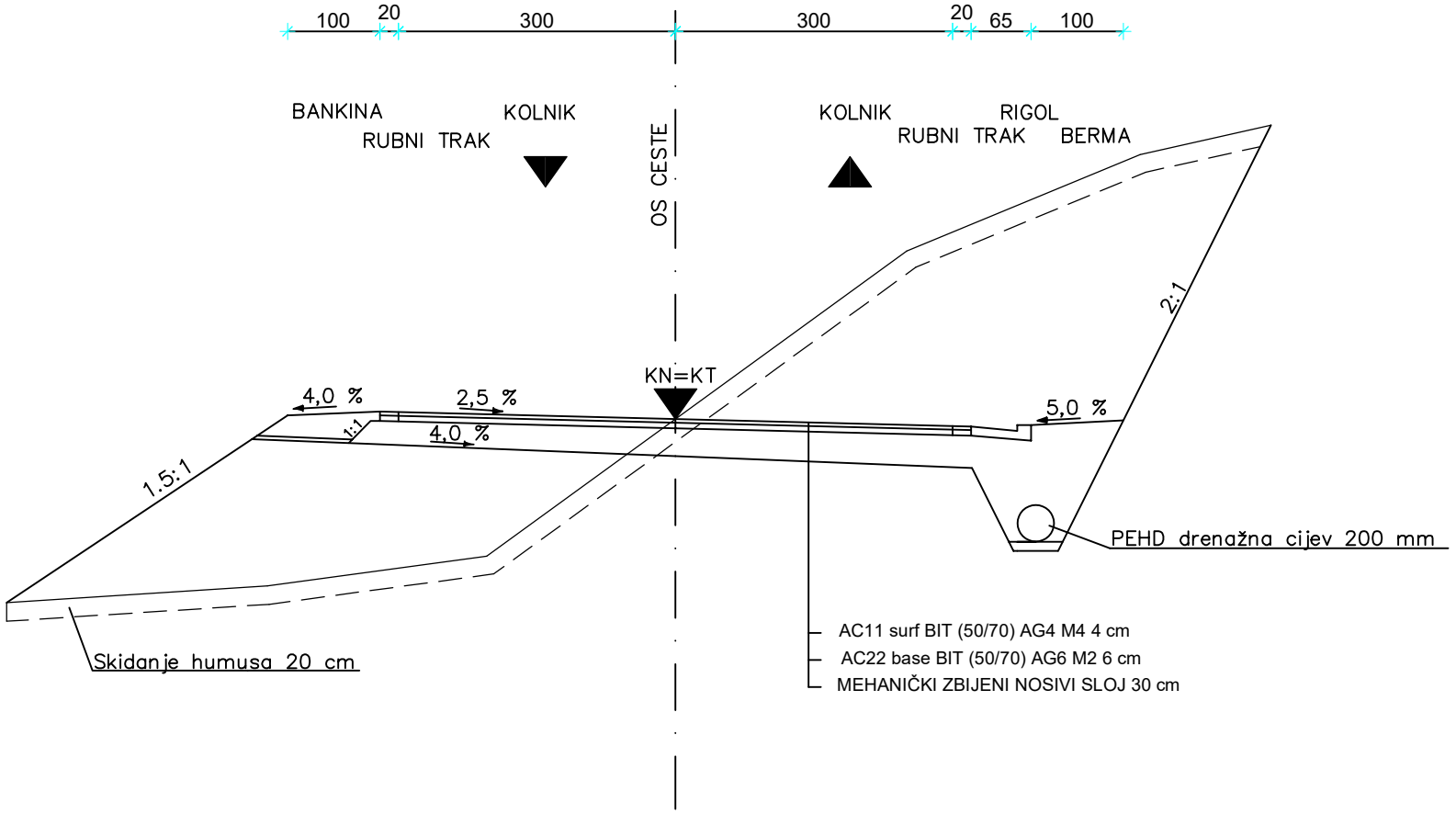
ZAVRŠNI RAD - CESTE

IDEJNI PROJEKT LOKALNE CESTE

IZRADILA: TOMISLAVA KOMARAC	MENTOR: Prof. dr. sc. Dražen Cvitanić
SADRŽAJ: UZDUŽNI PRESJEK	MJERILO: 1:1000/100
DATUM: 8.9.2022.	PRILOG: 2

3.3. Normalni poprečni presjek M 1:50



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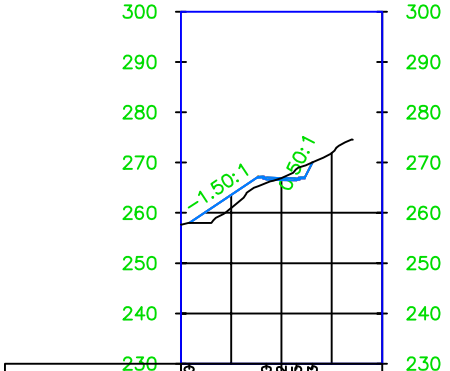
IDEJNI PROJEKT LOKALNE CESTE

IZRADILA: TOMISLAVA KOMARAC	MENTOR: Prof. dr. sc. Dražen Cvitanić
SADRŽAJ: GENERALNI PLAN POZICIJA	MJERILO: 1:50
DATUM: 8.9.2022.	PRILOG: 3

3.4. Karakteristični poprečni presjeci M 1:200

0+000.00



Kote projekta	258.00	258.00	266.60	266.52	266.45	270.03
Udaljenost od osi	20.000	18.33	-3.00	0.000	3.00	6.15
Kote terena	258.00	266.60	266.52	266.45	270.03	20.000

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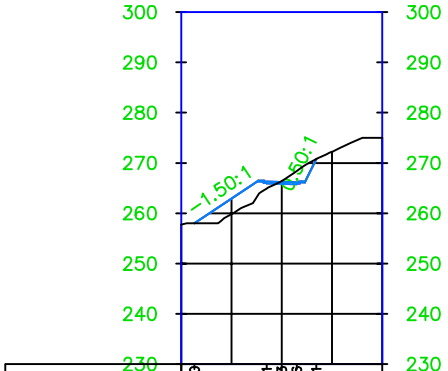

Kote projekta	258.00	258.00	265.91	265.83	265.76	270.81
Udaljenost od osi	20.000	17.34	-3.00	0.000	3.00	6.89
Kote terena	258.00	265.91	265.83	265.76	270.81	20.000

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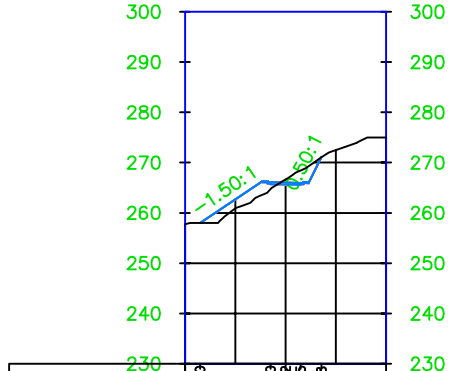
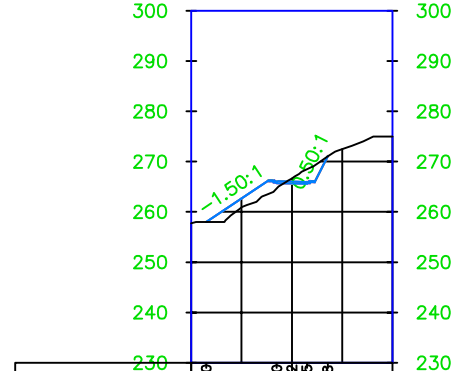


Kote projekta	258.00	258.00	265.70	265.62	265.55	271.08
Udaljenost od osi	20.000	17.02	-3.00	0.000	3.00	7.13
Kote terena	258.00	265.70	265.62	265.55	271.08	20.000

0+026.07



Kote projekta	258.00	258.00	265.70	265.62	265.55	271.08
Udaljenost od osi	20.000	17.02	-3.00	0.000	3.00	7.13
Kote terena	258.00	265.70	265.62	265.55	271.08	20.000

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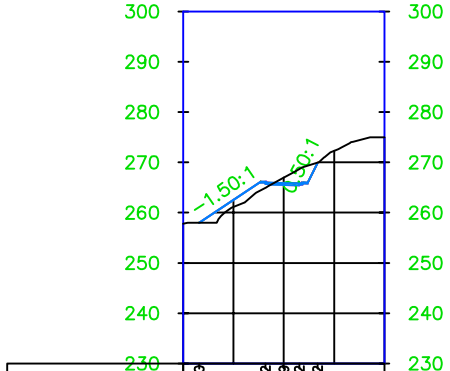

Kote projekta	258.00	258.00	265.72	265.49	265.42	269.92
Udaljenost od osi	20.000	16.83	-3.64	0.00	3.09	6.71
Kote terena	258.00	265.72	265.49	265.42	269.92	20.000

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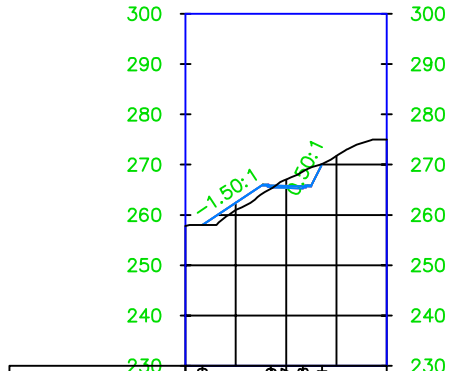
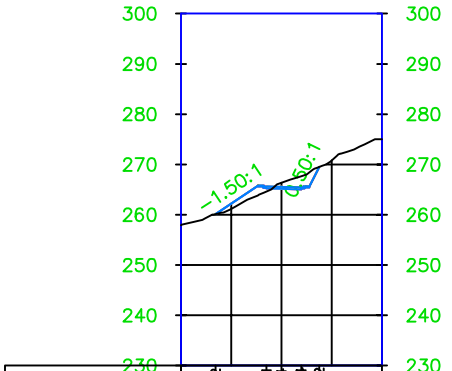


Kote projekta	258.00	258.00	265.59	265.37	265.28	270.11
Udaljenost od osi	20.000	16.64	-3.00	0.00	3.36	7.14
Kote terena	258.00	265.59	265.37	265.28	270.11	20.000

0+040.00



Kote projekta	260.12	260.12	265.21	265.14	265.04	269.52
Udaljenost od osi	20.000	13.12	-3.00	0.00	3.91	7.51
Kote terena	260.12	265.21	265.14	265.04	269.52	20.000

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21000 SPLIT, MATICE HRVATSKE 15

ZAVRŠNI RAD - CESTE

IDEJNI PROJEKT LOKALNE CESTE

IZRADILA: TOMISLAVA KOMARAC	MENTOR: Prof. dr. sc. Dražen Cvitanić
SADRŽAJ: KARAK. POPREČNI PRESJECI	MJERILO: 1:200
DATUM: 8.9.2022.	PRILOG: 4

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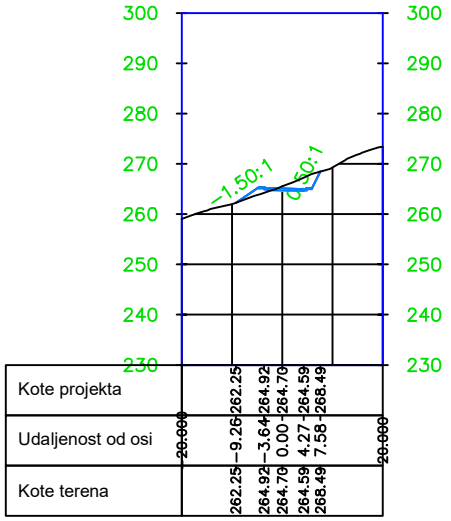
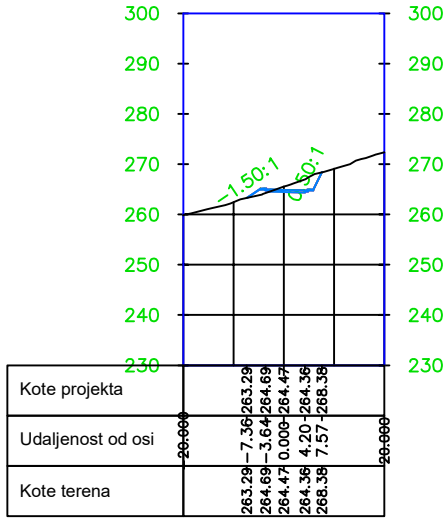


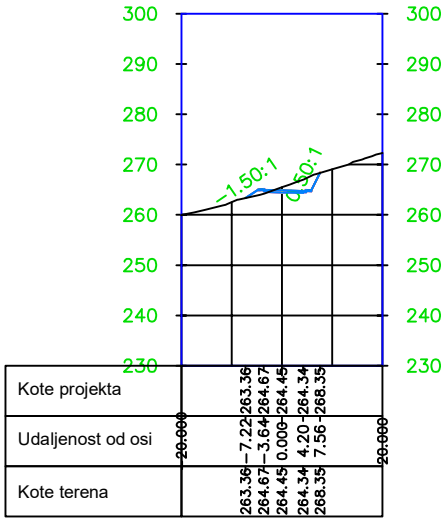
Kote projekta		262.25	264.92	264.70	264.59	268.49	
Udaljenost od osi	20.000	-9.26	-3.64	0.00	4.27	7.58	20.000
Kote terena		262.25	264.92	264.70	264.59	268.49	

0+059.39



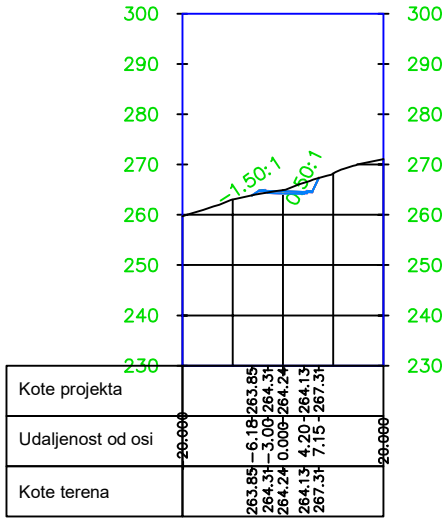
Kote projekta		263.29	264.69	264.47	264.36	268.38	
Udaljenost od osi	20.000	-7.36	-3.64	0.000	4.20	7.57	20.000
Kote terena		263.29	264.69	264.47	264.36	268.38	

0+060.00



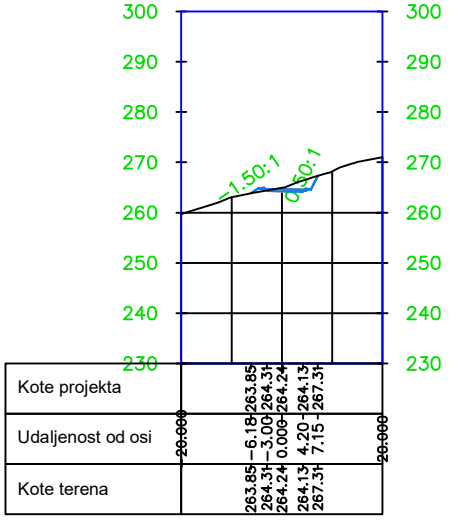
Kote projekta		263.36	264.67	264.45	264.34	268.35	
Udaljenost od osi	20.000	-7.22	-3.64	0.000	4.20	7.56	20.000
Kote terena		263.36	264.67	264.45	264.34	268.35	

0+066.07



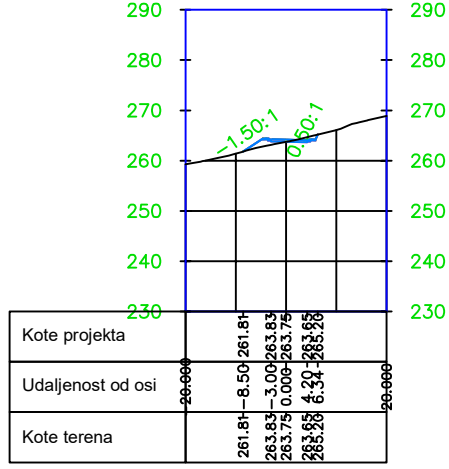
Kote projekta		263.85	264.31	264.24	264.13	267.31	
Udaljenost od osi	20.000	-6.18	-3.00	0.000	4.20	7.15	20.000
Kote terena		263.85	264.31	264.24	264.13	267.31	

0+066.07



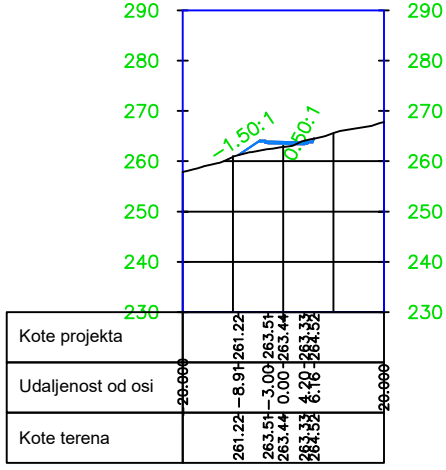
Kote projekta		263.85	264.31	264.24	264.13	267.31	
Udaljenost od osi	20.000	-6.18	-3.00	0.000	4.20	7.15	20.000
Kote terena		263.85	264.31	264.24	264.13	267.31	

0+080.00



Kote projekta		261.81	263.83	263.75	263.65	265.20	
Udaljenost od osi	20.000	-8.50	-3.00	0.000	4.20	6.34	20.000
Kote terena		261.81	263.83	263.75	263.65	265.20	

0+089.14



Kote projekta		261.22	263.51	263.44	263.33	264.52	
Udaljenost od osi	20.000	-8.91	-3.00	0.00	4.20	6.16	20.000
Kote terena		261.22	263.51	263.44	263.33	264.52	

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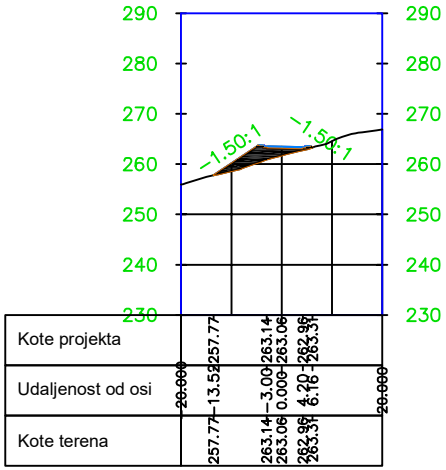
FAKULTET GRAĐEVINARSTVA, AHITEKTURE I GEODEZIJE
21000 SPLIT, MATICE HRVATSKE 15

ZAVRŠNI RAD - CESTE

IDEJNI PROJEKT LOKALNE CESTE

IZRADILA: TOMISLAVA KOMARAC	MENTOR: Prof. dr. sc. Dražen Cvitanić
SADRŽAJ: KARAK. POPREČNI PRESJECI	MJERILO: 1:200
DATUM: 8.9.2022.	PRILOG: 4

0+100.00



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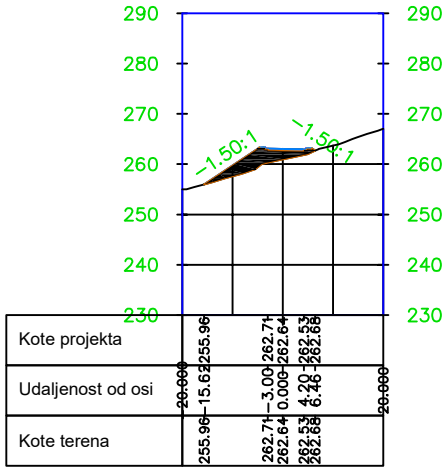

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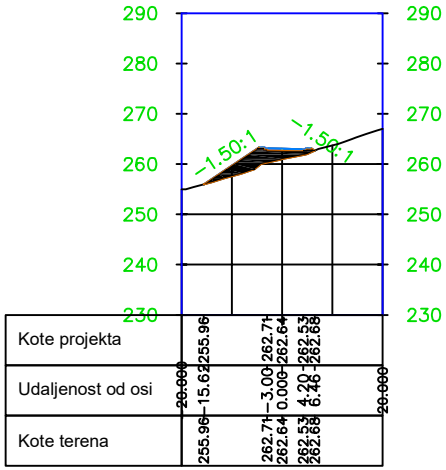

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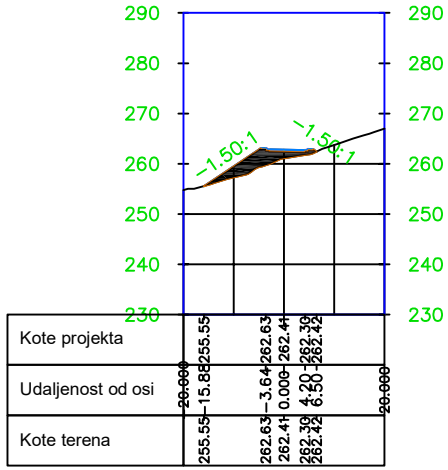

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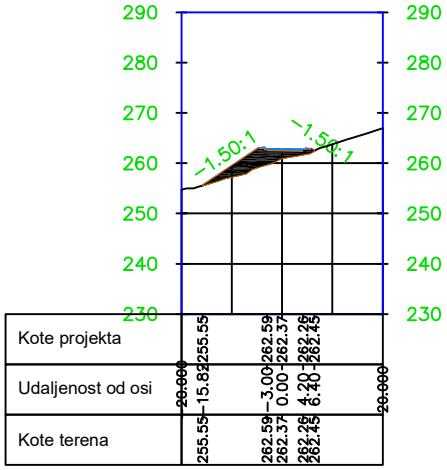

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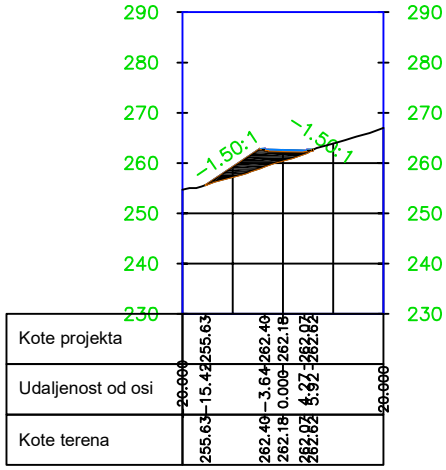

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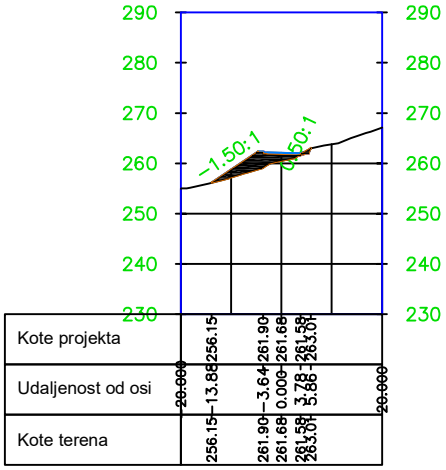

SVEUČILIŠTE U SPLITU
FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GEODEZIJE
21000 SPLIT, MATICE HRVATSKE 15

ZAVRŠNI RAD - CESTE

IDEJNI PROJEKT LOKALNE CESTE

IZRADILA: TOMISLAVA KOMARAC	MENTOR: Prof. dr. sc. Dražen Cvitanić
SADRŽAJ: KARAK. POPREČNI PRESJECI	MJERILO: 1:200
DATUM: 8.9.2022.	PRILOG: 4

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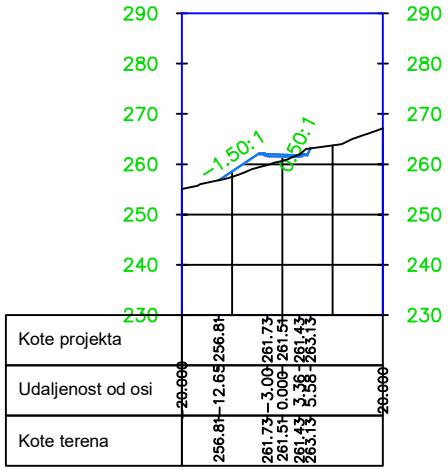

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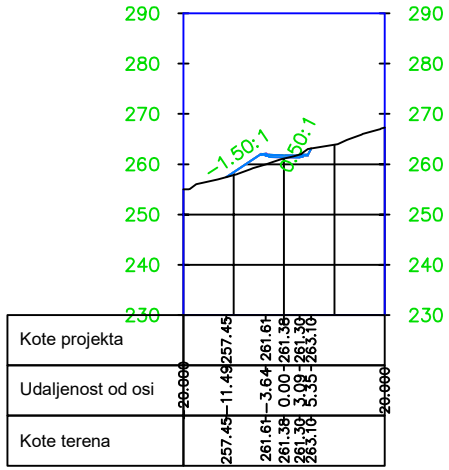

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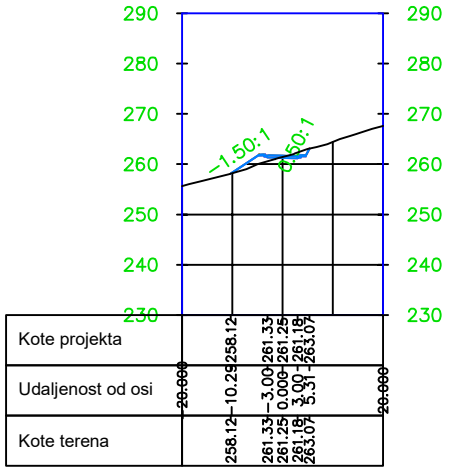

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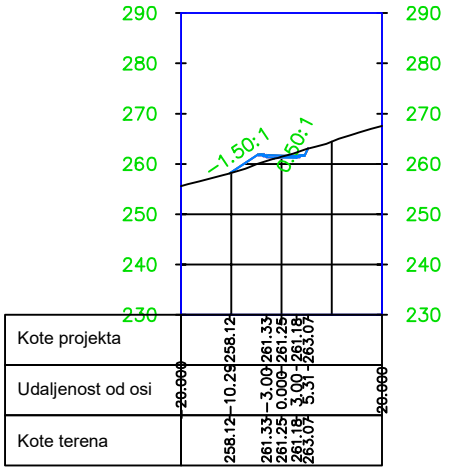

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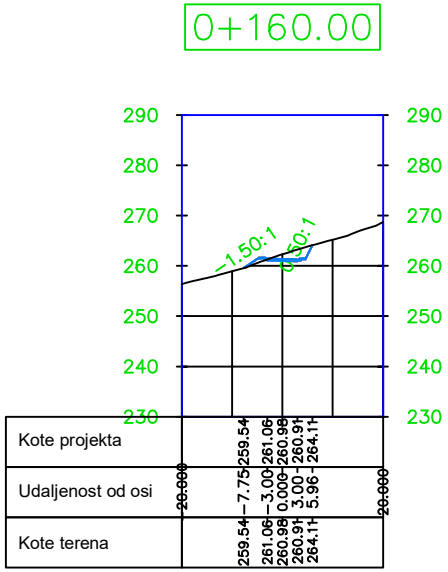

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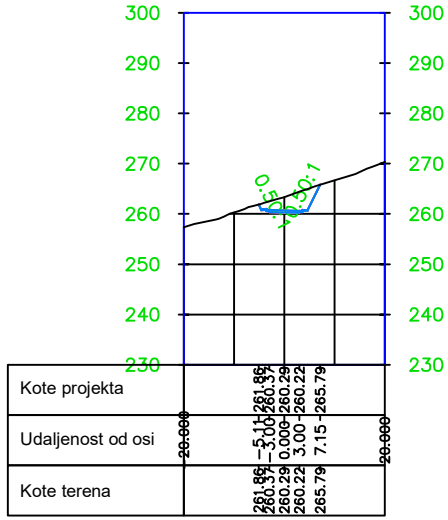

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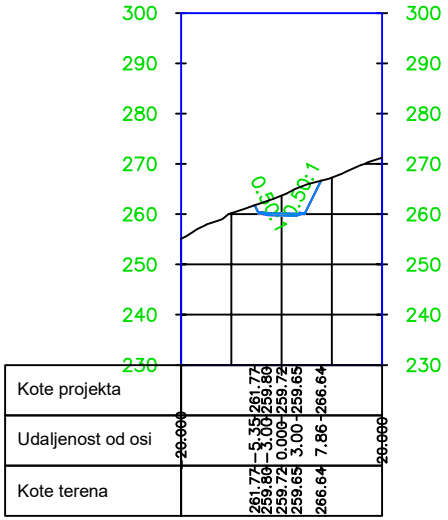


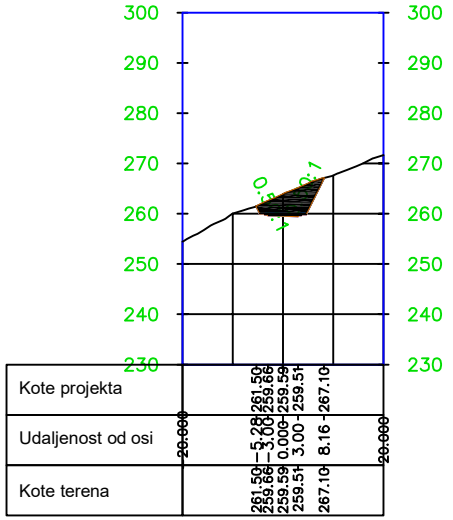
SVEUČILIŠTE U SPLITU
FAKULTET GRAĐEVINARSTVA, AHITEKTURE I GEODEZIJE
21000 SPLIT, MATICE HRVATSKE 15

ZAVRŠNI RAD - CESTE

IDEJNI PROJEKT LOKALNE CESTE

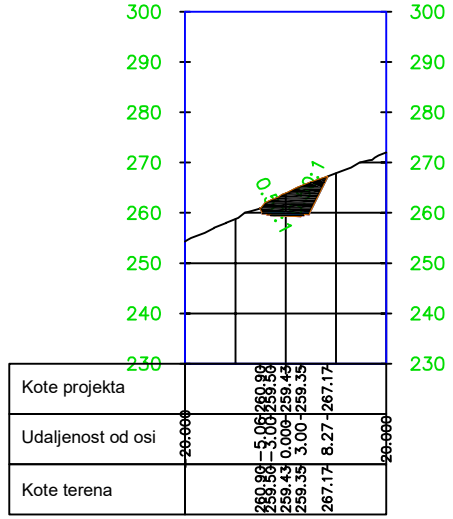
IZRADILA: TOMISLAVA KOMARAC	MENTOR: Prof. dr. sc. Dražen Cvitanić
SADRŽAJ: KARAK. POPREČNI PRESJECI	MJERILO: 1:200
DATUM: 8.9.2022.	PRILOG: 4

0+200.00



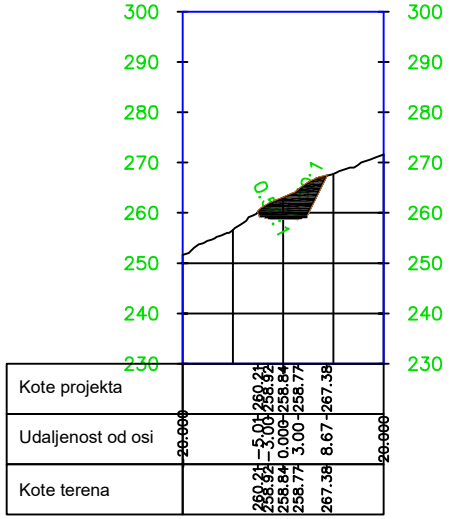
Kote projekta			261.59	259.66	259.59	259.51	267.10	
Udaljenost od osi	20.000		-5.28	-3.00	0.000	3.00	8.16	20.000
Kote terena		261.59	259.66	259.59	259.51	267.10		

0+203.51



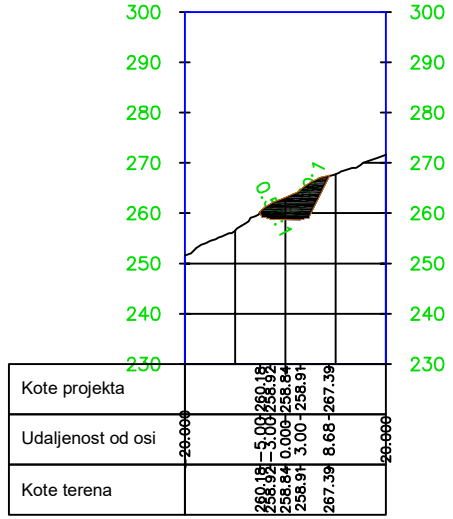
Kote projekta			260.90	259.50	259.43	259.35	267.17	
Udaljenost od osi	20.000		-5.06	-3.00	0.000	3.00	8.27	20.000
Kote terena		260.90	259.50	259.43	259.35	267.17		

0+215.54



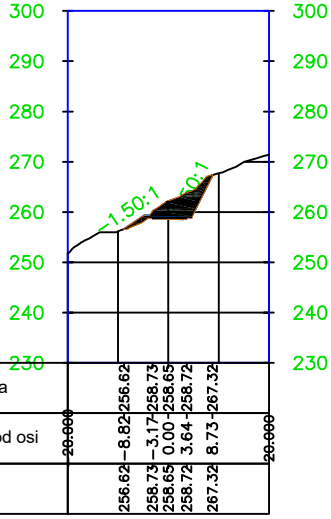
Kote projekta			260.21	258.92	258.84	258.77	267.38	
Udaljenost od osi	20.000		-5.01	-3.00	0.000	3.00	8.67	20.000
Kote terena		260.21	258.92	258.84	258.77	267.38		

0+215.59



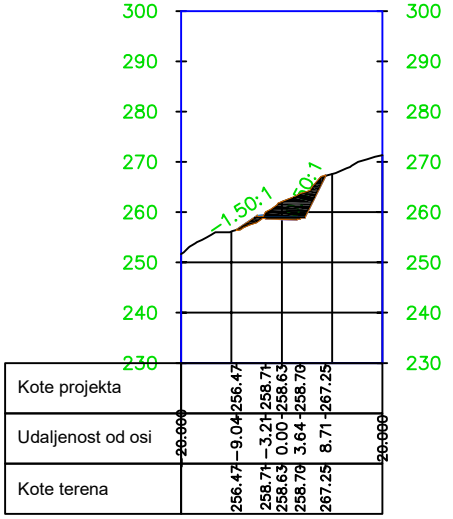
Kote projekta			260.18	258.92	258.84	258.91	267.39	
Udaljenost od osi	20.000		-5.00	-3.00	0.000	3.00	8.68	20.000
Kote terena		260.18	258.92	258.84	258.91	267.39		

0+219.59



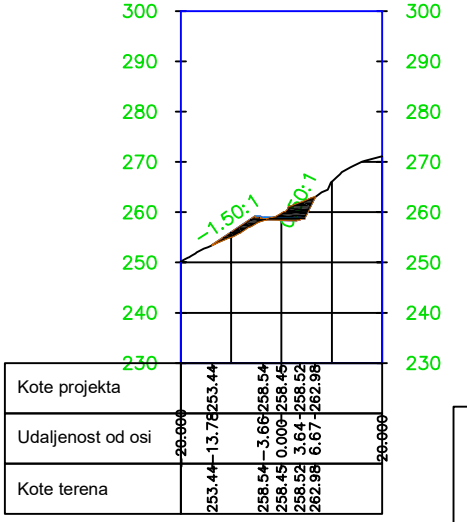
Kote projekta			256.62	258.73	258.65	258.72	267.32	
Udaljenost od osi	20.000		-8.82	-3.17	0.00	3.64	8.73	20.000
Kote terena		256.62	258.73	258.65	258.72	267.32		

0+220.00



Kote projekta			256.47	258.71	258.63	258.70	267.25	
Udaljenost od osi	20.000		-9.04	-3.21	0.00	3.64	8.71	20.000
Kote terena		256.47	258.71	258.63	258.70	267.25		

0+223.66



Kote projekta			253.44	258.54	258.45	258.52	262.98	
Udaljenost od osi	20.000		-13.78	-3.66	0.000	3.64	6.67	20.000
Kote terena		253.44	258.54	258.45	258.52	262.98		

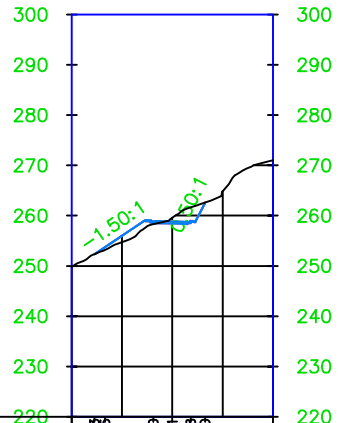
SVEUČILIŠTE U SPLITU
FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GEODEZIJE
21000 SPLIT, MATICE HRVATSKE 15

ZAVRŠNI RAD - CESTE

IDEJNI PROJEKT LOKALNE CESTE

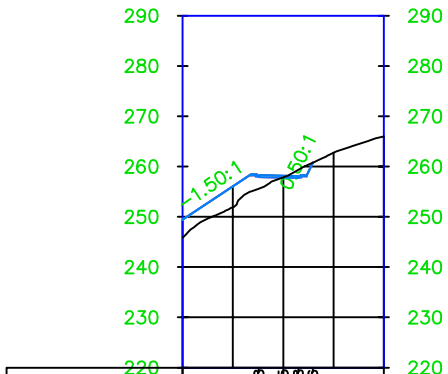
IZRADILA: TOMISLAVA KOMARAC	MENTOR: Prof. dr. sc. Dražen Cvitanić
SADRŽAJ: KARAK. POPREČNI PRESJECI	MJERILO: 1:200
DATUM: 8.9.2022.	PRILOG: 4

0+224.54



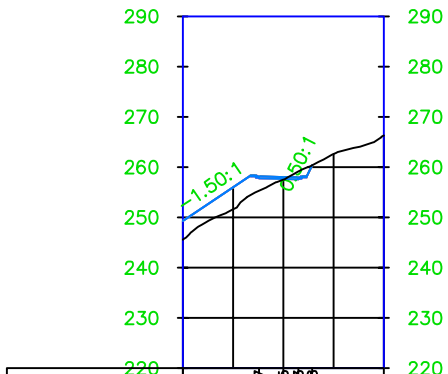
Kote projekta						
Udaljenost od osi	20.000	15.52	13.35	3.79	0.000	3.64	6.50	20.000
Kote terena	252.33	253.75	253.75	258.59	258.41	258.48	262.60	

0+237.89



Kote projekta	249.430					
Udaljenost od osi	20.000	4.85	0.000	3.00	5.90	20.000
Kote terena	249.43	257.88	257.75	257.68	260.76	

0+240.00

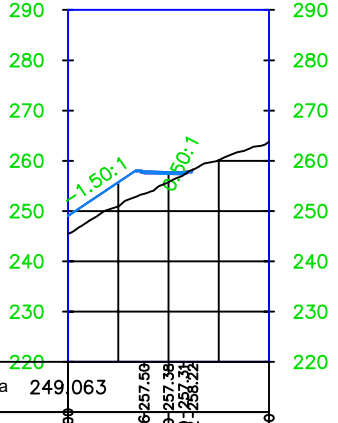


Kote projekta	249.316					
Udaljenost od osi	20.000	4.85	0.000	3.00	5.77	20.000
Kote terena	249.32	257.77	257.65	257.73	260.38	

0+241.69

Kote projekta	249.244					
Udaljenost od osi	20.000	4.85	0.00	3.64	5.72	20.000
Kote terena	249.24	257.69	257.57	257.64	260.21	

0+245.54



Kote projekta	249.063					
Udaljenost od osi	20.000	4.86	0.000	3.02	4.92	20.000
Kote terena	249.06	257.59	257.38	257.31	259.22	

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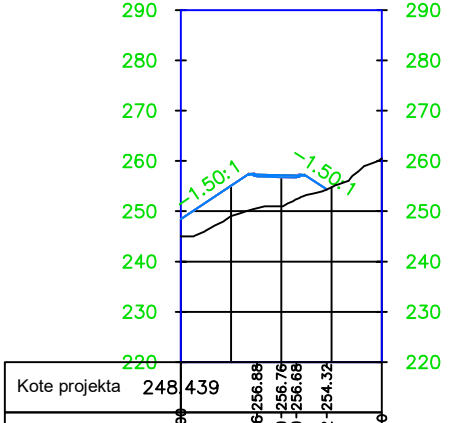
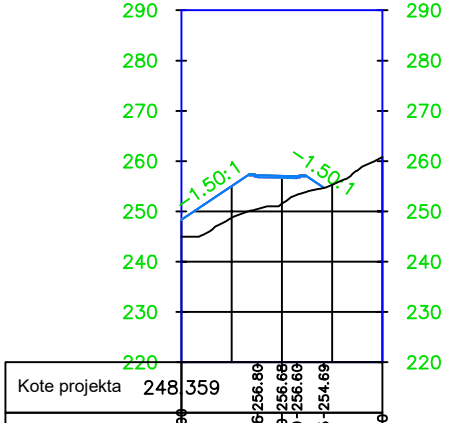


Kote projekta	248.439					
Udaljenost od osi	20.000	4.86	0.00	3.00	9.02	20.000
Kote terena	248.44	256.88	256.76	256.68	254.32	

0+260.00



Kote projekta	248.359					
Udaljenost od osi	20.000	4.86	0.000	3.00	8.35	20.000
Kote terena	248.36	256.80	256.68	256.60	254.69	

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FAKULTET GRAĐEVINARSTVA, AHITEKTURE I GEODEZIJE
21000 SPLIT, MATICE HRVATSKE 15

ZAVRŠNI RAD - CESTE

IDEJNI PROJEKT LOKALNE CESTE

IZRADILA: TOMISLAVA KOMARAC	MENTOR: Prof. dr. sc. Dražen Cvitanić
SADRŽAJ: KARAK. POPREČNI PRESJECI	MJERILO: 1:200
DATUM: 8.9.2022.	PRILOG: 4

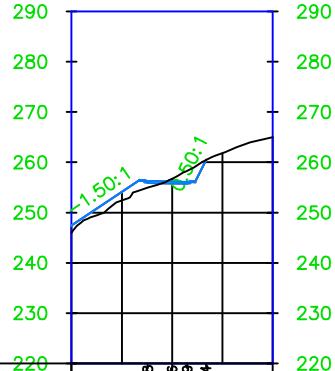
0+271.18

Kote projekta	247.815					
Udaljenost od osi	20.000	4.86	0.000	3.03		20.000
Kote terena	247.61	256.26	256.13	256.06	257.40	

0+275.03

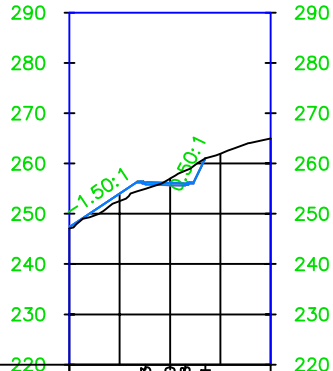
Kote projekta	247.621					
Udaljenost od osi	20.000	4.85	0.00	3.64		20.000
Kote terena	247.62	256.07	255.95	256.02	258.98	

0+278.82



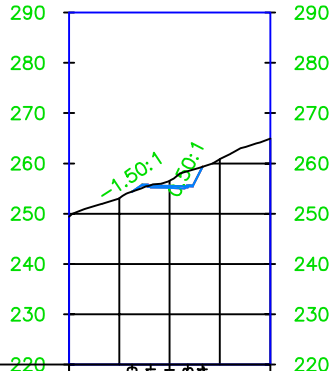
Kote projekta	247.437					
Udaljenost od osi	20.000	4.85	0.00	3.00	6.74	20.000
Kote terena	247.44	255.88	255.76	255.69	260.44	

0+280.00



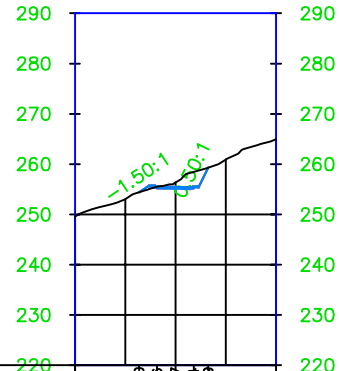
Kote projekta	247.376					
Udaljenost od osi	20.000	4.85	0.00	3.00	7.05	20.000
Kote terena	247.38	255.83	255.70	255.78	261.01	

0+292.18



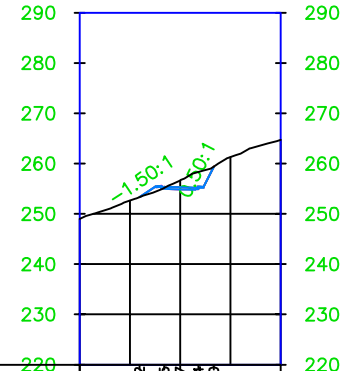
Kote projekta						
Udaljenost od osi	20.000	7.47	3.79	0.00	3.64	6.51	20.000
Kote terena	254.40	255.21	255.11	255.18	259.34	

0+293.05



Kote projekta						
Udaljenost od osi	20.000	7.27	3.66	0.00	3.64	6.51	20.000
Kote terena	254.40	255.16	255.07	255.14	259.29	

0+297.12



Kote projekta						
Udaljenost od osi	20.000	8.09	3.17	0.00	3.64	6.66	20.000
Kote terena	253.32	254.95	254.87	254.94	259.40	

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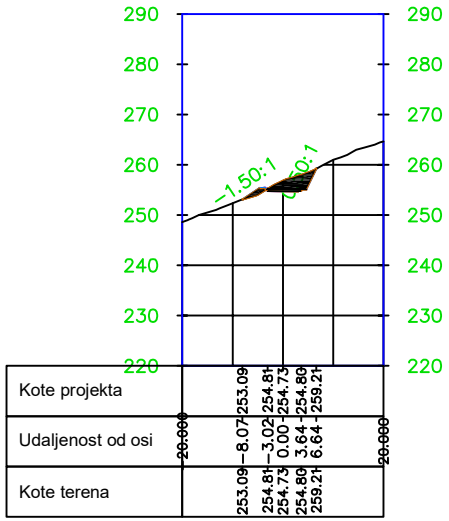
FAKULTET GRAĐEVINARSTVA, AHITEKTURE I GEODEZIJE
21000 SPLIT, MATICE HRVATSKE 15

ZAVRŠNI RAD - CESTE

IDEJNI PROJEKT LOKALNE CESTE

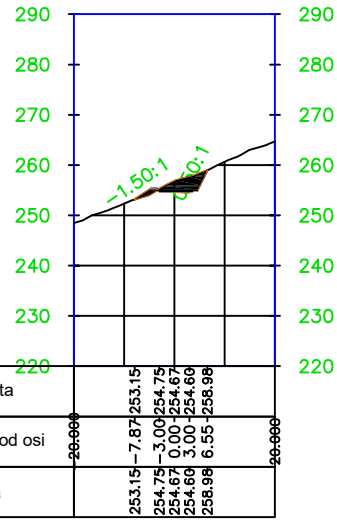
IZRADILA: TOMISLAVA KOMARAC	MENTOR: Prof. dr. sc. Dražen Cvitanić
SADRŽAJ: KARAK. POPREČNI PRESJECI	MJERILO: 1:200
DATUM: 8.9.2022.	PRILOG: 4

0+300.00



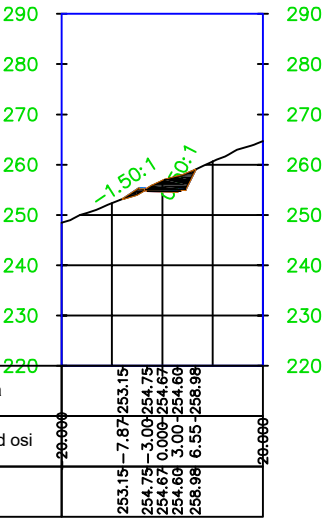
Kote projekta		253.09	254.81	254.73	254.80	259.21		
Udaljenost od osi	20.000	−8.07	−3.02	0.00	3.64	6.64		20.000
Kote terena		253.09	254.81	254.73	254.80	259.21		

0+301.18



Kote projekta		253.15	254.75	254.67	254.60	258.98		
Udaljenost od osi	20.000	−7.87	−3.00	0.00	3.00	6.55		20.000
Kote terena		253.15	254.75	254.67	254.60	258.98		

0+301.18



Kote projekta		253.15	254.75	254.67	254.60	258.98		
Udaljenost od osi	20.000	−7.87	−3.00	0.00	3.00	6.55		20.000
Kote terena		253.15	254.75	254.67	254.60	258.98		

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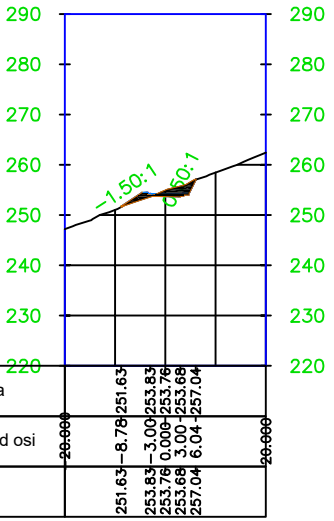
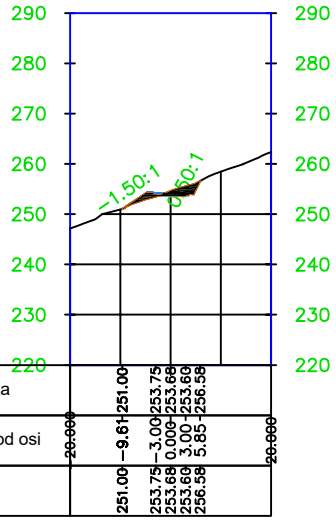


Kote projekta		251.63	253.83	253.76	253.68	257.04		
Udaljenost od osi	20.000	−8.78	−3.00	0.00	3.00	6.04		20.000
Kote terena		251.63	253.83	253.76	253.68	257.04		

0+321.58



Kote projekta		251.00	253.75	253.68	253.60	256.58		
Udaljenost od osi	20.000	−9.61	−3.00	0.00	3.00	5.85		20.000
Kote terena		251.00	253.75	253.68	253.60	256.58		

0+321.58

Kote projekta		251.00	253.75	253.68	253.60	256.58		
Udaljenost od osi	20.000	−9.61	−3.00	0.00	3.00	5.85		20.000
Kote terena		251.00	253.75	253.68	253.60	256.58		

0+325.27

Kote projekta		250.83	253.72	253.59	253.42	256.25		
Udaljenost od osi	20.000	−9.60	−3.64	0.00	3.10	5.88		20.000
Kote terena		250.83	253.72	253.59	253.42	256.25		

SVEUČILIŠTE U SPLITU
FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GEODEZIJE
21000 SPLIT, MATICE HRVATSKE 15

ZAVRŠNI RAD - CESTE

IDEJNI PROJEKT LOKALNE CESTE

IZRADILA: TOMISLAVA KOMARAC
MENTOR: Prof. dr. sc. Dražen Cvitanić

SADRŽAJ: KARAK. POPREČNI PRESJECI | MJERILO: 1:200

DATUM: 8.9.2022. | PRILOG: 4

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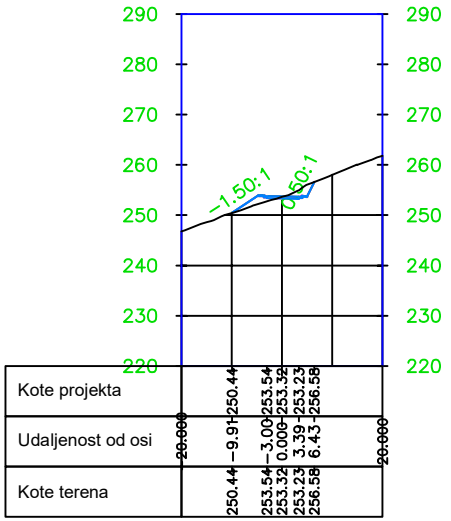

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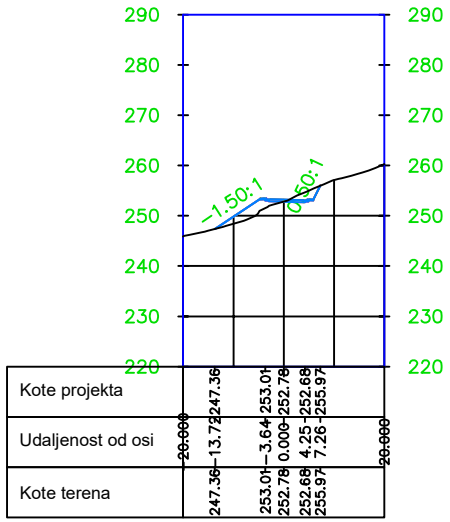

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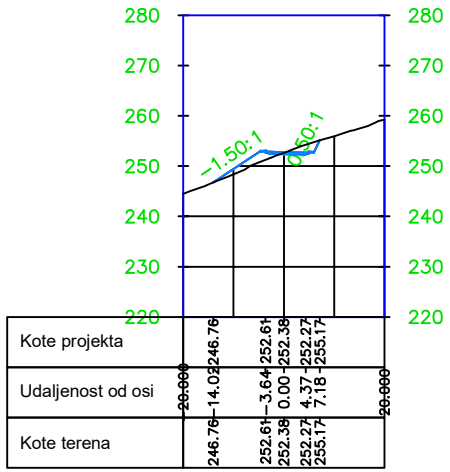

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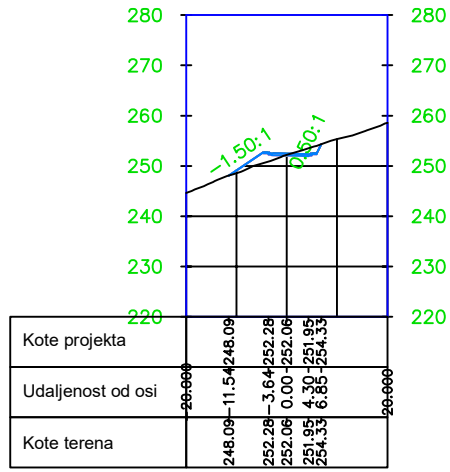

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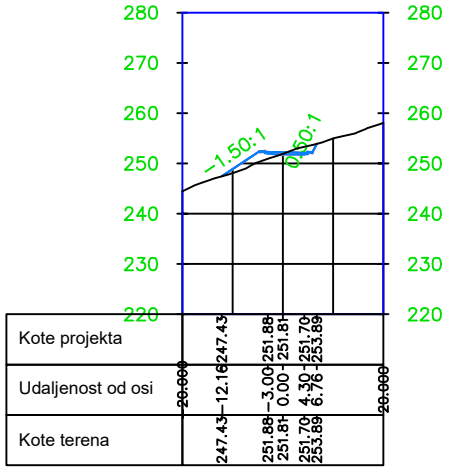

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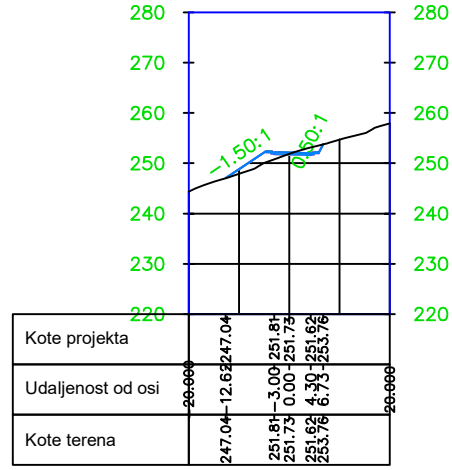

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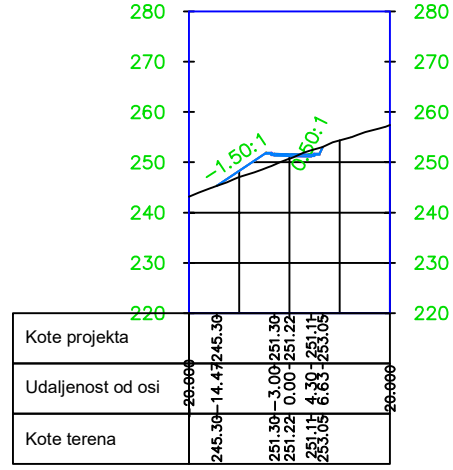

SVEUČILIŠTE U SPLITU
FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GEODEZIJE
21000 SPLIT, MATICE HRVATSKE 15

ZAVRŠNI RAD - CESTE

IDEJNI PROJEKT LOKALNE CESTE

IZRADILA: TOMISLAVA KOMARAC	MENTOR: Prof. dr. sc. Dražen Cvitanić
SADRŽAJ: KARAK. POPREČNI PRESJECI	MJERILO: 1:200
DATUM: 8.9.2022.	PRILOG: 4

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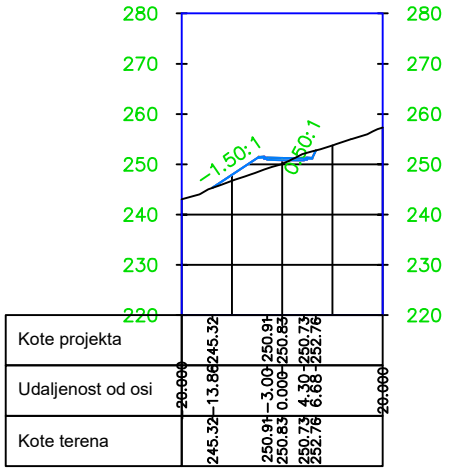

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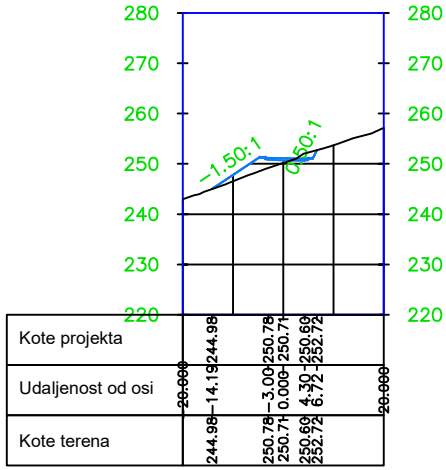

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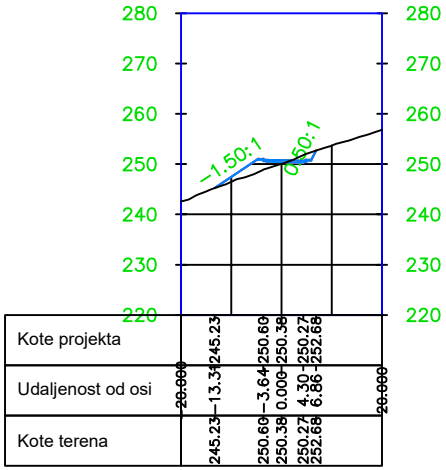

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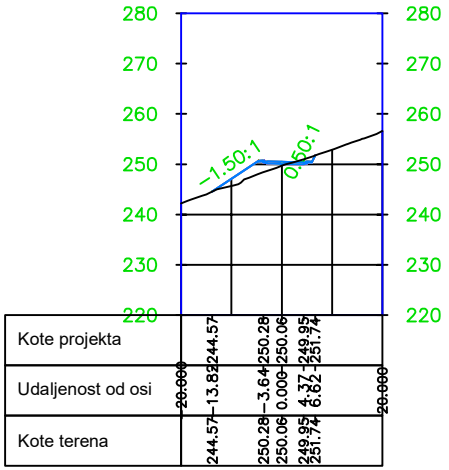

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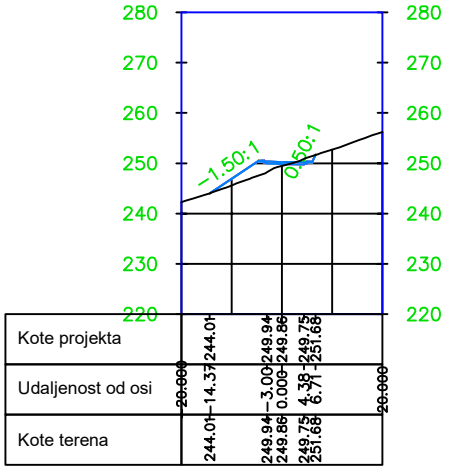

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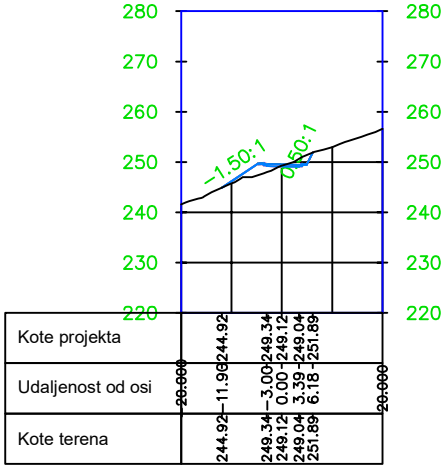

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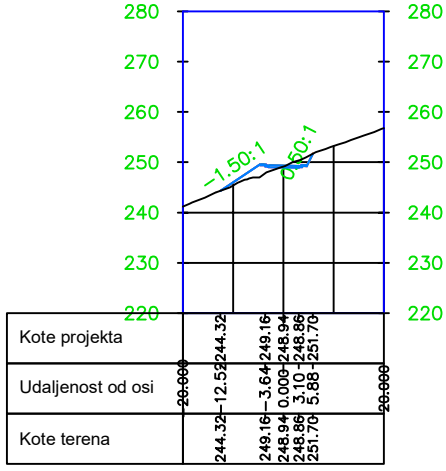

SVEUČILIŠTE U SPLITU
FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GEODEZIJE
21000 SPLIT, MATICE HRVATSKE 15

ZAVRŠNI RAD - CESTE

IDEJNI PROJEKT LOKALNE CESTE

IZRADILA: TOMISLAVA KOMARAC	MENTOR: Prof. dr. sc. Dražen Cvitanić
SADRŽAJ: KARAK. POPREČNI PRESJECI	MJERILO: 1:200
DATUM: 8.9.2022.	PRILOG: 4

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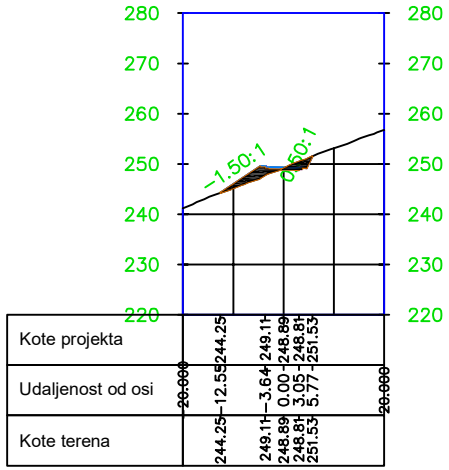

| | | |

4. TABLICA UKUPNOG VOLUMENA ZEMLJANIH RADOVA

Stacionaža	Površina usjeka	Volumen usjeka	Površina nasipa	Volumen nasipa	Kumulativni volumen usjeka	Kumulativni volumen nasipa	Kumulativni volumen
0+000.000	9.41	0.00	30.77	0.00	0.00	0.00	0.00
0+020.000	13.62	230.22	36.96	677.32	230.22	677.32	-447.10
0+026.070	15.85	89.42	27.44	195.47	319.64	872.79	-553.16
0+026.074	15.85	0.07	27.43	0.12	319.70	872.91	-553.21
0+029.759	17.98	62.33	20.06	87.50	382.04	960.41	-578.37
0+033.451	20.41	70.88	19.53	73.09	452.91	1033.49	-580.58
0+040.000	16.18	118.41	11.57	105.14	571.33	1138.63	-567.30
0+052.765	15.10	194.53	4.90	110.13	765.86	1248.76	-482.90
0+059.385	16.32	99.99	2.71	26.61	865.85	1275.37	-409.52
0+060.000	16.04	9.94	2.57	1.62	875.80	1276.99	-401.20
0+066.074	12.37	82.38	1.07	11.76	958.17	1288.75	-330.58
0+066.074	12.37	0.00	1.07	0.00	958.17	1288.75	-330.58
0+080.000	3.71	106.37	5.83	51.20	1064.55	1339.95	-275.40
0+089.141	1.94	24.29	10.06	76.77	1088.84	1416.72	-327.88
0+100.000	0.00	9.85	29.75	230.14	1098.69	1646.86	-548.17
0+112.208	0.00	0.00	39.72	453.71	1098.69	2100.57	-1001.87
0+112.208	0.00	0.00	39.72	0.00	1098.69	2100.57	-1001.88
0+118.896	0.00	0.00	38.56	279.39	1098.69	2379.96	-1281.27
0+120.000	0.00	0.00	39.05	42.82	1098.69	2422.79	-1324.10
0+125.517	0.04	0.09	37.74	223.41	1098.78	2646.20	-1547.42
0+140.000	0.85	6.16	28.80	499.41	1104.94	3145.61	-2040.67
0+144.831	1.96	6.78	20.09	118.09	1111.72	3263.70	-2151.98
0+148.523	2.35	7.96	13.58	62.17	1119.69	3325.86	-2206.18
0+152.208	4.11	11.91	8.62	40.90	1131.60	3366.76	-2235.17
0+152.210	4.11	0.01	8.61	0.02	1131.61	3366.78	-2235.18
0+160.000	13.12	67.13	2.08	41.65	1198.74	3408.43	-2209.69
0+180.000	33.69	468.06	0.00	20.80	1666.80	3429.23	-1762.43
0+196.489	46.50	661.08	0.00	0.00	2327.88	3429.23	-1101.35
0+200.000	49.34	168.26	0.00	0.00	2496.14	3429.23	-933.09
0+203.509	50.90	175.88	0.00	0.00	2672.03	3429.23	-757.21
0+215.538	52.56	622.28	0.00	0.00	3294.31	3429.23	-134.93
0+215.590	52.49	2.73	0.00	0.00	3297.04	3429.23	-132.19

0+219.589	39.31	183.58	2.71	5.42	3480.62	3434.66	45.96
0+220.000	37.32	15.73	3.15	1.20	3496.35	3435.86	60.49
0+223.660	17.25	99.85	8.27	20.89	3596.19	3456.75	139.45
0+224.538	15.83	14.52	12.22	9.00	3610.72	3465.74	144.97
0+237.894	6.71	155.75	56.00	397.27	3766.47	3863.01	-96.54
0+240.000	5.82	13.98	62.11	99.62	3780.45	3962.63	-182.19
0+241.687	5.01	9.73	66.10	85.28	3790.18	4047.91	-257.73
0+245.538	0.27	10.91	80.81	221.14	3801.09	4269.05	-467.96
0+258.357	0.00	1.87	148.37	1210.84	3802.96	5479.89	-1676.93
0+260.000	0.00	0.00	141.99	200.85	3802.96	5680.74	-1877.78
0+271.176	1.22	7.38	67.34	949.37	3810.35	6630.11	-2819.76
0+275.027	7.32	17.63	45.01	167.54	3827.97	6797.65	-2969.68
0+278.820	14.03	42.81	22.56	102.54	3870.78	6900.19	-3029.41
0+280.000	16.94	19.18	17.97	19.78	3889.95	6919.97	-3030.01
0+292.176	18.89	224.51	0.96	102.18	4114.46	7022.15	-2907.68
0+293.054	18.07	16.23	1.06	0.89	4130.69	7023.04	-2892.35
0+297.124	19.68	77.66	2.50	7.07	4208.35	7030.11	-2821.76
0+300.000	20.12	57.22	2.80	7.62	4265.58	7037.73	-2772.15
0+301.176	20.04	23.61	2.41	3.07	4289.19	7040.79	-2751.60
0+301.180	20.04	0.08	2.41	0.01	4289.27	7040.80	-2751.53
0+320.000	10.74	289.60	3.49	55.52	4578.87	7096.32	-2517.45
0+321.580	9.37	15.89	3.85	5.80	4594.76	7102.12	-2507.36
0+321.582	9.37	0.02	3.85	0.01	4594.78	7102.12	-2507.35
0+325.270	7.71	31.49	6.34	18.80	4626.27	7120.93	-2494.66
0+328.965	8.35	29.67	7.11	24.87	4655.94	7145.79	-2489.86
0+340.000	9.14	94.59	18.85	147.82	4750.53	7293.61	-2543.09
0+348.208	9.50	73.77	14.28	144.02	4824.30	7437.64	-2613.34
0+354.856	6.88	51.97	11.28	91.16	4876.27	7528.80	-2652.53
0+360.000	7.16	34.18	12.98	67.47	4910.45	7596.27	-2685.83
0+361.582	6.59	10.24	14.25	23.54	4920.69	7619.81	-2699.12
0+372.075	4.44	54.28	21.93	207.76	4974.97	7827.57	-2852.61
0+380.000	4.57	33.28	21.33	187.00	5008.24	8014.57	-3006.33
0+382.568	4.69	11.06	20.58	58.68	5019.30	8073.25	-3053.95
0+389.293	5.65	32.58	17.24	137.94	5051.88	8211.19	-3159.31
0+395.941	3.77	29.74	19.92	132.22	5081.62	8343.41	-3261.79

0+400.000	3.87	14.85	21.20	88.39	5096.47	8431.80	-3335.33
0+415.184	6.63	77.94	11.37	255.74	5174.41	8687.53	-3513.13
0+418.880	6.38	24.05	11.74	42.70	5198.46	8730.24	-3531.78
0+420.000	6.57	7.26	13.02	13.87	5205.71	8744.11	-3538.39
0+422.568	6.57	16.87	12.50	32.76	5222.58	8776.87	-3554.29
0+422.570	6.57	0.02	12.50	0.03	5222.60	8776.90	-3554.30
0+425.885	6.94	22.39	10.12	37.49	5244.99	8814.40	-3569.41

5. OBRADA NA RAČUNALU

Za izradu idejnog projekta lokalne ceste koristi se program AutoCad Civil 3D koji značajno ubrzava, olakšava i pojednostavljuje izradu projekta u odnosu na ručnu izradu.

Prvi korak pri izradi idejnog rješenja je skeniranje geodetske podloge, te korištenjem poligonalnih linija iscrtavaju se slojnice. Svaka slojnica definira se na svojoj visini kako bi se dobio trodimenzionalni model terena. Zatim definiramo položaje tangenti na terenu, i na sjecištima tangenti definiramo kružne lukove i prijelazne krivine iz čega kao rješenje dobivamo horizontalni tok trase sa stacionažama na svakih 20 metara i u nekim karakterističnim točkama kao što su: početak prijelazne krivine, početak kružne krivine, kraj kružne krivine, kraj prijelazne krivine.

Nakon toga slijedi izrada uzdužnog presjeka prometnice kojeg definira niveleta. Položaj nivelete mora zadovoljiti sigurnosne i geometrijske zahtjeve kao i pravilnu odvodnju. Između tangenti ubacuje se kružna krivina prethodno izračunatog radijusa.

Sljedeći korak je definiranje poprečnog profila prometnice. Poprečni profil definira vrijednosti poprečnog nagiba, širinu prometnih i rubnih trakova, rigol, te pokose usjeka i nasipa.

Nakon definiranja vertikalnih i horizontalnih elemenata izrađuje se koridor. Koridor omogućava prikaz karakterističnih poprečnih presjeka u svakoj iscrtanoj stacionaži, te je time definirana dionica lokalne ceste zadana projektom.

Na samom kraju uz pomoć programa moguće je izvući podatke o količini zemljanih radova, koordinate točaka osi kao i koordinate pojedinačnog poprečnog presjeka.

6. IZLAZNI PODATCI IZ PROGRAMA

6.1. Koordinatni račun glavnih točaka

Alignment: os1
Description:

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	12.987	508.775
End:	0+26.074	35.761	521.472

Tangent Data

Parameter	Value	Parameter	Value
Length:	26.074	Course:	N 29° 08' 25.1349" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	0+26.074	35.761	521.472
SPI:		59.153	534.514
SC:	0+66.074	68.570	544.100

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	40.000	L Tan:	26.782
Radius:	70.000	S Tan:	13.438
Theta:	16° 22' 12.8018"	P:	0.950
X:	39.675	K:	19.946
Y:	3.787	A:	52.915
Chord:	39.855	Course:	N 34° 35' 35.7996" E

Curve Point Data

Description	Station	Northing	Easting
SC:	0+66.074	68.570	544.100
RP:		18.633	593.154
CS:	1+12.208	88.151	584.953

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	37° 45' 38.4944"	Type:	RIGHT
Radius:	70.000		
Length:	46.133	Tangent:	23.940
Mid-Ord:	3.766	External:	3.980
Chord:	45.303	Course:	N 64° 23' 27.1838" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	1+12.208	88.151	584.953

SPI:		89.726	598.298
ST:	1+52.208	85.240	624.701

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	40.000	L Tan:	26.782
Radius:	70.000	S Tan:	13.438
Theta:	16° 22' 12.8018"	P:	0.950
X:	39.675	K:	19.946
Y:	3.787	A:	52.915
Chord:	39.855	Course:	S 85° 48' 41.4320" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	1+52.208	85.240	624.701
End:	2+15.538	74.633	687.137

Tangent Data

Parameter	Value	Parameter	Value
Length:	63.330	Course:	S 80° 21' 30.7672" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	2+15.538	74.633	687.137
SPI:		71.264	706.970
SC:	2+45.538	72.925	716.940

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	30.000	L Tan:	20.118
Radius:	45.000	S Tan:	10.107
Theta:	19° 05' 54.9354"	P:	0.830
X:	29.668	K:	14.945
Y:	3.307	A:	36.742
Chord:	29.852	Course:	S 86° 43' 07.4633" E

Curve Point Data

Description	Station	Northing	Easting
SC:	2+45.538	72.925	716.940
RP:		117.313	709.546
CS:	2+71.176	83.924	739.716

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	32° 38' 35.7583"	Type:	LEFT
Radius:	45.000		

Length:	25.638	Tangent:	13.177
Mid-Ord:	1.814	External:	1.890
Chord:	25.293	Course:	N 64° 13' 16.4182" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	2+71.176	83.924	739.716
SPI:		90.701	747.215
ST:	3+01.176	108.330	756.907

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	30.000	L Tan:	20.118
Radius:	45.000	S Tan:	10.107
Theta:	19° 05' 54.9354"	P:	0.830
X:	29.668	K:	14.945
Y:	3.307	A:	36.742
Chord:	29.852	Course:	N 35° 09' 40.2997" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	3+01.176	108.330	756.907
End:	3+21.582	126.211	766.738

Tangent Data

Parameter	Value	Parameter	Value
Length:	20.406	Course:	N 28° 48' 03.6036" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	3+21.582	126.211	766.738
SPI:		149.696	779.649
SC:	3+61.582	158.970	789.398

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	40.000	L Tan:	26.800
Radius:	65.000	S Tan:	13.455
Theta:	17° 37' 46.0942"	P:	1.022
X:	39.623	K:	19.937
Y:	4.075	A:	50.990
Chord:	39.832	Course:	N 34° 40' 21.9738" E

Curve Point Data

Description	Station	Northing	Easting

SC:	3+61.582	158.970	789.398
RP:		111.875	834.198
CS:	3+82.568	170.750	806.655

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	18° 29' 54.5514"	Type:	RIGHT
Radius:	65.000		
Length:	20.986	Tangent:	10.585
Mid-Ord:	0.845	External:	0.856
Chord:	20.895	Course:	N 55° 40' 46.9736" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	3+82.568	170.750	806.655
SPI:		176.452	818.842
ST:	4+22.568	179.923	845.416

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	40.000	L Tan:	26.800
Radius:	65.000	S Tan:	13.455
Theta:	17° 37' 46.0942"	P:	1.022
X:	39.623	K:	19.937
Y:	4.075	A:	50.990
Chord:	39.832	Course:	N 76° 41' 11.9733" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	4+22.568	179.923	845.416
End:	4+25.885	180.352	848.705

Tangent Data

Parameter	Value	Parameter	Value
Length:	3.317	Course:	N 82° 33' 30.3435" E

Alignment: os1-Left-3.000
Description:

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	14.448	506.155
End:	0+26.074	37.222	518.852

Tangent Data

Parameter	Value	Parameter	Value
Length:	26.074	Course:	N 29° 08' 25.1349" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	0+26.074	37.222	518.852
SPI:		60.991	532.103
SC:	0+66.931	70.710	541.998

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	40.857	L Tan:	27.351
Radius:	73.000	S Tan:	13.721
Theta:	16° 02' 01.8538"	P:	0.950
X:	40.538	K:	20.375
Y:	3.790	A:	54.613
Chord:	40.708	Course:	N 34° 39' 02.1161" E

Curve Point Data

Description	Station	Northing	Easting
SC:	0+66.931	70.710	541.998
RP:		18.633	593.154
CS:	1+15.042	91.130	584.601

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	37° 45' 38.4944"	Type:	RIGHT
Radius:	73.000		
Length:	48.111	Tangent:	24.966
Mid-Ord:	3.928	External:	4.151
Chord:	47.245	Course:	N 64° 23' 27.1838" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	1+15.042	91.130	584.601
SPI:		92.755	598.375
ST:	1+55.899	88.198	625.204

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	40.857	L Tan:	27.351
Radius:	73.000	S Tan:	13.721
Theta:	16° 02' 01.8538"	P:	0.950
X:	40.538	K:	20.375
Y:	3.790	A:	54.613

Chord:	40.708	Course:	S 85° 52' 07.7485" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	1+55.899	88.198	625.204
End:	2+19.229	77.591	687.639

Tangent Data

Parameter	Value	Parameter	Value
Length:	63.330	Course:	S 80° 21' 30.7672" E

Curve Point Data

Description	Station	Northing	Easting
PC:	2+19.229	77.591	687.639
RP:		121.955	695.176
PT:	2+27.305	76.958	695.679

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	10° 16' 54.3621"	Type:	LEFT
Radius:	45.000		
Length:	8.075	Tangent:	4.049
Mid-Ord:	0.181	External:	0.182
Chord:	8.064	Course:	S 85° 29' 57.9482" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	2+27.305	76.958	695.679
End:	2+40.877	77.110	709.251

Tangent Data

Parameter	Value	Parameter	Value
Length:	13.572	Course:	N 89° 21' 34.8708" E

Curve Point Data

Description	Station	Northing	Easting
PC:	2+40.877	77.110	709.251
RP:		122.107	708.748
PCC:	2+47.802	77.719	716.142

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	08° 49' 00.5734"	Type:	LEFT
Radius:	45.000		
Length:	6.925	Tangent:	3.469
Mid-Ord:	0.133	External:	0.134

Chord:	6.918	Course:	N 84° 57' 04.5841" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	2+47.802	77.719	716.142
RP:		117.313	709.546
PCC:	2+70.671	87.530	736.457

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	32° 38' 35.7583"	Type:	LEFT
Radius:	40.140		
Length:	22.869	Tangent:	11.754
Mid-Ord:	1.618	External:	1.686
Chord:	22.561	Course:	N 64° 13' 16.4182" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	2+70.671	87.530	736.457
RP:		120.919	706.288
PT:	2+77.596	92.549	741.219

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	08° 49' 00.5734"	Type:	LEFT
Radius:	45.000		
Length:	6.925	Tangent:	3.469
Mid-Ord:	0.133	External:	0.134
Chord:	6.918	Course:	N 43° 29' 28.2524" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	2+77.596	92.549	741.219
End:	2+91.168	103.085	749.775

Tangent Data

Parameter	Value	Parameter	Value
Length:	13.572	Course:	N 39° 04' 57.9657" E

Curve Point Data

Description	Station	Northing	Easting
PC:	2+91.168	103.085	749.775
RP:		131.454	714.845
PT:	2+99.243	109.775	754.278

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	10° 16' 54.3621"	Type:	LEFT
Radius:	45.000		
Length:	8.075	Tangent:	4.049
Mid-Ord:	0.181	External:	0.182
Chord:	8.064	Course:	N 33° 56' 30.7847" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	2+99.243	109.775	754.278
End:	3+19.649	127.656	764.109

Tangent Data

Parameter	Value	Parameter	Value
Length:	20.406	Course:	N 28° 48' 03.6036" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	3+19.649	127.656	764.109
SPI:		151.549	777.244
SC:	3+60.572	161.143	787.330

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	40.923	L Tan:	27.413
Radius:	68.000	S Tan:	13.760
Theta:	17° 14' 26.1069"	P:	1.023
X:	40.554	K:	20.400
Y:	4.078	A:	52.752
Chord:	40.750	Course:	N 34° 44' 20.9147" E

Curve Point Data

Description	Station	Northing	Easting
SC:	3+60.572	161.143	787.330
RP:		111.875	834.198
CS:	3+82.527	173.468	805.383

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	18° 29' 54.5514"	Type:	RIGHT
Radius:	68.000		
Length:	21.954	Tangent:	11.074
Mid-Ord:	0.884	External:	0.896
Chord:	21.859	Course:	N 55° 40' 46.9736" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	3+82.527	173.468	805.383
SPI:		179.366	817.992
ST:	4+23.450	182.898	845.028

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	40.923	L Tan:	27.413
Radius:	68.000	S Tan:	13.760
Theta:	17° 14' 26.1069"	P:	1.023
X:	40.554	K:	20.400
Y:	4.078	A:	52.752
Chord:	40.750	Course:	N 76° 37' 13.0324" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	4+23.450	182.898	845.028
End:	4+26.767	183.327	848.317

Tangent Data

Parameter	Value	Parameter	Value
Length:	3.317	Course:	N 82° 33' 30.3435" E

Alignment: os1-Right-3.000
Description:

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	11.526	511.396
End:	0+26.074	34.300	524.093

Tangent Data

Parameter	Value	Parameter	Value
Length:	26.074	Course:	N 29° 08' 25.1349" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+26.074	34.300	524.093
RP:		0.214	585.233
PT:	0+33.432	40.527	528.006

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 01' 20.2656"	Type:	RIGHT

Radius:	70.000		
Length:	7.358	Tangent:	3.682
Mid-Ord:	0.097	External:	0.097
Chord:	7.354	Course:	N 32° 09' 05.2677" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+33.432	40.527	528.006
End:	0+52.298	55.950	538.871

Tangent Data

Parameter	Value	Parameter	Value
Length:	18.866	Course:	N 35° 09' 45.4005" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+52.298	55.950	538.871
RP:		15.637	596.098
PCC:	0+64.940	65.574	547.043

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	10° 20' 52.5362"	Type:	RIGHT
Radius:	70.000		
Length:	12.642	Tangent:	6.338
Mid-Ord:	0.285	External:	0.286
Chord:	12.625	Course:	N 40° 20' 11.6686" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	0+64.940	65.574	547.043
RP:		18.633	593.154
PCC:	1+08.306	83.980	585.445

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	37° 45' 38.4944"	Type:	RIGHT
Radius:	65.800		
Length:	43.365	Tangent:	22.503
Mid-Ord:	3.540	External:	3.742
Chord:	42.585	Course:	N 64° 23' 27.1838" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	1+08.306	83.980	585.445

RP:		14.462	593.647
PT:	1+20.948	84.323	598.065

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	10° 20' 52.5362"	Type:	RIGHT
Radius:	70.000		
Length:	12.642	Tangent:	6.338
Mid-Ord:	0.285	External:	0.286
Chord:	12.625	Course:	N 88° 26' 42.6991" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	1+20.948	84.323	598.065
End:	1+39.814	83.132	616.894

Tangent Data

Parameter	Value	Parameter	Value
Length:	18.866	Course:	S 86° 22' 51.0328" E

Curve Point Data

Description	Station	Northing	Easting
PC:	1+39.814	83.132	616.894
RP:		13.271	612.475
PT:	1+47.172	82.282	624.199

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 01' 20.2656"	Type:	RIGHT
Radius:	70.000		
Length:	7.358	Tangent:	3.682
Mid-Ord:	0.097	External:	0.097
Chord:	7.354	Course:	S 83° 22' 10.9000" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	1+47.172	82.282	624.199
End:	2+10.502	71.676	686.635

Tangent Data

Parameter	Value	Parameter	Value
Length:	63.330	Course:	S 80° 21' 30.7672" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	2+10.502	71.676	686.635

SPI:		68.222	706.966
SC:	2+41.502	69.966	717.433

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	31.000	L Tan:	20.781
Radius:	48.000	S Tan:	10.437
Theta:	18° 30' 06.3437"	P:	0.831
X:	30.678	K:	15.446
Y:	3.312	A:	38.575
Chord:	30.846	Course:	S 86° 49' 17.7479" E

Curve Point Data

Description	Station	Northing	Easting
SC:	2+41.502	69.966	717.433
RP:		117.313	709.546
CS:	2+68.849	81.699	741.727

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	32° 38' 35.7583"	Type:	LEFT
Radius:	48.000		
Length:	27.347	Tangent:	14.056
Mid-Ord:	1.934	External:	2.016
Chord:	26.979	Course:	N 64° 13' 16.4182" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	2+68.849	81.699	741.727
SPI:		88.813	749.601
ST:	2+99.849	106.884	759.536

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	31.000	L Tan:	20.781
Radius:	48.000	S Tan:	10.437
Theta:	18° 30' 06.3437"	P:	0.831
X:	30.678	K:	15.446
Y:	3.312	A:	38.575
Chord:	30.846	Course:	N 35° 15' 50.5844" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	2+99.849	106.884	759.536
End:	3+20.255	124.766	769.367

Tangent Data

Parameter	Value	Parameter	Value
Length:	20.406	Course:	N 28° 48' 03.6036" E

Curve Point Data

Description	Station	Northing	Easting
PC:	3+20.255	124.766	769.367
RP:		93.451	826.326
PT:	3+27.619	131.004	773.272

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 29' 27.9719"	Type:	RIGHT
Radius:	65.000		
Length:	7.364	Tangent:	3.686
Mid-Ord:	0.104	External:	0.104
Chord:	7.360	Course:	N 32° 02' 47.5896" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	3+27.619	131.004	773.272
End:	3+46.374	146.312	784.107

Tangent Data

Parameter	Value	Parameter	Value
Length:	18.755	Course:	N 35° 17' 31.5755" E

Curve Point Data

Description	Station	Northing	Easting
PC:	3+46.374	146.312	784.107
RP:		108.759	837.162
PCC:	3+59.010	155.854	792.361

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	11° 08' 18.1223"	Type:	RIGHT
Radius:	65.000		
Length:	12.636	Tangent:	6.338
Mid-Ord:	0.307	External:	0.308
Chord:	12.616	Course:	N 40° 51' 40.6367" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	3+59.010	155.854	792.361
RP:		111.875	834.198

PCC:	3+78.608	166.856	808.477

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	18° 29' 54.5514"	Type:	RIGHT
Radius:	60.700		
Length:	19.598	Tangent:	9.885
Mid-Ord:	0.789	External:	0.800
Chord:	19.513	Course:	N 55° 40' 46.9736" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	3+78.608	166.856	808.477
RP:		107.980	836.020
PT:	3+91.244	171.067	820.369

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	11° 08' 18.1223"	Type:	RIGHT
Radius:	65.000		
Length:	12.636	Tangent:	6.338
Mid-Ord:	0.307	External:	0.308
Chord:	12.616	Course:	N 70° 29' 53.3104" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	3+91.244	171.067	820.369
End:	4+09.999	175.583	838.572

Tangent Data

Parameter	Value	Parameter	Value
Length:	18.755	Course:	N 76° 04' 02.3716" E

Curve Point Data

Description	Station	Northing	Easting
PC:	4+09.999	175.583	838.572
RP:		112.496	854.223
PT:	4+17.363	176.948	845.805

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 29' 27.9719"	Type:	RIGHT
Radius:	65.000		
Length:	7.364	Tangent:	3.686
Mid-Ord:	0.104	External:	0.104
Chord:	7.360	Course:	N 79° 18' 46.3575" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	4+17.363	176.948	845.805
End:	4+20.680	177.378	849.094

Tangent Data

Parameter	Value	Parameter	Value
Length:	3.317	Course:	N 82° 33' 30.3435" E

6.2. Koordinatni račun detaljnih točaka

Alignment Name: os1
Description:
Station Range: Start: 0+000.00, End: 42+588.00
Station Increment: 20.00

Station	Northing	Easting	Tangential Direction
0+000.00	12.9869m	508.7755m	N29° 08' 25"E
0+020.00	30.4555m	518.5145m	N29° 08' 25"E
0+040.00	47.8444m	528.3931m	N31° 07' 28"E
0+060.00	64.1394m	539.9468m	N40° 54' 58"E
0+080.00	77.2795m	554.9364m	N56° 54' 32"E
0+100.00	85.6734m	573.0148m	N73° 16' 45"E
0+120.00	88.6600m	592.7250m	N89° 01' 41"E
0+140.00	87.1777m	612.6487m	S81° 53' 00"E
0+160.00	83.9350m	632.3835m	S80° 21' 31"E
0+180.00	80.5854m	652.1010m	S80° 21' 31"E
0+200.00	77.2357m	671.8185m	S80° 21' 31"E
0+220.00	73.8969m	691.5378m	S80° 46' 52"E
0+240.00	72.3319m	711.4369m	N86° 56' 35"E
0+260.00	77.5330m	730.5828m	N62° 07' 45"E
0+280.00	90.3880m	745.7078m	N38° 19' 00"E
0+300.00	107.2992m	756.3401m	N28° 49' 49"E
0+320.00	124.8251m	765.9757m	N28° 48' 04"E
0+340.00	142.1513m	775.9582m	N32° 32' 20"E
0+360.00	157.8657m	788.2648m	N45° 03' 50"E
0+380.00	169.6168m	804.3511m	N62° 39' 56"E
0+400.00	176.2727m	823.1554m	N76° 56' 48"E
0+420.00	179.5892m	842.8703m	N82° 29' 09"E

6.3. Račun kota kolnika

Corridor Name: Koridor0
Description:
Base Alignment Name: os1
Station Range: Start: 0+000.00, End: 0+425.88

CHAINAGE 0+000.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	492.7243	21.9357	258.0000	-18.377m	Daylight
2	504.7213	15.2472	267.1570	-4.642m	Hinge
3	504.7222	15.2467	266.9570	-4.641m	EPS_Sub
4	505.5947	14.7602	267.1970	-3.642m	Back_Curb
5	505.7257	14.6872	267.1970	-3.492m	Top_Curb
6	505.7622	14.6669	266.9720	-3.450m	Flowline_Gutter
7	506.1552	14.4478	266.9990	-3.000m	ETW
8	506.1552	14.4478	266.5990	-3.000m	ETW_SubBase
9	511.3958	11.5261	266.8490	3.000m	Flange
10	511.3958	11.5261	266.4490	3.000m	ETW_SubBase
11	511.7888	11.3069	266.8220	3.450m	Flowline_Gutter
12	511.8253	11.2866	267.0470	3.492m	Top_Curb
13	511.9563	11.2136	267.0470	3.642m	Back_Curb
14	512.8288	10.7271	266.8070	4.641m	EPS_Sub
15	512.8297	10.7266	267.0070	4.642m	Hinge_Cut
16	514.1511	9.9900	270.0327	6.155m	Daylight

CHAINAGE 0+020.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	503.3704	38.8986	258.0000	-17.339m	Daylight
2	514.4603	32.7158	266.4646	-4.642m	Hinge
3	514.4612	32.7153	266.2646	-4.641m	EPS_Sub
4	515.3337	32.2288	266.5046	-3.642m	Back_Curb
5	515.4647	32.1558	266.5046	-3.492m	Top_Curb
6	515.5012	32.1355	266.2796	-3.450m	Flowline_Gutter
7	515.8942	31.9164	266.3066	-3.000m	ETW
8	515.8942	31.9164	265.9066	-3.000m	ETW_SubBase
9	521.1348	28.9947	266.1566	3.000m	Flange
10	521.1348	28.9947	265.7566	3.000m	ETW_SubBase
11	521.5278	28.7755	266.1296	3.450m	Flowline_Gutter
12	521.5643	28.7552	266.3546	3.492m	Top_Curb
13	521.6953	28.6822	266.3546	3.642m	Back_Curb
14	522.5678	28.1957	266.1146	4.641m	EPS_Sub
15	522.5687	28.1952	266.3146	4.642m	Hinge_Cut
16	524.5328	27.1002	270.8120	6.890m	Daylight

CHAINAGE 0+040.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	517.1641	54.6246	260.1220	-13.117m	Daylight
2	524.4194	50.2438	265.7722	-4.642m	Hinge
3	524.4202	50.2433	265.5722	-4.641m	EPS_Sub
4	525.2754	49.7269	265.8122	-3.642m	Back_Curb
5	525.4038	49.6494	265.8122	-3.492m	Top_Curb
6	525.4395	49.6278	265.5872	-3.450m	Flowline_Gutter
7	525.8247	49.3952	265.6142	-3.000m	ETW
8	525.8247	49.3952	265.2142	-3.000m	ETW_SubBase
9	531.7384	45.8244	265.4415	3.908m	Flange
10	531.7384	45.8244	265.0415	3.908m	ETW_SubBase
11	532.1236	45.5918	265.4145	4.358m	Flowline_Gutter
12	532.1593	45.5703	265.6395	4.400m	Top_Curb
13	532.2877	45.4927	265.6395	4.550m	Back_Curb
14	533.1429	44.9764	265.3995	5.549m	EPS_Sub
15	533.1437	44.9758	265.5995	5.550m	Hinge_Cut
16	534.8200	43.9637	269.5158	7.508m	Daylight

CHAINAGE 0+060.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	534.4934	68.8660	263.3628	-7.217m	Daylight
2	536.4396	67.1792	265.0798	-4.641m	Hinge
3	536.4404	67.1785	264.8798	-4.640m	EPS_Sub
4	537.1953	66.5242	265.1198	-3.641m	Back_Curb
5	537.3086	66.4260	265.1198	-3.491m	Top_Curb
6	537.3401	66.3987	264.8948	-3.449m	Flowline_Gutter
7	537.6802	66.1039	264.9218	-2.999m	ETW
8	537.6802	66.1039	264.5218	-2.999m	ETW_SubBase
9	543.1194	61.3896	264.7418	4.198m	Flange
10	543.1194	61.3896	264.3418	4.198m	ETW_SubBase
11	543.4595	61.0949	264.7148	4.648m	Flowline_Gutter
12	543.4910	61.0676	264.9398	4.690m	Top_Curb
13	543.6043	60.9693	264.9398	4.840m	Back_Curb
14	544.3592	60.3150	264.6998	5.839m	EPS_Sub
15	544.3600	60.3144	264.8998	5.840m	Hinge_Cut
16	545.6625	59.1854	268.3472	7.564m	Daylight

CHAINAGE 0+080.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	550.2933	84.4044	261.8123	-8.504m	Daylight
2	552.4022	81.1683	264.3874	-4.642m	Hinge
3	552.4027	81.1675	264.1874	-4.641m	EPS_Sub
4	552.9482	80.3305	264.4274	-3.642m	Back_Curb
5	553.0300	80.2048	264.4274	-3.492m	Top_Curb
6	553.0528	80.1699	264.2024	-3.450m	Flowline_Gutter
7	553.2985	79.7929	264.2294	-3.000m	ETW
8	553.2985	79.7929	263.8294	-3.000m	ETW_SubBase
9	557.2295	73.7607	264.0494	4.200m	Flange
10	557.2295	73.7607	263.6494	4.200m	ETW_SubBase
11	557.4752	73.3837	264.0224	4.650m	Flowline_Gutter
12	557.4980	73.3487	264.2474	4.692m	Top_Curb
13	557.5798	73.2231	264.2474	4.842m	Back_Curb
14	558.1253	72.3861	264.0074	5.841m	EPS_Sub
15	558.1258	72.3853	264.2074	5.842m	Hinge_Cut
16	558.3980	71.9676	265.2043	6.340m	Daylight

CHAINAGE 0+100.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	569.1242	98.6242	257.7744	-13.523m	Daylight
2	571.6793	90.1189	263.6950	-4.642m	Hinge
3	571.6796	90.1179	263.4950	-4.641m	EPS_Sub
4	571.9670	89.1612	263.7350	-3.642m	Back_Curb
5	572.0102	89.0175	263.7350	-3.492m	Top_Curb
6	572.0222	88.9776	263.5100	-3.450m	Flowline_Gutter
7	572.1517	88.5466	263.1370	-3.000m	ETW_SubBase
8	572.1517	88.5466	263.5370	-3.000m	Flange
9	574.2232	81.6510	263.3570	4.200m	Flange
10	574.2232	81.6510	262.9570	4.200m	ETW_SubBase
11	574.3526	81.2200	263.3300	4.650m	Flowline_Gutter
12	574.3646	81.1801	263.5550	4.692m	Top_Curb
13	574.4078	81.0365	263.5550	4.842m	Back_Curb
14	574.6952	80.0797	263.3150	5.841m	EPS_Sub
15	574.6955	80.0787	263.5150	5.842m	EPS
16	574.7859	79.7779	263.3056	6.156m	Daylight

CHAINAGE 0+120.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	592.4567	104.4733	255.5533	-15.816m	Daylight
2	592.6463	93.3010	263.0026	-4.642m	Hinge
3	592.6463	93.3000	262.8026	-4.641m	EPS_Sub
4	592.6632	92.3012	263.0426	-3.642m	Back_Curb
5	592.6658	92.1512	263.0426	-3.492m	Top_Curb
6	592.6665	92.1095	262.8176	-3.450m	Flowline_Gutter
7	592.6741	91.6596	262.4446	-3.000m	ETW_SubBase
8	592.6741	91.6596	262.8446	-3.000m	Flange
9	592.7963	84.4569	262.6645	4.204m	Flange
10	592.7963	84.4569	262.2645	4.204m	ETW_SubBase
11	592.8039	84.0070	262.6375	4.654m	Flowline_Gutter
12	592.8046	83.9653	262.8625	4.695m	Top_Curb
13	592.8072	83.8153	262.8625	4.845m	Back_Curb
14	592.8241	82.8165	262.6225	5.844m	EPS_Sub
15	592.8242	82.8155	262.8225	5.845m	EPS
16	592.8336	82.2597	262.4519	6.401m	Daylight

CHAINAGE 0+140.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	614.6089	100.9223	256.1485	-13.884m	Daylight
2	613.3040	91.7723	262.3102	-4.641m	Hinge
3	613.3038	91.7713	262.1102	-4.640m	EPS_Sub
4	613.1628	90.7823	262.3502	-3.641m	Back_Curb
5	613.1416	90.6338	262.3502	-3.491m	Top_Curb
6	613.1357	90.5926	262.1252	-3.449m	Flowline_Gutter
7	613.0722	90.1471	262.1522	-2.999m	ETW
8	613.0722	90.1471	261.7522	-2.999m	ETW_SubBase
9	612.1147	83.4339	261.9827	3.782m	Flange
10	612.1147	83.4339	261.5827	3.782m	ETW_SubBase
11	612.0512	82.9884	261.9557	4.232m	Flowline_Gutter
12	612.0453	82.9471	262.1807	4.273m	Top_Curb
13	612.0241	82.7986	262.1807	4.423m	Back_Curb
14	611.8831	81.8096	261.9407	5.422m	EPS_Sub
15	611.8830	81.8086	262.1407	5.423m	Hinge_Cut
16	611.8215	81.3774	263.0118	5.859m	Daylight

CHAINAGE 0+160.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	633.6818	91.5774	259.5444	-7.752m	Daylight
2	633.1609	88.5111	261.6178	-4.642m	Hinge
3	633.1607	88.5102	261.4178	-4.641m	EPS_Sub
4	632.9934	87.5253	261.6578	-3.642m	Back_Curb
5	632.9683	87.3774	261.6578	-3.492m	Top_Curb
6	632.9613	87.3363	261.4328	-3.450m	Flowline_Gutter
7	632.8859	86.8926	261.4598	-3.000m	ETW
8	632.8859	86.8926	261.0598	-3.000m	ETW_SubBase
9	631.8810	80.9774	261.3098	3.000m	Flange
10	631.8810	80.9774	260.9098	3.000m	ETW_SubBase
11	631.8057	80.5337	261.2828	3.450m	Flowline_Gutter
12	631.7987	80.4926	261.5078	3.492m	Top_Curb
13	631.7736	80.3447	261.5078	3.642m	Back_Curb
14	631.6062	79.3599	261.2678	4.641m	EPS_Sub
15	631.6061	79.3589	261.4678	4.642m	Hinge_Cut
16	631.3850	78.0573	264.1083	5.962m	Daylight

CHAINAGE 0+180.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	652.9566	85.6219	261.8593	-5.109m	Daylight
2	652.8784	85.1615	260.9254	-4.642m	EPS
3	652.8782	85.1605	260.7254	-4.641m	EPS_Sub
4	652.7109	84.1756	260.9654	-3.642m	Back_Curb
5	652.6858	84.0277	260.9654	-3.492m	Top_Curb
6	652.6788	83.9866	260.7404	-3.450m	Flowline_Gutter
7	652.6034	83.5430	260.7674	-3.000m	ETW
8	652.6034	83.5430	260.3674	-3.000m	ETW_SubBase
9	651.5985	77.6277	260.2174	3.000m	ETW_SubBase
10	651.5985	77.6277	260.6174	3.000m	ETW
11	651.5232	77.1841	260.5904	3.450m	Flowline_Gutter
12	651.5162	77.1430	260.8154	3.492m	Top_Curb
13	651.4911	76.9951	260.8154	3.642m	Back_Curb
14	651.3237	76.0102	260.5754	4.641m	EPS_Sub
15	651.3236	76.0092	260.7754	4.642m	Hinge_Cut
16	650.9037	73.5374	265.7898	7.149m	Daylight

CHAINAGE 0+200.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	672.7028	82.4409	261.4968	-5.280m	Daylight
2	672.5959	81.8119	260.2206	-4.642m	EPS
3	672.5957	81.8109	260.0206	-4.641m	EPS_Sub
4	672.4284	80.8260	260.2606	-3.642m	Back_Curb
5	672.4033	80.6781	260.2606	-3.492m	Top_Curb
6	672.3963	80.6370	260.0356	-3.450m	Flowline_Gutter
7	672.3209	80.1933	260.0626	-3.000m	ETW
8	672.3209	80.1933	259.6626	-3.000m	ETW_SubBase
9	671.3160	74.2781	259.5126	3.000m	ETW_SubBase
10	671.3160	74.2781	259.9126	3.000m	ETW
11	671.2407	73.8345	259.8856	3.450m	Flowline_Gutter
12	671.2337	73.7933	260.1106	3.492m	Top_Curb
13	671.2086	73.6455	260.1106	3.642m	Back_Curb
14	671.0413	72.6606	259.8706	4.641m	EPS_Sub
15	671.0411	72.6596	260.0706	4.642m	Hinge_Cut
16	670.4525	69.1950	267.0992	8.156m	Daylight

CHAINAGE 0+220.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	692.9853	82.8154	256.4743	-9.035m	Daylight
2	692.3148	78.6845	259.2643	-4.850m	Hinge
3	692.3147	78.6835	259.0643	-4.849m	EPS_Sub
4	692.1546	77.6974	259.3043	-3.850m	Back_Curb
5	692.1306	77.5493	259.3043	-3.700m	Top_Curb
6	692.1239	77.5082	259.0793	-3.659m	Flowline_Gutter
7	692.0518	77.0640	259.1063	-3.209m	ETW
8	692.0518	77.0640	258.7063	-3.209m	ETW_SubBase
9	691.0573	70.9361	258.9511	3.000m	Flange
10	691.0573	70.9361	258.5511	3.000m	ETW_SubBase
11	690.9852	70.4919	258.9241	3.450m	Flowline_Gutter
12	690.9785	70.4508	259.1491	3.491m	Top_Curb
13	690.9544	70.3027	259.1491	3.641m	Back_Curb
14	690.7944	69.3166	258.9091	4.640m	EPS_Sub
15	690.7942	69.3156	259.1091	4.641m	Hinge_Cut
16	690.1423	65.2991	267.2472	8.710m	Daylight

CHAINAGE 0+240.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	710.0245	98.7806	245.0000	-26.486m	Daylight
2	711.0908	78.8121	258.3313	-6.489m	Hinge
3	711.0909	78.8111	258.1313	-6.488m	EPS_Sub
4	711.1442	77.8136	258.3713	-5.489m	Back_Curb
5	711.1522	77.6638	258.3713	-5.339m	Top_Curb
6	711.1544	77.6221	258.1463	-5.298m	Flowline_Gutter
7	711.1784	77.1728	258.1733	-4.848m	ETW
8	711.1784	77.1728	257.7733	-4.848m	ETW_SubBase
9	711.5969	69.3362	257.9771	3.000m	Flange
10	711.5969	69.3362	257.5771	3.000m	ETW_SubBase
11	711.6209	68.8869	257.9501	3.450m	Flowline_Gutter
12	711.6231	68.8452	258.1751	3.492m	Top_Curb
13	711.6311	68.6955	258.1751	3.642m	Back_Curb
14	711.6844	67.6979	257.9351	4.641m	EPS_Sub
15	711.6844	67.6969	258.1351	4.642m	Hinge_Cut
16	711.7443	66.5751	260.3819	5.765m	Daylight

CHAINAGE 0+260.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	718.8779	99.6668	245.0000	-25.038m	Daylight
2	727.5434	83.2805	257.3577	-6.502m	Hinge
3	727.5438	83.2796	257.1577	-6.501m	EPS_Sub
4	728.0108	82.3965	257.3977	-5.502m	Back_Curb
5	728.0810	82.2639	257.3977	-5.352m	Top_Curb
6	728.1004	82.2270	257.1727	-5.310m	Flowline_Gutter
7	728.3108	81.8292	256.7997	-4.860m	ETW_SubBase
8	728.3108	81.8292	257.1997	-4.860m	Flange
9	731.9852	74.8809	257.0032	3.000m	Flange
10	731.9852	74.8809	256.6032	3.000m	ETW_SubBase
11	732.1956	74.4831	256.9762	3.450m	Flowline_Gutter
12	732.2151	74.4463	257.2012	3.492m	Top_Curb
13	732.2852	74.3137	257.2012	3.642m	Back_Curb
14	732.7522	73.4306	256.9612	4.641m	EPS_Sub
15	732.7527	73.4297	257.1612	4.642m	EPS
16	734.4872	70.1496	254.6875	8.352m	Daylight

CHAINAGE 0+280.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	727.2192	104.9981	245.0000	-23.564m	Daylight
2	740.6162	94.4114	256.3834	-6.489m	Hinge
3	740.6170	94.4108	256.1834	-6.488m	EPS_Sub
4	741.4008	93.7914	256.4234	-5.489m	Back_Curb
5	741.5185	93.6984	256.4234	-5.339m	Top_Curb
6	741.5512	93.6726	256.1984	-5.298m	Flowline_Gutter
7	741.9043	93.3936	256.2254	-4.848m	ETW
8	741.9043	93.3936	255.8254	-4.848m	ETW_SubBase
9	748.0614	88.5280	256.0292	3.000m	Flange
10	748.0614	88.5280	255.6292	3.000m	ETW_SubBase
11	748.4145	88.2490	256.0022	3.450m	Flowline_Gutter
12	748.4472	88.2232	256.2272	3.492m	Top_Curb
13	748.5649	88.1302	256.2272	3.642m	Back_Curb
14	749.3487	87.5108	255.9872	4.641m	EPS_Sub
15	749.3495	87.5102	256.1872	4.642m	Hinge_Cut
16	751.2427	86.0141	261.0132	7.055m	Daylight

CHAINAGE 0+300.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	749.2706	111.1906	253.0883	-8.070m	Daylight
2	752.2605	109.5448	255.3636	-4.657m	Hinge
3	752.2614	109.5444	255.1636	-4.656m	EPS_Sub
4	753.1366	109.0626	255.4036	-3.657m	Back_Curb
5	753.2680	108.9903	255.4036	-3.507m	Top_Curb
6	753.3045	108.9702	255.1786	-3.465m	Flowline_Gutter
7	753.6987	108.7532	255.2056	-3.015m	ETW
8	753.6987	108.7532	254.8056	-3.015m	ETW_SubBase
9	758.9678	105.8529	255.0553	2.999m	Flange
10	758.9678	105.8529	254.6553	2.999m	ETW_SubBase
11	759.3620	105.6359	255.0283	3.449m	Flowline_Gutter
12	759.3985	105.6158	255.2533	3.491m	Top_Curb
13	759.5299	105.5434	255.2533	3.641m	Back_Curb
14	760.4051	105.0617	255.0133	4.640m	EPS_Sub
15	760.4060	105.0612	255.2133	4.641m	Hinge_Cut
16	762.1580	104.0968	259.2130	6.641m	Daylight

CHAINAGE 0+320.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	758.2795	129.0563	251.6287	-8.783m	Daylight
2	761.9082	127.0613	254.3893	-4.642m	Hinge
3	761.9090	127.0609	254.1893	-4.641m	EPS_Sub
4	762.7845	126.5796	254.4293	-3.642m	Back_Curb
5	762.9159	126.5073	254.4293	-3.492m	Top_Curb
6	762.9525	126.4872	254.2043	-3.450m	Flowline_Gutter
7	763.3468	126.2704	254.2313	-3.000m	ETW
8	763.3468	126.2704	253.8313	-3.000m	ETW_SubBase
9	768.6046	123.3798	254.0813	3.000m	Flange
10	768.6046	123.3798	253.6813	3.000m	ETW_SubBase
11	768.9989	123.1630	254.0543	3.450m	Flowline_Gutter
12	769.0355	123.1429	254.2793	3.492m	Top_Curb
13	769.1669	123.0707	254.2793	3.642m	Back_Curb
14	770.0423	122.5894	254.0393	4.641m	EPS_Sub
15	770.0432	122.5889	254.2393	4.642m	Hinge_Cut
16	771.2721	121.9133	257.0441	6.044m	Daylight

CHAINAGE 0+340.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	764.3900	149.5320	247.3612	-13.722m	Daylight
2	772.0457	144.6475	253.4153	-4.641m	Hinge
3	772.0466	144.6470	253.2153	-4.640m	EPS_Sub
4	772.8888	144.1097	253.4553	-3.641m	Back_Curb
5	773.0152	144.0290	253.4553	-3.491m	Top_Curb
6	773.0504	144.0065	253.2303	-3.449m	Flowline_Gutter
7	773.4297	143.7645	253.2573	-2.999m	ETW
8	773.4297	143.7645	252.8573	-2.999m	ETW_SubBase
9	779.5431	139.8640	253.0760	4.252m	Flange
10	779.5431	139.8640	252.6760	4.252m	ETW_SubBase
11	779.9224	139.6220	253.0490	4.702m	Flowline_Gutter
12	779.9576	139.5996	253.2740	4.744m	Top_Curb
13	780.0840	139.5189	253.2740	4.894m	Back_Curb
14	780.9262	138.9816	253.0340	5.893m	EPS_Sub
15	780.9271	138.9810	253.2340	5.894m	Hinge_Cut
16	782.0824	138.2439	255.9749	7.265m	Daylight

CHAINAGE 0+360.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	779.6735	166.4762	247.4271	-12.164m	Daylight
2	784.9861	161.1518	252.4414	-4.642m	Hinge
3	784.9868	161.1511	252.2414	-4.641m	EPS_Sub
4	785.6924	160.4439	252.4814	-3.642m	Back_Curb
5	785.7983	160.3377	252.4814	-3.492m	Top_Curb
6	785.8278	160.3082	252.2564	-3.450m	Flowline_Gutter
7	786.1456	159.9896	252.2834	-3.000m	ETW
8	786.1456	159.9896	251.8834	-3.000m	ETW_SubBase
9	791.3013	154.8224	252.1009	4.299m	Flange
10	791.3013	154.8224	251.7009	4.299m	ETW_SubBase
11	791.6192	154.5039	252.0739	4.749m	Flowline_Gutter
12	791.6486	154.4744	252.2989	4.791m	Top_Curb
13	791.7546	154.3682	252.2989	4.941m	Back_Curb
14	792.4602	153.6610	252.0589	5.940m	EPS_Sub
15	792.4609	153.6603	252.2589	5.941m	Hinge_Cut
16	793.0372	153.0827	253.8907	6.757m	Daylight

CHAINAGE 0+380.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	797.9886	181.9257	245.3246	-13.856m	Daylight
2	802.2197	173.7402	251.4675	-4.642m	Hinge
3	802.2202	173.7393	251.2675	-4.641m	EPS_Sub
4	802.6789	172.8519	251.5075	-3.642m	Back_Curb
5	802.7478	172.7186	251.5075	-3.492m	Top_Curb
6	802.7669	172.6816	251.2825	-3.450m	Flowline_Gutter
7	802.9735	172.2818	251.3095	-3.000m	ETW
8	802.9735	172.2818	250.9095	-3.000m	ETW_SubBase
9	806.3256	165.7969	251.1270	4.300m	Flange
10	806.3256	165.7969	250.7270	4.300m	ETW_SubBase
11	806.5322	165.3972	251.1000	4.750m	Flowline_Gutter
12	806.5513	165.3601	251.3250	4.792m	Top_Curb
13	806.6202	165.2269	251.3250	4.942m	Back_Curb
14	807.0789	164.3394	251.0850	5.941m	EPS_Sub
15	807.0794	164.3385	251.2850	5.942m	Hinge_Cut
16	807.4173	163.6848	252.7569	6.678m	Daylight

CHAINAGE 0+400.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	819.9108	190.2676	244.0108	-14.366m	Daylight
2	822.1070	180.7947	250.4935	-4.642m	Hinge
3	822.1072	180.7937	250.2935	-4.641m	EPS_Sub
4	822.3329	179.8206	250.5335	-3.642m	Back_Curb
5	822.3668	179.6744	250.5335	-3.492m	Top_Curb
6	822.3762	179.6338	250.3085	-3.450m	Flowline_Gutter
7	822.4778	179.1954	250.3355	-3.000m	ETW
8	822.4778	179.1954	249.9355	-3.000m	ETW_SubBase
9	824.1451	172.0041	250.1510	4.382m	Flange
10	824.1451	172.0041	249.7510	4.382m	ETW_SubBase
11	824.2467	171.5657	250.1240	4.832m	Flowline_Gutter
12	824.2562	171.5251	250.3490	4.874m	Top_Curb
13	824.2900	171.3790	250.3490	5.024m	Back_Curb
14	824.5157	170.4058	250.1090	6.023m	EPS_Sub
15	824.5159	170.4048	250.3090	6.024m	Hinge_Cut
16	824.6703	169.7386	251.6767	6.707m	Daylight

CHAINAGE 0+420.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	841.2290	192.0327	244.2455	-12.551m	Daylight
2	842.2635	184.1896	249.5195	-4.640m	Hinge
3	842.2636	184.1886	249.3195	-4.639m	EPS_Sub
4	842.3943	183.1982	249.5595	-3.640m	Back_Curb
5	842.4139	183.0495	249.5595	-3.490m	Top_Curb
6	842.4193	183.0081	249.3345	-3.449m	Flowline_Gutter
7	842.4782	182.5620	249.3615	-2.999m	ETW
8	842.4782	182.5620	248.9615	-2.999m	ETW_SubBase
9	843.2691	176.5659	249.2103	3.049m	Flange
10	843.2691	176.5659	248.8103	3.049m	ETW_SubBase
11	843.3280	176.1197	249.1833	3.499m	Flowline_Gutter
12	843.3334	176.0784	249.4083	3.541m	Top_Curb
13	843.3530	175.9297	249.4083	3.691m	Back_Curb
14	843.4837	174.9393	249.1683	4.690m	EPS_Sub
15	843.4838	174.9383	249.3683	4.691m	Hinge_Cut
16	843.6250	173.8676	251.5283	5.771m	Daylight

6.4. Vertikalni tok trase

Vertical Alignment: Niveleta
Description:
Station Range: Start: 0+000.00, End: 42+588.00

PVI	Station	Grade Out	Curve Length
0.00	0+000.00	-3.46%	
1.00	0+200.00	-4.87%	7.020m
	Vertical Curve Information:(crest curve) PVC Station: 0+196.49 Elevation: 260.122m PVI Station: 0+200.00 Elevation: 260.000m PVT Station: 0+203.51 Elevation: 259.829m High Point: 0+196.49 Elevation: 260.122m Grade in: -3.46% Grade out: -4.87% Change: 1.41% K: Curve Length: 7.020m Passing Distance: Stopping Distance:		
2.00	0+425.88		

7. LITERATURA

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